10-digit interpolations for Bürgi's hypothetical $2''$ sine table

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Jost Bürgi's recently rediscovered *Fundamentum Astronomiæ* [3, 4] describes a number of methods for the computation of tables of sines. One algorithm makes it possible to compute accurate values of the sines of a subdivision of the quadrant, but this method can only be used in practice for small subdivisions [11].

Between these computed values, other values can be obtained using a mere interpolation. This is described by Launert [5], but no extensive examples are given. This document aims at filling this gap.

We give here 10 sexagesimal digit interpolations of the sines for every minute of the quadrant and assuming constant third differences. The step of the interpolations is $2''$ and the exact value of the target sine is given at the end of the interpolation. Each interpolation spans one page. For instance, the interpolated value for $\sin 1'$ is 0,1,2,49,54,40,4,19,52,55, whereas the exact (rounded) value is 0,1,2,49,54,40,4,19,36,0.

The sexagesimal values are given such that the *sinus totus* is equal to 60. The last value of the table is therefore 60,0,0,0,0,0,0,0,0,0, corresponding to the sine of 90°. The sine of the first minute corresponds to the modern value $(((((54 + \cdots)/60 + 49)/60 + 2)/60 + 1)/60 + 0)/60 = 0.000290888\ldots$.

Given a modern value of the sine, we can easily obtain its sexagesimal digits by multiplying repeatedly by 60 and taking the fractional parts. The integer parts are the sexagesimal digits. For instance, if we start with $\sin 1'$, we have

$$\begin{aligned}
\sin 1' &= 0.00029088820456\ldots && (1)\\
60\sin 1' &= 0.01745329227380\ldots && (2)\\
&\rightarrow \quad d_0 = 0\\
(60\sin 1' - d_0)\times 60 &= 1.04719753642832\ldots && (3)\\
&\rightarrow \quad d_1 = 1\\
((60\sin 1' - d_0)\times 60 - d_1)\times 60 &= 2.83185218569971\ldots && (4)\\
&\rightarrow \quad d_2 = 2\\
(((60\sin 1' - d_0)\times 60 - d_1)\times 60 - d_2)\times 60 &= 49.91113114198276\ldots && (5)\\
&\rightarrow \quad d_3 = 49\\
((((60\sin 1' - d_0)\times 60 - d_1)\times 60 - d_2)\times 60 - d_3)\times 60 &= 54.66786851896614\ldots && (6)\\
&\rightarrow \quad d_4 = 54
\end{aligned}$$

and we see that the sexagesimal expression of $\sin 1'$ is in fact 0,1,2,49,54,....

The scheme used in our interpolations is the scheme we believe that Bürgi used for interpolating values between pivots of his sine tables, anticipating the methods used by Prony 200 years later [8].

Bürgi's sine table, which is thought lost, and of which we have only vague descriptions, supposedly gave the sines to eight sexagesimal places and for every two seconds of the quadrant. We have reconstructed such a hypothetical table [13], and the interpolations of the present document show that interpolating on 10 digits is sufficient to reach a final accuracy of 8 digits. The number of places as well as the number of differences needed to compute a given accuracy can be obtained from the formulæ given in our analysis of Prony's work, but the purpose here is merely to show in practice that this setting does work. On the other hand, with 9 digits, the expected accuracy is not reached [10].

Finally, one has to keep in mind that not only does the computation of such a table require these 5400 interpolations, but there is also quite some work in determining the initial values of the sines and differences, as alluded in one of our notes [12]. It is therefore quite difficult for us to believe that Bürgi really worked out such a huge table, although we cannot exclude it.

References

The following list covers the most important references[1] related to Bürgi's table. Not all items of this list are mentioned in the text, and the sources which have not been seen are marked so. We have added notes about the contents of the articles in certain cases.

[1] Jost Bürgi. *Arithmetische und Geometrische Progress Tabulen, sambt gründlichem Unterricht, wie solche nützlich in allerley Rechnungen zugebrauchen, und verstanden werden sol.* Prague, 1620. [These tables were recomputed in 2010 by D. Roegel [7]]

[2] Kathleen Clark. *Jost Bürgi's Aritmetische und Geometrische Progreß Tabulen (1620).* New York: Springer, 2015.

[3] Menso Folkerts. Eine bisher unbekannte Schrift von Jost Bürgi zur Trigonometrie. In Rainer Gebhardt, editor, *Arithmetik, Geometrie und Algebra in der frühen Neuzeit*, pages 107–114. Annaberg-Buchholz: Adam-Ries-Bund, 2014. [not seen]

[4] Menso Folkerts, Dieter Launert, and Andreas Thom. Jost Bürgi's method for calculating sines, 2015. [uploaded on arXiv on 12 October 2015, id 1510.03180v1; a preprint dated 19 September 2015 is also available online; a second version was put on arXiv on 2 February 2016]

[5] Dieter Launert. *Nova Kepleriana : Bürgis Kunstweg im Fundamentum Astronomiae — Entschlüsselung seines Rätsels.* München: Bayerische Akademie der Wissenschaften, 2015.

[6] Christian Riedweg. Bürgi's "Kunstweg" — geometric approach, 2016. [uploaded on arXiv on 25 February 2016]

[7] Denis Roegel. Bürgi's *Progress Tabulen* (1620): logarithmic tables without logarithms. Technical report, LORIA, Nancy, 2010. [This is a recalculation of the tables of [1].]

[8] Denis Roegel. The great logarithmic and trigonometric tables of the French Cadastre: a preliminary investigation. Technical report, LORIA, Nancy, 2010.

[9] Denis Roegel. Jost Bürgi's skillful computation of sines. Technical report, LORIA, Nancy, 2015.

[10] Denis Roegel. 9-digit interpolations for Bürgi's hypothetical 2″ sine table. Technical report, LORIA, Nancy, 2016.

[1] **Note on the titles of the works:** Original titles come with many idiosyncrasies and features (line splitting, size, fonts, etc.) which can often not be reproduced in a list of references. It has therefore seemed pointless to capitalize works according to conventions which not only have no relation with the original work, but also do not restore the title entirely. In the following list of references, most title words (except in German) will therefore be left uncapitalized. The names of the authors have also been homogenized and initials expanded, as much as possible.

The reader should keep in mind that this list is not meant as a facsimile of the original works. The original style information could no doubt have been added as a note, but we have not done it here.

[11] Denis Roegel. A note on the complexity of Bürgi's algorithm for the computation of sines. Technical report, LORIA, Nancy, 2016.

[12] Denis Roegel. A preliminary note on Bürgi's computation of the sine of the first minute. Technical report, LORIA, Nancy, 2016.

[13] Denis Roegel. A tentative reconstruction of Bürgi's sine table at 2″ intervals (ca. 1600). Technical report, LORIA, Nancy, 2016.

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0° 0′ 0″	0, 0, 0, 0, 0, 0, 0, 0, 0, 0	2, 5,39,49,20,31,35,44		
2″	0, 0, 2, 5,39,49,20,31,35,44	2, 5,39,49,20,31,26,33	0, 9,11	
4″	0, 0, 4,11,19,38,41, 3, 2,17	2, 5,39,49,20,31, 8,11	0,18,22	9,11
6″	0, 0, 6,16,59,28, 1,34,10,28	2, 5,39,49,20,30,40,38	0,27,33	9,11
8″	0, 0, 8,22,39,17,22, 4,51, 6	2, 5,39,49,20,30, 3,54	0,36,44	9,11
10″	0, 0,10,28,19, 6,42,34,55, 0	2, 5,39,49,20,29,17,59	0,45,55	9,11
12″	0, 0,12,33,58,56, 3, 4,12,59	2, 5,39,49,20,28,22,53	0,55, 6	9,11
14″	0, 0,14,39,38,45,23,32,35,52	2, 5,39,49,20,27,18,36	1, 4,17	9,11
16″	0, 0,16,45,18,34,43,59,54,28	2, 5,39,49,20,26, 5, 8	1,13,28	9,11
18″	0, 0,18,50,58,24, 4,25,59,36	2, 5,39,49,20,24,42,29	1,22,39	9,11
20″	0, 0,20,56,38,13,24,50,42, 5	2, 5,39,49,20,23,10,39	1,31,50	9,11
22″	0, 0,23, 2,18, 2,45,13,52,44	2, 5,39,49,20,21,29,38	1,41, 1	9,11
24″	0, 0,25, 7,57,52, 5,35,22,22	2, 5,39,49,20,19,39,26	1,50,12	9,11
26″	0, 0,27,13,37,41,25,55, 1,48	2, 5,39,49,20,17,40, 3	1,59,23	9,11
28″	0, 0,29,19,17,30,46,12,41,51	2, 5,39,49,20,15,31,29	2, 8,34	9,11
30″	0, 0,31,24,57,20, 6,28,13,20	2, 5,39,49,20,13,13,44	2,17,45	9,11
32″	0, 0,33,30,37, 9,26,41,27, 4	2, 5,39,49,20,10,46,48	2,26,56	9,11
34″	0, 0,35,36,16,58,46,52,13,52	2, 5,39,49,20, 8,10,41	2,36, 7	9,11
36″	0, 0,37,41,56,48, 7, 0,24,33	2, 5,39,49,20, 5,25,23	2,45,18	9,11
38″	0, 0,39,47,36,37,27, 5,49,56	2, 5,39,49,20, 2,30,54	2,54,29	9,11
40″	0, 0,41,53,16,26,47, 8,20,50	2, 5,39,49,19,59,27,14	3, 3,40	9,11
42″	0, 0,43,58,56,16, 7, 7,48, 4	2, 5,39,49,19,56,14,23	3,12,51	9,11
44″	0, 0,46, 4,36, 5,27, 4, 2,27	2, 5,39,49,19,52,52,21	3,22, 2	9,11
46″	0, 0,48,10,15,54,46,56,54,48	2, 5,39,49,19,49,21, 8	3,31,13	9,11
48″	0, 0,50,15,55,44, 6,46,15,56	2, 5,39,49,19,45,40,44	3,40,24	9,11
50″	0, 0,52,21,35,33,26,31,56,40	2, 5,39,49,19,41,51, 9	3,49,35	9,11
52″	0, 0,54,27,15,22,46,13,47,49	2, 5,39,49,19,37,52,23	3,58,46	9,11
54″	0, 0,56,32,55,12, 5,51,40,12	2, 5,39,49,19,33,44,26	4, 7,57	9,11
56″	0, 0,58,38,35, 1,25,25,24,38	2, 5,39,49,19,29,27,18	4,17, 8	9,11
58″	0, 1, 0,44,14,50,44,54,51,56	2, 5,39,49,19,25, 0,59	4,26,19	
60″	0, 1, 2,49,54,40, 4,19,52,55			
exact	0, 1, 2,49,54,40, 4,19,36, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0° 1′ 0″	0, 1, 2,49,54,40, 4,19,36, 0	2, 5,39,49,19,20,23,45		
2″	0, 1, 4,55,34,29,23,39,59,45	2, 5,39,49,19,15,38,57	4,44,48	
4″	0, 1, 7, 1,14,18,42,55,38,42	2, 5,39,49,19,10,44,58	4,53,59	9,11
6″	0, 1, 9, 6,54, 8, 2, 6,23,40	2, 5,39,49,19, 5,41,48	5, 3,10	9,11
8″	0, 1,11,12,33,57,21,12, 5,28	2, 5,39,49,19, 0,29,27	5,12,21	9,11
10″	0, 1,13,18,13,46,40,12,34,55	2, 5,39,49,18,55, 7,55	5,21,32	9,11
12″	0, 1,15,23,53,35,59, 7,42,50	2, 5,39,49,18,49,37,12	5,30,43	9,11
14″	0, 1,17,29,33,25,17,57,20, 2	2, 5,39,49,18,43,57,18	5,39,54	9,11
16″	0, 1,19,35,13,14,36,41,17,20	2, 5,39,49,18,38, 8,13	5,49, 5	9,11
18″	0, 1,21,40,53, 3,55,19,25,33	2, 5,39,49,18,32, 9,57	5,58,16	9,11
20″	0, 1,23,46,32,53,13,51,35,30	2, 5,39,49,18,26, 2,30	6, 7,27	9,11
22″	0, 1,25,52,12,42,32,17,38, 0	2, 5,39,49,18,19,45,52	6,16,38	9,11
24″	0, 1,27,57,52,31,50,37,23,52	2, 5,39,49,18,13,20, 3	6,25,49	9,11
26″	0, 1,30, 3,32,21, 8,50,43,55	2, 5,39,49,18, 6,45, 3	6,35, 0	9,11
28″	0, 1,32, 9,12,10,26,57,28,58	2, 5,39,49,18, 0, 0,52	6,44,11	9,11
30″	0, 1,34,14,51,59,44,57,29,50	2, 5,39,49,17,53, 7,30	6,53,22	9,11
32″	0, 1,36,20,31,49, 2,50,37,20	2, 5,39,49,17,46, 4,57	7, 2,33	9,11
34″	0, 1,38,26,11,38,20,36,42,17	2, 5,39,49,17,38,53,13	7,11,44	9,11
36″	0, 1,40,31,51,27,38,15,35,30	2, 5,39,49,17,31,32,18	7,20,55	9,11
38″	0, 1,42,37,31,16,55,47, 7,48	2, 5,39,49,17,24, 2,12	7,30, 6	9,11
40″	0, 1,44,43,11, 6,13,11,10, 0	2, 5,39,49,17,16,22,55	7,39,17	9,11
42″	0, 1,46,48,50,55,30,27,32,55	2, 5,39,49,17, 8,34,27	7,48,28	9,11
44″	0, 1,48,54,30,44,47,36, 7,22	2, 5,39,49,17, 0,36,48	7,57,39	9,11
46″	0, 1,51, 0,10,34, 4,36,44,10	2, 5,39,49,16,52,29,58	8, 6,50	9,11
48″	0, 1,53, 5,50,23,21,29,14, 8	2, 5,39,49,16,44,13,57	8,16, 1	9,11
50″	0, 1,55,11,30,12,38,13,28, 5	2, 5,39,49,16,35,48,45	8,25,12	9,11
52″	0, 1,57,17,10, 1,54,49,16,50	2, 5,39,49,16,27,14,22	8,34,23	9,11
54″	0, 1,59,22,49,51,11,16,31,12	2, 5,39,49,16,18,30,48	8,43,34	9,11
56″	0, 2, 1,28,29,40,27,35, 2, 0	2, 5,39,49,16, 9,38, 3	8,52,45	9,11
58″	0, 2, 3,34, 9,29,43,44,40, 3	2, 5,39,49,16, 0,36, 7	9, 1,56	
60″	0, 2, 5,39,49,18,59,45,16,10			
exact	0, 2, 5,39,49,18,59,45, 1,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0° 2′ 0″	0, 2, 5,39,49,18,59,45, 1,48	2, 5,39,49,15,51,23,26		
2″	0, 2, 7,45,29, 8,15,36,25,14	2, 5,39,49,15,42, 3, 1	9,20,25	
4″	0, 2, 9,51, 8,57,31,18,28,15	2, 5,39,49,15,32,33,25	9,29,36	9,11
6″	0, 2,11,56,48,46,46,51, 1,40	2, 5,39,49,15,22,54,38	9,38,47	9,11
8″	0, 2,14, 2,28,36, 2,13,56,18	2, 5,39,49,15,13, 6,40	9,47,58	9,11
10″	0, 2,16, 8, 8,25,17,27, 2,58	2, 5,39,49,15, 3, 9,31	9,57, 9	9,11
12″	0, 2,18,13,48,14,32,30,12,29	2, 5,39,49,14,53, 3,11	10, 6,20	9,11
14″	0, 2,20,19,28, 3,47,23,15,40	2, 5,39,49,14,42,47,40	10,15,31	9,11
16″	0, 2,22,25, 7,53, 2, 6, 3,20	2, 5,39,49,14,32,22,58	10,24,42	9,11
18″	0, 2,24,30,47,42,16,38,26,18	2, 5,39,49,14,21,49, 5	10,33,53	9,11
20″	0, 2,26,36,27,31,31, 0,15,23	2, 5,39,49,14,11, 6, 1	10,43, 4	9,11
22″	0, 2,28,42, 7,20,45,11,21,24	2, 5,39,49,14, 0,13,46	10,52,15	9,11
24″	0, 2,30,47,47, 9,59,11,35,10	2, 5,39,49,13,49,12,20	11, 1,26	9,11
26″	0, 2,32,53,26,59,13, 0,47,30	2, 5,39,49,13,38, 1,43	11,10,37	9,11
28″	0, 2,34,59, 6,48,26,38,49,13	2, 5,39,49,13,26,41,55	11,19,48	9,11
30″	0, 2,37, 4,46,37,40, 5,31, 8	2, 5,39,49,13,15,12,56	11,28,59	9,11
32″	0, 2,39,10,26,26,53,20,44, 4	2, 5,39,49,13, 3,34,46	11,38,10	9,11
34″	0, 2,41,16, 6,16, 6,24,18,50	2, 5,39,49,12,51,47,25	11,47,21	9,11
36″	0, 2,43,21,46, 5,19,16, 6,15	2, 5,39,49,12,39,50,53	11,56,32	9,11
38″	0, 2,45,27,25,54,31,55,57, 8	2, 5,39,49,12,27,45,10	12, 5,43	9,11
40″	0, 2,47,33, 5,43,44,23,42,18	2, 5,39,49,12,15,30,16	12,14,54	9,11
42″	0, 2,49,38,45,32,56,39,12,34	2, 5,39,49,12, 3, 6,11	12,24, 5	9,11
44″	0, 2,51,44,25,22, 8,42,18,45	2, 5,39,49,11,50,32,55	12,33,16	9,11
46″	0, 2,53,50, 5,11,20,32,51,40	2, 5,39,49,11,37,50,28	12,42,27	9,11
48″	0, 2,55,55,45, 0,32,10,42, 8	2, 5,39,49,11,24,58,50	12,51,38	9,11
50″	0, 2,58, 1,24,49,43,35,40,58	2, 5,39,49,11,11,58, 1	13, 0,49	9,11
52″	0, 3, 0, 7, 4,38,54,47,38,59	2, 5,39,49,10,58,48, 1	13,10, 0	9,11
54″	0, 3, 2,12,44,28, 5,46,27, 0	2, 5,39,49,10,45,28,50	13,19,11	9,11
56″	0, 3, 4,18,24,17,16,31,55,50	2, 5,39,49,10,32, 0,28	13,28,22	9,11
58″	0, 3, 6,24, 4, 6,27, 3,56,18	2, 5,39,49,10,18,22,55	13,37,33	
60″	0, 3, 8,29,43,55,37,22,19,13			
exact	0, 3, 8,29,43,55,37,22, 7,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0° 3′ 0″	0, 3, 8,29,43,55,37,22, 7,12	2, 5,39,49,10, 4,34,47		
2″	0, 3,10,35,23,44,47,26,41,59	2, 5,39,49, 9,50,38,46	13,56, 1	9,11
4″	0, 3,12,41, 3,33,57,17,20,45	2, 5,39,49, 9,36,33,34	14, 5,12	9,11
6″	0, 3,14,46,43,23, 6,53,54,19	2, 5,39,49, 9,22,19,11	14,14,23	9,11
8″	0, 3,16,52,23,12,16,16,13,30	2, 5,39,49, 9, 7,55,37	14,23,34	9,11
10″	0, 3,18,58, 3, 1,25,24, 9, 7	2, 5,39,49, 8,53,22,52	14,32,45	9,11
12″	0, 3,21, 3,42,50,34,17,31,59	2, 5,39,49, 8,38,40,56	14,41,56	9,11
14″	0, 3,23, 9,22,39,42,56,12,55	2, 5,39,49, 8,23,49,49	14,51, 7	9,11
16″	0, 3,25,15, 2,28,51,20, 2,44	2, 5,39,49, 8, 8,49,31	15, 0,18	9,11
18″	0, 3,27,20,42,17,59,28,52,15	2, 5,39,49, 7,53,40, 2	15, 9,29	9,11
20″	0, 3,29,26,22, 7, 7,22,32,17	2, 5,39,49, 7,38,21,22	15,18,40	9,11
22″	0, 3,31,32, 1,56,15, 0,53,39	2, 5,39,49, 7,22,53,31	15,27,51	9,11
24″	0, 3,33,37,41,45,22,23,47,10	2, 5,39,49, 7, 7,16,29	15,37, 2	9,11
26″	0, 3,35,43,21,34,29,31, 3,39	2, 5,39,49, 6,51,30,16	15,46,13	9,11
28″	0, 3,37,49, 1,23,36,22,33,55	2, 5,39,49, 6,35,34,52	15,55,24	9,11
30″	0, 3,39,54,41,12,42,58, 8,47	2, 5,39,49, 6,19,30,17	16, 4,35	9,11
32″	0, 3,42, 0,21, 1,49,17,39, 4	2, 5,39,49, 6, 3,16,31	16,13,46	9,11
34″	0, 3,44, 6, 0,50,55,20,55,35	2, 5,39,49, 5,46,53,34	16,22,57	9,11
36″	0, 3,46,11,40,40, 1, 7,49, 9	2, 5,39,49, 5,30,21,26	16,32, 8	9,11
38″	0, 3,48,17,20,29, 6,38,10,35	2, 5,39,49, 5,13,40, 7	16,41,19	9,11
40″	0, 3,50,23, 0,18,11,51,50,42	2, 5,39,49, 4,56,49,37	16,50,30	9,11
42″	0, 3,52,28,40, 7,16,48,40,19	2, 5,39,49, 4,39,49,56	16,59,41	9,11
44″	0, 3,54,34,19,56,21,28,30,15	2, 5,39,49, 4,22,41, 4	17, 8,52	9,11
46″	0, 3,56,39,59,45,25,51,11,19	2, 5,39,49, 4, 5,23, 1	17,18, 3	9,11
48″	0, 3,58,45,39,34,29,56,34,20	2, 5,39,49, 3,47,55,47	17,27,14	9,11
50″	0, 4, 0,51,19,23,33,44,30, 7	2, 5,39,49, 3,30,19,22	17,36,25	9,11
52″	0, 4, 2,56,59,12,37,14,49,29	2, 5,39,49, 3,12,33,46	17,45,36	9,11
54″	0, 4, 5, 2,39, 1,40,27,23,15	2, 5,39,49, 2,54,38,59	17,54,47	9,11
56″	0, 4, 7, 8,18,50,43,22, 2,14	2, 5,39,49, 2,36,35, 1	18, 3,58	9,11
58″	0, 4, 9,13,58,39,45,58,37,15	2, 5,39,49, 2,18,21,52	18,13, 9	
60″	0, 4,11,19,38,28,48,16,59, 7			
exact	0, 4,11,19,38,28,48,16,42, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0° 4′ 0″	0, 4,11,19,38,28,48,16,42, 4	2, 5,39,49, 1,59,57,47		
2″	0, 4,13,25,18,17,50,16,39,51	2, 5,39,49, 1,41,26, 9	18,31,38	
4″	0, 4,15,30,58, 6,51,58, 6, 0	2, 5,39,49, 1,22,45,20	18,40,49	9,11
6″	0, 4,17,36,37,55,53,20,51,20	2, 5,39,49, 1, 3,55,20	18,50, 0	9,11
8″	0, 4,19,42,17,44,54,24,46,40	2, 5,39,49, 0,44,56, 9	18,59,11	9,11
10″	0, 4,21,47,57,33,55, 9,42,49	2, 5,39,49, 0,25,47,47	19, 8,22	9,11
12″	0, 4,23,53,37,22,55,35,30,36	2, 5,39,49, 0, 6,30,14	19,17,33	9,11
14″	0, 4,25,59,17,11,55,42, 0,50	2, 5,39,48,59,47, 3,30	19,26,44	9,11
16″	0, 4,28, 4,57, 0,55,29, 4,20	2, 5,39,48,59,27,27,35	19,35,55	9,11
18″	0, 4,30,10,36,49,54,56,31,55	2, 5,39,48,59, 7,42,29	19,45, 6	9,11
20″	0, 4,32,16,16,38,54, 4,14,24	2, 5,39,48,58,47,48,12	19,54,17	9,11
22″	0, 4,34,21,56,27,52,52, 2,36	2, 5,39,48,58,27,44,44	20, 3,28	9,11
24″	0, 4,36,27,36,16,51,19,47,20	2, 5,39,48,58, 7,32, 5	20,12,39	9,11
26″	0, 4,38,33,16, 5,49,27,19,25	2, 5,39,48,57,47,10,15	20,21,50	9,11
28″	0, 4,40,38,55,54,47,14,29,40	2, 5,39,48,57,26,39,14	20,31, 1	9,11
30″	0, 4,42,44,35,43,44,41, 8,54	2, 5,39,48,57, 5,59, 2	20,40,12	9,11
32″	0, 4,44,50,15,32,41,47, 7,56	2, 5,39,48,56,45, 9,39	20,49,23	9,11
34″	0, 4,46,55,55,21,38,32,17,35	2, 5,39,48,56,24,11, 5	20,58,34	9,11
36″	0, 4,49, 1,35,10,34,56,28,40	2, 5,39,48,56, 3, 3,20	21, 7,45	9,11
38″	0, 4,51, 7,14,59,30,59,32, 0	2, 5,39,48,55,41,46,24	21,16,56	9,11
40″	0, 4,53,12,54,48,26,41,18,24	2, 5,39,48,55,20,20,17	21,26, 7	9,11
42″	0, 4,55,18,34,37,22, 1,38,41	2, 5,39,48,54,58,44,59	21,35,18	9,11
44″	0, 4,57,24,14,26,17, 0,23,40	2, 5,39,48,54,37, 0,30	21,44,29	9,11
46″	0, 4,59,29,54,15,11,37,24,10	2, 5,39,48,54,15, 6,50	21,53,40	9,11
48″	0, 5, 1,35,34, 4, 5,52,31, 0	2, 5,39,48,53,53, 3,59	22, 2,51	9,11
50″	0, 5, 3,41,13,52,59,45,34,59	2, 5,39,48,53,30,51,57	22,12, 2	9,11
52″	0, 5, 5,46,53,41,53,16,26,56	2, 5,39,48,53, 8,30,44	22,21,13	9,11
54″	0, 5, 7,52,33,30,46,24,57,40	2, 5,39,48,52,46, 0,20	22,30,24	9,11
56″	0, 5, 9,58,13,19,39,10,58, 0	2, 5,39,48,52,23,20,45	22,39,35	9,11
58″	0, 5,12, 3,53, 8,31,34,18,45	2, 5,39,48,52, 0,31,59	22,48,46	
60″	0, 5,14, 9,32,57,23,34,50,44			
exact	0, 5,14, 9,32,57,23,34,36,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0° 5′ 0″	0, 5,14, 9,32,57,23,34,36,18	2, 5,39,48,51,37,32,28		
2″	0, 5,16,15,12,46,15,12, 8,46	2, 5,39,48,51,14,25,13	23, 7,15	
4″	0, 5,18,20,52,35, 6,26,33,59	2, 5,39,48,50,51, 8,47	23,16,26	9,11
6″	0, 5,20,26,32,23,57,17,42,46	2, 5,39,48,50,27,43,10	23,25,37	9,11
8″	0, 5,22,32,12,12,47,45,25,56	2, 5,39,48,50, 4, 8,22	23,34,48	9,11
10″	0, 5,24,37,52, 1,37,49,34,18	2, 5,39,48,49,40,24,23	23,43,59	9,11
12″	0, 5,26,43,31,50,27,29,58,41	2, 5,39,48,49,16,31,13	23,53,10	9,11
14″	0, 5,28,49,11,39,16,46,29,54	2, 5,39,48,48,52,28,52	24, 2,21	9,11
16″	0, 5,30,54,51,28, 5,38,58,46	2, 5,39,48,48,28,17,20	24,11,32	9,11
18″	0, 5,33, 0,31,16,54, 7,16, 6	2, 5,39,48,48, 3,56,37	24,20,43	9,11
20″	0, 5,35, 6,11, 5,42,11,12,43	2, 5,39,48,47,39,26,43	24,29,54	9,11
22″	0, 5,37,11,50,54,29,50,39,26	2, 5,39,48,47,14,47,38	24,39, 5	9,11
24″	0, 5,39,17,30,43,17, 5,27, 4	2, 5,39,48,46,49,59,22	24,48,16	9,11
26″	0, 5,41,23,10,32, 3,55,26,26	2, 5,39,48,46,25, 1,55	24,57,27	9,11
28″	0, 5,43,28,50,20,50,20,28,21	2, 5,39,48,45,59,55,17	25, 6,38	9,11
30″	0, 5,45,34,30, 9,36,20,23,38	2, 5,39,48,45,34,39,28	25,15,49	9,11
32″	0, 5,47,40, 9,58,21,55, 3, 6	2, 5,39,48,45, 9,14,28	25,25, 0	9,11
34″	0, 5,49,45,49,47, 7, 4,17,34	2, 5,39,48,44,43,40,17	25,34,11	9,11
36″	0, 5,51,51,29,35,51,47,57,51	2, 5,39,48,44,17,56,55	25,43,22	9,11
38″	0, 5,53,57, 9,24,36, 5,54,46	2, 5,39,48,43,52, 4,22	25,52,33	9,11
40″	0, 5,56, 2,49,13,19,57,59, 8	2, 5,39,48,43,26, 2,38	26, 1,44	9,11
42″	0, 5,58, 8,29, 2, 3,24, 1,46	2, 5,39,48,42,59,51,43	26,10,55	9,11
44″	0, 6, 0,14, 8,50,46,23,53,29	2, 5,39,48,42,33,31,37	26,20, 6	9,11
46″	0, 6, 2,19,48,39,28,57,25, 6	2, 5,39,48,42, 7, 2,20	26,29,17	9,11
48″	0, 6, 4,25,28,28,11, 4,27,26	2, 5,39,48,41,40,23,52	26,38,28	9,11
50″	0, 6, 6,31, 8,16,52,44,51,18	2, 5,39,48,41,13,36,13	26,47,39	9,11
52″	0, 6, 8,36,48, 5,33,58,27,31	2, 5,39,48,40,46,39,23	26,56,50	9,11
54″	0, 6,10,42,27,54,14,45, 6,54	2, 5,39,48,40,19,33,22	27, 6, 1	9,11
56″	0, 6,12,48, 7,42,55, 4,40,16	2, 5,39,48,39,52,18,10	27,15,12	9,11
58″	0, 6,14,53,47,31,34,56,58,26	2, 5,39,48,39,24,53,47	27,24,23	
60″	0, 6,16,59,27,20,14,21,52,13			
exact	0, 6,16,59,27,20,14,21,39,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0° 6′ 0″	0, 6,16,59,27,20,14,21,39,55	2, 5,39,48,38,57,18,48		
2″	0, 6,19, 5, 7, 8,53,18,58,43	2, 5,39,48,38,29,35,57	27,42,51	
4″	0, 6,21,10,46,57,31,48,34,40	2, 5,39,48,38, 1,43,55	27,52, 2	9,11
6″	0, 6,23,16,26,46, 9,50,18,35	2, 5,39,48,37,33,42,42	28, 1,13	9,11
8″	0, 6,25,22, 6,34,47,24, 1,17	2, 5,39,48,37, 5,32,18	28,10,24	9,11
10″	0, 6,27,27,46,23,24,29,33,35	2, 5,39,48,36,37,12,43	28,19,35	9,11
12″	0, 6,29,33,26,12, 1, 6,46,18	2, 5,39,48,36, 8,43,57	28,28,46	9,11
14″	0, 6,31,39, 6, 0,37,15,30,15	2, 5,39,48,35,40, 6, 0	28,37,57	9,11
16″	0, 6,33,44,45,49,12,55,36,15	2, 5,39,48,35,11,18,52	28,47, 8	9,11
18″	0, 6,35,50,25,37,48, 6,55, 7	2, 5,39,48,34,42,22,33	28,56,19	9,11
20″	0, 6,37,56, 5,26,22,49,17,40	2, 5,39,48,34,13,17, 3	29, 5,30	9,11
22″	0, 6,40, 1,45,14,57, 2,34,43	2, 5,39,48,33,44, 2,22	29,14,41	9,11
24″	0, 6,42, 7,25, 3,30,46,37, 5	2, 5,39,48,33,14,38,30	29,23,52	9,11
26″	0, 6,44,13, 4,52, 4, 1,15,35	2, 5,39,48,32,45, 5,27	29,33, 3	9,11
28″	0, 6,46,18,44,40,36,46,21, 2	2, 5,39,48,32,15,23,13	29,42,14	9,11
30″	0, 6,48,24,24,29, 9, 1,44,15	2, 5,39,48,31,45,31,48	29,51,25	9,11
32″	0, 6,50,30, 4,17,40,47,16, 3	2, 5,39,48,31,15,31,12	30, 0,36	9,11
34″	0, 6,52,35,44, 6,12, 2,47,15	2, 5,39,48,30,45,21,25	30, 9,47	9,11
36″	0, 6,54,41,23,54,42,48, 8,40	2, 5,39,48,30,15, 2,27	30,18,58	9,11
38″	0, 6,56,47, 3,43,13, 3,11, 7	2, 5,39,48,29,44,34,18	30,28, 9	9,11
40″	0, 6,58,52,43,31,42,47,45,25	2, 5,39,48,29,13,56,58	30,37,20	9,11
42″	0, 7, 0,58,23,20,12, 1,42,23	2, 5,39,48,28,43,10,27	30,46,31	9,11
44″	0, 7, 3, 4, 3, 8,40,44,52,50	2, 5,39,48,28,12,14,45	30,55,42	9,11
46″	0, 7, 5, 9,42,57, 8,57, 7,35	2, 5,39,48,27,41, 9,52	31, 4,53	9,11
48″	0, 7, 7,15,22,45,36,38,17,27	2, 5,39,48,27, 9,55,48	31,14, 4	9,11
50″	0, 7, 9,21, 2,34, 3,48,13,15	2, 5,39,48,26,38,32,33	31,23,15	9,11
52″	0, 7,11,26,42,22,30,26,45,48	2, 5,39,48,26, 7, 0, 7	31,32,26	9,11
54″	0, 7,13,32,22,10,56,33,45,55	2, 5,39,48,25,35,18,30	31,41,37	9,11
56″	0, 7,15,38, 1,59,22, 9, 4,25	2, 5,39,48,25, 3,27,42	31,50,48	9,11
58″	0, 7,17,43,41,47,47,12,32, 7	2, 5,39,48,24,31,27,43	31,59,59	
60″	0, 7,19,49,21,36,11,43,59,50			
exact	0, 7,19,49,21,36,11,43,43, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0° 7′ 0″	0, 7,19,49,21,36,11,43,43, 2	2, 5,39,48,23,59,16,49		
2″	0, 7,21,55, 1,24,35,42,59,51	2, 5,39,48,23,26,58,21	32,18,28	
4″	0, 7,24, 0,41,12,59, 9,58,12	2, 5,39,48,22,54,30,42	32,27,39	9,11
6″	0, 7,26, 6,21, 1,22, 4,28,54	2, 5,39,48,22,21,53,52	32,36,50	9,11
8″	0, 7,28,12, 0,49,44,26,22,46	2, 5,39,48,21,49, 7,51	32,46, 1	9,11
10″	0, 7,30,17,40,38, 6,15,30,37	2, 5,39,48,21,16,12,39	32,55,12	9,11
12″	0, 7,32,23,20,26,27,31,43,16	2, 5,39,48,20,43, 8,16	33, 4,23	9,11
14″	0, 7,34,29, 0,14,48,14,51,32	2, 5,39,48,20, 9,54,42	33,13,34	9,11
16″	0, 7,36,34,40, 3, 8,24,46,14	2, 5,39,48,19,36,31,57	33,22,45	9,11
18″	0, 7,38,40,19,51,28, 1,18,11	2, 5,39,48,19, 3, 0, 1	33,31,56	9,11
20″	0, 7,40,45,59,39,47, 4,18,12	2, 5,39,48,18,29,18,54	33,41, 7	9,11
22″	0, 7,42,51,39,28, 5,33,37, 6	2, 5,39,48,17,55,28,36	33,50,18	9,11
24″	0, 7,44,57,19,16,23,29, 5,42	2, 5,39,48,17,21,29, 7	33,59,29	9,11
26″	0, 7,47, 2,59, 4,40,50,34,49	2, 5,39,48,16,47,20,27	34, 8,40	9,11
28″	0, 7,49, 8,38,52,57,37,55,16	2, 5,39,48,16,13, 2,36	34,17,51	9,11
30″	0, 7,51,14,18,41,13,50,57,52	2, 5,39,48,15,38,35,34	34,27, 2	9,11
32″	0, 7,53,19,58,29,29,29,33,26	2, 5,39,48,15, 3,59,21	34,36,13	9,11
34″	0, 7,55,25,38,17,44,33,32,47	2, 5,39,48,14,29,13,57	34,45,24	9,11
36″	0, 7,57,31,18, 5,59, 2,46,44	2, 5,39,48,13,54,19,22	34,54,35	9,11
38″	0, 7,59,36,57,54,12,57, 6, 6	2, 5,39,48,13,19,15,36	35, 3,46	9,11
40″	0, 8, 1,42,37,42,26,16,21,42	2, 5,39,48,12,44, 2,39	35,12,57	9,11
42″	0, 8, 3,48,17,30,39, 0,24,21	2, 5,39,48,12, 8,40,31	35,22, 8	9,11
44″	0, 8, 5,53,57,18,51, 9, 4,52	2, 5,39,48,11,33, 9,12	35,31,19	9,11
46″	0, 8, 7,59,37, 7, 2,42,14, 4	2, 5,39,48,10,57,28,42	35,40,30	9,11
48″	0, 8,10, 5,16,55,13,39,42,46	2, 5,39,48,10,21,39, 1	35,49,41	9,11
50″	0, 8,12,10,56,43,24, 1,21,47	2, 5,39,48, 9,45,40, 9	35,58,52	9,11
52″	0, 8,14,16,36,31,33,47, 1,56	2, 5,39,48, 9, 9,32, 6	36, 8, 3	9,11
54″	0, 8,16,22,16,19,42,56,34, 2	2, 5,39,48, 8,33,14,52	36,17,14	9,11
56″	0, 8,18,27,56, 7,51,29,48,54	2, 5,39,48, 7,56,48,27	36,26,25	9,11
58″	0, 8,20,33,35,55,59,26,37,21	2, 5,39,48, 7,20,12,51	36,35,36	
60″	0, 8,22,39,15,44, 6,46,50,12			
exact	0, 8,22,39,15,44, 6,46,35,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0° 8′ 0″	0, 8,22,39,15,44, 6,46,35,51	2, 5,39,48, 6,43,26,30		
2″	0, 8,24,44,55,32,13,30, 2,21	2, 5,39,48, 6, 6,32,25	36,54, 5	9,11
4″	0, 8,26,50,35,20,19,36,34,46	2, 5,39,48, 5,29,29, 9	37, 3,16	9,11
6″	0, 8,28,56,15, 8,25, 6, 3,55	2, 5,39,48, 4,52,16,42	37,12,27	9,11
8″	0, 8,31, 1,54,56,29,58,20,37	2, 5,39,48, 4,14,55, 4	37,21,38	9,11
10″	0, 8,33, 7,34,44,34,13,15,41	2, 5,39,48, 3,37,24,15	37,30,49	9,11
12″	0, 8,35,13,14,32,37,50,39,56	2, 5,39,48, 2,59,44,15	37,40, 0	9,11
14″	0, 8,37,18,54,20,40,50,24,11	2, 5,39,48, 2,21,55, 4	37,49,11	9,11
16″	0, 8,39,24,34, 8,43,12,19,15	2, 5,39,48, 1,43,56,42	37,58,22	9,11
18″	0, 8,41,30,13,56,44,56,15,57	2, 5,39,48, 1, 5,49, 9	38, 7,33	9,11
20″	0, 8,43,35,53,44,46, 2, 5, 6	2, 5,39,48, 0,27,32,25	38,16,44	9,11
22″	0, 8,45,41,33,32,46,29,37,31	2, 5,39,47,59,49, 6,30	38,25,55	9,11
24″	0, 8,47,47,13,20,46,18,44, 1	2, 5,39,47,59,10,31,24	38,35, 6	9,11
26″	0, 8,49,52,53, 8,45,29,15,25	2, 5,39,47,58,31,47, 7	38,44,17	9,11
28″	0, 8,51,58,32,56,44, 1, 2,32	2, 5,39,47,57,52,53,39	38,53,28	9,11
30″	0, 8,54, 4,12,44,41,53,56,11	2, 5,39,47,57,13,51, 0	39, 2,39	9,11
32″	0, 8,56, 9,52,32,39, 7,47,11	2, 5,39,47,56,34,39,10	39,11,50	9,11
34″	0, 8,58,15,32,20,35,42,26,21	2, 5,39,47,55,55,18, 9	39,21, 1	9,11
36″	0, 9, 0,21,12, 8,31,37,44,30	2, 5,39,47,55,15,47,57	39,30,12	9,11
38″	0, 9, 2,26,51,56,26,53,32,27	2, 5,39,47,54,36, 8,34	39,39,23	9,11
40″	0, 9, 4,32,31,44,21,29,41, 1	2, 5,39,47,53,56,20, 0	39,48,34	9,11
42″	0, 9, 6,38,11,32,15,26, 1, 1	2, 5,39,47,53,16,22,15	39,57,45	9,11
44″	0, 9, 8,43,51,20, 8,42,23,16	2, 5,39,47,52,36,15,19	40, 6,56	9,11
46″	0, 9,10,49,31, 8, 1,18,38,35	2, 5,39,47,51,55,59,12	40,16, 7	9,11
48″	0, 9,12,55,10,55,53,14,37,47	2, 5,39,47,51,15,33,54	40,25,18	9,11
50″	0, 9,15, 0,50,43,44,30,11,41	2, 5,39,47,50,34,59,25	40,34,29	9,11
52″	0, 9,17, 6,30,31,35, 5,11, 6	2, 5,39,47,49,54,15,45	40,43,40	9,11
54″	0, 9,19,12,10,19,24,59,26,51	2, 5,39,47,49,13,22,54	40,52,51	9,11
56″	0, 9,21,17,50, 7,14,12,49,45	2, 5,39,47,48,32,20,52	41, 2, 2	9,11
58″	0, 9,23,23,29,55, 2,45,10,37	2, 5,39,47,47,51, 9,39	41,11,13	
60″	0, 9,25,29, 9,42,50,36,20,16			
exact	0, 9,25,29, 9,42,50,36, 8,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0° 9′ 0″	0, 9,25,29, 9,42,50,36, 8,46	2, 5,39,47,47, 9,47,53		
2″	0, 9,27,34,49,30,37,45,56,39	2, 5,39,47,46,28,18,12	41,29,41	
4″	0, 9,29,40,29,18,24,14,14,51	2, 5,39,47,45,46,39,20	41,38,52	9,11
6″	0, 9,31,46, 9, 6,10, 0,54,11	2, 5,39,47,45, 4,51,17	41,48, 3	9,11
8″	0, 9,33,51,48,53,55, 5,45,28	2, 5,39,47,44,22,54, 3	41,57,14	9,11
10″	0, 9,35,57,28,41,39,28,39,31	2, 5,39,47,43,40,47,38	42, 6,25	9,11
12″	0, 9,38, 3, 8,29,23, 9,27, 9	2, 5,39,47,42,58,32, 2	42,15,36	9,11
14″	0, 9,40, 8,48,17, 6, 7,59,11	2, 5,39,47,42,16, 7,15	42,24,47	9,11
16″	0, 9,42,14,28, 4,48,24, 6,26	2, 5,39,47,41,33,33,17	42,33,58	9,11
18″	0, 9,44,20, 7,52,29,57,39,43	2, 5,39,47,40,50,50, 8	42,43, 9	9,11
20″	0, 9,46,25,47,40,10,48,29,51	2, 5,39,47,40, 7,57,48	42,52,20	9,11
22″	0, 9,48,31,27,27,50,56,27,39	2, 5,39,47,39,24,56,17	43, 1,31	9,11
24″	0, 9,50,37, 7,15,30,21,23,56	2, 5,39,47,38,41,45,35	43,10,42	9,11
26″	0, 9,52,42,47, 3, 9, 3, 9,31	2, 5,39,47,37,58,25,42	43,19,53	9,11
28″	0, 9,54,48,26,50,47, 1,35,13	2, 5,39,47,37,14,56,38	43,29, 4	9,11
30″	0, 9,56,54, 6,38,24,16,31,51	2, 5,39,47,36,31,18,23	43,38,15	9,11
32″	0, 9,58,59,46,26, 0,47,50,14	2, 5,39,47,35,47,30,57	43,47,26	9,11
34″	0,10, 1, 5,26,13,36,35,21,11	2, 5,39,47,35, 3,34,20	43,56,37	9,11
36″	0,10, 3,11, 6, 1,11,38,55,31	2, 5,39,47,34,19,28,32	44, 5,48	9,11
38″	0,10, 5,16,45,48,45,58,24, 3	2, 5,39,47,33,35,13,33	44,14,59	9,11
40″	0,10, 7,22,25,36,19,33,37,36	2, 5,39,47,32,50,49,23	44,24,10	9,11
42″	0,10, 9,28, 5,23,52,24,26,59	2, 5,39,47,32, 6,16, 2	44,33,21	9,11
44″	0,10,11,33,45,11,24,30,43, 1	2, 5,39,47,31,21,33,30	44,42,32	9,11
46″	0,10,13,39,24,58,55,52,16,31	2, 5,39,47,30,36,41,47	44,51,43	9,11
48″	0,10,15,45, 4,46,26,28,58,18	2, 5,39,47,29,51,40,53	45, 0,54	9,11
50″	0,10,17,50,44,33,56,20,39,11	2, 5,39,47,29, 6,30,48	45,10, 5	9,11
52″	0,10,19,56,24,21,25,27, 9,59	2, 5,39,47,28,21,11,32	45,19,16	9,11
54″	0,10,22, 2, 4, 8,53,48,21,31	2, 5,39,47,27,35,43, 5	45,28,27	9,11
56″	0,10,24, 7,43,56,21,24, 4,36	2, 5,39,47,26,50, 5,27	45,37,38	9,11
58″	0,10,26,13,23,43,48,14,10, 3	2, 5,39,47,26, 4,18,38	45,46,49	
60″	0,10,28,19, 3,31,14,18,28,41			
exact	0,10,28,19, 3,31,14,18,12,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°10′ 0″	0,10,28,19, 3,31,14,18,12,20			
		2, 5,39,47,25,18,20,56		
2″	0,10,30,24,43,18,39,36,33,16		46, 5,18	
		2, 5,39,47,24,32,15,38		9,11
4″	0,10,32,30,23, 6, 4, 8,48,54		46,14,29	
		2, 5,39,47,23,46, 1, 9		9,11
6″	0,10,34,36, 2,53,27,54,50, 3		46,23,40	
		2, 5,39,47,22,59,37,29		9,11
8″	0,10,36,41,42,40,50,54,27,32		46,32,51	
		2, 5,39,47,22,13, 4,38		9,11
10″	0,10,38,47,22,28,13, 7,32,10		46,42, 2	
		2, 5,39,47,21,26,22,36		9,11
12″	0,10,40,53, 2,15,34,33,54,46		46,51,13	
		2, 5,39,47,20,39,31,23		9,11
14″	0,10,42,58,42, 2,55,13,26, 9		47, 0,24	
		2, 5,39,47,19,52,30,59		9,11
16″	0,10,45, 4,21,50,15, 5,57, 8		47, 9,35	
		2, 5,39,47,19, 5,21,24		9,11
18″	0,10,47,10, 1,37,34,11,18,32		47,18,46	
		2, 5,39,47,18,18, 2,38		9,11
20″	0,10,49,15,41,24,52,29,21,10		47,27,57	
		2, 5,39,47,17,30,34,41		9,11
22″	0,10,51,21,21,12, 9,59,55,51		47,37, 8	
		2, 5,39,47,16,42,57,33		9,11
24″	0,10,53,27, 0,59,26,42,53,24		47,46,19	
		2, 5,39,47,15,55,11,14		9,11
26″	0,10,55,32,40,46,42,38, 4,38		47,55,30	
		2, 5,39,47,15, 7,15,44		9,11
28″	0,10,57,38,20,33,57,45,20,22		48, 4,41	
		2, 5,39,47,14,19,11, 3		9,11
30″	0,10,59,44, 0,21,12, 4,31,25		48,13,52	
		2, 5,39,47,13,30,57,11		9,11
32″	0,11, 1,49,40, 8,25,35,28,36		48,23, 3	
		2, 5,39,47,12,42,34, 8		9,11
34″	0,11, 3,55,19,55,38,18, 2,44		48,32,14	
		2, 5,39,47,11,54, 1,54		9,11
36″	0,11, 6, 0,59,42,50,12, 4,38		48,41,25	
		2, 5,39,47,11, 5,20,29		9,11
38″	0,11, 8, 6,39,30, 1,17,25, 7		48,50,36	
		2, 5,39,47,10,16,29,53		9,11
40″	0,11,10,12,19,17,11,33,55, 0		48,59,47	
		2, 5,39,47, 9,27,30, 6		9,11
42″	0,11,12,17,59, 4,21, 1,25, 6		49, 8,58	
		2, 5,39,47, 8,38,21, 8		9,11
44″	0,11,14,23,38,51,29,39,46,14		49,18, 9	
		2, 5,39,47, 7,49, 2,59		9,11
46″	0,11,16,29,18,38,37,28,49,13		49,27,20	
		2, 5,39,47, 6,59,35,39		9,11
48″	0,11,18,34,58,25,44,28,24,52		49,36,31	
		2, 5,39,47, 6, 9,59, 8		9,11
50″	0,11,20,40,38,12,50,38,24, 0		49,45,42	
		2, 5,39,47, 5,20,13,26		9,11
52″	0,11,22,46,17,59,55,58,37,26		49,54,53	
		2, 5,39,47, 4,30,18,33		9,11
54″	0,11,24,51,57,47, 0,28,55,59		50, 4, 4	
		2, 5,39,47, 3,40,14,29		9,11
56″	0,11,26,57,37,34, 4, 9,10,28		50,13,15	
		2, 5,39,47, 2,50, 1,14		9,11
58″	0,11,29, 3,17,21, 6,59,11,42		50,22,26	
		2, 5,39,47, 1,59,38,48		
60″	0,11,31, 8,57, 8, 8,58,50,30			
exact	0,11,31, 8,57, 8, 8,58,37,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°11′ 0″	0,11,31, 8,57, 8, 8,58,37,16			
		2, 5,39,47, 1, 9, 5,42		
2″	0,11,33,14,36,55,10, 7,42,58		50,40,54	
		2, 5,39,47, 0,18,24,48		9,11
4″	0,11,35,20,16,42,10,26, 7,46		50,50, 5	
		2, 5,39,46,59,27,34,43		9,11
6″	0,11,37,25,56,29, 9,53,42,29		50,59,16	
		2, 5,39,46,58,36,35,27		9,11
8″	0,11,39,31,36,16, 8,30,17,56		51, 8,27	
		2, 5,39,46,57,45,27, 0		9,11
10″	0,11,41,37,16, 3, 6,15,44,56		51,17,38	
		2, 5,39,46,56,54, 9,22		9,11
12″	0,11,43,42,55,50, 3, 9,54,18		51,26,49	
		2, 5,39,46,56, 2,42,33		9,11
14″	0,11,45,48,35,36,59,12,36,51		51,36, 0	
		2, 5,39,46,55,11, 6,33		9,11
16″	0,11,47,54,15,23,54,23,43,24		51,45,11	
		2, 5,39,46,54,19,21,22		9,11
18″	0,11,49,59,55,10,48,43, 4,46		51,54,22	
		2, 5,39,46,53,27,27, 0		9,11
20″	0,11,52, 5,34,57,42,10,31,46		52, 3,33	
		2, 5,39,46,52,35,23,27		9,11
22″	0,11,54,11,14,44,34,45,55,13		52,12,44	
		2, 5,39,46,51,43,10,43		9,11
24″	0,11,56,16,54,31,26,29, 5,56		52,21,55	
		2, 5,39,46,50,50,48,48		9,11
26″	0,11,58,22,34,18,17,19,54,44		52,31, 6	
		2, 5,39,46,49,58,17,42		9,11
28″	0,12, 0,28,14, 5, 7,18,12,26		52,40,17	
		2, 5,39,46,49, 5,37,25		9,11
30″	0,12, 2,33,53,51,56,23,49,51		52,49,28	
		2, 5,39,46,48,12,47,57		9,11
32″	0,12, 4,39,33,38,44,36,37,48		52,58,39	
		2, 5,39,46,47,19,49,18		9,11
34″	0,12, 6,45,13,25,31,56,27, 6		53, 7,50	
		2, 5,39,46,46,26,41,28		9,11
36″	0,12, 8,50,53,12,18,23, 8,34		53,17, 1	
		2, 5,39,46,45,33,24,27		9,11
38″	0,12,10,56,32,59, 3,56,33, 1		53,26,12	
		2, 5,39,46,44,39,58,15		9,11
40″	0,12,13, 2,12,45,48,36,31,16		53,35,23	
		2, 5,39,46,43,46,22,52		9,11
42″	0,12,15, 7,52,32,32,22,54, 8		53,44,34	
		2, 5,39,46,42,52,38,18		9,11
44″	0,12,17,13,32,19,15,15,32,26		53,53,45	
		2, 5,39,46,41,58,44,33		9,11
46″	0,12,19,19,12, 5,57,14,16,59		54, 2,56	
		2, 5,39,46,41, 4,41,37		9,11
48″	0,12,21,24,51,52,38,18,58,36		54,12, 7	
		2, 5,39,46,40,10,29,30		9,11
50″	0,12,23,30,31,39,18,29,28, 6		54,21,18	
		2, 5,39,46,39,16, 8,12		9,11
52″	0,12,25,36,11,25,57,45,36,18		54,30,29	
		2, 5,39,46,38,21,37,43		9,11
54″	0,12,27,41,51,12,36, 7,14, 1		54,39,40	
		2, 5,39,46,37,26,58, 3		9,11
56″	0,12,29,47,30,59,13,34,12, 4		54,48,51	
		2, 5,39,46,36,32, 9,12		9,11
58″	0,12,31,53,10,45,50, 6,21,16		54,58, 2	
		2, 5,39,46,35,37,11,10		
60″	0,12,33,58,50,32,25,43,32,26			
exact	0,12,33,58,50,32,25,43,14,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°12′ 0″	0,12,33,58,50,32,25,43,14,33			
		2, 5,39,46,34,42, 2, 9		
2″	0,12,36, 4,30,19, 0,25,16,42		55,16,31	
		2, 5,39,46,33,46,45,38		9,11
4″	0,12,38,10,10, 5,34,12, 2,20		55,25,42	
		2, 5,39,46,32,51,19,56		9,11
6″	0,12,40,15,49,52, 7, 3,22,16		55,34,53	
		2, 5,39,46,31,55,45, 3		9,11
8″	0,12,42,21,29,38,38,59, 7,19		55,44, 4	
		2, 5,39,46,31, 0, 0,59		9,11
10″	0,12,44,27, 9,25, 9,59, 8,18		55,53,15	
		2, 5,39,46,30, 4, 7,44		9,11
12″	0,12,46,32,49,11,40, 3,16, 2		56, 2,26	
		2, 5,39,46,29, 8, 5,18		9,11
14″	0,12,48,38,28,58, 9,11,21,20		56,11,37	
		2, 5,39,46,28,11,53,41		9,11
16″	0,12,50,44, 8,44,37,23,15, 1		56,20,48	
		2, 5,39,46,27,15,32,53		9,11
18″	0,12,52,49,48,31, 4,38,47,54		56,29,59	
		2, 5,39,46,26,19, 2,54		9,11
20″	0,12,54,55,28,17,30,57,50,48		56,39,10	
		2, 5,39,46,25,22,23,44		9,11
22″	0,12,57, 1, 8, 3,56,20,14,32		56,48,21	
		2, 5,39,46,24,25,35,23		9,11
24″	0,12,59, 6,47,50,20,45,49,55		56,57,32	
		2, 5,39,46,23,28,37,51		9,11
26″	0,13, 1,12,27,36,44,14,27,46		57, 6,43	
		2, 5,39,46,22,31,31, 8		9,11
28″	0,13, 3,18, 7,23, 6,45,58,54		57,15,54	
		2, 5,39,46,21,34,15,14		9,11
30″	0,13, 5,23,47, 9,28,20,14, 8		57,25, 5	
		2, 5,39,46,20,36,50, 9		9,11
32″	0,13, 7,29,26,55,48,57, 4,17		57,34,16	
		2, 5,39,46,19,39,15,53		9,11
34″	0,13, 9,35, 6,42, 8,36,20,10		57,43,27	
		2, 5,39,46,18,41,32,26		9,11
36″	0,13,11,40,46,28,27,17,52,36		57,52,38	
		2, 5,39,46,17,43,39,48		9,11
38″	0,13,13,46,26,14,45, 1,32,24		58, 1,49	
		2, 5,39,46,16,45,37,59		9,11
40″	0,13,15,52, 6, 1, 1,47,10,23		58,11, 0	
		2, 5,39,46,15,47,26,59		9,11
42″	0,13,17,57,45,47,17,34,37,22		58,20,11	
		2, 5,39,46,14,49, 6,48		9,11
44″	0,13,20, 3,25,33,32,23,44,10		58,29,22	
		2, 5,39,46,13,50,37,26		9,11
46″	0,13,22, 9, 5,19,46,14,21,36		58,38,33	
		2, 5,39,46,12,51,58,53		9,11
48″	0,13,24,14,45, 5,59, 6,20,29		58,47,44	
		2, 5,39,46,11,53,11, 9		9,11
50″	0,13,26,20,24,52,10,59,31,38		58,56,55	
		2, 5,39,46,10,54,14,14		9,11
52″	0,13,28,26, 4,38,21,53,45,52		59, 6, 6	
		2, 5,39,46, 9,55, 8, 8		9,11
54″	0,13,30,31,44,24,31,48,54, 0		59,15,17	
		2, 5,39,46, 8,55,52,51		9,11
56″	0,13,32,37,24,10,40,44,46,51		59,24,28	
		2, 5,39,46, 7,56,28,23		9,11
58″	0,13,34,43, 3,56,48,41,15,14		59,33,39	
		2, 5,39,46, 6,56,54,44		
60″	0,13,36,48,43,42,55,38, 9,58			
exact	0,13,36,48,43,42,55,37,55,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°13′ 0″	0,13,36,48,43,42,55,37,55,19			
		2, 5,39,46, 5,57,10,19		
2″	0,13,38,54,23,29, 1,35, 5,38		0,59,52, 8	
		2, 5,39,46, 4,57,18,11		9,11
4″	0,13,41, 0, 3,15, 6,32,23,49		1, 0, 1,19	
		2, 5,39,46, 3,57,16,52		9,11
6″	0,13,43, 5,43, 1,10,29,40,41		1, 0,10,30	
		2, 5,39,46, 2,57, 6,22		9,11
8″	0,13,45,11,22,47,13,26,47, 3		1, 0,19,41	
		2, 5,39,46, 1,56,46,41		9,11
10″	0,13,47,17, 2,33,15,23,33,44		1, 0,28,52	
		2, 5,39,46, 0,56,17,49		9,11
12″	0,13,49,22,42,19,16,19,51,33		1, 0,38, 3	
		2, 5,39,45,59,55,39,46		9,11
14″	0,13,51,28,22, 5,16,15,31,19		1, 0,47,14	
		2, 5,39,45,58,54,52,32		9,11
16″	0,13,53,34, 1,51,15,10,23,51		1, 0,56,25	
		2, 5,39,45,57,53,56, 7		9,11
18″	0,13,55,39,41,37,13, 4,19,58		1, 1, 5,36	
		2, 5,39,45,56,52,50,31		9,11
20″	0,13,57,45,21,23, 9,57,10,29		1, 1,14,47	
		2, 5,39,45,55,51,35,44		9,11
22″	0,13,59,51, 1, 9, 5,48,46,13		1, 1,23,58	
		2, 5,39,45,54,50,11,46		9,11
24″	0,14, 1,56,40,55, 0,38,57,59		1, 1,33, 9	
		2, 5,39,45,53,48,38,37		9,11
26″	0,14, 4, 2,20,40,54,27,36,36		1, 1,42,20	
		2, 5,39,45,52,46,56,17		9,11
28″	0,14, 6, 8, 0,26,47,14,32,53		1, 1,51,31	
		2, 5,39,45,51,45, 4,46		9,11
30″	0,14, 8,13,40,12,38,59,37,39		1, 2, 0,42	
		2, 5,39,45,50,43, 4, 4		9,11
32″	0,14,10,19,19,58,29,42,41,43		1, 2, 9,53	
		2, 5,39,45,49,40,54,11		9,11
34″	0,14,12,24,59,44,19,23,35,54		1, 2,19, 4	
		2, 5,39,45,48,38,35, 7		9,11
36″	0,14,14,30,39,30, 8, 2,11, 1		1, 2,28,15	
		2, 5,39,45,47,36, 6,52		9,11
38″	0,14,16,36,19,15,55,38,17,53		1, 2,37,26	
		2, 5,39,45,46,33,29,26		9,11
40″	0,14,18,41,59, 1,42,11,47,19		1, 2,46,37	
		2, 5,39,45,45,30,42,49		9,11
42″	0,14,20,47,38,47,27,42,30, 8		1, 2,55,48	
		2, 5,39,45,44,27,47, 1		9,11
44″	0,14,22,53,18,33,12,10,17, 9		1, 3, 4,59	
		2, 5,39,45,43,24,42, 2		9,11
46″	0,14,24,58,58,18,55,34,59,11		1, 3,14,10	
		2, 5,39,45,42,21,27,52		9,11
48″	0,14,27, 4,38, 4,37,56,27, 3		1, 3,23,21	
		2, 5,39,45,41,18, 4,31		9,11
50″	0,14,29,10,17,50,19,14,31,34		1, 3,32,32	
		2, 5,39,45,40,14,31,59		9,11
52″	0,14,31,15,57,35,59,29, 3,33		1, 3,41,43	
		2, 5,39,45,39,10,50,16		9,11
54″	0,14,33,21,37,21,38,39,53,49		1, 3,50,54	
		2, 5,39,45,38, 6,59,22		9,11
56″	0,14,35,27,17, 7,16,46,53,11		1, 4, 0, 5	
		2, 5,39,45,37, 2,59,17		9,11
58″	0,14,37,32,56,52,53,49,52,28		1, 4, 9,16	
		2, 5,39,45,35,58,50, 1		
60″	0,14,39,38,36,38,29,48,42,29			
exact	0,14,39,38,36,38,29,48,31, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°14′ 0″	0,14,39,38,36,38,29,48,31, 2			
		2, 5,39,45,34,54,30,12		
2″	0,14,41,44,16,24, 4,43, 1,14		1, 4,27,44	
		2, 5,39,45,33,50, 2,28		9,11
4″	0,14,43,49,56, 9,38,33, 3,42		1, 4,36,55	
		2, 5,39,45,32,45,25,33		9,11
6″	0,14,45,55,35,55,11,18,29,15		1, 4,46, 6	
		2, 5,39,45,31,40,39,27		9,11
8″	0,14,48, 1,15,40,42,59, 8,42		1, 4,55,17	
		2, 5,39,45,30,35,44,10		9,11
10″	0,14,50, 6,55,26,13,34,52,52		1, 5, 4,28	
		2, 5,39,45,29,30,39,42		9,11
12″	0,14,52,12,35,11,43, 5,32,34		1, 5,13,39	
		2, 5,39,45,28,25,26, 3		9,11
14″	0,14,54,18,14,57,11,30,58,37		1, 5,22,50	
		2, 5,39,45,27,20, 3,13		9,11
16″	0,14,56,23,54,42,38,51, 1,50		1, 5,32, 1	
		2, 5,39,45,26,14,31,12		9,11
18″	0,14,58,29,34,28, 5, 5,33, 2		1, 5,41,12	
		2, 5,39,45,25, 8,50, 0		9,11
20″	0,15, 0,35,14,13,30,14,23, 2		1, 5,50,23	
		2, 5,39,45,24, 2,59,37		9,11
22″	0,15, 2,40,53,58,54,17,22,39		1, 5,59,34	
		2, 5,39,45,22,57, 0, 3		9,11
24″	0,15, 4,46,33,44,17,14,22,42		1, 6, 8,45	
		2, 5,39,45,21,50,51,18		9,11
26″	0,15, 6,52,13,29,39, 5,14, 0		1, 6,17,56	
		2, 5,39,45,20,44,33,22		9,11
28″	0,15, 8,57,53,14,59,49,47,22		1, 6,27, 7	
		2, 5,39,45,19,38, 6,15		9,11
30″	0,15,11, 3,33, 0,19,27,53,37		1, 6,36,18	
		2, 5,39,45,18,31,29,57		9,11
32″	0,15,13, 9,12,45,37,59,23,34		1, 6,45,29	
		2, 5,39,45,17,24,44,28		9,11
34″	0,15,15,14,52,30,55,24, 8, 2		1, 6,54,40	
		2, 5,39,45,16,17,49,48		9,11
36″	0,15,17,20,32,16,11,41,57,50		1, 7, 3,51	
		2, 5,39,45,15,10,45,57		9,11
38″	0,15,19,26,12, 1,26,52,43,47		1, 7,13, 2	
		2, 5,39,45,14, 3,32,55		9,11
40″	0,15,21,31,51,46,40,56,16,42		1, 7,22,13	
		2, 5,39,45,12,56,10,42		9,11
42″	0,15,23,37,31,31,53,52,27,24		1, 7,31,24	
		2, 5,39,45,11,48,39,18		9,11
44″	0,15,25,43,11,17, 5,41, 6,42		1, 7,40,35	
		2, 5,39,45,10,40,58,43		9,11
46″	0,15,27,48,51, 2,16,22, 5,25		1, 7,49,46	
		2, 5,39,45, 9,33, 8,57		9,11
48″	0,15,29,54,30,47,25,55,14,22		1, 7,58,57	
		2, 5,39,45, 8,25,10, 0		9,11
50″	0,15,32, 0,10,32,34,20,24,22		1, 8, 8, 8	
		2, 5,39,45, 7,17, 1,52		9,11
52″	0,15,34, 5,50,17,41,37,26,14		1, 8,17,19	
		2, 5,39,45, 6, 8,44,33		9,11
54″	0,15,36,11,30, 2,47,46,10,47		1, 8,26,30	
		2, 5,39,45, 5, 0,18, 3		9,11
56″	0,15,38,17, 9,47,52,46,28,50		1, 8,35,41	
		2, 5,39,45, 3,51,42,22		9,11
58″	0,15,40,22,49,32,56,38,11,12		1, 8,44,52	
		2, 5,39,45, 2,42,57,30		
60″	0,15,42,28,29,17,59,21, 8,42			
exact	0,15,42,28,29,17,59,20,53,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°15′ 0″	0,15,42,28,29,17,59,20,53,23			
		2, 5,39,45, 1,34, 1,49		
2″	0,15,44,34, 9, 3, 0,54,55,12		1, 9, 3,21	
		2, 5,39,45, 0,24,58,28		9,11
4″	0,15,46,39,48,48, 1,19,53,40		1, 9,12,32	
		2, 5,39,44,59,15,45,56		9,11
6″	0,15,48,45,28,33, 0,35,39,36		1, 9,21,43	
		2, 5,39,44,58, 6,24,13		9,11
8″	0,15,50,51, 8,17,58,42, 3,49		1, 9,30,54	
		2, 5,39,44,56,56,53,19		9,11
10″	0,15,52,56,48, 2,55,38,57, 8		1, 9,40, 5	
		2, 5,39,44,55,47,13,14		9,11
12″	0,15,55, 2,27,47,51,26,10,22		1, 9,49,16	
		2, 5,39,44,54,37,23,58		9,11
14″	0,15,57, 8, 7,32,46, 3,34,20		1, 9,58,27	
		2, 5,39,44,53,27,25,31		9,11
16″	0,15,59,13,47,17,39,30,59,51		1,10, 7,38	
		2, 5,39,44,52,17,17,53		9,11
18″	0,16, 1,19,27, 2,31,48,17,44		1,10,16,49	
		2, 5,39,44,51, 7, 1, 4		9,11
20″	0,16, 3,25, 6,47,22,55,18,48		1,10,26, 0	
		2, 5,39,44,49,56,35, 4		9,11
22″	0,16, 5,30,46,32,12,51,53,52		1,10,35,11	
		2, 5,39,44,48,45,59,53		9,11
24″	0,16, 7,36,26,17, 1,37,53,45		1,10,44,22	
		2, 5,39,44,47,35,15,31		9,11
26″	0,16, 9,42, 6, 1,49,13, 9,16		1,10,53,33	
		2, 5,39,44,46,24,21,58		9,11
28″	0,16,11,47,45,46,35,37,31,14		1,11, 2,44	
		2, 5,39,44,45,13,19,14		9,11
30″	0,16,13,53,25,31,20,50,50,28		1,11,11,55	
		2, 5,39,44,44, 2, 7,19		9,11
32″	0,16,15,59, 5,16, 4,52,57,47		1,11,21, 6	
		2, 5,39,44,42,50,46,13		9,11
34″	0,16,18, 4,45, 0,47,43,44, 0		1,11,30,17	
		2, 5,39,44,41,39,15,56		9,11
36″	0,16,20,10,24,45,29,22,59,56		1,11,39,28	
		2, 5,39,44,40,27,36,28		9,11
38″	0,16,22,16, 4,30, 9,50,36,24		1,11,48,39	
		2, 5,39,44,39,15,47,49		9,11
40″	0,16,24,21,44,14,49, 6,24,13		1,11,57,50	
		2, 5,39,44,38, 3,49,59		9,11
42″	0,16,26,27,23,59,27,10,14,12		1,12, 7, 1	
		2, 5,39,44,36,51,42,58		9,11
44″	0,16,28,33, 3,44, 4, 1,57,10		1,12,16,12	
		2, 5,39,44,35,39,26,46		9,11
46″	0,16,30,38,43,28,39,41,23,56		1,12,25,23	
		2, 5,39,44,34,27, 1,23		9,11
48″	0,16,32,44,23,13,14, 8,25,19		1,12,34,34	
		2, 5,39,44,33,14,26,49		9,11
50″	0,16,34,50, 2,57,47,22,52, 8		1,12,43,45	
		2, 5,39,44,32, 1,43, 4		9,11
52″	0,16,36,55,42,42,19,24,35,12		1,12,52,56	
		2, 5,39,44,30,48,50, 8		9,11
54″	0,16,39, 1,22,26,50,13,25,20		1,13, 2, 7	
		2, 5,39,44,29,35,48, 1		9,11
56″	0,16,41, 7, 2,11,19,49,13,21		1,13,11,18	
		2, 5,39,44,28,22,36,43		9,11
58″	0,16,43,12,41,55,48,11,50, 4		1,13,20,29	
		2, 5,39,44,27, 9,16,14		
60″	0,16,45,18,21,40,15,21, 6,18			
exact	0,16,45,18,21,40,15,20,54,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°16′ 0″	0,16,45,18,21,40,15,20,54,21			
		2, 5,39,44,25,55,45,11		
2″	0,16,47,24, 1,24,41,16,39,32		1,13,38,57	
		2, 5,39,44,24,42, 6,14		9,11
4″	0,16,49,29,41, 9, 5,58,45,46		1,13,48, 8	
		2, 5,39,44,23,28,18, 6		9,11
6″	0,16,51,35,20,53,29,27, 3,52		1,13,57,19	
		2, 5,39,44,22,14,20,47		9,11
8″	0,16,53,41, 0,37,51,41,24,39		1,14, 6,30	
		2, 5,39,44,21, 0,14,17		9,11
10″	0,16,55,46,40,22,12,41,38,56		1,14,15,41	
		2, 5,39,44,19,45,58,36		9,11
12″	0,16,57,52,20, 6,32,27,37,32		1,14,24,52	
		2, 5,39,44,18,31,33,44		9,11
14″	0,16,59,57,59,50,50,59,11,16		1,14,34, 3	
		2, 5,39,44,17,16,59,41		9,11
16″	0,17, 2, 3,39,35, 8,16,10,57		1,14,43,14	
		2, 5,39,44,16, 2,16,27		9,11
18″	0,17, 4, 9,19,19,24,18,27,24		1,14,52,25	
		2, 5,39,44,14,47,24, 2		9,11
20″	0,17, 6,14,59, 3,39, 5,51,26		1,15, 1,36	
		2, 5,39,44,13,32,22,26		9,11
22″	0,17, 8,20,38,47,52,38,13,52		1,15,10,47	
		2, 5,39,44,12,17,11,39		9,11
24″	0,17,10,26,18,32, 4,55,25,31		1,15,19,58	
		2, 5,39,44,11, 1,51,41		9,11
26″	0,17,12,31,58,16,15,57,17,12		1,15,29, 9	
		2, 5,39,44, 9,46,22,32		9,11
28″	0,17,14,37,38, 0,25,43,39,44		1,15,38,20	
		2, 5,39,44, 8,30,44,12		9,11
30″	0,17,16,43,17,44,34,14,23,56		1,15,47,31	
		2, 5,39,44, 7,14,56,41		9,11
32″	0,17,18,48,57,28,41,29,20,37		1,15,56,42	
		2, 5,39,44, 5,58,59,59		9,11
34″	0,17,20,54,37,12,47,28,20,36		1,16, 5,53	
		2, 5,39,44, 4,42,54, 6		9,11
36″	0,17,23, 0,16,56,52,11,14,42		1,16,15, 4	
		2, 5,39,44, 3,26,39, 2		9,11
38″	0,17,25, 5,56,40,55,37,53,44		1,16,24,15	
		2, 5,39,44, 2,10,14,47		9,11
40″	0,17,27,11,36,24,57,48, 8,31		1,16,33,26	
		2, 5,39,44, 0,53,41,21		9,11
42″	0,17,29,17,16, 8,58,41,49,52		1,16,42,37	
		2, 5,39,43,59,36,58,44		9,11
44″	0,17,31,22,55,52,58,18,48,36		1,16,51,48	
		2, 5,39,43,58,20, 6,56		9,11
46″	0,17,33,28,35,36,56,38,55,32		1,17, 0,59	
		2, 5,39,43,57, 3, 5,57		9,11
48″	0,17,35,34,15,20,53,42, 1,29		1,17,10,10	
		2, 5,39,43,55,45,55,47		9,11
50″	0,17,37,39,55, 4,49,27,57,16		1,17,19,21	
		2, 5,39,43,54,28,36,26		9,11
52″	0,17,39,45,34,48,43,56,33,42		1,17,28,32	
		2, 5,39,43,53,11, 7,54		9,11
54″	0,17,41,51,14,32,37, 7,41,36		1,17,37,43	
		2, 5,39,43,51,53,30,11		9,11
56″	0,17,43,56,54,16,29, 1,11,47		1,17,46,54	
		2, 5,39,43,50,35,43,17		9,11
58″	0,17,46, 2,34, 0,19,36,55, 4		1,17,56, 5	
		2, 5,39,43,49,17,47,12		
60″	0,17,48, 8,13,44, 8,54,42,16			
exact	0,17,48, 8,13,44, 8,54,26,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°17′ 0″	0,17,48, 8,13,44, 8,54,26,16			
		2, 5,39,43,47,59,40,17		
2″	0,17,50,13,53,27,56,54, 6,33		1,18,14,34	
		2, 5,39,43,46,41,25,43		9,11
4″	0,17,52,19,33,11,43,35,32,16		1,18,23,45	
		2, 5,39,43,45,23, 1,58		9,11
6″	0,17,54,25,12,55,28,58,34,14		1,18,32,56	
		2, 5,39,43,44, 4,29, 2		9,11
8″	0,17,56,30,52,39,13, 3, 3,16		1,18,42, 7	
		2, 5,39,43,42,45,46,55		9,11
10″	0,17,58,36,32,22,55,48,50,11		1,18,51,18	
		2, 5,39,43,41,26,55,37		9,11
12″	0,18, 0,42,12, 6,37,15,45,48		1,19, 0,29	
		2, 5,39,43,40, 7,55, 8		9,11
14″	0,18, 2,47,51,50,17,23,40,56		1,19, 9,40	
		2, 5,39,43,38,48,45,28		9,11
16″	0,18, 4,53,31,33,56,12,26,24		1,19,18,51	
		2, 5,39,43,37,29,26,37		9,11
18″	0,18, 6,59,11,17,33,41,53, 1		1,19,28, 2	
		2, 5,39,43,36, 9,58,35		9,11
20″	0,18, 9, 4,51, 1, 9,51,51,36		1,19,37,13	
		2, 5,39,43,34,50,21,22		9,11
22″	0,18,11,10,30,44,44,42,12,58		1,19,46,24	
		2, 5,39,43,33,30,34,58		9,11
24″	0,18,13,16,10,28,18,12,47,56		1,19,55,35	
		2, 5,39,43,32,10,39,23		9,11
26″	0,18,15,21,50,11,50,23,27,19		1,20, 4,46	
		2, 5,39,43,30,50,34,37		9,11
28″	0,18,17,27,29,55,21,14, 1,56		1,20,13,57	
		2, 5,39,43,29,30,20,40		9,11
30″	0,18,19,33, 9,38,50,44,22,36		1,20,23, 8	
		2, 5,39,43,28, 9,57,32		9,11
32″	0,18,21,38,49,22,18,54,20, 8		1,20,32,19	
		2, 5,39,43,26,49,25,13		9,11
34″	0,18,23,44,29, 5,45,43,45,21		1,20,41,30	
		2, 5,39,43,25,28,43,43		9,11
36″	0,18,25,50, 8,49,11,12,29, 4		1,20,50,41	
		2, 5,39,43,24, 7,53, 2		9,11
38″	0,18,27,55,48,32,35,20,22, 6		1,20,59,52	
		2, 5,39,43,22,46,53,10		9,11
40″	0,18,30, 1,28,15,58, 7,15,16		1,21, 9, 3	
		2, 5,39,43,21,25,44, 7		9,11
42″	0,18,32, 7, 7,59,19,32,59,23		1,21,18,14	
		2, 5,39,43,20, 4,25,53		9,11
44″	0,18,34,12,47,42,39,37,25,16		1,21,27,25	
		2, 5,39,43,18,42,58,28		9,11
46″	0,18,36,18,27,25,58,20,23,44		1,21,36,36	
		2, 5,39,43,17,21,21,52		9,11
48″	0,18,38,24, 7, 9,15,41,45,36		1,21,45,47	
		2, 5,39,43,15,59,36, 5		9,11
50″	0,18,40,29,46,52,31,41,21,41		1,21,54,58	
		2, 5,39,43,14,37,41, 7		9,11
52″	0,18,42,35,26,35,46,19, 2,48		1,22, 4, 9	
		2, 5,39,43,13,15,36,58		9,11
54″	0,18,44,41, 6,18,59,34,39,46		1,22,13,20	
		2, 5,39,43,11,53,23,38		9,11
56″	0,18,46,46,46, 2,11,28, 3,24		1,22,22,31	
		2, 5,39,43,10,31, 1, 7		9,11
58″	0,18,48,52,25,45,21,59, 4,31		1,22,31,42	
		2, 5,39,43, 9, 8,29,25		
60″	0,18,50,58, 5,28,31, 7,33,56			
exact	0,18,50,58, 5,28,31, 7,21,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°18′ 0″	0,18,50,58, 5,28,31, 7,21,47			
		2, 5,39,43, 7,45,47, 9		
2″	0,18,53, 3,45,11,38,53, 8,56		1,22,50,10	
		2, 5,39,43, 6,22,56,59		9,11
4″	0,18,55, 9,24,54,45,16, 5,55		1,22,59,21	
		2, 5,39,43, 4,59,57,38		9,11
6″	0,18,57,15, 4,37,50,16, 3,33		1,23, 8,32	
		2, 5,39,43, 3,36,49, 6		9,11
8″	0,18,59,20,44,20,53,52,52,39		1,23,17,43	
		2, 5,39,43, 2,13,31,23		9,11
10″	0,19, 1,26,24, 3,56, 6,24, 2		1,23,26,54	
		2, 5,39,43, 0,50, 4,29		9,11
12″	0,19, 3,32, 3,46,56,56,28,31		1,23,36, 5	
		2, 5,39,42,59,26,28,24		9,11
14″	0,19, 5,37,43,29,56,22,56,55		1,23,45,16	
		2, 5,39,42,58, 2,43, 8		9,11
16″	0,19, 7,43,23,12,54,25,40, 3		1,23,54,27	
		2, 5,39,42,56,38,48,41		9,11
18″	0,19, 9,49, 2,55,51, 4,28,44		1,24, 3,38	
		2, 5,39,42,55,14,45, 3		9,11
20″	0,19,11,54,42,38,46,19,13,47		1,24,12,49	
		2, 5,39,42,53,50,32,14		9,11
22″	0,19,14, 0,22,21,40, 9,46, 1		1,24,22, 0	
		2, 5,39,42,52,26,10,14		9,11
24″	0,19,16, 6, 2, 4,32,35,56,15		1,24,31,11	
		2, 5,39,42,51, 1,39, 3		9,11
26″	0,19,18,11,41,47,23,37,35,18		1,24,40,22	
		2, 5,39,42,49,36,58,41		9,11
28″	0,19,20,17,21,30,13,14,33,59		1,24,49,33	
		2, 5,39,42,48,12, 9, 8		9,11
30″	0,19,22,23, 1,13, 1,26,43, 7		1,24,58,44	
		2, 5,39,42,46,47,10,24		9,11
32″	0,19,24,28,40,55,48,13,53,31		1,25, 7,55	
		2, 5,39,42,45,22, 2,29		9,11
34″	0,19,26,34,20,38,33,35,56, 0		1,25,17, 6	
		2, 5,39,42,43,56,45,23		9,11
36″	0,19,28,40, 0,21,17,32,41,23		1,25,26,17	
		2, 5,39,42,42,31,19, 6		9,11
38″	0,19,30,45,40, 4, 0, 4, 0,29		1,25,35,28	
		2, 5,39,42,41, 5,43,38		9,11
40″	0,19,32,51,19,46,41, 9,44, 7		1,25,44,39	
		2, 5,39,42,39,39,58,59		9,11
42″	0,19,34,56,59,29,20,49,43, 6		1,25,53,50	
		2, 5,39,42,38,14, 5, 9		9,11
44″	0,19,37, 2,39,11,59, 3,48,15		1,26, 3, 1	
		2, 5,39,42,36,48, 2, 8		9,11
46″	0,19,39, 8,18,54,35,51,50,23		1,26,12,12	
		2, 5,39,42,35,21,49,56		9,11
48″	0,19,41,13,58,37,11,13,40,19		1,26,21,23	
		2, 5,39,42,33,55,28,33		9,11
50″	0,19,43,19,38,19,45, 9, 8,52		1,26,30,34	
		2, 5,39,42,32,28,57,59		9,11
52″	0,19,45,25,18, 2,17,38, 6,51		1,26,39,45	
		2, 5,39,42,31, 2,18,14		9,11
54″	0,19,47,30,57,44,48,40,25, 5		1,26,48,56	
		2, 5,39,42,29,35,29,18		9,11
56″	0,19,49,36,37,27,18,15,54,23		1,26,58, 7	
		2, 5,39,42,28, 8,31,11		9,11
58″	0,19,51,42,17, 9,46,24,25,34		1,27, 7,18	
		2, 5,39,42,26,41,23,53		
60″	0,19,53,47,56,52,13, 5,49,27			
exact	0,19,53,47,56,52,13, 5,33,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°19′ 0″	0,19,53,47,56,52,13, 5,33,52			
		2, 5,39,42,25,14, 5,47		
2″	0,19,55,53,36,34,38,19,39,39		1,27,25,47	
		2, 5,39,42,23,46,40, 0		9,11
4″	0,19,57,59,16,17, 2, 6,19,39		1,27,34,58	
		2, 5,39,42,22,19, 5, 2		9,11
6″	0,20, 0, 4,55,59,24,25,24,41		1,27,44, 9	
		2, 5,39,42,20,51,20,53		9,11
8″	0,20, 2,10,35,41,45,16,45,34		1,27,53,20	
		2, 5,39,42,19,23,27,33		9,11
10″	0,20, 4,16,15,24, 4,40,13, 7		1,28, 2,31	
		2, 5,39,42,17,55,25, 2		9,11
12″	0,20, 6,21,55, 6,22,35,38, 9		1,28,11,42	
		2, 5,39,42,16,27,13,20		9,11
14″	0,20, 8,27,34,48,39, 2,51,29		1,28,20,53	
		2, 5,39,42,14,58,52,27		9,11
16″	0,20,10,33,14,30,54, 1,43,56		1,28,30, 4	
		2, 5,39,42,13,30,22,23		9,11
18″	0,20,12,38,54,13, 7,32, 6,19		1,28,39,15	
		2, 5,39,42,12, 1,43, 8		9,11
20″	0,20,14,44,33,55,19,33,49,27		1,28,48,26	
		2, 5,39,42,10,32,54,42		9,11
22″	0,20,16,50,13,37,30, 6,44, 9		1,28,57,37	
		2, 5,39,42, 9, 3,57, 5		9,11
24″	0,20,18,55,53,19,39,10,41,14		1,29, 6,48	
		2, 5,39,42, 7,34,50,17		9,11
26″	0,20,21, 1,33, 1,46,45,31,31		1,29,15,59	
		2, 5,39,42, 6, 5,34,18		9,11
28″	0,20,23, 7,12,43,52,51, 5,49		1,29,25,10	
		2, 5,39,42, 4,36, 9, 8		9,11
30″	0,20,25,12,52,25,57,27,14,57		1,29,34,21	
		2, 5,39,42, 3, 6,34,47		9,11
32″	0,20,27,18,32, 8, 0,33,49,44		1,29,43,32	
		2, 5,39,42, 1,36,51,15		9,11
34″	0,20,29,24,11,50, 2,10,40,59		1,29,52,43	
		2, 5,39,42, 0, 6,58,32		9,11
36″	0,20,31,29,51,32, 2,17,39,31		1,30, 1,54	
		2, 5,39,41,58,36,56,38		9,11
38″	0,20,33,35,31,14, 0,54,36, 9		1,30,11, 5	
		2, 5,39,41,57, 6,45,33		9,11
40″	0,20,35,41,10,55,58, 1,21,42		1,30,20,16	
		2, 5,39,41,55,36,25,17		9,11
42″	0,20,37,46,50,37,53,37,46,59		1,30,29,27	
		2, 5,39,41,54, 5,55,50		9,11
44″	0,20,39,52,30,19,47,43,42,49		1,30,38,38	
		2, 5,39,41,52,35,17,12		9,11
46″	0,20,41,58,10, 1,40,19, 0, 1		1,30,47,49	
		2, 5,39,41,51, 4,29,23		9,11
48″	0,20,44, 3,49,43,31,23,29,24		1,30,57, 0	
		2, 5,39,41,49,33,32,23		9,11
50″	0,20,46, 9,29,25,20,57, 1,47		1,31, 6,11	
		2, 5,39,41,48, 2,26,12		9,11
52″	0,20,48,15, 9, 7, 8,59,27,59		1,31,15,22	
		2, 5,39,41,46,31,10,50		9,11
54″	0,20,50,20,48,48,55,30,38,49		1,31,24,33	
		2, 5,39,41,44,59,46,17		9,11
56″	0,20,52,26,28,30,40,30,25, 6		1,31,33,44	
		2, 5,39,41,43,28,12,33		9,11
58″	0,20,54,32, 8,12,23,58,37,39		1,31,42,55	
		2, 5,39,41,41,56,29,38		
60″	0,20,56,37,47,54, 5,55, 7,17			
exact	0,20,56,37,47,54, 5,54,55,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°20′ 0″	0,20,56,37,47,54, 5,54,55,56			
		2, 5,39,41,40,24,36,12		
2″	0,20,58,43,27,35,46,19,32, 8		1,32, 1,23	
		2, 5,39,41,38,52,34,49		9,11
4″	0,21, 0,49, 7,17,25,12, 6,57		1,32,10,34	
		2, 5,39,41,37,20,24,15		9,11
6″	0,21, 2,54,46,59, 2,32,31,12		1,32,19,45	
		2, 5,39,41,35,48, 4,30		9,11
8″	0,21, 5, 0,26,40,38,20,35,42		1,32,28,56	
		2, 5,39,41,34,15,35,34		9,11
10″	0,21, 7, 6, 6,22,12,36,11,16		1,32,38, 7	
		2, 5,39,41,32,42,57,27		9,11
12″	0,21, 9,11,46, 3,45,19, 8,43		1,32,47,18	
		2, 5,39,41,31,10,10, 9		9,11
14″	0,21,11,17,25,45,16,29,18,52		1,32,56,29	
		2, 5,39,41,29,37,13,40		9,11
16″	0,21,13,23, 5,26,46, 6,32,32		1,33, 5,40	
		2, 5,39,41,28, 4, 8, 0		9,11
18″	0,21,15,28,45, 8,14,10,40,32		1,33,14,51	
		2, 5,39,41,26,30,53, 9		9,11
20″	0,21,17,34,24,49,40,41,33,41		1,33,24, 2	
		2, 5,39,41,24,57,29, 7		9,11
22″	0,21,19,40, 4,31, 5,39, 2,48		1,33,33,13	
		2, 5,39,41,23,23,55,54		9,11
24″	0,21,21,45,44,12,29, 2,58,42		1,33,42,24	
		2, 5,39,41,21,50,13,30		9,11
26″	0,21,23,51,23,53,50,53,12,12		1,33,51,35	
		2, 5,39,41,20,16,21,55		9,11
28″	0,21,25,57, 3,35,11, 9,34, 7		1,34, 0,46	
		2, 5,39,41,18,42,21, 9		9,11
30″	0,21,28, 2,43,16,29,51,55,16		1,34, 9,57	
		2, 5,39,41,17, 8,11,12		9,11
32″	0,21,30, 8,22,57,47, 0, 6,28		1,34,19, 8	
		2, 5,39,41,15,33,52, 4		9,11
34″	0,21,32,14, 2,39, 2,33,58,32		1,34,28,19	
		2, 5,39,41,13,59,23,45		9,11
36″	0,21,34,19,42,20,16,33,22,17		1,34,37,30	
		2, 5,39,41,12,24,46,15		9,11
38″	0,21,36,25,22, 1,28,58, 8,32		1,34,46,41	
		2, 5,39,41,10,49,59,34		9,11
40″	0,21,38,31, 1,42,39,48, 8, 6		1,34,55,52	
		2, 5,39,41, 9,15, 3,42		9,11
42″	0,21,40,36,41,23,49, 3,11,48		1,35, 5, 3	
		2, 5,39,41, 7,39,58,39		9,11
44″	0,21,42,42,21, 4,56,43,10,27		1,35,14,14	
		2, 5,39,41, 6, 4,44,25		9,11
46″	0,21,44,48, 0,46, 2,47,54,52		1,35,23,25	
		2, 5,39,41, 4,29,21, 0		9,11
48″	0,21,46,53,40,27, 7,17,15,52		1,35,32,36	
		2, 5,39,41, 2,53,48,24		9,11
50″	0,21,48,59,20, 8,10,11, 4,16		1,35,41,47	
		2, 5,39,41, 1,18, 6,37		9,11
52″	0,21,51, 4,59,49,11,29,10,53		1,35,50,58	
		2, 5,39,40,59,42,15,39		9,11
54″	0,21,53,10,39,30,11,11,26,32		1,36, 0, 9	
		2, 5,39,40,58, 6,15,30		9,11
56″	0,21,55,16,19,11, 9,17,42, 2		1,36, 9,20	
		2, 5,39,40,56,30, 6,10		9,11
58″	0,21,57,21,58,52, 5,47,48,12		1,36,18,31	
		2, 5,39,40,54,53,47,39		
60″	0,21,59,27,38,33, 0,41,35,51			
exact	0,21,59,27,38,33, 0,41,21,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°21′ 0″	0,21,59,27,38,33, 0,41,21,46			
		2, 5,39,40,53,17,18,26		
2″	0,22, 1,33,18,13,53,58,40,12		1,36,36,59	
		2, 5,39,40,51,40,41,27		9,11
4″	0,22, 3,38,57,54,45,39,21,39		1,36,46,10	
		2, 5,39,40,50, 3,55,17		9,11
6″	0,22, 5,44,37,35,35,43,16,56		1,36,55,21	
		2, 5,39,40,48,26,59,56		9,11
8″	0,22, 7,50,17,16,24,10,16,52		1,37, 4,32	
		2, 5,39,40,46,49,55,24		9,11
10″	0,22, 9,55,56,57,11, 0,12,16		1,37,13,43	
		2, 5,39,40,45,12,41,41		9,11
12″	0,22,12, 1,36,37,56,12,53,57		1,37,22,54	
		2, 5,39,40,43,35,18,47		9,11
14″	0,22,14, 7,16,18,39,48,12,44		1,37,32, 5	
		2, 5,39,40,41,57,46,42		9,11
16″	0,22,16,12,55,59,21,45,59,26		1,37,41,16	
		2, 5,39,40,40,20, 5,26		9,11
18″	0,22,18,18,35,40, 2, 6, 4,52		1,37,50,27	
		2, 5,39,40,38,42,14,59		9,11
20″	0,22,20,24,15,20,40,48,19,51		1,37,59,38	
		2, 5,39,40,37, 4,15,21		9,11
22″	0,22,22,29,55, 1,17,52,35,12		1,38, 8,49	
		2, 5,39,40,35,26, 6,32		9,11
24″	0,22,24,35,34,41,53,18,41,44		1,38,18, 0	
		2, 5,39,40,33,47,48,32		9,11
26″	0,22,26,41,14,22,27, 6,30,16		1,38,27,11	
		2, 5,39,40,32, 9,21,21		9,11
28″	0,22,28,46,54, 2,59,15,51,37		1,38,36,22	
		2, 5,39,40,30,30,44,59		9,11
30″	0,22,30,52,33,43,29,46,36,36		1,38,45,33	
		2, 5,39,40,28,51,59,26		9,11
32″	0,22,32,58,13,23,58,38,36, 2		1,38,54,44	
		2, 5,39,40,27,13, 4,42		9,11
34″	0,22,35, 3,53, 4,25,51,40,44		1,39, 3,55	
		2, 5,39,40,25,34, 0,47		9,11
36″	0,22,37, 9,32,44,51,25,41,31		1,39,13, 6	
		2, 5,39,40,23,54,47,41		9,11
38″	0,22,39,15,12,25,15,20,29,12		1,39,22,17	
		2, 5,39,40,22,15,25,24		9,11
40″	0,22,41,20,52, 5,37,35,54,36		1,39,31,28	
		2, 5,39,40,20,35,53,56		9,11
42″	0,22,43,26,31,45,58,11,48,32		1,39,40,39	
		2, 5,39,40,18,56,13,17		9,11
44″	0,22,45,32,11,26,17, 8, 1,49		1,39,49,50	
		2, 5,39,40,17,16,23,27		9,11
46″	0,22,47,37,51, 6,34,24,25,16		1,39,59, 1	
		2, 5,39,40,15,36,24,26		9,11
48″	0,22,49,43,30,46,50, 0,49,42		1,40, 8,12	
		2, 5,39,40,13,56,16,14		9,11
50″	0,22,51,49,10,27, 3,57, 5,56		1,40,17,23	
		2, 5,39,40,12,15,58,51		9,11
52″	0,22,53,54,50, 7,16,13, 4,47		1,40,26,34	
		2, 5,39,40,10,35,32,17		9,11
54″	0,22,56, 0,29,47,26,48,37, 4		1,40,35,45	
		2, 5,39,40, 8,54,56,32		9,11
56″	0,22,58, 6, 9,27,35,43,33,36		1,40,44,56	
		2, 5,39,40, 7,14,11,36		9,11
58″	0,23, 0,11,49, 7,42,57,45,12		1,40,54, 7	
		2, 5,39,40, 5,33,17,29		
60″	0,23, 2,17,28,47,48,31, 2,41			
exact	0,23, 2,17,28,47,48,30,45,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°22′ 0″	0,23, 2,17,28,47,48,30,45,32			
		2, 5,39,40, 3,52,12,28		
2″	0,23, 4,23, 8,27,52,22,58, 0		1,41,12,36	
		2, 5,39,40, 2,10,59,52		9,11
4″	0,23, 6,28,48, 7,54,33,57,52		1,41,21,47	
		2, 5,39,40, 0,29,38, 5		9,11
6″	0,23, 8,34,27,47,55, 3,35,57		1,41,30,58	
		2, 5,39,39,58,48, 7, 7		9,11
8″	0,23,10,40, 7,27,53,51,43, 4		1,41,40, 9	
		2, 5,39,39,57, 6,26,58		9,11
10″	0,23,12,45,47, 7,50,58,10, 2		1,41,49,20	
		2, 5,39,39,55,24,37,38		9,11
12″	0,23,14,51,26,47,46,22,47,40		1,41,58,31	
		2, 5,39,39,53,42,39, 7		9,11
14″	0,23,16,57, 6,27,40, 5,26,47		1,42, 7,42	
		2, 5,39,39,52, 0,31,25		9,11
16″	0,23,19, 2,46, 7,32, 5,58,12		1,42,16,53	
		2, 5,39,39,50,18,14,32		9,11
18″	0,23,21, 8,25,47,22,24,12,44		1,42,26, 4	
		2, 5,39,39,48,35,48,28		9,11
20″	0,23,23,14, 5,27,11, 0, 1,12		1,42,35,15	
		2, 5,39,39,46,53,13,13		9,11
22″	0,23,25,19,45, 6,57,53,14,25		1,42,44,26	
		2, 5,39,39,45,10,28,47		9,11
24″	0,23,27,25,24,46,43, 3,43,12		1,42,53,37	
		2, 5,39,39,43,27,35,10		9,11
26″	0,23,29,31, 4,26,26,31,18,22		1,43, 2,48	
		2, 5,39,39,41,44,32,22		9,11
28″	0,23,31,36,44, 6, 8,15,50,44		1,43,11,59	
		2, 5,39,39,40, 1,20,23		9,11
30″	0,23,33,42,23,45,48,17,11, 7		1,43,21,10	
		2, 5,39,39,38,17,59,13		9,11
32″	0,23,35,48, 3,25,26,35,10,20		1,43,30,21	
		2, 5,39,39,36,34,28,52		9,11
34″	0,23,37,53,43, 5, 3, 9,39,12		1,43,39,32	
		2, 5,39,39,34,50,49,20		9,11
36″	0,23,39,59,22,44,38, 0,28,32		1,43,48,43	
		2, 5,39,39,33, 7, 0,37		9,11
38″	0,23,42, 5, 2,24,11, 7,29, 9		1,43,57,54	
		2, 5,39,39,31,23, 2,43		9,11
40″	0,23,44,10,42, 3,42,30,31,52		1,44, 7, 5	
		2, 5,39,39,29,38,55,38		9,11
42″	0,23,46,16,21,43,12, 9,27,30		1,44,16,16	
		2, 5,39,39,27,54,39,22		9,11
44″	0,23,48,22, 1,22,40, 4, 6,52		1,44,25,27	
		2, 5,39,39,26,10,13,55		9,11
46″	0,23,50,27,41, 2, 6,14,20,47		1,44,34,38	
		2, 5,39,39,24,25,39,17		9,11
48″	0,23,52,33,20,41,30,40, 0, 4		1,44,43,49	
		2, 5,39,39,22,40,55,28		9,11
50″	0,23,54,39, 0,20,53,20,55,32		1,44,53, 0	
		2, 5,39,39,20,56, 2,28		9,11
52″	0,23,56,44,40, 0,14,16,58, 0		1,45, 2,11	
		2, 5,39,39,19,11, 0,17		9,11
54″	0,23,58,50,19,39,33,27,58,17		1,45,11,22	
		2, 5,39,39,17,25,48,55		9,11
56″	0,24, 0,55,59,18,50,53,47,12		1,45,20,33	
		2, 5,39,39,15,40,28,22		9,11
58″	0,24, 3, 1,38,58, 6,34,15,34		1,45,29,44	
		2, 5,39,39,13,54,58,38		
60″	0,24, 5, 7,18,37,20,29,14,12			
exact	0,24, 5, 7,18,37,20,29, 1,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°23′ 0″	0,24, 5, 7,18,37,20,29, 1,53			
		2, 5,39,39,12, 9,18,20		
2″	0,24, 7,12,58,16,32,38,20,13		1,45,48,12	
		2, 5,39,39,10,23,30, 8		9,11
4″	0,24, 9,18,37,55,43, 1,50,21		1,45,57,23	
		2, 5,39,39, 8,37,32,45		9,11
6″	0,24,11,24,17,34,51,39,23, 6		1,46, 6,34	
		2, 5,39,39, 6,51,26,11		9,11
8″	0,24,13,29,57,13,58,30,49,17		1,46,15,45	
		2, 5,39,39, 5, 5,10,26		9,11
10″	0,24,15,35,36,53, 3,35,59,43		1,46,24,56	
		2, 5,39,39, 3,18,45,30		9,11
12″	0,24,17,41,16,32, 6,54,45,13		1,46,34, 7	
		2, 5,39,39, 1,32,11,23		9,11
14″	0,24,19,46,56,11, 8,26,56,36		1,46,43,18	
		2, 5,39,38,59,45,28, 5		9,11
16″	0,24,21,52,35,50, 8,12,24,41		1,46,52,29	
		2, 5,39,38,57,58,35,36		9,11
18″	0,24,23,58,15,29, 6,11, 0,17		1,47, 1,40	
		2, 5,39,38,56,11,33,56		9,11
20″	0,24,26, 3,55, 8, 2,22,34,13		1,47,10,51	
		2, 5,39,38,54,24,23, 5		9,11
22″	0,24,28, 9,34,46,56,46,57,18		1,47,20, 2	
		2, 5,39,38,52,37, 3, 3		9,11
24″	0,24,30,15,14,25,49,24, 0,21		1,47,29,13	
		2, 5,39,38,50,49,33,50		9,11
26″	0,24,32,20,54, 4,40,13,34,11		1,47,38,24	
		2, 5,39,38,49, 1,55,26		9,11
28″	0,24,34,26,33,43,29,15,29,37		1,47,47,35	
		2, 5,39,38,47,14, 7,51		9,11
30″	0,24,36,32,13,22,16,29,37,28		1,47,56,46	
		2, 5,39,38,45,26,11, 5		9,11
32″	0,24,38,37,53, 1, 1,55,48,33		1,48, 5,57	
		2, 5,39,38,43,38, 5, 8		9,11
34″	0,24,40,43,32,39,45,33,53,41		1,48,15, 8	
		2, 5,39,38,41,49,50, 0		9,11
36″	0,24,42,49,12,18,27,23,43,41		1,48,24,19	
		2, 5,39,38,40, 1,25,41		9,11
38″	0,24,44,54,51,57, 7,25, 9,22		1,48,33,30	
		2, 5,39,38,38,12,52,11		9,11
40″	0,24,47, 0,31,35,45,38, 1,33		1,48,42,41	
		2, 5,39,38,36,24, 9,30		9,11
42″	0,24,49, 6,11,14,22, 2,11, 3		1,48,51,52	
		2, 5,39,38,34,35,17,38		9,11
44″	0,24,51,11,50,52,56,37,28,41		1,49, 1, 3	
		2, 5,39,38,32,46,16,35		9,11
46″	0,24,53,17,30,31,29,23,45,16		1,49,10,14	
		2, 5,39,38,30,57, 6,21		9,11
48″	0,24,55,23,10,10, 0,20,51,37		1,49,19,25	
		2, 5,39,38,29, 7,46,56		9,11
50″	0,24,57,28,49,48,29,28,38,33		1,49,28,36	
		2, 5,39,38,27,18,18,20		9,11
52″	0,24,59,34,29,26,56,46,56,53		1,49,37,47	
		2, 5,39,38,25,28,40,33		9,11
54″	0,25, 1,40, 9, 5,22,15,37,26		1,49,46,58	
		2, 5,39,38,23,38,53,35		9,11
56″	0,25, 3,45,48,43,45,54,31, 1		1,49,56, 9	
		2, 5,39,38,21,48,57,26		9,11
58″	0,25, 5,51,28,22, 7,43,28,27		1,50, 5,20	
		2, 5,39,38,19,58,52, 6		
60″	0,25, 7,57, 8, 0,27,42,20,33			
exact	0,25, 7,57, 8, 0,27,42, 5,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°24′ 0″	0,25, 7,57, 8, 0,27,42, 5,57			
		2, 5,39,38,18, 8,36, 2		
2″	0,25,10, 2,47,38,45,50,41,59		1,50,23,48	
		2, 5,39,38,16,18,12,14		9,11
4″	0,25,12, 8,27,17, 2, 8,54,13		1,50,32,59	
		2, 5,39,38,14,27,39,15		9,11
6″	0,25,14,14, 6,55,16,36,33,28		1,50,42,10	
		2, 5,39,38,12,36,57, 5		9,11
8″	0,25,16,19,46,33,29,13,30,33		1,50,51,21	
		2, 5,39,38,10,46, 5,44		9,11
10″	0,25,18,25,26,11,39,59,36,17		1,51, 0,32	
		2, 5,39,38, 8,55, 5,12		9,11
12″	0,25,20,31, 5,49,48,54,41,29		1,51, 9,43	
		2, 5,39,38, 7, 3,55,29		9,11
14″	0,25,22,36,45,27,55,58,36,58		1,51,18,54	
		2, 5,39,38, 5,12,36,35		9,11
16″	0,25,24,42,25, 6, 1,11,13,33		1,51,28, 5	
		2, 5,39,38, 3,21, 8,30		9,11
18″	0,25,26,48, 4,44, 4,32,22, 3		1,51,37,16	
		2, 5,39,38, 1,29,31,14		9,11
20″	0,25,28,53,44,22, 6, 1,53,17		1,51,46,27	
		2, 5,39,37,59,37,44,47		9,11
22″	0,25,30,59,24, 0, 5,39,38, 4		1,51,55,38	
		2, 5,39,37,57,45,49, 9		9,11
24″	0,25,33, 5, 3,38, 3,25,27,13		1,52, 4,49	
		2, 5,39,37,55,53,44,20		9,11
26″	0,25,35,10,43,15,59,19,11,33		1,52,14, 0	
		2, 5,39,37,54, 1,30,20		9,11
28″	0,25,37,16,22,53,53,20,41,53		1,52,23,11	
		2, 5,39,37,52, 9, 7, 9		9,11
30″	0,25,39,22, 2,31,45,29,49, 2		1,52,32,22	
		2, 5,39,37,50,16,34,47		9,11
32″	0,25,41,27,42, 9,35,46,23,49		1,52,41,33	
		2, 5,39,37,48,23,53,14		9,11
34″	0,25,43,33,21,47,24,10,17, 3		1,52,50,44	
		2, 5,39,37,46,31, 2,30		9,11
36″	0,25,45,39, 1,25,10,41,19,33		1,52,59,55	
		2, 5,39,37,44,38, 2,35		9,11
38″	0,25,47,44,41, 2,55,19,22, 8		1,53, 9, 6	
		2, 5,39,37,42,44,53,29		9,11
40″	0,25,49,50,20,40,38, 4,15,37		1,53,18,17	
		2, 5,39,37,40,51,35,12		9,11
42″	0,25,51,56, 0,18,18,55,50,49		1,53,27,28	
		2, 5,39,37,38,58, 7,44		9,11
44″	0,25,54, 1,39,55,57,53,58,33		1,53,36,39	
		2, 5,39,37,37, 4,31, 5		9,11
46″	0,25,56, 7,19,33,34,58,29,38		1,53,45,50	
		2, 5,39,37,35,10,45,15		9,11
48″	0,25,58,12,59,11,10, 9,14,53		1,53,55, 1	
		2, 5,39,37,33,16,50,14		9,11
50″	0,26, 0,18,38,48,43,26, 5, 7		1,54, 4,12	
		2, 5,39,37,31,22,46, 2		9,11
52″	0,26, 2,24,18,26,14,48,51, 9		1,54,13,23	
		2, 5,39,37,29,28,32,39		9,11
54″	0,26, 4,29,58, 3,44,17,23,48		1,54,22,34	
		2, 5,39,37,27,34,10, 5		9,11
56″	0,26, 6,35,37,41,11,51,33,53		1,54,31,45	
		2, 5,39,37,25,39,38,20		9,11
58″	0,26, 8,41,17,18,37,31,12,13		1,54,40,56	
		2, 5,39,37,23,44,57,24		
60″	0,26,10,46,56,56, 1,16, 9,37			
exact	0,26,10,46,56,56, 1,15,53,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°25′ 0″	0,26,10,46,56,56, 1,15,53,17			
		2, 5,39,37,21,50, 5,37		
2″	0,26,12,52,36,33,23, 5,58,54		1,54,59,25	
		2, 5,39,37,19,55, 6,12		9,11
4″	0,26,14,58,16,10,43, 1, 5, 6		1,55, 8,36	
		2, 5,39,37,17,59,57,36		9,11
6″	0,26,17, 3,55,48, 1, 1, 2,42		1,55,17,47	
		2, 5,39,37,16, 4,39,49		9,11
8″	0,26,19, 9,35,25,17, 5,42,31		1,55,26,58	
		2, 5,39,37,14, 9,12,51		9,11
10″	0,26,21,15,15, 2,31,14,55,22		1,55,36, 9	
		2, 5,39,37,12,13,36,42		9,11
12″	0,26,23,20,54,39,43,28,32, 4		1,55,45,20	
		2, 5,39,37,10,17,51,22		9,11
14″	0,26,25,26,34,16,53,46,23,26		1,55,54,31	
		2, 5,39,37, 8,21,56,51		9,11
16″	0,26,27,32,13,54, 2, 8,20,17		1,56, 3,42	
		2, 5,39,37, 6,25,53, 9		9,11
18″	0,26,29,37,53,31, 8,34,13,26		1,56,12,53	
		2, 5,39,37, 4,29,40,16		9,11
20″	0,26,31,43,33, 8,13, 3,53,42		1,56,22, 4	
		2, 5,39,37, 2,33,18,12		9,11
22″	0,26,33,49,12,45,15,37,11,54		1,56,31,15	
		2, 5,39,37, 0,36,46,57		9,11
24″	0,26,35,54,52,22,16,13,58,51		1,56,40,26	
		2, 5,39,36,58,40, 6,31		9,11
26″	0,26,38, 0,31,59,14,54, 5,22		1,56,49,37	
		2, 5,39,36,56,43,16,54		9,11
28″	0,26,40, 6,11,36,11,37,22,16		1,56,58,48	
		2, 5,39,36,54,46,18, 6		9,11
30″	0,26,42,11,51,13, 6,23,40,22		1,57, 7,59	
		2, 5,39,36,52,49,10, 7		9,11
32″	0,26,44,17,30,49,59,12,50,29		1,57,17,10	
		2, 5,39,36,50,51,52,57		9,11
34″	0,26,46,23,10,26,50, 4,43,26		1,57,26,21	
		2, 5,39,36,48,54,26,36		9,11
36″	0,26,48,28,50, 3,38,59,10, 2		1,57,35,32	
		2, 5,39,36,46,56,51, 4		9,11
38″	0,26,50,34,29,40,25,56, 1, 6		1,57,44,43	
		2, 5,39,36,44,59, 6,21		9,11
40″	0,26,52,40, 9,17,10,55, 7,27		1,57,53,54	
		2, 5,39,36,43, 1,12,27		9,11
42″	0,26,54,45,48,53,53,56,19,54		1,58, 3, 5	
		2, 5,39,36,41, 3, 9,22		9,11
44″	0,26,56,51,28,30,34,59,29,16		1,58,12,16	
		2, 5,39,36,39, 4,57, 6		9,11
46″	0,26,58,57, 8, 7,14, 4,26,22		1,58,21,27	
		2, 5,39,36,37, 6,35,39		9,11
48″	0,27, 1, 2,47,43,51,11, 2, 1		1,58,30,38	
		2, 5,39,36,35, 8, 5, 1		9,11
50″	0,27, 3, 8,27,20,26,19, 7, 2		1,58,39,49	
		2, 5,39,36,33, 9,25,12		9,11
52″	0,27, 5,14, 6,56,59,28,32,14		1,58,49, 0	
		2, 5,39,36,31,10,36,12		9,11
54″	0,27, 7,19,46,33,30,39, 8,26		1,58,58,11	
		2, 5,39,36,29,11,38, 1		9,11
56″	0,27, 9,25,26, 9,59,50,46,27		1,59, 7,22	
		2, 5,39,36,27,12,30,39		9,11
58″	0,27,11,31, 5,46,27, 3,17, 6		1,59,16,33	
		2, 5,39,36,25,13,14, 6		
60″	0,27,13,36,45,22,52,16,31,12			
exact	0,27,13,36,45,22,52,16,19,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°26′ 0″	0,27,13,36,45,22,52,16,19,59			
		2, 5,39,36,23,13,47, 4		
2″	0,27,15,42,24,59,15,30, 7, 3		1,59,35, 1	
		2, 5,39,36,21,14,12, 3		9,11
4″	0,27,17,48, 4,35,36,44,19, 6		1,59,44,12	
		2, 5,39,36,19,14,27,51		9,11
6″	0,27,19,53,44,11,55,58,46,57		1,59,53,23	
		2, 5,39,36,17,14,34,28		9,11
8″	0,27,21,59,23,48,13,13,21,25		2, 0, 2,34	
		2, 5,39,36,15,14,31,54		9,11
10″	0,27,24, 5, 3,24,28,27,53,19		2, 0,11,45	
		2, 5,39,36,13,14,20, 9		9,11
12″	0,27,26,10,43, 0,41,42,13,28		2, 0,20,56	
		2, 5,39,36,11,13,59,13		9,11
14″	0,27,28,16,22,36,52,56,12,41		2, 0,30, 7	
		2, 5,39,36, 9,13,29, 6		9,11
16″	0,27,30,22, 2,13, 2, 9,41,47		2, 0,39,18	
		2, 5,39,36, 7,12,49,48		9,11
18″	0,27,32,27,41,49, 9,22,31,35		2, 0,48,29	
		2, 5,39,36, 5,12, 1,19		9,11
20″	0,27,34,33,21,25,14,34,32,54		2, 0,57,40	
		2, 5,39,36, 3,11, 3,39		9,11
22″	0,27,36,39, 1, 1,17,45,36,33		2, 1, 6,51	
		2, 5,39,36, 1, 9,56,48		9,11
24″	0,27,38,44,40,37,18,55,33,21		2, 1,16, 2	
		2, 5,39,35,59, 8,40,46		9,11
26″	0,27,40,50,20,13,18, 4,14, 7		2, 1,25,13	
		2, 5,39,35,57, 7,15,33		9,11
28″	0,27,42,55,59,49,15,11,29,40		2, 1,34,24	
		2, 5,39,35,55, 5,41, 9		9,11
30″	0,27,45, 1,39,25,10,17,10,49		2, 1,43,35	
		2, 5,39,35,53, 3,57,34		9,11
32″	0,27,47, 7,19, 1, 3,21, 8,23		2, 1,52,46	
		2, 5,39,35,51, 2, 4,48		9,11
34″	0,27,49,12,58,36,54,23,13,11		2, 2, 1,57	
		2, 5,39,35,49, 0, 2,51		9,11
36″	0,27,51,18,38,12,43,23,16, 2		2, 2,11, 8	
		2, 5,39,35,46,57,51,43		9,11
38″	0,27,53,24,17,48,30,21, 7,45		2, 2,20,19	
		2, 5,39,35,44,55,31,24		9,11
40″	0,27,55,29,57,24,15,16,39, 9		2, 2,29,30	
		2, 5,39,35,42,53, 1,54		9,11
42″	0,27,57,35,36,59,58, 9,41, 3		2, 2,38,41	
		2, 5,39,35,40,50,23,13		9,11
44″	0,27,59,41,16,35,39, 0, 4,16		2, 2,47,52	
		2, 5,39,35,38,47,35,21		9,11
46″	0,28, 1,46,56,11,17,47,39,37		2, 2,57, 3	
		2, 5,39,35,36,44,38,18		9,11
48″	0,28, 3,52,35,46,54,32,17,55		2, 3, 6,14	
		2, 5,39,35,34,41,32, 4		9,11
50″	0,28, 5,58,15,22,29,13,49,59		2, 3,15,25	
		2, 5,39,35,32,38,16,39		9,11
52″	0,28, 8, 3,54,58, 1,52, 6,38		2, 3,24,36	
		2, 5,39,35,30,34,52, 3		9,11
54″	0,28,10, 9,34,33,32,26,58,41		2, 3,33,47	
		2, 5,39,35,28,31,18,16		9,11
56″	0,28,12,15,14, 9, 0,58,16,57		2, 3,42,58	
		2, 5,39,35,26,27,35,18		9,11
58″	0,28,14,20,53,44,27,25,52,15		2, 3,52, 9	
		2, 5,39,35,24,23,43, 9		
60″	0,28,16,26,33,19,51,49,35,24			
exact	0,28,16,26,33,19,51,49,22,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°27′ 0″	0,28,16,26,33,19,51,49,22,39			
		2, 5,39,35,22,19,40,25		
2″	0,28,18,32,12,55,14, 9, 3, 4		2, 4,10,37	
		2, 5,39,35,20,15,29,48		9,11
4″	0,28,20,37,52,30,34,24,32,52		2, 4,19,48	
		2, 5,39,35,18,11,10, 0		9,11
6″	0,28,22,43,32, 5,52,35,42,52		2, 4,28,59	
		2, 5,39,35,16, 6,41, 1		9,11
8″	0,28,24,49,11,41, 8,42,23,53		2, 4,38,10	
		2, 5,39,35,14, 2, 2,51		9,11
10″	0,28,26,54,51,16,22,44,26,44		2, 4,47,21	
		2, 5,39,35,11,57,15,30		9,11
12″	0,28,29, 0,30,51,34,41,42,14		2, 4,56,32	
		2, 5,39,35, 9,52,18,58		9,11
14″	0,28,31, 6,10,26,44,34, 1,12		2, 5, 5,43	
		2, 5,39,35, 7,47,13,15		9,11
16″	0,28,33,11,50, 1,52,21,14,27		2, 5,14,54	
		2, 5,39,35, 5,41,58,21		9,11
18″	0,28,35,17,29,36,58, 3,12,48		2, 5,24, 5	
		2, 5,39,35, 3,36,34,16		9,11
20″	0,28,37,23, 9,12, 1,39,47, 4		2, 5,33,16	
		2, 5,39,35, 1,31, 1, 0		9,11
22″	0,28,39,28,48,47, 3,10,48, 4		2, 5,42,27	
		2, 5,39,34,59,25,18,33		9,11
24″	0,28,41,34,28,22, 2,36, 6,37		2, 5,51,38	
		2, 5,39,34,57,19,26,55		9,11
26″	0,28,43,40, 7,56,59,55,33,32		2, 6, 0,49	
		2, 5,39,34,55,13,26, 6		9,11
28″	0,28,45,45,47,31,55, 8,59,38		2, 6,10, 0	
		2, 5,39,34,53, 7,16, 6		9,11
30″	0,28,47,51,27, 6,48,16,15,44		2, 6,19,11	
		2, 5,39,34,51, 0,56,55		9,11
32″	0,28,49,57, 6,41,39,17,12,39		2, 6,28,22	
		2, 5,39,34,48,54,28,33		9,11
34″	0,28,52, 2,46,16,28,11,41,12		2, 6,37,33	
		2, 5,39,34,46,47,51, 0		9,11
36″	0,28,54, 8,25,51,14,59,32,12		2, 6,46,44	
		2, 5,39,34,44,41, 4,16		9,11
38″	0,28,56,14, 5,25,59,40,36,28		2, 6,55,55	
		2, 5,39,34,42,34, 8,21		9,11
40″	0,28,58,19,45, 0,42,14,44,49		2, 7, 5, 6	
		2, 5,39,34,40,27, 3,15		9,11
42″	0,29, 0,25,24,35,22,41,48, 4		2, 7,14,17	
		2, 5,39,34,38,19,48,58		9,11
44″	0,29, 2,31, 4,10, 1, 1,37, 2		2, 7,23,28	
		2, 5,39,34,36,12,25,30		9,11
46″	0,29, 4,36,43,44,37,14, 2,32		2, 7,32,39	
		2, 5,39,34,34, 4,52,51		9,11
48″	0,29, 6,42,23,19,11,18,55,23		2, 7,41,50	
		2, 5,39,34,31,57,11, 1		9,11
50″	0,29, 8,48, 2,53,43,16, 6,24		2, 7,51, 1	
		2, 5,39,34,29,49,20, 0		9,11
52″	0,29,10,53,42,28,13, 5,26,24		2, 8, 0,12	
		2, 5,39,34,27,41,19,48		9,11
54″	0,29,12,59,22, 2,40,46,46,12		2, 8, 9,23	
		2, 5,39,34,25,33,10,25		9,11
56″	0,29,15, 5, 1,37, 6,19,56,37		2, 8,18,34	
		2, 5,39,34,23,24,51,51		9,11
58″	0,29,17,10,41,11,29,44,48,28		2, 8,27,45	
		2, 5,39,34,21,16,24, 6		
60″	0,29,19,16,20,45,51, 1,12,34			
exact	0,29,19,16,20,45,51, 0,58,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°28′ 0″	0,29,19,16,20,45,51, 0,58,28			
		2, 5,39,34,19, 7,45,40		
2″	0,29,21,22, 0,20,10, 8,44, 8		2, 8,46,13	
		2, 5,39,34,16,58,59,27		9,11
4″	0,29,23,27,39,54,27, 7,43,35		2, 8,55,24	
		2, 5,39,34,14,50, 4, 3		9,11
6″	0,29,25,33,19,28,41,57,47,38		2, 9, 4,35	
		2, 5,39,34,12,40,59,28		9,11
8″	0,29,27,38,59, 2,54,38,47, 6		2, 9,13,46	
		2, 5,39,34,10,31,45,42		9,11
10″	0,29,29,44,38,37, 5,10,32,48		2, 9,22,57	
		2, 5,39,34, 8,22,22,45		9,11
12″	0,29,31,50,18,11,13,32,55,33		2, 9,32, 8	
		2, 5,39,34, 6,12,50,37		9,11
14″	0,29,33,55,57,45,19,45,46,10		2, 9,41,19	
		2, 5,39,34, 4, 3, 9,18		9,11
16″	0,29,36, 1,37,19,23,48,55,28		2, 9,50,30	
		2, 5,39,34, 1,53,18,48		9,11
18″	0,29,38, 7,16,53,25,42,14,16		2, 9,59,41	
		2, 5,39,33,59,43,19, 7		9,11
20″	0,29,40,12,56,27,25,25,33,23		2,10, 8,52	
		2, 5,39,33,57,33,10,15		9,11
22″	0,29,42,18,36, 1,22,58,43,38		2,10,18, 3	
		2, 5,39,33,55,22,52,12		9,11
24″	0,29,44,24,15,35,18,21,35,50		2,10,27,14	
		2, 5,39,33,53,12,24,58		9,11
26″	0,29,46,29,55, 9,11,34, 0,48		2,10,36,25	
		2, 5,39,33,51, 1,48,33		9,11
28″	0,29,48,35,34,43, 2,35,49,21		2,10,45,36	
		2, 5,39,33,48,51, 2,57		9,11
30″	0,29,50,41,14,16,51,26,52,18		2,10,54,47	
		2, 5,39,33,46,40, 8,10		9,11
32″	0,29,52,46,53,50,38, 7, 0,28		2,11, 3,58	
		2, 5,39,33,44,29, 4,12		9,11
34″	0,29,54,52,33,24,22,36, 4,40		2,11,13, 9	
		2, 5,39,33,42,17,51, 3		9,11
36″	0,29,56,58,12,58, 4,53,55,43		2,11,22,20	
		2, 5,39,33,40, 6,28,43		9,11
38″	0,29,59, 3,52,31,45, 0,24,26		2,11,31,31	
		2, 5,39,33,37,54,57,12		9,11
40″	0,30, 1, 9,32, 5,22,55,21,38		2,11,40,42	
		2, 5,39,33,35,43,16,30		9,11
42″	0,30, 3,15,11,38,58,38,38, 8		2,11,49,53	
		2, 5,39,33,33,31,26,37		9,11
44″	0,30, 5,20,51,12,32,10, 4,45		2,11,59, 4	
		2, 5,39,33,31,19,27,33		9,11
46″	0,30, 7,26,30,46, 3,29,32,18		2,12, 8,15	
		2, 5,39,33,29, 7,19,18		9,11
48″	0,30, 9,32,10,19,32,36,51,36		2,12,17,26	
		2, 5,39,33,26,55, 1,52		9,11
50″	0,30,11,37,49,52,59,31,53,28		2,12,26,37	
		2, 5,39,33,24,42,35,15		9,11
52″	0,30,13,43,29,26,24,14,28,43		2,12,35,48	
		2, 5,39,33,22,29,59,27		9,11
54″	0,30,15,49, 8,59,46,44,28,10		2,12,44,59	
		2, 5,39,33,20,17,14,28		9,11
56″	0,30,17,54,48,33, 7, 1,42,38		2,12,54,10	
		2, 5,39,33,18, 4,20,18		9,11
58″	0,30,20, 0,28, 6,25, 6, 2,56		2,13, 3,21	
		2, 5,39,33,15,51,16,57		
60″	0,30,22, 6, 7,39,40,57,19,53			
exact	0,30,22, 6, 7,39,40,57, 5, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°29′ 0″	0,30,22, 6, 7,39,40,57, 5, 9			
		2, 5,39,33,13,38, 2,52		
2″	0,30,24,11,47,12,54,35, 8, 1		2,13,21,49	
		2, 5,39,33,11,24,41, 3		9,11
4″	0,30,26,17,26,46, 5,59,49, 4		2,13,31, 0	
		2, 5,39,33, 9,11,10, 3		9,11
6″	0,30,28,23, 6,19,15,10,59, 7		2,13,40,11	
		2, 5,39,33, 6,57,29,52		9,11
8″	0,30,30,28,45,52,22, 8,28,59		2,13,49,22	
		2, 5,39,33, 4,43,40,30		9,11
10″	0,30,32,34,25,25,26,52, 9,29		2,13,58,33	
		2, 5,39,33, 2,29,41,57		9,11
12″	0,30,34,40, 4,58,29,21,51,26		2,14, 7,44	
		2, 5,39,33, 0,15,34,13		9,11
14″	0,30,36,45,44,31,29,37,25,39		2,14,16,55	
		2, 5,39,32,58, 1,17,18		9,11
16″	0,30,38,51,24, 4,27,38,42,57		2,14,26, 6	
		2, 5,39,32,55,46,51,12		9,11
18″	0,30,40,57, 3,37,23,25,34, 9		2,14,35,17	
		2, 5,39,32,53,32,15,55		9,11
20″	0,30,43, 2,43,10,16,57,50, 4		2,14,44,28	
		2, 5,39,32,51,17,31,27		9,11
22″	0,30,45, 8,22,43, 8,15,21,31		2,14,53,39	
		2, 5,39,32,49, 2,37,48		9,11
24″	0,30,47,14, 2,15,57,17,59,19		2,15, 2,50	
		2, 5,39,32,46,47,34,58		9,11
26″	0,30,49,19,41,48,44, 5,34,17		2,15,12, 1	
		2, 5,39,32,44,32,22,57		9,11
28″	0,30,51,25,21,21,28,37,57,14		2,15,21,12	
		2, 5,39,32,42,17, 1,45		9,11
30″	0,30,53,31, 0,54,10,54,58,59		2,15,30,23	
		2, 5,39,32,40, 1,31,22		9,11
32″	0,30,55,36,40,26,50,56,30,21		2,15,39,34	
		2, 5,39,32,37,45,51,48		9,11
34″	0,30,57,42,19,59,28,42,22, 9		2,15,48,45	
		2, 5,39,32,35,30, 3, 3		9,11
36″	0,30,59,47,59,32, 4,12,25,12		2,15,57,56	
		2, 5,39,32,33,14, 5, 7		9,11
38″	0,31, 1,53,39, 4,37,26,30,19		2,16, 7, 7	
		2, 5,39,32,30,57,58, 0		9,11
40″	0,31, 3,59,18,37, 8,24,28,19		2,16,16,18	
		2, 5,39,32,28,41,41,42		9,11
42″	0,31, 6, 4,58, 9,37, 6,10, 1		2,16,25,29	
		2, 5,39,32,26,25,16,13		9,11
44″	0,31, 8,10,37,42, 3,31,26,14		2,16,34,40	
		2, 5,39,32,24, 8,41,33		9,11
46″	0,31,10,16,17,14,27,40, 7,47		2,16,43,51	
		2, 5,39,32,21,51,57,42		9,11
48″	0,31,12,21,56,46,49,32, 5,29		2,16,53, 2	
		2, 5,39,32,19,35, 4,40		9,11
50″	0,31,14,27,36,19, 9, 7,10, 9		2,17, 2,13	
		2, 5,39,32,17,18, 2,27		9,11
52″	0,31,16,33,15,51,26,25,12,36		2,17,11,24	
		2, 5,39,32,15, 0,51, 3		9,11
54″	0,31,18,38,55,23,41,26, 3,39		2,17,20,35	
		2, 5,39,32,12,43,30,28		9,11
56″	0,31,20,44,34,55,54, 9,34, 7		2,17,29,46	
		2, 5,39,32,10,26, 0,42		9,11
58″	0,31,22,50,14,28, 4,35,34,49		2,17,38,57	
		2, 5,39,32, 8, 8,21,45		
60″	0,31,24,55,54, 0,12,43,56,34			
exact	0,31,24,55,54, 0,12,43,41, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°30′ 0″	0,31,24,55,54, 0,12,43,41, 1			
		2, 5,39,32, 5,50,32, 1		
2″	0,31,27, 1,33,32,18,34,13, 2		2,17,57,25	
		2, 5,39,32, 3,32,34,36		9,11
4″	0,31,29, 7,13, 4,22, 6,47,38		2,18, 6,36	
		2, 5,39,32, 1,14,28, 0		9,11
6″	0,31,31,12,52,36,23,21,15,38		2,18,15,47	
		2, 5,39,31,58,56,12,13		9,11
8″	0,31,33,18,32, 8,22,17,27,51		2,18,24,58	
		2, 5,39,31,56,37,47,15		9,11
10″	0,31,35,24,11,40,18,55,15, 6		2,18,34, 9	
		2, 5,39,31,54,19,13, 6		9,11
12″	0,31,37,29,51,12,13,14,28,12		2,18,43,20	
		2, 5,39,31,52, 0,29,46		9,11
14″	0,31,39,35,30,44, 5,14,57,58		2,18,52,31	
		2, 5,39,31,49,41,37,15		9,11
16″	0,31,41,41,10,15,54,56,35,13		2,19, 1,42	
		2, 5,39,31,47,22,35,33		9,11
18″	0,31,43,46,49,47,42,19,10,46		2,19,10,53	
		2, 5,39,31,45, 3,24,40		9,11
20″	0,31,45,52,29,19,27,22,35,26		2,19,20, 4	
		2, 5,39,31,42,44, 4,36		9,11
22″	0,31,47,58, 8,51,10, 6,40, 2		2,19,29,15	
		2, 5,39,31,40,24,35,21		9,11
24″	0,31,50, 3,48,22,50,31,15,23		2,19,38,26	
		2, 5,39,31,38, 4,56,55		9,11
26″	0,31,52, 9,27,54,28,36,12,18		2,19,47,37	
		2, 5,39,31,35,45, 9,18		9,11
28″	0,31,54,15, 7,26, 4,21,21,36		2,19,56,48	
		2, 5,39,31,33,25,12,30		9,11
30″	0,31,56,20,46,57,37,46,34, 6		2,20, 5,59	
		2, 5,39,31,31, 5, 6,31		9,11
32″	0,31,58,26,26,29, 8,51,40,37		2,20,15,10	
		2, 5,39,31,28,44,51,21		9,11
34″	0,32, 0,32, 6, 0,37,36,31,58		2,20,24,21	
		2, 5,39,31,26,24,27, 0		9,11
36″	0,32, 2,37,45,32, 4, 0,58,58		2,20,33,32	
		2, 5,39,31,24, 3,53,28		9,11
38″	0,32, 4,43,25, 3,28, 4,52,26		2,20,42,43	
		2, 5,39,31,21,43,10,45		9,11
40″	0,32, 6,49, 4,34,49,48, 3,11		2,20,51,54	
		2, 5,39,31,19,22,18,51		9,11
42″	0,32, 8,54,44, 6, 9,10,22, 2		2,21, 1, 5	
		2, 5,39,31,17, 1,17,46		9,11
44″	0,32,11, 0,23,37,26,11,39,48		2,21,10,16	
		2, 5,39,31,14,40, 7,30		9,11
46″	0,32,13, 6, 3, 8,40,51,47,18		2,21,19,27	
		2, 5,39,31,12,18,48, 3		9,11
48″	0,32,15,11,42,39,53,10,35,21		2,21,28,38	
		2, 5,39,31, 9,57,19,25		9,11
50″	0,32,17,17,22,11, 3, 7,54,46		2,21,37,49	
		2, 5,39,31, 7,35,41,36		9,11
52″	0,32,19,23, 1,42,10,43,36,22		2,21,47, 0	
		2, 5,39,31, 5,13,54,36		9,11
54″	0,32,21,28,41,13,15,57,30,58		2,21,56,11	
		2, 5,39,31, 2,51,58,25		9,11
56″	0,32,23,34,20,44,18,49,29,23		2,22, 5,22	
		2, 5,39,31, 0,29,53, 3		9,11
58″	0,32,25,40, 0,15,19,19,22,26		2,22,14,33	
		2, 5,39,30,58, 7,38,30		
60″	0,32,27,45,39,46,17,27, 0,56			
exact	0,32,27,45,39,46,17,26,44,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°31′ 0″	0,32,27,45,39,46,17,26,44,58			
		2, 5,39,30,55,45,13, 9		
2″	0,32,29,51,19,17,13,11,58, 7		2,22,33, 1	
		2, 5,39,30,53,22,40, 8		9,11
4″	0,32,31,56,58,48, 6,34,38,15		2,22,42,12	
		2, 5,39,30,50,59,57,56		9,11
6″	0,32,34, 2,38,18,57,34,36,11		2,22,51,23	
		2, 5,39,30,48,37, 6,33		9,11
8″	0,32,36, 8,17,49,46,11,42,44		2,23, 0,34	
		2, 5,39,30,46,14, 5,59		9,11
10″	0,32,38,13,57,20,32,25,48,43		2,23, 9,45	
		2, 5,39,30,43,50,56,14		9,11
12″	0,32,40,19,36,51,16,16,44,57		2,23,18,56	
		2, 5,39,30,41,27,37,18		9,11
14″	0,32,42,25,16,21,57,44,22,15		2,23,28, 7	
		2, 5,39,30,39, 4, 9,11		9,11
16″	0,32,44,30,55,52,36,48,31,26		2,23,37,18	
		2, 5,39,30,36,40,31,53		9,11
18″	0,32,46,36,35,23,13,29, 3,19		2,23,46,29	
		2, 5,39,30,34,16,45,24		9,11
20″	0,32,48,42,14,53,47,45,48,43		2,23,55,40	
		2, 5,39,30,31,52,49,44		9,11
22″	0,32,50,47,54,24,19,38,38,27		2,24, 4,51	
		2, 5,39,30,29,28,44,53		9,11
24″	0,32,52,53,33,54,49, 7,23,20		2,24,14, 2	
		2, 5,39,30,27, 4,30,51		9,11
26″	0,32,54,59,13,25,16,11,54,11		2,24,23,13	
		2, 5,39,30,24,40, 7,38		9,11
28″	0,32,57, 4,52,55,40,52, 1,49		2,24,32,24	
		2, 5,39,30,22,15,35,14		9,11
30″	0,32,59,10,32,26, 3, 7,37, 3		2,24,41,35	
		2, 5,39,30,19,50,53,39		9,11
32″	0,33, 1,16,11,56,22,58,30,42		2,24,50,46	
		2, 5,39,30,17,26, 2,53		9,11
34″	0,33, 3,21,51,26,40,24,33,35		2,24,59,57	
		2, 5,39,30,15, 1, 2,56		9,11
36″	0,33, 5,27,30,56,55,25,36,31		2,25, 9, 8	
		2, 5,39,30,12,35,53,48		9,11
38″	0,33, 7,33,10,27, 8, 1,30,19		2,25,18,19	
		2, 5,39,30,10,10,35,29		9,11
40″	0,33, 9,38,49,57,18,12, 5,48		2,25,27,30	
		2, 5,39,30, 7,45, 7,59		9,11
42″	0,33,11,44,29,27,25,57,13,47		2,25,36,41	
		2, 5,39,30, 5,19,31,18		9,11
44″	0,33,13,50, 8,57,31,16,45, 5		2,25,45,52	
		2, 5,39,30, 2,53,45,26		9,11
46″	0,33,15,55,48,27,34,10,30,31		2,25,55, 3	
		2, 5,39,30, 0,27,50,23		9,11
48″	0,33,18, 1,27,57,34,38,20,54		2,26, 4,14	
		2, 5,39,29,58, 1,46, 9		9,11
50″	0,33,20, 7, 7,27,32,40, 7, 3		2,26,13,25	
		2, 5,39,29,55,35,32,44		9,11
52″	0,33,22,12,46,57,28,15,39,47		2,26,22,36	
		2, 5,39,29,53, 9,10, 8		9,11
54″	0,33,24,18,26,27,21,24,49,55		2,26,31,47	
		2, 5,39,29,50,42,38,21		9,11
56″	0,33,26,24, 5,57,12, 7,28,16		2,26,40,58	
		2, 5,39,29,48,15,57,23		9,11
58″	0,33,28,29,45,27, 0,23,25,39		2,26,50, 9	
		2, 5,39,29,45,49, 7,14		
60″	0,33,30,35,24,56,46,12,32,53			
exact	0,33,30,35,24,56,46,12,16,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°32′ 0″	0,33,30,35,24,56,46,12,16,35			
		2, 5,39,29,43,22, 6,16		
2″	0,33,32,41, 4,26,29,34,22,51		2,27, 8,37	
		2, 5,39,29,40,54,57,39		9,11
4″	0,33,34,46,43,56,10,29,20,30		2,27,17,48	
		2, 5,39,29,38,27,39,51		9,11
6″	0,33,36,52,23,25,48,57, 0,21		2,27,26,59	
		2, 5,39,29,36, 0,12,52		9,11
8″	0,33,38,58, 2,55,24,57,13,13		2,27,36,10	
		2, 5,39,29,33,32,36,42		9,11
10″	0,33,41, 3,42,24,58,29,49,55		2,27,45,21	
		2, 5,39,29,31, 4,51,21		9,11
12″	0,33,43, 9,21,54,29,34,41,16		2,27,54,32	
		2, 5,39,29,28,36,56,49		9,11
14″	0,33,45,15, 1,23,58,11,38, 5		2,28, 3,43	
		2, 5,39,29,26, 8,53, 6		9,11
16″	0,33,47,20,40,53,24,20,31,11		2,28,12,54	
		2, 5,39,29,23,40,40,12		9,11
18″	0,33,49,26,20,22,48, 1,11,23		2,28,22, 5	
		2, 5,39,29,21,12,18, 7		9,11
20″	0,33,51,31,59,52, 9,13,29,30		2,28,31,16	
		2, 5,39,29,18,43,46,51		9,11
22″	0,33,53,37,39,21,27,57,16,21		2,28,40,27	
		2, 5,39,29,16,15, 6,24		9,11
24″	0,33,55,43,18,50,44,12,22,45		2,28,49,38	
		2, 5,39,29,13,46,16,46		9,11
26″	0,33,57,48,58,19,57,58,39,31		2,28,58,49	
		2, 5,39,29,11,17,17,57		9,11
28″	0,33,59,54,37,49, 9,15,57,28		2,29, 8, 0	
		2, 5,39,29, 8,48, 9,57		9,11
30″	0,34, 2, 0,17,18,18, 4, 7,25		2,29,17,11	
		2, 5,39,29, 6,18,52,46		9,11
32″	0,34, 4, 5,56,47,24,23, 0,11		2,29,26,22	
		2, 5,39,29, 3,49,26,24		9,11
34″	0,34, 6,11,36,16,28,12,26,35		2,29,35,33	
		2, 5,39,29, 1,19,50,51		9,11
36″	0,34, 8,17,15,45,29,32,17,26		2,29,44,44	
		2, 5,39,28,58,50, 6, 7		9,11
38″	0,34,10,22,55,14,28,22,23,33		2,29,53,55	
		2, 5,39,28,56,20,12,12		9,11
40″	0,34,12,28,34,43,24,42,35,45		2,30, 3, 6	
		2, 5,39,28,53,50, 9, 6		9,11
42″	0,34,14,34,14,12,18,32,44,51		2,30,12,17	
		2, 5,39,28,51,19,56,49		9,11
44″	0,34,16,39,53,41, 9,52,41,40		2,30,21,28	
		2, 5,39,28,48,49,35,21		9,11
46″	0,34,18,45,33, 9,58,42,17, 1		2,30,30,39	
		2, 5,39,28,46,19, 4,42		9,11
48″	0,34,20,51,12,38,45, 1,21,43		2,30,39,50	
		2, 5,39,28,43,48,24,52		9,11
50″	0,34,22,56,52, 7,28,49,46,35		2,30,49, 1	
		2, 5,39,28,41,17,35,51		9,11
52″	0,34,25, 2,31,36,10, 7,22,26		2,30,58,12	
		2, 5,39,28,38,46,37,39		9,11
54″	0,34,27, 8,11, 4,48,54, 0, 5		2,31, 7,23	
		2, 5,39,28,36,15,30,16		9,11
56″	0,34,29,13,50,33,25, 9,30,21		2,31,16,34	
		2, 5,39,28,33,44,13,42		9,11
58″	0,34,31,19,30, 1,58,53,44, 3		2,31,25,45	
		2, 5,39,28,31,12,47,57		
60″	0,34,33,25, 9,30,30, 6,32, 0			
exact	0,34,33,25, 9,30,30, 6,16, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°33′ 0″	0,34,33,25, 9,30,30, 6,16, 2			
		2, 5,39,28,28,41,11,24		
2″	0,34,35,30,48,58,58,47,27,26		2,31,44,13	
		2, 5,39,28,26, 9,27,11		9,11
4″	0,34,37,36,28,27,24,56,54,37		2,31,53,24	
		2, 5,39,28,23,37,33,47		9,11
6″	0,34,39,42, 7,55,48,34,28,24		2,32, 2,35	
		2, 5,39,28,21, 5,31,12		9,11
8″	0,34,41,47,47,24, 9,39,59,36		2,32,11,46	
		2, 5,39,28,18,33,19,26		9,11
10″	0,34,43,53,26,52,28,13,19, 2		2,32,20,57	
		2, 5,39,28,16, 0,58,29		9,11
12″	0,34,45,59, 6,20,44,14,17,31		2,32,30, 8	
		2, 5,39,28,13,28,28,21		9,11
14″	0,34,48, 4,45,48,57,42,45,52		2,32,39,19	
		2, 5,39,28,10,55,49, 2		9,11
16″	0,34,50,10,25,17, 8,38,34,54		2,32,48,30	
		2, 5,39,28, 8,23, 0,32		9,11
18″	0,34,52,16, 4,45,17, 1,35,26		2,32,57,41	
		2, 5,39,28, 5,50, 2,51		9,11
20″	0,34,54,21,44,13,22,51,38,17		2,33, 6,52	
		2, 5,39,28, 3,16,55,59		9,11
22″	0,34,56,27,23,41,26, 8,34,16		2,33,16, 3	
		2, 5,39,28, 0,43,39,56		9,11
24″	0,34,58,33, 3, 9,26,52,14,12		2,33,25,14	
		2, 5,39,27,58,10,14,42		9,11
26″	0,35, 0,38,42,37,25, 2,28,54		2,33,34,25	
		2, 5,39,27,55,36,40,17		9,11
28″	0,35, 2,44,22, 5,20,39, 9,11		2,33,43,36	
		2, 5,39,27,53, 2,56,41		9,11
30″	0,35, 4,50, 1,33,13,42, 5,52		2,33,52,47	
		2, 5,39,27,50,29, 3,54		9,11
32″	0,35, 6,55,41, 1, 4,11, 9,46		2,34, 1,58	
		2, 5,39,27,47,55, 1,56		9,11
34″	0,35, 9, 1,20,28,52, 6,11,42		2,34,11, 9	
		2, 5,39,27,45,20,50,47		9,11
36″	0,35,11, 6,59,56,37,27, 2,29		2,34,20,20	
		2, 5,39,27,42,46,30,27		9,11
38″	0,35,13,12,39,24,20,13,32,56		2,34,29,31	
		2, 5,39,27,40,12, 0,56		9,11
40″	0,35,15,18,18,52, 0,25,33,52		2,34,38,42	
		2, 5,39,27,37,37,22,14		9,11
42″	0,35,17,23,58,19,38, 2,56, 6		2,34,47,53	
		2, 5,39,27,35, 2,34,21		9,11
44″	0,35,19,29,37,47,13, 5,30,27		2,34,57, 4	
		2, 5,39,27,32,27,37,17		9,11
46″	0,35,21,35,17,14,45,33, 7,44		2,35, 6,15	
		2, 5,39,27,29,52,31, 2		9,11
48″	0,35,23,40,56,42,15,25,38,46		2,35,15,26	
		2, 5,39,27,27,17,15,36		9,11
50″	0,35,25,46,36, 9,42,42,54,22		2,35,24,37	
		2, 5,39,27,24,41,50,59		9,11
52″	0,35,27,52,15,37, 7,24,45,21		2,35,33,48	
		2, 5,39,27,22, 6,17,11		9,11
54″	0,35,29,57,55, 4,29,31, 2,32		2,35,42,59	
		2, 5,39,27,19,30,34,12		9,11
56″	0,35,32, 3,34,31,49, 1,36,44		2,35,52,10	
		2, 5,39,27,16,54,42, 2		9,11
58″	0,35,34, 9,13,59, 5,56,18,46		2,36, 1,21	
		2, 5,39,27,14,18,40,41		
60″	0,35,36,14,53,26,20,14,59,27			
exact	0,35,36,14,53,26,20,14,44,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°34′ 0″	0,35,36,14,53,26,20,14,44,14			
		2, 5,39,27,11,42,28,35		
2″	0,35,38,20,32,53,31,57,12,49		2,36,19,49	
		2, 5,39,27, 9, 6, 8,46		9,11
4″	0,35,40,26,12,20,41, 3,21,35		2,36,29, 0	
		2, 5,39,27, 6,29,39,46		9,11
6″	0,35,42,31,51,47,47,33, 1,21		2,36,38,11	
		2, 5,39,27, 3,53, 1,35		9,11
8″	0,35,44,37,31,14,51,26, 2,56		2,36,47,22	
		2, 5,39,27, 1,16,14,13		9,11
10″	0,35,46,43,10,41,52,42,17, 9		2,36,56,33	
		2, 5,39,26,58,39,17,40		9,11
12″	0,35,48,48,50, 8,51,21,34,49		2,37, 5,44	
		2, 5,39,26,56, 2,11,56		9,11
14″	0,35,50,54,29,35,47,23,46,45		2,37,14,55	
		2, 5,39,26,53,24,57, 1		9,11
16″	0,35,53, 0, 9, 2,40,48,43,46		2,37,24, 6	
		2, 5,39,26,50,47,32,55		9,11
18″	0,35,55, 5,48,29,31,36,16,41		2,37,33,17	
		2, 5,39,26,48, 9,59,38		9,11
20″	0,35,57,11,27,56,19,46,16,19		2,37,42,28	
		2, 5,39,26,45,32,17,10		9,11
22″	0,35,59,17, 7,23, 5,18,33,29		2,37,51,39	
		2, 5,39,26,42,54,25,31		9,11
24″	0,36, 1,22,46,49,48,12,59, 0		2,38, 0,50	
		2, 5,39,26,40,16,24,41		9,11
26″	0,36, 3,28,26,16,28,29,23,41		2,38,10, 1	
		2, 5,39,26,37,38,14,40		9,11
28″	0,36, 5,34, 5,43, 6, 7,38,21		2,38,19,12	
		2, 5,39,26,34,59,55,28		9,11
30″	0,36, 7,39,45, 9,41, 7,33,49		2,38,28,23	
		2, 5,39,26,32,21,27, 5		9,11
32″	0,36, 9,45,24,36,13,29, 0,54		2,38,37,34	
		2, 5,39,26,29,42,49,31		9,11
34″	0,36,11,51, 4, 2,43,11,50,25		2,38,46,45	
		2, 5,39,26,27, 4, 2,46		9,11
36″	0,36,13,56,43,29,10,15,53,11		2,38,55,56	
		2, 5,39,26,24,25, 6,50		9,11
38″	0,36,16, 2,22,55,34,41, 0, 1		2,39, 5, 7	
		2, 5,39,26,21,46, 1,43		9,11
40″	0,36,18, 8, 2,21,56,27, 1,44		2,39,14,18	
		2, 5,39,26,19, 6,47,25		9,11
42″	0,36,20,13,41,48,15,33,49, 9		2,39,23,29	
		2, 5,39,26,16,27,23,56		9,11
44″	0,36,22,19,21,14,32, 1,13, 5		2,39,32,40	
		2, 5,39,26,13,47,51,16		9,11
46″	0,36,24,25, 0,40,45,49, 4,21		2,39,41,51	
		2, 5,39,26,11, 8, 9,25		9,11
48″	0,36,26,30,40, 6,56,57,13,46		2,39,51, 2	
		2, 5,39,26, 8,28,18,23		9,11
50″	0,36,28,36,19,33, 5,25,32, 9		2,40, 0,13	
		2, 5,39,26, 5,48,18,10		9,11
52″	0,36,30,41,58,59,11,13,50,19		2,40, 9,24	
		2, 5,39,26, 3, 8, 8,46		9,11
54″	0,36,32,47,38,25,14,21,59, 5		2,40,18,35	
		2, 5,39,26, 0,27,50,11		9,11
56″	0,36,34,53,17,51,14,49,49,16		2,40,27,46	
		2, 5,39,25,57,47,22,25		9,11
58″	0,36,36,58,57,17,12,37,11,41		2,40,36,57	
		2, 5,39,25,55, 6,45,28		
60″	0,36,39, 4,36,43, 7,43,57, 9			
exact	0,36,39, 4,36,43, 7,43,42,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°35′ 0″	0,36,39, 4,36,43, 7,43,42,43			
		2, 5,39,25,52,25,57,50		
2″	0,36,41,10,16, 9, 0, 9,40,33		2,40,55,25	
		2, 5,39,25,49,45, 2,25		9,11
4″	0,36,43,15,55,34,49,54,42,58		2,41, 4,36	
		2, 5,39,25,47, 3,57,49		9,11
6″	0,36,45,21,35, 0,36,58,40,47		2,41,13,47	
		2, 5,39,25,44,22,44, 2		9,11
8″	0,36,47,27,14,26,21,21,24,49		2,41,22,58	
		2, 5,39,25,41,41,21, 4		9,11
10″	0,36,49,32,53,52, 3, 2,45,53		2,41,32, 9	
		2, 5,39,25,38,59,48,55		9,11
12″	0,36,51,38,33,17,42, 2,34,48		2,41,41,20	
		2, 5,39,25,36,18, 7,35		9,11
14″	0,36,53,44,12,43,18,20,42,23		2,41,50,31	
		2, 5,39,25,33,36,17, 4		9,11
16″	0,36,55,49,52, 8,51,56,59,27		2,41,59,42	
		2, 5,39,25,30,54,17,22		9,11
18″	0,36,57,55,31,34,22,51,16,49		2,42, 8,53	
		2, 5,39,25,28,12, 8,29		9,11
20″	0,37, 0, 1,10,59,51, 3,25,18		2,42,18, 4	
		2, 5,39,25,25,29,50,25		9,11
22″	0,37, 2, 6,50,25,16,33,15,43		2,42,27,15	
		2, 5,39,25,22,47,23,10		9,11
24″	0,37, 4,12,29,50,39,20,38,53		2,42,36,26	
		2, 5,39,25,20, 4,46,44		9,11
26″	0,37, 6,18, 9,15,59,25,25,37		2,42,45,37	
		2, 5,39,25,17,22, 1, 7		9,11
28″	0,37, 8,23,48,41,16,47,26,44		2,42,54,48	
		2, 5,39,25,14,39, 6,19		9,11
30″	0,37,10,29,28, 6,31,26,33, 3		2,43, 3,59	
		2, 5,39,25,11,56, 2,20		9,11
32″	0,37,12,35, 7,31,43,22,35,23		2,43,13,10	
		2, 5,39,25, 9,12,49,10		9,11
34″	0,37,14,40,46,56,52,35,24,33		2,43,22,21	
		2, 5,39,25, 6,29,26,49		9,11
36″	0,37,16,46,26,21,59, 4,51,22		2,43,31,32	
		2, 5,39,25, 3,45,55,17		9,11
38″	0,37,18,52, 5,47, 2,50,46,39		2,43,40,43	
		2, 5,39,25, 1, 2,14,34		9,11
40″	0,37,20,57,45,12, 3,53, 1,13		2,43,49,54	
		2, 5,39,24,58,18,24,40		9,11
42″	0,37,23, 3,24,37, 2,11,25,53		2,43,59, 5	
		2, 5,39,24,55,34,25,35		9,11
44″	0,37,25, 9, 4, 1,57,45,51,28		2,44, 8,16	
		2, 5,39,24,52,50,17,19		9,11
46″	0,37,27,14,43,26,50,36, 8,47		2,44,17,27	
		2, 5,39,24,50, 5,59,52		9,11
48″	0,37,29,20,22,51,40,42, 8,39		2,44,26,38	
		2, 5,39,24,47,21,33,14		9,11
50″	0,37,31,26, 2,16,28, 3,41,53		2,44,35,49	
		2, 5,39,24,44,36,57,25		9,11
52″	0,37,33,31,41,41,12,40,39,18		2,44,45, 0	
		2, 5,39,24,41,52,12,25		9,11
54″	0,37,35,37,21, 5,54,32,51,43		2,44,54,11	
		2, 5,39,24,39, 7,18,14		9,11
56″	0,37,37,43, 0,30,33,40, 9,57		2,45, 3,22	
		2, 5,39,24,36,22,14,52		9,11
58″	0,37,39,48,39,55,10, 2,24,49		2,45,12,33	
		2, 5,39,24,33,37, 2,19		
60″	0,37,41,54,19,19,43,39,27, 8			
exact	0,37,41,54,19,19,43,39,13,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°36′ 0″	0,37,41,54,19,19,43,39,13,46			
		2, 5,39,24,30,51,39,10		
2″	0,37,43,59,58,44,14,30,52,56		2,45,31, 1	
		2, 5,39,24,28, 6, 8, 9		9,11
4″	0,37,46, 5,38, 8,42,37, 1, 5		2,45,40,12	
		2, 5,39,24,25,20,27,57		9,11
6″	0,37,48,11,17,33, 7,57,29, 2		2,45,49,23	
		2, 5,39,24,22,34,38,34		9,11
8″	0,37,50,16,56,57,30,32, 7,36		2,45,58,34	
		2, 5,39,24,19,48,40, 0		9,11
10″	0,37,52,22,36,21,50,20,47,36		2,46, 7,45	
		2, 5,39,24,17, 2,32,15		9,11
12″	0,37,54,28,15,46, 7,23,19,51		2,46,16,56	
		2, 5,39,24,14,16,15,19		9,11
14″	0,37,56,33,55,10,21,39,35,10		2,46,26, 7	
		2, 5,39,24,11,29,49,12		9,11
16″	0,37,58,39,34,34,33, 9,24,22		2,46,35,18	
		2, 5,39,24, 8,43,13,54		9,11
18″	0,38, 0,45,13,58,41,52,38,16		2,46,44,29	
		2, 5,39,24, 5,56,29,25		9,11
20″	0,38, 2,50,53,22,47,49, 7,41		2,46,53,40	
		2, 5,39,24, 3, 9,35,45		9,11
22″	0,38, 4,56,32,46,50,58,43,26		2,47, 2,51	
		2, 5,39,24, 0,22,32,54		9,11
24″	0,38, 7, 2,12,10,51,21,16,20		2,47,12, 2	
		2, 5,39,23,57,35,20,52		9,11
26″	0,38, 9, 7,51,34,48,56,37,12		2,47,21,13	
		2, 5,39,23,54,47,59,39		9,11
28″	0,38,11,13,30,58,43,44,36,51		2,47,30,24	
		2, 5,39,23,52, 0,29,15		9,11
30″	0,38,13,19,10,22,35,45, 6, 6		2,47,39,35	
		2, 5,39,23,49,12,49,40		9,11
32″	0,38,15,24,49,46,24,57,55,46		2,47,48,46	
		2, 5,39,23,46,25, 0,54		9,11
34″	0,38,17,30,29,10,11,22,56,40		2,47,57,57	
		2, 5,39,23,43,37, 2,57		9,11
36″	0,38,19,36, 8,33,54,59,59,37		2,48, 7, 8	
		2, 5,39,23,40,48,55,49		9,11
38″	0,38,21,41,47,57,35,48,55,26		2,48,16,19	
		2, 5,39,23,38, 0,39,30		9,11
40″	0,38,23,47,27,21,13,49,34,56		2,48,25,30	
		2, 5,39,23,35,12,14, 0		9,11
42″	0,38,25,53, 6,44,49, 1,48,56		2,48,34,41	
		2, 5,39,23,32,23,39,19		9,11
44″	0,38,27,58,46, 8,21,25,28,15		2,48,43,52	
		2, 5,39,23,29,34,55,27		9,11
46″	0,38,30, 4,25,31,51, 0,23,42		2,48,53, 3	
		2, 5,39,23,26,46, 2,24		9,11
48″	0,38,32,10, 4,55,17,46,26, 6		2,49, 2,14	
		2, 5,39,23,23,57, 0,10		9,11
50″	0,38,34,15,44,18,41,43,26,16		2,49,11,25	
		2, 5,39,23,21, 7,48,45		9,11
52″	0,38,36,21,23,42, 2,51,15, 1		2,49,20,36	
		2, 5,39,23,18,18,28, 9		9,11
54″	0,38,38,27, 3, 5,21, 9,43,10		2,49,29,47	
		2, 5,39,23,15,28,58,22		9,11
56″	0,38,40,32,42,28,36,38,41,32		2,49,38,58	
		2, 5,39,23,12,39,19,24		9,11
58″	0,38,42,38,21,51,49,18, 0,56		2,49,48, 9	
		2, 5,39,23, 9,49,31,15		
60″	0,38,44,44, 1,14,59, 7,32,11			
exact	0,38,44,44, 1,14,59, 7,20,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°37′ 0″	0,38,44,44, 1,14,59, 7,20,25			
		2, 5,39,23, 6,59,32,37		
2″	0,38,46,49,40,38, 6, 6,53, 2		2,50, 6,37	
		2, 5,39,23, 4, 9,26, 0		9,11
4″	0,38,48,55,20, 1,10,16,19, 2		2,50,15,48	
		2, 5,39,23, 1,19,10,12		9,11
6″	0,38,51, 0,59,24,11,35,29,14		2,50,24,59	
		2, 5,39,22,58,28,45,13		9,11
8″	0,38,53, 6,38,47,10, 4,14,27		2,50,34,10	
		2, 5,39,22,55,38,11, 3		9,11
10″	0,38,55,12,18,10, 5,42,25,30		2,50,43,21	
		2, 5,39,22,52,47,27,42		9,11
12″	0,38,57,17,57,32,58,29,53,12		2,50,52,32	
		2, 5,39,22,49,56,35,10		9,11
14″	0,38,59,23,36,55,48,26,28,22		2,51, 1,43	
		2, 5,39,22,47, 5,33,27		9,11
16″	0,39, 1,29,16,18,35,32, 1,49		2,51,10,54	
		2, 5,39,22,44,14,22,33		9,11
18″	0,39, 3,34,55,41,19,46,24,22		2,51,20, 5	
		2, 5,39,22,41,23, 2,28		9,11
20″	0,39, 5,40,35, 4, 1, 9,26,50		2,51,29,16	
		2, 5,39,22,38,31,33,12		9,11
22″	0,39, 7,46,14,26,39,41, 0, 2		2,51,38,27	
		2, 5,39,22,35,39,54,45		9,11
24″	0,39, 9,51,53,49,15,20,54,47		2,51,47,38	
		2, 5,39,22,32,48, 7, 7		9,11
26″	0,39,11,57,33,11,48, 9, 1,54		2,51,56,49	
		2, 5,39,22,29,56,10,18		9,11
28″	0,39,14, 3,12,34,18, 5,12,12		2,52, 6, 0	
		2, 5,39,22,27, 4, 4,18		9,11
30″	0,39,16, 8,51,56,45, 9,16,30		2,52,15,11	
		2, 5,39,22,24,11,49, 7		9,11
32″	0,39,18,14,31,19, 9,21, 5,37		2,52,24,22	
		2, 5,39,22,21,19,24,45		9,11
34″	0,39,20,20,10,41,30,40,30,22		2,52,33,33	
		2, 5,39,22,18,26,51,12		9,11
36″	0,39,22,25,50, 3,49, 7,21,34		2,52,42,44	
		2, 5,39,22,15,34, 8,28		9,11
38″	0,39,24,31,29,26, 4,41,30, 2		2,52,51,55	
		2, 5,39,22,12,41,16,33		9,11
40″	0,39,26,37, 8,48,17,22,46,35		2,53, 1, 6	
		2, 5,39,22, 9,48,15,27		9,11
42″	0,39,28,42,48,10,27,11, 2, 2		2,53,10,17	
		2, 5,39,22, 6,55, 5,10		9,11
44″	0,39,30,48,27,32,34, 6, 7,12		2,53,19,28	
		2, 5,39,22, 4, 1,45,42		9,11
46″	0,39,32,54, 6,54,38, 7,52,54		2,53,28,39	
		2, 5,39,22, 1, 8,17, 3		9,11
48″	0,39,34,59,46,16,39,16, 9,57		2,53,37,50	
		2, 5,39,21,58,14,39,13		9,11
50″	0,39,37, 5,25,38,37,30,49,10		2,53,47, 1	
		2, 5,39,21,55,20,52,12		9,11
52″	0,39,39,11, 5, 0,32,51,41,22		2,53,56,12	
		2, 5,39,21,52,26,56, 0		9,11
54″	0,39,41,16,44,22,25,18,37,22		2,54, 5,23	
		2, 5,39,21,49,32,50,37		9,11
56″	0,39,43,22,23,44,14,51,27,59		2,54,14,34	
		2, 5,39,21,46,38,36, 3		9,11
58″	0,39,45,28, 3, 6, 1,30, 4, 2		2,54,23,45	
		2, 5,39,21,43,44,12,18		
60″	0,39,47,33,42,27,45,14,16,20			
exact	0,39,47,33,42,27,45,14, 6,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°38′ 0″	0,39,47,33,42,27,45,14, 6,25			
		2, 5,39,21,40,49,38,12		
2″	0,39,49,39,21,49,26, 3,44,37		2,54,42,12	
		2, 5,39,21,37,54,56, 0		9,11
4″	0,39,51,45, 1,11, 3,58,40,37		2,54,51,23	
		2, 5,39,21,35, 0, 4,37		9,11
6″	0,39,53,50,40,32,38,58,45,14		2,55, 0,34	
		2, 5,39,21,32, 5, 4, 3		9,11
8″	0,39,55,56,19,54,11, 3,49,17		2,55, 9,45	
		2, 5,39,21,29, 9,54,18		9,11
10″	0,39,58, 1,59,15,40,13,43,35		2,55,18,56	
		2, 5,39,21,26,14,35,22		9,11
12″	0,40, 0, 7,38,37, 6,28,18,57		2,55,28, 7	
		2, 5,39,21,23,19, 7,15		9,11
14″	0,40, 2,13,17,58,29,47,26,12		2,55,37,18	
		2, 5,39,21,20,23,29,57		9,11
16″	0,40, 4,18,57,19,50,10,56, 9		2,55,46,29	
		2, 5,39,21,17,27,43,28		9,11
18″	0,40, 6,24,36,41, 7,38,39,37		2,55,55,40	
		2, 5,39,21,14,31,47,48		9,11
20″	0,40, 8,30,16, 2,22,10,27,25		2,56, 4,51	
		2, 5,39,21,11,35,42,57		9,11
22″	0,40,10,35,55,23,33,46,10,22		2,56,14, 2	
		2, 5,39,21, 8,39,28,55		9,11
24″	0,40,12,41,34,44,42,25,39,17		2,56,23,13	
		2, 5,39,21, 5,43, 5,42		9,11
26″	0,40,14,47,14, 5,48, 8,44,59		2,56,32,24	
		2, 5,39,21, 2,46,33,18		9,11
28″	0,40,16,52,53,26,50,55,18,17		2,56,41,35	
		2, 5,39,20,59,49,51,43		9,11
30″	0,40,18,58,32,47,50,45,10, 0		2,56,50,46	
		2, 5,39,20,56,53, 0,57		9,11
32″	0,40,21, 4,12, 8,47,38,10,57		2,56,59,57	
		2, 5,39,20,53,56, 1, 0		9,11
34″	0,40,23, 9,51,29,41,34,11,57		2,57, 9, 8	
		2, 5,39,20,50,58,51,52		9,11
36″	0,40,25,15,30,50,32,33, 3,49		2,57,18,19	
		2, 5,39,20,48, 1,33,33		9,11
38″	0,40,27,21,10,11,20,34,37,22		2,57,27,30	
		2, 5,39,20,45, 4, 6, 3		9,11
40″	0,40,29,26,49,32, 5,38,43,25		2,57,36,41	
		2, 5,39,20,42, 6,29,22		9,11
42″	0,40,31,32,28,52,47,45,12,47		2,57,45,52	
		2, 5,39,20,39, 8,43,30		9,11
44″	0,40,33,38, 8,13,26,53,56,17		2,57,55, 3	
		2, 5,39,20,36,10,48,27		9,11
46″	0,40,35,43,47,34, 3, 4,44,44		2,58, 4,14	
		2, 5,39,20,33,12,44,13		9,11
48″	0,40,37,49,26,54,36,17,28,57		2,58,13,25	
		2, 5,39,20,30,14,30,48		9,11
50″	0,40,39,55, 6,15, 6,31,59,45		2,58,22,36	
		2, 5,39,20,27,16, 8,12		9,11
52″	0,40,42, 0,45,35,33,48, 7,57		2,58,31,47	
		2, 5,39,20,24,17,36,25		9,11
54″	0,40,44, 6,24,55,58, 5,44,22		2,58,40,58	
		2, 5,39,20,21,18,55,27		9,11
56″	0,40,46,12, 4,16,19,24,39,49		2,58,50, 9	
		2, 5,39,20,18,20, 5,18		9,11
58″	0,40,48,17,43,36,37,44,45, 7		2,58,59,20	
		2, 5,39,20,15,21, 5,58		
60″	0,40,50,23,22,56,53, 5,51, 5			
exact	0,40,50,23,22,56,53, 5,36,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°39′ 0″	0,40,50,23,22,56,53, 5,36,20			
		2, 5,39,20,12,21,55,57		
2″	0,40,52,29, 2,17, 5,27,32,17		2,59,17,48	
		2, 5,39,20, 9,22,38, 9		9,11
4″	0,40,54,34,41,37,14,50,10,26		2,59,26,59	
		2, 5,39,20, 6,23,11,10		9,11
6″	0,40,56,40,20,57,21,13,21,36		2,59,36,10	
		2, 5,39,20, 3,23,35, 0		9,11
8″	0,40,58,46, 0,17,24,36,56,36		2,59,45,21	
		2, 5,39,20, 0,23,49,39		9,11
10″	0,41, 0,51,39,37,25, 0,46,15		2,59,54,32	
		2, 5,39,19,57,23,55, 7		9,11
12″	0,41, 2,57,18,57,22,24,41,22		3, 0, 3,43	
		2, 5,39,19,54,23,51,24		9,11
14″	0,41, 5, 2,58,17,16,48,32,46		3, 0,12,54	
		2, 5,39,19,51,23,38,30		9,11
16″	0,41, 7, 8,37,37, 8,12,11,16		3, 0,22, 5	
		2, 5,39,19,48,23,16,25		9,11
18″	0,41, 9,14,16,56,56,35,27,41		3, 0,31,16	
		2, 5,39,19,45,22,45, 9		9,11
20″	0,41,11,19,56,16,41,58,12,50		3, 0,40,27	
		2, 5,39,19,42,22, 4,42		9,11
22″	0,41,13,25,35,36,24,20,17,32		3, 0,49,38	
		2, 5,39,19,39,21,15, 4		9,11
24″	0,41,15,31,14,56, 3,41,32,36		3, 0,58,49	
		2, 5,39,19,36,20,16,15		9,11
26″	0,41,17,36,54,15,40, 1,48,51		3, 1, 8, 0	
		2, 5,39,19,33,19, 8,15		9,11
28″	0,41,19,42,33,35,13,20,57, 6		3, 1,17,11	
		2, 5,39,19,30,17,51, 4		9,11
30″	0,41,21,48,12,54,43,38,48,10		3, 1,26,22	
		2, 5,39,19,27,16,24,42		9,11
32″	0,41,23,53,52,14,10,55,12,52		3, 1,35,33	
		2, 5,39,19,24,14,49, 9		9,11
34″	0,41,25,59,31,33,35,10, 2, 1		3, 1,44,44	
		2, 5,39,19,21,13, 4,25		9,11
36″	0,41,28, 5,10,52,56,23, 6,26		3, 1,53,55	
		2, 5,39,19,18,11,10,30		9,11
38″	0,41,30,10,50,12,14,34,16,56		3, 2, 3, 6	
		2, 5,39,19,15, 9, 7,24		9,11
40″	0,41,32,16,29,31,29,43,24,20		3, 2,12,17	
		2, 5,39,19,12, 6,55, 7		9,11
42″	0,41,34,22, 8,50,41,50,19,27		3, 2,21,28	
		2, 5,39,19, 9, 4,33,39		9,11
44″	0,41,36,27,48, 9,50,54,53, 6		3, 2,30,39	
		2, 5,39,19, 6, 2, 3, 0		9,11
46″	0,41,38,33,27,28,56,56,56, 6		3, 2,39,50	
		2, 5,39,19, 2,59,23,10		9,11
48″	0,41,40,39, 6,47,59,56,19,16		3, 2,49, 1	
		2, 5,39,18,59,56,34, 9		9,11
50″	0,41,42,44,46, 6,59,52,53,25		3, 2,58,12	
		2, 5,39,18,56,53,35,57		9,11
52″	0,41,44,50,25,25,56,46,29,22		3, 3, 7,23	
		2, 5,39,18,53,50,28,34		9,11
54″	0,41,46,56, 4,44,50,36,57,56		3, 3,16,34	
		2, 5,39,18,50,47,12, 0		9,11
56″	0,41,49, 1,44, 3,41,24, 9,56		3, 3,25,45	
		2, 5,39,18,47,43,46,15		9,11
58″	0,41,51, 7,23,22,29, 7,56,11		3, 3,34,56	
		2, 5,39,18,44,40,11,19		
60″	0,41,53,13, 2,41,13,48, 7,30			
exact	0,41,53,13, 2,41,13,47,55,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°40′ 0″	0,41,53,13, 2,41,13,47,55,29			
		2, 5,39,18,41,36,25,54		
2″	0,41,55,18,41,59,55,24,21,23		3, 3,53,23	
		2, 5,39,18,38,32,32,31		9,11
4″	0,41,57,24,21,18,33,56,53,54		3, 4, 2,34	
		2, 5,39,18,35,28,29,57		9,11
6″	0,41,59,30, 0,37, 9,25,23,51		3, 4,11,45	
		2, 5,39,18,32,24,18,12		9,11
8″	0,42, 1,35,39,55,41,49,42, 3		3, 4,20,56	
		2, 5,39,18,29,19,57,16		9,11
10″	0,42, 3,41,19,14,11, 9,39,19		3, 4,30, 7	
		2, 5,39,18,26,15,27, 9		9,11
12″	0,42, 5,46,58,32,37,25, 6,28		3, 4,39,18	
		2, 5,39,18,23,10,47,51		9,11
14″	0,42, 7,52,37,51, 0,35,54,19		3, 4,48,29	
		2, 5,39,18,20, 5,59,22		9,11
16″	0,42, 9,58,17, 9,20,41,53,41		3, 4,57,40	
		2, 5,39,18,17, 1, 1,42		9,11
18″	0,42,12, 3,56,27,37,42,55,23		3, 5, 6,51	
		2, 5,39,18,13,55,54,51		9,11
20″	0,42,14, 9,35,45,51,38,50,14		3, 5,16, 2	
		2, 5,39,18,10,50,38,49		9,11
22″	0,42,16,15,15, 4, 2,29,29, 3		3, 5,25,13	
		2, 5,39,18, 7,45,13,36		9,11
24″	0,42,18,20,54,22,10,14,42,39		3, 5,34,24	
		2, 5,39,18, 4,39,39,12		9,11
26″	0,42,20,26,33,40,14,54,21,51		3, 5,43,35	
		2, 5,39,18, 1,33,55,37		9,11
28″	0,42,22,32,12,58,16,28,17,28		3, 5,52,46	
		2, 5,39,17,58,28, 2,51		9,11
30″	0,42,24,37,52,16,14,56,20,19		3, 6, 1,57	
		2, 5,39,17,55,22, 0,54		9,11
32″	0,42,26,43,31,34,10,18,21,13		3, 6,11, 8	
		2, 5,39,17,52,15,49,46		9,11
34″	0,42,28,49,10,52, 2,34,10,59		3, 6,20,19	
		2, 5,39,17,49, 9,29,27		9,11
36″	0,42,30,54,50, 9,51,43,40,26		3, 6,29,30	
		2, 5,39,17,46, 2,59,57		9,11
38″	0,42,33, 0,29,27,37,46,40,23		3, 6,38,41	
		2, 5,39,17,42,56,21,16		9,11
40″	0,42,35, 6, 8,45,20,43, 1,39		3, 6,47,52	
		2, 5,39,17,39,49,33,24		9,11
42″	0,42,37,11,48, 3, 0,32,35, 3		3, 6,57, 3	
		2, 5,39,17,36,42,36,21		9,11
44″	0,42,39,17,27,20,37,15,11,24		3, 7, 6,14	
		2, 5,39,17,33,35,30, 7		9,11
46″	0,42,41,23, 6,38,10,50,41,31		3, 7,15,25	
		2, 5,39,17,30,28,14,42		9,11
48″	0,42,43,28,45,55,41,18,56,13		3, 7,24,36	
		2, 5,39,17,27,20,50, 6		9,11
50″	0,42,45,34,25,13, 8,39,46,19		3, 7,33,47	
		2, 5,39,17,24,13,16,19		9,11
52″	0,42,47,40, 4,30,32,53, 2,38		3, 7,42,58	
		2, 5,39,17,21, 5,33,21		9,11
54″	0,42,49,45,43,47,53,58,35,59		3, 7,52, 9	
		2, 5,39,17,17,57,41,12		9,11
56″	0,42,51,51,23, 5,11,56,17,11		3, 8, 1,20	
		2, 5,39,17,14,49,39,52		9,11
58″	0,42,53,57, 2,22,26,45,57, 3		3, 8,10,31	
		2, 5,39,17,11,41,29,21		
60″	0,42,56, 2,41,39,38,27,26,24			
exact	0,42,56, 2,41,39,38,27,10, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°41′ 0″	0,42,56, 2,41,39,38,27,10, 4			
		2, 5,39,17, 8,33, 8, 3		
2″	0,42,58, 8,20,56,47, 0,18, 7		3, 8,28,59	
		2, 5,39,17, 5,24,39, 4		9,11
4″	0,43, 0,14, 0,13,52,24,57,11		3, 8,38,10	
		2, 5,39,17, 2,16, 0,54		9,11
6″	0,43, 2,19,39,30,54,40,58, 5		3, 8,47,21	
		2, 5,39,16,59, 7,13,33		9,11
8″	0,43, 4,25,18,47,53,48,11,38		3, 8,56,32	
		2, 5,39,16,55,58,17, 1		9,11
10″	0,43, 6,30,58, 4,49,46,28,39		3, 9, 5,43	
		2, 5,39,16,52,49,11,18		9,11
12″	0,43, 8,36,37,21,42,35,39,57		3, 9,14,54	
		2, 5,39,16,49,39,56,24		9,11
14″	0,43,10,42,16,38,32,15,36,21		3, 9,24, 5	
		2, 5,39,16,46,30,32,19		9,11
16″	0,43,12,47,55,55,18,46, 8,40		3, 9,33,16	
		2, 5,39,16,43,20,59, 3		9,11
18″	0,43,14,53,35,12, 2, 7, 7,43		3, 9,42,27	
		2, 5,39,16,40,11,16,36		9,11
20″	0,43,16,59,14,28,42,18,24,19		3, 9,51,38	
		2, 5,39,16,37, 1,24,58		9,11
22″	0,43,19, 4,53,45,19,19,49,17		3,10, 0,49	
		2, 5,39,16,33,51,24, 9		9,11
24″	0,43,21,10,33, 1,53,11,13,26		3,10,10, 0	
		2, 5,39,16,30,41,14, 9		9,11
26″	0,43,23,16,12,18,23,52,27,35		3,10,19,11	
		2, 5,39,16,27,30,54,58		9,11
28″	0,43,25,21,51,34,51,23,22,33		3,10,28,22	
		2, 5,39,16,24,20,26,36		9,11
30″	0,43,27,27,30,51,15,43,49, 9		3,10,37,33	
		2, 5,39,16,21, 9,49, 3		9,11
32″	0,43,29,33,10, 7,36,53,38,12		3,10,46,44	
		2, 5,39,16,17,59, 2,19		9,11
34″	0,43,31,38,49,23,54,52,40,31		3,10,55,55	
		2, 5,39,16,14,48, 6,24		9,11
36″	0,43,33,44,28,40, 9,40,46,55		3,11, 5, 6	
		2, 5,39,16,11,37, 1,18		9,11
38″	0,43,35,50, 7,56,21,17,48,13		3,11,14,17	
		2, 5,39,16, 8,25,47, 1		9,11
40″	0,43,37,55,47,12,29,43,35,14		3,11,23,28	
		2, 5,39,16, 5,14,23,33		9,11
42″	0,43,40, 1,26,28,34,57,58,47		3,11,32,39	
		2, 5,39,16, 2, 2,50,54		9,11
44″	0,43,42, 7, 5,44,37, 0,49,41		3,11,41,50	
		2, 5,39,15,58,51, 9, 4		9,11
46″	0,43,44,12,45, 0,35,51,58,45		3,11,51, 1	
		2, 5,39,15,55,39,18, 3		9,11
48″	0,43,46,18,24,16,31,31,16,48		3,12, 0,12	
		2, 5,39,15,52,27,17,51		9,11
50″	0,43,48,24, 3,32,23,58,34,39		3,12, 9,23	
		2, 5,39,15,49,15, 8,28		9,11
52″	0,43,50,29,42,48,13,13,43, 7		3,12,18,34	
		2, 5,39,15,46, 2,49,54		9,11
54″	0,43,52,35,22, 3,59,16,33, 1		3,12,27,45	
		2, 5,39,15,42,50,22, 9		9,11
56″	0,43,54,41, 1,19,42, 6,55,10		3,12,36,56	
		2, 5,39,15,39,37,45,13		9,11
58″	0,43,56,46,40,35,21,44,40,23		3,12,46, 7	
		2, 5,39,15,36,24,59, 6		
60″	0,43,58,52,19,50,58, 9,39,29			
exact	0,43,58,52,19,50,58, 9,27, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°42′ 0″	0,43,58,52,19,50,58, 9,27, 3			
		2, 5,39,15,33,12, 2,28		
2″	0,44, 0,57,59, 6,31,21,29,31		3,13, 4,35	
		2, 5,39,15,29,58,57,53		9,11
4″	0,44, 3, 3,38,22, 1,20,27,24		3,13,13,46	
		2, 5,39,15,26,45,44, 7		9,11
6″	0,44, 5, 9,17,37,28, 6,11,31		3,13,22,57	
		2, 5,39,15,23,32,21,10		9,11
8″	0,44, 7,14,56,52,51,38,32,41		3,13,32, 8	
		2, 5,39,15,20,18,49, 2		9,11
10″	0,44, 9,20,36, 8,11,57,21,43		3,13,41,19	
		2, 5,39,15,17, 5, 7,43		9,11
12″	0,44,11,26,15,23,29, 2,29,26		3,13,50,30	
		2, 5,39,15,13,51,17,13		9,11
14″	0,44,13,31,54,38,42,53,46,39		3,13,59,41	
		2, 5,39,15,10,37,17,32		9,11
16″	0,44,15,37,33,53,53,31, 4,11		3,14, 8,52	
		2, 5,39,15, 7,23, 8,40		9,11
18″	0,44,17,43,13, 9, 0,54,12,51		3,14,18, 3	
		2, 5,39,15, 4, 8,50,37		9,11
20″	0,44,19,48,52,24, 5, 3, 3,28		3,14,27,14	
		2, 5,39,15, 0,54,23,23		9,11
22″	0,44,21,54,31,39, 5,57,26,51		3,14,36,25	
		2, 5,39,14,57,39,46,58		9,11
24″	0,44,24, 0,10,54, 3,37,13,49		3,14,45,36	
		2, 5,39,14,54,25, 1,22		9,11
26″	0,44,26, 5,50, 8,58, 2,15,11		3,14,54,47	
		2, 5,39,14,51,10, 6,35		9,11
28″	0,44,28,11,29,23,49,12,21,46		3,15, 3,58	
		2, 5,39,14,47,55, 2,37		9,11
30″	0,44,30,17, 8,38,37, 7,24,23		3,15,13, 9	
		2, 5,39,14,44,39,49,28		9,11
32″	0,44,32,22,47,53,21,47,13,51		3,15,22,20	
		2, 5,39,14,41,24,27, 8		9,11
34″	0,44,34,28,27, 8, 3,11,40,59		3,15,31,31	
		2, 5,39,14,38, 8,55,37		9,11
36″	0,44,36,34, 6,22,41,20,36,36		3,15,40,42	
		2, 5,39,14,34,53,14,55		9,11
38″	0,44,38,39,45,37,16,13,51,31		3,15,49,53	
		2, 5,39,14,31,37,25, 2		9,11
40″	0,44,40,45,24,51,47,51,16,33		3,15,59, 4	
		2, 5,39,14,28,21,25,58		9,11
42″	0,44,42,51, 4, 6,16,12,42,31		3,16, 8,15	
		2, 5,39,14,25, 5,17,43		9,11
44″	0,44,44,56,43,20,41,18, 0,14		3,16,17,26	
		2, 5,39,14,21,49, 0,17		9,11
46″	0,44,47, 2,22,35, 3, 7, 0,31		3,16,26,37	
		2, 5,39,14,18,32,33,40		9,11
48″	0,44,49, 8, 1,49,21,39,34,11		3,16,35,48	
		2, 5,39,14,15,15,57,52		9,11
50″	0,44,51,13,41, 3,36,55,32, 3		3,16,44,59	
		2, 5,39,14,11,59,12,53		9,11
52″	0,44,53,19,20,17,48,54,44,56		3,16,54,10	
		2, 5,39,14, 8,42,18,43		9,11
54″	0,44,55,24,59,31,57,37, 3,39		3,17, 3,21	
		2, 5,39,14, 5,25,15,22		9,11
56″	0,44,57,30,38,46, 3, 2,19, 1		3,17,12,32	
		2, 5,39,14, 2, 8, 2,50		9,11
58″	0,44,59,36,18, 0, 5,10,21,51		3,17,21,43	
		2, 5,39,13,58,50,41, 7		
60″	0,45, 1,41,57,14, 4, 1, 2,58			
exact	0,45, 1,41,57,14, 4, 0,54,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°43′ 0″	0,45, 1,41,57,14, 4, 0,54,19			
		2, 5,39,13,55,33, 9, 9		
2″	0,45, 3,47,36,27,59,34, 3,28		3,17,40,10	
		2, 5,39,13,52,15,28,59		9,11
4″	0,45, 5,53,15,41,51,49,32,27		3,17,49,21	
		2, 5,39,13,48,57,39,38		9,11
6″	0,45, 7,58,54,55,40,47,12, 5		3,17,58,32	
		2, 5,39,13,45,39,41, 6		9,11
8″	0,45,10, 4,34, 9,26,26,53,11		3,18, 7,43	
		2, 5,39,13,42,21,33,23		9,11
10″	0,45,12,10,13,23, 8,48,26,34		3,18,16,54	
		2, 5,39,13,39, 3,16,29		9,11
12″	0,45,14,15,52,36,47,51,43, 3		3,18,26, 5	
		2, 5,39,13,35,44,50,24		9,11
14″	0,45,16,21,31,50,23,36,33,27		3,18,35,16	
		2, 5,39,13,32,26,15, 8		9,11
16″	0,45,18,27,11, 3,56, 2,48,35		3,18,44,27	
		2, 5,39,13,29, 7,30,41		9,11
18″	0,45,20,32,50,17,25,10,19,16		3,18,53,38	
		2, 5,39,13,25,48,37, 3		9,11
20″	0,45,22,38,29,30,50,58,56,19		3,19, 2,49	
		2, 5,39,13,22,29,34,14		9,11
22″	0,45,24,44, 8,44,13,28,30,33		3,19,12, 0	
		2, 5,39,13,19,10,22,14		9,11
24″	0,45,26,49,47,57,32,38,52,47		3,19,21,11	
		2, 5,39,13,15,51, 1, 3		9,11
26″	0,45,28,55,27,10,48,29,53,50		3,19,30,22	
		2, 5,39,13,12,31,30,41		9,11
28″	0,45,31, 1, 6,24, 1, 1,24,31		3,19,39,33	
		2, 5,39,13, 9,11,51, 8		9,11
30″	0,45,33, 6,45,37,10,13,15,39		3,19,48,44	
		2, 5,39,13, 5,52, 2,24		9,11
32″	0,45,35,12,24,50,16, 5,18, 3		3,19,57,55	
		2, 5,39,13, 2,32, 4,29		9,11
34″	0,45,37,18, 4, 3,18,37,22,32		3,20, 7, 6	
		2, 5,39,12,59,11,57,23		9,11
36″	0,45,39,23,43,16,17,49,19,55		3,20,16,17	
		2, 5,39,12,55,51,41, 6		9,11
38″	0,45,41,29,22,29,13,41, 1, 1		3,20,25,28	
		2, 5,39,12,52,31,15,38		9,11
40″	0,45,43,35, 1,42, 6,12,16,39		3,20,34,39	
		2, 5,39,12,49,10,40,59		9,11
42″	0,45,45,40,40,54,55,22,57,38		3,20,43,50	
		2, 5,39,12,45,49,57, 9		9,11
44″	0,45,47,46,20, 7,41,12,54,47		3,20,53, 1	
		2, 5,39,12,42,29, 4, 8		9,11
46″	0,45,49,51,59,20,23,41,58,55		3,21, 2,12	
		2, 5,39,12,39, 8, 1,56		9,11
48″	0,45,51,57,38,33, 2,50, 0,51		3,21,11,23	
		2, 5,39,12,35,46,50,33		9,11
50″	0,45,54, 3,17,45,38,36,51,24		3,21,20,34	
		2, 5,39,12,32,25,29,59		9,11
52″	0,45,56, 8,56,58,11, 2,21,23		3,21,29,45	
		2, 5,39,12,29, 4, 0,14		9,11
54″	0,45,58,14,36,10,40, 6,21,37		3,21,38,56	
		2, 5,39,12,25,42,21,18		9,11
56″	0,46, 0,20,15,23, 5,48,42,55		3,21,48, 7	
		2, 5,39,12,22,20,33,11		9,11
58″	0,46, 2,25,54,35,28, 9,16, 6		3,21,57,18	
		2, 5,39,12,18,58,35,53		
60″	0,46, 4,31,33,47,47, 7,51,59			
exact	0,46, 4,31,33,47,47, 7,40,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°44′ 0″	0,46, 4,31,33,47,47, 7,40,37			
		2, 5,39,12,15,36,28, 9		
2″	0,46, 6,37,13, 0, 2,44, 8,46		3,22,15,45	
		2, 5,39,12,12,14,12,24		9,11
4″	0,46, 8,42,52,12,14,58,21,10		3,22,24,56	
		2, 5,39,12, 8,51,47,28		9,11
6″	0,46,10,48,31,24,23,50, 8,38		3,22,34, 7	
		2, 5,39,12, 5,29,13,21		9,11
8″	0,46,12,54,10,36,29,19,21,59		3,22,43,18	
		2, 5,39,12, 2, 6,30, 3		9,11
10″	0,46,14,59,49,48,31,25,52, 2		3,22,52,29	
		2, 5,39,11,58,43,37,34		9,11
12″	0,46,17, 5,29, 0,30, 9,29,36		3,23, 1,40	
		2, 5,39,11,55,20,35,54		9,11
14″	0,46,19,11, 8,12,25,30, 5,30		3,23,10,51	
		2, 5,39,11,51,57,25, 3		9,11
16″	0,46,21,16,47,24,17,27,30,33		3,23,20, 2	
		2, 5,39,11,48,34, 5, 1		9,11
18″	0,46,23,22,26,36, 6, 1,35,34		3,23,29,13	
		2, 5,39,11,45,10,35,48		9,11
20″	0,46,25,28, 5,47,51,12,11,22		3,23,38,24	
		2, 5,39,11,41,46,57,24		9,11
22″	0,46,27,33,44,59,32,59, 8,46		3,23,47,35	
		2, 5,39,11,38,23, 9,49		9,11
24″	0,46,29,39,24,11,11,22,18,35		3,23,56,46	
		2, 5,39,11,34,59,13, 3		9,11
26″	0,46,31,45, 3,22,46,21,31,38		3,24, 5,57	
		2, 5,39,11,31,35, 7, 6		9,11
28″	0,46,33,50,42,34,17,56,38,44		3,24,15, 8	
		2, 5,39,11,28,10,51,58		9,11
30″	0,46,35,56,21,45,46, 7,30,42		3,24,24,19	
		2, 5,39,11,24,46,27,39		9,11
32″	0,46,38, 2, 0,57,10,53,58,21		3,24,33,30	
		2, 5,39,11,21,21,54, 9		9,11
34″	0,46,40, 7,40, 8,32,15,52,30		3,24,42,41	
		2, 5,39,11,17,57,11,28		9,11
36″	0,46,42,13,19,19,50,13, 3,58		3,24,51,52	
		2, 5,39,11,14,32,19,36		9,11
38″	0,46,44,18,58,31, 4,45,23,34		3,25, 1, 3	
		2, 5,39,11,11, 7,18,33		9,11
40″	0,46,46,24,37,42,15,52,42, 7		3,25,10,14	
		2, 5,39,11, 7,42, 8,19		9,11
42″	0,46,48,30,16,53,23,34,50,26		3,25,19,25	
		2, 5,39,11, 4,16,48,54		9,11
44″	0,46,50,35,56, 4,27,51,39,20		3,25,28,36	
		2, 5,39,11, 0,51,20,18		9,11
46″	0,46,52,41,35,15,28,42,59,38		3,25,37,47	
		2, 5,39,10,57,25,42,31		9,11
48″	0,46,54,47,14,26,26, 8,42, 9		3,25,46,58	
		2, 5,39,10,53,59,55,33		9,11
50″	0,46,56,52,53,37,20, 8,37,42		3,25,56, 9	
		2, 5,39,10,50,33,59,24		9,11
52″	0,46,58,58,32,48,10,42,37, 6		3,26, 5,20	
		2, 5,39,10,47, 7,54, 4		9,11
54″	0,47, 1, 4,11,58,57,50,31,10		3,26,14,31	
		2, 5,39,10,43,41,39,33		9,11
56″	0,47, 3, 9,51, 9,41,32,10,43		3,26,23,42	
		2, 5,39,10,40,15,15,51		9,11
58″	0,47, 5,15,30,20,21,47,26,34		3,26,32,53	
		2, 5,39,10,36,48,42,58		
60″	0,47, 7,21, 9,30,58,36, 9,32			
exact	0,47, 7,21, 9,30,58,35,55,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°45′ 0″	0,47, 7,21, 9,30,58,35,55,35			
		2, 5,39,10,33,21,59,29		
2″	0,47, 9,26,48,41,31,57,55, 4		3,26,51,21	
		2, 5,39,10,29,55, 8, 8		9,11
4″	0,47,11,32,27,52, 1,53, 3,12		3,27, 0,32	
		2, 5,39,10,26,28, 7,36		9,11
6″	0,47,13,38, 7, 2,28,21,10,48		3,27, 9,43	
		2, 5,39,10,23, 0,57,53		9,11
8″	0,47,15,43,46,12,51,22, 8,41		3,27,18,54	
		2, 5,39,10,19,33,38,59		9,11
10″	0,47,17,49,25,23,10,55,47,40		3,27,28, 5	
		2, 5,39,10,16, 6,10,54		9,11
12″	0,47,19,55, 4,33,27, 1,58,34		3,27,37,16	
		2, 5,39,10,12,38,33,38		9,11
14″	0,47,22, 0,43,43,39,40,32,12		3,27,46,27	
		2, 5,39,10, 9,10,47,11		9,11
16″	0,47,24, 6,22,53,48,51,19,23		3,27,55,38	
		2, 5,39,10, 5,42,51,33		9,11
18″	0,47,26,12, 2, 3,54,34,10,56		3,28, 4,49	
		2, 5,39,10, 2,14,46,44		9,11
20″	0,47,28,17,41,13,56,48,57,40		3,28,14, 0	
		2, 5,39, 9,58,46,32,44		9,11
22″	0,47,30,23,20,23,55,35,30,24		3,28,23,11	
		2, 5,39, 9,55,18, 9,33		9,11
24″	0,47,32,28,59,33,50,53,39,57		3,28,32,22	
		2, 5,39, 9,51,49,37,11		9,11
26″	0,47,34,34,38,43,42,43,17, 8		3,28,41,33	
		2, 5,39, 9,48,20,55,38		9,11
28″	0,47,36,40,17,53,31, 4,12,46		3,28,50,44	
		2, 5,39, 9,44,52, 4,54		9,11
30″	0,47,38,45,57, 3,15,56,17,40		3,28,59,55	
		2, 5,39, 9,41,23, 4,59		9,11
32″	0,47,40,51,36,12,57,19,22,39		3,29, 9, 6	
		2, 5,39, 9,37,53,55,53		9,11
34″	0,47,42,57,15,22,35,13,18,32		3,29,18,17	
		2, 5,39, 9,34,24,37,36		9,11
36″	0,47,45, 2,54,32, 9,37,56, 8		3,29,27,28	
		2, 5,39, 9,30,55,10, 8		9,11
38″	0,47,47, 8,33,41,40,33, 6,16		3,29,36,39	
		2, 5,39, 9,27,25,33,29		9,11
40″	0,47,49,14,12,51, 7,58,39,45		3,29,45,50	
		2, 5,39, 9,23,55,47,39		9,11
42″	0,47,51,19,52, 0,31,54,27,24		3,29,55, 1	
		2, 5,39, 9,20,25,52,38		9,11
44″	0,47,53,25,31, 9,52,20,20, 2		3,30, 4,12	
		2, 5,39, 9,16,55,48,26		9,11
46″	0,47,55,31,10,19, 9,16, 8,28		3,30,13,23	
		2, 5,39, 9,13,25,35, 3		9,11
48″	0,47,57,36,49,28,22,41,43,31		3,30,22,34	
		2, 5,39, 9, 9,55,12,29		9,11
50″	0,47,59,42,28,37,32,36,56, 0		3,30,31,45	
		2, 5,39, 9, 6,24,40,44		9,11
52″	0,48, 1,48, 7,46,39, 1,36,44		3,30,40,56	
		2, 5,39, 9, 2,53,59,48		9,11
54″	0,48, 3,53,46,55,41,55,36,32		3,30,50, 7	
		2, 5,39, 8,59,23, 9,41		9,11
56″	0,48, 5,59,26, 4,41,18,46,13		3,30,59,18	
		2, 5,39, 8,55,52,10,23		9,11
58″	0,48, 8, 5, 5,13,37,10,56,36		3,31, 8,29	
		2, 5,39, 8,52,21, 1,54		
60″	0,48,10,10,44,22,29,31,58,30			
exact	0,48,10,10,44,22,29,31,49,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°46′ 0″	0,48,10,10,44,22,29,31,49,47			
		2, 5,39, 8,48,49,43,11		
2″	0,48,12,16,23,31,18,21,32,58		3,31,26,56	
		2, 5,39, 8,45,18,16,15		9,11
4″	0,48,14,22, 2,40, 3,39,49,13		3,31,36, 7	
		2, 5,39, 8,41,46,40, 8		9,11
6″	0,48,16,27,41,48,45,26,29,21		3,31,45,18	
		2, 5,39, 8,38,14,54,50		9,11
8″	0,48,18,33,20,57,23,41,24,11		3,31,54,29	
		2, 5,39, 8,34,43, 0,21		9,11
10″	0,48,20,39, 0, 5,58,24,24,32		3,32, 3,40	
		2, 5,39, 8,31,10,56,41		9,11
12″	0,48,22,44,39,14,29,35,21,13		3,32,12,51	
		2, 5,39, 8,27,38,43,50		9,11
14″	0,48,24,50,18,22,57,14, 5, 3		3,32,22, 2	
		2, 5,39, 8,24, 6,21,48		9,11
16″	0,48,26,55,57,31,21,20,26,51		3,32,31,13	
		2, 5,39, 8,20,33,50,35		9,11
18″	0,48,29, 1,36,39,41,54,17,26		3,32,40,24	
		2, 5,39, 8,17, 1,10,11		9,11
20″	0,48,31, 7,15,47,58,55,27,37		3,32,49,35	
		2, 5,39, 8,13,28,20,36		9,11
22″	0,48,33,12,54,56,12,23,48,13		3,32,58,46	
		2, 5,39, 8, 9,55,21,50		9,11
24″	0,48,35,18,34, 4,22,19,10, 3		3,33, 7,57	
		2, 5,39, 8, 6,22,13,53		9,11
26″	0,48,37,24,13,12,28,41,23,56		3,33,17, 8	
		2, 5,39, 8, 2,48,56,45		9,11
28″	0,48,39,29,52,20,31,30,20,41		3,33,26,19	
		2, 5,39, 7,59,15,30,26		9,11
30″	0,48,41,35,31,28,30,45,51, 7		3,33,35,30	
		2, 5,39, 7,55,41,54,56		9,11
32″	0,48,43,41,10,36,26,27,46, 3		3,33,44,41	
		2, 5,39, 7,52, 8,10,15		9,11
34″	0,48,45,46,49,44,18,35,56,18		3,33,53,52	
		2, 5,39, 7,48,34,16,23		9,11
36″	0,48,47,52,28,52, 7,10,12,41		3,34, 3, 3	
		2, 5,39, 7,45, 0,13,20		9,11
38″	0,48,49,58, 7,59,52,10,26, 1		3,34,12,14	
		2, 5,39, 7,41,26, 1, 6		9,11
40″	0,48,52, 3,47, 7,33,36,27, 7		3,34,21,25	
		2, 5,39, 7,37,51,39,41		9,11
42″	0,48,54, 9,26,15,11,28, 6,48		3,34,30,36	
		2, 5,39, 7,34,17, 9, 5		9,11
44″	0,48,56,15, 5,22,45,45,15,53		3,34,39,47	
		2, 5,39, 7,30,42,29,18		9,11
46″	0,48,58,20,44,30,16,27,45,11		3,34,48,58	
		2, 5,39, 7,27, 7,40,20		9,11
48″	0,49, 0,26,23,37,43,35,25,31		3,34,58, 9	
		2, 5,39, 7,23,32,42,11		9,11
50″	0,49, 2,32, 2,45, 7, 8, 7,42		3,35, 7,20	
		2, 5,39, 7,19,57,34,51		9,11
52″	0,49, 4,37,41,52,27, 5,42,33		3,35,16,31	
		2, 5,39, 7,16,22,18,20		9,11
54″	0,49, 6,43,20,59,43,28, 0,53		3,35,25,42	
		2, 5,39, 7,12,46,52,38		9,11
56″	0,49, 8,49, 0, 6,56,14,53,31		3,35,34,53	
		2, 5,39, 7, 9,11,17,45		9,11
58″	0,49,10,54,39,14, 5,26,11,16		3,35,44, 4	
		2, 5,39, 7, 5,35,33,41		
60″	0,49,13, 0,18,21,11, 1,44,57			
exact	0,49,13, 0,18,21,11, 1,34,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°47′ 0″	0,49,13, 0,18,21,11, 1,34,45			
		2, 5,39, 7, 1,59,39,17		
2″	0,49,15, 5,57,28,13, 1,14, 2		3,36, 2,31	
		2, 5,39, 6,58,23,36,46		9,11
4″	0,49,17,11,36,35,11,24,50,48		3,36,11,42	
		2, 5,39, 6,54,47,25, 4		9,11
6″	0,49,19,17,15,42, 6,12,15,52		3,36,20,53	
		2, 5,39, 6,51,11, 4,11		9,11
8″	0,49,21,22,54,48,57,23,20, 3		3,36,30, 4	
		2, 5,39, 6,47,34,34, 7		9,11
10″	0,49,23,28,33,55,44,57,54,10		3,36,39,15	
		2, 5,39, 6,43,57,54,52		9,11
12″	0,49,25,34,13, 2,28,55,49, 2		3,36,48,26	
		2, 5,39, 6,40,21, 6,26		9,11
14″	0,49,27,39,52, 9, 9,16,55,28		3,36,57,37	
		2, 5,39, 6,36,44, 8,49		9,11
16″	0,49,29,45,31,15,46, 1, 4,17		3,37, 6,48	
		2, 5,39, 6,33, 7, 2, 1		9,11
18″	0,49,31,51,10,22,19, 8, 6,18		3,37,15,59	
		2, 5,39, 6,29,29,46, 2		9,11
20″	0,49,33,56,49,28,48,37,52,20		3,37,25,10	
		2, 5,39, 6,25,52,20,52		9,11
22″	0,49,36, 2,28,35,14,30,13,12		3,37,34,21	
		2, 5,39, 6,22,14,46,31		9,11
24″	0,49,38, 8, 7,41,36,44,59,43		3,37,43,32	
		2, 5,39, 6,18,37, 2,59		9,11
26″	0,49,40,13,46,47,55,22, 2,42		3,37,52,43	
		2, 5,39, 6,14,59,10,16		9,11
28″	0,49,42,19,25,54,10,21,12,58		3,38, 1,54	
		2, 5,39, 6,11,21, 8,22		9,11
30″	0,49,44,25, 5, 0,21,42,21,20		3,38,11, 5	
		2, 5,39, 6, 7,42,57,17		9,11
32″	0,49,46,30,44, 6,29,25,18,37		3,38,20,16	
		2, 5,39, 6, 4, 4,37, 1		9,11
34″	0,49,48,36,23,12,33,29,55,38		3,38,29,27	
		2, 5,39, 6, 0,26, 7,34		9,11
36″	0,49,50,42, 2,18,33,56, 3,12		3,38,38,38	
		2, 5,39, 5,56,47,28,56		9,11
38″	0,49,52,47,41,24,30,43,32, 8		3,38,47,49	
		2, 5,39, 5,53, 8,41, 7		9,11
40″	0,49,54,53,20,30,23,52,13,15		3,38,57, 0	
		2, 5,39, 5,49,29,44, 7		9,11
42″	0,49,56,58,59,36,13,21,57,22		3,39, 6,11	
		2, 5,39, 5,45,50,37,56		9,11
44″	0,49,59, 4,38,41,59,12,35,18		3,39,15,22	
		2, 5,39, 5,42,11,22,34		9,11
46″	0,50, 1,10,17,47,41,23,57,52		3,39,24,33	
		2, 5,39, 5,38,31,58, 1		9,11
48″	0,50, 3,15,56,53,19,55,55,53		3,39,33,44	
		2, 5,39, 5,34,52,24,17		9,11
50″	0,50, 5,21,35,58,54,48,20,10		3,39,42,55	
		2, 5,39, 5,31,12,41,22		9,11
52″	0,50, 7,27,15, 4,26, 1, 1,32		3,39,52, 6	
		2, 5,39, 5,27,32,49,16		9,11
54″	0,50, 9,32,54, 9,53,33,50,48		3,40, 1,17	
		2, 5,39, 5,23,52,47,59		9,11
56″	0,50,11,38,33,15,17,26,38,47		3,40,10,28	
		2, 5,39, 5,20,12,37,31		9,11
58″	0,50,13,44,12,20,37,39,16,18		3,40,19,39	
		2, 5,39, 5,16,32,17,52		
60″	0,50,15,49,51,25,54,11,34,10			
exact	0,50,15,49,51,25,54,11,22,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°48′ 0″	0,50,15,49,51,25,54,11,22,57			
		2, 5,39, 5,12,51,47,49		
2″	0,50,17,55,30,31, 7, 3,10,46		3,40,38, 6	
		2, 5,39, 5, 9,11, 9,43		9,11
4″	0,50,20, 1, 9,36,16,14,20,29		3,40,47,17	
		2, 5,39, 5, 5,30,22,26		9,11
6″	0,50,22, 6,48,41,21,44,42,55		3,40,56,28	
		2, 5,39, 5, 1,49,25,58		9,11
8″	0,50,24,12,27,46,23,34, 8,53		3,41, 5,39	
		2, 5,39, 4,58, 8,20,19		9,11
10″	0,50,26,18, 6,51,21,42,29,12		3,41,14,50	
		2, 5,39, 4,54,27, 5,29		9,11
12″	0,50,28,23,45,56,16, 9,34,41		3,41,24, 1	
		2, 5,39, 4,50,45,41,28		9,11
14″	0,50,30,29,25, 1, 6,55,16, 9		3,41,33,12	
		2, 5,39, 4,47, 4, 8,16		9,11
16″	0,50,32,35, 4, 5,53,59,24,25		3,41,42,23	
		2, 5,39, 4,43,22,25,53		9,11
18″	0,50,34,40,43,10,37,21,50,18		3,41,51,34	
		2, 5,39, 4,39,40,34,19		9,11
20″	0,50,36,46,22,15,17, 2,24,37		3,42, 0,45	
		2, 5,39, 4,35,58,33,34		9,11
22″	0,50,38,52, 1,19,53, 0,58,11		3,42, 9,56	
		2, 5,39, 4,32,16,23,38		9,11
24″	0,50,40,57,40,24,25,17,21,49		3,42,19, 7	
		2, 5,39, 4,28,34, 4,31		9,11
26″	0,50,43, 3,19,28,53,51,26,20		3,42,28,18	
		2, 5,39, 4,24,51,36,13		9,11
28″	0,50,45, 8,58,33,18,43, 2,33		3,42,37,29	
		2, 5,39, 4,21, 8,58,44		9,11
30″	0,50,47,14,37,37,39,52, 1,17		3,42,46,40	
		2, 5,39, 4,17,26,12, 4		9,11
32″	0,50,49,20,16,41,57,18,13,21		3,42,55,51	
		2, 5,39, 4,13,43,16,13		9,11
34″	0,50,51,25,55,46,11, 1,29,34		3,43, 5, 2	
		2, 5,39, 4,10, 0,11,11		9,11
36″	0,50,53,31,34,50,21, 1,40,45		3,43,14,13	
		2, 5,39, 4, 6,16,56,58		9,11
38″	0,50,55,37,13,54,27,18,37,43		3,43,23,24	
		2, 5,39, 4, 2,33,33,34		9,11
40″	0,50,57,42,52,58,29,52,11,17		3,43,32,35	
		2, 5,39, 3,58,50, 0,59		9,11
42″	0,50,59,48,32, 2,28,42,12,16		3,43,41,46	
		2, 5,39, 3,55, 6,19,13		9,11
44″	0,51, 1,54,11, 6,23,48,31,29		3,43,50,57	
		2, 5,39, 3,51,22,28,16		9,11
46″	0,51, 3,59,50,10,15,10,59,45		3,44, 0, 8	
		2, 5,39, 3,47,38,28, 8		9,11
48″	0,51, 6, 5,29,14, 2,49,27,53		3,44, 9,19	
		2, 5,39, 3,43,54,18,49		9,11
50″	0,51, 8,11, 8,17,46,43,46,42		3,44,18,30	
		2, 5,39, 3,40,10, 0,19		9,11
52″	0,51,10,16,47,21,26,53,47, 1		3,44,27,41	
		2, 5,39, 3,36,25,32,38		9,11
54″	0,51,12,22,26,25, 3,19,19,39		3,44,36,52	
		2, 5,39, 3,32,40,55,46		9,11
56″	0,51,14,28, 5,28,36, 0,15,25		3,44,46, 3	
		2, 5,39, 3,28,56, 9,43		9,11
58″	0,51,16,33,44,32, 4,56,25, 8		3,44,55,14	
		2, 5,39, 3,25,11,14,29		
60″	0,51,18,39,23,35,30, 7,39,37			
exact	0,51,18,39,23,35,30, 7,27,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°49′ 0″	0,51,18,39,23,35,30, 7,27,51			
		2, 5,39, 3,21,26, 8,49		
2″	0,51,20,45, 2,38,51,33,36,40		3,45,13,41	
		2, 5,39, 3,17,40,55, 8		9,11
4″	0,51,22,50,41,42, 9,14,31,48		3,45,22,52	
		2, 5,39, 3,13,55,32,16		9,11
6″	0,51,24,56,20,45,23,10, 4, 4		3,45,32, 3	
		2, 5,39, 3,10,10, 0,13		9,11
8″	0,51,27, 1,59,48,33,20, 4,17		3,45,41,14	
		2, 5,39, 3, 6,24,18,59		9,11
10″	0,51,29, 7,38,51,39,44,23,16		3,45,50,25	
		2, 5,39, 3, 2,38,28,34		9,11
12″	0,51,31,13,17,54,42,22,51,50		3,45,59,36	
		2, 5,39, 2,58,52,28,58		9,11
14″	0,51,33,18,56,57,41,15,20,48		3,46, 8,47	
		2, 5,39, 2,55, 6,20,11		9,11
16″	0,51,35,24,36, 0,36,21,40,59		3,46,17,58	
		2, 5,39, 2,51,20, 2,13		9,11
18″	0,51,37,30,15, 3,27,41,43,12		3,46,27, 9	
		2, 5,39, 2,47,33,35, 4		9,11
20″	0,51,39,35,54, 6,15,15,18,16		3,46,36,20	
		2, 5,39, 2,43,46,58,44		9,11
22″	0,51,41,41,33, 8,59, 2,17, 0		3,46,45,31	
		2, 5,39, 2,40, 0,13,13		9,11
24″	0,51,43,47,12,11,39, 2,30,13		3,46,54,42	
		2, 5,39, 2,36,13,18,31		9,11
26″	0,51,45,52,51,14,15,15,48,44		3,47, 3,53	
		2, 5,39, 2,32,26,14,38		9,11
28″	0,51,47,58,30,16,47,42, 3,22		3,47,13, 4	
		2, 5,39, 2,28,39, 1,34		9,11
30″	0,51,50, 4, 9,19,16,21, 4,56		3,47,22,15	
		2, 5,39, 2,24,51,39,19		9,11
32″	0,51,52, 9,48,21,41,12,44,15		3,47,31,26	
		2, 5,39, 2,21, 4, 7,53		9,11
34″	0,51,54,15,27,24, 2,16,52, 8		3,47,40,37	
		2, 5,39, 2,17,16,27,16		9,11
36″	0,51,56,21, 6,26,19,33,19,24		3,47,49,48	
		2, 5,39, 2,13,28,37,28		9,11
38″	0,51,58,26,45,28,33, 1,56,52		3,47,58,59	
		2, 5,39, 2, 9,40,38,29		9,11
40″	0,52, 0,32,24,30,42,42,35,21		3,48, 8,10	
		2, 5,39, 2, 5,52,30,19		9,11
42″	0,52, 2,38, 3,32,48,35, 5,40		3,48,17,21	
		2, 5,39, 2, 2, 4,12,58		9,11
44″	0,52, 4,43,42,34,50,39,18,38		3,48,26,32	
		2, 5,39, 1,58,15,46,26		9,11
46″	0,52, 6,49,21,36,48,55, 5, 4		3,48,35,43	
		2, 5,39, 1,54,27,10,43		9,11
48″	0,52, 8,55, 0,38,43,22,15,47		3,48,44,54	
		2, 5,39, 1,50,38,25,49		9,11
50″	0,52,11, 0,39,40,34, 0,41,36		3,48,54, 5	
		2, 5,39, 1,46,49,31,44		9,11
52″	0,52,13, 6,18,42,20,50,13,20		3,49, 3,16	
		2, 5,39, 1,43, 0,28,28		9,11
54″	0,52,15,11,57,44, 3,50,41,48		3,49,12,27	
		2, 5,39, 1,39,11,16, 1		9,11
56″	0,52,17,17,36,45,43, 1,57,49		3,49,21,38	
		2, 5,39, 1,35,21,54,23		9,11
58″	0,52,19,23,15,47,18,23,52,12		3,49,30,49	
		2, 5,39, 1,31,32,23,34		
60″	0,52,21,28,54,48,49,56,15,46			
exact	0,52,21,28,54,48,49,56, 3,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°50′ 0″	0,52,21,28,54,48,49,56, 3,56			
		2, 5,39, 1,27,42,42,19		
2″	0,52,23,34,33,50,17,38,46,15		3,49,49,16	
		2, 5,39, 1,23,52,53, 3		9,11
4″	0,52,25,40,12,51,41,31,39,18		3,49,58,27	
		2, 5,39, 1,20, 2,54,36		9,11
6″	0,52,27,45,51,53, 1,34,33,54		3,50, 7,38	
		2, 5,39, 1,16,12,46,58		9,11
8″	0,52,29,51,30,54,17,47,20,52		3,50,16,49	
		2, 5,39, 1,12,22,30, 9		9,11
10″	0,52,31,57, 9,55,30, 9,51, 1		3,50,26, 0	
		2, 5,39, 1, 8,32, 4, 9		9,11
12″	0,52,34, 2,48,56,38,41,55,10		3,50,35,11	
		2, 5,39, 1, 4,41,28,58		9,11
14″	0,52,36, 8,27,57,43,23,24, 8		3,50,44,22	
		2, 5,39, 1, 0,50,44,36		9,11
16″	0,52,38,14, 6,58,44,14, 8,44		3,50,53,33	
		2, 5,39, 0,56,59,51, 3		9,11
18″	0,52,40,19,45,59,41,13,59,47		3,51, 2,44	
		2, 5,39, 0,53, 8,48,19		9,11
20″	0,52,42,25,25, 0,34,22,48, 6		3,51,11,55	
		2, 5,39, 0,49,17,36,24		9,11
22″	0,52,44,31, 4, 1,23,40,24,30		3,51,21, 6	
		2, 5,39, 0,45,26,15,18		9,11
24″	0,52,46,36,43, 2, 9, 6,39,48		3,51,30,17	
		2, 5,39, 0,41,34,45, 1		9,11
26″	0,52,48,42,22, 2,50,41,24,49		3,51,39,28	
		2, 5,39, 0,37,43, 5,33		9,11
28″	0,52,50,48, 1, 3,28,24,30,22		3,51,48,39	
		2, 5,39, 0,33,51,16,54		9,11
30″	0,52,52,53,40, 4, 2,15,47,16		3,51,57,50	
		2, 5,39, 0,29,59,19, 4		9,11
32″	0,52,54,59,19, 4,32,15, 6,20		3,52, 7, 1	
		2, 5,39, 0,26, 7,12, 3		9,11
34″	0,52,57, 4,58, 4,58,22,18,23		3,52,16,12	
		2, 5,39, 0,22,14,55,51		9,11
36″	0,52,59,10,37, 5,20,37,14,14		3,52,25,23	
		2, 5,39, 0,18,22,30,28		9,11
38″	0,53, 1,16,16, 5,38,59,44,42		3,52,34,34	
		2, 5,39, 0,14,29,55,54		9,11
40″	0,53, 3,21,55, 5,53,29,40,36		3,52,43,45	
		2, 5,39, 0,10,37,12, 9		9,11
42″	0,53, 5,27,34, 6, 4, 6,52,45		3,52,52,56	
		2, 5,39, 0, 6,44,19,13		9,11
44″	0,53, 7,33,13, 6,10,51,11,58		3,53, 2, 7	
		2, 5,39, 0, 2,51,17, 6		9,11
46″	0,53, 9,38,52, 6,13,42,29, 4		3,53,11,18	
		2, 5,38,59,58,58, 5,48		9,11
48″	0,53,11,44,31, 6,12,40,34,52		3,53,20,29	
		2, 5,38,59,55, 4,45,19		9,11
50″	0,53,13,50,10, 6, 7,45,20,11		3,53,29,40	
		2, 5,38,59,51,11,15,39		9,11
52″	0,53,15,55,49, 5,58,56,35,50		3,53,38,51	
		2, 5,38,59,47,17,36,48		9,11
54″	0,53,18, 1,28, 5,46,14,12,38		3,53,48, 2	
		2, 5,38,59,43,23,48,46		9,11
56″	0,53,20, 7, 7, 5,29,38, 1,24		3,53,57,13	
		2, 5,38,59,39,29,51,33		9,11
58″	0,53,22,12,46, 5, 9, 7,52,57		3,54, 6,24	
		2, 5,38,59,35,35,45, 9		
60″	0,53,24,18,25, 4,44,43,38, 6			
exact	0,53,24,18,25, 4,44,43,26,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°51′ 0″	0,53,24,18,25, 4,44,43,26,42			
		2, 5,38,59,31,41,28,21		
2″	0,53,26,24, 4, 4,16,24,55, 3		3,54,24,51	
		2, 5,38,59,27,47, 3,30		9,11
4″	0,53,28,29,43, 3,44,11,58,33		3,54,34, 2	
		2, 5,38,59,23,52,29,28		9,11
6″	0,53,30,35,22, 3, 8, 4,28, 1		3,54,43,13	
		2, 5,38,59,19,57,46,15		9,11
8″	0,53,32,41, 1, 2,28, 2,14,16		3,54,52,24	
		2, 5,38,59,16, 2,53,51		9,11
10″	0,53,34,46,40, 1,44, 5, 8, 7		3,55, 1,35	
		2, 5,38,59,12, 7,52,16		9,11
12″	0,53,36,52,19, 0,56,13, 0,23		3,55,10,46	
		2, 5,38,59, 8,12,41,30		9,11
14″	0,53,38,57,58, 0, 4,25,41,53		3,55,19,57	
		2, 5,38,59, 4,17,21,33		9,11
16″	0,53,41, 3,36,59, 8,43, 3,26		3,55,29, 8	
		2, 5,38,59, 0,21,52,25		9,11
18″	0,53,43, 9,15,58, 9, 4,55,51		3,55,38,19	
		2, 5,38,58,56,26,14, 6		9,11
20″	0,53,45,14,54,57, 5,31, 9,57		3,55,47,30	
		2, 5,38,58,52,30,26,36		9,11
22″	0,53,47,20,33,55,58, 1,36,33		3,55,56,41	
		2, 5,38,58,48,34,29,55		9,11
24″	0,53,49,26,12,54,46,36, 6,28		3,56, 5,52	
		2, 5,38,58,44,38,24, 3		9,11
26″	0,53,51,31,51,53,31,14,30,31		3,56,15, 3	
		2, 5,38,58,40,42, 9, 0		9,11
28″	0,53,53,37,30,52,11,56,39,31		3,56,24,14	
		2, 5,38,58,36,45,44,46		9,11
30″	0,53,55,43, 9,50,48,42,24,17		3,56,33,25	
		2, 5,38,58,32,49,11,21		9,11
32″	0,53,57,48,48,49,21,31,35,38		3,56,42,36	
		2, 5,38,58,28,52,28,45		9,11
34″	0,53,59,54,27,47,50,24, 4,23		3,56,51,47	
		2, 5,38,58,24,55,36,58		9,11
36″	0,54, 2, 0, 6,46,15,19,41,21		3,57, 0,58	
		2, 5,38,58,20,58,36, 0		9,11
38″	0,54, 4, 5,45,44,36,18,17,21		3,57,10, 9	
		2, 5,38,58,17, 1,25,51		9,11
40″	0,54, 6,11,24,42,53,19,43,12		3,57,19,20	
		2, 5,38,58,13, 4, 6,31		9,11
42″	0,54, 8,17, 3,41, 6,23,49,43		3,57,28,31	
		2, 5,38,58, 9, 6,38, 0		9,11
44″	0,54,10,22,42,39,15,30,27,43		3,57,37,42	
		2, 5,38,58, 5, 9, 0,18		9,11
46″	0,54,12,28,21,37,20,39,28, 1		3,57,46,53	
		2, 5,38,58, 1,11,13,25		9,11
48″	0,54,14,34, 0,35,21,50,41,26		3,57,56, 4	
		2, 5,38,57,57,13,17,21		9,11
50″	0,54,16,39,39,33,19, 3,58,47		3,58, 5,15	
		2, 5,38,57,53,15,12, 6		9,11
52″	0,54,18,45,18,31,12,19,10,53		3,58,14,26	
		2, 5,38,57,49,16,57,40		9,11
54″	0,54,20,50,57,29, 1,36, 8,33		3,58,23,37	
		2, 5,38,57,45,18,34, 3		9,11
56″	0,54,22,56,36,26,46,54,42,36		3,58,32,48	
		2, 5,38,57,41,20, 1,15		9,11
58″	0,54,25, 2,15,24,28,14,43,51		3,58,41,59	
		2, 5,38,57,37,21,19,16		
60″	0,54,27, 7,54,22, 5,36, 3, 7			
exact	0,54,27, 7,54,22, 5,35,52,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°52′ 0″	0,54,27, 7,54,22, 5,35,52,42			
		2, 5,38,57,33,22,26,58		
2″	0,54,29,13,33,19,38,58,19,40		3,59, 0,26	
		2, 5,38,57,29,23,26,32		9,11
4″	0,54,31,19,12,17, 8,21,46,12		3,59, 9,37	
		2, 5,38,57,25,24,16,55		9,11
6″	0,54,33,24,51,14,33,46, 3, 7		3,59,18,48	
		2, 5,38,57,21,24,58, 7		9,11
8″	0,54,35,30,30,11,55,11, 1,14		3,59,27,59	
		2, 5,38,57,17,25,30, 8		9,11
10″	0,54,37,36, 9, 9,12,36,31,22		3,59,37,10	
		2, 5,38,57,13,25,52,58		9,11
12″	0,54,39,41,48, 6,26, 2,24,20		3,59,46,21	
		2, 5,38,57, 9,26, 6,37		9,11
14″	0,54,41,47,27, 3,35,28,30,57		3,59,55,32	
		2, 5,38,57, 5,26,11, 5		9,11
16″	0,54,43,53, 6, 0,40,54,42, 2		4, 0, 4,43	
		2, 5,38,57, 1,26, 6,22		9,11
18″	0,54,45,58,44,57,42,20,48,24		4, 0,13,54	
		2, 5,38,56,57,25,52,28		9,11
20″	0,54,48, 4,23,54,39,46,40,52		4, 0,23, 5	
		2, 5,38,56,53,25,29,23		9,11
22″	0,54,50,10, 2,51,33,12,10,15		4, 0,32,16	
		2, 5,38,56,49,24,57, 7		9,11
24″	0,54,52,15,41,48,22,37, 7,22		4, 0,41,27	
		2, 5,38,56,45,24,15,40		9,11
26″	0,54,54,21,20,45, 8, 1,23, 2		4, 0,50,38	
		2, 5,38,56,41,23,25, 2		9,11
28″	0,54,56,26,59,41,49,24,48, 4		4, 0,59,49	
		2, 5,38,56,37,22,25,13		9,11
30″	0,54,58,32,38,38,26,47,13,17		4, 1, 9, 0	
		2, 5,38,56,33,21,16,13		9,11
32″	0,55, 0,38,17,35, 0, 8,29,30		4, 1,18,11	
		2, 5,38,56,29,19,58, 2		9,11
34″	0,55, 2,43,56,31,29,28,27,32		4, 1,27,22	
		2, 5,38,56,25,18,30,40		9,11
36″	0,55, 4,49,35,27,54,46,58,12		4, 1,36,33	
		2, 5,38,56,21,16,54, 7		9,11
38″	0,55, 6,55,14,24,16, 3,52,19		4, 1,45,44	
		2, 5,38,56,17,15, 8,23		9,11
40″	0,55, 9, 0,53,20,33,19, 0,42		4, 1,54,55	
		2, 5,38,56,13,13,13,28		9,11
42″	0,55,11, 6,32,16,46,32,14,10		4, 2, 4, 6	
		2, 5,38,56, 9,11, 9,22		9,11
44″	0,55,13,12,11,12,55,43,23,32		4, 2,13,17	
		2, 5,38,56, 5, 8,56, 5		9,11
46″	0,55,15,17,50, 9, 0,52,19,37		4, 2,22,28	
		2, 5,38,56, 1, 6,33,37		9,11
48″	0,55,17,23,29, 5, 1,58,53,14		4, 2,31,39	
		2, 5,38,55,57, 4, 1,58		9,11
50″	0,55,19,29, 8, 0,59, 2,55,12		4, 2,40,50	
		2, 5,38,55,53, 1,21, 8		9,11
52″	0,55,21,34,46,56,52, 4,16,20		4, 2,50, 1	
		2, 5,38,55,48,58,31, 7		9,11
54″	0,55,23,40,25,52,41, 2,47,27		4, 2,59,12	
		2, 5,38,55,44,55,31,55		9,11
56″	0,55,25,46, 4,48,25,58,19,22		4, 3, 8,23	
		2, 5,38,55,40,52,23,32		9,11
58″	0,55,27,51,43,44, 6,50,42,54		4, 3,17,34	
		2, 5,38,55,36,49, 5,58		
60″	0,55,29,57,22,39,43,39,48,52			
exact	0,55,29,57,22,39,43,39,39,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°53′ 0″	0,55,29,57,22,39,43,39,39,33			
		2, 5,38,55,32,45,38,10		
2″	0,55,32, 3, 1,35,16,25,17,43		4, 3,36, 1	
		2, 5,38,55,28,42, 2, 9		9,11
4″	0,55,34, 8,40,30,45, 7,19,52		4, 3,45,12	
		2, 5,38,55,24,38,16,57		9,11
6″	0,55,36,14,19,26, 9,45,36,49		4, 3,54,23	
		2, 5,38,55,20,34,22,34		9,11
8″	0,55,38,19,58,21,30,19,59,23		4, 4, 3,34	
		2, 5,38,55,16,30,19, 0		9,11
10″	0,55,40,25,37,16,46,50,18,23		4, 4,12,45	
		2, 5,38,55,12,26, 6,15		9,11
12″	0,55,42,31,16,11,59,16,24,38		4, 4,21,56	
		2, 5,38,55, 8,21,44,19		9,11
14″	0,55,44,36,55, 7, 7,38, 8,57		4, 4,31, 7	
		2, 5,38,55, 4,17,13,12		9,11
16″	0,55,46,42,34, 2,11,55,22, 9		4, 4,40,18	
		2, 5,38,55, 0,12,32,54		9,11
18″	0,55,48,48,12,57,12, 7,55, 3		4, 4,49,29	
		2, 5,38,54,56, 7,43,25		9,11
20″	0,55,50,53,51,52, 8,15,38,28		4, 4,58,40	
		2, 5,38,54,52, 2,44,45		9,11
22″	0,55,52,59,30,47, 0,18,23,13		4, 5, 7,51	
		2, 5,38,54,47,57,36,54		9,11
24″	0,55,55, 5, 9,41,48,16, 0, 7		4, 5,17, 2	
		2, 5,38,54,43,52,19,52		9,11
26″	0,55,57,10,48,36,32, 8,19,59		4, 5,26,13	
		2, 5,38,54,39,46,53,39		9,11
28″	0,55,59,16,27,31,11,55,13,38		4, 5,35,24	
		2, 5,38,54,35,41,18,15		9,11
30″	0,56, 1,22, 6,25,47,36,31,53		4, 5,44,35	
		2, 5,38,54,31,35,33,40		9,11
32″	0,56, 3,27,45,20,19,12, 5,33		4, 5,53,46	
		2, 5,38,54,27,29,39,54		9,11
34″	0,56, 5,33,24,14,46,41,45,27		4, 6, 2,57	
		2, 5,38,54,23,23,36,57		9,11
36″	0,56, 7,39, 3, 9,10, 5,22,24		4, 6,12, 8	
		2, 5,38,54,19,17,24,49		9,11
38″	0,56, 9,44,42, 3,29,22,47,13		4, 6,21,19	
		2, 5,38,54,15,11, 3,30		9,11
40″	0,56,11,50,20,57,44,33,50,43		4, 6,30,30	
		2, 5,38,54,11, 4,33, 0		9,11
42″	0,56,13,55,59,51,55,38,23,43		4, 6,39,41	
		2, 5,38,54, 6,57,53,19		9,11
44″	0,56,16, 1,38,46, 2,36,17, 2		4, 6,48,52	
		2, 5,38,54, 2,51, 4,27		9,11
46″	0,56,18, 7,17,40, 5,27,21,29		4, 6,58, 3	
		2, 5,38,53,58,44, 6,24		9,11
48″	0,56,20,12,56,34, 4,11,27,53		4, 7, 7,14	
		2, 5,38,53,54,36,59,10		9,11
50″	0,56,22,18,35,27,58,48,27, 3		4, 7,16,25	
		2, 5,38,53,50,29,42,45		9,11
52″	0,56,24,24,14,21,49,18, 9,48		4, 7,25,36	
		2, 5,38,53,46,22,17, 9		9,11
54″	0,56,26,29,53,15,35,40,26,57		4, 7,34,47	
		2, 5,38,53,42,14,42,22		9,11
56″	0,56,28,35,32, 9,17,55, 9,19		4, 7,43,58	
		2, 5,38,53,38, 6,58,24		9,11
58″	0,56,30,41,11, 2,56, 2, 7,43		4, 7,53, 9	
		2, 5,38,53,33,59, 5,15		
60″	0,56,32,46,49,56,30, 1,12,58			
exact	0,56,32,46,49,56,30, 1, 5,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°54′ 0″	0,56,32,46,49,56,30, 1, 5,59			
		2, 5,38,53,29,51, 2, 2		
2″	0,56,34,52,28,49,59,52, 8, 1		4, 8,11,35	
		2, 5,38,53,25,42,50,27		9,11
4″	0,56,36,58, 7,43,25,34,58,28		4, 8,20,46	
		2, 5,38,53,21,34,29,41		9,11
6″	0,56,39, 3,46,36,47, 9,28, 9		4, 8,29,57	
		2, 5,38,53,17,25,59,44		9,11
8″	0,56,41, 9,25,30, 4,35,27,53		4, 8,39, 8	
		2, 5,38,53,13,17,20,36		9,11
10″	0,56,43,15, 4,23,17,52,48,29		4, 8,48,19	
		2, 5,38,53, 9, 8,32,17		9,11
12″	0,56,45,20,43,16,27, 1,20,46		4, 8,57,30	
		2, 5,38,53, 4,59,34,47		9,11
14″	0,56,47,26,22, 9,32, 0,55,33		4, 9, 6,41	
		2, 5,38,53, 0,50,28, 6		9,11
16″	0,56,49,32, 1, 2,32,51,23,39		4, 9,15,52	
		2, 5,38,52,56,41,12,14		9,11
18″	0,56,51,37,39,55,29,32,35,53		4, 9,25, 3	
		2, 5,38,52,52,31,47,11		9,11
20″	0,56,53,43,18,48,22, 4,23, 4		4, 9,34,14	
		2, 5,38,52,48,22,12,57		9,11
22″	0,56,55,48,57,41,10,26,36, 1		4, 9,43,25	
		2, 5,38,52,44,12,29,32		9,11
24″	0,56,57,54,36,33,54,39, 5,33		4, 9,52,36	
		2, 5,38,52,40, 2,36,56		9,11
26″	0,57, 0, 0,15,26,34,41,42,29		4,10, 1,47	
		2, 5,38,52,35,52,35, 9		9,11
28″	0,57, 2, 5,54,19,10,34,17,38		4,10,10,58	
		2, 5,38,52,31,42,24,11		9,11
30″	0,57, 4,11,33,11,42,16,41,49		4,10,20, 9	
		2, 5,38,52,27,32, 4, 2		9,11
32″	0,57, 6,17,12, 4, 9,48,45,51		4,10,29,20	
		2, 5,38,52,23,21,34,42		9,11
34″	0,57, 8,22,50,56,33,10,20,33		4,10,38,31	
		2, 5,38,52,19,10,56,11		9,11
36″	0,57,10,28,29,48,52,21,16,44		4,10,47,42	
		2, 5,38,52,15, 0, 8,29		9,11
38″	0,57,12,34, 8,41, 7,21,25,13		4,10,56,53	
		2, 5,38,52,10,49,11,36		9,11
40″	0,57,14,39,47,33,18,10,36,49		4,11, 6, 4	
		2, 5,38,52, 6,38, 5,32		9,11
42″	0,57,16,45,26,25,24,48,42,21		4,11,15,15	
		2, 5,38,52, 2,26,50,17		9,11
44″	0,57,18,51, 5,17,27,15,32,38		4,11,24,26	
		2, 5,38,51,58,15,25,51		9,11
46″	0,57,20,56,44, 9,25,30,58,29		4,11,33,37	
		2, 5,38,51,54, 3,52,14		9,11
48″	0,57,23, 2,23, 1,19,34,50,43		4,11,42,48	
		2, 5,38,51,49,52, 9,26		9,11
50″	0,57,25, 8, 1,53, 9,27, 0, 9		4,11,51,59	
		2, 5,38,51,45,40,17,27		9,11
52″	0,57,27,13,40,44,55, 7,17,36		4,12, 1,10	
		2, 5,38,51,41,28,16,17		9,11
54″	0,57,29,19,19,36,36,35,33,53		4,12,10,21	
		2, 5,38,51,37,16, 5,56		9,11
56″	0,57,31,24,58,28,13,51,39,49		4,12,19,32	
		2, 5,38,51,33, 3,46,24		9,11
58″	0,57,33,30,37,19,46,55,26,13		4,12,28,43	
		2, 5,38,51,28,51,17,41		
60″	0,57,35,36,16,11,15,46,43,54			
exact	0,57,35,36,16,11,15,46,31,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°55′ 0″	0,57,35,36,16,11,15,46,31,48			
		2, 5,38,51,24,38,38,34		
2″	0,57,37,41,55, 2,40,25,10,22		4,12,47,10	
		2, 5,38,51,20,25,51,24		9,11
4″	0,57,39,47,33,54, 0,51, 1,46		4,12,56,21	
		2, 5,38,51,16,12,55, 3		9,11
6″	0,57,41,53,12,45,17, 3,56,49		4,13, 5,32	
		2, 5,38,51,11,59,49,31		9,11
8″	0,57,43,58,51,36,29, 3,46,20		4,13,14,43	
		2, 5,38,51, 7,46,34,48		9,11
10″	0,57,46, 4,30,27,36,50,21, 8		4,13,23,54	
		2, 5,38,51, 3,33,10,54		9,11
12″	0,57,48,10, 9,18,40,23,32, 2		4,13,33, 5	
		2, 5,38,50,59,19,37,49		9,11
14″	0,57,50,15,48, 9,39,43, 9,51		4,13,42,16	
		2, 5,38,50,55, 5,55,33		9,11
16″	0,57,52,21,27, 0,34,49, 5,24		4,13,51,27	
		2, 5,38,50,50,52, 4, 6		9,11
18″	0,57,54,27, 5,51,25,41, 9,30		4,14, 0,38	
		2, 5,38,50,46,38, 3,28		9,11
20″	0,57,56,32,44,42,12,19,12,58		4,14, 9,49	
		2, 5,38,50,42,23,53,39		9,11
22″	0,57,58,38,23,32,54,43, 6,37		4,14,19, 0	
		2, 5,38,50,38, 9,34,39		9,11
24″	0,58, 0,44, 2,23,32,52,41,16		4,14,28,11	
		2, 5,38,50,33,55, 6,28		9,11
26″	0,58, 2,49,41,14, 6,47,47,44		4,14,37,22	
		2, 5,38,50,29,40,29, 6		9,11
28″	0,58, 4,55,20, 4,36,28,16,50		4,14,46,33	
		2, 5,38,50,25,25,42,33		9,11
30″	0,58, 7, 0,58,55, 1,53,59,23		4,14,55,44	
		2, 5,38,50,21,10,46,49		9,11
32″	0,58, 9, 6,37,45,23, 4,46,12		4,15, 4,55	
		2, 5,38,50,16,55,41,54		9,11
34″	0,58,11,12,16,35,40, 0,28, 6		4,15,14, 6	
		2, 5,38,50,12,40,27,48		9,11
36″	0,58,13,17,55,25,52,40,55,54		4,15,23,17	
		2, 5,38,50, 8,25, 4,31		9,11
38″	0,58,15,23,34,16, 1, 6, 0,25		4,15,32,28	
		2, 5,38,50, 4, 9,32, 3		9,11
40″	0,58,17,29,13, 6, 5,15,32,28		4,15,41,39	
		2, 5,38,49,59,53,50,24		9,11
42″	0,58,19,34,51,56, 5, 9,22,52		4,15,50,50	
		2, 5,38,49,55,37,59,34		9,11
44″	0,58,21,40,30,46, 0,47,22,26		4,16, 0, 1	
		2, 5,38,49,51,21,59,33		9,11
46″	0,58,23,46, 9,35,52, 9,21,59		4,16, 9,12	
		2, 5,38,49,47, 5,50,21		9,11
48″	0,58,25,51,48,25,39,15,12,20		4,16,18,23	
		2, 5,38,49,42,49,31,58		9,11
50″	0,58,27,57,27,15,22, 4,44,18		4,16,27,34	
		2, 5,38,49,38,33, 4,24		9,11
52″	0,58,30, 3, 6, 5, 0,37,48,42		4,16,36,45	
		2, 5,38,49,34,16,27,39		9,11
54″	0,58,32, 8,44,54,34,54,16,21		4,16,45,56	
		2, 5,38,49,29,59,41,43		9,11
56″	0,58,34,14,23,44, 4,53,58, 4		4,16,55, 7	
		2, 5,38,49,25,42,46,36		9,11
58″	0,58,36,20, 2,33,30,36,44,40		4,17, 4,18	
		2, 5,38,49,21,25,42,18		
60″	0,58,38,25,41,22,52, 2,26,58			
exact	0,58,38,25,41,22,52, 2,17,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°56′ 0″	0,58,38,25,41,22,52, 2,17,59			
		2, 5,38,49,17, 8,27,49		
2″	0,58,40,31,20,12, 9,10,45,48		4,17,22,44	
		2, 5,38,49,12,51, 5, 5		9,11
4″	0,58,42,36,59, 1,22, 1,50,53		4,17,31,55	
		2, 5,38,49, 8,33,33,10		9,11
6″	0,58,44,42,37,50,30,35,24, 3		4,17,41, 6	
		2, 5,38,49, 4,15,52, 4		9,11
8″	0,58,46,48,16,39,34,51,16, 7		4,17,50,17	
		2, 5,38,48,59,58, 1,47		9,11
10″	0,58,48,53,55,28,34,49,17,54		4,17,59,28	
		2, 5,38,48,55,40, 2,19		9,11
12″	0,58,50,59,34,17,30,29,20,13		4,18, 8,39	
		2, 5,38,48,51,21,53,40		9,11
14″	0,58,53, 5,13, 6,21,51,13,53		4,18,17,50	
		2, 5,38,48,47, 3,35,50		9,11
16″	0,58,55,10,51,55, 8,54,49,43		4,18,27, 1	
		2, 5,38,48,42,45, 8,49		9,11
18″	0,58,57,16,30,43,51,39,58,32		4,18,36,12	
		2, 5,38,48,38,26,32,37		9,11
20″	0,58,59,22, 9,32,30, 6,31, 9		4,18,45,23	
		2, 5,38,48,34, 7,47,14		9,11
22″	0,59, 1,27,48,21, 4,14,18,23		4,18,54,34	
		2, 5,38,48,29,48,52,40		9,11
24″	0,59, 3,33,27, 9,34, 3,11, 3		4,19, 3,45	
		2, 5,38,48,25,29,48,55		9,11
26″	0,59, 5,39, 5,57,59,32,59,58		4,19,12,56	
		2, 5,38,48,21,10,35,59		9,11
28″	0,59, 7,44,44,46,20,43,35,57		4,19,22, 7	
		2, 5,38,48,16,51,13,52		9,11
30″	0,59, 9,50,23,34,37,34,49,49		4,19,31,18	
		2, 5,38,48,12,31,42,34		9,11
32″	0,59,11,56, 2,22,50, 6,32,23		4,19,40,29	
		2, 5,38,48, 8,12, 2, 5		9,11
34″	0,59,14, 1,41,10,58,18,34,28		4,19,49,40	
		2, 5,38,48, 3,52,12,25		9,11
36″	0,59,16, 7,19,59, 2,10,46,53		4,19,58,51	
		2, 5,38,47,59,32,13,34		9,11
38″	0,59,18,12,58,47, 1,43, 0,27		4,20, 8, 2	
		2, 5,38,47,55,12, 5,32		9,11
40″	0,59,20,18,37,34,56,55, 5,59		4,20,17,13	
		2, 5,38,47,50,51,48,19		9,11
42″	0,59,22,24,16,22,47,46,54,18		4,20,26,24	
		2, 5,38,47,46,31,21,55		9,11
44″	0,59,24,29,55,10,34,18,16,13		4,20,35,35	
		2, 5,38,47,42,10,46,20		9,11
46″	0,59,26,35,33,58,16,29, 2,33		4,20,44,46	
		2, 5,38,47,37,50, 1,34		9,11
48″	0,59,28,41,12,45,54,19, 4, 7		4,20,53,57	
		2, 5,38,47,33,29, 7,37		9,11
50″	0,59,30,46,51,33,27,48,11,44		4,21, 3, 8	
		2, 5,38,47,29, 8, 4,29		9,11
52″	0,59,32,52,30,20,56,56,16,13		4,21,12,19	
		2, 5,38,47,24,46,52,10		9,11
54″	0,59,34,58, 9, 8,21,43, 8,23		4,21,21,30	
		2, 5,38,47,20,25,30,40		9,11
56″	0,59,37, 3,47,55,42, 8,39, 3		4,21,30,41	
		2, 5,38,47,16, 3,59,59		9,11
58″	0,59,39, 9,26,42,58,12,39, 2		4,21,39,52	
		2, 5,38,47,11,42,20, 7		
60″	0,59,41,15, 5,30, 9,54,59, 9			
exact	0,59,41,15, 5,30, 9,54,46,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°57′ 0″	0,59,41,15, 5,30, 9,54,46,38			
		2, 5,38,47, 7,20,29,49		
2″	0,59,43,20,44,17,17,15,16,27		4,21,58,19	
		2, 5,38,47, 2,58,31,30		9,11
4″	0,59,45,26,23, 4,20,13,47,57		4,22, 7,30	
		2, 5,38,46,58,36,24, 0		9,11
6″	0,59,47,32, 1,51,18,50,11,57		4,22,16,41	
		2, 5,38,46,54,14, 7,19		9,11
8″	0,59,49,37,40,38,13, 4,19,16		4,22,25,52	
		2, 5,38,46,49,51,41,27		9,11
10″	0,59,51,43,19,25, 2,56, 0,43		4,22,35, 3	
		2, 5,38,46,45,29, 6,24		9,11
12″	0,59,53,48,58,11,48,25, 7, 7		4,22,44,14	
		2, 5,38,46,41, 6,22,10		9,11
14″	0,59,55,54,36,58,29,31,29,17		4,22,53,25	
		2, 5,38,46,36,43,28,45		9,11
16″	0,59,58, 0,15,45, 6,14,58, 2		4,23, 2,36	
		2, 5,38,46,32,20,26, 9		9,11
18″	1, 0, 0, 5,54,31,38,35,24,11		4,23,11,47	
		2, 5,38,46,27,57,14,22		9,11
20″	1, 0, 2,11,33,18, 6,32,38,33		4,23,20,58	
		2, 5,38,46,23,33,53,24		9,11
22″	1, 0, 4,17,12, 4,30, 6,31,57		4,23,30, 9	
		2, 5,38,46,19,10,23,15		9,11
24″	1, 0, 6,22,50,50,49,16,55,12		4,23,39,20	
		2, 5,38,46,14,46,43,55		9,11
26″	1, 0, 8,28,29,37, 4, 3,39, 7		4,23,48,31	
		2, 5,38,46,10,22,55,24		9,11
28″	1, 0,10,34, 8,23,14,26,34,31		4,23,57,42	
		2, 5,38,46, 5,58,57,42		9,11
30″	1, 0,12,39,47, 9,20,25,32,13		4,24, 6,53	
		2, 5,38,46, 1,34,50,49		9,11
32″	1, 0,14,45,25,55,22, 0,23, 2		4,24,16, 4	
		2, 5,38,45,57,10,34,45		9,11
34″	1, 0,16,51, 4,41,19,10,57,47		4,24,25,15	
		2, 5,38,45,52,46, 9,30		9,11
36″	1, 0,18,56,43,27,11,57, 7,17		4,24,34,26	
		2, 5,38,45,48,21,35, 4		9,11
38″	1, 0,21, 2,22,13, 0,18,42,21		4,24,43,37	
		2, 5,38,45,43,56,51,27		9,11
40″	1, 0,23, 8, 0,58,44,15,33,48		4,24,52,48	
		2, 5,38,45,39,31,58,39		9,11
42″	1, 0,25,13,39,44,23,47,32,27		4,25, 1,59	
		2, 5,38,45,35, 6,56,40		9,11
44″	1, 0,27,19,18,29,58,54,29, 7		4,25,11,10	
		2, 5,38,45,30,41,45,30		9,11
46″	1, 0,29,24,57,15,29,36,14,37		4,25,20,21	
		2, 5,38,45,26,16,25, 9		9,11
48″	1, 0,31,30,36, 0,55,52,39,46		4,25,29,32	
		2, 5,38,45,21,50,55,37		9,11
50″	1, 0,33,36,14,46,17,43,35,23		4,25,38,43	
		2, 5,38,45,17,25,16,54		9,11
52″	1, 0,35,41,53,31,35, 8,52,17		4,25,47,54	
		2, 5,38,45,12,59,29, 0		9,11
54″	1, 0,37,47,32,16,48, 8,21,17		4,25,57, 5	
		2, 5,38,45, 8,33,31,55		9,11
56″	1, 0,39,53,11, 1,56,41,53,12		4,26, 6,16	
		2, 5,38,45, 4, 7,25,39		9,11
58″	1, 0,41,58,49,47, 0,49,18,51		4,26,15,27	
		2, 5,38,44,59,41,10,12		
60″	1, 0,44, 4,28,32, 0,30,29, 3			
exact	1, 0,44, 4,28,32, 0,30,21, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°58′ 0″	1, 0,44, 4,28,32, 0,30,21, 3	2, 5,38,44,55,14,44,38		
2″	1, 0,46,10, 7,16,55,45, 5,41	2, 5,38,44,50,48,10,45	4,26,33,53	9,11
4″	1, 0,48,15,46, 1,46,33,16,26	2, 5,38,44,46,21,27,41	4,26,43, 4	9,11
6″	1, 0,50,21,24,46,32,54,44, 7	2, 5,38,44,41,54,35,26	4,26,52,15	9,11
8″	1, 0,52,27, 3,31,14,49,19,33	2, 5,38,44,37,27,34, 0	4,27, 1,26	9,11
10″	1, 0,54,32,42,15,52,16,53,33	2, 5,38,44,33, 0,23,23	4,27,10,37	9,11
12″	1, 0,56,38,21, 0,25,17,16,56	2, 5,38,44,28,33, 3,35	4,27,19,48	9,11
14″	1, 0,58,43,59,44,53,50,20,31	2, 5,38,44,24, 5,34,36	4,27,28,59	9,11
16″	1, 1, 0,49,38,29,17,55,55, 7	2, 5,38,44,19,37,56,26	4,27,38,10	9,11
18″	1, 1, 2,55,17,13,37,33,51,33	2, 5,38,44,15,10, 9, 5	4,27,47,21	9,11
20″	1, 1, 5, 0,55,57,52,44, 0,38	2, 5,38,44,10,42,12,33	4,27,56,32	9,11
22″	1, 1, 7, 6,34,42, 3,26,13,11	2, 5,38,44, 6,14, 6,50	4,28, 5,43	9,11
24″	1, 1, 9,12,13,26, 9,40,20, 1	2, 5,38,44, 1,45,51,56	4,28,14,54	9,11
26″	1, 1,11,17,52,10,11,26,11,57	2, 5,38,43,57,17,27,51	4,28,24, 5	9,11
28″	1, 1,13,23,30,54, 8,43,39,48	2, 5,38,43,52,48,54,35	4,28,33,16	9,11
30″	1, 1,15,29, 9,38, 1,32,34,23	2, 5,38,43,48,20,12, 8	4,28,42,27	9,11
32″	1, 1,17,34,48,21,49,52,46,31	2, 5,38,43,43,51,20,30	4,28,51,38	9,11
34″	1, 1,19,40,27, 5,33,44, 7, 1	2, 5,38,43,39,22,19,41	4,29, 0,49	9,11
36″	1, 1,21,46, 5,49,13, 6,26,42	2, 5,38,43,34,53, 9,41	4,29,10, 0	9,11
38″	1, 1,23,51,44,32,47,59,36,23	2, 5,38,43,30,23,50,30	4,29,19,11	9,11
40″	1, 1,25,57,23,16,18,23,26,53	2, 5,38,43,25,54,22, 8	4,29,28,22	9,11
42″	1, 1,28, 3, 1,59,44,17,49, 1	2, 5,38,43,21,24,44,35	4,29,37,33	9,11
44″	1, 1,30, 8,40,43, 5,42,33,36	2, 5,38,43,16,54,57,51	4,29,46,44	9,11
46″	1, 1,32,14,19,26,22,37,31,27	2, 5,38,43,12,25, 1,56	4,29,55,55	9,11
48″	1, 1,34,19,58, 9,35, 2,33,23	2, 5,38,43, 7,54,56,50	4,30, 5, 6	9,11
50″	1, 1,36,25,36,52,42,57,30,13	2, 5,38,43, 3,24,42,33	4,30,14,17	9,11
52″	1, 1,38,31,15,35,46,22,12,46	2, 5,38,42,58,54,19, 5	4,30,23,28	9,11
54″	1, 1,40,36,54,18,45,16,31,51	2, 5,38,42,54,23,46,26	4,30,32,39	9,11
56″	1, 1,42,42,33, 1,39,40,18,17	2, 5,38,42,49,53, 4,36	4,30,41,50	9,11
58″	1, 1,44,48,11,44,29,33,22,53	2, 5,38,42,45,22,13,35	4,30,51, 1	
60″	1, 1,46,53,50,27,14,55,36,28			
exact	1, 1,46,53,50,27,14,55,25,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
0°59′ 0″	1, 1,46,53,50,27,14,55,25,42	2, 5,38,42,40,51,12,16		
2″	1, 1,48,59,29, 9,55,46,37,58	2, 5,38,42,36,20, 2,49	4,31, 9,27	9,11
4″	1, 1,51, 5, 7,52,32, 6,40,47	2, 5,38,42,31,48,44,11	4,31,18,38	9,11
6″	1, 1,53,10,46,35, 3,55,24,58	2, 5,38,42,27,17,16,22	4,31,27,49	9,11
8″	1, 1,55,16,25,17,31,12,41,20	2, 5,38,42,22,45,39,22	4,31,37, 0	9,11
10″	1, 1,57,22, 3,59,53,58,20,42	2, 5,38,42,18,13,53,11	4,31,46,11	9,11
12″	1, 1,59,27,42,42,12,12,13,53	2, 5,38,42,13,41,57,49	4,31,55,22	9,11
14″	1, 2, 1,33,21,24,25,54,11,42	2, 5,38,42, 9, 9,53,16	4,32, 4,33	9,11
16″	1, 2, 3,39, 0, 6,35, 4, 4,58	2, 5,38,42, 4,37,39,32	4,32,13,44	9,11
18″	1, 2, 5,44,38,48,39,41,44,30	2, 5,38,42, 0, 5,16,37	4,32,22,55	9,11
20″	1, 2, 7,50,17,30,39,47, 1, 7	2, 5,38,41,55,32,44,31	4,32,32, 6	9,11
22″	1, 2, 9,55,56,12,35,19,45,38	2, 5,38,41,51, 0, 3,14	4,32,41,17	9,11
24″	1, 2,12, 1,34,54,26,19,48,52	2, 5,38,41,46,27,12,46	4,32,50,28	9,11
26″	1, 2,14, 7,13,36,12,47, 1,38	2, 5,38,41,41,54,13, 7	4,32,59,39	9,11
28″	1, 2,16,12,52,17,54,41,14,45	2, 5,38,41,37,21, 4,17	4,33, 8,50	9,11
30″	1, 2,18,18,30,59,32, 2,19, 2	2, 5,38,41,32,47,46,16	4,33,18, 1	9,11
32″	1, 2,20,24, 9,41, 4,50, 5,18	2, 5,38,41,28,14,19, 4	4,33,27,12	9,11
34″	1, 2,22,29,48,22,33, 4,24,22	2, 5,38,41,23,40,42,41	4,33,36,23	9,11
36″	1, 2,24,35,27, 3,56,45, 7, 3	2, 5,38,41,19, 6,57, 7	4,33,45,34	9,11
38″	1, 2,26,41, 5,45,15,52, 4,10	2, 5,38,41,14,33, 2,22	4,33,54,45	9,11
40″	1, 2,28,46,44,26,30,25, 6,32	2, 5,38,41, 9,58,58,26	4,34, 3,56	9,11
42″	1, 2,30,52,23, 7,40,24, 4,58	2, 5,38,41, 5,24,45,19	4,34,13, 7	9,11
44″	1, 2,32,58, 1,48,45,48,50,17	2, 5,38,41, 0,50,23, 1	4,34,22,18	9,11
46″	1, 2,35, 3,40,29,46,39,13,18	2, 5,38,40,56,15,51,32	4,34,31,29	9,11
48″	1, 2,37, 9,19,10,42,55, 4,50	2, 5,38,40,51,41,10,52	4,34,40,40	9,11
50″	1, 2,39,14,57,51,34,36,15,42	2, 5,38,40,47, 6,21, 1	4,34,49,51	9,11
52″	1, 2,41,20,36,32,21,42,36,43	2, 5,38,40,42,31,21,59	4,34,59, 2	9,11
54″	1, 2,43,26,15,13, 4,13,58,42	2, 5,38,40,37,56,13,46	4,35, 8,13	9,11
56″	1, 2,45,31,53,53,42,10,12,28	2, 5,38,40,33,20,56,22	4,35,17,24	9,11
58″	1, 2,47,37,32,34,15,31, 8,50	2, 5,38,40,28,45,29,47	4,35,26,35	
60″	1, 2,49,43,11,14,44,16,38,37			
exact	1, 2,49,43,11,14,44,16,26,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1° 0′ 0″	1, 2,49,43,11,14,44,16,26,18	2, 5,38,40,24, 9,52,48		
2″	1, 2,51,48,49,55, 8,26,19, 6	2, 5,38,40,19,34, 7,46	4,35,45, 2	9,11
4″	1, 2,53,54,28,35,28, 0,26,52	2, 5,38,40,14,58,13,33	4,35,54,13	9,11
6″	1, 2,56, 0, 7,15,42,58,40,25	2, 5,38,40,10,22,10, 9	4,36, 3,24	9,11
8″	1, 2,58, 5,45,55,53,20,50,34	2, 5,38,40, 5,45,57,34	4,36,12,35	9,11
10″	1, 3, 0,11,24,35,59, 6,48, 8	2, 5,38,40, 1, 9,35,48	4,36,21,46	9,11
12″	1, 3, 2,17, 3,16, 0,16,23,56	2, 5,38,39,56,33, 4,51	4,36,30,57	9,11
14″	1, 3, 4,22,41,55,56,49,28,47	2, 5,38,39,51,56,24,43	4,36,40, 8	9,11
16″	1, 3, 6,28,20,35,48,45,53,30	2, 5,38,39,47,19,35,24	4,36,49,19	9,11
18″	1, 3, 8,33,59,15,36, 5,28,54	2, 5,38,39,42,42,36,54	4,36,58,30	9,11
20″	1, 3,10,39,37,55,18,48, 5,48	2, 5,38,39,38, 5,29,13	4,37, 7,41	9,11
22″	1, 3,12,45,16,34,56,53,35, 1	2, 5,38,39,33,28,12,21	4,37,16,52	9,11
24″	1, 3,14,50,55,14,30,21,47,22	2, 5,38,39,28,50,46,18	4,37,26, 3	9,11
26″	1, 3,16,56,33,53,59,12,33,40	2, 5,38,39,24,13,11, 4	4,37,35,14	9,11
28″	1, 3,19, 2,12,33,23,25,44,44	2, 5,38,39,19,35,26,39	4,37,44,25	9,11
30″	1, 3,21, 7,51,12,43, 1,11,23	2, 5,38,39,14,57,33, 3	4,37,53,36	9,11
32″	1, 3,23,13,29,51,57,58,44,26	2, 5,38,39,10,19,30,16	4,38, 2,47	9,11
34″	1, 3,25,19, 8,31, 8,18,14,42	2, 5,38,39, 5,41,18,18	4,38,11,58	9,11
36″	1, 3,27,24,47,10,13,59,33, 0	2, 5,38,39, 1, 2,57, 9	4,38,21, 9	9,11
38″	1, 3,29,30,25,49,15, 2,30, 9	2, 5,38,38,56,24,26,49	4,38,30,20	9,11
40″	1, 3,31,36, 4,28,11,26,56,58	2, 5,38,38,51,45,47,18	4,38,39,31	9,11
42″	1, 3,33,41,43, 7, 3,12,44,16	2, 5,38,38,47, 6,58,36	4,38,48,42	9,11
44″	1, 3,35,47,21,45,50,19,42,52	2, 5,38,38,42,28, 0,43	4,38,57,53	9,11
46″	1, 3,37,53, 0,24,32,47,43,35	2, 5,38,38,37,48,53,39	4,39, 7, 4	9,11
48″	1, 3,39,58,39, 3,10,36,37,14	2, 5,38,38,33, 9,37,24	4,39,16,15	9,11
50″	1, 3,42, 4,17,41,43,46,14,38	2, 5,38,38,28,30,11,58	4,39,25,26	9,11
52″	1, 3,44, 9,56,20,12,16,26,36	2, 5,38,38,23,50,37,21	4,39,34,37	9,11
54″	1, 3,46,15,34,58,36, 7, 3,57	2, 5,38,38,19,10,53,33	4,39,43,48	9,11
56″	1, 3,48,21,13,36,55,17,57,30	2, 5,38,38,14,31, 0,34	4,39,52,59	9,11
58″	1, 3,50,26,52,15, 9,48,58, 4	2, 5,38,38, 9,50,58,24	4,40, 2,10	
60″	1, 3,52,32,30,53,19,39,56,28			
exact	1, 3,52,32,30,53,19,39,49,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1° 1′ 0″	1, 3,52,32,30,53,19,39,49,48	2, 5,38,38, 5,10,46,14		
2″	1, 3,54,38, 9,31,24,50,36, 2	2, 5,38,38, 0,30,25,38	4,40,20,36	9,11
4″	1, 3,56,43,48, 9,25,21, 1,40	2, 5,38,37,55,49,55,51	4,40,29,47	9,11
6″	1, 3,58,49,26,47,21,10,57,31	2, 5,38,37,51, 9,16,53	4,40,38,58	9,11
8″	1, 4, 0,55, 5,25,12,20,14,24	2, 5,38,37,46,28,28,44	4,40,48, 9	9,11
10″	1, 4, 3, 0,44, 2,58,48,43, 8	2, 5,38,37,41,47,31,24	4,40,57,20	9,11
12″	1, 4, 5, 6,22,40,40,36,14,32	2, 5,38,37,37, 6,24,53	4,41, 6,31	9,11
14″	1, 4, 7,12, 1,18,17,42,39,25	2, 5,38,37,32,25, 9,11	4,41,15,42	9,11
16″	1, 4, 9,17,39,55,50, 7,48,36	2, 5,38,37,27,43,44,18	4,41,24,53	9,11
18″	1, 4,11,23,18,33,17,51,32,54	2, 5,38,37,23, 2,10,14	4,41,34, 4	9,11
20″	1, 4,13,28,57,10,40,53,43, 8	2, 5,38,37,18,20,26,59	4,41,43,15	9,11
22″	1, 4,15,34,35,47,59,14,10, 7	2, 5,38,37,13,38,34,33	4,41,52,26	9,11
24″	1, 4,17,40,14,25,12,52,44,40	2, 5,38,37, 8,56,32,56	4,42, 1,37	9,11
26″	1, 4,19,45,53, 2,21,49,17,36	2, 5,38,37, 4,14,22, 8	4,42,10,48	9,11
28″	1, 4,21,51,31,39,26, 3,39,44	2, 5,38,36,59,32, 2, 9	4,42,19,59	9,11
30″	1, 4,23,57,10,16,25,35,41,53	2, 5,38,36,54,49,32,59	4,42,29,10	9,11
32″	1, 4,26, 2,48,53,20,25,14,52	2, 5,38,36,50, 6,54,38	4,42,38,21	9,11
34″	1, 4,28, 8,27,30,10,32, 9,30	2, 5,38,36,45,24, 7, 6	4,42,47,32	9,11
36″	1, 4,30,14, 6, 6,55,56,16,36	2, 5,38,36,40,41,10,23	4,42,56,43	9,11
38″	1, 4,32,19,44,43,36,37,26,59	2, 5,38,36,35,58, 4,29	4,43, 5,54	9,11
40″	1, 4,34,25,23,20,12,35,31,28	2, 5,38,36,31,14,49,24	4,43,15, 5	9,11
42″	1, 4,36,31, 1,56,43,50,20,52	2, 5,38,36,26,31,25, 8	4,43,24,16	9,11
44″	1, 4,38,36,40,33,10,21,46, 0	2, 5,38,36,21,47,51,41	4,43,33,27	9,11
46″	1, 4,40,42,19, 9,32, 9,37,41	2, 5,38,36,17, 4, 9, 3	4,43,42,38	9,11
48″	1, 4,42,47,57,45,49,13,46,44	2, 5,38,36,12,20,17,14	4,43,51,49	9,11
50″	1, 4,44,53,36,22, 1,34, 3,58	2, 5,38,36, 7,36,16,14	4,44, 1, 0	9,11
52″	1, 4,46,59,14,58, 9,10,20,12	2, 5,38,36, 2,52, 6, 3	4,44,10,11	9,11
54″	1, 4,49, 4,53,34,12, 2,26,15	2, 5,38,35,58, 7,46,41	4,44,19,22	9,11
56″	1, 4,51,10,32,10,10,10,12,56	2, 5,38,35,53,23,18, 8	4,44,28,33	9,11
58″	1, 4,53,16,10,46, 3,33,31, 4	2, 5,38,35,48,38,40,24	4,44,37,44	
60″	1, 4,55,21,49,21,52,12,11,28			
exact	1, 4,55,21,49,21,52,12, 4,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1° 2′ 0″	1, 4,55,21,49,21,52,12, 4,24			
		2, 5,38,35,43,53,52,39		
2″	1, 4,57,27,27,57,36, 5,57, 3		4,44,56,10	
		2, 5,38,35,39, 8,56,29		9,11
4″	1, 4,59,33, 6,33,15,14,53,32		4,45, 5,21	
		2, 5,38,35,34,23,51, 8		9,11
6″	1, 5, 1,38,45, 8,49,38,44,40		4,45,14,32	
		2, 5,38,35,29,38,36,36		9,11
8″	1, 5, 3,44,23,44,19,17,21,16		4,45,23,43	
		2, 5,38,35,24,53,12,53		9,11
10″	1, 5, 5,50, 2,19,44,10,34, 9		4,45,32,54	
		2, 5,38,35,20, 7,39,59		9,11
12″	1, 5, 7,55,40,55, 4,18,14, 8		4,45,42, 5	
		2, 5,38,35,15,21,57,54		9,11
14″	1, 5,10, 1,19,30,19,40,12, 2		4,45,51,16	
		2, 5,38,35,10,36, 6,38		9,11
16″	1, 5,12, 6,58, 5,30,16,18,40		4,46, 0,27	
		2, 5,38,35, 5,50, 6,11		9,11
18″	1, 5,14,12,36,40,36, 6,24,51		4,46, 9,38	
		2, 5,38,35, 1, 3,56,33		9,11
20″	1, 5,16,18,15,15,37,10,21,24		4,46,18,49	
		2, 5,38,34,56,17,37,44		9,11
22″	1, 5,18,23,53,50,33,27,59, 8		4,46,28, 0	
		2, 5,38,34,51,31, 9,44		9,11
24″	1, 5,20,29,32,25,24,59, 8,52		4,46,37,11	
		2, 5,38,34,46,44,32,33		9,11
26″	1, 5,22,35,11, 0,11,43,41,25		4,46,46,22	
		2, 5,38,34,41,57,46,11		9,11
28″	1, 5,24,40,49,34,53,41,27,36		4,46,55,33	
		2, 5,38,34,37,10,50,38		9,11
30″	1, 5,26,46,28, 9,30,52,18,14		4,47, 4,44	
		2, 5,38,34,32,23,45,54		9,11
32″	1, 5,28,52, 6,44, 3,16, 4, 8		4,47,13,55	
		2, 5,38,34,27,36,31,59		9,11
34″	1, 5,30,57,45,18,30,52,36, 7		4,47,23, 6	
		2, 5,38,34,22,49, 8,53		9,11
36″	1, 5,33, 3,23,52,53,41,45, 0		4,47,32,17	
		2, 5,38,34,18, 1,36,36		9,11
38″	1, 5,35, 9, 2,27,11,43,21,36		4,47,41,28	
		2, 5,38,34,13,13,55, 8		9,11
40″	1, 5,37,14,41, 1,24,57,16,44		4,47,50,39	
		2, 5,38,34, 8,26, 4,29		9,11
42″	1, 5,39,20,19,35,33,23,21,13		4,47,59,50	
		2, 5,38,34, 3,38, 4,39		9,11
44″	1, 5,41,25,58, 9,37, 1,25,52		4,48, 9, 1	
		2, 5,38,33,58,49,55,38		9,11
46″	1, 5,43,31,36,43,35,51,21,30		4,48,18,12	
		2, 5,38,33,54, 1,37,26		9,11
48″	1, 5,45,37,15,17,29,52,58,56		4,48,27,23	
		2, 5,38,33,49,13,10, 3		9,11
50″	1, 5,47,42,53,51,19, 6, 8,59		4,48,36,34	
		2, 5,38,33,44,24,33,29		9,11
52″	1, 5,49,48,32,25, 3,30,42,28		4,48,45,45	
		2, 5,38,33,39,35,47,44		9,11
54″	1, 5,51,54,10,58,43, 6,30,12		4,48,54,56	
		2, 5,38,33,34,46,52,48		9,11
56″	1, 5,53,59,49,32,17,53,23, 0		4,49, 4, 7	
		2, 5,38,33,29,57,48,41		9,11
58″	1, 5,56, 5,28, 5,47,51,11,41		4,49,13,18	
		2, 5,38,33,25, 8,35,23		
60″	1, 5,58,11, 6,39,12,59,47, 4			
exact	1, 5,58,11, 6,39,12,59,39,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1° 3′ 0″	1, 5,58,11, 6,39,12,59,39,34			
		2, 5,38,33,20,19,12, 3		
2″	1, 6, 0,16,45,12,33,18,51,37		4,49,31,44	
		2, 5,38,33,15,29,40,19		9,11
4″	1, 6, 2,22,23,45,48,48,31,56		4,49,40,55	
		2, 5,38,33,10,39,59,24		9,11
6″	1, 6, 4,28, 2,18,59,28,31,20		4,49,50, 6	
		2, 5,38,33, 5,50, 9,18		9,11
8″	1, 6, 6,33,40,52, 5,18,40,38		4,49,59,17	
		2, 5,38,33, 1, 0,10, 1		9,11
10″	1, 6, 8,39,19,25, 6,18,50,39		4,50, 8,28	
		2, 5,38,32,56,10, 1,33		9,11
12″	1, 6,10,44,57,58, 2,28,52,12		4,50,17,39	
		2, 5,38,32,51,19,43,54		9,11
14″	1, 6,12,50,36,30,53,48,36, 6		4,50,26,50	
		2, 5,38,32,46,29,17, 4		9,11
16″	1, 6,14,56,15, 3,40,17,53,10		4,50,36, 1	
		2, 5,38,32,41,38,41, 3		9,11
18″	1, 6,17, 1,53,36,21,56,34,13		4,50,45,12	
		2, 5,38,32,36,47,55,51		9,11
20″	1, 6,19, 7,32, 8,58,44,30, 4		4,50,54,23	
		2, 5,38,32,31,57, 1,28		9,11
22″	1, 6,21,13,10,41,30,41,31,32		4,51, 3,34	
		2, 5,38,32,27, 5,57,54		9,11
24″	1, 6,23,18,49,13,57,47,29,26		4,51,12,45	
		2, 5,38,32,22,14,45, 9		9,11
26″	1, 6,25,24,27,46,20, 2,14,35		4,51,21,56	
		2, 5,38,32,17,23,23,13		9,11
28″	1, 6,27,30, 6,18,37,25,37,48		4,51,31, 7	
		2, 5,38,32,12,31,52, 6		9,11
30″	1, 6,29,35,44,50,49,57,29,54		4,51,40,18	
		2, 5,38,32, 7,40,11,48		9,11
32″	1, 6,31,41,23,22,57,37,41,42		4,51,49,29	
		2, 5,38,32, 2,48,22,19		9,11
34″	1, 6,33,47, 1,55, 0,26, 4, 1		4,51,58,40	
		2, 5,38,31,57,56,23,39		9,11
36″	1, 6,35,52,40,26,58,22,27,40		4,52, 7,51	
		2, 5,38,31,53, 4,15,48		9,11
38″	1, 6,37,58,18,58,51,26,43,28		4,52,17, 2	
		2, 5,38,31,48,11,58,46		9,11
40″	1, 6,40, 3,57,30,39,38,42,14		4,52,26,13	
		2, 5,38,31,43,19,32,33		9,11
42″	1, 6,42, 9,36, 2,22,58,14,47		4,52,35,24	
		2, 5,38,31,38,26,57, 9		9,11
44″	1, 6,44,15,14,34, 1,25,11,56		4,52,44,35	
		2, 5,38,31,33,34,12,34		9,11
46″	1, 6,46,20,53, 5,34,59,24,30		4,52,53,46	
		2, 5,38,31,28,41,18,48		9,11
48″	1, 6,48,26,31,37, 3,40,43,18		4,53, 2,57	
		2, 5,38,31,23,48,15,51		9,11
50″	1, 6,50,32,10, 8,27,28,59, 9		4,53,12, 8	
		2, 5,38,31,18,55, 3,43		9,11
52″	1, 6,52,37,48,39,46,24, 2,52		4,53,21,19	
		2, 5,38,31,14, 1,42,24		9,11
54″	1, 6,54,43,27,11, 0,25,45,16		4,53,30,30	
		2, 5,38,31, 9, 8,11,54		9,11
56″	1, 6,56,49, 5,42, 9,33,57,10		4,53,39,41	
		2, 5,38,31, 4,14,32,13		9,11
58″	1, 6,58,54,44,13,13,48,29,23		4,53,48,52	
		2, 5,38,30,59,20,43,21		
60″	1, 7, 1, 0,22,44,13, 9,12,44			
exact	1, 7, 1, 0,22,44,13, 9, 6, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1° 4′ 0″	1, 7, 1, 0,22,44,13, 9, 6, 5	2, 5,38,30,54,26,44,30		
2″	1, 7, 3, 6, 1,15, 7,35,50,35	2, 5,38,30,49,32,37,12	4,54, 7,18	9,11
4″	1, 7, 5,11,39,45,57, 8,27,47	2, 5,38,30,44,38,20,43	4,54,16,29	9,11
6″	1, 7, 7,17,18,16,41,46,48,30	2, 5,38,30,39,43,55, 3	4,54,25,40	9,11
8″	1, 7, 9,22,56,47,21,30,43,33	2, 5,38,30,34,49,20,12	4,54,34,51	9,11
10″	1, 7,11,28,35,17,56,20, 3,45	2, 5,38,30,29,54,36,10	4,54,44, 2	9,11
12″	1, 7,13,34,13,48,26,14,39,55	2, 5,38,30,24,59,42,57	4,54,53,13	9,11
14″	1, 7,15,39,52,18,51,14,22,52	2, 5,38,30,20, 4,40,33	4,55, 2,24	9,11
16″	1, 7,17,45,30,49,11,19, 3,25	2, 5,38,30,15, 9,28,58	4,55,11,35	9,11
18″	1, 7,19,51, 9,19,26,28,32,23	2, 5,38,30,10,14, 8,12	4,55,20,46	9,11
20″	1, 7,21,56,47,49,36,42,40,35	2, 5,38,30, 5,18,38,15	4,55,29,57	9,11
22″	1, 7,24, 2,26,19,42, 1,18,50	2, 5,38,30, 0,22,59, 7	4,55,39, 8	9,11
24″	1, 7,26, 8, 4,49,42,24,17,57	2, 5,38,29,55,27,10,48	4,55,48,19	9,11
26″	1, 7,28,13,43,19,37,51,28,45	2, 5,38,29,50,31,13,18	4,55,57,30	9,11
28″	1, 7,30,19,21,49,28,22,42, 3	2, 5,38,29,45,35, 6,37	4,56, 6,41	9,11
30″	1, 7,32,25, 0,19,13,57,48,40	2, 5,38,29,40,38,50,45	4,56,15,52	9,11
32″	1, 7,34,30,38,48,54,36,39,25	2, 5,38,29,35,42,25,42	4,56,25, 3	9,11
34″	1, 7,36,36,17,18,30,19, 5, 7	2, 5,38,29,30,45,51,28	4,56,34,14	9,11
36″	1, 7,38,41,55,48, 1, 4,56,35	2, 5,38,29,25,49, 8, 3	4,56,43,25	9,11
38″	1, 7,40,47,34,17,26,54, 4,38	2, 5,38,29,20,52,15,27	4,56,52,36	9,11
40″	1, 7,42,53,12,46,47,46,20, 5	2, 5,38,29,15,55,13,40	4,57, 1,47	9,11
42″	1, 7,44,58,51,16, 3,41,33,45	2, 5,38,29,10,58, 2,42	4,57,10,58	9,11
44″	1, 7,47, 4,29,45,14,39,36,27	2, 5,38,29, 6, 0,42,33	4,57,20, 9	9,11
46″	1, 7,49,10, 8,14,20,40,19, 0	2, 5,38,29, 1, 3,13,13	4,57,29,20	9,11
48″	1, 7,51,15,46,43,21,43,32,13	2, 5,38,28,56, 5,34,42	4,57,38,31	9,11
50″	1, 7,53,21,25,12,17,49, 6,55	2, 5,38,28,51, 7,47, 0	4,57,47,42	9,11
52″	1, 7,55,27, 3,41, 8,56,53,55	2, 5,38,28,46, 9,50, 7	4,57,56,53	9,11
54″	1, 7,57,32,42, 9,55, 6,44, 2	2, 5,38,28,41,11,44, 3	4,58, 6, 4	9,11
56″	1, 7,59,38,20,38,36,18,28, 5	2, 5,38,28,36,13,28,48	4,58,15,15	9,11
58″	1, 8, 1,43,59, 7,12,31,56,53	2, 5,38,28,31,15, 4,22	4,58,24,26	
60″	1, 8, 3,49,37,35,43,47, 1,15			
exact	1, 8, 3,49,37,35,43,46,56, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1° 5′ 0″	1, 8, 3,49,37,35,43,46,56, 3	2, 5,38,28,26,16,30, 4		
2″	1, 8, 5,55,16, 4,10, 3,26, 7	2, 5,38,28,21,17,47,13	4,58,42,51	9,11
4″	1, 8, 8, 0,54,32,31,21,13,20	2, 5,38,28,16,18,55,11	4,58,52, 2	9,11
6″	1, 8,10, 6,33, 0,47,40, 8,31	2, 5,38,28,11,19,53,58	4,59, 1,13	9,11
8″	1, 8,12,12,11,28,59, 0, 2,29	2, 5,38,28, 6,20,43,34	4,59,10,24	9,11
10″	1, 8,14,17,49,57, 5,20,46, 3	2, 5,38,28, 1,21,23,59	4,59,19,35	9,11
12″	1, 8,16,23,28,25, 6,42,10, 2	2, 5,38,27,56,21,55,13	4,59,28,46	9,11
14″	1, 8,18,29, 6,53, 3, 4, 5,15	2, 5,38,27,51,22,17,16	4,59,37,57	9,11
16″	1, 8,20,34,45,20,54,26,22,31	2, 5,38,27,46,22,30, 8	4,59,47, 8	9,11
18″	1, 8,22,40,23,48,40,48,52,39	2, 5,38,27,41,22,33,49	4,59,56,19	9,11
20″	1, 8,24,46, 2,16,22,11,26,28	2, 5,38,27,36,22,28,19	5, 0, 5,30	9,11
22″	1, 8,26,51,40,43,58,33,54,47	2, 5,38,27,31,22,13,38	5, 0,14,41	9,11
24″	1, 8,28,57,19,11,29,56, 8,25	2, 5,38,27,26,21,49,46	5, 0,23,52	9,11
26″	1, 8,31, 2,57,38,56,17,58,11	2, 5,38,27,21,21,16,43	5, 0,33, 3	9,11
28″	1, 8,33, 8,36, 6,17,39,14,54	2, 5,38,27,16,20,34,29	5, 0,42,14	9,11
30″	1, 8,35,14,14,33,33,59,49,23	2, 5,38,27,11,19,43, 4	5, 0,51,25	9,11
32″	1, 8,37,19,53, 0,45,19,32,27	2, 5,38,27, 6,18,42,28	5, 1, 0,36	9,11
34″	1, 8,39,25,31,27,51,38,14,55	2, 5,38,27, 1,17,32,41	5, 1, 9,47	9,11
36″	1, 8,41,31, 9,54,52,55,47,36	2, 5,38,26,56,16,13,43	5, 1,18,58	9,11
38″	1, 8,43,36,48,21,49,12, 1,19	2, 5,38,26,51,14,45,34	5, 1,28, 9	9,11
40″	1, 8,45,42,26,48,40,26,46,53	2, 5,38,26,46,13, 8,14	5, 1,37,20	9,11
42″	1, 8,47,48, 5,15,26,39,55, 7	2, 5,38,26,41,11,21,43	5, 1,46,31	9,11
44″	1, 8,49,53,43,42, 7,51,16,50	2, 5,38,26,36, 9,26, 1	5, 1,55,42	9,11
46″	1, 8,51,59,22, 8,44, 0,42,51	2, 5,38,26,31, 7,21, 8	5, 2, 4,53	9,11
48″	1, 8,54, 5, 0,35,15, 8, 3,59	2, 5,38,26,26, 5, 7, 4	5, 2,14, 4	9,11
50″	1, 8,56,10,39, 1,41,13,11, 3	2, 5,38,26,21, 2,43,49	5, 2,23,15	9,11
52″	1, 8,58,16,17,28, 2,15,54,52	2, 5,38,26,16, 0,11,23	5, 2,32,26	9,11
54″	1, 9, 0,21,55,54,18,16, 6,15	2, 5,38,26,10,57,29,46	5, 2,41,37	9,11
56″	1, 9, 2,27,34,20,29,13,36, 1	2, 5,38,26, 5,54,38,58	5, 2,50,48	9,11
58″	1, 9, 4,33,12,46,35, 8,14,59	2, 5,38,26, 0,51,38,59	5, 2,59,59	
60″	1, 9, 6,38,51,12,35,59,53,58			
exact	1, 9, 6,38,51,12,35,59,42,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1° 6′ 0″	1, 9, 6,38,51,12,35,59,42,56	2, 5,38,25,55,48,28,45		
2″	1, 9, 8,44,29,38,31,48,11,41	2, 5,38,25,50,45,10,20	5, 3,18,25	9,11
4″	1, 9,10,50, 8, 4,22,33,22, 1	2, 5,38,25,45,41,42,44	5, 3,27,36	9,11
6″	1, 9,12,55,46,30, 8,15, 4,45	2, 5,38,25,40,38, 5,57	5, 3,36,47	9,11
8″	1, 9,15, 1,24,55,48,53,10,42	2, 5,38,25,35,34,19,59	5, 3,45,58	9,11
10″	1, 9,17, 7, 3,21,24,27,30,41	2, 5,38,25,30,30,24,50	5, 3,55, 9	9,11
12″	1, 9,19,12,41,46,54,57,55,31	2, 5,38,25,25,26,20,30	5, 4, 4,20	9,11
14″	1, 9,21,18,20,12,20,24,16, 1	2, 5,38,25,20,22, 6,59	5, 4,13,31	9,11
16″	1, 9,23,23,58,37,40,46,23, 0	2, 5,38,25,15,17,44,17	5, 4,22,42	9,11
18″	1, 9,25,29,37, 2,56, 4, 7,17	2, 5,38,25,10,13,12,24	5, 4,31,53	9,11
20″	1, 9,27,35,15,28, 6,17,19,41	2, 5,38,25, 5, 8,31,20	5, 4,41, 4	9,11
22″	1, 9,29,40,53,53,11,25,51, 1	2, 5,38,25, 0, 3,41, 5	5, 4,50,15	9,11
24″	1, 9,31,46,32,18,11,29,32, 6	2, 5,38,24,54,58,41,39	5, 4,59,26	9,11
26″	1, 9,33,52,10,43, 6,28,13,45	2, 5,38,24,49,53,33, 2	5, 5, 8,37	9,11
28″	1, 9,35,57,49, 7,56,21,46,47	2, 5,38,24,44,48,15,14	5, 5,17,48	9,11
30″	1, 9,38, 3,27,32,41,10, 2, 1	2, 5,38,24,39,42,48,15	5, 5,26,59	9,11
32″	1, 9,40, 9, 5,57,20,52,50,16	2, 5,38,24,34,37,12, 5	5, 5,36,10	9,11
34″	1, 9,42,14,44,21,55,30, 2,21	2, 5,38,24,29,31,26,44	5, 5,45,21	9,11
36″	1, 9,44,20,22,46,25, 1,29, 5	2, 5,38,24,24,25,32,12	5, 5,54,32	9,11
38″	1, 9,46,26, 1,10,49,27, 1,17	2, 5,38,24,19,19,28,29	5, 6, 3,43	9,11
40″	1, 9,48,31,39,35, 8,46,29,46	2, 5,38,24,14,13,15,35	5, 6,12,54	9,11
42″	1, 9,50,37,17,59,22,59,45,21	2, 5,38,24, 9, 6,53,30	5, 6,22, 5	9,11
44″	1, 9,52,42,56,23,32, 6,38,51	2, 5,38,24, 4, 0,22,14	5, 6,31,16	9,11
46″	1, 9,54,48,34,47,36, 7, 1, 5	2, 5,38,23,58,53,41,47	5, 6,40,27	9,11
48″	1, 9,56,54,13,11,35, 0,42,52	2, 5,38,23,53,46,52, 9	5, 6,49,38	9,11
50″	1, 9,58,59,51,35,28,47,35, 1	2, 5,38,23,48,39,53,20	5, 6,58,49	9,11
52″	1,10, 1, 5,29,59,17,27,28,21	2, 5,38,23,43,32,45,20	5, 7, 8, 0	9,11
54″	1,10, 3,11, 8,23, 1, 0,13,41	2, 5,38,23,38,25,28, 9	5, 7,17,11	9,11
56″	1,10, 5,16,46,46,39,25,41,50	2, 5,38,23,33,18, 1,47	5, 7,26,22	9,11
58″	1,10, 7,22,25,10,12,43,43,37	2, 5,38,23,28,10,26,14	5, 7,35,33	
60″	1,10, 9,28, 3,33,40,54, 9,51			
exact	1,10, 9,28, 3,33,40,54, 1,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1° 7′ 0″	1,10, 9,28, 3,33,40,54, 1,33			
		2, 5,38,23,23, 2,40,37		
2″	1,10,11,33,41,57, 3,56,42,10		5, 7,53,59	
		2, 5,38,23,17,54,46,38		9,11
4″	1,10,13,39,20,20,21,51,28,48		5, 8, 3,10	
		2, 5,38,23,12,46,43,28		9,11
6″	1,10,15,44,58,43,34,38,12,16		5, 8,12,21	
		2, 5,38,23, 7,38,31, 7		9,11
8″	1,10,17,50,37, 6,42,16,43,23		5, 8,21,32	
		2, 5,38,23, 2,30, 9,35		9,11
10″	1,10,19,56,15,29,44,46,52,58		5, 8,30,43	
		2, 5,38,22,57,21,38,52		9,11
12″	1,10,22, 1,53,52,42, 8,31,50		5, 8,39,54	
		2, 5,38,22,52,12,58,58		9,11
14″	1,10,24, 7,32,15,34,21,30,48		5, 8,49, 5	
		2, 5,38,22,47, 4, 9,53		9,11
16″	1,10,26,13,10,38,21,25,40,41		5, 8,58,16	
		2, 5,38,22,41,55,11,37		9,11
18″	1,10,28,18,49, 1, 3,20,52,18		5, 9, 7,27	
		2, 5,38,22,36,46, 4,10		9,11
20″	1,10,30,24,27,23,40, 6,56,28		5, 9,16,38	
		2, 5,38,22,31,36,47,32		9,11
22″	1,10,32,30, 5,46,11,43,44, 0		5, 9,25,49	
		2, 5,38,22,26,27,21,43		9,11
24″	1,10,34,35,44, 8,38,11, 5,43		5, 9,35, 0	
		2, 5,38,22,21,17,46,43		9,11
26″	1,10,36,41,22,30,59,28,52,26		5, 9,44,11	
		2, 5,38,22,16, 8, 2,32		9,11
28″	1,10,38,47, 0,53,15,36,54,58		5, 9,53,22	
		2, 5,38,22,10,58, 9,10		9,11
30″	1,10,40,52,39,15,26,35, 4, 8		5,10, 2,33	
		2, 5,38,22, 5,48, 6,37		9,11
32″	1,10,42,58,17,37,32,23,10,45		5,10,11,44	
		2, 5,38,22, 0,37,54,53		9,11
34″	1,10,45, 3,55,59,33, 1, 5,38		5,10,20,55	
		2, 5,38,21,55,27,33,58		9,11
36″	1,10,47, 9,34,21,28,28,39,36		5,10,30, 6	
		2, 5,38,21,50,17, 3,52		9,11
38″	1,10,49,15,12,43,18,45,43,28		5,10,39,17	
		2, 5,38,21,45, 6,24,35		9,11
40″	1,10,51,20,51, 5, 3,52, 8, 3		5,10,48,28	
		2, 5,38,21,39,55,36, 7		9,11
42″	1,10,53,26,29,26,43,47,44,10		5,10,57,39	
		2, 5,38,21,34,44,38,28		9,11
44″	1,10,55,32, 7,48,18,32,22,38		5,11, 6,50	
		2, 5,38,21,29,33,31,38		9,11
46″	1,10,57,37,46, 9,48, 5,54,16		5,11,16, 1	
		2, 5,38,21,24,22,15,37		9,11
48″	1,10,59,43,24,31,12,28, 9,53		5,11,25,12	
		2, 5,38,21,19,10,50,25		9,11
50″	1,11, 1,49, 2,52,31,39, 0,18		5,11,34,23	
		2, 5,38,21,13,59,16, 2		9,11
52″	1,11, 3,54,41,13,45,38,16,20		5,11,43,34	
		2, 5,38,21, 8,47,32,28		9,11
54″	1,11, 6, 0,19,34,54,25,48,48		5,11,52,45	
		2, 5,38,21, 3,35,39,43		9,11
56″	1,11, 8, 5,57,55,58, 1,28,31		5,12, 1,56	
		2, 5,38,20,58,23,37,47		9,11
58″	1,11,10,11,36,16,56,25, 6,18		5,12,11, 7	
		2, 5,38,20,53,11,26,40		
60″	1,11,12,17,14,37,49,36,32,58			
exact	1,11,12,17,14,37,49,36,28, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1° 8′ 0″	1,11,12,17,14,37,49,36,28, 4			
		2, 5,38,20,47,59, 5,43		
2″	1,11,14,22,52,58,37,35,33,47		5,12,29,32	
		2, 5,38,20,42,46,36,11		9,11
4″	1,11,16,28,31,19,20,22, 9,58		5,12,38,43	
		2, 5,38,20,37,33,57,28		9,11
6″	1,11,18,34, 9,39,57,56, 7,26		5,12,47,54	
		2, 5,38,20,32,21, 9,34		9,11
8″	1,11,20,39,48, 0,30,17,17, 0		5,12,57, 5	
		2, 5,38,20,27, 8,12,29		9,11
10″	1,11,22,45,26,20,57,25,29,29		5,13, 6,16	
		2, 5,38,20,21,55, 6,13		9,11
12″	1,11,24,51, 4,41,19,20,35,42		5,13,15,27	
		2, 5,38,20,16,41,50,46		9,11
14″	1,11,26,56,43, 1,36, 2,26,28		5,13,24,38	
		2, 5,38,20,11,28,26, 8		9,11
16″	1,11,29, 2,21,21,47,30,52,36		5,13,33,49	
		2, 5,38,20, 6,14,52,19		9,11
18″	1,11,31, 7,59,41,53,45,44,55		5,13,43, 0	
		2, 5,38,20, 1, 1, 9,19		9,11
20″	1,11,33,13,38, 1,54,46,54,14		5,13,52,11	
		2, 5,38,19,55,47,17, 8		9,11
22″	1,11,35,19,16,21,50,34,11,22		5,14, 1,22	
		2, 5,38,19,50,33,15,46		9,11
24″	1,11,37,24,54,41,41, 7,27, 8		5,14,10,33	
		2, 5,38,19,45,19, 5,13		9,11
26″	1,11,39,30,33, 1,26,26,32,21		5,14,19,44	
		2, 5,38,19,40, 4,45,29		9,11
28″	1,11,41,36,11,21, 6,31,17,50		5,14,28,55	
		2, 5,38,19,34,50,16,34		9,11
30″	1,11,43,41,49,40,41,21,34,24		5,14,38, 6	
		2, 5,38,19,29,35,38,28		9,11
32″	1,11,45,47,28, 0,10,57,12,52		5,14,47,17	
		2, 5,38,19,24,20,51,11		9,11
34″	1,11,47,53, 6,19,35,18, 4, 3		5,14,56,28	
		2, 5,38,19,19, 5,54,43		9,11
36″	1,11,49,58,44,38,54,23,58,46		5,15, 5,39	
		2, 5,38,19,13,50,49, 4		9,11
38″	1,11,52, 4,22,58, 8,14,47,50		5,15,14,50	
		2, 5,38,19, 8,35,34,14		9,11
40″	1,11,54,10, 1,17,16,50,22, 4		5,15,24, 1	
		2, 5,38,19, 3,20,10,13		9,11
42″	1,11,56,15,39,36,20,10,32,17		5,15,33,12	
		2, 5,38,18,58, 4,37, 1		9,11
44″	1,11,58,21,17,55,18,15, 9,18		5,15,42,23	
		2, 5,38,18,52,48,54,38		9,11
46″	1,12, 0,26,56,14,11, 4, 3,56		5,15,51,34	
		2, 5,38,18,47,33, 3, 4		9,11
48″	1,12, 2,32,34,32,58,37, 7, 0		5,16, 0,45	
		2, 5,38,18,42,17, 2,19		9,11
50″	1,12, 4,38,12,51,40,54, 9,19		5,16, 9,56	
		2, 5,38,18,37, 0,52,23		9,11
52″	1,12, 6,43,51,10,17,55, 1,42		5,16,19, 7	
		2, 5,38,18,31,44,33,16		9,11
54″	1,12, 8,49,29,28,49,39,34,58		5,16,28,18	
		2, 5,38,18,26,28, 4,58		9,11
56″	1,12,10,55, 7,47,16, 7,39,56		5,16,37,29	
		2, 5,38,18,21,11,27,29		9,11
58″	1,12,13, 0,46, 5,37,19, 7,25		5,16,46,40	
		2, 5,38,18,15,54,40,49		
60″	1,12,15, 6,24,23,53,13,48,14			
exact	1,12,15, 6,24,23,53,13,40, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1° 9′ 0″	1,12,15, 6,24,23,53,13,40, 6			
		2, 5,38,18,10,37,44, 6		
2″	1,12,17,12, 2,42, 3,51,24,12		5,17, 5, 5	
		2, 5,38,18, 5,20,39, 1		9,11
4″	1,12,19,17,41, 0, 9,12, 3,13		5,17,14,16	
		2, 5,38,18, 0, 3,24,45		9,11
6″	1,12,21,23,19,18, 9,15,27,58		5,17,23,27	
		2, 5,38,17,54,46, 1,18		9,11
8″	1,12,23,28,57,36, 4, 1,29,16		5,17,32,38	
		2, 5,38,17,49,28,28,40		9,11
10″	1,12,25,34,35,53,53,29,57,56		5,17,41,49	
		2, 5,38,17,44,10,46,51		9,11
12″	1,12,27,40,14,11,37,40,44,47		5,17,51, 0	
		2, 5,38,17,38,52,55,51		9,11
14″	1,12,29,45,52,29,16,33,40,38		5,18, 0,11	
		2, 5,38,17,33,34,55,40		9,11
16″	1,12,31,51,30,46,50, 8,36,18		5,18, 9,22	
		2, 5,38,17,28,16,46,18		9,11
18″	1,12,33,57, 9, 4,18,25,22,36		5,18,18,33	
		2, 5,38,17,22,58,27,45		9,11
20″	1,12,36, 2,47,21,41,23,50,21		5,18,27,44	
		2, 5,38,17,17,40, 0, 1		9,11
22″	1,12,38, 8,25,38,59, 3,50,22		5,18,36,55	
		2, 5,38,17,12,21,23, 6		9,11
24″	1,12,40,14, 3,56,11,25,13,28		5,18,46, 6	
		2, 5,38,17, 7, 2,37, 0		9,11
26″	1,12,42,19,42,13,18,27,50,28		5,18,55,17	
		2, 5,38,17, 1,43,41,43		9,11
28″	1,12,44,25,20,30,20,11,32,11		5,19, 4,28	
		2, 5,38,16,56,24,37,15		9,11
30″	1,12,46,30,58,47,16,36, 9,26		5,19,13,39	
		2, 5,38,16,51, 5,23,36		9,11
32″	1,12,48,36,37, 4, 7,41,33, 2		5,19,22,50	
		2, 5,38,16,45,46, 0,46		9,11
34″	1,12,50,42,15,20,53,27,33,48		5,19,32, 1	
		2, 5,38,16,40,26,28,45		9,11
36″	1,12,52,47,53,37,33,54, 2,33		5,19,41,12	
		2, 5,38,16,35, 6,47,33		9,11
38″	1,12,54,53,31,54, 9, 0,50, 6		5,19,50,23	
		2, 5,38,16,29,46,57,10		9,11
40″	1,12,56,59,10,10,38,47,47,16		5,19,59,34	
		2, 5,38,16,24,26,57,36		9,11
42″	1,12,59, 4,48,27, 3,14,44,52		5,20, 8,45	
		2, 5,38,16,19, 6,48,51		9,11
44″	1,13, 1,10,26,43,22,21,33,43		5,20,17,56	
		2, 5,38,16,13,46,30,55		9,11
46″	1,13, 3,16, 4,59,36, 8, 4,38		5,20,27, 7	
		2, 5,38,16, 8,26, 3,48		9,11
48″	1,13, 5,21,43,15,44,34, 8,26		5,20,36,18	
		2, 5,38,16, 3, 5,27,30		9,11
50″	1,13, 7,27,21,31,47,39,35,56		5,20,45,29	
		2, 5,38,15,57,44,42, 1		9,11
52″	1,13, 9,32,59,47,45,24,17,57		5,20,54,40	
		2, 5,38,15,52,23,47,21		9,11
54″	1,13,11,38,38, 3,37,48, 5,18		5,21, 3,51	
		2, 5,38,15,47, 2,43,30		9,11
56″	1,13,13,44,16,19,24,50,48,48		5,21,13, 2	
		2, 5,38,15,41,41,30,28		9,11
58″	1,13,15,49,54,35, 6,32,19,16		5,21,22,13	
		2, 5,38,15,36,20, 8,15		
60″	1,13,17,55,32,50,42,52,27,31			
exact	1,13,17,55,32,50,42,52,16,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°10′ 0″	1,13,17,55,32,50,42,52,16,41			
		2, 5,38,15,30,58,35,49		
2″	1,13,20, 1,11, 6,13,50,52,30		5,21,40,39	
		2, 5,38,15,25,36,55,10		9,11
4″	1,13,22, 6,49,21,39,27,47,40		5,21,49,50	
		2, 5,38,15,20,15, 5,20		9,11
6″	1,13,24,12,27,36,59,42,53, 0		5,21,59, 1	
		2, 5,38,15,14,53, 6,19		9,11
8″	1,13,26,18, 5,52,14,35,59,19		5,22, 8,12	
		2, 5,38,15, 9,30,58, 7		9,11
10″	1,13,28,23,44, 7,24, 6,57,26		5,22,17,23	
		2, 5,38,15, 4, 8,40,44		9,11
12″	1,13,30,29,22,22,28,15,38,10		5,22,26,34	
		2, 5,38,14,58,46,14,10		9,11
14″	1,13,32,35, 0,37,27, 1,52,20		5,22,35,45	
		2, 5,38,14,53,23,38,25		9,11
16″	1,13,34,40,38,52,20,25,30,45		5,22,44,56	
		2, 5,38,14,48, 0,53,29		9,11
18″	1,13,36,46,17, 7, 8,26,24,14		5,22,54, 7	
		2, 5,38,14,42,37,59,22		9,11
20″	1,13,38,51,55,21,51, 4,23,36		5,23, 3,18	
		2, 5,38,14,37,14,56, 4		9,11
22″	1,13,40,57,33,36,28,19,19,40		5,23,12,29	
		2, 5,38,14,31,51,43,35		9,11
24″	1,13,43, 3,11,51, 0,11, 3,15		5,23,21,40	
		2, 5,38,14,26,28,21,55		9,11
26″	1,13,45, 8,50, 5,26,39,25,10		5,23,30,51	
		2, 5,38,14,21, 4,51, 4		9,11
28″	1,13,47,14,28,19,47,44,16,14		5,23,40, 2	
		2, 5,38,14,15,41,11, 2		9,11
30″	1,13,49,20, 6,34, 3,25,27,16		5,23,49,13	
		2, 5,38,14,10,17,21,49		9,11
32″	1,13,51,25,44,48,13,42,49, 5		5,23,58,24	
		2, 5,38,14, 4,53,23,25		9,11
34″	1,13,53,31,23, 2,18,36,12,30		5,24, 7,35	
		2, 5,38,13,59,29,15,50		9,11
36″	1,13,55,37, 1,16,18, 5,28,20		5,24,16,46	
		2, 5,38,13,54, 4,59, 4		9,11
38″	1,13,57,42,39,30,12,10,27,24		5,24,25,57	
		2, 5,38,13,48,40,33, 7		9,11
40″	1,13,59,48,17,44, 0,51, 0,31		5,24,35, 8	
		2, 5,38,13,43,15,57,59		9,11
42″	1,14, 1,53,55,57,44, 6,58,30		5,24,44,19	
		2, 5,38,13,37,51,13,40		9,11
44″	1,14, 3,59,34,11,21,58,12,10		5,24,53,30	
		2, 5,38,13,32,26,20,10		9,11
46″	1,14, 6, 5,12,24,54,24,32,20		5,25, 2,41	
		2, 5,38,13,27, 1,17,29		9,11
48″	1,14, 8,10,50,38,21,25,49,49		5,25,11,52	
		2, 5,38,13,21,36, 5,37		9,11
50″	1,14,10,16,28,51,43, 1,55,26		5,25,21, 3	
		2, 5,38,13,16,10,44,34		9,11
52″	1,14,12,22, 7, 4,59,12,40, 0		5,25,30,14	
		2, 5,38,13,10,45,14,20		9,11
54″	1,14,14,27,45,18, 9,57,54,20		5,25,39,25	
		2, 5,38,13, 5,19,34,55		9,11
56″	1,14,16,33,23,31,15,17,29,15		5,25,48,36	
		2, 5,38,12,59,53,46,19		9,11
58″	1,14,18,39, 1,44,15,11,15,34		5,25,57,47	
		2, 5,38,12,54,27,48,32		
60″	1,14,20,44,39,57, 9,39, 4, 6			
exact	1,14,20,44,39,57, 9,38,58,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°11′ 0″	1,14,20,44,39,57, 9,38,58,18			
		2, 5,38,12,49, 1,40,54		
2″	1,14,22,50,18, 9,58,40,39,12		5,26,16,12	
		2, 5,38,12,43,35,24,42		9,11
4″	1,14,24,55,56,22,42,16, 3,54		5,26,25,23	
		2, 5,38,12,38, 8,59,19		9,11
6″	1,14,27, 1,34,35,20,25, 3,13		5,26,34,34	
		2, 5,38,12,32,42,24,45		9,11
8″	1,14,29, 7,12,47,53, 7,27,58		5,26,43,45	
		2, 5,38,12,27,15,41, 0		9,11
10″	1,14,31,12,51, 0,20,23, 8,58		5,26,52,56	
		2, 5,38,12,21,48,48, 4		9,11
12″	1,14,33,18,29,12,42,11,57, 2		5,27, 2, 7	
		2, 5,38,12,16,21,45,57		9,11
14″	1,14,35,24, 7,24,58,33,42,59		5,27,11,18	
		2, 5,38,12,10,54,34,39		9,11
16″	1,14,37,29,45,37, 9,28,17,38		5,27,20,29	
		2, 5,38,12, 5,27,14,10		9,11
18″	1,14,39,35,23,49,14,55,31,48		5,27,29,40	
		2, 5,38,11,59,59,44,30		9,11
20″	1,14,41,41, 2, 1,14,55,16,18		5,27,38,51	
		2, 5,38,11,54,32, 5,39		9,11
22″	1,14,43,46,40,13, 9,27,21,57		5,27,48, 2	
		2, 5,38,11,49, 4,17,37		9,11
24″	1,14,45,52,18,24,58,31,39,34		5,27,57,13	
		2, 5,38,11,43,36,20,24		9,11
26″	1,14,47,57,56,36,42, 7,59,58		5,28, 6,24	
		2, 5,38,11,38, 8,14, 0		9,11
28″	1,14,50, 3,34,48,20,16,13,58		5,28,15,35	
		2, 5,38,11,32,39,58,25		9,11
30″	1,14,52, 9,12,59,52,56,12,23		5,28,24,46	
		2, 5,38,11,27,11,33,39		9,11
32″	1,14,54,14,51,11,20, 7,46, 2		5,28,33,57	
		2, 5,38,11,21,42,59,42		9,11
34″	1,14,56,20,29,22,41,50,45,44		5,28,43, 8	
		2, 5,38,11,16,14,16,34		9,11
36″	1,14,58,26, 7,33,58, 5, 2,18		5,28,52,19	
		2, 5,38,11,10,45,24,15		9,11
38″	1,15, 0,31,45,45, 8,50,26,33		5,29, 1,30	
		2, 5,38,11, 5,16,22,45		9,11
40″	1,15, 2,37,23,56,14, 6,49,18		5,29,10,41	
		2, 5,38,10,59,47,12, 4		9,11
42″	1,15, 4,43, 2, 7,13,54, 1,22		5,29,19,52	
		2, 5,38,10,54,17,52,12		9,11
44″	1,15, 6,48,40,18, 8,11,53,34		5,29,29, 3	
		2, 5,38,10,48,48,23, 9		9,11
46″	1,15, 8,54,18,28,57, 0,16,43		5,29,38,14	
		2, 5,38,10,43,18,44,55		9,11
48″	1,15,10,59,56,39,40,19, 1,38		5,29,47,25	
		2, 5,38,10,37,48,57,30		9,11
50″	1,15,13, 5,34,50,18, 7,59, 8		5,29,56,36	
		2, 5,38,10,32,19, 0,54		9,11
52″	1,15,15,11,13, 0,50,27, 0, 2		5,30, 5,47	
		2, 5,38,10,26,48,55, 7		9,11
54″	1,15,17,16,51,11,17,15,55, 9		5,30,14,58	
		2, 5,38,10,21,18,40, 9		9,11
56″	1,15,19,22,29,21,38,34,35,18		5,30,24, 9	
		2, 5,38,10,15,48,16, 0		9,11
58″	1,15,21,28, 7,31,54,22,51,18		5,30,33,20	
		2, 5,38,10,10,17,42,40		
60″	1,15,23,33,45,42, 4,40,33,58			
exact	1,15,23,33,45,42, 4,40,26,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°12′ 0″	1,15,23,33,45,42, 4,40,26,54			
		2, 5,38,10, 4,46,59,24		
2″	1,15,25,39,23,52, 9,27,26,18		5,30,51,45	
		2, 5,38, 9,59,16, 7,39		9,11
4″	1,15,27,45, 2, 2, 8,43,33,57		5,31, 0,56	
		2, 5,38, 9,53,45, 6,43		9,11
6″	1,15,29,50,40,12, 2,28,40,40		5,31,10, 7	
		2, 5,38, 9,48,13,56,36		9,11
8″	1,15,31,56,18,21,50,42,37,16		5,31,19,18	
		2, 5,38, 9,42,42,37,18		9,11
10″	1,15,34, 1,56,31,33,25,14,34		5,31,28,29	
		2, 5,38, 9,37,11, 8,49		9,11
12″	1,15,36, 7,34,41,10,36,23,23		5,31,37,40	
		2, 5,38, 9,31,39,31, 9		9,11
14″	1,15,38,13,12,50,42,15,54,32		5,31,46,51	
		2, 5,38, 9,26, 7,44,18		9,11
16″	1,15,40,18,51, 0, 8,23,38,50		5,31,56, 2	
		2, 5,38, 9,20,35,48,16		9,11
18″	1,15,42,24,29, 9,28,59,27, 6		5,32, 5,13	
		2, 5,38, 9,15, 3,43, 3		9,11
20″	1,15,44,30, 7,18,44, 3,10, 9		5,32,14,24	
		2, 5,38, 9, 9,31,28,39		9,11
22″	1,15,46,35,45,27,53,34,38,48		5,32,23,35	
		2, 5,38, 9, 3,59, 5, 4		9,11
24″	1,15,48,41,23,36,57,33,43,52		5,32,32,46	
		2, 5,38, 8,58,26,32,18		9,11
26″	1,15,50,47, 1,45,56, 0,16,10		5,32,41,57	
		2, 5,38, 8,52,53,50,21		9,11
28″	1,15,52,52,39,54,48,54, 6,31		5,32,51, 8	
		2, 5,38, 8,47,20,59,13		9,11
30″	1,15,54,58,18, 3,36,15, 5,44		5,33, 0,19	
		2, 5,38, 8,41,47,58,54		9,11
32″	1,15,57, 3,56,12,18, 3, 4,38		5,33, 9,30	
		2, 5,38, 8,36,14,49,24		9,11
34″	1,15,59, 9,34,20,54,17,54, 2		5,33,18,41	
		2, 5,38, 8,30,41,30,43		9,11
36″	1,16, 1,15,12,29,24,59,24,45		5,33,27,52	
		2, 5,38, 8,25, 8, 2,51		9,11
38″	1,16, 3,20,50,37,50, 7,27,36		5,33,37, 3	
		2, 5,38, 8,19,34,25,48		9,11
40″	1,16, 5,26,28,46, 9,41,53,24		5,33,46,14	
		2, 5,38, 8,14, 0,39,34		9,11
42″	1,16, 7,32, 6,54,23,42,32,58		5,33,55,25	
		2, 5,38, 8, 8,26,44, 9		9,11
44″	1,16, 9,37,45, 2,32, 9,17, 7		5,34, 4,36	
		2, 5,38, 8, 2,52,39,33		9,11
46″	1,16,11,43,23,10,35, 1,56,40		5,34,13,47	
		2, 5,38, 7,57,18,25,46		9,11
48″	1,16,13,49, 1,18,32,20,22,26		5,34,22,58	
		2, 5,38, 7,51,44, 2,48		9,11
50″	1,16,15,54,39,26,24, 4,25,14		5,34,32, 9	
		2, 5,38, 7,46, 9,30,39		9,11
52″	1,16,18, 0,17,34,10,13,55,53		5,34,41,20	
		2, 5,38, 7,40,34,49,19		9,11
54″	1,16,20, 5,55,41,50,48,45,12		5,34,50,31	
		2, 5,38, 7,34,59,58,48		9,11
56″	1,16,22,11,33,49,25,48,44, 0		5,34,59,42	
		2, 5,38, 7,29,24,59, 6		9,11
58″	1,16,24,17,11,56,55,13,43, 6		5,35, 8,53	
		2, 5,38, 7,23,49,50,13		
60″	1,16,26,22,50, 4,19, 3,33,19			
exact	1,16,26,22,50, 4,19, 3,25,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°13′ 0″	1,16,26,22,50, 4,19, 3,25,54			
		2, 5,38, 7,18,14,31,23		
2″	1,16,28,28,28,11,37,17,57,17		5,35,27,18	
		2, 5,38, 7,12,39, 4, 5		9,11
4″	1,16,30,34, 6,18,49,57, 1,22		5,35,36,29	
		2, 5,38, 7, 7, 3,27,36		9,11
6″	1,16,32,39,44,25,57, 0,28,58		5,35,45,40	
		2, 5,38, 7, 1,27,41,56		9,11
8″	1,16,34,45,22,32,58,28,10,54		5,35,54,51	
		2, 5,38, 6,55,51,47, 5		9,11
10″	1,16,36,51, 0,39,54,19,57,59		5,36, 4, 2	
		2, 5,38, 6,50,15,43, 3		9,11
12″	1,16,38,56,38,46,44,35,41, 2		5,36,13,13	
		2, 5,38, 6,44,39,29,50		9,11
14″	1,16,41, 2,16,53,29,15,10,52		5,36,22,24	
		2, 5,38, 6,39, 3, 7,26		9,11
16″	1,16,43, 7,55, 0, 8,18,18,18		5,36,31,35	
		2, 5,38, 6,33,26,35,51		9,11
18″	1,16,45,13,33, 6,41,44,54, 9		5,36,40,46	
		2, 5,38, 6,27,49,55, 5		9,11
20″	1,16,47,19,11,13, 9,34,49,14		5,36,49,57	
		2, 5,38, 6,22,13, 5, 8		9,11
22″	1,16,49,24,49,19,31,47,54,22		5,36,59, 8	
		2, 5,38, 6,16,36, 6, 0		9,11
24″	1,16,51,30,27,25,48,24, 0,22		5,37, 8,19	
		2, 5,38, 6,10,58,57,41		9,11
26″	1,16,53,36, 5,31,59,22,58, 3		5,37,17,30	
		2, 5,38, 6, 5,21,40,11		9,11
28″	1,16,55,41,43,38, 4,44,38,14		5,37,26,41	
		2, 5,38, 5,59,44,13,30		9,11
30″	1,16,57,47,21,44, 4,28,51,44		5,37,35,52	
		2, 5,38, 5,54, 6,37,38		9,11
32″	1,16,59,52,59,49,58,35,29,22		5,37,45, 3	
		2, 5,38, 5,48,28,52,35		9,11
34″	1,17, 1,58,37,55,47, 4,21,57		5,37,54,14	
		2, 5,38, 5,42,50,58,21		9,11
36″	1,17, 4, 4,16, 1,29,55,20,18		5,38, 3,25	
		2, 5,38, 5,37,12,54,56		9,11
38″	1,17, 6, 9,54, 7, 7, 8,15,14		5,38,12,36	
		2, 5,38, 5,31,34,42,20		9,11
40″	1,17, 8,15,32,12,38,42,57,34		5,38,21,47	
		2, 5,38, 5,25,56,20,33		9,11
42″	1,17,10,21,10,18, 4,39,18, 7		5,38,30,58	
		2, 5,38, 5,20,17,49,35		9,11
44″	1,17,12,26,48,23,24,57, 7,42		5,38,40, 9	
		2, 5,38, 5,14,39, 9,26		9,11
46″	1,17,14,32,26,28,39,36,17, 8		5,38,49,20	
		2, 5,38, 5, 9, 0,20, 6		9,11
48″	1,17,16,38, 4,33,48,36,37,14		5,38,58,31	
		2, 5,38, 5, 3,21,21,35		9,11
50″	1,17,18,43,42,38,51,57,58,49		5,39, 7,42	
		2, 5,38, 4,57,42,13,53		9,11
52″	1,17,20,49,20,43,49,40,12,42		5,39,16,53	
		2, 5,38, 4,52, 2,57, 0		9,11
54″	1,17,22,54,58,48,41,43, 9,42		5,39,26, 4	
		2, 5,38, 4,46,23,30,56		9,11
56″	1,17,25, 0,36,53,28, 6,40,38		5,39,35,15	
		2, 5,38, 4,40,43,55,41		9,11
58″	1,17,27, 6,14,58, 8,50,36,19		5,39,44,26	
		2, 5,38, 4,35, 4,11,15		
60″	1,17,29,11,53, 2,43,54,47,34			
exact	1,17,29,11,53, 2,43,54,40,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°14′ 0″	1,17,29,11,53, 2,43,54,40,16			
		2, 5,38, 4,29,24,16,53		
2″	1,17,31,17,31, 7,13,18,57, 9		5,40, 2,51	
		2, 5,38, 4,23,44,14, 2		9,11
4″	1,17,33,23, 9,11,37, 3,11,11		5,40,12, 2	
		2, 5,38, 4,18, 4, 2, 0		9,11
6″	1,17,35,28,47,15,55, 7,13,11		5,40,21,13	
		2, 5,38, 4,12,23,40,47		9,11
8″	1,17,37,34,25,20, 7,30,53,58		5,40,30,24	
		2, 5,38, 4, 6,43,10,23		9,11
10″	1,17,39,40, 3,24,14,14, 4,21		5,40,39,35	
		2, 5,38, 4, 1, 2,30,48		9,11
12″	1,17,41,45,41,28,15,16,35, 9		5,40,48,46	
		2, 5,38, 3,55,21,42, 2		9,11
14″	1,17,43,51,19,32,10,38,17,11		5,40,57,57	
		2, 5,38, 3,49,40,44, 5		9,11
16″	1,17,45,56,57,36, 0,19, 1,16		5,41, 7, 8	
		2, 5,38, 3,43,59,36,57		9,11
18″	1,17,48, 2,35,39,44,18,38,13		5,41,16,19	
		2, 5,38, 3,38,18,20,38		9,11
20″	1,17,50, 8,13,43,22,36,58,51		5,41,25,30	
		2, 5,38, 3,32,36,55, 8		9,11
22″	1,17,52,13,51,46,55,13,53,59		5,41,34,41	
		2, 5,38, 3,26,55,20,27		9,11
24″	1,17,54,19,29,50,22, 9,14,26		5,41,43,52	
		2, 5,38, 3,21,13,36,35		9,11
26″	1,17,56,25, 7,53,43,22,51, 1		5,41,53, 3	
		2, 5,38, 3,15,31,43,32		9,11
28″	1,17,58,30,45,56,58,54,34,33		5,42, 2,14	
		2, 5,38, 3, 9,49,41,18		9,11
30″	1,18, 0,36,24, 0, 8,44,15,51		5,42,11,25	
		2, 5,38, 3, 4, 7,29,53		9,11
32″	1,18, 2,42, 2, 3,12,51,45,44		5,42,20,36	
		2, 5,38, 2,58,25, 9,17		9,11
34″	1,18, 4,47,40, 6,11,16,55, 1		5,42,29,47	
		2, 5,38, 2,52,42,39,30		9,11
36″	1,18, 6,53,18, 9, 3,59,34,31		5,42,38,58	
		2, 5,38, 2,47, 0, 0,32		9,11
38″	1,18, 8,58,56,11,50,59,35, 3		5,42,48, 9	
		2, 5,38, 2,41,17,12,23		9,11
40″	1,18,11, 4,34,14,32,16,47,26		5,42,57,20	
		2, 5,38, 2,35,34,15, 3		9,11
42″	1,18,13,10,12,17, 7,51, 2,29		5,43, 6,31	
		2, 5,38, 2,29,51, 8,32		9,11
44″	1,18,15,15,50,19,37,42,11, 1		5,43,15,42	
		2, 5,38, 2,24, 7,52,50		9,11
46″	1,18,17,21,28,22, 1,50, 3,51		5,43,24,53	
		2, 5,38, 2,18,24,27,57		9,11
48″	1,18,19,27, 6,24,20,14,31,48		5,43,34, 4	
		2, 5,38, 2,12,40,53,53		9,11
50″	1,18,21,32,44,26,32,55,25,41		5,43,43,15	
		2, 5,38, 2, 6,57,10,38		9,11
52″	1,18,23,38,22,28,39,52,36,19		5,43,52,26	
		2, 5,38, 2, 1,13,18,12		9,11
54″	1,18,25,44, 0,30,41, 5,54,31		5,44, 1,37	
		2, 5,38, 1,55,29,16,35		9,11
56″	1,18,27,49,38,32,36,35,11, 6		5,44,10,48	
		2, 5,38, 1,49,45, 5,47		9,11
58″	1,18,29,55,16,34,26,20,16,53		5,44,19,59	
		2, 5,38, 1,44, 0,45,48		
60″	1,18,32, 0,54,36,10,21, 2,41			
exact	1,18,32, 0,54,36,10,20,56,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°15′ 0″	1,18,32, 0,54,36,10,20,56,29			
		2, 5,38, 1,38,16,15,58		
2″	1,18,34, 6,32,37,48,37,12,27		5,44,38,24	
		2, 5,38, 1,32,31,37,34		9,11
4″	1,18,36,12,10,39,21, 8,50, 1		5,44,47,35	
		2, 5,38, 1,26,46,49,59		9,11
6″	1,18,38,17,48,40,47,55,40, 0		5,44,56,46	
		2, 5,38, 1,21, 1,53,13		9,11
8″	1,18,40,23,26,42, 8,57,33,13		5,45, 5,57	
		2, 5,38, 1,15,16,47,16		9,11
10″	1,18,42,29, 4,43,24,14,20,29		5,45,15, 8	
		2, 5,38, 1, 9,31,32, 8		9,11
12″	1,18,44,34,42,44,33,45,52,37		5,45,24,19	
		2, 5,38, 1, 3,46, 7,49		9,11
14″	1,18,46,40,20,45,37,32, 0,26		5,45,33,30	
		2, 5,38, 0,58, 0,34,19		9,11
16″	1,18,48,45,58,46,35,32,34,45		5,45,42,41	
		2, 5,38, 0,52,14,51,38		9,11
18″	1,18,50,51,36,47,27,47,26,23		5,45,51,52	
		2, 5,38, 0,46,28,59,46		9,11
20″	1,18,52,57,14,48,14,16,26, 9		5,46, 1, 3	
		2, 5,38, 0,40,42,58,43		9,11
22″	1,18,55, 2,52,48,54,59,24,52		5,46,10,14	
		2, 5,38, 0,34,56,48,29		9,11
24″	1,18,57, 8,30,49,29,56,13,21		5,46,19,25	
		2, 5,38, 0,29,10,29, 4		9,11
26″	1,18,59,14, 8,49,59, 6,42,25		5,46,28,36	
		2, 5,38, 0,23,24, 0,28		9,11
28″	1,19, 1,19,46,50,22,30,42,53		5,46,37,47	
		2, 5,38, 0,17,37,22,41		9,11
30″	1,19, 3,25,24,50,40, 8, 5,34		5,46,46,58	
		2, 5,38, 0,11,50,35,43		9,11
32″	1,19, 5,31, 2,50,51,58,41,17		5,46,56, 9	
		2, 5,38, 0, 6, 3,39,34		9,11
34″	1,19, 7,36,40,50,58, 2,20,51		5,47, 5,20	
		2, 5,38, 0, 0,16,34,14		9,11
36″	1,19, 9,42,18,50,58,18,55, 5		5,47,14,31	
		2, 5,37,59,54,29,19,43		9,11
38″	1,19,11,47,56,50,52,48,14,48		5,47,23,42	
		2, 5,37,59,48,41,56, 1		9,11
40″	1,19,13,53,34,50,41,30,10,49		5,47,32,53	
		2, 5,37,59,42,54,23, 8		9,11
42″	1,19,15,59,12,50,24,24,33,57		5,47,42, 4	
		2, 5,37,59,37, 6,41, 4		9,11
44″	1,19,18, 4,50,50, 1,31,15, 1		5,47,51,15	
		2, 5,37,59,31,18,49,49		9,11
46″	1,19,20,10,28,49,32,50, 4,50		5,48, 0,26	
		2, 5,37,59,25,30,49,23		9,11
48″	1,19,22,16, 6,48,58,20,54,13		5,48, 9,37	
		2, 5,37,59,19,42,39,46		9,11
50″	1,19,24,21,44,48,18, 3,33,59		5,48,18,48	
		2, 5,37,59,13,54,20,58		9,11
52″	1,19,26,27,22,47,31,57,54,57		5,48,27,59	
		2, 5,37,59, 8, 5,52,59		9,11
54″	1,19,28,33, 0,46,40, 3,47,56		5,48,37,10	
		2, 5,37,59, 2,17,15,49		9,11
56″	1,19,30,38,38,45,42,21, 3,45		5,48,46,21	
		2, 5,37,58,56,28,29,28		9,11
58″	1,19,32,44,16,44,38,49,33,13		5,48,55,32	
		2, 5,37,58,50,39,33,56		
60″	1,19,34,49,54,43,29,29, 7, 9			
exact	1,19,34,49,54,43,29,29, 2,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°16′ 0″	1,19,34,49,54,43,29,29, 2,34			
		2, 5,37,58,44,50,28,40		
2″	1,19,36,55,32,42,14,19,31,14		5,49,13,56	
		2, 5,37,58,39, 1,14,44		9,11
4″	1,19,39, 1,10,40,53,20,45,58		5,49,23, 7	
		2, 5,37,58,33,11,51,37		9,11
6″	1,19,41, 6,48,39,26,32,37,35		5,49,32,18	
		2, 5,37,58,27,22,19,19		9,11
8″	1,19,43,12,26,37,53,54,56,54		5,49,41,29	
		2, 5,37,58,21,32,37,50		9,11
10″	1,19,45,18, 4,36,15,27,34,44		5,49,50,40	
		2, 5,37,58,15,42,47,10		9,11
12″	1,19,47,23,42,34,31,10,21,54		5,49,59,51	
		2, 5,37,58, 9,52,47,19		9,11
14″	1,19,49,29,20,32,41, 3, 9,13		5,50, 9, 2	
		2, 5,37,58, 4, 2,38,17		9,11
16″	1,19,51,34,58,30,45, 5,47,30		5,50,18,13	
		2, 5,37,57,58,12,20, 4		9,11
18″	1,19,53,40,36,28,43,18, 7,34		5,50,27,24	
		2, 5,37,57,52,21,52,40		9,11
20″	1,19,55,46,14,26,35,40, 0,14		5,50,36,35	
		2, 5,37,57,46,31,16, 5		9,11
22″	1,19,57,51,52,24,22,11,16,19		5,50,45,46	
		2, 5,37,57,40,40,30,19		9,11
24″	1,19,59,57,30,22, 2,51,46,38		5,50,54,57	
		2, 5,37,57,34,49,35,22		9,11
26″	1,20, 2, 3, 8,19,37,41,22, 0		5,51, 4, 8	
		2, 5,37,57,28,58,31,14		9,11
28″	1,20, 4, 8,46,17, 6,39,53,14		5,51,13,19	
		2, 5,37,57,23, 7,17,55		9,11
30″	1,20, 6,14,24,14,29,47,11, 9		5,51,22,30	
		2, 5,37,57,17,15,55,25		9,11
32″	1,20, 8,20, 2,11,47, 3, 6,34		5,51,31,41	
		2, 5,37,57,11,24,23,44		9,11
34″	1,20,10,25,40, 8,58,27,30,18		5,51,40,52	
		2, 5,37,57, 5,32,42,52		9,11
36″	1,20,12,31,18, 6, 4, 0,13,10		5,51,50, 3	
		2, 5,37,56,59,40,52,49		9,11
38″	1,20,14,36,56, 3, 3,41, 5,59		5,51,59,14	
		2, 5,37,56,53,48,53,35		9,11
40″	1,20,16,42,33,59,57,29,59,34		5,52, 8,25	
		2, 5,37,56,47,56,45,10		9,11
42″	1,20,18,48,11,56,45,26,44,44		5,52,17,36	
		2, 5,37,56,42, 4,27,34		9,11
44″	1,20,20,53,49,53,27,31,12,18		5,52,26,47	
		2, 5,37,56,36,12, 0,47		9,11
46″	1,20,22,59,27,50, 3,43,13, 5		5,52,35,58	
		2, 5,37,56,30,19,24,49		9,11
48″	1,20,25, 5, 5,46,34, 2,37,54		5,52,45, 9	
		2, 5,37,56,24,26,39,40		9,11
50″	1,20,27,10,43,42,58,29,17,34		5,52,54,20	
		2, 5,37,56,18,33,45,20		9,11
52″	1,20,29,16,21,39,17, 3, 2,54		5,53, 3,31	
		2, 5,37,56,12,40,41,49		9,11
54″	1,20,31,21,59,35,29,43,44,43		5,53,12,42	
		2, 5,37,56, 6,47,29, 7		9,11
56″	1,20,33,27,37,31,36,31,13,50		5,53,21,53	
		2, 5,37,56, 0,54, 7,14		9,11
58″	1,20,35,33,15,27,37,25,21, 4		5,53,31, 4	
		2, 5,37,55,55, 0,36,10		
60″	1,20,37,38,53,23,32,25,57,14			
exact	1,20,37,38,53,23,32,25,48, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°17′ 0″	1,20,37,38,53,23,32,25,48, 8			
		2, 5,37,55,49, 6,55, 4		
2″	1,20,39,44,31,19,21,32,43,12		5,53,49,29	
		2, 5,37,55,43,13, 5,35		9,11
4″	1,20,41,50, 9,15, 4,45,48,47		5,53,58,40	
		2, 5,37,55,37,19, 6,55		9,11
6″	1,20,43,55,47,10,42, 4,55,42		5,54, 7,51	
		2, 5,37,55,31,24,59, 4		9,11
8″	1,20,46, 1,25, 6,13,29,54,46		5,54,17, 2	
		2, 5,37,55,25,30,42, 2		9,11
10″	1,20,48, 7, 3, 1,39, 0,36,48		5,54,26,13	
		2, 5,37,55,19,36,15,49		9,11
12″	1,20,50,12,40,56,58,36,52,37		5,54,35,24	
		2, 5,37,55,13,41,40,25		9,11
14″	1,20,52,18,18,52,12,18,33, 2		5,54,44,35	
		2, 5,37,55, 7,46,55,50		9,11
16″	1,20,54,23,56,47,20, 5,28,52		5,54,53,46	
		2, 5,37,55, 1,52, 2, 4		9,11
18″	1,20,56,29,34,42,21,57,30,56		5,55, 2,57	
		2, 5,37,54,55,56,59, 7		9,11
20″	1,20,58,35,12,37,17,54,30, 3		5,55,12, 8	
		2, 5,37,54,50, 1,46,59		9,11
22″	1,21, 0,40,50,32, 7,56,17, 2		5,55,21,19	
		2, 5,37,54,44, 6,25,40		9,11
24″	1,21, 2,46,28,26,52, 2,42,42		5,55,30,30	
		2, 5,37,54,38,10,55,10		9,11
26″	1,21, 4,52, 6,21,30,13,37,52		5,55,39,41	
		2, 5,37,54,32,15,15,29		9,11
28″	1,21, 6,57,44,16, 2,28,53,21		5,55,48,52	
		2, 5,37,54,26,19,26,37		9,11
30″	1,21, 9, 3,22,10,28,48,19,58		5,55,58, 3	
		2, 5,37,54,20,23,28,34		9,11
32″	1,21,11, 9, 0, 4,49,11,48,32		5,56, 7,14	
		2, 5,37,54,14,27,21,20		9,11
34″	1,21,13,14,37,59, 3,39, 9,52		5,56,16,25	
		2, 5,37,54, 8,31, 4,55		9,11
36″	1,21,15,20,15,53,12,10,14,47		5,56,25,36	
		2, 5,37,54, 2,34,39,19		9,11
38″	1,21,17,25,53,47,14,44,54, 6		5,56,34,47	
		2, 5,37,53,56,38, 4,32		9,11
40″	1,21,19,31,31,41,11,22,58,38		5,56,43,58	
		2, 5,37,53,50,41,20,34		9,11
42″	1,21,21,37, 9,35, 2, 4,19,12		5,56,53, 9	
		2, 5,37,53,44,44,27,25		9,11
44″	1,21,23,42,47,28,46,48,46,37		5,57, 2,20	
		2, 5,37,53,38,47,25, 5		9,11
46″	1,21,25,48,25,22,25,36,11,42		5,57,11,31	
		2, 5,37,53,32,50,13,34		9,11
48″	1,21,27,54, 3,15,58,26,25,16		5,57,20,42	
		2, 5,37,53,26,52,52,52		9,11
50″	1,21,29,59,41, 9,25,19,18, 8		5,57,29,53	
		2, 5,37,53,20,55,22,59		9,11
52″	1,21,32, 5,19, 2,46,14,41, 7		5,57,39, 4	
		2, 5,37,53,14,57,43,55		9,11
54″	1,21,34,10,56,56, 1,12,25, 2		5,57,48,15	
		2, 5,37,53, 8,59,55,40		9,11
56″	1,21,36,16,34,49,10,12,20,42		5,57,57,26	
		2, 5,37,53, 3, 1,58,14		9,11
58″	1,21,38,22,12,42,13,14,18,56		5,58, 6,37	
		2, 5,37,52,57, 3,51,37		
60″	1,21,40,27,50,35,10,18,10,33			
exact	1,21,40,27,50,35,10,18, 4,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°18′ 0″	1,21,40,27,50,35,10,18, 4,24			
		2, 5,37,52,51, 5,35,11		
2″	1,21,42,33,28,28, 1,23,39,35		5,58,25, 2	
		2, 5,37,52,45, 7,10, 9		9,11
4″	1,21,44,39, 6,20,46,30,49,44		5,58,34,13	
		2, 5,37,52,39, 8,35,56		9,11
6″	1,21,46,44,44,13,25,39,25,40		5,58,43,24	
		2, 5,37,52,33, 9,52,32		9,11
8″	1,21,48,50,22, 5,58,49,18,12		5,58,52,35	
		2, 5,37,52,27,10,59,57		9,11
10″	1,21,50,55,59,58,26, 0,18, 9		5,59, 1,46	
		2, 5,37,52,21,11,58,11		9,11
12″	1,21,53, 1,37,50,47,12,16,20		5,59,10,57	
		2, 5,37,52,15,12,47,14		9,11
14″	1,21,55, 7,15,43, 2,25, 3,34		5,59,20, 8	
		2, 5,37,52, 9,13,27, 6		9,11
16″	1,21,57,12,53,35,11,38,30,40		5,59,29,19	
		2, 5,37,52, 3,13,57,47		9,11
18″	1,21,59,18,31,27,14,52,28,27		5,59,38,30	
		2, 5,37,51,57,14,19,17		9,11
20″	1,22, 1,24, 9,19,12, 6,47,44		5,59,47,41	
		2, 5,37,51,51,14,31,36		9,11
22″	1,22, 3,29,47,11, 3,21,19,20		5,59,56,52	
		2, 5,37,51,45,14,34,44		9,11
24″	1,22, 5,35,25, 2,48,35,54, 4		6, 0, 6, 3	
		2, 5,37,51,39,14,28,41		9,11
26″	1,22, 7,41, 2,54,27,50,22,45		6, 0,15,14	
		2, 5,37,51,33,14,13,27		9,11
28″	1,22, 9,46,40,46, 1, 4,36,12		6, 0,24,25	
		2, 5,37,51,27,13,49, 2		9,11
30″	1,22,11,52,18,37,28,18,25,14		6, 0,33,36	
		2, 5,37,51,21,13,15,26		9,11
32″	1,22,13,57,56,28,49,31,40,40		6, 0,42,47	
		2, 5,37,51,15,12,32,39		9,11
34″	1,22,16, 3,34,20, 4,44,13,19		6, 0,51,58	
		2, 5,37,51, 9,11,40,41		9,11
36″	1,22,18, 9,12,11,13,55,54, 0		6, 1, 1, 9	
		2, 5,37,51, 3,10,39,32		9,11
38″	1,22,20,14,50, 2,17, 6,33,32		6, 1,10,20	
		2, 5,37,50,57, 9,29,12		9,11
40″	1,22,22,20,27,53,14,16, 2,44		6, 1,19,31	
		2, 5,37,50,51, 8, 9,41		9,11
42″	1,22,24,26, 5,44, 5,24,12,25		6, 1,28,42	
		2, 5,37,50,45, 6,40,59		9,11
44″	1,22,26,31,43,34,50,30,53,24		6, 1,37,53	
		2, 5,37,50,39, 5, 3, 6		9,11
46″	1,22,28,37,21,25,29,35,56,30		6, 1,47, 4	
		2, 5,37,50,33, 3,16, 2		9,11
48″	1,22,30,42,59,16, 2,39,12,32		6, 1,56,15	
		2, 5,37,50,27, 1,19,47		9,11
50″	1,22,32,48,37, 6,29,40,32,19		6, 2, 5,26	
		2, 5,37,50,20,59,14,21		9,11
52″	1,22,34,54,14,56,50,39,46,40		6, 2,14,37	
		2, 5,37,50,14,56,59,44		9,11
54″	1,22,36,59,52,47, 5,36,46,24		6, 2,23,48	
		2, 5,37,50, 8,54,35,56		9,11
56″	1,22,39, 5,30,37,14,31,22,20		6, 2,32,59	
		2, 5,37,50, 2,52, 2,57		9,11
58″	1,22,41,11, 8,27,17,23,25,17		6, 2,42,10	
		2, 5,37,49,56,49,20,47		
60″	1,22,43,16,46,17,14,12,46, 4			
exact	1,22,43,16,46,17,14,12,44,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°19′ 0″	1,22,43,16,46,17,14,12,44,10			
		2, 5,37,49,50,46,29, 6		
2″	1,22,45,22,24, 7, 4,59,13,16		6, 3, 0,34	
		2, 5,37,49,44,43,28,32		9,11
4″	1,22,47,28, 1,56,49,42,41,48		6, 3, 9,45	
		2, 5,37,49,38,40,18,47		9,11
6″	1,22,49,33,39,46,28,23, 0,35		6, 3,18,56	
		2, 5,37,49,32,36,59,51		9,11
8″	1,22,51,39,17,36, 1, 0, 0,26		6, 3,28, 7	
		2, 5,37,49,26,33,31,44		9,11
10″	1,22,53,44,55,25,27,33,32,10		6, 3,37,18	
		2, 5,37,49,20,29,54,26		9,11
12″	1,22,55,50,33,14,48, 3,26,36		6, 3,46,29	
		2, 5,37,49,14,26, 7,57		9,11
14″	1,22,57,56,11, 4, 2,29,34,33		6, 3,55,40	
		2, 5,37,49, 8,22,12,17		9,11
16″	1,23, 0, 1,48,53,10,51,46,50		6, 4, 4,51	
		2, 5,37,49, 2,18, 7,26		9,11
18″	1,23, 2, 7,26,42,13, 9,54,16		6, 4,14, 2	
		2, 5,37,48,56,13,53,24		9,11
20″	1,23, 4,13, 4,31, 9,23,47,40		6, 4,23,13	
		2, 5,37,48,50, 9,30,11		9,11
22″	1,23, 6,18,42,19,59,33,17,51		6, 4,32,24	
		2, 5,37,48,44, 4,57,47		9,11
24″	1,23, 8,24,20, 8,43,38,15,38		6, 4,41,35	
		2, 5,37,48,38, 0,16,12		9,11
26″	1,23,10,29,57,57,21,38,31,50		6, 4,50,46	
		2, 5,37,48,31,55,25,26		9,11
28″	1,23,12,35,35,45,53,33,57,16		6, 4,59,57	
		2, 5,37,48,25,50,25,29		9,11
30″	1,23,14,41,13,34,19,24,22,45		6, 5, 9, 8	
		2, 5,37,48,19,45,16,21		9,11
32″	1,23,16,46,51,22,39, 9,39, 6		6, 5,18,19	
		2, 5,37,48,13,39,58, 2		9,11
34″	1,23,18,52,29,10,52,49,37, 8		6, 5,27,30	
		2, 5,37,48, 7,34,30,32		9,11
36″	1,23,20,58, 6,59, 0,24, 7,40		6, 5,36,41	
		2, 5,37,48, 1,28,53,51		9,11
38″	1,23,23, 3,44,47, 1,53, 1,31		6, 5,45,52	
		2, 5,37,47,55,23, 7,59		9,11
40″	1,23,25, 9,22,34,57,16, 9,30		6, 5,55, 3	
		2, 5,37,47,49,17,12,56		9,11
42″	1,23,27,15, 0,22,46,33,22,26		6, 6, 4,14	
		2, 5,37,47,43,11, 8,42		9,11
44″	1,23,29,20,38,10,29,44,31, 8		6, 6,13,25	
		2, 5,37,47,37, 4,55,17		9,11
46″	1,23,31,26,15,58, 6,49,26,25		6, 6,22,36	
		2, 5,37,47,30,58,32,41		9,11
48″	1,23,33,31,53,45,37,47,59, 6		6, 6,31,47	
		2, 5,37,47,24,52, 0,54		9,11
50″	1,23,35,37,31,33, 2,40, 0, 0		6, 6,40,58	
		2, 5,37,47,18,45,19,56		9,11
52″	1,23,37,43, 9,20,21,25,19,56		6, 6,50, 9	
		2, 5,37,47,12,38,29,47		9,11
54″	1,23,39,48,47, 7,34, 3,49,43		6, 6,59,20	
		2, 5,37,47, 6,31,30,27		9,11
56″	1,23,41,54,24,54,40,35,20,10		6, 7, 8,31	
		2, 5,37,47, 0,24,21,56		9,11
58″	1,23,44, 0, 2,41,40,59,42, 6		6, 7,17,42	
		2, 5,37,46,54,17, 4,14		
60″	1,23,46, 5,40,28,35,16,46,20			
exact	1,23,46, 5,40,28,35,16,41,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°20′ 0″	1,23,46, 5,40,28,35,16,41,54			
		2, 5,37,46,48, 9,36,51		
2″	1,23,48,11,18,15,23,26,18,45		6, 7,36, 6	
		2, 5,37,46,42, 2, 0,45		9,11
4″	1,23,50,16,56, 2, 5,28,19,30		6, 7,45,17	
		2, 5,37,46,35,54,15,28		9,11
6″	1,23,52,22,33,48,41,22,34,58		6, 7,54,28	
		2, 5,37,46,29,46,21, 0		9,11
8″	1,23,54,28,11,35,11, 8,55,58		6, 8, 3,39	
		2, 5,37,46,23,38,17,21		9,11
10″	1,23,56,33,49,21,34,47,13,19		6, 8,12,50	
		2, 5,37,46,17,30, 4,31		9,11
12″	1,23,58,39,27, 7,52,17,17,50		6, 8,22, 1	
		2, 5,37,46,11,21,42,30		9,11
14″	1,24, 0,45, 4,54, 3,39, 0,20		6, 8,31,12	
		2, 5,37,46, 5,13,11,18		9,11
16″	1,24, 2,50,42,40, 8,52,11,38		6, 8,40,23	
		2, 5,37,45,59, 4,30,55		9,11
18″	1,24, 4,56,20,26, 7,56,42,33		6, 8,49,34	
		2, 5,37,45,52,55,41,21		9,11
20″	1,24, 7, 1,58,12, 0,52,23,54		6, 8,58,45	
		2, 5,37,45,46,46,42,36		9,11
22″	1,24, 9, 7,35,57,47,39, 6,30		6, 9, 7,56	
		2, 5,37,45,40,37,34,40		9,11
24″	1,24,11,13,13,43,28,16,41,10		6, 9,17, 7	
		2, 5,37,45,34,28,17,33		9,11
26″	1,24,13,18,51,29, 2,44,58,43		6, 9,26,18	
		2, 5,37,45,28,18,51,15		9,11
28″	1,24,15,24,29,14,31, 3,49,58		6, 9,35,29	
		2, 5,37,45,22, 9,15,46		9,11
30″	1,24,17,30, 6,59,53,13, 5,44		6, 9,44,40	
		2, 5,37,45,15,59,31, 6		9,11
32″	1,24,19,35,44,45, 9,12,36,50		6, 9,53,51	
		2, 5,37,45, 9,49,37,15		9,11
34″	1,24,21,41,22,30,19, 2,14, 5		6,10, 3, 2	
		2, 5,37,45, 3,39,34,13		9,11
36″	1,24,23,47, 0,15,22,41,48,18		6,10,12,13	
		2, 5,37,44,57,29,22, 0		9,11
38″	1,24,25,52,38, 0,20,11,10,18		6,10,21,24	
		2, 5,37,44,51,19, 0,36		9,11
40″	1,24,27,58,15,45,11,30,10,54		6,10,30,35	
		2, 5,37,44,45, 8,30, 1		9,11
42″	1,24,30, 3,53,29,56,38,40,55		6,10,39,46	
		2, 5,37,44,38,57,50,15		9,11
44″	1,24,32, 9,31,14,35,36,31,10		6,10,48,57	
		2, 5,37,44,32,47, 1,18		9,11
46″	1,24,34,15, 8,59, 8,23,32,28		6,10,58, 8	
		2, 5,37,44,26,36, 3,10		9,11
48″	1,24,36,20,46,43,34,59,35,38		6,11, 7,19	
		2, 5,37,44,20,24,55,51		9,11
50″	1,24,38,26,24,27,55,24,31,29		6,11,16,30	
		2, 5,37,44,14,13,39,21		9,11
52″	1,24,40,32, 2,12, 9,38,10,50		6,11,25,41	
		2, 5,37,44, 8, 2,13,40		9,11
54″	1,24,42,37,39,56,17,40,24,30		6,11,34,52	
		2, 5,37,44, 1,50,38,48		9,11
56″	1,24,44,43,17,40,19,31, 3,18		6,11,44, 3	
		2, 5,37,43,55,38,54,45		9,11
58″	1,24,46,48,55,24,15, 9,58, 3		6,11,53,14	
		2, 5,37,43,49,27, 1,31		
60″	1,24,48,54,33, 8, 4,36,59,34			
exact	1,24,48,54,33, 8, 4,36,53,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°21′ 0″	1,24,48,54,33, 8, 4,36,53,43			
		2, 5,37,43,43,14,58,30		
2″	1,24,51, 0,10,51,47,51,52,13		6,12,11,38	
		2, 5,37,43,37, 2,46,52		9,11
4″	1,24,53, 5,48,35,24,54,39, 5		6,12,20,49	
		2, 5,37,43,30,50,26, 3		9,11
6″	1,24,55,11,26,18,55,45, 5, 8		6,12,30, 0	
		2, 5,37,43,24,37,56, 3		9,11
8″	1,24,57,17, 4, 2,20,23, 1,11		6,12,39,11	
		2, 5,37,43,18,25,16,52		9,11
10″	1,24,59,22,41,45,38,48,18, 3		6,12,48,22	
		2, 5,37,43,12,12,28,30		9,11
12″	1,25, 1,28,19,28,51, 0,46,33		6,12,57,33	
		2, 5,37,43, 5,59,30,57		9,11
14″	1,25, 3,33,57,11,57, 0,17,30		6,13, 6,44	
		2, 5,37,42,59,46,24,13		9,11
16″	1,25, 5,39,34,54,56,46,41,43		6,13,15,55	
		2, 5,37,42,53,33, 8,18		9,11
18″	1,25, 7,45,12,37,50,19,50, 1		6,13,25, 6	
		2, 5,37,42,47,19,43,12		9,11
20″	1,25, 9,50,50,20,37,39,33,13		6,13,34,17	
		2, 5,37,42,41, 6, 8,55		9,11
22″	1,25,11,56,28, 3,18,45,42, 8		6,13,43,28	
		2, 5,37,42,34,52,25,27		9,11
24″	1,25,14, 2, 5,45,53,38, 7,35		6,13,52,39	
		2, 5,37,42,28,38,32,48		9,11
26″	1,25,16, 7,43,28,22,16,40,23		6,14, 1,50	
		2, 5,37,42,22,24,30,58		9,11
28″	1,25,18,13,21,10,44,41,11,21		6,14,11, 1	
		2, 5,37,42,16,10,19,57		9,11
30″	1,25,20,18,58,53, 0,51,31,18		6,14,20,12	
		2, 5,37,42, 9,55,59,45		9,11
32″	1,25,22,24,36,35,10,47,31, 3		6,14,29,23	
		2, 5,37,42, 3,41,30,22		9,11
34″	1,25,24,30,14,17,14,29, 1,25		6,14,38,34	
		2, 5,37,41,57,26,51,48		9,11
36″	1,25,26,35,51,59,11,55,53,13		6,14,47,45	
		2, 5,37,41,51,12, 4, 3		9,11
38″	1,25,28,41,29,41, 3, 7,57,16		6,14,56,56	
		2, 5,37,41,44,57, 7, 7		9,11
40″	1,25,30,47, 7,22,48, 5, 4,23		6,15, 6, 7	
		2, 5,37,41,38,42, 1, 0		9,11
42″	1,25,32,52,45, 4,26,47, 5,23		6,15,15,18	
		2, 5,37,41,32,26,45,42		9,11
44″	1,25,34,58,22,45,59,13,51, 5		6,15,24,29	
		2, 5,37,41,26,11,21,13		9,11
46″	1,25,37, 4, 0,27,25,25,12,18		6,15,33,40	
		2, 5,37,41,19,55,47,33		9,11
48″	1,25,39, 9,38, 8,45,20,59,51		6,15,42,51	
		2, 5,37,41,13,40, 4,42		9,11
50″	1,25,41,15,15,49,59, 1, 4,33		6,15,52, 2	
		2, 5,37,41, 7,24,12,40		9,11
52″	1,25,43,20,53,31, 6,25,17,13		6,16, 1,13	
		2, 5,37,41, 1, 8,11,27		9,11
54″	1,25,45,26,31,12, 7,33,28,40		6,16,10,24	
		2, 5,37,40,54,52, 1, 3		9,11
56″	1,25,47,32, 8,53, 2,25,29,43		6,16,19,35	
		2, 5,37,40,48,35,41,28		9,11
58″	1,25,49,37,46,33,51, 1,11,11		6,16,28,46	
		2, 5,37,40,42,19,12,42		
60″	1,25,51,43,24,14,33,20,23,53			
exact	1,25,51,43,24,14,33,20,17,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°22′ 0″	1,25,51,43,24,14,33,20,17,24			
		2, 5,37,40,36, 2,34, 7		
2″	1,25,53,49, 1,55, 9,22,51,31		6,16,47,10	
		2, 5,37,40,29,45,46,57		9,11
4″	1,25,55,54,39,35,39, 8,38,28		6,16,56,21	
		2, 5,37,40,23,28,50,36		9,11
6″	1,25,58, 0,17,16, 2,37,29, 4		6,17, 5,32	
		2, 5,37,40,17,11,45, 4		9,11
8″	1,26, 0, 5,54,56,19,49,14, 8		6,17,14,43	
		2, 5,37,40,10,54,30,21		9,11
10″	1,26, 2,11,32,36,30,43,44,29		6,17,23,54	
		2, 5,37,40, 4,37, 6,27		9,11
12″	1,26, 4,17,10,16,35,20,50,56		6,17,33, 5	
		2, 5,37,39,58,19,33,22		9,11
14″	1,26, 6,22,47,56,33,40,24,18		6,17,42,16	
		2, 5,37,39,52, 1,51, 6		9,11
16″	1,26, 8,28,25,36,25,42,15,24		6,17,51,27	
		2, 5,37,39,45,43,59,39		9,11
18″	1,26,10,34, 3,16,11,26,15, 3		6,18, 0,38	
		2, 5,37,39,39,25,59, 1		9,11
20″	1,26,12,39,40,55,50,52,14, 4		6,18, 9,49	
		2, 5,37,39,33, 7,49,12		9,11
22″	1,26,14,45,18,35,24, 0, 3,16		6,18,19, 0	
		2, 5,37,39,26,49,30,12		9,11
24″	1,26,16,50,56,14,50,49,33,28		6,18,28,11	
		2, 5,37,39,20,31, 2, 1		9,11
26″	1,26,18,56,33,54,11,20,35,29		6,18,37,22	
		2, 5,37,39,14,12,24,39		9,11
28″	1,26,21, 2,11,33,25,33, 0, 8		6,18,46,33	
		2, 5,37,39, 7,53,38, 6		9,11
30″	1,26,23, 7,49,12,33,26,38,14		6,18,55,44	
		2, 5,37,39, 1,34,42,22		9,11
32″	1,26,25,13,26,51,35, 1,20,36		6,19, 4,55	
		2, 5,37,38,55,15,37,27		9,11
34″	1,26,27,19, 4,30,30,16,58, 3		6,19,14, 6	
		2, 5,37,38,48,56,23,21		9,11
36″	1,26,29,24,42, 9,19,13,21,24		6,19,23,17	
		2, 5,37,38,42,37, 0, 4		9,11
38″	1,26,31,30,19,48, 1,50,21,28		6,19,32,28	
		2, 5,37,38,36,17,27,36		9,11
40″	1,26,33,35,57,26,38, 7,49, 4		6,19,41,39	
		2, 5,37,38,29,57,45,57		9,11
42″	1,26,35,41,35, 5, 8, 5,35, 1		6,19,50,50	
		2, 5,37,38,23,37,55, 7		9,11
44″	1,26,37,47,12,43,31,43,30, 8		6,20, 0, 1	
		2, 5,37,38,17,17,55, 6		9,11
46″	1,26,39,52,50,21,49, 1,25,14		6,20, 9,12	
		2, 5,37,38,10,57,45,54		9,11
48″	1,26,41,58,27,59,59,59,11, 8		6,20,18,23	
		2, 5,37,38, 4,37,27,31		9,11
50″	1,26,44, 4, 5,38, 4,36,38,39		6,20,27,34	
		2, 5,37,37,58,16,59,57		9,11
52″	1,26,46, 9,43,16, 2,53,38,36		6,20,36,45	
		2, 5,37,37,51,56,23,12		9,11
54″	1,26,48,15,20,53,54,50, 1,48		6,20,45,56	
		2, 5,37,37,45,35,37,16		9,11
56″	1,26,50,20,58,31,40,25,39, 4		6,20,55, 7	
		2, 5,37,37,39,14,42, 9		9,11
58″	1,26,52,26,36, 9,19,40,21,13		6,21, 4,18	
		2, 5,37,37,32,53,37,51		
60″	1,26,54,32,13,46,52,33,59, 4			
exact	1,26,54,32,13,46,52,33,52,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°23′ 0″	1,26,54,32,13,46,52,33,52,26			
		2, 5,37,37,26,32,23,45		
2″	1,26,56,37,51,24,19, 6,16,11		6,21,22,42	
		2, 5,37,37,20,11, 1, 3		9,11
4″	1,26,58,43,29, 1,39,17,17,14		6,21,31,53	
		2, 5,37,37,13,49,29,10		9,11
6″	1,27, 0,49, 6,38,53, 6,46,24		6,21,41, 4	
		2, 5,37,37, 7,27,48, 6		9,11
8″	1,27, 2,54,44,16, 0,34,34,30		6,21,50,15	
		2, 5,37,37, 1, 5,57,51		9,11
10″	1,27, 5, 0,21,53, 1,40,32,21		6,21,59,26	
		2, 5,37,36,54,43,58,25		9,11
12″	1,27, 7, 5,59,29,56,24,30,46		6,22, 8,37	
		2, 5,37,36,48,21,49,48		9,11
14″	1,27, 9,11,37, 6,44,46,20,34		6,22,17,48	
		2, 5,37,36,41,59,32, 0		9,11
16″	1,27,11,17,14,43,26,45,52,34		6,22,26,59	
		2, 5,37,36,35,37, 5, 1		9,11
18″	1,27,13,22,52,20, 2,22,57,35		6,22,36,10	
		2, 5,37,36,29,14,28,51		9,11
20″	1,27,15,28,29,56,31,37,26,26		6,22,45,21	
		2, 5,37,36,22,51,43,30		9,11
22″	1,27,17,34, 7,32,54,29, 9,56		6,22,54,32	
		2, 5,37,36,16,28,48,58		9,11
24″	1,27,19,39,45, 9,10,57,58,54		6,23, 3,43	
		2, 5,37,36,10, 5,45,15		9,11
26″	1,27,21,45,22,45,21, 3,44, 9		6,23,12,54	
		2, 5,37,36, 3,42,32,21		9,11
28″	1,27,23,51, 0,21,24,46,16,30		6,23,22, 5	
		2, 5,37,35,57,19,10,16		9,11
30″	1,27,25,56,37,57,22, 5,26,46		6,23,31,16	
		2, 5,37,35,50,55,39, 0		9,11
32″	1,27,28, 2,15,33,13, 1, 5,46		6,23,40,27	
		2, 5,37,35,44,31,58,33		9,11
34″	1,27,30, 7,53, 8,57,33, 4,19		6,23,49,38	
		2, 5,37,35,38, 8, 8,55		9,11
36″	1,27,32,13,30,44,35,41,13,14		6,23,58,49	
		2, 5,37,35,31,44,10, 6		9,11
38″	1,27,34,19, 8,20, 7,25,23,20		6,24, 8, 0	
		2, 5,37,35,25,20, 2, 6		9,11
40″	1,27,36,24,45,55,32,45,25,26		6,24,17,11	
		2, 5,37,35,18,55,44,55		9,11
42″	1,27,38,30,23,30,51,41,10,21		6,24,26,22	
		2, 5,37,35,12,31,18,33		9,11
44″	1,27,40,36, 1, 6, 4,12,28,54		6,24,35,33	
		2, 5,37,35, 6, 6,43, 0		9,11
46″	1,27,42,41,38,41,10,19,11,54		6,24,44,44	
		2, 5,37,34,59,41,58,16		9,11
48″	1,27,44,47,16,16,10, 1,10,10		6,24,53,55	
		2, 5,37,34,53,17, 4,21		9,11
50″	1,27,46,52,53,51, 3,18,14,31		6,25, 3, 6	
		2, 5,37,34,46,52, 1,15		9,11
52″	1,27,48,58,31,25,50,10,15,46		6,25,12,17	
		2, 5,37,34,40,26,48,58		9,11
54″	1,27,51, 4, 9, 0,30,37, 4,44		6,25,21,28	
		2, 5,37,34,34, 1,27,30		9,11
56″	1,27,53, 9,46,35, 4,38,32,14		6,25,30,39	
		2, 5,37,34,27,35,56,51		9,11
58″	1,27,55,15,24, 9,32,14,29, 5		6,25,39,50	
		2, 5,37,34,21,10,17, 1		
60″	1,27,57,21, 1,43,53,24,46, 6			
exact	1,27,57,21, 1,43,53,24,40, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°24′ 0″	1,27,57,21, 1,43,53,24,40, 4			
		2, 5,37,34,14,44,27,26		
2″	1,27,59,26,39,18, 8, 9, 7,30		6,25,58,14	
		2, 5,37,34, 8,18,29,12		9,11
4″	1,28, 1,32,16,52,16,27,36,42		6,26, 7,25	
		2, 5,37,34, 1,52,21,47		9,11
6″	1,28, 3,37,54,26,18,19,58,29		6,26,16,36	
		2, 5,37,33,55,26, 5,11		9,11
8″	1,28, 5,43,32, 0,13,46, 3,40		6,26,25,47	
		2, 5,37,33,48,59,39,24		9,11
10″	1,28, 7,49, 9,34, 2,45,43, 4		6,26,34,58	
		2, 5,37,33,42,33, 4,26		9,11
12″	1,28, 9,54,47, 7,45,18,47,30		6,26,44, 9	
		2, 5,37,33,36, 6,20,17		9,11
14″	1,28,12, 0,24,41,21,25, 7,47		6,26,53,20	
		2, 5,37,33,29,39,26,57		9,11
16″	1,28,14, 6, 2,14,51, 4,34,44		6,27, 2,31	
		2, 5,37,33,23,12,24,26		9,11
18″	1,28,16,11,39,48,14,16,59,10		6,27,11,42	
		2, 5,37,33,16,45,12,44		9,11
20″	1,28,18,17,17,21,31, 2,11,54		6,27,20,53	
		2, 5,37,33,10,17,51,51		9,11
22″	1,28,20,22,54,54,41,20, 3,45		6,27,30, 4	
		2, 5,37,33, 3,50,21,47		9,11
24″	1,28,22,28,32,27,45,10,25,32		6,27,39,15	
		2, 5,37,32,57,22,42,32		9,11
26″	1,28,24,34,10, 0,42,33, 8, 4		6,27,48,26	
		2, 5,37,32,50,54,54, 6		9,11
28″	1,28,26,39,47,33,33,28, 2,10		6,27,57,37	
		2, 5,37,32,44,26,56,29		9,11
30″	1,28,28,45,25, 6,17,54,58,39		6,28, 6,48	
		2, 5,37,32,37,58,49,41		9,11
32″	1,28,30,51, 2,38,55,53,48,20		6,28,15,59	
		2, 5,37,32,31,30,33,42		9,11
34″	1,28,32,56,40,11,27,24,22, 2		6,28,25,10	
		2, 5,37,32,25, 2, 8,32		9,11
36″	1,28,35, 2,17,43,52,26,30,34		6,28,34,21	
		2, 5,37,32,18,33,34,11		9,11
38″	1,28,37, 7,55,16,11, 0, 4,45		6,28,43,32	
		2, 5,37,32,12, 4,50,39		9,11
40″	1,28,39,13,32,48,23, 4,55,24		6,28,52,43	
		2, 5,37,32, 5,35,57,56		9,11
42″	1,28,41,19,10,20,28,40,53,20		6,29, 1,54	
		2, 5,37,31,59, 6,56, 2		9,11
44″	1,28,43,24,47,52,27,47,49,22		6,29,11, 5	
		2, 5,37,31,52,37,44,57		9,11
46″	1,28,45,30,25,24,20,25,34,19		6,29,20,16	
		2, 5,37,31,46, 8,24,41		9,11
48″	1,28,47,36, 2,56, 6,33,59, 0		6,29,29,27	
		2, 5,37,31,39,38,55,14		9,11
50″	1,28,49,41,40,27,46,12,54,14		6,29,38,38	
		2, 5,37,31,33, 9,16,36		9,11
52″	1,28,51,47,17,59,19,22,10,50		6,29,47,49	
		2, 5,37,31,26,39,28,47		9,11
54″	1,28,53,52,55,30,46, 1,39,37		6,29,57, 0	
		2, 5,37,31,20, 9,31,47		9,11
56″	1,28,55,58,33, 2, 6,11,11,24		6,30, 6,11	
		2, 5,37,31,13,39,25,36		9,11
58″	1,28,58, 4,10,33,19,50,37, 0		6,30,15,22	
		2, 5,37,31, 7, 9,10,14		
60″	1,29, 0, 9,48, 4,26,59,47,14			
exact	1,29, 0, 9,48, 4,26,59,43,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°25′ 0″	1,29, 0, 9,48, 4,26,59,43,13			
		2, 5,37,31, 0,38,45,16		
2″	1,29, 2,15,25,35,27,38,28,29		6,30,33,46	
		2, 5,37,30,54, 8,11,30		9,11
4″	1,29, 4,21, 3, 6,21,46,39,59		6,30,42,57	
		2, 5,37,30,47,37,28,33		9,11
6″	1,29, 6,26,40,37, 9,24, 8,32		6,30,52, 8	
		2, 5,37,30,41, 6,36,25		9,11
8″	1,29, 8,32,18, 7,50,30,44,57		6,31, 1,19	
		2, 5,37,30,34,35,35, 6		9,11
10″	1,29,10,37,55,38,25, 6,20, 3		6,31,10,30	
		2, 5,37,30,28, 4,24,36		9,11
12″	1,29,12,43,33, 8,53,10,44,39		6,31,19,41	
		2, 5,37,30,21,33, 4,55		9,11
14″	1,29,14,49,10,39,14,43,49,34		6,31,28,52	
		2, 5,37,30,15, 1,36, 3		9,11
16″	1,29,16,54,48, 9,29,45,25,37		6,31,38, 3	
		2, 5,37,30, 8,29,58, 0		9,11
18″	1,29,19, 0,25,39,38,15,23,37		6,31,47,14	
		2, 5,37,30, 1,58,10,46		9,11
20″	1,29,21, 6, 3, 9,40,13,34,23		6,31,56,25	
		2, 5,37,29,55,26,14,21		9,11
22″	1,29,23,11,40,39,35,39,48,44		6,32, 5,36	
		2, 5,37,29,48,54, 8,45		9,11
24″	1,29,25,17,18, 9,24,33,57,29		6,32,14,47	
		2, 5,37,29,42,21,53,58		9,11
26″	1,29,27,22,55,39, 6,55,51,27		6,32,23,58	
		2, 5,37,29,35,49,30, 0		9,11
28″	1,29,29,28,33, 8,42,45,21,27		6,32,33, 9	
		2, 5,37,29,29,16,56,51		9,11
30″	1,29,31,34,10,38,12, 2,18,18		6,32,42,20	
		2, 5,37,29,22,44,14,31		9,11
32″	1,29,33,39,48, 7,34,46,32,49		6,32,51,31	
		2, 5,37,29,16,11,23, 0		9,11
34″	1,29,35,45,25,36,50,57,55,49		6,33, 0,42	
		2, 5,37,29, 9,38,22,18		9,11
36″	1,29,37,51, 3, 6, 0,36,18, 7		6,33, 9,53	
		2, 5,37,29, 3, 5,12,25		9,11
38″	1,29,39,56,40,35, 3,41,30,32		6,33,19, 4	
		2, 5,37,28,56,31,53,21		9,11
40″	1,29,42, 2,18, 4, 0,13,23,53		6,33,28,15	
		2, 5,37,28,49,58,25, 6		9,11
42″	1,29,44, 7,55,32,50,11,48,59		6,33,37,26	
		2, 5,37,28,43,24,47,40		9,11
44″	1,29,46,13,33, 1,33,36,36,39		6,33,46,37	
		2, 5,37,28,36,51, 1, 3		9,11
46″	1,29,48,19,10,30,10,27,37,42		6,33,55,48	
		2, 5,37,28,30,17, 5,15		9,11
48″	1,29,50,24,47,58,40,44,42,57		6,34, 4,59	
		2, 5,37,28,23,43, 0,16		9,11
50″	1,29,52,30,25,27, 4,27,43,13		6,34,14,10	
		2, 5,37,28,17, 8,46, 6		9,11
52″	1,29,54,36, 2,55,21,36,29,19		6,34,23,21	
		2, 5,37,28,10,34,22,45		9,11
54″	1,29,56,41,40,23,32,10,52, 4		6,34,32,32	
		2, 5,37,28, 3,59,50,13		9,11
56″	1,29,58,47,17,51,36,10,42,17		6,34,41,43	
		2, 5,37,27,57,25, 8,30		9,11
58″	1,30, 0,52,55,19,33,35,50,47		6,34,50,54	
		2, 5,37,27,50,50,17,36		
60″	1,30, 2,58,32,47,24,26, 8,23			
exact	1,30, 2,58,32,47,24,26, 6,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°26′ 0″	1,30, 2,58,32,47,24,26, 6,38			
		2, 5,37,27,44,15,17,16		
2″	1,30, 5, 4,10,15, 8,41,23,54		6,35, 9,17	
		2, 5,37,27,37,40, 7,59		9,11
4″	1,30, 7, 9,47,42,46,21,31,53		6,35,18,28	
		2, 5,37,27,31, 4,49,31		9,11
6″	1,30, 9,15,25,10,17,26,21,24		6,35,27,39	
		2, 5,37,27,24,29,21,52		9,11
8″	1,30,11,21, 2,37,41,55,43,16		6,35,36,50	
		2, 5,37,27,17,53,45, 2		9,11
10″	1,30,13,26,40, 4,59,49,28,18		6,35,46, 1	
		2, 5,37,27,11,17,59, 1		9,11
12″	1,30,15,32,17,32,11, 7,27,19		6,35,55,12	
		2, 5,37,27, 4,42, 3,49		9,11
14″	1,30,17,37,54,59,15,49,31, 8		6,36, 4,23	
		2, 5,37,26,58, 5,59,26		9,11
16″	1,30,19,43,32,26,13,55,30,34		6,36,13,34	
		2, 5,37,26,51,29,45,52		9,11
18″	1,30,21,49, 9,53, 5,25,16,26		6,36,22,45	
		2, 5,37,26,44,53,23, 7		9,11
20″	1,30,23,54,47,19,50,18,39,33		6,36,31,56	
		2, 5,37,26,38,16,51,11		9,11
22″	1,30,26, 0,24,46,28,35,30,44		6,36,41, 7	
		2, 5,37,26,31,40,10, 4		9,11
24″	1,30,28, 6, 2,13, 0,15,40,48		6,36,50,18	
		2, 5,37,26,25, 3,19,46		9,11
26″	1,30,30,11,39,39,25,19, 0,34		6,36,59,29	
		2, 5,37,26,18,26,20,17		9,11
28″	1,30,32,17,17, 5,43,45,20,51		6,37, 8,40	
		2, 5,37,26,11,49,11,37		9,11
30″	1,30,34,22,54,31,55,34,32,28		6,37,17,51	
		2, 5,37,26, 5,11,53,46		9,11
32″	1,30,36,28,31,58, 0,46,26,14		6,37,27, 2	
		2, 5,37,25,58,34,26,44		9,11
34″	1,30,38,34, 9,23,59,20,52,58		6,37,36,13	
		2, 5,37,25,51,56,50,31		9,11
36″	1,30,40,39,46,49,51,17,43,29		6,37,45,24	
		2, 5,37,25,45,19, 5, 7		9,11
38″	1,30,42,45,24,15,36,36,48,36		6,37,54,35	
		2, 5,37,25,38,41,10,32		9,11
40″	1,30,44,51, 1,41,15,17,59, 8		6,38, 3,46	
		2, 5,37,25,32, 3, 6,46		9,11
42″	1,30,46,56,39, 6,47,21, 5,54		6,38,12,57	
		2, 5,37,25,25,24,53,49		9,11
44″	1,30,49, 2,16,32,12,45,59,43		6,38,22, 8	
		2, 5,37,25,18,46,31,41		9,11
46″	1,30,51, 7,53,57,31,32,31,24		6,38,31,19	
		2, 5,37,25,12, 8, 0,22		9,11
48″	1,30,53,13,31,22,43,40,31,46		6,38,40,30	
		2, 5,37,25, 5,29,19,52		9,11
50″	1,30,55,19, 8,47,49, 9,51,38		6,38,49,41	
		2, 5,37,24,58,50,30,11		9,11
52″	1,30,57,24,46,12,48, 0,21,49		6,38,58,52	
		2, 5,37,24,52,11,31,19		9,11
54″	1,30,59,30,23,37,40,11,53, 8		6,39, 8, 3	
		2, 5,37,24,45,32,23,16		9,11
56″	1,31, 1,36, 1, 2,25,44,16,24		6,39,17,14	
		2, 5,37,24,38,53, 6, 2		9,11
58″	1,31, 3,41,38,27, 4,37,22,26		6,39,26,25	
		2, 5,37,24,32,13,39,37		
60″	1,31, 5,47,15,51,36,51, 2, 3			
exact	1,31, 5,47,15,51,36,50,56,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°27′ 0″	1,31, 5,47,15,51,36,50,56,47			
		2, 5,37,24,25,34, 3,32		
2″	1,31, 7,52,53,16, 2,25, 0,19		6,39,44,49	
		2, 5,37,24,18,54,18,43		9,11
4″	1,31, 9,58,30,40,21,19,19, 2		6,39,54, 0	
		2, 5,37,24,12,14,24,43		9,11
6″	1,31,12, 4, 8, 4,33,33,43,45		6,40, 3,11	
		2, 5,37,24, 5,34,21,32		9,11
8″	1,31,14, 9,45,28,39, 8, 5,17		6,40,12,22	
		2, 5,37,23,58,54, 9,10		9,11
10″	1,31,16,15,22,52,38, 2,14,27		6,40,21,33	
		2, 5,37,23,52,13,47,37		9,11
12″	1,31,18,21, 0,16,30,16, 2, 4		6,40,30,44	
		2, 5,37,23,45,33,16,53		9,11
14″	1,31,20,26,37,40,15,49,18,57		6,40,39,55	
		2, 5,37,23,38,52,36,58		9,11
16″	1,31,22,32,15, 3,54,41,55,55		6,40,49, 6	
		2, 5,37,23,32,11,47,52		9,11
18″	1,31,24,37,52,27,26,53,43,47		6,40,58,17	
		2, 5,37,23,25,30,49,35		9,11
20″	1,31,26,43,29,50,52,24,33,22		6,41, 7,28	
		2, 5,37,23,18,49,42, 7		9,11
22″	1,31,28,49, 7,14,11,14,15,29		6,41,16,39	
		2, 5,37,23,12, 8,25,28		9,11
24″	1,31,30,54,44,37,23,22,40,57		6,41,25,50	
		2, 5,37,23, 5,26,59,38		9,11
26″	1,31,33, 0,22, 0,28,49,40,35		6,41,35, 1	
		2, 5,37,22,58,45,24,37		9,11
28″	1,31,35, 5,59,23,27,35, 5,12		6,41,44,12	
		2, 5,37,22,52, 3,40,25		9,11
30″	1,31,37,11,36,46,19,38,45,37		6,41,53,23	
		2, 5,37,22,45,21,47, 2		9,11
32″	1,31,39,17,14, 9, 5, 0,32,39		6,42, 2,34	
		2, 5,37,22,38,39,44,28		9,11
34″	1,31,41,22,51,31,43,40,17, 7		6,42,11,45	
		2, 5,37,22,31,57,32,43		9,11
36″	1,31,43,28,28,54,15,37,49,50		6,42,20,56	
		2, 5,37,22,25,15,11,47		9,11
38″	1,31,45,34, 6,16,40,53, 1,37		6,42,30, 7	
		2, 5,37,22,18,32,41,40		9,11
40″	1,31,47,39,43,38,59,25,43,17		6,42,39,18	
		2, 5,37,22,11,50, 2,22		9,11
42″	1,31,49,45,21, 1,11,15,45,39		6,42,48,29	
		2, 5,37,22, 5, 7,13,53		9,11
44″	1,31,51,50,58,23,16,22,59,32		6,42,57,40	
		2, 5,37,21,58,24,16,13		9,11
46″	1,31,53,56,35,45,14,47,15,45		6,43, 6,51	
		2, 5,37,21,51,41, 9,22		9,11
48″	1,31,56, 2,13, 7, 6,28,25, 7		6,43,16, 2	
		2, 5,37,21,44,57,53,20		9,11
50″	1,31,58, 7,50,28,51,26,18,27		6,43,25,13	
		2, 5,37,21,38,14,28, 7		9,11
52″	1,32, 0,13,27,50,29,40,46,34		6,43,34,24	
		2, 5,37,21,31,30,53,43		9,11
54″	1,32, 2,19, 5,12, 1,11,40,17		6,43,43,35	
		2, 5,37,21,24,47,10, 8		9,11
56″	1,32, 4,24,42,33,25,58,50,25		6,43,52,46	
		2, 5,37,21,18, 3,17,22		9,11
58″	1,32, 6,30,19,54,44, 2, 7,47		6,44, 1,57	
		2, 5,37,21,11,19,15,25		
60″	1,32, 8,35,57,15,55,21,23,12			
exact	1,32, 8,35,57,15,55,21,22, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°28′ 0″	1,32, 8,35,57,15,55,21,22, 1			
		2, 5,37,21, 4,35, 4, 6		
2″	1,32,10,41,34,36,59,56,26, 7		6,44,20,20	
		2, 5,37,20,57,50,43,46		9,11
4″	1,32,12,47,11,57,57,47, 9,53		6,44,29,31	
		2, 5,37,20,51, 6,14,15		9,11
6″	1,32,14,52,49,18,48,53,24, 8		6,44,38,42	
		2, 5,37,20,44,21,35,33		9,11
8″	1,32,16,58,26,39,33,14,59,41		6,44,47,53	
		2, 5,37,20,37,36,47,40		9,11
10″	1,32,19, 4, 4, 0,10,51,47,21		6,44,57, 4	
		2, 5,37,20,30,51,50,36		9,11
12″	1,32,21, 9,41,20,41,43,37,57		6,45, 6,15	
		2, 5,37,20,24, 6,44,21		9,11
14″	1,32,23,15,18,41, 5,50,22,18		6,45,15,26	
		2, 5,37,20,17,21,28,55		9,11
16″	1,32,25,20,56, 1,23,11,51,13		6,45,24,37	
		2, 5,37,20,10,36, 4,18		9,11
18″	1,32,27,26,33,21,33,47,55,31		6,45,33,48	
		2, 5,37,20, 3,50,30,30		9,11
20″	1,32,29,32,10,41,37,38,26, 1		6,45,42,59	
		2, 5,37,19,57, 4,47,31		9,11
22″	1,32,31,37,48, 1,34,43,13,32		6,45,52,10	
		2, 5,37,19,50,18,55,21		9,11
24″	1,32,33,43,25,21,25, 2, 8,53		6,46, 1,21	
		2, 5,37,19,43,32,54, 0		9,11
26″	1,32,35,49, 2,41, 8,35, 2,53		6,46,10,32	
		2, 5,37,19,36,46,43,28		9,11
28″	1,32,37,54,40, 0,45,21,46,21		6,46,19,43	
		2, 5,37,19,30, 0,23,45		9,11
30″	1,32,40, 0,17,20,15,22,10, 6		6,46,28,54	
		2, 5,37,19,23,13,54,51		9,11
32″	1,32,42, 5,54,39,38,36, 4,57		6,46,38, 5	
		2, 5,37,19,16,27,16,46		9,11
34″	1,32,44,11,31,58,55, 3,21,43		6,46,47,16	
		2, 5,37,19, 9,40,29,30		9,11
36″	1,32,46,17, 9,18, 4,43,51,13		6,46,56,27	
		2, 5,37,19, 2,53,33, 3		9,11
38″	1,32,48,22,46,37, 7,37,24,16		6,47, 5,38	
		2, 5,37,18,56, 6,27,25		9,11
40″	1,32,50,28,23,56, 3,43,51,41		6,47,14,49	
		2, 5,37,18,49,19,12,36		9,11
42″	1,32,52,34, 1,14,53, 3, 4,17		6,47,24, 0	
		2, 5,37,18,42,31,48,36		9,11
44″	1,32,54,39,38,33,35,34,52,53		6,47,33,11	
		2, 5,37,18,35,44,15,25		9,11
46″	1,32,56,45,15,52,11,19, 8,18		6,47,42,22	
		2, 5,37,18,28,56,33, 3		9,11
48″	1,32,58,50,53,10,40,15,41,21		6,47,51,33	
		2, 5,37,18,22, 8,41,30		9,11
50″	1,33, 0,56,30,29, 2,24,22,51		6,48, 0,44	
		2, 5,37,18,15,20,40,46		9,11
52″	1,33, 3, 2, 7,47,17,45, 3,37		6,48, 9,55	
		2, 5,37,18, 8,32,30,51		9,11
54″	1,33, 5, 7,45, 5,26,17,34,28		6,48,19, 6	
		2, 5,37,18, 1,44,11,45		9,11
56″	1,33, 7,13,22,23,28, 1,46,13		6,48,28,17	
		2, 5,37,17,54,55,43,28		9,11
58″	1,33, 9,18,59,41,22,57,29,41		6,48,37,28	
		2, 5,37,17,48, 7, 6, 0		
60″	1,33,11,24,36,59,11, 4,35,41			
exact	1,33,11,24,36,59,11, 4,32,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°29′ 0″	1,33,11,24,36,59,11, 4,32,26			
		2, 5,37,17,41,18,19, 2		
2″	1,33,13,30,14,16,52,22,51,28		6,48,55,51	
		2, 5,37,17,34,29,23,11		9,11
4″	1,33,15,35,51,34,26,52,14,39		6,49, 5, 2	
		2, 5,37,17,27,40,18, 9		9,11
6″	1,33,17,41,28,51,54,32,32,48		6,49,14,13	
		2, 5,37,17,20,51, 3,56		9,11
8″	1,33,19,47, 6, 9,15,23,36,44		6,49,23,24	
		2, 5,37,17,14, 1,40,32		9,11
10″	1,33,21,52,43,26,29,25,17,16		6,49,32,35	
		2, 5,37,17, 7,12, 7,57		9,11
12″	1,33,23,58,20,43,36,37,25,13		6,49,41,46	
		2, 5,37,17, 0,22,26,11		9,11
14″	1,33,26, 3,58, 0,36,59,51,24		6,49,50,57	
		2, 5,37,16,53,32,35,14		9,11
16″	1,33,28, 9,35,17,30,32,26,38		6,50, 0, 8	
		2, 5,37,16,46,42,35, 6		9,11
18″	1,33,30,15,12,34,17,15, 1,44		6,50, 9,19	
		2, 5,37,16,39,52,25,47		9,11
20″	1,33,32,20,49,50,57, 7,27,31		6,50,18,30	
		2, 5,37,16,33, 2, 7,17		9,11
22″	1,33,34,26,27, 7,30, 9,34,48		6,50,27,41	
		2, 5,37,16,26,11,39,36		9,11
24″	1,33,36,32, 4,23,56,21,14,24		6,50,36,52	
		2, 5,37,16,19,21, 2,44		9,11
26″	1,33,38,37,41,40,15,42,17, 8		6,50,46, 3	
		2, 5,37,16,12,30,16,41		9,11
28″	1,33,40,43,18,56,28,12,33,49		6,50,55,14	
		2, 5,37,16, 5,39,21,27		9,11
30″	1,33,42,48,56,12,33,51,55,16		6,51, 4,25	
		2, 5,37,15,58,48,17, 2		9,11
32″	1,33,44,54,33,28,32,40,12,18		6,51,13,36	
		2, 5,37,15,51,57, 3,26		9,11
34″	1,33,47, 0,10,44,24,37,15,44		6,51,22,47	
		2, 5,37,15,45, 5,40,39		9,11
36″	1,33,49, 5,48, 0, 9,42,56,23		6,51,31,58	
		2, 5,37,15,38,14, 8,41		9,11
38″	1,33,51,11,25,15,47,57, 5, 4		6,51,41, 9	
		2, 5,37,15,31,22,27,32		9,11
40″	1,33,53,17, 2,31,19,19,32,36		6,51,50,20	
		2, 5,37,15,24,30,37,12		9,11
42″	1,33,55,22,39,46,43,50, 9,48		6,51,59,31	
		2, 5,37,15,17,38,37,41		9,11
44″	1,33,57,28,17, 2, 1,28,47,29		6,52, 8,42	
		2, 5,37,15,10,46,28,59		9,11
46″	1,33,59,33,54,17,12,15,16,28		6,52,17,53	
		2, 5,37,15, 3,54,11, 6		9,11
48″	1,34, 1,39,31,32,16, 9,27,34		6,52,27, 4	
		2, 5,37,14,57, 1,44, 2		9,11
50″	1,34, 3,45, 8,47,13,11,11,36		6,52,36,15	
		2, 5,37,14,50, 9, 7,47		9,11
52″	1,34, 5,50,46, 2, 3,20,19,23		6,52,45,26	
		2, 5,37,14,43,16,22,21		9,11
54″	1,34, 7,56,23,16,46,36,41,44		6,52,54,37	
		2, 5,37,14,36,23,27,44		9,11
56″	1,34,10, 2, 0,31,23, 0, 9,28		6,53, 3,48	
		2, 5,37,14,29,30,23,56		9,11
58″	1,34,12, 7,37,45,52,30,33,24		6,53,12,59	
		2, 5,37,14,22,37,10,57		
60″	1,34,14,13,15, 0,15, 7,44,21			
exact	1,34,14,13,15, 0,15, 7,40, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°30′ 0″	1,34,14,13,15, 0,15, 7,40, 2			
		2, 5,37,14,15,43,48,24		
2″	1,34,16,18,52,14,30,51,28,26		6,53,31,22	
		2, 5,37,14, 8,50,17, 2		9,11
4″	1,34,18,24,29,28,39,41,45,28		6,53,40,33	
		2, 5,37,14, 1,56,36,29		9,11
6″	1,34,20,30, 6,42,41,38,21,57		6,53,49,44	
		2, 5,37,13,55, 2,46,45		9,11
8″	1,34,22,35,43,56,36,41, 8,42		6,53,58,55	
		2, 5,37,13,48, 8,47,50		9,11
10″	1,34,24,41,21,10,24,49,56,32		6,54, 8, 6	
		2, 5,37,13,41,14,39,44		9,11
12″	1,34,26,46,58,24, 6, 4,36,16		6,54,17,17	
		2, 5,37,13,34,20,22,27		9,11
14″	1,34,28,52,35,37,40,24,58,43		6,54,26,28	
		2, 5,37,13,27,25,55,59		9,11
16″	1,34,30,58,12,51, 7,50,54,42		6,54,35,39	
		2, 5,37,13,20,31,20,20		9,11
18″	1,34,33, 3,50, 4,28,22,15, 2		6,54,44,50	
		2, 5,37,13,13,36,35,30		9,11
20″	1,34,35, 9,27,17,41,58,50,32		6,54,54, 1	
		2, 5,37,13, 6,41,41,29		9,11
22″	1,34,37,15, 4,30,48,40,32, 1		6,55, 3,12	
		2, 5,37,12,59,46,38,17		9,11
24″	1,34,39,20,41,43,48,27,10,18		6,55,12,23	
		2, 5,37,12,52,51,25,54		9,11
26″	1,34,41,26,18,56,41,18,36,12		6,55,21,34	
		2, 5,37,12,45,56, 4,20		9,11
28″	1,34,43,31,56, 9,27,14,40,32		6,55,30,45	
		2, 5,37,12,39, 0,33,35		9,11
30″	1,34,45,37,33,22, 6,15,14, 7		6,55,39,56	
		2, 5,37,12,32, 4,53,39		9,11
32″	1,34,47,43,10,34,38,20, 7,46		6,55,49, 7	
		2, 5,37,12,25, 9, 4,32		9,11
34″	1,34,49,48,47,47, 3,29,12,18		6,55,58,18	
		2, 5,37,12,18,13, 6,14		9,11
36″	1,34,51,54,24,59,21,42,18,32		6,56, 7,29	
		2, 5,37,12,11,16,58,45		9,11
38″	1,34,54, 0, 2,11,32,59,17,17		6,56,16,40	
		2, 5,37,12, 4,20,42, 5		9,11
40″	1,34,56, 5,39,23,37,19,59,22		6,56,25,51	
		2, 5,37,11,57,24,16,14		9,11
42″	1,34,58,11,16,35,34,44,15,36		6,56,35, 2	
		2, 5,37,11,50,27,41,12		9,11
44″	1,35, 0,16,53,47,25,11,56,48		6,56,44,13	
		2, 5,37,11,43,30,56,59		9,11
46″	1,35, 2,22,30,59, 8,42,53,47		6,56,53,24	
		2, 5,37,11,36,34, 3,35		9,11
48″	1,35, 4,28, 8,10,45,16,57,22		6,57, 2,35	
		2, 5,37,11,29,37, 1, 0		9,11
50″	1,35, 6,33,45,22,14,53,58,22		6,57,11,46	
		2, 5,37,11,22,39,49,14		9,11
52″	1,35, 8,39,22,33,37,33,47,36		6,57,20,57	
		2, 5,37,11,15,42,28,17		9,11
54″	1,35,10,44,59,44,53,16,15,53		6,57,30, 8	
		2, 5,37,11, 8,44,58, 9		9,11
56″	1,35,12,50,36,56, 2, 1,14, 2		6,57,39,19	
		2, 5,37,11, 1,47,18,50		9,11
58″	1,35,14,56,14, 7, 3,48,32,52		6,57,48,30	
		2, 5,37,10,54,49,30,20		
60″	1,35,17, 1,51,17,58,38, 3,12			
exact	1,35,17, 1,51,17,58,37,58,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°31′ 0″	1,35,17, 1,51,17,58,37,58,40			
		2, 5,37,10,47,51,32,15		
2″	1,35,19, 7,28,28,46,29,30,55		6,58, 6,53	
		2, 5,37,10,40,53,25,22		9,11
4″	1,35,21,13, 5,39,27,22,56,17		6,58,16, 4	
		2, 5,37,10,33,55, 9,18		9,11
6″	1,35,23,18,42,50, 1,18, 5,35		6,58,25,15	
		2, 5,37,10,26,56,44, 3		9,11
8″	1,35,25,24,20, 0,28,14,49,38		6,58,34,26	
		2, 5,37,10,19,58, 9,37		9,11
10″	1,35,27,29,57,10,48,12,59,15		6,58,43,37	
		2, 5,37,10,12,59,26, 0		9,11
12″	1,35,29,35,34,21, 1,12,25,15		6,58,52,48	
		2, 5,37,10, 6, 0,33,12		9,11
14″	1,35,31,41,11,31, 7,12,58,27		6,59, 1,59	
		2, 5,37, 9,59, 1,31,13		9,11
16″	1,35,33,46,48,41, 6,14,29,40		6,59,11,10	
		2, 5,37, 9,52, 2,20, 3		9,11
18″	1,35,35,52,25,50,58,16,49,43		6,59,20,21	
		2, 5,37, 9,45, 2,59,42		9,11
20″	1,35,37,58, 3, 0,43,19,49,25		6,59,29,32	
		2, 5,37, 9,38, 3,30,10		9,11
22″	1,35,40, 3,40,10,21,23,19,35		6,59,38,43	
		2, 5,37, 9,31, 3,51,27		9,11
24″	1,35,42, 9,17,19,52,27,11, 2		6,59,47,54	
		2, 5,37, 9,24, 4, 3,33		9,11
26″	1,35,44,14,54,29,16,31,14,35		6,59,57, 5	
		2, 5,37, 9,17, 4, 6,28		9,11
28″	1,35,46,20,31,38,33,35,21, 3		7, 0, 6,16	
		2, 5,37, 9,10, 4, 0,12		9,11
30″	1,35,48,26, 8,47,43,39,21,15		7, 0,15,27	
		2, 5,37, 9, 3, 3,44,45		9,11
32″	1,35,50,31,45,56,46,43, 6, 0		7, 0,24,38	
		2, 5,37, 8,56, 3,20, 7		9,11
34″	1,35,52,37,23, 5,42,46,26, 7		7, 0,33,49	
		2, 5,37, 8,49, 2,46,18		9,11
36″	1,35,54,43, 0,14,31,49,12,25		7, 0,43, 0	
		2, 5,37, 8,42, 2, 3,18		9,11
38″	1,35,56,48,37,23,13,51,15,43		7, 0,52,11	
		2, 5,37, 8,35, 1,11, 7		9,11
40″	1,35,58,54,14,31,48,52,26,50		7, 1, 1,22	
		2, 5,37, 8,28, 0, 9,45		9,11
42″	1,36, 0,59,51,40,16,52,36,35		7, 1,10,33	
		2, 5,37, 8,20,58,59,12		9,11
44″	1,36, 3, 5,28,48,37,51,35,47		7, 1,19,44	
		2, 5,37, 8,13,57,39,28		9,11
46″	1,36, 5,11, 5,56,51,49,15,15		7, 1,28,55	
		2, 5,37, 8, 6,56,10,33		9,11
48″	1,36, 7,16,43, 4,58,45,25,48		7, 1,38, 6	
		2, 5,37, 7,59,54,32,27		9,11
50″	1,36, 9,22,20,12,58,39,58,15		7, 1,47,17	
		2, 5,37, 7,52,52,45,10		9,11
52″	1,36,11,27,57,20,51,32,43,25		7, 1,56,28	
		2, 5,37, 7,45,50,48,42		9,11
54″	1,36,13,33,34,28,37,23,32, 7		7, 2, 5,39	
		2, 5,37, 7,38,48,43, 3		9,11
56″	1,36,15,39,11,36,16,12,15,10		7, 2,14,50	
		2, 5,37, 7,31,46,28,13		9,11
58″	1,36,17,44,48,43,47,58,43,23		7, 2,24, 1	
		2, 5,37, 7,24,44, 4,12		
60″	1,36,19,50,25,51,12,42,47,35			
exact	1,36,19,50,25,51,12,42,44, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°32′ 0″	1,36,19,50,25,51,12,42,44, 3			
		2, 5,37, 7,17,41,30,41		
2″	1,36,21,56, 2,58,30,24,14,44		7, 2,42,24	
		2, 5,37, 7,10,38,48,17		9,11
4″	1,36,24, 1,40, 5,41, 3, 3, 1		7, 2,51,35	
		2, 5,37, 7, 3,35,56,42		9,11
6″	1,36,26, 7,17,12,44,38,59,43		7, 3, 0,46	
		2, 5,37, 6,56,32,55,56		9,11
8″	1,36,28,12,54,19,41,11,55,39		7, 3, 9,57	
		2, 5,37, 6,49,29,45,59		9,11
10″	1,36,30,18,31,26,30,41,41,38		7, 3,19, 8	
		2, 5,37, 6,42,26,26,51		9,11
12″	1,36,32,24, 8,33,13, 8, 8,29		7, 3,28,19	
		2, 5,37, 6,35,22,58,32		9,11
14″	1,36,34,29,45,39,48,31, 7, 1		7, 3,37,30	
		2, 5,37, 6,28,19,21, 2		9,11
16″	1,36,36,35,22,46,16,50,28, 3		7, 3,46,41	
		2, 5,37, 6,21,15,34,21		9,11
18″	1,36,38,40,59,52,38, 6, 2,24		7, 3,55,52	
		2, 5,37, 6,14,11,38,29		9,11
20″	1,36,40,46,36,58,52,17,40,53		7, 4, 5, 3	
		2, 5,37, 6, 7, 7,33,26		9,11
22″	1,36,42,52,14, 4,59,25,14,19		7, 4,14,14	
		2, 5,37, 6, 0, 3,19,12		9,11
24″	1,36,44,57,51,10,59,28,33,31		7, 4,23,25	
		2, 5,37, 5,52,58,55,47		9,11
26″	1,36,47, 3,28,16,52,27,29,18		7, 4,32,36	
		2, 5,37, 5,45,54,23,11		9,11
28″	1,36,49, 9, 5,22,38,21,52,29		7, 4,41,47	
		2, 5,37, 5,38,49,41,24		9,11
30″	1,36,51,14,42,28,17,11,33,53		7, 4,50,58	
		2, 5,37, 5,31,44,50,26		9,11
32″	1,36,53,20,19,33,48,56,24,19		7, 5, 0, 9	
		2, 5,37, 5,24,39,50,17		9,11
34″	1,36,55,25,56,39,13,36,14,36		7, 5, 9,20	
		2, 5,37, 5,17,34,40,57		9,11
36″	1,36,57,31,33,44,31,10,55,33		7, 5,18,31	
		2, 5,37, 5,10,29,22,26		9,11
38″	1,36,59,37,10,49,41,40,17,59		7, 5,27,42	
		2, 5,37, 5, 3,23,54,44		9,11
40″	1,37, 1,42,47,54,45, 4,12,43		7, 5,36,53	
		2, 5,37, 4,56,18,17,51		9,11
42″	1,37, 3,48,24,59,41,22,30,34		7, 5,46, 4	
		2, 5,37, 4,49,12,31,47		9,11
44″	1,37, 5,54, 2, 4,30,35, 2,21		7, 5,55,15	
		2, 5,37, 4,42, 6,36,32		9,11
46″	1,37, 7,59,39, 9,12,41,38,53		7, 6, 4,26	
		2, 5,37, 4,35, 0,32, 6		9,11
48″	1,37,10, 5,16,13,47,42,10,59		7, 6,13,37	
		2, 5,37, 4,27,54,18,29		9,11
50″	1,37,12,10,53,18,15,36,29,28		7, 6,22,48	
		2, 5,37, 4,20,47,55,41		9,11
52″	1,37,14,16,30,22,36,24,25, 9		7, 6,31,59	
		2, 5,37, 4,13,41,23,42		9,11
54″	1,37,16,22, 7,26,50, 5,48,51		7, 6,41,10	
		2, 5,37, 4, 6,34,42,32		9,11
56″	1,37,18,27,44,30,56,40,31,23		7, 6,50,21	
		2, 5,37, 3,59,27,52,11		9,11
58″	1,37,20,33,21,34,56, 8,23,34		7, 6,59,32	
		2, 5,37, 3,52,20,52,39		
60″	1,37,22,38,58,38,48,29,16,13			
exact	1,37,22,38,58,38,48,29,13,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°33′ 0″	1,37,22,38,58,38,48,29,13,50			
		2, 5,37, 3,45,13,43,43		
2″	1,37,24,44,35,42,33,42,57,33		7, 7,17,55	
		2, 5,37, 3,38, 6,25,48		9,11
4″	1,37,26,50,12,46,11,49,23,21		7, 7,27, 6	
		2, 5,37, 3,30,58,58,42		9,11
6″	1,37,28,55,49,49,42,48,22, 3		7, 7,36,17	
		2, 5,37, 3,23,51,22,25		9,11
8″	1,37,31, 1,26,53, 6,39,44,28		7, 7,45,28	
		2, 5,37, 3,16,43,36,57		9,11
10″	1,37,33, 7, 3,56,23,23,21,25		7, 7,54,39	
		2, 5,37, 3, 9,35,42,18		9,11
12″	1,37,35,12,40,59,32,59, 3,43		7, 8, 3,50	
		2, 5,37, 3, 2,27,38,28		9,11
14″	1,37,37,18,18, 2,35,26,42,11		7, 8,13, 1	
		2, 5,37, 2,55,19,25,27		9,11
16″	1,37,39,23,55, 5,30,46, 7,38		7, 8,22,12	
		2, 5,37, 2,48,11, 3,15		9,11
18″	1,37,41,29,32, 8,18,57,10,53		7, 8,31,23	
		2, 5,37, 2,41, 2,31,52		9,11
20″	1,37,43,35, 9,10,59,59,42,45		7, 8,40,34	
		2, 5,37, 2,33,53,51,18		9,11
22″	1,37,45,40,46,13,33,53,34, 3		7, 8,49,45	
		2, 5,37, 2,26,45, 1,33		9,11
24″	1,37,47,46,23,16, 0,38,35,36		7, 8,58,56	
		2, 5,37, 2,19,36, 2,37		9,11
26″	1,37,49,52, 0,18,20,14,38,13		7, 9, 8, 7	
		2, 5,37, 2,12,26,54,30		9,11
28″	1,37,51,57,37,20,32,41,32,43		7, 9,17,18	
		2, 5,37, 2, 5,17,37,12		9,11
30″	1,37,54, 3,14,22,37,59, 9,55		7, 9,26,29	
		2, 5,37, 1,58, 8,10,43		9,11
32″	1,37,56, 8,51,24,36, 7,20,38		7, 9,35,40	
		2, 5,37, 1,50,58,35, 3		9,11
34″	1,37,58,14,28,26,27, 5,55,41		7, 9,44,51	
		2, 5,37, 1,43,48,50,12		9,11
36″	1,38, 0,20, 5,28,10,54,45,53		7, 9,54, 2	
		2, 5,37, 1,36,38,56,10		9,11
38″	1,38, 2,25,42,29,47,33,42, 3		7,10, 3,13	
		2, 5,37, 1,29,28,52,57		9,11
40″	1,38, 4,31,19,31,17, 2,35, 0		7,10,12,24	
		2, 5,37, 1,22,18,40,33		9,11
42″	1,38, 6,36,56,32,39,21,15,33		7,10,21,35	
		2, 5,37, 1,15, 8,18,58		9,11
44″	1,38, 8,42,33,33,54,29,34,31		7,10,30,46	
		2, 5,37, 1, 7,57,48,12		9,11
46″	1,38,10,48,10,35, 2,27,22,43		7,10,39,57	
		2, 5,37, 1, 0,47, 8,15		9,11
48″	1,38,12,53,47,36, 3,14,30,58		7,10,49, 8	
		2, 5,37, 0,53,36,19, 7		9,11
50″	1,38,14,59,24,36,56,50,50, 5		7,10,58,19	
		2, 5,37, 0,46,25,20,48		9,11
52″	1,38,17, 5, 1,37,43,16,10,53		7,11, 7,30	
		2, 5,37, 0,39,14,13,18		9,11
54″	1,38,19,10,38,38,22,30,24,11		7,11,16,41	
		2, 5,37, 0,32, 2,56,37		9,11
56″	1,38,21,16,15,38,54,33,20,48		7,11,25,52	
		2, 5,37, 0,24,51,30,45		9,11
58″	1,38,23,21,52,39,19,24,51,33		7,11,35, 3	
		2, 5,37, 0,17,39,55,42		
60″	1,38,25,27,29,39,37, 4,47,15			
exact	1,38,25,27,29,39,37, 4,47,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°34′ 0″	1,38,25,27,29,39,37, 4,47,37			
		2, 5,37, 0,10,28,11,27		
2″	1,38,27,33, 6,39,47,32,59, 4		7,11,53,25	
		2, 5,37, 0, 3,16,18, 2		9,11
4″	1,38,29,38,43,39,50,49,17, 6		7,12, 2,36	
		2, 5,36,59,56, 4,15,26		9,11
6″	1,38,31,44,20,39,46,53,32,32		7,12,11,47	
		2, 5,36,59,48,52, 3,39		9,11
8″	1,38,33,49,57,39,35,45,36,11		7,12,20,58	
		2, 5,36,59,41,39,42,41		9,11
10″	1,38,35,55,34,39,17,25,18,52		7,12,30, 9	
		2, 5,36,59,34,27,12,32		9,11
12″	1,38,38, 1,11,38,51,52,31,24		7,12,39,20	
		2, 5,36,59,27,14,33,12		9,11
14″	1,38,40, 6,48,38,19, 7, 4,36		7,12,48,31	
		2, 5,36,59,20, 1,44,41		9,11
16″	1,38,42,12,25,37,39, 8,49,17		7,12,57,42	
		2, 5,36,59,12,48,46,59		9,11
18″	1,38,44,18, 2,36,51,57,36,16		7,13, 6,53	
		2, 5,36,59, 5,35,40, 6		9,11
20″	1,38,46,23,39,35,57,33,16,22		7,13,16, 4	
		2, 5,36,58,58,22,24, 2		9,11
22″	1,38,48,29,16,34,55,55,40,24		7,13,25,15	
		2, 5,36,58,51, 8,58,47		9,11
24″	1,38,50,34,53,33,47, 4,39,11		7,13,34,26	
		2, 5,36,58,43,55,24,21		9,11
26″	1,38,52,40,30,32,31, 0, 3,32		7,13,43,37	
		2, 5,36,58,36,41,40,44		9,11
28″	1,38,54,46, 7,31, 7,41,44,16		7,13,52,48	
		2, 5,36,58,29,27,47,56		9,11
30″	1,38,56,51,44,29,37, 9,32,12		7,14, 1,59	
		2, 5,36,58,22,13,45,57		9,11
32″	1,38,58,57,21,27,59,23,18, 9		7,14,11,10	
		2, 5,36,58,14,59,34,47		9,11
34″	1,39, 1, 2,58,26,14,22,52,56		7,14,20,21	
		2, 5,36,58, 7,45,14,26		9,11
36″	1,39, 3, 8,35,24,22, 8, 7,22		7,14,29,32	
		2, 5,36,58, 0,30,44,54		9,11
38″	1,39, 5,14,12,22,22,38,52,16		7,14,38,43	
		2, 5,36,57,53,16, 6,11		9,11
40″	1,39, 7,19,49,20,15,54,58,27		7,14,47,54	
		2, 5,36,57,46, 1,18,17		9,11
42″	1,39, 9,25,26,18, 1,56,16,44		7,14,57, 5	
		2, 5,36,57,38,46,21,12		9,11
44″	1,39,11,31, 3,15,40,42,37,56		7,15, 6,16	
		2, 5,36,57,31,31,14,56		9,11
46″	1,39,13,36,40,13,12,13,52,52		7,15,15,27	
		2, 5,36,57,24,15,59,29		9,11
48″	1,39,15,42,17,10,36,29,52,21		7,15,24,38	
		2, 5,36,57,17, 0,34,51		9,11
50″	1,39,17,47,54, 7,53,30,27,12		7,15,33,49	
		2, 5,36,57, 9,45, 1, 2		9,11
52″	1,39,19,53,31, 5, 3,15,28,14		7,15,43, 0	
		2, 5,36,57, 2,29,18, 2		9,11
54″	1,39,21,59, 8, 2, 5,44,46,16		7,15,52,11	
		2, 5,36,56,55,13,25,51		9,11
56″	1,39,24, 4,44,59, 0,58,12, 7		7,16, 1,22	
		2, 5,36,56,47,57,24,29		9,11
58″	1,39,26,10,21,55,48,55,36,36		7,16,10,33	
		2, 5,36,56,40,41,13,56		
60″	1,39,28,15,58,52,29,36,50,32			
exact	1,39,28,15,58,52,29,36,46,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°35′ 0″	1,39,28,15,58,52,29,36,46,54			
		2, 5,36,56,33,24,53,55		
2″	1,39,30,21,35,49, 3, 1,40,49		7,16,28,56	
		2, 5,36,56,26, 8,24,59		9,11
4″	1,39,32,27,12,45,29,10, 5,48		7,16,38, 7	
		2, 5,36,56,18,51,46,52		9,11
6″	1,39,34,32,49,41,48, 1,52,40		7,16,47,18	
		2, 5,36,56,11,34,59,34		9,11
8″	1,39,36,38,26,37,59,36,52,14		7,16,56,29	
		2, 5,36,56, 4,18, 3, 5		9,11
10″	1,39,38,44, 3,34, 3,54,55,19		7,17, 5,40	
		2, 5,36,55,57, 0,57,25		9,11
12″	1,39,40,49,40,30, 0,55,52,44		7,17,14,51	
		2, 5,36,55,49,43,42,34		9,11
14″	1,39,42,55,17,25,50,39,35,18		7,17,24, 2	
		2, 5,36,55,42,26,18,32		9,11
16″	1,39,45, 0,54,21,33, 5,53,50		7,17,33,13	
		2, 5,36,55,35, 8,45,19		9,11
18″	1,39,47, 6,31,17, 8,14,39, 9		7,17,42,24	
		2, 5,36,55,27,51, 2,55		9,11
20″	1,39,49,12, 8,12,36, 5,42, 4		7,17,51,35	
		2, 5,36,55,20,33,11,20		9,11
22″	1,39,51,17,45, 7,56,38,53,24		7,18, 0,46	
		2, 5,36,55,13,15,10,34		9,11
24″	1,39,53,23,22, 3, 9,54, 3,58		7,18, 9,57	
		2, 5,36,55, 5,57, 0,37		9,11
26″	1,39,55,28,58,58,15,51, 4,35		7,18,19, 8	
		2, 5,36,54,58,38,41,29		9,11
28″	1,39,57,34,35,53,14,29,46, 4		7,18,28,19	
		2, 5,36,54,51,20,13,10		9,11
30″	1,39,59,40,12,48, 5,49,59,14		7,18,37,30	
		2, 5,36,54,44, 1,35,40		9,11
32″	1,40, 1,45,49,42,49,51,34,54		7,18,46,41	
		2, 5,36,54,36,42,48,59		9,11
34″	1,40, 3,51,26,37,26,34,23,53		7,18,55,52	
		2, 5,36,54,29,23,53, 7		9,11
36″	1,40, 5,57, 3,31,55,58,17, 0		7,19, 5, 3	
		2, 5,36,54,22, 4,48, 4		9,11
38″	1,40, 8, 2,40,26,18, 3, 5, 4		7,19,14,14	
		2, 5,36,54,14,45,33,50		9,11
40″	1,40,10, 8,17,20,32,48,38,54		7,19,23,25	
		2, 5,36,54, 7,26,10,25		9,11
42″	1,40,12,13,54,14,40,14,49,19		7,19,32,36	
		2, 5,36,54, 0, 6,37,49		9,11
44″	1,40,14,19,31, 8,40,21,27, 8		7,19,41,47	
		2, 5,36,53,52,46,56, 2		9,11
46″	1,40,16,25, 8, 2,33, 8,23,10		7,19,50,58	
		2, 5,36,53,45,27, 5, 4		9,11
48″	1,40,18,30,44,56,18,35,28,14		7,20, 0, 9	
		2, 5,36,53,38, 7, 4,55		9,11
50″	1,40,20,36,21,49,56,42,33, 9		7,20, 9,20	
		2, 5,36,53,30,46,55,35		9,11
52″	1,40,22,41,58,43,27,29,28,44		7,20,18,31	
		2, 5,36,53,23,26,37, 4		9,11
54″	1,40,24,47,35,36,50,56, 5,48		7,20,27,42	
		2, 5,36,53,16, 6, 9,22		9,11
56″	1,40,26,53,12,30, 7, 2,15,10		7,20,36,53	
		2, 5,36,53, 8,45,32,29		9,11
58″	1,40,28,58,49,23,15,47,47,39		7,20,46, 4	
		2, 5,36,53, 1,24,46,25		
60″	1,40,31, 4,26,16,17,12,34, 4			
exact	1,40,31, 4,26,16,17,12,35,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°36′ 0″	1,40,31, 4,26,16,17,12,35,13			
		2, 5,36,52,54, 3,51,13		
2″	1,40,33,10, 3, 9,11,16,26,26		7,21, 4,26	
		2, 5,36,52,46,42,46,47		9,11
4″	1,40,35,15,40, 1,57,59,13,13		7,21,13,37	
		2, 5,36,52,39,21,33,10		9,11
6″	1,40,37,21,16,54,37,20,46,23		7,21,22,48	
		2, 5,36,52,32, 0,10,22		9,11
8″	1,40,39,26,53,47, 9,20,56,45		7,21,31,59	
		2, 5,36,52,24,38,38,23		9,11
10″	1,40,41,32,30,39,33,59,35, 8		7,21,41,10	
		2, 5,36,52,17,16,57,13		9,11
12″	1,40,43,38, 7,31,51,16,32,21		7,21,50,21	
		2, 5,36,52, 9,55, 6,52		9,11
14″	1,40,45,43,44,24, 1,11,39,13		7,21,59,32	
		2, 5,36,52, 2,33, 7,20		9,11
16″	1,40,47,49,21,16, 3,44,46,33		7,22, 8,43	
		2, 5,36,51,55,10,58,37		9,11
18″	1,40,49,54,58, 7,58,55,45,10		7,22,17,54	
		2, 5,36,51,47,48,40,43		9,11
20″	1,40,52, 0,34,59,46,44,25,53		7,22,27, 5	
		2, 5,36,51,40,26,13,38		9,11
22″	1,40,54, 6,11,51,27,10,39,31		7,22,36,16	
		2, 5,36,51,33, 3,37,22		9,11
24″	1,40,56,11,48,43, 0,14,16,53		7,22,45,27	
		2, 5,36,51,25,40,51,55		9,11
26″	1,40,58,17,25,34,25,55, 8,48		7,22,54,38	
		2, 5,36,51,18,17,57,17		9,11
28″	1,41, 0,23, 2,25,44,13, 6, 5		7,23, 3,49	
		2, 5,36,51,10,54,53,28		9,11
30″	1,41, 2,28,39,16,55, 7,59,33		7,23,13, 0	
		2, 5,36,51, 3,31,40,28		9,11
32″	1,41, 4,34,16, 7,58,39,40, 1		7,23,22,11	
		2, 5,36,50,56, 8,18,17		9,11
34″	1,41, 6,39,52,58,54,47,58,18		7,23,31,22	
		2, 5,36,50,48,44,46,55		9,11
36″	1,41, 8,45,29,49,43,32,45,13		7,23,40,33	
		2, 5,36,50,41,21, 6,22		9,11
38″	1,41,10,51, 6,40,24,53,51,35		7,23,49,44	
		2, 5,36,50,33,57,16,38		9,11
40″	1,41,12,56,43,30,58,51, 8,13		7,23,58,55	
		2, 5,36,50,26,33,17,43		9,11
42″	1,41,15, 2,20,21,25,24,25,56		7,24, 8, 6	
		2, 5,36,50,19, 9, 9,37		9,11
44″	1,41,17, 7,57,11,44,33,35,33		7,24,17,17	
		2, 5,36,50,11,44,52,20		9,11
46″	1,41,19,13,34, 1,56,18,27,53		7,24,26,28	
		2, 5,36,50, 4,20,25,52		9,11
48″	1,41,21,19,10,52, 0,38,53,45		7,24,35,39	
		2, 5,36,49,56,55,50,13		9,11
50″	1,41,23,24,47,41,57,34,43,58		7,24,44,50	
		2, 5,36,49,49,31, 5,23		9,11
52″	1,41,25,30,24,31,47, 5,49,21		7,24,54, 1	
		2, 5,36,49,42, 6,11,22		9,11
54″	1,41,27,36, 1,21,29,12, 0,43		7,25, 3,12	
		2, 5,36,49,34,41, 8,10		9,11
56″	1,41,29,41,38,11, 3,53, 8,53		7,25,12,23	
		2, 5,36,49,27,15,55,47		9,11
58″	1,41,31,47,15, 0,31, 9, 4,40		7,25,21,34	
		2, 5,36,49,19,50,34,13		
60″	1,41,33,52,51,49,50,59,38,53			
exact	1,41,33,52,51,49,50,59,38, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°37′ 0″	1,41,33,52,51,49,50,59,38, 2			
		2, 5,36,49,12,25, 3,24		
2″	1,41,35,58,28,39, 3,24,41,26		7,25,39,56	
		2, 5,36,49, 4,59,23,28		9,11
4″	1,41,38, 4, 5,28, 8,24, 4,54		7,25,49, 7	
		2, 5,36,48,57,33,34,21		9,11
6″	1,41,40, 9,42,17, 5,57,39,15		7,25,58,18	
		2, 5,36,48,50, 7,36, 3		9,11
8″	1,41,42,15,19, 5,56, 5,15,18		7,26, 7,29	
		2, 5,36,48,42,41,28,34		9,11
10″	1,41,44,20,55,54,38,46,43,52		7,26,16,40	
		2, 5,36,48,35,15,11,54		9,11
12″	1,41,46,26,32,43,14, 1,55,46		7,26,25,51	
		2, 5,36,48,27,48,46, 3		9,11
14″	1,41,48,32, 9,31,41,50,41,49		7,26,35, 2	
		2, 5,36,48,20,22,11, 1		9,11
16″	1,41,50,37,46,20, 2,12,52,50		7,26,44,13	
		2, 5,36,48,12,55,26,48		9,11
18″	1,41,52,43,23, 8,15, 8,19,38		7,26,53,24	
		2, 5,36,48, 5,28,33,24		9,11
20″	1,41,54,48,59,56,20,36,53, 2		7,27, 2,35	
		2, 5,36,47,58, 1,30,49		9,11
22″	1,41,56,54,36,44,18,38,23,51		7,27,11,46	
		2, 5,36,47,50,34,19, 3		9,11
24″	1,41,59, 0,13,32, 9,12,42,54		7,27,20,57	
		2, 5,36,47,43, 6,58, 6		9,11
26″	1,42, 1, 5,50,19,52,19,41, 0		7,27,30, 8	
		2, 5,36,47,35,39,27,58		9,11
28″	1,42, 3,11,27, 7,27,59, 8,58		7,27,39,19	
		2, 5,36,47,28,11,48,39		9,11
30″	1,42, 5,17, 3,54,56,10,57,37		7,27,48,30	
		2, 5,36,47,20,44, 0, 9		9,11
32″	1,42, 7,22,40,42,16,54,57,46		7,27,57,41	
		2, 5,36,47,13,16, 2,28		9,11
34″	1,42, 9,28,17,29,30,11, 0,14		7,28, 6,52	
		2, 5,36,47, 5,47,55,36		9,11
36″	1,42,11,33,54,16,35,58,55,50		7,28,16, 3	
		2, 5,36,46,58,19,39,33		9,11
38″	1,42,13,39,31, 3,34,18,35,23		7,28,25,14	
		2, 5,36,46,50,51,14,19		9,11
40″	1,42,15,45, 7,50,25, 9,49,42		7,28,34,25	
		2, 5,36,46,43,22,39,54		9,11
42″	1,42,17,50,44,37, 8,32,29,36		7,28,43,36	
		2, 5,36,46,35,53,56,18		9,11
44″	1,42,19,56,21,23,44,26,25,54		7,28,52,47	
		2, 5,36,46,28,25, 3,31		9,11
46″	1,42,22, 1,58,10,12,51,29,25		7,29, 1,58	
		2, 5,36,46,20,56, 1,33		9,11
48″	1,42,24, 7,34,56,33,47,30,58		7,29,11, 9	
		2, 5,36,46,13,26,50,24		9,11
50″	1,42,26,13,11,42,47,14,21,22		7,29,20,20	
		2, 5,36,46, 5,57,30, 4		9,11
52″	1,42,28,18,48,28,53,11,51,26		7,29,29,31	
		2, 5,36,45,58,28, 0,33		9,11
54″	1,42,30,24,25,14,51,39,51,59		7,29,38,42	
		2, 5,36,45,50,58,21,51		9,11
56″	1,42,32,30, 2, 0,42,38,13,50		7,29,47,53	
		2, 5,36,45,43,28,33,58		9,11
58″	1,42,34,35,38,46,26, 6,47,48		7,29,57, 4	
		2, 5,36,45,35,58,36,54		
60″	1,42,36,41,15,32, 2, 5,24,42			
exact	1,42,36,41,15,32, 2, 5,22,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°38′ 0″	1,42,36,41,15,32, 2, 5,22,52			
		2, 5,36,45,28,28,30,32		
2″	1,42,38,46,52,17,30,33,53,24		7,30,15,26	
		2, 5,36,45,20,58,15, 6		9,11
4″	1,42,40,52,29, 2,51,32, 8,30		7,30,24,37	
		2, 5,36,45,13,27,50,29		9,11
6″	1,42,42,58, 5,48, 4,59,58,59		7,30,33,48	
		2, 5,36,45, 5,57,16,41		9,11
8″	1,42,45, 3,42,33,10,57,15,40		7,30,42,59	
		2, 5,36,44,58,26,33,42		9,11
10″	1,42,47, 9,19,18, 9,23,49,22		7,30,52,10	
		2, 5,36,44,50,55,41,32		9,11
12″	1,42,49,14,56, 3, 0,19,30,54		7,31, 1,21	
		2, 5,36,44,43,24,40,11		9,11
14″	1,42,51,20,32,47,43,44,11, 5		7,31,10,32	
		2, 5,36,44,35,53,29,39		9,11
16″	1,42,53,26, 9,32,19,37,40,44		7,31,19,43	
		2, 5,36,44,28,22, 9,56		9,11
18″	1,42,55,31,46,16,47,59,50,40		7,31,28,54	
		2, 5,36,44,20,50,41, 2		9,11
20″	1,42,57,37,23, 1, 8,50,31,42		7,31,38, 5	
		2, 5,36,44,13,19, 2,57		9,11
22″	1,42,59,42,59,45,22, 9,34,39		7,31,47,16	
		2, 5,36,44, 5,47,15,41		9,11
24″	1,43, 1,48,36,29,27,56,50,20		7,31,56,27	
		2, 5,36,43,58,15,19,14		9,11
26″	1,43, 3,54,13,13,26,12, 9,34		7,32, 5,38	
		2, 5,36,43,50,43,13,36		9,11
28″	1,43, 5,59,49,57,16,55,23,10		7,32,14,49	
		2, 5,36,43,43,10,58,47		9,11
30″	1,43, 8, 5,26,41, 0, 6,21,57		7,32,24, 0	
		2, 5,36,43,35,38,34,47		9,11
32″	1,43,10,11, 3,24,35,44,56,44		7,32,33,11	
		2, 5,36,43,28, 6, 1,36		9,11
34″	1,43,12,16,40, 8, 3,50,58,20		7,32,42,22	
		2, 5,36,43,20,33,19,14		9,11
36″	1,43,14,22,16,51,24,24,17,34		7,32,51,33	
		2, 5,36,43,13, 0,27,41		9,11
38″	1,43,16,27,53,34,37,24,45,15		7,33, 0,44	
		2, 5,36,43, 5,27,26,57		9,11
40″	1,43,18,33,30,17,42,52,12,12		7,33, 9,55	
		2, 5,36,42,57,54,17, 2		9,11
42″	1,43,20,39, 7, 0,40,46,29,14		7,33,19, 6	
		2, 5,36,42,50,20,57,56		9,11
44″	1,43,22,44,43,43,31, 7,27,10		7,33,28,17	
		2, 5,36,42,42,47,29,39		9,11
46″	1,43,24,50,20,26,13,54,56,49		7,33,37,28	
		2, 5,36,42,35,13,52,11		9,11
48″	1,43,26,55,57, 8,49, 8,49, 0		7,33,46,39	
		2, 5,36,42,27,40, 5,32		9,11
50″	1,43,29, 1,33,51,16,48,54,32		7,33,55,50	
		2, 5,36,42,20, 6, 9,42		9,11
52″	1,43,31, 7,10,33,36,55, 4,14		7,34, 5, 1	
		2, 5,36,42,12,32, 4,41		9,11
54″	1,43,33,12,47,15,49,27, 8,55		7,34,14,12	
		2, 5,36,42, 4,57,50,29		9,11
56″	1,43,35,18,23,57,54,24,59,24		7,34,23,23	
		2, 5,36,41,57,23,27, 6		9,11
58″	1,43,37,24, 0,39,51,48,26,30		7,34,32,34	
		2, 5,36,41,49,48,54,32		
60″	1,43,39,29,37,21,41,37,21, 2			
exact	1,43,39,29,37,21,41,37,19,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°39′ 0″	1,43,39,29,37,21,41,37,19,17			
		2, 5,36,41,42,14,12,41		
2″	1,43,41,35,14, 3,23,51,31,58		7,34,50,56	
		2, 5,36,41,34,39,21,45		9,11
4″	1,43,43,40,50,44,58,30,53,43		7,35, 0, 7	
		2, 5,36,41,27, 4,21,38		9,11
6″	1,43,45,46,27,26,25,35,15,21		7,35, 9,18	
		2, 5,36,41,19,29,12,20		9,11
8″	1,43,47,52, 4, 7,45, 4,27,41		7,35,18,29	
		2, 5,36,41,11,53,53,51		9,11
10″	1,43,49,57,40,48,56,58,21,32		7,35,27,40	
		2, 5,36,41, 4,18,26,11		9,11
12″	1,43,52, 3,17,30, 1,16,47,43		7,35,36,51	
		2, 5,36,40,56,42,49,20		9,11
14″	1,43,54, 8,54,10,57,59,37, 3		7,35,46, 2	
		2, 5,36,40,49, 7, 3,18		9,11
16″	1,43,56,14,30,51,47, 6,40,21		7,35,55,13	
		2, 5,36,40,41,31, 8, 5		9,11
18″	1,43,58,20, 7,32,28,37,48,26		7,36, 4,24	
		2, 5,36,40,33,55, 3,41		9,11
20″	1,44, 0,25,44,13, 2,32,52, 7		7,36,13,35	
		2, 5,36,40,26,18,50, 6		9,11
22″	1,44, 2,31,20,53,28,51,42,13		7,36,22,46	
		2, 5,36,40,18,42,27,20		9,11
24″	1,44, 4,36,57,33,47,34, 9,33		7,36,31,57	
		2, 5,36,40,11, 5,55,23		9,11
26″	1,44, 6,42,34,13,58,40, 4,56		7,36,41, 8	
		2, 5,36,40, 3,29,14,15		9,11
28″	1,44, 8,48,10,54, 2, 9,19,11		7,36,50,19	
		2, 5,36,39,55,52,23,56		9,11
30″	1,44,10,53,47,33,58, 1,43, 7		7,36,59,30	
		2, 5,36,39,48,15,24,26		9,11
32″	1,44,12,59,24,13,46,17, 7,33		7,37, 8,41	
		2, 5,36,39,40,38,15,45		9,11
34″	1,44,15, 5, 0,53,26,55,23,18		7,37,17,52	
		2, 5,36,39,33, 0,57,53		9,11
36″	1,44,17,10,37,32,59,56,21,11		7,37,27, 3	
		2, 5,36,39,25,23,30,50		9,11
38″	1,44,19,16,14,12,25,19,52, 1		7,37,36,14	
		2, 5,36,39,17,45,54,36		9,11
40″	1,44,21,21,50,51,43, 5,46,37		7,37,45,25	
		2, 5,36,39,10, 8, 9,11		9,11
42″	1,44,23,27,27,30,53,13,55,48		7,37,54,36	
		2, 5,36,39, 2,30,14,35		9,11
44″	1,44,25,33, 4, 9,55,44,10,23		7,38, 3,47	
		2, 5,36,38,54,52,10,48		9,11
46″	1,44,27,38,40,48,50,36,21,11		7,38,12,58	
		2, 5,36,38,47,13,57,50		9,11
48″	1,44,29,44,17,27,37,50,19, 1		7,38,22, 9	
		2, 5,36,38,39,35,35,41		9,11
50″	1,44,31,49,54, 6,17,25,54,42		7,38,31,20	
		2, 5,36,38,31,57, 4,21		9,11
52″	1,44,33,55,30,44,49,22,59, 3		7,38,40,31	
		2, 5,36,38,24,18,23,50		9,11
54″	1,44,36, 1, 7,23,13,41,22,53		7,38,49,42	
		2, 5,36,38,16,39,34, 8		9,11
56″	1,44,38, 6,44, 1,30,20,57, 1		7,38,58,53	
		2, 5,36,38, 9, 0,35,15		9,11
58″	1,44,40,12,20,39,39,21,32,16		7,39, 8, 4	
		2, 5,36,38, 1,21,27,11		
60″	1,44,42,17,57,17,40,42,59,27			
exact	1,44,42,17,57,17,40,42,58,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°40′ 0″	1,44,42,17,57,17,40,42,58,51			
		2, 5,36,37,53,42, 9,55		
2″	1,44,44,23,33,55,34,25, 8,46		7,39,26,26	
		2, 5,36,37,46, 2,43,29		9,11
4″	1,44,46,29,10,33,20,27,52,15		7,39,35,37	
		2, 5,36,37,38,23, 7,52		9,11
6″	1,44,48,34,47,10,58,51, 0, 7		7,39,44,48	
		2, 5,36,37,30,43,23, 4		9,11
8″	1,44,50,40,23,48,29,34,23,11		7,39,53,59	
		2, 5,36,37,23, 3,29, 5		9,11
10″	1,44,52,46, 0,25,52,37,52,16		7,40, 3,10	
		2, 5,36,37,15,23,25,55		9,11
12″	1,44,54,51,37, 3, 8, 1,18,11		7,40,12,21	
		2, 5,36,37, 7,43,13,34		9,11
14″	1,44,56,57,13,40,15,44,31,45		7,40,21,32	
		2, 5,36,37, 0, 2,52, 2		9,11
16″	1,44,59, 2,50,17,15,47,23,47		7,40,30,43	
		2, 5,36,36,52,22,21,19		9,11
18″	1,45, 1, 8,26,54, 8, 9,45, 6		7,40,39,54	
		2, 5,36,36,44,41,41,25		9,11
20″	1,45, 3,14, 3,30,52,51,26,31		7,40,49, 5	
		2, 5,36,36,37, 0,52,20		9,11
22″	1,45, 5,19,40, 7,29,52,18,51		7,40,58,16	
		2, 5,36,36,29,19,54, 4		9,11
24″	1,45, 7,25,16,43,59,12,12,55		7,41, 7,27	
		2, 5,36,36,21,38,46,37		9,11
26″	1,45, 9,30,53,20,20,50,59,32		7,41,16,38	
		2, 5,36,36,13,57,29,59		9,11
28″	1,45,11,36,29,56,34,48,29,31		7,41,25,49	
		2, 5,36,36, 6,16, 4,10		9,11
30″	1,45,13,42, 6,32,41, 4,33,41		7,41,35, 0	
		2, 5,36,35,58,34,29,10		9,11
32″	1,45,15,47,43, 8,39,39, 2,51		7,41,44,11	
		2, 5,36,35,50,52,44,59		9,11
34″	1,45,17,53,19,44,30,31,47,50		7,41,53,22	
		2, 5,36,35,43,10,51,37		9,11
36″	1,45,19,58,56,20,13,42,39,27		7,42, 2,33	
		2, 5,36,35,35,28,49, 4		9,11
38″	1,45,22, 4,32,55,49,11,28,31		7,42,11,44	
		2, 5,36,35,27,46,37,20		9,11
40″	1,45,24,10, 9,31,16,58, 5,51		7,42,20,55	
		2, 5,36,35,20, 4,16,25		9,11
42″	1,45,26,15,46, 6,37, 2,22,16		7,42,30, 6	
		2, 5,36,35,12,21,46,19		9,11
44″	1,45,28,21,22,41,49,24, 8,35		7,42,39,17	
		2, 5,36,35, 4,39, 7, 2		9,11
46″	1,45,30,26,59,16,54, 3,15,37		7,42,48,28	
		2, 5,36,34,56,56,18,34		9,11
48″	1,45,32,32,35,51,50,59,34,11		7,42,57,39	
		2, 5,36,34,49,13,20,55		9,11
50″	1,45,34,38,12,26,40,12,55, 6		7,43, 6,50	
		2, 5,36,34,41,30,14, 5		9,11
52″	1,45,36,43,49, 1,21,43, 9,11		7,43,16, 1	
		2, 5,36,34,33,46,58, 4		9,11
54″	1,45,38,49,25,35,55,30, 7,15		7,43,25,12	
		2, 5,36,34,26, 3,32,52		9,11
56″	1,45,40,55, 2,10,21,33,40, 7		7,43,34,23	
		2, 5,36,34,18,19,58,29		9,11
58″	1,45,43, 0,38,44,39,53,38,36		7,43,43,34	
		2, 5,36,34,10,36,14,55		
60″	1,45,45, 6,15,18,50,29,53,31			
exact	1,45,45, 6,15,18,50,29,55,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°41′ 0″	1,45,45, 6,15,18,50,29,55,17			
		2, 5,36,34, 2,52,22,19		
2″	1,45,47,11,51,52,53,22,17,36		7,44, 1,55	
		2, 5,36,33,55, 8,20,24		9,11
4″	1,45,49,17,28,26,48,30,38, 0		7,44,11, 6	
		2, 5,36,33,47,24, 9,18		9,11
6″	1,45,51,23, 5, 0,35,54,47,18		7,44,20,17	
		2, 5,36,33,39,39,49, 1		9,11
8″	1,45,53,28,41,34,15,34,36,19		7,44,29,28	
		2, 5,36,33,31,55,19,33		9,11
10″	1,45,55,34,18, 7,47,29,55,52		7,44,38,39	
		2, 5,36,33,24,10,40,54		9,11
12″	1,45,57,39,54,41,11,40,36,46		7,44,47,50	
		2, 5,36,33,16,25,53, 4		9,11
14″	1,45,59,45,31,14,28, 6,29,50		7,44,57, 1	
		2, 5,36,33, 8,40,56, 3		9,11
16″	1,46, 1,51, 7,47,36,47,25,53		7,45, 6,12	
		2, 5,36,33, 0,55,49,51		9,11
18″	1,46, 3,56,44,20,37,43,15,44		7,45,15,23	
		2, 5,36,32,53,10,34,28		9,11
20″	1,46, 6, 2,20,53,30,53,50,12		7,45,24,34	
		2, 5,36,32,45,25, 9,54		9,11
22″	1,46, 8, 7,57,26,16,19, 0, 6		7,45,33,45	
		2, 5,36,32,37,39,36, 9		9,11
24″	1,46,10,13,33,58,53,58,36,15		7,45,42,56	
		2, 5,36,32,29,53,53,13		9,11
26″	1,46,12,19,10,31,23,52,29,28		7,45,52, 7	
		2, 5,36,32,22, 8, 1, 6		9,11
28″	1,46,14,24,47, 3,46, 0,30,34		7,46, 1,18	
		2, 5,36,32,14,21,59,48		9,11
30″	1,46,16,30,23,36, 0,22,30,22		7,46,10,29	
		2, 5,36,32, 6,35,49,19		9,11
32″	1,46,18,36, 0, 8, 6,58,19,41		7,46,19,40	
		2, 5,36,31,58,49,29,39		9,11
34″	1,46,20,41,36,40, 5,47,49,20		7,46,28,51	
		2, 5,36,31,51, 3, 0,48		9,11
36″	1,46,22,47,13,11,56,50,50, 8		7,46,38, 2	
		2, 5,36,31,43,16,22,46		9,11
38″	1,46,24,52,49,43,40, 7,12,54		7,46,47,13	
		2, 5,36,31,35,29,35,33		9,11
40″	1,46,26,58,26,15,15,36,48,27		7,46,56,24	
		2, 5,36,31,27,42,39, 9		9,11
42″	1,46,29, 4, 2,46,43,19,27,36		7,47, 5,35	
		2, 5,36,31,19,55,33,34		9,11
44″	1,46,31, 9,39,18, 3,15, 1,10		7,47,14,46	
		2, 5,36,31,12, 8,18,48		9,11
46″	1,46,33,15,15,49,15,23,19,58		7,47,23,57	
		2, 5,36,31, 4,20,54,51		9,11
48″	1,46,35,20,52,20,19,44,14,49		7,47,33, 8	
		2, 5,36,30,56,33,21,43		9,11
50″	1,46,37,26,28,51,16,17,36,32		7,47,42,19	
		2, 5,36,30,48,45,39,24		9,11
52″	1,46,39,32, 5,22, 5, 3,15,56		7,47,51,30	
		2, 5,36,30,40,57,47,54		9,11
54″	1,46,41,37,41,52,46, 1, 3,50		7,48, 0,41	
		2, 5,36,30,33, 9,47,13		9,11
56″	1,46,43,43,18,23,19,10,51, 3		7,48, 9,52	
		2, 5,36,30,25,21,37,21		9,11
58″	1,46,45,48,54,53,44,32,28,24		7,48,19, 3	
		2, 5,36,30,17,33,18,18		
60″	1,46,47,54,31,24, 2, 5,46,42			
exact	1,46,47,54,31,24, 2, 5,44,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°42′ 0″	1,46,47,54,31,24, 2, 5,44,20			
		2, 5,36,30, 9,44,49,57		
2″	1,46,50, 0, 7,54,11,50,34,17		7,48,37,25	
		2, 5,36,30, 1,56,12,32		9,11
4″	1,46,52, 5,44,24,13,46,46,49		7,48,46,36	
		2, 5,36,29,54, 7,25,56		9,11
6″	1,46,54,11,20,54, 7,54,12,45		7,48,55,47	
		2, 5,36,29,46,18,30, 9		9,11
8″	1,46,56,16,57,23,54,12,42,54		7,49, 4,58	
		2, 5,36,29,38,29,25,11		9,11
10″	1,46,58,22,33,53,32,42, 8, 5		7,49,14, 9	
		2, 5,36,29,30,40,11, 2		9,11
12″	1,47, 0,28,10,23, 3,22,19, 7		7,49,23,20	
		2, 5,36,29,22,50,47,42		9,11
14″	1,47, 2,33,46,52,26,13, 6,49		7,49,32,31	
		2, 5,36,29,15, 1,15,11		9,11
16″	1,47, 4,39,23,21,41,14,22, 0		7,49,41,42	
		2, 5,36,29, 7,11,33,29		9,11
18″	1,47, 6,44,59,50,48,25,55,29		7,49,50,53	
		2, 5,36,28,59,21,42,36		9,11
20″	1,47, 8,50,36,19,47,47,38, 5		7,50, 0, 4	
		2, 5,36,28,51,31,42,32		9,11
22″	1,47,10,56,12,48,39,19,20,37		7,50, 9,15	
		2, 5,36,28,43,41,33,17		9,11
24″	1,47,13, 1,49,17,23, 0,53,54		7,50,18,26	
		2, 5,36,28,35,51,14,51		9,11
26″	1,47,15, 7,25,45,58,52, 8,45		7,50,27,37	
		2, 5,36,28,28, 0,47,14		9,11
28″	1,47,17,13, 2,14,26,52,55,59		7,50,36,48	
		2, 5,36,28,20,10,10,26		9,11
30″	1,47,19,18,38,42,47, 3, 6,25		7,50,45,59	
		2, 5,36,28,12,19,24,27		9,11
32″	1,47,21,24,15,10,59,22,30,52		7,50,55,10	
		2, 5,36,28, 4,28,29,17		9,11
34″	1,47,23,29,51,39, 3,51, 0, 9		7,51, 4,21	
		2, 5,36,27,56,37,24,56		9,11
36″	1,47,25,35,28, 7, 0,28,25, 5		7,51,13,32	
		2, 5,36,27,48,46,11,24		9,11
38″	1,47,27,41, 4,34,49,14,36,29		7,51,22,43	
		2, 5,36,27,40,54,48,41		9,11
40″	1,47,29,46,41, 2,30, 9,25,10		7,51,31,54	
		2, 5,36,27,33, 3,16,47		9,11
42″	1,47,31,52,17,30, 3,12,41,57		7,51,41, 5	
		2, 5,36,27,25,11,35,42		9,11
44″	1,47,33,57,53,57,28,24,17,39		7,51,50,16	
		2, 5,36,27,17,19,45,26		9,11
46″	1,47,36, 3,30,24,45,44, 3, 5		7,51,59,27	
		2, 5,36,27, 9,27,45,59		9,11
48″	1,47,38, 9, 6,51,55,11,49, 4		7,52, 8,38	
		2, 5,36,27, 1,35,37,21		9,11
50″	1,47,40,14,43,18,56,47,26,25		7,52,17,49	
		2, 5,36,26,53,43,19,32		9,11
52″	1,47,42,20,19,45,50,30,45,57		7,52,27, 0	
		2, 5,36,26,45,50,52,32		9,11
54″	1,47,44,25,56,12,36,21,38,29		7,52,36,11	
		2, 5,36,26,37,58,16,21		9,11
56″	1,47,46,31,32,39,14,19,54,50		7,52,45,22	
		2, 5,36,26,30, 5,30,59		9,11
58″	1,47,48,37, 9, 5,44,25,25,49		7,52,54,33	
		2, 5,36,26,22,12,36,26		
60″	1,47,50,42,45,32, 6,38, 2,15			
exact	1,47,50,42,45,32, 6,38, 3,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°43′ 0″	1,47,50,42,45,32, 6,38, 3,55			
		2, 5,36,26,14,19,32,53		
2″	1,47,52,48,21,58,20,57,36,48		7,53,12,54	
		2, 5,36,26, 6,26,19,59		9,11
4″	1,47,54,53,58,24,27,23,56,47		7,53,22, 5	
		2, 5,36,25,58,32,57,54		9,11
6″	1,47,56,59,34,50,25,56,54,41		7,53,31,16	
		2, 5,36,25,50,39,26,38		9,11
8″	1,47,59, 5,11,16,16,36,21,19		7,53,40,27	
		2, 5,36,25,42,45,46,11		9,11
10″	1,48, 1,10,47,41,59,22, 7,30		7,53,49,38	
		2, 5,36,25,34,51,56,33		9,11
12″	1,48, 3,16,24, 7,34,14, 4, 3		7,53,58,49	
		2, 5,36,25,26,57,57,44		9,11
14″	1,48, 5,22, 0,33, 1,12, 1,47		7,54, 8, 0	
		2, 5,36,25,19, 3,49,44		9,11
16″	1,48, 7,27,36,58,20,15,51,31		7,54,17,11	
		2, 5,36,25,11, 9,32,33		9,11
18″	1,48, 9,33,13,23,31,25,24, 4		7,54,26,22	
		2, 5,36,25, 3,15, 6,11		9,11
20″	1,48,11,38,49,48,34,40,30,15		7,54,35,33	
		2, 5,36,24,55,20,30,38		9,11
22″	1,48,13,44,26,13,30, 1, 0,53		7,54,44,44	
		2, 5,36,24,47,25,45,54		9,11
24″	1,48,15,50, 2,38,17,26,46,47		7,54,53,55	
		2, 5,36,24,39,30,51,59		9,11
26″	1,48,17,55,39, 2,56,57,38,46		7,55, 3, 6	
		2, 5,36,24,31,35,48,53		9,11
28″	1,48,20, 1,15,27,28,33,27,39		7,55,12,17	
		2, 5,36,24,23,40,36,36		9,11
30″	1,48,22, 6,51,51,52,14, 4,15		7,55,21,28	
		2, 5,36,24,15,45,15, 8		9,11
32″	1,48,24,12,28,16, 7,59,19,23		7,55,30,39	
		2, 5,36,24, 7,49,44,29		9,11
34″	1,48,26,18, 4,40,15,49, 3,52		7,55,39,50	
		2, 5,36,23,59,54, 4,39		9,11
36″	1,48,28,23,41, 4,15,43, 8,31		7,55,49, 1	
		2, 5,36,23,51,58,15,38		9,11
38″	1,48,30,29,17,28, 7,41,24, 9		7,55,58,12	
		2, 5,36,23,44, 2,17,26		9,11
40″	1,48,32,34,53,51,51,43,41,35		7,56, 7,23	
		2, 5,36,23,36, 6,10, 3		9,11
42″	1,48,34,40,30,15,27,49,51,38		7,56,16,34	
		2, 5,36,23,28, 9,53,29		9,11
44″	1,48,36,46, 6,38,55,59,45, 7		7,56,25,45	
		2, 5,36,23,20,13,27,44		9,11
46″	1,48,38,51,43, 2,16,13,12,51		7,56,34,56	
		2, 5,36,23,12,16,52,48		9,11
48″	1,48,40,57,19,25,28,30, 5,39		7,56,44, 7	
		2, 5,36,23, 4,20, 8,41		9,11
50″	1,48,43, 2,55,48,32,50,14,20		7,56,53,18	
		2, 5,36,22,56,23,15,23		9,11
52″	1,48,45, 8,32,11,29,13,29,43		7,57, 2,29	
		2, 5,36,22,48,26,12,54		9,11
54″	1,48,47,14, 8,34,17,39,42,37		7,57,11,40	
		2, 5,36,22,40,29, 1,14		9,11
56″	1,48,49,19,44,56,58, 8,43,51		7,57,20,51	
		2, 5,36,22,32,31,40,23		9,11
58″	1,48,51,25,21,19,30,40,24,14		7,57,30, 2	
		2, 5,36,22,24,34,10,21		
60″	1,48,53,30,57,41,55,14,34,35			
exact	1,48,53,30,57,41,55,14,34, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°44′ 0″	1,48,53,30,57,41,55,14,34, 4			
		2, 5,36,22,16,36,31,11		
2″	1,48,55,36,34, 4,11,51, 5,15		7,57,48,23	
		2, 5,36,22, 8,38,42,48		9,11
4″	1,48,57,42,10,26,20,29,48, 3		7,57,57,34	
		2, 5,36,22, 0,40,45,14		9,11
6″	1,48,59,47,46,48,21,10,33,17		7,58, 6,45	
		2, 5,36,21,52,42,38,29		9,11
8″	1,49, 1,53,23,10,13,53,11,46		7,58,15,56	
		2, 5,36,21,44,44,22,33		9,11
10″	1,49, 3,58,59,31,58,37,34,19		7,58,25, 7	
		2, 5,36,21,36,45,57,26		9,11
12″	1,49, 6, 4,35,53,35,23,31,45		7,58,34,18	
		2, 5,36,21,28,47,23, 8		9,11
14″	1,49, 8,10,12,15, 4,10,54,53		7,58,43,29	
		2, 5,36,21,20,48,39,39		9,11
16″	1,49,10,15,48,36,24,59,34,32		7,58,52,40	
		2, 5,36,21,12,49,46,59		9,11
18″	1,49,12,21,24,57,37,49,21,31		7,59, 1,51	
		2, 5,36,21, 4,50,45, 8		9,11
20″	1,49,14,27, 1,18,42,40, 6,39		7,59,11, 2	
		2, 5,36,20,56,51,34, 6		9,11
22″	1,49,16,32,37,39,39,31,40,45		7,59,20,13	
		2, 5,36,20,48,52,13,53		9,11
24″	1,49,18,38,14, 0,28,23,54,38		7,59,29,24	
		2, 5,36,20,40,52,44,29		9,11
26″	1,49,20,43,50,21, 9,16,39, 7		7,59,38,35	
		2, 5,36,20,32,53, 5,54		9,11
28″	1,49,22,49,26,41,42, 9,45, 1		7,59,47,46	
		2, 5,36,20,24,53,18, 8		9,11
30″	1,49,24,55, 3, 2, 7, 3, 3, 9		7,59,56,57	
		2, 5,36,20,16,53,21,11		9,11
32″	1,49,27, 0,39,22,23,56,24,20		8, 0, 6, 8	
		2, 5,36,20, 8,53,15, 3		9,11
34″	1,49,29, 6,15,42,32,49,39,23		8, 0,15,19	
		2, 5,36,20, 0,52,59,44		9,11
36″	1,49,31,11,52, 2,33,42,39, 7		8, 0,24,30	
		2, 5,36,19,52,52,35,14		9,11
38″	1,49,33,17,28,22,26,35,14,21		8, 0,33,41	
		2, 5,36,19,44,52, 1,33		9,11
40″	1,49,35,23, 4,42,11,27,15,54		8, 0,42,52	
		2, 5,36,19,36,51,18,41		9,11
42″	1,49,37,28,41, 1,48,18,34,35		8, 0,52, 3	
		2, 5,36,19,28,50,26,38		9,11
44″	1,49,39,34,17,21,17, 9, 1,13		8, 1, 1,14	
		2, 5,36,19,20,49,25,24		9,11
46″	1,49,41,39,53,40,37,58,26,37		8, 1,10,25	
		2, 5,36,19,12,48,14,59		9,11
48″	1,49,43,45,29,59,50,46,41,36		8, 1,19,36	
		2, 5,36,19, 4,46,55,23		9,11
50″	1,49,45,51, 6,18,55,33,36,59		8, 1,28,47	
		2, 5,36,18,56,45,26,36		9,11
52″	1,49,47,56,42,37,52,19, 3,35		8, 1,37,58	
		2, 5,36,18,48,43,48,38		9,11
54″	1,49,50, 2,18,56,41, 2,52,13		8, 1,47, 9	
		2, 5,36,18,40,42, 1,29		9,11
56″	1,49,52, 7,55,15,21,44,53,42		8, 1,56,20	
		2, 5,36,18,32,40, 5, 9		9,11
58″	1,49,54,13,31,33,54,24,58,51		8, 2, 5,31	
		2, 5,36,18,24,37,59,38		
60″	1,49,56,19, 7,52,19, 2,58,29			
exact	1,49,56,19, 7,52,19, 2,56,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°45′ 0″	1,49,56,19, 7,52,19, 2,56,59			
		2, 5,36,18,16,35,44,55		
2″	1,49,58,24,44,10,35,38,41,54		8, 2,23,53	
		2, 5,36,18, 8,33,21, 2		9,11
4″	1,50, 0,30,20,28,44,12, 2,56		8, 2,33, 4	
		2, 5,36,18, 0,30,47,58		9,11
6″	1,50, 2,35,56,46,44,42,50,54		8, 2,42,15	
		2, 5,36,17,52,28, 5,43		9,11
8″	1,50, 4,41,33, 4,37,10,56,37		8, 2,51,26	
		2, 5,36,17,44,25,14,17		9,11
10″	1,50, 6,47, 9,22,21,36,10,54		8, 3, 0,37	
		2, 5,36,17,36,22,13,40		9,11
12″	1,50, 8,52,45,39,57,58,24,34		8, 3, 9,48	
		2, 5,36,17,28,19, 3,52		9,11
14″	1,50,10,58,21,57,26,17,28,26		8, 3,18,59	
		2, 5,36,17,20,15,44,53		9,11
16″	1,50,13, 3,58,14,46,33,13,19		8, 3,28,10	
		2, 5,36,17,12,12,16,43		9,11
18″	1,50,15, 9,34,31,58,45,30, 2		8, 3,37,21	
		2, 5,36,17, 4, 8,39,22		9,11
20″	1,50,17,15,10,49, 2,54, 9,24		8, 3,46,32	
		2, 5,36,16,56, 4,52,50		9,11
22″	1,50,19,20,47, 5,58,59, 2,14		8, 3,55,43	
		2, 5,36,16,48, 0,57, 7		9,11
24″	1,50,21,26,23,22,46,59,59,21		8, 4, 4,54	
		2, 5,36,16,39,56,52,13		9,11
26″	1,50,23,31,59,39,26,56,51,34		8, 4,14, 5	
		2, 5,36,16,31,52,38, 8		9,11
28″	1,50,25,37,35,55,58,49,29,42		8, 4,23,16	
		2, 5,36,16,23,48,14,52		9,11
30″	1,50,27,43,12,12,22,37,44,34		8, 4,32,27	
		2, 5,36,16,15,43,42,25		9,11
32″	1,50,29,48,48,28,38,21,26,59		8, 4,41,38	
		2, 5,36,16, 7,39, 0,47		9,11
34″	1,50,31,54,24,44,46, 0,27,46		8, 4,50,49	
		2, 5,36,15,59,34, 9,58		9,11
36″	1,50,34, 0, 1, 0,45,34,37,44		8, 5, 0, 0	
		2, 5,36,15,51,29, 9,58		9,11
38″	1,50,36, 5,37,16,37, 3,47,42		8, 5, 9,11	
		2, 5,36,15,43,24, 0,47		9,11
40″	1,50,38,11,13,32,20,27,48,29		8, 5,18,22	
		2, 5,36,15,35,18,42,25		9,11
42″	1,50,40,16,49,47,55,46,30,54		8, 5,27,33	
		2, 5,36,15,27,13,14,52		9,11
44″	1,50,42,22,26, 3,22,59,45,46		8, 5,36,44	
		2, 5,36,15,19, 7,38, 8		9,11
46″	1,50,44,28, 2,18,42, 7,23,54		8, 5,45,55	
		2, 5,36,15,11, 1,52,13		9,11
48″	1,50,46,33,38,33,53, 9,16, 7		8, 5,55, 6	
		2, 5,36,15, 2,55,57, 7		9,11
50″	1,50,48,39,14,48,56, 5,13,14		8, 6, 4,17	
		2, 5,36,14,54,49,52,50		9,11
52″	1,50,50,44,51, 3,50,55, 6, 4		8, 6,13,28	
		2, 5,36,14,46,43,39,22		9,11
54″	1,50,52,50,27,18,37,38,45,26		8, 6,22,39	
		2, 5,36,14,38,37,16,43		9,11
56″	1,50,54,56, 3,33,16,16, 2, 9		8, 6,31,50	
		2, 5,36,14,30,30,44,53		9,11
58″	1,50,57, 1,39,47,46,46,47, 2		8, 6,41, 1	
		2, 5,36,14,22,24, 3,52		
60″	1,50,59, 7,16, 2, 9,10,50,54			
exact	1,50,59, 7,16, 2, 9,10,57, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°46′ 0″	1,50,59, 7,16, 2, 9,10,57, 3			
		2, 5,36,14,14,17,14,11		
2″	1,51, 1,12,52,16,23,28,11,14		8, 6,59,21	
		2, 5,36,14, 6,10,14,50		9,11
4″	1,51, 3,18,28,30,29,38,26, 4		8, 7, 8,32	
		2, 5,36,13,58, 3, 6,18		9,11
6″	1,51, 5,24, 4,44,27,41,32,22		8, 7,17,43	
		2, 5,36,13,49,55,48,35		9,11
8″	1,51, 7,29,40,58,17,37,20,57		8, 7,26,54	
		2, 5,36,13,41,48,21,41		9,11
10″	1,51, 9,35,17,11,59,25,42,38		8, 7,36, 5	
		2, 5,36,13,33,40,45,36		9,11
12″	1,51,11,40,53,25,33, 6,28,14		8, 7,45,16	
		2, 5,36,13,25,33, 0,20		9,11
14″	1,51,13,46,29,38,58,39,28,34		8, 7,54,27	
		2, 5,36,13,17,25, 5,53		9,11
16″	1,51,15,52, 5,52,16, 4,34,27		8, 8, 3,38	
		2, 5,36,13, 9,17, 2,15		9,11
18″	1,51,17,57,42, 5,25,21,36,42		8, 8,12,49	
		2, 5,36,13, 1, 8,49,26		9,11
20″	1,51,20, 3,18,18,26,30,26, 8		8, 8,22, 0	
		2, 5,36,12,53, 0,27,26		9,11
22″	1,51,22, 8,54,31,19,30,53,34		8, 8,31,11	
		2, 5,36,12,44,51,56,15		9,11
24″	1,51,24,14,30,44, 4,22,49,49		8, 8,40,22	
		2, 5,36,12,36,43,15,53		9,11
26″	1,51,26,20, 6,56,41, 6, 5,42		8, 8,49,33	
		2, 5,36,12,28,34,26,20		9,11
28″	1,51,28,25,43, 9, 9,40,32, 2		8, 8,58,44	
		2, 5,36,12,20,25,27,36		9,11
30″	1,51,30,31,19,21,30, 5,59,38		8, 9, 7,55	
		2, 5,36,12,12,16,19,41		9,11
32″	1,51,32,36,55,33,42,22,19,19		8, 9,17, 6	
		2, 5,36,12, 4, 7, 2,35		9,11
34″	1,51,34,42,31,45,46,29,21,54		8, 9,26,17	
		2, 5,36,11,55,57,36,18		9,11
36″	1,51,36,48, 7,57,42,26,58,12		8, 9,35,28	
		2, 5,36,11,47,48, 0,50		9,11
38″	1,51,38,53,44, 9,30,14,59, 2		8, 9,44,39	
		2, 5,36,11,39,38,16,11		9,11
40″	1,51,40,59,20,21, 9,53,15,13		8, 9,53,50	
		2, 5,36,11,31,28,22,21		9,11
42″	1,51,43, 4,56,32,41,21,37,34		8,10, 3, 1	
		2, 5,36,11,23,18,19,20		9,11
44″	1,51,45,10,32,44, 4,39,56,54		8,10,12,12	
		2, 5,36,11,15, 8, 7, 8		9,11
46″	1,51,47,16, 8,55,19,48, 4, 2		8,10,21,23	
		2, 5,36,11, 6,57,45,45		9,11
48″	1,51,49,21,45, 6,26,45,49,47		8,10,30,34	
		2, 5,36,10,58,47,15,11		9,11
50″	1,51,51,27,21,17,25,33, 4,58		8,10,39,45	
		2, 5,36,10,50,36,35,26		9,11
52″	1,51,53,32,57,28,16, 9,40,24		8,10,48,56	
		2, 5,36,10,42,25,46,30		9,11
54″	1,51,55,38,33,38,58,35,26,54		8,10,58, 7	
		2, 5,36,10,34,14,48,23		9,11
56″	1,51,57,44, 9,49,32,50,15,17		8,11, 7,18	
		2, 5,36,10,26, 3,41, 5		9,11
58″	1,51,59,49,45,59,58,53,56,22		8,11,16,29	
		2, 5,36,10,17,52,24,36		
60″	1,52, 1,55,22,10,16,46,20,58			
exact	1,52, 1,55,22,10,16,46,20,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°47′ 0″	1,52, 1,55,22,10,16,46,20,51			
		2, 5,36,10, 9,40,59, 2		
2″	1,52, 4, 0,58,20,26,27,19,53		8,11,34,50	
		2, 5,36,10, 1,29,24,12		9,11
4″	1,52, 6, 6,34,30,27,56,44, 5		8,11,44, 1	
		2, 5,36, 9,53,17,40,11		9,11
6″	1,52, 8,12,10,40,21,14,24,16		8,11,53,12	
		2, 5,36, 9,45, 5,46,59		9,11
8″	1,52,10,17,46,50, 6,20,11,15		8,12, 2,23	
		2, 5,36, 9,36,53,44,36		9,11
10″	1,52,12,23,22,59,43,13,55,51		8,12,11,34	
		2, 5,36, 9,28,41,33, 2		9,11
12″	1,52,14,28,59, 9,11,55,28,53		8,12,20,45	
		2, 5,36, 9,20,29,12,17		9,11
14″	1,52,16,34,35,18,32,24,41,10		8,12,29,56	
		2, 5,36, 9,12,16,42,21		9,11
16″	1,52,18,40,11,27,44,41,23,31		8,12,39, 7	
		2, 5,36, 9, 4, 4, 3,14		9,11
18″	1,52,20,45,47,36,48,45,26,45		8,12,48,18	
		2, 5,36, 8,55,51,14,56		9,11
20″	1,52,22,51,23,45,44,36,41,41		8,12,57,29	
		2, 5,36, 8,47,38,17,27		9,11
22″	1,52,24,56,59,54,32,14,59, 8		8,13, 6,40	
		2, 5,36, 8,39,25,10,47		9,11
24″	1,52,27, 2,36, 3,11,40, 9,55		8,13,15,51	
		2, 5,36, 8,31,11,54,56		9,11
26″	1,52,29, 8,12,11,42,52, 4,51		8,13,25, 2	
		2, 5,36, 8,22,58,29,54		9,11
28″	1,52,31,13,48,20, 5,50,34,45		8,13,34,13	
		2, 5,36, 8,14,44,55,41		9,11
30″	1,52,33,19,24,28,20,35,30,26		8,13,43,24	
		2, 5,36, 8, 6,31,12,17		9,11
32″	1,52,35,25, 0,36,27, 6,42,43		8,13,52,35	
		2, 5,36, 7,58,17,19,42		9,11
34″	1,52,37,30,36,44,25,24, 2,25		8,14, 1,46	
		2, 5,36, 7,50, 3,17,56		9,11
36″	1,52,39,36,12,52,15,27,20,21		8,14,10,57	
		2, 5,36, 7,41,49, 6,59		9,11
38″	1,52,41,41,48,59,57,16,27,20		8,14,20, 8	
		2, 5,36, 7,33,34,46,51		9,11
40″	1,52,43,47,25, 7,30,51,14,11		8,14,29,19	
		2, 5,36, 7,25,20,17,32		9,11
42″	1,52,45,53, 1,14,56,11,31,43		8,14,38,30	
		2, 5,36, 7,17, 5,39, 2		9,11
44″	1,52,47,58,37,22,13,17,10,45		8,14,47,41	
		2, 5,36, 7, 8,50,51,21		9,11
46″	1,52,50, 4,13,29,22, 8, 2, 6		8,14,56,52	
		2, 5,36, 7, 0,35,54,29		9,11
48″	1,52,52, 9,49,36,22,43,56,35		8,15, 6, 3	
		2, 5,36, 6,52,20,48,26		9,11
50″	1,52,54,15,25,43,15, 4,45, 1		8,15,15,14	
		2, 5,36, 6,44, 5,33,12		9,11
52″	1,52,56,21, 1,49,59,10,18,13		8,15,24,25	
		2, 5,36, 6,35,50, 8,47		9,11
54″	1,52,58,26,37,56,35, 0,27, 0		8,15,33,36	
		2, 5,36, 6,27,34,35,11		9,11
56″	1,53, 0,32,14, 3, 2,35, 2,11		8,15,42,47	
		2, 5,36, 6,19,18,52,24		9,11
58″	1,53, 2,37,50, 9,21,53,54,35		8,15,51,58	
		2, 5,36, 6,11, 3, 0,26		
60″	1,53, 4,43,26,15,32,56,55, 1			
exact	1,53, 4,43,26,15,32,56,57,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°48′ 0″	1,53, 4,43,26,15,32,56,57,12			
		2, 5,36, 6, 2,46,59,33		
2″	1,53, 6,49, 2,21,35,43,56,45		8,16,10,19	
		2, 5,36, 5,54,30,49,14		9,11
4″	1,53, 8,54,38,27,30,14,45,59		8,16,19,30	
		2, 5,36, 5,46,14,29,44		9,11
6″	1,53,11, 0,14,33,16,29,15,43		8,16,28,41	
		2, 5,36, 5,37,58, 1, 3		9,11
8″	1,53,13, 5,50,38,54,27,16,46		8,16,37,52	
		2, 5,36, 5,29,41,23,11		9,11
10″	1,53,15,11,26,44,24, 8,39,57		8,16,47, 3	
		2, 5,36, 5,21,24,36, 8		9,11
12″	1,53,17,17, 2,49,45,33,16, 5		8,16,56,14	
		2, 5,36, 5,13, 7,39,54		9,11
14″	1,53,19,22,38,54,58,40,55,59		8,17, 5,25	
		2, 5,36, 5, 4,50,34,29		9,11
16″	1,53,21,28,15, 0, 3,31,30,28		8,17,14,36	
		2, 5,36, 4,56,33,19,53		9,11
18″	1,53,23,33,51, 5, 0, 4,50,21		8,17,23,47	
		2, 5,36, 4,48,15,56, 6		9,11
20″	1,53,25,39,27, 9,48,20,46,27		8,17,32,58	
		2, 5,36, 4,39,58,23, 8		9,11
22″	1,53,27,45, 3,14,28,19, 9,35		8,17,42, 9	
		2, 5,36, 4,31,40,40,59		9,11
24″	1,53,29,50,39,18,59,59,50,34		8,17,51,20	
		2, 5,36, 4,23,22,49,39		9,11
26″	1,53,31,56,15,23,23,22,40,13		8,18, 0,31	
		2, 5,36, 4,15, 4,49, 8		9,11
28″	1,53,34, 1,51,27,38,27,29,21		8,18, 9,42	
		2, 5,36, 4, 6,46,39,26		9,11
30″	1,53,36, 7,27,31,45,14, 8,47		8,18,18,53	
		2, 5,36, 3,58,28,20,33		9,11
32″	1,53,38,13, 3,35,43,42,29,20		8,18,28, 4	
		2, 5,36, 3,50, 9,52,29		9,11
34″	1,53,40,18,39,39,33,52,21,49		8,18,37,15	
		2, 5,36, 3,41,51,15,14		9,11
36″	1,53,42,24,15,43,15,43,37, 3		8,18,46,26	
		2, 5,36, 3,33,32,28,48		9,11
38″	1,53,44,29,51,46,49,16, 5,51		8,18,55,37	
		2, 5,36, 3,25,13,33,11		9,11
40″	1,53,46,35,27,50,14,29,39, 2		8,19, 4,48	
		2, 5,36, 3,16,54,28,23		9,11
42″	1,53,48,41, 3,53,31,24, 7,25		8,19,13,59	
		2, 5,36, 3, 8,35,14,24		9,11
44″	1,53,50,46,39,56,39,59,21,49		8,19,23,10	
		2, 5,36, 3, 0,15,51,14		9,11
46″	1,53,52,52,15,59,40,15,13, 3		8,19,32,21	
		2, 5,36, 2,51,56,18,53		9,11
48″	1,53,54,57,52, 2,32,11,31,56		8,19,41,32	
		2, 5,36, 2,43,36,37,21		9,11
50″	1,53,57, 3,28, 5,15,48, 9,17		8,19,50,43	
		2, 5,36, 2,35,16,46,38		9,11
52″	1,53,59, 9, 4, 7,51, 4,55,55		8,19,59,54	
		2, 5,36, 2,26,56,46,44		9,11
54″	1,54, 1,14,40,10,18, 1,42,39		8,20, 9, 5	
		2, 5,36, 2,18,36,37,39		9,11
56″	1,54, 3,20,16,12,36,38,20,18		8,20,18,16	
		2, 5,36, 2,10,16,19,23		9,11
58″	1,54, 5,25,52,14,46,54,39,41		8,20,27,27	
		2, 5,36, 2, 1,55,51,56		
60″	1,54, 7,31,28,16,48,50,31,37			
exact	1,54, 7,31,28,16,48,50,37, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°49′ 0″	1,54, 7,31,28,16,48,50,37, 9			
		2, 5,36, 1,53,35,15,49		
2″	1,54, 9,37, 4,18,42,25,52,58		8,20,45,47	
		2, 5,36, 1,45,14,30, 2		9,11
4″	1,54,11,42,40,20,27,40,23, 0		8,20,54,58	
		2, 5,36, 1,36,53,35, 4		9,11
6″	1,54,13,48,16,22, 4,33,58, 4		8,21, 4, 9	
		2, 5,36, 1,28,32,30,55		9,11
8″	1,54,15,53,52,23,33, 6,28,59		8,21,13,20	
		2, 5,36, 1,20,11,17,35		9,11
10″	1,54,17,59,28,24,53,17,46,34		8,21,22,31	
		2, 5,36, 1,11,49,55, 4		9,11
12″	1,54,20, 5, 4,26, 5, 7,41,38		8,21,31,42	
		2, 5,36, 1, 3,28,23,22		9,11
14″	1,54,22,10,40,27, 8,36, 5, 0		8,21,40,53	
		2, 5,36, 0,55, 6,42,29		9,11
16″	1,54,24,16,16,28, 3,42,47,29		8,21,50, 4	
		2, 5,36, 0,46,44,52,25		9,11
18″	1,54,26,21,52,28,50,27,39,54		8,21,59,15	
		2, 5,36, 0,38,22,53,10		9,11
20″	1,54,28,27,28,29,28,50,33, 4		8,22, 8,26	
		2, 5,36, 0,30, 0,44,44		9,11
22″	1,54,30,33, 4,29,58,51,17,48		8,22,17,37	
		2, 5,36, 0,21,38,27, 7		9,11
24″	1,54,32,38,40,30,20,29,44,55		8,22,26,48	
		2, 5,36, 0,13,16, 0,19		9,11
26″	1,54,34,44,16,30,33,45,45,14		8,22,35,59	
		2, 5,36, 0, 4,53,24,20		9,11
28″	1,54,36,49,52,30,38,39, 9,34		8,22,45,10	
		2, 5,35,59,56,30,39,10		9,11
30″	1,54,38,55,28,30,35, 9,48,44		8,22,54,21	
		2, 5,35,59,48, 7,44,49		9,11
32″	1,54,41, 1, 4,30,23,17,33,33		8,23, 3,32	
		2, 5,35,59,39,44,41,17		9,11
34″	1,54,43, 6,40,30, 3, 2,14,50		8,23,12,43	
		2, 5,35,59,31,21,28,34		9,11
36″	1,54,45,12,16,29,34,23,43,24		8,23,21,54	
		2, 5,35,59,22,58, 6,40		9,11
38″	1,54,47,17,52,28,57,21,50, 4		8,23,31, 5	
		2, 5,35,59,14,34,35,35		9,11
40″	1,54,49,23,28,28,11,56,25,39		8,23,40,16	
		2, 5,35,59, 6,10,55,19		9,11
42″	1,54,51,29, 4,27,18, 7,20,58		8,23,49,27	
		2, 5,35,58,57,47, 5,52		9,11
44″	1,54,53,34,40,26,15,54,26,50		8,23,58,38	
		2, 5,35,58,49,23, 7,14		9,11
46″	1,54,55,40,16,25, 5,17,34, 4		8,24, 7,49	
		2, 5,35,58,40,58,59,25		9,11
48″	1,54,57,45,52,23,46,16,33,29		8,24,17, 0	
		2, 5,35,58,32,34,42,25		9,11
50″	1,54,59,51,28,22,18,51,15,54		8,24,26,11	
		2, 5,35,58,24,10,16,14		9,11
52″	1,55, 1,57, 4,20,43, 1,32, 8		8,24,35,22	
		2, 5,35,58,15,45,40,52		9,11
54″	1,55, 4, 2,40,18,58,47,13, 0		8,24,44,33	
		2, 5,35,58, 7,20,56,19		9,11
56″	1,55, 6, 8,16,17, 6, 8, 9,19		8,24,53,44	
		2, 5,35,57,58,56, 2,35		9,11
58″	1,55, 8,13,52,15, 5, 4,11,54		8,25, 2,55	
		2, 5,35,57,50,30,59,40		
60″	1,55,10,19,28,12,55,35,11,34			
exact	1,55,10,19,28,12,55,35,14, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°50′ 0″	1,55,10,19,28,12,55,35,14, 1			
		2, 5,35,57,42, 5,47,53		
2″	1,55,12,25, 4,10,37,41, 1,54		8,25,21,15	
		2, 5,35,57,33,40,26,38		9,11
4″	1,55,14,30,40, 8,11,21,28,32		8,25,30,26	
		2, 5,35,57,25,14,56,12		9,11
6″	1,55,16,36,16, 5,36,36,24,44		8,25,39,37	
		2, 5,35,57,16,49,16,35		9,11
8″	1,55,18,41,52, 2,53,25,41,19		8,25,48,48	
		2, 5,35,57, 8,23,27,47		9,11
10″	1,55,20,47,28, 0, 1,49, 9, 6		8,25,57,59	
		2, 5,35,56,59,57,29,48		9,11
12″	1,55,22,53, 3,57, 1,46,38,54		8,26, 7,10	
		2, 5,35,56,51,31,22,38		9,11
14″	1,55,24,58,39,53,53,18, 1,32		8,26,16,21	
		2, 5,35,56,43, 5, 6,17		9,11
16″	1,55,27, 4,15,50,36,23, 7,49		8,26,25,32	
		2, 5,35,56,34,38,40,45		9,11
18″	1,55,29, 9,51,47,11, 1,48,34		8,26,34,43	
		2, 5,35,56,26,12, 6, 2		9,11
20″	1,55,31,15,27,43,37,13,54,36		8,26,43,54	
		2, 5,35,56,17,45,22, 8		9,11
22″	1,55,33,21, 3,39,54,59,16,44		8,26,53, 5	
		2, 5,35,56, 9,18,29, 3		9,11
24″	1,55,35,26,39,36, 4,17,45,47		8,27, 2,16	
		2, 5,35,56, 0,51,26,47		9,11
26″	1,55,37,32,15,32, 5, 9,12,34		8,27,11,27	
		2, 5,35,55,52,24,15,20		9,11
28″	1,55,39,37,51,27,57,33,27,54		8,27,20,38	
		2, 5,35,55,43,56,54,42		9,11
30″	1,55,41,43,27,23,41,30,22,36		8,27,29,49	
		2, 5,35,55,35,29,24,53		9,11
32″	1,55,43,49, 3,19,16,59,47,29		8,27,39, 0	
		2, 5,35,55,27, 1,45,53		9,11
34″	1,55,45,54,39,14,44, 1,33,22		8,27,48,11	
		2, 5,35,55,18,33,57,42		9,11
36″	1,55,48, 0,15,10, 2,35,31, 4		8,27,57,22	
		2, 5,35,55,10, 6, 0,20		9,11
38″	1,55,50, 5,51, 5,12,41,31,24		8,28, 6,33	
		2, 5,35,55, 1,37,53,47		9,11
40″	1,55,52,11,27, 0,14,19,25,11		8,28,15,44	
		2, 5,35,54,53, 9,38, 3		9,11
42″	1,55,54,17, 2,55, 7,29, 3,14		8,28,24,55	
		2, 5,35,54,44,41,13, 8		9,11
44″	1,55,56,22,38,49,52,10,16,22		8,28,34, 6	
		2, 5,35,54,36,12,39, 2		9,11
46″	1,55,58,28,14,44,28,22,55,24		8,28,43,17	
		2, 5,35,54,27,43,55,45		9,11
48″	1,56, 0,33,50,38,56, 6,51, 9		8,28,52,28	
		2, 5,35,54,19,15, 3,17		9,11
50″	1,56, 2,39,26,33,15,21,54,26		8,29, 1,39	
		2, 5,35,54,10,46, 1,38		9,11
52″	1,56, 4,45, 2,27,26, 7,56, 4		8,29,10,50	
		2, 5,35,54, 2,16,50,48		9,11
54″	1,56, 6,50,38,21,28,24,46,52		8,29,20, 1	
		2, 5,35,53,53,47,30,47		9,11
56″	1,56, 8,56,14,15,22,12,17,39		8,29,29,12	
		2, 5,35,53,45,18, 1,35		9,11
58″	1,56,11, 1,50, 9, 7,30,19,14		8,29,38,23	
		2, 5,35,53,36,48,23,12		
60″	1,56,13, 7,26, 2,44,18,42,26			
exact	1,56,13, 7,26, 2,44,18,43,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°51′ 0″	1,56,13, 7,26, 2,44,18,43,26			
		2, 5,35,53,28,18,35,51		
2″	1,56,15,13, 1,56,12,37,19,17		8,29,56,44	
		2, 5,35,53,19,48,39, 7		9,11
4″	1,56,17,18,37,49,32,25,58,24		8,30, 5,55	
		2, 5,35,53,11,18,33,12		9,11
6″	1,56,19,24,13,42,43,44,31,36		8,30,15, 6	
		2, 5,35,53, 2,48,18, 6		9,11
8″	1,56,21,29,49,35,46,32,49,42		8,30,24,17	
		2, 5,35,52,54,17,53,49		9,11
10″	1,56,23,35,25,28,40,50,43,31		8,30,33,28	
		2, 5,35,52,45,47,20,21		9,11
12″	1,56,25,41, 1,21,26,38, 3,52		8,30,42,39	
		2, 5,35,52,37,16,37,42		9,11
14″	1,56,27,46,37,14, 3,54,41,34		8,30,51,50	
		2, 5,35,52,28,45,45,52		9,11
16″	1,56,29,52,13, 6,32,40,27,26		8,31, 1, 1	
		2, 5,35,52,20,14,44,51		9,11
18″	1,56,31,57,48,58,52,55,12,17		8,31,10,12	
		2, 5,35,52,11,43,34,39		9,11
20″	1,56,34, 3,24,51, 4,38,46,56		8,31,19,23	
		2, 5,35,52, 3,12,15,16		9,11
22″	1,56,36, 9, 0,43, 7,51, 2,12		8,31,28,34	
		2, 5,35,51,54,40,46,42		9,11
24″	1,56,38,14,36,35, 2,31,48,54		8,31,37,45	
		2, 5,35,51,46, 9, 8,57		9,11
26″	1,56,40,20,12,26,48,40,57,51		8,31,46,56	
		2, 5,35,51,37,37,22, 1		9,11
28″	1,56,42,25,48,18,26,18,19,52		8,31,56, 7	
		2, 5,35,51,29, 5,25,54		9,11
30″	1,56,44,31,24, 9,55,23,45,46		8,32, 5,18	
		2, 5,35,51,20,33,20,36		9,11
32″	1,56,46,37, 0, 1,15,57, 6,22		8,32,14,29	
		2, 5,35,51,12, 1, 6, 7		9,11
34″	1,56,48,42,35,52,27,58,12,29		8,32,23,40	
		2, 5,35,51, 3,28,42,27		9,11
36″	1,56,50,48,11,43,31,26,54,56		8,32,32,51	
		2, 5,35,50,54,56, 9,36		9,11
38″	1,56,52,53,47,34,26,23, 4,32		8,32,42, 2	
		2, 5,35,50,46,23,27,34		9,11
40″	1,56,54,59,23,25,12,46,32, 6		8,32,51,13	
		2, 5,35,50,37,50,36,21		9,11
42″	1,56,57, 4,59,15,50,37, 8,27		8,33, 0,24	
		2, 5,35,50,29,17,35,57		9,11
44″	1,56,59,10,35, 6,19,54,44,24		8,33, 9,35	
		2, 5,35,50,20,44,26,22		9,11
46″	1,57, 1,16,10,56,40,39,10,46		8,33,18,46	
		2, 5,35,50,12,11, 7,36		9,11
48″	1,57, 3,21,46,46,52,50,18,22		8,33,27,57	
		2, 5,35,50, 3,37,39,39		9,11
50″	1,57, 5,27,22,36,56,27,58, 1		8,33,37, 8	
		2, 5,35,49,55, 4, 2,31		9,11
52″	1,57, 7,32,58,26,51,32, 0,32		8,33,46,19	
		2, 5,35,49,46,30,16,12		9,11
54″	1,57, 9,38,34,16,38, 2,16,44		8,33,55,30	
		2, 5,35,49,37,56,20,42		9,11
56″	1,57,11,44,10, 6,15,58,37,26		8,34, 4,41	
		2, 5,35,49,29,22,16, 1		9,11
58″	1,57,13,49,45,55,45,20,53,27		8,34,13,52	
		2, 5,35,49,20,48, 2, 9		
60″	1,57,15,55,21,45, 6, 8,55,36			
exact	1,57,15,55,21,45, 6, 9, 3,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°52′ 0″	1,57,15,55,21,45, 6, 9, 3,18			
		2, 5,35,49,12,13,39,48		
2″	1,57,18, 0,57,34,18,22,43, 6		8,34,32,12	
		2, 5,35,49, 3,39, 7,36		9,11
4″	1,57,20, 6,33,23,22, 1,50,42		8,34,41,23	
		2, 5,35,48,55, 4,26,13		9,11
6″	1,57,22,12, 9,12,17, 6,16,55		8,34,50,34	
		2, 5,35,48,46,29,35,39		9,11
8″	1,57,24,17,45, 1, 3,35,52,34		8,34,59,45	
		2, 5,35,48,37,54,35,54		9,11
10″	1,57,26,23,20,49,41,30,28,28		8,35, 8,56	
		2, 5,35,48,29,19,26,58		9,11
12″	1,57,28,28,56,38,10,49,55,26		8,35,18, 7	
		2, 5,35,48,20,44, 8,51		9,11
14″	1,57,30,34,32,26,31,34, 4,17		8,35,27,18	
		2, 5,35,48,12, 8,41,33		9,11
16″	1,57,32,40, 8,14,43,42,45,50		8,35,36,29	
		2, 5,35,48, 3,33, 5, 4		9,11
18″	1,57,34,45,44, 2,47,15,50,54		8,35,45,40	
		2, 5,35,47,54,57,19,24		9,11
20″	1,57,36,51,19,50,42,13,10,18		8,35,54,51	
		2, 5,35,47,46,21,24,33		9,11
22″	1,57,38,56,55,38,28,34,34,51		8,36, 4, 2	
		2, 5,35,47,37,45,20,31		9,11
24″	1,57,41, 2,31,26, 6,19,55,22		8,36,13,13	
		2, 5,35,47,29, 9, 7,18		9,11
26″	1,57,43, 8, 7,13,35,29, 2,40		8,36,22,24	
		2, 5,35,47,20,32,44,54		9,11
28″	1,57,45,13,43, 0,56, 1,47,34		8,36,31,35	
		2, 5,35,47,11,56,13,19		9,11
30″	1,57,47,19,18,48, 7,58, 0,53		8,36,40,46	
		2, 5,35,47, 3,19,32,33		9,11
32″	1,57,49,24,54,35,11,17,33,26		8,36,49,57	
		2, 5,35,46,54,42,42,36		9,11
34″	1,57,51,30,30,22, 6, 0,16, 2		8,36,59, 8	
		2, 5,35,46,46, 5,43,28		9,11
36″	1,57,53,36, 6, 8,52, 5,59,30		8,37, 8,19	
		2, 5,35,46,37,28,35, 9		9,11
38″	1,57,55,41,41,55,29,34,34,39		8,37,17,30	
		2, 5,35,46,28,51,17,39		9,11
40″	1,57,57,47,17,41,58,25,52,18		8,37,26,41	
		2, 5,35,46,20,13,50,58		9,11
42″	1,57,59,52,53,28,18,39,43,16		8,37,35,52	
		2, 5,35,46,11,36,15, 6		9,11
44″	1,58, 1,58,29,14,30,15,58,22		8,37,45, 3	
		2, 5,35,46, 2,58,30, 3		9,11
46″	1,58, 4, 4, 5, 0,33,14,28,25		8,37,54,14	
		2, 5,35,45,54,20,35,49		9,11
48″	1,58, 6, 9,40,46,27,35, 4,14		8,38, 3,25	
		2, 5,35,45,45,42,32,24		9,11
50″	1,58, 8,15,16,32,13,17,36,38		8,38,12,36	
		2, 5,35,45,37, 4,19,48		9,11
52″	1,58,10,20,52,17,50,21,56,26		8,38,21,47	
		2, 5,35,45,28,25,58, 1		9,11
54″	1,58,12,26,28, 3,18,47,54,27		8,38,30,58	
		2, 5,35,45,19,47,27, 3		9,11
56″	1,58,14,32, 3,48,38,35,21,30		8,38,40, 9	
		2, 5,35,45,11, 8,46,54		9,11
58″	1,58,16,37,39,33,49,44, 8,24		8,38,49,20	
		2, 5,35,45, 2,29,57,34		
60″	1,58,18,43,15,18,52,14, 5,58			
exact	1,58,18,43,15,18,52,14,13,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°53′ 0″	1,58,18,43,15,18,52,14,13,52			
		2, 5,35,44,53,50,59,47		
2″	1,58,20,48,51, 3,46, 5,13,39		8,39, 7,39	
		2, 5,35,44,45,11,52, 8		9,11
4″	1,58,22,54,26,48,31,17, 5,47		8,39,16,50	
		2, 5,35,44,36,32,35,18		9,11
6″	1,58,25, 0, 2,33, 7,49,41, 5		8,39,26, 1	
		2, 5,35,44,27,53, 9,17		9,11
8″	1,58,27, 5,38,17,35,42,50,22		8,39,35,12	
		2, 5,35,44,19,13,34, 5		9,11
10″	1,58,29,11,14, 1,54,56,24,27		8,39,44,23	
		2, 5,35,44,10,33,49,42		9,11
12″	1,58,31,16,49,46, 5,30,14, 9		8,39,53,34	
		2, 5,35,44, 1,53,56, 8		9,11
14″	1,58,33,22,25,30, 7,24,10,17		8,40, 2,45	
		2, 5,35,43,53,13,53,23		9,11
16″	1,58,35,28, 1,14, 0,38, 3,40		8,40,11,56	
		2, 5,35,43,44,33,41,27		9,11
18″	1,58,37,33,36,57,45,11,45, 7		8,40,21, 7	
		2, 5,35,43,35,53,20,20		9,11
20″	1,58,39,39,12,41,21, 5, 5,27		8,40,30,18	
		2, 5,35,43,27,12,50, 2		9,11
22″	1,58,41,44,48,24,48,17,55,29		8,40,39,29	
		2, 5,35,43,18,32,10,33		9,11
24″	1,58,43,50,24, 8, 6,50, 6, 2		8,40,48,40	
		2, 5,35,43, 9,51,21,53		9,11
26″	1,58,45,55,59,51,16,41,27,55		8,40,57,51	
		2, 5,35,43, 1,10,24, 2		9,11
28″	1,58,48, 1,35,34,17,51,51,57		8,41, 7, 2	
		2, 5,35,42,52,29,17, 0		9,11
30″	1,58,50, 7,11,17,10,21, 8,57		8,41,16,13	
		2, 5,35,42,43,48, 0,47		9,11
32″	1,58,52,12,46,59,54, 9, 9,44		8,41,25,24	
		2, 5,35,42,35, 6,35,23		9,11
34″	1,58,54,18,22,42,29,15,45, 7		8,41,34,35	
		2, 5,35,42,26,25, 0,48		9,11
36″	1,58,56,23,58,24,55,40,45,55		8,41,43,46	
		2, 5,35,42,17,43,17, 2		9,11
38″	1,58,58,29,34, 7,13,24, 2,57		8,41,52,57	
		2, 5,35,42, 9, 1,24, 5		9,11
40″	1,59, 0,35, 9,49,22,25,27, 2		8,42, 2, 8	
		2, 5,35,42, 0,19,21,57		9,11
42″	1,59, 2,40,45,31,22,44,48,59		8,42,11,19	
		2, 5,35,41,51,37,10,38		9,11
44″	1,59, 4,46,21,13,14,21,59,37		8,42,20,30	
		2, 5,35,41,42,54,50, 8		9,11
46″	1,59, 6,51,56,54,57,16,49,45		8,42,29,41	
		2, 5,35,41,34,12,20,27		9,11
48″	1,59, 8,57,32,36,31,29,10,12		8,42,38,52	
		2, 5,35,41,25,29,41,35		9,11
50″	1,59,11, 3, 8,17,56,58,51,47		8,42,48, 3	
		2, 5,35,41,16,46,53,32		9,11
52″	1,59,13, 8,43,59,13,45,45,19		8,42,57,14	
		2, 5,35,41, 8, 3,56,18		9,11
54″	1,59,15,14,19,40,21,49,41,37		8,43, 6,25	
		2, 5,35,40,59,20,49,53		9,11
56″	1,59,17,19,55,21,21,10,31,30		8,43,15,36	
		2, 5,35,40,50,37,34,17		9,11
58″	1,59,19,25,31, 2,11,48, 5,47		8,43,24,47	
		2, 5,35,40,41,54, 9,30		
60″	1,59,21,31, 6,42,53,42,15,17			
exact	1,59,21,31, 6,42,53,42,17,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°54′ 0″	1,59,21,31, 6,42,53,42,17,44			
		2, 5,35,40,33,10,35,54		
2″	1,59,23,36,42,23,26,52,53,38		8,43,43, 7	
		2, 5,35,40,24,26,52,47		9,11
4″	1,59,25,42,18, 3,51,19,46,25		8,43,52,18	
		2, 5,35,40,15,43, 0,29		9,11
6″	1,59,27,47,53,44, 7, 2,46,54		8,44, 1,29	
		2, 5,35,40, 6,58,59, 0		9,11
8″	1,59,29,53,29,24,14, 1,45,54		8,44,10,40	
		2, 5,35,39,58,14,48,20		9,11
10″	1,59,31,59, 5, 4,12,16,34,14		8,44,19,51	
		2, 5,35,39,49,30,28,29		9,11
12″	1,59,34, 4,40,44, 1,47, 2,43		8,44,29, 2	
		2, 5,35,39,40,45,59,27		9,11
14″	1,59,36,10,16,23,42,33, 2,10		8,44,38,13	
		2, 5,35,39,32, 1,21,14		9,11
16″	1,59,38,15,52, 3,14,34,23,24		8,44,47,24	
		2, 5,35,39,23,16,33,50		9,11
18″	1,59,40,21,27,42,37,50,57,14		8,44,56,35	
		2, 5,35,39,14,31,37,15		9,11
20″	1,59,42,27, 3,21,52,22,34,29		8,45, 5,46	
		2, 5,35,39, 5,46,31,29		9,11
22″	1,59,44,32,39, 0,58, 9, 5,58		8,45,14,57	
		2, 5,35,38,57, 1,16,32		9,11
24″	1,59,46,38,14,39,55,10,22,30		8,45,24, 8	
		2, 5,35,38,48,15,52,24		9,11
26″	1,59,48,43,50,18,43,26,14,54		8,45,33,19	
		2, 5,35,38,39,30,19, 5		9,11
28″	1,59,50,49,25,57,22,56,33,59		8,45,42,30	
		2, 5,35,38,30,44,36,35		9,11
30″	1,59,52,55, 1,35,53,41,10,34		8,45,51,41	
		2, 5,35,38,21,58,44,54		9,11
32″	1,59,55, 0,37,14,15,39,55,28		8,46, 0,52	
		2, 5,35,38,13,12,44, 2		9,11
34″	1,59,57, 6,12,52,28,52,39,30		8,46,10, 3	
		2, 5,35,38, 4,26,33,59		9,11
36″	1,59,59,11,48,30,33,19,13,29		8,46,19,14	
		2, 5,35,37,55,40,14,45		9,11
38″	2, 0, 1,17,24, 8,28,59,28,14		8,46,28,25	
		2, 5,35,37,46,53,46,20		9,11
40″	2, 0, 3,22,59,46,15,53,14,34		8,46,37,36	
		2, 5,35,37,38, 7, 8,44		9,11
42″	2, 0, 5,28,35,23,54, 0,23,18		8,46,46,47	
		2, 5,35,37,29,20,21,57		9,11
44″	2, 0, 7,34,11, 1,23,20,45,15		8,46,55,58	
		2, 5,35,37,20,33,25,59		9,11
46″	2, 0, 9,39,46,38,43,54,11,14		8,47, 5, 9	
		2, 5,35,37,11,46,20,50		9,11
48″	2, 0,11,45,22,15,55,40,32, 4		8,47,14,20	
		2, 5,35,37, 2,59, 6,30		9,11
50″	2, 0,13,50,57,52,58,39,38,34		8,47,23,31	
		2, 5,35,36,54,11,42,59		9,11
52″	2, 0,15,56,33,29,52,51,21,33		8,47,32,42	
		2, 5,35,36,45,24,10,17		9,11
54″	2, 0,18, 2, 9, 6,38,15,31,50		8,47,41,53	
		2, 5,35,36,36,36,28,24		9,11
56″	2, 0,20, 7,44,43,14,52, 0,14		8,47,51, 4	
		2, 5,35,36,27,48,37,20		9,11
58″	2, 0,22,13,20,19,42,40,37,34		8,48, 0,15	
		2, 5,35,36,19, 0,37, 5		
60″	2, 0,24,18,55,56, 1,41,14,39			
exact	2, 0,24,18,55,56, 1,41,19,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°55′ 0″	2, 0,24,18,55,56, 1,41,19,53			
		2, 5,35,36,10,12,28,13		
2″	2, 0,26,24,31,32,11,53,48, 6		8,48,18,35	
		2, 5,35,36, 1,24, 9,38		9,11
4″	2, 0,28,30, 7, 8,13,17,57,44		8,48,27,46	
		2, 5,35,35,52,35,41,52		9,11
6″	2, 0,30,35,42,44, 5,53,39,36		8,48,36,57	
		2, 5,35,35,43,47, 4,55		9,11
8″	2, 0,32,41,18,19,49,40,44,31		8,48,46, 8	
		2, 5,35,35,34,58,18,47		9,11
10″	2, 0,34,46,53,55,24,39, 3,18		8,48,55,19	
		2, 5,35,35,26, 9,23,28		9,11
12″	2, 0,36,52,29,30,50,48,26,46		8,49, 4,30	
		2, 5,35,35,17,20,18,58		9,11
14″	2, 0,38,58, 5, 6, 8, 8,45,44		8,49,13,41	
		2, 5,35,35, 8,31, 5,17		9,11
16″	2, 0,41, 3,40,41,16,39,51, 1		8,49,22,52	
		2, 5,35,34,59,41,42,25		9,11
18″	2, 0,43, 9,16,16,16,21,33,26		8,49,32, 3	
		2, 5,35,34,50,52,10,22		9,11
20″	2, 0,45,14,51,51, 7,13,43,48		8,49,41,14	
		2, 5,35,34,42, 2,29, 8		9,11
22″	2, 0,47,20,27,25,49,16,12,56		8,49,50,25	
		2, 5,35,34,33,12,38,43		9,11
24″	2, 0,49,26, 3, 0,22,28,51,39		8,49,59,36	
		2, 5,35,34,24,22,39, 7		9,11
26″	2, 0,51,31,38,34,46,51,30,46		8,50, 8,47	
		2, 5,35,34,15,32,30,20		9,11
28″	2, 0,53,37,14, 9, 2,24, 1, 6		8,50,17,58	
		2, 5,35,34, 6,42,12,22		9,11
30″	2, 0,55,42,49,43, 9, 6,13,28		8,50,27, 9	
		2, 5,35,33,57,51,45,13		9,11
32″	2, 0,57,48,25,17, 6,57,58,41		8,50,36,20	
		2, 5,35,33,49, 1, 8,53		9,11
34″	2, 0,59,54, 0,50,55,59, 7,34		8,50,45,31	
		2, 5,35,33,40,10,23,22		9,11
36″	2, 1, 1,59,36,24,36, 9,30,56		8,50,54,42	
		2, 5,35,33,31,19,28,40		9,11
38″	2, 1, 4, 5,11,58, 7,28,59,36		8,51, 3,53	
		2, 5,35,33,22,28,24,47		9,11
40″	2, 1, 6,10,47,31,29,57,24,23		8,51,13, 4	
		2, 5,35,33,13,37,11,43		9,11
42″	2, 1, 8,16,23, 4,43,34,36, 6		8,51,22,15	
		2, 5,35,33, 4,45,49,28		9,11
44″	2, 1,10,21,58,37,48,20,25,34		8,51,31,26	
		2, 5,35,32,55,54,18, 2		9,11
46″	2, 1,12,27,34,10,44,14,43,36		8,51,40,37	
		2, 5,35,32,47, 2,37,25		9,11
48″	2, 1,14,33, 9,43,31,17,21, 1		8,51,49,48	
		2, 5,35,32,38,10,47,37		9,11
50″	2, 1,16,38,45,16, 9,28, 8,38		8,51,58,59	
		2, 5,35,32,29,18,48,38		9,11
52″	2, 1,18,44,20,48,38,46,57,16		8,52, 8,10	
		2, 5,35,32,20,26,40,28		9,11
54″	2, 1,20,49,56,20,59,13,37,44		8,52,17,21	
		2, 5,35,32,11,34,23, 7		9,11
56″	2, 1,22,55,31,53,10,48, 0,51		8,52,26,32	
		2, 5,35,32, 2,41,56,35		9,11
58″	2, 1,25, 1, 7,25,13,29,57,26		8,52,35,43	
		2, 5,35,31,53,49,20,52		
60″	2, 1,27, 6,42,57, 7,19,18,18			
exact	2, 1,27, 6,42,57, 7,19,27,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°56′ 0″	2, 1,27, 6,42,57, 7,19,27,39			
		2, 5,35,31,44,56,36,50		
2″	2, 1,29,12,18,28,52,16, 4,29		8,52,54, 2	
		2, 5,35,31,36, 3,42,48		9,11
4″	2, 1,31,17,54, 0,28,19,47,17		8,53, 3,13	
		2, 5,35,31,27,10,39,35		9,11
6″	2, 1,33,23,29,31,55,30,26,52		8,53,12,24	
		2, 5,35,31,18,17,27,11		9,11
8″	2, 1,35,29, 5, 3,13,47,54, 3		8,53,21,35	
		2, 5,35,31, 9,24, 5,36		9,11
10″	2, 1,37,34,40,34,23,11,59,39		8,53,30,46	
		2, 5,35,31, 0,30,34,50		9,11
12″	2, 1,39,40,16, 5,23,42,34,29		8,53,39,57	
		2, 5,35,30,51,36,54,53		9,11
14″	2, 1,41,45,51,36,15,19,29,22		8,53,49, 8	
		2, 5,35,30,42,43, 5,45		9,11
16″	2, 1,43,51,27, 6,58, 2,35, 7		8,53,58,19	
		2, 5,35,30,33,49, 7,26		9,11
18″	2, 1,45,57, 2,37,31,51,42,33		8,54, 7,30	
		2, 5,35,30,24,54,59,56		9,11
20″	2, 1,48, 2,38, 7,56,46,42,29		8,54,16,41	
		2, 5,35,30,16, 0,43,15		9,11
22″	2, 1,50, 8,13,38,12,47,25,44		8,54,25,52	
		2, 5,35,30, 7, 6,17,23		9,11
24″	2, 1,52,13,49, 8,19,53,43, 7		8,54,35, 3	
		2, 5,35,29,58,11,42,20		9,11
26″	2, 1,54,19,24,38,18, 5,25,27		8,54,44,14	
		2, 5,35,29,49,16,58, 6		9,11
28″	2, 1,56,25, 0, 8, 7,22,23,33		8,54,53,25	
		2, 5,35,29,40,22, 4,41		9,11
30″	2, 1,58,30,35,37,47,44,28,14		8,55, 2,36	
		2, 5,35,29,31,27, 2, 5		9,11
32″	2, 2, 0,36,11, 7,19,11,30,19		8,55,11,47	
		2, 5,35,29,22,31,50,18		9,11
34″	2, 2, 2,41,46,36,41,43,20,37		8,55,20,58	
		2, 5,35,29,13,36,29,20		9,11
36″	2, 2, 4,47,22, 5,55,19,49,57		8,55,30, 9	
		2, 5,35,29, 4,40,59,11		9,11
38″	2, 2, 6,52,57,35, 0, 0,49, 8		8,55,39,20	
		2, 5,35,28,55,45,19,51		9,11
40″	2, 2, 8,58,33, 3,55,46, 8,59		8,55,48,31	
		2, 5,35,28,46,49,31,20		9,11
42″	2, 2,11, 4, 8,32,42,35,40,19		8,55,57,42	
		2, 5,35,28,37,53,33,38		9,11
44″	2, 2,13, 9,44, 1,20,29,13,57		8,56, 6,53	
		2, 5,35,28,28,57,26,45		9,11
46″	2, 2,15,15,19,29,49,26,40,42		8,56,16, 4	
		2, 5,35,28,20, 1,10,41		9,11
48″	2, 2,17,20,54,58, 9,27,51,23		8,56,25,15	
		2, 5,35,28,11, 4,45,26		9,11
50″	2, 2,19,26,30,26,20,32,36,49		8,56,34,26	
		2, 5,35,28, 2, 8,11, 0		9,11
52″	2, 2,21,32, 5,54,22,40,47,49		8,56,43,37	
		2, 5,35,27,53,11,27,23		9,11
54″	2, 2,23,37,41,22,15,52,15,12		8,56,52,48	
		2, 5,35,27,44,14,34,35		9,11
56″	2, 2,25,43,16,50, 0, 6,49,47		8,57, 1,59	
		2, 5,35,27,35,17,32,36		9,11
58″	2, 2,27,48,52,17,35,24,22,23		8,57,11,10	
		2, 5,35,27,26,20,21,26		
60″	2, 2,29,54,27,45, 1,44,43,49			
exact	2, 2,29,54,27,45, 1,44,50,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°57′ 0″	2, 2,29,54,27,45, 1,44,50,50			
		2, 5,35,27,17,23, 1,49		
2″	2, 2,32, 0, 3,12,19, 7,52,39		8,57,29,29	
		2, 5,35,27, 8,25,32,20		9,11
4″	2, 2,34, 5,38,39,27,33,24,59		8,57,38,40	
		2, 5,35,26,59,27,53,40		9,11
6″	2, 2,36,11,14, 6,27, 1,18,39		8,57,47,51	
		2, 5,35,26,50,30, 5,49		9,11
8″	2, 2,38,16,49,33,17,31,24,28		8,57,57, 2	
		2, 5,35,26,41,32, 8,47		9,11
10″	2, 2,40,22,24,59,59, 3,33,15		8,58, 6,13	
		2, 5,35,26,32,34, 2,34		9,11
12″	2, 2,42,28, 0,26,31,37,35,49		8,58,15,24	
		2, 5,35,26,23,35,47,10		9,11
14″	2, 2,44,33,35,52,55,13,22,59		8,58,24,35	
		2, 5,35,26,14,37,22,35		9,11
16″	2, 2,46,39,11,19, 9,50,45,34		8,58,33,46	
		2, 5,35,26, 5,38,48,49		9,11
18″	2, 2,48,44,46,45,15,29,34,23		8,58,42,57	
		2, 5,35,25,56,40, 5,52		9,11
20″	2, 2,50,50,22,11,12, 9,40,15		8,58,52, 8	
		2, 5,35,25,47,41,13,44		9,11
22″	2, 2,52,55,57,36,59,50,53,59		8,59, 1,19	
		2, 5,35,25,38,42,12,25		9,11
24″	2, 2,55, 1,33, 2,38,33, 6,24		8,59,10,30	
		2, 5,35,25,29,43, 1,55		9,11
26″	2, 2,57, 7, 8,28, 8,16, 8,19		8,59,19,41	
		2, 5,35,25,20,43,42,14		9,11
28″	2, 2,59,12,43,53,28,59,50,33		8,59,28,52	
		2, 5,35,25,11,44,13,22		9,11
30″	2, 3, 1,18,19,18,40,44, 3,55		8,59,38, 3	
		2, 5,35,25, 2,44,35,19		9,11
32″	2, 3, 3,23,54,43,43,28,39,14		8,59,47,14	
		2, 5,35,24,53,44,48, 5		9,11
34″	2, 3, 5,29,30, 8,37,13,27,19		8,59,56,25	
		2, 5,35,24,44,44,51,40		9,11
36″	2, 3, 7,35, 5,33,21,58,18,59		9, 0, 5,36	
		2, 5,35,24,35,44,46, 4		9,11
38″	2, 3, 9,40,40,57,57,43, 5, 3		9, 0,14,47	
		2, 5,35,24,26,44,31,17		9,11
40″	2, 3,11,46,16,22,24,27,36,20		9, 0,23,58	
		2, 5,35,24,17,44, 7,19		9,11
42″	2, 3,13,51,51,46,42,11,43,39		9, 0,33, 9	
		2, 5,35,24, 8,43,34,10		9,11
44″	2, 3,15,57,27,10,50,55,17,49		9, 0,42,20	
		2, 5,35,23,59,42,51,50		9,11
46″	2, 3,18, 3, 2,34,50,38, 9,39		9, 0,51,31	
		2, 5,35,23,50,42, 0,19		9,11
48″	2, 3,20, 8,37,58,41,20, 9,58		9, 1, 0,42	
		2, 5,35,23,41,40,59,37		9,11
50″	2, 3,22,14,13,22,23, 1, 9,35		9, 1, 9,53	
		2, 5,35,23,32,39,49,44		9,11
52″	2, 3,24,19,48,45,55,40,59,19		9, 1,19, 4	
		2, 5,35,23,23,38,30,40		9,11
54″	2, 3,26,25,24, 9,19,19,29,59		9, 1,28,15	
		2, 5,35,23,14,37, 2,25		9,11
56″	2, 3,28,30,59,32,33,56,32,24		9, 1,37,26	
		2, 5,35,23, 5,35,24,59		9,11
58″	2, 3,30,36,34,55,39,31,57,23		9, 1,46,37	
		2, 5,35,22,56,33,38,22		
60″	2, 3,32,42,10,18,36, 5,35,45			
exact	2, 3,32,42,10,18,36, 5,41,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°58′ 0″	2, 3,32,42,10,18,36, 5,41,38			
		2, 5,35,22,47,31,43,14		
2″	2, 3,34,47,45,41,23,37,24,52		9, 2, 4,56	
		2, 5,35,22,38,29,38,18		9,11
4″	2, 3,36,53,21, 4, 2, 7, 3,10		9, 2,14, 7	
		2, 5,35,22,29,27,24,11		9,11
6″	2, 3,38,58,56,26,31,34,27,21		9, 2,23,18	
		2, 5,35,22,20,25, 0,53		9,11
8″	2, 3,41, 4,31,48,51,59,28,14		9, 2,32,29	
		2, 5,35,22,11,22,28,24		9,11
10″	2, 3,43,10, 7,11, 3,21,56,38		9, 2,41,40	
		2, 5,35,22, 2,19,46,44		9,11
12″	2, 3,45,15,42,33, 5,41,43,22		9, 2,50,51	
		2, 5,35,21,53,16,55,53		9,11
14″	2, 3,47,21,17,54,58,58,39,15		9, 3, 0, 2	
		2, 5,35,21,44,13,55,51		9,11
16″	2, 3,49,26,53,16,43,12,35, 6		9, 3, 9,13	
		2, 5,35,21,35,10,46,38		9,11
18″	2, 3,51,32,28,38,18,23,21,44		9, 3,18,24	
		2, 5,35,21,26, 7,28,14		9,11
20″	2, 3,53,38, 3,59,44,30,49,58		9, 3,27,35	
		2, 5,35,21,17, 4, 0,39		9,11
22″	2, 3,55,43,39,21, 1,34,50,37		9, 3,36,46	
		2, 5,35,21, 8, 0,23,53		9,11
24″	2, 3,57,49,14,42, 9,35,14,30		9, 3,45,57	
		2, 5,35,20,58,56,37,56		9,11
26″	2, 3,59,54,50, 3, 8,31,52,26		9, 3,55, 8	
		2, 5,35,20,49,52,42,48		9,11
28″	2, 4, 2, 0,25,23,58,24,35,14		9, 4, 4,19	
		2, 5,35,20,40,48,38,29		9,11
30″	2, 4, 4, 6, 0,44,39,13,13,43		9, 4,13,30	
		2, 5,35,20,31,44,24,59		9,11
32″	2, 4, 6,11,36, 5,10,57,38,42		9, 4,22,41	
		2, 5,35,20,22,40, 2,18		9,11
34″	2, 4, 8,17,11,25,33,37,41, 0		9, 4,31,52	
		2, 5,35,20,13,35,30,26		9,11
36″	2, 4,10,22,46,45,47,13,11,26		9, 4,41, 3	
		2, 5,35,20, 4,30,49,23		9,11
38″	2, 4,12,28,22, 5,51,44, 0,49		9, 4,50,14	
		2, 5,35,19,55,25,59, 9		9,11
40″	2, 4,14,33,57,25,47, 9,59,58		9, 4,59,25	
		2, 5,35,19,46,20,59,44		9,11
42″	2, 4,16,39,32,45,33,30,59,42		9, 5, 8,36	
		2, 5,35,19,37,15,51, 8		9,11
44″	2, 4,18,45, 8, 5,10,46,50,50		9, 5,17,47	
		2, 5,35,19,28,10,33,21		9,11
46″	2, 4,20,50,43,24,38,57,24,11		9, 5,26,58	
		2, 5,35,19,19, 5, 6,23		9,11
48″	2, 4,22,56,18,43,58, 2,30,34		9, 5,36, 9	
		2, 5,35,19, 9,59,30,14		9,11
50″	2, 4,25, 1,54, 3, 8, 2, 0,48		9, 5,45,20	
		2, 5,35,19, 0,53,44,54		9,11
52″	2, 4,27, 7,29,22, 8,55,45,42		9, 5,54,31	
		2, 5,35,18,51,47,50,23		9,11
54″	2, 4,29,13, 4,41, 0,43,36, 5		9, 6, 3,42	
		2, 5,35,18,42,41,46,41		9,11
56″	2, 4,31,18,39,59,43,25,22,46		9, 6,12,53	
		2, 5,35,18,33,35,33,48		9,11
58″	2, 4,33,24,15,18,17, 0,56,34		9, 6,22, 4	
		2, 5,35,18,24,29,11,44		
60″	2, 4,35,29,50,36,41,30, 8,18			
exact	2, 4,35,29,50,36,41,30,14,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
1°59′ 0″	2, 4,35,29,50,36,41,30,14,43			
		2, 5,35,18,15,22,41,12		
2″	2, 4,37,35,25,54,56,52,55,55		9, 6,40,23	
		2, 5,35,18, 6,16, 0,49		9,11
4″	2, 4,39,41, 1,13, 3, 8,56,44		9, 6,49,34	
		2, 5,35,17,57, 9,11,15		9,11
6″	2, 4,41,46,36,31, 0,18, 7,59		9, 6,58,45	
		2, 5,35,17,48, 2,12,30		9,11
8″	2, 4,43,52,11,48,48,20,20,29		9, 7, 7,56	
		2, 5,35,17,38,55, 4,34		9,11
10″	2, 4,45,57,47, 6,27,15,25, 3		9, 7,17, 7	
		2, 5,35,17,29,47,47,27		9,11
12″	2, 4,48, 3,22,23,57, 3,12,30		9, 7,26,18	
		2, 5,35,17,20,40,21, 9		9,11
14″	2, 4,50, 8,57,41,17,43,33,39		9, 7,35,29	
		2, 5,35,17,11,32,45,40		9,11
16″	2, 4,52,14,32,58,29,16,19,19		9, 7,44,40	
		2, 5,35,17, 2,25, 1, 0		9,11
18″	2, 4,54,20, 8,15,31,41,20,19		9, 7,53,51	
		2, 5,35,16,53,17, 7, 9		9,11
20″	2, 4,56,25,43,32,24,58,27,28		9, 8, 3, 2	
		2, 5,35,16,44, 9, 4, 7		9,11
22″	2, 4,58,31,18,49, 9, 7,31,35		9, 8,12,13	
		2, 5,35,16,35, 0,51,54		9,11
24″	2, 5, 0,36,54, 5,44, 8,23,29		9, 8,21,24	
		2, 5,35,16,25,52,30,30		9,11
26″	2, 5, 2,42,29,22,10, 0,53,59		9, 8,30,35	
		2, 5,35,16,16,43,59,55		9,11
28″	2, 5, 4,48, 4,38,26,44,53,54		9, 8,39,46	
		2, 5,35,16, 7,35,20, 9		9,11
30″	2, 5, 6,53,39,54,34,20,14, 3		9, 8,48,57	
		2, 5,35,15,58,26,31,12		9,11
32″	2, 5, 8,59,15,10,32,46,45,15		9, 8,58, 8	
		2, 5,35,15,49,17,33, 4		9,11
34″	2, 5,11, 4,50,26,22, 4,18,19		9, 9, 7,19	
		2, 5,35,15,40, 8,25,45		9,11
36″	2, 5,13,10,25,42, 2,12,44, 4		9, 9,16,30	
		2, 5,35,15,30,59, 9,15		9,11
38″	2, 5,15,16, 0,57,33,11,53,19		9, 9,25,41	
		2, 5,35,15,21,49,43,34		9,11
40″	2, 5,17,21,36,12,55, 1,36,53		9, 9,34,52	
		2, 5,35,15,12,40, 8,42		9,11
42″	2, 5,19,27,11,28, 7,41,45,35		9, 9,44, 3	
		2, 5,35,15, 3,30,24,39		9,11
44″	2, 5,21,32,46,43,11,12,10,14		9, 9,53,14	
		2, 5,35,14,54,20,31,25		9,11
46″	2, 5,23,38,21,58, 5,32,41,39		9,10, 2,25	
		2, 5,35,14,45,10,29, 0		9,11
48″	2, 5,25,43,57,12,50,43,10,39		9,10,11,36	
		2, 5,35,14,36, 0,17,24		9,11
50″	2, 5,27,49,32,27,26,43,28, 3		9,10,20,47	
		2, 5,35,14,26,49,56,37		9,11
52″	2, 5,29,55, 7,41,53,33,24,40		9,10,29,58	
		2, 5,35,14,17,39,26,39		9,11
54″	2, 5,32, 0,42,56,11,12,51,19		9,10,39, 9	
		2, 5,35,14, 8,28,47,30		9,11
56″	2, 5,34, 6,18,10,19,41,38,49		9,10,48,20	
		2, 5,35,13,59,17,59,10		9,11
58″	2, 5,36,11,53,24,18,59,37,59		9,10,57,31	
		2, 5,35,13,50, 7, 1,39		
60″	2, 5,38,17,28,38, 9, 6,39,38			
exact	2, 5,38,17,28,38, 9, 6,47,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2° 0′ 0″	2, 5,38,17,28,38, 9, 6,47,14			
		2, 5,35,13,40,55,55,46		
2″	2, 5,40,23, 3,51,50, 2,43, 0		9,11,15,50	
		2, 5,35,13,31,44,39,56		9,11
4″	2, 5,42,28,39, 5,21,47,22,56		9,11,25, 1	
		2, 5,35,13,22,33,14,55		9,11
6″	2, 5,44,34,14,18,44,20,37,51		9,11,34,12	
		2, 5,35,13,13,21,40,43		9,11
8″	2, 5,46,39,49,31,57,42,18,34		9,11,43,23	
		2, 5,35,13, 4, 9,57,20		9,11
10″	2, 5,48,45,24,45, 1,52,15,54		9,11,52,34	
		2, 5,35,12,54,58, 4,46		9,11
12″	2, 5,50,50,59,57,56,50,20,40		9,12, 1,45	
		2, 5,35,12,45,46, 3, 1		9,11
14″	2, 5,52,56,35,10,42,36,23,41		9,12,10,56	
		2, 5,35,12,36,33,52, 5		9,11
16″	2, 5,55, 2,10,23,19,10,15,46		9,12,20, 7	
		2, 5,35,12,27,21,31,58		9,11
18″	2, 5,57, 7,45,35,46,31,47,44		9,12,29,18	
		2, 5,35,12,18, 9, 2,40		9,11
20″	2, 5,59,13,20,48, 4,40,50,24		9,12,38,29	
		2, 5,35,12, 8,56,24,11		9,11
22″	2, 6, 1,18,56, 0,13,37,14,35		9,12,47,40	
		2, 5,35,11,59,43,36,31		9,11
24″	2, 6, 3,24,31,12,13,20,51, 6		9,12,56,51	
		2, 5,35,11,50,30,39,40		9,11
26″	2, 6, 5,30, 6,24, 3,51,30,46		9,13, 6, 2	
		2, 5,35,11,41,17,33,38		9,11
28″	2, 6, 7,35,41,35,45, 9, 4,24		9,13,15,13	
		2, 5,35,11,32, 4,18,25		9,11
30″	2, 6, 9,41,16,47,17,13,22,49		9,13,24,24	
		2, 5,35,11,22,50,54, 1		9,11
32″	2, 6,11,46,51,58,40, 4,16,50		9,13,33,35	
		2, 5,35,11,13,37,20,26		9,11
34″	2, 6,13,52,27, 9,53,41,37,16		9,13,42,46	
		2, 5,35,11, 4,23,37,40		9,11
36″	2, 6,15,58, 2,20,58, 5,14,56		9,13,51,57	
		2, 5,35,10,55, 9,45,43		9,11
38″	2, 6,18, 3,37,31,53,15, 0,39		9,14, 1, 8	
		2, 5,35,10,45,55,44,35		9,11
40″	2, 6,20, 9,12,42,39,10,45,14		9,14,10,19	
		2, 5,35,10,36,41,34,16		9,11
42″	2, 6,22,14,47,53,15,52,19,30		9,14,19,30	
		2, 5,35,10,27,27,14,46		9,11
44″	2, 6,24,20,23, 3,43,19,34,16		9,14,28,41	
		2, 5,35,10,18,12,46, 5		9,11
46″	2, 6,26,25,58,14, 1,32,20,21		9,14,37,52	
		2, 5,35,10, 8,58, 8,13		9,11
48″	2, 6,28,31,33,24,10,30,28,34		9,14,47, 3	
		2, 5,35, 9,59,43,21,10		9,11
50″	2, 6,30,37, 8,34,10,13,49,44		9,14,56,14	
		2, 5,35, 9,50,28,24,56		9,11
52″	2, 6,32,42,43,44, 0,42,14,40		9,15, 5,25	
		2, 5,35, 9,41,13,19,31		9,11
54″	2, 6,34,48,18,53,41,55,34,11		9,15,14,36	
		2, 5,35, 9,31,58, 4,55		9,11
56″	2, 6,36,53,54, 3,13,53,39, 6		9,15,23,47	
		2, 5,35, 9,22,42,41, 8		9,11
58″	2, 6,38,59,29,12,36,36,20,14		9,15,32,58	
		2, 5,35, 9,13,27, 8,10		
60″	2, 6,41, 5, 4,21,50, 3,28,24			
exact	2, 6,41, 5, 4,21,50, 3,38,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2° 1′ 0″	2, 6,41, 5, 4,21,50, 3,38,48			
		2, 5,35, 9, 4,11,27, 2		
2″	2, 6,43,10,39,30,54,15, 5,50		9,15,51,16	
		2, 5,35, 8,54,55,35,46		9,11
4″	2, 6,45,16,14,39,49,10,41,36		9,16, 0,27	
		2, 5,35, 8,45,39,35,19		9,11
6″	2, 6,47,21,49,48,34,50,16,55		9,16, 9,38	
		2, 5,35, 8,36,23,25,41		9,11
8″	2, 6,49,27,24,57,11,13,42,36		9,16,18,49	
		2, 5,35, 8,27, 7, 6,52		9,11
10″	2, 6,51,33, 0, 5,38,20,49,28		9,16,28, 0	
		2, 5,35, 8,17,50,38,52		9,11
12″	2, 6,53,38,35,13,56,11,28,20		9,16,37,11	
		2, 5,35, 8, 8,34, 1,41		9,11
14″	2, 6,55,44,10,22, 4,45,30, 1		9,16,46,22	
		2, 5,35, 7,59,17,15,19		9,11
16″	2, 6,57,49,45,30, 4, 2,45,20		9,16,55,33	
		2, 5,35, 7,50, 0,19,46		9,11
18″	2, 6,59,55,20,37,54, 3, 5, 6		9,17, 4,44	
		2, 5,35, 7,40,43,15, 2		9,11
20″	2, 7, 2, 0,55,45,34,46,20, 8		9,17,13,55	
		2, 5,35, 7,31,26, 1, 7		9,11
22″	2, 7, 4, 6,30,53, 6,12,21,15		9,17,23, 6	
		2, 5,35, 7,22, 8,38, 1		9,11
24″	2, 7, 6,12, 6, 0,28,20,59,16		9,17,32,17	
		2, 5,35, 7,12,51, 5,44		9,11
26″	2, 7, 8,17,41, 7,41,12, 5, 0		9,17,41,28	
		2, 5,35, 7, 3,33,24,16		9,11
28″	2, 7,10,23,16,14,44,45,29,16		9,17,50,39	
		2, 5,35, 6,54,15,33,37		9,11
30″	2, 7,12,28,51,21,39, 1, 2,53		9,17,59,50	
		2, 5,35, 6,44,57,33,47		9,11
32″	2, 7,14,34,26,28,23,58,36,40		9,18, 9, 1	
		2, 5,35, 6,35,39,24,46		9,11
34″	2, 7,16,40, 1,34,59,38, 1,26		9,18,18,12	
		2, 5,35, 6,26,21, 6,34		9,11
36″	2, 7,18,45,36,41,25,59, 8, 0		9,18,27,23	
		2, 5,35, 6,17, 2,39,11		9,11
38″	2, 7,20,51,11,47,43, 1,47,11		9,18,36,34	
		2, 5,35, 6, 7,44, 2,37		9,11
40″	2, 7,22,56,46,53,50,45,49,48		9,18,45,45	
		2, 5,35, 5,58,25,16,52		9,11
42″	2, 7,25, 2,21,59,49,11, 6,40		9,18,54,56	
		2, 5,35, 5,49, 6,21,56		9,11
44″	2, 7,27, 7,57, 5,38,17,28,36		9,19, 4, 7	
		2, 5,35, 5,39,47,17,49		9,11
46″	2, 7,29,13,32,11,18, 4,46,25		9,19,13,18	
		2, 5,35, 5,30,28, 4,31		9,11
48″	2, 7,31,19, 7,16,48,32,50,56		9,19,22,29	
		2, 5,35, 5,21, 8,42, 2		9,11
50″	2, 7,33,24,42,22, 9,41,32,58		9,19,31,40	
		2, 5,35, 5,11,49,10,22		9,11
52″	2, 7,35,30,17,27,21,30,43,20		9,19,40,51	
		2, 5,35, 5, 2,29,29,31		9,11
54″	2, 7,37,35,52,32,24, 0,12,51		9,19,50, 2	
		2, 5,35, 4,53, 9,39,29		9,11
56″	2, 7,39,41,27,37,17, 9,52,20		9,19,59,13	
		2, 5,35, 4,43,49,40,16		9,11
58″	2, 7,41,47, 2,42, 0,59,32,36		9,20, 8,24	
		2, 5,35, 4,34,29,31,52		
60″	2, 7,43,52,37,46,35,29, 4,28			
exact	2, 7,43,52,37,46,35,29,11,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2° 2′ 0″	2, 7,43,52,37,46,35,29,11,35			
		2, 5,35, 4,25, 9,15, 5		
2″	2, 7,45,58,12,51, 0,38,26,40		9,20,26,42	
		2, 5,35, 4,15,48,48,23		9,11
4″	2, 7,48, 3,47,55,16,27,15, 3		9,20,35,53	
		2, 5,35, 4, 6,28,12,30		9,11
6″	2, 7,50, 9,22,59,22,55,27,33		9,20,45, 4	
		2, 5,35, 3,57, 7,27,26		9,11
8″	2, 7,52,14,58, 3,20, 2,54,59		9,20,54,15	
		2, 5,35, 3,47,46,33,11		9,11
10″	2, 7,54,20,33, 7, 7,49,28,10		9,21, 3,26	
		2, 5,35, 3,38,25,29,45		9,11
12″	2, 7,56,26, 8,10,46,14,57,55		9,21,12,37	
		2, 5,35, 3,29, 4,17, 8		9,11
14″	2, 7,58,31,43,14,15,19,15, 3		9,21,21,48	
		2, 5,35, 3,19,42,55,20		9,11
16″	2, 8, 0,37,18,17,35, 2,10,23		9,21,30,59	
		2, 5,35, 3,10,21,24,21		9,11
18″	2, 8, 2,42,53,20,45,23,34,44		9,21,40,10	
		2, 5,35, 3, 0,59,44,11		9,11
20″	2, 8, 4,48,28,23,46,23,18,55		9,21,49,21	
		2, 5,35, 2,51,37,54,50		9,11
22″	2, 8, 6,54, 3,26,38, 1,13,45		9,21,58,32	
		2, 5,35, 2,42,15,56,18		9,11
24″	2, 8, 8,59,38,29,20,17,10, 3		9,22, 7,43	
		2, 5,35, 2,32,53,48,35		9,11
26″	2, 8,11, 5,13,31,53,10,58,38		9,22,16,54	
		2, 5,35, 2,23,31,31,41		9,11
28″	2, 8,13,10,48,34,16,42,30,19		9,22,26, 5	
		2, 5,35, 2,14, 9, 5,36		9,11
30″	2, 8,15,16,23,36,30,51,35,55		9,22,35,16	
		2, 5,35, 2, 4,46,30,20		9,11
32″	2, 8,17,21,58,38,35,38, 6,15		9,22,44,27	
		2, 5,35, 1,55,23,45,53		9,11
34″	2, 8,19,27,33,40,31, 1,52, 8		9,22,53,38	
		2, 5,35, 1,46, 0,52,15		9,11
36″	2, 8,21,33, 8,42,17, 2,44,23		9,23, 2,49	
		2, 5,35, 1,36,37,49,26		9,11
38″	2, 8,23,38,43,43,53,40,33,49		9,23,12, 0	
		2, 5,35, 1,27,14,37,26		9,11
40″	2, 8,25,44,18,45,20,55,11,15		9,23,21,11	
		2, 5,35, 1,17,51,16,15		9,11
42″	2, 8,27,49,53,46,38,46,27,30		9,23,30,22	
		2, 5,35, 1, 8,27,45,53		9,11
44″	2, 8,29,55,28,47,47,14,13,23		9,23,39,33	
		2, 5,35, 0,59, 4, 6,20		9,11
46″	2, 8,32, 1, 3,48,46,18,19,43		9,23,48,44	
		2, 5,35, 0,49,40,17,36		9,11
48″	2, 8,34, 6,38,49,35,58,37,19		9,23,57,55	
		2, 5,35, 0,40,16,19,41		9,11
50″	2, 8,36,12,13,50,16,14,57, 0		9,24, 7, 6	
		2, 5,35, 0,30,52,12,35		9,11
52″	2, 8,38,17,48,50,47, 7, 9,35		9,24,16,17	
		2, 5,35, 0,21,27,56,18		9,11
54″	2, 8,40,23,23,51, 8,35, 5,53		9,24,25,28	
		2, 5,35, 0,12, 3,30,50		9,11
56″	2, 8,42,28,58,51,20,38,36,43		9,24,34,39	
		2, 5,35, 0, 2,38,56,11		9,11
58″	2, 8,44,34,33,51,23,17,32,54		9,24,43,50	
		2, 5,34,59,53,14,12,21		
60″	2, 8,46,40, 8,51,16,31,45,15			
exact	2, 8,46,40, 8,51,16,31,50,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2° 3′ 0″	2, 8,46,40, 8,51,16,31,50,17			
		2, 5,34,59,43,49,20, 0		
2″	2, 8,48,45,43,51, 0,21,10,17		9,25, 2, 9	
		2, 5,34,59,34,24,17,51		9,11
4″	2, 8,50,51,18,50,34,45,28, 8		9,25,11,20	
		2, 5,34,59,24,59, 6,31		9,11
6″	2, 8,52,56,53,49,59,44,34,39		9,25,20,31	
		2, 5,34,59,15,33,46, 0		9,11
8″	2, 8,55, 2,28,49,15,18,20,39		9,25,29,42	
		2, 5,34,59, 6, 8,16,18		9,11
10″	2, 8,57, 8, 3,48,21,26,36,57		9,25,38,53	
		2, 5,34,58,56,42,37,25		9,11
12″	2, 8,59,13,38,47,18, 9,14,22		9,25,48, 4	
		2, 5,34,58,47,16,49,21		9,11
14″	2, 9, 1,19,13,46, 5,26, 3,43		9,25,57,15	
		2, 5,34,58,37,50,52, 6		9,11
16″	2, 9, 3,24,48,44,43,16,55,49		9,26, 6,26	
		2, 5,34,58,28,24,45,40		9,11
18″	2, 9, 5,30,23,43,11,41,41,29		9,26,15,37	
		2, 5,34,58,18,58,30, 3		9,11
20″	2, 9, 7,35,58,41,30,40,11,32		9,26,24,48	
		2, 5,34,58, 9,32, 5,15		9,11
22″	2, 9, 9,41,33,39,40,12,16,47		9,26,33,59	
		2, 5,34,58, 0, 5,31,16		9,11
24″	2, 9,11,47, 8,37,40,17,48, 3		9,26,43,10	
		2, 5,34,57,50,38,48, 6		9,11
26″	2, 9,13,52,43,35,30,56,36, 9		9,26,52,21	
		2, 5,34,57,41,11,55,45		9,11
28″	2, 9,15,58,18,33,12, 8,31,54		9,27, 1,32	
		2, 5,34,57,31,44,54,13		9,11
30″	2, 9,18, 3,53,30,43,53,26, 7		9,27,10,43	
		2, 5,34,57,22,17,43,30		9,11
32″	2, 9,20, 9,28,28, 6,11, 9,37		9,27,19,54	
		2, 5,34,57,12,50,23,36		9,11
34″	2, 9,22,15, 3,25,19, 1,33,13		9,27,29, 5	
		2, 5,34,57, 3,22,54,31		9,11
36″	2, 9,24,20,38,22,22,24,27,44		9,27,38,16	
		2, 5,34,56,53,55,16,15		9,11
38″	2, 9,26,26,13,19,16,19,43,59		9,27,47,27	
		2, 5,34,56,44,27,28,48		9,11
40″	2, 9,28,31,48,16, 0,47,12,47		9,27,56,38	
		2, 5,34,56,34,59,32,10		9,11
42″	2, 9,30,37,23,12,35,46,44,57		9,28, 5,49	
		2, 5,34,56,25,31,26,21		9,11
44″	2, 9,32,42,58, 9, 1,18,11,18		9,28,15, 0	
		2, 5,34,56,16, 3,11,21		9,11
46″	2, 9,34,48,33, 5,17,21,22,39		9,28,24,11	
		2, 5,34,56, 6,34,47,10		9,11
48″	2, 9,36,54, 8, 1,23,56, 9,49		9,28,33,22	
		2, 5,34,55,57, 6,13,48		9,11
50″	2, 9,38,59,42,57,21, 2,23,37		9,28,42,33	
		2, 5,34,55,47,37,31,15		9,11
52″	2, 9,41, 5,17,53, 8,39,54,52		9,28,51,44	
		2, 5,34,55,38, 8,39,31		9,11
54″	2, 9,43,10,52,48,46,48,34,23		9,29, 0,55	
		2, 5,34,55,28,39,38,36		9,11
56″	2, 9,45,16,27,44,15,28,12,59		9,29,10, 6	
		2, 5,34,55,19,10,28,30		9,11
58″	2, 9,47,22, 2,39,34,38,41,29		9,29,19,17	
		2, 5,34,55, 9,41, 9,13		
60″	2, 9,49,27,37,34,44,19,50,42			
exact	2, 9,49,27,37,34,44,20, 2, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2° 4′ 0″	2, 9,49,27,37,34,44,20, 2, 9			
		2, 5,34,55, 0,11,41,53		
2″	2, 9,51,33,12,29,44,31,44, 2		9,29,37,35	
		2, 5,34,54,50,42, 4,18		9,11
4″	2, 9,53,38,47,24,35,13,48,20		9,29,46,46	
		2, 5,34,54,41,12,17,32		9,11
6″	2, 9,55,44,22,19,16,26, 5,52		9,29,55,57	
		2, 5,34,54,31,42,21,35		9,11
8″	2, 9,57,49,57,13,48, 8,27,27		9,30, 5, 8	
		2, 5,34,54,22,12,16,27		9,11
10″	2, 9,59,55,32, 8,10,20,43,54		9,30,14,19	
		2, 5,34,54,12,42, 2, 8		9,11
12″	2,10, 2, 1, 7, 2,23, 2,46, 2		9,30,23,30	
		2, 5,34,54, 3,11,38,38		9,11
14″	2,10, 4, 6,41,56,26,14,24,40		9,30,32,41	
		2, 5,34,53,53,41, 5,57		9,11
16″	2,10, 6,12,16,50,19,55,30,37		9,30,41,52	
		2, 5,34,53,44,10,24, 5		9,11
18″	2,10, 8,17,51,44, 4, 5,54,42		9,30,51, 3	
		2, 5,34,53,34,39,33, 2		9,11
20″	2,10,10,23,26,37,38,45,27,44		9,31, 0,14	
		2, 5,34,53,25, 8,32,48		9,11
22″	2,10,12,29, 1,31, 3,54, 0,32		9,31, 9,25	
		2, 5,34,53,15,37,23,23		9,11
24″	2,10,14,34,36,24,19,31,23,55		9,31,18,36	
		2, 5,34,53, 6, 6, 4,47		9,11
26″	2,10,16,40,11,17,25,37,28,42		9,31,27,47	
		2, 5,34,52,56,34,37, 0		9,11
28″	2,10,18,45,46,10,22,12, 5,42		9,31,36,58	
		2, 5,34,52,47, 3, 0, 2		9,11
30″	2,10,20,51,21, 3, 9,15, 5,44		9,31,46, 9	
		2, 5,34,52,37,31,13,53		9,11
32″	2,10,22,56,55,55,46,46,19,37		9,31,55,20	
		2, 5,34,52,27,59,18,33		9,11
34″	2,10,25, 2,30,48,14,45,38,10		9,32, 4,31	
		2, 5,34,52,18,27,14, 2		9,11
36″	2,10,27, 8, 5,40,33,12,52,12		9,32,13,42	
		2, 5,34,52, 8,55, 0,20		9,11
38″	2,10,29,13,40,32,42, 7,52,32		9,32,22,53	
		2, 5,34,51,59,22,37,27		9,11
40″	2,10,31,19,15,24,41,30,29,59		9,32,32, 4	
		2, 5,34,51,49,50, 5,23		9,11
42″	2,10,33,24,50,16,31,20,35,22		9,32,41,15	
		2, 5,34,51,40,17,24, 8		9,11
44″	2,10,35,30,25, 8,11,37,59,30		9,32,50,26	
		2, 5,34,51,30,44,33,42		9,11
46″	2,10,37,35,59,59,42,22,33,12		9,32,59,37	
		2, 5,34,51,21,11,34, 5		9,11
48″	2,10,39,41,34,51, 3,34, 7,17		9,33, 8,48	
		2, 5,34,51,11,38,25,17		9,11
50″	2,10,41,47, 9,42,15,12,32,34		9,33,17,59	
		2, 5,34,51, 2, 5, 7,18		9,11
52″	2,10,43,52,44,33,17,17,39,52		9,33,27,10	
		2, 5,34,50,52,31,40, 8		9,11
54″	2,10,45,58,19,24, 9,49,20, 0		9,33,36,21	
		2, 5,34,50,42,58, 3,47		9,11
56″	2,10,48, 3,54,14,52,47,23,47		9,33,45,32	
		2, 5,34,50,33,24,18,15		9,11
58″	2,10,50, 9,29, 5,26,11,42, 2		9,33,54,43	
		2, 5,34,50,23,50,23,32		
60″	2,10,52,15, 3,55,50, 2, 5,34			
exact	2,10,52,15, 3,55,50, 2,17, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2° 5′ 0″	2,10,52,15, 3,55,50, 2,17, 2			
		2, 5,34,50,14,16,20,47		
2″	2,10,54,20,38,46, 4,18,37,49		9,34,13, 1	
		2, 5,34,50, 4,42, 7,46		9,11
4″	2,10,56,26,13,36, 9, 0,45,35		9,34,22,12	
		2, 5,34,49,55, 7,45,34		9,11
6″	2,10,58,31,48,26, 4, 8,31, 9		9,34,31,23	
		2, 5,34,49,45,33,14,11		9,11
8″	2,11, 0,37,23,15,49,41,45,20		9,34,40,34	
		2, 5,34,49,35,58,33,37		9,11
10″	2,11, 2,42,58, 5,25,40,18,57		9,34,49,45	
		2, 5,34,49,26,23,43,52		9,11
12″	2,11, 4,48,32,54,52, 4, 2,49		9,34,58,56	
		2, 5,34,49,16,48,44,56		9,11
14″	2,11, 6,54, 7,44, 8,52,47,45		9,35, 8, 7	
		2, 5,34,49, 7,13,36,49		9,11
16″	2,11, 8,59,42,33,16, 6,24,34		9,35,17,18	
		2, 5,34,48,57,38,19,31		9,11
18″	2,11,11, 5,17,22,13,44,44, 5		9,35,26,29	
		2, 5,34,48,48, 2,53, 2		9,11
20″	2,11,13,10,52,11, 1,47,37, 7		9,35,35,40	
		2, 5,34,48,38,27,17,22		9,11
22″	2,11,15,16,26,59,40,14,54,29		9,35,44,51	
		2, 5,34,48,28,51,32,31		9,11
24″	2,11,17,22, 1,48, 9, 6,27, 0		9,35,54, 2	
		2, 5,34,48,19,15,38,29		9,11
26″	2,11,19,27,36,36,28,22, 5,29		9,36, 3,13	
		2, 5,34,48, 9,39,35,16		9,11
28″	2,11,21,33,11,24,38, 1,40,45		9,36,12,24	
		2, 5,34,48, 0, 3,22,52		9,11
30″	2,11,23,38,46,12,38, 5, 3,37		9,36,21,35	
		2, 5,34,47,50,27, 1,17		9,11
32″	2,11,25,44,21, 0,28,32, 4,54		9,36,30,46	
		2, 5,34,47,40,50,30,31		9,11
34″	2,11,27,49,55,48, 9,22,35,25		9,36,39,57	
		2, 5,34,47,31,13,50,34		9,11
36″	2,11,29,55,30,35,40,36,25,59		9,36,49, 8	
		2, 5,34,47,21,37, 1,26		9,11
38″	2,11,32, 1, 5,23, 2,13,27,25		9,36,58,19	
		2, 5,34,47,12, 0, 3, 7		9,11
40″	2,11,34, 6,40,10,14,13,30,32		9,37, 7,30	
		2, 5,34,47, 2,22,55,37		9,11
42″	2,11,36,12,14,57,16,36,26, 9		9,37,16,41	
		2, 5,34,46,52,45,38,56		9,11
44″	2,11,38,17,49,44, 9,22, 5, 5		9,37,25,52	
		2, 5,34,46,43, 8,13, 4		9,11
46″	2,11,40,23,24,30,52,30,18, 9		9,37,35, 3	
		2, 5,34,46,33,30,38, 1		9,11
48″	2,11,42,28,59,17,26, 0,56,10		9,37,44,14	
		2, 5,34,46,23,52,53,47		9,11
50″	2,11,44,34,34, 3,49,53,49,57		9,37,53,25	
		2, 5,34,46,14,15, 0,22		9,11
52″	2,11,46,40, 8,50, 4, 8,50,19		9,38, 2,36	
		2, 5,34,46, 4,36,57,46		9,11
54″	2,11,48,45,43,36, 8,45,48, 5		9,38,11,47	
		2, 5,34,45,54,58,45,59		9,11
56″	2,11,50,51,18,22, 3,44,34, 4		9,38,20,58	
		2, 5,34,45,45,20,25, 1		9,11
58″	2,11,52,56,53, 7,49, 4,59, 5		9,38,30, 9	
		2, 5,34,45,35,41,54,52		
60″	2,11,55, 2,27,53,24,46,53,57			
exact	2,11,55, 2,27,53,24,47, 7,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2° 6′ 0″	2,11,55, 2,27,53,24,47, 7,21			
		2, 5,34,45,26, 3,16,50		
2″	2,11,57, 8, 2,38,50,50,24,11		9,38,48,26	
		2, 5,34,45,16,24,28,24		9,11
4″	2,11,59,13,37,24, 7,14,52,35		9,38,57,37	
		2, 5,34,45, 6,45,30,47		9,11
6″	2,12, 1,19,12, 9,14, 0,23,22		9,39, 6,48	
		2, 5,34,44,57, 6,23,59		9,11
8″	2,12, 3,24,46,54,11, 6,47,21		9,39,15,59	
		2, 5,34,44,47,27, 8, 0		9,11
10″	2,12, 5,30,21,38,58,33,55,21		9,39,25,10	
		2, 5,34,44,37,47,42,50		9,11
12″	2,12, 7,35,56,23,36,21,38,11		9,39,34,21	
		2, 5,34,44,28, 8, 8,29		9,11
14″	2,12, 9,41,31, 8, 4,29,46,40		9,39,43,32	
		2, 5,34,44,18,28,24,57		9,11
16″	2,12,11,47, 5,52,22,58,11,37		9,39,52,43	
		2, 5,34,44, 8,48,32,14		9,11
18″	2,12,13,52,40,36,31,46,43,51		9,40, 1,54	
		2, 5,34,43,59, 8,30,20		9,11
20″	2,12,15,58,15,20,30,55,14,11		9,40,11, 5	
		2, 5,34,43,49,28,19,15		9,11
22″	2,12,18, 3,50, 4,20,23,33,26		9,40,20,16	
		2, 5,34,43,39,47,58,59		9,11
24″	2,12,20, 9,24,48, 0,11,32,25		9,40,29,27	
		2, 5,34,43,30, 7,29,32		9,11
26″	2,12,22,14,59,31,30,19, 1,57		9,40,38,38	
		2, 5,34,43,20,26,50,54		9,11
28″	2,12,24,20,34,14,50,45,52,51		9,40,47,49	
		2, 5,34,43,10,46, 3, 5		9,11
30″	2,12,26,26, 8,58, 1,31,55,56		9,40,57, 0	
		2, 5,34,43, 1, 5, 6, 5		9,11
32″	2,12,28,31,43,41, 2,37, 2, 1		9,41, 6,11	
		2, 5,34,42,51,23,59,54		9,11
34″	2,12,30,37,18,23,54, 1, 1,55		9,41,15,22	
		2, 5,34,42,41,42,44,32		9,11
36″	2,12,32,42,53, 6,35,43,46,27		9,41,24,33	
		2, 5,34,42,32, 1,19,59		9,11
38″	2,12,34,48,27,49, 7,45, 6,26		9,41,33,44	
		2, 5,34,42,22,19,46,15		9,11
40″	2,12,36,54, 2,31,30, 4,52,41		9,41,42,55	
		2, 5,34,42,12,38, 3,20		9,11
42″	2,12,38,59,37,13,42,42,56, 1		9,41,52, 6	
		2, 5,34,42, 2,56,11,14		9,11
44″	2,12,41, 5,11,55,45,39, 7,15		9,42, 1,17	
		2, 5,34,41,53,14, 9,57		9,11
46″	2,12,43,10,46,37,38,53,17,12		9,42,10,28	
		2, 5,34,41,43,31,59,29		9,11
48″	2,12,45,16,21,19,22,25,16,41		9,42,19,39	
		2, 5,34,41,33,49,39,50		9,11
50″	2,12,47,21,56, 0,56,14,56,31		9,42,28,50	
		2, 5,34,41,24, 7,11, 0		9,11
52″	2,12,49,27,30,42,20,22, 7,31		9,42,38, 1	
		2, 5,34,41,14,24,32,59		9,11
54″	2,12,51,33, 5,23,34,46,40,30		9,42,47,12	
		2, 5,34,41, 4,41,45,47		9,11
56″	2,12,53,38,40, 4,39,28,26,17		9,42,56,23	
		2, 5,34,40,54,58,49,24		9,11
58″	2,12,55,44,14,45,34,27,15,41		9,43, 5,34	
		2, 5,34,40,45,15,43,50		
60″	2,12,57,49,49,26,19,42,59,31			
exact	2,12,57,49,49,26,19,43, 8,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2° 7′ 0″	2,12,57,49,49,26,19,43, 8,11			
		2, 5,34,40,35,32,30, 5		
2″	2,12,59,55,24, 6,55,15,38,16		9,43,23,52	
		2, 5,34,40,25,49, 6,13		9,11
4″	2,13, 2, 0,58,47,21, 4,44,29		9,43,33, 3	
		2, 5,34,40,16, 5,33,10		9,11
6″	2,13, 4, 6,33,27,37,10,17,39		9,43,42,14	
		2, 5,34,40, 6,21,50,56		9,11
8″	2,13, 6,12, 8, 7,43,32, 8,35		9,43,51,25	
		2, 5,34,39,56,37,59,31		9,11
10″	2,13, 8,17,42,47,40,10, 8, 6		9,44, 0,36	
		2, 5,34,39,46,53,58,55		9,11
12″	2,13,10,23,17,27,27, 4, 7, 1		9,44, 9,47	
		2, 5,34,39,37, 9,49, 8		9,11
14″	2,13,12,28,52, 7, 4,13,56, 9		9,44,18,58	
		2, 5,34,39,27,25,30,10		9,11
16″	2,13,14,34,26,46,31,39,26,19		9,44,28, 9	
		2, 5,34,39,17,41, 2, 1		9,11
18″	2,13,16,40, 1,25,49,20,28,20		9,44,37,20	
		2, 5,34,39, 7,56,24,41		9,11
20″	2,13,18,45,36, 4,57,16,53, 1		9,44,46,31	
		2, 5,34,38,58,11,38,10		9,11
22″	2,13,20,51,10,43,55,28,31,11		9,44,55,42	
		2, 5,34,38,48,26,42,28		9,11
24″	2,13,22,56,45,22,43,55,13,39		9,45, 4,53	
		2, 5,34,38,38,41,37,35		9,11
26″	2,13,25, 2,20, 1,22,36,51,14		9,45,14, 4	
		2, 5,34,38,28,56,23,31		9,11
28″	2,13,27, 7,54,39,51,33,14,45		9,45,23,15	
		2, 5,34,38,19,11, 0,16		9,11
30″	2,13,29,13,29,18,10,44,15, 1		9,45,32,26	
		2, 5,34,38, 9,25,27,50		9,11
32″	2,13,31,19, 3,56,20, 9,42,51		9,45,41,37	
		2, 5,34,37,59,39,46,13		9,11
34″	2,13,33,24,38,34,19,49,29, 4		9,45,50,48	
		2, 5,34,37,49,53,55,25		9,11
36″	2,13,35,30,13,12, 9,43,24,29		9,45,59,59	
		2, 5,34,37,40, 7,55,26		9,11
38″	2,13,37,35,47,49,49,51,19,55		9,46, 9,10	
		2, 5,34,37,30,21,46,16		9,11
40″	2,13,39,41,22,27,20,13, 6,11		9,46,18,21	
		2, 5,34,37,20,35,27,55		9,11
42″	2,13,41,46,57, 4,40,48,34, 6		9,46,27,32	
		2, 5,34,37,10,49, 0,23		9,11
44″	2,13,43,52,31,41,51,37,34,29		9,46,36,43	
		2, 5,34,37, 1, 2,23,40		9,11
46″	2,13,45,58, 6,18,52,39,58, 9		9,46,45,54	
		2, 5,34,36,51,15,37,46		9,11
48″	2,13,48, 3,40,55,43,55,35,55		9,46,55, 5	
		2, 5,34,36,41,28,42,41		9,11
50″	2,13,50, 9,15,32,25,24,18,36		9,47, 4,16	
		2, 5,34,36,31,41,38,25		9,11
52″	2,13,52,14,50, 8,57, 5,57, 1		9,47,13,27	
		2, 5,34,36,21,54,24,58		9,11
54″	2,13,54,20,24,45,19, 0,21,59		9,47,22,38	
		2, 5,34,36,12, 7, 2,20		9,11
56″	2,13,56,25,59,21,31, 7,24,19		9,47,31,49	
		2, 5,34,36, 2,19,30,31		9,11
58″	2,13,58,31,33,57,33,26,54,50		9,47,41, 0	
		2, 5,34,35,52,31,49,31		
60″	2,14, 0,37, 8,33,25,58,44,21			
exact	2,14, 0,37, 8,33,25,58,57,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2° 8′ 0″	2,14, 0,37, 8,33,25,58,57,13			
		2, 5,34,35,42,44, 0,38		
2″	2,14, 2,42,43, 9, 8,42,57,51		9,47,59,17	
		2, 5,34,35,32,56, 1,21		9,11
4″	2,14, 4,48,17,44,41,38,59,12		9,48, 8,28	
		2, 5,34,35,23, 7,52,53		9,11
6″	2,14, 6,53,52,20, 4,46,52, 5		9,48,17,39	
		2, 5,34,35,13,19,35,14		9,11
8″	2,14, 8,59,26,55,18, 6,27,19		9,48,26,50	
		2, 5,34,35, 3,31, 8,24		9,11
10″	2,14,11, 5, 1,30,21,37,35,43		9,48,36, 1	
		2, 5,34,34,53,42,32,23		9,11
12″	2,14,13,10,36, 5,15,20, 8, 6		9,48,45,12	
		2, 5,34,34,43,53,47,11		9,11
14″	2,14,15,16,10,39,59,13,55,17		9,48,54,23	
		2, 5,34,34,34, 4,52,48		9,11
16″	2,14,17,21,45,14,33,18,48, 5		9,49, 3,34	
		2, 5,34,34,24,15,49,14		9,11
18″	2,14,19,27,19,48,57,34,37,19		9,49,12,45	
		2, 5,34,34,14,26,36,29		9,11
20″	2,14,21,32,54,23,12, 1,13,48		9,49,21,56	
		2, 5,34,34, 4,37,14,33		9,11
22″	2,14,23,38,28,57,16,38,28,21		9,49,31, 7	
		2, 5,34,33,54,47,43,26		9,11
24″	2,14,25,44, 3,31,11,26,11,47		9,49,40,18	
		2, 5,34,33,44,58, 3, 8		9,11
26″	2,14,27,49,38, 4,56,24,14,55		9,49,49,29	
		2, 5,34,33,35, 8,13,39		9,11
28″	2,14,29,55,12,38,31,32,28,34		9,49,58,40	
		2, 5,34,33,25,18,14,59		9,11
30″	2,14,32, 0,47,11,56,50,43,33		9,50, 7,51	
		2, 5,34,33,15,28, 7, 8		9,11
32″	2,14,34, 6,21,45,12,18,50,41		9,50,17, 2	
		2, 5,34,33, 5,37,50, 6		9,11
34″	2,14,36,11,56,18,17,56,40,47		9,50,26,13	
		2, 5,34,32,55,47,23,53		9,11
36″	2,14,38,17,30,51,13,44, 4,40		9,50,35,24	
		2, 5,34,32,45,56,48,29		9,11
38″	2,14,40,23, 5,23,59,40,53, 9		9,50,44,35	
		2, 5,34,32,36, 6, 3,54		9,11
40″	2,14,42,28,39,56,35,46,57, 3		9,50,53,46	
		2, 5,34,32,26,15,10, 8		9,11
42″	2,14,44,34,14,29, 2, 2, 7,11		9,51, 2,57	
		2, 5,34,32,16,24, 7,11		9,11
44″	2,14,46,39,49, 1,18,26,14,22		9,51,12, 8	
		2, 5,34,32, 6,32,55, 3		9,11
46″	2,14,48,45,23,33,24,59, 9,25		9,51,21,19	
		2, 5,34,31,56,41,33,44		9,11
48″	2,14,50,50,58, 5,21,40,43, 9		9,51,30,30	
		2, 5,34,31,46,50, 3,14		9,11
50″	2,14,52,56,32,37, 8,30,46,23		9,51,39,41	
		2, 5,34,31,36,58,23,33		9,11
52″	2,14,55, 2, 7, 8,45,29, 9,56		9,51,48,52	
		2, 5,34,31,27, 6,34,41		9,11
54″	2,14,57, 7,41,40,12,35,44,37		9,51,58, 3	
		2, 5,34,31,17,14,36,38		9,11
56″	2,14,59,13,16,11,29,50,21,15		9,52, 7,14	
		2, 5,34,31, 7,22,29,24		9,11
58″	2,15, 1,18,50,42,37,12,50,39		9,52,16,25	
		2, 5,34,30,57,30,12,59		
60″	2,15, 3,24,25,13,34,43, 3,38			
exact	2,15, 3,24,25,13,34,43,14,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2° 9′ 0″	2,15, 3,24,25,13,34,43,14,51			
		2, 5,34,30,47,37,48,35		
2″	2,15, 5,29,59,44,22,21, 3,26		9,52,34,42	
		2, 5,34,30,37,45,13,53		9,11
4″	2,15, 7,35,34,15, 0, 6,17,19		9,52,43,53	
		2, 5,34,30,27,52,30, 0		9,11
6″	2,15, 9,41, 8,45,27,58,47,19		9,52,53, 4	
		2, 5,34,30,17,59,36,56		9,11
8″	2,15,11,46,43,15,45,58,24,15		9,53, 2,15	
		2, 5,34,30, 8, 6,34,41		9,11
10″	2,15,13,52,17,45,54, 4,58,56		9,53,11,26	
		2, 5,34,29,58,13,23,15		9,11
12″	2,15,15,57,52,15,52,18,22,11		9,53,20,37	
		2, 5,34,29,48,20, 2,38		9,11
14″	2,15,18, 3,26,45,40,38,24,49		9,53,29,48	
		2, 5,34,29,38,26,32,50		9,11
16″	2,15,20, 9, 1,15,19, 4,57,39		9,53,38,59	
		2, 5,34,29,28,32,53,51		9,11
18″	2,15,22,14,35,44,47,37,51,30		9,53,48,10	
		2, 5,34,29,18,39, 5,41		9,11
20″	2,15,24,20,10,14, 6,16,57,11		9,53,57,21	
		2, 5,34,29, 8,45, 8,20		9,11
22″	2,15,26,25,44,43,15, 2, 5,31		9,54, 6,32	
		2, 5,34,28,58,51, 1,48		9,11
24″	2,15,28,31,19,12,13,53, 7,19		9,54,15,43	
		2, 5,34,28,48,56,46, 5		9,11
26″	2,15,30,36,53,41, 2,49,53,24		9,54,24,54	
		2, 5,34,28,39, 2,21,11		9,11
28″	2,15,32,42,28, 9,41,52,14,35		9,54,34, 5	
		2, 5,34,28,29, 7,47, 6		9,11
30″	2,15,34,48, 2,38,11, 0, 1,41		9,54,43,16	
		2, 5,34,28,19,13, 3,50		9,11
32″	2,15,36,53,37, 6,30,13, 5,31		9,54,52,27	
		2, 5,34,28, 9,18,11,23		9,11
34″	2,15,38,59,11,34,39,31,16,54		9,55, 1,38	
		2, 5,34,27,59,23, 9,45		9,11
36″	2,15,41, 4,46, 2,38,54,26,39		9,55,10,49	
		2, 5,34,27,49,27,58,56		9,11
38″	2,15,43,10,20,30,28,22,25,35		9,55,20, 0	
		2, 5,34,27,39,32,38,56		9,11
40″	2,15,45,15,54,58, 7,55, 4,31		9,55,29,11	
		2, 5,34,27,29,37, 9,45		9,11
42″	2,15,47,21,29,25,37,32,14,16		9,55,38,22	
		2, 5,34,27,19,41,31,23		9,11
44″	2,15,49,27, 3,52,57,13,45,39		9,55,47,33	
		2, 5,34,27, 9,45,43,50		9,11
46″	2,15,51,32,38,20, 6,59,29,29		9,55,56,44	
		2, 5,34,26,59,49,47, 6		9,11
48″	2,15,53,38,12,47, 6,49,16,35		9,56, 5,55	
		2, 5,34,26,49,53,41,11		9,11
50″	2,15,55,43,47,13,56,42,57,46		9,56,15, 6	
		2, 5,34,26,39,57,26, 5		9,11
52″	2,15,57,49,21,40,36,40,23,51		9,56,24,17	
		2, 5,34,26,30, 1, 1,48		9,11
54″	2,15,59,54,56, 7, 6,41,25,39		9,56,33,28	
		2, 5,34,26,20, 4,28,20		9,11
56″	2,16, 2, 0,30,33,26,45,53,59		9,56,42,39	
		2, 5,34,26,10, 7,45,41		9,11
58″	2,16, 4, 6, 4,59,36,53,39,40		9,56,51,50	
		2, 5,34,26, 0,10,53,51		
60″	2,16, 6,11,39,25,37, 4,33,31			
exact	2,16, 6,11,39,25,37, 4,44, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°10′ 0″	2,16, 6,11,39,25,37, 4,44, 7			
		2, 5,34,25,50,13,54, 0		
2″	2,16, 8,17,13,51,27,18,38, 7		9,57,10, 7	
		2, 5,34,25,40,16,43,53		9,11
4″	2,16,10,22,48,17, 7,35,22, 0		9,57,19,18	
		2, 5,34,25,30,19,24,35		9,11
6″	2,16,12,28,22,42,37,54,46,35		9,57,28,29	
		2, 5,34,25,20,21,56, 6		9,11
8″	2,16,14,33,57, 7,58,16,42,41		9,57,37,40	
		2, 5,34,25,10,24,18,26		9,11
10″	2,16,16,39,31,33, 8,41, 1, 7		9,57,46,51	
		2, 5,34,25, 0,26,31,35		9,11
12″	2,16,18,45, 5,58, 9, 7,32,42		9,57,56, 2	
		2, 5,34,24,50,28,35,33		9,11
14″	2,16,20,50,40,22,59,36, 8,15		9,58, 5,13	
		2, 5,34,24,40,30,30,20		9,11
16″	2,16,22,56,14,47,40, 6,38,35		9,58,14,24	
		2, 5,34,24,30,32,15,56		9,11
18″	2,16,25, 1,49,12,10,38,54,31		9,58,23,35	
		2, 5,34,24,20,33,52,21		9,11
20″	2,16,27, 7,23,36,31,12,46,52		9,58,32,46	
		2, 5,34,24,10,35,19,35		9,11
22″	2,16,29,12,58, 0,41,48, 6,27		9,58,41,57	
		2, 5,34,24, 0,36,37,38		9,11
24″	2,16,31,18,32,24,42,24,44, 5		9,58,51, 8	
		2, 5,34,23,50,37,46,30		9,11
26″	2,16,33,24, 6,48,33, 2,30,35		9,59, 0,19	
		2, 5,34,23,40,38,46,11		9,11
28″	2,16,35,29,41,12,13,41,16,46		9,59, 9,30	
		2, 5,34,23,30,39,36,41		9,11
30″	2,16,37,35,15,35,44,20,53,27		9,59,18,41	
		2, 5,34,23,20,40,18, 0		9,11
32″	2,16,39,40,49,59, 5, 1,11,27		9,59,27,52	
		2, 5,34,23,10,40,50, 8		9,11
34″	2,16,41,46,24,22,15,42, 1,35		9,59,37, 3	
		2, 5,34,23, 0,41,13, 5		9,11
36″	2,16,43,51,58,45,16,23,14,40		9,59,46,14	
		2, 5,34,22,50,41,26,51		9,11
38″	2,16,45,57,33, 8, 7, 4,41,31		9,59,55,25	
		2, 5,34,22,40,41,31,26		9,11
40″	2,16,48, 3, 7,30,47,46,12,57		10, 0, 4,36	
		2, 5,34,22,30,41,26,50		9,11
42″	2,16,50, 8,41,53,18,27,39,47		10, 0,13,47	
		2, 5,34,22,20,41,13, 3		9,11
44″	2,16,52,14,16,15,39, 8,52,50		10, 0,22,58	
		2, 5,34,22,10,40,50, 5		9,11
46″	2,16,54,19,50,37,49,49,42,55		10, 0,32, 9	
		2, 5,34,22, 0,40,17,56		9,11
48″	2,16,56,25,24,59,50,30, 0,51		10, 0,41,20	
		2, 5,34,21,50,39,36,36		9,11
50″	2,16,58,30,59,21,41, 9,37,27		10, 0,50,31	
		2, 5,34,21,40,38,46, 5		9,11
52″	2,17, 0,36,33,43,21,48,23,32		10, 0,59,42	
		2, 5,34,21,30,37,46,23		9,11
54″	2,17, 2,42, 8, 4,52,26, 9,55		10, 1, 8,53	
		2, 5,34,21,20,36,37,30		9,11
56″	2,17, 4,47,42,26,13, 2,47,25		10, 1,18, 4	
		2, 5,34,21,10,35,19,26		9,11
58″	2,17, 6,53,16,47,23,38, 6,51		10, 1,27,15	
		2, 5,34,21, 0,33,52,11		
60″	2,17, 8,58,51, 8,24,11,59, 2			
exact	2,17, 8,58,51, 8,24,12,10,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°11′ 0″	2,17, 8,58,51, 8,24,12,10,47			
		2, 5,34,20,50,32,17, 0		
2″	2,17,11, 4,25,29,14,44,27,47		10, 1,45,32	
		2, 5,34,20,40,30,31,28		9,11
4″	2,17,13, 9,59,49,55,14,59,15		10, 1,54,43	
		2, 5,34,20,30,28,36,45		9,11
6″	2,17,15,15,34,10,25,43,36, 0		10, 2, 3,54	
		2, 5,34,20,20,26,32,51		9,11
8″	2,17,17,21, 8,30,46,10, 8,51		10, 2,13, 5	
		2, 5,34,20,10,24,19,46		9,11
10″	2,17,19,26,42,50,56,34,28,37		10, 2,22,16	
		2, 5,34,20, 0,21,57,30		9,11
12″	2,17,21,32,17,10,56,56,26, 7		10, 2,31,27	
		2, 5,34,19,50,19,26, 3		9,11
14″	2,17,23,37,51,30,47,15,52,10		10, 2,40,38	
		2, 5,34,19,40,16,45,25		9,11
16″	2,17,25,43,25,50,27,32,37,35		10, 2,49,49	
		2, 5,34,19,30,13,55,36		9,11
18″	2,17,27,49, 0, 9,57,46,33,11		10, 2,59, 0	
		2, 5,34,19,20,10,56,36		9,11
20″	2,17,29,54,34,29,17,57,29,47		10, 3, 8,11	
		2, 5,34,19,10, 7,48,25		9,11
22″	2,17,32, 0, 8,48,28, 5,18,12		10, 3,17,22	
		2, 5,34,19, 0, 4,31, 3		9,11
24″	2,17,34, 5,43, 7,28, 9,49,15		10, 3,26,33	
		2, 5,34,18,50, 1, 4,30		9,11
26″	2,17,36,11,17,26,18,10,53,45		10, 3,35,44	
		2, 5,34,18,39,57,28,46		9,11
28″	2,17,38,16,51,44,58, 8,22,31		10, 3,44,55	
		2, 5,34,18,29,53,43,51		9,11
30″	2,17,40,22,26, 3,28, 2, 6,22		10, 3,54, 6	
		2, 5,34,18,19,49,49,45		9,11
32″	2,17,42,28, 0,21,47,51,56, 7		10, 4, 3,17	
		2, 5,34,18, 9,45,46,28		9,11
34″	2,17,44,33,34,39,57,37,42,35		10, 4,12,28	
		2, 5,34,17,59,41,34, 0		9,11
36″	2,17,46,39, 8,57,57,19,16,35		10, 4,21,39	
		2, 5,34,17,49,37,12,21		9,11
38″	2,17,48,44,43,15,46,56,28,56		10, 4,30,50	
		2, 5,34,17,39,32,41,31		9,11
40″	2,17,50,50,17,33,26,29,10,27		10, 4,40, 1	
		2, 5,34,17,29,28, 1,30		9,11
42″	2,17,52,55,51,50,55,57,11,57		10, 4,49,12	
		2, 5,34,17,19,23,12,18		9,11
44″	2,17,55, 1,26, 8,15,20,24,15		10, 4,58,23	
		2, 5,34,17, 9,18,13,55		9,11
46″	2,17,57, 7, 0,25,24,38,38,10		10, 5, 7,34	
		2, 5,34,16,59,13, 6,21		9,11
48″	2,17,59,12,34,42,23,51,44,31		10, 5,16,45	
		2, 5,34,16,49, 7,49,36		9,11
50″	2,18, 1,18, 8,59,12,59,34, 7		10, 5,25,56	
		2, 5,34,16,39, 2,23,40		9,11
52″	2,18, 3,23,43,15,52, 1,57,47		10, 5,35, 7	
		2, 5,34,16,28,56,48,33		9,11
54″	2,18, 5,29,17,32,20,58,46,20		10, 5,44,18	
		2, 5,34,16,18,51, 4,15		9,11
56″	2,18, 7,34,51,48,39,49,50,35		10, 5,53,29	
		2, 5,34,16, 8,45,10,46		9,11
58″	2,18, 9,40,26, 4,48,35, 1,21		10, 6, 2,40	
		2, 5,34,15,58,39, 8, 6		
60″	2,18,11,46, 0,20,47,14, 9,27			
exact	2,18,11,46, 0,20,47,14,23,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°12′ 0″	2,18,11,46, 0,20,47,14,23,21			
		2, 5,34,15,48,32,57,40		
2″	2,18,13,51,34,36,35,47,21, 1		10, 6,20,56	
		2, 5,34,15,38,26,36,44		9,11
4″	2,18,15,57, 8,52,14,13,57,45		10, 6,30, 7	
		2, 5,34,15,28,20, 6,37		9,11
6″	2,18,18, 2,43, 7,42,34, 4,22		10, 6,39,18	
		2, 5,34,15,18,13,27,19		9,11
8″	2,18,20, 8,17,23, 0,47,31,41		10, 6,48,29	
		2, 5,34,15, 8, 6,38,50		9,11
10″	2,18,22,13,51,38, 8,54,10,31		10, 6,57,40	
		2, 5,34,14,57,59,41,10		9,11
12″	2,18,24,19,25,53, 6,53,51,41		10, 7, 6,51	
		2, 5,34,14,47,52,34,19		9,11
14″	2,18,26,25, 0, 7,54,46,26, 0		10, 7,16, 2	
		2, 5,34,14,37,45,18,17		9,11
16″	2,18,28,30,34,22,32,31,44,17		10, 7,25,13	
		2, 5,34,14,27,37,53, 4		9,11
18″	2,18,30,36, 8,37, 0, 9,37,21		10, 7,34,24	
		2, 5,34,14,17,30,18,40		9,11
20″	2,18,32,41,42,51,17,39,56, 1		10, 7,43,35	
		2, 5,34,14, 7,22,35, 5		9,11
22″	2,18,34,47,17, 5,25, 2,31, 6		10, 7,52,46	
		2, 5,34,13,57,14,42,19		9,11
24″	2,18,36,52,51,19,22,17,13,25		10, 8, 1,57	
		2, 5,34,13,47, 6,40,22		9,11
26″	2,18,38,58,25,33, 9,23,53,47		10, 8,11, 8	
		2, 5,34,13,36,58,29,14		9,11
28″	2,18,41, 3,59,46,46,22,23, 1		10, 8,20,19	
		2, 5,34,13,26,50, 8,55		9,11
30″	2,18,43, 9,34, 0,13,12,31,56		10, 8,29,30	
		2, 5,34,13,16,41,39,25		9,11
32″	2,18,45,15, 8,13,29,54,11,21		10, 8,38,41	
		2, 5,34,13, 6,33, 0,44		9,11
34″	2,18,47,20,42,26,36,27,12, 5		10, 8,47,52	
		2, 5,34,12,56,24,12,52		9,11
36″	2,18,49,26,16,39,32,51,24,57		10, 8,57, 3	
		2, 5,34,12,46,15,15,49		9,11
38″	2,18,51,31,50,52,19, 6,40,46		10, 9, 6,14	
		2, 5,34,12,36, 6, 9,35		9,11
40″	2,18,53,37,25, 4,55,12,50,21		10, 9,15,25	
		2, 5,34,12,25,56,54,10		9,11
42″	2,18,55,42,59,17,21, 9,44,31		10, 9,24,36	
		2, 5,34,12,15,47,29,34		9,11
44″	2,18,57,48,33,29,36,57,14, 5		10, 9,33,47	
		2, 5,34,12, 5,37,55,47		9,11
46″	2,18,59,54, 7,41,42,35, 9,52		10, 9,42,58	
		2, 5,34,11,55,28,12,49		9,11
48″	2,19, 1,59,41,53,38, 3,22,41		10, 9,52, 9	
		2, 5,34,11,45,18,20,40		9,11
50″	2,19, 4, 5,16, 5,23,21,43,21		10,10, 1,20	
		2, 5,34,11,35, 8,19,20		9,11
52″	2,19, 6,10,50,16,58,30, 2,41		10,10,10,31	
		2, 5,34,11,24,58, 8,49		9,11
54″	2,19, 8,16,24,28,23,28,11,30		10,10,19,42	
		2, 5,34,11,14,47,49, 7		9,11
56″	2,19,10,21,58,39,38,16, 0,37		10,10,28,53	
		2, 5,34,11, 4,37,20,14		9,11
58″	2,19,12,27,32,50,42,53,20,51		10,10,38, 4	
		2, 5,34,10,54,26,42,10		
60″	2,19,14,33, 7, 1,37,20, 3, 1			
exact	2,19,14,33, 7, 1,37,20,13, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°13′ 0″	2,19,14,33, 7, 1,37,20,13, 3			
		2, 5,34,10,44,15,56, 5		
2″	2,19,16,38,41,12,21,36, 9, 8		10,10,56,21	
		2, 5,34,10,34, 4,59,44		9,11
4″	2,19,18,44,15,22,55,41, 8,52		10,11, 5,32	
		2, 5,34,10,23,53,54,12		9,11
6″	2,19,20,49,49,33,19,35, 3, 4		10,11,14,43	
		2, 5,34,10,13,42,39,29		9,11
8″	2,19,22,55,23,43,33,17,42,33		10,11,23,54	
		2, 5,34,10, 3,31,15,35		9,11
10″	2,19,25, 0,57,53,36,48,58, 8		10,11,33, 5	
		2, 5,34, 9,53,19,42,30		9,11
12″	2,19,27, 6,32, 3,30, 8,40,38		10,11,42,16	
		2, 5,34, 9,43, 8, 0,14		9,11
14″	2,19,29,12, 6,13,13,16,40,52		10,11,51,27	
		2, 5,34, 9,32,56, 8,47		9,11
16″	2,19,31,17,40,22,46,12,49,39		10,12, 0,38	
		2, 5,34, 9,22,44, 8, 9		9,11
18″	2,19,33,23,14,32, 8,56,57,48		10,12, 9,49	
		2, 5,34, 9,12,31,58,20		9,11
20″	2,19,35,28,48,41,21,28,56, 8		10,12,19, 0	
		2, 5,34, 9, 2,19,39,20		9,11
22″	2,19,37,34,22,50,23,48,35,28		10,12,28,11	
		2, 5,34, 8,52, 7,11, 9		9,11
24″	2,19,39,39,56,59,15,55,46,37		10,12,37,22	
		2, 5,34, 8,41,54,33,47		9,11
26″	2,19,41,45,31, 7,57,50,20,24		10,12,46,33	
		2, 5,34, 8,31,41,47,14		9,11
28″	2,19,43,51, 5,16,29,32, 7,38		10,12,55,44	
		2, 5,34, 8,21,28,51,30		9,11
30″	2,19,45,56,39,24,51, 0,59, 8		10,13, 4,55	
		2, 5,34, 8,11,15,46,35		9,11
32″	2,19,48, 2,13,33, 2,16,45,43		10,13,14, 6	
		2, 5,34, 8, 1, 2,32,29		9,11
34″	2,19,50, 7,47,41, 3,19,18,12		10,13,23,17	
		2, 5,34, 7,50,49, 9,12		9,11
36″	2,19,52,13,21,48,54, 8,27,24		10,13,32,28	
		2, 5,34, 7,40,35,36,44		9,11
38″	2,19,54,18,55,56,34,44, 4, 8		10,13,41,39	
		2, 5,34, 7,30,21,55, 5		9,11
40″	2,19,56,24,30, 4, 5, 5,59,13		10,13,50,50	
		2, 5,34, 7,20, 8, 4,15		9,11
42″	2,19,58,30, 4,11,25,14, 3,28		10,14, 0, 1	
		2, 5,34, 7, 9,54, 4,14		9,11
44″	2,20, 0,35,38,18,35, 8, 7,42		10,14, 9,12	
		2, 5,34, 6,59,39,55, 2		9,11
46″	2,20, 2,41,12,25,34,48, 2,44		10,14,18,23	
		2, 5,34, 6,49,25,36,39		9,11
48″	2,20, 4,46,46,32,24,13,39,23		10,14,27,34	
		2, 5,34, 6,39,11, 9, 5		9,11
50″	2,20, 6,52,20,39, 3,24,48,28		10,14,36,45	
		2, 5,34, 6,28,56,32,20		9,11
52″	2,20, 8,57,54,45,32,21,20,48		10,14,45,56	
		2, 5,34, 6,18,41,46,24		9,11
54″	2,20,11, 3,28,51,51, 3, 7,12		10,14,55, 7	
		2, 5,34, 6, 8,26,51,17		9,11
56″	2,20,13, 9, 2,57,59,29,58,29		10,15, 4,18	
		2, 5,34, 5,58,11,46,59		9,11
58″	2,20,15,14,37, 3,57,41,45,28		10,15,13,29	
		2, 5,34, 5,47,56,33,30		
60″	2,20,17,20,11, 9,45,38,18,58			
exact	2,20,17,20,11, 9,45,38,33,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°14′ 0″	2,20,17,20,11, 9,45,38,33,53			
		2, 5,34, 5,37,41,12,21		
2″	2,20,19,25,45,15,23,19,46,14		10,15,31,45	
		2, 5,34, 5,27,25,40,36		9,11
4″	2,20,21,31,19,20,50,45,26,50		10,15,40,56	
		2, 5,34, 5,17, 9,59,40		9,11
6″	2,20,23,36,53,26, 7,55,26,30		10,15,50, 7	
		2, 5,34, 5, 6,54, 9,33		9,11
8″	2,20,25,42,27,31,14,49,36, 3		10,15,59,18	
		2, 5,34, 4,56,38,10,15		9,11
10″	2,20,27,48, 1,36,11,27,46,18		10,16, 8,29	
		2, 5,34, 4,46,22, 1,46		9,11
12″	2,20,29,53,35,40,57,49,48, 4		10,16,17,40	
		2, 5,34, 4,36, 5,44, 6		9,11
14″	2,20,31,59, 9,45,33,55,32,10		10,16,26,51	
		2, 5,34, 4,25,49,17,15		9,11
16″	2,20,34, 4,43,49,59,44,49,25		10,16,36, 2	
		2, 5,34, 4,15,32,41,13		9,11
18″	2,20,36,10,17,54,15,17,30,38		10,16,45,13	
		2, 5,34, 4, 5,15,56, 0		9,11
20″	2,20,38,15,51,58,20,33,26,38		10,16,54,24	
		2, 5,34, 3,54,59, 1,36		9,11
22″	2,20,40,21,26, 2,15,32,28,14		10,17, 3,35	
		2, 5,34, 3,44,41,58, 1		9,11
24″	2,20,42,27, 0, 6, 0,14,26,15		10,17,12,46	
		2, 5,34, 3,34,24,45,15		9,11
26″	2,20,44,32,34, 9,34,39,11,30		10,17,21,57	
		2, 5,34, 3,24, 7,23,18		9,11
28″	2,20,46,38, 8,12,58,46,34,48		10,17,31, 8	
		2, 5,34, 3,13,49,52,10		9,11
30″	2,20,48,43,42,16,12,36,26,58		10,17,40,19	
		2, 5,34, 3, 3,32,11,51		9,11
32″	2,20,50,49,16,19,16, 8,38,49		10,17,49,30	
		2, 5,34, 2,53,14,22,21		9,11
34″	2,20,52,54,50,22, 9,23, 1,10		10,17,58,41	
		2, 5,34, 2,42,56,23,40		9,11
36″	2,20,55, 0,24,24,52,19,24,50		10,18, 7,52	
		2, 5,34, 2,32,38,15,48		9,11
38″	2,20,57, 5,58,27,24,57,40,38		10,18,17, 3	
		2, 5,34, 2,22,19,58,45		9,11
40″	2,20,59,11,32,29,47,17,39,23		10,18,26,14	
		2, 5,34, 2,12, 1,32,31		9,11
42″	2,21, 1,17, 6,31,59,19,11,54		10,18,35,25	
		2, 5,34, 2, 1,42,57, 6		9,11
44″	2,21, 3,22,40,34, 1, 2, 9, 0		10,18,44,36	
		2, 5,34, 1,51,24,12,30		9,11
46″	2,21, 5,28,14,35,52,26,21,30		10,18,53,47	
		2, 5,34, 1,41, 5,18,43		9,11
48″	2,21, 7,33,48,37,33,31,40,13		10,19, 2,58	
		2, 5,34, 1,30,46,15,45		9,11
50″	2,21, 9,39,22,39, 4,17,55,58		10,19,12, 9	
		2, 5,34, 1,20,27, 3,36		9,11
52″	2,21,11,44,56,40,24,44,59,34		10,19,21,20	
		2, 5,34, 1,10, 7,42,16		9,11
54″	2,21,13,50,30,41,34,52,41,50		10,19,30,31	
		2, 5,34, 0,59,48,11,45		9,11
56″	2,21,15,56, 4,42,34,40,53,35		10,19,39,42	
		2, 5,34, 0,49,28,32, 3		9,11
58″	2,21,18, 1,38,43,24, 9,25,38		10,19,48,53	
		2, 5,34, 0,39, 8,43,10		
60″	2,21,20, 7,12,44, 3,18, 8,48			
exact	2,21,20, 7,12,44, 3,18,22,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°15′ 0″	2,21,20, 7,12,44, 3,18,22,41			
		2, 5,34, 0,28,48,46,34		
2″	2,21,22,12,46,44,32, 7, 9,15		10,20, 7, 9	
		2, 5,34, 0,18,28,39,25		9,11
4″	2,21,24,18,20,44,50,35,48,40		10,20,16,20	
		2, 5,34, 0, 8, 8,23, 5		9,11
6″	2,21,26,23,54,44,58,44,11,45		10,20,25,31	
		2, 5,33,59,57,47,57,34		9,11
8″	2,21,28,29,28,44,56,32, 9,19		10,20,34,42	
		2, 5,33,59,47,27,22,52		9,11
10″	2,21,30,35, 2,44,43,59,32,11		10,20,43,53	
		2, 5,33,59,37, 6,38,59		9,11
12″	2,21,32,40,36,44,21, 6,11,10		10,20,53, 4	
		2, 5,33,59,26,45,45,55		9,11
14″	2,21,34,46,10,43,47,51,57, 5		10,21, 2,15	
		2, 5,33,59,16,24,43,40		9,11
16″	2,21,36,51,44,43, 4,16,40,45		10,21,11,26	
		2, 5,33,59, 6, 3,32,14		9,11
18″	2,21,38,57,18,42,10,20,12,59		10,21,20,37	
		2, 5,33,58,55,42,11,37		9,11
20″	2,21,41, 2,52,41, 6, 2,24,36		10,21,29,48	
		2, 5,33,58,45,20,41,49		9,11
22″	2,21,43, 8,26,39,51,23, 6,25		10,21,38,59	
		2, 5,33,58,34,59, 2,50		9,11
24″	2,21,45,14, 0,38,26,22, 9,15		10,21,48,10	
		2, 5,33,58,24,37,14,40		9,11
26″	2,21,47,19,34,36,50,59,23,55		10,21,57,21	
		2, 5,33,58,14,15,17,19		9,11
28″	2,21,49,25, 8,35, 5,14,41,14		10,22, 6,32	
		2, 5,33,58, 3,53,10,47		9,11
30″	2,21,51,30,42,33, 9, 7,52, 1		10,22,15,43	
		2, 5,33,57,53,30,55, 4		9,11
32″	2,21,53,36,16,31, 2,38,47, 5		10,22,24,54	
		2, 5,33,57,43, 8,30,10		9,11
34″	2,21,55,41,50,28,45,47,17,15		10,22,34, 5	
		2, 5,33,57,32,45,56, 5		9,11
36″	2,21,57,47,24,26,18,33,13,20		10,22,43,16	
		2, 5,33,57,22,23,12,49		9,11
38″	2,21,59,52,58,23,40,56,26, 9		10,22,52,27	
		2, 5,33,57,12, 0,20,22		9,11
40″	2,22, 1,58,32,20,52,56,46,31		10,23, 1,38	
		2, 5,33,57, 1,37,18,44		9,11
42″	2,22, 4, 4, 6,17,54,34, 5,15		10,23,10,49	
		2, 5,33,56,51,14, 7,55		9,11
44″	2,22, 6, 9,40,14,45,48,13,10		10,23,20, 0	
		2, 5,33,56,40,50,47,55		9,11
46″	2,22, 8,15,14,11,26,39, 1, 5		10,23,29,11	
		2, 5,33,56,30,27,18,44		9,11
48″	2,22,10,20,48, 7,57, 6,19,49		10,23,38,22	
		2, 5,33,56,20, 3,40,22		9,11
50″	2,22,12,26,22, 4,17,10, 0,11		10,23,47,33	
		2, 5,33,56, 9,39,52,49		9,11
52″	2,22,14,31,56, 0,26,49,53, 0		10,23,56,44	
		2, 5,33,55,59,15,56, 5		9,11
54″	2,22,16,37,29,56,26, 5,49, 5		10,24, 5,55	
		2, 5,33,55,48,51,50,10		9,11
56″	2,22,18,43, 3,52,14,57,39,15		10,24,15, 6	
		2, 5,33,55,38,27,35, 4		9,11
58″	2,22,20,48,37,47,53,25,14,19		10,24,24,17	
		2, 5,33,55,28, 3,10,47		
60″	2,22,22,54,11,43,21,28,25, 6			
exact	2,22,22,54,11,43,21,28,39, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°16′ 0″	2,22,22,54,11,43,21,28,39, 2			
		2, 5,33,55,17,38,38,49		
2″	2,22,24,59,45,38,39, 7,17,51		10,24,42,33	
		2, 5,33,55, 7,13,56,16		9,11
4″	2,22,27, 5,19,33,46,21,14, 7		10,24,51,44	
		2, 5,33,54,56,49, 4,32		9,11
6″	2,22,29,10,53,28,43,10,18,39		10,25, 0,55	
		2, 5,33,54,46,24, 3,37		9,11
8″	2,22,31,16,27,23,29,34,22,16		10,25,10, 6	
		2, 5,33,54,35,58,53,31		9,11
10″	2,22,33,22, 1,18, 5,33,15,47		10,25,19,17	
		2, 5,33,54,25,33,34,14		9,11
12″	2,22,35,27,35,12,31, 6,50, 1		10,25,28,28	
		2, 5,33,54,15, 8, 5,46		9,11
14″	2,22,37,33, 9, 6,46,14,55,47		10,25,37,39	
		2, 5,33,54, 4,42,28, 7		9,11
16″	2,22,39,38,43, 0,50,57,23,54		10,25,46,50	
		2, 5,33,53,54,16,41,17		9,11
18″	2,22,41,44,16,54,45,14, 5,11		10,25,56, 1	
		2, 5,33,53,43,50,45,16		9,11
20″	2,22,43,49,50,48,29, 4,50,27		10,26, 5,12	
		2, 5,33,53,33,24,40, 4		9,11
22″	2,22,45,55,24,42, 2,29,30,31		10,26,14,23	
		2, 5,33,53,22,58,25,41		9,11
24″	2,22,48, 0,58,35,25,27,56,12		10,26,23,34	
		2, 5,33,53,12,32, 2, 7		9,11
26″	2,22,50, 6,32,28,37,59,58,19		10,26,32,45	
		2, 5,33,53, 2, 5,29,22		9,11
28″	2,22,52,12, 6,21,40, 5,27,41		10,26,41,56	
		2, 5,33,52,51,38,47,26		9,11
30″	2,22,54,17,40,14,31,44,15, 7		10,26,51, 7	
		2, 5,33,52,41,11,56,19		9,11
32″	2,22,56,23,14, 7,12,56,11,26		10,27, 0,18	
		2, 5,33,52,30,44,56, 1		9,11
34″	2,22,58,28,47,59,43,41, 7,27		10,27, 9,29	
		2, 5,33,52,20,17,46,32		9,11
36″	2,23, 0,34,21,52, 3,58,53,59		10,27,18,40	
		2, 5,33,52, 9,50,27,52		9,11
38″	2,23, 2,39,55,44,13,49,21,51		10,27,27,51	
		2, 5,33,51,59,23, 0, 1		9,11
40″	2,23, 4,45,29,36,13,12,21,52		10,27,37, 2	
		2, 5,33,51,48,55,22,59		9,11
42″	2,23, 6,51, 3,28, 2, 7,44,51		10,27,46,13	
		2, 5,33,51,38,27,36,46		9,11
44″	2,23, 8,56,37,19,40,35,21,37		10,27,55,24	
		2, 5,33,51,27,59,41,22		9,11
46″	2,23,11, 2,11,11, 8,35, 2,59		10,28, 4,35	
		2, 5,33,51,17,31,36,47		9,11
48″	2,23,13, 7,45, 2,26, 6,39,46		10,28,13,46	
		2, 5,33,51, 7, 3,23, 1		9,11
50″	2,23,15,13,18,53,33,10, 2,47		10,28,22,57	
		2, 5,33,50,56,35, 0, 4		9,11
52″	2,23,17,18,52,44,29,45, 2,51		10,28,32, 8	
		2, 5,33,50,46, 6,27,56		9,11
54″	2,23,19,24,26,35,15,51,30,47		10,28,41,19	
		2, 5,33,50,35,37,46,37		9,11
56″	2,23,21,30, 0,25,51,29,17,24		10,28,50,30	
		2, 5,33,50,25, 8,56, 7		9,11
58″	2,23,23,35,34,16,16,38,13,31		10,28,59,41	
		2, 5,33,50,14,39,56,26		
60″	2,23,25,41, 8, 6,31,18, 9,57			
exact	2,23,25,41, 8, 6,31,18,25,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°17′ 0″	2,23,25,41, 8, 6,31,18,25,24			
		2, 5,33,50, 4,10,49,11		
2″	2,23,27,46,41,56,35,29,14,35		10,29,17,56	
		2, 5,33,49,53,41,31,15		9,11
4″	2,23,29,52,15,46,29,10,45,50		10,29,27, 7	
		2, 5,33,49,43,12, 4, 8		9,11
6″	2,23,31,57,49,36,12,22,49,58		10,29,36,18	
		2, 5,33,49,32,42,27,50		9,11
8″	2,23,34, 3,23,25,45, 5,17,48		10,29,45,29	
		2, 5,33,49,22,12,42,21		9,11
10″	2,23,36, 8,57,15, 7,18, 0, 9		10,29,54,40	
		2, 5,33,49,11,42,47,41		9,11
12″	2,23,38,14,31, 4,19, 0,47,50		10,30, 3,51	
		2, 5,33,49, 1,12,43,50		9,11
14″	2,23,40,20, 4,53,20,13,31,40		10,30,13, 2	
		2, 5,33,48,50,42,30,48		9,11
16″	2,23,42,25,38,42,10,56, 2,28		10,30,22,13	
		2, 5,33,48,40,12, 8,35		9,11
18″	2,23,44,31,12,30,51, 8,11, 3		10,30,31,24	
		2, 5,33,48,29,41,37,11		9,11
20″	2,23,46,36,46,19,20,49,48,14		10,30,40,35	
		2, 5,33,48,19,10,56,36		9,11
22″	2,23,48,42,20, 7,40, 0,44,50		10,30,49,46	
		2, 5,33,48, 8,40, 6,50		9,11
24″	2,23,50,47,53,55,48,40,51,40		10,30,58,57	
		2, 5,33,47,58, 9, 7,53		9,11
26″	2,23,52,53,27,43,46,49,59,33		10,31, 8, 8	
		2, 5,33,47,47,37,59,45		9,11
28″	2,23,54,59, 1,31,34,27,59,18		10,31,17,19	
		2, 5,33,47,37, 6,42,26		9,11
30″	2,23,57, 4,35,19,11,34,41,44		10,31,26,30	
		2, 5,33,47,26,35,15,56		9,11
32″	2,23,59,10, 9, 6,38, 9,57,40		10,31,35,41	
		2, 5,33,47,16, 3,40,15		9,11
34″	2,24, 1,15,42,53,54,13,37,55		10,31,44,52	
		2, 5,33,47, 5,31,55,23		9,11
36″	2,24, 3,21,16,40,59,45,33,18		10,31,54, 3	
		2, 5,33,46,55, 0, 1,20		9,11
38″	2,24, 5,26,50,27,54,45,34,38		10,32, 3,14	
		2, 5,33,46,44,27,58, 6		9,11
40″	2,24, 7,32,24,14,39,13,32,44		10,32,12,25	
		2, 5,33,46,33,55,45,41		9,11
42″	2,24, 9,37,58, 1,13, 9,18,25		10,32,21,36	
		2, 5,33,46,23,23,24, 5		9,11
44″	2,24,11,43,31,47,36,32,42,30		10,32,30,47	
		2, 5,33,46,12,50,53,18		9,11
46″	2,24,13,49, 5,33,49,23,35,48		10,32,39,58	
		2, 5,33,46, 2,18,13,20		9,11
48″	2,24,15,54,39,19,51,41,49, 8		10,32,49, 9	
		2, 5,33,45,51,45,24,11		9,11
50″	2,24,18, 0,13, 5,43,27,13,19		10,32,58,20	
		2, 5,33,45,41,12,25,51		9,11
52″	2,24,20, 5,46,51,24,39,39,10		10,33, 7,31	
		2, 5,33,45,30,39,18,20		9,11
54″	2,24,22,11,20,36,55,18,57,30		10,33,16,42	
		2, 5,33,45,20, 6, 1,38		9,11
56″	2,24,24,16,54,22,15,24,59, 8		10,33,25,53	
		2, 5,33,45, 9,32,35,45		9,11
58″	2,24,26,22,28, 7,24,57,34,53		10,33,35, 4	
		2, 5,33,44,58,59, 0,41		
60″	2,24,28,28, 1,52,23,56,35,34			
exact	2,24,28,28, 1,52,23,56,47, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°18′ 0″	2,24,28,28, 1,52,23,56,47, 5			
		2, 5,33,44,48,25,17,47		
2″	2,24,30,33,35,37,12,22, 4,52		10,33,53,20	
		2, 5,33,44,37,51,24,27		9,11
4″	2,24,32,39, 9,21,50,13,29,19		10,34, 2,31	
		2, 5,33,44,27,17,21,56		9,11
6″	2,24,34,44,43, 6,17,30,51,15		10,34,11,42	
		2, 5,33,44,16,43,10,14		9,11
8″	2,24,36,50,16,50,34,14, 1,29		10,34,20,53	
		2, 5,33,44, 6, 8,49,21		9,11
10″	2,24,38,55,50,34,40,22,50,50		10,34,30, 4	
		2, 5,33,43,55,34,19,17		9,11
12″	2,24,41, 1,24,18,35,57,10, 7		10,34,39,15	
		2, 5,33,43,44,59,40, 2		9,11
14″	2,24,43, 6,58, 2,20,56,50, 9		10,34,48,26	
		2, 5,33,43,34,24,51,36		9,11
16″	2,24,45,12,31,45,55,21,41,45		10,34,57,37	
		2, 5,33,43,23,49,53,59		9,11
18″	2,24,47,18, 5,29,19,11,35,44		10,35, 6,48	
		2, 5,33,43,13,14,47,11		9,11
20″	2,24,49,23,39,12,32,26,22,55		10,35,15,59	
		2, 5,33,43, 2,39,31,12		9,11
22″	2,24,51,29,12,55,35, 5,54, 7		10,35,25,10	
		2, 5,33,42,52, 4, 6, 2		9,11
24″	2,24,53,34,46,38,27,10, 0, 9		10,35,34,21	
		2, 5,33,42,41,28,31,41		9,11
26″	2,24,55,40,20,21, 8,38,31,50		10,35,43,32	
		2, 5,33,42,30,52,48, 9		9,11
28″	2,24,57,45,54, 3,39,31,19,59		10,35,52,43	
		2, 5,33,42,20,16,55,26		9,11
30″	2,24,59,51,27,45,59,48,15,25		10,36, 1,54	
		2, 5,33,42, 9,40,53,32		9,11
32″	2,25, 1,57, 1,28, 9,29, 8,57		10,36,11, 5	
		2, 5,33,41,59, 4,42,27		9,11
34″	2,25, 4, 2,35,10, 8,33,51,24		10,36,20,16	
		2, 5,33,41,48,28,22,11		9,11
36″	2,25, 6, 8, 8,51,57, 2,13,35		10,36,29,27	
		2, 5,33,41,37,51,52,44		9,11
38″	2,25, 8,13,42,33,34,54, 6,19		10,36,38,38	
		2, 5,33,41,27,15,14, 6		9,11
40″	2,25,10,19,16,15, 2, 9,20,25		10,36,47,49	
		2, 5,33,41,16,38,26,17		9,11
42″	2,25,12,24,49,56,18,47,46,42		10,36,57, 0	
		2, 5,33,41, 6, 1,29,17		9,11
44″	2,25,14,30,23,37,24,49,15,59		10,37, 6,11	
		2, 5,33,40,55,24,23, 6		9,11
46″	2,25,16,35,57,18,20,13,39, 5		10,37,15,22	
		2, 5,33,40,44,47, 7,44		9,11
48″	2,25,18,41,30,59, 5, 0,46,49		10,37,24,33	
		2, 5,33,40,34, 9,43,11		9,11
50″	2,25,20,47, 4,39,39,10,30, 0		10,37,33,44	
		2, 5,33,40,23,32, 9,27		9,11
52″	2,25,22,52,38,20, 2,42,39,27		10,37,42,55	
		2, 5,33,40,12,54,26,32		9,11
54″	2,25,24,58,12, 0,15,37, 5,59		10,37,52, 6	
		2, 5,33,40, 2,16,34,26		9,11
56″	2,25,27, 3,45,40,17,53,40,25		10,38, 1,17	
		2, 5,33,39,51,38,33, 9		9,11
58″	2,25,29, 9,19,20, 9,32,13,34		10,38,10,28	
		2, 5,33,39,41, 0,22,41		
60″	2,25,31,14,52,59,50,32,36,15			
exact	2,25,31,14,52,59,50,32,52,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°19′ 0″	2,25,31,14,52,59,50,32,52,14			
		2, 5,33,39,30,22, 4,43		
2″	2,25,33,20,26,39,20,54,56,57		10,38,28,43	
		2, 5,33,39,19,43,36, 0		9,11
4″	2,25,35,26, 0,18,40,38,32,57		10,38,37,54	
		2, 5,33,39, 9, 4,58, 6		9,11
6″	2,25,37,31,33,57,49,43,31, 3		10,38,47, 5	
		2, 5,33,38,58,26,11, 1		9,11
8″	2,25,39,37, 7,36,48, 9,42, 4		10,38,56,16	
		2, 5,33,38,47,47,14,45		9,11
10″	2,25,41,42,41,15,35,56,56,49		10,39, 5,27	
		2, 5,33,38,37, 8, 9,18		9,11
12″	2,25,43,48,14,54,13, 5, 6, 7		10,39,14,38	
		2, 5,33,38,26,28,54,40		9,11
14″	2,25,45,53,48,32,39,34, 0,47		10,39,23,49	
		2, 5,33,38,15,49,30,51		9,11
16″	2,25,47,59,22,10,55,23,31,38		10,39,33, 0	
		2, 5,33,38, 5, 9,57,51		9,11
18″	2,25,50, 4,55,49, 0,33,29,29		10,39,42,11	
		2, 5,33,37,54,30,15,40		9,11
20″	2,25,52,10,29,26,55, 3,45, 9		10,39,51,22	
		2, 5,33,37,43,50,24,18		9,11
22″	2,25,54,16, 3, 4,38,54, 9,27		10,40, 0,33	
		2, 5,33,37,33,10,23,45		9,11
24″	2,25,56,21,36,42,12, 4,33,12		10,40, 9,44	
		2, 5,33,37,22,30,14, 1		9,11
26″	2,25,58,27,10,19,34,34,47,13		10,40,18,55	
		2, 5,33,37,11,49,55, 6		9,11
28″	2,26, 0,32,43,56,46,24,42,19		10,40,28, 6	
		2, 5,33,37, 1, 9,27, 0		9,11
30″	2,26, 2,38,17,33,47,34, 9,19		10,40,37,17	
		2, 5,33,36,50,28,49,43		9,11
32″	2,26, 4,43,51,10,38, 2,59, 2		10,40,46,28	
		2, 5,33,36,39,48, 3,15		9,11
34″	2,26, 6,49,24,47,17,51, 2,17		10,40,55,39	
		2, 5,33,36,29, 7, 7,36		9,11
36″	2,26, 8,54,58,23,46,58, 9,53		10,41, 4,50	
		2, 5,33,36,18,26, 2,46		9,11
38″	2,26,11, 0,32, 0, 5,24,12,39		10,41,14, 1	
		2, 5,33,36, 7,44,48,45		9,11
40″	2,26,13, 6, 5,36,13, 9, 1,24		10,41,23,12	
		2, 5,33,35,57, 3,25,33		9,11
42″	2,26,15,11,39,12,10,12,26,57		10,41,32,23	
		2, 5,33,35,46,21,53,10		9,11
44″	2,26,17,17,12,47,56,34,20, 7		10,41,41,34	
		2, 5,33,35,35,40,11,36		9,11
46″	2,26,19,22,46,23,32,14,31,43		10,41,50,45	
		2, 5,33,35,24,58,20,51		9,11
48″	2,26,21,28,19,58,57,12,52,34		10,41,59,56	
		2, 5,33,35,14,16,20,55		9,11
50″	2,26,23,33,53,34,11,29,13,29		10,42, 9, 7	
		2, 5,33,35, 3,34,11,48		9,11
52″	2,26,25,39,27, 9,15, 3,25,17		10,42,18,18	
		2, 5,33,34,52,51,53,30		9,11
54″	2,26,27,45, 0,44, 7,55,18,47		10,42,27,29	
		2, 5,33,34,42, 9,26, 1		9,11
56″	2,26,29,50,34,18,50, 4,44,48		10,42,36,40	
		2, 5,33,34,31,26,49,21		9,11
58″	2,26,31,56, 7,53,21,31,34, 9		10,42,45,51	
		2, 5,33,34,20,44, 3,30		
60″	2,26,34, 1,41,27,42,15,37,39			
exact	2,26,34, 1,41,27,42,15,51,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°20′ 0″	2,26,34, 1,41,27,42,15,51,56			
		2, 5,33,34,10, 1,10, 3		
2″	2,26,36, 7,15, 1,52,17, 1,59		10,43, 4, 6	
		2, 5,33,33,59,18, 5,57		9,11
4″	2,26,38,12,48,35,51,35, 7,56		10,43,13,17	
		2, 5,33,33,48,34,52,40		9,11
6″	2,26,40,18,22, 9,40,10, 0,36		10,43,22,28	
		2, 5,33,33,37,51,30,12		9,11
8″	2,26,42,23,55,43,18, 1,30,48		10,43,31,39	
		2, 5,33,33,27, 7,58,33		9,11
10″	2,26,44,29,29,16,45, 9,29,21		10,43,40,50	
		2, 5,33,33,16,24,17,43		9,11
12″	2,26,46,35, 2,50, 1,33,47, 4		10,43,50, 1	
		2, 5,33,33, 5,40,27,42		9,11
14″	2,26,48,40,36,23, 7,14,14,46		10,43,59,12	
		2, 5,33,32,54,56,28,30		9,11
16″	2,26,50,46, 9,56, 2,10,43,16		10,44, 8,23	
		2, 5,33,32,44,12,20, 7		9,11
18″	2,26,52,51,43,28,46,23, 3,23		10,44,17,34	
		2, 5,33,32,33,28, 2,33		9,11
20″	2,26,54,57,17, 1,19,51, 5,56		10,44,26,45	
		2, 5,33,32,22,43,35,48		9,11
22″	2,26,57, 2,50,33,42,34,41,44		10,44,35,56	
		2, 5,33,32,11,58,59,52		9,11
24″	2,26,59, 8,24, 5,54,33,41,36		10,44,45, 7	
		2, 5,33,32, 1,14,14,45		9,11
26″	2,27, 1,13,57,37,55,47,56,21		10,44,54,18	
		2, 5,33,31,50,29,20,27		9,11
28″	2,27, 3,19,31, 9,46,17,16,48		10,45, 3,29	
		2, 5,33,31,39,44,16,58		9,11
30″	2,27, 5,25, 4,41,26, 1,33,46		10,45,12,40	
		2, 5,33,31,28,59, 4,18		9,11
32″	2,27, 7,30,38,12,55, 0,38, 4		10,45,21,51	
		2, 5,33,31,18,13,42,27		9,11
34″	2,27, 9,36,11,44,13,14,20,31		10,45,31, 2	
		2, 5,33,31, 7,28,11,25		9,11
36″	2,27,11,41,45,15,20,42,31,56		10,45,40,13	
		2, 5,33,30,56,42,31,12		9,11
38″	2,27,13,47,18,46,17,25, 3, 8		10,45,49,24	
		2, 5,33,30,45,56,41,48		9,11
40″	2,27,15,52,52,17, 3,21,44,56		10,45,58,35	
		2, 5,33,30,35,10,43,13		9,11
42″	2,27,17,58,25,47,38,32,28, 9		10,46, 7,46	
		2, 5,33,30,24,24,35,27		9,11
44″	2,27,20, 3,59,18, 2,57, 3,36		10,46,16,57	
		2, 5,33,30,13,38,18,30		9,11
46″	2,27,22, 9,32,48,16,35,22, 6		10,46,26, 8	
		2, 5,33,30, 2,51,52,22		9,11
48″	2,27,24,15, 6,18,19,27,14,28		10,46,35,19	
		2, 5,33,29,52, 5,17, 3		9,11
50″	2,27,26,20,39,48,11,32,31,31		10,46,44,30	
		2, 5,33,29,41,18,32,33		9,11
52″	2,27,28,26,13,17,52,51, 4, 4		10,46,53,41	
		2, 5,33,29,30,31,38,52		9,11
54″	2,27,30,31,46,47,23,22,42,56		10,47, 2,52	
		2, 5,33,29,19,44,36, 0		9,11
56″	2,27,32,37,20,16,43, 7,18,56		10,47,12, 3	
		2, 5,33,29, 8,57,23,57		9,11
58″	2,27,34,42,53,45,52, 4,42,53		10,47,21,14	
		2, 5,33,28,58,10, 2,43		
60″	2,27,36,48,27,14,50,14,45,36			
exact	2,27,36,48,27,14,50,15, 0,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°21′ 0″	2,27,36,48,27,14,50,15, 0,11			
		2, 5,33,28,47,22,33,55		
2″	2,27,38,54, 0,43,37,37,34, 6		10,47,39,29	
		2, 5,33,28,36,34,54,26		9,11
4″	2,27,40,59,34,12,14,12,28,32		10,47,48,40	
		2, 5,33,28,25,47, 5,46		9,11
6″	2,27,43, 5, 7,40,39,59,34,18		10,47,57,51	
		2, 5,33,28,14,59, 7,55		9,11
8″	2,27,45,10,41, 8,54,58,42,13		10,48, 7, 2	
		2, 5,33,28, 4,11, 0,53		9,11
10″	2,27,47,16,14,36,59, 9,43, 6		10,48,16,13	
		2, 5,33,27,53,22,44,40		9,11
12″	2,27,49,21,48, 4,52,32,27,46		10,48,25,24	
		2, 5,33,27,42,34,19,16		9,11
14″	2,27,51,27,21,32,35, 6,47, 2		10,48,34,35	
		2, 5,33,27,31,45,44,41		9,11
16″	2,27,53,32,55, 0, 6,52,31,43		10,48,43,46	
		2, 5,33,27,20,57, 0,55		9,11
18″	2,27,55,38,28,27,27,49,32,38		10,48,52,57	
		2, 5,33,27,10, 8, 7,58		9,11
20″	2,27,57,44, 1,54,37,57,40,36		10,49, 2, 8	
		2, 5,33,26,59,19, 5,50		9,11
22″	2,27,59,49,35,21,37,16,46,26		10,49,11,19	
		2, 5,33,26,48,29,54,31		9,11
24″	2,28, 1,55, 8,48,25,46,40,57		10,49,20,30	
		2, 5,33,26,37,40,34, 1		9,11
26″	2,28, 4, 0,42,15, 3,27,14,58		10,49,29,41	
		2, 5,33,26,26,51, 4,20		9,11
28″	2,28, 6, 6,15,41,30,18,19,18		10,49,38,52	
		2, 5,33,26,16, 1,25,28		9,11
30″	2,28, 8,11,49, 7,46,19,44,46		10,49,48, 3	
		2, 5,33,26, 5,11,37,25		9,11
32″	2,28,10,17,22,33,51,31,22,11		10,49,57,14	
		2, 5,33,25,54,21,40,11		9,11
34″	2,28,12,22,55,59,45,53, 2,22		10,50, 6,25	
		2, 5,33,25,43,31,33,46		9,11
36″	2,28,14,28,29,25,29,24,36, 8		10,50,15,36	
		2, 5,33,25,32,41,18,10		9,11
38″	2,28,16,34, 2,51, 2, 5,54,18		10,50,24,47	
		2, 5,33,25,21,50,53,23		9,11
40″	2,28,18,39,36,16,23,56,47,41		10,50,33,58	
		2, 5,33,25,11, 0,19,25		9,11
42″	2,28,20,45, 9,41,34,57, 7, 6		10,50,43, 9	
		2, 5,33,25, 0, 9,36,16		9,11
44″	2,28,22,50,43, 6,35, 6,43,22		10,50,52,20	
		2, 5,33,24,49,18,43,56		9,11
46″	2,28,24,56,16,31,24,25,27,18		10,51, 1,31	
		2, 5,33,24,38,27,42,25		9,11
48″	2,28,27, 1,49,56, 2,53, 9,43		10,51,10,42	
		2, 5,33,24,27,36,31,43		9,11
50″	2,28,29, 7,23,20,30,29,41,26		10,51,19,53	
		2, 5,33,24,16,45,11,50		9,11
52″	2,28,31,12,56,44,47,14,53,16		10,51,29, 4	
		2, 5,33,24, 5,53,42,46		9,11
54″	2,28,33,18,30, 8,53, 8,36, 2		10,51,38,15	
		2, 5,33,23,55, 2, 4,31		9,11
56″	2,28,35,24, 3,32,48,10,40,33		10,51,47,26	
		2, 5,33,23,44,10,17, 5		9,11
58″	2,28,37,29,36,56,32,20,57,38		10,51,56,37	
		2, 5,33,23,33,18,20,28		
60″	2,28,39,35,10,20, 5,39,18, 6			
exact	2,28,39,35,10,20, 5,39,33,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°22′ 0″	2,28,39,35,10,20, 5,39,33,53			
		2, 5,33,23,22,26,16,23		
2″	2,28,41,40,43,43,28, 5,50,16		10,52,14,52	
		2, 5,33,23,11,34, 1,31		9,11
4″	2,28,43,46,17, 6,39,39,51,47		10,52,24, 3	
		2, 5,33,23, 0,41,37,28		9,11
6″	2,28,45,51,50,29,40,21,29,15		10,52,33,14	
		2, 5,33,22,49,49, 4,14		9,11
8″	2,28,47,57,23,52,30,10,33,29		10,52,42,25	
		2, 5,33,22,38,56,21,49		9,11
10″	2,28,50, 2,57,15, 9, 6,55,18		10,52,51,36	
		2, 5,33,22,28, 3,30,13		9,11
12″	2,28,52, 8,30,37,37,10,25,31		10,53, 0,47	
		2, 5,33,22,17,10,29,26		9,11
14″	2,28,54,14, 3,59,54,20,54,57		10,53, 9,58	
		2, 5,33,22, 6,17,19,28		9,11
16″	2,28,56,19,37,22, 0,38,14,25		10,53,19, 9	
		2, 5,33,21,55,24, 0,19		9,11
18″	2,28,58,25,10,43,56, 2,14,44		10,53,28,20	
		2, 5,33,21,44,30,31,59		9,11
20″	2,29, 0,30,44, 5,40,32,46,43		10,53,37,31	
		2, 5,33,21,33,36,54,28		9,11
22″	2,29, 2,36,17,27,14, 9,41,11		10,53,46,42	
		2, 5,33,21,22,43, 7,46		9,11
24″	2,29, 4,41,50,48,36,52,48,57		10,53,55,53	
		2, 5,33,21,11,49,11,53		9,11
26″	2,29, 6,47,24, 9,48,42, 0,50		10,54, 5, 4	
		2, 5,33,21, 0,55, 6,49		9,11
28″	2,29, 8,52,57,30,49,37, 7,39		10,54,14,15	
		2, 5,33,20,50, 0,52,34		9,11
30″	2,29,10,58,30,51,39,38, 0,13		10,54,23,26	
		2, 5,33,20,39, 6,29, 8		9,11
32″	2,29,13, 4, 4,12,18,44,29,21		10,54,32,37	
		2, 5,33,20,28,11,56,31		9,11
34″	2,29,15, 9,37,32,46,56,25,52		10,54,41,48	
		2, 5,33,20,17,17,14,43		9,11
36″	2,29,17,15,10,53, 4,13,40,35		10,54,50,59	
		2, 5,33,20, 6,22,23,44		9,11
38″	2,29,19,20,44,13,10,36, 4,19		10,55, 0,10	
		2, 5,33,19,55,27,23,34		9,11
40″	2,29,21,26,17,33, 6, 3,27,53		10,55, 9,21	
		2, 5,33,19,44,32,14,13		9,11
42″	2,29,23,31,50,52,50,35,42, 6		10,55,18,32	
		2, 5,33,19,33,36,55,41		9,11
44″	2,29,25,37,24,12,24,12,37,47		10,55,27,43	
		2, 5,33,19,22,41,27,58		9,11
46″	2,29,27,42,57,31,46,54, 5,45		10,55,36,54	
		2, 5,33,19,11,45,51, 4		9,11
48″	2,29,29,48,30,50,58,39,56,49		10,55,46, 5	
		2, 5,33,19, 0,50, 4,59		9,11
50″	2,29,31,54, 4, 9,59,30, 1,48		10,55,55,16	
		2, 5,33,18,49,54, 9,43		9,11
52″	2,29,33,59,37,28,49,24,11,31		10,56, 4,27	
		2, 5,33,18,38,58, 5,16		9,11
54″	2,29,36, 5,10,47,28,22,16,47		10,56,13,38	
		2, 5,33,18,28, 1,51,38		9,11
56″	2,29,38,10,44, 5,56,24, 8,25		10,56,22,49	
		2, 5,33,18,17, 5,28,49		9,11
58″	2,29,40,16,17,24,13,29,37,14		10,56,32, 0	
		2, 5,33,18, 6, 8,56,49		
60″	2,29,42,21,50,42,19,38,34, 3			
exact	2,29,42,21,50,42,19,38,52,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°23′ 0″	2,29,42,21,50,42,19,38,52,56			
		2, 5,33,17,55,12,17,35		
2″	2,29,44,27,24, 0,14,51,10,31		10,56,50,14	
		2, 5,33,17,44,15,27,21		9,11
4″	2,29,46,32,57,17,59, 6,37,52		10,56,59,25	
		2, 5,33,17,33,18,27,56		9,11
6″	2,29,48,38,30,35,32,25, 5,48		10,57, 8,36	
		2, 5,33,17,22,21,19,20		9,11
8″	2,29,50,44, 3,52,54,46,25, 8		10,57,17,47	
		2, 5,33,17,11,24, 1,33		9,11
10″	2,29,52,49,37,10, 6,10,26,41		10,57,26,58	
		2, 5,33,17, 0,26,34,35		9,11
12″	2,29,54,55,10,27, 6,37, 1,16		10,57,36, 9	
		2, 5,33,16,49,28,58,26		9,11
14″	2,29,57, 0,43,43,56, 5,59,42		10,57,45,20	
		2, 5,33,16,38,31,13, 6		9,11
16″	2,29,59, 6,17, 0,34,37,12,48		10,57,54,31	
		2, 5,33,16,27,33,18,35		9,11
18″	2,30, 1,11,50,17, 2,10,31,23		10,58, 3,42	
		2, 5,33,16,16,35,14,53		9,11
20″	2,30, 3,17,23,33,18,45,46,16		10,58,12,53	
		2, 5,33,16, 5,37, 2, 0		9,11
22″	2,30, 5,22,56,49,24,22,48,16		10,58,22, 4	
		2, 5,33,15,54,38,39,56		9,11
24″	2,30, 7,28,30, 5,19, 1,28,12		10,58,31,15	
		2, 5,33,15,43,40, 8,41		9,11
26″	2,30, 9,34, 3,21, 2,41,36,53		10,58,40,26	
		2, 5,33,15,32,41,28,15		9,11
28″	2,30,11,39,36,36,35,23, 5, 8		10,58,49,37	
		2, 5,33,15,21,42,38,38		9,11
30″	2,30,13,45, 9,51,57, 5,43,46		10,58,58,48	
		2, 5,33,15,10,43,39,50		9,11
32″	2,30,15,50,43, 7, 7,49,23,36		10,59, 7,59	
		2, 5,33,14,59,44,31,51		9,11
34″	2,30,17,56,16,22, 7,33,55,27		10,59,17,10	
		2, 5,33,14,48,45,14,41		9,11
36″	2,30,20, 1,49,36,56,19,10, 8		10,59,26,21	
		2, 5,33,14,37,45,48,20		9,11
38″	2,30,22, 7,22,51,34, 4,58,28		10,59,35,32	
		2, 5,33,14,26,46,12,48		9,11
40″	2,30,24,12,56, 6, 0,51,11,16		10,59,44,43	
		2, 5,33,14,15,46,28, 5		9,11
42″	2,30,26,18,29,20,16,37,39,21		10,59,53,54	
		2, 5,33,14, 4,46,34,11		9,11
44″	2,30,28,24, 2,34,21,24,13,32		11, 0, 3, 5	
		2, 5,33,13,53,46,31, 6		9,11
46″	2,30,30,29,35,48,15,10,44,38		11, 0,12,16	
		2, 5,33,13,42,46,18,50		9,11
48″	2,30,32,35, 9, 1,57,57, 3,28		11, 0,21,27	
		2, 5,33,13,31,45,57,23		9,11
50″	2,30,34,40,42,15,29,43, 0,51		11, 0,30,38	
		2, 5,33,13,20,45,26,45		9,11
52″	2,30,36,46,15,28,50,28,27,36		11, 0,39,49	
		2, 5,33,13, 9,44,46,56		9,11
54″	2,30,38,51,48,42, 0,13,14,32		11, 0,49, 0	
		2, 5,33,12,58,43,57,56		9,11
56″	2,30,40,57,21,54,58,57,12,28		11, 0,58,11	
		2, 5,33,12,47,42,59,45		9,11
58″	2,30,43, 2,55, 7,46,40,12,13		11, 1, 7,22	
		2, 5,33,12,36,41,52,23		
60″	2,30,45, 8,28,20,23,22, 4,36			
exact	2,30,45, 8,28,20,23,22,20,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°24′ 0″	2,30,45, 8,28,20,23,22,20,11			
		2, 5,33,12,25,40,37,35		
2″	2,30,47,14, 1,32,49, 2,57,46		11, 1,25,36	
		2, 5,33,12,14,39,11,59		9,11
4″	2,30,49,19,34,45, 3,42, 9,45		11, 1,34,47	
		2, 5,33,12, 3,37,37,12		9,11
6″	2,30,51,25, 7,57, 7,19,46,57		11, 1,43,58	
		2, 5,33,11,52,35,53,14		9,11
8″	2,30,53,30,41, 8,59,55,40,11		11, 1,53, 9	
		2, 5,33,11,41,34, 0, 5		9,11
10″	2,30,55,36,14,20,41,29,40,16		11, 2, 2,20	
		2, 5,33,11,30,31,57,45		9,11
12″	2,30,57,41,47,32,12, 1,38, 1		11, 2,11,31	
		2, 5,33,11,19,29,46,14		9,11
14″	2,30,59,47,20,43,31,31,24,15		11, 2,20,42	
		2, 5,33,11, 8,27,25,32		9,11
16″	2,31, 1,52,53,54,39,58,49,47		11, 2,29,53	
		2, 5,33,10,57,24,55,39		9,11
18″	2,31, 3,58,27, 5,37,23,45,26		11, 2,39, 4	
		2, 5,33,10,46,22,16,35		9,11
20″	2,31, 6, 4, 0,16,23,46, 2, 1		11, 2,48,15	
		2, 5,33,10,35,19,28,20		9,11
22″	2,31, 8, 9,33,26,59, 5,30,21		11, 2,57,26	
		2, 5,33,10,24,16,30,54		9,11
24″	2,31,10,15, 6,37,23,22, 1,15		11, 3, 6,37	
		2, 5,33,10,13,13,24,17		9,11
26″	2,31,12,20,39,47,36,35,25,32		11, 3,15,48	
		2, 5,33,10, 2,10, 8,29		9,11
28″	2,31,14,26,12,57,38,45,34, 1		11, 3,24,59	
		2, 5,33, 9,51, 6,43,30		9,11
30″	2,31,16,31,46, 7,29,52,17,31		11, 3,34,10	
		2, 5,33, 9,40, 3, 9,20		9,11
32″	2,31,18,37,19,17, 9,55,26,51		11, 3,43,21	
		2, 5,33, 9,28,59,25,59		9,11
34″	2,31,20,42,52,26,38,54,52,50		11, 3,52,32	
		2, 5,33, 9,17,55,33,27		9,11
36″	2,31,22,48,25,35,56,50,26,17		11, 4, 1,43	
		2, 5,33, 9, 6,51,31,44		9,11
38″	2,31,24,53,58,45, 3,41,58, 1		11, 4,10,54	
		2, 5,33, 8,55,47,20,50		9,11
40″	2,31,26,59,31,53,59,29,18,51		11, 4,20, 5	
		2, 5,33, 8,44,43, 0,45		9,11
42″	2,31,29, 5, 5, 2,44,12,19,36		11, 4,29,16	
		2, 5,33, 8,33,38,31,29		9,11
44″	2,31,31,10,38,11,17,50,51, 5		11, 4,38,27	
		2, 5,33, 8,22,33,53, 2		9,11
46″	2,31,33,16,11,19,40,24,44, 7		11, 4,47,38	
		2, 5,33, 8,11,29, 5,24		9,11
48″	2,31,35,21,44,27,51,53,49,31		11, 4,56,49	
		2, 5,33, 8, 0,24, 8,35		9,11
50″	2,31,37,27,17,35,52,17,58, 6		11, 5, 6, 0	
		2, 5,33, 7,49,19, 2,35		9,11
52″	2,31,39,32,50,43,41,37, 0,41		11, 5,15,11	
		2, 5,33, 7,38,13,47,24		9,11
54″	2,31,41,38,23,51,19,50,48, 5		11, 5,24,22	
		2, 5,33, 7,27, 8,23, 2		9,11
56″	2,31,43,43,56,58,46,59,11, 7		11, 5,33,33	
		2, 5,33, 7,16, 2,49,29		9,11
58″	2,31,45,49,30, 6, 3, 2, 0,36		11, 5,42,44	
		2, 5,33, 7, 4,57, 6,45		
60″	2,31,47,55, 3,13, 7,59, 7,21			
exact	2,31,47,55, 3,13, 7,59,21,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°25′ 0″	2,31,47,55, 3,13, 7,59,21,31			
		2, 5,33, 6,53,51,16,30		
2″	2,31,50, 0,36,20, 1,50,38, 1		11, 6, 0,59	
		2, 5,33, 6,42,45,15,31		9,11
4″	2,31,52, 6, 9,26,44,35,53,32		11, 6,10,10	
		2, 5,33, 6,31,39, 5,21		9,11
6″	2,31,54,11,42,33,16,14,58,53		11, 6,19,21	
		2, 5,33, 6,20,32,46, 0		9,11
8″	2,31,56,17,15,39,36,47,44,53		11, 6,28,32	
		2, 5,33, 6, 9,26,17,28		9,11
10″	2,31,58,22,48,45,46,14, 2,21		11, 6,37,43	
		2, 5,33, 5,58,19,39,45		9,11
12″	2,32, 0,28,21,51,44,33,42, 6		11, 6,46,54	
		2, 5,33, 5,47,12,52,51		9,11
14″	2,32, 2,33,54,57,31,46,34,57		11, 6,56, 5	
		2, 5,33, 5,36, 5,56,46		9,11
16″	2,32, 4,39,28, 3, 7,52,31,43		11, 7, 5,16	
		2, 5,33, 5,24,58,51,30		9,11
18″	2,32, 6,45, 1, 8,32,51,23,13		11, 7,14,27	
		2, 5,33, 5,13,51,37, 3		9,11
20″	2,32, 8,50,34,13,46,43, 0,16		11, 7,23,38	
		2, 5,33, 5, 2,44,13,25		9,11
22″	2,32,10,56, 7,18,49,27,13,41		11, 7,32,49	
		2, 5,33, 4,51,36,40,36		9,11
24″	2,32,13, 1,40,23,41, 3,54,17		11, 7,42, 0	
		2, 5,33, 4,40,28,58,36		9,11
26″	2,32,15, 7,13,28,21,32,52,53		11, 7,51,11	
		2, 5,33, 4,29,21, 7,25		9,11
28″	2,32,17,12,46,32,50,54, 0,18		11, 8, 0,22	
		2, 5,33, 4,18,13, 7, 3		9,11
30″	2,32,19,18,19,37, 9, 7, 7,21		11, 8, 9,33	
		2, 5,33, 4, 7, 4,57,30		9,11
32″	2,32,21,23,52,41,16,12, 4,51		11, 8,18,44	
		2, 5,33, 3,55,56,38,46		9,11
34″	2,32,23,29,25,45,12, 8,43,37		11, 8,27,55	
		2, 5,33, 3,44,48,10,51		9,11
36″	2,32,25,34,58,48,56,56,54,28		11, 8,37, 6	
		2, 5,33, 3,33,39,33,45		9,11
38″	2,32,27,40,31,52,30,36,28,13		11, 8,46,17	
		2, 5,33, 3,22,30,47,28		9,11
40″	2,32,29,46, 4,55,53, 7,15,41		11, 8,55,28	
		2, 5,33, 3,11,21,52, 0		9,11
42″	2,32,31,51,37,59, 4,29, 7,41		11, 9, 4,39	
		2, 5,33, 3, 0,12,47,21		9,11
44″	2,32,33,57,11, 2, 4,41,55, 2		11, 9,13,50	
		2, 5,33, 2,49, 3,33,31		9,11
46″	2,32,36, 2,44, 4,53,45,28,33		11, 9,23, 1	
		2, 5,33, 2,37,54,10,30		9,11
48″	2,32,38, 8,17, 7,31,39,39, 3		11, 9,32,12	
		2, 5,33, 2,26,44,38,18		9,11
50″	2,32,40,13,50, 9,58,24,17,21		11, 9,41,23	
		2, 5,33, 2,15,34,56,55		9,11
52″	2,32,42,19,23,12,13,59,14,16		11, 9,50,34	
		2, 5,33, 2, 4,25, 6,21		9,11
54″	2,32,44,24,56,14,18,24,20,37		11, 9,59,45	
		2, 5,33, 1,53,15, 6,36		9,11
56″	2,32,46,30,29,16,11,39,27,13		11,10, 8,56	
		2, 5,33, 1,42, 4,57,40		9,11
58″	2,32,48,36, 2,17,53,44,24,53		11,10,18, 7	
		2, 5,33, 1,30,54,39,33		
60″	2,32,50,41,35,19,24,39, 4,26			
exact	2,32,50,41,35,19,24,39,25,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°26′ 0″	2,32,50,41,35,19,24,39,25,48			
		2, 5,33, 1,19,44,14,26		
2″	2,32,52,47, 8,20,44,23,40,14		11,10,36,20	
		2, 5,33, 1, 8,33,38, 6		9,11
4″	2,32,54,52,41,21,52,57,18,20		11,10,45,31	
		2, 5,33, 0,57,22,52,35		9,11
6″	2,32,56,58,14,22,50,20,10,55		11,10,54,42	
		2, 5,33, 0,46,11,57,53		9,11
8″	2,32,59, 3,47,23,36,32, 8,48		11,11, 3,53	
		2, 5,33, 0,35, 0,54, 0		9,11
10″	2,33, 1, 9,20,24,11,33, 2,48		11,11,13, 4	
		2, 5,33, 0,23,49,40,56		9,11
12″	2,33, 3,14,53,24,35,22,43,44		11,11,22,15	
		2, 5,33, 0,12,38,18,41		9,11
14″	2,33, 5,20,26,24,48, 1, 2,25		11,11,31,26	
		2, 5,33, 0, 1,26,47,15		9,11
16″	2,33, 7,25,59,24,49,27,49,40		11,11,40,37	
		2, 5,32,59,50,15, 6,38		9,11
18″	2,33, 9,31,32,24,39,42,56,18		11,11,49,48	
		2, 5,32,59,39, 3,16,50		9,11
20″	2,33,11,37, 5,24,18,46,13, 8		11,11,58,59	
		2, 5,32,59,27,51,17,51		9,11
22″	2,33,13,42,38,23,46,37,30,59		11,12, 8,10	
		2, 5,32,59,16,39, 9,41		9,11
24″	2,33,15,48,11,23, 3,16,40,40		11,12,17,21	
		2, 5,32,59, 5,26,52,20		9,11
26″	2,33,17,53,44,22, 8,43,33, 0		11,12,26,32	
		2, 5,32,58,54,14,25,48		9,11
28″	2,33,19,59,17,21, 2,57,58,48		11,12,35,43	
		2, 5,32,58,43, 1,50, 5		9,11
30″	2,33,22, 4,50,19,45,59,48,53		11,12,44,54	
		2, 5,32,58,31,49, 5,11		9,11
32″	2,33,24,10,23,18,17,48,54, 4		11,12,54, 5	
		2, 5,32,58,20,36,11, 6		9,11
34″	2,33,26,15,56,16,38,25, 5,10		11,13, 3,16	
		2, 5,32,58, 9,23, 7,50		9,11
36″	2,33,28,21,29,14,47,48,13, 0		11,13,12,27	
		2, 5,32,57,58, 9,55,23		9,11
38″	2,33,30,27, 2,12,45,58, 8,23		11,13,21,38	
		2, 5,32,57,46,56,33,45		9,11
40″	2,33,32,32,35,10,32,54,42, 8		11,13,30,49	
		2, 5,32,57,35,43, 2,56		9,11
42″	2,33,34,38, 8, 8, 8,37,45, 4		11,13,40, 0	
		2, 5,32,57,24,29,22,56		9,11
44″	2,33,36,43,41, 5,33, 7, 8, 0		11,13,49,11	
		2, 5,32,57,13,15,33,45		9,11
46″	2,33,38,49,14, 2,46,22,41,45		11,13,58,22	
		2, 5,32,57, 2, 1,35,23		9,11
48″	2,33,40,54,46,59,48,24,17, 8		11,14, 7,33	
		2, 5,32,56,50,47,27,50		9,11
50″	2,33,43, 0,19,56,39,11,44,58		11,14,16,44	
		2, 5,32,56,39,33,11, 6		9,11
52″	2,33,45, 5,52,53,18,44,56, 4		11,14,25,55	
		2, 5,32,56,28,18,45,11		9,11
54″	2,33,47,11,25,49,47, 3,41,15		11,14,35, 6	
		2, 5,32,56,17, 4,10, 5		9,11
56″	2,33,49,16,58,46, 4, 7,51,20		11,14,44,17	
		2, 5,32,56, 5,49,25,48		9,11
58″	2,33,51,22,31,42, 9,57,17, 8		11,14,53,28	
		2, 5,32,55,54,34,32,20		
60″	2,33,53,28, 4,38, 4,31,49,28			
exact	2,33,53,28, 4,38, 4,32, 4,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°27′ 0″	2,33,53,28, 4,38, 4,32, 4,59			
		2, 5,32,55,43,19,31,29		
2″	2,33,55,33,37,33,47,51,36,28		11,15,11,42	
		2, 5,32,55,32, 4,19,47		9,11
4″	2,33,57,39,10,29,19,55,56,15		11,15,20,53	
		2, 5,32,55,20,48,58,54		9,11
6″	2,33,59,44,43,24,40,44,55, 9		11,15,30, 4	
		2, 5,32,55, 9,33,28,50		9,11
8″	2,34, 1,50,16,19,50,18,23,59		11,15,39,15	
		2, 5,32,54,58,17,49,35		9,11
10″	2,34, 3,55,49,14,48,36,13,34		11,15,48,26	
		2, 5,32,54,47, 2, 1, 9		9,11
12″	2,34, 6, 1,22, 9,35,38,14,43		11,15,57,37	
		2, 5,32,54,35,46, 3,32		9,11
14″	2,34, 8, 6,55, 4,11,24,18,15		11,16, 6,48	
		2, 5,32,54,24,29,56,44		9,11
16″	2,34,10,12,27,58,35,54,14,59		11,16,15,59	
		2, 5,32,54,13,13,40,45		9,11
18″	2,34,12,18, 0,52,49, 7,55,44		11,16,25,10	
		2, 5,32,54, 1,57,15,35		9,11
20″	2,34,14,23,33,46,51, 5,11,19		11,16,34,21	
		2, 5,32,53,50,40,41,14		9,11
22″	2,34,16,29, 6,40,41,45,52,33		11,16,43,32	
		2, 5,32,53,39,23,57,42		9,11
24″	2,34,18,34,39,34,21, 9,50,15		11,16,52,43	
		2, 5,32,53,28, 7, 4,59		9,11
26″	2,34,20,40,12,27,49,16,55,14		11,17, 1,54	
		2, 5,32,53,16,50, 3, 5		9,11
28″	2,34,22,45,45,21, 6, 6,58,19		11,17,11, 5	
		2, 5,32,53, 5,32,52, 0		9,11
30″	2,34,24,51,18,14,11,39,50,19		11,17,20,16	
		2, 5,32,52,54,15,31,44		9,11
32″	2,34,26,56,51, 7, 5,55,22, 3		11,17,29,27	
		2, 5,32,52,42,58, 2,17		9,11
34″	2,34,29, 2,23,59,48,53,24,20		11,17,38,38	
		2, 5,32,52,31,40,23,39		9,11
36″	2,34,31, 7,56,52,20,33,47,59		11,17,47,49	
		2, 5,32,52,20,22,35,50		9,11
38″	2,34,33,13,29,44,40,56,23,49		11,17,57, 0	
		2, 5,32,52, 9, 4,38,50		9,11
40″	2,34,35,19, 2,36,50, 1, 2,39		11,18, 6,11	
		2, 5,32,51,57,46,32,39		9,11
42″	2,34,37,24,35,28,47,47,35,18		11,18,15,22	
		2, 5,32,51,46,28,17,17		9,11
44″	2,34,39,30, 8,20,34,15,52,35		11,18,24,33	
		2, 5,32,51,35, 9,52,44		9,11
46″	2,34,41,35,41,12, 9,25,45,19		11,18,33,44	
		2, 5,32,51,23,51,19, 0		9,11
48″	2,34,43,41,14, 3,33,17, 4,19		11,18,42,55	
		2, 5,32,51,12,32,36, 5		9,11
50″	2,34,45,46,46,54,45,49,40,24		11,18,52, 6	
		2, 5,32,51, 1,13,43,59		9,11
52″	2,34,47,52,19,45,47, 3,24,23		11,19, 1,17	
		2, 5,32,50,49,54,42,42		9,11
54″	2,34,49,57,52,36,36,58, 7, 5		11,19,10,28	
		2, 5,32,50,38,35,32,14		9,11
56″	2,34,52, 3,25,27,15,33,39,19		11,19,19,39	
		2, 5,32,50,27,16,12,35		9,11
58″	2,34,54, 8,58,17,42,49,51,54		11,19,28,50	
		2, 5,32,50,15,56,43,45		
60″	2,34,56,14,31, 7,58,46,35,39			
exact	2,34,56,14,31, 7,58,46,54, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°28′ 0″	2,34,56,14,31, 7,58,46,54, 1			
		2, 5,32,50, 4,37, 7,45		
2″	2,34,58,20, 3,58, 3,24, 1,46		11,19,47, 4	
		2, 5,32,49,53,17,20,41		9,11
4″	2,35, 0,25,36,47,56,41,22,27		11,19,56,15	
		2, 5,32,49,41,57,24,26		9,11
6″	2,35, 2,31, 9,37,38,38,46,53		11,20, 5,26	
		2, 5,32,49,30,37,19, 0		9,11
8″	2,35, 4,36,42,27, 9,16, 5,53		11,20,14,37	
		2, 5,32,49,19,17, 4,23		9,11
10″	2,35, 6,42,15,16,28,33,10,16		11,20,23,48	
		2, 5,32,49, 7,56,40,35		9,11
12″	2,35, 8,47,48, 5,36,29,50,51		11,20,32,59	
		2, 5,32,48,56,36, 7,36		9,11
14″	2,35,10,53,20,54,33, 5,58,27		11,20,42,10	
		2, 5,32,48,45,15,25,26		9,11
16″	2,35,12,58,53,43,18,21,23,53		11,20,51,21	
		2, 5,32,48,33,54,34, 5		9,11
18″	2,35,15, 4,26,31,52,15,57,58		11,21, 0,32	
		2, 5,32,48,22,33,33,33		9,11
20″	2,35,17, 9,59,20,14,49,31,31		11,21, 9,43	
		2, 5,32,48,11,12,23,50		9,11
22″	2,35,19,15,32, 8,26, 1,55,21		11,21,18,54	
		2, 5,32,47,59,51, 4,56		9,11
24″	2,35,21,21, 4,56,25,53, 0,17		11,21,28, 5	
		2, 5,32,47,48,29,36,51		9,11
26″	2,35,23,26,37,44,14,22,37, 8		11,21,37,16	
		2, 5,32,47,37, 7,59,35		9,11
28″	2,35,25,32,10,31,51,30,36,43		11,21,46,27	
		2, 5,32,47,25,46,13, 8		9,11
30″	2,35,27,37,43,19,17,16,49,51		11,21,55,38	
		2, 5,32,47,14,24,17,30		9,11
32″	2,35,29,43,16, 6,31,41, 7,21		11,22, 4,49	
		2, 5,32,47, 3, 2,12,41		9,11
34″	2,35,31,48,48,53,34,43,20, 2		11,22,14, 0	
		2, 5,32,46,51,39,58,41		9,11
36″	2,35,33,54,21,40,26,23,18,43		11,22,23,11	
		2, 5,32,46,40,17,35,30		9,11
38″	2,35,35,59,54,27, 6,40,54,13		11,22,32,22	
		2, 5,32,46,28,55, 3, 8		9,11
40″	2,35,38, 5,27,13,35,35,57,21		11,22,41,33	
		2, 5,32,46,17,32,21,35		9,11
42″	2,35,40,10,59,59,53, 8,18,56		11,22,50,44	
		2, 5,32,46, 6, 9,30,51		9,11
44″	2,35,42,16,32,45,59,17,49,47		11,22,59,55	
		2, 5,32,45,54,46,30,56		9,11
46″	2,35,44,22, 5,31,54, 4,20,43		11,23, 9, 6	
		2, 5,32,45,43,23,21,50		9,11
48″	2,35,46,27,38,17,37,27,42,33		11,23,18,17	
		2, 5,32,45,32, 0, 3,33		9,11
50″	2,35,48,33,11, 3, 9,27,46, 6		11,23,27,28	
		2, 5,32,45,20,36,36, 5		9,11
52″	2,35,50,38,43,48,30, 4,22,11		11,23,36,39	
		2, 5,32,45, 9,12,59,26		9,11
54″	2,35,52,44,16,33,39,17,21,37		11,23,45,50	
		2, 5,32,44,57,49,13,36		9,11
56″	2,35,54,49,49,18,37, 6,35,13		11,23,55, 1	
		2, 5,32,44,46,25,18,35		9,11
58″	2,35,56,55,22, 3,23,31,53,48		11,24, 4,12	
		2, 5,32,44,35, 1,14,23		
60″	2,35,59, 0,54,47,58,33, 8,11			
exact	2,35,59, 0,54,47,58,33,31, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°29′ 0″	2,35,59, 0,54,47,58,33,31, 1			
		2, 5,32,44,23,37, 3,20		
2″	2,36, 1, 6,27,32,22,10,34,21		11,24,22,25	
		2, 5,32,44,12,12,40,55		9,11
4″	2,36, 3,12, 0,16,34,23,15,16		11,24,31,36	
		2, 5,32,44, 0,48, 9,19		9,11
6″	2,36, 5,17,33, 0,35,11,24,35		11,24,40,47	
		2, 5,32,43,49,23,28,32		9,11
8″	2,36, 7,23, 5,44,24,34,53, 7		11,24,49,58	
		2, 5,32,43,37,58,38,34		9,11
10″	2,36, 9,28,38,28, 2,33,31,41		11,24,59, 9	
		2, 5,32,43,26,33,39,25		9,11
12″	2,36,11,34,11,11,29, 7,11, 6		11,25, 8,20	
		2, 5,32,43,15, 8,31, 5		9,11
14″	2,36,13,39,43,54,44,15,42,11		11,25,17,31	
		2, 5,32,43, 3,43,13,34		9,11
16″	2,36,15,45,16,37,47,58,55,45		11,25,26,42	
		2, 5,32,42,52,17,46,52		9,11
18″	2,36,17,50,49,20,40,16,42,37		11,25,35,53	
		2, 5,32,42,40,52,10,59		9,11
20″	2,36,19,56,22, 3,21, 8,53,36		11,25,45, 4	
		2, 5,32,42,29,26,25,55		9,11
22″	2,36,22, 1,54,45,50,35,19,31		11,25,54,15	
		2, 5,32,42,18, 0,31,40		9,11
24″	2,36,24, 7,27,28, 8,35,51,11		11,26, 3,26	
		2, 5,32,42, 6,34,28,14		9,11
26″	2,36,26,13, 0,10,15,10,19,25		11,26,12,37	
		2, 5,32,41,55, 8,15,37		9,11
28″	2,36,28,18,32,52,10,18,35, 2		11,26,21,48	
		2, 5,32,41,43,41,53,49		9,11
30″	2,36,30,24, 5,33,54, 0,28,51		11,26,30,59	
		2, 5,32,41,32,15,22,50		9,11
32″	2,36,32,29,38,15,26,15,51,41		11,26,40,10	
		2, 5,32,41,20,48,42,40		9,11
34″	2,36,34,35,10,56,47, 4,34,21		11,26,49,21	
		2, 5,32,41, 9,21,53,19		9,11
36″	2,36,36,40,43,37,56,26,27,40		11,26,58,32	
		2, 5,32,40,57,54,54,47		9,11
38″	2,36,38,46,16,18,54,21,22,27		11,27, 7,43	
		2, 5,32,40,46,27,47, 4		9,11
40″	2,36,40,51,48,59,40,49, 9,31		11,27,16,54	
		2, 5,32,40,35, 0,30,10		9,11
42″	2,36,42,57,21,40,15,49,39,41		11,27,26, 5	
		2, 5,32,40,23,33, 4, 5		9,11
44″	2,36,45, 2,54,20,39,22,43,46		11,27,35,16	
		2, 5,32,40,12, 5,28,49		9,11
46″	2,36,47, 8,27, 0,51,28,12,35		11,27,44,27	
		2, 5,32,40, 0,37,44,22		9,11
48″	2,36,49,13,59,40,52, 5,56,57		11,27,53,38	
		2, 5,32,39,49, 9,50,44		9,11
50″	2,36,51,19,32,20,41,15,47,41		11,28, 2,49	
		2, 5,32,39,37,41,47,55		9,11
52″	2,36,53,25, 5, 0,18,57,35,36		11,28,12, 0	
		2, 5,32,39,26,13,35,55		9,11
54″	2,36,55,30,37,39,45,11,11,31		11,28,21,11	
		2, 5,32,39,14,45,14,44		9,11
56″	2,36,57,36,10,18,59,56,26,15		11,28,30,22	
		2, 5,32,39, 3,16,44,22		9,11
58″	2,36,59,41,42,58, 3,13,10,37		11,28,39,33	
		2, 5,32,38,51,48, 4,49		
60″	2,37, 1,47,15,36,55, 1,15,26			
exact	2,37, 1,47,15,36,55, 1,37, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°30′ 0″	2,37, 1,47,15,36,55, 1,37, 9			
		2, 5,32,38,40,19,18,21		
2″	2,37, 3,52,48,15,35,20,55,30		11,28,57,46	
		2, 5,32,38,28,50,20,35		9,11
4″	2,37, 5,58,20,54, 4,11,16, 5		11,29, 6,57	
		2, 5,32,38,17,21,13,38		9,11
6″	2,37, 8, 3,53,32,21,32,29,43		11,29,16, 8	
		2, 5,32,38, 5,51,57,30		9,11
8″	2,37,10, 9,26,10,27,24,27,13		11,29,25,19	
		2, 5,32,37,54,22,32,11		9,11
10″	2,37,12,14,58,48,21,46,59,24		11,29,34,30	
		2, 5,32,37,42,52,57,41		9,11
12″	2,37,14,20,31,26, 4,39,57, 5		11,29,43,41	
		2, 5,32,37,31,23,14, 0		9,11
14″	2,37,16,26, 4, 3,36, 3,11, 5		11,29,52,52	
		2, 5,32,37,19,53,21, 8		9,11
16″	2,37,18,31,36,40,55,56,32,13		11,30, 2, 3	
		2, 5,32,37, 8,23,19, 5		9,11
18″	2,37,20,37, 9,18, 4,19,51,18		11,30,11,14	
		2, 5,32,36,56,53, 7,51		9,11
20″	2,37,22,42,41,55, 1,12,59, 9		11,30,20,25	
		2, 5,32,36,45,22,47,26		9,11
22″	2,37,24,48,14,31,46,35,46,35		11,30,29,36	
		2, 5,32,36,33,52,17,50		9,11
24″	2,37,26,53,47, 8,20,28, 4,25		11,30,38,47	
		2, 5,32,36,22,21,39, 3		9,11
26″	2,37,28,59,19,44,42,49,43,28		11,30,47,58	
		2, 5,32,36,10,50,51, 5		9,11
28″	2,37,31, 4,52,20,53,40,34,33		11,30,57, 9	
		2, 5,32,35,59,19,53,56		9,11
30″	2,37,33,10,24,56,53, 0,28,29		11,31, 6,20	
		2, 5,32,35,47,48,47,36		9,11
32″	2,37,35,15,57,32,40,49,16, 5		11,31,15,31	
		2, 5,32,35,36,17,32, 5		9,11
34″	2,37,37,21,30, 8,17, 6,48,10		11,31,24,42	
		2, 5,32,35,24,46, 7,23		9,11
36″	2,37,39,27, 2,43,41,52,55,33		11,31,33,53	
		2, 5,32,35,13,14,33,30		9,11
38″	2,37,41,32,35,18,55, 7,29, 3		11,31,43, 4	
		2, 5,32,35, 1,42,50,26		9,11
40″	2,37,43,38, 7,53,56,50,19,29		11,31,52,15	
		2, 5,32,34,50,10,58,11		9,11
42″	2,37,45,43,40,28,47, 1,17,40		11,32, 1,26	
		2, 5,32,34,38,38,56,45		9,11
44″	2,37,47,49,13, 3,25,40,14,25		11,32,10,37	
		2, 5,32,34,27, 6,46, 8		9,11
46″	2,37,49,54,45,37,52,47, 0,33		11,32,19,48	
		2, 5,32,34,15,34,26,20		9,11
48″	2,37,52, 0,18,12, 8,21,26,53		11,32,28,59	
		2, 5,32,34, 4, 1,57,21		9,11
50″	2,37,54, 5,50,46,12,23,24,14		11,32,38,10	
		2, 5,32,33,52,29,19,11		9,11
52″	2,37,56,11,23,20, 4,52,43,25		11,32,47,21	
		2, 5,32,33,40,56,31,50		9,11
54″	2,37,58,16,55,53,45,49,15,15		11,32,56,32	
		2, 5,32,33,29,23,35,18		9,11
56″	2,38, 0,22,28,27,15,12,50,33		11,33, 5,43	
		2, 5,32,33,17,50,29,35		9,11
58″	2,38, 2,28, 1, 0,33, 3,20, 8		11,33,14,54	
		2, 5,32,33, 6,17,14,41		
60″	2,38, 4,33,33,33,39,20,34,49			
exact	2,38, 4,33,33,33,39,20,56,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°31′ 0″	2,38, 4,33,33,33,39,20,56,42			
		2, 5,32,32,54,43,52,54		
2″	2,38, 6,39, 6, 6,34, 4,49,36		11,33,33, 7	
		2, 5,32,32,43,10,19,47		9,11
4″	2,38, 8,44,38,39,17,15, 9,23		11,33,42,18	
		2, 5,32,32,31,36,37,29		9,11
6″	2,38,10,50,11,11,48,51,46,52		11,33,51,29	
		2, 5,32,32,20, 2,46, 0		9,11
8″	2,38,12,55,43,44, 8,54,32,52		11,34, 0,40	
		2, 5,32,32, 8,28,45,20		9,11
10″	2,38,15, 1,16,16,17,23,18,12		11,34, 9,51	
		2, 5,32,31,56,54,35,29		9,11
12″	2,38,17, 6,48,48,14,17,53,41		11,34,19, 2	
		2, 5,32,31,45,20,16,27		9,11
14″	2,38,19,12,21,19,59,38,10, 8		11,34,28,13	
		2, 5,32,31,33,45,48,14		9,11
16″	2,38,21,17,53,51,33,23,58,22		11,34,37,24	
		2, 5,32,31,22,11,10,50		9,11
18″	2,38,23,23,26,22,55,35, 9,12		11,34,46,35	
		2, 5,32,31,10,36,24,15		9,11
20″	2,38,25,28,58,54, 6,11,33,27		11,34,55,46	
		2, 5,32,30,59, 1,28,29		9,11
22″	2,38,27,34,31,25, 5,13, 1,56		11,35, 4,57	
		2, 5,32,30,47,26,23,32		9,11
24″	2,38,29,40, 3,55,52,39,25,28		11,35,14, 8	
		2, 5,32,30,35,51, 9,24		9,11
26″	2,38,31,45,36,26,28,30,34,52		11,35,23,19	
		2, 5,32,30,24,15,46, 5		9,11
28″	2,38,33,51, 8,56,52,46,20,57		11,35,32,30	
		2, 5,32,30,12,40,13,35		9,11
30″	2,38,35,56,41,27, 5,26,34,32		11,35,41,41	
		2, 5,32,30, 1, 4,31,54		9,11
32″	2,38,38, 2,13,57, 6,31, 6,26		11,35,50,52	
		2, 5,32,29,49,28,41, 2		9,11
34″	2,38,40, 7,46,26,55,59,47,28		11,36, 0, 3	
		2, 5,32,29,37,52,40,59		9,11
36″	2,38,42,13,18,56,33,52,28,27		11,36, 9,14	
		2, 5,32,29,26,16,31,45		9,11
38″	2,38,44,18,51,26, 0, 9, 0,12		11,36,18,25	
		2, 5,32,29,14,40,13,20		9,11
40″	2,38,46,24,23,55,14,49,13,32		11,36,27,36	
		2, 5,32,29, 3, 3,45,44		9,11
42″	2,38,48,29,56,24,17,52,59,16		11,36,36,47	
		2, 5,32,28,51,27, 8,57		9,11
44″	2,38,50,35,28,53, 9,20, 8,13		11,36,45,58	
		2, 5,32,28,39,50,22,59		9,11
46″	2,38,52,41, 1,21,49,10,31,12		11,36,55, 9	
		2, 5,32,28,28,13,27,50		9,11
48″	2,38,54,46,33,50,17,23,59, 2		11,37, 4,20	
		2, 5,32,28,16,36,23,30		9,11
50″	2,38,56,52, 6,18,34, 0,22,32		11,37,13,31	
		2, 5,32,28, 4,59, 9,59		9,11
52″	2,38,58,57,38,46,38,59,32,31		11,37,22,42	
		2, 5,32,27,53,21,47,17		9,11
54″	2,39, 1, 3,11,14,32,21,19,48		11,37,31,53	
		2, 5,32,27,41,44,15,24		9,11
56″	2,39, 3, 8,43,42,14, 5,35,12		11,37,41, 4	
		2, 5,32,27,30, 6,34,20		9,11
58″	2,39, 5,14,16, 9,44,12, 9,32		11,37,50,15	
		2, 5,32,27,18,28,44, 5		
60″	2,39, 7,19,48,37, 2,40,53,37			
exact	2,39, 7,19,48,37, 2,41,17,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°32′ 0″	2,39, 7,19,48,37, 2,41,17,10			
		2, 5,32,27, 6,50,47, 5		
2″	2,39, 9,25,21, 4, 9,32, 4,15		11,38, 8,27	
		2, 5,32,26,55,12,38,38		9,11
4″	2,39,11,30,53,31, 4,44,42,53		11,38,17,38	
		2, 5,32,26,43,34,21, 0		9,11
6″	2,39,13,36,25,57,48,19, 3,53		11,38,26,49	
		2, 5,32,26,31,55,54,11		9,11
8″	2,39,15,41,58,24,20,14,58, 4		11,38,36, 0	
		2, 5,32,26,20,17,18,11		9,11
10″	2,39,17,47,30,50,40,32,16,15		11,38,45,11	
		2, 5,32,26, 8,38,33, 0		9,11
12″	2,39,19,53, 3,16,49,10,49,15		11,38,54,22	
		2, 5,32,25,56,59,38,38		9,11
14″	2,39,21,58,35,42,46,10,27,53		11,39, 3,33	
		2, 5,32,25,45,20,35, 5		9,11
16″	2,39,24, 4, 8, 8,31,31, 2,58		11,39,12,44	
		2, 5,32,25,33,41,22,21		9,11
18″	2,39,26, 9,40,34, 5,12,25,19		11,39,21,55	
		2, 5,32,25,22, 2, 0,26		9,11
20″	2,39,28,15,12,59,27,14,25,45		11,39,31, 6	
		2, 5,32,25,10,22,29,20		9,11
22″	2,39,30,20,45,24,37,36,55, 5		11,39,40,17	
		2, 5,32,24,58,42,49, 3		9,11
24″	2,39,32,26,17,49,36,19,44, 8		11,39,49,28	
		2, 5,32,24,47, 2,59,35		9,11
26″	2,39,34,31,50,14,23,22,43,43		11,39,58,39	
		2, 5,32,24,35,23, 0,56		9,11
28″	2,39,36,37,22,38,58,45,44,39		11,40, 7,50	
		2, 5,32,24,23,42,53, 6		9,11
30″	2,39,38,42,55, 3,22,28,37,45		11,40,17, 1	
		2, 5,32,24,12, 2,36, 5		9,11
32″	2,39,40,48,27,27,34,31,13,50		11,40,26,12	
		2, 5,32,24, 0,22, 9,53		9,11
34″	2,39,42,53,59,51,34,53,23,43		11,40,35,23	
		2, 5,32,23,48,41,34,30		9,11
36″	2,39,44,59,32,15,23,34,58,13		11,40,44,34	
		2, 5,32,23,37, 0,49,56		9,11
38″	2,39,47, 5, 4,39, 0,35,48, 9		11,40,53,45	
		2, 5,32,23,25,19,56,11		9,11
40″	2,39,49,10,37, 2,25,55,44,20		11,41, 2,56	
		2, 5,32,23,13,38,53,15		9,11
42″	2,39,51,16, 9,25,39,34,37,35		11,41,12, 7	
		2, 5,32,23, 1,57,41, 8		9,11
44″	2,39,53,21,41,48,41,32,18,43		11,41,21,18	
		2, 5,32,22,50,16,19,50		9,11
46″	2,39,55,27,14,11,31,48,38,33		11,41,30,29	
		2, 5,32,22,38,34,49,21		9,11
48″	2,39,57,32,46,34,10,23,27,54		11,41,39,40	
		2, 5,32,22,26,53, 9,41		9,11
50″	2,39,59,38,18,56,37,16,37,35		11,41,48,51	
		2, 5,32,22,15,11,20,50		9,11
52″	2,40, 1,43,51,18,52,27,58,25		11,41,58, 2	
		2, 5,32,22, 3,29,22,48		9,11
54″	2,40, 3,49,23,40,55,57,21,13		11,42, 7,13	
		2, 5,32,21,51,47,15,35		9,11
56″	2,40, 5,54,56, 2,47,44,36,48		11,42,16,24	
		2, 5,32,21,40, 4,59,11		9,11
58″	2,40, 8, 0,28,24,27,49,35,59		11,42,25,35	
		2, 5,32,21,28,22,33,36		
60″	2,40,10, 6, 0,45,56,12, 9,35			
exact	2,40,10, 6, 0,45,56,12,29, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°33′ 0″	2,40,10, 6, 0,45,56,12,29, 8			
		2, 5,32,21,16,40, 1, 1		
2″	2,40,12,11,33, 7,12,52,30, 9		11,42,43,48	
		2, 5,32,21, 4,57,17,13		9,11
4″	2,40,14,17, 5,28,17,49,47,22		11,42,52,59	
		2, 5,32,20,53,14,24,14		9,11
6″	2,40,16,22,37,49,11, 4,11,36		11,43, 2,10	
		2, 5,32,20,41,31,22, 4		9,11
8″	2,40,18,28,10, 9,52,35,33,40		11,43,11,21	
		2, 5,32,20,29,48,10,43		9,11
10″	2,40,20,33,42,30,22,23,44,23		11,43,20,32	
		2, 5,32,20,18, 4,50,11		9,11
12″	2,40,22,39,14,50,40,28,34,34		11,43,29,43	
		2, 5,32,20, 6,21,20,28		9,11
14″	2,40,24,44,47,10,46,49,55, 2		11,43,38,54	
		2, 5,32,19,54,37,41,34		9,11
16″	2,40,26,50,19,30,41,27,36,36		11,43,48, 5	
		2, 5,32,19,42,53,53,29		9,11
18″	2,40,28,55,51,50,24,21,30, 5		11,43,57,16	
		2, 5,32,19,31, 9,56,13		9,11
20″	2,40,31, 1,24, 9,55,31,26,18		11,44, 6,27	
		2, 5,32,19,19,25,49,46		9,11
22″	2,40,33, 6,56,29,14,57,16, 4		11,44,15,38	
		2, 5,32,19, 7,41,34, 8		9,11
24″	2,40,35,12,28,48,22,38,50,12		11,44,24,49	
		2, 5,32,18,55,57, 9,19		9,11
26″	2,40,37,18, 1, 7,18,35,59,31		11,44,34, 0	
		2, 5,32,18,44,12,35,19		9,11
28″	2,40,39,23,33,26, 2,48,34,50		11,44,43,11	
		2, 5,32,18,32,27,52, 8		9,11
30″	2,40,41,29, 5,44,35,16,26,58		11,44,52,22	
		2, 5,32,18,20,42,59,46		9,11
32″	2,40,43,34,38, 2,55,59,26,44		11,45, 1,33	
		2, 5,32,18, 8,57,58,13		9,11
34″	2,40,45,40,10,21, 4,57,24,57		11,45,10,44	
		2, 5,32,17,57,12,47,29		9,11
36″	2,40,47,45,42,39, 2,10,12,26		11,45,19,55	
		2, 5,32,17,45,27,27,34		9,11
38″	2,40,49,51,14,56,47,37,40, 0		11,45,29, 6	
		2, 5,32,17,33,41,58,28		9,11
40″	2,40,51,56,47,14,21,19,38,28		11,45,38,17	
		2, 5,32,17,21,56,20,11		9,11
42″	2,40,54, 2,19,31,43,15,58,39		11,45,47,28	
		2, 5,32,17,10,10,32,43		9,11
44″	2,40,56, 7,51,48,53,26,31,22		11,45,56,39	
		2, 5,32,16,58,24,36, 4		9,11
46″	2,40,58,13,24, 5,51,51, 7,26		11,46, 5,50	
		2, 5,32,16,46,38,30,14		9,11
48″	2,41, 0,18,56,22,38,29,37,40		11,46,15, 1	
		2, 5,32,16,34,52,15,13		9,11
50″	2,41, 2,24,28,39,13,21,52,53		11,46,24,12	
		2, 5,32,16,23, 5,51, 1		9,11
52″	2,41, 4,30, 0,55,36,27,43,54		11,46,33,23	
		2, 5,32,16,11,19,17,38		9,11
54″	2,41, 6,35,33,11,47,47, 1,32		11,46,42,34	
		2, 5,32,15,59,32,35, 4		9,11
56″	2,41, 8,41, 5,27,47,19,36,36		11,46,51,45	
		2, 5,32,15,47,45,43,19		9,11
58″	2,41,10,46,37,43,35, 5,19,55		11,47, 0,56	
		2, 5,32,15,35,58,42,23		
60″	2,41,12,52, 9,59,11, 4, 2,18			
exact	2,41,12,52, 9,59,11, 4,26,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°34′ 0″	2,41,12,52, 9,59,11, 4,26,25			
		2, 5,32,15,24,11,34,47		
2″	2,41,14,57,42,14,35,16, 1,12		11,47,19, 8	
		2, 5,32,15,12,24,15,39		9,11
4″	2,41,17, 3,14,29,47,40,16,51		11,47,28,19	
		2, 5,32,15, 0,36,47,20		9,11
6″	2,41,19, 8,46,44,48,17, 4,11		11,47,37,30	
		2, 5,32,14,48,49, 9,50		9,11
8″	2,41,21,14,18,59,37, 6,14, 1		11,47,46,41	
		2, 5,32,14,37, 1,23, 9		9,11
10″	2,41,23,19,51,14,14, 7,37,10		11,47,55,52	
		2, 5,32,14,25,13,27,17		9,11
12″	2,41,25,25,23,28,39,21, 4,27		11,48, 5, 3	
		2, 5,32,14,13,25,22,14		9,11
14″	2,41,27,30,55,42,52,46,26,41		11,48,14,14	
		2, 5,32,14, 1,37, 8, 0		9,11
16″	2,41,29,36,27,56,54,23,34,41		11,48,23,25	
		2, 5,32,13,49,48,44,35		9,11
18″	2,41,31,42, 0,10,44,12,19,16		11,48,32,36	
		2, 5,32,13,38, 0,11,59		9,11
20″	2,41,33,47,32,24,22,12,31,15		11,48,41,47	
		2, 5,32,13,26,11,30,12		9,11
22″	2,41,35,53, 4,37,48,24, 1,27		11,48,50,58	
		2, 5,32,13,14,22,39,14		9,11
24″	2,41,37,58,36,51, 2,46,40,41		11,49, 0, 9	
		2, 5,32,13, 2,33,39, 5		9,11
26″	2,41,40, 4, 9, 4, 5,20,19,46		11,49, 9,20	
		2, 5,32,12,50,44,29,45		9,11
28″	2,41,42, 9,41,16,56, 4,49,31		11,49,18,31	
		2, 5,32,12,38,55,11,14		9,11
30″	2,41,44,15,13,29,35, 0, 0,45		11,49,27,42	
		2, 5,32,12,27, 5,43,32		9,11
32″	2,41,46,20,45,42, 2, 5,44,17		11,49,36,53	
		2, 5,32,12,15,16, 6,39		9,11
34″	2,41,48,26,17,54,17,21,50,56		11,49,46, 4	
		2, 5,32,12, 3,26,20,35		9,11
36″	2,41,50,31,50, 6,20,48,11,31		11,49,55,15	
		2, 5,32,11,51,36,25,20		9,11
38″	2,41,52,37,22,18,12,24,36,51		11,50, 4,26	
		2, 5,32,11,39,46,20,54		9,11
40″	2,41,54,42,54,29,52,10,57,45		11,50,13,37	
		2, 5,32,11,27,56, 7,17		9,11
42″	2,41,56,48,26,41,20, 7, 5, 2		11,50,22,48	
		2, 5,32,11,16, 5,44,29		9,11
44″	2,41,58,53,58,52,36,12,49,31		11,50,31,59	
		2, 5,32,11, 4,15,12,30		9,11
46″	2,42, 0,59,31, 3,40,28, 2, 1		11,50,41,10	
		2, 5,32,10,52,24,31,20		9,11
48″	2,42, 3, 5, 3,14,32,52,33,21		11,50,50,21	
		2, 5,32,10,40,33,40,59		9,11
50″	2,42, 5,10,35,25,13,26,14,20		11,50,59,32	
		2, 5,32,10,28,42,41,27		9,11
52″	2,42, 7,16, 7,35,42, 8,55,47		11,51, 8,43	
		2, 5,32,10,16,51,32,44		9,11
54″	2,42, 9,21,39,45,59, 0,28,31		11,51,17,54	
		2, 5,32,10, 5, 0,14,50		9,11
56″	2,42,11,27,11,56, 4, 0,43,21		11,51,27, 5	
		2, 5,32, 9,53, 8,47,45		9,11
58″	2,42,13,32,44, 5,57, 9,31, 6		11,51,36,16	
		2, 5,32, 9,41,17,11,29		
60″	2,42,15,38,16,15,38,26,42,35			
exact	2,42,15,38,16,15,38,27, 6, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°35′ 0″	2,42,15,38,16,15,38,27, 6, 4			
		2, 5,32, 9,29,25,28,31		
2″	2,42,17,43,48,25, 7,52,34,35		11,51,54,28	
		2, 5,32, 9,17,33,34, 3		9,11
4″	2,42,19,49,20,34,25,26, 8,38		11,52, 3,39	
		2, 5,32, 9, 5,41,30,24		9,11
6″	2,42,21,54,52,43,31, 7,39, 2		11,52,12,50	
		2, 5,32, 8,53,49,17,34		9,11
8″	2,42,24, 0,24,52,24,56,56,36		11,52,22, 1	
		2, 5,32, 8,41,56,55,33		9,11
10″	2,42,26, 5,57, 1, 6,53,52, 9		11,52,31,12	
		2, 5,32, 8,30, 4,24,21		9,11
12″	2,42,28,11,29, 9,36,58,16,30		11,52,40,23	
		2, 5,32, 8,18,11,43,58		9,11
14″	2,42,30,17, 1,17,55,10, 0,28		11,52,49,34	
		2, 5,32, 8, 6,18,54,24		9,11
16″	2,42,32,22,33,26, 1,28,54,52		11,52,58,45	
		2, 5,32, 7,54,25,55,39		9,11
18″	2,42,34,28, 5,33,55,54,50,31		11,53, 7,56	
		2, 5,32, 7,42,32,47,43		9,11
20″	2,42,36,33,37,41,38,27,38,14		11,53,17, 7	
		2, 5,32, 7,30,39,30,36		9,11
22″	2,42,38,39, 9,49, 9, 7, 8,50		11,53,26,18	
		2, 5,32, 7,18,46, 4,18		9,11
24″	2,42,40,44,41,56,27,53,13, 8		11,53,35,29	
		2, 5,32, 7, 6,52,28,49		9,11
26″	2,42,42,50,14, 3,34,45,41,57		11,53,44,40	
		2, 5,32, 6,54,58,44, 9		9,11
28″	2,42,44,55,46,10,29,44,26, 6		11,53,53,51	
		2, 5,32, 6,43, 4,50,18		9,11
30″	2,42,47, 1,18,17,12,49,16,24		11,54, 3, 2	
		2, 5,32, 6,31,10,47,16		9,11
32″	2,42,49, 6,50,23,44, 0, 3,40		11,54,12,13	
		2, 5,32, 6,19,16,35, 3		9,11
34″	2,42,51,12,22,30, 3,16,38,43		11,54,21,24	
		2, 5,32, 6, 7,22,13,39		9,11
36″	2,42,53,17,54,36,10,38,52,22		11,54,30,35	
		2, 5,32, 5,55,27,43, 4		9,11
38″	2,42,55,23,26,42, 6, 6,35,26		11,54,39,46	
		2, 5,32, 5,43,33, 3,18		9,11
40″	2,42,57,28,58,47,49,39,38,44		11,54,48,57	
		2, 5,32, 5,31,38,14,21		9,11
42″	2,42,59,34,30,53,21,17,53, 5		11,54,58, 8	
		2, 5,32, 5,19,43,16,13		9,11
44″	2,43, 1,40, 2,58,41, 1, 9,18		11,55, 7,19	
		2, 5,32, 5, 7,48, 8,54		9,11
46″	2,43, 3,45,35, 3,48,49,18,12		11,55,16,30	
		2, 5,32, 4,55,52,52,24		9,11
48″	2,43, 5,51, 7, 8,44,42,10,36		11,55,25,41	
		2, 5,32, 4,43,57,26,43		9,11
50″	2,43, 7,56,39,13,28,39,37,19		11,55,34,52	
		2, 5,32, 4,32, 1,51,51		9,11
52″	2,43,10, 2,11,18, 0,41,29,10		11,55,44, 3	
		2, 5,32, 4,20, 6, 7,48		9,11
54″	2,43,12, 7,43,22,20,47,36,58		11,55,53,14	
		2, 5,32, 4, 8,10,14,34		9,11
56″	2,43,14,13,15,26,28,57,51,32		11,56, 2,25	
		2, 5,32, 3,56,14,12, 9		9,11
58″	2,43,16,18,47,30,25,12, 3,41		11,56,11,36	
		2, 5,32, 3,44,18, 0,33		
60″	2,43,18,24,19,34, 9,30, 4,14			
exact	2,43,18,24,19,34, 9,30,28,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°36′ 0″	2,43,18,24,19,34, 9,30,28,18			
		2, 5,32, 3,32,21,42,19		
2″	2,43,20,29,51,37,41,52,10,37		11,56,29,48	
		2, 5,32, 3,20,25,12,31		9,11
4″	2,43,22,35,23,41, 2,17,23, 8		11,56,38,59	
		2, 5,32, 3, 8,28,33,32		9,11
6″	2,43,24,40,55,44,10,45,56,40		11,56,48,10	
		2, 5,32, 2,56,31,45,22		9,11
8″	2,43,26,46,27,47, 7,17,42, 2		11,56,57,21	
		2, 5,32, 2,44,34,48, 1		9,11
10″	2,43,28,51,59,49,51,52,30, 3		11,57, 6,32	
		2, 5,32, 2,32,37,41,29		9,11
12″	2,43,30,57,31,52,24,30,11,32		11,57,15,43	
		2, 5,32, 2,20,40,25,46		9,11
14″	2,43,33, 3, 3,54,45,10,37,18		11,57,24,54	
		2, 5,32, 2, 8,43, 0,52		9,11
16″	2,43,35, 8,35,56,53,53,38,10		11,57,34, 5	
		2, 5,32, 1,56,45,26,47		9,11
18″	2,43,37,14, 7,58,50,39, 4,57		11,57,43,16	
		2, 5,32, 1,44,47,43,31		9,11
20″	2,43,39,19,40, 0,35,26,48,28		11,57,52,27	
		2, 5,32, 1,32,49,51, 4		9,11
22″	2,43,41,25,12, 2, 8,16,39,32		11,58, 1,38	
		2, 5,32, 1,20,51,49,26		9,11
24″	2,43,43,30,44, 3,29, 8,28,58		11,58,10,49	
		2, 5,32, 1, 8,53,38,37		9,11
26″	2,43,45,36,16, 4,38, 2, 7,35		11,58,20, 0	
		2, 5,32, 0,56,55,18,37		9,11
28″	2,43,47,41,48, 5,34,57,26,12		11,58,29,11	
		2, 5,32, 0,44,56,49,26		9,11
30″	2,43,49,47,20, 6,19,54,15,38		11,58,38,22	
		2, 5,32, 0,32,58,11, 4		9,11
32″	2,43,51,52,52, 6,52,52,26,42		11,58,47,33	
		2, 5,32, 0,20,59,23,31		9,11
34″	2,43,53,58,24, 7,13,51,50,13		11,58,56,44	
		2, 5,32, 0, 9, 0,26,47		9,11
36″	2,43,56, 3,56, 7,22,52,17, 0		11,59, 5,55	
		2, 5,31,59,57, 1,20,52		9,11
38″	2,43,58, 9,28, 7,19,53,37,52		11,59,15, 6	
		2, 5,31,59,45, 2, 5,46		9,11
40″	2,44, 0,15, 0, 7, 4,55,43,38		11,59,24,17	
		2, 5,31,59,33, 2,41,29		9,11
42″	2,44, 2,20,32, 6,37,58,25, 7		11,59,33,28	
		2, 5,31,59,21, 3, 8, 1		9,11
44″	2,44, 4,26, 4, 5,59, 1,33, 8		11,59,42,39	
		2, 5,31,59, 9, 3,25,22		9,11
46″	2,44, 6,31,36, 5, 8, 4,58,30		11,59,51,50	
		2, 5,31,58,57, 3,33,32		9,11
48″	2,44, 8,37, 8, 4, 5, 8,32, 2		12, 0, 1, 1	
		2, 5,31,58,45, 3,32,31		9,11
50″	2,44,10,42,40, 2,50,12, 4,33		12, 0,10,12	
		2, 5,31,58,33, 3,22,19		9,11
52″	2,44,12,48,12, 1,23,15,26,52		12, 0,19,23	
		2, 5,31,58,21, 3, 2,56		9,11
54″	2,44,14,53,43,59,44,18,29,48		12, 0,28,34	
		2, 5,31,58, 9, 2,34,22		9,11
56″	2,44,16,59,15,57,53,21, 4,10		12, 0,37,45	
		2, 5,31,57,57, 1,56,37		9,11
58″	2,44,19, 4,47,55,50,23, 0,47		12, 0,46,56	
		2, 5,31,57,45, 1, 9,41		
60″	2,44,21,10,19,53,35,24,10,28			
exact	2,44,21,10,19,53,35,24,36,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°37′ 0″	2,44,21,10,19,53,35,24,36,39			
		2, 5,31,57,33, 0,16,17		
2″	2,44,23,15,51,51, 8,24,52,56		12, 1, 5, 7	
		2, 5,31,57,20,59,11,10		9,11
4″	2,44,25,21,23,48,29,24, 4, 6		12, 1,14,18	
		2, 5,31,57, 8,57,56,52		9,11
6″	2,44,27,26,55,45,38,22, 0,58		12, 1,23,29	
		2, 5,31,56,56,56,33,23		9,11
8″	2,44,29,32,27,42,35,18,34,21		12, 1,32,40	
		2, 5,31,56,44,55, 0,43		9,11
10″	2,44,31,37,59,39,20,13,35, 4		12, 1,41,51	
		2, 5,31,56,32,53,18,52		9,11
12″	2,44,33,43,31,35,53, 6,53,56		12, 1,51, 2	
		2, 5,31,56,20,51,27,50		9,11
14″	2,44,35,49, 3,32,13,58,21,46		12, 2, 0,13	
		2, 5,31,56, 8,49,27,37		9,11
16″	2,44,37,54,35,28,22,47,49,23		12, 2, 9,24	
		2, 5,31,55,56,47,18,13		9,11
18″	2,44,40, 0, 7,24,19,35, 7,36		12, 2,18,35	
		2, 5,31,55,44,44,59,38		9,11
20″	2,44,42, 5,39,20, 4,20, 7,14		12, 2,27,46	
		2, 5,31,55,32,42,31,52		9,11
22″	2,44,44,11,11,15,37, 2,39, 6		12, 2,36,57	
		2, 5,31,55,20,39,54,55		9,11
24″	2,44,46,16,43,10,57,42,34, 1		12, 2,46, 8	
		2, 5,31,55, 8,37, 8,47		9,11
26″	2,44,48,22,15, 6, 6,19,42,48		12, 2,55,19	
		2, 5,31,54,56,34,13,28		9,11
28″	2,44,50,27,47, 1, 2,53,56,16		12, 3, 4,30	
		2, 5,31,54,44,31, 8,58		9,11
30″	2,44,52,33,18,55,47,25, 5,14		12, 3,13,41	
		2, 5,31,54,32,27,55,17		9,11
32″	2,44,54,38,50,50,19,53, 0,31		12, 3,22,52	
		2, 5,31,54,20,24,32,25		9,11
34″	2,44,56,44,22,44,40,17,32,56		12, 3,32, 3	
		2, 5,31,54, 8,21, 0,22		9,11
36″	2,44,58,49,54,38,48,38,33,18		12, 3,41,14	
		2, 5,31,53,56,17,19, 8		9,11
38″	2,45, 0,55,26,32,44,55,52,26		12, 3,50,25	
		2, 5,31,53,44,13,28,43		9,11
40″	2,45, 3, 0,58,26,29, 9,21, 9		12, 3,59,36	
		2, 5,31,53,32, 9,29, 7		9,11
42″	2,45, 5, 6,30,20, 1,18,50,16		12, 4, 8,47	
		2, 5,31,53,20, 5,20,20		9,11
44″	2,45, 7,12, 2,13,21,24,10,36		12, 4,17,58	
		2, 5,31,53, 8, 1, 2,22		9,11
46″	2,45, 9,17,34, 6,29,25,12,58		12, 4,27, 9	
		2, 5,31,52,55,56,35,13		9,11
48″	2,45,11,23, 5,59,25,21,48,11		12, 4,36,20	
		2, 5,31,52,43,51,58,53		9,11
50″	2,45,13,28,37,52, 9,13,47, 4		12, 4,45,31	
		2, 5,31,52,31,47,13,22		9,11
52″	2,45,15,34, 9,44,41, 1, 0,26		12, 4,54,42	
		2, 5,31,52,19,42,18,40		9,11
54″	2,45,17,39,41,37, 0,43,19, 6		12, 5, 3,53	
		2, 5,31,52, 7,37,14,47		9,11
56″	2,45,19,45,13,29, 8,20,33,53		12, 5,13, 4	
		2, 5,31,51,55,32, 1,43		9,11
58″	2,45,21,50,45,21, 3,52,35,36		12, 5,22,15	
		2, 5,31,51,43,26,39,28		
60″	2,45,23,56,17,12,47,19,15, 4			
exact	2,45,23,56,17,12,47,19,37,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°38′ 0″	2,45,23,56,17,12,47,19,37,53			
		2, 5,31,51,31,21,10,32		
2″	2,45,26, 1,49, 4,18,40,48,25		12, 5,40,26	
		2, 5,31,51,19,15,30, 6		9,11
4″	2,45,28, 7,20,55,37,56,18,31		12, 5,49,37	
		2, 5,31,51, 7, 9,40,29		9,11
6″	2,45,30,12,52,46,45, 5,59, 0		12, 5,58,48	
		2, 5,31,50,55, 3,41,41		9,11
8″	2,45,32,18,24,37,40, 9,40,41		12, 6, 7,59	
		2, 5,31,50,42,57,33,42		9,11
10″	2,45,34,23,56,28,23, 7,14,23		12, 6,17,10	
		2, 5,31,50,30,51,16,32		9,11
12″	2,45,36,29,28,18,53,58,30,55		12, 6,26,21	
		2, 5,31,50,18,44,50,11		9,11
14″	2,45,38,35, 0, 9,12,43,21, 6		12, 6,35,32	
		2, 5,31,50, 6,38,14,39		9,11
16″	2,45,40,40,31,59,19,21,35,45		12, 6,44,43	
		2, 5,31,49,54,31,29,56		9,11
18″	2,45,42,46, 3,49,13,53, 5,41		12, 6,53,54	
		2, 5,31,49,42,24,36, 2		9,11
20″	2,45,44,51,35,38,56,17,41,43		12, 7, 3, 5	
		2, 5,31,49,30,17,32,57		9,11
22″	2,45,46,57, 7,28,26,35,14,40		12, 7,12,16	
		2, 5,31,49,18,10,20,41		9,11
24″	2,45,49, 2,39,17,44,45,35,21		12, 7,21,27	
		2, 5,31,49, 6, 2,59,14		9,11
26″	2,45,51, 8,11, 6,50,48,34,35		12, 7,30,38	
		2, 5,31,48,53,55,28,36		9,11
28″	2,45,53,13,42,55,44,44, 3,11		12, 7,39,49	
		2, 5,31,48,41,47,48,47		9,11
30″	2,45,55,19,14,44,26,31,51,58		12, 7,49, 0	
		2, 5,31,48,29,39,59,47		9,11
32″	2,45,57,24,46,32,56,11,51,45		12, 7,58,11	
		2, 5,31,48,17,32, 1,36		9,11
34″	2,45,59,30,18,21,13,43,53,21		12, 8, 7,22	
		2, 5,31,48, 5,23,54,14		9,11
36″	2,46, 1,35,50, 9,19, 7,47,35		12, 8,16,33	
		2, 5,31,47,53,15,37,41		9,11
38″	2,46, 3,41,21,57,12,23,25,16		12, 8,25,44	
		2, 5,31,47,41, 7,11,57		9,11
40″	2,46, 5,46,53,44,53,30,37,13		12, 8,34,55	
		2, 5,31,47,28,58,37, 2		9,11
42″	2,46, 7,52,25,32,22,29,14,15		12, 8,44, 6	
		2, 5,31,47,16,49,52,56		9,11
44″	2,46, 9,57,57,19,39,19, 7,11		12, 8,53,17	
		2, 5,31,47, 4,40,59,39		9,11
46″	2,46,12, 3,29, 6,44, 0, 6,50		12, 9, 2,28	
		2, 5,31,46,52,31,57,11		9,11
48″	2,46,14, 9, 0,53,36,32, 4, 1		12, 9,11,39	
		2, 5,31,46,40,22,45,32		9,11
50″	2,46,16,14,32,40,16,54,49,33		12, 9,20,50	
		2, 5,31,46,28,13,24,42		9,11
52″	2,46,18,20, 4,26,45, 8,14,15		12, 9,30, 1	
		2, 5,31,46,16, 3,54,41		9,11
54″	2,46,20,25,36,13, 1,12, 8,56		12, 9,39,12	
		2, 5,31,46, 3,54,15,29		9,11
56″	2,46,22,31, 7,59, 5, 6,24,25		12, 9,48,23	
		2, 5,31,45,51,44,27, 6		9,11
58″	2,46,24,36,39,44,56,50,51,31		12, 9,57,34	
		2, 5,31,45,39,34,29,32		
60″	2,46,26,42,11,30,36,25,21, 3			
exact	2,46,26,42,11,30,36,25,42, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°39′ 0″	2,46,26,42,11,30,36,25,42, 5			
		2, 5,31,45,27,24,25,10		
2″	2,46,28,47,43,16, 3,50, 7,15		12,10,15,46	
		2, 5,31,45,15,14, 9,24		9,11
4″	2,46,30,53,15, 1,19, 4,16,39		12,10,24,57	
		2, 5,31,45, 3, 3,44,27		9,11
6″	2,46,32,58,46,46,22, 8, 1, 6		12,10,34, 8	
		2, 5,31,44,50,53,10,19		9,11
8″	2,46,35, 4,18,31,13, 1,11,25		12,10,43,19	
		2, 5,31,44,38,42,27, 0		9,11
10″	2,46,37, 9,50,15,51,43,38,25		12,10,52,30	
		2, 5,31,44,26,31,34,30		9,11
12″	2,46,39,15,22, 0,18,15,12,55		12,11, 1,41	
		2, 5,31,44,14,20,32,49		9,11
14″	2,46,41,20,53,44,32,35,45,44		12,11,10,52	
		2, 5,31,44, 2, 9,21,57		9,11
16″	2,46,43,26,25,28,34,45, 7,41		12,11,20, 3	
		2, 5,31,43,49,58, 1,54		9,11
18″	2,46,45,31,57,12,24,43, 9,35		12,11,29,14	
		2, 5,31,43,37,46,32,40		9,11
20″	2,46,47,37,28,56, 2,29,42,15		12,11,38,25	
		2, 5,31,43,25,34,54,15		9,11
22″	2,46,49,43, 0,39,28, 4,36,30		12,11,47,36	
		2, 5,31,43,13,23, 6,39		9,11
24″	2,46,51,48,32,22,41,27,43, 9		12,11,56,47	
		2, 5,31,43, 1,11, 9,52		9,11
26″	2,46,53,54, 4, 5,42,38,53, 1		12,12, 5,58	
		2, 5,31,42,48,59, 3,54		9,11
28″	2,46,55,59,35,48,31,37,56,55		12,12,15, 9	
		2, 5,31,42,36,46,48,45		9,11
30″	2,46,58, 5, 7,31, 8,24,45,40		12,12,24,20	
		2, 5,31,42,24,34,24,25		9,11
32″	2,47, 0,10,39,13,32,59,10, 5		12,12,33,31	
		2, 5,31,42,12,21,50,54		9,11
34″	2,47, 2,16,10,55,45,21, 0,59		12,12,42,42	
		2, 5,31,42, 0, 9, 8,12		9,11
36″	2,47, 4,21,42,37,45,30, 9,11		12,12,51,53	
		2, 5,31,41,47,56,16,19		9,11
38″	2,47, 6,27,14,19,33,26,25,30		12,13, 1, 4	
		2, 5,31,41,35,43,15,15		9,11
40″	2,47, 8,32,46, 1, 9, 9,40,45		12,13,10,15	
		2, 5,31,41,23,30, 5, 0		9,11
42″	2,47,10,38,17,42,32,39,45,45		12,13,19,26	
		2, 5,31,41,11,16,45,34		9,11
44″	2,47,12,43,49,23,43,56,31,19		12,13,28,37	
		2, 5,31,40,59, 3,16,57		9,11
46″	2,47,14,49,21, 4,42,59,48,16		12,13,37,48	
		2, 5,31,40,46,49,39, 9		9,11
48″	2,47,16,54,52,45,29,49,27,25		12,13,46,59	
		2, 5,31,40,34,35,52,10		9,11
50″	2,47,19, 0,24,26, 4,25,19,35		12,13,56,10	
		2, 5,31,40,22,21,56, 0		9,11
52″	2,47,21, 5,56, 6,26,47,15,35		12,14, 5,21	
		2, 5,31,40,10, 7,50,39		9,11
54″	2,47,23,11,27,46,36,55, 6,14		12,14,14,32	
		2, 5,31,39,57,53,36, 7		9,11
56″	2,47,25,16,59,26,34,48,42,21		12,14,23,43	
		2, 5,31,39,45,39,12,24		9,11
58″	2,47,27,22,31, 6,20,27,54,45		12,14,32,54	
		2, 5,31,39,33,24,39,30		
60″	2,47,29,28, 2,45,53,52,34,15			
exact	2,47,29,28, 2,45,53,53, 2,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°40′ 0″	2,47,29,28, 2,45,53,53, 2,38			
		2, 5,31,39,21,10, 0,19		
2″	2,47,31,33,34,25,15, 3, 2,57		12,14,51, 4	
		2, 5,31,39, 8,55, 9,15		9,11
4″	2,47,33,39, 6, 4,23,58,12,12		12,15, 0,15	
		2, 5,31,38,56,40, 9, 0		9,11
6″	2,47,35,44,37,43,20,38,21,12		12,15, 9,26	
		2, 5,31,38,44,24,59,34		9,11
8″	2,47,37,50, 9,22, 5, 3,20,46		12,15,18,37	
		2, 5,31,38,32, 9,40,57		9,11
10″	2,47,39,55,41, 0,37,13, 1,43		12,15,27,48	
		2, 5,31,38,19,54,13, 9		9,11
12″	2,47,42, 1,12,38,57, 7,14,52		12,15,36,59	
		2, 5,31,38, 7,38,36,10		9,11
14″	2,47,44, 6,44,17, 4,45,51, 2		12,15,46,10	
		2, 5,31,37,55,22,50, 0		9,11
16″	2,47,46,12,15,55, 0, 8,41, 2		12,15,55,21	
		2, 5,31,37,43, 6,54,39		9,11
18″	2,47,48,17,47,32,43,15,35,41		12,16, 4,32	
		2, 5,31,37,30,50,50, 7		9,11
20″	2,47,50,23,19,10,14, 6,25,48		12,16,13,43	
		2, 5,31,37,18,34,36,24		9,11
22″	2,47,52,28,50,47,32,41, 2,12		12,16,22,54	
		2, 5,31,37, 6,18,13,30		9,11
24″	2,47,54,34,22,24,38,59,15,42		12,16,32, 5	
		2, 5,31,36,54, 1,41,25		9,11
26″	2,47,56,39,54, 1,33, 0,57, 7		12,16,41,16	
		2, 5,31,36,41,45, 0, 9		9,11
28″	2,47,58,45,25,38,14,45,57,16		12,16,50,27	
		2, 5,31,36,29,28, 9,42		9,11
30″	2,48, 0,50,57,14,44,14, 6,58		12,16,59,38	
		2, 5,31,36,17,11,10, 4		9,11
32″	2,48, 2,56,28,51, 1,25,17, 2		12,17, 8,49	
		2, 5,31,36, 4,54, 1,15		9,11
34″	2,48, 5, 2, 0,27, 6,19,18,17		12,17,18, 0	
		2, 5,31,35,52,36,43,15		9,11
36″	2,48, 7, 7,32, 2,58,56, 1,32		12,17,27,11	
		2, 5,31,35,40,19,16, 4		9,11
38″	2,48, 9,13, 3,38,39,15,17,36		12,17,36,22	
		2, 5,31,35,28, 1,39,42		9,11
40″	2,48,11,18,35,14, 7,16,57,18		12,17,45,33	
		2, 5,31,35,15,43,54, 9		9,11
42″	2,48,13,24, 6,49,23, 0,51,27		12,17,54,44	
		2, 5,31,35, 3,25,59,25		9,11
44″	2,48,15,29,38,24,26,26,50,52		12,18, 3,55	
		2, 5,31,34,51, 7,55,30		9,11
46″	2,48,17,35, 9,59,17,34,46,22		12,18,13, 6	
		2, 5,31,34,38,49,42,24		9,11
48″	2,48,19,40,41,33,56,24,28,46		12,18,22,17	
		2, 5,31,34,26,31,20, 7		9,11
50″	2,48,21,46,13, 8,22,55,48,53		12,18,31,28	
		2, 5,31,34,14,12,48,39		9,11
52″	2,48,23,51,44,42,37, 8,37,32		12,18,40,39	
		2, 5,31,34, 1,54, 8, 0		9,11
54″	2,48,25,57,16,16,39, 2,45,32		12,18,49,50	
		2, 5,31,33,49,35,18,10		9,11
56″	2,48,28, 2,47,50,28,38, 3,42		12,18,59, 1	
		2, 5,31,33,37,16,19, 9		9,11
58″	2,48,30, 8,19,24, 5,54,22,51		12,19, 8,12	
		2, 5,31,33,24,57,10,57		
60″	2,48,32,13,50,57,30,51,33,48			
exact	2,48,32,13,50,57,30,51,56,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°41′ 0″	2,48,32,13,50,57,30,51,56,14			
		2, 5,31,33,12,37,56, 5		
2″	2,48,34,19,22,30,43,29,52,19		12,19,26,23	
		2, 5,31,33, 0,18,29,42		9,11
4″	2,48,36,24,54, 3,43,48,22, 1		12,19,35,34	
		2, 5,31,32,47,58,54, 8		9,11
6″	2,48,38,30,25,36,31,47,16, 9		12,19,44,45	
		2, 5,31,32,35,39, 9,23		9,11
8″	2,48,40,35,57, 9, 7,26,25,32		12,19,53,56	
		2, 5,31,32,23,19,15,27		9,11
10″	2,48,42,41,28,41,30,45,40,59		12,20, 3, 7	
		2, 5,31,32,10,59,12,20		9,11
12″	2,48,44,47, 0,13,41,44,53,19		12,20,12,18	
		2, 5,31,31,58,39, 0, 2		9,11
14″	2,48,46,52,31,45,40,23,53,21		12,20,21,29	
		2, 5,31,31,46,18,38,33		9,11
16″	2,48,48,58, 3,17,26,42,31,54		12,20,30,40	
		2, 5,31,31,33,58, 7,53		9,11
18″	2,48,51, 3,34,49, 0,40,39,47		12,20,39,51	
		2, 5,31,31,21,37,28, 2		9,11
20″	2,48,53, 9, 6,20,22,18, 7,49		12,20,49, 2	
		2, 5,31,31, 9,16,39, 0		9,11
22″	2,48,55,14,37,51,31,34,46,49		12,20,58,13	
		2, 5,31,30,56,55,40,47		9,11
24″	2,48,57,20, 9,22,28,30,27,36		12,21, 7,24	
		2, 5,31,30,44,34,33,23		9,11
26″	2,48,59,25,40,53,13, 5, 0,59		12,21,16,35	
		2, 5,31,30,32,13,16,48		9,11
28″	2,49, 1,31,12,23,45,18,17,47		12,21,25,46	
		2, 5,31,30,19,51,51, 2		9,11
30″	2,49, 3,36,43,54, 5,10, 8,49		12,21,34,57	
		2, 5,31,30, 7,30,16, 5		9,11
32″	2,49, 5,42,15,24,12,40,24,54		12,21,44, 8	
		2, 5,31,29,55, 8,31,57		9,11
34″	2,49, 7,47,46,54, 7,48,56,51		12,21,53,19	
		2, 5,31,29,42,46,38,38		9,11
36″	2,49, 9,53,18,23,50,35,35,29		12,22, 2,30	
		2, 5,31,29,30,24,36, 8		9,11
38″	2,49,11,58,49,53,21, 0,11,37		12,22,11,41	
		2, 5,31,29,18, 2,24,27		9,11
40″	2,49,14, 4,21,22,39, 2,36, 4		12,22,20,52	
		2, 5,31,29, 5,40, 3,35		9,11
42″	2,49,16, 9,52,51,44,42,39,39		12,22,30, 3	
		2, 5,31,28,53,17,33,32		9,11
44″	2,49,18,15,24,20,38, 0,13,11		12,22,39,14	
		2, 5,31,28,40,54,54,18		9,11
46″	2,49,20,20,55,49,18,55, 7,29		12,22,48,25	
		2, 5,31,28,28,32, 5,53		9,11
48″	2,49,22,26,27,17,47,27,13,22		12,22,57,36	
		2, 5,31,28,16, 9, 8,17		9,11
50″	2,49,24,31,58,46, 3,36,21,39		12,23, 6,47	
		2, 5,31,28, 3,46, 1,30		9,11
52″	2,49,26,37,30,14, 7,22,23, 9		12,23,15,58	
		2, 5,31,27,51,22,45,32		9,11
54″	2,49,28,43, 1,41,58,45, 8,41		12,23,25, 9	
		2, 5,31,27,38,59,20,23		9,11
56″	2,49,30,48,33, 9,37,44,29, 4		12,23,34,20	
		2, 5,31,27,26,35,46, 3		9,11
58″	2,49,32,54, 4,37, 4,20,15, 7		12,23,43,31	
		2, 5,31,27,14,12, 2,32		
60″	2,49,34,59,36, 4,18,32,17,39			
exact	2,49,34,59,36, 4,18,32,43, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°42′ 0″	2,49,34,59,36, 4,18,32,43, 0			
		2, 5,31,27, 1,48,12,35		
2″	2,49,37, 5, 7,31,20,20,55,35		12,24, 1,42	
		2, 5,31,26,49,24,10,53		9,11
4″	2,49,39,10,38,58, 9,45, 6,28		12,24,10,53	
		2, 5,31,26,37, 0, 0, 0		9,11
6″	2,49,41,16,10,24,46,45, 6,28		12,24,20, 4	
		2, 5,31,26,24,35,39,56		9,11
8″	2,49,43,21,41,51,11,20,46,24		12,24,29,15	
		2, 5,31,26,12,11,10,41		9,11
10″	2,49,45,27,13,17,23,31,57, 5		12,24,38,26	
		2, 5,31,25,59,46,32,15		9,11
12″	2,49,47,32,44,43,23,18,29,20		12,24,47,37	
		2, 5,31,25,47,21,44,38		9,11
14″	2,49,49,38,16, 9,10,40,13,58		12,24,56,48	
		2, 5,31,25,34,56,47,50		9,11
16″	2,49,51,43,47,34,45,37, 1,48		12,25, 5,59	
		2, 5,31,25,22,31,41,51		9,11
18″	2,49,53,49,19, 0, 8, 8,43,39		12,25,15,10	
		2, 5,31,25,10, 6,26,41		9,11
20″	2,49,55,54,50,25,18,15,10,20		12,25,24,21	
		2, 5,31,24,57,41, 2,20		9,11
22″	2,49,58, 0,21,50,15,56,12,40		12,25,33,32	
		2, 5,31,24,45,15,28,48		9,11
24″	2,50, 0, 5,53,15, 1,11,41,28		12,25,42,43	
		2, 5,31,24,32,49,46, 5		9,11
26″	2,50, 2,11,24,39,34, 1,27,33		12,25,51,54	
		2, 5,31,24,20,23,54,11		9,11
28″	2,50, 4,16,56, 3,54,25,21,44		12,26, 1, 5	
		2, 5,31,24, 7,57,53, 6		9,11
30″	2,50, 6,22,27,28, 2,23,14,50		12,26,10,16	
		2, 5,31,23,55,31,42,50		9,11
32″	2,50, 8,27,58,51,57,54,57,40		12,26,19,27	
		2, 5,31,23,43, 5,23,23		9,11
34″	2,50,10,33,30,15,41, 0,21, 3		12,26,28,38	
		2, 5,31,23,30,38,54,45		9,11
36″	2,50,12,39, 1,39,11,39,15,48		12,26,37,49	
		2, 5,31,23,18,12,16,56		9,11
38″	2,50,14,44,33, 2,29,51,32,44		12,26,47, 0	
		2, 5,31,23, 5,45,29,56		9,11
40″	2,50,16,50, 4,25,35,37, 2,40		12,26,56,11	
		2, 5,31,22,53,18,33,45		9,11
42″	2,50,18,55,35,48,28,55,36,25		12,27, 5,22	
		2, 5,31,22,40,51,28,23		9,11
44″	2,50,21, 1, 7,11, 9,47, 4,48		12,27,14,33	
		2, 5,31,22,28,24,13,50		9,11
46″	2,50,23, 6,38,33,38,11,18,38		12,27,23,44	
		2, 5,31,22,15,56,50, 6		9,11
48″	2,50,25,12, 9,55,54, 8, 8,44		12,27,32,55	
		2, 5,31,22, 3,29,17,11		9,11
50″	2,50,27,17,41,17,57,37,25,55		12,27,42, 6	
		2, 5,31,21,51, 1,35, 5		9,11
52″	2,50,29,23,12,39,48,39, 1, 0		12,27,51,17	
		2, 5,31,21,38,33,43,48		9,11
54″	2,50,31,28,44, 1,27,12,44,48		12,28, 0,28	
		2, 5,31,21,26, 5,43,20		9,11
56″	2,50,33,34,15,22,53,18,28, 8		12,28, 9,39	
		2, 5,31,21,13,37,33,41		9,11
58″	2,50,35,39,46,44, 6,56, 1,49		12,28,18,50	
		2, 5,31,21, 1, 9,14,51		
60″	2,50,37,45,18, 5, 8, 5,16,40			
exact	2,50,37,45,18, 5, 8, 5,46,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°43′ 0″	2,50,37,45,18, 5, 8, 5,46,23			
		2, 5,31,20,48,40,49,54		
2″	2,50,39,50,49,25,56,46,36,17		12,28,37, 0	
		2, 5,31,20,36,12,12,54		9,11
4″	2,50,41,56,20,46,32,58,49,11		12,28,46,11	
		2, 5,31,20,23,43,26,43		9,11
6″	2,50,44, 1,52, 6,56,42,15,54		12,28,55,22	
		2, 5,31,20,11,14,31,21		9,11
8″	2,50,46, 7,23,27, 7,56,47,15		12,29, 4,33	
		2, 5,31,19,58,45,26,48		9,11
10″	2,50,48,12,54,47, 6,42,14, 3		12,29,13,44	
		2, 5,31,19,46,16,13, 4		9,11
12″	2,50,50,18,26, 6,52,58,27, 7		12,29,22,55	
		2, 5,31,19,33,46,50, 9		9,11
14″	2,50,52,23,57,26,26,45,17,16		12,29,32, 6	
		2, 5,31,19,21,17,18, 3		9,11
16″	2,50,54,29,28,45,48, 2,35,19		12,29,41,17	
		2, 5,31,19, 8,47,36,46		9,11
18″	2,50,56,35, 0, 4,56,50,12, 5		12,29,50,28	
		2, 5,31,18,56,17,46,18		9,11
20″	2,50,58,40,31,23,53, 7,58,23		12,29,59,39	
		2, 5,31,18,43,47,46,39		9,11
22″	2,51, 0,46, 2,42,36,55,45, 2		12,30, 8,50	
		2, 5,31,18,31,17,37,49		9,11
24″	2,51, 2,51,34, 1, 8,13,22,51		12,30,18, 1	
		2, 5,31,18,18,47,19,48		9,11
26″	2,51, 4,57, 5,19,27, 0,42,39		12,30,27,12	
		2, 5,31,18, 6,16,52,36		9,11
28″	2,51, 7, 2,36,37,33,17,35,15		12,30,36,23	
		2, 5,31,17,53,46,16,13		9,11
30″	2,51, 9, 8, 7,55,27, 3,51,28		12,30,45,34	
		2, 5,31,17,41,15,30,39		9,11
32″	2,51,11,13,39,13, 8,19,22, 7		12,30,54,45	
		2, 5,31,17,28,44,35,54		9,11
34″	2,51,13,19,10,30,37, 3,58, 1		12,31, 3,56	
		2, 5,31,17,16,13,31,58		9,11
36″	2,51,15,24,41,47,53,17,29,59		12,31,13, 7	
		2, 5,31,17, 3,42,18,51		9,11
38″	2,51,17,30,13, 4,56,59,48,50		12,31,22,18	
		2, 5,31,16,51,10,56,33		9,11
40″	2,51,19,35,44,21,48,10,45,23		12,31,31,29	
		2, 5,31,16,38,39,25, 4		9,11
42″	2,51,21,41,15,38,26,50,10,27		12,31,40,40	
		2, 5,31,16,26, 7,44,24		9,11
44″	2,51,23,46,46,54,52,57,54,51		12,31,49,51	
		2, 5,31,16,13,35,54,33		9,11
46″	2,51,25,52,18,11, 6,33,49,24		12,31,59, 2	
		2, 5,31,16, 1, 3,55,31		9,11
48″	2,51,27,57,49,27, 7,37,44,55		12,32, 8,13	
		2, 5,31,15,48,31,47,18		9,11
50″	2,51,30, 3,20,42,56, 9,32,13		12,32,17,24	
		2, 5,31,15,35,59,29,54		9,11
52″	2,51,32, 8,51,58,32, 9, 2, 7		12,32,26,35	
		2, 5,31,15,23,27, 3,19		9,11
54″	2,51,34,14,23,13,55,36, 5,26		12,32,35,46	
		2, 5,31,15,10,54,27,33		9,11
56″	2,51,36,19,54,29, 6,30,32,59		12,32,44,57	
		2, 5,31,14,58,21,42,36		9,11
58″	2,51,38,25,25,44, 4,52,15,35		12,32,54, 8	
		2, 5,31,14,45,48,48,28		
60″	2,51,40,30,56,58,50,41, 4, 3			
exact	2,51,40,30,56,58,50,41,33,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°44′ 0″	2,51,40,30,56,58,50,41,33,14			
		2, 5,31,14,33,15,48,11		
2″	2,51,42,36,28,13,23,57,21,25		12,33,12,18	
		2, 5,31,14,20,42,35,53		9,11
4″	2,51,44,41,59,27,44,39,57,18		12,33,21,29	
		2, 5,31,14, 8, 9,14,24		9,11
6″	2,51,46,47,30,41,52,49,11,42		12,33,30,40	
		2, 5,31,13,55,35,43,44		9,11
8″	2,51,48,53, 1,55,48,24,55,26		12,33,39,51	
		2, 5,31,13,43, 2, 3,53		9,11
10″	2,51,50,58,33, 9,31,26,59,19		12,33,49, 2	
		2, 5,31,13,30,28,14,51		9,11
12″	2,51,53, 4, 4,23, 1,55,14,10		12,33,58,13	
		2, 5,31,13,17,54,16,38		9,11
14″	2,51,55, 9,35,36,19,49,30,48		12,34, 7,24	
		2, 5,31,13, 5,20, 9,14		9,11
16″	2,51,57,15, 6,49,25, 9,40, 2		12,34,16,35	
		2, 5,31,12,52,45,52,39		9,11
18″	2,51,59,20,38, 2,17,55,32,41		12,34,25,46	
		2, 5,31,12,40,11,26,53		9,11
20″	2,52, 1,26, 9,14,58, 6,59,34		12,34,34,57	
		2, 5,31,12,27,36,51,56		9,11
22″	2,52, 3,31,40,27,25,43,51,30		12,34,44, 8	
		2, 5,31,12,15, 2, 7,48		9,11
24″	2,52, 5,37,11,39,40,45,59,18		12,34,53,19	
		2, 5,31,12, 2,27,14,29		9,11
26″	2,52, 7,42,42,51,43,13,13,47		12,35, 2,30	
		2, 5,31,11,49,52,11,59		9,11
28″	2,52, 9,48,14, 3,33, 5,25,46		12,35,11,41	
		2, 5,31,11,37,17, 0,18		9,11
30″	2,52,11,53,45,15,10,22,26, 4		12,35,20,52	
		2, 5,31,11,24,41,39,26		9,11
32″	2,52,13,59,16,26,35, 4, 5,30		12,35,30, 3	
		2, 5,31,11,12, 6, 9,23		9,11
34″	2,52,16, 4,47,37,47,10,14,53		12,35,39,14	
		2, 5,31,10,59,30,30, 9		9,11
36″	2,52,18,10,18,48,46,40,45, 2		12,35,48,25	
		2, 5,31,10,46,54,41,44		9,11
38″	2,52,20,15,49,59,33,35,26,46		12,35,57,36	
		2, 5,31,10,34,18,44, 8		9,11
40″	2,52,22,21,21,10, 7,54,10,54		12,36, 6,47	
		2, 5,31,10,21,42,37,21		9,11
42″	2,52,24,26,52,20,29,36,48,15		12,36,15,58	
		2, 5,31,10, 9, 6,21,23		9,11
44″	2,52,26,32,23,30,38,43, 9,38		12,36,25, 9	
		2, 5,31, 9,56,29,56,14		9,11
46″	2,52,28,37,54,40,35,13, 5,52		12,36,34,20	
		2, 5,31, 9,43,53,21,54		9,11
48″	2,52,30,43,25,50,19, 6,27,46		12,36,43,31	
		2, 5,31, 9,31,16,38,23		9,11
50″	2,52,32,48,56,59,50,23, 6, 9		12,36,52,42	
		2, 5,31, 9,18,39,45,41		9,11
52″	2,52,34,54,28, 9, 9, 2,51,50		12,37, 1,53	
		2, 5,31, 9, 6, 2,43,48		9,11
54″	2,52,36,59,59,18,15, 5,35,38		12,37,11, 4	
		2, 5,31, 8,53,25,32,44		9,11
56″	2,52,39, 5,30,27, 8,31, 8,22		12,37,20,15	
		2, 5,31, 8,40,48,12,29		9,11
58″	2,52,41,11, 1,35,49,19,20,51		12,37,29,26	
		2, 5,31, 8,28,10,43, 3		
60″	2,52,43,16,32,44,17,30, 3,54			
exact	2,52,43,16,32,44,17,30,33,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°45′ 0″	2,52,43,16,32,44,17,30,33,49			
		2, 5,31, 8,15,33, 7,33		
2″	2,52,45,22, 3,52,33, 3,41,22		12,37,47,35	
		2, 5,31, 8, 2,55,19,58		9,11
4″	2,52,47,27,35, 0,35,59, 1,20		12,37,56,46	
		2, 5,31, 7,50,17,23,12		9,11
6″	2,52,49,33, 6, 8,26,16,24,32		12,38, 5,57	
		2, 5,31, 7,37,39,17,15		9,11
8″	2,52,51,38,37,16, 3,55,41,47		12,38,15, 8	
		2, 5,31, 7,25, 1, 2, 7		9,11
10″	2,52,53,44, 8,23,28,56,43,54		12,38,24,19	
		2, 5,31, 7,12,22,37,48		9,11
12″	2,52,55,49,39,30,41,19,21,42		12,38,33,30	
		2, 5,31, 6,59,44, 4,18		9,11
14″	2,52,57,55,10,37,41, 3,26, 0		12,38,42,41	
		2, 5,31, 6,47, 5,21,37		9,11
16″	2,53, 0, 0,41,44,28, 8,47,37		12,38,51,52	
		2, 5,31, 6,34,26,29,45		9,11
18″	2,53, 2, 6,12,51, 2,35,17,22		12,39, 1, 3	
		2, 5,31, 6,21,47,28,42		9,11
20″	2,53, 4,11,43,57,24,22,46, 4		12,39,10,14	
		2, 5,31, 6, 9, 8,18,28		9,11
22″	2,53, 6,17,15, 3,33,31, 4,32		12,39,19,25	
		2, 5,31, 5,56,28,59, 3		9,11
24″	2,53, 8,22,46, 9,30, 0, 3,35		12,39,28,36	
		2, 5,31, 5,43,49,30,27		9,11
26″	2,53,10,28,17,15,13,49,34, 2		12,39,37,47	
		2, 5,31, 5,31, 9,52,40		9,11
28″	2,53,12,33,48,20,44,59,26,42		12,39,46,58	
		2, 5,31, 5,18,30, 5,42		9,11
30″	2,53,14,39,19,26, 3,29,32,24		12,39,56, 9	
		2, 5,31, 5, 5,50, 9,33		9,11
32″	2,53,16,44,50,31, 9,19,41,57		12,40, 5,20	
		2, 5,31, 4,53,10, 4,13		9,11
34″	2,53,18,50,21,36, 2,29,46,10		12,40,14,31	
		2, 5,31, 4,40,29,49,42		9,11
36″	2,53,20,55,52,40,42,59,35,52		12,40,23,42	
		2, 5,31, 4,27,49,26, 0		9,11
38″	2,53,23, 1,23,45,10,49, 1,52		12,40,32,53	
		2, 5,31, 4,15, 8,53, 7		9,11
40″	2,53,25, 6,54,49,25,57,54,59		12,40,42, 4	
		2, 5,31, 4, 2,28,11, 3		9,11
42″	2,53,27,12,25,53,28,26, 6, 2		12,40,51,15	
		2, 5,31, 3,49,47,19,48		9,11
44″	2,53,29,17,56,57,18,13,25,50		12,41, 0,26	
		2, 5,31, 3,37, 6,19,22		9,11
46″	2,53,31,23,28, 0,55,19,45,12		12,41, 9,37	
		2, 5,31, 3,24,25, 9,45		9,11
48″	2,53,33,28,59, 4,19,44,54,57		12,41,18,48	
		2, 5,31, 3,11,43,50,57		9,11
50″	2,53,35,34,30, 7,31,28,45,54		12,41,27,59	
		2, 5,31, 2,59, 2,22,58		9,11
52″	2,53,37,40, 1,10,30,31, 8,52		12,41,37,10	
		2, 5,31, 2,46,20,45,48		9,11
54″	2,53,39,45,32,13,16,51,54,40		12,41,46,21	
		2, 5,31, 2,33,38,59,27		9,11
56″	2,53,41,51, 3,15,50,30,54, 7		12,41,55,32	
		2, 5,31, 2,20,57, 3,55		9,11
58″	2,53,43,56,34,18,11,27,58, 2		12,42, 4,43	
		2, 5,31, 2, 8,14,59,12		
60″	2,53,46, 2, 5,20,19,42,57,14			
exact	2,53,46, 2, 5,20,19,43,21,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°46′ 0″	2,53,46, 2, 5,20,19,43,21,52			
		2, 5,31, 1,55,32,48, 5		
2″	2,53,48, 7,36,22,15,16, 9,57		12,42,22,53	
		2, 5,31, 1,42,50,25,12		9,11
4″	2,53,50,13, 7,23,58, 6,35, 9		12,42,32, 4	
		2, 5,31, 1,30, 7,53, 8		9,11
6″	2,53,52,18,38,25,28,14,28,17		12,42,41,15	
		2, 5,31, 1,17,25,11,53		9,11
8″	2,53,54,24, 9,26,45,39,40,10		12,42,50,26	
		2, 5,31, 1, 4,42,21,27		9,11
10″	2,53,56,29,40,27,50,22, 1,37		12,42,59,37	
		2, 5,31, 0,51,59,21,50		9,11
12″	2,53,58,35,11,28,42,21,23,27		12,43, 8,48	
		2, 5,31, 0,39,16,13, 2		9,11
14″	2,54, 0,40,42,29,21,37,36,29		12,43,17,59	
		2, 5,31, 0,26,32,55, 3		9,11
16″	2,54, 2,46,13,29,48,10,31,32		12,43,27,10	
		2, 5,31, 0,13,49,27,53		9,11
18″	2,54, 4,51,44,30, 1,59,59,25		12,43,36,21	
		2, 5,31, 0, 1, 5,51,32		9,11
20″	2,54, 6,57,15,30, 3, 5,50,57		12,43,45,32	
		2, 5,30,59,48,22, 6, 0		9,11
22″	2,54, 9, 2,46,29,51,27,56,57		12,43,54,43	
		2, 5,30,59,35,38,11,17		9,11
24″	2,54,11, 8,17,29,27, 6, 8,14		12,44, 3,54	
		2, 5,30,59,22,54, 7,23		9,11
26″	2,54,13,13,48,28,50, 0,15,37		12,44,13, 5	
		2, 5,30,59,10, 9,54,18		9,11
28″	2,54,15,19,19,28, 0,10, 9,55		12,44,22,16	
		2, 5,30,58,57,25,32, 2		9,11
30″	2,54,17,24,50,26,57,35,41,57		12,44,31,27	
		2, 5,30,58,44,41, 0,35		9,11
32″	2,54,19,30,21,25,42,16,42,32		12,44,40,38	
		2, 5,30,58,31,56,19,57		9,11
34″	2,54,21,35,52,24,14,13, 2,29		12,44,49,49	
		2, 5,30,58,19,11,30, 8		9,11
36″	2,54,23,41,23,22,33,24,32,37		12,44,59, 0	
		2, 5,30,58, 6,26,31, 8		9,11
38″	2,54,25,46,54,20,39,51, 3,45		12,45, 8,11	
		2, 5,30,57,53,41,22,57		9,11
40″	2,54,27,52,25,18,33,32,26,42		12,45,17,22	
		2, 5,30,57,40,56, 5,35		9,11
42″	2,54,29,57,56,16,14,28,32,17		12,45,26,33	
		2, 5,30,57,28,10,39, 2		9,11
44″	2,54,32, 3,27,13,42,39,11,19		12,45,35,44	
		2, 5,30,57,15,25, 3,18		9,11
46″	2,54,34, 8,58,10,58, 4,14,37		12,45,44,55	
		2, 5,30,57, 2,39,18,23		9,11
48″	2,54,36,14,29, 8, 0,43,33, 0		12,45,54, 6	
		2, 5,30,56,49,53,24,17		9,11
50″	2,54,38,20, 0, 4,50,36,57,17		12,46, 3,17	
		2, 5,30,56,37, 7,21, 0		9,11
52″	2,54,40,25,31, 1,27,44,18,17		12,46,12,28	
		2, 5,30,56,24,21, 8,32		9,11
54″	2,54,42,31, 1,57,52, 5,26,49		12,46,21,39	
		2, 5,30,56,11,34,46,53		9,11
56″	2,54,44,36,32,54, 3,40,13,42		12,46,30,50	
		2, 5,30,55,58,48,16, 3		9,11
58″	2,54,46,42, 3,50, 2,28,29,45		12,46,40, 1	
		2, 5,30,55,46, 1,36, 2		
60″	2,54,48,47,34,45,48,30, 5,47			
exact	2,54,48,47,34,45,48,30,34,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°47′ 0″	2,54,48,47,34,45,48,30,34,35			
		2, 5,30,55,33,14,49,55		
2″	2,54,50,53, 5,41,21,45,24,30		12,46,58,10	
		2, 5,30,55,20,27,51,45		9,11
4″	2,54,52,58,36,36,42,13,16,15		12,47, 7,21	
		2, 5,30,55, 7,40,44,24		9,11
6″	2,54,55, 4, 7,31,49,54, 0,39		12,47,16,32	
		2, 5,30,54,54,53,27,52		9,11
8″	2,54,57, 9,38,26,44,47,28,31		12,47,25,43	
		2, 5,30,54,42, 6, 2, 9		9,11
10″	2,54,59,15, 9,21,26,53,30,40		12,47,34,54	
		2, 5,30,54,29,18,27,15		9,11
12″	2,55, 1,20,40,15,56,11,57,55		12,47,44, 5	
		2, 5,30,54,16,30,43,10		9,11
14″	2,55, 3,26,11,10,12,42,41, 5		12,47,53,16	
		2, 5,30,54, 3,42,49,54		9,11
16″	2,55, 5,31,42, 4,16,25,30,59		12,48, 2,27	
		2, 5,30,53,50,54,47,27		9,11
18″	2,55, 7,37,12,58, 7,20,18,26		12,48,11,38	
		2, 5,30,53,38, 6,35,49		9,11
20″	2,55, 9,42,43,51,45,26,54,15		12,48,20,49	
		2, 5,30,53,25,18,15, 0		9,11
22″	2,55,11,48,14,45,10,45, 9,15		12,48,30, 0	
		2, 5,30,53,12,29,45, 0		9,11
24″	2,55,13,53,45,38,23,14,54,15		12,48,39,11	
		2, 5,30,52,59,41, 5,49		9,11
26″	2,55,15,59,16,31,22,56, 0, 4		12,48,48,22	
		2, 5,30,52,46,52,17,27		9,11
28″	2,55,18, 4,47,24, 9,48,17,31		12,48,57,33	
		2, 5,30,52,34, 3,19,54		9,11
30″	2,55,20,10,18,16,43,51,37,25		12,49, 6,44	
		2, 5,30,52,21,14,13,10		9,11
32″	2,55,22,15,49, 9, 5, 5,50,35		12,49,15,55	
		2, 5,30,52, 8,24,57,15		9,11
34″	2,55,24,21,20, 1,13,30,47,50		12,49,25, 6	
		2, 5,30,51,55,35,32, 9		9,11
36″	2,55,26,26,50,53, 9, 6,19,59		12,49,34,17	
		2, 5,30,51,42,45,57,52		9,11
38″	2,55,28,32,21,44,51,52,17,51		12,49,43,28	
		2, 5,30,51,29,56,14,24		9,11
40″	2,55,30,37,52,36,21,48,32,15		12,49,52,39	
		2, 5,30,51,17, 6,21,45		9,11
42″	2,55,32,43,23,27,38,54,54, 0		12,50, 1,50	
		2, 5,30,51, 4,16,19,55		9,11
44″	2,55,34,48,54,18,43,11,13,55		12,50,11, 1	
		2, 5,30,50,51,26, 8,54		9,11
46″	2,55,36,54,25, 9,34,37,22,49		12,50,20,12	
		2, 5,30,50,38,35,48,42		9,11
48″	2,55,38,59,56, 0,13,13,11,31		12,50,29,23	
		2, 5,30,50,25,45,19,19		9,11
50″	2,55,41, 5,26,50,38,58,30,50		12,50,38,34	
		2, 5,30,50,12,54,40,45		9,11
52″	2,55,43,10,57,40,51,53,11,35		12,50,47,45	
		2, 5,30,50, 0, 3,53, 0		9,11
54″	2,55,45,16,28,30,51,57, 4,35		12,50,56,56	
		2, 5,30,49,47,12,56, 4		9,11
56″	2,55,47,21,59,20,39,10, 0,39		12,51, 6, 7	
		2, 5,30,49,34,21,49,57		9,11
58″	2,55,49,27,30,10,13,31,50,36		12,51,15,18	
		2, 5,30,49,21,30,34,39		
60″	2,55,51,33, 0,59,35, 2,25,15			
exact	2,55,51,33, 0,59,35, 2,52,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°48′ 0″	2,55,51,33, 0,59,35, 2,52,36			
		2, 5,30,49, 8,39,13,10		
2″	2,55,53,38,31,48,43,42, 5,46		12,51,33,27	
		2, 5,30,48,55,47,39,43		9,11
4″	2,55,55,44, 2,37,39,29,45,29		12,51,42,38	
		2, 5,30,48,42,55,57, 5		9,11
6″	2,55,57,49,33,26,22,25,42,34		12,51,51,49	
		2, 5,30,48,30, 4, 5,16		9,11
8″	2,55,59,55, 4,14,52,29,47,50		12,52, 1, 0	
		2, 5,30,48,17,12, 4,16		9,11
10″	2,56, 2, 0,35, 3, 9,41,52, 6		12,52,10,11	
		2, 5,30,48, 4,19,54, 5		9,11
12″	2,56, 4, 6, 5,51,14, 1,46,11		12,52,19,22	
		2, 5,30,47,51,27,34,43		9,11
14″	2,56, 6,11,36,39, 5,29,20,54		12,52,28,33	
		2, 5,30,47,38,35, 6,10		9,11
16″	2,56, 8,17, 7,26,44, 4,27, 4		12,52,37,44	
		2, 5,30,47,25,42,28,26		9,11
18″	2,56,10,22,38,14, 9,46,55,30		12,52,46,55	
		2, 5,30,47,12,49,41,31		9,11
20″	2,56,12,28, 9, 1,22,36,37, 1		12,52,56, 6	
		2, 5,30,46,59,56,45,25		9,11
22″	2,56,14,33,39,48,22,33,22,26		12,53, 5,17	
		2, 5,30,46,47, 3,40, 8		9,11
24″	2,56,16,39,10,35, 9,37, 2,34		12,53,14,28	
		2, 5,30,46,34,10,25,40		9,11
26″	2,56,18,44,41,21,43,47,28,14		12,53,23,39	
		2, 5,30,46,21,17, 2, 1		9,11
28″	2,56,20,50,12, 8, 5, 4,30,15		12,53,32,50	
		2, 5,30,46, 8,23,29,11		9,11
30″	2,56,22,55,42,54,13,27,59,26		12,53,42, 1	
		2, 5,30,45,55,29,47,10		9,11
32″	2,56,25, 1,13,40, 8,57,46,36		12,53,51,12	
		2, 5,30,45,42,35,55,58		9,11
34″	2,56,27, 6,44,25,51,33,42,34		12,54, 0,23	
		2, 5,30,45,29,41,55,35		9,11
36″	2,56,29,12,15,11,21,15,38, 9		12,54, 9,34	
		2, 5,30,45,16,47,46, 1		9,11
38″	2,56,31,17,45,56,38, 3,24,10		12,54,18,45	
		2, 5,30,45, 3,53,27,16		9,11
40″	2,56,33,23,16,41,41,56,51,26		12,54,27,56	
		2, 5,30,44,50,58,59,20		9,11
42″	2,56,35,28,47,26,32,55,50,46		12,54,37, 7	
		2, 5,30,44,38, 4,22,13		9,11
44″	2,56,37,34,18,11,11, 0,12,59		12,54,46,18	
		2, 5,30,44,25, 9,35,55		9,11
46″	2,56,39,39,48,55,36, 9,48,54		12,54,55,29	
		2, 5,30,44,12,14,40,26		9,11
48″	2,56,41,45,19,39,48,24,29,20		12,55, 4,40	
		2, 5,30,43,59,19,35,46		9,11
50″	2,56,43,50,50,23,47,44, 5, 6		12,55,13,51	
		2, 5,30,43,46,24,21,55		9,11
52″	2,56,45,56,21, 7,34, 8,27, 1		12,55,23, 2	
		2, 5,30,43,33,28,58,53		9,11
54″	2,56,48, 1,51,51, 7,37,25,54		12,55,32,13	
		2, 5,30,43,20,33,26,40		9,11
56″	2,56,50, 7,22,34,28,10,52,34		12,55,41,24	
		2, 5,30,43, 7,37,45,16		9,11
58″	2,56,52,12,53,17,35,48,37,50		12,55,50,35	
		2, 5,30,42,54,41,54,41		
60″	2,56,54,18,24, 0,30,30,32,31			
exact	2,56,54,18,24, 0,30,31, 0, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°49′ 0″	2,56,54,18,24, 0,30,31, 0, 5			
		2, 5,30,42,41,45,57,57		
2″	2,56,56,23,54,43,12,16,58, 2		12,56, 8,44	
		2, 5,30,42,28,49,49,13		9,11
4″	2,56,58,29,25,25,41, 6,47,15		12,56,17,55	
		2, 5,30,42,15,53,31,18		9,11
6″	2,57, 0,34,56, 7,57, 0,18,33		12,56,27, 6	
		2, 5,30,42, 2,57, 4,12		9,11
8″	2,57, 2,40,26,49,59,57,22,45		12,56,36,17	
		2, 5,30,41,50, 0,27,55		9,11
10″	2,57, 4,45,57,31,49,57,50,40		12,56,45,28	
		2, 5,30,41,37, 3,42,27		9,11
12″	2,57, 6,51,28,13,27, 1,33, 7		12,56,54,39	
		2, 5,30,41,24, 6,47,48		9,11
14″	2,57, 8,56,58,54,51, 8,20,55		12,57, 3,50	
		2, 5,30,41,11, 9,43,58		9,11
16″	2,57,11, 2,29,36, 2,18, 4,53		12,57,13, 1	
		2, 5,30,40,58,12,30,57		9,11
18″	2,57,13, 8, 0,17, 0,30,35,50		12,57,22,12	
		2, 5,30,40,45,15, 8,45		9,11
20″	2,57,15,13,30,57,45,45,44,35		12,57,31,23	
		2, 5,30,40,32,17,37,22		9,11
22″	2,57,17,19, 1,38,18, 3,21,57		12,57,40,34	
		2, 5,30,40,19,19,56,48		9,11
24″	2,57,19,24,32,18,37,23,18,45		12,57,49,45	
		2, 5,30,40, 6,22, 7, 3		9,11
26″	2,57,21,30, 2,58,43,45,25,48		12,57,58,56	
		2, 5,30,39,53,24, 8, 7		9,11
28″	2,57,23,35,33,38,37, 9,33,55		12,58, 8, 7	
		2, 5,30,39,40,26, 0, 0		9,11
30″	2,57,25,41, 4,18,17,35,33,55		12,58,17,18	
		2, 5,30,39,27,27,42,42		9,11
32″	2,57,27,46,34,57,45, 3,16,37		12,58,26,29	
		2, 5,30,39,14,29,16,13		9,11
34″	2,57,29,52, 5,36,59,32,32,50		12,58,35,40	
		2, 5,30,39, 1,30,40,33		9,11
36″	2,57,31,57,36,16, 1, 3,13,23		12,58,44,51	
		2, 5,30,38,48,31,55,42		9,11
38″	2,57,34, 3, 6,54,49,35, 9, 5		12,58,54, 2	
		2, 5,30,38,35,33, 1,40		9,11
40″	2,57,36, 8,37,33,25, 8,10,45		12,59, 3,13	
		2, 5,30,38,22,33,58,27		9,11
42″	2,57,38,14, 8,11,47,42, 9,12		12,59,12,24	
		2, 5,30,38, 9,34,46, 3		9,11
44″	2,57,40,19,38,49,57,16,55,15		12,59,21,35	
		2, 5,30,37,56,35,24,28		9,11
46″	2,57,42,25, 9,27,53,52,19,43		12,59,30,46	
		2, 5,30,37,43,35,53,42		9,11
48″	2,57,44,30,40, 5,37,28,13,25		12,59,39,57	
		2, 5,30,37,30,36,13,45		9,11
50″	2,57,46,36,10,43, 8, 4,27,10		12,59,49, 8	
		2, 5,30,37,17,36,24,37		9,11
52″	2,57,48,41,41,20,25,40,51,47		12,59,58,19	
		2, 5,30,37, 4,36,26,18		9,11
54″	2,57,50,47,11,57,30,17,18, 5		13, 0, 7,30	
		2, 5,30,36,51,36,18,48		9,11
56″	2,57,52,52,42,34,21,53,36,53		13, 0,16,41	
		2, 5,30,36,38,36, 2, 7		9,11
58″	2,57,54,58,13,11, 0,29,39, 0		13, 0,25,52	
		2, 5,30,36,25,35,36,15		
60″	2,57,57, 3,43,47,26, 5,15,15			
exact	2,57,57, 3,43,47,26, 5,44,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°50′ 0″	2,57,57, 3,43,47,26, 5,44,45			
		2, 5,30,36,12,35, 4,23		
2″	2,57,59, 9,14,23,38,40,49, 8		13, 0,44, 1	
		2, 5,30,35,59,34,20,22		9,11
4″	2,58, 1,14,44,59,38,15, 9,30		13, 0,53,12	
		2, 5,30,35,46,33,27,10		9,11
6″	2,58, 3,20,15,35,24,48,36,40		13, 1, 2,23	
		2, 5,30,35,33,32,24,47		9,11
8″	2,58, 5,25,46,10,58,21, 1,27		13, 1,11,34	
		2, 5,30,35,20,31,13,13		9,11
10″	2,58, 7,31,16,46,18,52,14,40		13, 1,20,45	
		2, 5,30,35, 7,29,52,28		9,11
12″	2,58, 9,36,47,21,26,22, 7, 8		13, 1,29,56	
		2, 5,30,34,54,28,22,32		9,11
14″	2,58,11,42,17,56,20,50,29,40		13, 1,39, 7	
		2, 5,30,34,41,26,43,25		9,11
16″	2,58,13,47,48,31, 2,17,13, 5		13, 1,48,18	
		2, 5,30,34,28,24,55, 7		9,11
18″	2,58,15,53,19, 5,30,42, 8,12		13, 1,57,29	
		2, 5,30,34,15,22,57,38		9,11
20″	2,58,17,58,49,39,46, 5, 5,50		13, 2, 6,40	
		2, 5,30,34, 2,20,50,58		9,11
22″	2,58,20, 4,20,13,48,25,56,48		13, 2,15,51	
		2, 5,30,33,49,18,35, 7		9,11
24″	2,58,22, 9,50,47,37,44,31,55		13, 2,25, 2	
		2, 5,30,33,36,16,10, 5		9,11
26″	2,58,24,15,21,21,14, 0,42, 0		13, 2,34,13	
		2, 5,30,33,23,13,35,52		9,11
28″	2,58,26,20,51,54,37,14,17,52		13, 2,43,24	
		2, 5,30,33,10,10,52,28		9,11
30″	2,58,28,26,22,27,47,25,10,20		13, 2,52,35	
		2, 5,30,32,57, 7,59,53		9,11
32″	2,58,30,31,53, 0,44,33,10,13		13, 3, 1,46	
		2, 5,30,32,44, 4,58, 7		9,11
34″	2,58,32,37,23,33,28,38, 8,20		13, 3,10,57	
		2, 5,30,32,31, 1,47,10		9,11
36″	2,58,34,42,54, 5,59,39,55,30		13, 3,20, 8	
		2, 5,30,32,17,58,27, 2		9,11
38″	2,58,36,48,24,38,17,38,22,32		13, 3,29,19	
		2, 5,30,32, 4,54,57,43		9,11
40″	2,58,38,53,55,10,22,33,20,15		13, 3,38,30	
		2, 5,30,31,51,51,19,13		9,11
42″	2,58,40,59,25,42,14,24,39,28		13, 3,47,41	
		2, 5,30,31,38,47,31,32		9,11
44″	2,58,43, 4,56,13,53,12,11, 0		13, 3,56,52	
		2, 5,30,31,25,43,34,40		9,11
46″	2,58,45,10,26,45,18,55,45,40		13, 4, 6, 3	
		2, 5,30,31,12,39,28,37		9,11
48″	2,58,47,15,57,16,31,35,14,17		13, 4,15,14	
		2, 5,30,30,59,35,13,23		9,11
50″	2,58,49,21,27,47,31,10,27,40		13, 4,24,25	
		2, 5,30,30,46,30,48,58		9,11
52″	2,58,51,26,58,18,17,41,16,38		13, 4,33,36	
		2, 5,30,30,33,26,15,22		9,11
54″	2,58,53,32,28,48,51, 7,32, 0		13, 4,42,47	
		2, 5,30,30,20,21,32,35		9,11
56″	2,58,55,37,59,19,11,29, 4,35		13, 4,51,58	
		2, 5,30,30, 7,16,40,37		9,11
58″	2,58,57,43,29,49,18,45,45,12		13, 5, 1, 9	
		2, 5,30,29,54,11,39,28		
60″	2,58,59,49, 0,19,12,57,24,40			
exact	2,58,59,49, 0,19,12,57,57,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°51′ 0″	2,58,59,49, 0,19,12,57,57,49			
		2, 5,30,29,41, 6,32,35		
2″	2,59, 1,54,30,48,54, 4,30,24		13, 5,19,17	
		2, 5,30,29,28, 1,13,18		9,11
4″	2,59, 4, 0, 1,18,22, 5,43,42		13, 5,28,28	
		2, 5,30,29,14,55,44,50		9,11
6″	2,59, 6, 5,31,47,37, 1,28,32		13, 5,37,39	
		2, 5,30,29, 1,50, 7,11		9,11
8″	2,59, 8,11, 2,16,38,51,35,43		13, 5,46,50	
		2, 5,30,28,48,44,20,21		9,11
10″	2,59,10,16,32,45,27,35,56, 4		13, 5,56, 1	
		2, 5,30,28,35,38,24,20		9,11
12″	2,59,12,22, 3,14, 3,14,20,24		13, 6, 5,12	
		2, 5,30,28,22,32,19, 8		9,11
14″	2,59,14,27,33,42,25,46,39,32		13, 6,14,23	
		2, 5,30,28, 9,26, 4,45		9,11
16″	2,59,16,33, 4,10,35,12,44,17		13, 6,23,34	
		2, 5,30,27,56,19,41,11		9,11
18″	2,59,18,38,34,38,31,32,25,28		13, 6,32,45	
		2, 5,30,27,43,13, 8,26		9,11
20″	2,59,20,44, 5, 6,14,45,33,54		13, 6,41,56	
		2, 5,30,27,30, 6,26,30		9,11
22″	2,59,22,49,35,33,44,52, 0,24		13, 6,51, 7	
		2, 5,30,27,16,59,35,23		9,11
24″	2,59,24,55, 6, 1, 1,51,35,47		13, 7, 0,18	
		2, 5,30,27, 3,52,35, 5		9,11
26″	2,59,27, 0,36,28, 5,44,10,52		13, 7, 9,29	
		2, 5,30,26,50,45,25,36		9,11
28″	2,59,29, 6, 6,54,56,29,36,28		13, 7,18,40	
		2, 5,30,26,37,38, 6,56		9,11
30″	2,59,31,11,37,21,34, 7,43,24		13, 7,27,51	
		2, 5,30,26,24,30,39, 5		9,11
32″	2,59,33,17, 7,47,58,38,22,29		13, 7,37, 2	
		2, 5,30,26,11,23, 2, 3		9,11
34″	2,59,35,22,38,14,10, 1,24,32		13, 7,46,13	
		2, 5,30,25,58,15,15,50		9,11
36″	2,59,37,28, 8,40, 8,16,40,22		13, 7,55,24	
		2, 5,30,25,45, 7,20,26		9,11
38″	2,59,39,33,39, 5,53,24, 0,48		13, 8, 4,35	
		2, 5,30,25,31,59,15,51		9,11
40″	2,59,41,39, 9,31,25,23,16,39		13, 8,13,46	
		2, 5,30,25,18,51, 2, 5		9,11
42″	2,59,43,44,39,56,44,14,18,44		13, 8,22,57	
		2, 5,30,25, 5,42,39, 8		9,11
44″	2,59,45,50,10,21,49,56,57,52		13, 8,32, 8	
		2, 5,30,24,52,34, 7, 0		9,11
46″	2,59,47,55,40,46,42,31, 4,52		13, 8,41,19	
		2, 5,30,24,39,25,25,41		9,11
48″	2,59,50, 1,11,11,21,56,30,33		13, 8,50,30	
		2, 5,30,24,26,16,35,11		9,11
50″	2,59,52, 6,41,35,48,13, 5,44		13, 8,59,41	
		2, 5,30,24,13, 7,35,30		9,11
52″	2,59,54,12,12, 0, 1,20,41,14		13, 9, 8,52	
		2, 5,30,23,59,58,26,38		9,11
54″	2,59,56,17,42,24, 1,19, 7,52		13, 9,18, 3	
		2, 5,30,23,46,49, 8,35		9,11
56″	2,59,58,23,12,47,48, 8,16,27		13, 9,27,14	
		2, 5,30,23,33,39,41,21		9,11
58″	3, 0, 0,28,43,11,21,47,57,48		13, 9,36,25	
		2, 5,30,23,20,30, 4,56		
60″	3, 0, 2,34,13,34,42,18, 2,44			
exact	3, 0, 2,34,13,34,42,18,34, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°52′ 0″	3, 0, 2,34,13,34,42,18,34, 6			
		2, 5,30,23, 7,20,22,41		
2″	3, 0, 4,39,43,57,49,38,56,47		13, 9,54,33	
		2, 5,30,22,54,10,28, 8		9,11
4″	3, 0, 6,45,14,20,43,49,24,55		13,10, 3,44	
		2, 5,30,22,41, 0,24,24		9,11
6″	3, 0, 8,50,44,43,24,49,49,19		13,10,12,55	
		2, 5,30,22,27,50,11,29		9,11
8″	3, 0,10,56,15, 5,52,40, 0,48		13,10,22, 6	
		2, 5,30,22,14,39,49,23		9,11
10″	3, 0,13, 1,45,28, 7,19,50,11		13,10,31,17	
		2, 5,30,22, 1,29,18, 6		9,11
12″	3, 0,15, 7,15,50, 8,49, 8,17		13,10,40,28	
		2, 5,30,21,48,18,37,38		9,11
14″	3, 0,17,12,46,11,57, 7,45,55		13,10,49,39	
		2, 5,30,21,35, 7,47,59		9,11
16″	3, 0,19,18,16,33,32,15,33,54		13,10,58,50	
		2, 5,30,21,21,56,49, 9		9,11
18″	3, 0,21,23,46,54,54,12,23, 3		13,11, 8, 1	
		2, 5,30,21, 8,45,41, 8		9,11
20″	3, 0,23,29,17,16, 2,58, 4,11		13,11,17,12	
		2, 5,30,20,55,34,23,56		9,11
22″	3, 0,25,34,47,36,58,32,28, 7		13,11,26,23	
		2, 5,30,20,42,22,57,33		9,11
24″	3, 0,27,40,17,57,40,55,25,40		13,11,35,34	
		2, 5,30,20,29,11,21,59		9,11
26″	3, 0,29,45,48,18,10, 6,47,39		13,11,44,45	
		2, 5,30,20,15,59,37,14		9,11
28″	3, 0,31,51,18,38,26, 6,24,53		13,11,53,56	
		2, 5,30,20, 2,47,43,18		9,11
30″	3, 0,33,56,48,58,28,54, 8,11		13,12, 3, 7	
		2, 5,30,19,49,35,40,11		9,11
32″	3, 0,36, 2,19,18,18,29,48,22		13,12,12,18	
		2, 5,30,19,36,23,27,53		9,11
34″	3, 0,38, 7,49,37,54,53,16,15		13,12,21,29	
		2, 5,30,19,23,11, 6,24		9,11
36″	3, 0,40,13,19,57,18, 4,22,39		13,12,30,40	
		2, 5,30,19, 9,58,35,44		9,11
38″	3, 0,42,18,50,16,28, 2,58,23		13,12,39,51	
		2, 5,30,18,56,45,55,53		9,11
40″	3, 0,44,24,20,35,24,48,54,16		13,12,49, 2	
		2, 5,30,18,43,33, 6,51		9,11
42″	3, 0,46,29,50,54, 8,22, 1, 7		13,12,58,13	
		2, 5,30,18,30,20, 8,38		9,11
44″	3, 0,48,35,21,12,38,42, 9,45		13,13, 7,24	
		2, 5,30,18,17, 7, 1,14		9,11
46″	3, 0,50,40,51,30,55,49,10,59		13,13,16,35	
		2, 5,30,18, 3,53,44,39		9,11
48″	3, 0,52,46,21,48,59,42,55,38		13,13,25,46	
		2, 5,30,17,50,40,18,53		9,11
50″	3, 0,54,51,52, 6,50,23,14,31		13,13,34,57	
		2, 5,30,17,37,26,43,56		9,11
52″	3, 0,56,57,22,24,27,49,58,27		13,13,44, 8	
		2, 5,30,17,24,12,59,48		9,11
54″	3, 0,59, 2,52,41,52, 2,58,15		13,13,53,19	
		2, 5,30,17,10,59, 6,29		9,11
56″	3, 1, 1, 8,22,59, 3, 2, 4,44		13,14, 2,30	
		2, 5,30,16,57,45, 3,59		9,11
58″	3, 1, 3,13,53,16, 0,47, 8,43		13,14,11,41	
		2, 5,30,16,44,30,52,18		
60″	3, 1, 5,19,23,32,45,18, 1, 1			
exact	3, 1, 5,19,23,32,45,18,31,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°53′ 0″	3, 1, 5,19,23,32,45,18,31,59	2, 5,30,16,31,16,34,47		
2″	3, 1, 7,24,53,49,16,35, 6,46	2, 5,30,16,18, 2, 4,58	13,14,29,49	9,11
4″	3, 1, 9,30,24, 5,34,37,11,44	2, 5,30,16, 4,47,25,58	13,14,39, 0	9,11
6″	3, 1,11,35,54,21,39,24,37,42	2, 5,30,15,51,32,37,47	13,14,48,11	9,11
8″	3, 1,13,41,24,37,30,57,15,29	2, 5,30,15,38,17,40,25	13,14,57,22	9,11
10″	3, 1,15,46,54,53, 9,14,55,54	2, 5,30,15,25, 2,33,52	13,15, 6,33	9,11
12″	3, 1,17,52,25, 8,34,17,29,46	2, 5,30,15,11,47,18, 8	13,15,15,44	9,11
14″	3, 1,19,57,55,23,46, 4,47,54	2, 5,30,14,58,31,53,13	13,15,24,55	9,11
16″	3, 1,22, 3,25,38,44,36,41, 7	2, 5,30,14,45,16,19, 7	13,15,34, 6	9,11
18″	3, 1,24, 8,55,53,29,53, 0,14	2, 5,30,14,32, 0,35,50	13,15,43,17	9,11
20″	3, 1,26,14,26, 8, 1,53,36, 4	2, 5,30,14,18,44,43,22	13,15,52,28	9,11
22″	3, 1,28,19,56,22,20,38,19,26	2, 5,30,14, 5,28,41,43	13,16, 1,39	9,11
24″	3, 1,30,25,26,36,26, 7, 1, 9	2, 5,30,13,52,12,30,53	13,16,10,50	9,11
26″	3, 1,32,30,56,50,18,19,32, 2	2, 5,30,13,38,56,10,52	13,16,20, 1	9,11
28″	3, 1,34,36,27, 3,57,15,42,54	2, 5,30,13,25,39,41,40	13,16,29,12	9,11
30″	3, 1,36,41,57,17,22,55,24,34	2, 5,30,13,12,23, 3,17	13,16,38,23	9,11
32″	3, 1,38,47,27,30,35,18,27,51	2, 5,30,12,59, 6,15,43	13,16,47,34	9,11
34″	3, 1,40,52,57,43,34,24,43,34	2, 5,30,12,45,49,18,58	13,16,56,45	9,11
36″	3, 1,42,58,27,56,20,14, 2,32	2, 5,30,12,32,32,13, 2	13,17, 5,56	9,11
38″	3, 1,45, 3,58, 8,52,46,15,34	2, 5,30,12,19,14,57,55	13,17,15, 7	9,11
40″	3, 1,47, 9,28,21,12, 1,13,29	2, 5,30,12, 5,57,33,37	13,17,24,18	9,11
42″	3, 1,49,14,58,33,17,58,47, 6	2, 5,30,11,52,40, 0, 8	13,17,33,29	9,11
44″	3, 1,51,20,28,45,10,38,47,14	2, 5,30,11,39,22,17,28	13,17,42,40	9,11
46″	3, 1,53,25,58,56,50, 1, 4,42	2, 5,30,11,26, 4,25,37	13,17,51,51	9,11
48″	3, 1,55,31,29, 8,16, 5,30,19	2, 5,30,11,12,46,24,35	13,18, 1, 2	9,11
50″	3, 1,57,36,59,19,28,51,54,54	2, 5,30,10,59,28,14,22	13,18,10,13	9,11
52″	3, 1,59,42,29,30,28,20, 9,16	2, 5,30,10,46, 9,54,58	13,18,19,24	9,11
54″	3, 2, 1,47,59,41,14,30, 4,14	2, 5,30,10,32,51,26,23	13,18,28,35	9,11
56″	3, 2, 3,53,29,51,47,21,30,37	2, 5,30,10,19,32,48,37	13,18,37,46	9,11
58″	3, 2, 5,59, 0, 2, 6,54,19,14	2, 5,30,10, 6,14, 1,40	13,18,46,57	
60″	3, 2, 8, 4,30,12,13, 8,20,54			
exact	3, 2, 8, 4,30,12,13, 8,53,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°54′ 0″	3, 2, 8, 4,30,12,13, 8,53,28			
		2, 5,30, 9,52,55, 9, 1		
2″	3, 2,10,10, 0,22, 6, 4, 2,29		13,19, 5, 5	
		2, 5,30, 9,39,36, 3,56		9,11
4″	3, 2,12,15,30,31,45,40, 6,25		13,19,14,16	
		2, 5,30, 9,26,16,49,40		9,11
6″	3, 2,14,21, 0,41,11,56,56, 5		13,19,23,27	
		2, 5,30, 9,12,57,26,13		9,11
8″	3, 2,16,26,30,50,24,54,22,18		13,19,32,38	
		2, 5,30, 8,59,37,53,35		9,11
10″	3, 2,18,32, 0,59,24,32,15,53		13,19,41,49	
		2, 5,30, 8,46,18,11,46		9,11
12″	3, 2,20,37,31, 8,10,50,27,39		13,19,51, 0	
		2, 5,30, 8,32,58,20,46		9,11
14″	3, 2,22,43, 1,16,43,48,48,25		13,20, 0,11	
		2, 5,30, 8,19,38,20,35		9,11
16″	3, 2,24,48,31,25, 3,27, 9, 0		13,20, 9,22	
		2, 5,30, 8, 6,18,11,13		9,11
18″	3, 2,26,54, 1,33, 9,45,20,13		13,20,18,33	
		2, 5,30, 7,52,57,52,40		9,11
20″	3, 2,28,59,31,41, 2,43,12,53		13,20,27,44	
		2, 5,30, 7,39,37,24,56		9,11
22″	3, 2,31, 5, 1,48,42,20,37,49		13,20,36,55	
		2, 5,30, 7,26,16,48, 1		9,11
24″	3, 2,33,10,31,56, 8,37,25,50		13,20,46, 6	
		2, 5,30, 7,12,56, 1,55		9,11
26″	3, 2,35,16, 2, 3,21,33,27,45		13,20,55,17	
		2, 5,30, 6,59,35, 6,38		9,11
28″	3, 2,37,21,32,10,21, 8,34,23		13,21, 4,28	
		2, 5,30, 6,46,14, 2,10		9,11
30″	3, 2,39,27, 2,17, 7,22,36,33		13,21,13,39	
		2, 5,30, 6,32,52,48,31		9,11
32″	3, 2,41,32,32,23,40,15,25, 4		13,21,22,50	
		2, 5,30, 6,19,31,25,41		9,11
34″	3, 2,43,38, 2,29,59,46,50,45		13,21,32, 1	
		2, 5,30, 6, 6, 9,53,40		9,11
36″	3, 2,45,43,32,36, 5,56,44,25		13,21,41,12	
		2, 5,30, 5,52,48,12,28		9,11
38″	3, 2,47,49, 2,41,58,44,56,53		13,21,50,23	
		2, 5,30, 5,39,26,22, 5		9,11
40″	3, 2,49,54,32,47,38,11,18,58		13,21,59,34	
		2, 5,30, 5,26, 4,22,31		9,11
42″	3, 2,52, 0, 2,53, 4,15,41,29		13,22, 8,45	
		2, 5,30, 5,12,42,13,46		9,11
44″	3, 2,54, 5,32,58,16,57,55,15		13,22,17,56	
		2, 5,30, 4,59,19,55,50		9,11
46″	3, 2,56,11, 3, 3,16,17,51, 5		13,22,27, 7	
		2, 5,30, 4,45,57,28,43		9,11
48″	3, 2,58,16,33, 8, 2,15,19,48		13,22,36,18	
		2, 5,30, 4,32,34,52,25		9,11
50″	3, 3, 0,22, 3,12,34,50,12,13		13,22,45,29	
		2, 5,30, 4,19,12, 6,56		9,11
52″	3, 3, 2,27,33,16,54, 2,19, 9		13,22,54,40	
		2, 5,30, 4, 5,49,12,16		9,11
54″	3, 3, 4,33, 3,20,59,51,31,25		13,23, 3,51	
		2, 5,30, 3,52,26, 8,25		9,11
56″	3, 3, 6,38,33,24,52,17,39,50		13,23,13, 2	
		2, 5,30, 3,39, 2,55,23		9,11
58″	3, 3, 8,44, 3,28,31,20,35,13		13,23,22,13	
		2, 5,30, 3,25,39,33,10		
60″	3, 3,10,49,33,31,57, 0, 8,23			
exact	3, 3,10,49,33,31,57, 0,44,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°55′ 0″	3, 3,10,49,33,31,57, 0,44,11			
		2, 5,30, 3,12,16, 5,30		
2″	3, 3,12,55, 3,35, 9,16,49,41		13,23,40,20	
		2, 5,30, 2,58,52,25,10		9,11
4″	3, 3,15, 0,33,38, 8, 9,14,51		13,23,49,31	
		2, 5,30, 2,45,28,35,39		9,11
6″	3, 3,17, 6, 3,40,53,37,50,30		13,23,58,42	
		2, 5,30, 2,32, 4,36,57		9,11
8″	3, 3,19,11,33,43,25,42,27,27		13,24, 7,53	
		2, 5,30, 2,18,40,29, 4		9,11
10″	3, 3,21,17, 3,45,44,22,56,31		13,24,17, 4	
		2, 5,30, 2, 5,16,12, 0		9,11
12″	3, 3,23,22,33,47,49,39, 8,31		13,24,26,15	
		2, 5,30, 1,51,51,45,45		9,11
14″	3, 3,25,28, 3,49,41,30,54,16		13,24,35,26	
		2, 5,30, 1,38,27,10,19		9,11
16″	3, 3,27,33,33,51,19,58, 4,35		13,24,44,37	
		2, 5,30, 1,25, 2,25,42		9,11
18″	3, 3,29,39, 3,52,45, 0,30,17		13,24,53,48	
		2, 5,30, 1,11,37,31,54		9,11
20″	3, 3,31,44,33,53,56,38, 2,11		13,25, 2,59	
		2, 5,30, 0,58,12,28,55		9,11
22″	3, 3,33,50, 3,54,54,50,31, 6		13,25,12,10	
		2, 5,30, 0,44,47,16,45		9,11
24″	3, 3,35,55,33,55,39,37,47,51		13,25,21,21	
		2, 5,30, 0,31,21,55,24		9,11
26″	3, 3,38, 1, 3,56,10,59,43,15		13,25,30,32	
		2, 5,30, 0,17,56,24,52		9,11
28″	3, 3,40, 6,33,56,28,56, 8, 7		13,25,39,43	
		2, 5,30, 0, 4,30,45, 9		9,11
30″	3, 3,42,12, 3,56,33,26,53,16		13,25,48,54	
		2, 5,29,59,51, 4,56,15		9,11
32″	3, 3,44,17,33,56,24,31,49,31		13,25,58, 5	
		2, 5,29,59,37,38,58,10		9,11
34″	3, 3,46,23, 3,56, 2,10,47,41		13,26, 7,16	
		2, 5,29,59,24,12,50,54		9,11
36″	3, 3,48,28,33,55,26,23,38,35		13,26,16,27	
		2, 5,29,59,10,46,34,27		9,11
38″	3, 3,50,34, 3,54,37,10,13, 2		13,26,25,38	
		2, 5,29,58,57,20, 8,49		9,11
40″	3, 3,52,39,33,53,34,30,21,51		13,26,34,49	
		2, 5,29,58,43,53,34, 0		9,11
42″	3, 3,54,45, 3,52,18,23,55,51		13,26,44, 0	
		2, 5,29,58,30,26,50, 0		9,11
44″	3, 3,56,50,33,50,48,50,45,51		13,26,53,11	
		2, 5,29,58,16,59,56,49		9,11
46″	3, 3,58,56, 3,49, 5,50,42,40		13,27, 2,22	
		2, 5,29,58, 3,32,54,27		9,11
48″	3, 4, 1, 1,33,47, 9,23,37, 7		13,27,11,33	
		2, 5,29,57,50, 5,42,54		9,11
50″	3, 4, 3, 7, 3,44,59,29,20, 1		13,27,20,44	
		2, 5,29,57,36,38,22,10		9,11
52″	3, 4, 5,12,33,42,36, 7,42,11		13,27,29,55	
		2, 5,29,57,23,10,52,15		9,11
54″	3, 4, 7,18, 3,39,59,18,34,26		13,27,39, 6	
		2, 5,29,57, 9,43,13, 9		9,11
56″	3, 4, 9,23,33,37, 9, 1,47,35		13,27,48,17	
		2, 5,29,56,56,15,24,52		9,11
58″	3, 4,11,29, 3,34, 5,17,12,27		13,27,57,28	
		2, 5,29,56,42,47,27,24		
60″	3, 4,13,34,33,30,48, 4,39,51			
exact	3, 4,13,34,33,30,48, 5,13,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°56′ 0″	3, 4,13,34,33,30,48, 5,13,26			
		2, 5,29,56,29,19,24,21		
2″	3, 4,15,40, 3,27,17,24,37,47		13,28,15,35	
		2, 5,29,56,15,51, 8,46		9,11
4″	3, 4,17,45,33,23,33,15,46,33		13,28,24,46	
		2, 5,29,56, 2,22,44, 0		9,11
6″	3, 4,19,51, 3,19,35,38,30,33		13,28,33,57	
		2, 5,29,55,48,54,10, 3		9,11
8″	3, 4,21,56,33,15,24,32,40,36		13,28,43, 8	
		2, 5,29,55,35,25,26,55		9,11
10″	3, 4,24, 2, 3,10,59,58, 7,31		13,28,52,19	
		2, 5,29,55,21,56,34,36		9,11
12″	3, 4,26, 7,33, 6,21,54,42, 7		13,29, 1,30	
		2, 5,29,55, 8,27,33, 6		9,11
14″	3, 4,28,13, 3, 1,30,22,15,13		13,29,10,41	
		2, 5,29,54,54,58,22,25		9,11
16″	3, 4,30,18,32,56,25,20,37,38		13,29,19,52	
		2, 5,29,54,41,29, 2,33		9,11
18″	3, 4,32,24, 2,51, 6,49,40,11		13,29,29, 3	
		2, 5,29,54,27,59,33,30		9,11
20″	3, 4,34,29,32,45,34,49,13,41		13,29,38,14	
		2, 5,29,54,14,29,55,16		9,11
22″	3, 4,36,35, 2,39,49,19, 8,57		13,29,47,25	
		2, 5,29,54, 1, 0, 7,51		9,11
24″	3, 4,38,40,32,33,50,19,16,48		13,29,56,36	
		2, 5,29,53,47,30,11,15		9,11
26″	3, 4,40,46, 2,27,37,49,28, 3		13,30, 5,47	
		2, 5,29,53,34, 0, 5,28		9,11
28″	3, 4,42,51,32,21,11,49,33,31		13,30,14,58	
		2, 5,29,53,20,29,50,30		9,11
30″	3, 4,44,57, 2,14,32,19,24, 1		13,30,24, 9	
		2, 5,29,53, 6,59,26,21		9,11
32″	3, 4,47, 2,32, 7,39,18,50,22		13,30,33,20	
		2, 5,29,52,53,28,53, 1		9,11
34″	3, 4,49, 8, 2, 0,32,47,43,23		13,30,42,31	
		2, 5,29,52,39,58,10,30		9,11
36″	3, 4,51,13,31,53,12,45,53,53		13,30,51,42	
		2, 5,29,52,26,27,18,48		9,11
38″	3, 4,53,19, 1,45,39,13,12,41		13,31, 0,53	
		2, 5,29,52,12,56,17,55		9,11
40″	3, 4,55,24,31,37,52, 9,30,36		13,31,10, 4	
		2, 5,29,51,59,25, 7,51		9,11
42″	3, 4,57,30, 1,29,51,34,38,27		13,31,19,15	
		2, 5,29,51,45,53,48,36		9,11
44″	3, 4,59,35,31,21,37,28,27, 3		13,31,28,26	
		2, 5,29,51,32,22,20,10		9,11
46″	3, 5, 1,41, 1,13, 9,50,47,13		13,31,37,37	
		2, 5,29,51,18,50,42,33		9,11
48″	3, 5, 3,46,31, 4,28,41,29,46		13,31,46,48	
		2, 5,29,51, 5,18,55,45		9,11
50″	3, 5, 5,52, 0,55,34, 0,25,31		13,31,55,59	
		2, 5,29,50,51,46,59,46		9,11
52″	3, 5, 7,57,30,46,25,47,25,17		13,32, 5,10	
		2, 5,29,50,38,14,54,36		9,11
54″	3, 5,10, 3, 0,37, 4, 2,19,53		13,32,14,21	
		2, 5,29,50,24,42,40,15		9,11
56″	3, 5,12, 8,30,27,28,45, 0, 8		13,32,23,32	
		2, 5,29,50,11,10,16,43		9,11
58″	3, 5,14,14, 0,17,39,55,16,51		13,32,32,43	
		2, 5,29,49,57,37,44, 0		
60″	3, 5,16,19,30, 7,37,33, 0,51			
exact	3, 5,16,19,30, 7,37,33,34, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°57′ 0″	3, 5,16,19,30, 7,37,33,34, 8			
		2, 5,29,49,44, 5, 5,42		
2″	3, 5,18,24,59,57,21,38,39,50		13,32,50,50	
		2, 5,29,49,30,32,14,52		9,10
4″	3, 5,20,30,29,46,52,10,54,42		13,33, 0, 0	
		2, 5,29,49,16,59,14,52		9,10
6″	3, 5,22,35,59,36, 9,10, 9,34		13,33, 9,10	
		2, 5,29,49, 3,26, 5,42		9,10
8″	3, 5,24,41,29,25,12,36,15,16		13,33,18,20	
		2, 5,29,48,49,52,47,22		9,10
10″	3, 5,26,46,59,14, 2,29, 2,38		13,33,27,30	
		2, 5,29,48,36,19,19,52		9,10
12″	3, 5,28,52,29, 2,38,48,22,30		13,33,36,40	
		2, 5,29,48,22,45,43,12		9,10
14″	3, 5,30,57,58,51, 1,34, 5,42		13,33,45,50	
		2, 5,29,48, 9,11,57,22		9,10
16″	3, 5,33, 3,28,39,10,46, 3, 4		13,33,55, 0	
		2, 5,29,47,55,38, 2,22		9,10
18″	3, 5,35, 8,58,27, 6,24, 5,26		13,34, 4,10	
		2, 5,29,47,42, 3,58,12		9,10
20″	3, 5,37,14,28,14,48,28, 3,38		13,34,13,20	
		2, 5,29,47,28,29,44,52		9,10
22″	3, 5,39,19,58, 2,16,57,48,30		13,34,22,30	
		2, 5,29,47,14,55,22,22		9,10
24″	3, 5,41,25,27,49,31,53,10,52		13,34,31,40	
		2, 5,29,47, 1,20,50,42		9,10
26″	3, 5,43,30,57,36,33,14, 1,34		13,34,40,50	
		2, 5,29,46,47,46, 9,52		9,10
28″	3, 5,45,36,27,23,21, 0,11,26		13,34,50, 0	
		2, 5,29,46,34,11,19,52		9,10
30″	3, 5,47,41,57, 9,55,11,31,18		13,34,59,10	
		2, 5,29,46,20,36,20,42		9,10
32″	3, 5,49,47,26,56,15,47,52, 0		13,35, 8,20	
		2, 5,29,46, 7, 1,12,22		9,10
34″	3, 5,51,52,56,42,22,49, 4,22		13,35,17,30	
		2, 5,29,45,53,25,54,52		9,10
36″	3, 5,53,58,26,28,16,14,59,14		13,35,26,40	
		2, 5,29,45,39,50,28,12		9,10
38″	3, 5,56, 3,56,13,56, 5,27,26		13,35,35,50	
		2, 5,29,45,26,14,52,22		9,10
40″	3, 5,58, 9,25,59,22,20,19,48		13,35,45, 0	
		2, 5,29,45,12,39, 7,22		9,10
42″	3, 6, 0,14,55,44,34,59,27,10		13,35,54,10	
		2, 5,29,44,59, 3,13,12		9,10
44″	3, 6, 2,20,25,29,34, 2,40,22		13,36, 3,20	
		2, 5,29,44,45,27, 9,52		9,10
46″	3, 6, 4,25,55,14,19,29,50,14		13,36,12,30	
		2, 5,29,44,31,50,57,22		9,10
48″	3, 6, 6,31,24,58,51,20,47,36		13,36,21,40	
		2, 5,29,44,18,14,35,42		9,10
50″	3, 6, 8,36,54,43, 9,35,23,18		13,36,30,50	
		2, 5,29,44, 4,38, 4,52		9,10
52″	3, 6,10,42,24,27,14,13,28,10		13,36,40, 0	
		2, 5,29,43,51, 1,24,52		9,10
54″	3, 6,12,47,54,11, 5,14,53, 2		13,36,49,10	
		2, 5,29,43,37,24,35,42		9,10
56″	3, 6,14,53,23,54,42,39,28,44		13,36,58,20	
		2, 5,29,43,23,47,37,22		9,10
58″	3, 6,16,58,53,38, 6,27, 6, 6		13,37, 7,30	
		2, 5,29,43,10,10,29,52		
60″	3, 6,19, 4,23,21,16,37,35,58			
exact	3, 6,19, 4,23,21,16,37, 2,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°58′ 0″	3, 6,19, 4,23,21,16,37, 2,57			
		2, 5,29,42,56,33, 9,40		
2″	3, 6,21, 9,53, 4,13,10,12,37		13,37,26, 5	
		2, 5,29,42,42,55,43,35		9,10
4″	3, 6,23,15,22,46,56, 5,56,12		13,37,35,15	
		2, 5,29,42,29,18, 8,20		9,10
6″	3, 6,25,20,52,29,25,24, 4,32		13,37,44,25	
		2, 5,29,42,15,40,23,55		9,10
8″	3, 6,27,26,22,11,41, 4,28,27		13,37,53,35	
		2, 5,29,42, 2, 2,30,20		9,10
10″	3, 6,29,31,51,53,43, 6,58,47		13,38, 2,45	
		2, 5,29,41,48,24,27,35		9,10
12″	3, 6,31,37,21,35,31,31,26,22		13,38,11,55	
		2, 5,29,41,34,46,15,40		9,10
14″	3, 6,33,42,51,17, 6,17,42, 2		13,38,21, 5	
		2, 5,29,41,21, 7,54,35		9,10
16″	3, 6,35,48,20,58,27,25,36,37		13,38,30,15	
		2, 5,29,41, 7,29,24,20		9,10
18″	3, 6,37,53,50,39,34,55, 0,57		13,38,39,25	
		2, 5,29,40,53,50,44,55		9,10
20″	3, 6,39,59,20,20,28,45,45,52		13,38,48,35	
		2, 5,29,40,40,11,56,20		9,10
22″	3, 6,42, 4,50, 1, 8,57,42,12		13,38,57,45	
		2, 5,29,40,26,32,58,35		9,10
24″	3, 6,44,10,19,41,35,30,40,47		13,39, 6,55	
		2, 5,29,40,12,53,51,40		9,10
26″	3, 6,46,15,49,21,48,24,32,27		13,39,16, 5	
		2, 5,29,39,59,14,35,35		9,10
28″	3, 6,48,21,19, 1,47,39, 8, 2		13,39,25,15	
		2, 5,29,39,45,35,10,20		9,10
30″	3, 6,50,26,48,41,33,14,18,22		13,39,34,25	
		2, 5,29,39,31,55,35,55		9,10
32″	3, 6,52,32,18,21, 5, 9,54,17		13,39,43,35	
		2, 5,29,39,18,15,52,20		9,10
34″	3, 6,54,37,48, 0,23,25,46,37		13,39,52,45	
		2, 5,29,39, 4,35,59,35		9,10
36″	3, 6,56,43,17,39,28, 1,46,12		13,40, 1,55	
		2, 5,29,38,50,55,57,40		9,10
38″	3, 6,58,48,47,18,18,57,43,52		13,40,11, 5	
		2, 5,29,38,37,15,46,35		9,10
40″	3, 7, 0,54,16,56,56,13,30,27		13,40,20,15	
		2, 5,29,38,23,35,26,20		9,10
42″	3, 7, 2,59,46,35,19,48,56,47		13,40,29,25	
		2, 5,29,38, 9,54,56,55		9,10
44″	3, 7, 5, 5,16,13,29,43,53,42		13,40,38,35	
		2, 5,29,37,56,14,18,20		9,10
46″	3, 7, 7,10,45,51,25,58,12, 2		13,40,47,45	
		2, 5,29,37,42,33,30,35		9,10
48″	3, 7, 9,16,15,29, 8,31,42,37		13,40,56,55	
		2, 5,29,37,28,52,33,40		9,10
50″	3, 7,11,21,45, 6,37,24,16,17		13,41, 6, 5	
		2, 5,29,37,15,11,27,35		9,10
52″	3, 7,13,27,14,43,52,35,43,52		13,41,15,15	
		2, 5,29,37, 1,30,12,20		9,10
54″	3, 7,15,32,44,20,54, 5,56,12		13,41,24,25	
		2, 5,29,36,47,48,47,55		9,10
56″	3, 7,17,38,13,57,41,54,44, 7		13,41,33,35	
		2, 5,29,36,34, 7,14,20		9,10
58″	3, 7,19,43,43,34,16, 1,58,27		13,41,42,45	
		2, 5,29,36,20,25,31,35		
60″	3, 7,21,49,13,10,36,27,30, 2			
exact	3, 7,21,49,13,10,36,27, 0,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
2°59′ 0″	3, 7,21,49,13,10,36,27, 0,14			
		2, 5,29,36, 6,43,36,22		
2″	3, 7,23,54,42,46,43,10,36,36		13,42, 1,19	
		2, 5,29,35,53, 1,35, 3		9,10
4″	3, 7,26, 0,12,22,36,12,11,39		13,42,10,29	
		2, 5,29,35,39,19,24,34		9,10
6″	3, 7,28, 5,41,58,15,31,36,13		13,42,19,39	
		2, 5,29,35,25,37, 4,55		9,10
8″	3, 7,30,11,11,33,41, 8,41, 8		13,42,28,49	
		2, 5,29,35,11,54,36, 6		9,10
10″	3, 7,32,16,41, 8,53, 3,17,14		13,42,37,59	
		2, 5,29,34,58,11,58, 7		9,10
12″	3, 7,34,22,10,43,51,15,15,21		13,42,47, 9	
		2, 5,29,34,44,29,10,58		9,10
14″	3, 7,36,27,40,18,35,44,26,19		13,42,56,19	
		2, 5,29,34,30,46,14,39		9,10
16″	3, 7,38,33, 9,53, 6,30,40,58		13,43, 5,29	
		2, 5,29,34,17, 3, 9,10		9,10
18″	3, 7,40,38,39,27,23,33,50, 8		13,43,14,39	
		2, 5,29,34, 3,19,54,31		9,10
20″	3, 7,42,44, 9, 1,26,53,44,39		13,43,23,49	
		2, 5,29,33,49,36,30,42		9,10
22″	3, 7,44,49,38,35,16,30,15,21		13,43,32,59	
		2, 5,29,33,35,52,57,43		9,10
24″	3, 7,46,55, 8, 8,52,23,13, 4		13,43,42, 9	
		2, 5,29,33,22, 9,15,34		9,10
26″	3, 7,49, 0,37,42,14,32,28,38		13,43,51,19	
		2, 5,29,33, 8,25,24,15		9,10
28″	3, 7,51, 6, 7,15,22,57,52,53		13,44, 0,29	
		2, 5,29,32,54,41,23,46		9,10
30″	3, 7,53,11,36,48,17,39,16,39		13,44, 9,39	
		2, 5,29,32,40,57,14, 7		9,10
32″	3, 7,55,17, 6,20,58,36,30,46		13,44,18,49	
		2, 5,29,32,27,12,55,18		9,10
34″	3, 7,57,22,35,53,25,49,26, 4		13,44,27,59	
		2, 5,29,32,13,28,27,19		9,10
36″	3, 7,59,28, 5,25,39,17,53,23		13,44,37, 9	
		2, 5,29,31,59,43,50,10		9,10
38″	3, 8, 1,33,34,57,39, 1,43,33		13,44,46,19	
		2, 5,29,31,45,59, 3,51		9,10
40″	3, 8, 3,39, 4,29,25, 0,47,24		13,44,55,29	
		2, 5,29,31,32,14, 8,22		9,10
42″	3, 8, 5,44,34, 0,57,14,55,46		13,45, 4,39	
		2, 5,29,31,18,29, 3,43		9,10
44″	3, 8, 7,50, 3,32,15,43,59,29		13,45,13,49	
		2, 5,29,31, 4,43,49,54		9,10
46″	3, 8, 9,55,33, 3,20,27,49,23		13,45,22,59	
		2, 5,29,30,50,58,26,55		9,10
48″	3, 8,12, 1, 2,34,11,26,16,18		13,45,32, 9	
		2, 5,29,30,37,12,54,46		9,10
50″	3, 8,14, 6,32, 4,48,39,11, 4		13,45,41,19	
		2, 5,29,30,23,27,13,27		9,10
52″	3, 8,16,12, 1,35,12, 6,24,31		13,45,50,29	
		2, 5,29,30, 9,41,22,58		9,10
54″	3, 8,18,17,31, 5,21,47,47,29		13,45,59,39	
		2, 5,29,29,55,55,23,19		9,10
56″	3, 8,20,23, 0,35,17,43,10,48		13,46, 8,49	
		2, 5,29,29,42, 9,14,30		9,10
58″	3, 8,22,28,30, 4,59,52,25,18		13,46,17,59	
		2, 5,29,29,28,22,56,31		
60″	3, 8,24,33,59,34,28,15,21,49			
exact	3, 8,24,33,59,34,28,14,50, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3° 0′ 0″	3, 8,24,33,59,34,28,14,50, 5			
		2, 5,29,29,14,36,25,57		
2″	3, 8,26,39,29, 3,42,51,16, 2		13,46,36,33	
		2, 5,29,29, 0,49,49,24		9,10
4″	3, 8,28,44,58,32,43,41, 5,26		13,46,45,43	
		2, 5,29,28,47, 3, 3,41		9,10
6″	3, 8,30,50,28, 1,30,44, 9, 7		13,46,54,53	
		2, 5,29,28,33,16, 8,48		9,10
8″	3, 8,32,55,57,30, 4, 0,17,55		13,47, 4, 3	
		2, 5,29,28,19,29, 4,45		9,10
10″	3, 8,35, 1,26,58,23,29,22,40		13,47,13,13	
		2, 5,29,28, 5,41,51,32		9,10
12″	3, 8,37, 6,56,26,29,11,14,12		13,47,22,23	
		2, 5,29,27,51,54,29, 9		9,10
14″	3, 8,39,12,25,54,21, 5,43,21		13,47,31,33	
		2, 5,29,27,38, 6,57,36		9,10
16″	3, 8,41,17,55,21,59,12,40,57		13,47,40,43	
		2, 5,29,27,24,19,16,53		9,10
18″	3, 8,43,23,24,49,23,31,57,50		13,47,49,53	
		2, 5,29,27,10,31,27, 0		9,10
20″	3, 8,45,28,54,16,34, 3,24,50		13,47,59, 3	
		2, 5,29,26,56,43,27,57		9,10
22″	3, 8,47,34,23,43,30,46,52,47		13,48, 8,13	
		2, 5,29,26,42,55,19,44		9,10
24″	3, 8,49,39,53,10,13,42,12,31		13,48,17,23	
		2, 5,29,26,29, 7, 2,21		9,10
26″	3, 8,51,45,22,36,42,49,14,52		13,48,26,33	
		2, 5,29,26,15,18,35,48		9,10
28″	3, 8,53,50,52, 2,58, 7,50,40		13,48,35,43	
		2, 5,29,26, 1,30, 0, 5		9,10
30″	3, 8,55,56,21,28,59,37,50,45		13,48,44,53	
		2, 5,29,25,47,41,15,12		9,10
32″	3, 8,58, 1,50,54,47,19, 5,57		13,48,54, 3	
		2, 5,29,25,33,52,21, 9		9,10
34″	3, 9, 0, 7,20,20,21,11,27, 6		13,49, 3,13	
		2, 5,29,25,20, 3,17,56		9,10
36″	3, 9, 2,12,49,45,41,14,45, 2		13,49,12,23	
		2, 5,29,25, 6,14, 5,33		9,10
38″	3, 9, 4,18,19,10,47,28,50,35		13,49,21,33	
		2, 5,29,24,52,24,44, 0		9,10
40″	3, 9, 6,23,48,35,39,53,34,35		13,49,30,43	
		2, 5,29,24,38,35,13,17		9,10
42″	3, 9, 8,29,18, 0,18,28,47,52		13,49,39,53	
		2, 5,29,24,24,45,33,24		9,10
44″	3, 9,10,34,47,24,43,14,21,16		13,49,49, 3	
		2, 5,29,24,10,55,44,21		9,10
46″	3, 9,12,40,16,48,54,10, 5,37		13,49,58,13	
		2, 5,29,23,57, 5,46, 8		9,10
48″	3, 9,14,45,46,12,51,15,51,45		13,50, 7,23	
		2, 5,29,23,43,15,38,45		9,10
50″	3, 9,16,51,15,36,34,31,30,30		13,50,16,33	
		2, 5,29,23,29,25,22,12		9,10
52″	3, 9,18,56,45, 0, 3,56,52,42		13,50,25,43	
		2, 5,29,23,15,34,56,29		9,10
54″	3, 9,21, 2,14,23,19,31,49,11		13,50,34,53	
		2, 5,29,23, 1,44,21,36		9,10
56″	3, 9,23, 7,43,46,21,16,10,47		13,50,44, 3	
		2, 5,29,22,47,53,37,33		9,10
58″	3, 9,25,13,13, 9, 9, 9,48,20		13,50,53,13	
		2, 5,29,22,34, 2,44,20		
60″	3, 9,27,18,42,31,43,12,32,40			
exact	3, 9,27,18,42,31,43,12, 0,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3° 1′ 0″	3, 9,27,18,42,31,43,12, 0,21			
		2, 5,29,22,20,11,38,31		
2″	3, 9,29,24,11,54, 3,23,38,52		13,51,11,47	
		2, 5,29,22, 6,20,26,44		9,10
4″	3, 9,31,29,41,16, 9,44, 5,36		13,51,20,57	
		2, 5,29,21,52,29, 5,47		9,10
6″	3, 9,33,35,10,38, 2,13,11,23		13,51,30, 7	
		2, 5,29,21,38,37,35,40		9,10
8″	3, 9,35,40,39,59,40,50,47, 3		13,51,39,17	
		2, 5,29,21,24,45,56,23		9,10
10″	3, 9,37,46, 9,21, 5,36,43,26		13,51,48,27	
		2, 5,29,21,10,54, 7,56		9,10
12″	3, 9,39,51,38,42,16,30,51,22		13,51,57,37	
		2, 5,29,20,57, 2,10,19		9,10
14″	3, 9,41,57, 8, 3,13,33, 1,41		13,52, 6,47	
		2, 5,29,20,43,10, 3,32		9,10
16″	3, 9,44, 2,37,23,56,43, 5,13		13,52,15,57	
		2, 5,29,20,29,17,47,35		9,10
18″	3, 9,46, 8, 6,44,26, 0,52,48		13,52,25, 7	
		2, 5,29,20,15,25,22,28		9,10
20″	3, 9,48,13,36, 4,41,26,15,16		13,52,34,17	
		2, 5,29,20, 1,32,48,11		9,10
22″	3, 9,50,19, 5,24,42,59, 3,27		13,52,43,27	
		2, 5,29,19,47,40, 4,44		9,10
24″	3, 9,52,24,34,44,30,39, 8,11		13,52,52,37	
		2, 5,29,19,33,47,12, 7		9,10
26″	3, 9,54,30, 4, 4, 4,26,20,18		13,53, 1,47	
		2, 5,29,19,19,54,10,20		9,10
28″	3, 9,56,35,33,23,24,20,30,38		13,53,10,57	
		2, 5,29,19, 6, 0,59,23		9,10
30″	3, 9,58,41, 2,42,30,21,30, 1		13,53,20, 7	
		2, 5,29,18,52, 7,39,16		9,10
32″	3,10, 0,46,32, 1,22,29, 9,17		13,53,29,17	
		2, 5,29,18,38,14, 9,59		9,10
34″	3,10, 2,52, 1,20, 0,43,19,16		13,53,38,27	
		2, 5,29,18,24,20,31,32		9,10
36″	3,10, 4,57,30,38,25, 3,50,48		13,53,47,37	
		2, 5,29,18,10,26,43,55		9,10
38″	3,10, 7, 2,59,56,35,30,34,43		13,53,56,47	
		2, 5,29,17,56,32,47, 8		9,10
40″	3,10, 9, 8,29,14,32, 3,21,51		13,54, 5,57	
		2, 5,29,17,42,38,41,11		9,10
42″	3,10,11,13,58,32,14,42, 3, 2		13,54,15, 7	
		2, 5,29,17,28,44,26, 4		9,10
44″	3,10,13,19,27,49,43,26,29, 6		13,54,24,17	
		2, 5,29,17,14,50, 1,47		9,10
46″	3,10,15,24,57, 6,58,16,30,53		13,54,33,27	
		2, 5,29,17, 0,55,28,20		9,10
48″	3,10,17,30,26,23,59,11,59,13		13,54,42,37	
		2, 5,29,16,47, 0,45,43		9,10
50″	3,10,19,35,55,40,46,12,44,56		13,54,51,47	
		2, 5,29,16,33, 5,53,56		9,10
52″	3,10,21,41,24,57,19,18,38,52		13,55, 0,57	
		2, 5,29,16,19,10,52,59		9,10
54″	3,10,23,46,54,13,38,29,31,51		13,55,10, 7	
		2, 5,29,16, 5,15,42,52		9,10
56″	3,10,25,52,23,29,43,45,14,43		13,55,19,17	
		2, 5,29,15,51,20,23,35		9,10
58″	3,10,27,57,52,45,35, 5,38,18		13,55,28,27	
		2, 5,29,15,37,24,55, 8		
60″	3,10,30, 3,22, 1,12,30,33,26			
exact	3,10,30, 3,22, 1,12,30, 2,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3° 2′ 0″	3,10,30, 3,22, 1,12,30, 2,39			
		2, 5,29,15,23,29,14,13		
2″	3,10,32, 8,51,16,35,59,16,52		13,55,47, 1	
		2, 5,29,15, 9,33,27,12		9,10
4″	3,10,34,14,20,31,45,32,44, 4		13,55,56,11	
		2, 5,29,14,55,37,31, 1		9,10
6″	3,10,36,19,49,46,41,10,15, 5		13,56, 5,21	
		2, 5,29,14,41,41,25,40		9,10
8″	3,10,38,25,19, 1,22,51,40,45		13,56,14,31	
		2, 5,29,14,27,45,11, 9		9,10
10″	3,10,40,30,48,15,50,36,51,54		13,56,23,41	
		2, 5,29,14,13,48,47,28		9,10
12″	3,10,42,36,17,30, 4,25,39,22		13,56,32,51	
		2, 5,29,13,59,52,14,37		9,10
14″	3,10,44,41,46,44, 4,17,53,59		13,56,42, 1	
		2, 5,29,13,45,55,32,36		9,10
16″	3,10,46,47,15,57,50,13,26,35		13,56,51,11	
		2, 5,29,13,31,58,41,25		9,10
18″	3,10,48,52,45,11,22,12, 8, 0		13,57, 0,21	
		2, 5,29,13,18, 1,41, 4		9,10
20″	3,10,50,58,14,24,40,13,49, 4		13,57, 9,31	
		2, 5,29,13, 4, 4,31,33		9,10
22″	3,10,53, 3,43,37,44,18,20,37		13,57,18,41	
		2, 5,29,12,50, 7,12,52		9,10
24″	3,10,55, 9,12,50,34,25,33,29		13,57,27,51	
		2, 5,29,12,36, 9,45, 1		9,10
26″	3,10,57,14,42, 3,10,35,18,30		13,57,37, 1	
		2, 5,29,12,22,12, 8, 0		9,10
28″	3,10,59,20,11,15,32,47,26,30		13,57,46,11	
		2, 5,29,12, 8,14,21,49		9,10
30″	3,11, 1,25,40,27,41, 1,48,19		13,57,55,21	
		2, 5,29,11,54,16,26,28		9,10
32″	3,11, 3,31, 9,39,35,18,14,47		13,58, 4,31	
		2, 5,29,11,40,18,21,57		9,10
34″	3,11, 5,36,38,51,15,36,36,44		13,58,13,41	
		2, 5,29,11,26,20, 8,16		9,10
36″	3,11, 7,42, 8, 2,41,56,45, 0		13,58,22,51	
		2, 5,29,11,12,21,45,25		9,10
38″	3,11, 9,47,37,13,54,18,30,25		13,58,32, 1	
		2, 5,29,10,58,23,13,24		9,10
40″	3,11,11,53, 6,24,52,41,43,49		13,58,41,11	
		2, 5,29,10,44,24,32,13		9,10
42″	3,11,13,58,35,35,37, 6,16, 2		13,58,50,21	
		2, 5,29,10,30,25,41,52		9,10
44″	3,11,16, 4, 4,46, 7,31,57,54		13,58,59,31	
		2, 5,29,10,16,26,42,21		9,10
46″	3,11,18, 9,33,56,23,58,40,15		13,59, 8,41	
		2, 5,29,10, 2,27,33,40		9,10
48″	3,11,20,15, 3, 6,26,26,13,55		13,59,17,51	
		2, 5,29, 9,48,28,15,49		9,10
50″	3,11,22,20,32,16,14,54,29,44		13,59,27, 1	
		2, 5,29, 9,34,28,48,48		9,10
52″	3,11,24,26, 1,25,49,23,18,32		13,59,36,11	
		2, 5,29, 9,20,29,12,37		9,10
54″	3,11,26,31,30,35, 9,52,31, 9		13,59,45,21	
		2, 5,29, 9, 6,29,27,16		9,10
56″	3,11,28,36,59,44,16,21,58,25		13,59,54,31	
		2, 5,29, 8,52,29,32,45		9,10
58″	3,11,30,42,28,53, 8,51,31,10		14, 0, 3,41	
		2, 5,29, 8,38,29,29, 4		
60″	3,11,32,47,58, 1,47,21, 0,14			
exact	3,11,32,47,58, 1,47,20,32,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3° 3′ 0″	3,11,32,47,58, 1,47,20,32,24			
		2, 5,29, 8,24,29,13, 9		
2″	3,11,34,53,27,10,11,49,45,33		14, 0,22,14	
		2, 5,29, 8,10,28,50,55		9,10
4″	3,11,36,58,56,18,22,18,36,28		14, 0,31,24	
		2, 5,29, 7,56,28,19,31		9,10
6″	3,11,39, 4,25,26,18,46,55,59		14, 0,40,34	
		2, 5,29, 7,42,27,38,57		9,10
8″	3,11,41, 9,54,34, 1,14,34,56		14, 0,49,44	
		2, 5,29, 7,28,26,49,13		9,10
10″	3,11,43,15,23,41,29,41,24, 9		14, 0,58,54	
		2, 5,29, 7,14,25,50,19		9,10
12″	3,11,45,20,52,48,44, 7,14,28		14, 1, 8, 4	
		2, 5,29, 7, 0,24,42,15		9,10
14″	3,11,47,26,21,55,44,31,56,43		14, 1,17,14	
		2, 5,29, 6,46,23,25, 1		9,10
16″	3,11,49,31,51, 2,30,55,21,44		14, 1,26,24	
		2, 5,29, 6,32,21,58,37		9,10
18″	3,11,51,37,20, 9, 3,17,20,21		14, 1,35,34	
		2, 5,29, 6,18,20,23, 3		9,10
20″	3,11,53,42,49,15,21,37,43,24		14, 1,44,44	
		2, 5,29, 6, 4,18,38,19		9,10
22″	3,11,55,48,18,21,25,56,21,43		14, 1,53,54	
		2, 5,29, 5,50,16,44,25		9,10
24″	3,11,57,53,47,27,16,13, 6, 8		14, 2, 3, 4	
		2, 5,29, 5,36,14,41,21		9,10
26″	3,11,59,59,16,32,52,27,47,29		14, 2,12,14	
		2, 5,29, 5,22,12,29, 7		9,10
28″	3,12, 2, 4,45,38,14,40,16,36		14, 2,21,24	
		2, 5,29, 5, 8,10, 7,43		9,10
30″	3,12, 4,10,14,43,22,50,24,19		14, 2,30,34	
		2, 5,29, 4,54, 7,37, 9		9,10
32″	3,12, 6,15,43,48,16,58, 1,28		14, 2,39,44	
		2, 5,29, 4,40, 4,57,25		9,10
34″	3,12, 8,21,12,52,57, 2,58,53		14, 2,48,54	
		2, 5,29, 4,26, 2, 8,31		9,10
36″	3,12,10,26,41,57,23, 5, 7,24		14, 2,58, 4	
		2, 5,29, 4,11,59,10,27		9,10
38″	3,12,12,32,11, 1,35, 4,17,51		14, 3, 7,14	
		2, 5,29, 3,57,56, 3,13		9,10
40″	3,12,14,37,40, 5,33, 0,21, 4		14, 3,16,24	
		2, 5,29, 3,43,52,46,49		9,10
42″	3,12,16,43, 9, 9,16,53, 7,53		14, 3,25,34	
		2, 5,29, 3,29,49,21,15		9,10
44″	3,12,18,48,38,12,46,42,29, 8		14, 3,34,44	
		2, 5,29, 3,15,45,46,31		9,10
46″	3,12,20,54, 7,16, 2,28,15,39		14, 3,43,54	
		2, 5,29, 3, 1,42, 2,37		9,10
48″	3,12,22,59,36,19, 4,10,18,16		14, 3,53, 4	
		2, 5,29, 2,47,38, 9,33		9,10
50″	3,12,25, 5, 5,21,51,48,27,49		14, 4, 2,14	
		2, 5,29, 2,33,34, 7,19		9,10
52″	3,12,27,10,34,24,25,22,35, 8		14, 4,11,24	
		2, 5,29, 2,19,29,55,55		9,10
54″	3,12,29,16, 3,26,44,52,31, 3		14, 4,20,34	
		2, 5,29, 2, 5,25,35,21		9,10
56″	3,12,31,21,32,28,50,18, 6,24		14, 4,29,44	
		2, 5,29, 1,51,21, 5,37		9,10
58″	3,12,33,27, 1,30,41,39,12, 1		14, 4,38,54	
		2, 5,29, 1,37,16,26,43		
60″	3,12,35,32,30,32,18,55,38,44			
exact	3,12,35,32,30,32,18,55, 8,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3° 4′ 0″	3,12,35,32,30,32,18,55, 8,52			
		2, 5,29, 1,23,11,35,28		
2″	3,12,37,37,59,33,42, 6,44,20		14, 4,57,27	
		2, 5,29, 1, 9, 6,38, 1		9,10
4″	3,12,39,43,28,34,51,13,22,21		14, 5, 6,37	
		2, 5,29, 0,55, 1,31,24		9,10
6″	3,12,41,48,57,35,46,14,53,45		14, 5,15,47	
		2, 5,29, 0,40,56,15,37		9,10
8″	3,12,43,54,26,36,27,11, 9,22		14, 5,24,57	
		2, 5,29, 0,26,50,50,40		9,10
10″	3,12,45,59,55,36,54, 2, 0, 2		14, 5,34, 7	
		2, 5,29, 0,12,45,16,33		9,10
12″	3,12,48, 5,24,37, 6,47,16,35		14, 5,43,17	
		2, 5,28,59,58,39,33,16		9,10
14″	3,12,50,10,53,37, 5,26,49,51		14, 5,52,27	
		2, 5,28,59,44,33,40,49		9,10
16″	3,12,52,16,22,36,50, 0,30,40		14, 6, 1,37	
		2, 5,28,59,30,27,39,12		9,10
18″	3,12,54,21,51,36,20,28, 9,52		14, 6,10,47	
		2, 5,28,59,16,21,28,25		9,10
20″	3,12,56,27,20,35,36,49,38,17		14, 6,19,57	
		2, 5,28,59, 2,15, 8,28		9,10
22″	3,12,58,32,49,34,39, 4,46,45		14, 6,29, 7	
		2, 5,28,58,48, 8,39,21		9,10
24″	3,13, 0,38,18,33,27,13,26, 6		14, 6,38,17	
		2, 5,28,58,34, 2, 1, 4		9,10
26″	3,13, 2,43,47,32, 1,15,27,10		14, 6,47,27	
		2, 5,28,58,19,55,13,37		9,10
28″	3,13, 4,49,16,30,21,10,40,47		14, 6,56,37	
		2, 5,28,58, 5,48,17, 0		9,10
30″	3,13, 6,54,45,28,26,58,57,47		14, 7, 5,47	
		2, 5,28,57,51,41,11,13		9,10
32″	3,13, 9, 0,14,26,18,40, 9, 0		14, 7,14,57	
		2, 5,28,57,37,33,56,16		9,10
34″	3,13,11, 5,43,23,56,14, 5,16		14, 7,24, 7	
		2, 5,28,57,23,26,32, 9		9,10
36″	3,13,13,11,12,21,19,40,37,25		14, 7,33,17	
		2, 5,28,57, 9,18,58,52		9,10
38″	3,13,15,16,41,18,28,59,36,17		14, 7,42,27	
		2, 5,28,56,55,11,16,25		9,10
40″	3,13,17,22,10,15,24,10,52,42		14, 7,51,37	
		2, 5,28,56,41, 3,24,48		9,10
42″	3,13,19,27,39,12, 5,14,17,30		14, 8, 0,47	
		2, 5,28,56,26,55,24, 1		9,10
44″	3,13,21,33, 8, 8,32, 9,41,31		14, 8, 9,57	
		2, 5,28,56,12,47,14, 4		9,10
46″	3,13,23,38,37, 4,44,56,55,35		14, 8,19, 7	
		2, 5,28,55,58,38,54,57		9,10
48″	3,13,25,44, 6, 0,43,35,50,32		14, 8,28,17	
		2, 5,28,55,44,30,26,40		9,10
50″	3,13,27,49,34,56,28, 6,17,12		14, 8,37,27	
		2, 5,28,55,30,21,49,13		9,10
52″	3,13,29,55, 3,51,58,28, 6,25		14, 8,46,37	
		2, 5,28,55,16,13, 2,36		9,10
54″	3,13,32, 0,32,47,14,41, 9, 1		14, 8,55,47	
		2, 5,28,55, 2, 4, 6,49		9,10
56″	3,13,34, 6, 1,42,16,45,15,50		14, 9, 4,57	
		2, 5,28,54,47,55, 1,52		9,10
58″	3,13,36,11,30,37, 4,40,17,42		14, 9,14, 7	
		2, 5,28,54,33,45,47,45		
60″	3,13,38,16,59,31,38,26, 5,27			
exact	3,13,38,16,59,31,38,25,35, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3° 5′ 0″	3,13,38,16,59,31,38,25,35, 5			
		2, 5,28,54,19,36,21,16		
2″	3,13,40,22,28,25,58, 1,56,21		14, 9,32,40	
		2, 5,28,54, 5,26,48,36		9,10
4″	3,13,42,27,57,20, 3,28,44,57		14, 9,41,50	
		2, 5,28,53,51,17, 6,46		9,10
6″	3,13,44,33,26,13,54,45,51,43		14, 9,51, 0	
		2, 5,28,53,37, 7,15,46		9,10
8″	3,13,46,38,55, 7,31,53, 7,29		14,10, 0,10	
		2, 5,28,53,22,57,15,36		9,10
10″	3,13,48,44,24, 0,54,50,23, 5		14,10, 9,20	
		2, 5,28,53, 8,47, 6,16		9,10
12″	3,13,50,49,52,54, 3,37,29,21		14,10,18,30	
		2, 5,28,52,54,36,47,46		9,10
14″	3,13,52,55,21,46,58,14,17, 7		14,10,27,40	
		2, 5,28,52,40,26,20, 6		9,10
16″	3,13,55, 0,50,39,38,40,37,13		14,10,36,50	
		2, 5,28,52,26,15,43,16		9,10
18″	3,13,57, 6,19,32, 4,56,20,29		14,10,46, 0	
		2, 5,28,52,12, 4,57,16		9,10
20″	3,13,59,11,48,24,17, 1,17,45		14,10,55,10	
		2, 5,28,51,57,54, 2, 6		9,10
22″	3,14, 1,17,17,16,14,55,19,51		14,11, 4,20	
		2, 5,28,51,43,42,57,46		9,10
24″	3,14, 3,22,46, 7,58,38,17,37		14,11,13,30	
		2, 5,28,51,29,31,44,16		9,10
26″	3,14, 5,28,14,59,28,10, 1,53		14,11,22,40	
		2, 5,28,51,15,20,21,36		9,10
28″	3,14, 7,33,43,50,43,30,23,29		14,11,31,50	
		2, 5,28,51, 1, 8,49,46		9,10
30″	3,14, 9,39,12,41,44,39,13,15		14,11,41, 0	
		2, 5,28,50,46,57, 8,46		9,10
32″	3,14,11,44,41,32,31,36,22, 1		14,11,50,10	
		2, 5,28,50,32,45,18,36		9,10
34″	3,14,13,50,10,23, 4,21,40,37		14,11,59,20	
		2, 5,28,50,18,33,19,16		9,10
36″	3,14,15,55,39,13,22,54,59,53		14,12, 8,30	
		2, 5,28,50, 4,21,10,46		9,10
38″	3,14,18, 1, 8, 3,27,16,10,39		14,12,17,40	
		2, 5,28,49,50, 8,53, 6		9,10
40″	3,14,20, 6,36,53,17,25, 3,45		14,12,26,50	
		2, 5,28,49,35,56,26,16		9,10
42″	3,14,22,12, 5,42,53,21,30, 1		14,12,36, 0	
		2, 5,28,49,21,43,50,16		9,10
44″	3,14,24,17,34,32,15, 5,20,17		14,12,45,10	
		2, 5,28,49, 7,31, 5, 6		9,10
46″	3,14,26,23, 3,21,22,36,25,23		14,12,54,20	
		2, 5,28,48,53,18,10,46		9,10
48″	3,14,28,28,32,10,15,54,36, 9		14,13, 3,30	
		2, 5,28,48,39, 5, 7,16		9,10
50″	3,14,30,34, 0,58,54,59,43,25		14,13,12,40	
		2, 5,28,48,24,51,54,36		9,10
52″	3,14,32,39,29,47,19,51,38, 1		14,13,21,50	
		2, 5,28,48,10,38,32,46		9,10
54″	3,14,34,44,58,35,30,30,10,47		14,13,31, 0	
		2, 5,28,47,56,25, 1,46		9,10
56″	3,14,36,50,27,23,26,55,12,33		14,13,40,10	
		2, 5,28,47,42,11,21,36		9,10
58″	3,14,38,55,56,11, 9, 6,34, 9		14,13,49,20	
		2, 5,28,47,27,57,32,16		
60″	3,14,41, 1,24,58,37, 4, 6,25			
exact	3,14,41, 1,24,58,37, 3,38, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3° 6′ 0″	3,14,41, 1,24,58,37, 3,38, 1			
		2, 5,28,47,13,43,30,43		
2″	3,14,43, 6,53,45,50,47, 8,44		14,14, 7,53	
		2, 5,28,46,59,29,22,50		9,10
4″	3,14,45,12,22,32,50,16,31,34		14,14,17, 3	
		2, 5,28,46,45,15, 5,47		9,10
6″	3,14,47,17,51,19,35,31,37,21		14,14,26,13	
		2, 5,28,46,31, 0,39,34		9,10
8″	3,14,49,23,20, 6, 6,32,16,55		14,14,35,23	
		2, 5,28,46,16,46, 4,11		9,10
10″	3,14,51,28,48,52,23,18,21, 6		14,14,44,33	
		2, 5,28,46, 2,31,19,38		9,10
12″	3,14,53,34,17,38,25,49,40,44		14,14,53,43	
		2, 5,28,45,48,16,25,55		9,10
14″	3,14,55,39,46,24,14, 6, 6,39		14,15, 2,53	
		2, 5,28,45,34, 1,23, 2		9,10
16″	3,14,57,45,15, 9,48, 7,29,41		14,15,12, 3	
		2, 5,28,45,19,46,10,59		9,10
18″	3,14,59,50,43,55, 7,53,40,40		14,15,21,13	
		2, 5,28,45, 5,30,49,46		9,10
20″	3,15, 1,56,12,40,13,24,30,26		14,15,30,23	
		2, 5,28,44,51,15,19,23		9,10
22″	3,15, 4, 1,41,25, 4,39,49,49		14,15,39,33	
		2, 5,28,44,36,59,39,50		9,10
24″	3,15, 6, 7,10, 9,41,39,29,39		14,15,48,43	
		2, 5,28,44,22,43,51, 7		9,10
26″	3,15, 8,12,38,54, 4,23,20,46		14,15,57,53	
		2, 5,28,44, 8,27,53,14		9,10
28″	3,15,10,18, 7,38,12,51,14, 0		14,16, 7, 3	
		2, 5,28,43,54,11,46,11		9,10
30″	3,15,12,23,36,22, 7, 3, 0,11		14,16,16,13	
		2, 5,28,43,39,55,29,58		9,10
32″	3,15,14,29, 5, 5,46,58,30, 9		14,16,25,23	
		2, 5,28,43,25,39, 4,35		9,10
34″	3,15,16,34,33,49,12,37,34,44		14,16,34,33	
		2, 5,28,43,11,22,30, 2		9,10
36″	3,15,18,40, 2,32,24, 0, 4,46		14,16,43,43	
		2, 5,28,42,57, 5,46,19		9,10
38″	3,15,20,45,31,15,21, 5,51, 5		14,16,52,53	
		2, 5,28,42,42,48,53,26		9,10
40″	3,15,22,50,59,58, 3,54,44,31		14,17, 2, 3	
		2, 5,28,42,28,31,51,23		9,10
42″	3,15,24,56,28,40,32,26,35,54		14,17,11,13	
		2, 5,28,42,14,14,40,10		9,10
44″	3,15,27, 1,57,22,46,41,16, 4		14,17,20,23	
		2, 5,28,41,59,57,19,47		9,10
46″	3,15,29, 7,26, 4,46,38,35,51		14,17,29,33	
		2, 5,28,41,45,39,50,14		9,10
48″	3,15,31,12,54,46,32,18,26, 5		14,17,38,43	
		2, 5,28,41,31,22,11,31		9,10
50″	3,15,33,18,23,28, 3,40,37,36		14,17,47,53	
		2, 5,28,41,17, 4,23,38		9,10
52″	3,15,35,23,52, 9,20,45, 1,14		14,17,57, 3	
		2, 5,28,41, 2,46,26,35		9,10
54″	3,15,37,29,20,50,23,31,27,49		14,18, 6,13	
		2, 5,28,40,48,28,20,22		9,10
56″	3,15,39,34,49,31,11,59,48,11		14,18,15,23	
		2, 5,28,40,34,10, 4,59		9,10
58″	3,15,41,40,18,11,46, 9,53,10		14,18,24,33	
		2, 5,28,40,19,51,40,26		
60″	3,15,43,45,46,52, 6, 1,33,36			
exact	3,15,43,45,46,52, 6, 1, 8,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3° 7′ 0″	3,15,43,45,46,52, 6, 1, 8,30			
		2, 5,28,40, 5,33, 3,55		
2″	3,15,45,51,15,32,11,34,12,25		14,18,43, 5	
		2, 5,28,39,51,14,20,50		9,10
4″	3,15,47,56,44,12, 2,48,33,15		14,18,52,15	
		2, 5,28,39,36,55,28,35		9,10
6″	3,15,50, 2,12,51,39,44, 1,50		14,19, 1,25	
		2, 5,28,39,22,36,27,10		9,10
8″	3,15,52, 7,41,31, 2,20,29, 0		14,19,10,35	
		2, 5,28,39, 8,17,16,35		9,10
10″	3,15,54,13,10,10,10,37,45,35		14,19,19,45	
		2, 5,28,38,53,57,56,50		9,10
12″	3,15,56,18,38,49, 4,35,42,25		14,19,28,55	
		2, 5,28,38,39,38,27,55		9,10
14″	3,15,58,24, 7,27,44,14,10,20		14,19,38, 5	
		2, 5,28,38,25,18,49,50		9,10
16″	3,16, 0,29,36, 6, 9,33, 0,10		14,19,47,15	
		2, 5,28,38,10,59, 2,35		9,10
18″	3,16, 2,35, 4,44,20,32, 2,45		14,19,56,25	
		2, 5,28,37,56,39, 6,10		9,10
20″	3,16, 4,40,33,22,17,11, 8,55		14,20, 5,35	
		2, 5,28,37,42,19, 0,35		9,10
22″	3,16, 6,46, 1,59,59,30, 9,30		14,20,14,45	
		2, 5,28,37,27,58,45,50		9,10
24″	3,16, 8,51,30,37,27,28,55,20		14,20,23,55	
		2, 5,28,37,13,38,21,55		9,10
26″	3,16,10,56,59,14,41, 7,17,15		14,20,33, 5	
		2, 5,28,36,59,17,48,50		9,10
28″	3,16,13, 2,27,51,40,25, 6, 5		14,20,42,15	
		2, 5,28,36,44,57, 6,35		9,10
30″	3,16,15, 7,56,28,25,22,12,40		14,20,51,25	
		2, 5,28,36,30,36,15,10		9,10
32″	3,16,17,13,25, 4,55,58,27,50		14,21, 0,35	
		2, 5,28,36,16,15,14,35		9,10
34″	3,16,19,18,53,41,12,13,42,25		14,21, 9,45	
		2, 5,28,36, 1,54, 4,50		9,10
36″	3,16,21,24,22,17,14, 7,47,15		14,21,18,55	
		2, 5,28,35,47,32,45,55		9,10
38″	3,16,23,29,50,53, 1,40,33,10		14,21,28, 5	
		2, 5,28,35,33,11,17,50		9,10
40″	3,16,25,35,19,28,34,51,51, 0		14,21,37,15	
		2, 5,28,35,18,49,40,35		9,10
42″	3,16,27,40,48, 3,53,41,31,35		14,21,46,25	
		2, 5,28,35, 4,27,54,10		9,10
44″	3,16,29,46,16,38,58, 9,25,45		14,21,55,35	
		2, 5,28,34,50, 5,58,35		9,10
46″	3,16,31,51,45,13,48,15,24,20		14,22, 4,45	
		2, 5,28,34,35,43,53,50		9,10
48″	3,16,33,57,13,48,23,59,18,10		14,22,13,55	
		2, 5,28,34,21,21,39,55		9,10
50″	3,16,36, 2,42,22,45,20,58, 5		14,22,23, 5	
		2, 5,28,34, 6,59,16,50		9,10
52″	3,16,38, 8,10,56,52,20,14,55		14,22,32,15	
		2, 5,28,33,52,36,44,35		9,10
54″	3,16,40,13,39,30,44,56,59,30		14,22,41,25	
		2, 5,28,33,38,14, 3,10		9,10
56″	3,16,42,19, 8, 4,23,11, 2,40		14,22,50,35	
		2, 5,28,33,23,51,12,35		9,10
58″	3,16,44,24,36,37,47, 2,15,15		14,22,59,45	
		2, 5,28,33, 9,28,12,50		
60″	3,16,46,30, 5,10,56,30,28, 5			
exact	3,16,46,30, 5,10,56,30, 1,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3° 8′ 0″	3,16,46,30, 5,10,56,30, 1,14			
		2, 5,28,32,55, 5, 1, 1		
2″	3,16,48,35,33,43,51,35, 2,15		14,23,18,17	
		2, 5,28,32,40,41,42,44		9,10
4″	3,16,50,41, 2,16,32,16,44,59		14,23,27,27	
		2, 5,28,32,26,18,15,17		9,10
6″	3,16,52,46,30,48,58,35, 0,16		14,23,36,37	
		2, 5,28,32,11,54,38,40		9,10
8″	3,16,54,51,59,21,10,29,38,56		14,23,45,47	
		2, 5,28,31,57,30,52,53		9,10
10″	3,16,56,57,27,53, 8, 0,31,49		14,23,54,57	
		2, 5,28,31,43, 6,57,56		9,10
12″	3,16,59, 2,56,24,51, 7,29,45		14,24, 4, 7	
		2, 5,28,31,28,42,53,49		9,10
14″	3,17, 1, 8,24,56,19,50,23,34		14,24,13,17	
		2, 5,28,31,14,18,40,32		9,10
16″	3,17, 3,13,53,27,34, 9, 4, 6		14,24,22,27	
		2, 5,28,30,59,54,18, 5		9,10
18″	3,17, 5,19,21,58,34, 3,22,11		14,24,31,37	
		2, 5,28,30,45,29,46,28		9,10
20″	3,17, 7,24,50,29,19,33, 8,39		14,24,40,47	
		2, 5,28,30,31, 5, 5,41		9,10
22″	3,17, 9,30,18,59,50,38,14,20		14,24,49,57	
		2, 5,28,30,16,40,15,44		9,10
24″	3,17,11,35,47,30, 7,18,30, 4		14,24,59, 7	
		2, 5,28,30, 2,15,16,37		9,10
26″	3,17,13,41,16, 0, 9,33,46,41		14,25, 8,17	
		2, 5,28,29,47,50, 8,20		9,10
28″	3,17,15,46,44,29,57,23,55, 1		14,25,17,27	
		2, 5,28,29,33,24,50,53		9,10
30″	3,17,17,52,12,59,30,48,45,54		14,25,26,37	
		2, 5,28,29,18,59,24,16		9,10
32″	3,17,19,57,41,28,49,48,10,10		14,25,35,47	
		2, 5,28,29, 4,33,48,29		9,10
34″	3,17,22, 3, 9,57,54,21,58,39		14,25,44,57	
		2, 5,28,28,50, 8, 3,32		9,10
36″	3,17,24, 8,38,26,44,30, 2,11		14,25,54, 7	
		2, 5,28,28,35,42, 9,25		9,10
38″	3,17,26,14, 6,55,20,12,11,36		14,26, 3,17	
		2, 5,28,28,21,16, 6, 8		9,10
40″	3,17,28,19,35,23,41,28,17,44		14,26,12,27	
		2, 5,28,28, 6,49,53,41		9,10
42″	3,17,30,25, 3,51,48,18,11,25		14,26,21,37	
		2, 5,28,27,52,23,32, 4		9,10
44″	3,17,32,30,32,19,40,41,43,29		14,26,30,47	
		2, 5,28,27,37,57, 1,17		9,10
46″	3,17,34,36, 0,47,18,38,44,46		14,26,39,57	
		2, 5,28,27,23,30,21,20		9,10
48″	3,17,36,41,29,14,42, 9, 6, 6		14,26,49, 7	
		2, 5,28,27, 9, 3,32,13		9,10
50″	3,17,38,46,57,41,51,12,38,19		14,26,58,17	
		2, 5,28,26,54,36,33,56		9,10
52″	3,17,40,52,26, 8,45,49,12,15		14,27, 7,27	
		2, 5,28,26,40, 9,26,29		9,10
54″	3,17,42,57,54,35,25,58,38,44		14,27,16,37	
		2, 5,28,26,25,42, 9,52		9,10
56″	3,17,45, 3,23, 1,51,40,48,36		14,27,25,47	
		2, 5,28,26,11,14,44, 5		9,10
58″	3,17,47, 8,51,28, 2,55,32,41		14,27,34,57	
		2, 5,28,25,56,47, 9, 8		
60″	3,17,49,14,19,53,59,42,41,49			
exact	3,17,49,14,19,53,59,42,14,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3° 9′ 0″	3,17,49,14,19,53,59,42,14,52			
		2, 5,28,25,42,19,22, 8		
2″	3,17,51,19,48,19,42, 1,37, 0		14,27,53,29	
		2, 5,28,25,27,51,28,39		9,10
4″	3,17,53,25,16,45, 9,53, 5,39		14,28, 2,39	
		2, 5,28,25,13,23,26, 0		9,10
6″	3,17,55,30,45,10,23,16,31,39		14,28,11,49	
		2, 5,28,24,58,55,14,11		9,10
8″	3,17,57,36,13,35,22,11,45,50		14,28,20,59	
		2, 5,28,24,44,26,53,12		9,10
10″	3,17,59,41,42, 0, 6,38,39, 2		14,28,30, 9	
		2, 5,28,24,29,58,23, 3		9,10
12″	3,18, 1,47,10,24,36,37, 2, 5		14,28,39,19	
		2, 5,28,24,15,29,43,44		9,10
14″	3,18, 3,52,38,48,52, 6,45,49		14,28,48,29	
		2, 5,28,24, 1, 0,55,15		9,10
16″	3,18, 5,58, 7,12,53, 7,41, 4		14,28,57,39	
		2, 5,28,23,46,31,57,36		9,10
18″	3,18, 8, 3,35,36,39,39,38,40		14,29, 6,49	
		2, 5,28,23,32, 2,50,47		9,10
20″	3,18,10, 9, 4, 0,11,42,29,27		14,29,15,59	
		2, 5,28,23,17,33,34,48		9,10
22″	3,18,12,14,32,23,29,16, 4,15		14,29,25, 9	
		2, 5,28,23, 3, 4, 9,39		9,10
24″	3,18,14,20, 0,46,32,20,13,54		14,29,34,19	
		2, 5,28,22,48,34,35,20		9,10
26″	3,18,16,25,29, 9,20,54,49,14		14,29,43,29	
		2, 5,28,22,34, 4,51,51		9,10
28″	3,18,18,30,57,31,54,59,41, 5		14,29,52,39	
		2, 5,28,22,19,34,59,12		9,10
30″	3,18,20,36,25,54,14,34,40,17		14,30, 1,49	
		2, 5,28,22, 5, 4,57,23		9,10
32″	3,18,22,41,54,16,19,39,37,40		14,30,10,59	
		2, 5,28,21,50,34,46,24		9,10
34″	3,18,24,47,22,38,10,14,24, 4		14,30,20, 9	
		2, 5,28,21,36, 4,26,15		9,10
36″	3,18,26,52,50,59,46,18,50,19		14,30,29,19	
		2, 5,28,21,21,33,56,56		9,10
38″	3,18,28,58,19,21, 7,52,47,15		14,30,38,29	
		2, 5,28,21, 7, 3,18,27		9,10
40″	3,18,31, 3,47,42,14,56, 5,42		14,30,47,39	
		2, 5,28,20,52,32,30,48		9,10
42″	3,18,33, 9,16, 3, 7,28,36,30		14,30,56,49	
		2, 5,28,20,38, 1,33,59		9,10
44″	3,18,35,14,44,23,45,30,10,29		14,31, 5,59	
		2, 5,28,20,23,30,28, 0		9,10
46″	3,18,37,20,12,44, 9, 0,38,29		14,31,15, 9	
		2, 5,28,20, 8,59,12,51		9,10
48″	3,18,39,25,41, 4,17,59,51,20		14,31,24,19	
		2, 5,28,19,54,27,48,32		9,10
50″	3,18,41,31, 9,24,12,27,39,52		14,31,33,29	
		2, 5,28,19,39,56,15, 3		9,10
52″	3,18,43,36,37,43,52,23,54,55		14,31,42,39	
		2, 5,28,19,25,24,32,24		9,10
54″	3,18,45,42, 6, 3,17,48,27,19		14,31,51,49	
		2, 5,28,19,10,52,40,35		9,10
56″	3,18,47,47,34,22,28,41, 7,54		14,32, 0,59	
		2, 5,28,18,56,20,39,36		9,10
58″	3,18,49,53, 2,41,25, 1,47,30		14,32,10, 9	
		2, 5,28,18,41,48,29,27		
60″	3,18,51,58,31, 0, 6,50,16,57			
exact	3,18,51,58,31, 0, 6,49,51,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°10′ 0″	3,18,51,58,31, 0, 6,49,51,59			
		2, 5,28,18,27,16, 7,25		
2″	3,18,54, 3,59,18,34, 5,59,24		14,32,28,40	
		2, 5,28,18,12,43,38,45		9,10
4″	3,18,56, 9,27,36,46,49,38, 9		14,32,37,50	
		2, 5,28,17,58,11, 0,55		9,10
6″	3,18,58,14,55,54,45, 0,39, 4		14,32,47, 0	
		2, 5,28,17,43,38,13,55		9,10
8″	3,19, 0,20,24,12,28,38,52,59		14,32,56,10	
		2, 5,28,17,29, 5,17,45		9,10
10″	3,19, 2,25,52,29,57,44,10,44		14,33, 5,20	
		2, 5,28,17,14,32,12,25		9,10
12″	3,19, 4,31,20,47,12,16,23, 9		14,33,14,30	
		2, 5,28,16,59,58,57,55		9,10
14″	3,19, 6,36,49, 4,12,15,21, 4		14,33,23,40	
		2, 5,28,16,45,25,34,15		9,10
16″	3,19, 8,42,17,20,57,40,55,19		14,33,32,50	
		2, 5,28,16,30,52, 1,25		9,10
18″	3,19,10,47,45,37,28,32,56,44		14,33,42, 0	
		2, 5,28,16,16,18,19,25		9,10
20″	3,19,12,53,13,53,44,51,16, 9		14,33,51,10	
		2, 5,28,16, 1,44,28,15		9,10
22″	3,19,14,58,42, 9,46,35,44,24		14,34, 0,20	
		2, 5,28,15,47,10,27,55		9,10
24″	3,19,17, 4,10,25,33,46,12,19		14,34, 9,30	
		2, 5,28,15,32,36,18,25		9,10
26″	3,19,19, 9,38,41, 6,22,30,44		14,34,18,40	
		2, 5,28,15,18, 1,59,45		9,10
28″	3,19,21,15, 6,56,24,24,30,29		14,34,27,50	
		2, 5,28,15, 3,27,31,55		9,10
30″	3,19,23,20,35,11,27,52, 2,24		14,34,37, 0	
		2, 5,28,14,48,52,54,55		9,10
32″	3,19,25,26, 3,26,16,44,57,19		14,34,46,10	
		2, 5,28,14,34,18, 8,45		9,10
34″	3,19,27,31,31,40,51, 3, 6, 4		14,34,55,20	
		2, 5,28,14,19,43,13,25		9,10
36″	3,19,29,36,59,55,10,46,19,29		14,35, 4,30	
		2, 5,28,14, 5, 8, 8,55		9,10
38″	3,19,31,42,28, 9,15,54,28,24		14,35,13,40	
		2, 5,28,13,50,32,55,15		9,10
40″	3,19,33,47,56,23, 6,27,23,39		14,35,22,50	
		2, 5,28,13,35,57,32,25		9,10
42″	3,19,35,53,24,36,42,24,56, 4		14,35,32, 0	
		2, 5,28,13,21,22, 0,25		9,10
44″	3,19,37,58,52,50, 3,46,56,29		14,35,41,10	
		2, 5,28,13, 6,46,19,15		9,10
46″	3,19,40, 4,21, 3,10,33,15,44		14,35,50,20	
		2, 5,28,12,52,10,28,55		9,10
48″	3,19,42, 9,49,16, 2,43,44,39		14,35,59,30	
		2, 5,28,12,37,34,29,25		9,10
50″	3,19,44,15,17,28,40,18,14, 4		14,36, 8,40	
		2, 5,28,12,22,58,20,45		9,10
52″	3,19,46,20,45,41, 3,16,34,49		14,36,17,50	
		2, 5,28,12, 8,22, 2,55		9,10
54″	3,19,48,26,13,53,11,38,37,44		14,36,27, 0	
		2, 5,28,11,53,45,35,55		9,10
56″	3,19,50,31,42, 5, 5,24,13,39		14,36,36,10	
		2, 5,28,11,39, 8,59,45		9,10
58″	3,19,52,37,10,16,44,33,13,24		14,36,45,20	
		2, 5,28,11,24,32,14,25		
60″	3,19,54,42,38,28, 9, 5,27,49			
exact	3,19,54,42,38,28, 9, 4,59, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°11′ 0″	3,19,54,42,38,28, 9, 4,59, 9			
		2, 5,28,11, 9,55,16,58		
2″	3,19,56,48, 6,39,19, 0,16, 7		14,37, 3,52	
		2, 5,28,10,55,18,13, 6		9,10
4″	3,19,58,53,34,50,14,18,29,13		14,37,13, 2	
		2, 5,28,10,40,41, 0, 4		9,10
6″	3,20, 0,59, 3, 0,54,59,29,17		14,37,22,12	
		2, 5,28,10,26, 3,37,52		9,10
8″	3,20, 3, 4,31,11,21, 3, 7, 9		14,37,31,22	
		2, 5,28,10,11,26, 6,30		9,10
10″	3,20, 5, 9,59,21,32,29,13,39		14,37,40,32	
		2, 5,28, 9,56,48,25,58		9,10
12″	3,20, 7,15,27,31,29,17,39,37		14,37,49,42	
		2, 5,28, 9,42,10,36,16		9,10
14″	3,20, 9,20,55,41,11,28,15,53		14,37,58,52	
		2, 5,28, 9,27,32,37,24		9,10
16″	3,20,11,26,23,50,39, 0,53,17		14,38, 8, 2	
		2, 5,28, 9,12,54,29,22		9,10
18″	3,20,13,31,51,59,51,55,22,39		14,38,17,12	
		2, 5,28, 8,58,16,12,10		9,10
20″	3,20,15,37,20, 8,50,11,34,49		14,38,26,22	
		2, 5,28, 8,43,37,45,48		9,10
22″	3,20,17,42,48,17,33,49,20,37		14,38,35,32	
		2, 5,28, 8,28,59,10,16		9,10
24″	3,20,19,48,16,26, 2,48,30,53		14,38,44,42	
		2, 5,28, 8,14,20,25,34		9,10
26″	3,20,21,53,44,34,17, 8,56,27		14,38,53,52	
		2, 5,28, 7,59,41,31,42		9,10
28″	3,20,23,59,12,42,16,50,28, 9		14,39, 3, 2	
		2, 5,28, 7,45, 2,28,40		9,10
30″	3,20,26, 4,40,50, 1,52,56,49		14,39,12,12	
		2, 5,28, 7,30,23,16,28		9,10
32″	3,20,28,10, 8,57,32,16,13,17		14,39,21,22	
		2, 5,28, 7,15,43,55, 6		9,10
34″	3,20,30,15,37, 4,48, 0, 8,23		14,39,30,32	
		2, 5,28, 7, 1, 4,24,34		9,10
36″	3,20,32,21, 5,11,49, 4,32,57		14,39,39,42	
		2, 5,28, 6,46,24,44,52		9,10
38″	3,20,34,26,33,18,35,29,17,49		14,39,48,52	
		2, 5,28, 6,31,44,56, 0		9,10
40″	3,20,36,32, 1,25, 7,14,13,49		14,39,58, 2	
		2, 5,28, 6,17, 4,57,58		9,10
42″	3,20,38,37,29,31,24,19,11,47		14,40, 7,12	
		2, 5,28, 6, 2,24,50,46		9,10
44″	3,20,40,42,57,37,26,44, 2,33		14,40,16,22	
		2, 5,28, 5,47,44,34,24		9,10
46″	3,20,42,48,25,43,14,28,36,57		14,40,25,32	
		2, 5,28, 5,33, 4, 8,52		9,10
48″	3,20,44,53,53,48,47,32,45,49		14,40,34,42	
		2, 5,28, 5,18,23,34,10		9,10
50″	3,20,46,59,21,54, 5,56,19,59		14,40,43,52	
		2, 5,28, 5, 3,42,50,18		9,10
52″	3,20,49, 4,49,59, 9,39,10,17		14,40,53, 2	
		2, 5,28, 4,49, 1,57,16		9,10
54″	3,20,51,10,18, 3,58,41, 7,33		14,41, 2,12	
		2, 5,28, 4,34,20,55, 4		9,10
56″	3,20,53,15,46, 8,33, 2, 2,37		14,41,11,22	
		2, 5,28, 4,19,39,43,42		9,10
58″	3,20,55,21,14,12,52,41,46,19		14,41,20,32	
		2, 5,28, 4, 4,58,23,10		
60″	3,20,57,26,42,16,57,40, 9,29			
exact	3,20,57,26,42,16,57,39,46,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°12′ 0″	3,20,57,26,42,16,57,39,46,54			
		2, 5,28, 3,50,16,50,57		
2″	3,20,59,32,10,20,47,56,37,51		14,41,39, 3	
		2, 5,28, 3,35,35,11,54		9,10
4″	3,21, 1,37,38,24,23,31,49,45		14,41,48,13	
		2, 5,28, 3,20,53,23,41		9,10
6″	3,21, 3,43, 6,27,44,25,13,26		14,41,57,23	
		2, 5,28, 3, 6,11,26,18		9,10
8″	3,21, 5,48,34,30,50,36,39,44		14,42, 6,33	
		2, 5,28, 2,51,29,19,45		9,10
10″	3,21, 7,54, 2,33,42, 5,59,29		14,42,15,43	
		2, 5,28, 2,36,47, 4, 2		9,10
12″	3,21, 9,59,30,36,18,53, 3,31		14,42,24,53	
		2, 5,28, 2,22, 4,39, 9		9,10
14″	3,21,12, 4,58,38,40,57,42,40		14,42,34, 3	
		2, 5,28, 2, 7,22, 5, 6		9,10
16″	3,21,14,10,26,40,48,19,47,46		14,42,43,13	
		2, 5,28, 1,52,39,21,53		9,10
18″	3,21,16,15,54,42,40,59, 9,39		14,42,52,23	
		2, 5,28, 1,37,56,29,30		9,10
20″	3,21,18,21,22,44,18,55,39, 9		14,43, 1,33	
		2, 5,28, 1,23,13,27,57		9,10
22″	3,21,20,26,50,45,42, 9, 7, 6		14,43,10,43	
		2, 5,28, 1, 8,30,17,14		9,10
24″	3,21,22,32,18,46,50,39,24,20		14,43,19,53	
		2, 5,28, 0,53,46,57,21		9,10
26″	3,21,24,37,46,47,44,26,21,41		14,43,29, 3	
		2, 5,28, 0,39, 3,28,18		9,10
28″	3,21,26,43,14,48,23,29,49,59		14,43,38,13	
		2, 5,28, 0,24,19,50, 5		9,10
30″	3,21,28,48,42,48,47,49,40, 4		14,43,47,23	
		2, 5,28, 0, 9,36, 2,42		9,10
32″	3,21,30,54,10,48,57,25,42,46		14,43,56,33	
		2, 5,27,59,54,52, 6, 9		9,10
34″	3,21,32,59,38,48,52,17,48,55		14,44, 5,43	
		2, 5,27,59,40, 8, 0,26		9,10
36″	3,21,35, 5, 6,48,32,25,49,21		14,44,14,53	
		2, 5,27,59,25,23,45,33		9,10
38″	3,21,37,10,34,47,57,49,34,54		14,44,24, 3	
		2, 5,27,59,10,39,21,30		9,10
40″	3,21,39,16, 2,47, 8,28,56,24		14,44,33,13	
		2, 5,27,58,55,54,48,17		9,10
42″	3,21,41,21,30,46, 4,23,44,41		14,44,42,23	
		2, 5,27,58,41,10, 5,54		9,10
44″	3,21,43,26,58,44,45,33,50,35		14,44,51,33	
		2, 5,27,58,26,25,14,21		9,10
46″	3,21,45,32,26,43,11,59, 4,56		14,45, 0,43	
		2, 5,27,58,11,40,13,38		9,10
48″	3,21,47,37,54,41,23,39,18,34		14,45, 9,53	
		2, 5,27,57,56,55, 3,45		9,10
50″	3,21,49,43,22,39,20,34,22,19		14,45,19, 3	
		2, 5,27,57,42, 9,44,42		9,10
52″	3,21,51,48,50,37, 2,44, 7, 1		14,45,28,13	
		2, 5,27,57,27,24,16,29		9,10
54″	3,21,53,54,18,34,30, 8,23,30		14,45,37,23	
		2, 5,27,57,12,38,39, 6		9,10
56″	3,21,55,59,46,31,42,47, 2,36		14,45,46,33	
		2, 5,27,56,57,52,52,33		9,10
58″	3,21,58, 5,14,28,40,39,55, 9		14,45,55,43	
		2, 5,27,56,43, 6,56,50		
60″	3,22, 0,10,42,25,23,46,51,59			
exact	3,22, 0,10,42,25,23,46,29,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°13′ 0″	3,22, 0,10,42,25,23,46,29,46			
		2, 5,27,56,28,20,49,29		
2″	3,22, 2,16,10,21,52, 7,19,15		14,46,14,13	
		2, 5,27,56,13,34,35,16		9,10
4″	3,22, 4,21,38,18, 5,41,54,31		14,46,23,23	
		2, 5,27,55,58,48,11,53		9,10
6″	3,22, 6,27, 6,14, 4,30, 6,24		14,46,32,33	
		2, 5,27,55,44, 1,39,20		9,10
8″	3,22, 8,32,34, 9,48,31,45,44		14,46,41,43	
		2, 5,27,55,29,14,57,37		9,10
10″	3,22,10,38, 2, 5,17,46,43,21		14,46,50,53	
		2, 5,27,55,14,28, 6,44		9,10
12″	3,22,12,43,30, 0,32,14,50, 5		14,47, 0, 3	
		2, 5,27,54,59,41, 6,41		9,10
14″	3,22,14,48,57,55,31,55,56,46		14,47, 9,13	
		2, 5,27,54,44,53,57,28		9,10
16″	3,22,16,54,25,50,16,49,54,14		14,47,18,23	
		2, 5,27,54,30, 6,39, 5		9,10
18″	3,22,18,59,53,44,46,56,33,19		14,47,27,33	
		2, 5,27,54,15,19,11,32		9,10
20″	3,22,21, 5,21,39, 2,15,44,51		14,47,36,43	
		2, 5,27,54, 0,31,34,49		9,10
22″	3,22,23,10,49,33, 2,47,19,40		14,47,45,53	
		2, 5,27,53,45,43,48,56		9,10
24″	3,22,25,16,17,26,48,31, 8,36		14,47,55, 3	
		2, 5,27,53,30,55,53,53		9,10
26″	3,22,27,21,45,20,19,27, 2,29		14,48, 4,13	
		2, 5,27,53,16, 7,49,40		9,10
28″	3,22,29,27,13,13,35,34,52, 9		14,48,13,23	
		2, 5,27,53, 1,19,36,17		9,10
30″	3,22,31,32,41, 6,36,54,28,26		14,48,22,33	
		2, 5,27,52,46,31,13,44		9,10
32″	3,22,33,38, 8,59,23,25,42,10		14,48,31,43	
		2, 5,27,52,31,42,42, 1		9,10
34″	3,22,35,43,36,51,55, 8,24,11		14,48,40,53	
		2, 5,27,52,16,54, 1, 8		9,10
36″	3,22,37,49, 4,44,12, 2,25,19		14,48,50, 3	
		2, 5,27,52, 2, 5,11, 5		9,10
38″	3,22,39,54,32,36,14, 7,36,24		14,48,59,13	
		2, 5,27,51,47,16,11,52		9,10
40″	3,22,42, 0, 0,28, 1,23,48,16		14,49, 8,23	
		2, 5,27,51,32,27, 3,29		9,10
42″	3,22,44, 5,28,19,33,50,51,45		14,49,17,33	
		2, 5,27,51,17,37,45,56		9,10
44″	3,22,46,10,56,10,51,28,37,41		14,49,26,43	
		2, 5,27,51, 2,48,19,13		9,10
46″	3,22,48,16,24, 1,54,16,56,54		14,49,35,53	
		2, 5,27,50,47,58,43,20		9,10
48″	3,22,50,21,51,52,42,15,40,14		14,49,45, 3	
		2, 5,27,50,33, 8,58,17		9,10
50″	3,22,52,27,19,43,15,24,38,31		14,49,54,13	
		2, 5,27,50,18,19, 4, 4		9,10
52″	3,22,54,32,47,33,33,43,42,35		14,50, 3,23	
		2, 5,27,50, 3,29, 0,41		9,10
54″	3,22,56,38,15,23,37,12,43,16		14,50,12,33	
		2, 5,27,49,48,38,48, 8		9,10
56″	3,22,58,43,43,13,25,51,31,24		14,50,21,43	
		2, 5,27,49,33,48,26,25		9,10
58″	3,23, 0,49,11, 2,59,39,57,49		14,50,30,53	
		2, 5,27,49,18,57,55,32		
60″	3,23, 2,54,38,52,18,37,53,21			
exact	3,23, 2,54,38,52,18,37,26,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°14′ 0″	3,23, 2,54,38,52,18,37,26,21			
		2, 5,27,49, 4, 7,12,43		
2″	3,23, 5, 0, 6,41,22,44,39, 4		14,50,49,24	
		2, 5,27,48,49,16,23,19		9,10
4″	3,23, 7, 5,34,30,12, 1, 2,23		14,50,58,34	
		2, 5,27,48,34,25,24,45		9,10
6″	3,23, 9,11, 2,18,46,26,27, 8		14,51, 7,44	
		2, 5,27,48,19,34,17, 1		9,10
8″	3,23,11,16,30, 7, 6, 0,44, 9		14,51,16,54	
		2, 5,27,48, 4,43, 0, 7		9,10
10″	3,23,13,21,57,55,10,43,44,16		14,51,26, 4	
		2, 5,27,47,49,51,34, 3		9,10
12″	3,23,15,27,25,43, 0,35,18,19		14,51,35,14	
		2, 5,27,47,34,59,58,49		9,10
14″	3,23,17,32,53,30,35,35,17, 8		14,51,44,24	
		2, 5,27,47,20, 8,14,25		9,10
16″	3,23,19,38,21,17,55,43,31,33		14,51,53,34	
		2, 5,27,47, 5,16,20,51		9,10
18″	3,23,21,43,49, 5, 0,59,52,24		14,52, 2,44	
		2, 5,27,46,50,24,18, 7		9,10
20″	3,23,23,49,16,51,51,24,10,31		14,52,11,54	
		2, 5,27,46,35,32, 6,13		9,10
22″	3,23,25,54,44,38,26,56,16,44		14,52,21, 4	
		2, 5,27,46,20,39,45, 9		9,10
24″	3,23,28, 0,12,24,47,36, 1,53		14,52,30,14	
		2, 5,27,46, 5,47,14,55		9,10
26″	3,23,30, 5,40,10,53,23,16,48		14,52,39,24	
		2, 5,27,45,50,54,35,31		9,10
28″	3,23,32,11, 7,56,44,17,52,19		14,52,48,34	
		2, 5,27,45,36, 1,46,57		9,10
30″	3,23,34,16,35,42,20,19,39,16		14,52,57,44	
		2, 5,27,45,21, 8,49,13		9,10
32″	3,23,36,22, 3,27,41,28,28,29		14,53, 6,54	
		2, 5,27,45, 6,15,42,19		9,10
34″	3,23,38,27,31,12,47,44,10,48		14,53,16, 4	
		2, 5,27,44,51,22,26,15		9,10
36″	3,23,40,32,58,57,39, 6,37, 3		14,53,25,14	
		2, 5,27,44,36,29, 1, 1		9,10
38″	3,23,42,38,26,42,15,35,38, 4		14,53,34,24	
		2, 5,27,44,21,35,26,37		9,10
40″	3,23,44,43,54,26,37,11, 4,41		14,53,43,34	
		2, 5,27,44, 6,41,43, 3		9,10
42″	3,23,46,49,22,10,43,52,47,44		14,53,52,44	
		2, 5,27,43,51,47,50,19		9,10
44″	3,23,48,54,49,54,35,40,38, 3		14,54, 1,54	
		2, 5,27,43,36,53,48,25		9,10
46″	3,23,51, 0,17,38,12,34,26,28		14,54,11, 4	
		2, 5,27,43,21,59,37,21		9,10
48″	3,23,53, 5,45,21,34,34, 3,49		14,54,20,14	
		2, 5,27,43, 7, 5,17, 7		9,10
50″	3,23,55,11,13, 4,41,39,20,56		14,54,29,24	
		2, 5,27,42,52,10,47,43		9,10
52″	3,23,57,16,40,47,33,50, 8,39		14,54,38,34	
		2, 5,27,42,37,16, 9, 9		9,10
54″	3,23,59,22, 8,30,11, 6,17,48		14,54,47,44	
		2, 5,27,42,22,21,21,25		9,10
56″	3,24, 1,27,36,12,33,27,39,13		14,54,56,54	
		2, 5,27,42, 7,26,24,31		9,10
58″	3,24, 3,33, 3,54,40,54, 3,44		14,55, 6, 4	
		2, 5,27,41,52,31,18,27		
60″	3,24, 5,38,31,36,33,25,22,11			
exact	3,24, 5,38,31,36,33,24,59,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°15′ 0″	3,24, 5,38,31,36,33,24,59,16			
		2, 5,27,41,37,36, 0,46		
2″	3,24, 7,43,59,18,11, 1, 0, 2		14,55,24,34	
		2, 5,27,41,22,40,36,12		9,10
4″	3,24, 9,49,26,59,33,41,36,14		14,55,33,44	
		2, 5,27,41, 7,45, 2,28		9,10
6″	3,24,11,54,54,40,41,26,38,42		14,55,42,54	
		2, 5,27,40,52,49,19,34		9,10
8″	3,24,14, 0,22,21,34,15,58,16		14,55,52, 4	
		2, 5,27,40,37,53,27,30		9,10
10″	3,24,16, 5,50, 2,12, 9,25,46		14,56, 1,14	
		2, 5,27,40,22,57,26,16		9,10
12″	3,24,18,11,17,42,35, 6,52, 2		14,56,10,24	
		2, 5,27,40, 8, 1,15,52		9,10
14″	3,24,20,16,45,22,43, 8, 7,54		14,56,19,34	
		2, 5,27,39,53, 4,56,18		9,10
16″	3,24,22,22,13, 2,36,13, 4,12		14,56,28,44	
		2, 5,27,39,38, 8,27,34		9,10
18″	3,24,24,27,40,42,14,21,31,46		14,56,37,54	
		2, 5,27,39,23,11,49,40		9,10
20″	3,24,26,33, 8,21,37,33,21,26		14,56,47, 4	
		2, 5,27,39, 8,15, 2,36		9,10
22″	3,24,28,38,36, 0,45,48,24, 2		14,56,56,14	
		2, 5,27,38,53,18, 6,22		9,10
24″	3,24,30,44, 3,39,39, 6,30,24		14,57, 5,24	
		2, 5,27,38,38,21, 0,58		9,10
26″	3,24,32,49,31,18,17,27,31,22		14,57,14,34	
		2, 5,27,38,23,23,46,24		9,10
28″	3,24,34,54,58,56,40,51,17,46		14,57,23,44	
		2, 5,27,38, 8,26,22,40		9,10
30″	3,24,37, 0,26,34,49,17,40,26		14,57,32,54	
		2, 5,27,37,53,28,49,46		9,10
32″	3,24,39, 5,54,12,42,46,30,12		14,57,42, 4	
		2, 5,27,37,38,31, 7,42		9,10
34″	3,24,41,11,21,50,21,17,37,54		14,57,51,14	
		2, 5,27,37,23,33,16,28		9,10
36″	3,24,43,16,49,27,44,50,54,22		14,58, 0,24	
		2, 5,27,37, 8,35,16, 4		9,10
38″	3,24,45,22,17, 4,53,26,10,26		14,58, 9,34	
		2, 5,27,36,53,37, 6,30		9,10
40″	3,24,47,27,44,41,47, 3,16,56		14,58,18,44	
		2, 5,27,36,38,38,47,46		9,10
42″	3,24,49,33,12,18,25,42, 4,42		14,58,27,54	
		2, 5,27,36,23,40,19,52		9,10
44″	3,24,51,38,39,54,49,22,24,34		14,58,37, 4	
		2, 5,27,36, 8,41,42,48		9,10
46″	3,24,53,44, 7,30,58, 4, 7,22		14,58,46,14	
		2, 5,27,35,53,42,56,34		9,10
48″	3,24,55,49,35, 6,51,47, 3,56		14,58,55,24	
		2, 5,27,35,38,44, 1,10		9,10
50″	3,24,57,55, 2,42,30,31, 5, 6		14,59, 4,34	
		2, 5,27,35,23,44,56,36		9,10
52″	3,25, 0, 0,30,17,54,16, 1,42		14,59,13,44	
		2, 5,27,35, 8,45,42,52		9,10
54″	3,25, 2, 5,57,53, 3, 1,44,34		14,59,22,54	
		2, 5,27,34,53,46,19,58		9,10
56″	3,25, 4,11,25,27,56,48, 4,32		14,59,32, 4	
		2, 5,27,34,38,46,47,54		9,10
58″	3,25, 6,16,53, 2,35,34,52,26		14,59,41,14	
		2, 5,27,34,23,47, 6,40		
60″	3,25, 8,22,20,36,59,21,59, 6			
exact	3,25, 8,22,20,36,59,21,35,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°16′ 0″	3,25, 8,22,20,36,59,21,35,12			
		2, 5,27,34, 8,47,13,46		
2″	3,25,10,27,48,11, 8, 8,48,58		14,59,59,44	
		2, 5,27,33,53,47,14, 2		9,10
4″	3,25,12,33,15,45, 1,56, 3, 0		15, 0, 8,54	
		2, 5,27,33,38,47, 5, 8		9,10
6″	3,25,14,38,43,18,40,43, 8, 8		15, 0,18, 4	
		2, 5,27,33,23,46,47, 4		9,10
8″	3,25,16,44,10,52, 4,29,55,12		15, 0,27,14	
		2, 5,27,33, 8,46,19,50		9,10
10″	3,25,18,49,38,25,13,16,15, 2		15, 0,36,24	
		2, 5,27,32,53,45,43,26		9,10
12″	3,25,20,55, 5,58, 7, 1,58,28		15, 0,45,34	
		2, 5,27,32,38,44,57,52		9,10
14″	3,25,23, 0,33,30,45,46,56,20		15, 0,54,44	
		2, 5,27,32,23,44, 3, 8		9,10
16″	3,25,25, 6, 1, 3, 9,30,59,28		15, 1, 3,54	
		2, 5,27,32, 8,42,59,14		9,10
18″	3,25,27,11,28,35,18,13,58,42		15, 1,13, 4	
		2, 5,27,31,53,41,46,10		9,10
20″	3,25,29,16,56, 7,11,55,44,52		15, 1,22,14	
		2, 5,27,31,38,40,23,56		9,10
22″	3,25,31,22,23,38,50,36, 8,48		15, 1,31,24	
		2, 5,27,31,23,38,52,32		9,10
24″	3,25,33,27,51,10,14,15, 1,20		15, 1,40,34	
		2, 5,27,31, 8,37,11,58		9,10
26″	3,25,35,33,18,41,22,52,13,18		15, 1,49,44	
		2, 5,27,30,53,35,22,14		9,10
28″	3,25,37,38,46,12,16,27,35,32		15, 1,58,54	
		2, 5,27,30,38,33,23,20		9,10
30″	3,25,39,44,13,42,55, 0,58,52		15, 2, 8, 4	
		2, 5,27,30,23,31,15,16		9,10
32″	3,25,41,49,41,13,18,32,14, 8		15, 2,17,14	
		2, 5,27,30, 8,28,58, 2		9,10
34″	3,25,43,55, 8,43,27, 1,12,10		15, 2,26,24	
		2, 5,27,29,53,26,31,38		9,10
36″	3,25,46, 0,36,13,20,27,43,48		15, 2,35,34	
		2, 5,27,29,38,23,56, 4		9,10
38″	3,25,48, 6, 3,42,58,51,39,52		15, 2,44,44	
		2, 5,27,29,23,21,11,20		9,10
40″	3,25,50,11,31,12,22,12,51,12		15, 2,53,54	
		2, 5,27,29, 8,18,17,26		9,10
42″	3,25,52,16,58,41,30,31, 8,38		15, 3, 3, 4	
		2, 5,27,28,53,15,14,22		9,10
44″	3,25,54,22,26,10,23,46,23, 0		15, 3,12,14	
		2, 5,27,28,38,12, 2, 8		9,10
46″	3,25,56,27,53,39, 1,58,25, 8		15, 3,21,24	
		2, 5,27,28,23, 8,40,44		9,10
48″	3,25,58,33,21, 7,25, 7, 5,52		15, 3,30,34	
		2, 5,27,28, 8, 5,10,10		9,10
50″	3,26, 0,38,48,35,33,12,16, 2		15, 3,39,44	
		2, 5,27,27,53, 1,30,26		9,10
52″	3,26, 2,44,16, 3,26,13,46,28		15, 3,48,54	
		2, 5,27,27,37,57,41,32		9,10
54″	3,26, 4,49,43,31, 4,11,28, 0		15, 3,58, 4	
		2, 5,27,27,22,53,43,28		9,10
56″	3,26, 6,55,10,58,27, 5,11,28		15, 4, 7,14	
		2, 5,27,27, 7,49,36,14		9,10
58″	3,26, 9, 0,38,25,34,54,47,42		15, 4,16,24	
		2, 5,27,26,52,45,19,50		
60″	3,26,11, 6, 5,52,27,40, 7,32			
exact	3,26,11, 6, 5,52,27,39,44,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°17′ 0″	3,26,11, 6, 5,52,27,39,44,56			
		2, 5,27,26,37,40,51,52		
2″	3,26,13,11,33,19, 5,20,36,48		15, 4,34,54	
		2, 5,27,26,22,36,16,58		9,10
4″	3,26,15,17, 0,45,27,56,53,46		15, 4,44, 4	
		2, 5,27,26, 7,31,32,54		9,10
6″	3,26,17,22,28,11,35,28,26,40		15, 4,53,14	
		2, 5,27,25,52,26,39,40		9,10
8″	3,26,19,27,55,37,27,55, 6,20		15, 5, 2,24	
		2, 5,27,25,37,21,37,16		9,10
10″	3,26,21,33,23, 3, 5,16,43,36		15, 5,11,34	
		2, 5,27,25,22,16,25,42		9,10
12″	3,26,23,38,50,28,27,33, 9,18		15, 5,20,44	
		2, 5,27,25, 7,11, 4,58		9,10
14″	3,26,25,44,17,53,34,44,14,16		15, 5,29,54	
		2, 5,27,24,52, 5,35, 4		9,10
16″	3,26,27,49,45,18,26,49,49,20		15, 5,39, 4	
		2, 5,27,24,36,59,56, 0		9,10
18″	3,26,29,55,12,43, 3,49,45,20		15, 5,48,14	
		2, 5,27,24,21,54, 7,46		9,10
20″	3,26,32, 0,40, 7,25,43,53, 6		15, 5,57,24	
		2, 5,27,24, 6,48,10,22		9,10
22″	3,26,34, 6, 7,31,32,32, 3,28		15, 6, 6,34	
		2, 5,27,23,51,42, 3,48		9,10
24″	3,26,36,11,34,55,24,14, 7,16		15, 6,15,44	
		2, 5,27,23,36,35,48, 4		9,10
26″	3,26,38,17, 2,19, 0,49,55,20		15, 6,24,54	
		2, 5,27,23,21,29,23,10		9,10
28″	3,26,40,22,29,42,22,19,18,30		15, 6,34, 4	
		2, 5,27,23, 6,22,49, 6		9,10
30″	3,26,42,27,57, 5,28,42, 7,36		15, 6,43,14	
		2, 5,27,22,51,16, 5,52		9,10
32″	3,26,44,33,24,28,19,58,13,28		15, 6,52,24	
		2, 5,27,22,36, 9,13,28		9,10
34″	3,26,46,38,51,50,56, 7,26,56		15, 7, 1,34	
		2, 5,27,22,21, 2,11,54		9,10
36″	3,26,48,44,19,13,17, 9,38,50		15, 7,10,44	
		2, 5,27,22, 5,55, 1,10		9,10
38″	3,26,50,49,46,35,23, 4,40, 0		15, 7,19,54	
		2, 5,27,21,50,47,41,16		9,10
40″	3,26,52,55,13,57,13,52,21,16		15, 7,29, 4	
		2, 5,27,21,35,40,12,12		9,10
42″	3,26,55, 0,41,18,49,32,33,28		15, 7,38,14	
		2, 5,27,21,20,32,33,58		9,10
44″	3,26,57, 6, 8,40,10, 5, 7,26		15, 7,47,24	
		2, 5,27,21, 5,24,46,34		9,10
46″	3,26,59,11,36, 1,15,29,54, 0		15, 7,56,34	
		2, 5,27,20,50,16,50, 0		9,10
48″	3,27, 1,17, 3,22, 5,46,44, 0		15, 8, 5,44	
		2, 5,27,20,35, 8,44,16		9,10
50″	3,27, 3,22,30,42,40,55,28,16		15, 8,14,54	
		2, 5,27,20,20, 0,29,22		9,10
52″	3,27, 5,27,58, 3, 0,55,57,38		15, 8,24, 4	
		2, 5,27,20, 4,52, 5,18		9,10
54″	3,27, 7,33,25,23, 5,48, 2,56		15, 8,33,14	
		2, 5,27,19,49,43,32, 4		9,10
56″	3,27, 9,38,52,42,55,31,35, 0		15, 8,42,24	
		2, 5,27,19,34,34,49,40		9,10
58″	3,27,11,44,20, 2,30, 6,24,40		15, 8,51,34	
		2, 5,27,19,19,25,58, 6		
60″	3,27,13,49,47,21,49,32,22,46			
exact	3,27,13,49,47,21,49,32, 3,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°18′ 0″	3,27,13,49,47,21,49,32, 3,23			
		2, 5,27,19, 4,16,55,13		
2″	3,27,15,55,14,40,53,48,58,36		15, 9,10, 3	
		2, 5,27,18,49, 7,45,10		9,10
4″	3,27,18, 0,41,59,42,56,43,46		15, 9,19,13	
		2, 5,27,18,33,58,25,57		9,10
6″	3,27,20, 6, 9,18,16,55, 9,43		15, 9,28,23	
		2, 5,27,18,18,48,57,34		9,10
8″	3,27,22,11,36,36,35,44, 7,17		15, 9,37,33	
		2, 5,27,18, 3,39,20, 1		9,10
10″	3,27,24,17, 3,54,39,23,27,18		15, 9,46,43	
		2, 5,27,17,48,29,33,18		9,10
12″	3,27,26,22,31,12,27,53, 0,36		15, 9,55,53	
		2, 5,27,17,33,19,37,25		9,10
14″	3,27,28,27,58,30, 1,12,38, 1		15,10, 5, 3	
		2, 5,27,17,18, 9,32,22		9,10
16″	3,27,30,33,25,47,19,22,10,23		15,10,14,13	
		2, 5,27,17, 2,59,18, 9		9,10
18″	3,27,32,38,53, 4,22,21,28,32		15,10,23,23	
		2, 5,27,16,47,48,54,46		9,10
20″	3,27,34,44,20,21,10,10,23,18		15,10,32,33	
		2, 5,27,16,32,38,22,13		9,10
22″	3,27,36,49,47,37,42,48,45,31		15,10,41,43	
		2, 5,27,16,17,27,40,30		9,10
24″	3,27,38,55,14,54, 0,16,26, 1		15,10,50,53	
		2, 5,27,16, 2,16,49,37		9,10
26″	3,27,41, 0,42,10, 2,33,15,38		15,11, 0, 3	
		2, 5,27,15,47, 5,49,34		9,10
28″	3,27,43, 6, 9,25,49,39, 5,12		15,11, 9,13	
		2, 5,27,15,31,54,40,21		9,10
30″	3,27,45,11,36,41,21,33,45,33		15,11,18,23	
		2, 5,27,15,16,43,21,58		9,10
32″	3,27,47,17, 3,56,38,17, 7,31		15,11,27,33	
		2, 5,27,15, 1,31,54,25		9,10
34″	3,27,49,22,31,11,39,49, 1,56		15,11,36,43	
		2, 5,27,14,46,20,17,42		9,10
36″	3,27,51,27,58,26,26, 9,19,38		15,11,45,53	
		2, 5,27,14,31, 8,31,49		9,10
38″	3,27,53,33,25,40,57,17,51,27		15,11,55, 3	
		2, 5,27,14,15,56,36,46		9,10
40″	3,27,55,38,52,55,13,14,28,13		15,12, 4,13	
		2, 5,27,14, 0,44,32,33		9,10
42″	3,27,57,44,20, 9,13,59, 0,46		15,12,13,23	
		2, 5,27,13,45,32,19,10		9,10
44″	3,27,59,49,47,22,59,31,19,56		15,12,22,33	
		2, 5,27,13,30,19,56,37		9,10
46″	3,28, 1,55,14,36,29,51,16,33		15,12,31,43	
		2, 5,27,13,15, 7,24,54		9,10
48″	3,28, 4, 0,41,49,44,58,41,27		15,12,40,53	
		2, 5,27,12,59,54,44, 1		9,10
50″	3,28, 6, 6, 9, 2,44,53,25,28		15,12,50, 3	
		2, 5,27,12,44,41,53,58		9,10
52″	3,28, 8,11,36,15,29,35,19,26		15,12,59,13	
		2, 5,27,12,29,28,54,45		9,10
54″	3,28,10,17, 3,27,59, 4,14,11		15,13, 8,23	
		2, 5,27,12,14,15,46,22		9,10
56″	3,28,12,22,30,40,13,20, 0,33		15,13,17,33	
		2, 5,27,11,59, 2,28,49		9,10
58″	3,28,14,27,57,52,12,22,29,22		15,13,26,43	
		2, 5,27,11,43,49, 2, 6		
60″	3,28,16,33,25, 3,56,11,31,28			
exact	3,28,16,33,25, 3,56,11, 9,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°19′ 0″	3,28,16,33,25, 3,56,11, 9,32			
		2, 5,27,11,28,35,23,55		
2″	3,28,18,38,52,15,24,46,33,27		15,13,45,12	
		2, 5,27,11,13,21,38,43		9,10
4″	3,28,20,44,19,26,38, 8,12,10		15,13,54,22	
		2, 5,27,10,58, 7,44,21		9,10
6″	3,28,22,49,46,37,36,15,56,31		15,14, 3,32	
		2, 5,27,10,42,53,40,49		9,10
8″	3,28,24,55,13,48,19, 9,37,20		15,14,12,42	
		2, 5,27,10,27,39,28, 7		9,10
10″	3,28,27, 0,40,58,46,49, 5,27		15,14,21,52	
		2, 5,27,10,12,25, 6,15		9,10
12″	3,28,29, 6, 8, 8,59,14,11,42		15,14,31, 2	
		2, 5,27, 9,57,10,35,13		9,10
14″	3,28,31,11,35,18,56,24,46,55		15,14,40,12	
		2, 5,27, 9,41,55,55, 1		9,10
16″	3,28,33,17, 2,28,38,20,41,56		15,14,49,22	
		2, 5,27, 9,26,41, 5,39		9,10
18″	3,28,35,22,29,38, 5, 1,47,35		15,14,58,32	
		2, 5,27, 9,11,26, 7, 7		9,10
20″	3,28,37,27,56,47,16,27,54,42		15,15, 7,42	
		2, 5,27, 8,56,10,59,25		9,10
22″	3,28,39,33,23,56,12,38,54, 7		15,15,16,52	
		2, 5,27, 8,40,55,42,33		9,10
24″	3,28,41,38,51, 4,53,34,36,40		15,15,26, 2	
		2, 5,27, 8,25,40,16,31		9,10
26″	3,28,43,44,18,13,19,14,53,11		15,15,35,12	
		2, 5,27, 8,10,24,41,19		9,10
28″	3,28,45,49,45,21,29,39,34,30		15,15,44,22	
		2, 5,27, 7,55, 8,56,57		9,10
30″	3,28,47,55,12,29,24,48,31,27		15,15,53,32	
		2, 5,27, 7,39,53, 3,25		9,10
32″	3,28,50, 0,39,37, 4,41,34,52		15,16, 2,42	
		2, 5,27, 7,24,37, 0,43		9,10
34″	3,28,52, 6, 6,44,29,18,35,35		15,16,11,52	
		2, 5,27, 7, 9,20,48,51		9,10
36″	3,28,54,11,33,51,38,39,24,26		15,16,21, 2	
		2, 5,27, 6,54, 4,27,49		9,10
38″	3,28,56,17, 0,58,32,43,52,15		15,16,30,12	
		2, 5,27, 6,38,47,57,37		9,10
40″	3,28,58,22,28, 5,11,31,49,52		15,16,39,22	
		2, 5,27, 6,23,31,18,15		9,10
42″	3,29, 0,27,55,11,35, 3, 8, 7		15,16,48,32	
		2, 5,27, 6, 8,14,29,43		9,10
44″	3,29, 2,33,22,17,43,17,37,50		15,16,57,42	
		2, 5,27, 5,52,57,32, 1		9,10
46″	3,29, 4,38,49,23,36,15, 9,51		15,17, 6,52	
		2, 5,27, 5,37,40,25, 9		9,10
48″	3,29, 6,44,16,29,13,55,35, 0		15,17,16, 2	
		2, 5,27, 5,22,23, 9, 7		9,10
50″	3,29, 8,49,43,34,36,18,44, 7		15,17,25,12	
		2, 5,27, 5, 7, 5,43,55		9,10
52″	3,29,10,55,10,39,43,24,28, 2		15,17,34,22	
		2, 5,27, 4,51,48, 9,33		9,10
54″	3,29,13, 0,37,44,35,12,37,35		15,17,43,32	
		2, 5,27, 4,36,30,26, 1		9,10
56″	3,29,15, 6, 4,49,11,43, 3,36		15,17,52,42	
		2, 5,27, 4,21,12,33,19		9,10
58″	3,29,17,11,31,53,32,55,36,55		15,18, 1,52	
		2, 5,27, 4, 5,54,31,27		
60″	3,29,19,16,58,57,38,50, 8,22			
exact	3,29,19,16,58,57,38,49,46,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°20′ 0″	3,29,19,16,58,57,38,49,46,37			
		2, 5,27, 3,50,36,18, 9		
2″	3,29,21,22,26, 1,29,26, 4,46		15,18,20,21	
		2, 5,27, 3,35,17,57,48		9,10
4″	3,29,23,27,53, 5, 4,44, 2,34		15,18,29,31	
		2, 5,27, 3,19,59,28,17		9,10
6″	3,29,25,33,20, 8,24,43,30,51		15,18,38,41	
		2, 5,27, 3, 4,40,49,36		9,10
8″	3,29,27,38,47,11,29,24,20,27		15,18,47,51	
		2, 5,27, 2,49,22, 1,45		9,10
10″	3,29,29,44,14,14,18,46,22,12		15,18,57, 1	
		2, 5,27, 2,34, 3, 4,44		9,10
12″	3,29,31,49,41,16,52,49,26,56		15,19, 6,11	
		2, 5,27, 2,18,43,58,33		9,10
14″	3,29,33,55, 8,19,11,33,25,29		15,19,15,21	
		2, 5,27, 2, 3,24,43,12		9,10
16″	3,29,36, 0,35,21,14,58, 8,41		15,19,24,31	
		2, 5,27, 1,48, 5,18,41		9,10
18″	3,29,38, 6, 2,23, 3, 3,27,22		15,19,33,41	
		2, 5,27, 1,32,45,45, 0		9,10
20″	3,29,40,11,29,24,35,49,12,22		15,19,42,51	
		2, 5,27, 1,17,26, 2, 9		9,10
22″	3,29,42,16,56,25,53,15,14,31		15,19,52, 1	
		2, 5,27, 1, 2, 6,10, 8		9,10
24″	3,29,44,22,23,26,55,21,24,39		15,20, 1,11	
		2, 5,27, 0,46,46, 8,57		9,10
26″	3,29,46,27,50,27,42, 7,33,36		15,20,10,21	
		2, 5,27, 0,31,25,58,36		9,10
28″	3,29,48,33,17,28,13,33,32,12		15,20,19,31	
		2, 5,27, 0,16, 5,39, 5		9,10
30″	3,29,50,38,44,28,29,39,11,17		15,20,28,41	
		2, 5,27, 0, 0,45,10,24		9,10
32″	3,29,52,44,11,28,30,24,21,41		15,20,37,51	
		2, 5,26,59,45,24,32,33		9,10
34″	3,29,54,49,38,28,15,48,54,14		15,20,47, 1	
		2, 5,26,59,30, 3,45,32		9,10
36″	3,29,56,55, 5,27,45,52,39,46		15,20,56,11	
		2, 5,26,59,14,42,49,21		9,10
38″	3,29,59, 0,32,27, 0,35,29, 7		15,21, 5,21	
		2, 5,26,58,59,21,44, 0		9,10
40″	3,30, 1, 5,59,25,59,57,13, 7		15,21,14,31	
		2, 5,26,58,44, 0,29,29		9,10
42″	3,30, 3,11,26,24,43,57,42,36		15,21,23,41	
		2, 5,26,58,28,39, 5,48		9,10
44″	3,30, 5,16,53,23,12,36,48,24		15,21,32,51	
		2, 5,26,58,13,17,32,57		9,10
46″	3,30, 7,22,20,21,25,54,21,21		15,21,42, 1	
		2, 5,26,57,57,55,50,56		9,10
48″	3,30, 9,27,47,19,23,50,12,17		15,21,51,11	
		2, 5,26,57,42,33,59,45		9,10
50″	3,30,11,33,14,17, 6,24,12, 2		15,22, 0,21	
		2, 5,26,57,27,11,59,24		9,10
52″	3,30,13,38,41,14,33,36,11,26		15,22, 9,31	
		2, 5,26,57,11,49,49,53		9,10
54″	3,30,15,44, 8,11,45,26, 1,19		15,22,18,41	
		2, 5,26,56,56,27,31,12		9,10
56″	3,30,17,49,35, 8,41,53,32,31		15,22,27,51	
		2, 5,26,56,41, 5, 3,21		9,10
58″	3,30,19,55, 2, 5,22,58,35,52		15,22,37, 1	
		2, 5,26,56,25,42,26,20		
60″	3,30,22, 0,29, 1,48,41, 2,12			
exact	3,30,22, 0,29, 1,48,40,41,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°21′ 0″	3,30,22, 0,29, 1,48,40,41,57			
		2, 5,26,56,10,19,38, 1		
2″	3,30,24, 5,55,57,59, 0,19,58		15,22,55,30	
		2, 5,26,55,54,56,42,31		9,10
4″	3,30,26,11,22,53,53,57, 2,29		15,23, 4,40	
		2, 5,26,55,39,33,37,51		9,10
6″	3,30,28,16,49,49,33,30,40,20		15,23,13,50	
		2, 5,26,55,24,10,24, 1		9,10
8″	3,30,30,22,16,44,57,41, 4,21		15,23,23, 0	
		2, 5,26,55, 8,47, 1, 1		9,10
10″	3,30,32,27,43,40, 6,28, 5,22		15,23,32,10	
		2, 5,26,54,53,23,28,51		9,10
12″	3,30,34,33,10,34,59,51,34,13		15,23,41,20	
		2, 5,26,54,37,59,47,31		9,10
14″	3,30,36,38,37,29,37,51,21,44		15,23,50,30	
		2, 5,26,54,22,35,57, 1		9,10
16″	3,30,38,44, 4,24, 0,27,18,45		15,23,59,40	
		2, 5,26,54, 7,11,57,21		9,10
18″	3,30,40,49,31,18, 7,39,16, 6		15,24, 8,50	
		2, 5,26,53,51,47,48,31		9,10
20″	3,30,42,54,58,11,59,27, 4,37		15,24,18, 0	
		2, 5,26,53,36,23,30,31		9,10
22″	3,30,45, 0,25, 5,35,50,35, 8		15,24,27,10	
		2, 5,26,53,20,59, 3,21		9,10
24″	3,30,47, 5,51,58,56,49,38,29		15,24,36,20	
		2, 5,26,53, 5,34,27, 1		9,10
26″	3,30,49,11,18,52, 2,24, 5,30		15,24,45,30	
		2, 5,26,52,50, 9,41,31		9,10
28″	3,30,51,16,45,44,52,33,47, 1		15,24,54,40	
		2, 5,26,52,34,44,46,51		9,10
30″	3,30,53,22,12,37,27,18,33,52		15,25, 3,50	
		2, 5,26,52,19,19,43, 1		9,10
32″	3,30,55,27,39,29,46,38,16,53		15,25,13, 0	
		2, 5,26,52, 3,54,30, 1		9,10
34″	3,30,57,33, 6,21,50,32,46,54		15,25,22,10	
		2, 5,26,51,48,29, 7,51		9,10
36″	3,30,59,38,33,13,39, 1,54,45		15,25,31,20	
		2, 5,26,51,33, 3,36,31		9,10
38″	3,31, 1,44, 0, 5,12, 5,31,16		15,25,40,30	
		2, 5,26,51,17,37,56, 1		9,10
40″	3,31, 3,49,26,56,29,43,27,17		15,25,49,40	
		2, 5,26,51, 2,12, 6,21		9,10
42″	3,31, 5,54,53,47,31,55,33,38		15,25,58,50	
		2, 5,26,50,46,46, 7,31		9,10
44″	3,31, 8, 0,20,38,18,41,41, 9		15,26, 8, 0	
		2, 5,26,50,31,19,59,31		9,10
46″	3,31,10, 5,47,28,50, 1,40,40		15,26,17,10	
		2, 5,26,50,15,53,42,21		9,10
48″	3,31,12,11,14,19, 5,55,23, 1		15,26,26,20	
		2, 5,26,50, 0,27,16, 1		9,10
50″	3,31,14,16,41, 9, 6,22,39, 2		15,26,35,30	
		2, 5,26,49,45, 0,40,31		9,10
52″	3,31,16,22, 7,58,51,23,19,33		15,26,44,40	
		2, 5,26,49,29,33,55,51		9,10
54″	3,31,18,27,34,48,20,57,15,24		15,26,53,50	
		2, 5,26,49,14, 7, 2, 1		9,10
56″	3,31,20,33, 1,37,35, 4,17,25		15,27, 3, 0	
		2, 5,26,48,58,39,59, 1		9,10
58″	3,31,22,38,28,26,33,44,16,26		15,27,12,10	
		2, 5,26,48,43,12,46,51		
60″	3,31,24,43,55,15,16,57, 3,17			
exact	3,31,24,43,55,15,16,56,47, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°22′ 0″	3,31,24,43,55,15,16,56,47, 7			
		2, 5,26,48,27,45,23,41		
2″	3,31,26,49,22, 3,44,42,10,48		15,27,30,38	
		2, 5,26,48,12,17,53, 3		9,10
4″	3,31,28,54,48,51,57, 0, 3,51		15,27,39,48	
		2, 5,26,47,56,50,13,15		9,10
6″	3,31,31, 0,15,39,53,50,17, 6		15,27,48,58	
		2, 5,26,47,41,22,24,17		9,10
8″	3,31,33, 5,42,27,35,12,41,23		15,27,58, 8	
		2, 5,26,47,25,54,26, 9		9,10
10″	3,31,35,11, 9,15, 1, 7, 7,32		15,28, 7,18	
		2, 5,26,47,10,26,18,51		9,10
12″	3,31,37,16,36, 2,11,33,26,23		15,28,16,28	
		2, 5,26,46,54,58, 2,23		9,10
14″	3,31,39,22, 2,49, 6,31,28,46		15,28,25,38	
		2, 5,26,46,39,29,36,45		9,10
16″	3,31,41,27,29,35,46, 1, 5,31		15,28,34,48	
		2, 5,26,46,24, 1, 1,57		9,10
18″	3,31,43,32,56,22,10, 2, 7,28		15,28,43,58	
		2, 5,26,46, 8,32,17,59		9,10
20″	3,31,45,38,23, 8,18,34,25,27		15,28,53, 8	
		2, 5,26,45,53, 3,24,51		9,10
22″	3,31,47,43,49,54,11,37,50,18		15,29, 2,18	
		2, 5,26,45,37,34,22,33		9,10
24″	3,31,49,49,16,39,49,12,12,51		15,29,11,28	
		2, 5,26,45,22, 5,11, 5		9,10
26″	3,31,51,54,43,25,11,17,23,56		15,29,20,38	
		2, 5,26,45, 6,35,50,27		9,10
28″	3,31,54, 0,10,10,17,53,14,23		15,29,29,48	
		2, 5,26,44,51, 6,20,39		9,10
30″	3,31,56, 5,36,55, 8,59,35, 2		15,29,38,58	
		2, 5,26,44,35,36,41,41		9,10
32″	3,31,58,11, 3,39,44,36,16,43		15,29,48, 8	
		2, 5,26,44,20, 6,53,33		9,10
34″	3,32, 0,16,30,24, 4,43,10,16		15,29,57,18	
		2, 5,26,44, 4,36,56,15		9,10
36″	3,32, 2,21,57, 8, 9,20, 6,31		15,30, 6,28	
		2, 5,26,43,49, 6,49,47		9,10
38″	3,32, 4,27,23,51,58,26,56,18		15,30,15,38	
		2, 5,26,43,33,36,34, 9		9,10
40″	3,32, 6,32,50,35,32, 3,30,27		15,30,24,48	
		2, 5,26,43,18, 6, 9,21		9,10
42″	3,32, 8,38,17,18,50, 9,39,48		15,30,33,58	
		2, 5,26,43, 2,35,35,23		9,10
44″	3,32,10,43,44, 1,52,45,15,11		15,30,43, 8	
		2, 5,26,42,47, 4,52,15		9,10
46″	3,32,12,49,10,44,39,50, 7,26		15,30,52,18	
		2, 5,26,42,31,33,59,57		9,10
48″	3,32,14,54,37,27,11,24, 7,23		15,31, 1,28	
		2, 5,26,42,16, 2,58,29		9,10
50″	3,32,17, 0, 4, 9,27,27, 5,52		15,31,10,38	
		2, 5,26,42, 0,31,47,51		9,10
52″	3,32,19, 5,30,51,27,58,53,43		15,31,19,48	
		2, 5,26,41,45, 0,28, 3		9,10
54″	3,32,21,10,57,33,12,59,21,46		15,31,28,58	
		2, 5,26,41,29,28,59, 5		9,10
56″	3,32,23,16,24,14,42,28,20,51		15,31,38, 8	
		2, 5,26,41,13,57,20,57		9,10
58″	3,32,25,21,50,55,56,25,41,48		15,31,47,18	
		2, 5,26,40,58,25,33,39		
60″	3,32,27,27,17,36,54,51,15,27			
exact	3,32,27,27,17,36,54,50,57,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°23′ 0″	3,32,27,27,17,36,54,50,57,51			
		2, 5,26,40,42,53,35,17		
2″	3,32,29,32,44,17,37,44,33, 8		15,32, 5,46	
		2, 5,26,40,27,21,29,31		9,10
4″	3,32,31,38,10,58, 5, 6, 2,39		15,32,14,56	
		2, 5,26,40,11,49,14,35		9,10
6″	3,32,33,43,37,38,16,55,17,14		15,32,24, 6	
		2, 5,26,39,56,16,50,29		9,10
8″	3,32,35,49, 4,18,13,12, 7,43		15,32,33,16	
		2, 5,26,39,40,44,17,13		9,10
10″	3,32,37,54,30,57,53,56,24,56		15,32,42,26	
		2, 5,26,39,25,11,34,47		9,10
12″	3,32,39,59,57,37,19, 7,59,43		15,32,51,36	
		2, 5,26,39, 9,38,43,11		9,10
14″	3,32,42, 5,24,16,28,46,42,54		15,33, 0,46	
		2, 5,26,38,54, 5,42,25		9,10
16″	3,32,44,10,50,55,22,52,25,19		15,33, 9,56	
		2, 5,26,38,38,32,32,29		9,10
18″	3,32,46,16,17,34, 1,24,57,48		15,33,19, 6	
		2, 5,26,38,22,59,13,23		9,10
20″	3,32,48,21,44,12,24,24,11,11		15,33,28,16	
		2, 5,26,38, 7,25,45, 7		9,10
22″	3,32,50,27,10,50,31,49,56,18		15,33,37,26	
		2, 5,26,37,51,52, 7,41		9,10
24″	3,32,52,32,37,28,23,42, 3,59		15,33,46,36	
		2, 5,26,37,36,18,21, 5		9,10
26″	3,32,54,38, 4, 6, 0, 0,25, 4		15,33,55,46	
		2, 5,26,37,20,44,25,19		9,10
28″	3,32,56,43,30,43,20,44,50,23		15,34, 4,56	
		2, 5,26,37, 5,10,20,23		9,10
30″	3,32,58,48,57,20,25,55,10,46		15,34,14, 6	
		2, 5,26,36,49,36, 6,17		9,10
32″	3,33, 0,54,23,57,15,31,17, 3		15,34,23,16	
		2, 5,26,36,34, 1,43, 1		9,10
34″	3,33, 2,59,50,33,49,33, 0, 4		15,34,32,26	
		2, 5,26,36,18,27,10,35		9,10
36″	3,33, 5, 5,17,10, 8, 0,10,39		15,34,41,36	
		2, 5,26,36, 2,52,28,59		9,10
38″	3,33, 7,10,43,46,10,52,39,38		15,34,50,46	
		2, 5,26,35,47,17,38,13		9,10
40″	3,33, 9,16,10,21,58,10,17,51		15,34,59,56	
		2, 5,26,35,31,42,38,17		9,10
42″	3,33,11,21,36,57,29,52,56, 8		15,35, 9, 6	
		2, 5,26,35,16, 7,29,11		9,10
44″	3,33,13,27, 3,32,46, 0,25,19		15,35,18,16	
		2, 5,26,35, 0,32,10,55		9,10
46″	3,33,15,32,30, 7,46,32,36,14		15,35,27,26	
		2, 5,26,34,44,56,43,29		9,10
48″	3,33,17,37,56,42,31,29,19,43		15,35,36,36	
		2, 5,26,34,29,21, 6,53		9,10
50″	3,33,19,43,23,17, 0,50,26,36		15,35,45,46	
		2, 5,26,34,13,45,21, 7		9,10
52″	3,33,21,48,49,51,14,35,47,43		15,35,54,56	
		2, 5,26,33,58, 9,26,11		9,10
54″	3,33,23,54,16,25,12,45,13,54		15,36, 4, 6	
		2, 5,26,33,42,33,22, 5		9,10
56″	3,33,25,59,42,58,55,18,35,59		15,36,13,16	
		2, 5,26,33,26,57, 8,49		9,10
58″	3,33,28, 5, 9,32,22,15,44,48		15,36,22,26	
		2, 5,26,33,11,20,46,23		
60″	3,33,30,10,36, 5,33,36,31,11			
exact	3,33,30,10,36, 5,33,36,14,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°24′ 0″	3,33,30,10,36, 5,33,36,14,11			
		2, 5,26,32,55,44,12,57		
2″	3,33,32,16, 2,38,29,20,27, 8		15,36,40,54	
		2, 5,26,32,40, 7,32, 3		9,10
4″	3,33,34,21,29,11, 9,27,59,11		15,36,50, 4	
		2, 5,26,32,24,30,41,59		9,10
6″	3,33,36,26,55,43,33,58,41,10		15,36,59,14	
		2, 5,26,32, 8,53,42,45		9,10
8″	3,33,38,32,22,15,42,52,23,55		15,37, 8,24	
		2, 5,26,31,53,16,34,21		9,10
10″	3,33,40,37,48,47,36, 8,58,16		15,37,17,34	
		2, 5,26,31,37,39,16,47		9,10
12″	3,33,42,43,15,19,13,48,15, 3		15,37,26,44	
		2, 5,26,31,22, 1,50, 3		9,10
14″	3,33,44,48,41,50,35,50, 5, 6		15,37,35,54	
		2, 5,26,31, 6,24,14, 9		9,10
16″	3,33,46,54, 8,21,42,14,19,15		15,37,45, 4	
		2, 5,26,30,50,46,29, 5		9,10
18″	3,33,48,59,34,52,33, 0,48,20		15,37,54,14	
		2, 5,26,30,35, 8,34,51		9,10
20″	3,33,51, 5, 1,23, 8, 9,23,11		15,38, 3,24	
		2, 5,26,30,19,30,31,27		9,10
22″	3,33,53,10,27,53,27,39,54,38		15,38,12,34	
		2, 5,26,30, 3,52,18,53		9,10
24″	3,33,55,15,54,23,31,32,13,31		15,38,21,44	
		2, 5,26,29,48,13,57, 9		9,10
26″	3,33,57,21,20,53,19,46,10,40		15,38,30,54	
		2, 5,26,29,32,35,26,15		9,10
28″	3,33,59,26,47,22,52,21,36,55		15,38,40, 4	
		2, 5,26,29,16,56,46,11		9,10
30″	3,34, 1,32,13,52, 9,18,23, 6		15,38,49,14	
		2, 5,26,29, 1,17,56,57		9,10
32″	3,34, 3,37,40,21,10,36,20, 3		15,38,58,24	
		2, 5,26,28,45,38,58,33		9,10
34″	3,34, 5,43, 6,49,56,15,18,36		15,39, 7,34	
		2, 5,26,28,29,59,50,59		9,10
36″	3,34, 7,48,33,18,26,15, 9,35		15,39,16,44	
		2, 5,26,28,14,20,34,15		9,10
38″	3,34, 9,53,59,46,40,35,43,50		15,39,25,54	
		2, 5,26,27,58,41, 8,21		9,10
40″	3,34,11,59,26,14,39,16,52,11		15,39,35, 4	
		2, 5,26,27,43, 1,33,17		9,10
42″	3,34,14, 4,52,42,22,18,25,28		15,39,44,14	
		2, 5,26,27,27,21,49, 3		9,10
44″	3,34,16,10,19, 9,49,40,14,31		15,39,53,24	
		2, 5,26,27,11,41,55,39		9,10
46″	3,34,18,15,45,37, 1,22,10,10		15,40, 2,34	
		2, 5,26,26,56, 1,53, 5		9,10
48″	3,34,20,21,12, 3,57,24, 3,15		15,40,11,44	
		2, 5,26,26,40,21,41,21		9,10
50″	3,34,22,26,38,30,37,45,44,36		15,40,20,54	
		2, 5,26,26,24,41,20,27		9,10
52″	3,34,24,32, 4,57, 2,27, 5, 3		15,40,30, 4	
		2, 5,26,26, 9, 0,50,23		9,10
54″	3,34,26,37,31,23,11,27,55,26		15,40,39,14	
		2, 5,26,25,53,20,11, 9		9,10
56″	3,34,28,42,57,49, 4,48, 6,35		15,40,48,24	
		2, 5,26,25,37,39,22,45		9,10
58″	3,34,30,48,24,14,42,27,29,20		15,40,57,34	
		2, 5,26,25,21,58,25,11		
60″	3,34,32,53,50,40, 4,25,54,31			
exact	3,34,32,53,50,40, 4,25,40,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°25′ 0″	3,34,32,53,50,40, 4,25,40,21			
		2, 5,26,25, 6,17,16,50		
2″	3,34,34,59,17, 5,10,42,57,11		15,41,16, 1	
		2, 5,26,24,50,36, 0,49		9,10
4″	3,34,37, 4,43,30, 1,18,58, 0		15,41,25,11	
		2, 5,26,24,34,54,35,38		9,10
6″	3,34,39,10, 9,54,36,13,33,38		15,41,34,21	
		2, 5,26,24,19,13, 1,17		9,10
8″	3,34,41,15,36,18,55,26,34,55		15,41,43,31	
		2, 5,26,24, 3,31,17,46		9,10
10″	3,34,43,21, 2,42,58,57,52,41		15,41,52,41	
		2, 5,26,23,47,49,25, 5		9,10
12″	3,34,45,26,29, 6,46,47,17,46		15,42, 1,51	
		2, 5,26,23,32, 7,23,14		9,10
14″	3,34,47,31,55,30,18,54,41, 0		15,42,11, 1	
		2, 5,26,23,16,25,12,13		9,10
16″	3,34,49,37,21,53,35,19,53,13		15,42,20,11	
		2, 5,26,23, 0,42,52, 2		9,10
18″	3,34,51,42,48,16,36, 2,45,15		15,42,29,21	
		2, 5,26,22,45, 0,22,41		9,10
20″	3,34,53,48,14,39,21, 3, 7,56		15,42,38,31	
		2, 5,26,22,29,17,44,10		9,10
22″	3,34,55,53,41, 1,50,20,52, 6		15,42,47,41	
		2, 5,26,22,13,34,56,29		9,10
24″	3,34,57,59, 7,24, 3,55,48,35		15,42,56,51	
		2, 5,26,21,57,51,59,38		9,10
26″	3,35, 0, 4,33,46, 1,47,48,13		15,43, 6, 1	
		2, 5,26,21,42, 8,53,37		9,10
28″	3,35, 2,10, 0, 7,43,56,41,50		15,43,15,11	
		2, 5,26,21,26,25,38,26		9,10
30″	3,35, 4,15,26,29,10,22,20,16		15,43,24,21	
		2, 5,26,21,10,42,14, 5		9,10
32″	3,35, 6,20,52,50,21, 4,34,21		15,43,33,31	
		2, 5,26,20,54,58,40,34		9,10
34″	3,35, 8,26,19,11,16, 3,14,55		15,43,42,41	
		2, 5,26,20,39,14,57,53		9,10
36″	3,35,10,31,45,31,55,18,12,48		15,43,51,51	
		2, 5,26,20,23,31, 6, 2		9,10
38″	3,35,12,37,11,52,18,49,18,50		15,44, 1, 1	
		2, 5,26,20, 7,47, 5, 1		9,10
40″	3,35,14,42,38,12,26,36,23,51		15,44,10,11	
		2, 5,26,19,52, 2,54,50		9,10
42″	3,35,16,48, 4,32,18,39,18,41		15,44,19,21	
		2, 5,26,19,36,18,35,29		9,10
44″	3,35,18,53,30,51,54,57,54,10		15,44,28,31	
		2, 5,26,19,20,34, 6,58		9,10
46″	3,35,20,58,57,11,15,32, 1, 8		15,44,37,41	
		2, 5,26,19, 4,49,29,17		9,10
48″	3,35,23, 4,23,30,20,21,30,25		15,44,46,51	
		2, 5,26,18,49, 4,42,26		9,10
50″	3,35,25, 9,49,49, 9,26,12,51		15,44,56, 1	
		2, 5,26,18,33,19,46,25		9,10
52″	3,35,27,15,16, 7,42,45,59,16		15,45, 5,11	
		2, 5,26,18,17,34,41,14		9,10
54″	3,35,29,20,42,26, 0,20,40,30		15,45,14,21	
		2, 5,26,18, 1,49,26,53		9,10
56″	3,35,31,26, 8,44, 2,10, 7,23		15,45,23,31	
		2, 5,26,17,46, 4, 3,22		9,10
58″	3,35,33,31,35, 1,48,14,10,45		15,45,32,41	
		2, 5,26,17,30,18,30,41		
60″	3,35,35,37, 1,19,18,32,41,26			
exact	3,35,35,37, 1,19,18,32,24,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°26′ 0″	3,35,35,37, 1,19,18,32,24,56			
		2, 5,26,17,14,32,47, 5		
2″	3,35,37,42,27,36,33, 5,12, 1		15,45,51, 8	
		2, 5,26,16,58,46,55,57		9,10
4″	3,35,39,47,53,53,31,52, 7,58		15,46, 0,18	
		2, 5,26,16,43, 0,55,39		9,10
6″	3,35,41,53,20,10,14,53, 3,37		15,46, 9,28	
		2, 5,26,16,27,14,46,11		9,10
8″	3,35,43,58,46,26,42, 7,49,48		15,46,18,38	
		2, 5,26,16,11,28,27,33		9,10
10″	3,35,46, 4,12,42,53,36,17,21		15,46,27,48	
		2, 5,26,15,55,41,59,45		9,10
12″	3,35,48, 9,38,58,49,18,17, 6		15,46,36,58	
		2, 5,26,15,39,55,22,47		9,10
14″	3,35,50,15, 5,14,29,13,39,53		15,46,46, 8	
		2, 5,26,15,24, 8,36,39		9,10
16″	3,35,52,20,31,29,53,22,16,32		15,46,55,18	
		2, 5,26,15, 8,21,41,21		9,10
18″	3,35,54,25,57,45, 1,43,57,53		15,47, 4,28	
		2, 5,26,14,52,34,36,53		9,10
20″	3,35,56,31,23,59,54,18,34,46		15,47,13,38	
		2, 5,26,14,36,47,23,15		9,10
22″	3,35,58,36,50,14,31, 5,58, 1		15,47,22,48	
		2, 5,26,14,21, 0, 0,27		9,10
24″	3,36, 0,42,16,28,52, 5,58,28		15,47,31,58	
		2, 5,26,14, 5,12,28,29		9,10
26″	3,36, 2,47,42,42,57,18,26,57		15,47,41, 8	
		2, 5,26,13,49,24,47,21		9,10
28″	3,36, 4,53, 8,56,46,43,14,18		15,47,50,18	
		2, 5,26,13,33,36,57, 3		9,10
30″	3,36, 6,58,35,10,20,20,11,21		15,47,59,28	
		2, 5,26,13,17,48,57,35		9,10
32″	3,36, 9, 4, 1,23,38, 9, 8,56		15,48, 8,38	
		2, 5,26,13, 2, 0,48,57		9,10
34″	3,36,11, 9,27,36,40, 9,57,53		15,48,17,48	
		2, 5,26,12,46,12,31, 9		9,10
36″	3,36,13,14,53,49,26,22,29, 2		15,48,26,58	
		2, 5,26,12,30,24, 4,11		9,10
38″	3,36,15,20,20, 1,56,46,33,13		15,48,36, 8	
		2, 5,26,12,14,35,28, 3		9,10
40″	3,36,17,25,46,14,11,22, 1,16		15,48,45,18	
		2, 5,26,11,58,46,42,45		9,10
42″	3,36,19,31,12,26,10, 8,44, 1		15,48,54,28	
		2, 5,26,11,42,57,48,17		9,10
44″	3,36,21,36,38,37,53, 6,32,18		15,49, 3,38	
		2, 5,26,11,27, 8,44,39		9,10
46″	3,36,23,42, 4,49,20,15,16,57		15,49,12,48	
		2, 5,26,11,11,19,31,51		9,10
48″	3,36,25,47,31, 0,31,34,48,48		15,49,21,58	
		2, 5,26,10,55,30, 9,53		9,10
50″	3,36,27,52,57,11,27, 4,58,41		15,49,31, 8	
		2, 5,26,10,39,40,38,45		9,10
52″	3,36,29,58,23,22, 6,45,37,26		15,49,40,18	
		2, 5,26,10,23,50,58,27		9,10
54″	3,36,32, 3,49,32,30,36,35,53		15,49,49,28	
		2, 5,26,10, 8, 1, 8,59		9,10
56″	3,36,34, 9,15,42,38,37,44,52		15,49,58,38	
		2, 5,26, 9,52,11,10,21		9,10
58″	3,36,36,14,41,52,30,48,55,13		15,50, 7,48	
		2, 5,26, 9,36,21, 2,33		
60″	3,36,38,20, 8, 2, 7, 9,57,46			
exact	3,36,38,20, 8, 2, 7, 9,40,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°27′ 0″	3,36,38,20, 8, 2, 7, 9,40,44			
		2, 5,26, 9,20,30,43,49		
2″	3,36,40,25,34,11,27,40,24,33		15,50,26,15	
		2, 5,26, 9, 4,40,17,34		9,10
4″	3,36,42,31, 0,20,32,20,42, 7		15,50,35,25	
		2, 5,26, 8,48,49,42, 9		9,10
6″	3,36,44,36,26,29,21,10,24,16		15,50,44,35	
		2, 5,26, 8,32,58,57,34		9,10
8″	3,36,46,41,52,37,54, 9,21,50		15,50,53,45	
		2, 5,26, 8,17, 8, 3,49		9,10
10″	3,36,48,47,18,46,11,17,25,39		15,51, 2,55	
		2, 5,26, 8, 1,17, 0,54		9,10
12″	3,36,50,52,44,54,12,34,26,33		15,51,12, 5	
		2, 5,26, 7,45,25,48,49		9,10
14″	3,36,52,58,11, 1,58, 0,15,22		15,51,21,15	
		2, 5,26, 7,29,34,27,34		9,10
16″	3,36,55, 3,37, 9,27,34,42,56		15,51,30,25	
		2, 5,26, 7,13,42,57, 9		9,10
18″	3,36,57, 9, 3,16,41,17,40, 5		15,51,39,35	
		2, 5,26, 6,57,51,17,34		9,10
20″	3,36,59,14,29,23,39, 8,57,39		15,51,48,45	
		2, 5,26, 6,41,59,28,49		9,10
22″	3,37, 1,19,55,30,21, 8,26,28		15,51,57,55	
		2, 5,26, 6,26, 7,30,54		9,10
24″	3,37, 3,25,21,36,47,15,57,22		15,52, 7, 5	
		2, 5,26, 6,10,15,23,49		9,10
26″	3,37, 5,30,47,42,57,31,21,11		15,52,16,15	
		2, 5,26, 5,54,23, 7,34		9,10
28″	3,37, 7,36,13,48,51,54,28,45		15,52,25,25	
		2, 5,26, 5,38,30,42, 9		9,10
30″	3,37, 9,41,39,54,30,25,10,54		15,52,34,35	
		2, 5,26, 5,22,38, 7,34		9,10
32″	3,37,11,47, 5,59,53, 3,18,28		15,52,43,45	
		2, 5,26, 5, 6,45,23,49		9,10
34″	3,37,13,52,32, 4,59,48,42,17		15,52,52,55	
		2, 5,26, 4,50,52,30,54		9,10
36″	3,37,15,57,58, 9,50,41,13,11		15,53, 2, 5	
		2, 5,26, 4,34,59,28,49		9,10
38″	3,37,18, 3,24,14,25,40,42, 0		15,53,11,15	
		2, 5,26, 4,19, 6,17,34		9,10
40″	3,37,20, 8,50,18,44,46,59,34		15,53,20,25	
		2, 5,26, 4, 3,12,57, 9		9,10
42″	3,37,22,14,16,22,47,59,56,43		15,53,29,35	
		2, 5,26, 3,47,19,27,34		9,10
44″	3,37,24,19,42,26,35,19,24,17		15,53,38,45	
		2, 5,26, 3,31,25,48,49		9,10
46″	3,37,26,25, 8,30, 6,45,13, 6		15,53,47,55	
		2, 5,26, 3,15,32, 0,54		9,10
48″	3,37,28,30,34,33,22,17,14, 0		15,53,57, 5	
		2, 5,26, 2,59,38, 3,49		9,10
50″	3,37,30,36, 0,36,21,55,17,49		15,54, 6,15	
		2, 5,26, 2,43,43,57,34		9,10
52″	3,37,32,41,26,39, 5,39,15,23		15,54,15,25	
		2, 5,26, 2,27,49,42, 9		9,10
54″	3,37,34,46,52,41,33,28,57,32		15,54,24,35	
		2, 5,26, 2,11,55,17,34		9,10
56″	3,37,36,52,18,43,45,24,15, 6		15,54,33,45	
		2, 5,26, 1,56, 0,43,49		9,10
58″	3,37,38,57,44,45,41,24,58,55		15,54,42,55	
		2, 5,26, 1,40, 6, 0,54		
60″	3,37,41, 3,10,47,21,30,59,49			
exact	3,37,41, 3,10,47,21,30,44,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°28′ 0″	3,37,41, 3,10,47,21,30,44,57			
		2, 5,26, 1,24,11, 7,13		
2″	3,37,43, 8,36,48,45,41,52,10		15,55, 1,22	
		2, 5,26, 1, 8,16, 5,51		9,10
4″	3,37,45,14, 2,49,53,57,58, 1		15,55,10,32	
		2, 5,26, 0,52,20,55,19		9,10
6″	3,37,47,19,28,50,46,18,53,20		15,55,19,42	
		2, 5,26, 0,36,25,35,37		9,10
8″	3,37,49,24,54,51,22,44,28,57		15,55,28,52	
		2, 5,26, 0,20,30, 6,45		9,10
10″	3,37,51,30,20,51,43,14,35,42		15,55,38, 2	
		2, 5,26, 0, 4,34,28,43		9,10
12″	3,37,53,35,46,51,47,49, 4,25		15,55,47,12	
		2, 5,25,59,48,38,41,31		9,10
14″	3,37,55,41,12,51,36,27,45,56		15,55,56,22	
		2, 5,25,59,32,42,45, 9		9,10
16″	3,37,57,46,38,51, 9,10,31, 5		15,56, 5,32	
		2, 5,25,59,16,46,39,37		9,10
18″	3,37,59,52, 4,50,25,57,10,42		15,56,14,42	
		2, 5,25,59, 0,50,24,55		9,10
20″	3,38, 1,57,30,49,26,47,35,37		15,56,23,52	
		2, 5,25,58,44,54, 1, 3		9,10
22″	3,38, 4, 2,56,48,11,41,36,40		15,56,33, 2	
		2, 5,25,58,28,57,28, 1		9,10
24″	3,38, 6, 8,22,46,40,39, 4,41		15,56,42,12	
		2, 5,25,58,13, 0,45,49		9,10
26″	3,38, 8,13,48,44,53,39,50,30		15,56,51,22	
		2, 5,25,57,57, 3,54,27		9,10
28″	3,38,10,19,14,42,50,43,44,57		15,57, 0,32	
		2, 5,25,57,41, 6,53,55		9,10
30″	3,38,12,24,40,40,31,50,38,52		15,57, 9,42	
		2, 5,25,57,25, 9,44,13		9,10
32″	3,38,14,30, 6,37,57, 0,23, 5		15,57,18,52	
		2, 5,25,57, 9,12,25,21		9,10
34″	3,38,16,35,32,35, 6,12,48,26		15,57,28, 2	
		2, 5,25,56,53,14,57,19		9,10
36″	3,38,18,40,58,31,59,27,45,45		15,57,37,12	
		2, 5,25,56,37,17,20, 7		9,10
38″	3,38,20,46,24,28,36,45, 5,52		15,57,46,22	
		2, 5,25,56,21,19,33,45		9,10
40″	3,38,22,51,50,24,58, 4,39,37		15,57,55,32	
		2, 5,25,56, 5,21,38,13		9,10
42″	3,38,24,57,16,21, 3,26,17,50		15,58, 4,42	
		2, 5,25,55,49,23,33,31		9,10
44″	3,38,27, 2,42,16,52,49,51,21		15,58,13,52	
		2, 5,25,55,33,25,19,39		9,10
46″	3,38,29, 8, 8,12,26,15,11, 0		15,58,23, 2	
		2, 5,25,55,17,26,56,37		9,10
48″	3,38,31,13,34, 7,43,42, 7,37		15,58,32,12	
		2, 5,25,55, 1,28,24,25		9,10
50″	3,38,33,19, 0, 2,45,10,32, 2		15,58,41,22	
		2, 5,25,54,45,29,43, 3		9,10
52″	3,38,35,24,25,57,30,40,15, 5		15,58,50,32	
		2, 5,25,54,29,30,52,31		9,10
54″	3,38,37,29,51,52, 0,11, 7,36		15,58,59,42	
		2, 5,25,54,13,31,52,49		9,10
56″	3,38,39,35,17,46,13,43, 0,25		15,59, 8,52	
		2, 5,25,53,57,32,43,57		9,10
58″	3,38,41,40,43,40,11,15,44,22		15,59,18, 2	
		2, 5,25,53,41,33,25,55		
60″	3,38,43,46, 9,33,52,49,10,17			
exact	3,38,43,46, 9,33,52,48,59, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°29′ 0″	3,38,43,46, 9,33,52,48,59, 4			
		2, 5,25,53,25,33,57,24		
2″	3,38,45,51,35,27,18,22,56,28		15,59,36,28	
		2, 5,25,53, 9,34,20,56		9,10
4″	3,38,47,57, 1,20,27,57,17,24		15,59,45,38	
		2, 5,25,52,53,34,35,18		9,10
6″	3,38,50, 2,27,13,21,31,52,42		15,59,54,48	
		2, 5,25,52,37,34,40,30		9,10
8″	3,38,52, 7,53, 5,59, 6,33,12		16, 0, 3,58	
		2, 5,25,52,21,34,36,32		9,10
10″	3,38,54,13,18,58,20,41, 9,44		16, 0,13, 8	
		2, 5,25,52, 5,34,23,24		9,10
12″	3,38,56,18,44,50,26,15,33, 8		16, 0,22,18	
		2, 5,25,51,49,34, 1, 6		9,10
14″	3,38,58,24,10,42,15,49,34,14		16, 0,31,28	
		2, 5,25,51,33,33,29,38		9,10
16″	3,39, 0,29,36,33,49,23, 3,52		16, 0,40,38	
		2, 5,25,51,17,32,49, 0		9,10
18″	3,39, 2,35, 2,25, 6,55,52,52		16, 0,49,48	
		2, 5,25,51, 1,31,59,12		9,10
20″	3,39, 4,40,28,16, 8,27,52, 4		16, 0,58,58	
		2, 5,25,50,45,31, 0,14		9,10
22″	3,39, 6,45,54, 6,53,58,52,18		16, 1, 8, 8	
		2, 5,25,50,29,29,52, 6		9,10
24″	3,39, 8,51,19,57,23,28,44,24		16, 1,17,18	
		2, 5,25,50,13,28,34,48		9,10
26″	3,39,10,56,45,47,36,57,19,12		16, 1,26,28	
		2, 5,25,49,57,27, 8,20		9,10
28″	3,39,13, 2,11,37,34,24,27,32		16, 1,35,38	
		2, 5,25,49,41,25,32,42		9,10
30″	3,39,15, 7,37,27,15,50, 0,14		16, 1,44,48	
		2, 5,25,49,25,23,47,54		9,10
32″	3,39,17,13, 3,16,41,13,48, 8		16, 1,53,58	
		2, 5,25,49, 9,21,53,56		9,10
34″	3,39,19,18,29, 5,50,35,42, 4		16, 2, 3, 8	
		2, 5,25,48,53,19,50,48		9,10
36″	3,39,21,23,54,54,43,55,32,52		16, 2,12,18	
		2, 5,25,48,37,17,38,30		9,10
38″	3,39,23,29,20,43,21,13,11,22		16, 2,21,28	
		2, 5,25,48,21,15,17, 2		9,10
40″	3,39,25,34,46,31,42,28,28,24		16, 2,30,38	
		2, 5,25,48, 5,12,46,24		9,10
42″	3,39,27,40,12,19,47,41,14,48		16, 2,39,48	
		2, 5,25,47,49,10, 6,36		9,10
44″	3,39,29,45,38, 7,36,51,21,24		16, 2,48,58	
		2, 5,25,47,33, 7,17,38		9,10
46″	3,39,31,51, 3,55, 9,58,39, 2		16, 2,58, 8	
		2, 5,25,47,17, 4,19,30		9,10
48″	3,39,33,56,29,42,27, 2,58,32		16, 3, 7,18	
		2, 5,25,47, 1, 1,12,12		9,10
50″	3,39,36, 1,55,29,28, 4,10,44		16, 3,16,28	
		2, 5,25,46,44,57,55,44		9,10
52″	3,39,38, 7,21,16,13, 2, 6,28		16, 3,25,38	
		2, 5,25,46,28,54,30, 6		9,10
54″	3,39,40,12,47, 2,41,56,36,34		16, 3,34,48	
		2, 5,25,46,12,50,55,18		9,10
56″	3,39,42,18,12,48,54,47,31,52		16, 3,43,58	
		2, 5,25,45,56,47,11,20		9,10
58″	3,39,44,23,38,34,51,34,43,12		16, 3,53, 8	
		2, 5,25,45,40,43,18,12		
60″	3,39,46,29, 4,20,32,18, 1,24			
exact	3,39,46,29, 4,20,32,17,48,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°30′ 0″	3,39,46,29, 4,20,32,17,48,58			
		2, 5,25,45,24,39,14,31		
2″	3,39,48,34,30, 5,56,57, 3,29		16, 4,11,34	
		2, 5,25,45, 8,35, 2,57		9,10
4″	3,39,50,39,55,51, 5,32, 6,26		16, 4,20,44	
		2, 5,25,44,52,30,42,13		9,10
6″	3,39,52,45,21,35,58, 2,48,39		16, 4,29,54	
		2, 5,25,44,36,26,12,19		9,10
8″	3,39,54,50,47,20,34,29, 0,58		16, 4,39, 4	
		2, 5,25,44,20,21,33,15		9,10
10″	3,39,56,56,13, 4,54,50,34,13		16, 4,48,14	
		2, 5,25,44, 4,16,45, 1		9,10
12″	3,39,59, 1,38,48,59, 7,19,14		16, 4,57,24	
		2, 5,25,43,48,11,47,37		9,10
14″	3,40, 1, 7, 4,32,47,19, 6,51		16, 5, 6,34	
		2, 5,25,43,32, 6,41, 3		9,10
16″	3,40, 3,12,30,16,19,25,47,54		16, 5,15,44	
		2, 5,25,43,16, 1,25,19		9,10
18″	3,40, 5,17,55,59,35,27,13,13		16, 5,24,54	
		2, 5,25,42,59,56, 0,25		9,10
20″	3,40, 7,23,21,42,35,23,13,38		16, 5,34, 4	
		2, 5,25,42,43,50,26,21		9,10
22″	3,40, 9,28,47,25,19,13,39,59		16, 5,43,14	
		2, 5,25,42,27,44,43, 7		9,10
24″	3,40,11,34,13, 7,46,58,23, 6		16, 5,52,24	
		2, 5,25,42,11,38,50,43		9,10
26″	3,40,13,39,38,49,58,37,13,49		16, 6, 1,34	
		2, 5,25,41,55,32,49, 9		9,10
28″	3,40,15,45, 4,31,54,10, 2,58		16, 6,10,44	
		2, 5,25,41,39,26,38,25		9,10
30″	3,40,17,50,30,13,33,36,41,23		16, 6,19,54	
		2, 5,25,41,23,20,18,31		9,10
32″	3,40,19,55,55,54,56,56,59,54		16, 6,29, 4	
		2, 5,25,41, 7,13,49,27		9,10
34″	3,40,22, 1,21,36, 4,10,49,21		16, 6,38,14	
		2, 5,25,40,51, 7,11,13		9,10
36″	3,40,24, 6,47,16,55,18, 0,34		16, 6,47,24	
		2, 5,25,40,35, 0,23,49		9,10
38″	3,40,26,12,12,57,30,18,24,23		16, 6,56,34	
		2, 5,25,40,18,53,27,15		9,10
40″	3,40,28,17,38,37,49,11,51,38		16, 7, 5,44	
		2, 5,25,40, 2,46,21,31		9,10
42″	3,40,30,23, 4,17,51,58,13, 9		16, 7,14,54	
		2, 5,25,39,46,39, 6,37		9,10
44″	3,40,32,28,29,57,38,37,19,46		16, 7,24, 4	
		2, 5,25,39,30,31,42,33		9,10
46″	3,40,34,33,55,37, 9, 9, 2,19		16, 7,33,14	
		2, 5,25,39,14,24, 9,19		9,10
48″	3,40,36,39,21,16,23,33,11,38		16, 7,42,24	
		2, 5,25,38,58,16,26,55		9,10
50″	3,40,38,44,46,55,21,49,38,33		16, 7,51,34	
		2, 5,25,38,42, 8,35,21		9,10
52″	3,40,40,50,12,34, 3,58,13,54		16, 8, 0,44	
		2, 5,25,38,26, 0,34,37		9,10
54″	3,40,42,55,38,12,29,58,48,31		16, 8, 9,54	
		2, 5,25,38, 9,52,24,43		9,10
56″	3,40,45, 1, 3,50,39,51,13,14		16, 8,19, 4	
		2, 5,25,37,53,44, 5,39		9,10
58″	3,40,47, 6,29,28,33,35,18,53		16, 8,28,14	
		2, 5,25,37,37,35,37,25		
60″	3,40,49,11,55, 6,11,10,56,18			
exact	3,40,49,11,55, 6,11,10,44,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°31′ 0″	3,40,49,11,55, 6,11,10,44,53			
		2, 5,25,37,21,26,58,44		
2″	3,40,51,17,20,43,32,37,43,37		16, 8,46,39	
		2, 5,25,37, 5,18,12, 5		9,10
4″	3,40,53,22,46,20,37,55,55,42		16, 8,55,49	
		2, 5,25,36,49, 9,16,16		9,10
6″	3,40,55,28,11,57,27, 5,11,58		16, 9, 4,59	
		2, 5,25,36,33, 0,11,17		9,10
8″	3,40,57,33,37,34, 0, 5,23,15		16, 9,14, 9	
		2, 5,25,36,16,50,57, 8		9,10
10″	3,40,59,39, 3,10,16,56,20,23		16, 9,23,19	
		2, 5,25,36, 0,41,33,49		9,10
12″	3,41, 1,44,28,46,17,37,54,12		16, 9,32,29	
		2, 5,25,35,44,32, 1,20		9,10
14″	3,41, 3,49,54,22, 2, 9,55,32		16, 9,41,39	
		2, 5,25,35,28,22,19,41		9,10
16″	3,41, 5,55,19,57,30,32,15,13		16, 9,50,49	
		2, 5,25,35,12,12,28,52		9,10
18″	3,41, 8, 0,45,32,42,44,44, 5		16, 9,59,59	
		2, 5,25,34,56, 2,28,53		9,10
20″	3,41,10, 6,11, 7,38,47,12,58		16,10, 9, 9	
		2, 5,25,34,39,52,19,44		9,10
22″	3,41,12,11,36,42,18,39,32,42		16,10,18,19	
		2, 5,25,34,23,42, 1,25		9,10
24″	3,41,14,17, 2,16,42,21,34, 7		16,10,27,29	
		2, 5,25,34, 7,31,33,56		9,10
26″	3,41,16,22,27,50,49,53, 8, 3		16,10,36,39	
		2, 5,25,33,51,20,57,17		9,10
28″	3,41,18,27,53,24,41,14, 5,20		16,10,45,49	
		2, 5,25,33,35,10,11,28		9,10
30″	3,41,20,33,18,58,16,24,16,48		16,10,54,59	
		2, 5,25,33,18,59,16,29		9,10
32″	3,41,22,38,44,31,35,23,33,17		16,11, 4, 9	
		2, 5,25,33, 2,48,12,20		9,10
34″	3,41,24,44,10, 4,38,11,45,37		16,11,13,19	
		2, 5,25,32,46,36,59, 1		9,10
36″	3,41,26,49,35,37,24,48,44,38		16,11,22,29	
		2, 5,25,32,30,25,36,32		9,10
38″	3,41,28,55, 1, 9,55,14,21,10		16,11,31,39	
		2, 5,25,32,14,14, 4,53		9,10
40″	3,41,31, 0,26,42, 9,28,26, 3		16,11,40,49	
		2, 5,25,31,58, 2,24, 4		9,10
42″	3,41,33, 5,52,14, 7,30,50, 7		16,11,49,59	
		2, 5,25,31,41,50,34, 5		9,10
44″	3,41,35,11,17,45,49,21,24,12		16,11,59, 9	
		2, 5,25,31,25,38,34,56		9,10
46″	3,41,37,16,43,17,14,59,59, 8		16,12, 8,19	
		2, 5,25,31, 9,26,26,37		9,10
48″	3,41,39,22, 8,48,24,26,25,45		16,12,17,29	
		2, 5,25,30,53,14, 9, 8		9,10
50″	3,41,41,27,34,19,17,40,34,53		16,12,26,39	
		2, 5,25,30,37, 1,42,29		9,10
52″	3,41,43,32,59,49,54,42,17,22		16,12,35,49	
		2, 5,25,30,20,49, 6,40		9,10
54″	3,41,45,38,25,20,15,31,24, 2		16,12,44,59	
		2, 5,25,30, 4,36,21,41		9,10
56″	3,41,47,43,50,50,20, 7,45,43		16,12,54, 9	
		2, 5,25,29,48,23,27,32		9,10
58″	3,41,49,49,16,20, 8,31,13,15		16,13, 3,19	
		2, 5,25,29,32,10,24,13		
60″	3,41,51,54,41,49,40,41,37,28			
exact	3,41,51,54,41,49,40,41,21,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°32′ 0″	3,41,51,54,41,49,40,41,21,29			
		2, 5,25,29,15,57,10,10		
2″	3,41,54, 0, 7,18,56,38,31,39		16,13,21,45	
		2, 5,25,28,59,43,48,25		9,10
4″	3,41,56, 5,32,47,56,22,20, 4		16,13,30,55	
		2, 5,25,28,43,30,17,30		9,10
6″	3,41,58,10,58,16,39,52,37,34		16,13,40, 5	
		2, 5,25,28,27,16,37,25		9,10
8″	3,42, 0,16,23,45, 7, 9,14,59		16,13,49,15	
		2, 5,25,28,11, 2,48,10		9,10
10″	3,42, 2,21,49,13,18,12, 3, 9		16,13,58,25	
		2, 5,25,27,54,48,49,45		9,10
12″	3,42, 4,27,14,41,13, 0,52,54		16,14, 7,35	
		2, 5,25,27,38,34,42,10		9,10
14″	3,42, 6,32,40, 8,51,35,35, 4		16,14,16,45	
		2, 5,25,27,22,20,25,25		9,10
16″	3,42, 8,38, 5,36,13,56, 0,29		16,14,25,55	
		2, 5,25,27, 6, 5,59,30		9,10
18″	3,42,10,43,31, 3,20, 1,59,59		16,14,35, 5	
		2, 5,25,26,49,51,24,25		9,10
20″	3,42,12,48,56,30, 9,53,24,24		16,14,44,15	
		2, 5,25,26,33,36,40,10		9,10
22″	3,42,14,54,21,56,43,30, 4,34		16,14,53,25	
		2, 5,25,26,17,21,46,45		9,10
24″	3,42,16,59,47,23, 0,51,51,19		16,15, 2,35	
		2, 5,25,26, 1, 6,44,10		9,10
26″	3,42,19, 5,12,49, 1,58,35,29		16,15,11,45	
		2, 5,25,25,44,51,32,25		9,10
28″	3,42,21,10,38,14,46,50, 7,54		16,15,20,55	
		2, 5,25,25,28,36,11,30		9,10
30″	3,42,23,16, 3,40,15,26,19,24		16,15,30, 5	
		2, 5,25,25,12,20,41,25		9,10
32″	3,42,25,21,29, 5,27,47, 0,49		16,15,39,15	
		2, 5,25,24,56, 5, 2,10		9,10
34″	3,42,27,26,54,30,23,52, 2,59		16,15,48,25	
		2, 5,25,24,39,49,13,45		9,10
36″	3,42,29,32,19,55, 3,41,16,44		16,15,57,35	
		2, 5,25,24,23,33,16,10		9,10
38″	3,42,31,37,45,19,27,14,32,54		16,16, 6,45	
		2, 5,25,24, 7,17, 9,25		9,10
40″	3,42,33,43,10,43,34,31,42,19		16,16,15,55	
		2, 5,25,23,51, 0,53,30		9,10
42″	3,42,35,48,36, 7,25,32,35,49		16,16,25, 5	
		2, 5,25,23,34,44,28,25		9,10
44″	3,42,37,54, 1,31, 0,17, 4,14		16,16,34,15	
		2, 5,25,23,18,27,54,10		9,10
46″	3,42,39,59,26,54,18,44,58,24		16,16,43,25	
		2, 5,25,23, 2,11,10,45		9,10
48″	3,42,42, 4,52,17,20,56, 9, 9		16,16,52,35	
		2, 5,25,22,45,54,18,10		9,10
50″	3,42,44,10,17,40, 6,50,27,19		16,17, 1,45	
		2, 5,25,22,29,37,16,25		9,10
52″	3,42,46,15,43, 2,36,27,43,44		16,17,10,55	
		2, 5,25,22,13,20, 5,30		9,10
54″	3,42,48,21, 8,24,49,47,49,14		16,17,20, 5	
		2, 5,25,21,57, 2,45,25		9,10
56″	3,42,50,26,33,46,46,50,34,39		16,17,29,15	
		2, 5,25,21,40,45,16,10		9,10
58″	3,42,52,31,59, 8,27,35,50,49		16,17,38,25	
		2, 5,25,21,24,27,37,45		
60″	3,42,54,37,24,29,52, 3,28,34			
exact	3,42,54,37,24,29,52, 3,17,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°33′ 0″	3,42,54,37,24,29,52, 3,17,52			
		2, 5,25,21, 8, 9,48,59		
2″	3,42,56,42,49,51, 0,13, 6,51		16,17,56,50	
		2, 5,25,20,51,51,52, 9		9,10
4″	3,42,58,48,15,11,52, 4,59, 0		16,18, 6, 0	
		2, 5,25,20,35,33,46, 9		9,10
6″	3,43, 0,53,40,32,27,38,45, 9		16,18,15,10	
		2, 5,25,20,19,15,30,59		9,10
8″	3,43, 2,59, 5,52,46,54,16, 8		16,18,24,20	
		2, 5,25,20, 2,57, 6,39		9,10
10″	3,43, 5, 4,31,12,49,51,22,47		16,18,33,30	
		2, 5,25,19,46,38,33, 9		9,10
12″	3,43, 7, 9,56,32,36,29,55,56		16,18,42,40	
		2, 5,25,19,30,19,50,29		9,10
14″	3,43, 9,15,21,52, 6,49,46,25		16,18,51,50	
		2, 5,25,19,14, 0,58,39		9,10
16″	3,43,11,20,47,11,20,50,45, 4		16,19, 1, 0	
		2, 5,25,18,57,41,57,39		9,10
18″	3,43,13,26,12,30,18,32,42,43		16,19,10,10	
		2, 5,25,18,41,22,47,29		9,10
20″	3,43,15,31,37,48,59,55,30,12		16,19,19,20	
		2, 5,25,18,25, 3,28, 9		9,10
22″	3,43,17,37, 3, 7,24,58,58,21		16,19,28,30	
		2, 5,25,18, 8,43,59,39		9,10
24″	3,43,19,42,28,25,33,42,58, 0		16,19,37,40	
		2, 5,25,17,52,24,21,59		9,10
26″	3,43,21,47,53,43,26, 7,19,59		16,19,46,50	
		2, 5,25,17,36, 4,35, 9		9,10
28″	3,43,23,53,19, 1, 2,11,55, 8		16,19,56, 0	
		2, 5,25,17,19,44,39, 9		9,10
30″	3,43,25,58,44,18,21,56,34,17		16,20, 5,10	
		2, 5,25,17, 3,24,33,59		9,10
32″	3,43,28, 4, 9,35,25,21, 8,16		16,20,14,20	
		2, 5,25,16,47, 4,19,39		9,10
34″	3,43,30, 9,34,52,12,25,27,55		16,20,23,30	
		2, 5,25,16,30,43,56, 9		9,10
36″	3,43,32,15, 0, 8,43, 9,24, 4		16,20,32,40	
		2, 5,25,16,14,23,23,29		9,10
38″	3,43,34,20,25,24,57,32,47,33		16,20,41,50	
		2, 5,25,15,58, 2,41,39		9,10
40″	3,43,36,25,50,40,55,35,29,12		16,20,51, 0	
		2, 5,25,15,41,41,50,39		9,10
42″	3,43,38,31,15,56,37,17,19,51		16,21, 0,10	
		2, 5,25,15,25,20,50,29		9,10
44″	3,43,40,36,41,12, 2,38,10,20		16,21, 9,20	
		2, 5,25,15, 8,59,41, 9		9,10
46″	3,43,42,42, 6,27,11,37,51,29		16,21,18,30	
		2, 5,25,14,52,38,22,39		9,10
48″	3,43,44,47,31,42, 4,16,14, 8		16,21,27,40	
		2, 5,25,14,36,16,54,59		9,10
50″	3,43,46,52,56,56,40,33, 9, 7		16,21,36,50	
		2, 5,25,14,19,55,18, 9		9,10
52″	3,43,48,58,22,11, 0,28,27,16		16,21,46, 0	
		2, 5,25,14, 3,33,32, 9		9,10
54″	3,43,51, 3,47,25, 4, 1,59,25		16,21,55,10	
		2, 5,25,13,47,11,36,59		9,10
56″	3,43,53, 9,12,38,51,13,36,24		16,22, 4,20	
		2, 5,25,13,30,49,32,39		9,10
58″	3,43,55,14,37,52,22, 3, 9, 3		16,22,13,30	
		2, 5,25,13,14,27,19, 9		
60″	3,43,57,20, 3, 5,36,30,28,12			
exact	3,43,57,20, 3, 5,36,30,17,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°34′ 0″	3,43,57,20, 3, 5,36,30,17,33			
		2, 5,25,12,58, 4,55,20		
2″	3,43,59,25,28,18,34,35,12,53		16,22,31,55	
		2, 5,25,12,41,42,23,25		9,10
4″	3,44, 1,30,53,31,16,17,36,18		16,22,41, 5	
		2, 5,25,12,25,19,42,20		9,10
6″	3,44, 3,36,18,43,41,37,18,38		16,22,50,15	
		2, 5,25,12, 8,56,52, 5		9,10
8″	3,44, 5,41,43,55,50,34,10,43		16,22,59,25	
		2, 5,25,11,52,33,52,40		9,10
10″	3,44, 7,47, 9, 7,43, 8, 3,23		16,23, 8,35	
		2, 5,25,11,36,10,44, 5		9,10
12″	3,44, 9,52,34,19,19,18,47,28		16,23,17,45	
		2, 5,25,11,19,47,26,20		9,10
14″	3,44,11,57,59,30,39, 6,13,48		16,23,26,55	
		2, 5,25,11, 3,23,59,25		9,10
16″	3,44,14, 3,24,41,42,30,13,13		16,23,36, 5	
		2, 5,25,10,47, 0,23,20		9,10
18″	3,44,16, 8,49,52,29,30,36,33		16,23,45,15	
		2, 5,25,10,30,36,38, 5		9,10
20″	3,44,18,14,15, 3, 0, 7,14,38		16,23,54,25	
		2, 5,25,10,14,12,43,40		9,10
22″	3,44,20,19,40,13,14,19,58,18		16,24, 3,35	
		2, 5,25, 9,57,48,40, 5		9,10
24″	3,44,22,25, 5,23,12, 8,38,23		16,24,12,45	
		2, 5,25, 9,41,24,27,20		9,10
26″	3,44,24,30,30,32,53,33, 5,43		16,24,21,55	
		2, 5,25, 9,25, 0, 5,25		9,10
28″	3,44,26,35,55,42,18,33,11, 8		16,24,31, 5	
		2, 5,25, 9, 8,35,34,20		9,10
30″	3,44,28,41,20,51,27, 8,45,28		16,24,40,15	
		2, 5,25, 8,52,10,54, 5		9,10
32″	3,44,30,46,46, 0,19,19,39,33		16,24,49,25	
		2, 5,25, 8,35,46, 4,40		9,10
34″	3,44,32,52,11, 8,55, 5,44,13		16,24,58,35	
		2, 5,25, 8,19,21, 6, 5		9,10
36″	3,44,34,57,36,17,14,26,50,18		16,25, 7,45	
		2, 5,25, 8, 2,55,58,20		9,10
38″	3,44,37, 3, 1,25,17,22,48,38		16,25,16,55	
		2, 5,25, 7,46,30,41,25		9,10
40″	3,44,39, 8,26,33, 3,53,30, 3		16,25,26, 5	
		2, 5,25, 7,30, 5,15,20		9,10
42″	3,44,41,13,51,40,33,58,45,23		16,25,35,15	
		2, 5,25, 7,13,39,40, 5		9,10
44″	3,44,43,19,16,47,47,38,25,28		16,25,44,25	
		2, 5,25, 6,57,13,55,40		9,10
46″	3,44,45,24,41,54,44,52,21, 8		16,25,53,35	
		2, 5,25, 6,40,48, 2, 5		9,10
48″	3,44,47,30, 7, 1,25,40,23,13		16,26, 2,45	
		2, 5,25, 6,24,21,59,20		9,10
50″	3,44,49,35,32, 7,50, 2,22,33		16,26,11,55	
		2, 5,25, 6, 7,55,47,25		9,10
52″	3,44,51,40,57,13,57,58, 9,58		16,26,21, 5	
		2, 5,25, 5,51,29,26,20		9,10
54″	3,44,53,46,22,19,49,27,36,18		16,26,30,15	
		2, 5,25, 5,35, 2,56, 5		9,10
56″	3,44,55,51,47,25,24,30,32,23		16,26,39,25	
		2, 5,25, 5,18,36,16,40		9,10
58″	3,44,57,57,12,30,43, 6,49, 3		16,26,48,35	
		2, 5,25, 5, 2, 9,28, 5		
60″	3,45, 0, 2,37,35,45,16,17, 8			
exact	3,45, 0, 2,37,35,45,16, 8,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°35′ 0″	3,45, 0, 2,37,35,45,16, 8,32			
		2, 5,25, 4,45,42,29,21		
2″	3,45, 2, 8, 2,40,30,58,37,53		16,27, 6,59	
		2, 5,25, 4,29,15,22,22		9,10
4″	3,45, 4,13,27,45, 0,14, 0,15		16,27,16, 9	
		2, 5,25, 4,12,48, 6,13		9,10
6″	3,45, 6,18,52,49,13, 2, 6,28		16,27,25,19	
		2, 5,25, 3,56,20,40,54		9,10
8″	3,45, 8,24,17,53, 9,22,47,22		16,27,34,29	
		2, 5,25, 3,39,53, 6,25		9,10
10″	3,45,10,29,42,56,49,15,53,47		16,27,43,39	
		2, 5,25, 3,23,25,22,46		9,10
12″	3,45,12,35, 8, 0,12,41,16,33		16,27,52,49	
		2, 5,25, 3, 6,57,29,57		9,10
14″	3,45,14,40,33, 3,19,38,46,30		16,28, 1,59	
		2, 5,25, 2,50,29,27,58		9,10
16″	3,45,16,45,58, 6,10, 8,14,28		16,28,11, 9	
		2, 5,25, 2,34, 1,16,49		9,10
18″	3,45,18,51,23, 8,44, 9,31,17		16,28,20,19	
		2, 5,25, 2,17,32,56,30		9,10
20″	3,45,20,56,48,11, 1,42,27,47		16,28,29,29	
		2, 5,25, 2, 1, 4,27, 1		9,10
22″	3,45,23, 2,13,13, 2,46,54,48		16,28,38,39	
		2, 5,25, 1,44,35,48,22		9,10
24″	3,45,25, 7,38,14,47,22,43,10		16,28,47,49	
		2, 5,25, 1,28, 7, 0,33		9,10
26″	3,45,27,13, 3,16,15,29,43,43		16,28,56,59	
		2, 5,25, 1,11,38, 3,34		9,10
28″	3,45,29,18,28,17,27, 7,47,17		16,29, 6, 9	
		2, 5,25, 0,55, 8,57,25		9,10
30″	3,45,31,23,53,18,22,16,44,42		16,29,15,19	
		2, 5,25, 0,38,39,42, 6		9,10
32″	3,45,33,29,18,19, 0,56,26,48		16,29,24,29	
		2, 5,25, 0,22,10,17,37		9,10
34″	3,45,35,34,43,19,23, 6,44,25		16,29,33,39	
		2, 5,25, 0, 5,40,43,58		9,10
36″	3,45,37,40, 8,19,28,47,28,23		16,29,42,49	
		2, 5,24,59,49,11, 1, 9		9,10
38″	3,45,39,45,33,19,17,58,29,32		16,29,51,59	
		2, 5,24,59,32,41, 9,10		9,10
40″	3,45,41,50,58,18,50,39,38,42		16,30, 1, 9	
		2, 5,24,59,16,11, 8, 1		9,10
42″	3,45,43,56,23,18, 6,50,46,43		16,30,10,19	
		2, 5,24,58,59,40,57,42		9,10
44″	3,45,46, 1,48,17, 6,31,44,25		16,30,19,29	
		2, 5,24,58,43,10,38,13		9,10
46″	3,45,48, 7,13,15,49,42,22,38		16,30,28,39	
		2, 5,24,58,26,40, 9,34		9,10
48″	3,45,50,12,38,14,16,22,32,12		16,30,37,49	
		2, 5,24,58,10, 9,31,45		9,10
50″	3,45,52,18, 3,12,26,32, 3,57		16,30,46,59	
		2, 5,24,57,53,38,44,46		9,10
52″	3,45,54,23,28,10,20,10,48,43		16,30,56, 9	
		2, 5,24,57,37, 7,48,37		9,10
54″	3,45,56,28,53, 7,57,18,37,20		16,31, 5,19	
		2, 5,24,57,20,36,43,18		9,10
56″	3,45,58,34,18, 5,17,55,20,38		16,31,14,29	
		2, 5,24,57, 4, 5,28,49		9,10
58″	3,46, 0,39,43, 2,22, 0,49,27		16,31,23,39	
		2, 5,24,56,47,34, 5,10		
60″	3,46, 2,45, 7,59, 9,34,54,37			
exact	3,46, 2,45, 7,59, 9,34,43,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°36′ 0″	3,46, 2,45, 7,59, 9,34,43,18			
		2, 5,24,56,31, 2,31,12		
2″	3,46, 4,50,32,55,40,37,14,30		16,31,42, 3	
		2, 5,24,56,14,30,49, 9		9,10
4″	3,46, 6,55,57,51,55, 8, 3,39		16,31,51,13	
		2, 5,24,55,57,58,57,56		9,10
6″	3,46, 9, 1,22,47,53, 7, 1,35		16,32, 0,23	
		2, 5,24,55,41,26,57,33		9,10
8″	3,46,11, 6,47,43,34,33,59, 8		16,32, 9,33	
		2, 5,24,55,24,54,48, 0		9,10
10″	3,46,13,12,12,38,59,28,47, 8		16,32,18,43	
		2, 5,24,55, 8,22,29,17		9,10
12″	3,46,15,17,37,34, 7,51,16,25		16,32,27,53	
		2, 5,24,54,51,50, 1,24		9,10
14″	3,46,17,23, 2,28,59,41,17,49		16,32,37, 3	
		2, 5,24,54,35,17,24,21		9,10
16″	3,46,19,28,27,23,34,58,42,10		16,32,46,13	
		2, 5,24,54,18,44,38, 8		9,10
18″	3,46,21,33,52,17,53,43,20,18		16,32,55,23	
		2, 5,24,54, 2,11,42,45		9,10
20″	3,46,23,39,17,11,55,55, 3, 3		16,33, 4,33	
		2, 5,24,53,45,38,38,12		9,10
22″	3,46,25,44,42, 5,41,33,41,15		16,33,13,43	
		2, 5,24,53,29, 5,24,29		9,10
24″	3,46,27,50, 6,59,10,39, 5,44		16,33,22,53	
		2, 5,24,53,12,32, 1,36		9,10
26″	3,46,29,55,31,52,23,11, 7,20		16,33,32, 3	
		2, 5,24,52,55,58,29,33		9,10
28″	3,46,32, 0,56,45,19, 9,36,53		16,33,41,13	
		2, 5,24,52,39,24,48,20		9,10
30″	3,46,34, 6,21,37,58,34,25,13		16,33,50,23	
		2, 5,24,52,22,50,57,57		9,10
32″	3,46,36,11,46,30,21,25,23,10		16,33,59,33	
		2, 5,24,52, 6,16,58,24		9,10
34″	3,46,38,17,11,22,27,42,21,34		16,34, 8,43	
		2, 5,24,51,49,42,49,41		9,10
36″	3,46,40,22,36,14,17,25,11,15		16,34,17,53	
		2, 5,24,51,33, 8,31,48		9,10
38″	3,46,42,28, 1, 5,50,33,43, 3		16,34,27, 3	
		2, 5,24,51,16,34, 4,45		9,10
40″	3,46,44,33,25,57, 7, 7,47,48		16,34,36,13	
		2, 5,24,50,59,59,28,32		9,10
42″	3,46,46,38,50,48, 7, 7,16,20		16,34,45,23	
		2, 5,24,50,43,24,43, 9		9,10
44″	3,46,48,44,15,38,50,31,59,29		16,34,54,33	
		2, 5,24,50,26,49,48,36		9,10
46″	3,46,50,49,40,29,17,21,48, 5		16,35, 3,43	
		2, 5,24,50,10,14,44,53		9,10
48″	3,46,52,55, 5,19,27,36,32,58		16,35,12,53	
		2, 5,24,49,53,39,32, 0		9,10
50″	3,46,55, 0,30, 9,21,16, 4,58		16,35,22, 3	
		2, 5,24,49,37, 4, 9,57		9,10
52″	3,46,57, 5,54,58,58,20,14,55		16,35,31,13	
		2, 5,24,49,20,28,38,44		9,10
54″	3,46,59,11,19,48,18,48,53,39		16,35,40,23	
		2, 5,24,49, 3,52,58,21		9,10
56″	3,47, 1,16,44,37,22,41,52, 0		16,35,49,33	
		2, 5,24,48,47,17, 8,48		9,10
58″	3,47, 3,22, 9,26, 9,59, 0,48		16,35,58,43	
		2, 5,24,48,30,41,10, 5		
60″	3,47, 5,27,34,14,40,40,10,53			
exact	3,47, 5,27,34,14,40,39,58,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°37′ 0″	3,47, 5,27,34,14,40,39,58,51			
		2, 5,24,48,14, 5, 1, 2		
2″	3,47, 7,32,59, 2,54,44,59,53		16,36,17, 7	
		2, 5,24,47,57,28,43,55		9,10
4″	3,47, 9,38,23,50,52,13,43,48		16,36,26,17	
		2, 5,24,47,40,52,17,38		9,10
6″	3,47,11,43,48,38,33, 6, 1,26		16,36,35,27	
		2, 5,24,47,24,15,42,11		9,10
8″	3,47,13,49,13,25,57,21,43,37		16,36,44,37	
		2, 5,24,47, 7,38,57,34		9,10
10″	3,47,15,54,38,13, 5, 0,41,11		16,36,53,47	
		2, 5,24,46,51, 2, 3,47		9,10
12″	3,47,18, 0, 2,59,56, 2,44,58		16,37, 2,57	
		2, 5,24,46,34,25, 0,50		9,10
14″	3,47,20, 5,27,46,30,27,45,48		16,37,12, 7	
		2, 5,24,46,17,47,48,43		9,10
16″	3,47,22,10,52,32,48,15,34,31		16,37,21,17	
		2, 5,24,46, 1,10,27,26		9,10
18″	3,47,24,16,17,18,49,26, 1,57		16,37,30,27	
		2, 5,24,45,44,32,56,59		9,10
20″	3,47,26,21,42, 4,33,58,58,56		16,37,39,37	
		2, 5,24,45,27,55,17,22		9,10
22″	3,47,28,27, 6,50, 1,54,16,18		16,37,48,47	
		2, 5,24,45,11,17,28,35		9,10
24″	3,47,30,32,31,35,13,11,44,53		16,37,57,57	
		2, 5,24,44,54,39,30,38		9,10
26″	3,47,32,37,56,20, 7,51,15,31		16,38, 7, 7	
		2, 5,24,44,38, 1,23,31		9,10
28″	3,47,34,43,21, 4,45,52,39, 2		16,38,16,17	
		2, 5,24,44,21,23, 7,14		9,10
30″	3,47,36,48,45,49, 7,15,46,16		16,38,25,27	
		2, 5,24,44, 4,44,41,47		9,10
32″	3,47,38,54,10,33,12, 0,28, 3		16,38,34,37	
		2, 5,24,43,48, 6, 7,10		9,10
34″	3,47,40,59,35,17, 0, 6,35,13		16,38,43,47	
		2, 5,24,43,31,27,23,23		9,10
36″	3,47,43, 5, 0, 0,31,33,58,36		16,38,52,57	
		2, 5,24,43,14,48,30,26		9,10
38″	3,47,45,10,24,43,46,22,29, 2		16,39, 2, 7	
		2, 5,24,42,58, 9,28,19		9,10
40″	3,47,47,15,49,26,44,31,57,21		16,39,11,17	
		2, 5,24,42,41,30,17, 2		9,10
42″	3,47,49,21,14, 9,26, 2,14,23		16,39,20,27	
		2, 5,24,42,24,50,56,35		9,10
44″	3,47,51,26,38,51,50,53,10,58		16,39,29,37	
		2, 5,24,42, 8,11,26,58		9,10
46″	3,47,53,32, 3,33,59, 4,37,56		16,39,38,47	
		2, 5,24,41,51,31,48,11		9,10
48″	3,47,55,37,28,15,50,36,26, 7		16,39,47,57	
		2, 5,24,41,34,52, 0,14		9,10
50″	3,47,57,42,52,57,25,28,26,21		16,39,57, 7	
		2, 5,24,41,18,12, 3, 7		9,10
52″	3,47,59,48,17,38,43,40,29,28		16,40, 6,17	
		2, 5,24,41, 1,31,56,50		9,10
54″	3,48, 1,53,42,19,45,12,26,18		16,40,15,27	
		2, 5,24,40,44,51,41,23		9,10
56″	3,48, 3,59, 7, 0,30, 4, 7,41		16,40,24,37	
		2, 5,24,40,28,11,16,46		9,10
58″	3,48, 6, 4,31,40,58,15,24,27		16,40,33,47	
		2, 5,24,40,11,30,42,59		
60″	3,48, 8, 9,56,21, 9,46, 7,26			
exact	3,48, 8, 9,56,21, 9,45,56,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°38′ 0″	3,48, 8, 9,56,21, 9,45,56,42			
		2, 5,24,39,54,49,58,59		
2″	3,48,10,15,21, 1, 4,35,55,41		16,40,52,11	
		2, 5,24,39,38, 9, 6,48		9,10
4″	3,48,12,20,45,40,42,45, 2,29		16,41, 1,21	
		2, 5,24,39,21,28, 5,27		9,10
6″	3,48,14,26,10,20, 4,13, 7,56		16,41,10,31	
		2, 5,24,39, 4,46,54,56		9,10
8″	3,48,16,31,34,59, 9, 0, 2,52		16,41,19,41	
		2, 5,24,38,48, 5,35,15		9,10
10″	3,48,18,36,59,37,57, 5,38, 7		16,41,28,51	
		2, 5,24,38,31,24, 6,24		9,10
12″	3,48,20,42,24,16,28,29,44,31		16,41,38, 1	
		2, 5,24,38,14,42,28,23		9,10
14″	3,48,22,47,48,54,43,12,12,54		16,41,47,11	
		2, 5,24,37,58, 0,41,12		9,10
16″	3,48,24,53,13,32,41,12,54, 6		16,41,56,21	
		2, 5,24,37,41,18,44,51		9,10
18″	3,48,26,58,38,10,22,31,38,57		16,42, 5,31	
		2, 5,24,37,24,36,39,20		9,10
20″	3,48,29, 4, 2,47,47, 8,18,17		16,42,14,41	
		2, 5,24,37, 7,54,24,39		9,10
22″	3,48,31, 9,27,24,55, 2,42,56		16,42,23,51	
		2, 5,24,36,51,12, 0,48		9,10
24″	3,48,33,14,52, 1,46,14,43,44		16,42,33, 1	
		2, 5,24,36,34,29,27,47		9,10
26″	3,48,35,20,16,38,20,44,11,31		16,42,42,11	
		2, 5,24,36,17,46,45,36		9,10
28″	3,48,37,25,41,14,38,30,57, 7		16,42,51,21	
		2, 5,24,36, 1, 3,54,15		9,10
30″	3,48,39,31, 5,50,39,34,51,22		16,43, 0,31	
		2, 5,24,35,44,20,53,44		9,10
32″	3,48,41,36,30,26,23,55,45, 6		16,43, 9,41	
		2, 5,24,35,27,37,44, 3		9,10
34″	3,48,43,41,55, 1,51,33,29, 9		16,43,18,51	
		2, 5,24,35,10,54,25,12		9,10
36″	3,48,45,47,19,37, 2,27,54,21		16,43,28, 1	
		2, 5,24,34,54,10,57,11		9,10
38″	3,48,47,52,44,11,56,38,51,32		16,43,37,11	
		2, 5,24,34,37,27,20, 0		9,10
40″	3,48,49,58, 8,46,34, 6,11,32		16,43,46,21	
		2, 5,24,34,20,43,33,39		9,10
42″	3,48,52, 3,33,20,54,49,45,11		16,43,55,31	
		2, 5,24,34, 3,59,38, 8		9,10
44″	3,48,54, 8,57,54,58,49,23,19		16,44, 4,41	
		2, 5,24,33,47,15,33,27		9,10
46″	3,48,56,14,22,28,46, 4,56,46		16,44,13,51	
		2, 5,24,33,30,31,19,36		9,10
48″	3,48,58,19,47, 2,16,36,16,22		16,44,23, 1	
		2, 5,24,33,13,46,56,35		9,10
50″	3,49, 0,25,11,35,30,23,12,57		16,44,32,11	
		2, 5,24,32,57, 2,24,24		9,10
52″	3,49, 2,30,36, 8,27,25,37,21		16,44,41,21	
		2, 5,24,32,40,17,43, 3		9,10
54″	3,49, 4,36, 0,41, 7,43,20,24		16,44,50,31	
		2, 5,24,32,23,32,52,32		9,10
56″	3,49, 6,41,25,13,31,16,12,56		16,44,59,41	
		2, 5,24,32, 6,47,52,51		9,10
58″	3,49, 8,46,49,45,38, 4, 5,47		16,45, 8,51	
		2, 5,24,31,50, 2,44, 0		
60″	3,49,10,52,14,17,28, 6,49,47			
exact	3,49,10,52,14,17,28, 6,42,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°39′ 0″	3,49,10,52,14,17,28, 6,42,57			
		2, 5,24,31,33,17,25,13		
2″	3,49,12,57,38,49, 1,24, 8,10		16,45,27,14	
		2, 5,24,31,16,31,57,59		9,10
4″	3,49,15, 3, 3,20,17,56, 6, 9		16,45,36,24	
		2, 5,24,30,59,46,21,35		9,10
6″	3,49,17, 8,27,51,17,42,27,44		16,45,45,34	
		2, 5,24,30,43, 0,36, 1		9,10
8″	3,49,19,13,52,22, 0,43, 3,45		16,45,54,44	
		2, 5,24,30,26,14,41,17		9,10
10″	3,49,21,19,16,52,26,57,45, 2		16,46, 3,54	
		2, 5,24,30, 9,28,37,23		9,10
12″	3,49,23,24,41,22,36,26,22,25		16,46,13, 4	
		2, 5,24,29,52,42,24,19		9,10
14″	3,49,25,30, 5,52,29, 8,46,44		16,46,22,14	
		2, 5,24,29,35,56, 2, 5		9,10
16″	3,49,27,35,30,22, 5, 4,48,49		16,46,31,24	
		2, 5,24,29,19, 9,30,41		9,10
18″	3,49,29,40,54,51,24,14,19,30		16,46,40,34	
		2, 5,24,29, 2,22,50, 7		9,10
20″	3,49,31,46,19,20,26,37, 9,37		16,46,49,44	
		2, 5,24,28,45,36, 0,23		9,10
22″	3,49,33,51,43,49,12,13,10, 0		16,46,58,54	
		2, 5,24,28,28,49, 1,29		9,10
24″	3,49,35,57, 8,17,41, 2,11,29		16,47, 8, 4	
		2, 5,24,28,12, 1,53,25		9,10
26″	3,49,38, 2,32,45,53, 4, 4,54		16,47,17,14	
		2, 5,24,27,55,14,36,11		9,10
28″	3,49,40, 7,57,13,48,18,41, 5		16,47,26,24	
		2, 5,24,27,38,27, 9,47		9,10
30″	3,49,42,13,21,41,26,45,50,52		16,47,35,34	
		2, 5,24,27,21,39,34,13		9,10
32″	3,49,44,18,46, 8,48,25,25, 5		16,47,44,44	
		2, 5,24,27, 4,51,49,29		9,10
34″	3,49,46,24,10,35,53,17,14,34		16,47,53,54	
		2, 5,24,26,48, 3,55,35		9,10
36″	3,49,48,29,35, 2,41,21,10, 9		16,48, 3, 4	
		2, 5,24,26,31,15,52,31		9,10
38″	3,49,50,34,59,29,12,37, 2,40		16,48,12,14	
		2, 5,24,26,14,27,40,17		9,10
40″	3,49,52,40,23,55,27, 4,42,57		16,48,21,24	
		2, 5,24,25,57,39,18,53		9,10
42″	3,49,54,45,48,21,24,44, 1,50		16,48,30,34	
		2, 5,24,25,40,50,48,19		9,10
44″	3,49,56,51,12,47, 5,34,50, 9		16,48,39,44	
		2, 5,24,25,24, 2, 8,35		9,10
46″	3,49,58,56,37,12,29,36,58,44		16,48,48,54	
		2, 5,24,25, 7,13,19,41		9,10
48″	3,50, 1, 2, 1,37,36,50,18,25		16,48,58, 4	
		2, 5,24,24,50,24,21,37		9,10
50″	3,50, 3, 7,26, 2,27,14,40, 2		16,49, 7,14	
		2, 5,24,24,33,35,14,23		9,10
52″	3,50, 5,12,50,27, 0,49,54,25		16,49,16,24	
		2, 5,24,24,16,45,57,59		9,10
54″	3,50, 7,18,14,51,17,35,52,24		16,49,25,34	
		2, 5,24,23,59,56,32,25		9,10
56″	3,50, 9,23,39,15,17,32,24,49		16,49,34,44	
		2, 5,24,23,43, 6,57,41		9,10
58″	3,50,11,29, 3,39, 0,39,22,30		16,49,43,54	
		2, 5,24,23,26,17,13,47		
60″	3,50,13,34,28, 2,26,56,36,17			
exact	3,50,13,34,28, 2,26,56,28,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°40′ 0″	3,50,13,34,28, 2,26,56,28,15			
		2, 5,24,23, 9,27,19,54		
2″	3,50,15,39,52,25,36,23,48, 9		16,50, 2,17	
		2, 5,24,22,52,37,17,37		9,10
4″	3,50,17,45,16,48,29, 1, 5,46		16,50,11,27	
		2, 5,24,22,35,47, 6,10		9,10
6″	3,50,19,50,41,11, 4,48,11,56		16,50,20,37	
		2, 5,24,22,18,56,45,33		9,10
8″	3,50,21,56, 5,33,23,44,57,29		16,50,29,47	
		2, 5,24,22, 2, 6,15,46		9,10
10″	3,50,24, 1,29,55,25,51,13,15		16,50,38,57	
		2, 5,24,21,45,15,36,49		9,10
12″	3,50,26, 6,54,17,11, 6,50, 4		16,50,48, 7	
		2, 5,24,21,28,24,48,42		9,10
14″	3,50,28,12,18,38,39,31,38,46		16,50,57,17	
		2, 5,24,21,11,33,51,25		9,10
16″	3,50,30,17,42,59,51, 5,30,11		16,51, 6,27	
		2, 5,24,20,54,42,44,58		9,10
18″	3,50,32,23, 7,20,45,48,15, 9		16,51,15,37	
		2, 5,24,20,37,51,29,21		9,10
20″	3,50,34,28,31,41,23,39,44,30		16,51,24,47	
		2, 5,24,20,21, 0, 4,34		9,10
22″	3,50,36,33,56, 1,44,39,49, 4		16,51,33,57	
		2, 5,24,20, 4, 8,30,37		9,10
24″	3,50,38,39,20,21,48,48,19,41		16,51,43, 7	
		2, 5,24,19,47,16,47,30		9,10
26″	3,50,40,44,44,41,36, 5, 7,11		16,51,52,17	
		2, 5,24,19,30,24,55,13		9,10
28″	3,50,42,50, 9, 1, 6,30, 2,24		16,52, 1,27	
		2, 5,24,19,13,32,53,46		9,10
30″	3,50,44,55,33,20,20, 2,56,10		16,52,10,37	
		2, 5,24,18,56,40,43, 9		9,10
32″	3,50,47, 0,57,39,16,43,39,19		16,52,19,47	
		2, 5,24,18,39,48,23,22		9,10
34″	3,50,49, 6,21,57,56,32, 2,41		16,52,28,57	
		2, 5,24,18,22,55,54,25		9,10
36″	3,50,51,11,46,16,19,27,57, 6		16,52,38, 7	
		2, 5,24,18, 6, 3,16,18		9,10
38″	3,50,53,17,10,34,25,31,13,24		16,52,47,17	
		2, 5,24,17,49,10,29, 1		9,10
40″	3,50,55,22,34,52,14,41,42,25		16,52,56,27	
		2, 5,24,17,32,17,32,34		9,10
42″	3,50,57,27,59, 9,46,59,14,59		16,53, 5,37	
		2, 5,24,17,15,24,26,57		9,10
44″	3,50,59,33,23,27, 2,23,41,56		16,53,14,47	
		2, 5,24,16,58,31,12,10		9,10
46″	3,51, 1,38,47,44, 0,54,54, 6		16,53,23,57	
		2, 5,24,16,41,37,48,13		9,10
48″	3,51, 3,44,12, 0,42,32,42,19		16,53,33, 7	
		2, 5,24,16,24,44,15, 6		9,10
50″	3,51, 5,49,36,17, 7,16,57,25		16,53,42,17	
		2, 5,24,16, 7,50,32,49		9,10
52″	3,51, 7,55, 0,33,15, 7,30,14		16,53,51,27	
		2, 5,24,15,50,56,41,22		9,10
54″	3,51,10, 0,24,49, 6, 4,11,36		16,54, 0,37	
		2, 5,24,15,34, 2,40,45		9,10
56″	3,51,12, 5,49, 4,40, 6,52,21		16,54, 9,47	
		2, 5,24,15,17, 8,30,58		9,10
58″	3,51,14,11,13,19,57,15,23,19		16,54,18,57	
		2, 5,24,15, 0,14,12, 1		
60″	3,51,16,16,37,34,57,29,35,20			
exact	3,51,16,16,37,34,57,29,27,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°41′ 0″	3,51,16,16,37,34,57,29,27,50			
		2, 5,24,14,43,19,43, 9		
2″	3,51,18,22, 1,49,40,49,10,59		16,54,37,20	
		2, 5,24,14,26,25, 5,49		9,10
4″	3,51,20,27,26, 4, 7,14,16,48		16,54,46,30	
		2, 5,24,14, 9,30,19,19		9,10
6″	3,51,22,32,50,18,16,44,36, 7		16,54,55,40	
		2, 5,24,13,52,35,23,39		9,10
8″	3,51,24,38,14,32, 9,19,59,46		16,55, 4,50	
		2, 5,24,13,35,40,18,49		9,10
10″	3,51,26,43,38,45,45, 0,18,35		16,55,14, 0	
		2, 5,24,13,18,45, 4,49		9,10
12″	3,51,28,49, 2,59, 3,45,23,24		16,55,23,10	
		2, 5,24,13, 1,49,41,39		9,10
14″	3,51,30,54,27,12, 5,35, 5, 3		16,55,32,20	
		2, 5,24,12,44,54, 9,19		9,10
16″	3,51,32,59,51,24,50,29,14,22		16,55,41,30	
		2, 5,24,12,27,58,27,49		9,10
18″	3,51,35, 5,15,37,18,27,42,11		16,55,50,40	
		2, 5,24,12,11, 2,37, 9		9,10
20″	3,51,37,10,39,49,29,30,19,20		16,55,59,50	
		2, 5,24,11,54, 6,37,19		9,10
22″	3,51,39,16, 4, 1,23,36,56,39		16,56, 9, 0	
		2, 5,24,11,37,10,28,19		9,10
24″	3,51,41,21,28,13, 0,47,24,58		16,56,18,10	
		2, 5,24,11,20,14,10, 9		9,10
26″	3,51,43,26,52,24,21, 1,35, 7		16,56,27,20	
		2, 5,24,11, 3,17,42,49		9,10
28″	3,51,45,32,16,35,24,19,17,56		16,56,36,30	
		2, 5,24,10,46,21, 6,19		9,10
30″	3,51,47,37,40,46,10,40,24,15		16,56,45,40	
		2, 5,24,10,29,24,20,39		9,10
32″	3,51,49,43, 4,56,40, 4,44,54		16,56,54,50	
		2, 5,24,10,12,27,25,49		9,10
34″	3,51,51,48,29, 6,52,32,10,43		16,57, 4, 0	
		2, 5,24, 9,55,30,21,49		9,10
36″	3,51,53,53,53,16,48, 2,32,32		16,57,13,10	
		2, 5,24, 9,38,33, 8,39		9,10
38″	3,51,55,59,17,26,26,35,41,11		16,57,22,20	
		2, 5,24, 9,21,35,46,19		9,10
40″	3,51,58, 4,41,35,48,11,27,30		16,57,31,30	
		2, 5,24, 9, 4,38,14,49		9,10
42″	3,52, 0,10, 5,44,52,49,42,19		16,57,40,40	
		2, 5,24, 8,47,40,34, 9		9,10
44″	3,52, 2,15,29,53,40,30,16,28		16,57,49,50	
		2, 5,24, 8,30,42,44,19		9,10
46″	3,52, 4,20,54, 2,11,13, 0,47		16,57,59, 0	
		2, 5,24, 8,13,44,45,19		9,10
48″	3,52, 6,26,18,10,24,57,46, 6		16,58, 8,10	
		2, 5,24, 7,56,46,37, 9		9,10
50″	3,52, 8,31,42,18,21,44,23,15		16,58,17,20	
		2, 5,24, 7,39,48,19,49		9,10
52″	3,52,10,37, 6,26, 1,32,43, 4		16,58,26,30	
		2, 5,24, 7,22,49,53,19		9,10
54″	3,52,12,42,30,33,24,22,36,23		16,58,35,40	
		2, 5,24, 7, 5,51,17,39		9,10
56″	3,52,14,47,54,40,30,13,54, 2		16,58,44,50	
		2, 5,24, 6,48,52,32,49		9,10
58″	3,52,16,53,18,47,19, 6,26,51		16,58,54, 0	
		2, 5,24, 6,31,53,38,49		
60″	3,52,18,58,42,53,51, 0, 5,40			
exact	3,52,18,58,42,53,51, 0, 1,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°42′ 0″	3,52,18,58,42,53,51, 0, 1,33			
		2, 5,24, 6,14,54,35, 9		
2″	3,52,21, 4, 7, 0, 5,54,36,42		16,59,12,22	
		2, 5,24, 5,57,55,22,47		9,10
4″	3,52,23, 9,31, 6, 3,49,59,29		16,59,21,32	
		2, 5,24, 5,40,56, 1,15		9,10
6″	3,52,25,14,55,11,44,46, 0,44		16,59,30,42	
		2, 5,24, 5,23,56,30,33		9,10
8″	3,52,27,20,19,17, 8,42,31,17		16,59,39,52	
		2, 5,24, 5, 6,56,50,41		9,10
10″	3,52,29,25,43,22,15,39,21,58		16,59,49, 2	
		2, 5,24, 4,49,57, 1,39		9,10
12″	3,52,31,31, 7,27, 5,36,23,37		16,59,58,12	
		2, 5,24, 4,32,57, 3,27		9,10
14″	3,52,33,36,31,31,38,33,27, 4		17, 0, 7,22	
		2, 5,24, 4,15,56,56, 5		9,10
16″	3,52,35,41,55,35,54,30,23, 9		17, 0,16,32	
		2, 5,24, 3,58,56,39,33		9,10
18″	3,52,37,47,19,39,53,27, 2,42		17, 0,25,42	
		2, 5,24, 3,41,56,13,51		9,10
20″	3,52,39,52,43,43,35,23,16,33		17, 0,34,52	
		2, 5,24, 3,24,55,38,59		9,10
22″	3,52,41,58, 7,47, 0,18,55,32		17, 0,44, 2	
		2, 5,24, 3, 7,54,54,57		9,10
24″	3,52,44, 3,31,50, 8,13,50,29		17, 0,53,12	
		2, 5,24, 2,50,54, 1,45		9,10
26″	3,52,46, 8,55,52,59, 7,52,14		17, 1, 2,22	
		2, 5,24, 2,33,52,59,23		9,10
28″	3,52,48,14,19,55,33, 0,51,37		17, 1,11,32	
		2, 5,24, 2,16,51,47,51		9,10
30″	3,52,50,19,43,57,49,52,39,28		17, 1,20,42	
		2, 5,24, 1,59,50,27, 9		9,10
32″	3,52,52,25, 7,59,49,43, 6,37		17, 1,29,52	
		2, 5,24, 1,42,48,57,17		9,10
34″	3,52,54,30,32, 1,32,32, 3,54		17, 1,39, 2	
		2, 5,24, 1,25,47,18,15		9,10
36″	3,52,56,35,56, 2,58,19,22, 9		17, 1,48,12	
		2, 5,24, 1, 8,45,30, 3		9,10
38″	3,52,58,41,20, 4, 7, 4,52,12		17, 1,57,22	
		2, 5,24, 0,51,43,32,41		9,10
40″	3,53, 0,46,44, 4,58,48,24,53		17, 2, 6,32	
		2, 5,24, 0,34,41,26, 9		9,10
42″	3,53, 2,52, 8, 5,33,29,51, 2		17, 2,15,42	
		2, 5,24, 0,17,39,10,27		9,10
44″	3,53, 4,57,32, 5,51, 9, 1,29		17, 2,24,52	
		2, 5,24, 0, 0,36,45,35		9,10
46″	3,53, 7, 2,56, 5,51,45,47, 4		17, 2,34, 2	
		2, 5,23,59,43,34,11,33		9,10
48″	3,53, 9, 8,20, 5,35,19,58,37		17, 2,43,12	
		2, 5,23,59,26,31,28,21		9,10
50″	3,53,11,13,44, 5, 1,51,26,58		17, 2,52,22	
		2, 5,23,59, 9,28,35,59		9,10
52″	3,53,13,19, 8, 4,11,20, 2,57		17, 3, 1,32	
		2, 5,23,58,52,25,34,27		9,10
54″	3,53,15,24,32, 3, 3,45,37,24		17, 3,10,42	
		2, 5,23,58,35,22,23,45		9,10
56″	3,53,17,29,56, 1,39, 8, 1, 9		17, 3,19,52	
		2, 5,23,58,18,19, 3,53		9,10
58″	3,53,19,35,19,59,57,27, 5, 2		17, 3,29, 2	
		2, 5,23,58, 1,15,34,51		
60″	3,53,21,40,43,57,58,42,39,53			
exact	3,53,21,40,43,57,58,42,33,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°43′ 0″	3,53,21,40,43,57,58,42,33,55			
		2, 5,23,57,44,11,56, 3		
2″	3,53,23,46, 7,55,42,54,29,58		17, 3,47,24	
		2, 5,23,57,27, 8, 8,39		9,10
4″	3,53,25,51,31,53,10, 2,38,37		17, 3,56,34	
		2, 5,23,57,10, 4,12, 5		9,10
6″	3,53,27,56,55,50,20, 6,50,42		17, 4, 5,44	
		2, 5,23,56,53, 0, 6,21		9,10
8″	3,53,30, 2,19,47,13, 6,57, 3		17, 4,14,54	
		2, 5,23,56,35,55,51,27		9,10
10″	3,53,32, 7,43,43,49, 2,48,30		17, 4,24, 4	
		2, 5,23,56,18,51,27,23		9,10
12″	3,53,34,13, 7,40, 7,54,15,53		17, 4,33,14	
		2, 5,23,56, 1,46,54, 9		9,10
14″	3,53,36,18,31,36, 9,41,10, 2		17, 4,42,24	
		2, 5,23,55,44,42,11,45		9,10
16″	3,53,38,23,55,31,54,23,21,47		17, 4,51,34	
		2, 5,23,55,27,37,20,11		9,10
18″	3,53,40,29,19,27,22, 0,41,58		17, 5, 0,44	
		2, 5,23,55,10,32,19,27		9,10
20″	3,53,42,34,43,22,32,33, 1,25		17, 5, 9,54	
		2, 5,23,54,53,27, 9,33		9,10
22″	3,53,44,40, 7,17,26, 0,10,58		17, 5,19, 4	
		2, 5,23,54,36,21,50,29		9,10
24″	3,53,46,45,31,12, 2,22, 1,27		17, 5,28,14	
		2, 5,23,54,19,16,22,15		9,10
26″	3,53,48,50,55, 6,21,38,23,42		17, 5,37,24	
		2, 5,23,54, 2,10,44,51		9,10
28″	3,53,50,56,19, 0,23,49, 8,33		17, 5,46,34	
		2, 5,23,53,45, 4,58,17		9,10
30″	3,53,53, 1,42,54, 8,54, 6,50		17, 5,55,44	
		2, 5,23,53,27,59, 2,33		9,10
32″	3,53,55, 7, 6,47,36,53, 9,23		17, 6, 4,54	
		2, 5,23,53,10,52,57,39		9,10
34″	3,53,57,12,30,40,47,46, 7, 2		17, 6,14, 4	
		2, 5,23,52,53,46,43,35		9,10
36″	3,53,59,17,54,33,41,32,50,37		17, 6,23,14	
		2, 5,23,52,36,40,20,21		9,10
38″	3,54, 1,23,18,26,18,13,10,58		17, 6,32,24	
		2, 5,23,52,19,33,47,57		9,10
40″	3,54, 3,28,42,18,37,46,58,55		17, 6,41,34	
		2, 5,23,52, 2,27, 6,23		9,10
42″	3,54, 5,34, 6,10,40,14, 5,18		17, 6,50,44	
		2, 5,23,51,45,20,15,39		9,10
44″	3,54, 7,39,30, 2,25,34,20,57		17, 6,59,54	
		2, 5,23,51,28,13,15,45		9,10
46″	3,54, 9,44,53,53,53,47,36,42		17, 7, 9, 4	
		2, 5,23,51,11, 6, 6,41		9,10
48″	3,54,11,50,17,45, 4,53,43,23		17, 7,18,14	
		2, 5,23,50,53,58,48,27		9,10
50″	3,54,13,55,41,35,58,52,31,50		17, 7,27,24	
		2, 5,23,50,36,51,21, 3		9,10
52″	3,54,16, 1, 5,26,35,43,52,53		17, 7,36,34	
		2, 5,23,50,19,43,44,29		9,10
54″	3,54,18, 6,29,16,55,27,37,22		17, 7,45,44	
		2, 5,23,50, 2,35,58,45		9,10
56″	3,54,20,11,53, 6,58, 3,36, 7		17, 7,54,54	
		2, 5,23,49,45,28, 3,51		9,10
58″	3,54,22,17,16,56,43,31,39,58		17, 8, 4, 4	
		2, 5,23,49,28,19,59,47		
60″	3,54,24,22,40,46,11,51,39,45			
exact	3,54,24,22,40,46,11,51,34, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°44′ 0″	3,54,24,22,40,46,11,51,34, 5			
		2, 5,23,49,11,11,46, 0		
2″	3,54,26,28, 4,35,23, 3,20, 5		17, 8,22,26	
		2, 5,23,48,54, 3,23,34		9,10
4″	3,54,28,33,28,24,17, 6,43,39		17, 8,31,36	
		2, 5,23,48,36,54,51,58		9,10
6″	3,54,30,38,52,12,54, 1,35,37		17, 8,40,46	
		2, 5,23,48,19,46,11,12		9,10
8″	3,54,32,44,16, 1,13,47,46,49		17, 8,49,56	
		2, 5,23,48, 2,37,21,16		9,10
10″	3,54,34,49,39,49,16,25, 8, 5		17, 8,59, 6	
		2, 5,23,47,45,28,22,10		9,10
12″	3,54,36,55, 3,37, 1,53,30,15		17, 9, 8,16	
		2, 5,23,47,28,19,13,54		9,10
14″	3,54,39, 0,27,24,30,12,44, 9		17, 9,17,26	
		2, 5,23,47,11, 9,56,28		9,10
16″	3,54,41, 5,51,11,41,22,40,37		17, 9,26,36	
		2, 5,23,46,54, 0,29,52		9,10
18″	3,54,43,11,14,58,35,23,10,29		17, 9,35,46	
		2, 5,23,46,36,50,54, 6		9,10
20″	3,54,45,16,38,45,12,14, 4,35		17, 9,44,56	
		2, 5,23,46,19,41, 9,10		9,10
22″	3,54,47,22, 2,31,31,55,13,45		17, 9,54, 6	
		2, 5,23,46, 2,31,15, 4		9,10
24″	3,54,49,27,26,17,34,26,28,49		17,10, 3,16	
		2, 5,23,45,45,21,11,48		9,10
26″	3,54,51,32,50, 3,19,47,40,37		17,10,12,26	
		2, 5,23,45,28,10,59,22		9,10
28″	3,54,53,38,13,48,47,58,39,59		17,10,21,36	
		2, 5,23,45,11, 0,37,46		9,10
30″	3,54,55,43,37,33,58,59,17,45		17,10,30,46	
		2, 5,23,44,53,50, 7, 0		9,10
32″	3,54,57,49, 1,18,52,49,24,45		17,10,39,56	
		2, 5,23,44,36,39,27, 4		9,10
34″	3,54,59,54,25, 3,29,28,51,49		17,10,49, 6	
		2, 5,23,44,19,28,37,58		9,10
36″	3,55, 1,59,48,47,48,57,29,47		17,10,58,16	
		2, 5,23,44, 2,17,39,42		9,10
38″	3,55, 4, 5,12,31,51,15, 9,29		17,11, 7,26	
		2, 5,23,43,45, 6,32,16		9,10
40″	3,55, 6,10,36,15,36,21,41,45		17,11,16,36	
		2, 5,23,43,27,55,15,40		9,10
42″	3,55, 8,15,59,59, 4,16,57,25		17,11,25,46	
		2, 5,23,43,10,43,49,54		9,10
44″	3,55,10,21,23,42,15, 0,47,19		17,11,34,56	
		2, 5,23,42,53,32,14,58		9,10
46″	3,55,12,26,47,25, 8,33, 2,17		17,11,44, 6	
		2, 5,23,42,36,20,30,52		9,10
48″	3,55,14,32,11, 7,44,53,33, 9		17,11,53,16	
		2, 5,23,42,19, 8,37,36		9,10
50″	3,55,16,37,34,50, 4, 2,10,45		17,12, 2,26	
		2, 5,23,42, 1,56,35,10		9,10
52″	3,55,18,42,58,32, 5,58,45,55		17,12,11,36	
		2, 5,23,41,44,44,23,34		9,10
54″	3,55,20,48,22,13,50,43, 9,29		17,12,20,46	
		2, 5,23,41,27,32, 2,48		9,10
56″	3,55,22,53,45,55,18,15,12,17		17,12,29,56	
		2, 5,23,41,10,19,32,52		9,10
58″	3,55,24,59, 9,36,28,34,45, 9		17,12,39, 6	
		2, 5,23,40,53, 6,53,46		
60″	3,55,27, 4,33,17,21,41,38,55			
exact	3,55,27, 4,33,17,21,41,35,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°45′ 0″	3,55,27, 4,33,17,21,41,35,52			
		2, 5,23,40,35,54, 5,10		
2″	3,55,29, 9,56,57,57,35,41, 2		17,12,57,27	
		2, 5,23,40,18,41, 7,43		9,10
4″	3,55,31,15,20,38,16,16,48,45		17,13, 6,37	
		2, 5,23,40, 1,28, 1, 6		9,10
6″	3,55,33,20,44,18,17,44,49,51		17,13,15,47	
		2, 5,23,39,44,14,45,19		9,10
8″	3,55,35,26, 7,58, 1,59,35,10		17,13,24,57	
		2, 5,23,39,27, 1,20,22		9,10
10″	3,55,37,31,31,37,29, 0,55,32		17,13,34, 7	
		2, 5,23,39, 9,47,46,15		9,10
12″	3,55,39,36,55,16,38,48,41,47		17,13,43,17	
		2, 5,23,38,52,34, 2,58		9,10
14″	3,55,41,42,18,55,31,22,44,45		17,13,52,27	
		2, 5,23,38,35,20,10,31		9,10
16″	3,55,43,47,42,34, 6,42,55,16		17,14, 1,37	
		2, 5,23,38,18, 6, 8,54		9,10
18″	3,55,45,53, 6,12,24,49, 4,10		17,14,10,47	
		2, 5,23,38, 0,51,58, 7		9,10
20″	3,55,47,58,29,50,25,41, 2,17		17,14,19,57	
		2, 5,23,37,43,37,38,10		9,10
22″	3,55,50, 3,53,28, 9,18,40,27		17,14,29, 7	
		2, 5,23,37,26,23, 9, 3		9,10
24″	3,55,52, 9,17, 5,35,41,49,30		17,14,38,17	
		2, 5,23,37, 9, 8,30,46		9,10
26″	3,55,54,14,40,42,44,50,20,16		17,14,47,27	
		2, 5,23,36,51,53,43,19		9,10
28″	3,55,56,20, 4,19,36,44, 3,35		17,14,56,37	
		2, 5,23,36,34,38,46,42		9,10
30″	3,55,58,25,27,56,11,22,50,17		17,15, 5,47	
		2, 5,23,36,17,23,40,55		9,10
32″	3,56, 0,30,51,32,28,46,31,12		17,15,14,57	
		2, 5,23,36, 0, 8,25,58		9,10
34″	3,56, 2,36,15, 8,28,54,57,10		17,15,24, 7	
		2, 5,23,35,42,53, 1,51		9,10
36″	3,56, 4,41,38,44,11,47,59, 1		17,15,33,17	
		2, 5,23,35,25,37,28,34		9,10
38″	3,56, 6,47, 2,19,37,25,27,35		17,15,42,27	
		2, 5,23,35, 8,21,46, 7		9,10
40″	3,56, 8,52,25,54,45,47,13,42		17,15,51,37	
		2, 5,23,34,51, 5,54,30		9,10
42″	3,56,10,57,49,29,36,53, 8,12		17,16, 0,47	
		2, 5,23,34,33,49,53,43		9,10
44″	3,56,13, 3,13, 4,10,43, 1,55		17,16, 9,57	
		2, 5,23,34,16,33,43,46		9,10
46″	3,56,15, 8,36,38,27,16,45,41		17,16,19, 7	
		2, 5,23,33,59,17,24,39		9,10
48″	3,56,17,14, 0,12,26,34,10,20		17,16,28,17	
		2, 5,23,33,42, 0,56,22		9,10
50″	3,56,19,19,23,46, 8,35, 6,42		17,16,37,27	
		2, 5,23,33,24,44,18,55		9,10
52″	3,56,21,24,47,19,33,19,25,37		17,16,46,37	
		2, 5,23,33, 7,27,32,18		9,10
54″	3,56,23,30,10,52,40,46,57,55		17,16,55,47	
		2, 5,23,32,50,10,36,31		9,10
56″	3,56,25,35,34,25,30,57,34,26		17,17, 4,57	
		2, 5,23,32,32,53,31,34		9,10
58″	3,56,27,40,57,58, 3,51, 6, 0		17,17,14, 7	
		2, 5,23,32,15,36,17,27		
60″	3,56,29,46,21,30,19,27,23,27			
exact	3,56,29,46,21,30,19,27,17,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°46′ 0″	3,56,29,46,21,30,19,27,17,48			
		2, 5,23,31,58,18,53,41		
2″	3,56,31,51,45, 2,17,46,11,29		17,17,32,28	
		2, 5,23,31,41, 1,21,13		9,10
4″	3,56,33,57, 8,33,58,47,32,42		17,17,41,38	
		2, 5,23,31,23,43,39,35		9,10
6″	3,56,36, 2,32, 5,22,31,12,17		17,17,50,48	
		2, 5,23,31, 6,25,48,47		9,10
8″	3,56,38, 7,55,36,28,57, 1, 4		17,17,59,58	
		2, 5,23,30,49, 7,48,49		9,10
10″	3,56,40,13,19, 7,18, 4,49,53		17,18, 9, 8	
		2, 5,23,30,31,49,39,41		9,10
12″	3,56,42,18,42,37,49,54,29,34		17,18,18,18	
		2, 5,23,30,14,31,21,23		9,10
14″	3,56,44,24, 6, 8, 4,25,50,57		17,18,27,28	
		2, 5,23,29,57,12,53,55		9,10
16″	3,56,46,29,29,38, 1,38,44,52		17,18,36,38	
		2, 5,23,29,39,54,17,17		9,10
18″	3,56,48,34,53, 7,41,33, 2, 9		17,18,45,48	
		2, 5,23,29,22,35,31,29		9,10
20″	3,56,50,40,16,37, 4, 8,33,38		17,18,54,58	
		2, 5,23,29, 5,16,36,31		9,10
22″	3,56,52,45,40, 6, 9,25,10, 9		17,19, 4, 8	
		2, 5,23,28,47,57,32,23		9,10
24″	3,56,54,51, 3,34,57,22,42,32		17,19,13,18	
		2, 5,23,28,30,38,19, 5		9,10
26″	3,56,56,56,27, 3,28, 1, 1,37		17,19,22,28	
		2, 5,23,28,13,18,56,37		9,10
28″	3,56,59, 1,50,31,41,19,58,14		17,19,31,38	
		2, 5,23,27,55,59,24,59		9,10
30″	3,57, 1, 7,13,59,37,19,23,13		17,19,40,48	
		2, 5,23,27,38,39,44,11		9,10
32″	3,57, 3,12,37,27,15,59, 7,24		17,19,49,58	
		2, 5,23,27,21,19,54,13		9,10
34″	3,57, 5,18, 0,54,37,19, 1,37		17,19,59, 8	
		2, 5,23,27, 3,59,55, 5		9,10
36″	3,57, 7,23,24,21,41,18,56,42		17,20, 8,18	
		2, 5,23,26,46,39,46,47		9,10
38″	3,57, 9,28,47,48,27,58,43,29		17,20,17,28	
		2, 5,23,26,29,19,29,19		9,10
40″	3,57,11,34,11,14,57,18,12,48		17,20,26,38	
		2, 5,23,26,11,59, 2,41		9,10
42″	3,57,13,39,34,41, 9,17,15,29		17,20,35,48	
		2, 5,23,25,54,38,26,53		9,10
44″	3,57,15,44,58, 7, 3,55,42,22		17,20,44,58	
		2, 5,23,25,37,17,41,55		9,10
46″	3,57,17,50,21,32,41,13,24,17		17,20,54, 8	
		2, 5,23,25,19,56,47,47		9,10
48″	3,57,19,55,44,58, 1,10,12, 4		17,21, 3,18	
		2, 5,23,25, 2,35,44,29		9,10
50″	3,57,22, 1, 8,23, 3,45,56,33		17,21,12,28	
		2, 5,23,24,45,14,32, 1		9,10
52″	3,57,24, 6,31,47,49, 0,28,34		17,21,21,38	
		2, 5,23,24,27,53,10,23		9,10
54″	3,57,26,11,55,12,16,53,38,57		17,21,30,48	
		2, 5,23,24,10,31,39,35		9,10
56″	3,57,28,17,18,36,27,25,18,32		17,21,39,58	
		2, 5,23,23,53, 9,59,37		9,10
58″	3,57,30,22,42, 0,20,35,18, 9		17,21,49, 8	
		2, 5,23,23,35,48,10,29		
60″	3,57,32,28, 5,23,56,23,28,38			
exact	3,57,32,28, 5,23,56,23,23, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°47′ 0″	3,57,32,28, 5,23,56,23,23, 7			
		2, 5,23,23,18,26,11,44		
2″	3,57,34,33,28,47,14,49,34,51		17,22, 7,29	
		2, 5,23,23, 1, 4, 4,15		9,10
4″	3,57,36,38,52,10,15,53,39, 6		17,22,16,39	
		2, 5,23,22,43,41,47,36		9,10
6″	3,57,38,44,15,32,59,35,26,42		17,22,25,49	
		2, 5,23,22,26,19,21,47		9,10
8″	3,57,40,49,38,55,25,54,48,29		17,22,34,59	
		2, 5,23,22, 8,56,46,48		9,10
10″	3,57,42,55, 2,17,34,51,35,17		17,22,44, 9	
		2, 5,23,21,51,34, 2,39		9,10
12″	3,57,45, 0,25,39,26,25,37,56		17,22,53,19	
		2, 5,23,21,34,11, 9,20		9,10
14″	3,57,47, 5,49, 1, 0,36,47,16		17,23, 2,29	
		2, 5,23,21,16,48, 6,51		9,10
16″	3,57,49,11,12,22,17,24,54, 7		17,23,11,39	
		2, 5,23,20,59,24,55,12		9,10
18″	3,57,51,16,35,43,16,49,49,19		17,23,20,49	
		2, 5,23,20,42, 1,34,23		9,10
20″	3,57,53,21,59, 3,58,51,23,42		17,23,29,59	
		2, 5,23,20,24,38, 4,24		9,10
22″	3,57,55,27,22,24,23,29,28, 6		17,23,39, 9	
		2, 5,23,20, 7,14,25,15		9,10
24″	3,57,57,32,45,44,30,43,53,21		17,23,48,19	
		2, 5,23,19,49,50,36,56		9,10
26″	3,57,59,38, 9, 4,20,34,30,17		17,23,57,29	
		2, 5,23,19,32,26,39,27		9,10
28″	3,58, 1,43,32,23,53, 1, 9,44		17,24, 6,39	
		2, 5,23,19,15, 2,32,48		9,10
30″	3,58, 3,48,55,43, 8, 3,42,32		17,24,15,49	
		2, 5,23,18,57,38,16,59		9,10
32″	3,58, 5,54,19, 2, 5,41,59,31		17,24,24,59	
		2, 5,23,18,40,13,52, 0		9,10
34″	3,58, 7,59,42,20,45,55,51,31		17,24,34, 9	
		2, 5,23,18,22,49,17,51		9,10
36″	3,58,10, 5, 5,39, 8,45, 9,22		17,24,43,19	
		2, 5,23,18, 5,24,34,32		9,10
38″	3,58,12,10,28,57,14, 9,43,54		17,24,52,29	
		2, 5,23,17,47,59,42, 3		9,10
40″	3,58,14,15,52,15, 2, 9,25,57		17,25, 1,39	
		2, 5,23,17,30,34,40,24		9,10
42″	3,58,16,21,15,32,32,44, 6,21		17,25,10,49	
		2, 5,23,17,13, 9,29,35		9,10
44″	3,58,18,26,38,49,45,53,35,56		17,25,19,59	
		2, 5,23,16,55,44, 9,36		9,10
46″	3,58,20,32, 2, 6,41,37,45,32		17,25,29, 9	
		2, 5,23,16,38,18,40,27		9,10
48″	3,58,22,37,25,23,19,56,25,59		17,25,38,19	
		2, 5,23,16,20,53, 2, 8		9,10
50″	3,58,24,42,48,39,40,49,28, 7		17,25,47,29	
		2, 5,23,16, 3,27,14,39		9,10
52″	3,58,26,48,11,55,44,16,42,46		17,25,56,39	
		2, 5,23,15,46, 1,18, 0		9,10
54″	3,58,28,53,35,11,30,18, 0,46		17,26, 5,49	
		2, 5,23,15,28,35,12,11		9,10
56″	3,58,30,58,58,26,58,53,12,57		17,26,14,59	
		2, 5,23,15,11, 8,57,12		9,10
58″	3,58,33, 4,21,42,10, 2,10, 9		17,26,24, 9	
		2, 5,23,14,53,42,33, 3		
60″	3,58,35, 9,44,57, 3,44,43,12			
exact	3,58,35, 9,44,57, 3,44,39,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°48′ 0″	3,58,35, 9,44,57, 3,44,39,49			
		2, 5,23,14,36,15,59,28		
2″	3,58,37,15, 8,11,40, 0,39,17		17,26,42,30	
		2, 5,23,14,18,49,16,58		9,10
4″	3,58,39,20,31,25,58,49,56,15		17,26,51,40	
		2, 5,23,14, 1,22,25,18		9,10
6″	3,58,41,25,54,40, 0,12,21,33		17,27, 0,50	
		2, 5,23,13,43,55,24,28		9,10
8″	3,58,43,31,17,53,44, 7,46, 1		17,27,10, 0	
		2, 5,23,13,26,28,14,28		9,10
10″	3,58,45,36,41, 7,10,36, 0,29		17,27,19,10	
		2, 5,23,13, 9, 0,55,18		9,10
12″	3,58,47,42, 4,20,19,36,55,47		17,27,28,20	
		2, 5,23,12,51,33,26,58		9,10
14″	3,58,49,47,27,33,11,10,22,45		17,27,37,30	
		2, 5,23,12,34, 5,49,28		9,10
16″	3,58,51,52,50,45,45,16,12,13		17,27,46,40	
		2, 5,23,12,16,38, 2,48		9,10
18″	3,58,53,58,13,58, 1,54,15, 1		17,27,55,50	
		2, 5,23,11,59,10, 6,58		9,10
20″	3,58,56, 3,37,10, 1, 4,21,59		17,28, 5, 0	
		2, 5,23,11,41,42, 1,58		9,10
22″	3,58,58, 9, 0,21,42,46,23,57		17,28,14,10	
		2, 5,23,11,24,13,47,48		9,10
24″	3,59, 0,14,23,33, 7, 0,11,45		17,28,23,20	
		2, 5,23,11, 6,45,24,28		9,10
26″	3,59, 2,19,46,44,13,45,36,13		17,28,32,30	
		2, 5,23,10,49,16,51,58		9,10
28″	3,59, 4,25, 9,55, 3, 2,28,11		17,28,41,40	
		2, 5,23,10,31,48,10,18		9,10
30″	3,59, 6,30,33, 5,34,50,38,29		17,28,50,50	
		2, 5,23,10,14,19,19,28		9,10
32″	3,59, 8,35,56,15,49, 9,57,57		17,29, 0, 0	
		2, 5,23, 9,56,50,19,28		9,10
34″	3,59,10,41,19,25,46, 0,17,25		17,29, 9,10	
		2, 5,23, 9,39,21,10,18		9,10
36″	3,59,12,46,42,35,25,21,27,43		17,29,18,20	
		2, 5,23, 9,21,51,51,58		9,10
38″	3,59,14,52, 5,44,47,13,19,41		17,29,27,30	
		2, 5,23, 9, 4,22,24,28		9,10
40″	3,59,16,57,28,53,51,35,44, 9		17,29,36,40	
		2, 5,23, 8,46,52,47,48		9,10
42″	3,59,19, 2,52, 2,38,28,31,57		17,29,45,50	
		2, 5,23, 8,29,23, 1,58		9,10
44″	3,59,21, 8,15,11, 7,51,33,55		17,29,55, 0	
		2, 5,23, 8,11,53, 6,58		9,10
46″	3,59,23,13,38,19,19,44,40,53		17,30, 4,10	
		2, 5,23, 7,54,23, 2,48		9,10
48″	3,59,25,19, 1,27,14, 7,43,41		17,30,13,20	
		2, 5,23, 7,36,52,49,28		9,10
50″	3,59,27,24,24,34,51, 0,33, 9		17,30,22,30	
		2, 5,23, 7,19,22,26,58		9,10
52″	3,59,29,29,47,42,10,23, 0, 7		17,30,31,40	
		2, 5,23, 7, 1,51,55,18		9,10
54″	3,59,31,35,10,49,12,14,55,25		17,30,40,50	
		2, 5,23, 6,44,21,14,28		9,10
56″	3,59,33,40,33,55,56,36, 9,53		17,30,50, 0	
		2, 5,23, 6,26,50,24,28		9,10
58″	3,59,35,45,57, 2,23,26,34,21		17,30,59,10	
		2, 5,23, 6, 9,19,25,18		
60″	3,59,37,51,20, 8,32,45,59,39			
exact	3,59,37,51,20, 8,32,46, 0,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°49′ 0″	3,59,37,51,20, 8,32,46, 0,39			
		2, 5,23, 5,51,48,17, 2		
2″	3,59,39,56,43,14,24,34,17,41		17,31,17,30	
		2, 5,23, 5,34,16,59,32		9,10
4″	3,59,42, 2, 6,19,58,51,17,13		17,31,26,40	
		2, 5,23, 5,16,45,32,52		9,10
6″	3,59,44, 7,29,25,15,36,50, 5		17,31,35,50	
		2, 5,23, 4,59,13,57, 2		9,10
8″	3,59,46,12,52,30,14,50,47, 7		17,31,45, 0	
		2, 5,23, 4,41,42,12, 2		9,10
10″	3,59,48,18,15,34,56,32,59, 9		17,31,54,10	
		2, 5,23, 4,24,10,17,52		9,10
12″	3,59,50,23,38,39,20,43,17, 1		17,32, 3,20	
		2, 5,23, 4, 6,38,14,32		9,10
14″	3,59,52,29, 1,43,27,21,31,33		17,32,12,30	
		2, 5,23, 3,49, 6, 2, 2		9,10
16″	3,59,54,34,24,47,16,27,33,35		17,32,21,40	
		2, 5,23, 3,31,33,40,22		9,10
18″	3,59,56,39,47,50,48, 1,13,57		17,32,30,50	
		2, 5,23, 3,14, 1, 9,32		9,10
20″	3,59,58,45,10,54, 2, 2,23,29		17,32,40, 0	
		2, 5,23, 2,56,28,29,32		9,10
22″	4, 0, 0,50,33,56,58,30,53, 1		17,32,49,10	
		2, 5,23, 2,38,55,40,22		9,10
24″	4, 0, 2,55,56,59,37,26,33,23		17,32,58,20	
		2, 5,23, 2,21,22,42, 2		9,10
26″	4, 0, 5, 1,20, 1,58,49,15,25		17,33, 7,30	
		2, 5,23, 2, 3,49,34,32		9,10
28″	4, 0, 7, 6,43, 4, 2,38,49,57		17,33,16,40	
		2, 5,23, 1,46,16,17,52		9,10
30″	4, 0, 9,12, 6, 5,48,55, 7,49		17,33,25,50	
		2, 5,23, 1,28,42,52, 2		9,10
32″	4, 0,11,17,29, 7,17,37,59,51		17,33,35, 0	
		2, 5,23, 1,11, 9,17, 2		9,10
34″	4, 0,13,22,52, 8,28,47,16,53		17,33,44,10	
		2, 5,23, 0,53,35,32,52		9,10
36″	4, 0,15,28,15, 9,22,22,49,45		17,33,53,20	
		2, 5,23, 0,36, 1,39,32		9,10
38″	4, 0,17,33,38, 9,58,24,29,17		17,34, 2,30	
		2, 5,23, 0,18,27,37, 2		9,10
40″	4, 0,19,39, 1,10,16,52, 6,19		17,34,11,40	
		2, 5,23, 0, 0,53,25,22		9,10
42″	4, 0,21,44,24,10,17,45,31,41		17,34,20,50	
		2, 5,22,59,43,19, 4,32		9,10
44″	4, 0,23,49,47,10, 1, 4,36,13		17,34,30, 0	
		2, 5,22,59,25,44,34,32		9,10
46″	4, 0,25,55,10, 9,26,49,10,45		17,34,39,10	
		2, 5,22,59, 8, 9,55,22		9,10
48″	4, 0,28, 0,33, 8,34,59, 6, 7		17,34,48,20	
		2, 5,22,58,50,35, 7, 2		9,10
50″	4, 0,30, 5,56, 7,25,34,13, 9		17,34,57,30	
		2, 5,22,58,33, 0, 9,32		9,10
52″	4, 0,32,11,19, 5,58,34,22,41		17,35, 6,40	
		2, 5,22,58,15,25, 2,52		9,10
54″	4, 0,34,16,42, 4,13,59,25,33		17,35,15,50	
		2, 5,22,57,57,49,47, 2		9,10
56″	4, 0,36,22, 5, 2,11,49,12,35		17,35,25, 0	
		2, 5,22,57,40,14,22, 2		9,10
58″	4, 0,38,27,27,59,52, 3,34,37		17,35,34,10	
		2, 5,22,57,22,38,47,52		
60″	4, 0,40,32,50,57,14,42,22,29			
exact	4, 0,40,32,50,57,14,42,23, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°50′ 0″	4, 0,40,32,50,57,14,42,23, 9			
		2, 5,22,57, 5, 3, 4,36		
2″	4, 0,42,38,13,54,19,45,27,45		17,35,52,30	
		2, 5,22,56,47,27,12, 6		9,10
4″	4, 0,44,43,36,51, 7,12,39,51		17,36, 1,40	
		2, 5,22,56,29,51,10,26		9,10
6″	4, 0,46,48,59,47,37, 3,50,17		17,36,10,50	
		2, 5,22,56,12,14,59,36		9,10
8″	4, 0,48,54,22,43,49,18,49,53		17,36,20, 0	
		2, 5,22,55,54,38,39,36		9,10
10″	4, 0,50,59,45,39,43,57,29,29		17,36,29,10	
		2, 5,22,55,37, 2,10,26		9,10
12″	4, 0,53, 5, 8,35,20,59,39,55		17,36,38,20	
		2, 5,22,55,19,25,32, 6		9,10
14″	4, 0,55,10,31,30,40,25,12, 1		17,36,47,30	
		2, 5,22,55, 1,48,44,36		9,10
16″	4, 0,57,15,54,25,42,13,56,37		17,36,56,40	
		2, 5,22,54,44,11,47,56		9,10
18″	4, 0,59,21,17,20,26,25,44,33		17,37, 5,50	
		2, 5,22,54,26,34,42, 6		9,10
20″	4, 1, 1,26,40,14,53, 0,26,39		17,37,15, 0	
		2, 5,22,54, 8,57,27, 6		9,10
22″	4, 1, 3,32, 3, 9, 1,57,53,45		17,37,24,10	
		2, 5,22,53,51,20, 2,56		9,10
24″	4, 1, 5,37,26, 2,53,17,56,41		17,37,33,20	
		2, 5,22,53,33,42,29,36		9,10
26″	4, 1, 7,42,48,56,27, 0,26,17		17,37,42,30	
		2, 5,22,53,16, 4,47, 6		9,10
28″	4, 1, 9,48,11,49,43, 5,13,23		17,37,51,40	
		2, 5,22,52,58,26,55,26		9,10
30″	4, 1,11,53,34,42,41,32, 8,49		17,38, 0,50	
		2, 5,22,52,40,48,54,36		9,10
32″	4, 1,13,58,57,35,22,21, 3,25		17,38,10, 0	
		2, 5,22,52,23,10,44,36		9,10
34″	4, 1,16, 4,20,27,45,31,48, 1		17,38,19,10	
		2, 5,22,52, 5,32,25,26		9,10
36″	4, 1,18, 9,43,19,51, 4,13,27		17,38,28,20	
		2, 5,22,51,47,53,57, 6		9,10
38″	4, 1,20,15, 6,11,38,58,10,33		17,38,37,30	
		2, 5,22,51,30,15,19,36		9,10
40″	4, 1,22,20,29, 3, 9,13,30, 9		17,38,46,40	
		2, 5,22,51,12,36,32,56		9,10
42″	4, 1,24,25,51,54,21,50, 3, 5		17,38,55,50	
		2, 5,22,50,54,57,37, 6		9,10
44″	4, 1,26,31,14,45,16,47,40,11		17,39, 5, 0	
		2, 5,22,50,37,18,32, 6		9,10
46″	4, 1,28,36,37,35,54, 6,12,17		17,39,14,10	
		2, 5,22,50,19,39,17,56		9,10
48″	4, 1,30,42, 0,26,13,45,30,13		17,39,23,20	
		2, 5,22,50, 1,59,54,36		9,10
50″	4, 1,32,47,23,16,15,45,24,49		17,39,32,30	
		2, 5,22,49,44,20,22, 6		9,10
52″	4, 1,34,52,46, 6, 0, 5,46,55		17,39,41,40	
		2, 5,22,49,26,40,40,26		9,10
54″	4, 1,36,58, 8,55,26,46,27,21		17,39,50,50	
		2, 5,22,49, 9, 0,49,36		9,10
56″	4, 1,39, 3,31,44,35,47,16,57		17,40, 0, 0	
		2, 5,22,48,51,20,49,36		9,10
58″	4, 1,41, 8,54,33,27, 8, 6,33		17,40, 9,10	
		2, 5,22,48,33,40,40,26		
60″	4, 1,43,14,17,22, 0,48,46,59			
exact	4, 1,43,14,17,22, 0,48,49,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°51′ 0″	4, 1,43,14,17,22, 0,48,49,37			
		2, 5,22,48,16, 0,22,20		
2″	4, 1,45,19,40,10,16,49,11,57		17,40,27,29	
		2, 5,22,47,58,19,54,51		9,10
4″	4, 1,47,25, 2,58,15, 9, 6,48		17,40,36,39	
		2, 5,22,47,40,39,18,12		9,10
6″	4, 1,49,30,25,45,55,48,25, 0		17,40,45,49	
		2, 5,22,47,22,58,32,23		9,10
8″	4, 1,51,35,48,33,18,46,57,23		17,40,54,59	
		2, 5,22,47, 5,17,37,24		9,10
10″	4, 1,53,41,11,20,24, 4,34,47		17,41, 4, 9	
		2, 5,22,46,47,36,33,15		9,10
12″	4, 1,55,46,34, 7,11,41, 8, 2		17,41,13,19	
		2, 5,22,46,29,55,19,56		9,10
14″	4, 1,57,51,56,53,41,36,27,58		17,41,22,29	
		2, 5,22,46,12,13,57,27		9,10
16″	4, 1,59,57,19,39,53,50,25,25		17,41,31,39	
		2, 5,22,45,54,32,25,48		9,10
18″	4, 2, 2, 2,42,25,48,22,51,13		17,41,40,49	
		2, 5,22,45,36,50,44,59		9,10
20″	4, 2, 4, 8, 5,11,25,13,36,12		17,41,49,59	
		2, 5,22,45,19, 8,55, 0		9,10
22″	4, 2, 6,13,27,56,44,22,31,12		17,41,59, 9	
		2, 5,22,45, 1,26,55,51		9,10
24″	4, 2, 8,18,50,41,45,49,27, 3		17,42, 8,19	
		2, 5,22,44,43,44,47,32		9,10
26″	4, 2,10,24,13,26,29,34,14,35		17,42,17,29	
		2, 5,22,44,26, 2,30, 3		9,10
28″	4, 2,12,29,36,10,55,36,44,38		17,42,26,39	
		2, 5,22,44, 8,20, 3,24		9,10
30″	4, 2,14,34,58,55, 3,56,48, 2		17,42,35,49	
		2, 5,22,43,50,37,27,35		9,10
32″	4, 2,16,40,21,38,54,34,15,37		17,42,44,59	
		2, 5,22,43,32,54,42,36		9,10
34″	4, 2,18,45,44,22,27,28,58,13		17,42,54, 9	
		2, 5,22,43,15,11,48,27		9,10
36″	4, 2,20,51, 7, 5,42,40,46,40		17,43, 3,19	
		2, 5,22,42,57,28,45, 8		9,10
38″	4, 2,22,56,29,48,40, 9,31,48		17,43,12,29	
		2, 5,22,42,39,45,32,39		9,10
40″	4, 2,25, 1,52,31,19,55, 4,27		17,43,21,39	
		2, 5,22,42,22, 2,11, 0		9,10
42″	4, 2,27, 7,15,13,41,57,15,27		17,43,30,49	
		2, 5,22,42, 4,18,40,11		9,10
44″	4, 2,29,12,37,55,46,15,55,38		17,43,39,59	
		2, 5,22,41,46,35, 0,12		9,10
46″	4, 2,31,18, 0,37,32,50,55,50		17,43,49, 9	
		2, 5,22,41,28,51,11, 3		9,10
48″	4, 2,33,23,23,19, 1,42, 6,53		17,43,58,19	
		2, 5,22,41,11, 7,12,44		9,10
50″	4, 2,35,28,46, 0,12,49,19,37		17,44, 7,29	
		2, 5,22,40,53,23, 5,15		9,10
52″	4, 2,37,34, 8,41, 6,12,24,52		17,44,16,39	
		2, 5,22,40,35,38,48,36		9,10
54″	4, 2,39,39,31,21,41,51,13,28		17,44,25,49	
		2, 5,22,40,17,54,22,47		9,10
56″	4, 2,41,44,54, 1,59,45,36,15		17,44,34,59	
		2, 5,22,40, 0, 9,47,48		9,10
58″	4, 2,43,50,16,41,59,55,24, 3		17,44,44, 9	
		2, 5,22,39,42,25, 3,39		
60″	4, 2,45,55,39,21,42,20,27,42			
exact	4, 2,45,55,39,21,42,20,27,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°52′ 0″	4, 2,45,55,39,21,42,20,27,15			
		2, 5,22,39,24,40,10,23		
2″	4, 2,48, 1, 2, 1, 7, 0,37,38		17,45, 2,28	
		2, 5,22,39, 6,55, 7,55		9,10
4″	4, 2,50, 6,24,40,13,55,45,33		17,45,11,38	
		2, 5,22,38,49, 9,56,17		9,10
6″	4, 2,52,11,47,19, 3, 5,41,50		17,45,20,48	
		2, 5,22,38,31,24,35,29		9,10
8″	4, 2,54,17, 9,57,34,30,17,19		17,45,29,58	
		2, 5,22,38,13,39, 5,31		9,10
10″	4, 2,56,22,32,35,48, 9,22,50		17,45,39, 8	
		2, 5,22,37,55,53,26,23		9,10
12″	4, 2,58,27,55,13,44, 2,49,13		17,45,48,18	
		2, 5,22,37,38, 7,38, 5		9,10
14″	4, 3, 0,33,17,51,22,10,27,18		17,45,57,28	
		2, 5,22,37,20,21,40,37		9,10
16″	4, 3, 2,38,40,28,42,32, 7,55		17,46, 6,38	
		2, 5,22,37, 2,35,33,59		9,10
18″	4, 3, 4,44, 3, 5,45, 7,41,54		17,46,15,48	
		2, 5,22,36,44,49,18,11		9,10
20″	4, 3, 6,49,25,42,29,57, 0, 5		17,46,24,58	
		2, 5,22,36,27, 2,53,13		9,10
22″	4, 3, 8,54,48,18,56,59,53,18		17,46,34, 8	
		2, 5,22,36, 9,16,19, 5		9,10
24″	4, 3,11, 0,10,55, 6,16,12,23		17,46,43,18	
		2, 5,22,35,51,29,35,47		9,10
26″	4, 3,13, 5,33,30,57,45,48,10		17,46,52,28	
		2, 5,22,35,33,42,43,19		9,10
28″	4, 3,15,10,56, 6,31,28,31,29		17,47, 1,38	
		2, 5,22,35,15,55,41,41		9,10
30″	4, 3,17,16,18,41,47,24,13,10		17,47,10,48	
		2, 5,22,34,58, 8,30,53		9,10
32″	4, 3,19,21,41,16,45,32,44, 3		17,47,19,58	
		2, 5,22,34,40,21,10,55		9,10
34″	4, 3,21,27, 3,51,25,53,54,58		17,47,29, 8	
		2, 5,22,34,22,33,41,47		9,10
36″	4, 3,23,32,26,25,48,27,36,45		17,47,38,18	
		2, 5,22,34, 4,46, 3,29		9,10
38″	4, 3,25,37,48,59,53,13,40,14		17,47,47,28	
		2, 5,22,33,46,58,16, 1		9,10
40″	4, 3,27,43,11,33,40,11,56,15		17,47,56,38	
		2, 5,22,33,29,10,19,23		9,10
42″	4, 3,29,48,34, 7, 9,22,15,38		17,48, 5,48	
		2, 5,22,33,11,22,13,35		9,10
44″	4, 3,31,53,56,40,20,44,29,13		17,48,14,58	
		2, 5,22,32,53,33,58,37		9,10
46″	4, 3,33,59,19,13,14,18,27,50		17,48,24, 8	
		2, 5,22,32,35,45,34,29		9,10
48″	4, 3,36, 4,41,45,50, 4, 2,19		17,48,33,18	
		2, 5,22,32,17,57, 1,11		9,10
50″	4, 3,38,10, 4,18, 8, 1, 3,30		17,48,42,28	
		2, 5,22,32, 0, 8,18,43		9,10
52″	4, 3,40,15,26,50, 8, 9,22,13		17,48,51,38	
		2, 5,22,31,42,19,27, 5		9,10
54″	4, 3,42,20,49,21,50,28,49,18		17,49, 0,48	
		2, 5,22,31,24,30,26,17		9,10
56″	4, 3,44,26,11,53,14,59,15,35		17,49, 9,58	
		2, 5,22,31, 6,41,16,19		9,10
58″	4, 3,46,31,34,24,21,40,31,54		17,49,19, 8	
		2, 5,22,30,48,51,57,11		
60″	4, 3,48,36,56,55,10,32,29, 5			
exact	4, 3,48,36,56,55,10,32,28, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°53′ 0″	4, 3,48,36,56,55,10,32,28, 1			
		2, 5,22,30,31, 2,28,55		
2″	4, 3,50,42,19,25,41,34,56,56		17,49,37,27	
		2, 5,22,30,13,12,51,28		9,10
4″	4, 3,52,47,41,55,54,47,48,24		17,49,46,37	
		2, 5,22,29,55,23, 4,51		9,10
6″	4, 3,54,53, 4,25,50,10,53,15		17,49,55,47	
		2, 5,22,29,37,33, 9, 4		9,10
8″	4, 3,56,58,26,55,27,44, 2,19		17,50, 4,57	
		2, 5,22,29,19,43, 4, 7		9,10
10″	4, 3,59, 3,49,24,47,27, 6,26		17,50,14, 7	
		2, 5,22,29, 1,52,50, 0		9,10
12″	4, 4, 1, 9,11,53,49,19,56,26		17,50,23,17	
		2, 5,22,28,44, 2,26,43		9,10
14″	4, 4, 3,14,34,22,33,22,23, 9		17,50,32,27	
		2, 5,22,28,26,11,54,16		9,10
16″	4, 4, 5,19,56,50,59,34,17,25		17,50,41,37	
		2, 5,22,28, 8,21,12,39		9,10
18″	4, 4, 7,25,19,19, 7,55,30, 4		17,50,50,47	
		2, 5,22,27,50,30,21,52		9,10
20″	4, 4, 9,30,41,46,58,25,51,56		17,50,59,57	
		2, 5,22,27,32,39,21,55		9,10
22″	4, 4,11,36, 4,14,31, 5,13,51		17,51, 9, 7	
		2, 5,22,27,14,48,12,48		9,10
24″	4, 4,13,41,26,41,45,53,26,39		17,51,18,17	
		2, 5,22,26,56,56,54,31		9,10
26″	4, 4,15,46,49, 8,42,50,21,10		17,51,27,27	
		2, 5,22,26,39, 5,27, 4		9,10
28″	4, 4,17,52,11,35,21,55,48,14		17,51,36,37	
		2, 5,22,26,21,13,50,27		9,10
30″	4, 4,19,57,34, 1,43, 9,38,41		17,51,45,47	
		2, 5,22,26, 3,22, 4,40		9,10
32″	4, 4,22, 2,56,27,46,31,43,21		17,51,54,57	
		2, 5,22,25,45,30, 9,43		9,10
34″	4, 4,24, 8,18,53,32, 1,53, 4		17,52, 4, 7	
		2, 5,22,25,27,38, 5,36		9,10
36″	4, 4,26,13,41,18,59,39,58,40		17,52,13,17	
		2, 5,22,25, 9,45,52,19		9,10
38″	4, 4,28,19, 3,44, 9,25,50,59		17,52,22,27	
		2, 5,22,24,51,53,29,52		9,10
40″	4, 4,30,24,26, 9, 1,19,20,51		17,52,31,37	
		2, 5,22,24,34, 0,58,15		9,10
42″	4, 4,32,29,48,33,35,20,19, 6		17,52,40,47	
		2, 5,22,24,16, 8,17,28		9,10
44″	4, 4,34,35,10,57,51,28,36,34		17,52,49,57	
		2, 5,22,23,58,15,27,31		9,10
46″	4, 4,36,40,33,21,49,44, 4, 5		17,52,59, 7	
		2, 5,22,23,40,22,28,24		9,10
48″	4, 4,38,45,55,45,30, 6,32,29		17,53, 8,17	
		2, 5,22,23,22,29,20, 7		9,10
50″	4, 4,40,51,18, 8,52,35,52,36		17,53,17,27	
		2, 5,22,23, 4,36, 2,40		9,10
52″	4, 4,42,56,40,31,57,11,55,16		17,53,26,37	
		2, 5,22,22,46,42,36, 3		9,10
54″	4, 4,45, 2, 2,54,43,54,31,19		17,53,35,47	
		2, 5,22,22,28,49, 0,16		9,10
56″	4, 4,47, 7,25,17,12,43,31,35		17,53,44,57	
		2, 5,22,22,10,55,15,19		9,10
58″	4, 4,49,12,47,39,23,38,46,54		17,53,54, 7	
		2, 5,22,21,53, 1,21,12		
60″	4, 4,51,18,10, 1,16,40, 8, 6			
exact	4, 4,51,18,10, 1,16,40, 8,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°54′ 0″	4, 4,51,18,10, 1,16,40, 8,47			
		2, 5,22,21,35, 7,18, 6		
2″	4, 4,53,23,32,22,51,47,26,53		17,54,12,26	
		2, 5,22,21,17,13, 5,40		9,10
4″	4, 4,55,28,54,44, 9, 0,32,33		17,54,21,36	
		2, 5,22,20,59,18,44, 4		9,10
6″	4, 4,57,34,17, 5, 8,19,16,37		17,54,30,46	
		2, 5,22,20,41,24,13,18		9,10
8″	4, 4,59,39,39,25,49,43,29,55		17,54,39,56	
		2, 5,22,20,23,29,33,22		9,10
10″	4, 5, 1,45, 1,46,13,13, 3,17		17,54,49, 6	
		2, 5,22,20, 5,34,44,16		9,10
12″	4, 5, 3,50,24, 6,18,47,47,33		17,54,58,16	
		2, 5,22,19,47,39,46, 0		9,10
14″	4, 5, 5,55,46,26, 6,27,33,33		17,55, 7,26	
		2, 5,22,19,29,44,38,34		9,10
16″	4, 5, 8, 1, 8,45,36,12,12, 7		17,55,16,36	
		2, 5,22,19,11,49,21,58		9,10
18″	4, 5,10, 6,31, 4,48, 1,34, 5		17,55,25,46	
		2, 5,22,18,53,53,56,12		9,10
20″	4, 5,12,11,53,23,41,55,30,17		17,55,34,56	
		2, 5,22,18,35,58,21,16		9,10
22″	4, 5,14,17,15,42,17,53,51,33		17,55,44, 6	
		2, 5,22,18,18, 2,37,10		9,10
24″	4, 5,16,22,38, 0,35,56,28,43		17,55,53,16	
		2, 5,22,18, 0, 6,43,54		9,10
26″	4, 5,18,28, 0,18,36, 3,12,37		17,56, 2,26	
		2, 5,22,17,42,10,41,28		9,10
28″	4, 5,20,33,22,36,18,13,54, 5		17,56,11,36	
		2, 5,22,17,24,14,29,52		9,10
30″	4, 5,22,38,44,53,42,28,23,57		17,56,20,46	
		2, 5,22,17, 6,18, 9, 6		9,10
32″	4, 5,24,44, 7,10,48,46,33, 3		17,56,29,56	
		2, 5,22,16,48,21,39,10		9,10
34″	4, 5,26,49,29,27,37, 8,12,13		17,56,39, 6	
		2, 5,22,16,30,25, 0, 4		9,10
36″	4, 5,28,54,51,44, 7,33,12,17		17,56,48,16	
		2, 5,22,16,12,28,11,48		9,10
38″	4, 5,31, 0,14, 0,20, 1,24, 5		17,56,57,26	
		2, 5,22,15,54,31,14,22		9,10
40″	4, 5,33, 5,36,16,14,32,38,27		17,57, 6,36	
		2, 5,22,15,36,34, 7,46		9,10
42″	4, 5,35,10,58,31,51, 6,46,13		17,57,15,46	
		2, 5,22,15,18,36,52, 0		9,10
44″	4, 5,37,16,20,47, 9,43,38,13		17,57,24,56	
		2, 5,22,15, 0,39,27, 4		9,10
46″	4, 5,39,21,43, 2,10,23, 5,17		17,57,34, 6	
		2, 5,22,14,42,41,52,58		9,10
48″	4, 5,41,27, 5,16,53, 4,58,15		17,57,43,16	
		2, 5,22,14,24,44, 9,42		9,10
50″	4, 5,43,32,27,31,17,49, 7,57		17,57,52,26	
		2, 5,22,14, 6,46,17,16		9,10
52″	4, 5,45,37,49,45,24,35,25,13		17,58, 1,36	
		2, 5,22,13,48,48,15,40		9,10
54″	4, 5,47,43,11,59,13,23,40,53		17,58,10,46	
		2, 5,22,13,30,50, 4,54		9,10
56″	4, 5,49,48,34,12,44,13,45,47		17,58,19,56	
		2, 5,22,13,12,51,44,58		9,10
58″	4, 5,51,53,56,25,57, 5,30,45		17,58,29, 6	
		2, 5,22,12,54,53,15,52		
60″	4, 5,53,59,18,38,51,58,46,37			
exact	4, 5,53,59,18,38,51,58,51,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°55′ 0″	4, 5,53,59,18,38,51,58,51,20			
		2, 5,22,12,36,54,38, 5		
2″	4, 5,56, 4,40,51,28,53,29,25		17,58,47,24	
		2, 5,22,12,18,55,50,41		9,10
4″	4, 5,58,10, 3, 3,47,49,20, 6		17,58,56,34	
		2, 5,22,12, 0,56,54, 7		9,10
6″	4, 6, 0,15,25,15,48,46,14,13		17,59, 5,44	
		2, 5,22,11,42,57,48,23		9,10
8″	4, 6, 2,20,47,27,31,44, 2,36		17,59,14,54	
		2, 5,22,11,24,58,33,29		9,10
10″	4, 6, 4,26, 9,38,56,42,36, 5		17,59,24, 4	
		2, 5,22,11, 6,59, 9,25		9,10
12″	4, 6, 6,31,31,50, 3,41,45,30		17,59,33,14	
		2, 5,22,10,48,59,36,11		9,10
14″	4, 6, 8,36,54, 0,52,41,21,41		17,59,42,24	
		2, 5,22,10,30,59,53,47		9,10
16″	4, 6,10,42,16,11,23,41,15,28		17,59,51,34	
		2, 5,22,10,13, 0, 2,13		9,10
18″	4, 6,12,47,38,21,36,41,17,41		18, 0, 0,44	
		2, 5,22, 9,55, 0, 1,29		9,10
20″	4, 6,14,53, 0,31,31,41,19,10		18, 0, 9,54	
		2, 5,22, 9,36,59,51,35		9,10
22″	4, 6,16,58,22,41, 8,41,10,45		18, 0,19, 4	
		2, 5,22, 9,18,59,32,31		9,10
24″	4, 6,19, 3,44,50,27,40,43,16		18, 0,28,14	
		2, 5,22, 9, 0,59, 4,17		9,10
26″	4, 6,21, 9, 6,59,28,39,47,33		18, 0,37,24	
		2, 5,22, 8,42,58,26,53		9,10
28″	4, 6,23,14,29, 8,11,38,14,26		18, 0,46,34	
		2, 5,22, 8,24,57,40,19		9,10
30″	4, 6,25,19,51,16,36,35,54,45		18, 0,55,44	
		2, 5,22, 8, 6,56,44,35		9,10
32″	4, 6,27,25,13,24,43,32,39,20		18, 1, 4,54	
		2, 5,22, 7,48,55,39,41		9,10
34″	4, 6,29,30,35,32,32,28,19, 1		18, 1,14, 4	
		2, 5,22, 7,30,54,25,37		9,10
36″	4, 6,31,35,57,40, 3,22,44,38		18, 1,23,14	
		2, 5,22, 7,12,53, 2,23		9,10
38″	4, 6,33,41,19,47,16,15,47, 1		18, 1,32,24	
		2, 5,22, 6,54,51,29,59		9,10
40″	4, 6,35,46,41,54,11, 7,17, 0		18, 1,41,34	
		2, 5,22, 6,36,49,48,25		9,10
42″	4, 6,37,52, 4, 0,47,57, 5,25		18, 1,50,44	
		2, 5,22, 6,18,47,57,41		9,10
44″	4, 6,39,57,26, 7, 6,45, 3, 6		18, 1,59,54	
		2, 5,22, 6, 0,45,57,47		9,10
46″	4, 6,42, 2,48,13, 7,31, 0,53		18, 2, 9, 4	
		2, 5,22, 5,42,43,48,43		9,10
48″	4, 6,44, 8,10,18,50,14,49,36		18, 2,18,14	
		2, 5,22, 5,24,41,30,29		9,10
50″	4, 6,46,13,32,24,14,56,20, 5		18, 2,27,24	
		2, 5,22, 5, 6,39, 3, 5		9,10
52″	4, 6,48,18,54,29,21,35,23,10		18, 2,36,34	
		2, 5,22, 4,48,36,26,31		9,10
54″	4, 6,50,24,16,34,10,11,49,41		18, 2,45,44	
		2, 5,22, 4,30,33,40,47		9,10
56″	4, 6,52,29,38,38,40,45,30,28		18, 2,54,54	
		2, 5,22, 4,12,30,45,53		9,10
58″	4, 6,54,35, 0,42,53,16,16,21		18, 3, 4, 4	
		2, 5,22, 3,54,27,41,49		
60″	4, 6,56,40,22,46,47,43,58,10			
exact	4, 6,56,40,22,46,47,44, 2,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°56′ 0″	4, 6,56,40,22,46,47,44, 2,18	2, 5,22, 3,36,24,29, 3		
2″	4, 6,58,45,44,50,24, 8,31,21	2, 5,22, 3,18,21, 6,41	18, 3,22,22	9,10
4″	4, 7, 0,51, 6,53,42,29,38, 2	2, 5,22, 3, 0,17,35, 9	18, 3,31,32	9,10
6″	4, 7, 2,56,28,56,42,47,13,11	2, 5,22, 2,42,13,54,27	18, 3,40,42	9,10
8″	4, 7, 5, 1,50,59,25, 1, 7,38	2, 5,22, 2,24,10, 4,35	18, 3,49,52	9,10
10″	4, 7, 7, 7,13, 1,49,11,12,13	2, 5,22, 2, 6, 6, 5,33	18, 3,59, 2	9,10
12″	4, 7, 9,12,35, 3,55,17,17,46	2, 5,22, 1,48, 1,57,21	18, 4, 8,12	9,10
14″	4, 7,11,17,57, 5,43,19,15, 7	2, 5,22, 1,29,57,39,59	18, 4,17,22	9,10
16″	4, 7,13,23,19, 7,13,16,55, 6	2, 5,22, 1,11,53,13,27	18, 4,26,32	9,10
18″	4, 7,15,28,41, 8,25,10, 8,33	2, 5,22, 0,53,48,37,45	18, 4,35,42	9,10
20″	4, 7,17,34, 3, 9,18,58,46,18	2, 5,22, 0,35,43,52,53	18, 4,44,52	9,10
22″	4, 7,19,39,25, 9,54,42,39,11	2, 5,22, 0,17,38,58,51	18, 4,54, 2	9,10
24″	4, 7,21,44,47,10,12,21,38, 2	2, 5,21,59,59,33,55,39	18, 5, 3,12	9,10
26″	4, 7,23,50, 9,10,11,55,33,41	2, 5,21,59,41,28,43,17	18, 5,12,22	9,10
28″	4, 7,25,55,31, 9,53,24,16,58	2, 5,21,59,23,23,21,45	18, 5,21,32	9,10
30″	4, 7,28, 0,53, 9,16,47,38,43	2, 5,21,59, 5,17,51, 3	18, 5,30,42	9,10
32″	4, 7,30, 6,15, 8,22, 5,29,46	2, 5,21,58,47,12,11,11	18, 5,39,52	9,10
34″	4, 7,32,11,37, 7, 9,17,40,57	2, 5,21,58,29, 6,22, 9	18, 5,49, 2	9,10
36″	4, 7,34,16,59, 5,38,24, 3, 6	2, 5,21,58,11, 0,23,57	18, 5,58,12	9,10
38″	4, 7,36,22,21, 3,49,24,27, 3	2, 5,21,57,52,54,16,35	18, 6, 7,22	9,10
40″	4, 7,38,27,43, 1,42,18,43,38	2, 5,21,57,34,48, 0, 3	18, 6,16,32	9,10
42″	4, 7,40,33, 4,59,17, 6,43,41	2, 5,21,57,16,41,34,21	18, 6,25,42	9,10
44″	4, 7,42,38,26,56,33,48,18, 2	2, 5,21,56,58,34,59,29	18, 6,34,52	9,10
46″	4, 7,44,43,48,53,32,23,17,31	2, 5,21,56,40,28,15,27	18, 6,44, 2	9,10
48″	4, 7,46,49,10,50,12,51,32,58	2, 5,21,56,22,21,22,15	18, 6,53,12	9,10
50″	4, 7,48,54,32,46,35,12,55,13	2, 5,21,56, 4,14,19,53	18, 7, 2,22	9,10
52″	4, 7,50,59,54,42,39,27,15, 6	2, 5,21,55,46, 7, 8,21	18, 7,11,32	9,10
54″	4, 7,53, 5,16,38,25,34,23,27	2, 5,21,55,27,59,47,39	18, 7,20,42	9,10
56″	4, 7,55,10,38,33,53,34,11, 6	2, 5,21,55, 9,52,17,47	18, 7,29,52	9,10
58″	4, 7,57,16, 0,29, 3,26,28,53	2, 5,21,54,51,44,38,45	18, 7,39, 2	
60″	4, 7,59,21,22,23,55,11, 7,38			
exact	4, 7,59,21,22,23,55,11,13,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°57′ 0″	4, 7,59,21,22,23,55,11,13,17			
		2, 5,21,54,33,36,51, 9		
2″	4, 8, 1,26,44,18,28,48, 4,26		18, 7,57,20	
		2, 5,21,54,15,28,53,49		9,10
4″	4, 8, 3,32, 6,12,44,16,58,15		18, 8, 6,30	
		2, 5,21,53,57,20,47,19		9,10
6″	4, 8, 5,37,28, 6,41,37,45,34		18, 8,15,40	
		2, 5,21,53,39,12,31,39		9,10
8″	4, 8, 7,42,50, 0,20,50,17,13		18, 8,24,50	
		2, 5,21,53,21, 4, 6,49		9,10
10″	4, 8, 9,48,11,53,41,54,24, 2		18, 8,34, 0	
		2, 5,21,53, 2,55,32,49		9,10
12″	4, 8,11,53,33,46,44,49,56,51		18, 8,43,10	
		2, 5,21,52,44,46,49,39		9,10
14″	4, 8,13,58,55,39,29,36,46,30		18, 8,52,20	
		2, 5,21,52,26,37,57,19		9,10
16″	4, 8,16, 4,17,31,56,14,43,49		18, 9, 1,30	
		2, 5,21,52, 8,28,55,49		9,10
18″	4, 8,18, 9,39,24, 4,43,39,38		18, 9,10,40	
		2, 5,21,51,50,19,45, 9		9,10
20″	4, 8,20,15, 1,15,55, 3,24,47		18, 9,19,50	
		2, 5,21,51,32,10,25,19		9,10
22″	4, 8,22,20,23, 7,27,13,50, 6		18, 9,29, 0	
		2, 5,21,51,14, 0,56,19		9,10
24″	4, 8,24,25,44,58,41,14,46,25		18, 9,38,10	
		2, 5,21,50,55,51,18, 9		9,10
26″	4, 8,26,31, 6,49,37, 6, 4,34		18, 9,47,20	
		2, 5,21,50,37,41,30,49		9,10
28″	4, 8,28,36,28,40,14,47,35,23		18, 9,56,30	
		2, 5,21,50,19,31,34,19		9,10
30″	4, 8,30,41,50,30,34,19, 9,42		18,10, 5,40	
		2, 5,21,50, 1,21,28,39		9,10
32″	4, 8,32,47,12,20,35,40,38,21		18,10,14,50	
		2, 5,21,49,43,11,13,49		9,10
34″	4, 8,34,52,34,10,18,51,52,10		18,10,24, 0	
		2, 5,21,49,25, 0,49,49		9,10
36″	4, 8,36,57,55,59,43,52,41,59		18,10,33,10	
		2, 5,21,49, 6,50,16,39		9,10
38″	4, 8,39, 3,17,48,50,42,58,38		18,10,42,20	
		2, 5,21,48,48,39,34,19		9,10
40″	4, 8,41, 8,39,37,39,22,32,57		18,10,51,30	
		2, 5,21,48,30,28,42,49		9,10
42″	4, 8,43,14, 1,26, 9,51,15,46		18,11, 0,40	
		2, 5,21,48,12,17,42, 9		9,10
44″	4, 8,45,19,23,14,22, 8,57,55		18,11, 9,50	
		2, 5,21,47,54, 6,32,19		9,10
46″	4, 8,47,24,45, 2,16,15,30,14		18,11,19, 0	
		2, 5,21,47,35,55,13,19		9,10
48″	4, 8,49,30, 6,49,52,10,43,33		18,11,28,10	
		2, 5,21,47,17,43,45, 9		9,10
50″	4, 8,51,35,28,37, 9,54,28,42		18,11,37,20	
		2, 5,21,46,59,32, 7,49		9,10
52″	4, 8,53,40,50,24, 9,26,36,31		18,11,46,30	
		2, 5,21,46,41,20,21,19		9,10
54″	4, 8,55,46,12,10,50,46,57,50		18,11,55,40	
		2, 5,21,46,23, 8,25,39		9,10
56″	4, 8,57,51,33,57,13,55,23,29		18,12, 4,50	
		2, 5,21,46, 4,56,20,49		9,10
58″	4, 8,59,56,55,43,18,51,44,18		18,12,14, 0	
		2, 5,21,45,46,44, 6,49		
60″	4, 9, 2, 2,17,29, 5,35,51, 7			
exact	4, 9, 2, 2,17,29, 5,36, 0,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°58′ 0″	4, 9, 2, 2,17,29, 5,36, 0,49			
		2, 5,21,45,28,31,44,33		
2″	4, 9, 4, 7,39,14,34, 7,45,22		18,12,32,17	
		2, 5,21,45,10,19,12,16		9,10
4″	4, 9, 6,13, 0,59,44,26,57,38		18,12,41,27	
		2, 5,21,44,52, 6,30,49		9,10
6″	4, 9, 8,18,22,44,36,33,28,27		18,12,50,37	
		2, 5,21,44,33,53,40,12		9,10
8″	4, 9,10,23,44,29,10,27, 8,39		18,12,59,47	
		2, 5,21,44,15,40,40,25		9,10
10″	4, 9,12,29, 6,13,26, 7,49, 4		18,13, 8,57	
		2, 5,21,43,57,27,31,28		9,10
12″	4, 9,14,34,27,57,23,35,20,32		18,13,18, 7	
		2, 5,21,43,39,14,13,21		9,10
14″	4, 9,16,39,49,41, 2,49,33,53		18,13,27,17	
		2, 5,21,43,21, 0,46, 4		9,10
16″	4, 9,18,45,11,24,23,50,19,57		18,13,36,27	
		2, 5,21,43, 2,47, 9,37		9,10
18″	4, 9,20,50,33, 7,26,37,29,34		18,13,45,37	
		2, 5,21,42,44,33,24, 0		9,10
20″	4, 9,22,55,54,50,11,10,53,34		18,13,54,47	
		2, 5,21,42,26,19,29,13		9,10
22″	4, 9,25, 1,16,32,37,30,22,47		18,14, 3,57	
		2, 5,21,42, 8, 5,25,16		9,10
24″	4, 9,27, 6,38,14,45,35,48, 3		18,14,13, 7	
		2, 5,21,41,49,51,12, 9		9,10
26″	4, 9,29,11,59,56,35,27, 0,12		18,14,22,17	
		2, 5,21,41,31,36,49,52		9,10
28″	4, 9,31,17,21,38, 7, 3,50, 4		18,14,31,27	
		2, 5,21,41,13,22,18,25		9,10
30″	4, 9,33,22,43,19,20,26, 8,29		18,14,40,37	
		2, 5,21,40,55, 7,37,48		9,10
32″	4, 9,35,28, 5, 0,15,33,46,17		18,14,49,47	
		2, 5,21,40,36,52,48, 1		9,10
34″	4, 9,37,33,26,40,52,26,34,18		18,14,58,57	
		2, 5,21,40,18,37,49, 4		9,10
36″	4, 9,39,38,48,21,11, 4,23,22		18,15, 8, 7	
		2, 5,21,40, 0,22,40,57		9,10
38″	4, 9,41,44,10, 1,11,27, 4,19		18,15,17,17	
		2, 5,21,39,42, 7,23,40		9,10
40″	4, 9,43,49,31,40,53,34,27,59		18,15,26,27	
		2, 5,21,39,23,51,57,13		9,10
42″	4, 9,45,54,53,20,17,26,25,12		18,15,35,37	
		2, 5,21,39, 5,36,21,36		9,10
44″	4, 9,48, 0,14,59,23, 2,46,48		18,15,44,47	
		2, 5,21,38,47,20,36,49		9,10
46″	4, 9,50, 5,36,38,10,23,23,37		18,15,53,57	
		2, 5,21,38,29, 4,42,52		9,10
48″	4, 9,52,10,58,16,39,28, 6,29		18,16, 3, 7	
		2, 5,21,38,10,48,39,45		9,10
50″	4, 9,54,16,19,54,50,16,46,14		18,16,12,17	
		2, 5,21,37,52,32,27,28		9,10
52″	4, 9,56,21,41,32,42,49,13,42		18,16,21,27	
		2, 5,21,37,34,16, 6, 1		9,10
54″	4, 9,58,27, 3,10,17, 5,19,43		18,16,30,37	
		2, 5,21,37,15,59,35,24		9,10
56″	4,10, 0,32,24,47,33, 4,55, 7		18,16,39,47	
		2, 5,21,36,57,42,55,37		9,10
58″	4,10, 2,37,46,24,30,47,50,44		18,16,48,57	
		2, 5,21,36,39,26, 6,40		
60″	4,10, 4,43, 8, 1,10,13,57,24			
exact	4,10, 4,43, 8, 1,10,14, 6,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
3°59′ 0″	4,10, 4,43, 8, 1,10,14, 6,24			
		2, 5,21,36,21, 9, 9,26		
2″	4,10, 6,48,29,37,31,23,15,50		18,17, 7,14	
		2, 5,21,36, 2,52, 2,12		9,10
4″	4,10, 8,53,51,13,34,15,18, 2		18,17,16,24	
		2, 5,21,35,44,34,45,48		9,10
6″	4,10,10,59,12,49,18,50, 3,50		18,17,25,34	
		2, 5,21,35,26,17,20,14		9,10
8″	4,10,13, 4,34,24,45, 7,24, 4		18,17,34,44	
		2, 5,21,35, 7,59,45,30		9,10
10″	4,10,15, 9,55,59,53, 7, 9,34		18,17,43,54	
		2, 5,21,34,49,42, 1,36		9,10
12″	4,10,17,15,17,34,42,49,11,10		18,17,53, 4	
		2, 5,21,34,31,24, 8,32		9,10
14″	4,10,19,20,39, 9,14,13,19,42		18,18, 2,14	
		2, 5,21,34,13, 6, 6,18		9,10
16″	4,10,21,26, 0,43,27,19,26, 0		18,18,11,24	
		2, 5,21,33,54,47,54,54		9,10
18″	4,10,23,31,22,17,22, 7,20,54		18,18,20,34	
		2, 5,21,33,36,29,34,20		9,10
20″	4,10,25,36,43,50,58,36,55,14		18,18,29,44	
		2, 5,21,33,18,11, 4,36		9,10
22″	4,10,27,42, 5,24,16,47,59,50		18,18,38,54	
		2, 5,21,32,59,52,25,42		9,10
24″	4,10,29,47,26,57,16,40,25,32		18,18,48, 4	
		2, 5,21,32,41,33,37,38		9,10
26″	4,10,31,52,48,29,58,14, 3,10		18,18,57,14	
		2, 5,21,32,23,14,40,24		9,10
28″	4,10,33,58,10, 2,21,28,43,34		18,19, 6,24	
		2, 5,21,32, 4,55,34, 0		9,10
30″	4,10,36, 3,31,34,26,24,17,34		18,19,15,34	
		2, 5,21,31,46,36,18,26		9,10
32″	4,10,38, 8,53, 6,13, 0,36, 0		18,19,24,44	
		2, 5,21,31,28,16,53,42		9,10
34″	4,10,40,14,14,37,41,17,29,42		18,19,33,54	
		2, 5,21,31, 9,57,19,48		9,10
36″	4,10,42,19,36, 8,51,14,49,30		18,19,43, 4	
		2, 5,21,30,51,37,36,44		9,10
38″	4,10,44,24,57,39,42,52,26,14		18,19,52,14	
		2, 5,21,30,33,17,44,30		9,10
40″	4,10,46,30,19,10,16,10,10,44		18,20, 1,24	
		2, 5,21,30,14,57,43, 6		9,10
42″	4,10,48,35,40,40,31, 7,53,50		18,20,10,34	
		2, 5,21,29,56,37,32,32		9,10
44″	4,10,50,41, 2,10,27,45,26,22		18,20,19,44	
		2, 5,21,29,38,17,12,48		9,10
46″	4,10,52,46,23,40, 6, 2,39,10		18,20,28,54	
		2, 5,21,29,19,56,43,54		9,10
48″	4,10,54,51,45, 9,25,59,23, 4		18,20,38, 4	
		2, 5,21,29, 1,36, 5,50		9,10
50″	4,10,56,57, 6,38,27,35,28,54		18,20,47,14	
		2, 5,21,28,43,15,18,36		9,10
52″	4,10,59, 2,28, 7,10,50,47,30		18,20,56,24	
		2, 5,21,28,24,54,22,12		9,10
54″	4,11, 1, 7,49,35,35,45, 9,42		18,21, 5,34	
		2, 5,21,28, 6,33,16,38		9,10
56″	4,11, 3,13,11, 3,42,18,26,20		18,21,14,44	
		2, 5,21,27,48,12, 1,54		9,10
58″	4,11, 5,18,32,31,30,30,28,14		18,21,23,54	
		2, 5,21,27,29,50,38, 0		
60″	4,11, 7,23,53,59, 0,21, 6,14			
exact	4,11, 7,23,53,59, 0,21,16,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4° 0′ 0″	4,11, 7,23,53,59, 0,21,16,34			
		2, 5,21,27,11,29, 5,57		
2″	4,11, 9,29,15,26,11,50,22,31		18,21,42,10	
		2, 5,21,26,53, 7,23,47		9,10
4″	4,11,11,34,36,53, 4,57,46,18		18,21,51,20	
		2, 5,21,26,34,45,32,27		9,10
6″	4,11,13,39,58,19,39,43,18,45		18,22, 0,30	
		2, 5,21,26,16,23,31,57		9,10
8″	4,11,15,45,19,45,56, 6,50,42		18,22, 9,40	
		2, 5,21,25,58, 1,22,17		9,10
10″	4,11,17,50,41,11,54, 8,12,59		18,22,18,50	
		2, 5,21,25,39,39, 3,27		9,10
12″	4,11,19,56, 2,37,33,47,16,26		18,22,28, 0	
		2, 5,21,25,21,16,35,27		9,10
14″	4,11,22, 1,24, 2,55, 3,51,53		18,22,37,10	
		2, 5,21,25, 2,53,58,17		9,10
16″	4,11,24, 6,45,27,57,57,50,10		18,22,46,20	
		2, 5,21,24,44,31,11,57		9,10
18″	4,11,26,12, 6,52,42,29, 2, 7		18,22,55,30	
		2, 5,21,24,26, 8,16,27		9,10
20″	4,11,28,17,28,17, 8,37,18,34		18,23, 4,40	
		2, 5,21,24, 7,45,11,47		9,10
22″	4,11,30,22,49,41,16,22,30,21		18,23,13,50	
		2, 5,21,23,49,21,57,57		9,10
24″	4,11,32,28,11, 5, 5,44,28,18		18,23,23, 0	
		2, 5,21,23,30,58,34,57		9,10
26″	4,11,34,33,32,28,36,43, 3,15		18,23,32,10	
		2, 5,21,23,12,35, 2,47		9,10
28″	4,11,36,38,53,51,49,18, 6, 2		18,23,41,20	
		2, 5,21,22,54,11,21,27		9,10
30″	4,11,38,44,15,14,43,29,27,29		18,23,50,30	
		2, 5,21,22,35,47,30,57		9,10
32″	4,11,40,49,36,37,19,16,58,26		18,23,59,40	
		2, 5,21,22,17,23,31,17		9,10
34″	4,11,42,54,57,59,36,40,29,43		18,24, 8,50	
		2, 5,21,21,58,59,22,27		9,10
36″	4,11,45, 0,19,21,35,39,52,10		18,24,18, 0	
		2, 5,21,21,40,35, 4,27		9,10
38″	4,11,47, 5,40,43,16,14,56,37		18,24,27,10	
		2, 5,21,21,22,10,37,17		9,10
40″	4,11,49,11, 2, 4,38,25,33,54		18,24,36,20	
		2, 5,21,21, 3,46, 0,57		9,10
42″	4,11,51,16,23,25,42,11,34,51		18,24,45,30	
		2, 5,21,20,45,21,15,27		9,10
44″	4,11,53,21,44,46,27,32,50,18		18,24,54,40	
		2, 5,21,20,26,56,20,47		9,10
46″	4,11,55,27, 6, 6,54,29,11, 5		18,25, 3,50	
		2, 5,21,20, 8,31,16,57		9,10
48″	4,11,57,32,27,27, 3, 0,28, 2		18,25,13, 0	
		2, 5,21,19,50, 6, 3,57		9,10
50″	4,11,59,37,48,46,53, 6,31,59		18,25,22,10	
		2, 5,21,19,31,40,41,47		9,10
52″	4,12, 1,43,10, 6,24,47,13,46		18,25,31,20	
		2, 5,21,19,13,15,10,27		9,10
54″	4,12, 3,48,31,25,38, 2,24,13		18,25,40,30	
		2, 5,21,18,54,49,29,57		9,10
56″	4,12, 5,53,52,44,32,51,54,10		18,25,49,40	
		2, 5,21,18,36,23,40,17		9,10
58″	4,12, 7,59,14, 3, 9,15,34,27		18,25,58,50	
		2, 5,21,18,17,57,41,27		
60″	4,12,10, 4,35,21,27,13,15,54			
exact	4,12,10, 4,35,21,27,13,22,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4° 1′ 0″	4,12,10, 4,35,21,27,13,22,48			
		2, 5,21,17,59,31,34,15		
2″	4,12,12, 9,56,39,26,44,57, 3		18,26,17, 6	
		2, 5,21,17,41, 5,17, 9		9,10
4″	4,12,14,15,17,57, 7,50,14,12		18,26,26,16	
		2, 5,21,17,22,38,50,53		9,10
6″	4,12,16,20,39,14,30,29, 5, 5		18,26,35,26	
		2, 5,21,17, 4,12,15,27		9,10
8″	4,12,18,26, 0,31,34,41,20,32		18,26,44,36	
		2, 5,21,16,45,45,30,51		9,10
10″	4,12,20,31,21,48,20,26,51,23		18,26,53,46	
		2, 5,21,16,27,18,37, 5		9,10
12″	4,12,22,36,43, 4,47,45,28,28		18,27, 2,56	
		2, 5,21,16, 8,51,34, 9		9,10
14″	4,12,24,42, 4,20,56,37, 2,37		18,27,12, 6	
		2, 5,21,15,50,24,22, 3		9,10
16″	4,12,26,47,25,36,47, 1,24,40		18,27,21,16	
		2, 5,21,15,31,57, 0,47		9,10
18″	4,12,28,52,46,52,18,58,25,27		18,27,30,26	
		2, 5,21,15,13,29,30,21		9,10
20″	4,12,30,58, 8, 7,32,27,55,48		18,27,39,36	
		2, 5,21,14,55, 1,50,45		9,10
22″	4,12,33, 3,29,22,27,29,46,33		18,27,48,46	
		2, 5,21,14,36,34, 1,59		9,10
24″	4,12,35, 8,50,37, 4, 3,48,32		18,27,57,56	
		2, 5,21,14,18, 6, 4, 3		9,10
26″	4,12,37,14,11,51,22, 9,52,35		18,28, 7, 6	
		2, 5,21,13,59,37,56,57		9,10
28″	4,12,39,19,33, 5,21,47,49,32		18,28,16,16	
		2, 5,21,13,41, 9,40,41		9,10
30″	4,12,41,24,54,19, 2,57,30,13		18,28,25,26	
		2, 5,21,13,22,41,15,15		9,10
32″	4,12,43,30,15,32,25,38,45,28		18,28,34,36	
		2, 5,21,13, 4,12,40,39		9,10
34″	4,12,45,35,36,45,29,51,26, 7		18,28,43,46	
		2, 5,21,12,45,43,56,53		9,10
36″	4,12,47,40,57,58,15,35,23, 0		18,28,52,56	
		2, 5,21,12,27,15, 3,57		9,10
38″	4,12,49,46,19,10,42,50,26,57		18,29, 2, 6	
		2, 5,21,12, 8,46, 1,51		9,10
40″	4,12,51,51,40,22,51,36,28,48		18,29,11,16	
		2, 5,21,11,50,16,50,35		9,10
42″	4,12,53,57, 1,34,41,53,19,23		18,29,20,26	
		2, 5,21,11,31,47,30, 9		9,10
44″	4,12,56, 2,22,46,13,40,49,32		18,29,29,36	
		2, 5,21,11,13,18, 0,33		9,10
46″	4,12,58, 7,43,57,26,58,50, 5		18,29,38,46	
		2, 5,21,10,54,48,21,47		9,10
48″	4,13, 0,13, 5, 8,21,47,11,52		18,29,47,56	
		2, 5,21,10,36,18,33,51		9,10
50″	4,13, 2,18,26,18,58, 5,45,43		18,29,57, 6	
		2, 5,21,10,17,48,36,45		9,10
52″	4,13, 4,23,47,29,15,54,22,28		18,30, 6,16	
		2, 5,21, 9,59,18,30,29		9,10
54″	4,13, 6,29, 8,39,15,12,52,57		18,30,15,26	
		2, 5,21, 9,40,48,15, 3		9,10
56″	4,13, 8,34,29,48,56, 1, 8, 0		18,30,24,36	
		2, 5,21, 9,22,17,50,27		9,10
58″	4,13,10,39,50,58,18,18,58,27		18,30,33,46	
		2, 5,21, 9, 3,47,16,41		
60″	4,13,12,45,12, 7,22, 6,15, 8			
exact	4,13,12,45,12, 7,22, 6,21,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4° 2′ 0″	4,13,12,45,12, 7,22, 6,21,40			
		2, 5,21, 8,45,16,34,33		
2″	4,13,14,50,33,16, 7,22,56,13		18,30,52, 2	
		2, 5,21, 8,26,45,42,31		9,10
4″	4,13,16,55,54,24,34, 8,38,44		18,31, 1,12	
		2, 5,21, 8, 8,14,41,19		9,10
6″	4,13,19, 1,15,32,42,23,20, 3		18,31,10,22	
		2, 5,21, 7,49,43,30,57		9,10
8″	4,13,21, 6,36,40,32, 6,51, 0		18,31,19,32	
		2, 5,21, 7,31,12,11,25		9,10
10″	4,13,23,11,57,48, 3,19, 2,25		18,31,28,42	
		2, 5,21, 7,12,40,42,43		9,10
12″	4,13,25,17,18,55,15,59,45, 8		18,31,37,52	
		2, 5,21, 6,54, 9, 4,51		9,10
14″	4,13,27,22,40, 2,10, 8,49,59		18,31,47, 2	
		2, 5,21, 6,35,37,17,49		9,10
16″	4,13,29,28, 1, 8,45,46, 7,48		18,31,56,12	
		2, 5,21, 6,17, 5,21,37		9,10
18″	4,13,31,33,22,15, 2,51,29,25		18,32, 5,22	
		2, 5,21, 5,58,33,16,15		9,10
20″	4,13,33,38,43,21, 1,24,45,40		18,32,14,32	
		2, 5,21, 5,40, 1, 1,43		9,10
22″	4,13,35,44, 4,26,41,25,47,23		18,32,23,42	
		2, 5,21, 5,21,28,38, 1		9,10
24″	4,13,37,49,25,32, 2,54,25,24		18,32,32,52	
		2, 5,21, 5, 2,56, 5, 9		9,10
26″	4,13,39,54,46,37, 5,50,30,33		18,32,42, 2	
		2, 5,21, 4,44,23,23, 7		9,10
28″	4,13,42, 0, 7,41,50,13,53,40		18,32,51,12	
		2, 5,21, 4,25,50,31,55		9,10
30″	4,13,44, 5,28,46,16, 4,25,35		18,33, 0,22	
		2, 5,21, 4, 7,17,31,33		9,10
32″	4,13,46,10,49,50,23,21,57, 8		18,33, 9,32	
		2, 5,21, 3,48,44,22, 1		9,10
34″	4,13,48,16,10,54,12, 6,19, 9		18,33,18,42	
		2, 5,21, 3,30,11, 3,19		9,10
36″	4,13,50,21,31,57,42,17,22,28		18,33,27,52	
		2, 5,21, 3,11,37,35,27		9,10
38″	4,13,52,26,53, 0,53,54,57,55		18,33,37, 2	
		2, 5,21, 2,53, 3,58,25		9,10
40″	4,13,54,32,14, 3,46,58,56,20		18,33,46,12	
		2, 5,21, 2,34,30,12,13		9,10
42″	4,13,56,37,35, 6,21,29, 8,33		18,33,55,22	
		2, 5,21, 2,15,56,16,51		9,10
44″	4,13,58,42,56, 8,37,25,25,24		18,34, 4,32	
		2, 5,21, 1,57,22,12,19		9,10
46″	4,14, 0,48,17,10,34,47,37,43		18,34,13,42	
		2, 5,21, 1,38,47,58,37		9,10
48″	4,14, 2,53,38,12,13,35,36,20		18,34,22,52	
		2, 5,21, 1,20,13,35,45		9,10
50″	4,14, 4,58,59,13,33,49,12, 5		18,34,32, 2	
		2, 5,21, 1, 1,39, 3,43		9,10
52″	4,14, 7, 4,20,14,35,28,15,48		18,34,41,12	
		2, 5,21, 0,43, 4,22,31		9,10
54″	4,14, 9, 9,41,15,18,32,38,19		18,34,50,22	
		2, 5,21, 0,24,29,32, 9		9,10
56″	4,14,11,15, 2,15,43, 2,10,28		18,34,59,32	
		2, 5,21, 0, 5,54,32,37		9,10
58″	4,14,13,20,23,15,48,56,43, 5		18,35, 8,42	
		2, 5,20,59,47,19,23,55		
60″	4,14,15,25,44,15,36,16, 7, 0			
exact	4,14,15,25,44,15,36,16,14,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4° 3′ 0″	4,14,15,25,44,15,36,16,14,45			
		2, 5,20,59,28,44, 6,58		
2″	4,14,17,31, 5,15, 5, 0,21,43		18,35,26,58	
		2, 5,20,59,10, 8,40, 0		9,10
4″	4,14,19,36,26,14,15, 9, 1,43		18,35,36, 8	
		2, 5,20,58,51,33, 3,52		9,10
6″	4,14,21,41,47,13, 6,42, 5,35		18,35,45,18	
		2, 5,20,58,32,57,18,34		9,10
8″	4,14,23,47, 8,11,39,39,24, 9		18,35,54,28	
		2, 5,20,58,14,21,24, 6		9,10
10″	4,14,25,52,29, 9,54, 0,48,15		18,36, 3,38	
		2, 5,20,57,55,45,20,28		9,10
12″	4,14,27,57,50, 7,49,46, 8,43		18,36,12,48	
		2, 5,20,57,37, 9, 7,40		9,10
14″	4,14,30, 3,11, 5,26,55,16,23		18,36,21,58	
		2, 5,20,57,18,32,45,42		9,10
16″	4,14,32, 8,32, 2,45,28, 2, 5		18,36,31, 8	
		2, 5,20,56,59,56,14,34		9,10
18″	4,14,34,13,52,59,45,24,16,39		18,36,40,18	
		2, 5,20,56,41,19,34,16		9,10
20″	4,14,36,19,13,56,26,43,50,55		18,36,49,28	
		2, 5,20,56,22,42,44,48		9,10
22″	4,14,38,24,34,52,49,26,35,43		18,36,58,38	
		2, 5,20,56, 4, 5,46,10		9,10
24″	4,14,40,29,55,48,53,32,21,53		18,37, 7,48	
		2, 5,20,55,45,28,38,22		9,10
26″	4,14,42,35,16,44,39, 1, 0,15		18,37,16,58	
		2, 5,20,55,26,51,21,24		9,10
28″	4,14,44,40,37,40, 5,52,21,39		18,37,26, 8	
		2, 5,20,55, 8,13,55,16		9,10
30″	4,14,46,45,58,35,14, 6,16,55		18,37,35,18	
		2, 5,20,54,49,36,19,58		9,10
32″	4,14,48,51,19,30, 3,42,36,53		18,37,44,28	
		2, 5,20,54,30,58,35,30		9,10
34″	4,14,50,56,40,24,34,41,12,23		18,37,53,38	
		2, 5,20,54,12,20,41,52		9,10
36″	4,14,53, 2, 1,18,47, 1,54,15		18,38, 2,48	
		2, 5,20,53,53,42,39, 4		9,10
38″	4,14,55, 7,22,12,40,44,33,19		18,38,11,58	
		2, 5,20,53,35, 4,27, 6		9,10
40″	4,14,57,12,43, 6,15,49, 0,25		18,38,21, 8	
		2, 5,20,53,16,26, 5,58		9,10
42″	4,14,59,18, 3,59,32,15, 6,23		18,38,30,18	
		2, 5,20,52,57,47,35,40		9,10
44″	4,15, 1,23,24,52,30, 2,42, 3		18,38,39,28	
		2, 5,20,52,39, 8,56,12		9,10
46″	4,15, 3,28,45,45, 9,11,38,15		18,38,48,38	
		2, 5,20,52,20,30, 7,34		9,10
48″	4,15, 5,34, 6,37,29,41,45,49		18,38,57,48	
		2, 5,20,52, 1,51, 9,46		9,10
50″	4,15, 7,39,27,29,31,32,55,35		18,39, 6,58	
		2, 5,20,51,43,12, 2,48		9,10
52″	4,15, 9,44,48,21,14,44,58,23		18,39,16, 8	
		2, 5,20,51,24,32,46,40		9,10
54″	4,15,11,50, 9,12,39,17,45, 3		18,39,25,18	
		2, 5,20,51, 5,53,21,22		9,10
56″	4,15,13,55,30, 3,45,11, 6,25		18,39,34,28	
		2, 5,20,50,47,13,46,54		9,10
58″	4,15,16, 0,50,54,32,24,53,19		18,39,43,38	
		2, 5,20,50,28,34, 3,16		
60″	4,15,18, 6,11,45, 0,58,56,35			
exact	4,15,18, 6,11,45, 0,59, 8,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4° 4′ 0″	4,15,18, 6,11,45, 0,59, 8,43			
		2, 5,20,50, 9,54,11,43		
2″	4,15,20,11,32,35,10,53,20,26		18,40, 1,53	
		2, 5,20,49,51,14, 9,50		9,10
4″	4,15,22,16,53,25, 2, 7,30,16		18,40,11, 3	
		2, 5,20,49,32,33,58,47		9,10
6″	4,15,24,22,14,14,34,41,29, 3		18,40,20,13	
		2, 5,20,49,13,53,38,34		9,10
8″	4,15,26,27,35, 3,48,35, 7,37		18,40,29,23	
		2, 5,20,48,55,13, 9,11		9,10
10″	4,15,28,32,55,52,43,48,16,48		18,40,38,33	
		2, 5,20,48,36,32,30,38		9,10
12″	4,15,30,38,16,41,20,20,47,26		18,40,47,43	
		2, 5,20,48,17,51,42,55		9,10
14″	4,15,32,43,37,29,38,12,30,21		18,40,56,53	
		2, 5,20,47,59,10,46, 2		9,10
16″	4,15,34,48,58,17,37,23,16,23		18,41, 6, 3	
		2, 5,20,47,40,29,39,59		9,10
18″	4,15,36,54,19, 5,17,52,56,22		18,41,15,13	
		2, 5,20,47,21,48,24,46		9,10
20″	4,15,38,59,39,52,39,41,21, 8		18,41,24,23	
		2, 5,20,47, 3, 7, 0,23		9,10
22″	4,15,41, 5, 0,39,42,48,21,31		18,41,33,33	
		2, 5,20,46,44,25,26,50		9,10
24″	4,15,43,10,21,26,27,13,48,21		18,41,42,43	
		2, 5,20,46,25,43,44, 7		9,10
26″	4,15,45,15,42,12,52,57,32,28		18,41,51,53	
		2, 5,20,46, 7, 1,52,14		9,10
28″	4,15,47,21, 2,58,59,59,24,42		18,42, 1, 3	
		2, 5,20,45,48,19,51,11		9,10
30″	4,15,49,26,23,44,48,19,15,53		18,42,10,13	
		2, 5,20,45,29,37,40,58		9,10
32″	4,15,51,31,44,30,17,56,56,51		18,42,19,23	
		2, 5,20,45,10,55,21,35		9,10
34″	4,15,53,37, 5,15,28,52,18,26		18,42,28,33	
		2, 5,20,44,52,12,53, 2		9,10
36″	4,15,55,42,26, 0,21, 5,11,28		18,42,37,43	
		2, 5,20,44,33,30,15,19		9,10
38″	4,15,57,47,46,44,54,35,26,47		18,42,46,53	
		2, 5,20,44,14,47,28,26		9,10
40″	4,15,59,53, 7,29, 9,22,55,13		18,42,56, 3	
		2, 5,20,43,56, 4,32,23		9,10
42″	4,16, 1,58,28,13, 5,27,27,36		18,43, 5,13	
		2, 5,20,43,37,21,27,10		9,10
44″	4,16, 4, 3,48,56,42,48,54,46		18,43,14,23	
		2, 5,20,43,18,38,12,47		9,10
46″	4,16, 6, 9, 9,40, 1,27, 7,33		18,43,23,33	
		2, 5,20,42,59,54,49,14		9,10
48″	4,16, 8,14,30,23, 1,21,56,47		18,43,32,43	
		2, 5,20,42,41,11,16,31		9,10
50″	4,16,10,19,51, 5,42,33,13,18		18,43,41,53	
		2, 5,20,42,22,27,34,38		9,10
52″	4,16,12,25,11,48, 5, 0,47,56		18,43,51, 3	
		2, 5,20,42, 3,43,43,35		9,10
54″	4,16,14,30,32,30, 8,44,31,31		18,44, 0,13	
		2, 5,20,41,44,59,43,22		9,10
56″	4,16,16,35,53,11,53,44,14,53		18,44, 9,23	
		2, 5,20,41,26,15,33,59		9,10
58″	4,16,18,41,13,53,19,59,48,52		18,44,18,33	
		2, 5,20,41, 7,31,15,26		
60″	4,16,20,46,34,34,27,31, 4,18			
exact	4,16,20,46,34,34,27,31,15,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4° 5′ 0″	4,16,20,46,34,34,27,31,15,22			
		2, 5,20,40,48,46,48,56		
2″	4,16,22,51,55,15,16,18, 4,18		18,44,36,48	
		2, 5,20,40,30, 2,12, 8		9,10
4″	4,16,24,57,15,55,46,20,16,26		18,44,45,58	
		2, 5,20,40,11,17,26,10		9,10
6″	4,16,27, 2,36,35,57,37,42,36		18,44,55, 8	
		2, 5,20,39,52,32,31, 2		9,10
8″	4,16,29, 7,57,15,50,10,13,38		18,45, 4,18	
		2, 5,20,39,33,47,26,44		9,10
10″	4,16,31,13,17,55,23,57,40,22		18,45,13,28	
		2, 5,20,39,15, 2,13,16		9,10
12″	4,16,33,18,38,34,38,59,53,38		18,45,22,38	
		2, 5,20,38,56,16,50,38		9,10
14″	4,16,35,23,59,13,35,16,44,16		18,45,31,48	
		2, 5,20,38,37,31,18,50		9,10
16″	4,16,37,29,19,52,12,48, 3, 6		18,45,40,58	
		2, 5,20,38,18,45,37,52		9,10
18″	4,16,39,34,40,30,31,33,40,58		18,45,50, 8	
		2, 5,20,37,59,59,47,44		9,10
20″	4,16,41,40, 1, 8,31,33,28,42		18,45,59,18	
		2, 5,20,37,41,13,48,26		9,10
22″	4,16,43,45,21,46,12,47,17, 8		18,46, 8,28	
		2, 5,20,37,22,27,39,58		9,10
24″	4,16,45,50,42,23,35,14,57, 6		18,46,17,38	
		2, 5,20,37, 3,41,22,20		9,10
26″	4,16,47,56, 3, 0,38,56,19,26		18,46,26,48	
		2, 5,20,36,44,54,55,32		9,10
28″	4,16,50, 1,23,37,23,51,14,58		18,46,35,58	
		2, 5,20,36,26, 8,19,34		9,10
30″	4,16,52, 6,44,13,49,59,34,32		18,46,45, 8	
		2, 5,20,36, 7,21,34,26		9,10
32″	4,16,54,12, 4,49,57,21, 8,58		18,46,54,18	
		2, 5,20,35,48,34,40, 8		9,10
34″	4,16,56,17,25,25,45,55,49, 6		18,47, 3,28	
		2, 5,20,35,29,47,36,40		9,10
36″	4,16,58,22,46, 1,15,43,25,46		18,47,12,38	
		2, 5,20,35,11, 0,24, 2		9,10
38″	4,17, 0,28, 6,36,26,43,49,48		18,47,21,48	
		2, 5,20,34,52,13, 2,14		9,10
40″	4,17, 2,33,27,11,18,56,52, 2		18,47,30,58	
		2, 5,20,34,33,25,31,16		9,10
42″	4,17, 4,38,47,45,52,22,23,18		18,47,40, 8	
		2, 5,20,34,14,37,51, 8		9,10
44″	4,17, 6,44, 8,20, 7, 0,14,26		18,47,49,18	
		2, 5,20,33,55,50, 1,50		9,10
46″	4,17, 8,49,28,54, 2,50,16,16		18,47,58,28	
		2, 5,20,33,37, 2, 3,22		9,10
48″	4,17,10,54,49,27,39,52,19,38		18,48, 7,38	
		2, 5,20,33,18,13,55,44		9,10
50″	4,17,13, 0,10, 0,58, 6,15,22		18,48,16,48	
		2, 5,20,32,59,25,38,56		9,10
52″	4,17,15, 5,30,33,57,31,54,18		18,48,25,58	
		2, 5,20,32,40,37,12,58		9,10
54″	4,17,17,10,51, 6,38, 9, 7,16		18,48,35, 8	
		2, 5,20,32,21,48,37,50		9,10
56″	4,17,19,16,11,38,59,57,45, 6		18,48,44,18	
		2, 5,20,32, 2,59,53,32		9,10
58″	4,17,21,21,32,11, 2,57,38,38		18,48,53,28	
		2, 5,20,31,44,11, 0, 4		
60″	4,17,23,26,52,42,47, 8,38,42			
exact	4,17,23,26,52,42,47, 8,51,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4° 6′ 0″	4,17,23,26,52,42,47, 8,51,35			
		2, 5,20,31,25,21,58,48		
2″	4,17,25,32,13,14,12,30,50,23		18,49,11,42	
		2, 5,20,31, 6,32,47, 6		9,10
4″	4,17,27,37,33,45,19, 3,37,29		18,49,20,52	
		2, 5,20,30,47,43,26,14		9,10
6″	4,17,29,42,54,16, 6,47, 3,43		18,49,30, 2	
		2, 5,20,30,28,53,56,12		9,10
8″	4,17,31,48,14,46,35,40,59,55		18,49,39,12	
		2, 5,20,30,10, 4,17, 0		9,10
10″	4,17,33,53,35,16,45,45,16,55		18,49,48,22	
		2, 5,20,29,51,14,28,38		9,10
12″	4,17,35,58,55,46,36,59,45,33		18,49,57,32	
		2, 5,20,29,32,24,31, 6		9,10
14″	4,17,38, 4,16,16, 9,24,16,39		18,50, 6,42	
		2, 5,20,29,13,34,24,24		9,10
16″	4,17,40, 9,36,45,22,58,41, 3		18,50,15,52	
		2, 5,20,28,54,44, 8,32		9,10
18″	4,17,42,14,57,14,17,42,49,35		18,50,25, 2	
		2, 5,20,28,35,53,43,30		9,10
20″	4,17,44,20,17,42,53,36,33, 5		18,50,34,12	
		2, 5,20,28,17, 3, 9,18		9,10
22″	4,17,46,25,38,11,10,39,42,23		18,50,43,22	
		2, 5,20,27,58,12,25,56		9,10
24″	4,17,48,30,58,39, 8,52, 8,19		18,50,52,32	
		2, 5,20,27,39,21,33,24		9,10
26″	4,17,50,36,19, 6,48,13,41,43		18,51, 1,42	
		2, 5,20,27,20,30,31,42		9,10
28″	4,17,52,41,39,34, 8,44,13,25		18,51,10,52	
		2, 5,20,27, 1,39,20,50		9,10
30″	4,17,54,47, 0, 1,10,23,34,15		18,51,20, 2	
		2, 5,20,26,42,48, 0,48		9,10
32″	4,17,56,52,20,27,53,11,35, 3		18,51,29,12	
		2, 5,20,26,23,56,31,36		9,10
34″	4,17,58,57,40,54,17, 8, 6,39		18,51,38,22	
		2, 5,20,26, 5, 4,53,14		9,10
36″	4,18, 1, 3, 1,20,22,12,59,53		18,51,47,32	
		2, 5,20,25,46,13, 5,42		9,10
38″	4,18, 3, 8,21,46, 8,26, 5,35		18,51,56,42	
		2, 5,20,25,27,21, 9, 0		9,10
40″	4,18, 5,13,42,11,35,47,14,35		18,52, 5,52	
		2, 5,20,25, 8,29, 3, 8		9,10
42″	4,18, 7,19, 2,36,44,16,17,43		18,52,15, 2	
		2, 5,20,24,49,36,48, 6		9,10
44″	4,18, 9,24,23, 1,33,53, 5,49		18,52,24,12	
		2, 5,20,24,30,44,23,54		9,10
46″	4,18,11,29,43,26, 4,37,29,43		18,52,33,22	
		2, 5,20,24,11,51,50,32		9,10
48″	4,18,13,35, 3,50,16,29,20,15		18,52,42,32	
		2, 5,20,23,52,59, 8, 0		9,10
50″	4,18,15,40,24,14, 9,28,28,15		18,52,51,42	
		2, 5,20,23,34, 6,16,18		9,10
52″	4,18,17,45,44,37,43,34,44,33		18,53, 0,52	
		2, 5,20,23,15,13,15,26		9,10
54″	4,18,19,51, 5, 0,58,47,59,59		18,53,10, 2	
		2, 5,20,22,56,20, 5,24		9,10
56″	4,18,21,56,25,23,55, 8, 5,23		18,53,19,12	
		2, 5,20,22,37,26,46,12		9,10
58″	4,18,24, 1,45,46,32,34,51,35		18,53,28,22	
		2, 5,20,22,18,33,17,50		
60″	4,18,26, 7, 6, 8,51, 8, 9,25			
exact	4,18,26, 7, 6, 8,51, 8,19,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4° 7′ 0″	4,18,26, 7, 6, 8,51, 8,19,23			
		2, 5,20,21,59,39,41,29		
2″	4,18,28,12,26,30,50,48, 0,52		18,53,46,37	
		2, 5,20,21,40,45,54,52		9,10
4″	4,18,30,17,46,52,31,33,55,44		18,53,55,47	
		2, 5,20,21,21,51,59, 5		9,10
6″	4,18,32,23, 7,13,53,25,54,49		18,54, 4,57	
		2, 5,20,21, 2,57,54, 8		9,10
8″	4,18,34,28,27,34,56,23,48,57		18,54,14, 7	
		2, 5,20,20,44, 3,40, 1		9,10
10″	4,18,36,33,47,55,40,27,28,58		18,54,23,17	
		2, 5,20,20,25, 9,16,44		9,10
12″	4,18,38,39, 8,16, 5,36,45,42		18,54,32,27	
		2, 5,20,20, 6,14,44,17		9,10
14″	4,18,40,44,28,36,11,51,29,59		18,54,41,37	
		2, 5,20,19,47,20, 2,40		9,10
16″	4,18,42,49,48,55,59,11,32,39		18,54,50,47	
		2, 5,20,19,28,25,11,53		9,10
18″	4,18,44,55, 9,15,27,36,44,32		18,54,59,57	
		2, 5,20,19, 9,30,11,56		9,10
20″	4,18,47, 0,29,34,37, 6,56,28		18,55, 9, 7	
		2, 5,20,18,50,35, 2,49		9,10
22″	4,18,49, 5,49,53,27,41,59,17		18,55,18,17	
		2, 5,20,18,31,39,44,32		9,10
24″	4,18,51,11,10,11,59,21,43,49		18,55,27,27	
		2, 5,20,18,12,44,17, 5		9,10
26″	4,18,53,16,30,30,12, 6, 0,54		18,55,36,37	
		2, 5,20,17,53,48,40,28		9,10
28″	4,18,55,21,50,48, 5,54,41,22		18,55,45,47	
		2, 5,20,17,34,52,54,41		9,10
30″	4,18,57,27,11, 5,40,47,36, 3		18,55,54,57	
		2, 5,20,17,15,56,59,44		9,10
32″	4,18,59,32,31,22,56,44,35,47		18,56, 4, 7	
		2, 5,20,16,57, 0,55,37		9,10
34″	4,19, 1,37,51,39,53,45,31,24		18,56,13,17	
		2, 5,20,16,38, 4,42,20		9,10
36″	4,19, 3,43,11,56,31,50,13,44		18,56,22,27	
		2, 5,20,16,19, 8,19,53		9,10
38″	4,19, 5,48,32,12,50,58,33,37		18,56,31,37	
		2, 5,20,16, 0,11,48,16		9,10
40″	4,19, 7,53,52,28,51,10,21,53		18,56,40,47	
		2, 5,20,15,41,15, 7,29		9,10
42″	4,19, 9,59,12,44,32,25,29,22		18,56,49,57	
		2, 5,20,15,22,18,17,32		9,10
44″	4,19,12, 4,32,59,54,43,46,54		18,56,59, 7	
		2, 5,20,15, 3,21,18,25		9,10
46″	4,19,14, 9,53,14,58, 5, 5,19		18,57, 8,17	
		2, 5,20,14,44,24,10, 8		9,10
48″	4,19,16,15,13,29,42,29,15,27		18,57,17,27	
		2, 5,20,14,25,26,52,41		9,10
50″	4,19,18,20,33,44, 7,56, 8, 8		18,57,26,37	
		2, 5,20,14, 6,29,26, 4		9,10
52″	4,19,20,25,53,58,14,25,34,12		18,57,35,47	
		2, 5,20,13,47,31,50,17		9,10
54″	4,19,22,31,14,12, 1,57,24,29		18,57,44,57	
		2, 5,20,13,28,34, 5,20		9,10
56″	4,19,24,36,34,25,30,31,29,49		18,57,54, 7	
		2, 5,20,13, 9,36,11,13		9,10
58″	4,19,26,41,54,38,40, 7,41, 2		18,58, 3,17	
		2, 5,20,12,50,38, 7,56		
60″	4,19,28,47,14,51,30,45,48,58			
exact	4,19,28,47,14,51,30,46, 5,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4° 8′ 0″	4,19,28,47,14,51,30,46, 5,57			
		2, 5,20,12,31,39,57,11		
2″	4,19,30,52,35, 4, 2,26, 3, 8		18,58,21,30	
		2, 5,20,12,12,41,35,41		9,10
4″	4,19,32,57,55,16,15, 7,38,49		18,58,30,40	
		2, 5,20,11,53,43, 5, 1		9,10
6″	4,19,35, 3,15,28, 8,50,43,50		18,58,39,50	
		2, 5,20,11,34,44,25,11		9,10
8″	4,19,37, 8,35,39,43,35, 9, 1		18,58,49, 0	
		2, 5,20,11,15,45,36,11		9,10
10″	4,19,39,13,55,50,59,20,45,12		18,58,58,10	
		2, 5,20,10,56,46,38, 1		9,10
12″	4,19,41,19,16, 1,56, 7,23,13		18,59, 7,20	
		2, 5,20,10,37,47,30,41		9,10
14″	4,19,43,24,36,12,33,54,53,54		18,59,16,30	
		2, 5,20,10,18,48,14,11		9,10
16″	4,19,45,29,56,22,52,43, 8, 5		18,59,25,40	
		2, 5,20, 9,59,48,48,31		9,10
18″	4,19,47,35,16,32,52,31,56,36		18,59,34,50	
		2, 5,20, 9,40,49,13,41		9,10
20″	4,19,49,40,36,42,33,21,10,17		18,59,44, 0	
		2, 5,20, 9,21,49,29,41		9,10
22″	4,19,51,45,56,51,55,10,39,58		18,59,53,10	
		2, 5,20, 9, 2,49,36,31		9,10
24″	4,19,53,51,17, 0,58, 0,16,29		19, 0, 2,20	
		2, 5,20, 8,43,49,34,11		9,10
26″	4,19,55,56,37, 9,41,49,50,40		19, 0,11,30	
		2, 5,20, 8,24,49,22,41		9,10
28″	4,19,58, 1,57,18, 6,39,13,21		19, 0,20,40	
		2, 5,20, 8, 5,49, 2, 1		9,10
30″	4,20, 0, 7,17,26,12,28,15,22		19, 0,29,50	
		2, 5,20, 7,46,48,32,11		9,10
32″	4,20, 2,12,37,33,59,16,47,33		19, 0,39, 0	
		2, 5,20, 7,27,47,53,11		9,10
34″	4,20, 4,17,57,41,27, 4,40,44		19, 0,48,10	
		2, 5,20, 7, 8,47, 5, 1		9,10
36″	4,20, 6,23,17,48,35,51,45,45		19, 0,57,20	
		2, 5,20, 6,49,46, 7,41		9,10
38″	4,20, 8,28,37,55,25,37,53,26		19, 1, 6,30	
		2, 5,20, 6,30,45, 1,11		9,10
40″	4,20,10,33,58, 1,56,22,54,37		19, 1,15,40	
		2, 5,20, 6,11,43,45,31		9,10
42″	4,20,12,39,18, 8, 8, 6,40, 8		19, 1,24,50	
		2, 5,20, 5,52,42,20,41		9,10
44″	4,20,14,44,38,14, 0,49, 0,49		19, 1,34, 0	
		2, 5,20, 5,33,40,46,41		9,10
46″	4,20,16,49,58,19,34,29,47,30		19, 1,43,10	
		2, 5,20, 5,14,39, 3,31		9,10
48″	4,20,18,55,18,24,49, 8,51, 1		19, 1,52,20	
		2, 5,20, 4,55,37,11,11		9,10
50″	4,20,21, 0,38,29,44,46, 2,12		19, 2, 1,30	
		2, 5,20, 4,36,35, 9,41		9,10
52″	4,20,23, 5,58,34,21,21,11,53		19, 2,10,40	
		2, 5,20, 4,17,32,59, 1		9,10
54″	4,20,25,11,18,38,38,54,10,54		19, 2,19,50	
		2, 5,20, 3,58,30,39,11		9,10
56″	4,20,27,16,38,42,37,24,50, 5		19, 2,29, 0	
		2, 5,20, 3,39,28,10,11		9,10
58″	4,20,29,21,58,46,16,53, 0,16		19, 2,38,10	
		2, 5,20, 3,20,25,32, 1		
60″	4,20,31,27,18,49,37,18,32,17			
exact	4,20,31,27,18,49,37,18,43,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4° 9′ 0″	4,20,31,27,18,49,37,18,43,39			
		2, 5,20, 3, 1,22,46, 2		
2″	4,20,33,32,38,52,38,41,29,41		19, 2,56,24	
		2, 5,20, 2,42,19,49,38		9,10
4″	4,20,35,37,58,55,21, 1,19,19		19, 3, 5,34	
		2, 5,20, 2,23,16,44, 4		9,10
6″	4,20,37,43,18,57,44,18, 3,23		19, 3,14,44	
		2, 5,20, 2, 4,13,29,20		9,10
8″	4,20,39,48,38,59,48,31,32,43		19, 3,23,54	
		2, 5,20, 1,45,10, 5,26		9,10
10″	4,20,41,53,59, 1,33,41,38, 9		19, 3,33, 4	
		2, 5,20, 1,26, 6,32,22		9,10
12″	4,20,43,59,19, 2,59,48,10,31		19, 3,42,14	
		2, 5,20, 1, 7, 2,50, 8		9,10
14″	4,20,46, 4,39, 4, 6,51, 0,39		19, 3,51,24	
		2, 5,20, 0,47,58,58,44		9,10
16″	4,20,48, 9,59, 4,54,49,59,23		19, 4, 0,34	
		2, 5,20, 0,28,54,58,10		9,10
18″	4,20,50,15,19, 5,23,44,57,33		19, 4, 9,44	
		2, 5,20, 0, 9,50,48,26		9,10
20″	4,20,52,20,39, 5,33,35,45,59		19, 4,18,54	
		2, 5,19,59,50,46,29,32		9,10
22″	4,20,54,25,59, 5,24,22,15,31		19, 4,28, 4	
		2, 5,19,59,31,42, 1,28		9,10
24″	4,20,56,31,19, 4,56, 4,16,59		19, 4,37,14	
		2, 5,19,59,12,37,24,14		9,10
26″	4,20,58,36,39, 4, 8,41,41,13		19, 4,46,24	
		2, 5,19,58,53,32,37,50		9,10
28″	4,21, 0,41,59, 3, 2,14,19, 3		19, 4,55,34	
		2, 5,19,58,34,27,42,16		9,10
30″	4,21, 2,47,19, 1,36,42, 1,19		19, 5, 4,44	
		2, 5,19,58,15,22,37,32		9,10
32″	4,21, 4,52,38,59,52, 4,38,51		19, 5,13,54	
		2, 5,19,57,56,17,23,38		9,10
34″	4,21, 6,57,58,57,48,22, 2,29		19, 5,23, 4	
		2, 5,19,57,37,12, 0,34		9,10
36″	4,21, 9, 3,18,55,25,34, 3, 3		19, 5,32,14	
		2, 5,19,57,18, 6,28,20		9,10
38″	4,21,11, 8,38,52,43,40,31,23		19, 5,41,24	
		2, 5,19,56,59, 0,46,56		9,10
40″	4,21,13,13,58,49,42,41,18,19		19, 5,50,34	
		2, 5,19,56,39,54,56,22		9,10
42″	4,21,15,19,18,46,22,36,14,41		19, 5,59,44	
		2, 5,19,56,20,48,56,38		9,10
44″	4,21,17,24,38,42,43,25,11,19		19, 6, 8,54	
		2, 5,19,56, 1,42,47,44		9,10
46″	4,21,19,29,58,38,45, 7,59, 3		19, 6,18, 4	
		2, 5,19,55,42,36,29,40		9,10
48″	4,21,21,35,18,34,27,44,28,43		19, 6,27,14	
		2, 5,19,55,23,30, 2,26		9,10
50″	4,21,23,40,38,29,51,14,31, 9		19, 6,36,24	
		2, 5,19,55, 4,23,26, 2		9,10
52″	4,21,25,45,58,24,55,37,57,11		19, 6,45,34	
		2, 5,19,54,45,16,40,28		9,10
54″	4,21,27,51,18,19,40,54,37,39		19, 6,54,44	
		2, 5,19,54,26, 9,45,44		9,10
56″	4,21,29,56,38,14, 7, 4,23,23		19, 7, 3,54	
		2, 5,19,54, 7, 2,41,50		9,10
58″	4,21,32, 1,58, 8,14, 7, 5,13		19, 7,13, 4	
		2, 5,19,53,47,55,28,46		
60″	4,21,34, 7,18, 2, 2, 2,33,59			
exact	4,21,34, 7,18, 2, 2, 2,50, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°10′ 0″	4,21,34, 7,18, 2, 2, 2,50, 3			
		2, 5,19,53,28,48, 8,14		
2″	4,21,36,12,37,55,30,50,58,17		19, 7,31,17	
		2, 5,19,53, 9,40,36,57		9,10
4″	4,21,38,17,57,48,40,31,35,14		19, 7,40,27	
		2, 5,19,52,50,32,56,30		9,10
6″	4,21,40,23,17,41,31, 4,31,44		19, 7,49,37	
		2, 5,19,52,31,25, 6,53		9,10
8″	4,21,42,28,37,34, 2,29,38,37		19, 7,58,47	
		2, 5,19,52,12,17, 8, 6		9,10
10″	4,21,44,33,57,26,14,46,46,43		19, 8, 7,57	
		2, 5,19,51,53, 9, 0, 9		9,10
12″	4,21,46,39,17,18, 7,55,46,52		19, 8,17, 7	
		2, 5,19,51,34, 0,43, 2		9,10
14″	4,21,48,44,37, 9,41,56,29,54		19, 8,26,17	
		2, 5,19,51,14,52,16,45		9,10
16″	4,21,50,49,57, 0,56,48,46,39		19, 8,35,27	
		2, 5,19,50,55,43,41,18		9,10
18″	4,21,52,55,16,51,52,32,27,57		19, 8,44,37	
		2, 5,19,50,36,34,56,41		9,10
20″	4,21,55, 0,36,42,29, 7,24,38		19, 8,53,47	
		2, 5,19,50,17,26, 2,54		9,10
22″	4,21,57, 5,56,32,46,33,27,32		19, 9, 2,57	
		2, 5,19,49,58,16,59,57		9,10
24″	4,21,59,11,16,22,44,50,27,29		19, 9,12, 7	
		2, 5,19,49,39, 7,47,50		9,10
26″	4,22, 1,16,36,12,23,58,15,19		19, 9,21,17	
		2, 5,19,49,19,58,26,33		9,10
28″	4,22, 3,21,56, 1,43,56,41,52		19, 9,30,27	
		2, 5,19,49, 0,48,56, 6		9,10
30″	4,22, 5,27,15,50,44,45,37,58		19, 9,39,37	
		2, 5,19,48,41,39,16,29		9,10
32″	4,22, 7,32,35,39,26,24,54,27		19, 9,48,47	
		2, 5,19,48,22,29,27,42		9,10
34″	4,22, 9,37,55,27,48,54,22, 9		19, 9,57,57	
		2, 5,19,48, 3,19,29,45		9,10
36″	4,22,11,43,15,15,52,13,51,54		19,10, 7, 7	
		2, 5,19,47,44, 9,22,38		9,10
38″	4,22,13,48,35, 3,36,23,14,32		19,10,16,17	
		2, 5,19,47,24,59, 6,21		9,10
40″	4,22,15,53,54,51, 1,22,20,53		19,10,25,27	
		2, 5,19,47, 5,48,40,54		9,10
42″	4,22,17,59,14,38, 7,11, 1,47		19,10,34,37	
		2, 5,19,46,46,38, 6,17		9,10
44″	4,22,20, 4,34,24,53,49, 8, 4		19,10,43,47	
		2, 5,19,46,27,27,22,30		9,10
46″	4,22,22, 9,54,11,21,16,30,34		19,10,52,57	
		2, 5,19,46, 8,16,29,33		9,10
48″	4,22,24,15,13,57,29,33, 0, 7		19,11, 2, 7	
		2, 5,19,45,49, 5,27,26		9,10
50″	4,22,26,20,33,43,18,38,27,33		19,11,11,17	
		2, 5,19,45,29,54,16, 9		9,10
52″	4,22,28,25,53,28,48,32,43,42		19,11,20,27	
		2, 5,19,45,10,42,55,42		9,10
54″	4,22,30,31,13,13,59,15,39,24		19,11,29,37	
		2, 5,19,44,51,31,26, 5		9,10
56″	4,22,32,36,32,58,50,47, 5,29		19,11,38,47	
		2, 5,19,44,32,19,47,18		9,10
58″	4,22,34,41,52,43,23, 6,52,47		19,11,47,57	
		2, 5,19,44,13, 7,59,21		
60″	4,22,36,47,12,27,36,14,52, 8			
exact	4,22,36,47,12,27,36,15, 7,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°11′ 0″	4,22,36,47,12,27,36,15, 7,57			
		2, 5,19,43,53,56, 3,57		
2″	4,22,38,52,32,11,30,11,11,54		19,12, 6,10	
		2, 5,19,43,34,43,57,47		9,10
4″	4,22,40,57,51,55, 4,55, 9,41		19,12,15,20	
		2, 5,19,43,15,31,42,27		9,10
6″	4,22,43, 3,11,38,20,26,52, 8		19,12,24,30	
		2, 5,19,42,56,19,17,57		9,10
8″	4,22,45, 8,31,21,16,46,10, 5		19,12,33,40	
		2, 5,19,42,37, 6,44,17		9,10
10″	4,22,47,13,51, 3,53,52,54,22		19,12,42,50	
		2, 5,19,42,17,54, 1,27		9,10
12″	4,22,49,19,10,46,11,46,55,49		19,12,52, 0	
		2, 5,19,41,58,41, 9,27		9,10
14″	4,22,51,24,30,28,10,28, 5,16		19,13, 1,10	
		2, 5,19,41,39,28, 8,17		9,10
16″	4,22,53,29,50, 9,49,56,13,33		19,13,10,20	
		2, 5,19,41,20,14,57,57		9,10
18″	4,22,55,35, 9,51,10,11,11,30		19,13,19,30	
		2, 5,19,41, 1, 1,38,27		9,10
20″	4,22,57,40,29,32,11,12,49,57		19,13,28,40	
		2, 5,19,40,41,48, 9,47		9,10
22″	4,22,59,45,49,12,53, 0,59,44		19,13,37,50	
		2, 5,19,40,22,34,31,57		9,10
24″	4,23, 1,51, 8,53,15,35,31,41		19,13,47, 0	
		2, 5,19,40, 3,20,44,57		9,10
26″	4,23, 3,56,28,33,18,56,16,38		19,13,56,10	
		2, 5,19,39,44, 6,48,47		9,10
28″	4,23, 6, 1,48,13, 3, 3, 5,25		19,14, 5,20	
		2, 5,19,39,24,52,43,27		9,10
30″	4,23, 8, 7, 7,52,27,55,48,52		19,14,14,30	
		2, 5,19,39, 5,38,28,57		9,10
32″	4,23,10,12,27,31,33,34,17,49		19,14,23,40	
		2, 5,19,38,46,24, 5,17		9,10
34″	4,23,12,17,47,10,19,58,23, 6		19,14,32,50	
		2, 5,19,38,27, 9,32,27		9,10
36″	4,23,14,23, 6,48,47, 7,55,33		19,14,42, 0	
		2, 5,19,38, 7,54,50,27		9,10
38″	4,23,16,28,26,26,55, 2,46, 0		19,14,51,10	
		2, 5,19,37,48,39,59,17		9,10
40″	4,23,18,33,46, 4,43,42,45,17		19,15, 0,20	
		2, 5,19,37,29,24,58,57		9,10
42″	4,23,20,39, 5,42,13, 7,44,14		19,15, 9,30	
		2, 5,19,37,10, 9,49,27		9,10
44″	4,23,22,44,25,19,23,17,33,41		19,15,18,40	
		2, 5,19,36,50,54,30,47		9,10
46″	4,23,24,49,44,56,14,12, 4,28		19,15,27,50	
		2, 5,19,36,31,39, 2,57		9,10
48″	4,23,26,55, 4,32,45,51, 7,25		19,15,37, 0	
		2, 5,19,36,12,23,25,57		9,10
50″	4,23,29, 0,24, 8,58,14,33,22		19,15,46,10	
		2, 5,19,35,53, 7,39,47		9,10
52″	4,23,31, 5,43,44,51,22,13, 9		19,15,55,20	
		2, 5,19,35,33,51,44,27		9,10
54″	4,23,33,11, 3,20,25,13,57,36		19,16, 4,30	
		2, 5,19,35,14,35,39,57		9,10
56″	4,23,35,16,22,55,39,49,37,33		19,16,13,40	
		2, 5,19,34,55,19,26,17		9,10
58″	4,23,37,21,42,30,35, 9, 3,50		19,16,22,50	
		2, 5,19,34,36, 3, 3,27		
60″	4,23,39,27, 2, 5,11,12, 7,17			
exact	4,23,39,27, 2, 5,11,12,25,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°12′ 0″	4,23,39,27, 2, 5,11,12,25,22			
		2, 5,19,34,16,46,33,21		
2″	4,23,41,32,21,39,27,58,58,43		19,16,41, 2	
		2, 5,19,33,57,29,52,19		9,10
4″	4,23,43,37,41,13,25,28,51, 2		19,16,50,12	
		2, 5,19,33,38,13, 2, 7		9,10
6″	4,23,45,43, 0,47, 3,41,53, 9		19,16,59,22	
		2, 5,19,33,18,56, 2,45		9,10
8″	4,23,47,48,20,20,22,37,55,54		19,17, 8,32	
		2, 5,19,32,59,38,54,13		9,10
10″	4,23,49,53,39,53,22,16,50, 7		19,17,17,42	
		2, 5,19,32,40,21,36,31		9,10
12″	4,23,51,58,59,26, 2,38,26,38		19,17,26,52	
		2, 5,19,32,21, 4, 9,39		9,10
14″	4,23,54, 4,18,58,23,42,36,17		19,17,36, 2	
		2, 5,19,32, 1,46,33,37		9,10
16″	4,23,56, 9,38,30,25,29, 9,54		19,17,45,12	
		2, 5,19,31,42,28,48,25		9,10
18″	4,23,58,14,58, 2, 7,57,58,19		19,17,54,22	
		2, 5,19,31,23,10,54, 3		9,10
20″	4,24, 0,20,17,33,31, 8,52,22		19,18, 3,32	
		2, 5,19,31, 3,52,50,31		9,10
22″	4,24, 2,25,37, 4,35, 1,42,53		19,18,12,42	
		2, 5,19,30,44,34,37,49		9,10
24″	4,24, 4,30,56,35,19,36,20,42		19,18,21,52	
		2, 5,19,30,25,16,15,57		9,10
26″	4,24, 6,36,16, 5,44,52,36,39		19,18,31, 2	
		2, 5,19,30, 5,57,44,55		9,10
28″	4,24, 8,41,35,35,50,50,21,34		19,18,40,12	
		2, 5,19,29,46,39, 4,43		9,10
30″	4,24,10,46,55, 5,37,29,26,17		19,18,49,22	
		2, 5,19,29,27,20,15,21		9,10
32″	4,24,12,52,14,35, 4,49,41,38		19,18,58,32	
		2, 5,19,29, 8, 1,16,49		9,10
34″	4,24,14,57,34, 4,12,50,58,27		19,19, 7,42	
		2, 5,19,28,48,42, 9, 7		9,10
36″	4,24,17, 2,53,33, 1,33, 7,34		19,19,16,52	
		2, 5,19,28,29,22,52,15		9,10
38″	4,24,19, 8,13, 1,30,55,59,49		19,19,26, 2	
		2, 5,19,28,10, 3,26,13		9,10
40″	4,24,21,13,32,29,40,59,26, 2		19,19,35,12	
		2, 5,19,27,50,43,51, 1		9,10
42″	4,24,23,18,51,57,31,43,17, 3		19,19,44,22	
		2, 5,19,27,31,24, 6,39		9,10
44″	4,24,25,24,11,25, 3, 7,23,42		19,19,53,32	
		2, 5,19,27,12, 4,13, 7		9,10
46″	4,24,27,29,30,52,15,11,36,49		19,20, 2,42	
		2, 5,19,26,52,44,10,25		9,10
48″	4,24,29,34,50,19, 7,55,47,14		19,20,11,52	
		2, 5,19,26,33,23,58,33		9,10
50″	4,24,31,40, 9,45,41,19,45,47		19,20,21, 2	
		2, 5,19,26,14, 3,37,31		9,10
52″	4,24,33,45,29,11,55,23,23,18		19,20,30,12	
		2, 5,19,25,54,43, 7,19		9,10
54″	4,24,35,50,48,37,50, 6,30,37		19,20,39,22	
		2, 5,19,25,35,22,27,57		9,10
56″	4,24,37,56, 8, 3,25,28,58,34		19,20,48,32	
		2, 5,19,25,16, 1,39,25		9,10
58″	4,24,40, 1,27,28,41,30,37,59		19,20,57,42	
		2, 5,19,24,56,40,41,43		
60″	4,24,42, 6,46,53,38,11,19,42			
exact	4,24,42, 6,46,53,38,11,35,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°13′ 0″	4,24,42, 6,46,53,38,11,35,36			
		2, 5,19,24,37,19,36,38		
2″	4,24,44,12, 6,18,15,31,12,14		19,21,15,54	
		2, 5,19,24,17,58,20,44		9,10
4″	4,24,46,17,25,42,33,29,32,58		19,21,25, 4	
		2, 5,19,23,58,36,55,40		9,10
6″	4,24,48,22,45, 6,32, 6,28,38		19,21,34,14	
		2, 5,19,23,39,15,21,26		9,10
8″	4,24,50,28, 4,30,11,21,50, 4		19,21,43,24	
		2, 5,19,23,19,53,38, 2		9,10
10″	4,24,52,33,23,53,31,15,28, 6		19,21,52,34	
		2, 5,19,23, 0,31,45,28		9,10
12″	4,24,54,38,43,16,31,47,13,34		19,22, 1,44	
		2, 5,19,22,41, 9,43,44		9,10
14″	4,24,56,44, 2,39,12,56,57,18		19,22,10,54	
		2, 5,19,22,21,47,32,50		9,10
16″	4,24,58,49,22, 1,34,44,30, 8		19,22,20, 4	
		2, 5,19,22, 2,25,12,46		9,10
18″	4,25, 0,54,41,23,37, 9,42,54		19,22,29,14	
		2, 5,19,21,43, 2,43,32		9,10
20″	4,25, 3, 0, 0,45,20,12,26,26		19,22,38,24	
		2, 5,19,21,23,40, 5, 8		9,10
22″	4,25, 5, 5,20, 6,43,52,31,34		19,22,47,34	
		2, 5,19,21, 4,17,17,34		9,10
24″	4,25, 7,10,39,27,48, 9,49, 8		19,22,56,44	
		2, 5,19,20,44,54,20,50		9,10
26″	4,25, 9,15,58,48,33, 4, 9,58		19,23, 5,54	
		2, 5,19,20,25,31,14,56		9,10
28″	4,25,11,21,18, 8,58,35,24,54		19,23,15, 4	
		2, 5,19,20, 6, 7,59,52		9,10
30″	4,25,13,26,37,29, 4,43,24,46		19,23,24,14	
		2, 5,19,19,46,44,35,38		9,10
32″	4,25,15,31,56,48,51,28, 0,24		19,23,33,24	
		2, 5,19,19,27,21, 2,14		9,10
34″	4,25,17,37,16, 8,18,49, 2,38		19,23,42,34	
		2, 5,19,19, 7,57,19,40		9,10
36″	4,25,19,42,35,27,26,46,22,18		19,23,51,44	
		2, 5,19,18,48,33,27,56		9,10
38″	4,25,21,47,54,46,15,19,50,14		19,24, 0,54	
		2, 5,19,18,29, 9,27, 2		9,10
40″	4,25,23,53,14, 4,44,29,17,16		19,24,10, 4	
		2, 5,19,18, 9,45,16,58		9,10
42″	4,25,25,58,33,22,54,14,34,14		19,24,19,14	
		2, 5,19,17,50,20,57,44		9,10
44″	4,25,28, 3,52,40,44,35,31,58		19,24,28,24	
		2, 5,19,17,30,56,29,20		9,10
46″	4,25,30, 9,11,58,15,32, 1,18		19,24,37,34	
		2, 5,19,17,11,31,51,46		9,10
48″	4,25,32,14,31,15,27, 3,53, 4		19,24,46,44	
		2, 5,19,16,52, 7, 5, 2		9,10
50″	4,25,34,19,50,32,19,10,58, 6		19,24,55,54	
		2, 5,19,16,32,42, 9, 8		9,10
52″	4,25,36,25, 9,48,51,53, 7,14		19,25, 5, 4	
		2, 5,19,16,13,17, 4, 4		9,10
54″	4,25,38,30,29, 5, 5,10,11,18		19,25,14,14	
		2, 5,19,15,53,51,49,50		9,10
56″	4,25,40,35,48,20,59, 2, 1, 8		19,25,23,24	
		2, 5,19,15,34,26,26,26		9,10
58″	4,25,42,41, 7,36,33,28,27,34		19,25,32,34	
		2, 5,19,15,15, 0,53,52		
60″	4,25,44,46,26,51,48,29,21,26			
exact	4,25,44,46,26,51,48,29,37,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°14′ 0″	4,25,44,46,26,51,48,29,37,13			
		2, 5,19,14,55,35,13,57		
2″	4,25,46,51,46, 6,44, 4,51,10		19,25,50,46	
		2, 5,19,14,36, 9,23,11		9,10
4″	4,25,48,57, 5,21,20,14,14,21		19,25,59,56	
		2, 5,19,14,16,43,23,15		9,10
6″	4,25,51, 2,24,35,36,57,37,36		19,26, 9, 6	
		2, 5,19,13,57,17,14, 9		9,10
8″	4,25,53, 7,43,49,34,14,51,45		19,26,18,16	
		2, 5,19,13,37,50,55,53		9,10
10″	4,25,55,13, 3, 3,12, 5,47,38		19,26,27,26	
		2, 5,19,13,18,24,28,27		9,10
12″	4,25,57,18,22,16,30,30,16, 5		19,26,36,36	
		2, 5,19,12,58,57,51,51		9,10
14″	4,25,59,23,41,29,29,28, 7,56		19,26,45,46	
		2, 5,19,12,39,31, 6, 5		9,10
16″	4,26, 1,29, 0,42, 8,59,14, 1		19,26,54,56	
		2, 5,19,12,20, 4,11, 9		9,10
18″	4,26, 3,34,19,54,29, 3,25,10		19,27, 4, 6	
		2, 5,19,12, 0,37, 7, 3		9,10
20″	4,26, 5,39,39, 6,29,40,32,13		19,27,13,16	
		2, 5,19,11,41, 9,53,47		9,10
22″	4,26, 7,44,58,18,10,50,26, 0		19,27,22,26	
		2, 5,19,11,21,42,31,21		9,10
24″	4,26, 9,50,17,29,32,32,57,21		19,27,31,36	
		2, 5,19,11, 2,14,59,45		9,10
26″	4,26,11,55,36,40,34,47,57, 6		19,27,40,46	
		2, 5,19,10,42,47,18,59		9,10
28″	4,26,14, 0,55,51,17,35,16, 5		19,27,49,56	
		2, 5,19,10,23,19,29, 3		9,10
30″	4,26,16, 6,15, 1,40,54,45, 8		19,27,59, 6	
		2, 5,19,10, 3,51,29,57		9,10
32″	4,26,18,11,34,11,44,46,15, 5		19,28, 8,16	
		2, 5,19, 9,44,23,21,41		9,10
34″	4,26,20,16,53,21,29, 9,36,46		19,28,17,26	
		2, 5,19, 9,24,55, 4,15		9,10
36″	4,26,22,22,12,30,54, 4,41, 1		19,28,26,36	
		2, 5,19, 9, 5,26,37,39		9,10
38″	4,26,24,27,31,39,59,31,18,40		19,28,35,46	
		2, 5,19, 8,45,58, 1,53		9,10
40″	4,26,26,32,50,48,45,29,20,33		19,28,44,56	
		2, 5,19, 8,26,29,16,57		9,10
42″	4,26,28,38, 9,57,11,58,37,30		19,28,54, 6	
		2, 5,19, 8, 7, 0,22,51		9,10
44″	4,26,30,43,29, 5,18,59, 0,21		19,29, 3,16	
		2, 5,19, 7,47,31,19,35		9,10
46″	4,26,32,48,48,13, 6,30,19,56		19,29,12,26	
		2, 5,19, 7,28, 2, 7, 9		9,10
48″	4,26,34,54, 7,20,34,32,27, 5		19,29,21,36	
		2, 5,19, 7, 8,32,45,33		9,10
50″	4,26,36,59,26,27,43, 5,12,38		19,29,30,46	
		2, 5,19, 6,49, 3,14,47		9,10
52″	4,26,39, 4,45,34,32, 8,27,25		19,29,39,56	
		2, 5,19, 6,29,33,34,51		9,10
54″	4,26,41,10, 4,41, 1,42, 2,16		19,29,49, 6	
		2, 5,19, 6,10, 3,45,45		9,10
56″	4,26,43,15,23,47,11,45,48, 1		19,29,58,16	
		2, 5,19, 5,50,33,47,29		9,10
58″	4,26,45,20,42,53, 2,19,35,30		19,30, 7,26	
		2, 5,19, 5,31, 3,40, 3		
60″	4,26,47,26, 1,58,33,23,15,33			
exact	4,26,47,26, 1,58,33,23,34, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°15′ 0″	4,26,47,26, 1,58,33,23,34, 8			
		2, 5,19, 5,11,33,25,29		
2″	4,26,49,31,21, 3,44,56,59,37		19,30,25,37	
		2, 5,19, 4,52, 2,59,52		9,10
4″	4,26,51,36,40, 8,36,59,59,29		19,30,34,47	
		2, 5,19, 4,32,32,25, 5		9,10
6″	4,26,53,41,59,13, 9,32,24,34		19,30,43,57	
		2, 5,19, 4,13, 1,41, 8		9,10
8″	4,26,55,47,18,17,22,34, 5,42		19,30,53, 7	
		2, 5,19, 3,53,30,48, 1		9,10
10″	4,26,57,52,37,21,16, 4,53,43		19,31, 2,17	
		2, 5,19, 3,33,59,45,44		9,10
12″	4,26,59,57,56,24,50, 4,39,27		19,31,11,27	
		2, 5,19, 3,14,28,34,17		9,10
14″	4,27, 2, 3,15,28, 4,33,13,44		19,31,20,37	
		2, 5,19, 2,54,57,13,40		9,10
16″	4,27, 4, 8,34,30,59,30,27,24		19,31,29,47	
		2, 5,19, 2,35,25,43,53		9,10
18″	4,27, 6,13,53,33,34,56,11,17		19,31,38,57	
		2, 5,19, 2,15,54, 4,56		9,10
20″	4,27, 8,19,12,35,50,50,16,13		19,31,48, 7	
		2, 5,19, 1,56,22,16,49		9,10
22″	4,27,10,24,31,37,47,12,33, 2		19,31,57,17	
		2, 5,19, 1,36,50,19,32		9,10
24″	4,27,12,29,50,39,24, 2,52,34		19,32, 6,27	
		2, 5,19, 1,17,18,13, 5		9,10
26″	4,27,14,35, 9,40,41,21, 5,39		19,32,15,37	
		2, 5,19, 0,57,45,57,28		9,10
28″	4,27,16,40,28,41,39, 7, 3, 7		19,32,24,47	
		2, 5,19, 0,38,13,32,41		9,10
30″	4,27,18,45,47,42,17,20,35,48		19,32,33,57	
		2, 5,19, 0,18,40,58,44		9,10
32″	4,27,20,51, 6,42,36, 1,34,32		19,32,43, 7	
		2, 5,18,59,59, 8,15,37		9,10
34″	4,27,22,56,25,42,35, 9,50, 9		19,32,52,17	
		2, 5,18,59,39,35,23,20		9,10
36″	4,27,25, 1,44,42,14,45,13,29		19,33, 1,27	
		2, 5,18,59,20, 2,21,53		9,10
38″	4,27,27, 7, 3,41,34,47,35,22		19,33,10,37	
		2, 5,18,59, 0,29,11,16		9,10
40″	4,27,29,12,22,40,35,16,46,38		19,33,19,47	
		2, 5,18,58,40,55,51,29		9,10
42″	4,27,31,17,41,39,16,12,38, 7		19,33,28,57	
		2, 5,18,58,21,22,22,32		9,10
44″	4,27,33,23, 0,37,37,35, 0,39		19,33,38, 7	
		2, 5,18,58, 1,48,44,25		9,10
46″	4,27,35,28,19,35,39,23,45, 4		19,33,47,17	
		2, 5,18,57,42,14,57, 8		9,10
48″	4,27,37,33,38,33,21,38,42,12		19,33,56,27	
		2, 5,18,57,22,41, 0,41		9,10
50″	4,27,39,38,57,30,44,19,42,53		19,34, 5,37	
		2, 5,18,57, 3, 6,55, 4		9,10
52″	4,27,41,44,16,27,47,26,37,57		19,34,14,47	
		2, 5,18,56,43,32,40,17		9,10
54″	4,27,43,49,35,24,30,59,18,14		19,34,23,57	
		2, 5,18,56,23,58,16,20		9,10
56″	4,27,45,54,54,20,54,57,34,34		19,34,33, 7	
		2, 5,18,56, 4,23,43,13		9,10
58″	4,27,48, 0,13,16,59,21,17,47		19,34,42,17	
		2, 5,18,55,44,49, 0,56		
60″	4,27,50, 5,32,12,44,10,18,43			
exact	4,27,50, 5,32,12,44,10,35,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°16′ 0″	4,27,50, 5,32,12,44,10,35,31			
		2, 5,18,55,25,14,11,25		
2″	4,27,52,10,51, 8, 9,24,46,56		19,35, 0,28	
		2, 5,18,55, 5,39,10,57		9,10
4″	4,27,54,16,10, 3,15, 3,57,53		19,35, 9,38	
		2, 5,18,54,46, 4, 1,19		9,10
6″	4,27,56,21,28,58, 1, 7,59,12		19,35,18,48	
		2, 5,18,54,26,28,42,31		9,10
8″	4,27,58,26,47,52,27,36,41,43		19,35,27,58	
		2, 5,18,54, 6,53,14,33		9,10
10″	4,28, 0,32, 6,46,34,29,56,16		19,35,37, 8	
		2, 5,18,53,47,17,37,25		9,10
12″	4,28, 2,37,25,40,21,47,33,41		19,35,46,18	
		2, 5,18,53,27,41,51, 7		9,10
14″	4,28, 4,42,44,33,49,29,24,48		19,35,55,28	
		2, 5,18,53, 8, 5,55,39		9,10
16″	4,28, 6,48, 3,26,57,35,20,27		19,36, 4,38	
		2, 5,18,52,48,29,51, 1		9,10
18″	4,28, 8,53,22,19,46, 5,11,28		19,36,13,48	
		2, 5,18,52,28,53,37,13		9,10
20″	4,28,10,58,41,12,14,58,48,41		19,36,22,58	
		2, 5,18,52, 9,17,14,15		9,10
22″	4,28,13, 4, 0, 4,24,16, 2,56		19,36,32, 8	
		2, 5,18,51,49,40,42, 7		9,10
24″	4,28,15, 9,18,56,13,56,45, 3		19,36,41,18	
		2, 5,18,51,30, 4, 0,49		9,10
26″	4,28,17,14,37,47,44, 0,45,52		19,36,50,28	
		2, 5,18,51,10,27,10,21		9,10
28″	4,28,19,19,56,38,54,27,56,13		19,36,59,38	
		2, 5,18,50,50,50,10,43		9,10
30″	4,28,21,25,15,29,45,18, 6,56		19,37, 8,48	
		2, 5,18,50,31,13, 1,55		9,10
32″	4,28,23,30,34,20,16,31, 8,51		19,37,17,58	
		2, 5,18,50,11,35,43,57		9,10
34″	4,28,25,35,53,10,28, 6,52,48		19,37,27, 8	
		2, 5,18,49,51,58,16,49		9,10
36″	4,28,27,41,12, 0,20, 5, 9,37		19,37,36,18	
		2, 5,18,49,32,20,40,31		9,10
38″	4,28,29,46,30,49,52,25,50, 8		19,37,45,28	
		2, 5,18,49,12,42,55, 3		9,10
40″	4,28,31,51,49,39, 5, 8,45,11		19,37,54,38	
		2, 5,18,48,53, 5, 0,25		9,10
42″	4,28,33,57, 8,27,58,13,45,36		19,38, 3,48	
		2, 5,18,48,33,26,56,37		9,10
44″	4,28,36, 2,27,16,31,40,42,13		19,38,12,58	
		2, 5,18,48,13,48,43,39		9,10
46″	4,28,38, 7,46, 4,45,29,25,52		19,38,22, 8	
		2, 5,18,47,54,10,21,31		9,10
48″	4,28,40,13, 4,52,39,39,47,23		19,38,31,18	
		2, 5,18,47,34,31,50,13		9,10
50″	4,28,42,18,23,40,14,11,37,36		19,38,40,28	
		2, 5,18,47,14,53, 9,45		9,10
52″	4,28,44,23,42,27,29, 4,47,21		19,38,49,38	
		2, 5,18,46,55,14,20, 7		9,10
54″	4,28,46,29, 1,14,24,19, 7,28		19,38,58,48	
		2, 5,18,46,35,35,21,19		9,10
56″	4,28,48,34,20, 0,59,54,28,47		19,39, 7,58	
		2, 5,18,46,15,56,13,21		9,10
58″	4,28,50,39,38,47,15,50,42, 8		19,39,17, 8	
		2, 5,18,45,56,16,56,13		
60″	4,28,52,44,57,33,12, 7,38,21			
exact	4,28,52,44,57,33,12, 7,55,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°17′ 0″	4,28,52,44,57,33,12, 7,55,57			
		2, 5,18,45,36,37,31,56		
2″	4,28,54,50,16,18,48,45,27,53		19,39,35,19	
		2, 5,18,45,16,57,56,37		9,10
4″	4,28,56,55,35, 4, 5,43,24,30		19,39,44,29	
		2, 5,18,44,57,18,12, 8		9,10
6″	4,28,59, 0,53,49, 3, 1,36,38		19,39,53,39	
		2, 5,18,44,37,38,18,29		9,10
8″	4,29, 1, 6,12,33,40,39,55, 7		19,40, 2,49	
		2, 5,18,44,17,58,15,40		9,10
10″	4,29, 3,11,31,17,58,38,10,47		19,40,11,59	
		2, 5,18,43,58,18, 3,41		9,10
12″	4,29, 5,16,50, 1,56,56,14,28		19,40,21, 9	
		2, 5,18,43,38,37,42,32		9,10
14″	4,29, 7,22, 8,45,35,33,57, 0		19,40,30,19	
		2, 5,18,43,18,57,12,13		9,10
16″	4,29, 9,27,27,28,54,31, 9,13		19,40,39,29	
		2, 5,18,42,59,16,32,44		9,10
18″	4,29,11,32,46,11,53,47,41,57		19,40,48,39	
		2, 5,18,42,39,35,44, 5		9,10
20″	4,29,13,38, 4,54,33,23,26, 2		19,40,57,49	
		2, 5,18,42,19,54,46,16		9,10
22″	4,29,15,43,23,36,53,18,12,18		19,41, 6,59	
		2, 5,18,42, 0,13,39,17		9,10
24″	4,29,17,48,42,18,53,31,51,35		19,41,16, 9	
		2, 5,18,41,40,32,23, 8		9,10
26″	4,29,19,54, 1, 0,34, 4,14,43		19,41,25,19	
		2, 5,18,41,20,50,57,49		9,10
28″	4,29,21,59,19,41,54,55,12,32		19,41,34,29	
		2, 5,18,41, 1, 9,23,20		9,10
30″	4,29,24, 4,38,22,56, 4,35,52		19,41,43,39	
		2, 5,18,40,41,27,39,41		9,10
32″	4,29,26, 9,57, 3,37,32,15,33		19,41,52,49	
		2, 5,18,40,21,45,46,52		9,10
34″	4,29,28,15,15,43,59,18, 2,25		19,42, 1,59	
		2, 5,18,40, 2, 3,44,53		9,10
36″	4,29,30,20,34,24, 1,21,47,18		19,42,11, 9	
		2, 5,18,39,42,21,33,44		9,10
38″	4,29,32,25,53, 3,43,43,21, 2		19,42,20,19	
		2, 5,18,39,22,39,13,25		9,10
40″	4,29,34,31,11,43, 6,22,34,27		19,42,29,29	
		2, 5,18,39, 2,56,43,56		9,10
42″	4,29,36,36,30,22, 9,19,18,23		19,42,38,39	
		2, 5,18,38,43,14, 5,17		9,10
44″	4,29,38,41,49, 0,52,33,23,40		19,42,47,49	
		2, 5,18,38,23,31,17,28		9,10
46″	4,29,40,47, 7,39,16, 4,41, 8		19,42,56,59	
		2, 5,18,38, 3,48,20,29		9,10
48″	4,29,42,52,26,17,19,53, 1,37		19,43, 6, 9	
		2, 5,18,37,44, 5,14,20		9,10
50″	4,29,44,57,44,55, 3,58,15,57		19,43,15,19	
		2, 5,18,37,24,21,59, 1		9,10
52″	4,29,47, 3, 3,32,28,20,14,58		19,43,24,29	
		2, 5,18,37, 4,38,34,32		9,10
54″	4,29,49, 8,22, 9,32,58,49,30		19,43,33,39	
		2, 5,18,36,44,55, 0,53		9,10
56″	4,29,51,13,40,46,17,53,50,23		19,43,42,49	
		2, 5,18,36,25,11,18, 4		9,10
58″	4,29,53,18,59,22,43, 5, 8,27		19,43,51,59	
		2, 5,18,36, 5,27,26, 5		
60″	4,29,55,24,17,58,48,32,34,32			
exact	4,29,55,24,17,58,48,32,55,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°18′ 0″	4,29,55,24,17,58,48,32,55,22			
		2, 5,18,35,45,43,27,12		
2″	4,29,57,29,36,34,34,16,22,34		19,44,10, 9	
		2, 5,18,35,25,59,17, 3		9,10
4″	4,29,59,34,55,10, 0,15,39,37		19,44,19,19	
		2, 5,18,35, 6,14,57,44		9,10
6″	4,30, 1,40,13,45, 6,30,37,21		19,44,28,29	
		2, 5,18,34,46,30,29,15		9,10
8″	4,30, 3,45,32,19,53, 1, 6,36		19,44,37,39	
		2, 5,18,34,26,45,51,36		9,10
10″	4,30, 5,50,50,54,19,46,58,12		19,44,46,49	
		2, 5,18,34, 7, 1, 4,47		9,10
12″	4,30, 7,56, 9,28,26,48, 2,59		19,44,55,59	
		2, 5,18,33,47,16, 8,48		9,10
14″	4,30,10, 1,28, 2,14, 4,11,47		19,45, 5, 9	
		2, 5,18,33,27,31, 3,39		9,10
16″	4,30,12, 6,46,35,41,35,15,26		19,45,14,19	
		2, 5,18,33, 7,45,49,20		9,10
18″	4,30,14,12, 5, 8,49,21, 4,46		19,45,23,29	
		2, 5,18,32,48, 0,25,51		9,10
20″	4,30,16,17,23,41,37,21,30,37		19,45,32,39	
		2, 5,18,32,28,14,53,12		9,10
22″	4,30,18,22,42,14, 5,36,23,49		19,45,41,49	
		2, 5,18,32, 8,29,11,23		9,10
24″	4,30,20,28, 0,46,14, 5,35,12		19,45,50,59	
		2, 5,18,31,48,43,20,24		9,10
26″	4,30,22,33,19,18, 2,48,55,36		19,46, 0, 9	
		2, 5,18,31,28,57,20,15		9,10
28″	4,30,24,38,37,49,31,46,15,51		19,46, 9,19	
		2, 5,18,31, 9,11,10,56		9,10
30″	4,30,26,43,56,20,40,57,26,47		19,46,18,29	
		2, 5,18,30,49,24,52,27		9,10
32″	4,30,28,49,14,51,30,22,19,14		19,46,27,39	
		2, 5,18,30,29,38,24,48		9,10
34″	4,30,30,54,33,22, 0, 0,44, 2		19,46,36,49	
		2, 5,18,30, 9,51,47,59		9,10
36″	4,30,32,59,51,52, 9,52,32, 1		19,46,45,59	
		2, 5,18,29,50, 5, 2, 0		9,10
38″	4,30,35, 5,10,21,59,57,34, 1		19,46,55, 9	
		2, 5,18,29,30,18, 6,51		9,10
40″	4,30,37,10,28,51,30,15,40,52		19,47, 4,19	
		2, 5,18,29,10,31, 2,32		9,10
42″	4,30,39,15,47,20,40,46,43,24		19,47,13,29	
		2, 5,18,28,50,43,49, 3		9,10
44″	4,30,41,21, 5,49,31,30,32,27		19,47,22,39	
		2, 5,18,28,30,56,26,24		9,10
46″	4,30,43,26,24,18, 2,26,58,51		19,47,31,49	
		2, 5,18,28,11, 8,54,35		9,10
48″	4,30,45,31,42,46,13,35,53,26		19,47,40,59	
		2, 5,18,27,51,21,13,36		9,10
50″	4,30,47,37, 1,14, 4,57, 7, 2		19,47,50, 9	
		2, 5,18,27,31,33,23,27		9,10
52″	4,30,49,42,19,41,36,30,30,29		19,47,59,19	
		2, 5,18,27,11,45,24, 8		9,10
54″	4,30,51,47,38, 8,48,15,54,37		19,48, 8,29	
		2, 5,18,26,51,57,15,39		9,10
56″	4,30,53,52,56,35,40,13,10,16		19,48,17,39	
		2, 5,18,26,32, 8,58, 0		9,10
58″	4,30,55,58,15, 2,12,22, 8,16		19,48,26,49	
		2, 5,18,26,12,20,31,11		
60″	4,30,58, 3,33,28,24,42,39,27			
exact	4,30,58, 3,33,28,24,42,59, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°19′ 0″	4,30,58, 3,33,28,24,42,59, 4			
		2, 5,18,25,52,31,57,25		
2″	4,31, 0, 8,51,54,17,14,56,29		19,48,44,59	
		2, 5,18,25,32,43,12,26		9,10
4″	4,31, 2,14,10,19,49,58, 8,55		19,48,54, 9	
		2, 5,18,25,12,54,18,17		9,10
6″	4,31, 4,19,28,45, 2,52,27,12		19,49, 3,19	
		2, 5,18,24,53, 5,14,58		9,10
8″	4,31, 6,24,47, 9,55,57,42,10		19,49,12,29	
		2, 5,18,24,33,16, 2,29		9,10
10″	4,31, 8,30, 5,34,29,13,44,39		19,49,21,39	
		2, 5,18,24,13,26,40,50		9,10
12″	4,31,10,35,23,58,42,40,25,29		19,49,30,49	
		2, 5,18,23,53,37,10, 1		9,10
14″	4,31,12,40,42,22,36,17,35,30		19,49,39,59	
		2, 5,18,23,33,47,30, 2		9,10
16″	4,31,14,46, 0,46,10, 5, 5,32		19,49,49, 9	
		2, 5,18,23,13,57,40,53		9,10
18″	4,31,16,51,19, 9,24, 2,46,25		19,49,58,19	
		2, 5,18,22,54, 7,42,34		9,10
20″	4,31,18,56,37,32,18,10,28,59		19,50, 7,29	
		2, 5,18,22,34,17,35, 5		9,10
22″	4,31,21, 1,55,54,52,28, 4, 4		19,50,16,39	
		2, 5,18,22,14,27,18,26		9,10
24″	4,31,23, 7,14,17, 6,55,22,30		19,50,25,49	
		2, 5,18,21,54,36,52,37		9,10
26″	4,31,25,12,32,39, 1,32,15, 7		19,50,34,59	
		2, 5,18,21,34,46,17,38		9,10
28″	4,31,27,17,51, 0,36,18,32,45		19,50,44, 9	
		2, 5,18,21,14,55,33,29		9,10
30″	4,31,29,23, 9,21,51,14, 6,14		19,50,53,19	
		2, 5,18,20,55, 4,40,10		9,10
32″	4,31,31,28,27,42,46,18,46,24		19,51, 2,29	
		2, 5,18,20,35,13,37,41		9,10
34″	4,31,33,33,46, 3,21,32,24, 5		19,51,11,39	
		2, 5,18,20,15,22,26, 2		9,10
36″	4,31,35,39, 4,23,36,54,50, 7		19,51,20,49	
		2, 5,18,19,55,31, 5,13		9,10
38″	4,31,37,44,22,43,32,25,55,20		19,51,29,59	
		2, 5,18,19,35,39,35,14		9,10
40″	4,31,39,49,41, 3, 8, 5,30,34		19,51,39, 9	
		2, 5,18,19,15,47,56, 5		9,10
42″	4,31,41,54,59,22,23,53,26,39		19,51,48,19	
		2, 5,18,18,55,56, 7,46		9,10
44″	4,31,44, 0,17,41,19,49,34,25		19,51,57,29	
		2, 5,18,18,36, 4,10,17		9,10
46″	4,31,46, 5,35,59,55,53,44,42		19,52, 6,39	
		2, 5,18,18,16,12, 3,38		9,10
48″	4,31,48,10,54,18,12, 5,48,20		19,52,15,49	
		2, 5,18,17,56,19,47,49		9,10
50″	4,31,50,16,12,36, 8,25,36, 9		19,52,24,59	
		2, 5,18,17,36,27,22,50		9,10
52″	4,31,52,21,30,53,44,52,58,59		19,52,34, 9	
		2, 5,18,17,16,34,48,41		9,10
54″	4,31,54,26,49,11, 1,27,47,40		19,52,43,19	
		2, 5,18,16,56,42, 5,22		9,10
56″	4,31,56,32, 7,27,58, 9,53, 2		19,52,52,29	
		2, 5,18,16,36,49,12,53		9,10
58″	4,31,58,37,25,44,34,59, 5,55		19,53, 1,39	
		2, 5,18,16,16,56,11,14		
60″	4,32, 0,42,44, 0,51,55,17, 9			
exact	4,32, 0,42,44, 0,51,55,37,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°20′ 0″	4,32, 0,42,44, 0,51,55,37,46			
		2, 5,18,15,57, 3, 2,44		
2″	4,32, 2,48, 2,16,48,58,40,30		19,53,19,49	
		2, 5,18,15,37, 9,42,55		9,10
4″	4,32, 4,53,20,32,26, 8,23,25		19,53,28,59	
		2, 5,18,15,17,16,13,56		9,10
6″	4,32, 6,58,38,47,43,24,37,21		19,53,38, 9	
		2, 5,18,14,57,22,35,47		9,10
8″	4,32, 9, 3,57, 2,40,47,13, 8		19,53,47,19	
		2, 5,18,14,37,28,48,28		9,10
10″	4,32,11, 9,15,17,18,16, 1,36		19,53,56,29	
		2, 5,18,14,17,34,51,59		9,10
12″	4,32,13,14,33,31,35,50,53,35		19,54, 5,39	
		2, 5,18,13,57,40,46,20		9,10
14″	4,32,15,19,51,45,33,31,39,55		19,54,14,49	
		2, 5,18,13,37,46,31,31		9,10
16″	4,32,17,25, 9,59,11,18,11,26		19,54,23,59	
		2, 5,18,13,17,52, 7,32		9,10
18″	4,32,19,30,28,12,29,10,18,58		19,54,33, 9	
		2, 5,18,12,57,57,34,23		9,10
20″	4,32,21,35,46,25,27, 7,53,21		19,54,42,19	
		2, 5,18,12,38, 2,52, 4		9,10
22″	4,32,23,41, 4,38, 5,10,45,25		19,54,51,29	
		2, 5,18,12,18, 8, 0,35		9,10
24″	4,32,25,46,22,50,23,18,46, 0		19,55, 0,39	
		2, 5,18,11,58,12,59,56		9,10
26″	4,32,27,51,41, 2,21,31,45,56		19,55, 9,49	
		2, 5,18,11,38,17,50, 7		9,10
28″	4,32,29,56,59,13,59,49,36, 3		19,55,18,59	
		2, 5,18,11,18,22,31, 8		9,10
30″	4,32,32, 2,17,25,18,12, 7,11		19,55,28, 9	
		2, 5,18,10,58,27, 2,59		9,10
32″	4,32,34, 7,35,36,16,39,10,10		19,55,37,19	
		2, 5,18,10,38,31,25,40		9,10
34″	4,32,36,12,53,46,55,10,35,50		19,55,46,29	
		2, 5,18,10,18,35,39,11		9,10
36″	4,32,38,18,11,57,13,46,15, 1		19,55,55,39	
		2, 5,18, 9,58,39,43,32		9,10
38″	4,32,40,23,30, 7,12,25,58,33		19,56, 4,49	
		2, 5,18, 9,38,43,38,43		9,10
40″	4,32,42,28,48,16,51, 9,37,16		19,56,13,59	
		2, 5,18, 9,18,47,24,44		9,10
42″	4,32,44,34, 6,26, 9,57, 2, 0		19,56,23, 9	
		2, 5,18, 8,58,51, 1,35		9,10
44″	4,32,46,39,24,35, 8,48, 3,35		19,56,32,19	
		2, 5,18, 8,38,54,29,16		9,10
46″	4,32,48,44,42,43,47,42,32,51		19,56,41,29	
		2, 5,18, 8,18,57,47,47		9,10
48″	4,32,50,50, 0,52, 6,40,20,38		19,56,50,39	
		2, 5,18, 7,59, 0,57, 8		9,10
50″	4,32,52,55,19, 0, 5,41,17,46		19,56,59,49	
		2, 5,18, 7,39, 3,57,19		9,10
52″	4,32,55, 0,37, 7,44,45,15, 5		19,57, 8,59	
		2, 5,18, 7,19, 6,48,20		9,10
54″	4,32,57, 5,55,15, 3,52, 3,25		19,57,18, 9	
		2, 5,18, 6,59, 9,30,11		9,10
56″	4,32,59,11,13,22, 3, 1,33,36		19,57,27,19	
		2, 5,18, 6,39,12, 2,52		9,10
58″	4,33, 1,16,31,28,42,13,36,28		19,57,36,29	
		2, 5,18, 6,19,14,26,23		
60″	4,33, 3,21,49,35, 1,28, 2,51			
exact	4,33, 3,21,49,35, 1,28,27,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°21′ 0″	4,33, 3,21,49,35, 1,28,27,39			
		2, 5,18, 5,59,16,43,22		
2″	4,33, 5,27, 7,41, 0,45,11, 1		19,57,54,38	
		2, 5,18, 5,39,18,48,44		9,10
4″	4,33, 7,32,25,46,40, 3,59,45		19,58, 3,48	
		2, 5,18, 5,19,20,44,56		9,10
6″	4,33, 9,37,43,51,59,24,44,41		19,58,12,58	
		2, 5,18, 4,59,22,31,58		9,10
8″	4,33,11,43, 1,56,58,47,16,39		19,58,22, 8	
		2, 5,18, 4,39,24, 9,50		9,10
10″	4,33,13,48,20, 1,38,11,26,29		19,58,31,18	
		2, 5,18, 4,19,25,38,32		9,10
12″	4,33,15,53,38, 5,57,37, 5, 1		19,58,40,28	
		2, 5,18, 3,59,26,58, 4		9,10
14″	4,33,17,58,56, 9,57, 4, 3, 5		19,58,49,38	
		2, 5,18, 3,39,28, 8,26		9,10
16″	4,33,20, 4,14,13,36,32,11,31		19,58,58,48	
		2, 5,18, 3,19,29, 9,38		9,10
18″	4,33,22, 9,32,16,56, 1,21, 9		19,59, 7,58	
		2, 5,18, 2,59,30, 1,40		9,10
20″	4,33,24,14,50,19,55,31,22,49		19,59,17, 8	
		2, 5,18, 2,39,30,44,32		9,10
22″	4,33,26,20, 8,22,35, 2, 7,21		19,59,26,18	
		2, 5,18, 2,19,31,18,14		9,10
24″	4,33,28,25,26,24,54,33,25,35		19,59,35,28	
		2, 5,18, 1,59,31,42,46		9,10
26″	4,33,30,30,44,26,54, 5, 8,21		19,59,44,38	
		2, 5,18, 1,39,31,58, 8		9,10
28″	4,33,32,36, 2,28,33,37, 6,29		19,59,53,48	
		2, 5,18, 1,19,32, 4,20		9,10
30″	4,33,34,41,20,29,53, 9,10,49		20, 0, 2,58	
		2, 5,18, 0,59,32, 1,22		9,10
32″	4,33,36,46,38,30,52,41,12,11		20, 0,12, 8	
		2, 5,18, 0,39,31,49,14		9,10
34″	4,33,38,51,56,31,32,13, 1,25		20, 0,21,18	
		2, 5,18, 0,19,31,27,56		9,10
36″	4,33,40,57,14,31,51,44,29,21		20, 0,30,28	
		2, 5,17,59,59,30,57,28		9,10
38″	4,33,43, 2,32,31,51,15,26,49		20, 0,39,38	
		2, 5,17,59,39,30,17,50		9,10
40″	4,33,45, 7,50,31,30,45,44,39		20, 0,48,48	
		2, 5,17,59,19,29,29, 2		9,10
42″	4,33,47,13, 8,30,50,15,13,41		20, 0,57,58	
		2, 5,17,58,59,28,31, 4		9,10
44″	4,33,49,18,26,29,49,43,44,45		20, 1, 7, 8	
		2, 5,17,58,39,27,23,56		9,10
46″	4,33,51,23,44,28,29,11, 8,41		20, 1,16,18	
		2, 5,17,58,19,26, 7,38		9,10
48″	4,33,53,29, 2,26,48,37,16,19		20, 1,25,28	
		2, 5,17,57,59,24,42,10		9,10
50″	4,33,55,34,20,24,48, 1,58,29		20, 1,34,38	
		2, 5,17,57,39,23, 7,32		9,10
52″	4,33,57,39,38,22,27,25, 6, 1		20, 1,43,48	
		2, 5,17,57,19,21,23,44		9,10
54″	4,33,59,44,56,19,46,46,29,45		20, 1,52,58	
		2, 5,17,56,59,19,30,46		9,10
56″	4,34, 1,50,14,16,46, 6, 0,31		20, 2, 2, 8	
		2, 5,17,56,39,17,28,38		9,10
58″	4,34, 3,55,32,13,25,23,29, 9		20, 2,11,18	
		2, 5,17,56,19,15,17,20		
60″	4,34, 6, 0,50, 9,44,38,46,29			
exact	4,34, 6, 0,50, 9,44,39,10,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°22′ 0″	4,34, 6, 0,50, 9,44,39,10,18			
		2, 5,17,55,59,12,59,28		
2″	4,34, 8, 6, 8, 5,43,52, 9,46		20, 2,29,27	
		2, 5,17,55,39,10,30, 1		9,10
4″	4,34,10,11,26, 1,23, 2,39,47		20, 2,38,37	
		2, 5,17,55,19, 7,51,24		9,10
6″	4,34,12,16,43,56,42,10,31,11		20, 2,47,47	
		2, 5,17,54,59, 5, 3,37		9,10
8″	4,34,14,22, 1,51,41,15,34,48		20, 2,56,57	
		2, 5,17,54,39, 2, 6,40		9,10
10″	4,34,16,27,19,46,20,17,41,28		20, 3, 6, 7	
		2, 5,17,54,18,59, 0,33		9,10
12″	4,34,18,32,37,40,39,16,42, 1		20, 3,15,17	
		2, 5,17,53,58,55,45,16		9,10
14″	4,34,20,37,55,34,38,12,27,17		20, 3,24,27	
		2, 5,17,53,38,52,20,49		9,10
16″	4,34,22,43,13,28,17, 4,48, 6		20, 3,33,37	
		2, 5,17,53,18,48,47,12		9,10
18″	4,34,24,48,31,21,35,53,35,18		20, 3,42,47	
		2, 5,17,52,58,45, 4,25		9,10
20″	4,34,26,53,49,14,34,38,39,43		20, 3,51,57	
		2, 5,17,52,38,41,12,28		9,10
22″	4,34,28,59, 7, 7,13,19,52,11		20, 4, 1, 7	
		2, 5,17,52,18,37,11,21		9,10
24″	4,34,31, 4,24,59,31,57, 3,32		20, 4,10,17	
		2, 5,17,51,58,33, 1, 4		9,10
26″	4,34,33, 9,42,51,30,30, 4,36		20, 4,19,27	
		2, 5,17,51,38,28,41,37		9,10
28″	4,34,35,15, 0,43, 8,58,46,13		20, 4,28,37	
		2, 5,17,51,18,24,13, 0		9,10
30″	4,34,37,20,18,34,27,22,59,13		20, 4,37,47	
		2, 5,17,50,58,19,35,13		9,10
32″	4,34,39,25,36,25,25,42,34,26		20, 4,46,57	
		2, 5,17,50,38,14,48,16		9,10
34″	4,34,41,30,54,16, 3,57,22,42		20, 4,56, 7	
		2, 5,17,50,18, 9,52, 9		9,10
36″	4,34,43,36,12, 6,22, 7,14,51		20, 5, 5,17	
		2, 5,17,49,58, 4,46,52		9,10
38″	4,34,45,41,29,56,20,12, 1,43		20, 5,14,27	
		2, 5,17,49,37,59,32,25		9,10
40″	4,34,47,46,47,45,58,11,34, 8		20, 5,23,37	
		2, 5,17,49,17,54, 8,48		9,10
42″	4,34,49,52, 5,35,16, 5,42,56		20, 5,32,47	
		2, 5,17,48,57,48,36, 1		9,10
44″	4,34,51,57,23,24,13,54,18,57		20, 5,41,57	
		2, 5,17,48,37,42,54, 4		9,10
46″	4,34,54, 2,41,12,51,37,13, 1		20, 5,51, 7	
		2, 5,17,48,17,37, 2,57		9,10
48″	4,34,56, 7,59, 1, 9,14,15,58		20, 6, 0,17	
		2, 5,17,47,57,31, 2,40		9,10
50″	4,34,58,13,16,49, 6,45,18,38		20, 6, 9,27	
		2, 5,17,47,37,24,53,13		9,10
52″	4,35, 0,18,34,36,44,10,11,51		20, 6,18,37	
		2, 5,17,47,17,18,34,36		9,10
54″	4,35, 2,23,52,24, 1,28,46,27		20, 6,27,47	
		2, 5,17,46,57,12, 6,49		9,10
56″	4,35, 4,29,10,10,58,40,53,16		20, 6,36,57	
		2, 5,17,46,37, 5,29,52		9,10
58″	4,35, 6,34,27,57,35,46,23, 8		20, 6,46, 7	
		2, 5,17,46,16,58,43,45		
60″	4,35, 8,39,45,43,52,45, 6,53			
exact	4,35, 8,39,45,43,52,45,32,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°23′ 0″	4,35, 8,39,45,43,52,45,32,48			
		2, 5,17,45,56,51,51,14		
2″	4,35,10,45, 3,29,49,37,24, 2		20, 7, 4,15	
		2, 5,17,45,36,44,46,59		9,10
4″	4,35,12,50,21,15,26,22,11, 1		20, 7,13,25	
		2, 5,17,45,16,37,33,34		9,10
6″	4,35,14,55,39, 0,42,59,44,35		20, 7,22,35	
		2, 5,17,44,56,30,10,59		9,10
8″	4,35,17, 0,56,45,39,29,55,34		20, 7,31,45	
		2, 5,17,44,36,22,39,14		9,10
10″	4,35,19, 6,14,30,15,52,34,48		20, 7,40,55	
		2, 5,17,44,16,14,58,19		9,10
12″	4,35,21,11,32,14,32, 7,33, 7		20, 7,50, 5	
		2, 5,17,43,56, 7, 8,14		9,10
14″	4,35,23,16,49,58,28,14,41,21		20, 7,59,15	
		2, 5,17,43,35,59, 8,59		9,10
16″	4,35,25,22, 7,42, 4,13,50,20		20, 8, 8,25	
		2, 5,17,43,15,51, 0,34		9,10
18″	4,35,27,27,25,25,20, 4,50,54		20, 8,17,35	
		2, 5,17,42,55,42,42,59		9,10
20″	4,35,29,32,43, 8,15,47,33,53		20, 8,26,45	
		2, 5,17,42,35,34,16,14		9,10
22″	4,35,31,38, 0,50,51,21,50, 7		20, 8,35,55	
		2, 5,17,42,15,25,40,19		9,10
24″	4,35,33,43,18,33, 6,47,30,26		20, 8,45, 5	
		2, 5,17,41,55,16,55,14		9,10
26″	4,35,35,48,36,15, 2, 4,25,40		20, 8,54,15	
		2, 5,17,41,35, 8, 0,59		9,10
28″	4,35,37,53,53,56,37,12,26,39		20, 9, 3,25	
		2, 5,17,41,14,58,57,34		9,10
30″	4,35,39,59,11,37,52,11,24,13		20, 9,12,35	
		2, 5,17,40,54,49,44,59		9,10
32″	4,35,42, 4,29,18,47, 1, 9,12		20, 9,21,45	
		2, 5,17,40,34,40,23,14		9,10
34″	4,35,44, 9,46,59,21,41,32,26		20, 9,30,55	
		2, 5,17,40,14,30,52,19		9,10
36″	4,35,46,15, 4,39,36,12,24,45		20, 9,40, 5	
		2, 5,17,39,54,21,12,14		9,10
38″	4,35,48,20,22,19,30,33,36,59		20, 9,49,15	
		2, 5,17,39,34,11,22,59		9,10
40″	4,35,50,25,39,59, 4,44,59,58		20, 9,58,25	
		2, 5,17,39,14, 1,24,34		9,10
42″	4,35,52,30,57,38,18,46,24,32		20,10, 7,35	
		2, 5,17,38,53,51,16,59		9,10
44″	4,35,54,36,15,17,12,37,41,31		20,10,16,45	
		2, 5,17,38,33,41, 0,14		9,10
46″	4,35,56,41,32,55,46,18,41,45		20,10,25,55	
		2, 5,17,38,13,30,34,19		9,10
48″	4,35,58,46,50,33,59,49,16, 4		20,10,35, 5	
		2, 5,17,37,53,19,59,14		9,10
50″	4,36, 0,52, 8,11,53, 9,15,18		20,10,44,15	
		2, 5,17,37,33, 9,14,59		9,10
52″	4,36, 2,57,25,49,26,18,30,17		20,10,53,25	
		2, 5,17,37,12,58,21,34		9,10
54″	4,36, 5, 2,43,26,39,16,51,51		20,11, 2,35	
		2, 5,17,36,52,47,18,59		9,10
56″	4,36, 7, 8, 1, 3,32, 4,10,50		20,11,11,45	
		2, 5,17,36,32,36, 7,14		9,10
58″	4,36, 9,13,18,40, 4,40,18, 4		20,11,20,55	
		2, 5,17,36,12,24,46,19		
60″	4,36,11,18,36,16,17, 5, 4,23			
exact	4,36,11,18,36,16,17, 5,27,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°24′ 0″	4,36,11,18,36,16,17, 5,27,44			
		2, 5,17,35,52,13,18,52		
2″	4,36,13,23,53,52, 9,18,46,36		20,11,39, 4	
		2, 5,17,35,32, 1,39,48		9,10
4″	4,36,15,29,11,27,41,20,26,24		20,11,48,14	
		2, 5,17,35,11,49,51,34		9,10
6″	4,36,17,34,29, 2,53,10,17,58		20,11,57,24	
		2, 5,17,34,51,37,54,10		9,10
8″	4,36,19,39,46,37,44,48,12, 8		20,12, 6,34	
		2, 5,17,34,31,25,47,36		9,10
10″	4,36,21,45, 4,12,16,13,59,44		20,12,15,44	
		2, 5,17,34,11,13,31,52		9,10
12″	4,36,23,50,21,46,27,27,31,36		20,12,24,54	
		2, 5,17,33,51, 1, 6,58		9,10
14″	4,36,25,55,39,20,18,28,38,34		20,12,34, 4	
		2, 5,17,33,30,48,32,54		9,10
16″	4,36,28, 0,56,53,49,17,11,28		20,12,43,14	
		2, 5,17,33,10,35,49,40		9,10
18″	4,36,30, 6,14,26,59,53, 1, 8		20,12,52,24	
		2, 5,17,32,50,22,57,16		9,10
20″	4,36,32,11,31,59,50,15,58,24		20,13, 1,34	
		2, 5,17,32,30, 9,55,42		9,10
22″	4,36,34,16,49,32,20,25,54, 6		20,13,10,44	
		2, 5,17,32, 9,56,44,58		9,10
24″	4,36,36,22, 7, 4,30,22,39, 4		20,13,19,54	
		2, 5,17,31,49,43,25, 4		9,10
26″	4,36,38,27,24,36,20, 6, 4, 8		20,13,29, 4	
		2, 5,17,31,29,29,56, 0		9,10
28″	4,36,40,32,42, 7,49,36, 0, 8		20,13,38,14	
		2, 5,17,31, 9,16,17,46		9,10
30″	4,36,42,37,59,38,58,52,17,54		20,13,47,24	
		2, 5,17,30,49, 2,30,22		9,10
32″	4,36,44,43,17, 9,47,54,48,16		20,13,56,34	
		2, 5,17,30,28,48,33,48		9,10
34″	4,36,46,48,34,40,16,43,22, 4		20,14, 5,44	
		2, 5,17,30, 8,34,28, 4		9,10
36″	4,36,48,53,52,10,25,17,50, 8		20,14,14,54	
		2, 5,17,29,48,20,13,10		9,10
38″	4,36,50,59, 9,40,13,38, 3,18		20,14,24, 4	
		2, 5,17,29,28, 5,49, 6		9,10
40″	4,36,53, 4,27, 9,41,43,52,24		20,14,33,14	
		2, 5,17,29, 7,51,15,52		9,10
42″	4,36,55, 9,44,38,49,35, 8,16		20,14,42,24	
		2, 5,17,28,47,36,33,28		9,10
44″	4,36,57,15, 2, 7,37,11,41,44		20,14,51,34	
		2, 5,17,28,27,21,41,54		9,10
46″	4,36,59,20,19,36, 4,33,23,38		20,15, 0,44	
		2, 5,17,28, 7, 6,41,10		9,10
48″	4,37, 1,25,37, 4,11,40, 4,48		20,15, 9,54	
		2, 5,17,27,46,51,31,16		9,10
50″	4,37, 3,30,54,31,58,31,36, 4		20,15,19, 4	
		2, 5,17,27,26,36,12,12		9,10
52″	4,37, 5,36,11,59,25, 7,48,16		20,15,28,14	
		2, 5,17,27, 6,20,43,58		9,10
54″	4,37, 7,41,29,26,31,28,32,14		20,15,37,24	
		2, 5,17,26,46, 5, 6,34		9,10
56″	4,37, 9,46,46,53,17,33,38,48		20,15,46,34	
		2, 5,17,26,25,49,20, 0		9,10
58″	4,37,11,52, 4,19,43,22,58,48		20,15,55,44	
		2, 5,17,26, 5,33,24,16		
60″	4,37,13,57,21,45,48,56,23, 4			
exact	4,37,13,57,21,45,48,56,53,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°25′ 0″	4,37,13,57,21,45,48,56,53,12			
		2, 5,17,25,45,17,22,30		
2″	4,37,16, 2,39,11,34,14,15,42		20,16,13,51	
		2, 5,17,25,25, 1, 8,39		9,10
4″	4,37,18, 7,56,36,59,15,24,21		20,16,23, 1	
		2, 5,17,25, 4,44,45,38		9,10
6″	4,37,20,13,14, 2, 4, 0, 9,59		20,16,32,11	
		2, 5,17,24,44,28,13,27		9,10
8″	4,37,22,18,31,26,48,28,23,26		20,16,41,21	
		2, 5,17,24,24,11,32, 6		9,10
10″	4,37,24,23,48,51,12,39,55,32		20,16,50,31	
		2, 5,17,24, 3,54,41,35		9,10
12″	4,37,26,29, 6,15,16,34,37, 7		20,16,59,41	
		2, 5,17,23,43,37,41,54		9,10
14″	4,37,28,34,23,39, 0,12,19, 1		20,17, 8,51	
		2, 5,17,23,23,20,33, 3		9,10
16″	4,37,30,39,41, 2,23,32,52, 4		20,17,18, 1	
		2, 5,17,23, 3, 3,15, 2		9,10
18″	4,37,32,44,58,25,26,36, 7, 6		20,17,27,11	
		2, 5,17,22,42,45,47,51		9,10
20″	4,37,34,50,15,48, 9,21,54,57		20,17,36,21	
		2, 5,17,22,22,28,11,30		9,10
22″	4,37,36,55,33,10,31,50, 6,27		20,17,45,31	
		2, 5,17,22, 2,10,25,59		9,10
24″	4,37,39, 0,50,32,34, 0,32,26		20,17,54,41	
		2, 5,17,21,41,52,31,18		9,10
26″	4,37,41, 6, 7,54,15,53, 3,44		20,18, 3,51	
		2, 5,17,21,21,34,27,27		9,10
28″	4,37,43,11,25,15,37,27,31,11		20,18,13, 1	
		2, 5,17,21, 1,16,14,26		9,10
30″	4,37,45,16,42,36,38,43,45,37		20,18,22,11	
		2, 5,17,20,40,57,52,15		9,10
32″	4,37,47,21,59,57,19,41,37,52		20,18,31,21	
		2, 5,17,20,20,39,20,54		9,10
34″	4,37,49,27,17,17,40,20,58,46		20,18,40,31	
		2, 5,17,20, 0,20,40,23		9,10
36″	4,37,51,32,34,37,40,41,39, 9		20,18,49,41	
		2, 5,17,19,40, 1,50,42		9,10
38″	4,37,53,37,51,57,20,43,29,51		20,18,58,51	
		2, 5,17,19,19,42,51,51		9,10
40″	4,37,55,43, 9,16,40,26,21,42		20,19, 8, 1	
		2, 5,17,18,59,23,43,50		9,10
42″	4,37,57,48,26,35,39,50, 5,32		20,19,17,11	
		2, 5,17,18,39, 4,26,39		9,10
44″	4,37,59,53,43,54,18,54,32,11		20,19,26,21	
		2, 5,17,18,18,45, 0,18		9,10
46″	4,38, 1,59, 1,12,37,39,32,29		20,19,35,31	
		2, 5,17,17,58,25,24,47		9,10
48″	4,38, 4, 4,18,30,36, 4,57,16		20,19,44,41	
		2, 5,17,17,38, 5,40, 6		9,10
50″	4,38, 6, 9,35,48,14,10,37,22		20,19,53,51	
		2, 5,17,17,17,45,46,15		9,10
52″	4,38, 8,14,53, 5,31,56,23,37		20,20, 3, 1	
		2, 5,17,16,57,25,43,14		9,10
54″	4,38,10,20,10,22,29,22, 6,51		20,20,12,11	
		2, 5,17,16,37, 5,31, 3		9,10
56″	4,38,12,25,27,39, 6,27,37,54		20,20,21,21	
		2, 5,17,16,16,45, 9,42		9,10
58″	4,38,14,30,44,55,23,12,47,36		20,20,30,31	
		2, 5,17,15,56,24,39,11		
60″	4,38,16,36, 2,11,19,37,26,47			
exact	4,38,16,36, 2,11,19,37,52,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°26′ 0″	4,38,16,36, 2,11,19,37,52,48			
		2, 5,17,15,36, 4, 2,22		
2″	4,38,18,41,19,26,55,41,55,10		20,20,48,39	
		2, 5,17,15,15,43,13,43		9,10
4″	4,38,20,46,36,42,11,25, 8,53		20,20,57,49	
		2, 5,17,14,55,22,15,54		9,10
6″	4,38,22,51,53,57, 6,47,24,47		20,21, 6,59	
		2, 5,17,14,35, 1, 8,55		9,10
8″	4,38,24,57,11,11,41,48,33,42		20,21,16, 9	
		2, 5,17,14,14,39,52,46		9,10
10″	4,38,27, 2,28,25,56,28,26,28		20,21,25,19	
		2, 5,17,13,54,18,27,27		9,10
12″	4,38,29, 7,45,39,50,46,53,55		20,21,34,29	
		2, 5,17,13,33,56,52,58		9,10
14″	4,38,31,13, 2,53,24,43,46,53		20,21,43,39	
		2, 5,17,13,13,35, 9,19		9,10
16″	4,38,33,18,20, 6,38,18,56,12		20,21,52,49	
		2, 5,17,12,53,13,16,30		9,10
18″	4,38,35,23,37,19,31,32,12,42		20,22, 1,59	
		2, 5,17,12,32,51,14,31		9,10
20″	4,38,37,28,54,32, 4,23,27,13		20,22,11, 9	
		2, 5,17,12,12,29, 3,22		9,10
22″	4,38,39,34,11,44,16,52,30,35		20,22,20,19	
		2, 5,17,11,52, 6,43, 3		9,10
24″	4,38,41,39,28,56, 8,59,13,38		20,22,29,29	
		2, 5,17,11,31,44,13,34		9,10
26″	4,38,43,44,46, 7,40,43,27,12		20,22,38,39	
		2, 5,17,11,11,21,34,55		9,10
28″	4,38,45,50, 3,18,52, 5, 2, 7		20,22,47,49	
		2, 5,17,10,50,58,47, 6		9,10
30″	4,38,47,55,20,29,43, 3,49,13		20,22,56,59	
		2, 5,17,10,30,35,50, 7		9,10
32″	4,38,50, 0,37,40,13,39,39,20		20,23, 6, 9	
		2, 5,17,10,10,12,43,58		9,10
34″	4,38,52, 5,54,50,23,52,23,18		20,23,15,19	
		2, 5,17, 9,49,49,28,39		9,10
36″	4,38,54,11,12, 0,13,41,51,57		20,23,24,29	
		2, 5,17, 9,29,26, 4,10		9,10
38″	4,38,56,16,29, 9,43, 7,56, 7		20,23,33,39	
		2, 5,17, 9, 9, 2,30,31		9,10
40″	4,38,58,21,46,18,52,10,26,38		20,23,42,49	
		2, 5,17, 8,48,38,47,42		9,10
42″	4,39, 0,27, 3,27,40,49,14,20		20,23,51,59	
		2, 5,17, 8,28,14,55,43		9,10
44″	4,39, 2,32,20,36, 9, 4,10, 3		20,24, 1, 9	
		2, 5,17, 8, 7,50,54,34		9,10
46″	4,39, 4,37,37,44,16,55, 4,37		20,24,10,19	
		2, 5,17, 7,47,26,44,15		9,10
48″	4,39, 6,42,54,52, 4,21,48,52		20,24,19,29	
		2, 5,17, 7,27, 2,24,46		9,10
50″	4,39, 8,48,11,59,31,24,13,38		20,24,28,39	
		2, 5,17, 7, 6,37,56, 7		9,10
52″	4,39,10,53,29, 6,38, 2, 9,45		20,24,37,49	
		2, 5,17, 6,46,13,18,18		9,10
54″	4,39,12,58,46,13,24,15,28, 3		20,24,46,59	
		2, 5,17, 6,25,48,31,19		9,10
56″	4,39,15, 4, 3,19,50, 3,59,22		20,24,56, 9	
		2, 5,17, 6, 5,23,35,10		9,10
58″	4,39,17, 9,20,25,55,27,34,32		20,25, 5,19	
		2, 5,17, 5,44,58,29,51		
60″	4,39,19,14,37,31,40,26, 4,23			
exact	4,39,19,14,37,31,40,26,35,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°27′ 0″	4,39,19,14,37,31,40,26,35,44			
		2, 5,17, 5,24,33,18,38		
2″	4,39,21,19,54,37, 4,59,54,22		20,25,23,26	
		2, 5,17, 5, 4, 7,55,12		9,10
4″	4,39,23,25,11,42, 9, 7,49,34		20,25,32,36	
		2, 5,17, 4,43,42,22,36		9,10
6″	4,39,25,30,28,46,52,50,12,10		20,25,41,46	
		2, 5,17, 4,23,16,40,50		9,10
8″	4,39,27,35,45,51,16, 6,53, 0		20,25,50,56	
		2, 5,17, 4, 2,50,49,54		9,10
10″	4,39,29,41, 2,55,18,57,42,54		20,26, 0, 6	
		2, 5,17, 3,42,24,49,48		9,10
12″	4,39,31,46,19,59, 1,22,32,42		20,26, 9,16	
		2, 5,17, 3,21,58,40,32		9,10
14″	4,39,33,51,37, 2,23,21,13,14		20,26,18,26	
		2, 5,17, 3, 1,32,22, 6		9,10
16″	4,39,35,56,54, 5,24,53,35,20		20,26,27,36	
		2, 5,17, 2,41, 5,54,30		9,10
18″	4,39,38, 2,11, 8, 5,59,29,50		20,26,36,46	
		2, 5,17, 2,20,39,17,44		9,10
20″	4,39,40, 7,28,10,26,38,47,34		20,26,45,56	
		2, 5,17, 2, 0,12,31,48		9,10
22″	4,39,42,12,45,12,26,51,19,22		20,26,55, 6	
		2, 5,17, 1,39,45,36,42		9,10
24″	4,39,44,18, 2,14, 6,36,56, 4		20,27, 4,16	
		2, 5,17, 1,19,18,32,26		9,10
26″	4,39,46,23,19,15,25,55,28,30		20,27,13,26	
		2, 5,17, 0,58,51,19, 0		9,10
28″	4,39,48,28,36,16,24,46,47,30		20,27,22,36	
		2, 5,17, 0,38,23,56,24		9,10
30″	4,39,50,33,53,17, 3,10,43,54		20,27,31,46	
		2, 5,17, 0,17,56,24,38		9,10
32″	4,39,52,39,10,17,21, 7, 8,32		20,27,40,56	
		2, 5,16,59,57,28,43,42		9,10
34″	4,39,54,44,27,17,18,35,52,14		20,27,50, 6	
		2, 5,16,59,37, 0,53,36		9,10
36″	4,39,56,49,44,16,55,36,45,50		20,27,59,16	
		2, 5,16,59,16,32,54,20		9,10
38″	4,39,58,55, 1,16,12, 9,40,10		20,28, 8,26	
		2, 5,16,58,56, 4,45,54		9,10
40″	4,40, 1, 0,18,15, 8,14,26, 4		20,28,17,36	
		2, 5,16,58,35,36,28,18		9,10
42″	4,40, 3, 5,35,13,43,50,54,22		20,28,26,46	
		2, 5,16,58,15, 8, 1,32		9,10
44″	4,40, 5,10,52,11,58,58,55,54		20,28,35,56	
		2, 5,16,57,54,39,25,36		9,10
46″	4,40, 7,16, 9, 9,53,38,21,30		20,28,45, 6	
		2, 5,16,57,34,10,40,30		9,10
48″	4,40, 9,21,26, 7,27,49, 2, 0		20,28,54,16	
		2, 5,16,57,13,41,46,14		9,10
50″	4,40,11,26,43, 4,41,30,48,14		20,29, 3,26	
		2, 5,16,56,53,12,42,48		9,10
52″	4,40,13,32, 0, 1,34,43,31, 2		20,29,12,36	
		2, 5,16,56,32,43,30,12		9,10
54″	4,40,15,37,16,58, 7,27, 1,14		20,29,21,46	
		2, 5,16,56,12,14, 8,26		9,10
56″	4,40,17,42,33,54,19,41, 9,40		20,29,30,56	
		2, 5,16,55,51,44,37,30		9,10
58″	4,40,19,47,50,50,11,25,47,10		20,29,40, 6	
		2, 5,16,55,31,14,57,24		
60″	4,40,21,53, 7,45,42,40,44,34			
exact	4,40,21,53, 7,45,42,41,16,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°28′ 0″	4,40,21,53, 7,45,42,41,16,45			
		2, 5,16,55,10,45,11,30		
2″	4,40,23,58,24,40,53,26,28,15		20,29,58,12	
		2, 5,16,54,50,15,13,18		9,10
4″	4,40,26, 3,41,35,43,41,41,33		20,30, 7,22	
		2, 5,16,54,29,45, 5,56		9,10
6″	4,40,28, 8,58,30,13,26,47,29		20,30,16,32	
		2, 5,16,54, 9,14,49,24		9,10
8″	4,40,30,14,15,24,22,41,36,53		20,30,25,42	
		2, 5,16,53,48,44,23,42		9,10
10″	4,40,32,19,32,18,11,26, 0,35		20,30,34,52	
		2, 5,16,53,28,13,48,50		9,10
12″	4,40,34,24,49,11,39,39,49,25		20,30,44, 2	
		2, 5,16,53, 7,43, 4,48		9,10
14″	4,40,36,30, 6, 4,47,22,54,13		20,30,53,12	
		2, 5,16,52,47,12,11,36		9,10
16″	4,40,38,35,22,57,34,35, 5,49		20,31, 2,22	
		2, 5,16,52,26,41, 9,14		9,10
18″	4,40,40,40,39,50, 1,16,15, 3		20,31,11,32	
		2, 5,16,52, 6, 9,57,42		9,10
20″	4,40,42,45,56,42, 7,26,12,45		20,31,20,42	
		2, 5,16,51,45,38,37, 0		9,10
22″	4,40,44,51,13,33,53, 4,49,45		20,31,29,52	
		2, 5,16,51,25, 7, 7, 8		9,10
24″	4,40,46,56,30,25,18,11,56,53		20,31,39, 2	
		2, 5,16,51, 4,35,28, 6		9,10
26″	4,40,49, 1,47,16,22,47,24,59		20,31,48,12	
		2, 5,16,50,44, 3,39,54		9,10
28″	4,40,51, 7, 4, 7, 6,51, 4,53		20,31,57,22	
		2, 5,16,50,23,31,42,32		9,10
30″	4,40,53,12,20,57,30,22,47,25		20,32, 6,32	
		2, 5,16,50, 2,59,36, 0		9,10
32″	4,40,55,17,37,47,33,22,23,25		20,32,15,42	
		2, 5,16,49,42,27,20,18		9,10
34″	4,40,57,22,54,37,15,49,43,43		20,32,24,52	
		2, 5,16,49,21,54,55,26		9,10
36″	4,40,59,28,11,26,37,44,39, 9		20,32,34, 2	
		2, 5,16,49, 1,22,21,24		9,10
38″	4,41, 1,33,28,15,39, 7, 0,33		20,32,43,12	
		2, 5,16,48,40,49,38,12		9,10
40″	4,41, 3,38,45, 4,19,56,38,45		20,32,52,22	
		2, 5,16,48,20,16,45,50		9,10
42″	4,41, 5,44, 1,52,40,13,24,35		20,33, 1,32	
		2, 5,16,47,59,43,44,18		9,10
44″	4,41, 7,49,18,40,39,57, 8,53		20,33,10,42	
		2, 5,16,47,39,10,33,36		9,10
46″	4,41, 9,54,35,28,19, 7,42,29		20,33,19,52	
		2, 5,16,47,18,37,13,44		9,10
48″	4,41,11,59,52,15,37,44,56,13		20,33,29, 2	
		2, 5,16,46,58, 3,44,42		9,10
50″	4,41,14, 5, 9, 2,35,48,40,55		20,33,38,12	
		2, 5,16,46,37,30, 6,30		9,10
52″	4,41,16,10,25,49,13,18,47,25		20,33,47,22	
		2, 5,16,46,16,56,19, 8		9,10
54″	4,41,18,15,42,35,30,15, 6,33		20,33,56,32	
		2, 5,16,45,56,22,22,36		9,10
56″	4,41,20,20,59,21,26,37,29, 9		20,34, 5,42	
		2, 5,16,45,35,48,16,54		9,10
58″	4,41,22,26,16, 7, 2,25,46, 3		20,34,14,52	
		2, 5,16,45,15,14, 2, 2		
60″	4,41,24,31,32,52,17,39,48, 5			
exact	4,41,24,31,32,52,17,40,16,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°29′ 0″	4,41,24,31,32,52,17,40,16,13			
		2, 5,16,44,54,39,41, 8		
2″	4,41,26,36,49,37,12,19,57,21		20,34,32,59	
		2, 5,16,44,34, 5, 8, 9		9,10
4″	4,41,28,42, 6,21,46,25, 5,30		20,34,42, 9	
		2, 5,16,44,13,30,26, 0		9,10
6″	4,41,30,47,23, 5,59,55,31,30		20,34,51,19	
		2, 5,16,43,52,55,34,41		9,10
8″	4,41,32,52,39,49,52,51, 6,11		20,35, 0,29	
		2, 5,16,43,32,20,34,12		9,10
10″	4,41,34,57,56,33,25,11,40,23		20,35, 9,39	
		2, 5,16,43,11,45,24,33		9,10
12″	4,41,37, 3,13,16,36,57, 4,56		20,35,18,49	
		2, 5,16,42,51,10, 5,44		9,10
14″	4,41,39, 8,29,59,28, 7,10,40		20,35,27,59	
		2, 5,16,42,30,34,37,45		9,10
16″	4,41,41,13,46,41,58,41,48,25		20,35,37, 9	
		2, 5,16,42, 9,59, 0,36		9,10
18″	4,41,43,19, 3,24, 8,40,49, 1		20,35,46,19	
		2, 5,16,41,49,23,14,17		9,10
20″	4,41,45,24,20, 5,58, 4, 3,18		20,35,55,29	
		2, 5,16,41,28,47,18,48		9,10
22″	4,41,47,29,36,47,26,51,22, 6		20,36, 4,39	
		2, 5,16,41, 8,11,14, 9		9,10
24″	4,41,49,34,53,28,35, 2,36,15		20,36,13,49	
		2, 5,16,40,47,35, 0,20		9,10
26″	4,41,51,40,10, 9,22,37,36,35		20,36,22,59	
		2, 5,16,40,26,58,37,21		9,10
28″	4,41,53,45,26,49,49,36,13,56		20,36,32, 9	
		2, 5,16,40, 6,22, 5,12		9,10
30″	4,41,55,50,43,29,55,58,19, 8		20,36,41,19	
		2, 5,16,39,45,45,23,53		9,10
32″	4,41,57,56, 0, 9,41,43,43, 1		20,36,50,29	
		2, 5,16,39,25, 8,33,24		9,10
34″	4,42, 0, 1,16,49, 6,52,16,25		20,36,59,39	
		2, 5,16,39, 4,31,33,45		9,10
36″	4,42, 2, 6,33,28,11,23,50,10		20,37, 8,49	
		2, 5,16,38,43,54,24,56		9,10
38″	4,42, 4,11,50, 6,55,18,15, 6		20,37,17,59	
		2, 5,16,38,23,17, 6,57		9,10
40″	4,42, 6,17, 6,45,18,35,22, 3		20,37,27, 9	
		2, 5,16,38, 2,39,39,48		9,10
42″	4,42, 8,22,23,23,21,15, 1,51		20,37,36,19	
		2, 5,16,37,42, 2, 3,29		9,10
44″	4,42,10,27,40, 1, 3,17, 5,20		20,37,45,29	
		2, 5,16,37,21,24,18, 0		9,10
46″	4,42,12,32,56,38,24,41,23,20		20,37,54,39	
		2, 5,16,37, 0,46,23,21		9,10
48″	4,42,14,38,13,15,25,27,46,41		20,38, 3,49	
		2, 5,16,36,40, 8,19,32		9,10
50″	4,42,16,43,29,52, 5,36, 6,13		20,38,12,59	
		2, 5,16,36,19,30, 6,33		9,10
52″	4,42,18,48,46,28,25, 6,12,46		20,38,22, 9	
		2, 5,16,35,58,51,44,24		9,10
54″	4,42,20,54, 3, 4,23,57,57,10		20,38,31,19	
		2, 5,16,35,38,13,13, 5		9,10
56″	4,42,22,59,19,40, 2,11,10,15		20,38,40,29	
		2, 5,16,35,17,34,32,36		9,10
58″	4,42,25, 4,36,15,19,45,42,51		20,38,49,39	
		2, 5,16,34,56,55,42,57		
60″	4,42,27, 9,52,50,16,41,25,48			
exact	4,42,27, 9,52,50,16,42, 0, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°30′ 0″	4,42,27, 9,52,50,16,42, 0, 5			
		2, 5,16,34,36,16,47,43		
2″	4,42,29,15, 9,24,52,58,47,48		20,39, 7,44	
		2, 5,16,34,15,37,39,59		9,10
4″	4,42,31,20,25,59, 8,36,27,47		20,39,16,54	
		2, 5,16,33,54,58,23, 5		9,10
6″	4,42,33,25,42,33, 3,34,50,52		20,39,26, 4	
		2, 5,16,33,34,18,57, 1		9,10
8″	4,42,35,30,59, 6,37,53,47,53		20,39,35,14	
		2, 5,16,33,13,39,21,47		9,10
10″	4,42,37,36,15,39,51,33, 9,40		20,39,44,24	
		2, 5,16,32,52,59,37,23		9,10
12″	4,42,39,41,32,12,44,32,47, 3		20,39,53,34	
		2, 5,16,32,32,19,43,49		9,10
14″	4,42,41,46,48,45,16,52,30,52		20,40, 2,44	
		2, 5,16,32,11,39,41, 5		9,10
16″	4,42,43,52, 5,17,28,32,11,57		20,40,11,54	
		2, 5,16,31,50,59,29,11		9,10
18″	4,42,45,57,21,49,19,31,41, 8		20,40,21, 4	
		2, 5,16,31,30,19, 8, 7		9,10
20″	4,42,48, 2,38,20,49,50,49,15		20,40,30,14	
		2, 5,16,31, 9,38,37,53		9,10
22″	4,42,50, 7,54,51,59,29,27, 8		20,40,39,24	
		2, 5,16,30,48,57,58,29		9,10
24″	4,42,52,13,11,22,48,27,25,37		20,40,48,34	
		2, 5,16,30,28,17, 9,55		9,10
26″	4,42,54,18,27,53,16,44,35,32		20,40,57,44	
		2, 5,16,30, 7,36,12,11		9,10
28″	4,42,56,23,44,23,24,20,47,43		20,41, 6,54	
		2, 5,16,29,46,55, 5,17		9,10
30″	4,42,58,29, 0,53,11,15,53, 0		20,41,16, 4	
		2, 5,16,29,26,13,49,13		9,10
32″	4,43, 0,34,17,22,37,29,42,13		20,41,25,14	
		2, 5,16,29, 5,32,23,59		9,10
34″	4,43, 2,39,33,51,43, 2, 6,12		20,41,34,24	
		2, 5,16,28,44,50,49,35		9,10
36″	4,43, 4,44,50,20,27,52,55,47		20,41,43,34	
		2, 5,16,28,24, 9, 6, 1		9,10
38″	4,43, 6,50, 6,48,52, 2, 1,48		20,41,52,44	
		2, 5,16,28, 3,27,13,17		9,10
40″	4,43, 8,55,23,16,55,29,15, 5		20,42, 1,54	
		2, 5,16,27,42,45,11,23		9,10
42″	4,43,11, 0,39,44,38,14,26,28		20,42,11, 4	
		2, 5,16,27,22, 3, 0,19		9,10
44″	4,43,13, 5,56,12, 0,17,26,47		20,42,20,14	
		2, 5,16,27, 1,20,40, 5		9,10
46″	4,43,15,11,12,39, 1,38, 6,52		20,42,29,24	
		2, 5,16,26,40,38,10,41		9,10
48″	4,43,17,16,29, 5,42,16,17,33		20,42,38,34	
		2, 5,16,26,19,55,32, 7		9,10
50″	4,43,19,21,45,32, 2,11,49,40		20,42,47,44	
		2, 5,16,25,59,12,44,23		9,10
52″	4,43,21,27, 1,58, 1,24,34, 3		20,42,56,54	
		2, 5,16,25,38,29,47,29		9,10
54″	4,43,23,32,18,23,39,54,21,32		20,43, 6, 4	
		2, 5,16,25,17,46,41,25		9,10
56″	4,43,25,37,34,48,57,41, 2,57		20,43,15,14	
		2, 5,16,24,57, 3,26,11		9,10
58″	4,43,27,42,51,13,54,44,29, 8		20,43,24,24	
		2, 5,16,24,36,20, 1,47		
60″	4,43,29,48, 7,38,31, 4,30,55			
exact	4,43,29,48, 7,38,31, 5, 0, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°31′ 0″	4,43,29,48, 7,38,31, 5, 0, 1			
		2, 5,16,24,15,36,31,28		
2″	4,43,31,53,24, 2,46,41,31,29		20,43,42,30	
		2, 5,16,23,54,52,48,58		9,10
4″	4,43,33,58,40,26,41,34,20,27		20,43,51,40	
		2, 5,16,23,34, 8,57,18		9,10
6″	4,43,36, 3,56,50,15,43,17,45		20,44, 0,50	
		2, 5,16,23,13,24,56,28		9,10
8″	4,43,38, 9,13,13,29, 8,14,13		20,44,10, 0	
		2, 5,16,22,52,40,46,28		9,10
10″	4,43,40,14,29,36,21,49, 0,41		20,44,19,10	
		2, 5,16,22,31,56,27,18		9,10
12″	4,43,42,19,45,58,53,45,27,59		20,44,28,20	
		2, 5,16,22,11,11,58,58		9,10
14″	4,43,44,25, 2,21, 4,57,26,57		20,44,37,30	
		2, 5,16,21,50,27,21,28		9,10
16″	4,43,46,30,18,42,55,24,48,25		20,44,46,40	
		2, 5,16,21,29,42,34,48		9,10
18″	4,43,48,35,35, 4,25, 7,23,13		20,44,55,50	
		2, 5,16,21, 8,57,38,58		9,10
20″	4,43,50,40,51,25,34, 5, 2,11		20,45, 5, 0	
		2, 5,16,20,48,12,33,58		9,10
22″	4,43,52,46, 7,46,22,17,36, 9		20,45,14,10	
		2, 5,16,20,27,27,19,48		9,10
24″	4,43,54,51,24, 6,49,44,55,57		20,45,23,20	
		2, 5,16,20, 6,41,56,28		9,10
26″	4,43,56,56,40,26,56,26,52,25		20,45,32,30	
		2, 5,16,19,45,56,23,58		9,10
28″	4,43,59, 1,56,46,42,23,16,23		20,45,41,40	
		2, 5,16,19,25,10,42,18		9,10
30″	4,44, 1, 7,13, 6, 7,33,58,41		20,45,50,50	
		2, 5,16,19, 4,24,51,28		9,10
32″	4,44, 3,12,29,25,11,58,50, 9		20,46, 0, 0	
		2, 5,16,18,43,38,51,28		9,10
34″	4,44, 5,17,45,43,55,37,41,37		20,46, 9,10	
		2, 5,16,18,22,52,42,18		9,10
36″	4,44, 7,23, 2, 2,18,30,23,55		20,46,18,20	
		2, 5,16,18, 2, 6,23,58		9,10
38″	4,44, 9,28,18,20,20,36,47,53		20,46,27,30	
		2, 5,16,17,41,19,56,28		9,10
40″	4,44,11,33,34,38, 1,56,44,21		20,46,36,40	
		2, 5,16,17,20,33,19,48		9,10
42″	4,44,13,38,50,55,22,30, 4, 9		20,46,45,50	
		2, 5,16,16,59,46,33,58		9,10
44″	4,44,15,44, 7,12,22,16,38, 7		20,46,55, 0	
		2, 5,16,16,38,59,38,58		9,10
46″	4,44,17,49,23,29, 1,16,17, 5		20,47, 4,10	
		2, 5,16,16,18,12,34,48		9,10
48″	4,44,19,54,39,45,19,28,51,53		20,47,13,20	
		2, 5,16,15,57,25,21,28		9,10
50″	4,44,21,59,56, 1,16,54,13,21		20,47,22,30	
		2, 5,16,15,36,37,58,58		9,10
52″	4,44,24, 5,12,16,53,32,12,19		20,47,31,40	
		2, 5,16,15,15,50,27,18		9,10
54″	4,44,26,10,28,32, 9,22,39,37		20,47,40,50	
		2, 5,16,14,55, 2,46,28		9,10
56″	4,44,28,15,44,47, 4,25,26, 5		20,47,50, 0	
		2, 5,16,14,34,14,56,28		9,10
58″	4,44,30,21, 1, 1,38,40,22,33		20,47,59,10	
		2, 5,16,14,13,26,57,18		
60″	4,44,32,26,17,15,52, 7,19,51			
exact	4,44,32,26,17,15,52, 7,53,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°32′ 0″	4,44,32,26,17,15,52, 7,53,15			
		2, 5,16,13,52,38,52,33		
2″	4,44,34,31,33,29,44,46,45,48		20,48,17,15	
		2, 5,16,13,31,50,35,18		9, 9
4″	4,44,36,36,49,43,16,37,21, 6		20,48,26,24	
		2, 5,16,13,11, 2, 8,54		9, 9
6″	4,44,38,42, 5,56,27,39,30, 0		20,48,35,33	
		2, 5,16,12,50,13,33,21		9, 9
8″	4,44,40,47,22, 9,17,53, 3,21		20,48,44,42	
		2, 5,16,12,29,24,48,39		9, 9
10″	4,44,42,52,38,21,47,17,52, 0		20,48,53,51	
		2, 5,16,12, 8,35,54,48		9, 9
12″	4,44,44,57,54,33,55,53,46,48		20,49, 3, 0	
		2, 5,16,11,47,46,51,48		9, 9
14″	4,44,47, 3,10,45,43,40,38,36		20,49,12, 9	
		2, 5,16,11,26,57,39,39		9, 9
16″	4,44,49, 8,26,57,10,38,18,15		20,49,21,18	
		2, 5,16,11, 6, 8,18,21		9, 9
18″	4,44,51,13,43, 8,16,46,36,36		20,49,30,27	
		2, 5,16,10,45,18,47,54		9, 9
20″	4,44,53,18,59,19, 2, 5,24,30		20,49,39,36	
		2, 5,16,10,24,29, 8,18		9, 9
22″	4,44,55,24,15,29,26,34,32,48		20,49,48,45	
		2, 5,16,10, 3,39,19,33		9, 9
24″	4,44,57,29,31,39,30,13,52,21		20,49,57,54	
		2, 5,16, 9,42,49,21,39		9, 9
26″	4,44,59,34,47,49,13, 3,14, 0		20,50, 7, 3	
		2, 5,16, 9,21,59,14,36		9, 9
28″	4,45, 1,40, 3,58,35, 2,28,36		20,50,16,12	
		2, 5,16, 9, 1, 8,58,24		9, 9
30″	4,45, 3,45,20, 7,36,11,27, 0		20,50,25,21	
		2, 5,16, 8,40,18,33, 3		9, 9
32″	4,45, 5,50,36,16,16,30, 0, 3		20,50,34,30	
		2, 5,16, 8,19,27,58,33		9, 9
34″	4,45, 7,55,52,24,35,57,58,36		20,50,43,39	
		2, 5,16, 7,58,37,14,54		9, 9
36″	4,45,10, 1, 8,32,34,35,13,30		20,50,52,48	
		2, 5,16, 7,37,46,22, 6		9, 9
38″	4,45,12, 6,24,40,12,21,35,36		20,51, 1,57	
		2, 5,16, 7,16,55,20, 9		9, 9
40″	4,45,14,11,40,47,29,16,55,45		20,51,11, 6	
		2, 5,16, 6,56, 4, 9, 3		9, 9
42″	4,45,16,16,56,54,25,21, 4,48		20,51,20,15	
		2, 5,16, 6,35,12,48,48		9, 9
44″	4,45,18,22,13, 1, 0,33,53,36		20,51,29,24	
		2, 5,16, 6,14,21,19,24		9, 9
46″	4,45,20,27,29, 7,14,55,13, 0		20,51,38,33	
		2, 5,16, 5,53,29,40,51		9, 9
48″	4,45,22,32,45,13, 8,24,53,51		20,51,47,42	
		2, 5,16, 5,32,37,53, 9		9, 9
50″	4,45,24,38, 1,18,41, 2,47, 0		20,51,56,51	
		2, 5,16, 5,11,45,56,18		9, 9
52″	4,45,26,43,17,23,52,48,43,18		20,52, 6, 0	
		2, 5,16, 4,50,53,50,18		9, 9
54″	4,45,28,48,33,28,43,42,33,36		20,52,15, 9	
		2, 5,16, 4,30, 1,35, 9		9, 9
56″	4,45,30,53,49,33,13,44, 8,45		20,52,24,18	
		2, 5,16, 4, 9, 9,10,51		9, 9
58″	4,45,32,59, 5,37,22,53,19,36		20,52,33,27	
		2, 5,16, 3,48,16,37,24		
60″	4,45,35, 4,21,41,11, 9,57, 0			
exact	4,45,35, 4,21,41,11, 9,22,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°33′ 0″	4,45,35, 4,21,41,11, 9,22,46			
		2, 5,16, 3,27,23,51,10		
2″	4,45,37, 9,37,44,38,33,13,56		20,52,52, 0	
		2, 5,16, 3, 6,30,59,10		9, 9
4″	4,45,39,14,53,47,45, 4,13, 6		20,53, 1, 9	
		2, 5,16, 2,45,37,58, 1		9, 9
6″	4,45,41,20, 9,50,30,42,11, 7		20,53,10,18	
		2, 5,16, 2,24,44,47,43		9, 9
8″	4,45,43,25,25,52,55,26,58,50		20,53,19,27	
		2, 5,16, 2, 3,51,28,16		9, 9
10″	4,45,45,30,41,54,59,18,27, 6		20,53,28,36	
		2, 5,16, 1,42,57,59,40		9, 9
12″	4,45,47,35,57,56,42,16,26,46		20,53,37,45	
		2, 5,16, 1,22, 4,21,55		9, 9
14″	4,45,49,41,13,58, 4,20,48,41		20,53,46,54	
		2, 5,16, 1, 1,10,35, 1		9, 9
16″	4,45,51,46,29,59, 5,31,23,42		20,53,56, 3	
		2, 5,16, 0,40,16,38,58		9, 9
18″	4,45,53,51,45,59,45,48, 2,40		20,54, 5,12	
		2, 5,16, 0,19,22,33,46		9, 9
20″	4,45,55,57, 2, 0, 5,10,36,26		20,54,14,21	
		2, 5,15,59,58,28,19,25		9, 9
22″	4,45,58, 2,18, 0, 3,38,55,51		20,54,23,30	
		2, 5,15,59,37,33,55,55		9, 9
24″	4,46, 0, 7,33,59,41,12,51,46		20,54,32,39	
		2, 5,15,59,16,39,23,16		9, 9
26″	4,46, 2,12,49,58,57,52,15, 2		20,54,41,48	
		2, 5,15,58,55,44,41,28		9, 9
28″	4,46, 4,18, 5,57,53,36,56,30		20,54,50,57	
		2, 5,15,58,34,49,50,31		9, 9
30″	4,46, 6,23,21,56,28,26,47, 1		20,55, 0, 6	
		2, 5,15,58,13,54,50,25		9, 9
32″	4,46, 8,28,37,54,42,21,37,26		20,55, 9,15	
		2, 5,15,57,52,59,41,10		9, 9
34″	4,46,10,33,53,52,35,21,18,36		20,55,18,24	
		2, 5,15,57,32, 4,22,46		9, 9
36″	4,46,12,39, 9,50, 7,25,41,22		20,55,27,33	
		2, 5,15,57,11, 8,55,13		9, 9
38″	4,46,14,44,25,47,18,34,36,35		20,55,36,42	
		2, 5,15,56,50,13,18,31		9, 9
40″	4,46,16,49,41,44, 8,47,55, 6		20,55,45,51	
		2, 5,15,56,29,17,32,40		9, 9
42″	4,46,18,54,57,40,38, 5,27,46		20,55,55, 0	
		2, 5,15,56, 8,21,37,40		9, 9
44″	4,46,21, 0,13,36,46,27, 5,26		20,56, 4, 9	
		2, 5,15,55,47,25,33,31		9, 9
46″	4,46,23, 5,29,32,33,52,38,57		20,56,13,18	
		2, 5,15,55,26,29,20,13		9, 9
48″	4,46,25,10,45,28, 0,21,59,10		20,56,22,27	
		2, 5,15,55, 5,32,57,46		9, 9
50″	4,46,27,16, 1,23, 5,54,56,56		20,56,31,36	
		2, 5,15,54,44,36,26,10		9, 9
52″	4,46,29,21,17,17,50,31,23, 6		20,56,40,45	
		2, 5,15,54,23,39,45,25		9, 9
54″	4,46,31,26,33,12,14,11, 8,31		20,56,49,54	
		2, 5,15,54, 2,42,55,31		9, 9
56″	4,46,33,31,49, 6,16,54, 4, 2		20,56,59, 3	
		2, 5,15,53,41,45,56,28		9, 9
58″	4,46,35,37, 4,59,58,40, 0,30		20,57, 8,12	
		2, 5,15,53,20,48,48,16		
60″	4,46,37,42,20,53,19,28,48,46			
exact	4,46,37,42,20,53,19,28,17,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°34′ 0″	4,46,37,42,20,53,19,28,17,13			
		2, 5,15,52,59,51,27,30		
2″	4,46,39,47,36,46,19,19,44,43		20,57,26,44	
		2, 5,15,52,38,54, 0,46		9, 9
4″	4,46,41,52,52,38,58,13,45,29		20,57,35,53	
		2, 5,15,52,17,56,24,53		9, 9
6″	4,46,43,58, 8,31,16,10,10,22		20,57,45, 2	
		2, 5,15,51,56,58,39,51		9, 9
8″	4,46,46, 3,24,23,13, 8,50,13		20,57,54,11	
		2, 5,15,51,36, 0,45,40		9, 9
10″	4,46,48, 8,40,14,49, 9,35,53		20,58, 3,20	
		2, 5,15,51,15, 2,42,20		9, 9
12″	4,46,50,13,56, 6, 4,12,18,13		20,58,12,29	
		2, 5,15,50,54, 4,29,51		9, 9
14″	4,46,52,19,11,56,58,16,48, 4		20,58,21,38	
		2, 5,15,50,33, 6, 8,13		9, 9
16″	4,46,54,24,27,47,31,22,56,17		20,58,30,47	
		2, 5,15,50,12, 7,37,26		9, 9
18″	4,46,56,29,43,37,43,30,33,43		20,58,39,56	
		2, 5,15,49,51, 8,57,30		9, 9
20″	4,46,58,34,59,27,34,39,31,13		20,58,49, 5	
		2, 5,15,49,30,10, 8,25		9, 9
22″	4,47, 0,40,15,17, 4,49,39,38		20,58,58,14	
		2, 5,15,49, 9,11,10,11		9, 9
24″	4,47, 2,45,31, 6,14, 0,49,49		20,59, 7,23	
		2, 5,15,48,48,12, 2,48		9, 9
26″	4,47, 4,50,46,55, 2,12,52,37		20,59,16,32	
		2, 5,15,48,27,12,46,16		9, 9
28″	4,47, 6,56, 2,43,29,25,38,53		20,59,25,41	
		2, 5,15,48, 6,13,20,35		9, 9
30″	4,47, 9, 1,18,31,35,38,59,28		20,59,34,50	
		2, 5,15,47,45,13,45,45		9, 9
32″	4,47,11, 6,34,19,20,52,45,13		20,59,43,59	
		2, 5,15,47,24,14, 1,46		9, 9
34″	4,47,13,11,50, 6,45, 6,46,59		20,59,53, 8	
		2, 5,15,47, 3,14, 8,38		9, 9
36″	4,47,15,17, 5,53,48,20,55,37		21, 0, 2,17	
		2, 5,15,46,42,14, 6,21		9, 9
38″	4,47,17,22,21,40,30,35, 1,58		21, 0,11,26	
		2, 5,15,46,21,13,54,55		9, 9
40″	4,47,19,27,37,26,51,48,56,53		21, 0,20,35	
		2, 5,15,46, 0,13,34,20		9, 9
42″	4,47,21,32,53,12,52, 2,31,13		21, 0,29,44	
		2, 5,15,45,39,13, 4,36		9, 9
44″	4,47,23,38, 8,58,31,15,35,49		21, 0,38,53	
		2, 5,15,45,18,12,25,43		9, 9
46″	4,47,25,43,24,43,49,28, 1,32		21, 0,48, 2	
		2, 5,15,44,57,11,37,41		9, 9
48″	4,47,27,48,40,28,46,39,39,13		21, 0,57,11	
		2, 5,15,44,36,10,40,30		9, 9
50″	4,47,29,53,56,13,22,50,19,43		21, 1, 6,20	
		2, 5,15,44,15, 9,34,10		9, 9
52″	4,47,31,59,11,57,37,59,53,53		21, 1,15,29	
		2, 5,15,43,54, 8,18,41		9, 9
54″	4,47,34, 4,27,41,32, 8,12,34		21, 1,24,38	
		2, 5,15,43,33, 6,54, 3		9, 9
56″	4,47,36, 9,43,25, 5,15, 6,37		21, 1,33,47	
		2, 5,15,43,12, 5,20,16		9, 9
58″	4,47,38,14,59, 8,17,20,26,53		21, 1,42,56	
		2, 5,15,42,51, 3,37,20		
60″	4,47,40,20,14,51, 8,24, 4,13			
exact	4,47,40,20,14,51, 8,23,31, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°35′ 0″	4,47,40,20,14,51, 8,23,31, 0			
		2, 5,15,42,30, 1,41,45		
2″	4,47,42,25,30,33,38,25,12,45		21, 2, 1,28	
		2, 5,15,42, 8,59,40,17		9, 9
4″	4,47,44,30,46,15,47,24,53, 2		21, 2,10,37	
		2, 5,15,41,47,57,29,40		9, 9
6″	4,47,46,36, 1,57,35,22,22,42		21, 2,19,46	
		2, 5,15,41,26,55, 9,54		9, 9
8″	4,47,48,41,17,39, 2,17,32,36		21, 2,28,55	
		2, 5,15,41, 5,52,40,59		9, 9
10″	4,47,50,46,33,20, 8,10,13,35		21, 2,38, 4	
		2, 5,15,40,44,50, 2,55		9, 9
12″	4,47,52,51,49, 0,53, 0,16,30		21, 2,47,13	
		2, 5,15,40,23,47,15,42		9, 9
14″	4,47,54,57, 4,41,16,47,32,12		21, 2,56,22	
		2, 5,15,40, 2,44,19,20		9, 9
16″	4,47,57, 2,20,21,19,31,51,32		21, 3, 5,31	
		2, 5,15,39,41,41,13,49		9, 9
18″	4,47,59, 7,36, 1, 1,13, 5,21		21, 3,14,40	
		2, 5,15,39,20,37,59, 9		9, 9
20″	4,48, 1,12,51,40,21,51, 4,30		21, 3,23,49	
		2, 5,15,38,59,34,35,20		9, 9
22″	4,48, 3,18, 7,19,21,25,39,50		21, 3,32,58	
		2, 5,15,38,38,31, 2,22		9, 9
24″	4,48, 5,23,22,57,59,56,42,12		21, 3,42, 7	
		2, 5,15,38,17,27,20,15		9, 9
26″	4,48, 7,28,38,36,17,24, 2,27		21, 3,51,16	
		2, 5,15,37,56,23,28,59		9, 9
28″	4,48, 9,33,54,14,13,47,31,26		21, 4, 0,25	
		2, 5,15,37,35,19,28,34		9, 9
30″	4,48,11,39, 9,51,49, 7, 0, 0		21, 4, 9,34	
		2, 5,15,37,14,15,19, 0		9, 9
32″	4,48,13,44,25,29, 3,22,19, 0		21, 4,18,43	
		2, 5,15,36,53,11, 0,17		9, 9
34″	4,48,15,49,41, 5,56,33,19,17		21, 4,27,52	
		2, 5,15,36,32, 6,32,25		9, 9
36″	4,48,17,54,56,42,28,39,51,42		21, 4,37, 1	
		2, 5,15,36,11, 1,55,24		9, 9
38″	4,48,20, 0,12,18,39,41,47, 6		21, 4,46,10	
		2, 5,15,35,49,57, 9,14		9, 9
40″	4,48,22, 5,27,54,29,38,56,20		21, 4,55,19	
		2, 5,15,35,28,52,13,55		9, 9
42″	4,48,24,10,43,29,58,31,10,15		21, 5, 4,28	
		2, 5,15,35, 7,47, 9,27		9, 9
44″	4,48,26,15,59, 5, 6,18,19,42		21, 5,13,37	
		2, 5,15,34,46,41,55,50		9, 9
46″	4,48,28,21,14,39,53, 0,15,32		21, 5,22,46	
		2, 5,15,34,25,36,33, 4		9, 9
48″	4,48,30,26,30,14,18,36,48,36		21, 5,31,55	
		2, 5,15,34, 4,31, 1, 9		9, 9
50″	4,48,32,31,45,48,23, 7,49,45		21, 5,41, 4	
		2, 5,15,33,43,25,20, 5		9, 9
52″	4,48,34,37, 1,22, 6,33, 9,50		21, 5,50,13	
		2, 5,15,33,22,19,29,52		9, 9
54″	4,48,36,42,16,55,28,52,39,42		21, 5,59,22	
		2, 5,15,33, 1,13,30,30		9, 9
56″	4,48,38,47,32,28,30, 6,10,12		21, 6, 8,31	
		2, 5,15,32,40, 7,21,59		9, 9
58″	4,48,40,52,48, 1,10,13,32,11		21, 6,17,40	
		2, 5,15,32,19, 1, 4,19		
60″	4,48,42,58, 3,33,29,14,36,30			
exact	4,48,42,58, 3,33,29,14, 4,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°36′ 0″	4,48,42,58, 3,33,29,14, 4,15			
		2, 5,15,31,57,54,34, 6		
2″	4,48,45, 3,19, 5,27, 8,38,21		21, 6,36,12	
		2, 5,15,31,36,47,57,54		9, 9
4″	4,48,47, 8,34,37, 3,56,36,15		21, 6,45,21	
		2, 5,15,31,15,41,12,33		9, 9
6″	4,48,49,13,50, 8,19,37,48,48		21, 6,54,30	
		2, 5,15,30,54,34,18, 3		9, 9
8″	4,48,51,19, 5,39,14,12, 6,51		21, 7, 3,39	
		2, 5,15,30,33,27,14,24		9, 9
10″	4,48,53,24,21, 9,47,39,21,15		21, 7,12,48	
		2, 5,15,30,12,20, 1,36		9, 9
12″	4,48,55,29,36,39,59,59,22,51		21, 7,21,57	
		2, 5,15,29,51,12,39,39		9, 9
14″	4,48,57,34,52, 9,51,12, 2,30		21, 7,31, 6	
		2, 5,15,29,30, 5, 8,33		9, 9
16″	4,48,59,40, 7,39,21,17,11, 3		21, 7,40,15	
		2, 5,15,29, 8,57,28,18		9, 9
18″	4,49, 1,45,23, 8,30,14,39,21		21, 7,49,24	
		2, 5,15,28,47,49,38,54		9, 9
20″	4,49, 3,50,38,37,18, 4,18,15		21, 7,58,33	
		2, 5,15,28,26,41,40,21		9, 9
22″	4,49, 5,55,54, 5,44,45,58,36		21, 8, 7,42	
		2, 5,15,28, 5,33,32,39		9, 9
24″	4,49, 8, 1, 9,33,50,19,31,15		21, 8,16,51	
		2, 5,15,27,44,25,15,48		9, 9
26″	4,49,10, 6,25, 1,34,44,47, 3		21, 8,26, 0	
		2, 5,15,27,23,16,49,48		9, 9
28″	4,49,12,11,40,28,58, 1,36,51		21, 8,35, 9	
		2, 5,15,27, 2, 8,14,39		9, 9
30″	4,49,14,16,55,56, 0, 9,51,30		21, 8,44,18	
		2, 5,15,26,40,59,30,21		9, 9
32″	4,49,16,22,11,22,41, 9,21,51		21, 8,53,27	
		2, 5,15,26,19,50,36,54		9, 9
34″	4,49,18,27,26,49, 0,59,58,45		21, 9, 2,36	
		2, 5,15,25,58,41,34,18		9, 9
36″	4,49,20,32,42,14,59,41,33, 3		21, 9,11,45	
		2, 5,15,25,37,32,22,33		9, 9
38″	4,49,22,37,57,40,37,13,55,36		21, 9,20,54	
		2, 5,15,25,16,23, 1,39		9, 9
40″	4,49,24,43,13, 5,53,36,57,15		21, 9,30, 3	
		2, 5,15,24,55,13,31,36		9, 9
42″	4,49,26,48,28,30,48,50,28,51		21, 9,39,12	
		2, 5,15,24,34, 3,52,24		9, 9
44″	4,49,28,53,43,55,22,54,21,15		21, 9,48,21	
		2, 5,15,24,12,54, 4, 3		9, 9
46″	4,49,30,58,59,19,35,48,25,18		21, 9,57,30	
		2, 5,15,23,51,44, 6,33		9, 9
48″	4,49,33, 4,14,43,27,32,31,51		21,10, 6,39	
		2, 5,15,23,30,33,59,54		9, 9
50″	4,49,35, 9,30, 6,58, 6,31,45		21,10,15,48	
		2, 5,15,23, 9,23,44, 6		9, 9
52″	4,49,37,14,45,30, 7,30,15,51		21,10,24,57	
		2, 5,15,22,48,13,19, 9		9, 9
54″	4,49,39,20, 0,52,55,43,35, 0		21,10,34, 6	
		2, 5,15,22,27, 2,45, 3		9, 9
56″	4,49,41,25,16,15,22,46,20, 3		21,10,43,15	
		2, 5,15,22, 5,52, 1,48		9, 9
58″	4,49,43,30,31,37,28,38,21,51		21,10,52,24	
		2, 5,15,21,44,41, 9,24		
60″	4,49,45,35,46,59,13,19,31,15			
exact	4,49,45,35,46,59,13,19, 2,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°37′ 0″	4,49,45,35,46,59,13,19, 2,51			
		2, 5,15,21,23,30, 4,45		
2″	4,49,47,41, 2,20,36,49, 7,36		21,11,10,55	
		2, 5,15,21, 2,18,53,50		9, 9
4″	4,49,49,46,17,41,39, 8, 1,26		21,11,20, 4	
		2, 5,15,20,41, 7,33,46		9, 9
6″	4,49,51,51,33, 2,20,15,35,12		21,11,29,13	
		2, 5,15,20,19,56, 4,33		9, 9
8″	4,49,53,56,48,22,40,11,39,45		21,11,38,22	
		2, 5,15,19,58,44,26,11		9, 9
10″	4,49,56, 2, 3,42,38,56, 5,56		21,11,47,31	
		2, 5,15,19,37,32,38,40		9, 9
12″	4,49,58, 7,19, 2,16,28,44,36		21,11,56,40	
		2, 5,15,19,16,20,42, 0		9, 9
14″	4,50, 0,12,34,21,32,49,26,36		21,12, 5,49	
		2, 5,15,18,55, 8,36,11		9, 9
16″	4,50, 2,17,49,40,27,58, 2,47		21,12,14,58	
		2, 5,15,18,33,56,21,13		9, 9
18″	4,50, 4,23, 4,59, 1,54,24, 0		21,12,24, 7	
		2, 5,15,18,12,43,57, 6		9, 9
20″	4,50, 6,28,20,17,14,38,21, 6		21,12,33,16	
		2, 5,15,17,51,31,23,50		9, 9
22″	4,50, 8,33,35,35, 6, 9,44,56		21,12,42,25	
		2, 5,15,17,30,18,41,25		9, 9
24″	4,50,10,38,50,52,36,28,26,21		21,12,51,34	
		2, 5,15,17, 9, 5,49,51		9, 9
26″	4,50,12,44, 6, 9,45,34,16,12		21,13, 0,43	
		2, 5,15,16,47,52,49, 8		9, 9
28″	4,50,14,49,21,26,33,27, 5,20		21,13, 9,52	
		2, 5,15,16,26,39,39,16		9, 9
30″	4,50,16,54,36,43, 0, 6,44,36		21,13,19, 1	
		2, 5,15,16, 5,26,20,15		9, 9
32″	4,50,18,59,51,59, 5,33, 4,51		21,13,28,10	
		2, 5,15,15,44,12,52, 5		9, 9
34″	4,50,21, 5, 7,14,49,45,56,56		21,13,37,19	
		2, 5,15,15,22,59,14,46		9, 9
36″	4,50,23,10,22,30,12,45,11,42		21,13,46,28	
		2, 5,15,15, 1,45,28,18		9, 9
38″	4,50,25,15,37,45,14,30,40, 0		21,13,55,37	
		2, 5,15,14,40,31,32,41		9, 9
40″	4,50,27,20,52,59,55, 2,12,41		21,14, 4,46	
		2, 5,15,14,19,17,27,55		9, 9
42″	4,50,29,26, 8,14,14,19,40,36		21,14,13,55	
		2, 5,15,13,58, 3,14, 0		9, 9
44″	4,50,31,31,23,28,12,22,54,36		21,14,23, 4	
		2, 5,15,13,36,48,50,56		9, 9
46″	4,50,33,36,38,41,49,11,45,32		21,14,32,13	
		2, 5,15,13,15,34,18,43		9, 9
48″	4,50,35,41,53,55, 4,46, 4,15		21,14,41,22	
		2, 5,15,12,54,19,37,21		9, 9
50″	4,50,37,47, 9, 7,59, 5,41,36		21,14,50,31	
		2, 5,15,12,33, 4,46,50		9, 9
52″	4,50,39,52,24,20,32,10,28,26		21,14,59,40	
		2, 5,15,12,11,49,47,10		9, 9
54″	4,50,41,57,39,32,44, 0,15,36		21,15, 8,49	
		2, 5,15,11,50,34,38,21		9, 9
56″	4,50,44, 2,54,44,34,34,53,57		21,15,17,58	
		2, 5,15,11,29,19,20,23		9, 9
58″	4,50,46, 8, 9,56, 3,54,14,20		21,15,27, 7	
		2, 5,15,11, 8, 3,53,16		
60″	4,50,48,13,25, 7,11,58, 7,36			
exact	4,50,48,13,25, 7,11,57,38,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°38′ 0″	4,50,48,13,25, 7,11,57,38,30			
		2, 5,15,10,46,48,13,53		
2″	4,50,50,18,40,17,58,45,52,23		21,15,45,38	
		2, 5,15,10,25,32,28,15		9, 9
4″	4,50,52,23,55,28,24,18,20,38		21,15,54,47	
		2, 5,15,10, 4,16,33,28		9, 9
6″	4,50,54,29,10,38,28,34,54, 6		21,16, 3,56	
		2, 5,15, 9,43, 0,29,32		9, 9
8″	4,50,56,34,25,48,11,35,23,38		21,16,13, 5	
		2, 5,15, 9,21,44,16,27		9, 9
10″	4,50,58,39,40,57,33,19,40, 5		21,16,22,14	
		2, 5,15, 9, 0,27,54,13		9, 9
12″	4,51, 0,44,56, 6,33,47,34,18		21,16,31,23	
		2, 5,15, 8,39,11,22,50		9, 9
14″	4,51, 2,50,11,15,12,58,57, 8		21,16,40,32	
		2, 5,15, 8,17,54,42,18		9, 9
16″	4,51, 4,55,26,23,30,53,39,26		21,16,49,41	
		2, 5,15, 7,56,37,52,37		9, 9
18″	4,51, 7, 0,41,31,27,31,32, 3		21,16,58,50	
		2, 5,15, 7,35,20,53,47		9, 9
20″	4,51, 9, 5,56,39, 2,52,25,50		21,17, 7,59	
		2, 5,15, 7,14, 3,45,48		9, 9
22″	4,51,11,11,11,46,16,56,11,38		21,17,17, 8	
		2, 5,15, 6,52,46,28,40		9, 9
24″	4,51,13,16,26,53, 9,42,40,18		21,17,26,17	
		2, 5,15, 6,31,29, 2,23		9, 9
26″	4,51,15,21,41,59,41,11,42,41		21,17,35,26	
		2, 5,15, 6,10,11,26,57		9, 9
28″	4,51,17,26,57, 5,51,23, 9,38		21,17,44,35	
		2, 5,15, 5,48,53,42,22		9, 9
30″	4,51,19,32,12,11,40,16,52, 0		21,17,53,44	
		2, 5,15, 5,27,35,48,38		9, 9
32″	4,51,21,37,27,17, 7,52,40,38		21,18, 2,53	
		2, 5,15, 5, 6,17,45,45		9, 9
34″	4,51,23,42,42,22,14,10,26,23		21,18,12, 2	
		2, 5,15, 4,44,59,33,43		9, 9
36″	4,51,25,47,57,26,59,10, 0, 6		21,18,21,11	
		2, 5,15, 4,23,41,12,32		9, 9
38″	4,51,27,53,12,31,22,51,12,38		21,18,30,20	
		2, 5,15, 4, 2,22,42,12		9, 9
40″	4,51,29,58,27,35,25,13,54,50		21,18,39,29	
		2, 5,15, 3,41, 4, 2,43		9, 9
42″	4,51,32, 3,42,39, 6,17,57,33		21,18,48,38	
		2, 5,15, 3,19,45,14, 5		9, 9
44″	4,51,34, 8,57,42,26, 3,11,38		21,18,57,47	
		2, 5,15, 2,58,26,16,18		9, 9
46″	4,51,36,14,12,45,24,29,27,56		21,19, 6,56	
		2, 5,15, 2,37, 7, 9,22		9, 9
48″	4,51,38,19,27,48, 1,36,37,18		21,19,16, 5	
		2, 5,15, 2,15,47,53,17		9, 9
50″	4,51,40,24,42,50,17,24,30,35		21,19,25,14	
		2, 5,15, 1,54,28,28, 3		9, 9
52″	4,51,42,29,57,52,11,52,58,38		21,19,34,23	
		2, 5,15, 1,33, 8,53,40		9, 9
54″	4,51,44,35,12,53,45, 1,52,18		21,19,43,32	
		2, 5,15, 1,11,49,10, 8		9, 9
56″	4,51,46,40,27,54,56,51, 2,26		21,19,52,41	
		2, 5,15, 0,50,29,17,27		9, 9
58″	4,51,48,45,42,55,47,20,19,53		21,20, 1,50	
		2, 5,15, 0,29, 9,15,37		
60″	4,51,50,50,57,56,16,29,35,30			
exact	4,51,50,50,57,56,16,29, 8,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°39′ 0″	4,51,50,50,57,56,16,29, 8,41			
		2, 5,15, 0, 7,49, 1,42		
2″	4,51,52,56,12,56,24,18,10,23		21,20,20,20	
		2, 5,14,59,46,28,41,22		9, 9
4″	4,51,55, 1,27,56,10,46,51,45		21,20,29,29	
		2, 5,14,59,25, 8,11,53		9, 9
6″	4,51,57, 6,42,55,35,55, 3,38		21,20,38,38	
		2, 5,14,59, 3,47,33,15		9, 9
8″	4,51,59,11,57,54,39,42,36,53		21,20,47,47	
		2, 5,14,58,42,26,45,28		9, 9
10″	4,52, 1,17,12,53,22, 9,22,21		21,20,56,56	
		2, 5,14,58,21, 5,48,32		9, 9
12″	4,52, 3,22,27,51,43,15,10,53		21,21, 6, 5	
		2, 5,14,57,59,44,42,27		9, 9
14″	4,52, 5,27,42,49,42,59,53,20		21,21,15,14	
		2, 5,14,57,38,23,27,13		9, 9
16″	4,52, 7,32,57,47,21,23,20,33		21,21,24,23	
		2, 5,14,57,17, 2, 2,50		9, 9
18″	4,52, 9,38,12,44,38,25,23,23		21,21,33,32	
		2, 5,14,56,55,40,29,18		9, 9
20″	4,52,11,43,27,41,34, 5,52,41		21,21,42,41	
		2, 5,14,56,34,18,46,37		9, 9
22″	4,52,13,48,42,38, 8,24,39,18		21,21,51,50	
		2, 5,14,56,12,56,54,47		9, 9
24″	4,52,15,53,57,34,21,21,34, 5		21,22, 0,59	
		2, 5,14,55,51,34,53,48		9, 9
26″	4,52,17,59,12,30,12,56,27,53		21,22,10, 8	
		2, 5,14,55,30,12,43,40		9, 9
28″	4,52,20, 4,27,25,43, 9,11,33		21,22,19,17	
		2, 5,14,55, 8,50,24,23		9, 9
30″	4,52,22, 9,42,20,51,59,35,56		21,22,28,26	
		2, 5,14,54,47,27,55,57		9, 9
32″	4,52,24,14,57,15,39,27,31,53		21,22,37,35	
		2, 5,14,54,26, 5,18,22		9, 9
34″	4,52,26,20,12,10, 5,32,50,15		21,22,46,44	
		2, 5,14,54, 4,42,31,38		9, 9
36″	4,52,28,25,27, 4,10,15,21,53		21,22,55,53	
		2, 5,14,53,43,19,35,45		9, 9
38″	4,52,30,30,41,57,53,34,57,38		21,23, 5, 2	
		2, 5,14,53,21,56,30,43		9, 9
40″	4,52,32,35,56,51,15,31,28,21		21,23,14,11	
		2, 5,14,53, 0,33,16,32		9, 9
42″	4,52,34,41,11,44,16, 4,44,53		21,23,23,20	
		2, 5,14,52,39, 9,53,12		9, 9
44″	4,52,36,46,26,36,55,14,38, 5		21,23,32,29	
		2, 5,14,52,17,46,20,43		9, 9
46″	4,52,38,51,41,29,13, 0,58,48		21,23,41,38	
		2, 5,14,51,56,22,39, 5		9, 9
48″	4,52,40,56,56,21, 9,23,37,53		21,23,50,47	
		2, 5,14,51,34,58,48,18		9, 9
50″	4,52,43, 2,11,12,44,22,26,11		21,23,59,56	
		2, 5,14,51,13,34,48,22		9, 9
52″	4,52,45, 7,26, 3,57,57,14,33		21,24, 9, 5	
		2, 5,14,50,52,10,39,17		9, 9
54″	4,52,47,12,40,54,50, 7,53,50		21,24,18,14	
		2, 5,14,50,30,46,21, 3		9, 9
56″	4,52,49,17,55,45,20,54,14,53		21,24,27,23	
		2, 5,14,50, 9,21,53,40		9, 9
58″	4,52,51,23,10,35,30,16, 8,33		21,24,36,32	
		2, 5,14,49,47,57,17, 8		
60″	4,52,53,28,25,25,18,13,25,41			
exact	4,52,53,28,25,25,18,12,56,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°40′ 0″	4,52,53,28,25,25,18,12,56,43			
		2, 5,14,49,26,32,28,24		
2″	4,52,55,33,40,14,44,45,25, 7		21,24,55, 2	
		2, 5,14,49, 5, 7,33,22		9, 9
4″	4,52,57,38,55, 3,49,52,58,29		21,25, 4,11	
		2, 5,14,48,43,42,29,11		9, 9
6″	4,52,59,44, 9,52,33,35,27,40		21,25,13,20	
		2, 5,14,48,22,17,15,51		9, 9
8″	4,53, 1,49,24,40,55,52,43,31		21,25,22,29	
		2, 5,14,48, 0,51,53,22		9, 9
10″	4,53, 3,54,39,28,56,44,36,53		21,25,31,38	
		2, 5,14,47,39,26,21,44		9, 9
12″	4,53, 5,59,54,16,36,10,58,37		21,25,40,47	
		2, 5,14,47,18, 0,40,57		9, 9
14″	4,53, 8, 5, 9, 3,54,11,39,34		21,25,49,56	
		2, 5,14,46,56,34,51, 1		9, 9
16″	4,53,10,10,23,50,50,46,30,35		21,25,59, 5	
		2, 5,14,46,35, 8,51,56		9, 9
18″	4,53,12,15,38,37,25,55,22,31		21,26, 8,14	
		2, 5,14,46,13,42,43,42		9, 9
20″	4,53,14,20,53,23,39,38, 6,13		21,26,17,23	
		2, 5,14,45,52,16,26,19		9, 9
22″	4,53,16,26, 8, 9,31,54,32,32		21,26,26,32	
		2, 5,14,45,30,49,59,47		9, 9
24″	4,53,18,31,22,55, 2,44,32,19		21,26,35,41	
		2, 5,14,45, 9,23,24, 6		9, 9
26″	4,53,20,36,37,40,12, 7,56,25		21,26,44,50	
		2, 5,14,44,47,56,39,16		9, 9
28″	4,53,22,41,52,25, 0, 4,35,41		21,26,53,59	
		2, 5,14,44,26,29,45,17		9, 9
30″	4,53,24,47, 7, 9,26,34,20,58		21,27, 3, 8	
		2, 5,14,44, 5, 2,42, 9		9, 9
32″	4,53,26,52,21,53,31,37, 3, 7		21,27,12,17	
		2, 5,14,43,43,35,29,52		9, 9
34″	4,53,28,57,36,37,15,12,32,59		21,27,21,26	
		2, 5,14,43,22, 8, 8,26		9, 9
36″	4,53,31, 2,51,20,37,20,41,25		21,27,30,35	
		2, 5,14,43, 0,40,37,51		9, 9
38″	4,53,33, 8, 6, 3,38, 1,19,16		21,27,39,44	
		2, 5,14,42,39,12,58, 7		9, 9
40″	4,53,35,13,20,46,17,14,17,23		21,27,48,53	
		2, 5,14,42,17,45, 9,14		9, 9
42″	4,53,37,18,35,28,34,59,26,37		21,27,58, 2	
		2, 5,14,41,56,17,11,12		9, 9
44″	4,53,39,23,50,10,31,16,37,49		21,28, 7,11	
		2, 5,14,41,34,49, 4, 1		9, 9
46″	4,53,41,29, 4,52, 6, 5,41,50		21,28,16,20	
		2, 5,14,41,13,20,47,41		9, 9
48″	4,53,43,34,19,33,19,26,29,31		21,28,25,29	
		2, 5,14,40,51,52,22,12		9, 9
50″	4,53,45,39,34,14,11,18,51,43		21,28,34,38	
		2, 5,14,40,30,23,47,34		9, 9
52″	4,53,47,44,48,54,41,42,39,17		21,28,43,47	
		2, 5,14,40, 8,55, 3,47		9, 9
54″	4,53,49,50, 3,34,50,37,43, 4		21,28,52,56	
		2, 5,14,39,47,26,10,51		9, 9
56″	4,53,51,55,18,14,38, 3,53,55		21,29, 2, 5	
		2, 5,14,39,25,57, 8,46		9, 9
58″	4,53,54, 0,32,54, 4, 1, 2,41		21,29,11,14	
		2, 5,14,39, 4,27,57,32		
60″	4,53,56, 5,47,33, 8,29, 0,13			
exact	4,53,56, 5,47,33, 8,28,31,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°41′ 0″	4,53,56, 5,47,33, 8,28,31,47			
		2, 5,14,38,42,58,34,11		
2″	4,53,58,11, 2,11,51,27, 5,58		21,29,29,44	
		2, 5,14,38,21,29, 4,27		9, 9
4″	4,54, 0,16,16,50,12,56,10,25		21,29,38,53	
		2, 5,14,37,59,59,25,34		9, 9
6″	4,54, 2,21,31,28,12,55,35,59		21,29,48, 2	
		2, 5,14,37,38,29,37,32		9, 9
8″	4,54, 4,26,46, 5,51,25,13,31		21,29,57,11	
		2, 5,14,37,16,59,40,21		9, 9
10″	4,54, 6,32, 0,43, 8,24,53,52		21,30, 6,20	
		2, 5,14,36,55,29,34, 1		9, 9
12″	4,54, 8,37,15,20, 3,54,27,53		21,30,15,29	
		2, 5,14,36,33,59,18,32		9, 9
14″	4,54,10,42,29,56,37,53,46,25		21,30,24,38	
		2, 5,14,36,12,28,53,54		9, 9
16″	4,54,12,47,44,32,50,22,40,19		21,30,33,47	
		2, 5,14,35,50,58,20, 7		9, 9
18″	4,54,14,52,59, 8,41,21, 0,26		21,30,42,56	
		2, 5,14,35,29,27,37,11		9, 9
20″	4,54,16,58,13,44,10,48,37,37		21,30,52, 5	
		2, 5,14,35, 7,56,45, 6		9, 9
22″	4,54,19, 3,28,19,18,45,22,43		21,31, 1,14	
		2, 5,14,34,46,25,43,52		9, 9
24″	4,54,21, 8,42,54, 5,11, 6,35		21,31,10,23	
		2, 5,14,34,24,54,33,29		9, 9
26″	4,54,23,13,57,28,30, 5,40, 4		21,31,19,32	
		2, 5,14,34, 3,23,13,57		9, 9
28″	4,54,25,19,12, 2,33,28,54, 1		21,31,28,41	
		2, 5,14,33,41,51,45,16		9, 9
30″	4,54,27,24,26,36,15,20,39,17		21,31,37,50	
		2, 5,14,33,20,20, 7,26		9, 9
32″	4,54,29,29,41, 9,35,40,46,43		21,31,46,59	
		2, 5,14,32,58,48,20,27		9, 9
34″	4,54,31,34,55,42,34,29, 7,10		21,31,56, 8	
		2, 5,14,32,37,16,24,19		9, 9
36″	4,54,33,40,10,15,11,45,31,29		21,32, 5,17	
		2, 5,14,32,15,44,19, 2		9, 9
38″	4,54,35,45,24,47,27,29,50,31		21,32,14,26	
		2, 5,14,31,54,12, 4,36		9, 9
40″	4,54,37,50,39,19,21,41,55, 7		21,32,23,35	
		2, 5,14,31,32,39,41, 1		9, 9
42″	4,54,39,55,53,50,54,21,36, 8		21,32,32,44	
		2, 5,14,31,11, 7, 8,17		9, 9
44″	4,54,42, 1, 8,22, 5,28,44,25		21,32,41,53	
		2, 5,14,30,49,34,26,24		9, 9
46″	4,54,44, 6,22,52,55, 3,10,49		21,32,51, 2	
		2, 5,14,30,28, 1,35,22		9, 9
48″	4,54,46,11,37,23,23, 4,46,11		21,33, 0,11	
		2, 5,14,30, 6,28,35,11		9, 9
50″	4,54,48,16,51,53,29,33,21,22		21,33, 9,20	
		2, 5,14,29,44,55,25,51		9, 9
52″	4,54,50,22, 6,23,14,28,47,13		21,33,18,29	
		2, 5,14,29,23,22, 7,22		9, 9
54″	4,54,52,27,20,52,37,50,54,35		21,33,27,38	
		2, 5,14,29, 1,48,39,44		9, 9
56″	4,54,54,32,35,21,39,39,34,19		21,33,36,47	
		2, 5,14,28,40,15, 2,57		9, 9
58″	4,54,56,37,49,50,19,54,37,16		21,33,45,56	
		2, 5,14,28,18,41,17, 1		
60″	4,54,58,43, 4,18,38,35,54,17			
exact	4,54,58,43, 4,18,38,35,28,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°42′ 0″	4,54,58,43, 4,18,38,35,28,56			
		2, 5,14,27,57, 7,19,13		
2″	4,55, 0,48,18,46,35,42,48, 9		21,34, 4,25	
		2, 5,14,27,35,33,14,48		9, 9
4″	4,55, 2,53,33,14,11,16, 2,57		21,34,13,34	
		2, 5,14,27,13,59, 1,14		9, 9
6″	4,55, 4,58,47,41,25,15, 4,11		21,34,22,43	
		2, 5,14,26,52,24,38,31		9, 9
8″	4,55, 7, 4, 2, 8,17,39,42,42		21,34,31,52	
		2, 5,14,26,30,50, 6,39		9, 9
10″	4,55, 9, 9,16,34,48,29,49,21		21,34,41, 1	
		2, 5,14,26, 9,15,25,38		9, 9
12″	4,55,11,14,31, 0,57,45,14,59		21,34,50,10	
		2, 5,14,25,47,40,35,28		9, 9
14″	4,55,13,19,45,26,45,25,50,27		21,34,59,19	
		2, 5,14,25,26, 5,36, 9		9, 9
16″	4,55,15,24,59,52,11,31,26,36		21,35, 8,28	
		2, 5,14,25, 4,30,27,41		9, 9
18″	4,55,17,30,14,17,16, 1,54,17		21,35,17,37	
		2, 5,14,24,42,55,10, 4		9, 9
20″	4,55,19,35,28,41,58,57, 4,21		21,35,26,46	
		2, 5,14,24,21,19,43,18		9, 9
22″	4,55,21,40,43, 6,20,16,47,39		21,35,35,55	
		2, 5,14,23,59,44, 7,23		9, 9
24″	4,55,23,45,57,30,20, 0,55, 2		21,35,45, 4	
		2, 5,14,23,38, 8,22,19		9, 9
26″	4,55,25,51,11,53,58, 9,17,21		21,35,54,13	
		2, 5,14,23,16,32,28, 6		9, 9
28″	4,55,27,56,26,17,14,41,45,27		21,36, 3,22	
		2, 5,14,22,54,56,24,44		9, 9
30″	4,55,30, 1,40,40, 9,38,10,11		21,36,12,31	
		2, 5,14,22,33,20,12,13		9, 9
32″	4,55,32, 6,55, 2,42,58,22,24		21,36,21,40	
		2, 5,14,22,11,43,50,33		9, 9
34″	4,55,34,12, 9,24,54,42,12,57		21,36,30,49	
		2, 5,14,21,50, 7,19,44		9, 9
36″	4,55,36,17,23,46,44,49,32,41		21,36,39,58	
		2, 5,14,21,28,30,39,46		9, 9
38″	4,55,38,22,38, 8,13,20,12,27		21,36,49, 7	
		2, 5,14,21, 6,53,50,39		9, 9
40″	4,55,40,27,52,29,20,14, 3, 6		21,36,58,16	
		2, 5,14,20,45,16,52,23		9, 9
42″	4,55,42,33, 6,50, 5,30,55,29		21,37, 7,25	
		2, 5,14,20,23,39,44,58		9, 9
44″	4,55,44,38,21,10,29,10,40,27		21,37,16,34	
		2, 5,14,20, 2, 2,28,24		9, 9
46″	4,55,46,43,35,30,31,13, 8,51		21,37,25,43	
		2, 5,14,19,40,25, 2,41		9, 9
48″	4,55,48,48,49,50,11,38,11,32		21,37,34,52	
		2, 5,14,19,18,47,27,49		9, 9
50″	4,55,50,54, 4, 9,30,25,39,21		21,37,44, 1	
		2, 5,14,18,57, 9,43,48		9, 9
52″	4,55,52,59,18,28,27,35,23, 9		21,37,53,10	
		2, 5,14,18,35,31,50,38		9, 9
54″	4,55,55, 4,32,47, 3, 7,13,47		21,38, 2,19	
		2, 5,14,18,13,53,48,19		9, 9
56″	4,55,57, 9,47, 5,17, 1, 2, 6		21,38,11,28	
		2, 5,14,17,52,15,36,51		9, 9
58″	4,55,59,15, 1,23, 9,16,38,57		21,38,20,37	
		2, 5,14,17,30,37,16,14		
60″	4,56, 1,20,15,40,39,53,55,11			
exact	4,56, 1,20,15,40,39,53,29, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°43′ 0″	4,56, 1,20,15,40,39,53,29, 4			
		2, 5,14,17, 8,58,43,44		
2″	4,56, 3,25,29,57,48,52,12,48		21,38,39, 6	
		2, 5,14,16,47,20, 4,38		9, 9
4″	4,56, 5,30,44,14,36,12,17,26		21,38,48,15	
		2, 5,14,16,25,41,16,23		9, 9
6″	4,56, 7,35,58,31, 1,53,33,49		21,38,57,24	
		2, 5,14,16, 4, 2,18,59		9, 9
8″	4,56, 9,41,12,47, 5,55,52,48		21,39, 6,33	
		2, 5,14,15,42,23,12,26		9, 9
10″	4,56,11,46,27, 2,48,19, 5,14		21,39,15,42	
		2, 5,14,15,20,43,56,44		9, 9
12″	4,56,13,51,41,18, 9, 3, 1,58		21,39,24,51	
		2, 5,14,14,59, 4,31,53		9, 9
14″	4,56,15,56,55,33, 8, 7,33,51		21,39,34, 0	
		2, 5,14,14,37,24,57,53		9, 9
16″	4,56,18, 2, 9,47,45,32,31,44		21,39,43, 9	
		2, 5,14,14,15,45,14,44		9, 9
18″	4,56,20, 7,24, 2, 1,17,46,28		21,39,52,18	
		2, 5,14,13,54, 5,22,26		9, 9
20″	4,56,22,12,38,15,55,23, 8,54		21,40, 1,27	
		2, 5,14,13,32,25,20,59		9, 9
22″	4,56,24,17,52,29,27,48,29,53		21,40,10,36	
		2, 5,14,13,10,45,10,23		9, 9
24″	4,56,26,23, 6,42,38,33,40,16		21,40,19,45	
		2, 5,14,12,49, 4,50,38		9, 9
26″	4,56,28,28,20,55,27,38,30,54		21,40,28,54	
		2, 5,14,12,27,24,21,44		9, 9
28″	4,56,30,33,35, 7,55, 2,52,38		21,40,38, 3	
		2, 5,14,12, 5,43,43,41		9, 9
30″	4,56,32,38,49,20, 0,46,36,19		21,40,47,12	
		2, 5,14,11,44, 2,56,29		9, 9
32″	4,56,34,44, 3,31,44,49,32,48		21,40,56,21	
		2, 5,14,11,22,22, 0, 8		9, 9
34″	4,56,36,49,17,43, 7,11,32,56		21,41, 5,30	
		2, 5,14,11, 0,40,54,38		9, 9
36″	4,56,38,54,31,54, 7,52,27,34		21,41,14,39	
		2, 5,14,10,38,59,39,59		9, 9
38″	4,56,40,59,46, 4,46,52, 7,33		21,41,23,48	
		2, 5,14,10,17,18,16,11		9, 9
40″	4,56,43, 5, 0,15, 4,10,23,44		21,41,32,57	
		2, 5,14, 9,55,36,43,14		9, 9
42″	4,56,45,10,14,24,59,47, 6,58		21,41,42, 6	
		2, 5,14, 9,33,55, 1, 8		9, 9
44″	4,56,47,15,28,34,33,42, 8, 6		21,41,51,15	
		2, 5,14, 9,12,13, 9,53		9, 9
46″	4,56,49,20,42,43,45,55,17,59		21,42, 0,24	
		2, 5,14, 8,50,31, 9,29		9, 9
48″	4,56,51,25,56,52,36,26,27,28		21,42, 9,33	
		2, 5,14, 8,28,48,59,56		9, 9
50″	4,56,53,31,11, 1, 5,15,27,24		21,42,18,42	
		2, 5,14, 8, 7, 6,41,14		9, 9
52″	4,56,55,36,25, 9,12,22, 8,38		21,42,27,51	
		2, 5,14, 7,45,24,13,23		9, 9
54″	4,56,57,41,39,16,57,46,22, 1		21,42,37, 0	
		2, 5,14, 7,23,41,36,23		9, 9
56″	4,56,59,46,53,24,21,27,58,24		21,42,46, 9	
		2, 5,14, 7, 1,58,50,14		9, 9
58″	4,57, 1,52, 7,31,23,26,48,38		21,42,55,18	
		2, 5,14, 6,40,15,54,56		
60″	4,57, 3,57,21,38, 3,42,43,34			
exact	4,57, 3,57,21,38, 3,42,19, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°44′ 0″	4,57, 3,57,21,38, 3,42,19, 4			
		2, 5,14, 6,18,32,47,54		
2″	4,57, 6, 2,35,44,22,15, 6,58		21,43,13,47	
		2, 5,14, 5,56,49,34, 7		9, 9
4″	4,57, 8, 7,49,50,19, 4,41, 5		21,43,22,56	
		2, 5,14, 5,35, 6,11,11		9, 9
6″	4,57,10,13, 3,55,54,10,52,16		21,43,32, 5	
		2, 5,14, 5,13,22,39, 6		9, 9
8″	4,57,12,18,18, 1, 7,33,31,22		21,43,41,14	
		2, 5,14, 4,51,38,57,52		9, 9
10″	4,57,14,23,32, 5,59,12,29,14		21,43,50,23	
		2, 5,14, 4,29,55, 7,29		9, 9
12″	4,57,16,28,46,10,29, 7,36,43		21,43,59,32	
		2, 5,14, 4, 8,11, 7,57		9, 9
14″	4,57,18,34, 0,14,37,18,44,40		21,44, 8,41	
		2, 5,14, 3,46,26,59,16		9, 9
16″	4,57,20,39,14,18,23,45,43,56		21,44,17,50	
		2, 5,14, 3,24,42,41,26		9, 9
18″	4,57,22,44,28,21,48,28,25,22		21,44,26,59	
		2, 5,14, 3, 2,58,14,27		9, 9
20″	4,57,24,49,42,24,51,26,39,49		21,44,36, 8	
		2, 5,14, 2,41,13,38,19		9, 9
22″	4,57,26,54,56,27,32,40,18, 8		21,44,45,17	
		2, 5,14, 2,19,28,53, 2		9, 9
24″	4,57,29, 0,10,29,52, 9,11,10		21,44,54,26	
		2, 5,14, 1,57,43,58,36		9, 9
26″	4,57,31, 5,24,31,49,53, 9,46		21,45, 3,35	
		2, 5,14, 1,35,58,55, 1		9, 9
28″	4,57,33,10,38,33,25,52, 4,47		21,45,12,44	
		2, 5,14, 1,14,13,42,17		9, 9
30″	4,57,35,15,52,34,40, 5,47, 4		21,45,21,53	
		2, 5,14, 0,52,28,20,24		9, 9
32″	4,57,37,21, 6,35,32,34, 7,28		21,45,31, 2	
		2, 5,14, 0,30,42,49,22		9, 9
34″	4,57,39,26,20,36, 3,16,56,50		21,45,40,11	
		2, 5,14, 0, 8,57, 9,11		9, 9
36″	4,57,41,31,34,36,12,14, 6, 1		21,45,49,20	
		2, 5,13,59,47,11,19,51		9, 9
38″	4,57,43,36,48,35,59,25,25,52		21,45,58,29	
		2, 5,13,59,25,25,21,22		9, 9
40″	4,57,45,42, 2,35,24,50,47,14		21,46, 7,38	
		2, 5,13,59, 3,39,13,44		9, 9
42″	4,57,47,47,16,34,28,30, 0,58		21,46,16,47	
		2, 5,13,58,41,52,56,57		9, 9
44″	4,57,49,52,30,33,10,22,57,55		21,46,25,56	
		2, 5,13,58,20, 6,31, 1		9, 9
46″	4,57,51,57,44,31,30,29,28,56		21,46,35, 5	
		2, 5,13,57,58,19,55,56		9, 9
48″	4,57,54, 2,58,29,28,49,24,52		21,46,44,14	
		2, 5,13,57,36,33,11,42		9, 9
50″	4,57,56, 8,12,27, 5,22,36,34		21,46,53,23	
		2, 5,13,57,14,46,18,19		9, 9
52″	4,57,58,13,26,24,20, 8,54,53		21,47, 2,32	
		2, 5,13,56,52,59,15,47		9, 9
54″	4,58, 0,18,40,21,13, 8,10,40		21,47,11,41	
		2, 5,13,56,31,12, 4, 6		9, 9
56″	4,58, 2,23,54,17,44,20,14,46		21,47,20,50	
		2, 5,13,56, 9,24,43,16		9, 9
58″	4,58, 4,29, 8,13,53,44,58, 2		21,47,29,59	
		2, 5,13,55,47,37,13,17		
60″	4,58, 6,34,22, 9,41,22,11,19			
exact	4,58, 6,34,22, 9,41,21,51,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°45′ 0″	4,58, 6,34,22, 9,41,21,51,41			
		2, 5,13,55,25,49,31,56		
2″	4,58, 8,39,36, 5, 7,11,23,37		21,47,48,27	
		2, 5,13,55, 4, 1,43,29		9, 9
4″	4,58,10,44,50, 0,11,13, 7, 6		21,47,57,36	
		2, 5,13,54,42,13,45,53		9, 9
6″	4,58,12,50, 3,54,53,26,52,59		21,48, 6,45	
		2, 5,13,54,20,25,39, 8		9, 9
8″	4,58,14,55,17,49,13,52,32, 7		21,48,15,54	
		2, 5,13,53,58,37,23,14		9, 9
10″	4,58,17, 0,31,43,12,29,55,21		21,48,25, 3	
		2, 5,13,53,36,48,58,11		9, 9
12″	4,58,19, 5,45,36,49,18,53,32		21,48,34,12	
		2, 5,13,53,15, 0,23,59		9, 9
14″	4,58,21,10,59,30, 4,19,17,31		21,48,43,21	
		2, 5,13,52,53,11,40,38		9, 9
16″	4,58,23,16,13,22,57,30,58, 9		21,48,52,30	
		2, 5,13,52,31,22,48, 8		9, 9
18″	4,58,25,21,27,15,28,53,46,17		21,49, 1,39	
		2, 5,13,52, 9,33,46,29		9, 9
20″	4,58,27,26,41, 7,38,27,32,46		21,49,10,48	
		2, 5,13,51,47,44,35,41		9, 9
22″	4,58,29,31,54,59,26,12, 8,27		21,49,19,57	
		2, 5,13,51,25,55,15,44		9, 9
24″	4,58,31,37, 8,50,52, 7,24,11		21,49,29, 6	
		2, 5,13,51, 4, 5,46,38		9, 9
26″	4,58,33,42,22,41,56,13,10,49		21,49,38,15	
		2, 5,13,50,42,16, 8,23		9, 9
28″	4,58,35,47,36,32,38,29,19,12		21,49,47,24	
		2, 5,13,50,20,26,20,59		9, 9
30″	4,58,37,52,50,22,58,55,40,11		21,49,56,33	
		2, 5,13,49,58,36,24,26		9, 9
32″	4,58,39,58, 4,12,57,32, 4,37		21,50, 5,42	
		2, 5,13,49,36,46,18,44		9, 9
34″	4,58,42, 3,18, 2,34,18,23,21		21,50,14,51	
		2, 5,13,49,14,56, 3,53		9, 9
36″	4,58,44, 8,31,51,49,14,27,14		21,50,24, 0	
		2, 5,13,48,53, 5,39,53		9, 9
38″	4,58,46,13,45,40,42,20, 7, 7		21,50,33, 9	
		2, 5,13,48,31,15, 6,44		9, 9
40″	4,58,48,18,59,29,13,35,13,51		21,50,42,18	
		2, 5,13,48, 9,24,24,26		9, 9
42″	4,58,50,24,13,17,22,59,38,17		21,50,51,27	
		2, 5,13,47,47,33,32,59		9, 9
44″	4,58,52,29,27, 5,10,33,11,16		21,51, 0,36	
		2, 5,13,47,25,42,32,23		9, 9
46″	4,58,54,34,40,52,36,15,43,39		21,51, 9,45	
		2, 5,13,47, 3,51,22,38		9, 9
48″	4,58,56,39,54,39,40, 7, 6,17		21,51,18,54	
		2, 5,13,46,42, 0, 3,44		9, 9
50″	4,58,58,45, 8,26,22, 7,10, 1		21,51,28, 3	
		2, 5,13,46,20, 8,35,41		9, 9
52″	4,59, 0,50,22,12,42,15,45,42		21,51,37,12	
		2, 5,13,45,58,16,58,29		9, 9
54″	4,59, 2,55,35,58,40,32,44,11		21,51,46,21	
		2, 5,13,45,36,25,12, 8		9, 9
56″	4,59, 5, 0,49,44,16,57,56,19		21,51,55,30	
		2, 5,13,45,14,33,16,38		9, 9
58″	4,59, 7, 6, 3,29,31,31,12,57		21,52, 4,39	
		2, 5,13,44,52,41,11,59		
60″	4,59, 9,11,17,14,24,12,24,56			
exact	4,59, 9,11,17,14,24,12, 5,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°46′ 0″	4,59, 9,11,17,14,24,12, 5,39			
		2, 5,13,44,30,48,56, 1		
2″	4,59,11,16,30,58,55, 1, 1,40		21,52,23, 6	
		2, 5,13,44, 8,56,32,55		9, 9
4″	4,59,13,21,44,43, 3,57,34,35		21,52,32,15	
		2, 5,13,43,47, 4, 0,40		9, 9
6″	4,59,15,26,58,26,51, 1,35,15		21,52,41,24	
		2, 5,13,43,25,11,19,16		9, 9
8″	4,59,17,32,12,10,16,12,54,31		21,52,50,33	
		2, 5,13,43, 3,18,28,43		9, 9
10″	4,59,19,37,25,53,19,31,23,14		21,52,59,42	
		2, 5,13,42,41,25,29, 1		9, 9
12″	4,59,21,42,39,36, 0,56,52,15		21,53, 8,51	
		2, 5,13,42,19,32,20,10		9, 9
14″	4,59,23,47,53,18,20,29,12,25		21,53,18, 0	
		2, 5,13,41,57,39, 2,10		9, 9
16″	4,59,25,53, 7, 0,18, 8,14,35		21,53,27, 9	
		2, 5,13,41,35,45,35, 1		9, 9
18″	4,59,27,58,20,41,53,53,49,36		21,53,36,18	
		2, 5,13,41,13,51,58,43		9, 9
20″	4,59,30, 3,34,23, 7,45,48,19		21,53,45,27	
		2, 5,13,40,51,58,13,16		9, 9
22″	4,59,32, 8,48, 3,59,44, 1,35		21,53,54,36	
		2, 5,13,40,30, 4,18,40		9, 9
24″	4,59,34,14, 1,44,29,48,20,15		21,54, 3,45	
		2, 5,13,40, 8,10,14,55		9, 9
26″	4,59,36,19,15,24,37,58,35,10		21,54,12,54	
		2, 5,13,39,46,16, 2, 1		9, 9
28″	4,59,38,24,29, 4,24,14,37,11		21,54,22, 3	
		2, 5,13,39,24,21,39,58		9, 9
30″	4,59,40,29,42,43,48,36,17, 9		21,54,31,12	
		2, 5,13,39, 2,27, 8,46		9, 9
32″	4,59,42,34,56,22,51, 3,25,55		21,54,40,21	
		2, 5,13,38,40,32,28,25		9, 9
34″	4,59,44,40,10, 1,31,35,54,20		21,54,49,30	
		2, 5,13,38,18,37,38,55		9, 9
36″	4,59,46,45,23,39,50,13,33,15		21,54,58,39	
		2, 5,13,37,56,42,40,16		9, 9
38″	4,59,48,50,37,17,46,56,13,31		21,55, 7,48	
		2, 5,13,37,34,47,32,28		9, 9
40″	4,59,50,55,50,55,21,43,45,59		21,55,16,57	
		2, 5,13,37,12,52,15,31		9, 9
42″	4,59,53, 1, 4,32,34,36, 1,30		21,55,26, 6	
		2, 5,13,36,50,56,49,25		9, 9
44″	4,59,55, 6,18, 9,25,32,50,55		21,55,35,15	
		2, 5,13,36,29, 1,14,10		9, 9
46″	4,59,57,11,31,45,54,34, 5, 5		21,55,44,24	
		2, 5,13,36, 7, 5,29,46		9, 9
48″	4,59,59,16,45,22, 1,39,34,51		21,55,53,33	
		2, 5,13,35,45, 9,36,13		9, 9
50″	5, 0, 1,21,58,57,46,49,11, 4		21,56, 2,42	
		2, 5,13,35,23,13,33,31		9, 9
52″	5, 0, 3,27,12,33,10, 2,44,35		21,56,11,51	
		2, 5,13,35, 1,17,21,40		9, 9
54″	5, 0, 5,32,26, 8,11,20, 6,15		21,56,21, 0	
		2, 5,13,34,39,21, 0,40		9, 9
56″	5, 0, 7,37,39,42,50,41, 6,55		21,56,30, 9	
		2, 5,13,34,17,24,30,31		9, 9
58″	5, 0, 9,42,53,17, 8, 5,37,26		21,56,39,18	
		2, 5,13,33,55,27,51,13		
60″	5, 0,11,48, 6,51, 3,33,28,39			
exact	5, 0,11,48, 6,51, 3,33, 5,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°47′ 0″	5, 0,11,48, 6,51, 3,33, 5,41	2, 5,13,33,33,31, 0,23		
2″	5, 0,13,53,20,24,37, 4, 6, 4	2, 5,13,33,11,34, 2,37	21,56,57,46	
4″	5, 0,15,58,33,57,48,38, 8,41	2, 5,13,32,49,36,55,42	21,57, 6,55	9, 9
6″	5, 0,18, 3,47,30,38,15, 4,23	2, 5,13,32,27,39,39,38	21,57,16, 4	9, 9
8″	5, 0,20, 9, 1, 3, 5,54,44, 1	2, 5,13,32, 5,42,14,25	21,57,25,13	9, 9
10″	5, 0,22,14,14,35,11,36,58,26	2, 5,13,31,43,44,40, 3	21,57,34,22	9, 9
12″	5, 0,24,19,28, 6,55,21,38,29	2, 5,13,31,21,46,56,32	21,57,43,31	9, 9
14″	5, 0,26,24,41,38,17, 8,35, 1	2, 5,13,30,59,49, 3,52	21,57,52,40	9, 9
16″	5, 0,28,29,55, 9,16,57,38,53	2, 5,13,30,37,51, 2, 3	21,58, 1,49	9, 9
18″	5, 0,30,35, 8,39,54,48,40,56	2, 5,13,30,15,52,51, 5	21,58,10,58	9, 9
20″	5, 0,32,40,22,10,10,41,32, 1	2, 5,13,29,53,54,30,58	21,58,20, 7	9, 9
22″	5, 0,34,45,35,40, 4,36, 2,59	2, 5,13,29,31,56, 1,42	21,58,29,16	9, 9
24″	5, 0,36,50,49, 9,36,32, 4,41	2, 5,13,29, 9,57,23,17	21,58,38,25	9, 9
26″	5, 0,38,56, 2,38,46,29,27,58	2, 5,13,28,47,58,35,43	21,58,47,34	9, 9
28″	5, 0,41, 1,16, 7,34,28, 3,41	2, 5,13,28,25,59,39, 0	21,58,56,43	9, 9
30″	5, 0,43, 6,29,36, 0,27,42,41	2, 5,13,28, 4, 0,33, 8	21,59, 5,52	9, 9
32″	5, 0,45,11,43, 4, 4,28,15,49	2, 5,13,27,42, 1,18, 7	21,59,15, 1	9, 9
34″	5, 0,47,16,56,31,46,29,33,56	2, 5,13,27,20, 1,53,57	21,59,24,10	9, 9
36″	5, 0,49,22, 9,59, 6,31,27,53	2, 5,13,26,58, 2,20,38	21,59,33,19	9, 9
38″	5, 0,51,27,23,26, 4,33,48,31	2, 5,13,26,36, 2,38,10	21,59,42,28	9, 9
40″	5, 0,53,32,36,52,40,36,26,41	2, 5,13,26,14, 2,46,33	21,59,51,37	9, 9
42″	5, 0,55,37,50,18,54,39,13,14	2, 5,13,25,52, 2,45,47	22, 0, 0,46	9, 9
44″	5, 0,57,43, 3,44,46,41,59, 1	2, 5,13,25,30, 2,35,52	22, 0, 9,55	9, 9
46″	5, 0,59,48,17,10,16,44,34,53	2, 5,13,25, 8, 2,16,48	22, 0,19, 4	9, 9
48″	5, 1, 1,53,30,35,24,46,51,41	2, 5,13,24,46, 1,48,35	22, 0,28,13	9, 9
50″	5, 1, 3,58,44, 0,10,48,40,16	2, 5,13,24,24, 1,11,13	22, 0,37,22	9, 9
52″	5, 1, 6, 3,57,24,34,49,51,29	2, 5,13,24, 2, 0,24,42	22, 0,46,31	9, 9
54″	5, 1, 8, 9,10,48,36,50,16,11	2, 5,13,23,39,59,29, 2	22, 0,55,40	9, 9
56″	5, 1,10,14,24,12,16,49,45,13	2, 5,13,23,17,58,24,13	22, 1, 4,49	9, 9
58″	5, 1,12,19,37,35,34,48, 9,26	2, 5,13,22,55,57,10,15	22, 1,13,58	
60″	5, 1,14,24,50,58,30,45,19,41			
exact	5, 1,14,24,50,58,30,45, 2,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°48′ 0″	5, 1,14,24,50,58,30,45, 2,30	2, 5,13,22,33,55,45,11		
2″	5, 1,16,30, 4,21, 4,40,47,41	2, 5,13,22,11,54,12,47	22, 1,32,24	9, 9
4″	5, 1,18,35,17,43,16,35, 0,28	2, 5,13,21,49,52,31,14	22, 1,41,33	9, 9
6″	5, 1,20,40,31, 5, 6,27,31,42	2, 5,13,21,27,50,40,32	22, 1,50,42	9, 9
8″	5, 1,22,45,44,26,34,18,12,14	2, 5,13,21, 5,48,40,41	22, 1,59,51	9, 9
10″	5, 1,24,50,57,47,40, 6,52,55	2, 5,13,20,43,46,31,41	22, 2, 9, 0	9, 9
12″	5, 1,26,56,11, 8,23,53,24,36	2, 5,13,20,21,44,13,32	22, 2,18, 9	9, 9
14″	5, 1,29, 1,24,28,45,37,38, 8	2, 5,13,19,59,41,46,14	22, 2,27,18	9, 9
16″	5, 1,31, 6,37,48,45,19,24,22	2, 5,13,19,37,39, 9,47	22, 2,36,27	9, 9
18″	5, 1,33,11,51, 8,22,58,34, 9	2, 5,13,19,15,36,24,11	22, 2,45,36	9, 9
20″	5, 1,35,17, 4,27,38,34,58,20	2, 5,13,18,53,33,29,26	22, 2,54,45	9, 9
22″	5, 1,37,22,17,46,32, 8,27,46	2, 5,13,18,31,30,25,32	22, 3, 3,54	9, 9
24″	5, 1,39,27,31, 5, 3,38,53,18	2, 5,13,18, 9,27,12,29	22, 3,13, 3	9, 9
26″	5, 1,41,32,44,23,13, 6, 5,47	2, 5,13,17,47,23,50,17	22, 3,22,12	9, 9
28″	5, 1,43,37,57,41, 0,29,56, 4	2, 5,13,17,25,20,18,56	22, 3,31,21	9, 9
30″	5, 1,45,43,10,58,25,50,15, 0	2, 5,13,17, 3,16,38,26	22, 3,40,30	9, 9
32″	5, 1,47,48,24,15,29, 6,53,26	2, 5,13,16,41,12,48,47	22, 3,49,39	9, 9
34″	5, 1,49,53,37,32,10,19,42,13	2, 5,13,16,19, 8,49,59	22, 3,58,48	9, 9
36″	5, 1,51,58,50,48,29,28,32,12	2, 5,13,15,57, 4,42, 2	22, 4, 7,57	9, 9
38″	5, 1,54, 4, 4, 4,26,33,14,14	2, 5,13,15,35, 0,24,56	22, 4,17, 6	9, 9
40″	5, 1,56, 9,17,20, 1,33,39,10	2, 5,13,15,12,55,58,41	22, 4,26,15	9, 9
42″	5, 1,58,14,30,35,14,29,37,51	2, 5,13,14,50,51,23,17	22, 4,35,24	9, 9
44″	5, 2, 0,19,43,50, 5,21, 1, 8	2, 5,13,14,28,46,38,44	22, 4,44,33	9, 9
46″	5, 2, 2,24,57, 4,34, 7,39,52	2, 5,13,14, 6,41,45, 2	22, 4,53,42	9, 9
48″	5, 2, 4,30,10,18,40,49,24,54	2, 5,13,13,44,36,42,11	22, 5, 2,51	9, 9
50″	5, 2, 6,35,23,32,25,26, 7, 5	2, 5,13,13,22,31,30,11	22, 5,12, 0	9, 9
52″	5, 2, 8,40,36,45,47,57,37,16	2, 5,13,13, 0,26, 9, 2	22, 5,21, 9	9, 9
54″	5, 2,10,45,49,58,48,23,46,18	2, 5,13,12,38,20,38,44	22, 5,30,18	9, 9
56″	5, 2,12,51, 3,11,26,44,25, 2	2, 5,13,12,16,14,59,17	22, 5,39,27	9, 9
58″	5, 2,14,56,16,23,42,59,24,19	2, 5,13,11,54, 9,10,41	22, 5,48,36	
60″	5, 2,17, 1,29,35,37, 8,35, 0			
exact	5, 2,17, 1,29,35,37, 8,12,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°49′ 0″	5, 2,17, 1,29,35,37, 8,12,47			
		2, 5,13,11,32, 3,10,40		
2″	5, 2,19, 6,42,47, 9,11,23,27		22, 6, 7, 3	
		2, 5,13,11, 9,57, 3,37		9, 9
4″	5, 2,21,11,55,58,19, 8,27, 4		22, 6,16,12	
		2, 5,13,10,47,50,47,25		9, 9
6″	5, 2,23,17, 9, 9, 6,59,14,29		22, 6,25,21	
		2, 5,13,10,25,44,22, 4		9, 9
8″	5, 2,25,22,22,19,32,43,36,33		22, 6,34,30	
		2, 5,13,10, 3,37,47,34		9, 9
10″	5, 2,27,27,35,29,36,21,24, 7		22, 6,43,39	
		2, 5,13, 9,41,31, 3,55		9, 9
12″	5, 2,29,32,48,39,17,52,28, 2		22, 6,52,48	
		2, 5,13, 9,19,24,11, 7		9, 9
14″	5, 2,31,38, 1,48,37,16,39, 9		22, 7, 1,57	
		2, 5,13, 8,57,17, 9,10		9, 9
16″	5, 2,33,43,14,57,34,33,48,19		22, 7,11, 6	
		2, 5,13, 8,35, 9,58, 4		9, 9
18″	5, 2,35,48,28, 6, 9,43,46,23		22, 7,20,15	
		2, 5,13, 8,13, 2,37,49		9, 9
20″	5, 2,37,53,41,14,22,46,24,12		22, 7,29,24	
		2, 5,13, 7,50,55, 8,25		9, 9
22″	5, 2,39,58,54,22,13,41,32,37		22, 7,38,33	
		2, 5,13, 7,28,47,29,52		9, 9
24″	5, 2,42, 4, 7,29,42,29, 2,29		22, 7,47,42	
		2, 5,13, 7, 6,39,42,10		9, 9
26″	5, 2,44, 9,20,36,49, 8,44,39		22, 7,56,51	
		2, 5,13, 6,44,31,45,19		9, 9
28″	5, 2,46,14,33,43,33,40,29,58		22, 8, 6, 0	
		2, 5,13, 6,22,23,39,19		9, 9
30″	5, 2,48,19,46,49,56, 4, 9,17		22, 8,15, 9	
		2, 5,13, 6, 0,15,24,10		9, 9
32″	5, 2,50,24,59,55,56,19,33,27		22, 8,24,18	
		2, 5,13, 5,38, 6,59,52		9, 9
34″	5, 2,52,30,13, 1,34,26,33,19		22, 8,33,27	
		2, 5,13, 5,15,58,26,25		9, 9
36″	5, 2,54,35,26, 6,50,24,59,44		22, 8,42,36	
		2, 5,13, 4,53,49,43,49		9, 9
38″	5, 2,56,40,39,11,44,14,43,33		22, 8,51,45	
		2, 5,13, 4,31,40,52, 4		9, 9
40″	5, 2,58,45,52,16,15,55,35,37		22, 9, 0,54	
		2, 5,13, 4, 9,31,51,10		9, 9
42″	5, 3, 0,51, 5,20,25,27,26,47		22, 9,10, 3	
		2, 5,13, 3,47,22,41, 7		9, 9
44″	5, 3, 2,56,18,24,12,50, 7,54		22, 9,19,12	
		2, 5,13, 3,25,13,21,55		9, 9
46″	5, 3, 5, 1,31,27,38, 3,29,49		22, 9,28,21	
		2, 5,13, 3, 3, 3,53,34		9, 9
48″	5, 3, 7, 6,44,30,41, 7,23,23		22, 9,37,30	
		2, 5,13, 2,40,54,16, 4		9, 9
50″	5, 3, 9,11,57,33,22, 1,39,27		22, 9,46,39	
		2, 5,13, 2,18,44,29,25		9, 9
52″	5, 3,11,17,10,35,40,46, 8,52		22, 9,55,48	
		2, 5,13, 1,56,34,33,37		9, 9
54″	5, 3,13,22,23,37,37,20,42,29		22,10, 4,57	
		2, 5,13, 1,34,24,28,40		9, 9
56″	5, 3,15,27,36,39,11,45,11, 9		22,10,14, 6	
		2, 5,13, 1,12,14,14,34		9, 9
58″	5, 3,17,32,49,40,23,59,25,43		22,10,23,15	
		2, 5,13, 0,50, 3,51,19		
60″	5, 3,19,38, 2,41,14, 3,17, 2			
exact	5, 3,19,38, 2,41,14, 2,59,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°50′ 0″	5, 3,19,38, 2,41,14, 2,59,20			
		2, 5,13, 0,27,53,17, 0		
2″	5, 3,21,43,15,41,41,56,16,20		22,10,41,41	
		2, 5,13, 0, 5,42,35,19		9, 9
4″	5, 3,23,48,28,41,47,38,51,39		22,10,50,50	
		2, 5,12,59,43,31,44,29		9, 9
6″	5, 3,25,53,41,41,31,10,36, 8		22,10,59,59	
		2, 5,12,59,21,20,44,30		9, 9
8″	5, 3,27,58,54,40,52,31,20,38		22,11, 9, 8	
		2, 5,12,58,59, 9,35,22		9, 9
10″	5, 3,30, 4, 7,39,51,40,56, 0		22,11,18,17	
		2, 5,12,58,36,58,17, 5		9, 9
12″	5, 3,32, 9,20,38,28,39,13, 5		22,11,27,26	
		2, 5,12,58,14,46,49,39		9, 9
14″	5, 3,34,14,33,36,43,26, 2,44		22,11,36,35	
		2, 5,12,57,52,35,13, 4		9, 9
16″	5, 3,36,19,46,34,36, 1,15,48		22,11,45,44	
		2, 5,12,57,30,23,27,20		9, 9
18″	5, 3,38,24,59,32, 6,24,43, 8		22,11,54,53	
		2, 5,12,57, 8,11,32,27		9, 9
20″	5, 3,40,30,12,29,14,36,15,35		22,12, 4, 2	
		2, 5,12,56,45,59,28,25		9, 9
22″	5, 3,42,35,25,26, 0,35,44, 0		22,12,13,11	
		2, 5,12,56,23,47,15,14		9, 9
24″	5, 3,44,40,38,22,24,22,59,14		22,12,22,20	
		2, 5,12,56, 1,34,52,54		9, 9
26″	5, 3,46,45,51,18,25,57,52, 8		22,12,31,29	
		2, 5,12,55,39,22,21,25		9, 9
28″	5, 3,48,51, 4,14, 5,20,13,33		22,12,40,38	
		2, 5,12,55,17, 9,40,47		9, 9
30″	5, 3,50,56,17, 9,22,29,54,20		22,12,49,47	
		2, 5,12,54,54,56,51, 0		9, 9
32″	5, 3,53, 1,30, 4,17,26,45,20		22,12,58,56	
		2, 5,12,54,32,43,52, 4		9, 9
34″	5, 3,55, 6,42,58,50,10,37,24		22,13, 8, 5	
		2, 5,12,54,10,30,43,59		9, 9
36″	5, 3,57,11,55,53, 0,41,21,23		22,13,17,14	
		2, 5,12,53,48,17,26,45		9, 9
38″	5, 3,59,17, 8,46,48,58,48, 8		22,13,26,23	
		2, 5,12,53,26, 4, 0,22		9, 9
40″	5, 4, 1,22,21,40,15, 2,48,30		22,13,35,32	
		2, 5,12,53, 3,50,24,50		9, 9
42″	5, 4, 3,27,34,33,18,53,13,20		22,13,44,41	
		2, 5,12,52,41,36,40, 9		9, 9
44″	5, 4, 5,32,47,26, 0,29,53,29		22,13,53,50	
		2, 5,12,52,19,22,46,19		9, 9
46″	5, 4, 7,38, 0,18,19,52,39,48		22,14, 2,59	
		2, 5,12,51,57, 8,43,20		9, 9
48″	5, 4, 9,43,13,10,17, 1,23, 8		22,14,12, 8	
		2, 5,12,51,34,54,31,12		9, 9
50″	5, 4,11,48,26, 1,51,55,54,20		22,14,21,17	
		2, 5,12,51,12,40, 9,55		9, 9
52″	5, 4,13,53,38,53, 4,36, 4,15		22,14,30,26	
		2, 5,12,50,50,25,39,29		9, 9
54″	5, 4,15,58,51,43,55, 1,43,44		22,14,39,35	
		2, 5,12,50,28,10,59,54		9, 9
56″	5, 4,18, 4, 4,34,23,12,43,38		22,14,48,44	
		2, 5,12,50, 5,56,11,10		9, 9
58″	5, 4,20, 9,17,24,29, 8,54,48		22,14,57,53	
		2, 5,12,49,43,41,13,17		
60″	5, 4,22,14,30,14,12,50, 8, 5			
exact	5, 4,22,14,30,14,12,49,50,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°51′ 0″	5, 4,22,14,30,14,12,49,50,56			
		2, 5,12,49,21,26, 4,24		
2″	5, 4,24,19,43, 3,34,15,55,20		22,15,16,19	
		2, 5,12,48,59,10,48, 5		9, 9
4″	5, 4,26,24,55,52,33,26,43,25		22,15,25,28	
		2, 5,12,48,36,55,22,37		9, 9
6″	5, 4,28,30, 8,41,10,22, 6, 2		22,15,34,37	
		2, 5,12,48,14,39,48, 0		9, 9
8″	5, 4,30,35,21,29,25, 1,54, 2		22,15,43,46	
		2, 5,12,47,52,24, 4,14		9, 9
10″	5, 4,32,40,34,17,17,25,58,16		22,15,52,55	
		2, 5,12,47,30, 8,11,19		9, 9
12″	5, 4,34,45,47, 4,47,34, 9,35		22,16, 2, 4	
		2, 5,12,47, 7,52, 9,15		9, 9
14″	5, 4,36,50,59,51,55,26,18,50		22,16,11,13	
		2, 5,12,46,45,35,58, 2		9, 9
16″	5, 4,38,56,12,38,41, 2,16,52		22,16,20,22	
		2, 5,12,46,23,19,37,40		9, 9
18″	5, 4,41, 1,25,25, 4,21,54,32		22,16,29,31	
		2, 5,12,46, 1, 3, 8, 9		9, 9
20″	5, 4,43, 6,38,11, 5,25, 2,41		22,16,38,40	
		2, 5,12,45,38,46,29,29		9, 9
22″	5, 4,45,11,50,56,44,11,32,10		22,16,47,49	
		2, 5,12,45,16,29,41,40		9, 9
24″	5, 4,47,17, 3,42, 0,41,13,50		22,16,56,58	
		2, 5,12,44,54,12,44,42		9, 9
26″	5, 4,49,22,16,26,54,53,58,32		22,17, 6, 7	
		2, 5,12,44,31,55,38,35		9, 9
28″	5, 4,51,27,29,11,26,49,37, 7		22,17,15,16	
		2, 5,12,44, 9,38,23,19		9, 9
30″	5, 4,53,32,41,55,36,28, 0,26		22,17,24,25	
		2, 5,12,43,47,20,58,54		9, 9
32″	5, 4,55,37,54,39,23,48,59,20		22,17,33,34	
		2, 5,12,43,25, 3,25,20		9, 9
34″	5, 4,57,43, 7,22,48,52,24,40		22,17,42,43	
		2, 5,12,43, 2,45,42,37		9, 9
36″	5, 4,59,48,20, 5,51,38, 7,17		22,17,51,52	
		2, 5,12,42,40,27,50,45		9, 9
38″	5, 5, 1,53,32,48,32, 5,58, 2		22,18, 1, 1	
		2, 5,12,42,18, 9,49,44		9, 9
40″	5, 5, 3,58,45,30,50,15,47,46		22,18,10,10	
		2, 5,12,41,55,51,39,34		9, 9
42″	5, 5, 6, 3,58,12,46, 7,27,20		22,18,19,19	
		2, 5,12,41,33,33,20,15		9, 9
44″	5, 5, 8, 9,10,54,19,40,47,35		22,18,28,28	
		2, 5,12,41,11,14,51,47		9, 9
46″	5, 5,10,14,23,35,30,55,39,22		22,18,37,37	
		2, 5,12,40,48,56,14,10		9, 9
48″	5, 5,12,19,36,16,19,51,53,32		22,18,46,46	
		2, 5,12,40,26,37,27,24		9, 9
50″	5, 5,14,24,48,56,46,29,20,56		22,18,55,55	
		2, 5,12,40, 4,18,31,29		9, 9
52″	5, 5,16,30, 1,36,50,47,52,25		22,19, 5, 4	
		2, 5,12,39,41,59,26,25		9, 9
54″	5, 5,18,35,14,16,32,47,18,50		22,19,14,13	
		2, 5,12,39,19,40,12,12		9, 9
56″	5, 5,20,40,26,55,52,27,31, 2		22,19,23,22	
		2, 5,12,38,57,20,48,50		9, 9
58″	5, 5,22,45,39,34,49,48,19,52		22,19,32,31	
		2, 5,12,38,35, 1,16,19		
60″	5, 5,24,50,52,13,24,49,36,11			
exact	5, 5,24,50,52,13,24,49,22,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°52′ 0″	5, 5,24,50,52,13,24,49,22,29			
		2, 5,12,38,12,41,33, 5		
2″	5, 5,26,56, 4,51,37,30,55,34		22,19,50,56	
		2, 5,12,37,50,21,42, 9		9, 9
4″	5, 5,29, 1,17,29,27,52,37,43		22,20, 0, 5	
		2, 5,12,37,28, 1,42, 4		9, 9
6″	5, 5,31, 6,30, 6,55,54,19,47		22,20, 9,14	
		2, 5,12,37, 5,41,32,50		9, 9
8″	5, 5,33,11,42,44, 1,35,52,37		22,20,18,23	
		2, 5,12,36,43,21,14,27		9, 9
10″	5, 5,35,16,55,20,44,57, 7, 4		22,20,27,32	
		2, 5,12,36,21, 0,46,55		9, 9
12″	5, 5,37,22, 7,57, 5,57,53,59		22,20,36,41	
		2, 5,12,35,58,40,10,14		9, 9
14″	5, 5,39,27,20,33, 4,38, 4,13		22,20,45,50	
		2, 5,12,35,36,19,24,24		9, 9
16″	5, 5,41,32,33, 8,40,57,28,37		22,20,54,59	
		2, 5,12,35,13,58,29,25		9, 9
18″	5, 5,43,37,45,43,54,55,58, 2		22,21, 4, 8	
		2, 5,12,34,51,37,25,17		9, 9
20″	5, 5,45,42,58,18,46,33,23,19		22,21,13,17	
		2, 5,12,34,29,16,12, 0		9, 9
22″	5, 5,47,48,10,53,15,49,35,19		22,21,22,26	
		2, 5,12,34, 6,54,49,34		9, 9
24″	5, 5,49,53,23,27,22,44,24,53		22,21,31,35	
		2, 5,12,33,44,33,17,59		9, 9
26″	5, 5,51,58,36, 1, 7,17,42,52		22,21,40,44	
		2, 5,12,33,22,11,37,15		9, 9
28″	5, 5,54, 3,48,34,29,29,20, 7		22,21,49,53	
		2, 5,12,32,59,49,47,22		9, 9
30″	5, 5,56, 9, 1, 7,29,19, 7,29		22,21,59, 2	
		2, 5,12,32,37,27,48,20		9, 9
32″	5, 5,58,14,13,40, 6,46,55,49		22,22, 8,11	
		2, 5,12,32,15, 5,40, 9		9, 9
34″	5, 6, 0,19,26,12,21,52,35,58		22,22,17,20	
		2, 5,12,31,52,43,22,49		9, 9
36″	5, 6, 2,24,38,44,14,35,58,47		22,22,26,29	
		2, 5,12,31,30,20,56,20		9, 9
38″	5, 6, 4,29,51,15,44,56,55, 7		22,22,35,38	
		2, 5,12,31, 7,58,20,42		9, 9
40″	5, 6, 6,35, 3,46,52,55,15,49		22,22,44,47	
		2, 5,12,30,45,35,35,55		9, 9
42″	5, 6, 8,40,16,17,38,30,51,44		22,22,53,56	
		2, 5,12,30,23,12,41,59		9, 9
44″	5, 6,10,45,28,48, 1,43,33,43		22,23, 3, 5	
		2, 5,12,30, 0,49,38,54		9, 9
46″	5, 6,12,50,41,18, 2,33,12,37		22,23,12,14	
		2, 5,12,29,38,26,26,40		9, 9
48″	5, 6,14,55,53,47,40,59,39,17		22,23,21,23	
		2, 5,12,29,16, 3, 5,17		9, 9
50″	5, 6,17, 1, 6,16,57, 2,44,34		22,23,30,32	
		2, 5,12,28,53,39,34,45		9, 9
52″	5, 6,19, 6,18,45,50,42,19,19		22,23,39,41	
		2, 5,12,28,31,15,55, 4		9, 9
54″	5, 6,21,11,31,14,21,58,14,23		22,23,48,50	
		2, 5,12,28, 8,52, 6,14		9, 9
56″	5, 6,23,16,43,42,30,50,20,37		22,23,57,59	
		2, 5,12,27,46,28, 8,15		9, 9
58″	5, 6,25,21,56,10,17,18,28,52		22,24, 7, 8	
		2, 5,12,27,24, 4, 1, 7		
60″	5, 6,27,27, 8,37,41,22,29,59			
exact	5, 6,27,27, 8,37,41,22,15, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°53′ 0″	5, 6,27,27, 8,37,41,22,15, 0			
		2, 5,12,27, 1,39,43,13		
2″	5, 6,29,32,21, 4,43, 1,58,13		22,24,25,33	
		2, 5,12,26,39,15,17,40		9, 9
4″	5, 6,31,37,33,31,22,17,15,53		22,24,34,42	
		2, 5,12,26,16,50,42,58		9, 9
6″	5, 6,33,42,45,57,39, 7,58,51		22,24,43,51	
		2, 5,12,25,54,25,59, 7		9, 9
8″	5, 6,35,47,58,23,33,33,57,58		22,24,53, 0	
		2, 5,12,25,32, 1, 6, 7		9, 9
10″	5, 6,37,53,10,49, 5,35, 4, 5		22,25, 2, 9	
		2, 5,12,25, 9,36, 3,58		9, 9
12″	5, 6,39,58,23,14,15,11, 8, 3		22,25,11,18	
		2, 5,12,24,47,10,52,40		9, 9
14″	5, 6,42, 3,35,39, 2,22, 0,43		22,25,20,27	
		2, 5,12,24,24,45,32,13		9, 9
16″	5, 6,44, 8,48, 3,27, 7,32,56		22,25,29,36	
		2, 5,12,24, 2,20, 2,37		9, 9
18″	5, 6,46,14, 0,27,29,27,35,33		22,25,38,45	
		2, 5,12,23,39,54,23,52		9, 9
20″	5, 6,48,19,12,51, 9,21,59,25		22,25,47,54	
		2, 5,12,23,17,28,35,58		9, 9
22″	5, 6,50,24,25,14,26,50,35,23		22,25,57, 3	
		2, 5,12,22,55, 2,38,55		9, 9
24″	5, 6,52,29,37,37,21,53,14,18		22,26, 6,12	
		2, 5,12,22,32,36,32,43		9, 9
26″	5, 6,54,34,49,59,54,29,47, 1		22,26,15,21	
		2, 5,12,22,10,10,17,22		9, 9
28″	5, 6,56,40, 2,22, 4,40, 4,23		22,26,24,30	
		2, 5,12,21,47,43,52,52		9, 9
30″	5, 6,58,45,14,43,52,23,57,15		22,26,33,39	
		2, 5,12,21,25,17,19,13		9, 9
32″	5, 7, 0,50,27, 5,17,41,16,28		22,26,42,48	
		2, 5,12,21, 2,50,36,25		9, 9
34″	5, 7, 2,55,39,26,20,31,52,53		22,26,51,57	
		2, 5,12,20,40,23,44,28		9, 9
36″	5, 7, 5, 0,51,47, 0,55,37,21		22,27, 1, 6	
		2, 5,12,20,17,56,43,22		9, 9
38″	5, 7, 7, 6, 4, 7,18,52,20,43		22,27,10,15	
		2, 5,12,19,55,29,33, 7		9, 9
40″	5, 7, 9,11,16,27,14,21,53,50		22,27,19,24	
		2, 5,12,19,33, 2,13,43		9, 9
42″	5, 7,11,16,28,46,47,24, 7,33		22,27,28,33	
		2, 5,12,19,10,34,45,10		9, 9
44″	5, 7,13,21,41, 5,57,58,52,43		22,27,37,42	
		2, 5,12,18,48, 7, 7,28		9, 9
46″	5, 7,15,26,53,24,46, 6, 0,11		22,27,46,51	
		2, 5,12,18,25,39,20,37		9, 9
48″	5, 7,17,32, 5,43,11,45,20,48		22,27,56, 0	
		2, 5,12,18, 3,11,24,37		9, 9
50″	5, 7,19,37,18, 1,14,56,45,25		22,28, 5, 9	
		2, 5,12,17,40,43,19,28		9, 9
52″	5, 7,21,42,30,18,55,40, 4,53		22,28,14,18	
		2, 5,12,17,18,15, 5,10		9, 9
54″	5, 7,23,47,42,36,13,55,10, 3		22,28,23,27	
		2, 5,12,16,55,46,41,43		9, 9
56″	5, 7,25,52,54,53, 9,41,51,46		22,28,32,36	
		2, 5,12,16,33,18, 9, 7		9, 9
58″	5, 7,27,58, 7, 9,43, 0, 0,53		22,28,41,45	
		2, 5,12,16,10,49,27,22		
60″	5, 7,30, 3,19,25,53,49,28,15			
exact	5, 7,30, 3,19,25,53,49,15,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°54′ 0″	5, 7,30, 3,19,25,53,49,15,35			
		2, 5,12,15,48,20,35, 2		
2″	5, 7,32, 8,31,41,42, 9,50,37		22,29, 0, 9	
		2, 5,12,15,25,51,34,53		9, 9
4″	5, 7,34,13,43,57, 8, 1,25,30		22,29, 9,18	
		2, 5,12,15, 3,22,25,35		9, 9
6″	5, 7,36,18,56,12,11,23,51, 5		22,29,18,27	
		2, 5,12,14,40,53, 7, 8		9, 9
8″	5, 7,38,24, 8,26,52,16,58,13		22,29,27,36	
		2, 5,12,14,18,23,39,32		9, 9
10″	5, 7,40,29,20,41,10,40,37,45		22,29,36,45	
		2, 5,12,13,55,54, 2,47		9, 9
12″	5, 7,42,34,32,55, 6,34,40,32		22,29,45,54	
		2, 5,12,13,33,24,16,53		9, 9
14″	5, 7,44,39,45, 8,39,58,57,25		22,29,55, 3	
		2, 5,12,13,10,54,21,50		9, 9
16″	5, 7,46,44,57,21,50,53,19,15		22,30, 4,12	
		2, 5,12,12,48,24,17,38		9, 9
18″	5, 7,48,50, 9,34,39,17,36,53		22,30,13,21	
		2, 5,12,12,25,54, 4,17		9, 9
20″	5, 7,50,55,21,47, 5,11,41,10		22,30,22,30	
		2, 5,12,12, 3,23,41,47		9, 9
22″	5, 7,53, 0,33,59, 8,35,22,57		22,30,31,39	
		2, 5,12,11,40,53,10, 8		9, 9
24″	5, 7,55, 5,46,10,49,28,33, 5		22,30,40,48	
		2, 5,12,11,18,22,29,20		9, 9
26″	5, 7,57,10,58,22, 7,51, 2,25		22,30,49,57	
		2, 5,12,10,55,51,39,23		9, 9
28″	5, 7,59,16,10,33, 3,42,41,48		22,30,59, 6	
		2, 5,12,10,33,20,40,17		9, 9
30″	5, 8, 1,21,22,43,37, 3,22, 5		22,31, 8,15	
		2, 5,12,10,10,49,32, 2		9, 9
32″	5, 8, 3,26,34,53,47,52,54, 7		22,31,17,24	
		2, 5,12, 9,48,18,14,38		9, 9
34″	5, 8, 5,31,47, 3,36,11, 8,45		22,31,26,33	
		2, 5,12, 9,25,46,48, 5		9, 9
36″	5, 8, 7,36,59,13, 1,57,56,50		22,31,35,42	
		2, 5,12, 9, 3,15,12,23		9, 9
38″	5, 8, 9,42,11,22, 5,13, 9,13		22,31,44,51	
		2, 5,12, 8,40,43,27,32		9, 9
40″	5, 8,11,47,23,30,45,56,36,45		22,31,54, 0	
		2, 5,12, 8,18,11,33,32		9, 9
42″	5, 8,13,52,35,39, 4, 8,10,17		22,32, 3, 9	
		2, 5,12, 7,55,39,30,23		9, 9
44″	5, 8,15,57,47,46,59,47,40,40		22,32,12,18	
		2, 5,12, 7,33, 7,18, 5		9, 9
46″	5, 8,18, 2,59,54,32,54,58,45		22,32,21,27	
		2, 5,12, 7,10,34,56,38		9, 9
48″	5, 8,20, 8,12, 1,43,29,55,23		22,32,30,36	
		2, 5,12, 6,48, 2,26, 2		9, 9
50″	5, 8,22,13,24, 8,31,32,21,25		22,32,39,45	
		2, 5,12, 6,25,29,46,17		9, 9
52″	5, 8,24,18,36,14,57, 2, 7,42		22,32,48,54	
		2, 5,12, 6, 2,56,57,23		9, 9
54″	5, 8,26,23,48,20,59,59, 5, 5		22,32,58, 3	
		2, 5,12, 5,40,23,59,20		9, 9
56″	5, 8,28,29, 0,26,40,23, 4,25		22,33, 7,12	
		2, 5,12, 5,17,50,52, 8		9, 9
58″	5, 8,30,34,12,31,58,13,56,33		22,33,16,21	
		2, 5,12, 4,55,17,35,47		
60″	5, 8,32,39,24,36,53,31,32,20			
exact	5, 8,32,39,24,36,53,31,17,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°55′ 0″	5, 8,32,39,24,36,53,31,17,30			
		2, 5,12, 4,32,44, 8,44		
2″	5, 8,34,44,36,41,26,15,26,14		22,33,34,45	
		2, 5,12, 4,10,10,33,59		9, 9
4″	5, 8,36,49,48,45,36,26, 0,13		22,33,43,54	
		2, 5,12, 3,47,36,50, 5		9, 9
6″	5, 8,38,55, 0,49,24, 2,50,18		22,33,53, 3	
		2, 5,12, 3,25, 2,57, 2		9, 9
8″	5, 8,41, 0,12,52,49, 5,47,20		22,34, 2,12	
		2, 5,12, 3, 2,28,54,50		9, 9
10″	5, 8,43, 5,24,55,51,34,42,10		22,34,11,21	
		2, 5,12, 2,39,54,43,29		9, 9
12″	5, 8,45,10,36,58,31,29,25,39		22,34,20,30	
		2, 5,12, 2,17,20,22,59		9, 9
14″	5, 8,47,15,49, 0,48,49,48,38		22,34,29,39	
		2, 5,12, 1,54,45,53,20		9, 9
16″	5, 8,49,21, 1, 2,43,35,41,58		22,34,38,48	
		2, 5,12, 1,32,11,14,32		9, 9
18″	5, 8,51,26,13, 4,15,46,56,30		22,34,47,57	
		2, 5,12, 1, 9,36,26,35		9, 9
20″	5, 8,53,31,25, 5,25,23,23, 5		22,34,57, 6	
		2, 5,12, 0,47, 1,29,29		9, 9
22″	5, 8,55,36,37, 6,12,24,52,34		22,35, 6,15	
		2, 5,12, 0,24,26,23,14		9, 9
24″	5, 8,57,41,49, 6,36,51,15,48		22,35,15,24	
		2, 5,12, 0, 1,51, 7,50		9, 9
26″	5, 8,59,47, 1, 6,38,42,23,38		22,35,24,33	
		2, 5,11,59,39,15,43,17		9, 9
28″	5, 9, 1,52,13, 6,17,58, 6,55		22,35,33,42	
		2, 5,11,59,16,40, 9,35		9, 9
30″	5, 9, 3,57,25, 5,34,38,16,30		22,35,42,51	
		2, 5,11,58,54, 4,26,44		9, 9
32″	5, 9, 6, 2,37, 4,28,42,43,14		22,35,52, 0	
		2, 5,11,58,31,28,34,44		9, 9
34″	5, 9, 8, 7,49, 3, 0,11,17,58		22,36, 1, 9	
		2, 5,11,58, 8,52,33,35		9, 9
36″	5, 9,10,13, 1, 1, 9, 3,51,33		22,36,10,18	
		2, 5,11,57,46,16,23,17		9, 9
38″	5, 9,12,18,12,58,55,20,14,50		22,36,19,27	
		2, 5,11,57,23,40, 3,50		9, 9
40″	5, 9,14,23,24,56,19, 0,18,40		22,36,28,36	
		2, 5,11,57, 1, 3,35,14		9, 9
42″	5, 9,16,28,36,53,20, 3,53,54		22,36,37,45	
		2, 5,11,56,38,26,57,29		9, 9
44″	5, 9,18,33,48,49,58,30,51,23		22,36,46,54	
		2, 5,11,56,15,50,10,35		9, 9
46″	5, 9,20,39, 0,46,14,21, 1,58		22,36,56, 3	
		2, 5,11,55,53,13,14,32		9, 9
48″	5, 9,22,44,12,42, 7,34,16,30		22,37, 5,12	
		2, 5,11,55,30,36, 9,20		9, 9
50″	5, 9,24,49,24,37,38,10,25,50		22,37,14,21	
		2, 5,11,55, 7,58,54,59		9, 9
52″	5, 9,26,54,36,32,46, 9,20,49		22,37,23,30	
		2, 5,11,54,45,21,31,29		9, 9
54″	5, 9,28,59,48,27,31,30,52,18		22,37,32,39	
		2, 5,11,54,22,43,58,50		9, 9
56″	5, 9,31, 5, 0,21,54,14,51, 8		22,37,41,48	
		2, 5,11,54, 0, 6,17, 2		9, 9
58″	5, 9,33,10,12,15,54,21, 8,10		22,37,50,57	
		2, 5,11,53,37,28,26, 5		
60″	5, 9,35,15,24, 9,31,49,34,15			
exact	5, 9,35,15,24, 9,31,49,20,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°56′ 0″	5, 9,35,15,24, 9,31,49,20,11			
		2, 5,11,53,14,50,24,31		
2″	5, 9,37,20,36, 2,46,39,44,42		22,38, 9,21	
		2, 5,11,52,52,12,15,10		9, 9
4″	5, 9,39,25,47,55,38,51,59,52		22,38,18,30	
		2, 5,11,52,29,33,56,40		9, 9
6″	5, 9,41,30,59,48, 8,25,56,32		22,38,27,39	
		2, 5,11,52, 6,55,29, 1		9, 9
8″	5, 9,43,36,11,40,15,21,25,33		22,38,36,48	
		2, 5,11,51,44,16,52,13		9, 9
10″	5, 9,45,41,23,31,59,38,17,46		22,38,45,57	
		2, 5,11,51,21,38, 6,16		9, 9
12″	5, 9,47,46,35,23,21,16,24, 2		22,38,55, 6	
		2, 5,11,50,58,59,11,10		9, 9
14″	5, 9,49,51,47,14,20,15,35,12		22,39, 4,15	
		2, 5,11,50,36,20, 6,55		9, 9
16″	5, 9,51,56,59, 4,56,35,42, 7		22,39,13,24	
		2, 5,11,50,13,40,53,31		9, 9
18″	5, 9,54, 2,10,55,10,16,35,38		22,39,22,33	
		2, 5,11,49,51, 1,30,58		9, 9
20″	5, 9,56, 7,22,45, 1,18, 6,36		22,39,31,42	
		2, 5,11,49,28,21,59,16		9, 9
22″	5, 9,58,12,34,34,29,40, 5,52		22,39,40,51	
		2, 5,11,49, 5,42,18,25		9, 9
24″	5,10, 0,17,46,23,35,22,24,17		22,39,50, 0	
		2, 5,11,48,43, 2,28,25		9, 9
26″	5,10, 2,22,58,12,18,24,52,42		22,39,59, 9	
		2, 5,11,48,20,22,29,16		9, 9
28″	5,10, 4,28,10, 0,38,47,21,58		22,40, 8,18	
		2, 5,11,47,57,42,20,58		9, 9
30″	5,10, 6,33,21,48,36,29,42,56		22,40,17,27	
		2, 5,11,47,35, 2, 3,31		9, 9
32″	5,10, 8,38,33,36,11,31,46,27		22,40,26,36	
		2, 5,11,47,12,21,36,55		9, 9
34″	5,10,10,43,45,23,23,53,23,22		22,40,35,45	
		2, 5,11,46,49,41, 1,10		9, 9
36″	5,10,12,48,57,10,13,34,24,32		22,40,44,54	
		2, 5,11,46,27, 0,16,16		9, 9
38″	5,10,14,54, 8,56,40,34,40,48		22,40,54, 3	
		2, 5,11,46, 4,19,22,13		9, 9
40″	5,10,16,59,20,42,44,54, 3, 1		22,41, 3,12	
		2, 5,11,45,41,38,19, 1		9, 9
42″	5,10,19, 4,32,28,26,32,22, 2		22,41,12,21	
		2, 5,11,45,18,57, 6,40		9, 9
44″	5,10,21, 9,44,13,45,29,28,42		22,41,21,30	
		2, 5,11,44,56,15,45,10		9, 9
46″	5,10,23,14,55,58,41,45,13,52		22,41,30,39	
		2, 5,11,44,33,34,14,31		9, 9
48″	5,10,25,20, 7,43,15,19,28,23		22,41,39,48	
		2, 5,11,44,10,52,34,43		9, 9
50″	5,10,27,25,19,27,26,12, 3, 6		22,41,48,57	
		2, 5,11,43,48,10,45,46		9, 9
52″	5,10,29,30,31,11,14,22,48,52		22,41,58, 6	
		2, 5,11,43,25,28,47,40		9, 9
54″	5,10,31,35,42,54,39,51,36,32		22,42, 7,15	
		2, 5,11,43, 2,46,40,25		9, 9
56″	5,10,33,40,54,37,42,38,16,57		22,42,16,24	
		2, 5,11,42,40, 4,24, 1		9, 9
58″	5,10,35,46, 6,20,22,42,40,58		22,42,25,33	
		2, 5,11,42,17,21,58,28		
60″	5,10,37,51,18, 2,40, 4,39,26			
exact	5,10,37,51,18, 2,40, 4,29,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°57′ 0″	5,10,37,51,18, 2,40, 4,29,13			
		2, 5,11,41,54,39,22,36		
2″	5,10,39,56,29,44,34,43,51,49		22,42,43,56	
		2, 5,11,41,31,56,38,40		9, 9
4″	5,10,42, 1,41,26, 6,40,30,29		22,42,53, 5	
		2, 5,11,41, 9,13,45,35		9, 9
6″	5,10,44, 6,53, 7,15,54,16, 4		22,43, 2,14	
		2, 5,11,40,46,30,43,21		9, 9
8″	5,10,46,12, 4,48, 2,24,59,25		22,43,11,23	
		2, 5,11,40,23,47,31,58		9, 9
10″	5,10,48,17,16,28,26,12,31,23		22,43,20,32	
		2, 5,11,40, 1, 4,11,26		9, 9
12″	5,10,50,22,28, 8,27,16,42,49		22,43,29,41	
		2, 5,11,39,38,20,41,45		9, 9
14″	5,10,52,27,39,48, 5,37,24,34		22,43,38,50	
		2, 5,11,39,15,37, 2,55		9, 9
16″	5,10,54,32,51,27,21,14,27,29		22,43,47,59	
		2, 5,11,38,52,53,14,56		9, 9
18″	5,10,56,38, 3, 6,14, 7,42,25		22,43,57, 8	
		2, 5,11,38,30, 9,17,48		9, 9
20″	5,10,58,43,14,44,44,17, 0,13		22,44, 6,17	
		2, 5,11,38, 7,25,11,31		9, 9
22″	5,11, 0,48,26,22,51,42,11,44		22,44,15,26	
		2, 5,11,37,44,40,56, 5		9, 9
24″	5,11, 2,53,38, 0,36,23, 7,49		22,44,24,35	
		2, 5,11,37,21,56,31,30		9, 9
26″	5,11, 4,58,49,37,58,19,39,19		22,44,33,44	
		2, 5,11,36,59,11,57,46		9, 9
28″	5,11, 7, 4, 1,14,57,31,37, 5		22,44,42,53	
		2, 5,11,36,36,27,14,53		9, 9
30″	5,11, 9, 9,12,51,33,58,51,58		22,44,52, 2	
		2, 5,11,36,13,42,22,51		9, 9
32″	5,11,11,14,24,27,47,41,14,49		22,45, 1,11	
		2, 5,11,35,50,57,21,40		9, 9
34″	5,11,13,19,36, 3,38,38,36,29		22,45,10,20	
		2, 5,11,35,28,12,11,20		9, 9
36″	5,11,15,24,47,39, 6,50,47,49		22,45,19,29	
		2, 5,11,35, 5,26,51,51		9, 9
38″	5,11,17,29,59,14,12,17,39,40		22,45,28,38	
		2, 5,11,34,42,41,23,13		9, 9
40″	5,11,19,35,10,48,54,59, 2,53		22,45,37,47	
		2, 5,11,34,19,55,45,26		9, 9
42″	5,11,21,40,22,23,14,54,48,19		22,45,46,56	
		2, 5,11,33,57, 9,58,30		9, 9
44″	5,11,23,45,33,57,12, 4,46,49		22,45,56, 5	
		2, 5,11,33,34,24, 2,25		9, 9
46″	5,11,25,50,45,30,46,28,49,14		22,46, 5,14	
		2, 5,11,33,11,37,57,11		9, 9
48″	5,11,27,55,57, 3,58, 6,46,25		22,46,14,23	
		2, 5,11,32,48,51,42,48		9, 9
50″	5,11,30, 1, 8,36,46,58,29,13		22,46,23,32	
		2, 5,11,32,26, 5,19,16		9, 9
52″	5,11,32, 6,20, 9,13, 3,48,29		22,46,32,41	
		2, 5,11,32, 3,18,46,35		9, 9
54″	5,11,34,11,31,41,16,22,35, 4		22,46,41,50	
		2, 5,11,31,40,32, 4,45		9, 9
56″	5,11,36,16,43,12,56,54,39,49		22,46,50,59	
		2, 5,11,31,17,45,13,46		9, 9
58″	5,11,38,21,54,44,14,39,53,35		22,47, 0, 8	
		2, 5,11,30,54,58,13,38		
60″	5,11,40,27, 6,15, 9,38, 7,13			
exact	5,11,40,27, 6,15, 9,37,56,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°58′ 0″	5,11,40,27, 6,15, 9,37,56,26			
		2, 5,11,30,32,11, 3,11		
2″	5,11,42,32,17,45,41,48,59,37		22,47,18,31	
		2, 5,11,30, 9,23,44,40		9, 9
4″	5,11,44,37,29,15,51,12,44,17		22,47,27,40	
		2, 5,11,29,46,36,17, 0		9, 9
6″	5,11,46,42,40,45,37,49, 1,17		22,47,36,49	
		2, 5,11,29,23,48,40,11		9, 9
8″	5,11,48,47,52,15, 1,37,41,28		22,47,45,58	
		2, 5,11,29, 1, 0,54,13		9, 9
10″	5,11,50,53, 3,44, 2,38,35,41		22,47,55, 7	
		2, 5,11,28,38,12,59, 6		9, 9
12″	5,11,52,58,15,12,40,51,34,47		22,48, 4,16	
		2, 5,11,28,15,24,54,50		9, 9
14″	5,11,55, 3,26,40,56,16,29,37		22,48,13,25	
		2, 5,11,27,52,36,41,25		9, 9
16″	5,11,57, 8,38, 8,48,53,11, 2		22,48,22,34	
		2, 5,11,27,29,48,18,51		9, 9
18″	5,11,59,13,49,36,18,41,29,53		22,48,31,43	
		2, 5,11,27, 6,59,47, 8		9, 9
20″	5,12, 1,19, 1, 3,25,41,17, 1		22,48,40,52	
		2, 5,11,26,44,11, 6,16		9, 9
22″	5,12, 3,24,12,30, 9,52,23,17		22,48,50, 1	
		2, 5,11,26,21,22,16,15		9, 9
24″	5,12, 5,29,23,56,31,14,39,32		22,48,59,10	
		2, 5,11,25,58,33,17, 5		9, 9
26″	5,12, 7,34,35,22,29,47,56,37		22,49, 8,19	
		2, 5,11,25,35,44, 8,46		9, 9
28″	5,12, 9,39,46,48, 5,32, 5,23		22,49,17,28	
		2, 5,11,25,12,54,51,18		9, 9
30″	5,12,11,44,58,13,18,26,56,41		22,49,26,37	
		2, 5,11,24,50, 5,24,41		9, 9
32″	5,12,13,50, 9,38, 8,32,21,22		22,49,35,46	
		2, 5,11,24,27,15,48,55		9, 9
34″	5,12,15,55,21, 2,35,48,10,17		22,49,44,55	
		2, 5,11,24, 4,26, 4, 0		9, 9
36″	5,12,18, 0,32,26,40,14,14,17		22,49,54, 4	
		2, 5,11,23,41,36, 9,56		9, 9
38″	5,12,20, 5,43,50,21,50,24,13		22,50, 3,13	
		2, 5,11,23,18,46, 6,43		9, 9
40″	5,12,22,10,55,13,40,36,30,56		22,50,12,22	
		2, 5,11,22,55,55,54,21		9, 9
42″	5,12,24,16, 6,36,36,32,25,17		22,50,21,31	
		2, 5,11,22,33, 5,32,50		9, 9
44″	5,12,26,21,17,59, 9,37,58, 7		22,50,30,40	
		2, 5,11,22,10,15, 2,10		9, 9
46″	5,12,28,26,29,21,19,53, 0,17		22,50,39,49	
		2, 5,11,21,47,24,22,21		9, 9
48″	5,12,30,31,40,43, 7,17,22,38		22,50,48,58	
		2, 5,11,21,24,33,33,23		9, 9
50″	5,12,32,36,52, 4,31,50,56, 1		22,50,58, 7	
		2, 5,11,21, 1,42,35,16		9, 9
52″	5,12,34,42, 3,25,33,33,31,17		22,51, 7,16	
		2, 5,11,20,38,51,28, 0		9, 9
54″	5,12,36,47,14,46,12,24,59,17		22,51,16,25	
		2, 5,11,20,16, 0,11,35		9, 9
56″	5,12,38,52,26, 6,28,25,10,52		22,51,25,34	
		2, 5,11,19,53, 8,46, 1		9, 9
58″	5,12,40,57,37,26,21,33,56,53		22,51,34,43	
		2, 5,11,19,30,17,11,18		
60″	5,12,43, 2,48,45,51,51, 8,11			
exact	5,12,43, 2,48,45,51,50,59,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
4°59′ 0″	5,12,43, 2,48,45,51,50,59,51			
		2, 5,11,19, 7,25,26,29		
2″	5,12,45, 8, 0, 4,59,16,26,20		22,51,53, 5	
		2, 5,11,18,44,33,33,24		9, 9
4″	5,12,47,13,11,23,43,49,59,44		22,52, 2,14	
		2, 5,11,18,21,41,31,10		9, 9
6″	5,12,49,18,22,42, 5,31,30,54		22,52,11,23	
		2, 5,11,17,58,49,19,47		9, 9
8″	5,12,51,23,34, 0, 4,20,50,41		22,52,20,32	
		2, 5,11,17,35,56,59,15		9, 9
10″	5,12,53,28,45,17,40,17,49,56		22,52,29,41	
		2, 5,11,17,13, 4,29,34		9, 9
12″	5,12,55,33,56,34,53,22,19,30		22,52,38,50	
		2, 5,11,16,50,11,50,44		9, 9
14″	5,12,57,39, 7,51,43,34,10,14		22,52,47,59	
		2, 5,11,16,27,19, 2,45		9, 9
16″	5,12,59,44,19, 8,10,53,12,59		22,52,57, 8	
		2, 5,11,16, 4,26, 5,37		9, 9
18″	5,13, 1,49,30,24,15,19,18,36		22,53, 6,17	
		2, 5,11,15,41,32,59,20		9, 9
20″	5,13, 3,54,41,39,56,52,17,56		22,53,15,26	
		2, 5,11,15,18,39,43,54		9, 9
22″	5,13, 5,59,52,55,15,32, 1,50		22,53,24,35	
		2, 5,11,14,55,46,19,19		9, 9
24″	5,13, 8, 5, 4,10,11,18,21, 9		22,53,33,44	
		2, 5,11,14,32,52,45,35		9, 9
26″	5,13,10,10,15,24,44,11, 6,44		22,53,42,53	
		2, 5,11,14, 9,59, 2,42		9, 9
28″	5,13,12,15,26,38,54,10, 9,26		22,53,52, 2	
		2, 5,11,13,47, 5,10,40		9, 9
30″	5,13,14,20,37,52,41,15,20, 6		22,54, 1,11	
		2, 5,11,13,24,11, 9,29		9, 9
32″	5,13,16,25,49, 6, 5,26,29,35		22,54,10,20	
		2, 5,11,13, 1,16,59, 9		9, 9
34″	5,13,18,31, 0,19, 6,43,28,44		22,54,19,29	
		2, 5,11,12,38,22,39,40		9, 9
36″	5,13,20,36,11,31,45, 6, 8,24		22,54,28,38	
		2, 5,11,12,15,28,11, 2		9, 9
38″	5,13,22,41,22,44, 0,34,19,26		22,54,37,47	
		2, 5,11,11,52,33,33,15		9, 9
40″	5,13,24,46,33,55,53, 7,52,41		22,54,46,56	
		2, 5,11,11,29,38,46,19		9, 9
42″	5,13,26,51,45, 7,22,46,39, 0		22,54,56, 5	
		2, 5,11,11, 6,43,50,14		9, 9
44″	5,13,28,56,56,18,29,30,29,14		22,55, 5,14	
		2, 5,11,10,43,48,45, 0		9, 9
46″	5,13,31, 2, 7,29,13,19,14,14		22,55,14,23	
		2, 5,11,10,20,53,30,37		9, 9
48″	5,13,33, 7,18,39,34,12,44,51		22,55,23,32	
		2, 5,11, 9,57,58, 7, 5		9, 9
50″	5,13,35,12,29,49,32,10,51,56		22,55,32,41	
		2, 5,11, 9,35, 2,34,24		9, 9
52″	5,13,37,17,40,59, 7,13,26,20		22,55,41,50	
		2, 5,11, 9,12, 6,52,34		9, 9
54″	5,13,39,22,52, 8,19,20,18,54		22,55,50,59	
		2, 5,11, 8,49,11, 1,35		9, 9
56″	5,13,41,28, 3,17, 8,31,20,29		22,56, 0, 8	
		2, 5,11, 8,26,15, 1,27		9, 9
58″	5,13,43,33,14,25,34,46,21,56		22,56, 9,17	
		2, 5,11, 8, 3,18,52,10		
60″	5,13,45,38,25,33,38, 5,14, 6			
exact	5,13,45,38,25,33,38, 5, 3,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5° 0′ 0″	5,13,45,38,25,33,38, 5, 3,47			
		2, 5,11, 7,40,22,32,41		
2″	5,13,47,43,36,41,18,27,36,28		22,56,27,39	
		2, 5,11, 7,17,26, 5, 2		9, 9
4″	5,13,49,48,47,48,35,53,41,30		22,56,36,48	
		2, 5,11, 6,54,29,28,14		9, 9
6″	5,13,51,53,58,55,30,23, 9,44		22,56,45,57	
		2, 5,11, 6,31,32,42,17		9, 9
8″	5,13,53,59,10, 2, 1,55,52, 1		22,56,55, 6	
		2, 5,11, 6, 8,35,47,11		9, 9
10″	5,13,56, 4,21, 8,10,31,39,12		22,57, 4,15	
		2, 5,11, 5,45,38,42,56		9, 9
12″	5,13,58, 9,32,13,56,10,22, 8		22,57,13,24	
		2, 5,11, 5,22,41,29,32		9, 9
14″	5,14, 0,14,43,19,18,51,51,40		22,57,22,33	
		2, 5,11, 4,59,44, 6,59		9, 9
16″	5,14, 2,19,54,24,18,35,58,39		22,57,31,42	
		2, 5,11, 4,36,46,35,17		9, 9
18″	5,14, 4,25, 5,28,55,22,33,56		22,57,40,51	
		2, 5,11, 4,13,48,54,26		9, 9
20″	5,14, 6,30,16,33, 9,11,28,22		22,57,50, 0	
		2, 5,11, 3,50,51, 4,26		9, 9
22″	5,14, 8,35,27,37, 0, 2,32,48		22,57,59, 9	
		2, 5,11, 3,27,53, 5,17		9, 9
24″	5,14,10,40,38,40,27,55,38, 5		22,58, 8,18	
		2, 5,11, 3, 4,54,56,59		9, 9
26″	5,14,12,45,49,43,32,50,35, 4		22,58,17,27	
		2, 5,11, 2,41,56,39,32		9, 9
28″	5,14,14,51, 0,46,14,47,14,36		22,58,26,36	
		2, 5,11, 2,18,58,12,56		9, 9
30″	5,14,16,56,11,48,33,45,27,32		22,58,35,45	
		2, 5,11, 1,55,59,37,11		9, 9
32″	5,14,19, 1,22,50,29,45, 4,43		22,58,44,54	
		2, 5,11, 1,33, 0,52,17		9, 9
34″	5,14,21, 6,33,52, 2,45,57, 0		22,58,54, 3	
		2, 5,11, 1,10, 1,58,14		9, 9
36″	5,14,23,11,44,53,12,47,55,14		22,59, 3,12	
		2, 5,11, 0,47, 2,55, 2		9, 9
38″	5,14,25,16,55,53,59,50,50,16		22,59,12,21	
		2, 5,11, 0,24, 3,42,41		9, 9
40″	5,14,27,22, 6,54,23,54,32,57		22,59,21,30	
		2, 5,11, 0, 1, 4,21,11		9, 9
42″	5,14,29,27,17,54,24,58,54, 8		22,59,30,39	
		2, 5,10,59,38, 4,50,32		9, 9
44″	5,14,31,32,28,54, 3, 3,44,40		22,59,39,48	
		2, 5,10,59,15, 5,10,44		9, 9
46″	5,14,33,37,39,53,18, 8,55,24		22,59,48,57	
		2, 5,10,58,52, 5,21,47		9, 9
48″	5,14,35,42,50,52,10,14,17,11		22,59,58, 6	
		2, 5,10,58,29, 5,23,41		9, 9
50″	5,14,37,48, 1,50,39,19,40,52		23, 0, 7,15	
		2, 5,10,58, 6, 5,16,26		9, 9
52″	5,14,39,53,12,48,45,24,57,18		23, 0,16,24	
		2, 5,10,57,43, 5, 0, 2		9, 9
54″	5,14,41,58,23,46,28,29,57,20		23, 0,25,33	
		2, 5,10,57,20, 4,34,29		9, 9
56″	5,14,44, 3,34,43,48,34,31,49		23, 0,34,42	
		2, 5,10,56,57, 3,59,47		9, 9
58″	5,14,46, 8,45,40,45,38,31,36		23, 0,43,51	
		2, 5,10,56,34, 3,15,56		
60″	5,14,48,13,56,37,19,41,47,32			
exact	5,14,48,13,56,37,19,41,38,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5° 1′ 0″	5,14,48,13,56,37,19,41,38,46			
		2, 5,10,56,11, 2,22, 1		
2″	5,14,50,19, 7,33,30,44, 0,47		23, 1, 2,13	
		2, 5,10,55,48, 1,19,48		9, 9
4″	5,14,52,24,18,29,18,45,20,35		23, 1,11,22	
		2, 5,10,55,25, 0, 8,26		9, 9
6″	5,14,54,29,29,24,43,45,29, 1		23, 1,20,31	
		2, 5,10,55, 1,58,47,55		9, 9
8″	5,14,56,34,40,19,45,44,16,56		23, 1,29,40	
		2, 5,10,54,38,57,18,15		9, 9
10″	5,14,58,39,51,14,24,41,35,11		23, 1,38,49	
		2, 5,10,54,15,55,39,26		9, 9
12″	5,15, 0,45, 2, 8,40,37,14,37		23, 1,47,58	
		2, 5,10,53,52,53,51,28		9, 9
14″	5,15, 2,50,13, 2,33,31, 6, 5		23, 1,57, 7	
		2, 5,10,53,29,51,54,21		9, 9
16″	5,15, 4,55,23,56, 3,23, 0,26		23, 2, 6,16	
		2, 5,10,53, 6,49,48, 5		9, 9
18″	5,15, 7, 0,34,49,10,12,48,31		23, 2,15,25	
		2, 5,10,52,43,47,32,40		9, 9
20″	5,15, 9, 5,45,41,54, 0,21,11		23, 2,24,34	
		2, 5,10,52,20,45, 8, 6		9, 9
22″	5,15,11,10,56,34,14,45,29,17		23, 2,33,43	
		2, 5,10,51,57,42,34,23		9, 9
24″	5,15,13,16, 7,26,12,28, 3,40		23, 2,42,52	
		2, 5,10,51,34,39,51,31		9, 9
26″	5,15,15,21,18,17,47, 7,55,11		23, 2,52, 1	
		2, 5,10,51,11,36,59,30		9, 9
28″	5,15,17,26,29, 8,58,44,54,41		23, 3, 1,10	
		2, 5,10,50,48,33,58,20		9, 9
30″	5,15,19,31,39,59,47,18,53, 1		23, 3,10,19	
		2, 5,10,50,25,30,48, 1		9, 9
32″	5,15,21,36,50,50,12,49,41, 2		23, 3,19,28	
		2, 5,10,50, 2,27,28,33		9, 9
34″	5,15,23,42, 1,40,15,17, 9,35		23, 3,28,37	
		2, 5,10,49,39,23,59,56		9, 9
36″	5,15,25,47,12,29,54,41, 9,31		23, 3,37,46	
		2, 5,10,49,16,20,22,10		9, 9
38″	5,15,27,52,23,19,11, 1,31,41		23, 3,46,55	
		2, 5,10,48,53,16,35,15		9, 9
40″	5,15,29,57,34, 8, 4,18, 6,56		23, 3,56, 4	
		2, 5,10,48,30,12,39,11		9, 9
42″	5,15,32, 2,44,56,34,30,46, 7		23, 4, 5,13	
		2, 5,10,48, 7, 8,33,58		9, 9
44″	5,15,34, 7,55,44,41,39,20, 5		23, 4,14,22	
		2, 5,10,47,44, 4,19,36		9, 9
46″	5,15,36,13, 6,32,25,43,39,41		23, 4,23,31	
		2, 5,10,47,20,59,56, 5		9, 9
48″	5,15,38,18,17,19,46,43,35,46		23, 4,32,40	
		2, 5,10,46,57,55,23,25		9, 9
50″	5,15,40,23,28, 6,44,38,59,11		23, 4,41,49	
		2, 5,10,46,34,50,41,36		9, 9
52″	5,15,42,28,38,53,19,29,40,47		23, 4,50,58	
		2, 5,10,46,11,45,50,38		9, 9
54″	5,15,44,33,49,39,31,15,31,25		23, 5, 0, 7	
		2, 5,10,45,48,40,50,31		9, 9
56″	5,15,46,39, 0,25,19,56,21,56		23, 5, 9,16	
		2, 5,10,45,25,35,41,15		9, 9
58″	5,15,48,44,11,10,45,32, 3,11		23, 5,18,25	
		2, 5,10,45, 2,30,22,50		
60″	5,15,50,49,21,55,48, 2,26, 1			
exact	5,15,50,49,21,55,48, 2,21,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5° 2′ 0″	5,15,50,49,21,55,48, 2,21,39			
		2, 5,10,44,39,24,54,42		
2″	5,15,52,54,32,40,27,27,16,21		23, 5,36,46	
		2, 5,10,44,16,19,17,56		9, 9
4″	5,15,54,59,43,24,43,46,34,17		23, 5,45,55	
		2, 5,10,43,53,13,32, 1		9, 9
6″	5,15,57, 4,54, 8,37, 0, 6,18		23, 5,55, 4	
		2, 5,10,43,30, 7,36,57		9, 9
8″	5,15,59,10, 4,52, 7, 7,43,15		23, 6, 4,13	
		2, 5,10,43, 7, 1,32,44		9, 9
10″	5,16, 1,15,15,35,14, 9,15,59		23, 6,13,22	
		2, 5,10,42,43,55,19,22		9, 9
12″	5,16, 3,20,26,17,58, 4,35,21		23, 6,22,31	
		2, 5,10,42,20,48,56,51		9, 9
14″	5,16, 5,25,37, 0,18,53,32,12		23, 6,31,40	
		2, 5,10,41,57,42,25,11		9, 9
16″	5,16, 7,30,47,42,16,35,57,23		23, 6,40,49	
		2, 5,10,41,34,35,44,22		9, 9
18″	5,16, 9,35,58,23,51,11,41,45		23, 6,49,58	
		2, 5,10,41,11,28,54,24		9, 9
20″	5,16,11,41, 9, 5, 2,40,36, 9		23, 6,59, 7	
		2, 5,10,40,48,21,55,17		9, 9
22″	5,16,13,46,19,45,51, 2,31,26		23, 7, 8,16	
		2, 5,10,40,25,14,47, 1		9, 9
24″	5,16,15,51,30,26,16,17,18,27		23, 7,17,25	
		2, 5,10,40, 2, 7,29,36		9, 9
26″	5,16,17,56,41, 6,18,24,48, 3		23, 7,26,34	
		2, 5,10,39,39, 0, 3, 2		9, 9
28″	5,16,20, 1,51,45,57,24,51, 5		23, 7,35,43	
		2, 5,10,39,15,52,27,19		9, 9
30″	5,16,22, 7, 2,25,13,17,18,24		23, 7,44,52	
		2, 5,10,38,52,44,42,27		9, 9
32″	5,16,24,12,13, 4, 6, 2, 0,51		23, 7,54, 1	
		2, 5,10,38,29,36,48,26		9, 9
34″	5,16,26,17,23,42,35,38,49,17		23, 8, 3,10	
		2, 5,10,38, 6,28,45,16		9, 9
36″	5,16,28,22,34,20,42, 7,34,33		23, 8,12,19	
		2, 5,10,37,43,20,32,57		9, 9
38″	5,16,30,27,44,58,25,28, 7,30		23, 8,21,28	
		2, 5,10,37,20,12,11,29		9, 9
40″	5,16,32,32,55,35,45,40,18,59		23, 8,30,37	
		2, 5,10,36,57, 3,40,52		9, 9
42″	5,16,34,38, 6,12,42,43,59,51		23, 8,39,46	
		2, 5,10,36,33,55, 1, 6		9, 9
44″	5,16,36,43,16,49,16,39, 0,57		23, 8,48,55	
		2, 5,10,36,10,46,12,11		9, 9
46″	5,16,38,48,27,25,27,25,13, 8		23, 8,58, 4	
		2, 5,10,35,47,37,14, 7		9, 9
48″	5,16,40,53,38, 1,15, 2,27,15		23, 9, 7,13	
		2, 5,10,35,24,28, 6,54		9, 9
50″	5,16,42,58,48,36,39,30,34, 9		23, 9,16,22	
		2, 5,10,35, 1,18,50,32		9, 9
52″	5,16,45, 3,59,11,40,49,24,41		23, 9,25,31	
		2, 5,10,34,38, 9,25, 1		9, 9
54″	5,16,47, 9, 9,46,18,58,49,42		23, 9,34,40	
		2, 5,10,34,14,59,50,21		9, 9
56″	5,16,49,14,20,20,33,58,40, 3		23, 9,43,49	
		2, 5,10,33,51,50, 6,32		9, 9
58″	5,16,51,19,30,54,25,48,46,35		23, 9,52,58	
		2, 5,10,33,28,40,13,34		
60″	5,16,53,24,41,27,54,29, 0, 9			
exact	5,16,53,24,41,27,54,28,55,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5° 3′ 0″	5,16,53,24,41,27,54,28,55,34			
		2, 5,10,33, 5,30,10,55		
2″	5,16,55,29,52, 0,59,59, 6,29		23,10,11,18	
		2, 5,10,32,42,19,59,37		9, 9
4″	5,16,57,35, 2,33,42,19, 6, 6		23,10,20,27	
		2, 5,10,32,19, 9,39,10		9, 9
6″	5,16,59,40,13, 6, 1,28,45,16		23,10,29,36	
		2, 5,10,31,55,59, 9,34		9, 9
8″	5,17, 1,45,23,37,57,27,54,50		23,10,38,45	
		2, 5,10,31,32,48,30,49		9, 9
10″	5,17, 3,50,34, 9,30,16,25,39		23,10,47,54	
		2, 5,10,31, 9,37,42,55		9, 9
12″	5,17, 5,55,44,40,39,54, 8,34		23,10,57, 3	
		2, 5,10,30,46,26,45,52		9, 9
14″	5,17, 8, 0,55,11,26,20,54,26		23,11, 6,12	
		2, 5,10,30,23,15,39,40		9, 9
16″	5,17,10, 6, 5,41,49,36,34, 6		23,11,15,21	
		2, 5,10,30, 0, 4,24,19		9, 9
18″	5,17,12,11,16,11,49,40,58,25		23,11,24,30	
		2, 5,10,29,36,52,59,49		9, 9
20″	5,17,14,16,26,41,26,33,58,14		23,11,33,39	
		2, 5,10,29,13,41,26,10		9, 9
22″	5,17,16,21,37,10,40,15,24,24		23,11,42,48	
		2, 5,10,28,50,29,43,22		9, 9
24″	5,17,18,26,47,39,30,45, 7,46		23,11,51,57	
		2, 5,10,28,27,17,51,25		9, 9
26″	5,17,20,31,58, 7,58, 2,59,11		23,12, 1, 6	
		2, 5,10,28, 4, 5,50,19		9, 9
28″	5,17,22,37, 8,36, 2, 8,49,30		23,12,10,15	
		2, 5,10,27,40,53,40, 4		9, 9
30″	5,17,24,42,19, 3,43, 2,29,34		23,12,19,24	
		2, 5,10,27,17,41,20,40		9, 9
32″	5,17,26,47,29,31, 0,43,50,14		23,12,28,33	
		2, 5,10,26,54,28,52, 7		9, 9
34″	5,17,28,52,39,57,55,12,42,21		23,12,37,42	
		2, 5,10,26,31,16,14,25		9, 9
36″	5,17,30,57,50,24,26,28,56,46		23,12,46,51	
		2, 5,10,26, 8, 3,27,34		9, 9
38″	5,17,33, 3, 0,50,34,32,24,20		23,12,56, 0	
		2, 5,10,25,44,50,31,34		9, 9
40″	5,17,35, 8,11,16,19,22,55,54		23,13, 5, 9	
		2, 5,10,25,21,37,26,25		9, 9
42″	5,17,37,13,21,41,41, 0,22,19		23,13,14,18	
		2, 5,10,24,58,24,12, 7		9, 9
44″	5,17,39,18,32, 6,39,24,34,26		23,13,23,27	
		2, 5,10,24,35,10,48,40		9, 9
46″	5,17,41,23,42,31,14,35,23, 6		23,13,32,36	
		2, 5,10,24,11,57,16, 4		9, 9
48″	5,17,43,28,52,55,26,32,39,10		23,13,41,45	
		2, 5,10,23,48,43,34,19		9, 9
50″	5,17,45,34, 3,19,15,16,13,29		23,13,50,54	
		2, 5,10,23,25,29,43,25		9, 9
52″	5,17,47,39,13,42,40,45,56,54		23,14, 0, 3	
		2, 5,10,23, 2,15,43,22		9, 9
54″	5,17,49,44,24, 5,43, 1,40,16		23,14, 9,12	
		2, 5,10,22,39, 1,34,10		9, 9
56″	5,17,51,49,34,28,22, 3,14,26		23,14,18,21	
		2, 5,10,22,15,47,15,49		9, 9
58″	5,17,53,54,44,50,37,50,30,15		23,14,27,30	
		2, 5,10,21,52,32,48,19		
60″	5,17,55,59,55,12,30,23,18,34			
exact	5,17,55,59,55,12,30,23,10, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5° 4′ 0″	5,17,55,59,55,12,30,23,10, 2			
		2, 5,10,21,29,18,10,53		
2″	5,17,58, 5, 5,33,59,41,20,55		23,14,45,51	
		2, 5,10,21, 6, 3,25, 2		9, 9
4″	5,18, 0,10,15,55, 5,44,45,57		23,14,55, 0	
		2, 5,10,20,42,48,30, 2		9, 9
6″	5,18, 2,15,26,15,48,33,15,59		23,15, 4, 9	
		2, 5,10,20,19,33,25,53		9, 9
8″	5,18, 4,20,36,36, 8, 6,41,52		23,15,13,18	
		2, 5,10,19,56,18,12,35		9, 9
10″	5,18, 6,25,46,56, 4,24,54,27		23,15,22,27	
		2, 5,10,19,33, 2,50, 8		9, 9
12″	5,18, 8,30,57,15,37,27,44,35		23,15,31,36	
		2, 5,10,19, 9,47,18,32		9, 9
14″	5,18,10,36, 7,34,47,15, 3, 7		23,15,40,45	
		2, 5,10,18,46,31,37,47		9, 9
16″	5,18,12,41,17,53,33,46,40,54		23,15,49,54	
		2, 5,10,18,23,15,47,53		9, 9
18″	5,18,14,46,28,11,57, 2,28,47		23,15,59, 3	
		2, 5,10,17,59,59,48,50		9, 9
20″	5,18,16,51,38,29,57, 2,17,37		23,16, 8,12	
		2, 5,10,17,36,43,40,38		9, 9
22″	5,18,18,56,48,47,33,45,58,15		23,16,17,21	
		2, 5,10,17,13,27,23,17		9, 9
24″	5,18,21, 1,59, 4,47,13,21,32		23,16,26,30	
		2, 5,10,16,50,10,56,47		9, 9
26″	5,18,23, 7, 9,21,37,24,18,19		23,16,35,39	
		2, 5,10,16,26,54,21, 8		9, 9
28″	5,18,25,12,19,38, 4,18,39,27		23,16,44,48	
		2, 5,10,16, 3,37,36,20		9, 9
30″	5,18,27,17,29,54, 7,56,15,47		23,16,53,57	
		2, 5,10,15,40,20,42,23		9, 9
32″	5,18,29,22,40, 9,48,16,58,10		23,17, 3, 6	
		2, 5,10,15,17, 3,39,17		9, 9
34″	5,18,31,27,50,25, 5,20,37,27		23,17,12,15	
		2, 5,10,14,53,46,27, 2		9, 9
36″	5,18,33,33, 0,39,59, 7, 4,29		23,17,21,24	
		2, 5,10,14,30,29, 5,38		9, 9
38″	5,18,35,38,10,54,29,36,10, 7		23,17,30,33	
		2, 5,10,14, 7,11,35, 5		9, 9
40″	5,18,37,43,21, 8,36,47,45,12		23,17,39,42	
		2, 5,10,13,43,53,55,23		9, 9
42″	5,18,39,48,31,22,20,41,40,35		23,17,48,51	
		2, 5,10,13,20,36, 6,32		9, 9
44″	5,18,41,53,41,35,41,17,47, 7		23,17,58, 0	
		2, 5,10,12,57,18, 8,32		9, 9
46″	5,18,43,58,51,48,38,35,55,39		23,18, 7, 9	
		2, 5,10,12,34, 0, 1,23		9, 9
48″	5,18,46, 4, 2, 1,12,35,57, 2		23,18,16,18	
		2, 5,10,12,10,41,45, 5		9, 9
50″	5,18,48, 9,12,13,23,17,42, 7		23,18,25,27	
		2, 5,10,11,47,23,19,38		9, 9
52″	5,18,50,14,22,25,10,41, 1,45		23,18,34,36	
		2, 5,10,11,24, 4,45, 2		9, 9
54″	5,18,52,19,32,36,34,45,46,47		23,18,43,45	
		2, 5,10,11, 0,46, 1,17		9, 9
56″	5,18,54,24,42,47,35,31,48, 4		23,18,52,54	
		2, 5,10,10,37,27, 8,23		9, 9
58″	5,18,56,29,52,58,12,58,56,27		23,19, 2, 3	
		2, 5,10,10,14, 8, 6,20		
60″	5,18,58,35, 3, 8,27, 7, 2,47			
exact	5,18,58,35, 3, 8,27, 7, 0,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5° 5′ 0″	5,18,58,35, 3, 8,27, 7, 0,51			
		2, 5,10, 9,50,48,54,50		
2″	5,19, 0,40,13,18,17,55,55,41		23,19,20,23	
		2, 5,10, 9,27,29,34,27		9, 9
4″	5,19, 2,45,23,27,45,25,30, 8		23,19,29,32	
		2, 5,10, 9, 4,10, 4,55		9, 9
6″	5,19, 4,50,33,36,49,35,35, 3		23,19,38,41	
		2, 5,10, 8,40,50,26,14		9, 9
8″	5,19, 6,55,43,45,30,26, 1,17		23,19,47,50	
		2, 5,10, 8,17,30,38,24		9, 9
10″	5,19, 9, 0,53,53,47,56,39,41		23,19,56,59	
		2, 5,10, 7,54,10,41,25		9, 9
12″	5,19,11, 6, 4, 1,42, 7,21, 6		23,20, 6, 8	
		2, 5,10, 7,30,50,35,17		9, 9
14″	5,19,13,11,14, 9,12,57,56,23		23,20,15,17	
		2, 5,10, 7, 7,30,20, 0		9, 9
16″	5,19,15,16,24,16,20,28,16,23		23,20,24,26	
		2, 5,10, 6,44, 9,55,34		9, 9
18″	5,19,17,21,34,23, 4,38,11,57		23,20,33,35	
		2, 5,10, 6,20,49,21,59		9, 9
20″	5,19,19,26,44,29,25,27,33,56		23,20,42,44	
		2, 5,10, 5,57,28,39,15		9, 9
22″	5,19,21,31,54,35,22,56,13,11		23,20,51,53	
		2, 5,10, 5,34, 7,47,22		9, 9
24″	5,19,23,37, 4,40,57, 4, 0,33		23,21, 1, 2	
		2, 5,10, 5,10,46,46,20		9, 9
26″	5,19,25,42,14,46, 7,50,46,53		23,21,10,11	
		2, 5,10, 4,47,25,36, 9		9, 9
28″	5,19,27,47,24,50,55,16,23, 2		23,21,19,20	
		2, 5,10, 4,24, 4,16,49		9, 9
30″	5,19,29,52,34,55,19,20,39,51		23,21,28,29	
		2, 5,10, 4, 0,42,48,20		9, 9
32″	5,19,31,57,44,59,20, 3,28,11		23,21,37,38	
		2, 5,10, 3,37,21,10,42		9, 9
34″	5,19,34, 2,55, 2,57,24,38,53		23,21,46,47	
		2, 5,10, 3,13,59,23,55		9, 9
36″	5,19,36, 8, 5, 6,11,24, 2,48		23,21,55,56	
		2, 5,10, 2,50,37,27,59		9, 9
38″	5,19,38,13,15, 9, 2, 1,30,47		23,22, 5, 5	
		2, 5,10, 2,27,15,22,54		9, 9
40″	5,19,40,18,25,11,29,16,53,41		23,22,14,14	
		2, 5,10, 2, 3,53, 8,40		9, 9
42″	5,19,42,23,35,13,33,10, 2,21		23,22,23,23	
		2, 5,10, 1,40,30,45,17		9, 9
44″	5,19,44,28,45,15,13,40,47,38		23,22,32,32	
		2, 5,10, 1,17, 8,12,45		9, 9
46″	5,19,46,33,55,16,30,49, 0,23		23,22,41,41	
		2, 5,10, 0,53,45,31, 4		9, 9
48″	5,19,48,39, 5,17,24,34,31,27		23,22,50,50	
		2, 5,10, 0,30,22,40,14		9, 9
50″	5,19,50,44,15,17,54,57,11,41		23,22,59,59	
		2, 5,10, 0, 6,59,40,15		9, 9
52″	5,19,52,49,25,18, 1,56,51,56		23,23, 9, 8	
		2, 5, 9,59,43,36,31, 7		9, 9
54″	5,19,54,54,35,17,45,33,23, 3		23,23,18,17	
		2, 5, 9,59,20,13,12,50		9, 9
56″	5,19,56,59,45,17, 5,46,35,53		23,23,27,26	
		2, 5, 9,58,56,49,45,24		9, 9
58″	5,19,59, 4,55,16, 2,36,21,17		23,23,36,35	
		2, 5, 9,58,33,26, 8,49		
60″	5,20, 1,10, 5,14,36, 2,30, 6			
exact	5,20, 1,10, 5,14,36, 2,30,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5° 6′ 0″	5,20, 1,10, 5,14,36, 2,30,14			
		2, 5, 9,58,10, 2,22,58		
2″	5,20, 3,15,15,12,46, 4,53,12		23,23,54,54	
		2, 5, 9,57,46,38,28, 4		9, 9
4″	5,20, 5,20,25,10,32,43,21,16		23,24, 4, 3	
		2, 5, 9,57,23,14,24, 1		9, 9
6″	5,20, 7,25,35, 7,55,57,45,17		23,24,13,12	
		2, 5, 9,56,59,50,10,49		9, 9
8″	5,20, 9,30,45, 4,55,47,56, 6		23,24,22,21	
		2, 5, 9,56,36,25,48,28		9, 9
10″	5,20,11,35,55, 1,32,13,44,34		23,24,31,30	
		2, 5, 9,56,13, 1,16,58		9, 9
12″	5,20,13,41, 4,57,45,15, 1,32		23,24,40,39	
		2, 5, 9,55,49,36,36,19		9, 9
14″	5,20,15,46,14,53,34,51,37,51		23,24,49,48	
		2, 5, 9,55,26,11,46,31		9, 9
16″	5,20,17,51,24,49, 1, 3,24,22		23,24,58,57	
		2, 5, 9,55, 2,46,47,34		9, 9
18″	5,20,19,56,34,44, 3,50,11,56		23,25, 8, 6	
		2, 5, 9,54,39,21,39,28		9, 9
20″	5,20,22, 1,44,38,43,11,51,24		23,25,17,15	
		2, 5, 9,54,15,56,22,13		9, 9
22″	5,20,24, 6,54,32,59, 8,13,37		23,25,26,24	
		2, 5, 9,53,52,30,55,49		9, 9
24″	5,20,26,12, 4,26,51,39, 9,26		23,25,35,33	
		2, 5, 9,53,29, 5,20,16		9, 9
26″	5,20,28,17,14,20,20,44,29,42		23,25,44,42	
		2, 5, 9,53, 5,39,35,34		9, 9
28″	5,20,30,22,24,13,26,24, 5,16		23,25,53,51	
		2, 5, 9,52,42,13,41,43		9, 9
30″	5,20,32,27,34, 6, 8,37,46,59		23,26, 3, 0	
		2, 5, 9,52,18,47,38,43		9, 9
32″	5,20,34,32,43,58,27,25,25,42		23,26,12, 9	
		2, 5, 9,51,55,21,26,34		9, 9
34″	5,20,36,37,53,50,22,46,52,16		23,26,21,18	
		2, 5, 9,51,31,55, 5,16		9, 9
36″	5,20,38,43, 3,41,54,41,57,32		23,26,30,27	
		2, 5, 9,51, 8,28,34,49		9, 9
38″	5,20,40,48,13,33, 3,10,32,21		23,26,39,36	
		2, 5, 9,50,45, 1,55,13		9, 9
40″	5,20,42,53,23,23,48,12,27,34		23,26,48,45	
		2, 5, 9,50,21,35, 6,28		9, 9
42″	5,20,44,58,33,14, 9,47,34, 2		23,26,57,54	
		2, 5, 9,49,58, 8, 8,34		9, 9
44″	5,20,47, 3,43, 4, 7,55,42,36		23,27, 7, 3	
		2, 5, 9,49,34,41, 1,31		9, 9
46″	5,20,49, 8,52,53,42,36,44, 7		23,27,16,12	
		2, 5, 9,49,11,13,45,19		9, 9
48″	5,20,51,14, 2,42,53,50,29,26		23,27,25,21	
		2, 5, 9,48,47,46,19,58		9, 9
50″	5,20,53,19,12,31,41,36,49,24		23,27,34,30	
		2, 5, 9,48,24,18,45,28		9, 9
52″	5,20,55,24,22,20, 5,55,34,52		23,27,43,39	
		2, 5, 9,48, 0,51, 1,49		9, 9
54″	5,20,57,29,32, 8, 6,46,36,41		23,27,52,48	
		2, 5, 9,47,37,23, 9, 1		9, 9
56″	5,20,59,34,41,55,44, 9,45,42		23,28, 1,57	
		2, 5, 9,47,13,55, 7, 4		9, 9
58″	5,21, 1,39,51,42,58, 4,52,46		23,28,11, 6	
		2, 5, 9,46,50,26,55,58		
60″	5,21, 3,45, 1,29,48,31,48,44			
exact	5,21, 3,45, 1,29,48,31,46,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5° 7′ 0″	5,21, 3,45, 1,29,48,31,46,47			
		2, 5, 9,46,26,58,35,30		
2″	5,21, 5,50,11,16,15,30,22,17		23,28,29,25	
		2, 5, 9,46, 3,30, 6, 5		9, 9
4″	5,21, 7,55,21, 2,19, 0,28,22		23,28,38,34	
		2, 5, 9,45,40, 1,27,31		9, 9
6″	5,21,10, 0,30,47,59, 1,55,53		23,28,47,43	
		2, 5, 9,45,16,32,39,48		9, 9
8″	5,21,12, 5,40,33,15,34,35,41		23,28,56,52	
		2, 5, 9,44,53, 3,42,56		9, 9
10″	5,21,14,10,50,18, 8,38,18,37		23,29, 6, 1	
		2, 5, 9,44,29,34,36,55		9, 9
12″	5,21,16,16, 0, 2,38,12,55,32		23,29,15,10	
		2, 5, 9,44, 6, 5,21,45		9, 9
14″	5,21,18,21, 9,46,44,18,17,17		23,29,24,19	
		2, 5, 9,43,42,35,57,26		9, 9
16″	5,21,20,26,19,30,26,54,14,43		23,29,33,28	
		2, 5, 9,43,19, 6,23,58		9, 9
18″	5,21,22,31,29,13,46, 0,38,41		23,29,42,37	
		2, 5, 9,42,55,36,41,21		9, 9
20″	5,21,24,36,38,56,41,37,20, 2		23,29,51,46	
		2, 5, 9,42,32, 6,49,35		9, 9
22″	5,21,26,41,48,39,13,44, 9,37		23,30, 0,55	
		2, 5, 9,42, 8,36,48,40		9, 9
24″	5,21,28,46,58,21,22,20,58,17		23,30,10, 4	
		2, 5, 9,41,45, 6,38,36		9, 9
26″	5,21,30,52, 8, 3, 7,27,36,53		23,30,19,13	
		2, 5, 9,41,21,36,19,23		9, 9
28″	5,21,32,57,17,44,29, 3,56,16		23,30,28,22	
		2, 5, 9,40,58, 5,51, 1		9, 9
30″	5,21,35, 2,27,25,27, 9,47,17		23,30,37,31	
		2, 5, 9,40,34,35,13,30		9, 9
32″	5,21,37, 7,37, 6, 1,45, 0,47		23,30,46,40	
		2, 5, 9,40,11, 4,26,50		9, 9
34″	5,21,39,12,46,46,12,49,27,37		23,30,55,49	
		2, 5, 9,39,47,33,31, 1		9, 9
36″	5,21,41,17,56,26, 0,22,58,38		23,31, 4,58	
		2, 5, 9,39,24, 2,26, 3		9, 9
38″	5,21,43,23, 6, 5,24,25,24,41		23,31,14, 7	
		2, 5, 9,39, 0,31,11,56		9, 9
40″	5,21,45,28,15,44,24,56,36,37		23,31,23,16	
		2, 5, 9,38,36,59,48,40		9, 9
42″	5,21,47,33,25,23, 1,56,25,17		23,31,32,25	
		2, 5, 9,38,13,28,16,15		9, 9
44″	5,21,49,38,35, 1,15,24,41,32		23,31,41,34	
		2, 5, 9,37,49,56,34,41		9, 9
46″	5,21,51,43,44,39, 5,21,16,13		23,31,50,43	
		2, 5, 9,37,26,24,43,58		9, 9
48″	5,21,53,48,54,16,31,46, 0,11		23,31,59,52	
		2, 5, 9,37, 2,52,44, 6		9, 9
50″	5,21,55,54, 3,53,34,38,44,17		23,32, 9, 1	
		2, 5, 9,36,39,20,35, 5		9, 9
52″	5,21,57,59,13,30,13,59,19,22		23,32,18,10	
		2, 5, 9,36,15,48,16,55		9, 9
54″	5,22, 0, 4,23, 6,29,47,36,17		23,32,27,19	
		2, 5, 9,35,52,15,49,36		9, 9
56″	5,22, 2, 9,32,42,22, 3,25,53		23,32,36,28	
		2, 5, 9,35,28,43,13, 8		9, 9
58″	5,22, 4,14,42,17,50,46,39, 1		23,32,45,37	
		2, 5, 9,35, 5,10,27,31		
60″	5,22, 6,19,51,52,55,57, 6,32			
exact	5,22, 6,19,51,52,55,57, 5,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5° 8′ 0″	5,22, 6,19,51,52,55,57, 5,32			
		2, 5, 9,34,41,37,32,38		
2″	5,22, 8,25, 1,27,37,34,38,10		23,33, 3,55	
		2, 5, 9,34,18, 4,28,43		9, 9
4″	5,22,10,30,11, 1,55,39, 6,53		23,33,13, 4	
		2, 5, 9,33,54,31,15,39		9, 9
6″	5,22,12,35,20,35,50,10,22,32		23,33,22,13	
		2, 5, 9,33,30,57,53,26		9, 9
8″	5,22,14,40,30, 9,21, 8,15,58		23,33,31,22	
		2, 5, 9,33, 7,24,22, 4		9, 9
10″	5,22,16,45,39,42,28,32,38, 2		23,33,40,31	
		2, 5, 9,32,43,50,41,33		9, 9
12″	5,22,18,50,49,15,12,23,19,35		23,33,49,40	
		2, 5, 9,32,20,16,51,53		9, 9
14″	5,22,20,55,58,47,32,40,11,28		23,33,58,49	
		2, 5, 9,31,56,42,53, 4		9, 9
16″	5,22,23, 1, 8,19,29,23, 4,32		23,34, 7,58	
		2, 5, 9,31,33, 8,45, 6		9, 9
18″	5,22,25, 6,17,51, 2,31,49,38		23,34,17, 7	
		2, 5, 9,31, 9,34,27,59		9, 9
20″	5,22,27,11,27,22,12, 6,17,37		23,34,26,16	
		2, 5, 9,30,46, 0, 1,43		9, 9
22″	5,22,29,16,36,52,58, 6,19,20		23,34,35,25	
		2, 5, 9,30,22,25,26,18		9, 9
24″	5,22,31,21,46,23,20,31,45,38		23,34,44,34	
		2, 5, 9,29,58,50,41,44		9, 9
26″	5,22,33,26,55,53,19,22,27,22		23,34,53,43	
		2, 5, 9,29,35,15,48, 1		9, 9
28″	5,22,35,32, 5,22,54,38,15,23		23,35, 2,52	
		2, 5, 9,29,11,40,45, 9		9, 9
30″	5,22,37,37,14,52, 6,19, 0,32		23,35,12, 1	
		2, 5, 9,28,48, 5,33, 8		9, 9
32″	5,22,39,42,24,20,54,24,33,40		23,35,21,10	
		2, 5, 9,28,24,30,11,58		9, 9
34″	5,22,41,47,33,49,18,54,45,38		23,35,30,19	
		2, 5, 9,28, 0,54,41,39		9, 9
36″	5,22,43,52,43,17,19,49,27,17		23,35,39,28	
		2, 5, 9,27,37,19, 2,11		9, 9
38″	5,22,45,57,52,44,57, 8,29,28		23,35,48,37	
		2, 5, 9,27,13,43,13,34		9, 9
40″	5,22,48, 3, 2,12,10,51,43, 2		23,35,57,46	
		2, 5, 9,26,50, 7,15,48		9, 9
42″	5,22,50, 8,11,39, 0,58,58,50		23,36, 6,55	
		2, 5, 9,26,26,31, 8,53		9, 9
44″	5,22,52,13,21, 5,27,30, 7,43		23,36,16, 4	
		2, 5, 9,26, 2,54,52,49		9, 9
46″	5,22,54,18,30,31,30,25, 0,32		23,36,25,13	
		2, 5, 9,25,39,18,27,36		9, 9
48″	5,22,56,23,39,57, 9,43,28, 8		23,36,34,22	
		2, 5, 9,25,15,41,53,14		9, 9
50″	5,22,58,28,49,22,25,25,21,22		23,36,43,31	
		2, 5, 9,24,52, 5, 9,43		9, 9
52″	5,23, 0,33,58,47,17,30,31, 5		23,36,52,40	
		2, 5, 9,24,28,28,17, 3		9, 9
54″	5,23, 2,39, 8,11,45,58,48, 8		23,37, 1,49	
		2, 5, 9,24, 4,51,15,14		9, 9
56″	5,23, 4,44,17,35,50,50, 3,22		23,37,10,58	
		2, 5, 9,23,41,14, 4,16		9, 9
58″	5,23, 6,49,26,59,32, 4, 7,38		23,37,20, 7	
		2, 5, 9,23,17,36,44, 9		
60″	5,23, 8,54,36,22,49,40,51,47			
exact	5,23, 8,54,36,22,49,40,47,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5° 9′ 0″	5,23, 8,54,36,22,49,40,47,54			
		2, 5, 9,22,53,59,14,36		
2″	5,23,10,59,45,45,43,40, 2,30		23,37,38,26	
		2, 5, 9,22,30,21,36,10		9, 9
4″	5,23,13, 4,55, 8,14, 1,38,40		23,37,47,35	
		2, 5, 9,22, 6,43,48,35		9, 9
6″	5,23,15,10, 4,30,20,45,27,15		23,37,56,44	
		2, 5, 9,21,43, 5,51,51		9, 9
8″	5,23,17,15,13,52, 3,51,19, 6		23,38, 5,53	
		2, 5, 9,21,19,27,45,58		9, 9
10″	5,23,19,20,23,13,23,19, 5, 4		23,38,15, 2	
		2, 5, 9,20,55,49,30,56		9, 9
12″	5,23,21,25,32,34,19, 8,36, 0		23,38,24,11	
		2, 5, 9,20,32,11, 6,45		9, 9
14″	5,23,23,30,41,54,51,19,42,45		23,38,33,20	
		2, 5, 9,20, 8,32,33,25		9, 9
16″	5,23,25,35,51,14,59,52,16,10		23,38,42,29	
		2, 5, 9,19,44,53,50,56		9, 9
18″	5,23,27,41, 0,34,44,46, 7, 6		23,38,51,38	
		2, 5, 9,19,21,14,59,18		9, 9
20″	5,23,29,46, 9,54, 6, 1, 6,24		23,39, 0,47	
		2, 5, 9,18,57,35,58,31		9, 9
22″	5,23,31,51,19,13, 3,37, 4,55		23,39, 9,56	
		2, 5, 9,18,33,56,48,35		9, 9
24″	5,23,33,56,28,31,37,33,53,30		23,39,19, 5	
		2, 5, 9,18,10,17,29,30		9, 9
26″	5,23,36, 1,37,49,47,51,23, 0		23,39,28,14	
		2, 5, 9,17,46,38, 1,16		9, 9
28″	5,23,38, 6,47, 7,34,29,24,16		23,39,37,23	
		2, 5, 9,17,22,58,23,53		9, 9
30″	5,23,40,11,56,24,57,27,48, 9		23,39,46,32	
		2, 5, 9,16,59,18,37,21		9, 9
32″	5,23,42,17, 5,41,56,46,25,30		23,39,55,41	
		2, 5, 9,16,35,38,41,40		9, 9
34″	5,23,44,22,14,58,32,25, 7,10		23,40, 4,50	
		2, 5, 9,16,11,58,36,50		9, 9
36″	5,23,46,27,24,14,44,23,44, 0		23,40,13,59	
		2, 5, 9,15,48,18,22,51		9, 9
38″	5,23,48,32,33,30,32,42, 6,51		23,40,23, 8	
		2, 5, 9,15,24,37,59,43		9, 9
40″	5,23,50,37,42,45,57,20, 6,34		23,40,32,17	
		2, 5, 9,15, 0,57,27,26		9, 9
42″	5,23,52,42,52, 0,58,17,34, 0		23,40,41,26	
		2, 5, 9,14,37,16,46, 0		9, 9
44″	5,23,54,48, 1,15,35,34,20, 0		23,40,50,35	
		2, 5, 9,14,13,35,55,25		9, 9
46″	5,23,56,53,10,29,49,10,15,25		23,40,59,44	
		2, 5, 9,13,49,54,55,41		9, 9
48″	5,23,58,58,19,43,39, 5,11, 6		23,41, 8,53	
		2, 5, 9,13,26,13,46,48		9, 9
50″	5,24, 1, 3,28,57, 5,18,57,54		23,41,18, 2	
		2, 5, 9,13, 2,32,28,46		9, 9
52″	5,24, 3, 8,38,10, 7,51,26,40		23,41,27,11	
		2, 5, 9,12,38,51, 1,35		9, 9
54″	5,24, 5,13,47,22,46,42,28,15		23,41,36,20	
		2, 5, 9,12,15, 9,25,15		9, 9
56″	5,24, 7,18,56,35, 1,51,53,30		23,41,45,29	
		2, 5, 9,11,51,27,39,46		9, 9
58″	5,24, 9,24, 5,46,53,19,33,16		23,41,54,38	
		2, 5, 9,11,27,45,45, 8		
60″	5,24,11,29,14,58,21, 5,18,24			
exact	5,24,11,29,14,58,21, 5,21,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°10′ 0″	5,24,11,29,14,58,21, 5,21,48			
		2, 5, 9,11, 4, 3,41,37		
2″	5,24,13,34,24, 9,25, 9, 3,25		23,42,12,55	
		2, 5, 9,10,40,21,28,42		9, 9
4″	5,24,15,39,33,20, 5,30,32, 7		23,42,22, 4	
		2, 5, 9,10,16,39, 6,38		9, 9
6″	5,24,17,44,42,30,22, 9,38,45		23,42,31,13	
		2, 5, 9, 9,52,56,35,25		9, 9
8″	5,24,19,49,51,40,15, 6,14,10		23,42,40,22	
		2, 5, 9, 9,29,13,55, 3		9, 9
10″	5,24,21,55, 0,49,44,20, 9,13		23,42,49,31	
		2, 5, 9, 9, 5,31, 5,32		9, 9
12″	5,24,24, 0, 9,58,49,51,14,45		23,42,58,40	
		2, 5, 9, 8,41,48, 6,52		9, 9
14″	5,24,26, 5,19, 7,31,39,21,37		23,43, 7,49	
		2, 5, 9, 8,18, 4,59, 3		9, 9
16″	5,24,28,10,28,15,49,44,20,40		23,43,16,58	
		2, 5, 9, 7,54,21,42, 5		9, 9
18″	5,24,30,15,37,23,44, 6, 2,45		23,43,26, 7	
		2, 5, 9, 7,30,38,15,58		9, 9
20″	5,24,32,20,46,31,14,44,18,43		23,43,35,16	
		2, 5, 9, 7, 6,54,40,42		9, 9
22″	5,24,34,25,55,38,21,38,59,25		23,43,44,25	
		2, 5, 9, 6,43,10,56,17		9, 9
24″	5,24,36,31, 4,45, 4,49,55,42		23,43,53,34	
		2, 5, 9, 6,19,27, 2,43		9, 9
26″	5,24,38,36,13,51,24,16,58,25		23,44, 2,43	
		2, 5, 9, 5,55,43, 0, 0		9, 9
28″	5,24,40,41,22,57,19,59,58,25		23,44,11,52	
		2, 5, 9, 5,31,58,48, 8		9, 9
30″	5,24,42,46,32, 2,51,58,46,33		23,44,21, 1	
		2, 5, 9, 5, 8,14,27, 7		9, 9
32″	5,24,44,51,41, 8, 0,13,13,40		23,44,30,10	
		2, 5, 9, 4,44,29,56,57		9, 9
34″	5,24,46,56,50,12,44,43,10,37		23,44,39,19	
		2, 5, 9, 4,20,45,17,38		9, 9
36″	5,24,49, 1,59,17, 5,28,28,15		23,44,48,28	
		2, 5, 9, 3,57, 0,29,10		9, 9
38″	5,24,51, 7, 8,21, 2,28,57,25		23,44,57,37	
		2, 5, 9, 3,33,15,31,33		9, 9
40″	5,24,53,12,17,24,35,44,28,58		23,45, 6,46	
		2, 5, 9, 3, 9,30,24,47		9, 9
42″	5,24,55,17,26,27,45,14,53,45		23,45,15,55	
		2, 5, 9, 2,45,45, 8,52		9, 9
44″	5,24,57,22,35,30,31, 0, 2,37		23,45,25, 4	
		2, 5, 9, 2,21,59,43,48		9, 9
46″	5,24,59,27,44,32,52,59,46,25		23,45,34,13	
		2, 5, 9, 1,58,14, 9,35		9, 9
48″	5,25, 1,32,53,34,51,13,56, 0		23,45,43,22	
		2, 5, 9, 1,34,28,26,13		9, 9
50″	5,25, 3,38, 2,36,25,42,22,13		23,45,52,31	
		2, 5, 9, 1,10,42,33,42		9, 9
52″	5,25, 5,43,11,37,36,24,55,55		23,46, 1,40	
		2, 5, 9, 0,46,56,32, 2		9, 9
54″	5,25, 7,48,20,38,23,21,27,57		23,46,10,49	
		2, 5, 9, 0,23,10,21,13		9, 9
56″	5,25, 9,53,29,38,46,31,49,10		23,46,19,58	
		2, 5, 8,59,59,24, 1,15		9, 9
58″	5,25,11,58,38,38,45,55,50,25		23,46,29, 7	
		2, 5, 8,59,35,37,32, 8		
60″	5,25,14, 3,47,38,21,33,22,33			
exact	5,25,14, 3,47,38,21,33,21,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°11′ 0″	5,25,14, 3,47,38,21,33,21,38			
		2, 5, 8,59,11,50,53,52		
2″	5,25,16, 8,56,37,33,24,15,30		23,46,47,25	
		2, 5, 8,58,48, 4, 6,27		9, 9
4″	5,25,18,14, 5,36,21,28,21,57		23,46,56,34	
		2, 5, 8,58,24,17, 9,53		9, 9
6″	5,25,20,19,14,34,45,45,31,50		23,47, 5,43	
		2, 5, 8,58, 0,30, 4,10		9, 9
8″	5,25,22,24,23,32,46,15,36, 0		23,47,14,52	
		2, 5, 8,57,36,42,49,18		9, 9
10″	5,25,24,29,32,30,22,58,25,18		23,47,24, 1	
		2, 5, 8,57,12,55,25,17		9, 9
12″	5,25,26,34,41,27,35,53,50,35		23,47,33,10	
		2, 5, 8,56,49, 7,52, 7		9, 9
14″	5,25,28,39,50,24,25, 1,42,42		23,47,42,19	
		2, 5, 8,56,25,20, 9,48		9, 9
16″	5,25,30,44,59,20,50,21,52,30		23,47,51,28	
		2, 5, 8,56, 1,32,18,20		9, 9
18″	5,25,32,50, 8,16,51,54,10,50		23,48, 0,37	
		2, 5, 8,55,37,44,17,43		9, 9
20″	5,25,34,55,17,12,29,38,28,33		23,48, 9,46	
		2, 5, 8,55,13,56, 7,57		9, 9
22″	5,25,37, 0,26, 7,43,34,36,30		23,48,18,55	
		2, 5, 8,54,50, 7,49, 2		9, 9
24″	5,25,39, 5,35, 2,33,42,25,32		23,48,28, 4	
		2, 5, 8,54,26,19,20,58		9, 9
26″	5,25,41,10,43,57, 0, 1,46,30		23,48,37,13	
		2, 5, 8,54, 2,30,43,45		9, 9
28″	5,25,43,15,52,51, 2,32,30,15		23,48,46,22	
		2, 5, 8,53,38,41,57,23		9, 9
30″	5,25,45,21, 1,44,41,14,27,38		23,48,55,31	
		2, 5, 8,53,14,53, 1,52		9, 9
32″	5,25,47,26,10,37,56, 7,29,30		23,49, 4,40	
		2, 5, 8,52,51, 3,57,12		9, 9
34″	5,25,49,31,19,30,47,11,26,42		23,49,13,49	
		2, 5, 8,52,27,14,43,23		9, 9
36″	5,25,51,36,28,23,14,26,10, 5		23,49,22,58	
		2, 5, 8,52, 3,25,20,25		9, 9
38″	5,25,53,41,37,15,17,51,30,30		23,49,32, 7	
		2, 5, 8,51,39,35,48,18		9, 9
40″	5,25,55,46,46, 6,57,27,18,48		23,49,41,16	
		2, 5, 8,51,15,46, 7, 2		9, 9
42″	5,25,57,51,54,58,13,13,25,50		23,49,50,25	
		2, 5, 8,50,51,56,16,37		9, 9
44″	5,25,59,57, 3,49, 5, 9,42,27		23,49,59,34	
		2, 5, 8,50,28, 6,17, 3		9, 9
46″	5,26, 2, 2,12,39,33,15,59,30		23,50, 8,43	
		2, 5, 8,50, 4,16, 8,20		9, 9
48″	5,26, 4, 7,21,29,37,32, 7,50		23,50,17,52	
		2, 5, 8,49,40,25,50,28		9, 9
50″	5,26, 6,12,30,19,17,57,58,18		23,50,27, 1	
		2, 5, 8,49,16,35,23,27		9, 9
52″	5,26, 8,17,39, 8,34,33,21,45		23,50,36,10	
		2, 5, 8,48,52,44,47,17		9, 9
54″	5,26,10,22,47,57,27,18, 9, 2		23,50,45,19	
		2, 5, 8,48,28,54, 1,58		9, 9
56″	5,26,12,27,56,45,56,12,11, 0		23,50,54,28	
		2, 5, 8,48, 5, 3, 7,30		9, 9
58″	5,26,14,33, 5,34, 1,15,18,30		23,51, 3,37	
		2, 5, 8,47,41,12, 3,53		
60″	5,26,16,38,14,21,42,27,22,23			
exact	5,26,16,38,14,21,42,27,28,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°12′ 0″	5,26,16,38,14,21,42,27,28,15			
		2, 5, 8,47,17,20,51,37		
2″	5,26,18,43,23, 8,59,48,19,52		23,51,21,53	
		2, 5, 8,46,53,29,29,44		9, 9
4″	5,26,20,48,31,55,53,17,49,36		23,51,31, 2	
		2, 5, 8,46,29,37,58,42		9, 9
6″	5,26,22,53,40,42,22,55,48,18		23,51,40,11	
		2, 5, 8,46, 5,46,18,31		9, 9
8″	5,26,24,58,49,28,28,42, 6,49		23,51,49,20	
		2, 5, 8,45,41,54,29,11		9, 9
10″	5,26,27, 3,58,14,10,36,36, 0		23,51,58,29	
		2, 5, 8,45,18, 2,30,42		9, 9
12″	5,26,29, 9, 6,59,28,39, 6,42		23,52, 7,38	
		2, 5, 8,44,54,10,23, 4		9, 9
14″	5,26,31,14,15,44,22,49,29,46		23,52,16,47	
		2, 5, 8,44,30,18, 6,17		9, 9
16″	5,26,33,19,24,28,53, 7,36, 3		23,52,25,56	
		2, 5, 8,44, 6,25,40,21		9, 9
18″	5,26,35,24,33,12,59,33,16,24		23,52,35, 5	
		2, 5, 8,43,42,33, 5,16		9, 9
20″	5,26,37,29,41,56,42, 6,21,40		23,52,44,14	
		2, 5, 8,43,18,40,21, 2		9, 9
22″	5,26,39,34,50,40, 0,46,42,42		23,52,53,23	
		2, 5, 8,42,54,47,27,39		9, 9
24″	5,26,41,39,59,22,55,34,10,21		23,53, 2,32	
		2, 5, 8,42,30,54,25, 7		9, 9
26″	5,26,43,45, 8, 5,26,28,35,28		23,53,11,41	
		2, 5, 8,42, 7, 1,13,26		9, 9
28″	5,26,45,50,16,47,33,29,48,54		23,53,20,50	
		2, 5, 8,41,43, 7,52,36		9, 9
30″	5,26,47,55,25,29,16,37,41,30		23,53,29,59	
		2, 5, 8,41,19,14,22,37		9, 9
32″	5,26,50, 0,34,10,35,52, 4, 7		23,53,39, 8	
		2, 5, 8,40,55,20,43,29		9, 9
34″	5,26,52, 5,42,51,31,12,47,36		23,53,48,17	
		2, 5, 8,40,31,26,55,12		9, 9
36″	5,26,54,10,51,32, 2,39,42,48		23,53,57,26	
		2, 5, 8,40, 7,32,57,46		9, 9
38″	5,26,56,16, 0,12,10,12,40,34		23,54, 6,35	
		2, 5, 8,39,43,38,51,11		9, 9
40″	5,26,58,21, 8,51,53,51,31,45		23,54,15,44	
		2, 5, 8,39,19,44,35,27		9, 9
42″	5,27, 0,26,17,31,13,36, 7,12		23,54,24,53	
		2, 5, 8,38,55,50,10,34		9, 9
44″	5,27, 2,31,26,10, 9,26,17,46		23,54,34, 2	
		2, 5, 8,38,31,55,36,32		9, 9
46″	5,27, 4,36,34,48,41,21,54,18		23,54,43,11	
		2, 5, 8,38, 8, 0,53,21		9, 9
48″	5,27, 6,41,43,26,49,22,47,39		23,54,52,20	
		2, 5, 8,37,44, 6, 1, 1		9, 9
50″	5,27, 8,46,52, 4,33,28,48,40		23,55, 1,29	
		2, 5, 8,37,20,10,59,32		9, 9
52″	5,27,10,52, 0,41,53,39,48,12		23,55,10,38	
		2, 5, 8,36,56,15,48,54		9, 9
54″	5,27,12,57, 9,18,49,55,37, 6		23,55,19,47	
		2, 5, 8,36,32,20,29, 7		9, 9
56″	5,27,15, 2,17,55,22,16, 6,13		23,55,28,56	
		2, 5, 8,36, 8,25, 0,11		9, 9
58″	5,27,17, 7,26,31,30,41, 6,24		23,55,38, 5	
		2, 5, 8,35,44,29,22, 6		
60″	5,27,19,12,35, 7,15,10,28,30			
exact	5,27,19,12,35, 7,15,10,29, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°13′ 0″	5,27,19,12,35, 7,15,10,29, 3			
		2, 5, 8,35,20,33,35, 3		
2″	5,27,21,17,43,42,35,44, 4, 6		23,55,56,22	
		2, 5, 8,34,56,37,38,41		9, 9
4″	5,27,23,22,52,17,32,21,42,47		23,56, 5,31	
		2, 5, 8,34,32,41,33,10		9, 9
6″	5,27,25,28, 0,52, 5, 3,15,57		23,56,14,40	
		2, 5, 8,34, 8,45,18,30		9, 9
8″	5,27,27,33, 9,26,13,48,34,27		23,56,23,49	
		2, 5, 8,33,44,48,54,41		9, 9
10″	5,27,29,38,17,59,58,37,29, 8		23,56,32,58	
		2, 5, 8,33,20,52,21,43		9, 9
12″	5,27,31,43,26,33,19,29,50,51		23,56,42, 7	
		2, 5, 8,32,56,55,39,36		9, 9
14″	5,27,33,48,35, 6,16,25,30,27		23,56,51,16	
		2, 5, 8,32,32,58,48,20		9, 9
16″	5,27,35,53,43,38,49,24,18,47		23,57, 0,25	
		2, 5, 8,32, 9, 1,47,55		9, 9
18″	5,27,37,58,52,10,58,26, 6,42		23,57, 9,34	
		2, 5, 8,31,45, 4,38,21		9, 9
20″	5,27,40, 4, 0,42,43,30,45, 3		23,57,18,43	
		2, 5, 8,31,21, 7,19,38		9, 9
22″	5,27,42, 9, 9,14, 4,38, 4,41		23,57,27,52	
		2, 5, 8,30,57, 9,51,46		9, 9
24″	5,27,44,14,17,45, 1,47,56,27		23,57,37, 1	
		2, 5, 8,30,33,12,14,45		9, 9
26″	5,27,46,19,26,15,35, 0,11,12		23,57,46,10	
		2, 5, 8,30, 9,14,28,35		9, 9
28″	5,27,48,24,34,45,44,14,39,47		23,57,55,19	
		2, 5, 8,29,45,16,33,16		9, 9
30″	5,27,50,29,43,15,29,31,13, 3		23,58, 4,28	
		2, 5, 8,29,21,18,28,48		9, 9
32″	5,27,52,34,51,44,50,49,41,51		23,58,13,37	
		2, 5, 8,28,57,20,15,11		9, 9
34″	5,27,54,40, 0,13,48, 9,57, 2		23,58,22,46	
		2, 5, 8,28,33,21,52,25		9, 9
36″	5,27,56,45, 8,42,21,31,49,27		23,58,31,55	
		2, 5, 8,28, 9,23,20,30		9, 9
38″	5,27,58,50,17,10,30,55, 9,57		23,58,41, 4	
		2, 5, 8,27,45,24,39,26		9, 9
40″	5,28, 0,55,25,38,16,19,49,23		23,58,50,13	
		2, 5, 8,27,21,25,49,13		9, 9
42″	5,28, 3, 0,34, 5,37,45,38,36		23,58,59,22	
		2, 5, 8,26,57,26,49,51		9, 9
44″	5,28, 5, 5,42,32,35,12,28,27		23,59, 8,31	
		2, 5, 8,26,33,27,41,20		9, 9
46″	5,28, 7,10,50,59, 8,40, 9,47		23,59,17,40	
		2, 5, 8,26, 9,28,23,40		9, 9
48″	5,28, 9,15,59,25,18, 8,33,27		23,59,26,49	
		2, 5, 8,25,45,28,56,51		9, 9
50″	5,28,11,21, 7,51, 3,37,30,18		23,59,35,58	
		2, 5, 8,25,21,29,20,53		9, 9
52″	5,28,13,26,16,16,25, 6,51,11		23,59,45, 7	
		2, 5, 8,24,57,29,35,46		9, 9
54″	5,28,15,31,24,41,22,36,26,57		23,59,54,16	
		2, 5, 8,24,33,29,41,30		9, 9
56″	5,28,17,36,33, 5,56, 6, 8,27		24, 0, 3,25	
		2, 5, 8,24, 9,29,38, 5		9, 9
58″	5,28,19,41,41,30, 5,35,46,32		24, 0,12,34	
		2, 5, 8,23,45,29,25,31		
60″	5,28,21,46,49,53,51, 5,12, 3			
exact	5,28,21,46,49,53,51, 5,18, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°14′ 0″	5,28,21,46,49,53,51, 5,18, 0			
		2, 5, 8,23,21,29, 4,23		
2″	5,28,23,51,58,17,12,34,22,23		24, 0,30,50	
		2, 5, 8,22,57,28,33,33		9, 9
4″	5,28,25,57, 6,40,10, 2,55,56		24, 0,39,59	
		2, 5, 8,22,33,27,53,34		9, 9
6″	5,28,28, 2,15, 2,43,30,49,30		24, 0,49, 8	
		2, 5, 8,22, 9,27, 4,26		9, 9
8″	5,28,30, 7,23,24,52,57,53,56		24, 0,58,17	
		2, 5, 8,21,45,26, 6, 9		9, 9
10″	5,28,32,12,31,46,38,24, 0, 5		24, 1, 7,26	
		2, 5, 8,21,21,24,58,43		9, 9
12″	5,28,34,17,40, 7,59,48,58,48		24, 1,16,35	
		2, 5, 8,20,57,23,42, 8		9, 9
14″	5,28,36,22,48,28,57,12,40,56		24, 1,25,44	
		2, 5, 8,20,33,22,16,24		9, 9
16″	5,28,38,27,56,49,30,34,57,20		24, 1,34,53	
		2, 5, 8,20, 9,20,41,31		9, 9
18″	5,28,40,33, 5, 9,39,55,38,51		24, 1,44, 2	
		2, 5, 8,19,45,18,57,29		9, 9
20″	5,28,42,38,13,29,25,14,36,20		24, 1,53,11	
		2, 5, 8,19,21,17, 4,18		9, 9
22″	5,28,44,43,21,48,46,31,40,38		24, 2, 2,20	
		2, 5, 8,18,57,15, 1,58		9, 9
24″	5,28,46,48,30, 7,43,46,42,36		24, 2,11,29	
		2, 5, 8,18,33,12,50,29		9, 9
26″	5,28,48,53,38,26,16,59,33, 5		24, 2,20,38	
		2, 5, 8,18, 9,10,29,51		9, 9
28″	5,28,50,58,46,44,26,10, 2,56		24, 2,29,47	
		2, 5, 8,17,45, 8, 0, 4		9, 9
30″	5,28,53, 3,55, 2,11,18, 3, 0		24, 2,38,56	
		2, 5, 8,17,21, 5,21, 8		9, 9
32″	5,28,55, 9, 3,19,32,23,24, 8		24, 2,48, 5	
		2, 5, 8,16,57, 2,33, 3		9, 9
34″	5,28,57,14,11,36,29,25,57,11		24, 2,57,14	
		2, 5, 8,16,32,59,35,49		9, 9
36″	5,28,59,19,19,53, 2,25,33, 0		24, 3, 6,23	
		2, 5, 8,16, 8,56,29,26		9, 9
38″	5,29, 1,24,28, 9,11,22, 2,26		24, 3,15,32	
		2, 5, 8,15,44,53,13,54		9, 9
40″	5,29, 3,29,36,24,56,15,16,20		24, 3,24,41	
		2, 5, 8,15,20,49,49,13		9, 9
42″	5,29, 5,34,44,40,17, 5, 5,33		24, 3,33,50	
		2, 5, 8,14,56,46,15,23		9, 9
44″	5,29, 7,39,52,55,13,51,20,56		24, 3,42,59	
		2, 5, 8,14,32,42,32,24		9, 9
46″	5,29, 9,45, 1, 9,46,33,53,20		24, 3,52, 8	
		2, 5, 8,14, 8,38,40,16		9, 9
48″	5,29,11,50, 9,23,55,12,33,36		24, 4, 1,17	
		2, 5, 8,13,44,34,38,59		9, 9
50″	5,29,13,55,17,37,39,47,12,35		24, 4,10,26	
		2, 5, 8,13,20,30,28,33		9, 9
52″	5,29,16, 0,25,51, 0,17,41, 8		24, 4,19,35	
		2, 5, 8,12,56,26, 8,58		9, 9
54″	5,29,18, 5,34, 3,56,43,50, 6		24, 4,28,44	
		2, 5, 8,12,32,21,40,14		9, 9
56″	5,29,20,10,42,16,29, 5,30,20		24, 4,37,53	
		2, 5, 8,12, 8,17, 2,21		9, 9
58″	5,29,22,15,50,28,37,22,32,41		24, 4,47, 2	
		2, 5, 8,11,44,12,15,19		
60″	5,29,24,20,58,40,21,34,48, 0			
exact	5,29,24,20,58,40,21,34,55,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°15′ 0″	5,29,24,20,58,40,21,34,55,34			
		2, 5, 8,11,20, 7,19,52		
2″	5,29,26,26, 6,51,41,42,15,26		24, 5, 5,17	
		2, 5, 8,10,56, 2,14,35		9, 9
4″	5,29,28,31,15, 2,37,44,30, 1		24, 5,14,26	
		2, 5, 8,10,31,57, 0, 9		9, 9
6″	5,29,30,36,23,13, 9,41,30,10		24, 5,23,35	
		2, 5, 8,10, 7,51,36,34		9, 9
8″	5,29,32,41,31,23,17,33, 6,44		24, 5,32,44	
		2, 5, 8, 9,43,46, 3,50		9, 9
10″	5,29,34,46,39,33, 1,19,10,34		24, 5,41,53	
		2, 5, 8, 9,19,40,21,57		9, 9
12″	5,29,36,51,47,42,20,59,32,31		24, 5,51, 2	
		2, 5, 8, 8,55,34,30,55		9, 9
14″	5,29,38,56,55,51,16,34, 3,26		24, 6, 0,11	
		2, 5, 8, 8,31,28,30,44		9, 9
16″	5,29,41, 2, 3,59,48, 2,34,10		24, 6, 9,20	
		2, 5, 8, 8, 7,22,21,24		9, 9
18″	5,29,43, 7,12, 7,55,24,55,34		24, 6,18,29	
		2, 5, 8, 7,43,16, 2,55		9, 9
20″	5,29,45,12,20,15,38,40,58,29		24, 6,27,38	
		2, 5, 8, 7,19, 9,35,17		9, 9
22″	5,29,47,17,28,22,57,50,33,46		24, 6,36,47	
		2, 5, 8, 6,55, 2,58,30		9, 9
24″	5,29,49,22,36,29,52,53,32,16		24, 6,45,56	
		2, 5, 8, 6,30,56,12,34		9, 9
26″	5,29,51,27,44,36,23,49,44,50		24, 6,55, 5	
		2, 5, 8, 6, 6,49,17,29		9, 9
28″	5,29,53,32,52,42,30,39, 2,19		24, 7, 4,14	
		2, 5, 8, 5,42,42,13,15		9, 9
30″	5,29,55,38, 0,48,13,21,15,34		24, 7,13,23	
		2, 5, 8, 5,18,34,59,52		9, 9
32″	5,29,57,43, 8,53,31,56,15,26		24, 7,22,32	
		2, 5, 8, 4,54,27,37,20		9, 9
34″	5,29,59,48,16,58,26,23,52,46		24, 7,31,41	
		2, 5, 8, 4,30,20, 5,39		9, 9
36″	5,30, 1,53,25, 2,56,43,58,25		24, 7,40,50	
		2, 5, 8, 4, 6,12,24,49		9, 9
38″	5,30, 3,58,33, 7, 2,56,23,14		24, 7,49,59	
		2, 5, 8, 3,42, 4,34,50		9, 9
40″	5,30, 6, 3,41,10,45, 0,58, 4		24, 7,59, 8	
		2, 5, 8, 3,17,56,35,42		9, 9
42″	5,30, 8, 8,49,14, 2,57,33,46		24, 8, 8,17	
		2, 5, 8, 2,53,48,27,25		9, 9
44″	5,30,10,13,57,16,56,46, 1,11		24, 8,17,26	
		2, 5, 8, 2,29,40, 9,59		9, 9
46″	5,30,12,19, 5,19,26,26,11,10		24, 8,26,35	
		2, 5, 8, 2, 5,31,43,24		9, 9
48″	5,30,14,24,13,21,31,57,54,34		24, 8,35,44	
		2, 5, 8, 1,41,23, 7,40		9, 9
50″	5,30,16,29,21,23,13,21, 2,14		24, 8,44,53	
		2, 5, 8, 1,17,14,22,47		9, 9
52″	5,30,18,34,29,24,30,35,25, 1		24, 8,54, 2	
		2, 5, 8, 0,53, 5,28,45		9, 9
54″	5,30,20,39,37,25,23,40,53,46		24, 9, 3,11	
		2, 5, 8, 0,28,56,25,34		9, 9
56″	5,30,22,44,45,25,52,37,19,20		24, 9,12,20	
		2, 5, 8, 0, 4,47,13,14		9, 9
58″	5,30,24,49,53,25,57,24,32,34		24, 9,21,29	
		2, 5, 7,59,40,37,51,45		
60″	5,30,26,55, 1,25,38, 2,24,19			
exact	5,30,26,55, 1,25,38, 2,28,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°16′ 0″	5,30,26,55, 1,25,38, 2,28,51			
		2, 5, 7,59,16,28,21,41		
2″	5,30,29, 0, 9,24,54,30,50,32		24, 9,39,44	
		2, 5, 7,58,52,18,41,57		9, 9
4″	5,30,31, 5,17,23,46,49,32,29		24, 9,48,53	
		2, 5, 7,58,28, 8,53, 4		9, 9
6″	5,30,33,10,25,22,14,58,25,33		24, 9,58, 2	
		2, 5, 7,58, 3,58,55, 2		9, 9
8″	5,30,35,15,33,20,18,57,20,35		24,10, 7,11	
		2, 5, 7,57,39,48,47,51		9, 9
10″	5,30,37,20,41,17,58,46, 8,26		24,10,16,20	
		2, 5, 7,57,15,38,31,31		9, 9
12″	5,30,39,25,49,15,14,24,39,57		24,10,25,29	
		2, 5, 7,56,51,28, 6, 2		9, 9
14″	5,30,41,30,57,12, 5,52,45,59		24,10,34,38	
		2, 5, 7,56,27,17,31,24		9, 9
16″	5,30,43,36, 5, 8,33,10,17,23		24,10,43,47	
		2, 5, 7,56, 3, 6,47,37		9, 9
18″	5,30,45,41,13, 4,36,17, 5, 0		24,10,52,56	
		2, 5, 7,55,38,55,54,41		9, 9
20″	5,30,47,46,21, 0,15,12,59,41		24,11, 2, 5	
		2, 5, 7,55,14,44,52,36		9, 9
22″	5,30,49,51,28,55,29,57,52,17		24,11,11,14	
		2, 5, 7,54,50,33,41,22		9, 9
24″	5,30,51,56,36,50,20,31,33,39		24,11,20,23	
		2, 5, 7,54,26,22,20,59		9, 9
26″	5,30,54, 1,44,44,46,53,54,38		24,11,29,32	
		2, 5, 7,54, 2,10,51,27		9, 9
28″	5,30,56, 6,52,38,49, 4,46, 5		24,11,38,41	
		2, 5, 7,53,37,59,12,46		9, 9
30″	5,30,58,12, 0,32,27, 3,58,51		24,11,47,50	
		2, 5, 7,53,13,47,24,56		9, 9
32″	5,31, 0,17, 8,25,40,51,23,47		24,11,56,59	
		2, 5, 7,52,49,35,27,57		9, 9
34″	5,31, 2,22,16,18,30,26,51,44		24,12, 6, 8	
		2, 5, 7,52,25,23,21,49		9, 9
36″	5,31, 4,27,24,10,55,50,13,33		24,12,15,17	
		2, 5, 7,52, 1,11, 6,32		9, 9
38″	5,31, 6,32,32, 2,57, 1,20, 5		24,12,24,26	
		2, 5, 7,51,36,58,42, 6		9, 9
40″	5,31, 8,37,39,54,34, 0, 2,11		24,12,33,35	
		2, 5, 7,51,12,46, 8,31		9, 9
42″	5,31,10,42,47,45,46,46,10,42		24,12,42,44	
		2, 5, 7,50,48,33,25,47		9, 9
44″	5,31,12,47,55,36,35,19,36,29		24,12,51,53	
		2, 5, 7,50,24,20,33,54		9, 9
46″	5,31,14,53, 3,26,59,40,10,23		24,13, 1, 2	
		2, 5, 7,50, 0, 7,32,52		9, 9
48″	5,31,16,58,11,16,59,47,43,15		24,13,10,11	
		2, 5, 7,49,35,54,22,41		9, 9
50″	5,31,19, 3,19, 6,35,42, 5,56		24,13,19,20	
		2, 5, 7,49,11,41, 3,21		9, 9
52″	5,31,21, 8,26,55,47,23, 9,17		24,13,28,29	
		2, 5, 7,48,47,27,34,52		9, 9
54″	5,31,23,13,34,44,34,50,44, 9		24,13,37,38	
		2, 5, 7,48,23,13,57,14		9, 9
56″	5,31,25,18,42,32,58, 4,41,23		24,13,46,47	
		2, 5, 7,47,59, 0,10,27		9, 9
58″	5,31,27,23,50,20,57, 4,51,50		24,13,55,56	
		2, 5, 7,47,34,46,14,31		
60″	5,31,29,28,58, 8,31,51, 6,21			
exact	5,31,29,28,58, 8,31,51,11,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°17′ 0″	5,31,29,28,58, 8,31,51,11,31			
		2, 5, 7,47,10,32,10, 5		
2″	5,31,31,34, 5,55,42,23,21,36		24,14,14,11	
		2, 5, 7,46,46,17,55,54		9, 9
4″	5,31,33,39,13,42,28,41,17,30		24,14,23,20	
		2, 5, 7,46,22, 3,32,34		9, 9
6″	5,31,35,44,21,28,50,44,50, 4		24,14,32,29	
		2, 5, 7,45,57,49, 0, 5		9, 9
8″	5,31,37,49,29,14,48,33,50, 9		24,14,41,38	
		2, 5, 7,45,33,34,18,27		9, 9
10″	5,31,39,54,37, 0,22, 8, 8,36		24,14,50,47	
		2, 5, 7,45, 9,19,27,40		9, 9
12″	5,31,41,59,44,45,31,27,36,16		24,14,59,56	
		2, 5, 7,44,45, 4,27,44		9, 9
14″	5,31,44, 4,52,30,16,32, 4, 0		24,15, 9, 5	
		2, 5, 7,44,20,49,18,39		9, 9
16″	5,31,46,10, 0,14,37,21,22,39		24,15,18,14	
		2, 5, 7,43,56,34, 0,25		9, 9
18″	5,31,48,15, 7,58,33,55,23, 4		24,15,27,23	
		2, 5, 7,43,32,18,33, 2		9, 9
20″	5,31,50,20,15,42, 6,13,56, 6		24,15,36,32	
		2, 5, 7,43, 8, 2,56,30		9, 9
22″	5,31,52,25,23,25,14,16,52,36		24,15,45,41	
		2, 5, 7,42,43,47,10,49		9, 9
24″	5,31,54,30,31, 7,58, 4, 3,25		24,15,54,50	
		2, 5, 7,42,19,31,15,59		9, 9
26″	5,31,56,35,38,50,17,35,19,24		24,16, 3,59	
		2, 5, 7,41,55,15,12, 0		9, 9
28″	5,31,58,40,46,32,12,50,31,24		24,16,13, 8	
		2, 5, 7,41,30,58,58,52		9, 9
30″	5,32, 0,45,54,13,43,49,30,16		24,16,22,17	
		2, 5, 7,41, 6,42,36,35		9, 9
32″	5,32, 2,51, 1,54,50,32, 6,51		24,16,31,26	
		2, 5, 7,40,42,26, 5, 9		9, 9
34″	5,32, 4,56, 9,35,32,58,12, 0		24,16,40,35	
		2, 5, 7,40,18, 9,24,34		9, 9
36″	5,32, 7, 1,17,15,51, 7,36,34		24,16,49,44	
		2, 5, 7,39,53,52,34,50		9, 9
38″	5,32, 9, 6,24,55,45, 0,11,24		24,16,58,53	
		2, 5, 7,39,29,35,35,57		9, 9
40″	5,32,11,11,32,35,14,35,47,21		24,17, 8, 2	
		2, 5, 7,39, 5,18,27,55		9, 9
42″	5,32,13,16,40,14,19,54,15,16		24,17,17,11	
		2, 5, 7,38,41, 1,10,44		9, 9
44″	5,32,15,21,47,53, 0,55,26, 0		24,17,26,20	
		2, 5, 7,38,16,43,44,24		9, 9
46″	5,32,17,26,55,31,17,39,10,24		24,17,35,29	
		2, 5, 7,37,52,26, 8,55		9, 9
48″	5,32,19,32, 3, 9,10, 5,19,19		24,17,44,38	
		2, 5, 7,37,28, 8,24,17		9, 9
50″	5,32,21,37,10,46,38,13,43,36		24,17,53,47	
		2, 5, 7,37, 3,50,30,30		9, 9
52″	5,32,23,42,18,23,42, 4,14, 6		24,18, 2,56	
		2, 5, 7,36,39,32,27,34		9, 9
54″	5,32,25,47,26, 0,21,36,41,40		24,18,12, 5	
		2, 5, 7,36,15,14,15,29		9, 9
56″	5,32,27,52,33,36,36,50,57, 9		24,18,21,14	
		2, 5, 7,35,50,55,54,15		9, 9
58″	5,32,29,57,41,12,27,46,51,24		24,18,30,23	
		2, 5, 7,35,26,37,23,52		
60″	5,32,32, 2,48,47,54,24,15,16			
exact	5,32,32, 2,48,47,54,24,23,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°18′ 0″	5,32,32, 2,48,47,54,24,23,52			
		2, 5, 7,35, 2,18,45,16		
2″	5,32,34, 7,56,22,56,43, 9, 8		24,18,48,37	
		2, 5, 7,34,37,59,56,39		9, 9
4″	5,32,36,13, 3,57,34,43, 5,47		24,18,57,46	
		2, 5, 7,34,13,40,58,53		9, 9
6″	5,32,38,18,11,31,48,24, 4,40		24,19, 6,55	
		2, 5, 7,33,49,21,51,58		9, 9
8″	5,32,40,23,19, 5,37,45,56,38		24,19,16, 4	
		2, 5, 7,33,25, 2,35,54		9, 9
10″	5,32,42,28,26,39, 2,48,32,32		24,19,25,13	
		2, 5, 7,33, 0,43,10,41		9, 9
12″	5,32,44,33,34,12, 3,31,43,13		24,19,34,22	
		2, 5, 7,32,36,23,36,19		9, 9
14″	5,32,46,38,41,44,39,55,19,32		24,19,43,31	
		2, 5, 7,32,12, 3,52,48		9, 9
16″	5,32,48,43,49,16,51,59,12,20		24,19,52,40	
		2, 5, 7,31,47,44, 0, 8		9, 9
18″	5,32,50,48,56,48,39,43,12,28		24,20, 1,49	
		2, 5, 7,31,23,23,58,19		9, 9
20″	5,32,52,54, 4,20, 3, 7,10,47		24,20,10,58	
		2, 5, 7,30,59, 3,47,21		9, 9
22″	5,32,54,59,11,51, 2,10,58, 8		24,20,20, 7	
		2, 5, 7,30,34,43,27,14		9, 9
24″	5,32,57, 4,19,21,36,54,25,22		24,20,29,16	
		2, 5, 7,30,10,22,57,58		9, 9
26″	5,32,59, 9,26,51,47,17,23,20		24,20,38,25	
		2, 5, 7,29,46, 2,19,33		9, 9
28″	5,33, 1,14,34,21,33,19,42,53		24,20,47,34	
		2, 5, 7,29,21,41,31,59		9, 9
30″	5,33, 3,19,41,50,55, 1,14,52		24,20,56,43	
		2, 5, 7,28,57,20,35,16		9, 9
32″	5,33, 5,24,49,19,52,21,50, 8		24,21, 5,52	
		2, 5, 7,28,32,59,29,24		9, 9
34″	5,33, 7,29,56,48,25,21,19,32		24,21,15, 1	
		2, 5, 7,28, 8,38,14,23		9, 9
36″	5,33, 9,35, 4,16,33,59,33,55		24,21,24,10	
		2, 5, 7,27,44,16,50,13		9, 9
38″	5,33,11,40,11,44,18,16,24, 8		24,21,33,19	
		2, 5, 7,27,19,55,16,54		9, 9
40″	5,33,13,45,19,11,38,11,41, 2		24,21,42,28	
		2, 5, 7,26,55,33,34,26		9, 9
42″	5,33,15,50,26,38,33,45,15,28		24,21,51,37	
		2, 5, 7,26,31,11,42,49		9, 9
44″	5,33,17,55,34, 5, 4,56,58,17		24,22, 0,46	
		2, 5, 7,26, 6,49,42, 3		9, 9
46″	5,33,20, 0,41,31,11,46,40,20		24,22, 9,55	
		2, 5, 7,25,42,27,32, 8		9, 9
48″	5,33,22, 5,48,56,54,14,12,28		24,22,19, 4	
		2, 5, 7,25,18, 5,13, 4		9, 9
50″	5,33,24,10,56,22,12,19,25,32		24,22,28,13	
		2, 5, 7,24,53,42,44,51		9, 9
52″	5,33,26,16, 3,47, 6, 2,10,23		24,22,37,22	
		2, 5, 7,24,29,20, 7,29		9, 9
54″	5,33,28,21,11,11,35,22,17,52		24,22,46,31	
		2, 5, 7,24, 4,57,20,58		9, 9
56″	5,33,30,26,18,35,40,19,38,50		24,22,55,40	
		2, 5, 7,23,40,34,25,18		9, 9
58″	5,33,32,31,25,59,20,54, 4, 8		24,23, 4,49	
		2, 5, 7,23,16,11,20,29		
60″	5,33,34,36,33,22,37, 5,24,37			
exact	5,33,34,36,33,22,37, 5,32,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°19′ 0″	5,33,34,36,33,22,37, 5,32,53			
		2, 5, 7,22,51,48, 7,27		
2″	5,33,36,41,40,45,28,53,40,20		24,23,23, 3	
		2, 5, 7,22,27,24,44,24		9, 9
4″	5,33,38,46,48, 7,56,18,24,44		24,23,32,12	
		2, 5, 7,22, 3, 1,12,12		9, 9
6″	5,33,40,51,55,29,59,19,36,56		24,23,41,21	
		2, 5, 7,21,38,37,30,51		9, 9
8″	5,33,42,57, 2,51,37,57, 7,47		24,23,50,30	
		2, 5, 7,21,14,13,40,21		9, 9
10″	5,33,45, 2,10,12,52,10,48, 8		24,23,59,39	
		2, 5, 7,20,49,49,40,42		9, 9
12″	5,33,47, 7,17,33,42, 0,28,50		24,24, 8,48	
		2, 5, 7,20,25,25,31,54		9, 9
14″	5,33,49,12,24,54, 7,26, 0,44		24,24,17,57	
		2, 5, 7,20, 1, 1,13,57		9, 9
16″	5,33,51,17,32,14, 8,27,14,41		24,24,27, 6	
		2, 5, 7,19,36,36,46,51		9, 9
18″	5,33,53,22,39,33,45, 4, 1,32		24,24,36,15	
		2, 5, 7,19,12,12,10,36		9, 9
20″	5,33,55,27,46,52,57,16,12, 8		24,24,45,24	
		2, 5, 7,18,47,47,25,12		9, 9
22″	5,33,57,32,54,11,45, 3,37,20		24,24,54,33	
		2, 5, 7,18,23,22,30,39		9, 9
24″	5,33,59,38, 1,30, 8,26, 7,59		24,25, 3,42	
		2, 5, 7,17,58,57,26,57		9, 9
26″	5,34, 1,43, 8,48, 7,23,34,56		24,25,12,51	
		2, 5, 7,17,34,32,14, 6		9, 9
28″	5,34, 3,48,16, 5,41,55,49, 2		24,25,22, 0	
		2, 5, 7,17,10, 6,52, 6		9, 9
30″	5,34, 5,53,23,22,52, 2,41, 8		24,25,31, 9	
		2, 5, 7,16,45,41,20,57		9, 9
32″	5,34, 7,58,30,39,37,44, 2, 5		24,25,40,18	
		2, 5, 7,16,21,15,40,39		9, 9
34″	5,34,10, 3,37,55,58,59,42,44		24,25,49,27	
		2, 5, 7,15,56,49,51,12		9, 9
36″	5,34,12, 8,45,11,55,49,33,56		24,25,58,36	
		2, 5, 7,15,32,23,52,36		9, 9
38″	5,34,14,13,52,27,28,13,26,32		24,26, 7,45	
		2, 5, 7,15, 7,57,44,51		9, 9
40″	5,34,16,18,59,42,36,11,11,23		24,26,16,54	
		2, 5, 7,14,43,31,27,57		9, 9
42″	5,34,18,24, 6,57,19,42,39,20		24,26,26, 3	
		2, 5, 7,14,19, 5, 1,54		9, 9
44″	5,34,20,29,14,11,38,47,41,14		24,26,35,12	
		2, 5, 7,13,54,38,26,42		9, 9
46″	5,34,22,34,21,25,33,26, 7,56		24,26,44,21	
		2, 5, 7,13,30,11,42,21		9, 9
48″	5,34,24,39,28,39, 3,37,50,17		24,26,53,30	
		2, 5, 7,13, 5,44,48,51		9, 9
50″	5,34,26,44,35,52, 9,22,39, 8		24,27, 2,39	
		2, 5, 7,12,41,17,46,12		9, 9
52″	5,34,28,49,43, 4,50,40,25,20		24,27,11,48	
		2, 5, 7,12,16,50,34,24		9, 9
54″	5,34,30,54,50,17, 7,30,59,44		24,27,20,57	
		2, 5, 7,11,52,23,13,27		9, 9
56″	5,34,32,59,57,28,59,54,13,11		24,27,30, 6	
		2, 5, 7,11,27,55,43,21		9, 9
58″	5,34,35, 5, 4,40,27,49,56,32		24,27,39,15	
		2, 5, 7,11, 3,28, 4, 6		
60″	5,34,37,10,11,51,31,18, 0,38			
exact	5,34,37,10,11,51,31,18,12, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°20′ 0″	5,34,37,10,11,51,31,18,12, 8			
		2, 5, 7,10,39, 0,16,53		
2″	5,34,39,15,19, 2,10,18,29, 1		24,27,57,28	
		2, 5, 7,10,14,32,19,25		9, 9
4″	5,34,41,20,26,12,24,50,48,26		24,28, 6,37	
		2, 5, 7, 9,50, 4,12,48		9, 9
6″	5,34,43,25,33,22,14,55, 1,14		24,28,15,46	
		2, 5, 7, 9,25,35,57, 2		9, 9
8″	5,34,45,30,40,31,40,30,58,16		24,28,24,55	
		2, 5, 7, 9, 1, 7,32, 7		9, 9
10″	5,34,47,35,47,40,41,38,30,23		24,28,34, 4	
		2, 5, 7, 8,36,38,58, 3		9, 9
12″	5,34,49,40,54,49,18,17,28,26		24,28,43,13	
		2, 5, 7, 8,12,10,14,50		9, 9
14″	5,34,51,46, 1,57,30,27,43,16		24,28,52,22	
		2, 5, 7, 7,47,41,22,28		9, 9
16″	5,34,53,51, 9, 5,18, 9, 5,44		24,29, 1,31	
		2, 5, 7, 7,23,12,20,57		9, 9
18″	5,34,55,56,16,12,41,21,26,41		24,29,10,40	
		2, 5, 7, 6,58,43,10,17		9, 9
20″	5,34,58, 1,23,19,40, 4,36,58		24,29,19,49	
		2, 5, 7, 6,34,13,50,28		9, 9
22″	5,35, 0, 6,30,26,14,18,27,26		24,29,28,58	
		2, 5, 7, 6, 9,44,21,30		9, 9
24″	5,35, 2,11,37,32,24, 2,48,56		24,29,38, 7	
		2, 5, 7, 5,45,14,43,23		9, 9
26″	5,35, 4,16,44,38, 9,17,32,19		24,29,47,16	
		2, 5, 7, 5,20,44,56, 7		9, 9
28″	5,35, 6,21,51,43,30, 2,28,26		24,29,56,25	
		2, 5, 7, 4,56,14,59,42		9, 9
30″	5,35, 8,26,58,48,26,17,28, 8		24,30, 5,34	
		2, 5, 7, 4,31,44,54, 8		9, 9
32″	5,35,10,32, 5,52,58, 2,22,16		24,30,14,43	
		2, 5, 7, 4, 7,14,39,25		9, 9
34″	5,35,12,37,12,57, 5,17, 1,41		24,30,23,52	
		2, 5, 7, 3,42,44,15,33		9, 9
36″	5,35,14,42,20, 0,48, 1,17,14		24,30,33, 1	
		2, 5, 7, 3,18,13,42,32		9, 9
38″	5,35,16,47,27, 4, 6,14,59,46		24,30,42,10	
		2, 5, 7, 2,53,43, 0,22		9, 9
40″	5,35,18,52,34, 6,59,58, 0, 8		24,30,51,19	
		2, 5, 7, 2,29,12, 9, 3		9, 9
42″	5,35,20,57,41, 9,29,10, 9,11		24,31, 0,28	
		2, 5, 7, 2, 4,41, 8,35		9, 9
44″	5,35,23, 2,48,11,33,51,17,46		24,31, 9,37	
		2, 5, 7, 1,40, 9,58,58		9, 9
46″	5,35,25, 7,55,13,14, 1,16,44		24,31,18,46	
		2, 5, 7, 1,15,38,40,12		9, 9
48″	5,35,27,13, 2,14,29,39,56,56		24,31,27,55	
		2, 5, 7, 0,51, 7,12,17		9, 9
50″	5,35,29,18, 9,15,20,47, 9,13		24,31,37, 4	
		2, 5, 7, 0,26,35,35,13		9, 9
52″	5,35,31,23,16,15,47,22,44,26		24,31,46,13	
		2, 5, 7, 0, 2, 3,49, 0		9, 9
54″	5,35,33,28,23,15,49,26,33,26		24,31,55,22	
		2, 5, 6,59,37,31,53,38		9, 9
56″	5,35,35,33,30,15,26,58,27, 4		24,32, 4,31	
		2, 5, 6,59,12,59,49, 7		9, 9
58″	5,35,37,38,37,14,39,58,16,11		24,32,13,40	
		2, 5, 6,58,48,27,35,27		
60″	5,35,39,43,44,13,28,25,51,38			
exact	5,35,39,43,44,13,28,26, 1,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°21′ 0″	5,35,39,43,44,13,28,26, 1,57			
		2, 5, 6,58,23,55,13,47		
2″	5,35,41,48,51,11,52,21,15,44		24,32,31,53	
		2, 5, 6,57,59,22,41,54		9, 9
4″	5,35,43,53,58, 9,51,43,57,38		24,32,41, 2	
		2, 5, 6,57,34,50, 0,52		9, 9
6″	5,35,45,59, 5, 7,26,33,58,30		24,32,50,11	
		2, 5, 6,57,10,17,10,41		9, 9
8″	5,35,48, 4,12, 4,36,51, 9,11		24,32,59,20	
		2, 5, 6,56,45,44,11,21		9, 9
10″	5,35,50, 9,19, 1,22,35,20,32		24,33, 8,29	
		2, 5, 6,56,21,11, 2,52		9, 9
12″	5,35,52,14,25,57,43,46,23,24		24,33,17,38	
		2, 5, 6,55,56,37,45,14		9, 9
14″	5,35,54,19,32,53,40,24, 8,38		24,33,26,47	
		2, 5, 6,55,32, 4,18,27		9, 9
16″	5,35,56,24,39,49,12,28,27, 5		24,33,35,56	
		2, 5, 6,55, 7,30,42,31		9, 9
18″	5,35,58,29,46,44,19,59, 9,36		24,33,45, 5	
		2, 5, 6,54,42,56,57,26		9, 9
20″	5,36, 0,34,53,39, 2,56, 7, 2		24,33,54,14	
		2, 5, 6,54,18,23, 3,12		9, 9
22″	5,36, 2,40, 0,33,21,19,10,14		24,34, 3,23	
		2, 5, 6,53,53,48,59,49		9, 9
24″	5,36, 4,45, 7,27,15, 8,10, 3		24,34,12,32	
		2, 5, 6,53,29,14,47,17		9, 9
26″	5,36, 6,50,14,20,44,22,57,20		24,34,21,41	
		2, 5, 6,53, 4,40,25,36		9, 9
28″	5,36, 8,55,21,13,49, 3,22,56		24,34,30,50	
		2, 5, 6,52,40, 5,54,46		9, 9
30″	5,36,11, 0,28, 6,29, 9,17,42		24,34,39,59	
		2, 5, 6,52,15,31,14,47		9, 9
32″	5,36,13, 5,34,58,44,40,32,29		24,34,49, 8	
		2, 5, 6,51,50,56,25,39		9, 9
34″	5,36,15,10,41,50,35,36,58, 8		24,34,58,17	
		2, 5, 6,51,26,21,27,22		9, 9
36″	5,36,17,15,48,42, 1,58,25,30		24,35, 7,26	
		2, 5, 6,51, 1,46,19,56		9, 9
38″	5,36,19,20,55,33, 3,44,45,26		24,35,16,35	
		2, 5, 6,50,37,11, 3,21		9, 9
40″	5,36,21,26, 2,23,40,55,48,47		24,35,25,44	
		2, 5, 6,50,12,35,37,37		9, 9
42″	5,36,23,31, 9,13,53,31,26,24		24,35,34,53	
		2, 5, 6,49,48, 0, 2,44		9, 9
44″	5,36,25,36,16, 3,41,31,29, 8		24,35,44, 2	
		2, 5, 6,49,23,24,18,42		9, 9
46″	5,36,27,41,22,53, 4,55,47,50		24,35,53,11	
		2, 5, 6,48,58,48,25,31		9, 9
48″	5,36,29,46,29,42, 3,44,13,21		24,36, 2,20	
		2, 5, 6,48,34,12,23,11		9, 9
50″	5,36,31,51,36,30,37,56,36,32		24,36,11,29	
		2, 5, 6,48, 9,36,11,42		9, 9
52″	5,36,33,56,43,18,47,32,48,14		24,36,20,38	
		2, 5, 6,47,44,59,51, 4		9, 9
54″	5,36,36, 1,50, 6,32,32,39,18		24,36,29,47	
		2, 5, 6,47,20,23,21,17		9, 9
56″	5,36,38, 6,56,53,52,56, 0,35		24,36,38,56	
		2, 5, 6,46,55,46,42,21		9, 9
58″	5,36,40,12, 3,40,48,42,42,56		24,36,48, 5	
		2, 5, 6,46,31, 9,54,16		
60″	5,36,42,17,10,27,19,52,37,12			
exact	5,36,42,17,10,27,19,52,49,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°22′ 0″	5,36,42,17,10,27,19,52,49,20			
		2, 5, 6,46, 6,32,58,21		
2″	5,36,44,22,17,13,26,25,47,41		24,37, 6,17	
		2, 5, 6,45,41,55,52, 4		9, 9
4″	5,36,46,27,23,59, 8,21,39,45		24,37,15,26	
		2, 5, 6,45,17,18,36,38		9, 9
6″	5,36,48,32,30,44,25,40,16,23		24,37,24,35	
		2, 5, 6,44,52,41,12, 3		9, 9
8″	5,36,50,37,37,29,18,21,28,26		24,37,33,44	
		2, 5, 6,44,28, 3,38,19		9, 9
10″	5,36,52,42,44,13,46,25, 6,45		24,37,42,53	
		2, 5, 6,44, 3,25,55,26		9, 9
12″	5,36,54,47,50,57,49,51, 2,11		24,37,52, 2	
		2, 5, 6,43,38,48, 3,24		9, 9
14″	5,36,56,52,57,41,28,39, 5,35		24,38, 1,11	
		2, 5, 6,43,14,10, 2,13		9, 9
16″	5,36,58,58, 4,24,42,49, 7,48		24,38,10,20	
		2, 5, 6,42,49,31,51,53		9, 9
18″	5,37, 1, 3,11, 7,32,20,59,41		24,38,19,29	
		2, 5, 6,42,24,53,32,24		9, 9
20″	5,37, 3, 8,17,49,57,14,32, 5		24,38,28,38	
		2, 5, 6,42, 0,15, 3,46		9, 9
22″	5,37, 5,13,24,31,57,29,35,51		24,38,37,47	
		2, 5, 6,41,35,36,25,59		9, 9
24″	5,37, 7,18,31,13,33, 6, 1,50		24,38,46,56	
		2, 5, 6,41,10,57,39, 3		9, 9
26″	5,37, 9,23,37,54,44, 3,40,53		24,38,56, 5	
		2, 5, 6,40,46,18,42,58		9, 9
28″	5,37,11,28,44,35,30,22,23,51		24,39, 5,14	
		2, 5, 6,40,21,39,37,44		9, 9
30″	5,37,13,33,51,15,52, 2, 1,35		24,39,14,23	
		2, 5, 6,39,57, 0,23,21		9, 9
32″	5,37,15,38,57,55,49, 2,24,56		24,39,23,32	
		2, 5, 6,39,32,20,59,49		9, 9
34″	5,37,17,44, 4,35,21,23,24,45		24,39,32,41	
		2, 5, 6,39, 7,41,27, 8		9, 9
36″	5,37,19,49,11,14,29, 4,51,53		24,39,41,50	
		2, 5, 6,38,43, 1,45,18		9, 9
38″	5,37,21,54,17,53,12, 6,37,11		24,39,50,59	
		2, 5, 6,38,18,21,54,19		9, 9
40″	5,37,23,59,24,31,30,28,31,30		24,40, 0, 8	
		2, 5, 6,37,53,41,54,11		9, 9
42″	5,37,26, 4,31, 9,24,10,25,41		24,40, 9,17	
		2, 5, 6,37,29, 1,44,54		9, 9
44″	5,37,28, 9,37,46,53,12,10,35		24,40,18,26	
		2, 5, 6,37, 4,21,26,28		9, 9
46″	5,37,30,14,44,23,57,33,37, 3		24,40,27,35	
		2, 5, 6,36,39,40,58,53		9, 9
48″	5,37,32,19,51, 0,37,14,35,56		24,40,36,44	
		2, 5, 6,36,15, 0,22, 9		9, 9
50″	5,37,34,24,57,36,52,14,58, 5		24,40,45,53	
		2, 5, 6,35,50,19,36,16		9, 9
52″	5,37,36,30, 4,12,42,34,34,21		24,40,55, 2	
		2, 5, 6,35,25,38,41,14		9, 9
54″	5,37,38,35,10,48, 8,13,15,35		24,41, 4,11	
		2, 5, 6,35, 0,57,37, 3		9, 9
56″	5,37,40,40,17,23, 9,10,52,38		24,41,13,20	
		2, 5, 6,34,36,16,23,43		9, 9
58″	5,37,42,45,23,57,45,27,16,21		24,41,22,29	
		2, 5, 6,34,11,35, 1,14		
60″	5,37,44,50,30,31,57, 2,17,35			
exact	5,37,44,50,30,31,57, 2,28, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°23′ 0″	5,37,44,50,30,31,57, 2,28, 1			
		2, 5, 6,33,46,53,30,50		
2″	5,37,46,55,37, 5,43,55,58,51		24,41,40,41	
		2, 5, 6,33,22,11,50, 9		9, 9
4″	5,37,49, 0,43,39, 6, 7,49, 0		24,41,49,50	
		2, 5, 6,32,57,30, 0,19		9, 9
6″	5,37,51, 5,50,12, 3,37,49,19		24,41,58,59	
		2, 5, 6,32,32,48, 1,20		9, 9
8″	5,37,53,10,56,44,36,25,50,39		24,42, 8, 8	
		2, 5, 6,32, 8, 5,53,12		9, 9
10″	5,37,55,16, 3,16,44,31,43,51		24,42,17,17	
		2, 5, 6,31,43,23,35,55		9, 9
12″	5,37,57,21, 9,48,27,55,19,46		24,42,26,26	
		2, 5, 6,31,18,41, 9,29		9, 9
14″	5,37,59,26,16,19,46,36,29,15		24,42,35,35	
		2, 5, 6,30,53,58,33,54		9, 9
16″	5,38, 1,31,22,50,40,35, 3, 9		24,42,44,44	
		2, 5, 6,30,29,15,49,10		9, 9
18″	5,38, 3,36,29,21, 9,50,52,19		24,42,53,53	
		2, 5, 6,30, 4,32,55,17		9, 9
20″	5,38, 5,41,35,51,14,23,47,36		24,43, 3, 2	
		2, 5, 6,29,39,49,52,15		9, 9
22″	5,38, 7,46,42,20,54,13,39,51		24,43,12,11	
		2, 5, 6,29,15, 6,40, 4		9, 9
24″	5,38, 9,51,48,50, 9,20,19,55		24,43,21,20	
		2, 5, 6,28,50,23,18,44		9, 9
26″	5,38,11,56,55,18,59,43,38,39		24,43,30,29	
		2, 5, 6,28,25,39,48,15		9, 9
28″	5,38,14, 2, 1,47,25,23,26,54		24,43,39,38	
		2, 5, 6,28, 0,56, 8,37		9, 9
30″	5,38,16, 7, 8,15,26,19,35,31		24,43,48,47	
		2, 5, 6,27,36,12,19,50		9, 9
32″	5,38,18,12,14,43, 2,31,55,21		24,43,57,56	
		2, 5, 6,27,11,28,21,54		9, 9
34″	5,38,20,17,21,10,14, 0,17,15		24,44, 7, 5	
		2, 5, 6,26,46,44,14,49		9, 9
36″	5,38,22,22,27,37, 0,44,32, 4		24,44,16,14	
		2, 5, 6,26,21,59,58,35		9, 9
38″	5,38,24,27,34, 3,22,44,30,39		24,44,25,23	
		2, 5, 6,25,57,15,33,12		9, 9
40″	5,38,26,32,40,29,20, 0, 3,51		24,44,34,32	
		2, 5, 6,25,32,30,58,40		9, 9
42″	5,38,28,37,46,54,52,31, 2,31		24,44,43,41	
		2, 5, 6,25, 7,46,14,59		9, 9
44″	5,38,30,42,53,20, 0,17,17,30		24,44,52,50	
		2, 5, 6,24,43, 1,22, 9		9, 9
46″	5,38,32,47,59,44,43,18,39,39		24,45, 1,59	
		2, 5, 6,24,18,16,20,10		9, 9
48″	5,38,34,53, 6, 9, 1,34,59,49		24,45,11, 8	
		2, 5, 6,23,53,31, 9, 2		9, 9
50″	5,38,36,58,12,32,55, 6, 8,51		24,45,20,17	
		2, 5, 6,23,28,45,48,45		9, 9
52″	5,38,39, 3,18,56,23,51,57,36		24,45,29,26	
		2, 5, 6,23, 4, 0,19,19		9, 9
54″	5,38,41, 8,25,19,27,52,16,55		24,45,38,35	
		2, 5, 6,22,39,14,40,44		9, 9
56″	5,38,43,13,31,42, 7, 6,57,39		24,45,47,44	
		2, 5, 6,22,14,28,53, 0		9, 9
58″	5,38,45,18,38, 4,21,35,50,39		24,45,56,53	
		2, 5, 6,21,49,42,56, 7		
60″	5,38,47,23,44,26,11,18,46,46			
exact	5,38,47,23,44,26,11,18,58,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°24′ 0″	5,38,47,23,44,26,11,18,58,28			
		2, 5, 6,21,24,56,51,27		
2″	5,38,49,28,50,47,36,15,49,55		24,46,15, 5	
		2, 5, 6,21, 0,10,36,22		9, 9
4″	5,38,51,33,57, 8,36,26,26,17		24,46,24,14	
		2, 5, 6,20,35,24,12, 8		9, 9
6″	5,38,53,39, 3,29,11,50,38,25		24,46,33,23	
		2, 5, 6,20,10,37,38,45		9, 9
8″	5,38,55,44, 9,49,22,28,17,10		24,46,42,32	
		2, 5, 6,19,45,50,56,13		9, 9
10″	5,38,57,49,16, 9, 8,19,13,23		24,46,51,41	
		2, 5, 6,19,21, 4, 4,32		9, 9
12″	5,38,59,54,22,28,29,23,17,55		24,47, 0,50	
		2, 5, 6,18,56,17, 3,42		9, 9
14″	5,39, 1,59,28,47,25,40,21,37		24,47, 9,59	
		2, 5, 6,18,31,29,53,43		9, 9
16″	5,39, 4, 4,35, 5,57,10,15,20		24,47,19, 8	
		2, 5, 6,18, 6,42,34,35		9, 9
18″	5,39, 6, 9,41,24, 3,52,49,55		24,47,28,17	
		2, 5, 6,17,41,55, 6,18		9, 9
20″	5,39, 8,14,47,41,45,47,56,13		24,47,37,26	
		2, 5, 6,17,17, 7,28,52		9, 9
22″	5,39,10,19,53,59, 2,55,25, 5		24,47,46,35	
		2, 5, 6,16,52,19,42,17		9, 9
24″	5,39,12,25, 0,15,55,15, 7,22		24,47,55,44	
		2, 5, 6,16,27,31,46,33		9, 9
26″	5,39,14,30, 6,32,22,46,53,55		24,48, 4,53	
		2, 5, 6,16, 2,43,41,40		9, 9
28″	5,39,16,35,12,48,25,30,35,35		24,48,14, 2	
		2, 5, 6,15,37,55,27,38		9, 9
30″	5,39,18,40,19, 4, 3,26, 3,13		24,48,23,11	
		2, 5, 6,15,13, 7, 4,27		9, 9
32″	5,39,20,45,25,19,16,33, 7,40		24,48,32,20	
		2, 5, 6,14,48,18,32, 7		9, 9
34″	5,39,22,50,31,34, 4,51,39,47		24,48,41,29	
		2, 5, 6,14,23,29,50,38		9, 9
36″	5,39,24,55,37,48,28,21,30,25		24,48,50,38	
		2, 5, 6,13,58,41, 0, 0		9, 9
38″	5,39,27, 0,44, 2,27, 2,30,25		24,48,59,47	
		2, 5, 6,13,33,52, 0,13		9, 9
40″	5,39,29, 5,50,16, 0,54,30,38		24,49, 8,56	
		2, 5, 6,13, 9, 2,51,17		9, 9
42″	5,39,31,10,56,29, 9,57,21,55		24,49,18, 5	
		2, 5, 6,12,44,13,33,12		9, 9
44″	5,39,33,16, 2,41,54,10,55, 7		24,49,27,14	
		2, 5, 6,12,19,24, 5,58		9, 9
46″	5,39,35,21, 8,54,13,35, 1, 5		24,49,36,23	
		2, 5, 6,11,54,34,29,35		9, 9
48″	5,39,37,26,15, 6, 8, 9,30,40		24,49,45,32	
		2, 5, 6,11,29,44,44, 3		9, 9
50″	5,39,39,31,21,17,37,54,14,43		24,49,54,41	
		2, 5, 6,11, 4,54,49,22		9, 9
52″	5,39,41,36,27,28,42,49, 4, 5		24,50, 3,50	
		2, 5, 6,10,40, 4,45,32		9, 9
54″	5,39,43,41,33,39,22,53,49,37		24,50,12,59	
		2, 5, 6,10,15,14,32,33		9, 9
56″	5,39,45,46,39,49,38, 8,22,10		24,50,22, 8	
		2, 5, 6, 9,50,24,10,25		9, 9
58″	5,39,47,51,45,59,28,32,32,35		24,50,31,17	
		2, 5, 6, 9,25,33,39, 8		
60″	5,39,49,56,52, 8,54, 6,11,43			
exact	5,39,49,56,52, 8,54, 6,27,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°25′ 0″	5,39,49,56,52, 8,54, 6,27,58			
		2, 5, 6, 9, 0,43, 0,25		
2″	5,39,52, 1,58,17,54,49,28,23		24,50,49,28	
		2, 5, 6, 8,35,52,10,57		9, 9
4″	5,39,54, 7, 4,26,30,41,39,20		24,50,58,37	
		2, 5, 6, 8,11, 1,12,20		9, 9
6″	5,39,56,12,10,34,41,42,51,40		24,51, 7,46	
		2, 5, 6, 7,46,10, 4,34		9, 9
8″	5,39,58,17,16,42,27,52,56,14		24,51,16,55	
		2, 5, 6, 7,21,18,47,39		9, 9
10″	5,40, 0,22,22,49,49,11,43,53		24,51,26, 4	
		2, 5, 6, 6,56,27,21,35		9, 9
12″	5,40, 2,27,28,56,45,39, 5,28		24,51,35,13	
		2, 5, 6, 6,31,35,46,22		9, 9
14″	5,40, 4,32,35, 3,17,14,51,50		24,51,44,22	
		2, 5, 6, 6, 6,44, 2, 0		9, 9
16″	5,40, 6,37,41, 9,23,58,53,50		24,51,53,31	
		2, 5, 6, 5,41,52, 8,29		9, 9
18″	5,40, 8,42,47,15, 5,51, 2,19		24,52, 2,40	
		2, 5, 6, 5,17, 0, 5,49		9, 9
20″	5,40,10,47,53,20,22,51, 8, 8		24,52,11,49	
		2, 5, 6, 4,52, 7,54, 0		9, 9
22″	5,40,12,52,59,25,14,59, 2, 8		24,52,20,58	
		2, 5, 6, 4,27,15,33, 2		9, 9
24″	5,40,14,58, 5,29,42,14,35,10		24,52,30, 7	
		2, 5, 6, 4, 2,23, 2,55		9, 9
26″	5,40,17, 3,11,33,44,37,38, 5		24,52,39,16	
		2, 5, 6, 3,37,30,23,39		9, 9
28″	5,40,19, 8,17,37,22, 8, 1,44		24,52,48,25	
		2, 5, 6, 3,12,37,35,14		9, 9
30″	5,40,21,13,23,40,34,45,36,58		24,52,57,34	
		2, 5, 6, 2,47,44,37,40		9, 9
32″	5,40,23,18,29,43,22,30,14,38		24,53, 6,43	
		2, 5, 6, 2,22,51,30,57		9, 9
34″	5,40,25,23,35,45,45,21,45,35		24,53,15,52	
		2, 5, 6, 1,57,58,15, 5		9, 9
36″	5,40,27,28,41,47,43,20, 0,40		24,53,25, 1	
		2, 5, 6, 1,33, 4,50, 4		9, 9
38″	5,40,29,33,47,49,16,24,50,44		24,53,34,10	
		2, 5, 6, 1, 8,11,15,54		9, 9
40″	5,40,31,38,53,50,24,36, 6,38		24,53,43,19	
		2, 5, 6, 0,43,17,32,35		9, 9
42″	5,40,33,43,59,51, 7,53,39,13		24,53,52,28	
		2, 5, 6, 0,18,23,40, 7		9, 9
44″	5,40,35,49, 5,51,26,17,19,20		24,54, 1,37	
		2, 5, 5,59,53,29,38,30		9, 9
46″	5,40,37,54,11,51,19,46,57,50		24,54,10,46	
		2, 5, 5,59,28,35,27,44		9, 9
48″	5,40,39,59,17,50,48,22,25,34		24,54,19,55	
		2, 5, 5,59, 3,41, 7,49		9, 9
50″	5,40,42, 4,23,49,52, 3,33,23		24,54,29, 4	
		2, 5, 5,58,38,46,38,45		9, 9
52″	5,40,44, 9,29,48,30,50,12, 8		24,54,38,13	
		2, 5, 5,58,13,52, 0,32		9, 9
54″	5,40,46,14,35,46,44,42,12,40		24,54,47,22	
		2, 5, 5,57,48,57,13,10		9, 9
56″	5,40,48,19,41,44,33,39,25,50		24,54,56,31	
		2, 5, 5,57,24, 2,16,39		9, 9
58″	5,40,50,24,47,41,57,41,42,29		24,55, 5,40	
		2, 5, 5,56,59, 7,10,59		
60″	5,40,52,29,53,38,56,48,53,28			
exact	5,40,52,29,53,38,56,49,10,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°26′ 0″	5,40,52,29,53,38,56,49,10,32			
		2, 5, 5,56,34,11,57,59		
2″	5,40,54,34,59,35,31, 1, 8,31		24,55,23,51	
		2, 5, 5,56, 9,16,34, 8		9, 9
4″	5,40,56,40, 5,31,40,17,42,39		24,55,33, 0	
		2, 5, 5,55,44,21, 1, 8		9, 9
6″	5,40,58,45,11,27,24,38,43,47		24,55,42, 9	
		2, 5, 5,55,19,25,18,59		9, 9
8″	5,41, 0,50,17,22,44, 4, 2,46		24,55,51,18	
		2, 5, 5,54,54,29,27,41		9, 9
10″	5,41, 2,55,23,17,38,33,30,27		24,56, 0,27	
		2, 5, 5,54,29,33,27,14		9, 9
12″	5,41, 5, 0,29,12, 8, 6,57,41		24,56, 9,36	
		2, 5, 5,54, 4,37,17,38		9, 9
14″	5,41, 7, 5,35, 6,12,44,15,19		24,56,18,45	
		2, 5, 5,53,39,40,58,53		9, 9
16″	5,41, 9,10,40,59,52,25,14,12		24,56,27,54	
		2, 5, 5,53,14,44,30,59		9, 9
18″	5,41,11,15,46,53, 7, 9,45,11		24,56,37, 3	
		2, 5, 5,52,49,47,53,56		9, 9
20″	5,41,13,20,52,45,56,57,39, 7		24,56,46,12	
		2, 5, 5,52,24,51, 7,44		9, 9
22″	5,41,15,25,58,38,21,48,46,51		24,56,55,21	
		2, 5, 5,51,59,54,12,23		9, 9
24″	5,41,17,31, 4,30,21,42,59,14		24,57, 4,30	
		2, 5, 5,51,34,57, 7,53		9, 9
26″	5,41,19,36,10,21,56,40, 7, 7		24,57,13,39	
		2, 5, 5,51, 9,59,54,14		9, 9
28″	5,41,21,41,16,13, 6,40, 1,21		24,57,22,48	
		2, 5, 5,50,45, 2,31,26		9, 9
30″	5,41,23,46,22, 3,51,42,32,47		24,57,31,57	
		2, 5, 5,50,20, 4,59,29		9, 9
32″	5,41,25,51,27,54,11,47,32,16		24,57,41, 6	
		2, 5, 5,49,55, 7,18,23		9, 9
34″	5,41,27,56,33,44, 6,54,50,39		24,57,50,15	
		2, 5, 5,49,30, 9,28, 8		9, 9
36″	5,41,30, 1,39,33,37, 4,18,47		24,57,59,24	
		2, 5, 5,49, 5,11,28,44		9, 9
38″	5,41,32, 6,45,22,42,15,47,31		24,58, 8,33	
		2, 5, 5,48,40,13,20,11		9, 9
40″	5,41,34,11,51,11,22,29, 7,42		24,58,17,42	
		2, 5, 5,48,15,15, 2,29		9, 9
42″	5,41,36,16,56,59,37,44,10,11		24,58,26,51	
		2, 5, 5,47,50,16,35,38		9, 9
44″	5,41,38,22, 2,47,28, 0,45,49		24,58,36, 0	
		2, 5, 5,47,25,17,59,38		9, 9
46″	5,41,40,27, 8,34,53,18,45,27		24,58,45, 9	
		2, 5, 5,47, 0,19,14,29		9, 9
48″	5,41,42,32,14,21,53,37,59,56		24,58,54,18	
		2, 5, 5,46,35,20,20,11		9, 9
50″	5,41,44,37,20, 8,28,58,20, 7		24,59, 3,27	
		2, 5, 5,46,10,21,16,44		9, 9
52″	5,41,46,42,25,54,39,19,36,51		24,59,12,36	
		2, 5, 5,45,45,22, 4, 8		9, 9
54″	5,41,48,47,31,40,24,41,40,59		24,59,21,45	
		2, 5, 5,45,20,22,42,23		9, 9
56″	5,41,50,52,37,25,45, 4,23,22		24,59,30,54	
		2, 5, 5,44,55,23,11,29		9, 9
58″	5,41,52,57,43,10,40,27,34,51		24,59,40, 3	
		2, 5, 5,44,30,23,31,26		
60″	5,41,55, 2,48,55,10,51, 6,17			
exact	5,41,55, 2,48,55,10,51,27, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°27′ 0″	5,41,55, 2,48,55,10,51,27, 1			
		2, 5, 5,44, 5,23,44,21		
2″	5,41,57, 7,54,39,16,15,11,22		24,59,58,13	
		2, 5, 5,43,40,23,46, 8		9, 9
4″	5,41,59,13, 0,22,56,38,57,30		25, 0, 7,22	
		2, 5, 5,43,15,23,38,46		9, 9
6″	5,42, 1,18, 6, 6,12, 2,36,16		25, 0,16,31	
		2, 5, 5,42,50,23,22,15		9, 9
8″	5,42, 3,23,11,49, 2,25,58,31		25, 0,25,40	
		2, 5, 5,42,25,22,56,35		9, 9
10″	5,42, 5,28,17,31,27,48,55, 6		25, 0,34,49	
		2, 5, 5,42, 0,22,21,46		9, 9
12″	5,42, 7,33,23,13,28,11,16,52		25, 0,43,58	
		2, 5, 5,41,35,21,37,48		9, 9
14″	5,42, 9,38,28,55, 3,32,54,40		25, 0,53, 7	
		2, 5, 5,41,10,20,44,41		9, 9
16″	5,42,11,43,34,36,13,53,39,21		25, 1, 2,16	
		2, 5, 5,40,45,19,42,25		9, 9
18″	5,42,13,48,40,16,59,13,21,46		25, 1,11,25	
		2, 5, 5,40,20,18,31, 0		9, 9
20″	5,42,15,53,45,57,19,31,52,46		25, 1,20,34	
		2, 5, 5,39,55,17,10,26		9, 9
22″	5,42,17,58,51,37,14,49, 3,12		25, 1,29,43	
		2, 5, 5,39,30,15,40,43		9, 9
24″	5,42,20, 3,57,16,45, 4,43,55		25, 1,38,52	
		2, 5, 5,39, 5,14, 1,51		9, 9
26″	5,42,22, 9, 2,55,50,18,45,46		25, 1,48, 1	
		2, 5, 5,38,40,12,13,50		9, 9
28″	5,42,24,14, 8,34,30,30,59,36		25, 1,57,10	
		2, 5, 5,38,15,10,16,40		9, 9
30″	5,42,26,19,14,12,45,41,16,16		25, 2, 6,19	
		2, 5, 5,37,50, 8,10,21		9, 9
32″	5,42,28,24,19,50,35,49,26,37		25, 2,15,28	
		2, 5, 5,37,25, 5,54,53		9, 9
34″	5,42,30,29,25,28, 0,55,21,30		25, 2,24,37	
		2, 5, 5,37, 0, 3,30,16		9, 9
36″	5,42,32,34,31, 5, 0,58,51,46		25, 2,33,46	
		2, 5, 5,36,35, 0,56,30		9, 9
38″	5,42,34,39,36,41,35,59,48,16		25, 2,42,55	
		2, 5, 5,36, 9,58,13,35		9, 9
40″	5,42,36,44,42,17,45,58, 1,51		25, 2,52, 4	
		2, 5, 5,35,44,55,21,31		9, 9
42″	5,42,38,49,47,53,30,53,23,22		25, 3, 1,13	
		2, 5, 5,35,19,52,20,18		9, 9
44″	5,42,40,54,53,28,50,45,43,40		25, 3,10,22	
		2, 5, 5,34,54,49, 9,56		9, 9
46″	5,42,42,59,59, 3,45,34,53,36		25, 3,19,31	
		2, 5, 5,34,29,45,50,25		9, 9
48″	5,42,45, 5, 4,38,15,20,44, 1		25, 3,28,40	
		2, 5, 5,34, 4,42,21,45		9, 9
50″	5,42,47,10,10,12,20, 3, 5,46		25, 3,37,49	
		2, 5, 5,33,39,38,43,56		9, 9
52″	5,42,49,15,15,45,59,41,49,42		25, 3,46,58	
		2, 5, 5,33,14,34,56,58		9, 9
54″	5,42,51,20,21,19,14,16,46,40		25, 3,56, 7	
		2, 5, 5,32,49,31, 0,51		9, 9
56″	5,42,53,25,26,52, 3,47,47,31		25, 4, 5,16	
		2, 5, 5,32,24,26,55,35		9, 9
58″	5,42,55,30,32,24,28,14,43, 6		25, 4,14,25	
		2, 5, 5,31,59,22,41,10		
60″	5,42,57,35,37,56,27,37,24,16			
exact	5,42,57,35,37,56,27,37,45, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°28′ 0″	5,42,57,35,37,56,27,37,45, 8			
		2, 5, 5,31,34,18,19,45		
2″	5,42,59,40,43,28, 1,56, 4,53		25, 4,32,34	
		2, 5, 5,31, 9,13,47,11		9, 9
4″	5,43, 1,45,48,59,11, 9,52, 4		25, 4,41,43	
		2, 5, 5,30,44, 9, 5,28		9, 9
6″	5,43, 3,50,54,29,55,18,57,32		25, 4,50,52	
		2, 5, 5,30,19, 4,14,36		9, 9
8″	5,43, 5,56, 0, 0,14,23,12, 8		25, 5, 0, 1	
		2, 5, 5,29,53,59,14,35		9, 9
10″	5,43, 8, 1, 5,30, 8,22,26,43		25, 5, 9,10	
		2, 5, 5,29,28,54, 5,25		9, 9
12″	5,43,10, 6,10,59,37,16,32, 8		25, 5,18,19	
		2, 5, 5,29, 3,48,47, 6		9, 9
14″	5,43,12,11,16,28,41, 5,19,14		25, 5,27,28	
		2, 5, 5,28,38,43,19,38		9, 9
16″	5,43,14,16,21,57,19,48,38,52		25, 5,36,37	
		2, 5, 5,28,13,37,43, 1		9, 9
18″	5,43,16,21,27,25,33,26,21,53		25, 5,45,46	
		2, 5, 5,27,48,31,57,15		9, 9
20″	5,43,18,26,32,53,21,58,19, 8		25, 5,54,55	
		2, 5, 5,27,23,26, 2,20		9, 9
22″	5,43,20,31,38,20,45,24,21,28		25, 6, 4, 4	
		2, 5, 5,26,58,19,58,16		9, 9
24″	5,43,22,36,43,47,43,44,19,44		25, 6,13,13	
		2, 5, 5,26,33,13,45, 3		9, 9
26″	5,43,24,41,49,14,16,58, 4,47		25, 6,22,22	
		2, 5, 5,26, 8, 7,22,41		9, 9
28″	5,43,26,46,54,40,25, 5,27,28		25, 6,31,31	
		2, 5, 5,25,43, 0,51,10		9, 9
30″	5,43,28,52, 0, 6, 8, 6,18,38		25, 6,40,40	
		2, 5, 5,25,17,54,10,30		9, 9
32″	5,43,30,57, 5,31,26, 0,29, 8		25, 6,49,49	
		2, 5, 5,24,52,47,20,41		9, 9
34″	5,43,33, 2,10,56,18,47,49,49		25, 6,58,58	
		2, 5, 5,24,27,40,21,43		9, 9
36″	5,43,35, 7,16,20,46,28,11,32		25, 7, 8, 7	
		2, 5, 5,24, 2,33,13,36		9, 9
38″	5,43,37,12,21,44,49, 1,25, 8		25, 7,17,16	
		2, 5, 5,23,37,25,56,20		9, 9
40″	5,43,39,17,27, 8,26,27,21,28		25, 7,26,25	
		2, 5, 5,23,12,18,29,55		9, 9
42″	5,43,41,22,32,31,38,45,51,23		25, 7,35,34	
		2, 5, 5,22,47,10,54,21		9, 9
44″	5,43,43,27,37,54,25,56,45,44		25, 7,44,43	
		2, 5, 5,22,22, 3, 9,38		9, 9
46″	5,43,45,32,43,16,47,59,55,22		25, 7,53,52	
		2, 5, 5,21,56,55,15,46		9, 9
48″	5,43,47,37,48,38,44,55,11, 8		25, 8, 3, 1	
		2, 5, 5,21,31,47,12,45		9, 9
50″	5,43,49,42,54, 0,16,42,23,53		25, 8,12,10	
		2, 5, 5,21, 6,39, 0,35		9, 9
52″	5,43,51,47,59,21,23,21,24,28		25, 8,21,19	
		2, 5, 5,20,41,30,39,16		9, 9
54″	5,43,53,53, 4,42, 4,52, 3,44		25, 8,30,28	
		2, 5, 5,20,16,22, 8,48		9, 9
56″	5,43,55,58,10, 2,21,14,12,32		25, 8,39,37	
		2, 5, 5,19,51,13,29,11		9, 9
58″	5,43,58, 3,15,22,12,27,41,43		25, 8,48,46	
		2, 5, 5,19,26, 4,40,25		
60″	5,44, 0, 8,20,41,38,32,22, 8			
exact	5,44, 0, 8,20,41,38,32,39,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°29′ 0″	5,44, 0, 8,20,41,38,32,39,23			
		2, 5, 5,19, 0,55,44,26		
2″	5,44, 2,13,26, 0,39,28,23,49		25, 9, 6,56	
		2, 5, 5,18,35,46,37,30		9, 9
4″	5,44, 4,18,31,19,15,15, 1,19		25, 9,16, 5	
		2, 5, 5,18,10,37,21,25		9, 9
6″	5,44, 6,23,36,37,25,52,22,44		25, 9,25,14	
		2, 5, 5,17,45,27,56,11		9, 9
8″	5,44, 8,28,41,55,11,20,18,55		25, 9,34,23	
		2, 5, 5,17,20,18,21,48		9, 9
10″	5,44,10,33,47,12,31,38,40,43		25, 9,43,32	
		2, 5, 5,16,55, 8,38,16		9, 9
12″	5,44,12,38,52,29,26,47,18,59		25, 9,52,41	
		2, 5, 5,16,29,58,45,35		9, 9
14″	5,44,14,43,57,45,56,46, 4,34		25,10, 1,50	
		2, 5, 5,16, 4,48,43,45		9, 9
16″	5,44,16,49, 3, 2, 1,34,48,19		25,10,10,59	
		2, 5, 5,15,39,38,32,46		9, 9
18″	5,44,18,54, 8,17,41,13,21, 5		25,10,20, 8	
		2, 5, 5,15,14,28,12,38		9, 9
20″	5,44,20,59,13,32,55,41,33,43		25,10,29,17	
		2, 5, 5,14,49,17,43,21		9, 9
22″	5,44,23, 4,18,47,44,59,17, 4		25,10,38,26	
		2, 5, 5,14,24, 7, 4,55		9, 9
24″	5,44,25, 9,24, 2, 9, 6,21,59		25,10,47,35	
		2, 5, 5,13,58,56,17,20		9, 9
26″	5,44,27,14,29,16, 8, 2,39,19		25,10,56,44	
		2, 5, 5,13,33,45,20,36		9, 9
28″	5,44,29,19,34,29,41,47,59,55		25,11, 5,53	
		2, 5, 5,13, 8,34,14,43		9, 9
30″	5,44,31,24,39,42,50,22,14,38		25,11,15, 2	
		2, 5, 5,12,43,22,59,41		9, 9
32″	5,44,33,29,44,55,33,45,14,19		25,11,24,11	
		2, 5, 5,12,18,11,35,30		9, 9
34″	5,44,35,34,50, 7,51,56,49,49		25,11,33,20	
		2, 5, 5,11,53, 0, 2,10		9, 9
36″	5,44,37,39,55,19,44,56,51,59		25,11,42,29	
		2, 5, 5,11,27,48,19,41		9, 9
38″	5,44,39,45, 0,31,12,45,11,40		25,11,51,38	
		2, 5, 5,11, 2,36,28, 3		9, 9
40″	5,44,41,50, 5,42,15,21,39,43		25,12, 0,47	
		2, 5, 5,10,37,24,27,16		9, 9
42″	5,44,43,55,10,52,52,46, 6,59		25,12, 9,56	
		2, 5, 5,10,12,12,17,20		9, 9
44″	5,44,46, 0,16, 3, 4,58,24,19		25,12,19, 5	
		2, 5, 5, 9,46,59,58,15		9, 9
46″	5,44,48, 5,21,12,51,58,22,34		25,12,28,14	
		2, 5, 5, 9,21,47,30, 1		9, 9
48″	5,44,50,10,26,22,13,45,52,35		25,12,37,23	
		2, 5, 5, 8,56,34,52,38		9, 9
50″	5,44,52,15,31,31,10,20,45,13		25,12,46,32	
		2, 5, 5, 8,31,22, 6, 6		9, 9
52″	5,44,54,20,36,39,41,42,51,19		25,12,55,41	
		2, 5, 5, 8, 6, 9,10,25		9, 9
54″	5,44,56,25,41,47,47,52, 1,44		25,13, 4,50	
		2, 5, 5, 7,40,56, 5,35		9, 9
56″	5,44,58,30,46,55,28,48, 7,19		25,13,13,59	
		2, 5, 5, 7,15,42,51,36		9, 9
58″	5,45, 0,35,52, 2,44,30,58,55		25,13,23, 8	
		2, 5, 5, 6,50,29,28,28		
60″	5,45, 2,40,57, 9,35, 0,27,23			
exact	5,45, 2,40,57, 9,35, 0,51,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°30′ 0″	5,45, 2,40,57, 9,35, 0,51,13			
		2, 5, 5, 6,25,15,58,37		
2″	5,45, 4,46, 2,16, 0,16,49,50		25,13,41,16	
		2, 5, 5, 6, 0, 2,17,21		9, 9
4″	5,45, 6,51, 7,22, 0,19, 7,11		25,13,50,25	
		2, 5, 5, 5,34,48,26,56		9, 9
6″	5,45, 8,56,12,27,35, 7,34, 7		25,13,59,34	
		2, 5, 5, 5, 9,34,27,22		9, 9
8″	5,45,11, 1,17,32,44,42, 1,29		25,14, 8,43	
		2, 5, 5, 4,44,20,18,39		9, 9
10″	5,45,13, 6,22,37,29, 2,20, 8		25,14,17,52	
		2, 5, 5, 4,19, 6, 0,47		9, 9
12″	5,45,15,11,27,41,48, 8,20,55		25,14,27, 1	
		2, 5, 5, 3,53,51,33,46		9, 9
14″	5,45,17,16,32,45,41,59,54,41		25,14,36,10	
		2, 5, 5, 3,28,36,57,36		9, 9
16″	5,45,19,21,37,49,10,36,52,17		25,14,45,19	
		2, 5, 5, 3, 3,22,12,17		9, 9
18″	5,45,21,26,42,52,13,59, 4,34		25,14,54,28	
		2, 5, 5, 2,38, 7,17,49		9, 9
20″	5,45,23,31,47,54,52, 6,22,23		25,15, 3,37	
		2, 5, 5, 2,12,52,14,12		9, 9
22″	5,45,25,36,52,57, 4,58,36,35		25,15,12,46	
		2, 5, 5, 1,47,37, 1,26		9, 9
24″	5,45,27,41,57,58,52,35,38, 1		25,15,21,55	
		2, 5, 5, 1,22,21,39,31		9, 9
26″	5,45,29,47, 3, 0,14,57,17,32		25,15,31, 4	
		2, 5, 5, 0,57, 6, 8,27		9, 9
28″	5,45,31,52, 8, 1,12, 3,25,59		25,15,40,13	
		2, 5, 5, 0,31,50,28,14		9, 9
30″	5,45,33,57,13, 1,43,53,54,13		25,15,49,22	
		2, 5, 5, 0, 6,34,38,52		9, 9
32″	5,45,36, 2,18, 1,50,28,33, 5		25,15,58,31	
		2, 5, 4,59,41,18,40,21		9, 9
34″	5,45,38, 7,23, 1,31,47,13,26		25,16, 7,40	
		2, 5, 4,59,16, 2,32,41		9, 9
36″	5,45,40,12,28, 0,47,49,46, 7		25,16,16,49	
		2, 5, 4,58,50,46,15,52		9, 9
38″	5,45,42,17,32,59,38,36, 1,59		25,16,25,58	
		2, 5, 4,58,25,29,49,54		9, 9
40″	5,45,44,22,37,58, 4, 5,51,53		25,16,35, 7	
		2, 5, 4,58, 0,13,14,47		9, 9
42″	5,45,46,27,42,56, 4,19, 6,40		25,16,44,16	
		2, 5, 4,57,34,56,30,31		9, 9
44″	5,45,48,32,47,53,39,15,37,11		25,16,53,25	
		2, 5, 4,57, 9,39,37, 6		9, 9
46″	5,45,50,37,52,50,48,55,14,17		25,17, 2,34	
		2, 5, 4,56,44,22,34,32		9, 9
48″	5,45,52,42,57,47,33,17,48,49		25,17,11,43	
		2, 5, 4,56,19, 5,22,49		9, 9
50″	5,45,54,48, 2,43,52,23,11,38		25,17,20,52	
		2, 5, 4,55,53,48, 1,57		9, 9
52″	5,45,56,53, 7,39,46,11,13,35		25,17,30, 1	
		2, 5, 4,55,28,30,31,56		9, 9
54″	5,45,58,58,12,35,14,41,45,31		25,17,39,10	
		2, 5, 4,55, 3,12,52,46		9, 9
56″	5,46, 1, 3,17,30,17,54,38,17		25,17,48,19	
		2, 5, 4,54,37,55, 4,27		9, 9
58″	5,46, 3, 8,22,24,55,49,42,44		25,17,57,28	
		2, 5, 4,54,12,37, 6,59		
60″	5,46, 5,13,27,19, 8,26,49,43			
exact	5,46, 5,13,27,19, 8,27, 8,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°31′ 0″	5,46, 5,13,27,19, 8,27, 8,55			
		2, 5, 4,53,47,19, 2,32		
2″	5,46, 7,18,32,12,55,46,11,27		25,18,15,37	
		2, 5, 4,53,22, 0,46,55		9, 9
4″	5,46, 9,23,37, 6,17,46,58,22		25,18,24,46	
		2, 5, 4,52,56,42,22, 9		9, 9
6″	5,46,11,28,41,59,14,29,20,31		25,18,33,55	
		2, 5, 4,52,31,23,48,14		9, 9
8″	5,46,13,33,46,51,45,53, 8,45		25,18,43, 4	
		2, 5, 4,52, 6, 5, 5,10		9, 9
10″	5,46,15,38,51,43,51,58,13,55		25,18,52,13	
		2, 5, 4,51,40,46,12,57		9, 9
12″	5,46,17,43,56,35,32,44,26,52		25,19, 1,22	
		2, 5, 4,51,15,27,11,35		9, 9
14″	5,46,19,49, 1,26,48,11,38,27		25,19,10,31	
		2, 5, 4,50,50, 8, 1, 4		9, 9
16″	5,46,21,54, 6,17,38,19,39,31		25,19,19,40	
		2, 5, 4,50,24,48,41,24		9, 9
18″	5,46,23,59,11, 8, 3, 8,20,55		25,19,28,49	
		2, 5, 4,49,59,29,12,35		9, 9
20″	5,46,26, 4,15,58, 2,37,33,30		25,19,37,58	
		2, 5, 4,49,34, 9,34,37		9, 9
22″	5,46,28, 9,20,47,36,47, 8, 7		25,19,47, 7	
		2, 5, 4,49, 8,49,47,30		9, 9
24″	5,46,30,14,25,36,45,36,55,37		25,19,56,16	
		2, 5, 4,48,43,29,51,14		9, 9
26″	5,46,32,19,30,25,29, 6,46,51		25,20, 5,25	
		2, 5, 4,48,18, 9,45,49		9, 9
28″	5,46,34,24,35,13,47,16,32,40		25,20,14,34	
		2, 5, 4,47,52,49,31,15		9, 9
30″	5,46,36,29,40, 1,40, 6, 3,55		25,20,23,43	
		2, 5, 4,47,27,29, 7,32		9, 9
32″	5,46,38,34,44,49, 7,35,11,27		25,20,32,52	
		2, 5, 4,47, 2, 8,34,40		9, 9
34″	5,46,40,39,49,36, 9,43,46, 7		25,20,42, 1	
		2, 5, 4,46,36,47,52,39		9, 9
36″	5,46,42,44,54,22,46,31,38,46		25,20,51,10	
		2, 5, 4,46,11,27, 1,29		9, 9
38″	5,46,44,49,59, 8,57,58,40,15		25,21, 0,19	
		2, 5, 4,45,46, 6, 1,10		9, 9
40″	5,46,46,55, 3,54,44, 4,41,25		25,21, 9,28	
		2, 5, 4,45,20,44,51,42		9, 9
42″	5,46,49, 0, 8,40, 4,49,33, 7		25,21,18,37	
		2, 5, 4,44,55,23,33, 5		9, 9
44″	5,46,51, 5,13,25, 0,13, 6,12		25,21,27,46	
		2, 5, 4,44,30, 2, 5,19		9, 9
46″	5,46,53,10,18, 9,30,15,11,31		25,21,36,55	
		2, 5, 4,44, 4,40,28,24		9, 9
48″	5,46,55,15,22,53,34,55,39,55		25,21,46, 4	
		2, 5, 4,43,39,18,42,20		9, 9
50″	5,46,57,20,27,37,14,14,22,15		25,21,55,13	
		2, 5, 4,43,13,56,47, 7		9, 9
52″	5,46,59,25,32,20,28,11, 9,22		25,22, 4,22	
		2, 5, 4,42,48,34,42,45		9, 9
54″	5,47, 1,30,37, 3,16,45,52, 7		25,22,13,31	
		2, 5, 4,42,23,12,29,14		9, 9
56″	5,47, 3,35,41,45,39,58,21,21		25,22,22,40	
		2, 5, 4,41,57,50, 6,34		9, 9
58″	5,47, 5,40,46,27,37,48,27,55		25,22,31,49	
		2, 5, 4,41,32,27,34,45		
60″	5,47, 7,45,51, 9,10,16, 2,40			
exact	5,47, 7,45,51, 9,10,16,27,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°32′ 0″	5,47, 7,45,51, 9,10,16,27,43			
		2, 5, 4,41, 7, 4,56,24		
2″	5,47, 9,50,55,50,17,21,24, 7		25,22,49,56	
		2, 5, 4,40,41,42, 6,28		9, 9
4″	5,47,11,56, 0,30,59, 3,30,35		25,22,59, 5	
		2, 5, 4,40,16,19, 7,23		9, 9
6″	5,47,14, 1, 5,11,15,22,37,58		25,23, 8,14	
		2, 5, 4,39,50,55,59, 9		9, 9
8″	5,47,16, 6, 9,51, 6,18,37, 7		25,23,17,23	
		2, 5, 4,39,25,32,41,46		9, 9
10″	5,47,18,11,14,30,31,51,18,53		25,23,26,32	
		2, 5, 4,39, 0, 9,15,14		9, 9
12″	5,47,20,16,19, 9,32, 0,34, 7		25,23,35,41	
		2, 5, 4,38,34,45,39,33		9, 9
14″	5,47,22,21,23,48, 6,46,13,40		25,23,44,50	
		2, 5, 4,38, 9,21,54,43		9, 9
16″	5,47,24,26,28,26,16, 8, 8,23		25,23,53,59	
		2, 5, 4,37,43,58, 0,44		9, 9
18″	5,47,26,31,33, 4, 0, 6, 9, 7		25,24, 3, 8	
		2, 5, 4,37,18,33,57,36		9, 9
20″	5,47,28,36,37,41,18,40, 6,43		25,24,12,17	
		2, 5, 4,36,53, 9,45,19		9, 9
22″	5,47,30,41,42,18,11,49,52, 2		25,24,21,26	
		2, 5, 4,36,27,45,23,53		9, 9
24″	5,47,32,46,46,54,39,35,15,55		25,24,30,35	
		2, 5, 4,36, 2,20,53,18		9, 9
26″	5,47,34,51,51,30,41,56, 9,13		25,24,39,44	
		2, 5, 4,35,36,56,13,34		9, 9
28″	5,47,36,56,56, 6,18,52,22,47		25,24,48,53	
		2, 5, 4,35,11,31,24,41		9, 9
30″	5,47,39, 2, 0,41,30,23,47,28		25,24,58, 2	
		2, 5, 4,34,46, 6,26,39		9, 9
32″	5,47,41, 7, 5,16,16,30,14, 7		25,25, 7,11	
		2, 5, 4,34,20,41,19,28		9, 9
34″	5,47,43,12, 9,50,37,11,33,35		25,25,16,20	
		2, 5, 4,33,55,16, 3, 8		9, 9
36″	5,47,45,17,14,24,32,27,36,43		25,25,25,29	
		2, 5, 4,33,29,50,37,39		9, 9
38″	5,47,47,22,18,58, 2,18,14,22		25,25,34,38	
		2, 5, 4,33, 4,25, 3, 1		9, 9
40″	5,47,49,27,23,31, 6,43,17,23		25,25,43,47	
		2, 5, 4,32,38,59,19,14		9, 9
42″	5,47,51,32,28, 3,45,42,36,37		25,25,52,56	
		2, 5, 4,32,13,33,26,18		9, 9
44″	5,47,53,37,32,35,59,16, 2,55		25,26, 2, 5	
		2, 5, 4,31,48, 7,24,13		9, 9
46″	5,47,55,42,37, 7,47,23,27, 8		25,26,11,14	
		2, 5, 4,31,22,41,12,59		9, 9
48″	5,47,57,47,41,39,10, 4,40, 7		25,26,20,23	
		2, 5, 4,30,57,14,52,36		9, 9
50″	5,47,59,52,46,10, 7,19,32,43		25,26,29,32	
		2, 5, 4,30,31,48,23, 4		9, 9
52″	5,48, 1,57,50,40,39, 7,55,47		25,26,38,41	
		2, 5, 4,30, 6,21,44,23		9, 9
54″	5,48, 4, 2,55,10,45,29,40,10		25,26,47,50	
		2, 5, 4,29,40,54,56,33		9, 9
56″	5,48, 6, 7,59,40,26,24,36,43		25,26,56,59	
		2, 5, 4,29,15,27,59,34		9, 9
58″	5,48, 8,13, 4, 9,41,52,36,17		25,27, 6, 8	
		2, 5, 4,28,50, 0,53,26		
60″	5,48,10,18, 8,38,31,53,29,43			
exact	5,48,10,18, 8,38,31,53,49,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°33′ 0″	5,48,10,18, 8,38,31,53,49,47			
		2, 5, 4,28,24,33,40,27		
2″	5,48,12,23,13, 6,56,27,30,14		25,27,24,16	
		2, 5, 4,27,59, 6,16,11		9, 9
4″	5,48,14,28,17,34,55,33,46,25		25,27,33,25	
		2, 5, 4,27,33,38,42,46		9, 9
6″	5,48,16,33,22, 2,29,12,29,11		25,27,42,34	
		2, 5, 4,27, 8,11, 0,12		9, 9
8″	5,48,18,38,26,29,37,23,29,23		25,27,51,43	
		2, 5, 4,26,42,43, 8,29		9, 9
10″	5,48,20,43,30,56,20, 6,37,52		25,28, 0,52	
		2, 5, 4,26,17,15, 7,37		9, 9
12″	5,48,22,48,35,22,37,21,45,29		25,28,10, 1	
		2, 5, 4,25,51,46,57,36		9, 9
14″	5,48,24,53,39,48,29, 8,43, 5		25,28,19,10	
		2, 5, 4,25,26,18,38,26		9, 9
16″	5,48,26,58,44,13,55,27,21,31		25,28,28,19	
		2, 5, 4,25, 0,50,10, 7		9, 9
18″	5,48,29, 3,48,38,56,17,31,38		25,28,37,28	
		2, 5, 4,24,35,21,32,39		9, 9
20″	5,48,31, 8,53, 3,31,39, 4,17		25,28,46,37	
		2, 5, 4,24, 9,52,46, 2		9, 9
22″	5,48,33,13,57,27,41,31,50,19		25,28,55,46	
		2, 5, 4,23,44,23,50,16		9, 9
24″	5,48,35,19, 1,51,25,55,40,35		25,29, 4,55	
		2, 5, 4,23,18,54,45,21		9, 9
26″	5,48,37,24, 6,14,44,50,25,56		25,29,14, 4	
		2, 5, 4,22,53,25,31,17		9, 9
28″	5,48,39,29,10,37,38,15,57,13		25,29,23,13	
		2, 5, 4,22,27,56, 8, 4		9, 9
30″	5,48,41,34,15, 0, 6,12, 5,17		25,29,32,22	
		2, 5, 4,22, 2,26,35,42		9, 9
32″	5,48,43,39,19,22, 8,38,40,59		25,29,41,31	
		2, 5, 4,21,36,56,54,11		9, 9
34″	5,48,45,44,23,43,45,35,35,10		25,29,50,40	
		2, 5, 4,21,11,27, 3,31		9, 9
36″	5,48,47,49,28, 4,57, 2,38,41		25,29,59,49	
		2, 5, 4,20,45,57, 3,42		9, 9
38″	5,48,49,54,32,25,42,59,42,23		25,30, 8,58	
		2, 5, 4,20,20,26,54,44		9, 9
40″	5,48,51,59,36,46, 3,26,37, 7		25,30,18, 7	
		2, 5, 4,19,54,56,36,37		9, 9
42″	5,48,54, 4,41, 5,58,23,13,44		25,30,27,16	
		2, 5, 4,19,29,26, 9,21		9, 9
44″	5,48,56, 9,45,25,27,49,23, 5		25,30,36,25	
		2, 5, 4,19, 3,55,32,56		9, 9
46″	5,48,58,14,49,44,31,44,56, 1		25,30,45,34	
		2, 5, 4,18,38,24,47,22		9, 9
48″	5,49, 0,19,54, 3,10, 9,43,23		25,30,54,43	
		2, 5, 4,18,12,53,52,39		9, 9
50″	5,49, 2,24,58,21,23, 3,36, 2		25,31, 3,52	
		2, 5, 4,17,47,22,48,47		9, 9
52″	5,49, 4,30, 2,39,10,26,24,49		25,31,13, 1	
		2, 5, 4,17,21,51,35,46		9, 9
54″	5,49, 6,35, 6,56,32,18, 0,35		25,31,22,10	
		2, 5, 4,16,56,20,13,36		9, 9
56″	5,49, 8,40,11,13,28,38,14,11		25,31,31,19	
		2, 5, 4,16,30,48,42,17		9, 9
58″	5,49,10,45,15,29,59,26,56,28		25,31,40,28	
		2, 5, 4,16, 5,17, 1,49		
60″	5,49,12,50,19,46, 4,43,58,17			
exact	5,49,12,50,19,46, 4,44,24,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°34′ 0″	5,49,12,50,19,46, 4,44,24,13			
		2, 5, 4,15,39,45,14,56		
2″	5,49,14,55,24, 1,44,29,39, 9		25,31,58,35	
		2, 5, 4,15,14,13,16,21		9, 9
4″	5,49,17, 0,28,16,58,42,55,30		25,32, 7,44	
		2, 5, 4,14,48,41, 8,37		9, 9
6″	5,49,19, 5,32,31,47,24, 4, 7		25,32,16,53	
		2, 5, 4,14,23, 8,51,44		9, 9
8″	5,49,21,10,36,46,10,32,55,51		25,32,26, 2	
		2, 5, 4,13,57,36,25,42		9, 9
10″	5,49,23,15,41, 0, 8, 9,21,33		25,32,35,11	
		2, 5, 4,13,32, 3,50,31		9, 9
12″	5,49,25,20,45,13,40,13,12, 4		25,32,44,20	
		2, 5, 4,13, 6,31, 6,11		9, 9
14″	5,49,27,25,49,26,46,44,18,15		25,32,53,29	
		2, 5, 4,12,40,58,12,42		9, 9
16″	5,49,29,30,53,39,27,42,30,57		25,33, 2,38	
		2, 5, 4,12,15,25,10, 4		9, 9
18″	5,49,31,35,57,51,43, 7,41, 1		25,33,11,47	
		2, 5, 4,11,49,51,58,17		9, 9
20″	5,49,33,41, 2, 3,32,59,39,18		25,33,20,56	
		2, 5, 4,11,24,18,37,21		9, 9
22″	5,49,35,46, 6,14,57,18,16,39		25,33,30, 5	
		2, 5, 4,10,58,45, 7,16		9, 9
24″	5,49,37,51,10,25,56, 3,23,55		25,33,39,14	
		2, 5, 4,10,33,11,28, 2		9, 9
26″	5,49,39,56,14,36,29,14,51,57		25,33,48,23	
		2, 5, 4,10, 7,37,39,39		9, 9
28″	5,49,42, 1,18,46,36,52,31,36		25,33,57,32	
		2, 5, 4, 9,42, 3,42, 7		9, 9
30″	5,49,44, 6,22,56,18,56,13,43		25,34, 6,41	
		2, 5, 4, 9,16,29,35,26		9, 9
32″	5,49,46,11,27, 5,35,25,49, 9		25,34,15,50	
		2, 5, 4, 8,50,55,19,36		9, 9
34″	5,49,48,16,31,14,26,21, 8,45		25,34,24,59	
		2, 5, 4, 8,25,20,54,37		9, 9
36″	5,49,50,21,35,22,51,42, 3,22		25,34,34, 8	
		2, 5, 4, 7,59,46,20,29		9, 9
38″	5,49,52,26,39,30,51,28,23,51		25,34,43,17	
		2, 5, 4, 7,34,11,37,12		9, 9
40″	5,49,54,31,43,38,25,40, 1, 3		25,34,52,26	
		2, 5, 4, 7, 8,36,44,46		9, 9
42″	5,49,56,36,47,45,34,16,45,49		25,35, 1,35	
		2, 5, 4, 6,43, 1,43,11		9, 9
44″	5,49,58,41,51,52,17,18,29, 0		25,35,10,44	
		2, 5, 4, 6,17,26,32,27		9, 9
46″	5,50, 0,46,55,58,34,45, 1,27		25,35,19,53	
		2, 5, 4, 5,51,51,12,34		9, 9
48″	5,50, 2,52, 0, 4,26,36,14, 1		25,35,29, 2	
		2, 5, 4, 5,26,15,43,32		9, 9
50″	5,50, 4,57, 4, 9,52,51,57,33		25,35,38,11	
		2, 5, 4, 5, 0,40, 5,21		9, 9
52″	5,50, 7, 2, 8,14,53,32, 2,54		25,35,47,20	
		2, 5, 4, 4,35, 4,18, 1		9, 9
54″	5,50, 9, 7,12,19,28,36,20,55		25,35,56,29	
		2, 5, 4, 4, 9,28,21,32		9, 9
56″	5,50,11,12,16,23,38, 4,42,27		25,36, 5,38	
		2, 5, 4, 3,43,52,15,54		9, 9
58″	5,50,13,17,20,27,21,56,58,21		25,36,14,47	
		2, 5, 4, 3,18,16, 1, 7		
60″	5,50,15,22,24,30,40,12,59,28			
exact	5,50,15,22,24,30,40,13,27, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°35′ 0″	5,50,15,22,24,30,40,13,27, 8			
		2, 5, 4, 2,52,39,40, 5		
2″	5,50,17,27,28,33,32,53, 7,13		25,36,32,53	
		2, 5, 4, 2,27, 3, 7,12		9, 9
4″	5,50,19,32,32,35,59,56,14,25		25,36,42, 2	
		2, 5, 4, 2, 1,26,25,10		9, 9
6″	5,50,21,37,36,38, 1,22,39,35		25,36,51,11	
		2, 5, 4, 1,35,49,33,59		9, 9
8″	5,50,23,42,40,39,37,12,13,34		25,37, 0,20	
		2, 5, 4, 1,10,12,33,39		9, 9
10″	5,50,25,47,44,40,47,24,47,13		25,37, 9,29	
		2, 5, 4, 0,44,35,24,10		9, 9
12″	5,50,27,52,48,41,32, 0,11,23		25,37,18,38	
		2, 5, 4, 0,18,58, 5,32		9, 9
14″	5,50,29,57,52,41,50,58,16,55		25,37,27,47	
		2, 5, 3,59,53,20,37,45		9, 9
16″	5,50,32, 2,56,41,44,18,54,40		25,37,36,56	
		2, 5, 3,59,27,43, 0,49		9, 9
18″	5,50,34, 8, 0,41,12, 1,55,29		25,37,46, 5	
		2, 5, 3,59, 2, 5,14,44		9, 9
20″	5,50,36,13, 4,40,14, 7,10,13		25,37,55,14	
		2, 5, 3,58,36,27,19,30		9, 9
22″	5,50,38,18, 8,38,50,34,29,43		25,38, 4,23	
		2, 5, 3,58,10,49,15, 7		9, 9
24″	5,50,40,23,12,37, 1,23,44,50		25,38,13,32	
		2, 5, 3,57,45,11, 1,35		9, 9
26″	5,50,42,28,16,34,46,34,46,25		25,38,22,41	
		2, 5, 3,57,19,32,38,54		9, 9
28″	5,50,44,33,20,32, 6, 7,25,19		25,38,31,50	
		2, 5, 3,56,53,54, 7, 4		9, 9
30″	5,50,46,38,24,29, 0, 1,32,23		25,38,40,59	
		2, 5, 3,56,28,15,26, 5		9, 9
32″	5,50,48,43,28,25,28,16,58,28		25,38,50, 8	
		2, 5, 3,56, 2,36,35,57		9, 9
34″	5,50,50,48,32,21,30,53,34,25		25,38,59,17	
		2, 5, 3,55,36,57,36,40		9, 9
36″	5,50,52,53,36,17, 7,51,11, 5		25,39, 8,26	
		2, 5, 3,55,11,18,28,14		9, 9
38″	5,50,54,58,40,12,19, 9,39,19		25,39,17,35	
		2, 5, 3,54,45,39,10,39		9, 9
40″	5,50,57, 3,44, 7, 4,48,49,58		25,39,26,44	
		2, 5, 3,54,19,59,43,55		9, 9
42″	5,50,59, 8,48, 1,24,48,33,53		25,39,35,53	
		2, 5, 3,53,54,20, 8, 2		9, 9
44″	5,51, 1,13,51,55,19, 8,41,55		25,39,45, 2	
		2, 5, 3,53,28,40,23, 0		9, 9
46″	5,51, 3,18,55,48,47,49, 4,55		25,39,54,11	
		2, 5, 3,53, 3, 0,28,49		9, 9
48″	5,51, 5,23,59,41,50,49,33,44		25,40, 3,20	
		2, 5, 3,52,37,20,25,29		9, 9
50″	5,51, 7,29, 3,34,28, 9,59,13		25,40,12,29	
		2, 5, 3,52,11,40,13, 0		9, 9
52″	5,51, 9,34, 7,26,39,50,12,13		25,40,21,38	
		2, 5, 3,51,45,59,51,22		9, 9
54″	5,51,11,39,11,18,25,50, 3,35		25,40,30,47	
		2, 5, 3,51,20,19,20,35		9, 9
56″	5,51,13,44,15, 9,46, 9,24,10		25,40,39,56	
		2, 5, 3,50,54,38,40,39		9, 9
58″	5,51,15,49,19, 0,40,48, 4,49		25,40,49, 5	
		2, 5, 3,50,28,57,51,34		
60″	5,51,17,54,22,51, 9,45,56,23			
exact	5,51,17,54,22,51, 9,46,21,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°36′ 0″	5,51,17,54,22,51, 9,46,21,36			
		2, 5, 3,50, 3,16,56, 7		
2″	5,51,19,59,26,41,13, 3,17,43		25,41, 7,11	
		2, 5, 3,49,37,35,48,56		9, 9
4″	5,51,22, 4,30,30,50,39, 6,39		25,41,16,20	
		2, 5, 3,49,11,54,32,36		9, 9
6″	5,51,24, 9,34,20, 2,33,39,15		25,41,25,29	
		2, 5, 3,48,46,13, 7, 7		9, 9
8″	5,51,26,14,38, 8,48,46,46,22		25,41,34,38	
		2, 5, 3,48,20,31,32,29		9, 9
10″	5,51,28,19,41,57, 9,18,18,51		25,41,43,47	
		2, 5, 3,47,54,49,48,42		9, 9
12″	5,51,30,24,45,45, 4, 8, 7,33		25,41,52,56	
		2, 5, 3,47,29, 7,55,46		9, 9
14″	5,51,32,29,49,32,33,16, 3,19		25,42, 2, 5	
		2, 5, 3,47, 3,25,53,41		9, 9
16″	5,51,34,34,53,19,36,41,57, 0		25,42,11,14	
		2, 5, 3,46,37,43,42,27		9, 9
18″	5,51,36,39,57, 6,14,25,39,27		25,42,20,23	
		2, 5, 3,46,12, 1,22, 4		9, 9
20″	5,51,38,45, 0,52,26,27, 1,31		25,42,29,32	
		2, 5, 3,45,46,18,52,32		9, 9
22″	5,51,40,50, 4,38,12,45,54, 3		25,42,38,41	
		2, 5, 3,45,20,36,13,51		9, 9
24″	5,51,42,55, 8,23,33,22, 7,54		25,42,47,50	
		2, 5, 3,44,54,53,26, 1		9, 9
26″	5,51,45, 0,12, 8,28,15,33,55		25,42,56,59	
		2, 5, 3,44,29,10,29, 2		9, 9
28″	5,51,47, 5,15,52,57,26, 2,57		25,43, 6, 8	
		2, 5, 3,44, 3,27,22,54		9, 9
30″	5,51,49,10,19,37, 0,53,25,51		25,43,15,17	
		2, 5, 3,43,37,44, 7,37		9, 9
32″	5,51,51,15,23,20,38,37,33,28		25,43,24,26	
		2, 5, 3,43,12, 0,43,11		9, 9
34″	5,51,53,20,27, 3,50,38,16,39		25,43,33,35	
		2, 5, 3,42,46,17, 9,36		9, 9
36″	5,51,55,25,30,46,36,55,26,15		25,43,42,44	
		2, 5, 3,42,20,33,26,52		9, 9
38″	5,51,57,30,34,28,57,28,53, 7		25,43,51,53	
		2, 5, 3,41,54,49,34,59		9, 9
40″	5,51,59,35,38,10,52,18,28, 6		25,44, 1, 2	
		2, 5, 3,41,29, 5,33,57		9, 9
42″	5,52, 1,40,41,52,21,24, 2, 3		25,44,10,11	
		2, 5, 3,41, 3,21,23,46		9, 9
44″	5,52, 3,45,45,33,24,45,25,49		25,44,19,20	
		2, 5, 3,40,37,37, 4,26		9, 9
46″	5,52, 5,50,49,14, 2,22,30,15		25,44,28,29	
		2, 5, 3,40,11,52,35,57		9, 9
48″	5,52, 7,55,52,54,14,15, 6,12		25,44,37,38	
		2, 5, 3,39,46, 7,58,19		9, 9
50″	5,52,10, 0,56,34, 0,23, 4,31		25,44,46,47	
		2, 5, 3,39,20,23,11,32		9, 9
52″	5,52,12, 6, 0,13,20,46,16, 3		25,44,55,56	
		2, 5, 3,38,54,38,15,36		9, 9
54″	5,52,14,11, 3,52,15,24,31,39		25,45, 5, 5	
		2, 5, 3,38,28,53,10,31		9, 9
56″	5,52,16,16, 7,30,44,17,42,10		25,45,14,14	
		2, 5, 3,38, 3, 7,56,17		9, 9
58″	5,52,18,21,11, 8,47,25,38,27		25,45,23,23	
		2, 5, 3,37,37,22,32,54		
60″	5,52,20,26,14,46,24,48,11,21			
exact	5,52,20,26,14,46,24,48,37,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°37′ 0″	5,52,20,26,14,46,24,48,37,46			
		2, 5, 3,37,11,37, 3,16		
2″	5,52,22,31,18,23,36,25,41, 2		25,45,41,29	
		2, 5, 3,36,45,51,21,47		9, 9
4″	5,52,24,36,22, 0,22,17, 2,49		25,45,50,38	
		2, 5, 3,36,20, 5,31, 9		9, 9
6″	5,52,26,41,25,36,42,22,33,58		25,45,59,47	
		2, 5, 3,35,54,19,31,22		9, 9
8″	5,52,28,46,29,12,36,42, 5,20		25,46, 8,56	
		2, 5, 3,35,28,33,22,26		9, 9
10″	5,52,30,51,32,48, 5,15,27,46		25,46,18, 5	
		2, 5, 3,35, 2,47, 4,21		9, 9
12″	5,52,32,56,36,23, 8, 2,32, 7		25,46,27,14	
		2, 5, 3,34,37, 0,37, 7		9, 9
14″	5,52,35, 1,39,57,45, 3, 9,14		25,46,36,23	
		2, 5, 3,34,11,14, 0,44		9, 9
16″	5,52,37, 6,43,31,56,17, 9,58		25,46,45,32	
		2, 5, 3,33,45,27,15,12		9, 9
18″	5,52,39,11,47, 5,41,44,25,10		25,46,54,41	
		2, 5, 3,33,19,40,20,31		9, 9
20″	5,52,41,16,50,39, 1,24,45,41		25,47, 3,50	
		2, 5, 3,32,53,53,16,41		9, 9
22″	5,52,43,21,54,11,55,18, 2,22		25,47,12,59	
		2, 5, 3,32,28, 6, 3,42		9, 9
24″	5,52,45,26,57,44,23,24, 6, 4		25,47,22, 8	
		2, 5, 3,32, 2,18,41,34		9, 9
26″	5,52,47,32, 1,16,25,42,47,38		25,47,31,17	
		2, 5, 3,31,36,31,10,17		9, 9
28″	5,52,49,37, 4,48, 2,13,57,55		25,47,40,26	
		2, 5, 3,31,10,43,29,51		9, 9
30″	5,52,51,42, 8,19,12,57,27,46		25,47,49,35	
		2, 5, 3,30,44,55,40,16		9, 9
32″	5,52,53,47,11,49,57,53, 8, 2		25,47,58,44	
		2, 5, 3,30,19, 7,41,32		9, 9
34″	5,52,55,52,15,20,17, 0,49,34		25,48, 7,53	
		2, 5, 3,29,53,19,33,39		9, 9
36″	5,52,57,57,18,50,10,20,23,13		25,48,17, 2	
		2, 5, 3,29,27,31,16,37		9, 9
38″	5,53, 0, 2,22,19,37,51,39,50		25,48,26,11	
		2, 5, 3,29, 1,42,50,26		9, 9
40″	5,53, 2, 7,25,48,39,34,30,16		25,48,35,20	
		2, 5, 3,28,35,54,15, 6		9, 9
42″	5,53, 4,12,29,17,15,28,45,22		25,48,44,29	
		2, 5, 3,28,10, 5,30,37		9, 9
44″	5,53, 6,17,32,45,25,34,15,59		25,48,53,38	
		2, 5, 3,27,44,16,36,59		9, 9
46″	5,53, 8,22,36,13, 9,50,52,58		25,49, 2,47	
		2, 5, 3,27,18,27,34,12		9, 9
48″	5,53,10,27,39,40,28,18,27,10		25,49,11,56	
		2, 5, 3,26,52,38,22,16		9, 9
50″	5,53,12,32,43, 7,20,56,49,26		25,49,21, 5	
		2, 5, 3,26,26,49, 1,11		9, 9
52″	5,53,14,37,46,33,47,45,50,37		25,49,30,14	
		2, 5, 3,26, 0,59,30,57		9, 9
54″	5,53,16,42,49,59,48,45,21,34		25,49,39,23	
		2, 5, 3,25,35, 9,51,34		9, 9
56″	5,53,18,47,53,25,23,55,13, 8		25,49,48,32	
		2, 5, 3,25, 9,20, 3, 2		9, 9
58″	5,53,20,52,56,50,33,15,16,10		25,49,57,41	
		2, 5, 3,24,43,30, 5,21		
60″	5,53,22,58, 0,15,16,45,21,31			
exact	5,53,22,58, 0,15,16,45,52,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°38′ 0″	5,53,22,58, 0,15,16,45,52,46			
		2, 5, 3,24,17,40, 1,47		
2″	5,53,25, 3, 3,39,34,25,54,33		25,50,15,46	
		2, 5, 3,23,51,49,46, 1		9, 9
4″	5,53,27, 8, 7, 3,26,15,40,34		25,50,24,55	
		2, 5, 3,23,25,59,21, 6		9, 9
6″	5,53,29,13,10,26,52,15, 1,40		25,50,34, 4	
		2, 5, 3,23, 0, 8,47, 2		9, 9
8″	5,53,31,18,13,49,52,23,48,42		25,50,43,13	
		2, 5, 3,22,34,18, 3,49		9, 9
10″	5,53,33,23,17,12,26,41,52,31		25,50,52,22	
		2, 5, 3,22, 8,27,11,27		9, 9
12″	5,53,35,28,20,34,35, 9, 3,58		25,51, 1,31	
		2, 5, 3,21,42,36, 9,56		9, 9
14″	5,53,37,33,23,56,17,45,13,54		25,51,10,40	
		2, 5, 3,21,16,44,59,16		9, 9
16″	5,53,39,38,27,17,34,30,13,10		25,51,19,49	
		2, 5, 3,20,50,53,39,27		9, 9
18″	5,53,41,43,30,38,25,23,52,37		25,51,28,58	
		2, 5, 3,20,25, 2,10,29		9, 9
20″	5,53,43,48,33,58,50,26, 3, 6		25,51,38, 7	
		2, 5, 3,19,59,10,32,22		9, 9
22″	5,53,45,53,37,18,49,36,35,28		25,51,47,16	
		2, 5, 3,19,33,18,45, 6		9, 9
24″	5,53,47,58,40,38,22,55,20,34		25,51,56,25	
		2, 5, 3,19, 7,26,48,41		9, 9
26″	5,53,50, 3,43,57,30,22, 9,15		25,52, 5,34	
		2, 5, 3,18,41,34,43, 7		9, 9
28″	5,53,52, 8,47,16,11,56,52,22		25,52,14,43	
		2, 5, 3,18,15,42,28,24		9, 9
30″	5,53,54,13,50,34,27,39,20,46		25,52,23,52	
		2, 5, 3,17,49,50, 4,32		9, 9
32″	5,53,56,18,53,52,17,29,25,18		25,52,33, 1	
		2, 5, 3,17,23,57,31,31		9, 9
34″	5,53,58,23,57, 9,41,26,56,49		25,52,42,10	
		2, 5, 3,16,58, 4,49,21		9, 9
36″	5,54, 0,29, 0,26,39,31,46,10		25,52,51,19	
		2, 5, 3,16,32,11,58, 2		9, 9
38″	5,54, 2,34, 3,43,11,43,44,12		25,53, 0,28	
		2, 5, 3,16, 6,18,57,34		9, 9
40″	5,54, 4,39, 6,59,18, 2,41,46		25,53, 9,37	
		2, 5, 3,15,40,25,47,57		9, 9
42″	5,54, 6,44,10,14,58,28,29,43		25,53,18,46	
		2, 5, 3,15,14,32,29,11		9, 9
44″	5,54, 8,49,13,30,13, 0,58,54		25,53,27,55	
		2, 5, 3,14,48,39, 1,16		9, 9
46″	5,54,10,54,16,45, 1,40, 0,10		25,53,37, 4	
		2, 5, 3,14,22,45,24,12		9, 9
48″	5,54,12,59,19,59,24,25,24,22		25,53,46,13	
		2, 5, 3,13,56,51,37,59		9, 9
50″	5,54,15, 4,23,13,21,17, 2,21		25,53,55,22	
		2, 5, 3,13,30,57,42,37		9, 9
52″	5,54,17, 9,26,26,52,14,44,58		25,54, 4,31	
		2, 5, 3,13, 5, 3,38, 6		9, 9
54″	5,54,19,14,29,39,57,18,23, 4		25,54,13,40	
		2, 5, 3,12,39, 9,24,26		9, 9
56″	5,54,21,19,32,52,36,27,47,30		25,54,22,49	
		2, 5, 3,12,13,15, 1,37		9, 9
58″	5,54,23,24,36, 4,49,42,49, 7		25,54,31,58	
		2, 5, 3,11,47,20,29,39		
60″	5,54,25,29,39,16,37, 3,18,46			
exact	5,54,25,29,39,16,37, 3,50,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°39′ 0″	5,54,25,29,39,16,37, 3,50,49			
		2, 5, 3,11,21,25,51,54		
2″	5,54,27,34,42,27,58,29,42,43		25,54,50, 2	
		2, 5, 3,10,55,31, 1,52		9, 9
4″	5,54,29,39,45,38,54, 0,44,35		25,54,59,11	
		2, 5, 3,10,29,36, 2,41		9, 9
6″	5,54,31,44,48,49,23,36,47,16		25,55, 8,20	
		2, 5, 3,10, 3,40,54,21		9, 9
8″	5,54,33,49,51,59,27,17,41,37		25,55,17,29	
		2, 5, 3, 9,37,45,36,52		9, 9
10″	5,54,35,54,55, 9, 5, 3,18,29		25,55,26,38	
		2, 5, 3, 9,11,50,10,14		9, 9
12″	5,54,37,59,58,18,16,53,28,43		25,55,35,47	
		2, 5, 3, 8,45,54,34,27		9, 9
14″	5,54,40, 5, 1,27, 2,48, 3,10		25,55,44,56	
		2, 5, 3, 8,19,58,49,31		9, 9
16″	5,54,42,10, 4,35,22,46,52,41		25,55,54, 5	
		2, 5, 3, 7,54, 2,55,26		9, 9
18″	5,54,44,15, 7,43,16,49,48, 7		25,56, 3,14	
		2, 5, 3, 7,28, 6,52,12		9, 9
20″	5,54,46,20,10,50,44,56,40,19		25,56,12,23	
		2, 5, 3, 7, 2,10,39,49		9, 9
22″	5,54,48,25,13,57,47, 7,20, 8		25,56,21,32	
		2, 5, 3, 6,36,14,18,17		9, 9
24″	5,54,50,30,17, 4,23,21,38,25		25,56,30,41	
		2, 5, 3, 6,10,17,47,36		9, 9
26″	5,54,52,35,20,10,33,39,26, 1		25,56,39,50	
		2, 5, 3, 5,44,21, 7,46		9, 9
28″	5,54,54,40,23,16,18, 0,33,47		25,56,48,59	
		2, 5, 3, 5,18,24,18,47		9, 9
30″	5,54,56,45,26,21,36,24,52,34		25,56,58, 8	
		2, 5, 3, 4,52,27,20,39		9, 9
32″	5,54,58,50,29,26,28,52,13,13		25,57, 7,17	
		2, 5, 3, 4,26,30,13,22		9, 9
34″	5,55, 0,55,32,30,55,22,26,35		25,57,16,26	
		2, 5, 3, 4, 0,32,56,56		9, 9
36″	5,55, 3, 0,35,34,55,55,23,31		25,57,25,35	
		2, 5, 3, 3,34,35,31,21		9, 9
38″	5,55, 5, 5,38,38,30,30,54,52		25,57,34,44	
		2, 5, 3, 3, 8,37,56,37		9, 9
40″	5,55, 7,10,41,41,39, 8,51,29		25,57,43,53	
		2, 5, 3, 2,42,40,12,44		9, 9
42″	5,55, 9,15,44,44,21,49, 4,13		25,57,53, 2	
		2, 5, 3, 2,16,42,19,42		9, 9
44″	5,55,11,20,47,46,38,31,23,55		25,58, 2,11	
		2, 5, 3, 1,50,44,17,31		9, 9
46″	5,55,13,25,50,48,29,15,41,26		25,58,11,20	
		2, 5, 3, 1,24,46, 6,11		9, 9
48″	5,55,15,30,53,49,54, 1,47,37		25,58,20,29	
		2, 5, 3, 0,58,47,45,42		9, 9
50″	5,55,17,35,56,50,52,49,33,19		25,58,29,38	
		2, 5, 3, 0,32,49,16, 4		9, 9
52″	5,55,19,40,59,51,25,38,49,23		25,58,38,47	
		2, 5, 3, 0, 6,50,37,17		9, 9
54″	5,55,21,46, 2,51,32,29,26,40		25,58,47,56	
		2, 5, 2,59,40,51,49,21		9, 9
56″	5,55,23,51, 5,51,13,21,16, 1		25,58,57, 5	
		2, 5, 2,59,14,52,52,16		9, 9
58″	5,55,25,56, 8,50,28,14, 8,17		25,59, 6,14	
		2, 5, 2,58,48,53,46, 2		
60″	5,55,28, 1,11,49,17, 7,54,19			
exact	5,55,28, 1,11,49,17, 8,23,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°40′ 0″	5,55,28, 1,11,49,17, 8,23,15			
		2, 5, 2,58,22,54,33,51		
2″	5,55,30, 6,14,47,40, 2,57, 6		25,59,24,18	
		2, 5, 2,57,56,55, 9,33		9, 9
4″	5,55,32,11,17,45,36,58, 6,39		25,59,33,27	
		2, 5, 2,57,30,55,36, 6		9, 9
6″	5,55,34,16,20,43, 7,53,42,45		25,59,42,36	
		2, 5, 2,57, 4,55,53,30		9, 9
8″	5,55,36,21,23,40,12,49,36,15		25,59,51,45	
		2, 5, 2,56,38,56, 1,45		9, 9
10″	5,55,38,26,26,36,51,45,38, 0		26, 0, 0,54	
		2, 5, 2,56,12,56, 0,51		9, 9
12″	5,55,40,31,29,33, 4,41,38,51		26, 0,10, 3	
		2, 5, 2,55,46,55,50,48		9, 9
14″	5,55,42,36,32,28,51,37,29,39		26, 0,19,12	
		2, 5, 2,55,20,55,31,36		9, 9
16″	5,55,44,41,35,24,12,33, 1,15		26, 0,28,21	
		2, 5, 2,54,54,55, 3,15		9, 9
18″	5,55,46,46,38,19, 7,28, 4,30		26, 0,37,30	
		2, 5, 2,54,28,54,25,45		9, 9
20″	5,55,48,51,41,13,36,22,30,15		26, 0,46,39	
		2, 5, 2,54, 2,53,39, 6		9, 9
22″	5,55,50,56,44, 7,39,16, 9,21		26, 0,55,48	
		2, 5, 2,53,36,52,43,18		9, 9
24″	5,55,53, 1,47, 1,16, 8,52,39		26, 1, 4,57	
		2, 5, 2,53,10,51,38,21		9, 9
26″	5,55,55, 6,49,54,27, 0,31, 0		26, 1,14, 6	
		2, 5, 2,52,44,50,24,15		9, 9
28″	5,55,57,11,52,47,11,50,55,15		26, 1,23,15	
		2, 5, 2,52,18,49, 1, 0		9, 9
30″	5,55,59,16,55,39,30,39,56,15		26, 1,32,24	
		2, 5, 2,51,52,47,28,36		9, 9
32″	5,56, 1,21,58,31,23,27,24,51		26, 1,41,33	
		2, 5, 2,51,26,45,47, 3		9, 9
34″	5,56, 3,27, 1,22,50,13,11,54		26, 1,50,42	
		2, 5, 2,51, 0,43,56,21		9, 9
36″	5,56, 5,32, 4,13,50,57, 8,15		26, 1,59,51	
		2, 5, 2,50,34,41,56,30		9, 9
38″	5,56, 7,37, 7, 4,25,39, 4,45		26, 2, 9, 0	
		2, 5, 2,50, 8,39,47,30		9, 9
40″	5,56, 9,42, 9,54,34,18,52,15		26, 2,18, 9	
		2, 5, 2,49,42,37,29,21		9, 9
42″	5,56,11,47,12,44,16,56,21,36		26, 2,27,18	
		2, 5, 2,49,16,35, 2, 3		9, 9
44″	5,56,13,52,15,33,33,31,23,39		26, 2,36,27	
		2, 5, 2,48,50,32,25,36		9, 9
46″	5,56,15,57,18,22,24, 3,49,15		26, 2,45,36	
		2, 5, 2,48,24,29,40, 0		9, 9
48″	5,56,18, 2,21,10,48,33,29,15		26, 2,54,45	
		2, 5, 2,47,58,26,45,15		9, 9
50″	5,56,20, 7,23,58,47, 0,14,30		26, 3, 3,54	
		2, 5, 2,47,32,23,41,21		9, 9
52″	5,56,22,12,26,46,19,23,55,51		26, 3,13, 3	
		2, 5, 2,47, 6,20,28,18		9, 9
54″	5,56,24,17,29,33,25,44,24, 9		26, 3,22,12	
		2, 5, 2,46,40,17, 6, 6		9, 9
56″	5,56,26,22,32,20, 6, 1,30,15		26, 3,31,21	
		2, 5, 2,46,14,13,34,45		9, 9
58″	5,56,28,27,35, 6,20,15, 5, 0		26, 3,40,30	
		2, 5, 2,45,48, 9,54,15		
60″	5,56,30,32,37,52, 8,24,59,15			
exact	5,56,30,32,37,52, 8,25,28,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°41′ 0″	5,56,30,32,37,52, 8,25,28,26			
		2, 5, 2,45,22, 6, 7,51		
2″	5,56,32,37,40,37,30,31,36,17		26, 3,58,34	
		2, 5, 2,44,56, 2, 9,17		9, 9
4″	5,56,34,42,43,22,26,33,45,34		26, 4, 7,43	
		2, 5, 2,44,29,58, 1,34		9, 9
6″	5,56,36,47,46, 6,56,31,47, 8		26, 4,16,52	
		2, 5, 2,44, 3,53,44,42		9, 9
8″	5,56,38,52,48,51, 0,25,31,50		26, 4,26, 1	
		2, 5, 2,43,37,49,18,41		9, 9
10″	5,56,40,57,51,34,38,14,50,31		26, 4,35,10	
		2, 5, 2,43,11,44,43,31		9, 9
12″	5,56,43, 2,54,17,49,59,34, 2		26, 4,44,19	
		2, 5, 2,42,45,39,59,12		9, 9
14″	5,56,45, 7,57, 0,35,39,33,14		26, 4,53,28	
		2, 5, 2,42,19,35, 5,44		9, 9
16″	5,56,47,12,59,42,55,14,38,58		26, 5, 2,37	
		2, 5, 2,41,53,30, 3, 7		9, 9
18″	5,56,49,18, 2,24,48,44,42, 5		26, 5,11,46	
		2, 5, 2,41,27,24,51,21		9, 9
20″	5,56,51,23, 5, 6,16, 9,33,26		26, 5,20,55	
		2, 5, 2,41, 1,19,30,26		9, 9
22″	5,56,53,28, 7,47,17,29, 3,52		26, 5,30, 4	
		2, 5, 2,40,35,14, 0,22		9, 9
24″	5,56,55,33,10,27,52,43, 4,14		26, 5,39,13	
		2, 5, 2,40, 9, 8,21, 9		9, 9
26″	5,56,57,38,13, 8, 1,51,25,23		26, 5,48,22	
		2, 5, 2,39,43, 2,32,47		9, 9
28″	5,56,59,43,15,47,44,53,58,10		26, 5,57,31	
		2, 5, 2,39,16,56,35,16		9, 9
30″	5,57, 1,48,18,27, 1,50,33,26		26, 6, 6,40	
		2, 5, 2,38,50,50,28,36		9, 9
32″	5,57, 3,53,21, 5,52,41, 2, 2		26, 6,15,49	
		2, 5, 2,38,24,44,12,47		9, 9
34″	5,57, 5,58,23,44,17,25,14,49		26, 6,24,58	
		2, 5, 2,37,58,37,47,49		9, 9
36″	5,57, 8, 3,26,22,16, 3, 2,38		26, 6,34, 7	
		2, 5, 2,37,32,31,13,42		9, 9
38″	5,57,10, 8,28,59,48,34,16,20		26, 6,43,16	
		2, 5, 2,37, 6,24,30,26		9, 9
40″	5,57,12,13,31,36,54,58,46,46		26, 6,52,25	
		2, 5, 2,36,40,17,38, 1		9, 9
42″	5,57,14,18,34,13,35,16,24,47		26, 7, 1,34	
		2, 5, 2,36,14,10,36,27		9, 9
44″	5,57,16,23,36,49,49,27, 1,14		26, 7,10,43	
		2, 5, 2,35,48, 3,25,44		9, 9
46″	5,57,18,28,39,25,37,30,26,58		26, 7,19,52	
		2, 5, 2,35,21,56, 5,52		9, 9
48″	5,57,20,33,42, 0,59,26,32,50		26, 7,29, 1	
		2, 5, 2,34,55,48,36,51		9, 9
50″	5,57,22,38,44,35,55,15, 9,41		26, 7,38,10	
		2, 5, 2,34,29,40,58,41		9, 9
52″	5,57,24,43,47,10,24,56, 8,22		26, 7,47,19	
		2, 5, 2,34, 3,33,11,22		9, 9
54″	5,57,26,48,49,44,28,29,19,44		26, 7,56,28	
		2, 5, 2,33,37,25,14,54		9, 9
56″	5,57,28,53,52,18, 5,54,34,38		26, 8, 5,37	
		2, 5, 2,33,11,17, 9,17		9, 9
58″	5,57,30,58,54,51,17,11,43,55		26, 8,14,46	
		2, 5, 2,32,45, 8,54,31		
60″	5,57,33, 3,57,24, 2,20,38,26			
exact	5,57,33, 3,57,24, 2,21,11,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°42′ 0″	5,57,33, 3,57,24, 2,21,11,55			
		2, 5, 2,32,19, 0,34,11		
2″	5,57,35, 8,59,56,21,21,46, 6		26, 8,32,49	
		2, 5, 2,31,52,52, 1,22		9, 8
4″	5,57,37,14, 2,28,14,13,47,28		26, 8,41,57	
		2, 5, 2,31,26,43,19,25		9, 8
6″	5,57,39,19, 4,59,40,57, 6,53		26, 8,51, 5	
		2, 5, 2,31, 0,34,28,20		9, 8
8″	5,57,41,24, 7,30,41,31,35,13		26, 9, 0,13	
		2, 5, 2,30,34,25,28, 7		9, 8
10″	5,57,43,29,10, 1,15,57, 3,20		26, 9, 9,21	
		2, 5, 2,30, 8,16,18,46		9, 8
12″	5,57,45,34,12,31,24,13,22, 6		26, 9,18,29	
		2, 5, 2,29,42, 7, 0,17		9, 8
14″	5,57,47,39,15, 1, 6,20,22,23		26, 9,27,37	
		2, 5, 2,29,15,57,32,40		9, 8
16″	5,57,49,44,17,30,22,17,55, 3		26, 9,36,45	
		2, 5, 2,28,49,47,55,55		9, 8
18″	5,57,51,49,19,59,12, 5,50,58		26, 9,45,53	
		2, 5, 2,28,23,38,10, 2		9, 8
20″	5,57,53,54,22,27,35,44, 1, 0		26, 9,55, 1	
		2, 5, 2,27,57,28,15, 1		9, 8
22″	5,57,55,59,24,55,33,12,16, 1		26,10, 4, 9	
		2, 5, 2,27,31,18,10,52		9, 8
24″	5,57,58, 4,27,23, 4,30,26,53		26,10,13,17	
		2, 5, 2,27, 5, 7,57,35		9, 8
26″	5,58, 0, 9,29,50, 9,38,24,28		26,10,22,25	
		2, 5, 2,26,38,57,35,10		9, 8
28″	5,58, 2,14,32,16,48,35,59,38		26,10,31,33	
		2, 5, 2,26,12,47, 3,37		9, 8
30″	5,58, 4,19,34,43, 1,23, 3,15		26,10,40,41	
		2, 5, 2,25,46,36,22,56		9, 8
32″	5,58, 6,24,37, 8,47,59,26,11		26,10,49,49	
		2, 5, 2,25,20,25,33, 7		9, 8
34″	5,58, 8,29,39,34, 8,24,59,18		26,10,58,57	
		2, 5, 2,24,54,14,34,10		9, 8
36″	5,58,10,34,41,59, 2,39,33,28		26,11, 8, 5	
		2, 5, 2,24,28, 3,26, 5		9, 8
38″	5,58,12,39,44,23,30,42,59,33		26,11,17,13	
		2, 5, 2,24, 1,52, 8,52		9, 8
40″	5,58,14,44,46,47,32,35, 8,25		26,11,26,21	
		2, 5, 2,23,35,40,42,31		9, 8
42″	5,58,16,49,49,11, 8,15,50,56		26,11,35,29	
		2, 5, 2,23, 9,29, 7, 2		9, 8
44″	5,58,18,54,51,34,17,44,57,58		26,11,44,37	
		2, 5, 2,22,43,17,22,25		9, 8
46″	5,58,20,59,53,57, 1, 2,20,23		26,11,53,45	
		2, 5, 2,22,17, 5,28,40		9, 8
48″	5,58,23, 4,56,19,18, 7,49, 3		26,12, 2,53	
		2, 5, 2,21,50,53,25,47		9, 8
50″	5,58,25, 9,58,41, 9, 1,14,50		26,12,12, 1	
		2, 5, 2,21,24,41,13,46		9, 8
52″	5,58,27,15, 1, 2,33,42,28,36		26,12,21, 9	
		2, 5, 2,20,58,28,52,37		9, 8
54″	5,58,29,20, 3,23,32,11,21,13		26,12,30,17	
		2, 5, 2,20,32,16,22,20		9, 8
56″	5,58,31,25, 5,44, 4,27,43,33		26,12,39,25	
		2, 5, 2,20, 6, 3,42,55		9, 8
58″	5,58,33,30, 8, 4,10,31,26,28		26,12,48,33	
		2, 5, 2,19,39,50,54,22		
60″	5,58,35,35,10,23,50,22,20,50			
exact	5,58,35,35,10,23,50,21,46,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°43′ 0″	5,58,35,35,10,23,50,21,46,22			
		2, 5, 2,19,13,37,53, 3		
2″	5,58,37,40,12,43, 3,59,39,25		26,13, 7, 4	
		2, 5, 2,18,47,24,45,59		9, 8
4″	5,58,39,45,15, 1,51,24,25,24		26,13,16,12	
		2, 5, 2,18,21,11,29,47		9, 8
6″	5,58,41,50,17,20,12,35,55,11		26,13,25,20	
		2, 5, 2,17,54,58, 4,27		9, 8
8″	5,58,43,55,19,38, 7,33,59,38		26,13,34,28	
		2, 5, 2,17,28,44,29,59		9, 8
10″	5,58,46, 0,21,55,36,18,29,37		26,13,43,36	
		2, 5, 2,17, 2,30,46,23		9, 8
12″	5,58,48, 5,24,12,38,49,16, 0		26,13,52,44	
		2, 5, 2,16,36,16,53,39		9, 8
14″	5,58,50,10,26,29,15, 6, 9,39		26,14, 1,52	
		2, 5, 2,16,10, 2,51,47		9, 8
16″	5,58,52,15,28,45,25, 9, 1,26		26,14,11, 0	
		2, 5, 2,15,43,48,40,47		9, 8
18″	5,58,54,20,31, 1, 8,57,42,13		26,14,20, 8	
		2, 5, 2,15,17,34,20,39		9, 8
20″	5,58,56,25,33,16,26,32, 2,52		26,14,29,16	
		2, 5, 2,14,51,19,51,23		9, 8
22″	5,58,58,30,35,31,17,51,54,15		26,14,38,24	
		2, 5, 2,14,25, 5,12,59		9, 8
24″	5,59, 0,35,37,45,42,57, 7,14		26,14,47,32	
		2, 5, 2,13,58,50,25,27		9, 8
26″	5,59, 2,40,39,59,41,47,32,41		26,14,56,40	
		2, 5, 2,13,32,35,28,47		9, 8
28″	5,59, 4,45,42,13,14,23, 1,28		26,15, 5,48	
		2, 5, 2,13, 6,20,22,59		9, 8
30″	5,59, 6,50,44,26,20,43,24,27		26,15,14,56	
		2, 5, 2,12,40, 5, 8, 3		9, 8
32″	5,59, 8,55,46,39, 0,48,32,30		26,15,24, 4	
		2, 5, 2,12,13,49,43,59		9, 8
34″	5,59,11, 0,48,51,14,38,16,29		26,15,33,12	
		2, 5, 2,11,47,34,10,47		9, 8
36″	5,59,13, 5,51, 3, 2,12,27,16		26,15,42,20	
		2, 5, 2,11,21,18,28,27		9, 8
38″	5,59,15,10,53,14,23,30,55,43		26,15,51,28	
		2, 5, 2,10,55, 2,36,59		9, 8
40″	5,59,17,15,55,25,18,33,32,42		26,16, 0,36	
		2, 5, 2,10,28,46,36,23		9, 8
42″	5,59,19,20,57,35,47,20, 9, 5		26,16, 9,44	
		2, 5, 2,10, 2,30,26,39		9, 8
44″	5,59,21,25,59,45,49,50,35,44		26,16,18,52	
		2, 5, 2, 9,36,14, 7,47		9, 8
46″	5,59,23,31, 1,55,26, 4,43,31		26,16,28, 0	
		2, 5, 2, 9, 9,57,39,47		9, 8
48″	5,59,25,36, 4, 4,36, 2,23,18		26,16,37, 8	
		2, 5, 2, 8,43,41, 2,39		9, 8
50″	5,59,27,41, 6,13,19,43,25,57		26,16,46,16	
		2, 5, 2, 8,17,24,16,23		9, 8
52″	5,59,29,46, 8,21,37, 7,42,20		26,16,55,24	
		2, 5, 2, 7,51, 7,20,59		9, 8
54″	5,59,31,51,10,29,28,15, 3,19		26,17, 4,32	
		2, 5, 2, 7,24,50,16,27		9, 8
56″	5,59,33,56,12,36,53, 5,19,46		26,17,13,40	
		2, 5, 2, 6,58,33, 2,47		9, 8
58″	5,59,36, 1,14,43,51,38,22,33		26,17,22,48	
		2, 5, 2, 6,32,15,39,59		
60″	5,59,38, 6,16,50,23,54, 2,32			
exact	5,59,38, 6,16,50,23,53,31,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°44′ 0″	5,59,38, 6,16,50,23,53,31,38	2, 5, 2, 6, 5,58, 4,42		
2″	5,59,40,11,18,56,29,51,36,20	2, 5, 2, 5,39,40,23,24	26,17,41,18	9, 8
4″	5,59,42,16,21, 2, 9,31,59,44	2, 5, 2, 5,13,22,32,58	26,17,50,26	9, 8
6″	5,59,44,21,23, 7,22,54,32,42	2, 5, 2, 4,47, 4,33,24	26,17,59,34	9, 8
8″	5,59,46,26,25,12, 9,59, 6, 6	2, 5, 2, 4,20,46,24,42	26,18, 8,42	9, 8
10″	5,59,48,31,27,16,30,45,30,48	2, 5, 2, 3,54,28, 6,52	26,18,17,50	9, 8
12″	5,59,50,36,29,20,25,13,37,40	2, 5, 2, 3,28, 9,39,54	26,18,26,58	9, 8
14″	5,59,52,41,31,23,53,23,17,34	2, 5, 2, 3, 1,51, 3,48	26,18,36, 6	9, 8
16″	5,59,54,46,33,26,55,14,21,22	2, 5, 2, 2,35,32,18,34	26,18,45,14	9, 8
18″	5,59,56,51,35,29,30,46,39,56	2, 5, 2, 2, 9,13,24,12	26,18,54,22	9, 8
20″	5,59,58,56,37,31,40, 0, 4, 8	2, 5, 2, 1,42,54,20,42	26,19, 3,30	9, 8
22″	6, 0, 1, 1,39,33,22,54,24,50	2, 5, 2, 1,16,35, 8, 4	26,19,12,38	9, 8
24″	6, 0, 3, 6,41,34,39,29,32,54	2, 5, 2, 0,50,15,46,18	26,19,21,46	9, 8
26″	6, 0, 5,11,43,35,29,45,19,12	2, 5, 2, 0,23,56,15,24	26,19,30,54	9, 8
28″	6, 0, 7,16,45,35,53,41,34,36	2, 5, 1,59,57,36,35,22	26,19,40, 2	9, 8
30″	6, 0, 9,21,47,35,51,18, 9,58	2, 5, 1,59,31,16,46,12	26,19,49,10	9, 8
32″	6, 0,11,26,49,35,22,34,56,10	2, 5, 1,59, 4,56,47,54	26,19,58,18	9, 8
34″	6, 0,13,31,51,34,27,31,44, 4	2, 5, 1,58,38,36,40,28	26,20, 7,26	9, 8
36″	6, 0,15,36,53,33, 6, 8,24,32	2, 5, 1,58,12,16,23,54	26,20,16,34	9, 8
38″	6, 0,17,41,55,31,18,24,48,26	2, 5, 1,57,45,55,58,12	26,20,25,42	9, 8
40″	6, 0,19,46,57,29, 4,20,46,38	2, 5, 1,57,19,35,23,22	26,20,34,50	9, 8
42″	6, 0,21,51,59,26,23,56,10, 0	2, 5, 1,56,53,14,39,24	26,20,43,58	9, 8
44″	6, 0,23,57, 1,23,17,10,49,24	2, 5, 1,56,26,53,46,18	26,20,53, 6	9, 8
46″	6, 0,26, 2, 3,19,44, 4,35,42	2, 5, 1,56, 0,32,44, 4	26,21, 2,14	9, 8
48″	6, 0,28, 7, 5,15,44,37,19,46	2, 5, 1,55,34,11,32,42	26,21,11,22	9, 8
50″	6, 0,30,12, 7,11,18,48,52,28	2, 5, 1,55, 7,50,12,12	26,21,20,30	9, 8
52″	6, 0,32,17, 9, 6,26,39, 4,40	2, 5, 1,54,41,28,42,34	26,21,29,38	9, 8
54″	6, 0,34,22,11, 1, 8, 7,47,14	2, 5, 1,54,15, 7, 3,48	26,21,38,46	9, 8
56″	6, 0,36,27,12,55,23,14,51, 2	2, 5, 1,53,48,45,15,54	26,21,47,54	9, 8
58″	6, 0,38,32,14,49,12, 0, 6,56	2, 5, 1,53,22,23,18,52	26,21,57, 2	
60″	6, 0,40,37,16,42,34,23,25,48			
exact	6, 0,40,37,16,42,34,22,54,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°45′ 0″	6, 0,40,37,16,42,34,22,54,45			
		2, 5, 1,52,56, 1, 9,23		
2″	6, 0,42,42,18,35,30,24, 4, 8		26,22,15,32	
		2, 5, 1,52,29,38,53,51		9, 8
4″	6, 0,44,47,20,28, 0, 2,57,59		26,22,24,40	
		2, 5, 1,52, 3,16,29,11		9, 8
6″	6, 0,46,52,22,20, 3,19,27,10		26,22,33,48	
		2, 5, 1,51,36,53,55,23		9, 8
8″	6, 0,48,57,24,11,40,13,22,33		26,22,42,56	
		2, 5, 1,51,10,31,12,27		9, 8
10″	6, 0,51, 2,26, 2,50,44,35, 0		26,22,52, 4	
		2, 5, 1,50,44, 8,20,23		9, 8
12″	6, 0,53, 7,27,53,34,52,55,23		26,23, 1,12	
		2, 5, 1,50,17,45,19,11		9, 8
14″	6, 0,55,12,29,43,52,38,14,34		26,23,10,20	
		2, 5, 1,49,51,22, 8,51		9, 8
16″	6, 0,57,17,31,33,44, 0,23,25		26,23,19,28	
		2, 5, 1,49,24,58,49,23		9, 8
18″	6, 0,59,22,33,23, 8,59,12,48		26,23,28,36	
		2, 5, 1,48,58,35,20,47		9, 8
20″	6, 1, 1,27,35,12, 7,34,33,35		26,23,37,44	
		2, 5, 1,48,32,11,43, 3		9, 8
22″	6, 1, 3,32,37, 0,39,46,16,38		26,23,46,52	
		2, 5, 1,48, 5,47,56,11		9, 8
24″	6, 1, 5,37,38,48,45,34,12,49		26,23,56, 0	
		2, 5, 1,47,39,24, 0,11		9, 8
26″	6, 1, 7,42,40,36,24,58,13, 0		26,24, 5, 8	
		2, 5, 1,47,12,59,55, 3		9, 8
28″	6, 1, 9,47,42,23,37,58, 8, 3		26,24,14,16	
		2, 5, 1,46,46,35,40,47		9, 8
30″	6, 1,11,52,44,10,24,33,48,50		26,24,23,24	
		2, 5, 1,46,20,11,17,23		9, 8
32″	6, 1,13,57,45,56,44,45, 6,13		26,24,32,32	
		2, 5, 1,45,53,46,44,51		9, 8
34″	6, 1,16, 2,47,42,38,31,51, 4		26,24,41,40	
		2, 5, 1,45,27,22, 3,11		9, 8
36″	6, 1,18, 7,49,28, 5,53,54,15		26,24,50,48	
		2, 5, 1,45, 0,57,12,23		9, 8
38″	6, 1,20,12,51,13, 6,51, 6,38		26,24,59,56	
		2, 5, 1,44,34,32,12,27		9, 8
40″	6, 1,22,17,52,57,41,23,19, 5		26,25, 9, 4	
		2, 5, 1,44, 8, 7, 3,23		9, 8
42″	6, 1,24,22,54,41,49,30,22,28		26,25,18,12	
		2, 5, 1,43,41,41,45,11		9, 8
44″	6, 1,26,27,56,25,31,12, 7,39		26,25,27,20	
		2, 5, 1,43,15,16,17,51		9, 8
46″	6, 1,28,32,58, 8,46,28,25,30		26,25,36,28	
		2, 5, 1,42,48,50,41,23		9, 8
48″	6, 1,30,37,59,51,35,19, 6,53		26,25,45,36	
		2, 5, 1,42,22,24,55,47		9, 8
50″	6, 1,32,43, 1,33,57,44, 2,40		26,25,54,44	
		2, 5, 1,41,55,59, 1, 3		9, 8
52″	6, 1,34,48, 3,15,53,43, 3,43		26,26, 3,52	
		2, 5, 1,41,29,32,57,11		9, 8
54″	6, 1,36,53, 4,57,23,16, 0,54		26,26,13, 0	
		2, 5, 1,41, 3, 6,44,11		9, 8
56″	6, 1,38,58, 6,38,26,22,45, 5		26,26,22, 8	
		2, 5, 1,40,36,40,22, 3		9, 8
58″	6, 1,41, 3, 8,19, 3, 3, 7, 8		26,26,31,16	
		2, 5, 1,40,10,13,50,47		
60″	6, 1,43, 8, 9,59,13,16,57,55			
exact	6, 1,43, 8, 9,59,13,16,29,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°46′ 0″	6, 1,43, 8, 9,59,13,16,29,56			
		2, 5, 1,39,43,47, 7,19		
2″	6, 1,45,13,11,38,57, 3,37,15		26,26,49,45	
		2, 5, 1,39,17,20,17,34		9, 8
4″	6, 1,47,18,13,18,14,23,54,49		26,26,58,53	
		2, 5, 1,38,50,53,18,41		9, 8
6″	6, 1,49,23,14,57, 5,17,13,30		26,27, 8, 1	
		2, 5, 1,38,24,26,10,40		9, 8
8″	6, 1,51,28,16,35,29,43,24,10		26,27,17, 9	
		2, 5, 1,37,57,58,53,31		9, 8
10″	6, 1,53,33,18,13,27,42,17,41		26,27,26,17	
		2, 5, 1,37,31,31,27,14		9, 8
12″	6, 1,55,38,19,50,59,13,44,55		26,27,35,25	
		2, 5, 1,37, 5, 3,51,49		9, 8
14″	6, 1,57,43,21,28, 4,17,36,44		26,27,44,33	
		2, 5, 1,36,38,36, 7,16		9, 8
16″	6, 1,59,48,23, 4,42,53,44, 0		26,27,53,41	
		2, 5, 1,36,12, 8,13,35		9, 8
18″	6, 2, 1,53,24,40,55, 1,57,35		26,28, 2,49	
		2, 5, 1,35,45,40,10,46		9, 8
20″	6, 2, 3,58,26,16,40,42, 8,21		26,28,11,57	
		2, 5, 1,35,19,11,58,49		9, 8
22″	6, 2, 6, 3,27,51,59,54, 7,10		26,28,21, 5	
		2, 5, 1,34,52,43,37,44		9, 8
24″	6, 2, 8, 8,29,26,52,37,44,54		26,28,30,13	
		2, 5, 1,34,26,15, 7,31		9, 8
26″	6, 2,10,13,31, 1,18,52,52,25		26,28,39,21	
		2, 5, 1,33,59,46,28,10		9, 8
28″	6, 2,12,18,32,35,18,39,20,35		26,28,48,29	
		2, 5, 1,33,33,17,39,41		9, 8
30″	6, 2,14,23,34, 8,51,57, 0,16		26,28,57,37	
		2, 5, 1,33, 6,48,42, 4		9, 8
32″	6, 2,16,28,35,41,58,45,42,20		26,29, 6,45	
		2, 5, 1,32,40,19,35,19		9, 8
34″	6, 2,18,33,37,14,39, 5,17,39		26,29,15,53	
		2, 5, 1,32,13,50,19,26		9, 8
36″	6, 2,20,38,38,46,52,55,37, 5		26,29,25, 1	
		2, 5, 1,31,47,20,54,25		9, 8
38″	6, 2,22,43,40,18,40,16,31,30		26,29,34, 9	
		2, 5, 1,31,20,51,20,16		9, 8
40″	6, 2,24,48,41,50, 1, 7,51,46		26,29,43,17	
		2, 5, 1,30,54,21,36,59		9, 8
42″	6, 2,26,53,43,20,55,29,28,45		26,29,52,25	
		2, 5, 1,30,27,51,44,34		9, 8
44″	6, 2,28,58,44,51,23,21,13,19		26,30, 1,33	
		2, 5, 1,30, 1,21,43, 1		9, 8
46″	6, 2,31, 3,46,21,24,42,56,20		26,30,10,41	
		2, 5, 1,29,34,51,32,20		9, 8
48″	6, 2,33, 8,47,50,59,34,28,40		26,30,19,49	
		2, 5, 1,29, 8,21,12,31		9, 8
50″	6, 2,35,13,49,20, 7,55,41,11		26,30,28,57	
		2, 5, 1,28,41,50,43,34		9, 8
52″	6, 2,37,18,50,48,49,46,24,45		26,30,38, 5	
		2, 5, 1,28,15,20, 5,29		9, 8
54″	6, 2,39,23,52,17, 5, 6,30,14		26,30,47,13	
		2, 5, 1,27,48,49,18,16		9, 8
56″	6, 2,41,28,53,44,53,55,48,30		26,30,56,21	
		2, 5, 1,27,22,18,21,55		9, 8
58″	6, 2,43,33,55,12,16,14,10,25		26,31, 5,29	
		2, 5, 1,26,55,47,16,26		
60″	6, 2,45,38,56,39,12, 1,26,51			
exact	6, 2,45,38,56,39,12, 0,58,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°47′ 0″	6, 2,45,38,56,39,12, 0,58,40			
		2, 5, 1,26,29,15,58,46		
2″	6, 2,47,43,58, 5,41,16,57,26		26,31,23,58	
		2, 5, 1,26, 2,44,34,48		9, 8
4″	6, 2,49,48,59,31,44, 1,32,14		26,31,33, 6	
		2, 5, 1,25,36,13, 1,42		9, 8
6″	6, 2,51,54, 0,57,20,14,33,56		26,31,42,14	
		2, 5, 1,25, 9,41,19,28		9, 8
8″	6, 2,53,59, 2,22,29,55,53,24		26,31,51,22	
		2, 5, 1,24,43, 9,28, 6		9, 8
10″	6, 2,56, 4, 3,47,13, 5,21,30		26,32, 0,30	
		2, 5, 1,24,16,37,27,36		9, 8
12″	6, 2,58, 9, 5,11,29,42,49, 6		26,32, 9,38	
		2, 5, 1,23,50, 5,17,58		9, 8
14″	6, 3, 0,14, 6,35,19,48, 7, 4		26,32,18,46	
		2, 5, 1,23,23,32,59,12		9, 8
16″	6, 3, 2,19, 7,58,43,21, 6,16		26,32,27,54	
		2, 5, 1,22,57, 0,31,18		9, 8
18″	6, 3, 4,24, 9,21,40,21,37,34		26,32,37, 2	
		2, 5, 1,22,30,27,54,16		9, 8
20″	6, 3, 6,29,10,44,10,49,31,50		26,32,46,10	
		2, 5, 1,22, 3,55, 8, 6		9, 8
22″	6, 3, 8,34,12, 6,14,44,39,56		26,32,55,18	
		2, 5, 1,21,37,22,12,48		9, 8
24″	6, 3,10,39,13,27,52, 6,52,44		26,33, 4,26	
		2, 5, 1,21,10,49, 8,22		9, 8
26″	6, 3,12,44,14,49, 2,56, 1, 6		26,33,13,34	
		2, 5, 1,20,44,15,54,48		9, 8
28″	6, 3,14,49,16, 9,47,11,55,54		26,33,22,42	
		2, 5, 1,20,17,42,32, 6		9, 8
30″	6, 3,16,54,17,30, 4,54,28, 0		26,33,31,50	
		2, 5, 1,19,51, 9, 0,16		9, 8
32″	6, 3,18,59,18,49,56, 3,28,16		26,33,40,58	
		2, 5, 1,19,24,35,19,18		9, 8
34″	6, 3,21, 4,20, 9,20,38,47,34		26,33,50, 6	
		2, 5, 1,18,58, 1,29,12		9, 8
36″	6, 3,23, 9,21,28,18,40,16,46		26,33,59,14	
		2, 5, 1,18,31,27,29,58		9, 8
38″	6, 3,25,14,22,46,50, 7,46,44		26,34, 8,22	
		2, 5, 1,18, 4,53,21,36		9, 8
40″	6, 3,27,19,24, 4,55, 1, 8,20		26,34,17,30	
		2, 5, 1,17,38,19, 4, 6		9, 8
42″	6, 3,29,24,25,22,33,20,12,26		26,34,26,38	
		2, 5, 1,17,11,44,37,28		9, 8
44″	6, 3,31,29,26,39,45, 4,49,54		26,34,35,46	
		2, 5, 1,16,45,10, 1,42		9, 8
46″	6, 3,33,34,27,56,30,14,51,36		26,34,44,54	
		2, 5, 1,16,18,35,16,48		9, 8
48″	6, 3,35,39,29,12,48,50, 8,24		26,34,54, 2	
		2, 5, 1,15,52, 0,22,46		9, 8
50″	6, 3,37,44,30,28,40,50,31,10		26,35, 3,10	
		2, 5, 1,15,25,25,19,36		9, 8
52″	6, 3,39,49,31,44, 6,15,50,46		26,35,12,18	
		2, 5, 1,14,58,50, 7,18		9, 8
54″	6, 3,41,54,32,59, 5, 5,58, 4		26,35,21,26	
		2, 5, 1,14,32,14,45,52		9, 8
56″	6, 3,43,59,34,13,37,20,43,56		26,35,30,34	
		2, 5, 1,14, 5,39,15,18		9, 8
58″	6, 3,46, 4,35,27,42,59,59,14		26,35,39,42	
		2, 5, 1,13,39, 3,35,36		
60″	6, 3,48, 9,36,41,22, 3,34,50			
exact	6, 3,48, 9,36,41,22, 3, 9,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°48′ 0″	6, 3,48, 9,36,41,22, 3, 9,40			
		2, 5, 1,13,12,27,43,58		
2″	6, 3,50,14,37,54,34,30,53,38		26,35,58,10	
		2, 5, 1,12,45,51,45,48		9, 8
4″	6, 3,52,19,39, 7,20,22,39,26		26,36, 7,18	
		2, 5, 1,12,19,15,38,30		9, 8
6″	6, 3,54,24,40,19,39,38,17,56		26,36,16,26	
		2, 5, 1,11,52,39,22, 4		9, 8
8″	6, 3,56,29,41,31,32,17,40, 0		26,36,25,34	
		2, 5, 1,11,26, 2,56,30		9, 8
10″	6, 3,58,34,42,42,58,20,36,30		26,36,34,42	
		2, 5, 1,10,59,26,21,48		9, 8
12″	6, 4, 0,39,43,53,57,46,58,18		26,36,43,50	
		2, 5, 1,10,32,49,37,58		9, 8
14″	6, 4, 2,44,45, 4,30,36,36,16		26,36,52,58	
		2, 5, 1,10, 6,12,45, 0		9, 8
16″	6, 4, 4,49,46,14,36,49,21,16		26,37, 2, 6	
		2, 5, 1, 9,39,35,42,54		9, 8
18″	6, 4, 6,54,47,24,16,25, 4,10		26,37,11,14	
		2, 5, 1, 9,12,58,31,40		9, 8
20″	6, 4, 8,59,48,33,29,23,35,50		26,37,20,22	
		2, 5, 1, 8,46,21,11,18		9, 8
22″	6, 4,11, 4,49,42,15,44,47, 8		26,37,29,30	
		2, 5, 1, 8,19,43,41,48		9, 8
24″	6, 4,13, 9,50,50,35,28,28,56		26,37,38,38	
		2, 5, 1, 7,53, 6, 3,10		9, 8
26″	6, 4,15,14,51,58,28,34,32, 6		26,37,47,46	
		2, 5, 1, 7,26,28,15,24		9, 8
28″	6, 4,17,19,53, 5,55, 2,47,30		26,37,56,54	
		2, 5, 1, 6,59,50,18,30		9, 8
30″	6, 4,19,24,54,12,54,53, 6, 0		26,38, 6, 2	
		2, 5, 1, 6,33,12,12,28		9, 8
32″	6, 4,21,29,55,19,28, 5,18,28		26,38,15,10	
		2, 5, 1, 6, 6,33,57,18		9, 8
34″	6, 4,23,34,56,25,34,39,15,46		26,38,24,18	
		2, 5, 1, 5,39,55,33, 0		9, 8
36″	6, 4,25,39,57,31,14,34,48,46		26,38,33,26	
		2, 5, 1, 5,13,16,59,34		9, 8
38″	6, 4,27,44,58,36,27,51,48,20		26,38,42,34	
		2, 5, 1, 4,46,38,17, 0		9, 8
40″	6, 4,29,49,59,41,14,30, 5,20		26,38,51,42	
		2, 5, 1, 4,19,59,25,18		9, 8
42″	6, 4,31,55, 0,45,34,29,30,38		26,39, 0,50	
		2, 5, 1, 3,53,20,24,28		9, 8
44″	6, 4,34, 0, 1,49,27,49,55, 6		26,39, 9,58	
		2, 5, 1, 3,26,41,14,30		9, 8
46″	6, 4,36, 5, 2,52,54,31, 9,36		26,39,19, 6	
		2, 5, 1, 3, 0, 1,55,24		9, 8
48″	6, 4,38,10, 3,55,54,33, 5, 0		26,39,28,14	
		2, 5, 1, 2,33,22,27,10		9, 8
50″	6, 4,40,15, 4,58,27,55,32,10		26,39,37,22	
		2, 5, 1, 2, 6,42,49,48		9, 8
52″	6, 4,42,20, 6, 0,34,38,21,58		26,39,46,30	
		2, 5, 1, 1,40, 3, 3,18		9, 8
54″	6, 4,44,25, 7, 2,14,41,25,16		26,39,55,38	
		2, 5, 1, 1,13,23, 7,40		9, 8
56″	6, 4,46,30, 8, 3,28, 4,32,56		26,40, 4,46	
		2, 5, 1, 0,46,43, 2,54		9, 8
58″	6, 4,48,35, 9, 4,14,47,35,50		26,40,13,54	
		2, 5, 1, 0,20, 2,49, 0		
60″	6, 4,50,40,10, 4,34,50,24,50			
exact	6, 4,50,40,10, 4,34,49,58,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°49′ 0″	6, 4,50,40,10, 4,34,49,58,55			
		2, 5, 0,59,53,22,23,10		
2″	6, 4,52,45,11, 4,28,12,22, 5		26,40,32,22	
		2, 5, 0,59,26,41,50,48		9, 8
4″	6, 4,54,50,12, 3,54,54,12,53		26,40,41,30	
		2, 5, 0,59, 0, 1, 9,18		9, 8
6″	6, 4,56,55,13, 2,54,55,22,11		26,40,50,38	
		2, 5, 0,58,33,20,18,40		9, 8
8″	6, 4,59, 0,14, 1,28,15,40,51		26,40,59,46	
		2, 5, 0,58, 6,39,18,54		9, 8
10″	6, 5, 1, 5,14,59,34,54,59,45		26,41, 8,54	
		2, 5, 0,57,39,58,10, 0		9, 8
12″	6, 5, 3,10,15,57,14,53, 9,45		26,41,18, 2	
		2, 5, 0,57,13,16,51,58		9, 8
14″	6, 5, 5,15,16,54,28,10, 1,43		26,41,27,10	
		2, 5, 0,56,46,35,24,48		9, 8
16″	6, 5, 7,20,17,51,14,45,26,31		26,41,36,18	
		2, 5, 0,56,19,53,48,30		9, 8
18″	6, 5, 9,25,18,47,34,39,15, 1		26,41,45,26	
		2, 5, 0,55,53,12, 3, 4		9, 8
20″	6, 5,11,30,19,43,27,51,18, 5		26,41,54,34	
		2, 5, 0,55,26,30, 8,30		9, 8
22″	6, 5,13,35,20,38,54,21,26,35		26,42, 3,42	
		2, 5, 0,54,59,48, 4,48		9, 8
24″	6, 5,15,40,21,33,54, 9,31,23		26,42,12,50	
		2, 5, 0,54,33, 5,51,58		9, 8
26″	6, 5,17,45,22,28,27,15,23,21		26,42,21,58	
		2, 5, 0,54, 6,23,30, 0		9, 8
28″	6, 5,19,50,23,22,33,38,53,21		26,42,31, 6	
		2, 5, 0,53,39,40,58,54		9, 8
30″	6, 5,21,55,24,16,13,19,52,15		26,42,40,14	
		2, 5, 0,53,12,58,18,40		9, 8
32″	6, 5,24, 0,25, 9,26,18,10,55		26,42,49,22	
		2, 5, 0,52,46,15,29,18		9, 8
34″	6, 5,26, 5,26, 2,12,33,40,13		26,42,58,30	
		2, 5, 0,52,19,32,30,48		9, 8
36″	6, 5,28,10,26,54,32, 6,11, 1		26,43, 7,38	
		2, 5, 0,51,52,49,23,10		9, 8
38″	6, 5,30,15,27,46,24,55,34,11		26,43,16,46	
		2, 5, 0,51,26, 6, 6,24		9, 8
40″	6, 5,32,20,28,37,51, 1,40,35		26,43,25,54	
		2, 5, 0,50,59,22,40,30		9, 8
42″	6, 5,34,25,29,28,50,24,21, 5		26,43,35, 2	
		2, 5, 0,50,32,39, 5,28		9, 8
44″	6, 5,36,30,30,19,23, 3,26,33		26,43,44,10	
		2, 5, 0,50, 5,55,21,18		9, 8
46″	6, 5,38,35,31, 9,28,58,47,51		26,43,53,18	
		2, 5, 0,49,39,11,28, 0		9, 8
48″	6, 5,40,40,31,59, 8,10,15,51		26,44, 2,26	
		2, 5, 0,49,12,27,25,34		9, 8
50″	6, 5,42,45,32,48,20,37,41,25		26,44,11,34	
		2, 5, 0,48,45,43,14, 0		9, 8
52″	6, 5,44,50,33,37, 6,20,55,25		26,44,20,42	
		2, 5, 0,48,18,58,53,18		9, 8
54″	6, 5,46,55,34,25,25,19,48,43		26,44,29,50	
		2, 5, 0,47,52,14,23,28		9, 8
56″	6, 5,49, 0,35,13,17,34,12,11		26,44,38,58	
		2, 5, 0,47,25,29,44,30		9, 8
58″	6, 5,51, 5,36, 0,43, 3,56,41		26,44,48, 6	
		2, 5, 0,46,58,44,56,24		
60″	6, 5,53,10,36,47,41,48,53, 5			
exact	6, 5,53,10,36,47,41,48,29,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°50′ 0″	6, 5,53,10,36,47,41,48,29,42			
		2, 5, 0,46,31,59,56,35		
2″	6, 5,55,15,37,34,13,48,26,17		26,45, 6,33	
		2, 5, 0,46, 5,14,50, 2		9, 8
4″	6, 5,57,20,38,20,19, 3,16,19		26,45,15,41	
		2, 5, 0,45,38,29,34,21		9, 8
6″	6, 5,59,25,39, 5,57,32,50,40		26,45,24,49	
		2, 5, 0,45,11,44, 9,32		9, 8
8″	6, 6, 1,30,39,51, 9,17, 0,12		26,45,33,57	
		2, 5, 0,44,44,58,35,35		9, 8
10″	6, 6, 3,35,40,35,54,15,35,47		26,45,43, 5	
		2, 5, 0,44,18,12,52,30		9, 8
12″	6, 6, 5,40,41,20,12,28,28,17		26,45,52,13	
		2, 5, 0,43,51,27, 0,17		9, 8
14″	6, 6, 7,45,42, 4, 3,55,28,34		26,46, 1,21	
		2, 5, 0,43,24,40,58,56		9, 8
16″	6, 6, 9,50,42,47,28,36,27,30		26,46,10,29	
		2, 5, 0,42,57,54,48,27		9, 8
18″	6, 6,11,55,43,30,26,31,15,57		26,46,19,37	
		2, 5, 0,42,31, 8,28,50		9, 8
20″	6, 6,14, 0,44,12,57,39,44,47		26,46,28,45	
		2, 5, 0,42, 4,22, 0, 5		9, 8
22″	6, 6,16, 5,44,55, 2, 1,44,52		26,46,37,53	
		2, 5, 0,41,37,35,22,12		9, 8
24″	6, 6,18,10,45,36,39,37, 7, 4		26,46,47, 1	
		2, 5, 0,41,10,48,35,11		9, 8
26″	6, 6,20,15,46,17,50,25,42,15		26,46,56, 9	
		2, 5, 0,40,44, 1,39, 2		9, 8
28″	6, 6,22,20,46,58,34,27,21,17		26,47, 5,17	
		2, 5, 0,40,17,14,33,45		9, 8
30″	6, 6,24,25,47,38,51,41,55, 2		26,47,14,25	
		2, 5, 0,39,50,27,19,20		9, 8
32″	6, 6,26,30,48,18,42, 9,14,22		26,47,23,33	
		2, 5, 0,39,23,39,55,47		9, 8
34″	6, 6,28,35,48,58, 5,49,10, 9		26,47,32,41	
		2, 5, 0,38,56,52,23, 6		9, 8
36″	6, 6,30,40,49,37, 2,41,33,15		26,47,41,49	
		2, 5, 0,38,30, 4,41,17		9, 8
38″	6, 6,32,45,50,15,32,46,14,32		26,47,50,57	
		2, 5, 0,38, 3,16,50,20		9, 8
40″	6, 6,34,50,50,53,36, 3, 4,52		26,48, 0, 5	
		2, 5, 0,37,36,28,50,15		9, 8
42″	6, 6,36,55,51,31,12,31,55, 7		26,48, 9,13	
		2, 5, 0,37, 9,40,41, 2		9, 8
44″	6, 6,39, 0,52, 8,22,12,36, 9		26,48,18,21	
		2, 5, 0,36,42,52,22,41		9, 8
46″	6, 6,41, 5,52,45, 5, 4,58,50		26,48,27,29	
		2, 5, 0,36,16, 3,55,12		9, 8
48″	6, 6,43,10,53,21,21, 8,54, 2		26,48,36,37	
		2, 5, 0,35,49,15,18,35		9, 8
50″	6, 6,45,15,53,57,10,24,12,37		26,48,45,45	
		2, 5, 0,35,22,26,32,50		9, 8
52″	6, 6,47,20,54,32,32,50,45,27		26,48,54,53	
		2, 5, 0,34,55,37,37,57		9, 8
54″	6, 6,49,25,55, 7,28,28,23,24		26,49, 4, 1	
		2, 5, 0,34,28,48,33,56		9, 8
56″	6, 6,51,30,55,41,57,16,57,20		26,49,13, 9	
		2, 5, 0,34, 1,59,20,47		9, 8
58″	6, 6,53,35,56,15,59,16,18, 7		26,49,22,17	
		2, 5, 0,33,35, 9,58,30		
60″	6, 6,55,40,56,49,34,26,16,37			
exact	6, 6,55,40,56,49,34,25,52,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°51′ 0″	6, 6,55,40,56,49,34,25,52,36			
		2, 5, 0,33, 8,20,24,30		
2″	6, 6,57,45,57,22,42,46,17, 6		26,49,40,44	
		2, 5, 0,32,41,30,43,46		9, 8
4″	6, 6,59,50,57,55,24,17, 0,52		26,49,49,52	
		2, 5, 0,32,14,40,53,54		9, 8
6″	6, 7, 1,55,58,27,38,57,54,46		26,49,59, 0	
		2, 5, 0,31,47,50,54,54		9, 8
8″	6, 7, 4, 0,58,59,26,48,49,40		26,50, 8, 8	
		2, 5, 0,31,21, 0,46,46		9, 8
10″	6, 7, 6, 5,59,30,47,49,36,26		26,50,17,16	
		2, 5, 0,30,54,10,29,30		9, 8
12″	6, 7, 8,11, 0, 1,42, 0, 5,56		26,50,26,24	
		2, 5, 0,30,27,20, 3, 6		9, 8
14″	6, 7,10,16, 0,32, 9,20, 9, 2		26,50,35,32	
		2, 5, 0,30, 0,29,27,34		9, 8
16″	6, 7,12,21, 1, 2, 9,49,36,36		26,50,44,40	
		2, 5, 0,29,33,38,42,54		9, 8
18″	6, 7,14,26, 1,31,43,28,19,30		26,50,53,48	
		2, 5, 0,29, 6,47,49, 6		9, 8
20″	6, 7,16,31, 2, 0,50,16, 8,36		26,51, 2,56	
		2, 5, 0,28,39,56,46,10		9, 8
22″	6, 7,18,36, 2,29,30,12,54,46		26,51,12, 4	
		2, 5, 0,28,13, 5,34, 6		9, 8
24″	6, 7,20,41, 2,57,43,18,28,52		26,51,21,12	
		2, 5, 0,27,46,14,12,54		9, 8
26″	6, 7,22,46, 3,25,29,32,41,46		26,51,30,20	
		2, 5, 0,27,19,22,42,34		9, 8
28″	6, 7,24,51, 3,52,48,55,24,20		26,51,39,28	
		2, 5, 0,26,52,31, 3, 6		9, 8
30″	6, 7,26,56, 4,19,41,26,27,26		26,51,48,36	
		2, 5, 0,26,25,39,14,30		9, 8
32″	6, 7,29, 1, 4,46, 7, 5,41,56		26,51,57,44	
		2, 5, 0,25,58,47,16,46		9, 8
34″	6, 7,31, 6, 5,12, 5,52,58,42		26,52, 6,52	
		2, 5, 0,25,31,55, 9,54		9, 8
36″	6, 7,33,11, 5,37,37,48, 8,36		26,52,16, 0	
		2, 5, 0,25, 5, 2,53,54		9, 8
38″	6, 7,35,16, 6, 2,42,51, 2,30		26,52,25, 8	
		2, 5, 0,24,38,10,28,46		9, 8
40″	6, 7,37,21, 6,27,21, 1,31,16		26,52,34,16	
		2, 5, 0,24,11,17,54,30		9, 8
42″	6, 7,39,26, 6,51,32,19,25,46		26,52,43,24	
		2, 5, 0,23,44,25,11, 6		9, 8
44″	6, 7,41,31, 7,15,16,44,36,52		26,52,52,32	
		2, 5, 0,23,17,32,18,34		9, 8
46″	6, 7,43,36, 7,38,34,16,55,26		26,53, 1,40	
		2, 5, 0,22,50,39,16,54		9, 8
48″	6, 7,45,41, 8, 1,24,56,12,20		26,53,10,48	
		2, 5, 0,22,23,46, 6, 6		9, 8
50″	6, 7,47,46, 8,23,48,42,18,26		26,53,19,56	
		2, 5, 0,21,56,52,46,10		9, 8
52″	6, 7,49,51, 8,45,45,35, 4,36		26,53,29, 4	
		2, 5, 0,21,29,59,17, 6		9, 8
54″	6, 7,51,56, 9, 7,15,34,21,42		26,53,38,12	
		2, 5, 0,21, 3, 5,38,54		9, 8
56″	6, 7,54, 1, 9,28,18,40, 0,36		26,53,47,20	
		2, 5, 0,20,36,11,51,34		9, 8
58″	6, 7,56, 6, 9,48,54,51,52,10		26,53,56,28	
		2, 5, 0,20, 9,17,55, 6		
60″	6, 7,58,11,10, 9, 4, 9,47,16			
exact	6, 7,58,11,10, 9, 4, 9,25,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°52′ 0″	6, 7,58,11,10, 9, 4, 9,25,33			
		2, 5, 0,19,42,23,47, 7		
2″	6, 8, 0,16,10,28,46,33,12,40		26,54,14,54	
		2, 5, 0,19,15,29,32,13		9, 8
4″	6, 8, 2,21,10,48, 2, 2,44,53		26,54,24, 2	
		2, 5, 0,18,48,35, 8,11		9, 8
6″	6, 8, 4,26,11, 6,50,37,53, 4		26,54,33,10	
		2, 5, 0,18,21,40,35, 1		9, 8
8″	6, 8, 6,31,11,25,12,18,28, 5		26,54,42,18	
		2, 5, 0,17,54,45,52,43		9, 8
10″	6, 8, 8,36,11,43, 7, 4,20,48		26,54,51,26	
		2, 5, 0,17,27,51, 1,17		9, 8
12″	6, 8,10,41,12, 0,34,55,22, 5		26,55, 0,34	
		2, 5, 0,17, 0,56, 0,43		9, 8
14″	6, 8,12,46,12,17,35,51,22,48		26,55, 9,42	
		2, 5, 0,16,34, 0,51, 1		9, 8
16″	6, 8,14,51,12,34, 9,52,13,49		26,55,18,50	
		2, 5, 0,16, 7, 5,32,11		9, 8
18″	6, 8,16,56,12,50,16,57,46, 0		26,55,27,58	
		2, 5, 0,15,40,10, 4,13		9, 8
20″	6, 8,19, 1,13, 5,57, 7,50,13		26,55,37, 6	
		2, 5, 0,15,13,14,27, 7		9, 8
22″	6, 8,21, 6,13,21,10,22,17,20		26,55,46,14	
		2, 5, 0,14,46,18,40,53		9, 8
24″	6, 8,23,11,13,35,56,40,58,13		26,55,55,22	
		2, 5, 0,14,19,22,45,31		9, 8
26″	6, 8,25,16,13,50,16, 3,43,44		26,56, 4,30	
		2, 5, 0,13,52,26,41, 1		9, 8
28″	6, 8,27,21,14, 4, 8,30,24,45		26,56,13,38	
		2, 5, 0,13,25,30,27,23		9, 8
30″	6, 8,29,26,14,17,34, 0,52, 8		26,56,22,46	
		2, 5, 0,12,58,34, 4,37		9, 8
32″	6, 8,31,31,14,30,32,34,56,45		26,56,31,54	
		2, 5, 0,12,31,37,32,43		9, 8
34″	6, 8,33,36,14,43, 4,12,29,28		26,56,41, 2	
		2, 5, 0,12, 4,40,51,41		9, 8
36″	6, 8,35,41,14,55, 8,53,21, 9		26,56,50,10	
		2, 5, 0,11,37,44, 1,31		9, 8
38″	6, 8,37,46,15, 6,46,37,22,40		26,56,59,18	
		2, 5, 0,11,10,47, 2,13		9, 8
40″	6, 8,39,51,15,17,57,24,24,53		26,57, 8,26	
		2, 5, 0,10,43,49,53,47		9, 8
42″	6, 8,41,56,15,28,41,14,18,40		26,57,17,34	
		2, 5, 0,10,16,52,36,13		9, 8
44″	6, 8,44, 1,15,38,58, 6,54,53		26,57,26,42	
		2, 5, 0, 9,49,55, 9,31		9, 8
46″	6, 8,46, 6,15,48,48, 2, 4,24		26,57,35,50	
		2, 5, 0, 9,22,57,33,41		9, 8
48″	6, 8,48,11,15,58,10,59,38, 5		26,57,44,58	
		2, 5, 0, 8,55,59,48,43		9, 8
50″	6, 8,50,16,16, 7, 6,59,26,48		26,57,54, 6	
		2, 5, 0, 8,29, 1,54,37		9, 8
52″	6, 8,52,21,16,15,36, 1,21,25		26,58, 3,14	
		2, 5, 0, 8, 2, 3,51,23		9, 8
54″	6, 8,54,26,16,23,38, 5,12,48		26,58,12,22	
		2, 5, 0, 7,35, 5,39, 1		9, 8
56″	6, 8,56,31,16,31,13,10,51,49		26,58,21,30	
		2, 5, 0, 7, 8, 7,17,31		9, 8
58″	6, 8,58,36,16,38,21,18, 9,20		26,58,30,38	
		2, 5, 0, 6,41, 8,46,53		
60″	6, 9, 0,41,16,45, 2,26,56,13			
exact	6, 9, 0,41,16,45, 2,26,33,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°53′ 0″	6, 9, 0,41,16,45, 2,26,33,49			
		2, 5, 0, 6,14,10, 4,43		
2″	6, 9, 2,46,16,51,16,36,38,32		26,58,49, 4	
		2, 5, 0, 5,47,11,15,39		9, 8
4″	6, 9, 4,51,16,57, 3,47,54,11		26,58,58,12	
		2, 5, 0, 5,20,12,17,27		9, 8
6″	6, 9, 6,56,17, 2,24, 0,11,38		26,59, 7,20	
		2, 5, 0, 4,53,13,10, 7		9, 8
8″	6, 9, 9, 1,17, 7,17,13,21,45		26,59,16,28	
		2, 5, 0, 4,26,13,53,39		9, 8
10″	6, 9,11, 6,17,11,43,27,15,24		26,59,25,36	
		2, 5, 0, 3,59,14,28, 3		9, 8
12″	6, 9,13,11,17,15,42,41,43,27		26,59,34,44	
		2, 5, 0, 3,32,14,53,19		9, 8
14″	6, 9,15,16,17,19,14,56,36,46		26,59,43,52	
		2, 5, 0, 3, 5,15, 9,27		9, 8
16″	6, 9,17,21,17,22,20,11,46,13		26,59,53, 0	
		2, 5, 0, 2,38,15,16,27		9, 8
18″	6, 9,19,26,17,24,58,27, 2,40		27, 0, 2, 8	
		2, 5, 0, 2,11,15,14,19		9, 8
20″	6, 9,21,31,17,27, 9,42,16,59		27, 0,11,16	
		2, 5, 0, 1,44,15, 3, 3		9, 8
22″	6, 9,23,36,17,28,53,57,20, 2		27, 0,20,24	
		2, 5, 0, 1,17,14,42,39		9, 8
24″	6, 9,25,41,17,30,11,12, 2,41		27, 0,29,32	
		2, 5, 0, 0,50,14,13, 7		9, 8
26″	6, 9,27,46,17,31, 1,26,15,48		27, 0,38,40	
		2, 5, 0, 0,23,13,34,27		9, 8
28″	6, 9,29,51,17,31,24,39,50,15		27, 0,47,48	
		2, 4,59,59,56,12,46,39		9, 8
30″	6, 9,31,56,17,31,20,52,36,54		27, 0,56,56	
		2, 4,59,59,29,11,49,43		9, 8
32″	6, 9,34, 1,17,30,50, 4,26,37		27, 1, 6, 4	
		2, 4,59,59, 2,10,43,39		9, 8
34″	6, 9,36, 6,17,29,52,15,10,16		27, 1,15,12	
		2, 4,59,58,35, 9,28,27		9, 8
36″	6, 9,38,11,17,28,27,24,38,43		27, 1,24,20	
		2, 4,59,58, 8, 8, 4, 7		9, 8
38″	6, 9,40,16,17,26,35,32,42,50		27, 1,33,28	
		2, 4,59,57,41, 6,30,39		9, 8
40″	6, 9,42,21,17,24,16,39,13,29		27, 1,42,36	
		2, 4,59,57,14, 4,48, 3		9, 8
42″	6, 9,44,26,17,21,30,44, 1,32		27, 1,51,44	
		2, 4,59,56,47, 2,56,19		9, 8
44″	6, 9,46,31,17,18,17,46,57,51		27, 2, 0,52	
		2, 4,59,56,20, 0,55,27		9, 8
46″	6, 9,48,36,17,14,37,47,53,18		27, 2,10, 0	
		2, 4,59,55,52,58,45,27		9, 8
48″	6, 9,50,41,17,10,30,46,38,45		27, 2,19, 8	
		2, 4,59,55,25,56,26,19		9, 8
50″	6, 9,52,46,17, 5,56,43, 5, 4		27, 2,28,16	
		2, 4,59,54,58,53,58, 3		9, 8
52″	6, 9,54,51,17, 0,55,37, 3, 7		27, 2,37,24	
		2, 4,59,54,31,51,20,39		9, 8
54″	6, 9,56,56,16,55,27,28,23,46		27, 2,46,32	
		2, 4,59,54, 4,48,34, 7		9, 8
56″	6, 9,59, 1,16,49,32,16,57,53		27, 2,55,40	
		2, 4,59,53,37,45,38,27		9, 8
58″	6,10, 1, 6,16,43,10, 2,36,20		27, 3, 4,48	
		2, 4,59,53,10,42,33,39		
60″	6,10, 3,11,16,36,20,45, 9,59			
exact	6,10, 3,11,16,36,20,44,50, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°54′ 0″	6,10, 3,11,16,36,20,44,50, 4			
		2, 4,59,52,43,39,17,32		
2″	6,10, 5,16,16,29, 4,24, 7,36		27, 3,23,13	
		2, 4,59,52,16,35,54,19		9, 8
4″	6,10, 7,21,16,21,21, 0, 1,55		27, 3,32,21	
		2, 4,59,51,49,32,21,58		9, 8
6″	6,10, 9,26,16,13,10,32,23,53		27, 3,41,29	
		2, 4,59,51,22,28,40,29		9, 8
8″	6,10,11,31,16, 4,33, 1, 4,22		27, 3,50,37	
		2, 4,59,50,55,24,49,52		9, 8
10″	6,10,13,36,15,55,28,25,54,14		27, 3,59,45	
		2, 4,59,50,28,20,50, 7		9, 8
12″	6,10,15,41,15,45,56,46,44,21		27, 4, 8,53	
		2, 4,59,50, 1,16,41,14		9, 8
14″	6,10,17,46,15,35,58, 3,25,35		27, 4,18, 1	
		2, 4,59,49,34,12,23,13		9, 8
16″	6,10,19,51,15,25,32,15,48,48		27, 4,27, 9	
		2, 4,59,49, 7, 7,56, 4		9, 8
18″	6,10,21,56,15,14,39,23,44,52		27, 4,36,17	
		2, 4,59,48,40, 3,19,47		9, 8
20″	6,10,24, 1,15, 3,19,27, 4,39		27, 4,45,25	
		2, 4,59,48,12,58,34,22		9, 8
22″	6,10,26, 6,14,51,32,25,39, 1		27, 4,54,33	
		2, 4,59,47,45,53,39,49		9, 8
24″	6,10,28,11,14,39,18,19,18,50		27, 5, 3,41	
		2, 4,59,47,18,48,36, 8		9, 8
26″	6,10,30,16,14,26,37, 7,54,58		27, 5,12,49	
		2, 4,59,46,51,43,23,19		9, 8
28″	6,10,32,21,14,13,28,51,18,17		27, 5,21,57	
		2, 4,59,46,24,38, 1,22		9, 8
30″	6,10,34,26,13,59,53,29,19,39		27, 5,31, 5	
		2, 4,59,45,57,32,30,17		9, 8
32″	6,10,36,31,13,45,51, 1,49,56		27, 5,40,13	
		2, 4,59,45,30,26,50, 4		9, 8
34″	6,10,38,36,13,31,21,28,40, 0		27, 5,49,21	
		2, 4,59,45, 3,21, 0,43		9, 8
36″	6,10,40,41,13,16,24,49,40,43		27, 5,58,29	
		2, 4,59,44,36,15, 2,14		9, 8
38″	6,10,42,46,13, 1, 1, 4,42,57		27, 6, 7,37	
		2, 4,59,44, 9, 8,54,37		9, 8
40″	6,10,44,51,12,45,10,13,37,34		27, 6,16,45	
		2, 4,59,43,42, 2,37,52		9, 8
42″	6,10,46,56,12,28,52,16,15,26		27, 6,25,53	
		2, 4,59,43,14,56,11,59		9, 8
44″	6,10,49, 1,12,12, 7,12,27,25		27, 6,35, 1	
		2, 4,59,42,47,49,36,58		9, 8
46″	6,10,51, 6,11,54,55, 2, 4,23		27, 6,44, 9	
		2, 4,59,42,20,42,52,49		9, 8
48″	6,10,53,11,11,37,15,44,57,12		27, 6,53,17	
		2, 4,59,41,53,35,59,32		9, 8
50″	6,10,55,16,11,19, 9,20,56,44		27, 7, 2,25	
		2, 4,59,41,26,28,57, 7		9, 8
52″	6,10,57,21,11, 0,35,49,53,51		27, 7,11,33	
		2, 4,59,40,59,21,45,34		9, 8
54″	6,10,59,26,10,41,35,11,39,25		27, 7,20,41	
		2, 4,59,40,32,14,24,53		9, 8
56″	6,11, 1,31,10,22, 7,26, 4,18		27, 7,29,49	
		2, 4,59,40, 5, 6,55, 4		9, 8
58″	6,11, 3,36,10, 2,12,32,59,22		27, 7,38,57	
		2, 4,59,39,37,59,16, 7		
60″	6,11, 5,41, 9,41,50,32,15,29			
exact	6,11, 5,41, 9,41,50,31,54,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°55′ 0″	6,11, 5,41, 9,41,50,31,54,21			
		2, 4,59,39,10,51,25,49		
2″	6,11, 7,46, 9,21, 1,23,20,10		27, 7,57,22	
		2, 4,59,38,43,43,28,27		9, 8
4″	6,11, 9,51, 8,59,45, 6,48,37		27, 8, 6,30	
		2, 4,59,38,16,35,21,57		9, 8
6″	6,11,11,56, 8,38, 1,42,10,34		27, 8,15,38	
		2, 4,59,37,49,27, 6,19		9, 8
8″	6,11,14, 1, 8,15,51, 9,16,53		27, 8,24,46	
		2, 4,59,37,22,18,41,33		9, 8
10″	6,11,16, 6, 7,53,13,27,58,26		27, 8,33,54	
		2, 4,59,36,55,10, 7,39		9, 8
12″	6,11,18,11, 7,30, 8,38, 6, 5		27, 8,43, 2	
		2, 4,59,36,28, 1,24,37		9, 8
14″	6,11,20,16, 7, 6,36,39,30,42		27, 8,52,10	
		2, 4,59,36, 0,52,32,27		9, 8
16″	6,11,22,21, 6,42,37,32, 3, 9		27, 9, 1,18	
		2, 4,59,35,33,43,31, 9		9, 8
18″	6,11,24,26, 6,18,11,15,34,18		27, 9,10,26	
		2, 4,59,35, 6,34,20,43		9, 8
20″	6,11,26,31, 5,53,17,49,55, 1		27, 9,19,34	
		2, 4,59,34,39,25, 1, 9		9, 8
22″	6,11,28,36, 5,27,57,14,56,10		27, 9,28,42	
		2, 4,59,34,12,15,32,27		9, 8
24″	6,11,30,41, 5, 2, 9,30,28,37		27, 9,37,50	
		2, 4,59,33,45, 5,54,37		9, 8
26″	6,11,32,46, 4,35,54,36,23,14		27, 9,46,58	
		2, 4,59,33,17,56, 7,39		9, 8
28″	6,11,34,51, 4, 9,12,32,30,53		27, 9,56, 6	
		2, 4,59,32,50,46,11,33		9, 8
30″	6,11,36,56, 3,42, 3,18,42,26		27,10, 5,14	
		2, 4,59,32,23,36, 6,19		9, 8
32″	6,11,39, 1, 3,14,26,54,48,45		27,10,14,22	
		2, 4,59,31,56,25,51,57		9, 8
34″	6,11,41, 6, 2,46,23,20,40,42		27,10,23,30	
		2, 4,59,31,29,15,28,27		9, 8
36″	6,11,43,11, 2,17,52,36, 9, 9		27,10,32,38	
		2, 4,59,31, 2, 4,55,49		9, 8
38″	6,11,45,16, 1,48,54,41, 4,58		27,10,41,46	
		2, 4,59,30,34,54,14, 3		9, 8
40″	6,11,47,21, 1,19,29,35,19, 1		27,10,50,54	
		2, 4,59,30, 7,43,23, 9		9, 8
42″	6,11,49,26, 0,49,37,18,42,10		27,11, 0, 2	
		2, 4,59,29,40,32,23, 7		9, 8
44″	6,11,51,31, 0,19,17,51, 5,17		27,11, 9,10	
		2, 4,59,29,13,21,13,57		9, 8
46″	6,11,53,35,59,48,31,12,19,14		27,11,18,18	
		2, 4,59,28,46, 9,55,39		9, 8
48″	6,11,55,40,59,17,17,22,14,53		27,11,27,26	
		2, 4,59,28,18,58,28,13		9, 8
50″	6,11,57,45,58,45,36,20,43, 6		27,11,36,34	
		2, 4,59,27,51,46,51,39		9, 8
52″	6,11,59,50,58,13,28, 7,34,45		27,11,45,42	
		2, 4,59,27,24,35, 5,57		9, 8
54″	6,12, 1,55,57,40,52,42,40,42		27,11,54,50	
		2, 4,59,26,57,23,11, 7		9, 8
56″	6,12, 4, 0,57, 7,50, 5,51,49		27,12, 3,58	
		2, 4,59,26,30,11, 7, 9		9, 8
58″	6,12, 6, 5,56,34,20,16,58,58		27,12,13, 6	
		2, 4,59,26, 2,58,54, 3		
60″	6,12, 8,10,56, 0,23,15,53, 1			
exact	6,12, 8,10,56, 0,23,15,34, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°56′ 0″	6,12, 8,10,56, 0,23,15,34, 7			
		2, 4,59,25,35,46,29,48		
2″	6,12,10,15,55,25,59, 2, 3,55		27,12,31,30	
		2, 4,59,25, 8,33,58,18		9, 8
4″	6,12,12,20,54,51, 7,36, 2,13		27,12,40,38	
		2, 4,59,24,41,21,17,40		9, 8
6″	6,12,14,25,54,15,48,57,19,53		27,12,49,46	
		2, 4,59,24,14, 8,27,54		9, 8
8″	6,12,16,30,53,40, 3, 5,47,47		27,12,58,54	
		2, 4,59,23,46,55,29, 0		9, 8
10″	6,12,18,35,53, 3,50, 1,16,47		27,13, 8, 2	
		2, 4,59,23,19,42,20,58		9, 8
12″	6,12,20,40,52,27, 9,43,37,45		27,13,17,10	
		2, 4,59,22,52,29, 3,48		9, 8
14″	6,12,22,45,51,50, 2,12,41,33		27,13,26,18	
		2, 4,59,22,25,15,37,30		9, 8
16″	6,12,24,50,51,12,27,28,19, 3		27,13,35,26	
		2, 4,59,21,58, 2, 2, 4		9, 8
18″	6,12,26,55,50,34,25,30,21, 7		27,13,44,34	
		2, 4,59,21,30,48,17,30		9, 8
20″	6,12,29, 0,49,55,56,18,38,37		27,13,53,42	
		2, 4,59,21, 3,34,23,48		9, 8
22″	6,12,31, 5,49,16,59,53, 2,25		27,14, 2,50	
		2, 4,59,20,36,20,20,58		9, 8
24″	6,12,33,10,48,37,36,13,23,23		27,14,11,58	
		2, 4,59,20, 9, 6, 9, 0		9, 8
26″	6,12,35,15,47,57,45,19,32,23		27,14,21, 6	
		2, 4,59,19,41,51,47,54		9, 8
28″	6,12,37,20,47,17,27,11,20,17		27,14,30,14	
		2, 4,59,19,14,37,17,40		9, 8
30″	6,12,39,25,46,36,41,48,37,57		27,14,39,22	
		2, 4,59,18,47,22,38,18		9, 8
32″	6,12,41,30,45,55,29,11,16,15		27,14,48,30	
		2, 4,59,18,20, 7,49,48		9, 8
34″	6,12,43,35,45,13,49,19, 6, 3		27,14,57,38	
		2, 4,59,17,52,52,52,10		9, 8
36″	6,12,45,40,44,31,42,11,58,13		27,15, 6,46	
		2, 4,59,17,25,37,45,24		9, 8
38″	6,12,47,45,43,49, 7,49,43,37		27,15,15,54	
		2, 4,59,16,58,22,29,30		9, 8
40″	6,12,49,50,43, 6, 6,12,13, 7		27,15,25, 2	
		2, 4,59,16,31, 7, 4,28		9, 8
42″	6,12,51,55,42,22,37,19,17,35		27,15,34,10	
		2, 4,59,16, 3,51,30,18		9, 8
44″	6,12,54, 0,41,38,41,10,47,53		27,15,43,18	
		2, 4,59,15,36,35,47, 0		9, 8
46″	6,12,56, 5,40,54,17,46,34,53		27,15,52,26	
		2, 4,59,15, 9,19,54,34		9, 8
48″	6,12,58,10,40, 9,27, 6,29,27		27,16, 1,34	
		2, 4,59,14,42, 3,53, 0		9, 8
50″	6,13, 0,15,39,24, 9,10,22,27		27,16,10,42	
		2, 4,59,14,14,47,42,18		9, 8
52″	6,13, 2,20,38,38,23,58, 4,45		27,16,19,50	
		2, 4,59,13,47,31,22,28		9, 8
54″	6,13, 4,25,37,52,11,29,27,13		27,16,28,58	
		2, 4,59,13,20,14,53,30		9, 8
56″	6,13, 6,30,37, 5,31,44,20,43		27,16,38, 6	
		2, 4,59,12,52,58,15,24		9, 8
58″	6,13, 8,35,36,18,24,42,36, 7		27,16,47,14	
		2, 4,59,12,25,41,28,10		
60″	6,13,10,40,35,30,50,24, 4,17			
exact	6,13,10,40,35,30,50,23,44,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°57′ 0″	6,13,10,40,35,30,50,23,44,18			
		2, 4,59,11,58,24,29,45		
2″	6,13,12,45,34,42,48,48,14, 3		27,17, 5,38	
		2, 4,59,11,31, 7,24, 7		9, 8
4″	6,13,14,50,33,54,19,55,38,10		27,17,14,46	
		2, 4,59,11, 3,50, 9,21		9, 8
6″	6,13,16,55,33, 5,23,45,47,31		27,17,23,54	
		2, 4,59,10,36,32,45,27		9, 8
8″	6,13,19, 0,32,16, 0,18,32,58		27,17,33, 2	
		2, 4,59,10, 9,15,12,25		9, 8
10″	6,13,21, 5,31,26, 9,33,45,23		27,17,42,10	
		2, 4,59, 9,41,57,30,15		9, 8
12″	6,13,23,10,30,35,51,31,15,38		27,17,51,18	
		2, 4,59, 9,14,39,38,57		9, 8
14″	6,13,25,15,29,45, 6,10,54,35		27,18, 0,26	
		2, 4,59, 8,47,21,38,31		9, 8
16″	6,13,27,20,28,53,53,32,33, 6		27,18, 9,34	
		2, 4,59, 8,20, 3,28,57		9, 8
18″	6,13,29,25,28, 2,13,36, 2, 3		27,18,18,42	
		2, 4,59, 7,52,45,10,15		9, 8
20″	6,13,31,30,27,10, 6,21,12,18		27,18,27,50	
		2, 4,59, 7,25,26,42,25		9, 8
22″	6,13,33,35,26,17,31,47,54,43		27,18,36,58	
		2, 4,59, 6,58, 8, 5,27		9, 8
24″	6,13,35,40,25,24,29,56, 0,10		27,18,46, 6	
		2, 4,59, 6,30,49,19,21		9, 8
26″	6,13,37,45,24,31, 0,45,19,31		27,18,55,14	
		2, 4,59, 6, 3,30,24, 7		9, 8
28″	6,13,39,50,23,37, 4,15,43,38		27,19, 4,22	
		2, 4,59, 5,36,11,19,45		9, 8
30″	6,13,41,55,22,42,40,27, 3,23		27,19,13,30	
		2, 4,59, 5, 8,52, 6,15		9, 8
32″	6,13,44, 0,21,47,49,19, 9,38		27,19,22,38	
		2, 4,59, 4,41,32,43,37		9, 8
34″	6,13,46, 5,20,52,30,51,53,15		27,19,31,46	
		2, 4,59, 4,14,13,11,51		9, 8
36″	6,13,48,10,19,56,45, 5, 5, 6		27,19,40,54	
		2, 4,59, 3,46,53,30,57		9, 8
38″	6,13,50,15,19, 0,31,58,36, 3		27,19,50, 2	
		2, 4,59, 3,19,33,40,55		9, 8
40″	6,13,52,20,18, 3,51,32,16,58		27,19,59,10	
		2, 4,59, 2,52,13,41,45		9, 8
42″	6,13,54,25,17, 6,43,45,58,43		27,20, 8,18	
		2, 4,59, 2,24,53,33,27		9, 8
44″	6,13,56,30,16, 9, 8,39,32,10		27,20,17,26	
		2, 4,59, 1,57,33,16, 1		9, 8
46″	6,13,58,35,15,11, 6,12,48,11		27,20,26,34	
		2, 4,59, 1,30,12,49,27		9, 8
48″	6,14, 0,40,14,12,36,25,37,38		27,20,35,42	
		2, 4,59, 1, 2,52,13,45		9, 8
50″	6,14, 2,45,13,13,39,17,51,23		27,20,44,50	
		2, 4,59, 0,35,31,28,55		9, 8
52″	6,14, 4,50,12,14,14,49,20,18		27,20,53,58	
		2, 4,59, 0, 8,10,34,57		9, 8
54″	6,14, 6,55,11,14,22,59,55,15		27,21, 3, 6	
		2, 4,58,59,40,49,31,51		9, 8
56″	6,14, 9, 0,10,14, 3,49,27, 6		27,21,12,14	
		2, 4,58,59,13,28,19,37		9, 8
58″	6,14,11, 5, 9,13,17,17,46,43		27,21,21,22	
		2, 4,58,58,46, 6,58,15		
60″	6,14,13,10, 8,12, 3,24,44,58			
exact	6,14,13,10, 8,12, 3,24,27,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°58′ 0″	6,14,13,10, 8,12, 3,24,27,15			
		2, 4,58,58,18,45,25,54		
2″	6,14,15,15, 7,10,22, 9,53, 9		27,21,39,45	
		2, 4,58,57,51,23,46, 9		9, 8
4″	6,14,17,20, 6, 8,13,33,39,18		27,21,48,53	
		2, 4,58,57,24, 1,57,16		9, 8
6″	6,14,19,25, 5, 5,37,35,36,34		27,21,58, 1	
		2, 4,58,56,56,39,59,15		9, 8
8″	6,14,21,30, 4, 2,34,15,35,49		27,22, 7, 9	
		2, 4,58,56,29,17,52, 6		9, 8
10″	6,14,23,35, 2,59, 3,33,27,55		27,22,16,17	
		2, 4,58,56, 1,55,35,49		9, 8
12″	6,14,25,40, 1,55, 5,29, 3,44		27,22,25,25	
		2, 4,58,55,34,33,10,24		9, 8
14″	6,14,27,45, 0,50,40, 2,14, 8		27,22,34,33	
		2, 4,58,55, 7,10,35,51		9, 8
16″	6,14,29,49,59,45,47,12,49,59		27,22,43,41	
		2, 4,58,54,39,47,52,10		9, 8
18″	6,14,31,54,58,40,27, 0,42, 9		27,22,52,49	
		2, 4,58,54,12,24,59,21		9, 8
20″	6,14,33,59,57,34,39,25,41,30		27,23, 1,57	
		2, 4,58,53,45, 1,57,24		9, 8
22″	6,14,36, 4,56,28,24,27,38,54		27,23,11, 5	
		2, 4,58,53,17,38,46,19		9, 8
24″	6,14,38, 9,55,21,42, 6,25,13		27,23,20,13	
		2, 4,58,52,50,15,26, 6		9, 8
26″	6,14,40,14,54,14,32,21,51,19		27,23,29,21	
		2, 4,58,52,22,51,56,45		9, 8
28″	6,14,42,19,53, 6,55,13,48, 4		27,23,38,29	
		2, 4,58,51,55,28,18,16		9, 8
30″	6,14,44,24,51,58,50,42, 6,20		27,23,47,37	
		2, 4,58,51,28, 4,30,39		9, 8
32″	6,14,46,29,50,50,18,46,36,59		27,23,56,45	
		2, 4,58,51, 0,40,33,54		9, 8
34″	6,14,48,34,49,41,19,27,10,53		27,24, 5,53	
		2, 4,58,50,33,16,28, 1		9, 8
36″	6,14,50,39,48,31,52,43,38,54		27,24,15, 1	
		2, 4,58,50, 5,52,13, 0		9, 8
38″	6,14,52,44,47,21,58,35,51,54		27,24,24, 9	
		2, 4,58,49,38,27,48,51		9, 8
40″	6,14,54,49,46,11,37, 3,40,45		27,24,33,17	
		2, 4,58,49,11, 3,15,34		9, 8
42″	6,14,56,54,45, 0,48, 6,56,19		27,24,42,25	
		2, 4,58,48,43,38,33, 9		9, 8
44″	6,14,58,59,43,49,31,45,29,28		27,24,51,33	
		2, 4,58,48,16,13,41,36		9, 8
46″	6,15, 1, 4,42,37,47,59,11, 4		27,25, 0,41	
		2, 4,58,47,48,48,40,55		9, 8
48″	6,15, 3, 9,41,25,36,47,51,59		27,25, 9,49	
		2, 4,58,47,21,23,31, 6		9, 8
50″	6,15, 5,14,40,12,58,11,23, 5		27,25,18,57	
		2, 4,58,46,53,58,12, 9		9, 8
52″	6,15, 7,19,38,59,52, 9,35,14		27,25,28, 5	
		2, 4,58,46,26,32,44, 4		9, 8
54″	6,15, 9,24,37,46,18,42,19,18		27,25,37,13	
		2, 4,58,45,59, 7, 6,51		9, 8
56″	6,15,11,29,36,32,17,49,26, 9		27,25,46,21	
		2, 4,58,45,31,41,20,30		9, 8
58″	6,15,13,34,35,17,49,30,46,39		27,25,55,29	
		2, 4,58,45, 4,15,25, 1		
60″	6,15,15,39,34, 2,53,46,11,40			
exact	6,15,15,39,34, 2,53,45,52,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
5°59′ 0″	6,15,15,39,34, 2,53,45,52,48			
		2, 4,58,44,36,49,18,31		
2″	6,15,17,44,32,47,30,35,11,19		27,26,13,52	
		2, 4,58,44, 9,23, 4,39		9, 8
4″	6,15,19,49,31,31,39,58,15,58		27,26,23, 0	
		2, 4,58,43,41,56,41,39		9, 8
6″	6,15,21,54,30,15,21,54,57,37		27,26,32, 8	
		2, 4,58,43,14,30, 9,31		9, 8
8″	6,15,23,59,28,58,36,25, 7, 8		27,26,41,16	
		2, 4,58,42,47, 3,28,15		9, 8
10″	6,15,26, 4,27,41,23,28,35,23		27,26,50,24	
		2, 4,58,42,19,36,37,51		9, 8
12″	6,15,28, 9,26,23,43, 5,13,14		27,26,59,32	
		2, 4,58,41,52, 9,38,19		9, 8
14″	6,15,30,14,25, 5,35,14,51,33		27,27, 8,40	
		2, 4,58,41,24,42,29,39		9, 8
16″	6,15,32,19,23,46,59,57,21,12		27,27,17,48	
		2, 4,58,40,57,15,11,51		9, 8
18″	6,15,34,24,22,27,57,12,33, 3		27,27,26,56	
		2, 4,58,40,29,47,44,55		9, 8
20″	6,15,36,29,21, 8,27, 0,17,58		27,27,36, 4	
		2, 4,58,40, 2,20, 8,51		9, 8
22″	6,15,38,34,19,48,29,20,26,49		27,27,45,12	
		2, 4,58,39,34,52,23,39		9, 8
24″	6,15,40,39,18,28, 4,12,50,28		27,27,54,20	
		2, 4,58,39, 7,24,29,19		9, 8
26″	6,15,42,44,17, 7,11,37,19,47		27,28, 3,28	
		2, 4,58,38,39,56,25,51		9, 8
28″	6,15,44,49,15,45,51,33,45,38		27,28,12,36	
		2, 4,58,38,12,28,13,15		9, 8
30″	6,15,46,54,14,24, 4, 1,58,53		27,28,21,44	
		2, 4,58,37,44,59,51,31		9, 8
32″	6,15,48,59,13, 1,49, 1,50,24		27,28,30,52	
		2, 4,58,37,17,31,20,39		9, 8
34″	6,15,51, 4,11,39, 6,33,11, 3		27,28,40, 0	
		2, 4,58,36,50, 2,40,39		9, 8
36″	6,15,53, 9,10,15,56,35,51,42		27,28,49, 8	
		2, 4,58,36,22,33,51,31		9, 8
38″	6,15,55,14, 8,52,19, 9,43,13		27,28,58,16	
		2, 4,58,35,55, 4,53,15		9, 8
40″	6,15,57,19, 7,28,14,14,36,28		27,29, 7,24	
		2, 4,58,35,27,35,45,51		9, 8
42″	6,15,59,24, 6, 3,41,50,22,19		27,29,16,32	
		2, 4,58,35, 0, 6,29,19		9, 8
44″	6,16, 1,29, 4,38,41,56,51,38		27,29,25,40	
		2, 4,58,34,32,37, 3,39		9, 8
46″	6,16, 3,34, 3,13,14,33,55,17		27,29,34,48	
		2, 4,58,34, 5, 7,28,51		9, 8
48″	6,16, 5,39, 1,47,19,41,24, 8		27,29,43,56	
		2, 4,58,33,37,37,44,55		9, 8
50″	6,16, 7,44, 0,20,57,19, 9, 3		27,29,53, 4	
		2, 4,58,33,10, 7,51,51		9, 8
52″	6,16, 9,48,58,54, 7,27, 0,54		27,30, 2,12	
		2, 4,58,32,42,37,49,39		9, 8
54″	6,16,11,53,57,26,50, 4,50,33		27,30,11,20	
		2, 4,58,32,15, 7,38,19		9, 8
56″	6,16,13,58,55,59, 5,12,28,52		27,30,20,28	
		2, 4,58,31,47,37,17,51		9, 8
58″	6,16,16, 3,54,30,52,49,46,43		27,30,29,36	
		2, 4,58,31,20, 6,48,15		
60″	6,16,18, 8,53, 2,12,56,34,58			
exact	6,16,18, 8,53, 2,12,56,18,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6° 0′ 0″	6,16,18, 8,53, 2,12,56,18,19			
		2, 4,58,30,52,36, 7,50		
2″	6,16,20,13,51,33, 5,32,26, 9		27,30,47,59	
		2, 4,58,30,25, 5,19,51		9, 8
4″	6,16,22,18,50, 3,30,37,46, 0		27,30,57, 7	
		2, 4,58,29,57,34,22,44		9, 8
6″	6,16,24,23,48,33,28,12, 8,44		27,31, 6,15	
		2, 4,58,29,30, 3,16,29		9, 8
8″	6,16,26,28,47, 2,58,15,25,13		27,31,15,23	
		2, 4,58,29, 2,32, 1, 6		9, 8
10″	6,16,28,33,45,32, 0,47,26,19		27,31,24,31	
		2, 4,58,28,35, 0,36,35		9, 8
12″	6,16,30,38,44, 0,35,48, 2,54		27,31,33,39	
		2, 4,58,28, 7,29, 2,56		9, 8
14″	6,16,32,43,42,28,43,17, 5,50		27,31,42,47	
		2, 4,58,27,39,57,20, 9		9, 8
16″	6,16,34,48,40,56,23,14,25,59		27,31,51,55	
		2, 4,58,27,12,25,28,14		9, 8
18″	6,16,36,53,39,23,35,39,54,13		27,32, 1, 3	
		2, 4,58,26,44,53,27,11		9, 8
20″	6,16,38,58,37,50,20,33,21,24		27,32,10,11	
		2, 4,58,26,17,21,17, 0		9, 8
22″	6,16,41, 3,36,16,37,54,38,24		27,32,19,19	
		2, 4,58,25,49,48,57,41		9, 8
24″	6,16,43, 8,34,42,27,43,36, 5		27,32,28,27	
		2, 4,58,25,22,16,29,14		9, 8
26″	6,16,45,13,33, 7,50, 0, 5,19		27,32,37,35	
		2, 4,58,24,54,43,51,39		9, 8
28″	6,16,47,18,31,32,44,43,56,58		27,32,46,43	
		2, 4,58,24,27,11, 4,56		9, 8
30″	6,16,49,23,29,57,11,55, 1,54		27,32,55,51	
		2, 4,58,23,59,38, 9, 5		9, 8
32″	6,16,51,28,28,21,11,33,10,59		27,33, 4,59	
		2, 4,58,23,32, 5, 4, 6		9, 8
34″	6,16,53,33,26,44,43,38,15, 5		27,33,14, 7	
		2, 4,58,23, 4,31,49,59		9, 8
36″	6,16,55,38,25, 7,48,10, 5, 4		27,33,23,15	
		2, 4,58,22,36,58,26,44		9, 8
38″	6,16,57,43,23,30,25, 8,31,48		27,33,32,23	
		2, 4,58,22, 9,24,54,21		9, 8
40″	6,16,59,48,21,52,34,33,26, 9		27,33,41,31	
		2, 4,58,21,41,51,12,50		9, 8
42″	6,17, 1,53,20,14,16,24,38,59		27,33,50,39	
		2, 4,58,21,14,17,22,11		9, 8
44″	6,17, 3,58,18,35,30,42, 1,10		27,33,59,47	
		2, 4,58,20,46,43,22,24		9, 8
46″	6,17, 6, 3,16,56,17,25,23,34		27,34, 8,55	
		2, 4,58,20,19, 9,13,29		9, 8
48″	6,17, 8, 8,15,16,36,34,37, 3		27,34,18, 3	
		2, 4,58,19,51,34,55,26		9, 8
50″	6,17,10,13,13,36,28, 9,32,29		27,34,27,11	
		2, 4,58,19,24, 0,28,15		9, 8
52″	6,17,12,18,11,55,52,10, 0,44		27,34,36,19	
		2, 4,58,18,56,25,51,56		9, 8
54″	6,17,14,23,10,14,48,35,52,40		27,34,45,27	
		2, 4,58,18,28,51, 6,29		9, 8
56″	6,17,16,28, 8,33,17,26,59, 9		27,34,54,35	
		2, 4,58,18, 1,16,11,54		9, 8
58″	6,17,18,33, 6,51,18,43,11, 3		27,35, 3,43	
		2, 4,58,17,33,41, 8,11		
60″	6,17,20,38, 5, 8,52,24,19,14			
exact	6,17,20,38, 5, 8,52,24, 8,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6° 1′ 0″	6,17,20,38, 5, 8,52,24, 8,39			
		2, 4,58,17, 6, 5,54, 6		
2″	6,17,22,43, 3,25,58,30, 2,45		27,35,22, 4	
		2, 4,58,16,38,30,32, 2		9, 8
4″	6,17,24,48, 1,42,37, 0,34,47		27,35,31,12	
		2, 4,58,16,10,55, 0,50		9, 8
6″	6,17,26,52,59,58,47,55,35,37		27,35,40,20	
		2, 4,58,15,43,19,20,30		9, 8
8″	6,17,28,57,58,14,31,14,56, 7		27,35,49,28	
		2, 4,58,15,15,43,31, 2		9, 8
10″	6,17,31, 2,56,29,46,58,27, 9		27,35,58,36	
		2, 4,58,14,48, 7,32,26		9, 8
12″	6,17,33, 7,54,44,35, 5,59,35		27,36, 7,44	
		2, 4,58,14,20,31,24,42		9, 8
14″	6,17,35,12,52,58,55,37,24,17		27,36,16,52	
		2, 4,58,13,52,55, 7,50		9, 8
16″	6,17,37,17,51,12,48,32,32, 7		27,36,26, 0	
		2, 4,58,13,25,18,41,50		9, 8
18″	6,17,39,22,49,26,13,51,13,57		27,36,35, 8	
		2, 4,58,12,57,42, 6,42		9, 8
20″	6,17,41,27,47,39,11,33,20,39		27,36,44,16	
		2, 4,58,12,30, 5,22,26		9, 8
22″	6,17,43,32,45,51,41,38,43, 5		27,36,53,24	
		2, 4,58,12, 2,28,29, 2		9, 8
24″	6,17,45,37,44, 3,44, 7,12, 7		27,37, 2,32	
		2, 4,58,11,34,51,26,30		9, 8
26″	6,17,47,42,42,15,18,58,38,37		27,37,11,40	
		2, 4,58,11, 7,14,14,50		9, 8
28″	6,17,49,47,40,26,26,12,53,27		27,37,20,48	
		2, 4,58,10,39,36,54, 2		9, 8
30″	6,17,51,52,38,37, 5,49,47,29		27,37,29,56	
		2, 4,58,10,11,59,24, 6		9, 8
32″	6,17,53,57,36,47,17,49,11,35		27,37,39, 4	
		2, 4,58, 9,44,21,45, 2		9, 8
34″	6,17,56, 2,34,57, 2,10,56,37		27,37,48,12	
		2, 4,58, 9,16,43,56,50		9, 8
36″	6,17,58, 7,33, 6,18,54,53,27		27,37,57,20	
		2, 4,58, 8,49, 5,59,30		9, 8
38″	6,18, 0,12,31,15, 8, 0,52,57		27,38, 6,28	
		2, 4,58, 8,21,27,53, 2		9, 8
40″	6,18, 2,17,29,23,29,28,45,59		27,38,15,36	
		2, 4,58, 7,53,49,37,26		9, 8
42″	6,18, 4,22,27,31,23,18,23,25		27,38,24,44	
		2, 4,58, 7,26,11,12,42		9, 8
44″	6,18, 6,27,25,38,49,29,36, 7		27,38,33,52	
		2, 4,58, 6,58,32,38,50		9, 8
46″	6,18, 8,32,23,45,48, 2,14,57		27,38,43, 0	
		2, 4,58, 6,30,53,55,50		9, 8
48″	6,18,10,37,21,52,18,56,10,47		27,38,52, 8	
		2, 4,58, 6, 3,15, 3,42		9, 8
50″	6,18,12,42,19,58,22,11,14,29		27,39, 1,16	
		2, 4,58, 5,35,36, 2,26		9, 8
52″	6,18,14,47,18, 3,57,47,16,55		27,39,10,24	
		2, 4,58, 5, 7,56,52, 2		9, 8
54″	6,18,16,52,16, 9, 5,44, 8,57		27,39,19,32	
		2, 4,58, 4,40,17,32,30		9, 8
56″	6,18,18,57,14,13,46, 1,41,27		27,39,28,40	
		2, 4,58, 4,12,38, 3,50		9, 8
58″	6,18,21, 2,12,17,58,39,45,17		27,39,37,48	
		2, 4,58, 3,44,58,26, 2		
60″	6,18,23, 7,10,21,43,38,11,19			
exact	6,18,23, 7,10,21,43,37,56,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6° 2′ 0″	6,18,23, 7,10,21,43,37,56,13			
		2, 4,58, 3,17,18,37,36		
2″	6,18,25,12, 8,25, 0,56,33,49		27,39,56,10	
		2, 4,58, 2,49,38,41,26		9, 8
4″	6,18,27,17, 6,27,50,35,15,15		27,40, 5,18	
		2, 4,58, 2,21,58,36, 8		9, 8
6″	6,18,29,22, 4,30,12,33,51,23		27,40,14,26	
		2, 4,58, 1,54,18,21,42		9, 8
8″	6,18,31,27, 2,32, 6,52,13, 5		27,40,23,34	
		2, 4,58, 1,26,37,58, 8		9, 8
10″	6,18,33,32, 0,33,33,30,11,13		27,40,32,42	
		2, 4,58, 0,58,57,25,26		9, 8
12″	6,18,35,36,58,34,32,27,36,39		27,40,41,50	
		2, 4,58, 0,31,16,43,36		9, 8
14″	6,18,37,41,56,35, 3,44,20,15		27,40,50,58	
		2, 4,58, 0, 3,35,52,38		9, 8
16″	6,18,39,46,54,35, 7,20,12,53		27,41, 0, 6	
		2, 4,57,59,35,54,52,32		9, 8
18″	6,18,41,51,52,34,43,15, 5,25		27,41, 9,14	
		2, 4,57,59, 8,13,43,18		9, 8
20″	6,18,43,56,50,33,51,28,48,43		27,41,18,22	
		2, 4,57,58,40,32,24,56		9, 8
22″	6,18,46, 1,48,32,32, 1,13,39		27,41,27,30	
		2, 4,57,58,12,50,57,26		9, 8
24″	6,18,48, 6,46,30,44,52,11, 5		27,41,36,38	
		2, 4,57,57,45, 9,20,48		9, 8
26″	6,18,50,11,44,28,30, 1,31,53		27,41,45,46	
		2, 4,57,57,17,27,35, 2		9, 8
28″	6,18,52,16,42,25,47,29, 6,55		27,41,54,54	
		2, 4,57,56,49,45,40, 8		9, 8
30″	6,18,54,21,40,22,37,14,47, 3		27,42, 4, 2	
		2, 4,57,56,22, 3,36, 6		9, 8
32″	6,18,56,26,38,18,59,18,23, 9		27,42,13,10	
		2, 4,57,55,54,21,22,56		9, 8
34″	6,18,58,31,36,14,53,39,46, 5		27,42,22,18	
		2, 4,57,55,26,39, 0,38		9, 8
36″	6,19, 0,36,34,10,20,18,46,43		27,42,31,26	
		2, 4,57,54,58,56,29,12		9, 8
38″	6,19, 2,41,32, 5,19,15,15,55		27,42,40,34	
		2, 4,57,54,31,13,48,38		9, 8
40″	6,19, 4,46,29,59,50,29, 4,33		27,42,49,42	
		2, 4,57,54, 3,30,58,56		9, 8
42″	6,19, 6,51,27,53,54, 0, 3,29		27,42,58,50	
		2, 4,57,53,35,48, 0, 6		9, 8
44″	6,19, 8,56,25,47,29,48, 3,35		27,43, 7,58	
		2, 4,57,53, 8, 4,52, 8		9, 8
46″	6,19,11, 1,23,40,37,52,55,43		27,43,17, 6	
		2, 4,57,52,40,21,35, 2		9, 8
48″	6,19,13, 6,21,33,18,14,30,45		27,43,26,14	
		2, 4,57,52,12,38, 8,48		9, 8
50″	6,19,15,11,19,25,30,52,39,33		27,43,35,22	
		2, 4,57,51,44,54,33,26		9, 8
52″	6,19,17,16,17,17,15,47,12,59		27,43,44,30	
		2, 4,57,51,17,10,48,56		9, 8
54″	6,19,19,21,15, 8,32,58, 1,55		27,43,53,38	
		2, 4,57,50,49,26,55,18		9, 8
56″	6,19,21,26,12,59,22,24,57,13		27,44, 2,46	
		2, 4,57,50,21,42,52,32		9, 8
58″	6,19,23,31,10,49,44, 7,49,45		27,44,11,54	
		2, 4,57,49,53,58,40,38		
60″	6,19,25,36, 8,39,38, 6,30,23			
exact	6,19,25,36, 8,39,38, 6,20,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6° 3′ 0″	6,19,25,36, 8,39,38, 6,20,59			
		2, 4,57,49,26,14,18,33		
2″	6,19,27,41, 6,29, 4,20,39,32		27,44,30,15	
		2, 4,57,48,58,29,48,18		9, 8
4″	6,19,29,46, 4,18, 2,50,27,50		27,44,39,23	
		2, 4,57,48,30,45, 8,55		9, 8
6″	6,19,31,51, 2, 6,33,35,36,45		27,44,48,31	
		2, 4,57,48, 3, 0,20,24		9, 8
8″	6,19,33,55,59,54,36,35,57, 9		27,44,57,39	
		2, 4,57,47,35,15,22,45		9, 8
10″	6,19,36, 0,57,42,11,51,19,54		27,45, 6,47	
		2, 4,57,47, 7,30,15,58		9, 8
12″	6,19,38, 5,55,29,19,21,35,52		27,45,15,55	
		2, 4,57,46,39,45, 0, 3		9, 8
14″	6,19,40,10,53,15,59, 6,35,55		27,45,25, 3	
		2, 4,57,46,11,59,35, 0		9, 8
16″	6,19,42,15,51, 2,11, 6,10,55		27,45,34,11	
		2, 4,57,45,44,14, 0,49		9, 8
18″	6,19,44,20,48,47,55,20,11,44		27,45,43,19	
		2, 4,57,45,16,28,17,30		9, 8
20″	6,19,46,25,46,33,11,48,29,14		27,45,52,27	
		2, 4,57,44,48,42,25, 3		9, 8
22″	6,19,48,30,44,18, 0,30,54,17		27,46, 1,35	
		2, 4,57,44,20,56,23,28		9, 8
24″	6,19,50,35,42, 2,21,27,17,45		27,46,10,43	
		2, 4,57,43,53,10,12,45		9, 8
26″	6,19,52,40,39,46,14,37,30,30		27,46,19,51	
		2, 4,57,43,25,23,52,54		9, 8
28″	6,19,54,45,37,29,40, 1,23,24		27,46,28,59	
		2, 4,57,42,57,37,23,55		9, 8
30″	6,19,56,50,35,12,37,38,47,19		27,46,38, 7	
		2, 4,57,42,29,50,45,48		9, 8
32″	6,19,58,55,32,55, 7,29,33, 7		27,46,47,15	
		2, 4,57,42, 2, 3,58,33		9, 8
34″	6,20, 1, 0,30,37, 9,33,31,40		27,46,56,23	
		2, 4,57,41,34,17, 2,10		9, 8
36″	6,20, 3, 5,28,18,43,50,33,50		27,47, 5,31	
		2, 4,57,41, 6,29,56,39		9, 8
38″	6,20, 5,10,25,59,50,20,30,29		27,47,14,39	
		2, 4,57,40,38,42,42, 0		9, 8
40″	6,20, 7,15,23,40,29, 3,12,29		27,47,23,47	
		2, 4,57,40,10,55,18,13		9, 8
42″	6,20, 9,20,21,20,39,58,30,42		27,47,32,55	
		2, 4,57,39,43, 7,45,18		9, 8
44″	6,20,11,25,19, 0,23, 6,16, 0		27,47,42, 3	
		2, 4,57,39,15,20, 3,15		9, 8
46″	6,20,13,30,16,39,38,26,19,15		27,47,51,11	
		2, 4,57,38,47,32,12, 4		9, 8
48″	6,20,15,35,14,18,25,58,31,19		27,48, 0,19	
		2, 4,57,38,19,44,11,45		9, 8
50″	6,20,17,40,11,56,45,42,43, 4		27,48, 9,27	
		2, 4,57,37,51,56, 2,18		9, 8
52″	6,20,19,45, 9,34,37,38,45,22		27,48,18,35	
		2, 4,57,37,24, 7,43,43		9, 8
54″	6,20,21,50, 7,12, 1,46,29, 5		27,48,27,43	
		2, 4,57,36,56,19,16, 0		9, 8
56″	6,20,23,55, 4,48,58, 5,45, 5		27,48,36,51	
		2, 4,57,36,28,30,39, 9		9, 8
58″	6,20,26, 0, 2,25,26,36,24,14		27,48,45,59	
		2, 4,57,36, 0,41,53,10		
60″	6,20,28, 5, 0, 1,27,18,17,24			
exact	6,20,28, 5, 0, 1,27,18,10,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6° 4′ 0″	6,20,28, 5, 0, 1,27,18,10,30			
		2, 4,57,35,32,52,57,13		
2″	6,20,30, 9,57,37, 0,11, 7,43		27,49, 4,19	
		2, 4,57,35, 5, 3,52,54		9, 8
4″	6,20,32,14,55,12, 5,15, 0,37		27,49,13,27	
		2, 4,57,34,37,14,39,27		9, 8
6″	6,20,34,19,52,46,42,29,40, 4		27,49,22,35	
		2, 4,57,34, 9,25,16,52		9, 8
8″	6,20,36,24,50,20,51,54,56,56		27,49,31,43	
		2, 4,57,33,41,35,45, 9		9, 8
10″	6,20,38,29,47,54,33,30,42, 5		27,49,40,51	
		2, 4,57,33,13,46, 4,18		9, 8
12″	6,20,40,34,45,27,47,16,46,23		27,49,49,59	
		2, 4,57,32,45,56,14,19		9, 8
14″	6,20,42,39,43, 0,33,13, 0,42		27,49,59, 7	
		2, 4,57,32,18, 6,15,12		9, 8
16″	6,20,44,44,40,32,51,19,15,54		27,50, 8,15	
		2, 4,57,31,50,16, 6,57		9, 8
18″	6,20,46,49,38, 4,41,35,22,51		27,50,17,23	
		2, 4,57,31,22,25,49,34		9, 8
20″	6,20,48,54,35,36, 4, 1,12,25		27,50,26,31	
		2, 4,57,30,54,35,23, 3		9, 8
22″	6,20,50,59,33, 6,58,36,35,28		27,50,35,39	
		2, 4,57,30,26,44,47,24		9, 8
24″	6,20,53, 4,30,37,25,21,22,52		27,50,44,47	
		2, 4,57,29,58,54, 2,37		9, 8
26″	6,20,55, 9,28, 7,24,15,25,29		27,50,53,55	
		2, 4,57,29,31, 3, 8,42		9, 8
28″	6,20,57,14,25,36,55,18,34,11		27,51, 3, 3	
		2, 4,57,29, 3,12, 5,39		9, 8
30″	6,20,59,19,23, 5,58,30,39,50		27,51,12,11	
		2, 4,57,28,35,20,53,28		9, 8
32″	6,21, 1,24,20,34,33,51,33,18		27,51,21,19	
		2, 4,57,28, 7,29,32, 9		9, 8
34″	6,21, 3,29,18, 2,41,21, 5,27		27,51,30,27	
		2, 4,57,27,39,38, 1,42		9, 8
36″	6,21, 5,34,15,30,20,59, 7, 9		27,51,39,35	
		2, 4,57,27,11,46,22, 7		9, 8
38″	6,21, 7,39,12,57,32,45,29,16		27,51,48,43	
		2, 4,57,26,43,54,33,24		9, 8
40″	6,21, 9,44,10,24,16,40, 2,40		27,51,57,51	
		2, 4,57,26,16, 2,35,33		9, 8
42″	6,21,11,49, 7,50,32,42,38,13		27,52, 6,59	
		2, 4,57,25,48,10,28,34		9, 8
44″	6,21,13,54, 5,16,20,53, 6,47		27,52,16, 7	
		2, 4,57,25,20,18,12,27		9, 8
46″	6,21,15,59, 2,41,41,11,19,14		27,52,25,15	
		2, 4,57,24,52,25,47,12		9, 8
48″	6,21,18, 4, 0, 6,33,37, 6,26		27,52,34,23	
		2, 4,57,24,24,33,12,49		9, 8
50″	6,21,20, 8,57,30,58,10,19,15		27,52,43,31	
		2, 4,57,23,56,40,29,18		9, 8
52″	6,21,22,13,54,54,54,50,48,33		27,52,52,39	
		2, 4,57,23,28,47,36,39		9, 8
54″	6,21,24,18,52,18,23,38,25,12		27,53, 1,47	
		2, 4,57,23, 0,54,34,52		9, 8
56″	6,21,26,23,49,41,24,33, 0, 4		27,53,10,55	
		2, 4,57,22,33, 1,23,57		9, 8
58″	6,21,28,28,47, 3,57,34,24, 1		27,53,20, 3	
		2, 4,57,22, 5, 8, 3,54		
60″	6,21,30,33,44,26, 2,42,27,55			
exact	6,21,30,33,44,26, 2,42,19,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6° 5′ 0″	6,21,30,33,44,26, 2,42,19,56			
		2, 4,57,21,37,14,33,51		
2″	6,21,32,38,41,47,39,56,53,47		27,53,38,23	
		2, 4,57,21, 9,20,55,28		9, 8
4″	6,21,34,43,39, 8,49,17,49,15		27,53,47,31	
		2, 4,57,20,41,27, 7,57		9, 8
6″	6,21,36,48,36,29,30,44,57,12		27,53,56,39	
		2, 4,57,20,13,33,11,18		9, 8
8″	6,21,38,53,33,49,44,18, 8,30		27,54, 5,47	
		2, 4,57,19,45,39, 5,31		9, 8
10″	6,21,40,58,31, 9,29,57,14, 1		27,54,14,55	
		2, 4,57,19,17,44,50,36		9, 8
12″	6,21,43, 3,28,28,47,42, 4,37		27,54,24, 3	
		2, 4,57,18,49,50,26,33		9, 8
14″	6,21,45, 8,25,47,37,32,31,10		27,54,33,11	
		2, 4,57,18,21,55,53,22		9, 8
16″	6,21,47,13,23, 5,59,28,24,32		27,54,42,19	
		2, 4,57,17,54, 1,11, 3		9, 8
18″	6,21,49,18,20,23,53,29,35,35		27,54,51,27	
		2, 4,57,17,26, 6,19,36		9, 8
20″	6,21,51,23,17,41,19,35,55,11		27,55, 0,35	
		2, 4,57,16,58,11,19, 1		9, 8
22″	6,21,53,28,14,58,17,47,14,12		27,55, 9,43	
		2, 4,57,16,30,16, 9,18		9, 8
24″	6,21,55,33,12,14,48, 3,23,30		27,55,18,51	
		2, 4,57,16, 2,20,50,27		9, 8
26″	6,21,57,38, 9,30,50,24,13,57		27,55,27,59	
		2, 4,57,15,34,25,22,28		9, 8
28″	6,21,59,43, 6,46,24,49,36,25		27,55,37, 7	
		2, 4,57,15, 6,29,45,21		9, 8
30″	6,22, 1,48, 4, 1,31,19,21,46		27,55,46,15	
		2, 4,57,14,38,33,59, 6		9, 8
32″	6,22, 3,53, 1,16, 9,53,20,52		27,55,55,23	
		2, 4,57,14,10,38, 3,43		9, 8
34″	6,22, 5,57,58,30,20,31,24,35		27,56, 4,31	
		2, 4,57,13,42,41,59,12		9, 8
36″	6,22, 8, 2,55,44, 3,13,23,47		27,56,13,39	
		2, 4,57,13,14,45,45,33		9, 8
38″	6,22,10, 7,52,57,17,59, 9,20		27,56,22,47	
		2, 4,57,12,46,49,22,46		9, 8
40″	6,22,12,12,50,10, 4,48,32, 6		27,56,31,55	
		2, 4,57,12,18,52,50,51		9, 8
42″	6,22,14,17,47,22,23,41,22,57		27,56,41, 3	
		2, 4,57,11,50,56, 9,48		9, 8
44″	6,22,16,22,44,34,14,37,32,45		27,56,50,11	
		2, 4,57,11,22,59,19,37		9, 8
46″	6,22,18,27,41,45,37,36,52,22		27,56,59,19	
		2, 4,57,10,55, 2,20,18		9, 8
48″	6,22,20,32,38,56,32,39,12,40		27,57, 8,27	
		2, 4,57,10,27, 5,11,51		9, 8
50″	6,22,22,37,36, 6,59,44,24,31		27,57,17,35	
		2, 4,57, 9,59, 7,54,16		9, 8
52″	6,22,24,42,33,16,58,52,18,47		27,57,26,43	
		2, 4,57, 9,31,10,27,33		9, 8
54″	6,22,26,47,30,26,30, 2,46,20		27,57,35,51	
		2, 4,57, 9, 3,12,51,42		9, 8
56″	6,22,28,52,27,35,33,15,38, 2		27,57,44,59	
		2, 4,57, 8,35,15, 6,43		9, 8
58″	6,22,30,57,24,44, 8,30,44,45		27,57,54, 7	
		2, 4,57, 8, 7,17,12,36		
60″	6,22,33, 2,21,52,15,47,57,21			
exact	6,22,33, 2,21,52,15,47,52, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6° 6′ 0″	6,22,33, 2,21,52,15,47,52, 4			
		2, 4,57, 7,39,19, 8,42		
2″	6,22,35, 7,18,59,55, 7, 0,46		27,58,12,26	
		2, 4,57, 7,11,20,56,16		9, 8
4″	6,22,37,12,16, 7, 6,27,57, 2		27,58,21,34	
		2, 4,57, 6,43,22,34,42		9, 8
6″	6,22,39,17,13,13,49,50,31,44		27,58,30,42	
		2, 4,57, 6,15,24, 4, 0		9, 8
8″	6,22,41,22,10,20, 5,14,35,44		27,58,39,50	
		2, 4,57, 5,47,25,24,10		9, 8
10″	6,22,43,27, 7,25,52,39,59,54		27,58,48,58	
		2, 4,57, 5,19,26,35,12		9, 8
12″	6,22,45,32, 4,31,12, 6,35, 6		27,58,58, 6	
		2, 4,57, 4,51,27,37, 6		9, 8
14″	6,22,47,37, 1,36, 3,34,12,12		27,59, 7,14	
		2, 4,57, 4,23,28,29,52		9, 8
16″	6,22,49,41,58,40,27, 2,42, 4		27,59,16,22	
		2, 4,57, 3,55,29,13,30		9, 8
18″	6,22,51,46,55,44,22,31,55,34		27,59,25,30	
		2, 4,57, 3,27,29,48, 0		9, 8
20″	6,22,53,51,52,47,50, 1,43,34		27,59,34,38	
		2, 4,57, 2,59,30,13,22		9, 8
22″	6,22,55,56,49,50,49,31,56,56		27,59,43,46	
		2, 4,57, 2,31,30,29,36		9, 8
24″	6,22,58, 1,46,53,21, 2,26,32		27,59,52,54	
		2, 4,57, 2, 3,30,36,42		9, 8
26″	6,23, 0, 6,43,55,24,33, 3,14		28, 0, 2, 2	
		2, 4,57, 1,35,30,34,40		9, 8
28″	6,23, 2,11,40,57, 0, 3,37,54		28, 0,11,10	
		2, 4,57, 1, 7,30,23,30		9, 8
30″	6,23, 4,16,37,58, 7,34, 1,24		28, 0,20,18	
		2, 4,57, 0,39,30, 3,12		9, 8
32″	6,23, 6,21,34,58,47, 4, 4,36		28, 0,29,26	
		2, 4,57, 0,11,29,33,46		9, 8
34″	6,23, 8,26,31,58,58,33,38,22		28, 0,38,34	
		2, 4,56,59,43,28,55,12		9, 8
36″	6,23,10,31,28,58,42, 2,33,34		28, 0,47,42	
		2, 4,56,59,15,28, 7,30		9, 8
38″	6,23,12,36,25,57,57,30,41, 4		28, 0,56,50	
		2, 4,56,58,47,27,10,40		9, 8
40″	6,23,14,41,22,56,44,57,51,44		28, 1, 5,58	
		2, 4,56,58,19,26, 4,42		9, 8
42″	6,23,16,46,19,55, 4,23,56,26		28, 1,15, 6	
		2, 4,56,57,51,24,49,36		9, 8
44″	6,23,18,51,16,52,55,48,46, 2		28, 1,24,14	
		2, 4,56,57,23,23,25,22		9, 8
46″	6,23,20,56,13,50,19,12,11,24		28, 1,33,22	
		2, 4,56,56,55,21,52, 0		9, 8
48″	6,23,23, 1,10,47,14,34, 3,24		28, 1,42,30	
		2, 4,56,56,27,20, 9,30		9, 8
50″	6,23,25, 6, 7,43,41,54,12,54		28, 1,51,38	
		2, 4,56,55,59,18,17,52		9, 8
52″	6,23,27,11, 4,39,41,12,30,46		28, 2, 0,46	
		2, 4,56,55,31,16,17, 6		9, 8
54″	6,23,29,16, 1,35,12,28,47,52		28, 2, 9,54	
		2, 4,56,55, 3,14, 7,12		9, 8
56″	6,23,31,20,58,30,15,42,55, 4		28, 2,19, 2	
		2, 4,56,54,35,11,48,10		9, 8
58″	6,23,33,25,55,24,50,54,43,14		28, 2,28,10	
		2, 4,56,54, 7, 9,20, 0		
60″	6,23,35,30,52,18,58, 4, 3,14			
exact	6,23,35,30,52,18,58, 3,57,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6° 7′ 0″	6,23,35,30,52,18,58, 3,57,20			
		2, 4,56,53,39, 6,42, 3		
2″	6,23,37,35,49,12,37,10,39,23		28, 2,46,29	
		2, 4,56,53,11, 3,55,34		9, 8
4″	6,23,39,40,46, 5,48,14,34,57		28, 2,55,37	
		2, 4,56,52,43, 0,59,57		9, 8
6″	6,23,41,45,42,58,31,15,34,54		28, 3, 4,45	
		2, 4,56,52,14,57,55,12		9, 8
8″	6,23,43,50,39,50,46,13,30, 6		28, 3,13,53	
		2, 4,56,51,46,54,41,19		9, 8
10″	6,23,45,55,36,42,33, 8,11,25		28, 3,23, 1	
		2, 4,56,51,18,51,18,18		9, 8
12″	6,23,48, 0,33,33,51,59,29,43		28, 3,32, 9	
		2, 4,56,50,50,47,46, 9		9, 8
14″	6,23,50, 5,30,24,42,47,15,52		28, 3,41,17	
		2, 4,56,50,22,44, 4,52		9, 8
16″	6,23,52,10,27,15, 5,31,20,44		28, 3,50,25	
		2, 4,56,49,54,40,14,27		9, 8
18″	6,23,54,15,24, 5, 0,11,35,11		28, 3,59,33	
		2, 4,56,49,26,36,14,54		9, 8
20″	6,23,56,20,20,54,26,47,50, 5		28, 4, 8,41	
		2, 4,56,48,58,32, 6,13		9, 8
22″	6,23,58,25,17,43,25,19,56,18		28, 4,17,49	
		2, 4,56,48,30,27,48,24		9, 8
24″	6,24, 0,30,14,31,55,47,44,42		28, 4,26,57	
		2, 4,56,48, 2,23,21,27		9, 8
26″	6,24, 2,35,11,19,58,11, 6, 9		28, 4,36, 5	
		2, 4,56,47,34,18,45,22		9, 8
28″	6,24, 4,40, 8, 7,32,29,51,31		28, 4,45,13	
		2, 4,56,47, 6,14, 0, 9		9, 8
30″	6,24, 6,45, 4,54,38,43,51,40		28, 4,54,21	
		2, 4,56,46,38, 9, 5,48		9, 8
32″	6,24, 8,50, 1,41,16,52,57,28		28, 5, 3,29	
		2, 4,56,46,10, 4, 2,19		9, 8
34″	6,24,10,54,58,27,26,56,59,47		28, 5,12,37	
		2, 4,56,45,41,58,49,42		9, 8
36″	6,24,12,59,55,13, 8,55,49,29		28, 5,21,45	
		2, 4,56,45,13,53,27,57		9, 8
38″	6,24,15, 4,51,58,22,49,17,26		28, 5,30,53	
		2, 4,56,44,45,47,57, 4		9, 8
40″	6,24,17, 9,48,43, 8,37,14,30		28, 5,40, 1	
		2, 4,56,44,17,42,17, 3		9, 8
42″	6,24,19,14,45,27,26,19,31,33		28, 5,49, 9	
		2, 4,56,43,49,36,27,54		9, 8
44″	6,24,21,19,42,11,15,55,59,27		28, 5,58,17	
		2, 4,56,43,21,30,29,37		9, 8
46″	6,24,23,24,38,54,37,26,29, 4		28, 6, 7,25	
		2, 4,56,42,53,24,22,12		9, 8
48″	6,24,25,29,35,37,30,50,51,16		28, 6,16,33	
		2, 4,56,42,25,18, 5,39		9, 8
50″	6,24,27,34,32,19,56, 8,56,55		28, 6,25,41	
		2, 4,56,41,57,11,39,58		9, 8
52″	6,24,29,39,29, 1,53,20,36,53		28, 6,34,49	
		2, 4,56,41,29, 5, 5, 9		9, 8
54″	6,24,31,44,25,43,22,25,42, 2		28, 6,43,57	
		2, 4,56,41, 0,58,21,12		9, 8
56″	6,24,33,49,22,24,23,24, 3,14		28, 6,53, 5	
		2, 4,56,40,32,51,28, 7		9, 8
58″	6,24,35,54,19, 4,56,15,31,21		28, 7, 2,13	
		2, 4,56,40, 4,44,25,54		
60″	6,24,37,59,15,45, 0,59,57,15			
exact	6,24,37,59,15,45, 0,59,53,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6° 8′ 0″	6,24,37,59,15,45, 0,59,53,49			
		2, 4,56,39,36,37,14, 7		
2″	6,24,40, 4,12,24,37,37, 7,56		28, 7,20,31	
		2, 4,56,39, 8,29,53,36		9, 8
4″	6,24,42, 9, 9, 3,46, 7, 1,32		28, 7,29,39	
		2, 4,56,38,40,22,23,57		9, 8
6″	6,24,44,14, 5,42,26,29,25,29		28, 7,38,47	
		2, 4,56,38,12,14,45,10		9, 8
8″	6,24,46,19, 2,20,38,44,10,39		28, 7,47,55	
		2, 4,56,37,44, 6,57,15		9, 8
10″	6,24,48,23,58,58,22,51, 7,54		28, 7,57, 3	
		2, 4,56,37,15,59, 0,12		9, 8
12″	6,24,50,28,55,35,38,50, 8, 6		28, 8, 6,11	
		2, 4,56,36,47,50,54, 1		9, 8
14″	6,24,52,33,52,12,26,41, 2, 7		28, 8,15,19	
		2, 4,56,36,19,42,38,42		9, 8
16″	6,24,54,38,48,48,46,23,40,49		28, 8,24,27	
		2, 4,56,35,51,34,14,15		9, 8
18″	6,24,56,43,45,24,37,57,55, 4		28, 8,33,35	
		2, 4,56,35,23,25,40,40		9, 8
20″	6,24,58,48,42, 0, 1,23,35,44		28, 8,42,43	
		2, 4,56,34,55,16,57,57		9, 8
22″	6,25, 0,53,38,34,56,40,33,41		28, 8,51,51	
		2, 4,56,34,27, 8, 6, 6		9, 8
24″	6,25, 2,58,35, 9,23,48,39,47		28, 9, 0,59	
		2, 4,56,33,58,59, 5, 7		9, 8
26″	6,25, 5, 3,31,43,22,47,44,54		28, 9,10, 7	
		2, 4,56,33,30,49,55, 0		9, 8
28″	6,25, 7, 8,28,16,53,37,39,54		28, 9,19,15	
		2, 4,56,33, 2,40,35,45		9, 8
30″	6,25, 9,13,24,49,56,18,15,39		28, 9,28,23	
		2, 4,56,32,34,31, 7,22		9, 8
32″	6,25,11,18,21,22,30,49,23, 1		28, 9,37,31	
		2, 4,56,32, 6,21,29,51		9, 8
34″	6,25,13,23,17,54,37,10,52,52		28, 9,46,39	
		2, 4,56,31,38,11,43,12		9, 8
36″	6,25,15,28,14,26,15,22,36, 4		28, 9,55,47	
		2, 4,56,31,10, 1,47,25		9, 8
38″	6,25,17,33,10,57,25,24,23,29		28,10, 4,55	
		2, 4,56,30,41,51,42,30		9, 8
40″	6,25,19,38, 7,28, 7,16, 5,59		28,10,14, 3	
		2, 4,56,30,13,41,28,27		9, 8
42″	6,25,21,43, 3,58,20,57,34,26		28,10,23,11	
		2, 4,56,29,45,31, 5,16		9, 8
44″	6,25,23,48, 0,28, 6,28,39,42		28,10,32,19	
		2, 4,56,29,17,20,32,57		9, 8
46″	6,25,25,52,56,57,23,49,12,39		28,10,41,27	
		2, 4,56,28,49, 9,51,30		9, 8
48″	6,25,27,57,53,26,12,59, 4, 9		28,10,50,35	
		2, 4,56,28,20,59, 0,55		9, 8
50″	6,25,30, 2,49,54,33,58, 5, 4		28,10,59,43	
		2, 4,56,27,52,48, 1,12		9, 8
52″	6,25,32, 7,46,22,26,46, 6,16		28,11, 8,51	
		2, 4,56,27,24,36,52,21		9, 8
54″	6,25,34,12,42,49,51,22,58,37		28,11,17,59	
		2, 4,56,26,56,25,34,22		9, 8
56″	6,25,36,17,39,16,47,48,32,59		28,11,27, 7	
		2, 4,56,26,28,14, 7,15		9, 8
58″	6,25,38,22,35,43,16, 2,40,14		28,11,36,15	
		2, 4,56,26, 0, 2,31, 0		
60″	6,25,40,27,32, 9,16, 5,11,14			
exact	6,25,40,27,32, 9,16, 5, 7,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6° 9′ 0″	6,25,40,27,32, 9,16, 5, 7,21			
		2, 4,56,25,31,50,45,11		
2″	6,25,42,32,28,34,47,55,52,32		28,11,54,33	
		2, 4,56,25, 3,38,50,38		9, 8
4″	6,25,44,37,24,59,51,34,43,10		28,12, 3,41	
		2, 4,56,24,35,26,46,57		9, 8
6″	6,25,46,42,21,24,27, 1,30, 7		28,12,12,49	
		2, 4,56,24, 7,14,34, 8		9, 8
8″	6,25,48,47,17,48,34,16, 4,15		28,12,21,57	
		2, 4,56,23,39, 2,12,11		9, 8
10″	6,25,50,52,14,12,13,18,16,26		28,12,31, 5	
		2, 4,56,23,10,49,41, 6		9, 8
12″	6,25,52,57,10,35,24, 7,57,32		28,12,40,13	
		2, 4,56,22,42,37, 0,53		9, 8
14″	6,25,55, 2, 6,58, 6,44,58,25		28,12,49,21	
		2, 4,56,22,14,24,11,32		9, 8
16″	6,25,57, 7, 3,20,21, 9, 9,57		28,12,58,29	
		2, 4,56,21,46,11,13, 3		9, 8
18″	6,25,59,11,59,42, 7,20,23, 0		28,13, 7,37	
		2, 4,56,21,17,58, 5,26		9, 8
20″	6,26, 1,16,56, 3,25,18,28,26		28,13,16,45	
		2, 4,56,20,49,44,48,41		9, 8
22″	6,26, 3,21,52,24,15, 3,17, 7		28,13,25,53	
		2, 4,56,20,21,31,22,48		9, 8
24″	6,26, 5,26,48,44,36,34,39,55		28,13,35, 1	
		2, 4,56,19,53,17,47,47		9, 8
26″	6,26, 7,31,45, 4,29,52,27,42		28,13,44, 9	
		2, 4,56,19,25, 4, 3,38		9, 8
28″	6,26, 9,36,41,23,54,56,31,20		28,13,53,17	
		2, 4,56,18,56,50,10,21		9, 8
30″	6,26,11,41,37,42,51,46,41,41		28,14, 2,25	
		2, 4,56,18,28,36, 7,56		9, 8
32″	6,26,13,46,34, 1,20,22,49,37		28,14,11,33	
		2, 4,56,18, 0,21,56,23		9, 8
34″	6,26,15,51,30,19,20,44,46, 0		28,14,20,41	
		2, 4,56,17,32, 7,35,42		9, 8
36″	6,26,17,56,26,36,52,52,21,42		28,14,29,49	
		2, 4,56,17, 3,53, 5,53		9, 8
38″	6,26,20, 1,22,53,56,45,27,35		28,14,38,57	
		2, 4,56,16,35,38,26,56		9, 8
40″	6,26,22, 6,19,10,32,23,54,31		28,14,48, 5	
		2, 4,56,16, 7,23,38,51		9, 8
42″	6,26,24,11,15,26,39,47,33,22		28,14,57,13	
		2, 4,56,15,39, 8,41,38		9, 8
44″	6,26,26,16,11,42,18,56,15, 0		28,15, 6,21	
		2, 4,56,15,10,53,35,17		9, 8
46″	6,26,28,21, 7,57,29,49,50,17		28,15,15,29	
		2, 4,56,14,42,38,19,48		9, 8
48″	6,26,30,26, 4,12,12,28,10, 5		28,15,24,37	
		2, 4,56,14,14,22,55,11		9, 8
50″	6,26,32,31, 0,26,26,51, 5,16		28,15,33,45	
		2, 4,56,13,46, 7,21,26		9, 8
52″	6,26,34,35,56,40,12,58,26,42		28,15,42,53	
		2, 4,56,13,17,51,38,33		9, 8
54″	6,26,36,40,52,53,30,50, 5,15		28,15,52, 1	
		2, 4,56,12,49,35,46,32		9, 8
56″	6,26,38,45,49, 6,20,25,51,47		28,16, 1, 9	
		2, 4,56,12,21,19,45,23		9, 8
58″	6,26,40,50,45,18,41,45,37,10		28,16,10,17	
		2, 4,56,11,53, 3,35, 6		
60″	6,26,42,55,41,30,34,49,12,16			
exact	6,26,42,55,41,30,34,49,11,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°10′ 0″	6,26,42,55,41,30,34,49,11,23			
		2, 4,56,11,24,47,15,30		
2″	6,26,45, 0,37,41,59,36,26,53		28,16,28,34	
		2, 4,56,10,56,30,46,56		9, 8
4″	6,26,47, 5,33,52,56, 7,13,49		28,16,37,42	
		2, 4,56,10,28,14, 9,14		9, 8
6″	6,26,49,10,30, 3,24,21,23, 3		28,16,46,50	
		2, 4,56, 9,59,57,22,24		9, 8
8″	6,26,51,15,26,13,24,18,45,27		28,16,55,58	
		2, 4,56, 9,31,40,26,26		9, 8
10″	6,26,53,20,22,22,55,59,11,53		28,17, 5, 6	
		2, 4,56, 9, 3,23,21,20		9, 8
12″	6,26,55,25,18,31,59,22,33,13		28,17,14,14	
		2, 4,56, 8,35, 6, 7, 6		9, 8
14″	6,26,57,30,14,40,34,28,40,19		28,17,23,22	
		2, 4,56, 8, 6,48,43,44		9, 8
16″	6,26,59,35,10,48,41,17,24, 3		28,17,32,30	
		2, 4,56, 7,38,31,11,14		9, 8
18″	6,27, 1,40, 6,56,19,48,35,17		28,17,41,38	
		2, 4,56, 7,10,13,29,36		9, 8
20″	6,27, 3,45, 3, 3,30, 2, 4,53		28,17,50,46	
		2, 4,56, 6,41,55,38,50		9, 8
22″	6,27, 5,49,59,10,11,57,43,43		28,17,59,54	
		2, 4,56, 6,13,37,38,56		9, 8
24″	6,27, 7,54,55,16,25,35,22,39		28,18, 9, 2	
		2, 4,56, 5,45,19,29,54		9, 8
26″	6,27, 9,59,51,22,10,54,52,33		28,18,18,10	
		2, 4,56, 5,17, 1,11,44		9, 8
28″	6,27,12, 4,47,27,27,56, 4,17		28,18,27,18	
		2, 4,56, 4,48,42,44,26		9, 8
30″	6,27,14, 9,43,32,16,38,48,43		28,18,36,26	
		2, 4,56, 4,20,24, 8, 0		9, 8
32″	6,27,16,14,39,36,37, 2,56,43		28,18,45,34	
		2, 4,56, 3,52, 5,22,26		9, 8
34″	6,27,18,19,35,40,29, 8,19, 9		28,18,54,42	
		2, 4,56, 3,23,46,27,44		9, 8
36″	6,27,20,24,31,43,52,54,46,53		28,19, 3,50	
		2, 4,56, 2,55,27,23,54		9, 8
38″	6,27,22,29,27,46,48,22,10,47		28,19,12,58	
		2, 4,56, 2,27, 8,10,56		9, 8
40″	6,27,24,34,23,49,15,30,21,43		28,19,22, 6	
		2, 4,56, 1,58,48,48,50		9, 8
42″	6,27,26,39,19,51,14,19,10,33		28,19,31,14	
		2, 4,56, 1,30,29,17,36		9, 8
44″	6,27,28,44,15,52,44,48,28, 9		28,19,40,22	
		2, 4,56, 1, 2, 9,37,14		9, 8
46″	6,27,30,49,11,53,46,58, 5,23		28,19,49,30	
		2, 4,56, 0,33,49,47,44		9, 8
48″	6,27,32,54, 7,54,20,47,53, 7		28,19,58,38	
		2, 4,56, 0, 5,29,49, 6		9, 8
50″	6,27,34,59, 3,54,26,17,42,13		28,20, 7,46	
		2, 4,55,59,37, 9,41,20		9, 8
52″	6,27,37, 3,59,54, 3,27,23,33		28,20,16,54	
		2, 4,55,59, 8,49,24,26		9, 8
54″	6,27,39, 8,55,53,12,16,47,59		28,20,26, 2	
		2, 4,55,58,40,28,58,24		9, 8
56″	6,27,41,13,51,51,52,45,46,23		28,20,35,10	
		2, 4,55,58,12, 8,23,14		9, 8
58″	6,27,43,18,47,50, 4,54, 9,37		28,20,44,18	
		2, 4,55,57,43,47,38,56		
60″	6,27,45,23,43,47,48,41,48,33			
exact	6,27,45,23,43,47,48,41,47,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°11′ 0″	6,27,45,23,43,47,48,41,47,10			
		2, 4,55,57,15,26,45,20		
2″	6,27,47,28,39,45, 4, 8,32,30		28,21, 2,35	
		2, 4,55,56,47, 5,42,45		9, 8
4″	6,27,49,33,35,41,51,14,15,15		28,21,11,43	
		2, 4,55,56,18,44,31, 2		9, 8
6″	6,27,51,38,31,38, 9,58,46,17		28,21,20,51	
		2, 4,55,55,50,23,10,11		9, 8
8″	6,27,53,43,27,34, 0,21,56,28		28,21,29,59	
		2, 4,55,55,22, 1,40,12		9, 8
10″	6,27,55,48,23,29,22,23,36,40		28,21,39, 7	
		2, 4,55,54,53,40, 1, 5		9, 8
12″	6,27,57,53,19,24,16, 3,37,45		28,21,48,15	
		2, 4,55,54,25,18,12,50		9, 8
14″	6,27,59,58,15,18,41,21,50,35		28,21,57,23	
		2, 4,55,53,56,56,15,27		9, 8
16″	6,28, 2, 3,11,12,38,18, 6, 2		28,22, 6,31	
		2, 4,55,53,28,34, 8,56		9, 8
18″	6,28, 4, 8, 7, 6, 6,52,14,58		28,22,15,39	
		2, 4,55,53, 0,11,53,17		9, 8
20″	6,28, 6,13, 2,59, 7, 4, 8,15		28,22,24,47	
		2, 4,55,52,31,49,28,30		9, 8
22″	6,28, 8,17,58,51,38,53,36,45		28,22,33,55	
		2, 4,55,52, 3,26,54,35		9, 8
24″	6,28,10,22,54,43,42,20,31,20		28,22,43, 3	
		2, 4,55,51,35, 4,11,32		9, 8
26″	6,28,12,27,50,35,17,24,42,52		28,22,52,11	
		2, 4,55,51, 6,41,19,21		9, 8
28″	6,28,14,32,46,26,24, 6, 2,13		28,23, 1,19	
		2, 4,55,50,38,18,18, 2		9, 8
30″	6,28,16,37,42,17, 2,24,20,15		28,23,10,27	
		2, 4,55,50, 9,55, 7,35		9, 8
32″	6,28,18,42,38, 7,12,19,27,50		28,23,19,35	
		2, 4,55,49,41,31,48, 0		9, 8
34″	6,28,20,47,33,56,53,51,15,50		28,23,28,43	
		2, 4,55,49,13, 8,19,17		9, 8
36″	6,28,22,52,29,46, 6,59,35, 7		28,23,37,51	
		2, 4,55,48,44,44,41,26		9, 8
38″	6,28,24,57,25,34,51,44,16,33		28,23,46,59	
		2, 4,55,48,16,20,54,27		9, 8
40″	6,28,27, 2,21,23, 8, 5,11, 0		28,23,56, 7	
		2, 4,55,47,47,56,58,20		9, 8
42″	6,28,29, 7,17,10,56, 2, 9,20		28,24, 5,15	
		2, 4,55,47,19,32,53, 5		9, 8
44″	6,28,31,12,12,58,15,35, 2,25		28,24,14,23	
		2, 4,55,46,51, 8,38,42		9, 8
46″	6,28,33,17, 8,45, 6,43,41, 7		28,24,23,31	
		2, 4,55,46,22,44,15,11		9, 8
48″	6,28,35,22, 4,31,29,27,56,18		28,24,32,39	
		2, 4,55,45,54,19,42,32		9, 8
50″	6,28,37,27, 0,17,23,47,38,50		28,24,41,47	
		2, 4,55,45,25,55, 0,45		9, 8
52″	6,28,39,31,56, 2,49,42,39,35		28,24,50,55	
		2, 4,55,44,57,30, 9,50		9, 8
54″	6,28,41,36,51,47,47,12,49,25		28,25, 0, 3	
		2, 4,55,44,29, 5, 9,47		9, 8
56″	6,28,43,41,47,32,16,17,59,12		28,25, 9,11	
		2, 4,55,44, 0,40, 0,36		9, 8
58″	6,28,45,46,43,16,16,57,59,48		28,25,18,19	
		2, 4,55,43,32,14,42,17		
60″	6,28,47,51,38,59,49,12,42, 5			
exact	6,28,47,51,38,59,49,12,43,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°12′ 0″	6,28,47,51,38,59,49,12,43,40			
		2, 4,55,43, 3,49,14,55		
2″	6,28,49,56,34,42,53, 1,58,35		28,25,36,35	
		2, 4,55,42,35,23,38,20		9, 8
4″	6,28,52, 1,30,25,28,25,36,55		28,25,45,43	
		2, 4,55,42, 6,57,52,37		9, 8
6″	6,28,54, 6,26, 7,35,23,29,32		28,25,54,51	
		2, 4,55,41,38,31,57,46		9, 8
8″	6,28,56,11,21,49,13,55,27,18		28,26, 3,59	
		2, 4,55,41,10, 5,53,47		9, 8
10″	6,28,58,16,17,30,24, 1,21, 5		28,26,13, 7	
		2, 4,55,40,41,39,40,40		9, 8
12″	6,29, 0,21,13,11, 5,41, 1,45		28,26,22,15	
		2, 4,55,40,13,13,18,25		9, 8
14″	6,29, 2,26, 8,51,18,54,20,10		28,26,31,23	
		2, 4,55,39,44,46,47, 2		9, 8
16″	6,29, 4,31, 4,31, 3,41, 7,12		28,26,40,31	
		2, 4,55,39,16,20, 6,31		9, 8
18″	6,29, 6,36, 0,10,20, 1,13,43		28,26,49,39	
		2, 4,55,38,47,53,16,52		9, 8
20″	6,29, 8,40,55,49, 7,54,30,35		28,26,58,47	
		2, 4,55,38,19,26,18, 5		9, 8
22″	6,29,10,45,51,27,27,20,48,40		28,27, 7,55	
		2, 4,55,37,50,59,10,10		9, 8
24″	6,29,12,50,47, 5,18,19,58,50		28,27,17, 3	
		2, 4,55,37,22,31,53, 7		9, 8
26″	6,29,14,55,42,42,40,51,51,57		28,27,26,11	
		2, 4,55,36,54, 4,26,56		9, 8
28″	6,29,17, 0,38,19,34,56,18,53		28,27,35,19	
		2, 4,55,36,25,36,51,37		9, 8
30″	6,29,19, 5,33,56, 0,33,10,30		28,27,44,27	
		2, 4,55,35,57, 9, 7,10		9, 8
32″	6,29,21,10,29,31,57,42,17,40		28,27,53,35	
		2, 4,55,35,28,41,13,35		9, 8
34″	6,29,23,15,25, 7,26,23,31,15		28,28, 2,43	
		2, 4,55,35, 0,13,10,52		9, 8
36″	6,29,25,20,20,42,26,36,42, 7		28,28,11,51	
		2, 4,55,34,31,44,59, 1		9, 8
38″	6,29,27,25,16,16,58,21,41, 8		28,28,20,59	
		2, 4,55,34, 3,16,38, 2		9, 8
40″	6,29,29,30,11,51, 1,38,19,10		28,28,30, 7	
		2, 4,55,33,34,48, 7,55		9, 8
42″	6,29,31,35, 7,24,36,26,27, 5		28,28,39,15	
		2, 4,55,33, 6,19,28,40		9, 8
44″	6,29,33,40, 2,57,42,45,55,45		28,28,48,23	
		2, 4,55,32,37,50,40,17		9, 8
46″	6,29,35,44,58,30,20,36,36, 2		28,28,57,31	
		2, 4,55,32, 9,21,42,46		9, 8
48″	6,29,37,49,54, 2,29,58,18,48		28,29, 6,39	
		2, 4,55,31,40,52,36, 7		9, 8
50″	6,29,39,54,49,34,10,50,54,55		28,29,15,47	
		2, 4,55,31,12,23,20,20		9, 8
52″	6,29,41,59,45, 5,23,14,15,15		28,29,24,55	
		2, 4,55,30,43,53,55,25		9, 8
54″	6,29,44, 4,40,36, 7, 8,10,40		28,29,34, 3	
		2, 4,55,30,15,24,21,22		9, 8
56″	6,29,46, 9,36, 6,22,32,32, 2		28,29,43,11	
		2, 4,55,29,46,54,38,11		9, 8
58″	6,29,48,14,31,36, 9,27,10,13		28,29,52,19	
		2, 4,55,29,18,24,45,52		
60″	6,29,50,19,27, 5,27,51,56, 5			
exact	6,29,50,19,27, 5,27,51,57,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°13′ 0″	6,29,50,19,27, 5,27,51,57,38			
		2, 4,55,28,49,54,44,33		
2″	6,29,52,24,22,34,17,46,42,11		28,30,10,35	
		2, 4,55,28,21,24,33,58		9, 8
4″	6,29,54,29,18, 2,39,11,16, 9		28,30,19,43	
		2, 4,55,27,52,54,14,15		9, 8
6″	6,29,56,34,13,30,32, 5,30,24		28,30,28,51	
		2, 4,55,27,24,23,45,24		9, 8
8″	6,29,58,39, 8,57,56,29,15,48		28,30,37,59	
		2, 4,55,26,55,53, 7,25		9, 8
10″	6,30, 0,44, 4,24,52,22,23,13		28,30,47, 7	
		2, 4,55,26,27,22,20,18		9, 8
12″	6,30, 2,48,59,51,19,44,43,31		28,30,56,15	
		2, 4,55,25,58,51,24, 3		9, 8
14″	6,30, 4,53,55,17,18,36, 7,34		28,31, 5,23	
		2, 4,55,25,30,20,18,40		9, 8
16″	6,30, 6,58,50,42,48,56,26,14		28,31,14,31	
		2, 4,55,25, 1,49, 4, 9		9, 8
18″	6,30, 9, 3,46, 7,50,45,30,23		28,31,23,39	
		2, 4,55,24,33,17,40,30		9, 8
20″	6,30,11, 8,41,32,24, 3,10,53		28,31,32,47	
		2, 4,55,24, 4,46, 7,43		9, 8
22″	6,30,13,13,36,56,28,49,18,36		28,31,41,55	
		2, 4,55,23,36,14,25,48		9, 8
24″	6,30,15,18,32,20, 5, 3,44,24		28,31,51, 3	
		2, 4,55,23, 7,42,34,45		9, 8
26″	6,30,17,23,27,43,12,46,19, 9		28,32, 0,11	
		2, 4,55,22,39,10,34,34		9, 8
28″	6,30,19,28,23, 5,51,56,53,43		28,32, 9,19	
		2, 4,55,22,10,38,25,15		9, 8
30″	6,30,21,33,18,28, 2,35,18,58		28,32,18,27	
		2, 4,55,21,42, 6, 6,48		9, 8
32″	6,30,23,38,13,49,44,41,25,46		28,32,27,35	
		2, 4,55,21,13,33,39,13		9, 8
34″	6,30,25,43, 9,10,58,15, 4,59		28,32,36,43	
		2, 4,55,20,45, 1, 2,30		9, 8
36″	6,30,27,48, 4,31,43,16, 7,29		28,32,45,51	
		2, 4,55,20,16,28,16,39		9, 8
38″	6,30,29,52,59,51,59,44,24, 8		28,32,54,59	
		2, 4,55,19,47,55,21,40		9, 8
40″	6,30,31,57,55,11,47,39,45,48		28,33, 4, 7	
		2, 4,55,19,19,22,17,33		9, 8
42″	6,30,34, 2,50,31, 7, 2, 3,21		28,33,13,15	
		2, 4,55,18,50,49, 4,18		9, 8
44″	6,30,36, 7,45,49,57,51, 7,39		28,33,22,23	
		2, 4,55,18,22,15,41,55		9, 8
46″	6,30,38,12,41, 8,20, 6,49,34		28,33,31,31	
		2, 4,55,17,53,42,10,24		9, 8
48″	6,30,40,17,36,26,13,48,59,58		28,33,40,39	
		2, 4,55,17,25, 8,29,45		9, 8
50″	6,30,42,22,31,43,38,57,29,43		28,33,49,47	
		2, 4,55,16,56,34,39,58		9, 8
52″	6,30,44,27,27, 0,35,32, 9,41		28,33,58,55	
		2, 4,55,16,28, 0,41, 3		9, 8
54″	6,30,46,32,22,17, 3,32,50,44		28,34, 8, 3	
		2, 4,55,15,59,26,33, 0		9, 8
56″	6,30,48,37,17,33, 2,59,23,44		28,34,17,11	
		2, 4,55,15,30,52,15,49		9, 8
58″	6,30,50,42,12,48,33,51,39,33		28,34,26,19	
		2, 4,55,15, 2,17,49,30		
60″	6,30,52,47, 8, 3,36, 9,29, 3			
exact	6,30,52,47, 8, 3,36, 9,33,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°14′ 0″	6,30,52,47, 8, 3,36, 9,33,38			
		2, 4,55,14,33,43,14,27		
2″	6,30,54,52, 3,18, 9,52,48, 5		28,34,44,34	
		2, 4,55,14, 5, 8,29,53		9, 8
4″	6,30,56,56,58,32,15, 1,17,58		28,34,53,42	
		2, 4,55,13,36,33,36,11		9, 8
6″	6,30,59, 1,53,45,51,34,54, 9		28,35, 2,50	
		2, 4,55,13, 7,58,33,21		9, 8
8″	6,31, 1, 6,48,58,59,33,27,30		28,35,11,58	
		2, 4,55,12,39,23,21,23		9, 8
10″	6,31, 3,11,44,11,38,56,48,53		28,35,21, 6	
		2, 4,55,12,10,48, 0,17		9, 8
12″	6,31, 5,16,39,23,49,44,49,10		28,35,30,14	
		2, 4,55,11,42,12,30, 3		9, 8
14″	6,31, 7,21,34,35,31,57,19,13		28,35,39,22	
		2, 4,55,11,13,36,50,41		9, 8
16″	6,31, 9,26,29,46,45,34, 9,54		28,35,48,30	
		2, 4,55,10,45, 1, 2,11		9, 8
18″	6,31,11,31,24,57,30,35,12, 5		28,35,57,38	
		2, 4,55,10,16,25, 4,33		9, 8
20″	6,31,13,36,20, 7,47, 0,16,38		28,36, 6,46	
		2, 4,55, 9,47,48,57,47		9, 8
22″	6,31,15,41,15,17,34,49,14,25		28,36,15,54	
		2, 4,55, 9,19,12,41,53		9, 8
24″	6,31,17,46,10,26,54, 1,56,18		28,36,25, 2	
		2, 4,55, 8,50,36,16,51		9, 8
26″	6,31,19,51, 5,35,44,38,13, 9		28,36,34,10	
		2, 4,55, 8,21,59,42,41		9, 8
28″	6,31,21,56, 0,44, 6,37,55,50		28,36,43,18	
		2, 4,55, 7,53,22,59,23		9, 8
30″	6,31,24, 0,55,52, 0, 0,55,13		28,36,52,26	
		2, 4,55, 7,24,46, 6,57		9, 8
32″	6,31,26, 5,50,59,24,47, 2,10		28,37, 1,34	
		2, 4,55, 6,56, 9, 5,23		9, 8
34″	6,31,28,10,46, 6,20,56, 7,33		28,37,10,42	
		2, 4,55, 6,27,31,54,41		9, 8
36″	6,31,30,15,41,12,48,28, 2,14		28,37,19,50	
		2, 4,55, 5,58,54,34,51		9, 8
38″	6,31,32,20,36,18,47,22,37, 5		28,37,28,58	
		2, 4,55, 5,30,17, 5,53		9, 8
40″	6,31,34,25,31,24,17,39,42,58		28,37,38, 6	
		2, 4,55, 5, 1,39,27,47		9, 8
42″	6,31,36,30,26,29,19,19,10,45		28,37,47,14	
		2, 4,55, 4,33, 1,40,33		9, 8
44″	6,31,38,35,21,33,52,20,51,18		28,37,56,22	
		2, 4,55, 4, 4,23,44,11		9, 8
46″	6,31,40,40,16,37,56,44,35,29		28,38, 5,30	
		2, 4,55, 3,35,45,38,41		9, 8
48″	6,31,42,45,11,41,32,30,14,10		28,38,14,38	
		2, 4,55, 3, 7, 7,24, 3		9, 8
50″	6,31,44,50, 6,44,39,37,38,13		28,38,23,46	
		2, 4,55, 2,38,29, 0,17		9, 8
52″	6,31,46,55, 1,47,18, 6,38,30		28,38,32,54	
		2, 4,55, 2, 9,50,27,23		9, 8
54″	6,31,48,59,56,49,27,57, 5,53		28,38,42, 2	
		2, 4,55, 1,41,11,45,21		9, 8
56″	6,31,51, 4,51,51, 9, 8,51,14		28,38,51,10	
		2, 4,55, 1,12,32,54,11		9, 8
58″	6,31,53, 9,46,52,21,41,45,25		28,39, 0,18	
		2, 4,55, 0,43,53,53,53		
60″	6,31,55,14,41,53, 5,35,39,18			
exact	6,31,55,14,41,53, 5,35,44, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°15′ 0″	6,31,55,14,41,53, 5,35,44, 0			
		2, 4,55, 0,15,14,44,54		
2″	6,31,57,19,36,53,20,50,28,54		28,39,18,32	
		2, 4,54,59,46,35,26,22		9, 8
4″	6,31,59,24,31,53, 7,25,55,16		28,39,27,40	
		2, 4,54,59,17,55,58,42		9, 8
6″	6,32, 1,29,26,52,25,21,53,58		28,39,36,48	
		2, 4,54,58,49,16,21,54		9, 8
8″	6,32, 3,34,21,51,14,38,15,52		28,39,45,56	
		2, 4,54,58,20,36,35,58		9, 8
10″	6,32, 5,39,16,49,35,14,51,50		28,39,55, 4	
		2, 4,54,57,51,56,40,54		9, 8
12″	6,32, 7,44,11,47,27,11,32,44		28,40, 4,12	
		2, 4,54,57,23,16,36,42		9, 8
14″	6,32, 9,49, 6,44,50,28, 9,26		28,40,13,20	
		2, 4,54,56,54,36,23,22		9, 8
16″	6,32,11,54, 1,41,45, 4,32,48		28,40,22,28	
		2, 4,54,56,25,56, 0,54		9, 8
18″	6,32,13,58,56,38,11, 0,33,42		28,40,31,36	
		2, 4,54,55,57,15,29,18		9, 8
20″	6,32,16, 3,51,34, 8,16, 3, 0		28,40,40,44	
		2, 4,54,55,28,34,48,34		9, 8
22″	6,32,18, 8,46,29,36,50,51,34		28,40,49,52	
		2, 4,54,54,59,53,58,42		9, 8
24″	6,32,20,13,41,24,36,44,50,16		28,40,59, 0	
		2, 4,54,54,31,12,59,42		9, 8
26″	6,32,22,18,36,19, 7,57,49,58		28,41, 8, 8	
		2, 4,54,54, 2,31,51,34		9, 8
28″	6,32,24,23,31,13,10,29,41,32		28,41,17,16	
		2, 4,54,53,33,50,34,18		9, 8
30″	6,32,26,28,26, 6,44,20,15,50		28,41,26,24	
		2, 4,54,53, 5, 9, 7,54		9, 8
32″	6,32,28,33,20,59,49,29,23,44		28,41,35,32	
		2, 4,54,52,36,27,32,22		9, 8
34″	6,32,30,38,15,52,25,56,56, 6		28,41,44,40	
		2, 4,54,52, 7,45,47,42		9, 8
36″	6,32,32,43,10,44,33,42,43,48		28,41,53,48	
		2, 4,54,51,39, 3,53,54		9, 8
38″	6,32,34,48, 5,36,12,46,37,42		28,42, 2,56	
		2, 4,54,51,10,21,50,58		9, 8
40″	6,32,36,53, 0,27,23, 8,28,40		28,42,12, 4	
		2, 4,54,50,41,39,38,54		9, 8
42″	6,32,38,57,55,18, 4,48, 7,34		28,42,21,12	
		2, 4,54,50,12,57,17,42		9, 8
44″	6,32,41, 2,50, 8,17,45,25,16		28,42,30,20	
		2, 4,54,49,44,14,47,22		9, 8
46″	6,32,43, 7,44,58, 2, 0,12,38		28,42,39,28	
		2, 4,54,49,15,32, 7,54		9, 8
48″	6,32,45,12,39,47,17,32,20,32		28,42,48,36	
		2, 4,54,48,46,49,19,18		9, 8
50″	6,32,47,17,34,36, 4,21,39,50		28,42,57,44	
		2, 4,54,48,18, 6,21,34		9, 8
52″	6,32,49,22,29,24,22,28, 1,24		28,43, 6,52	
		2, 4,54,47,49,23,14,42		9, 8
54″	6,32,51,27,24,12,11,51,16, 6		28,43,16, 0	
		2, 4,54,47,20,39,58,42		9, 8
56″	6,32,53,32,18,59,32,31,14,48		28,43,25, 8	
		2, 4,54,46,51,56,33,34		9, 8
58″	6,32,55,37,13,46,24,27,48,22		28,43,34,16	
		2, 4,54,46,23,12,59,18		
60″	6,32,57,42, 8,32,47,40,47,40			
exact	6,32,57,42, 8,32,47,40,48,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°16′ 0″	6,32,57,42, 8,32,47,40,48,56			
		2, 4,54,45,54,29,16, 9		
2″	6,32,59,47, 3,18,42,10, 5, 5		28,43,52,30	
		2, 4,54,45,25,45,23,39		9, 8
4″	6,33, 1,51,58, 4, 7,55,28,44		28,44, 1,38	
		2, 4,54,44,57, 1,22, 1		9, 8
6″	6,33, 3,56,52,49, 4,56,50,45		28,44,10,46	
		2, 4,54,44,28,17,11,15		9, 8
8″	6,33, 6, 1,47,33,33,14, 2, 0		28,44,19,54	
		2, 4,54,43,59,32,51,21		9, 8
10″	6,33, 8, 6,42,17,32,46,53,21		28,44,29, 2	
		2, 4,54,43,30,48,22,19		9, 8
12″	6,33,10,11,37, 1, 3,35,15,40		28,44,38,10	
		2, 4,54,43, 2, 3,44, 9		9, 8
14″	6,33,12,16,31,44, 5,38,59,49		28,44,47,18	
		2, 4,54,42,33,18,56,51		9, 8
16″	6,33,14,21,26,26,38,57,56,40		28,44,56,26	
		2, 4,54,42, 4,34, 0,25		9, 8
18″	6,33,16,26,21, 8,43,31,57, 5		28,45, 5,34	
		2, 4,54,41,35,48,54,51		9, 8
20″	6,33,18,31,15,50,19,20,51,56		28,45,14,42	
		2, 4,54,41, 7, 3,40, 9		9, 8
22″	6,33,20,36,10,31,26,24,32, 5		28,45,23,50	
		2, 4,54,40,38,18,16,19		9, 8
24″	6,33,22,41, 5,12, 4,42,48,24		28,45,32,58	
		2, 4,54,40, 9,32,43,21		9, 8
26″	6,33,24,45,59,52,14,15,31,45		28,45,42, 6	
		2, 4,54,39,40,47, 1,15		9, 8
28″	6,33,26,50,54,31,55, 2,33, 0		28,45,51,14	
		2, 4,54,39,12, 1,10, 1		9, 8
30″	6,33,28,55,49,11, 7, 3,43, 1		28,46, 0,22	
		2, 4,54,38,43,15, 9,39		9, 8
32″	6,33,31, 0,43,49,50,18,52,40		28,46, 9,30	
		2, 4,54,38,14,29, 0, 9		9, 8
34″	6,33,33, 5,38,28, 4,47,52,49		28,46,18,38	
		2, 4,54,37,45,42,41,31		9, 8
36″	6,33,35,10,33, 5,50,30,34,20		28,46,27,46	
		2, 4,54,37,16,56,13,45		9, 8
38″	6,33,37,15,27,43, 7,26,48, 5		28,46,36,54	
		2, 4,54,36,48, 9,36,51		9, 8
40″	6,33,39,20,22,19,55,36,24,56		28,46,46, 2	
		2, 4,54,36,19,22,50,49		9, 8
42″	6,33,41,25,16,56,14,59,15,45		28,46,55,10	
		2, 4,54,35,50,35,55,39		9, 8
44″	6,33,43,30,11,32, 5,35,11,24		28,47, 4,18	
		2, 4,54,35,21,48,51,21		9, 8
46″	6,33,45,35, 6, 7,27,24, 2,45		28,47,13,26	
		2, 4,54,34,53, 1,37,55		9, 8
48″	6,33,47,40, 0,42,20,25,40,40		28,47,22,34	
		2, 4,54,34,24,14,15,21		9, 8
50″	6,33,49,44,55,16,44,39,56, 1		28,47,31,42	
		2, 4,54,33,55,26,43,39		9, 8
52″	6,33,51,49,49,50,40, 6,39,40		28,47,40,50	
		2, 4,54,33,26,39, 2,49		9, 8
54″	6,33,53,54,44,24, 6,45,42,29		28,47,49,58	
		2, 4,54,32,57,51,12,51		9, 8
56″	6,33,55,59,38,57, 4,36,55,20		28,47,59, 6	
		2, 4,54,32,29, 3,13,45		9, 8
58″	6,33,58, 4,33,29,33,40, 9, 5		28,48, 8,14	
		2, 4,54,32, 0,15, 5,31		
60″	6,34, 0, 9,28, 1,33,55,14,36			
exact	6,34, 0, 9,28, 1,33,55,16,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°17′ 0″	6,34, 0, 9,28, 1,33,55,16,28			
		2, 4,54,31,31,26,48,29		
2″	6,34, 2,14,22,33, 5,22, 4,57		28,48,26,28	
		2, 4,54,31, 2,38,22, 1		9, 8
4″	6,34, 4,19,17, 4, 8, 0,26,58		28,48,35,36	
		2, 4,54,30,33,49,46,25		9, 8
6″	6,34, 6,24,11,34,41,50,13,23		28,48,44,44	
		2, 4,54,30, 5, 1, 1,41		9, 8
8″	6,34, 8,29, 6, 4,46,51,15, 4		28,48,53,52	
		2, 4,54,29,36,12, 7,49		9, 8
10″	6,34,10,34, 0,34,23, 3,22,53		28,49, 3, 0	
		2, 4,54,29, 7,23, 4,49		9, 8
12″	6,34,12,38,55, 3,30,26,27,42		28,49,12, 8	
		2, 4,54,28,38,33,52,41		9, 8
14″	6,34,14,43,49,32, 9, 0,20,23		28,49,21,16	
		2, 4,54,28, 9,44,31,25		9, 8
16″	6,34,16,48,44, 0,18,44,51,48		28,49,30,24	
		2, 4,54,27,40,55, 1, 1		9, 8
18″	6,34,18,53,38,27,59,39,52,49		28,49,39,32	
		2, 4,54,27,12, 5,21,29		9, 8
20″	6,34,20,58,32,55,11,45,14,18		28,49,48,40	
		2, 4,54,26,43,15,32,49		9, 8
22″	6,34,23, 3,27,21,55, 0,47, 7		28,49,57,48	
		2, 4,54,26,14,25,35, 1		9, 8
24″	6,34,25, 8,21,48, 9,26,22, 8		28,50, 6,56	
		2, 4,54,25,45,35,28, 5		9, 8
26″	6,34,27,13,16,13,55, 1,50,13		28,50,16, 4	
		2, 4,54,25,16,45,12, 1		9, 8
28″	6,34,29,18,10,39,11,47, 2,14		28,50,25,12	
		2, 4,54,24,47,54,46,49		9, 8
30″	6,34,31,23, 5, 3,59,41,49, 3		28,50,34,20	
		2, 4,54,24,19, 4,12,29		9, 8
32″	6,34,33,27,59,28,18,46, 1,32		28,50,43,28	
		2, 4,54,23,50,13,29, 1		9, 8
34″	6,34,35,32,53,52, 8,59,30,33		28,50,52,36	
		2, 4,54,23,21,22,36,25		9, 8
36″	6,34,37,37,48,15,30,22, 6,58		28,51, 1,44	
		2, 4,54,22,52,31,34,41		9, 8
38″	6,34,39,42,42,38,22,53,41,39		28,51,10,52	
		2, 4,54,22,23,40,23,49		9, 8
40″	6,34,41,47,37, 0,46,34, 5,28		28,51,20, 0	
		2, 4,54,21,54,49, 3,49		9, 8
42″	6,34,43,52,31,22,41,23, 9,17		28,51,29, 8	
		2, 4,54,21,25,57,34,41		9, 8
44″	6,34,45,57,25,44, 7,20,43,58		28,51,38,16	
		2, 4,54,20,57, 5,56,25		9, 8
46″	6,34,48, 2,20, 5, 4,26,40,23		28,51,47,24	
		2, 4,54,20,28,14, 9, 1		9, 8
48″	6,34,50, 7,14,25,32,40,49,24		28,51,56,32	
		2, 4,54,19,59,22,12,29		9, 8
50″	6,34,52,12, 8,45,32, 3, 1,53		28,52, 5,40	
		2, 4,54,19,30,30, 6,49		9, 8
52″	6,34,54,17, 3, 5, 2,33, 8,42		28,52,14,48	
		2, 4,54,19, 1,37,52, 1		9, 8
54″	6,34,56,21,57,24, 4,11, 0,43		28,52,23,56	
		2, 4,54,18,32,45,28, 5		9, 8
56″	6,34,58,26,51,42,36,56,28,48		28,52,33, 4	
		2, 4,54,18, 3,52,55, 1		9, 8
58″	6,35, 0,31,46, 0,40,49,23,49		28,52,42,12	
		2, 4,54,17,35, 0,12,49		
60″	6,35, 2,36,40,18,15,49,36,38			
exact	6,35, 2,36,40,18,15,49,42,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°18′ 0″	6,35, 2,36,40,18,15,49,42,32			
		2, 4,54,17, 6, 7,22, 9		
2″	6,35, 4,41,34,35,21,57, 4,41		28,53, 0,25	
		2, 4,54,16,37,14,21,44		9, 8
4″	6,35, 6,46,28,51,59,11,26,25		28,53, 9,33	
		2, 4,54,16, 8,21,12,11		9, 8
6″	6,35, 8,51,23, 8, 7,32,38,36		28,53,18,41	
		2, 4,54,15,39,27,53,30		9, 8
8″	6,35,10,56,17,23,47, 0,32, 6		28,53,27,49	
		2, 4,54,15,10,34,25,41		9, 8
10″	6,35,13, 1,11,38,57,34,57,47		28,53,36,57	
		2, 4,54,14,41,40,48,44		9, 8
12″	6,35,15, 6, 5,53,39,15,46,31		28,53,46, 5	
		2, 4,54,14,12,47, 2,39		9, 8
14″	6,35,17,11, 0, 7,52, 2,49,10		28,53,55,13	
		2, 4,54,13,43,53, 7,26		9, 8
16″	6,35,19,15,54,21,35,55,56,36		28,54, 4,21	
		2, 4,54,13,14,59, 3, 5		9, 8
18″	6,35,21,20,48,34,50,54,59,41		28,54,13,29	
		2, 4,54,12,46, 4,49,36		9, 8
20″	6,35,23,25,42,47,36,59,49,17		28,54,22,37	
		2, 4,54,12,17,10,26,59		9, 8
22″	6,35,25,30,36,59,54,10,16,16		28,54,31,45	
		2, 4,54,11,48,15,55,14		9, 8
24″	6,35,27,35,31,11,42,26,11,30		28,54,40,53	
		2, 4,54,11,19,21,14,21		9, 8
26″	6,35,29,40,25,23, 1,47,25,51		28,54,50, 1	
		2, 4,54,10,50,26,24,20		9, 8
28″	6,35,31,45,19,33,52,13,50,11		28,54,59, 9	
		2, 4,54,10,21,31,25,11		9, 8
30″	6,35,33,50,13,44,13,45,15,22		28,55, 8,17	
		2, 4,54, 9,52,36,16,54		9, 8
32″	6,35,35,55, 7,54, 6,21,32,16		28,55,17,25	
		2, 4,54, 9,23,40,59,29		9, 8
34″	6,35,38, 0, 2, 3,30, 2,31,45		28,55,26,33	
		2, 4,54, 8,54,45,32,56		9, 8
36″	6,35,40, 4,56,12,24,48, 4,41		28,55,35,41	
		2, 4,54, 8,25,49,57,15		9, 8
38″	6,35,42, 9,50,20,50,38, 1,56		28,55,44,49	
		2, 4,54, 7,56,54,12,26		9, 8
40″	6,35,44,14,44,28,47,32,14,22		28,55,53,57	
		2, 4,54, 7,27,58,18,29		9, 8
42″	6,35,46,19,38,36,15,30,32,51		28,56, 3, 5	
		2, 4,54, 6,59, 2,15,24		9, 8
44″	6,35,48,24,32,43,14,32,48,15		28,56,12,13	
		2, 4,54, 6,30, 6, 3,11		9, 8
46″	6,35,50,29,26,49,44,38,51,26		28,56,21,21	
		2, 4,54, 6, 1, 9,41,50		9, 8
48″	6,35,52,34,20,55,45,48,33,16		28,56,30,29	
		2, 4,54, 5,32,13,11,21		9, 8
50″	6,35,54,39,15, 1,18, 1,44,37		28,56,39,37	
		2, 4,54, 5, 3,16,31,44		9, 8
52″	6,35,56,44, 9, 6,21,18,16,21		28,56,48,45	
		2, 4,54, 4,34,19,42,59		9, 8
54″	6,35,58,49, 3,10,55,37,59,20		28,56,57,53	
		2, 4,54, 4, 5,22,45, 6		9, 8
56″	6,36, 0,53,57,15, 1, 0,44,26		28,57, 7, 1	
		2, 4,54, 3,36,25,38, 5		9, 8
58″	6,36, 2,58,51,18,37,26,22,31		28,57,16, 9	
		2, 4,54, 3, 7,28,21,56		
60″	6,36, 5, 3,45,21,44,54,44,27			
exact	6,36, 5, 3,45,21,44,54,50,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°19′ 0″	6,36, 5, 3,45,21,44,54,50,57			
		2, 4,54, 2,38,30,57,24		
2″	6,36, 7, 8,39,24,23,25,48,21		28,57,34,22	
		2, 4,54, 2, 9,33,23, 2		9, 8
4″	6,36, 9,13,33,26,32,59,11,23		28,57,43,30	
		2, 4,54, 1,40,35,39,32		9, 8
6″	6,36,11,18,27,28,13,34,50,55		28,57,52,38	
		2, 4,54, 1,11,37,46,54		9, 8
8″	6,36,13,23,21,29,25,12,37,49		28,58, 1,46	
		2, 4,54, 0,42,39,45, 8		9, 8
10″	6,36,15,28,15,30, 7,52,22,57		28,58,10,54	
		2, 4,54, 0,13,41,34,14		9, 8
12″	6,36,17,33, 9,30,21,33,57,11		28,58,20, 2	
		2, 4,53,59,44,43,14,12		9, 8
14″	6,36,19,38, 3,30, 6,17,11,23		28,58,29,10	
		2, 4,53,59,15,44,45, 2		9, 8
16″	6,36,21,42,57,29,22, 1,56,25		28,58,38,18	
		2, 4,53,58,46,46, 6,44		9, 8
18″	6,36,23,47,51,28, 8,48, 3, 9		28,58,47,26	
		2, 4,53,58,17,47,19,18		9, 8
20″	6,36,25,52,45,26,26,35,22,27		28,58,56,34	
		2, 4,53,57,48,48,22,44		9, 8
22″	6,36,27,57,39,24,15,23,45,11		28,59, 5,42	
		2, 4,53,57,19,49,17, 2		9, 8
24″	6,36,30, 2,33,21,35,13, 2,13		28,59,14,50	
		2, 4,53,56,50,50, 2,12		9, 8
26″	6,36,32, 7,27,18,26, 3, 4,25		28,59,23,58	
		2, 4,53,56,21,50,38,14		9, 8
28″	6,36,34,12,21,14,47,53,42,39		28,59,33, 6	
		2, 4,53,55,52,51, 5, 8		9, 8
30″	6,36,36,17,15,10,40,44,47,47		28,59,42,14	
		2, 4,53,55,23,51,22,54		9, 8
32″	6,36,38,22, 9, 6, 4,36,10,41		28,59,51,22	
		2, 4,53,54,54,51,31,32		9, 8
34″	6,36,40,27, 3, 0,59,27,42,13		29, 0, 0,30	
		2, 4,53,54,25,51,31, 2		9, 8
36″	6,36,42,31,56,55,25,19,13,15		29, 0, 9,38	
		2, 4,53,53,56,51,21,24		9, 8
38″	6,36,44,36,50,49,22,10,34,39		29, 0,18,46	
		2, 4,53,53,27,51, 2,38		9, 8
40″	6,36,46,41,44,42,50, 1,37,17		29, 0,27,54	
		2, 4,53,52,58,50,34,44		9, 8
42″	6,36,48,46,38,35,48,52,12, 1		29, 0,37, 2	
		2, 4,53,52,29,49,57,42		9, 8
44″	6,36,50,51,32,28,18,42, 9,43		29, 0,46,10	
		2, 4,53,52, 0,49,11,32		9, 8
46″	6,36,52,56,26,20,19,31,21,15		29, 0,55,18	
		2, 4,53,51,31,48,16,14		9, 8
48″	6,36,55, 1,20,11,51,19,37,29		29, 1, 4,26	
		2, 4,53,51, 2,47,11,48		9, 8
50″	6,36,57, 6,14, 2,54, 6,49,17		29, 1,13,34	
		2, 4,53,50,33,45,58,14		9, 8
52″	6,36,59,11, 7,53,27,52,47,31		29, 1,22,42	
		2, 4,53,50, 4,44,35,32		9, 8
54″	6,37, 1,16, 1,43,32,37,23, 3		29, 1,31,50	
		2, 4,53,49,35,43, 3,42		9, 8
56″	6,37, 3,20,55,33, 8,20,26,45		29, 1,40,58	
		2, 4,53,49, 6,41,22,44		9, 8
58″	6,37, 5,25,49,22,15, 1,49,29		29, 1,50, 6	
		2, 4,53,48,37,39,32,38		
60″	6,37, 7,30,43,10,52,41,22, 7			
exact	6,37, 7,30,43,10,52,41,33,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°20′ 0″	6,37, 7,30,43,10,52,41,33,27			
		2, 4,53,48, 8,37,34,31		
2″	6,37, 9,35,36,59, 1,19, 7,58		29, 2, 8,18	
		2, 4,53,47,39,35,26,13		9, 8
4″	6,37,11,40,30,46,40,54,34,11		29, 2,17,26	
		2, 4,53,47,10,33, 8,47		9, 8
6″	6,37,13,45,24,33,51,27,42,58		29, 2,26,34	
		2, 4,53,46,41,30,42,13		9, 8
8″	6,37,15,50,18,20,32,58,25,11		29, 2,35,42	
		2, 4,53,46,12,28, 6,31		9, 8
10″	6,37,17,55,12, 6,45,26,31,42		29, 2,44,50	
		2, 4,53,45,43,25,21,41		9, 8
12″	6,37,20, 0, 5,52,28,51,53,23		29, 2,53,58	
		2, 4,53,45,14,22,27,43		9, 8
14″	6,37,22, 4,59,37,43,14,21, 6		29, 3, 3, 6	
		2, 4,53,44,45,19,24,37		9, 8
16″	6,37,24, 9,53,22,28,33,45,43		29, 3,12,14	
		2, 4,53,44,16,16,12,23		9, 8
18″	6,37,26,14,47, 6,44,49,58, 6		29, 3,21,22	
		2, 4,53,43,47,12,51, 1		9, 8
20″	6,37,28,19,40,50,32, 2,49, 7		29, 3,30,30	
		2, 4,53,43,18, 9,20,31		9, 8
22″	6,37,30,24,34,33,50,12, 9,38		29, 3,39,38	
		2, 4,53,42,49, 5,40,53		9, 8
24″	6,37,32,29,28,16,39,17,50,31		29, 3,48,46	
		2, 4,53,42,20, 1,52, 7		9, 8
26″	6,37,34,34,21,58,59,19,42,38		29, 3,57,54	
		2, 4,53,41,50,57,54,13		9, 8
28″	6,37,36,39,15,40,50,17,36,51		29, 4, 7, 2	
		2, 4,53,41,21,53,47,11		9, 8
30″	6,37,38,44, 9,22,12,11,24, 2		29, 4,16,10	
		2, 4,53,40,52,49,31, 1		9, 8
32″	6,37,40,49, 3, 3, 5, 0,55, 3		29, 4,25,18	
		2, 4,53,40,23,45, 5,43		9, 8
34″	6,37,42,53,56,43,28,46, 0,46		29, 4,34,26	
		2, 4,53,39,54,40,31,17		9, 8
36″	6,37,44,58,50,23,23,26,32, 3		29, 4,43,34	
		2, 4,53,39,25,35,47,43		9, 8
38″	6,37,47, 3,44, 2,49, 2,19,46		29, 4,52,42	
		2, 4,53,38,56,30,55, 1		9, 8
40″	6,37,49, 8,37,41,45,33,14,47		29, 5, 1,50	
		2, 4,53,38,27,25,53,11		9, 8
42″	6,37,51,13,31,20,12,59, 7,58		29, 5,10,58	
		2, 4,53,37,58,20,42,13		9, 8
44″	6,37,53,18,24,58,11,19,50,11		29, 5,20, 6	
		2, 4,53,37,29,15,22, 7		9, 8
46″	6,37,55,23,18,35,40,35,12,18		29, 5,29,14	
		2, 4,53,37, 0, 9,52,53		9, 8
48″	6,37,57,28,12,12,40,45, 5,11		29, 5,38,22	
		2, 4,53,36,31, 4,14,31		9, 8
50″	6,37,59,33, 5,49,11,49,19,42		29, 5,47,30	
		2, 4,53,36, 1,58,27, 1		9, 8
52″	6,38, 1,37,59,25,13,47,46,43		29, 5,56,38	
		2, 4,53,35,32,52,30,23		9, 8
54″	6,38, 3,42,53, 0,46,40,17, 6		29, 6, 5,46	
		2, 4,53,35, 3,46,24,37		9, 8
56″	6,38, 5,47,46,35,50,26,41,43		29, 6,14,54	
		2, 4,53,34,34,40, 9,43		9, 8
58″	6,38, 7,52,40,10,25, 6,51,26		29, 6,24, 2	
		2, 4,53,34, 5,33,45,41		
60″	6,38, 9,57,33,44,30,40,37, 7			
exact	6,38, 9,57,33,44,30,40,49,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°21′ 0″	6,38, 9,57,33,44,30,40,49,44			
		2, 4,53,33,36,27,13,46		
2″	6,38,12, 2,27,18, 7, 8, 3,30		29, 6,42,13	
		2, 4,53,33, 7,20,31,33		9, 8
4″	6,38,14, 7,20,51,14,28,35, 3		29, 6,51,21	
		2, 4,53,32,38,13,40,12		9, 8
6″	6,38,16,12,14,23,52,42,15,15		29, 7, 0,29	
		2, 4,53,32, 9, 6,39,43		9, 8
8″	6,38,18,17, 7,56, 1,48,54,58		29, 7, 9,37	
		2, 4,53,31,39,59,30, 6		9, 8
10″	6,38,20,22, 1,27,41,48,25, 4		29, 7,18,45	
		2, 4,53,31,10,52,11,21		9, 8
12″	6,38,22,26,54,58,52,40,36,25		29, 7,27,53	
		2, 4,53,30,41,44,43,28		9, 8
14″	6,38,24,31,48,29,34,25,19,53		29, 7,37, 1	
		2, 4,53,30,12,37, 6,27		9, 8
16″	6,38,26,36,41,59,47, 2,26,20		29, 7,46, 9	
		2, 4,53,29,43,29,20,18		9, 8
18″	6,38,28,41,35,29,30,31,46,38		29, 7,55,17	
		2, 4,53,29,14,21,25, 1		9, 8
20″	6,38,30,46,28,58,44,53,11,39		29, 8, 4,25	
		2, 4,53,28,45,13,20,36		9, 8
22″	6,38,32,51,22,27,30, 6,32,15		29, 8,13,33	
		2, 4,53,28,16, 5, 7, 3		9, 8
24″	6,38,34,56,15,55,46,11,39,18		29, 8,22,41	
		2, 4,53,27,46,56,44,22		9, 8
26″	6,38,37, 1, 9,23,33, 8,23,40		29, 8,31,49	
		2, 4,53,27,17,48,12,33		9, 8
28″	6,38,39, 6, 2,50,50,56,36,13		29, 8,40,57	
		2, 4,53,26,48,39,31,36		9, 8
30″	6,38,41,10,56,17,39,36, 7,49		29, 8,50, 5	
		2, 4,53,26,19,30,41,31		9, 8
32″	6,38,43,15,49,43,59, 6,49,20		29, 8,59,13	
		2, 4,53,25,50,21,42,18		9, 8
34″	6,38,45,20,43, 9,49,28,31,38		29, 9, 8,21	
		2, 4,53,25,21,12,33,57		9, 8
36″	6,38,47,25,36,35,10,41, 5,35		29, 9,17,29	
		2, 4,53,24,52, 3,16,28		9, 8
38″	6,38,49,30,30, 0, 2,44,22, 3		29, 9,26,37	
		2, 4,53,24,22,53,49,51		9, 8
40″	6,38,51,35,23,24,25,38,11,54		29, 9,35,45	
		2, 4,53,23,53,44,14, 6		9, 8
42″	6,38,53,40,16,48,19,22,26, 0		29, 9,44,53	
		2, 4,53,23,24,34,29,13		9, 8
44″	6,38,55,45,10,11,43,56,55,13		29, 9,54, 1	
		2, 4,53,22,55,24,35,12		9, 8
46″	6,38,57,50, 3,34,39,21,30,25		29,10, 3, 9	
		2, 4,53,22,26,14,32, 3		9, 8
48″	6,38,59,54,56,57, 5,36, 2,28		29,10,12,17	
		2, 4,53,21,57, 4,19,46		9, 8
50″	6,39, 1,59,50,19, 2,40,22,14		29,10,21,25	
		2, 4,53,21,27,53,58,21		9, 8
52″	6,39, 4, 4,43,40,30,34,20,35		29,10,30,33	
		2, 4,53,20,58,43,27,48		9, 8
54″	6,39, 6, 9,37, 1,29,17,48,23		29,10,39,41	
		2, 4,53,20,29,32,48, 7		9, 8
56″	6,39, 8,14,30,21,58,50,36,30		29,10,48,49	
		2, 4,53,20, 0,21,59,18		9, 8
58″	6,39,10,19,23,41,59,12,35,48		29,10,57,57	
		2, 4,53,19,31,11, 1,21		
60″	6,39,12,24,17, 1,30,23,37, 9			
exact	6,39,12,24,17, 1,30,23,47,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°22′ 0″	6,39,12,24,17, 1,30,23,47,24			
		2, 4,53,19, 1,59,55,24		
2″	6,39,14,29,10,20,32,23,42,48		29,11,16, 8	
		2, 4,53,18,32,48,39,16		9, 8
4″	6,39,16,34, 3,39, 5,12,22, 4		29,11,25,16	
		2, 4,53,18, 3,37,14, 0		9, 8
6″	6,39,18,38,56,57, 8,49,36, 4		29,11,34,24	
		2, 4,53,17,34,25,39,36		9, 8
8″	6,39,20,43,50,14,43,15,15,40		29,11,43,32	
		2, 4,53,17, 5,13,56, 4		9, 8
10″	6,39,22,48,43,31,48,29,11,44		29,11,52,40	
		2, 4,53,16,36, 2, 3,24		9, 8
12″	6,39,24,53,36,48,24,31,15, 8		29,12, 1,48	
		2, 4,53,16, 6,50, 1,36		9, 8
14″	6,39,26,58,30, 4,31,21,16,44		29,12,10,56	
		2, 4,53,15,37,37,50,40		9, 8
16″	6,39,29, 3,23,20, 8,59, 7,24		29,12,20, 4	
		2, 4,53,15, 8,25,30,36		9, 8
18″	6,39,31, 8,16,35,17,24,38, 0		29,12,29,12	
		2, 4,53,14,39,13, 1,24		9, 8
20″	6,39,33,13, 9,49,56,37,39,24		29,12,38,20	
		2, 4,53,14,10, 0,23, 4		9, 8
22″	6,39,35,18, 3, 4, 6,38, 2,28		29,12,47,28	
		2, 4,53,13,40,47,35,36		9, 8
24″	6,39,37,22,56,17,47,25,38, 4		29,12,56,36	
		2, 4,53,13,11,34,39, 0		9, 8
26″	6,39,39,27,49,30,59, 0,17, 4		29,13, 5,44	
		2, 4,53,12,42,21,33,16		9, 8
28″	6,39,41,32,42,43,41,21,50,20		29,13,14,52	
		2, 4,53,12,13, 8,18,24		9, 8
30″	6,39,43,37,35,55,54,30, 8,44		29,13,24, 0	
		2, 4,53,11,43,54,54,24		9, 8
32″	6,39,45,42,29, 7,38,25, 3, 8		29,13,33, 8	
		2, 4,53,11,14,41,21,16		9, 8
34″	6,39,47,47,22,18,53, 6,24,24		29,13,42,16	
		2, 4,53,10,45,27,39, 0		9, 8
36″	6,39,49,52,15,29,38,34, 3,24		29,13,51,24	
		2, 4,53,10,16,13,47,36		9, 8
38″	6,39,51,57, 8,39,54,47,51, 0		29,14, 0,32	
		2, 4,53, 9,46,59,47, 4		9, 8
40″	6,39,54, 2, 1,49,41,47,38, 4		29,14, 9,40	
		2, 4,53, 9,17,45,37,24		9, 8
42″	6,39,56, 6,54,58,59,33,15,28		29,14,18,48	
		2, 4,53, 8,48,31,18,36		9, 8
44″	6,39,58,11,48, 7,48, 4,34, 4		29,14,27,56	
		2, 4,53, 8,19,16,50,40		9, 8
46″	6,40, 0,16,41,16, 7,21,24,44		29,14,37, 4	
		2, 4,53, 7,50, 2,13,36		9, 8
48″	6,40, 2,21,34,23,57,23,38,20		29,14,46,12	
		2, 4,53, 7,20,47,27,24		9, 8
50″	6,40, 4,26,27,31,18,11, 5,44		29,14,55,20	
		2, 4,53, 6,51,32,32, 4		9, 8
52″	6,40, 6,31,20,38, 9,43,37,48		29,15, 4,28	
		2, 4,53, 6,22,17,27,36		9, 8
54″	6,40, 8,36,13,44,32, 1, 5,24		29,15,13,36	
		2, 4,53, 5,53, 2,14, 0		9, 8
56″	6,40,10,41, 6,50,25, 3,19,24		29,15,22,44	
		2, 4,53, 5,23,46,51,16		9, 8
58″	6,40,12,45,59,55,48,50,10,40		29,15,31,52	
		2, 4,53, 4,54,31,19,24		
60″	6,40,14,50,53, 0,43,21,30, 4			
exact	6,40,14,50,53, 0,43,21,42, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°23′ 0″	6,40,14,50,53, 0,43,21,42, 4			
		2, 4,53, 4,25,15,39,42		
2″	6,40,16,55,46, 5, 8,37,21,46		29,15,50, 2	
		2, 4,53, 3,55,59,49,40		9, 8
4″	6,40,19, 0,39, 9, 4,37,11,26		29,15,59,10	
		2, 4,53, 3,26,43,50,30		9, 8
6″	6,40,21, 5,32,12,31,21, 1,56		29,16, 8,18	
		2, 4,53, 2,57,27,42,12		9, 8
8″	6,40,23,10,25,15,28,48,44, 8		29,16,17,26	
		2, 4,53, 2,28,11,24,46		9, 8
10″	6,40,25,15,18,17,57, 0, 8,54		29,16,26,34	
		2, 4,53, 1,58,54,58,12		9, 8
12″	6,40,27,20,11,19,55,55, 7, 6		29,16,35,42	
		2, 4,53, 1,29,38,22,30		9, 8
14″	6,40,29,25, 4,21,25,33,29,36		29,16,44,50	
		2, 4,53, 1, 0,21,37,40		9, 8
16″	6,40,31,29,57,22,25,55, 7,16		29,16,53,58	
		2, 4,53, 0,31, 4,43,42		9, 8
18″	6,40,33,34,50,22,56,59,50,58		29,17, 3, 6	
		2, 4,53, 0, 1,47,40,36		9, 8
20″	6,40,35,39,43,22,58,47,31,34		29,17,12,14	
		2, 4,52,59,32,30,28,22		9, 8
22″	6,40,37,44,36,22,31,17,59,56		29,17,21,22	
		2, 4,52,59, 3,13, 7, 0		9, 8
24″	6,40,39,49,29,21,34,31, 6,56		29,17,30,30	
		2, 4,52,58,33,55,36,30		9, 8
26″	6,40,41,54,22,20, 8,26,43,26		29,17,39,38	
		2, 4,52,58, 4,37,56,52		9, 8
28″	6,40,43,59,15,18,13, 4,40,18		29,17,48,46	
		2, 4,52,57,35,20, 8, 6		9, 8
30″	6,40,46, 4, 8,15,48,24,48,24		29,17,57,54	
		2, 4,52,57, 6, 2,10,12		9, 8
32″	6,40,48, 9, 1,12,54,26,58,36		29,18, 7, 2	
		2, 4,52,56,36,44, 3,10		9, 8
34″	6,40,50,13,54, 9,31,11, 1,46		29,18,16,10	
		2, 4,52,56, 7,25,47, 0		9, 8
36″	6,40,52,18,47, 5,38,36,48,46		29,18,25,18	
		2, 4,52,55,38, 7,21,42		9, 8
38″	6,40,54,23,40, 1,16,44,10,28		29,18,34,26	
		2, 4,52,55, 8,48,47,16		9, 8
40″	6,40,56,28,32,56,25,32,57,44		29,18,43,34	
		2, 4,52,54,39,30, 3,42		9, 8
42″	6,40,58,33,25,51, 5, 3, 1,26		29,18,52,42	
		2, 4,52,54,10,11,11, 0		9, 8
44″	6,41, 0,38,18,45,15,14,12,26		29,19, 1,50	
		2, 4,52,53,40,52, 9,10		9, 8
46″	6,41, 2,43,11,38,56, 6,21,36		29,19,10,58	
		2, 4,52,53,11,32,58,12		9, 8
48″	6,41, 4,48, 4,32, 7,39,19,48		29,19,20, 6	
		2, 4,52,52,42,13,38, 6		9, 8
50″	6,41, 6,52,57,24,49,52,57,54		29,19,29,14	
		2, 4,52,52,12,54, 8,52		9, 8
52″	6,41, 8,57,50,17, 2,47, 6,46		29,19,38,22	
		2, 4,52,51,43,34,30,30		9, 8
54″	6,41,11, 2,43, 8,46,21,37,16		29,19,47,30	
		2, 4,52,51,14,14,43, 0		9, 8
56″	6,41,13, 7,36, 0, 0,36,20,16		29,19,56,38	
		2, 4,52,50,44,54,46,22		9, 8
58″	6,41,15,12,28,50,45,31, 6,38		29,20, 5,46	
		2, 4,52,50,15,34,40,36		
60″	6,41,17,17,21,41, 1, 5,47,14			
exact	6,41,17,17,21,41, 1, 5,57,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°24′ 0″	6,41,17,17,21,41, 1, 5,57,23			
		2, 4,52,49,46,14,26,55		
2″	6,41,19,22,14,30,47,20,24,18		29,20,23,56	
		2, 4,52,49,16,54, 2,59		9, 8
4″	6,41,21,27, 7,20, 4,14,27,17		29,20,33, 4	
		2, 4,52,48,47,33,29,55		9, 8
6″	6,41,23,32, 0, 8,51,47,57,12		29,20,42,12	
		2, 4,52,48,18,12,47,43		9, 8
8″	6,41,25,36,52,57,10, 0,44,55		29,20,51,20	
		2, 4,52,47,48,51,56,23		9, 8
10″	6,41,27,41,45,44,58,52,41,18		29,21, 0,28	
		2, 4,52,47,19,30,55,55		9, 8
12″	6,41,29,46,38,32,18,23,37,13		29,21, 9,36	
		2, 4,52,46,50, 9,46,19		9, 8
14″	6,41,31,51,31,19, 8,33,23,32		29,21,18,44	
		2, 4,52,46,20,48,27,35		9, 8
16″	6,41,33,56,24, 5,29,21,51, 7		29,21,27,52	
		2, 4,52,45,51,26,59,43		9, 8
18″	6,41,36, 1,16,51,20,48,50,50		29,21,37, 0	
		2, 4,52,45,22, 5,22,43		9, 8
20″	6,41,38, 6, 9,36,42,54,13,33		29,21,46, 8	
		2, 4,52,44,52,43,36,35		9, 8
22″	6,41,40,11, 2,21,35,37,50, 8		29,21,55,16	
		2, 4,52,44,23,21,41,19		9, 8
24″	6,41,42,15,55, 5,58,59,31,27		29,22, 4,24	
		2, 4,52,43,53,59,36,55		9, 8
26″	6,41,44,20,47,49,52,59, 8,22		29,22,13,32	
		2, 4,52,43,24,37,23,23		9, 8
28″	6,41,46,25,40,33,17,36,31,45		29,22,22,40	
		2, 4,52,42,55,15, 0,43		9, 8
30″	6,41,48,30,33,16,12,51,32,28		29,22,31,48	
		2, 4,52,42,25,52,28,55		9, 8
32″	6,41,50,35,25,58,38,44, 1,23		29,22,40,56	
		2, 4,52,41,56,29,47,59		9, 8
34″	6,41,52,40,18,40,35,13,49,22		29,22,50, 4	
		2, 4,52,41,27, 6,57,55		9, 8
36″	6,41,54,45,11,22, 2,20,47,17		29,22,59,12	
		2, 4,52,40,57,43,58,43		9, 8
38″	6,41,56,50, 4, 3, 0, 4,46, 0		29,23, 8,20	
		2, 4,52,40,28,20,50,23		9, 8
40″	6,41,58,54,56,43,28,25,36,23		29,23,17,28	
		2, 4,52,39,58,57,32,55		9, 8
42″	6,42, 0,59,49,23,27,23, 9,18		29,23,26,36	
		2, 4,52,39,29,34, 6,19		9, 8
44″	6,42, 3, 4,42, 2,56,57,15,37		29,23,35,44	
		2, 4,52,39, 0,10,30,35		9, 8
46″	6,42, 5, 9,34,41,57, 7,46,12		29,23,44,52	
		2, 4,52,38,30,46,45,43		9, 8
48″	6,42, 7,14,27,20,27,54,31,55		29,23,54, 0	
		2, 4,52,38, 1,22,51,43		9, 8
50″	6,42, 9,19,19,58,29,17,23,38		29,24, 3, 8	
		2, 4,52,37,31,58,48,35		9, 8
52″	6,42,11,24,12,36, 1,16,12,13		29,24,12,16	
		2, 4,52,37, 2,34,36,19		9, 8
54″	6,42,13,29, 5,13, 3,50,48,32		29,24,21,24	
		2, 4,52,36,33,10,14,55		9, 8
56″	6,42,15,33,57,49,37, 1, 3,27		29,24,30,32	
		2, 4,52,36, 3,45,44,23		9, 8
58″	6,42,17,38,50,25,40,46,47,50		29,24,39,40	
		2, 4,52,35,34,21, 4,43		
60″	6,42,19,43,43, 1,15, 7,52,33			
exact	6,42,19,43,43, 1,15, 8, 4,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°25′ 0″	6,42,19,43,43, 1,15, 8, 4,58			
		2, 4,52,35, 4,56,17,20		
2″	6,42,21,48,35,36,20, 4,22,18		29,24,57,50	
		2, 4,52,34,35,31,19,30		9, 8
4″	6,42,23,53,28,10,55,35,41,48		29,25, 6,58	
		2, 4,52,34, 6, 6,12,32		9, 8
6″	6,42,25,58,20,45, 1,41,54,20		29,25,16, 6	
		2, 4,52,33,36,40,56,26		9, 8
8″	6,42,28, 3,13,18,38,22,50,46		29,25,25,14	
		2, 4,52,33, 7,15,31,12		9, 8
10″	6,42,30, 8, 5,51,45,38,21,58		29,25,34,22	
		2, 4,52,32,37,49,56,50		9, 8
12″	6,42,32,12,58,24,23,28,18,48		29,25,43,30	
		2, 4,52,32, 8,24,13,20		9, 8
14″	6,42,34,17,50,56,31,52,32, 8		29,25,52,38	
		2, 4,52,31,38,58,20,42		9, 8
16″	6,42,36,22,43,28,10,50,52,50		29,26, 1,46	
		2, 4,52,31, 9,32,18,56		9, 8
18″	6,42,38,27,35,59,20,23,11,46		29,26,10,54	
		2, 4,52,30,40, 6, 8, 2		9, 8
20″	6,42,40,32,28,30, 0,29,19,48		29,26,20, 2	
		2, 4,52,30,10,39,48, 0		9, 8
22″	6,42,42,37,21, 0,11, 9, 7,48		29,26,29,10	
		2, 4,52,29,41,13,18,50		9, 8
24″	6,42,44,42,13,29,52,22,26,38		29,26,38,18	
		2, 4,52,29,11,46,40,32		9, 8
26″	6,42,46,47, 5,59, 4, 9, 7,10		29,26,47,26	
		2, 4,52,28,42,19,53, 6		9, 8
28″	6,42,48,51,58,27,46,29, 0,16		29,26,56,34	
		2, 4,52,28,12,52,56,32		9, 8
30″	6,42,50,56,50,55,59,21,56,48		29,27, 5,42	
		2, 4,52,27,43,25,50,50		9, 8
32″	6,42,53, 1,43,23,42,47,47,38		29,27,14,50	
		2, 4,52,27,13,58,36, 0		9, 8
34″	6,42,55, 6,35,50,56,46,23,38		29,27,23,58	
		2, 4,52,26,44,31,12, 2		9, 8
36″	6,42,57,11,28,17,41,17,35,40		29,27,33, 6	
		2, 4,52,26,15, 3,38,56		9, 8
38″	6,42,59,16,20,43,56,21,14,36		29,27,42,14	
		2, 4,52,25,45,35,56,42		9, 8
40″	6,43, 1,21,13, 9,41,57,11,18		29,27,51,22	
		2, 4,52,25,16, 8, 5,20		9, 8
42″	6,43, 3,26, 5,34,58, 5,16,38		29,28, 0,30	
		2, 4,52,24,46,40, 4,50		9, 8
44″	6,43, 5,30,57,59,44,45,21,28		29,28, 9,38	
		2, 4,52,24,17,11,55,12		9, 8
46″	6,43, 7,35,50,24, 1,57,16,40		29,28,18,46	
		2, 4,52,23,47,43,36,26		9, 8
48″	6,43, 9,40,42,47,49,40,53, 6		29,28,27,54	
		2, 4,52,23,18,15, 8,32		9, 8
50″	6,43,11,45,35,11, 7,56, 1,38		29,28,37, 2	
		2, 4,52,22,48,46,31,30		9, 8
52″	6,43,13,50,27,33,56,42,33, 8		29,28,46,10	
		2, 4,52,22,19,17,45,20		9, 8
54″	6,43,15,55,19,56,16, 0,18,28		29,28,55,18	
		2, 4,52,21,49,48,50, 2		9, 8
56″	6,43,18, 0,12,18, 5,49, 8,30		29,29, 4,26	
		2, 4,52,21,20,19,45,36		9, 8
58″	6,43,20, 5, 4,39,26, 8,54, 6		29,29,13,34	
		2, 4,52,20,50,50,32, 2		
60″	6,43,22, 9,57, 0,16,59,26, 8			
exact	6,43,22, 9,57, 0,16,59,44,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°26′ 0″	6,43,22, 9,57, 0,16,59,44,30			
		2, 4,52,20,21,21,11,13		
2″	6,43,24,14,49,20,38,20,55,43		29,29,31,42	
		2, 4,52,19,51,51,39,31		9, 8
4″	6,43,26,19,41,40,30,12,35,14		29,29,40,50	
		2, 4,52,19,22,21,58,41		9, 8
6″	6,43,28,24,33,59,52,34,33,55		29,29,49,58	
		2, 4,52,18,52,52, 8,43		9, 8
8″	6,43,30,29,26,18,45,26,42,38		29,29,59, 6	
		2, 4,52,18,23,22, 9,37		9, 8
10″	6,43,32,34,18,37, 8,48,52,15		29,30, 8,14	
		2, 4,52,17,53,52, 1,23		9, 8
12″	6,43,34,39,10,55, 2,40,53,38		29,30,17,22	
		2, 4,52,17,24,21,44, 1		9, 8
14″	6,43,36,44, 3,12,27, 2,37,39		29,30,26,30	
		2, 4,52,16,54,51,17,31		9, 8
16″	6,43,38,48,55,29,21,53,55,10		29,30,35,38	
		2, 4,52,16,25,20,41,53		9, 8
18″	6,43,40,53,47,45,47,14,37, 3		29,30,44,46	
		2, 4,52,15,55,49,57, 7		9, 8
20″	6,43,42,58,40, 1,43, 4,34,10		29,30,53,54	
		2, 4,52,15,26,19, 3,13		9, 8
22″	6,43,45, 3,32,17, 9,23,37,23		29,31, 3, 2	
		2, 4,52,14,56,48, 0,11		9, 8
24″	6,43,47, 8,24,32, 6,11,37,34		29,31,12,10	
		2, 4,52,14,27,16,48, 1		9, 8
26″	6,43,49,13,16,46,33,28,25,35		29,31,21,18	
		2, 4,52,13,57,45,26,43		9, 8
28″	6,43,51,18, 9, 0,31,13,52,18		29,31,30,26	
		2, 4,52,13,28,13,56,17		9, 8
30″	6,43,53,23, 1,13,59,27,48,35		29,31,39,34	
		2, 4,52,12,58,42,16,43		9, 8
32″	6,43,55,27,53,26,58,10, 5,18		29,31,48,42	
		2, 4,52,12,29,10,28, 1		9, 8
34″	6,43,57,32,45,39,27,20,33,19		29,31,57,50	
		2, 4,52,11,59,38,30,11		9, 8
36″	6,43,59,37,37,51,26,59, 3,30		29,32, 6,58	
		2, 4,52,11,30, 6,23,13		9, 8
38″	6,44, 1,42,30, 2,57, 5,26,43		29,32,16, 6	
		2, 4,52,11, 0,34, 7, 7		9, 8
40″	6,44, 3,47,22,13,57,39,33,50		29,32,25,14	
		2, 4,52,10,31, 1,41,53		9, 8
42″	6,44, 5,52,14,24,28,41,15,43		29,32,34,22	
		2, 4,52,10, 1,29, 7,31		9, 8
44″	6,44, 7,57, 6,34,30,10,23,14		29,32,43,30	
		2, 4,52, 9,31,56,24, 1		9, 8
46″	6,44,10, 1,58,44, 2, 6,47,15		29,32,52,38	
		2, 4,52, 9, 2,23,31,23		9, 8
48″	6,44,12, 6,50,53, 4,30,18,38		29,33, 1,46	
		2, 4,52, 8,32,50,29,37		9, 8
50″	6,44,14,11,43, 1,37,20,48,15		29,33,10,54	
		2, 4,52, 8, 3,17,18,43		9, 8
52″	6,44,16,16,35, 9,40,38, 6,58		29,33,20, 2	
		2, 4,52, 7,33,43,58,41		9, 8
54″	6,44,18,21,27,17,14,22, 5,39		29,33,29,10	
		2, 4,52, 7, 4,10,29,31		9, 8
56″	6,44,20,26,19,24,18,32,35,10		29,33,38,18	
		2, 4,52, 6,34,36,51,13		9, 8
58″	6,44,22,31,11,30,53, 9,26,23		29,33,47,26	
		2, 4,52, 6, 5, 3, 3,47		
60″	6,44,24,36, 3,36,58,12,30,10			
exact	6,44,24,36, 3,36,58,12,43,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°27′ 0″	6,44,24,36, 3,36,58,12,43,44			
		2, 4,52, 5,35,29, 8,49		
2″	6,44,26,40,55,42,33,41,52,33		29,34, 5,35	
		2, 4,52, 5, 5,55, 3,14		9, 8
4″	6,44,28,45,47,47,39,36,55,47		29,34,14,43	
		2, 4,52, 4,36,20,48,31		9, 8
6″	6,44,30,50,39,52,15,57,44,18		29,34,23,51	
		2, 4,52, 4, 6,46,24,40		9, 8
8″	6,44,32,55,31,56,22,44, 8,58		29,34,32,59	
		2, 4,52, 3,37,11,51,41		9, 8
10″	6,44,35, 0,23,59,59,56, 0,39		29,34,42, 7	
		2, 4,52, 3, 7,37, 9,34		9, 8
12″	6,44,37, 5,16, 3, 7,33,10,13		29,34,51,15	
		2, 4,52, 2,38, 2,18,19		9, 8
14″	6,44,39,10, 8, 5,45,35,28,32		29,35, 0,23	
		2, 4,52, 2, 8,27,17,56		9, 8
16″	6,44,41,15, 0, 7,54, 2,46,28		29,35, 9,31	
		2, 4,52, 1,38,52, 8,25		9, 8
18″	6,44,43,19,52, 9,32,54,54,53		29,35,18,39	
		2, 4,52, 1, 9,16,49,46		9, 8
20″	6,44,45,24,44,10,42,11,44,39		29,35,27,47	
		2, 4,52, 0,39,41,21,59		9, 8
22″	6,44,47,29,36,11,21,53, 6,38		29,35,36,55	
		2, 4,52, 0,10, 5,45, 4		9, 8
24″	6,44,49,34,28,11,31,58,51,42		29,35,46, 3	
		2, 4,51,59,40,29,59, 1		9, 8
26″	6,44,51,39,20,11,12,28,50,43		29,35,55,11	
		2, 4,51,59,10,54, 3,50		9, 8
28″	6,44,53,44,12,10,23,22,54,33		29,36, 4,19	
		2, 4,51,58,41,17,59,31		9, 8
30″	6,44,55,49, 4, 9, 4,40,54, 4		29,36,13,27	
		2, 4,51,58,11,41,46, 4		9, 8
32″	6,44,57,53,56, 7,16,22,40, 8		29,36,22,35	
		2, 4,51,57,42, 5,23,29		9, 8
34″	6,44,59,58,48, 4,58,28, 3,37		29,36,31,43	
		2, 4,51,57,12,28,51,46		9, 8
36″	6,45, 2, 3,40, 2,10,56,55,23		29,36,40,51	
		2, 4,51,56,42,52,10,55		9, 8
38″	6,45, 4, 8,31,58,53,49, 6,18		29,36,49,59	
		2, 4,51,56,13,15,20,56		9, 8
40″	6,45, 6,13,23,55, 7, 4,27,14		29,36,59, 7	
		2, 4,51,55,43,38,21,49		9, 8
42″	6,45, 8,18,15,50,50,42,49, 3		29,37, 8,15	
		2, 4,51,55,14, 1,13,34		9, 8
44″	6,45,10,23, 7,46, 4,44, 2,37		29,37,17,23	
		2, 4,51,54,44,23,56,11		9, 8
46″	6,45,12,27,59,40,49, 7,58,48		29,37,26,31	
		2, 4,51,54,14,46,29,40		9, 8
48″	6,45,14,32,51,35, 3,54,28,28		29,37,35,39	
		2, 4,51,53,45, 8,54, 1		9, 8
50″	6,45,16,37,43,28,49, 3,22,29		29,37,44,47	
		2, 4,51,53,15,31, 9,14		9, 8
52″	6,45,18,42,35,22, 4,34,31,43		29,37,53,55	
		2, 4,51,52,45,53,15,19		9, 8
54″	6,45,20,47,27,14,50,27,47, 2		29,38, 3, 3	
		2, 4,51,52,16,15,12,16		9, 8
56″	6,45,22,52,19, 7, 6,42,59,18		29,38,12,11	
		2, 4,51,51,46,37, 0, 5		9, 8
58″	6,45,24,57,10,58,53,19,59,23		29,38,21,19	
		2, 4,51,51,16,58,38,46		
60″	6,45,27, 2, 2,50,10,18,38, 9			
exact	6,45,27, 2, 2,50,10,18,58,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°28′ 0″	6,45,27, 2, 2,50,10,18,58,30			
		2, 4,51,50,47,20,10,26		
2″	6,45,29, 6,54,40,57,39, 8,56		29,38,39,26	
		2, 4,51,50,17,41,31, 0		9, 8
4″	6,45,31,11,46,31,15,20,39,56		29,38,48,34	
		2, 4,51,49,48, 2,42,26		9, 8
6″	6,45,33,16,38,21, 3,23,22,22		29,38,57,42	
		2, 4,51,49,18,23,44,44		9, 8
8″	6,45,35,21,30,10,21,47, 7, 6		29,39, 6,50	
		2, 4,51,48,48,44,37,54		9, 8
10″	6,45,37,26,21,59,10,31,45, 0		29,39,15,58	
		2, 4,51,48,19, 5,21,56		9, 8
12″	6,45,39,31,13,47,29,37, 6,56		29,39,25, 6	
		2, 4,51,47,49,25,56,50		9, 8
14″	6,45,41,36, 5,35,19, 3, 3,46		29,39,34,14	
		2, 4,51,47,19,46,22,36		9, 8
16″	6,45,43,40,57,22,38,49,26,22		29,39,43,22	
		2, 4,51,46,50, 6,39,14		9, 8
18″	6,45,45,45,49, 9,28,56, 5,36		29,39,52,30	
		2, 4,51,46,20,26,46,44		9, 8
20″	6,45,47,50,40,55,49,22,52,20		29,40, 1,38	
		2, 4,51,45,50,46,45, 6		9, 8
22″	6,45,49,55,32,41,40, 9,37,26		29,40,10,46	
		2, 4,51,45,21, 6,34,20		9, 8
24″	6,45,52, 0,24,27, 1,16,11,46		29,40,19,54	
		2, 4,51,44,51,26,14,26		9, 8
26″	6,45,54, 5,16,11,52,42,26,12		29,40,29, 2	
		2, 4,51,44,21,45,45,24		9, 8
28″	6,45,56,10, 7,56,14,28,11,36		29,40,38,10	
		2, 4,51,43,52, 5, 7,14		9, 8
30″	6,45,58,14,59,40, 6,33,18,50		29,40,47,18	
		2, 4,51,43,22,24,19,56		9, 8
32″	6,46, 0,19,51,23,28,57,38,46		29,40,56,26	
		2, 4,51,42,52,43,23,30		9, 8
34″	6,46, 2,24,43, 6,21,41, 2,16		29,41, 5,34	
		2, 4,51,42,23, 2,17,56		9, 8
36″	6,46, 4,29,34,48,44,43,20,12		29,41,14,42	
		2, 4,51,41,53,21, 3,14		9, 8
38″	6,46, 6,34,26,30,38, 4,23,26		29,41,23,50	
		2, 4,51,41,23,39,39,24		9, 8
40″	6,46, 8,39,18,12, 1,44, 2,50		29,41,32,58	
		2, 4,51,40,53,58, 6,26		9, 8
42″	6,46,10,44, 9,52,55,42, 9,16		29,41,42, 6	
		2, 4,51,40,24,16,24,20		9, 8
44″	6,46,12,49, 1,33,19,58,33,36		29,41,51,14	
		2, 4,51,39,54,34,33, 6		9, 8
46″	6,46,14,53,53,13,14,33, 6,42		29,42, 0,22	
		2, 4,51,39,24,52,32,44		9, 8
48″	6,46,16,58,44,52,39,25,39,26		29,42, 9,30	
		2, 4,51,38,55,10,23,14		9, 8
50″	6,46,19, 3,36,31,34,36, 2,40		29,42,18,38	
		2, 4,51,38,25,28, 4,36		9, 8
52″	6,46,21, 8,28,10, 0, 4, 7,16		29,42,27,46	
		2, 4,51,37,55,45,36,50		9, 8
54″	6,46,23,13,19,47,55,49,44, 6		29,42,36,54	
		2, 4,51,37,26, 2,59,56		9, 8
56″	6,46,25,18,11,25,21,52,44, 2		29,42,46, 2	
		2, 4,51,36,56,20,13,54		9, 8
58″	6,46,27,23, 3, 2,18,12,57,56		29,42,55,10	
		2, 4,51,36,26,37,18,44		
60″	6,46,29,27,54,38,44,50,16,40			
exact	6,46,29,27,54,38,44,50,32,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°29′ 0″	6,46,29,27,54,38,44,50,32,44			
		2, 4,51,35,56,54,16,18		
2″	6,46,31,32,46,14,41,44,49, 2		29,43,13,18	
		2, 4,51,35,27,11, 3, 0		9, 8
4″	6,46,33,37,37,50, 8,55,52, 2		29,43,22,26	
		2, 4,51,34,57,27,40,34		9, 8
6″	6,46,35,42,29,25, 6,23,32,36		29,43,31,34	
		2, 4,51,34,27,44, 9, 0		9, 8
8″	6,46,37,47,20,59,34, 7,41,36		29,43,40,42	
		2, 4,51,33,58, 0,28,18		9, 8
10″	6,46,39,52,12,33,32, 8, 9,54		29,43,49,50	
		2, 4,51,33,28,16,38,28		9, 8
12″	6,46,41,57, 4, 7, 0,24,48,22		29,43,58,58	
		2, 4,51,32,58,32,39,30		9, 8
14″	6,46,44, 1,55,39,58,57,27,52		29,44, 8, 6	
		2, 4,51,32,28,48,31,24		9, 8
16″	6,46,46, 6,47,12,27,45,59,16		29,44,17,14	
		2, 4,51,31,59, 4,14,10		9, 8
18″	6,46,48,11,38,44,26,50,13,26		29,44,26,22	
		2, 4,51,31,29,19,47,48		9, 8
20″	6,46,50,16,30,15,56,10, 1,14		29,44,35,30	
		2, 4,51,30,59,35,12,18		9, 8
22″	6,46,52,21,21,46,55,45,13,32		29,44,44,38	
		2, 4,51,30,29,50,27,40		9, 8
24″	6,46,54,26,13,17,25,35,41,12		29,44,53,46	
		2, 4,51,30, 0, 5,33,54		9, 8
26″	6,46,56,31, 4,47,25,41,15, 6		29,45, 2,54	
		2, 4,51,29,30,20,31, 0		9, 8
28″	6,46,58,35,56,16,56, 1,46, 6		29,45,12, 2	
		2, 4,51,29, 0,35,18,58		9, 8
30″	6,47, 0,40,47,45,56,37, 5, 4		29,45,21,10	
		2, 4,51,28,30,49,57,48		9, 8
32″	6,47, 2,45,39,14,27,27, 2,52		29,45,30,18	
		2, 4,51,28, 1, 4,27,30		9, 8
34″	6,47, 4,50,30,42,28,31,30,22		29,45,39,26	
		2, 4,51,27,31,18,48, 4		9, 8
36″	6,47, 6,55,22, 9,59,50,18,26		29,45,48,34	
		2, 4,51,27, 1,32,59,30		9, 8
38″	6,47, 9, 0,13,37, 1,23,17,56		29,45,57,42	
		2, 4,51,26,31,47, 1,48		9, 8
40″	6,47,11, 5, 5, 3,33,10,19,44		29,46, 6,50	
		2, 4,51,26, 2, 0,54,58		9, 8
42″	6,47,13, 9,56,29,35,11,14,42		29,46,15,58	
		2, 4,51,25,32,14,39, 0		9, 8
44″	6,47,15,14,47,55, 7,25,53,42		29,46,25, 6	
		2, 4,51,25, 2,28,13,54		9, 8
46″	6,47,17,19,39,20, 9,54, 7,36		29,46,34,14	
		2, 4,51,24,32,41,39,40		9, 8
48″	6,47,19,24,30,44,42,35,47,16		29,46,43,22	
		2, 4,51,24, 2,54,56,18		9, 8
50″	6,47,21,29,22, 8,45,30,43,34		29,46,52,30	
		2, 4,51,23,33, 8, 3,48		9, 8
52″	6,47,23,34,13,32,18,38,47,22		29,47, 1,38	
		2, 4,51,23, 3,21, 2,10		9, 8
54″	6,47,25,39, 4,55,21,59,49,32		29,47,10,46	
		2, 4,51,22,33,33,51,24		9, 8
56″	6,47,27,43,56,17,55,33,40,56		29,47,19,54	
		2, 4,51,22, 3,46,31,30		9, 8
58″	6,47,29,48,47,39,59,20,12,26		29,47,29, 2	
		2, 4,51,21,33,59, 2,28		
60″	6,47,31,53,39, 1,33,19,14,54			
exact	6,47,31,53,39, 1,33,19,38,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°30′ 0″	6,47,31,53,39, 1,33,19,38,29			
		2, 4,51,21, 4,11,26,44		
2″	6,47,33,58,30,22,37,31, 5,13		29,47,47, 8	
		2, 4,51,20,34,23,39,36		9, 8
4″	6,47,36, 3,21,43,11,54,44,49		29,47,56,16	
		2, 4,51,20, 4,35,43,20		9, 8
6″	6,47,38, 8,13, 3,16,30,28, 9		29,48, 5,24	
		2, 4,51,19,34,47,37,56		9, 8
8″	6,47,40,13, 4,22,51,18, 6, 5		29,48,14,32	
		2, 4,51,19, 4,59,23,24		9, 8
10″	6,47,42,17,55,41,56,17,29,29		29,48,23,40	
		2, 4,51,18,35,10,59,44		9, 8
12″	6,47,44,22,47, 0,31,28,29,13		29,48,32,48	
		2, 4,51,18, 5,22,26,56		9, 8
14″	6,47,46,27,38,18,36,50,56, 9		29,48,41,56	
		2, 4,51,17,35,33,45, 0		9, 8
16″	6,47,48,32,29,36,12,24,41, 9		29,48,51, 4	
		2, 4,51,17, 5,44,53,56		9, 8
18″	6,47,50,37,20,53,18, 9,35, 5		29,49, 0,12	
		2, 4,51,16,35,55,53,44		9, 8
20″	6,47,52,42,12, 9,54, 5,28,49		29,49, 9,20	
		2, 4,51,16, 6, 6,44,24		9, 8
22″	6,47,54,47, 3,26, 0,12,13,13		29,49,18,28	
		2, 4,51,15,36,17,25,56		9, 8
24″	6,47,56,51,54,41,36,29,39, 9		29,49,27,36	
		2, 4,51,15, 6,27,58,20		9, 8
26″	6,47,58,56,45,56,42,57,37,29		29,49,36,44	
		2, 4,51,14,36,38,21,36		9, 8
28″	6,48, 1, 1,37,11,19,35,59, 5		29,49,45,52	
		2, 4,51,14, 6,48,35,44		9, 8
30″	6,48, 3, 6,28,25,26,24,34,49		29,49,55, 0	
		2, 4,51,13,36,58,40,44		9, 8
32″	6,48, 5,11,19,39, 3,23,15,33		29,50, 4, 8	
		2, 4,51,13, 7, 8,36,36		9, 8
34″	6,48, 7,16,10,52,10,31,52, 9		29,50,13,16	
		2, 4,51,12,37,18,23,20		9, 8
36″	6,48, 9,21, 2, 4,47,50,15,29		29,50,22,24	
		2, 4,51,12, 7,28, 0,56		9, 8
38″	6,48,11,25,53,16,55,18,16,25		29,50,31,32	
		2, 4,51,11,37,37,29,24		9, 8
40″	6,48,13,30,44,28,32,55,45,49		29,50,40,40	
		2, 4,51,11, 7,46,48,44		9, 8
42″	6,48,15,35,35,39,40,42,34,33		29,50,49,48	
		2, 4,51,10,37,55,58,56		9, 8
44″	6,48,17,40,26,50,18,38,33,29		29,50,58,56	
		2, 4,51,10, 8, 5, 0, 0		9, 8
46″	6,48,19,45,18, 0,26,43,33,29		29,51, 8, 4	
		2, 4,51, 9,38,13,51,56		9, 8
48″	6,48,21,50, 9,10, 4,57,25,25		29,51,17,12	
		2, 4,51, 9, 8,22,34,44		9, 8
50″	6,48,23,55, 0,19,13,20, 0, 9		29,51,26,20	
		2, 4,51, 8,38,31, 8,24		9, 8
52″	6,48,25,59,51,27,51,51, 8,33		29,51,35,28	
		2, 4,51, 8, 8,39,32,56		9, 8
54″	6,48,28, 4,42,36, 0,30,41,29		29,51,44,36	
		2, 4,51, 7,38,47,48,20		9, 8
56″	6,48,30, 9,33,43,39,18,29,49		29,51,53,44	
		2, 4,51, 7, 8,55,54,36		9, 8
58″	6,48,32,14,24,50,48,14,24,25		29,52, 2,52	
		2, 4,51, 6,39, 3,51,44		
60″	6,48,34,19,15,57,27,18,16, 9			
exact	6,48,34,19,15,57,27,18,35,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°31′ 0″	6,48,34,19,15,57,27,18,35,59			
		2, 4,51, 6, 9,11,41,58		
2″	6,48,36,24, 7, 3,36,30,17,57		29,52,20,58	
		2, 4,51, 5,39,19,21, 0		9, 8
4″	6,48,38,28,58, 9,15,49,38,57		29,52,30, 6	
		2, 4,51, 5, 9,26,50,54		9, 8
6″	6,48,40,33,49,14,25,16,29,51		29,52,39,14	
		2, 4,51, 4,39,34,11,40		9, 8
8″	6,48,42,38,40,19, 4,50,41,31		29,52,48,22	
		2, 4,51, 4, 9,41,23,18		9, 8
10″	6,48,44,43,31,23,14,32, 4,49		29,52,57,30	
		2, 4,51, 3,39,48,25,48		9, 8
12″	6,48,46,48,22,26,54,20,30,37		29,53, 6,38	
		2, 4,51, 3, 9,55,19,10		9, 8
14″	6,48,48,53,13,30, 4,15,49,47		29,53,15,46	
		2, 4,51, 2,40, 2, 3,24		9, 8
16″	6,48,50,58, 4,32,44,17,53,11		29,53,24,54	
		2, 4,51, 2,10, 8,38,30		9, 8
18″	6,48,53, 2,55,34,54,26,31,41		29,53,34, 2	
		2, 4,51, 1,40,15, 4,28		9, 8
20″	6,48,55, 7,46,36,34,41,36, 9		29,53,43,10	
		2, 4,51, 1,10,21,21,18		9, 8
22″	6,48,57,12,37,37,45, 2,57,27		29,53,52,18	
		2, 4,51, 0,40,27,29, 0		9, 8
24″	6,48,59,17,28,38,25,30,26,27		29,54, 1,26	
		2, 4,51, 0,10,33,27,34		9, 8
26″	6,49, 1,22,19,38,36, 3,54, 1		29,54,10,34	
		2, 4,50,59,40,39,17, 0		9, 8
28″	6,49, 3,27,10,38,16,43,11, 1		29,54,19,42	
		2, 4,50,59,10,44,57,18		9, 8
30″	6,49, 5,32, 1,37,27,28, 8,19		29,54,28,50	
		2, 4,50,58,40,50,28,28		9, 8
32″	6,49, 7,36,52,36, 8,18,36,47		29,54,37,58	
		2, 4,50,58,10,55,50,30		9, 8
34″	6,49, 9,41,43,34,19,14,27,17		29,54,47, 6	
		2, 4,50,57,41, 1, 3,24		9, 8
36″	6,49,11,46,34,32, 0,15,30,41		29,54,56,14	
		2, 4,50,57,11, 6, 7,10		9, 8
38″	6,49,13,51,25,29,11,21,37,51		29,55, 5,22	
		2, 4,50,56,41,11, 1,48		9, 8
40″	6,49,15,56,16,25,52,32,39,39		29,55,14,30	
		2, 4,50,56,11,15,47,18		9, 8
42″	6,49,18, 1, 7,22, 3,48,26,57		29,55,23,38	
		2, 4,50,55,41,20,23,40		9, 8
44″	6,49,20, 5,58,17,45, 8,50,37		29,55,32,46	
		2, 4,50,55,11,24,50,54		9, 8
46″	6,49,22,10,49,12,56,33,41,31		29,55,41,54	
		2, 4,50,54,41,29, 9, 0		9, 8
48″	6,49,24,15,40, 7,38, 2,50,31		29,55,51, 2	
		2, 4,50,54,11,33,17,58		9, 8
50″	6,49,26,20,31, 1,49,36, 8,29		29,56, 0,10	
		2, 4,50,53,41,37,17,48		9, 8
52″	6,49,28,25,21,55,31,13,26,17		29,56, 9,18	
		2, 4,50,53,11,41, 8,30		9, 8
54″	6,49,30,30,12,48,42,54,34,47		29,56,18,26	
		2, 4,50,52,41,44,50, 4		9, 8
56″	6,49,32,35, 3,41,24,39,24,51		29,56,27,34	
		2, 4,50,52,11,48,22,30		9, 8
58″	6,49,34,39,54,33,36,27,47,21		29,56,36,42	
		2, 4,50,51,41,51,45,48		
60″	6,49,36,44,45,25,18,19,33, 9			
exact	6,49,36,44,45,25,18,19,53,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°32′ 0″	6,49,36,44,45,25,18,19,53,36			
		2, 4,50,51,11,55, 2,17		
2″	6,49,38,49,36,16,30,14,55,53		29,56,54,48	
		2, 4,50,50,41,58, 7,29		9, 8
4″	6,49,40,54,27, 7,12,13, 3,22		29,57, 3,56	
		2, 4,50,50,12, 1, 3,33		9, 8
6″	6,49,42,59,17,57,24,14, 6,55		29,57,13, 4	
		2, 4,50,49,42, 3,50,29		9, 8
8″	6,49,45, 4, 8,47, 6,17,57,24		29,57,22,12	
		2, 4,50,49,12, 6,28,17		9, 8
10″	6,49,47, 8,59,36,18,24,25,41		29,57,31,20	
		2, 4,50,48,42, 8,56,57		9, 8
12″	6,49,49,13,50,25, 0,33,22,38		29,57,40,28	
		2, 4,50,48,12,11,16,29		9, 8
14″	6,49,51,18,41,13,12,44,39, 7		29,57,49,36	
		2, 4,50,47,42,13,26,53		9, 8
16″	6,49,53,23,32, 0,54,58, 6, 0		29,57,58,44	
		2, 4,50,47,12,15,28, 9		9, 8
18″	6,49,55,28,22,48, 7,13,34, 9		29,58, 7,52	
		2, 4,50,46,42,17,20,17		9, 8
20″	6,49,57,33,13,34,49,30,54,26		29,58,17, 0	
		2, 4,50,46,12,19, 3,17		9, 8
22″	6,49,59,38, 4,21, 1,49,57,43		29,58,26, 8	
		2, 4,50,45,42,20,37, 9		9, 8
24″	6,50, 1,42,55, 6,44,10,34,52		29,58,35,16	
		2, 4,50,45,12,22, 1,53		9, 8
26″	6,50, 3,47,45,51,56,32,36,45		29,58,44,24	
		2, 4,50,44,42,23,17,29		9, 8
28″	6,50, 5,52,36,36,38,55,54,14		29,58,53,32	
		2, 4,50,44,12,24,23,57		9, 8
30″	6,50, 7,57,27,20,51,20,18,11		29,59, 2,40	
		2, 4,50,43,42,25,21,17		9, 8
32″	6,50,10, 2,18, 4,33,45,39,28		29,59,11,48	
		2, 4,50,43,12,26, 9,29		9, 8
34″	6,50,12, 7, 8,47,46,11,48,57		29,59,20,56	
		2, 4,50,42,42,26,48,33		9, 8
36″	6,50,14,11,59,30,28,38,37,30		29,59,30, 4	
		2, 4,50,42,12,27,18,29		9, 8
38″	6,50,16,16,50,12,41, 5,55,59		29,59,39,12	
		2, 4,50,41,42,27,39,17		9, 8
40″	6,50,18,21,40,54,23,33,35,16		29,59,48,20	
		2, 4,50,41,12,27,50,57		9, 8
42″	6,50,20,26,31,35,36, 1,26,13		29,59,57,28	
		2, 4,50,40,42,27,53,29		9, 8
44″	6,50,22,31,22,16,18,29,19,42		30, 0, 6,36	
		2, 4,50,40,12,27,46,53		9, 8
46″	6,50,24,36,12,56,30,57, 6,35		30, 0,15,44	
		2, 4,50,39,42,27,31, 9		9, 8
48″	6,50,26,41, 3,36,13,24,37,44		30, 0,24,52	
		2, 4,50,39,12,27, 6,17		9, 8
50″	6,50,28,45,54,15,25,51,44, 1		30, 0,34, 0	
		2, 4,50,38,42,26,32,17		9, 8
52″	6,50,30,50,44,54, 8,18,16,18		30, 0,43, 8	
		2, 4,50,38,12,25,49, 9		9, 8
54″	6,50,32,55,35,32,20,44, 5,27		30, 0,52,16	
		2, 4,50,37,42,24,56,53		9, 8
56″	6,50,35, 0,26,10, 3, 9, 2,20		30, 1, 1,24	
		2, 4,50,37,12,23,55,29		9, 8
58″	6,50,37, 5,16,47,15,32,57,49		30, 1,10,32	
		2, 4,50,36,42,22,44,57		
60″	6,50,39,10, 7,23,57,55,42,46			
exact	6,50,39,10, 7,23,57,56, 7,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°33′ 0″	6,50,39,10, 7,23,57,56, 7,54			
		2, 4,50,36,12,21,27,58		
2″	6,50,41,14,58, 0,10,17,35,52		30, 1,28,37	
		2, 4,50,35,42,19,59,21		9, 8
4″	6,50,43,19,48,35,52,37,35,13		30, 1,37,45	
		2, 4,50,35,12,18,21,36		9, 8
6″	6,50,45,24,39,11, 4,55,56,49		30, 1,46,53	
		2, 4,50,34,42,16,34,43		9, 8
8″	6,50,47,29,29,45,47,12,31,32		30, 1,56, 1	
		2, 4,50,34,12,14,38,42		9, 8
10″	6,50,49,34,20,19,59,27,10,14		30, 2, 5, 9	
		2, 4,50,33,42,12,33,33		9, 8
12″	6,50,51,39,10,53,41,39,43,47		30, 2,14,17	
		2, 4,50,33,12,10,19,16		9, 8
14″	6,50,53,44, 1,26,53,50, 3, 3		30, 2,23,25	
		2, 4,50,32,42, 7,55,51		9, 8
16″	6,50,55,48,51,59,35,57,58,54		30, 2,32,33	
		2, 4,50,32,12, 5,23,18		9, 8
18″	6,50,57,53,42,31,48, 3,22,12		30, 2,41,41	
		2, 4,50,31,42, 2,41,37		9, 8
20″	6,50,59,58,33, 3,30, 6, 3,49		30, 2,50,49	
		2, 4,50,31,11,59,50,48		9, 8
22″	6,51, 2, 3,23,34,42, 5,54,37		30, 2,59,57	
		2, 4,50,30,41,56,50,51		9, 8
24″	6,51, 4, 8,14, 5,24, 2,45,28		30, 3, 9, 5	
		2, 4,50,30,11,53,41,46		9, 8
26″	6,51, 6,13, 4,35,35,56,27,14		30, 3,18,13	
		2, 4,50,29,41,50,23,33		9, 8
28″	6,51, 8,17,55, 5,17,46,50,47		30, 3,27,21	
		2, 4,50,29,11,46,56,12		9, 8
30″	6,51,10,22,45,34,29,33,46,59		30, 3,36,29	
		2, 4,50,28,41,43,19,43		9, 8
32″	6,51,12,27,36, 3,11,17, 6,42		30, 3,45,37	
		2, 4,50,28,11,39,34, 6		9, 8
34″	6,51,14,32,26,31,22,56,40,48		30, 3,54,45	
		2, 4,50,27,41,35,39,21		9, 8
36″	6,51,16,37,16,59, 4,32,20, 9		30, 4, 3,53	
		2, 4,50,27,11,31,35,28		9, 8
38″	6,51,18,42, 7,26,16, 3,55,37		30, 4,13, 1	
		2, 4,50,26,41,27,22,27		9, 8
40″	6,51,20,46,57,52,57,31,18, 4		30, 4,22, 9	
		2, 4,50,26,11,23, 0,18		9, 8
42″	6,51,22,51,48,19, 8,54,18,22		30, 4,31,17	
		2, 4,50,25,41,18,29, 1		9, 8
44″	6,51,24,56,38,44,50,12,47,23		30, 4,40,25	
		2, 4,50,25,11,13,48,36		9, 8
46″	6,51,27, 1,29,10, 1,26,35,59		30, 4,49,33	
		2, 4,50,24,41, 8,59, 3		9, 8
48″	6,51,29, 6,19,34,42,35,35, 2		30, 4,58,41	
		2, 4,50,24,11, 4, 0,22		9, 8
50″	6,51,31,11, 9,58,53,39,35,24		30, 5, 7,49	
		2, 4,50,23,40,58,52,33		9, 8
52″	6,51,33,16, 0,22,34,38,27,57		30, 5,16,57	
		2, 4,50,23,10,53,35,36		9, 8
54″	6,51,35,20,50,45,45,32, 3,33		30, 5,26, 5	
		2, 4,50,22,40,48, 9,31		9, 8
56″	6,51,37,25,41, 8,26,20,13, 4		30, 5,35,13	
		2, 4,50,22,10,42,34,18		9, 8
58″	6,51,39,30,31,30,37, 2,47,22		30, 5,44,21	
		2, 4,50,21,40,36,49,57		
60″	6,51,41,35,21,52,17,39,37,19			
exact	6,51,41,35,21,52,17,40, 3,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°34′ 0″	6,51,41,35,21,52,17,40, 3,40			
		2, 4,50,21,10,30,59,17		
2″	6,51,43,40,12,13,28,11, 2,57		30, 6, 2,25	
		2, 4,50,20,40,24,56,52		9, 8
4″	6,51,45,45, 2,34, 8,35,59,49		30, 6,11,33	
		2, 4,50,20,10,18,45,19		9, 8
6″	6,51,47,49,52,54,18,54,45, 8		30, 6,20,41	
		2, 4,50,19,40,12,24,38		9, 8
8″	6,51,49,54,43,13,59, 7, 9,46		30, 6,29,49	
		2, 4,50,19,10, 5,54,49		9, 8
10″	6,51,51,59,33,33, 9,13, 4,35		30, 6,38,57	
		2, 4,50,18,39,59,15,52		9, 8
12″	6,51,54, 4,23,51,49,12,20,27		30, 6,48, 5	
		2, 4,50,18, 9,52,27,47		9, 8
14″	6,51,56, 9,14, 9,59, 4,48,14		30, 6,57,13	
		2, 4,50,17,39,45,30,34		9, 8
16″	6,51,58,14, 4,27,38,50,18,48		30, 7, 6,21	
		2, 4,50,17, 9,38,24,13		9, 8
18″	6,52, 0,18,54,44,48,28,43, 1		30, 7,15,29	
		2, 4,50,16,39,31, 8,44		9, 8
20″	6,52, 2,23,45, 1,27,59,51,45		30, 7,24,37	
		2, 4,50,16, 9,23,44, 7		9, 8
22″	6,52, 4,28,35,17,37,23,35,52		30, 7,33,45	
		2, 4,50,15,39,16,10,22		9, 8
24″	6,52, 6,33,25,33,16,39,46,14		30, 7,42,53	
		2, 4,50,15, 9, 8,27,29		9, 8
26″	6,52, 8,38,15,48,25,48,13,43		30, 7,52, 1	
		2, 4,50,14,39, 0,35,28		9, 8
28″	6,52,10,43, 6, 3, 4,48,49,11		30, 8, 1, 9	
		2, 4,50,14, 8,52,34,19		9, 8
30″	6,52,12,47,56,17,13,41,23,30		30, 8,10,17	
		2, 4,50,13,38,44,24, 2		9, 8
32″	6,52,14,52,46,30,52,25,47,32		30, 8,19,25	
		2, 4,50,13, 8,36, 4,37		9, 8
34″	6,52,16,57,36,44, 1, 1,52, 9		30, 8,28,33	
		2, 4,50,12,38,27,36, 4		9, 8
36″	6,52,19, 2,26,56,39,29,28,13		30, 8,37,41	
		2, 4,50,12, 8,18,58,23		9, 8
38″	6,52,21, 7,17, 8,47,48,26,36		30, 8,46,49	
		2, 4,50,11,38,10,11,34		9, 8
40″	6,52,23,12, 7,20,25,58,38,10		30, 8,55,57	
		2, 4,50,11, 8, 1,15,37		9, 8
42″	6,52,25,16,57,31,33,59,53,47		30, 9, 5, 5	
		2, 4,50,10,37,52,10,32		9, 8
44″	6,52,27,21,47,42,11,52, 4,19		30, 9,14,13	
		2, 4,50,10, 7,42,56,19		9, 8
46″	6,52,29,26,37,52,19,35, 0,38		30, 9,23,21	
		2, 4,50, 9,37,33,32,58		9, 8
48″	6,52,31,31,28, 1,57, 8,33,36		30, 9,32,29	
		2, 4,50, 9, 7,24, 0,29		9, 8
50″	6,52,33,36,18,11, 4,32,34, 5		30, 9,41,37	
		2, 4,50, 8,37,14,18,52		9, 8
52″	6,52,35,41, 8,19,41,46,52,57		30, 9,50,45	
		2, 4,50, 8, 7, 4,28, 7		9, 8
54″	6,52,37,45,58,27,48,51,21, 4		30, 9,59,53	
		2, 4,50, 7,36,54,28,14		9, 8
56″	6,52,39,50,48,35,25,45,49,18		30,10, 9, 1	
		2, 4,50, 7, 6,44,19,13		9, 8
58″	6,52,41,55,38,42,32,30, 8,31		30,10,18, 9	
		2, 4,50, 6,36,34, 1, 4		
60″	6,52,44, 0,28,49, 9, 4, 9,35			
exact	6,52,44, 0,28,49, 9, 4,33,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°35′ 0″	6,52,44, 0,28,49, 9, 4,33,54			
		2, 4,50, 6, 6,23,36,30		
2″	6,52,46, 5,18,55,15,28,10,24		30,10,36,13	
		2, 4,50, 5,36,13, 0,17		9, 8
4″	6,52,48,10, 9, 0,51,41,10,41		30,10,45,21	
		2, 4,50, 5, 6, 2,14,56		9, 8
6″	6,52,50,14,59, 5,57,43,25,37		30,10,54,29	
		2, 4,50, 4,35,51,20,27		9, 8
8″	6,52,52,19,49,10,33,34,46, 4		30,11, 3,37	
		2, 4,50, 4, 5,40,16,50		9, 8
10″	6,52,54,24,39,14,39,15, 2,54		30,11,12,45	
		2, 4,50, 3,35,29, 4, 5		9, 8
12″	6,52,56,29,29,18,14,44, 6,59		30,11,21,53	
		2, 4,50, 3, 5,17,42,12		9, 8
14″	6,52,58,34,19,21,20, 1,49,11		30,11,31, 1	
		2, 4,50, 2,35, 6,11,11		9, 8
16″	6,53, 0,39, 9,23,55, 8, 0,22		30,11,40, 9	
		2, 4,50, 2, 4,54,31, 2		9, 8
18″	6,53, 2,43,59,26, 0, 2,31,24		30,11,49,17	
		2, 4,50, 1,34,42,41,45		9, 8
20″	6,53, 4,48,49,27,34,45,13, 9		30,11,58,25	
		2, 4,50, 1, 4,30,43,20		9, 8
22″	6,53, 6,53,39,28,39,15,56,29		30,12, 7,33	
		2, 4,50, 0,34,18,35,47		9, 8
24″	6,53, 8,58,29,29,13,34,32,16		30,12,16,41	
		2, 4,50, 0, 4, 6,19, 6		9, 8
26″	6,53,11, 3,19,29,17,40,51,22		30,12,25,49	
		2, 4,49,59,33,53,53,17		9, 8
28″	6,53,13, 8, 9,28,51,34,44,39		30,12,34,57	
		2, 4,49,59, 3,41,18,20		9, 8
30″	6,53,15,12,59,27,55,16, 2,59		30,12,44, 5	
		2, 4,49,58,33,28,34,15		9, 8
32″	6,53,17,17,49,26,28,44,37,14		30,12,53,13	
		2, 4,49,58, 3,15,41, 2		9, 8
34″	6,53,19,22,39,24,32, 0,18,16		30,13, 2,21	
		2, 4,49,57,33, 2,38,41		9, 8
36″	6,53,21,27,29,22, 5, 2,56,57		30,13,11,29	
		2, 4,49,57, 2,49,27,12		9, 8
38″	6,53,23,32,19,19, 7,52,24, 9		30,13,20,37	
		2, 4,49,56,32,36, 6,35		9, 8
40″	6,53,25,37, 9,15,40,28,30,44		30,13,29,45	
		2, 4,49,56, 2,22,36,50		9, 8
42″	6,53,27,41,59,11,42,51, 7,34		30,13,38,53	
		2, 4,49,55,32, 8,57,57		9, 8
44″	6,53,29,46,49, 7,15, 0, 5,31		30,13,48, 1	
		2, 4,49,55, 1,55, 9,56		9, 8
46″	6,53,31,51,39, 2,16,55,15,27		30,13,57, 9	
		2, 4,49,54,31,41,12,47		9, 8
48″	6,53,33,56,28,56,48,36,28,14		30,14, 6,17	
		2, 4,49,54, 1,27, 6,30		9, 8
50″	6,53,36, 1,18,50,50, 3,34,44		30,14,15,25	
		2, 4,49,53,31,12,51, 5		9, 8
52″	6,53,38, 6, 8,44,21,16,25,49		30,14,24,33	
		2, 4,49,53, 0,58,26,32		9, 8
54″	6,53,40,10,58,37,22,14,52,21		30,14,33,41	
		2, 4,49,52,30,43,52,51		9, 8
56″	6,53,42,15,48,29,52,58,45,12		30,14,42,49	
		2, 4,49,52, 0,29,10, 2		9, 8
58″	6,53,44,20,38,21,53,27,55,14		30,14,51,57	
		2, 4,49,51,30,14,18, 5		
60″	6,53,46,25,28,13,23,42,13,19			
exact	6,53,46,25,28,13,23,42,39,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°36′ 0″	6,53,46,25,28,13,23,42,39,52			
		2, 4,49,50,59,59,19,55		
2″	6,53,48,30,18, 4,23,41,59,47		30,15,10, 1	
		2, 4,49,50,29,44, 9,54		9, 8
4″	6,53,50,35, 7,54,53,26, 9,41		30,15,19, 9	
		2, 4,49,49,59,28,50,45		9, 8
6″	6,53,52,39,57,44,52,55, 0,26		30,15,28,17	
		2, 4,49,49,29,13,22,28		9, 8
8″	6,53,54,44,47,34,22, 8,22,54		30,15,37,25	
		2, 4,49,48,58,57,45, 3		9, 8
10″	6,53,56,49,37,23,21, 6, 7,57		30,15,46,33	
		2, 4,49,48,28,41,58,30		9, 8
12″	6,53,58,54,27,11,49,48, 6,27		30,15,55,41	
		2, 4,49,47,58,26, 2,49		9, 8
14″	6,54, 0,59,16,59,48,14, 9,16		30,16, 4,49	
		2, 4,49,47,28, 9,58, 0		9, 8
16″	6,54, 3, 4, 6,47,16,24, 7,16		30,16,13,57	
		2, 4,49,46,57,53,44, 3		9, 8
18″	6,54, 5, 8,56,34,14,17,51,19		30,16,23, 5	
		2, 4,49,46,27,37,20,58		9, 8
20″	6,54, 7,13,46,20,41,55,12,17		30,16,32,13	
		2, 4,49,45,57,20,48,45		9, 8
22″	6,54, 9,18,36, 6,39,16, 1, 2		30,16,41,21	
		2, 4,49,45,27, 4, 7,24		9, 8
24″	6,54,11,23,25,52, 6,20, 8,26		30,16,50,29	
		2, 4,49,44,56,47,16,55		9, 8
26″	6,54,13,28,15,37, 3, 7,25,21		30,16,59,37	
		2, 4,49,44,26,30,17,18		9, 8
28″	6,54,15,33, 5,21,29,37,42,39		30,17, 8,45	
		2, 4,49,43,56,13, 8,33		9, 8
30″	6,54,17,37,55, 5,25,50,51,12		30,17,17,53	
		2, 4,49,43,25,55,50,40		9, 8
32″	6,54,19,42,44,48,51,46,41,52		30,17,27, 1	
		2, 4,49,42,55,38,23,39		9, 8
34″	6,54,21,47,34,31,47,25, 5,31		30,17,36, 9	
		2, 4,49,42,25,20,47,30		9, 8
36″	6,54,23,52,24,14,12,45,53, 1		30,17,45,17	
		2, 4,49,41,55, 3, 2,13		9, 8
38″	6,54,25,57,13,56, 7,48,55,14		30,17,54,25	
		2, 4,49,41,24,45, 7,48		9, 8
40″	6,54,28, 2, 3,37,32,34, 3, 2		30,18, 3,33	
		2, 4,49,40,54,27, 4,15		9, 8
42″	6,54,30, 6,53,18,27, 1, 7,17		30,18,12,41	
		2, 4,49,40,24, 8,51,34		9, 8
44″	6,54,32,11,42,58,51, 9,58,51		30,18,21,49	
		2, 4,49,39,53,50,29,45		9, 8
46″	6,54,34,16,32,38,45, 0,28,36		30,18,30,57	
		2, 4,49,39,23,31,58,48		9, 8
48″	6,54,36,21,22,18, 8,32,27,24		30,18,40, 5	
		2, 4,49,38,53,13,18,43		9, 8
50″	6,54,38,26,11,57, 1,45,46, 7		30,18,49,13	
		2, 4,49,38,22,54,29,30		9, 8
52″	6,54,40,31, 1,35,24,40,15,37		30,18,58,21	
		2, 4,49,37,52,35,31, 9		9, 8
54″	6,54,42,35,51,13,17,15,46,46		30,19, 7,29	
		2, 4,49,37,22,16,23,40		9, 8
56″	6,54,44,40,40,50,39,32,10,26		30,19,16,37	
		2, 4,49,36,51,57, 7, 3		9, 8
58″	6,54,46,45,30,27,31,29,17,29		30,19,25,45	
		2, 4,49,36,21,37,41,18		
60″	6,54,48,50,20, 3,53, 6,58,47			
exact	6,54,48,50,20, 3,53, 7,31, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°37′ 0″	6,54,48,50,20, 3,53, 7,31, 5			
		2, 4,49,35,51,18, 9,47		
2″	6,54,50,55, 9,39,44,25,40,52		30,19,43,47	
		2, 4,49,35,20,58,26, 0		9, 8
4″	6,54,52,59,59,15, 5,24, 6,52		30,19,52,55	
		2, 4,49,34,50,38,33, 5		9, 8
6″	6,54,55, 4,48,49,56, 2,39,57		30,20, 2, 3	
		2, 4,49,34,20,18,31, 2		9, 8
8″	6,54,57, 9,38,24,16,21,10,59		30,20,11,11	
		2, 4,49,33,49,58,19,51		9, 8
10″	6,54,59,14,27,58, 6,19,30,50		30,20,20,19	
		2, 4,49,33,19,37,59,32		9, 8
12″	6,55, 1,19,17,31,25,57,30,22		30,20,29,27	
		2, 4,49,32,49,17,30, 5		9, 8
14″	6,55, 3,24, 7, 4,15,15, 0,27		30,20,38,35	
		2, 4,49,32,18,56,51,30		9, 8
16″	6,55, 5,28,56,36,34,11,51,57		30,20,47,43	
		2, 4,49,31,48,36, 3,47		9, 8
18″	6,55, 7,33,46, 8,22,47,55,44		30,20,56,51	
		2, 4,49,31,18,15, 6,56		9, 8
20″	6,55, 9,38,35,39,41, 3, 2,40		30,21, 5,59	
		2, 4,49,30,47,54, 0,57		9, 8
22″	6,55,11,43,25,10,28,57, 3,37		30,21,15, 7	
		2, 4,49,30,17,32,45,50		9, 8
24″	6,55,13,48,14,40,46,29,49,27		30,21,24,15	
		2, 4,49,29,47,11,21,35		9, 8
26″	6,55,15,53, 4,10,33,41,11, 2		30,21,33,23	
		2, 4,49,29,16,49,48,12		9, 8
28″	6,55,17,57,53,39,50,30,59,14		30,21,42,31	
		2, 4,49,28,46,28, 5,41		9, 8
30″	6,55,20, 2,43, 8,36,59, 4,55		30,21,51,39	
		2, 4,49,28,16, 6,14, 2		9, 8
32″	6,55,22, 7,32,36,53, 5,18,57		30,22, 0,47	
		2, 4,49,27,45,44,13,15		9, 8
34″	6,55,24,12,22, 4,38,49,32,12		30,22, 9,55	
		2, 4,49,27,15,22, 3,20		9, 8
36″	6,55,26,17,11,31,54,11,35,32		30,22,19, 3	
		2, 4,49,26,44,59,44,17		9, 8
38″	6,55,28,22, 0,58,39,11,19,49		30,22,28,11	
		2, 4,49,26,14,37,16, 6		9, 8
40″	6,55,30,26,50,24,53,48,35,55		30,22,37,19	
		2, 4,49,25,44,14,38,47		9, 8
42″	6,55,32,31,39,50,38, 3,14,42		30,22,46,27	
		2, 4,49,25,13,51,52,20		9, 8
44″	6,55,34,36,29,15,51,55, 7, 2		30,22,55,35	
		2, 4,49,24,43,28,56,45		9, 8
46″	6,55,36,41,18,40,35,24, 3,47		30,23, 4,43	
		2, 4,49,24,13, 5,52, 2		9, 8
48″	6,55,38,46, 8, 4,48,29,55,49		30,23,13,51	
		2, 4,49,23,42,42,38,11		9, 8
50″	6,55,40,50,57,28,31,12,34, 0		30,23,22,59	
		2, 4,49,23,12,19,15,12		9, 8
52″	6,55,42,55,46,51,43,31,49,12		30,23,32, 7	
		2, 4,49,22,41,55,43, 5		9, 8
54″	6,55,45, 0,36,14,25,27,32,17		30,23,41,15	
		2, 4,49,22,11,32, 1,50		9, 8
56″	6,55,47, 5,25,36,36,59,34, 7		30,23,50,23	
		2, 4,49,21,41, 8,11,27		9, 8
58″	6,55,49,10,14,58,18, 7,45,34		30,23,59,31	
		2, 4,49,21,10,44,11,56		
60″	6,55,51,15, 4,19,28,51,57,30			
exact	6,55,51,15, 4,19,28,52,25,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°38′ 0″	6,55,51,15, 4,19,28,52,25,24			
		2, 4,49,20,40,20, 6,23		
2″	6,55,53,19,53,40, 9,12,31,47		30,24,17,34	
		2, 4,49,20, 9,55,48,49		9, 8
4″	6,55,55,24,43, 0,19, 8,20,36		30,24,26,42	
		2, 4,49,19,39,31,22, 7		9, 8
6″	6,55,57,29,32,19,58,39,42,43		30,24,35,50	
		2, 4,49,19, 9, 6,46,17		9, 8
8″	6,55,59,34,21,39, 7,46,29, 0		30,24,44,58	
		2, 4,49,18,38,42, 1,19		9, 8
10″	6,56, 1,39,10,57,46,28,30,19		30,24,54, 6	
		2, 4,49,18, 8,17, 7,13		9, 8
12″	6,56, 3,44, 0,15,54,45,37,32		30,25, 3,14	
		2, 4,49,17,37,52, 3,59		9, 8
14″	6,56, 5,48,49,33,32,37,41,31		30,25,12,22	
		2, 4,49,17, 7,26,51,37		9, 8
16″	6,56, 7,53,38,50,40, 4,33, 8		30,25,21,30	
		2, 4,49,16,37, 1,30, 7		9, 8
18″	6,56, 9,58,28, 7,17, 6, 3,15		30,25,30,38	
		2, 4,49,16, 6,35,59,29		9, 8
20″	6,56,12, 3,17,23,23,42, 2,44		30,25,39,46	
		2, 4,49,15,36,10,19,43		9, 8
22″	6,56,14, 8, 6,38,59,52,22,27		30,25,48,54	
		2, 4,49,15, 5,44,30,49		9, 8
24″	6,56,16,12,55,54, 5,36,53,16		30,25,58, 2	
		2, 4,49,14,35,18,32,47		9, 8
26″	6,56,18,17,45, 8,40,55,26, 3		30,26, 7,10	
		2, 4,49,14, 4,52,25,37		9, 8
28″	6,56,20,22,34,22,45,47,51,40		30,26,16,18	
		2, 4,49,13,34,26, 9,19		9, 8
30″	6,56,22,27,23,36,20,14, 0,59		30,26,25,26	
		2, 4,49,13, 3,59,43,53		9, 8
32″	6,56,24,32,12,49,24,13,44,52		30,26,34,34	
		2, 4,49,12,33,33, 9,19		9, 8
34″	6,56,26,37, 2, 1,57,46,54,11		30,26,43,42	
		2, 4,49,12, 3, 6,25,37		9, 8
36″	6,56,28,41,51,14, 0,53,19,48		30,26,52,50	
		2, 4,49,11,32,39,32,47		9, 8
38″	6,56,30,46,40,25,33,32,52,35		30,27, 1,58	
		2, 4,49,11, 2,12,30,49		9, 8
40″	6,56,32,51,29,36,35,45,23,24		30,27,11, 6	
		2, 4,49,10,31,45,19,43		9, 8
42″	6,56,34,56,18,47, 7,30,43, 7		30,27,20,14	
		2, 4,49,10, 1,17,59,29		9, 8
44″	6,56,37, 1, 7,57, 8,48,42,36		30,27,29,22	
		2, 4,49, 9,30,50,30, 7		9, 8
46″	6,56,39, 5,57, 6,39,39,12,43		30,27,38,30	
		2, 4,49, 9, 0,22,51,37		9, 8
48″	6,56,41,10,46,15,40, 2, 4,20		30,27,47,38	
		2, 4,49, 8,29,55, 3,59		9, 8
50″	6,56,43,15,35,24, 9,57, 8,19		30,27,56,46	
		2, 4,49, 7,59,27, 7,13		9, 8
52″	6,56,45,20,24,32, 9,24,15,32		30,28, 5,54	
		2, 4,49, 7,28,59, 1,19		9, 8
54″	6,56,47,25,13,39,38,23,16,51		30,28,15, 2	
		2, 4,49, 6,58,30,46,17		9, 8
56″	6,56,49,30, 2,46,36,54, 3, 8		30,28,24,10	
		2, 4,49, 6,28, 2,22, 7		9, 8
58″	6,56,51,34,51,53, 4,56,25,15		30,28,33,18	
		2, 4,49, 5,57,33,48,49		
60″	6,56,53,39,40,59, 2,30,14, 4			
exact	6,56,53,39,40,59, 2,30,48,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°39′ 0″	6,56,53,39,40,59, 2,30,48,57			
		2, 4,49, 5,27, 5,10, 1		
2″	6,56,55,44,30, 4,29,35,58,58		30,28,51,19	
		2, 4,49, 4,56,36,18,42		9, 8
4″	6,56,57,49,19, 9,26,12,17,40		30,29, 0,27	
		2, 4,49, 4,26, 7,18,15		9, 8
6″	6,56,59,54, 8,13,52,19,35,55		30,29, 9,35	
		2, 4,49, 3,55,38, 8,40		9, 8
8″	6,57, 1,58,57,17,47,57,44,35		30,29,18,43	
		2, 4,49, 3,25, 8,49,57		9, 8
10″	6,57, 4, 3,46,21,13, 6,34,32		30,29,27,51	
		2, 4,49, 2,54,39,22, 6		9, 8
12″	6,57, 6, 8,35,24, 7,45,56,38		30,29,36,59	
		2, 4,49, 2,24, 9,45, 7		9, 8
14″	6,57, 8,13,24,26,31,55,41,45		30,29,46, 7	
		2, 4,49, 1,53,39,59, 0		9, 8
16″	6,57,10,18,13,28,25,35,40,45		30,29,55,15	
		2, 4,49, 1,23,10, 3,45		9, 8
18″	6,57,12,23, 2,29,48,45,44,30		30,30, 4,23	
		2, 4,49, 0,52,39,59,22		9, 8
20″	6,57,14,27,51,30,41,25,43,52		30,30,13,31	
		2, 4,49, 0,22, 9,45,51		9, 8
22″	6,57,16,32,40,31, 3,35,29,43		30,30,22,39	
		2, 4,48,59,51,39,23,12		9, 8
24″	6,57,18,37,29,30,55,14,52,55		30,30,31,47	
		2, 4,48,59,21, 8,51,25		9, 8
26″	6,57,20,42,18,30,16,23,44,20		30,30,40,55	
		2, 4,48,58,50,38,10,30		9, 8
28″	6,57,22,47, 7,29, 7, 1,54,50		30,30,50, 3	
		2, 4,48,58,20, 7,20,27		9, 8
30″	6,57,24,51,56,27,27, 9,15,17		30,30,59,11	
		2, 4,48,57,49,36,21,16		9, 8
32″	6,57,26,56,45,25,16,45,36,33		30,31, 8,19	
		2, 4,48,57,19, 5,12,57		9, 8
34″	6,57,29, 1,34,22,35,50,49,30		30,31,17,27	
		2, 4,48,56,48,33,55,30		9, 8
36″	6,57,31, 6,23,19,24,24,45, 0		30,31,26,35	
		2, 4,48,56,18, 2,28,55		9, 8
38″	6,57,33,11,12,15,42,27,13,55		30,31,35,43	
		2, 4,48,55,47,30,53,12		9, 8
40″	6,57,35,16, 1,11,29,58, 7, 7		30,31,44,51	
		2, 4,48,55,16,59, 8,21		9, 8
42″	6,57,37,20,50, 6,46,57,15,28		30,31,53,59	
		2, 4,48,54,46,27,14,22		9, 8
44″	6,57,39,25,39, 1,33,24,29,50		30,32, 3, 7	
		2, 4,48,54,15,55,11,15		9, 8
46″	6,57,41,30,27,55,49,19,41, 5		30,32,12,15	
		2, 4,48,53,45,22,59, 0		9, 8
48″	6,57,43,35,16,49,34,42,40, 5		30,32,21,23	
		2, 4,48,53,14,50,37,37		9, 8
50″	6,57,45,40, 5,42,49,33,17,42		30,32,30,31	
		2, 4,48,52,44,18, 7, 6		9, 8
52″	6,57,47,44,54,35,33,51,24,48		30,32,39,39	
		2, 4,48,52,13,45,27,27		9, 8
54″	6,57,49,49,43,27,47,36,52,15		30,32,48,47	
		2, 4,48,51,43,12,38,40		9, 8
56″	6,57,51,54,32,19,30,49,30,55		30,32,57,55	
		2, 4,48,51,12,39,40,45		9, 8
58″	6,57,53,59,21,10,43,29,11,40		30,33, 7, 3	
		2, 4,48,50,42, 6,33,42		
60″	6,57,56, 4,10, 1,25,35,45,22			
exact	6,57,56, 4,10, 1,25,36,16,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°40′ 0″	6,57,56, 4,10, 1,25,36,16,11			
		2, 4,48,50,11,33,20,56		
2″	6,57,58, 8,58,51,37, 9,37, 7		30,33,25, 4	
		2, 4,48,49,40,59,55,52		9, 7
4″	6,58, 0,13,47,41,18, 9,32,59		30,33,34,11	
		2, 4,48,49,10,26,21,41		9, 7
6″	6,58, 2,18,36,30,28,35,54,40		30,33,43,18	
		2, 4,48,48,39,52,38,23		9, 7
8″	6,58, 4,23,25,19, 8,28,33, 3		30,33,52,25	
		2, 4,48,48, 9,18,45,58		9, 7
10″	6,58, 6,28,14, 7,17,47,19, 1		30,34, 1,32	
		2, 4,48,47,38,44,44,26		9, 7
12″	6,58, 8,33, 2,54,56,32, 3,27		30,34,10,39	
		2, 4,48,47, 8,10,33,47		9, 7
14″	6,58,10,37,51,42, 4,42,37,14		30,34,19,46	
		2, 4,48,46,37,36,14, 1		9, 7
16″	6,58,12,42,40,28,42,18,51,15		30,34,28,53	
		2, 4,48,46, 7, 1,45, 8		9, 7
18″	6,58,14,47,29,14,49,20,36,23		30,34,38, 0	
		2, 4,48,45,36,27, 7, 8		9, 7
20″	6,58,16,52,18, 0,25,47,43,31		30,34,47, 7	
		2, 4,48,45, 5,52,20, 1		9, 7
22″	6,58,18,57, 6,45,31,40, 3,32		30,34,56,14	
		2, 4,48,44,35,17,23,47		9, 7
24″	6,58,21, 1,55,30, 6,57,27,19		30,35, 5,21	
		2, 4,48,44, 4,42,18,26		9, 7
26″	6,58,23, 6,44,14,11,39,45,45		30,35,14,28	
		2, 4,48,43,34, 7, 3,58		9, 7
28″	6,58,25,11,32,57,45,46,49,43		30,35,23,35	
		2, 4,48,43, 3,31,40,23		9, 7
30″	6,58,27,16,21,40,49,18,30, 6		30,35,32,42	
		2, 4,48,42,32,56, 7,41		9, 7
32″	6,58,29,21,10,23,22,14,37,47		30,35,41,49	
		2, 4,48,42, 2,20,25,52		9, 7
34″	6,58,31,25,59, 5,24,35, 3,39		30,35,50,56	
		2, 4,48,41,31,44,34,56		9, 7
36″	6,58,33,30,47,46,56,19,38,35		30,36, 0, 3	
		2, 4,48,41, 1, 8,34,53		9, 7
38″	6,58,35,35,36,27,57,28,13,28		30,36, 9,10	
		2, 4,48,40,30,32,25,43		9, 7
40″	6,58,37,40,25, 8,28, 0,39,11		30,36,18,17	
		2, 4,48,39,59,56, 7,26		9, 7
42″	6,58,39,45,13,48,27,56,46,37		30,36,27,24	
		2, 4,48,39,29,19,40, 2		9, 7
44″	6,58,41,50, 2,27,57,16,26,39		30,36,36,31	
		2, 4,48,38,58,43, 3,31		9, 7
46″	6,58,43,54,51, 6,55,59,30,10		30,36,45,38	
		2, 4,48,38,28, 6,17,53		9, 7
48″	6,58,45,59,39,45,24, 5,48, 3		30,36,54,45	
		2, 4,48,37,57,29,23, 8		9, 7
50″	6,58,48, 4,28,23,21,35,11,11		30,37, 3,52	
		2, 4,48,37,26,52,19,16		9, 7
52″	6,58,50, 9,17, 0,48,27,30,27		30,37,12,59	
		2, 4,48,36,56,15, 6,17		9, 7
54″	6,58,52,14, 5,37,44,42,36,44		30,37,22, 6	
		2, 4,48,36,25,37,44,11		9, 7
56″	6,58,54,18,54,14,10,20,20,55		30,37,31,13	
		2, 4,48,35,55, 0,12,58		9, 7
58″	6,58,56,23,42,50, 5,20,33,53		30,37,40,20	
		2, 4,48,35,24,22,32,38		
60″	6,58,58,28,31,25,29,43, 6,31			
exact	6,58,58,28,31,25,29,42,29,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°41′ 0″	6,58,58,28,31,25,29,42,29,57			
		2, 4,48,34,53,44,39,25		
2″	6,59, 0,33,20, 0,23,27, 9,22		30,37,58,49	
		2, 4,48,34,23, 6,40,36		9, 7
4″	6,59, 2,38, 8,34,46,33,49,58		30,38, 7,56	
		2, 4,48,33,52,28,32,40		9, 7
6″	6,59, 4,42,57, 8,39, 2,22,38		30,38,17, 3	
		2, 4,48,33,21,50,15,37		9, 7
8″	6,59, 6,47,45,42, 0,52,38,15		30,38,26,10	
		2, 4,48,32,51,11,49,27		9, 7
10″	6,59, 8,52,34,14,52, 4,27,42		30,38,35,17	
		2, 4,48,32,20,33,14,10		9, 7
12″	6,59,10,57,22,47,12,37,41,52		30,38,44,24	
		2, 4,48,31,49,54,29,46		9, 7
14″	6,59,13, 2,11,19, 2,32,11,38		30,38,53,31	
		2, 4,48,31,19,15,36,15		9, 7
16″	6,59,15, 6,59,50,21,47,47,53		30,39, 2,38	
		2, 4,48,30,48,36,33,37		9, 7
18″	6,59,17,11,48,21,10,24,21,30		30,39,11,45	
		2, 4,48,30,17,57,21,52		9, 7
20″	6,59,19,16,36,51,28,21,43,22		30,39,20,52	
		2, 4,48,29,47,18, 1, 0		9, 7
22″	6,59,21,21,25,21,15,39,44,22		30,39,29,59	
		2, 4,48,29,16,38,31, 1		9, 7
24″	6,59,23,26,13,50,32,18,15,23		30,39,39, 6	
		2, 4,48,28,45,58,51,55		9, 7
26″	6,59,25,31, 2,19,18,17, 7,18		30,39,48,13	
		2, 4,48,28,15,19, 3,42		9, 7
28″	6,59,27,35,50,47,33,36,11, 0		30,39,57,20	
		2, 4,48,27,44,39, 6,22		9, 7
30″	6,59,29,40,39,15,18,15,17,22		30,40, 6,27	
		2, 4,48,27,13,58,59,55		9, 7
32″	6,59,31,45,27,42,32,14,17,17		30,40,15,34	
		2, 4,48,26,43,18,44,21		9, 7
34″	6,59,33,50,16, 9,15,33, 1,38		30,40,24,41	
		2, 4,48,26,12,38,19,40		9, 7
36″	6,59,35,55, 4,35,28,11,21,18		30,40,33,48	
		2, 4,48,25,41,57,45,52		9, 7
38″	6,59,37,59,53, 1,10, 9, 7,10		30,40,42,55	
		2, 4,48,25,11,17, 2,57		9, 7
40″	6,59,40, 4,41,26,21,26,10, 7		30,40,52, 2	
		2, 4,48,24,40,36,10,55		9, 7
42″	6,59,42, 9,29,51, 2, 2,21, 2		30,41, 1, 9	
		2, 4,48,24, 9,55, 9,46		9, 7
44″	6,59,44,14,18,15,11,57,30,48		30,41,10,16	
		2, 4,48,23,39,13,59,30		9, 7
46″	6,59,46,19, 6,38,51,11,30,18		30,41,19,23	
		2, 4,48,23, 8,32,40, 7		9, 7
48″	6,59,48,23,55, 1,59,44,10,25		30,41,28,30	
		2, 4,48,22,37,51,11,37		9, 7
50″	6,59,50,28,43,24,37,35,22, 2		30,41,37,37	
		2, 4,48,22, 7, 9,34, 0		9, 7
52″	6,59,52,33,31,46,44,44,56, 2		30,41,46,44	
		2, 4,48,21,36,27,47,16		9, 7
54″	6,59,54,38,20, 8,21,12,43,18		30,41,55,51	
		2, 4,48,21, 5,45,51,25		9, 7
56″	6,59,56,43, 8,29,26,58,34,43		30,42, 4,58	
		2, 4,48,20,35, 3,46,27		9, 7
58″	6,59,58,47,56,50, 2, 2,21,10		30,42,14, 5	
		2, 4,48,20, 4,21,32,22		
60″	7, 0, 0,52,45,10, 6,23,53,32			
exact	7, 0, 0,52,45,10, 6,23,21,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°42′ 0″	7, 0, 0,52,45,10, 6,23,21,28			
		2, 4,48,19,33,39, 5,45		
2″	7, 0, 2,57,33,29,40, 2,27,13		30,42,32,33	
		2, 4,48,19, 2,56,33,12		9, 7
4″	7, 0, 5, 2,21,48,42,59, 0,25		30,42,41,40	
		2, 4,48,18,32,13,51,32		9, 7
6″	7, 0, 7, 7,10, 7,15,12,51,57		30,42,50,47	
		2, 4,48,18, 1,31, 0,45		9, 7
8″	7, 0, 9,11,58,25,16,43,52,42		30,42,59,54	
		2, 4,48,17,30,48, 0,51		9, 7
10″	7, 0,11,16,46,42,47,31,53,33		30,43, 9, 1	
		2, 4,48,17, 0, 4,51,50		9, 7
12″	7, 0,13,21,34,59,47,36,45,23		30,43,18, 8	
		2, 4,48,16,29,21,33,42		9, 7
14″	7, 0,15,26,23,16,16,58,19, 5		30,43,27,15	
		2, 4,48,15,58,38, 6,27		9, 7
16″	7, 0,17,31,11,32,15,36,25,32		30,43,36,22	
		2, 4,48,15,27,54,30, 5		9, 7
18″	7, 0,19,35,59,47,43,30,55,37		30,43,45,29	
		2, 4,48,14,57,10,44,36		9, 7
20″	7, 0,21,40,48, 2,40,41,40,13		30,43,54,36	
		2, 4,48,14,26,26,50, 0		9, 7
22″	7, 0,23,45,36,17, 7, 8,30,13		30,44, 3,43	
		2, 4,48,13,55,42,46,17		9, 7
24″	7, 0,25,50,24,31, 2,51,16,30		30,44,12,50	
		2, 4,48,13,24,58,33,27		9, 7
26″	7, 0,27,55,12,44,27,49,49,57		30,44,21,57	
		2, 4,48,12,54,14,11,30		9, 7
28″	7, 0,30, 0, 0,57,22, 4, 1,27		30,44,31, 4	
		2, 4,48,12,23,29,40,26		9, 7
30″	7, 0,32, 4,49, 9,45,33,41,53		30,44,40,11	
		2, 4,48,11,52,45, 0,15		9, 7
32″	7, 0,34, 9,37,21,38,18,42, 8		30,44,49,18	
		2, 4,48,11,22, 0,10,57		9, 7
34″	7, 0,36,14,25,33, 0,18,53, 5		30,44,58,25	
		2, 4,48,10,51,15,12,32		9, 7
36″	7, 0,38,19,13,43,51,34, 5,37		30,45, 7,32	
		2, 4,48,10,20,30, 5, 0		9, 7
38″	7, 0,40,24, 1,54,12, 4,10,37		30,45,16,39	
		2, 4,48, 9,49,44,48,21		9, 7
40″	7, 0,42,28,50, 4, 1,48,58,58		30,45,25,46	
		2, 4,48, 9,18,59,22,35		9, 7
42″	7, 0,44,33,38,13,20,48,21,33		30,45,34,53	
		2, 4,48, 8,48,13,47,42		9, 7
44″	7, 0,46,38,26,22, 9, 2, 9,15		30,45,44, 0	
		2, 4,48, 8,17,28, 3,42		9, 7
46″	7, 0,48,43,14,30,26,30,12,57		30,45,53, 7	
		2, 4,48, 7,46,42,10,35		9, 7
48″	7, 0,50,48, 2,38,13,12,23,32		30,46, 2,14	
		2, 4,48, 7,15,56, 8,21		9, 7
50″	7, 0,52,52,50,45,29, 8,31,53		30,46,11,21	
		2, 4,48, 6,45, 9,57, 0		9, 7
52″	7, 0,54,57,38,52,14,18,28,53		30,46,20,28	
		2, 4,48, 6,14,23,36,32		9, 7
54″	7, 0,57, 2,26,58,28,42, 5,25		30,46,29,35	
		2, 4,48, 5,43,37, 6,57		9, 7
56″	7, 0,59, 7,15, 4,12,19,12,22		30,46,38,42	
		2, 4,48, 5,12,50,28,15		9, 7
58″	7, 1, 1,12, 3, 9,25, 9,40,37		30,46,47,49	
		2, 4,48, 4,42, 3,40,26		
60″	7, 1, 3,16,51,14, 7,13,21, 3			
exact	7, 1, 3,16,51,14, 7,12,50,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°43′ 0″	7, 1, 3,16,51,14, 7,12,50,20			
		2, 4,48, 4,11,16,40,13		
2″	7, 1, 5,21,39,18,18,29,30,33		30,47, 6,16	
		2, 4,48, 3,40,29,33,57		9, 7
4″	7, 1, 7,26,27,21,58,59, 4,30		30,47,15,23	
		2, 4,48, 3, 9,42,18,34		9, 7
6″	7, 1, 9,31,15,25, 8,41,23, 4		30,47,24,30	
		2, 4,48, 2,38,54,54, 4		9, 7
8″	7, 1,11,36, 3,27,47,36,17, 8		30,47,33,37	
		2, 4,48, 2, 8, 7,20,27		9, 7
10″	7, 1,13,40,51,29,55,43,37,35		30,47,42,44	
		2, 4,48, 1,37,19,37,43		9, 7
12″	7, 1,15,45,39,31,33, 3,15,18		30,47,51,51	
		2, 4,48, 1, 6,31,45,52		9, 7
14″	7, 1,17,50,27,32,39,35, 1,10		30,48, 0,58	
		2, 4,48, 0,35,43,44,54		9, 7
16″	7, 1,19,55,15,33,15,18,46, 4		30,48,10, 5	
		2, 4,48, 0, 4,55,34,49		9, 7
18″	7, 1,22, 0, 3,33,20,14,20,53		30,48,19,12	
		2, 4,47,59,34, 7,15,37		9, 7
20″	7, 1,24, 4,51,32,54,21,36,30		30,48,28,19	
		2, 4,47,59, 3,18,47,18		9, 7
22″	7, 1,26, 9,39,31,57,40,23,48		30,48,37,26	
		2, 4,47,58,32,30, 9,52		9, 7
24″	7, 1,28,14,27,30,30,10,33,40		30,48,46,33	
		2, 4,47,58, 1,41,23,19		9, 7
26″	7, 1,30,19,15,28,31,51,56,59		30,48,55,40	
		2, 4,47,57,30,52,27,39		9, 7
28″	7, 1,32,24, 3,26, 2,44,24,38		30,49, 4,47	
		2, 4,47,57, 0, 3,22,52		9, 7
30″	7, 1,34,28,51,23, 2,47,47,30		30,49,13,54	
		2, 4,47,56,29,14, 8,58		9, 7
32″	7, 1,36,33,39,19,32, 1,56,28		30,49,23, 1	
		2, 4,47,55,58,24,45,57		9, 7
34″	7, 1,38,38,27,15,30,26,42,25		30,49,32, 8	
		2, 4,47,55,27,35,13,49		9, 7
36″	7, 1,40,43,15,10,58, 1,56,14		30,49,41,15	
		2, 4,47,54,56,45,32,34		9, 7
38″	7, 1,42,48, 3, 5,54,47,28,48		30,49,50,22	
		2, 4,47,54,25,55,42,12		9, 7
40″	7, 1,44,52,51, 0,20,43,11, 0		30,49,59,29	
		2, 4,47,53,55, 5,42,43		9, 7
42″	7, 1,46,57,38,54,15,48,53,43		30,50, 8,36	
		2, 4,47,53,24,15,34, 7		9, 7
44″	7, 1,49, 2,26,47,40, 4,27,50		30,50,17,43	
		2, 4,47,52,53,25,16,24		9, 7
46″	7, 1,51, 7,14,40,33,29,44,14		30,50,26,50	
		2, 4,47,52,22,34,49,34		9, 7
48″	7, 1,53,12, 2,32,56, 4,33,48		30,50,35,57	
		2, 4,47,51,51,44,13,37		9, 7
50″	7, 1,55,16,50,24,47,48,47,25		30,50,45, 4	
		2, 4,47,51,20,53,28,33		9, 7
52″	7, 1,57,21,38,16, 8,42,15,58		30,50,54,11	
		2, 4,47,50,50, 2,34,22		9, 7
54″	7, 1,59,26,26, 6,58,44,50,20		30,51, 3,18	
		2, 4,47,50,19,11,31, 4		9, 7
56″	7, 2, 1,31,13,57,17,56,21,24		30,51,12,25	
		2, 4,47,49,48,20,18,39		9, 7
58″	7, 2, 3,36, 1,47, 6,16,40, 3		30,51,21,32	
		2, 4,47,49,17,28,57, 7		
60″	7, 2, 5,40,49,36,23,45,37,10			
exact	7, 2, 5,40,49,36,23,45, 4,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°44′ 0″	7, 2, 5,40,49,36,23,45, 4,33			
		2, 4,47,48,46,37,23, 6		
2″	7, 2, 7,45,37,25,10,22,27,39		30,51,39,59	
		2, 4,47,48,15,45,43, 7		9, 7
4″	7, 2, 9,50,25,13,26, 8,10,46		30,51,49, 6	
		2, 4,47,47,44,53,54, 1		9, 7
6″	7, 2,11,55,13, 1,11, 2, 4,47		30,51,58,13	
		2, 4,47,47,14, 1,55,48		9, 7
8″	7, 2,14, 0, 0,48,25, 4, 0,35		30,52, 7,20	
		2, 4,47,46,43, 9,48,28		9, 7
10″	7, 2,16, 4,48,35, 8,13,49, 3		30,52,16,27	
		2, 4,47,46,12,17,32, 1		9, 7
12″	7, 2,18, 9,36,21,20,31,21, 4		30,52,25,34	
		2, 4,47,45,41,25, 6,27		9, 7
14″	7, 2,20,14,24, 7, 1,56,27,31		30,52,34,41	
		2, 4,47,45,10,32,31,46		9, 7
16″	7, 2,22,19,11,52,12,28,59,17		30,52,43,48	
		2, 4,47,44,39,39,47,58		9, 7
18″	7, 2,24,23,59,36,52, 8,47,15		30,52,52,55	
		2, 4,47,44, 8,46,55, 3		9, 7
20″	7, 2,26,28,47,21, 0,55,42,18		30,53, 2, 2	
		2, 4,47,43,37,53,53, 1		9, 7
22″	7, 2,28,33,35, 4,38,49,35,19		30,53,11, 9	
		2, 4,47,43, 7, 0,41,52		9, 7
24″	7, 2,30,38,22,47,45,50,17,11		30,53,20,16	
		2, 4,47,42,36, 7,21,36		9, 7
26″	7, 2,32,43,10,30,21,57,38,47		30,53,29,23	
		2, 4,47,42, 5,13,52,13		9, 7
28″	7, 2,34,47,58,12,27,11,31, 0		30,53,38,30	
		2, 4,47,41,34,20,13,43		9, 7
30″	7, 2,36,52,45,54, 1,31,44,43		30,53,47,37	
		2, 4,47,41, 3,26,26, 6		9, 7
32″	7, 2,38,57,33,35, 4,58,10,49		30,53,56,44	
		2, 4,47,40,32,32,29,22		9, 7
34″	7, 2,41, 2,21,15,37,30,40,11		30,54, 5,51	
		2, 4,47,40, 1,38,23,31		9, 7
36″	7, 2,43, 7, 8,55,39, 9, 3,42		30,54,14,58	
		2, 4,47,39,30,44, 8,33		9, 7
38″	7, 2,45,11,56,35, 9,53,12,15		30,54,24, 5	
		2, 4,47,38,59,49,44,28		9, 7
40″	7, 2,47,16,44,14, 9,42,56,43		30,54,33,12	
		2, 4,47,38,28,55,11,16		9, 7
42″	7, 2,49,21,31,52,38,38, 7,59		30,54,42,19	
		2, 4,47,37,58, 0,28,57		9, 7
44″	7, 2,51,26,19,30,36,38,36,56		30,54,51,26	
		2, 4,47,37,27, 5,37,31		9, 7
46″	7, 2,53,31, 7, 8, 3,44,14,27		30,55, 0,33	
		2, 4,47,36,56,10,36,58		9, 7
48″	7, 2,55,35,54,44,59,54,51,25		30,55, 9,40	
		2, 4,47,36,25,15,27,18		9, 7
50″	7, 2,57,40,42,21,25,10,18,43		30,55,18,47	
		2, 4,47,35,54,20, 8,31		9, 7
52″	7, 2,59,45,29,57,19,30,27,14		30,55,27,54	
		2, 4,47,35,23,24,40,37		9, 7
54″	7, 3, 1,50,17,32,42,55, 7,51		30,55,37, 1	
		2, 4,47,34,52,29, 3,36		9, 7
56″	7, 3, 3,55, 5, 7,35,24,11,27		30,55,46, 8	
		2, 4,47,34,21,33,17,28		9, 7
58″	7, 3, 5,59,52,41,56,57,28,55		30,55,55,15	
		2, 4,47,33,50,37,22,13		
60″	7, 3, 8, 4,40,15,47,34,51, 8			
exact	7, 3, 8, 4,40,15,47,34,20,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°45′ 0″	7, 3, 8, 4,40,15,47,34,20,36			
		2, 4,47,33,19,41,14,41		
2″	7, 3,10, 9,27,49, 7,15,35,17		30,56,13,42	
		2, 4,47,32,48,45, 0,59		9, 7
4″	7, 3,12,14,15,21,56, 0,36,16		30,56,22,49	
		2, 4,47,32,17,48,38,10		9, 7
6″	7, 3,14,19, 2,54,13,49,14,26		30,56,31,56	
		2, 4,47,31,46,52, 6,14		9, 7
8″	7, 3,16,23,50,26, 0,41,20,40		30,56,41, 3	
		2, 4,47,31,15,55,25,11		9, 7
10″	7, 3,18,28,37,57,16,36,45,51		30,56,50,10	
		2, 4,47,30,44,58,35, 1		9, 7
12″	7, 3,20,33,25,28, 1,35,20,52		30,56,59,17	
		2, 4,47,30,14, 1,35,44		9, 7
14″	7, 3,22,38,12,58,15,36,56,36		30,57, 8,24	
		2, 4,47,29,43, 4,27,20		9, 7
16″	7, 3,24,43, 0,27,58,41,23,56		30,57,17,31	
		2, 4,47,29,12, 7, 9,49		9, 7
18″	7, 3,26,47,47,57,10,48,33,45		30,57,26,38	
		2, 4,47,28,41, 9,43,11		9, 7
20″	7, 3,28,52,35,25,51,58,16,56		30,57,35,45	
		2, 4,47,28,10,12, 7,26		9, 7
22″	7, 3,30,57,22,54, 2,10,24,22		30,57,44,52	
		2, 4,47,27,39,14,22,34		9, 7
24″	7, 3,33, 2,10,21,41,24,46,56		30,57,53,59	
		2, 4,47,27, 8,16,28,35		9, 7
26″	7, 3,35, 6,57,48,49,41,15,31		30,58, 3, 6	
		2, 4,47,26,37,18,25,29		9, 7
28″	7, 3,37,11,45,15,26,59,41, 0		30,58,12,13	
		2, 4,47,26, 6,20,13,16		9, 7
30″	7, 3,39,16,32,41,33,19,54,16		30,58,21,20	
		2, 4,47,25,35,21,51,56		9, 7
32″	7, 3,41,21,20, 7, 8,41,46,12		30,58,30,27	
		2, 4,47,25, 4,23,21,29		9, 7
34″	7, 3,43,26, 7,32,13, 5, 7,41		30,58,39,34	
		2, 4,47,24,33,24,41,55		9, 7
36″	7, 3,45,30,54,56,46,29,49,36		30,58,48,41	
		2, 4,47,24, 2,25,53,14		9, 7
38″	7, 3,47,35,42,20,48,55,42,50		30,58,57,48	
		2, 4,47,23,31,26,55,26		9, 7
40″	7, 3,49,40,29,44,20,22,38,16		30,59, 6,55	
		2, 4,47,23, 0,27,48,31		9, 7
42″	7, 3,51,45,17, 7,20,50,26,47		30,59,16, 2	
		2, 4,47,22,29,28,32,29		9, 7
44″	7, 3,53,50, 4,29,50,18,59,16		30,59,25, 9	
		2, 4,47,21,58,29, 7,20		9, 7
46″	7, 3,55,54,51,51,48,48, 6,36		30,59,34,16	
		2, 4,47,21,27,29,33, 4		9, 7
48″	7, 3,57,59,39,13,16,17,39,40		30,59,43,23	
		2, 4,47,20,56,29,49,41		9, 7
50″	7, 4, 0, 4,26,34,12,47,29,21		30,59,52,30	
		2, 4,47,20,25,29,57,11		9, 7
52″	7, 4, 2, 9,13,54,38,17,26,32		31, 0, 1,37	
		2, 4,47,19,54,29,55,34		9, 7
54″	7, 4, 4,14, 1,14,32,47,22, 6		31, 0,10,44	
		2, 4,47,19,23,29,44,50		9, 7
56″	7, 4, 6,18,48,33,56,17, 6,56		31, 0,19,51	
		2, 4,47,18,52,29,24,59		9, 7
58″	7, 4, 8,23,35,52,48,46,31,55		31, 0,28,58	
		2, 4,47,18,21,28,56, 1		
60″	7, 4,10,28,23,11,10,15,27,56			
exact	7, 4,10,28,23,11,10,15, 3,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°46′ 0″	7, 4,10,28,23,11,10,15, 3,24			
		2, 4,47,17,50,28,15,14		
2″	7, 4,12,33,10,29, 0,43,18,38		31, 0,47,23	
		2, 4,47,17,19,27,27,51		9, 7
4″	7, 4,14,37,57,46,20,10,46,29		31, 0,56,30	
		2, 4,47,16,48,26,31,21		9, 7
6″	7, 4,16,42,45, 3, 8,37,17,50		31, 1, 5,37	
		2, 4,47,16,17,25,25,44		9, 7
8″	7, 4,18,47,32,19,26, 2,43,34		31, 1,14,44	
		2, 4,47,15,46,24,11, 0		9, 7
10″	7, 4,20,52,19,35,12,26,54,34		31, 1,23,51	
		2, 4,47,15,15,22,47, 9		9, 7
12″	7, 4,22,57, 6,50,27,49,41,43		31, 1,32,58	
		2, 4,47,14,44,21,14,11		9, 7
14″	7, 4,25, 1,54, 5,12,10,55,54		31, 1,42, 5	
		2, 4,47,14,13,19,32, 6		9, 7
16″	7, 4,27, 6,41,19,25,30,28, 0		31, 1,51,12	
		2, 4,47,13,42,17,40,54		9, 7
18″	7, 4,29,11,28,33, 7,48, 8,54		31, 2, 0,19	
		2, 4,47,13,11,15,40,35		9, 7
20″	7, 4,31,16,15,46,19, 3,49,29		31, 2, 9,26	
		2, 4,47,12,40,13,31, 9		9, 7
22″	7, 4,33,21, 2,58,59,17,20,38		31, 2,18,33	
		2, 4,47,12, 9,11,12,36		9, 7
24″	7, 4,35,25,50,11, 8,28,33,14		31, 2,27,40	
		2, 4,47,11,38, 8,44,56		9, 7
26″	7, 4,37,30,37,22,46,37,18,10		31, 2,36,47	
		2, 4,47,11, 7, 6, 8, 9		9, 7
28″	7, 4,39,35,24,33,53,43,26,19		31, 2,45,54	
		2, 4,47,10,36, 3,22,15		9, 7
30″	7, 4,41,40,11,44,29,46,48,34		31, 2,55, 1	
		2, 4,47,10, 5, 0,27,14		9, 7
32″	7, 4,43,44,58,54,34,47,15,48		31, 3, 4, 8	
		2, 4,47, 9,33,57,23, 6		9, 7
34″	7, 4,45,49,46, 4, 8,44,38,54		31, 3,13,15	
		2, 4,47, 9, 2,54, 9,51		9, 7
36″	7, 4,47,54,33,13,11,38,48,45		31, 3,22,22	
		2, 4,47, 8,31,50,47,29		9, 7
38″	7, 4,49,59,20,21,43,29,36,14		31, 3,31,29	
		2, 4,47, 8, 0,47,16, 0		9, 7
40″	7, 4,52, 4, 7,29,44,16,52,14		31, 3,40,36	
		2, 4,47, 7,29,43,35,24		9, 7
42″	7, 4,54, 8,54,37,14, 0,27,38		31, 3,49,43	
		2, 4,47, 6,58,39,45,41		9, 7
44″	7, 4,56,13,41,44,12,40,13,19		31, 3,58,50	
		2, 4,47, 6,27,35,46,51		9, 7
46″	7, 4,58,18,28,50,40,16, 0,10		31, 4, 7,57	
		2, 4,47, 5,56,31,38,54		9, 7
48″	7, 5, 0,23,15,56,36,47,39, 4		31, 4,17, 4	
		2, 4,47, 5,25,27,21,50		9, 7
50″	7, 5, 2,28, 3, 2, 2,15, 0,54		31, 4,26,11	
		2, 4,47, 4,54,22,55,39		9, 7
52″	7, 5, 4,32,50, 6,56,37,56,33		31, 4,35,18	
		2, 4,47, 4,23,18,20,21		9, 7
54″	7, 5, 6,37,37,11,19,56,16,54		31, 4,44,25	
		2, 4,47, 3,52,13,35,56		9, 7
56″	7, 5, 8,42,24,15,12, 9,52,50		31, 4,53,32	
		2, 4,47, 3,21, 8,42,24		9, 7
58″	7, 5,10,47,11,18,33,18,35,14		31, 5, 2,39	
		2, 4,47, 2,50, 3,39,45		
60″	7, 5,12,51,58,21,23,22,14,59			
exact	7, 5,12,51,58,21,23,21,46,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°47′ 0″	7, 5,12,51,58,21,23,21,46,21			
		2, 4,47, 2,18,58,25, 3		
2″	7, 5,14,56,45,23,42,20,11,24		31, 5,21, 5	
		2, 4,47, 1,47,53, 3,58		9, 7
4″	7, 5,17, 1,32,25,30,13,15,22		31, 5,30,12	
		2, 4,47, 1,16,47,33,46		9, 7
6″	7, 5,19, 6,19,26,47, 0,49, 8		31, 5,39,19	
		2, 4,47, 0,45,41,54,27		9, 7
8″	7, 5,21,11, 6,27,32,42,43,35		31, 5,48,26	
		2, 4,47, 0,14,36, 6, 1		9, 7
10″	7, 5,23,15,53,27,47,18,49,36		31, 5,57,33	
		2, 4,46,59,43,30, 8,28		9, 7
12″	7, 5,25,20,40,27,30,48,58, 4		31, 6, 6,40	
		2, 4,46,59,12,24, 1,48		9, 7
14″	7, 5,27,25,27,26,43,12,59,52		31, 6,15,47	
		2, 4,46,58,41,17,46, 1		9, 7
16″	7, 5,29,30,14,25,24,30,45,53		31, 6,24,54	
		2, 4,46,58,10,11,21, 7		9, 7
18″	7, 5,31,35, 1,23,34,42, 7, 0		31, 6,34, 1	
		2, 4,46,57,39, 4,47, 6		9, 7
20″	7, 5,33,39,48,21,13,46,54, 6		31, 6,43, 8	
		2, 4,46,57, 7,58, 3,58		9, 7
22″	7, 5,35,44,35,18,21,44,58, 4		31, 6,52,15	
		2, 4,46,56,36,51,11,43		9, 7
24″	7, 5,37,49,22,14,58,36, 9,47		31, 7, 1,22	
		2, 4,46,56, 5,44,10,21		9, 7
26″	7, 5,39,54, 9,11, 4,20,20, 8		31, 7,10,29	
		2, 4,46,55,34,36,59,52		9, 7
28″	7, 5,41,58,56, 6,38,57,20, 0		31, 7,19,36	
		2, 4,46,55, 3,29,40,16		9, 7
30″	7, 5,44, 3,43, 1,42,27, 0,16		31, 7,28,43	
		2, 4,46,54,32,22,11,33		9, 7
32″	7, 5,46, 8,29,56,14,49,11,49		31, 7,37,50	
		2, 4,46,54, 1,14,33,43		9, 7
34″	7, 5,48,13,16,50,16, 3,45,32		31, 7,46,57	
		2, 4,46,53,30, 6,46,46		9, 7
36″	7, 5,50,18, 3,43,46,10,32,18		31, 7,56, 4	
		2, 4,46,52,58,58,50,42		9, 7
38″	7, 5,52,22,50,36,45, 9,23, 0		31, 8, 5,11	
		2, 4,46,52,27,50,45,31		9, 7
40″	7, 5,54,27,37,29,13, 0, 8,31		31, 8,14,18	
		2, 4,46,51,56,42,31,13		9, 7
42″	7, 5,56,32,24,21, 9,42,39,44		31, 8,23,25	
		2, 4,46,51,25,34, 7,48		9, 7
44″	7, 5,58,37,11,12,35,16,47,32		31, 8,32,32	
		2, 4,46,50,54,25,35,16		9, 7
46″	7, 6, 0,41,58, 3,29,42,22,48		31, 8,41,39	
		2, 4,46,50,23,16,53,37		9, 7
48″	7, 6, 2,46,44,53,52,59,16,25		31, 8,50,46	
		2, 4,46,49,52, 8, 2,51		9, 7
50″	7, 6, 4,51,31,43,45, 7,19,16		31, 8,59,53	
		2, 4,46,49,20,59, 2,58		9, 7
52″	7, 6, 6,56,18,33, 6, 6,22,14		31, 9, 9, 0	
		2, 4,46,48,49,49,53,58		9, 7
54″	7, 6, 9, 1, 5,21,55,56,16,12		31, 9,18, 7	
		2, 4,46,48,18,40,35,51		9, 7
56″	7, 6,11, 5,52,10,14,36,52, 3		31, 9,27,14	
		2, 4,46,47,47,31, 8,37		9, 7
58″	7, 6,13,10,38,58, 2, 8, 0,40		31, 9,36,21	
		2, 4,46,47,16,21,32,16		
60″	7, 6,15,15,25,45,18,29,32,56			
exact	7, 6,15,15,25,45,18,29,11,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°48′ 0″	7, 6,15,15,25,45,18,29,11,21			
		2, 4,46,46,45,11,44,24		
2″	7, 6,17,20,12,32, 3,40,55,45		31, 9,54,45	
		2, 4,46,46,14, 1,49,39		9, 7
4″	7, 6,19,24,59,18,17,42,45,24		31,10, 3,52	
		2, 4,46,45,42,51,45,47		9, 7
6″	7, 6,21,29,46, 4, 0,34,31,11		31,10,12,59	
		2, 4,46,45,11,41,32,48		9, 7
8″	7, 6,23,34,32,49,12,16, 3,59		31,10,22, 6	
		2, 4,46,44,40,31,10,42		9, 7
10″	7, 6,25,39,19,33,52,47,14,41		31,10,31,13	
		2, 4,46,44, 9,20,39,29		9, 7
12″	7, 6,27,44, 6,18, 2, 7,54,10		31,10,40,20	
		2, 4,46,43,38, 9,59, 9		9, 7
14″	7, 6,29,48,53, 1,40,17,53,19		31,10,49,27	
		2, 4,46,43, 6,59, 9,42		9, 7
16″	7, 6,31,53,39,44,47,17, 3, 1		31,10,58,34	
		2, 4,46,42,35,48,11, 8		9, 7
18″	7, 6,33,58,26,27,23, 5,14, 9		31,11, 7,41	
		2, 4,46,42, 4,37, 3,27		9, 7
20″	7, 6,36, 3,13, 9,27,42,17,36		31,11,16,48	
		2, 4,46,41,33,25,46,39		9, 7
22″	7, 6,38, 7,59,51, 1, 8, 4,15		31,11,25,55	
		2, 4,46,41, 2,14,20,44		9, 7
24″	7, 6,40,12,46,32, 3,22,24,59		31,11,35, 2	
		2, 4,46,40,31, 2,45,42		9, 7
26″	7, 6,42,17,33,12,34,25,10,41		31,11,44, 9	
		2, 4,46,39,59,51, 1,33		9, 7
28″	7, 6,44,22,19,52,34,16,12,14		31,11,53,16	
		2, 4,46,39,28,39, 8,17		9, 7
30″	7, 6,46,27, 6,32, 2,55,20,31		31,12, 2,23	
		2, 4,46,38,57,27, 5,54		9, 7
32″	7, 6,48,31,53,11, 0,22,26,25		31,12,11,30	
		2, 4,46,38,26,14,54,24		9, 7
34″	7, 6,50,36,39,49,26,37,20,49		31,12,20,37	
		2, 4,46,37,55, 2,33,47		9, 7
36″	7, 6,52,41,26,27,21,39,54,36		31,12,29,44	
		2, 4,46,37,23,50, 4, 3		9, 7
38″	7, 6,54,46,13, 4,45,29,58,39		31,12,38,51	
		2, 4,46,36,52,37,25,12		9, 7
40″	7, 6,56,50,59,41,38, 7,23,51		31,12,47,58	
		2, 4,46,36,21,24,37,14		9, 7
42″	7, 6,58,55,46,17,59,32, 1, 5		31,12,57, 5	
		2, 4,46,35,50,11,40, 9		9, 7
44″	7, 7, 1, 0,32,53,49,43,41,14		31,13, 6,12	
		2, 4,46,35,18,58,33,57		9, 7
46″	7, 7, 3, 5,19,29, 8,42,15,11		31,13,15,19	
		2, 4,46,34,47,45,18,38		9, 7
48″	7, 7, 5,10, 6, 3,56,27,33,49		31,13,24,26	
		2, 4,46,34,16,31,54,12		9, 7
50″	7, 7, 7,14,52,38,12,59,28, 1		31,13,33,33	
		2, 4,46,33,45,18,20,39		9, 7
52″	7, 7, 9,19,39,11,58,17,48,40		31,13,42,40	
		2, 4,46,33,14, 4,37,59		9, 7
54″	7, 7,11,24,25,45,12,22,26,39		31,13,51,47	
		2, 4,46,32,42,50,46,12		9, 7
56″	7, 7,13,29,12,17,55,13,12,51		31,14, 0,54	
		2, 4,46,32,11,36,45,18		9, 7
58″	7, 7,15,33,58,50, 6,49,58, 9		31,14,10, 1	
		2, 4,46,31,40,22,35,17		
60″	7, 7,17,38,45,21,47,12,33,26			
exact	7, 7,17,38,45,21,47,12, 8,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°49′ 0″	7, 7,17,38,45,21,47,12, 8,51			
		2, 4,46,31, 9, 8,13,35		
2″	7, 7,19,43,31,52,56,20,22,26		31,14,28,25	
		2, 4,46,30,37,53,45,10		9, 7
4″	7, 7,21,48,18,23,34,14, 7,36		31,14,37,32	
		2, 4,46,30, 6,39, 7,38		9, 7
6″	7, 7,23,53, 4,53,40,53,15,14		31,14,46,39	
		2, 4,46,29,35,24,20,59		9, 7
8″	7, 7,25,57,51,23,16,17,36,13		31,14,55,46	
		2, 4,46,29, 4, 9,25,13		9, 7
10″	7, 7,28, 2,37,52,20,27, 1,26		31,15, 4,53	
		2, 4,46,28,32,54,20,20		9, 7
12″	7, 7,30, 7,24,20,53,21,21,46		31,15,14, 0	
		2, 4,46,28, 1,39, 6,20		9, 7
14″	7, 7,32,12,10,48,55, 0,28, 6		31,15,23, 7	
		2, 4,46,27,30,23,43,13		9, 7
16″	7, 7,34,16,57,16,25,24,11,19		31,15,32,14	
		2, 4,46,26,59, 8,10,59		9, 7
18″	7, 7,36,21,43,43,24,32,22,18		31,15,41,21	
		2, 4,46,26,27,52,29,38		9, 7
20″	7, 7,38,26,30, 9,52,24,51,56		31,15,50,28	
		2, 4,46,25,56,36,39,10		9, 7
22″	7, 7,40,31,16,35,49, 1,31, 6		31,15,59,35	
		2, 4,46,25,25,20,39,35		9, 7
24″	7, 7,42,36, 3, 1,14,22,10,41		31,16, 8,42	
		2, 4,46,24,54, 4,30,53		9, 7
26″	7, 7,44,40,49,26, 8,26,41,34		31,16,17,49	
		2, 4,46,24,22,48,13, 4		9, 7
28″	7, 7,46,45,35,50,31,14,54,38		31,16,26,56	
		2, 4,46,23,51,31,46, 8		9, 7
30″	7, 7,48,50,22,14,22,46,40,46		31,16,36, 3	
		2, 4,46,23,20,15,10, 5		9, 7
32″	7, 7,50,55, 8,37,43, 1,50,51		31,16,45,10	
		2, 4,46,22,48,58,24,55		9, 7
34″	7, 7,52,59,55, 0,32, 0,15,46		31,16,54,17	
		2, 4,46,22,17,41,30,38		9, 7
36″	7, 7,55, 4,41,22,49,41,46,24		31,17, 3,24	
		2, 4,46,21,46,24,27,14		9, 7
38″	7, 7,57, 9,27,44,36, 6,13,38		31,17,12,31	
		2, 4,46,21,15, 7,14,43		9, 7
40″	7, 7,59,14,14, 5,51,13,28,21		31,17,21,38	
		2, 4,46,20,43,49,53, 5		9, 7
42″	7, 8, 1,19, 0,26,35, 3,21,26		31,17,30,45	
		2, 4,46,20,12,32,22,20		9, 7
44″	7, 8, 3,23,46,46,47,35,43,46		31,17,39,52	
		2, 4,46,19,41,14,42,28		9, 7
46″	7, 8, 5,28,33, 6,28,50,26,14		31,17,48,59	
		2, 4,46,19, 9,56,53,29		9, 7
48″	7, 8, 7,33,19,25,38,47,19,43		31,17,58, 6	
		2, 4,46,18,38,38,55,23		9, 7
50″	7, 8, 9,38, 5,44,17,26,15, 6		31,18, 7,13	
		2, 4,46,18, 7,20,48,10		9, 7
52″	7, 8,11,42,52, 2,24,47, 3,16		31,18,16,20	
		2, 4,46,17,36, 2,31,50		9, 7
54″	7, 8,13,47,38,20, 0,49,35, 6		31,18,25,27	
		2, 4,46,17, 4,44, 6,23		9, 7
56″	7, 8,15,52,24,37, 5,33,41,29		31,18,34,34	
		2, 4,46,16,33,25,31,49		9, 7
58″	7, 8,17,57,10,53,38,59,13,18		31,18,43,41	
		2, 4,46,16, 2, 6,48, 8		
60″	7, 8,20, 1,57, 9,41, 6, 1,26			
exact	7, 8,20, 1,57, 9,41, 5,37,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°50′ 0″	7, 8,20, 1,57, 9,41, 5,37,48			
		2, 4,46,15,30,47,52,53		
2″	7, 8,22, 6,43,25,11,53,30,41		31,19, 2, 5	
		2, 4,46,14,59,28,50,48		9, 7
4″	7, 8,24,11,29,40,11,22,21,29		31,19,11,12	
		2, 4,46,14,28, 9,39,36		9, 7
6″	7, 8,26,16,15,54,39,32, 1, 5		31,19,20,19	
		2, 4,46,13,56,50,19,17		9, 7
8″	7, 8,28,21, 2, 8,36,22,20,22		31,19,29,26	
		2, 4,46,13,25,30,49,51		9, 7
10″	7, 8,30,25,48,22, 1,53,10,13		31,19,38,33	
		2, 4,46,12,54,11,11,18		9, 7
12″	7, 8,32,30,34,34,56, 4,21,31		31,19,47,40	
		2, 4,46,12,22,51,23,38		9, 7
14″	7, 8,34,35,20,47,18,55,45, 9		31,19,56,47	
		2, 4,46,11,51,31,26,51		9, 7
16″	7, 8,36,40, 6,59,10,27,12, 0		31,20, 5,54	
		2, 4,46,11,20,11,20,57		9, 7
18″	7, 8,38,44,53,10,30,38,32,57		31,20,15, 1	
		2, 4,46,10,48,51, 5,56		9, 7
20″	7, 8,40,49,39,21,19,29,38,53		31,20,24, 8	
		2, 4,46,10,17,30,41,48		9, 7
22″	7, 8,42,54,25,31,37, 0,20,41		31,20,33,15	
		2, 4,46, 9,46,10, 8,33		9, 7
24″	7, 8,44,59,11,41,23,10,29,14		31,20,42,22	
		2, 4,46, 9,14,49,26,11		9, 7
26″	7, 8,47, 3,57,50,37,59,55,25		31,20,51,29	
		2, 4,46, 8,43,28,34,42		9, 7
28″	7, 8,49, 8,43,59,21,28,30, 7		31,21, 0,36	
		2, 4,46, 8,12, 7,34, 6		9, 7
30″	7, 8,51,13,30, 7,33,36, 4,13		31,21, 9,43	
		2, 4,46, 7,40,46,24,23		9, 7
32″	7, 8,53,18,16,15,14,22,28,36		31,21,18,50	
		2, 4,46, 7, 9,25, 5,33		9, 7
34″	7, 8,55,23, 2,22,23,47,34, 9		31,21,27,57	
		2, 4,46, 6,38, 3,37,36		9, 7
36″	7, 8,57,27,48,29, 1,51,11,45		31,21,37, 4	
		2, 4,46, 6, 6,42, 0,32		9, 7
38″	7, 8,59,32,34,35, 8,33,12,17		31,21,46,11	
		2, 4,46, 5,35,20,14,21		9, 7
40″	7, 9, 1,37,20,40,43,53,26,38		31,21,55,18	
		2, 4,46, 5, 3,58,19, 3		9, 7
42″	7, 9, 3,42, 6,45,47,51,45,41		31,22, 4,25	
		2, 4,46, 4,32,36,14,38		9, 7
44″	7, 9, 5,46,52,50,20,28, 0,19		31,22,13,32	
		2, 4,46, 4, 1,14, 1, 6		9, 7
46″	7, 9, 7,51,38,54,21,42, 1,25		31,22,22,39	
		2, 4,46, 3,29,51,38,27		9, 7
48″	7, 9, 9,56,24,57,51,33,39,52		31,22,31,46	
		2, 4,46, 2,58,29, 6,41		9, 7
50″	7, 9,12, 1,11, 0,50, 2,46,33		31,22,40,53	
		2, 4,46, 2,27, 6,25,48		9, 7
52″	7, 9,14, 5,57, 3,17, 9,12,21		31,22,50, 0	
		2, 4,46, 1,55,43,35,48		9, 7
54″	7, 9,16,10,43, 5,12,52,48, 9		31,22,59, 7	
		2, 4,46, 1,24,20,36,41		9, 7
56″	7, 9,18,15,29, 6,37,13,24,50		31,23, 8,14	
		2, 4,46, 0,52,57,28,27		9, 7
58″	7, 9,20,20,15, 7,30,10,53,17		31,23,17,21	
		2, 4,46, 0,21,34,11, 6		
60″	7, 9,22,25, 1, 7,51,45, 4,23			
exact	7, 9,22,25, 1, 7,51,44,45,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°51′ 0″	7, 9,22,25, 1, 7,51,44,45,44			
		2, 4,45,59,50,10,42,35		
2″	7, 9,24,29,47, 7,41,55,28,19		31,23,35,44	
		2, 4,45,59,18,47, 6,51		9, 7
4″	7, 9,26,34,33, 7, 0,42,35,10		31,23,44,51	
		2, 4,45,58,47,23,22, 0		9, 7
6″	7, 9,28,39,19, 5,48, 5,57,10		31,23,53,58	
		2, 4,45,58,15,59,28, 2		9, 7
8″	7, 9,30,44, 5, 4, 4, 5,25,12		31,24, 3, 5	
		2, 4,45,57,44,35,24,57		9, 7
10″	7, 9,32,48,51, 1,48,40,50, 9		31,24,12,12	
		2, 4,45,57,13,11,12,45		9, 7
12″	7, 9,34,53,36,59, 1,52, 2,54		31,24,21,19	
		2, 4,45,56,41,46,51,26		9, 7
14″	7, 9,36,58,22,55,43,38,54,20		31,24,30,26	
		2, 4,45,56,10,22,21, 0		9, 7
16″	7, 9,39, 3, 8,51,54, 1,15,20		31,24,39,33	
		2, 4,45,55,38,57,41,27		9, 7
18″	7, 9,41, 7,54,47,32,58,56,47		31,24,48,40	
		2, 4,45,55, 7,32,52,47		9, 7
20″	7, 9,43,12,40,42,40,31,49,34		31,24,57,47	
		2, 4,45,54,36, 7,55, 0		9, 7
22″	7, 9,45,17,26,37,16,39,44,34		31,25, 6,54	
		2, 4,45,54, 4,42,48, 6		9, 7
24″	7, 9,47,22,12,31,21,22,32,40		31,25,16, 1	
		2, 4,45,53,33,17,32, 5		9, 7
26″	7, 9,49,26,58,24,54,40, 4,45		31,25,25, 8	
		2, 4,45,53, 1,52, 6,57		9, 7
28″	7, 9,51,31,44,17,56,32,11,42		31,25,34,15	
		2, 4,45,52,30,26,32,42		9, 7
30″	7, 9,53,36,30,10,26,58,44,24		31,25,43,22	
		2, 4,45,51,59, 0,49,20		9, 7
32″	7, 9,55,41,16, 2,25,59,33,44		31,25,52,29	
		2, 4,45,51,27,34,56,51		9, 7
34″	7, 9,57,46, 1,53,53,34,30,35		31,26, 1,36	
		2, 4,45,50,56, 8,55,15		9, 7
36″	7, 9,59,50,47,44,49,43,25,50		31,26,10,43	
		2, 4,45,50,24,42,44,32		9, 7
38″	7,10, 1,55,33,35,14,26,10,22		31,26,19,50	
		2, 4,45,49,53,16,24,42		9, 7
40″	7,10, 4, 0,19,25, 7,42,35, 4		31,26,28,57	
		2, 4,45,49,21,49,55,45		9, 7
42″	7,10, 6, 5, 5,14,29,32,30,49		31,26,38, 4	
		2, 4,45,48,50,23,17,41		9, 7
44″	7,10, 8, 9,51, 3,19,55,48,30		31,26,47,11	
		2, 4,45,48,18,56,30,30		9, 7
46″	7,10,10,14,36,51,38,52,19, 0		31,26,56,18	
		2, 4,45,47,47,29,34,12		9, 7
48″	7,10,12,19,22,39,26,21,53,12		31,27, 5,25	
		2, 4,45,47,16, 2,28,47		9, 7
50″	7,10,14,24, 8,26,42,24,21,59		31,27,14,32	
		2, 4,45,46,44,35,14,15		9, 7
52″	7,10,16,28,54,13,26,59,36,14		31,27,23,39	
		2, 4,45,46,13, 7,50,36		9, 7
54″	7,10,18,33,39,59,40, 7,26,50		31,27,32,46	
		2, 4,45,45,41,40,17,50		9, 7
56″	7,10,20,38,25,45,21,47,44,40		31,27,41,53	
		2, 4,45,45,10,12,35,57		9, 7
58″	7,10,22,43,11,30,32, 0,20,37		31,27,51, 0	
		2, 4,45,44,38,44,44,57		
60″	7,10,24,47,57,15,10,45, 5,34			
exact	7,10,24,47,57,15,10,44,48,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°52′ 0″	7,10,24,47,57,15,10,44,48,47			
		2, 4,45,44, 7,16,42,58		
2″	7,10,26,52,42,59,18, 1,31,45		31,28, 9,22	
		2, 4,45,43,35,48,33,36		9, 7
4″	7,10,28,57,28,42,53,50, 5,21		31,28,18,29	
		2, 4,45,43, 4,20,15, 7		9, 7
6″	7,10,31, 2,14,25,58,10,20,28		31,28,27,36	
		2, 4,45,42,32,51,47,31		9, 7
8″	7,10,33, 7, 0, 8,31, 2, 7,59		31,28,36,43	
		2, 4,45,42, 1,23,10,48		9, 7
10″	7,10,35,11,45,50,32,25,18,47		31,28,45,50	
		2, 4,45,41,29,54,24,58		9, 7
12″	7,10,37,16,31,32, 2,19,43,45		31,28,54,57	
		2, 4,45,40,58,25,30, 1		9, 7
14″	7,10,39,21,17,13, 0,45,13,46		31,29, 4, 4	
		2, 4,45,40,26,56,25,57		9, 7
16″	7,10,41,26, 2,53,27,41,39,43		31,29,13,11	
		2, 4,45,39,55,27,12,46		9, 7
18″	7,10,43,30,48,33,23, 8,52,29		31,29,22,18	
		2, 4,45,39,23,57,50,28		9, 7
20″	7,10,45,35,34,12,47, 6,42,57		31,29,31,25	
		2, 4,45,38,52,28,19, 3		9, 7
22″	7,10,47,40,19,51,39,35, 2, 0		31,29,40,32	
		2, 4,45,38,20,58,38,31		9, 7
24″	7,10,49,45, 5,30, 0,33,40,31		31,29,49,39	
		2, 4,45,37,49,28,48,52		9, 7
26″	7,10,51,49,51, 7,50, 2,29,23		31,29,58,46	
		2, 4,45,37,17,58,50, 6		9, 7
28″	7,10,53,54,36,45, 8, 1,19,29		31,30, 7,53	
		2, 4,45,36,46,28,42,13		9, 7
30″	7,10,55,59,22,21,54,30, 1,42		31,30,17, 0	
		2, 4,45,36,14,58,25,13		9, 7
32″	7,10,58, 4, 7,58, 9,28,26,55		31,30,26, 7	
		2, 4,45,35,43,27,59, 6		9, 7
34″	7,11, 0, 8,53,33,52,56,26, 1		31,30,35,14	
		2, 4,45,35,11,57,23,52		9, 7
36″	7,11, 2,13,39, 9, 4,53,49,53		31,30,44,21	
		2, 4,45,34,40,26,39,31		9, 7
38″	7,11, 4,18,24,43,45,20,29,24		31,30,53,28	
		2, 4,45,34, 8,55,46, 3		9, 7
40″	7,11, 6,23,10,17,54,16,15,27		31,31, 2,35	
		2, 4,45,33,37,24,43,28		9, 7
42″	7,11, 8,27,55,51,31,40,58,55		31,31,11,42	
		2, 4,45,33, 5,53,31,46		9, 7
44″	7,11,10,32,41,24,37,34,30,41		31,31,20,49	
		2, 4,45,32,34,22,10,57		9, 7
46″	7,11,12,37,26,57,11,56,41,38		31,31,29,56	
		2, 4,45,32, 2,50,41, 1		9, 7
48″	7,11,14,42,12,29,14,47,22,39		31,31,39, 3	
		2, 4,45,31,31,19, 1,58		9, 7
50″	7,11,16,46,58, 0,46, 6,24,37		31,31,48,10	
		2, 4,45,30,59,47,13,48		9, 7
52″	7,11,18,51,43,31,45,53,38,25		31,31,57,17	
		2, 4,45,30,28,15,16,31		9, 7
54″	7,11,20,56,29, 2,14, 8,54,56		31,32, 6,24	
		2, 4,45,29,56,43,10, 7		9, 7
56″	7,11,23, 1,14,32,10,52, 5, 3		31,32,15,31	
		2, 4,45,29,25,10,54,36		9, 7
58″	7,11,25, 6, 0, 1,36, 2,59,39		31,32,24,38	
		2, 4,45,28,53,38,29,58		
60″	7,11,27,10,45,30,29,41,29,37			
exact	7,11,27,10,45,30,29,41,11,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°53′ 0″	7,11,27,10,45,30,29,41,11,40			
		2, 4,45,28,22, 5,54,19		
2″	7,11,29,15,30,58,51,47, 5,59		31,32,43, 0	
		2, 4,45,27,50,33,11,19		9, 7
4″	7,11,31,20,16,26,42,20,17,18		31,32,52, 7	
		2, 4,45,27,19, 0,19,12		9, 7
6″	7,11,33,25, 1,54, 1,20,36,30		31,33, 1,14	
		2, 4,45,26,47,27,17,58		9, 7
8″	7,11,35,29,47,20,48,47,54,28		31,33,10,21	
		2, 4,45,26,15,54, 7,37		9, 7
10″	7,11,37,34,32,47, 4,42, 2, 5		31,33,19,28	
		2, 4,45,25,44,20,48, 9		9, 7
12″	7,11,39,39,18,12,49, 2,50,14		31,33,28,35	
		2, 4,45,25,12,47,19,34		9, 7
14″	7,11,41,44, 3,38, 1,50, 9,48		31,33,37,42	
		2, 4,45,24,41,13,41,52		9, 7
16″	7,11,43,48,49, 2,43, 3,51,40		31,33,46,49	
		2, 4,45,24, 9,39,55, 3		9, 7
18″	7,11,45,53,34,26,52,43,46,43		31,33,55,56	
		2, 4,45,23,38, 5,59, 7		9, 7
20″	7,11,47,58,19,50,30,49,45,50		31,34, 5, 3	
		2, 4,45,23, 6,31,54, 4		9, 7
22″	7,11,50, 3, 5,13,37,21,39,54		31,34,14,10	
		2, 4,45,22,34,57,39,54		9, 7
24″	7,11,52, 7,50,36,12,19,19,48		31,34,23,17	
		2, 4,45,22, 3,23,16,37		9, 7
26″	7,11,54,12,35,58,15,42,36,25		31,34,32,24	
		2, 4,45,21,31,48,44,13		9, 7
28″	7,11,56,17,21,19,47,31,20,38		31,34,41,31	
		2, 4,45,21, 0,14, 2,42		9, 7
30″	7,11,58,22, 6,40,47,45,23,20		31,34,50,38	
		2, 4,45,20,28,39,12, 4		9, 7
32″	7,12, 0,26,52, 1,16,24,35,24		31,34,59,45	
		2, 4,45,19,57, 4,12,19		9, 7
34″	7,12, 2,31,37,21,13,28,47,43		31,35, 8,52	
		2, 4,45,19,25,29, 3,27		9, 7
36″	7,12, 4,36,22,40,38,57,51,10		31,35,17,59	
		2, 4,45,18,53,53,45,28		9, 7
38″	7,12, 6,41, 7,59,32,51,36,38		31,35,27, 6	
		2, 4,45,18,22,18,18,22		9, 7
40″	7,12, 8,45,53,17,55, 9,55, 0		31,35,36,13	
		2, 4,45,17,50,42,42, 9		9, 7
42″	7,12,10,50,38,35,45,52,37, 9		31,35,45,20	
		2, 4,45,17,19, 6,56,49		9, 7
44″	7,12,12,55,23,53, 4,59,33,58		31,35,54,27	
		2, 4,45,16,47,31, 2,22		9, 7
46″	7,12,15, 0, 9, 9,52,30,36,20		31,36, 3,34	
		2, 4,45,16,15,54,58,48		9, 7
48″	7,12,17, 4,54,26, 8,25,35, 8		31,36,12,41	
		2, 4,45,15,44,18,46, 7		9, 7
50″	7,12,19, 9,39,41,52,44,21,15		31,36,21,48	
		2, 4,45,15,12,42,24,19		9, 7
52″	7,12,21,14,24,57, 5,26,45,34		31,36,30,55	
		2, 4,45,14,41, 5,53,24		9, 7
54″	7,12,23,19,10,11,46,32,38,58		31,36,40, 2	
		2, 4,45,14, 9,29,13,22		9, 7
56″	7,12,25,23,55,25,56, 1,52,20		31,36,49, 9	
		2, 4,45,13,37,52,24,13		9, 7
58″	7,12,27,28,40,39,33,54,16,33		31,36,58,16	
		2, 4,45,13, 6,15,25,57		
60″	7,12,29,33,25,52,40, 9,42,30			
exact	7,12,29,33,25,52,40, 9,27,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°54′ 0″	7,12,29,33,25,52,40, 9,27,45			
		2, 4,45,12,34,38,16,56		
2″	7,12,31,38,11, 5,14,47,44,41		31,37,16,37	
		2, 4,45,12, 3, 1, 0,19		9, 7
4″	7,12,33,42,56,17,17,48,45, 0		31,37,25,44	
		2, 4,45,11,31,23,34,35		9, 7
6″	7,12,35,47,41,28,49,12,19,35		31,37,34,51	
		2, 4,45,10,59,45,59,44		9, 7
8″	7,12,37,52,26,39,48,58,19,19		31,37,43,58	
		2, 4,45,10,28, 8,15,46		9, 7
10″	7,12,39,57,11,50,17, 6,35, 5		31,37,53, 5	
		2, 4,45, 9,56,30,22,41		9, 7
12″	7,12,42, 1,57, 0,13,36,57,46		31,38, 2,12	
		2, 4,45, 9,24,52,20,29		9, 7
14″	7,12,44, 6,42, 9,38,29,18,15		31,38,11,19	
		2, 4,45, 8,53,14, 9,10		9, 7
16″	7,12,46,11,27,18,31,43,27,25		31,38,20,26	
		2, 4,45, 8,21,35,48,44		9, 7
18″	7,12,48,16,12,26,53,19,16, 9		31,38,29,33	
		2, 4,45, 7,49,57,19,11		9, 7
20″	7,12,50,20,57,34,43,16,35,20		31,38,38,40	
		2, 4,45, 7,18,18,40,31		9, 7
22″	7,12,52,25,42,42, 1,35,15,51		31,38,47,47	
		2, 4,45, 6,46,39,52,44		9, 7
24″	7,12,54,30,27,48,48,15, 8,35		31,38,56,54	
		2, 4,45, 6,15, 0,55,50		9, 7
26″	7,12,56,35,12,55, 3,16, 4,25		31,39, 6, 1	
		2, 4,45, 5,43,21,49,49		9, 7
28″	7,12,58,39,58, 0,46,37,54,14		31,39,15, 8	
		2, 4,45, 5,11,42,34,41		9, 7
30″	7,13, 0,44,43, 5,58,20,28,55		31,39,24,15	
		2, 4,45, 4,40, 3,10,26		9, 7
32″	7,13, 2,49,28,10,38,23,39,21		31,39,33,22	
		2, 4,45, 4, 8,23,37, 4		9, 7
34″	7,13, 4,54,13,14,46,47,16,25		31,39,42,29	
		2, 4,45, 3,36,43,54,35		9, 7
36″	7,13, 6,58,58,18,23,31,11, 0		31,39,51,36	
		2, 4,45, 3, 5, 4, 2,59		9, 7
38″	7,13, 9, 3,43,21,28,35,13,59		31,40, 0,43	
		2, 4,45, 2,33,24, 2,16		9, 7
40″	7,13,11, 8,28,24, 1,59,16,15		31,40, 9,50	
		2, 4,45, 2, 1,43,52,26		9, 7
42″	7,13,13,13,13,26, 3,43, 8,41		31,40,18,57	
		2, 4,45, 1,30, 3,33,29		9, 7
44″	7,13,15,17,58,27,33,46,42,10		31,40,28, 4	
		2, 4,45, 0,58,23, 5,25		9, 7
46″	7,13,17,22,43,28,32, 9,47,35		31,40,37,11	
		2, 4,45, 0,26,42,28,14		9, 7
48″	7,13,19,27,28,28,58,52,15,49		31,40,46,18	
		2, 4,44,59,55, 1,41,56		9, 7
50″	7,13,21,32,13,28,53,53,57,45		31,40,55,25	
		2, 4,44,59,23,20,46,31		9, 7
52″	7,13,23,36,58,28,17,14,44,16		31,41, 4,32	
		2, 4,44,58,51,39,41,59		9, 7
54″	7,13,25,41,43,27, 8,54,26,15		31,41,13,39	
		2, 4,44,58,19,58,28,20		9, 7
56″	7,13,27,46,28,25,28,52,54,35		31,41,22,46	
		2, 4,44,57,48,17, 5,34		9, 7
58″	7,13,29,51,13,23,17,10, 0, 9		31,41,31,53	
		2, 4,44,57,16,35,33,41		
60″	7,13,31,55,58,20,33,45,33,50			
exact	7,13,31,55,58,20,33,45,19, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°55′ 0″	7,13,31,55,58,20,33,45,19, 0			
		2, 4,44,56,44,53,51, 6		
2″	7,13,34, 0,43,17,18,39,10, 6		31,41,50,14	
		2, 4,44,56,13,12, 0,52		9, 7
4″	7,13,36, 5,28,13,31,51,10,58		31,41,59,21	
		2, 4,44,55,41,30, 1,31		9, 7
6″	7,13,38,10,13, 9,13,21,12,29		31,42, 8,28	
		2, 4,44,55, 9,47,53, 3		9, 7
8″	7,13,40,14,58, 4,23, 9, 5,32		31,42,17,35	
		2, 4,44,54,38, 5,35,28		9, 7
10″	7,13,42,19,42,59, 1,14,41, 0		31,42,26,42	
		2, 4,44,54, 6,23, 8,46		9, 7
12″	7,13,44,24,27,53, 7,37,49,46		31,42,35,49	
		2, 4,44,53,34,40,32,57		9, 7
14″	7,13,46,29,12,46,42,18,22,43		31,42,44,56	
		2, 4,44,53, 2,57,48, 1		9, 7
16″	7,13,48,33,57,39,45,16,10,44		31,42,54, 3	
		2, 4,44,52,31,14,53,58		9, 7
18″	7,13,50,38,42,32,16,31, 4,42		31,43, 3,10	
		2, 4,44,51,59,31,50,48		9, 7
20″	7,13,52,43,27,24,16, 2,55,30		31,43,12,17	
		2, 4,44,51,27,48,38,31		9, 7
22″	7,13,54,48,12,15,43,51,34, 1		31,43,21,24	
		2, 4,44,50,56, 5,17, 7		9, 7
24″	7,13,56,52,57, 6,39,56,51, 8		31,43,30,31	
		2, 4,44,50,24,21,46,36		9, 7
26″	7,13,58,57,41,57, 4,18,37,44		31,43,39,38	
		2, 4,44,49,52,38, 6,58		9, 7
28″	7,14, 1, 2,26,46,56,56,44,42		31,43,48,45	
		2, 4,44,49,20,54,18,13		9, 7
30″	7,14, 3, 7,11,36,17,51, 2,55		31,43,57,52	
		2, 4,44,48,49,10,20,21		9, 7
32″	7,14, 5,11,56,25, 7, 1,23,16		31,44, 6,59	
		2, 4,44,48,17,26,13,22		9, 7
34″	7,14, 7,16,41,13,24,27,36,38		31,44,16, 6	
		2, 4,44,47,45,41,57,16		9, 7
36″	7,14, 9,21,26, 1,10, 9,33,54		31,44,25,13	
		2, 4,44,47,13,57,32, 3		9, 7
38″	7,14,11,26,10,48,24, 7, 5,57		31,44,34,20	
		2, 4,44,46,42,12,57,43		9, 7
40″	7,14,13,30,55,35, 6,20, 3,40		31,44,43,27	
		2, 4,44,46,10,28,14,16		9, 7
42″	7,14,15,35,40,21,16,48,17,56		31,44,52,34	
		2, 4,44,45,38,43,21,42		9, 7
44″	7,14,17,40,25, 6,55,31,39,38		31,45, 1,41	
		2, 4,44,45, 6,58,20, 1		9, 7
46″	7,14,19,45, 9,52, 2,29,59,39		31,45,10,48	
		2, 4,44,44,35,13, 9,13		9, 7
48″	7,14,21,49,54,36,37,43, 8,52		31,45,19,55	
		2, 4,44,44, 3,27,49,18		9, 7
50″	7,14,23,54,39,20,41,10,58,10		31,45,29, 2	
		2, 4,44,43,31,42,20,16		9, 7
52″	7,14,25,59,24, 4,12,53,18,26		31,45,38, 9	
		2, 4,44,42,59,56,42, 7		9, 7
54″	7,14,28, 4, 8,47,12,50, 0,33		31,45,47,16	
		2, 4,44,42,28,10,54,51		9, 7
56″	7,14,30, 8,53,29,41, 0,55,24		31,45,56,23	
		2, 4,44,41,56,24,58,28		9, 7
58″	7,14,32,13,38,11,37,25,53,52		31,46, 5,30	
		2, 4,44,41,24,38,52,58		
60″	7,14,34,18,22,53, 2, 4,46,50			
exact	7,14,34,18,22,53, 2, 4,36, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°56′ 0″	7,14,34,18,22,53, 2, 4,36, 8			
		2, 4,44,40,52,52,37, 6		
2″	7,14,36,23, 7,33,54,57,13,14		31,46,23,50	
		2, 4,44,40,21, 6,13,16		9, 7
4″	7,14,38,27,52,14,16, 3,26,30		31,46,32,57	
		2, 4,44,39,49,19,40,19		9, 7
6″	7,14,40,32,36,54, 5,23, 6,49		31,46,42, 4	
		2, 4,44,39,17,32,58,15		9, 7
8″	7,14,42,37,21,33,22,56, 5, 4		31,46,51,11	
		2, 4,44,38,45,46, 7, 4		9, 7
10″	7,14,44,42, 6,12, 8,42,12, 8		31,47, 0,18	
		2, 4,44,38,13,59, 6,46		9, 7
12″	7,14,46,46,50,50,22,41,18,54		31,47, 9,25	
		2, 4,44,37,42,11,57,21		9, 7
14″	7,14,48,51,35,28, 4,53,16,15		31,47,18,32	
		2, 4,44,37,10,24,38,49		9, 7
16″	7,14,50,56,20, 5,15,17,55, 4		31,47,27,39	
		2, 4,44,36,38,37,11,10		9, 7
18″	7,14,53, 1, 4,41,53,55, 6,14		31,47,36,46	
		2, 4,44,36, 6,49,34,24		9, 7
20″	7,14,55, 5,49,18, 0,44,40,38		31,47,45,53	
		2, 4,44,35,35, 1,48,31		9, 7
22″	7,14,57,10,33,53,35,46,29, 9		31,47,55, 0	
		2, 4,44,35, 3,13,53,31		9, 7
24″	7,14,59,15,18,28,39, 0,22,40		31,48, 4, 7	
		2, 4,44,34,31,25,49,24		9, 7
26″	7,15, 1,20, 3, 3,10,26,12, 4		31,48,13,14	
		2, 4,44,33,59,37,36,10		9, 7
28″	7,15, 3,24,47,37,10, 3,48,14		31,48,22,21	
		2, 4,44,33,27,49,13,49		9, 7
30″	7,15, 5,29,32,10,37,53, 2, 3		31,48,31,28	
		2, 4,44,32,56, 0,42,21		9, 7
32″	7,15, 7,34,16,43,33,53,44,24		31,48,40,35	
		2, 4,44,32,24,12, 1,46		9, 7
34″	7,15, 9,39, 1,15,58, 5,46,10		31,48,49,42	
		2, 4,44,31,52,23,12, 4		9, 7
36″	7,15,11,43,45,47,50,28,58,14		31,48,58,49	
		2, 4,44,31,20,34,13,15		9, 7
38″	7,15,13,48,30,19,11, 3,11,29		31,49, 7,56	
		2, 4,44,30,48,45, 5,19		9, 7
40″	7,15,15,53,14,49,59,48,16,48		31,49,17, 3	
		2, 4,44,30,16,55,48,16		9, 7
42″	7,15,17,57,59,20,16,44, 5, 4		31,49,26,10	
		2, 4,44,29,45, 6,22, 6		9, 7
44″	7,15,20, 2,43,50, 1,50,27,10		31,49,35,17	
		2, 4,44,29,13,16,46,49		9, 7
46″	7,15,22, 7,28,19,15, 7,13,59		31,49,44,24	
		2, 4,44,28,41,27, 2,25		9, 7
48″	7,15,24,12,12,47,56,34,16,24		31,49,53,31	
		2, 4,44,28, 9,37, 8,54		9, 7
50″	7,15,26,16,57,16, 6,11,25,18		31,50, 2,38	
		2, 4,44,27,37,47, 6,16		9, 7
52″	7,15,28,21,41,43,43,58,31,34		31,50,11,45	
		2, 4,44,27, 5,56,54,31		9, 7
54″	7,15,30,26,26,10,49,55,26, 5		31,50,20,52	
		2, 4,44,26,34, 6,33,39		9, 7
56″	7,15,32,31,10,37,24, 1,59,44		31,50,29,59	
		2, 4,44,26, 2,16, 3,40		9, 7
58″	7,15,34,35,55, 3,26,18, 3,24		31,50,39, 6	
		2, 4,44,25,30,25,24,34		
60″	7,15,36,40,39,28,56,43,27,58			
exact	7,15,36,40,39,28,56,43,18,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°57′ 0″	7,15,36,40,39,28,56,43,18,28			
		2, 4,44,24,58,34,35,14		
2″	7,15,38,45,23,53,55,17,53,42		31,50,57,25	
		2, 4,44,24,26,43,37,49		9, 7
4″	7,15,40,50, 8,18,22, 1,31,31		31,51, 6,32	
		2, 4,44,23,54,52,31,17		9, 7
6″	7,15,42,54,52,42,16,54, 2,48		31,51,15,39	
		2, 4,44,23,23, 1,15,38		9, 7
8″	7,15,44,59,37, 5,39,55,18,26		31,51,24,46	
		2, 4,44,22,51, 9,50,52		9, 7
10″	7,15,47, 4,21,28,31, 5, 9,18		31,51,33,53	
		2, 4,44,22,19,18,16,59		9, 7
12″	7,15,49, 9, 5,50,50,23,26,17		31,51,43, 0	
		2, 4,44,21,47,26,33,59		9, 7
14″	7,15,51,13,50,12,37,50, 0,16		31,51,52, 7	
		2, 4,44,21,15,34,41,52		9, 7
16″	7,15,53,18,34,33,53,24,42, 8		31,52, 1,14	
		2, 4,44,20,43,42,40,38		9, 7
18″	7,15,55,23,18,54,37, 7,22,46		31,52,10,21	
		2, 4,44,20,11,50,30,17		9, 7
20″	7,15,57,28, 3,14,48,57,53, 3		31,52,19,28	
		2, 4,44,19,39,58,10,49		9, 7
22″	7,15,59,32,47,34,28,56, 3,52		31,52,28,35	
		2, 4,44,19, 8, 5,42,14		9, 7
24″	7,16, 1,37,31,53,37, 1,46, 6		31,52,37,42	
		2, 4,44,18,36,13, 4,32		9, 7
26″	7,16, 3,42,16,12,13,14,50,38		31,52,46,49	
		2, 4,44,18, 4,20,17,43		9, 7
28″	7,16, 5,47, 0,30,17,35, 8,21		31,52,55,56	
		2, 4,44,17,32,27,21,47		9, 7
30″	7,16, 7,51,44,47,50, 2,30, 8		31,53, 5, 3	
		2, 4,44,17, 0,34,16,44		9, 7
32″	7,16, 9,56,29, 4,50,36,46,52		31,53,14,10	
		2, 4,44,16,28,41, 2,34		9, 7
34″	7,16,12, 1,13,21,19,17,49,26		31,53,23,17	
		2, 4,44,15,56,47,39,17		9, 7
36″	7,16,14, 5,57,37,16, 5,28,43		31,53,32,24	
		2, 4,44,15,24,54, 6,53		9, 7
38″	7,16,16,10,41,52,40,59,35,36		31,53,41,31	
		2, 4,44,14,53, 0,25,22		9, 7
40″	7,16,18,15,26, 7,34, 0, 0,58		31,53,50,38	
		2, 4,44,14,21, 6,34,44		9, 7
42″	7,16,20,20,10,21,55, 6,35,42		31,53,59,45	
		2, 4,44,13,49,12,34,59		9, 7
44″	7,16,22,24,54,35,44,19,10,41		31,54, 8,52	
		2, 4,44,13,17,18,26, 7		9, 7
46″	7,16,24,29,38,49, 1,37,36,48		31,54,17,59	
		2, 4,44,12,45,24, 8, 8		9, 7
48″	7,16,26,34,23, 1,47, 1,44,56		31,54,27, 6	
		2, 4,44,12,13,29,41, 2		9, 7
50″	7,16,28,39, 7,14, 0,31,25,58		31,54,36,13	
		2, 4,44,11,41,35, 4,49		9, 7
52″	7,16,30,43,51,25,42, 6,30,47		31,54,45,20	
		2, 4,44,11, 9,40,19,29		9, 7
54″	7,16,32,48,35,36,51,46,50,16		31,54,54,27	
		2, 4,44,10,37,45,25, 2		9, 7
56″	7,16,34,53,19,47,29,32,15,18		31,55, 3,34	
		2, 4,44,10, 5,50,21,28		9, 7
58″	7,16,36,58, 3,57,35,22,36,46		31,55,12,41	
		2, 4,44, 9,33,55, 8,47		
60″	7,16,39, 2,48, 7, 9,17,45,33			
exact	7,16,39, 2,48, 7, 9,17,34, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°58′ 0″	7,16,39, 2,48, 7, 9,17,34, 6			
		2, 4,44, 9, 1,59,45,47		
2″	7,16,41, 7,32,16,11,17,19,53		31,55,31, 0	
		2, 4,44, 8,30, 4,14,47		9, 7
4″	7,16,43,12,16,24,41,21,34,40		31,55,40, 7	
		2, 4,44, 7,58, 8,34,40		9, 7
6″	7,16,45,17, 0,32,39,30, 9,20		31,55,49,14	
		2, 4,44, 7,26,12,45,26		9, 7
8″	7,16,47,21,44,40, 5,42,54,46		31,55,58,21	
		2, 4,44, 6,54,16,47, 5		9, 7
10″	7,16,49,26,28,46,59,59,41,51		31,56, 7,28	
		2, 4,44, 6,22,20,39,37		9, 7
12″	7,16,51,31,12,53,22,20,21,28		31,56,16,35	
		2, 4,44, 5,50,24,23, 2		9, 7
14″	7,16,53,35,56,59,12,44,44,30		31,56,25,42	
		2, 4,44, 5,18,27,57,20		9, 7
16″	7,16,55,40,41, 4,31,12,41,50		31,56,34,49	
		2, 4,44, 4,46,31,22,31		9, 7
18″	7,16,57,45,25, 9,17,44, 4,21		31,56,43,56	
		2, 4,44, 4,14,34,38,35		9, 7
20″	7,16,59,50, 9,13,32,18,42,56		31,56,53, 3	
		2, 4,44, 3,42,37,45,32		9, 7
22″	7,17, 1,54,53,17,14,56,28,28		31,57, 2,10	
		2, 4,44, 3,10,40,43,22		9, 7
24″	7,17, 3,59,37,20,25,37,11,50		31,57,11,17	
		2, 4,44, 2,38,43,32, 5		9, 7
26″	7,17, 6, 4,21,23, 4,20,43,55		31,57,20,24	
		2, 4,44, 2, 6,46,11,41		9, 7
28″	7,17, 8, 9, 5,25,11, 6,55,36		31,57,29,31	
		2, 4,44, 1,34,48,42,10		9, 7
30″	7,17,10,13,49,26,45,55,37,46		31,57,38,38	
		2, 4,44, 1, 2,51, 3,32		9, 7
32″	7,17,12,18,33,27,48,46,41,18		31,57,47,45	
		2, 4,44, 0,30,53,15,47		9, 7
34″	7,17,14,23,17,28,19,39,57, 5		31,57,56,52	
		2, 4,43,59,58,55,18,55		9, 7
36″	7,17,16,28, 1,28,18,35,16, 0		31,58, 5,59	
		2, 4,43,59,26,57,12,56		9, 7
38″	7,17,18,32,45,27,45,32,28,56		31,58,15, 6	
		2, 4,43,58,54,58,57,50		9, 7
40″	7,17,20,37,29,26,40,31,26,46		31,58,24,13	
		2, 4,43,58,23, 0,33,37		9, 7
42″	7,17,22,42,13,25, 3,32, 0,23		31,58,33,20	
		2, 4,43,57,51, 2, 0,17		9, 7
44″	7,17,24,46,57,22,54,34, 0,40		31,58,42,27	
		2, 4,43,57,19, 3,17,50		9, 7
46″	7,17,26,51,41,20,13,37,18,30		31,58,51,34	
		2, 4,43,56,47, 4,26,16		9, 7
48″	7,17,28,56,25,17, 0,41,44,46		31,59, 0,41	
		2, 4,43,56,15, 5,25,35		9, 7
50″	7,17,31, 1, 9,13,15,47,10,21		31,59, 9,48	
		2, 4,43,55,43, 6,15,47		9, 7
52″	7,17,33, 5,53, 8,58,53,26, 8		31,59,18,55	
		2, 4,43,55,11, 6,56,52		9, 7
54″	7,17,35,10,37, 4,10, 0,23, 0		31,59,28, 2	
		2, 4,43,54,39, 7,28,50		9, 7
56″	7,17,37,15,20,58,49, 7,51,50		31,59,37, 9	
		2, 4,43,54, 7, 7,51,41		9, 7
58″	7,17,39,20, 4,52,56,15,43,31		31,59,46,16	
		2, 4,43,53,35, 8, 5,25		
60″	7,17,41,24,48,46,31,23,48,56			
exact	7,17,41,24,48,46,31,23,39,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
6°59′ 0″	7,17,41,24,48,46,31,23,39,48			
		2, 4,43,53, 3, 8, 9, 2		
2″	7,17,43,29,32,39,34,31,48,50		32, 0, 4,34	
		2, 4,43,52,31, 8, 4,28		9, 7
4″	7,17,45,34,16,32, 5,39,53,18		32, 0,13,41	
		2, 4,43,51,59, 7,50,47		9, 7
6″	7,17,47,39, 0,24, 4,47,44, 5		32, 0,22,48	
		2, 4,43,51,27, 7,27,59		9, 7
8″	7,17,49,43,44,15,31,55,12, 4		32, 0,31,55	
		2, 4,43,50,55, 6,56, 4		9, 7
10″	7,17,51,48,28, 6,27, 2, 8, 8		32, 0,41, 2	
		2, 4,43,50,23, 6,15, 2		9, 7
12″	7,17,53,53,11,56,50, 8,23,10		32, 0,50, 9	
		2, 4,43,49,51, 5,24,53		9, 7
14″	7,17,55,57,55,46,41,13,48, 3		32, 0,59,16	
		2, 4,43,49,19, 4,25,37		9, 7
16″	7,17,58, 2,39,36, 0,18,13,40		32, 1, 8,23	
		2, 4,43,48,47, 3,17,14		9, 7
18″	7,18, 0, 7,23,24,47,21,30,54		32, 1,17,30	
		2, 4,43,48,15, 1,59,44		9, 7
20″	7,18, 2,12, 7,13, 2,23,30,38		32, 1,26,37	
		2, 4,43,47,43, 0,33, 7		9, 7
22″	7,18, 4,16,51, 0,45,24, 3,45		32, 1,35,44	
		2, 4,43,47,10,58,57,23		9, 7
24″	7,18, 6,21,34,47,56,23, 1, 8		32, 1,44,51	
		2, 4,43,46,38,57,12,32		9, 7
26″	7,18, 8,26,18,34,35,20,13,40		32, 1,53,58	
		2, 4,43,46, 6,55,18,34		9, 7
28″	7,18,10,31, 2,20,42,15,32,14		32, 2, 3, 5	
		2, 4,43,45,34,53,15,29		9, 7
30″	7,18,12,35,46, 6,17, 8,47,43		32, 2,12,12	
		2, 4,43,45, 2,51, 3,17		9, 7
32″	7,18,14,40,29,51,19,59,51, 0		32, 2,21,19	
		2, 4,43,44,30,48,41,58		9, 7
34″	7,18,16,45,13,35,50,48,32,58		32, 2,30,26	
		2, 4,43,43,58,46,11,32		9, 7
36″	7,18,18,49,57,19,49,34,44,30		32, 2,39,33	
		2, 4,43,43,26,43,31,59		9, 7
38″	7,18,20,54,41, 3,16,18,16,29		32, 2,48,40	
		2, 4,43,42,54,40,43,19		9, 7
40″	7,18,22,59,24,46,10,58,59,48		32, 2,57,47	
		2, 4,43,42,22,37,45,32		9, 7
42″	7,18,25, 4, 8,28,33,36,45,20		32, 3, 6,54	
		2, 4,43,41,50,34,38,38		9, 7
44″	7,18,27, 8,52,10,24,11,23,58		32, 3,16, 1	
		2, 4,43,41,18,31,22,37		9, 7
46″	7,18,29,13,35,51,42,42,46,35		32, 3,25, 8	
		2, 4,43,40,46,27,57,29		9, 7
48″	7,18,31,18,19,32,29,10,44, 4		32, 3,34,15	
		2, 4,43,40,14,24,23,14		9, 7
50″	7,18,33,23, 3,12,43,35, 7,18		32, 3,43,22	
		2, 4,43,39,42,20,39,52		9, 7
52″	7,18,35,27,46,52,25,55,47,10		32, 3,52,29	
		2, 4,43,39,10,16,47,23		9, 7
54″	7,18,37,32,30,31,36,12,34,33		32, 4, 1,36	
		2, 4,43,38,38,12,45,47		9, 7
56″	7,18,39,37,14,10,14,25,20,20		32, 4,10,43	
		2, 4,43,38, 6, 8,35, 4		9, 7
58″	7,18,41,41,57,48,20,33,55,24		32, 4,19,50	
		2, 4,43,37,34, 4,15,14		
60″	7,18,43,46,41,25,54,38,10,38			
exact	7,18,43,46,41,25,54,38, 1, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7° 0′ 0″	7,18,43,46,41,25,54,38, 1, 9			
		2, 4,43,37, 1,59,45,18		
2″	7,18,45,51,25, 2,56,37,46,27		32, 4,38, 8	
		2, 4,43,36,29,55, 7,10		9, 7
4″	7,18,47,56, 8,39,26,32,53,37		32, 4,47,15	
		2, 4,43,35,57,50,19,55		9, 7
6″	7,18,50, 0,52,15,24,23,13,32		32, 4,56,22	
		2, 4,43,35,25,45,23,33		9, 7
8″	7,18,52, 5,35,50,50, 8,37, 5		32, 5, 5,29	
		2, 4,43,34,53,40,18, 4		9, 7
10″	7,18,54,10,19,25,43,48,55, 9		32, 5,14,36	
		2, 4,43,34,21,35, 3,28		9, 7
12″	7,18,56,15, 3, 0, 5,23,58,37		32, 5,23,43	
		2, 4,43,33,49,29,39,45		9, 7
14″	7,18,58,19,46,33,54,53,38,22		32, 5,32,50	
		2, 4,43,33,17,24, 6,55		9, 7
16″	7,19, 0,24,30, 7,12,17,45,17		32, 5,41,57	
		2, 4,43,32,45,18,24,58		9, 7
18″	7,19, 2,29,13,39,57,36,10,15		32, 5,51, 4	
		2, 4,43,32,13,12,33,54		9, 7
20″	7,19, 4,33,57,12,10,48,44, 9		32, 6, 0,11	
		2, 4,43,31,41, 6,33,43		9, 7
22″	7,19, 6,38,40,43,51,55,17,52		32, 6, 9,18	
		2, 4,43,31, 9, 0,24,25		9, 7
24″	7,19, 8,43,24,15, 0,55,42,17		32, 6,18,25	
		2, 4,43,30,36,54, 6, 0		9, 7
26″	7,19,10,48, 7,45,37,49,48,17		32, 6,27,32	
		2, 4,43,30, 4,47,38,28		9, 7
28″	7,19,12,52,51,15,42,37,26,45		32, 6,36,39	
		2, 4,43,29,32,41, 1,49		9, 7
30″	7,19,14,57,34,45,15,18,28,34		32, 6,45,46	
		2, 4,43,29, 0,34,16, 3		9, 7
32″	7,19,17, 2,18,14,15,52,44,37		32, 6,54,53	
		2, 4,43,28,28,27,21,10		9, 7
34″	7,19,19, 7, 1,42,44,20, 5,47		32, 7, 4, 0	
		2, 4,43,27,56,20,17,10		9, 7
36″	7,19,21,11,45,10,40,40,22,57		32, 7,13, 7	
		2, 4,43,27,24,13, 4, 3		9, 7
38″	7,19,23,16,28,38, 4,53,27, 0		32, 7,22,14	
		2, 4,43,26,52, 5,41,49		9, 7
40″	7,19,25,21,12, 4,56,59, 8,49		32, 7,31,21	
		2, 4,43,26,19,58,10,28		9, 7
42″	7,19,27,25,55,31,16,57,19,17		32, 7,40,28	
		2, 4,43,25,47,50,30, 0		9, 7
44″	7,19,29,30,38,57, 4,47,49,17		32, 7,49,35	
		2, 4,43,25,15,42,40,25		9, 7
46″	7,19,31,35,22,22,20,30,29,42		32, 7,58,42	
		2, 4,43,24,43,34,41,43		9, 7
48″	7,19,33,40, 5,47, 4, 5,11,25		32, 8, 7,49	
		2, 4,43,24,11,26,33,54		9, 7
50″	7,19,35,44,49,11,15,31,45,19		32, 8,16,56	
		2, 4,43,23,39,18,16,58		9, 7
52″	7,19,37,49,32,34,54,50, 2,17		32, 8,26, 3	
		2, 4,43,23, 7, 9,50,55		9, 7
54″	7,19,39,54,15,58, 1,59,53,12		32, 8,35,10	
		2, 4,43,22,35, 1,15,45		9, 7
56″	7,19,41,58,59,20,37, 1, 8,57		32, 8,44,17	
		2, 4,43,22, 2,52,31,28		9, 7
58″	7,19,44, 3,42,42,39,53,40,25		32, 8,53,24	
		2, 4,43,21,30,43,38, 4		
60″	7,19,46, 8,26, 4,10,37,18,29			
exact	7,19,46, 8,26, 4,10,37,12,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7° 1′ 0″	7,19,46, 8,26, 4,10,37,12,27			
		2, 4,43,20,58,34,34,52		
2″	7,19,48,13, 9,25, 9,11,47,19		32, 9,11,41	
		2, 4,43,20,26,25,23,11		9, 7
4″	7,19,50,17,52,45,35,37,10,30		32, 9,20,48	
		2, 4,43,19,54,16, 2,23		9, 7
6″	7,19,52,22,36, 5,29,53,12,53		32, 9,29,55	
		2, 4,43,19,22, 6,32,28		9, 7
8″	7,19,54,27,19,24,51,59,45,21		32, 9,39, 2	
		2, 4,43,18,49,56,53,26		9, 7
10″	7,19,56,32, 2,43,41,56,38,47		32, 9,48, 9	
		2, 4,43,18,17,47, 5,17		9, 7
12″	7,19,58,36,46, 1,59,43,44, 4		32, 9,57,16	
		2, 4,43,17,45,37, 8, 1		9, 7
14″	7,20, 0,41,29,19,45,20,52, 5		32,10, 6,23	
		2, 4,43,17,13,27, 1,38		9, 7
16″	7,20, 2,46,12,36,58,47,53,43		32,10,15,30	
		2, 4,43,16,41,16,46, 8		9, 7
18″	7,20, 4,50,55,53,40, 4,39,51		32,10,24,37	
		2, 4,43,16, 9, 6,21,31		9, 7
20″	7,20, 6,55,39, 9,49,11, 1,22		32,10,33,44	
		2, 4,43,15,36,55,47,47		9, 7
22″	7,20, 9, 0,22,25,26, 6,49, 9		32,10,42,51	
		2, 4,43,15, 4,45, 4,56		9, 7
24″	7,20,11, 5, 5,40,30,51,54, 5		32,10,51,58	
		2, 4,43,14,32,34,12,58		9, 7
26″	7,20,13, 9,48,55, 3,26, 7, 3		32,11, 1, 5	
		2, 4,43,14, 0,23,11,53		9, 7
28″	7,20,15,14,32, 9, 3,49,18,56		32,11,10,12	
		2, 4,43,13,28,12, 1,41		9, 7
30″	7,20,17,19,15,22,32, 1,20,37		32,11,19,19	
		2, 4,43,12,56, 0,42,22		9, 7
32″	7,20,19,23,58,35,28, 2, 2,59		32,11,28,26	
		2, 4,43,12,23,49,13,56		9, 7
34″	7,20,21,28,41,47,51,51,16,55		32,11,37,33	
		2, 4,43,11,51,37,36,23		9, 7
36″	7,20,23,33,24,59,43,28,53,18		32,11,46,40	
		2, 4,43,11,19,25,49,43		9, 7
38″	7,20,25,38, 8,11, 2,54,43, 1		32,11,55,47	
		2, 4,43,10,47,13,53,56		9, 7
40″	7,20,27,42,51,21,50, 8,36,57		32,12, 4,54	
		2, 4,43,10,15, 1,49, 2		9, 7
42″	7,20,29,47,34,32, 5,10,25,59		32,12,14, 1	
		2, 4,43, 9,42,49,35, 1		9, 7
44″	7,20,31,52,17,41,48, 0, 1, 0		32,12,23, 8	
		2, 4,43, 9,10,37,11,53		9, 7
46″	7,20,33,57, 0,50,58,37,12,53		32,12,32,15	
		2, 4,43, 8,38,24,39,38		9, 7
48″	7,20,36, 1,43,59,37, 1,52,31		32,12,41,22	
		2, 4,43, 8, 6,11,58,16		9, 7
50″	7,20,38, 6,27, 7,43,13,50,47		32,12,50,29	
		2, 4,43, 7,33,59, 7,47		9, 7
52″	7,20,40,11,10,15,17,12,58,34		32,12,59,36	
		2, 4,43, 7, 1,46, 8,11		9, 7
54″	7,20,42,15,53,22,18,59, 6,45		32,13, 8,43	
		2, 4,43, 6,29,32,59,28		9, 7
56″	7,20,44,20,36,28,48,32, 6,13		32,13,17,50	
		2, 4,43, 5,57,19,41,38		9, 7
58″	7,20,46,25,19,34,45,51,47,51		32,13,26,57	
		2, 4,43, 5,25, 6,14,41		
60″	7,20,48,30, 2,40,10,58, 2,32			
exact	7,20,48,30, 2,40,10,57,56,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7° 2′ 0″	7,20,48,30, 2,40,10,57,56,50			
		2, 4,43, 4,52,52,38, 1		
2″	7,20,50,34,45,45, 3,50,34,51		32,13,45,13	
		2, 4,43, 4,20,38,52,48		9, 7
4″	7,20,52,39,28,49,24,29,27,39		32,13,54,20	
		2, 4,43, 3,48,24,58,28		9, 7
6″	7,20,54,44,11,53,12,54,26, 7		32,14, 3,27	
		2, 4,43, 3,16,10,55, 1		9, 7
8″	7,20,56,48,54,56,29, 5,21, 8		32,14,12,34	
		2, 4,43, 2,43,56,42,27		9, 7
10″	7,20,58,53,37,59,13, 2, 3,35		32,14,21,41	
		2, 4,43, 2,11,42,20,46		9, 7
12″	7,21, 0,58,21, 1,24,44,24,21		32,14,30,48	
		2, 4,43, 1,39,27,49,58		9, 7
14″	7,21, 3, 3, 4, 3, 4,12,14,19		32,14,39,55	
		2, 4,43, 1, 7,13,10, 3		9, 7
16″	7,21, 5, 7,47, 4,11,25,24,22		32,14,49, 2	
		2, 4,43, 0,34,58,21, 1		9, 7
18″	7,21, 7,12,30, 4,46,23,45,23		32,14,58, 9	
		2, 4,43, 0, 2,43,22,52		9, 7
20″	7,21, 9,17,13, 4,49, 7, 8,15		32,15, 7,16	
		2, 4,42,59,30,28,15,36		9, 7
22″	7,21,11,21,56, 4,19,35,23,51		32,15,16,23	
		2, 4,42,58,58,12,59,13		9, 7
24″	7,21,13,26,39, 3,17,48,23, 4		32,15,25,30	
		2, 4,42,58,25,57,33,43		9, 7
26″	7,21,15,31,22, 1,43,45,56,47		32,15,34,37	
		2, 4,42,57,53,41,59, 6		9, 7
28″	7,21,17,36, 4,59,37,27,55,53		32,15,43,44	
		2, 4,42,57,21,26,15,22		9, 7
30″	7,21,19,40,47,56,58,54,11,15		32,15,52,51	
		2, 4,42,56,49,10,22,31		9, 7
32″	7,21,21,45,30,53,48, 4,33,46		32,16, 1,58	
		2, 4,42,56,16,54,20,33		9, 7
34″	7,21,23,50,13,50, 4,58,54,19		32,16,11, 5	
		2, 4,42,55,44,38, 9,28		9, 7
36″	7,21,25,54,56,45,49,37, 3,47		32,16,20,12	
		2, 4,42,55,12,21,49,16		9, 7
38″	7,21,27,59,39,41, 1,58,53, 3		32,16,29,19	
		2, 4,42,54,40, 5,19,57		9, 7
40″	7,21,30, 4,22,35,42, 4,13, 0		32,16,38,26	
		2, 4,42,54, 7,48,41,31		9, 7
42″	7,21,32, 9, 5,29,49,52,54,31		32,16,47,33	
		2, 4,42,53,35,31,53,58		9, 7
44″	7,21,34,13,48,23,25,24,48,29		32,16,56,40	
		2, 4,42,53, 3,14,57,18		9, 7
46″	7,21,36,18,31,16,28,39,45,47		32,17, 5,47	
		2, 4,42,52,30,57,51,31		9, 7
48″	7,21,38,23,14, 8,59,37,37,18		32,17,14,54	
		2, 4,42,51,58,40,36,37		9, 7
50″	7,21,40,27,57, 0,58,18,13,55		32,17,24, 1	
		2, 4,42,51,26,23,12,36		9, 7
52″	7,21,42,32,39,52,24,41,26,31		32,17,33, 8	
		2, 4,42,50,54, 5,39,28		9, 7
54″	7,21,44,37,22,43,18,47, 5,59		32,17,42,15	
		2, 4,42,50,21,47,57,13		9, 7
56″	7,21,46,42, 5,33,40,35, 3,12		32,17,51,22	
		2, 4,42,49,49,30, 5,51		9, 7
58″	7,21,48,46,48,23,30, 5, 9, 3		32,18, 0,29	
		2, 4,42,49,17,12, 5,22		
60″	7,21,50,51,31,12,47,17,14,25			
exact	7,21,50,51,31,12,47,17, 6,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7° 3′ 0″	7,21,50,51,31,12,47,17, 6,13			
		2, 4,42,48,44,53,55, 2		
2″	7,21,52,56,14, 1,32,11, 1,15		32,18,18,45	
		2, 4,42,48,12,35,36,17		9, 7
4″	7,21,55, 0,56,49,44,46,37,32		32,18,27,52	
		2, 4,42,47,40,17, 8,25		9, 7
6″	7,21,57, 5,39,37,25, 3,45,57		32,18,36,59	
		2, 4,42,47, 7,58,31,26		9, 7
8″	7,21,59,10,22,24,33, 2,17,23		32,18,46, 6	
		2, 4,42,46,35,39,45,20		9, 7
10″	7,22, 1,15, 5,11, 8,42, 2,43		32,18,55,13	
		2, 4,42,46, 3,20,50, 7		9, 7
12″	7,22, 3,19,47,57,12, 2,52,50		32,19, 4,20	
		2, 4,42,45,31, 1,45,47		9, 7
14″	7,22, 5,24,30,42,43, 4,38,37		32,19,13,27	
		2, 4,42,44,58,42,32,20		9, 7
16″	7,22, 7,29,13,27,41,47,10,57		32,19,22,34	
		2, 4,42,44,26,23, 9,46		9, 7
18″	7,22, 9,33,56,12, 8,10,20,43		32,19,31,41	
		2, 4,42,43,54, 3,38, 5		9, 7
20″	7,22,11,38,38,56, 2,13,58,48		32,19,40,48	
		2, 4,42,43,21,43,57,17		9, 7
22″	7,22,13,43,21,39,23,57,56, 5		32,19,49,55	
		2, 4,42,42,49,24, 7,22		9, 7
24″	7,22,15,48, 4,22,13,22, 3,27		32,19,59, 2	
		2, 4,42,42,17, 4, 8,20		9, 7
26″	7,22,17,52,47, 4,30,26,11,47		32,20, 8, 9	
		2, 4,42,41,44,44, 0,11		9, 7
28″	7,22,19,57,29,46,15,10,11,58		32,20,17,16	
		2, 4,42,41,12,23,42,55		9, 7
30″	7,22,22, 2,12,27,27,33,54,53		32,20,26,23	
		2, 4,42,40,40, 3,16,32		9, 7
32″	7,22,24, 6,55, 8, 7,37,11,25		32,20,35,30	
		2, 4,42,40, 7,42,41, 2		9, 7
34″	7,22,26,11,37,48,15,19,52,27		32,20,44,37	
		2, 4,42,39,35,21,56,25		9, 7
36″	7,22,28,16,20,27,50,41,48,52		32,20,53,44	
		2, 4,42,39, 3, 1, 2,41		9, 7
38″	7,22,30,21, 3, 6,53,42,51,33		32,21, 2,51	
		2, 4,42,38,30,39,59,50		9, 7
40″	7,22,32,25,45,45,24,22,51,23		32,21,11,58	
		2, 4,42,37,58,18,47,52		9, 7
42″	7,22,34,30,28,23,22,41,39,15		32,21,21, 5	
		2, 4,42,37,25,57,26,47		9, 7
44″	7,22,36,35,11, 0,48,39, 6, 2		32,21,30,12	
		2, 4,42,36,53,35,56,35		9, 7
46″	7,22,38,39,53,37,42,15, 2,37		32,21,39,19	
		2, 4,42,36,21,14,17,16		9, 7
48″	7,22,40,44,36,14, 3,29,19,53		32,21,48,26	
		2, 4,42,35,48,52,28,50		9, 7
50″	7,22,42,49,18,49,52,21,48,43		32,21,57,33	
		2, 4,42,35,16,30,31,17		9, 7
52″	7,22,44,54, 1,25, 8,52,20, 0		32,22, 6,40	
		2, 4,42,34,44, 8,24,37		9, 7
54″	7,22,46,58,43,59,53, 0,44,37		32,22,15,47	
		2, 4,42,34,11,46, 8,50		9, 7
56″	7,22,49, 3,26,34, 4,46,53,27		32,22,24,54	
		2, 4,42,33,39,23,43,56		9, 7
58″	7,22,51, 8, 9, 7,44,10,37,23		32,22,34, 1	
		2, 4,42,33, 7, 1, 9,55		
60″	7,22,53,12,51,40,51,11,47,18			
exact	7,22,53,12,51,40,51,11,41,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7° 4′ 0″	7,22,53,12,51,40,51,11,41,23			
		2, 4,42,32,34,38,26,15		
2″	7,22,55,17,34,13,25,50, 7,38		32,22,52,17	
		2, 4,42,32, 2,15,33,58		9, 7
4″	7,22,57,22,16,45,28, 5,41,36		32,23, 1,24	
		2, 4,42,31,29,52,32,34		9, 7
6″	7,22,59,26,59,16,57,58,14,10		32,23,10,31	
		2, 4,42,30,57,29,22, 3		9, 7
8″	7,23, 1,31,41,47,55,27,36,13		32,23,19,38	
		2, 4,42,30,25, 6, 2,25		9, 7
10″	7,23, 3,36,24,18,20,33,38,38		32,23,28,45	
		2, 4,42,29,52,42,33,40		9, 7
12″	7,23, 5,41, 6,48,13,16,12,18		32,23,37,52	
		2, 4,42,29,20,18,55,48		9, 7
14″	7,23, 7,45,49,17,33,35, 8, 6		32,23,46,59	
		2, 4,42,28,47,55, 8,49		9, 7
16″	7,23, 9,50,31,46,21,30,16,55		32,23,56, 6	
		2, 4,42,28,15,31,12,43		9, 7
18″	7,23,11,55,14,14,37, 1,29,38		32,24, 5,13	
		2, 4,42,27,43, 7, 7,30		9, 7
20″	7,23,13,59,56,42,20, 8,37, 8		32,24,14,20	
		2, 4,42,27,10,42,53,10		9, 7
22″	7,23,16, 4,39, 9,30,51,30,18		32,24,23,27	
		2, 4,42,26,38,18,29,43		9, 7
24″	7,23,18, 9,21,36, 9,10, 0, 1		32,24,32,34	
		2, 4,42,26, 5,53,57, 9		9, 7
26″	7,23,20,14, 4, 2,15, 3,57,10		32,24,41,41	
		2, 4,42,25,33,29,15,28		9, 7
28″	7,23,22,18,46,27,48,33,12,38		32,24,50,48	
		2, 4,42,25, 1, 4,24,40		9, 7
30″	7,23,24,23,28,52,49,37,37,18		32,24,59,55	
		2, 4,42,24,28,39,24,45		9, 7
32″	7,23,26,28,11,17,18,17, 2, 3		32,25, 9, 2	
		2, 4,42,23,56,14,15,43		9, 7
34″	7,23,28,32,53,41,14,31,17,46		32,25,18, 9	
		2, 4,42,23,23,48,57,34		9, 7
36″	7,23,30,37,36, 4,38,20,15,20		32,25,27,16	
		2, 4,42,22,51,23,30,18		9, 7
38″	7,23,32,42,18,27,29,43,45,38		32,25,36,23	
		2, 4,42,22,18,57,53,55		9, 7
40″	7,23,34,47, 0,49,48,41,39,33		32,25,45,30	
		2, 4,42,21,46,32, 8,25		9, 7
42″	7,23,36,51,43,11,35,13,47,58		32,25,54,37	
		2, 4,42,21,14, 6,13,48		9, 7
44″	7,23,38,56,25,32,49,20, 1,46		32,26, 3,44	
		2, 4,42,20,41,40,10, 4		9, 7
46″	7,23,41, 1, 7,53,31, 0,11,50		32,26,12,51	
		2, 4,42,20, 9,13,57,13		9, 7
48″	7,23,43, 5,50,13,40,14, 9, 3		32,26,21,58	
		2, 4,42,19,36,47,35,15		9, 7
50″	7,23,45,10,32,33,17, 1,44,18		32,26,31, 5	
		2, 4,42,19, 4,21, 4,10		9, 7
52″	7,23,47,15,14,52,21,22,48,28		32,26,40,12	
		2, 4,42,18,31,54,23,58		9, 7
54″	7,23,49,19,57,10,53,17,12,26		32,26,49,19	
		2, 4,42,17,59,27,34,39		9, 7
56″	7,23,51,24,39,28,52,44,47, 5		32,26,58,26	
		2, 4,42,17,27, 0,36,13		9, 7
58″	7,23,53,29,21,46,19,45,23,18		32,27, 7,33	
		2, 4,42,16,54,33,28,40		
60″	7,23,55,34, 4, 3,14,18,51,58			
exact	7,23,55,34, 4, 3,14,18,51,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7° 5′ 0″	7,23,55,34, 4, 3,14,18,51,56			
		2, 4,42,16,22, 6,11,56		
2″	7,23,57,38,46,19,36,25, 3,52		32,27,25,47	
		2, 4,42,15,49,38,46, 9		9, 7
4″	7,23,59,43,28,35,26, 3,50, 1		32,27,34,54	
		2, 4,42,15,17,11,11,15		9, 7
6″	7,24, 1,48,10,50,43,15, 1,16		32,27,44, 1	
		2, 4,42,14,44,43,27,14		9, 7
8″	7,24, 3,52,53, 5,27,58,28,30		32,27,53, 8	
		2, 4,42,14,12,15,34, 6		9, 7
10″	7,24, 5,57,35,19,40,14, 2,36		32,28, 2,15	
		2, 4,42,13,39,47,31,51		9, 7
12″	7,24, 8, 2,17,33,20, 1,34,27		32,28,11,22	
		2, 4,42,13, 7,19,20,29		9, 7
14″	7,24,10, 6,59,46,27,20,54,56		32,28,20,29	
		2, 4,42,12,34,51, 0, 0		9, 7
16″	7,24,12,11,41,59, 2,11,54,56		32,28,29,36	
		2, 4,42,12, 2,22,30,24		9, 7
18″	7,24,14,16,24,11, 4,34,25,20		32,28,38,43	
		2, 4,42,11,29,53,51,41		9, 7
20″	7,24,16,21, 6,22,34,28,17, 1		32,28,47,50	
		2, 4,42,10,57,25, 3,51		9, 7
22″	7,24,18,25,48,33,31,53,20,52		32,28,56,57	
		2, 4,42,10,24,56, 6,54		9, 7
24″	7,24,20,30,30,43,56,49,27,46		32,29, 6, 4	
		2, 4,42, 9,52,27, 0,50		9, 7
26″	7,24,22,35,12,53,49,16,28,36		32,29,15,11	
		2, 4,42, 9,19,57,45,39		9, 7
28″	7,24,24,39,55, 3, 9,14,14,15		32,29,24,18	
		2, 4,42, 8,47,28,21,21		9, 7
30″	7,24,26,44,37,11,56,42,35,36		32,29,33,25	
		2, 4,42, 8,14,58,47,56		9, 7
32″	7,24,28,49,19,20,11,41,23,32		32,29,42,32	
		2, 4,42, 7,42,29, 5,24		9, 7
34″	7,24,30,54, 1,27,54,10,28,56		32,29,51,39	
		2, 4,42, 7, 9,59,13,45		9, 7
36″	7,24,32,58,43,35, 4, 9,42,41		32,30, 0,46	
		2, 4,42, 6,37,29,12,59		9, 7
38″	7,24,35, 3,25,41,41,38,55,40		32,30, 9,53	
		2, 4,42, 6, 4,59, 3, 6		9, 7
40″	7,24,37, 8, 7,47,46,37,58,46		32,30,19, 0	
		2, 4,42, 5,32,28,44, 6		9, 7
42″	7,24,39,12,49,53,19, 6,42,52		32,30,28, 7	
		2, 4,42, 4,59,58,15,59		9, 7
44″	7,24,41,17,31,58,19, 4,58,51		32,30,37,14	
		2, 4,42, 4,27,27,38,45		9, 7
46″	7,24,43,22,14, 2,46,32,37,36		32,30,46,21	
		2, 4,42, 3,54,56,52,24		9, 7
48″	7,24,45,26,56, 6,41,29,30, 0		32,30,55,28	
		2, 4,42, 3,22,25,56,56		9, 7
50″	7,24,47,31,38,10, 3,55,26,56		32,31, 4,35	
		2, 4,42, 2,49,54,52,21		9, 7
52″	7,24,49,36,20,12,53,50,19,17		32,31,13,42	
		2, 4,42, 2,17,23,38,39		9, 7
54″	7,24,51,41, 2,15,11,13,57,56		32,31,22,49	
		2, 4,42, 1,44,52,15,50		9, 7
56″	7,24,53,45,44,16,56, 6,13,46		32,31,31,56	
		2, 4,42, 1,12,20,43,54		9, 7
58″	7,24,55,50,26,18, 8,26,57,40		32,31,41, 3	
		2, 4,42, 0,39,49, 2,51		
60″	7,24,57,55, 8,18,48,16, 0,31			
exact	7,24,57,55, 8,18,48,15,56,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7° 6′ 0″	7,24,57,55, 8,18,48,15,56,24			
		2, 4,42, 0, 7,17,12,23		
2″	7,24,59,59,50,18,55,33, 8,47		32,31,59,18	
		2, 4,41,59,34,45,13, 5		9, 7
4″	7,25, 2, 4,32,18,30,18,21,52		32,32, 8,25	
		2, 4,41,59, 2,13, 4,40		9, 7
6″	7,25, 4, 9,14,17,32,31,26,32		32,32,17,32	
		2, 4,41,58,29,40,47, 8		9, 7
8″	7,25, 6,13,56,16, 2,12,13,40		32,32,26,39	
		2, 4,41,57,57, 8,20,29		9, 7
10″	7,25, 8,18,38,13,59,20,34, 9		32,32,35,46	
		2, 4,41,57,24,35,44,43		9, 7
12″	7,25,10,23,20,11,23,56,18,52		32,32,44,53	
		2, 4,41,56,52, 2,59,50		9, 7
14″	7,25,12,28, 2, 8,15,59,18,42		32,32,54, 0	
		2, 4,41,56,19,30, 5,50		9, 7
16″	7,25,14,32,44, 4,35,29,24,32		32,33, 3, 7	
		2, 4,41,55,46,57, 2,43		9, 7
18″	7,25,16,37,26, 0,22,26,27,15		32,33,12,14	
		2, 4,41,55,14,23,50,29		9, 7
20″	7,25,18,42, 7,55,36,50,17,44		32,33,21,21	
		2, 4,41,54,41,50,29, 8		9, 7
22″	7,25,20,46,49,50,18,40,46,52		32,33,30,28	
		2, 4,41,54, 9,16,58,40		9, 7
24″	7,25,22,51,31,44,27,57,45,32		32,33,39,35	
		2, 4,41,53,36,43,19, 5		9, 7
26″	7,25,24,56,13,38, 4,41, 4,37		32,33,48,42	
		2, 4,41,53, 4, 9,30,23		9, 7
28″	7,25,27, 0,55,31, 8,50,35, 0		32,33,57,49	
		2, 4,41,52,31,35,32,34		9, 7
30″	7,25,29, 5,37,23,40,26, 7,34		32,34, 6,56	
		2, 4,41,51,59, 1,25,38		9, 7
32″	7,25,31,10,19,15,39,27,33,12		32,34,16, 3	
		2, 4,41,51,26,27, 9,35		9, 7
34″	7,25,33,15, 1, 7, 5,54,42,47		32,34,25,10	
		2, 4,41,50,53,52,44,25		9, 7
36″	7,25,35,19,42,57,59,47,27,12		32,34,34,17	
		2, 4,41,50,21,18,10, 8		9, 7
38″	7,25,37,24,24,48,21, 5,37,20		32,34,43,24	
		2, 4,41,49,48,43,26,44		9, 7
40″	7,25,39,29, 6,38, 9,49, 4, 4		32,34,52,31	
		2, 4,41,49,16, 8,34,13		9, 7
42″	7,25,41,33,48,27,25,57,38,17		32,35, 1,38	
		2, 4,41,48,43,33,32,35		9, 7
44″	7,25,43,38,30,16, 9,31,10,52		32,35,10,45	
		2, 4,41,48,10,58,21,50		9, 7
46″	7,25,45,43,12, 4,20,29,32,42		32,35,19,52	
		2, 4,41,47,38,23, 1,58		9, 7
48″	7,25,47,47,53,51,58,52,34,40		32,35,28,59	
		2, 4,41,47, 5,47,32,59		9, 7
50″	7,25,49,52,35,39, 4,40, 7,39		32,35,38, 6	
		2, 4,41,46,33,11,54,53		9, 7
52″	7,25,51,57,17,25,37,52, 2,32		32,35,47,13	
		2, 4,41,46, 0,36, 7,40		9, 7
54″	7,25,54, 1,59,11,38,28,10,12		32,35,56,20	
		2, 4,41,45,28, 0,11,20		9, 7
56″	7,25,56, 6,40,57, 6,28,21,32		32,36, 5,27	
		2, 4,41,44,55,24, 5,53		9, 7
58″	7,25,58,11,22,42, 1,52,27,25		32,36,14,34	
		2, 4,41,44,22,47,51,19		
60″	7,26, 0,16, 4,26,24,40,18,44			
exact	7,26, 0,16, 4,26,24,40,22, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7° 7′ 0″	7,26, 0,16, 4,26,24,40,22, 9			
		2, 4,41,43,50,11,27,54		
2″	7,26, 2,20,46,10,14,51,50, 3		32,36,32,47	
		2, 4,41,43,17,34,55, 7		9, 7
4″	7,26, 4,25,27,53,32,26,45,10		32,36,41,54	
		2, 4,41,42,44,58,13,13		9, 7
6″	7,26, 6,30, 9,36,17,24,58,23		32,36,51, 1	
		2, 4,41,42,12,21,22,12		9, 7
8″	7,26, 8,34,51,18,29,46,20,35		32,37, 0, 8	
		2, 4,41,41,39,44,22, 4		9, 7
10″	7,26,10,39,33, 0, 9,30,42,39		32,37, 9,15	
		2, 4,41,41, 7, 7,12,49		9, 7
12″	7,26,12,44,14,41,16,37,55,28		32,37,18,22	
		2, 4,41,40,34,29,54,27		9, 7
14″	7,26,14,48,56,21,51, 7,49,55		32,37,27,29	
		2, 4,41,40, 1,52,26,58		9, 7
16″	7,26,16,53,38, 1,53, 0,16,53		32,37,36,36	
		2, 4,41,39,29,14,50,22		9, 7
18″	7,26,18,58,19,41,22,15, 7,15		32,37,45,43	
		2, 4,41,38,56,37, 4,39		9, 7
20″	7,26,21, 3, 1,20,18,52,11,54		32,37,54,50	
		2, 4,41,38,23,59, 9,49		9, 7
22″	7,26,23, 7,42,58,42,51,21,43		32,38, 3,57	
		2, 4,41,37,51,21, 5,52		9, 7
24″	7,26,25,12,24,36,34,12,27,35		32,38,13, 4	
		2, 4,41,37,18,42,52,48		9, 7
26″	7,26,27,17, 6,13,52,55,20,23		32,38,22,11	
		2, 4,41,36,46, 4,30,37		9, 7
28″	7,26,29,21,47,50,38,59,51, 0		32,38,31,18	
		2, 4,41,36,13,25,59,19		9, 7
30″	7,26,31,26,29,26,52,25,50,19		32,38,40,25	
		2, 4,41,35,40,47,18,54		9, 7
32″	7,26,33,31,11, 2,33,13, 9,13		32,38,49,32	
		2, 4,41,35, 8, 8,29,22		9, 7
34″	7,26,35,35,52,37,41,21,38,35		32,38,58,39	
		2, 4,41,34,35,29,30,43		9, 7
36″	7,26,37,40,34,12,16,51, 9,18		32,39, 7,46	
		2, 4,41,34, 2,50,22,57		9, 7
38″	7,26,39,45,15,46,19,41,32,15		32,39,16,53	
		2, 4,41,33,30,11, 6, 4		9, 7
40″	7,26,41,49,57,19,49,52,38,19		32,39,26, 0	
		2, 4,41,32,57,31,40, 4		9, 7
42″	7,26,43,54,38,52,47,24,18,23		32,39,35, 7	
		2, 4,41,32,24,52, 4,57		9, 7
44″	7,26,45,59,20,25,12,16,23,20		32,39,44,14	
		2, 4,41,31,52,12,20,43		9, 7
46″	7,26,48, 4, 1,57, 4,28,44, 3		32,39,53,21	
		2, 4,41,31,19,32,27,22		9, 7
48″	7,26,50, 8,43,28,24, 1,11,25		32,40, 2,28	
		2, 4,41,30,46,52,24,54		9, 7
50″	7,26,52,13,24,59,10,53,36,19		32,40,11,35	
		2, 4,41,30,14,12,13,19		9, 7
52″	7,26,54,18, 6,29,25, 5,49,38		32,40,20,42	
		2, 4,41,29,41,31,52,37		9, 7
54″	7,26,56,22,47,59, 6,37,42,15		32,40,29,49	
		2, 4,41,29, 8,51,22,48		9, 7
56″	7,26,58,27,29,28,15,29, 5, 3		32,40,38,56	
		2, 4,41,28,36,10,43,52		9, 7
58″	7,27, 0,32,10,56,51,39,48,55		32,40,48, 3	
		2, 4,41,28, 3,29,55,49		
60″	7,27, 2,36,52,24,55, 9,44,44			
exact	7,27, 2,36,52,24,55, 9,45,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7° 8′ 0″	7,27, 2,36,52,24,55, 9,45,30			
		2, 4,41,27,30,48,58,47		
2″	7,27, 4,41,33,52,25,58,44,17		32,41, 6,16	
		2, 4,41,26,58, 7,52,31		9, 7
4″	7,27, 6,46,15,19,24, 6,36,48		32,41,15,23	
		2, 4,41,26,25,26,37, 8		9, 7
6″	7,27, 8,50,56,45,49,33,13,56		32,41,24,30	
		2, 4,41,25,52,45,12,38		9, 7
8″	7,27,10,55,38,11,42,18,26,34		32,41,33,37	
		2, 4,41,25,20, 3,39, 1		9, 7
10″	7,27,13, 0,19,37, 2,22, 5,35		32,41,42,44	
		2, 4,41,24,47,21,56,17		9, 7
12″	7,27,15, 5, 1, 1,49,44, 1,52		32,41,51,51	
		2, 4,41,24,14,40, 4,26		9, 7
14″	7,27,17, 9,42,26, 4,24, 6,18		32,42, 0,58	
		2, 4,41,23,41,58, 3,28		9, 7
16″	7,27,19,14,23,49,46,22, 9,46		32,42,10, 5	
		2, 4,41,23, 9,15,53,23		9, 7
18″	7,27,21,19, 5,12,55,38, 3, 9		32,42,19,12	
		2, 4,41,22,36,33,34,11		9, 7
20″	7,27,23,23,46,35,32,11,37,20		32,42,28,19	
		2, 4,41,22, 3,51, 5,52		9, 7
22″	7,27,25,28,27,57,36, 2,43,12		32,42,37,26	
		2, 4,41,21,31, 8,28,26		9, 7
24″	7,27,27,33, 9,19, 7,11,11,38		32,42,46,33	
		2, 4,41,20,58,25,41,53		9, 7
26″	7,27,29,37,50,40, 5,36,53,31		32,42,55,40	
		2, 4,41,20,25,42,46,13		9, 7
28″	7,27,31,42,32, 0,31,19,39,44		32,43, 4,47	
		2, 4,41,19,52,59,41,26		9, 7
30″	7,27,33,47,13,20,24,19,21,10		32,43,13,54	
		2, 4,41,19,20,16,27,32		9, 7
32″	7,27,35,51,54,39,44,35,48,42		32,43,23, 1	
		2, 4,41,18,47,33, 4,31		9, 7
34″	7,27,37,56,35,58,32, 8,53,13		32,43,32, 8	
		2, 4,41,18,14,49,32,23		9, 7
36″	7,27,40, 1,17,16,46,58,25,36		32,43,41,15	
		2, 4,41,17,42, 5,51, 8		9, 7
38″	7,27,42, 5,58,34,29, 4,16,44		32,43,50,22	
		2, 4,41,17, 9,22, 0,46		9, 7
40″	7,27,44,10,39,51,38,26,17,30		32,43,59,29	
		2, 4,41,16,36,38, 1,17		9, 7
42″	7,27,46,15,21, 8,15, 4,18,47		32,44, 8,36	
		2, 4,41,16, 3,53,52,41		9, 7
44″	7,27,48,20, 2,24,18,58,11,28		32,44,17,43	
		2, 4,41,15,31, 9,34,58		9, 7
46″	7,27,50,24,43,39,50, 7,46,26		32,44,26,50	
		2, 4,41,14,58,25, 8, 8		9, 7
48″	7,27,52,29,24,54,48,32,54,34		32,44,35,57	
		2, 4,41,14,25,40,32,11		9, 7
50″	7,27,54,34, 6, 9,14,13,26,45		32,44,45, 4	
		2, 4,41,13,52,55,47, 7		9, 7
52″	7,27,56,38,47,23, 7, 9,13,52		32,44,54,11	
		2, 4,41,13,20,10,52,56		9, 7
54″	7,27,58,43,28,36,27,20, 6,48		32,45, 3,18	
		2, 4,41,12,47,25,49,38		9, 7
56″	7,28, 0,48, 9,49,14,45,56,26		32,45,12,25	
		2, 4,41,12,14,40,37,13		9, 7
58″	7,28, 2,52,51, 1,29,26,33,39		32,45,21,32	
		2, 4,41,11,41,55,15,41		
60″	7,28, 4,57,32,13,11,21,49,20			
exact	7,28, 4,57,32,13,11,21,51,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7° 9′ 0″	7,28, 4,57,32,13,11,21,51,43			
		2, 4,41,11, 9, 9,45,20		
2″	7,28, 7, 2,13,24,20,31,37, 3		32,45,39,45	
		2, 4,41,10,36,24, 5,35		9, 7
4″	7,28, 9, 6,54,34,56,55,42,38		32,45,48,52	
		2, 4,41,10, 3,38,16,43		9, 7
6″	7,28,11,11,35,45, 0,33,59,21		32,45,57,59	
		2, 4,41, 9,30,52,18,44		9, 7
8″	7,28,13,16,16,54,31,26,18, 5		32,46, 7, 6	
		2, 4,41, 8,58, 6,11,38		9, 7
10″	7,28,15,20,58, 3,29,32,29,43		32,46,16,13	
		2, 4,41, 8,25,19,55,25		9, 7
12″	7,28,17,25,39,11,54,52,25, 8		32,46,25,20	
		2, 4,41, 7,52,33,30, 5		9, 7
14″	7,28,19,30,20,19,47,25,55,13		32,46,34,27	
		2, 4,41, 7,19,46,55,38		9, 7
16″	7,28,21,35, 1,27, 7,12,50,51		32,46,43,34	
		2, 4,41, 6,47, 0,12, 4		9, 7
18″	7,28,23,39,42,33,54,13, 2,55		32,46,52,41	
		2, 4,41, 6,14,13,19,23		9, 7
20″	7,28,25,44,23,40, 8,26,22,18		32,47, 1,48	
		2, 4,41, 5,41,26,17,35		9, 7
22″	7,28,27,49, 4,45,49,52,39,53		32,47,10,55	
		2, 4,41, 5, 8,39, 6,40		9, 7
24″	7,28,29,53,45,50,58,31,46,33		32,47,20, 2	
		2, 4,41, 4,35,51,46,38		9, 7
26″	7,28,31,58,26,55,34,23,33,11		32,47,29, 9	
		2, 4,41, 4, 3, 4,17,29		9, 7
28″	7,28,34, 3, 7,59,37,27,50,40		32,47,38,16	
		2, 4,41, 3,30,16,39,13		9, 7
30″	7,28,36, 7,49, 3, 7,44,29,53		32,47,47,23	
		2, 4,41, 2,57,28,51,50		9, 7
32″	7,28,38,12,30, 6, 5,13,21,43		32,47,56,30	
		2, 4,41, 2,24,40,55,20		9, 7
34″	7,28,40,17,11, 8,29,54,17, 3		32,48, 5,37	
		2, 4,41, 1,51,52,49,43		9, 7
36″	7,28,42,21,52,10,21,47, 6,46		32,48,14,44	
		2, 4,41, 1,19, 4,34,59		9, 7
38″	7,28,44,26,33,11,40,51,41,45		32,48,23,51	
		2, 4,41, 0,46,16,11, 8		9, 7
40″	7,28,46,31,14,12,27, 7,52,53		32,48,32,58	
		2, 4,41, 0,13,27,38,10		9, 7
42″	7,28,48,35,55,12,40,35,31, 3		32,48,42, 5	
		2, 4,40,59,40,38,56, 5		9, 7
44″	7,28,50,40,36,12,21,14,27, 8		32,48,51,12	
		2, 4,40,59, 7,50, 4,53		9, 7
46″	7,28,52,45,17,11,29, 4,32, 1		32,49, 0,19	
		2, 4,40,58,35, 1, 4,34		9, 7
48″	7,28,54,49,58,10, 4, 5,36,35		32,49, 9,26	
		2, 4,40,58, 2,11,55, 8		9, 7
50″	7,28,56,54,39, 8, 6,17,31,43		32,49,18,33	
		2, 4,40,57,29,22,36,35		9, 7
52″	7,28,58,59,20, 5,35,40, 8,18		32,49,27,40	
		2, 4,40,56,56,33, 8,55		9, 7
54″	7,29, 1, 4, 1, 2,32,13,17,13		32,49,36,47	
		2, 4,40,56,23,43,32, 8		9, 7
56″	7,29, 3, 8,41,58,55,56,49,21		32,49,45,54	
		2, 4,40,55,50,53,46,14		9, 7
58″	7,29, 5,13,22,54,46,50,35,35		32,49,55, 1	
		2, 4,40,55,18, 3,51,13		
60″	7,29, 7,18, 3,50, 4,54,26,48			
exact	7,29, 7,18, 3,50, 4,54,35, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°10′ 0″	7,29, 7,18, 3,50, 4,54,35, 1			
		2, 4,40,54,45,13,47,50		
2″	7,29, 9,22,44,44,50, 8,22,51		32,50,13,12	
		2, 4,40,54,12,23,34,38		9, 7
4″	7,29,11,27,25,39, 2,31,57,29		32,50,22,19	
		2, 4,40,53,39,33,12,19		9, 7
6″	7,29,13,32, 6,32,42, 5, 9,48		32,50,31,26	
		2, 4,40,53, 6,42,40,53		9, 7
8″	7,29,15,36,47,25,48,47,50,41		32,50,40,33	
		2, 4,40,52,33,52, 0,20		9, 7
10″	7,29,17,41,28,18,22,39,51, 1		32,50,49,40	
		2, 4,40,52, 1, 1,10,40		9, 7
12″	7,29,19,46, 9,10,23,41, 1,41		32,50,58,47	
		2, 4,40,51,28,10,11,53		9, 7
14″	7,29,21,50,50, 1,51,51,13,34		32,51, 7,54	
		2, 4,40,50,55,19, 3,59		9, 7
16″	7,29,23,55,30,52,47,10,17,33		32,51,17, 1	
		2, 4,40,50,22,27,46,58		9, 7
18″	7,29,26, 0,11,43, 9,38, 4,31		32,51,26, 8	
		2, 4,40,49,49,36,20,50		9, 7
20″	7,29,28, 4,52,32,59,14,25,21		32,51,35,15	
		2, 4,40,49,16,44,45,35		9, 7
22″	7,29,30, 9,33,22,15,59,10,56		32,51,44,22	
		2, 4,40,48,43,53, 1,13		9, 7
24″	7,29,32,14,14,10,59,52,12, 9		32,51,53,29	
		2, 4,40,48,11, 1, 7,44		9, 7
26″	7,29,34,18,54,59,10,53,19,53		32,52, 2,36	
		2, 4,40,47,38, 9, 5, 8		9, 7
28″	7,29,36,23,35,46,49, 2,25, 1		32,52,11,43	
		2, 4,40,47, 5,16,53,25		9, 7
30″	7,29,38,28,16,33,54,19,18,26		32,52,20,50	
		2, 4,40,46,32,24,32,35		9, 7
32″	7,29,40,32,57,20,26,43,51, 1		32,52,29,57	
		2, 4,40,45,59,32, 2,38		9, 7
34″	7,29,42,37,38, 6,26,15,53,39		32,52,39, 4	
		2, 4,40,45,26,39,23,34		9, 7
36″	7,29,44,42,18,51,52,55,17,13		32,52,48,11	
		2, 4,40,44,53,46,35,23		9, 7
38″	7,29,46,46,59,36,46,41,52,36		32,52,57,18	
		2, 4,40,44,20,53,38, 5		9, 7
40″	7,29,48,51,40,21, 7,35,30,41		32,53, 6,25	
		2, 4,40,43,48, 0,31,40		9, 7
42″	7,29,50,56,21, 4,55,36, 2,21		32,53,15,32	
		2, 4,40,43,15, 7,16, 8		9, 7
44″	7,29,53, 1, 1,48,10,43,18,29		32,53,24,39	
		2, 4,40,42,42,13,51,29		9, 7
46″	7,29,55, 5,42,30,52,57, 9,58		32,53,33,46	
		2, 4,40,42, 9,20,17,43		9, 7
48″	7,29,57,10,23,13, 2,17,27,41		32,53,42,53	
		2, 4,40,41,36,26,34,50		9, 7
50″	7,29,59,15, 3,54,38,44, 2,31		32,53,52, 0	
		2, 4,40,41, 3,32,42,50		9, 7
52″	7,30, 1,19,44,35,42,16,45,21		32,54, 1, 7	
		2, 4,40,40,30,38,41,43		9, 7
54″	7,30, 3,24,25,16,12,55,27, 4		32,54,10,14	
		2, 4,40,39,57,44,31,29		9, 7
56″	7,30, 5,29, 5,56,10,39,58,33		32,54,19,21	
		2, 4,40,39,24,50,12, 8		9, 7
58″	7,30, 7,33,46,35,35,30,10,41		32,54,28,28	
		2, 4,40,38,51,55,43,40		
60″	7,30, 9,38,27,14,27,25,54,21			
exact	7,30, 9,38,27,14,27,25,58,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°11′ 0″	7,30, 9,38,27,14,27,25,58,36			
		2, 4,40,38,19, 1, 6,37		
2″	7,30,11,43, 7,52,46,27, 5,13		32,54,46,39	
		2, 4,40,37,46, 6,19,58		9, 7
4″	7,30,13,47,48,30,32,33,25,11		32,54,55,46	
		2, 4,40,37,13,11,24,12		9, 7
6″	7,30,15,52,29, 7,45,44,49,23		32,55, 4,53	
		2, 4,40,36,40,16,19,19		9, 7
8″	7,30,17,57, 9,44,26, 1, 8,42		32,55,14, 0	
		2, 4,40,36, 7,21, 5,19		9, 7
10″	7,30,20, 1,50,20,33,22,14, 1		32,55,23, 7	
		2, 4,40,35,34,25,42,12		9, 7
12″	7,30,22, 6,30,56, 7,47,56,13		32,55,32,14	
		2, 4,40,35, 1,30, 9,58		9, 7
14″	7,30,24,11,11,31, 9,18, 6,11		32,55,41,21	
		2, 4,40,34,28,34,28,37		9, 7
16″	7,30,26,15,52, 5,37,52,34,48		32,55,50,28	
		2, 4,40,33,55,38,38, 9		9, 7
18″	7,30,28,20,32,39,33,31,12,57		32,55,59,35	
		2, 4,40,33,22,42,38,34		9, 7
20″	7,30,30,25,13,12,56,13,51,31		32,56, 8,42	
		2, 4,40,32,49,46,29,52		9, 7
22″	7,30,32,29,53,45,46, 0,21,23		32,56,17,49	
		2, 4,40,32,16,50,12, 3		9, 7
24″	7,30,34,34,34,18, 2,50,33,26		32,56,26,56	
		2, 4,40,31,43,53,45, 7		9, 7
26″	7,30,36,39,14,49,46,44,18,33		32,56,36, 3	
		2, 4,40,31,10,57, 9, 4		9, 7
28″	7,30,38,43,55,20,57,41,27,37		32,56,45,10	
		2, 4,40,30,38, 0,23,54		9, 7
30″	7,30,40,48,35,51,35,41,51,31		32,56,54,17	
		2, 4,40,30, 5, 3,29,37		9, 7
32″	7,30,42,53,16,21,40,45,21, 8		32,57, 3,24	
		2, 4,40,29,32, 6,26,13		9, 7
34″	7,30,44,57,56,51,12,51,47,21		32,57,12,31	
		2, 4,40,28,59, 9,13,42		9, 7
36″	7,30,47, 2,37,20,12, 1, 1, 3		32,57,21,38	
		2, 4,40,28,26,11,52, 4		9, 7
38″	7,30,49, 7,17,48,38,12,53, 7		32,57,30,45	
		2, 4,40,27,53,14,21,19		9, 7
40″	7,30,51,11,58,16,31,27,14,26		32,57,39,52	
		2, 4,40,27,20,16,41,27		9, 7
42″	7,30,53,16,38,43,51,43,55,53		32,57,48,59	
		2, 4,40,26,47,18,52,28		9, 7
44″	7,30,55,21,19,10,39, 2,48,21		32,57,58, 6	
		2, 4,40,26,14,20,54,22		9, 7
46″	7,30,57,25,59,36,53,23,42,43		32,58, 7,13	
		2, 4,40,25,41,22,47, 9		9, 7
48″	7,30,59,30,40, 2,34,46,29,52		32,58,16,20	
		2, 4,40,25, 8,24,30,49		9, 7
50″	7,31, 1,35,20,27,43,11, 0,41		32,58,25,27	
		2, 4,40,24,35,26, 5,22		9, 7
52″	7,31, 3,40, 0,52,18,37, 6, 3		32,58,34,34	
		2, 4,40,24, 2,27,30,48		9, 7
54″	7,31, 5,44,41,16,21, 4,36,51		32,58,43,41	
		2, 4,40,23,29,28,47, 7		9, 7
56″	7,31, 7,49,21,39,50,33,23,58		32,58,52,48	
		2, 4,40,22,56,29,54,19		9, 7
58″	7,31, 9,54, 2, 2,47, 3,18,17		32,59, 1,55	
		2, 4,40,22,23,30,52,24		
60″	7,31,11,58,42,25,10,34,10,41			
exact	7,31,11,58,42,25,10,34,14,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°12′ 0″	7,31,11,58,42,25,10,34,14,38			
		2, 4,40,21,50,31,41,56		
2″	7,31,14, 3,22,47, 1, 5,56,34		32,59,20, 6	
		2, 4,40,21,17,32,21,50		9, 7
4″	7,31,16, 8, 3, 8,18,38,18,24		32,59,29,13	
		2, 4,40,20,44,32,52,37		9, 7
6″	7,31,18,12,43,29, 3,11,11, 1		32,59,38,20	
		2, 4,40,20,11,33,14,17		9, 7
8″	7,31,20,17,23,49,14,44,25,18		32,59,47,27	
		2, 4,40,19,38,33,26,50		9, 7
10″	7,31,22,22, 4, 8,53,17,52, 8		32,59,56,34	
		2, 4,40,19, 5,33,30,16		9, 7
12″	7,31,24,26,44,27,58,51,22,24		33, 0, 5,41	
		2, 4,40,18,32,33,24,35		9, 7
14″	7,31,26,31,24,46,31,24,46,59		33, 0,14,48	
		2, 4,40,17,59,33, 9,47		9, 7
16″	7,31,28,36, 5, 4,30,57,56,46		33, 0,23,55	
		2, 4,40,17,26,32,45,52		9, 7
18″	7,31,30,40,45,21,57,30,42,38		33, 0,33, 2	
		2, 4,40,16,53,32,12,50		9, 7
20″	7,31,32,45,25,38,51, 2,55,28		33, 0,42, 9	
		2, 4,40,16,20,31,30,41		9, 7
22″	7,31,34,50, 5,55,11,34,26, 9		33, 0,51,16	
		2, 4,40,15,47,30,39,25		9, 7
24″	7,31,36,54,46,10,59, 5, 5,34		33, 1, 0,23	
		2, 4,40,15,14,29,39, 2		9, 7
26″	7,31,38,59,26,26,13,34,44,36		33, 1, 9,30	
		2, 4,40,14,41,28,29,32		9, 7
28″	7,31,41, 4, 6,40,55, 3,14, 8		33, 1,18,37	
		2, 4,40,14, 8,27,10,55		9, 7
30″	7,31,43, 8,46,55, 3,30,25, 3		33, 1,27,44	
		2, 4,40,13,35,25,43,11		9, 7
32″	7,31,45,13,27, 8,38,56, 8,14		33, 1,36,51	
		2, 4,40,13, 2,24, 6,20		9, 7
34″	7,31,47,18, 7,21,41,20,14,34		33, 1,45,58	
		2, 4,40,12,29,22,20,22		9, 7
36″	7,31,49,22,47,34,10,42,34,56		33, 1,55, 5	
		2, 4,40,11,56,20,25,17		9, 7
38″	7,31,51,27,27,46, 7, 3, 0,13		33, 2, 4,12	
		2, 4,40,11,23,18,21, 5		9, 7
40″	7,31,53,32, 7,57,30,21,21,18		33, 2,13,19	
		2, 4,40,10,50,16, 7,46		9, 7
42″	7,31,55,36,48, 8,20,37,29, 4		33, 2,22,26	
		2, 4,40,10,17,13,45,20		9, 7
44″	7,31,57,41,28,18,37,51,14,24		33, 2,31,33	
		2, 4,40, 9,44,11,13,47		9, 7
46″	7,31,59,46, 8,28,22, 2,28,11		33, 2,40,40	
		2, 4,40, 9,11, 8,33, 7		9, 7
48″	7,32, 1,50,48,37,33,11, 1,18		33, 2,49,47	
		2, 4,40, 8,38, 5,43,20		9, 7
50″	7,32, 3,55,28,46,11,16,44,38		33, 2,58,54	
		2, 4,40, 8, 5, 2,44,26		9, 7
52″	7,32, 6, 0, 8,54,16,19,29, 4		33, 3, 8, 1	
		2, 4,40, 7,31,59,36,25		9, 7
54″	7,32, 8, 4,49, 1,48,19, 5,29		33, 3,17, 8	
		2, 4,40, 6,58,56,19,17		9, 7
56″	7,32,10, 9,29, 8,47,15,24,46		33, 3,26,15	
		2, 4,40, 6,25,52,53, 2		9, 7
58″	7,32,12,14, 9,15,13, 8,17,48		33, 3,35,22	
		2, 4,40, 5,52,49,17,40		
60″	7,32,14,18,49,21, 5,57,35,28			
exact	7,32,14,18,49,21, 5,57,44,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°13′ 0″	7,32,14,18,49,21, 5,57,44,22			
		2, 4,40, 5,19,45,34, 8		
2″	7,32,16,23,29,26,25,43,18,30		33, 3,53,32	
		2, 4,40, 4,46,41,40,36		9, 7
4″	7,32,18,28, 9,31,12,24,59, 6		33, 4, 2,39	
		2, 4,40, 4,13,37,37,57		9, 7
6″	7,32,20,32,49,35,26, 2,37, 3		33, 4,11,46	
		2, 4,40, 3,40,33,26,11		9, 7
8″	7,32,22,37,29,39, 6,36, 3,14		33, 4,20,53	
		2, 4,40, 3, 7,29, 5,18		9, 7
10″	7,32,24,42, 9,42,14, 5, 8,32		33, 4,30, 0	
		2, 4,40, 2,34,24,35,18		9, 7
12″	7,32,26,46,49,44,48,29,43,50		33, 4,39, 7	
		2, 4,40, 2, 1,19,56,11		9, 7
14″	7,32,28,51,29,46,49,49,40, 1		33, 4,48,14	
		2, 4,40, 1,28,15, 7,57		9, 7
16″	7,32,30,56, 9,48,18, 4,47,58		33, 4,57,21	
		2, 4,40, 0,55,10,10,36		9, 7
18″	7,32,33, 0,49,49,13,14,58,34		33, 5, 6,28	
		2, 4,40, 0,22, 5, 4, 8		9, 7
20″	7,32,35, 5,29,49,35,20, 2,42		33, 5,15,35	
		2, 4,39,59,48,59,48,33		9, 7
22″	7,32,37,10, 9,49,24,19,51,15		33, 5,24,42	
		2, 4,39,59,15,54,23,51		9, 7
24″	7,32,39,14,49,48,40,14,15, 6		33, 5,33,49	
		2, 4,39,58,42,48,50, 2		9, 7
26″	7,32,41,19,29,47,23, 3, 5, 8		33, 5,42,56	
		2, 4,39,58, 9,43, 7, 6		9, 7
28″	7,32,43,24, 9,45,32,46,12,14		33, 5,52, 3	
		2, 4,39,57,36,37,15, 3		9, 7
30″	7,32,45,28,49,43, 9,23,27,17		33, 6, 1,10	
		2, 4,39,57, 3,31,13,53		9, 7
32″	7,32,47,33,29,40,12,54,41,10		33, 6,10,17	
		2, 4,39,56,30,25, 3,36		9, 7
34″	7,32,49,38, 9,36,43,19,44,46		33, 6,19,24	
		2, 4,39,55,57,18,44,12		9, 7
36″	7,32,51,42,49,32,40,38,28,58		33, 6,28,31	
		2, 4,39,55,24,12,15,41		9, 7
38″	7,32,53,47,29,28, 4,50,44,39		33, 6,37,38	
		2, 4,39,54,51, 5,38, 3		9, 7
40″	7,32,55,52, 9,22,55,56,22,42		33, 6,46,45	
		2, 4,39,54,17,58,51,18		9, 7
42″	7,32,57,56,49,17,13,55,14, 0		33, 6,55,52	
		2, 4,39,53,44,51,55,26		9, 7
44″	7,33, 0, 1,29,10,58,47, 9,26		33, 7, 4,59	
		2, 4,39,53,11,44,50,27		9, 7
46″	7,33, 2, 6, 9, 4,10,31,59,53		33, 7,14, 6	
		2, 4,39,52,38,37,36,21		9, 7
48″	7,33, 4,10,48,56,49, 9,36,14		33, 7,23,13	
		2, 4,39,52, 5,30,13, 8		9, 7
50″	7,33, 6,15,28,48,54,39,49,22		33, 7,32,20	
		2, 4,39,51,32,22,40,48		9, 7
52″	7,33, 8,20, 8,40,27, 2,30,10		33, 7,41,27	
		2, 4,39,50,59,14,59,21		9, 7
54″	7,33,10,24,48,31,26,17,29,31		33, 7,50,34	
		2, 4,39,50,26, 7, 8,47		9, 7
56″	7,33,12,29,28,21,52,24,38,18		33, 7,59,41	
		2, 4,39,49,52,59, 9, 6		9, 7
58″	7,33,14,34, 8,11,45,23,47,24		33, 8, 8,48	
		2, 4,39,49,19,51, 0,18		
60″	7,33,16,38,48, 1, 5,14,47,42			
exact	7,33,16,38,48, 1, 5,14,58, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°14′ 0″	7,33,16,38,48, 1, 5,14,58, 4			
		2, 4,39,48,46,42,43,30		
2″	7,33,18,43,27,49,51,57,41,34		33, 8,26,57	
		2, 4,39,48,13,34,16,33		9, 7
4″	7,33,20,48, 7,38, 5,31,58, 7		33, 8,36, 4	
		2, 4,39,47,40,25,40,29		9, 7
6″	7,33,22,52,47,25,45,57,38,36		33, 8,45,11	
		2, 4,39,47, 7,16,55,18		9, 7
8″	7,33,24,57,27,12,53,14,33,54		33, 8,54,18	
		2, 4,39,46,34, 8, 1, 0		9, 7
10″	7,33,27, 2, 6,59,27,22,34,54		33, 9, 3,25	
		2, 4,39,46, 0,58,57,35		9, 7
12″	7,33,29, 6,46,45,28,21,32,29		33, 9,12,32	
		2, 4,39,45,27,49,45, 3		9, 7
14″	7,33,31,11,26,30,56,11,17,32		33, 9,21,39	
		2, 4,39,44,54,40,23,24		9, 7
16″	7,33,33,16, 6,15,50,51,40,56		33, 9,30,46	
		2, 4,39,44,21,30,52,38		9, 7
18″	7,33,35,20,46, 0,12,22,33,34		33, 9,39,53	
		2, 4,39,43,48,21,12,45		9, 7
20″	7,33,37,25,25,44, 0,43,46,19		33, 9,49, 0	
		2, 4,39,43,15,11,23,45		9, 7
22″	7,33,39,30, 5,27,15,55,10, 4		33, 9,58, 7	
		2, 4,39,42,42, 1,25,38		9, 7
24″	7,33,41,34,45, 9,57,56,35,42		33,10, 7,14	
		2, 4,39,42, 8,51,18,24		9, 7
26″	7,33,43,39,24,52, 6,47,54, 6		33,10,16,21	
		2, 4,39,41,35,41, 2, 3		9, 7
28″	7,33,45,44, 4,33,42,28,56, 9		33,10,25,28	
		2, 4,39,41, 2,30,36,35		9, 7
30″	7,33,47,48,44,14,44,59,32,44		33,10,34,35	
		2, 4,39,40,29,20, 2, 0		9, 7
32″	7,33,49,53,23,55,14,19,34,44		33,10,43,42	
		2, 4,39,39,56, 9,18,18		9, 7
34″	7,33,51,58, 3,35,10,28,53, 2		33,10,52,49	
		2, 4,39,39,22,58,25,29		9, 7
36″	7,33,54, 2,43,14,33,27,18,31		33,11, 1,56	
		2, 4,39,38,49,47,23,33		9, 7
38″	7,33,56, 7,22,53,23,14,42, 4		33,11,11, 3	
		2, 4,39,38,16,36,12,30		9, 7
40″	7,33,58,12, 2,31,39,50,54,34		33,11,20,10	
		2, 4,39,37,43,24,52,20		9, 7
42″	7,34, 0,16,42, 9,23,15,46,54		33,11,29,17	
		2, 4,39,37,10,13,23, 3		9, 7
44″	7,34, 2,21,21,46,33,29, 9,57		33,11,38,24	
		2, 4,39,36,37, 1,44,39		9, 7
46″	7,34, 4,26, 1,23,10,30,54,36		33,11,47,31	
		2, 4,39,36, 3,49,57, 8		9, 7
48″	7,34, 6,30,40,59,14,20,51,44		33,11,56,38	
		2, 4,39,35,30,38, 0,30		9, 7
50″	7,34, 8,35,20,34,44,58,52,14		33,12, 5,45	
		2, 4,39,34,57,25,54,45		9, 7
52″	7,34,10,40, 0, 9,42,24,46,59		33,12,14,52	
		2, 4,39,34,24,13,39,53		9, 7
54″	7,34,12,44,39,44, 6,38,26,52		33,12,23,59	
		2, 4,39,33,51, 1,15,54		9, 7
56″	7,34,14,49,19,17,57,39,42,46		33,12,33, 6	
		2, 4,39,33,17,48,42,48		9, 7
58″	7,34,16,53,58,51,15,28,25,34		33,12,42,13	
		2, 4,39,32,44,36, 0,35		
60″	7,34,18,58,38,24, 0, 4,26, 9			
exact	7,34,18,58,38,24, 0, 4,35, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°15′ 0″	7,34,18,58,38,24, 0, 4,35, 2			
		2, 4,39,32,11,23,10,19		
2″	7,34,21, 3,17,56,11,27,45,21		33,13, 0,22	
		2, 4,39,31,38,10, 9,57		9, 7
4″	7,34,23, 7,57,27,49,37,55,18		33,13, 9,29	
		2, 4,39,31, 4,57, 0,28		9, 7
6″	7,34,25,12,36,58,54,34,55,46		33,13,18,36	
		2, 4,39,30,31,43,41,52		9, 7
8″	7,34,27,17,16,29,26,18,37,38		33,13,27,43	
		2, 4,39,29,58,30,14, 9		9, 7
10″	7,34,29,21,55,59,24,48,51,47		33,13,36,50	
		2, 4,39,29,25,16,37,19		9, 7
12″	7,34,31,26,35,28,50, 5,29, 6		33,13,45,57	
		2, 4,39,28,52, 2,51,22		9, 7
14″	7,34,33,31,14,57,42, 8,20,28		33,13,55, 4	
		2, 4,39,28,18,48,56,18		9, 7
16″	7,34,35,35,54,26, 0,57,16,46		33,14, 4,11	
		2, 4,39,27,45,34,52, 7		9, 7
18″	7,34,37,40,33,53,46,32, 8,53		33,14,13,18	
		2, 4,39,27,12,20,38,49		9, 7
20″	7,34,39,45,13,20,58,52,47,42		33,14,22,25	
		2, 4,39,26,39, 6,16,24		9, 7
22″	7,34,41,49,52,47,37,59, 4, 6		33,14,31,32	
		2, 4,39,26, 5,51,44,52		9, 7
24″	7,34,43,54,32,13,43,50,48,58		33,14,40,39	
		2, 4,39,25,32,37, 4,13		9, 7
26″	7,34,45,59,11,39,16,27,53,11		33,14,49,46	
		2, 4,39,24,59,22,14,27		9, 7
28″	7,34,48, 3,51, 4,15,50, 7,38		33,14,58,53	
		2, 4,39,24,26, 7,15,34		9, 7
30″	7,34,50, 8,30,28,41,57,23,12		33,15, 8, 0	
		2, 4,39,23,52,52, 7,34		9, 7
32″	7,34,52,13, 9,52,34,49,30,46		33,15,17, 7	
		2, 4,39,23,19,36,50,27		9, 7
34″	7,34,54,17,49,15,54,26,21,13		33,15,26,14	
		2, 4,39,22,46,21,24,13		9, 7
36″	7,34,56,22,28,38,40,47,45,26		33,15,35,21	
		2, 4,39,22,13, 5,48,52		9, 7
38″	7,34,58,27, 8, 0,53,53,34,18		33,15,44,28	
		2, 4,39,21,39,50, 4,24		9, 7
40″	7,35, 0,31,47,22,33,43,38,42		33,15,53,35	
		2, 4,39,21, 6,34,10,49		9, 7
42″	7,35, 2,36,26,43,40,17,49,31		33,16, 2,42	
		2, 4,39,20,33,18, 8, 7		9, 7
44″	7,35, 4,41, 6, 4,13,35,57,38		33,16,11,49	
		2, 4,39,20, 0, 1,56,18		9, 7
46″	7,35, 6,45,45,24,13,37,53,56		33,16,20,56	
		2, 4,39,19,26,45,35,22		9, 7
48″	7,35, 8,50,24,43,40,23,29,18		33,16,30, 3	
		2, 4,39,18,53,29, 5,19		9, 7
50″	7,35,10,55, 4, 2,33,52,34,37		33,16,39,10	
		2, 4,39,18,20,12,26, 9		9, 7
52″	7,35,12,59,43,20,54, 5, 0,46		33,16,48,17	
		2, 4,39,17,46,55,37,52		9, 7
54″	7,35,15, 4,22,38,41, 0,38,38		33,16,57,24	
		2, 4,39,17,13,38,40,28		9, 7
56″	7,35,17, 9, 1,55,54,39,19, 6		33,17, 6,31	
		2, 4,39,16,40,21,33,57		9, 7
58″	7,35,19,13,41,12,35, 0,53, 3		33,17,15,38	
		2, 4,39,16, 7, 4,18,19		
60″	7,35,21,18,20,28,42, 5,11,22			
exact	7,35,21,18,20,28,42, 5,23,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°16′ 0″	7,35,21,18,20,28,42, 5,23,42			
		2, 4,39,15,33,46,54,55		
2″	7,35,23,22,59,44,15,52,18,37		33,17,33,46	
		2, 4,39,15, 0,29,21, 9		9, 7
4″	7,35,25,27,38,59,16,21,39,46		33,17,42,53	
		2, 4,39,14,27,11,38,16		9, 7
6″	7,35,27,32,18,13,43,33,18, 2		33,17,52, 0	
		2, 4,39,13,53,53,46,16		9, 7
8″	7,35,29,36,57,27,37,27, 4,18		33,18, 1, 7	
		2, 4,39,13,20,35,45, 9		9, 7
10″	7,35,31,41,36,40,58, 2,49,27		33,18,10,14	
		2, 4,39,12,47,17,34,55		9, 7
12″	7,35,33,46,15,53,45,20,24,22		33,18,19,21	
		2, 4,39,12,13,59,15,34		9, 7
14″	7,35,35,50,55, 5,59,19,39,56		33,18,28,28	
		2, 4,39,11,40,40,47, 6		9, 7
16″	7,35,37,55,34,17,40, 0,27, 2		33,18,37,35	
		2, 4,39,11, 7,22, 9,31		9, 7
18″	7,35,40, 0,13,28,47,22,36,33		33,18,46,42	
		2, 4,39,10,34, 3,22,49		9, 7
20″	7,35,42, 4,52,39,21,25,59,22		33,18,55,49	
		2, 4,39,10, 0,44,27, 0		9, 7
22″	7,35,44, 9,31,49,22,10,26,22		33,19, 4,56	
		2, 4,39, 9,27,25,22, 4		9, 7
24″	7,35,46,14,10,58,49,35,48,26		33,19,14, 3	
		2, 4,39, 8,54, 6, 8, 1		9, 7
26″	7,35,48,18,50, 7,43,41,56,27		33,19,23,10	
		2, 4,39, 8,20,46,44,51		9, 7
28″	7,35,50,23,29,16, 4,28,41,18		33,19,32,17	
		2, 4,39, 7,47,27,12,34		9, 7
30″	7,35,52,28, 8,23,51,55,53,52		33,19,41,24	
		2, 4,39, 7,14, 7,31,10		9, 7
32″	7,35,54,32,47,31, 6, 3,25, 2		33,19,50,31	
		2, 4,39, 6,40,47,40,39		9, 7
34″	7,35,56,37,26,37,46,51, 5,41		33,19,59,38	
		2, 4,39, 6, 7,27,41, 1		9, 7
36″	7,35,58,42, 5,43,54,18,46,42		33,20, 8,45	
		2, 4,39, 5,34, 7,32,16		9, 7
38″	7,36, 0,46,44,49,28,26,18,58		33,20,17,52	
		2, 4,39, 5, 0,47,14,24		9, 7
40″	7,36, 2,51,23,54,29,13,33,22		33,20,26,59	
		2, 4,39, 4,27,26,47,25		9, 7
42″	7,36, 4,56, 2,58,56,40,20,47		33,20,36, 6	
		2, 4,39, 3,54, 6,11,19		9, 7
44″	7,36, 7, 0,42, 2,50,46,32, 6		33,20,45,13	
		2, 4,39, 3,20,45,26, 6		9, 7
46″	7,36, 9, 5,21, 6,11,31,58,12		33,20,54,20	
		2, 4,39, 2,47,24,31,46		9, 7
48″	7,36,11,10, 0, 8,58,56,29,58		33,21, 3,27	
		2, 4,39, 2,14, 3,28,19		9, 7
50″	7,36,13,14,39,11,12,59,58,17		33,21,12,34	
		2, 4,39, 1,40,42,15,45		9, 7
52″	7,36,15,19,18,12,53,42,14, 2		33,21,21,41	
		2, 4,39, 1, 7,20,54, 4		9, 7
54″	7,36,17,23,57,14, 1, 3, 8, 6		33,21,30,48	
		2, 4,39, 0,33,59,23,16		9, 7
56″	7,36,19,28,36,14,35, 2,31,22		33,21,39,55	
		2, 4,39, 0, 0,37,43,21		9, 7
58″	7,36,21,33,15,14,35,40,14,43		33,21,49, 2	
		2, 4,38,59,27,15,54,19		
60″	7,36,23,37,54,14, 2,56, 9, 2			
exact	7,36,23,37,54,14, 2,56,21,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°17′ 0″	7,36,23,37,54,14, 2,56,21,35			
		2, 4,38,58,53,53,57,35		
2″	7,36,25,42,33,12,56,50,19,10		33,22, 7,10	
		2, 4,38,58,20,31,50,25		9, 7
4″	7,36,27,47,12,11,17,22, 9,35		33,22,16,17	
		2, 4,38,57,47, 9,34, 8		9, 7
6″	7,36,29,51,51, 9, 4,31,43,43		33,22,25,24	
		2, 4,38,57,13,47, 8,44		9, 7
8″	7,36,31,56,30, 6,18,18,52,27		33,22,34,31	
		2, 4,38,56,40,24,34,13		9, 7
10″	7,36,34, 1, 9, 2,58,43,26,40		33,22,43,38	
		2, 4,38,56, 7, 1,50,35		9, 7
12″	7,36,36, 5,47,59, 5,45,17,15		33,22,52,45	
		2, 4,38,55,33,38,57,50		9, 7
14″	7,36,38,10,26,54,39,24,15, 5		33,23, 1,52	
		2, 4,38,55, 0,15,55,58		9, 7
16″	7,36,40,15, 5,49,39,40,11, 3		33,23,10,59	
		2, 4,38,54,26,52,44,59		9, 7
18″	7,36,42,19,44,44, 6,32,56, 2		33,23,20, 6	
		2, 4,38,53,53,29,24,53		9, 7
20″	7,36,44,24,23,38, 0, 2,20,55		33,23,29,13	
		2, 4,38,53,20, 5,55,40		9, 7
22″	7,36,46,29, 2,31,20, 8,16,35		33,23,38,20	
		2, 4,38,52,46,42,17,20		9, 7
24″	7,36,48,33,41,24, 6,50,33,55		33,23,47,27	
		2, 4,38,52,13,18,29,53		9, 7
26″	7,36,50,38,20,16,20, 9, 3,48		33,23,56,34	
		2, 4,38,51,39,54,33,19		9, 7
28″	7,36,52,42,59, 8, 0, 3,37, 7		33,24, 5,41	
		2, 4,38,51, 6,30,27,38		9, 7
30″	7,36,54,47,37,59, 6,34, 4,45		33,24,14,48	
		2, 4,38,50,33, 6,12,50		9, 7
32″	7,36,56,52,16,49,39,40,17,35		33,24,23,55	
		2, 4,38,49,59,41,48,55		9, 7
34″	7,36,58,56,55,39,39,22, 6,30		33,24,33, 2	
		2, 4,38,49,26,17,15,53		9, 7
36″	7,37, 1, 1,34,29, 5,39,22,23		33,24,42, 9	
		2, 4,38,48,52,52,33,44		9, 7
38″	7,37, 3, 6,13,17,58,31,56, 7		33,24,51,16	
		2, 4,38,48,19,27,42,28		9, 7
40″	7,37, 5,10,52, 6,17,59,38,35		33,25, 0,23	
		2, 4,38,47,46, 2,42, 5		9, 7
42″	7,37, 7,15,30,54, 4, 2,20,40		33,25, 9,30	
		2, 4,38,47,12,37,32,35		9, 7
44″	7,37, 9,20, 9,41,16,39,53,15		33,25,18,37	
		2, 4,38,46,39,12,13,58		9, 7
46″	7,37,11,24,48,27,55,52, 7,13		33,25,27,44	
		2, 4,38,46, 5,46,46,14		9, 7
48″	7,37,13,29,27,14, 1,38,53,27		33,25,36,51	
		2, 4,38,45,32,21, 9,23		9, 7
50″	7,37,15,34, 5,59,34, 0, 2,50		33,25,45,58	
		2, 4,38,44,58,55,23,25		9, 7
52″	7,37,17,38,44,44,32,55,26,15		33,25,55, 5	
		2, 4,38,44,25,29,28,20		9, 7
54″	7,37,19,43,23,28,58,24,54,35		33,26, 4,12	
		2, 4,38,43,52, 3,24, 8		9, 7
56″	7,37,21,48, 2,12,50,28,18,43		33,26,13,19	
		2, 4,38,43,18,37,10,49		9, 7
58″	7,37,23,52,40,56, 9, 5,29,32		33,26,22,26	
		2, 4,38,42,45,10,48,23		
60″	7,37,25,57,19,38,54,16,17,55			
exact	7,37,25,57,19,38,54,16,35,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°18′ 0″	7,37,25,57,19,38,54,16,35,20			
		2, 4,38,42,11,44,18,38		
2″	7,37,28, 1,58,21, 6, 0,53,58		33,26,40,33	
		2, 4,38,41,38,17,38, 5		9, 7
4″	7,37,30, 6,37, 2,44,18,32, 3		33,26,49,40	
		2, 4,38,41, 4,50,48,25		9, 7
6″	7,37,32,11,15,43,49, 9,20,28		33,26,58,47	
		2, 4,38,40,31,23,49,38		9, 7
8″	7,37,34,15,54,24,20,33,10, 6		33,27, 7,54	
		2, 4,38,39,57,56,41,44		9, 7
10″	7,37,36,20,33, 4,18,29,51,50		33,27,17, 1	
		2, 4,38,39,24,29,24,43		9, 7
12″	7,37,38,25,11,43,42,59,16,33		33,27,26, 8	
		2, 4,38,38,51, 1,58,35		9, 7
14″	7,37,40,29,50,22,34, 1,15, 8		33,27,35,15	
		2, 4,38,38,17,34,23,20		9, 7
16″	7,37,42,34,29, 0,51,35,38,28		33,27,44,22	
		2, 4,38,37,44, 6,38,58		9, 7
18″	7,37,44,39, 7,38,35,42,17,26		33,27,53,29	
		2, 4,38,37,10,38,45,29		9, 7
20″	7,37,46,43,46,15,46,21, 2,55		33,28, 2,36	
		2, 4,38,36,37,10,42,53		9, 7
22″	7,37,48,48,24,52,23,31,45,48		33,28,11,43	
		2, 4,38,36, 3,42,31,10		9, 7
24″	7,37,50,53, 3,28,27,14,16,58		33,28,20,50	
		2, 4,38,35,30,14,10,20		9, 7
26″	7,37,52,57,42, 3,57,28,27,18		33,28,29,57	
		2, 4,38,34,56,45,40,23		9, 7
28″	7,37,55, 2,20,38,54,14, 7,41		33,28,39, 4	
		2, 4,38,34,23,17, 1,19		9, 7
30″	7,37,57, 6,59,13,17,31, 9, 0		33,28,48,11	
		2, 4,38,33,49,48,13, 8		9, 7
32″	7,37,59,11,37,47, 7,19,22, 8		33,28,57,18	
		2, 4,38,33,16,19,15,50		9, 7
34″	7,38, 1,16,16,20,23,38,37,58		33,29, 6,25	
		2, 4,38,32,42,50, 9,25		9, 7
36″	7,38, 3,20,54,53, 6,28,47,23		33,29,15,32	
		2, 4,38,32, 9,20,53,53		9, 7
38″	7,38, 5,25,33,25,15,49,41,16		33,29,24,39	
		2, 4,38,31,35,51,29,14		9, 7
40″	7,38, 7,30,11,56,51,41,10,30		33,29,33,46	
		2, 4,38,31, 2,21,55,28		9, 7
42″	7,38, 9,34,50,27,54, 3, 5,58		33,29,42,53	
		2, 4,38,30,28,52,12,35		9, 7
44″	7,38,11,39,28,58,22,55,18,33		33,29,52, 0	
		2, 4,38,29,55,22,20,35		9, 7
46″	7,38,13,44, 7,28,18,17,39, 8		33,30, 1, 7	
		2, 4,38,29,21,52,19,28		9, 7
48″	7,38,15,48,45,57,40, 9,58,36		33,30,10,14	
		2, 4,38,28,48,22, 9,14		9, 7
50″	7,38,17,53,24,26,28,32, 7,50		33,30,19,21	
		2, 4,38,28,14,51,49,53		9, 7
52″	7,38,19,58, 2,54,43,23,57,43		33,30,28,28	
		2, 4,38,27,41,21,21,25		9, 7
54″	7,38,22, 2,41,22,24,45,19, 8		33,30,37,35	
		2, 4,38,27, 7,50,43,50		9, 7
56″	7,38,24, 7,19,49,32,36, 2,58		33,30,46,42	
		2, 4,38,26,34,19,57, 8		9, 7
58″	7,38,26,11,58,16, 6,56, 0, 6		33,30,55,49	
		2, 4,38,26, 0,49, 1,19		
60″	7,38,28,16,36,42, 7,45, 1,25			
exact	7,38,28,16,36,42, 7,45,20,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°19′ 0″	7,38,28,16,36,42, 7,45,20,43			
		2, 4,38,25,27,17,58,22		
2″	7,38,30,21,15, 7,35, 3,19, 5		33,31,13,55	
		2, 4,38,24,53,46,44,27		9, 7
4″	7,38,32,25,53,32,28,50, 3,32		33,31,23, 2	
		2, 4,38,24,20,15,21,25		9, 7
6″	7,38,34,30,31,56,49, 5,24,57		33,31,32, 9	
		2, 4,38,23,46,43,49,16		9, 7
8″	7,38,36,35,10,20,35,49,14,13		33,31,41,16	
		2, 4,38,23,13,12, 8, 0		9, 7
10″	7,38,38,39,48,43,49, 1,22,13		33,31,50,23	
		2, 4,38,22,39,40,17,37		9, 7
12″	7,38,40,44,27, 6,28,41,39,50		33,31,59,30	
		2, 4,38,22, 6, 8,18, 7		9, 7
14″	7,38,42,49, 5,28,34,49,57,57		33,32, 8,37	
		2, 4,38,21,32,36, 9,30		9, 7
16″	7,38,44,53,43,50, 7,26, 7,27		33,32,17,44	
		2, 4,38,20,59, 3,51,46		9, 7
18″	7,38,46,58,22,11, 6,29,59,13		33,32,26,51	
		2, 4,38,20,25,31,24,55		9, 7
20″	7,38,49, 3, 0,31,32, 1,24, 8		33,32,35,58	
		2, 4,38,19,51,58,48,57		9, 7
22″	7,38,51, 7,38,51,24, 0,13, 5		33,32,45, 5	
		2, 4,38,19,18,26, 3,52		9, 7
24″	7,38,53,12,17,10,42,26,16,57		33,32,54,12	
		2, 4,38,18,44,53, 9,40		9, 7
26″	7,38,55,16,55,29,27,19,26,37		33,33, 3,19	
		2, 4,38,18,11,20, 6,21		9, 7
28″	7,38,57,21,33,47,38,39,32,58		33,33,12,26	
		2, 4,38,17,37,46,53,55		9, 7
30″	7,38,59,26,12, 5,16,26,26,53		33,33,21,33	
		2, 4,38,17, 4,13,32,22		9, 7
32″	7,39, 1,30,50,22,20,39,59,15		33,33,30,40	
		2, 4,38,16,30,40, 1,42		9, 7
34″	7,39, 3,35,28,38,51,20, 0,57		33,33,39,47	
		2, 4,38,15,57, 6,21,55		9, 7
36″	7,39, 5,40, 6,54,48,26,22,52		33,33,48,54	
		2, 4,38,15,23,32,33, 1		9, 7
38″	7,39, 7,44,45,10,11,58,55,53		33,33,58, 1	
		2, 4,38,14,49,58,35, 0		9, 7
40″	7,39, 9,49,23,25, 1,57,30,53		33,34, 7, 8	
		2, 4,38,14,16,24,27,52		9, 7
42″	7,39,11,54, 1,39,18,21,58,45		33,34,16,15	
		2, 4,38,13,42,50,11,37		9, 7
44″	7,39,13,58,39,53, 1,12,10,22		33,34,25,22	
		2, 4,38,13, 9,15,46,15		9, 7
46″	7,39,16, 3,18, 6,10,27,56,37		33,34,34,29	
		2, 4,38,12,35,41,11,46		9, 7
48″	7,39,18, 7,56,18,46, 9, 8,23		33,34,43,36	
		2, 4,38,12, 2, 6,28,10		9, 7
50″	7,39,20,12,34,30,48,15,36,33		33,34,52,43	
		2, 4,38,11,28,31,35,27		9, 7
52″	7,39,22,17,12,42,16,47,12, 0		33,35, 1,50	
		2, 4,38,10,54,56,33,37		9, 7
54″	7,39,24,21,50,53,11,43,45,37		33,35,10,57	
		2, 4,38,10,21,21,22,40		9, 7
56″	7,39,26,26,29, 3,33, 5, 8,17		33,35,20, 4	
		2, 4,38, 9,47,46, 2,36		9, 7
58″	7,39,28,31, 7,13,20,51,10,53		33,35,29,11	
		2, 4,38, 9,14,10,33,25		
60″	7,39,30,35,45,22,35, 1,44,18			
exact	7,39,30,35,45,22,35, 2, 2,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°20′ 0″	7,39,30,35,45,22,35, 2, 2,44			
		2, 4,38, 8,40,34,57, 6		
2″	7,39,32,40,23,31,15,36,59,50		33,35,47,17	
		2, 4,38, 8, 6,59, 9,49		9, 7
4″	7,39,34,45, 1,39,22,36, 9,39		33,35,56,24	
		2, 4,38, 7,33,23,13,25		9, 7
6″	7,39,36,49,39,46,55,59,23, 4		33,36, 5,31	
		2, 4,38, 6,59,47, 7,54		9, 7
8″	7,39,38,54,17,53,55,46,30,58		33,36,14,38	
		2, 4,38, 6,26,10,53,16		9, 7
10″	7,39,40,58,56, 0,21,57,24,14		33,36,23,45	
		2, 4,38, 5,52,34,29,31		9, 7
12″	7,39,43, 3,34, 6,14,31,53,45		33,36,32,52	
		2, 4,38, 5,18,57,56,39		9, 7
14″	7,39,45, 8,12,11,33,29,50,24		33,36,41,59	
		2, 4,38, 4,45,21,14,40		9, 7
16″	7,39,47,12,50,16,18,51, 5, 4		33,36,51, 6	
		2, 4,38, 4,11,44,23,34		9, 7
18″	7,39,49,17,28,20,30,35,28,38		33,37, 0,13	
		2, 4,38, 3,38, 7,23,21		9, 7
20″	7,39,51,22, 6,24, 8,42,51,59		33,37, 9,20	
		2, 4,38, 3, 4,30,14, 1		9, 7
22″	7,39,53,26,44,27,13,13, 6, 0		33,37,18,27	
		2, 4,38, 2,30,52,55,34		9, 7
24″	7,39,55,31,22,29,44, 6, 1,34		33,37,27,34	
		2, 4,38, 1,57,15,28, 0		9, 7
26″	7,39,57,36, 0,31,41,21,29,34		33,37,36,41	
		2, 4,38, 1,23,37,51,19		9, 7
28″	7,39,59,40,38,33, 4,59,20,53		33,37,45,48	
		2, 4,38, 0,50, 0, 5,31		9, 7
30″	7,40, 1,45,16,33,54,59,26,24		33,37,54,55	
		2, 4,38, 0,16,22,10,36		9, 7
32″	7,40, 3,49,54,34,11,21,37, 0		33,38, 4, 2	
		2, 4,37,59,42,44, 6,34		9, 7
34″	7,40, 5,54,32,33,54, 5,43,34		33,38,13, 9	
		2, 4,37,59, 9, 5,53,25		9, 7
36″	7,40, 7,59,10,33, 3,11,36,59		33,38,22,16	
		2, 4,37,58,35,27,31, 9		9, 7
38″	7,40,10, 3,48,31,38,39, 8, 8		33,38,31,23	
		2, 4,37,58, 1,48,59,46		9, 7
40″	7,40,12, 8,26,29,40,28, 7,54		33,38,40,30	
		2, 4,37,57,28,10,19,16		9, 7
42″	7,40,14,13, 4,27, 8,38,27,10		33,38,49,37	
		2, 4,37,56,54,31,29,39		9, 7
44″	7,40,16,17,42,24, 3, 9,56,49		33,38,58,44	
		2, 4,37,56,20,52,30,55		9, 7
46″	7,40,18,22,20,20,24, 2,27,44		33,39, 7,51	
		2, 4,37,55,47,13,23, 4		9, 7
48″	7,40,20,26,58,16,11,15,50,48		33,39,16,58	
		2, 4,37,55,13,34, 6, 6		9, 7
50″	7,40,22,31,36,11,24,49,56,54		33,39,26, 5	
		2, 4,37,54,39,54,40, 1		9, 7
52″	7,40,24,36,14, 6, 4,44,36,55		33,39,35,12	
		2, 4,37,54, 6,15, 4,49		9, 7
54″	7,40,26,40,52, 0,10,59,41,44		33,39,44,19	
		2, 4,37,53,32,35,20,30		9, 7
56″	7,40,28,45,29,53,43,35, 2,14		33,39,53,26	
		2, 4,37,52,58,55,27, 4		9, 7
58″	7,40,30,50, 7,46,42,30,29,18		33,40, 2,33	
		2, 4,37,52,25,15,24,31		
60″	7,40,32,54,45,39, 7,45,53,49			
exact	7,40,32,54,45,39, 7,46,15,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°21′ 0″	7,40,32,54,45,39, 7,46,15,30			
		2, 4,37,51,51,35,15, 7		
2″	7,40,34,59,23,30,59,21,30,37		33,40,20,38	
		2, 4,37,51,17,54,54,29		9, 7
4″	7,40,37, 4, 1,22,17,16,25, 6		33,40,29,45	
		2, 4,37,50,44,14,24,44		9, 7
6″	7,40,39, 8,39,13, 1,30,49,50		33,40,38,52	
		2, 4,37,50,10,33,45,52		9, 7
8″	7,40,41,13,17, 3,12, 4,35,42		33,40,47,59	
		2, 4,37,49,36,52,57,53		9, 7
10″	7,40,43,17,54,52,48,57,33,35		33,40,57, 6	
		2, 4,37,49, 3,12, 0,47		9, 7
12″	7,40,45,22,32,41,52, 9,34,22		33,41, 6,13	
		2, 4,37,48,29,30,54,34		9, 7
14″	7,40,47,27,10,30,21,40,28,56		33,41,15,20	
		2, 4,37,47,55,49,39,14		9, 7
16″	7,40,49,31,48,18,17,30, 8,10		33,41,24,27	
		2, 4,37,47,22, 8,14,47		9, 7
18″	7,40,51,36,26, 5,39,38,22,57		33,41,33,34	
		2, 4,37,46,48,26,41,13		9, 7
20″	7,40,53,41, 3,52,28, 5, 4,10		33,41,42,41	
		2, 4,37,46,14,44,58,32		9, 7
22″	7,40,55,45,41,38,42,50, 2,42		33,41,51,48	
		2, 4,37,45,41, 3, 6,44		9, 7
24″	7,40,57,50,19,24,23,53, 9,26		33,42, 0,55	
		2, 4,37,45, 7,21, 5,49		9, 7
26″	7,40,59,54,57, 9,31,14,15,15		33,42,10, 2	
		2, 4,37,44,33,38,55,47		9, 7
28″	7,41, 1,59,34,54, 4,53,11, 2		33,42,19, 9	
		2, 4,37,43,59,56,36,38		9, 7
30″	7,41, 4, 4,12,38, 4,49,47,40		33,42,28,16	
		2, 4,37,43,26,14, 8,22		9, 7
32″	7,41, 6, 8,50,21,31, 3,56, 2		33,42,37,23	
		2, 4,37,42,52,31,30,59		9, 7
34″	7,41, 8,13,28, 4,23,35,27, 1		33,42,46,30	
		2, 4,37,42,18,48,44,29		9, 7
36″	7,41,10,18, 5,46,42,24,11,30		33,42,55,37	
		2, 4,37,41,45, 5,48,52		9, 7
38″	7,41,12,22,43,28,27,30, 0,22		33,43, 4,44	
		2, 4,37,41,11,22,44, 8		9, 7
40″	7,41,14,27,21, 9,38,52,44,30		33,43,13,51	
		2, 4,37,40,37,39,30,17		9, 7
42″	7,41,16,31,58,50,16,32,14,47		33,43,22,58	
		2, 4,37,40, 3,56, 7,19		9, 7
44″	7,41,18,36,36,30,20,28,22, 6		33,43,32, 5	
		2, 4,37,39,30,12,35,14		9, 7
46″	7,41,20,41,14, 9,50,40,57,20		33,43,41,12	
		2, 4,37,38,56,28,54, 2		9, 7
48″	7,41,22,45,51,48,47, 9,51,22		33,43,50,19	
		2, 4,37,38,22,45, 3,43		9, 7
50″	7,41,24,50,29,27, 9,54,55, 5		33,43,59,26	
		2, 4,37,37,49, 1, 4,17		9, 7
52″	7,41,26,55, 7, 4,58,55,59,22		33,44, 8,33	
		2, 4,37,37,15,16,55,44		9, 7
54″	7,41,28,59,44,42,14,12,55, 6		33,44,17,40	
		2, 4,37,36,41,32,38, 4		9, 7
56″	7,41,31, 4,22,18,55,45,33,10		33,44,26,47	
		2, 4,37,36, 7,48,11,17		9, 7
58″	7,41,33, 8,59,55, 3,33,44,27		33,44,35,54	
		2, 4,37,35,34, 3,35,23		
60″	7,41,35,13,37,30,37,37,19,50			
exact	7,41,35,13,37,30,37,37,42,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°22′ 0″	7,41,35,13,37,30,37,37,42,24			
		2, 4,37,35, 0,18,52,45		
2″	7,41,37,18,15, 5,37,56,35, 9		33,44,53,58	
		2, 4,37,34,26,33,58,47		9, 7
4″	7,41,39,22,52,40, 4,30,33,56		33,45, 3, 5	
		2, 4,37,33,52,48,55,42		9, 7
6″	7,41,41,27,30,13,57,19,29,38		33,45,12,12	
		2, 4,37,33,19, 3,43,30		9, 7
8″	7,41,43,32, 7,47,16,23,13, 8		33,45,21,19	
		2, 4,37,32,45,18,22,11		9, 7
10″	7,41,45,36,45,20, 1,41,35,19		33,45,30,26	
		2, 4,37,32,11,32,51,45		9, 7
12″	7,41,47,41,22,52,13,14,27, 4		33,45,39,33	
		2, 4,37,31,37,47,12,12		9, 7
14″	7,41,49,46, 0,23,51, 1,39,16		33,45,48,40	
		2, 4,37,31, 4, 1,23,32		9, 7
16″	7,41,51,50,37,54,55, 3, 2,48		33,45,57,47	
		2, 4,37,30,30,15,25,45		9, 7
18″	7,41,53,55,15,25,25,18,28,33		33,46, 6,54	
		2, 4,37,29,56,29,18,51		9, 7
20″	7,41,55,59,52,55,21,47,47,24		33,46,16, 1	
		2, 4,37,29,22,43, 2,50		9, 7
22″	7,41,58, 4,30,24,44,30,50,14		33,46,25, 8	
		2, 4,37,28,48,56,37,42		9, 7
24″	7,42, 0, 9, 7,53,33,27,27,56		33,46,34,15	
		2, 4,37,28,15,10, 3,27		9, 7
26″	7,42, 2,13,45,21,48,37,31,23		33,46,43,22	
		2, 4,37,27,41,23,20, 5		9, 7
28″	7,42, 4,18,22,49,30, 0,51,28		33,46,52,29	
		2, 4,37,27, 7,36,27,36		9, 7
30″	7,42, 6,23, 0,16,37,37,19, 4		33,47, 1,36	
		2, 4,37,26,33,49,26, 0		9, 7
32″	7,42, 8,27,37,43,11,26,45, 4		33,47,10,43	
		2, 4,37,26, 0, 2,15,17		9, 7
34″	7,42,10,32,15, 9,11,29, 0,21		33,47,19,50	
		2, 4,37,25,26,14,55,27		9, 7
36″	7,42,12,36,52,34,37,43,55,48		33,47,28,57	
		2, 4,37,24,52,27,26,30		9, 7
38″	7,42,14,41,29,59,30,11,22,18		33,47,38, 4	
		2, 4,37,24,18,39,48,26		9, 7
40″	7,42,16,46, 7,23,48,51,10,44		33,47,47,11	
		2, 4,37,23,44,52, 1,15		9, 7
42″	7,42,18,50,44,47,33,43,11,59		33,47,56,18	
		2, 4,37,23,11, 4, 4,57		9, 7
44″	7,42,20,55,22,10,44,47,16,56		33,48, 5,25	
		2, 4,37,22,37,15,59,32		9, 7
46″	7,42,22,59,59,33,22, 3,16,28		33,48,14,32	
		2, 4,37,22, 3,27,45, 0		9, 7
48″	7,42,25, 4,36,55,25,31, 1,28		33,48,23,39	
		2, 4,37,21,29,39,21,21		9, 7
50″	7,42,27, 9,14,16,55,10,22,49		33,48,32,46	
		2, 4,37,20,55,50,48,35		9, 7
52″	7,42,29,13,51,37,51, 1,11,24		33,48,41,53	
		2, 4,37,20,22, 2, 6,42		9, 7
54″	7,42,31,18,28,58,13, 3,18, 6		33,48,51, 0	
		2, 4,37,19,48,13,15,42		9, 7
56″	7,42,33,23, 6,18, 1,16,33,48		33,49, 0, 7	
		2, 4,37,19,14,24,15,35		9, 7
58″	7,42,35,27,43,37,15,40,49,23		33,49, 9,14	
		2, 4,37,18,40,35, 6,21		
60″	7,42,37,32,20,55,56,15,55,44			
exact	7,42,37,32,20,55,56,16,16, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°23′ 0″	7,42,37,32,20,55,56,16,16, 1			
		2, 4,37,18, 6,45,50,17		
2″	7,42,39,36,58,14, 3, 2, 6,18		33,49,27,18	
		2, 4,37,17,32,56,22,59		9, 7
4″	7,42,41,41,35,31,35,58,29,17		33,49,36,25	
		2, 4,37,16,59, 6,46,34		9, 7
6″	7,42,43,46,12,48,35, 5,15,51		33,49,45,32	
		2, 4,37,16,25,17, 1, 2		9, 7
8″	7,42,45,50,50, 5, 0,22,16,53		33,49,54,39	
		2, 4,37,15,51,27, 6,23		9, 7
10″	7,42,47,55,27,20,51,49,23,16		33,50, 3,46	
		2, 4,37,15,17,37, 2,37		9, 7
12″	7,42,50, 0, 4,36, 9,26,25,53		33,50,12,53	
		2, 4,37,14,43,46,49,44		9, 7
14″	7,42,52, 4,41,50,53,13,15,37		33,50,22, 0	
		2, 4,37,14, 9,56,27,44		9, 7
16″	7,42,54, 9,19, 5, 3, 9,43,21		33,50,31, 7	
		2, 4,37,13,36, 5,56,37		9, 7
18″	7,42,56,13,56,18,39,15,39,58		33,50,40,14	
		2, 4,37,13, 2,15,16,23		9, 7
20″	7,42,58,18,33,31,41,30,56,21		33,50,49,21	
		2, 4,37,12,28,24,27, 2		9, 7
22″	7,43, 0,23,10,44, 9,55,23,23		33,50,58,28	
		2, 4,37,11,54,33,28,34		9, 7
24″	7,43, 2,27,47,56, 4,28,51,57		33,51, 7,35	
		2, 4,37,11,20,42,20,59		9, 7
26″	7,43, 4,32,25, 7,25,11,12,56		33,51,16,42	
		2, 4,37,10,46,51, 4,17		9, 7
28″	7,43, 6,37, 2,18,12, 2,17,13		33,51,25,49	
		2, 4,37,10,12,59,38,28		9, 7
30″	7,43, 8,41,39,28,25, 1,55,41		33,51,34,56	
		2, 4,37, 9,39, 8, 3,32		9, 7
32″	7,43,10,46,16,38, 4, 9,59,13		33,51,44, 3	
		2, 4,37, 9, 5,16,19,29		9, 7
34″	7,43,12,50,53,47, 9,26,18,42		33,51,53,10	
		2, 4,37, 8,31,24,26,19		9, 7
36″	7,43,14,55,30,55,40,50,45, 1		33,52, 2,17	
		2, 4,37, 7,57,32,24, 2		9, 7
38″	7,43,17, 0, 8, 3,38,23, 9, 3		33,52,11,24	
		2, 4,37, 7,23,40,12,38		9, 7
40″	7,43,19, 4,45,11, 2, 3,21,41		33,52,20,31	
		2, 4,37, 6,49,47,52, 7		9, 7
42″	7,43,21, 9,22,17,51,51,13,48		33,52,29,38	
		2, 4,37, 6,15,55,22,29		9, 7
44″	7,43,23,13,59,24, 7,46,36,17		33,52,38,45	
		2, 4,37, 5,42, 2,43,44		9, 7
46″	7,43,25,18,36,29,49,49,20, 1		33,52,47,52	
		2, 4,37, 5, 8, 9,55,52		9, 7
48″	7,43,27,23,13,34,57,59,15,53		33,52,56,59	
		2, 4,37, 4,34,16,58,53		9, 7
50″	7,43,29,27,50,39,32,16,14,46		33,53, 6, 6	
		2, 4,37, 4, 0,23,52,47		9, 7
52″	7,43,31,32,27,43,32,40, 7,33		33,53,15,13	
		2, 4,37, 3,26,30,37,34		9, 7
54″	7,43,33,37, 4,46,59,10,45, 7		33,53,24,20	
		2, 4,37, 2,52,37,13,14		9, 7
56″	7,43,35,41,41,49,51,47,58,21		33,53,33,27	
		2, 4,37, 2,18,43,39,47		9, 7
58″	7,43,37,46,18,52,10,31,38, 8		33,53,42,34	
		2, 4,37, 1,44,49,57,13		
60″	7,43,39,50,55,53,55,21,35,21			
exact	7,43,39,50,55,53,55,21,58,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°24′ 0″	7,43,39,50,55,53,55,21,58,11			
		2, 4,37, 1,10,56, 8, 2		
2″	7,43,41,55,32,55, 6,18, 6,13		33,54, 0,37	
		2, 4,37, 0,37, 2, 7,25		9, 7
4″	7,43,44, 0, 9,55,43,20,13,38		33,54, 9,44	
		2, 4,37, 0, 3, 7,57,41		9, 7
6″	7,43,46, 4,46,55,46,28,11,19		33,54,18,51	
		2, 4,36,59,29,13,38,50		9, 7
8″	7,43,48, 9,23,55,15,41,50, 9		33,54,27,58	
		2, 4,36,58,55,19,10,52		9, 7
10″	7,43,50,14, 0,54,11, 1, 1, 1		33,54,37, 5	
		2, 4,36,58,21,24,33,47		9, 7
12″	7,43,52,18,37,52,32,25,34,48		33,54,46,12	
		2, 4,36,57,47,29,47,35		9, 7
14″	7,43,54,23,14,50,19,55,22,23		33,54,55,19	
		2, 4,36,57,13,34,52,16		9, 7
16″	7,43,56,27,51,47,33,30,14,39		33,55, 4,26	
		2, 4,36,56,39,39,47,50		9, 7
18″	7,43,58,32,28,44,13,10, 2,29		33,55,13,33	
		2, 4,36,56, 5,44,34,17		9, 7
20″	7,44, 0,37, 5,40,18,54,36,46		33,55,22,40	
		2, 4,36,55,31,49,11,37		9, 7
22″	7,44, 2,41,42,35,50,43,48,23		33,55,31,47	
		2, 4,36,54,57,53,39,50		9, 7
24″	7,44, 4,46,19,30,48,37,28,13		33,55,40,54	
		2, 4,36,54,23,57,58,56		9, 7
26″	7,44, 6,50,56,25,12,35,27, 9		33,55,50, 1	
		2, 4,36,53,50, 2, 8,55		9, 7
28″	7,44, 8,55,33,19, 2,37,36, 4		33,55,59, 8	
		2, 4,36,53,16, 6, 9,47		9, 7
30″	7,44,11, 0,10,12,18,43,45,51		33,56, 8,15	
		2, 4,36,52,42,10, 1,32		9, 7
32″	7,44,13, 4,47, 5, 0,53,47,23		33,56,17,22	
		2, 4,36,52, 8,13,44,10		9, 7
34″	7,44,15, 9,23,57, 9, 7,31,33		33,56,26,29	
		2, 4,36,51,34,17,17,41		9, 7
36″	7,44,17,14, 0,48,43,24,49,14		33,56,35,36	
		2, 4,36,51, 0,20,42, 5		9, 7
38″	7,44,19,18,37,39,43,45,31,19		33,56,44,43	
		2, 4,36,50,26,23,57,22		9, 7
40″	7,44,21,23,14,30,10, 9,28,41		33,56,53,50	
		2, 4,36,49,52,27, 3,32		9, 7
42″	7,44,23,27,51,20, 2,36,32,13		33,57, 2,57	
		2, 4,36,49,18,30, 0,35		9, 7
44″	7,44,25,32,28, 9,21, 6,32,48		33,57,12, 4	
		2, 4,36,48,44,32,48,31		9, 7
46″	7,44,27,37, 4,58, 5,39,21,19		33,57,21,11	
		2, 4,36,48,10,35,27,20		9, 7
48″	7,44,29,41,41,46,16,14,48,39		33,57,30,18	
		2, 4,36,47,36,37,57, 2		9, 7
50″	7,44,31,46,18,33,52,52,45,41		33,57,39,25	
		2, 4,36,47, 2,40,17,37		9, 7
52″	7,44,33,50,55,20,55,33, 3,18		33,57,48,32	
		2, 4,36,46,28,42,29, 5		9, 7
54″	7,44,35,55,32, 7,24,15,32,23		33,57,57,39	
		2, 4,36,45,54,44,31,26		9, 7
56″	7,44,38, 0, 8,53,19, 0, 3,49		33,58, 6,46	
		2, 4,36,45,20,46,24,40		9, 7
58″	7,44,40, 4,45,38,39,46,28,29		33,58,15,53	
		2, 4,36,44,46,48, 8,47		
60″	7,44,42, 9,22,23,26,34,37,16			
exact	7,44,42, 9,22,23,26,35, 0, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°25′ 0″	7,44,42, 9,22,23,26,35, 0, 1			
		2, 4,36,44,12,49,46,20		
2″	7,44,44,13,59, 7,39,24,46,21		33,58,33,56	
		2, 4,36,43,38,51,12,24		9, 7
4″	7,44,46,18,35,51,18,15,58,45		33,58,43, 3	
		2, 4,36,43, 4,52,29,21		9, 7
6″	7,44,48,23,12,34,23, 8,28, 6		33,58,52,10	
		2, 4,36,42,30,53,37,11		9, 7
8″	7,44,50,27,49,16,54, 2, 5,17		33,59, 1,17	
		2, 4,36,41,56,54,35,54		9, 7
10″	7,44,52,32,25,58,50,56,41,11		33,59,10,24	
		2, 4,36,41,22,55,25,30		9, 7
12″	7,44,54,37, 2,40,13,52, 6,41		33,59,19,31	
		2, 4,36,40,48,56, 5,59		9, 7
14″	7,44,56,41,39,21, 2,48,12,40		33,59,28,38	
		2, 4,36,40,14,56,37,21		9, 7
16″	7,44,58,46,16, 1,17,44,50, 1		33,59,37,45	
		2, 4,36,39,40,56,59,36		9, 7
18″	7,45, 0,50,52,40,58,41,49,37		33,59,46,52	
		2, 4,36,39, 6,57,12,44		9, 7
20″	7,45, 2,55,29,20, 5,39, 2,21		33,59,55,59	
		2, 4,36,38,32,57,16,45		9, 7
22″	7,45, 5, 0, 5,58,38,36,19, 6		34, 0, 5, 6	
		2, 4,36,37,58,57,11,39		9, 7
24″	7,45, 7, 4,42,36,37,33,30,45		34, 0,14,13	
		2, 4,36,37,24,56,57,26		9, 7
26″	7,45, 9, 9,19,14, 2,30,28,11		34, 0,23,20	
		2, 4,36,36,50,56,34, 6		9, 7
28″	7,45,11,13,55,50,53,27, 2,17		34, 0,32,27	
		2, 4,36,36,16,56, 1,39		9, 7
30″	7,45,13,18,32,27,10,23, 3,56		34, 0,41,34	
		2, 4,36,35,42,55,20, 5		9, 7
32″	7,45,15,23, 9, 2,53,18,24, 1		34, 0,50,41	
		2, 4,36,35, 8,54,29,24		9, 7
34″	7,45,17,27,45,38, 2,12,53,25		34, 0,59,48	
		2, 4,36,34,34,53,29,36		9, 7
36″	7,45,19,32,22,12,37, 6,23, 1		34, 1, 8,55	
		2, 4,36,34, 0,52,20,41		9, 7
38″	7,45,21,36,58,46,37,58,43,42		34, 1,18, 2	
		2, 4,36,33,26,51, 2,39		9, 7
40″	7,45,23,41,35,20, 4,49,46,21		34, 1,27, 9	
		2, 4,36,32,52,49,35,30		9, 7
42″	7,45,25,46,11,52,57,39,21,51		34, 1,36,16	
		2, 4,36,32,18,47,59,14		9, 7
44″	7,45,27,50,48,25,16,27,21, 5		34, 1,45,23	
		2, 4,36,31,44,46,13,51		9, 7
46″	7,45,29,55,24,57, 1,13,34,56		34, 1,54,30	
		2, 4,36,31,10,44,19,21		9, 7
48″	7,45,32, 0, 1,28,11,57,54,17		34, 2, 3,37	
		2, 4,36,30,36,42,15,44		9, 7
50″	7,45,34, 4,37,58,48,40,10, 1		34, 2,12,44	
		2, 4,36,30, 2,40, 3, 0		9, 7
52″	7,45,36, 9,14,28,51,20,13, 1		34, 2,21,51	
		2, 4,36,29,28,37,41, 9		9, 7
54″	7,45,38,13,50,58,19,57,54,10		34, 2,30,58	
		2, 4,36,28,54,35,10,11		9, 7
56″	7,45,40,18,27,27,14,33, 4,21		34, 2,40, 5	
		2, 4,36,28,20,32,30, 6		9, 7
58″	7,45,42,23, 3,55,35, 5,34,27		34, 2,49,12	
		2, 4,36,27,46,29,40,54		
60″	7,45,44,27,40,23,21,35,15,21			
exact	7,45,44,27,40,23,21,35,41,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°26′ 0″	7,45,44,27,40,23,21,35,41,57			
		2, 4,36,27,12,26,45,27		
2″	7,45,46,32,16,50,34, 2,27,24		34, 3, 7,14	
		2, 4,36,26,38,23,38,13		9, 7
4″	7,45,48,36,53,17,12,26, 5,37		34, 3,16,21	
		2, 4,36,26, 4,20,21,52		9, 7
6″	7,45,50,41,29,43,16,46,27,29		34, 3,25,28	
		2, 4,36,25,30,16,56,24		9, 7
8″	7,45,52,46, 6, 8,47, 3,23,53		34, 3,34,35	
		2, 4,36,24,56,13,21,49		9, 7
10″	7,45,54,50,42,33,43,16,45,42		34, 3,43,42	
		2, 4,36,24,22, 9,38, 7		9, 7
12″	7,45,56,55,18,58, 5,26,23,49		34, 3,52,49	
		2, 4,36,23,48, 5,45,18		9, 7
14″	7,45,58,59,55,21,53,32, 9, 7		34, 4, 1,56	
		2, 4,36,23,14, 1,43,22		9, 7
16″	7,46, 1, 4,31,45, 7,33,52,29		34, 4,11, 3	
		2, 4,36,22,39,57,32,19		9, 7
18″	7,46, 3, 9, 8, 7,47,31,24,48		34, 4,20,10	
		2, 4,36,22, 5,53,12, 9		9, 7
20″	7,46, 5,13,44,29,53,24,36,57		34, 4,29,17	
		2, 4,36,21,31,48,42,52		9, 7
22″	7,46, 7,18,20,51,25,13,19,49		34, 4,38,24	
		2, 4,36,20,57,44, 4,28		9, 7
24″	7,46, 9,22,57,12,22,57,24,17		34, 4,47,31	
		2, 4,36,20,23,39,16,57		9, 7
26″	7,46,11,27,33,32,46,36,41,14		34, 4,56,38	
		2, 4,36,19,49,34,20,19		9, 7
28″	7,46,13,32, 9,52,36,11, 1,33		34, 5, 5,45	
		2, 4,36,19,15,29,14,34		9, 7
30″	7,46,15,36,46,11,51,40,16, 7		34, 5,14,52	
		2, 4,36,18,41,23,59,42		9, 7
32″	7,46,17,41,22,30,33, 4,15,49		34, 5,23,59	
		2, 4,36,18, 7,18,35,43		9, 7
34″	7,46,19,45,58,48,40,22,51,32		34, 5,33, 6	
		2, 4,36,17,33,13, 2,37		9, 7
36″	7,46,21,50,35, 6,13,35,54, 9		34, 5,42,13	
		2, 4,36,16,59, 7,20,24		9, 7
38″	7,46,23,55,11,23,12,43,14,33		34, 5,51,20	
		2, 4,36,16,25, 1,29, 4		9, 7
40″	7,46,25,59,47,39,37,44,43,37		34, 6, 0,27	
		2, 4,36,15,50,55,28,37		9, 7
42″	7,46,28, 4,23,55,28,40,12,14		34, 6, 9,34	
		2, 4,36,15,16,49,19, 3		9, 7
44″	7,46,30, 9, 0,10,45,29,31,17		34, 6,18,41	
		2, 4,36,14,42,43, 0,22		9, 7
46″	7,46,32,13,36,25,28,12,31,39		34, 6,27,48	
		2, 4,36,14, 8,36,32,34		9, 7
48″	7,46,34,18,12,39,36,49, 4,13		34, 6,36,55	
		2, 4,36,13,34,29,55,39		9, 7
50″	7,46,36,22,48,53,11,18,59,52		34, 6,46, 2	
		2, 4,36,13, 0,23, 9,37		9, 7
52″	7,46,38,27,25, 6,11,42, 9,29		34, 6,55, 9	
		2, 4,36,12,26,16,14,28		9, 7
54″	7,46,40,32, 1,18,37,58,23,57		34, 7, 4,16	
		2, 4,36,11,52, 9,10,12		9, 7
56″	7,46,42,36,37,30,30, 7,34, 9		34, 7,13,23	
		2, 4,36,11,18, 1,56,49		9, 7
58″	7,46,44,41,13,41,48, 9,30,58		34, 7,22,30	
		2, 4,36,10,43,54,34,19		
60″	7,46,46,45,49,52,32, 4, 5,17			
exact	7,46,46,45,49,52,32, 4,33,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°27′ 0″	7,46,46,45,49,52,32, 4,33,40			
		2, 4,36,10, 9,47, 5,44		
2″	7,46,48,50,26, 2,41,51,39,24		34, 7,40,31	
		2, 4,36, 9,35,39,25,13		9, 7
4″	7,46,50,55, 2,12,17,31, 4,37		34, 7,49,38	
		2, 4,36, 9, 1,31,35,35		9, 7
6″	7,46,52,59,38,21,19, 2,40,12		34, 7,58,45	
		2, 4,36, 8,27,23,36,50		9, 7
8″	7,46,55, 4,14,29,46,26,17, 2		34, 8, 7,52	
		2, 4,36, 7,53,15,28,58		9, 7
10″	7,46,57, 8,50,37,39,41,46, 0		34, 8,16,59	
		2, 4,36, 7,19, 7,11,59		9, 7
12″	7,46,59,13,26,44,58,48,57,59		34, 8,26, 6	
		2, 4,36, 6,44,58,45,53		9, 7
14″	7,47, 1,18, 2,51,43,47,43,52		34, 8,35,13	
		2, 4,36, 6,10,50,10,40		9, 7
16″	7,47, 3,22,38,57,54,37,54,32		34, 8,44,20	
		2, 4,36, 5,36,41,26,20		9, 7
18″	7,47, 5,27,15, 3,31,19,20,52		34, 8,53,27	
		2, 4,36, 5, 2,32,32,53		9, 7
20″	7,47, 7,31,51, 8,33,51,53,45		34, 9, 2,34	
		2, 4,36, 4,28,23,30,19		9, 7
22″	7,47, 9,36,27,13, 2,15,24, 4		34, 9,11,41	
		2, 4,36, 3,54,14,18,38		9, 7
24″	7,47,11,41, 3,16,56,29,42,42		34, 9,20,48	
		2, 4,36, 3,20, 4,57,50		9, 7
26″	7,47,13,45,39,20,16,34,40,32		34, 9,29,55	
		2, 4,36, 2,45,55,27,55		9, 7
28″	7,47,15,50,15,23, 2,30, 8,27		34, 9,39, 2	
		2, 4,36, 2,11,45,48,53		9, 7
30″	7,47,17,54,51,25,14,15,57,20		34, 9,48, 9	
		2, 4,36, 1,37,36, 0,44		9, 7
32″	7,47,19,59,27,26,51,51,58, 4		34, 9,57,16	
		2, 4,36, 1, 3,26, 3,28		9, 7
34″	7,47,22, 4, 3,27,55,18, 1,32		34,10, 6,23	
		2, 4,36, 0,29,15,57, 5		9, 7
36″	7,47,24, 8,39,28,24,33,58,37		34,10,15,30	
		2, 4,35,59,55, 5,41,35		9, 7
38″	7,47,26,13,15,28,19,39,40,12		34,10,24,37	
		2, 4,35,59,20,55,16,58		9, 7
40″	7,47,28,17,51,27,40,34,57,10		34,10,33,44	
		2, 4,35,58,46,44,43,14		9, 7
42″	7,47,30,22,27,26,27,19,40,24		34,10,42,51	
		2, 4,35,58,12,34, 0,23		9, 7
44″	7,47,32,27, 3,24,39,53,40,47		34,10,51,58	
		2, 4,35,57,38,23, 8,25		9, 7
46″	7,47,34,31,39,22,18,16,49,12		34,11, 1, 5	
		2, 4,35,57, 4,12, 7,20		9, 7
48″	7,47,36,36,15,19,22,28,56,32		34,11,10,12	
		2, 4,35,56,30, 0,57, 8		9, 7
50″	7,47,38,40,51,15,52,29,53,40		34,11,19,19	
		2, 4,35,55,55,49,37,49		9, 7
52″	7,47,40,45,27,11,48,19,31,29		34,11,28,26	
		2, 4,35,55,21,38, 9,23		9, 7
54″	7,47,42,50, 3, 7, 9,57,40,52		34,11,37,33	
		2, 4,35,54,47,26,31,50		9, 7
56″	7,47,44,54,39, 1,57,24,12,42		34,11,46,40	
		2, 4,35,54,13,14,45,10		9, 7
58″	7,47,46,59,14,56,10,38,57,52		34,11,55,47	
		2, 4,35,53,39, 2,49,23		
60″	7,47,49, 3,50,49,49,41,47,15			
exact	7,47,49, 3,50,49,49,42,14,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°28′ 0″	7,47,49, 3,50,49,49,42,14,15			
		2, 4,35,53, 4,50,47,29		
2″	7,47,51, 8,26,42,54,33, 1,44		34,12,13,48	
		2, 4,35,52,30,38,33,41		9, 7
4″	7,47,53,13, 2,35,25,11,35,25		34,12,22,55	
		2, 4,35,51,56,26,10,46		9, 7
6″	7,47,55,17,38,27,21,37,46,11		34,12,32, 2	
		2, 4,35,51,22,13,38,44		9, 7
8″	7,47,57,22,14,18,43,51,24,55		34,12,41, 9	
		2, 4,35,50,48, 0,57,35		9, 7
10″	7,47,59,26,50, 9,31,52,22,30		34,12,50,16	
		2, 4,35,50,13,48, 7,19		9, 7
12″	7,48, 1,31,25,59,45,40,29,49		34,12,59,23	
		2, 4,35,49,39,35, 7,56		9, 7
14″	7,48, 3,36, 1,49,25,15,37,45		34,13, 8,30	
		2, 4,35,49, 5,21,59,26		9, 7
16″	7,48, 5,40,37,38,30,37,37,11		34,13,17,37	
		2, 4,35,48,31, 8,41,49		9, 7
18″	7,48, 7,45,13,27, 1,46,19, 0		34,13,26,44	
		2, 4,35,47,56,55,15, 5		9, 7
20″	7,48, 9,49,49,14,58,41,34, 5		34,13,35,51	
		2, 4,35,47,22,41,39,14		9, 7
22″	7,48,11,54,25, 2,21,23,13,19		34,13,44,58	
		2, 4,35,46,48,27,54,16		9, 7
24″	7,48,13,59, 0,49, 9,51, 7,35		34,13,54, 5	
		2, 4,35,46,14,14, 0,11		9, 7
26″	7,48,16, 3,36,35,24, 5, 7,46		34,14, 3,12	
		2, 4,35,45,39,59,56,59		9, 7
28″	7,48,18, 8,12,21, 4, 5, 4,45		34,14,12,19	
		2, 4,35,45, 5,45,44,40		9, 7
30″	7,48,20,12,48, 6, 9,50,49,25		34,14,21,26	
		2, 4,35,44,31,31,23,14		9, 7
32″	7,48,22,17,23,50,41,22,12,39		34,14,30,33	
		2, 4,35,43,57,16,52,41		9, 7
34″	7,48,24,21,59,34,38,39, 5,20		34,14,39,40	
		2, 4,35,43,23, 2,13, 1		9, 7
36″	7,48,26,26,35,18, 1,41,18,21		34,14,48,47	
		2, 4,35,42,48,47,24,14		9, 7
38″	7,48,28,31,11, 0,50,28,42,35		34,14,57,54	
		2, 4,35,42,14,32,26,20		9, 7
40″	7,48,30,35,46,43, 5, 1, 8,55		34,15, 7, 1	
		2, 4,35,41,40,17,19,19		9, 7
42″	7,48,32,40,22,24,45,18,28,14		34,15,16, 8	
		2, 4,35,41, 6, 2, 3,11		9, 7
44″	7,48,34,44,58, 5,51,20,31,25		34,15,25,15	
		2, 4,35,40,31,46,37,56		9, 7
46″	7,48,36,49,33,46,23, 7, 9,21		34,15,34,22	
		2, 4,35,39,57,31, 3,34		9, 7
48″	7,48,38,54, 9,26,20,38,12,55		34,15,43,29	
		2, 4,35,39,23,15,20, 5		9, 7
50″	7,48,40,58,45, 5,43,53,33, 0		34,15,52,36	
		2, 4,35,38,48,59,27,29		9, 7
52″	7,48,43, 3,20,44,32,53, 0,29		34,16, 1,43	
		2, 4,35,38,14,43,25,46		9, 7
54″	7,48,45, 7,56,22,47,36,26,15		34,16,10,50	
		2, 4,35,37,40,27,14,56		9, 7
56″	7,48,47,12,32, 0,28, 3,41,11		34,16,19,57	
		2, 4,35,37, 6,10,54,59		9, 7
58″	7,48,49,17, 7,37,34,14,36,10		34,16,29, 4	
		2, 4,35,36,31,54,25,55		
60″	7,48,51,21,43,14, 6, 9, 2, 5			
exact	7,48,51,21,43,14, 6, 9,32, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°29′ 0″	7,48,51,21,43,14, 6, 9,32, 7			
		2, 4,35,35,57,37,51, 0		
2″	7,48,53,26,18,50, 3,47,23, 7		34,16,47, 4	
		2, 4,35,35,23,21, 3,56		9, 7
4″	7,48,55,30,54,25,27, 8,27, 3		34,16,56,11	
		2, 4,35,34,49, 4, 7,45		9, 7
6″	7,48,57,35,30, 0,16,12,34,48		34,17, 5,18	
		2, 4,35,34,14,47, 2,27		9, 7
8″	7,48,59,40, 5,34,30,59,37,15		34,17,14,25	
		2, 4,35,33,40,29,48, 2		9, 7
10″	7,49, 1,44,41, 8,11,29,25,17		34,17,23,32	
		2, 4,35,33, 6,12,24,30		9, 7
12″	7,49, 3,49,16,41,17,41,49,47		34,17,32,39	
		2, 4,35,32,31,54,51,51		9, 7
14″	7,49, 5,53,52,13,49,36,41,38		34,17,41,46	
		2, 4,35,31,57,37,10, 5		9, 7
16″	7,49, 7,58,27,45,47,13,51,43		34,17,50,53	
		2, 4,35,31,23,19,19,12		9, 7
18″	7,49,10, 3, 3,17,10,33,10,55		34,18, 0, 0	
		2, 4,35,30,49, 1,19,12		9, 7
20″	7,49,12, 7,38,47,59,34,30, 7		34,18, 9, 7	
		2, 4,35,30,14,43,10, 5		9, 7
22″	7,49,14,12,14,18,14,17,40,12		34,18,18,14	
		2, 4,35,29,40,24,51,51		9, 7
24″	7,49,16,16,49,47,54,42,32, 3		34,18,27,21	
		2, 4,35,29, 6, 6,24,30		9, 7
26″	7,49,18,21,25,17, 0,48,56,33		34,18,36,28	
		2, 4,35,28,31,47,48, 2		9, 7
28″	7,49,20,26, 0,45,32,36,44,35		34,18,45,35	
		2, 4,35,27,57,29, 2,27		9, 7
30″	7,49,22,30,36,13,30, 5,47, 2		34,18,54,42	
		2, 4,35,27,23,10, 7,45		9, 7
32″	7,49,24,35,11,40,53,15,54,47		34,19, 3,49	
		2, 4,35,26,48,51, 3,56		9, 7
34″	7,49,26,39,47, 7,42, 6,58,43		34,19,12,56	
		2, 4,35,26,14,31,51, 0		9, 7
36″	7,49,28,44,22,33,56,38,49,43		34,19,22, 3	
		2, 4,35,25,40,12,28,57		9, 7
38″	7,49,30,48,57,59,36,51,18,40		34,19,31,10	
		2, 4,35,25, 5,52,57,47		9, 7
40″	7,49,32,53,33,24,42,44,16,27		34,19,40,17	
		2, 4,35,24,31,33,17,30		9, 7
42″	7,49,34,58, 8,49,14,17,33,57		34,19,49,24	
		2, 4,35,23,57,13,28, 6		9, 7
44″	7,49,37, 2,44,13,11,31, 2, 3		34,19,58,31	
		2, 4,35,23,22,53,29,35		9, 7
46″	7,49,39, 7,19,36,34,24,31,38		34,20, 7,38	
		2, 4,35,22,48,33,21,57		9, 7
48″	7,49,41,11,54,59,22,57,53,35		34,20,16,45	
		2, 4,35,22,14,13, 5,12		9, 7
50″	7,49,43,16,30,21,37,10,58,47		34,20,25,52	
		2, 4,35,21,39,52,39,20		9, 7
52″	7,49,45,21, 5,43,17, 3,38, 7		34,20,34,59	
		2, 4,35,21, 5,32, 4,21		9, 7
54″	7,49,47,25,41, 4,22,35,42,28		34,20,44, 6	
		2, 4,35,20,31,11,20,15		9, 7
56″	7,49,49,30,16,24,53,47, 2,43		34,20,53,13	
		2, 4,35,19,56,50,27, 2		9, 7
58″	7,49,51,34,51,44,50,37,29,45		34,21, 2,20	
		2, 4,35,19,22,29,24,42		
60″	7,49,53,39,27, 4,13, 6,54,27			
exact	7,49,53,39,27, 4,13, 7,25, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°30′ 0″	7,49,53,39,27, 4,13, 7,25, 3			
		2, 4,35,18,48, 8,16,36		
2″	7,49,55,44, 2,23, 1,15,41,39		34,21,20,20	
		2, 4,35,18,13,46,56,16		9, 7
4″	7,49,57,48,37,41,15, 2,37,55		34,21,29,27	
		2, 4,35,17,39,25,26,49		9, 7
6″	7,49,59,53,12,58,54,28, 4,44		34,21,38,34	
		2, 4,35,17, 5, 3,48,15		9, 7
8″	7,50, 1,57,48,15,59,31,52,59		34,21,47,41	
		2, 4,35,16,30,42, 0,34		9, 7
10″	7,50, 4, 2,23,32,30,13,53,33		34,21,56,48	
		2, 4,35,15,56,20, 3,46		9, 7
12″	7,50, 6, 6,58,48,26,33,57,19		34,22, 5,55	
		2, 4,35,15,21,57,57,51		9, 7
14″	7,50, 8,11,34, 3,48,31,55,10		34,22,15, 2	
		2, 4,35,14,47,35,42,49		9, 7
16″	7,50,10,16, 9,18,36, 7,37,59		34,22,24, 9	
		2, 4,35,14,13,13,18,40		9, 7
18″	7,50,12,20,44,32,49,20,56,39		34,22,33,16	
		2, 4,35,13,38,50,45,24		9, 7
20″	7,50,14,25,19,46,28,11,42, 3		34,22,42,23	
		2, 4,35,13, 4,28, 3, 1		9, 7
22″	7,50,16,29,54,59,32,39,45, 4		34,22,51,30	
		2, 4,35,12,30, 5,11,31		9, 7
24″	7,50,18,34,30,12, 2,44,56,35		34,23, 0,37	
		2, 4,35,11,55,42,10,54		9, 7
26″	7,50,20,39, 5,23,58,27, 7,29		34,23, 9,44	
		2, 4,35,11,21,19, 1,10		9, 7
28″	7,50,22,43,40,35,19,46, 8,39		34,23,18,51	
		2, 4,35,10,46,55,42,19		9, 7
30″	7,50,24,48,15,46, 6,41,50,58		34,23,27,58	
		2, 4,35,10,12,32,14,21		9, 7
32″	7,50,26,52,50,56,19,14, 5,19		34,23,37, 5	
		2, 4,35, 9,38, 8,37,16		9, 7
34″	7,50,28,57,26, 5,57,22,42,35		34,23,46,12	
		2, 4,35, 9, 3,44,51, 4		9, 7
36″	7,50,31, 2, 1,15, 1, 7,33,39		34,23,55,19	
		2, 4,35, 8,29,20,55,45		9, 7
38″	7,50,33, 6,36,23,30,28,29,24		34,24, 4,26	
		2, 4,35, 7,54,56,51,19		9, 7
40″	7,50,35,11,11,31,25,25,20,43		34,24,13,33	
		2, 4,35, 7,20,32,37,46		9, 7
42″	7,50,37,15,46,38,45,57,58,29		34,24,22,40	
		2, 4,35, 6,46, 8,15, 6		9, 7
44″	7,50,39,20,21,45,32, 6,13,35		34,24,31,47	
		2, 4,35, 6,11,43,43,19		9, 7
46″	7,50,41,24,56,51,43,49,56,54		34,24,40,54	
		2, 4,35, 5,37,19, 2,25		9, 7
48″	7,50,43,29,31,57,21, 8,59,19		34,24,50, 1	
		2, 4,35, 5, 2,54,12,24		9, 7
50″	7,50,45,34, 7, 2,24, 3,11,43		34,24,59, 8	
		2, 4,35, 4,28,29,13,16		9, 7
52″	7,50,47,38,42, 6,52,32,24,59		34,25, 8,15	
		2, 4,35, 3,54, 4, 5, 1		9, 7
54″	7,50,49,43,17,10,46,36,30, 0		34,25,17,22	
		2, 4,35, 3,19,38,47,39		9, 7
56″	7,50,51,47,52,14, 6,15,17,39		34,25,26,29	
		2, 4,35, 2,45,13,21,10		9, 7
58″	7,50,53,52,27,16,51,28,38,49		34,25,35,36	
		2, 4,35, 2,10,47,45,34		
60″	7,50,55,57, 2,19, 2,16,24,23			
exact	7,50,55,57, 2,19, 2,17, 0,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°31′ 0″	7,50,55,57, 2,19, 2,17, 0,13			
		2, 4,35, 1,36,22, 4,37		
2″	7,50,58, 1,37,20,38,39, 4,50		34,25,53,35	
		2, 4,35, 1, 1,56,11, 2		9, 6
4″	7,51, 0, 6,12,21,40,35,15,52		34,26, 2,41	
		2, 4,35, 0,27,30, 8,21		9, 6
6″	7,51, 2,10,47,22, 8, 5,24,13		34,26,11,47	
		2, 4,34,59,53, 3,56,34		9, 6
8″	7,51, 4,15,22,22, 1, 9,20,47		34,26,20,53	
		2, 4,34,59,18,37,35,41		9, 6
10″	7,51, 6,19,57,21,19,46,56,28		34,26,29,59	
		2, 4,34,58,44,11, 5,42		9, 6
12″	7,51, 8,24,32,20, 3,58, 2,10		34,26,39, 5	
		2, 4,34,58, 9,44,26,37		9, 6
14″	7,51,10,29, 7,18,13,42,28,47		34,26,48,11	
		2, 4,34,57,35,17,38,26		9, 6
16″	7,51,12,33,42,15,49, 0, 7,13		34,26,57,17	
		2, 4,34,57, 0,50,41, 9		9, 6
18″	7,51,14,38,17,12,49,50,48,22		34,27, 6,23	
		2, 4,34,56,26,23,34,46		9, 6
20″	7,51,16,42,52, 9,16,14,23, 8		34,27,15,29	
		2, 4,34,55,51,56,19,17		9, 6
22″	7,51,18,47,27, 5, 8,10,42,25		34,27,24,35	
		2, 4,34,55,17,28,54,42		9, 6
24″	7,51,20,52, 2, 0,25,39,37, 7		34,27,33,41	
		2, 4,34,54,43, 1,21, 1		9, 6
26″	7,51,22,56,36,55, 8,40,58, 8		34,27,42,47	
		2, 4,34,54, 8,33,38,14		9, 6
28″	7,51,25, 1,11,49,17,14,36,22		34,27,51,53	
		2, 4,34,53,34, 5,46,21		9, 6
30″	7,51,27, 5,46,42,51,20,22,43		34,28, 0,59	
		2, 4,34,52,59,37,45,22		9, 6
32″	7,51,29,10,21,35,50,58, 8, 5		34,28,10, 5	
		2, 4,34,52,25, 9,35,17		9, 6
34″	7,51,31,14,56,28,16, 7,43,22		34,28,19,11	
		2, 4,34,51,50,41,16, 6		9, 6
36″	7,51,33,19,31,20, 6,48,59,28		34,28,28,17	
		2, 4,34,51,16,12,47,49		9, 6
38″	7,51,35,24, 6,11,23, 1,47,17		34,28,37,23	
		2, 4,34,50,41,44,10,26		9, 6
40″	7,51,37,28,41, 2, 4,45,57,43		34,28,46,29	
		2, 4,34,50, 7,15,23,57		9, 6
42″	7,51,39,33,15,52,12, 1,21,40		34,28,55,35	
		2, 4,34,49,32,46,28,22		9, 6
44″	7,51,41,37,50,41,44,47,50, 2		34,29, 4,41	
		2, 4,34,48,58,17,23,41		9, 6
46″	7,51,43,42,25,30,43, 5,13,43		34,29,13,47	
		2, 4,34,48,23,48, 9,54		9, 6
48″	7,51,45,47, 0,19, 6,53,23,37		34,29,22,53	
		2, 4,34,47,49,18,47, 1		9, 6
50″	7,51,47,51,35, 6,56,12,10,38		34,29,31,59	
		2, 4,34,47,14,49,15, 2		9, 6
52″	7,51,49,56, 9,54,11, 1,25,40		34,29,41, 5	
		2, 4,34,46,40,19,33,57		9, 6
54″	7,51,52, 0,44,40,51,20,59,37		34,29,50,11	
		2, 4,34,46, 5,49,43,46		9, 6
56″	7,51,54, 5,19,26,57,10,43,23		34,29,59,17	
		2, 4,34,45,31,19,44,29		9, 6
58″	7,51,56, 9,54,12,28,30,27,52		34,30, 8,23	
		2, 4,34,44,56,49,36, 6		
60″	7,51,58,14,28,57,25,20, 3,58			
exact	7,51,58,14,28,57,25,19,34,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°32′ 0″	7,51,58,14,28,57,25,19,34,15			
		2, 4,34,44,22,19,15,20		
2″	7,52, 0,19, 3,41,47,38,49,35		34,30,26,49	
		2, 4,34,43,47,48,48,31		9, 6
4″	7,52, 2,23,38,25,35,27,38, 6		34,30,35,55	
		2, 4,34,43,13,18,12,36		9, 6
6″	7,52, 4,28,13, 8,48,45,50,42		34,30,45, 1	
		2, 4,34,42,38,47,27,35		9, 6
8″	7,52, 6,32,47,51,27,33,18,17		34,30,54, 7	
		2, 4,34,42, 4,16,33,28		9, 6
10″	7,52, 8,37,22,33,31,49,51,45		34,31, 3,13	
		2, 4,34,41,29,45,30,15		9, 6
12″	7,52,10,41,57,15, 1,35,22, 0		34,31,12,19	
		2, 4,34,40,55,14,17,56		9, 6
14″	7,52,12,46,31,55,56,49,39,56		34,31,21,25	
		2, 4,34,40,20,42,56,31		9, 6
16″	7,52,14,51, 6,36,17,32,36,27		34,31,30,31	
		2, 4,34,39,46,11,26, 0		9, 6
18″	7,52,16,55,41,16, 3,44, 2,27		34,31,39,37	
		2, 4,34,39,11,39,46,23		9, 6
20″	7,52,19, 0,15,55,15,23,48,50		34,31,48,43	
		2, 4,34,38,37, 7,57,40		9, 6
22″	7,52,21, 4,50,33,52,31,46,30		34,31,57,49	
		2, 4,34,38, 2,35,59,51		9, 6
24″	7,52,23, 9,25,11,55, 7,46,21		34,32, 6,55	
		2, 4,34,37,28, 3,52,56		9, 6
26″	7,52,25,13,59,49,23,11,39,17		34,32,16, 1	
		2, 4,34,36,53,31,36,55		9, 6
28″	7,52,27,18,34,26,16,43,16,12		34,32,25, 7	
		2, 4,34,36,18,59,11,48		9, 6
30″	7,52,29,23, 9, 2,35,42,28, 0		34,32,34,13	
		2, 4,34,35,44,26,37,35		9, 6
32″	7,52,31,27,43,38,20, 9, 5,35		34,32,43,19	
		2, 4,34,35, 9,53,54,16		9, 6
34″	7,52,33,32,18,13,30, 2,59,51		34,32,52,25	
		2, 4,34,34,35,21, 1,51		9, 6
36″	7,52,35,36,52,48, 5,24, 1,42		34,33, 1,31	
		2, 4,34,34, 0,48, 0,20		9, 6
38″	7,52,37,41,27,22, 6,12, 2, 2		34,33,10,37	
		2, 4,34,33,26,14,49,43		9, 6
40″	7,52,39,46, 1,55,32,26,51,45		34,33,19,43	
		2, 4,34,32,51,41,30, 0		9, 6
42″	7,52,41,50,36,28,24, 8,21,45		34,33,28,49	
		2, 4,34,32,17, 8, 1,11		9, 6
44″	7,52,43,55,11, 0,41,16,22,56		34,33,37,55	
		2, 4,34,31,42,34,23,16		9, 6
46″	7,52,45,59,45,32,23,50,46,12		34,33,47, 1	
		2, 4,34,31, 8, 0,36,15		9, 6
48″	7,52,48, 4,20, 3,31,51,22,27		34,33,56, 7	
		2, 4,34,30,33,26,40, 8		9, 6
50″	7,52,50, 8,54,34, 5,18, 2,35		34,34, 5,13	
		2, 4,34,29,58,52,34,55		9, 6
52″	7,52,52,13,29, 4, 4,10,37,30		34,34,14,19	
		2, 4,34,29,24,18,20,36		9, 6
54″	7,52,54,18, 3,33,28,28,58, 6		34,34,23,25	
		2, 4,34,28,49,43,57,11		9, 6
56″	7,52,56,22,38, 2,18,12,55,17		34,34,32,31	
		2, 4,34,28,15, 9,24,40		9, 6
58″	7,52,58,27,12,30,33,22,19,57		34,34,41,37	
		2, 4,34,27,40,34,43, 3		
60″	7,53, 0,31,46,58,13,57, 3, 0			
exact	7,53, 0,31,46,58,13,56,33,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°33′ 0″	7,53, 0,31,46,58,13,56,33,10			
		2, 4,34,27, 5,59,49, 6		
2″	7,53, 2,36,21,25,19,56,22,16		34,35, 0, 2	
		2, 4,34,26,31,24,49, 4		9, 6
4″	7,53, 4,40,55,51,51,21,11,20		34,35, 9, 8	
		2, 4,34,25,56,49,39,56		9, 6
6″	7,53, 6,45,30,17,48,10,51,16		34,35,18,14	
		2, 4,34,25,22,14,21,42		9, 6
8″	7,53, 8,50, 4,43,10,25,12,58		34,35,27,20	
		2, 4,34,24,47,38,54,22		9, 6
10″	7,53,10,54,39, 7,58, 4, 7,20		34,35,36,26	
		2, 4,34,24,13, 3,17,56		9, 6
12″	7,53,12,59,13,32,11, 7,25,16		34,35,45,32	
		2, 4,34,23,38,27,32,24		9, 6
14″	7,53,15, 3,47,55,49,34,57,40		34,35,54,38	
		2, 4,34,23, 3,51,37,46		9, 6
16″	7,53,17, 8,22,18,53,26,35,26		34,36, 3,44	
		2, 4,34,22,29,15,34, 2		9, 6
18″	7,53,19,12,56,41,22,42, 9,28		34,36,12,50	
		2, 4,34,21,54,39,21,12		9, 6
20″	7,53,21,17,31, 3,17,21,30,40		34,36,21,56	
		2, 4,34,21,20, 2,59,16		9, 6
22″	7,53,23,22, 5,24,37,24,29,56		34,36,31, 2	
		2, 4,34,20,45,26,28,14		9, 6
24″	7,53,25,26,39,45,22,50,58,10		34,36,40, 8	
		2, 4,34,20,10,49,48, 6		9, 6
26″	7,53,27,31,14, 5,33,40,46,16		34,36,49,14	
		2, 4,34,19,36,12,58,52		9, 6
28″	7,53,29,35,48,25, 9,53,45, 8		34,36,58,20	
		2, 4,34,19, 1,36, 0,32		9, 6
30″	7,53,31,40,22,44,11,29,45,40		34,37, 7,26	
		2, 4,34,18,26,58,53, 6		9, 6
32″	7,53,33,44,57, 2,38,28,38,46		34,37,16,32	
		2, 4,34,17,52,21,36,34		9, 6
34″	7,53,35,49,31,20,30,50,15,20		34,37,25,38	
		2, 4,34,17,17,44,10,56		9, 6
36″	7,53,37,54, 5,37,48,34,26,16		34,37,34,44	
		2, 4,34,16,43, 6,36,12		9, 6
38″	7,53,39,58,39,54,31,41, 2,28		34,37,43,50	
		2, 4,34,16, 8,28,52,22		9, 6
40″	7,53,42, 3,14,10,40, 9,54,50		34,37,52,56	
		2, 4,34,15,33,50,59,26		9, 6
42″	7,53,44, 7,48,26,14, 0,54,16		34,38, 2, 2	
		2, 4,34,14,59,12,57,24		9, 6
44″	7,53,46,12,22,41,13,13,51,40		34,38,11, 8	
		2, 4,34,14,24,34,46,16		9, 6
46″	7,53,48,16,56,55,37,48,37,56		34,38,20,14	
		2, 4,34,13,49,56,26, 2		9, 6
48″	7,53,50,21,31, 9,27,45, 3,58		34,38,29,20	
		2, 4,34,13,15,17,56,42		9, 6
50″	7,53,52,26, 5,22,43, 3, 0,40		34,38,38,26	
		2, 4,34,12,40,39,18,16		9, 6
52″	7,53,54,30,39,35,23,42,18,56		34,38,47,32	
		2, 4,34,12, 6, 0,30,44		9, 6
54″	7,53,56,35,13,47,29,42,49,40		34,38,56,38	
		2, 4,34,11,31,21,34, 6		9, 6
56″	7,53,58,39,47,59, 1, 4,23,46		34,39, 5,44	
		2, 4,34,10,56,42,28,22		9, 6
58″	7,54, 0,44,22, 9,57,46,52, 8		34,39,14,50	
		2, 4,34,10,22, 3,13,32		
60″	7,54, 2,48,56,20,19,50, 5,40			
exact	7,54, 2,48,56,20,19,49,32,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°34′ 0″	7,54, 2,48,56,20,19,49,32,30			
		2, 4,34, 9,47,23,46,12		
2″	7,54, 4,53,30,30, 7,13,18,42		34,39,33,15	
		2, 4,34, 9,12,44,12,57		9, 6
4″	7,54, 6,58, 4,39,19,57,31,39		34,39,42,21	
		2, 4,34, 8,38, 4,30,36		9, 6
6″	7,54, 9, 2,38,47,58, 2, 2,15		34,39,51,27	
		2, 4,34, 8, 3,24,39, 9		9, 6
8″	7,54,11, 7,12,56, 1,26,41,24		34,40, 0,33	
		2, 4,34, 7,28,44,38,36		9, 6
10″	7,54,13,11,47, 3,30,11,20, 0		34,40, 9,39	
		2, 4,34, 6,54, 4,28,57		9, 6
12″	7,54,15,16,21,10,24,15,48,57		34,40,18,45	
		2, 4,34, 6,19,24,10,12		9, 6
14″	7,54,17,20,55,16,43,39,59, 9		34,40,27,51	
		2, 4,34, 5,44,43,42,21		9, 6
16″	7,54,19,25,29,22,28,23,41,30		34,40,36,57	
		2, 4,34, 5,10, 3, 5,24		9, 6
18″	7,54,21,30, 3,27,38,26,46,54		34,40,46, 3	
		2, 4,34, 4,35,22,19,21		9, 6
20″	7,54,23,34,37,32,13,49, 6,15		34,40,55, 9	
		2, 4,34, 4, 0,41,24,12		9, 6
22″	7,54,25,39,11,36,14,30,30,27		34,41, 4,15	
		2, 4,34, 3,26, 0,19,57		9, 6
24″	7,54,27,43,45,39,40,30,50,24		34,41,13,21	
		2, 4,34, 2,51,19, 6,36		9, 6
26″	7,54,29,48,19,42,31,49,57, 0		34,41,22,27	
		2, 4,34, 2,16,37,44, 9		9, 6
28″	7,54,31,52,53,44,48,27,41, 9		34,41,31,33	
		2, 4,34, 1,41,56,12,36		9, 6
30″	7,54,33,57,27,46,30,23,53,45		34,41,40,39	
		2, 4,34, 1, 7,14,31,57		9, 6
32″	7,54,36, 2, 1,47,37,38,25,42		34,41,49,45	
		2, 4,34, 0,32,32,42,12		9, 6
34″	7,54,38, 6,35,48,10,11, 7,54		34,41,58,51	
		2, 4,33,59,57,50,43,21		9, 6
36″	7,54,40,11, 9,48, 8, 1,51,15		34,42, 7,57	
		2, 4,33,59,23, 8,35,24		9, 6
38″	7,54,42,15,43,47,31,10,26,39		34,42,17, 3	
		2, 4,33,58,48,26,18,21		9, 6
40″	7,54,44,20,17,46,19,36,45, 0		34,42,26, 9	
		2, 4,33,58,13,43,52,12		9, 6
42″	7,54,46,24,51,44,33,20,37,12		34,42,35,15	
		2, 4,33,57,39, 1,16,57		9, 6
44″	7,54,48,29,25,42,12,21,54, 9		34,42,44,21	
		2, 4,33,57, 4,18,32,36		9, 6
46″	7,54,50,33,59,39,16,40,26,45		34,42,53,27	
		2, 4,33,56,29,35,39, 9		9, 6
48″	7,54,52,38,33,35,46,16, 5,54		34,43, 2,33	
		2, 4,33,55,54,52,36,36		9, 6
50″	7,54,54,43, 7,31,41, 8,42,30		34,43,11,39	
		2, 4,33,55,20, 9,24,57		9, 6
52″	7,54,56,47,41,27, 1,18, 7,27		34,43,20,45	
		2, 4,33,54,45,26, 4,12		9, 6
54″	7,54,58,52,15,21,46,44,11,39		34,43,29,51	
		2, 4,33,54,10,42,34,21		9, 6
56″	7,55, 0,56,49,15,57,26,46, 0		34,43,38,57	
		2, 4,33,53,35,58,55,24		9, 6
58″	7,55, 3, 1,23, 9,33,25,41,24		34,43,48, 3	
		2, 4,33,53, 1,15, 7,21		
60″	7,55, 5, 5,57, 2,34,40,48,45			
exact	7,55, 5, 5,57, 2,34,40,17,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°35′ 0″	7,55, 5, 5,57, 2,34,40,17,13			
		2, 4,33,52,26,31, 6,58		
2″	7,55, 7,10,30,55, 1,11,24,11		34,44, 6,28	
		2, 4,33,51,51,47, 0,30		9, 6
4″	7,55, 9,15, 4,46,52,58,24,41		34,44,15,34	
		2, 4,33,51,17, 2,44,56		9, 6
6″	7,55,11,19,38,38,10, 1, 9,37		34,44,24,40	
		2, 4,33,50,42,18,20,16		9, 6
8″	7,55,13,24,12,28,52,19,29,53		34,44,33,46	
		2, 4,33,50, 7,33,46,30		9, 6
10″	7,55,15,28,46,18,59,53,16,23		34,44,42,52	
		2, 4,33,49,32,49, 3,38		9, 6
12″	7,55,17,33,20, 8,32,42,20, 1		34,44,51,58	
		2, 4,33,48,58, 4,11,40		9, 6
14″	7,55,19,37,53,57,30,46,31,41		34,45, 1, 4	
		2, 4,33,48,23,19,10,36		9, 6
16″	7,55,21,42,27,45,54, 5,42,17		34,45,10,10	
		2, 4,33,47,48,34, 0,26		9, 6
18″	7,55,23,47, 1,33,42,39,42,43		34,45,19,16	
		2, 4,33,47,13,48,41,10		9, 6
20″	7,55,25,51,35,20,56,28,23,53		34,45,28,22	
		2, 4,33,46,39, 3,12,48		9, 6
22″	7,55,27,56, 9, 7,35,31,36,41		34,45,37,28	
		2, 4,33,46, 4,17,35,20		9, 6
24″	7,55,30, 0,42,53,39,49,12, 1		34,45,46,34	
		2, 4,33,45,29,31,48,46		9, 6
26″	7,55,32, 5,16,39, 9,21, 0,47		34,45,55,40	
		2, 4,33,44,54,45,53, 6		9, 6
28″	7,55,34, 9,50,24, 4, 6,53,53		34,46, 4,46	
		2, 4,33,44,19,59,48,20		9, 6
30″	7,55,36,14,24, 8,24, 6,42,13		34,46,13,52	
		2, 4,33,43,45,13,34,28		9, 6
32″	7,55,38,18,57,52, 9,20,16,41		34,46,22,58	
		2, 4,33,43,10,27,11,30		9, 6
34″	7,55,40,23,31,35,19,47,28,11		34,46,32, 4	
		2, 4,33,42,35,40,39,26		9, 6
36″	7,55,42,28, 5,17,55,28, 7,37		34,46,41,10	
		2, 4,33,42, 0,53,58,16		9, 6
38″	7,55,44,32,38,59,56,22, 5,53		34,46,50,16	
		2, 4,33,41,26, 7, 8, 0		9, 6
40″	7,55,46,37,12,41,22,29,13,53		34,46,59,22	
		2, 4,33,40,51,20, 8,38		9, 6
42″	7,55,48,41,46,22,13,49,22,31		34,47, 8,28	
		2, 4,33,40,16,33, 0,10		9, 6
44″	7,55,50,46,20, 2,30,22,22,41		34,47,17,34	
		2, 4,33,39,41,45,42,36		9, 6
46″	7,55,52,50,53,42,12, 8, 5,17		34,47,26,40	
		2, 4,33,39, 6,58,15,56		9, 6
48″	7,55,54,55,27,21,19, 6,21,13		34,47,35,46	
		2, 4,33,38,32,10,40,10		9, 6
50″	7,55,57, 0, 0,59,51,17, 1,23		34,47,44,52	
		2, 4,33,37,57,22,55,18		9, 6
52″	7,55,59, 4,34,37,48,39,56,41		34,47,53,58	
		2, 4,33,37,22,35, 1,20		9, 6
54″	7,56, 1, 9, 8,15,11,14,58, 1		34,48, 3, 4	
		2, 4,33,36,47,46,58,16		9, 6
56″	7,56, 3,13,41,51,59, 1,56,17		34,48,12,10	
		2, 4,33,36,12,58,46, 6		9, 6
58″	7,56, 5,18,15,28,12, 0,42,23		34,48,21,16	
		2, 4,33,35,38,10,24,50		
60″	7,56, 7,22,49, 3,50,11, 7,13			
exact	7,56, 7,22,49, 3,50,10,41,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°36′ 0″	7,56, 7,22,49, 3,50,10,41,48			
		2, 4,33,35, 3,21,51,42		
2″	7,56, 9,27,22,38,53,32,33,30		34,48,39,40	
		2, 4,33,34,28,33,12, 2		9, 6
4″	7,56,11,31,56,13,22, 5,45,32		34,48,48,46	
		2, 4,33,33,53,44,23,16		9, 6
6″	7,56,13,36,29,47,15,50, 8,48		34,48,57,52	
		2, 4,33,33,18,55,25,24		9, 6
8″	7,56,15,41, 3,20,34,45,34,12		34,49, 6,58	
		2, 4,33,32,44, 6,18,26		9, 6
10″	7,56,17,45,36,53,18,51,52,38		34,49,16, 4	
		2, 4,33,32, 9,17, 2,22		9, 6
12″	7,56,19,50,10,25,28, 8,55, 0		34,49,25,10	
		2, 4,33,31,34,27,37,12		9, 6
14″	7,56,21,54,43,57, 2,36,32,12		34,49,34,16	
		2, 4,33,30,59,38, 2,56		9, 6
16″	7,56,23,59,17,28, 2,14,35, 8		34,49,43,22	
		2, 4,33,30,24,48,19,34		9, 6
18″	7,56,26, 3,50,58,27, 2,54,42		34,49,52,28	
		2, 4,33,29,49,58,27, 6		9, 6
20″	7,56,28, 8,24,28,17, 1,21,48		34,50, 1,34	
		2, 4,33,29,15, 8,25,32		9, 6
22″	7,56,30,12,57,57,32, 9,47,20		34,50,10,40	
		2, 4,33,28,40,18,14,52		9, 6
24″	7,56,32,17,31,26,12,28, 2,12		34,50,19,46	
		2, 4,33,28, 5,27,55, 6		9, 6
26″	7,56,34,22, 4,54,17,55,57,18		34,50,28,52	
		2, 4,33,27,30,37,26,14		9, 6
28″	7,56,36,26,38,21,48,33,23,32		34,50,37,58	
		2, 4,33,26,55,46,48,16		9, 6
30″	7,56,38,31,11,48,44,20,11,48		34,50,47, 4	
		2, 4,33,26,20,56, 1,12		9, 6
32″	7,56,40,35,45,15, 5,16,13, 0		34,50,56,10	
		2, 4,33,25,46, 5, 5, 2		9, 6
34″	7,56,42,40,18,40,51,21,18, 2		34,51, 5,16	
		2, 4,33,25,11,13,59,46		9, 6
36″	7,56,44,44,52, 6, 2,35,17,48		34,51,14,22	
		2, 4,33,24,36,22,45,24		9, 6
38″	7,56,46,49,25,30,38,58, 3,12		34,51,23,28	
		2, 4,33,24, 1,31,21,56		9, 6
40″	7,56,48,53,58,54,40,29,25, 8		34,51,32,34	
		2, 4,33,23,26,39,49,22		9, 6
42″	7,56,50,58,32,18, 7, 9,14,30		34,51,41,40	
		2, 4,33,22,51,48, 7,42		9, 6
44″	7,56,53, 3, 5,40,58,57,22,12		34,51,50,46	
		2, 4,33,22,16,56,16,56		9, 6
46″	7,56,55, 7,39, 3,15,53,39, 8		34,51,59,52	
		2, 4,33,21,42, 4,17, 4		9, 6
48″	7,56,57,12,12,24,57,57,56,12		34,52, 8,58	
		2, 4,33,21, 7,12, 8, 6		9, 6
50″	7,56,59,16,45,46, 5,10, 4,18		34,52,18, 4	
		2, 4,33,20,32,19,50, 2		9, 6
52″	7,57, 1,21,19, 6,37,29,54,20		34,52,27,10	
		2, 4,33,19,57,27,22,52		9, 6
54″	7,57, 3,25,52,26,34,57,17,12		34,52,36,16	
		2, 4,33,19,22,34,46,36		9, 6
56″	7,57, 5,30,25,45,57,32, 3,48		34,52,45,22	
		2, 4,33,18,47,42, 1,14		9, 6
58″	7,57, 7,34,59, 4,45,14, 5, 2		34,52,54,28	
		2, 4,33,18,12,49, 6,46		
60″	7,57, 9,39,32,22,58, 3,11,48			
exact	7,57, 9,39,32,22,58, 2,50,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°37′ 0″	7,57, 9,39,32,22,58, 2,50,16			
		2, 4,33,17,37,56, 0,45		
2″	7,57,11,44, 5,40,35,58,51, 1		34,53,12,51	
		2, 4,33,17, 3, 2,47,54		9, 6
4″	7,57,13,48,38,57,39, 1,38,55		34,53,21,57	
		2, 4,33,16,28, 9,25,57		9, 6
6″	7,57,15,53,12,14, 7,11, 4,52		34,53,31, 3	
		2, 4,33,15,53,15,54,54		9, 6
8″	7,57,17,57,45,30, 0,26,59,46		34,53,40, 9	
		2, 4,33,15,18,22,14,45		9, 6
10″	7,57,20, 2,18,45,18,49,14,31		34,53,49,15	
		2, 4,33,14,43,28,25,30		9, 6
12″	7,57,22, 6,52, 0, 2,17,40, 1		34,53,58,21	
		2, 4,33,14, 8,34,27, 9		9, 6
14″	7,57,24,11,25,14,10,52, 7,10		34,54, 7,27	
		2, 4,33,13,33,40,19,42		9, 6
16″	7,57,26,15,58,27,44,32,26,52		34,54,16,33	
		2, 4,33,12,58,46, 3, 9		9, 6
18″	7,57,28,20,31,40,43,18,30, 1		34,54,25,39	
		2, 4,33,12,23,51,37,30		9, 6
20″	7,57,30,25, 4,53, 7,10, 7,31		34,54,34,45	
		2, 4,33,11,48,57, 2,45		9, 6
22″	7,57,32,29,38, 4,56, 7,10,16		34,54,43,51	
		2, 4,33,11,14, 2,18,54		9, 6
24″	7,57,34,34,11,16,10, 9,29,10		34,54,52,57	
		2, 4,33,10,39, 7,25,57		9, 6
26″	7,57,36,38,44,26,49,16,55, 7		34,55, 2, 3	
		2, 4,33,10, 4,12,23,54		9, 6
28″	7,57,38,43,17,36,53,29,19, 1		34,55,11, 9	
		2, 4,33, 9,29,17,12,45		9, 6
30″	7,57,40,47,50,46,22,46,31,46		34,55,20,15	
		2, 4,33, 8,54,21,52,30		9, 6
32″	7,57,42,52,23,55,17, 8,24,16		34,55,29,21	
		2, 4,33, 8,19,26,23, 9		9, 6
34″	7,57,44,56,57, 3,36,34,47,25		34,55,38,27	
		2, 4,33, 7,44,30,44,42		9, 6
36″	7,57,47, 1,30,11,21, 5,32, 7		34,55,47,33	
		2, 4,33, 7, 9,34,57, 9		9, 6
38″	7,57,49, 6, 3,18,30,40,29,16		34,55,56,39	
		2, 4,33, 6,34,39, 0,30		9, 6
40″	7,57,51,10,36,25, 5,19,29,46		34,56, 5,45	
		2, 4,33, 5,59,42,54,45		9, 6
42″	7,57,53,15, 9,31, 5, 2,24,31		34,56,14,51	
		2, 4,33, 5,24,46,39,54		9, 6
44″	7,57,55,19,42,36,29,49, 4,25		34,56,23,57	
		2, 4,33, 4,49,50,15,57		9, 6
46″	7,57,57,24,15,41,19,39,20,22		34,56,33, 3	
		2, 4,33, 4,14,53,42,54		9, 6
48″	7,57,59,28,48,45,34,33, 3,16		34,56,42, 9	
		2, 4,33, 3,39,57, 0,45		9, 6
50″	7,58, 1,33,21,49,14,30, 4, 1		34,56,51,15	
		2, 4,33, 3, 5, 0, 9,30		9, 6
52″	7,58, 3,37,54,52,19,30,13,31		34,57, 0,21	
		2, 4,33, 2,30, 3, 9, 9		9, 6
54″	7,58, 5,42,27,54,49,33,22,40		34,57, 9,27	
		2, 4,33, 1,55, 5,59,42		9, 6
56″	7,58, 7,47, 0,56,44,39,22,22		34,57,18,33	
		2, 4,33, 1,20, 8,41, 9		9, 6
58″	7,58, 9,51,33,58, 4,48, 3,31		34,57,27,39	
		2, 4,33, 0,45,11,13,30		
60″	7,58,11,56, 6,58,49,59,17, 1			
exact	7,58,11,56, 6,58,49,58,56,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°38′ 0″	7,58,11,56, 6,58,49,58,56,10			
		2, 4,33, 0,10,13,34,25		
2″	7,58,14, 0,39,59, 0,12,30,35		34,57,46, 1	
		2, 4,32,59,35,15,48,24		9, 6
4″	7,58,16, 5,12,58,35,28,18,59		34,57,55, 7	
		2, 4,32,59, 0,17,53,17		9, 6
6″	7,58,18, 9,45,57,35,46,12,16		34,58, 4,13	
		2, 4,32,58,25,19,49, 4		9, 6
8″	7,58,20,14,18,56, 1, 6, 1,20		34,58,13,19	
		2, 4,32,57,50,21,35,45		9, 6
10″	7,58,22,18,51,53,51,27,37, 5		34,58,22,25	
		2, 4,32,57,15,23,13,20		9, 6
12″	7,58,24,23,24,51, 6,50,50,25		34,58,31,31	
		2, 4,32,56,40,24,41,49		9, 6
14″	7,58,26,27,57,47,47,15,32,14		34,58,40,37	
		2, 4,32,56, 5,26, 1,12		9, 6
16″	7,58,28,32,30,43,52,41,33,26		34,58,49,43	
		2, 4,32,55,30,27,11,29		9, 6
18″	7,58,30,37, 3,39,23, 8,44,55		34,58,58,49	
		2, 4,32,54,55,28,12,40		9, 6
20″	7,58,32,41,36,34,18,36,57,35		34,59, 7,55	
		2, 4,32,54,20,29, 4,45		9, 6
22″	7,58,34,46, 9,28,39, 6, 2,20		34,59,17, 1	
		2, 4,32,53,45,29,47,44		9, 6
24″	7,58,36,50,42,22,24,35,50, 4		34,59,26, 7	
		2, 4,32,53,10,30,21,37		9, 6
26″	7,58,38,55,15,15,35, 6,11,41		34,59,35,13	
		2, 4,32,52,35,30,46,24		9, 6
28″	7,58,40,59,48, 8,10,36,58, 5		34,59,44,19	
		2, 4,32,52, 0,31, 2, 5		9, 6
30″	7,58,43, 4,21, 0,11, 8, 0,10		34,59,53,25	
		2, 4,32,51,25,31, 8,40		9, 6
32″	7,58,45, 8,53,51,36,39, 8,50		35, 0, 2,31	
		2, 4,32,50,50,31, 6, 9		9, 6
34″	7,58,47,13,26,42,27,10,14,59		35, 0,11,37	
		2, 4,32,50,15,30,54,32		9, 6
36″	7,58,49,17,59,32,42,41, 9,31		35, 0,20,43	
		2, 4,32,49,40,30,33,49		9, 6
38″	7,58,51,22,32,22,23,11,43,20		35, 0,29,49	
		2, 4,32,49, 5,30, 4, 0		9, 6
40″	7,58,53,27, 5,11,28,41,47,20		35, 0,38,55	
		2, 4,32,48,30,29,25, 5		9, 6
42″	7,58,55,31,37,59,59,11,12,25		35, 0,48, 1	
		2, 4,32,47,55,28,37, 4		9, 6
44″	7,58,57,36,10,47,54,39,49,29		35, 0,57, 7	
		2, 4,32,47,20,27,39,57		9, 6
46″	7,58,59,40,43,35,15, 7,29,26		35, 1, 6,13	
		2, 4,32,46,45,26,33,44		9, 6
48″	7,59, 1,45,16,22, 0,34, 3,10		35, 1,15,19	
		2, 4,32,46,10,25,18,25		9, 6
50″	7,59, 3,49,49, 8,10,59,21,35		35, 1,24,25	
		2, 4,32,45,35,23,54, 0		9, 6
52″	7,59, 5,54,21,53,46,23,15,35		35, 1,33,31	
		2, 4,32,45, 0,22,20,29		9, 6
54″	7,59, 7,58,54,38,46,45,36, 4		35, 1,42,37	
		2, 4,32,44,25,20,37,52		9, 6
56″	7,59,10, 3,27,23,12, 6,13,56		35, 1,51,43	
		2, 4,32,43,50,18,46, 9		9, 6
58″	7,59,12, 8, 0, 7, 2,25, 0, 5		35, 2, 0,49	
		2, 4,32,43,15,16,45,20		
60″	7,59,14,12,32,50,17,41,45,25			
exact	7,59,14,12,32,50,17,41,22,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°39′ 0″	7,59,14,12,32,50,17,41,22,36			
		2, 4,32,42,40,14,33, 0		
2″	7,59,16,17, 5,32,57,55,55,36		35, 2,19,11	
		2, 4,32,42, 5,12,13,49		9, 6
4″	7,59,18,21,38,15, 3, 8, 9,25		35, 2,28,17	
		2, 4,32,41,30, 9,45,32		9, 6
6″	7,59,20,26,10,56,33,17,54,57		35, 2,37,23	
		2, 4,32,40,55, 7, 8, 9		9, 6
8″	7,59,22,30,43,37,28,25, 3, 6		35, 2,46,29	
		2, 4,32,40,20, 4,21,40		9, 6
10″	7,59,24,35,16,17,48,29,24,46		35, 2,55,35	
		2, 4,32,39,45, 1,26, 5		9, 6
12″	7,59,26,39,48,57,33,30,50,51		35, 3, 4,41	
		2, 4,32,39, 9,58,21,24		9, 6
14″	7,59,28,44,21,36,43,29,12,15		35, 3,13,47	
		2, 4,32,38,34,55, 7,37		9, 6
16″	7,59,30,48,54,15,18,24,19,52		35, 3,22,53	
		2, 4,32,37,59,51,44,44		9, 6
18″	7,59,32,53,26,53,18,16, 4,36		35, 3,31,59	
		2, 4,32,37,24,48,12,45		9, 6
20″	7,59,34,57,59,30,43, 4,17,21		35, 3,41, 5	
		2, 4,32,36,49,44,31,40		9, 6
22″	7,59,37, 2,32, 7,32,48,49, 1		35, 3,50,11	
		2, 4,32,36,14,40,41,29		9, 6
24″	7,59,39, 7, 4,43,47,29,30,30		35, 3,59,17	
		2, 4,32,35,39,36,42,12		9, 6
26″	7,59,41,11,37,19,27, 6,12,42		35, 4, 8,23	
		2, 4,32,35, 4,32,33,49		9, 6
28″	7,59,43,16, 9,54,31,38,46,31		35, 4,17,29	
		2, 4,32,34,29,28,16,20		9, 6
30″	7,59,45,20,42,29, 1, 7, 2,51		35, 4,26,35	
		2, 4,32,33,54,23,49,45		9, 6
32″	7,59,47,25,15, 2,55,30,52,36		35, 4,35,41	
		2, 4,32,33,19,19,14, 4		9, 6
34″	7,59,49,29,47,36,14,50, 6,40		35, 4,44,47	
		2, 4,32,32,44,14,29,17		9, 6
36″	7,59,51,34,20, 8,59, 4,35,57		35, 4,53,53	
		2, 4,32,32, 9, 9,35,24		9, 6
38″	7,59,53,38,52,41, 8,14,11,21		35, 5, 2,59	
		2, 4,32,31,34, 4,32,25		9, 6
40″	7,59,55,43,25,12,42,18,43,46		35, 5,12, 5	
		2, 4,32,30,58,59,20,20		9, 6
42″	7,59,57,47,57,43,41,18, 4, 6		35, 5,21,11	
		2, 4,32,30,23,53,59, 9		9, 6
44″	7,59,59,52,30,14, 5,12, 3,15		35, 5,30,17	
		2, 4,32,29,48,48,28,52		9, 6
46″	8, 0, 1,57, 2,43,54, 0,32, 7		35, 5,39,23	
		2, 4,32,29,13,42,49,29		9, 6
48″	8, 0, 4, 1,35,13, 7,43,21,36		35, 5,48,29	
		2, 4,32,28,38,37, 1, 0		9, 6
50″	8, 0, 6, 6, 7,41,46,20,22,36		35, 5,57,35	
		2, 4,32,28, 3,31, 3,25		9, 6
52″	8, 0, 8,10,40, 9,49,51,26, 1		35, 6, 6,41	
		2, 4,32,27,28,24,56,44		9, 6
54″	8, 0,10,15,12,37,18,16,22,45		35, 6,15,47	
		2, 4,32,26,53,18,40,57		9, 6
56″	8, 0,12,19,45, 4,11,35, 3,42		35, 6,24,53	
		2, 4,32,26,18,12,16, 4		9, 6
58″	8, 0,14,24,17,30,29,47,19,46		35, 6,33,59	
		2, 4,32,25,43, 5,42, 5		
60″	8, 0,16,28,49,56,12,53, 1,51			
exact	8, 0,16,28,49,56,12,52,42,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°40′ 0″	8, 0,16,28,49,56,12,52,42,16	2, 4,32,25, 7,58,56,51		
2″	8, 0,18,33,22,21,20,51,39, 7	2, 4,32,24,32,52, 4,31	35, 6,52,20	9, 6
4″	8, 0,20,37,54,45,53,43,43,38	2, 4,32,23,57,45, 3, 5	35, 7, 1,26	9, 6
6″	8, 0,22,42,27, 9,51,28,46,43	2, 4,32,23,22,37,52,33	35, 7,10,32	9, 6
8″	8, 0,24,46,59,33,14, 6,39,16	2, 4,32,22,47,30,32,55	35, 7,19,38	9, 6
10″	8, 0,26,51,31,56, 1,37,12,11	2, 4,32,22,12,23, 4,11	35, 7,28,44	9, 6
12″	8, 0,28,56, 4,18,14, 0,16,22	2, 4,32,21,37,15,26,21	35, 7,37,50	9, 6
14″	8, 0,31, 0,36,39,51,15,42,43	2, 4,32,21, 2, 7,39,25	35, 7,46,56	9, 6
16″	8, 0,33, 5, 9, 0,53,23,22, 8	2, 4,32,20,26,59,43,23	35, 7,56, 2	9, 6
18″	8, 0,35, 9,41,21,20,23, 5,31	2, 4,32,19,51,51,38,15	35, 8, 5, 8	9, 6
20″	8, 0,37,14,13,41,12,14,43,46	2, 4,32,19,16,43,24, 1	35, 8,14,14	9, 6
22″	8, 0,39,18,46, 0,28,58, 7,47	2, 4,32,18,41,35, 0,41	35, 8,23,20	9, 6
24″	8, 0,41,23,18,19,10,33, 8,28	2, 4,32,18, 6,26,28,15	35, 8,32,26	9, 6
26″	8, 0,43,27,50,37,16,59,36,43	2, 4,32,17,31,17,46,43	35, 8,41,32	9, 6
28″	8, 0,45,32,22,54,48,17,23,26	2, 4,32,16,56, 8,56, 5	35, 8,50,38	9, 6
30″	8, 0,47,36,55,11,44,26,19,31	2, 4,32,16,20,59,56,21	35, 8,59,44	9, 6
32″	8, 0,49,41,27,28, 5,26,15,52	2, 4,32,15,45,50,47,31	35, 9, 8,50	9, 6
34″	8, 0,51,45,59,43,51,17, 3,23	2, 4,32,15,10,41,29,35	35, 9,17,56	9, 6
36″	8, 0,53,50,31,59, 1,58,32,58	2, 4,32,14,35,32, 2,33	35, 9,27, 2	9, 6
38″	8, 0,55,55, 4,13,37,30,35,31	2, 4,32,14, 0,22,26,25	35, 9,36, 8	9, 6
40″	8, 0,57,59,36,27,37,53, 1,56	2, 4,32,13,25,12,41,11	35, 9,45,14	9, 6
42″	8, 1, 0, 4, 8,41, 3, 5,43, 7	2, 4,32,12,50, 2,46,51	35, 9,54,20	9, 6
44″	8, 1, 2, 8,40,53,53, 8,29,58	2, 4,32,12,14,52,43,25	35,10, 3,26	9, 6
46″	8, 1, 4,13,13, 6, 8, 1,13,23	2, 4,32,11,39,42,30,53	35,10,12,32	9, 6
48″	8, 1, 6,17,45,17,47,43,44,16	2, 4,32,11, 4,32, 9,15	35,10,21,38	9, 6
50″	8, 1, 8,22,17,28,52,15,53,31	2, 4,32,10,29,21,38,31	35,10,30,44	9, 6
52″	8, 1,10,26,49,39,21,37,32, 2	2, 4,32, 9,54,10,58,41	35,10,39,50	9, 6
54″	8, 1,12,31,21,49,15,48,30,43	2, 4,32, 9,19, 0, 9,45	35,10,48,56	9, 6
56″	8, 1,14,35,53,58,34,48,40,28	2, 4,32, 8,43,49,11,43	35,10,58, 2	9, 6
58″	8, 1,16,40,26, 7,18,37,52,11	2, 4,32, 8, 8,38, 4,35	35,11, 7, 8	
60″	8, 1,18,44,58,15,27,15,56,46			
exact	8, 1,18,44,58,15,27,15,37,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°41′ 0″	8, 1,18,44,58,15,27,15,37,29			
		2, 4,32, 7,33,26,46,17		
2″	8, 1,20,49,30,23, 0,42,23,46		35,11,25,28	
		2, 4,32, 6,58,15,20,49		9, 6
4″	8, 1,22,54, 2,29,58,57,44,35		35,11,34,34	
		2, 4,32, 6,23, 3,46,15		9, 6
6″	8, 1,24,58,34,36,22, 1,30,50		35,11,43,40	
		2, 4,32, 5,47,52, 2,35		9, 6
8″	8, 1,27, 3, 6,42, 9,53,33,25		35,11,52,46	
		2, 4,32, 5,12,40, 9,49		9, 6
10″	8, 1,29, 7,38,47,22,33,43,14		35,12, 1,52	
		2, 4,32, 4,37,28, 7,57		9, 6
12″	8, 1,31,12,10,52, 0, 1,51,11		35,12,10,58	
		2, 4,32, 4, 2,15,56,59		9, 6
14″	8, 1,33,16,42,56, 2,17,48,10		35,12,20, 4	
		2, 4,32, 3,27, 3,36,55		9, 6
16″	8, 1,35,21,14,59,29,21,25, 5		35,12,29,10	
		2, 4,32, 2,51,51, 7,45		9, 6
18″	8, 1,37,25,47, 2,21,12,32,50		35,12,38,16	
		2, 4,32, 2,16,38,29,29		9, 6
20″	8, 1,39,30,19, 4,37,51, 2,19		35,12,47,22	
		2, 4,32, 1,41,25,42, 7		9, 6
22″	8, 1,41,34,51, 6,19,16,44,26		35,12,56,28	
		2, 4,32, 1, 6,12,45,39		9, 6
24″	8, 1,43,39,23, 7,25,29,30, 5		35,13, 5,34	
		2, 4,32, 0,30,59,40, 5		9, 6
26″	8, 1,45,43,55, 7,56,29,10,10		35,13,14,40	
		2, 4,31,59,55,46,25,25		9, 6
28″	8, 1,47,48,27, 7,52,15,35,35		35,13,23,46	
		2, 4,31,59,20,33, 1,39		9, 6
30″	8, 1,49,52,59, 7,12,48,37,14		35,13,32,52	
		2, 4,31,58,45,19,28,47		9, 6
32″	8, 1,51,57,31, 5,58, 8, 6, 1		35,13,41,58	
		2, 4,31,58,10, 5,46,49		9, 6
34″	8, 1,54, 2, 3, 4, 8,13,52,50		35,13,51, 4	
		2, 4,31,57,34,51,55,45		9, 6
36″	8, 1,56, 6,35, 1,43, 5,48,35		35,14, 0,10	
		2, 4,31,56,59,37,55,35		9, 6
38″	8, 1,58,11, 6,58,42,43,44,10		35,14, 9,16	
		2, 4,31,56,24,23,46,19		9, 6
40″	8, 2, 0,15,38,55, 7, 7,30,29		35,14,18,22	
		2, 4,31,55,49, 9,27,57		9, 6
42″	8, 2, 2,20,10,50,56,16,58,26		35,14,27,28	
		2, 4,31,55,13,55, 0,29		9, 6
44″	8, 2, 4,24,42,46,10,11,58,55		35,14,36,34	
		2, 4,31,54,38,40,23,55		9, 6
46″	8, 2, 6,29,14,40,48,52,22,50		35,14,45,40	
		2, 4,31,54, 3,25,38,15		9, 6
48″	8, 2, 8,33,46,34,52,18, 1, 5		35,14,54,46	
		2, 4,31,53,28,10,43,29		9, 6
50″	8, 2,10,38,18,28,20,28,44,34		35,15, 3,52	
		2, 4,31,52,52,55,39,37		9, 6
52″	8, 2,12,42,50,21,13,24,24,11		35,15,12,58	
		2, 4,31,52,17,40,26,39		9, 6
54″	8, 2,14,47,22,13,31, 4,50,50		35,15,22, 4	
		2, 4,31,51,42,25, 4,35		9, 6
56″	8, 2,16,51,54, 5,13,29,55,25		35,15,31,10	
		2, 4,31,51, 7, 9,33,25		9, 6
58″	8, 2,18,56,25,56,20,39,28,50		35,15,40,16	
		2, 4,31,50,31,53,53, 9		
60″	8, 2,21, 0,57,46,52,33,21,59			
exact	8, 2,21, 0,57,46,52,33, 0,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°42′ 0″	8, 2,21, 0,57,46,52,33, 0,11			
		2, 4,31,49,56,38, 1,36		
2″	8, 2,23, 5,29,36,49,11, 1,47		35,15,58,36	
		2, 4,31,49,21,22, 3, 0		9, 6
4″	8, 2,25,10, 1,26,10,33, 4,47		35,16, 7,42	
		2, 4,31,48,46, 5,55,18		9, 6
6″	8, 2,27,14,33,14,56,39, 0, 5		35,16,16,48	
		2, 4,31,48,10,49,38,30		9, 6
8″	8, 2,29,19, 5, 3, 7,28,38,35		35,16,25,54	
		2, 4,31,47,35,33,12,36		9, 6
10″	8, 2,31,23,36,50,43, 1,51,11		35,16,35, 0	
		2, 4,31,47, 0,16,37,36		9, 6
12″	8, 2,33,28, 8,37,43,18,28,47		35,16,44, 6	
		2, 4,31,46,24,59,53,30		9, 6
14″	8, 2,35,32,40,24, 8,18,22,17		35,16,53,12	
		2, 4,31,45,49,43, 0,18		9, 6
16″	8, 2,37,37,12, 9,58, 1,22,35		35,17, 2,18	
		2, 4,31,45,14,25,58, 0		9, 6
18″	8, 2,39,41,43,55,12,27,20,35		35,17,11,24	
		2, 4,31,44,39, 8,46,36		9, 6
20″	8, 2,41,46,15,39,51,36, 7,11		35,17,20,30	
		2, 4,31,44, 3,51,26, 6		9, 6
22″	8, 2,43,50,47,23,55,27,33,17		35,17,29,36	
		2, 4,31,43,28,33,56,30		9, 6
24″	8, 2,45,55,19, 7,24, 1,29,47		35,17,38,42	
		2, 4,31,42,53,16,17,48		9, 6
26″	8, 2,47,59,50,50,17,17,47,35		35,17,47,48	
		2, 4,31,42,17,58,30, 0		9, 6
28″	8, 2,50, 4,22,32,35,16,17,35		35,17,56,54	
		2, 4,31,41,42,40,33, 6		9, 6
30″	8, 2,52, 8,54,14,17,56,50,41		35,18, 6, 0	
		2, 4,31,41, 7,22,27, 6		9, 6
32″	8, 2,54,13,25,55,25,19,17,47		35,18,15, 6	
		2, 4,31,40,32, 4,12, 0		9, 6
34″	8, 2,56,17,57,35,57,23,29,47		35,18,24,12	
		2, 4,31,39,56,45,47,48		9, 6
36″	8, 2,58,22,29,15,54, 9,17,35		35,18,33,18	
		2, 4,31,39,21,27,14,30		9, 6
38″	8, 3, 0,27, 0,55,15,36,32, 5		35,18,42,24	
		2, 4,31,38,46, 8,32, 6		9, 6
40″	8, 3, 2,31,32,34, 1,45, 4,11		35,18,51,30	
		2, 4,31,38,10,49,40,36		9, 6
42″	8, 3, 4,36, 4,12,12,34,44,47		35,19, 0,36	
		2, 4,31,37,35,30,40, 0		9, 6
44″	8, 3, 6,40,35,49,48, 5,24,47		35,19, 9,42	
		2, 4,31,37, 0,11,30,18		9, 6
46″	8, 3, 8,45, 7,26,48,16,55, 5		35,19,18,48	
		2, 4,31,36,24,52,11,30		9, 6
48″	8, 3,10,49,39, 3,13, 9, 6,35		35,19,27,54	
		2, 4,31,35,49,32,43,36		9, 6
50″	8, 3,12,54,10,39, 2,41,50,11		35,19,37, 0	
		2, 4,31,35,14,13, 6,36		9, 6
52″	8, 3,14,58,42,14,16,54,56,47		35,19,46, 6	
		2, 4,31,34,38,53,20,30		9, 6
54″	8, 3,17, 3,13,48,55,48,17,17		35,19,55,12	
		2, 4,31,34, 3,33,25,18		9, 6
56″	8, 3,19, 7,45,22,59,21,42,35		35,20, 4,18	
		2, 4,31,33,28,13,21, 0		9, 6
58″	8, 3,21,12,16,56,27,35, 3,35		35,20,13,24	
		2, 4,31,32,52,53, 7,36		
60″	8, 3,23,16,48,29,20,28,11,11			
exact	8, 3,23,16,48,29,20,27,51,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°43′ 0″	8, 3,23,16,48,29,20,27,51,56			
		2, 4,31,32,17,32,43, 9		
2″	8, 3,25,21,20, 1,38, 0,35, 5		35,20,31,44	
		2, 4,31,31,42,12,11,25		9, 6
4″	8, 3,27,25,51,33,20,12,46,30		35,20,40,50	
		2, 4,31,31, 6,51,30,35		9, 6
6″	8, 3,29,30,23, 4,27, 4,17, 5		35,20,49,56	
		2, 4,31,30,31,30,40,39		9, 6
8″	8, 3,31,34,54,34,58,34,57,44		35,20,59, 2	
		2, 4,31,29,56, 9,41,37		9, 6
10″	8, 3,33,39,26, 4,54,44,39,21		35,21, 8, 8	
		2, 4,31,29,20,48,33,29		9, 6
12″	8, 3,35,43,57,34,15,33,12,50		35,21,17,14	
		2, 4,31,28,45,27,16,15		9, 6
14″	8, 3,37,48,29, 3, 1, 0,29, 5		35,21,26,20	
		2, 4,31,28,10, 5,49,55		9, 6
16″	8, 3,39,53, 0,31,11, 6,19, 0		35,21,35,26	
		2, 4,31,27,34,44,14,29		9, 6
18″	8, 3,41,57,31,58,45,50,33,29		35,21,44,32	
		2, 4,31,26,59,22,29,57		9, 6
20″	8, 3,44, 2, 3,25,45,13, 3,26		35,21,53,38	
		2, 4,31,26,24, 0,36,19		9, 6
22″	8, 3,46, 6,34,52, 9,13,39,45		35,22, 2,44	
		2, 4,31,25,48,38,33,35		9, 6
24″	8, 3,48,11, 6,17,57,52,13,20		35,22,11,50	
		2, 4,31,25,13,16,21,45		9, 6
26″	8, 3,50,15,37,43,11, 8,35, 5		35,22,20,56	
		2, 4,31,24,37,54, 0,49		9, 6
28″	8, 3,52,20, 9, 7,49, 2,35,54		35,22,30, 2	
		2, 4,31,24, 2,31,30,47		9, 6
30″	8, 3,54,24,40,31,51,34, 6,41		35,22,39, 8	
		2, 4,31,23,27, 8,51,39		9, 6
32″	8, 3,56,29,11,55,18,42,58,20		35,22,48,14	
		2, 4,31,22,51,46, 3,25		9, 6
34″	8, 3,58,33,43,18,10,29, 1,45		35,22,57,20	
		2, 4,31,22,16,23, 6, 5		9, 6
36″	8, 4, 0,38,14,40,26,52, 7,50		35,23, 6,26	
		2, 4,31,21,40,59,59,39		9, 6
38″	8, 4, 2,42,46, 2, 7,52, 7,29		35,23,15,32	
		2, 4,31,21, 5,36,44, 7		9, 6
40″	8, 4, 4,47,17,23,13,28,51,36		35,23,24,38	
		2, 4,31,20,30,13,19,29		9, 6
42″	8, 4, 6,51,48,43,43,42,11, 5		35,23,33,44	
		2, 4,31,19,54,49,45,45		9, 6
44″	8, 4, 8,56,20, 3,38,31,56,50		35,23,42,50	
		2, 4,31,19,19,26, 2,55		9, 6
46″	8, 4,11, 0,51,22,57,57,59,45		35,23,51,56	
		2, 4,31,18,44, 2,10,59		9, 6
48″	8, 4,13, 5,22,41,42, 0,10,44		35,24, 1, 2	
		2, 4,31,18, 8,38, 9,57		9, 6
50″	8, 4,15, 9,53,59,50,38,20,41		35,24,10, 8	
		2, 4,31,17,33,13,59,49		9, 6
52″	8, 4,17,14,25,17,23,52,20,30		35,24,19,14	
		2, 4,31,16,57,49,40,35		9, 6
54″	8, 4,19,18,56,34,21,42, 1, 5		35,24,28,20	
		2, 4,31,16,22,25,12,15		9, 6
56″	8, 4,21,23,27,50,44, 7,13,20		35,24,37,26	
		2, 4,31,15,47, 0,34,49		9, 6
58″	8, 4,23,27,59, 6,31, 7,48, 9		35,24,46,32	
		2, 4,31,15,11,35,48,17		
60″	8, 4,25,32,30,21,42,43,36,26			
exact	8, 4,25,32,30,21,42,43,23,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°44′ 0″	8, 4,25,32,30,21,42,43,23,59			
		2, 4,31,14,36,10,51,14		
2″	8, 4,27,37, 1,36,18,54,15,13		35,25, 4,50	
		2, 4,31,14, 0,45,46,24		9, 6
4″	8, 4,29,41,32,50,19,40, 1,37		35,25,13,56	
		2, 4,31,13,25,20,32,28		9, 6
6″	8, 4,31,46, 4, 3,45, 0,34, 5		35,25,23, 2	
		2, 4,31,12,49,55, 9,26		9, 6
8″	8, 4,33,50,35,16,34,55,43,31		35,25,32, 8	
		2, 4,31,12,14,29,37,18		9, 6
10″	8, 4,35,55, 6,28,49,25,20,49		35,25,41,14	
		2, 4,31,11,39, 3,56, 4		9, 6
12″	8, 4,37,59,37,40,28,29,16,53		35,25,50,20	
		2, 4,31,11, 3,38, 5,44		9, 6
14″	8, 4,40, 4, 8,51,32, 7,22,37		35,25,59,26	
		2, 4,31,10,28,12, 6,18		9, 6
16″	8, 4,42, 8,40, 2, 0,19,28,55		35,26, 8,32	
		2, 4,31, 9,52,45,57,46		9, 6
18″	8, 4,44,13,11,11,53, 5,26,41		35,26,17,38	
		2, 4,31, 9,17,19,40, 8		9, 6
20″	8, 4,46,17,42,21,10,25, 6,49		35,26,26,44	
		2, 4,31, 8,41,53,13,24		9, 6
22″	8, 4,48,22,13,29,52,18,20,13		35,26,35,50	
		2, 4,31, 8, 6,26,37,34		9, 6
24″	8, 4,50,26,44,37,58,44,57,47		35,26,44,56	
		2, 4,31, 7,30,59,52,38		9, 6
26″	8, 4,52,31,15,45,29,44,50,25		35,26,54, 2	
		2, 4,31, 6,55,32,58,36		9, 6
28″	8, 4,54,35,46,52,25,17,49, 1		35,27, 3, 8	
		2, 4,31, 6,20, 5,55,28		9, 6
30″	8, 4,56,40,17,58,45,23,44,29		35,27,12,14	
		2, 4,31, 5,44,38,43,14		9, 6
32″	8, 4,58,44,49, 4,30, 2,27,43		35,27,21,20	
		2, 4,31, 5, 9,11,21,54		9, 6
34″	8, 5, 0,49,20, 9,39,13,49,37		35,27,30,26	
		2, 4,31, 4,33,43,51,28		9, 6
36″	8, 5, 2,53,51,14,12,57,41, 5		35,27,39,32	
		2, 4,31, 3,58,16,11,56		9, 6
38″	8, 5, 4,58,22,18,11,13,53, 1		35,27,48,38	
		2, 4,31, 3,22,48,23,18		9, 6
40″	8, 5, 7, 2,53,21,34, 2,16,19		35,27,57,44	
		2, 4,31, 2,47,20,25,34		9, 6
42″	8, 5, 9, 7,24,24,21,22,41,53		35,28, 6,50	
		2, 4,31, 2,11,52,18,44		9, 6
44″	8, 5,11,11,55,26,33,15, 0,37		35,28,15,56	
		2, 4,31, 1,36,24, 2,48		9, 6
46″	8, 5,13,16,26,28, 9,39, 3,25		35,28,25, 2	
		2, 4,31, 1, 0,55,37,46		9, 6
48″	8, 5,15,20,57,29,10,34,41,11		35,28,34, 8	
		2, 4,31, 0,25,27, 3,38		9, 6
50″	8, 5,17,25,28,29,36, 1,44,49		35,28,43,14	
		2, 4,30,59,49,58,20,24		9, 6
52″	8, 5,19,29,59,29,26, 0, 5,13		35,28,52,20	
		2, 4,30,59,14,29,28, 4		9, 6
54″	8, 5,21,34,30,28,40,29,33,17		35,29, 1,26	
		2, 4,30,58,39, 0,26,38		9, 6
56″	8, 5,23,39, 1,27,19,29,59,55		35,29,10,32	
		2, 4,30,58, 3,31,16, 6		9, 6
58″	8, 5,25,43,32,25,23, 1,16, 1		35,29,19,38	
		2, 4,30,57,28, 1,56,28		
60″	8, 5,27,48, 3,22,51, 3,12,29			
exact	8, 5,27,48, 3,22,51, 2,57,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°45′ 0″	8, 5,27,48, 3,22,51, 2,57,16			
		2, 4,30,56,52,32,26,11		
2″	8, 5,29,52,34,19,43,35,23,27		35,29,37,56	
		2, 4,30,56,17, 2,48,15		9, 6
4″	8, 5,31,57, 5,16, 0,38,11,42		35,29,47, 2	
		2, 4,30,55,41,33, 1,13		9, 6
6″	8, 5,34, 1,36,11,42,11,12,55		35,29,56, 8	
		2, 4,30,55, 6, 3, 5, 5		9, 6
8″	8, 5,36, 6, 7, 6,48,14,18, 0		35,30, 5,14	
		2, 4,30,54,30,32,59,51		9, 6
10″	8, 5,38,10,38, 1,18,47,17,51		35,30,14,20	
		2, 4,30,53,55, 2,45,31		9, 6
12″	8, 5,40,15, 8,55,13,50, 3,22		35,30,23,26	
		2, 4,30,53,19,32,22, 5		9, 6
14″	8, 5,42,19,39,48,33,22,25,27		35,30,32,32	
		2, 4,30,52,44, 1,49,33		9, 6
16″	8, 5,44,24,10,41,17,24,15, 0		35,30,41,38	
		2, 4,30,52, 8,31, 7,55		9, 6
18″	8, 5,46,28,41,33,25,55,22,55		35,30,50,44	
		2, 4,30,51,33, 0,17,11		9, 6
20″	8, 5,48,33,12,24,58,55,40, 6		35,30,59,50	
		2, 4,30,50,57,29,17,21		9, 6
22″	8, 5,50,37,43,15,56,24,57,27		35,31, 8,56	
		2, 4,30,50,21,58, 8,25		9, 6
24″	8, 5,52,42,14, 6,18,23, 5,52		35,31,18, 2	
		2, 4,30,49,46,26,50,23		9, 6
26″	8, 5,54,46,44,56, 4,49,56,15		35,31,27, 8	
		2, 4,30,49,10,55,23,15		9, 6
28″	8, 5,56,51,15,45,15,45,19,30		35,31,36,14	
		2, 4,30,48,35,23,47, 1		9, 6
30″	8, 5,58,55,46,33,51, 9, 6,31		35,31,45,20	
		2, 4,30,47,59,52, 1,41		9, 6
32″	8, 6, 1, 0,17,21,51, 1, 8,12		35,31,54,26	
		2, 4,30,47,24,20, 7,15		9, 6
34″	8, 6, 3, 4,48, 9,15,21,15,27		35,32, 3,32	
		2, 4,30,46,48,48, 3,43		9, 6
36″	8, 6, 5, 9,18,56, 4, 9,19,10		35,32,12,38	
		2, 4,30,46,13,15,51, 5		9, 6
38″	8, 6, 7,13,49,42,17,25,10,15		35,32,21,44	
		2, 4,30,45,37,43,29,21		9, 6
40″	8, 6, 9,18,20,27,55, 8,39,36		35,32,30,50	
		2, 4,30,45, 2,10,58,31		9, 6
42″	8, 6,11,22,51,12,57,19,38, 7		35,32,39,56	
		2, 4,30,44,26,38,18,35		9, 6
44″	8, 6,13,27,21,57,23,57,56,42		35,32,49, 2	
		2, 4,30,43,51, 5,29,33		9, 6
46″	8, 6,15,31,52,41,15, 3,26,15		35,32,58, 8	
		2, 4,30,43,15,32,31,25		9, 6
48″	8, 6,17,36,23,24,30,35,57,40		35,33, 7,14	
		2, 4,30,42,39,59,24,11		9, 6
50″	8, 6,19,40,54, 7,10,35,21,51		35,33,16,20	
		2, 4,30,42, 4,26, 7,51		9, 6
52″	8, 6,21,45,24,49,15, 1,29,42		35,33,25,26	
		2, 4,30,41,28,52,42,25		9, 6
54″	8, 6,23,49,55,30,43,54,12, 7		35,33,34,32	
		2, 4,30,40,53,19, 7,53		9, 6
56″	8, 6,25,54,26,11,37,13,20, 0		35,33,43,38	
		2, 4,30,40,17,45,24,15		9, 6
58″	8, 6,27,58,56,51,54,58,44,15		35,33,52,44	
		2, 4,30,39,42,11,31,31		
60″	8, 6,30, 3,27,31,37,10,15,46			
exact	8, 6,30, 3,27,31,37,10, 2,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°46′ 0″	8, 6,30, 3,27,31,37,10, 2,25			
		2, 4,30,39, 6,37,28,19		
2″	8, 6,32, 7,58,10,43,47,30,44		35,34,11, 1	
		2, 4,30,38,31, 3,17,18		9, 6
4″	8, 6,34,12,28,49,14,50,48, 2		35,34,20, 7	
		2, 4,30,37,55,28,57,11		9, 6
6″	8, 6,36,16,59,27,10,19,45,13		35,34,29,13	
		2, 4,30,37,19,54,27,58		9, 6
8″	8, 6,38,21,30, 4,30,14,13,11		35,34,38,19	
		2, 4,30,36,44,19,49,39		9, 6
10″	8, 6,40,26, 0,41,14,34, 2,50		35,34,47,25	
		2, 4,30,36, 8,45, 2,14		9, 6
12″	8, 6,42,30,31,17,23,19, 5, 4		35,34,56,31	
		2, 4,30,35,33,10, 5,43		9, 6
14″	8, 6,44,35, 1,52,56,29,10,47		35,35, 5,37	
		2, 4,30,34,57,35, 0, 6		9, 6
16″	8, 6,46,39,32,27,54, 4,10,53		35,35,14,43	
		2, 4,30,34,21,59,45,23		9, 6
18″	8, 6,48,44, 3, 2,16, 3,56,16		35,35,23,49	
		2, 4,30,33,46,24,21,34		9, 6
20″	8, 6,50,48,33,36, 2,28,17,50		35,35,32,55	
		2, 4,30,33,10,48,48,39		9, 6
22″	8, 6,52,53, 4, 9,13,17, 6,29		35,35,42, 1	
		2, 4,30,32,35,13, 6,38		9, 6
24″	8, 6,54,57,34,41,48,30,13, 7		35,35,51, 7	
		2, 4,30,31,59,37,15,31		9, 6
26″	8, 6,57, 2, 5,13,48, 7,28,38		35,36, 0,13	
		2, 4,30,31,24, 1,15,18		9, 6
28″	8, 6,59, 6,35,45,12, 8,43,56		35,36, 9,19	
		2, 4,30,30,48,25, 5,59		9, 6
30″	8, 7, 1,11, 6,16, 0,33,49,55		35,36,18,25	
		2, 4,30,30,12,48,47,34		9, 6
32″	8, 7, 3,15,36,46,13,22,37,29		35,36,27,31	
		2, 4,30,29,37,12,20, 3		9, 6
34″	8, 7, 5,20, 7,15,50,34,57,32		35,36,36,37	
		2, 4,30,29, 1,35,43,26		9, 6
36″	8, 7, 7,24,37,44,52,10,40,58		35,36,45,43	
		2, 4,30,28,25,58,57,43		9, 6
38″	8, 7, 9,29, 8,13,18, 9,38,41		35,36,54,49	
		2, 4,30,27,50,22, 2,54		9, 6
40″	8, 7,11,33,38,41, 8,31,41,35		35,37, 3,55	
		2, 4,30,27,14,44,58,59		9, 6
42″	8, 7,13,38, 9, 8,23,16,40,34		35,37,13, 1	
		2, 4,30,26,39, 7,45,58		9, 6
44″	8, 7,15,42,39,35, 2,24,26,32		35,37,22, 7	
		2, 4,30,26, 3,30,23,51		9, 6
46″	8, 7,17,47,10, 1, 5,54,50,23		35,37,31,13	
		2, 4,30,25,27,52,52,38		9, 6
48″	8, 7,19,51,40,26,33,47,43, 1		35,37,40,19	
		2, 4,30,24,52,15,12,19		9, 6
50″	8, 7,21,56,10,51,26, 2,55,20		35,37,49,25	
		2, 4,30,24,16,37,22,54		9, 6
52″	8, 7,24, 0,41,15,42,40,18,14		35,37,58,31	
		2, 4,30,23,40,59,24,23		9, 6
54″	8, 7,26, 5,11,39,23,39,42,37		35,38, 7,37	
		2, 4,30,23, 5,21,16,46		9, 6
56″	8, 7,28, 9,42, 2,29, 0,59,23		35,38,16,43	
		2, 4,30,22,29,43, 0, 3		9, 6
58″	8, 7,30,14,12,24,58,43,59,26		35,38,25,49	
		2, 4,30,21,54, 4,34,14		
60″	8, 7,32,18,42,46,52,48,33,40			
exact	8, 7,32,18,42,46,52,48,19,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°47′ 0″	8, 7,32,18,42,46,52,48,19,49			
		2, 4,30,21,18,25,57,58		
2″	8, 7,34,23,13, 8,11,14,17,47		35,38,44, 6	
		2, 4,30,20,42,47,13,52		9, 6
4″	8, 7,36,27,43,28,54, 1,31,39		35,38,53,12	
		2, 4,30,20, 7, 8,20,40		9, 6
6″	8, 7,38,32,13,49, 1, 9,52,19		35,39, 2,18	
		2, 4,30,19,31,29,18,22		9, 6
8″	8, 7,40,36,44, 8,32,39,10,41		35,39,11,24	
		2, 4,30,18,55,50, 6,58		9, 6
10″	8, 7,42,41,14,27,28,29,17,39		35,39,20,30	
		2, 4,30,18,20,10,46,28		9, 6
12″	8, 7,44,45,44,45,48,40, 4, 7		35,39,29,36	
		2, 4,30,17,44,31,16,52		9, 6
14″	8, 7,46,50,15, 3,33,11,20,59		35,39,38,42	
		2, 4,30,17, 8,51,38,10		9, 6
16″	8, 7,48,54,45,20,42, 2,59, 9		35,39,47,48	
		2, 4,30,16,33,11,50,22		9, 6
18″	8, 7,50,59,15,37,15,14,49,31		35,39,56,54	
		2, 4,30,15,57,31,53,28		9, 6
20″	8, 7,53, 3,45,53,12,46,42,59		35,40, 6, 0	
		2, 4,30,15,21,51,47,28		9, 6
22″	8, 7,55, 8,16, 8,34,38,30,27		35,40,15, 6	
		2, 4,30,14,46,11,32,22		9, 6
24″	8, 7,57,12,46,23,20,50, 2,49		35,40,24,12	
		2, 4,30,14,10,31, 8,10		9, 6
26″	8, 7,59,17,16,37,31,21,10,59		35,40,33,18	
		2, 4,30,13,34,50,34,52		9, 6
28″	8, 8, 1,21,46,51, 6,11,45,51		35,40,42,24	
		2, 4,30,12,59, 9,52,28		9, 6
30″	8, 8, 3,26,17, 4, 5,21,38,19		35,40,51,30	
		2, 4,30,12,23,29, 0,58		9, 6
32″	8, 8, 5,30,47,16,28,50,39,17		35,41, 0,36	
		2, 4,30,11,47,48, 0,22		9, 6
34″	8, 8, 7,35,17,28,16,38,39,39		35,41, 9,42	
		2, 4,30,11,12, 6,50,40		9, 6
36″	8, 8, 9,39,47,39,28,45,30,19		35,41,18,48	
		2, 4,30,10,36,25,31,52		9, 6
38″	8, 8,11,44,17,50, 5,11, 2,11		35,41,27,54	
		2, 4,30,10, 0,44, 3,58		9, 6
40″	8, 8,13,48,48, 0, 5,55, 6, 9		35,41,37, 0	
		2, 4,30, 9,25, 2,26,58		9, 6
42″	8, 8,15,53,18, 9,30,57,33, 7		35,41,46, 6	
		2, 4,30, 8,49,20,40,52		9, 6
44″	8, 8,17,57,48,18,20,18,13,59		35,41,55,12	
		2, 4,30, 8,13,38,45,40		9, 6
46″	8, 8,20, 2,18,26,33,56,59,39		35,42, 4,18	
		2, 4,30, 7,37,56,41,22		9, 6
48″	8, 8,22, 6,48,34,11,53,41, 1		35,42,13,24	
		2, 4,30, 7, 2,14,27,58		9, 6
50″	8, 8,24,11,18,41,14, 8, 8,59		35,42,22,30	
		2, 4,30, 6,26,32, 5,28		9, 6
52″	8, 8,26,15,48,47,40,40,14,27		35,42,31,36	
		2, 4,30, 5,50,49,33,52		9, 6
54″	8, 8,28,20,18,53,31,29,48,19		35,42,40,42	
		2, 4,30, 5,15, 6,53,10		9, 6
56″	8, 8,30,24,48,58,46,36,41,29		35,42,49,48	
		2, 4,30, 4,39,24, 3,22		9, 6
58″	8, 8,32,29,19, 3,26, 0,44,51		35,42,58,54	
		2, 4,30, 4, 3,41, 4,28		
60″	8, 8,34,33,49, 7,29,41,49,19			
exact	8, 8,34,33,49, 7,29,41,39,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°48′ 0″	8, 8,34,33,49, 7,29,41,39,35			
		2, 4,30, 3,27,57,55,27		
2″	8, 8,36,38,19,10,57,39,35, 2		35,43,17,10	
		2, 4,30, 2,52,14,38,17		9, 6
4″	8, 8,38,42,49,13,49,54,13,19		35,43,26,16	
		2, 4,30, 2,16,31,12, 1		9, 6
6″	8, 8,40,47,19,16, 6,25,25,20		35,43,35,22	
		2, 4,30, 1,40,47,36,39		9, 6
8″	8, 8,42,51,49,17,47,13, 1,59		35,43,44,28	
		2, 4,30, 1, 5, 3,52,11		9, 6
10″	8, 8,44,56,19,18,52,16,54,10		35,43,53,34	
		2, 4,30, 0,29,19,58,37		9, 6
12″	8, 8,47, 0,49,19,21,36,52,47		35,44, 2,40	
		2, 4,29,59,53,35,55,57		9, 6
14″	8, 8,49, 5,19,19,15,12,48,44		35,44,11,46	
		2, 4,29,59,17,51,44,11		9, 6
16″	8, 8,51, 9,49,18,33, 4,32,55		35,44,20,52	
		2, 4,29,58,42, 7,23,19		9, 6
18″	8, 8,53,14,19,17,15,11,56,14		35,44,29,58	
		2, 4,29,58, 6,22,53,21		9, 6
20″	8, 8,55,18,49,15,21,34,49,35		35,44,39, 4	
		2, 4,29,57,30,38,14,17		9, 6
22″	8, 8,57,23,19,12,52,13, 3,52		35,44,48,10	
		2, 4,29,56,54,53,26, 7		9, 6
24″	8, 8,59,27,49, 9,47, 6,29,59		35,44,57,16	
		2, 4,29,56,19, 8,28,51		9, 6
26″	8, 9, 1,32,19, 6, 6,14,58,50		35,45, 6,22	
		2, 4,29,55,43,23,22,29		9, 6
28″	8, 9, 3,36,49, 1,49,38,21,19		35,45,15,28	
		2, 4,29,55, 7,38, 7, 1		9, 6
30″	8, 9, 5,41,18,56,57,16,28,20		35,45,24,34	
		2, 4,29,54,31,52,42,27		9, 6
32″	8, 9, 7,45,48,51,29, 9,10,47		35,45,33,40	
		2, 4,29,53,56, 7, 8,47		9, 6
34″	8, 9, 9,50,18,45,25,16,19,34		35,45,42,46	
		2, 4,29,53,20,21,26, 1		9, 6
36″	8, 9,11,54,48,38,45,37,45,35		35,45,51,52	
		2, 4,29,52,44,35,34, 9		9, 6
38″	8, 9,13,59,18,31,30,13,19,44		35,46, 0,58	
		2, 4,29,52, 8,49,33,11		9, 6
40″	8, 9,16, 3,48,23,39, 2,52,55		35,46,10, 4	
		2, 4,29,51,33, 3,23, 7		9, 6
42″	8, 9,18, 8,18,15,12, 6,16, 2		35,46,19,10	
		2, 4,29,50,57,17, 3,57		9, 6
44″	8, 9,20,12,48, 6, 9,23,19,59		35,46,28,16	
		2, 4,29,50,21,30,35,41		9, 6
46″	8, 9,22,17,17,56,30,53,55,40		35,46,37,22	
		2, 4,29,49,45,43,58,19		9, 6
48″	8, 9,24,21,47,46,16,37,53,59		35,46,46,28	
		2, 4,29,49, 9,57,11,51		9, 6
50″	8, 9,26,26,17,35,26,35, 5,50		35,46,55,34	
		2, 4,29,48,34,10,16,17		9, 6
52″	8, 9,28,30,47,24, 0,45,22, 7		35,47, 4,40	
		2, 4,29,47,58,23,11,37		9, 6
54″	8, 9,30,35,17,11,59, 8,33,44		35,47,13,46	
		2, 4,29,47,22,35,57,51		9, 6
56″	8, 9,32,39,46,59,21,44,31,35		35,47,22,52	
		2, 4,29,46,46,48,34,59		9, 6
58″	8, 9,34,44,16,46, 8,33, 6,34		35,47,31,58	
		2, 4,29,46,11, 1, 3, 1		
60″	8, 9,36,48,46,32,19,34, 9,35			
exact	8, 9,36,48,46,32,19,34, 1,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°49′ 0″	8, 9,36,48,46,32,19,34, 1,37			
		2, 4,29,45,35,13,21, 7		
2″	8, 9,38,53,16,17,54,47,22,44		35,47,50,13	
		2, 4,29,44,59,25,30,54		9, 6
4″	8, 9,40,57,46, 2,54,12,53,38		35,47,59,19	
		2, 4,29,44,23,37,31,35		9, 6
6″	8, 9,43, 2,15,47,17,50,25,13		35,48, 8,25	
		2, 4,29,43,47,49,23,10		9, 6
8″	8, 9,45, 6,45,31, 5,39,48,23		35,48,17,31	
		2, 4,29,43,12, 1, 5,39		9, 6
10″	8, 9,47,11,15,14,17,40,54, 2		35,48,26,37	
		2, 4,29,42,36,12,39, 2		9, 6
12″	8, 9,49,15,44,56,53,53,33, 4		35,48,35,43	
		2, 4,29,42, 0,24, 3,19		9, 6
14″	8, 9,51,20,14,38,54,17,36,23		35,48,44,49	
		2, 4,29,41,24,35,18,30		9, 6
16″	8, 9,53,24,44,20,18,52,54,53		35,48,53,55	
		2, 4,29,40,48,46,24,35		9, 6
18″	8, 9,55,29,14, 1, 7,39,19,28		35,49, 3, 1	
		2, 4,29,40,12,57,21,34		9, 6
20″	8, 9,57,33,43,41,20,36,41, 2		35,49,12, 7	
		2, 4,29,39,37, 8, 9,27		9, 6
22″	8, 9,59,38,13,20,57,44,50,29		35,49,21,13	
		2, 4,29,39, 1,18,48,14		9, 6
24″	8,10, 1,42,42,59,59, 3,38,43		35,49,30,19	
		2, 4,29,38,25,29,17,55		9, 6
26″	8,10, 3,47,12,38,24,32,56,38		35,49,39,25	
		2, 4,29,37,49,39,38,30		9, 6
28″	8,10, 5,51,42,16,14,12,35, 8		35,49,48,31	
		2, 4,29,37,13,49,49,59		9, 6
30″	8,10, 7,56,11,53,28, 2,25, 7		35,49,57,37	
		2, 4,29,36,37,59,52,22		9, 6
32″	8,10,10, 0,41,30, 6, 2,17,29		35,50, 6,43	
		2, 4,29,36, 2, 9,45,39		9, 6
34″	8,10,12, 5,11, 6, 8,12, 3, 8		35,50,15,49	
		2, 4,29,35,26,19,29,50		9, 6
36″	8,10,14, 9,40,41,34,31,32,58		35,50,24,55	
		2, 4,29,34,50,29, 4,55		9, 6
38″	8,10,16,14,10,16,25, 0,37,53		35,50,34, 1	
		2, 4,29,34,14,38,30,54		9, 6
40″	8,10,18,18,39,50,39,39, 8,47		35,50,43, 7	
		2, 4,29,33,38,47,47,47		9, 6
42″	8,10,20,23, 9,24,18,26,56,34		35,50,52,13	
		2, 4,29,33, 2,56,55,34		9, 6
44″	8,10,22,27,38,57,21,23,52, 8		35,51, 1,19	
		2, 4,29,32,27, 5,54,15		9, 6
46″	8,10,24,32, 8,29,48,29,46,23		35,51,10,25	
		2, 4,29,31,51,14,43,50		9, 6
48″	8,10,26,36,38, 1,39,44,30,13		35,51,19,31	
		2, 4,29,31,15,23,24,19		9, 6
50″	8,10,28,41, 7,32,55, 7,54,32		35,51,28,37	
		2, 4,29,30,39,31,55,42		9, 6
52″	8,10,30,45,37, 3,34,39,50,14		35,51,37,43	
		2, 4,29,30, 3,40,17,59		9, 6
54″	8,10,32,50, 6,33,38,20, 8,13		35,51,46,49	
		2, 4,29,29,27,48,31,10		9, 6
56″	8,10,34,54,36, 3, 6, 8,39,23		35,51,55,55	
		2, 4,29,28,51,56,35,15		9, 6
58″	8,10,36,59, 5,31,58, 5,14,38		35,52, 5, 1	
		2, 4,29,28,16, 4,30,14		
60″	8,10,39, 3,35, 0,14, 9,44,52			
exact	8,10,39, 3,35, 0,14, 9,35,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°50′ 0″	8,10,39, 3,35, 0,14, 9,35,37			
		2, 4,29,27,40,12,15,15		
2″	8,10,41, 8, 4,27,54,21,50,52		35,52,23,16	
		2, 4,29,27, 4,19,51,59		9, 6
4″	8,10,43,12,33,54,58,41,42,51		35,52,32,22	
		2, 4,29,26,28,27,19,37		9, 6
6″	8,10,45,17, 3,21,27, 9, 2,28		35,52,41,28	
		2, 4,29,25,52,34,38, 9		9, 6
8″	8,10,47,21,32,47,19,43,40,37		35,52,50,34	
		2, 4,29,25,16,41,47,35		9, 6
10″	8,10,49,26, 2,12,36,25,28,12		35,52,59,40	
		2, 4,29,24,40,48,47,55		9, 6
12″	8,10,51,30,31,37,17,14,16, 7		35,53, 8,46	
		2, 4,29,24, 4,55,39, 9		9, 6
14″	8,10,53,35, 1, 1,22, 9,55,16		35,53,17,52	
		2, 4,29,23,29, 2,21,17		9, 6
16″	8,10,55,39,30,24,51,12,16,33		35,53,26,58	
		2, 4,29,22,53, 8,54,19		9, 6
18″	8,10,57,43,59,47,44,21,10,52		35,53,36, 4	
		2, 4,29,22,17,15,18,15		9, 6
20″	8,10,59,48,29,10, 1,36,29, 7		35,53,45,10	
		2, 4,29,21,41,21,33, 5		9, 6
22″	8,11, 1,52,58,31,42,58, 2,12		35,53,54,16	
		2, 4,29,21, 5,27,38,49		9, 6
24″	8,11, 3,57,27,52,48,25,41, 1		35,54, 3,22	
		2, 4,29,20,29,33,35,27		9, 6
26″	8,11, 6, 1,57,13,17,59,16,28		35,54,12,28	
		2, 4,29,19,53,39,22,59		9, 6
28″	8,11, 8, 6,26,33,11,38,39,27		35,54,21,34	
		2, 4,29,19,17,45, 1,25		9, 6
30″	8,11,10,10,55,52,29,23,40,52		35,54,30,40	
		2, 4,29,18,41,50,30,45		9, 6
32″	8,11,12,15,25,11,11,14,11,37		35,54,39,46	
		2, 4,29,18, 5,55,50,59		9, 6
34″	8,11,14,19,54,29,17,10, 2,36		35,54,48,52	
		2, 4,29,17,30, 1, 2, 7		9, 6
36″	8,11,16,24,23,46,47,11, 4,43		35,54,57,58	
		2, 4,29,16,54, 6, 4, 9		9, 6
38″	8,11,18,28,53, 3,41,17, 8,52		35,55, 7, 4	
		2, 4,29,16,18,10,57, 5		9, 6
40″	8,11,20,33,22,19,59,28, 5,57		35,55,16,10	
		2, 4,29,15,42,15,40,55		9, 6
42″	8,11,22,37,51,35,41,43,46,52		35,55,25,16	
		2, 4,29,15, 6,20,15,39		9, 6
44″	8,11,24,42,20,50,48, 4, 2,31		35,55,34,22	
		2, 4,29,14,30,24,41,17		9, 6
46″	8,11,26,46,50, 5,18,28,43,48		35,55,43,28	
		2, 4,29,13,54,28,57,49		9, 6
48″	8,11,28,51,19,19,12,57,41,37		35,55,52,34	
		2, 4,29,13,18,33, 5,15		9, 6
50″	8,11,30,55,48,32,31,30,46,52		35,56, 1,40	
		2, 4,29,12,42,37, 3,35		9, 6
52″	8,11,33, 0,17,45,14, 7,50,27		35,56,10,46	
		2, 4,29,12, 6,40,52,49		9, 6
54″	8,11,35, 4,46,57,20,48,43,16		35,56,19,52	
		2, 4,29,11,30,44,32,57		9, 6
56″	8,11,37, 9,16, 8,51,33,16,13		35,56,28,58	
		2, 4,29,10,54,48, 3,59		9, 6
58″	8,11,39,13,45,19,46,21,20,12		35,56,38, 4	
		2, 4,29,10,18,51,25,55		
60″	8,11,41,18,14,30, 5,12,46, 7			
exact	8,11,41,18,14,30, 5,12,41, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°51′ 0″	8,11,41,18,14,30, 5,12,41, 3			
		2, 4,29, 9,42,54,38,13		
2″	8,11,43,22,43,39,48, 7,19,16		35,56,56,18	
		2, 4,29, 9, 6,57,41,55		9, 6
4″	8,11,45,27,12,48,55, 5, 1,11		35,57, 5,24	
		2, 4,29, 8,31, 0,36,31		9, 6
6″	8,11,47,31,41,57,26, 5,37,42		35,57,14,30	
		2, 4,29, 7,55, 3,22, 1		9, 6
8″	8,11,49,36,11, 5,21, 8,59,43		35,57,23,36	
		2, 4,29, 7,19, 5,58,25		9, 6
10″	8,11,51,40,40,12,40,14,58, 8		35,57,32,42	
		2, 4,29, 6,43, 8,25,43		9, 6
12″	8,11,53,45, 9,19,23,23,23,51		35,57,41,48	
		2, 4,29, 6, 7,10,43,55		9, 6
14″	8,11,55,49,38,25,30,34, 7,46		35,57,50,54	
		2, 4,29, 5,31,12,53, 1		9, 6
16″	8,11,57,54, 7,31, 1,47, 0,47		35,58, 0, 0	
		2, 4,29, 4,55,14,53, 1		9, 6
18″	8,11,59,58,36,35,57, 1,53,48		35,58, 9, 6	
		2, 4,29, 4,19,16,43,55		9, 6
20″	8,12, 2, 3, 5,40,16,18,37,43		35,58,18,12	
		2, 4,29, 3,43,18,25,43		9, 6
22″	8,12, 4, 7,34,43,59,37, 3,26		35,58,27,18	
		2, 4,29, 3, 7,19,58,25		9, 6
24″	8,12, 6,12, 3,47, 6,57, 1,51		35,58,36,24	
		2, 4,29, 2,31,21,22, 1		9, 6
26″	8,12, 8,16,32,49,38,18,23,52		35,58,45,30	
		2, 4,29, 1,55,22,36,31		9, 6
28″	8,12,10,21, 1,51,33,41, 0,23		35,58,54,36	
		2, 4,29, 1,19,23,41,55		9, 6
30″	8,12,12,25,30,52,53, 4,42,18		35,59, 3,42	
		2, 4,29, 0,43,24,38,13		9, 6
32″	8,12,14,29,59,53,36,29,20,31		35,59,12,48	
		2, 4,29, 0, 7,25,25,25		9, 6
34″	8,12,16,34,28,53,43,54,45,56		35,59,21,54	
		2, 4,28,59,31,26, 3,31		9, 6
36″	8,12,18,38,57,53,15,20,49,27		35,59,31, 0	
		2, 4,28,58,55,26,32,31		9, 6
38″	8,12,20,43,26,52,10,47,21,58		35,59,40, 6	
		2, 4,28,58,19,26,52,25		9, 6
40″	8,12,22,47,55,50,30,14,14,23		35,59,49,12	
		2, 4,28,57,43,27, 3,13		9, 6
42″	8,12,24,52,24,48,13,41,17,36		35,59,58,18	
		2, 4,28,57, 7,27, 4,55		9, 6
44″	8,12,26,56,53,45,21, 8,22,31		36, 0, 7,24	
		2, 4,28,56,31,26,57,31		9, 6
46″	8,12,29, 1,22,41,52,35,20, 2		36, 0,16,30	
		2, 4,28,55,55,26,41, 1		9, 6
48″	8,12,31, 5,51,37,48, 2, 1, 3		36, 0,25,36	
		2, 4,28,55,19,26,15,25		9, 6
50″	8,12,33,10,20,33, 7,28,16,28		36, 0,34,42	
		2, 4,28,54,43,25,40,43		9, 6
52″	8,12,35,14,49,27,50,53,57,11		36, 0,43,48	
		2, 4,28,54, 7,24,56,55		9, 6
54″	8,12,37,19,18,21,58,18,54, 6		36, 0,52,54	
		2, 4,28,53,31,24, 4, 1		9, 6
56″	8,12,39,23,47,15,29,42,58, 7		36, 1, 2, 0	
		2, 4,28,52,55,23, 2, 1		9, 6
58″	8,12,41,28,16, 8,25, 6, 0, 8		36, 1,11, 6	
		2, 4,28,52,19,21,50,55		
60″	8,12,43,32,45, 0,44,27,51, 3			
exact	8,12,43,32,45, 0,44,27,47,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°52′ 0″	8,12,43,32,45, 0,44,27,47,17			
		2, 4,28,51,43,20,30,20		
2″	8,12,45,37,13,52,27,48,17,37		36, 1,29,19	
		2, 4,28,51, 7,19, 1, 1		9, 6
4″	8,12,47,41,42,43,35, 7,18,38		36, 1,38,25	
		2, 4,28,50,31,17,22,36		9, 6
6″	8,12,49,46,11,34, 6,24,41,14		36, 1,47,31	
		2, 4,28,49,55,15,35, 5		9, 6
8″	8,12,51,50,40,24, 1,40,16,19		36, 1,56,37	
		2, 4,28,49,19,13,38,28		9, 6
10″	8,12,53,55, 9,13,20,53,54,47		36, 2, 5,43	
		2, 4,28,48,43,11,32,45		9, 6
12″	8,12,55,59,38, 2, 4, 5,27,32		36, 2,14,49	
		2, 4,28,48, 7, 9,17,56		9, 6
14″	8,12,58, 4, 6,50,11,14,45,28		36, 2,23,55	
		2, 4,28,47,31, 6,54, 1		9, 6
16″	8,13, 0, 8,35,37,42,21,39,29		36, 2,33, 1	
		2, 4,28,46,55, 4,21, 0		9, 6
18″	8,13, 2,13, 4,24,37,26, 0,29		36, 2,42, 7	
		2, 4,28,46,19, 1,38,53		9, 6
20″	8,13, 4,17,33,10,56,27,39,22		36, 2,51,13	
		2, 4,28,45,42,58,47,40		9, 6
22″	8,13, 6,22, 1,56,39,26,27, 2		36, 3, 0,19	
		2, 4,28,45, 6,55,47,21		9, 6
24″	8,13, 8,26,30,41,46,22,14,23		36, 3, 9,25	
		2, 4,28,44,30,52,37,56		9, 6
26″	8,13,10,30,59,26,17,14,52,19		36, 3,18,31	
		2, 4,28,43,54,49,19,25		9, 6
28″	8,13,12,35,28,10,12, 4,11,44		36, 3,27,37	
		2, 4,28,43,18,45,51,48		9, 6
30″	8,13,14,39,56,53,30,50, 3,32		36, 3,36,43	
		2, 4,28,42,42,42,15, 5		9, 6
32″	8,13,16,44,25,36,13,32,18,37		36, 3,45,49	
		2, 4,28,42, 6,38,29,16		9, 6
34″	8,13,18,48,54,18,20,10,47,53		36, 3,54,55	
		2, 4,28,41,30,34,34,21		9, 6
36″	8,13,20,53,22,59,50,45,22,14		36, 4, 4, 1	
		2, 4,28,40,54,30,30,20		9, 6
38″	8,13,22,57,51,40,45,15,52,34		36, 4,13, 7	
		2, 4,28,40,18,26,17,13		9, 6
40″	8,13,25, 2,20,21, 3,42, 9,47		36, 4,22,13	
		2, 4,28,39,42,21,55, 0		9, 6
42″	8,13,27, 6,49, 0,46, 4, 4,47		36, 4,31,19	
		2, 4,28,39, 6,17,23,41		9, 6
44″	8,13,29,11,17,39,52,21,28,28		36, 4,40,25	
		2, 4,28,38,30,12,43,16		9, 6
46″	8,13,31,15,46,18,22,34,11,44		36, 4,49,31	
		2, 4,28,37,54, 7,53,45		9, 6
48″	8,13,33,20,14,56,16,42, 5,29		36, 4,58,37	
		2, 4,28,37,18, 2,55, 8		9, 6
50″	8,13,35,24,43,33,34,45, 0,37		36, 5, 7,43	
		2, 4,28,36,41,57,47,25		9, 6
52″	8,13,37,29,12,10,16,42,48, 2		36, 5,16,49	
		2, 4,28,36, 5,52,30,36		9, 6
54″	8,13,39,33,40,46,22,35,18,38		36, 5,25,55	
		2, 4,28,35,29,47, 4,41		9, 6
56″	8,13,41,38, 9,21,52,22,23,19		36, 5,35, 1	
		2, 4,28,34,53,41,29,40		9, 6
58″	8,13,43,42,37,56,46, 3,52,59		36, 5,44, 7	
		2, 4,28,34,17,35,45,33		
60″	8,13,45,47, 6,31, 3,39,38,32			
exact	8,13,45,47, 6,31, 3,39,33,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°53′ 0″	8,13,45,47, 6,31, 3,39,33,31			
		2, 4,28,33,41,29,51,55		
2″	8,13,47,51,35, 4,45, 9,25,26		36, 6, 2,20	
		2, 4,28,33, 5,23,49,35		9, 6
4″	8,13,49,56, 3,37,50,33,15, 1		36, 6,11,26	
		2, 4,28,32,29,17,38, 9		9, 6
6″	8,13,52, 0,32,10,19,50,53,10		36, 6,20,32	
		2, 4,28,31,53,11,17,37		9, 6
8″	8,13,54, 5, 0,42,13, 2,10,47		36, 6,29,38	
		2, 4,28,31,17, 4,47,59		9, 6
10″	8,13,56, 9,29,13,30, 6,58,46		36, 6,38,44	
		2, 4,28,30,40,58, 9,15		9, 6
12″	8,13,58,13,57,44,11, 5, 8, 1		36, 6,47,50	
		2, 4,28,30, 4,51,21,25		9, 6
14″	8,14, 0,18,26,14,15,56,29,26		36, 6,56,56	
		2, 4,28,29,28,44,24,29		9, 6
16″	8,14, 2,22,54,43,44,40,53,55		36, 7, 6, 2	
		2, 4,28,28,52,37,18,27		9, 6
18″	8,14, 4,27,23,12,37,18,12,22		36, 7,15, 8	
		2, 4,28,28,16,30, 3,19		9, 6
20″	8,14, 6,31,51,40,53,48,15,41		36, 7,24,14	
		2, 4,28,27,40,22,39, 5		9, 6
22″	8,14, 8,36,20, 8,34,10,54,46		36, 7,33,20	
		2, 4,28,27, 4,15, 5,45		9, 6
24″	8,14,10,40,48,35,38,26, 0,31		36, 7,42,26	
		2, 4,28,26,28, 7,23,19		9, 6
26″	8,14,12,45,17, 2, 6,33,23,50		36, 7,51,32	
		2, 4,28,25,51,59,31,47		9, 6
28″	8,14,14,49,45,27,58,32,55,37		36, 8, 0,38	
		2, 4,28,25,15,51,31, 9		9, 6
30″	8,14,16,54,13,53,14,24,26,46		36, 8, 9,44	
		2, 4,28,24,39,43,21,25		9, 6
32″	8,14,18,58,42,17,54, 7,48,11		36, 8,18,50	
		2, 4,28,24, 3,35, 2,35		9, 6
34″	8,14,21, 3,10,41,57,42,50,46		36, 8,27,56	
		2, 4,28,23,27,26,34,39		9, 6
36″	8,14,23, 7,39, 5,25, 9,25,25		36, 8,37, 2	
		2, 4,28,22,51,17,57,37		9, 6
38″	8,14,25,12, 7,28,16,27,23, 2		36, 8,46, 8	
		2, 4,28,22,15, 9,11,29		9, 6
40″	8,14,27,16,35,50,31,36,34,31		36, 8,55,14	
		2, 4,28,21,39, 0,16,15		9, 6
42″	8,14,29,21, 4,12,10,36,50,46		36, 9, 4,20	
		2, 4,28,21, 2,51,11,55		9, 6
44″	8,14,31,25,32,33,13,28, 2,41		36, 9,13,26	
		2, 4,28,20,26,41,58,29		9, 6
46″	8,14,33,30, 0,53,40,10, 1,10		36, 9,22,32	
		2, 4,28,19,50,32,35,57		9, 6
48″	8,14,35,34,29,13,30,42,37, 7		36, 9,31,38	
		2, 4,28,19,14,23, 4,19		9, 6
50″	8,14,37,38,57,32,45, 5,41,26		36, 9,40,44	
		2, 4,28,18,38,13,23,35		9, 6
52″	8,14,39,43,25,51,23,19, 5, 1		36, 9,49,50	
		2, 4,28,18, 2, 3,33,45		9, 6
54″	8,14,41,47,54, 9,25,22,38,46		36, 9,58,56	
		2, 4,28,17,25,53,34,49		9, 6
56″	8,14,43,52,22,26,51,16,13,35		36,10, 8, 2	
		2, 4,28,16,49,43,26,47		9, 6
58″	8,14,45,56,50,43,40,59,40,22		36,10,17, 8	
		2, 4,28,16,13,33, 9,39		
60″	8,14,48, 1,18,59,54,32,50, 1			
exact	8,14,48, 1,18,59,54,32,48,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°54′ 0″	8,14,48, 1,18,59,54,32,48,47			
		2, 4,28,15,37,22,43,19		
2″	8,14,50, 5,47,15,31,55,32, 6		36,10,35,20	
		2, 4,28,15, 1,12, 7,59		9, 6
4″	8,14,52,10,15,30,33, 7,40, 5		36,10,44,26	
		2, 4,28,14,25, 1,23,33		9, 6
6″	8,14,54,14,43,44,58, 9, 3,38		36,10,53,32	
		2, 4,28,13,48,50,30, 1		9, 6
8″	8,14,56,19,11,58,46,59,33,39		36,11, 2,38	
		2, 4,28,13,12,39,27,23		9, 6
10″	8,14,58,23,40,11,59,39, 1, 2		36,11,11,44	
		2, 4,28,12,36,28,15,39		9, 6
12″	8,15, 0,28, 8,24,36, 7,16,41		36,11,20,50	
		2, 4,28,12, 0,16,54,49		9, 6
14″	8,15, 2,32,36,36,36,24,11,30		36,11,29,56	
		2, 4,28,11,24, 5,24,53		9, 6
16″	8,15, 4,37, 4,48, 0,29,36,23		36,11,39, 2	
		2, 4,28,10,47,53,45,51		9, 6
18″	8,15, 6,41,32,58,48,23,22,14		36,11,48, 8	
		2, 4,28,10,11,41,57,43		9, 6
20″	8,15, 8,46, 1, 9, 0, 5,19,57		36,11,57,14	
		2, 4,28, 9,35,30, 0,29		9, 6
22″	8,15,10,50,29,18,35,35,20,26		36,12, 6,20	
		2, 4,28, 8,59,17,54, 9		9, 6
24″	8,15,12,54,57,27,34,53,14,35		36,12,15,26	
		2, 4,28, 8,23, 5,38,43		9, 6
26″	8,15,14,59,25,35,57,58,53,18		36,12,24,32	
		2, 4,28, 7,46,53,14,11		9, 6
28″	8,15,17, 3,53,43,44,52, 7,29		36,12,33,38	
		2, 4,28, 7,10,40,40,33		9, 6
30″	8,15,19, 8,21,50,55,32,48, 2		36,12,42,44	
		2, 4,28, 6,34,27,57,49		9, 6
32″	8,15,21,12,49,57,30, 0,45,51		36,12,51,50	
		2, 4,28, 5,58,15, 5,59		9, 6
34″	8,15,23,17,18, 3,28,15,51,50		36,13, 0,56	
		2, 4,28, 5,22, 2, 5, 3		9, 6
36″	8,15,25,21,46, 8,50,17,56,53		36,13,10, 2	
		2, 4,28, 4,45,48,55, 1		9, 6
38″	8,15,27,26,14,13,36, 6,51,54		36,13,19, 8	
		2, 4,28, 4, 9,35,35,53		9, 6
40″	8,15,29,30,42,17,45,42,27,47		36,13,28,14	
		2, 4,28, 3,33,22, 7,39		9, 6
42″	8,15,31,35,10,21,19, 4,35,26		36,13,37,20	
		2, 4,28, 2,57, 8,30,19		9, 6
44″	8,15,33,39,38,24,16,13, 5,45		36,13,46,26	
		2, 4,28, 2,20,54,43,53		9, 6
46″	8,15,35,44, 6,26,37, 7,49,38		36,13,55,32	
		2, 4,28, 1,44,40,48,21		9, 6
48″	8,15,37,48,34,28,21,48,37,59		36,14, 4,38	
		2, 4,28, 1, 8,26,43,43		9, 6
50″	8,15,39,53, 2,29,30,15,21,42		36,14,13,44	
		2, 4,28, 0,32,12,29,59		9, 6
52″	8,15,41,57,30,30, 2,27,51,41		36,14,22,50	
		2, 4,27,59,55,58, 7, 9		9, 6
54″	8,15,44, 1,58,29,58,25,58,50		36,14,31,56	
		2, 4,27,59,19,43,35,13		9, 6
56″	8,15,46, 6,26,29,18, 9,34, 3		36,14,41, 2	
		2, 4,27,58,43,28,54,11		9, 6
58″	8,15,48,10,54,28, 1,38,28,14		36,14,50, 8	
		2, 4,27,58, 7,14, 4, 3		
60″	8,15,50,15,22,26, 8,52,32,17			
exact	8,15,50,15,22,26, 8,52,32, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°55′ 0″	8,15,50,15,22,26, 8,52,32, 3			
		2, 4,27,57,30,59, 4,51		
2″	8,15,52,19,50,23,39,51,36,54		36,15, 8,20	
		2, 4,27,56,54,43,56,31		9, 6
4″	8,15,54,24,18,20,34,35,33,25		36,15,17,26	
		2, 4,27,56,18,28,39, 5		9, 6
6″	8,15,56,28,46,16,53, 4,12,30		36,15,26,32	
		2, 4,27,55,42,13,12,33		9, 6
8″	8,15,58,33,14,12,35,17,25, 3		36,15,35,38	
		2, 4,27,55, 5,57,36,55		9, 6
10″	8,16, 0,37,42, 7,41,15, 1,58		36,15,44,44	
		2, 4,27,54,29,41,52,11		9, 6
12″	8,16, 2,42,10, 2,10,56,54, 9		36,15,53,50	
		2, 4,27,53,53,25,58,21		9, 6
14″	8,16, 4,46,37,56, 4,22,52,30		36,16, 2,56	
		2, 4,27,53,17, 9,55,25		9, 6
16″	8,16, 6,51, 5,49,21,32,47,55		36,16,12, 2	
		2, 4,27,52,40,53,43,23		9, 6
18″	8,16, 8,55,33,42, 2,26,31,18		36,16,21, 8	
		2, 4,27,52, 4,37,22,15		9, 6
20″	8,16,11, 0, 1,34, 7, 3,53,33		36,16,30,14	
		2, 4,27,51,28,20,52, 1		9, 6
22″	8,16,13, 4,29,25,35,24,45,34		36,16,39,20	
		2, 4,27,50,52, 4,12,41		9, 6
24″	8,16,15, 8,57,16,27,28,58,15		36,16,48,26	
		2, 4,27,50,15,47,24,15		9, 6
26″	8,16,17,13,25, 6,43,16,22,30		36,16,57,32	
		2, 4,27,49,39,30,26,43		9, 6
28″	8,16,19,17,52,56,22,46,49,13		36,17, 6,38	
		2, 4,27,49, 3,13,20, 5		9, 6
30″	8,16,21,22,20,45,26, 0, 9,18		36,17,15,44	
		2, 4,27,48,26,56, 4,21		9, 6
32″	8,16,23,26,48,33,52,56,13,39		36,17,24,50	
		2, 4,27,47,50,38,39,31		9, 6
34″	8,16,25,31,16,21,43,34,53,10		36,17,33,56	
		2, 4,27,47,14,21, 5,35		9, 6
36″	8,16,27,35,44, 8,57,55,58,45		36,17,43, 2	
		2, 4,27,46,38, 3,22,33		9, 6
38″	8,16,29,40,11,55,35,59,21,18		36,17,52, 8	
		2, 4,27,46, 1,45,30,25		9, 6
40″	8,16,31,44,39,41,37,44,51,43		36,18, 1,14	
		2, 4,27,45,25,27,29,11		9, 6
42″	8,16,33,49, 7,27, 3,12,20,54		36,18,10,20	
		2, 4,27,44,49, 9,18,51		9, 6
44″	8,16,35,53,35,11,52,21,39,45		36,18,19,26	
		2, 4,27,44,12,50,59,25		9, 6
46″	8,16,37,58, 2,56, 5,12,39,10		36,18,28,32	
		2, 4,27,43,36,32,30,53		9, 6
48″	8,16,40, 2,30,39,41,45,10, 3		36,18,37,38	
		2, 4,27,43, 0,13,53,15		9, 6
50″	8,16,42, 6,58,22,41,59, 3,18		36,18,46,44	
		2, 4,27,42,23,55, 6,31		9, 6
52″	8,16,44,11,26, 5, 5,54, 9,49		36,18,55,50	
		2, 4,27,41,47,36,10,41		9, 6
54″	8,16,46,15,53,46,53,30,20,30		36,19, 4,56	
		2, 4,27,41,11,17, 5,45		9, 6
56″	8,16,48,20,21,28, 4,47,26,15		36,19,14, 2	
		2, 4,27,40,34,57,51,43		9, 6
58″	8,16,50,24,49, 8,39,45,17,58		36,19,23, 8	
		2, 4,27,39,58,38,28,35		
60″	8,16,52,29,16,48,38,23,46,33			
exact	8,16,52,29,16,48,38,23,52,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°56′ 0″	8,16,52,29,16,48,38,23,52,14			
		2, 4,27,39,22,18,56,51		
2″	8,16,54,33,44,28, 0,42,49, 5		36,19,41,18	
		2, 4,27,38,45,59,15,33		9, 6
4″	8,16,56,38,12, 6,46,42, 4,38		36,19,50,24	
		2, 4,27,38, 9,39,25, 9		9, 6
6″	8,16,58,42,39,44,56,21,29,47		36,19,59,30	
		2, 4,27,37,33,19,25,39		9, 6
8″	8,17, 0,47, 7,22,29,40,55,26		36,20, 8,36	
		2, 4,27,36,56,59,17, 3		9, 6
10″	8,17, 2,51,34,59,26,40,12,29		36,20,17,42	
		2, 4,27,36,20,38,59,21		9, 6
12″	8,17, 4,56, 2,35,47,19,11,50		36,20,26,48	
		2, 4,27,35,44,18,32,33		9, 6
14″	8,17, 7, 0,30,11,31,37,44,23		36,20,35,54	
		2, 4,27,35, 7,57,56,39		9, 6
16″	8,17, 9, 4,57,46,39,35,41, 2		36,20,45, 0	
		2, 4,27,34,31,37,11,39		9, 6
18″	8,17,11, 9,25,21,11,12,52,41		36,20,54, 6	
		2, 4,27,33,55,16,17,33		9, 6
20″	8,17,13,13,52,55, 6,29,10,14		36,21, 3,12	
		2, 4,27,33,18,55,14,21		9, 6
22″	8,17,15,18,20,28,25,24,24,35		36,21,12,18	
		2, 4,27,32,42,34, 2, 3		9, 6
24″	8,17,17,22,48, 1, 7,58,26,38		36,21,21,24	
		2, 4,27,32, 6,12,40,39		9, 6
26″	8,17,19,27,15,33,14,11, 7,17		36,21,30,30	
		2, 4,27,31,29,51,10, 9		9, 6
28″	8,17,21,31,43, 4,44, 2,17,26		36,21,39,36	
		2, 4,27,30,53,29,30,33		9, 6
30″	8,17,23,36,10,35,37,31,47,59		36,21,48,42	
		2, 4,27,30,17, 7,41,51		9, 6
32″	8,17,25,40,38, 5,54,39,29,50		36,21,57,48	
		2, 4,27,29,40,45,44, 3		9, 6
34″	8,17,27,45, 5,35,35,25,13,53		36,22, 6,54	
		2, 4,27,29, 4,23,37, 9		9, 6
36″	8,17,29,49,33, 4,39,48,51, 2		36,22,16, 0	
		2, 4,27,28,28, 1,21, 9		9, 6
38″	8,17,31,54, 0,33, 7,50,12,11		36,22,25, 6	
		2, 4,27,27,51,38,56, 3		9, 6
40″	8,17,33,58,28, 0,59,29, 8,14		36,22,34,12	
		2, 4,27,27,15,16,21,51		9, 6
42″	8,17,36, 2,55,28,14,45,30, 5		36,22,43,18	
		2, 4,27,26,38,53,38,33		9, 6
44″	8,17,38, 7,22,54,53,39, 8,38		36,22,52,24	
		2, 4,27,26, 2,30,46, 9		9, 6
46″	8,17,40,11,50,20,56, 9,54,47		36,23, 1,30	
		2, 4,27,25,26, 7,44,39		9, 6
48″	8,17,42,16,17,46,22,17,39,26		36,23,10,36	
		2, 4,27,24,49,44,34, 3		9, 6
50″	8,17,44,20,45,11,12, 2,13,29		36,23,19,42	
		2, 4,27,24,13,21,14,21		9, 6
52″	8,17,46,25,12,35,25,23,27,50		36,23,28,48	
		2, 4,27,23,36,57,45,33		9, 6
54″	8,17,48,29,39,59, 2,21,13,23		36,23,37,54	
		2, 4,27,23, 0,34, 7,39		9, 6
56″	8,17,50,34, 7,22, 2,55,21, 2		36,23,47, 0	
		2, 4,27,22,24,10,20,39		9, 6
58″	8,17,52,38,34,44,27, 5,41,41		36,23,56, 6	
		2, 4,27,21,47,46,24,33		
60″	8,17,54,43, 2, 6,14,52, 6,14			
exact	8,17,54,43, 2, 6,14,52, 8, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°57′ 0″	8,17,54,43, 2, 6,14,52, 8, 6			
		2, 4,27,21,11,22,19,39		
2″	8,17,56,47,29,27,26,14,27,45		36,24,14,16	
		2, 4,27,20,34,58, 5,23		9, 6
4″	8,17,58,51,56,48, 1,12,33, 8		36,24,23,22	
		2, 4,27,19,58,33,42, 1		9, 6
6″	8,18, 0,56,24, 7,59,46,15, 9		36,24,32,28	
		2, 4,27,19,22, 9, 9,33		9, 6
8″	8,18, 3, 0,51,27,21,55,24,42		36,24,41,34	
		2, 4,27,18,45,44,27,59		9, 6
10″	8,18, 5, 5,18,46, 7,39,52,41		36,24,50,40	
		2, 4,27,18, 9,19,37,19		9, 6
12″	8,18, 7, 9,46, 4,16,59,30, 0		36,24,59,46	
		2, 4,27,17,32,54,37,33		9, 6
14″	8,18, 9,14,13,21,49,54, 7,33		36,25, 8,52	
		2, 4,27,16,56,29,28,41		9, 6
16″	8,18,11,18,40,38,46,23,36,14		36,25,17,58	
		2, 4,27,16,20, 4,10,43		9, 6
18″	8,18,13,23, 7,55, 6,27,46,57		36,25,27, 4	
		2, 4,27,15,43,38,43,39		9, 6
20″	8,18,15,27,35,10,50, 6,30,36		36,25,36,10	
		2, 4,27,15, 7,13, 7,29		9, 6
22″	8,18,17,32, 2,25,57,19,38, 5		36,25,45,16	
		2, 4,27,14,30,47,22,13		9, 6
24″	8,18,19,36,29,40,28, 7, 0,18		36,25,54,22	
		2, 4,27,13,54,21,27,51		9, 6
26″	8,18,21,40,56,54,22,28,28, 9		36,26, 3,28	
		2, 4,27,13,17,55,24,23		9, 6
28″	8,18,23,45,24, 7,40,23,52,32		36,26,12,34	
		2, 4,27,12,41,29,11,49		9, 6
30″	8,18,25,49,51,20,21,53, 4,21		36,26,21,40	
		2, 4,27,12, 5, 2,50, 9		9, 6
32″	8,18,27,54,18,32,26,55,54,30		36,26,30,46	
		2, 4,27,11,28,36,19,23		9, 6
34″	8,18,29,58,45,43,55,32,13,53		36,26,39,52	
		2, 4,27,10,52, 9,39,31		9, 6
36″	8,18,32, 3,12,54,47,41,53,24		36,26,48,58	
		2, 4,27,10,15,42,50,33		9, 6
38″	8,18,34, 7,40, 5, 3,24,43,57		36,26,58, 4	
		2, 4,27, 9,39,15,52,29		9, 6
40″	8,18,36,12, 7,14,42,40,36,26		36,27, 7,10	
		2, 4,27, 9, 2,48,45,19		9, 6
42″	8,18,38,16,34,23,45,29,21,45		36,27,16,16	
		2, 4,27, 8,26,21,29, 3		9, 6
44″	8,18,40,21, 1,32,11,50,50,48		36,27,25,22	
		2, 4,27, 7,49,54, 3,41		9, 6
46″	8,18,42,25,28,40, 1,44,54,29		36,27,34,28	
		2, 4,27, 7,13,26,29,13		9, 6
48″	8,18,44,29,55,47,15,11,23,42		36,27,43,34	
		2, 4,27, 6,36,58,45,39		9, 6
50″	8,18,46,34,22,53,52,10, 9,21		36,27,52,40	
		2, 4,27, 6, 0,30,52,59		9, 6
52″	8,18,48,38,49,59,52,41, 2,20		36,28, 1,46	
		2, 4,27, 5,24, 2,51,13		9, 6
54″	8,18,50,43,17, 5,16,43,53,33		36,28,10,52	
		2, 4,27, 4,47,34,40,21		9, 6
56″	8,18,52,47,44,10, 4,18,33,54		36,28,19,58	
		2, 4,27, 4,11, 6,20,23		9, 6
58″	8,18,54,52,11,14,15,24,54,17		36,28,29, 4	
		2, 4,27, 3,34,37,51,19		
60″	8,18,56,56,38,17,50, 2,45,36			
exact	8,18,56,56,38,17,50, 2,48,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°58′ 0″	8,18,56,56,38,17,50, 2,48,28			
		2, 4,27, 2,58, 9,13,34		
2″	8,18,59, 1, 5,20,48,12, 2, 2		36,28,47,14	
		2, 4,27, 2,21,40,26,20		9, 6
4″	8,19, 1, 5,32,23, 9,52,28,22		36,28,56,20	
		2, 4,27, 1,45,11,30, 0		9, 6
6″	8,19, 3, 9,59,24,55, 3,58,22		36,29, 5,26	
		2, 4,27, 1, 8,42,24,34		9, 6
8″	8,19, 5,14,26,26, 3,46,22,56		36,29,14,32	
		2, 4,27, 0,32,13,10, 2		9, 6
10″	8,19, 7,18,53,26,35,59,32,58		36,29,23,38	
		2, 4,26,59,55,43,46,24		9, 6
12″	8,19, 9,23,20,26,31,43,19,22		36,29,32,44	
		2, 4,26,59,19,14,13,40		9, 6
14″	8,19,11,27,47,25,50,57,33, 2		36,29,41,50	
		2, 4,26,58,42,44,31,50		9, 6
16″	8,19,13,32,14,24,33,42, 4,52		36,29,50,56	
		2, 4,26,58, 6,14,40,54		9, 6
18″	8,19,15,36,41,22,39,56,45,46		36,30, 0, 2	
		2, 4,26,57,29,44,40,52		9, 6
20″	8,19,17,41, 8,20, 9,41,26,38		36,30, 9, 8	
		2, 4,26,56,53,14,31,44		9, 6
22″	8,19,19,45,35,17, 2,55,58,22		36,30,18,14	
		2, 4,26,56,16,44,13,30		9, 6
24″	8,19,21,50, 2,13,19,40,11,52		36,30,27,20	
		2, 4,26,55,40,13,46,10		9, 6
26″	8,19,23,54,29, 8,59,53,58, 2		36,30,36,26	
		2, 4,26,55, 3,43, 9,44		9, 6
28″	8,19,25,58,56, 4, 3,37, 7,46		36,30,45,32	
		2, 4,26,54,27,12,24,12		9, 6
30″	8,19,28, 3,22,58,30,49,31,58		36,30,54,38	
		2, 4,26,53,50,41,29,34		9, 6
32″	8,19,30, 7,49,52,21,31, 1,32		36,31, 3,44	
		2, 4,26,53,14,10,25,50		9, 6
34″	8,19,32,12,16,45,35,41,27,22		36,31,12,50	
		2, 4,26,52,37,39,13, 0		9, 6
36″	8,19,34,16,43,38,13,20,40,22		36,31,21,56	
		2, 4,26,52, 1, 7,51, 4		9, 6
38″	8,19,36,21,10,30,14,28,31,26		36,31,31, 2	
		2, 4,26,51,24,36,20, 2		9, 6
40″	8,19,38,25,37,21,39, 4,51,28		36,31,40, 8	
		2, 4,26,50,48, 4,39,54		9, 6
42″	8,19,40,30, 4,12,27, 9,31,22		36,31,49,14	
		2, 4,26,50,11,32,50,40		9, 6
44″	8,19,42,34,31, 2,38,42,22, 2		36,31,58,20	
		2, 4,26,49,35, 0,52,20		9, 6
46″	8,19,44,38,57,52,13,43,14,22		36,32, 7,26	
		2, 4,26,48,58,28,44,54		9, 6
48″	8,19,46,43,24,41,12,11,59,16		36,32,16,32	
		2, 4,26,48,21,56,28,22		9, 6
50″	8,19,48,47,51,29,34, 8,27,38		36,32,25,38	
		2, 4,26,47,45,24, 2,44		9, 6
52″	8,19,50,52,18,17,19,32,30,22		36,32,34,44	
		2, 4,26,47, 8,51,28, 0		9, 6
54″	8,19,52,56,45, 4,28,23,58,22		36,32,43,50	
		2, 4,26,46,32,18,44,10		9, 6
56″	8,19,55, 1,11,51, 0,42,42,32		36,32,52,56	
		2, 4,26,45,55,45,51,14		9, 6
58″	8,19,57, 5,38,36,56,28,33,46		36,33, 2, 2	
		2, 4,26,45,19,12,49,12		
60″	8,19,59,10, 5,22,15,41,22,58			
exact	8,19,59,10, 5,22,15,41,32, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
7°59′ 0″	8,19,59,10, 5,22,15,41,32, 5			
		2, 4,26,44,42,39,38,58		
2″	8,20, 1,14,32, 6,58,21,11, 3		36,33,20,10	
		2, 4,26,44, 6, 6,18,48		9, 6
4″	8,20, 3,18,58,51, 4,27,29,51		36,33,29,16	
		2, 4,26,43,29,32,49,32		9, 6
6″	8,20, 5,23,25,34,34, 0,19,23		36,33,38,22	
		2, 4,26,42,52,59,11,10		9, 6
8″	8,20, 7,27,52,17,26,59,30,33		36,33,47,28	
		2, 4,26,42,16,25,23,42		9, 6
10″	8,20, 9,32,18,59,43,24,54,15		36,33,56,34	
		2, 4,26,41,39,51,27, 8		9, 6
12″	8,20,11,36,45,41,23,16,21,23		36,34, 5,40	
		2, 4,26,41, 3,17,21,28		9, 6
14″	8,20,13,41,12,22,26,33,42,51		36,34,14,46	
		2, 4,26,40,26,43, 6,42		9, 6
16″	8,20,15,45,39, 2,53,16,49,33		36,34,23,52	
		2, 4,26,39,50, 8,42,50		9, 6
18″	8,20,17,50, 5,42,43,25,32,23		36,34,32,58	
		2, 4,26,39,13,34, 9,52		9, 6
20″	8,20,19,54,32,21,56,59,42,15		36,34,42, 4	
		2, 4,26,38,36,59,27,48		9, 6
22″	8,20,21,58,59, 0,33,59,10, 3		36,34,51,10	
		2, 4,26,38, 0,24,36,38		9, 6
24″	8,20,24, 3,25,38,34,23,46,41		36,35, 0,16	
		2, 4,26,37,23,49,36,22		9, 6
26″	8,20,26, 7,52,15,58,13,23, 3		36,35, 9,22	
		2, 4,26,36,47,14,27, 0		9, 6
28″	8,20,28,12,18,52,45,27,50, 3		36,35,18,28	
		2, 4,26,36,10,39, 8,32		9, 6
30″	8,20,30,16,45,28,56, 6,58,35		36,35,27,34	
		2, 4,26,35,34, 3,40,58		9, 6
32″	8,20,32,21,12, 4,30,10,39,33		36,35,36,40	
		2, 4,26,34,57,28, 4,18		9, 6
34″	8,20,34,25,38,39,27,38,43,51		36,35,45,46	
		2, 4,26,34,20,52,18,32		9, 6
36″	8,20,36,30, 5,13,48,31, 2,23		36,35,54,52	
		2, 4,26,33,44,16,23,40		9, 6
38″	8,20,38,34,31,47,32,47,26, 3		36,36, 3,58	
		2, 4,26,33, 7,40,19,42		9, 6
40″	8,20,40,38,58,20,40,27,45,45		36,36,13, 4	
		2, 4,26,32,31, 4, 6,38		9, 6
42″	8,20,42,43,24,53,11,31,52,23		36,36,22,10	
		2, 4,26,31,54,27,44,28		9, 6
44″	8,20,44,47,51,25, 5,59,36,51		36,36,31,16	
		2, 4,26,31,17,51,13,12		9, 6
46″	8,20,46,52,17,56,23,50,50, 3		36,36,40,22	
		2, 4,26,30,41,14,32,50		9, 6
48″	8,20,48,56,44,27, 5, 5,22,53		36,36,49,28	
		2, 4,26,30, 4,37,43,22		9, 6
50″	8,20,51, 1,10,57, 9,43, 6,15		36,36,58,34	
		2, 4,26,29,28, 0,44,48		9, 6
52″	8,20,53, 5,37,26,37,43,51, 3		36,37, 7,40	
		2, 4,26,28,51,23,37, 8		9, 6
54″	8,20,55,10, 3,55,29, 7,28,11		36,37,16,46	
		2, 4,26,28,14,46,20,22		9, 6
56″	8,20,57,14,30,23,43,53,48,33		36,37,25,52	
		2, 4,26,27,38, 8,54,30		9, 6
58″	8,20,59,18,56,51,22, 2,43, 3		36,37,34,58	
		2, 4,26,27, 1,31,19,32		
60″	8,21, 1,23,23,18,23,34, 2,35			
exact	8,21, 1,23,23,18,23,34, 7,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8° 0′ 0″	8,21, 1,23,23,18,23,34, 7,41			
		2, 4,26,26,24,53,36, 9		
2″	8,21, 3,27,49,44,48,27,43,50		36,37,53, 7	
		2, 4,26,25,48,15,43, 2		9, 6
4″	8,21, 5,32,16,10,36,43,26,52		36,38, 2,13	
		2, 4,26,25,11,37,40,49		9, 6
6″	8,21, 7,36,42,35,48,21, 7,41		36,38,11,19	
		2, 4,26,24,34,59,29,30		9, 6
8″	8,21, 9,41, 9, 0,23,20,37,11		36,38,20,25	
		2, 4,26,23,58,21, 9, 5		9, 6
10″	8,21,11,45,35,24,21,41,46,16		36,38,29,31	
		2, 4,26,23,21,42,39,34		9, 6
12″	8,21,13,50, 1,47,43,24,25,50		36,38,38,37	
		2, 4,26,22,45, 4, 0,57		9, 6
14″	8,21,15,54,28,10,28,28,26,47		36,38,47,43	
		2, 4,26,22, 8,25,13,14		9, 6
16″	8,21,17,58,54,32,36,53,40, 1		36,38,56,49	
		2, 4,26,21,31,46,16,25		9, 6
18″	8,21,20, 3,20,54, 8,39,56,26		36,39, 5,55	
		2, 4,26,20,55, 7,10,30		9, 6
20″	8,21,22, 7,47,15, 3,47, 6,56		36,39,15, 1	
		2, 4,26,20,18,27,55,29		9, 6
22″	8,21,24,12,13,35,22,15, 2,25		36,39,24, 7	
		2, 4,26,19,41,48,31,22		9, 6
24″	8,21,26,16,39,55, 4, 3,33,47		36,39,33,13	
		2, 4,26,19, 5, 8,58, 9		9, 6
26″	8,21,28,21, 6,14, 9,12,31,56		36,39,42,19	
		2, 4,26,18,28,29,15,50		9, 6
28″	8,21,30,25,32,32,37,41,47,46		36,39,51,25	
		2, 4,26,17,51,49,24,25		9, 6
30″	8,21,32,29,58,50,29,31,12,11		36,40, 0,31	
		2, 4,26,17,15, 9,23,54		9, 6
32″	8,21,34,34,25, 7,44,40,36, 5		36,40, 9,37	
		2, 4,26,16,38,29,14,17		9, 6
34″	8,21,36,38,51,24,23, 9,50,22		36,40,18,43	
		2, 4,26,16, 1,48,55,34		9, 6
36″	8,21,38,43,17,40,24,58,45,56		36,40,27,49	
		2, 4,26,15,25, 8,27,45		9, 6
38″	8,21,40,47,43,55,50, 7,13,41		36,40,36,55	
		2, 4,26,14,48,27,50,50		9, 6
40″	8,21,42,52,10,10,38,35, 4,31		36,40,46, 1	
		2, 4,26,14,11,47, 4,49		9, 6
42″	8,21,44,56,36,24,50,22, 9,20		36,40,55, 7	
		2, 4,26,13,35, 6, 9,42		9, 6
44″	8,21,47, 1, 2,38,25,28,19, 2		36,41, 4,13	
		2, 4,26,12,58,25, 5,29		9, 6
46″	8,21,49, 5,28,51,23,53,24,31		36,41,13,19	
		2, 4,26,12,21,43,52,10		9, 6
48″	8,21,51, 9,55, 3,45,37,16,41		36,41,22,25	
		2, 4,26,11,45, 2,29,45		9, 6
50″	8,21,53,14,21,15,30,39,46,26		36,41,31,31	
		2, 4,26,11, 8,20,58,14		9, 6
52″	8,21,55,18,47,26,39, 0,44,40		36,41,40,37	
		2, 4,26,10,31,39,17,37		9, 6
54″	8,21,57,23,13,37,10,40, 2,17		36,41,49,43	
		2, 4,26, 9,54,57,27,54		9, 6
56″	8,21,59,27,39,47, 5,37,30,11		36,41,58,49	
		2, 4,26, 9,18,15,29, 5		9, 6
58″	8,22, 1,32, 5,56,23,52,59,16		36,42, 7,55	
		2, 4,26, 8,41,33,21,10		
60″	8,22, 3,36,32, 5, 5,26,20,26			
exact	8,22, 3,36,32, 5, 5,26,34, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8° 1′ 0″	8,22, 3,36,32, 5, 5,26,34, 4			
		2, 4,26, 8, 4,51, 5,29		
2″	8,22, 5,40,58,13,10,17,39,33		36,42,26, 2	
		2, 4,26, 7,28, 8,39,27		9, 6
4″	8,22, 7,45,24,20,38,26,19, 0		36,42,35, 8	
		2, 4,26, 6,51,26, 4,19		9, 6
6″	8,22, 9,49,50,27,29,52,23,19		36,42,44,14	
		2, 4,26, 6,14,43,20, 5		9, 6
8″	8,22,11,54,16,33,44,35,43,24		36,42,53,20	
		2, 4,26, 5,38, 0,26,45		9, 6
10″	8,22,13,58,42,39,22,36,10, 9		36,43, 2,26	
		2, 4,26, 5, 1,17,24,19		9, 6
12″	8,22,16, 3, 8,44,23,53,34,28		36,43,11,32	
		2, 4,26, 4,24,34,12,47		9, 6
14″	8,22,18, 7,34,48,48,27,47,15		36,43,20,38	
		2, 4,26, 3,47,50,52, 9		9, 6
16″	8,22,20,12, 0,52,36,18,39,24		36,43,29,44	
		2, 4,26, 3,11, 7,22,25		9, 6
18″	8,22,22,16,26,55,47,26, 1,49		36,43,38,50	
		2, 4,26, 2,34,23,43,35		9, 6
20″	8,22,24,20,52,58,21,49,45,24		36,43,47,56	
		2, 4,26, 1,57,39,55,39		9, 6
22″	8,22,26,25,19, 0,19,29,41, 3		36,43,57, 2	
		2, 4,26, 1,20,55,58,37		9, 6
24″	8,22,28,29,45, 1,40,25,39,40		36,44, 6, 8	
		2, 4,26, 0,44,11,52,29		9, 6
26″	8,22,30,34,11, 2,24,37,32, 9		36,44,15,14	
		2, 4,26, 0, 7,27,37,15		9, 6
28″	8,22,32,38,37, 2,32, 5, 9,24		36,44,24,20	
		2, 4,25,59,30,43,12,55		9, 6
30″	8,22,34,43, 3, 2, 2,48,22,19		36,44,33,26	
		2, 4,25,58,53,58,39,29		9, 6
32″	8,22,36,47,29, 0,56,47, 1,48		36,44,42,32	
		2, 4,25,58,17,13,56,57		9, 6
34″	8,22,38,51,54,59,14, 0,58,45		36,44,51,38	
		2, 4,25,57,40,29, 5,19		9, 6
36″	8,22,40,56,20,56,54,30, 4, 4		36,45, 0,44	
		2, 4,25,57, 3,44, 4,35		9, 6
38″	8,22,43, 0,46,53,58,14, 8,39		36,45, 9,50	
		2, 4,25,56,26,58,54,45		9, 6
40″	8,22,45, 5,12,50,25,13, 3,24		36,45,18,56	
		2, 4,25,55,50,13,35,49		9, 6
42″	8,22,47, 9,38,46,15,26,39,13		36,45,28, 2	
		2, 4,25,55,13,28, 7,47		9, 6
44″	8,22,49,14, 4,41,28,54,47, 0		36,45,37, 8	
		2, 4,25,54,36,42,30,39		9, 6
46″	8,22,51,18,30,36, 5,37,17,39		36,45,46,14	
		2, 4,25,53,59,56,44,25		9, 6
48″	8,22,53,22,56,30, 5,34, 2, 4		36,45,55,20	
		2, 4,25,53,23,10,49, 5		9, 6
50″	8,22,55,27,22,23,28,44,51, 9		36,46, 4,26	
		2, 4,25,52,46,24,44,39		9, 6
52″	8,22,57,31,48,16,15, 9,35,48		36,46,13,32	
		2, 4,25,52, 9,38,31, 7		9, 6
54″	8,22,59,36,14, 8,24,48, 6,55		36,46,22,38	
		2, 4,25,51,32,52, 8,29		9, 6
56″	8,23, 1,40,39,59,57,40,15,24		36,46,31,44	
		2, 4,25,50,56, 5,36,45		9, 6
58″	8,23, 3,45, 5,50,53,45,52, 9		36,46,40,50	
		2, 4,25,50,19,18,55,55		
60″	8,23, 5,49,31,41,13, 4,48, 4			
exact	8,23, 5,49,31,41,13, 5, 0, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8° 2′ 0″	8,23, 5,49,31,41,13, 5, 0, 4			
		2, 4,25,49,42,32, 7,16		
2″	8,23, 7,53,57,30,55,37, 7,20		36,46,58,57	
		2, 4,25,49, 5,45, 8,19		9, 6
4″	8,23, 9,58,23,20, 1,22,15,39		36,47, 8, 3	
		2, 4,25,48,28,58, 0,16		9, 6
6″	8,23,12, 2,49, 8,30,20,15,55		36,47,17, 9	
		2, 4,25,47,52,10,43, 7		9, 6
8″	8,23,14, 7,14,56,22,30,59, 2		36,47,26,15	
		2, 4,25,47,15,23,16,52		9, 6
10″	8,23,16,11,40,43,37,54,15,54		36,47,35,21	
		2, 4,25,46,38,35,41,31		9, 6
12″	8,23,18,16, 6,30,16,29,57,25		36,47,44,27	
		2, 4,25,46, 1,47,57, 4		9, 6
14″	8,23,20,20,32,16,18,17,54,29		36,47,53,33	
		2, 4,25,45,25, 0, 3,31		9, 6
16″	8,23,22,24,58, 1,43,17,58, 0		36,48, 2,39	
		2, 4,25,44,48,12, 0,52		9, 6
18″	8,23,24,29,23,46,31,29,58,52		36,48,11,45	
		2, 4,25,44,11,23,49, 7		9, 6
20″	8,23,26,33,49,30,42,53,47,59		36,48,20,51	
		2, 4,25,43,34,35,28,16		9, 6
22″	8,23,28,38,15,14,17,29,16,15		36,48,29,57	
		2, 4,25,42,57,46,58,19		9, 6
24″	8,23,30,42,40,57,15,16,14,34		36,48,39, 3	
		2, 4,25,42,20,58,19,16		9, 6
26″	8,23,32,47, 6,39,36,14,33,50		36,48,48, 9	
		2, 4,25,41,44, 9,31, 7		9, 6
28″	8,23,34,51,32,21,20,24, 4,57		36,48,57,15	
		2, 4,25,41, 7,20,33,52		9, 6
30″	8,23,36,55,58, 2,27,44,38,49		36,49, 6,21	
		2, 4,25,40,30,31,27,31		9, 6
32″	8,23,39, 0,23,42,58,16, 6,20		36,49,15,27	
		2, 4,25,39,53,42,12, 4		9, 6
34″	8,23,41, 4,49,22,51,58,18,24		36,49,24,33	
		2, 4,25,39,16,52,47,31		9, 6
36″	8,23,43, 9,15, 2, 8,51, 5,55		36,49,33,39	
		2, 4,25,38,40, 3,13,52		9, 6
38″	8,23,45,13,40,40,48,54,19,47		36,49,42,45	
		2, 4,25,38, 3,13,31, 7		9, 6
40″	8,23,47,18, 6,18,52, 7,50,54		36,49,51,51	
		2, 4,25,37,26,23,39,16		9, 6
42″	8,23,49,22,31,56,18,31,30,10		36,50, 0,57	
		2, 4,25,36,49,33,38,19		9, 6
44″	8,23,51,26,57,33, 8, 5, 8,29		36,50,10, 3	
		2, 4,25,36,12,43,28,16		9, 6
46″	8,23,53,31,23, 9,20,48,36,45		36,50,19, 9	
		2, 4,25,35,35,53, 9, 7		9, 6
48″	8,23,55,35,48,44,56,41,45,52		36,50,28,15	
		2, 4,25,34,59, 2,40,52		9, 6
50″	8,23,57,40,14,19,55,44,26,44		36,50,37,21	
		2, 4,25,34,22,12, 3,31		9, 6
52″	8,23,59,44,39,54,17,56,30,15		36,50,46,27	
		2, 4,25,33,45,21,17, 4		9, 6
54″	8,24, 1,49, 5,28, 3,17,47,19		36,50,55,33	
		2, 4,25,33, 8,30,21,31		9, 6
56″	8,24, 3,53,31, 1,11,48, 8,50		36,51, 4,39	
		2, 4,25,32,31,39,16,52		9, 6
58″	8,24, 5,57,56,33,43,27,25,42		36,51,13,45	
		2, 4,25,31,54,48, 3, 7		
60″	8,24, 8, 2,22, 5,38,15,28,49			
exact	8,24, 8, 2,22, 5,38,15,44,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8° 3′ 0″	8,24, 8, 2,22, 5,38,15,44,32			
		2, 4,25,31,17,56,41,52		
2″	8,24,10, 6,47,36,56,12,26,24		36,51,31,51	
		2, 4,25,30,41, 5,10, 1		9, 6
4″	8,24,12,11,13, 7,37,17,36,25		36,51,40,57	
		2, 4,25,30, 4,13,29, 4		9, 6
6″	8,24,14,15,38,37,41,31, 5,29		36,51,50, 3	
		2, 4,25,29,27,21,39, 1		9, 6
8″	8,24,16,20, 4, 7, 8,52,44,30		36,51,59, 9	
		2, 4,25,28,50,29,39,52		9, 6
10″	8,24,18,24,29,35,59,22,24,22		36,52, 8,15	
		2, 4,25,28,13,37,31,37		9, 6
12″	8,24,20,28,55, 4,12,59,55,59		36,52,17,21	
		2, 4,25,27,36,45,14,16		9, 6
14″	8,24,22,33,20,31,49,45,10,15		36,52,26,27	
		2, 4,25,26,59,52,47,49		9, 6
16″	8,24,24,37,45,58,49,37,58, 4		36,52,35,33	
		2, 4,25,26,23, 0,12,16		9, 6
18″	8,24,26,42,11,25,12,38,10,20		36,52,44,39	
		2, 4,25,25,46, 7,27,37		9, 6
20″	8,24,28,46,36,50,58,45,37,57		36,52,53,45	
		2, 4,25,25, 9,14,33,52		9, 6
22″	8,24,30,51, 2,16, 8, 0,11,49		36,53, 2,51	
		2, 4,25,24,32,21,31, 1		9, 6
24″	8,24,32,55,27,40,40,21,42,50		36,53,11,57	
		2, 4,25,23,55,28,19, 4		9, 6
26″	8,24,34,59,53, 4,35,50, 1,54		36,53,21, 3	
		2, 4,25,23,18,34,58, 1		9, 6
28″	8,24,37, 4,18,27,54,24,59,55		36,53,30, 9	
		2, 4,25,22,41,41,27,52		9, 6
30″	8,24,39, 8,43,50,36, 6,27,47		36,53,39,15	
		2, 4,25,22, 4,47,48,37		9, 6
32″	8,24,41,13, 9,12,40,54,16,24		36,53,48,21	
		2, 4,25,21,27,54, 0,16		9, 6
34″	8,24,43,17,34,34, 8,48,16,40		36,53,57,27	
		2, 4,25,20,51, 0, 2,49		9, 6
36″	8,24,45,21,59,54,59,48,19,29		36,54, 6,33	
		2, 4,25,20,14, 5,56,16		9, 6
38″	8,24,47,26,25,15,13,54,15,45		36,54,15,39	
		2, 4,25,19,37,11,40,37		9, 6
40″	8,24,49,30,50,34,51, 5,56,22		36,54,24,45	
		2, 4,25,19, 0,17,15,52		9, 6
42″	8,24,51,35,15,53,51,23,12,14		36,54,33,51	
		2, 4,25,18,23,22,42, 1		9, 6
44″	8,24,53,39,41,12,14,45,54,15		36,54,42,57	
		2, 4,25,17,46,27,59, 4		9, 6
46″	8,24,55,44, 6,30, 1,13,53,19		36,54,52, 3	
		2, 4,25,17, 9,33, 7, 1		9, 6
48″	8,24,57,48,31,47,10,47, 0,20		36,55, 1, 9	
		2, 4,25,16,32,38, 5,52		9, 6
50″	8,24,59,52,57, 3,43,25, 6,12		36,55,10,15	
		2, 4,25,15,55,42,55,37		9, 6
52″	8,25, 1,57,22,19,39, 8, 1,49		36,55,19,21	
		2, 4,25,15,18,47,36,16		9, 6
54″	8,25, 4, 1,47,34,57,55,38, 5		36,55,28,27	
		2, 4,25,14,41,52, 7,49		9, 6
56″	8,25, 6, 6,12,49,39,47,45,54		36,55,37,33	
		2, 4,25,14, 4,56,30,16		9, 6
58″	8,25, 8,10,38, 3,44,44,16,10		36,55,46,39	
		2, 4,25,13,28, 0,43,37		
60″	8,25,10,15, 3,17,12,44,59,47			
exact	8,25,10,15, 3,17,12,45,16,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8° 4′ 0″	8,25,10,15, 3,17,12,45,16,27			
		2, 4,25,12,51, 4,49,36		
2″	8,25,12,19,28,30, 3,50, 6, 3		36,56, 4,44	
		2, 4,25,12,14, 8,44,52		9, 6
4″	8,25,14,23,53,42,17,58,50,55		36,56,13,50	
		2, 4,25,11,37,12,31, 2		9, 6
6″	8,25,16,28,18,53,55,11,21,57		36,56,22,56	
		2, 4,25,11, 0,16, 8, 6		9, 6
8″	8,25,18,32,44, 4,55,27,30, 3		36,56,32, 2	
		2, 4,25,10,23,19,36, 4		9, 6
10″	8,25,20,37, 9,15,18,47, 6, 7		36,56,41, 8	
		2, 4,25, 9,46,22,54,56		9, 6
12″	8,25,22,41,34,25, 5,10, 1, 3		36,56,50,14	
		2, 4,25, 9, 9,26, 4,42		9, 6
14″	8,25,24,45,59,34,14,36, 5,45		36,56,59,20	
		2, 4,25, 8,32,29, 5,22		9, 6
16″	8,25,26,50,24,42,47, 5,11, 7		36,57, 8,26	
		2, 4,25, 7,55,31,56,56		9, 6
18″	8,25,28,54,49,50,42,37, 8, 3		36,57,17,32	
		2, 4,25, 7,18,34,39,24		9, 6
20″	8,25,30,59,14,58, 1,11,47,27		36,57,26,38	
		2, 4,25, 6,41,37,12,46		9, 6
22″	8,25,33, 3,40, 4,42,49, 0,13		36,57,35,44	
		2, 4,25, 6, 4,39,37, 2		9, 6
24″	8,25,35, 8, 5,10,47,28,37,15		36,57,44,50	
		2, 4,25, 5,27,41,52,12		9, 6
26″	8,25,37,12,30,16,15,10,29,27		36,57,53,56	
		2, 4,25, 4,50,43,58,16		9, 6
28″	8,25,39,16,55,21, 5,54,27,43		36,58, 3, 2	
		2, 4,25, 4,13,45,55,14		9, 6
30″	8,25,41,21,20,25,19,40,22,57		36,58,12, 8	
		2, 4,25, 3,36,47,43, 6		9, 6
32″	8,25,43,25,45,28,56,28, 6, 3		36,58,21,14	
		2, 4,25, 2,59,49,21,52		9, 6
34″	8,25,45,30,10,31,56,17,27,55		36,58,30,20	
		2, 4,25, 2,22,50,51,32		9, 6
36″	8,25,47,34,35,34,19, 8,19,27		36,58,39,26	
		2, 4,25, 1,45,52,12, 6		9, 6
38″	8,25,49,39, 0,36, 5, 0,31,33		36,58,48,32	
		2, 4,25, 1, 8,53,23,34		9, 6
40″	8,25,51,43,25,37,13,53,55, 7		36,58,57,38	
		2, 4,25, 0,31,54,25,56		9, 6
42″	8,25,53,47,50,37,45,48,21, 3		36,59, 6,44	
		2, 4,24,59,54,55,19,12		9, 6
44″	8,25,55,52,15,37,40,43,40,15		36,59,15,50	
		2, 4,24,59,17,56, 3,22		9, 6
46″	8,25,57,56,40,36,58,39,43,37		36,59,24,56	
		2, 4,24,58,40,56,38,26		9, 6
48″	8,26, 0, 1, 5,35,39,36,22, 3		36,59,34, 2	
		2, 4,24,58, 3,57, 4,24		9, 6
50″	8,26, 2, 5,30,33,43,33,26,27		36,59,43, 8	
		2, 4,24,57,26,57,21,16		9, 6
52″	8,26, 4, 9,55,31,10,30,47,43		36,59,52,14	
		2, 4,24,56,49,57,29, 2		9, 6
54″	8,26, 6,14,20,28, 0,28,16,45		37, 0, 1,20	
		2, 4,24,56,12,57,27,42		9, 6
56″	8,26, 8,18,45,24,13,25,44,27		37, 0,10,26	
		2, 4,24,55,35,57,17,16		9, 6
58″	8,26,10,23,10,19,49,23, 1,43		37, 0,19,32	
		2, 4,24,54,58,56,57,44		
60″	8,26,12,27,35,14,48,19,59,27			
exact	8,26,12,27,35,14,48,20,14,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8° 5′ 0″	8,26,12,27,35,14,48,20,14,53			
		2, 4,24,54,21,56,30,48		
2″	8,26,14,32, 0, 9,10,16,45,41		37, 0,37,37	
		2, 4,24,53,44,55,53,11		9, 6
4″	8,26,16,36,25, 2,55,12,38,52		37, 0,46,43	
		2, 4,24,53, 7,55, 6,28		9, 6
6″	8,26,18,40,49,56, 3, 7,45,20		37, 0,55,49	
		2, 4,24,52,30,54,10,39		9, 6
8″	8,26,20,45,14,48,34, 1,55,59		37, 1, 4,55	
		2, 4,24,51,53,53, 5,44		9, 6
10″	8,26,22,49,39,40,27,55, 1,43		37, 1,14, 1	
		2, 4,24,51,16,51,51,43		9, 6
12″	8,26,24,54, 4,31,44,46,53,26		37, 1,23, 7	
		2, 4,24,50,39,50,28,36		9, 6
14″	8,26,26,58,29,22,24,37,22, 2		37, 1,32,13	
		2, 4,24,50, 2,48,56,23		9, 6
16″	8,26,29, 2,54,12,27,26,18,25		37, 1,41,19	
		2, 4,24,49,25,47,15, 4		9, 6
18″	8,26,31, 7,19, 1,53,13,33,29		37, 1,50,25	
		2, 4,24,48,48,45,24,39		9, 6
20″	8,26,33,11,43,50,41,58,58, 8		37, 1,59,31	
		2, 4,24,48,11,43,25, 8		9, 6
22″	8,26,35,16, 8,38,53,42,23,16		37, 2, 8,37	
		2, 4,24,47,34,41,16,31		9, 6
24″	8,26,37,20,33,26,28,23,39,47		37, 2,17,43	
		2, 4,24,46,57,38,58,48		9, 6
26″	8,26,39,24,58,13,26, 2,38,35		37, 2,26,49	
		2, 4,24,46,20,36,31,59		9, 6
28″	8,26,41,29,22,59,46,39,10,34		37, 2,35,55	
		2, 4,24,45,43,33,56, 4		9, 6
30″	8,26,43,33,47,45,30,13, 6,38		37, 2,45, 1	
		2, 4,24,45, 6,31,11, 3		9, 6
32″	8,26,45,38,12,30,36,44,17,41		37, 2,54, 7	
		2, 4,24,44,29,28,16,56		9, 6
34″	8,26,47,42,37,15, 6,12,34,37		37, 3, 3,13	
		2, 4,24,43,52,25,13,43		9, 6
36″	8,26,49,47, 1,58,58,37,48,20		37, 3,12,19	
		2, 4,24,43,15,22, 1,24		9, 6
38″	8,26,51,51,26,42,13,59,49,44		37, 3,21,25	
		2, 4,24,42,38,18,39,59		9, 6
40″	8,26,53,55,51,24,52,18,29,43		37, 3,30,31	
		2, 4,24,42, 1,15, 9,28		9, 6
42″	8,26,56, 0,16, 6,53,33,39,11		37, 3,39,37	
		2, 4,24,41,24,11,29,51		9, 6
44″	8,26,58, 4,40,48,17,45, 9, 2		37, 3,48,43	
		2, 4,24,40,47, 7,41, 8		9, 6
46″	8,27, 0, 9, 5,29, 4,52,50,10		37, 3,57,49	
		2, 4,24,40,10, 3,43,19		9, 6
48″	8,27, 2,13,30, 9,14,56,33,29		37, 4, 6,55	
		2, 4,24,39,32,59,36,24		9, 6
50″	8,27, 4,17,54,48,47,56, 9,53		37, 4,16, 1	
		2, 4,24,38,55,55,20,23		9, 6
52″	8,27, 6,22,19,27,43,51,30,16		37, 4,25, 7	
		2, 4,24,38,18,50,55,16		9, 6
54″	8,27, 8,26,44, 6, 2,42,25,32		37, 4,34,13	
		2, 4,24,37,41,46,21, 3		9, 6
56″	8,27,10,31, 8,43,44,28,46,35		37, 4,43,19	
		2, 4,24,37, 4,41,37,44		9, 6
58″	8,27,12,35,33,20,49,10,24,19		37, 4,52,25	
		2, 4,24,36,27,36,45,19		
60″	8,27,14,39,57,57,16,47, 9,38			
exact	8,27,14,39,57,57,16,47,29, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8° 6′ 0″	8,27,14,39,57,57,16,47,29, 2			
		2, 4,24,35,50,31,45,49		
2″	8,27,16,44,22,33, 7,19,14,51		37, 5,10,29	
		2, 4,24,35,13,26,35,20		9, 6
4″	8,27,18,48,47, 8,20,45,50,11		37, 5,19,35	
		2, 4,24,34,36,21,15,45		9, 6
6″	8,27,20,53,11,42,57, 7, 5,56		37, 5,28,41	
		2, 4,24,33,59,15,47, 4		9, 6
8″	8,27,22,57,36,16,56,22,53, 0		37, 5,37,47	
		2, 4,24,33,22,10, 9,17		9, 6
10″	8,27,25, 2, 0,50,18,33, 2,17		37, 5,46,53	
		2, 4,24,32,45, 4,22,24		9, 6
12″	8,27,27, 6,25,23, 3,37,24,41		37, 5,55,59	
		2, 4,24,32, 7,58,26,25		9, 6
14″	8,27,29,10,49,55,11,35,51, 6		37, 6, 5, 5	
		2, 4,24,31,30,52,21,20		9, 6
16″	8,27,31,15,14,26,42,28,12,26		37, 6,14,11	
		2, 4,24,30,53,46, 7, 9		9, 6
18″	8,27,33,19,38,57,36,14,19,35		37, 6,23,17	
		2, 4,24,30,16,39,43,52		9, 6
20″	8,27,35,24, 3,27,52,54, 3,27		37, 6,32,23	
		2, 4,24,29,39,33,11,29		9, 6
22″	8,27,37,28,27,57,32,27,14,56		37, 6,41,29	
		2, 4,24,29, 2,26,30, 0		9, 6
24″	8,27,39,32,52,26,34,53,44,56		37, 6,50,35	
		2, 4,24,28,25,19,39,25		9, 6
26″	8,27,41,37,16,55, 0,13,24,21		37, 6,59,41	
		2, 4,24,27,48,12,39,44		9, 6
28″	8,27,43,41,41,22,48,26, 4, 5		37, 7, 8,47	
		2, 4,24,27,11, 5,30,57		9, 6
30″	8,27,45,46, 5,49,59,31,35, 2		37, 7,17,53	
		2, 4,24,26,33,58,13, 4		9, 6
32″	8,27,47,50,30,16,33,29,48, 6		37, 7,26,59	
		2, 4,24,25,56,50,46, 5		9, 6
34″	8,27,49,54,54,42,30,20,34,11		37, 7,36, 5	
		2, 4,24,25,19,43,10, 0		9, 6
36″	8,27,51,59,19, 7,50, 3,44,11		37, 7,45,11	
		2, 4,24,24,42,35,24,49		9, 6
38″	8,27,54, 3,43,32,32,39, 9, 0		37, 7,54,17	
		2, 4,24,24, 5,27,30,32		9, 6
40″	8,27,56, 8, 7,56,38, 6,39,32		37, 8, 3,23	
		2, 4,24,23,28,19,27, 9		9, 6
42″	8,27,58,12,32,20, 6,26, 6,41		37, 8,12,29	
		2, 4,24,22,51,11,14,40		9, 6
44″	8,28, 0,16,56,42,57,37,21,21		37, 8,21,35	
		2, 4,24,22,14, 2,53, 5		9, 6
46″	8,28, 2,21,21, 5,11,40,14,26		37, 8,30,41	
		2, 4,24,21,36,54,22,24		9, 6
48″	8,28, 4,25,45,26,48,34,36,50		37, 8,39,47	
		2, 4,24,20,59,45,42,37		9, 6
50″	8,28, 6,30, 9,47,48,20,19,27		37, 8,48,53	
		2, 4,24,20,22,36,53,44		9, 6
52″	8,28, 8,34,34, 8,10,57,13,11		37, 8,57,59	
		2, 4,24,19,45,27,55,45		9, 6
54″	8,28,10,38,58,27,56,25, 8,56		37, 9, 7, 5	
		2, 4,24,19, 8,18,48,40		9, 6
56″	8,28,12,43,22,47, 4,43,57,36		37, 9,16,11	
		2, 4,24,18,31, 9,32,29		9, 6
58″	8,28,14,47,47, 5,35,53,30, 5		37, 9,25,17	
		2, 4,24,17,54, 0, 7,12		
60″	8,28,16,52,11,23,29,53,37,17			
exact	8,28,16,52,11,23,29,53,58,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8° 7′ 0″	8,28,16,52,11,23,29,53,58,15			
		2, 4,24,17,16,50,35, 0		
2″	8,28,18,56,35,40,46,44,33,15		37, 9,43,20	
		2, 4,24,16,39,40,51,40		9, 6
4″	8,28,21, 0,59,57,26,25,24,55		37, 9,52,26	
		2, 4,24,16, 2,30,59,14		9, 6
6″	8,28,23, 5,24,13,28,56,24, 9		37,10, 1,32	
		2, 4,24,15,25,20,57,42		9, 6
8″	8,28,25, 9,48,28,54,17,21,51		37,10,10,38	
		2, 4,24,14,48,10,47, 4		9, 6
10″	8,28,27,14,12,43,42,28, 8,55		37,10,19,44	
		2, 4,24,14,11, 0,27,20		9, 6
12″	8,28,29,18,36,57,53,28,36,15		37,10,28,50	
		2, 4,24,13,33,49,58,30		9, 6
14″	8,28,31,23, 1,11,27,18,34,45		37,10,37,56	
		2, 4,24,12,56,39,20,34		9, 6
16″	8,28,33,27,25,24,23,57,55,19		37,10,47, 2	
		2, 4,24,12,19,28,33,32		9, 6
18″	8,28,35,31,49,36,43,26,28,51		37,10,56, 8	
		2, 4,24,11,42,17,37,24		9, 6
20″	8,28,37,36,13,48,25,44, 6,15		37,11, 5,14	
		2, 4,24,11, 5, 6,32,10		9, 6
22″	8,28,39,40,37,59,30,50,38,25		37,11,14,20	
		2, 4,24,10,27,55,17,50		9, 6
24″	8,28,41,45, 2, 9,58,45,56,15		37,11,23,26	
		2, 4,24, 9,50,43,54,24		9, 6
26″	8,28,43,49,26,19,49,29,50,39		37,11,32,32	
		2, 4,24, 9,13,32,21,52		9, 6
28″	8,28,45,53,50,29, 3, 2,12,31		37,11,41,38	
		2, 4,24, 8,36,20,40,14		9, 6
30″	8,28,47,58,14,37,39,22,52,45		37,11,50,44	
		2, 4,24, 7,59, 8,49,30		9, 6
32″	8,28,50, 2,38,45,38,31,42,15		37,11,59,50	
		2, 4,24, 7,21,56,49,40		9, 6
34″	8,28,52, 7, 2,53, 0,28,31,55		37,12, 8,56	
		2, 4,24, 6,44,44,40,44		9, 6
36″	8,28,54,11,26,59,45,13,12,39		37,12,18, 2	
		2, 4,24, 6, 7,32,22,42		9, 6
38″	8,28,56,15,51, 5,52,45,35,21		37,12,27, 8	
		2, 4,24, 5,30,19,55,34		9, 6
40″	8,28,58,20,15,11,23, 5,30,55		37,12,36,14	
		2, 4,24, 4,53, 7,19,20		9, 6
42″	8,29, 0,24,39,16,16,12,50,15		37,12,45,20	
		2, 4,24, 4,15,54,34, 0		9, 6
44″	8,29, 2,29, 3,20,32, 7,24,15		37,12,54,26	
		2, 4,24, 3,38,41,39,34		9, 6
46″	8,29, 4,33,27,24,10,49, 3,49		37,13, 3,32	
		2, 4,24, 3, 1,28,36, 2		9, 6
48″	8,29, 6,37,51,27,12,17,39,51		37,13,12,38	
		2, 4,24, 2,24,15,23,24		9, 6
50″	8,29, 8,42,15,29,36,33, 3,15		37,13,21,44	
		2, 4,24, 1,47, 2, 1,40		9, 6
52″	8,29,10,46,39,31,23,35, 4,55		37,13,30,50	
		2, 4,24, 1, 9,48,30,50		9, 6
54″	8,29,12,51, 3,32,33,23,35,45		37,13,39,56	
		2, 4,24, 0,32,34,50,54		9, 6
56″	8,29,14,55,27,33, 5,58,26,39		37,13,49, 2	
		2, 4,23,59,55,21, 1,52		9, 6
58″	8,29,16,59,51,33, 1,19,28,31		37,13,58, 8	
		2, 4,23,59,18, 7, 3,44		
60″	8,29,19, 4,15,32,19,26,32,15			
exact	8,29,19, 4,15,32,19,26,52, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8° 8′ 0″	8,29,19, 4,15,32,19,26,52, 2			
		2, 4,23,58,40,52,58,40		
2″	8,29,21, 8,39,31, 0,19,50,42		37,14,16,11	
		2, 4,23,58, 3,38,42,29		9, 6
4″	8,29,23,13, 3,29, 3,58,33,11		37,14,25,17	
		2, 4,23,57,26,24,17,12		9, 6
6″	8,29,25,17,27,26,30,22,50,23		37,14,34,23	
		2, 4,23,56,49, 9,42,49		9, 6
8″	8,29,27,21,51,23,19,32,33,12		37,14,43,29	
		2, 4,23,56,11,54,59,20		9, 6
10″	8,29,29,26,15,19,31,27,32,32		37,14,52,35	
		2, 4,23,55,34,40, 6,45		9, 6
12″	8,29,31,30,39,15, 6, 7,39,17		37,15, 1,41	
		2, 4,23,54,57,25, 5, 4		9, 6
14″	8,29,33,35, 3,10, 3,32,44,21		37,15,10,47	
		2, 4,23,54,20, 9,54,17		9, 6
16″	8,29,35,39,27, 4,23,42,38,38		37,15,19,53	
		2, 4,23,53,42,54,34,24		9, 6
18″	8,29,37,43,50,58, 6,37,13, 2		37,15,28,59	
		2, 4,23,53, 5,39, 5,25		9, 6
20″	8,29,39,48,14,51,12,16,18,27		37,15,38, 5	
		2, 4,23,52,28,23,27,20		9, 6
22″	8,29,41,52,38,43,40,39,45,47		37,15,47,11	
		2, 4,23,51,51, 7,40, 9		9, 6
24″	8,29,43,57, 2,35,31,47,25,56		37,15,56,17	
		2, 4,23,51,13,51,43,52		9, 6
26″	8,29,46, 1,26,26,45,39, 9,48		37,16, 5,23	
		2, 4,23,50,36,35,38,29		9, 6
28″	8,29,48, 5,50,17,22,14,48,17		37,16,14,29	
		2, 4,23,49,59,19,24, 0		9, 6
30″	8,29,50,10,14, 7,21,34,12,17		37,16,23,35	
		2, 4,23,49,22, 3, 0,25		9, 6
32″	8,29,52,14,37,56,43,37,12,42		37,16,32,41	
		2, 4,23,48,44,46,27,44		9, 6
34″	8,29,54,19, 1,45,28,23,40,26		37,16,41,47	
		2, 4,23,48, 7,29,45,57		9, 6
36″	8,29,56,23,25,33,35,53,26,23		37,16,50,53	
		2, 4,23,47,30,12,55, 4		9, 6
38″	8,29,58,27,49,21, 6, 6,21,27		37,16,59,59	
		2, 4,23,46,52,55,55, 5		9, 6
40″	8,30, 0,32,13, 7,59, 2,16,32		37,17, 9, 5	
		2, 4,23,46,15,38,46, 0		9, 6
42″	8,30, 2,36,36,54,14,41, 2,32		37,17,18,11	
		2, 4,23,45,38,21,27,49		9, 6
44″	8,30, 4,41, 0,39,53, 2,30,21		37,17,27,17	
		2, 4,23,45, 1, 4, 0,32		9, 6
46″	8,30, 6,45,24,24,54, 6,30,53		37,17,36,23	
		2, 4,23,44,23,46,24, 9		9, 6
48″	8,30, 8,49,48, 9,17,52,55, 2		37,17,45,29	
		2, 4,23,43,46,28,38,40		9, 6
50″	8,30,10,54,11,53, 4,21,33,42		37,17,54,35	
		2, 4,23,43, 9,10,44, 5		9, 6
52″	8,30,12,58,35,36,13,32,17,47		37,18, 3,41	
		2, 4,23,42,31,52,40,24		9, 6
54″	8,30,15, 2,59,18,45,24,58,11		37,18,12,47	
		2, 4,23,41,54,34,27,37		9, 6
56″	8,30,17, 7,23, 0,39,59,25,48		37,18,21,53	
		2, 4,23,41,17,16, 5,44		9, 6
58″	8,30,19,11,46,41,57,15,31,32		37,18,30,59	
		2, 4,23,40,39,57,34,45		
60″	8,30,21,16,10,22,37,13, 6,17			
exact	8,30,21,16,10,22,37,13,30, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8° 9′ 0″	8,30,21,16,10,22,37,13,30, 4			
		2, 4,23,40, 2,38,57,10		
2″	8,30,23,20,34, 2,39,52,27,14		37,18,49, 1	
		2, 4,23,39,25,20, 8, 9		9, 6
4″	8,30,25,24,57,42, 5,12,35,23		37,18,58, 7	
		2, 4,23,38,48, 1,10, 2		9, 6
6″	8,30,27,29,21,20,53,13,45,25		37,19, 7,13	
		2, 4,23,38,10,42, 2,49		9, 6
8″	8,30,29,33,44,59, 3,55,48,14		37,19,16,19	
		2, 4,23,37,33,22,46,30		9, 6
10″	8,30,31,38, 8,36,37,18,34,44		37,19,25,25	
		2, 4,23,36,56, 3,21, 5		9, 6
12″	8,30,33,42,32,13,33,21,55,49		37,19,34,31	
		2, 4,23,36,18,43,46,34		9, 6
14″	8,30,35,46,55,49,52, 5,42,23		37,19,43,37	
		2, 4,23,35,41,24, 2,57		9, 6
16″	8,30,37,51,19,25,33,29,45,20		37,19,52,43	
		2, 4,23,35, 4, 4,10,14		9, 6
18″	8,30,39,55,43, 0,37,33,55,34		37,20, 1,49	
		2, 4,23,34,26,44, 8,25		9, 6
20″	8,30,42, 0, 6,35, 4,18, 3,59		37,20,10,55	
		2, 4,23,33,49,23,57,30		9, 6
22″	8,30,44, 4,30, 8,53,42, 1,29		37,20,20, 1	
		2, 4,23,33,12, 3,37,29		9, 6
24″	8,30,46, 8,53,42, 5,45,38,58		37,20,29, 7	
		2, 4,23,32,34,43, 8,22		9, 6
26″	8,30,48,13,17,14,40,28,47,20		37,20,38,13	
		2, 4,23,31,57,22,30, 9		9, 6
28″	8,30,50,17,40,46,37,51,17,29		37,20,47,19	
		2, 4,23,31,20, 1,42,50		9, 6
30″	8,30,52,22, 4,17,57,53, 0,19		37,20,56,25	
		2, 4,23,30,42,40,46,25		9, 6
32″	8,30,54,26,27,48,40,33,46,44		37,21, 5,31	
		2, 4,23,30, 5,19,40,54		9, 6
34″	8,30,56,30,51,18,45,53,27,38		37,21,14,37	
		2, 4,23,29,27,58,26,17		9, 6
36″	8,30,58,35,14,48,13,51,53,55		37,21,23,43	
		2, 4,23,28,50,37, 2,34		9, 6
38″	8,31, 0,39,38,17, 4,28,56,29		37,21,32,49	
		2, 4,23,28,13,15,29,45		9, 6
40″	8,31, 2,44, 1,45,17,44,26,14		37,21,41,55	
		2, 4,23,27,35,53,47,50		9, 6
42″	8,31, 4,48,25,12,53,38,14, 4		37,21,51, 1	
		2, 4,23,26,58,31,56,49		9, 6
44″	8,31, 6,52,48,39,52,10,10,53		37,22, 0, 7	
		2, 4,23,26,21, 9,56,42		9, 6
46″	8,31, 8,57,12, 6,13,20, 7,35		37,22, 9,13	
		2, 4,23,25,43,47,47,29		9, 6
48″	8,31,11, 1,35,31,57, 7,55, 4		37,22,18,19	
		2, 4,23,25, 6,25,29,10		9, 6
50″	8,31,13, 5,58,57, 3,33,24,14		37,22,27,25	
		2, 4,23,24,29, 3, 1,45		9, 6
52″	8,31,15,10,22,21,32,36,25,59		37,22,36,31	
		2, 4,23,23,51,40,25,14		9, 6
54″	8,31,17,14,45,45,24,16,51,13		37,22,45,37	
		2, 4,23,23,14,17,39,37		9, 6
56″	8,31,19,19, 9, 8,38,34,30,50		37,22,54,43	
		2, 4,23,22,36,54,44,54		9, 6
58″	8,31,21,23,32,31,15,29,15,44		37,23, 3,49	
		2, 4,23,21,59,31,41, 5		
60″	8,31,23,27,55,53,15, 0,56,49			
exact	8,31,23,27,55,53,15, 1,22,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°10′ 0″	8,31,23,27,55,53,15, 1,22,17			
		2, 4,23,21,22, 8,30,50		
2″	8,31,25,32,19,14,37, 9,53, 7		37,23,21,50	
		2, 4,23,20,44,45, 9, 0		9, 6
4″	8,31,27,36,42,35,21,55, 2, 7		37,23,30,56	
		2, 4,23,20, 7,21,38, 4		9, 6
6″	8,31,29,41, 5,55,29,16,40,11		37,23,40, 2	
		2, 4,23,19,29,57,58, 2		9, 6
8″	8,31,31,45,29,14,59,14,38,13		37,23,49, 8	
		2, 4,23,18,52,34, 8,54		9, 6
10″	8,31,33,49,52,33,51,48,47, 7		37,23,58,14	
		2, 4,23,18,15,10,10,40		9, 6
12″	8,31,35,54,15,52, 6,58,57,47		37,24, 7,20	
		2, 4,23,17,37,46, 3,20		9, 6
14″	8,31,37,58,39, 9,44,45, 1, 7		37,24,16,26	
		2, 4,23,17, 0,21,46,54		9, 6
16″	8,31,40, 3, 2,26,45, 6,48, 1		37,24,25,32	
		2, 4,23,16,22,57,21,22		9, 6
18″	8,31,42, 7,25,43, 8, 4, 9,23		37,24,34,38	
		2, 4,23,15,45,32,46,44		9, 6
20″	8,31,44,11,48,58,53,36,56, 7		37,24,43,44	
		2, 4,23,15, 8, 8, 3, 0		9, 6
22″	8,31,46,16,12,14, 1,44,59, 7		37,24,52,50	
		2, 4,23,14,30,43,10,10		9, 6
24″	8,31,48,20,35,28,32,28, 9,17		37,25, 1,56	
		2, 4,23,13,53,18, 8,14		9, 6
26″	8,31,50,24,58,42,25,46,17,31		37,25,11, 2	
		2, 4,23,13,15,52,57,12		9, 6
28″	8,31,52,29,21,55,41,39,14,43		37,25,20, 8	
		2, 4,23,12,38,27,37, 4		9, 6
30″	8,31,54,33,45, 8,20, 6,51,47		37,25,29,14	
		2, 4,23,12, 1, 2, 7,50		9, 6
32″	8,31,56,38, 8,20,21, 8,59,37		37,25,38,20	
		2, 4,23,11,23,36,29,30		9, 6
34″	8,31,58,42,31,31,44,45,29, 7		37,25,47,26	
		2, 4,23,10,46,10,42, 4		9, 6
36″	8,32, 0,46,54,42,30,56,11,11		37,25,56,32	
		2, 4,23,10, 8,44,45,32		9, 6
38″	8,32, 2,51,17,52,39,40,56,43		37,26, 5,38	
		2, 4,23, 9,31,18,39,54		9, 6
40″	8,32, 4,55,41, 2,10,59,36,37		37,26,14,44	
		2, 4,23, 8,53,52,25,10		9, 6
42″	8,32, 7, 0, 4,11, 4,52, 1,47		37,26,23,50	
		2, 4,23, 8,16,26, 1,20		9, 6
44″	8,32, 9, 4,27,19,21,18, 3, 7		37,26,32,56	
		2, 4,23, 7,38,59,28,24		9, 6
46″	8,32,11, 8,50,27, 0,17,31,31		37,26,42, 2	
		2, 4,23, 7, 1,32,46,22		9, 6
48″	8,32,13,13,13,34, 1,50,17,53		37,26,51, 8	
		2, 4,23, 6,24, 5,55,14		9, 6
50″	8,32,15,17,36,40,25,56,13, 7		37,27, 0,14	
		2, 4,23, 5,46,38,55, 0		9, 6
52″	8,32,17,21,59,46,12,35, 8, 7		37,27, 9,20	
		2, 4,23, 5, 9,11,45,40		9, 6
54″	8,32,19,26,22,51,21,46,53,47		37,27,18,26	
		2, 4,23, 4,31,44,27,14		9, 6
56″	8,32,21,30,45,55,53,31,21, 1		37,27,27,32	
		2, 4,23, 3,54,16,59,42		9, 6
58″	8,32,23,35, 8,59,47,48,20,43		37,27,36,38	
		2, 4,23, 3,16,49,23, 4		
60″	8,32,25,39,32, 3, 4,37,43,47			
exact	8,32,25,39,32, 3, 4,38, 8,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°11′ 0″	8,32,25,39,32, 3, 4,38, 8,48			
		2, 4,23, 2,39,21,40, 2		
2″	8,32,27,43,55, 5,43,59,48,50		37,27,54,39	
		2, 4,23, 2, 1,53,45,23		9, 6
4″	8,32,29,48,18, 7,45,53,34,13		37,28, 3,45	
		2, 4,23, 1,24,25,41,38		9, 6
6″	8,32,31,52,41, 9,10,19,15,51		37,28,12,51	
		2, 4,23, 0,46,57,28,47		9, 6
8″	8,32,33,57, 4, 9,57,16,44,38		37,28,21,57	
		2, 4,23, 0, 9,29, 6,50		9, 6
10″	8,32,36, 1,27,10, 6,45,51,28		37,28,31, 3	
		2, 4,22,59,32, 0,35,47		9, 6
12″	8,32,38, 5,50, 9,38,46,27,15		37,28,40, 9	
		2, 4,22,58,54,31,55,38		9, 6
14″	8,32,40,10,13, 8,33,18,22,53		37,28,49,15	
		2, 4,22,58,17, 3, 6,23		9, 6
16″	8,32,42,14,36, 6,50,21,29,16		37,28,58,21	
		2, 4,22,57,39,34, 8, 2		9, 6
18″	8,32,44,18,59, 4,29,55,37,18		37,29, 7,27	
		2, 4,22,57, 2, 5, 0,35		9, 6
20″	8,32,46,23,22, 1,32, 0,37,53		37,29,16,33	
		2, 4,22,56,24,35,44, 2		9, 6
22″	8,32,48,27,44,57,56,36,21,55		37,29,25,39	
		2, 4,22,55,47, 6,18,23		9, 6
24″	8,32,50,32, 7,53,43,42,40,18		37,29,34,45	
		2, 4,22,55, 9,36,43,38		9, 6
26″	8,32,52,36,30,48,53,19,23,56		37,29,43,51	
		2, 4,22,54,32, 6,59,47		9, 6
28″	8,32,54,40,53,43,25,26,23,43		37,29,52,57	
		2, 4,22,53,54,37, 6,50		9, 6
30″	8,32,56,45,16,37,20, 3,30,33		37,30, 2, 3	
		2, 4,22,53,17, 7, 4,47		9, 6
32″	8,32,58,49,39,30,37,10,35,20		37,30,11, 9	
		2, 4,22,52,39,36,53,38		9, 6
34″	8,33, 0,54, 2,23,16,47,28,58		37,30,20,15	
		2, 4,22,52, 2, 6,33,23		9, 6
36″	8,33, 2,58,25,15,18,54, 2,21		37,30,29,21	
		2, 4,22,51,24,36, 4, 2		9, 6
38″	8,33, 5, 2,48, 6,43,30, 6,23		37,30,38,27	
		2, 4,22,50,47, 5,25,35		9, 6
40″	8,33, 7, 7,10,57,30,35,31,58		37,30,47,33	
		2, 4,22,50, 9,34,38, 2		9, 6
42″	8,33, 9,11,33,47,40,10,10, 0		37,30,56,39	
		2, 4,22,49,32, 3,41,23		9, 6
44″	8,33,11,15,56,37,12,13,51,23		37,31, 5,45	
		2, 4,22,48,54,32,35,38		9, 6
46″	8,33,13,20,19,26, 6,46,27, 1		37,31,14,51	
		2, 4,22,48,17, 1,20,47		9, 6
48″	8,33,15,24,42,14,23,47,47,48		37,31,23,57	
		2, 4,22,47,39,29,56,50		9, 6
50″	8,33,17,29, 5, 2, 3,17,44,38		37,31,33, 3	
		2, 4,22,47, 1,58,23,47		9, 6
52″	8,33,19,33,27,49, 5,16, 8,25		37,31,42, 9	
		2, 4,22,46,24,26,41,38		9, 6
54″	8,33,21,37,50,35,29,42,50, 3		37,31,51,15	
		2, 4,22,45,46,54,50,23		9, 6
56″	8,33,23,42,13,21,16,37,40,26		37,32, 0,21	
		2, 4,22,45, 9,22,50, 2		9, 6
58″	8,33,25,46,36, 6,26, 0,30,28		37,32, 9,27	
		2, 4,22,44,31,50,40,35		
60″	8,33,27,50,58,50,57,51,11, 3			
exact	8,33,27,50,58,50,57,51,40, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°12′ 0″	8,33,27,50,58,50,57,51,40, 0			
		2, 4,22,43,54,18,25, 4		
2″	8,33,29,55,21,34,52,10, 5, 4		37,32,27,27	
		2, 4,22,43,16,45,57,37		9, 6
4″	8,33,31,59,44,18, 8,56, 2,41		37,32,36,33	
		2, 4,22,42,39,13,21, 4		9, 6
6″	8,33,34, 4, 7, 0,48, 9,23,45		37,32,45,39	
		2, 4,22,42, 1,40,35,25		9, 6
8″	8,33,36, 8,29,42,49,49,59,10		37,32,54,45	
		2, 4,22,41,24, 7,40,40		9, 6
10″	8,33,38,12,52,24,13,57,39,50		37,33, 3,51	
		2, 4,22,40,46,34,36,49		9, 6
12″	8,33,40,17,15, 5, 0,32,16,39		37,33,12,57	
		2, 4,22,40, 9, 1,23,52		9, 6
14″	8,33,42,21,37,45, 9,33,40,31		37,33,22, 3	
		2, 4,22,39,31,28, 1,49		9, 6
16″	8,33,44,26, 0,24,41, 1,42,20		37,33,31, 9	
		2, 4,22,38,53,54,30,40		9, 6
18″	8,33,46,30,23, 3,34,56,13, 0		37,33,40,15	
		2, 4,22,38,16,20,50,25		9, 6
20″	8,33,48,34,45,41,51,17, 3,25		37,33,49,21	
		2, 4,22,37,38,47, 1, 4		9, 6
22″	8,33,50,39, 8,19,30, 4, 4,29		37,33,58,27	
		2, 4,22,37, 1,13, 2,37		9, 6
24″	8,33,52,43,30,56,31,17, 7, 6		37,34, 7,33	
		2, 4,22,36,23,38,55, 4		9, 6
26″	8,33,54,47,53,32,54,56, 2,10		37,34,16,39	
		2, 4,22,35,46, 4,38,25		9, 6
28″	8,33,56,52,16, 8,41, 0,40,35		37,34,25,45	
		2, 4,22,35, 8,30,12,40		9, 6
30″	8,33,58,56,38,43,49,30,53,15		37,34,34,51	
		2, 4,22,34,30,55,37,49		9, 6
32″	8,34, 1, 1, 1,18,20,26,31, 4		37,34,43,57	
		2, 4,22,33,53,20,53,52		9, 6
34″	8,34, 3, 5,23,52,13,47,24,56		37,34,53, 3	
		2, 4,22,33,15,46, 0,49		9, 6
36″	8,34, 5, 9,46,25,29,33,25,45		37,35, 2, 9	
		2, 4,22,32,38,10,58,40		9, 6
38″	8,34, 7,14, 8,58, 7,44,24,25		37,35,11,15	
		2, 4,22,32, 0,35,47,25		9, 6
40″	8,34, 9,18,31,30, 8,20,11,50		37,35,20,21	
		2, 4,22,31,23, 0,27, 4		9, 6
42″	8,34,11,22,54, 1,31,20,38,54		37,35,29,27	
		2, 4,22,30,45,24,57,37		9, 6
44″	8,34,13,27,16,32,16,45,36,31		37,35,38,33	
		2, 4,22,30, 7,49,19, 4		9, 6
46″	8,34,15,31,39, 2,24,34,55,35		37,35,47,39	
		2, 4,22,29,30,13,31,25		9, 6
48″	8,34,17,36, 1,31,54,48,27, 0		37,35,56,45	
		2, 4,22,28,52,37,34,40		9, 6
50″	8,34,19,40,24, 0,47,26, 1,40		37,36, 5,51	
		2, 4,22,28,15, 1,28,49		9, 6
52″	8,34,21,44,46,29, 2,27,30,29		37,36,14,57	
		2, 4,22,27,37,25,13,52		9, 6
54″	8,34,23,49, 8,56,39,52,44,21		37,36,24, 3	
		2, 4,22,26,59,48,49,49		9, 6
56″	8,34,25,53,31,23,39,41,34,10		37,36,33, 9	
		2, 4,22,26,22,12,16,40		9, 6
58″	8,34,27,57,53,50, 1,53,50,50		37,36,42,15	
		2, 4,22,25,44,35,34,25		
60″	8,34,30, 2,16,15,46,29,25,15			
exact	8,34,30, 2,16,15,46,29,56,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°13′ 0″	8,34,30, 2,16,15,46,29,56,32			
		2, 4,22,25, 6,58,46,19		
2″	8,34,32, 6,38,40,53,28,42,51		37,37, 0,14	
		2, 4,22,24,29,21,46, 5		9, 6
4″	8,34,34,11, 1, 5,22,50,28,56		37,37, 9,20	
		2, 4,22,23,51,44,36,45		9, 6
6″	8,34,36,15,23,29,14,35, 5,41		37,37,18,26	
		2, 4,22,23,14, 7,18,19		9, 6
8″	8,34,38,19,45,52,28,42,24, 0		37,37,27,32	
		2, 4,22,22,36,29,50,47		9, 6
10″	8,34,40,24, 8,15, 5,12,14,47		37,37,36,38	
		2, 4,22,21,58,52,14, 9		9, 6
12″	8,34,42,28,30,37, 4, 4,28,56		37,37,45,44	
		2, 4,22,21,21,14,28,25		9, 6
14″	8,34,44,32,52,58,25,18,57,21		37,37,54,50	
		2, 4,22,20,43,36,33,35		9, 6
16″	8,34,46,37,15,19, 8,55,30,56		37,38, 3,56	
		2, 4,22,20, 5,58,29,39		9, 6
18″	8,34,48,41,37,39,14,54, 0,35		37,38,13, 2	
		2, 4,22,19,28,20,16,37		9, 6
20″	8,34,50,45,59,58,43,14,17,12		37,38,22, 8	
		2, 4,22,18,50,41,54,29		9, 6
22″	8,34,52,50,22,17,33,56,11,41		37,38,31,14	
		2, 4,22,18,13, 3,23,15		9, 6
24″	8,34,54,54,44,35,46,59,34,56		37,38,40,20	
		2, 4,22,17,35,24,42,55		9, 6
26″	8,34,56,59, 6,53,22,24,17,51		37,38,49,26	
		2, 4,22,16,57,45,53,29		9, 6
28″	8,34,59, 3,29,10,20,10,11,20		37,38,58,32	
		2, 4,22,16,20, 6,54,57		9, 6
30″	8,35, 1, 7,51,26,40,17, 6,17		37,39, 7,38	
		2, 4,22,15,42,27,47,19		9, 6
32″	8,35, 3,12,13,42,22,44,53,36		37,39,16,44	
		2, 4,22,15, 4,48,30,35		9, 6
34″	8,35, 5,16,35,57,27,33,24,11		37,39,25,50	
		2, 4,22,14,27, 9, 4,45		9, 6
36″	8,35, 7,20,58,11,54,42,28,56		37,39,34,56	
		2, 4,22,13,49,29,29,49		9, 6
38″	8,35, 9,25,20,25,44,11,58,45		37,39,44, 2	
		2, 4,22,13,11,49,45,47		9, 6
40″	8,35,11,29,42,38,56, 1,44,32		37,39,53, 8	
		2, 4,22,12,34, 9,52,39		9, 6
42″	8,35,13,34, 4,51,30,11,37,11		37,40, 2,14	
		2, 4,22,11,56,29,50,25		9, 6
44″	8,35,15,38,27, 3,26,41,27,36		37,40,11,20	
		2, 4,22,11,18,49,39, 5		9, 6
46″	8,35,17,42,49,14,45,31, 6,41		37,40,20,26	
		2, 4,22,10,41, 9,18,39		9, 6
48″	8,35,19,47,11,25,26,40,25,20		37,40,29,32	
		2, 4,22,10, 3,28,49, 7		9, 6
50″	8,35,21,51,33,35,30, 9,14,27		37,40,38,38	
		2, 4,22, 9,25,48,10,29		9, 6
52″	8,35,23,55,55,44,55,57,24,56		37,40,47,44	
		2, 4,22, 8,48, 7,22,45		9, 6
54″	8,35,26, 0,17,53,44, 4,47,41		37,40,56,50	
		2, 4,22, 8,10,26,25,55		9, 6
56″	8,35,28, 4,40, 1,54,31,13,36		37,41, 5,56	
		2, 4,22, 7,32,45,19,59		9, 6
58″	8,35,30, 9, 2, 9,27,16,33,35		37,41,15, 2	
		2, 4,22, 6,55, 4, 4,57		
60″	8,35,32,13,24,16,22,20,38,32			
exact	8,35,32,13,24,16,22,21, 9,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°14′ 0″	8,35,32,13,24,16,22,21, 9,22			
		2, 4,22, 6,17,22,44, 6		
2″	8,35,34,17,46,22,39,43,53,28		37,41,33, 0	
		2, 4,22, 5,39,41,11, 6		9, 6
4″	8,35,36,22, 8,28,19,25, 4,34		37,41,42, 6	
		2, 4,22, 5, 1,59,29, 0		9, 6
6″	8,35,38,26,30,33,21,24,33,34		37,41,51,12	
		2, 4,22, 4,24,17,37,48		9, 6
8″	8,35,40,30,52,37,45,42,11,22		37,42, 0,18	
		2, 4,22, 3,46,35,37,30		9, 6
10″	8,35,42,35,14,41,32,17,48,52		37,42, 9,24	
		2, 4,22, 3, 8,53,28, 6		9, 6
12″	8,35,44,39,36,44,41,11,16,58		37,42,18,30	
		2, 4,22, 2,31,11, 9,36		9, 6
14″	8,35,46,43,58,47,12,22,26,34		37,42,27,36	
		2, 4,22, 1,53,28,42, 0		9, 6
16″	8,35,48,48,20,49, 5,51, 8,34		37,42,36,42	
		2, 4,22, 1,15,46, 5,18		9, 6
18″	8,35,50,52,42,50,21,37,13,52		37,42,45,48	
		2, 4,22, 0,38, 3,19,30		9, 6
20″	8,35,52,57, 4,50,59,40,33,22		37,42,54,54	
		2, 4,22, 0, 0,20,24,36		9, 6
22″	8,35,55, 1,26,51, 0, 0,57,58		37,43, 4, 0	
		2, 4,21,59,22,37,20,36		9, 6
24″	8,35,57, 5,48,50,22,38,18,34		37,43,13, 6	
		2, 4,21,58,44,54, 7,30		9, 6
26″	8,35,59,10,10,49, 7,32,26, 4		37,43,22,12	
		2, 4,21,58, 7,10,45,18		9, 6
28″	8,36, 1,14,32,47,14,43,11,22		37,43,31,18	
		2, 4,21,57,29,27,14, 0		9, 6
30″	8,36, 3,18,54,44,44,10,25,22		37,43,40,24	
		2, 4,21,56,51,43,33,36		9, 6
32″	8,36, 5,23,16,41,35,53,58,58		37,43,49,30	
		2, 4,21,56,13,59,44, 6		9, 6
34″	8,36, 7,27,38,37,49,53,43, 4		37,43,58,36	
		2, 4,21,55,36,15,45,30		9, 6
36″	8,36, 9,32, 0,33,26, 9,28,34		37,44, 7,42	
		2, 4,21,54,58,31,37,48		9, 6
38″	8,36,11,36,22,28,24,41, 6,22		37,44,16,48	
		2, 4,21,54,20,47,21, 0		9, 6
40″	8,36,13,40,44,22,45,28,27,22		37,44,25,54	
		2, 4,21,53,43, 2,55, 6		9, 6
42″	8,36,15,45, 6,16,28,31,22,28		37,44,35, 0	
		2, 4,21,53, 5,18,20, 6		9, 6
44″	8,36,17,49,28, 9,33,49,42,34		37,44,44, 6	
		2, 4,21,52,27,33,36, 0		9, 6
46″	8,36,19,53,50, 2, 1,23,18,34		37,44,53,12	
		2, 4,21,51,49,48,42,48		9, 6
48″	8,36,21,58,11,53,51,12, 1,22		37,45, 2,18	
		2, 4,21,51,12, 3,40,30		9, 6
50″	8,36,24, 2,33,45, 3,15,41,52		37,45,11,24	
		2, 4,21,50,34,18,29, 6		9, 6
52″	8,36,26, 6,55,35,37,34,10,58		37,45,20,30	
		2, 4,21,49,56,33, 8,36		9, 6
54″	8,36,28,11,17,25,34, 7,19,34		37,45,29,36	
		2, 4,21,49,18,47,39, 0		9, 6
56″	8,36,30,15,39,14,52,54,58,34		37,45,38,42	
		2, 4,21,48,41, 2, 0,18		9, 6
58″	8,36,32,20, 1, 3,33,56,58,52		37,45,47,48	
		2, 4,21,48, 3,16,12,30		
60″	8,36,34,24,22,51,37,13,11,22			
exact	8,36,34,24,22,51,37,13,39,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°15′ 0″	8,36,34,24,22,51,37,13,39,44			
		2, 4,21,47,25,30,18,46		
2″	8,36,36,28,44,39, 2,43,58,30		37,46, 5,46	
		2, 4,21,46,47,44,13, 0		9, 6
4″	8,36,38,33, 6,25,50,28,11,30		37,46,14,52	
		2, 4,21,46, 9,57,58, 8		9, 6
6″	8,36,40,37,28,12, 0,26, 9,38		37,46,23,58	
		2, 4,21,45,32,11,34,10		9, 6
8″	8,36,42,41,49,57,32,37,43,48		37,46,33, 4	
		2, 4,21,44,54,25, 1, 6		9, 6
10″	8,36,44,46,11,42,27, 2,44,54		37,46,42,10	
		2, 4,21,44,16,38,18,56		9, 6
12″	8,36,46,50,33,26,43,41, 3,50		37,46,51,16	
		2, 4,21,43,38,51,27,40		9, 6
14″	8,36,48,54,55,10,22,32,31,30		37,47, 0,22	
		2, 4,21,43, 1, 4,27,18		9, 6
16″	8,36,50,59,16,53,23,36,58,48		37,47, 9,28	
		2, 4,21,42,23,17,17,50		9, 6
18″	8,36,53, 3,38,35,46,54,16,38		37,47,18,34	
		2, 4,21,41,45,29,59,16		9, 6
20″	8,36,55, 8, 0,17,32,24,15,54		37,47,27,40	
		2, 4,21,41, 7,42,31,36		9, 6
22″	8,36,57,12,21,58,40, 6,47,30		37,47,36,46	
		2, 4,21,40,29,54,54,50		9, 6
24″	8,36,59,16,43,39,10, 1,42,20		37,47,45,52	
		2, 4,21,39,52, 7, 8,58		9, 6
26″	8,37, 1,21, 5,19, 2, 8,51,18		37,47,54,58	
		2, 4,21,39,14,19,14, 0		9, 6
28″	8,37, 3,25,26,58,16,28, 5,18		37,48, 4, 4	
		2, 4,21,38,36,31, 9,56		9, 6
30″	8,37, 5,29,48,36,52,59,15,14		37,48,13,10	
		2, 4,21,37,58,42,56,46		9, 6
32″	8,37, 7,34,10,14,51,42,12, 0		37,48,22,16	
		2, 4,21,37,20,54,34,30		9, 6
34″	8,37, 9,38,31,52,12,36,46,30		37,48,31,22	
		2, 4,21,36,43, 6, 3, 8		9, 6
36″	8,37,11,42,53,28,55,42,49,38		37,48,40,28	
		2, 4,21,36, 5,17,22,40		9, 6
38″	8,37,13,47,15, 5, 1, 0,12,18		37,48,49,34	
		2, 4,21,35,27,28,33, 6		9, 6
40″	8,37,15,51,36,40,28,28,45,24		37,48,58,40	
		2, 4,21,34,49,39,34,26		9, 6
42″	8,37,17,55,58,15,18, 8,19,50		37,49, 7,46	
		2, 4,21,34,11,50,26,40		9, 6
44″	8,37,20, 0,19,49,29,58,46,30		37,49,16,52	
		2, 4,21,33,34, 1, 9,48		9, 6
46″	8,37,22, 4,41,23, 3,59,56,18		37,49,25,58	
		2, 4,21,32,56,11,43,50		9, 6
48″	8,37,24, 9, 2,56, 0,11,40, 8		37,49,35, 4	
		2, 4,21,32,18,22, 8,46		9, 6
50″	8,37,26,13,24,28,18,33,48,54		37,49,44,10	
		2, 4,21,31,40,32,24,36		9, 6
52″	8,37,28,17,45,59,59, 6,13,30		37,49,53,16	
		2, 4,21,31, 2,42,31,20		9, 6
54″	8,37,30,22, 7,31, 1,48,44,50		37,50, 2,22	
		2, 4,21,30,24,52,28,58		9, 6
56″	8,37,32,26,29, 1,26,41,13,48		37,50,11,28	
		2, 4,21,29,47, 2,17,30		9, 6
58″	8,37,34,30,50,31,13,43,31,18		37,50,20,34	
		2, 4,21,29, 9,11,56,56		
60″	8,37,36,35,12, 0,22,55,28,14			
exact	8,37,36,35,12, 0,22,55,59,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°16′ 0″	8,37,36,35,12, 0,22,55,59,14			
		2, 4,21,28,31,21,30,40		
2″	8,37,38,39,33,28,54,17,29,54		37,50,38,31	
		2, 4,21,27,53,30,52, 9		9, 5
4″	8,37,40,43,54,56,47,48,22, 3		37,50,47,36	
		2, 4,21,27,15,40, 4,33		9, 5
6″	8,37,42,48,16,24, 3,28,26,36		37,50,56,41	
		2, 4,21,26,37,49, 7,52		9, 5
8″	8,37,44,52,37,50,41,17,34,28		37,51, 5,46	
		2, 4,21,25,59,58, 2, 6		9, 5
10″	8,37,46,56,59,16,41,15,36,34		37,51,14,51	
		2, 4,21,25,22, 6,47,15		9, 5
12″	8,37,49, 1,20,42, 3,22,23,49		37,51,23,56	
		2, 4,21,24,44,15,23,19		9, 5
14″	8,37,51, 5,42, 6,47,37,47, 8		37,51,33, 1	
		2, 4,21,24, 6,23,50,18		9, 5
16″	8,37,53,10, 3,30,54, 1,37,26		37,51,42, 6	
		2, 4,21,23,28,32, 8,12		9, 5
18″	8,37,55,14,24,54,22,33,45,38		37,51,51,11	
		2, 4,21,22,50,40,17, 1		9, 5
20″	8,37,57,18,46,17,13,14, 2,39		37,52, 0,16	
		2, 4,21,22,12,48,16,45		9, 5
22″	8,37,59,23, 7,39,26, 2,19,24		37,52, 9,21	
		2, 4,21,21,34,56, 7,24		9, 5
24″	8,38, 1,27,29, 1, 0,58,26,48		37,52,18,26	
		2, 4,21,20,57, 3,48,58		9, 5
26″	8,38, 3,31,50,21,58, 2,15,46		37,52,27,31	
		2, 4,21,20,19,11,21,27		9, 5
28″	8,38, 5,36,11,42,17,13,37,13		37,52,36,36	
		2, 4,21,19,41,18,44,51		9, 5
30″	8,38, 7,40,33, 1,58,32,22, 4		37,52,45,41	
		2, 4,21,19, 3,25,59,10		9, 5
32″	8,38, 9,44,54,21, 1,58,21,14		37,52,54,46	
		2, 4,21,18,25,33, 4,24		9, 5
34″	8,38,11,49,15,39,27,31,25,38		37,53, 3,51	
		2, 4,21,17,47,40, 0,33		9, 5
36″	8,38,13,53,36,57,15,11,26,11		37,53,12,56	
		2, 4,21,17, 9,46,47,37		9, 5
38″	8,38,15,57,58,14,24,58,13,48		37,53,22, 1	
		2, 4,21,16,31,53,25,36		9, 5
40″	8,38,18, 2,19,30,56,51,39,24		37,53,31, 6	
		2, 4,21,15,53,59,54,30		9, 5
42″	8,38,20, 6,40,46,50,51,33,54		37,53,40,11	
		2, 4,21,15,16, 6,14,19		9, 5
44″	8,38,22,11, 2, 2, 6,57,48,13		37,53,49,16	
		2, 4,21,14,38,12,25, 3		9, 5
46″	8,38,24,15,23,16,45,10,13,16		37,53,58,21	
		2, 4,21,14, 0,18,26,42		9, 5
48″	8,38,26,19,44,30,45,28,39,58		37,54, 7,26	
		2, 4,21,13,22,24,19,16		9, 5
50″	8,38,28,24, 5,44, 7,52,59,14		37,54,16,31	
		2, 4,21,12,44,30, 2,45		9, 5
52″	8,38,30,28,26,56,52,23, 1,59		37,54,25,36	
		2, 4,21,12, 6,35,37, 9		9, 5
54″	8,38,32,32,48, 8,58,58,39, 8		37,54,34,41	
		2, 4,21,11,28,41, 2,28		9, 5
56″	8,38,34,37, 9,20,27,39,41,36		37,54,43,46	
		2, 4,21,10,50,46,18,42		9, 5
58″	8,38,36,41,30,31,18,26, 0,18		37,54,52,51	
		2, 4,21,10,12,51,25,51		
60″	8,38,38,45,51,41,31,17,26, 9			
exact	8,38,38,45,51,41,31,16,49,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°17′ 0″	8,38,38,45,51,41,31,16,49,49			
		2, 4,21, 9,34,56,20, 9		
2″	8,38,40,50,12,51, 6,13, 9,58		37,55,11,16	
		2, 4,21, 8,57, 1, 8,53		9, 5
4″	8,38,42,54,34, 0, 3,14,18,51		37,55,20,21	
		2, 4,21, 8,19, 5,48,32		9, 5
6″	8,38,44,58,55, 8,22,20, 7,23		37,55,29,26	
		2, 4,21, 7,41,10,19, 6		9, 5
8″	8,38,47, 3,16,16, 3,30,26,29		37,55,38,31	
		2, 4,21, 7, 3,14,40,35		9, 5
10″	8,38,49, 7,37,23, 6,45, 7, 4		37,55,47,36	
		2, 4,21, 6,25,18,52,59		9, 5
12″	8,38,51,11,58,29,32, 4, 0, 3		37,55,56,41	
		2, 4,21, 5,47,22,56,18		9, 5
14″	8,38,53,16,19,35,19,26,56,21		37,56, 5,46	
		2, 4,21, 5, 9,26,50,32		9, 5
16″	8,38,55,20,40,40,28,53,46,53		37,56,14,51	
		2, 4,21, 4,31,30,35,41		9, 5
18″	8,38,57,25, 1,45, 0,24,22,34		37,56,23,56	
		2, 4,21, 3,53,34,11,45		9, 5
20″	8,38,59,29,22,48,53,58,34,19		37,56,33, 1	
		2, 4,21, 3,15,37,38,44		9, 5
22″	8,39, 1,33,43,52, 9,36,13, 3		37,56,42, 6	
		2, 4,21, 2,37,40,56,38		9, 5
24″	8,39, 3,38, 4,54,47,17, 9,41		37,56,51,11	
		2, 4,21, 1,59,44, 5,27		9, 5
26″	8,39, 5,42,25,56,47, 1,15, 8		37,57, 0,16	
		2, 4,21, 1,21,47, 5,11		9, 5
28″	8,39, 7,46,46,58, 8,48,20,19		37,57, 9,21	
		2, 4,21, 0,43,49,55,50		9, 5
30″	8,39, 9,51, 7,58,52,38,16, 9		37,57,18,26	
		2, 4,21, 0, 5,52,37,24		9, 5
32″	8,39,11,55,28,58,58,30,53,33		37,57,27,31	
		2, 4,20,59,27,55, 9,53		9, 5
34″	8,39,13,59,49,58,26,26, 3,26		37,57,36,36	
		2, 4,20,58,49,57,33,17		9, 5
36″	8,39,16, 4,10,57,16,23,36,43		37,57,45,41	
		2, 4,20,58,11,59,47,36		9, 5
38″	8,39,18, 8,31,55,28,23,24,19		37,57,54,46	
		2, 4,20,57,34, 1,52,50		9, 5
40″	8,39,20,12,52,53, 2,25,17, 9		37,58, 3,51	
		2, 4,20,56,56, 3,48,59		9, 5
42″	8,39,22,17,13,49,58,29, 6, 8		37,58,12,56	
		2, 4,20,56,18, 5,36, 3		9, 5
44″	8,39,24,21,34,46,16,34,42,11		37,58,22, 1	
		2, 4,20,55,40, 7,14, 2		9, 5
46″	8,39,26,25,55,41,56,41,56,13		37,58,31, 6	
		2, 4,20,55, 2, 8,42,56		9, 5
48″	8,39,28,30,16,36,58,50,39, 9		37,58,40,11	
		2, 4,20,54,24,10, 2,45		9, 5
50″	8,39,30,34,37,31,23, 0,41,54		37,58,49,16	
		2, 4,20,53,46,11,13,29		9, 5
52″	8,39,32,38,58,25, 9,11,55,23		37,58,58,21	
		2, 4,20,53, 8,12,15, 8		9, 5
54″	8,39,34,43,19,18,17,24,10,31		37,59, 7,26	
		2, 4,20,52,30,13, 7,42		9, 5
56″	8,39,36,47,40,10,47,37,18,13		37,59,16,31	
		2, 4,20,51,52,13,51,11		9, 5
58″	8,39,38,52, 1, 2,39,51, 9,24		37,59,25,36	
		2, 4,20,51,14,14,25,35		
60″	8,39,40,56,21,53,54, 5,34,59			
exact	8,39,40,56,21,53,54, 5, 3,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°18′ 0″	8,39,40,56,21,53,54, 5, 3,48			
		2, 4,20,50,36,14,47,33		
2″	8,39,43, 0,42,44,30,19,51,21		37,59,44, 0	
		2, 4,20,49,58,15, 3,33		9, 5
4″	8,39,45, 5, 3,34,28,34,54,54		37,59,53, 5	
		2, 4,20,49,20,15,10,28		9, 5
6″	8,39,47, 9,24,23,48,50, 5,22		38, 0, 2,10	
		2, 4,20,48,42,15, 8,18		9, 5
8″	8,39,49,13,45,12,31, 5,13,40		38, 0,11,15	
		2, 4,20,48, 4,14,57, 3		9, 5
10″	8,39,51,18, 6, 0,35,20,10,43		38, 0,20,20	
		2, 4,20,47,26,14,36,43		9, 5
12″	8,39,53,22,26,48, 1,34,47,26		38, 0,29,25	
		2, 4,20,46,48,14, 7,18		9, 5
14″	8,39,55,26,47,34,49,48,54,44		38, 0,38,30	
		2, 4,20,46,10,13,28,48		9, 5
16″	8,39,57,31, 8,21, 0, 2,23,32		38, 0,47,35	
		2, 4,20,45,32,12,41,13		9, 5
18″	8,39,59,35,29, 6,32,15, 4,45		38, 0,56,40	
		2, 4,20,44,54,11,44,33		9, 5
20″	8,40, 1,39,49,51,26,26,49,18		38, 1, 5,45	
		2, 4,20,44,16,10,38,48		9, 5
22″	8,40, 3,44,10,35,42,37,28, 6		38, 1,14,50	
		2, 4,20,43,38, 9,23,58		9, 5
24″	8,40, 5,48,31,19,20,46,52, 4		38, 1,23,55	
		2, 4,20,43, 0, 8, 0, 3		9, 5
26″	8,40, 7,52,52, 2,20,54,52, 7		38, 1,33, 0	
		2, 4,20,42,22, 6,27, 3		9, 5
28″	8,40, 9,57,12,44,43, 1,19,10		38, 1,42, 5	
		2, 4,20,41,44, 4,44,58		9, 5
30″	8,40,12, 1,33,26,27, 6, 4, 8		38, 1,51,10	
		2, 4,20,41, 6, 2,53,48		9, 5
32″	8,40,14, 5,54, 7,33, 8,57,56		38, 2, 0,15	
		2, 4,20,40,28, 0,53,33		9, 5
34″	8,40,16,10,14,48, 1, 9,51,29		38, 2, 9,20	
		2, 4,20,39,49,58,44,13		9, 5
36″	8,40,18,14,35,27,51, 8,35,42		38, 2,18,25	
		2, 4,20,39,11,56,25,48		9, 5
38″	8,40,20,18,56, 7, 3, 5, 1,30		38, 2,27,30	
		2, 4,20,38,33,53,58,18		9, 5
40″	8,40,22,23,16,45,36,58,59,48		38, 2,36,35	
		2, 4,20,37,55,51,21,43		9, 5
42″	8,40,24,27,37,23,32,50,21,31		38, 2,45,40	
		2, 4,20,37,17,48,36, 3		9, 5
44″	8,40,26,31,58, 0,50,38,57,34		38, 2,54,45	
		2, 4,20,36,39,45,41,18		9, 5
46″	8,40,28,36,18,37,30,24,38,52		38, 3, 3,50	
		2, 4,20,36, 1,42,37,28		9, 5
48″	8,40,30,40,39,13,32, 7,16,20		38, 3,12,55	
		2, 4,20,35,23,39,24,33		9, 5
50″	8,40,32,44,59,48,55,46,40,53		38, 3,22, 0	
		2, 4,20,34,45,36, 2,33		9, 5
52″	8,40,34,49,20,23,41,22,43,26		38, 3,31, 5	
		2, 4,20,34, 7,32,31,28		9, 5
54″	8,40,36,53,40,57,48,55,14,54		38, 3,40,10	
		2, 4,20,33,29,28,51,18		9, 5
56″	8,40,38,58, 1,31,18,24, 6,12		38, 3,49,15	
		2, 4,20,32,51,25, 2, 3		9, 5
58″	8,40,41, 2,22, 4, 9,49, 8,15		38, 3,58,20	
		2, 4,20,32,13,21, 3,43		
60″	8,40,43, 6,42,36,23,10,11,58			
exact	8,40,43, 6,42,36,23, 9,43,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°19′ 0″	8,40,43, 6,42,36,23, 9,43,53			
		2, 4,20,31,35,16,53,14		
2″	8,40,45,11, 3, 7,58,26,37, 7		38, 4,16,43	
		2, 4,20,30,57,12,36,31		9, 5
4″	8,40,47,15,23,38,55,39,13,38		38, 4,25,48	
		2, 4,20,30,19, 8,10,43		9, 5
6″	8,40,49,19,44, 9,14,47,24,21		38, 4,34,53	
		2, 4,20,29,41, 3,35,50		9, 5
8″	8,40,51,24, 4,38,55,51, 0,11		38, 4,43,58	
		2, 4,20,29, 2,58,51,52		9, 5
10″	8,40,53,28,25, 7,58,49,52, 3		38, 4,53, 3	
		2, 4,20,28,24,53,58,49		9, 5
12″	8,40,55,32,45,36,23,43,50,52		38, 5, 2, 8	
		2, 4,20,27,46,48,56,41		9, 5
14″	8,40,57,37, 6, 4,10,32,47,33		38, 5,11,13	
		2, 4,20,27, 8,43,45,28		9, 5
16″	8,40,59,41,26,31,19,16,33, 1		38, 5,20,18	
		2, 4,20,26,30,38,25,10		9, 5
18″	8,41, 1,45,46,57,49,54,58,11		38, 5,29,23	
		2, 4,20,25,52,32,55,47		9, 5
20″	8,41, 3,50, 7,23,42,27,53,58		38, 5,38,28	
		2, 4,20,25,14,27,17,19		9, 5
22″	8,41, 5,54,27,48,56,55,11,17		38, 5,47,33	
		2, 4,20,24,36,21,29,46		9, 5
24″	8,41, 7,58,48,13,33,16,41, 3		38, 5,56,38	
		2, 4,20,23,58,15,33, 8		9, 5
26″	8,41,10, 3, 8,37,31,32,14,11		38, 6, 5,43	
		2, 4,20,23,20, 9,27,25		9, 5
28″	8,41,12, 7,29, 0,51,41,41,36		38, 6,14,48	
		2, 4,20,22,42, 3,12,37		9, 5
30″	8,41,14,11,49,23,33,44,54,13		38, 6,23,53	
		2, 4,20,22, 3,56,48,44		9, 5
32″	8,41,16,16, 9,45,37,41,42,57		38, 6,32,58	
		2, 4,20,21,25,50,15,46		9, 5
34″	8,41,18,20,30, 7, 3,31,58,43		38, 6,42, 3	
		2, 4,20,20,47,43,33,43		9, 5
36″	8,41,20,24,50,27,51,15,32,26		38, 6,51, 8	
		2, 4,20,20, 9,36,42,35		9, 5
38″	8,41,22,29,10,48, 0,52,15, 1		38, 7, 0,13	
		2, 4,20,19,31,29,42,22		9, 5
40″	8,41,24,33,31, 7,32,21,57,23		38, 7, 9,18	
		2, 4,20,18,53,22,33, 4		9, 5
42″	8,41,26,37,51,26,25,44,30,27		38, 7,18,23	
		2, 4,20,18,15,15,14,41		9, 5
44″	8,41,28,42,11,44,40,59,45, 8		38, 7,27,28	
		2, 4,20,17,37, 7,47,13		9, 5
46″	8,41,30,46,32, 2,18, 7,32,21		38, 7,36,33	
		2, 4,20,16,59, 0,10,40		9, 5
48″	8,41,32,50,52,19,17, 7,43, 1		38, 7,45,38	
		2, 4,20,16,20,52,25, 2		9, 5
50″	8,41,34,55,12,35,38, 0, 8, 3		38, 7,54,43	
		2, 4,20,15,42,44,30,19		9, 5
52″	8,41,36,59,32,51,20,44,38,22		38, 8, 3,48	
		2, 4,20,15, 4,36,26,31		9, 5
54″	8,41,39, 3,53, 6,25,21, 4,53		38, 8,12,53	
		2, 4,20,14,26,28,13,38		9, 5
56″	8,41,41, 8,13,20,51,49,18,31		38, 8,21,58	
		2, 4,20,13,48,19,51,40		9, 5
58″	8,41,43,12,33,34,40, 9,10,11		38, 8,31, 3	
		2, 4,20,13,10,11,20,37		
60″	8,41,45,16,53,47,50,20,30,48			
exact	8,41,45,16,53,47,50,20, 3,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°20′ 0″	8,41,45,16,53,47,50,20, 3,13			
		2, 4,20,12,32, 2,37,31		
2″	8,41,47,21,14, 0,22,22,40,44		38, 8,49,25	
		2, 4,20,11,53,53,48, 6		9, 5
4″	8,41,49,25,34,12,16,16,28,50		38, 8,58,30	
		2, 4,20,11,15,44,49,36		9, 5
6″	8,41,51,29,54,23,32, 1,18,26		38, 9, 7,35	
		2, 4,20,10,37,35,42, 1		9, 5
8″	8,41,53,34,14,34, 9,37, 0,27		38, 9,16,40	
		2, 4,20, 9,59,26,25,21		9, 5
10″	8,41,55,38,34,44, 9, 3,25,48		38, 9,25,45	
		2, 4,20, 9,21,16,59,36		9, 5
12″	8,41,57,42,54,53,30,20,25,24		38, 9,34,50	
		2, 4,20, 8,43, 7,24,46		9, 5
14″	8,41,59,47,15, 2,13,27,50,10		38, 9,43,55	
		2, 4,20, 8, 4,57,40,51		9, 5
16″	8,42, 1,51,35,10,18,25,31, 1		38, 9,53, 0	
		2, 4,20, 7,26,47,47,51		9, 5
18″	8,42, 3,55,55,17,45,13,18,52		38,10, 2, 5	
		2, 4,20, 6,48,37,45,46		9, 5
20″	8,42, 6, 0,15,24,33,51, 4,38		38,10,11,10	
		2, 4,20, 6,10,27,34,36		9, 5
22″	8,42, 8, 4,35,30,44,18,39,14		38,10,20,15	
		2, 4,20, 5,32,17,14,21		9, 5
24″	8,42,10, 8,55,36,16,35,53,35		38,10,29,20	
		2, 4,20, 4,54, 6,45, 1		9, 5
26″	8,42,12,13,15,41,10,42,38,36		38,10,38,25	
		2, 4,20, 4,15,56, 6,36		9, 5
28″	8,42,14,17,35,45,26,38,45,12		38,10,47,30	
		2, 4,20, 3,37,45,19, 6		9, 5
30″	8,42,16,21,55,49, 4,24, 4,18		38,10,56,35	
		2, 4,20, 2,59,34,22,31		9, 5
32″	8,42,18,26,15,52, 3,58,26,49		38,11, 5,40	
		2, 4,20, 2,21,23,16,51		9, 5
34″	8,42,20,30,35,54,25,21,43,40		38,11,14,45	
		2, 4,20, 1,43,12, 2, 6		9, 5
36″	8,42,22,34,55,56, 8,33,45,46		38,11,23,50	
		2, 4,20, 1, 5, 0,38,16		9, 5
38″	8,42,24,39,15,57,13,34,24, 2		38,11,32,55	
		2, 4,20, 0,26,49, 5,21		9, 5
40″	8,42,26,43,35,57,40,23,29,23		38,11,42, 0	
		2, 4,19,59,48,37,23,21		9, 5
42″	8,42,28,47,55,57,29, 0,52,44		38,11,51, 5	
		2, 4,19,59,10,25,32,16		9, 5
44″	8,42,30,52,15,56,39,26,25, 0		38,12, 0,10	
		2, 4,19,58,32,13,32, 6		9, 5
46″	8,42,32,56,35,55,11,39,57, 6		38,12, 9,15	
		2, 4,19,57,54, 1,22,51		9, 5
48″	8,42,35, 0,55,53, 5,41,19,57		38,12,18,20	
		2, 4,19,57,15,49, 4,31		9, 5
50″	8,42,37, 5,15,50,21,30,24,28		38,12,27,25	
		2, 4,19,56,37,36,37, 6		9, 5
52″	8,42,39, 9,35,46,59, 7, 1,34		38,12,36,30	
		2, 4,19,55,59,24, 0,36		9, 5
54″	8,42,41,13,55,42,58,31, 2,10		38,12,45,35	
		2, 4,19,55,21,11,15, 1		9, 5
56″	8,42,43,18,15,38,19,42,17,11		38,12,54,40	
		2, 4,19,54,42,58,20,21		9, 5
58″	8,42,45,22,35,33, 2,40,37,32		38,13, 3,45	
		2, 4,19,54, 4,45,16,36		
60″	8,42,47,26,55,27, 7,25,54, 8			
exact	8,42,47,26,55,27, 7,25,25,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°21′ 0″	8,42,47,26,55,27, 7,25,25,21			
		2, 4,19,53,26,32, 0,46		
2″	8,42,49,31,15,20,33,57,26, 7		38,13,22, 7	
		2, 4,19,52,48,18,38,39		9, 5
4″	8,42,51,35,35,13,22,16, 4,46		38,13,31,12	
		2, 4,19,52,10, 5, 7,27		9, 5
6″	8,42,53,39,55, 5,32,21,12,13		38,13,40,17	
		2, 4,19,51,31,51,27,10		9, 5
8″	8,42,55,44,14,57, 4,12,39,23		38,13,49,22	
		2, 4,19,50,53,37,37,48		9, 5
10″	8,42,57,48,34,47,57,50,17,11		38,13,58,27	
		2, 4,19,50,15,23,39,21		9, 5
12″	8,42,59,52,54,38,13,13,56,32		38,14, 7,32	
		2, 4,19,49,37, 9,31,49		9, 5
14″	8,43, 1,57,14,27,50,23,28,21		38,14,16,37	
		2, 4,19,48,58,55,15,12		9, 5
16″	8,43, 4, 1,34,16,49,18,43,33		38,14,25,42	
		2, 4,19,48,20,40,49,30		9, 5
18″	8,43, 6, 5,54, 5, 9,59,33, 3		38,14,34,47	
		2, 4,19,47,42,26,14,43		9, 5
20″	8,43, 8,10,13,52,52,25,47,46		38,14,43,52	
		2, 4,19,47, 4,11,30,51		9, 5
22″	8,43,10,14,33,39,56,37,18,37		38,14,52,57	
		2, 4,19,46,25,56,37,54		9, 5
24″	8,43,12,18,53,26,22,33,56,31		38,15, 2, 2	
		2, 4,19,45,47,41,35,52		9, 5
26″	8,43,14,23,13,12,10,15,32,23		38,15,11, 7	
		2, 4,19,45, 9,26,24,45		9, 5
28″	8,43,16,27,32,57,19,41,57, 8		38,15,20,12	
		2, 4,19,44,31,11, 4,33		9, 5
30″	8,43,18,31,52,41,50,53, 1,41		38,15,29,17	
		2, 4,19,43,52,55,35,16		9, 5
32″	8,43,20,36,12,25,43,48,36,57		38,15,38,22	
		2, 4,19,43,14,39,56,54		9, 5
34″	8,43,22,40,32, 8,58,28,33,51		38,15,47,27	
		2, 4,19,42,36,24, 9,27		9, 5
36″	8,43,24,44,51,51,34,52,43,18		38,15,56,32	
		2, 4,19,41,58, 8,12,55		9, 5
38″	8,43,26,49,11,33,33, 0,56,13		38,16, 5,37	
		2, 4,19,41,19,52, 7,18		9, 5
40″	8,43,28,53,31,14,52,53, 3,31		38,16,14,42	
		2, 4,19,40,41,35,52,36		9, 5
42″	8,43,30,57,50,55,34,28,56, 7		38,16,23,47	
		2, 4,19,40, 3,19,28,49		9, 5
44″	8,43,33, 2,10,35,37,48,24,56		38,16,32,52	
		2, 4,19,39,25, 2,55,57		9, 5
46″	8,43,35, 6,30,15, 2,51,20,53		38,16,41,57	
		2, 4,19,38,46,46,14, 0		9, 5
48″	8,43,37,10,49,53,49,37,34,53		38,16,51, 2	
		2, 4,19,38, 8,29,22,58		9, 5
50″	8,43,39,15, 9,31,58, 6,57,51		38,17, 0, 7	
		2, 4,19,37,30,12,22,51		9, 5
52″	8,43,41,19,29, 9,28,19,20,42		38,17, 9,12	
		2, 4,19,36,51,55,13,39		9, 5
54″	8,43,43,23,48,46,20,14,34,21		38,17,18,17	
		2, 4,19,36,13,37,55,22		9, 5
56″	8,43,45,28, 8,22,33,52,29,43		38,17,27,22	
		2, 4,19,35,35,20,28, 0		9, 5
58″	8,43,47,32,27,58, 9,12,57,43		38,17,36,27	
		2, 4,19,34,57, 2,51,33		
60″	8,43,49,36,47,33, 6,15,49,16			
exact	8,43,49,36,47,33, 6,15,24,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°22′ 0″	8,43,49,36,47,33, 6,15,24,20			
		2, 4,19,34,18,45, 3,20		
2″	8,43,51,41, 7, 7,25, 0,27,40		38,17,54,48	
		2, 4,19,33,40,27, 8,32		9, 5
4″	8,43,53,45,26,41, 5,27,36,12		38,18, 3,53	
		2, 4,19,33, 2, 9, 4,39		9, 5
6″	8,43,55,49,46,14, 7,36,40,51		38,18,12,58	
		2, 4,19,32,23,50,51,41		9, 5
8″	8,43,57,54, 5,46,31,27,32,32		38,18,22, 3	
		2, 4,19,31,45,32,29,38		9, 5
10″	8,43,59,58,25,18,17, 0, 2,10		38,18,31, 8	
		2, 4,19,31, 7,13,58,30		9, 5
12″	8,44, 2, 2,44,49,24,14, 0,40		38,18,40,13	
		2, 4,19,30,28,55,18,17		9, 5
14″	8,44, 4, 7, 4,19,53, 9,18,57		38,18,49,18	
		2, 4,19,29,50,36,28,59		9, 5
16″	8,44, 6,11,23,49,43,45,47,56		38,18,58,23	
		2, 4,19,29,12,17,30,36		9, 5
18″	8,44, 8,15,43,18,56, 3,18,32		38,19, 7,28	
		2, 4,19,28,33,58,23, 8		9, 5
20″	8,44,10,20, 2,47,30, 1,41,40		38,19,16,33	
		2, 4,19,27,55,39, 6,35		9, 5
22″	8,44,12,24,22,15,25,40,48,15		38,19,25,38	
		2, 4,19,27,17,19,40,57		9, 5
24″	8,44,14,28,41,42,43, 0,29,12		38,19,34,43	
		2, 4,19,26,39, 0, 6,14		9, 5
26″	8,44,16,33, 1, 9,22, 0,35,26		38,19,43,48	
		2, 4,19,26, 0,40,22,26		9, 5
28″	8,44,18,37,20,35,22,40,57,52		38,19,52,53	
		2, 4,19,25,22,20,29,33		9, 5
30″	8,44,20,41,40, 0,45, 1,27,25		38,20, 1,58	
		2, 4,19,24,44, 0,27,35		9, 5
32″	8,44,22,45,59,25,29, 1,55, 0		38,20,11, 3	
		2, 4,19,24, 5,40,16,32		9, 5
34″	8,44,24,50,18,49,34,42,11,32		38,20,20, 8	
		2, 4,19,23,27,19,56,24		9, 5
36″	8,44,26,54,38,13, 2, 2, 7,56		38,20,29,13	
		2, 4,19,22,48,59,27,11		9, 5
38″	8,44,28,58,57,35,51, 1,35, 7		38,20,38,18	
		2, 4,19,22,10,38,48,53		9, 5
40″	8,44,31, 3,16,58, 1,40,24, 0		38,20,47,23	
		2, 4,19,21,32,18, 1,30		9, 5
42″	8,44,33, 7,36,19,33,58,25,30		38,20,56,28	
		2, 4,19,20,53,57, 5, 2		9, 5
44″	8,44,35,11,55,40,27,55,30,32		38,21, 5,33	
		2, 4,19,20,15,35,59,29		9, 5
46″	8,44,37,16,15, 0,43,31,30, 1		38,21,14,38	
		2, 4,19,19,37,14,44,51		9, 5
48″	8,44,39,20,34,20,20,46,14,52		38,21,23,43	
		2, 4,19,18,58,53,21, 8		9, 5
50″	8,44,41,24,53,39,19,39,36, 0		38,21,32,48	
		2, 4,19,18,20,31,48,20		9, 5
52″	8,44,43,29,12,57,40,11,24,20		38,21,41,53	
		2, 4,19,17,42,10, 6,27		9, 5
54″	8,44,45,33,32,15,22,21,30,47		38,21,50,58	
		2, 4,19,17, 3,48,15,29		9, 5
56″	8,44,47,37,51,32,26, 9,46,16		38,22, 0, 3	
		2, 4,19,16,25,26,15,26		9, 5
58″	8,44,49,42,10,48,51,36, 1,42		38,22, 9, 8	
		2, 4,19,15,47, 4, 6,18		
60″	8,44,51,46,30, 4,38,40, 8, 0			
exact	8,44,51,46,30, 4,38,39,44,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°23′ 0″	8,44,51,46,30, 4,38,39,44,38			
		2, 4,19,15, 8,41,45,34		
2″	8,44,53,50,49,19,47,21,30,12		38,22,27,28	
		2, 4,19,14,30,19,18, 6		9, 5
4″	8,44,55,55, 8,34,17,40,48,18		38,22,36,33	
		2, 4,19,13,51,56,41,33		9, 5
6″	8,44,57,59,27,48, 9,37,29,51		38,22,45,38	
		2, 4,19,13,13,33,55,55		9, 5
8″	8,45, 0, 3,47, 1,23,11,25,46		38,22,54,43	
		2, 4,19,12,35,11, 1,12		9, 5
10″	8,45, 2, 8, 6,13,58,22,26,58		38,23, 3,48	
		2, 4,19,11,56,47,57,24		9, 5
12″	8,45, 4,12,25,25,55,10,24,22		38,23,12,53	
		2, 4,19,11,18,24,44,31		9, 5
14″	8,45, 6,16,44,37,13,35, 8,53		38,23,21,58	
		2, 4,19,10,40, 1,22,33		9, 5
16″	8,45, 8,21, 3,47,53,36,31,26		38,23,31, 3	
		2, 4,19,10, 1,37,51,30		9, 5
18″	8,45,10,25,22,57,55,14,22,56		38,23,40, 8	
		2, 4,19, 9,23,14,11,22		9, 5
20″	8,45,12,29,42, 7,18,28,34,18		38,23,49,13	
		2, 4,19, 8,44,50,22, 9		9, 5
22″	8,45,14,34, 1,16, 3,18,56,27		38,23,58,18	
		2, 4,19, 8, 6,26,23,51		9, 5
24″	8,45,16,38,20,24, 9,45,20,18		38,24, 7,23	
		2, 4,19, 7,28, 2,16,28		9, 5
26″	8,45,18,42,39,31,37,47,36,46		38,24,16,28	
		2, 4,19, 6,49,38, 0, 0		9, 5
28″	8,45,20,46,58,38,27,25,36,46		38,24,25,33	
		2, 4,19, 6,11,13,34,27		9, 5
30″	8,45,22,51,17,44,38,39,11,13		38,24,34,38	
		2, 4,19, 5,32,48,59,49		9, 5
32″	8,45,24,55,36,50,11,28,11, 2		38,24,43,43	
		2, 4,19, 4,54,24,16, 6		9, 5
34″	8,45,26,59,55,55, 5,52,27, 8		38,24,52,48	
		2, 4,19, 4,15,59,23,18		9, 5
36″	8,45,29, 4,14,59,21,51,50,26		38,25, 1,53	
		2, 4,19, 3,37,34,21,25		9, 5
38″	8,45,31, 8,34, 2,59,26,11,51		38,25,10,58	
		2, 4,19, 2,59, 9,10,27		9, 5
40″	8,45,33,12,53, 5,58,35,22,18		38,25,20, 3	
		2, 4,19, 2,20,43,50,24		9, 5
42″	8,45,35,17,12, 8,19,19,12,42		38,25,29, 8	
		2, 4,19, 1,42,18,21,16		9, 5
44″	8,45,37,21,31,10, 1,37,33,58		38,25,38,13	
		2, 4,19, 1, 3,52,43, 3		9, 5
46″	8,45,39,25,50,11, 5,30,17, 1		38,25,47,18	
		2, 4,19, 0,25,26,55,45		9, 5
48″	8,45,41,30, 9,11,30,57,12,46		38,25,56,23	
		2, 4,18,59,47, 0,59,22		9, 5
50″	8,45,43,34,28,11,17,58,12, 8		38,26, 5,28	
		2, 4,18,59, 8,34,53,54		9, 5
52″	8,45,45,38,47,10,26,33, 6, 2		38,26,14,33	
		2, 4,18,58,30, 8,39,21		9, 5
54″	8,45,47,43, 6, 8,56,41,45,23		38,26,23,38	
		2, 4,18,57,51,42,15,43		9, 5
56″	8,45,49,47,25, 6,48,24, 1, 6		38,26,32,43	
		2, 4,18,57,13,15,43, 0		9, 5
58″	8,45,51,51,44, 4, 1,39,44, 6		38,26,41,48	
		2, 4,18,56,34,49, 1,12		
60″	8,45,53,56, 3, 0,36,28,45,18			
exact	8,45,53,56, 3, 0,36,28,21,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°24′ 0″	8,45,53,56, 3, 0,36,28,21,17			
		2, 4,18,55,56,22, 7,49		
2″	8,45,56, 0,21,56,32,50,29, 6		38,27, 0, 8	
		2, 4,18,55,17,55, 7,41		9, 5
4″	8,45,58, 4,40,51,50,45,36,47		38,27, 9,13	
		2, 4,18,54,39,27,58,28		9, 5
6″	8,46, 0, 8,59,46,30,13,35,15		38,27,18,18	
		2, 4,18,54, 1, 0,40,10		9, 5
8″	8,46, 2,13,18,40,31,14,15,25		38,27,27,23	
		2, 4,18,53,22,33,12,47		9, 5
10″	8,46, 4,17,37,33,53,47,28,12		38,27,36,28	
		2, 4,18,52,44, 5,36,19		9, 5
12″	8,46, 6,21,56,26,37,53, 4,31		38,27,45,33	
		2, 4,18,52, 5,37,50,46		9, 5
14″	8,46, 8,26,15,18,43,30,55,17		38,27,54,38	
		2, 4,18,51,27, 9,56, 8		9, 5
16″	8,46,10,30,34,10,10,40,51,25		38,28, 3,43	
		2, 4,18,50,48,41,52,25		9, 5
18″	8,46,12,34,53, 0,59,22,43,50		38,28,12,48	
		2, 4,18,50,10,13,39,37		9, 5
20″	8,46,14,39,11,51, 9,36,23,27		38,28,21,53	
		2, 4,18,49,31,45,17,44		9, 5
22″	8,46,16,43,30,40,41,21,41,11		38,28,30,58	
		2, 4,18,48,53,16,46,46		9, 5
24″	8,46,18,47,49,29,34,38,27,57		38,28,40, 3	
		2, 4,18,48,14,48, 6,43		9, 5
26″	8,46,20,52, 8,17,49,26,34,40		38,28,49, 8	
		2, 4,18,47,36,19,17,35		9, 5
28″	8,46,22,56,27, 5,25,45,52,15		38,28,58,13	
		2, 4,18,46,57,50,19,22		9, 5
30″	8,46,25, 0,45,52,23,36,11,37		38,29, 7,18	
		2, 4,18,46,19,21,12, 4		9, 5
32″	8,46,27, 5, 4,38,42,57,23,41		38,29,16,23	
		2, 4,18,45,40,51,55,41		9, 5
34″	8,46,29, 9,23,24,23,49,19,22		38,29,25,28	
		2, 4,18,45, 2,22,30,13		9, 5
36″	8,46,31,13,42, 9,26,11,49,35		38,29,34,33	
		2, 4,18,44,23,52,55,40		9, 5
38″	8,46,33,18, 0,53,50, 4,45,15		38,29,43,38	
		2, 4,18,43,45,23,12, 2		9, 5
40″	8,46,35,22,19,37,35,27,57,17		38,29,52,43	
		2, 4,18,43, 6,53,19,19		9, 5
42″	8,46,37,26,38,20,42,21,16,36		38,30, 1,48	
		2, 4,18,42,28,23,17,31		9, 5
44″	8,46,39,30,57, 3,10,44,34, 7		38,30,10,53	
		2, 4,18,41,49,53, 6,38		9, 5
46″	8,46,41,35,15,45, 0,37,40,45		38,30,19,58	
		2, 4,18,41,11,22,46,40		9, 5
48″	8,46,43,39,34,26,12, 0,27,25		38,30,29, 3	
		2, 4,18,40,32,52,17,37		9, 5
50″	8,46,45,43,53, 6,44,52,45, 2		38,30,38, 8	
		2, 4,18,39,54,21,39,29		9, 5
52″	8,46,47,48,11,46,39,14,24,31		38,30,47,13	
		2, 4,18,39,15,50,52,16		9, 5
54″	8,46,49,52,30,25,55, 5,16,47		38,30,56,18	
		2, 4,18,38,37,19,55,58		9, 5
56″	8,46,51,56,49, 4,32,25,12,45		38,31, 5,23	
		2, 4,18,37,58,48,50,35		9, 5
58″	8,46,54, 1, 7,42,31,14, 3,20		38,31,14,28	
		2, 4,18,37,20,17,36, 7		
60″	8,46,56, 5,26,19,51,31,39,27			
exact	8,46,56, 5,26,19,51,31,19,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°25′ 0″	8,46,56, 5,26,19,51,31,19,47			
		2, 4,18,36,41,46,10,26		
2″	8,46,58, 9,44,56,33,17,30,13		38,31,32,47	
		2, 4,18,36, 3,14,37,39		9, 5
4″	8,47, 0,14, 3,32,36,32, 7,52		38,31,41,52	
		2, 4,18,35,24,42,55,47		9, 5
6″	8,47, 2,18,22, 8, 1,15, 3,39		38,31,50,57	
		2, 4,18,34,46,11, 4,50		9, 5
8″	8,47, 4,22,40,42,47,26, 8,29		38,32, 0, 2	
		2, 4,18,34, 7,39, 4,48		9, 5
10″	8,47, 6,26,59,16,55, 5,13,17		38,32, 9, 7	
		2, 4,18,33,29, 6,55,41		9, 5
12″	8,47, 8,31,17,50,24,12, 8,58		38,32,18,12	
		2, 4,18,32,50,34,37,29		9, 5
14″	8,47,10,35,36,23,14,46,46,27		38,32,27,17	
		2, 4,18,32,12, 2,10,12		9, 5
16″	8,47,12,39,54,55,26,48,56,39		38,32,36,22	
		2, 4,18,31,33,29,33,50		9, 5
18″	8,47,14,44,13,27, 0,18,30,29		38,32,45,27	
		2, 4,18,30,54,56,48,23		9, 5
20″	8,47,16,48,31,57,55,15,18,52		38,32,54,32	
		2, 4,18,30,16,23,53,51		9, 5
22″	8,47,18,52,50,28,11,39,12,43		38,33, 3,37	
		2, 4,18,29,37,50,50,14		9, 5
24″	8,47,20,57, 8,57,49,30, 2,57		38,33,12,42	
		2, 4,18,28,59,17,37,32		9, 5
26″	8,47,23, 1,27,26,48,47,40,29		38,33,21,47	
		2, 4,18,28,20,44,15,45		9, 5
28″	8,47,25, 5,45,55, 9,31,56,14		38,33,30,52	
		2, 4,18,27,42,10,44,53		9, 5
30″	8,47,27,10, 4,22,51,42,41, 7		38,33,39,57	
		2, 4,18,27, 3,37, 4,56		9, 5
32″	8,47,29,14,22,49,55,19,46, 3		38,33,49, 2	
		2, 4,18,26,25, 3,15,54		9, 5
34″	8,47,31,18,41,16,20,23, 1,57		38,33,58, 7	
		2, 4,18,25,46,29,17,47		9, 5
36″	8,47,33,22,59,42, 6,52,19,44		38,34, 7,12	
		2, 4,18,25, 7,55,10,35		9, 5
38″	8,47,35,27,18, 7,14,47,30,19		38,34,16,17	
		2, 4,18,24,29,20,54,18		9, 5
40″	8,47,37,31,36,31,44, 8,24,37		38,34,25,22	
		2, 4,18,23,50,46,28,56		9, 5
42″	8,47,39,35,54,55,34,54,53,33		38,34,34,27	
		2, 4,18,23,12,11,54,29		9, 5
44″	8,47,41,40,13,18,47, 6,48, 2		38,34,43,32	
		2, 4,18,22,33,37,10,57		9, 5
46″	8,47,43,44,31,41,20,43,58,59		38,34,52,37	
		2, 4,18,21,55, 2,18,20		9, 5
48″	8,47,45,48,50, 3,15,46,17,19		38,35, 1,42	
		2, 4,18,21,16,27,16,38		9, 5
50″	8,47,47,53, 8,24,32,13,33,57		38,35,10,47	
		2, 4,18,20,37,52, 5,51		9, 5
52″	8,47,49,57,26,45,10, 5,39,48		38,35,19,52	
		2, 4,18,19,59,16,45,59		9, 5
54″	8,47,52, 1,45, 5, 9,22,25,47		38,35,28,57	
		2, 4,18,19,20,41,17, 2		9, 5
56″	8,47,54, 6, 3,24,30, 3,42,49		38,35,38, 2	
		2, 4,18,18,42, 5,39, 0		9, 5
58″	8,47,56,10,21,43,12, 9,21,49		38,35,47, 7	
		2, 4,18,18, 3,29,51,53		
60″	8,47,58,14,40, 1,15,39,13,42			
exact	8,47,58,14,40, 1,15,38,56,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°26′ 0″	8,47,58,14,40, 1,15,38,56,12			
		2, 4,18,17,24,53,53,46		
2″	8,48, 0,18,58,18,40,32,49,58		38,36, 5,25	
		2, 4,18,16,46,17,48,21		9, 5
4″	8,48, 2,23,16,35,26,50,38,19		38,36,14,30	
		2, 4,18,16, 7,41,33,51		9, 5
6″	8,48, 4,27,34,51,34,32,12,10		38,36,23,35	
		2, 4,18,15,29, 5,10,16		9, 5
8″	8,48, 6,31,53, 7, 3,37,22,26		38,36,32,40	
		2, 4,18,14,50,28,37,36		9, 5
10″	8,48, 8,36,11,21,54, 6, 0, 2		38,36,41,45	
		2, 4,18,14,11,51,55,51		9, 5
12″	8,48,10,40,29,36, 5,57,55,53		38,36,50,50	
		2, 4,18,13,33,15, 5, 1		9, 5
14″	8,48,12,44,47,49,39,13, 0,54		38,36,59,55	
		2, 4,18,12,54,38, 5, 6		9, 5
16″	8,48,14,49, 6, 2,33,51, 6, 0		38,37, 9, 0	
		2, 4,18,12,16, 0,56, 6		9, 5
18″	8,48,16,53,24,14,49,52, 2, 6		38,37,18, 5	
		2, 4,18,11,37,23,38, 1		9, 5
20″	8,48,18,57,42,26,27,15,40, 7		38,37,27,10	
		2, 4,18,10,58,46,10,51		9, 5
22″	8,48,21, 2, 0,37,26, 1,50,58		38,37,36,15	
		2, 4,18,10,20, 8,34,36		9, 5
24″	8,48,23, 6,18,47,46,10,25,34		38,37,45,20	
		2, 4,18, 9,41,30,49,16		9, 5
26″	8,48,25,10,36,57,27,41,14,50		38,37,54,25	
		2, 4,18, 9, 2,52,54,51		9, 5
28″	8,48,27,14,55, 6,30,34, 9,41		38,38, 3,30	
		2, 4,18, 8,24,14,51,21		9, 5
30″	8,48,29,19,13,14,54,49, 1, 2		38,38,12,35	
		2, 4,18, 7,45,36,38,46		9, 5
32″	8,48,31,23,31,22,40,25,39,48		38,38,21,40	
		2, 4,18, 7, 6,58,17, 6		9, 5
34″	8,48,33,27,49,29,47,23,56,54		38,38,30,45	
		2, 4,18, 6,28,19,46,21		9, 5
36″	8,48,35,32, 7,36,15,43,43,15		38,38,39,50	
		2, 4,18, 5,49,41, 6,31		9, 5
38″	8,48,37,36,25,42, 5,24,49,46		38,38,48,55	
		2, 4,18, 5,11, 2,17,36		9, 5
40″	8,48,39,40,43,47,16,27, 7,22		38,38,58, 0	
		2, 4,18, 4,32,23,19,36		9, 5
42″	8,48,41,45, 1,51,48,50,26,58		38,39, 7, 5	
		2, 4,18, 3,53,44,12,31		9, 5
44″	8,48,43,49,19,55,42,34,39,29		38,39,16,10	
		2, 4,18, 3,15, 4,56,21		9, 5
46″	8,48,45,53,37,58,57,39,35,50		38,39,25,15	
		2, 4,18, 2,36,25,31, 6		9, 5
48″	8,48,47,57,56, 1,34, 5, 6,56		38,39,34,20	
		2, 4,18, 1,57,45,56,46		9, 5
50″	8,48,50, 2,14, 3,31,51, 3,42		38,39,43,25	
		2, 4,18, 1,19, 6,13,21		9, 5
52″	8,48,52, 6,32, 4,50,57,17, 3		38,39,52,30	
		2, 4,18, 0,40,26,20,51		9, 5
54″	8,48,54,10,50, 5,31,23,37,54		38,40, 1,35	
		2, 4,18, 0, 1,46,19,16		9, 5
56″	8,48,56,15, 8, 5,33, 9,57,10		38,40,10,40	
		2, 4,17,59,23, 6, 8,36		9, 5
58″	8,48,58,19,26, 4,56,16, 5,46		38,40,19,45	
		2, 4,17,58,44,25,48,51		
60″	8,49, 0,23,44, 3,40,41,54,37			
exact	8,49, 0,23,44, 3,40,41,37,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°27′ 0″	8,49, 0,23,44, 3,40,41,37,10			
		2, 4,17,58, 5,45,18,10		
2″	8,49, 2,28, 2, 1,46,26,55,20		38,40,38, 3	
		2, 4,17,57,27, 4,40, 7		9, 5
4″	8,49, 4,32,19,59,13,31,35,27		38,40,47, 8	
		2, 4,17,56,48,23,52,59		9, 5
6″	8,49, 6,36,37,56, 1,55,28,26		38,40,56,13	
		2, 4,17,56, 9,42,56,46		9, 5
8″	8,49, 8,40,55,52,11,38,25,12		38,41, 5,18	
		2, 4,17,55,31, 1,51,28		9, 5
10″	8,49,10,45,13,47,42,40,16,40		38,41,14,23	
		2, 4,17,54,52,20,37, 5		9, 5
12″	8,49,12,49,31,42,35, 0,53,45		38,41,23,28	
		2, 4,17,54,13,39,13,37		9, 5
14″	8,49,14,53,49,36,48,40, 7,22		38,41,32,33	
		2, 4,17,53,34,57,41, 4		9, 5
16″	8,49,16,58, 7,30,23,37,48,26		38,41,41,38	
		2, 4,17,52,56,15,59,26		9, 5
18″	8,49,19, 2,25,23,19,53,47,52		38,41,50,43	
		2, 4,17,52,17,34, 8,43		9, 5
20″	8,49,21, 6,43,15,37,27,56,35		38,41,59,48	
		2, 4,17,51,38,52, 8,55		9, 5
22″	8,49,23,11, 1, 7,16,20, 5,30		38,42, 8,53	
		2, 4,17,51, 0,10, 0, 2		9, 5
24″	8,49,25,15,18,58,16,30, 5,32		38,42,17,58	
		2, 4,17,50,21,27,42, 4		9, 5
26″	8,49,27,19,36,48,37,57,47,36		38,42,27, 3	
		2, 4,17,49,42,45,15, 1		9, 5
28″	8,49,29,23,54,38,20,43, 2,37		38,42,36, 8	
		2, 4,17,49, 4, 2,38,53		9, 5
30″	8,49,31,28,12,27,24,45,41,30		38,42,45,13	
		2, 4,17,48,25,19,53,40		9, 5
32″	8,49,33,32,30,15,50, 5,35,10		38,42,54,18	
		2, 4,17,47,46,36,59,22		9, 5
34″	8,49,35,36,48, 3,36,42,34,32		38,43, 3,23	
		2, 4,17,47, 7,53,55,59		9, 5
36″	8,49,37,41, 5,50,44,36,30,31		38,43,12,28	
		2, 4,17,46,29,10,43,31		9, 5
38″	8,49,39,45,23,37,13,47,14, 2		38,43,21,33	
		2, 4,17,45,50,27,21,58		9, 5
40″	8,49,41,49,41,23, 4,14,36, 0		38,43,30,38	
		2, 4,17,45,11,43,51,20		9, 5
42″	8,49,43,53,59, 8,15,58,27,20		38,43,39,43	
		2, 4,17,44,33, 0,11,37		9, 5
44″	8,49,45,58,16,52,48,58,38,57		38,43,48,48	
		2, 4,17,43,54,16,22,49		9, 5
46″	8,49,48, 2,34,36,43,15, 1,46		38,43,57,53	
		2, 4,17,43,15,32,24,56		9, 5
48″	8,49,50, 6,52,19,58,47,26,42		38,44, 6,58	
		2, 4,17,42,36,48,17,58		9, 5
50″	8,49,52,11,10, 2,35,35,44,40		38,44,16, 3	
		2, 4,17,41,58, 4, 1,55		9, 5
52″	8,49,54,15,27,44,33,39,46,35		38,44,25, 8	
		2, 4,17,41,19,19,36,47		9, 5
54″	8,49,56,19,45,25,52,59,23,22		38,44,34,13	
		2, 4,17,40,40,35, 2,34		9, 5
56″	8,49,58,24, 3, 6,33,34,25,56		38,44,43,18	
		2, 4,17,40, 1,50,19,16		9, 5
58″	8,50, 0,28,20,46,35,24,45,12		38,44,52,23	
		2, 4,17,39,23, 5,26,53		
60″	8,50, 2,32,38,25,58,30,12, 5			
exact	8,50, 2,32,38,25,58,29,59,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°28′ 0″	8,50, 2,32,38,25,58,29,59,53			
		2, 4,17,38,44,20,23,59		
2″	8,50, 4,36,56, 4,42,50,23,52		38,45,10,39	
		2, 4,17,38, 5,35,13,20		9, 5
4″	8,50, 6,41,13,42,48,25,37,12		38,45,19,44	
		2, 4,17,37,26,49,53,36		9, 5
6″	8,50, 8,45,31,20,15,15,30,48		38,45,28,49	
		2, 4,17,36,48, 4,24,47		9, 5
8″	8,50,10,49,48,57, 3,19,55,35		38,45,37,54	
		2, 4,17,36, 9,18,46,53		9, 5
10″	8,50,12,54, 6,33,12,38,42,28		38,45,46,59	
		2, 4,17,35,30,32,59,54		9, 5
12″	8,50,14,58,24, 8,43,11,42,22		38,45,56, 4	
		2, 4,17,34,51,47, 3,50		9, 5
14″	8,50,17, 2,41,43,34,58,46,12		38,46, 5, 9	
		2, 4,17,34,13, 0,58,41		9, 5
16″	8,50,19, 6,59,17,47,59,44,53		38,46,14,14	
		2, 4,17,33,34,14,44,27		9, 5
18″	8,50,21,11,16,51,22,14,29,20		38,46,23,19	
		2, 4,17,32,55,28,21, 8		9, 5
20″	8,50,23,15,34,24,17,42,50,28		38,46,32,24	
		2, 4,17,32,16,41,48,44		9, 5
22″	8,50,25,19,51,56,34,24,39,12		38,46,41,29	
		2, 4,17,31,37,55, 7,15		9, 5
24″	8,50,27,24, 9,28,12,19,46,27		38,46,50,34	
		2, 4,17,30,59, 8,16,41		9, 5
26″	8,50,29,28,26,59,11,28, 3, 8		38,46,59,39	
		2, 4,17,30,20,21,17, 2		9, 5
28″	8,50,31,32,44,29,31,49,20,10		38,47, 8,44	
		2, 4,17,29,41,34, 8,18		9, 5
30″	8,50,33,37, 1,59,13,23,28,28		38,47,17,49	
		2, 4,17,29, 2,46,50,29		9, 5
32″	8,50,35,41,19,28,16,10,18,57		38,47,26,54	
		2, 4,17,28,23,59,23,35		9, 5
34″	8,50,37,45,36,56,40, 9,42,32		38,47,35,59	
		2, 4,17,27,45,11,47,36		9, 5
36″	8,50,39,49,54,24,25,21,30, 8		38,47,45, 4	
		2, 4,17,27, 6,24, 2,32		9, 5
38″	8,50,41,54,11,51,31,45,32,40		38,47,54, 9	
		2, 4,17,26,27,36, 8,23		9, 5
40″	8,50,43,58,29,17,59,21,41, 3		38,48, 3,14	
		2, 4,17,25,48,48, 5, 9		9, 5
42″	8,50,46, 2,46,43,48, 9,46,12		38,48,12,19	
		2, 4,17,25, 9,59,52,50		9, 5
44″	8,50,48, 7, 4, 8,58, 9,39, 2		38,48,21,24	
		2, 4,17,24,31,11,31,26		9, 5
46″	8,50,50,11,21,33,29,21,10,28		38,48,30,29	
		2, 4,17,23,52,23, 0,57		9, 5
48″	8,50,52,15,38,57,21,44,11,25		38,48,39,34	
		2, 4,17,23,13,34,21,23		9, 5
50″	8,50,54,19,56,20,35,18,32,48		38,48,48,39	
		2, 4,17,22,34,45,32,44		9, 5
52″	8,50,56,24,13,43,10, 4, 5,32		38,48,57,44	
		2, 4,17,21,55,56,35, 0		9, 5
54″	8,50,58,28,31, 5, 6, 0,40,32		38,49, 6,49	
		2, 4,17,21,17, 7,28,11		9, 5
56″	8,51, 0,32,48,26,23, 8, 8,43		38,49,15,54	
		2, 4,17,20,38,18,12,17		9, 5
58″	8,51, 2,37, 5,47, 1,26,21, 0		38,49,24,59	
		2, 4,17,19,59,28,47,18		
60″	8,51, 4,41,23, 7, 0,55, 8,18			
exact	8,51, 4,41,23, 7, 0,54,52, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°29′ 0″	8,51, 4,41,23, 7, 0,54,52, 9			
		2, 4,17,19,20,39,11,35		
2″	8,51, 6,45,40,26,21,34, 3,44		38,49,43,15	
		2, 4,17,18,41,49,28,20		9, 5
4″	8,51, 8,49,57,45, 3,23,32, 4		38,49,52,20	
		2, 4,17,18, 2,59,36, 0		9, 5
6″	8,51,10,54,15, 3, 6,23, 8, 4		38,50, 1,25	
		2, 4,17,17,24, 9,34,35		9, 5
8″	8,51,12,58,32,20,30,32,42,39		38,50,10,30	
		2, 4,17,16,45,19,24, 5		9, 5
10″	8,51,15, 2,49,37,15,52, 6,44		38,50,19,35	
		2, 4,17,16, 6,29, 4,30		9, 5
12″	8,51,17, 7, 6,53,22,21,11,14		38,50,28,40	
		2, 4,17,15,27,38,35,50		9, 5
14″	8,51,19,11,24, 8,49,59,47, 4		38,50,37,45	
		2, 4,17,14,48,47,58, 5		9, 5
16″	8,51,21,15,41,23,38,47,45, 9		38,50,46,50	
		2, 4,17,14, 9,57,11,15		9, 5
18″	8,51,23,19,58,37,48,44,56,24		38,50,55,55	
		2, 4,17,13,31, 6,15,20		9, 5
20″	8,51,25,24,15,51,19,51,11,44		38,51, 5, 0	
		2, 4,17,12,52,15,10,20		9, 5
22″	8,51,27,28,33, 4,12, 6,22, 4		38,51,14, 5	
		2, 4,17,12,13,23,56,15		9, 5
24″	8,51,29,32,50,16,25,30,18,19		38,51,23,10	
		2, 4,17,11,34,32,33, 5		9, 5
26″	8,51,31,37, 7,28, 0, 2,51,24		38,51,32,15	
		2, 4,17,10,55,41, 0,50		9, 5
28″	8,51,33,41,24,38,55,43,52,14		38,51,41,20	
		2, 4,17,10,16,49,19,30		9, 5
30″	8,51,35,45,41,49,12,33,11,44		38,51,50,25	
		2, 4,17, 9,37,57,29, 5		9, 5
32″	8,51,37,49,58,58,50,30,40,49		38,51,59,30	
		2, 4,17, 8,59, 5,29,35		9, 5
34″	8,51,39,54,16, 7,49,36,10,24		38,52, 8,35	
		2, 4,17, 8,20,13,21, 0		9, 5
36″	8,51,41,58,33,16, 9,49,31,24		38,52,17,40	
		2, 4,17, 7,41,21, 3,20		9, 5
38″	8,51,44, 2,50,23,51,10,34,44		38,52,26,45	
		2, 4,17, 7, 2,28,36,35		9, 5
40″	8,51,46, 7, 7,30,53,39,11,19		38,52,35,50	
		2, 4,17, 6,23,36, 0,45		9, 5
42″	8,51,48,11,24,37,17,15,12, 4		38,52,44,55	
		2, 4,17, 5,44,43,15,50		9, 5
44″	8,51,50,15,41,43, 1,58,27,54		38,52,54, 0	
		2, 4,17, 5, 5,50,21,50		9, 5
46″	8,51,52,19,58,48, 7,48,49,44		38,53, 3, 5	
		2, 4,17, 4,26,57,18,45		9, 5
48″	8,51,54,24,15,52,34,46, 8,29		38,53,12,10	
		2, 4,17, 3,48, 4, 6,35		9, 5
50″	8,51,56,28,32,56,22,50,15, 4		38,53,21,15	
		2, 4,17, 3, 9,10,45,20		9, 5
52″	8,51,58,32,49,59,32, 1, 0,24		38,53,30,20	
		2, 4,17, 2,30,17,15, 0		9, 5
54″	8,52, 0,37, 7, 2, 2,18,15,24		38,53,39,25	
		2, 4,17, 1,51,23,35,35		9, 5
56″	8,52, 2,41,24, 3,53,41,50,59		38,53,48,30	
		2, 4,17, 1,12,29,47, 5		9, 5
58″	8,52, 4,45,41, 5, 6,11,38, 4		38,53,57,35	
		2, 4,17, 0,33,35,49,30		
60″	8,52, 6,49,58, 5,39,47,27,34			
exact	8,52, 6,49,58, 5,39,47,12,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°30′ 0″	8,52, 6,49,58, 5,39,47,12,25			
		2, 4,16,59,54,41,41,19		
2″	8,52, 8,54,15, 5,34,28,53,44		38,54,15,51	
		2, 4,16,59,15,47,25,28		9, 5
4″	8,52,10,58,32, 4,50,16,19,12		38,54,24,56	
		2, 4,16,58,36,53, 0,32		9, 5
6″	8,52,13, 2,49, 3,27, 9,19,44		38,54,34, 1	
		2, 4,16,57,57,58,26,31		9, 5
8″	8,52,15, 7, 6, 1,25, 7,46,15		38,54,43, 6	
		2, 4,16,57,19, 3,43,25		9, 5
10″	8,52,17,11,22,58,44,11,29,40		38,54,52,11	
		2, 4,16,56,40, 8,51,14		9, 5
12″	8,52,19,15,39,55,24,20,20,54		38,55, 1,16	
		2, 4,16,56, 1,13,49,58		9, 5
14″	8,52,21,19,56,51,25,34,10,52		38,55,10,21	
		2, 4,16,55,22,18,39,37		9, 5
16″	8,52,23,24,13,46,47,52,50,29		38,55,19,26	
		2, 4,16,54,43,23,20,11		9, 5
18″	8,52,25,28,30,41,31,16,10,40		38,55,28,31	
		2, 4,16,54, 4,27,51,40		9, 5
20″	8,52,27,32,47,35,35,44, 2,20		38,55,37,36	
		2, 4,16,53,25,32,14, 4		9, 5
22″	8,52,29,37, 4,29, 1,16,16,24		38,55,46,41	
		2, 4,16,52,46,36,27,23		9, 5
24″	8,52,31,41,21,21,47,52,43,47		38,55,55,46	
		2, 4,16,52, 7,40,31,37		9, 5
26″	8,52,33,45,38,13,55,33,15,24		38,56, 4,51	
		2, 4,16,51,28,44,26,46		9, 5
28″	8,52,35,49,55, 5,24,17,42,10		38,56,13,56	
		2, 4,16,50,49,48,12,50		9, 5
30″	8,52,37,54,11,56,14, 5,55, 0		38,56,23, 1	
		2, 4,16,50,10,51,49,49		9, 5
32″	8,52,39,58,28,46,24,57,44,49		38,56,32, 6	
		2, 4,16,49,31,55,17,43		9, 5
34″	8,52,42, 2,45,35,56,53, 2,32		38,56,41,11	
		2, 4,16,48,52,58,36,32		9, 5
36″	8,52,44, 7, 2,24,49,51,39, 4		38,56,50,16	
		2, 4,16,48,14, 1,46,16		9, 5
38″	8,52,46,11,19,13, 3,53,25,20		38,56,59,21	
		2, 4,16,47,35, 4,46,55		9, 5
40″	8,52,48,15,36, 0,38,58,12,15		38,57, 8,26	
		2, 4,16,46,56, 7,38,29		9, 5
42″	8,52,50,19,52,47,35, 5,50,44		38,57,17,31	
		2, 4,16,46,17,10,20,58		9, 5
44″	8,52,52,24, 9,33,52,16,11,42		38,57,26,36	
		2, 4,16,45,38,12,54,22		9, 5
46″	8,52,54,28,26,19,30,29, 6, 4		38,57,35,41	
		2, 4,16,44,59,15,18,41		9, 5
48″	8,52,56,32,43, 4,29,44,24,45		38,57,44,46	
		2, 4,16,44,20,17,33,55		9, 5
50″	8,52,58,36,59,48,50, 1,58,40		38,57,53,51	
		2, 4,16,43,41,19,40, 4		9, 5
52″	8,53, 0,41,16,32,31,21,38,44		38,58, 2,56	
		2, 4,16,43, 2,21,37, 8		9, 5
54″	8,53, 2,45,33,15,33,43,15,52		38,58,12, 1	
		2, 4,16,42,23,23,25, 7		9, 5
56″	8,53, 4,49,49,57,57, 6,40,59		38,58,21, 6	
		2, 4,16,41,44,25, 4, 1		9, 5
58″	8,53, 6,54, 6,39,41,31,45, 0		38,58,30,11	
		2, 4,16,41, 5,26,33,50		
60″	8,53, 8,58,23,20,46,58,18,50			
exact	8,53, 8,58,23,20,46,58, 9,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°31′ 0″	8,53, 8,58,23,20,46,58, 9,44			
		2, 4,16,40,26,27,53,32		
2″	8,53,11, 2,40, 1,13,26, 3,16		38,58,48,25	
		2, 4,16,39,47,29, 5, 7		9, 5
4″	8,53,13, 6,56,41, 0,55, 8,23		38,58,57,30	
		2, 4,16,39, 8,30, 7,37		9, 5
6″	8,53,15,11,13,20, 9,25,16, 0		38,59, 6,35	
		2, 4,16,38,29,31, 1, 2		9, 5
8″	8,53,17,15,29,58,38,56,17, 2		38,59,15,40	
		2, 4,16,37,50,31,45,22		9, 5
10″	8,53,19,19,46,36,29,28, 2,24		38,59,24,45	
		2, 4,16,37,11,32,20,37		9, 5
12″	8,53,21,24, 3,13,41, 0,23, 1		38,59,33,50	
		2, 4,16,36,32,32,46,47		9, 5
14″	8,53,23,28,19,50,13,33, 9,48		38,59,42,55	
		2, 4,16,35,53,33, 3,52		9, 5
16″	8,53,25,32,36,26, 7, 6,13,40		38,59,52, 0	
		2, 4,16,35,14,33,11,52		9, 5
18″	8,53,27,36,53, 1,21,39,25,32		39, 0, 1, 5	
		2, 4,16,34,35,33,10,47		9, 5
20″	8,53,29,41, 9,35,57,12,36,19		39, 0,10,10	
		2, 4,16,33,56,33, 0,37		9, 5
22″	8,53,31,45,26, 9,53,45,36,56		39, 0,19,15	
		2, 4,16,33,17,32,41,22		9, 5
24″	8,53,33,49,42,43,11,18,18,18		39, 0,28,20	
		2, 4,16,32,38,32,13, 2		9, 5
26″	8,53,35,53,59,15,49,50,31,20		39, 0,37,25	
		2, 4,16,31,59,31,35,37		9, 5
28″	8,53,37,58,15,47,49,22, 6,57		39, 0,46,30	
		2, 4,16,31,20,30,49, 7		9, 5
30″	8,53,40, 2,32,19, 9,52,56, 4		39, 0,55,35	
		2, 4,16,30,41,29,53,32		9, 5
32″	8,53,42, 6,48,49,51,22,49,36		39, 1, 4,40	
		2, 4,16,30, 2,28,48,52		9, 5
34″	8,53,44,11, 5,19,53,51,38,28		39, 1,13,45	
		2, 4,16,29,23,27,35, 7		9, 5
36″	8,53,46,15,21,49,17,19,13,35		39, 1,22,50	
		2, 4,16,28,44,26,12,17		9, 5
38″	8,53,48,19,38,18, 1,45,25,52		39, 1,31,55	
		2, 4,16,28, 5,24,40,22		9, 5
40″	8,53,50,23,54,46, 7,10, 6,14		39, 1,41, 0	
		2, 4,16,27,26,22,59,22		9, 5
42″	8,53,52,28,11,13,33,33, 5,36		39, 1,50, 5	
		2, 4,16,26,47,21, 9,17		9, 5
44″	8,53,54,32,27,40,20,54,14,53		39, 1,59,10	
		2, 4,16,26, 8,19,10, 7		9, 5
46″	8,53,56,36,44, 6,29,13,25, 0		39, 2, 8,15	
		2, 4,16,25,29,17, 1,52		9, 5
48″	8,53,58,41, 0,31,58,30,26,52		39, 2,17,20	
		2, 4,16,24,50,14,44,32		9, 5
50″	8,54, 0,45,16,56,48,45,11,24		39, 2,26,25	
		2, 4,16,24,11,12,18, 7		9, 5
52″	8,54, 2,49,33,20,59,57,29,31		39, 2,35,30	
		2, 4,16,23,32, 9,42,37		9, 5
54″	8,54, 4,53,49,44,32, 7,12, 8		39, 2,44,35	
		2, 4,16,22,53, 6,58, 2		9, 5
56″	8,54, 6,58, 6, 7,25,14,10,10		39, 2,53,40	
		2, 4,16,22,14, 4, 4,22		9, 5
58″	8,54, 9, 2,22,29,39,18,14,32		39, 3, 2,45	
		2, 4,16,21,35, 1, 1,37		
60″	8,54,11, 6,38,51,14,19,16, 9			
exact	8,54,11, 6,38,51,14,19, 3,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°32′ 0″	8,54,11, 6,38,51,14,19, 3,53			
		2, 4,16,20,55,57,48,36		
2″	8,54,13,10,55,12,10,16,52,29		39, 3,20,59	
		2, 4,16,20,16,54,27,37		9, 5
4″	8,54,15,15,11,32,27,11,20, 6		39, 3,30, 4	
		2, 4,16,19,37,50,57,33		9, 5
6″	8,54,17,19,27,52, 5, 2,17,39		39, 3,39, 9	
		2, 4,16,18,58,47,18,24		9, 5
8″	8,54,19,23,44,11, 3,49,36, 3		39, 3,48,14	
		2, 4,16,18,19,43,30,10		9, 5
10″	8,54,21,28, 0,29,23,33, 6,13		39, 3,57,19	
		2, 4,16,17,40,39,32,51		9, 5
12″	8,54,23,32,16,47, 4,12,39, 4		39, 4, 6,24	
		2, 4,16,17, 1,35,26,27		9, 5
14″	8,54,25,36,33, 4, 5,48, 5,31		39, 4,15,29	
		2, 4,16,16,22,31,10,58		9, 5
16″	8,54,27,40,49,20,28,19,16,29		39, 4,24,34	
		2, 4,16,15,43,26,46,24		9, 5
18″	8,54,29,45, 5,36,11,46, 2,53		39, 4,33,39	
		2, 4,16,15, 4,22,12,45		9, 5
20″	8,54,31,49,21,51,16, 8,15,38		39, 4,42,44	
		2, 4,16,14,25,17,30, 1		9, 5
22″	8,54,33,53,38, 5,41,25,45,39		39, 4,51,49	
		2, 4,16,13,46,12,38,12		9, 5
24″	8,54,35,57,54,19,27,38,23,51		39, 5, 0,54	
		2, 4,16,13, 7, 7,37,18		9, 5
26″	8,54,38, 2,10,32,34,46, 1, 9		39, 5, 9,59	
		2, 4,16,12,28, 2,27,19		9, 5
28″	8,54,40, 6,26,45, 2,48,28,28		39, 5,19, 4	
		2, 4,16,11,48,57, 8,15		9, 5
30″	8,54,42,10,42,56,51,45,36,43		39, 5,28, 9	
		2, 4,16,11, 9,51,40, 6		9, 5
32″	8,54,44,14,59, 8, 1,37,16,49		39, 5,37,14	
		2, 4,16,10,30,46, 2,52		9, 5
34″	8,54,46,19,15,18,32,23,19,41		39, 5,46,19	
		2, 4,16, 9,51,40,16,33		9, 5
36″	8,54,48,23,31,28,24, 3,36,14		39, 5,55,24	
		2, 4,16, 9,12,34,21, 9		9, 5
38″	8,54,50,27,47,37,36,37,57,23		39, 6, 4,29	
		2, 4,16, 8,33,28,16,40		9, 5
40″	8,54,52,32, 3,46,10, 6,14, 3		39, 6,13,34	
		2, 4,16, 7,54,22, 3, 6		9, 5
42″	8,54,54,36,19,54, 4,28,17, 9		39, 6,22,39	
		2, 4,16, 7,15,15,40,27		9, 5
44″	8,54,56,40,36, 1,19,43,57,36		39, 6,31,44	
		2, 4,16, 6,36, 9, 8,43		9, 5
46″	8,54,58,44,52, 7,55,53, 6,19		39, 6,40,49	
		2, 4,16, 5,57, 2,27,54		9, 5
48″	8,55, 0,49, 8,13,52,55,34,13		39, 6,49,54	
		2, 4,16, 5,17,55,38, 0		9, 5
50″	8,55, 2,53,24,19,10,51,12,13		39, 6,58,59	
		2, 4,16, 4,38,48,39, 1		9, 5
52″	8,55, 4,57,40,23,49,39,51,14		39, 7, 8, 4	
		2, 4,16, 3,59,41,30,57		9, 5
54″	8,55, 7, 1,56,27,49,21,22,11		39, 7,17, 9	
		2, 4,16, 3,20,34,13,48		9, 5
56″	8,55, 9, 6,12,31, 9,55,35,59		39, 7,26,14	
		2, 4,16, 2,41,26,47,34		9, 5
58″	8,55,11,10,28,33,51,22,23,33		39, 7,35,19	
		2, 4,16, 2, 2,19,12,15		
60″	8,55,13,14,44,35,53,41,35,48			
exact	8,55,13,14,44,35,53,41,25,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°33′ 0″	8,55,13,14,44,35,53,41,25,15			
		2, 4,16, 1,23,11,26,51		
2″	8,55,15,19, 0,37,16,52,52, 6		39, 7,53,33	
		2, 4,16, 0,44, 3,33,18		9, 5
4″	8,55,17,23,16,38, 0,56,25,24		39, 8, 2,38	
		2, 4,16, 0, 4,55,30,40		9, 5
6″	8,55,19,27,32,38, 5,51,56, 4		39, 8,11,43	
		2, 4,15,59,25,47,18,57		9, 5
8″	8,55,21,31,48,37,31,39,15, 1		39, 8,20,48	
		2, 4,15,58,46,38,58, 9		9, 5
10″	8,55,23,36, 4,36,18,18,13,10		39, 8,29,53	
		2, 4,15,58, 7,30,28,16		9, 5
12″	8,55,25,40,20,34,25,48,41,26		39, 8,38,58	
		2, 4,15,57,28,21,49,18		9, 5
14″	8,55,27,44,36,31,54,10,30,44		39, 8,48, 3	
		2, 4,15,56,49,13, 1,15		9, 5
16″	8,55,29,48,52,28,43,23,31,59		39, 8,57, 8	
		2, 4,15,56,10, 4, 4, 7		9, 5
18″	8,55,31,53, 8,24,53,27,36, 6		39, 9, 6,13	
		2, 4,15,55,30,54,57,54		9, 5
20″	8,55,33,57,24,20,24,22,34, 0		39, 9,15,18	
		2, 4,15,54,51,45,42,36		9, 5
22″	8,55,36, 1,40,15,16, 8,16,36		39, 9,24,23	
		2, 4,15,54,12,36,18,13		9, 5
24″	8,55,38, 5,56, 9,28,44,34,49		39, 9,33,28	
		2, 4,15,53,33,26,44,45		9, 5
26″	8,55,40,10,12, 3, 2,11,19,34		39, 9,42,33	
		2, 4,15,52,54,17, 2,12		9, 5
28″	8,55,42,14,27,55,56,28,21,46		39, 9,51,38	
		2, 4,15,52,15, 7,10,34		9, 5
30″	8,55,44,18,43,48,11,35,32,20		39,10, 0,43	
		2, 4,15,51,35,57, 9,51		9, 5
32″	8,55,46,22,59,39,47,32,42,11		39,10, 9,48	
		2, 4,15,50,56,47, 0, 3		9, 5
34″	8,55,48,27,15,30,44,19,42,14		39,10,18,53	
		2, 4,15,50,17,36,41,10		9, 5
36″	8,55,50,31,31,21, 1,56,23,24		39,10,27,58	
		2, 4,15,49,38,26,13,12		9, 5
38″	8,55,52,35,47,10,40,22,36,36		39,10,37, 3	
		2, 4,15,48,59,15,36, 9		9, 5
40″	8,55,54,40, 2,59,39,38,12,45		39,10,46, 8	
		2, 4,15,48,20, 4,50, 1		9, 5
42″	8,55,56,44,18,47,59,43, 2,46		39,10,55,13	
		2, 4,15,47,40,53,54,48		9, 5
44″	8,55,58,48,34,35,40,36,57,34		39,11, 4,18	
		2, 4,15,47, 1,42,50,30		9, 5
46″	8,56, 0,52,50,22,42,19,48, 4		39,11,13,23	
		2, 4,15,46,22,31,37, 7		9, 5
48″	8,56, 2,57, 6, 9, 4,51,25,11		39,11,22,28	
		2, 4,15,45,43,20,14,39		9, 5
50″	8,56, 5, 1,21,54,48,11,39,50		39,11,31,33	
		2, 4,15,45, 4, 8,43, 6		9, 5
52″	8,56, 7, 5,37,39,52,20,22,56		39,11,40,38	
		2, 4,15,44,24,57, 2,28		9, 5
54″	8,56, 9, 9,53,24,17,17,25,24		39,11,49,43	
		2, 4,15,43,45,45,12,45		9, 5
56″	8,56,11,14, 9, 8, 3, 2,38, 9		39,11,58,48	
		2, 4,15,43, 6,33,13,57		9, 5
58″	8,56,13,18,24,51, 9,35,52, 6		39,12, 7,53	
		2, 4,15,42,27,21, 6, 4		
60″	8,56,15,22,40,33,36,56,58,10			
exact	8,56,15,22,40,33,36,56,55, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°34′ 0″	8,56,15,22,40,33,36,56,55, 0			
		2, 4,15,41,48, 8,48,40		
2″	8,56,17,26,56,15,25, 5,43,40		39,12,26, 5	
		2, 4,15,41, 8,56,22,35		9, 5
4″	8,56,19,31,11,56,34, 2, 6,15		39,12,35,10	
		2, 4,15,40,29,43,47,25		9, 5
6″	8,56,21,35,27,37, 3,45,53,40		39,12,44,15	
		2, 4,15,39,50,31, 3,10		9, 5
8″	8,56,23,39,43,16,54,16,56,50		39,12,53,20	
		2, 4,15,39,11,18, 9,50		9, 5
10″	8,56,25,43,58,56, 5,35, 6,40		39,13, 2,25	
		2, 4,15,38,32, 5, 7,25		9, 5
12″	8,56,27,48,14,34,37,40,14, 5		39,13,11,30	
		2, 4,15,37,52,51,55,55		9, 5
14″	8,56,29,52,30,12,30,32,10, 0		39,13,20,35	
		2, 4,15,37,13,38,35,20		9, 5
16″	8,56,31,56,45,49,44,10,45,20		39,13,29,40	
		2, 4,15,36,34,25, 5,40		9, 5
18″	8,56,34, 1, 1,26,18,35,51, 0		39,13,38,45	
		2, 4,15,35,55,11,26,55		9, 5
20″	8,56,36, 5,17, 2,13,47,17,55		39,13,47,50	
		2, 4,15,35,15,57,39, 5		9, 5
22″	8,56,38, 9,32,37,29,44,57, 0		39,13,56,55	
		2, 4,15,34,36,43,42,10		9, 5
24″	8,56,40,13,48,12, 6,28,39,10		39,14, 6, 0	
		2, 4,15,33,57,29,36,10		9, 5
26″	8,56,42,18, 3,46, 3,58,15,20		39,14,15, 5	
		2, 4,15,33,18,15,21, 5		9, 5
28″	8,56,44,22,19,19,22,13,36,25		39,14,24,10	
		2, 4,15,32,39, 0,56,55		9, 5
30″	8,56,46,26,34,52, 1,14,33,20		39,14,33,15	
		2, 4,15,31,59,46,23,40		9, 5
32″	8,56,48,30,50,24, 1, 0,57, 0		39,14,42,20	
		2, 4,15,31,20,31,41,20		9, 5
34″	8,56,50,35, 5,55,21,32,38,20		39,14,51,25	
		2, 4,15,30,41,16,49,55		9, 5
36″	8,56,52,39,21,26, 2,49,28,15		39,15, 0,30	
		2, 4,15,30, 2, 1,49,25		9, 5
38″	8,56,54,43,36,56, 4,51,17,40		39,15, 9,35	
		2, 4,15,29,22,46,39,50		9, 5
40″	8,56,56,47,52,25,27,37,57,30		39,15,18,40	
		2, 4,15,28,43,31,21,10		9, 5
42″	8,56,58,52, 7,54,11, 9,18,40		39,15,27,45	
		2, 4,15,28, 4,15,53,25		9, 5
44″	8,57, 0,56,23,22,15,25,12, 5		39,15,36,50	
		2, 4,15,27,25, 0,16,35		9, 5
46″	8,57, 3, 0,38,49,40,25,28,40		39,15,45,55	
		2, 4,15,26,45,44,30,40		9, 5
48″	8,57, 5, 4,54,16,26, 9,59,20		39,15,55, 0	
		2, 4,15,26, 6,28,35,40		9, 5
50″	8,57, 7, 9, 9,42,32,38,35, 0		39,16, 4, 5	
		2, 4,15,25,27,12,31,35		9, 5
52″	8,57, 9,13,25, 7,59,51, 6,35		39,16,13,10	
		2, 4,15,24,47,56,18,25		9, 5
54″	8,57,11,17,40,32,47,47,25, 0		39,16,22,15	
		2, 4,15,24, 8,39,56,10		9, 5
56″	8,57,13,21,55,56,56,27,21,10		39,16,31,20	
		2, 4,15,23,29,23,24,50		9, 5
58″	8,57,15,26,11,20,25,50,46, 0		39,16,40,25	
		2, 4,15,22,50, 6,44,25		
60″	8,57,17,30,26,43,15,57,30,25			
exact	8,57,17,30,26,43,15,57,24,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°35′ 0″	8,57,17,30,26,43,15,57,24,58			
		2, 4,15,22,10,49,54,23		
2″	8,57,19,34,42, 5,26,47,19,21		39,16,58,37	
		2, 4,15,21,31,32,55,46		9, 5
4″	8,57,21,38,57,26,58,20,15, 7		39,17, 7,42	
		2, 4,15,20,52,15,48, 4		9, 5
6″	8,57,23,43,12,47,50,36, 3,11		39,17,16,47	
		2, 4,15,20,12,58,31,17		9, 5
8″	8,57,25,47,28, 8, 3,34,34,28		39,17,25,52	
		2, 4,15,19,33,41, 5,25		9, 5
10″	8,57,27,51,43,27,37,15,39,53		39,17,34,57	
		2, 4,15,18,54,23,30,28		9, 5
12″	8,57,29,55,58,46,31,39,10,21		39,17,44, 2	
		2, 4,15,18,15, 5,46,26		9, 5
14″	8,57,32, 0,14, 4,46,44,56,47		39,17,53, 7	
		2, 4,15,17,35,47,53,19		9, 5
16″	8,57,34, 4,29,22,22,32,50, 6		39,18, 2,12	
		2, 4,15,16,56,29,51, 7		9, 5
18″	8,57,36, 8,44,39,19, 2,41,13		39,18,11,17	
		2, 4,15,16,17,11,39,50		9, 5
20″	8,57,38,12,59,55,36,14,21, 3		39,18,20,22	
		2, 4,15,15,37,53,19,28		9, 5
22″	8,57,40,17,15,11,14, 7,40,31		39,18,29,27	
		2, 4,15,14,58,34,50, 1		9, 5
24″	8,57,42,21,30,26,12,42,30,32		39,18,38,32	
		2, 4,15,14,19,16,11,29		9, 5
26″	8,57,44,25,45,40,31,58,42, 1		39,18,47,37	
		2, 4,15,13,39,57,23,52		9, 5
28″	8,57,46,30, 0,54,11,56, 5,53		39,18,56,42	
		2, 4,15,13, 0,38,27,10		9, 5
30″	8,57,48,34,16, 7,12,34,33, 3		39,19, 5,47	
		2, 4,15,12,21,19,21,23		9, 5
32″	8,57,50,38,31,19,33,53,54,26		39,19,14,52	
		2, 4,15,11,42, 0, 6,31		9, 5
34″	8,57,52,42,46,31,15,54, 0,57		39,19,23,57	
		2, 4,15,11, 2,40,42,34		9, 5
36″	8,57,54,47, 1,42,18,34,43,31		39,19,33, 2	
		2, 4,15,10,23,21, 9,32		9, 5
38″	8,57,56,51,16,52,41,55,53, 3		39,19,42, 7	
		2, 4,15, 9,44, 1,27,25		9, 5
40″	8,57,58,55,32, 2,25,57,20,28		39,19,51,12	
		2, 4,15, 9, 4,41,36,13		9, 5
42″	8,58, 0,59,47,11,30,38,56,41		39,20, 0,17	
		2, 4,15, 8,25,21,35,56		9, 5
44″	8,58, 3, 4, 2,19,56, 0,32,37		39,20, 9,22	
		2, 4,15, 7,46, 1,26,34		9, 5
46″	8,58, 5, 8,17,27,42, 1,59,11		39,20,18,27	
		2, 4,15, 7, 6,41, 8, 7		9, 5
48″	8,58, 7,12,32,34,48,43, 7,18		39,20,27,32	
		2, 4,15, 6,27,20,40,35		9, 5
50″	8,58, 9,16,47,41,16, 3,47,53		39,20,36,37	
		2, 4,15, 5,48, 0, 3,58		9, 5
52″	8,58,11,21, 2,47, 4, 3,51,51		39,20,45,42	
		2, 4,15, 5, 8,39,18,16		9, 5
54″	8,58,13,25,17,52,12,43,10, 7		39,20,54,47	
		2, 4,15, 4,29,18,23,29		9, 5
56″	8,58,15,29,32,56,42, 1,33,36		39,21, 3,52	
		2, 4,15, 3,49,57,19,37		9, 5
58″	8,58,17,33,48, 0,31,58,53,13		39,21,12,57	
		2, 4,15, 3,10,36, 6,40		
60″	8,58,19,38, 3, 3,42,34,59,53			
exact	8,58,19,38, 3, 3,42,34,57,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°36′ 0″	8,58,19,38, 3, 3,42,34,57,47			
		2, 4,15, 2,31,14,44,23		
2″	8,58,21,42,18, 6,13,49,42,10		39,21,31, 8	
		2, 4,15, 1,51,53,13,15		9, 5
4″	8,58,23,46,33, 8, 5,42,55,25		39,21,40,13	
		2, 4,15, 1,12,31,33, 2		9, 5
6″	8,58,25,50,48, 9,18,14,28,27		39,21,49,18	
		2, 4,15, 0,33, 9,43,44		9, 5
8″	8,58,27,55, 3, 9,51,24,12,11		39,21,58,23	
		2, 4,14,59,53,47,45,21		9, 5
10″	8,58,29,59,18, 9,45,11,57,32		39,22, 7,28	
		2, 4,14,59,14,25,37,53		9, 5
12″	8,58,32, 3,33, 8,59,37,35,25		39,22,16,33	
		2, 4,14,58,35, 3,21,20		9, 5
14″	8,58,34, 7,48, 7,34,40,56,45		39,22,25,38	
		2, 4,14,57,55,40,55,42		9, 5
16″	8,58,36,12, 3, 5,30,21,52,27		39,22,34,43	
		2, 4,14,57,16,18,20,59		9, 5
18″	8,58,38,16,18, 2,46,40,13,26		39,22,43,48	
		2, 4,14,56,36,55,37,11		9, 5
20″	8,58,40,20,32,59,23,35,50,37		39,22,52,53	
		2, 4,14,55,57,32,44,18		9, 5
22″	8,58,42,24,47,55,21, 8,34,55		39,23, 1,58	
		2, 4,14,55,18, 9,42,20		9, 5
24″	8,58,44,29, 2,50,39,18,17,15		39,23,11, 3	
		2, 4,14,54,38,46,31,17		9, 5
26″	8,58,46,33,17,45,18, 4,48,32		39,23,20, 8	
		2, 4,14,53,59,23,11, 9		9, 5
28″	8,58,48,37,32,39,17,27,59,41		39,23,29,13	
		2, 4,14,53,19,59,41,56		9, 5
30″	8,58,50,41,47,32,37,27,41,37		39,23,38,18	
		2, 4,14,52,40,36, 3,38		9, 5
32″	8,58,52,46, 2,25,18, 3,45,15		39,23,47,23	
		2, 4,14,52, 1,12,16,15		9, 5
34″	8,58,54,50,17,17,19,16, 1,30		39,23,56,28	
		2, 4,14,51,21,48,19,47		9, 5
36″	8,58,56,54,32, 8,41, 4,21,17		39,24, 5,33	
		2, 4,14,50,42,24,14,14		9, 5
38″	8,58,58,58,46,59,23,28,35,31		39,24,14,38	
		2, 4,14,50, 2,59,59,36		9, 5
40″	8,59, 1, 3, 1,49,26,28,35, 7		39,24,23,43	
		2, 4,14,49,23,35,35,53		9, 5
42″	8,59, 3, 7,16,38,50, 4,11, 0		39,24,32,48	
		2, 4,14,48,44,11, 3, 5		9, 5
44″	8,59, 5,11,31,27,34,15,14, 5		39,24,41,53	
		2, 4,14,48, 4,46,21,12		9, 5
46″	8,59, 7,15,46,15,39, 1,35,17		39,24,50,58	
		2, 4,14,47,25,21,30,14		9, 5
48″	8,59, 9,20, 1, 3, 4,23, 5,31		39,25, 0, 3	
		2, 4,14,46,45,56,30,11		9, 5
50″	8,59,11,24,15,49,50,19,35,42		39,25, 9, 8	
		2, 4,14,46, 6,31,21, 3		9, 5
52″	8,59,13,28,30,35,56,50,56,45		39,25,18,13	
		2, 4,14,45,27, 6, 2,50		9, 5
54″	8,59,15,32,45,21,23,56,59,35		39,25,27,18	
		2, 4,14,44,47,40,35,32		9, 5
56″	8,59,17,37, 0, 6,11,37,35, 7		39,25,36,23	
		2, 4,14,44, 8,14,59, 9		9, 5
58″	8,59,19,41,14,50,19,52,34,16		39,25,45,28	
		2, 4,14,43,28,49,13,41		
60″	8,59,21,45,29,33,48,41,47,57			
exact	8,59,21,45,29,33,48,41,46,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°37′ 0″	8,59,21,45,29,33,48,41,46,50			
		2, 4,14,42,49,23,19, 1		
2″	8,59,23,49,44,16,38, 5, 5,51		39,26, 3,38	
		2, 4,14,42, 9,57,15,23		9, 5
4″	8,59,25,53,58,58,48, 2,21,14		39,26,12,43	
		2, 4,14,41,30,31, 2,40		9, 5
6″	8,59,27,58,13,40,18,33,23,54		39,26,21,48	
		2, 4,14,40,51, 4,40,52		9, 5
8″	8,59,30, 2,28,21, 9,38, 4,46		39,26,30,53	
		2, 4,14,40,11,38, 9,59		9, 5
10″	8,59,32, 6,43, 1,21,16,14,45		39,26,39,58	
		2, 4,14,39,32,11,30, 1		9, 5
12″	8,59,34,10,57,40,53,27,44,46		39,26,49, 3	
		2, 4,14,38,52,44,40,58		9, 5
14″	8,59,36,15,12,19,46,12,25,44		39,26,58, 8	
		2, 4,14,38,13,17,42,50		9, 5
16″	8,59,38,19,26,57,59,30, 8,34		39,27, 7,13	
		2, 4,14,37,33,50,35,37		9, 5
18″	8,59,40,23,41,35,33,20,44,11		39,27,16,18	
		2, 4,14,36,54,23,19,19		9, 5
20″	8,59,42,27,56,12,27,44, 3,30		39,27,25,23	
		2, 4,14,36,14,55,53,56		9, 5
22″	8,59,44,32,10,48,42,39,57,26		39,27,34,28	
		2, 4,14,35,35,28,19,28		9, 5
24″	8,59,46,36,25,24,18, 8,16,54		39,27,43,33	
		2, 4,14,34,56, 0,35,55		9, 5
26″	8,59,48,40,39,59,14, 8,52,49		39,27,52,38	
		2, 4,14,34,16,32,43,17		9, 5
28″	8,59,50,44,54,33,30,41,36, 6		39,28, 1,43	
		2, 4,14,33,37, 4,41,34		9, 5
30″	8,59,52,49, 9, 7, 7,46,17,40		39,28,10,48	
		2, 4,14,32,57,36,30,46		9, 5
32″	8,59,54,53,23,40, 5,22,48,26		39,28,19,53	
		2, 4,14,32,18, 8,10,53		9, 5
34″	8,59,56,57,38,12,23,30,59,19		39,28,28,58	
		2, 4,14,31,38,39,41,55		9, 5
36″	8,59,59, 1,52,44, 2,10,41,14		39,28,38, 3	
		2, 4,14,30,59,11, 3,52		9, 5
38″	9, 0, 1, 6, 7,15, 1,21,45, 6		39,28,47, 8	
		2, 4,14,30,19,42,16,44		9, 5
40″	9, 0, 3,10,21,45,21, 4, 1,50		39,28,56,13	
		2, 4,14,29,40,13,20,31		9, 5
42″	9, 0, 5,14,36,15, 1,17,22,21		39,29, 5,18	
		2, 4,14,29, 0,44,15,13		9, 5
44″	9, 0, 7,18,50,44, 2, 1,37,34		39,29,14,23	
		2, 4,14,28,21,15, 0,50		9, 5
46″	9, 0, 9,23, 5,12,23,16,38,24		39,29,23,28	
		2, 4,14,27,41,45,37,22		9, 5
48″	9, 0,11,27,19,40, 5, 2,15,46		39,29,32,33	
		2, 4,14,27, 2,16, 4,49		9, 5
50″	9, 0,13,31,34, 7, 7,18,20,35		39,29,41,38	
		2, 4,14,26,22,46,23,11		9, 5
52″	9, 0,15,35,48,33,30, 4,43,46		39,29,50,43	
		2, 4,14,25,43,16,32,28		9, 5
54″	9, 0,17,40, 2,59,13,21,16,14		39,29,59,48	
		2, 4,14,25, 3,46,32,40		9, 5
56″	9, 0,19,44,17,24,17, 7,48,54		39,30, 8,53	
		2, 4,14,24,24,16,23,47		9, 5
58″	9, 0,21,48,31,48,41,24,12,41		39,30,17,58	
		2, 4,14,23,44,46, 5,49		
60″	9, 0,23,52,46,12,26,10,18,30			
exact	9, 0,23,52,46,12,26,10,16,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°38′ 0″	9, 0,23,52,46,12,26,10,16,15	2, 4,14,23, 5,15,38,38		
2″	9, 0,25,57, 0,35,31,25,54,53	2, 4,14,22,25,45, 2,30	39,30,36, 8	9, 5
4″	9, 0,28, 1,14,57,57,10,57,23	2, 4,14,21,46,14,17,17	39,30,45,13	9, 5
6″	9, 0,30, 5,29,19,43,25,14,40	2, 4,14,21, 6,43,22,59	39,30,54,18	9, 5
8″	9, 0,32, 9,43,40,50, 8,37,39	2, 4,14,20,27,12,19,36	39,31, 3,23	9, 5
10″	9, 0,34,13,58, 1,17,20,57,15	2, 4,14,19,47,41, 7, 8	39,31,12,28	9, 5
12″	9, 0,36,18,12,21, 5, 2, 4,23	2, 4,14,19, 8, 9,45,35	39,31,21,33	9, 5
14″	9, 0,38,22,26,40,13,11,49,58	2, 4,14,18,28,38,14,57	39,31,30,38	9, 5
16″	9, 0,40,26,40,58,41,50, 4,55	2, 4,14,17,49, 6,35,14	39,31,39,43	9, 5
18″	9, 0,42,30,55,16,30,56,40, 9	2, 4,14,17, 9,34,46,26	39,31,48,48	9, 5
20″	9, 0,44,35, 9,33,40,31,26,35	2, 4,14,16,30, 2,48,33	39,31,57,53	9, 5
22″	9, 0,46,39,23,50,10,34,15, 8	2, 4,14,15,50,30,41,35	39,32, 6,58	9, 5
24″	9, 0,48,43,38, 6, 1, 4,56,43	2, 4,14,15,10,58,25,32	39,32,16, 3	9, 5
26″	9, 0,50,47,52,21,12, 3,22,15	2, 4,14,14,31,26, 0,24	39,32,25, 8	9, 5
28″	9, 0,52,52, 6,35,43,29,22,39	2, 4,14,13,51,53,26,11	39,32,34,13	9, 5
30″	9, 0,54,56,20,49,35,22,48,50	2, 4,14,13,12,20,42,53	39,32,43,18	9, 5
32″	9, 0,57, 0,35, 2,47,43,31,43	2, 4,14,12,32,47,50,30	39,32,52,23	9, 5
34″	9, 0,59, 4,49,15,20,31,22,13	2, 4,14,11,53,14,49, 2	39,33, 1,28	9, 5
36″	9, 1, 1, 9, 3,27,13,46,11,15	2, 4,14,11,13,41,38,29	39,33,10,33	9, 5
38″	9, 1, 3,13,17,38,27,27,49,44	2, 4,14,10,34, 8,18,51	39,33,19,38	9, 5
40″	9, 1, 5,17,31,49, 1,36, 8,35	2, 4,14, 9,54,34,50, 8	39,33,28,43	9, 5
42″	9, 1, 7,21,45,58,56,10,58,43	2, 4,14, 9,15, 1,12,20	39,33,37,48	9, 5
44″	9, 1, 9,26, 0, 8,11,12,11, 3	2, 4,14, 8,35,27,25,27	39,33,46,53	9, 5
46″	9, 1,11,30,14,16,46,39,36,30	2, 4,14, 7,55,53,29,29	39,33,55,58	9, 5
48″	9, 1,13,34,28,24,42,33, 5,59	2, 4,14, 7,16,19,24,26	39,34, 5, 3	9, 5
50″	9, 1,15,38,42,31,58,52,30,25	2, 4,14, 6,36,45,10,18	39,34,14, 8	9, 5
52″	9, 1,17,42,56,38,35,37,40,43	2, 4,14, 5,57,10,47, 5	39,34,23,13	9, 5
54″	9, 1,19,47,10,44,32,48,27,48	2, 4,14, 5,17,36,14,47	39,34,32,18	9, 5
56″	9, 1,21,51,24,49,50,24,42,35	2, 4,14, 4,38, 1,33,24	39,34,41,23	9, 5
58″	9, 1,23,55,38,54,28,26,15,59	2, 4,14, 3,58,26,42,56	39,34,50,28	
60″	9, 1,25,59,52,58,26,52,58,55			
exact	9, 1,25,59,52,58,26,53, 1, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°39′ 0″	9, 1,25,59,52,58,26,53, 1, 3	2, 4,14, 3,18,51,43,37		
2″	9, 1,28, 4, 7, 1,45,44,44,40	2, 4,14, 2,39,16,35, 0	39,35, 8,37	9, 5
4″	9, 1,30, 8,21, 4,25, 1,19,40	2, 4,14, 1,59,41,17,18	39,35,17,42	9, 5
6″	9, 1,32,12,35, 6,24,42,36,58	2, 4,14, 1,20, 5,50,31	39,35,26,47	9, 5
8″	9, 1,34,16,49, 7,44,48,27,29	2, 4,14, 0,40,30,14,39	39,35,35,52	9, 5
10″	9, 1,36,21, 3, 8,25,18,42, 8	2, 4,14, 0, 0,54,29,42	39,35,44,57	9, 5
12″	9, 1,38,25,17, 8,26,13,11,50	2, 4,13,59,21,18,35,40	39,35,54, 2	9, 5
14″	9, 1,40,29,31, 7,47,31,47,30	2, 4,13,58,41,42,32,33	39,36, 3, 7	9, 5
16″	9, 1,42,33,45, 6,29,14,20, 3	2, 4,13,58, 2, 6,20,21	39,36,12,12	9, 5
18″	9, 1,44,37,59, 4,31,20,40,24	2, 4,13,57,22,29,59, 4	39,36,21,17	9, 5
20″	9, 1,46,42,13, 1,53,50,39,28	2, 4,13,56,42,53,28,42	39,36,30,22	9, 5
22″	9, 1,48,46,26,58,36,44, 8,10	2, 4,13,56, 3,16,49,15	39,36,39,27	9, 5
24″	9, 1,50,50,40,54,40, 0,57,25	2, 4,13,55,23,40, 0,43	39,36,48,32	9, 5
26″	9, 1,52,54,54,50, 3,40,58, 8	2, 4,13,54,44, 3, 3, 6	39,36,57,37	9, 5
28″	9, 1,54,59, 8,44,47,44, 1,14	2, 4,13,54, 4,25,56,24	39,37, 6,42	9, 5
30″	9, 1,57, 3,22,38,52, 9,57,38	2, 4,13,53,24,48,40,37	39,37,15,47	9, 5
32″	9, 1,59, 7,36,32,16,58,38,15	2, 4,13,52,45,11,15,45	39,37,24,52	9, 5
34″	9, 2, 1,11,50,25, 2, 9,54, 0	2, 4,13,52, 5,33,41,48	39,37,33,57	9, 5
36″	9, 2, 3,16, 4,17, 7,43,35,48	2, 4,13,51,25,55,58,46	39,37,43, 2	9, 5
38″	9, 2, 5,20,18, 8,33,39,34,34	2, 4,13,50,46,18, 6,39	39,37,52, 7	9, 5
40″	9, 2, 7,24,31,59,19,57,41,13	2, 4,13,50, 6,40, 5,27	39,38, 1,12	9, 5
42″	9, 2, 9,28,45,49,26,37,46,40	2, 4,13,49,27, 1,55,10	39,38,10,17	9, 5
44″	9, 2,11,32,59,38,53,39,41,50	2, 4,13,48,47,23,35,48	39,38,19,22	9, 5
46″	9, 2,13,37,13,27,41, 3,17,38	2, 4,13,48, 7,45, 7,21	39,38,28,27	9, 5
48″	9, 2,15,41,27,15,48,48,24,59	2, 4,13,47,28, 6,29,49	39,38,37,32	9, 5
50″	9, 2,17,45,41, 3,16,54,54,48	2, 4,13,46,48,27,43,12	39,38,46,37	9, 5
52″	9, 2,19,49,54,50, 5,22,38, 0	2, 4,13,46, 8,48,47,30	39,38,55,42	9, 5
54″	9, 2,21,54, 8,36,14,11,25,30	2, 4,13,45,29, 9,42,43	39,39, 4,47	9, 5
56″	9, 2,23,58,22,21,43,21, 8,13	2, 4,13,44,49,30,28,51	39,39,13,52	9, 5
58″	9, 2,26, 2,36, 6,32,51,37, 4	2, 4,13,44, 9,51, 5,54	39,39,22,57	
60″	9, 2,28, 6,49,50,42,42,42,58			
exact	9, 2,28, 6,49,50,42,42,47, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°40′ 0″	9, 2,28, 6,49,50,42,42,47, 2			
		2, 4,13,43,30,11,34,18		
2″	9, 2,30,11, 3,34,12,54,21,20		39,39,41, 5	
		2, 4,13,42,50,31,53,13		9, 5
4″	9, 2,32,15,17,17, 3,26,14,33		39,39,50,10	
		2, 4,13,42,10,52, 3, 3		9, 5
6″	9, 2,34,19,30,59,14,18,17,36		39,39,59,15	
		2, 4,13,41,31,12, 3,48		9, 5
8″	9, 2,36,23,44,40,45,30,21,24		39,40, 8,20	
		2, 4,13,40,51,31,55,28		9, 5
10″	9, 2,38,27,58,21,37, 2,16,52		39,40,17,25	
		2, 4,13,40,11,51,38, 3		9, 5
12″	9, 2,40,32,12, 1,48,53,54,55		39,40,26,30	
		2, 4,13,39,32,11,11,33		9, 5
14″	9, 2,42,36,25,41,21, 5, 6,28		39,40,35,35	
		2, 4,13,38,52,30,35,58		9, 5
16″	9, 2,44,40,39,20,13,35,42,26		39,40,44,40	
		2, 4,13,38,12,49,51,18		9, 5
18″	9, 2,46,44,52,58,26,25,33,44		39,40,53,45	
		2, 4,13,37,33, 8,57,33		9, 5
20″	9, 2,48,49, 6,35,59,34,31,17		39,41, 2,50	
		2, 4,13,36,53,27,54,43		9, 5
22″	9, 2,50,53,20,12,53, 2,26, 0		39,41,11,55	
		2, 4,13,36,13,46,42,48		9, 5
24″	9, 2,52,57,33,49, 6,49, 8,48		39,41,21, 0	
		2, 4,13,35,34, 5,21,48		9, 5
26″	9, 2,55, 1,47,24,40,54,30,36		39,41,30, 5	
		2, 4,13,34,54,23,51,43		9, 5
28″	9, 2,57, 6, 0,59,35,18,22,19		39,41,39,10	
		2, 4,13,34,14,42,12,33		9, 5
30″	9, 2,59,10,14,33,50, 0,34,52		39,41,48,15	
		2, 4,13,33,35, 0,24,18		9, 5
32″	9, 3, 1,14,28, 7,25, 0,59,10		39,41,57,20	
		2, 4,13,32,55,18,26,58		9, 5
34″	9, 3, 3,18,41,40,20,19,26, 8		39,42, 6,25	
		2, 4,13,32,15,36,20,33		9, 5
36″	9, 3, 5,22,55,12,35,55,46,41		39,42,15,30	
		2, 4,13,31,35,54, 5, 3		9, 5
38″	9, 3, 7,27, 8,44,11,49,51,44		39,42,24,35	
		2, 4,13,30,56,11,40,28		9, 5
40″	9, 3, 9,31,22,15, 8, 1,32,12		39,42,33,40	
		2, 4,13,30,16,29, 6,48		9, 5
42″	9, 3,11,35,35,45,24,30,39, 0		39,42,42,45	
		2, 4,13,29,36,46,24, 3		9, 5
44″	9, 3,13,39,49,15, 1,17, 3, 3		39,42,51,50	
		2, 4,13,28,57, 3,32,13		9, 5
46″	9, 3,15,44, 2,43,58,20,35,16		39,43, 0,55	
		2, 4,13,28,17,20,31,18		9, 5
48″	9, 3,17,48,16,12,15,41, 6,34		39,43,10, 0	
		2, 4,13,27,37,37,21,18		9, 5
50″	9, 3,19,52,29,39,53,18,27,52		39,43,19, 5	
		2, 4,13,26,57,54, 2,13		9, 5
52″	9, 3,21,56,43, 6,51,12,30, 5		39,43,28,10	
		2, 4,13,26,18,10,34, 3		9, 5
54″	9, 3,24, 0,56,33, 9,23, 4, 8		39,43,37,15	
		2, 4,13,25,38,26,56,48		9, 5
56″	9, 3,26, 5, 9,58,47,50, 0,56		39,43,46,20	
		2, 4,13,24,58,43,10,28		9, 5
58″	9, 3,28, 9,23,23,46,33,11,24		39,43,55,25	
		2, 4,13,24,18,59,15, 3		
60″	9, 3,30,13,36,48, 5,32,26,27			
exact	9, 3,30,13,36,48, 5,32,30,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°41′ 0″	9, 3,30,13,36,48, 5,32,30,51			
		2, 4,13,23,39,15,11, 4		
2″	9, 3,32,17,50,11,44,47,41,55		39,44,13,33	
		2, 4,13,22,59,30,57,31		9, 5
4″	9, 3,34,22, 3,34,44,18,39,26		39,44,22,38	
		2, 4,13,22,19,46,34,53		9, 5
6″	9, 3,36,26,16,57, 4, 5,14,19		39,44,31,43	
		2, 4,13,21,40, 2, 3,10		9, 5
8″	9, 3,38,30,30,18,44, 7,17,29		39,44,40,48	
		2, 4,13,21, 0,17,22,22		9, 5
10″	9, 3,40,34,43,39,44,24,39,51		39,44,49,53	
		2, 4,13,20,20,32,32,29		9, 5
12″	9, 3,42,38,57, 0, 4,57,12,20		39,44,58,58	
		2, 4,13,19,40,47,33,31		9, 5
14″	9, 3,44,43,10,19,45,44,45,51		39,45, 8, 3	
		2, 4,13,19, 1, 2,25,28		9, 5
16″	9, 3,46,47,23,38,46,47,11,19		39,45,17, 8	
		2, 4,13,18,21,17, 8,20		9, 5
18″	9, 3,48,51,36,57, 8, 4,19,39		39,45,26,13	
		2, 4,13,17,41,31,42, 7		9, 5
20″	9, 3,50,55,50,14,49,36, 1,46		39,45,35,18	
		2, 4,13,17, 1,46, 6,49		9, 5
22″	9, 3,53, 0, 3,31,51,22, 8,35		39,45,44,23	
		2, 4,13,16,22, 0,22,26		9, 5
24″	9, 3,55, 4,16,48,13,22,31, 1		39,45,53,28	
		2, 4,13,15,42,14,28,58		9, 5
26″	9, 3,57, 8,30, 3,55,36,59,59		39,46, 2,33	
		2, 4,13,15, 2,28,26,25		9, 5
28″	9, 3,59,12,43,18,58, 5,26,24		39,46,11,38	
		2, 4,13,14,22,42,14,47		9, 5
30″	9, 4, 1,16,56,33,20,47,41,11		39,46,20,43	
		2, 4,13,13,42,55,54, 4		9, 5
32″	9, 4, 3,21, 9,47, 3,43,35,15		39,46,29,48	
		2, 4,13,13, 3, 9,24,16		9, 5
34″	9, 4, 5,25,23, 0, 6,52,59,31		39,46,38,53	
		2, 4,13,12,23,22,45,23		9, 5
36″	9, 4, 7,29,36,12,30,15,44,54		39,46,47,58	
		2, 4,13,11,43,35,57,25		9, 5
38″	9, 4, 9,33,49,24,13,51,42,19		39,46,57, 3	
		2, 4,13,11, 3,49, 0,22		9, 5
40″	9, 4,11,38, 2,35,17,40,42,41		39,47, 6, 8	
		2, 4,13,10,24, 1,54,14		9, 5
42″	9, 4,13,42,15,45,41,42,36,55		39,47,15,13	
		2, 4,13, 9,44,14,39, 1		9, 5
44″	9, 4,15,46,28,55,25,57,15,56		39,47,24,18	
		2, 4,13, 9, 4,27,14,43		9, 5
46″	9, 4,17,50,42, 4,30,24,30,39		39,47,33,23	
		2, 4,13, 8,24,39,41,20		9, 5
48″	9, 4,19,54,55,12,55, 4,11,59		39,47,42,28	
		2, 4,13, 7,44,51,58,52		9, 5
50″	9, 4,21,59, 8,20,39,56,10,51		39,47,51,33	
		2, 4,13, 7, 5, 4, 7,19		9, 5
52″	9, 4,24, 3,21,27,45, 0,18,10		39,48, 0,38	
		2, 4,13, 6,25,16, 6,41		9, 5
54″	9, 4,26, 7,34,34,10,16,24,51		39,48, 9,43	
		2, 4,13, 5,45,27,56,58		9, 5
56″	9, 4,28,11,47,39,55,44,21,49		39,48,18,48	
		2, 4,13, 5, 5,39,38,10		9, 5
58″	9, 4,30,16, 0,45, 1,23,59,59		39,48,27,53	
		2, 4,13, 4,25,51,10,17		
60″	9, 4,32,20,13,49,27,15,10,16			
exact	9, 4,32,20,13,49,27,15,20, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°42′ 0″	9, 4,32,20,13,49,27,15,20, 3			
		2, 4,13, 3,46, 2,34,16		
2″	9, 4,34,24,26,53,13,17,54,19		39,48,45,59	
		2, 4,13, 3, 6,13,48,17		9, 5
4″	9, 4,36,28,39,56,19,31,42,36		39,48,55, 4	
		2, 4,13, 2,26,24,53,13		9, 5
6″	9, 4,38,32,52,58,45,56,35,49		39,49, 4, 9	
		2, 4,13, 1,46,35,49, 4		9, 5
8″	9, 4,40,37, 6, 0,32,32,24,53		39,49,13,14	
		2, 4,13, 1, 6,46,35,50		9, 5
10″	9, 4,42,41,19, 1,39,19, 0,43		39,49,22,19	
		2, 4,13, 0,26,57,13,31		9, 5
12″	9, 4,44,45,32, 2, 6,16,14,14		39,49,31,24	
		2, 4,12,59,47, 7,42, 7		9, 5
14″	9, 4,46,49,45, 1,53,23,56,21		39,49,40,29	
		2, 4,12,59, 7,18, 1,38		9, 5
16″	9, 4,48,53,58, 1, 0,41,57,59		39,49,49,34	
		2, 4,12,58,27,28,12, 4		9, 5
18″	9, 4,50,58,10,59,28,10,10, 3		39,49,58,39	
		2, 4,12,57,47,38,13,25		9, 5
20″	9, 4,53, 2,23,57,15,48,23,28		39,50, 7,44	
		2, 4,12,57, 7,48, 5,41		9, 5
22″	9, 4,55, 6,36,54,23,36,29, 9		39,50,16,49	
		2, 4,12,56,27,57,48,52		9, 5
24″	9, 4,57,10,49,50,51,34,18, 1		39,50,25,54	
		2, 4,12,55,48, 7,22,58		9, 5
26″	9, 4,59,15, 2,46,39,41,40,59		39,50,34,59	
		2, 4,12,55, 8,16,47,59		9, 5
28″	9, 5, 1,19,15,41,47,58,28,58		39,50,44, 4	
		2, 4,12,54,28,26, 3,55		9, 5
30″	9, 5, 3,23,28,36,16,24,32,53		39,50,53, 9	
		2, 4,12,53,48,35,10,46		9, 5
32″	9, 5, 5,27,41,30, 4,59,43,39		39,51, 2,14	
		2, 4,12,53, 8,44, 8,32		9, 5
34″	9, 5, 7,31,54,23,13,43,52,11		39,51,11,19	
		2, 4,12,52,28,52,57,13		9, 5
36″	9, 5, 9,36, 7,15,42,36,49,24		39,51,20,24	
		2, 4,12,51,49, 1,36,49		9, 5
38″	9, 5,11,40,20, 7,31,38,26,13		39,51,29,29	
		2, 4,12,51, 9,10, 7,20		9, 5
40″	9, 5,13,44,32,58,40,48,33,33		39,51,38,34	
		2, 4,12,50,29,18,28,46		9, 5
42″	9, 5,15,48,45,49,10, 7, 2,19		39,51,47,39	
		2, 4,12,49,49,26,41, 7		9, 5
44″	9, 5,17,52,58,38,59,33,43,26		39,51,56,44	
		2, 4,12,49, 9,34,44,23		9, 5
46″	9, 5,19,57,11,28, 9, 8,27,49		39,52, 5,49	
		2, 4,12,48,29,42,38,34		9, 5
48″	9, 5,22, 1,24,16,38,51, 6,23		39,52,14,54	
		2, 4,12,47,49,50,23,40		9, 5
50″	9, 5,24, 5,37, 4,28,41,30, 3		39,52,23,59	
		2, 4,12,47, 9,57,59,41		9, 5
52″	9, 5,26, 9,49,51,38,39,29,44		39,52,33, 4	
		2, 4,12,46,30, 5,26,37		9, 5
54″	9, 5,28,14, 2,38, 8,44,56,21		39,52,42, 9	
		2, 4,12,45,50,12,44,28		9, 5
56″	9, 5,30,18,15,23,58,57,40,49		39,52,51,14	
		2, 4,12,45,10,19,53,14		9, 5
58″	9, 5,32,22,28, 9, 9,17,34, 3		39,53, 0,19	
		2, 4,12,44,30,26,52,55		
60″	9, 5,34,26,40,53,39,44,26,58			
exact	9, 5,34,26,40,53,39,44,33, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°43′ 0″	9, 5,34,26,40,53,39,44,33, 3			
		2, 4,12,43,50,33,44,16		
2″	9, 5,36,30,53,37,30,18,17,19		39,53,18,25	
		2, 4,12,43,10,40,25,51		9, 5
4″	9, 5,38,35, 6,20,40,58,43,10		39,53,27,30	
		2, 4,12,42,30,46,58,21		9, 5
6″	9, 5,40,39,19, 3,11,45,41,31		39,53,36,35	
		2, 4,12,41,50,53,21,46		9, 5
8″	9, 5,42,43,31,45, 2,39, 3,17		39,53,45,40	
		2, 4,12,41,10,59,36, 6		9, 5
10″	9, 5,44,47,44,26,13,38,39,23		39,53,54,45	
		2, 4,12,40,31, 5,41,21		9, 5
12″	9, 5,46,51,57, 6,44,44,20,44		39,54, 3,50	
		2, 4,12,39,51,11,37,31		9, 5
14″	9, 5,48,56, 9,46,35,55,58,15		39,54,12,55	
		2, 4,12,39,11,17,24,36		9, 5
16″	9, 5,51, 0,22,25,47,13,22,51		39,54,22, 0	
		2, 4,12,38,31,23, 2,36		9, 5
18″	9, 5,53, 4,35, 4,18,36,25,27		39,54,31, 5	
		2, 4,12,37,51,28,31,31		9, 5
20″	9, 5,55, 8,47,42,10, 4,56,58		39,54,40,10	
		2, 4,12,37,11,33,51,21		9, 5
22″	9, 5,57,13, 0,19,21,38,48,19		39,54,49,15	
		2, 4,12,36,31,39, 2, 6		9, 5
24″	9, 5,59,17,12,55,53,17,50,25		39,54,58,20	
		2, 4,12,35,51,44, 3,46		9, 5
26″	9, 6, 1,21,25,31,45, 1,54,11		39,55, 7,25	
		2, 4,12,35,11,48,56,21		9, 5
28″	9, 6, 3,25,38, 6,56,50,50,32		39,55,16,30	
		2, 4,12,34,31,53,39,51		9, 5
30″	9, 6, 5,29,50,41,28,44,30,23		39,55,25,35	
		2, 4,12,33,51,58,14,16		9, 5
32″	9, 6, 7,34, 3,15,20,42,44,39		39,55,34,40	
		2, 4,12,33,12, 2,39,36		9, 5
34″	9, 6, 9,38,15,48,32,45,24,15		39,55,43,45	
		2, 4,12,32,32, 6,55,51		9, 5
36″	9, 6,11,42,28,21, 4,52,20, 6		39,55,52,50	
		2, 4,12,31,52,11, 3, 1		9, 5
38″	9, 6,13,46,40,52,57, 3,23, 7		39,56, 1,55	
		2, 4,12,31,12,15, 1, 6		9, 5
40″	9, 6,15,50,53,24, 9,18,24,13		39,56,11, 0	
		2, 4,12,30,32,18,50, 6		9, 5
42″	9, 6,17,55, 5,54,41,37,14,19		39,56,20, 5	
		2, 4,12,29,52,22,30, 1		9, 5
44″	9, 6,19,59,18,24,33,59,44,20		39,56,29,10	
		2, 4,12,29,12,26, 0,51		9, 5
46″	9, 6,22, 3,30,53,46,25,45,11		39,56,38,15	
		2, 4,12,28,32,29,22,36		9, 5
48″	9, 6,24, 7,43,22,18,55, 7,47		39,56,47,20	
		2, 4,12,27,52,32,35,16		9, 5
50″	9, 6,26,11,55,50,11,27,43, 3		39,56,56,25	
		2, 4,12,27,12,35,38,51		9, 5
52″	9, 6,28,16, 8,17,24, 3,21,54		39,57, 5,30	
		2, 4,12,26,32,38,33,21		9, 5
54″	9, 6,30,20,20,43,56,41,55,15		39,57,14,35	
		2, 4,12,25,52,41,18,46		9, 5
56″	9, 6,32,24,33, 9,49,23,14, 1		39,57,23,40	
		2, 4,12,25,12,43,55, 6		9, 5
58″	9, 6,34,28,45,35, 2, 7, 9, 7		39,57,32,45	
		2, 4,12,24,32,46,22,21		
60″	9, 6,36,32,57,59,34,53,31,28			
exact	9, 6,36,32,57,59,34,53,39,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°44′ 0″	9, 6,36,32,57,59,34,53,39,12	2, 4,12,23,52,48,41,27		
2″	9, 6,38,37,10,23,27,42,20,39	2, 4,12,23,12,50,50,36	39,57,50,51	9, 5
4″	9, 6,40,41,22,46,40,33,11,15	2, 4,12,22,32,52,50,40	39,57,59,56	9, 5
6″	9, 6,42,45,35, 9,13,26, 1,55	2, 4,12,21,52,54,41,39	39,58, 9, 1	9, 5
8″	9, 6,44,49,47,31, 6,20,43,34	2, 4,12,21,12,56,23,33	39,58,18, 6	9, 5
10″	9, 6,46,53,59,52,19,17, 7, 7	2, 4,12,20,32,57,56,22	39,58,27,11	9, 5
12″	9, 6,48,58,12,12,52,15, 3,29	2, 4,12,19,52,59,20, 6	39,58,36,16	9, 5
14″	9, 6,51, 2,24,32,45,14,23,35	2, 4,12,19,13, 0,34,45	39,58,45,21	9, 5
16″	9, 6,53, 6,36,51,58,14,58,20	2, 4,12,18,33, 1,40,19	39,58,54,26	9, 5
18″	9, 6,55,10,49,10,31,16,38,39	2, 4,12,17,53, 2,36,48	39,59, 3,31	9, 5
20″	9, 6,57,15, 1,28,24,19,15,27	2, 4,12,17,13, 3,24,12	39,59,12,36	9, 5
22″	9, 6,59,19,13,45,37,22,39,39	2, 4,12,16,33, 4, 2,31	39,59,21,41	9, 5
24″	9, 7, 1,23,26, 2,10,26,42,10	2, 4,12,15,53, 4,31,45	39,59,30,46	9, 5
26″	9, 7, 3,27,38,18, 3,31,13,55	2, 4,12,15,13, 4,51,54	39,59,39,51	9, 5
28″	9, 7, 5,31,50,33,16,36, 5,49	2, 4,12,14,33, 5, 2,58	39,59,48,56	9, 5
30″	9, 7, 7,36, 2,47,49,41, 8,47	2, 4,12,13,53, 5, 4,57	39,59,58, 1	9, 5
32″	9, 7, 9,40,15, 1,42,46,13,44	2, 4,12,13,13, 4,57,51	40, 0, 7, 6	9, 5
34″	9, 7,11,44,27,14,55,51,11,35	2, 4,12,12,33, 4,41,40	40, 0,16,11	9, 5
36″	9, 7,13,48,39,27,28,55,53,15	2, 4,12,11,53, 4,16,24	40, 0,25,16	9, 5
38″	9, 7,15,52,51,39,22, 0, 9,39	2, 4,12,11,13, 3,42, 3	40, 0,34,21	9, 5
40″	9, 7,17,57, 3,50,35, 3,51,42	2, 4,12,10,33, 2,58,37	40, 0,43,26	9, 5
42″	9, 7,20, 1,16, 1, 8, 6,50,19	2, 4,12, 9,53, 2, 6, 6	40, 0,52,31	9, 5
44″	9, 7,22, 5,28,11, 1, 8,56,25	2, 4,12, 9,13, 1, 4,30	40, 1, 1,36	9, 5
46″	9, 7,24, 9,40,20,14,10, 0,55	2, 4,12, 8,32,59,53,49	40, 1,10,41	9, 5
48″	9, 7,26,13,52,28,47, 9,54,44	2, 4,12, 7,52,58,34, 3	40, 1,19,46	9, 5
50″	9, 7,28,18, 4,36,40, 8,28,47	2, 4,12, 7,12,57, 5,12	40, 1,28,51	9, 5
52″	9, 7,30,22,16,43,53, 5,33,59	2, 4,12, 6,32,55,27,16	40, 1,37,56	9, 5
54″	9, 7,32,26,28,50,26, 1, 1,15	2, 4,12, 5,52,53,40,15	40, 1,47, 1	9, 5
56″	9, 7,34,30,40,56,18,54,41,30	2, 4,12, 5,12,51,44, 9	40, 1,56, 6	9, 5
58″	9, 7,36,34,53, 1,31,46,25,39	2, 4,12, 4,32,49,38,58	40, 2, 5,11	
60″	9, 7,38,39, 5, 6, 4,36, 4,37			
exact	9, 7,38,39, 5, 6, 4,36,18,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°45′ 0″	9, 7,38,39, 5, 6, 4,36,18,47			
		2, 4,12, 3,52,47,26, 9		
2″	9, 7,40,43,17, 9,57,23,44,56		40, 2,23,15	
		2, 4,12, 3,12,45, 2,54		9, 5
4″	9, 7,42,47,29,13,10, 8,47,50		40, 2,32,20	
		2, 4,12, 2,32,42,30,34		9, 5
6″	9, 7,44,51,41,15,42,51,18,24		40, 2,41,25	
		2, 4,12, 1,52,39,49, 9		9, 5
8″	9, 7,46,55,53,17,35,31, 7,33		40, 2,50,30	
		2, 4,12, 1,12,36,58,39		9, 5
10″	9, 7,49, 0, 5,18,48, 8, 6,12		40, 2,59,35	
		2, 4,12, 0,32,33,59, 4		9, 5
12″	9, 7,51, 4,17,19,20,42, 5,16		40, 3, 8,40	
		2, 4,11,59,52,30,50,24		9, 5
14″	9, 7,53, 8,29,19,13,12,55,40		40, 3,17,45	
		2, 4,11,59,12,27,32,39		9, 5
16″	9, 7,55,12,41,18,25,40,28,19		40, 3,26,50	
		2, 4,11,58,32,24, 5,49		9, 5
18″	9, 7,57,16,53,16,58, 4,34, 8		40, 3,35,55	
		2, 4,11,57,52,20,29,54		9, 5
20″	9, 7,59,21, 5,14,50,25, 4, 2		40, 3,45, 0	
		2, 4,11,57,12,16,44,54		9, 5
22″	9, 8, 1,25,17,12, 2,41,48,56		40, 3,54, 5	
		2, 4,11,56,32,12,50,49		9, 5
24″	9, 8, 3,29,29, 8,34,54,39,45		40, 4, 3,10	
		2, 4,11,55,52, 8,47,39		9, 5
26″	9, 8, 5,33,41, 4,27, 3,27,24		40, 4,12,15	
		2, 4,11,55,12, 4,35,24		9, 5
28″	9, 8, 7,37,52,59,39, 8, 2,48		40, 4,21,20	
		2, 4,11,54,32, 0,14, 4		9, 5
30″	9, 8, 9,42, 4,54,11, 8,16,52		40, 4,30,25	
		2, 4,11,53,51,55,43,39		9, 5
32″	9, 8,11,46,16,48, 3, 4, 0,31		40, 4,39,30	
		2, 4,11,53,11,51, 4, 9		9, 5
34″	9, 8,13,50,28,41,14,55, 4,40		40, 4,48,35	
		2, 4,11,52,31,46,15,34		9, 5
36″	9, 8,15,54,40,33,46,41,20,14		40, 4,57,40	
		2, 4,11,51,51,41,17,54		9, 5
38″	9, 8,17,58,52,25,38,22,38, 8		40, 5, 6,45	
		2, 4,11,51,11,36,11, 9		9, 5
40″	9, 8,20, 3, 4,16,49,58,49,17		40, 5,15,50	
		2, 4,11,50,31,30,55,19		9, 5
42″	9, 8,22, 7,16, 7,21,29,44,36		40, 5,24,55	
		2, 4,11,49,51,25,30,24		9, 5
44″	9, 8,24,11,27,57,12,55,15, 0		40, 5,34, 0	
		2, 4,11,49,11,19,56,24		9, 5
46″	9, 8,26,15,39,46,24,15,11,24		40, 5,43, 5	
		2, 4,11,48,31,14,13,19		9, 5
48″	9, 8,28,19,51,34,55,29,24,43		40, 5,52,10	
		2, 4,11,47,51, 8,21, 9		9, 5
50″	9, 8,30,24, 3,22,46,37,45,52		40, 6, 1,15	
		2, 4,11,47,11, 2,19,54		9, 5
52″	9, 8,32,28,15, 9,57,40, 5,46		40, 6,10,20	
		2, 4,11,46,30,56, 9,34		9, 5
54″	9, 8,34,32,26,56,28,36,15,20		40, 6,19,25	
		2, 4,11,45,50,49,50, 9		9, 5
56″	9, 8,36,36,38,42,19,26, 5,29		40, 6,28,30	
		2, 4,11,45,10,43,21,39		9, 5
58″	9, 8,38,40,50,27,30, 9,27, 8		40, 6,37,35	
		2, 4,11,44,30,36,44, 4		
60″	9, 8,40,45, 2,12, 0,46,11,12			
exact	9, 8,40,45, 2,12, 0,46,23, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°46′ 0″	9, 8,40,45, 2,12, 0,46,23, 1			
		2, 4,11,43,50,29,58,45		
2″	9, 8,42,49,13,55,51,16,21,46		40, 6,55,39	
		2, 4,11,43,10,23, 3, 6		9, 5
4″	9, 8,44,53,25,39, 1,39,24,52		40, 7, 4,44	
		2, 4,11,42,30,15,58,22		9, 5
6″	9, 8,46,57,37,21,31,55,23,14		40, 7,13,49	
		2, 4,11,41,50, 8,44,33		9, 5
8″	9, 8,49, 1,49, 3,22, 4, 7,47		40, 7,22,54	
		2, 4,11,41,10, 1,21,39		9, 5
10″	9, 8,51, 6, 0,44,32, 5,29,26		40, 7,31,59	
		2, 4,11,40,29,53,49,40		9, 5
12″	9, 8,53,10,12,25, 1,59,19, 6		40, 7,41, 4	
		2, 4,11,39,49,46, 8,36		9, 5
14″	9, 8,55,14,24, 4,51,45,27,42		40, 7,50, 9	
		2, 4,11,39, 9,38,18,27		9, 5
16″	9, 8,57,18,35,44, 1,23,46, 9		40, 7,59,14	
		2, 4,11,38,29,30,19,13		9, 5
18″	9, 8,59,22,47,22,30,54, 5,22		40, 8, 8,19	
		2, 4,11,37,49,22,10,54		9, 5
20″	9, 9, 1,26,59, 0,20,16,16,16		40, 8,17,24	
		2, 4,11,37, 9,13,53,30		9, 5
22″	9, 9, 3,31,10,37,29,30, 9,46		40, 8,26,29	
		2, 4,11,36,29, 5,27, 1		9, 5
24″	9, 9, 5,35,22,13,58,35,36,47		40, 8,35,34	
		2, 4,11,35,48,56,51,27		9, 5
26″	9, 9, 7,39,33,49,47,32,28,14		40, 8,44,39	
		2, 4,11,35, 8,48, 6,48		9, 5
28″	9, 9, 9,43,45,24,56,20,35, 2		40, 8,53,44	
		2, 4,11,34,28,39,13, 4		9, 5
30″	9, 9,11,47,56,59,24,59,48, 6		40, 9, 2,49	
		2, 4,11,33,48,30,10,15		9, 5
32″	9, 9,13,52, 8,33,13,29,58,21		40, 9,11,54	
		2, 4,11,33, 8,20,58,21		9, 5
34″	9, 9,15,56,20, 6,21,50,56,42		40, 9,20,59	
		2, 4,11,32,28,11,37,22		9, 5
36″	9, 9,18, 0,31,38,50, 2,34, 4		40, 9,30, 4	
		2, 4,11,31,48, 2, 7,18		9, 5
38″	9, 9,20, 4,43,10,38, 4,41,22		40, 9,39, 9	
		2, 4,11,31, 7,52,28, 9		9, 5
40″	9, 9,22, 8,54,41,45,57, 9,31		40, 9,48,14	
		2, 4,11,30,27,42,39,55		9, 5
42″	9, 9,24,13, 6,12,13,39,49,26		40, 9,57,19	
		2, 4,11,29,47,32,42,36		9, 5
44″	9, 9,26,17,17,42, 1,12,32, 2		40,10, 6,24	
		2, 4,11,29, 7,22,36,12		9, 5
46″	9, 9,28,21,29,11, 8,35, 8,14		40,10,15,29	
		2, 4,11,28,27,12,20,43		9, 5
48″	9, 9,30,25,40,39,35,47,28,57		40,10,24,34	
		2, 4,11,27,47, 1,56, 9		9, 5
50″	9, 9,32,29,52, 7,22,49,25, 6		40,10,33,39	
		2, 4,11,27, 6,51,22,30		9, 5
52″	9, 9,34,34, 3,34,29,40,47,36		40,10,42,44	
		2, 4,11,26,26,40,39,46		9, 5
54″	9, 9,36,38,15, 0,56,21,27,22		40,10,51,49	
		2, 4,11,25,46,29,47,57		9, 5
56″	9, 9,38,42,26,26,42,51,15,19		40,11, 0,54	
		2, 4,11,25, 6,18,47, 3		9, 5
58″	9, 9,40,46,37,51,49,10, 2,22		40,11, 9,59	
		2, 4,11,24,26, 7,37, 4		
60″	9, 9,42,50,49,16,15,17,39,26			
exact	9, 9,42,50,49,16,15,17,54, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°47′ 0″	9, 9,42,50,49,16,15,17,54, 7			
		2, 4,11,23,45,56,19,37		
2″	9, 9,44,55, 0,40, 1,14,13,44		40,11,28, 2	
		2, 4,11,23, 5,44,51,35		9, 5
4″	9, 9,46,59,12, 3, 6,59, 5,19		40,11,37, 7	
		2, 4,11,22,25,33,14,28		9, 5
6″	9, 9,49, 3,23,25,32,32,19,47		40,11,46,12	
		2, 4,11,21,45,21,28,16		9, 5
8″	9, 9,51, 7,34,47,17,53,48, 3		40,11,55,17	
		2, 4,11,21, 5, 9,32,59		9, 5
10″	9, 9,53,11,46, 8,23, 3,21, 2		40,12, 4,22	
		2, 4,11,20,24,57,28,37		9, 5
12″	9, 9,55,15,57,28,48, 0,49,39		40,12,13,27	
		2, 4,11,19,44,45,15,10		9, 5
14″	9, 9,57,20, 8,48,32,46, 4,49		40,12,22,32	
		2, 4,11,19, 4,32,52,38		9, 5
16″	9, 9,59,24,20, 7,37,18,57,27		40,12,31,37	
		2, 4,11,18,24,20,21, 1		9, 5
18″	9,10, 1,28,31,26, 1,39,18,28		40,12,40,42	
		2, 4,11,17,44, 7,40,19		9, 5
20″	9,10, 3,32,42,43,45,46,58,47		40,12,49,47	
		2, 4,11,17, 3,54,50,32		9, 5
22″	9,10, 5,36,54, 0,49,41,49,19		40,12,58,52	
		2, 4,11,16,23,41,51,40		9, 5
24″	9,10, 7,41, 5,17,13,23,40,59		40,13, 7,57	
		2, 4,11,15,43,28,43,43		9, 5
26″	9,10, 9,45,16,32,56,52,24,42		40,13,17, 2	
		2, 4,11,15, 3,15,26,41		9, 5
28″	9,10,11,49,27,48, 0, 7,51,23		40,13,26, 7	
		2, 4,11,14,23, 2, 0,34		9, 5
30″	9,10,13,53,39, 2,23, 9,51,57		40,13,35,12	
		2, 4,11,13,42,48,25,22		9, 5
32″	9,10,15,57,50,16, 5,58,17,19		40,13,44,17	
		2, 4,11,13, 2,34,41, 5		9, 5
34″	9,10,18, 2, 1,29, 8,32,58,24		40,13,53,22	
		2, 4,11,12,22,20,47,43		9, 5
36″	9,10,20, 6,12,41,30,53,46, 7		40,14, 2,27	
		2, 4,11,11,42, 6,45,16		9, 5
38″	9,10,22,10,23,53,13, 0,31,23		40,14,11,32	
		2, 4,11,11, 1,52,33,44		9, 5
40″	9,10,24,14,35, 4,14,53, 5, 7		40,14,20,37	
		2, 4,11,10,21,38,13, 7		9, 5
42″	9,10,26,18,46,14,36,31,18,14		40,14,29,42	
		2, 4,11, 9,41,23,43,25		9, 5
44″	9,10,28,22,57,24,17,55, 1,39		40,14,38,47	
		2, 4,11, 9, 1, 9, 4,38		9, 5
46″	9,10,30,27, 8,33,19, 4, 6,17		40,14,47,52	
		2, 4,11, 8,20,54,16,46		9, 5
48″	9,10,32,31,19,41,39,58,23, 3		40,14,56,57	
		2, 4,11, 7,40,39,19,49		9, 5
50″	9,10,34,35,30,49,20,37,42,52		40,15, 6, 2	
		2, 4,11, 7, 0,24,13,47		9, 5
52″	9,10,36,39,41,56,21, 1,56,39		40,15,15, 7	
		2, 4,11, 6,20, 8,58,40		9, 5
54″	9,10,38,43,53, 2,41,10,55,19		40,15,24,12	
		2, 4,11, 5,39,53,34,28		9, 5
56″	9,10,40,48, 4, 8,21, 4,29,47		40,15,33,17	
		2, 4,11, 4,59,38, 1,11		9, 5
58″	9,10,42,52,15,13,20,42,30,58		40,15,42,22	
		2, 4,11, 4,19,22,18,49		
60″	9,10,44,56,26,17,40, 4,49,47			
exact	9,10,44,56,26,17,40, 5, 5,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°48′ 0″	9,10,44,56,26,17,40, 5, 5,18			
		2, 4,11, 3,39, 6,29, 6		
2″	9,10,47, 0,37,21,19,11,34,24		40,16, 0,25	
		2, 4,11, 2,58,50,28,41		9, 5
4″	9,10,49, 4,48,24,18, 2, 3, 5		40,16, 9,30	
		2, 4,11, 2,18,34,19,11		9, 5
6″	9,10,51, 8,59,26,36,36,22,16		40,16,18,35	
		2, 4,11, 1,38,18, 0,36		9, 5
8″	9,10,53,13,10,28,14,54,22,52		40,16,27,40	
		2, 4,11, 0,58, 1,32,56		9, 5
10″	9,10,55,17,21,29,12,55,55,48		40,16,36,45	
		2, 4,11, 0,17,44,56,11		9, 5
12″	9,10,57,21,32,29,30,40,51,59		40,16,45,50	
		2, 4,10,59,37,28,10,21		9, 5
14″	9,10,59,25,43,29, 8, 9, 2,20		40,16,54,55	
		2, 4,10,58,57,11,15,26		9, 5
16″	9,11, 1,29,54,28, 5,20,17,46		40,17, 4, 0	
		2, 4,10,58,16,54,11,26		9, 5
18″	9,11, 3,34, 5,26,22,14,29,12		40,17,13, 5	
		2, 4,10,57,36,36,58,21		9, 5
20″	9,11, 5,38,16,23,58,51,27,33		40,17,22,10	
		2, 4,10,56,56,19,36,11		9, 5
22″	9,11, 7,42,27,20,55,11, 3,44		40,17,31,15	
		2, 4,10,56,16, 2, 4,56		9, 5
24″	9,11, 9,46,38,17,11,13, 8,40		40,17,40,20	
		2, 4,10,55,35,44,24,36		9, 5
26″	9,11,11,50,49,12,46,57,33,16		40,17,49,25	
		2, 4,10,54,55,26,35,11		9, 5
28″	9,11,13,55, 0, 7,42,24, 8,27		40,17,58,30	
		2, 4,10,54,15, 8,36,41		9, 5
30″	9,11,15,59,11, 1,57,32,45, 8		40,18, 7,35	
		2, 4,10,53,34,50,29, 6		9, 5
32″	9,11,18, 3,21,55,32,23,14,14		40,18,16,40	
		2, 4,10,52,54,32,12,26		9, 5
34″	9,11,20, 7,32,48,26,55,26,40		40,18,25,45	
		2, 4,10,52,14,13,46,41		9, 5
36″	9,11,22,11,43,40,41, 9,13,21		40,18,34,50	
		2, 4,10,51,33,55,11,51		9, 5
38″	9,11,24,15,54,32,15, 4,25,12		40,18,43,55	
		2, 4,10,50,53,36,27,56		9, 5
40″	9,11,26,20, 5,23, 8,40,53, 8		40,18,53, 0	
		2, 4,10,50,13,17,34,56		9, 5
42″	9,11,28,24,16,13,21,58,28, 4		40,19, 2, 5	
		2, 4,10,49,32,58,32,51		9, 5
44″	9,11,30,28,27, 2,54,57, 0,55		40,19,11,10	
		2, 4,10,48,52,39,21,41		9, 5
46″	9,11,32,32,37,51,47,36,22,36		40,19,20,15	
		2, 4,10,48,12,20, 1,26		9, 5
48″	9,11,34,36,48,39,59,56,24, 2		40,19,29,20	
		2, 4,10,47,32, 0,32, 6		9, 5
50″	9,11,36,40,59,27,31,56,56, 8		40,19,38,25	
		2, 4,10,46,51,40,53,41		9, 5
52″	9,11,38,45,10,14,23,37,49,49		40,19,47,30	
		2, 4,10,46,11,21, 6,11		9, 5
54″	9,11,40,49,21, 0,34,58,56, 0		40,19,56,35	
		2, 4,10,45,31, 1, 9,36		9, 5
56″	9,11,42,53,31,46, 6, 0, 5,36		40,20, 5,40	
		2, 4,10,44,50,41, 3,56		9, 5
58″	9,11,44,57,42,30,56,41, 9,32		40,20,14,45	
		2, 4,10,44,10,20,49,11		
60″	9,11,47, 1,53,15, 7, 1,58,43			
exact	9,11,47, 1,53,15, 7, 2,20,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°49′ 0″	9,11,47, 1,53,15, 7, 2,20,47			
		2, 4,10,43,30, 0,27,35		
2″	9,11,49, 6, 3,58,37, 2,48,22		40,20,32,46	
		2, 4,10,42,49,39,54,49		9, 5
4″	9,11,51,10,14,41,26,42,43,11		40,20,41,51	
		2, 4,10,42, 9,19,12,58		9, 5
6″	9,11,53,14,25,23,36, 1,56, 9		40,20,50,56	
		2, 4,10,41,28,58,22, 2		9, 5
8″	9,11,55,18,36, 5, 5, 0,18,11		40,21, 0, 1	
		2, 4,10,40,48,37,22, 1		9, 5
10″	9,11,57,22,46,45,53,37,40,12		40,21, 9, 6	
		2, 4,10,40, 8,16,12,55		9, 5
12″	9,11,59,26,57,26, 1,53,53, 7		40,21,18,11	
		2, 4,10,39,27,54,54,44		9, 5
14″	9,12, 1,31, 8, 5,29,48,47,51		40,21,27,16	
		2, 4,10,38,47,33,27,28		9, 5
16″	9,12, 3,35,18,44,17,22,15,19		40,21,36,21	
		2, 4,10,38, 7,11,51, 7		9, 5
18″	9,12, 5,39,29,22,24,34, 6,26		40,21,45,26	
		2, 4,10,37,26,50, 5,41		9, 5
20″	9,12, 7,43,39,59,51,24,12, 7		40,21,54,31	
		2, 4,10,36,46,28,11,10		9, 5
22″	9,12, 9,47,50,36,37,52,23,17		40,22, 3,36	
		2, 4,10,36, 6, 6, 7,34		9, 5
24″	9,12,11,52, 1,12,43,58,30,51		40,22,12,41	
		2, 4,10,35,25,43,54,53		9, 5
26″	9,12,13,56,11,48, 9,42,25,44		40,22,21,46	
		2, 4,10,34,45,21,33, 7		9, 5
28″	9,12,16, 0,22,22,55, 3,58,51		40,22,30,51	
		2, 4,10,34, 4,59, 2,16		9, 5
30″	9,12,18, 4,32,57, 0, 3, 1, 7		40,22,39,56	
		2, 4,10,33,24,36,22,20		9, 5
32″	9,12,20, 8,43,30,24,39,23,27		40,22,49, 1	
		2, 4,10,32,44,13,33,19		9, 5
34″	9,12,22,12,54, 3, 8,52,56,46		40,22,58, 6	
		2, 4,10,32, 3,50,35,13		9, 5
36″	9,12,24,17, 4,35,12,43,31,59		40,23, 7,11	
		2, 4,10,31,23,27,28, 2		9, 5
38″	9,12,26,21,15, 6,36,11, 0, 1		40,23,16,16	
		2, 4,10,30,43, 4,11,46		9, 5
40″	9,12,28,25,25,37,19,15,11,47		40,23,25,21	
		2, 4,10,30, 2,40,46,25		9, 5
42″	9,12,30,29,36, 7,21,55,58,12		40,23,34,26	
		2, 4,10,29,22,17,11,59		9, 5
44″	9,12,32,33,46,36,44,13,10,11		40,23,43,31	
		2, 4,10,28,41,53,28,28		9, 5
46″	9,12,34,37,57, 5,26, 6,38,39		40,23,52,36	
		2, 4,10,28, 1,29,35,52		9, 5
48″	9,12,36,42, 7,33,27,36,14,31		40,24, 1,41	
		2, 4,10,27,21, 5,34,11		9, 5
50″	9,12,38,46,18, 0,48,41,48,42		40,24,10,46	
		2, 4,10,26,40,41,23,25		9, 5
52″	9,12,40,50,28,27,29,23,12, 7		40,24,19,51	
		2, 4,10,26, 0,17, 3,34		9, 5
54″	9,12,42,54,38,53,29,40,15,41		40,24,28,56	
		2, 4,10,25,19,52,34,38		9, 5
56″	9,12,44,58,49,18,49,32,50,19		40,24,38, 1	
		2, 4,10,24,39,27,56,37		9, 5
58″	9,12,47, 2,59,43,29, 0,46,56		40,24,47, 6	
		2, 4,10,23,59, 3, 9,31		
60″	9,12,49, 7,10, 7,28, 3,56,27			
exact	9,12,49, 7,10, 7,28, 4,15,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°50′ 0″	9,12,49, 7,10, 7,28, 4,15,50			
		2, 4,10,23,18,38,15,27		
2″	9,12,51,11,20,30,46,42,31,17		40,25, 5, 7	
		2, 4,10,22,38,13,10,20		9, 5
4″	9,12,53,15,30,53,24,55,41,37		40,25,14,12	
		2, 4,10,21,57,47,56, 8		9, 5
6″	9,12,55,19,41,15,22,43,37,45		40,25,23,17	
		2, 4,10,21,17,22,32,51		9, 5
8″	9,12,57,23,51,36,40, 6,10,36		40,25,32,22	
		2, 4,10,20,36,57, 0,29		9, 5
10″	9,12,59,28, 1,57,17, 3,11, 5		40,25,41,27	
		2, 4,10,19,56,31,19, 2		9, 5
12″	9,13, 1,32,12,17,13,34,30, 7		40,25,50,32	
		2, 4,10,19,16, 5,28,30		9, 5
14″	9,13, 3,36,22,36,29,39,58,37		40,25,59,37	
		2, 4,10,18,35,39,28,53		9, 5
16″	9,13, 5,40,32,55, 5,19,27,30		40,26, 8,42	
		2, 4,10,17,55,13,20,11		9, 5
18″	9,13, 7,44,43,13, 0,32,47,41		40,26,17,47	
		2, 4,10,17,14,47, 2,24		9, 5
20″	9,13, 9,48,53,30,15,19,50, 5		40,26,26,52	
		2, 4,10,16,34,20,35,32		9, 5
22″	9,13,11,53, 3,46,49,40,25,37		40,26,35,57	
		2, 4,10,15,53,53,59,35		9, 5
24″	9,13,13,57,14, 2,43,34,25,12		40,26,45, 2	
		2, 4,10,15,13,27,14,33		9, 5
26″	9,13,16, 1,24,17,57, 1,39,45		40,26,54, 7	
		2, 4,10,14,33, 0,20,26		9, 5
28″	9,13,18, 5,34,32,30, 2, 0,11		40,27, 3,12	
		2, 4,10,13,52,33,17,14		9, 5
30″	9,13,20, 9,44,46,22,35,17,25		40,27,12,17	
		2, 4,10,13,12, 6, 4,57		9, 5
32″	9,13,22,13,54,59,34,41,22,22		40,27,21,22	
		2, 4,10,12,31,38,43,35		9, 5
34″	9,13,24,18, 5,12, 6,20, 5,57		40,27,30,27	
		2, 4,10,11,51,11,13, 8		9, 5
36″	9,13,26,22,15,23,57,31,19, 5		40,27,39,32	
		2, 4,10,11,10,43,33,36		9, 5
38″	9,13,28,26,25,35, 8,14,52,41		40,27,48,37	
		2, 4,10,10,30,15,44,59		9, 5
40″	9,13,30,30,35,45,38,30,37,40		40,27,57,42	
		2, 4,10, 9,49,47,47,17		9, 5
42″	9,13,32,34,45,55,28,18,24,57		40,28, 6,47	
		2, 4,10, 9, 9,19,40,30		9, 5
44″	9,13,34,38,56, 4,37,38, 5,27		40,28,15,52	
		2, 4,10, 8,28,51,24,38		9, 5
46″	9,13,36,43, 6,13, 6,29,30, 5		40,28,24,57	
		2, 4,10, 7,48,22,59,41		9, 5
48″	9,13,38,47,16,20,54,52,29,46		40,28,34, 2	
		2, 4,10, 7, 7,54,25,39		9, 5
50″	9,13,40,51,26,28, 2,46,55,25		40,28,43, 7	
		2, 4,10, 6,27,25,42,32		9, 5
52″	9,13,42,55,36,34,30,12,37,57		40,28,52,12	
		2, 4,10, 5,46,56,50,20		9, 5
54″	9,13,44,59,46,40,17, 9,28,17		40,29, 1,17	
		2, 4,10, 5, 6,27,49, 3		9, 5
56″	9,13,47, 3,56,45,23,37,17,20		40,29,10,22	
		2, 4,10, 4,25,58,38,41		9, 5
58″	9,13,49, 8, 6,49,49,35,56, 1		40,29,19,27	
		2, 4,10, 3,45,29,19,14		
60″	9,13,51,12,16,53,35, 5,15,15			
exact	9,13,51,12,16,53,35, 5,36,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°51′ 0″	9,13,51,12,16,53,35, 5,36,46			
		2, 4,10, 3, 4,59,53, 2		
2″	9,13,53,16,26,56,40, 5,29,48		40,29,37,27	
		2, 4,10, 2,24,30,15,35		9, 5
4″	9,13,55,20,36,59, 4,35,45,23		40,29,46,32	
		2, 4,10, 1,44, 0,29, 3		9, 5
6″	9,13,57,24,47, 0,48,36,14,26		40,29,55,37	
		2, 4,10, 1, 3,30,33,26		9, 5
8″	9,13,59,28,57, 1,52, 6,47,52		40,30, 4,42	
		2, 4,10, 0,23, 0,28,44		9, 5
10″	9,14, 1,33, 7, 2,15, 7,16,36		40,30,13,47	
		2, 4, 9,59,42,30,14,57		9, 5
12″	9,14, 3,37,17, 1,57,37,31,33		40,30,22,52	
		2, 4, 9,59, 1,59,52, 5		9, 5
14″	9,14, 5,41,27, 0,59,37,23,38		40,30,31,57	
		2, 4, 9,58,21,29,20, 8		9, 5
16″	9,14, 7,45,36,59,21, 6,43,46		40,30,41, 2	
		2, 4, 9,57,40,58,39, 6		9, 5
18″	9,14, 9,49,46,57, 2, 5,22,52		40,30,50, 7	
		2, 4, 9,57, 0,27,48,59		9, 5
20″	9,14,11,53,56,54, 2,33,11,51		40,30,59,12	
		2, 4, 9,56,19,56,49,47		9, 5
22″	9,14,13,58, 6,50,22,30, 1,38		40,31, 8,17	
		2, 4, 9,55,39,25,41,30		9, 5
24″	9,14,16, 2,16,46, 1,55,43, 8		40,31,17,22	
		2, 4, 9,54,58,54,24, 8		9, 5
26″	9,14,18, 6,26,41, 0,50, 7,16		40,31,26,27	
		2, 4, 9,54,18,22,57,41		9, 5
28″	9,14,20,10,36,35,19,13, 4,57		40,31,35,32	
		2, 4, 9,53,37,51,22, 9		9, 5
30″	9,14,22,14,46,28,57, 4,27, 6		40,31,44,37	
		2, 4, 9,52,57,19,37,32		9, 5
32″	9,14,24,18,56,21,54,24, 4,38		40,31,53,42	
		2, 4, 9,52,16,47,43,50		9, 5
34″	9,14,26,23, 6,14,11,11,48,28		40,32, 2,47	
		2, 4, 9,51,36,15,41, 3		9, 5
36″	9,14,28,27,16, 5,47,27,29,31		40,32,11,52	
		2, 4, 9,50,55,43,29,11		9, 5
38″	9,14,30,31,25,56,43,10,58,42		40,32,20,57	
		2, 4, 9,50,15,11, 8,14		9, 5
40″	9,14,32,35,35,46,58,22, 6,56		40,32,30, 2	
		2, 4, 9,49,34,38,38,12		9, 5
42″	9,14,34,39,45,36,33, 0,45, 8		40,32,39, 7	
		2, 4, 9,48,54, 5,59, 5		9, 5
44″	9,14,36,43,55,25,27, 6,44,13		40,32,48,12	
		2, 4, 9,48,13,33,10,53		9, 5
46″	9,14,38,48, 5,13,40,39,55, 6		40,32,57,17	
		2, 4, 9,47,33, 0,13,36		9, 5
48″	9,14,40,52,15, 1,13,40, 8,42		40,33, 6,22	
		2, 4, 9,46,52,27, 7,14		9, 5
50″	9,14,42,56,24,48, 6, 7,15,56		40,33,15,27	
		2, 4, 9,46,11,53,51,47		9, 5
52″	9,14,45, 0,34,34,18, 1, 7,43		40,33,24,32	
		2, 4, 9,45,31,20,27,15		9, 5
54″	9,14,47, 4,44,19,49,21,34,58		40,33,33,37	
		2, 4, 9,44,50,46,53,38		9, 5
56″	9,14,49, 8,54, 4,40, 8,28,36		40,33,42,42	
		2, 4, 9,44,10,13,10,56		9, 5
58″	9,14,51,13, 3,48,50,21,39,32		40,33,51,47	
		2, 4, 9,43,29,39,19, 9		
60″	9,14,53,17,13,32,20, 0,58,41			
exact	9,14,53,17,13,32,20, 1,20,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°52′ 0″	9,14,53,17,13,32,20, 1,20,59			
		2, 4, 9,42,49, 5,20,44		
2″	9,14,55,21,23,15, 9, 6,41,43		40,34, 9,47	
		2, 4, 9,42, 8,31,10,57		9, 5
4″	9,14,57,25,32,57,17,37,52,40		40,34,18,52	
		2, 4, 9,41,27,56,52, 5		9, 5
6″	9,14,59,29,42,38,45,34,44,45		40,34,27,57	
		2, 4, 9,40,47,22,24, 8		9, 5
8″	9,15, 1,33,52,19,32,57, 8,53		40,34,37, 2	
		2, 4, 9,40, 6,47,47, 6		9, 5
10″	9,15, 3,38, 1,59,39,44,55,59		40,34,46, 7	
		2, 4, 9,39,26,13, 0,59		9, 5
12″	9,15, 5,42,11,39, 5,57,56,58		40,34,55,12	
		2, 4, 9,38,45,38, 5,47		9, 5
14″	9,15, 7,46,21,17,51,36, 2,45		40,35, 4,17	
		2, 4, 9,38, 5, 3, 1,30		9, 5
16″	9,15, 9,50,30,55,56,39, 4,15		40,35,13,22	
		2, 4, 9,37,24,27,48, 8		9, 5
18″	9,15,11,54,40,33,21, 6,52,23		40,35,22,27	
		2, 4, 9,36,43,52,25,41		9, 5
20″	9,15,13,58,50,10, 4,59,18, 4		40,35,31,32	
		2, 4, 9,36, 3,16,54, 9		9, 5
22″	9,15,16, 2,59,46, 8,16,12,13		40,35,40,37	
		2, 4, 9,35,22,41,13,32		9, 5
24″	9,15,18, 7, 9,21,30,57,25,45		40,35,49,42	
		2, 4, 9,34,42, 5,23,50		9, 5
26″	9,15,20,11,18,56,13, 2,49,35		40,35,58,47	
		2, 4, 9,34, 1,29,25, 3		9, 5
28″	9,15,22,15,28,30,14,32,14,38		40,36, 7,52	
		2, 4, 9,33,20,53,17,11		9, 5
30″	9,15,24,19,38, 3,35,25,31,49		40,36,16,57	
		2, 4, 9,32,40,17, 0,14		9, 5
32″	9,15,26,23,47,36,15,42,32, 3		40,36,26, 2	
		2, 4, 9,31,59,40,34,12		9, 5
34″	9,15,28,27,57, 8,15,23, 6,15		40,36,35, 7	
		2, 4, 9,31,19, 3,59, 5		9, 5
36″	9,15,30,32, 6,39,34,27, 5,20		40,36,44,12	
		2, 4, 9,30,38,27,14,53		9, 5
38″	9,15,32,36,16,10,12,54,20,13		40,36,53,17	
		2, 4, 9,29,57,50,21,36		9, 5
40″	9,15,34,40,25,40,10,44,41,49		40,37, 2,22	
		2, 4, 9,29,17,13,19,14		9, 5
42″	9,15,36,44,35, 9,27,58, 1, 3		40,37,11,27	
		2, 4, 9,28,36,36, 7,47		9, 5
44″	9,15,38,48,44,38, 4,34, 8,50		40,37,20,32	
		2, 4, 9,27,55,58,47,15		9, 5
46″	9,15,40,52,54, 6, 0,32,56, 5		40,37,29,37	
		2, 4, 9,27,15,21,17,38		9, 5
48″	9,15,42,57, 3,33,15,54,13,43		40,37,38,42	
		2, 4, 9,26,34,43,38,56		9, 5
50″	9,15,45, 1,12,59,50,37,52,39		40,37,47,47	
		2, 4, 9,25,54, 5,51, 9		9, 5
52″	9,15,47, 5,22,25,44,43,43,48		40,37,56,52	
		2, 4, 9,25,13,27,54,17		9, 5
54″	9,15,49, 9,31,50,58,11,38, 5		40,38, 5,57	
		2, 4, 9,24,32,49,48,20		9, 5
56″	9,15,51,13,41,15,31, 1,26,25		40,38,15, 2	
		2, 4, 9,23,52,11,33,18		9, 5
58″	9,15,53,17,50,39,23,12,59,43		40,38,24, 7	
		2, 4, 9,23,11,33, 9,11		
60″	9,15,55,22, 0, 2,34,46, 8,54			
exact	9,15,55,22, 0, 2,34,46,37, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°53′ 0″	9,15,55,22, 0, 2,34,46,37, 0			
		2, 4, 9,22,30,54,38,54		
2″	9,15,57,26, 9,25, 5,41,15,54		40,38,42, 5	
		2, 4, 9,21,50,15,56,49		9, 5
4″	9,15,59,30,18,46,55,57,12,43		40,38,51,10	
		2, 4, 9,21, 9,37, 5,39		9, 5
6″	9,16, 1,34,28, 8, 5,34,18,22		40,39, 0,15	
		2, 4, 9,20,28,58, 5,24		9, 5
8″	9,16, 3,38,37,28,34,32,23,46		40,39, 9,20	
		2, 4, 9,19,48,18,56, 4		9, 5
10″	9,16, 5,42,46,48,22,51,19,50		40,39,18,25	
		2, 4, 9,19, 7,39,37,39		9, 5
12″	9,16, 7,46,56, 7,30,30,57,29		40,39,27,30	
		2, 4, 9,18,27, 0,10, 9		9, 5
14″	9,16, 9,51, 5,25,57,31, 7,38		40,39,36,35	
		2, 4, 9,17,46,20,33,34		9, 5
16″	9,16,11,55,14,43,43,51,41,12		40,39,45,40	
		2, 4, 9,17, 5,40,47,54		9, 5
18″	9,16,13,59,24, 0,49,32,29, 6		40,39,54,45	
		2, 4, 9,16,25, 0,53, 9		9, 5
20″	9,16,16, 3,33,17,14,33,22,15		40,40, 3,50	
		2, 4, 9,15,44,20,49,19		9, 5
22″	9,16,18, 7,42,32,58,54,11,34		40,40,12,55	
		2, 4, 9,15, 3,40,36,24		9, 5
24″	9,16,20,11,51,48, 2,34,47,58		40,40,22, 0	
		2, 4, 9,14,23, 0,14,24		9, 5
26″	9,16,22,16, 1, 2,25,35, 2,22		40,40,31, 5	
		2, 4, 9,13,42,19,43,19		9, 5
28″	9,16,24,20,10,16, 7,54,45,41		40,40,40,10	
		2, 4, 9,13, 1,39, 3, 9		9, 5
30″	9,16,26,24,19,29, 9,33,48,50		40,40,49,15	
		2, 4, 9,12,20,58,13,54		9, 5
32″	9,16,28,28,28,41,30,32, 2,44		40,40,58,20	
		2, 4, 9,11,40,17,15,34		9, 5
34″	9,16,30,32,37,53,10,49,18,18		40,41, 7,25	
		2, 4, 9,10,59,36, 8, 9		9, 5
36″	9,16,32,36,47, 4,10,25,26,27		40,41,16,30	
		2, 4, 9,10,18,54,51,39		9, 5
38″	9,16,34,40,56,14,29,20,18, 6		40,41,25,35	
		2, 4, 9, 9,38,13,26, 4		9, 5
40″	9,16,36,45, 5,24, 7,33,44,10		40,41,34,40	
		2, 4, 9, 8,57,31,51,24		9, 5
42″	9,16,38,49,14,33, 5, 5,35,34		40,41,43,45	
		2, 4, 9, 8,16,50, 7,39		9, 5
44″	9,16,40,53,23,41,21,55,43,13		40,41,52,50	
		2, 4, 9, 7,36, 8,14,49		9, 5
46″	9,16,42,57,32,48,58, 3,58, 2		40,42, 1,55	
		2, 4, 9, 6,55,26,12,54		9, 5
48″	9,16,45, 1,41,55,53,30,10,56		40,42,11, 0	
		2, 4, 9, 6,14,44, 1,54		9, 5
50″	9,16,47, 5,51, 2, 8,14,12,50		40,42,20, 5	
		2, 4, 9, 5,34, 1,41,49		9, 5
52″	9,16,49,10, 0, 7,42,15,54,39		40,42,29,10	
		2, 4, 9, 4,53,19,12,39		9, 5
54″	9,16,51,14, 9,12,35,35, 7,18		40,42,38,15	
		2, 4, 9, 4,12,36,34,24		9, 5
56″	9,16,53,18,18,16,48,11,41,42		40,42,47,20	
		2, 4, 9, 3,31,53,47, 4		9, 5
58″	9,16,55,22,27,20,20, 5,28,46		40,42,56,25	
		2, 4, 9, 2,51,10,50,39		
60″	9,16,57,26,36,23,11,16,19,25			
exact	9,16,57,26,36,23,11,16,44,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°54′ 0″	9,16,57,26,36,23,11,16,44,26			
		2, 4, 9, 2,10,27,47,55		
2″	9,16,59,30,45,25,21,44,32,21		40,43,14,23	
		2, 4, 9, 1,29,44,33,32		9, 5
4″	9,17, 1,34,54,26,51,29, 5,53		40,43,23,28	
		2, 4, 9, 0,49, 1,10, 4		9, 5
6″	9,17, 3,39, 3,27,40,30,15,57		40,43,32,33	
		2, 4, 9, 0, 8,17,37,31		9, 5
8″	9,17, 5,43,12,27,48,47,53,28		40,43,41,38	
		2, 4, 8,59,27,33,55,53		9, 5
10″	9,17, 7,47,21,27,16,21,49,21		40,43,50,43	
		2, 4, 8,58,46,50, 5,10		9, 5
12″	9,17, 9,51,30,26, 3,11,54,31		40,43,59,48	
		2, 4, 8,58, 6, 6, 5,22		9, 5
14″	9,17,11,55,39,24, 9,17,59,53		40,44, 8,53	
		2, 4, 8,57,25,21,56,29		9, 5
16″	9,17,13,59,48,21,34,39,56,22		40,44,17,58	
		2, 4, 8,56,44,37,38,31		9, 5
18″	9,17,16, 3,57,18,19,17,34,53		40,44,27, 3	
		2, 4, 8,56, 3,53,11,28		9, 5
20″	9,17,18, 8, 6,14,23,10,46,21		40,44,36, 8	
		2, 4, 8,55,23, 8,35,20		9, 5
22″	9,17,20,12,15, 9,46,19,21,41		40,44,45,13	
		2, 4, 8,54,42,23,50, 7		9, 5
24″	9,17,22,16,24, 4,28,43,11,48		40,44,54,18	
		2, 4, 8,54, 1,38,55,49		9, 5
26″	9,17,24,20,32,58,30,22, 7,37		40,45, 3,23	
		2, 4, 8,53,20,53,52,26		9, 5
28″	9,17,26,24,41,51,51,16, 0, 3		40,45,12,28	
		2, 4, 8,52,40, 8,39,58		9, 5
30″	9,17,28,28,50,44,31,24,40, 1		40,45,21,33	
		2, 4, 8,51,59,23,18,25		9, 5
32″	9,17,30,32,59,36,30,47,58,26		40,45,30,38	
		2, 4, 8,51,18,37,47,47		9, 5
34″	9,17,32,37, 8,27,49,25,46,13		40,45,39,43	
		2, 4, 8,50,37,52, 8, 4		9, 5
36″	9,17,34,41,17,18,27,17,54,17		40,45,48,48	
		2, 4, 8,49,57, 6,19,16		9, 5
38″	9,17,36,45,26, 8,24,24,13,33		40,45,57,53	
		2, 4, 8,49,16,20,21,23		9, 5
40″	9,17,38,49,34,57,40,44,34,56		40,46, 6,58	
		2, 4, 8,48,35,34,14,25		9, 5
42″	9,17,40,53,43,46,16,18,49,21		40,46,16, 3	
		2, 4, 8,47,54,47,58,22		9, 5
44″	9,17,42,57,52,34,11, 6,47,43		40,46,25, 8	
		2, 4, 8,47,14, 1,33,14		9, 5
46″	9,17,45, 2, 1,21,25, 8,20,57		40,46,34,13	
		2, 4, 8,46,33,14,59, 1		9, 5
48″	9,17,47, 6,10, 7,58,23,19,58		40,46,43,18	
		2, 4, 8,45,52,28,15,43		9, 5
50″	9,17,49,10,18,53,50,51,35,41		40,46,52,23	
		2, 4, 8,45,11,41,23,20		9, 5
52″	9,17,51,14,27,39, 2,32,59, 1		40,47, 1,28	
		2, 4, 8,44,30,54,21,52		9, 5
54″	9,17,53,18,36,23,33,27,20,53		40,47,10,33	
		2, 4, 8,43,50, 7,11,19		9, 5
56″	9,17,55,22,45, 7,23,34,32,12		40,47,19,38	
		2, 4, 8,43, 9,19,51,41		9, 5
58″	9,17,57,26,53,50,32,54,23,53		40,47,28,43	
		2, 4, 8,42,28,32,22,58		
60″	9,17,59,31, 2,33, 1,26,46,51			
exact	9,17,59,31, 2,33, 1,27,14, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°55′ 0″	9,17,59,31, 2,33, 1,27,14, 4			
		2, 4, 8,41,47,44,48, 9		
2″	9,18, 1,35,11,14,49,12, 2,13		40,47,46,40	
		2, 4, 8,41, 6,57, 1,29		9, 5
4″	9,18, 3,39,19,55,56, 9, 3,42		40,47,55,45	
		2, 4, 8,40,26, 9, 5,44		9, 5
6″	9,18, 5,43,28,36,22,18, 9,26		40,48, 4,50	
		2, 4, 8,39,45,21, 0,54		9, 5
8″	9,18, 7,47,37,16, 7,39,10,20		40,48,13,55	
		2, 4, 8,39, 4,32,46,59		9, 5
10″	9,18, 9,51,45,55,12,11,57,19		40,48,23, 0	
		2, 4, 8,38,23,44,23,59		9, 5
12″	9,18,11,55,54,33,35,56,21,18		40,48,32, 5	
		2, 4, 8,37,42,55,51,54		9, 5
14″	9,18,14, 0, 3,11,18,52,13,12		40,48,41,10	
		2, 4, 8,37, 2, 7,10,44		9, 5
16″	9,18,16, 4,11,48,20,59,23,56		40,48,50,15	
		2, 4, 8,36,21,18,20,29		9, 5
18″	9,18,18, 8,20,24,42,17,44,25		40,48,59,20	
		2, 4, 8,35,40,29,21, 9		9, 5
20″	9,18,20,12,29, 0,22,47, 5,34		40,49, 8,25	
		2, 4, 8,34,59,40,12,44		9, 5
22″	9,18,22,16,37,35,22,27,18,18		40,49,17,30	
		2, 4, 8,34,18,50,55,14		9, 5
24″	9,18,24,20,46, 9,41,18,13,32		40,49,26,35	
		2, 4, 8,33,38, 1,28,39		9, 5
26″	9,18,26,24,54,43,19,19,42,11		40,49,35,40	
		2, 4, 8,32,57,11,52,59		9, 5
28″	9,18,28,29, 3,16,16,31,35,10		40,49,44,45	
		2, 4, 8,32,16,22, 8,14		9, 5
30″	9,18,30,33,11,48,32,53,43,24		40,49,53,50	
		2, 4, 8,31,35,32,14,24		9, 5
32″	9,18,32,37,20,20, 8,25,57,48		40,50, 2,55	
		2, 4, 8,30,54,42,11,29		9, 5
34″	9,18,34,41,28,51, 3, 8, 9,17		40,50,12, 0	
		2, 4, 8,30,13,51,59,29		9, 5
36″	9,18,36,45,37,21,17, 0, 8,46		40,50,21, 5	
		2, 4, 8,29,33, 1,38,24		9, 5
38″	9,18,38,49,45,50,50, 1,47,10		40,50,30,10	
		2, 4, 8,28,52,11, 8,14		9, 5
40″	9,18,40,53,54,19,42,12,55,24		40,50,39,15	
		2, 4, 8,28,11,20,28,59		9, 5
42″	9,18,42,58, 2,47,53,33,24,23		40,50,48,20	
		2, 4, 8,27,30,29,40,39		9, 5
44″	9,18,45, 2,11,15,24, 3, 5, 2		40,50,57,25	
		2, 4, 8,26,49,38,43,14		9, 5
46″	9,18,47, 6,19,42,13,41,48,16		40,51, 6,30	
		2, 4, 8,26, 8,47,36,44		9, 5
48″	9,18,49,10,28, 8,22,29,25, 0		40,51,15,35	
		2, 4, 8,25,27,56,21, 9		9, 5
50″	9,18,51,14,36,33,50,25,46, 9		40,51,24,40	
		2, 4, 8,24,47, 4,56,29		9, 5
52″	9,18,53,18,44,58,37,30,42,38		40,51,33,45	
		2, 4, 8,24, 6,13,22,44		9, 5
54″	9,18,55,22,53,22,43,44, 5,22		40,51,42,50	
		2, 4, 8,23,25,21,39,54		9, 5
56″	9,18,57,27, 1,46, 9, 5,45,16		40,51,51,55	
		2, 4, 8,22,44,29,47,59		9, 5
58″	9,18,59,31,10, 8,53,35,33,15		40,52, 1, 0	
		2, 4, 8,22, 3,37,46,59		
60″	9,19, 1,35,18,30,57,13,20,14			
exact	9,19, 1,35,18,30,57,13,47,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°56′ 0″	9,19, 1,35,18,30,57,13,47,48			
		2, 4, 8,21,22,45,39,58		
2″	9,19, 3,39,26,52,19,59,27,46		40,52,18,57	
		2, 4, 8,20,41,53,21, 1		9, 5
4″	9,19, 5,43,35,13, 1,52,48,47		40,52,28, 2	
		2, 4, 8,20, 1, 0,52,59		9, 5
6″	9,19, 7,47,43,33, 2,53,41,46		40,52,37, 7	
		2, 4, 8,19,20, 8,15,52		9, 5
8″	9,19, 9,51,51,52,23, 1,57,38		40,52,46,12	
		2, 4, 8,18,39,15,29,40		9, 5
10″	9,19,11,56, 0,11, 2,17,27,18		40,52,55,17	
		2, 4, 8,17,58,22,34,23		9, 5
12″	9,19,14, 0, 8,29, 0,40, 1,41		40,53, 4,22	
		2, 4, 8,17,17,29,30, 1		9, 5
14″	9,19,16, 4,16,46,18, 9,31,42		40,53,13,27	
		2, 4, 8,16,36,36,16,34		9, 5
16″	9,19,18, 8,25, 2,54,45,48,16		40,53,22,32	
		2, 4, 8,15,55,42,54, 2		9, 5
18″	9,19,20,12,33,18,50,28,42,18		40,53,31,37	
		2, 4, 8,15,14,49,22,25		9, 5
20″	9,19,22,16,41,34, 5,18, 4,43		40,53,40,42	
		2, 4, 8,14,33,55,41,43		9, 5
22″	9,19,24,20,49,48,39,13,46,26		40,53,49,47	
		2, 4, 8,13,53, 1,51,56		9, 5
24″	9,19,26,24,58, 2,32,15,38,22		40,53,58,52	
		2, 4, 8,13,12, 7,53, 4		9, 5
26″	9,19,28,29, 6,15,44,23,31,26		40,54, 7,57	
		2, 4, 8,12,31,13,45, 7		9, 5
28″	9,19,30,33,14,28,15,37,16,33		40,54,17, 2	
		2, 4, 8,11,50,19,28, 5		9, 5
30″	9,19,32,37,22,40, 5,56,44,38		40,54,26, 7	
		2, 4, 8,11, 9,25, 1,58		9, 5
32″	9,19,34,41,30,51,15,21,46,36		40,54,35,12	
		2, 4, 8,10,28,30,26,46		9, 5
34″	9,19,36,45,39, 1,43,52,13,22		40,54,44,17	
		2, 4, 8, 9,47,35,42,29		9, 5
36″	9,19,38,49,47,11,31,27,55,51		40,54,53,22	
		2, 4, 8, 9, 6,40,49, 7		9, 5
38″	9,19,40,53,55,20,38, 8,44,58		40,55, 2,27	
		2, 4, 8, 8,25,45,46,40		9, 5
40″	9,19,42,58, 3,29, 3,54,31,38		40,55,11,32	
		2, 4, 8, 7,44,50,35, 8		9, 5
42″	9,19,45, 2,11,36,48,45, 6,46		40,55,20,37	
		2, 4, 8, 7, 3,55,14,31		9, 5
44″	9,19,47, 6,19,43,52,40,21,17		40,55,29,42	
		2, 4, 8, 6,22,59,44,49		9, 5
46″	9,19,49,10,27,50,15,40, 6, 6		40,55,38,47	
		2, 4, 8, 5,42, 4, 6, 2		9, 5
48″	9,19,51,14,35,55,57,44,12, 8		40,55,47,52	
		2, 4, 8, 5, 1, 8,18,10		9, 5
50″	9,19,53,18,44, 0,58,52,30,18		40,55,56,57	
		2, 4, 8, 4,20,12,21,13		9, 5
52″	9,19,55,22,52, 5,19, 4,51,31		40,56, 6, 2	
		2, 4, 8, 3,39,16,15,11		9, 5
54″	9,19,57,27, 0, 8,58,21, 6,42		40,56,15, 7	
		2, 4, 8, 2,58,20, 0, 4		9, 5
56″	9,19,59,31, 8,11,56,41, 6,46		40,56,24,12	
		2, 4, 8, 2,17,23,35,52		9, 5
58″	9,20, 1,35,16,14,14, 4,42,38		40,56,33,17	
		2, 4, 8, 1,36,27, 2,35		
60″	9,20, 3,39,24,15,50,31,45,13			
exact	9,20, 3,39,24,15,50,32,18,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°57′ 0″	9,20, 3,39,24,15,50,32,18,47			
		2, 4, 8, 0,55,30,23,45		
2″	9,20, 5,43,32,16,46, 2,42,32		40,56,51,12	
		2, 4, 8, 0,14,33,32,33		9, 5
4″	9,20, 7,47,40,17, 0,36,15, 5		40,57, 0,17	
		2, 4, 7,59,33,36,32,16		9, 5
6″	9,20, 9,51,48,16,34,12,47,21		40,57, 9,22	
		2, 4, 7,58,52,39,22,54		9, 5
8″	9,20,11,55,56,15,26,52,10,15		40,57,18,27	
		2, 4, 7,58,11,42, 4,27		9, 5
10″	9,20,14, 0, 4,13,38,34,14,42		40,57,27,32	
		2, 4, 7,57,30,44,36,55		9, 5
12″	9,20,16, 4,12,11, 9,18,51,37		40,57,36,37	
		2, 4, 7,56,49,47, 0,18		9, 5
14″	9,20,18, 8,20, 7,59, 5,51,55		40,57,45,42	
		2, 4, 7,56, 8,49,14,36		9, 5
16″	9,20,20,12,28, 4, 7,55, 6,31		40,57,54,47	
		2, 4, 7,55,27,51,19,49		9, 5
18″	9,20,22,16,35,59,35,46,26,20		40,58, 3,52	
		2, 4, 7,54,46,53,15,57		9, 5
20″	9,20,24,20,43,54,22,39,42,17		40,58,12,57	
		2, 4, 7,54, 5,55, 3, 0		9, 5
22″	9,20,26,24,51,48,28,34,45,17		40,58,22, 2	
		2, 4, 7,53,24,56,40,58		9, 5
24″	9,20,28,28,59,41,53,31,26,15		40,58,31, 7	
		2, 4, 7,52,43,58, 9,51		9, 5
26″	9,20,30,33, 7,34,37,29,36, 6		40,58,40,12	
		2, 4, 7,52, 2,59,29,39		9, 5
28″	9,20,32,37,15,26,40,29, 5,45		40,58,49,17	
		2, 4, 7,51,22, 0,40,22		9, 5
30″	9,20,34,41,23,18, 2,29,46, 7		40,58,58,22	
		2, 4, 7,50,41, 1,42, 0		9, 5
32″	9,20,36,45,31, 8,43,31,28, 7		40,59, 7,27	
		2, 4, 7,50, 0, 2,34,33		9, 5
34″	9,20,38,49,38,58,43,34, 2,40		40,59,16,32	
		2, 4, 7,49,19, 3,18, 1		9, 5
36″	9,20,40,53,46,48, 2,37,20,41		40,59,25,37	
		2, 4, 7,48,38, 3,52,24		9, 5
38″	9,20,42,57,54,36,40,41,13, 5		40,59,34,42	
		2, 4, 7,47,57, 4,17,42		9, 5
40″	9,20,45, 2, 2,24,37,45,30,47		40,59,43,47	
		2, 4, 7,47,16, 4,33,55		9, 5
42″	9,20,47, 6,10,11,53,50, 4,42		40,59,52,52	
		2, 4, 7,46,35, 4,41, 3		9, 5
44″	9,20,49,10,17,58,28,54,45,45		41, 0, 1,57	
		2, 4, 7,45,54, 4,39, 6		9, 5
46″	9,20,51,14,25,44,22,59,24,51		41, 0,11, 2	
		2, 4, 7,45,13, 4,28, 4		9, 5
48″	9,20,53,18,33,29,36, 3,52,55		41, 0,20, 7	
		2, 4, 7,44,32, 4, 7,57		9, 5
50″	9,20,55,22,41,14, 8, 8, 0,52		41, 0,29,12	
		2, 4, 7,43,51, 3,38,45		9, 5
52″	9,20,57,26,48,57,59,11,39,37		41, 0,38,17	
		2, 4, 7,43,10, 3, 0,28		9, 5
54″	9,20,59,30,56,41, 9,14,40, 5		41, 0,47,22	
		2, 4, 7,42,29, 2,13, 6		9, 5
56″	9,21, 1,35, 4,23,38,16,53,11		41, 0,56,27	
		2, 4, 7,41,48, 1,16,39		9, 5
58″	9,21, 3,39,12, 5,26,18, 9,50		41, 1, 5,32	
		2, 4, 7,41, 7, 0,11, 7		
60″	9,21, 5,43,19,46,33,18,20,57			
exact	9,21, 5,43,19,46,33,18,51,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°58′ 0″	9,21, 5,43,19,46,33,18,51,19			
		2, 4, 7,40,25,58,59,53		
2″	9,21, 7,47,27,26,59,17,51,12		41, 1,23,27	
		2, 4, 7,39,44,57,36,26		9, 4
4″	9,21, 9,51,35, 6,44,15,27,38		41, 1,32,31	
		2, 4, 7,39, 3,56, 3,55		9, 4
6″	9,21,11,55,42,45,48,11,31,33		41, 1,41,35	
		2, 4, 7,38,22,54,22,20		9, 4
8″	9,21,13,59,50,24,11, 5,53,53		41, 1,50,39	
		2, 4, 7,37,41,52,31,41		9, 4
10″	9,21,16, 3,58, 1,52,58,25,34		41, 1,59,43	
		2, 4, 7,37, 0,50,31,58		9, 4
12″	9,21,18, 8, 5,38,53,48,57,32		41, 2, 8,47	
		2, 4, 7,36,19,48,23,11		9, 4
14″	9,21,20,12,13,15,13,37,20,43		41, 2,17,51	
		2, 4, 7,35,38,46, 5,20		9, 4
16″	9,21,22,16,20,50,52,23,26, 3		41, 2,26,55	
		2, 4, 7,34,57,43,38,25		9, 4
18″	9,21,24,20,28,25,50, 7, 4,28		41, 2,35,59	
		2, 4, 7,34,16,41, 2,26		9, 4
20″	9,21,26,24,36, 0, 6,48, 6,54		41, 2,45, 3	
		2, 4, 7,33,35,38,17,23		9, 4
22″	9,21,28,28,43,33,42,26,24,17		41, 2,54, 7	
		2, 4, 7,32,54,35,23,16		9, 4
24″	9,21,30,32,51, 6,37, 1,47,33		41, 3, 3,11	
		2, 4, 7,32,13,32,20, 5		9, 4
26″	9,21,32,36,58,38,50,34, 7,38		41, 3,12,15	
		2, 4, 7,31,32,29, 7,50		9, 4
28″	9,21,34,41, 6,10,23, 3,15,28		41, 3,21,19	
		2, 4, 7,30,51,25,46,31		9, 4
30″	9,21,36,45,13,41,14,29, 1,59		41, 3,30,23	
		2, 4, 7,30,10,22,16, 8		9, 4
32″	9,21,38,49,21,11,24,51,18, 7		41, 3,39,27	
		2, 4, 7,29,29,18,36,41		9, 4
34″	9,21,40,53,28,40,54, 9,54,48		41, 3,48,31	
		2, 4, 7,28,48,14,48,10		9, 4
36″	9,21,42,57,36, 9,42,24,42,58		41, 3,57,35	
		2, 4, 7,28, 7,10,50,35		9, 4
38″	9,21,45, 1,43,37,49,35,33,33		41, 4, 6,39	
		2, 4, 7,27,26, 6,43,56		9, 4
40″	9,21,47, 5,51, 5,15,42,17,29		41, 4,15,43	
		2, 4, 7,26,45, 2,28,13		9, 4
42″	9,21,49, 9,58,32, 0,44,45,42		41, 4,24,47	
		2, 4, 7,26, 3,58, 3,26		9, 4
44″	9,21,51,14, 5,58, 4,42,49, 8		41, 4,33,51	
		2, 4, 7,25,22,53,29,35		9, 4
46″	9,21,53,18,13,23,27,36,18,43		41, 4,42,55	
		2, 4, 7,24,41,48,46,40		9, 4
48″	9,21,55,22,20,48, 9,25, 5,23		41, 4,51,59	
		2, 4, 7,24, 0,43,54,41		9, 4
50″	9,21,57,26,28,12,10, 9, 0, 4		41, 5, 1, 3	
		2, 4, 7,23,19,38,53,38		9, 4
52″	9,21,59,30,35,35,29,47,53,42		41, 5,10, 7	
		2, 4, 7,22,38,33,43,31		9, 4
54″	9,22, 1,34,42,58, 8,21,37,13		41, 5,19,11	
		2, 4, 7,21,57,28,24,20		9, 4
56″	9,22, 3,38,50,20, 5,50, 1,33		41, 5,28,15	
		2, 4, 7,21,16,22,56, 5		9, 4
58″	9,22, 5,42,57,41,22,12,57,38		41, 5,37,19	
		2, 4, 7,20,35,17,18,46		
60″	9,22, 7,47, 5, 1,57,30,16,24			
exact	9,22, 7,47, 5, 1,57,29,40,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
8°59′ 0″	9,22, 7,47, 5, 1,57,29,40,57			
		2, 4, 7,19,54,11,28,43		
2″	9,22, 9,51,12,21,51,41, 9,40		41, 5,55,42	
		2, 4, 7,19,13, 5,33, 1		9, 4
4″	9,22,11,55,19,41, 4,46,42,41		41, 6, 4,46	
		2, 4, 7,18,31,59,28,15		9, 4
6″	9,22,13,59,26,59,36,46,10,56		41, 6,13,50	
		2, 4, 7,17,50,53,14,25		9, 4
8″	9,22,16, 3,34,17,27,39,25,21		41, 6,22,54	
		2, 4, 7,17, 9,46,51,31		9, 4
10″	9,22,18, 7,41,34,37,26,16,52		41, 6,31,58	
		2, 4, 7,16,28,40,19,33		9, 4
12″	9,22,20,11,48,51, 6, 6,36,25		41, 6,41, 2	
		2, 4, 7,15,47,33,38,31		9, 4
14″	9,22,22,15,56, 6,53,40,14,56		41, 6,50, 6	
		2, 4, 7,15, 6,26,48,25		9, 4
16″	9,22,24,20, 3,22, 0, 7, 3,21		41, 6,59,10	
		2, 4, 7,14,25,19,49,15		9, 4
18″	9,22,26,24,10,36,25,26,52,36		41, 7, 8,14	
		2, 4, 7,13,44,12,41, 1		9, 4
20″	9,22,28,28,17,50, 9,39,33,37		41, 7,17,18	
		2, 4, 7,13, 3, 5,23,43		9, 4
22″	9,22,30,32,25, 3,12,44,57,20		41, 7,26,22	
		2, 4, 7,12,21,57,57,21		9, 4
24″	9,22,32,36,32,15,34,42,54,41		41, 7,35,26	
		2, 4, 7,11,40,50,21,55		9, 4
26″	9,22,34,40,39,27,15,33,16,36		41, 7,44,30	
		2, 4, 7,10,59,42,37,25		9, 4
28″	9,22,36,44,46,38,15,15,54, 1		41, 7,53,34	
		2, 4, 7,10,18,34,43,51		9, 4
30″	9,22,38,48,53,48,33,50,37,52		41, 8, 2,38	
		2, 4, 7, 9,37,26,41,13		9, 4
32″	9,22,40,53, 0,58,11,17,19, 5		41, 8,11,42	
		2, 4, 7, 8,56,18,29,31		9, 4
34″	9,22,42,57, 8, 7, 7,35,48,36		41, 8,20,46	
		2, 4, 7, 8,15,10, 8,45		9, 4
36″	9,22,45, 1,15,15,22,45,57,21		41, 8,29,50	
		2, 4, 7, 7,34, 1,38,55		9, 4
38″	9,22,47, 5,22,22,56,47,36,16		41, 8,38,54	
		2, 4, 7, 6,52,53, 0, 1		9, 4
40″	9,22,49, 9,29,29,49,40,36,17		41, 8,47,58	
		2, 4, 7, 6,11,44,12, 3		9, 4
42″	9,22,51,13,36,36, 1,24,48,20		41, 8,57, 2	
		2, 4, 7, 5,30,35,15, 1		9, 4
44″	9,22,53,17,43,41,32, 0, 3,21		41, 9, 6, 6	
		2, 4, 7, 4,49,26, 8,55		9, 4
46″	9,22,55,21,50,46,21,26,12,16		41, 9,15,10	
		2, 4, 7, 4, 8,16,53,45		9, 4
48″	9,22,57,25,57,50,29,43, 6, 1		41, 9,24,14	
		2, 4, 7, 3,27, 7,29,31		9, 4
50″	9,22,59,30, 4,53,56,50,35,32		41, 9,33,18	
		2, 4, 7, 2,45,57,56,13		9, 4
52″	9,23, 1,34,11,56,42,48,31,45		41, 9,42,22	
		2, 4, 7, 2, 4,48,13,51		9, 4
54″	9,23, 3,38,18,58,47,36,45,36		41, 9,51,26	
		2, 4, 7, 1,23,38,22,25		9, 4
56″	9,23, 5,42,26, 0,11,15, 8, 1		41,10, 0,30	
		2, 4, 7, 0,42,28,21,55		9, 4
58″	9,23, 7,46,33, 0,53,43,29,56		41,10, 9,34	
		2, 4, 7, 0, 1,18,12,21		
60″	9,23, 9,50,40, 0,55, 1,42,17			
exact	9,23, 9,50,40, 0,55, 1,14,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9° 0′ 0″	9,23, 9,50,40, 0,55, 1,14,28			
		2, 4, 6,59,20, 7,50,38		
2″	9,23,11,54,47, 0,15, 9, 5, 6		41,10,27,55	
		2, 4, 6,58,38,57,22,43		9, 4
4″	9,23,13,58,53,58,54, 6,27,49		41,10,36,59	
		2, 4, 6,57,57,46,45,44		9, 4
6″	9,23,16, 3, 0,56,51,53,13,33		41,10,46, 3	
		2, 4, 6,57,16,35,59,41		9, 4
8″	9,23,18, 7, 7,54, 8,29,13,14		41,10,55, 7	
		2, 4, 6,56,35,25, 4,34		9, 4
10″	9,23,20,11,14,50,43,54,17,48		41,11, 4,11	
		2, 4, 6,55,54,14, 0,23		9, 4
12″	9,23,22,15,21,46,38, 8,18,11		41,11,13,15	
		2, 4, 6,55,13, 2,47, 8		9, 4
14″	9,23,24,19,28,41,51,11, 5,19		41,11,22,19	
		2, 4, 6,54,31,51,24,49		9, 4
16″	9,23,26,23,35,36,23, 2,30, 8		41,11,31,23	
		2, 4, 6,53,50,39,53,26		9, 4
18″	9,23,28,27,42,30,13,42,23,34		41,11,40,27	
		2, 4, 6,53, 9,28,12,59		9, 4
20″	9,23,30,31,49,23,23,10,36,33		41,11,49,31	
		2, 4, 6,52,28,16,23,28		9, 4
22″	9,23,32,35,56,15,51,27, 0, 1		41,11,58,35	
		2, 4, 6,51,47, 4,24,53		9, 4
24″	9,23,34,40, 3, 7,38,31,24,54		41,12, 7,39	
		2, 4, 6,51, 5,52,17,14		9, 4
26″	9,23,36,44, 9,58,44,23,42, 8		41,12,16,43	
		2, 4, 6,50,24,40, 0,31		9, 4
28″	9,23,38,48,16,49, 9, 3,42,39		41,12,25,47	
		2, 4, 6,49,43,27,34,44		9, 4
30″	9,23,40,52,23,38,52,31,17,23		41,12,34,51	
		2, 4, 6,49, 2,14,59,53		9, 4
32″	9,23,42,56,30,27,54,46,17,16		41,12,43,55	
		2, 4, 6,48,21, 2,15,58		9, 4
34″	9,23,45, 0,37,16,15,48,33,14		41,12,52,59	
		2, 4, 6,47,39,49,22,59		9, 4
36″	9,23,47, 4,44, 3,55,37,56,13		41,13, 2, 3	
		2, 4, 6,46,58,36,20,56		9, 4
38″	9,23,49, 8,50,50,54,14,17, 9		41,13,11, 7	
		2, 4, 6,46,17,23, 9,49		9, 4
40″	9,23,51,12,57,37,11,37,26,58		41,13,20,11	
		2, 4, 6,45,36, 9,49,38		9, 4
42″	9,23,53,17, 4,22,47,47,16,36		41,13,29,15	
		2, 4, 6,44,54,56,20,23		9, 4
44″	9,23,55,21,11, 7,42,43,36,59		41,13,38,19	
		2, 4, 6,44,13,42,42, 4		9, 4
46″	9,23,57,25,17,51,56,26,19, 3		41,13,47,23	
		2, 4, 6,43,32,28,54,41		9, 4
48″	9,23,59,29,24,35,28,55,13,44		41,13,56,27	
		2, 4, 6,42,51,14,58,14		9, 4
50″	9,24, 1,33,31,18,20,10,11,58		41,14, 5,31	
		2, 4, 6,42,10, 0,52,43		9, 4
52″	9,24, 3,37,38, 0,30,11, 4,41		41,14,14,35	
		2, 4, 6,41,28,46,38, 8		9, 4
54″	9,24, 5,41,44,41,58,57,42,49		41,14,23,39	
		2, 4, 6,40,47,32,14,29		9, 4
56″	9,24, 7,45,51,22,46,29,57,18		41,14,32,43	
		2, 4, 6,40, 6,17,41,46		9, 4
58″	9,24, 9,49,58, 2,52,47,39, 4		41,14,41,47	
		2, 4, 6,39,25, 2,59,59		
60″	9,24,11,54, 4,42,17,50,39, 3			
exact	9,24,11,54, 4,42,17,50, 9,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9° 1′ 0″	9,24,11,54, 4,42,17,50, 9,56			
		2, 4, 6,38,43,48, 6, 2		
2″	9,24,13,58,11,21, 1,38,15,58		41,15, 0, 8	
		2, 4, 6,38, 2,33, 5,54		9, 4
4″	9,24,16, 2,17,59, 4,11,21,52		41,15, 9,12	
		2, 4, 6,37,21,17,56,42		9, 4
6″	9,24,18, 6,24,36,25,29,18,34		41,15,18,16	
		2, 4, 6,36,40, 2,38,26		9, 4
8″	9,24,20,10,31,13, 5,31,57, 0		41,15,27,20	
		2, 4, 6,35,58,47,11, 6		9, 4
10″	9,24,22,14,37,49, 4,19, 8, 6		41,15,36,24	
		2, 4, 6,35,17,31,34,42		9, 4
12″	9,24,24,18,44,24,21,50,42,48		41,15,45,28	
		2, 4, 6,34,36,15,49,14		9, 4
14″	9,24,26,22,50,58,58, 6,32, 2		41,15,54,32	
		2, 4, 6,33,54,59,54,42		9, 4
16″	9,24,28,26,57,32,53, 6,26,44		41,16, 3,36	
		2, 4, 6,33,13,43,51, 6		9, 4
18″	9,24,30,31, 4, 6, 6,50,17,50		41,16,12,40	
		2, 4, 6,32,32,27,38,26		9, 4
20″	9,24,32,35,10,38,39,17,56,16		41,16,21,44	
		2, 4, 6,31,51,11,16,42		9, 4
22″	9,24,34,39,17,10,30,29,12,58		41,16,30,48	
		2, 4, 6,31, 9,54,45,54		9, 4
24″	9,24,36,43,23,41,40,23,58,52		41,16,39,52	
		2, 4, 6,30,28,38, 6, 2		9, 4
26″	9,24,38,47,30,12, 9, 2, 4,54		41,16,48,56	
		2, 4, 6,29,47,21,17, 6		9, 4
28″	9,24,40,51,36,41,56,23,22, 0		41,16,58, 0	
		2, 4, 6,29, 6, 4,19, 6		9, 4
30″	9,24,42,55,43,11, 2,27,41, 6		41,17, 7, 4	
		2, 4, 6,28,24,47,12, 2		9, 4
32″	9,24,44,59,49,39,27,14,53, 8		41,17,16, 8	
		2, 4, 6,27,43,29,55,54		9, 4
34″	9,24,47, 3,56, 7,10,44,49, 2		41,17,25,12	
		2, 4, 6,27, 2,12,30,42		9, 4
36″	9,24,49, 8, 2,34,12,57,19,44		41,17,34,16	
		2, 4, 6,26,20,54,56,26		9, 4
38″	9,24,51,12, 9, 0,33,52,16,10		41,17,43,20	
		2, 4, 6,25,39,37,13, 6		9, 4
40″	9,24,53,16,15,26,13,29,29,16		41,17,52,24	
		2, 4, 6,24,58,19,20,42		9, 4
42″	9,24,55,20,21,51,11,48,49,58		41,18, 1,28	
		2, 4, 6,24,17, 1,19,14		9, 4
44″	9,24,57,24,28,15,28,50, 9,12		41,18,10,32	
		2, 4, 6,23,35,43, 8,42		9, 4
46″	9,24,59,28,34,39, 4,33,17,54		41,18,19,36	
		2, 4, 6,22,54,24,49, 6		9, 4
48″	9,25, 1,32,41, 1,58,58, 7, 0		41,18,28,40	
		2, 4, 6,22,13, 6,20,26		9, 4
50″	9,25, 3,36,47,24,12, 4,27,26		41,18,37,44	
		2, 4, 6,21,31,47,42,42		9, 4
52″	9,25, 5,40,53,45,43,52,10, 8		41,18,46,48	
		2, 4, 6,20,50,28,55,54		9, 4
54″	9,25, 7,45, 0, 6,34,21, 6, 2		41,18,55,52	
		2, 4, 6,20, 9,10, 0, 2		9, 4
56″	9,25, 9,49, 6,26,43,31, 6, 4		41,19, 4,56	
		2, 4, 6,19,27,50,55, 6		9, 4
58″	9,25,11,53,12,46,11,22, 1,10		41,19,14, 0	
		2, 4, 6,18,46,31,41, 6		
60″	9,25,13,57,19, 4,57,53,42,16			
exact	9,25,13,57,19, 4,57,53,16,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9° 2′ 0″	9,25,13,57,19, 4,57,53,16,42			
		2, 4, 6,18, 5,12,15,15		
2″	9,25,16, 1,25,23, 3, 5,31,57		41,19,32,20	
		2, 4, 6,17,23,52,42,55		9, 4
4″	9,25,18, 5,31,40,26,58,14,52		41,19,41,24	
		2, 4, 6,16,42,33, 1,31		9, 4
6″	9,25,20, 9,37,57, 9,31,16,23		41,19,50,28	
		2, 4, 6,16, 1,13,11, 3		9, 4
8″	9,25,22,13,44,13,10,44,27,26		41,19,59,32	
		2, 4, 6,15,19,53,11,31		9, 4
10″	9,25,24,17,50,28,30,37,38,57		41,20, 8,36	
		2, 4, 6,14,38,33, 2,55		9, 4
12″	9,25,26,21,56,43, 9,10,41,52		41,20,17,40	
		2, 4, 6,13,57,12,45,15		9, 4
14″	9,25,28,26, 2,57, 6,23,27, 7		41,20,26,44	
		2, 4, 6,13,15,52,18,31		9, 4
16″	9,25,30,30, 9,10,22,15,45,38		41,20,35,48	
		2, 4, 6,12,34,31,42,43		9, 4
18″	9,25,32,34,15,22,56,47,28,21		41,20,44,52	
		2, 4, 6,11,53,10,57,51		9, 4
20″	9,25,34,38,21,34,49,58,26,12		41,20,53,56	
		2, 4, 6,11,11,50, 3,55		9, 4
22″	9,25,36,42,27,46, 1,48,30, 7		41,21, 3, 0	
		2, 4, 6,10,30,29, 0,55		9, 4
24″	9,25,38,46,33,56,32,17,31, 2		41,21,12, 4	
		2, 4, 6, 9,49, 7,48,51		9, 4
26″	9,25,40,50,40, 6,21,25,19,53		41,21,21, 8	
		2, 4, 6, 9, 7,46,27,43		9, 4
28″	9,25,42,54,46,15,29,11,47,36		41,21,30,12	
		2, 4, 6, 8,26,24,57,31		9, 4
30″	9,25,44,58,52,23,55,36,45, 7		41,21,39,16	
		2, 4, 6, 7,45, 3,18,15		9, 4
32″	9,25,47, 2,58,31,40,40, 3,22		41,21,48,20	
		2, 4, 6, 7, 3,41,29,55		9, 4
34″	9,25,49, 7, 4,38,44,21,33,17		41,21,57,24	
		2, 4, 6, 6,22,19,32,31		9, 4
36″	9,25,51,11,10,45, 6,41, 5,48		41,22, 6,28	
		2, 4, 6, 5,40,57,26, 3		9, 4
38″	9,25,53,15,16,50,47,38,31,51		41,22,15,32	
		2, 4, 6, 4,59,35,10,31		9, 4
40″	9,25,55,19,22,55,47,13,42,22		41,22,24,36	
		2, 4, 6, 4,18,12,45,55		9, 4
42″	9,25,57,23,29, 0, 5,26,28,17		41,22,33,40	
		2, 4, 6, 3,36,50,12,15		9, 4
44″	9,25,59,27,35, 3,42,16,40,32		41,22,42,44	
		2, 4, 6, 2,55,27,29,31		9, 4
46″	9,26, 1,31,41, 6,37,44,10, 3		41,22,51,48	
		2, 4, 6, 2,14, 4,37,43		9, 4
48″	9,26, 3,35,47, 8,51,48,47,46		41,23, 0,52	
		2, 4, 6, 1,32,41,36,51		9, 4
50″	9,26, 5,39,53,10,24,30,24,37		41,23, 9,56	
		2, 4, 6, 0,51,18,26,55		9, 4
52″	9,26, 7,43,59,11,15,48,51,32		41,23,19, 0	
		2, 4, 6, 0, 9,55, 7,55		9, 4
54″	9,26, 9,48, 5,11,25,43,59,27		41,23,28, 4	
		2, 4, 5,59,28,31,39,51		9, 4
56″	9,26,11,52,11,10,54,15,39,18		41,23,37, 8	
		2, 4, 5,58,47, 8, 2,43		9, 4
58″	9,26,13,56,17, 9,41,23,42, 1		41,23,46,12	
		2, 4, 5,58, 5,44,16,31		
60″	9,26,16, 0,23, 7,47, 7,58,32			
exact	9,26,16, 0,23, 7,47, 7,35,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9° 3′ 0″	9,26,16, 0,23, 7,47, 7,35,24			
		2, 4, 5,57,24,20,18,41		
2″	9,26,18, 4,29, 5,11,27,54, 5		41,24, 4,31	
		2, 4, 5,56,42,56,14,10		9, 4
4″	9,26,20, 8,35, 1,54,24, 8,15		41,24,13,35	
		2, 4, 5,56, 1,32, 0,35		9, 4
6″	9,26,22,12,40,57,55,56, 8,50		41,24,22,39	
		2, 4, 5,55,20, 7,37,56		9, 4
8″	9,26,24,16,46,53,16, 3,46,46		41,24,31,43	
		2, 4, 5,54,38,43, 6,13		9, 4
10″	9,26,26,20,52,47,54,46,52,59		41,24,40,47	
		2, 4, 5,53,57,18,25,26		9, 4
12″	9,26,28,24,58,41,52, 5,18,25		41,24,49,51	
		2, 4, 5,53,15,53,35,35		9, 4
14″	9,26,30,29, 4,35, 7,58,54, 0		41,24,58,55	
		2, 4, 5,52,34,28,36,40		9, 4
16″	9,26,32,33,10,27,42,27,30,40		41,25, 7,59	
		2, 4, 5,51,53, 3,28,41		9, 4
18″	9,26,34,37,16,19,35,30,59,21		41,25,17, 3	
		2, 4, 5,51,11,38,11,38		9, 4
20″	9,26,36,41,22,10,47, 9,10,59		41,25,26, 7	
		2, 4, 5,50,30,12,45,31		9, 4
22″	9,26,38,45,28, 1,17,21,56,30		41,25,35,11	
		2, 4, 5,49,48,47,10,20		9, 4
24″	9,26,40,49,33,51, 6, 9, 6,50		41,25,44,15	
		2, 4, 5,49, 7,21,26, 5		9, 4
26″	9,26,42,53,39,40,13,30,32,55		41,25,53,19	
		2, 4, 5,48,25,55,32,46		9, 4
28″	9,26,44,57,45,28,39,26, 5,41		41,26, 2,23	
		2, 4, 5,47,44,29,30,23		9, 4
30″	9,26,47, 1,51,16,23,55,36, 4		41,26,11,27	
		2, 4, 5,47, 3, 3,18,56		9, 4
32″	9,26,49, 5,57, 3,26,58,55, 0		41,26,20,31	
		2, 4, 5,46,21,36,58,25		9, 4
34″	9,26,51,10, 2,49,48,35,53,25		41,26,29,35	
		2, 4, 5,45,40,10,28,50		9, 4
36″	9,26,53,14, 8,35,28,46,22,15		41,26,38,39	
		2, 4, 5,44,58,43,50,11		9, 4
38″	9,26,55,18,14,20,27,30,12,26		41,26,47,43	
		2, 4, 5,44,17,17, 2,28		9, 4
40″	9,26,57,22,20, 4,44,47,14,54		41,26,56,47	
		2, 4, 5,43,35,50, 5,41		9, 4
42″	9,26,59,26,25,48,20,37,20,35		41,27, 5,51	
		2, 4, 5,42,54,22,59,50		9, 4
44″	9,27, 1,30,31,31,15, 0,20,25		41,27,14,55	
		2, 4, 5,42,12,55,44,55		9, 4
46″	9,27, 3,34,37,13,27,56, 5,20		41,27,23,59	
		2, 4, 5,41,31,28,20,56		9, 4
48″	9,27, 5,38,42,54,59,24,26,16		41,27,33, 3	
		2, 4, 5,40,50, 0,47,53		9, 4
50″	9,27, 7,42,48,35,49,25,14, 9		41,27,42, 7	
		2, 4, 5,40, 8,33, 5,46		9, 4
52″	9,27, 9,46,54,15,57,58,19,55		41,27,51,11	
		2, 4, 5,39,27, 5,14,35		9, 4
54″	9,27,11,50,59,55,25, 3,34,30		41,28, 0,15	
		2, 4, 5,38,45,37,14,20		9, 4
56″	9,27,13,55, 5,34,10,40,48,50		41,28, 9,19	
		2, 4, 5,38, 4, 9, 5, 1		9, 4
58″	9,27,15,59,11,12,14,49,53,51		41,28,18,23	
		2, 4, 5,37,22,40,46,38		
60″	9,27,18, 3,16,49,37,30,40,29			
exact	9,27,18, 3,16,49,37,30,18, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9° 4′ 0″	9,27,18, 3,16,49,37,30,18, 2			
		2, 4, 5,36,41,12,16,44		
2″	9,27,20, 7,22,26,18,42,34,46		41,28,36,41	
		2, 4, 5,35,59,43,40, 3		9, 4
4″	9,27,22,11,28, 2,18,26,14,49		41,28,45,45	
		2, 4, 5,35,18,14,54,18		9, 4
6″	9,27,24,15,33,37,36,41, 9, 7		41,28,54,49	
		2, 4, 5,34,36,45,59,29		9, 4
8″	9,27,26,19,39,12,13,27, 8,36		41,29, 3,53	
		2, 4, 5,33,55,16,55,36		9, 4
10″	9,27,28,23,44,46, 8,44, 4,12		41,29,12,57	
		2, 4, 5,33,13,47,42,39		9, 4
12″	9,27,30,27,50,19,22,31,46,51		41,29,22, 1	
		2, 4, 5,32,32,18,20,38		9, 4
14″	9,27,32,31,55,51,54,50, 7,29		41,29,31, 5	
		2, 4, 5,31,50,48,49,33		9, 4
16″	9,27,34,36, 1,23,45,38,57, 2		41,29,40, 9	
		2, 4, 5,31, 9,19, 9,24		9, 4
18″	9,27,36,40, 6,54,54,58, 6,26		41,29,49,13	
		2, 4, 5,30,27,49,20,11		9, 4
20″	9,27,38,44,12,25,22,47,26,37		41,29,58,17	
		2, 4, 5,29,46,19,21,54		9, 4
22″	9,27,40,48,17,55, 9, 6,48,31		41,30, 7,21	
		2, 4, 5,29, 4,49,14,33		9, 4
24″	9,27,42,52,23,24,13,56, 3, 4		41,30,16,25	
		2, 4, 5,28,23,18,58, 8		9, 4
26″	9,27,44,56,28,52,37,15, 1,12		41,30,25,29	
		2, 4, 5,27,41,48,32,39		9, 4
28″	9,27,47, 0,34,20,19, 3,33,51		41,30,34,33	
		2, 4, 5,27, 0,17,58, 6		9, 4
30″	9,27,49, 4,39,47,19,21,31,57		41,30,43,37	
		2, 4, 5,26,18,47,14,29		9, 4
32″	9,27,51, 8,45,13,38, 8,46,26		41,30,52,41	
		2, 4, 5,25,37,16,21,48		9, 4
34″	9,27,53,12,50,39,15,25, 8,14		41,31, 1,45	
		2, 4, 5,24,55,45,20, 3		9, 4
36″	9,27,55,16,56, 4,11,10,28,17		41,31,10,49	
		2, 4, 5,24,14,14, 9,14		9, 4
38″	9,27,57,21, 1,28,25,24,37,31		41,31,19,53	
		2, 4, 5,23,32,42,49,21		9, 4
40″	9,27,59,25, 6,51,58, 7,26,52		41,31,28,57	
		2, 4, 5,22,51,11,20,24		9, 4
42″	9,28, 1,29,12,14,49,18,47,16		41,31,38, 1	
		2, 4, 5,22, 9,39,42,23		9, 4
44″	9,28, 3,33,17,36,58,58,29,39		41,31,47, 5	
		2, 4, 5,21,28, 7,55,18		9, 4
46″	9,28, 5,37,22,58,27, 6,24,57		41,31,56, 9	
		2, 4, 5,20,46,35,59, 9		9, 4
48″	9,28, 7,41,28,19,13,42,24, 6		41,32, 5,13	
		2, 4, 5,20, 5, 3,53,56		9, 4
50″	9,28, 9,45,33,39,18,46,18, 2		41,32,14,17	
		2, 4, 5,19,23,31,39,39		9, 4
52″	9,28,11,49,38,58,42,17,57,41		41,32,23,21	
		2, 4, 5,18,41,59,16,18		9, 4
54″	9,28,13,53,44,17,24,17,13,59		41,32,32,25	
		2, 4, 5,18, 0,26,43,53		9, 4
56″	9,28,15,57,49,35,24,43,57,52		41,32,41,29	
		2, 4, 5,17,18,54, 2,24		9, 4
58″	9,28,18, 1,54,52,43,38, 0,16		41,32,50,33	
		2, 4, 5,16,37,21,11,51		
60″	9,28,20, 6, 0, 9,20,59,12, 7			
exact	9,28,20, 6, 0, 9,20,58,47,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9° 5′ 0″	9,28,20, 6, 0, 9,20,58,47,56			
		2, 4, 5,15,55,48, 9,44		
2″	9,28,22,10, 5,25,16,46,57,40		41,33, 8,51	
		2, 4, 5,15,14,15, 0,53		9, 4
4″	9,28,24,14,10,40,31, 1,58,33		41,33,17,55	
		2, 4, 5,14,32,41,42,58		9, 4
6″	9,28,26,18,15,55, 3,43,41,31		41,33,26,59	
		2, 4, 5,13,51, 8,15,59		9, 4
8″	9,28,28,22,21, 8,54,51,57,30		41,33,36, 3	
		2, 4, 5,13, 9,34,39,56		9, 4
10″	9,28,30,26,26,22, 4,26,37,26		41,33,45, 7	
		2, 4, 5,12,28, 0,54,49		9, 4
12″	9,28,32,30,31,34,32,27,32,15		41,33,54,11	
		2, 4, 5,11,46,27, 0,38		9, 4
14″	9,28,34,34,36,46,18,54,32,53		41,34, 3,15	
		2, 4, 5,11, 4,52,57,23		9, 4
16″	9,28,36,38,41,57,23,47,30,16		41,34,12,19	
		2, 4, 5,10,23,18,45, 4		9, 4
18″	9,28,38,42,47, 7,47, 6,15,20		41,34,21,23	
		2, 4, 5, 9,41,44,23,41		9, 4
20″	9,28,40,46,52,17,28,50,39, 1		41,34,30,27	
		2, 4, 5, 9, 0, 9,53,14		9, 4
22″	9,28,42,50,57,26,29, 0,32,15		41,34,39,31	
		2, 4, 5, 8,18,35,13,43		9, 4
24″	9,28,44,55, 2,34,47,35,45,58		41,34,48,35	
		2, 4, 5, 7,37, 0,25, 8		9, 4
26″	9,28,46,59, 7,42,24,36,11, 6		41,34,57,39	
		2, 4, 5, 6,55,25,27,29		9, 4
28″	9,28,49, 3,12,49,20, 1,38,35		41,35, 6,43	
		2, 4, 5, 6,13,50,20,46		9, 4
30″	9,28,51, 7,17,55,33,51,59,21		41,35,15,47	
		2, 4, 5, 5,32,15, 4,59		9, 4
32″	9,28,53,11,23, 1, 6, 7, 4,20		41,35,24,51	
		2, 4, 5, 4,50,39,40, 8		9, 4
34″	9,28,55,15,28, 5,56,46,44,28		41,35,33,55	
		2, 4, 5, 4, 9, 4, 6,13		9, 4
36″	9,28,57,19,33,10, 5,50,50,41		41,35,42,59	
		2, 4, 5, 3,27,28,23,14		9, 4
38″	9,28,59,23,38,13,33,19,13,55		41,35,52, 3	
		2, 4, 5, 2,45,52,31,11		9, 4
40″	9,29, 1,27,43,16,19,11,45, 6		41,36, 1, 7	
		2, 4, 5, 2, 4,16,30, 4		9, 4
42″	9,29, 3,31,48,18,23,28,15,10		41,36,10,11	
		2, 4, 5, 1,22,40,19,53		9, 4
44″	9,29, 5,35,53,19,46, 8,35, 3		41,36,19,15	
		2, 4, 5, 0,41, 4, 0,38		9, 4
46″	9,29, 7,39,58,20,27,12,35,41		41,36,28,19	
		2, 4, 4,59,59,27,32,19		9, 4
48″	9,29, 9,44, 3,20,26,40, 8, 0		41,36,37,23	
		2, 4, 4,59,17,50,54,56		9, 4
50″	9,29,11,48, 8,19,44,31, 2,56		41,36,46,27	
		2, 4, 4,58,36,14, 8,29		9, 4
52″	9,29,13,52,13,18,20,45,11,25		41,36,55,31	
		2, 4, 4,57,54,37,12,58		9, 4
54″	9,29,15,56,18,16,15,22,24,23		41,37, 4,35	
		2, 4, 4,57,13, 0, 8,23		9, 4
56″	9,29,18, 0,23,13,28,22,32,46		41,37,13,39	
		2, 4, 4,56,31,22,54,44		9, 4
58″	9,29,20, 4,28, 9,59,45,27,30		41,37,22,43	
		2, 4, 4,55,49,45,32, 1		
60″	9,29,22, 8,33, 5,49,30,59,31			
exact	9,29,22, 8,33, 5,49,30,39,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9° 6′ 0″	9,29,22, 8,33, 5,49,30,39,48			
		2, 4, 4,55, 8, 7,58, 6		
2″	9,29,24,12,38, 0,57,38,37,54		41,37,41, 0	
		2, 4, 4,54,26,30,17, 6		9, 4
4″	9,29,26,16,42,55,24, 8,55, 0		41,37,50, 4	
		2, 4, 4,53,44,52,27, 2		9, 4
6″	9,29,28,20,47,49, 9, 1,22, 2		41,37,59, 8	
		2, 4, 4,53, 3,14,27,54		9, 4
8″	9,29,30,24,52,42,12,15,49,56		41,38, 8,12	
		2, 4, 4,52,21,36,19,42		9, 4
10″	9,29,32,28,57,34,33,52, 9,38		41,38,17,16	
		2, 4, 4,51,39,58, 2,26		9, 4
12″	9,29,34,33, 2,26,13,50,12, 4		41,38,26,20	
		2, 4, 4,50,58,19,36, 6		9, 4
14″	9,29,36,37, 7,17,12, 9,48,10		41,38,35,24	
		2, 4, 4,50,16,41, 0,42		9, 4
16″	9,29,38,41,12, 7,28,50,48,52		41,38,44,28	
		2, 4, 4,49,35, 2,16,14		9, 4
18″	9,29,40,45,16,57, 3,53, 5, 6		41,38,53,32	
		2, 4, 4,48,53,23,22,42		9, 4
20″	9,29,42,49,21,45,57,16,27,48		41,39, 2,36	
		2, 4, 4,48,11,44,20, 6		9, 4
22″	9,29,44,53,26,34, 9, 0,47,54		41,39,11,40	
		2, 4, 4,47,30, 5, 8,26		9, 4
24″	9,29,46,57,31,21,39, 5,56,20		41,39,20,44	
		2, 4, 4,46,48,25,47,42		9, 4
26″	9,29,49, 1,36, 8,27,31,44, 2		41,39,29,48	
		2, 4, 4,46, 6,46,17,54		9, 4
28″	9,29,51, 5,40,54,34,18, 1,56		41,39,38,52	
		2, 4, 4,45,25, 6,39, 2		9, 4
30″	9,29,53, 9,45,39,59,24,40,58		41,39,47,56	
		2, 4, 4,44,43,26,51, 6		9, 4
32″	9,29,55,13,50,24,42,51,32, 4		41,39,57, 0	
		2, 4, 4,44, 1,46,54, 6		9, 4
34″	9,29,57,17,55, 8,44,38,26,10		41,40, 6, 4	
		2, 4, 4,43,20, 6,48, 2		9, 4
36″	9,29,59,21,59,52, 4,45,14,12		41,40,15, 8	
		2, 4, 4,42,38,26,32,54		9, 4
38″	9,30, 1,26, 4,34,43,11,47, 6		41,40,24,12	
		2, 4, 4,41,56,46, 8,42		9, 4
40″	9,30, 3,30, 9,16,39,57,55,48		41,40,33,16	
		2, 4, 4,41,15, 5,35,26		9, 4
42″	9,30, 5,34,13,57,55, 3,31,14		41,40,42,20	
		2, 4, 4,40,33,24,53, 6		9, 4
44″	9,30, 7,38,18,38,28,28,24,20		41,40,51,24	
		2, 4, 4,39,51,44, 1,42		9, 4
46″	9,30, 9,42,23,18,20,12,26, 2		41,41, 0,28	
		2, 4, 4,39,10, 3, 1,14		9, 4
48″	9,30,11,46,27,57,30,15,27,16		41,41, 9,32	
		2, 4, 4,38,28,21,51,42		9, 4
50″	9,30,13,50,32,35,58,37,18,58		41,41,18,36	
		2, 4, 4,37,46,40,33, 6		9, 4
52″	9,30,15,54,37,13,45,17,52, 4		41,41,27,40	
		2, 4, 4,37, 4,59, 5,26		9, 4
54″	9,30,17,58,41,50,50,16,57,30		41,41,36,44	
		2, 4, 4,36,23,17,28,42		9, 4
56″	9,30,20, 2,46,27,13,34,26,12		41,41,45,48	
		2, 4, 4,35,41,35,42,54		9, 4
58″	9,30,22, 6,51, 2,55,10, 9, 6		41,41,54,52	
		2, 4, 4,34,59,53,48, 2		
60″	9,30,24,10,55,37,55, 3,57, 8			
exact	9,30,24,10,55,37,55, 3,39,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9° 7′ 0″	9,30,24,10,55,37,55, 3,39,43			
		2, 4, 4,34,18,11,42,12		
2″	9,30,26,15, 0,12,13,15,21,55		41,42,13, 8	
		2, 4, 4,33,36,29,29, 4		9, 4
4″	9,30,28,19, 4,45,49,44,50,59		41,42,22,12	
		2, 4, 4,32,54,47, 6,52		9, 4
6″	9,30,30,23, 9,18,44,31,57,51		41,42,31,16	
		2, 4, 4,32,13, 4,35,36		9, 4
8″	9,30,32,27,13,50,57,36,33,27		41,42,40,20	
		2, 4, 4,31,31,21,55,16		9, 4
10″	9,30,34,31,18,22,28,58,28,43		41,42,49,24	
		2, 4, 4,30,49,39, 5,52		9, 4
12″	9,30,36,35,22,53,18,37,34,35		41,42,58,28	
		2, 4, 4,30, 7,56, 7,24		9, 4
14″	9,30,38,39,27,23,26,33,41,59		41,43, 7,32	
		2, 4, 4,29,26,12,59,52		9, 4
16″	9,30,40,43,31,52,52,46,41,51		41,43,16,36	
		2, 4, 4,28,44,29,43,16		9, 4
18″	9,30,42,47,36,21,37,16,25, 7		41,43,25,40	
		2, 4, 4,28, 2,46,17,36		9, 4
20″	9,30,44,51,40,49,40, 2,42,43		41,43,34,44	
		2, 4, 4,27,21, 2,42,52		9, 4
22″	9,30,46,55,45,17, 1, 5,25,35		41,43,43,48	
		2, 4, 4,26,39,18,59, 4		9, 4
24″	9,30,48,59,49,43,40,24,24,39		41,43,52,52	
		2, 4, 4,25,57,35, 6,12		9, 4
26″	9,30,51, 3,54, 9,37,59,30,51		41,44, 1,56	
		2, 4, 4,25,15,51, 4,16		9, 4
28″	9,30,53, 7,58,34,53,50,35, 7		41,44,11, 0	
		2, 4, 4,24,34, 6,53,16		9, 4
30″	9,30,55,12, 2,59,27,57,28,23		41,44,20, 4	
		2, 4, 4,23,52,22,33,12		9, 4
32″	9,30,57,16, 7,23,20,20, 1,35		41,44,29, 8	
		2, 4, 4,23,10,38, 4, 4		9, 4
34″	9,30,59,20,11,46,30,58, 5,39		41,44,38,12	
		2, 4, 4,22,28,53,25,52		9, 4
36″	9,31, 1,24,16, 8,59,51,31,31		41,44,47,16	
		2, 4, 4,21,47, 8,38,36		9, 4
38″	9,31, 3,28,20,30,47, 0,10, 7		41,44,56,20	
		2, 4, 4,21, 5,23,42,16		9, 4
40″	9,31, 5,32,24,51,52,23,52,23		41,45, 5,24	
		2, 4, 4,20,23,38,36,52		9, 4
42″	9,31, 7,36,29,12,16, 2,29,15		41,45,14,28	
		2, 4, 4,19,41,53,22,24		9, 4
44″	9,31, 9,40,33,31,57,55,51,39		41,45,23,32	
		2, 4, 4,19, 0, 7,58,52		9, 4
46″	9,31,11,44,37,50,58, 3,50,31		41,45,32,36	
		2, 4, 4,18,18,22,26,16		9, 4
48″	9,31,13,48,42, 9,16,26,16,47		41,45,41,40	
		2, 4, 4,17,36,36,44,36		9, 4
50″	9,31,15,52,46,26,53, 3, 1,23		41,45,50,44	
		2, 4, 4,16,54,50,53,52		9, 4
52″	9,31,17,56,50,43,47,53,55,15		41,45,59,48	
		2, 4, 4,16,13, 4,54, 4		9, 4
54″	9,31,20, 0,55, 0, 0,58,49,19		41,46, 8,52	
		2, 4, 4,15,31,18,45,12		9, 4
56″	9,31,22, 4,59,15,32,17,34,31		41,46,17,56	
		2, 4, 4,14,49,32,27,16		9, 4
58″	9,31,24, 9, 3,30,21,50, 1,47		41,46,27, 0	
		2, 4, 4,14, 7,46, 0,16		
60″	9,31,26,13, 7,44,29,36, 2, 3			
exact	9,31,26,13, 7,44,29,35,45,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9° 8′ 0″	9,31,26,13, 7,44,29,35,45,12			
		2, 4, 4,13,25,59,22,24		
2″	9,31,28,17,11,57,55,35, 7,36		41,46,45,15	
		2, 4, 4,12,44,12,37, 9		9, 4
4″	9,31,30,21,16,10,39,47,44,45		41,46,54,19	
		2, 4, 4,12, 2,25,42,50		9, 4
6″	9,31,32,25,20,22,42,13,27,35		41,47, 3,23	
		2, 4, 4,11,20,38,39,27		9, 4
8″	9,31,34,29,24,34, 2,52, 7, 2		41,47,12,27	
		2, 4, 4,10,38,51,27, 0		9, 4
10″	9,31,36,33,28,44,41,43,34, 2		41,47,21,31	
		2, 4, 4, 9,57, 4, 5,29		9, 4
12″	9,31,38,37,32,54,38,47,39,31		41,47,30,35	
		2, 4, 4, 9,15,16,34,54		9, 4
14″	9,31,40,41,37, 3,54, 4,14,25		41,47,39,39	
		2, 4, 4, 8,33,28,55,15		9, 4
16″	9,31,42,45,41,12,27,33, 9,40		41,47,48,43	
		2, 4, 4, 7,51,41, 6,32		9, 4
18″	9,31,44,49,45,20,19,14,16,12		41,47,57,47	
		2, 4, 4, 7, 9,53, 8,45		9, 4
20″	9,31,46,53,49,27,29, 7,24,57		41,48, 6,51	
		2, 4, 4, 6,28, 5, 1,54		9, 4
22″	9,31,48,57,53,33,57,12,26,51		41,48,15,55	
		2, 4, 4, 5,46,16,45,59		9, 4
24″	9,31,51, 1,57,39,43,29,12,50		41,48,24,59	
		2, 4, 4, 5, 4,28,21, 0		9, 4
26″	9,31,53, 6, 1,44,47,57,33,50		41,48,34, 3	
		2, 4, 4, 4,22,39,46,57		9, 4
28″	9,31,55,10, 5,49,10,37,20,47		41,48,43, 7	
		2, 4, 4, 3,40,51, 3,50		9, 4
30″	9,31,57,14, 9,52,51,28,24,37		41,48,52,11	
		2, 4, 4, 2,59, 2,11,39		9, 4
32″	9,31,59,18,13,55,50,30,36,16		41,49, 1,15	
		2, 4, 4, 2,17,13,10,24		9, 4
34″	9,32, 1,22,17,58, 7,43,46,40		41,49,10,19	
		2, 4, 4, 1,35,24, 0, 5		9, 4
36″	9,32, 3,26,21,59,43, 7,46,45		41,49,19,23	
		2, 4, 4, 0,53,34,40,42		9, 4
38″	9,32, 5,30,26, 0,36,42,27,27		41,49,28,27	
		2, 4, 4, 0,11,45,12,15		9, 4
40″	9,32, 7,34,30, 0,48,27,39,42		41,49,37,31	
		2, 4, 3,59,29,55,34,44		9, 4
42″	9,32, 9,38,34, 0,18,23,14,26		41,49,46,35	
		2, 4, 3,58,48, 5,48, 9		9, 4
44″	9,32,11,42,37,59, 6,29, 2,35		41,49,55,39	
		2, 4, 3,58, 6,15,52,30		9, 4
46″	9,32,13,46,41,57,12,44,55, 5		41,50, 4,43	
		2, 4, 3,57,24,25,47,47		9, 4
48″	9,32,15,50,45,54,37,10,42,52		41,50,13,47	
		2, 4, 3,56,42,35,34, 0		9, 4
50″	9,32,17,54,49,51,19,46,16,52		41,50,22,51	
		2, 4, 3,56, 0,45,11, 9		9, 4
52″	9,32,19,58,53,47,20,31,28, 1		41,50,31,55	
		2, 4, 3,55,18,54,39,14		9, 4
54″	9,32,22, 2,57,42,39,26, 7,15		41,50,40,59	
		2, 4, 3,54,37, 3,58,15		9, 4
56″	9,32,24, 7, 1,37,16,30, 5,30		41,50,50, 3	
		2, 4, 3,53,55,13, 8,12		9, 4
58″	9,32,26,11, 5,31,11,43,13,42		41,50,59, 7	
		2, 4, 3,53,13,22, 9, 5		
60″	9,32,28,15, 9,24,25, 5,22,47			
exact	9,32,28,15, 9,24,25, 5, 5,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9° 9′ 0″	9,32,28,15, 9,24,25, 5, 5,10			
		2, 4, 3,52,31,30,59, 7		
2″	9,32,30,19,13,16,56,36, 4,17		41,51,17,22	
		2, 4, 3,51,49,39,41,45		9, 4
4″	9,32,32,23,17, 8,46,15,46, 2		41,51,26,26	
		2, 4, 3,51, 7,48,15,19		9, 4
6″	9,32,34,27,20,59,54, 4, 1,21		41,51,35,30	
		2, 4, 3,50,25,56,39,49		9, 4
8″	9,32,36,31,24,50,20, 0,41,10		41,51,44,34	
		2, 4, 3,49,44, 4,55,15		9, 4
10″	9,32,38,35,28,40, 4, 5,36,25		41,51,53,38	
		2, 4, 3,49, 2,13, 1,37		9, 4
12″	9,32,40,39,32,29, 6,18,38, 2		41,52, 2,42	
		2, 4, 3,48,20,20,58,55		9, 4
14″	9,32,42,43,36,17,26,39,36,57		41,52,11,46	
		2, 4, 3,47,38,28,47, 9		9, 4
16″	9,32,44,47,40, 5, 5, 8,24, 6		41,52,20,50	
		2, 4, 3,46,56,36,26,19		9, 4
18″	9,32,46,51,43,52, 1,44,50,25		41,52,29,54	
		2, 4, 3,46,14,43,56,25		9, 4
20″	9,32,48,55,47,38,16,28,46,50		41,52,38,58	
		2, 4, 3,45,32,51,17,27		9, 4
22″	9,32,50,59,51,23,49,20, 4,17		41,52,48, 2	
		2, 4, 3,44,50,58,29,25		9, 4
24″	9,32,53, 3,55, 8,40,18,33,42		41,52,57, 6	
		2, 4, 3,44, 9, 5,32,19		9, 4
26″	9,32,55, 7,58,52,49,24, 6, 1		41,53, 6,10	
		2, 4, 3,43,27,12,26, 9		9, 4
28″	9,32,57,12, 2,36,16,36,32,10		41,53,15,14	
		2, 4, 3,42,45,19,10,55		9, 4
30″	9,32,59,16, 6,19, 1,55,43, 5		41,53,24,18	
		2, 4, 3,42, 3,25,46,37		9, 4
32″	9,33, 1,20,10, 1, 5,21,29,42		41,53,33,22	
		2, 4, 3,41,21,32,13,15		9, 4
34″	9,33, 3,24,13,42,26,53,42,57		41,53,42,26	
		2, 4, 3,40,39,38,30,49		9, 4
36″	9,33, 5,28,17,23, 6,32,13,46		41,53,51,30	
		2, 4, 3,39,57,44,39,19		9, 4
38″	9,33, 7,32,21, 3, 4,16,53, 5		41,54, 0,34	
		2, 4, 3,39,15,50,38,45		9, 4
40″	9,33, 9,36,24,42,20, 7,31,50		41,54, 9,38	
		2, 4, 3,38,33,56,29, 7		9, 4
42″	9,33,11,40,28,20,54, 4, 0,57		41,54,18,42	
		2, 4, 3,37,52, 2,10,25		9, 4
44″	9,33,13,44,31,58,46, 6,11,22		41,54,27,46	
		2, 4, 3,37,10, 7,42,39		9, 4
46″	9,33,15,48,35,35,56,13,54, 1		41,54,36,50	
		2, 4, 3,36,28,13, 5,49		9, 4
48″	9,33,17,52,39,12,24,26,59,50		41,54,45,54	
		2, 4, 3,35,46,18,19,55		9, 4
50″	9,33,19,56,42,48,10,45,19,45		41,54,54,58	
		2, 4, 3,35, 4,23,24,57		9, 4
52″	9,33,22, 0,46,23,15, 8,44,42		41,55, 4, 2	
		2, 4, 3,34,22,28,20,55		9, 4
54″	9,33,24, 4,49,57,37,37, 5,37		41,55,13, 6	
		2, 4, 3,33,40,33, 7,49		9, 4
56″	9,33,26, 8,53,31,18,10,13,26		41,55,22,10	
		2, 4, 3,32,58,37,45,39		9, 4
58″	9,33,28,12,57, 4,16,47,59, 5		41,55,31,14	
		2, 4, 3,32,16,42,14,25		
60″	9,33,30,17, 0,36,33,30,13,30			
exact	9,33,30,17, 0,36,33,30, 0, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°10′ 0″	9,33,30,17, 0,36,33,30, 0, 3			
		2, 4, 3,31,34,46,32,41		
2″	9,33,32,21, 4, 8, 8,16,32,44		41,55,49,28	
		2, 4, 3,30,52,50,43,13		9, 4
4″	9,33,34,25, 7,39, 1, 7,15,57		41,55,58,32	
		2, 4, 3,30,10,54,44,41		9, 4
6″	9,33,36,29,11, 9,12, 2, 0,38		41,56, 7,36	
		2, 4, 3,29,28,58,37, 5		9, 4
8″	9,33,38,33,14,38,41, 0,37,43		41,56,16,40	
		2, 4, 3,28,47, 2,20,25		9, 4
10″	9,33,40,37,18, 7,28, 2,58, 8		41,56,25,44	
		2, 4, 3,28, 5, 5,54,41		9, 4
12″	9,33,42,41,21,35,33, 8,52,49		41,56,34,48	
		2, 4, 3,27,23, 9,19,53		9, 4
14″	9,33,44,45,25, 2,56,18,12,42		41,56,43,52	
		2, 4, 3,26,41,12,36, 1		9, 4
16″	9,33,46,49,28,29,37,30,48,43		41,56,52,56	
		2, 4, 3,25,59,15,43, 5		9, 4
18″	9,33,48,53,31,55,36,46,31,48		41,57, 2, 0	
		2, 4, 3,25,17,18,41, 5		9, 4
20″	9,33,50,57,35,20,54, 5,12,53		41,57,11, 4	
		2, 4, 3,24,35,21,30, 1		9, 4
22″	9,33,53, 1,38,45,29,26,42,54		41,57,20, 8	
		2, 4, 3,23,53,24, 9,53		9, 4
24″	9,33,55, 5,42, 9,22,50,52,47		41,57,29,12	
		2, 4, 3,23,11,26,40,41		9, 4
26″	9,33,57, 9,45,32,34,17,33,28		41,57,38,16	
		2, 4, 3,22,29,29, 2,25		9, 4
28″	9,33,59,13,48,55, 3,46,35,53		41,57,47,20	
		2, 4, 3,21,47,31,15, 5		9, 4
30″	9,34, 1,17,52,16,51,17,50,58		41,57,56,24	
		2, 4, 3,21, 5,33,18,41		9, 4
32″	9,34, 3,21,55,37,56,51, 9,39		41,58, 5,28	
		2, 4, 3,20,23,35,13,13		9, 4
34″	9,34, 5,25,58,58,20,26,22,52		41,58,14,32	
		2, 4, 3,19,41,36,58,41		9, 4
36″	9,34, 7,30, 2,18, 2, 3,21,33		41,58,23,36	
		2, 4, 3,18,59,38,35, 5		9, 4
38″	9,34, 9,34, 5,37, 1,41,56,38		41,58,32,40	
		2, 4, 3,18,17,40, 2,25		9, 4
40″	9,34,11,38, 8,55,19,21,59, 3		41,58,41,44	
		2, 4, 3,17,35,41,20,41		9, 4
42″	9,34,13,42,12,12,55, 3,19,44		41,58,50,48	
		2, 4, 3,16,53,42,29,53		9, 4
44″	9,34,15,46,15,29,48,45,49,37		41,58,59,52	
		2, 4, 3,16,11,43,30, 1		9, 4
46″	9,34,17,50,18,46, 0,29,19,38		41,59, 8,56	
		2, 4, 3,15,29,44,21, 5		9, 4
48″	9,34,19,54,22, 1,30,13,40,43		41,59,18, 0	
		2, 4, 3,14,47,45, 3, 5		9, 4
50″	9,34,21,58,25,16,17,58,43,48		41,59,27, 4	
		2, 4, 3,14, 5,45,36, 1		9, 4
52″	9,34,24, 2,28,30,23,44,19,49		41,59,36, 8	
		2, 4, 3,13,23,45,59,53		9, 4
54″	9,34,26, 6,31,43,47,30,19,42		41,59,45,12	
		2, 4, 3,12,41,46,14,41		9, 4
56″	9,34,28,10,34,56,29,16,34,23		41,59,54,16	
		2, 4, 3,11,59,46,20,25		9, 4
58″	9,34,30,14,38, 8,29, 2,54,48		42, 0, 3,20	
		2, 4, 3,11,17,46,17, 5		
60″	9,34,32,18,41,19,46,49,11,53			
exact	9,34,32,18,41,19,46,49, 1,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°11′ 0″	9,34,32,18,41,19,46,49, 1,41			
		2, 4, 3,10,35,46, 3,32		
2″	9,34,34,22,44,30,22,35, 5,13		42, 0,21,33	
		2, 4, 3, 9,53,45,41,59		9, 4
4″	9,34,36,26,47,40,16,20,47,12		42, 0,30,37	
		2, 4, 3, 9,11,45,11,22		9, 4
6″	9,34,38,30,50,49,28, 5,58,34		42, 0,39,41	
		2, 4, 3, 8,29,44,31,41		9, 4
8″	9,34,40,34,53,57,57,50,30,15		42, 0,48,45	
		2, 4, 3, 7,47,43,42,56		9, 4
10″	9,34,42,38,57, 5,45,34,13,11		42, 0,57,49	
		2, 4, 3, 7, 5,42,45, 7		9, 4
12″	9,34,44,43, 0,12,51,16,58,18		42, 1, 6,53	
		2, 4, 3, 6,23,41,38,14		9, 4
14″	9,34,46,47, 3,19,14,58,36,32		42, 1,15,57	
		2, 4, 3, 5,41,40,22,17		9, 4
16″	9,34,48,51, 6,24,56,38,58,49		42, 1,25, 1	
		2, 4, 3, 4,59,38,57,16		9, 4
18″	9,34,50,55, 9,29,56,17,56, 5		42, 1,34, 5	
		2, 4, 3, 4,17,37,23,11		9, 4
20″	9,34,52,59,12,34,13,55,19,16		42, 1,43, 9	
		2, 4, 3, 3,35,35,40, 2		9, 4
22″	9,34,55, 3,15,37,49,30,59,18		42, 1,52,13	
		2, 4, 3, 2,53,33,47,49		9, 4
24″	9,34,57, 7,18,40,43, 4,47, 7		42, 2, 1,17	
		2, 4, 3, 2,11,31,46,32		9, 4
26″	9,34,59,11,21,42,54,36,33,39		42, 2,10,21	
		2, 4, 3, 1,29,29,36,11		9, 4
28″	9,35, 1,15,24,44,24, 6, 9,50		42, 2,19,25	
		2, 4, 3, 0,47,27,16,46		9, 4
30″	9,35, 3,19,27,45,11,33,26,36		42, 2,28,29	
		2, 4, 3, 0, 5,24,48,17		9, 4
32″	9,35, 5,23,30,45,16,58,14,53		42, 2,37,33	
		2, 4, 2,59,23,22,10,44		9, 4
34″	9,35, 7,27,33,44,40,20,25,37		42, 2,46,37	
		2, 4, 2,58,41,19,24, 7		9, 4
36″	9,35, 9,31,36,43,21,39,49,44		42, 2,55,41	
		2, 4, 2,57,59,16,28,26		9, 4
38″	9,35,11,35,39,41,20,56,18,10		42, 3, 4,45	
		2, 4, 2,57,17,13,23,41		9, 4
40″	9,35,13,39,42,38,38, 9,41,51		42, 3,13,49	
		2, 4, 2,56,35,10, 9,52		9, 4
42″	9,35,15,43,45,35,13,19,51,43		42, 3,22,53	
		2, 4, 2,55,53, 6,46,59		9, 4
44″	9,35,17,47,48,31, 6,26,38,42		42, 3,31,57	
		2, 4, 2,55,11, 3,15, 2		9, 4
46″	9,35,19,51,51,26,17,29,53,44		42, 3,41, 1	
		2, 4, 2,54,28,59,34, 1		9, 4
48″	9,35,21,55,54,20,46,29,27,45		42, 3,50, 5	
		2, 4, 2,53,46,55,43,56		9, 4
50″	9,35,23,59,57,14,33,25,11,41		42, 3,59, 9	
		2, 4, 2,53, 4,51,44,47		9, 4
52″	9,35,26, 4, 0, 7,38,16,56,28		42, 4, 8,13	
		2, 4, 2,52,22,47,36,34		9, 4
54″	9,35,28, 8, 3, 0, 1, 4,33, 2		42, 4,17,17	
		2, 4, 2,51,40,43,19,17		9, 4
56″	9,35,30,12, 5,51,41,47,52,19		42, 4,26,21	
		2, 4, 2,50,58,38,52,56		9, 4
58″	9,35,32,16, 8,42,40,26,45,15		42, 4,35,25	
		2, 4, 2,50,16,34,17,31		
60″	9,35,34,20,11,32,57, 1, 2,46			
exact	9,35,34,20,11,32,57, 0,53,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°12′ 0″	9,35,34,20,11,32,57, 0,53,26			
		2, 4, 2,49,34,29,32, 1		
2″	9,35,36,24,14,22,31,30,25,27		42, 4,53,37	
		2, 4, 2,48,52,24,38,24		9, 4
4″	9,35,38,28,17,11,23,55, 3,51		42, 5, 2,41	
		2, 4, 2,48,10,19,35,43		9, 4
6″	9,35,40,32,19,59,34,14,39,34		42, 5,11,45	
		2, 4, 2,47,28,14,23,58		9, 4
8″	9,35,42,36,22,47, 2,29, 3,32		42, 5,20,49	
		2, 4, 2,46,46, 9, 3, 9		9, 4
10″	9,35,44,40,25,33,48,38, 6,41		42, 5,29,53	
		2, 4, 2,46, 4, 3,33,16		9, 4
12″	9,35,46,44,28,19,52,41,39,57		42, 5,38,57	
		2, 4, 2,45,21,57,54,19		9, 4
14″	9,35,48,48,31, 5,14,39,34,16		42, 5,48, 1	
		2, 4, 2,44,39,52, 6,18		9, 4
16″	9,35,50,52,33,49,54,31,40,34		42, 5,57, 5	
		2, 4, 2,43,57,46, 9,13		9, 4
18″	9,35,52,56,36,33,52,17,49,47		42, 6, 6, 9	
		2, 4, 2,43,15,40, 3, 4		9, 4
20″	9,35,55, 0,39,17, 7,57,52,51		42, 6,15,13	
		2, 4, 2,42,33,33,47,51		9, 4
22″	9,35,57, 4,41,59,41,31,40,42		42, 6,24,17	
		2, 4, 2,41,51,27,23,34		9, 4
24″	9,35,59, 8,44,41,32,59, 4,16		42, 6,33,21	
		2, 4, 2,41, 9,20,50,13		9, 4
26″	9,36, 1,12,47,22,42,19,54,29		42, 6,42,25	
		2, 4, 2,40,27,14, 7,48		9, 4
28″	9,36, 3,16,50, 3, 9,34, 2,17		42, 6,51,29	
		2, 4, 2,39,45, 7,16,19		9, 4
30″	9,36, 5,20,52,42,54,41,18,36		42, 7, 0,33	
		2, 4, 2,39, 3, 0,15,46		9, 4
32″	9,36, 7,24,55,21,57,41,34,22		42, 7, 9,37	
		2, 4, 2,38,20,53, 6, 9		9, 4
34″	9,36, 9,28,58, 0,18,34,40,31		42, 7,18,41	
		2, 4, 2,37,38,45,47,28		9, 4
36″	9,36,11,33, 0,37,57,20,27,59		42, 7,27,45	
		2, 4, 2,36,56,38,19,43		9, 4
38″	9,36,13,37, 3,14,53,58,47,42		42, 7,36,49	
		2, 4, 2,36,14,30,42,54		9, 4
40″	9,36,15,41, 5,51, 8,29,30,36		42, 7,45,53	
		2, 4, 2,35,32,22,57, 1		9, 4
42″	9,36,17,45, 8,26,40,52,27,37		42, 7,54,57	
		2, 4, 2,34,50,15, 2, 4		9, 4
44″	9,36,19,49,11, 1,31, 7,29,41		42, 8, 4, 1	
		2, 4, 2,34, 8, 6,58, 3		9, 4
46″	9,36,21,53,13,35,39,14,27,44		42, 8,13, 5	
		2, 4, 2,33,25,58,44,58		9, 4
48″	9,36,23,57,16, 9, 5,13,12,42		42, 8,22, 9	
		2, 4, 2,32,43,50,22,49		9, 4
50″	9,36,26, 1,18,41,49, 3,35,31		42, 8,31,13	
		2, 4, 2,32, 1,41,51,36		9, 4
52″	9,36,28, 5,21,13,50,45,27, 7		42, 8,40,17	
		2, 4, 2,31,19,33,11,19		9, 4
54″	9,36,30, 9,23,45,10,18,38,26		42, 8,49,21	
		2, 4, 2,30,37,24,21,58		9, 4
56″	9,36,32,13,26,15,47,43, 0,24		42, 8,58,25	
		2, 4, 2,29,55,15,23,33		9, 4
58″	9,36,34,17,28,45,42,58,23,57		42, 9, 7,29	
		2, 4, 2,29,13, 6,16, 4		
60″	9,36,36,21,31,14,56, 4,40, 1			
exact	9,36,36,21,31,14,56, 4,30,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°13′ 0″	9,36,36,21,31,14,56, 4,30,10			
		2, 4, 2,28,30,56,58,32		
2″	9,36,38,25,33,43,27, 1,28,42		42, 9,25,41	
		2, 4, 2,27,48,47,32,51		9, 4
4″	9,36,40,29,36,11,15,49, 1,33		42, 9,34,45	
		2, 4, 2,27, 6,37,58, 6		9, 4
6″	9,36,42,33,38,38,22,26,59,39		42, 9,43,49	
		2, 4, 2,26,24,28,14,17		9, 4
8″	9,36,44,37,41, 4,46,55,13,56		42, 9,52,53	
		2, 4, 2,25,42,18,21,24		9, 4
10″	9,36,46,41,43,30,29,13,35,20		42,10, 1,57	
		2, 4, 2,25, 0, 8,19,27		9, 4
12″	9,36,48,45,45,55,29,21,54,47		42,10,11, 1	
		2, 4, 2,24,17,58, 8,26		9, 4
14″	9,36,50,49,48,19,47,20, 3,13		42,10,20, 5	
		2, 4, 2,23,35,47,48,21		9, 4
16″	9,36,52,53,50,43,23, 7,51,34		42,10,29, 9	
		2, 4, 2,22,53,37,19,12		9, 4
18″	9,36,54,57,53, 6,16,45,10,46		42,10,38,13	
		2, 4, 2,22,11,26,40,59		9, 4
20″	9,36,57, 1,55,28,28,11,51,45		42,10,47,17	
		2, 4, 2,21,29,15,53,42		9, 4
22″	9,36,59, 5,57,49,57,27,45,27		42,10,56,21	
		2, 4, 2,20,47, 4,57,21		9, 4
24″	9,37, 1,10, 0,10,44,32,42,48		42,11, 5,25	
		2, 4, 2,20, 4,53,51,56		9, 4
26″	9,37, 3,14, 2,30,49,26,34,44		42,11,14,29	
		2, 4, 2,19,22,42,37,27		9, 4
28″	9,37, 5,18, 4,50,12, 9,12,11		42,11,23,33	
		2, 4, 2,18,40,31,13,54		9, 4
30″	9,37, 7,22, 7, 8,52,40,26, 5		42,11,32,37	
		2, 4, 2,17,58,19,41,17		9, 4
32″	9,37, 9,26, 9,26,51, 0, 7,22		42,11,41,41	
		2, 4, 2,17,16, 7,59,36		9, 4
34″	9,37,11,30,11,44, 7, 8, 6,58		42,11,50,45	
		2, 4, 2,16,33,56, 8,51		9, 4
36″	9,37,13,34,14, 0,41, 4,15,49		42,11,59,49	
		2, 4, 2,15,51,44, 9, 2		9, 4
38″	9,37,15,38,16,16,32,48,24,51		42,12, 8,53	
		2, 4, 2,15, 9,32, 0, 9		9, 4
40″	9,37,17,42,18,31,42,20,25, 0		42,12,17,57	
		2, 4, 2,14,27,19,42,12		9, 4
42″	9,37,19,46,20,46, 9,40, 7,12		42,12,27, 1	
		2, 4, 2,13,45, 7,15,11		9, 4
44″	9,37,21,50,22,59,54,47,22,23		42,12,36, 5	
		2, 4, 2,13, 2,54,39, 6		9, 4
46″	9,37,23,54,25,12,57,42, 1,29		42,12,45, 9	
		2, 4, 2,12,20,41,53,57		9, 4
48″	9,37,25,58,27,25,18,23,55,26		42,12,54,13	
		2, 4, 2,11,38,28,59,44		9, 4
50″	9,37,28, 2,29,36,56,52,55,10		42,13, 3,17	
		2, 4, 2,10,56,15,56,27		9, 4
52″	9,37,30, 6,31,47,53, 8,51,37		42,13,12,21	
		2, 4, 2,10,14, 2,44, 6		9, 4
54″	9,37,32,10,33,58, 7,11,35,43		42,13,21,25	
		2, 4, 2, 9,31,49,22,41		9, 4
56″	9,37,34,14,36, 7,39, 0,58,24		42,13,30,29	
		2, 4, 2, 8,49,35,52,12		9, 4
58″	9,37,36,18,38,16,28,36,50,36		42,13,39,33	
		2, 4, 2, 8, 7,22,12,39		
60″	9,37,38,22,40,24,35,59, 3,15			
exact	9,37,38,22,40,24,35,58,58,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°14′ 0″	9,37,38,22,40,24,35,58,58,19			
		2, 4, 2, 7,25, 8,23,27		
2″	9,37,40,26,42,32, 1, 7,21,46		42,13,57,44	
		2, 4, 2, 6,42,54,25,43		9, 4
4″	9,37,42,30,44,38,44, 1,47,29		42,14, 6,48	
		2, 4, 2, 6, 0,40,18,55		9, 4
6″	9,37,44,34,46,44,44,42, 6,24		42,14,15,52	
		2, 4, 2, 5,18,26, 3, 3		9, 4
8″	9,37,46,38,48,50, 3, 8, 9,27		42,14,24,56	
		2, 4, 2, 4,36,11,38, 7		9, 4
10″	9,37,48,42,50,54,39,19,47,34		42,14,34, 0	
		2, 4, 2, 3,53,57, 4, 7		9, 4
12″	9,37,50,46,52,58,33,16,51,41		42,14,43, 4	
		2, 4, 2, 3,11,42,21, 3		9, 4
14″	9,37,52,50,55, 1,44,59,12,44		42,14,52, 8	
		2, 4, 2, 2,29,27,28,55		9, 4
16″	9,37,54,54,57, 4,14,26,41,39		42,15, 1,12	
		2, 4, 2, 1,47,12,27,43		9, 4
18″	9,37,56,58,59, 6, 1,39, 9,22		42,15,10,16	
		2, 4, 2, 1, 4,57,17,27		9, 4
20″	9,37,59, 3, 1, 7, 6,36,26,49		42,15,19,20	
		2, 4, 2, 0,22,41,58, 7		9, 4
22″	9,38, 1, 7, 3, 7,29,18,24,56		42,15,28,24	
		2, 4, 1,59,40,26,29,43		9, 4
24″	9,38, 3,11, 5, 7, 9,44,54,39		42,15,37,28	
		2, 4, 1,58,58,10,52,15		9, 4
26″	9,38, 5,15, 7, 6, 7,55,46,54		42,15,46,32	
		2, 4, 1,58,15,55, 5,43		9, 4
28″	9,38, 7,19, 9, 4,23,50,52,37		42,15,55,36	
		2, 4, 1,57,33,39,10, 7		9, 4
30″	9,38, 9,23,11, 1,57,30, 2,44		42,16, 4,40	
		2, 4, 1,56,51,23, 5,27		9, 4
32″	9,38,11,27,12,58,48,53, 8,11		42,16,13,44	
		2, 4, 1,56, 9, 6,51,43		9, 4
34″	9,38,13,31,14,54,57,59,59,54		42,16,22,48	
		2, 4, 1,55,26,50,28,55		9, 4
36″	9,38,15,35,16,50,24,50,28,49		42,16,31,52	
		2, 4, 1,54,44,33,57, 3		9, 4
38″	9,38,17,39,18,45, 9,24,25,52		42,16,40,56	
		2, 4, 1,54, 2,17,16, 7		9, 4
40″	9,38,19,43,20,39,11,41,41,59		42,16,50, 0	
		2, 4, 1,53,20, 0,26, 7		9, 4
42″	9,38,21,47,22,32,31,42, 8, 6		42,16,59, 4	
		2, 4, 1,52,37,43,27, 3		9, 4
44″	9,38,23,51,24,25, 9,25,35, 9		42,17, 8, 8	
		2, 4, 1,51,55,26,18,55		9, 4
46″	9,38,25,55,26,17, 4,51,54, 4		42,17,17,12	
		2, 4, 1,51,13, 9, 1,43		9, 4
48″	9,38,27,59,28, 8,18, 0,55,47		42,17,26,16	
		2, 4, 1,50,30,51,35,27		9, 4
50″	9,38,30, 3,29,58,48,52,31,14		42,17,35,20	
		2, 4, 1,49,48,34, 0, 7		9, 4
52″	9,38,32, 7,31,48,37,26,31,21		42,17,44,24	
		2, 4, 1,49, 6,16,15,43		9, 4
54″	9,38,34,11,33,37,43,42,47, 4		42,17,53,28	
		2, 4, 1,48,23,58,22,15		9, 4
56″	9,38,36,15,35,26, 7,41, 9,19		42,18, 2,32	
		2, 4, 1,47,41,40,19,43		9, 4
58″	9,38,38,19,37,13,49,21,29, 2		42,18,11,36	
		2, 4, 1,46,59,22, 8, 7		
60″	9,38,40,23,39, 0,48,43,37, 9			
exact	9,38,40,23,39, 0,48,43,35,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°15′ 0″	9,38,40,23,39, 0,48,43,35,51			
		2, 4, 1,46,17, 3,47,11		
2″	9,38,42,27,40,47, 5,47,23, 2		42,18,29,46	
		2, 4, 1,45,34,45,17,25		9, 4
4″	9,38,44,31,42,32,40,32,40,27		42,18,38,50	
		2, 4, 1,44,52,26,38,35		9, 4
6″	9,38,46,35,44,17,32,59,19, 2		42,18,47,54	
		2, 4, 1,44,10, 7,50,41		9, 4
8″	9,38,48,39,46, 1,43, 7, 9,43		42,18,56,58	
		2, 4, 1,43,27,48,53,43		9, 4
10″	9,38,50,43,47,45,10,56, 3,26		42,19, 6, 2	
		2, 4, 1,42,45,29,47,41		9, 4
12″	9,38,52,47,49,27,56,25,51, 7		42,19,15, 6	
		2, 4, 1,42, 3,10,32,35		9, 4
14″	9,38,54,51,51, 9,59,36,23,42		42,19,24,10	
		2, 4, 1,41,20,51, 8,25		9, 4
16″	9,38,56,55,52,51,20,27,32, 7		42,19,33,14	
		2, 4, 1,40,38,31,35,11		9, 4
18″	9,38,58,59,54,31,58,59, 7,18		42,19,42,18	
		2, 4, 1,39,56,11,52,53		9, 4
20″	9,39, 1, 3,56,11,55,11, 0,11		42,19,51,22	
		2, 4, 1,39,13,52, 1,31		9, 4
22″	9,39, 3, 7,57,51, 9, 3, 1,42		42,20, 0,26	
		2, 4, 1,38,31,32, 1, 5		9, 4
24″	9,39, 5,11,59,29,40,35, 2,47		42,20, 9,30	
		2, 4, 1,37,49,11,51,35		9, 4
26″	9,39, 7,16, 1, 7,29,46,54,22		42,20,18,34	
		2, 4, 1,37, 6,51,33, 1		9, 4
28″	9,39, 9,20, 2,44,36,38,27,23		42,20,27,38	
		2, 4, 1,36,24,31, 5,23		9, 4
30″	9,39,11,24, 4,21, 1, 9,32,46		42,20,36,42	
		2, 4, 1,35,42,10,28,41		9, 4
32″	9,39,13,28, 5,56,43,20, 1,27		42,20,45,46	
		2, 4, 1,34,59,49,42,55		9, 4
34″	9,39,15,32, 7,31,43, 9,44,22		42,20,54,50	
		2, 4, 1,34,17,28,48, 5		9, 4
36″	9,39,17,36, 9, 6, 0,38,32,27		42,21, 3,54	
		2, 4, 1,33,35, 7,44,11		9, 4
38″	9,39,19,40,10,39,35,46,16,38		42,21,12,58	
		2, 4, 1,32,52,46,31,13		9, 4
40″	9,39,21,44,12,12,28,32,47,51		42,21,22, 2	
		2, 4, 1,32,10,25, 9,11		9, 4
42″	9,39,23,48,13,44,38,57,57, 2		42,21,31, 6	
		2, 4, 1,31,28, 3,38, 5		9, 4
44″	9,39,25,52,15,16, 7, 1,35, 7		42,21,40,10	
		2, 4, 1,30,45,41,57,55		9, 4
46″	9,39,27,56,16,46,52,43,33, 2		42,21,49,14	
		2, 4, 1,30, 3,20, 8,41		9, 4
48″	9,39,30, 0,18,16,56, 3,41,43		42,21,58,18	
		2, 4, 1,29,20,58,10,23		9, 4
50″	9,39,32, 4,19,46,17, 1,52, 6		42,22, 7,22	
		2, 4, 1,28,38,36, 3, 1		9, 4
52″	9,39,34, 8,21,14,55,37,55, 7		42,22,16,26	
		2, 4, 1,27,56,13,46,35		9, 4
54″	9,39,36,12,22,42,51,51,41,42		42,22,25,30	
		2, 4, 1,27,13,51,21, 5		9, 4
56″	9,39,38,16,24,10, 5,43, 2,47		42,22,34,34	
		2, 4, 1,26,31,28,46,31		9, 4
58″	9,39,40,20,25,36,37,11,49,18		42,22,43,38	
		2, 4, 1,25,49, 6, 2,53		
60″	9,39,42,24,27, 2,26,17,52,11			
exact	9,39,42,24,27, 2,26,17,52,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°16′ 0″	9,39,42,24,27, 2,26,17,52,17			
		2, 4, 1,25, 6,43,10, 5		
2″	9,39,44,28,28,27,33, 1, 2,22		42,23, 1,47	
		2, 4, 1,24,24,20, 8,18		9, 4
4″	9,39,46,32,29,51,57,21,10,40		42,23,10,51	
		2, 4, 1,23,41,56,57,27		9, 4
6″	9,39,48,36,31,15,39,18, 8, 7		42,23,19,55	
		2, 4, 1,22,59,33,37,32		9, 4
8″	9,39,50,40,32,38,38,51,45,39		42,23,28,59	
		2, 4, 1,22,17,10, 8,33		9, 4
10″	9,39,52,44,34, 0,56, 1,54,12		42,23,38, 3	
		2, 4, 1,21,34,46,30,30		9, 4
12″	9,39,54,48,35,22,30,48,24,42		42,23,47, 7	
		2, 4, 1,20,52,22,43,23		9, 4
14″	9,39,56,52,36,43,23,11, 8, 5		42,23,56,11	
		2, 4, 1,20, 9,58,47,12		9, 4
16″	9,39,58,56,38, 3,33, 9,55,17		42,24, 5,15	
		2, 4, 1,19,27,34,41,57		9, 4
18″	9,40, 1, 0,39,23, 0,44,37,14		42,24,14,19	
		2, 4, 1,18,45,10,27,38		9, 4
20″	9,40, 3, 4,40,41,45,55, 4,52		42,24,23,23	
		2, 4, 1,18, 2,46, 4,15		9, 4
22″	9,40, 5, 8,41,59,48,41, 9, 7		42,24,32,27	
		2, 4, 1,17,20,21,31,48		9, 4
24″	9,40, 7,12,43,17, 9, 2,40,55		42,24,41,31	
		2, 4, 1,16,37,56,50,17		9, 4
26″	9,40, 9,16,44,33,46,59,31,12		42,24,50,35	
		2, 4, 1,15,55,31,59,42		9, 4
28″	9,40,11,20,45,49,42,31,30,54		42,24,59,39	
		2, 4, 1,15,13, 7, 0, 3		9, 4
30″	9,40,13,24,47, 4,55,38,30,57		42,25, 8,43	
		2, 4, 1,14,30,41,51,20		9, 4
32″	9,40,15,28,48,19,26,20,22,17		42,25,17,47	
		2, 4, 1,13,48,16,33,33		9, 4
34″	9,40,17,32,49,33,14,36,55,50		42,25,26,51	
		2, 4, 1,13, 5,51, 6,42		9, 4
36″	9,40,19,36,50,46,20,28, 2,32		42,25,35,55	
		2, 4, 1,12,23,25,30,47		9, 4
38″	9,40,21,40,51,58,43,53,33,19		42,25,44,59	
		2, 4, 1,11,40,59,45,48		9, 4
40″	9,40,23,44,53,10,24,53,19, 7		42,25,54, 3	
		2, 4, 1,10,58,33,51,45		9, 4
42″	9,40,25,48,54,21,23,27,10,52		42,26, 3, 7	
		2, 4, 1,10,16, 7,48,38		9, 4
44″	9,40,27,52,55,31,39,34,59,30		42,26,12,11	
		2, 4, 1, 9,33,41,36,27		9, 4
46″	9,40,29,56,56,41,13,16,35,57		42,26,21,15	
		2, 4, 1, 8,51,15,15,12		9, 4
48″	9,40,32, 0,57,50, 4,31,51, 9		42,26,30,19	
		2, 4, 1, 8, 8,48,44,53		9, 4
50″	9,40,34, 4,58,58,13,20,36, 2		42,26,39,23	
		2, 4, 1, 7,26,22, 5,30		9, 4
52″	9,40,36, 9, 0, 5,39,42,41,32		42,26,48,27	
		2, 4, 1, 6,43,55,17, 3		9, 4
54″	9,40,38,13, 1,12,23,37,58,35		42,26,57,31	
		2, 4, 1, 6, 1,28,19,32		9, 4
56″	9,40,40,17, 2,18,25, 6,18, 7		42,27, 6,35	
		2, 4, 1, 5,19, 1,12,57		9, 4
58″	9,40,42,21, 3,23,44, 7,31, 4		42,27,15,39	
		2, 4, 1, 4,36,33,57,18		
60″	9,40,44,25, 4,28,20,41,28,22			
exact	9,40,44,25, 4,28,20,41,28,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°17′ 0″	9,40,44,25, 4,28,20,41,28,48			
		2, 4, 1, 3,54, 6,32,34		
2″	9,40,46,29, 5,32,14,48, 1,22		42,27,33,47	
		2, 4, 1, 3,11,38,58,47		9, 4
4″	9,40,48,33, 6,35,26,27, 0, 9		42,27,42,51	
		2, 4, 1, 2,29,11,15,56		9, 4
6″	9,40,50,37, 7,37,55,38,16, 5		42,27,51,55	
		2, 4, 1, 1,46,43,24, 1		9, 4
8″	9,40,52,41, 8,39,42,21,40, 6		42,28, 0,59	
		2, 4, 1, 1, 4,15,23, 2		9, 4
10″	9,40,54,45, 9,40,46,37, 3, 8		42,28,10, 3	
		2, 4, 1, 0,21,47,12,59		9, 4
12″	9,40,56,49,10,41, 8,24,16, 7		42,28,19, 7	
		2, 4, 0,59,39,18,53,52		9, 4
14″	9,40,58,53,11,40,47,43, 9,59		42,28,28,11	
		2, 4, 0,58,56,50,25,41		9, 4
16″	9,41, 0,57,12,39,44,33,35,40		42,28,37,15	
		2, 4, 0,58,14,21,48,26		9, 4
18″	9,41, 3, 1,13,37,58,55,24, 6		42,28,46,19	
		2, 4, 0,57,31,53, 2, 7		9, 4
20″	9,41, 5, 5,14,35,30,48,26,13		42,28,55,23	
		2, 4, 0,56,49,24, 6,44		9, 4
22″	9,41, 7, 9,15,32,20,12,32,57		42,29, 4,27	
		2, 4, 0,56, 6,55, 2,17		9, 4
24″	9,41, 9,13,16,28,27, 7,35,14		42,29,13,31	
		2, 4, 0,55,24,25,48,46		9, 4
26″	9,41,11,17,17,23,51,33,24, 0		42,29,22,35	
		2, 4, 0,54,41,56,26,11		9, 4
28″	9,41,13,21,18,18,33,29,50,11		42,29,31,39	
		2, 4, 0,53,59,26,54,32		9, 4
30″	9,41,15,25,19,12,32,56,44,43		42,29,40,43	
		2, 4, 0,53,16,57,13,49		9, 4
32″	9,41,17,29,20, 5,49,53,58,32		42,29,49,47	
		2, 4, 0,52,34,27,24, 2		9, 4
34″	9,41,19,33,20,58,24,21,22,34		42,29,58,51	
		2, 4, 0,51,51,57,25,11		9, 4
36″	9,41,21,37,21,50,16,18,47,45		42,30, 7,55	
		2, 4, 0,51, 9,27,17,16		9, 4
38″	9,41,23,41,22,41,25,46, 5, 1		42,30,16,59	
		2, 4, 0,50,26,57, 0,17		9, 4
40″	9,41,25,45,23,31,52,43, 5,18		42,30,26, 3	
		2, 4, 0,49,44,26,34,14		9, 4
42″	9,41,27,49,24,21,37, 9,39,32		42,30,35, 7	
		2, 4, 0,49, 1,55,59, 7		9, 4
44″	9,41,29,53,25,10,39, 5,38,39		42,30,44,11	
		2, 4, 0,48,19,25,14,56		9, 4
46″	9,41,31,57,25,58,58,30,53,35		42,30,53,15	
		2, 4, 0,47,36,54,21,41		9, 4
48″	9,41,34, 1,26,46,35,25,15,16		42,31, 2,19	
		2, 4, 0,46,54,23,19,22		9, 4
50″	9,41,36, 5,27,33,29,48,34,38		42,31,11,23	
		2, 4, 0,46,11,52, 7,59		9, 4
52″	9,41,38, 9,28,19,41,40,42,37		42,31,20,27	
		2, 4, 0,45,29,20,47,32		9, 4
54″	9,41,40,13,29, 5,11, 1,30, 9		42,31,29,31	
		2, 4, 0,44,46,49,18, 1		9, 4
56″	9,41,42,17,29,49,57,50,48,10		42,31,38,35	
		2, 4, 0,44, 4,17,39,26		9, 4
58″	9,41,44,21,30,34, 2, 8,27,36		42,31,47,39	
		2, 4, 0,43,21,45,51,47		
60″	9,41,46,25,31,17,23,54,19,23			
exact	9,41,46,25,31,17,23,54,18, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°18′ 0″	9,41,46,25,31,17,23,54,18, 9			
		2, 4, 0,42,39,13,55, 0		
2″	9,41,48,29,32, 0, 3, 8,13, 9		42,32, 5,47	
		2, 4, 0,41,56,41,49,13		9, 4
4″	9,41,50,33,32,41,59,50, 2,22		42,32,14,51	
		2, 4, 0,41,14, 9,34,22		9, 4
6″	9,41,52,37,33,23,13,59,36,44		42,32,23,55	
		2, 4, 0,40,31,37,10,27		9, 4
8″	9,41,54,41,34, 3,45,36,47,11		42,32,32,59	
		2, 4, 0,39,49, 4,37,28		9, 4
10″	9,41,56,45,34,43,34,41,24,39		42,32,42, 3	
		2, 4, 0,39, 6,31,55,25		9, 4
12″	9,41,58,49,35,22,41,13,20, 4		42,32,51, 7	
		2, 4, 0,38,23,59, 4,18		9, 4
14″	9,42, 0,53,36, 1, 5,12,24,22		42,33, 0,11	
		2, 4, 0,37,41,26, 4, 7		9, 4
16″	9,42, 2,57,36,38,46,38,28,29		42,33, 9,15	
		2, 4, 0,36,58,52,54,52		9, 4
18″	9,42, 5, 1,37,15,45,31,23,21		42,33,18,19	
		2, 4, 0,36,16,19,36,33		9, 4
20″	9,42, 7, 5,37,52, 1,50,59,54		42,33,27,23	
		2, 4, 0,35,33,46, 9,10		9, 4
22″	9,42, 9, 9,38,27,35,37, 9, 4		42,33,36,27	
		2, 4, 0,34,51,12,32,43		9, 4
24″	9,42,11,13,39, 2,26,49,41,47		42,33,45,31	
		2, 4, 0,34, 8,38,47,12		9, 4
26″	9,42,13,17,39,36,35,28,28,59		42,33,54,35	
		2, 4, 0,33,26, 4,52,37		9, 4
28″	9,42,15,21,40,10, 1,33,21,36		42,34, 3,39	
		2, 4, 0,32,43,30,48,58		9, 4
30″	9,42,17,25,40,42,45, 4,10,34		42,34,12,43	
		2, 4, 0,32, 0,56,36,15		9, 4
32″	9,42,19,29,41,14,46, 0,46,49		42,34,21,47	
		2, 4, 0,31,18,22,14,28		9, 4
34″	9,42,21,33,41,46, 4,23, 1,17		42,34,30,51	
		2, 4, 0,30,35,47,43,37		9, 4
36″	9,42,23,37,42,16,40,10,44,54		42,34,39,55	
		2, 4, 0,29,53,13, 3,42		9, 4
38″	9,42,25,41,42,46,33,23,48,36		42,34,48,59	
		2, 4, 0,29,10,38,14,43		9, 4
40″	9,42,27,45,43,15,44, 2, 3,19		42,34,58, 3	
		2, 4, 0,28,28, 3,16,40		9, 4
42″	9,42,29,49,43,44,12, 5,19,59		42,35, 7, 7	
		2, 4, 0,27,45,28, 9,33		9, 4
44″	9,42,31,53,44,11,57,33,29,32		42,35,16,11	
		2, 4, 0,27, 2,52,53,22		9, 4
46″	9,42,33,57,44,39, 0,26,22,54		42,35,25,15	
		2, 4, 0,26,20,17,28, 7		9, 4
48″	9,42,36, 1,45, 5,20,43,51, 1		42,35,34,19	
		2, 4, 0,25,37,41,53,48		9, 4
50″	9,42,38, 5,45,30,58,25,44,49		42,35,43,23	
		2, 4, 0,24,55, 6,10,25		9, 4
52″	9,42,40, 9,45,55,53,31,55,14		42,35,52,27	
		2, 4, 0,24,12,30,17,58		9, 4
54″	9,42,42,13,46,20, 6, 2,13,12		42,36, 1,31	
		2, 4, 0,23,29,54,16,27		9, 4
56″	9,42,44,17,46,43,35,56,29,39		42,36,10,35	
		2, 4, 0,22,47,18, 5,52		9, 4
58″	9,42,46,21,47, 6,23,14,35,31		42,36,19,39	
		2, 4, 0,22, 4,41,46,13		
60″	9,42,48,25,47,28,27,56,21,44			
exact	9,42,48,25,47,28,27,56,24,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°19′ 0″	9,42,48,25,47,28,27,56,24,44			
		2, 4, 0,21,22, 5,17,48		
2″	9,42,50,29,47,49,50, 1,42,32		42,36,37,46	
		2, 4, 0,20,39,28,40, 2		9, 4
4″	9,42,52,33,48,10,29,30,22,34		42,36,46,50	
		2, 4, 0,19,56,51,53,12		9, 4
6″	9,42,54,37,48,30,26,22,15,46		42,36,55,54	
		2, 4, 0,19,14,14,57,18		9, 4
8″	9,42,56,41,48,49,40,37,13, 4		42,37, 4,58	
		2, 4, 0,18,31,37,52,20		9, 4
10″	9,42,58,45,49, 8,12,15, 5,24		42,37,14, 2	
		2, 4, 0,17,49, 0,38,18		9, 4
12″	9,43, 0,49,49,26, 1,15,43,42		42,37,23, 6	
		2, 4, 0,17, 6,23,15,12		9, 4
14″	9,43, 2,53,49,43, 7,38,58,54		42,37,32,10	
		2, 4, 0,16,23,45,43, 2		9, 4
16″	9,43, 4,57,49,59,31,24,41,56		42,37,41,14	
		2, 4, 0,15,41, 8, 1,48		9, 4
18″	9,43, 7, 1,50,15,12,32,43,44		42,37,50,18	
		2, 4, 0,14,58,30,11,30		9, 4
20″	9,43, 9, 5,50,30,11, 2,55,14		42,37,59,22	
		2, 4, 0,14,15,52,12, 8		9, 4
22″	9,43,11, 9,50,44,26,55, 7,22		42,38, 8,26	
		2, 4, 0,13,33,14, 3,42		9, 4
24″	9,43,13,13,50,58, 0, 9,11, 4		42,38,17,30	
		2, 4, 0,12,50,35,46,12		9, 4
26″	9,43,15,17,51,10,50,44,57,16		42,38,26,34	
		2, 4, 0,12, 7,57,19,38		9, 4
28″	9,43,17,21,51,22,58,42,16,54		42,38,35,38	
		2, 4, 0,11,25,18,44, 0		9, 4
30″	9,43,19,25,51,34,24, 1, 0,54		42,38,44,42	
		2, 4, 0,10,42,39,59,18		9, 4
32″	9,43,21,29,51,45, 6,41, 0,12		42,38,53,46	
		2, 4, 0,10, 0, 1, 5,32		9, 4
34″	9,43,23,33,51,55, 6,42, 5,44		42,39, 2,50	
		2, 4, 0, 9,17,22, 2,42		9, 4
36″	9,43,25,37,52, 4,24, 4, 8,26		42,39,11,54	
		2, 4, 0, 8,34,42,50,48		9, 4
38″	9,43,27,41,52,12,58,46,59,14		42,39,20,58	
		2, 4, 0, 7,52, 3,29,50		9, 4
40″	9,43,29,45,52,20,50,50,29, 4		42,39,30, 2	
		2, 4, 0, 7, 9,23,59,48		9, 4
42″	9,43,31,49,52,28, 0,14,28,52		42,39,39, 6	
		2, 4, 0, 6,26,44,20,42		9, 4
44″	9,43,33,53,52,34,26,58,49,34		42,39,48,10	
		2, 4, 0, 5,44, 4,32,32		9, 4
46″	9,43,35,57,52,40,11, 3,22, 6		42,39,57,14	
		2, 4, 0, 5, 1,24,35,18		9, 4
48″	9,43,38, 1,52,45,12,27,57,24		42,40, 6,18	
		2, 4, 0, 4,18,44,29, 0		9, 4
50″	9,43,40, 5,52,49,31,12,26,24		42,40,15,22	
		2, 4, 0, 3,36, 4,13,38		9, 4
52″	9,43,42, 9,52,53, 7,16,40, 2		42,40,24,26	
		2, 4, 0, 2,53,23,49,12		9, 4
54″	9,43,44,13,52,56, 0,40,29,14		42,40,33,30	
		2, 4, 0, 2,10,43,15,42		9, 4
56″	9,43,46,17,52,58,11,23,44,56		42,40,42,34	
		2, 4, 0, 1,28, 2,33, 8		9, 4
58″	9,43,48,21,52,59,39,26,18, 4		42,40,51,38	
		2, 4, 0, 0,45,21,41,30		
60″	9,43,50,25,53, 0,24,47,59,34			
exact	9,43,50,25,53, 0,24,48, 4,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°20′ 0″	9,43,50,25,53, 0,24,48, 4,36			
		2, 4, 0, 0, 2,40,41,19		
2″	9,43,52,29,53, 0,27,28,45,55		42,41, 9,44	
		2, 3,59,59,19,59,31,35		9, 4
4″	9,43,54,33,52,59,47,28,17,30		42,41,18,48	
		2, 3,59,58,37,18,12,47		9, 4
6″	9,43,56,37,52,58,24,46,30,17		42,41,27,52	
		2, 3,59,57,54,36,44,55		9, 4
8″	9,43,58,41,52,56,19,23,15,12		42,41,36,56	
		2, 3,59,57,11,55, 7,59		9, 4
10″	9,44, 0,45,52,53,31,18,23,11		42,41,46, 0	
		2, 3,59,56,29,13,21,59		9, 4
12″	9,44, 2,49,52,50, 0,31,45,10		42,41,55, 4	
		2, 3,59,55,46,31,26,55		9, 4
14″	9,44, 4,53,52,45,47, 3,12, 5		42,42, 4, 8	
		2, 3,59,55, 3,49,22,47		9, 4
16″	9,44, 6,57,52,40,50,52,34,52		42,42,13,12	
		2, 3,59,54,21, 7, 9,35		9, 4
18″	9,44, 9, 1,52,35,11,59,44,27		42,42,22,16	
		2, 3,59,53,38,24,47,19		9, 4
20″	9,44,11, 5,52,28,50,24,31,46		42,42,31,20	
		2, 3,59,52,55,42,15,59		9, 4
22″	9,44,13, 9,52,21,46, 6,47,45		42,42,40,24	
		2, 3,59,52,12,59,35,35		9, 4
24″	9,44,15,13,52,13,59, 6,23,20		42,42,49,28	
		2, 3,59,51,30,16,46, 7		9, 4
26″	9,44,17,17,52, 5,29,23, 9,27		42,42,58,32	
		2, 3,59,50,47,33,47,35		9, 4
28″	9,44,19,21,51,56,16,56,57, 2		42,43, 7,36	
		2, 3,59,50, 4,50,39,59		9, 4
30″	9,44,21,25,51,46,21,47,37, 1		42,43,16,40	
		2, 3,59,49,22, 7,23,19		9, 4
32″	9,44,23,29,51,35,43,55, 0,20		42,43,25,44	
		2, 3,59,48,39,23,57,35		9, 4
34″	9,44,25,33,51,24,23,18,57,55		42,43,34,48	
		2, 3,59,47,56,40,22,47		9, 4
36″	9,44,27,37,51,12,19,59,20,42		42,43,43,52	
		2, 3,59,47,13,56,38,55		9, 4
38″	9,44,29,41,50,59,33,55,59,37		42,43,52,56	
		2, 3,59,46,31,12,45,59		9, 4
40″	9,44,31,45,50,46, 5, 8,45,36		42,44, 2, 0	
		2, 3,59,45,48,28,43,59		9, 4
42″	9,44,33,49,50,31,53,37,29,35		42,44,11, 4	
		2, 3,59,45, 5,44,32,55		9, 4
44″	9,44,35,53,50,16,59,22, 2,30		42,44,20, 8	
		2, 3,59,44,23, 0,12,47		9, 4
46″	9,44,37,57,50, 1,22,22,15,17		42,44,29,12	
		2, 3,59,43,40,15,43,35		9, 4
48″	9,44,40, 1,49,45, 2,37,58,52		42,44,38,16	
		2, 3,59,42,57,31, 5,19		9, 4
50″	9,44,42, 5,49,28, 0, 9, 4,11		42,44,47,20	
		2, 3,59,42,14,46,17,59		9, 4
52″	9,44,44, 9,49,10,14,55,22,10		42,44,56,24	
		2, 3,59,41,32, 1,21,35		9, 4
54″	9,44,46,13,48,51,46,56,43,45		42,45, 5,28	
		2, 3,59,40,49,16,16, 7		9, 4
56″	9,44,48,17,48,32,36,12,59,52		42,45,14,32	
		2, 3,59,40, 6,31, 1,35		9, 4
58″	9,44,50,21,48,12,42,44, 1,27		42,45,23,36	
		2, 3,59,39,23,45,37,59		
60″	9,44,52,25,47,52, 6,29,39,26			
exact	9,44,52,25,47,52, 6,29,45,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°21′ 0″	9,44,52,25,47,52, 6,29,45,31			
		2, 3,59,38,41, 0, 5,58		
2″	9,44,54,29,47,30,47,29,51,29		42,45,41,41	
		2, 3,59,37,58,14,24,17		9, 4
4″	9,44,56,33,47, 8,45,44,15,46		42,45,50,45	
		2, 3,59,37,15,28,33,32		9, 4
6″	9,44,58,37,46,46, 1,12,49,18		42,45,59,49	
		2, 3,59,36,32,42,33,43		9, 4
8″	9,45, 0,41,46,22,33,55,23, 1		42,46, 8,53	
		2, 3,59,35,49,56,24,50		9, 4
10″	9,45, 2,45,45,58,23,51,47,51		42,46,17,57	
		2, 3,59,35, 7,10, 6,53		9, 4
12″	9,45, 4,49,45,33,31, 1,54,44		42,46,27, 1	
		2, 3,59,34,24,23,39,52		9, 4
14″	9,45, 6,53,45, 7,55,25,34,36		42,46,36, 5	
		2, 3,59,33,41,37, 3,47		9, 4
16″	9,45, 8,57,44,41,37, 2,38,23		42,46,45, 9	
		2, 3,59,32,58,50,18,38		9, 4
18″	9,45,11, 1,44,14,35,52,57, 1		42,46,54,13	
		2, 3,59,32,16, 3,24,25		9, 4
20″	9,45,13, 5,43,46,51,56,21,26		42,47, 3,17	
		2, 3,59,31,33,16,21, 8		9, 4
22″	9,45,15, 9,43,18,25,12,42,34		42,47,12,21	
		2, 3,59,30,50,29, 8,47		9, 4
24″	9,45,17,13,42,49,15,41,51,21		42,47,21,25	
		2, 3,59,30, 7,41,47,22		9, 4
26″	9,45,19,17,42,19,23,23,38,43		42,47,30,29	
		2, 3,59,29,24,54,16,53		9, 4
28″	9,45,21,21,41,48,48,17,55,36		42,47,39,33	
		2, 3,59,28,42, 6,37,20		9, 4
30″	9,45,23,25,41,17,30,24,32,56		42,47,48,37	
		2, 3,59,27,59,18,48,43		9, 4
32″	9,45,25,29,40,45,29,43,21,39		42,47,57,41	
		2, 3,59,27,16,30,51, 2		9, 4
34″	9,45,27,33,40,12,46,14,12,41		42,48, 6,45	
		2, 3,59,26,33,42,44,17		9, 4
36″	9,45,29,37,39,39,19,56,56,58		42,48,15,49	
		2, 3,59,25,50,54,28,28		9, 4
38″	9,45,31,41,39, 5,10,51,25,26		42,48,24,53	
		2, 3,59,25, 8, 6, 3,35		9, 4
40″	9,45,33,45,38,30,18,57,29, 1		42,48,33,57	
		2, 3,59,24,25,17,29,38		9, 4
42″	9,45,35,49,37,54,44,14,58,39		42,48,43, 1	
		2, 3,59,23,42,28,46,37		9, 4
44″	9,45,37,53,37,18,26,43,45,16		42,48,52, 5	
		2, 3,59,22,59,39,54,32		9, 4
46″	9,45,39,57,36,41,26,23,39,48		42,49, 1, 9	
		2, 3,59,22,16,50,53,23		9, 4
48″	9,45,42, 1,36, 3,43,14,33,11		42,49,10,13	
		2, 3,59,21,34, 1,43,10		9, 4
50″	9,45,44, 5,35,25,17,16,16,21		42,49,19,17	
		2, 3,59,20,51,12,23,53		9, 4
52″	9,45,46, 9,34,46, 8,28,40,14		42,49,28,21	
		2, 3,59,20, 8,22,55,32		9, 4
54″	9,45,48,13,34, 6,16,51,35,46		42,49,37,25	
		2, 3,59,19,25,33,18, 7		9, 4
56″	9,45,50,17,33,25,42,24,53,53		42,49,46,29	
		2, 3,59,18,42,43,31,38		9, 4
58″	9,45,52,21,32,44,25, 8,25,31		42,49,55,33	
		2, 3,59,17,59,53,36, 5		
60″	9,45,54,25,32, 2,25, 2, 1,36			
exact	9,45,54,25,32, 2,25, 2, 6,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°22′ 0″	9,45,54,25,32, 2,25, 2, 6,56			
		2, 3,59,17,17, 3,32, 8		
2″	9,45,56,29,31,19,42, 5,39, 4		42,50,13,38	
		2, 3,59,16,34,13,18,30		9, 4
4″	9,45,58,33,30,36,16,18,57,34		42,50,22,42	
		2, 3,59,15,51,22,55,48		9, 4
6″	9,46, 0,37,29,52, 7,41,53,22		42,50,31,46	
		2, 3,59,15, 8,32,24, 2		9, 4
8″	9,46, 2,41,29, 7,16,14,17,24		42,50,40,50	
		2, 3,59,14,25,41,43,12		9, 4
10″	9,46, 4,45,28,21,41,56, 0,36		42,50,49,54	
		2, 3,59,13,42,50,53,18		9, 4
12″	9,46, 6,49,27,35,24,46,53,54		42,50,58,58	
		2, 3,59,12,59,59,54,20		9, 4
14″	9,46, 8,53,26,48,24,46,48,14		42,51, 8, 2	
		2, 3,59,12,17, 8,46,18		9, 4
16″	9,46,10,57,26, 0,41,55,34,32		42,51,17, 6	
		2, 3,59,11,34,17,29,12		9, 4
18″	9,46,13, 1,25,12,16,13, 3,44		42,51,26,10	
		2, 3,59,10,51,26, 3, 2		9, 4
20″	9,46,15, 5,24,23, 7,39, 6,46		42,51,35,14	
		2, 3,59,10, 8,34,27,48		9, 4
22″	9,46,17, 9,23,33,16,13,34,34		42,51,44,18	
		2, 3,59, 9,25,42,43,30		9, 4
24″	9,46,19,13,22,42,41,56,18, 4		42,51,53,22	
		2, 3,59, 8,42,50,50, 8		9, 4
26″	9,46,21,17,21,51,24,47, 8,12		42,52, 2,26	
		2, 3,59, 7,59,58,47,42		9, 4
28″	9,46,23,21,20,59,24,45,55,54		42,52,11,30	
		2, 3,59, 7,17, 6,36,12		9, 4
30″	9,46,25,25,20, 6,41,52,32, 6		42,52,20,34	
		2, 3,59, 6,34,14,15,38		9, 4
32″	9,46,27,29,19,13,16, 6,47,44		42,52,29,38	
		2, 3,59, 5,51,21,46, 0		9, 4
34″	9,46,29,33,18,19, 7,28,33,44		42,52,38,42	
		2, 3,59, 5, 8,29, 7,18		9, 4
36″	9,46,31,37,17,24,15,57,41, 2		42,52,47,46	
		2, 3,59, 4,25,36,19,32		9, 4
38″	9,46,33,41,16,28,41,34, 0,34		42,52,56,50	
		2, 3,59, 3,42,43,22,42		9, 4
40″	9,46,35,45,15,32,24,17,23,16		42,53, 5,54	
		2, 3,59, 2,59,50,16,48		9, 4
42″	9,46,37,49,14,35,24, 7,40, 4		42,53,14,58	
		2, 3,59, 2,16,57, 1,50		9, 4
44″	9,46,39,53,13,37,41, 4,41,54		42,53,24, 2	
		2, 3,59, 1,34, 3,37,48		9, 4
46″	9,46,41,57,12,39,15, 8,19,42		42,53,33, 6	
		2, 3,59, 0,51,10, 4,42		9, 4
48″	9,46,44, 1,11,40, 6,18,24,24		42,53,42,10	
		2, 3,59, 0, 8,16,22,32		9, 4
50″	9,46,46, 5,10,40,14,34,46,56		42,53,51,14	
		2, 3,58,59,25,22,31,18		9, 4
52″	9,46,48, 9, 9,39,39,57,18,14		42,54, 0,18	
		2, 3,58,58,42,28,31, 0		9, 4
54″	9,46,50,13, 8,38,22,25,49,14		42,54, 9,22	
		2, 3,58,57,59,34,21,38		9, 4
56″	9,46,52,17, 7,36,22, 0,10,52		42,54,18,26	
		2, 3,58,57,16,40, 3,12		9, 4
58″	9,46,54,21, 6,33,38,40,14, 4		42,54,27,30	
		2, 3,58,56,33,45,35,42		
60″	9,46,56,25, 5,30,12,25,49,46			
exact	9,46,56,25, 5,30,12,26, 0, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°23′ 0″	9,46,56,25, 5,30,12,26, 0, 1			
		2, 3,58,55,50,51, 0,12		
2″	9,46,58,29, 4,26, 3,17, 0,13		42,54,45,34	
		2, 3,58,55, 7,56,14,38		9, 4
4″	9,47, 0,33, 3,21,11,13,14,51		42,54,54,38	
		2, 3,58,54,25, 1,20, 0		9, 4
6″	9,47, 2,37, 2,15,36,14,34,51		42,55, 3,42	
		2, 3,58,53,42, 6,16,18		9, 4
8″	9,47, 4,41, 1, 9,18,20,51, 9		42,55,12,46	
		2, 3,58,52,59,11, 3,32		9, 4
10″	9,47, 6,45, 0, 2,17,31,54,41		42,55,21,50	
		2, 3,58,52,16,15,41,42		9, 4
12″	9,47, 8,48,58,54,33,47,36,23		42,55,30,54	
		2, 3,58,51,33,20,10,48		9, 4
14″	9,47,10,52,57,46, 7, 7,47,11		42,55,39,58	
		2, 3,58,50,50,24,30,50		9, 4
16″	9,47,12,56,56,36,57,32,18, 1		42,55,49, 2	
		2, 3,58,50, 7,28,41,48		9, 4
18″	9,47,15, 0,55,27, 5, 0,59,49		42,55,58, 6	
		2, 3,58,49,24,32,43,42		9, 4
20″	9,47,17, 4,54,16,29,33,43,31		42,56, 7,10	
		2, 3,58,48,41,36,36,32		9, 4
22″	9,47,19, 8,53, 5,11,10,20, 3		42,56,16,14	
		2, 3,58,47,58,40,20,18		9, 4
24″	9,47,21,12,51,53, 9,50,40,21		42,56,25,18	
		2, 3,58,47,15,43,55, 0		9, 4
26″	9,47,23,16,50,40,25,34,35,21		42,56,34,22	
		2, 3,58,46,32,47,20,38		9, 4
28″	9,47,25,20,49,26,58,21,55,59		42,56,43,26	
		2, 3,58,45,49,50,37,12		9, 4
30″	9,47,27,24,48,12,48,12,33,11		42,56,52,30	
		2, 3,58,45, 6,53,44,42		9, 4
32″	9,47,29,28,46,57,55, 6,17,53		42,57, 1,34	
		2, 3,58,44,23,56,43, 8		9, 4
34″	9,47,31,32,45,42,19, 3, 1, 1		42,57,10,38	
		2, 3,58,43,40,59,32,30		9, 4
36″	9,47,33,36,44,26, 0, 2,33,31		42,57,19,42	
		2, 3,58,42,58, 2,12,48		9, 4
38″	9,47,35,40,43, 8,58, 4,46,19		42,57,28,46	
		2, 3,58,42,15, 4,44, 2		9, 4
40″	9,47,37,44,41,51,13, 9,30,21		42,57,37,50	
		2, 3,58,41,32, 7, 6,12		9, 4
42″	9,47,39,48,40,32,45,16,36,33		42,57,46,54	
		2, 3,58,40,49, 9,19,18		9, 4
44″	9,47,41,52,39,13,34,25,55,51		42,57,55,58	
		2, 3,58,40, 6,11,23,20		9, 4
46″	9,47,43,56,37,53,40,37,19,11		42,58, 5, 2	
		2, 3,58,39,23,13,18,18		9, 4
48″	9,47,46, 0,36,33, 3,50,37,29		42,58,14, 6	
		2, 3,58,38,40,15, 4,12		9, 4
50″	9,47,48, 4,35,11,44, 5,41,41		42,58,23,10	
		2, 3,58,37,57,16,41, 2		9, 4
52″	9,47,50, 8,33,49,41,22,22,43		42,58,32,14	
		2, 3,58,37,14,18, 8,48		9, 4
54″	9,47,52,12,32,26,55,40,31,31		42,58,41,18	
		2, 3,58,36,31,19,27,30		9, 4
56″	9,47,54,16,31, 3,26,59,59, 1		42,58,50,22	
		2, 3,58,35,48,20,37, 8		9, 4
58″	9,47,56,20,29,39,15,20,36, 9		42,58,59,26	
		2, 3,58,35, 5,21,37,42		
60″	9,47,58,24,28,14,20,42,13,51			
exact	9,47,58,24,28,14,20,42,27,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°24′ 0″	9,47,58,24,28,14,20,42,27,40			
		2, 3,58,34,22,22,30,35		
2″	9,48, 0,28,26,48,43, 4,58,15		42,59,17,29	
		2, 3,58,33,39,23,13, 6		9, 4
4″	9,48, 2,32,25,22,22,28,11,21		42,59,26,33	
		2, 3,58,32,56,23,46,33		9, 4
6″	9,48, 4,36,23,55,18,51,57,54		42,59,35,37	
		2, 3,58,32,13,24,10,56		9, 4
8″	9,48, 6,40,22,27,32,16, 8,50		42,59,44,41	
		2, 3,58,31,30,24,26,15		9, 4
10″	9,48, 8,44,20,59, 2,40,35, 5		42,59,53,45	
		2, 3,58,30,47,24,32,30		9, 4
12″	9,48,10,48,19,29,50, 5, 7,35		43, 0, 2,49	
		2, 3,58,30, 4,24,29,41		9, 4
14″	9,48,12,52,17,59,54,29,37,16		43, 0,11,53	
		2, 3,58,29,21,24,17,48		9, 4
16″	9,48,14,56,16,29,15,53,55, 4		43, 0,20,57	
		2, 3,58,28,38,23,56,51		9, 4
18″	9,48,17, 0,14,57,54,17,51,55		43, 0,30, 1	
		2, 3,58,27,55,23,26,50		9, 4
20″	9,48,19, 4,13,25,49,41,18,45		43, 0,39, 5	
		2, 3,58,27,12,22,47,45		9, 4
22″	9,48,21, 8,11,53, 2, 4, 6,30		43, 0,48, 9	
		2, 3,58,26,29,21,59,36		9, 4
24″	9,48,23,12,10,19,31,26, 6, 6		43, 0,57,13	
		2, 3,58,25,46,21, 2,23		9, 4
26″	9,48,25,16, 8,45,17,47, 8,29		43, 1, 6,17	
		2, 3,58,25, 3,19,56, 6		9, 4
28″	9,48,27,20, 7,10,21, 7, 4,35		43, 1,15,21	
		2, 3,58,24,20,18,40,45		9, 4
30″	9,48,29,24, 5,34,41,25,45,20		43, 1,24,25	
		2, 3,58,23,37,17,16,20		9, 4
32″	9,48,31,28, 3,58,18,43, 1,40		43, 1,33,29	
		2, 3,58,22,54,15,42,51		9, 4
34″	9,48,33,32, 2,21,12,58,44,31		43, 1,42,33	
		2, 3,58,22,11,14, 0,18		9, 4
36″	9,48,35,36, 0,43,24,12,44,49		43, 1,51,37	
		2, 3,58,21,28,12, 8,41		9, 4
38″	9,48,37,39,59, 4,52,24,53,30		43, 2, 0,41	
		2, 3,58,20,45,10, 8, 0		9, 4
40″	9,48,39,43,57,25,37,35, 1,30		43, 2, 9,45	
		2, 3,58,20, 2, 7,58,15		9, 4
42″	9,48,41,47,55,45,39,42,59,45		43, 2,18,49	
		2, 3,58,19,19, 5,39,26		9, 4
44″	9,48,43,51,54, 4,58,48,39,11		43, 2,27,53	
		2, 3,58,18,36, 3,11,33		9, 4
46″	9,48,45,55,52,23,34,51,50,44		43, 2,36,57	
		2, 3,58,17,53, 0,34,36		9, 4
48″	9,48,47,59,50,41,27,52,25,20		43, 2,46, 1	
		2, 3,58,17, 9,57,48,35		9, 4
50″	9,48,50, 3,48,58,37,50,13,55		43, 2,55, 5	
		2, 3,58,16,26,54,53,30		9, 4
52″	9,48,52, 7,47,15, 4,45, 7,25		43, 3, 4, 9	
		2, 3,58,15,43,51,49,21		9, 4
54″	9,48,54,11,45,30,48,36,56,46		43, 3,13,13	
		2, 3,58,15, 0,48,36, 8		9, 4
56″	9,48,56,15,43,45,49,25,32,54		43, 3,22,17	
		2, 3,58,14,17,45,13,51		9, 4
58″	9,48,58,19,42, 0, 7,10,46,45		43, 3,31,21	
		2, 3,58,13,34,41,42,30		
60″	9,49, 0,23,40,13,41,52,29,15			
exact	9,49, 0,23,40,13,41,52,44,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°25′ 0″	9,49, 0,23,40,13,41,52,44,34			
		2, 3,58,12,51,38, 3,39		
2″	9,49, 2,27,38,26,33,30,48,13		43, 3,49,23	
		2, 3,58,12, 8,34,14,16		9, 4
4″	9,49, 4,31,36,38,42, 5, 2,29		43, 3,58,27	
		2, 3,58,11,25,30,15,49		9, 4
6″	9,49, 6,35,34,50, 7,35,18,18		43, 4, 7,31	
		2, 3,58,10,42,26, 8,18		9, 4
8″	9,49, 8,39,33, 0,50, 1,26,36		43, 4,16,35	
		2, 3,58, 9,59,21,51,43		9, 4
10″	9,49,10,43,31,10,49,23,18,19		43, 4,25,39	
		2, 3,58, 9,16,17,26, 4		9, 4
12″	9,49,12,47,29,20, 5,40,44,23		43, 4,34,43	
		2, 3,58, 8,33,12,51,21		9, 4
14″	9,49,14,51,27,28,38,53,35,44		43, 4,43,47	
		2, 3,58, 7,50, 8, 7,34		9, 4
16″	9,49,16,55,25,36,29, 1,43,18		43, 4,52,51	
		2, 3,58, 7, 7, 3,14,43		9, 4
18″	9,49,18,59,23,43,36, 4,58, 1		43, 5, 1,55	
		2, 3,58, 6,23,58,12,48		9, 4
20″	9,49,21, 3,21,50, 0, 3,10,49		43, 5,10,59	
		2, 3,58, 5,40,53, 1,49		9, 4
22″	9,49,23, 7,19,55,40,56,12,38		43, 5,20, 3	
		2, 3,58, 4,57,47,41,46		9, 4
24″	9,49,25,11,18, 0,38,43,54,24		43, 5,29, 7	
		2, 3,58, 4,14,42,12,39		9, 4
26″	9,49,27,15,16, 4,53,26, 7, 3		43, 5,38,11	
		2, 3,58, 3,31,36,34,28		9, 4
28″	9,49,29,19,14, 8,25, 2,41,31		43, 5,47,15	
		2, 3,58, 2,48,30,47,13		9, 4
30″	9,49,31,23,12,11,13,33,28,44		43, 5,56,19	
		2, 3,58, 2, 5,24,50,54		9, 4
32″	9,49,33,27,10,13,18,58,19,38		43, 6, 5,23	
		2, 3,58, 1,22,18,45,31		9, 4
34″	9,49,35,31, 8,14,41,17, 5, 9		43, 6,14,27	
		2, 3,58, 0,39,12,31, 4		9, 4
36″	9,49,37,35, 6,15,20,29,36,13		43, 6,23,31	
		2, 3,57,59,56, 6, 7,33		9, 4
38″	9,49,39,39, 4,15,16,35,43,46		43, 6,32,35	
		2, 3,57,59,12,59,34,58		9, 4
40″	9,49,41,43, 2,14,29,35,18,44		43, 6,41,39	
		2, 3,57,58,29,52,53,19		9, 4
42″	9,49,43,47, 0,12,59,28,12, 3		43, 6,50,43	
		2, 3,57,57,46,46, 2,36		9, 4
44″	9,49,45,50,58,10,46,14,14,39		43, 6,59,47	
		2, 3,57,57, 3,39, 2,49		9, 4
46″	9,49,47,54,56, 7,49,53,17,28		43, 7, 8,51	
		2, 3,57,56,20,31,53,58		9, 4
48″	9,49,49,58,54, 4,10,25,11,26		43, 7,17,55	
		2, 3,57,55,37,24,36, 3		9, 4
50″	9,49,52, 2,51,59,47,49,47,29		43, 7,26,59	
		2, 3,57,54,54,17, 9, 4		9, 4
52″	9,49,54, 6,49,54,42, 6,56,33		43, 7,36, 3	
		2, 3,57,54,11, 9,33, 1		9, 4
54″	9,49,56,10,47,48,53,16,29,34		43, 7,45, 7	
		2, 3,57,53,28, 1,47,54		9, 4
56″	9,49,58,14,45,42,21,18,17,28		43, 7,54,11	
		2, 3,57,52,44,53,53,43		9, 4
58″	9,50, 0,18,43,35, 6,12,11,11		43, 8, 3,15	
		2, 3,57,52, 1,45,50,28		
60″	9,50, 2,22,41,27, 7,58, 1,39			
exact	9,50, 2,22,41,27, 7,58,17,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°26′ 0″	9,50, 2,22,41,27, 7,58,17,11			
		2, 3,57,51,18,37,39,48		
2″	9,50, 4,26,39,18,26,35,56,59		43, 8,21,16	
		2, 3,57,50,35,29,18,32		9, 4
4″	9,50, 6,30,37, 9, 2, 5,15,31		43, 8,30,20	
		2, 3,57,49,52,20,48,12		9, 4
6″	9,50, 8,34,34,58,54,26, 3,43		43, 8,39,24	
		2, 3,57,49, 9,12, 8,48		9, 4
8″	9,50,10,38,32,48, 3,38,12,31		43, 8,48,28	
		2, 3,57,48,26, 3,20,20		9, 4
10″	9,50,12,42,30,36,29,41,32,51		43, 8,57,32	
		2, 3,57,47,42,54,22,48		9, 4
12″	9,50,14,46,28,24,12,35,55,39		43, 9, 6,36	
		2, 3,57,46,59,45,16,12		9, 4
14″	9,50,16,50,26,11,12,21,11,51		43, 9,15,40	
		2, 3,57,46,16,36, 0,32		9, 4
16″	9,50,18,54,23,57,28,57,12,23		43, 9,24,44	
		2, 3,57,45,33,26,35,48		9, 4
18″	9,50,20,58,21,43, 2,23,48,11		43, 9,33,48	
		2, 3,57,44,50,17, 2, 0		9, 4
20″	9,50,23, 2,19,27,52,40,50,11		43, 9,42,52	
		2, 3,57,44, 7, 7,19, 8		9, 4
22″	9,50,25, 6,17,11,59,48, 9,19		43, 9,51,56	
		2, 3,57,43,23,57,27,12		9, 4
24″	9,50,27,10,14,55,23,45,36,31		43,10, 1, 0	
		2, 3,57,42,40,47,26,12		9, 4
26″	9,50,29,14,12,38, 4,33, 2,43		43,10,10, 4	
		2, 3,57,41,57,37,16, 8		9, 4
28″	9,50,31,18,10,20, 2,10,18,51		43,10,19, 8	
		2, 3,57,41,14,26,57, 0		9, 4
30″	9,50,33,22, 8, 1,16,37,15,51		43,10,28,12	
		2, 3,57,40,31,16,28,48		9, 4
32″	9,50,35,26, 5,41,47,53,44,39		43,10,37,16	
		2, 3,57,39,48, 5,51,32		9, 4
34″	9,50,37,30, 3,21,35,59,36,11		43,10,46,20	
		2, 3,57,39, 4,55, 5,12		9, 4
36″	9,50,39,34, 1, 0,40,54,41,23		43,10,55,24	
		2, 3,57,38,21,44, 9,48		9, 4
38″	9,50,41,37,58,39, 2,38,51,11		43,11, 4,28	
		2, 3,57,37,38,33, 5,20		9, 4
40″	9,50,43,41,56,16,41,11,56,31		43,11,13,32	
		2, 3,57,36,55,21,51,48		9, 4
42″	9,50,45,45,53,53,36,33,48,19		43,11,22,36	
		2, 3,57,36,12,10,29,12		9, 4
44″	9,50,47,49,51,29,48,44,17,31		43,11,31,40	
		2, 3,57,35,28,58,57,32		9, 4
46″	9,50,49,53,49, 5,17,43,15, 3		43,11,40,44	
		2, 3,57,34,45,47,16,48		9, 4
48″	9,50,51,57,46,40, 3,30,31,51		43,11,49,48	
		2, 3,57,34, 2,35,27, 0		9, 4
50″	9,50,54, 1,44,14, 6, 5,58,51		43,11,58,52	
		2, 3,57,33,19,23,28, 8		9, 4
52″	9,50,56, 5,41,47,25,29,26,59		43,12, 7,56	
		2, 3,57,32,36,11,20,12		9, 4
54″	9,50,58, 9,39,20, 1,40,47,11		43,12,17, 0	
		2, 3,57,31,52,59, 3,12		9, 4
56″	9,51, 0,13,36,51,54,39,50,23		43,12,26, 4	
		2, 3,57,31, 9,46,37, 8		9, 4
58″	9,51, 2,17,34,23, 4,26,27,31		43,12,35, 8	
		2, 3,57,30,26,34, 2, 0		
60″	9,51, 4,21,31,53,31, 0,29,31			
exact	9,51, 4,21,31,53,31, 0,43,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°27′ 0″	9,51, 4,21,31,53,31, 0,43,48			
		2, 3,57,29,43,21,19,25		
2″	9,51, 6,25,29,23,14,22, 3,13		43,12,53, 9	
		2, 3,57,29, 0, 8,26,16		9, 4
4″	9,51, 8,29,26,52,14,30,29,29		43,13, 2,13	
		2, 3,57,28,16,55,24, 3		9, 4
6″	9,51,10,33,24,20,31,25,53,32		43,13,11,17	
		2, 3,57,27,33,42,12,46		9, 4
8″	9,51,12,37,21,48, 5, 8, 6,18		43,13,20,21	
		2, 3,57,26,50,28,52,25		9, 4
10″	9,51,14,41,19,14,55,36,58,43		43,13,29,25	
		2, 3,57,26, 7,15,23, 0		9, 4
12″	9,51,16,45,16,41, 2,52,21,43		43,13,38,29	
		2, 3,57,25,24, 1,44,31		9, 4
14″	9,51,18,49,14, 6,26,54, 6,14		43,13,47,33	
		2, 3,57,24,40,47,56,58		9, 4
16″	9,51,20,53,11,31, 7,42, 3,12		43,13,56,37	
		2, 3,57,23,57,34, 0,21		9, 4
18″	9,51,22,57, 8,55, 5,16, 3,33		43,14, 5,41	
		2, 3,57,23,14,19,54,40		9, 4
20″	9,51,25, 1, 6,18,19,35,58,13		43,14,14,45	
		2, 3,57,22,31, 5,39,55		9, 4
22″	9,51,27, 5, 3,40,50,41,38, 8		43,14,23,49	
		2, 3,57,21,47,51,16, 6		9, 4
24″	9,51,29, 9, 1, 2,38,32,54,14		43,14,32,53	
		2, 3,57,21, 4,36,43,13		9, 4
26″	9,51,31,12,58,23,43, 9,37,27		43,14,41,57	
		2, 3,57,20,21,22, 1,16		9, 4
28″	9,51,33,16,55,44, 4,31,38,43		43,14,51, 1	
		2, 3,57,19,38, 7,10,15		9, 4
30″	9,51,35,20,53, 3,42,38,48,58		43,15, 0, 5	
		2, 3,57,18,54,52,10,10		9, 4
32″	9,51,37,24,50,22,37,30,59, 8		43,15, 9, 9	
		2, 3,57,18,11,37, 1, 1		9, 4
34″	9,51,39,28,47,40,49, 8, 0, 9		43,15,18,13	
		2, 3,57,17,28,21,42,48		9, 4
36″	9,51,41,32,44,58,17,29,42,57		43,15,27,17	
		2, 3,57,16,45, 6,15,31		9, 4
38″	9,51,43,36,42,15, 2,35,58,28		43,15,36,21	
		2, 3,57,16, 1,50,39,10		9, 4
40″	9,51,45,40,39,31, 4,26,37,38		43,15,45,25	
		2, 3,57,15,18,34,53,45		9, 4
42″	9,51,47,44,36,46,23, 1,31,23		43,15,54,29	
		2, 3,57,14,35,18,59,16		9, 4
44″	9,51,49,48,34, 0,58,20,30,39		43,16, 3,33	
		2, 3,57,13,52, 2,55,43		9, 4
46″	9,51,51,52,31,14,50,23,26,22		43,16,12,37	
		2, 3,57,13, 8,46,43, 6		9, 4
48″	9,51,53,56,28,27,59,10, 9,28		43,16,21,41	
		2, 3,57,12,25,30,21,25		9, 4
50″	9,51,56, 0,25,40,24,40,30,53		43,16,30,45	
		2, 3,57,11,42,13,50,40		9, 4
52″	9,51,58, 4,22,52, 6,54,21,33		43,16,39,49	
		2, 3,57,10,58,57,10,51		9, 4
54″	9,52, 0, 8,20, 3, 5,51,32,24		43,16,48,53	
		2, 3,57,10,15,40,21,58		9, 4
56″	9,52, 2,12,17,13,21,31,54,22		43,16,57,57	
		2, 3,57, 9,32,23,24, 1		9, 4
58″	9,52, 4,16,14,22,53,55,18,23		43,17, 7, 1	
		2, 3,57, 8,49, 6,17, 0		
60″	9,52, 6,20,11,31,43, 1,35,23			
exact	9,52, 6,20,11,31,43, 1,54,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°28′ 0″	9,52, 6,20,11,31,43, 1,54,28			
		2, 3,57, 8, 5,49, 2,56		
2″	9,52, 8,24, 8,39,48,50,57,24		43,17,25, 1	
		2, 3,57, 7,22,31,37,55		9, 4
4″	9,52,10,28, 5,47,11,22,35,19		43,17,34, 5	
		2, 3,57, 6,39,14, 3,50		9, 4
6″	9,52,12,32, 2,53,50,36,39, 9		43,17,43, 9	
		2, 3,57, 5,55,56,20,41		9, 4
8″	9,52,14,35,59,59,46,32,59,50		43,17,52,13	
		2, 3,57, 5,12,38,28,28		9, 4
10″	9,52,16,39,57, 4,59,11,28,18		43,18, 1,17	
		2, 3,57, 4,29,20,27,11		9, 4
12″	9,52,18,43,54, 9,28,31,55,29		43,18,10,21	
		2, 3,57, 3,46, 2,16,50		9, 4
14″	9,52,20,47,51,13,14,34,12,19		43,18,19,25	
		2, 3,57, 3, 2,43,57,25		9, 4
16″	9,52,22,51,48,16,17,18, 9,44		43,18,28,29	
		2, 3,57, 2,19,25,28,56		9, 4
18″	9,52,24,55,45,18,36,43,38,40		43,18,37,33	
		2, 3,57, 1,36, 6,51,23		9, 4
20″	9,52,26,59,42,20,12,50,30, 3		43,18,46,37	
		2, 3,57, 0,52,48, 4,46		9, 4
22″	9,52,29, 3,39,21, 5,38,34,49		43,18,55,41	
		2, 3,57, 0, 9,29, 9, 5		9, 4
24″	9,52,31, 7,36,21,15, 7,43,54		43,19, 4,45	
		2, 3,56,59,26,10, 4,20		9, 4
26″	9,52,33,11,33,20,41,17,48,14		43,19,13,49	
		2, 3,56,58,42,50,50,31		9, 4
28″	9,52,35,15,30,19,24, 8,38,45		43,19,22,53	
		2, 3,56,57,59,31,27,38		9, 4
30″	9,52,37,19,27,17,23,40, 6,23		43,19,31,57	
		2, 3,56,57,16,11,55,41		9, 4
32″	9,52,39,23,24,14,39,52, 2, 4		43,19,41, 1	
		2, 3,56,56,32,52,14,40		9, 4
34″	9,52,41,27,21,11,12,44,16,44		43,19,50, 5	
		2, 3,56,55,49,32,24,35		9, 4
36″	9,52,43,31,18, 7, 2,16,41,19		43,19,59, 9	
		2, 3,56,55, 6,12,25,26		9, 4
38″	9,52,45,35,15, 2, 8,29, 6,45		43,20, 8,13	
		2, 3,56,54,22,52,17,13		9, 4
40″	9,52,47,39,11,56,31,21,23,58		43,20,17,17	
		2, 3,56,53,39,31,59,56		9, 4
42″	9,52,49,43, 8,50,10,53,23,54		43,20,26,21	
		2, 3,56,52,56,11,33,35		9, 4
44″	9,52,51,47, 5,43, 7, 4,57,29		43,20,35,25	
		2, 3,56,52,12,50,58,10		9, 4
46″	9,52,53,51, 2,35,19,55,55,39		43,20,44,29	
		2, 3,56,51,29,30,13,41		9, 4
48″	9,52,55,54,59,26,49,26, 9,20		43,20,53,33	
		2, 3,56,50,46, 9,20, 8		9, 4
50″	9,52,57,58,56,17,35,35,29,28		43,21, 2,37	
		2, 3,56,50, 2,48,17,31		9, 4
52″	9,53, 0, 2,53, 7,38,23,46,59		43,21,11,41	
		2, 3,56,49,19,27, 5,50		9, 4
54″	9,53, 2, 6,49,56,57,50,52,49		43,21,20,45	
		2, 3,56,48,36, 5,45, 5		9, 4
56″	9,53, 4,10,46,45,33,56,37,54		43,21,29,49	
		2, 3,56,47,52,44,15,16		9, 4
58″	9,53, 6,14,43,33,26,40,53,10		43,21,38,53	
		2, 3,56,47, 9,22,36,23		
60″	9,53, 8,18,40,20,36, 3,29,33			
exact	9,53, 8,18,40,20,36, 3,51,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°29′ 0″	9,53, 8,18,40,20,36, 3,51,10			
		2, 3,56,46,26, 0,50,42		
2″	9,53,10,22,37, 7, 2, 4,41,52		43,21,56,52	
		2, 3,56,45,42,38,53,50		9, 4
4″	9,53,12,26,33,52,44,43,35,42		43,22, 5,56	
		2, 3,56,44,59,16,47,54		9, 4
6″	9,53,14,30,30,37,44, 0,23,36		43,22,15, 0	
		2, 3,56,44,15,54,32,54		9, 4
8″	9,53,16,34,27,21,59,54,56,30		43,22,24, 4	
		2, 3,56,43,32,32, 8,50		9, 4
10″	9,53,18,38,24, 5,32,27, 5,20		43,22,33, 8	
		2, 3,56,42,49, 9,35,42		9, 4
12″	9,53,20,42,20,48,21,36,41, 2		43,22,42,12	
		2, 3,56,42, 5,46,53,30		9, 4
14″	9,53,22,46,17,30,27,23,34,32		43,22,51,16	
		2, 3,56,41,22,24, 2,14		9, 4
16″	9,53,24,50,14,11,49,47,36,46		43,23, 0,20	
		2, 3,56,40,39, 1, 1,54		9, 4
18″	9,53,26,54,10,52,28,48,38,40		43,23, 9,24	
		2, 3,56,39,55,37,52,30		9, 4
20″	9,53,28,58, 7,32,24,26,31,10		43,23,18,28	
		2, 3,56,39,12,14,34, 2		9, 4
22″	9,53,31, 2, 4,11,36,41, 5,12		43,23,27,32	
		2, 3,56,38,28,51, 6,30		9, 4
24″	9,53,33, 6, 0,50, 5,32,11,42		43,23,36,36	
		2, 3,56,37,45,27,29,54		9, 4
26″	9,53,35, 9,57,27,50,59,41,36		43,23,45,40	
		2, 3,56,37, 2, 3,44,14		9, 4
28″	9,53,37,13,54, 4,53, 3,25,50		43,23,54,44	
		2, 3,56,36,18,39,49,30		9, 4
30″	9,53,39,17,50,41,11,43,15,20		43,24, 3,48	
		2, 3,56,35,35,15,45,42		9, 4
32″	9,53,41,21,47,16,46,59, 1, 2		43,24,12,52	
		2, 3,56,34,51,51,32,50		9, 4
34″	9,53,43,25,43,51,38,50,33,52		43,24,21,56	
		2, 3,56,34, 8,27,10,54		9, 4
36″	9,53,45,29,40,25,47,17,44,46		43,24,31, 0	
		2, 3,56,33,25, 2,39,54		9, 4
38″	9,53,47,33,36,59,12,20,24,40		43,24,40, 4	
		2, 3,56,32,41,37,59,50		9, 4
40″	9,53,49,37,33,31,53,58,24,30		43,24,49, 8	
		2, 3,56,31,58,13,10,42		9, 4
42″	9,53,51,41,30, 3,52,11,35,12		43,24,58,12	
		2, 3,56,31,14,48,12,30		9, 4
44″	9,53,53,45,26,35, 6,59,47,42		43,25, 7,16	
		2, 3,56,30,31,23, 5,14		9, 4
46″	9,53,55,49,23, 5,38,22,52,56		43,25,16,20	
		2, 3,56,29,47,57,48,54		9, 4
48″	9,53,57,53,19,35,26,20,41,50		43,25,25,24	
		2, 3,56,29, 4,32,23,30		9, 4
50″	9,53,59,57,16, 4,30,53, 5,20		43,25,34,28	
		2, 3,56,28,21, 6,49, 2		9, 4
52″	9,54, 2, 1,12,32,51,59,54,22		43,25,43,32	
		2, 3,56,27,37,41, 5,30		9, 4
54″	9,54, 4, 5, 9, 0,29,40,59,52		43,25,52,36	
		2, 3,56,26,54,15,12,54		9, 4
56″	9,54, 6, 9, 5,27,23,56,12,46		43,26, 1,40	
		2, 3,56,26,10,49,11,14		9, 4
58″	9,54, 8,13, 1,53,34,45,24, 0		43,26,10,44	
		2, 3,56,25,27,23, 0,30		
60″	9,54,10,16,58,19, 2, 8,24,30			
exact	9,54,10,16,58,19, 2, 8,47,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°30′ 0″	9,54,10,16,58,19, 2, 8,47,42			
		2, 3,56,24,43,56,43, 8		
2″	9,54,12,20,54,43,46, 5,30,50		43,26,28,42	
		2, 3,56,24, 0,30,14,26		9, 4
4″	9,54,14,24,51, 7,46,35,45,16		43,26,37,46	
		2, 3,56,23,17, 3,36,40		9, 4
6″	9,54,16,28,47,31, 3,39,21,56		43,26,46,50	
		2, 3,56,22,33,36,49,50		9, 4
8″	9,54,18,32,43,53,37,16,11,46		43,26,55,54	
		2, 3,56,21,50, 9,53,56		9, 4
10″	9,54,20,36,40,15,27,26, 5,42		43,27, 4,58	
		2, 3,56,21, 6,42,48,58		9, 4
12″	9,54,22,40,36,36,34, 8,54,40		43,27,14, 2	
		2, 3,56,20,23,15,34,56		9, 4
14″	9,54,24,44,32,56,57,24,29,36		43,27,23, 6	
		2, 3,56,19,39,48,11,50		9, 4
16″	9,54,26,48,29,16,37,12,41,26		43,27,32,10	
		2, 3,56,18,56,20,39,40		9, 4
18″	9,54,28,52,25,35,33,33,21, 6		43,27,41,14	
		2, 3,56,18,12,52,58,26		9, 4
20″	9,54,30,56,21,53,46,26,19,32		43,27,50,18	
		2, 3,56,17,29,25, 8, 8		9, 4
22″	9,54,33, 0,18,11,15,51,27,40		43,27,59,22	
		2, 3,56,16,45,57, 8,46		9, 4
24″	9,54,35, 4,14,28, 1,48,36,26		43,28, 8,26	
		2, 3,56,16, 2,29, 0,20		9, 4
26″	9,54,37, 8,10,44, 4,17,36,46		43,28,17,30	
		2, 3,56,15,19, 0,42,50		9, 4
28″	9,54,39,12, 6,59,23,18,19,36		43,28,26,34	
		2, 3,56,14,35,32,16,16		9, 4
30″	9,54,41,16, 3,13,58,50,35,52		43,28,35,38	
		2, 3,56,13,52, 3,40,38		9, 4
32″	9,54,43,19,59,27,50,54,16,30		43,28,44,42	
		2, 3,56,13, 8,34,55,56		9, 4
34″	9,54,45,23,55,40,59,29,12,26		43,28,53,46	
		2, 3,56,12,25, 6, 2,10		9, 4
36″	9,54,47,27,51,53,24,35,14,36		43,29, 2,50	
		2, 3,56,11,41,36,59,20		9, 4
38″	9,54,49,31,48, 5, 6,12,13,56		43,29,11,54	
		2, 3,56,10,58, 7,47,26		9, 4
40″	9,54,51,35,44,16, 4,20, 1,22		43,29,20,58	
		2, 3,56,10,14,38,26,28		9, 4
42″	9,54,53,39,40,26,18,58,27,50		43,29,30, 2	
		2, 3,56, 9,31, 8,56,26		9, 4
44″	9,54,55,43,36,35,50, 7,24,16		43,29,39, 6	
		2, 3,56, 8,47,39,17,20		9, 4
46″	9,54,57,47,32,44,37,46,41,36		43,29,48,10	
		2, 3,56, 8, 4, 9,29,10		9, 4
48″	9,54,59,51,28,52,41,56,10,46		43,29,57,14	
		2, 3,56, 7,20,39,31,56		9, 4
50″	9,55, 1,55,25, 0, 2,35,42,42		43,30, 6,18	
		2, 3,56, 6,37, 9,25,38		9, 4
52″	9,55, 3,59,21, 6,39,45, 8,20		43,30,15,22	
		2, 3,56, 5,53,39,10,16		9, 4
54″	9,55, 6, 3,17,12,33,24,18,36		43,30,24,26	
		2, 3,56, 5,10, 8,45,50		9, 4
56″	9,55, 8, 7,13,17,43,33, 4,26		43,30,33,30	
		2, 3,56, 4,26,38,12,20		9, 4
58″	9,55,10,11, 9,22,10,11,16,46		43,30,42,34	
		2, 3,56, 3,43, 7,29,46		
60″	9,55,12,15, 5,25,53,18,46,32			
exact	9,55,12,15, 5,25,53,19, 9,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°31′ 0″	9,55,12,15, 5,25,53,19, 9,45			
		2, 3,56, 2,59,36,40,38		
2″	9,55,14,19, 1,28,52,55,50,23		43,31, 0,31	
		2, 3,56, 2,16, 5,40, 7		9, 4
4″	9,55,16,22,57,31, 9, 1,30,30		43,31, 9,35	
		2, 3,56, 1,32,34,30,32		9, 4
6″	9,55,18,26,53,32,41,36, 1, 2		43,31,18,39	
		2, 3,56, 0,49, 3,11,53		9, 4
8″	9,55,20,30,49,33,30,39,12,55		43,31,27,43	
		2, 3,56, 0, 5,31,44,10		9, 4
10″	9,55,22,34,45,33,36,10,57, 5		43,31,36,47	
		2, 3,55,59,22, 0, 7,23		9, 4
12″	9,55,24,38,41,32,58,11, 4,28		43,31,45,51	
		2, 3,55,58,38,28,21,32		9, 4
14″	9,55,26,42,37,31,36,39,26, 0		43,31,54,55	
		2, 3,55,57,54,56,26,37		9, 4
16″	9,55,28,46,33,29,31,35,52,37		43,32, 3,59	
		2, 3,55,57,11,24,22,38		9, 4
18″	9,55,30,50,29,26,43, 0,15,15		43,32,13, 3	
		2, 3,55,56,27,52, 9,35		9, 4
20″	9,55,32,54,25,23,10,52,24,50		43,32,22, 7	
		2, 3,55,55,44,19,47,28		9, 4
22″	9,55,34,58,21,18,55,12,12,18		43,32,31,11	
		2, 3,55,55, 0,47,16,17		9, 4
24″	9,55,37, 2,17,13,55,59,28,35		43,32,40,15	
		2, 3,55,54,17,14,36, 2		9, 4
26″	9,55,39, 6,13, 8,13,14, 4,37		43,32,49,19	
		2, 3,55,53,33,41,46,43		9, 4
28″	9,55,41,10, 9, 1,46,55,51,20		43,32,58,23	
		2, 3,55,52,50, 8,48,20		9, 4
30″	9,55,43,14, 4,54,37, 4,39,40		43,33, 7,27	
		2, 3,55,52, 6,35,40,53		9, 4
32″	9,55,45,18, 0,46,43,40,20,33		43,33,16,31	
		2, 3,55,51,23, 2,24,22		9, 4
34″	9,55,47,21,56,38, 6,42,44,55		43,33,25,35	
		2, 3,55,50,39,28,58,47		9, 4
36″	9,55,49,25,52,28,46,11,43,42		43,33,34,39	
		2, 3,55,49,55,55,24, 8		9, 4
38″	9,55,51,29,48,18,42, 7, 7,50		43,33,43,43	
		2, 3,55,49,12,21,40,25		9, 4
40″	9,55,53,33,44, 7,54,28,48,15		43,33,52,47	
		2, 3,55,48,28,47,47,38		9, 4
42″	9,55,55,37,39,56,23,16,35,53		43,34, 1,51	
		2, 3,55,47,45,13,45,47		9, 4
44″	9,55,57,41,35,44, 8,30,21,40		43,34,10,55	
		2, 3,55,47, 1,39,34,52		9, 4
46″	9,55,59,45,31,31,10, 9,56,32		43,34,19,59	
		2, 3,55,46,18, 5,14,53		9, 4
48″	9,56, 1,49,27,17,28,15,11,25		43,34,29, 3	
		2, 3,55,45,34,30,45,50		9, 4
50″	9,56, 3,53,23, 3, 2,45,57,15		43,34,38, 7	
		2, 3,55,44,50,56, 7,43		9, 4
52″	9,56, 5,57,18,47,53,42, 4,58		43,34,47,11	
		2, 3,55,44, 7,21,20,32		9, 4
54″	9,56, 8, 1,14,32, 1, 3,25,30		43,34,56,15	
		2, 3,55,43,23,46,24,17		9, 4
56″	9,56,10, 5,10,15,24,49,49,47		43,35, 5,19	
		2, 3,55,42,40,11,18,58		9, 4
58″	9,56,12, 9, 5,58, 5, 1, 8,45		43,35,14,23	
		2, 3,55,41,56,36, 4,35		
60″	9,56,14,13, 1,40, 1,37,13,20			
exact	9,56,14,13, 1,40, 1,37,34,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°32′ 0″	9,56,14,13, 1,40, 1,37,34,55			
		2, 3,55,41,13, 0,43,36		
2″	9,56,16,16,57,21,14,38,18,31		43,35,32,20	
		2, 3,55,40,29,25,11,16		9, 4
4″	9,56,18,20,53, 1,44, 3,29,47		43,35,41,24	
		2, 3,55,39,45,49,29,52		9, 4
6″	9,56,20,24,48,41,29,52,59,39		43,35,50,28	
		2, 3,55,39, 2,13,39,24		9, 4
8″	9,56,22,28,44,20,32, 6,39, 3		43,35,59,32	
		2, 3,55,38,18,37,39,52		9, 4
10″	9,56,24,32,39,58,50,44,18,55		43,36, 8,36	
		2, 3,55,37,35, 1,31,16		9, 4
12″	9,56,26,36,35,36,25,45,50,11		43,36,17,40	
		2, 3,55,36,51,25,13,36		9, 4
14″	9,56,28,40,31,13,17,11, 3,47		43,36,26,44	
		2, 3,55,36, 7,48,46,52		9, 4
16″	9,56,30,44,26,49,24,59,50,39		43,36,35,48	
		2, 3,55,35,24,12,11, 4		9, 4
18″	9,56,32,48,22,24,49,12, 1,43		43,36,44,52	
		2, 3,55,34,40,35,26,12		9, 4
20″	9,56,34,52,17,59,29,47,27,55		43,36,53,56	
		2, 3,55,33,56,58,32,16		9, 4
22″	9,56,36,56,13,33,26,46, 0,11		43,37, 3, 0	
		2, 3,55,33,13,21,29,16		9, 4
24″	9,56,39, 0, 9, 6,40, 7,29,27		43,37,12, 4	
		2, 3,55,32,29,44,17,12		9, 4
26″	9,56,41, 4, 4,39, 9,51,46,39		43,37,21, 8	
		2, 3,55,31,46, 6,56, 4		9, 4
28″	9,56,43, 8, 0,10,55,58,42,43		43,37,30,12	
		2, 3,55,31, 2,29,25,52		9, 4
30″	9,56,45,11,55,41,58,28, 8,35		43,37,39,16	
		2, 3,55,30,18,51,46,36		9, 4
32″	9,56,47,15,51,12,17,19,55,11		43,37,48,20	
		2, 3,55,29,35,13,58,16		9, 4
34″	9,56,49,19,46,41,52,33,53,27		43,37,57,24	
		2, 3,55,28,51,36, 0,52		9, 4
36″	9,56,51,23,42,10,44, 9,54,19		43,38, 6,28	
		2, 3,55,28, 7,57,54,24		9, 4
38″	9,56,53,27,37,38,52, 7,48,43		43,38,15,32	
		2, 3,55,27,24,19,38,52		9, 4
40″	9,56,55,31,33, 6,16,27,27,35		43,38,24,36	
		2, 3,55,26,40,41,14,16		9, 4
42″	9,56,57,35,28,32,57, 8,41,51		43,38,33,40	
		2, 3,55,25,57, 2,40,36		9, 4
44″	9,56,59,39,23,58,54,11,22,27		43,38,42,44	
		2, 3,55,25,13,23,57,52		9, 4
46″	9,57, 1,43,19,24, 7,35,20,19		43,38,51,48	
		2, 3,55,24,29,45, 6, 4		9, 4
48″	9,57, 3,47,14,48,37,20,26,23		43,39, 0,52	
		2, 3,55,23,46, 6, 5,12		9, 4
50″	9,57, 5,51,10,12,23,26,31,35		43,39, 9,56	
		2, 3,55,23, 2,26,55,16		9, 4
52″	9,57, 7,55, 5,35,25,53,26,51		43,39,19, 0	
		2, 3,55,22,18,47,36,16		9, 4
54″	9,57, 9,59, 0,57,44,41, 3, 7		43,39,28, 4	
		2, 3,55,21,35, 8, 8,12		9, 4
56″	9,57,12, 2,56,19,19,49,11,19		43,39,37, 8	
		2, 3,55,20,51,28,31, 4		9, 4
58″	9,57,14, 6,51,40,11,17,42,23		43,39,46,12	
		2, 3,55,20, 7,48,44,52		
60″	9,57,16,10,47, 0,19, 6,27,15			
exact	9,57,16,10,47, 0,19, 6,52,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°33′ 0″	9,57,16,10,47, 0,19, 6,52,45			
		2, 3,55,19,24, 8,52,25		
2″	9,57,18,14,42,19,43,15,45,10		43,40, 4, 8	
		2, 3,55,18,40,28,48,17		9, 4
4″	9,57,20,18,37,38,23,44,33,27		43,40,13,12	
		2, 3,55,17,56,48,35, 5		9, 4
6″	9,57,22,22,32,56,20,33, 8,32		43,40,22,16	
		2, 3,55,17,13, 8,12,49		9, 4
8″	9,57,24,26,28,13,33,41,21,21		43,40,31,20	
		2, 3,55,16,29,27,41,29		9, 4
10″	9,57,26,30,23,30, 3, 9, 2,50		43,40,40,24	
		2, 3,55,15,45,47, 1, 5		9, 4
12″	9,57,28,34,18,45,48,56, 3,55		43,40,49,28	
		2, 3,55,15, 2, 6,11,37		9, 4
14″	9,57,30,38,14, 0,51, 2,15,32		43,40,58,32	
		2, 3,55,14,18,25,13, 5		9, 4
16″	9,57,32,42, 9,15, 9,27,28,37		43,41, 7,36	
		2, 3,55,13,34,44, 5,29		9, 4
18″	9,57,34,46, 4,28,44,11,34, 6		43,41,16,40	
		2, 3,55,12,51, 2,48,49		9, 4
20″	9,57,36,49,59,41,35,14,22,55		43,41,25,44	
		2, 3,55,12, 7,21,23, 5		9, 4
22″	9,57,38,53,54,53,42,35,46, 0		43,41,34,48	
		2, 3,55,11,23,39,48,17		9, 4
24″	9,57,40,57,50, 5, 6,15,34,17		43,41,43,52	
		2, 3,55,10,39,58, 4,25		9, 4
26″	9,57,43, 1,45,15,46,13,38,42		43,41,52,56	
		2, 3,55, 9,56,16,11,29		9, 4
28″	9,57,45, 5,40,25,42,29,50,11		43,42, 2, 0	
		2, 3,55, 9,12,34, 9,29		9, 4
30″	9,57,47, 9,35,34,55, 3,59,40		43,42,11, 4	
		2, 3,55, 8,28,51,58,25		9, 4
32″	9,57,49,13,30,43,23,55,58, 5		43,42,20, 8	
		2, 3,55, 7,45, 9,38,17		9, 4
34″	9,57,51,17,25,51, 9, 5,36,22		43,42,29,12	
		2, 3,55, 7, 1,27, 9, 5		9, 4
36″	9,57,53,21,20,58,10,32,45,27		43,42,38,16	
		2, 3,55, 6,17,44,30,49		9, 4
38″	9,57,55,25,16, 4,28,17,16,16		43,42,47,20	
		2, 3,55, 5,34, 1,43,29		9, 4
40″	9,57,57,29,11,10, 2,18,59,45		43,42,56,24	
		2, 3,55, 4,50,18,47, 5		9, 4
42″	9,57,59,33, 6,14,52,37,46,50		43,43, 5,28	
		2, 3,55, 4, 6,35,41,37		9, 4
44″	9,58, 1,37, 1,18,59,13,28,27		43,43,14,32	
		2, 3,55, 3,22,52,27, 5		9, 4
46″	9,58, 3,40,56,22,22, 5,55,32		43,43,23,36	
		2, 3,55, 2,39, 9, 3,29		9, 4
48″	9,58, 5,44,51,25, 1,14,59, 1		43,43,32,40	
		2, 3,55, 1,55,25,30,49		9, 4
50″	9,58, 7,48,46,26,56,40,29,50		43,43,41,44	
		2, 3,55, 1,11,41,49, 5		9, 4
52″	9,58, 9,52,41,28, 8,22,18,55		43,43,50,48	
		2, 3,55, 0,27,57,58,17		9, 4
54″	9,58,11,56,36,28,36,20,17,12		43,43,59,52	
		2, 3,54,59,44,13,58,25		9, 4
56″	9,58,14, 0,31,28,20,34,15,37		43,44, 8,56	
		2, 3,54,59, 0,29,49,29		9, 4
58″	9,58,16, 4,26,27,21, 4, 5, 6		43,44,18, 0	
		2, 3,54,58,16,45,31,29		
60″	9,58,18, 8,21,25,37,49,36,35			
exact	9,58,18, 8,21,25,37,50, 4,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°34′ 0″	9,58,18, 8,21,25,37,50, 4,45			
		2, 3,54,57,33, 1, 7,29		
2″	9,58,20,12,16,23,10,51,12,14		43,44,35,55	
		2, 3,54,56,49,16,31,34		9, 4
4″	9,58,22,16,11,20, 0, 7,43,48		43,44,44,59	
		2, 3,54,56, 5,31,46,35		9, 4
6″	9,58,24,20, 6,16, 5,39,30,23		43,44,54, 3	
		2, 3,54,55,21,46,52,32		9, 4
8″	9,58,26,24, 1,11,27,26,22,55		43,45, 3, 7	
		2, 3,54,54,38, 1,49,25		9, 4
10″	9,58,28,27,56, 6, 5,28,12,20		43,45,12,11	
		2, 3,54,53,54,16,37,14		9, 4
12″	9,58,30,31,50,59,59,44,49,34		43,45,21,15	
		2, 3,54,53,10,31,15,59		9, 4
14″	9,58,32,35,45,53,10,16, 5,33		43,45,30,19	
		2, 3,54,52,26,45,45,40		9, 4
16″	9,58,34,39,40,45,37, 1,51,13		43,45,39,23	
		2, 3,54,51,43, 0, 6,17		9, 4
18″	9,58,36,43,35,37,20, 1,57,30		43,45,48,27	
		2, 3,54,50,59,14,17,50		9, 4
20″	9,58,38,47,30,28,19,16,15,20		43,45,57,31	
		2, 3,54,50,15,28,20,19		9, 4
22″	9,58,40,51,25,18,34,44,35,39		43,46, 6,35	
		2, 3,54,49,31,42,13,44		9, 4
24″	9,58,42,55,20, 8, 6,26,49,23		43,46,15,39	
		2, 3,54,48,47,55,58, 5		9, 4
26″	9,58,44,59,14,56,54,22,47,28		43,46,24,43	
		2, 3,54,48, 4, 9,33,22		9, 4
28″	9,58,47, 3, 9,44,58,32,20,50		43,46,33,47	
		2, 3,54,47,20,22,59,35		9, 4
30″	9,58,49, 7, 4,32,18,55,20,25		43,46,42,51	
		2, 3,54,46,36,36,16,44		9, 4
32″	9,58,51,10,59,18,55,31,37, 9		43,46,51,55	
		2, 3,54,45,52,49,24,49		9, 4
34″	9,58,53,14,54, 4,48,21, 1,58		43,47, 0,59	
		2, 3,54,45, 9, 2,23,50		9, 4
36″	9,58,55,18,48,49,57,23,25,48		43,47,10, 3	
		2, 3,54,44,25,15,13,47		9, 4
38″	9,58,57,22,43,34,22,38,39,35		43,47,19, 7	
		2, 3,54,43,41,27,54,40		9, 4
40″	9,58,59,26,38,18, 4, 6,34,15		43,47,28,11	
		2, 3,54,42,57,40,26,29		9, 4
42″	9,59, 1,30,33, 1, 1,47, 0,44		43,47,37,15	
		2, 3,54,42,13,52,49,14		9, 4
44″	9,59, 3,34,27,43,15,39,49,58		43,47,46,19	
		2, 3,54,41,30, 5, 2,55		9, 4
46″	9,59, 5,38,22,24,45,44,52,53		43,47,55,23	
		2, 3,54,40,46,17, 7,32		9, 4
48″	9,59, 7,42,17, 5,32, 2, 0,25		43,48, 4,27	
		2, 3,54,40, 2,29, 3, 5		9, 4
50″	9,59, 9,46,11,45,34,31, 3,30		43,48,13,31	
		2, 3,54,39,18,40,49,34		9, 4
52″	9,59,11,50, 6,24,53,11,53, 4		43,48,22,35	
		2, 3,54,38,34,52,26,59		9, 4
54″	9,59,13,54, 1, 3,28, 4,20, 3		43,48,31,39	
		2, 3,54,37,51, 3,55,20		9, 4
56″	9,59,15,57,55,41,19, 8,15,23		43,48,40,43	
		2, 3,54,37, 7,15,14,37		9, 4
58″	9,59,18, 1,50,18,26,23,30, 0		43,48,49,47	
		2, 3,54,36,23,26,24,50		
60″	9,59,20, 5,44,54,49,49,54,50			
exact	9,59,20, 5,44,54,49,50,24,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°35′ 0″	9,59,20, 5,44,54,49,50,24,21			
		2, 3,54,35,39,37,29,12		
2″	9,59,22, 9,39,30,29,27,53,33		43,49, 7,41	
		2, 3,54,34,55,48,21,31		9, 4
4″	9,59,24,13,34, 5,25,16,15, 4		43,49,16,45	
		2, 3,54,34,11,59, 4,46		9, 4
6″	9,59,26,17,28,39,37,15,19,50		43,49,25,49	
		2, 3,54,33,28, 9,38,57		9, 4
8″	9,59,28,21,23,13, 5,24,58,47		43,49,34,53	
		2, 3,54,32,44,20, 4, 4		9, 4
10″	9,59,30,25,17,45,49,45, 2,51		43,49,43,57	
		2, 3,54,32, 0,30,20, 7		9, 4
12″	9,59,32,29,12,17,50,15,22,58		43,49,53, 1	
		2, 3,54,31,16,40,27, 6		9, 4
14″	9,59,34,33, 6,49, 6,55,50, 4		43,50, 2, 5	
		2, 3,54,30,32,50,25, 1		9, 4
16″	9,59,36,37, 1,19,39,46,15, 5		43,50,11, 9	
		2, 3,54,29,49, 0,13,52		9, 4
18″	9,59,38,40,55,49,28,46,28,57		43,50,20,13	
		2, 3,54,29, 5, 9,53,39		9, 4
20″	9,59,40,44,50,18,33,56,22,36		43,50,29,17	
		2, 3,54,28,21,19,24,22		9, 4
22″	9,59,42,48,44,46,55,15,46,58		43,50,38,21	
		2, 3,54,27,37,28,46, 1		9, 4
24″	9,59,44,52,39,14,32,44,32,59		43,50,47,25	
		2, 3,54,26,53,37,58,36		9, 4
26″	9,59,46,56,33,41,26,22,31,35		43,50,56,29	
		2, 3,54,26, 9,47, 2, 7		9, 4
28″	9,59,49, 0,28, 7,36, 9,33,42		43,51, 5,33	
		2, 3,54,25,25,55,56,34		9, 4
30″	9,59,51, 4,22,33, 2, 5,30,16		43,51,14,37	
		2, 3,54,24,42, 4,41,57		9, 4
32″	9,59,53, 8,16,57,44,10,12,13		43,51,23,41	
		2, 3,54,23,58,13,18,16		9, 4
34″	9,59,55,12,11,21,42,23,30,29		43,51,32,45	
		2, 3,54,23,14,21,45,31		9, 4
36″	9,59,57,16, 5,44,56,45,16, 0		43,51,41,49	
		2, 3,54,22,30,30, 3,42		9, 4
38″	9,59,59,20, 0, 7,27,15,19,42		43,51,50,53	
		2, 3,54,21,46,38,12,49		9, 4
40″	10, 0, 1,23,54,29,13,53,32,31		43,51,59,57	
		2, 3,54,21, 2,46,12,52		9, 4
42″	10, 0, 3,27,48,50,16,39,45,23		43,52, 9, 1	
		2, 3,54,20,18,54, 3,51		9, 4
44″	10, 0, 5,31,43,10,35,33,49,14		43,52,18, 5	
		2, 3,54,19,35, 1,45,46		9, 4
46″	10, 0, 7,35,37,30,10,35,35, 0		43,52,27, 9	
		2, 3,54,18,51, 9,18,37		9, 4
48″	10, 0, 9,39,31,49, 1,44,53,37		43,52,36,13	
		2, 3,54,18, 7,16,42,24		9, 4
50″	10, 0,11,43,26, 7, 9, 1,36, 1		43,52,45,17	
		2, 3,54,17,23,23,57, 7		9, 4
52″	10, 0,13,47,20,24,32,25,33, 8		43,52,54,21	
		2, 3,54,16,39,31, 2,46		9, 4
54″	10, 0,15,51,14,41,11,56,35,54		43,53, 3,25	
		2, 3,54,15,55,37,59,21		9, 4
56″	10, 0,17,55, 8,57, 7,34,35,15		43,53,12,29	
		2, 3,54,15,11,44,46,52		9, 4
58″	10, 0,19,59, 3,12,19,19,22, 7		43,53,21,33	
		2, 3,54,14,27,51,25,19		
60″	10, 0,22, 2,57,26,47,10,47,26			
exact	10, 0,22, 2,57,26,47,11,17, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°36′ 0″	10, 0,22, 2,57,26,47,11,17, 0			
		2, 3,54,13,43,57,57,59		
2″	10, 0,24, 6,51,40,31, 9,14,59		43,53,39,27	
		2, 3,54,13, 0, 4,18,32		9, 4
4″	10, 0,26,10,45,53,31,13,33,31		43,53,48,31	
		2, 3,54,12,16,10,30, 1		9, 4
6″	10, 0,28,14,40, 5,47,24, 3,32		43,53,57,35	
		2, 3,54,11,32,16,32,26		9, 4
8″	10, 0,30,18,34,17,19,40,35,58		43,54, 6,39	
		2, 3,54,10,48,22,25,47		9, 4
10″	10, 0,32,22,28,28, 8, 3, 1,45		43,54,15,43	
		2, 3,54,10, 4,28,10, 4		9, 4
12″	10, 0,34,26,22,38,12,31,11,49		43,54,24,47	
		2, 3,54, 9,20,33,45,17		9, 4
14″	10, 0,36,30,16,47,33, 4,57, 6		43,54,33,51	
		2, 3,54, 8,36,39,11,26		9, 4
16″	10, 0,38,34,10,56, 9,44, 8,32		43,54,42,55	
		2, 3,54, 7,52,44,28,31		9, 4
18″	10, 0,40,38, 5, 4, 2,28,37, 3		43,54,51,59	
		2, 3,54, 7, 8,49,36,32		9, 4
20″	10, 0,42,41,59,11,11,18,13,35		43,55, 1, 3	
		2, 3,54, 6,24,54,35,29		9, 4
22″	10, 0,44,45,53,17,36,12,49, 4		43,55,10, 7	
		2, 3,54, 5,40,59,25,22		9, 4
24″	10, 0,46,49,47,23,17,12,14,26		43,55,19,11	
		2, 3,54, 4,57, 4, 6,11		9, 4
26″	10, 0,48,53,41,28,14,16,20,37		43,55,28,15	
		2, 3,54, 4,13, 8,37,56		9, 4
28″	10, 0,50,57,35,32,27,24,58,33		43,55,37,19	
		2, 3,54, 3,29,13, 0,37		9, 4
30″	10, 0,53, 1,29,35,56,37,59,10		43,55,46,23	
		2, 3,54, 2,45,17,14,14		9, 4
32″	10, 0,55, 5,23,38,41,55,13,24		43,55,55,27	
		2, 3,54, 2, 1,21,18,47		9, 4
34″	10, 0,57, 9,17,40,43,16,32,11		43,56, 4,31	
		2, 3,54, 1,17,25,14,16		9, 4
36″	10, 0,59,13,11,42, 0,41,46,27		43,56,13,35	
		2, 3,54, 0,33,29, 0,41		9, 4
38″	10, 1, 1,17, 5,42,34,10,47, 8		43,56,22,39	
		2, 3,53,59,49,32,38, 2		9, 4
40″	10, 1, 3,20,59,42,23,43,25,10		43,56,31,43	
		2, 3,53,59, 5,36, 6,19		9, 4
42″	10, 1, 5,24,53,41,29,19,31,29		43,56,40,47	
		2, 3,53,58,21,39,25,32		9, 4
44″	10, 1, 7,28,47,39,50,58,57, 1		43,56,49,51	
		2, 3,53,57,37,42,35,41		9, 4
46″	10, 1, 9,32,41,37,28,41,32,42		43,56,58,55	
		2, 3,53,56,53,45,36,46		9, 4
48″	10, 1,11,36,35,34,22,27, 9,28		43,57, 7,59	
		2, 3,53,56, 9,48,28,47		9, 4
50″	10, 1,13,40,29,30,32,15,38,15		43,57,17, 3	
		2, 3,53,55,25,51,11,44		9, 4
52″	10, 1,15,44,23,25,58, 6,49,59		43,57,26, 7	
		2, 3,53,54,41,53,45,37		9, 4
54″	10, 1,17,48,17,20,40, 0,35,36		43,57,35,11	
		2, 3,53,53,57,56,10,26		9, 4
56″	10, 1,19,52,11,14,37,56,46, 2		43,57,44,15	
		2, 3,53,53,13,58,26,11		9, 4
58″	10, 1,21,56, 5, 7,51,55,12,13		43,57,53,19	
		2, 3,53,52,30, 0,32,52		
60″	10, 1,23,59,59, 0,21,55,45, 5			
exact	10, 1,23,59,59, 0,21,56,20,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°37′ 0″	10, 1,23,59,59, 0,21,56,20,10			
		2, 3,53,51,46, 2,34,13		
2″	10, 1,26, 3,52,52, 7,58,54,23		43,58,11,12	
		2, 3,53,51, 2, 4,23, 1		9, 3
4″	10, 1,28, 7,46,43,10, 3,17,24		43,58,20,15	
		2, 3,53,50,18, 6, 2,46		9, 3
6″	10, 1,30,11,40,33,28, 9,20,10		43,58,29,18	
		2, 3,53,49,34, 7,33,28		9, 3
8″	10, 1,32,15,34,23, 2,16,53,38		43,58,38,21	
		2, 3,53,48,50, 8,55, 7		9, 3
10″	10, 1,34,19,28,11,52,25,48,45		43,58,47,24	
		2, 3,53,48, 6,10, 7,43		9, 3
12″	10, 1,36,23,21,59,58,35,56,28		43,58,56,27	
		2, 3,53,47,22,11,11,16		9, 3
14″	10, 1,38,27,15,47,20,47, 7,44		43,59, 5,30	
		2, 3,53,46,38,12, 5,46		9, 3
16″	10, 1,40,31, 9,33,58,59,13,30		43,59,14,33	
		2, 3,53,45,54,12,51,13		9, 3
18″	10, 1,42,35, 3,19,53,12, 4,43		43,59,23,36	
		2, 3,53,45,10,13,27,37		9, 3
20″	10, 1,44,38,57, 5, 3,25,32,20		43,59,32,39	
		2, 3,53,44,26,13,54,58		9, 3
22″	10, 1,46,42,50,49,29,39,27,18		43,59,41,42	
		2, 3,53,43,42,14,13,16		9, 3
24″	10, 1,48,46,44,33,11,53,40,34		43,59,50,45	
		2, 3,53,42,58,14,22,31		9, 3
26″	10, 1,50,50,38,16,10, 8, 3, 5		43,59,59,48	
		2, 3,53,42,14,14,22,43		9, 3
28″	10, 1,52,54,31,58,24,22,25,48		44, 0, 8,51	
		2, 3,53,41,30,14,13,52		9, 3
30″	10, 1,54,58,25,39,54,36,39,40		44, 0,17,54	
		2, 3,53,40,46,13,55,58		9, 3
32″	10, 1,57, 2,19,20,40,50,35,38		44, 0,26,57	
		2, 3,53,40, 2,13,29, 1		9, 3
34″	10, 1,59, 6,13, 0,43, 4, 4,39		44, 0,36, 0	
		2, 3,53,39,18,12,53, 1		9, 3
36″	10, 2, 1,10, 6,40, 1,16,57,40		44, 0,45, 3	
		2, 3,53,38,34,12, 7,58		9, 3
38″	10, 2, 3,14, 0,18,35,29, 5,38		44, 0,54, 6	
		2, 3,53,37,50,11,13,52		9, 3
40″	10, 2, 5,17,53,56,25,40,19,30		44, 1, 3, 9	
		2, 3,53,37, 6,10,10,43		9, 3
42″	10, 2, 7,21,47,33,31,50,30,13		44, 1,12,12	
		2, 3,53,36,22, 8,58,31		9, 3
44″	10, 2, 9,25,41, 9,53,59,28,44		44, 1,21,15	
		2, 3,53,35,38, 7,37,16		9, 3
46″	10, 2,11,29,34,45,32, 7, 6, 0		44, 1,30,18	
		2, 3,53,34,54, 6, 6,58		9, 3
48″	10, 2,13,33,28,20,26,13,12,58		44, 1,39,21	
		2, 3,53,34,10, 4,27,37		9, 3
50″	10, 2,15,37,21,54,36,17,40,35		44, 1,48,24	
		2, 3,53,33,26, 2,39,13		9, 3
52″	10, 2,17,41,15,28, 2,20,19,48		44, 1,57,27	
		2, 3,53,32,42, 0,41,46		9, 3
54″	10, 2,19,45, 9, 0,44,21, 1,34		44, 2, 6,30	
		2, 3,53,31,57,58,35,16		9, 3
56″	10, 2,21,49, 2,32,42,19,36,50		44, 2,15,33	
		2, 3,53,31,13,56,19,43		9, 3
58″	10, 2,23,52,56, 3,56,15,56,33		44, 2,24,36	
		2, 3,53,30,29,53,55, 7		
60″	10, 2,25,56,49,34,26, 9,51,40			
exact	10, 2,25,56,49,34,26, 9,23,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°38′ 0″	10, 2,25,56,49,34,26, 9,23,21			
		2, 3,53,29,45,51,18,19		
2″	10, 2,28, 0,43, 4,12, 0,41,40		44, 2,42,55	
		2, 3,53,29, 1,48,35,24		9, 3
4″	10, 2,30, 4,36,33,13,49,17, 4		44, 2,51,58	
		2, 3,53,28,17,45,43,26		9, 3
6″	10, 2,32, 8,30, 1,31,35, 0,30		44, 3, 1, 1	
		2, 3,53,27,33,42,42,25		9, 3
8″	10, 2,34,12,23,29, 5,17,42,55		44, 3,10, 4	
		2, 3,53,26,49,39,32,21		9, 3
10″	10, 2,36,16,16,55,54,57,15,16		44, 3,19, 7	
		2, 3,53,26, 5,36,13,14		9, 3
12″	10, 2,38,20,10,22, 0,33,28,30		44, 3,28,10	
		2, 3,53,25,21,32,45, 4		9, 3
14″	10, 2,40,24, 3,47,22, 6,13,34		44, 3,37,13	
		2, 3,53,24,37,29, 7,51		9, 3
16″	10, 2,42,27,57,11,59,35,21,25		44, 3,46,16	
		2, 3,53,23,53,25,21,35		9, 3
18″	10, 2,44,31,50,35,53, 0,43, 0		44, 3,55,19	
		2, 3,53,23, 9,21,26,16		9, 3
20″	10, 2,46,35,43,59, 2,22, 9,16		44, 4, 4,22	
		2, 3,53,22,25,17,21,54		9, 3
22″	10, 2,48,39,37,21,27,39,31,10		44, 4,13,25	
		2, 3,53,21,41,13, 8,29		9, 3
24″	10, 2,50,43,30,43, 8,52,39,39		44, 4,22,28	
		2, 3,53,20,57, 8,46, 1		9, 3
26″	10, 2,52,47,24, 4, 6, 1,25,40		44, 4,31,31	
		2, 3,53,20,13, 4,14,30		9, 3
28″	10, 2,54,51,17,24,19, 5,40,10		44, 4,40,34	
		2, 3,53,19,28,59,33,56		9, 3
30″	10, 2,56,55,10,43,48, 5,14, 6		44, 4,49,37	
		2, 3,53,18,44,54,44,19		9, 3
32″	10, 2,58,59, 4, 2,32,59,58,25		44, 4,58,40	
		2, 3,53,18, 0,49,45,39		9, 3
34″	10, 3, 1, 2,57,20,33,49,44, 4		44, 5, 7,43	
		2, 3,53,17,16,44,37,56		9, 3
36″	10, 3, 3, 6,50,37,50,34,22, 0		44, 5,16,46	
		2, 3,53,16,32,39,21,10		9, 3
38″	10, 3, 5,10,43,54,23,13,43,10		44, 5,25,49	
		2, 3,53,15,48,33,55,21		9, 3
40″	10, 3, 7,14,37,10,11,47,38,31		44, 5,34,52	
		2, 3,53,15, 4,28,20,29		9, 3
42″	10, 3, 9,18,30,25,16,15,59, 0		44, 5,43,55	
		2, 3,53,14,20,22,36,34		9, 3
44″	10, 3,11,22,23,39,36,38,35,34		44, 5,52,58	
		2, 3,53,13,36,16,43,36		9, 3
46″	10, 3,13,26,16,53,12,55,19,10		44, 6, 2, 1	
		2, 3,53,12,52,10,41,35		9, 3
48″	10, 3,15,30,10, 6, 5, 6, 0,45		44, 6,11, 4	
		2, 3,53,12, 8, 4,30,31		9, 3
50″	10, 3,17,34, 3,18,13,10,31,16		44, 6,20, 7	
		2, 3,53,11,23,58,10,24		9, 3
52″	10, 3,19,37,56,29,37, 8,41,40		44, 6,29,10	
		2, 3,53,10,39,51,41,14		9, 3
54″	10, 3,21,41,49,40,17, 0,22,54		44, 6,38,13	
		2, 3,53, 9,55,45, 3, 1		9, 3
56″	10, 3,23,45,42,50,12,45,25,55		44, 6,47,16	
		2, 3,53, 9,11,38,15,45		9, 3
58″	10, 3,25,49,35,59,24,23,41,40		44, 6,56,19	
		2, 3,53, 8,27,31,19,26		
60″	10, 3,27,53,29, 7,51,55, 1, 6			
exact	10, 3,27,53,29, 7,51,54,28, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°39′ 0″	10, 3,27,53,29, 7,51,54,28, 5			
		2, 3,53, 7,43,24,10,40		
2″	10, 3,29,57,22,15,35,18,38,45		44, 7,14,38	
		2, 3,53, 6,59,16,56, 2		9, 3
4″	10, 3,32, 1,15,22,34,35,34,47		44, 7,23,41	
		2, 3,53, 6,15, 9,32,21		9, 3
6″	10, 3,34, 5, 8,28,49,45, 7, 8		44, 7,32,44	
		2, 3,53, 5,31, 1,59,37		9, 3
8″	10, 3,36, 9, 1,34,20,47, 6,45		44, 7,41,47	
		2, 3,53, 4,46,54,17,50		9, 3
10″	10, 3,38,12,54,39, 7,41,24,35		44, 7,50,50	
		2, 3,53, 4, 2,46,27, 0		9, 3
12″	10, 3,40,16,47,43,10,27,51,35		44, 7,59,53	
		2, 3,53, 3,18,38,27, 7		9, 3
14″	10, 3,42,20,40,46,29, 6,18,42		44, 8, 8,56	
		2, 3,53, 2,34,30,18,11		9, 3
16″	10, 3,44,24,33,49, 3,36,36,53		44, 8,17,59	
		2, 3,53, 1,50,22, 0,12		9, 3
18″	10, 3,46,28,26,50,53,58,37, 5		44, 8,27, 2	
		2, 3,53, 1, 6,13,33,10		9, 3
20″	10, 3,48,32,19,52, 0,12,10,15		44, 8,36, 5	
		2, 3,53, 0,22, 4,57, 5		9, 3
22″	10, 3,50,36,12,52,22,17, 7,20		44, 8,45, 8	
		2, 3,52,59,37,56,11,57		9, 3
24″	10, 3,52,40, 5,52, 0,13,19,17		44, 8,54,11	
		2, 3,52,58,53,47,17,46		9, 3
26″	10, 3,54,43,58,50,54, 0,37, 3		44, 9, 3,14	
		2, 3,52,58, 9,38,14,32		9, 3
28″	10, 3,56,47,51,49, 3,38,51,35		44, 9,12,17	
		2, 3,52,57,25,29, 2,15		9, 3
30″	10, 3,58,51,44,46,29, 7,53,50		44, 9,21,20	
		2, 3,52,56,41,19,40,55		9, 3
32″	10, 4, 0,55,37,43,10,27,34,45		44, 9,30,23	
		2, 3,52,55,57,10,10,32		9, 3
34″	10, 4, 2,59,30,39, 7,37,45,17		44, 9,39,26	
		2, 3,52,55,13, 0,31, 6		9, 3
36″	10, 4, 5, 3,23,34,20,38,16,23		44, 9,48,29	
		2, 3,52,54,28,50,42,37		9, 3
38″	10, 4, 7, 7,16,28,49,28,59, 0		44, 9,57,32	
		2, 3,52,53,44,40,45, 5		9, 3
40″	10, 4, 9,11, 9,22,34, 9,44, 5		44,10, 6,35	
		2, 3,52,53, 0,30,38,30		9, 3
42″	10, 4,11,15, 2,15,34,40,22,35		44,10,15,38	
		2, 3,52,52,16,20,22,52		9, 3
44″	10, 4,13,18,55, 7,51, 0,45,27		44,10,24,41	
		2, 3,52,51,32, 9,58,11		9, 3
46″	10, 4,15,22,47,59,23,10,43,38		44,10,33,44	
		2, 3,52,50,47,59,24,27		9, 3
48″	10, 4,17,26,40,50,11,10, 8, 5		44,10,42,47	
		2, 3,52,50, 3,48,41,40		9, 3
50″	10, 4,19,30,33,40,14,58,49,45		44,10,51,50	
		2, 3,52,49,19,37,49,50		9, 3
52″	10, 4,21,34,26,29,34,36,39,35		44,11, 0,53	
		2, 3,52,48,35,26,48,57		9, 3
54″	10, 4,23,38,19,18,10, 3,28,32		44,11, 9,56	
		2, 3,52,47,51,15,39, 1		9, 3
56″	10, 4,25,42,12, 6, 1,19, 7,33		44,11,18,59	
		2, 3,52,47, 7, 4,20, 2		9, 3
58″	10, 4,27,46, 4,53, 8,23,27,35		44,11,28, 2	
		2, 3,52,46,22,52,52, 0		
60″	10, 4,29,49,57,39,31,16,19,35			
exact	10, 4,29,49,57,39,31,15,48, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°40′ 0″	10, 4,29,49,57,39,31,15,48, 0			
		2, 3,52,45,38,41,11,41		
2″	10, 4,31,53,50,25, 9,56,59,41		44,11,46,21	
		2, 3,52,44,54,29,25,20		9, 3
4″	10, 4,33,57,43,10, 4,26,25, 1		44,11,55,24	
		2, 3,52,44,10,17,29,56		9, 3
6″	10, 4,36, 1,35,54,14,43,54,57		44,12, 4,27	
		2, 3,52,43,26, 5,25,29		9, 3
8″	10, 4,38, 5,28,37,40,49,20,26		44,12,13,30	
		2, 3,52,42,41,53,11,59		9, 3
10″	10, 4,40, 9,21,20,22,42,32,25		44,12,22,33	
		2, 3,52,41,57,40,49,26		9, 3
12″	10, 4,42,13,14, 2,20,23,21,51		44,12,31,36	
		2, 3,52,41,13,28,17,50		9, 3
14″	10, 4,44,17, 6,43,33,51,39,41		44,12,40,39	
		2, 3,52,40,29,15,37,11		9, 3
16″	10, 4,46,20,59,24, 3, 7,16,52		44,12,49,42	
		2, 3,52,39,45, 2,47,29		9, 3
18″	10, 4,48,24,52, 3,48,10, 4,21		44,12,58,45	
		2, 3,52,39, 0,49,48,44		9, 3
20″	10, 4,50,28,44,42,48,59,53, 5		44,13, 7,48	
		2, 3,52,38,16,36,40,56		9, 3
22″	10, 4,52,32,37,21, 5,36,34, 1		44,13,16,51	
		2, 3,52,37,32,23,24, 5		9, 3
24″	10, 4,54,36,29,58,37,59,58, 6		44,13,25,54	
		2, 3,52,36,48, 9,58,11		9, 3
26″	10, 4,56,40,22,35,26, 9,56,17		44,13,34,57	
		2, 3,52,36, 3,56,23,14		9, 3
28″	10, 4,58,44,15,11,30, 6,19,31		44,13,44, 0	
		2, 3,52,35,19,42,39,14		9, 3
30″	10, 5, 0,48, 7,46,49,48,58,45		44,13,53, 3	
		2, 3,52,34,35,28,46,11		9, 3
32″	10, 5, 2,52, 0,21,25,17,44,56		44,14, 2, 6	
		2, 3,52,33,51,14,44, 5		9, 3
34″	10, 5, 4,55,52,55,16,32,29, 1		44,14,11, 9	
		2, 3,52,33, 7, 0,32,56		9, 3
36″	10, 5, 6,59,45,28,23,33, 1,57		44,14,20,12	
		2, 3,52,32,22,46,12,44		9, 3
38″	10, 5, 9, 3,38, 0,46,19,14,41		44,14,29,15	
		2, 3,52,31,38,31,43,29		9, 3
40″	10, 5,11, 7,30,32,24,50,58,10		44,14,38,18	
		2, 3,52,30,54,17, 5,11		9, 3
42″	10, 5,13,11,23, 3,19, 8, 3,21		44,14,47,21	
		2, 3,52,30,10, 2,17,50		9, 3
44″	10, 5,15,15,15,33,29,10,21,11		44,14,56,24	
		2, 3,52,29,25,47,21,26		9, 3
46″	10, 5,17,19, 8, 2,54,57,42,37		44,15, 5,27	
		2, 3,52,28,41,32,15,59		9, 3
48″	10, 5,19,23, 0,31,36,29,58,36		44,15,14,30	
		2, 3,52,27,57,17, 1,29		9, 3
50″	10, 5,21,26,52,59,33,47, 0, 5		44,15,23,33	
		2, 3,52,27,13, 1,37,56		9, 3
52″	10, 5,23,30,45,26,46,48,38, 1		44,15,32,36	
		2, 3,52,26,28,46, 5,20		9, 3
54″	10, 5,25,34,37,53,15,34,43,21		44,15,41,39	
		2, 3,52,25,44,30,23,41		9, 3
56″	10, 5,27,38,30,19, 0, 5, 7, 2		44,15,50,42	
		2, 3,52,25, 0,14,32,59		9, 3
58″	10, 5,29,42,22,44, 0,19,40, 1		44,15,59,45	
		2, 3,52,24,15,58,33,14		
60″	10, 5,31,46,15, 8,16,18,13,15			
exact	10, 5,31,46,15, 8,16,17,48,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°41′ 0″	10, 5,31,46,15, 8,16,17,48,50			
		2, 3,52,23,31,42,21,46		
2″	10, 5,33,50, 7,31,48, 0,10,36		44,16,18, 2	
		2, 3,52,22,47,26, 3,44		9, 3
4″	10, 5,35,53,59,54,35,26,14,20		44,16,27, 5	
		2, 3,52,22, 3, 9,36,39		9, 3
6″	10, 5,37,57,52,16,38,35,50,59		44,16,36, 8	
		2, 3,52,21,18,53, 0,31		9, 3
8″	10, 5,40, 1,44,37,57,28,51,30		44,16,45,11	
		2, 3,52,20,34,36,15,20		9, 3
10″	10, 5,42, 5,36,58,32, 5, 6,50		44,16,54,14	
		2, 3,52,19,50,19,21, 6		9, 3
12″	10, 5,44, 9,29,18,22,24,27,56		44,17, 3,17	
		2, 3,52,19, 6, 2,17,49		9, 3
14″	10, 5,46,13,21,37,28,26,45,45		44,17,12,20	
		2, 3,52,18,21,45, 5,29		9, 3
16″	10, 5,48,17,13,55,50,11,51,14		44,17,21,23	
		2, 3,52,17,37,27,44, 6		9, 3
18″	10, 5,50,21, 6,13,27,39,35,20		44,17,30,26	
		2, 3,52,16,53,10,13,40		9, 3
20″	10, 5,52,24,58,30,20,49,49, 0		44,17,39,29	
		2, 3,52,16, 8,52,34,11		9, 3
22″	10, 5,54,28,50,46,29,42,23,11		44,17,48,32	
		2, 3,52,15,24,34,45,39		9, 3
24″	10, 5,56,32,43, 1,54,17, 8,50		44,17,57,35	
		2, 3,52,14,40,16,48, 4		9, 3
26″	10, 5,58,36,35,16,34,33,56,54		44,18, 6,38	
		2, 3,52,13,55,58,41,26		9, 3
28″	10, 6, 0,40,27,30,30,32,38,20		44,18,15,41	
		2, 3,52,13,11,40,25,45		9, 3
30″	10, 6, 2,44,19,43,42,13, 4, 5		44,18,24,44	
		2, 3,52,12,27,22, 1, 1		9, 3
32″	10, 6, 4,48,11,56, 9,35, 5, 6		44,18,33,47	
		2, 3,52,11,43, 3,27,14		9, 3
34″	10, 6, 6,52, 4, 7,52,38,32,20		44,18,42,50	
		2, 3,52,10,58,44,44,24		9, 3
36″	10, 6, 8,55,56,18,51,23,16,44		44,18,51,53	
		2, 3,52,10,14,25,52,31		9, 3
38″	10, 6,10,59,48,29, 5,49, 9,15		44,19, 0,56	
		2, 3,52, 9,30, 6,51,35		9, 3
40″	10, 6,13, 3,40,38,35,56, 0,50		44,19, 9,59	
		2, 3,52, 8,45,47,41,36		9, 3
42″	10, 6,15, 7,32,47,21,43,42,26		44,19,19, 2	
		2, 3,52, 8, 1,28,22,34		9, 3
44″	10, 6,17,11,24,55,23,12, 5, 0		44,19,28, 5	
		2, 3,52, 7,17, 8,54,29		9, 3
46″	10, 6,19,15,17, 2,40,20,59,29		44,19,37, 8	
		2, 3,52, 6,32,49,17,21		9, 3
48″	10, 6,21,19, 9, 9,13,10,16,50		44,19,46,11	
		2, 3,52, 5,48,29,31,10		9, 3
50″	10, 6,23,23, 1,15, 1,39,48, 0		44,19,55,14	
		2, 3,52, 5, 4, 9,35,56		9, 3
52″	10, 6,25,26,53,20, 5,49,23,56		44,20, 4,17	
		2, 3,52, 4,19,49,31,39		9, 3
54″	10, 6,27,30,45,24,25,38,55,35		44,20,13,20	
		2, 3,52, 3,35,29,18,19		9, 3
56″	10, 6,29,34,37,28, 1, 8,13,54		44,20,22,23	
		2, 3,52, 2,51, 8,55,56		9, 3
58″	10, 6,31,38,29,30,52,17, 9,50		44,20,31,26	
		2, 3,52, 2, 6,48,24,30		
60″	10, 6,33,42,21,32,59, 5,34,20			
exact	10, 6,33,42,21,32,59, 5, 8,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°42′ 0″	10, 6,33,42,21,32,59, 5, 8,23			
		2, 3,52, 1,22,27,41,19		
2″	10, 6,35,46,13,34,21,32,49,42		44,20,49,43	
		2, 3,52, 0,38, 6,51,36		9, 3
4″	10, 6,37,50, 5,34,59,39,41,18		44,20,58,46	
		2, 3,51,59,53,45,52,50		9, 3
6″	10, 6,39,53,57,34,53,25,34, 8		44,21, 7,49	
		2, 3,51,59, 9,24,45, 1		9, 3
8″	10, 6,41,57,49,34, 2,50,19, 9		44,21,16,52	
		2, 3,51,58,25, 3,28, 9		9, 3
10″	10, 6,44, 1,41,32,27,53,47,18		44,21,25,55	
		2, 3,51,57,40,42, 2,14		9, 3
12″	10, 6,46, 5,33,30, 8,35,49,32		44,21,34,58	
		2, 3,51,56,56,20,27,16		9, 3
14″	10, 6,48, 9,25,27, 4,56,16,48		44,21,44, 1	
		2, 3,51,56,11,58,43,15		9, 3
16″	10, 6,50,13,17,23,16,55, 0, 3		44,21,53, 4	
		2, 3,51,55,27,36,50,11		9, 3
18″	10, 6,52,17, 9,18,44,31,50,14		44,22, 2, 7	
		2, 3,51,54,43,14,48, 4		9, 3
20″	10, 6,54,21, 1,13,27,46,38,18		44,22,11,10	
		2, 3,51,53,58,52,36,54		9, 3
22″	10, 6,56,24,53, 7,26,39,15,12		44,22,20,13	
		2, 3,51,53,14,30,16,41		9, 3
24″	10, 6,58,28,45, 0,41, 9,31,53		44,22,29,16	
		2, 3,51,52,30, 7,47,25		9, 3
26″	10, 7, 0,32,36,53,11,17,19,18		44,22,38,19	
		2, 3,51,51,45,45, 9, 6		9, 3
28″	10, 7, 2,36,28,44,57, 2,28,24		44,22,47,22	
		2, 3,51,51, 1,22,21,44		9, 3
30″	10, 7, 4,40,20,35,58,24,50, 8		44,22,56,25	
		2, 3,51,50,16,59,25,19		9, 3
32″	10, 7, 6,44,12,26,15,24,15,27		44,23, 5,28	
		2, 3,51,49,32,36,19,51		9, 3
34″	10, 7, 8,48, 4,15,48, 0,35,18		44,23,14,31	
		2, 3,51,48,48,13, 5,20		9, 3
36″	10, 7,10,51,56, 4,36,13,40,38		44,23,23,34	
		2, 3,51,48, 3,49,41,46		9, 3
38″	10, 7,12,55,47,52,40, 3,22,24		44,23,32,37	
		2, 3,51,47,19,26, 9, 9		9, 3
40″	10, 7,14,59,39,39,59,29,31,33		44,23,41,40	
		2, 3,51,46,35, 2,27,29		9, 3
42″	10, 7,17, 3,31,26,34,31,59, 2		44,23,50,43	
		2, 3,51,45,50,38,36,46		9, 3
44″	10, 7,19, 7,23,12,25,10,35,48		44,23,59,46	
		2, 3,51,45, 6,14,37, 0		9, 3
46″	10, 7,21,11,14,57,31,25,12,48		44,24, 8,49	
		2, 3,51,44,21,50,28,11		9, 3
48″	10, 7,23,15, 6,41,53,15,40,59		44,24,17,52	
		2, 3,51,43,37,26,10,19		9, 3
50″	10, 7,25,18,58,25,30,41,51,18		44,24,26,55	
		2, 3,51,42,53, 1,43,24		9, 3
52″	10, 7,27,22,50, 8,23,43,34,42		44,24,35,58	
		2, 3,51,42, 8,37, 7,26		9, 3
54″	10, 7,29,26,41,50,32,20,42, 8		44,24,45, 1	
		2, 3,51,41,24,12,22,25		9, 3
56″	10, 7,31,30,33,31,56,33, 4,33		44,24,54, 4	
		2, 3,51,40,39,47,28,21		9, 3
58″	10, 7,33,34,25,12,36,20,32,54		44,25, 3, 7	
		2, 3,51,39,55,22,25,14		
60″	10, 7,35,38,16,52,31,42,58, 8			
exact	10, 7,35,38,16,52,31,42,36,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°43′ 0″	10, 7,35,38,16,52,31,42,36,38			
		2, 3,51,39,10,57,10,44		
2″	10, 7,37,42, 8,31,42,39,47,22		44,25,21,23	
		2, 3,51,38,26,31,49,21		9, 3
4″	10, 7,39,46, 0,10, 9,11,36,43		44,25,30,26	
		2, 3,51,37,42, 6,18,55		9, 3
6″	10, 7,41,49,51,47,51,17,55,38		44,25,39,29	
		2, 3,51,36,57,40,39,26		9, 3
8″	10, 7,43,53,43,24,48,58,35, 4		44,25,48,32	
		2, 3,51,36,13,14,50,54		9, 3
10″	10, 7,45,57,35, 1, 2,13,25,58		44,25,57,35	
		2, 3,51,35,28,48,53,19		9, 3
12″	10, 7,48, 1,26,36,31, 2,19,17		44,26, 6,38	
		2, 3,51,34,44,22,46,41		9, 3
14″	10, 7,50, 5,18,11,15,25, 5,58		44,26,15,41	
		2, 3,51,33,59,56,31, 0		9, 3
16″	10, 7,52, 9, 9,45,15,21,36,58		44,26,24,44	
		2, 3,51,33,15,30, 6,16		9, 3
18″	10, 7,54,13, 1,18,30,51,43,14		44,26,33,47	
		2, 3,51,32,31, 3,32,29		9, 3
20″	10, 7,56,16,52,51, 1,55,15,43		44,26,42,50	
		2, 3,51,31,46,36,49,39		9, 3
22″	10, 7,58,20,44,22,48,32, 5,22		44,26,51,53	
		2, 3,51,31, 2, 9,57,46		9, 3
24″	10, 8, 0,24,35,53,50,42, 3, 8		44,27, 0,56	
		2, 3,51,30,17,42,56,50		9, 3
26″	10, 8, 2,28,27,24, 8,24,59,58		44,27, 9,59	
		2, 3,51,29,33,15,46,51		9, 3
28″	10, 8, 4,32,18,53,41,40,46,49		44,27,19, 2	
		2, 3,51,28,48,48,27,49		9, 3
30″	10, 8, 6,36,10,22,30,29,14,38		44,27,28, 5	
		2, 3,51,28, 4,20,59,44		9, 3
32″	10, 8, 8,40, 1,50,34,50,14,22		44,27,37, 8	
		2, 3,51,27,19,53,22,36		9, 3
34″	10, 8,10,43,53,17,54,43,36,58		44,27,46,11	
		2, 3,51,26,35,25,36,25		9, 3
36″	10, 8,12,47,44,44,30, 9,13,23		44,27,55,14	
		2, 3,51,25,50,57,41,11		9, 3
38″	10, 8,14,51,36,10,21, 6,54,34		44,28, 4,17	
		2, 3,51,25, 6,29,36,54		9, 3
40″	10, 8,16,55,27,35,27,36,31,28		44,28,13,20	
		2, 3,51,24,22, 1,23,34		9, 3
42″	10, 8,18,59,18,59,49,37,55, 2		44,28,22,23	
		2, 3,51,23,37,33, 1,11		9, 3
44″	10, 8,21, 3,10,23,27,10,56,13		44,28,31,26	
		2, 3,51,22,53, 4,29,45		9, 3
46″	10, 8,23, 7, 1,46,20,15,25,58		44,28,40,29	
		2, 3,51,22, 8,35,49,16		9, 3
48″	10, 8,25,10,53, 8,28,51,15,14		44,28,49,32	
		2, 3,51,21,24, 6,59,44		9, 3
50″	10, 8,27,14,44,29,52,58,14,58		44,28,58,35	
		2, 3,51,20,39,38, 1, 9		9, 3
52″	10, 8,29,18,35,50,32,36,16, 7		44,29, 7,38	
		2, 3,51,19,55, 8,53,31		9, 3
54″	10, 8,31,22,27,10,27,45, 9,38		44,29,16,41	
		2, 3,51,19,10,39,36,50		9, 3
56″	10, 8,33,26,18,29,38,24,46,28		44,29,25,44	
		2, 3,51,18,26,10,11, 6		9, 3
58″	10, 8,35,30, 9,48, 4,34,57,34		44,29,34,47	
		2, 3,51,17,41,40,36,19		
60″	10, 8,37,34, 1, 5,46,15,33,53			
exact	10, 8,37,34, 1, 5,46,15,15,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°44′ 0″	10, 8,37,34, 1, 5,46,15,15,44			
		2, 3,51,16,57,10,50,27		
2″	10, 8,39,37,52,22,43,26, 6,11		44,29,53, 2	
		2, 3,51,16,12,40,57,25		9, 3
4″	10, 8,41,41,43,38,56, 7, 3,36		44,30, 2, 5	
		2, 3,51,15,28,10,55,20		9, 3
6″	10, 8,43,45,34,54,24,17,58,56		44,30,11, 8	
		2, 3,51,14,43,40,44,12		9, 3
8″	10, 8,45,49,26, 9, 7,58,43, 8		44,30,20,11	
		2, 3,51,13,59,10,24, 1		9, 3
10″	10, 8,47,53,17,23, 7, 9, 7, 9		44,30,29,14	
		2, 3,51,13,14,39,54,47		9, 3
12″	10, 8,49,57, 8,36,21,49, 1,56		44,30,38,17	
		2, 3,51,12,30, 9,16,30		9, 3
14″	10, 8,52, 0,59,48,51,58,18,26		44,30,47,20	
		2, 3,51,11,45,38,29,10		9, 3
16″	10, 8,54, 4,51, 0,37,36,47,36		44,30,56,23	
		2, 3,51,11, 1, 7,32,47		9, 3
18″	10, 8,56, 8,42,11,38,44,20,23		44,31, 5,26	
		2, 3,51,10,16,36,27,21		9, 3
20″	10, 8,58,12,33,21,55,20,47,44		44,31,14,29	
		2, 3,51, 9,32, 5,12,52		9, 3
22″	10, 9, 0,16,24,31,27,26, 0,36		44,31,23,32	
		2, 3,51, 8,47,33,49,20		9, 3
24″	10, 9, 2,20,15,40,14,59,49,56		44,31,32,35	
		2, 3,51, 8, 3, 2,16,45		9, 3
26″	10, 9, 4,24, 6,48,18, 2, 6,41		44,31,41,38	
		2, 3,51, 7,18,30,35, 7		9, 3
28″	10, 9, 6,27,57,55,36,32,41,48		44,31,50,41	
		2, 3,51, 6,33,58,44,26		9, 3
30″	10, 9, 8,31,49, 2,10,31,26,14		44,31,59,44	
		2, 3,51, 5,49,26,44,42		9, 3
32″	10, 9,10,35,40, 7,59,58,10,56		44,32, 8,47	
		2, 3,51, 5, 4,54,35,55		9, 3
34″	10, 9,12,39,31,13, 4,52,46,51		44,32,17,50	
		2, 3,51, 4,20,22,18, 5		9, 3
36″	10, 9,14,43,22,17,25,15, 4,56		44,32,26,53	
		2, 3,51, 3,35,49,51,12		9, 3
38″	10, 9,16,47,13,21, 1, 4,56, 8		44,32,35,56	
		2, 3,51, 2,51,17,15,16		9, 3
40″	10, 9,18,51, 4,23,52,22,11,24		44,32,44,59	
		2, 3,51, 2, 6,44,30,17		9, 3
42″	10, 9,20,54,55,25,59, 6,41,41		44,32,54, 2	
		2, 3,51, 1,22,11,36,15		9, 3
44″	10, 9,22,58,46,27,21,18,17,56		44,33, 3, 5	
		2, 3,51, 0,37,38,33,10		9, 3
46″	10, 9,25, 2,37,27,58,56,51, 6		44,33,12, 8	
		2, 3,50,59,53, 5,21, 2		9, 3
48″	10, 9,27, 6,28,27,52, 2,12, 8		44,33,21,11	
		2, 3,50,59, 8,31,59,51		9, 3
50″	10, 9,29,10,19,27, 0,34,11,59		44,33,30,14	
		2, 3,50,58,23,58,29,37		9, 3
52″	10, 9,31,14,10,25,24,32,41,36		44,33,39,17	
		2, 3,50,57,39,24,50,20		9, 3
54″	10, 9,33,18, 1,23, 3,57,31,56		44,33,48,20	
		2, 3,50,56,54,51, 2, 0		9, 3
56″	10, 9,35,21,52,19,58,48,33,56		44,33,57,23	
		2, 3,50,56,10,17, 4,37		9, 3
58″	10, 9,37,25,43,16, 9, 5,38,33		44,34, 6,26	
		2, 3,50,55,25,42,58,11		
60″	10, 9,39,29,34,11,34,48,36,44			
exact	10, 9,39,29,34,11,34,48,19,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°45′ 0″	10, 9,39,29,34,11,34,48,19,57			
		2, 3,50,54,41, 8,40,50		
2″	10, 9,41,33,25, 6,15,57, 0,47		44,34,24,40	
		2, 3,50,53,56,34,16,10		9, 3
4″	10, 9,43,37,16, 0,12,31,16,57		44,34,33,43	
		2, 3,50,53,11,59,42,27		9, 3
6″	10, 9,45,41, 6,53,24,30,59,24		44,34,42,46	
		2, 3,50,52,27,24,59,41		9, 3
8″	10, 9,47,44,57,45,51,55,59, 5		44,34,51,49	
		2, 3,50,51,42,50, 7,52		9, 3
10″	10, 9,49,48,48,37,34,46, 6,57		44,35, 0,52	
		2, 3,50,50,58,15, 7, 0		9, 3
12″	10, 9,51,52,39,28,33, 1,13,57		44,35, 9,55	
		2, 3,50,50,13,39,57, 5		9, 3
14″	10, 9,53,56,30,18,46,41,11, 2		44,35,18,58	
		2, 3,50,49,29, 4,38, 7		9, 3
16″	10, 9,56, 0,21, 8,15,45,49, 9		44,35,28, 1	
		2, 3,50,48,44,29,10, 6		9, 3
18″	10, 9,58, 4,11,57, 0,14,59,15		44,35,37, 4	
		2, 3,50,47,59,53,33, 2		9, 3
20″	10,10, 0, 8, 2,45, 0, 8,32,17		44,35,46, 7	
		2, 3,50,47,15,17,46,55		9, 3
22″	10,10, 2,11,53,32,15,26,19,12		44,35,55,10	
		2, 3,50,46,30,41,51,45		9, 3
24″	10,10, 4,15,44,18,46, 8,10,57		44,36, 4,13	
		2, 3,50,45,46, 5,47,32		9, 3
26″	10,10, 6,19,35, 4,32,13,58,29		44,36,13,16	
		2, 3,50,45, 1,29,34,16		9, 3
28″	10,10, 8,23,25,49,33,43,32,45		44,36,22,19	
		2, 3,50,44,16,53,11,57		9, 3
30″	10,10,10,27,16,33,50,36,44,42		44,36,31,22	
		2, 3,50,43,32,16,40,35		9, 3
32″	10,10,12,31, 7,17,22,53,25,17		44,36,40,25	
		2, 3,50,42,47,40, 0,10		9, 3
34″	10,10,14,34,58, 0,10,33,25,27		44,36,49,28	
		2, 3,50,42, 3, 3,10,42		9, 3
36″	10,10,16,38,48,42,13,36,36, 9		44,36,58,31	
		2, 3,50,41,18,26,12,11		9, 3
38″	10,10,18,42,39,23,32, 2,48,20		44,37, 7,34	
		2, 3,50,40,33,49, 4,37		9, 3
40″	10,10,20,46,30, 4, 5,51,52,57		44,37,16,37	
		2, 3,50,39,49,11,48, 0		9, 3
42″	10,10,22,50,20,43,55, 3,40,57		44,37,25,40	
		2, 3,50,39, 4,34,22,20		9, 3
44″	10,10,24,54,11,22,59,38, 3,17		44,37,34,43	
		2, 3,50,38,19,56,47,37		9, 3
46″	10,10,26,58, 2, 1,19,34,50,54		44,37,43,46	
		2, 3,50,37,35,19, 3,51		9, 3
48″	10,10,29, 1,52,38,54,53,54,45		44,37,52,49	
		2, 3,50,36,50,41,11, 2		9, 3
50″	10,10,31, 5,43,15,45,35, 5,47		44,38, 1,52	
		2, 3,50,36, 6, 3, 9,10		9, 3
52″	10,10,33, 9,33,51,51,38,14,57		44,38,10,55	
		2, 3,50,35,21,24,58,15		9, 3
54″	10,10,35,13,24,27,13, 3,13,12		44,38,19,58	
		2, 3,50,34,36,46,38,17		9, 3
56″	10,10,37,17,15, 1,49,49,51,29		44,38,29, 1	
		2, 3,50,33,52, 8, 9,16		9, 3
58″	10,10,39,21, 5,35,41,58, 0,45		44,38,38, 4	
		2, 3,50,33, 7,29,31,12		
60″	10,10,41,24,56, 8,49,27,31,57			
exact	10,10,41,24,56, 8,49,27,15,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°46′ 0″	10,10,41,24,56, 8,49,27,15,50			
		2, 3,50,32,22,50,42,20		
2″	10,10,43,28,46,41,12,17,58,10		44,38,56,17	
		2, 3,50,31,38,11,46, 3		9, 3
4″	10,10,45,32,37,12,50,29,44,13		44,39, 5,20	
		2, 3,50,30,53,32,40,43		9, 3
6″	10,10,47,36,27,43,44, 2,24,56		44,39,14,23	
		2, 3,50,30, 8,53,26,20		9, 3
8″	10,10,49,40,18,13,52,55,51,16		44,39,23,26	
		2, 3,50,29,24,14, 2,54		9, 3
10″	10,10,51,44, 8,43,17, 9,54,10		44,39,32,29	
		2, 3,50,28,39,34,30,25		9, 3
12″	10,10,53,47,59,11,56,44,24,35		44,39,41,32	
		2, 3,50,27,54,54,48,53		9, 3
14″	10,10,55,51,49,39,51,39,13,28		44,39,50,35	
		2, 3,50,27,10,14,58,18		9, 3
16″	10,10,57,55,40, 7, 1,54,11,46		44,39,59,38	
		2, 3,50,26,25,34,58,40		9, 3
18″	10,10,59,59,30,33,27,29,10,26		44,40, 8,41	
		2, 3,50,25,40,54,49,59		9, 3
20″	10,11, 2, 3,20,59, 8,24, 0,25		44,40,17,44	
		2, 3,50,24,56,14,32,15		9, 3
22″	10,11, 4, 7,11,24, 4,38,32,40		44,40,26,47	
		2, 3,50,24,11,34, 5,28		9, 3
24″	10,11, 6,11, 1,48,16,12,38, 8		44,40,35,50	
		2, 3,50,23,26,53,29,38		9, 3
26″	10,11, 8,14,52,11,43, 6, 7,46		44,40,44,53	
		2, 3,50,22,42,12,44,45		9, 3
28″	10,11,10,18,42,34,25,18,52,31		44,40,53,56	
		2, 3,50,21,57,31,50,49		9, 3
30″	10,11,12,22,32,56,22,50,43,20		44,41, 2,59	
		2, 3,50,21,12,50,47,50		9, 3
32″	10,11,14,26,23,17,35,41,31,10		44,41,12, 2	
		2, 3,50,20,28, 9,35,48		9, 3
34″	10,11,16,30,13,38, 3,51, 6,58		44,41,21, 5	
		2, 3,50,19,43,28,14,43		9, 3
36″	10,11,18,34, 3,57,47,19,21,41		44,41,30, 8	
		2, 3,50,18,58,46,44,35		9, 3
38″	10,11,20,37,54,16,46, 6, 6,16		44,41,39,11	
		2, 3,50,18,14, 5, 5,24		9, 3
40″	10,11,22,41,44,35, 0,11,11,40		44,41,48,14	
		2, 3,50,17,29,23,17,10		9, 3
42″	10,11,24,45,34,52,29,34,28,50		44,41,57,17	
		2, 3,50,16,44,41,19,53		9, 3
44″	10,11,26,49,25, 9,14,15,48,43		44,42, 6,20	
		2, 3,50,15,59,59,13,33		9, 3
46″	10,11,28,53,15,25,14,15, 2,16		44,42,15,23	
		2, 3,50,15,15,16,58,10		9, 3
48″	10,11,30,57, 5,40,29,32, 0,26		44,42,24,26	
		2, 3,50,14,30,34,33,44		9, 3
50″	10,11,33, 0,55,55, 0, 6,34,10		44,42,33,29	
		2, 3,50,13,45,52, 0,15		9, 3
52″	10,11,35, 4,46, 8,45,58,34,25		44,42,42,32	
		2, 3,50,13, 1, 9,17,43		9, 3
54″	10,11,37, 8,36,21,47, 7,52, 8		44,42,51,35	
		2, 3,50,12,16,26,26, 8		9, 3
56″	10,11,39,12,26,34, 3,34,18,16		44,43, 0,38	
		2, 3,50,11,31,43,25,30		9, 3
58″	10,11,41,16,16,45,35,17,43,46		44,43, 9,41	
		2, 3,50,10,47, 0,15,49		
60″	10,11,43,20, 6,56,22,17,59,35			
exact	10,11,43,20, 6,56,22,17,42, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°47′ 0″	10,11,43,20, 6,56,22,17,42, 4			
		2, 3,50,10, 2,16,55,19		
2″	10,11,45,23,57, 6,24,34,37,23		44,43,27,54	
		2, 3,50, 9,17,33,27,25		9, 3
4″	10,11,47,27,47,15,42, 8, 4,48		44,43,36,57	
		2, 3,50, 8,32,49,50,28		9, 3
6″	10,11,49,31,37,24,14,57,55,16		44,43,46, 0	
		2, 3,50, 7,48, 6, 4,28		9, 3
8″	10,11,51,35,27,32, 3, 3,59,44		44,43,55, 3	
		2, 3,50, 7, 3,22, 9,25		9, 3
10″	10,11,53,39,17,39, 6,26, 9, 9		44,44, 4, 6	
		2, 3,50, 6,18,38, 5,19		9, 3
12″	10,11,55,43, 7,45,25, 4,14,28		44,44,13, 9	
		2, 3,50, 5,33,53,52,10		9, 3
14″	10,11,57,46,57,50,58,58, 6,38		44,44,22,12	
		2, 3,50, 4,49, 9,29,58		9, 3
16″	10,11,59,50,47,55,48, 7,36,36		44,44,31,15	
		2, 3,50, 4, 4,24,58,43		9, 3
18″	10,12, 1,54,37,59,52,32,35,19		44,44,40,18	
		2, 3,50, 3,19,40,18,25		9, 3
20″	10,12, 3,58,28, 3,12,12,53,44		44,44,49,21	
		2, 3,50, 2,34,55,29, 4		9, 3
22″	10,12, 6, 2,18, 5,47, 8,22,48		44,44,58,24	
		2, 3,50, 1,50,10,30,40		9, 3
24″	10,12, 8, 6, 8, 7,37,18,53,28		44,45, 7,27	
		2, 3,50, 1, 5,25,23,13		9, 3
26″	10,12,10, 9,58, 8,42,44,16,41		44,45,16,30	
		2, 3,50, 0,20,40, 6,43		9, 3
28″	10,12,12,13,48, 9, 3,24,23,24		44,45,25,33	
		2, 3,49,59,35,54,41,10		9, 3
30″	10,12,14,17,38, 8,39,19, 4,34		44,45,34,36	
		2, 3,49,58,51, 9, 6,34		9, 3
32″	10,12,16,21,28, 7,30,28,11, 8		44,45,43,39	
		2, 3,49,58, 6,23,22,55		9, 3
34″	10,12,18,25,18, 5,36,51,34, 3		44,45,52,42	
		2, 3,49,57,21,37,30,13		9, 3
36″	10,12,20,29, 8, 2,58,29, 4,16		44,46, 1,45	
		2, 3,49,56,36,51,28,28		9, 3
38″	10,12,22,32,57,59,35,20,32,44		44,46,10,48	
		2, 3,49,55,52, 5,17,40		9, 3
40″	10,12,24,36,47,55,27,25,50,24		44,46,19,51	
		2, 3,49,55, 7,18,57,49		9, 3
42″	10,12,26,40,37,50,34,44,48,13		44,46,28,54	
		2, 3,49,54,22,32,28,55		9, 3
44″	10,12,28,44,27,44,57,17,17, 8		44,46,37,57	
		2, 3,49,53,37,45,50,58		9, 3
46″	10,12,30,48,17,38,35, 3, 8, 6		44,46,47, 0	
		2, 3,49,52,52,59, 3,58		9, 3
48″	10,12,32,52, 7,31,28, 2,12, 4		44,46,56, 3	
		2, 3,49,52, 8,12, 7,55		9, 3
50″	10,12,34,55,57,23,36,14,19,59		44,47, 5, 6	
		2, 3,49,51,23,25, 2,49		9, 3
52″	10,12,36,59,47,14,59,39,22,48		44,47,14, 9	
		2, 3,49,50,38,37,48,40		9, 3
54″	10,12,39, 3,37, 5,38,17,11,28		44,47,23,12	
		2, 3,49,49,53,50,25,28		9, 3
56″	10,12,41, 7,26,55,32, 7,36,56		44,47,32,15	
		2, 3,49,49, 9, 2,53,13		9, 3
58″	10,12,43,11,16,44,41,10,30, 9		44,47,41,18	
		2, 3,49,48,24,15,11,55		
60″	10,12,45,15, 6,33, 5,25,42, 4			
exact	10,12,45,15, 6,33, 5,25,29,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°48′ 0″	10,12,45,15, 6,33, 5,25,29,38			
		2, 3,49,47,39,27,20,13		
2″	10,12,47,18,56,20,44,52,49,51		44,47,59,30	
		2, 3,49,46,54,39,20,43		9, 3
4″	10,12,49,22,46, 7,39,32,10,34		44,48, 8,33	
		2, 3,49,46, 9,51,12,10		9, 3
6″	10,12,51,26,35,53,49,23,22,44		44,48,17,36	
		2, 3,49,45,25, 2,54,34		9, 3
8″	10,12,53,30,25,39,14,26,17,18		44,48,26,39	
		2, 3,49,44,40,14,27,55		9, 3
10″	10,12,55,34,15,23,54,40,45,13		44,48,35,42	
		2, 3,49,43,55,25,52,13		9, 3
12″	10,12,57,38, 5, 7,50, 6,37,26		44,48,44,45	
		2, 3,49,43,10,37, 7,28		9, 3
14″	10,12,59,41,54,51, 0,43,44,54		44,48,53,48	
		2, 3,49,42,25,48,13,40		9, 3
16″	10,13, 1,45,44,33,26,31,58,34		44,49, 2,51	
		2, 3,49,41,40,59,10,49		9, 3
18″	10,13, 3,49,34,15, 7,31, 9,23		44,49,11,54	
		2, 3,49,40,56, 9,58,55		9, 3
20″	10,13, 5,53,23,56, 3,41, 8,18		44,49,20,57	
		2, 3,49,40,11,20,37,58		9, 3
22″	10,13, 7,57,13,36,15, 1,46,16		44,49,30, 0	
		2, 3,49,39,26,31, 7,58		9, 3
24″	10,13,10, 1, 3,15,41,32,54,14		44,49,39, 3	
		2, 3,49,38,41,41,28,55		9, 3
26″	10,13,12, 4,52,54,23,14,23, 9		44,49,48, 6	
		2, 3,49,37,56,51,40,49		9, 3
28″	10,13,14, 8,42,32,20, 6, 3,58		44,49,57, 9	
		2, 3,49,37,12, 1,43,40		9, 3
30″	10,13,16,12,32, 9,32, 7,47,38		44,50, 6,12	
		2, 3,49,36,27,11,37,28		9, 3
32″	10,13,18,16,21,45,59,19,25, 6		44,50,15,15	
		2, 3,49,35,42,21,22,13		9, 3
34″	10,13,20,20,11,21,41,40,47,19		44,50,24,18	
		2, 3,49,34,57,30,57,55		9, 3
36″	10,13,22,24, 0,56,39,11,45,14		44,50,33,21	
		2, 3,49,34,12,40,24,34		9, 3
38″	10,13,24,27,50,30,51,52, 9,48		44,50,42,24	
		2, 3,49,33,27,49,42,10		9, 3
40″	10,13,26,31,40, 4,19,41,51,58		44,50,51,27	
		2, 3,49,32,42,58,50,43		9, 3
42″	10,13,28,35,29,37, 2,40,42,41		44,51, 0,30	
		2, 3,49,31,58, 7,50,13		9, 3
44″	10,13,30,39,19, 9, 0,48,32,54		44,51, 9,33	
		2, 3,49,31,13,16,40,40		9, 3
46″	10,13,32,43, 8,40,14, 5,13,34		44,51,18,36	
		2, 3,49,30,28,25,22, 4		9, 3
48″	10,13,34,46,58,10,42,30,35,38		44,51,27,39	
		2, 3,49,29,43,33,54,25		9, 3
50″	10,13,36,50,47,40,26, 4,30, 3		44,51,36,42	
		2, 3,49,28,58,42,17,43		9, 3
52″	10,13,38,54,37, 9,24,46,47,46		44,51,45,45	
		2, 3,49,28,13,50,31,58		9, 3
54″	10,13,40,58,26,37,38,37,19,44		44,51,54,48	
		2, 3,49,27,28,58,37,10		9, 3
56″	10,13,43, 2,16, 5, 7,35,56,54		44,52, 3,51	
		2, 3,49,26,44, 6,33,19		9, 3
58″	10,13,45, 6, 5,31,51,42,30,13		44,52,12,54	
		2, 3,49,25,59,14,20,25		
60″	10,13,47, 9,54,57,50,56,50,38			
exact	10,13,47, 9,54,57,50,56,41,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°49′ 0″	10,13,47, 9,54,57,50,56,41,46			
		2, 3,49,25,14,21,57,26		
2″	10,13,49,13,44,23, 5,18,39,12		44,52,31, 5	
		2, 3,49,24,29,29,26,21		9, 3
4″	10,13,51,17,33,47,34,48, 5,33		44,52,40, 8	
		2, 3,49,23,44,36,46,13		9, 3
6″	10,13,53,21,23,11,19,24,51,46		44,52,49,11	
		2, 3,49,22,59,43,57, 2		9, 3
8″	10,13,55,25,12,34,19, 8,48,48		44,52,58,14	
		2, 3,49,22,14,50,58,48		9, 3
10″	10,13,57,29, 1,56,33,59,47,36		44,53, 7,17	
		2, 3,49,21,29,57,51,31		9, 3
12″	10,13,59,32,51,18, 3,57,39, 7		44,53,16,20	
		2, 3,49,20,45, 4,35,11		9, 3
14″	10,14, 1,36,40,38,49, 2,14,18		44,53,25,23	
		2, 3,49,20, 0,11, 9,48		9, 3
16″	10,14, 3,40,29,58,49,13,24, 6		44,53,34,26	
		2, 3,49,19,15,17,35,22		9, 3
18″	10,14, 5,44,19,18, 4,30,59,28		44,53,43,29	
		2, 3,49,18,30,23,51,53		9, 3
20″	10,14, 7,48, 8,36,34,54,51,21		44,53,52,32	
		2, 3,49,17,45,29,59,21		9, 3
22″	10,14, 9,51,57,54,20,24,50,42		44,54, 1,35	
		2, 3,49,17, 0,35,57,46		9, 3
24″	10,14,11,55,47,11,21, 0,48,28		44,54,10,38	
		2, 3,49,16,15,41,47, 8		9, 3
26″	10,14,13,59,36,27,36,42,35,36		44,54,19,41	
		2, 3,49,15,30,47,27,27		9, 3
28″	10,14,16, 3,25,43, 7,30, 3, 3		44,54,28,44	
		2, 3,49,14,45,52,58,43		9, 3
30″	10,14,18, 7,14,57,53,23, 1,46		44,54,37,47	
		2, 3,49,14, 0,58,20,56		9, 3
32″	10,14,20,11, 4,11,54,21,22,42		44,54,46,50	
		2, 3,49,13,16, 3,34, 6		9, 3
34″	10,14,22,14,53,25,10,24,56,48		44,54,55,53	
		2, 3,49,12,31, 8,38,13		9, 3
36″	10,14,24,18,42,37,41,33,35, 1		44,55, 4,56	
		2, 3,49,11,46,13,33,17		9, 3
38″	10,14,26,22,31,49,27,47, 8,18		44,55,13,59	
		2, 3,49,11, 1,18,19,18		9, 3
40″	10,14,28,26,21, 0,29, 5,27,36		44,55,23, 2	
		2, 3,49,10,16,22,56,16		9, 3
42″	10,14,30,30,10,10,45,28,23,52		44,55,32, 5	
		2, 3,49, 9,31,27,24,11		9, 3
44″	10,14,32,33,59,20,16,55,48, 3		44,55,41, 8	
		2, 3,49, 8,46,31,43, 3		9, 3
46″	10,14,34,37,48,29, 3,27,31, 6		44,55,50,11	
		2, 3,49, 8, 1,35,52,52		9, 3
48″	10,14,36,41,37,37, 5, 3,23,58		44,55,59,14	
		2, 3,49, 7,16,39,53,38		9, 3
50″	10,14,38,45,26,44,21,43,17,36		44,56, 8,17	
		2, 3,49, 6,31,43,45,21		9, 3
52″	10,14,40,49,15,50,53,27, 2,57		44,56,17,20	
		2, 3,49, 5,46,47,28, 1		9, 3
54″	10,14,42,53, 4,56,40,14,30,58		44,56,26,23	
		2, 3,49, 5, 1,51, 1,38		9, 3
56″	10,14,44,56,54, 1,42, 5,32,36		44,56,35,26	
		2, 3,49, 4,16,54,26,12		9, 3
58″	10,14,47, 0,43, 5,58,59,58,48		44,56,44,29	
		2, 3,49, 3,31,57,41,43		
60″	10,14,49, 4,32, 9,30,57,40,31			
exact	10,14,49, 4,32, 9,30,57,33,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°50′ 0″	10,14,49, 4,32, 9,30,57,33,57			
		2, 3,49, 2,47, 0,47,23		
2″	10,14,51, 8,21,12,17,58,21,20		44,57, 2,39	
		2, 3,49, 2, 2, 3,44,44		9, 3
4″	10,14,53,12,10,14,20, 2, 6, 4		44,57,11,42	
		2, 3,49, 1,17, 6,33, 2		9, 3
6″	10,14,55,15,59,15,37, 8,39, 6		44,57,20,45	
		2, 3,49, 0,32, 9,12,17		9, 3
8″	10,14,57,19,48,16, 9,17,51,23		44,57,29,48	
		2, 3,48,59,47,11,42,29		9, 3
10″	10,14,59,23,37,15,56,29,33,52		44,57,38,51	
		2, 3,48,59, 2,14, 3,38		9, 3
12″	10,15, 1,27,26,14,58,43,37,30		44,57,47,54	
		2, 3,48,58,17,16,15,44		9, 3
14″	10,15, 3,31,15,13,15,59,53,14		44,57,56,57	
		2, 3,48,57,32,18,18,47		9, 3
16″	10,15, 5,35, 4,10,48,18,12, 1		44,58, 6, 0	
		2, 3,48,56,47,20,12,47		9, 3
18″	10,15, 7,38,53, 7,35,38,24,48		44,58,15, 3	
		2, 3,48,56, 2,21,57,44		9, 3
20″	10,15, 9,42,42, 3,38, 0,22,32		44,58,24, 6	
		2, 3,48,55,17,23,33,38		9, 3
22″	10,15,11,46,30,58,55,23,56,10		44,58,33, 9	
		2, 3,48,54,32,25, 0,29		9, 3
24″	10,15,13,50,19,53,27,48,56,39		44,58,42,12	
		2, 3,48,53,47,26,18,17		9, 3
26″	10,15,15,54, 8,47,15,15,14,56		44,58,51,15	
		2, 3,48,53, 2,27,27, 2		9, 3
28″	10,15,17,57,57,40,17,42,41,58		44,59, 0,18	
		2, 3,48,52,17,28,26,44		9, 3
30″	10,15,20, 1,46,32,35,11, 8,42		44,59, 9,21	
		2, 3,48,51,32,29,17,23		9, 3
32″	10,15,22, 5,35,24, 7,40,26, 5		44,59,18,24	
		2, 3,48,50,47,29,58,59		9, 3
34″	10,15,24, 9,24,14,55,10,25, 4		44,59,27,27	
		2, 3,48,50, 2,30,31,32		9, 3
36″	10,15,26,13,13, 4,57,40,56,36		44,59,36,30	
		2, 3,48,49,17,30,55, 2		9, 3
38″	10,15,28,17, 1,54,15,11,51,38		44,59,45,33	
		2, 3,48,48,32,31, 9,29		9, 3
40″	10,15,30,20,50,42,47,43, 1, 7		44,59,54,36	
		2, 3,48,47,47,31,14,53		9, 3
42″	10,15,32,24,39,30,35,14,16, 0		45, 0, 3,39	
		2, 3,48,47, 2,31,11,14		9, 3
44″	10,15,34,28,28,17,37,45,27,14		45, 0,12,42	
		2, 3,48,46,17,30,58,32		9, 3
46″	10,15,36,32,17, 3,55,16,25,46		45, 0,21,45	
		2, 3,48,45,32,30,36,47		9, 3
48″	10,15,38,36, 5,49,27,47, 2,33		45, 0,30,48	
		2, 3,48,44,47,30, 5,59		9, 3
50″	10,15,40,39,54,34,15,17, 8,32		45, 0,39,51	
		2, 3,48,44, 2,29,26, 8		9, 3
52″	10,15,42,43,43,18,17,46,34,40		45, 0,48,54	
		2, 3,48,43,17,28,37,14		9, 3
54″	10,15,44,47,32, 1,35,15,11,54		45, 0,57,57	
		2, 3,48,42,32,27,39,17		9, 3
56″	10,15,46,51,20,44, 7,42,51,11		45, 1, 7, 0	
		2, 3,48,41,47,26,32,17		9, 3
58″	10,15,48,55, 9,25,55, 9,23,28		45, 1,16, 3	
		2, 3,48,41, 2,25,16,14		
60″	10,15,50,58,58, 6,57,34,39,42			
exact	10,15,50,58,58, 6,57,34,34, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°51′ 0″	10,15,50,58,58, 6,57,34,34, 1			
		2, 3,48,40,17,23,50,28		
2″	10,15,53, 2,46,47,14,58,24,29		45, 1,34,12	
		2, 3,48,39,32,22,16,16		9, 3
4″	10,15,55, 6,35,26,47,20,40,45		45, 1,43,15	
		2, 3,48,38,47,20,33, 1		9, 3
6″	10,15,57,10,24, 5,34,41,13,46		45, 1,52,18	
		2, 3,48,38, 2,18,40,43		9, 3
8″	10,15,59,14,12,43,36,59,54,29		45, 2, 1,21	
		2, 3,48,37,17,16,39,22		9, 3
10″	10,16, 1,18, 1,20,54,16,33,51		45, 2,10,24	
		2, 3,48,36,32,14,28,58		9, 3
12″	10,16, 3,21,49,57,26,31, 2,49		45, 2,19,27	
		2, 3,48,35,47,12, 9,31		9, 3
14″	10,16, 5,25,38,33,13,43,12,20		45, 2,28,30	
		2, 3,48,35, 2, 9,41, 1		9, 3
16″	10,16, 7,29,27, 8,15,52,53,21		45, 2,37,33	
		2, 3,48,34,17, 7, 3,28		9, 3
18″	10,16, 9,33,15,42,32,59,56,49		45, 2,46,36	
		2, 3,48,33,32, 4,16,52		9, 3
20″	10,16,11,37, 4,16, 5, 4,13,41		45, 2,55,39	
		2, 3,48,32,47, 1,21,13		9, 3
22″	10,16,13,40,52,48,52, 5,34,54		45, 3, 4,42	
		2, 3,48,32, 1,58,16,31		9, 3
24″	10,16,15,44,41,20,54, 3,51,25		45, 3,13,45	
		2, 3,48,31,16,55, 2,46		9, 3
26″	10,16,17,48,29,52,10,58,54,11		45, 3,22,48	
		2, 3,48,30,31,51,39,58		9, 3
28″	10,16,19,52,18,22,42,50,34, 9		45, 3,31,51	
		2, 3,48,29,46,48, 8, 7		9, 3
30″	10,16,21,56, 6,52,29,38,42,16		45, 3,40,54	
		2, 3,48,29, 1,44,27,13		9, 3
32″	10,16,23,59,55,21,31,23, 9,29		45, 3,49,57	
		2, 3,48,28,16,40,37,16		9, 3
34″	10,16,26, 3,43,49,48, 3,46,45		45, 3,59, 0	
		2, 3,48,27,31,36,38,16		9, 3
36″	10,16,28, 7,32,17,19,40,25, 1		45, 4, 8, 3	
		2, 3,48,26,46,32,30,13		9, 3
38″	10,16,30,11,20,44, 6,12,55,14		45, 4,17, 6	
		2, 3,48,26, 1,28,13, 7		9, 3
40″	10,16,32,15, 9,10, 7,41, 8,21		45, 4,26, 9	
		2, 3,48,25,16,23,46,58		9, 3
42″	10,16,34,18,57,35,24, 4,55,19		45, 4,35,12	
		2, 3,48,24,31,19,11,46		9, 3
44″	10,16,36,22,45,59,55,24, 7, 5		45, 4,44,15	
		2, 3,48,23,46,14,27,31		9, 3
46″	10,16,38,26,34,23,41,38,34,36		45, 4,53,18	
		2, 3,48,23, 1, 9,34,13		9, 3
48″	10,16,40,30,22,46,42,48, 8,49		45, 5, 2,21	
		2, 3,48,22,16, 4,31,52		9, 3
50″	10,16,42,34,11, 8,58,52,40,41		45, 5,11,24	
		2, 3,48,21,30,59,20,28		9, 3
52″	10,16,44,37,59,30,29,52, 1, 9		45, 5,20,27	
		2, 3,48,20,45,54, 0, 1		9, 3
54″	10,16,46,41,47,51,15,46, 1,10		45, 5,29,30	
		2, 3,48,20, 0,48,30,31		9, 3
56″	10,16,48,45,36,11,16,34,31,41		45, 5,38,33	
		2, 3,48,19,15,42,51,58		9, 3
58″	10,16,50,49,24,30,32,17,23,39		45, 5,47,36	
		2, 3,48,18,30,37, 4,22		
60″	10,16,52,53,12,49, 2,54,28, 1			
exact	10,16,52,53,12,49, 2,54,22, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°52′ 0″	10,16,52,53,12,49, 2,54,22, 5			
		2, 3,48,17,45,31, 7, 6		
2″	10,16,54,57, 1, 6,48,25,29,11		45, 6, 5,44	
		2, 3,48,17, 0,25, 1,22		9, 3
4″	10,16,57, 0,49,23,48,50,30,33		45, 6,14,47	
		2, 3,48,16,15,18,46,35		9, 3
6″	10,16,59, 4,37,40, 4, 9,17, 8		45, 6,23,50	
		2, 3,48,15,30,12,22,45		9, 3
8″	10,17, 1, 8,25,55,34,21,39,53		45, 6,32,53	
		2, 3,48,14,45, 5,49,52		9, 3
10″	10,17, 3,12,14,10,19,27,29,45		45, 6,41,56	
		2, 3,48,13,59,59, 7,56		9, 3
12″	10,17, 5,16, 2,24,19,26,37,41		45, 6,50,59	
		2, 3,48,13,14,52,16,57		9, 3
14″	10,17, 7,19,50,37,34,18,54,38		45, 7, 0, 2	
		2, 3,48,12,29,45,16,55		9, 3
16″	10,17, 9,23,38,50, 4, 4,11,33		45, 7, 9, 5	
		2, 3,48,11,44,38, 7,50		9, 3
18″	10,17,11,27,27, 1,48,42,19,23		45, 7,18, 8	
		2, 3,48,10,59,30,49,42		9, 3
20″	10,17,13,31,15,12,48,13, 9, 5		45, 7,27,11	
		2, 3,48,10,14,23,22,31		9, 3
22″	10,17,15,35, 3,23, 2,36,31,36		45, 7,36,14	
		2, 3,48, 9,29,15,46,17		9, 3
24″	10,17,17,38,51,32,31,52,17,53		45, 7,45,17	
		2, 3,48, 8,44, 8, 1, 0		9, 3
26″	10,17,19,42,39,41,16, 0,18,53		45, 7,54,20	
		2, 3,48, 7,59, 0, 6,40		9, 3
28″	10,17,21,46,27,49,15, 0,25,33		45, 8, 3,23	
		2, 3,48, 7,13,52, 3,17		9, 3
30″	10,17,23,50,15,56,28,52,28,50		45, 8,12,26	
		2, 3,48, 6,28,43,50,51		9, 3
32″	10,17,25,54, 4, 2,57,36,19,41		45, 8,21,29	
		2, 3,48, 5,43,35,29,22		9, 3
34″	10,17,27,57,52, 8,41,11,49, 3		45, 8,30,32	
		2, 3,48, 4,58,26,58,50		9, 3
36″	10,17,30, 1,40,13,39,38,47,53		45, 8,39,35	
		2, 3,48, 4,13,18,19,15		9, 3
38″	10,17,32, 5,28,17,52,57, 7, 8		45, 8,48,38	
		2, 3,48, 3,28, 9,30,37		9, 3
40″	10,17,34, 9,16,21,21, 6,37,45		45, 8,57,41	
		2, 3,48, 2,43, 0,32,56		9, 3
42″	10,17,36,13, 4,24, 4, 7,10,41		45, 9, 6,44	
		2, 3,48, 1,57,51,26,12		9, 3
44″	10,17,38,16,52,26, 1,58,36,53		45, 9,15,47	
		2, 3,48, 1,12,42,10,25		9, 3
46″	10,17,40,20,40,27,14,40,47,18		45, 9,24,50	
		2, 3,48, 0,27,32,45,35		9, 3
48″	10,17,42,24,28,27,42,13,32,53		45, 9,33,53	
		2, 3,47,59,42,23,11,42		9, 3
50″	10,17,44,28,16,27,24,36,44,35		45, 9,42,56	
		2, 3,47,58,57,13,28,46		9, 3
52″	10,17,46,32, 4,26,21,50,13,21		45, 9,51,59	
		2, 3,47,58,12, 3,36,47		9, 3
54″	10,17,48,35,52,24,33,53,50, 8		45,10, 1, 2	
		2, 3,47,57,26,53,35,45		9, 3
56″	10,17,50,39,40,22, 0,47,25,53		45,10,10, 5	
		2, 3,47,56,41,43,25,40		9, 3
58″	10,17,52,43,28,18,42,30,51,33		45,10,19, 8	
		2, 3,47,55,56,33, 6,32		
60″	10,17,54,47,16,14,39, 3,58, 5			
exact	10,17,54,47,16,14,39, 3,50,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°53′ 0″	10,17,54,47,16,14,39, 3,50,37			
		2, 3,47,55,11,22,37,42		
2″	10,17,56,51, 4, 9,50,26,28,19		45,10,37,16	
		2, 3,47,54,26,12, 0,26		9, 3
4″	10,17,58,54,52, 4,16,38,28,45		45,10,46,19	
		2, 3,47,53,41, 1,14, 7		9, 3
6″	10,18, 0,58,39,57,57,39,42,52		45,10,55,22	
		2, 3,47,52,55,50,18,45		9, 3
8″	10,18, 3, 2,27,50,53,30, 1,37		45,11, 4,25	
		2, 3,47,52,10,39,14,20		9, 3
10″	10,18, 5, 6,15,43, 4, 9,15,57		45,11,13,28	
		2, 3,47,51,25,28, 0,52		9, 3
12″	10,18, 7,10, 3,34,29,37,16,49		45,11,22,31	
		2, 3,47,50,40,16,38,21		9, 3
14″	10,18, 9,13,51,25, 9,53,55,10		45,11,31,34	
		2, 3,47,49,55, 5, 6,47		9, 3
16″	10,18,11,17,39,15, 4,59, 1,57		45,11,40,37	
		2, 3,47,49, 9,53,26,10		9, 3
18″	10,18,13,21,27, 4,14,52,28, 7		45,11,49,40	
		2, 3,47,48,24,41,36,30		9, 3
20″	10,18,15,25,14,52,39,34, 4,37		45,11,58,43	
		2, 3,47,47,39,29,37,47		9, 3
22″	10,18,17,29, 2,40,19, 3,42,24		45,12, 7,46	
		2, 3,47,46,54,17,30, 1		9, 3
24″	10,18,19,32,50,27,13,21,12,25		45,12,16,49	
		2, 3,47,46, 9, 5,13,12		9, 3
26″	10,18,21,36,38,13,22,26,25,37		45,12,25,52	
		2, 3,47,45,23,52,47,20		9, 3
28″	10,18,23,40,25,58,46,19,12,57		45,12,34,55	
		2, 3,47,44,38,40,12,25		9, 3
30″	10,18,25,44,13,43,24,59,25,22		45,12,43,58	
		2, 3,47,43,53,27,28,27		9, 3
32″	10,18,27,48, 1,27,18,26,53,49		45,12,53, 1	
		2, 3,47,43, 8,14,35,26		9, 3
34″	10,18,29,51,49,10,26,41,29,15		45,13, 2, 4	
		2, 3,47,42,23, 1,33,22		9, 3
36″	10,18,31,55,36,52,49,43, 2,37		45,13,11, 7	
		2, 3,47,41,37,48,22,15		9, 3
38″	10,18,33,59,24,34,27,31,24,52		45,13,20,10	
		2, 3,47,40,52,35, 2, 5		9, 3
40″	10,18,36, 3,12,15,20, 6,26,57		45,13,29,13	
		2, 3,47,40, 7,21,32,52		9, 3
42″	10,18,38, 6,59,55,27,27,59,49		45,13,38,16	
		2, 3,47,39,22, 7,54,36		9, 3
44″	10,18,40,10,47,34,49,35,54,25		45,13,47,19	
		2, 3,47,38,36,54, 7,17		9, 3
46″	10,18,42,14,35,13,26,30, 1,42		45,13,56,22	
		2, 3,47,37,51,40,10,55		9, 3
48″	10,18,44,18,22,51,18,10,12,37		45,14, 5,25	
		2, 3,47,37, 6,26, 5,30		9, 3
50″	10,18,46,22,10,28,24,36,18, 7		45,14,14,28	
		2, 3,47,36,21,11,51, 2		9, 3
52″	10,18,48,25,58, 4,45,48, 9, 9		45,14,23,31	
		2, 3,47,35,35,57,27,31		9, 3
54″	10,18,50,29,45,40,21,45,36,40		45,14,32,34	
		2, 3,47,34,50,42,54,57		9, 3
56″	10,18,52,33,33,15,12,28,31,37		45,14,41,37	
		2, 3,47,34, 5,28,13,20		9, 3
58″	10,18,54,37,20,49,17,56,44,57		45,14,50,40	
		2, 3,47,33,20,13,22,40		
60″	10,18,56,41, 8,22,38,10, 7,37			
exact	10,18,56,41, 8,22,38,10, 4,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°54′ 0″	10,18,56,41, 8,22,38,10, 4,28			
		2, 3,47,32,34,58,22,40		
2″	10,18,58,44,55,55,13, 8,27, 8		45,15, 8,47	
		2, 3,47,31,49,43,13,53		9, 3
4″	10,19, 0,48,43,27, 2,51,41, 1		45,15,17,50	
		2, 3,47,31, 4,27,56, 3		9, 3
6″	10,19, 2,52,30,58, 7,19,37, 4		45,15,26,53	
		2, 3,47,30,19,12,29,10		9, 3
8″	10,19, 4,56,18,28,26,32, 6,14		45,15,35,56	
		2, 3,47,29,33,56,53,14		9, 3
10″	10,19, 7, 0, 5,58, 0,28,59,28		45,15,44,59	
		2, 3,47,28,48,41, 8,15		9, 3
12″	10,19, 9, 3,53,26,49,10, 7,43		45,15,54, 2	
		2, 3,47,28, 3,25,14,13		9, 3
14″	10,19,11, 7,40,54,52,35,21,56		45,16, 3, 5	
		2, 3,47,27,18, 9,11, 8		9, 3
16″	10,19,13,11,28,22,10,44,33, 4		45,16,12, 8	
		2, 3,47,26,32,52,59, 0		9, 3
18″	10,19,15,15,15,48,43,37,32, 4		45,16,21,11	
		2, 3,47,25,47,36,37,49		9, 3
20″	10,19,17,19, 3,14,31,14, 9,53		45,16,30,14	
		2, 3,47,25, 2,20, 7,35		9, 3
22″	10,19,19,22,50,39,33,34,17,28		45,16,39,17	
		2, 3,47,24,17, 3,28,18		9, 3
24″	10,19,21,26,38, 3,50,37,45,46		45,16,48,20	
		2, 3,47,23,31,46,39,58		9, 3
26″	10,19,23,30,25,27,22,24,25,44		45,16,57,23	
		2, 3,47,22,46,29,42,35		9, 3
28″	10,19,25,34,12,50, 8,54, 8,19		45,17, 6,26	
		2, 3,47,22, 1,12,36, 9		9, 3
30″	10,19,27,38, 0,12,10, 6,44,28		45,17,15,29	
		2, 3,47,21,15,55,20,40		9, 3
32″	10,19,29,41,47,33,26, 2, 5, 8		45,17,24,32	
		2, 3,47,20,30,37,56, 8		9, 3
34″	10,19,31,45,34,53,56,40, 1,16		45,17,33,35	
		2, 3,47,19,45,20,22,33		9, 3
36″	10,19,33,49,22,13,42, 0,23,49		45,17,42,38	
		2, 3,47,19, 0, 2,39,55		9, 3
38″	10,19,35,53, 9,32,42, 3, 3,44		45,17,51,41	
		2, 3,47,18,14,44,48,14		9, 3
40″	10,19,37,56,56,50,56,47,51,58		45,18, 0,44	
		2, 3,47,17,29,26,47,30		9, 3
42″	10,19,40, 0,44, 8,26,14,39,28		45,18, 9,47	
		2, 3,47,16,44, 8,37,43		9, 3
44″	10,19,42, 4,31,25,10,23,17,11		45,18,18,50	
		2, 3,47,15,58,50,18,53		9, 3
46″	10,19,44, 8,18,41, 9,13,36, 4		45,18,27,53	
		2, 3,47,15,13,31,51, 0		9, 3
48″	10,19,46,12, 5,56,22,45,27, 4		45,18,36,56	
		2, 3,47,14,28,13,14, 4		9, 3
50″	10,19,48,15,53,10,50,58,41, 8		45,18,45,59	
		2, 3,47,13,42,54,28, 5		9, 3
52″	10,19,50,19,40,24,33,53, 9,13		45,18,55, 2	
		2, 3,47,12,57,35,33, 3		9, 3
54″	10,19,52,23,27,37,31,28,42,16		45,19, 4, 5	
		2, 3,47,12,12,16,28,58		9, 3
56″	10,19,54,27,14,49,43,45,11,14		45,19,13, 8	
		2, 3,47,11,26,57,15,50		9, 3
58″	10,19,56,31, 2, 1,10,42,27, 4		45,19,22,11	
		2, 3,47,10,41,37,53,39		
60″	10,19,58,34,49,11,52,20,20,43			
exact	10,19,58,34,49,11,52,20,20,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°55′ 0″	10,19,58,34,49,11,52,20,20,52			
		2, 3,47, 9,56,18,22,26		
2″	10,20, 0,38,36,21,48,38,43,18		45,19,40,17	
		2, 3,47, 9,10,58,42, 9		9, 3
4″	10,20, 2,42,23,30,59,37,25,27		45,19,49,20	
		2, 3,47, 8,25,38,52,49		9, 3
6″	10,20, 4,46,10,39,25,16,18,16		45,19,58,23	
		2, 3,47, 7,40,18,54,26		9, 3
8″	10,20, 6,49,57,47, 5,35,12,42		45,20, 7,26	
		2, 3,47, 6,54,58,47, 0		9, 3
10″	10,20, 8,53,44,54, 0,33,59,42		45,20,16,29	
		2, 3,47, 6, 9,38,30,31		9, 3
12″	10,20,10,57,32, 0,10,12,30,13		45,20,25,32	
		2, 3,47, 5,24,18, 4,59		9, 3
14″	10,20,13, 1,19, 5,34,30,35,12		45,20,34,35	
		2, 3,47, 4,38,57,30,24		9, 3
16″	10,20,15, 5, 6,10,13,28, 5,36		45,20,43,38	
		2, 3,47, 3,53,36,46,46		9, 3
18″	10,20,17, 8,53,14, 7, 4,52,22		45,20,52,41	
		2, 3,47, 3, 8,15,54, 5		9, 3
20″	10,20,19,12,40,17,15,20,46,27		45,21, 1,44	
		2, 3,47, 2,22,54,52,21		9, 3
22″	10,20,21,16,27,19,38,15,38,48		45,21,10,47	
		2, 3,47, 1,37,33,41,34		9, 3
24″	10,20,23,20,14,21,15,49,20,22		45,21,19,50	
		2, 3,47, 0,52,12,21,44		9, 3
26″	10,20,25,24, 1,22, 8, 1,42, 6		45,21,28,53	
		2, 3,47, 0, 6,50,52,51		9, 3
28″	10,20,27,27,48,22,14,52,34,57		45,21,37,56	
		2, 3,46,59,21,29,14,55		9, 3
30″	10,20,29,31,35,21,36,21,49,52		45,21,46,59	
		2, 3,46,58,36, 7,27,56		9, 3
32″	10,20,31,35,22,20,12,29,17,48		45,21,56, 2	
		2, 3,46,57,50,45,31,54		9, 3
34″	10,20,33,39, 9,18, 3,14,49,42		45,22, 5, 5	
		2, 3,46,57, 5,23,26,49		9, 3
36″	10,20,35,42,56,15, 8,38,16,31		45,22,14, 8	
		2, 3,46,56,20, 1,12,41		9, 3
38″	10,20,37,46,43,11,28,39,29,12		45,22,23,11	
		2, 3,46,55,34,38,49,30		9, 3
40″	10,20,39,50,30, 7, 3,18,18,42		45,22,32,14	
		2, 3,46,54,49,16,17,16		9, 3
42″	10,20,41,54,17, 1,52,34,35,58		45,22,41,17	
		2, 3,46,54, 3,53,35,59		9, 3
44″	10,20,43,58, 3,55,56,28,11,57		45,22,50,20	
		2, 3,46,53,18,30,45,39		9, 3
46″	10,20,46, 1,50,49,14,58,57,36		45,22,59,23	
		2, 3,46,52,33, 7,46,16		9, 3
48″	10,20,48, 5,37,41,48, 6,43,52		45,23, 8,26	
		2, 3,46,51,47,44,37,50		9, 3
50″	10,20,50, 9,24,33,35,51,21,42		45,23,17,29	
		2, 3,46,51, 2,21,20,21		9, 3
52″	10,20,52,13,11,24,38,12,42, 3		45,23,26,32	
		2, 3,46,50,16,57,53,49		9, 3
54″	10,20,54,16,58,14,55,10,35,52		45,23,35,35	
		2, 3,46,49,31,34,18,14		9, 3
56″	10,20,56,20,45, 4,26,44,54, 6		45,23,44,38	
		2, 3,46,48,46,10,33,36		9, 3
58″	10,20,58,24,31,53,12,55,27,42		45,23,53,41	
		2, 3,46,48, 0,46,39,55		
60″	10,21, 0,28,18,41,13,42, 7,37			
exact	10,21, 0,28,18,41,13,42, 9,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°56′ 0″	10,21, 0,28,18,41,13,42, 9,26			
		2, 3,46,47,15,22,37,23		
2″	10,21, 2,32, 5,28,29, 4,46,49		45,24,11,46	
		2, 3,46,46,29,58,25,37		9, 3
4″	10,21, 4,35,52,14,59, 3,12,26		45,24,20,49	
		2, 3,46,45,44,34, 4,48		9, 3
6″	10,21, 6,39,39, 0,43,37,17,14		45,24,29,52	
		2, 3,46,44,59, 9,34,56		9, 3
8″	10,21, 8,43,25,45,42,46,52,10		45,24,38,55	
		2, 3,46,44,13,44,56, 1		9, 3
10″	10,21,10,47,12,29,56,31,48,11		45,24,47,58	
		2, 3,46,43,28,20, 8, 3		9, 3
12″	10,21,12,50,59,13,24,51,56,14		45,24,57, 1	
		2, 3,46,42,42,55,11, 2		9, 3
14″	10,21,14,54,45,56, 7,47, 7,16		45,25, 6, 4	
		2, 3,46,41,57,30, 4,58		9, 3
16″	10,21,16,58,32,38, 5,17,12,14		45,25,15, 7	
		2, 3,46,41,12, 4,49,51		9, 3
18″	10,21,19, 2,19,19,17,22, 2, 5		45,25,24,10	
		2, 3,46,40,26,39,25,41		9, 3
20″	10,21,21, 6, 5,59,44, 1,27,46		45,25,33,13	
		2, 3,46,39,41,13,52,28		9, 3
22″	10,21,23, 9,52,39,25,15,20,14		45,25,42,16	
		2, 3,46,38,55,48,10,12		9, 3
24″	10,21,25,13,39,18,21, 3,30,26		45,25,51,19	
		2, 3,46,38,10,22,18,53		9, 3
26″	10,21,27,17,25,56,31,25,49,19		45,26, 0,22	
		2, 3,46,37,24,56,18,31		9, 3
28″	10,21,29,21,12,33,56,22, 7,50		45,26, 9,25	
		2, 3,46,36,39,30, 9, 6		9, 3
30″	10,21,31,24,59,10,35,52,16,56		45,26,18,28	
		2, 3,46,35,54, 3,50,38		9, 3
32″	10,21,33,28,45,46,29,56, 7,34		45,26,27,31	
		2, 3,46,35, 8,37,23, 7		9, 3
34″	10,21,35,32,32,21,38,33,30,41		45,26,36,34	
		2, 3,46,34,23,10,46,33		9, 3
36″	10,21,37,36,18,56, 1,44,17,14		45,26,45,37	
		2, 3,46,33,37,44, 0,56		9, 3
38″	10,21,39,40, 5,29,39,28,18,10		45,26,54,40	
		2, 3,46,32,52,17, 6,16		9, 3
40″	10,21,41,43,52, 2,31,45,24,26		45,27, 3,43	
		2, 3,46,32, 6,50, 2,33		9, 3
42″	10,21,43,47,38,34,38,35,26,59		45,27,12,46	
		2, 3,46,31,21,22,49,47		9, 3
44″	10,21,45,51,25, 5,59,58,16,46		45,27,21,49	
		2, 3,46,30,35,55,27,58		9, 3
46″	10,21,47,55,11,36,35,53,44,44		45,27,30,52	
		2, 3,46,29,50,27,57, 6		9, 3
48″	10,21,49,58,58, 6,26,21,41,50		45,27,39,55	
		2, 3,46,29, 5, 0,17,11		9, 3
50″	10,21,52, 2,44,35,31,21,59, 1		45,27,48,58	
		2, 3,46,28,19,32,28,13		9, 3
52″	10,21,54, 6,31, 3,50,54,27,14		45,27,58, 1	
		2, 3,46,27,34, 4,30,12		9, 3
54″	10,21,56,10,17,31,24,58,57,26		45,28, 7, 4	
		2, 3,46,26,48,36,23, 8		9, 3
56″	10,21,58,14, 3,58,13,35,20,34		45,28,16, 7	
		2, 3,46,26, 3, 8, 7, 1		9, 3
58″	10,22, 0,17,50,24,16,43,27,35		45,28,25,10	
		2, 3,46,25,17,39,41,51		
60″	10,22, 2,21,36,49,34,23, 9,26			
exact	10,22, 2,21,36,49,34,23,12,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°57′ 0″	10,22, 2,21,36,49,34,23,12,13			
		2, 3,46,24,32,11, 7,58		
2″	10,22, 4,25,23,14, 6,34,20,11		45,28,43,14	
		2, 3,46,23,46,42,24,44		9, 3
4″	10,22, 6,29, 9,37,53,16,44,55		45,28,52,17	
		2, 3,46,23, 1,13,32,27		9, 3
6″	10,22, 8,32,56, 0,54,30,17,22		45,29, 1,20	
		2, 3,46,22,15,44,31, 7		9, 3
8″	10,22,10,36,42,23,10,14,48,29		45,29,10,23	
		2, 3,46,21,30,15,20,44		9, 3
10″	10,22,12,40,28,44,40,30, 9,13		45,29,19,26	
		2, 3,46,20,44,46, 1,18		9, 3
12″	10,22,14,44,15, 5,25,16,10,31		45,29,28,29	
		2, 3,46,19,59,16,32,49		9, 3
14″	10,22,16,48, 1,25,24,32,43,20		45,29,37,32	
		2, 3,46,19,13,46,55,17		9, 3
16″	10,22,18,51,47,44,38,19,38,37		45,29,46,35	
		2, 3,46,18,28,17, 8,42		9, 3
18″	10,22,20,55,34, 3, 6,36,47,19		45,29,55,38	
		2, 3,46,17,42,47,13, 4		9, 3
20″	10,22,22,59,20,20,49,24, 0,23		45,30, 4,41	
		2, 3,46,16,57,17, 8,23		9, 3
22″	10,22,25, 3, 6,37,46,41, 8,46		45,30,13,44	
		2, 3,46,16,11,46,54,39		9, 3
24″	10,22,27, 6,52,53,58,28, 3,25		45,30,22,47	
		2, 3,46,15,26,16,31,52		9, 3
26″	10,22,29,10,39, 9,24,44,35,17		45,30,31,50	
		2, 3,46,14,40,46, 0, 2		9, 3
28″	10,22,31,14,25,24, 5,30,35,19		45,30,40,53	
		2, 3,46,13,55,15,19, 9		9, 3
30″	10,22,33,18,11,38, 0,45,54,28		45,30,49,56	
		2, 3,46,13, 9,44,29,13		9, 3
32″	10,22,35,21,57,51,10,30,23,41		45,30,58,59	
		2, 3,46,12,24,13,30,14		9, 3
34″	10,22,37,25,44, 3,34,43,53,55		45,31, 8, 2	
		2, 3,46,11,38,42,22,12		9, 3
36″	10,22,39,29,30,15,13,26,16, 7		45,31,17, 5	
		2, 3,46,10,53,11, 5, 7		9, 3
38″	10,22,41,33,16,26, 6,37,21,14		45,31,26, 8	
		2, 3,46,10, 7,39,38,59		9, 3
40″	10,22,43,37, 2,36,14,17, 0,13		45,31,35,11	
		2, 3,46, 9,22, 8, 3,48		9, 3
42″	10,22,45,40,48,45,36,25, 4, 1		45,31,44,14	
		2, 3,46, 8,36,36,19,34		9, 3
44″	10,22,47,44,34,54,13, 1,23,35		45,31,53,17	
		2, 3,46, 7,51, 4,26,17		9, 3
46″	10,22,49,48,21, 2, 4, 5,49,52		45,32, 2,20	
		2, 3,46, 7, 5,32,23,57		9, 3
48″	10,22,51,52, 7, 9, 9,38,13,49		45,32,11,23	
		2, 3,46, 6,20, 0,12,34		9, 3
50″	10,22,53,55,53,15,29,38,26,23		45,32,20,26	
		2, 3,46, 5,34,27,52, 8		9, 3
52″	10,22,55,59,39,21, 4, 6,18,31		45,32,29,29	
		2, 3,46, 4,48,55,22,39		9, 3
54″	10,22,58, 3,25,25,53, 1,41,10		45,32,38,32	
		2, 3,46, 4, 3,22,44, 7		9, 3
56″	10,23, 0, 7,11,29,56,24,25,17		45,32,47,35	
		2, 3,46, 3,17,49,56,32		9, 3
58″	10,23, 2,10,57,33,14,14,21,49		45,32,56,38	
		2, 3,46, 2,32,16,59,54		
60″	10,23, 4,14,43,35,46,31,21,43			
exact	10,23, 4,14,43,35,46,31,23,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°58′ 0″	10,23, 4,14,43,35,46,31,23,44			
		2, 3,46, 1,46,43,54,34		
2″	10,23, 6,18,29,37,33,15,18,18		45,33,14,42	
		2, 3,46, 1, 1,10,39,52		9, 3
4″	10,23, 8,22,15,38,34,25,58,10		45,33,23,45	
		2, 3,46, 0,15,37,16, 7		9, 3
6″	10,23,10,26, 1,38,50, 3,14,17		45,33,32,48	
		2, 3,45,59,30, 3,43,19		9, 3
8″	10,23,12,29,47,38,20, 6,57,36		45,33,41,51	
		2, 3,45,58,44,30, 1,28		9, 3
10″	10,23,14,33,33,37, 4,36,59, 4		45,33,50,54	
		2, 3,45,57,58,56,10,34		9, 3
12″	10,23,16,37,19,35, 3,33, 9,38		45,33,59,57	
		2, 3,45,57,13,22,10,37		9, 3
14″	10,23,18,41, 5,32,16,55,20,15		45,34, 9, 0	
		2, 3,45,56,27,48, 1,37		9, 3
16″	10,23,20,44,51,28,44,43,21,52		45,34,18, 3	
		2, 3,45,55,42,13,43,34		9, 3
18″	10,23,22,48,37,24,26,57, 5,26		45,34,27, 6	
		2, 3,45,54,56,39,16,28		9, 3
20″	10,23,24,52,23,19,23,36,21,54		45,34,36, 9	
		2, 3,45,54,11, 4,40,19		9, 3
22″	10,23,26,56, 9,13,34,41, 2,13		45,34,45,12	
		2, 3,45,53,25,29,55, 7		9, 3
24″	10,23,28,59,55, 7, 0,10,57,20		45,34,54,15	
		2, 3,45,52,39,55, 0,52		9, 3
26″	10,23,31, 3,40,59,40, 5,58,12		45,35, 3,18	
		2, 3,45,51,54,19,57,34		9, 3
28″	10,23,33, 7,26,51,34,25,55,46		45,35,12,21	
		2, 3,45,51, 8,44,45,13		9, 3
30″	10,23,35,11,12,42,43,10,40,59		45,35,21,24	
		2, 3,45,50,23, 9,23,49		9, 3
32″	10,23,37,14,58,33, 6,20, 4,48		45,35,30,27	
		2, 3,45,49,37,33,53,22		9, 3
34″	10,23,39,18,44,22,43,53,58,10		45,35,39,30	
		2, 3,45,48,51,58,13,52		9, 3
36″	10,23,41,22,30,11,35,52,12, 2		45,35,48,33	
		2, 3,45,48, 6,22,25,19		9, 3
38″	10,23,43,26,15,59,42,14,37,21		45,35,57,36	
		2, 3,45,47,20,46,27,43		9, 3
40″	10,23,45,30, 1,47, 3, 1, 5, 4		45,36, 6,39	
		2, 3,45,46,35,10,21, 4		9, 3
42″	10,23,47,33,47,33,38,11,26, 8		45,36,15,42	
		2, 3,45,45,49,34, 5,22		9, 3
44″	10,23,49,37,33,19,27,45,31,30		45,36,24,45	
		2, 3,45,45, 3,57,40,37		9, 3
46″	10,23,51,41,19, 4,31,43,12, 7		45,36,33,48	
		2, 3,45,44,18,21, 6,49		9, 3
48″	10,23,53,45, 4,48,50, 4,18,56		45,36,42,51	
		2, 3,45,43,32,44,23,58		9, 3
50″	10,23,55,48,50,32,22,48,42,54		45,36,51,54	
		2, 3,45,42,47, 7,32, 4		9, 3
52″	10,23,57,52,36,15, 9,56,14,58		45,37, 0,57	
		2, 3,45,42, 1,30,31, 7		9, 3
54″	10,23,59,56,21,57,11,26,46, 5		45,37,10, 0	
		2, 3,45,41,15,53,21, 7		9, 3
56″	10,24, 2, 0, 7,38,27,20, 7,12		45,37,19, 3	
		2, 3,45,40,30,16, 2, 4		9, 3
58″	10,24, 4, 3,53,18,57,36, 9,16		45,37,28, 6	
		2, 3,45,39,44,38,33,58		
60″	10,24, 6, 7,38,58,42,14,43,14			
exact	10,24, 6, 7,38,58,42,14,50,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
9°59′ 0″	10,24, 6, 7,38,58,42,14,50,57			
		2, 3,45,38,59, 0,57,38		
2″	10,24, 8,11,24,37,41,15,48,35		45,37,46, 9	
		2, 3,45,38,13,23,11,29		9, 3
4″	10,24,10,15,10,15,54,39, 0, 4		45,37,55,12	
		2, 3,45,37,27,45,16,17		9, 3
6″	10,24,12,18,55,53,22,24,16,21		45,38, 4,15	
		2, 3,45,36,42, 7,12, 2		9, 3
8″	10,24,14,22,41,30, 4,31,28,23		45,38,13,18	
		2, 3,45,35,56,28,58,44		9, 3
10″	10,24,16,26,27, 6, 1, 0,27, 7		45,38,22,21	
		2, 3,45,35,10,50,36,23		9, 3
12″	10,24,18,30,12,41,11,51, 3,30		45,38,31,24	
		2, 3,45,34,25,12, 4,59		9, 3
14″	10,24,20,33,58,15,37, 3, 8,29		45,38,40,27	
		2, 3,45,33,39,33,24,32		9, 3
16″	10,24,22,37,43,49,16,36,33, 1		45,38,49,30	
		2, 3,45,32,53,54,35, 2		9, 3
18″	10,24,24,41,29,22,10,31, 8, 3		45,38,58,33	
		2, 3,45,32, 8,15,36,29		9, 3
20″	10,24,26,45,14,54,18,46,44,32		45,39, 7,36	
		2, 3,45,31,22,36,28,53		9, 3
22″	10,24,28,49, 0,25,41,23,13,25		45,39,16,39	
		2, 3,45,30,36,57,12,14		9, 3
24″	10,24,30,52,45,56,18,20,25,39		45,39,25,42	
		2, 3,45,29,51,17,46,32		9, 3
26″	10,24,32,56,31,26, 9,38,12,11		45,39,34,45	
		2, 3,45,29, 5,38,11,47		9, 3
28″	10,24,35, 0,16,55,15,16,23,58		45,39,43,48	
		2, 3,45,28,19,58,27,59		9, 3
30″	10,24,37, 4, 2,23,35,14,51,57		45,39,52,51	
		2, 3,45,27,34,18,35, 8		9, 3
32″	10,24,39, 7,47,51, 9,33,27, 5		45,40, 1,54	
		2, 3,45,26,48,38,33,14		9, 3
34″	10,24,41,11,33,17,58,12, 0,19		45,40,10,57	
		2, 3,45,26, 2,58,22,17		9, 3
36″	10,24,43,15,18,44, 1,10,22,36		45,40,20, 0	
		2, 3,45,25,17,18, 2,17		9, 3
38″	10,24,45,19, 4, 9,18,28,24,53		45,40,29, 3	
		2, 3,45,24,31,37,33,14		9, 3
40″	10,24,47,22,49,33,50, 5,58, 7		45,40,38, 6	
		2, 3,45,23,45,56,55, 8		9, 3
42″	10,24,49,26,34,57,36, 2,53,15		45,40,47, 9	
		2, 3,45,23, 0,16, 7,59		9, 3
44″	10,24,51,30,20,20,36,19, 1,14		45,40,56,12	
		2, 3,45,22,14,35,11,47		9, 3
46″	10,24,53,34, 5,42,50,54,13, 1		45,41, 5,15	
		2, 3,45,21,28,54, 6,32		9, 3
48″	10,24,55,37,51, 4,19,48,19,33		45,41,14,18	
		2, 3,45,20,43,12,52,14		9, 3
50″	10,24,57,41,36,25, 3, 1,11,47		45,41,23,21	
		2, 3,45,19,57,31,28,53		9, 3
52″	10,24,59,45,21,45, 0,32,40,40		45,41,32,24	
		2, 3,45,19,11,49,56,29		9, 3
54″	10,25, 1,49, 7, 4,12,22,37, 9		45,41,41,27	
		2, 3,45,18,26, 8,15, 2		9, 3
56″	10,25, 3,52,52,22,38,30,52,11		45,41,50,30	
		2, 3,45,17,40,26,24,32		9, 3
58″	10,25, 5,56,37,40,18,57,16,43		45,41,59,33	
		2, 3,45,16,54,44,24,59		
60″	10,25, 8, 0,22,57,13,41,41,42			
exact	10,25, 8, 0,22,57,13,41,53,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10° 0′ 0″	10,25, 8, 0,22,57,13,41,53,19			
		2, 3,45,16, 9, 2,17,33		
2″	10,25,10, 4, 8,13,22,44,10,52		45,42,17,34	
		2, 3,45,15,23,19,59,59		9, 3
4″	10,25,12, 7,53,28,46, 4,10,51		45,42,26,37	
		2, 3,45,14,37,37,33,22		9, 3
6″	10,25,14,11,38,43,23,41,44,13		45,42,35,40	
		2, 3,45,13,51,54,57,42		9, 3
8″	10,25,16,15,23,57,15,36,41,55		45,42,44,43	
		2, 3,45,13, 6,12,12,59		9, 3
10″	10,25,18,19, 9,10,21,48,54,54		45,42,53,46	
		2, 3,45,12,20,29,19,13		9, 3
12″	10,25,20,22,54,22,42,18,14, 7		45,43, 2,49	
		2, 3,45,11,34,46,16,24		9, 3
14″	10,25,22,26,39,34,17, 4,30,31		45,43,11,52	
		2, 3,45,10,49, 3, 4,32		9, 3
16″	10,25,24,30,24,45, 6, 7,35, 3		45,43,20,55	
		2, 3,45,10, 3,19,43,37		9, 3
18″	10,25,26,34, 9,55, 9,27,18,40		45,43,29,58	
		2, 3,45, 9,17,36,13,39		9, 3
20″	10,25,28,37,55, 4,27, 3,32,19		45,43,39, 1	
		2, 3,45, 8,31,52,34,38		9, 3
22″	10,25,30,41,40,12,58,56, 6,57		45,43,48, 4	
		2, 3,45, 7,46, 8,46,34		9, 3
24″	10,25,32,45,25,20,45, 4,53,31		45,43,57, 7	
		2, 3,45, 7, 0,24,49,27		9, 3
26″	10,25,34,49,10,27,45,29,42,58		45,44, 6,10	
		2, 3,45, 6,14,40,43,17		9, 3
28″	10,25,36,52,55,34, 0,10,26,15		45,44,15,13	
		2, 3,45, 5,28,56,28, 4		9, 3
30″	10,25,38,56,40,39,29, 6,54,19		45,44,24,16	
		2, 3,45, 4,43,12, 3,48		9, 3
32″	10,25,41, 0,25,44,12,18,58, 7		45,44,33,19	
		2, 3,45, 3,57,27,30,29		9, 3
34″	10,25,43, 4,10,48, 9,46,28,36		45,44,42,22	
		2, 3,45, 3,11,42,48, 7		9, 3
36″	10,25,45, 7,55,51,21,29,16,43		45,44,51,25	
		2, 3,45, 2,25,57,56,42		9, 3
38″	10,25,47,11,40,53,47,27,13,25		45,45, 0,28	
		2, 3,45, 1,40,12,56,14		9, 3
40″	10,25,49,15,25,55,27,40, 9,39		45,45, 9,31	
		2, 3,45, 0,54,27,46,43		9, 3
42″	10,25,51,19,10,56,22, 7,56,22		45,45,18,34	
		2, 3,45, 0, 8,42,28, 9		9, 3
44″	10,25,53,22,55,56,30,50,24,31		45,45,27,37	
		2, 3,44,59,22,57, 0,32		9, 3
46″	10,25,55,26,40,55,53,47,25, 3		45,45,36,40	
		2, 3,44,58,37,11,23,52		9, 3
48″	10,25,57,30,25,54,30,58,48,55		45,45,45,43	
		2, 3,44,57,51,25,38, 9		9, 3
50″	10,25,59,34,10,52,22,24,27, 4		45,45,54,46	
		2, 3,44,57, 5,39,43,23		9, 3
52″	10,26, 1,37,55,49,28, 4,10,27		45,46, 3,49	
		2, 3,44,56,19,53,39,34		9, 3
54″	10,26, 3,41,40,45,47,57,50, 1		45,46,12,52	
		2, 3,44,55,34, 7,26,42		9, 3
56″	10,26, 5,45,25,41,22, 5,16,43		45,46,21,55	
		2, 3,44,54,48,21, 4,47		9, 3
58″	10,26, 7,49,10,36,10,26,21,30		45,46,30,58	
		2, 3,44,54, 2,34,33,49		
60″	10,26, 9,52,55,30,13, 0,55,19			
exact	10,26, 9,52,55,30,13, 1, 2,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10° 1′ 0″	10,26, 9,52,55,30,13, 1, 2,48			
		2, 3,44,53,16,47,54,45		
2″	10,26,11,56,40,23,29,48,57,33		45,46,48,59	
		2, 3,44,52,31, 1, 5,46		9, 3
4″	10,26,14, 0,25,16, 0,50, 3,19		45,46,58, 2	
		2, 3,44,51,45,14, 7,44		9, 3
6″	10,26,16, 4,10, 7,46, 4,11, 3		45,47, 7, 5	
		2, 3,44,50,59,27, 0,39		9, 3
8″	10,26,18, 7,54,58,45,31,11,42		45,47,16, 8	
		2, 3,44,50,13,39,44,31		9, 3
10″	10,26,20,11,39,48,59,10,56,13		45,47,25,11	
		2, 3,44,49,27,52,19,20		9, 3
12″	10,26,22,15,24,38,27, 3,15,33		45,47,34,14	
		2, 3,44,48,42, 4,45, 6		9, 3
14″	10,26,24,19, 9,27, 9, 8, 0,39		45,47,43,17	
		2, 3,44,47,56,17, 1,49		9, 3
16″	10,26,26,22,54,15, 5,25, 2,28		45,47,52,20	
		2, 3,44,47,10,29, 9,29		9, 3
18″	10,26,28,26,39, 2,15,54,11,57		45,48, 1,23	
		2, 3,44,46,24,41, 8, 6		9, 3
20″	10,26,30,30,23,48,40,35,20, 3		45,48,10,26	
		2, 3,44,45,38,52,57,40		9, 3
22″	10,26,32,34, 8,34,19,28,17,43		45,48,19,29	
		2, 3,44,44,53, 4,38,11		9, 3
24″	10,26,34,37,53,19,12,32,55,54		45,48,28,32	
		2, 3,44,44, 7,16, 9,39		9, 3
26″	10,26,36,41,38, 3,19,49, 5,33		45,48,37,35	
		2, 3,44,43,21,27,32, 4		9, 3
28″	10,26,38,45,22,46,41,16,37,37		45,48,46,38	
		2, 3,44,42,35,38,45,26		9, 3
30″	10,26,40,49, 7,29,16,55,23, 3		45,48,55,41	
		2, 3,44,41,49,49,49,45		9, 3
32″	10,26,42,52,52,11, 6,45,12,48		45,49, 4,44	
		2, 3,44,41, 4, 0,45, 1		9, 3
34″	10,26,44,56,36,52,10,45,57,49		45,49,13,47	
		2, 3,44,40,18,11,31,14		9, 3
36″	10,26,47, 0,21,32,28,57,29, 3		45,49,22,50	
		2, 3,44,39,32,22, 8,24		9, 3
38″	10,26,49, 4, 6,12, 1,19,37,27		45,49,31,53	
		2, 3,44,38,46,32,36,31		9, 3
40″	10,26,51, 7,50,50,47,52,13,58		45,49,40,56	
		2, 3,44,38, 0,42,55,35		9, 3
42″	10,26,53,11,35,28,48,35, 9,33		45,49,49,59	
		2, 3,44,37,14,53, 5,36		9, 3
44″	10,26,55,15,20, 6, 3,28,15, 9		45,49,59, 2	
		2, 3,44,36,29, 3, 6,34		9, 3
46″	10,26,57,19, 4,42,32,31,21,43		45,50, 8, 5	
		2, 3,44,35,43,12,58,29		9, 3
48″	10,26,59,22,49,18,15,44,20,12		45,50,17, 8	
		2, 3,44,34,57,22,41,21		9, 3
50″	10,27, 1,26,33,53,13, 7, 1,33		45,50,26,11	
		2, 3,44,34,11,32,15,10		9, 3
52″	10,27, 3,30,18,27,24,39,16,43		45,50,35,14	
		2, 3,44,33,25,41,39,56		9, 3
54″	10,27, 5,34, 3, 0,50,20,56,39		45,50,44,17	
		2, 3,44,32,39,50,55,39		9, 3
56″	10,27, 7,37,47,33,30,11,52,18		45,50,53,20	
		2, 3,44,31,54, 0, 2,19		9, 3
58″	10,27, 9,41,32, 5,24,11,54,37		45,51, 2,23	
		2, 3,44,31, 8, 8,59,56		
60″	10,27,11,45,16,36,32,20,54,33			
exact	10,27,11,45,16,36,32,21, 3,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10° 2′ 0″	10,27,11,45,16,36,32,21, 3,54			
		2, 3,44,30,22,17,49,39		
2″	10,27,13,49, 1, 6,54,38,53,33		45,51,20,24	
		2, 3,44,29,36,26,29,15		9, 3
4″	10,27,15,52,45,36,31, 5,22,48		45,51,29,27	
		2, 3,44,28,50,34,59,48		9, 3
6″	10,27,17,56,30, 5,21,40,22,36		45,51,38,30	
		2, 3,44,28, 4,43,21,18		9, 3
8″	10,27,20, 0,14,33,26,23,43,54		45,51,47,33	
		2, 3,44,27,18,51,33,45		9, 3
10″	10,27,22, 3,59, 0,45,15,17,39		45,51,56,36	
		2, 3,44,26,32,59,37, 9		9, 3
12″	10,27,24, 7,43,27,18,14,54,48		45,52, 5,39	
		2, 3,44,25,47, 7,31,30		9, 3
14″	10,27,26,11,27,53, 5,22,26,18		45,52,14,42	
		2, 3,44,25, 1,15,16,48		9, 3
16″	10,27,28,15,12,18, 6,37,43, 6		45,52,23,45	
		2, 3,44,24,15,22,53, 3		9, 3
18″	10,27,30,18,56,42,22, 0,36, 9		45,52,32,48	
		2, 3,44,23,29,30,20,15		9, 3
20″	10,27,32,22,41, 5,51,30,56,24		45,52,41,51	
		2, 3,44,22,43,37,38,24		9, 3
22″	10,27,34,26,25,28,35, 8,34,48		45,52,50,54	
		2, 3,44,21,57,44,47,30		9, 3
24″	10,27,36,30, 9,50,32,53,22,18		45,52,59,57	
		2, 3,44,21,11,51,47,33		9, 3
26″	10,27,38,33,54,11,44,45, 9,51		45,53, 9, 0	
		2, 3,44,20,25,58,38,33		9, 3
28″	10,27,40,37,38,32,10,43,48,24		45,53,18, 3	
		2, 3,44,19,40, 5,20,30		9, 3
30″	10,27,42,41,22,51,50,49, 8,54		45,53,27, 6	
		2, 3,44,18,54,11,53,24		9, 3
32″	10,27,44,45, 7,10,45, 1, 2,18		45,53,36, 9	
		2, 3,44,18, 8,18,17,15		9, 3
34″	10,27,46,48,51,28,53,19,19,33		45,53,45,12	
		2, 3,44,17,22,24,32, 3		9, 3
36″	10,27,48,52,35,46,15,43,51,36		45,53,54,15	
		2, 3,44,16,36,30,37,48		9, 3
38″	10,27,50,56,20, 2,52,14,29,24		45,54, 3,18	
		2, 3,44,15,50,36,34,30		9, 3
40″	10,27,53, 0, 4,18,42,51, 3,54		45,54,12,21	
		2, 3,44,15, 4,42,22, 9		9, 3
42″	10,27,55, 3,48,33,47,33,26, 3		45,54,21,24	
		2, 3,44,14,18,48, 0,45		9, 3
44″	10,27,57, 7,32,48, 6,21,26,48		45,54,30,27	
		2, 3,44,13,32,53,30,18		9, 3
46″	10,27,59,11,17, 1,39,14,57, 6		45,54,39,30	
		2, 3,44,12,46,58,50,48		9, 3
48″	10,28, 1,15, 1,14,26,13,47,54		45,54,48,33	
		2, 3,44,12, 1, 4, 2,15		9, 3
50″	10,28, 3,18,45,26,27,17,50, 9		45,54,57,36	
		2, 3,44,11,15, 9, 4,39		9, 3
52″	10,28, 5,22,29,37,42,26,54,48		45,55, 6,39	
		2, 3,44,10,29,13,58, 0		9, 3
54″	10,28, 7,26,13,48,11,40,52,48		45,55,15,42	
		2, 3,44, 9,43,18,42,18		9, 3
56″	10,28, 9,29,57,57,54,59,35, 6		45,55,24,45	
		2, 3,44, 8,57,23,17,33		9, 3
58″	10,28,11,33,42, 6,52,22,52,39		45,55,33,48	
		2, 3,44, 8,11,27,43,45		
60″	10,28,13,37,26,15, 3,50,36,24			
exact	10,28,13,37,26,15, 3,50,53,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10° 3′ 0″	10,28,13,37,26,15, 3,50,53,41			
		2, 3,44, 7,25,32, 2,40		
2″	10,28,15,41,10,22,29,22,56,21		45,55,51,47	
		2, 3,44, 6,39,36,10,53		9, 3
4″	10,28,17,44,54,29, 8,59, 7,14		45,56, 0,50	
		2, 3,44, 5,53,40,10, 3		9, 3
6″	10,28,19,48,38,35, 2,39,17,17		45,56, 9,53	
		2, 3,44, 5, 7,44, 0,10		9, 3
8″	10,28,21,52,22,40,10,23,17,27		45,56,18,56	
		2, 3,44, 4,21,47,41,14		9, 3
10″	10,28,23,56, 6,44,32,10,58,41		45,56,27,59	
		2, 3,44, 3,35,51,13,15		9, 3
12″	10,28,25,59,50,48, 8, 2,11,56		45,56,37, 2	
		2, 3,44, 2,49,54,36,13		9, 3
14″	10,28,28, 3,34,50,57,56,48, 9		45,56,46, 5	
		2, 3,44, 2, 3,57,50, 8		9, 3
16″	10,28,30, 7,18,53, 1,54,38,17		45,56,55, 8	
		2, 3,44, 1,18, 0,55, 0		9, 3
18″	10,28,32,11, 2,54,19,55,33,17		45,57, 4,11	
		2, 3,44, 0,32, 3,50,49		9, 3
20″	10,28,34,14,46,54,51,59,24, 6		45,57,13,14	
		2, 3,43,59,46, 6,37,35		9, 3
22″	10,28,36,18,30,54,38, 6, 1,41		45,57,22,17	
		2, 3,43,59, 0, 9,15,18		9, 3
24″	10,28,38,22,14,53,38,15,16,59		45,57,31,20	
		2, 3,43,58,14,11,43,58		9, 3
26″	10,28,40,25,58,51,52,27, 0,57		45,57,40,23	
		2, 3,43,57,28,14, 3,35		9, 3
28″	10,28,42,29,42,49,20,41, 4,32		45,57,49,26	
		2, 3,43,56,42,16,14, 9		9, 3
30″	10,28,44,33,26,46, 2,57,18,41		45,57,58,29	
		2, 3,43,55,56,18,15,40		9, 3
32″	10,28,46,37,10,41,59,15,34,21		45,58, 7,32	
		2, 3,43,55,10,20, 8, 8		9, 3
34″	10,28,48,40,54,37, 9,35,42,29		45,58,16,35	
		2, 3,43,54,24,21,51,33		9, 3
36″	10,28,50,44,38,31,33,57,34, 2		45,58,25,38	
		2, 3,43,53,38,23,25,55		9, 3
38″	10,28,52,48,22,25,12,20,59,57		45,58,34,41	
		2, 3,43,52,52,24,51,14		9, 3
40″	10,28,54,52, 6,18, 4,45,51,11		45,58,43,44	
		2, 3,43,52, 6,26, 7,30		9, 3
42″	10,28,56,55,50,10,11,11,58,41		45,58,52,47	
		2, 3,43,51,20,27,14,43		9, 3
44″	10,28,58,59,34, 1,31,39,13,24		45,59, 1,50	
		2, 3,43,50,34,28,12,53		9, 3
46″	10,29, 1, 3,17,52, 6, 7,26,17		45,59,10,53	
		2, 3,43,49,48,29, 2, 0		9, 3
48″	10,29, 3, 7, 1,41,54,36,28,17		45,59,19,56	
		2, 3,43,49, 2,29,42, 4		9, 3
50″	10,29, 5,10,45,30,57, 6,10,21		45,59,28,59	
		2, 3,43,48,16,30,13, 5		9, 3
52″	10,29, 7,14,29,19,13,36,23,26		45,59,38, 2	
		2, 3,43,47,30,30,35, 3		9, 3
54″	10,29, 9,18,13, 6,44, 6,58,29		45,59,47, 5	
		2, 3,43,46,44,30,47,58		9, 3
56″	10,29,11,21,56,53,28,37,46,27		45,59,56, 8	
		2, 3,43,45,58,30,51,50		9, 3
58″	10,29,13,25,40,39,27, 8,38,17		46, 0, 5,11	
		2, 3,43,45,12,30,46,39		
60″	10,29,15,29,24,24,39,39,24,56			
exact	10,29,15,29,24,24,39,39,41,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10° 4′ 0″	10,29,15,29,24,24,39,39,41,44			
		2, 3,43,44,26,30,34,13		
2″	10,29,17,33, 8, 9, 6,10,15,57		46, 0,23, 9	
		2, 3,43,43,40,30,11, 4		9, 3
4″	10,29,19,36,51,52,46,40,27, 1		46, 0,32,12	
		2, 3,43,42,54,29,38,52		9, 3
6″	10,29,21,40,35,35,41,10, 5,53		46, 0,41,15	
		2, 3,43,42, 8,28,57,37		9, 3
8″	10,29,23,44,19,17,49,39, 3,30		46, 0,50,18	
		2, 3,43,41,22,28, 7,19		9, 3
10″	10,29,25,48, 2,59,12, 7,10,49		46, 0,59,21	
		2, 3,43,40,36,27, 7,58		9, 3
12″	10,29,27,51,46,39,48,34,18,47		46, 1, 8,24	
		2, 3,43,39,50,25,59,34		9, 3
14″	10,29,29,55,30,19,39, 0,18,21		46, 1,17,27	
		2, 3,43,39, 4,24,42, 7		9, 3
16″	10,29,31,59,13,58,43,25, 0,28		46, 1,26,30	
		2, 3,43,38,18,23,15,37		9, 3
18″	10,29,34, 2,57,37, 1,48,16, 5		46, 1,35,33	
		2, 3,43,37,32,21,40, 4		9, 3
20″	10,29,36, 6,41,14,34, 9,56, 9		46, 1,44,36	
		2, 3,43,36,46,19,55,28		9, 3
22″	10,29,38,10,24,51,20,29,51,37		46, 1,53,39	
		2, 3,43,36, 0,18, 1,49		9, 3
24″	10,29,40,14, 8,27,20,47,53,26		46, 2, 2,42	
		2, 3,43,35,14,15,59, 7		9, 3
26″	10,29,42,17,52, 2,35, 3,52,33		46, 2,11,45	
		2, 3,43,34,28,13,47,22		9, 3
28″	10,29,44,21,35,37, 3,17,39,55		46, 2,20,48	
		2, 3,43,33,42,11,26,34		9, 3
30″	10,29,46,25,19,10,45,29, 6,29		46, 2,29,51	
		2, 3,43,32,56, 8,56,43		9, 3
32″	10,29,48,29, 2,43,41,38, 3,12		46, 2,38,54	
		2, 3,43,32,10, 6,17,49		9, 3
34″	10,29,50,32,46,15,51,44,21, 1		46, 2,47,57	
		2, 3,43,31,24, 3,29,52		9, 3
36″	10,29,52,36,29,47,15,47,50,53		46, 2,57, 0	
		2, 3,43,30,38, 0,32,52		9, 3
38″	10,29,54,40,13,17,53,48,23,45		46, 3, 6, 3	
		2, 3,43,29,51,57,26,49		9, 3
40″	10,29,56,43,56,47,45,45,50,34		46, 3,15, 6	
		2, 3,43,29, 5,54,11,43		9, 3
42″	10,29,58,47,40,16,51,40, 2,17		46, 3,24, 9	
		2, 3,43,28,19,50,47,34		9, 3
44″	10,30, 0,51,23,45,11,30,49,51		46, 3,33,12	
		2, 3,43,27,33,47,14,22		9, 3
46″	10,30, 2,55, 7,12,45,18, 4,13		46, 3,42,15	
		2, 3,43,26,47,43,32, 7		9, 3
48″	10,30, 4,58,50,39,33, 1,36,20		46, 3,51,18	
		2, 3,43,26, 1,39,40,49		9, 3
50″	10,30, 7, 2,34, 5,34,41,17, 9		46, 4, 0,21	
		2, 3,43,25,15,35,40,28		9, 3
52″	10,30, 9, 6,17,30,50,16,57,37		46, 4, 9,24	
		2, 3,43,24,29,31,31, 4		9, 3
54″	10,30,11,10, 0,55,19,48,28,41		46, 4,18,27	
		2, 3,43,23,43,27,12,37		9, 3
56″	10,30,13,13,44,19, 3,15,41,18		46, 4,27,30	
		2, 3,43,22,57,22,45, 7		9, 3
58″	10,30,15,17,27,42, 0,38,26,25		46, 4,36,33	
		2, 3,43,22,11,18, 8,34		
60″	10,30,17,21,11, 4,11,56,34,59			
exact	10,30,17,21,11, 4,11,56,50,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10° 5′ 0″	10,30,17,21,11, 4,11,56,50,17			
		2, 3,43,21,25,13,24,44		
2″	10,30,19,24,54,25,37,10,15, 1		46, 4,54,31	
		2, 3,43,20,39, 8,30,13		9, 3
4″	10,30,21,28,37,46,16,18,45,14		46, 5, 3,34	
		2, 3,43,19,53, 3,26,39		9, 3
6″	10,30,23,32,21, 6, 9,22,11,53		46, 5,12,37	
		2, 3,43,19, 6,58,14, 2		9, 3
8″	10,30,25,36, 4,25,16,20,25,55		46, 5,21,40	
		2, 3,43,18,20,52,52,22		9, 3
10″	10,30,27,39,47,43,37,13,18,17		46, 5,30,43	
		2, 3,43,17,34,47,21,39		9, 3
12″	10,30,29,43,31, 1,12, 0,39,56		46, 5,39,46	
		2, 3,43,16,48,41,41,53		9, 3
14″	10,30,31,47,14,18, 0,42,21,49		46, 5,48,49	
		2, 3,43,16, 2,35,53, 4		9, 3
16″	10,30,33,50,57,34, 3,18,14,53		46, 5,57,52	
		2, 3,43,15,16,29,55,12		9, 3
18″	10,30,35,54,40,49,19,48,10, 5		46, 6, 6,55	
		2, 3,43,14,30,23,48,17		9, 3
20″	10,30,37,58,24, 3,50,11,58,22		46, 6,15,58	
		2, 3,43,13,44,17,32,19		9, 3
22″	10,30,40, 2, 7,17,34,29,30,41		46, 6,25, 1	
		2, 3,43,12,58,11, 7,18		9, 3
24″	10,30,42, 5,50,30,32,40,37,59		46, 6,34, 4	
		2, 3,43,12,12, 4,33,14		9, 3
26″	10,30,44, 9,33,42,44,45,11,13		46, 6,43, 7	
		2, 3,43,11,25,57,50, 7		9, 3
28″	10,30,46,13,16,54,10,43, 1,20		46, 6,52,10	
		2, 3,43,10,39,50,57,57		9, 3
30″	10,30,48,17, 0, 4,50,33,59,17		46, 7, 1,13	
		2, 3,43, 9,53,43,56,44		9, 3
32″	10,30,50,20,43,14,44,17,56, 1		46, 7,10,16	
		2, 3,43, 9, 7,36,46,28		9, 3
34″	10,30,52,24,26,23,51,54,42,29		46, 7,19,19	
		2, 3,43, 8,21,29,27, 9		9, 3
36″	10,30,54,28, 9,32,13,24, 9,38		46, 7,28,22	
		2, 3,43, 7,35,21,58,47		9, 3
38″	10,30,56,31,52,39,48,46, 8,25		46, 7,37,25	
		2, 3,43, 6,49,14,21,22		9, 3
40″	10,30,58,35,35,46,38, 0,29,47		46, 7,46,28	
		2, 3,43, 6, 3, 6,34,54		9, 3
42″	10,31, 0,39,18,52,41, 7, 4,41		46, 7,55,31	
		2, 3,43, 5,16,58,39,23		9, 3
44″	10,31, 2,43, 1,57,58, 5,44, 4		46, 8, 4,34	
		2, 3,43, 4,30,50,34,49		9, 3
46″	10,31, 4,46,45, 2,28,56,18,53		46, 8,13,37	
		2, 3,43, 3,44,42,21,12		9, 3
48″	10,31, 6,50,28, 6,13,38,40, 5		46, 8,22,40	
		2, 3,43, 2,58,33,58,32		9, 3
50″	10,31, 8,54,11, 9,12,12,38,37		46, 8,31,43	
		2, 3,43, 2,12,25,26,49		9, 3
52″	10,31,10,57,54,11,24,38, 5,26		46, 8,40,46	
		2, 3,43, 1,26,16,46, 3		9, 3
54″	10,31,13, 1,37,12,50,54,51,29		46, 8,49,49	
		2, 3,43, 0,40, 7,56,14		9, 3
56″	10,31,15, 5,20,13,31, 2,47,43		46, 8,58,52	
		2, 3,42,59,53,58,57,22		9, 3
58″	10,31,17, 9, 3,13,25, 1,45, 5		46, 9, 7,55	
		2, 3,42,59, 7,49,49,27		
60″	10,31,19,12,46,12,32,51,34,32			
exact	10,31,19,12,46,12,32,51,54, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10° 6′ 0″	10,31,19,12,46,12,32,51,54, 9			
		2, 3,42,58,21,40,34,38		
2″	10,31,21,16,29,10,54,32,28,47		46, 9,25,52	
		2, 3,42,57,35,31, 8,46		9, 3
4″	10,31,23,20,12, 8,30, 3,37,33		46, 9,34,55	
		2, 3,42,56,49,21,33,51		9, 3
6″	10,31,25,23,55, 5,19,25,11,24		46, 9,43,58	
		2, 3,42,56, 3,11,49,53		9, 3
8″	10,31,27,27,38, 1,22,37, 1,17		46, 9,53, 1	
		2, 3,42,55,17, 1,56,52		9, 3
10″	10,31,29,31,20,56,39,38,58, 9		46,10, 2, 4	
		2, 3,42,54,30,51,54,48		9, 3
12″	10,31,31,35, 3,51,10,30,52,57		46,10,11, 7	
		2, 3,42,53,44,41,43,41		9, 3
14″	10,31,33,38,46,44,55,12,36,38		46,10,20,10	
		2, 3,42,52,58,31,23,31		9, 3
16″	10,31,35,42,29,37,53,44, 0, 9		46,10,29,13	
		2, 3,42,52,12,20,54,18		9, 3
18″	10,31,37,46,12,30, 6, 4,54,27		46,10,38,16	
		2, 3,42,51,26,10,16, 2		9, 3
20″	10,31,39,49,55,21,32,15,10,29		46,10,47,19	
		2, 3,42,50,39,59,28,43		9, 3
22″	10,31,41,53,38,12,12,14,39,12		46,10,56,22	
		2, 3,42,49,53,48,32,21		9, 3
24″	10,31,43,57,21, 2, 6, 3,11,33		46,11, 5,25	
		2, 3,42,49, 7,37,26,56		9, 3
26″	10,31,46, 1, 3,51,13,40,38,29		46,11,14,28	
		2, 3,42,48,21,26,12,28		9, 3
28″	10,31,48, 4,46,39,35, 6,50,57		46,11,23,31	
		2, 3,42,47,35,14,48,57		9, 3
30″	10,31,50, 8,29,27,10,21,39,54		46,11,32,34	
		2, 3,42,46,49, 3,16,23		9, 3
32″	10,31,52,12,12,13,59,24,56,17		46,11,41,37	
		2, 3,42,46, 2,51,34,46		9, 3
34″	10,31,54,15,55, 0, 2,16,31, 3		46,11,50,40	
		2, 3,42,45,16,39,44, 6		9, 3
36″	10,31,56,19,37,45,18,56,15, 9		46,11,59,43	
		2, 3,42,44,30,27,44,23		9, 3
38″	10,31,58,23,20,29,49,23,59,32		46,12, 8,46	
		2, 3,42,43,44,15,35,37		9, 3
40″	10,32, 0,27, 3,13,33,39,35, 9		46,12,17,49	
		2, 3,42,42,58, 3,17,48		9, 3
42″	10,32, 2,30,45,56,31,42,52,57		46,12,26,52	
		2, 3,42,42,11,50,50,56		9, 3
44″	10,32, 4,34,28,38,43,33,43,53		46,12,35,55	
		2, 3,42,41,25,38,15, 1		9, 3
46″	10,32, 6,38,11,20, 9,11,58,54		46,12,44,58	
		2, 3,42,40,39,25,30, 3		9, 3
48″	10,32, 8,41,54, 0,48,37,28,57		46,12,54, 1	
		2, 3,42,39,53,12,36, 2		9, 3
50″	10,32,10,45,36,40,41,50, 4,59		46,13, 3, 4	
		2, 3,42,39, 6,59,32,58		9, 3
52″	10,32,12,49,19,19,48,49,37,57		46,13,12, 7	
		2, 3,42,38,20,46,20,51		9, 3
54″	10,32,14,53, 1,58, 9,35,58,48		46,13,21,10	
		2, 3,42,37,34,32,59,41		9, 3
56″	10,32,16,56,44,35,44, 8,58,29		46,13,30,13	
		2, 3,42,36,48,19,29,28		9, 3
58″	10,32,19, 0,27,12,32,28,27,57		46,13,39,16	
		2, 3,42,36, 2, 5,50,12		
60″	10,32,21, 4, 9,48,34,34,18, 9			
exact	10,32,21, 4, 9,48,34,34,40,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10° 7′ 0″	10,32,21, 4, 9,48,34,34,40,47			
		2, 3,42,35,15,52, 4,19		
2″	10,32,23, 7,52,23,50,26,45, 6		46,13,57,12	
		2, 3,42,34,29,38, 7, 7		9, 3
4″	10,32,25,11,34,58,20, 4,52,13		46,14, 6,15	
		2, 3,42,33,43,24, 0,52		9, 3
6″	10,32,27,15,17,32, 3,28,53, 5		46,14,15,18	
		2, 3,42,32,57, 9,45,34		9, 3
8″	10,32,29,19, 0, 5, 0,38,38,39		46,14,24,21	
		2, 3,42,32,10,55,21,13		9, 3
10″	10,32,31,22,42,37,11,33,59,52		46,14,33,24	
		2, 3,42,31,24,40,47,49		9, 3
12″	10,32,33,26,25, 8,36,14,47,41		46,14,42,27	
		2, 3,42,30,38,26, 5,22		9, 3
14″	10,32,35,30, 7,39,14,40,53, 3		46,14,51,30	
		2, 3,42,29,52,11,13,52		9, 3
16″	10,32,37,33,50, 9, 6,52, 6,55		46,15, 0,33	
		2, 3,42,29, 5,56,13,19		9, 3
18″	10,32,39,37,32,38,12,48,20,14		46,15, 9,36	
		2, 3,42,28,19,41, 3,43		9, 3
20″	10,32,41,41,15, 6,32,29,23,57		46,15,18,39	
		2, 3,42,27,33,25,45, 4		9, 3
22″	10,32,43,44,57,34, 5,55, 9, 1		46,15,27,42	
		2, 3,42,26,47,10,17,22		9, 3
24″	10,32,45,48,40, 0,53, 5,26,23		46,15,36,45	
		2, 3,42,26, 0,54,40,37		9, 3
26″	10,32,47,52,22,26,54, 0, 7, 0		46,15,45,48	
		2, 3,42,25,14,38,54,49		9, 3
28″	10,32,49,56, 4,52, 8,39, 1,49		46,15,54,51	
		2, 3,42,24,28,22,59,58		9, 3
30″	10,32,51,59,47,16,37, 2, 1,47		46,16, 3,54	
		2, 3,42,23,42, 6,56, 4		9, 3
32″	10,32,54, 3,29,40,19, 8,57,51		46,16,12,57	
		2, 3,42,22,55,50,43, 7		9, 3
34″	10,32,56, 7,12, 3,14,59,40,58		46,16,22, 0	
		2, 3,42,22, 9,34,21, 7		9, 3
36″	10,32,58,10,54,25,24,34, 2, 5		46,16,31, 3	
		2, 3,42,21,23,17,50, 4		9, 3
38″	10,33, 0,14,36,46,47,51,52, 9		46,16,40, 6	
		2, 3,42,20,37, 1, 9,58		9, 3
40″	10,33, 2,18,19, 7,24,53, 2, 7		46,16,49, 9	
		2, 3,42,19,50,44,20,49		9, 3
42″	10,33, 4,22, 1,27,15,37,22,56		46,16,58,12	
		2, 3,42,19, 4,27,22,37		9, 3
44″	10,33, 6,25,43,46,20, 4,45,33		46,17, 7,15	
		2, 3,42,18,18,10,15,22		9, 3
46″	10,33, 8,29,26, 4,38,15, 0,55		46,17,16,18	
		2, 3,42,17,31,52,59, 4		9, 3
48″	10,33,10,33, 8,22,10, 7,59,59		46,17,25,21	
		2, 3,42,16,45,35,33,43		9, 3
50″	10,33,12,36,50,38,55,43,33,42		46,17,34,24	
		2, 3,42,15,59,17,59,19		9, 3
52″	10,33,14,40,32,54,55, 1,33, 1		46,17,43,27	
		2, 3,42,15,13, 0,15,52		9, 3
54″	10,33,16,44,15,10, 8, 1,48,53		46,17,52,30	
		2, 3,42,14,26,42,23,22		9, 3
56″	10,33,18,47,57,24,34,44,12,15		46,18, 1,33	
		2, 3,42,13,40,24,21,49		9, 3
58″	10,33,20,51,39,38,15, 8,34, 4		46,18,10,36	
		2, 3,42,12,54, 6,11,13		
60″	10,33,22,55,21,51, 9,14,45,17			
exact	10,33,22,55,21,51, 9,15,10,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10° 8′ 0″	10,33,22,55,21,51, 9,15,10,17			
		2, 3,42,12, 7,47,54,14		
2″	10,33,24,59, 4, 3,17, 3, 4,31		46,18,28,31	
		2, 3,42,11,21,29,25,43		9, 3
4″	10,33,27, 2,46,14,38,32,30,14		46,18,37,34	
		2, 3,42,10,35,10,48, 9		9, 3
6″	10,33,29, 6,28,25,13,43,18,23		46,18,46,37	
		2, 3,42, 9,48,52, 1,32		9, 3
8″	10,33,31,10,10,35, 2,35,19,55		46,18,55,40	
		2, 3,42, 9, 2,33, 5,52		9, 3
10″	10,33,33,13,52,44, 5, 8,25,47		46,19, 4,43	
		2, 3,42, 8,16,14, 1, 9		9, 3
12″	10,33,35,17,34,52,21,22,26,56		46,19,13,46	
		2, 3,42, 7,29,54,47,23		9, 3
14″	10,33,37,21,16,59,51,17,14,19		46,19,22,49	
		2, 3,42, 6,43,35,24,34		9, 3
16″	10,33,39,24,59, 6,34,52,38,53		46,19,31,52	
		2, 3,42, 5,57,15,52,42		9, 3
18″	10,33,41,28,41,12,32, 8,31,35		46,19,40,55	
		2, 3,42, 5,10,56,11,47		9, 3
20″	10,33,43,32,23,17,43, 4,43,22		46,19,49,58	
		2, 3,42, 4,24,36,21,49		9, 3
22″	10,33,45,36, 5,22, 7,41, 5,11		46,19,59, 1	
		2, 3,42, 3,38,16,22,48		9, 3
24″	10,33,47,39,47,25,45,57,27,59		46,20, 8, 4	
		2, 3,42, 2,51,56,14,44		9, 3
26″	10,33,49,43,29,28,37,53,42,43		46,20,17, 7	
		2, 3,42, 2, 5,35,57,37		9, 3
28″	10,33,51,47,11,30,43,29,40,20		46,20,26,10	
		2, 3,42, 1,19,15,31,27		9, 3
30″	10,33,53,50,53,32, 2,45,11,47		46,20,35,13	
		2, 3,42, 0,32,54,56,14		9, 3
32″	10,33,55,54,35,32,35,40, 8, 1		46,20,44,16	
		2, 3,41,59,46,34,11,58		9, 3
34″	10,33,57,58,17,32,22,14,19,59		46,20,53,19	
		2, 3,41,59, 0,13,18,39		9, 3
36″	10,34, 0, 1,59,31,22,27,38,38		46,21, 2,22	
		2, 3,41,58,13,52,16,17		9, 3
38″	10,34, 2, 5,41,29,36,19,54,55		46,21,11,25	
		2, 3,41,57,27,31, 4,52		9, 3
40″	10,34, 4, 9,23,27, 3,50,59,47		46,21,20,28	
		2, 3,41,56,41, 9,44,24		9, 3
42″	10,34, 6,13, 5,23,45, 0,44,11		46,21,29,31	
		2, 3,41,55,54,48,14,53		9, 3
44″	10,34, 8,16,47,19,39,48,59, 4		46,21,38,34	
		2, 3,41,55, 8,26,36,19		9, 3
46″	10,34,10,20,29,14,48,15,35,23		46,21,47,37	
		2, 3,41,54,22, 4,48,42		9, 3
48″	10,34,12,24,11, 9,10,20,24, 5		46,21,56,40	
		2, 3,41,53,35,42,52, 2		9, 3
50″	10,34,14,27,53, 2,46, 3,16, 7		46,22, 5,43	
		2, 3,41,52,49,20,46,19		9, 3
52″	10,34,16,31,34,55,35,24, 2,26		46,22,14,46	
		2, 3,41,52, 2,58,31,33		9, 3
54″	10,34,18,35,16,47,38,22,33,59		46,22,23,49	
		2, 3,41,51,16,36, 7,44		9, 3
56″	10,34,20,38,58,38,54,58,41,43		46,22,32,52	
		2, 3,41,50,30,13,34,52		9, 3
58″	10,34,22,42,40,29,25,12,16,35		46,22,41,55	
		2, 3,41,49,43,50,52,57		
60″	10,34,24,46,22,19, 9, 3, 9,32			
exact	10,34,24,46,22,19, 9, 3,35,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10° 9′ 0″	10,34,24,46,22,19, 9, 3,35,27			
		2, 3,41,48,57,28, 4,47		
2″	10,34,26,50, 4, 8, 6,31,40,14		46,22,59,49	
		2, 3,41,48,11, 5, 4,58		9, 3
4″	10,34,28,53,45,56,17,36,45,12		46,23, 8,52	
		2, 3,41,47,24,41,56, 6		9, 3
6″	10,34,30,57,27,43,42,18,41,18		46,23,17,55	
		2, 3,41,46,38,18,38,11		9, 3
8″	10,34,33, 1, 9,30,20,37,19,29		46,23,26,58	
		2, 3,41,45,51,55,11,13		9, 3
10″	10,34,35, 4,51,16,12,32,30,42		46,23,36, 1	
		2, 3,41,45, 5,31,35,12		9, 3
12″	10,34,37, 8,33, 1,18, 4, 5,54		46,23,45, 4	
		2, 3,41,44,19, 7,50, 8		9, 3
14″	10,34,39,12,14,45,37,11,56, 2		46,23,54, 7	
		2, 3,41,43,32,43,56, 1		9, 3
16″	10,34,41,15,56,29, 9,55,52, 3		46,24, 3,10	
		2, 3,41,42,46,19,52,51		9, 3
18″	10,34,43,19,38,11,56,15,44,54		46,24,12,13	
		2, 3,41,41,59,55,40,38		9, 3
20″	10,34,45,23,19,53,56,11,25,32		46,24,21,16	
		2, 3,41,41,13,31,19,22		9, 3
22″	10,34,47,27, 1,35, 9,42,44,54		46,24,30,19	
		2, 3,41,40,27, 6,49, 3		9, 3
24″	10,34,49,30,43,15,36,49,33,57		46,24,39,22	
		2, 3,41,39,40,42, 9,41		9, 3
26″	10,34,51,34,24,55,17,31,43,38		46,24,48,25	
		2, 3,41,38,54,17,21,16		9, 3
28″	10,34,53,38, 6,34,11,49, 4,54		46,24,57,28	
		2, 3,41,38, 7,52,23,48		9, 3
30″	10,34,55,41,48,12,19,41,28,42		46,25, 6,31	
		2, 3,41,37,21,27,17,17		9, 3
32″	10,34,57,45,29,49,41, 8,45,59		46,25,15,34	
		2, 3,41,36,35, 2, 1,43		9, 3
34″	10,34,59,49,11,26,16,10,47,42		46,25,24,37	
		2, 3,41,35,48,36,37, 6		9, 3
36″	10,35, 1,52,53, 2, 4,47,24,48		46,25,33,40	
		2, 3,41,35, 2,11, 3,26		9, 3
38″	10,35, 3,56,34,37, 6,58,28,14		46,25,42,43	
		2, 3,41,34,15,45,20,43		9, 3
40″	10,35, 6, 0,16,11,22,43,48,57		46,25,51,46	
		2, 3,41,33,29,19,28,57		9, 3
42″	10,35, 8, 3,57,44,52, 3,17,54		46,26, 0,49	
		2, 3,41,32,42,53,28, 8		9, 3
44″	10,35,10, 7,39,17,34,56,46, 2		46,26, 9,52	
		2, 3,41,31,56,27,18,16		9, 3
46″	10,35,12,11,20,49,31,24, 4,18		46,26,18,55	
		2, 3,41,31,10, 0,59,21		9, 3
48″	10,35,14,15, 2,20,41,25, 3,39		46,26,27,58	
		2, 3,41,30,23,34,31,23		9, 3
50″	10,35,16,18,43,51, 4,59,35, 2		46,26,37, 1	
		2, 3,41,29,37, 7,54,22		9, 3
52″	10,35,18,22,25,20,42, 7,29,24		46,26,46, 4	
		2, 3,41,28,50,41, 8,18		9, 3
54″	10,35,20,26, 6,49,32,48,37,42		46,26,55, 7	
		2, 3,41,28, 4,14,13,11		9, 3
56″	10,35,22,29,48,17,37, 2,50,53		46,27, 4,10	
		2, 3,41,27,17,47, 9, 1		9, 3
58″	10,35,24,33,29,44,54,49,59,54		46,27,13,13	
		2, 3,41,26,31,19,55,48		
60″	10,35,26,37,11,11,26, 9,55,42			
exact	10,35,26,37,11,11,26,10,21,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°10′ 0″	10,35,26,37,11,11,26,10,21,45			
		2, 3,41,25,44,52,36,25		
2″	10,35,28,40,52,37,11, 2,58,10		46,27,31, 7	
		2, 3,41,24,58,25, 5,18		9, 3
4″	10,35,30,44,34, 2, 9,28, 3,28		46,27,40,10	
		2, 3,41,24,11,57,25, 8		9, 3
6″	10,35,32,48,15,26,21,25,28,36		46,27,49,13	
		2, 3,41,23,25,29,35,55		9, 3
8″	10,35,34,51,56,49,46,55, 4,31		46,27,58,16	
		2, 3,41,22,39, 1,37,39		9, 3
10″	10,35,36,55,38,12,25,56,42,10		46,28, 7,19	
		2, 3,41,21,52,33,30,20		9, 3
12″	10,35,38,59,19,34,18,30,12,30		46,28,16,22	
		2, 3,41,21, 6, 5,13,58		9, 3
14″	10,35,41, 3, 0,55,24,35,26,28		46,28,25,25	
		2, 3,41,20,19,36,48,33		9, 3
16″	10,35,43, 6,42,15,44,12,15, 1		46,28,34,28	
		2, 3,41,19,33, 8,14, 5		9, 3
18″	10,35,45,10,23,35,17,20,29, 6		46,28,43,31	
		2, 3,41,18,46,39,30,34		9, 3
20″	10,35,47,14, 4,54, 3,59,59,40		46,28,52,34	
		2, 3,41,18, 0,10,38, 0		9, 3
22″	10,35,49,17,46,12, 4,10,37,40		46,29, 1,37	
		2, 3,41,17,13,41,36,23		9, 3
24″	10,35,51,21,27,29,17,52,14, 3		46,29,10,40	
		2, 3,41,16,27,12,25,43		9, 3
26″	10,35,53,25, 8,45,45, 4,39,46		46,29,19,43	
		2, 3,41,15,40,43, 6, 0		9, 3
28″	10,35,55,28,50, 1,25,47,45,46		46,29,28,46	
		2, 3,41,14,54,13,37,14		9, 3
30″	10,35,57,32,31,16,20, 1,23, 0		46,29,37,49	
		2, 3,41,14, 7,43,59,25		9, 3
32″	10,35,59,36,12,30,27,45,22,25		46,29,46,52	
		2, 3,41,13,21,14,12,33		9, 3
34″	10,36, 1,39,53,43,48,59,34,58		46,29,55,55	
		2, 3,41,12,34,44,16,38		9, 3
36″	10,36, 3,43,34,56,23,43,51,36		46,30, 4,58	
		2, 3,41,11,48,14,11,40		9, 3
38″	10,36, 5,47,16, 8,11,58, 3,16		46,30,14, 1	
		2, 3,41,11, 1,43,57,39		9, 3
40″	10,36, 7,50,57,19,13,42, 0,55		46,30,23, 4	
		2, 3,41,10,15,13,34,35		9, 3
42″	10,36, 9,54,38,29,28,55,35,30		46,30,32, 7	
		2, 3,41, 9,28,43, 2,28		9, 3
44″	10,36,11,58,19,38,57,38,37,58		46,30,41,10	
		2, 3,41, 8,42,12,21,18		9, 3
46″	10,36,14, 2, 0,47,39,50,59,16		46,30,50,13	
		2, 3,41, 7,55,41,31, 5		9, 3
48″	10,36,16, 5,41,55,35,32,30,21		46,30,59,16	
		2, 3,41, 7, 9,10,31,49		9, 3
50″	10,36,18, 9,23, 2,44,43, 2,10		46,31, 8,19	
		2, 3,41, 6,22,39,23,30		9, 3
52″	10,36,20,13, 4, 9, 7,22,25,40		46,31,17,22	
		2, 3,41, 5,36, 8, 6, 8		9, 3
54″	10,36,22,16,45,14,43,30,31,48		46,31,26,25	
		2, 3,41, 4,49,36,39,43		9, 3
56″	10,36,24,20,26,19,33, 7,11,31		46,31,35,28	
		2, 3,41, 4, 3, 5, 4,15		9, 3
58″	10,36,26,24, 7,23,36,12,15,46		46,31,44,31	
		2, 3,41, 3,16,33,19,44		
60″	10,36,28,27,48,26,52,45,35,30			
exact	10,36,28,27,48,26,52,46, 7,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°11′ 0″	10,36,28,27,48,26,52,46, 7,23			
		2, 3,41, 2,30, 1,29,32		
2″	10,36,30,31,29,29,22,47,36,55		46,32, 2,23	
		2, 3,41, 1,43,29,27, 9		9, 3
4″	10,36,32,35,10,31, 6,17, 4, 4		46,32,11,26	
		2, 3,41, 0,56,57,15,43		9, 3
6″	10,36,34,38,51,32, 3,14,19,47		46,32,20,29	
		2, 3,41, 0,10,24,55,14		9, 3
8″	10,36,36,42,32,32,13,39,15, 1		46,32,29,32	
		2, 3,40,59,23,52,25,42		9, 3
10″	10,36,38,46,13,31,37,31,40,43		46,32,38,35	
		2, 3,40,58,37,19,47, 7		9, 3
12″	10,36,40,49,54,30,14,51,27,50		46,32,47,38	
		2, 3,40,57,50,46,59,29		9, 3
14″	10,36,42,53,35,28, 5,38,27,19		46,32,56,41	
		2, 3,40,57, 4,14, 2,48		9, 3
16″	10,36,44,57,16,25, 9,52,30, 7		46,33, 5,44	
		2, 3,40,56,17,40,57, 4		9, 3
18″	10,36,47, 0,57,21,27,33,27,11		46,33,14,47	
		2, 3,40,55,31, 7,42,17		9, 3
20″	10,36,49, 4,38,16,58,41, 9,28		46,33,23,50	
		2, 3,40,54,44,34,18,27		9, 3
22″	10,36,51, 8,19,11,43,15,27,55		46,33,32,53	
		2, 3,40,53,58, 0,45,34		9, 3
24″	10,36,53,12, 0, 5,41,16,13,29		46,33,41,56	
		2, 3,40,53,11,27, 3,38		9, 3
26″	10,36,55,15,40,58,52,43,17, 7		46,33,50,59	
		2, 3,40,52,24,53,12,39		9, 3
28″	10,36,57,19,21,51,17,36,29,46		46,34, 0, 2	
		2, 3,40,51,38,19,12,37		9, 3
30″	10,36,59,23, 2,42,55,55,42,23		46,34, 9, 5	
		2, 3,40,50,51,45, 3,32		9, 3
32″	10,37, 1,26,43,33,47,40,45,55		46,34,18, 8	
		2, 3,40,50, 5,10,45,24		9, 3
34″	10,37, 3,30,24,23,52,51,31,19		46,34,27,11	
		2, 3,40,49,18,36,18,13		9, 3
36″	10,37, 5,34, 5,13,11,27,49,32		46,34,36,14	
		2, 3,40,48,32, 1,41,59		9, 3
38″	10,37, 7,37,46, 1,43,29,31,31		46,34,45,17	
		2, 3,40,47,45,26,56,42		9, 3
40″	10,37, 9,41,26,49,28,56,28,13		46,34,54,20	
		2, 3,40,46,58,52, 2,22		9, 3
42″	10,37,11,45, 7,36,27,48,30,35		46,35, 3,23	
		2, 3,40,46,12,16,58,59		9, 3
44″	10,37,13,48,48,22,40, 5,29,34		46,35,12,26	
		2, 3,40,45,25,41,46,33		9, 3
46″	10,37,15,52,29, 8, 5,47,16, 7		46,35,21,29	
		2, 3,40,44,39, 6,25, 4		9, 3
48″	10,37,17,56, 9,52,44,53,41,11		46,35,30,32	
		2, 3,40,43,52,30,54,32		9, 3
50″	10,37,19,59,50,36,37,24,35,43		46,35,39,35	
		2, 3,40,43, 5,55,14,57		9, 3
52″	10,37,22, 3,31,19,43,19,50,40		46,35,48,38	
		2, 3,40,42,19,19,26,19		9, 3
54″	10,37,24, 7,12, 2, 2,39,16,59		46,35,57,41	
		2, 3,40,41,32,43,28,38		9, 3
56″	10,37,26,10,52,43,35,22,45,37		46,36, 6,44	
		2, 3,40,40,46, 7,21,54		9, 3
58″	10,37,28,14,33,24,21,30, 7,31		46,36,15,47	
		2, 3,40,39,59,31, 6, 7		
60″	10,37,30,18,14, 4,21, 1,13,38			
exact	10,37,30,18,14, 4,21, 1,43,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°12′ 0″	10,37,30,18,14, 4,21, 1,43,16			
		2, 3,40,39,12,54,44,34		
2″	10,37,32,21,54,43,33,56,27,50		46,36,33,39	
		2, 3,40,38,26,18,10,55		9, 3
4″	10,37,34,25,35,22, 0,14,38,45		46,36,42,42	
		2, 3,40,37,39,41,28,13		9, 3
6″	10,37,36,29,15,59,39,56, 6,58		46,36,51,45	
		2, 3,40,36,53, 4,36,28		9, 3
8″	10,37,38,32,56,36,33, 0,43,26		46,37, 0,48	
		2, 3,40,36, 6,27,35,40		9, 3
10″	10,37,40,36,37,12,39,28,19, 6		46,37, 9,51	
		2, 3,40,35,19,50,25,49		9, 3
12″	10,37,42,40,17,47,59,18,44,55		46,37,18,54	
		2, 3,40,34,33,13, 6,55		9, 3
14″	10,37,44,43,58,22,32,31,51,50		46,37,27,57	
		2, 3,40,33,46,35,38,58		9, 3
16″	10,37,46,47,38,56,19, 7,30,48		46,37,37, 0	
		2, 3,40,32,59,58, 1,58		9, 3
18″	10,37,48,51,19,29,19, 5,32,46		46,37,46, 3	
		2, 3,40,32,13,20,15,55		9, 3
20″	10,37,50,55, 0, 1,32,25,48,41		46,37,55, 6	
		2, 3,40,31,26,42,20,49		9, 3
22″	10,37,52,58,40,32,59, 8, 9,30		46,38, 4, 9	
		2, 3,40,30,40, 4,16,40		9, 3
24″	10,37,55, 2,21, 3,39,12,26,10		46,38,13,12	
		2, 3,40,29,53,26, 3,28		9, 3
26″	10,37,57, 6, 1,33,32,38,29,38		46,38,22,15	
		2, 3,40,29, 6,47,41,13		9, 3
28″	10,37,59, 9,42, 2,39,26,10,51		46,38,31,18	
		2, 3,40,28,20, 9, 9,55		9, 3
30″	10,38, 1,13,22,30,59,35,20,46		46,38,40,21	
		2, 3,40,27,33,30,29,34		9, 3
32″	10,38, 3,17, 2,58,33, 5,50,20		46,38,49,24	
		2, 3,40,26,46,51,40,10		9, 3
34″	10,38, 5,20,43,25,19,57,30,30		46,38,58,27	
		2, 3,40,26, 0,12,41,43		9, 3
36″	10,38, 7,24,23,51,20,10,12,13		46,39, 7,30	
		2, 3,40,25,13,33,34,13		9, 3
38″	10,38, 9,28, 4,16,33,43,46,26		46,39,16,33	
		2, 3,40,24,26,54,17,40		9, 3
40″	10,38,11,31,44,41, 0,38, 4, 6		46,39,25,36	
		2, 3,40,23,40,14,52, 4		9, 3
42″	10,38,13,35,25, 4,40,52,56,10		46,39,34,39	
		2, 3,40,22,53,35,17,25		9, 3
44″	10,38,15,39, 5,27,34,28,13,35		46,39,43,42	
		2, 3,40,22, 6,55,33,43		9, 3
46″	10,38,17,42,45,49,41,23,47,18		46,39,52,45	
		2, 3,40,21,20,15,40,58		9, 3
48″	10,38,19,46,26,11, 1,39,28,16		46,40, 1,48	
		2, 3,40,20,33,35,39,10		9, 3
50″	10,38,21,50, 6,31,35,15, 7,26		46,40,10,51	
		2, 3,40,19,46,55,28,19		9, 3
52″	10,38,23,53,46,51,22,10,35,45		46,40,19,54	
		2, 3,40,19, 0,15, 8,25		9, 3
54″	10,38,25,57,27,10,22,25,44,10		46,40,28,57	
		2, 3,40,18,13,34,39,28		9, 3
56″	10,38,28, 1, 7,28,36, 0,23,38		46,40,38, 0	
		2, 3,40,17,26,54, 1,28		9, 3
58″	10,38,30, 4,47,46, 2,54,25, 6		46,40,47, 3	
		2, 3,40,16,40,13,14,25		
60″	10,38,32, 8,28, 2,43, 7,39,31			
exact	10,38,32, 8,28, 2,43, 8,13, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°13′ 0″	10,38,32, 8,28, 2,43, 8,13, 6			
		2, 3,40,15,53,32,21,56		
2″	10,38,34,12, 8,18,36,40,35, 2		46,41, 4,54	
		2, 3,40,15, 6,51,17, 2		9, 2
4″	10,38,36,15,48,33,43,31,52, 4		46,41,13,56	
		2, 3,40,14,20,10, 3, 6		9, 2
6″	10,38,38,19,28,48, 3,41,55,10		46,41,22,58	
		2, 3,40,13,33,28,40, 8		9, 2
8″	10,38,40,23, 9, 1,37,10,35,18		46,41,32, 0	
		2, 3,40,12,46,47, 8, 8		9, 2
10″	10,38,42,26,49,14,23,57,43,26		46,41,41, 2	
		2, 3,40,12, 0, 5,27, 6		9, 2
12″	10,38,44,30,29,26,24, 3,10,32		46,41,50, 4	
		2, 3,40,11,13,23,37, 2		9, 2
14″	10,38,46,34, 9,37,37,26,47,34		46,41,59, 6	
		2, 3,40,10,26,41,37,56		9, 2
16″	10,38,48,37,49,48, 4, 8,25,30		46,42, 8, 8	
		2, 3,40, 9,39,59,29,48		9, 2
18″	10,38,50,41,29,57,44, 7,55,18		46,42,17,10	
		2, 3,40, 8,53,17,12,38		9, 2
20″	10,38,52,45,10, 6,37,25, 7,56		46,42,26,12	
		2, 3,40, 8, 6,34,46,26		9, 2
22″	10,38,54,48,50,14,43,59,54,22		46,42,35,14	
		2, 3,40, 7,19,52,11,12		9, 2
24″	10,38,56,52,30,22, 3,52, 5,34		46,42,44,16	
		2, 3,40, 6,33, 9,26,56		9, 2
26″	10,38,58,56,10,28,37, 1,32,30		46,42,53,18	
		2, 3,40, 5,46,26,33,38		9, 2
28″	10,39, 0,59,50,34,23,28, 6, 8		46,43, 2,20	
		2, 3,40, 4,59,43,31,18		9, 2
30″	10,39, 3, 3,30,39,23,11,37,26		46,43,11,22	
		2, 3,40, 4,13, 0,19,56		9, 2
32″	10,39, 5, 7,10,43,36,11,57,22		46,43,20,24	
		2, 3,40, 3,26,16,59,32		9, 2
34″	10,39, 7,10,50,47, 2,28,56,54		46,43,29,26	
		2, 3,40, 2,39,33,30, 6		9, 2
36″	10,39, 9,14,30,49,42, 2,27, 0		46,43,38,28	
		2, 3,40, 1,52,49,51,38		9, 2
38″	10,39,11,18,10,51,34,52,18,38		46,43,47,30	
		2, 3,40, 1, 6, 6, 4, 8		9, 2
40″	10,39,13,21,50,52,40,58,22,46		46,43,56,32	
		2, 3,40, 0,19,22, 7,36		9, 2
42″	10,39,15,25,30,53, 0,20,30,22		46,44, 5,34	
		2, 3,39,59,32,38, 2, 2		9, 2
44″	10,39,17,29,10,52,32,58,32,24		46,44,14,36	
		2, 3,39,58,45,53,47,26		9, 2
46″	10,39,19,32,50,51,18,52,19,50		46,44,23,38	
		2, 3,39,57,59, 9,23,48		9, 2
48″	10,39,21,36,30,49,18, 1,43,38		46,44,32,40	
		2, 3,39,57,12,24,51, 8		9, 2
50″	10,39,23,40,10,46,30,26,34,46		46,44,41,42	
		2, 3,39,56,25,40, 9,26		9, 2
52″	10,39,25,43,50,42,56, 6,44,12		46,44,50,44	
		2, 3,39,55,38,55,18,42		9, 2
54″	10,39,27,47,30,38,35, 2, 2,54		46,44,59,46	
		2, 3,39,54,52,10,18,56		9, 2
56″	10,39,29,51,10,33,27,12,21,50		46,45, 8,48	
		2, 3,39,54, 5,25,10, 8		9, 2
58″	10,39,31,54,50,27,32,37,31,58		46,45,17,50	
		2, 3,39,53,18,39,52,18		
60″	10,39,33,58,30,20,51,17,24,16			
exact	10,39,33,58,30,20,51,16,53,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°14′ 0″	10,39,33,58,30,20,51,16,53,21			
		2, 3,39,52,31,54,22, 5		
2″	10,39,36, 2,10,13,23,11,15,26		46,45,36, 8	
		2, 3,39,51,45, 8,45,57		9, 2
4″	10,39,38, 5,50, 5, 8,20, 1,23		46,45,45,10	
		2, 3,39,50,58,23, 0,47		9, 2
6″	10,39,40, 9,29,56, 6,43, 2,10		46,45,54,12	
		2, 3,39,50,11,37, 6,35		9, 2
8″	10,39,42,13, 9,46,18,20, 8,45		46,46, 3,14	
		2, 3,39,49,24,51, 3,21		9, 2
10″	10,39,44,16,49,35,43,11,12, 6		46,46,12,16	
		2, 3,39,48,38, 4,51, 5		9, 2
12″	10,39,46,20,29,24,21,16, 3,11		46,46,21,18	
		2, 3,39,47,51,18,29,47		9, 2
14″	10,39,48,24, 9,12,12,34,32,58		46,46,30,20	
		2, 3,39,47, 4,31,59,27		9, 2
16″	10,39,50,27,48,59,17, 6,32,25		46,46,39,22	
		2, 3,39,46,17,45,20, 5		9, 2
18″	10,39,52,31,28,45,34,51,52,30		46,46,48,24	
		2, 3,39,45,30,58,31,41		9, 2
20″	10,39,54,35, 8,31, 5,50,24,11		46,46,57,26	
		2, 3,39,44,44,11,34,15		9, 2
22″	10,39,56,38,48,15,50, 1,58,26		46,47, 6,28	
		2, 3,39,43,57,24,27,47		9, 2
24″	10,39,58,42,27,59,47,26,26,13		46,47,15,30	
		2, 3,39,43,10,37,12,17		9, 2
26″	10,40, 0,46, 7,42,58, 3,38,30		46,47,24,32	
		2, 3,39,42,23,49,47,45		9, 2
28″	10,40, 2,49,47,25,21,53,26,15		46,47,33,34	
		2, 3,39,41,37, 2,14,11		9, 2
30″	10,40, 4,53,27, 6,58,55,40,26		46,47,42,36	
		2, 3,39,40,50,14,31,35		9, 2
32″	10,40, 6,57, 6,47,49,10,12, 1		46,47,51,38	
		2, 3,39,40, 3,26,39,57		9, 2
34″	10,40, 9, 0,46,27,52,36,51,58		46,48, 0,40	
		2, 3,39,39,16,38,39,17		9, 2
36″	10,40,11, 4,26, 7, 9,15,31,15		46,48, 9,42	
		2, 3,39,38,29,50,29,35		9, 2
38″	10,40,13, 8, 5,45,39, 6, 0,50		46,48,18,44	
		2, 3,39,37,43, 2,10,51		9, 2
40″	10,40,15,11,45,23,22, 8,11,41		46,48,27,46	
		2, 3,39,36,56,13,43, 5		9, 2
42″	10,40,17,15,25, 0,18,21,54,46		46,48,36,48	
		2, 3,39,36, 9,25, 6,17		9, 2
44″	10,40,19,19, 4,36,27,47, 1, 3		46,48,45,50	
		2, 3,39,35,22,36,20,27		9, 2
46″	10,40,21,22,44,11,50,23,21,30		46,48,54,52	
		2, 3,39,34,35,47,25,35		9, 2
48″	10,40,23,26,23,46,26,10,47, 5		46,49, 3,54	
		2, 3,39,33,48,58,21,41		9, 2
50″	10,40,25,30, 3,20,15, 9, 8,46		46,49,12,56	
		2, 3,39,33, 2, 9, 8,45		9, 2
52″	10,40,27,33,42,53,17,18,17,31		46,49,21,58	
		2, 3,39,32,15,19,46,47		9, 2
54″	10,40,29,37,22,25,32,38, 4,18		46,49,31, 0	
		2, 3,39,31,28,30,15,47		9, 2
56″	10,40,31,41, 1,57, 1, 8,20, 5		46,49,40, 2	
		2, 3,39,30,41,40,35,45		9, 2
58″	10,40,33,44,41,27,42,48,55,50		46,49,49, 4	
		2, 3,39,29,54,50,46,41		
60″	10,40,35,48,20,57,37,39,42,31			
exact	10,40,35,48,20,57,37,39,13,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°15′ 0″	10,40,35,48,20,57,37,39,13,15			
		2, 3,39,29, 8, 0,45,26		
2″	10,40,37,52, 0,26,45,39,58,41		46,50, 7,21	
		2, 3,39,28,21,10,38, 5		9, 2
4″	10,40,39,55,39,55, 6,50,36,46		46,50,16,23	
		2, 3,39,27,34,20,21,42		9, 2
6″	10,40,41,59,19,22,41,10,58,28		46,50,25,25	
		2, 3,39,26,47,29,56,17		9, 2
8″	10,40,44, 2,58,49,28,40,54,45		46,50,34,27	
		2, 3,39,26, 0,39,21,50		9, 2
10″	10,40,46, 6,38,15,29,20,16,35		46,50,43,29	
		2, 3,39,25,13,48,38,21		9, 2
12″	10,40,48,10,17,40,43, 8,54,56		46,50,52,31	
		2, 3,39,24,26,57,45,50		9, 2
14″	10,40,50,13,57, 5,10, 6,40,46		46,51, 1,33	
		2, 3,39,23,40, 6,44,17		9, 2
16″	10,40,52,17,36,28,50,13,25, 3		46,51,10,35	
		2, 3,39,22,53,15,33,42		9, 2
18″	10,40,54,21,15,51,43,28,58,45		46,51,19,37	
		2, 3,39,22, 6,24,14, 5		9, 2
20″	10,40,56,24,55,13,49,53,12,50		46,51,28,39	
		2, 3,39,21,19,32,45,26		9, 2
22″	10,40,58,28,34,35, 9,25,58,16		46,51,37,41	
		2, 3,39,20,32,41, 7,45		9, 2
24″	10,41, 0,32,13,55,42, 7, 6, 1		46,51,46,43	
		2, 3,39,19,45,49,21, 2		9, 2
26″	10,41, 2,35,53,15,27,56,27, 3		46,51,55,45	
		2, 3,39,18,58,57,25,17		9, 2
28″	10,41, 4,39,32,34,26,53,52,20		46,52, 4,47	
		2, 3,39,18,12, 5,20,30		9, 2
30″	10,41, 6,43,11,52,38,59,12,50		46,52,13,49	
		2, 3,39,17,25,13, 6,41		9, 2
32″	10,41, 8,46,51,10, 4,12,19,31		46,52,22,51	
		2, 3,39,16,38,20,43,50		9, 2
34″	10,41,10,50,30,26,42,33, 3,21		46,52,31,53	
		2, 3,39,15,51,28,11,57		9, 2
36″	10,41,12,54, 9,42,34, 1,15,18		46,52,40,55	
		2, 3,39,15, 4,35,31, 2		9, 2
38″	10,41,14,57,48,57,38,36,46,20		46,52,49,57	
		2, 3,39,14,17,42,41, 5		9, 2
40″	10,41,17, 1,28,11,56,19,27,25		46,52,58,59	
		2, 3,39,13,30,49,42, 6		9, 2
42″	10,41,19, 5, 7,25,27, 9, 9,31		46,53, 8, 1	
		2, 3,39,12,43,56,34, 5		9, 2
44″	10,41,21, 8,46,38,11, 5,43,36		46,53,17, 3	
		2, 3,39,11,57, 3,17, 2		9, 2
46″	10,41,23,12,25,50, 8, 9, 0,38		46,53,26, 5	
		2, 3,39,11,10, 9,50,57		9, 2
48″	10,41,25,16, 5, 1,18,18,51,35		46,53,35, 7	
		2, 3,39,10,23,16,15,50		9, 2
50″	10,41,27,19,44,11,41,35, 7,25		46,53,44, 9	
		2, 3,39, 9,36,22,31,41		9, 2
52″	10,41,29,23,23,21,17,57,39, 6		46,53,53,11	
		2, 3,39, 8,49,28,38,30		9, 2
54″	10,41,31,27, 2,30, 7,26,17,36		46,54, 2,13	
		2, 3,39, 8, 2,34,36,17		9, 2
56″	10,41,33,30,41,38,10, 0,53,53		46,54,11,15	
		2, 3,39, 7,15,40,25, 2		9, 2
58″	10,41,35,34,20,45,25,41,18,55		46,54,20,17	
		2, 3,39, 6,28,46, 4,45		
60″	10,41,37,37,59,51,54,27,23,40			
exact	10,41,37,37,59,51,54,26,54,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°16′ 0″	10,41,37,37,59,51,54,26,54,55			
		2, 3,39, 5,41,51,32,24		
2″	10,41,39,41,38,57,36,18,27,19		46,54,38,33	
		2, 3,39, 4,54,56,53,51		9, 2
4″	10,41,41,45,18, 2,31,15,21,10		46,54,47,35	
		2, 3,39, 4, 8, 2, 6,16		9, 2
6″	10,41,43,48,57, 6,39,17,27,26		46,54,56,37	
		2, 3,39, 3,21, 7, 9,39		9, 2
8″	10,41,45,52,36,10, 0,24,37, 5		46,55, 5,39	
		2, 3,39, 2,34,12, 4, 0		9, 2
10″	10,41,47,56,15,12,34,36,41, 5		46,55,14,41	
		2, 3,39, 1,47,16,49,19		9, 2
12″	10,41,49,59,54,14,21,53,30,24		46,55,23,43	
		2, 3,39, 1, 0,21,25,36		9, 2
14″	10,41,52, 3,33,15,22,14,56, 0		46,55,32,45	
		2, 3,39, 0,13,25,52,51		9, 2
16″	10,41,54, 7,12,15,35,40,48,51		46,55,41,47	
		2, 3,38,59,26,30,11, 4		9, 2
18″	10,41,56,10,51,15, 2,10,59,55		46,55,50,49	
		2, 3,38,58,39,34,20,15		9, 2
20″	10,41,58,14,30,13,41,45,20,10		46,55,59,51	
		2, 3,38,57,52,38,20,24		9, 2
22″	10,42, 0,18, 9,11,34,23,40,34		46,56, 8,53	
		2, 3,38,57, 5,42,11,31		9, 2
24″	10,42, 2,21,48, 8,40, 5,52, 5		46,56,17,55	
		2, 3,38,56,18,45,53,36		9, 2
26″	10,42, 4,25,27, 4,58,51,45,41		46,56,26,57	
		2, 3,38,55,31,49,26,39		9, 2
28″	10,42, 6,29, 6, 0,30,41,12,20		46,56,35,59	
		2, 3,38,54,44,52,50,40		9, 2
30″	10,42, 8,32,44,55,15,34, 3, 0		46,56,45, 1	
		2, 3,38,53,57,56, 5,39		9, 2
32″	10,42,10,36,23,49,13,30, 8,39		46,56,54, 3	
		2, 3,38,53,10,59,11,36		9, 2
34″	10,42,12,40, 2,42,24,29,20,15		46,57, 3, 5	
		2, 3,38,52,24, 2, 8,31		9, 2
36″	10,42,14,43,41,34,48,31,28,46		46,57,12, 7	
		2, 3,38,51,37, 4,56,24		9, 2
38″	10,42,16,47,20,26,25,36,25,10		46,57,21, 9	
		2, 3,38,50,50, 7,35,15		9, 2
40″	10,42,18,50,59,17,15,44, 0,25		46,57,30,11	
		2, 3,38,50, 3,10, 5, 4		9, 2
42″	10,42,20,54,38, 7,18,54, 5,29		46,57,39,13	
		2, 3,38,49,16,12,25,51		9, 2
44″	10,42,22,58,16,56,35, 6,31,20		46,57,48,15	
		2, 3,38,48,29,14,37,36		9, 2
46″	10,42,25, 1,55,45, 4,21, 8,56		46,57,57,17	
		2, 3,38,47,42,16,40,19		9, 2
48″	10,42,27, 5,34,32,46,37,49,15		46,58, 6,19	
		2, 3,38,46,55,18,34, 0		9, 2
50″	10,42,29, 9,13,19,41,56,23,15		46,58,15,21	
		2, 3,38,46, 8,20,18,39		9, 2
52″	10,42,31,12,52, 5,50,16,41,54		46,58,24,23	
		2, 3,38,45,21,21,54,16		9, 2
54″	10,42,33,16,30,51,11,38,36,10		46,58,33,25	
		2, 3,38,44,34,23,20,51		9, 2
56″	10,42,35,20, 9,35,46, 1,57, 1		46,58,42,27	
		2, 3,38,43,47,24,38,24		9, 2
58″	10,42,37,23,48,19,33,26,35,25		46,58,51,29	
		2, 3,38,43, 0,25,46,55		
60″	10,42,39,27,27, 2,33,52,22,20			
exact	10,42,39,27,27, 2,33,51,53,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°17′ 0″	10,42,39,27,27, 2,33,51,53,14			
		2, 3,38,42,13,26,43,25		
2″	10,42,41,31, 5,44,47,18,36,39		46,59, 9,45	
		2, 3,38,41,26,27,33,40		9, 2
4″	10,42,43,34,44,26,13,46,10,19		46,59,18,47	
		2, 3,38,40,39,28,14,53		9, 2
6″	10,42,45,38,23, 6,53,14,25,12		46,59,27,49	
		2, 3,38,39,52,28,47, 4		9, 2
8″	10,42,47,42, 1,46,45,43,12,16		46,59,36,51	
		2, 3,38,39, 5,29,10,13		9, 2
10″	10,42,49,45,40,25,51,12,22,29		46,59,45,53	
		2, 3,38,38,18,29,24,20		9, 2
12″	10,42,51,49,19, 4, 9,41,46,49		46,59,54,55	
		2, 3,38,37,31,29,29,25		9, 2
14″	10,42,53,52,57,41,41,11,16,14		47, 0, 3,57	
		2, 3,38,36,44,29,25,28		9, 2
16″	10,42,55,56,36,18,25,40,41,42		47, 0,12,59	
		2, 3,38,35,57,29,12,29		9, 2
18″	10,42,58, 0,14,54,23, 9,54,11		47, 0,22, 1	
		2, 3,38,35,10,28,50,28		9, 2
20″	10,43, 0, 3,53,29,33,38,44,39		47, 0,31, 3	
		2, 3,38,34,23,28,19,25		9, 2
22″	10,43, 2, 7,32, 3,57, 7, 4, 4		47, 0,40, 5	
		2, 3,38,33,36,27,39,20		9, 2
24″	10,43, 4,11,10,37,33,34,43,24		47, 0,49, 7	
		2, 3,38,32,49,26,50,13		9, 2
26″	10,43, 6,14,49,10,23, 1,33,37		47, 0,58, 9	
		2, 3,38,32, 2,25,52, 4		9, 2
28″	10,43, 8,18,27,42,25,27,25,41		47, 1, 7,11	
		2, 3,38,31,15,24,44,53		9, 2
30″	10,43,10,22, 6,13,40,52,10,34		47, 1,16,13	
		2, 3,38,30,28,23,28,40		9, 2
32″	10,43,12,25,44,44, 9,15,39,14		47, 1,25,15	
		2, 3,38,29,41,22, 3,25		9, 2
34″	10,43,14,29,23,13,50,37,42,39		47, 1,34,17	
		2, 3,38,28,54,20,29, 8		9, 2
36″	10,43,16,33, 1,42,44,58,11,47		47, 1,43,19	
		2, 3,38,28, 7,18,45,49		9, 2
38″	10,43,18,36,40,10,52,16,57,36		47, 1,52,21	
		2, 3,38,27,20,16,53,28		9, 2
40″	10,43,20,40,18,38,12,33,51, 4		47, 2, 1,23	
		2, 3,38,26,33,14,52, 5		9, 2
42″	10,43,22,43,57, 4,45,48,43, 9		47, 2,10,25	
		2, 3,38,25,46,12,41,40		9, 2
44″	10,43,24,47,35,30,32, 1,24,49		47, 2,19,27	
		2, 3,38,24,59,10,22,13		9, 2
46″	10,43,26,51,13,55,31,11,47, 2		47, 2,28,29	
		2, 3,38,24,12, 7,53,44		9, 2
48″	10,43,28,54,52,19,43,19,40,46		47, 2,37,31	
		2, 3,38,23,25, 5,16,13		9, 2
50″	10,43,30,58,30,43, 8,24,56,59		47, 2,46,33	
		2, 3,38,22,38, 2,29,40		9, 2
52″	10,43,33, 2, 9, 5,46,27,26,39		47, 2,55,35	
		2, 3,38,21,50,59,34, 5		9, 2
54″	10,43,35, 5,47,27,37,27, 0,44		47, 3, 4,37	
		2, 3,38,21, 3,56,29,28		9, 2
56″	10,43,37, 9,25,48,41,23,30,12		47, 3,13,39	
		2, 3,38,20,16,53,15,49		9, 2
58″	10,43,39,13, 4, 8,58,16,46, 1		47, 3,22,41	
		2, 3,38,19,29,49,53, 8		
60″	10,43,41,16,42,28,28, 6,39, 9			
exact	10,43,41,16,42,28,28, 6,16, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°18′ 0″	10,43,41,16,42,28,28, 6,16, 0			
		2, 3,38,18,42,46,18,55		
2″	10,43,43,20,20,47,10,52,34,55		47, 3,40,55	
		2, 3,38,17,55,42,38, 0		9, 2
4″	10,43,45,23,59, 5, 6,35,12,55		47, 3,49,57	
		2, 3,38,17, 8,38,48, 3		9, 2
6″	10,43,47,27,37,22,15,14, 0,58		47, 3,58,59	
		2, 3,38,16,21,34,49, 4		9, 2
8″	10,43,49,31,15,38,36,48,50, 2		47, 4, 8, 1	
		2, 3,38,15,34,30,41, 3		9, 2
10″	10,43,51,34,53,54,11,19,31, 5		47, 4,17, 3	
		2, 3,38,14,47,26,24, 0		9, 2
12″	10,43,53,38,32, 8,58,45,55, 5		47, 4,26, 5	
		2, 3,38,14, 0,21,57,55		9, 2
14″	10,43,55,42,10,22,59, 7,53, 0		47, 4,35, 7	
		2, 3,38,13,13,17,22,48		9, 2
16″	10,43,57,45,48,36,12,25,15,48		47, 4,44, 9	
		2, 3,38,12,26,12,38,39		9, 2
18″	10,43,59,49,26,48,38,37,54,27		47, 4,53,11	
		2, 3,38,11,39, 7,45,28		9, 2
20″	10,44, 1,53, 5, 0,17,45,39,55		47, 5, 2,13	
		2, 3,38,10,52, 2,43,15		9, 2
22″	10,44, 3,56,43,11, 9,48,23,10		47, 5,11,15	
		2, 3,38,10, 4,57,32, 0		9, 2
24″	10,44, 6, 0,21,21,14,45,55,10		47, 5,20,17	
		2, 3,38, 9,17,52,11,43		9, 2
26″	10,44, 8, 3,59,30,32,38, 6,53		47, 5,29,19	
		2, 3,38, 8,30,46,42,24		9, 2
28″	10,44,10, 7,37,39, 3,24,49,17		47, 5,38,21	
		2, 3,38, 7,43,41, 4, 3		9, 2
30″	10,44,12,11,15,46,47, 5,53,20		47, 5,47,23	
		2, 3,38, 6,56,35,16,40		9, 2
32″	10,44,14,14,53,53,43,41,10, 0		47, 5,56,25	
		2, 3,38, 6, 9,29,20,15		9, 2
34″	10,44,16,18,31,59,53,10,30,15		47, 6, 5,27	
		2, 3,38, 5,22,23,14,48		9, 2
36″	10,44,18,22,10, 5,15,33,45, 3		47, 6,14,29	
		2, 3,38, 4,35,17, 0,19		9, 2
38″	10,44,20,25,48, 9,50,50,45,22		47, 6,23,31	
		2, 3,38, 3,48,10,36,48		9, 2
40″	10,44,22,29,26,13,39, 1,22,10		47, 6,32,33	
		2, 3,38, 3, 1, 4, 4,15		9, 2
42″	10,44,24,33, 4,16,40, 5,26,25		47, 6,41,35	
		2, 3,38, 2,13,57,22,40		9, 2
44″	10,44,26,36,42,18,54, 2,49, 5		47, 6,50,37	
		2, 3,38, 1,26,50,32, 3		9, 2
46″	10,44,28,40,20,20,20,53,21, 8		47, 6,59,39	
		2, 3,38, 0,39,43,32,24		9, 2
48″	10,44,30,43,58,21, 0,36,53,32		47, 7, 8,41	
		2, 3,37,59,52,36,23,43		9, 2
50″	10,44,32,47,36,20,53,13,17,15		47, 7,17,43	
		2, 3,37,59, 5,29, 6, 0		9, 2
52″	10,44,34,51,14,19,58,42,23,15		47, 7,26,45	
		2, 3,37,58,18,21,39,15		9, 2
54″	10,44,36,54,52,18,17, 4, 2,30		47, 7,35,47	
		2, 3,37,57,31,14, 3,28		9, 2
56″	10,44,38,58,30,15,48,18, 5,58		47, 7,44,49	
		2, 3,37,56,44, 6,18,39		9, 2
58″	10,44,41, 2, 8,12,32,24,24,37		47, 7,53,51	
		2, 3,37,55,56,58,24,48		
60″	10,44,43, 5,46, 8,29,22,49,25			
exact	10,44,43, 5,46, 8,29,22,23,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°19′ 0″	10,44,43, 5,46, 8,29,22,23,53			
		2, 3,37,55, 9,50,19,19		
2″	10,44,45, 9,24, 3,39,12,43,12		47, 8,12, 5	
		2, 3,37,54,22,42, 7,14		9, 2
4″	10,44,47,13, 1,58, 1,54,50,26		47, 8,21, 7	
		2, 3,37,53,35,33,46, 7		9, 2
6″	10,44,49,16,39,51,37,28,36,33		47, 8,30, 9	
		2, 3,37,52,48,25,15,58		9, 2
8″	10,44,51,20,17,44,25,53,52,31		47, 8,39,11	
		2, 3,37,52, 1,16,36,47		9, 2
10″	10,44,53,23,55,36,27,10,29,18		47, 8,48,13	
		2, 3,37,51,14, 7,48,34		9, 2
12″	10,44,55,27,33,27,41,18,17,52		47, 8,57,15	
		2, 3,37,50,26,58,51,19		9, 2
14″	10,44,57,31,11,18, 8,17, 9,11		47, 9, 6,17	
		2, 3,37,49,39,49,45, 2		9, 2
16″	10,44,59,34,49, 7,48, 6,54,13		47, 9,15,19	
		2, 3,37,48,52,40,29,43		9, 2
18″	10,45, 1,38,26,56,40,47,23,56		47, 9,24,21	
		2, 3,37,48, 5,31, 5,22		9, 2
20″	10,45, 3,42, 4,44,46,18,29,18		47, 9,33,23	
		2, 3,37,47,18,21,31,59		9, 2
22″	10,45, 5,45,42,32, 4,40, 1,17		47, 9,42,25	
		2, 3,37,46,31,11,49,34		9, 2
24″	10,45, 7,49,20,18,35,51,50,51		47, 9,51,27	
		2, 3,37,45,44, 1,58, 7		9, 2
26″	10,45, 9,52,58, 4,19,53,48,58		47,10, 0,29	
		2, 3,37,44,56,51,57,38		9, 2
28″	10,45,11,56,35,49,16,45,46,36		47,10, 9,31	
		2, 3,37,44, 9,41,48, 7		9, 2
30″	10,45,14, 0,13,33,26,27,34,43		47,10,18,33	
		2, 3,37,43,22,31,29,34		9, 2
32″	10,45,16, 3,51,16,48,59, 4,17		47,10,27,35	
		2, 3,37,42,35,21, 1,59		9, 2
34″	10,45,18, 7,28,59,24,20, 6,16		47,10,36,37	
		2, 3,37,41,48,10,25,22		9, 2
36″	10,45,20,11, 6,41,12,30,31,38		47,10,45,39	
		2, 3,37,41, 0,59,39,43		9, 2
38″	10,45,22,14,44,22,13,30,11,21		47,10,54,41	
		2, 3,37,40,13,48,45, 2		9, 2
40″	10,45,24,18,22, 2,27,18,56,23		47,11, 3,43	
		2, 3,37,39,26,37,41,19		9, 2
42″	10,45,26,21,59,41,53,56,37,42		47,11,12,45	
		2, 3,37,38,39,26,28,34		9, 2
44″	10,45,28,25,37,20,33,23, 6,16		47,11,21,47	
		2, 3,37,37,52,15, 6,47		9, 2
46″	10,45,30,29,14,58,25,38,13, 3		47,11,30,49	
		2, 3,37,37, 5, 3,35,58		9, 2
48″	10,45,32,32,52,35,30,41,49, 1		47,11,39,51	
		2, 3,37,36,17,51,56, 7		9, 2
50″	10,45,34,36,30,11,48,33,45, 8		47,11,48,53	
		2, 3,37,35,30,40, 7,14		9, 2
52″	10,45,36,40, 7,47,19,13,52,22		47,11,57,55	
		2, 3,37,34,43,28, 9,19		9, 2
54″	10,45,38,43,45,22, 2,42, 1,41		47,12, 6,57	
		2, 3,37,33,56,16, 2,22		9, 2
56″	10,45,40,47,22,55,58,58, 4, 3		47,12,15,59	
		2, 3,37,33, 9, 3,46,23		9, 2
58″	10,45,42,51, 0,29, 8, 1,50,26		47,12,25, 1	
		2, 3,37,32,21,51,21,22		
60″	10,45,44,54,38, 1,29,53,11,48			
exact	10,45,44,54,38, 1,29,52,50,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°20′ 0″	10,45,44,54,38, 1,29,52,50,26			
		2, 3,37,31,34,38,45, 4		
2″	10,45,46,58,15,33, 4,31,35,30		47,12,43,14	
		2, 3,37,30,47,26, 1,50		9, 2
4″	10,45,49, 1,53, 3,51,57,37,20		47,12,52,16	
		2, 3,37,30, 0,13, 9,34		9, 2
6″	10,45,51, 5,30,33,52,10,46,54		47,13, 1,18	
		2, 3,37,29,13, 0, 8,16		9, 2
8″	10,45,53, 9, 8, 3, 5,10,55,10		47,13,10,20	
		2, 3,37,28,25,46,57,56		9, 2
10″	10,45,55,12,45,31,30,57,53, 6		47,13,19,22	
		2, 3,37,27,38,33,38,34		9, 2
12″	10,45,57,16,22,59, 9,31,31,40		47,13,28,24	
		2, 3,37,26,51,20,10,10		9, 2
14″	10,45,59,20, 0,26, 0,51,41,50		47,13,37,26	
		2, 3,37,26, 4, 6,32,44		9, 2
16″	10,46, 1,23,37,52, 4,58,14,34		47,13,46,28	
		2, 3,37,25,16,52,46,16		9, 2
18″	10,46, 3,27,15,17,21,51, 0,50		47,13,55,30	
		2, 3,37,24,29,38,50,46		9, 2
20″	10,46, 5,30,52,41,51,29,51,36		47,14, 4,32	
		2, 3,37,23,42,24,46,14		9, 2
22″	10,46, 7,34,30, 5,33,54,37,50		47,14,13,34	
		2, 3,37,22,55,10,32,40		9, 2
24″	10,46, 9,38, 7,28,29, 5,10,30		47,14,22,36	
		2, 3,37,22, 7,56,10, 4		9, 2
26″	10,46,11,41,44,50,37, 1,20,34		47,14,31,38	
		2, 3,37,21,20,41,38,26		9, 2
28″	10,46,13,45,22,11,57,42,59, 0		47,14,40,40	
		2, 3,37,20,33,26,57,46		9, 2
30″	10,46,15,48,59,32,31, 9,56,46		47,14,49,42	
		2, 3,37,19,46,12, 8, 4		9, 2
32″	10,46,17,52,36,52,17,22, 4,50		47,14,58,44	
		2, 3,37,18,58,57, 9,20		9, 2
34″	10,46,19,56,14,11,16,19,14,10		47,15, 7,46	
		2, 3,37,18,11,42, 1,34		9, 2
36″	10,46,21,59,51,29,28, 1,15,44		47,15,16,48	
		2, 3,37,17,24,26,44,46		9, 2
38″	10,46,24, 3,28,46,52,28, 0,30		47,15,25,50	
		2, 3,37,16,37,11,18,56		9, 2
40″	10,46,26, 7, 6, 3,29,39,19,26		47,15,34,52	
		2, 3,37,15,49,55,44, 4		9, 2
42″	10,46,28,10,43,19,19,35, 3,30		47,15,43,54	
		2, 3,37,15, 2,40, 0,10		9, 2
44″	10,46,30,14,20,34,22,15, 3,40		47,15,52,56	
		2, 3,37,14,15,24, 7,14		9, 2
46″	10,46,32,17,57,48,37,39,10,54		47,16, 1,58	
		2, 3,37,13,28, 8, 5,16		9, 2
48″	10,46,34,21,35, 2, 5,47,16,10		47,16,11, 0	
		2, 3,37,12,40,51,54,16		9, 2
50″	10,46,36,25,12,14,46,39,10,26		47,16,20, 2	
		2, 3,37,11,53,35,34,14		9, 2
52″	10,46,38,28,49,26,40,14,44,40		47,16,29, 4	
		2, 3,37,11, 6,19, 5,10		9, 2
54″	10,46,40,32,26,37,46,33,49,50		47,16,38, 6	
		2, 3,37,10,19, 2,27, 4		9, 2
56″	10,46,42,36, 3,48, 5,36,16,54		47,16,47, 8	
		2, 3,37, 9,31,45,39,56		9, 2
58″	10,46,44,39,40,57,37,21,56,50		47,16,56,10	
		2, 3,37, 8,44,28,43,46		
60″	10,46,46,43,18, 6,21,50,40,36			
exact	10,46,46,43,18, 6,21,50,22, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°21′ 0″	10,46,46,43,18, 6,21,50,22, 9			
		2, 3,37, 7,57,11,36,36		
2″	10,46,48,46,55,14,19, 1,58,45		47,17,14,22	
		2, 3,37, 7, 9,54,22,14		9, 2
4″	10,46,50,50,32,21,28,56,20,59		47,17,23,24	
		2, 3,37, 6,22,36,58,50		9, 2
6″	10,46,52,54, 9,27,51,33,19,49		47,17,32,26	
		2, 3,37, 5,35,19,26,24		9, 2
8″	10,46,54,57,46,33,26,52,46,13		47,17,41,28	
		2, 3,37, 4,48, 1,44,56		9, 2
10″	10,46,57, 1,23,38,14,54,31, 9		47,17,50,30	
		2, 3,37, 4, 0,43,54,26		9, 2
12″	10,46,59, 5, 0,42,15,38,25,35		47,17,59,32	
		2, 3,37, 3,13,25,54,54		9, 2
14″	10,47, 1, 8,37,45,29, 4,20,29		47,18, 8,34	
		2, 3,37, 2,26, 7,46,20		9, 2
16″	10,47, 3,12,14,47,55,12, 6,49		47,18,17,36	
		2, 3,37, 1,38,49,28,44		9, 2
18″	10,47, 5,15,51,49,34, 1,35,33		47,18,26,38	
		2, 3,37, 0,51,31, 2, 6		9, 2
20″	10,47, 7,19,28,50,25,32,37,39		47,18,35,40	
		2, 3,37, 0, 4,12,26,26		9, 2
22″	10,47, 9,23, 5,50,29,45, 4, 5		47,18,44,42	
		2, 3,36,59,16,53,41,44		9, 2
24″	10,47,11,26,42,49,46,38,45,49		47,18,53,44	
		2, 3,36,58,29,34,48, 0		9, 2
26″	10,47,13,30,19,48,16,13,33,49		47,19, 2,46	
		2, 3,36,57,42,15,45,14		9, 2
28″	10,47,15,33,56,45,58,29,19, 3		47,19,11,48	
		2, 3,36,56,54,56,33,26		9, 2
30″	10,47,17,37,33,42,53,25,52,29		47,19,20,50	
		2, 3,36,56, 7,37,12,36		9, 2
32″	10,47,19,41,10,39, 1, 3, 5, 5		47,19,29,52	
		2, 3,36,55,20,17,42,44		9, 2
34″	10,47,21,44,47,34,21,20,47,49		47,19,38,54	
		2, 3,36,54,32,58, 3,50		9, 2
36″	10,47,23,48,24,28,54,18,51,39		47,19,47,56	
		2, 3,36,53,45,38,15,54		9, 2
38″	10,47,25,52, 1,22,39,57, 7,33		47,19,56,58	
		2, 3,36,52,58,18,18,56		9, 2
40″	10,47,27,55,38,15,38,15,26,29		47,20, 6, 0	
		2, 3,36,52,10,58,12,56		9, 2
42″	10,47,29,59,15, 7,49,13,39,25		47,20,15, 2	
		2, 3,36,51,23,37,57,54		9, 2
44″	10,47,32, 2,51,59,12,51,37,19		47,20,24, 4	
		2, 3,36,50,36,17,33,50		9, 2
46″	10,47,34, 6,28,49,49, 9,11, 9		47,20,33, 6	
		2, 3,36,49,48,57, 0,44		9, 2
48″	10,47,36,10, 5,39,38, 6,11,53		47,20,42, 8	
		2, 3,36,49, 1,36,18,36		9, 2
50″	10,47,38,13,42,28,39,42,30,29		47,20,51,10	
		2, 3,36,48,14,15,27,26		9, 2
52″	10,47,40,17,19,16,53,57,57,55		47,21, 0,12	
		2, 3,36,47,26,54,27,14		9, 2
54″	10,47,42,20,56, 4,20,52,25, 9		47,21, 9,14	
		2, 3,36,46,39,33,18, 0		9, 2
56″	10,47,44,24,32,51, 0,25,43, 9		47,21,18,16	
		2, 3,36,45,52,11,59,44		9, 2
58″	10,47,46,28, 9,36,52,37,42,53		47,21,27,18	
		2, 3,36,45, 4,50,32,26		
60″	10,47,48,31,46,21,57,28,15,19			
exact	10,47,48,31,46,21,57,27,58,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°22′ 0″	10,47,48,31,46,21,57,27,58,26			
		2, 3,36,44,17,28,54,19		
2″	10,47,50,35,23, 6,14,56,52,45		47,21,45,29	
		2, 3,36,43,30, 7, 8,50		9, 2
4″	10,47,52,38,59,49,45, 4, 1,35		47,21,54,31	
		2, 3,36,42,42,45,14,19		9, 2
6″	10,47,54,42,36,32,27,49,15,54		47,22, 3,33	
		2, 3,36,41,55,23,10,46		9, 2
8″	10,47,56,46,13,14,23,12,26,40		47,22,12,35	
		2, 3,36,41, 8, 0,58,11		9, 2
10″	10,47,58,49,49,55,31,13,24,51		47,22,21,37	
		2, 3,36,40,20,38,36,34		9, 2
12″	10,48, 0,53,26,35,51,52, 1,25		47,22,30,39	
		2, 3,36,39,33,16, 5,55		9, 2
14″	10,48, 2,57, 3,15,25, 8, 7,20		47,22,39,41	
		2, 3,36,38,45,53,26,14		9, 2
16″	10,48, 5, 0,39,54,11, 1,33,34		47,22,48,43	
		2, 3,36,37,58,30,37,31		9, 2
18″	10,48, 7, 4,16,32, 9,32,11, 5		47,22,57,45	
		2, 3,36,37,11, 7,39,46		9, 2
20″	10,48, 9, 7,53, 9,20,39,50,51		47,23, 6,47	
		2, 3,36,36,23,44,32,59		9, 2
22″	10,48,11,11,29,45,44,24,23,50		47,23,15,49	
		2, 3,36,35,36,21,17,10		9, 2
24″	10,48,13,15, 6,21,20,45,41, 0		47,23,24,51	
		2, 3,36,34,48,57,52,19		9, 2
26″	10,48,15,18,42,56, 9,43,33,19		47,23,33,53	
		2, 3,36,34, 1,34,18,26		9, 2
28″	10,48,17,22,19,30,11,17,51,45		47,23,42,55	
		2, 3,36,33,14,10,35,31		9, 2
30″	10,48,19,25,56, 3,25,28,27,16		47,23,51,57	
		2, 3,36,32,26,46,43,34		9, 2
32″	10,48,21,29,32,35,52,15,10,50		47,24, 0,59	
		2, 3,36,31,39,22,42,35		9, 2
34″	10,48,23,33, 9, 7,31,37,53,25		47,24,10, 1	
		2, 3,36,30,51,58,32,34		9, 2
36″	10,48,25,36,45,38,23,36,25,59		47,24,19, 3	
		2, 3,36,30, 4,34,13,31		9, 2
38″	10,48,27,40,22, 8,28,10,39,30		47,24,28, 5	
		2, 3,36,29,17, 9,45,26		9, 2
40″	10,48,29,43,58,37,45,20,24,56		47,24,37, 7	
		2, 3,36,28,29,45, 8,19		9, 2
42″	10,48,31,47,35, 6,15, 5,33,15		47,24,46, 9	
		2, 3,36,27,42,20,22,10		9, 2
44″	10,48,33,51,11,33,57,25,55,25		47,24,55,11	
		2, 3,36,26,54,55,26,59		9, 2
46″	10,48,35,54,48, 0,52,21,22,24		47,25, 4,13	
		2, 3,36,26, 7,30,22,46		9, 2
48″	10,48,37,58,24,26,59,51,45,10		47,25,13,15	
		2, 3,36,25,20, 5, 9,31		9, 2
50″	10,48,40, 2, 0,52,19,56,54,41		47,25,22,17	
		2, 3,36,24,32,39,47,14		9, 2
52″	10,48,42, 5,37,16,52,36,41,55		47,25,31,19	
		2, 3,36,23,45,14,15,55		9, 2
54″	10,48,44, 9,13,40,37,50,57,50		47,25,40,21	
		2, 3,36,22,57,48,35,34		9, 2
56″	10,48,46,12,50, 3,35,39,33,24		47,25,49,23	
		2, 3,36,22,10,22,46,11		9, 2
58″	10,48,48,16,26,25,46, 2,19,35		47,25,58,25	
		2, 3,36,21,22,56,47,46		
60″	10,48,50,20, 2,47, 8,59, 7,21			
exact	10,48,50,20, 2,47, 8,58,51,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°23′ 0″	10,48,50,20, 2,47, 8,58,51,42			
		2, 3,36,20,35,30,38,41		
2″	10,48,52,23,39, 7,44,29,30,23		47,26,16,35	
		2, 3,36,19,48, 4,22, 6		9, 2
4″	10,48,54,27,15,27,32,33,52,29		47,26,25,37	
		2, 3,36,19, 0,37,56,29		9, 2
6″	10,48,56,30,51,46,33,11,48,58		47,26,34,39	
		2, 3,36,18,13,11,21,50		9, 2
8″	10,48,58,34,28, 4,46,23,10,48		47,26,43,41	
		2, 3,36,17,25,44,38, 9		9, 2
10″	10,49, 0,38, 4,22,12, 7,48,57		47,26,52,43	
		2, 3,36,16,38,17,45,26		9, 2
12″	10,49, 2,41,40,38,50,25,34,23		47,27, 1,45	
		2, 3,36,15,50,50,43,41		9, 2
14″	10,49, 4,45,16,54,41,16,18, 4		47,27,10,47	
		2, 3,36,15, 3,23,32,54		9, 2
16″	10,49, 6,48,53, 9,44,39,50,58		47,27,19,49	
		2, 3,36,14,15,56,13, 5		9, 2
18″	10,49, 8,52,29,24, 0,36, 4, 3		47,27,28,51	
		2, 3,36,13,28,28,44,14		9, 2
20″	10,49,10,56, 5,37,29, 4,48,17		47,27,37,53	
		2, 3,36,12,41, 1, 6,21		9, 2
22″	10,49,12,59,41,50,10, 5,54,38		47,27,46,55	
		2, 3,36,11,53,33,19,26		9, 2
24″	10,49,15, 3,18, 2, 3,39,14, 4		47,27,55,57	
		2, 3,36,11, 6, 5,23,29		9, 2
26″	10,49,17, 6,54,13, 9,44,37,33		47,28, 4,59	
		2, 3,36,10,18,37,18,30		9, 2
28″	10,49,19,10,30,23,28,21,56, 3		47,28,14, 1	
		2, 3,36, 9,31, 9, 4,29		9, 2
30″	10,49,21,14, 6,32,59,31, 0,32		47,28,23, 3	
		2, 3,36, 8,43,40,41,26		9, 2
32″	10,49,23,17,42,41,43,11,41,58		47,28,32, 5	
		2, 3,36, 7,56,12, 9,21		9, 2
34″	10,49,25,21,18,49,39,23,51,19		47,28,41, 7	
		2, 3,36, 7, 8,43,28,14		9, 2
36″	10,49,27,24,54,56,48, 7,19,33		47,28,50, 9	
		2, 3,36, 6,21,14,38, 5		9, 2
38″	10,49,29,28,31, 3, 9,21,57,38		47,28,59,11	
		2, 3,36, 5,33,45,38,54		9, 2
40″	10,49,31,32, 7, 8,43, 7,36,32		47,29, 8,13	
		2, 3,36, 4,46,16,30,41		9, 2
42″	10,49,33,35,43,13,29,24, 7,13		47,29,17,15	
		2, 3,36, 3,58,47,13,26		9, 2
44″	10,49,35,39,19,17,28,11,20,39		47,29,26,17	
		2, 3,36, 3,11,17,47, 9		9, 2
46″	10,49,37,42,55,20,39,29, 7,48		47,29,35,19	
		2, 3,36, 2,23,48,11,50		9, 2
48″	10,49,39,46,31,23, 3,17,19,38		47,29,44,21	
		2, 3,36, 1,36,18,27,29		9, 2
50″	10,49,41,50, 7,24,39,35,47, 7		47,29,53,23	
		2, 3,36, 0,48,48,34, 6		9, 2
52″	10,49,43,53,43,25,28,24,21,13		47,30, 2,25	
		2, 3,36, 0, 1,18,31,41		9, 2
54″	10,49,45,57,19,25,29,42,52,54		47,30,11,27	
		2, 3,35,59,13,48,20,14		9, 2
56″	10,49,48, 0,55,24,43,31,13, 8		47,30,20,29	
		2, 3,35,58,26,17,59,45		9, 2
58″	10,49,50, 4,31,23, 9,49,12,53		47,30,29,31	
		2, 3,35,57,38,47,30,14		
60″	10,49,52, 8, 7,20,48,36,43, 7			
exact	10,49,52, 8, 7,20,48,36,27,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°24′ 0″	10,49,52, 8, 7,20,48,36,27,19			
		2, 3,35,56,51,16,50, 7		
2″	10,49,54,11,43,17,39,53,17,26		47,30,47,41	
		2, 3,35,56, 3,46, 2,26		9, 2
4″	10,49,56,15,19,13,43,39,19,52		47,30,56,43	
		2, 3,35,55,16,15, 5,43		9, 2
6″	10,49,58,18,55, 8,59,54,25,35		47,31, 5,45	
		2, 3,35,54,28,43,59,58		9, 2
8″	10,50, 0,22,31, 3,28,38,25,33		47,31,14,47	
		2, 3,35,53,41,12,45,11		9, 2
10″	10,50, 2,26, 6,57, 9,51,10,44		47,31,23,49	
		2, 3,35,52,53,41,21,22		9, 2
12″	10,50, 4,29,42,50, 3,32,32, 6		47,31,32,51	
		2, 3,35,52, 6, 9,48,31		9, 2
14″	10,50, 6,33,18,42, 9,42,20,37		47,31,41,53	
		2, 3,35,51,18,38, 6,38		9, 2
16″	10,50, 8,36,54,33,28,20,27,15		47,31,50,55	
		2, 3,35,50,31, 6,15,43		9, 2
18″	10,50,10,40,30,23,59,26,42,58		47,31,59,57	
		2, 3,35,49,43,34,15,46		9, 2
20″	10,50,12,44, 6,13,43, 0,58,44		47,32, 8,59	
		2, 3,35,48,56, 2, 6,47		9, 2
22″	10,50,14,47,42, 2,39, 3, 5,31		47,32,18, 1	
		2, 3,35,48, 8,29,48,46		9, 2
24″	10,50,16,51,17,50,47,32,54,17		47,32,27, 3	
		2, 3,35,47,20,57,21,43		9, 2
26″	10,50,18,54,53,38, 8,30,16, 0		47,32,36, 5	
		2, 3,35,46,33,24,45,38		9, 2
28″	10,50,20,58,29,24,41,55, 1,38		47,32,45, 7	
		2, 3,35,45,45,52, 0,31		9, 2
30″	10,50,23, 2, 5,10,27,47, 2, 9		47,32,54, 9	
		2, 3,35,44,58,19, 6,22		9, 2
32″	10,50,25, 5,40,55,26, 6, 8,31		47,33, 3,11	
		2, 3,35,44,10,46, 3,11		9, 2
34″	10,50,27, 9,16,39,36,52,11,42		47,33,12,13	
		2, 3,35,43,23,12,50,58		9, 2
36″	10,50,29,12,52,23, 0, 5, 2,40		47,33,21,15	
		2, 3,35,42,35,39,29,43		9, 2
38″	10,50,31,16,28, 5,35,44,32,23		47,33,30,17	
		2, 3,35,41,48, 5,59,26		9, 2
40″	10,50,33,20, 3,47,23,50,31,49		47,33,39,19	
		2, 3,35,41, 0,32,20, 7		9, 2
42″	10,50,35,23,39,28,24,22,51,56		47,33,48,21	
		2, 3,35,40,12,58,31,46		9, 2
44″	10,50,37,27,15, 8,37,21,23,42		47,33,57,23	
		2, 3,35,39,25,24,34,23		9, 2
46″	10,50,39,30,50,48, 2,45,58, 5		47,34, 6,25	
		2, 3,35,38,37,50,27,58		9, 2
48″	10,50,41,34,26,26,40,36,26, 3		47,34,15,27	
		2, 3,35,37,50,16,12,31		9, 2
50″	10,50,43,38, 2, 4,30,52,38,34		47,34,24,29	
		2, 3,35,37, 2,41,48, 2		9, 2
52″	10,50,45,41,37,41,33,34,26,36		47,34,33,31	
		2, 3,35,36,15, 7,14,31		9, 2
54″	10,50,47,45,13,17,48,41,41, 7		47,34,42,33	
		2, 3,35,35,27,32,31,58		9, 2
56″	10,50,49,48,48,53,16,14,13, 5		47,34,51,35	
		2, 3,35,34,39,57,40,23		9, 2
58″	10,50,51,52,24,27,56,11,53,28		47,35, 0,37	
		2, 3,35,33,52,22,39,46		
60″	10,50,53,56, 0, 1,48,34,33,14			
exact	10,50,53,56, 0, 1,48,34,23,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°25′ 0″	10,50,53,56, 0, 1,48,34,23,39			
		2, 3,35,33, 4,47,29, 4		
2″	10,50,55,59,35,34,53,21,52,43		47,35,18,45	
		2, 3,35,32,17,12,10,19		9, 2
4″	10,50,58, 3,11, 7,10,34, 3, 2		47,35,27,47	
		2, 3,35,31,29,36,42,32		9, 2
6″	10,51, 0, 6,46,38,40,10,45,34		47,35,36,49	
		2, 3,35,30,42, 1, 5,43		9, 2
8″	10,51, 2,10,22, 9,22,11,51,17		47,35,45,51	
		2, 3,35,29,54,25,19,52		9, 2
10″	10,51, 4,13,57,39,16,37,11, 9		47,35,54,53	
		2, 3,35,29, 6,49,24,59		9, 2
12″	10,51, 6,17,33, 8,23,26,36, 8		47,36, 3,55	
		2, 3,35,28,19,13,21, 4		9, 2
14″	10,51, 8,21, 8,36,42,39,57,12		47,36,12,57	
		2, 3,35,27,31,37, 8, 7		9, 2
16″	10,51,10,24,44, 4,14,17, 5,19		47,36,21,59	
		2, 3,35,26,44, 0,46, 8		9, 2
18″	10,51,12,28,19,30,58,17,51,27		47,36,31, 1	
		2, 3,35,25,56,24,15, 7		9, 2
20″	10,51,14,31,54,56,54,42, 6,34		47,36,40, 3	
		2, 3,35,25, 8,47,35, 4		9, 2
22″	10,51,16,35,30,22, 3,29,41,38		47,36,49, 5	
		2, 3,35,24,21,10,45,59		9, 2
24″	10,51,18,39, 5,46,24,40,27,37		47,36,58, 7	
		2, 3,35,23,33,33,47,52		9, 2
26″	10,51,20,42,41, 9,58,14,15,29		47,37, 7, 9	
		2, 3,35,22,45,56,40,43		9, 2
28″	10,51,22,46,16,32,44,10,56,12		47,37,16,11	
		2, 3,35,21,58,19,24,32		9, 2
30″	10,51,24,49,51,54,42,30,20,44		47,37,25,13	
		2, 3,35,21,10,41,59,19		9, 2
32″	10,51,26,53,27,15,53,12,20, 3		47,37,34,15	
		2, 3,35,20,23, 4,25, 4		9, 2
34″	10,51,28,57, 2,36,16,16,45, 7		47,37,43,17	
		2, 3,35,19,35,26,41,47		9, 2
36″	10,51,31, 0,37,55,51,43,26,54		47,37,52,19	
		2, 3,35,18,47,48,49,28		9, 2
38″	10,51,33, 4,13,14,39,32,16,22		47,38, 1,21	
		2, 3,35,18, 0,10,48, 7		9, 2
40″	10,51,35, 7,48,32,39,43, 4,29		47,38,10,23	
		2, 3,35,17,12,32,37,44		9, 2
42″	10,51,37,11,23,49,52,15,42,13		47,38,19,25	
		2, 3,35,16,24,54,18,19		9, 2
44″	10,51,39,14,59, 6,17,10, 0,32		47,38,28,27	
		2, 3,35,15,37,15,49,52		9, 2
46″	10,51,41,18,34,21,54,25,50,24		47,38,37,29	
		2, 3,35,14,49,37,12,23		9, 2
48″	10,51,43,22, 9,36,44, 3, 2,47		47,38,46,31	
		2, 3,35,14, 1,58,25,52		9, 2
50″	10,51,45,25,44,50,46, 1,28,39		47,38,55,33	
		2, 3,35,13,14,19,30,19		9, 2
52″	10,51,47,29,20, 4, 0,20,58,58		47,39, 4,35	
		2, 3,35,12,26,40,25,44		9, 2
54″	10,51,49,32,55,16,27, 1,24,42		47,39,13,37	
		2, 3,35,11,39, 1,12, 7		9, 2
56″	10,51,51,36,30,28, 6, 2,36,49		47,39,22,39	
		2, 3,35,10,51,21,49,28		9, 2
58″	10,51,53,40, 5,38,57,24,26,17		47,39,31,41	
		2, 3,35,10, 3,42,17,47		
60″	10,51,55,43,40,49, 1, 6,44, 4			
exact	10,51,55,43,40,49, 1, 6,32, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°26′ 0″	10,51,55,43,40,49, 1, 6,32, 7			
		2, 3,35, 9,16, 2,35,56		
2″	10,51,57,47,15,58,17, 9, 8, 3		47,39,49,49	
		2, 3,35, 8,28,22,46, 7		9, 2
4″	10,51,59,50,51, 6,45,31,54,10		47,39,58,51	
		2, 3,35, 7,40,42,47,16		9, 2
6″	10,52, 1,54,26,14,26,14,41,26		47,40, 7,53	
		2, 3,35, 6,53, 2,39,23		9, 2
8″	10,52, 3,58, 1,21,19,17,20,49		47,40,16,55	
		2, 3,35, 6, 5,22,22,28		9, 2
10″	10,52, 6, 1,36,27,24,39,43,17		47,40,25,57	
		2, 3,35, 5,17,41,56,31		9, 2
12″	10,52, 8, 5,11,32,42,21,39,48		47,40,34,59	
		2, 3,35, 4,30, 1,21,32		9, 2
14″	10,52,10, 8,46,37,12,23, 1,20		47,40,44, 1	
		2, 3,35, 3,42,20,37,31		9, 2
16″	10,52,12,12,21,40,54,43,38,51		47,40,53, 3	
		2, 3,35, 2,54,39,44,28		9, 2
18″	10,52,14,15,56,43,49,23,23,19		47,41, 2, 5	
		2, 3,35, 2, 6,58,42,23		9, 2
20″	10,52,16,19,31,45,56,22, 5,42		47,41,11, 7	
		2, 3,35, 1,19,17,31,16		9, 2
22″	10,52,18,23, 6,47,15,39,36,58		47,41,20, 9	
		2, 3,35, 0,31,36,11, 7		9, 2
24″	10,52,20,26,41,47,47,15,48, 5		47,41,29,11	
		2, 3,34,59,43,54,41,56		9, 2
26″	10,52,22,30,16,47,31,10,30, 1		47,41,38,13	
		2, 3,34,58,56,13, 3,43		9, 2
28″	10,52,24,33,51,46,27,23,33,44		47,41,47,15	
		2, 3,34,58, 8,31,16,28		9, 2
30″	10,52,26,37,26,44,35,54,50,12		47,41,56,17	
		2, 3,34,57,20,49,20,11		9, 2
32″	10,52,28,41, 1,41,56,44,10,23		47,42, 5,19	
		2, 3,34,56,33, 7,14,52		9, 2
34″	10,52,30,44,36,38,29,51,25,15		47,42,14,21	
		2, 3,34,55,45,25, 0,31		9, 2
36″	10,52,32,48,11,34,15,16,25,46		47,42,23,23	
		2, 3,34,54,57,42,37, 8		9, 2
38″	10,52,34,51,46,29,12,59, 2,54		47,42,32,25	
		2, 3,34,54,10, 0, 4,43		9, 2
40″	10,52,36,55,21,23,22,59, 7,37		47,42,41,27	
		2, 3,34,53,22,17,23,16		9, 2
42″	10,52,38,58,56,16,45,16,30,53		47,42,50,29	
		2, 3,34,52,34,34,32,47		9, 2
44″	10,52,41, 2,31, 9,19,51, 3,40		47,42,59,31	
		2, 3,34,51,46,51,33,16		9, 2
46″	10,52,43, 6, 6, 1, 6,42,36,56		47,43, 8,33	
		2, 3,34,50,59, 8,24,43		9, 2
48″	10,52,45, 9,40,52, 5,51, 1,39		47,43,17,35	
		2, 3,34,50,11,25, 7, 8		9, 2
50″	10,52,47,13,15,42,17,16, 8,47		47,43,26,37	
		2, 3,34,49,23,41,40,31		9, 2
52″	10,52,49,16,50,31,40,57,49,18		47,43,35,39	
		2, 3,34,48,35,58, 4,52		9, 2
54″	10,52,51,20,25,20,16,55,54,10		47,43,44,41	
		2, 3,34,47,48,14,20,11		9, 2
56″	10,52,53,24, 0, 8, 5,10,14,21		47,43,53,43	
		2, 3,34,47, 0,30,26,28		9, 2
58″	10,52,55,27,34,55, 5,40,40,49		47,44, 2,45	
		2, 3,34,46,12,46,23,43		
60″	10,52,57,31, 9,41,18,27, 4,32			
exact	10,52,57,31, 9,41,18,26,57,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°27′ 0″	10,52,57,31, 9,41,18,26,57,11			
		2, 3,34,45,25, 2,11,11		
2″	10,52,59,34,44,26,43,29, 8,22		47,44,20,52	
		2, 3,34,44,37,17,50,19		9, 2
4″	10,53, 1,38,19,11,20,46,58,41		47,44,29,54	
		2, 3,34,43,49,33,20,25		9, 2
6″	10,53, 3,41,53,55,10,20,19, 6		47,44,38,56	
		2, 3,34,43, 1,48,41,29		9, 2
8″	10,53, 5,45,28,38,12, 9, 0,35		47,44,47,58	
		2, 3,34,42,14, 3,53,31		9, 2
10″	10,53, 7,49, 3,20,26,12,54, 6		47,44,57, 0	
		2, 3,34,41,26,18,56,31		9, 2
12″	10,53, 9,52,38, 1,52,31,50,37		47,45, 6, 2	
		2, 3,34,40,38,33,50,29		9, 2
14″	10,53,11,56,12,42,31, 5,41, 6		47,45,15, 4	
		2, 3,34,39,50,48,35,25		9, 2
16″	10,53,13,59,47,22,21,54,16,31		47,45,24, 6	
		2, 3,34,39, 3, 3,11,19		9, 2
18″	10,53,16, 3,22, 1,24,57,27,50		47,45,33, 8	
		2, 3,34,38,15,17,38,11		9, 2
20″	10,53,18, 6,56,39,40,15, 6, 1		47,45,42,10	
		2, 3,34,37,27,31,56, 1		9, 2
22″	10,53,20,10,31,17, 7,47, 2, 2		47,45,51,12	
		2, 3,34,36,39,46, 4,49		9, 2
24″	10,53,22,14, 5,53,47,33, 6,51		47,46, 0,14	
		2, 3,34,35,52, 0, 4,35		9, 2
26″	10,53,24,17,40,29,39,33,11,26		47,46, 9,16	
		2, 3,34,35, 4,13,55,19		9, 2
28″	10,53,26,21,15, 4,43,47, 6,45		47,46,18,18	
		2, 3,34,34,16,27,37, 1		9, 2
30″	10,53,28,24,49,39, 0,14,43,46		47,46,27,20	
		2, 3,34,33,28,41, 9,41		9, 2
32″	10,53,30,28,24,12,28,55,53,27		47,46,36,22	
		2, 3,34,32,40,54,33,19		9, 2
34″	10,53,32,31,58,45, 9,50,26,46		47,46,45,24	
		2, 3,34,31,53, 7,47,55		9, 2
36″	10,53,34,35,33,17, 2,58,14,41		47,46,54,26	
		2, 3,34,31, 5,20,53,29		9, 2
38″	10,53,36,39, 7,48, 8,19, 8,10		47,47, 3,28	
		2, 3,34,30,17,33,50, 1		9, 2
40″	10,53,38,42,42,18,25,52,58,11		47,47,12,30	
		2, 3,34,29,29,46,37,31		9, 2
42″	10,53,40,46,16,47,55,39,35,42		47,47,21,32	
		2, 3,34,28,41,59,15,59		9, 2
44″	10,53,42,49,51,16,37,38,51,41		47,47,30,34	
		2, 3,34,27,54,11,45,25		9, 2
46″	10,53,44,53,25,44,31,50,37, 6		47,47,39,36	
		2, 3,34,27, 6,24, 5,49		9, 2
48″	10,53,46,57, 0,11,38,14,42,55		47,47,48,38	
		2, 3,34,26,18,36,17,11		9, 2
50″	10,53,49, 0,34,37,56,51, 0, 6		47,47,57,40	
		2, 3,34,25,30,48,19,31		9, 2
52″	10,53,51, 4, 9, 3,27,39,19,37		47,48, 6,42	
		2, 3,34,24,43, 0,12,49		9, 2
54″	10,53,53, 7,43,28,10,39,32,26		47,48,15,44	
		2, 3,34,23,55,11,57, 5		9, 2
56″	10,53,55,11,17,52, 5,51,29,31		47,48,24,46	
		2, 3,34,23, 7,23,32,19		9, 2
58″	10,53,57,14,52,15,13,15, 1,50		47,48,33,48	
		2, 3,34,22,19,34,58,31		
60″	10,53,59,18,26,37,32,50, 0,21			
exact	10,53,59,18,26,37,32,49,56,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°28′ 0″	10,53,59,18,26,37,32,49,56,20			
		2, 3,34,21,31,46,15,14		
2″	10,54, 1,22, 0,59, 4,36,11,34		47,48,51,54	
		2, 3,34,20,43,57,23,20		9, 2
4″	10,54, 3,25,35,19,48,33,34,54		47,49, 0,56	
		2, 3,34,19,56, 8,22,24		9, 2
6″	10,54, 5,29, 9,39,44,41,57,18		47,49, 9,58	
		2, 3,34,19, 8,19,12,26		9, 2
8″	10,54, 7,32,43,58,53, 1, 9,44		47,49,19, 0	
		2, 3,34,18,20,29,53,26		9, 2
10″	10,54, 9,36,18,17,13,31, 3,10		47,49,28, 2	
		2, 3,34,17,32,40,25,24		9, 2
12″	10,54,11,39,52,34,46,11,28,34		47,49,37, 4	
		2, 3,34,16,44,50,48,20		9, 2
14″	10,54,13,43,26,51,31, 2,16,54		47,49,46, 6	
		2, 3,34,15,57, 1, 2,14		9, 2
16″	10,54,15,47, 1, 7,28, 3,19, 8		47,49,55, 8	
		2, 3,34,15, 9,11, 7, 6		9, 2
18″	10,54,17,50,35,22,37,14,26,14		47,50, 4,10	
		2, 3,34,14,21,21, 2,56		9, 2
20″	10,54,19,54, 9,36,58,35,29,10		47,50,13,12	
		2, 3,34,13,33,30,49,44		9, 2
22″	10,54,21,57,43,50,32, 6,18,54		47,50,22,14	
		2, 3,34,12,45,40,27,30		9, 2
24″	10,54,24, 1,18, 3,17,46,46,24		47,50,31,16	
		2, 3,34,11,57,49,56,14		9, 2
26″	10,54,26, 4,52,15,15,36,42,38		47,50,40,18	
		2, 3,34,11, 9,59,15,56		9, 2
28″	10,54,28, 8,26,26,25,35,58,34		47,50,49,20	
		2, 3,34,10,22, 8,26,36		9, 2
30″	10,54,30,12, 0,36,47,44,25,10		47,50,58,22	
		2, 3,34, 9,34,17,28,14		9, 2
32″	10,54,32,15,34,46,22, 1,53,24		47,51, 7,24	
		2, 3,34, 8,46,26,20,50		9, 2
34″	10,54,34,19, 8,55, 8,28,14,14		47,51,16,26	
		2, 3,34, 7,58,35, 4,24		9, 2
36″	10,54,36,22,43, 3, 7, 3,18,38		47,51,25,28	
		2, 3,34, 7,10,43,38,56		9, 2
38″	10,54,38,26,17,10,17,46,57,34		47,51,34,30	
		2, 3,34, 6,22,52, 4,26		9, 2
40″	10,54,40,29,51,16,40,39, 2, 0		47,51,43,32	
		2, 3,34, 5,35, 0,20,54		9, 2
42″	10,54,42,33,25,22,15,39,22,54		47,51,52,34	
		2, 3,34, 4,47, 8,28,20		9, 2
44″	10,54,44,36,59,27, 2,47,51,14		47,52, 1,36	
		2, 3,34, 3,59,16,26,44		9, 2
46″	10,54,46,40,33,31, 2, 4,17,58		47,52,10,38	
		2, 3,34, 3,11,24,16, 6		9, 2
48″	10,54,48,44, 7,34,13,28,34, 4		47,52,19,40	
		2, 3,34, 2,23,31,56,26		9, 2
50″	10,54,50,47,41,36,37, 0,30,30		47,52,28,42	
		2, 3,34, 1,35,39,27,44		9, 2
52″	10,54,52,51,15,38,12,39,58,14		47,52,37,44	
		2, 3,34, 0,47,46,50, 0		9, 2
54″	10,54,54,54,49,39, 0,26,48,14		47,52,46,46	
		2, 3,33,59,59,54, 3,14		9, 2
56″	10,54,56,58,23,39, 0,20,51,28		47,52,55,48	
		2, 3,33,59,12, 1, 7,26		9, 2
58″	10,54,59, 1,57,38,12,21,58,54		47,53, 4,50	
		2, 3,33,58,24, 8, 2,36		
60″	10,55, 1, 5,31,36,36,30, 1,30			
exact	10,55, 1, 5,31,36,36,30, 0,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°29′ 0″	10,55, 1, 5,31,36,36,30, 0,11			
		2, 3,33,57,36,14,48,33		
2″	10,55, 3, 9, 5,34,12,44,48,44		47,53,22,55	
		2, 3,33,56,48,21,25,38		9, 2
4″	10,55, 5,12,39,31, 1, 6,14,22		47,53,31,57	
		2, 3,33,56, 0,27,53,41		9, 2
6″	10,55, 7,16,13,27, 1,34, 8, 3		47,53,40,59	
		2, 3,33,55,12,34,12,42		9, 2
8″	10,55, 9,19,47,22,14, 8,20,45		47,53,50, 1	
		2, 3,33,54,24,40,22,41		9, 2
10″	10,55,11,23,21,16,38,48,43,26		47,53,59, 3	
		2, 3,33,53,36,46,23,38		9, 2
12″	10,55,13,26,55,10,15,35, 7, 4		47,54, 8, 5	
		2, 3,33,52,48,52,15,33		9, 2
14″	10,55,15,30,29, 3, 4,27,22,37		47,54,17, 7	
		2, 3,33,52, 0,57,58,26		9, 2
16″	10,55,17,34, 2,55, 5,25,21, 3		47,54,26, 9	
		2, 3,33,51,13, 3,32,17		9, 2
18″	10,55,19,37,36,46,18,28,53,20		47,54,35,11	
		2, 3,33,50,25, 8,57, 6		9, 2
20″	10,55,21,41,10,36,43,37,50,26		47,54,44,13	
		2, 3,33,49,37,14,12,53		9, 2
22″	10,55,23,44,44,26,20,52, 3,19		47,54,53,15	
		2, 3,33,48,49,19,19,38		9, 2
24″	10,55,25,48,18,15,10,11,22,57		47,55, 2,17	
		2, 3,33,48, 1,24,17,21		9, 2
26″	10,55,27,51,52, 3,11,35,40,18		47,55,11,19	
		2, 3,33,47,13,29, 6, 2		9, 2
28″	10,55,29,55,25,50,25, 4,46,20		47,55,20,21	
		2, 3,33,46,25,33,45,41		9, 2
30″	10,55,31,58,59,36,50,38,32, 1		47,55,29,23	
		2, 3,33,45,37,38,16,18		9, 2
32″	10,55,34, 2,33,22,28,16,48,19		47,55,38,25	
		2, 3,33,44,49,42,37,53		9, 2
34″	10,55,36, 6, 7, 7,17,59,26,12		47,55,47,27	
		2, 3,33,44, 1,46,50,26		9, 2
36″	10,55,38, 9,40,51,19,46,16,38		47,55,56,29	
		2, 3,33,43,13,50,53,57		9, 2
38″	10,55,40,13,14,34,33,37,10,35		47,56, 5,31	
		2, 3,33,42,25,54,48,26		9, 2
40″	10,55,42,16,48,16,59,31,59, 1		47,56,14,33	
		2, 3,33,41,37,58,33,53		9, 2
42″	10,55,44,20,21,58,37,30,32,54		47,56,23,35	
		2, 3,33,40,50, 2,10,18		9, 2
44″	10,55,46,23,55,39,27,32,43,12		47,56,32,37	
		2, 3,33,40, 2, 5,37,41		9, 2
46″	10,55,48,27,29,19,29,38,20,53		47,56,41,39	
		2, 3,33,39,14, 8,56, 2		9, 2
48″	10,55,50,31, 2,58,43,47,16,55		47,56,50,41	
		2, 3,33,38,26,12, 5,21		9, 2
50″	10,55,52,34,36,37, 9,59,22,16		47,56,59,43	
		2, 3,33,37,38,15, 5,38		9, 2
52″	10,55,54,38,10,14,48,14,27,54		47,57, 8,45	
		2, 3,33,36,50,17,56,53		9, 2
54″	10,55,56,41,43,51,38,32,24,47		47,57,17,47	
		2, 3,33,36, 2,20,39, 6		9, 2
56″	10,55,58,45,17,27,40,53, 3,53		47,57,26,49	
		2, 3,33,35,14,23,12,17		9, 2
58″	10,56, 0,48,51, 2,55,16,16,10		47,57,35,51	
		2, 3,33,34,26,25,36,26		
60″	10,56, 2,52,24,37,21,41,52,36			
exact	10,56, 2,52,24,37,21,41,52,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°30′ 0″	10,56, 2,52,24,37,21,41,52,27			
		2, 3,33,33,38,27,51,32		
2″	10,56, 4,55,58,11, 0, 9,43,59		47,57,53,55	
		2, 3,33,32,50,29,57,37		9, 2
4″	10,56, 6,59,31,43,50,39,41,36		47,58, 2,57	
		2, 3,33,32, 2,31,54,40		9, 2
6″	10,56, 9, 3, 5,15,53,11,36,16		47,58,11,59	
		2, 3,33,31,14,33,42,41		9, 2
8″	10,56,11, 6,38,47, 7,45,18,57		47,58,21, 1	
		2, 3,33,30,26,35,21,40		9, 2
10″	10,56,13,10,12,17,34,20,40,37		47,58,30, 3	
		2, 3,33,29,38,36,51,37		9, 2
12″	10,56,15,13,45,47,12,57,32,14		47,58,39, 5	
		2, 3,33,28,50,38,12,32		9, 2
14″	10,56,17,17,19,16, 3,35,44,46		47,58,48, 7	
		2, 3,33,28, 2,39,24,25		9, 2
16″	10,56,19,20,52,44, 6,15, 9,11		47,58,57, 9	
		2, 3,33,27,14,40,27,16		9, 2
18″	10,56,21,24,26,11,20,55,36,27		47,59, 6,11	
		2, 3,33,26,26,41,21, 5		9, 2
20″	10,56,23,27,59,37,47,36,57,32		47,59,15,13	
		2, 3,33,25,38,42, 5,52		9, 2
22″	10,56,25,31,33, 3,26,19, 3,24		47,59,24,15	
		2, 3,33,24,50,42,41,37		9, 2
24″	10,56,27,35, 6,28,17, 1,45, 1		47,59,33,17	
		2, 3,33,24, 2,43, 8,20		9, 2
26″	10,56,29,38,39,52,19,44,53,21		47,59,42,19	
		2, 3,33,23,14,43,26, 1		9, 2
28″	10,56,31,42,13,15,34,28,19,22		47,59,51,21	
		2, 3,33,22,26,43,34,40		9, 2
30″	10,56,33,45,46,38, 1,11,54, 2		48, 0, 0,23	
		2, 3,33,21,38,43,34,17		9, 2
32″	10,56,35,49,19,59,39,55,28,19		48, 0, 9,25	
		2, 3,33,20,50,43,24,52		9, 2
34″	10,56,37,52,53,20,30,38,53,11		48, 0,18,27	
		2, 3,33,20, 2,43, 6,25		9, 2
36″	10,56,39,56,26,40,33,21,59,36		48, 0,27,29	
		2, 3,33,19,14,42,38,56		9, 2
38″	10,56,41,59,59,59,48, 4,38,32		48, 0,36,31	
		2, 3,33,18,26,42, 2,25		9, 2
40″	10,56,44, 3,33,18,14,46,40,57		48, 0,45,33	
		2, 3,33,17,38,41,16,52		9, 2
42″	10,56,46, 7, 6,35,53,27,57,49		48, 0,54,35	
		2, 3,33,16,50,40,22,17		9, 2
44″	10,56,48,10,39,52,44, 8,20, 6		48, 1, 3,37	
		2, 3,33,16, 2,39,18,40		9, 2
46″	10,56,50,14,13, 8,46,47,38,46		48, 1,12,39	
		2, 3,33,15,14,38, 6, 1		9, 2
48″	10,56,52,17,46,24, 1,25,44,47		48, 1,21,41	
		2, 3,33,14,26,36,44,20		9, 2
50″	10,56,54,21,19,38,28, 2,29, 7		48, 1,30,43	
		2, 3,33,13,38,35,13,37		9, 2
52″	10,56,56,24,52,52, 6,37,42,44		48, 1,39,45	
		2, 3,33,12,50,33,33,52		9, 2
54″	10,56,58,28,26, 4,57,11,16,36		48, 1,48,47	
		2, 3,33,12, 2,31,45, 5		9, 2
56″	10,57, 0,31,59,16,59,43, 1,41		48, 1,57,49	
		2, 3,33,11,14,29,47,16		9, 2
58″	10,57, 2,35,32,28,14,12,48,57		48, 2, 6,51	
		2, 3,33,10,26,27,40,25		
60″	10,57, 4,39, 5,38,40,40,29,22			
exact	10,57, 4,39, 5,38,40,40,29,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°31′ 0″	10,57, 4,39, 5,38,40,40,29,59			
		2, 3,33, 9,38,25,24,38		
2″	10,57, 6,42,38,48,19, 5,54,37		48, 2,24,54	
		2, 3,33, 8,50,22,59,44		9, 2
4″	10,57, 8,46,11,57, 9,28,54,21		48, 2,33,56	
		2, 3,33, 8, 2,20,25,48		9, 2
6″	10,57,10,49,45, 5,11,49,20, 9		48, 2,42,58	
		2, 3,33, 7,14,17,42,50		9, 2
8″	10,57,12,53,18,12,26, 7, 2,59		48, 2,52, 0	
		2, 3,33, 6,26,14,50,50		9, 2
10″	10,57,14,56,51,18,52,21,53,49		48, 3, 1, 2	
		2, 3,33, 5,38,11,49,48		9, 2
12″	10,57,17, 0,24,24,30,33,43,37		48, 3,10, 4	
		2, 3,33, 4,50, 8,39,44		9, 2
14″	10,57,19, 3,57,29,20,42,23,21		48, 3,19, 6	
		2, 3,33, 4, 2, 5,20,38		9, 2
16″	10,57,21, 7,30,33,22,47,43,59		48, 3,28, 8	
		2, 3,33, 3,14, 1,52,30		9, 2
18″	10,57,23,11, 3,36,36,49,36,29		48, 3,37,10	
		2, 3,33, 2,25,58,15,20		9, 2
20″	10,57,25,14,36,39, 2,47,51,49		48, 3,46,12	
		2, 3,33, 1,37,54,29, 8		9, 2
22″	10,57,27,18, 9,40,40,42,20,57		48, 3,55,14	
		2, 3,33, 0,49,50,33,54		9, 2
24″	10,57,29,21,42,41,30,32,54,51		48, 4, 4,16	
		2, 3,33, 0, 1,46,29,38		9, 2
26″	10,57,31,25,15,41,32,19,24,29		48, 4,13,18	
		2, 3,32,59,13,42,16,20		9, 2
28″	10,57,33,28,48,40,46, 1,40,49		48, 4,22,20	
		2, 3,32,58,25,37,54, 0		9, 2
30″	10,57,35,32,21,39,11,39,34,49		48, 4,31,22	
		2, 3,32,57,37,33,22,38		9, 2
32″	10,57,37,35,54,36,49,12,57,27		48, 4,40,24	
		2, 3,32,56,49,28,42,14		9, 2
34″	10,57,39,39,27,33,38,41,39,41		48, 4,49,26	
		2, 3,32,56, 1,23,52,48		9, 2
36″	10,57,41,43, 0,29,40, 5,32,29		48, 4,58,28	
		2, 3,32,55,13,18,54,20		9, 2
38″	10,57,43,46,33,24,53,24,26,49		48, 5, 7,30	
		2, 3,32,54,25,13,46,50		9, 2
40″	10,57,45,50, 6,19,18,38,13,39		48, 5,16,32	
		2, 3,32,53,37, 8,30,18		9, 2
42″	10,57,47,53,39,12,55,46,43,57		48, 5,25,34	
		2, 3,32,52,49, 3, 4,44		9, 2
44″	10,57,49,57,12, 5,44,49,48,41		48, 5,34,36	
		2, 3,32,52, 0,57,30, 8		9, 2
46″	10,57,52, 0,44,57,45,47,18,49		48, 5,43,38	
		2, 3,32,51,12,51,46,30		9, 2
48″	10,57,54, 4,17,48,58,39, 5,19		48, 5,52,40	
		2, 3,32,50,24,45,53,50		9, 2
50″	10,57,56, 7,50,39,23,24,59, 9		48, 6, 1,42	
		2, 3,32,49,36,39,52, 8		9, 2
52″	10,57,58,11,23,29, 0, 4,51,17		48, 6,10,44	
		2, 3,32,48,48,33,41,24		9, 2
54″	10,58, 0,14,56,17,48,38,32,41		48, 6,19,46	
		2, 3,32,48, 0,27,21,38		9, 2
56″	10,58, 2,18,29, 5,49, 5,54,19		48, 6,28,48	
		2, 3,32,47,12,20,52,50		9, 2
58″	10,58, 4,22, 1,53, 1,26,47, 9		48, 6,37,50	
		2, 3,32,46,24,14,15, 0		
60″	10,58, 6,25,34,39,25,41, 2, 9			
exact	10,58, 6,25,34,39,25,41, 2,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°32′ 0″	10,58, 6,25,34,39,25,41, 2,45			
		2, 3,32,45,36, 7,28,18		
2″	10,58, 8,29, 7,25, 1,48,31, 3		48, 6,55,53	
		2, 3,32,44,48, 0,32,25		9, 2
4″	10,58,10,32,40, 9,49,49, 3,28		48, 7, 4,55	
		2, 3,32,43,59,53,27,30		9, 2
6″	10,58,12,36,12,53,49,42,30,58		48, 7,13,57	
		2, 3,32,43,11,46,13,33		9, 2
8″	10,58,14,39,45,37, 1,28,44,31		48, 7,22,59	
		2, 3,32,42,23,38,50,34		9, 2
10″	10,58,16,43,18,19,25, 7,35, 5		48, 7,32, 1	
		2, 3,32,41,35,31,18,33		9, 2
12″	10,58,18,46,51, 1, 0,38,53,38		48, 7,41, 3	
		2, 3,32,40,47,23,37,30		9, 2
14″	10,58,20,50,23,41,48, 2,31, 8		48, 7,50, 5	
		2, 3,32,39,59,15,47,25		9, 2
16″	10,58,22,53,56,21,47,18,18,33		48, 7,59, 7	
		2, 3,32,39,11, 7,48,18		9, 2
18″	10,58,24,57,29, 0,58,26, 6,51		48, 8, 8, 9	
		2, 3,32,38,22,59,40, 9		9, 2
20″	10,58,27, 1, 1,39,21,25,47, 0		48, 8,17,11	
		2, 3,32,37,34,51,22,58		9, 2
22″	10,58,29, 4,34,16,56,17, 9,58		48, 8,26,13	
		2, 3,32,36,46,42,56,45		9, 2
24″	10,58,31, 8, 6,53,43, 0, 6,43		48, 8,35,15	
		2, 3,32,35,58,34,21,30		9, 2
26″	10,58,33,11,39,29,41,34,28,13		48, 8,44,17	
		2, 3,32,35,10,25,37,13		9, 2
28″	10,58,35,15,12, 4,52, 0, 5,26		48, 8,53,19	
		2, 3,32,34,22,16,43,54		9, 2
30″	10,58,37,18,44,39,14,16,49,20		48, 9, 2,21	
		2, 3,32,33,34, 7,41,33		9, 2
32″	10,58,39,22,17,12,48,24,30,53		48, 9,11,23	
		2, 3,32,32,45,58,30,10		9, 2
34″	10,58,41,25,49,45,34,23, 1, 3		48, 9,20,25	
		2, 3,32,31,57,49, 9,45		9, 2
36″	10,58,43,29,22,17,32,12,10,48		48, 9,29,27	
		2, 3,32,31, 9,39,40,18		9, 2
38″	10,58,45,32,54,48,41,51,51, 6		48, 9,38,29	
		2, 3,32,30,21,30, 1,49		9, 2
40″	10,58,47,36,27,19, 3,21,52,55		48, 9,47,31	
		2, 3,32,29,33,20,14,18		9, 2
42″	10,58,49,39,59,48,36,42, 7,13		48, 9,56,33	
		2, 3,32,28,45,10,17,45		9, 2
44″	10,58,51,43,32,17,21,52,24,58		48,10, 5,35	
		2, 3,32,27,57, 0,12,10		9, 2
46″	10,58,53,47, 4,45,18,52,37, 8		48,10,14,37	
		2, 3,32,27, 8,49,57,33		9, 2
48″	10,58,55,50,37,12,27,42,34,41		48,10,23,39	
		2, 3,32,26,20,39,33,54		9, 2
50″	10,58,57,54, 9,38,48,22, 8,35		48,10,32,41	
		2, 3,32,25,32,29, 1,13		9, 2
52″	10,58,59,57,42, 4,20,51, 9,48		48,10,41,43	
		2, 3,32,24,44,18,19,30		9, 2
54″	10,59, 2, 1,14,29, 5, 9,29,18		48,10,50,45	
		2, 3,32,23,56, 7,28,45		9, 2
56″	10,59, 4, 4,46,53, 1,16,58, 3		48,10,59,47	
		2, 3,32,23, 7,56,28,58		9, 2
58″	10,59, 6, 8,19,16, 9,13,27, 1		48,11, 8,49	
		2, 3,32,22,19,45,20, 9		
60″	10,59, 8,11,51,38,28,58,47,10			
exact	10,59, 8,11,51,38,28,58,53,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°33′ 0″	10,59, 8,11,51,38,28,58,53,56			
		2, 3,32,21,31,34, 2,58		
2″	10,59,10,15,24, 0, 0,32,56,54		48,11,26,50	
		2, 3,32,20,43,22,36, 8		9, 2
4″	10,59,12,18,56,20,43,55,33, 2		48,11,35,52	
		2, 3,32,19,55,11, 0,16		9, 2
6″	10,59,14,22,28,40,39, 6,33,18		48,11,44,54	
		2, 3,32,19, 6,59,15,22		9, 2
8″	10,59,16,26, 0,59,46, 5,48,40		48,11,53,56	
		2, 3,32,18,18,47,21,26		9, 2
10″	10,59,18,29,33,18, 4,53,10, 6		48,12, 2,58	
		2, 3,32,17,30,35,18,28		9, 2
12″	10,59,20,33, 5,35,35,28,28,34		48,12,12, 0	
		2, 3,32,16,42,23, 6,28		9, 2
14″	10,59,22,36,37,52,17,51,35, 2		48,12,21, 2	
		2, 3,32,15,54,10,45,26		9, 2
16″	10,59,24,40,10, 8,12, 2,20,28		48,12,30, 4	
		2, 3,32,15, 5,58,15,22		9, 2
18″	10,59,26,43,42,23,18, 0,35,50		48,12,39, 6	
		2, 3,32,14,17,45,36,16		9, 2
20″	10,59,28,47,14,37,35,46,12, 6		48,12,48, 8	
		2, 3,32,13,29,32,48, 8		9, 2
22″	10,59,30,50,46,51, 5,19, 0,14		48,12,57,10	
		2, 3,32,12,41,19,50,58		9, 2
24″	10,59,32,54,19, 3,46,38,51,12		48,13, 6,12	
		2, 3,32,11,53, 6,44,46		9, 2
26″	10,59,34,57,51,15,39,45,35,58		48,13,15,14	
		2, 3,32,11, 4,53,29,32		9, 2
28″	10,59,37, 1,23,26,44,39, 5,30		48,13,24,16	
		2, 3,32,10,16,40, 5,16		9, 2
30″	10,59,39, 4,55,37, 1,19,10,46		48,13,33,18	
		2, 3,32, 9,28,26,31,58		9, 2
32″	10,59,41, 8,27,46,29,45,42,44		48,13,42,20	
		2, 3,32, 8,40,12,49,38		9, 2
34″	10,59,43,11,59,55, 9,58,32,22		48,13,51,22	
		2, 3,32, 7,51,58,58,16		9, 2
36″	10,59,45,15,32, 3, 1,57,30,38		48,14, 0,24	
		2, 3,32, 7, 3,44,57,52		9, 2
38″	10,59,47,19, 4,10, 5,42,28,30		48,14, 9,26	
		2, 3,32, 6,15,30,48,26		9, 2
40″	10,59,49,22,36,16,21,13,16,56		48,14,18,28	
		2, 3,32, 5,27,16,29,58		9, 2
42″	10,59,51,26, 8,21,48,29,46,54		48,14,27,30	
		2, 3,32, 4,39, 2, 2,28		9, 2
44″	10,59,53,29,40,26,27,31,49,22		48,14,36,32	
		2, 3,32, 3,50,47,25,56		9, 2
46″	10,59,55,33,12,30,18,19,15,18		48,14,45,34	
		2, 3,32, 3, 2,32,40,22		9, 2
48″	10,59,57,36,44,33,20,51,55,40		48,14,54,36	
		2, 3,32, 2,14,17,45,46		9, 2
50″	10,59,59,40,16,35,35, 9,41,26		48,15, 3,38	
		2, 3,32, 1,26, 2,42, 8		9, 2
52″	11, 0, 1,43,48,37, 1,12,23,34		48,15,12,40	
		2, 3,32, 0,37,47,29,28		9, 2
54″	11, 0, 3,47,20,37,38,59,53, 2		48,15,21,42	
		2, 3,31,59,49,32, 7,46		9, 2
56″	11, 0, 5,50,52,37,28,32, 0,48		48,15,30,44	
		2, 3,31,59, 1,16,37, 2		9, 2
58″	11, 0, 7,54,24,36,29,48,37,50		48,15,39,46	
		2, 3,31,58,13, 0,57,16		
60″	11, 0, 9,57,56,34,42,49,35, 6			
exact	11, 0, 9,57,56,34,42,49,39,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°34′ 0″	11, 0, 9,57,56,34,42,49,39,53			
		2, 3,31,57,24,45, 9, 5		
2″	11, 0,12, 1,28,32, 7,34,48,58		48,15,57,47	
		2, 3,31,56,36,29,11,18		9, 2
4″	11, 0,14, 5, 0,28,44, 4, 0,16		48,16, 6,49	
		2, 3,31,55,48,13, 4,29		9, 2
6″	11, 0,16, 8,32,24,32,17, 4,45		48,16,15,51	
		2, 3,31,54,59,56,48,38		9, 2
8″	11, 0,18,12, 4,19,32,13,53,23		48,16,24,53	
		2, 3,31,54,11,40,23,45		9, 2
10″	11, 0,20,15,36,13,43,54,17, 8		48,16,33,55	
		2, 3,31,53,23,23,49,50		9, 2
12″	11, 0,22,19, 8, 7, 7,18, 6,58		48,16,42,57	
		2, 3,31,52,35, 7, 6,53		9, 2
14″	11, 0,24,22,39,59,42,25,13,51		48,16,51,59	
		2, 3,31,51,46,50,14,54		9, 2
16″	11, 0,26,26,11,51,29,15,28,45		48,17, 1, 1	
		2, 3,31,50,58,33,13,53		9, 2
18″	11, 0,28,29,43,42,27,48,42,38		48,17,10, 3	
		2, 3,31,50,10,16, 3,50		9, 2
20″	11, 0,30,33,15,32,38, 4,46,28		48,17,19, 5	
		2, 3,31,49,21,58,44,45		9, 2
22″	11, 0,32,36,47,22, 0, 3,31,13		48,17,28, 7	
		2, 3,31,48,33,41,16,38		9, 2
24″	11, 0,34,40,19,10,33,44,47,51		48,17,37, 9	
		2, 3,31,47,45,23,39,29		9, 2
26″	11, 0,36,43,50,58,19, 8,27,20		48,17,46,11	
		2, 3,31,46,57, 5,53,18		9, 2
28″	11, 0,38,47,22,45,16,14,20,38		48,17,55,13	
		2, 3,31,46, 8,47,58, 5		9, 2
30″	11, 0,40,50,54,31,25, 2,18,43		48,18, 4,15	
		2, 3,31,45,20,29,53,50		9, 2
32″	11, 0,42,54,26,16,45,32,12,33		48,18,13,17	
		2, 3,31,44,32,11,40,33		9, 2
34″	11, 0,44,57,58, 1,17,43,53, 6		48,18,22,19	
		2, 3,31,43,43,53,18,14		9, 2
36″	11, 0,47, 1,29,45, 1,37,11,20		48,18,31,21	
		2, 3,31,42,55,34,46,53		9, 2
38″	11, 0,49, 5, 1,27,57,11,58,13		48,18,40,23	
		2, 3,31,42, 7,16, 6,30		9, 2
40″	11, 0,51, 8,33,10, 4,28, 4,43		48,18,49,25	
		2, 3,31,41,18,57,17, 5		9, 2
42″	11, 0,53,12, 4,51,23,25,21,48		48,18,58,27	
		2, 3,31,40,30,38,18,38		9, 2
44″	11, 0,55,15,36,31,54, 3,40,26		48,19, 7,29	
		2, 3,31,39,42,19,11, 9		9, 2
46″	11, 0,57,19, 8,11,36,22,51,35		48,19,16,31	
		2, 3,31,38,53,59,54,38		9, 2
48″	11, 0,59,22,39,50,30,22,46,13		48,19,25,33	
		2, 3,31,38, 5,40,29, 5		9, 2
50″	11, 1, 1,26,11,28,36, 3,15,18		48,19,34,35	
		2, 3,31,37,17,20,54,30		9, 2
52″	11, 1, 3,29,43, 5,53,24, 9,48		48,19,43,37	
		2, 3,31,36,29, 1,10,53		9, 2
54″	11, 1, 5,33,14,42,22,25,20,41		48,19,52,39	
		2, 3,31,35,40,41,18,14		9, 2
56″	11, 1, 7,36,46,18, 3, 6,38,55		48,20, 1,41	
		2, 3,31,34,52,21,16,33		9, 2
58″	11, 1, 9,40,17,52,55,27,55,28		48,20,10,43	
		2, 3,31,34, 4, 1, 5,50		
60″	11, 1,11,43,49,26,59,29, 1,18			
exact	11, 1,11,43,49,26,59,29,10, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°35′ 0″	11, 1,11,43,49,26,59,29,10, 8			
		2, 3,31,33,15,40,47, 4		
2″	11, 1,13,47,21, 0,15, 9,57,12		48,20,28,43	
		2, 3,31,32,27,20,18,21		9, 2
4″	11, 1,15,50,52,32,42,30,15,33		48,20,37,45	
		2, 3,31,31,38,59,40,36		9, 2
6″	11, 1,17,54,24, 4,21,29,56, 9		48,20,46,47	
		2, 3,31,30,50,38,53,49		9, 2
8″	11, 1,19,57,55,35,12, 8,49,58		48,20,55,49	
		2, 3,31,30, 2,17,58, 0		9, 2
10″	11, 1,22, 1,27, 5,14,26,47,58		48,21, 4,51	
		2, 3,31,29,13,56,53, 9		9, 2
12″	11, 1,24, 4,58,34,28,23,41, 7		48,21,13,53	
		2, 3,31,28,25,35,39,16		9, 2
14″	11, 1,26, 8,30, 2,53,59,20,23		48,21,22,55	
		2, 3,31,27,37,14,16,21		9, 2
16″	11, 1,28,12, 1,30,31,13,36,44		48,21,31,57	
		2, 3,31,26,48,52,44,24		9, 2
18″	11, 1,30,15,32,57,20, 6,21, 8		48,21,40,59	
		2, 3,31,26, 0,31, 3,25		9, 2
20″	11, 1,32,19, 4,23,20,37,24,33		48,21,50, 1	
		2, 3,31,25,12, 9,13,24		9, 2
22″	11, 1,34,22,35,48,32,46,37,57		48,21,59, 3	
		2, 3,31,24,23,47,14,21		9, 2
24″	11, 1,36,26, 7,12,56,33,52,18		48,22, 8, 5	
		2, 3,31,23,35,25, 6,16		9, 2
26″	11, 1,38,29,38,36,31,58,58,34		48,22,17, 7	
		2, 3,31,22,47, 2,49, 9		9, 2
28″	11, 1,40,33, 9,59,19, 1,47,43		48,22,26, 9	
		2, 3,31,21,58,40,23, 0		9, 2
30″	11, 1,42,36,41,21,17,42,10,43		48,22,35,11	
		2, 3,31,21,10,17,47,49		9, 2
32″	11, 1,44,40,12,42,27,59,58,32		48,22,44,13	
		2, 3,31,20,21,55, 3,36		9, 2
34″	11, 1,46,43,44, 2,49,55, 2, 8		48,22,53,15	
		2, 3,31,19,33,32,10,21		9, 2
36″	11, 1,48,47,15,22,23,27,12,29		48,23, 2,17	
		2, 3,31,18,45, 9, 8, 4		9, 2
38″	11, 1,50,50,46,41, 8,36,20,33		48,23,11,19	
		2, 3,31,17,56,45,56,45		9, 2
40″	11, 1,52,54,17,59, 5,22,17,18		48,23,20,21	
		2, 3,31,17, 8,22,36,24		9, 2
42″	11, 1,54,57,49,16,13,44,53,42		48,23,29,23	
		2, 3,31,16,19,59, 7, 1		9, 2
44″	11, 1,57, 1,20,32,33,44, 0,43		48,23,38,25	
		2, 3,31,15,31,35,28,36		9, 2
46″	11, 1,59, 4,51,48, 5,19,29,19		48,23,47,27	
		2, 3,31,14,43,11,41, 9		9, 2
48″	11, 2, 1, 8,23, 2,48,31,10,28		48,23,56,29	
		2, 3,31,13,54,47,44,40		9, 2
50″	11, 2, 3,11,54,16,43,18,55, 8		48,24, 5,31	
		2, 3,31,13, 6,23,39, 9		9, 2
52″	11, 2, 5,15,25,29,49,42,34,17		48,24,14,33	
		2, 3,31,12,17,59,24,36		9, 2
54″	11, 2, 7,18,56,42, 7,41,58,53		48,24,23,35	
		2, 3,31,11,29,35, 1, 1		9, 2
56″	11, 2, 9,22,27,53,37,16,59,54		48,24,32,37	
		2, 3,31,10,41,10,28,24		9, 2
58″	11, 2,11,25,59, 4,18,27,28,18		48,24,41,39	
		2, 3,31, 9,52,45,46,45		
60″	11, 2,13,29,30,14,11,13,15, 3			
exact	11, 2,13,29,30,14,11,13,27,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°36′ 0″	11, 2,13,29,30,14,11,13,27,30			
		2, 3,31, 9, 4,20,57,22		
2″	11, 2,15,33, 1,23,15,34,24,52		48,24,59,38	
		2, 3,31, 8,15,55,57,44		9, 2
4″	11, 2,17,36,32,31,31,30,22,36		48,25, 8,40	
		2, 3,31, 7,27,30,49, 4		9, 2
6″	11, 2,19,40, 3,38,59, 1,11,40		48,25,17,42	
		2, 3,31, 6,39, 5,31,22		9, 2
8″	11, 2,21,43,34,45,38, 6,43, 2		48,25,26,44	
		2, 3,31, 5,50,40, 4,38		9, 2
10″	11, 2,23,47, 5,51,28,46,47,40		48,25,35,46	
		2, 3,31, 5, 2,14,28,52		9, 2
12″	11, 2,25,50,36,56,31, 1,16,32		48,25,44,48	
		2, 3,31, 4,13,48,44, 4		9, 2
14″	11, 2,27,54, 8, 0,44,50, 0,36		48,25,53,50	
		2, 3,31, 3,25,22,50,14		9, 2
16″	11, 2,29,57,39, 4,10,12,50,50		48,26, 2,52	
		2, 3,31, 2,36,56,47,22		9, 2
18″	11, 2,32, 1,10, 6,47, 9,38,12		48,26,11,54	
		2, 3,31, 1,48,30,35,28		9, 2
20″	11, 2,34, 4,41, 8,35,40,13,40		48,26,20,56	
		2, 3,31, 1, 0, 4,14,32		9, 2
22″	11, 2,36, 8,12, 9,35,44,28,12		48,26,29,58	
		2, 3,31, 0,11,37,44,34		9, 2
24″	11, 2,38,11,43, 9,47,22,12,46		48,26,39, 0	
		2, 3,30,59,23,11, 5,34		9, 2
26″	11, 2,40,15,14, 9,10,33,18,20		48,26,48, 2	
		2, 3,30,58,34,44,17,32		9, 2
28″	11, 2,42,18,45, 7,45,17,35,52		48,26,57, 4	
		2, 3,30,57,46,17,20,28		9, 2
30″	11, 2,44,22,16, 5,31,34,56,20		48,27, 6, 6	
		2, 3,30,56,57,50,14,22		9, 2
32″	11, 2,46,25,47, 2,29,25,10,42		48,27,15, 8	
		2, 3,30,56, 9,22,59,14		9, 2
34″	11, 2,48,29,17,58,38,48, 9,56		48,27,24,10	
		2, 3,30,55,20,55,35, 4		9, 2
36″	11, 2,50,32,48,53,59,43,45, 0		48,27,33,12	
		2, 3,30,54,32,28, 1,52		9, 2
38″	11, 2,52,36,19,48,32,11,46,52		48,27,42,14	
		2, 3,30,53,44, 0,19,38		9, 2
40″	11, 2,54,39,50,42,16,12, 6,30		48,27,51,16	
		2, 3,30,52,55,32,28,22		9, 2
42″	11, 2,56,43,21,35,11,44,34,52		48,28, 0,18	
		2, 3,30,52, 7, 4,28, 4		9, 2
44″	11, 2,58,46,52,27,18,49, 2,56		48,28, 9,20	
		2, 3,30,51,18,36,18,44		9, 2
46″	11, 3, 0,50,23,18,37,25,21,40		48,28,18,22	
		2, 3,30,50,30, 8, 0,22		9, 2
48″	11, 3, 2,53,54, 9, 7,33,22, 2		48,28,27,24	
		2, 3,30,49,41,39,32,58		9, 2
50″	11, 3, 4,57,24,58,49,12,55, 0		48,28,36,26	
		2, 3,30,48,53,10,56,32		9, 2
52″	11, 3, 7, 0,55,47,42,23,51,32		48,28,45,28	
		2, 3,30,48, 4,42,11, 4		9, 2
54″	11, 3, 9, 4,26,35,47, 6, 2,36		48,28,54,30	
		2, 3,30,47,16,13,16,34		9, 2
56″	11, 3,11, 7,57,23, 3,19,19,10		48,29, 3,32	
		2, 3,30,46,27,44,13, 2		9, 2
58″	11, 3,13,11,28, 9,31, 3,32,12		48,29,12,34	
		2, 3,30,45,39,15, 0,28		
60″	11, 3,15,14,58,55,10,18,32,40			
exact	11, 3,15,14,58,55,10,18,48, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°37′ 0″	11, 3,15,14,58,55,10,18,48, 2			
		2, 3,30,44,50,45,40,26		
2″	11, 3,17,18,29,40, 1, 4,28,28		48,29,30,32	
		2, 3,30,44, 2,16, 9,54		9, 2
4″	11, 3,19,22, 0,24, 3,20,38,22		48,29,39,34	
		2, 3,30,43,13,46,30,20		9, 2
6″	11, 3,21,25,31, 7,17, 7, 8,42		48,29,48,36	
		2, 3,30,42,25,16,41,44		9, 2
8″	11, 3,23,29, 1,49,42,23,50,26		48,29,57,38	
		2, 3,30,41,36,46,44, 6		9, 2
10″	11, 3,25,32,32,31,19,10,34,32		48,30, 6,40	
		2, 3,30,40,48,16,37,26		9, 2
12″	11, 3,27,36, 3,12, 7,27,11,58		48,30,15,42	
		2, 3,30,39,59,46,21,44		9, 2
14″	11, 3,29,39,33,52, 7,13,33,42		48,30,24,44	
		2, 3,30,39,11,15,57, 0		9, 2
16″	11, 3,31,43, 4,31,18,29,30,42		48,30,33,46	
		2, 3,30,38,22,45,23,14		9, 2
18″	11, 3,33,46,35, 9,41,14,53,56		48,30,42,48	
		2, 3,30,37,34,14,40,26		9, 2
20″	11, 3,35,50, 5,47,15,29,34,22		48,30,51,50	
		2, 3,30,36,45,43,48,36		9, 2
22″	11, 3,37,53,36,24, 1,13,22,58		48,31, 0,52	
		2, 3,30,35,57,12,47,44		9, 2
24″	11, 3,39,57, 6,59,58,26,10,42		48,31, 9,54	
		2, 3,30,35, 8,41,37,50		9, 2
26″	11, 3,42, 0,37,35, 7, 7,48,32		48,31,18,56	
		2, 3,30,34,20,10,18,54		9, 2
28″	11, 3,44, 4, 8, 9,27,18, 7,26		48,31,27,58	
		2, 3,30,33,31,38,50,56		9, 2
30″	11, 3,46, 7,38,42,58,56,58,22		48,31,37, 0	
		2, 3,30,32,43, 7,13,56		9, 2
32″	11, 3,48,11, 9,15,42, 4,12,18		48,31,46, 2	
		2, 3,30,31,54,35,27,54		9, 2
34″	11, 3,50,14,39,47,36,39,40,12		48,31,55, 4	
		2, 3,30,31, 6, 3,32,50		9, 2
36″	11, 3,52,18,10,18,42,43,13, 2		48,32, 4, 6	
		2, 3,30,30,17,31,28,44		9, 2
38″	11, 3,54,21,40,49, 0,14,41,46		48,32,13, 8	
		2, 3,30,29,28,59,15,36		9, 2
40″	11, 3,56,25,11,18,29,13,57,22		48,32,22,10	
		2, 3,30,28,40,26,53,26		9, 2
42″	11, 3,58,28,41,47, 9,40,50,48		48,32,31,12	
		2, 3,30,27,51,54,22,14		9, 2
44″	11, 4, 0,32,12,15, 1,35,13, 2		48,32,40,14	
		2, 3,30,27, 3,21,42, 0		9, 2
46″	11, 4, 2,35,42,42, 4,56,55, 2		48,32,49,16	
		2, 3,30,26,14,48,52,44		9, 2
48″	11, 4, 4,39,13, 8,19,45,47,46		48,32,58,18	
		2, 3,30,25,26,15,54,26		9, 2
50″	11, 4, 6,42,43,33,46, 1,42,12		48,33, 7,20	
		2, 3,30,24,37,42,47, 6		9, 2
52″	11, 4, 8,46,13,58,23,44,29,18		48,33,16,22	
		2, 3,30,23,49, 9,30,44		9, 2
54″	11, 4,10,49,44,22,12,54, 0, 2		48,33,25,24	
		2, 3,30,23, 0,36, 5,20		9, 2
56″	11, 4,12,53,14,45,13,30, 5,22		48,33,34,26	
		2, 3,30,22,12, 2,30,54		9, 2
58″	11, 4,14,56,45, 7,25,32,36,16		48,33,43,28	
		2, 3,30,21,23,28,47,26		
60″	11, 4,17, 0,15,28,49, 1,23,42			
exact	11, 4,17, 0,15,28,49, 1,41, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°38′ 0″	11, 4,17, 0,15,28,49, 1,41, 2			
		2, 3,30,20,34,54,56,43		
2″	11, 4,19, 3,45,49,23,56,37,45		48,34, 1,25	
		2, 3,30,19,46,20,55,18		9, 2
4″	11, 4,21, 7,16, 9,10,17,33, 3		48,34,10,27	
		2, 3,30,18,57,46,44,51		9, 2
6″	11, 4,23,10,46,28, 8, 4,17,54		48,34,19,29	
		2, 3,30,18, 9,12,25,22		9, 2
8″	11, 4,25,14,16,46,17,16,43,16		48,34,28,31	
		2, 3,30,17,20,37,56,51		9, 2
10″	11, 4,27,17,47, 3,37,54,40, 7		48,34,37,33	
		2, 3,30,16,32, 3,19,18		9, 2
12″	11, 4,29,21,17,20, 9,57,59,25		48,34,46,35	
		2, 3,30,15,43,28,32,43		9, 2
14″	11, 4,31,24,47,35,53,26,32, 8		48,34,55,37	
		2, 3,30,14,54,53,37, 6		9, 2
16″	11, 4,33,28,17,50,48,20, 9,14		48,35, 4,39	
		2, 3,30,14, 6,18,32,27		9, 2
18″	11, 4,35,31,48, 4,54,38,41,41		48,35,13,41	
		2, 3,30,13,17,43,18,46		9, 2
20″	11, 4,37,35,18,18,12,22, 0,27		48,35,22,43	
		2, 3,30,12,29, 7,56, 3		9, 2
22″	11, 4,39,38,48,30,41,29,56,30		48,35,31,45	
		2, 3,30,11,40,32,24,18		9, 2
24″	11, 4,41,42,18,42,22, 2,20,48		48,35,40,47	
		2, 3,30,10,51,56,43,31		9, 2
26″	11, 4,43,45,48,53,13,59, 4,19		48,35,49,49	
		2, 3,30,10, 3,20,53,42		9, 2
28″	11, 4,45,49,19, 3,17,19,58, 1		48,35,58,51	
		2, 3,30, 9,14,44,54,51		9, 2
30″	11, 4,47,52,49,12,32, 4,52,52		48,36, 7,53	
		2, 3,30, 8,26, 8,46,58		9, 2
32″	11, 4,49,56,19,20,58,13,39,50		48,36,16,55	
		2, 3,30, 7,37,32,30, 3		9, 2
34″	11, 4,51,59,49,28,35,46, 9,53		48,36,25,57	
		2, 3,30, 6,48,56, 4, 6		9, 2
36″	11, 4,54, 3,19,35,24,42,13,59		48,36,34,59	
		2, 3,30, 6, 0,19,29, 7		9, 2
38″	11, 4,56, 6,49,41,25, 1,43, 6		48,36,44, 1	
		2, 3,30, 5,11,42,45, 6		9, 2
40″	11, 4,58,10,19,46,36,44,28,12		48,36,53, 3	
		2, 3,30, 4,23, 5,52, 3		9, 2
42″	11, 5, 0,13,49,50,59,50,20,15		48,37, 2, 5	
		2, 3,30, 3,34,28,49,58		9, 2
44″	11, 5, 2,17,19,54,34,19,10,13		48,37,11, 7	
		2, 3,30, 2,45,51,38,51		9, 2
46″	11, 5, 4,20,49,57,20,10,49, 4		48,37,20, 9	
		2, 3,30, 1,57,14,18,42		9, 2
48″	11, 5, 6,24,19,59,17,25, 7,46		48,37,29,11	
		2, 3,30, 1, 8,36,49,31		9, 2
50″	11, 5, 8,27,50, 0,26, 1,57,17		48,37,38,13	
		2, 3,30, 0,19,59,11,18		9, 2
52″	11, 5,10,31,20, 0,46, 1, 8,35		48,37,47,15	
		2, 3,29,59,31,21,24, 3		9, 2
54″	11, 5,12,34,50, 0,17,22,32,38		48,37,56,17	
		2, 3,29,58,42,43,27,46		9, 2
56″	11, 5,14,38,19,59, 0, 6, 0,24		48,38, 5,19	
		2, 3,29,57,54, 5,22,27		9, 2
58″	11, 5,16,41,49,56,54,11,22,51		48,38,14,21	
		2, 3,29,57, 5,27, 8, 6		
60″	11, 5,18,45,19,53,59,38,30,57			
exact	11, 5,18,45,19,53,59,38,49, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°39′ 0″	11, 5,18,45,19,53,59,38,49, 7			
		2, 3,29,56,16,48,46,38		
2″	11, 5,20,48,49,50,16,27,35,45		48,38,32,17	
		2, 3,29,55,28,10,14,21		9, 2
4″	11, 5,22,52,19,45,44,37,50, 6		48,38,41,19	
		2, 3,29,54,39,31,33, 2		9, 2
6″	11, 5,24,55,49,40,24, 9,23, 8		48,38,50,21	
		2, 3,29,53,50,52,42,41		9, 2
8″	11, 5,26,59,19,34,15, 2, 5,49		48,38,59,23	
		2, 3,29,53, 2,13,43,18		9, 2
10″	11, 5,29, 2,49,27,17,15,49, 7		48,39, 8,25	
		2, 3,29,52,13,34,34,53		9, 2
12″	11, 5,31, 6,19,19,30,50,24, 0		48,39,17,27	
		2, 3,29,51,24,55,17,26		9, 2
14″	11, 5,33, 9,49,10,55,45,41,26		48,39,26,29	
		2, 3,29,50,36,15,50,57		9, 2
16″	11, 5,35,13,19, 1,32, 1,32,23		48,39,35,31	
		2, 3,29,49,47,36,15,26		9, 2
18″	11, 5,37,16,48,51,19,37,47,49		48,39,44,33	
		2, 3,29,48,58,56,30,53		9, 2
20″	11, 5,39,20,18,40,18,34,18,42		48,39,53,35	
		2, 3,29,48,10,16,37,18		9, 2
22″	11, 5,41,23,48,28,28,50,56, 0		48,40, 2,37	
		2, 3,29,47,21,36,34,41		9, 2
24″	11, 5,43,27,18,15,50,27,30,41		48,40,11,39	
		2, 3,29,46,32,56,23, 2		9, 2
26″	11, 5,45,30,48, 2,23,23,53,43		48,40,20,41	
		2, 3,29,45,44,16, 2,21		9, 2
28″	11, 5,47,34,17,48, 7,39,56, 4		48,40,29,43	
		2, 3,29,44,55,35,32,38		9, 2
30″	11, 5,49,37,47,33, 3,15,28,42		48,40,38,45	
		2, 3,29,44, 6,54,53,53		9, 2
32″	11, 5,51,41,17,17,10,10,22,35		48,40,47,47	
		2, 3,29,43,18,14, 6, 6		9, 2
34″	11, 5,53,44,47, 0,28,24,28,41		48,40,56,49	
		2, 3,29,42,29,33, 9,17		9, 2
36″	11, 5,55,48,16,42,57,57,37,58		48,41, 5,51	
		2, 3,29,41,40,52, 3,26		9, 2
38″	11, 5,57,51,46,24,38,49,41,24		48,41,14,53	
		2, 3,29,40,52,10,48,33		9, 2
40″	11, 5,59,55,16, 5,31, 0,29,57		48,41,23,55	
		2, 3,29,40, 3,29,24,38		9, 2
42″	11, 6, 1,58,45,45,34,29,54,35		48,41,32,57	
		2, 3,29,39,14,47,51,41		9, 2
44″	11, 6, 4, 2,15,24,49,17,46,16		48,41,41,59	
		2, 3,29,38,26, 6, 9,42		9, 2
46″	11, 6, 6, 5,45, 3,15,23,55,58		48,41,51, 1	
		2, 3,29,37,37,24,18,41		9, 2
48″	11, 6, 8, 9,14,40,52,48,14,39		48,42, 0, 3	
		2, 3,29,36,48,42,18,38		9, 2
50″	11, 6,10,12,44,17,41,30,33,17		48,42, 9, 5	
		2, 3,29,36, 0, 0, 9,33		9, 2
52″	11, 6,12,16,13,53,41,30,42,50		48,42,18, 7	
		2, 3,29,35,11,17,51,26		9, 2
54″	11, 6,14,19,43,28,52,48,34,16		48,42,27, 9	
		2, 3,29,34,22,35,24,17		9, 2
56″	11, 6,16,23,13, 3,15,23,58,33		48,42,36,11	
		2, 3,29,33,33,52,48, 6		9, 2
58″	11, 6,18,26,42,36,49,16,46,39		48,42,45,13	
		2, 3,29,32,45,10, 2,53		
60″	11, 6,20,30,12, 9,34,26,49,32			
exact	11, 6,20,30,12, 9,34,27, 8,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°40′ 0″	11, 6,20,30,12, 9,34,27, 8,14			
		2, 3,29,31,56,27,10,40		
2″	11, 6,22,33,41,41,30,54,18,54		48,43, 3, 8	
		2, 3,29,31, 7,44, 7,32		9, 2
4″	11, 6,24,37,11,12,38,38,26,26		48,43,12,10	
		2, 3,29,30,19, 0,55,22		9, 2
6″	11, 6,26,40,40,42,57,39,21,48		48,43,21,12	
		2, 3,29,29,30,17,34,10		9, 2
8″	11, 6,28,44,10,12,27,56,55,58		48,43,30,14	
		2, 3,29,28,41,34, 3,56		9, 2
10″	11, 6,30,47,39,41, 9,30,59,54		48,43,39,16	
		2, 3,29,27,52,50,24,40		9, 2
12″	11, 6,32,51, 9, 9, 2,21,24,34		48,43,48,18	
		2, 3,29,27, 4, 6,36,22		9, 2
14″	11, 6,34,54,38,36, 6,28, 0,56		48,43,57,20	
		2, 3,29,26,15,22,39, 2		9, 2
16″	11, 6,36,58, 8, 2,21,50,39,58		48,44, 6,22	
		2, 3,29,25,26,38,32,40		9, 2
18″	11, 6,39, 1,37,27,48,29,12,38		48,44,15,24	
		2, 3,29,24,37,54,17,16		9, 2
20″	11, 6,41, 5, 6,52,26,23,29,54		48,44,24,26	
		2, 3,29,23,49, 9,52,50		9, 2
22″	11, 6,43, 8,36,16,15,33,22,44		48,44,33,28	
		2, 3,29,23, 0,25,19,22		9, 2
24″	11, 6,45,12, 5,39,15,58,42, 6		48,44,42,30	
		2, 3,29,22,11,40,36,52		9, 2
26″	11, 6,47,15,35, 1,27,39,18,58		48,44,51,32	
		2, 3,29,21,22,55,45,20		9, 2
28″	11, 6,49,19, 4,22,50,35, 4,18		48,45, 0,34	
		2, 3,29,20,34,10,44,46		9, 2
30″	11, 6,51,22,33,43,24,45,49, 4		48,45, 9,36	
		2, 3,29,19,45,25,35,10		9, 2
32″	11, 6,53,26, 3, 3,10,11,24,14		48,45,18,38	
		2, 3,29,18,56,40,16,32		9, 2
34″	11, 6,55,29,32,22, 6,51,40,46		48,45,27,40	
		2, 3,29,18, 7,54,48,52		9, 2
36″	11, 6,57,33, 1,40,14,46,29,38		48,45,36,42	
		2, 3,29,17,19, 9,12,10		9, 2
38″	11, 6,59,36,30,57,33,55,41,48		48,45,45,44	
		2, 3,29,16,30,23,26,26		9, 2
40″	11, 7, 1,40, 0,14, 4,19, 8,14		48,45,54,46	
		2, 3,29,15,41,37,31,40		9, 2
42″	11, 7, 3,43,29,29,45,56,39,54		48,46, 3,48	
		2, 3,29,14,52,51,27,52		9, 2
44″	11, 7, 5,46,58,44,38,48, 7,46		48,46,12,50	
		2, 3,29,14, 4, 5,15, 2		9, 2
46″	11, 7, 7,50,27,58,42,53,22,48		48,46,21,52	
		2, 3,29,13,15,18,53,10		9, 2
48″	11, 7, 9,53,57,11,58,12,15,58		48,46,30,54	
		2, 3,29,12,26,32,22,16		9, 2
50″	11, 7,11,57,26,24,24,44,38,14		48,46,39,56	
		2, 3,29,11,37,45,42,20		9, 2
52″	11, 7,14, 0,55,36, 2,30,20,34		48,46,48,58	
		2, 3,29,10,48,58,53,22		9, 2
54″	11, 7,16, 4,24,46,51,29,13,56		48,46,58, 0	
		2, 3,29,10, 0,11,55,22		9, 2
56″	11, 7,18, 7,53,56,51,41, 9,18		48,47, 7, 2	
		2, 3,29, 9,11,24,48,20		9, 2
58″	11, 7,20,11,23, 6, 3, 5,57,38		48,47,16, 4	
		2, 3,29, 8,22,37,32,16		
60″	11, 7,22,14,52,14,25,43,29,54			
exact	11, 7,22,14,52,14,25,43,47,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°41′ 0″	11, 7,22,14,52,14,25,43,47,36			
		2, 3,29, 7,33,50, 9,13		
2″	11, 7,24,18,21,21,59,33,56,49		48,47,33,59	
		2, 3,29, 6,45, 2,35,14		9, 2
4″	11, 7,26,21,50,28,44,36,32, 3		48,47,43, 1	
		2, 3,29, 5,56,14,52,13		9, 2
6″	11, 7,28,25,19,34,40,51,24,16		48,47,52, 3	
		2, 3,29, 5, 7,27, 0,10		9, 2
8″	11, 7,30,28,48,39,48,18,24,26		48,48, 1, 5	
		2, 3,29, 4,18,38,59, 5		9, 2
10″	11, 7,32,32,17,44, 6,57,23,31		48,48,10, 7	
		2, 3,29, 3,29,50,48,58		9, 2
12″	11, 7,34,35,46,47,36,48,12,29		48,48,19, 9	
		2, 3,29, 2,41, 2,29,49		9, 2
14″	11, 7,36,39,15,50,17,50,42,18		48,48,28,11	
		2, 3,29, 1,52,14, 1,38		9, 2
16″	11, 7,38,42,44,52,10, 4,43,56		48,48,37,13	
		2, 3,29, 1, 3,25,24,25		9, 2
18″	11, 7,40,46,13,53,13,30, 8,21		48,48,46,15	
		2, 3,29, 0,14,36,38,10		9, 2
20″	11, 7,42,49,42,53,28, 6,46,31		48,48,55,17	
		2, 3,28,59,25,47,42,53		9, 2
22″	11, 7,44,53,11,52,53,54,29,24		48,49, 4,19	
		2, 3,28,58,36,58,38,34		9, 2
24″	11, 7,46,56,40,51,30,53, 7,58		48,49,13,21	
		2, 3,28,57,48, 9,25,13		9, 2
26″	11, 7,49, 0, 9,49,19, 2,33,11		48,49,22,23	
		2, 3,28,56,59,20, 2,50		9, 2
28″	11, 7,51, 3,38,46,18,22,36, 1		48,49,31,25	
		2, 3,28,56,10,30,31,25		9, 2
30″	11, 7,53, 7, 7,42,28,53, 7,26		48,49,40,27	
		2, 3,28,55,21,40,50,58		9, 2
32″	11, 7,55,10,36,37,50,33,58,24		48,49,49,29	
		2, 3,28,54,32,51, 1,29		9, 2
34″	11, 7,57,14, 5,32,23,24,59,53		48,49,58,31	
		2, 3,28,53,44, 1, 2,58		9, 2
36″	11, 7,59,17,34,26, 7,26, 2,51		48,50, 7,33	
		2, 3,28,52,55,10,55,25		9, 2
38″	11, 8, 1,21, 3,19, 2,36,58,16		48,50,16,35	
		2, 3,28,52, 6,20,38,50		9, 2
40″	11, 8, 3,24,32,11, 8,57,37, 6		48,50,25,37	
		2, 3,28,51,17,30,13,13		9, 2
42″	11, 8, 5,28, 1, 2,26,27,50,19		48,50,34,39	
		2, 3,28,50,28,39,38,34		9, 2
44″	11, 8, 7,31,29,52,55, 7,28,53		48,50,43,41	
		2, 3,28,49,39,48,54,53		9, 2
46″	11, 8, 9,34,58,42,34,56,23,46		48,50,52,43	
		2, 3,28,48,50,58, 2,10		9, 2
48″	11, 8,11,38,27,31,25,54,25,56		48,51, 1,45	
		2, 3,28,48, 2, 7, 0,25		9, 2
50″	11, 8,13,41,56,19,28, 1,26,21		48,51,10,47	
		2, 3,28,47,13,15,49,38		9, 2
52″	11, 8,15,45,25, 6,41,17,15,59		48,51,19,49	
		2, 3,28,46,24,24,29,49		9, 2
54″	11, 8,17,48,53,53, 5,41,45,48		48,51,28,51	
		2, 3,28,45,35,33, 0,58		9, 2
56″	11, 8,19,52,22,38,41,14,46,46		48,51,37,53	
		2, 3,28,44,46,41,23, 5		9, 2
58″	11, 8,21,55,51,23,27,56, 9,51		48,51,46,55	
		2, 3,28,43,57,49,36,10		
60″	11, 8,23,59,20, 7,25,45,46, 1			
exact	11, 8,23,59,20, 7,25,46, 9,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°42′ 0″	11, 8,23,59,20, 7,25,46, 9,53			
		2, 3,28,43, 8,57,42,46		
2″	11, 8,26, 2,48,50,34,43,52,39		48,52, 4,48	
		2, 3,28,42,20, 5,37,58		9, 2
4″	11, 8,28, 6,17,32,54,49,30,37		48,52,13,50	
		2, 3,28,41,31,13,24, 8		9, 2
6″	11, 8,30, 9,46,14,26, 2,54,45		48,52,22,52	
		2, 3,28,40,42,21, 1,16		9, 2
8″	11, 8,32,13,14,55, 8,23,56, 1		48,52,31,54	
		2, 3,28,39,53,28,29,22		9, 2
10″	11, 8,34,16,43,35, 1,52,25,23		48,52,40,56	
		2, 3,28,39, 4,35,48,26		9, 2
12″	11, 8,36,20,12,14, 6,28,13,49		48,52,49,58	
		2, 3,28,38,15,42,58,28		9, 2
14″	11, 8,38,23,40,52,22,11,12,17		48,52,59, 0	
		2, 3,28,37,26,49,59,28		9, 2
16″	11, 8,40,27, 9,29,49, 1,11,45		48,53, 8, 2	
		2, 3,28,36,37,56,51,26		9, 2
18″	11, 8,42,30,38, 6,26,58, 3,11		48,53,17, 4	
		2, 3,28,35,49, 3,34,22		9, 2
20″	11, 8,44,34, 6,42,16, 1,37,33		48,53,26, 6	
		2, 3,28,35, 0,10, 8,16		9, 2
22″	11, 8,46,37,35,17,16,11,45,49		48,53,35, 8	
		2, 3,28,34,11,16,33, 8		9, 2
24″	11, 8,48,41, 3,51,27,28,18,57		48,53,44,10	
		2, 3,28,33,22,22,48,58		9, 2
26″	11, 8,50,44,32,24,49,51, 7,55		48,53,53,12	
		2, 3,28,32,33,28,55,46		9, 2
28″	11, 8,52,48, 0,57,23,20, 3,41		48,54, 2,14	
		2, 3,28,31,44,34,53,32		9, 2
30″	11, 8,54,51,29,29, 7,54,57,13		48,54,11,16	
		2, 3,28,30,55,40,42,16		9, 2
32″	11, 8,56,54,58, 0, 3,35,39,29		48,54,20,18	
		2, 3,28,30, 6,46,21,58		9, 2
34″	11, 8,58,58,26,30,10,22, 1,27		48,54,29,20	
		2, 3,28,29,17,51,52,38		9, 2
36″	11, 9, 1, 1,54,59,28,13,54, 5		48,54,38,22	
		2, 3,28,28,28,57,14,16		9, 2
38″	11, 9, 3, 5,23,27,57,11, 8,21		48,54,47,24	
		2, 3,28,27,40, 2,26,52		9, 2
40″	11, 9, 5, 8,51,55,37,13,35,13		48,54,56,26	
		2, 3,28,26,51, 7,30,26		9, 2
42″	11, 9, 7,12,20,22,28,21, 5,39		48,55, 5,28	
		2, 3,28,26, 2,12,24,58		9, 2
44″	11, 9, 9,15,48,48,30,33,30,37		48,55,14,30	
		2, 3,28,25,13,17,10,28		9, 2
46″	11, 9,11,19,17,13,43,50,41, 5		48,55,23,32	
		2, 3,28,24,24,21,46,56		9, 2
48″	11, 9,13,22,45,38, 8,12,28, 1		48,55,32,34	
		2, 3,28,23,35,26,14,22		9, 2
50″	11, 9,15,26,14, 1,43,38,42,23		48,55,41,36	
		2, 3,28,22,46,30,32,46		9, 2
52″	11, 9,17,29,42,24,30, 9,15, 9		48,55,50,38	
		2, 3,28,21,57,34,42, 8		9, 2
54″	11, 9,19,33,10,46,27,43,57,17		48,55,59,40	
		2, 3,28,21, 8,38,42,28		9, 2
56″	11, 9,21,36,39, 7,36,22,39,45		48,56, 8,42	
		2, 3,28,20,19,42,33,46		9, 2
58″	11, 9,23,40, 7,27,56, 5,13,31		48,56,17,44	
		2, 3,28,19,30,46,16, 2		
60″	11, 9,25,43,35,47,26,51,29,33			
exact	11, 9,25,43,35,47,26,51,51, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°43′ 0″	11, 9,25,43,35,47,26,51,51, 2			
		2, 3,28,18,41,49,51,44		
2″	11, 9,27,47, 4, 6, 8,41,42,46		48,56,35,37	
		2, 3,28,17,52,53,16, 7		9, 2
4″	11, 9,29,50,32,24, 1,34,58,53		48,56,44,39	
		2, 3,28,17, 3,56,31,28		9, 2
6″	11, 9,31,54, 0,41, 5,31,30,21		48,56,53,41	
		2, 3,28,16,14,59,37,47		9, 2
8″	11, 9,33,57,28,57,20,31, 8, 8		48,57, 2,43	
		2, 3,28,15,26, 2,35, 4		9, 2
10″	11, 9,36, 0,57,12,46,33,43,12		48,57,11,45	
		2, 3,28,14,37, 5,23,19		9, 2
12″	11, 9,38, 4,25,27,23,39, 6,31		48,57,20,47	
		2, 3,28,13,48, 8, 2,32		9, 2
14″	11, 9,40, 7,53,41,11,47, 9, 3		48,57,29,49	
		2, 3,28,12,59,10,32,43		9, 2
16″	11, 9,42,11,21,54,10,57,41,46		48,57,38,51	
		2, 3,28,12,10,12,53,52		9, 2
18″	11, 9,44,14,50, 6,21,10,35,38		48,57,47,53	
		2, 3,28,11,21,15, 5,59		9, 2
20″	11, 9,46,18,18,17,42,25,41,37		48,57,56,55	
		2, 3,28,10,32,17, 9, 4		9, 2
22″	11, 9,48,21,46,28,14,42,50,41		48,58, 5,57	
		2, 3,28, 9,43,19, 3, 7		9, 2
24″	11, 9,50,25,14,37,58, 1,53,48		48,58,14,59	
		2, 3,28, 8,54,20,48, 8		9, 2
26″	11, 9,52,28,42,46,52,22,41,56		48,58,24, 1	
		2, 3,28, 8, 5,22,24, 7		9, 2
28″	11, 9,54,32,10,54,57,45, 6, 3		48,58,33, 3	
		2, 3,28, 7,16,23,51, 4		9, 2
30″	11, 9,56,35,39, 2,14, 8,57, 7		48,58,42, 5	
		2, 3,28, 6,27,25, 8,59		9, 2
32″	11, 9,58,39, 7, 8,41,34, 6, 6		48,58,51, 7	
		2, 3,28, 5,38,26,17,52		9, 2
34″	11,10, 0,42,35,14,20, 0,23,58		48,59, 0, 9	
		2, 3,28, 4,49,27,17,43		9, 2
36″	11,10, 2,46, 3,19, 9,27,41,41		48,59, 9,11	
		2, 3,28, 4, 0,28, 8,32		9, 2
38″	11,10, 4,49,31,23, 9,55,50,13		48,59,18,13	
		2, 3,28, 3,11,28,50,19		9, 2
40″	11,10, 6,52,59,26,21,24,40,32		48,59,27,15	
		2, 3,28, 2,22,29,23, 4		9, 2
42″	11,10, 8,56,27,28,43,54, 3,36		48,59,36,17	
		2, 3,28, 1,33,29,46,47		9, 2
44″	11,10,10,59,55,30,17,23,50,23		48,59,45,19	
		2, 3,28, 0,44,30, 1,28		9, 2
46″	11,10,13, 3,23,31, 1,53,51,51		48,59,54,21	
		2, 3,27,59,55,30, 7, 7		9, 2
48″	11,10,15, 6,51,30,57,23,58,58		49, 0, 3,23	
		2, 3,27,59, 6,30, 3,44		9, 2
50″	11,10,17,10,19,30, 3,54, 2,42		49, 0,12,25	
		2, 3,27,58,17,29,51,19		9, 2
52″	11,10,19,13,47,28,21,23,54, 1		49, 0,21,27	
		2, 3,27,57,28,29,29,52		9, 2
54″	11,10,21,17,15,25,49,53,23,53		49, 0,30,29	
		2, 3,27,56,39,28,59,23		9, 2
56″	11,10,23,20,43,22,29,22,23,16		49, 0,39,31	
		2, 3,27,55,50,28,19,52		9, 2
58″	11,10,25,24,11,18,19,50,43, 8		49, 0,48,33	
		2, 3,27,55, 1,27,31,19		
60″	11,10,27,27,39,13,21,18,14,27			
exact	11,10,27,27,39,13,21,18,40,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°44′ 0″	11,10,27,27,39,13,21,18,40,28			
		2, 3,27,54,12,26,36,35		
2″	11,10,29,31, 7, 7,33,45,17, 3		49, 1, 6,25	
		2, 3,27,53,23,25,30,10		9, 2
4″	11,10,31,34,35, 0,57,10,47,13		49, 1,15,27	
		2, 3,27,52,34,24,14,43		9, 2
6″	11,10,33,38, 2,53,31,35, 1,56		49, 1,24,29	
		2, 3,27,51,45,22,50,14		9, 2
8″	11,10,35,41,30,45,16,57,52,10		49, 1,33,31	
		2, 3,27,50,56,21,16,43		9, 2
10″	11,10,37,44,58,36,13,19, 8,53		49, 1,42,33	
		2, 3,27,50, 7,19,34,10		9, 2
12″	11,10,39,48,26,26,20,38,43, 3		49, 1,51,35	
		2, 3,27,49,18,17,42,35		9, 2
14″	11,10,41,51,54,15,38,56,25,38		49, 2, 0,37	
		2, 3,27,48,29,15,41,58		9, 2
16″	11,10,43,55,22, 4, 8,12, 7,36		49, 2, 9,39	
		2, 3,27,47,40,13,32,19		9, 2
18″	11,10,45,58,49,51,48,25,39,55		49, 2,18,41	
		2, 3,27,46,51,11,13,38		9, 2
20″	11,10,48, 2,17,38,39,36,53,33		49, 2,27,43	
		2, 3,27,46, 2, 8,45,55		9, 2
22″	11,10,50, 5,45,24,41,45,39,28		49, 2,36,45	
		2, 3,27,45,13, 6, 9,10		9, 2
24″	11,10,52, 9,13, 9,54,51,48,38		49, 2,45,47	
		2, 3,27,44,24, 3,23,23		9, 2
26″	11,10,54,12,40,54,18,55,12, 1		49, 2,54,49	
		2, 3,27,43,35, 0,28,34		9, 2
28″	11,10,56,16, 8,37,53,55,40,35		49, 3, 3,51	
		2, 3,27,42,45,57,24,43		9, 2
30″	11,10,58,19,36,20,39,53, 5,18		49, 3,12,53	
		2, 3,27,41,56,54,11,50		9, 2
32″	11,11, 0,23, 4, 2,36,47,17, 8		49, 3,21,55	
		2, 3,27,41, 7,50,49,55		9, 2
34″	11,11, 2,26,31,43,44,38, 7, 3		49, 3,30,57	
		2, 3,27,40,18,47,18,58		9, 2
36″	11,11, 4,29,59,24, 3,25,26, 1		49, 3,39,59	
		2, 3,27,39,29,43,38,59		9, 2
38″	11,11, 6,33,27, 3,33, 9, 5, 0		49, 3,49, 1	
		2, 3,27,38,40,39,49,58		9, 2
40″	11,11, 8,36,54,42,13,48,54,58		49, 3,58, 3	
		2, 3,27,37,51,35,51,55		9, 2
42″	11,11,10,40,22,20, 5,24,46,53		49, 4, 7, 5	
		2, 3,27,37, 2,31,44,50		9, 2
44″	11,11,12,43,49,57, 7,56,31,43		49, 4,16, 7	
		2, 3,27,36,13,27,28,43		9, 2
46″	11,11,14,47,17,33,21,24, 0,26		49, 4,25, 9	
		2, 3,27,35,24,23, 3,34		9, 2
48″	11,11,16,50,45, 8,45,47, 4, 0		49, 4,34,11	
		2, 3,27,34,35,18,29,23		9, 2
50″	11,11,18,54,12,43,21, 5,33,23		49, 4,43,13	
		2, 3,27,33,46,13,46,10		9, 2
52″	11,11,20,57,40,17, 7,19,19,33		49, 4,52,15	
		2, 3,27,32,57, 8,53,55		9, 2
54″	11,11,23, 1, 7,50, 4,28,13,28		49, 5, 1,17	
		2, 3,27,32, 8, 3,52,38		9, 2
56″	11,11,25, 4,35,22,12,32, 6, 6		49, 5,10,19	
		2, 3,27,31,18,58,42,19		9, 2
58″	11,11,27, 8, 2,53,31,30,48,25		49, 5,19,21	
		2, 3,27,30,29,53,22,58		
60″	11,11,29,11,30,24, 1,24,11,23			
exact	11,11,29,11,30,24, 1,24,40,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°45′ 0″	11,11,29,11,30,24, 1,24,40,59			
		2, 3,27,29,40,47,57,45		
2″	11,11,31,14,57,53,42,12,38,44		49, 5,37,12	
		2, 3,27,28,51,42,20,33		9, 2
4″	11,11,33,18,25,22,33,54,59,17		49, 5,46,14	
		2, 3,27,28, 2,36,34,19		9, 2
6″	11,11,35,21,52,50,36,31,33,36		49, 5,55,16	
		2, 3,27,27,13,30,39, 3		9, 2
8″	11,11,37,25,20,17,50, 2,12,39		49, 6, 4,18	
		2, 3,27,26,24,24,34,45		9, 2
10″	11,11,39,28,47,44,14,26,47,24		49, 6,13,20	
		2, 3,27,25,35,18,21,25		9, 2
12″	11,11,41,32,15, 9,49,45, 8,49		49, 6,22,22	
		2, 3,27,24,46,11,59, 3		9, 2
14″	11,11,43,35,42,34,35,57, 7,52		49, 6,31,24	
		2, 3,27,23,57, 5,27,39		9, 2
16″	11,11,45,39, 9,58,33, 2,35,31		49, 6,40,26	
		2, 3,27,23, 7,58,47,13		9, 2
18″	11,11,47,42,37,21,41, 1,22,44		49, 6,49,28	
		2, 3,27,22,18,51,57,45		9, 2
20″	11,11,49,46, 4,43,59,53,20,29		49, 6,58,30	
		2, 3,27,21,29,44,59,15		9, 2
22″	11,11,51,49,32, 5,29,38,19,44		49, 7, 7,32	
		2, 3,27,20,40,37,51,43		9, 2
24″	11,11,53,52,59,26,10,16,11,27		49, 7,16,34	
		2, 3,27,19,51,30,35, 9		9, 2
26″	11,11,55,56,26,46, 1,46,46,36		49, 7,25,36	
		2, 3,27,19, 2,23, 9,33		9, 2
28″	11,11,57,59,54, 5, 4, 9,56, 9		49, 7,34,38	
		2, 3,27,18,13,15,34,55		9, 2
30″	11,12, 0, 3,21,23,17,25,31, 4		49, 7,43,40	
		2, 3,27,17,24, 7,51,15		9, 2
32″	11,12, 2, 6,48,40,41,33,22,19		49, 7,52,42	
		2, 3,27,16,34,59,58,33		9, 2
34″	11,12, 4,10,15,57,16,33,20,52		49, 8, 1,44	
		2, 3,27,15,45,51,56,49		9, 2
36″	11,12, 6,13,43,13, 2,25,17,41		49, 8,10,46	
		2, 3,27,14,56,43,46, 3		9, 2
38″	11,12, 8,17,10,27,59, 9, 3,44		49, 8,19,48	
		2, 3,27,14, 7,35,26,15		9, 2
40″	11,12,10,20,37,42, 6,44,29,59		49, 8,28,50	
		2, 3,27,13,18,26,57,25		9, 2
42″	11,12,12,24, 4,55,25,11,27,24		49, 8,37,52	
		2, 3,27,12,29,18,19,33		9, 2
44″	11,12,14,27,32, 7,54,29,46,57		49, 8,46,54	
		2, 3,27,11,40, 9,32,39		9, 2
46″	11,12,16,30,59,19,34,39,19,36		49, 8,55,56	
		2, 3,27,10,51, 0,36,43		9, 2
48″	11,12,18,34,26,30,25,39,56,19		49, 9, 4,58	
		2, 3,27,10, 1,51,31,45		9, 2
50″	11,12,20,37,53,40,27,31,28, 4		49, 9,14, 0	
		2, 3,27, 9,12,42,17,45		9, 2
52″	11,12,22,41,20,49,40,13,45,49		49, 9,23, 2	
		2, 3,27, 8,23,32,54,43		9, 2
54″	11,12,24,44,47,58, 3,46,40,32		49, 9,32, 4	
		2, 3,27, 7,34,23,22,39		9, 2
56″	11,12,26,48,15, 5,38,10, 3,11		49, 9,41, 6	
		2, 3,27, 6,45,13,41,33		9, 2
58″	11,12,28,51,42,12,23,23,44,44		49, 9,50, 8	
		2, 3,27, 5,56, 3,51,25		
60″	11,12,30,55, 9,18,19,27,36, 9			
exact	11,12,30,55, 9,18,19,28, 8,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°46′ 0″	11,12,30,55, 9,18,19,28, 8,49			
		2, 3,27, 5, 6,53,55,42		
2″	11,12,32,58,36,23,26,22, 4,31		49,10, 7,58	
		2, 3,27, 4,17,43,47,44		9, 2
4″	11,12,35, 2, 3,27,44, 5,52,15		49,10,17, 0	
		2, 3,27, 3,28,33,30,44		9, 2
6″	11,12,37, 5,30,31,12,39,22,59		49,10,26, 2	
		2, 3,27, 2,39,23, 4,42		9, 2
8″	11,12,39, 8,57,33,52, 2,27,41		49,10,35, 4	
		2, 3,27, 1,50,12,29,38		9, 2
10″	11,12,41,12,24,35,42,14,57,19		49,10,44, 6	
		2, 3,27, 1, 1, 1,45,32		9, 2
12″	11,12,43,15,51,36,43,16,42,51		49,10,53, 8	
		2, 3,27, 0,11,50,52,24		9, 2
14″	11,12,45,19,18,36,55, 7,35,15		49,11, 2,10	
		2, 3,26,59,22,39,50,14		9, 2
16″	11,12,47,22,45,36,17,47,25,29		49,11,11,12	
		2, 3,26,58,33,28,39, 2		9, 2
18″	11,12,49,26,12,34,51,16, 4,31		49,11,20,14	
		2, 3,26,57,44,17,18,48		9, 2
20″	11,12,51,29,39,32,35,33,23,19		49,11,29,16	
		2, 3,26,56,55, 5,49,32		9, 2
22″	11,12,53,33, 6,29,30,39,12,51		49,11,38,18	
		2, 3,26,56, 5,54,11,14		9, 2
24″	11,12,55,36,33,25,36,33,24, 5		49,11,47,20	
		2, 3,26,55,16,42,23,54		9, 2
26″	11,12,57,40, 0,20,53,15,47,59		49,11,56,22	
		2, 3,26,54,27,30,27,32		9, 2
28″	11,12,59,43,27,15,20,46,15,31		49,12, 5,24	
		2, 3,26,53,38,18,22, 8		9, 2
30″	11,13, 1,46,54, 8,59, 4,37,39		49,12,14,26	
		2, 3,26,52,49, 6, 7,42		9, 2
32″	11,13, 3,50,21, 1,48,10,45,21		49,12,23,28	
		2, 3,26,51,59,53,44,14		9, 2
34″	11,13, 5,53,47,53,48, 4,29,35		49,12,32,30	
		2, 3,26,51,10,41,11,44		9, 2
36″	11,13, 7,57,14,44,58,45,41,19		49,12,41,32	
		2, 3,26,50,21,28,30,12		9, 2
38″	11,13,10, 0,41,35,20,14,11,31		49,12,50,34	
		2, 3,26,49,32,15,39,38		9, 2
40″	11,13,12, 4, 8,24,52,29,51, 9		49,12,59,36	
		2, 3,26,48,43, 2,40, 2		9, 2
42″	11,13,14, 7,35,13,35,32,31,11		49,13, 8,38	
		2, 3,26,47,53,49,31,24		9, 2
44″	11,13,16,11, 2, 1,29,22, 2,35		49,13,17,40	
		2, 3,26,47, 4,36,13,44		9, 2
46″	11,13,18,14,28,48,33,58,16,19		49,13,26,42	
		2, 3,26,46,15,22,47, 2		9, 2
48″	11,13,20,17,55,34,49,21, 3,21		49,13,35,44	
		2, 3,26,45,26, 9,11,18		9, 2
50″	11,13,22,21,22,20,15,30,14,39		49,13,44,46	
		2, 3,26,44,36,55,26,32		9, 2
52″	11,13,24,24,49, 4,52,25,41,11		49,13,53,48	
		2, 3,26,43,47,41,32,44		9, 2
54″	11,13,26,28,15,48,40, 7,13,55		49,14, 2,50	
		2, 3,26,42,58,27,29,54		9, 2
56″	11,13,28,31,42,31,38,34,43,49		49,14,11,52	
		2, 3,26,42, 9,13,18, 2		9, 2
58″	11,13,30,35, 9,13,47,48, 1,51		49,14,20,54	
		2, 3,26,41,19,58,57, 8		
60″	11,13,32,38,35,55, 7,46,58,59			
exact	11,13,32,38,35,55, 7,47,33,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°47′ 0″	11,13,32,38,35,55, 7,47,33,41			
		2, 3,26,40,30,44,30,52		
2″	11,13,34,42, 2,35,38,32, 4,33		49,14,38,43	
		2, 3,26,39,41,29,52, 9		9, 1
4″	11,13,36,45,29,15,20, 1,56,42		49,14,47,44	
		2, 3,26,38,52,15, 4,25		9, 1
6″	11,13,38,48,55,54,12,17, 1, 7		49,14,56,45	
		2, 3,26,38, 3, 0, 7,40		9, 1
8″	11,13,40,52,22,32,15,17, 8,47		49,15, 5,46	
		2, 3,26,37,13,45, 1,54		9, 1
10″	11,13,42,55,49, 9,29, 2,10,41		49,15,14,47	
		2, 3,26,36,24,29,47, 7		9, 1
12″	11,13,44,59,15,45,53,31,57,48		49,15,23,48	
		2, 3,26,35,35,14,23,19		9, 1
14″	11,13,47, 2,42,21,28,46,21, 7		49,15,32,49	
		2, 3,26,34,45,58,50,30		9, 1
16″	11,13,49, 6, 8,56,14,45,11,37		49,15,41,50	
		2, 3,26,33,56,43, 8,40		9, 1
18″	11,13,51, 9,35,30,11,28,20,17		49,15,50,51	
		2, 3,26,33, 7,27,17,49		9, 1
20″	11,13,53,13, 2, 3,18,55,38, 6		49,15,59,52	
		2, 3,26,32,18,11,17,57		9, 1
22″	11,13,55,16,28,35,37, 6,56, 3		49,16, 8,53	
		2, 3,26,31,28,55, 9, 4		9, 1
24″	11,13,57,19,55, 7, 6, 2, 5, 7		49,16,17,54	
		2, 3,26,30,39,38,51,10		9, 1
26″	11,13,59,23,21,37,45,40,56,17		49,16,26,55	
		2, 3,26,29,50,22,24,15		9, 1
28″	11,14, 1,26,48, 7,36, 3,20,32		49,16,35,56	
		2, 3,26,29, 1, 5,48,19		9, 1
30″	11,14, 3,30,14,36,37, 9, 8,51		49,16,44,57	
		2, 3,26,28,11,49, 3,22		9, 1
32″	11,14, 5,33,41, 4,48,58,12,13		49,16,53,58	
		2, 3,26,27,22,32, 9,24		9, 1
34″	11,14, 7,37, 7,32,11,30,21,37		49,17, 2,59	
		2, 3,26,26,33,15, 6,25		9, 1
36″	11,14, 9,40,33,58,44,45,28, 2		49,17,12, 0	
		2, 3,26,25,43,57,54,25		9, 1
38″	11,14,11,44, 0,24,28,43,22,27		49,17,21, 1	
		2, 3,26,24,54,40,33,24		9, 1
40″	11,14,13,47,26,49,23,23,55,51		49,17,30, 2	
		2, 3,26,24, 5,23, 3,22		9, 1
42″	11,14,15,50,53,13,28,46,59,13		49,17,39, 3	
		2, 3,26,23,16, 5,24,19		9, 1
44″	11,14,17,54,19,36,44,52,23,32		49,17,48, 4	
		2, 3,26,22,26,47,36,15		9, 1
46″	11,14,19,57,45,59,11,39,59,47		49,17,57, 5	
		2, 3,26,21,37,29,39,10		9, 1
48″	11,14,22, 1,12,20,49, 9,38,57		49,18, 6, 6	
		2, 3,26,20,48,11,33, 4		9, 1
50″	11,14,24, 4,38,41,37,21,12, 1		49,18,15, 7	
		2, 3,26,19,58,53,17,57		9, 1
52″	11,14,26, 8, 5, 1,36,14,29,58		49,18,24, 8	
		2, 3,26,19, 9,34,53,49		9, 1
54″	11,14,28,11,31,20,45,49,23,47		49,18,33, 9	
		2, 3,26,18,20,16,20,40		9, 1
56″	11,14,30,14,57,39, 6, 5,44,27		49,18,42,10	
		2, 3,26,17,30,57,38,30		9, 1
58″	11,14,32,18,23,56,37, 3,22,57		49,18,51,11	
		2, 3,26,16,41,38,47,19		
60″	11,14,34,21,50,13,18,42,10,16			
exact	11,14,34,21,50,13,18,41,38,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°48′ 0″	11,14,34,21,50,13,18,41,38,46			
		2, 3,26,15,52,19,43,43		
2″	11,14,36,25,16,29,11, 1,22,29		49,19, 9,27	
		2, 3,26,15, 3, 0,34,16		9, 1
4″	11,14,38,28,42,44,14, 1,56,45		49,19,18,28	
		2, 3,26,14,13,41,15,48		9, 1
6″	11,14,40,32, 8,58,27,43,12,33		49,19,27,29	
		2, 3,26,13,24,21,48,19		9, 1
8″	11,14,42,35,35,11,52, 5, 0,52		49,19,36,30	
		2, 3,26,12,35, 2,11,49		9, 1
10″	11,14,44,39, 1,24,27, 7,12,41		49,19,45,31	
		2, 3,26,11,45,42,26,18		9, 1
12″	11,14,46,42,27,36,12,49,38,59		49,19,54,32	
		2, 3,26,10,56,22,31,46		9, 1
14″	11,14,48,45,53,47, 9,12,10,45		49,20, 3,33	
		2, 3,26,10, 7, 2,28,13		9, 1
16″	11,14,50,49,19,57,16,14,38,58		49,20,12,34	
		2, 3,26, 9,17,42,15,39		9, 1
18″	11,14,52,52,46, 6,33,56,54,37		49,20,21,35	
		2, 3,26, 8,28,21,54, 4		9, 1
20″	11,14,54,56,12,15, 2,18,48,41		49,20,30,36	
		2, 3,26, 7,39, 1,23,28		9, 1
22″	11,14,56,59,38,22,41,20,12, 9		49,20,39,37	
		2, 3,26, 6,49,40,43,51		9, 1
24″	11,14,59, 3, 4,29,31, 0,56, 0		49,20,48,38	
		2, 3,26, 6, 0,19,55,13		9, 1
26″	11,15, 1, 6,30,35,31,20,51,13		49,20,57,39	
		2, 3,26, 5,10,58,57,34		9, 1
28″	11,15, 3, 9,56,40,42,19,48,47		49,21, 6,40	
		2, 3,26, 4,21,37,50,54		9, 1
30″	11,15, 5,13,22,45, 3,57,39,41		49,21,15,41	
		2, 3,26, 3,32,16,35,13		9, 1
32″	11,15, 7,16,48,48,36,14,14,54		49,21,24,42	
		2, 3,26, 2,42,55,10,31		9, 1
34″	11,15, 9,20,14,51,19, 9,25,25		49,21,33,43	
		2, 3,26, 1,53,33,36,48		9, 1
36″	11,15,11,23,40,53,12,43, 2,13		49,21,42,44	
		2, 3,26, 1, 4,11,54, 4		9, 1
38″	11,15,13,27, 6,54,16,54,56,17		49,21,51,45	
		2, 3,26, 0,14,50, 2,19		9, 1
40″	11,15,15,30,32,54,31,44,58,36		49,22, 0,46	
		2, 3,25,59,25,28, 1,33		9, 1
42″	11,15,17,33,58,53,57,13, 0, 9		49,22, 9,47	
		2, 3,25,58,36, 5,51,46		9, 1
44″	11,15,19,37,24,52,33,18,51,55		49,22,18,48	
		2, 3,25,57,46,43,32,58		9, 1
46″	11,15,21,40,50,50,20, 2,24,53		49,22,27,49	
		2, 3,25,56,57,21, 5, 9		9, 1
48″	11,15,23,44,16,47,17,23,30, 2		49,22,36,50	
		2, 3,25,56, 7,58,28,19		9, 1
50″	11,15,25,47,42,43,25,21,58,21		49,22,45,51	
		2, 3,25,55,18,35,42,28		9, 1
52″	11,15,27,51, 8,38,43,57,40,49		49,22,54,52	
		2, 3,25,54,29,12,47,36		9, 1
54″	11,15,29,54,34,33,13,10,28,25		49,23, 3,53	
		2, 3,25,53,39,49,43,43		9, 1
56″	11,15,31,58, 0,26,53, 0,12, 8		49,23,12,54	
		2, 3,25,52,50,26,30,49		9, 1
58″	11,15,34, 1,26,19,43,26,42,57		49,23,21,55	
		2, 3,25,52, 1, 3, 8,54		
60″	11,15,36, 4,52,11,44,29,51,51			
exact	11,15,36, 4,52,11,44,29,20,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°49′ 0″	11,15,36, 4,52,11,44,29,20,45			
		2, 3,25,51,11,39,34,41		
2″	11,15,38, 8,18, 2,56, 8,55,26		49,23,40,10	
		2, 3,25,50,22,15,54,31		9, 1
4″	11,15,40,11,43,53,18,24,49,57		49,23,49,11	
		2, 3,25,49,32,52, 5,20		9, 1
6″	11,15,42,15, 9,42,51,16,55,17		49,23,58,12	
		2, 3,25,48,43,28, 7, 8		9, 1
8″	11,15,44,18,35,31,34,45, 2,25		49,24, 7,13	
		2, 3,25,47,54, 3,59,55		9, 1
10″	11,15,46,22, 1,19,28,49, 2,20		49,24,16,14	
		2, 3,25,47, 4,39,43,41		9, 1
12″	11,15,48,25,27, 6,33,28,46, 1		49,24,25,15	
		2, 3,25,46,15,15,18,26		9, 1
14″	11,15,50,28,52,52,48,44, 4,27		49,24,34,16	
		2, 3,25,45,25,50,44,10		9, 1
16″	11,15,52,32,18,38,14,34,48,37		49,24,43,17	
		2, 3,25,44,36,26, 0,53		9, 1
18″	11,15,54,35,44,22,51, 0,49,30		49,24,52,18	
		2, 3,25,43,47, 1, 8,35		9, 1
20″	11,15,56,39,10, 6,38, 1,58, 5		49,25, 1,19	
		2, 3,25,42,57,36, 7,16		9, 1
22″	11,15,58,42,35,49,35,38, 5,21		49,25,10,20	
		2, 3,25,42, 8,10,56,56		9, 1
24″	11,16, 0,46, 1,31,43,49, 2,17		49,25,19,21	
		2, 3,25,41,18,45,37,35		9, 1
26″	11,16, 2,49,27,13, 2,34,39,52		49,25,28,22	
		2, 3,25,40,29,20, 9,13		9, 1
28″	11,16, 4,52,52,53,31,54,49, 5		49,25,37,23	
		2, 3,25,39,39,54,31,50		9, 1
30″	11,16, 6,56,18,33,11,49,20,55		49,25,46,24	
		2, 3,25,38,50,28,45,26		9, 1
32″	11,16, 8,59,44,12, 2,18, 6,21		49,25,55,25	
		2, 3,25,38, 1, 2,50, 1		9, 1
34″	11,16,11, 3, 9,50, 3,20,56,22		49,26, 4,26	
		2, 3,25,37,11,36,45,35		9, 1
36″	11,16,13, 6,35,27,14,57,41,57		49,26,13,27	
		2, 3,25,36,22,10,32, 8		9, 1
38″	11,16,15,10, 1, 3,37, 8,14, 5		49,26,22,28	
		2, 3,25,35,32,44, 9,40		9, 1
40″	11,16,17,13,26,39, 9,52,23,45		49,26,31,29	
		2, 3,25,34,43,17,38,11		9, 1
42″	11,16,19,16,52,13,53,10, 1,56		49,26,40,30	
		2, 3,25,33,53,50,57,41		9, 1
44″	11,16,21,20,17,47,47, 0,59,37		49,26,49,31	
		2, 3,25,33, 4,24, 8,10		9, 1
46″	11,16,23,23,43,20,51,25, 7,47		49,26,58,32	
		2, 3,25,32,14,57, 9,38		9, 1
48″	11,16,25,27, 8,53, 6,22,17,25		49,27, 7,33	
		2, 3,25,31,25,30, 2, 5		9, 1
50″	11,16,27,30,34,24,31,52,19,30		49,27,16,34	
		2, 3,25,30,36, 2,45,31		9, 1
52″	11,16,29,33,59,55, 7,55, 5, 1		49,27,25,35	
		2, 3,25,29,46,35,19,56		9, 1
54″	11,16,31,37,25,24,54,30,24,57		49,27,34,36	
		2, 3,25,28,57, 7,45,20		9, 1
56″	11,16,33,40,50,53,51,38,10,17		49,27,43,37	
		2, 3,25,28, 7,40, 1,43		9, 1
58″	11,16,35,44,16,21,59,18,12, 0		49,27,52,38	
		2, 3,25,27,18,12, 9, 5		
60″	11,16,37,47,41,49,17,30,21, 5			
exact	11,16,37,47,41,49,17,29,49,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°50′ 0″	11,16,37,47,41,49,17,29,49,49			
		2, 3,25,26,28,44, 4,13		
2″	11,16,39,51, 7,15,46,13,54, 2		49,28,10,53	
		2, 3,25,25,39,15,53,20		9, 1
4″	11,16,41,54,32,41,25,29,47,22		49,28,19,54	
		2, 3,25,24,49,47,33,26		9, 1
6″	11,16,43,57,58, 6,15,17,20,48		49,28,28,55	
		2, 3,25,24, 0,19, 4,31		9, 1
8″	11,16,46, 1,23,30,15,36,25,19		49,28,37,56	
		2, 3,25,23,10,50,26,35		9, 1
10″	11,16,48, 4,48,53,26,26,51,54		49,28,46,57	
		2, 3,25,22,21,21,39,38		9, 1
12″	11,16,50, 8,14,15,47,48,31,32		49,28,55,58	
		2, 3,25,21,31,52,43,40		9, 1
14″	11,16,52,11,39,37,19,41,15,12		49,29, 4,59	
		2, 3,25,20,42,23,38,41		9, 1
16″	11,16,54,15, 4,58, 2, 4,53,53		49,29,14, 0	
		2, 3,25,19,52,54,24,41		9, 1
18″	11,16,56,18,30,17,54,59,18,34		49,29,23, 1	
		2, 3,25,19, 3,25, 1,40		9, 1
20″	11,16,58,21,55,36,58,24,20,14		49,29,32, 2	
		2, 3,25,18,13,55,29,38		9, 1
22″	11,17, 0,25,20,55,12,19,49,52		49,29,41, 3	
		2, 3,25,17,24,25,48,35		9, 1
24″	11,17, 2,28,46,12,36,45,38,27		49,29,50, 4	
		2, 3,25,16,34,55,58,31		9, 1
26″	11,17, 4,32,11,29,11,41,36,58		49,29,59, 5	
		2, 3,25,15,45,25,59,26		9, 1
28″	11,17, 6,35,36,44,57, 7,36,24		49,30, 8, 6	
		2, 3,25,14,55,55,51,20		9, 1
30″	11,17, 8,39, 1,59,53, 3,27,44		49,30,17, 7	
		2, 3,25,14, 6,25,34,13		9, 1
32″	11,17,10,42,27,13,59,29, 1,57		49,30,26, 8	
		2, 3,25,13,16,55, 8, 5		9, 1
34″	11,17,12,45,52,27,16,24,10, 2		49,30,35, 9	
		2, 3,25,12,27,24,32,56		9, 1
36″	11,17,14,49,17,39,43,48,42,58		49,30,44,10	
		2, 3,25,11,37,53,48,46		9, 1
38″	11,17,16,52,42,51,21,42,31,44		49,30,53,11	
		2, 3,25,10,48,22,55,35		9, 1
40″	11,17,18,56, 8, 2,10, 5,27,19		49,31, 2,12	
		2, 3,25, 9,58,51,53,23		9, 1
42″	11,17,20,59,33,12, 8,57,20,42		49,31,11,13	
		2, 3,25, 9, 9,20,42,10		9, 1
44″	11,17,23, 2,58,21,18,18, 2,52		49,31,20,14	
		2, 3,25, 8,19,49,21,56		9, 1
46″	11,17,25, 6,23,29,38, 7,24,48		49,31,29,15	
		2, 3,25, 7,30,17,52,41		9, 1
48″	11,17,27, 9,48,37, 8,25,17,29		49,31,38,16	
		2, 3,25, 6,40,46,14,25		9, 1
50″	11,17,29,13,13,43,49,11,31,54		49,31,47,17	
		2, 3,25, 5,51,14,27, 8		9, 1
52″	11,17,31,16,38,49,40,25,59, 2		49,31,56,18	
		2, 3,25, 5, 1,42,30,50		9, 1
54″	11,17,33,20, 3,54,42, 8,29,52		49,32, 5,19	
		2, 3,25, 4,12,10,25,31		9, 1
56″	11,17,35,23,28,58,54,18,55,23		49,32,14,20	
		2, 3,25, 3,22,38,11,11		9, 1
58″	11,17,37,26,54, 2,16,57, 6,34		49,32,23,21	
		2, 3,25, 2,33, 5,47,50		
60″	11,17,39,30,19, 4,50, 2,54,24			
exact	11,17,39,30,19, 4,50, 2,29,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°51′ 0″	11,17,39,30,19, 4,50, 2,29,45			
		2, 3,25, 1,43,33,12,47		
2″	11,17,41,33,44, 6,33,35,42,32		49,32,41,34	
		2, 3,25, 0,54, 0,31,13		9, 1
4″	11,17,43,37, 9, 7,27,36,13,45		49,32,50,35	
		2, 3,25, 0, 4,27,40,38		9, 1
6″	11,17,45,40,34, 7,32, 3,54,23		49,32,59,36	
		2, 3,24,59,14,54,41, 2		9, 1
8″	11,17,47,43,59, 6,46,58,35,25		49,33, 8,37	
		2, 3,24,58,25,21,32,25		9, 1
10″	11,17,49,47,24, 5,12,20, 7,50		49,33,17,38	
		2, 3,24,57,35,48,14,47		9, 1
12″	11,17,51,50,49, 2,48, 8,22,37		49,33,26,39	
		2, 3,24,56,46,14,48, 8		9, 1
14″	11,17,53,54,13,59,34,23,10,45		49,33,35,40	
		2, 3,24,55,56,41,12,28		9, 1
16″	11,17,55,57,38,55,31, 4,23,13		49,33,44,41	
		2, 3,24,55, 7, 7,27,47		9, 1
18″	11,17,58, 1, 3,50,38,11,51, 0		49,33,53,42	
		2, 3,24,54,17,33,34, 5		9, 1
20″	11,18, 0, 4,28,44,55,45,25, 5		49,34, 2,43	
		2, 3,24,53,27,59,31,22		9, 1
22″	11,18, 2, 7,53,38,23,44,56,27		49,34,11,44	
		2, 3,24,52,38,25,19,38		9, 1
24″	11,18, 4,11,18,31, 2,10,16, 5		49,34,20,45	
		2, 3,24,51,48,50,58,53		9, 1
26″	11,18, 6,14,43,22,51, 1,14,58		49,34,29,46	
		2, 3,24,50,59,16,29, 7		9, 1
28″	11,18, 8,18, 8,13,50,17,44, 5		49,34,38,47	
		2, 3,24,50, 9,41,50,20		9, 1
30″	11,18,10,21,33, 3,59,59,34,25		49,34,47,48	
		2, 3,24,49,20, 7, 2,32		9, 1
32″	11,18,12,24,57,53,20, 6,36,57		49,34,56,49	
		2, 3,24,48,30,32, 5,43		9, 1
34″	11,18,14,28,22,41,50,38,42,40		49,35, 5,50	
		2, 3,24,47,40,56,59,53		9, 1
36″	11,18,16,31,47,29,31,35,42,33		49,35,14,51	
		2, 3,24,46,51,21,45, 2		9, 1
38″	11,18,18,35,12,16,22,57,27,35		49,35,23,52	
		2, 3,24,46, 1,46,21,10		9, 1
40″	11,18,20,38,37, 2,24,43,48,45		49,35,32,53	
		2, 3,24,45,12,10,48,17		9, 1
42″	11,18,22,42, 1,47,36,54,37, 2		49,35,41,54	
		2, 3,24,44,22,35, 6,23		9, 1
44″	11,18,24,45,26,31,59,29,43,25		49,35,50,55	
		2, 3,24,43,32,59,15,28		9, 1
46″	11,18,26,48,51,15,32,28,58,53		49,35,59,56	
		2, 3,24,42,43,23,15,32		9, 1
48″	11,18,28,52,15,58,15,52,14,25		49,36, 8,57	
		2, 3,24,41,53,47, 6,35		9, 1
50″	11,18,30,55,40,40, 9,39,21, 0		49,36,17,58	
		2, 3,24,41, 4,10,48,37		9, 1
52″	11,18,32,59, 5,21,13,50, 9,37		49,36,26,59	
		2, 3,24,40,14,34,21,38		9, 1
54″	11,18,35, 2,30, 1,28,24,31,15		49,36,36, 0	
		2, 3,24,39,24,57,45,38		9, 1
56″	11,18,37, 5,54,40,53,22,16,53		49,36,45, 1	
		2, 3,24,38,35,21, 0,37		9, 1
58″	11,18,39, 9,19,19,28,43,17,30		49,36,54, 2	
		2, 3,24,37,45,44, 6,35		
60″	11,18,41,12,43,57,14,27,24, 5			
exact	11,18,41,12,43,57,14,26,57,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°52′ 0″	11,18,41,12,43,57,14,26,57,49			
		2, 3,24,36,56, 7, 0,49		
2″	11,18,43,16, 8,34,10,33,58,38		49,37,12,15	
		2, 3,24,36, 6,29,48,34		9, 1
4″	11,18,45,19,33,10,17, 3,47,12		49,37,21,16	
		2, 3,24,35,16,52,27,18		9, 1
6″	11,18,47,22,57,45,33,56,14,30		49,37,30,17	
		2, 3,24,34,27,14,57, 1		9, 1
8″	11,18,49,26,22,20, 1,11,11,31		49,37,39,18	
		2, 3,24,33,37,37,17,43		9, 1
10″	11,18,51,29,46,53,38,48,29,14		49,37,48,19	
		2, 3,24,32,47,59,29,24		9, 1
12″	11,18,53,33,11,26,26,47,58,38		49,37,57,20	
		2, 3,24,31,58,21,32, 4		9, 1
14″	11,18,55,36,35,58,25, 9,30,42		49,38, 6,21	
		2, 3,24,31, 8,43,25,43		9, 1
16″	11,18,57,40, 0,29,33,52,56,25		49,38,15,22	
		2, 3,24,30,19, 5,10,21		9, 1
18″	11,18,59,43,24,59,52,58, 6,46		49,38,24,23	
		2, 3,24,29,29,26,45,58		9, 1
20″	11,19, 1,46,49,29,22,24,52,44		49,38,33,24	
		2, 3,24,28,39,48,12,34		9, 1
22″	11,19, 3,50,13,58, 2,13, 5,18		49,38,42,25	
		2, 3,24,27,50, 9,30, 9		9, 1
24″	11,19, 5,53,38,25,52,22,35,27		49,38,51,26	
		2, 3,24,27, 0,30,38,43		9, 1
26″	11,19, 7,57, 2,52,52,53,14,10		49,39, 0,27	
		2, 3,24,26,10,51,38,16		9, 1
28″	11,19,10, 0,27,19, 3,44,52,26		49,39, 9,28	
		2, 3,24,25,21,12,28,48		9, 1
30″	11,19,12, 3,51,44,24,57,21,14		49,39,18,29	
		2, 3,24,24,31,33,10,19		9, 1
32″	11,19,14, 7,16, 8,56,30,31,33		49,39,27,30	
		2, 3,24,23,41,53,42,49		9, 1
34″	11,19,16,10,40,32,38,24,14,22		49,39,36,31	
		2, 3,24,22,52,14, 6,18		9, 1
36″	11,19,18,14, 4,55,30,38,20,40		49,39,45,32	
		2, 3,24,22, 2,34,20,46		9, 1
38″	11,19,20,17,29,17,33,12,41,26		49,39,54,33	
		2, 3,24,21,12,54,26,13		9, 1
40″	11,19,22,20,53,38,46, 7, 7,39		49,40, 3,34	
		2, 3,24,20,23,14,22,39		9, 1
42″	11,19,24,24,17,59, 9,21,30,18		49,40,12,35	
		2, 3,24,19,33,34,10, 4		9, 1
44″	11,19,26,27,42,18,42,55,40,22		49,40,21,36	
		2, 3,24,18,43,53,48,28		9, 1
46″	11,19,28,31, 6,37,26,49,28,50		49,40,30,37	
		2, 3,24,17,54,13,17,51		9, 1
48″	11,19,30,34,30,55,21, 2,46,41		49,40,39,38	
		2, 3,24,17, 4,32,38,13		9, 1
50″	11,19,32,37,55,12,25,35,24,54		49,40,48,39	
		2, 3,24,16,14,51,49,34		9, 1
52″	11,19,34,41,19,28,40,27,14,28		49,40,57,40	
		2, 3,24,15,25,10,51,54		9, 1
54″	11,19,36,44,43,44, 5,38, 6,22		49,41, 6,41	
		2, 3,24,14,35,29,45,13		9, 1
56″	11,19,38,48, 7,58,41, 7,51,35		49,41,15,42	
		2, 3,24,13,45,48,29,31		9, 1
58″	11,19,40,51,32,12,26,56,21, 6		49,41,24,43	
		2, 3,24,12,56, 7, 4,48		
60″	11,19,42,54,56,25,23, 3,25,54			
exact	11,19,42,54,56,25,23, 3, 4,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°53′ 0″	11,19,42,54,56,25,23, 3, 4,55			
		2, 3,24,12, 6,25,28,47		
2″	11,19,44,58,20,37,29,28,33,42		49,41,42,54	
		2, 3,24,11,16,43,45,53		9, 1
4″	11,19,47, 1,44,48,46,12,19,35		49,41,51,55	
		2, 3,24,10,27, 1,53,58		9, 1
6″	11,19,49, 5, 8,59,13,14,13,33		49,42, 0,56	
		2, 3,24, 9,37,19,53, 2		9, 1
8″	11,19,51, 8,33, 8,50,34, 6,35		49,42, 9,57	
		2, 3,24, 8,47,37,43, 5		9, 1
10″	11,19,53,11,57,17,38,11,49,40		49,42,18,58	
		2, 3,24, 7,57,55,24, 7		9, 1
12″	11,19,55,15,21,25,36, 7,13,47		49,42,27,59	
		2, 3,24, 7, 8,12,56, 8		9, 1
14″	11,19,57,18,45,32,44,20, 9,55		49,42,37, 0	
		2, 3,24, 6,18,30,19, 8		9, 1
16″	11,19,59,22, 9,39, 2,50,29, 3		49,42,46, 1	
		2, 3,24, 5,28,47,33, 7		9, 1
18″	11,20, 1,25,33,44,31,38, 2,10		49,42,55, 2	
		2, 3,24, 4,39, 4,38, 5		9, 1
20″	11,20, 3,28,57,49,10,42,40,15		49,43, 4, 3	
		2, 3,24, 3,49,21,34, 2		9, 1
22″	11,20, 5,32,21,53, 0, 4,14,17		49,43,13, 4	
		2, 3,24, 2,59,38,20,58		9, 1
24″	11,20, 7,35,45,55,59,42,35,15		49,43,22, 5	
		2, 3,24, 2, 9,54,58,53		9, 1
26″	11,20, 9,39, 9,58, 9,37,34, 8		49,43,31, 6	
		2, 3,24, 1,20,11,27,47		9, 1
28″	11,20,11,42,33,59,29,49, 1,55		49,43,40, 7	
		2, 3,24, 0,30,27,47,40		9, 1
30″	11,20,13,45,58, 0, 0,16,49,35		49,43,49, 8	
		2, 3,23,59,40,43,58,32		9, 1
32″	11,20,15,49,21,59,41, 0,48, 7		49,43,58, 9	
		2, 3,23,58,51, 0, 0,23		9, 1
34″	11,20,17,52,45,58,32, 0,48,30		49,44, 7,10	
		2, 3,23,58, 1,15,53,13		9, 1
36″	11,20,19,56, 9,56,33,16,41,43		49,44,16,11	
		2, 3,23,57,11,31,37, 2		9, 1
38″	11,20,21,59,33,53,44,48,18,45		49,44,25,12	
		2, 3,23,56,21,47,11,50		9, 1
40″	11,20,24, 2,57,50, 6,35,30,35		49,44,34,13	
		2, 3,23,55,32, 2,37,37		9, 1
42″	11,20,26, 6,21,45,38,38, 8,12		49,44,43,14	
		2, 3,23,54,42,17,54,23		9, 1
44″	11,20,28, 9,45,40,20,56, 2,35		49,44,52,15	
		2, 3,23,53,52,33, 2, 8		9, 1
46″	11,20,30,13, 9,34,13,29, 4,43		49,45, 1,16	
		2, 3,23,53, 2,48, 0,52		9, 1
48″	11,20,32,16,33,27,16,17, 5,35		49,45,10,17	
		2, 3,23,52,13, 2,50,35		9, 1
50″	11,20,34,19,57,19,29,19,56,10		49,45,19,18	
		2, 3,23,51,23,17,31,17		9, 1
52″	11,20,36,23,21,10,52,37,27,27		49,45,28,19	
		2, 3,23,50,33,32, 2,58		9, 1
54″	11,20,38,26,45, 1,26, 9,30,25		49,45,37,20	
		2, 3,23,49,43,46,25,38		9, 1
56″	11,20,40,30, 8,51, 9,55,56, 3		49,45,46,21	
		2, 3,23,48,54, 0,39,17		9, 1
58″	11,20,42,33,32,40, 3,56,35,20		49,45,55,22	
		2, 3,23,48, 4,14,43,55		
60″	11,20,44,36,56,28, 8,11,19,15			
exact	11,20,44,36,56,28, 8,10,55,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°54′ 0″	11,20,44,36,56,28, 8,10,55,33			
		2, 3,23,47,14,28,37, 8		
2″	11,20,46,40,20,15,22,39,32,41		49,46,13,33	
		2, 3,23,46,24,42,23,35		9, 1
4″	11,20,48,43,44, 1,47,21,56,16		49,46,22,34	
		2, 3,23,45,34,56, 1, 1		9, 1
6″	11,20,50,47, 7,47,22,17,57,17		49,46,31,35	
		2, 3,23,44,45, 9,29,26		9, 1
8″	11,20,52,50,31,32, 7,27,26,43		49,46,40,36	
		2, 3,23,43,55,22,48,50		9, 1
10″	11,20,54,53,55,16, 2,50,15,33		49,46,49,37	
		2, 3,23,43, 5,35,59,13		9, 1
12″	11,20,56,57,18,59, 8,26,14,46		49,46,58,38	
		2, 3,23,42,15,49, 0,35		9, 1
14″	11,20,59, 0,42,41,24,15,15,21		49,47, 7,39	
		2, 3,23,41,26, 1,52,56		9, 1
16″	11,21, 1, 4, 6,22,50,17, 8,17		49,47,16,40	
		2, 3,23,40,36,14,36,16		9, 1
18″	11,21, 3, 7,30, 3,26,31,44,33		49,47,25,41	
		2, 3,23,39,46,27,10,35		9, 1
20″	11,21, 5,10,53,43,12,58,55, 8		49,47,34,42	
		2, 3,23,38,56,39,35,53		9, 1
22″	11,21, 7,14,17,22, 9,38,31, 1		49,47,43,43	
		2, 3,23,38, 6,51,52,10		9, 1
24″	11,21, 9,17,41, 0,16,30,23,11		49,47,52,44	
		2, 3,23,37,17, 3,59,26		9, 1
26″	11,21,11,21, 4,37,33,34,22,37		49,48, 1,45	
		2, 3,23,36,27,15,57,41		9, 1
28″	11,21,13,24,28,14, 0,50,20,18		49,48,10,46	
		2, 3,23,35,37,27,46,55		9, 1
30″	11,21,15,27,51,49,38,18, 7,13		49,48,19,47	
		2, 3,23,34,47,39,27, 8		9, 1
32″	11,21,17,31,15,24,25,57,34,21		49,48,28,48	
		2, 3,23,33,57,50,58,20		9, 1
34″	11,21,19,34,38,58,23,48,32,41		49,48,37,49	
		2, 3,23,33, 8, 2,20,31		9, 1
36″	11,21,21,38, 2,31,31,50,53,12		49,48,46,50	
		2, 3,23,32,18,13,33,41		9, 1
38″	11,21,23,41,26, 3,50, 4,26,53		49,48,55,51	
		2, 3,23,31,28,24,37,50		9, 1
40″	11,21,25,44,49,35,18,29, 4,43		49,49, 4,52	
		2, 3,23,30,38,35,32,58		9, 1
42″	11,21,27,48,13, 5,57, 4,37,41		49,49,13,53	
		2, 3,23,29,48,46,19, 5		9, 1
44″	11,21,29,51,36,35,45,50,56,46		49,49,22,54	
		2, 3,23,28,58,56,56,11		9, 1
46″	11,21,31,55, 0, 4,44,47,52,57		49,49,31,55	
		2, 3,23,28, 9, 7,24,16		9, 1
48″	11,21,33,58,23,32,53,55,17,13		49,49,40,56	
		2, 3,23,27,19,17,43,20		9, 1
50″	11,21,36, 1,47, 0,13,13, 0,33		49,49,49,57	
		2, 3,23,26,29,27,53,23		9, 1
52″	11,21,38, 5,10,26,42,40,53,56		49,49,58,58	
		2, 3,23,25,39,37,54,25		9, 1
54″	11,21,40, 8,33,52,22,18,48,21		49,50, 7,59	
		2, 3,23,24,49,47,46,26		9, 1
56″	11,21,42,11,57,17,12, 6,34,47		49,50,17, 0	
		2, 3,23,23,59,57,29,26		9, 1
58″	11,21,44,15,20,41,12, 4, 4,13		49,50,26, 1	
		2, 3,23,23,10, 7, 3,25		
60″	11,21,46,18,44, 4,22,11, 7,38			
exact	11,21,46,18,44, 4,22,10,47,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°55′ 0″	11,21,46,18,44, 4,22,10,47,50			
		2, 3,23,22,20,16,26,20		
2″	11,21,48,22, 7,26,42,27,14,10		49,50,44,11	
		2, 3,23,21,30,25,42, 9		9, 1
4″	11,21,50,25,30,48,12,52,56,19		49,50,53,12	
		2, 3,23,20,40,34,48,57		9, 1
6″	11,21,52,28,54, 8,53,27,45,16		49,51, 2,13	
		2, 3,23,19,50,43,46,44		9, 1
8″	11,21,54,32,17,28,44,11,32, 0		49,51,11,14	
		2, 3,23,19, 0,52,35,30		9, 1
10″	11,21,56,35,40,47,45, 4, 7,30		49,51,20,15	
		2, 3,23,18,11, 1,15,15		9, 1
12″	11,21,58,39, 4, 5,56, 5,22,45		49,51,29,16	
		2, 3,23,17,21, 9,45,59		9, 1
14″	11,22, 0,42,27,23,17,15, 8,44		49,51,38,17	
		2, 3,23,16,31,18, 7,42		9, 1
16″	11,22, 2,45,50,39,48,33,16,26		49,51,47,18	
		2, 3,23,15,41,26,20,24		9, 1
18″	11,22, 4,49,13,55,29,59,36,50		49,51,56,19	
		2, 3,23,14,51,34,24, 5		9, 1
20″	11,22, 6,52,37,10,21,34, 0,55		49,52, 5,20	
		2, 3,23,14, 1,42,18,45		9, 1
22″	11,22, 8,56, 0,24,23,16,19,40		49,52,14,21	
		2, 3,23,13,11,50, 4,24		9, 1
24″	11,22,10,59,23,37,35, 6,24, 4		49,52,23,22	
		2, 3,23,12,21,57,41, 2		9, 1
26″	11,22,13, 2,46,49,57, 4, 5, 6		49,52,32,23	
		2, 3,23,11,32, 5, 8,39		9, 1
28″	11,22,15, 6,10, 1,29, 9,13,45		49,52,41,24	
		2, 3,23,10,42,12,27,15		9, 1
30″	11,22,17, 9,33,12,11,21,41, 0		49,52,50,25	
		2, 3,23, 9,52,19,36,50		9, 1
32″	11,22,19,12,56,22, 3,41,17,50		49,52,59,26	
		2, 3,23, 9, 2,26,37,24		9, 1
34″	11,22,21,16,19,31, 6, 7,55,14		49,53, 8,27	
		2, 3,23, 8,12,33,28,57		9, 1
36″	11,22,23,19,42,39,18,41,24,11		49,53,17,28	
		2, 3,23, 7,22,40,11,29		9, 1
38″	11,22,25,23, 5,46,41,21,35,40		49,53,26,29	
		2, 3,23, 6,32,46,45, 0		9, 1
40″	11,22,27,26,28,53,14, 8,20,40		49,53,35,30	
		2, 3,23, 5,42,53, 9,30		9, 1
42″	11,22,29,29,51,58,57, 1,30,10		49,53,44,31	
		2, 3,23, 4,52,59,24,59		9, 1
44″	11,22,31,33,15, 3,50, 0,55, 9		49,53,53,32	
		2, 3,23, 4, 3, 5,31,27		9, 1
46″	11,22,33,36,38, 7,53, 6,26,36		49,54, 2,33	
		2, 3,23, 3,13,11,28,54		9, 1
48″	11,22,35,40, 1,11, 6,17,55,30		49,54,11,34	
		2, 3,23, 2,23,17,17,20		9, 1
50″	11,22,37,43,24,13,29,35,12,50		49,54,20,35	
		2, 3,23, 1,33,22,56,45		9, 1
52″	11,22,39,46,47,15, 2,58, 9,35		49,54,29,36	
		2, 3,23, 0,43,28,27, 9		9, 1
54″	11,22,41,50,10,15,46,26,36,44		49,54,38,37	
		2, 3,22,59,53,33,48,32		9, 1
56″	11,22,43,53,33,15,40, 0,25,16		49,54,47,38	
		2, 3,22,59, 3,39, 0,54		9, 1
58″	11,22,45,56,56,14,43,39,26,10		49,54,56,39	
		2, 3,22,58,13,44, 4,15		
60″	11,22,48, 0,19,12,57,23,30,25			
exact	11,22,48, 0,19,12,57,23,13,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°56′ 0″	11,22,48, 0,19,12,57,23,13,31			
		2, 3,22,57,23,48,56,49		
2″	11,22,50, 3,42,10,21,12,10,20		49,55,14,48	
		2, 3,22,56,33,53,42, 1		9, 1
4″	11,22,52, 7, 5, 6,55, 5,52,21		49,55,23,49	
		2, 3,22,55,43,58,18,12		9, 1
6″	11,22,54,10,28, 2,39, 4,10,33		49,55,32,50	
		2, 3,22,54,54, 2,45,22		9, 1
8″	11,22,56,13,50,57,33, 6,55,55		49,55,41,51	
		2, 3,22,54, 4, 7, 3,31		9, 1
10″	11,22,58,17,13,51,37,13,59,26		49,55,50,52	
		2, 3,22,53,14,11,12,39		9, 1
12″	11,23, 0,20,36,44,51,25,12, 5		49,55,59,53	
		2, 3,22,52,24,15,12,46		9, 1
14″	11,23, 2,23,59,37,15,40,24,51		49,56, 8,54	
		2, 3,22,51,34,19, 3,52		9, 1
16″	11,23, 4,27,22,28,49,59,28,43		49,56,17,55	
		2, 3,22,50,44,22,45,57		9, 1
18″	11,23, 6,30,45,19,34,22,14,40		49,56,26,56	
		2, 3,22,49,54,26,19, 1		9, 1
20″	11,23, 8,34, 8, 9,28,48,33,41		49,56,35,57	
		2, 3,22,49, 4,29,43, 4		9, 1
22″	11,23,10,37,30,58,33,18,16,45		49,56,44,58	
		2, 3,22,48,14,32,58, 6		9, 1
24″	11,23,12,40,53,46,47,51,14,51		49,56,53,59	
		2, 3,22,47,24,36, 4, 7		9, 1
26″	11,23,14,44,16,34,12,27,18,58		49,57, 3, 0	
		2, 3,22,46,34,39, 1, 7		9, 1
28″	11,23,16,47,39,20,47, 6,20, 5		49,57,12, 1	
		2, 3,22,45,44,41,49, 6		9, 1
30″	11,23,18,51, 2, 6,31,48, 9,11		49,57,21, 2	
		2, 3,22,44,54,44,28, 4		9, 1
32″	11,23,20,54,24,51,26,32,37,15		49,57,30, 3	
		2, 3,22,44, 4,46,58, 1		9, 1
34″	11,23,22,57,47,35,31,19,35,16		49,57,39, 4	
		2, 3,22,43,14,49,18,57		9, 1
36″	11,23,25, 1,10,18,46, 8,54,13		49,57,48, 5	
		2, 3,22,42,24,51,30,52		9, 1
38″	11,23,27, 4,33, 1,11, 0,25, 5		49,57,57, 6	
		2, 3,22,41,34,53,33,46		9, 1
40″	11,23,29, 7,55,42,45,53,58,51		49,58, 6, 7	
		2, 3,22,40,44,55,27,39		9, 1
42″	11,23,31,11,18,23,30,49,26,30		49,58,15, 8	
		2, 3,22,39,54,57,12,31		9, 1
44″	11,23,33,14,41, 3,25,46,39, 1		49,58,24, 9	
		2, 3,22,39, 4,58,48,22		9, 1
46″	11,23,35,18, 3,42,30,45,27,23		49,58,33,10	
		2, 3,22,38,15, 0,15,12		9, 1
48″	11,23,37,21,26,20,45,45,42,35		49,58,42,11	
		2, 3,22,37,25, 1,33, 1		9, 1
50″	11,23,39,24,48,58,10,47,15,36		49,58,51,12	
		2, 3,22,36,35, 2,41,49		9, 1
52″	11,23,41,28,11,34,45,49,57,25		49,59, 0,13	
		2, 3,22,35,45, 3,41,36		9, 1
54″	11,23,43,31,34,10,30,53,39, 1		49,59, 9,14	
		2, 3,22,34,55, 4,32,22		9, 1
56″	11,23,45,34,56,45,25,58,11,23		49,59,18,15	
		2, 3,22,34, 5, 5,14, 7		9, 1
58″	11,23,47,38,19,19,31, 3,25,30		49,59,27,16	
		2, 3,22,33,15, 5,46,51		
60″	11,23,49,41,41,52,46, 9,12,21			
exact	11,23,49,41,41,52,46, 8,58, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°57′ 0″	11,23,49,41,41,52,46, 8,58, 2			
		2, 3,22,32,25, 6, 9, 3		
2″	11,23,51,45, 4,25,11,15, 7, 5		49,59,45,24	
		2, 3,22,31,35, 6,23,39		9, 1
4″	11,23,53,48,26,56,46,21,30,44		49,59,54,25	
		2, 3,22,30,45, 6,29,14		9, 1
6″	11,23,55,51,49,27,31,27,59,58		50, 0, 3,26	
		2, 3,22,29,55, 6,25,48		9, 1
8″	11,23,57,55,11,57,26,34,25,46		50, 0,12,27	
		2, 3,22,29, 5, 6,13,21		9, 1
10″	11,23,59,58,34,26,31,40,39, 7		50, 0,21,28	
		2, 3,22,28,15, 5,51,53		9, 1
12″	11,24, 2, 1,56,54,46,46,31, 0		50, 0,30,29	
		2, 3,22,27,25, 5,21,24		9, 1
14″	11,24, 4, 5,19,22,11,51,52,24		50, 0,39,30	
		2, 3,22,26,35, 4,41,54		9, 1
16″	11,24, 6, 8,41,48,46,56,34,18		50, 0,48,31	
		2, 3,22,25,45, 3,53,23		9, 1
18″	11,24, 8,12, 4,14,32, 0,27,41		50, 0,57,32	
		2, 3,22,24,55, 2,55,51		9, 1
20″	11,24,10,15,26,39,27, 3,23,32		50, 1, 6,33	
		2, 3,22,24, 5, 1,49,18		9, 1
22″	11,24,12,18,49, 3,32, 5,12,50		50, 1,15,34	
		2, 3,22,23,15, 0,33,44		9, 1
24″	11,24,14,22,11,26,47, 5,46,34		50, 1,24,35	
		2, 3,22,22,24,59, 9, 9		9, 1
26″	11,24,16,25,33,49,12, 4,55,43		50, 1,33,36	
		2, 3,22,21,34,57,35,33		9, 1
28″	11,24,18,28,56,10,47, 2,31,16		50, 1,42,37	
		2, 3,22,20,44,55,52,56		9, 1
30″	11,24,20,32,18,31,31,58,24,12		50, 1,51,38	
		2, 3,22,19,54,54, 1,18		9, 1
32″	11,24,22,35,40,51,26,52,25,30		50, 2, 0,39	
		2, 3,22,19, 4,52, 0,39		9, 1
34″	11,24,24,39, 3,10,31,44,26, 9		50, 2, 9,40	
		2, 3,22,18,14,49,50,59		9, 1
36″	11,24,26,42,25,28,46,34,17, 8		50, 2,18,41	
		2, 3,22,17,24,47,32,18		9, 1
38″	11,24,28,45,47,46,11,21,49,26		50, 2,27,42	
		2, 3,22,16,34,45, 4,36		9, 1
40″	11,24,30,49,10, 2,46, 6,54, 2		50, 2,36,43	
		2, 3,22,15,44,42,27,53		9, 1
42″	11,24,32,52,32,18,30,49,21,55		50, 2,45,44	
		2, 3,22,14,54,39,42, 9		9, 1
44″	11,24,34,55,54,33,25,29, 4, 4		50, 2,54,45	
		2, 3,22,14, 4,36,47,24		9, 1
46″	11,24,36,59,16,47,30, 5,51,28		50, 3, 3,46	
		2, 3,22,13,14,33,43,38		9, 1
48″	11,24,39, 2,39, 0,44,39,35, 6		50, 3,12,47	
		2, 3,22,12,24,30,30,51		9, 1
50″	11,24,41, 6, 1,13, 9,10, 5,57		50, 3,21,48	
		2, 3,22,11,34,27, 9, 3		9, 1
52″	11,24,43, 9,23,24,43,37,15, 0		50, 3,30,49	
		2, 3,22,10,44,23,38,14		9, 1
54″	11,24,45,12,45,35,28, 0,53,14		50, 3,39,50	
		2, 3,22, 9,54,19,58,24		9, 1
56″	11,24,47,16, 7,45,22,20,51,38		50, 3,48,51	
		2, 3,22, 9, 4,16, 9,33		9, 1
58″	11,24,49,19,29,54,26,37, 1,11		50, 3,57,52	
		2, 3,22, 8,14,12,11,41		
60″	11,24,51,22,52, 2,40,49,12,52			
exact	11,24,51,22,52, 2,40,49, 0,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°58′ 0″	11,24,51,22,52, 2,40,49, 0,28			
		2, 3,22, 7,24, 8, 3,30		
2″	11,24,53,26,14,10, 4,57, 3,58		50, 4,15,59	
		2, 3,22, 6,34, 3,47,31		9, 1
4″	11,24,55,29,36,16,39, 0,51,29		50, 4,25, 0	
		2, 3,22, 5,43,59,22,31		9, 1
6″	11,24,57,32,58,22,23, 0,14, 0		50, 4,34, 1	
		2, 3,22, 4,53,54,48,30		9, 1
8″	11,24,59,36,20,27,16,55, 2,30		50, 4,43, 2	
		2, 3,22, 4, 3,50, 5,28		9, 1
10″	11,25, 1,39,42,31,20,45, 7,58		50, 4,52, 3	
		2, 3,22, 3,13,45,13,25		9, 1
12″	11,25, 3,43, 4,34,34,30,21,23		50, 5, 1, 4	
		2, 3,22, 2,23,40,12,21		9, 1
14″	11,25, 5,46,26,36,58,10,33,44		50, 5,10, 5	
		2, 3,22, 1,33,35, 2,16		9, 1
16″	11,25, 7,49,48,38,31,45,36, 0		50, 5,19, 6	
		2, 3,22, 0,43,29,43,10		9, 1
18″	11,25, 9,53,10,39,15,15,19,10		50, 5,28, 7	
		2, 3,21,59,53,24,15, 3		9, 1
20″	11,25,11,56,32,39, 8,39,34,13		50, 5,37, 8	
		2, 3,21,59, 3,18,37,55		9, 1
22″	11,25,13,59,54,38,11,58,12, 8		50, 5,46, 9	
		2, 3,21,58,13,12,51,46		9, 1
24″	11,25,16, 3,16,36,25,11, 3,54		50, 5,55,10	
		2, 3,21,57,23, 6,56,36		9, 1
26″	11,25,18, 6,38,33,48,18, 0,30		50, 6, 4,11	
		2, 3,21,56,33, 0,52,25		9, 1
28″	11,25,20,10, 0,30,21,18,52,55		50, 6,13,12	
		2, 3,21,55,42,54,39,13		9, 1
30″	11,25,22,13,22,26, 4,13,32, 8		50, 6,22,13	
		2, 3,21,54,52,48,17, 0		9, 1
32″	11,25,24,16,44,20,57, 1,49, 8		50, 6,31,14	
		2, 3,21,54, 2,41,45,46		9, 1
34″	11,25,26,20, 6,14,59,43,34,54		50, 6,40,15	
		2, 3,21,53,12,35, 5,31		9, 1
36″	11,25,28,23,28, 8,12,18,40,25		50, 6,49,16	
		2, 3,21,52,22,28,16,15		9, 1
38″	11,25,30,26,50, 0,34,46,56,40		50, 6,58,17	
		2, 3,21,51,32,21,17,58		9, 1
40″	11,25,32,30,11,52, 7, 8,14,38		50, 7, 7,18	
		2, 3,21,50,42,14,10,40		9, 1
42″	11,25,34,33,33,42,49,22,25,18		50, 7,16,19	
		2, 3,21,49,52, 6,54,21		9, 1
44″	11,25,36,36,55,32,41,29,19,39		50, 7,25,20	
		2, 3,21,49, 1,59,29, 1		9, 1
46″	11,25,38,40,17,21,43,28,48,40		50, 7,34,21	
		2, 3,21,48,11,51,54,40		9, 1
48″	11,25,40,43,39, 9,55,20,43,20		50, 7,43,22	
		2, 3,21,47,21,44,11,18		9, 1
50″	11,25,42,47, 0,57,17, 4,54,38		50, 7,52,23	
		2, 3,21,46,31,36,18,55		9, 1
52″	11,25,44,50,22,43,48,41,13,33		50, 8, 1,24	
		2, 3,21,45,41,28,17,31		9, 1
54″	11,25,46,53,44,29,30, 9,31, 4		50, 8,10,25	
		2, 3,21,44,51,20, 7, 6		9, 1
56″	11,25,48,57, 6,14,21,29,38,10		50, 8,19,26	
		2, 3,21,44, 1,11,47,40		9, 1
58″	11,25,51, 0,27,58,22,41,25,50		50, 8,28,27	
		2, 3,21,43,11, 3,19,13		
60″	11,25,53, 3,49,41,33,44,45, 3			
exact	11,25,53, 3,49,41,33,44,33,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
10°59′ 0″	11,25,53, 3,49,41,33,44,33,40			
		2, 3,21,42,20,54,40,36		
2″	11,25,55, 7,11,23,54,39,14,16		50, 8,46,33	
		2, 3,21,41,30,45,54, 3		9, 1
4″	11,25,57,10,33, 5,25,25, 8,19		50, 8,55,34	
		2, 3,21,40,40,36,58,29		9, 1
6″	11,25,59,13,54,46, 6, 2, 6,48		50, 9, 4,35	
		2, 3,21,39,50,27,53,54		9, 1
8″	11,26, 1,17,16,25,56,30, 0,42		50, 9,13,36	
		2, 3,21,39, 0,18,40,18		9, 1
10″	11,26, 3,20,38, 4,56,48,41, 0		50, 9,22,37	
		2, 3,21,38,10, 9,17,41		9, 1
12″	11,26, 5,23,59,43, 6,57,58,41		50, 9,31,38	
		2, 3,21,37,19,59,46, 3		9, 1
14″	11,26, 7,27,21,20,26,57,44,44		50, 9,40,39	
		2, 3,21,36,29,50, 5,24		9, 1
16″	11,26, 9,30,42,56,56,47,50, 8		50, 9,49,40	
		2, 3,21,35,39,40,15,44		9, 1
18″	11,26,11,34, 4,32,36,28, 5,52		50, 9,58,41	
		2, 3,21,34,49,30,17, 3		9, 1
20″	11,26,13,37,26, 7,25,58,22,55		50,10, 7,42	
		2, 3,21,33,59,20, 9,21		9, 1
22″	11,26,15,40,47,41,25,18,32,16		50,10,16,43	
		2, 3,21,33, 9, 9,52,38		9, 1
24″	11,26,17,44, 9,14,34,28,24,54		50,10,25,44	
		2, 3,21,32,18,59,26,54		9, 1
26″	11,26,19,47,30,46,53,27,51,48		50,10,34,45	
		2, 3,21,31,28,48,52, 9		9, 1
28″	11,26,21,50,52,18,22,16,43,57		50,10,43,46	
		2, 3,21,30,38,38, 8,23		9, 1
30″	11,26,23,54,13,49, 0,54,52,20		50,10,52,47	
		2, 3,21,29,48,27,15,36		9, 1
32″	11,26,25,57,35,18,49,22, 7,56		50,11, 1,48	
		2, 3,21,28,58,16,13,48		9, 1
34″	11,26,28, 0,56,47,47,38,21,44		50,11,10,49	
		2, 3,21,28, 8, 5, 2,59		9, 1
36″	11,26,30, 4,18,15,55,43,24,43		50,11,19,50	
		2, 3,21,27,17,53,43, 9		9, 1
38″	11,26,32, 7,39,43,13,37, 7,52		50,11,28,51	
		2, 3,21,26,27,42,14,18		9, 1
40″	11,26,34,11, 1, 9,41,19,22,10		50,11,37,52	
		2, 3,21,25,37,30,36,26		9, 1
42″	11,26,36,14,22,35,18,49,58,36		50,11,46,53	
		2, 3,21,24,47,18,49,33		9, 1
44″	11,26,38,17,44, 0, 6, 8,48, 9		50,11,55,54	
		2, 3,21,23,57, 6,53,39		9, 1
46″	11,26,40,21, 5,24, 3,15,41,48		50,12, 4,55	
		2, 3,21,23, 6,54,48,44		9, 1
48″	11,26,42,24,26,47,10,10,30,32		50,12,13,56	
		2, 3,21,22,16,42,34,48		9, 1
50″	11,26,44,27,48, 9,26,53, 5,20		50,12,22,57	
		2, 3,21,21,26,30,11,51		9, 1
52″	11,26,46,31, 9,30,53,23,17,11		50,12,31,58	
		2, 3,21,20,36,17,39,53		9, 1
54″	11,26,48,34,30,51,29,40,57, 4		50,12,40,59	
		2, 3,21,19,46, 4,58,54		9, 1
56″	11,26,50,37,52,11,15,45,55,58		50,12,50, 0	
		2, 3,21,18,55,52, 8,54		9, 1
58″	11,26,52,41,13,30,11,38, 4,52		50,12,59, 1	
		2, 3,21,18, 5,39, 9,53		
60″	11,26,54,44,34,48,17,17,14,45			
exact	11,26,54,44,34,48,17,17, 4, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11° 0′ 0″	11,26,54,44,34,48,17,17, 4, 9			
		2, 3,21,17,15,26, 0,50		
2″	11,26,56,47,56, 5,32,43, 4,59		50,13,17, 7	
		2, 3,21,16,25,12,43,43		9, 1
4″	11,26,58,51,17,21,57,55,48,42		50,13,26, 8	
		2, 3,21,15,34,59,17,35		9, 1
6″	11,27, 0,54,38,37,32,55, 6,17		50,13,35, 9	
		2, 3,21,14,44,45,42,26		9, 1
8″	11,27, 2,57,59,52,17,40,48,43		50,13,44,10	
		2, 3,21,13,54,31,58,16		9, 1
10″	11,27, 5, 1,21, 6,12,12,46,59		50,13,53,11	
		2, 3,21,13, 4,18, 5, 5		9, 1
12″	11,27, 7, 4,42,19,16,30,52, 4		50,14, 2,12	
		2, 3,21,12,14, 4, 2,53		9, 1
14″	11,27, 9, 8, 3,31,30,34,54,57		50,14,11,13	
		2, 3,21,11,23,49,51,40		9, 1
16″	11,27,11,11,24,42,54,24,46,37		50,14,20,14	
		2, 3,21,10,33,35,31,26		9, 1
18″	11,27,13,14,45,53,28, 0,18, 3		50,14,29,15	
		2, 3,21, 9,43,21, 2,11		9, 1
20″	11,27,15,18, 7, 3,11,21,20,14		50,14,38,16	
		2, 3,21, 8,53, 6,23,55		9, 1
22″	11,27,17,21,28,12, 4,27,44, 9		50,14,47,17	
		2, 3,21, 8, 2,51,36,38		9, 1
24″	11,27,19,24,49,20, 7,19,20,47		50,14,56,18	
		2, 3,21, 7,12,36,40,20		9, 1
26″	11,27,21,28,10,27,19,56, 1, 7		50,15, 5,19	
		2, 3,21, 6,22,21,35, 1		9, 1
28″	11,27,23,31,31,33,42,17,36, 8		50,15,14,20	
		2, 3,21, 5,32, 6,20,41		9, 1
30″	11,27,25,34,52,39,14,23,56,49		50,15,23,21	
		2, 3,21, 4,41,50,57,20		9, 1
32″	11,27,27,38,13,43,56,14,54, 9		50,15,32,22	
		2, 3,21, 3,51,35,24,58		9, 1
34″	11,27,29,41,34,47,47,50,19, 7		50,15,41,23	
		2, 3,21, 3, 1,19,43,35		9, 1
36″	11,27,31,44,55,50,49,10, 2,42		50,15,50,24	
		2, 3,21, 2,11, 3,53,11		9, 1
38″	11,27,33,48,16,53, 0,13,55,53		50,15,59,25	
		2, 3,21, 1,20,47,53,46		9, 1
40″	11,27,35,51,37,54,21, 1,49,39		50,16, 8,26	
		2, 3,21, 0,30,31,45,20		9, 1
42″	11,27,37,54,58,54,51,33,34,59		50,16,17,27	
		2, 3,20,59,40,15,27,53		9, 1
44″	11,27,39,58,19,54,31,49, 2,52		50,16,26,28	
		2, 3,20,58,49,59, 1,25		9, 1
46″	11,27,42, 1,40,53,21,48, 4,17		50,16,35,29	
		2, 3,20,57,59,42,25,56		9, 1
48″	11,27,44, 5, 1,51,21,30,30,13		50,16,44,30	
		2, 3,20,57, 9,25,41,26		9, 1
50″	11,27,46, 8,22,48,30,56,11,39		50,16,53,31	
		2, 3,20,56,19, 8,47,55		9, 1
52″	11,27,48,11,43,44,50, 4,59,34		50,17, 2,32	
		2, 3,20,55,28,51,45,23		9, 1
54″	11,27,50,15, 4,40,18,56,44,57		50,17,11,33	
		2, 3,20,54,38,34,33,50		9, 1
56″	11,27,52,18,25,34,57,31,18,47		50,17,20,34	
		2, 3,20,53,48,17,13,16		9, 1
58″	11,27,54,21,46,28,45,48,32, 3		50,17,29,35	
		2, 3,20,52,57,59,43,41		
60″	11,27,56,25, 7,21,43,48,15,44			
exact	11,27,56,25, 7,21,43,48,12,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11° 1′ 0″	11,27,56,25, 7,21,43,48,12,13			
		2, 3,20,52, 7,42, 4,38		
2″	11,27,58,28,28,13,51,30,16,51		50,17,47,39	
		2, 3,20,51,17,24,16,59		9, 1
4″	11,28, 0,31,49, 5, 8,54,33,50		50,17,56,40	
		2, 3,20,50,27, 6,20,19		9, 1
6″	11,28, 2,35, 9,55,36, 0,54, 9		50,18, 5,41	
		2, 3,20,49,36,48,14,38		9, 1
8″	11,28, 4,38,30,45,12,49, 8,47		50,18,14,42	
		2, 3,20,48,46,29,59,56		9, 1
10″	11,28, 6,41,51,33,59,19, 8,43		50,18,23,43	
		2, 3,20,47,56,11,36,13		9, 1
12″	11,28, 8,45,12,21,55,30,44,56		50,18,32,44	
		2, 3,20,47, 5,53, 3,29		9, 1
14″	11,28,10,48,33, 9, 1,23,48,25		50,18,41,45	
		2, 3,20,46,15,34,21,44		9, 1
16″	11,28,12,51,53,55,16,58,10, 9		50,18,50,46	
		2, 3,20,45,25,15,30,58		9, 1
18″	11,28,14,55,14,40,42,13,41, 7		50,18,59,47	
		2, 3,20,44,34,56,31,11		9, 1
20″	11,28,16,58,35,25,17,10,12,18		50,19, 8,48	
		2, 3,20,43,44,37,22,23		9, 1
22″	11,28,19, 1,56, 9, 1,47,34,41		50,19,17,49	
		2, 3,20,42,54,18, 4,34		9, 1
24″	11,28,21, 5,16,51,56, 5,39,15		50,19,26,50	
		2, 3,20,42, 3,58,37,44		9, 1
26″	11,28,23, 8,37,34, 0, 4,16,59		50,19,35,51	
		2, 3,20,41,13,39, 1,53		9, 1
28″	11,28,25,11,58,15,13,43,18,52		50,19,44,52	
		2, 3,20,40,23,19,17, 1		9, 1
30″	11,28,27,15,18,55,37, 2,35,53		50,19,53,53	
		2, 3,20,39,32,59,23, 8		9, 1
32″	11,28,29,18,39,35,10, 1,59, 1		50,20, 2,54	
		2, 3,20,38,42,39,20,14		9, 1
34″	11,28,31,22, 0,13,52,41,19,15		50,20,11,55	
		2, 3,20,37,52,19, 8,19		9, 1
36″	11,28,33,25,20,51,45, 0,27,34		50,20,20,56	
		2, 3,20,37, 1,58,47,23		9, 1
38″	11,28,35,28,41,28,46,59,14,57		50,20,29,57	
		2, 3,20,36,11,38,17,26		9, 1
40″	11,28,37,32, 2, 4,58,37,32,23		50,20,38,58	
		2, 3,20,35,21,17,38,28		9, 1
42″	11,28,39,35,22,40,19,55,10,51		50,20,47,59	
		2, 3,20,34,30,56,50,29		9, 1
44″	11,28,41,38,43,14,50,52, 1,20		50,20,57, 0	
		2, 3,20,33,40,35,53,29		9, 1
46″	11,28,43,42, 3,48,31,27,54,49		50,21, 6, 1	
		2, 3,20,32,50,14,47,28		9, 1
48″	11,28,45,45,24,21,21,42,42,17		50,21,15, 2	
		2, 3,20,31,59,53,32,26		9, 1
50″	11,28,47,48,44,53,21,36,14,43		50,21,24, 3	
		2, 3,20,31, 9,32, 8,23		9, 1
52″	11,28,49,52, 5,24,31, 8,23, 6		50,21,33, 4	
		2, 3,20,30,19,10,35,19		9, 1
54″	11,28,51,55,25,54,50,18,58,25		50,21,42, 5	
		2, 3,20,29,28,48,53,14		9, 1
56″	11,28,53,58,46,24,19, 7,51,39		50,21,51, 6	
		2, 3,20,28,38,27, 2, 8		9, 1
58″	11,28,56, 2, 6,52,57,34,53,47		50,22, 0, 7	
		2, 3,20,27,48, 5, 2, 1		
60″	11,28,58, 5,27,20,45,39,55,48			
exact	11,28,58, 5,27,20,45,39,51,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11° 2′ 0″	11,28,58, 5,27,20,45,39,51,55			
		2, 3,20,26,57,42,52,29		
2″	11,29, 0, 8,47,47,43,22,44,24		50,22,18,10	
		2, 3,20,26, 7,20,34,19		9, 1
4″	11,29, 2,12, 8,13,50,43,18,43		50,22,27,11	
		2, 3,20,25,16,58, 7, 8		9, 1
6″	11,29, 4,15,28,39, 7,41,25,51		50,22,36,12	
		2, 3,20,24,26,35,30,56		9, 1
8″	11,29, 6,18,49, 3,34,16,56,47		50,22,45,13	
		2, 3,20,23,36,12,45,43		9, 1
10″	11,29, 8,22, 9,27,10,29,42,30		50,22,54,14	
		2, 3,20,22,45,49,51,29		9, 1
12″	11,29,10,25,29,49,56,19,33,59		50,23, 3,15	
		2, 3,20,21,55,26,48,14		9, 1
14″	11,29,12,28,50,11,51,46,22,13		50,23,12,16	
		2, 3,20,21, 5, 3,35,58		9, 1
16″	11,29,14,32,10,32,56,49,58,11		50,23,21,17	
		2, 3,20,20,14,40,14,41		9, 1
18″	11,29,16,35,30,53,11,30,12,52		50,23,30,18	
		2, 3,20,19,24,16,44,23		9, 1
20″	11,29,18,38,51,12,35,46,57,15		50,23,39,19	
		2, 3,20,18,33,53, 5, 4		9, 1
22″	11,29,20,42,11,31, 9,40, 2,19		50,23,48,20	
		2, 3,20,17,43,29,16,44		9, 1
24″	11,29,22,45,31,48,53, 9,19, 3		50,23,57,21	
		2, 3,20,16,53, 5,19,23		9, 1
26″	11,29,24,48,52, 5,46,14,38,26		50,24, 6,22	
		2, 3,20,16, 2,41,13, 1		9, 1
28″	11,29,26,52,12,21,48,55,51,27		50,24,15,23	
		2, 3,20,15,12,16,57,38		9, 1
30″	11,29,28,55,32,37, 1,12,49, 5		50,24,24,24	
		2, 3,20,14,21,52,33,14		9, 1
32″	11,29,30,58,52,51,23, 5,22,19		50,24,33,25	
		2, 3,20,13,31,27,59,49		9, 1
34″	11,29,33, 2,13, 4,54,33,22, 8		50,24,42,26	
		2, 3,20,12,41, 3,17,23		9, 1
36″	11,29,35, 5,33,17,35,36,39,31		50,24,51,27	
		2, 3,20,11,50,38,25,56		9, 1
38″	11,29,37, 8,53,29,26,15, 5,27		50,25, 0,28	
		2, 3,20,11, 0,13,25,28		9, 1
40″	11,29,39,12,13,40,26,28,30,55		50,25, 9,29	
		2, 3,20,10, 9,48,15,59		9, 1
42″	11,29,41,15,33,50,36,16,46,54		50,25,18,30	
		2, 3,20, 9,19,22,57,29		9, 1
44″	11,29,43,18,53,59,55,39,44,23		50,25,27,31	
		2, 3,20, 8,28,57,29,58		9, 1
46″	11,29,45,22,14, 8,24,37,14,21		50,25,36,32	
		2, 3,20, 7,38,31,53,26		9, 1
48″	11,29,47,25,34,16, 3, 9, 7,47		50,25,45,33	
		2, 3,20, 6,48, 6, 7,53		9, 1
50″	11,29,49,28,54,22,51,15,15,40		50,25,54,34	
		2, 3,20, 5,57,40,13,19		9, 1
52″	11,29,51,32,14,28,48,55,28,59		50,26, 3,35	
		2, 3,20, 5, 7,14, 9,44		9, 1
54″	11,29,53,35,34,33,56, 9,38,43		50,26,12,36	
		2, 3,20, 4,16,47,57, 8		9, 1
56″	11,29,55,38,54,38,12,57,35,51		50,26,21,37	
		2, 3,20, 3,26,21,35,31		9, 1
58″	11,29,57,42,14,41,39,19,11,22		50,26,30,38	
		2, 3,20, 2,35,55, 4,53		
60″	11,29,59,45,34,44,15,14,16,15			
exact	11,29,59,45,34,44,15,14,11, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11° 3′ 0″	11,29,59,45,34,44,15,14,11, 7			
		2, 3,20, 1,45,28,24,50		
2″	11,30, 1,48,54,46, 0,42,35,57		50,26,48,41	
		2, 3,20, 0,55, 1,36, 9		9, 1
4″	11,30, 3,52,14,46,55,44,12, 6		50,26,57,42	
		2, 3,20, 0, 4,34,38,27		9, 1
6″	11,30, 5,55,34,47, 0,18,50,33		50,27, 6,43	
		2, 3,19,59,14, 7,31,44		9, 1
8″	11,30, 7,58,54,46,14,26,22,17		50,27,15,44	
		2, 3,19,58,23,40,16, 0		9, 1
10″	11,30,10, 2,14,44,38, 6,38,17		50,27,24,45	
		2, 3,19,57,33,12,51,15		9, 1
12″	11,30,12, 5,34,42,11,19,29,32		50,27,33,46	
		2, 3,19,56,42,45,17,29		9, 1
14″	11,30,14, 8,54,38,54, 4,47, 1		50,27,42,47	
		2, 3,19,55,52,17,34,42		9, 1
16″	11,30,16,12,14,34,46,22,21,43		50,27,51,48	
		2, 3,19,55, 1,49,42,54		9, 1
18″	11,30,18,15,34,29,48,12, 4,37		50,28, 0,49	
		2, 3,19,54,11,21,42, 5		9, 1
20″	11,30,20,18,54,23,59,33,46,42		50,28, 9,50	
		2, 3,19,53,20,53,32,15		9, 1
22″	11,30,22,22,14,17,20,27,18,57		50,28,18,51	
		2, 3,19,52,30,25,13,24		9, 1
24″	11,30,24,25,34, 9,50,52,32,21		50,28,27,52	
		2, 3,19,51,39,56,45,32		9, 1
26″	11,30,26,28,54, 1,30,49,17,53		50,28,36,53	
		2, 3,19,50,49,28, 8,39		9, 1
28″	11,30,28,32,13,52,20,17,26,32		50,28,45,54	
		2, 3,19,49,58,59,22,45		9, 1
30″	11,30,30,35,33,42,19,16,49,17		50,28,54,55	
		2, 3,19,49, 8,30,27,50		9, 1
32″	11,30,32,38,53,31,27,47,17, 7		50,29, 3,56	
		2, 3,19,48,18, 1,23,54		9, 1
34″	11,30,34,42,13,19,45,48,41, 1		50,29,12,57	
		2, 3,19,47,27,32,10,57		9, 1
36″	11,30,36,45,33, 7,13,20,51,58		50,29,21,58	
		2, 3,19,46,37, 2,48,59		9, 1
38″	11,30,38,48,52,53,50,23,40,57		50,29,30,59	
		2, 3,19,45,46,33,18, 0		9, 1
40″	11,30,40,52,12,39,36,56,58,57		50,29,40, 0	
		2, 3,19,44,56, 3,38, 0		9, 1
42″	11,30,42,55,32,24,33, 0,36,57		50,29,49, 1	
		2, 3,19,44, 5,33,48,59		9, 1
44″	11,30,44,58,52, 8,38,34,25,56		50,29,58, 2	
		2, 3,19,43,15, 3,50,57		9, 1
46″	11,30,47, 2,11,51,53,38,16,53		50,30, 7, 3	
		2, 3,19,42,24,33,43,54		9, 1
48″	11,30,49, 5,31,34,18,12, 0,47		50,30,16, 4	
		2, 3,19,41,34, 3,27,50		9, 1
50″	11,30,51, 8,51,15,52,15,28,37		50,30,25, 5	
		2, 3,19,40,43,33, 2,45		9, 1
52″	11,30,53,12,10,56,35,48,31,22		50,30,34, 6	
		2, 3,19,39,53, 2,28,39		9, 1
54″	11,30,55,15,30,36,28,51, 0, 1		50,30,43, 7	
		2, 3,19,39, 2,31,45,32		9, 1
56″	11,30,57,18,50,15,31,22,45,33		50,30,52, 8	
		2, 3,19,38,12, 0,53,24		9, 1
58″	11,30,59,22, 9,53,43,23,38,57		50,31, 1, 9	
		2, 3,19,37,21,29,52,15		
60″	11,31, 1,25,29,31, 4,53,31,12			
exact	11,31, 1,25,29,31, 4,53,31,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11° 4′ 0″	11,31, 1,25,29,31, 4,53,31,26			
		2, 3,19,36,30,58,42, 8		
2″	11,31, 3,28,49, 7,35,52,13,34		50,31,19,11	
		2, 3,19,35,40,27,22,57		9, 1
4″	11,31, 5,32, 8,43,16,19,36,31		50,31,28,12	
		2, 3,19,34,49,55,54,45		9, 1
6″	11,31, 7,35,28,18, 6,15,31,16		50,31,37,13	
		2, 3,19,33,59,24,17,32		9, 1
8″	11,31, 9,38,47,52, 5,39,48,48		50,31,46,14	
		2, 3,19,33, 8,52,31,18		9, 1
10″	11,31,11,42, 7,25,14,32,20, 6		50,31,55,15	
		2, 3,19,32,18,20,36, 3		9, 1
12″	11,31,13,45,26,57,32,52,56, 9		50,32, 4,16	
		2, 3,19,31,27,48,31,47		9, 1
14″	11,31,15,48,46,29, 0,41,27,56		50,32,13,17	
		2, 3,19,30,37,16,18,30		9, 1
16″	11,31,17,52, 5,59,37,57,46,26		50,32,22,18	
		2, 3,19,29,46,43,56,12		9, 1
18″	11,31,19,55,25,29,24,41,42,38		50,32,31,19	
		2, 3,19,28,56,11,24,53		9, 1
20″	11,31,21,58,44,58,20,53, 7,31		50,32,40,20	
		2, 3,19,28, 5,38,44,33		9, 1
22″	11,31,24, 2, 4,26,26,31,52, 4		50,32,49,21	
		2, 3,19,27,15, 5,55,12		9, 1
24″	11,31,26, 5,23,53,41,37,47,16		50,32,58,22	
		2, 3,19,26,24,32,56,50		9, 1
26″	11,31,28, 8,43,20, 6,10,44, 6		50,33, 7,23	
		2, 3,19,25,33,59,49,27		9, 1
28″	11,31,30,12, 2,45,40,10,33,33		50,33,16,24	
		2, 3,19,24,43,26,33, 3		9, 1
30″	11,31,32,15,22,10,23,37, 6,36		50,33,25,25	
		2, 3,19,23,52,53, 7,38		9, 1
32″	11,31,34,18,41,34,16,30,14,14		50,33,34,26	
		2, 3,19,23, 2,19,33,12		9, 1
34″	11,31,36,22, 0,57,18,49,47,26		50,33,43,27	
		2, 3,19,22,11,45,49,45		9, 1
36″	11,31,38,25,20,19,30,35,37,11		50,33,52,28	
		2, 3,19,21,21,11,57,17		9, 1
38″	11,31,40,28,39,40,51,47,34,28		50,34, 1,29	
		2, 3,19,20,30,37,55,48		9, 1
40″	11,31,42,31,59, 1,22,25,30,16		50,34,10,30	
		2, 3,19,19,40, 3,45,18		9, 1
42″	11,31,44,35,18,21, 2,29,15,34		50,34,19,31	
		2, 3,19,18,49,29,25,47		9, 1
44″	11,31,46,38,37,39,51,58,41,21		50,34,28,32	
		2, 3,19,17,58,54,57,15		9, 1
46″	11,31,48,41,56,57,50,53,38,36		50,34,37,33	
		2, 3,19,17, 8,20,19,42		9, 1
48″	11,31,50,45,16,14,59,13,58,18		50,34,46,34	
		2, 3,19,16,17,45,33, 8		9, 1
50″	11,31,52,48,35,31,16,59,31,26		50,34,55,35	
		2, 3,19,15,27,10,37,33		9, 1
52″	11,31,54,51,54,46,44,10, 8,59		50,35, 4,36	
		2, 3,19,14,36,35,32,57		9, 1
54″	11,31,56,55,14, 1,20,45,41,56		50,35,13,37	
		2, 3,19,13,46, 0,19,20		9, 1
56″	11,31,58,58,33,15, 6,46, 1,16		50,35,22,38	
		2, 3,19,12,55,24,56,42		9, 1
58″	11,32, 1, 1,52,28, 2,10,57,58		50,35,31,39	
		2, 3,19,12, 4,49,25, 3		
60″	11,32, 3, 5,11,40, 7, 0,23, 1			
exact	11,32, 3, 5,11,40, 7, 0,28,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11° 5′ 0″	11,32, 3, 5,11,40, 7, 0,28,23			
		2, 3,19,11,14,13,44,52		
2″	11,32, 5, 8,30,51,21,14,13,15		50,35,49,39	
		2, 3,19,10,23,37,55,13		9, 1
4″	11,32, 7,11,50, 1,44,52, 8,28		50,35,58,40	
		2, 3,19, 9,33, 1,56,33		9, 1
6″	11,32, 9,15, 9,11,17,54, 5, 1		50,36, 7,41	
		2, 3,19, 8,42,25,48,52		9, 1
8″	11,32,11,18,28,20, 0,19,53,53		50,36,16,42	
		2, 3,19, 7,51,49,32,10		9, 1
10″	11,32,13,21,47,27,52, 9,26, 3		50,36,25,43	
		2, 3,19, 7, 1,13, 6,27		9, 1
12″	11,32,15,25, 6,34,53,22,32,30		50,36,34,44	
		2, 3,19, 6,10,36,31,43		9, 1
14″	11,32,17,28,25,41, 3,59, 4,13		50,36,43,45	
		2, 3,19, 5,19,59,47,58		9, 1
16″	11,32,19,31,44,46,23,58,52,11		50,36,52,46	
		2, 3,19, 4,29,22,55,12		9, 1
18″	11,32,21,35, 3,50,53,21,47,23		50,37, 1,47	
		2, 3,19, 3,38,45,53,25		9, 1
20″	11,32,23,38,22,54,32, 7,40,48		50,37,10,48	
		2, 3,19, 2,48, 8,42,37		9, 1
22″	11,32,25,41,41,57,20,16,23,25		50,37,19,49	
		2, 3,19, 1,57,31,22,48		9, 1
24″	11,32,27,45, 0,59,17,47,46,13		50,37,28,50	
		2, 3,19, 1, 6,53,53,58		9, 1
26″	11,32,29,48,20, 0,24,41,40,11		50,37,37,51	
		2, 3,19, 0,16,16,16, 7		9, 1
28″	11,32,31,51,39, 0,40,57,56,18		50,37,46,52	
		2, 3,18,59,25,38,29,15		9, 1
30″	11,32,33,54,58, 0, 6,36,25,33		50,37,55,53	
		2, 3,18,58,35, 0,33,22		9, 1
32″	11,32,35,58,16,58,41,36,58,55		50,38, 4,54	
		2, 3,18,57,44,22,28,28		9, 1
34″	11,32,38, 1,35,56,25,59,27,23		50,38,13,55	
		2, 3,18,56,53,44,14,33		9, 1
36″	11,32,40, 4,54,53,19,43,41,56		50,38,22,56	
		2, 3,18,56, 3, 5,51,37		9, 1
38″	11,32,42, 8,13,49,22,49,33,33		50,38,31,57	
		2, 3,18,55,12,27,19,40		9, 1
40″	11,32,44,11,32,44,35,16,53,13		50,38,40,58	
		2, 3,18,54,21,48,38,42		9, 1
42″	11,32,46,14,51,38,57, 5,31,55		50,38,49,59	
		2, 3,18,53,31, 9,48,43		9, 1
44″	11,32,48,18,10,32,28,15,20,38		50,38,59, 0	
		2, 3,18,52,40,30,49,43		9, 1
46″	11,32,50,21,29,25, 8,46,10,21		50,39, 8, 1	
		2, 3,18,51,49,51,41,42		9, 1
48″	11,32,52,24,48,16,58,37,52, 3		50,39,17, 2	
		2, 3,18,50,59,12,24,40		9, 1
50″	11,32,54,28, 7, 7,57,50,16,43		50,39,26, 3	
		2, 3,18,50, 8,32,58,37		9, 1
52″	11,32,56,31,25,58, 6,23,15,20		50,39,35, 4	
		2, 3,18,49,17,53,23,33		9, 1
54″	11,32,58,34,44,47,24,16,38,53		50,39,44, 5	
		2, 3,18,48,27,13,39,28		9, 1
56″	11,33, 0,38, 3,35,51,30,18,21		50,39,53, 6	
		2, 3,18,47,36,33,46,22		9, 1
58″	11,33, 2,41,22,23,28, 4, 4,43		50,40, 2, 7	
		2, 3,18,46,45,53,44,15		
60″	11,33, 4,44,41,10,13,57,48,58			
exact	11,33, 4,44,41,10,13,57,51,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11° 6′ 0″	11,33, 4,44,41,10,13,57,51,17			
		2, 3,18,45,55,13,33,28		
2″	11,33, 6,47,59,56, 9,11,24,45		50,40,20, 7	
		2, 3,18,45, 4,33,13,21		9, 1
4″	11,33, 8,51,18,41,13,44,38, 6		50,40,29, 8	
		2, 3,18,44,13,52,44,13		9, 1
6″	11,33,10,54,37,25,27,37,22,19		50,40,38, 9	
		2, 3,18,43,23,12, 6, 4		9, 1
8″	11,33,12,57,56, 8,50,49,28,23		50,40,47,10	
		2, 3,18,42,32,31,18,54		9, 1
10″	11,33,15, 1,14,51,23,20,47,17		50,40,56,11	
		2, 3,18,41,41,50,22,43		9, 1
12″	11,33,17, 4,33,33, 5,11,10, 0		50,41, 5,12	
		2, 3,18,40,51, 9,17,31		9, 1
14″	11,33,19, 7,52,13,56,20,27,31		50,41,14,13	
		2, 3,18,40, 0,28, 3,18		9, 1
16″	11,33,21,11,10,53,56,48,30,49		50,41,23,14	
		2, 3,18,39, 9,46,40, 4		9, 1
18″	11,33,23,14,29,33, 6,35,10,53		50,41,32,15	
		2, 3,18,38,19, 5, 7,49		9, 1
20″	11,33,25,17,48,11,25,40,18,42		50,41,41,16	
		2, 3,18,37,28,23,26,33		9, 1
22″	11,33,27,21, 6,48,54, 3,45,15		50,41,50,17	
		2, 3,18,36,37,41,36,16		9, 1
24″	11,33,29,24,25,25,31,45,21,31		50,41,59,18	
		2, 3,18,35,46,59,36,58		9, 1
26″	11,33,31,27,44, 1,18,44,58,29		50,42, 8,19	
		2, 3,18,34,56,17,28,39		9, 1
28″	11,33,33,31, 2,36,15, 2,27, 8		50,42,17,20	
		2, 3,18,34, 5,35,11,19		9, 1
30″	11,33,35,34,21,10,20,37,38,27		50,42,26,21	
		2, 3,18,33,14,52,44,58		9, 1
32″	11,33,37,37,39,43,35,30,23,25		50,42,35,22	
		2, 3,18,32,24,10, 9,36		9, 1
34″	11,33,39,40,58,15,59,40,33, 1		50,42,44,23	
		2, 3,18,31,33,27,25,13		9, 1
36″	11,33,41,44,16,47,33, 7,58,14		50,42,53,24	
		2, 3,18,30,42,44,31,49		9, 1
38″	11,33,43,47,35,18,15,52,30, 3		50,43, 2,25	
		2, 3,18,29,52, 1,29,24		9, 1
40″	11,33,45,50,53,48, 7,53,59,27		50,43,11,26	
		2, 3,18,29, 1,18,17,58		9, 1
42″	11,33,47,54,12,17, 9,12,17,25		50,43,20,27	
		2, 3,18,28,10,34,57,31		9, 1
44″	11,33,49,57,30,45,19,47,14,56		50,43,29,28	
		2, 3,18,27,19,51,28, 3		9, 1
46″	11,33,52, 0,49,12,39,38,42,59		50,43,38,29	
		2, 3,18,26,29, 7,49,34		9, 1
48″	11,33,54, 4, 7,39, 8,46,32,33		50,43,47,30	
		2, 3,18,25,38,24, 2, 4		9, 1
50″	11,33,56, 7,26, 4,47,10,34,37		50,43,56,31	
		2, 3,18,24,47,40, 5,33		9, 1
52″	11,33,58,10,44,29,34,50,40,10		50,44, 5,32	
		2, 3,18,23,56,56, 0, 1		9, 1
54″	11,34, 0,14, 2,53,31,46,40,11		50,44,14,33	
		2, 3,18,23, 6,11,45,28		9, 1
56″	11,34, 2,17,21,16,37,58,25,39		50,44,23,34	
		2, 3,18,22,15,27,21,54		9, 1
58″	11,34, 4,20,39,38,53,25,47,33		50,44,32,35	
		2, 3,18,21,24,42,49,19		
60″	11,34, 6,23,58, 0,18, 8,36,52			
exact	11,34, 6,23,58, 0,18, 8,43,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11° 7′ 0″	11,34, 6,23,58, 0,18, 8,43,20			
		2, 3,18,20,33,58, 8,26		
2″	11,34, 8,27,16,20,52, 6,51,46		50,44,50,34	
		2, 3,18,19,43,13,17,52		9, 1
4″	11,34,10,30,34,40,35,20, 9,38		50,44,59,35	
		2, 3,18,18,52,28,18,17		9, 1
6″	11,34,12,33,52,59,27,48,27,55		50,45, 8,36	
		2, 3,18,18, 1,43, 9,41		9, 1
8″	11,34,14,37,11,17,29,31,37,36		50,45,17,37	
		2, 3,18,17,10,57,52, 4		9, 1
10″	11,34,16,40,29,34,40,29,29,40		50,45,26,38	
		2, 3,18,16,20,12,25,26		9, 1
12″	11,34,18,43,47,51, 0,41,55, 6		50,45,35,39	
		2, 3,18,15,29,26,49,47		9, 1
14″	11,34,20,47, 6, 6,30, 8,44,53		50,45,44,40	
		2, 3,18,14,38,41, 5, 7		9, 1
16″	11,34,22,50,24,21, 8,49,50, 0		50,45,53,41	
		2, 3,18,13,47,55,11,26		9, 1
18″	11,34,24,53,42,34,56,45, 1,26		50,46, 2,42	
		2, 3,18,12,57, 9, 8,44		9, 1
20″	11,34,26,57, 0,47,53,54,10,10		50,46,11,43	
		2, 3,18,12, 6,22,57, 1		9, 1
22″	11,34,29, 0,19, 0, 0,17, 7,11		50,46,20,44	
		2, 3,18,11,15,36,36,17		9, 1
24″	11,34,31, 3,37,11,15,53,43,28		50,46,29,45	
		2, 3,18,10,24,50, 6,32		9, 1
26″	11,34,33, 6,55,21,40,43,50, 0		50,46,38,46	
		2, 3,18, 9,34, 3,27,46		9, 1
28″	11,34,35,10,13,31,14,47,17,46		50,46,47,47	
		2, 3,18, 8,43,16,39,59		9, 1
30″	11,34,37,13,31,39,58, 3,57,45		50,46,56,48	
		2, 3,18, 7,52,29,43,11		9, 1
32″	11,34,39,16,49,47,50,33,40,56		50,47, 5,49	
		2, 3,18, 7, 1,42,37,22		9, 1
34″	11,34,41,20, 7,54,52,16,18,18		50,47,14,50	
		2, 3,18, 6,10,55,22,32		9, 1
36″	11,34,43,23,26, 1, 3,11,40,50		50,47,23,51	
		2, 3,18, 5,20, 7,58,41		9, 1
38″	11,34,45,26,44, 6,23,19,39,31		50,47,32,52	
		2, 3,18, 4,29,20,25,49		9, 1
40″	11,34,47,30, 2,10,52,40, 5,20		50,47,41,53	
		2, 3,18, 3,38,32,43,56		9, 1
42″	11,34,49,33,20,14,31,12,49,16		50,47,50,54	
		2, 3,18, 2,47,44,53, 2		9, 1
44″	11,34,51,36,38,17,18,57,42,18		50,47,59,55	
		2, 3,18, 1,56,56,53, 7		9, 1
46″	11,34,53,39,56,19,15,54,35,25		50,48, 8,56	
		2, 3,18, 1, 6, 8,44,11		9, 1
48″	11,34,55,43,14,20,22, 3,19,36		50,48,17,57	
		2, 3,18, 0,15,20,26,14		9, 1
50″	11,34,57,46,32,20,37,23,45,50		50,48,26,58	
		2, 3,17,59,24,31,59,16		9, 1
52″	11,34,59,49,50,20, 1,55,45, 6		50,48,35,59	
		2, 3,17,58,33,43,23,17		9, 1
54″	11,35, 1,53, 8,18,35,39, 8,23		50,48,45, 0	
		2, 3,17,57,42,54,38,17		9, 1
56″	11,35, 3,56,26,16,18,33,46,40		50,48,54, 1	
		2, 3,17,56,52, 5,44,16		9, 1
58″	11,35, 5,59,44,13,10,39,30,56		50,49, 3, 2	
		2, 3,17,56, 1,16,41,14		
60″	11,35, 8, 3, 2, 9,11,56,12,10			
exact	11,35, 8, 3, 2, 9,11,56,21,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11° 8′ 0″	11,35, 8, 3, 2, 9,11,56,21,39			
		2, 3,17,55,10,27,30,12		
2″	11,35,10, 6,20, 4,22,23,51,51		50,49,21, 0	
		2, 3,17,54,19,38, 9,12		9, 1
4″	11,35,12, 9,37,58,42, 2, 1, 3		50,49,30, 1	
		2, 3,17,53,28,48,39,11		9, 1
6″	11,35,14,12,55,52,10,50,40,14		50,49,39, 2	
		2, 3,17,52,37,59, 0, 9		9, 1
8″	11,35,16,16,13,44,48,49,40,23		50,49,48, 3	
		2, 3,17,51,47, 9,12, 6		9, 1
10″	11,35,18,19,31,36,35,58,52,29		50,49,57, 4	
		2, 3,17,50,56,19,15, 2		9, 1
12″	11,35,20,22,49,27,32,18, 7,31		50,50, 6, 5	
		2, 3,17,50, 5,29, 8,57		9, 1
14″	11,35,22,26, 7,17,37,47,16,28		50,50,15, 6	
		2, 3,17,49,14,38,53,51		9, 1
16″	11,35,24,29,25, 6,52,26,10,19		50,50,24, 7	
		2, 3,17,48,23,48,29,44		9, 1
18″	11,35,26,32,42,55,16,14,40, 3		50,50,33, 8	
		2, 3,17,47,32,57,56,36		9, 1
20″	11,35,28,36, 0,42,49,12,36,39		50,50,42, 9	
		2, 3,17,46,42, 7,14,27		9, 1
22″	11,35,30,39,18,29,31,19,51, 6		50,50,51,10	
		2, 3,17,45,51,16,23,17		9, 1
24″	11,35,32,42,36,15,22,36,14,23		50,51, 0,11	
		2, 3,17,45, 0,25,23, 6		9, 1
26″	11,35,34,45,54, 0,23, 1,37,29		50,51, 9,12	
		2, 3,17,44, 9,34,13,54		9, 1
28″	11,35,36,49,11,44,32,35,51,23		50,51,18,13	
		2, 3,17,43,18,42,55,41		9, 1
30″	11,35,38,52,29,27,51,18,47, 4		50,51,27,14	
		2, 3,17,42,27,51,28,27		9, 1
32″	11,35,40,55,47,10,19,10,15,31		50,51,36,15	
		2, 3,17,41,36,59,52,12		9, 1
34″	11,35,42,59, 4,51,56,10, 7,43		50,51,45,16	
		2, 3,17,40,46, 8, 6,56		9, 1
36″	11,35,45, 2,22,32,42,18,14,39		50,51,54,17	
		2, 3,17,39,55,16,12,39		9, 1
38″	11,35,47, 5,40,12,37,34,27,18		50,52, 3,18	
		2, 3,17,39, 4,24, 9,21		9, 1
40″	11,35,49, 8,57,51,41,58,36,39		50,52,12,19	
		2, 3,17,38,13,31,57, 2		9, 1
42″	11,35,51,12,15,29,55,30,33,41		50,52,21,20	
		2, 3,17,37,22,39,35,42		9, 1
44″	11,35,53,15,33, 7,18,10, 9,23		50,52,30,21	
		2, 3,17,36,31,47, 5,21		9, 1
46″	11,35,55,18,50,43,49,57,14,44		50,52,39,22	
		2, 3,17,35,40,54,25,59		9, 1
48″	11,35,57,22, 8,19,30,51,40,43		50,52,48,23	
		2, 3,17,34,50, 1,37,36		9, 1
50″	11,35,59,25,25,54,20,53,18,19		50,52,57,24	
		2, 3,17,33,59, 8,40,12		9, 1
52″	11,36, 1,28,43,28,20, 1,58,31		50,53, 6,25	
		2, 3,17,33, 8,15,33,47		9, 1
54″	11,36, 3,32, 1, 1,28,17,32,18		50,53,15,26	
		2, 3,17,32,17,22,18,21		9, 1
56″	11,36, 5,35,18,33,45,39,50,39		50,53,24,27	
		2, 3,17,31,26,28,53,54		9, 1
58″	11,36, 7,38,36, 5,12, 8,44,33		50,53,33,28	
		2, 3,17,30,35,35,20,26		
60″	11,36, 9,41,53,35,47,44, 4,59			
exact	11,36, 9,41,53,35,47,44,17,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11° 9′ 0″	11,36, 9,41,53,35,47,44,17,14			
		2, 3,17,29,44,41,39,14		
2″	11,36,11,45,11, 5,32,25,56,28		50,53,51,25	
		2, 3,17,28,53,47,47,49		9, 1
4″	11,36,13,48,28,34,26,13,44,17		50,54, 0,26	
		2, 3,17,28, 2,53,47,23		9, 1
6″	11,36,15,51,46, 2,29, 7,31,40		50,54, 9,27	
		2, 3,17,27,11,59,37,56		9, 1
8″	11,36,17,55, 3,29,41, 7, 9,36		50,54,18,28	
		2, 3,17,26,21, 5,19,28		9, 1
10″	11,36,19,58,20,56, 2,12,29, 4		50,54,27,29	
		2, 3,17,25,30,10,51,59		9, 1
12″	11,36,22, 1,38,21,32,23,21, 3		50,54,36,30	
		2, 3,17,24,39,16,15,29		9, 1
14″	11,36,24, 4,55,46,11,39,36,32		50,54,45,31	
		2, 3,17,23,48,21,29,58		9, 1
16″	11,36,26, 8,13,10, 0, 1, 6,30		50,54,54,32	
		2, 3,17,22,57,26,35,26		9, 1
18″	11,36,28,11,30,32,57,27,41,56		50,55, 3,33	
		2, 3,17,22, 6,31,31,53		9, 1
20″	11,36,30,14,47,55, 3,59,13,49		50,55,12,34	
		2, 3,17,21,15,36,19,19		9, 1
22″	11,36,32,18, 5,16,19,35,33, 8		50,55,21,35	
		2, 3,17,20,24,40,57,44		9, 1
24″	11,36,34,21,22,36,44,16,30,52		50,55,30,36	
		2, 3,17,19,33,45,27, 8		9, 1
26″	11,36,36,24,39,56,18, 1,58, 0		50,55,39,37	
		2, 3,17,18,42,49,47,31		9, 1
28″	11,36,38,27,57,15, 0,51,45,31		50,55,48,38	
		2, 3,17,17,51,53,58,53		9, 1
30″	11,36,40,31,14,32,52,45,44,24		50,55,57,39	
		2, 3,17,17, 0,58, 1,14		9, 1
32″	11,36,42,34,31,49,53,43,45,38		50,56, 6,40	
		2, 3,17,16,10, 1,54,34		9, 1
34″	11,36,44,37,49, 6, 3,45,40,12		50,56,15,41	
		2, 3,17,15,19, 5,38,53		9, 1
36″	11,36,46,41, 6,21,22,51,19, 5		50,56,24,42	
		2, 3,17,14,28, 9,14,11		9, 1
38″	11,36,48,44,23,35,51, 0,33,16		50,56,33,43	
		2, 3,17,13,37,12,40,28		9, 1
40″	11,36,50,47,40,49,28,13,13,44		50,56,42,44	
		2, 3,17,12,46,15,57,44		9, 1
42″	11,36,52,50,58, 2,14,29,11,28		50,56,51,45	
		2, 3,17,11,55,19, 5,59		9, 1
44″	11,36,54,54,15,14, 9,48,17,27		50,57, 0,46	
		2, 3,17,11, 4,22, 5,13		9, 1
46″	11,36,56,57,32,25,14,10,22,40		50,57, 9,47	
		2, 3,17,10,13,24,55,26		9, 1
48″	11,36,59, 0,49,35,27,35,18, 6		50,57,18,48	
		2, 3,17, 9,22,27,36,38		9, 1
50″	11,37, 1, 4, 6,44,50, 2,54,44		50,57,27,49	
		2, 3,17, 8,31,30, 8,49		9, 1
52″	11,37, 3, 7,23,53,21,33, 3,33		50,57,36,50	
		2, 3,17, 7,40,32,31,59		9, 1
54″	11,37, 5,10,41, 1, 2, 5,35,32		50,57,45,51	
		2, 3,17, 6,49,34,46, 8		9, 1
56″	11,37, 7,13,58, 7,51,40,21,40		50,57,54,52	
		2, 3,17, 5,58,36,51,16		9, 1
58″	11,37, 9,17,15,13,50,17,12,56		50,58, 3,53	
		2, 3,17, 5, 7,38,47,23		
60″	11,37,11,20,32,18,57,56, 0,19			
exact	11,37,11,20,32,18,57,56,15, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°10′ 0″	11,37,11,20,32,18,57,56,15, 1			
		2, 3,17, 4,16,40,36, 1		
2″	11,37,13,23,49,23,14,36,51, 2		50,58,21,49	
		2, 3,17, 3,25,42,14,12		9, 1
4″	11,37,15,27, 6,26,40,19, 5,14		50,58,30,50	
		2, 3,17, 2,34,43,43,22		9, 1
6″	11,37,17,30,23,29,15, 2,48,36		50,58,39,51	
		2, 3,17, 1,43,45, 3,31		9, 1
8″	11,37,19,33,40,30,58,47,52, 7		50,58,48,52	
		2, 3,17, 0,52,46,14,39		9, 1
10″	11,37,21,36,57,31,51,34, 6,46		50,58,57,53	
		2, 3,17, 0, 1,47,16,46		9, 1
12″	11,37,23,40,14,31,53,21,23,32		50,59, 6,54	
		2, 3,16,59,10,48, 9,52		9, 1
14″	11,37,25,43,31,31, 4, 9,33,24		50,59,15,55	
		2, 3,16,58,19,48,53,57		9, 1
16″	11,37,27,46,48,29,23,58,27,21		50,59,24,56	
		2, 3,16,57,28,49,29, 1		9, 1
18″	11,37,29,50, 5,26,52,47,56,22		50,59,33,57	
		2, 3,16,56,37,49,55, 4		9, 1
20″	11,37,31,53,22,23,30,37,51,26		50,59,42,58	
		2, 3,16,55,46,50,12, 6		9, 1
22″	11,37,33,56,39,19,17,28, 3,32		50,59,51,59	
		2, 3,16,54,55,50,20, 7		9, 1
24″	11,37,35,59,56,14,13,18,23,39		51, 0, 1, 0	
		2, 3,16,54, 4,50,19, 7		9, 1
26″	11,37,38, 3,13, 8,18, 8,42,46		51, 0,10, 1	
		2, 3,16,53,13,50, 9, 6		9, 1
28″	11,37,40, 6,30, 1,31,58,51,52		51, 0,19, 2	
		2, 3,16,52,22,49,50, 4		9, 1
30″	11,37,42, 9,46,53,54,48,41,56		51, 0,28, 3	
		2, 3,16,51,31,49,22, 1		9, 1
32″	11,37,44,13, 3,45,26,38, 3,57		51, 0,37, 4	
		2, 3,16,50,40,48,44,57		9, 1
34″	11,37,46,16,20,36, 7,26,48,54		51, 0,46, 5	
		2, 3,16,49,49,47,58,52		9, 1
36″	11,37,48,19,37,25,57,14,47,46		51, 0,55, 6	
		2, 3,16,48,58,47, 3,46		9, 1
38″	11,37,50,22,54,14,56, 1,51,32		51, 1, 4, 7	
		2, 3,16,48, 7,45,59,39		9, 1
40″	11,37,52,26,11, 3, 3,47,51,11		51, 1,13, 8	
		2, 3,16,47,16,44,46,31		9, 1
42″	11,37,54,29,27,50,20,32,37,42		51, 1,22, 9	
		2, 3,16,46,25,43,24,22		9, 1
44″	11,37,56,32,44,36,46,16, 2, 4		51, 1,31,10	
		2, 3,16,45,34,41,53,12		9, 1
46″	11,37,58,36, 1,22,20,57,55,16		51, 1,40,11	
		2, 3,16,44,43,40,13, 1		9, 1
48″	11,38, 0,39,18, 7, 4,38, 8,17		51, 1,49,12	
		2, 3,16,43,52,38,23,49		9, 1
50″	11,38, 2,42,34,50,57,16,32, 6		51, 1,58,13	
		2, 3,16,43, 1,36,25,36		9, 1
52″	11,38, 4,45,51,33,58,52,57,42		51, 2, 7,14	
		2, 3,16,42,10,34,18,22		9, 1
54″	11,38, 6,49, 8,16, 9,27,16, 4		51, 2,16,15	
		2, 3,16,41,19,32, 2, 7		9, 1
56″	11,38, 8,52,24,57,28,59,18,11		51, 2,25,16	
		2, 3,16,40,28,29,36,51		9, 1
58″	11,38,10,55,41,37,57,28,55, 2		51, 2,34,17	
		2, 3,16,39,37,27, 2,34		
60″	11,38,12,58,58,17,34,55,57,36			
exact	11,38,12,58,58,17,34,56,13,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°11′ 0″	11,38,12,58,58,17,34,56,13,54			
		2, 3,16,38,46,24,20,59		
2″	11,38,15, 2,14,56,21,20,34,53		51, 2,52,12	
		2, 3,16,37,55,21,28,47		9, 1
4″	11,38,17, 5,31,34,16,42, 3,40		51, 3, 1,13	
		2, 3,16,37, 4,18,27,34		9, 1
6″	11,38,19, 8,48,11,21, 0,31,14		51, 3,10,14	
		2, 3,16,36,13,15,17,20		9, 1
8″	11,38,21,12, 4,47,34,15,48,34		51, 3,19,15	
		2, 3,16,35,22,11,58, 5		9, 1
10″	11,38,23,15,21,22,56,27,46,39		51, 3,28,16	
		2, 3,16,34,31, 8,29,49		9, 1
12″	11,38,25,18,37,57,27,36,16,28		51, 3,37,17	
		2, 3,16,33,40, 4,52,32		9, 1
14″	11,38,27,21,54,31, 7,41, 9, 0		51, 3,46,18	
		2, 3,16,32,49, 1, 6,14		9, 1
16″	11,38,29,25,11, 3,56,42,15,14		51, 3,55,19	
		2, 3,16,31,57,57,10,55		9, 1
18″	11,38,31,28,27,35,54,39,26, 9		51, 4, 4,20	
		2, 3,16,31, 6,53, 6,35		9, 1
20″	11,38,33,31,44, 7, 1,32,32,44		51, 4,13,21	
		2, 3,16,30,15,48,53,14		9, 1
22″	11,38,35,35, 0,37,17,21,25,58		51, 4,22,22	
		2, 3,16,29,24,44,30,52		9, 1
24″	11,38,37,38,17, 6,42, 5,56,50		51, 4,31,23	
		2, 3,16,28,33,39,59,29		9, 1
26″	11,38,39,41,33,35,15,45,56,19		51, 4,40,24	
		2, 3,16,27,42,35,19, 5		9, 1
28″	11,38,41,44,50, 2,58,21,15,24		51, 4,49,25	
		2, 3,16,26,51,30,29,40		9, 1
30″	11,38,43,48, 6,29,49,51,45, 4		51, 4,58,26	
		2, 3,16,26, 0,25,31,14		9, 1
32″	11,38,45,51,22,55,50,17,16,18		51, 5, 7,27	
		2, 3,16,25, 9,20,23,47		9, 1
34″	11,38,47,54,39,20,59,37,40, 5		51, 5,16,28	
		2, 3,16,24,18,15, 7,19		9, 1
36″	11,38,49,57,55,45,17,52,47,24		51, 5,25,29	
		2, 3,16,23,27, 9,41,50		9, 1
38″	11,38,52, 1,12, 8,45, 2,29,14		51, 5,34,30	
		2, 3,16,22,36, 4, 7,20		9, 1
40″	11,38,54, 4,28,31,21, 6,36,34		51, 5,43,31	
		2, 3,16,21,44,58,23,49		9, 1
42″	11,38,56, 7,44,53, 6, 5, 0,23		51, 5,52,32	
		2, 3,16,20,53,52,31,17		9, 1
44″	11,38,58,11, 1,13,59,57,31,40		51, 6, 1,33	
		2, 3,16,20, 2,46,29,44		9, 1
46″	11,39, 0,14,17,34, 2,44, 1,24		51, 6,10,34	
		2, 3,16,19,11,40,19,10		9, 1
48″	11,39, 2,17,33,53,14,24,20,34		51, 6,19,35	
		2, 3,16,18,20,33,59,35		9, 1
50″	11,39, 4,20,50,11,34,58,20, 9		51, 6,28,36	
		2, 3,16,17,29,27,30,59		9, 1
52″	11,39, 6,24, 6,29, 4,25,51, 8		51, 6,37,37	
		2, 3,16,16,38,20,53,22		9, 1
54″	11,39, 8,27,22,45,42,46,44,30		51, 6,46,38	
		2, 3,16,15,47,14, 6,44		9, 1
56″	11,39,10,30,39, 1,30, 0,51,14		51, 6,55,39	
		2, 3,16,14,56, 7,11, 5		9, 1
58″	11,39,12,33,55,16,26, 8, 2,19		51, 7, 4,40	
		2, 3,16,14, 5, 0, 6,25		
60″	11,39,14,37,11,30,31, 8, 8,44			
exact	11,39,14,37,11,30,31, 8,26,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°12′ 0″	11,39,14,37,11,30,31, 8,26,44			
		2, 3,16,13,13,52,54,38		
2″	11,39,16,40,27,43,45, 1,21,22		51, 7,22,34	
		2, 3,16,12,22,45,32, 4		9, 1
4″	11,39,18,43,43,56, 7,46,53,26		51, 7,31,35	
		2, 3,16,11,31,38, 0,29		9, 1
6″	11,39,20,47, 0, 7,39,24,53,55		51, 7,40,36	
		2, 3,16,10,40,30,19,53		9, 1
8″	11,39,22,50,16,18,19,55,13,48		51, 7,49,37	
		2, 3,16, 9,49,22,30,16		9, 1
10″	11,39,24,53,32,28, 9,17,44, 4		51, 7,58,38	
		2, 3,16, 8,58,14,31,38		9, 1
12″	11,39,26,56,48,37, 7,32,15,42		51, 8, 7,39	
		2, 3,16, 8, 7, 6,23,59		9, 1
14″	11,39,29, 0, 4,45,14,38,39,41		51, 8,16,40	
		2, 3,16, 7,15,58, 7,19		9, 1
16″	11,39,31, 3,20,52,30,36,47, 0		51, 8,25,41	
		2, 3,16, 6,24,49,41,38		9, 1
18″	11,39,33, 6,36,58,55,26,28,38		51, 8,34,42	
		2, 3,16, 5,33,41, 6,56		9, 1
20″	11,39,35, 9,53, 4,29, 7,35,34		51, 8,43,43	
		2, 3,16, 4,42,32,23,13		9, 1
22″	11,39,37,13, 9, 9,11,39,58,47		51, 8,52,44	
		2, 3,16, 3,51,23,30,29		9, 1
24″	11,39,39,16,25,13, 3, 3,29,16		51, 9, 1,45	
		2, 3,16, 3, 0,14,28,44		9, 1
26″	11,39,41,19,41,16, 3,17,58, 0		51, 9,10,46	
		2, 3,16, 2, 9, 5,17,58		9, 1
28″	11,39,43,22,57,18,12,23,15,58		51, 9,19,47	
		2, 3,16, 1,17,55,58,11		9, 1
30″	11,39,45,26,13,19,30,19,14, 9		51, 9,28,48	
		2, 3,16, 0,26,46,29,23		9, 1
32″	11,39,47,29,29,19,57, 5,43,32		51, 9,37,49	
		2, 3,15,59,35,36,51,34		9, 1
34″	11,39,49,32,45,19,32,42,35, 6		51, 9,46,50	
		2, 3,15,58,44,27, 4,44		9, 1
36″	11,39,51,36, 1,18,17, 9,39,50		51, 9,55,51	
		2, 3,15,57,53,17, 8,53		9, 1
38″	11,39,53,39,17,16,10,26,48,43		51,10, 4,52	
		2, 3,15,57, 2, 7, 4, 1		9, 1
40″	11,39,55,42,33,13,12,33,52,44		51,10,13,53	
		2, 3,15,56,10,56,50, 8		9, 1
42″	11,39,57,45,49, 9,23,30,42,52		51,10,22,54	
		2, 3,15,55,19,46,27,14		9, 1
44″	11,39,59,49, 5, 4,43,17,10, 6		51,10,31,55	
		2, 3,15,54,28,35,55,19		9, 1
46″	11,40, 1,52,20,59,11,53, 5,25		51,10,40,56	
		2, 3,15,53,37,25,14,23		9, 1
48″	11,40, 3,55,36,52,49,18,19,48		51,10,49,57	
		2, 3,15,52,46,14,24,26		9, 1
50″	11,40, 5,58,52,45,35,32,44,14		51,10,58,58	
		2, 3,15,51,55, 3,25,28		9, 1
52″	11,40, 8, 2, 8,37,30,36, 9,42		51,11, 7,59	
		2, 3,15,51, 3,52,17,29		9, 1
54″	11,40,10, 5,24,28,34,28,27,11		51,11,17, 0	
		2, 3,15,50,12,41, 0,29		9, 1
56″	11,40,12, 8,40,18,47, 9,27,40		51,11,26, 1	
		2, 3,15,49,21,29,34,28		9, 1
58″	11,40,14,11,56, 8, 8,39, 2, 8		51,11,35, 2	
		2, 3,15,48,30,17,59,26		
60″	11,40,16,15,11,56,38,57, 1,34			
exact	11,40,16,15,11,56,38,57,20,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°13′ 0″	11,40,16,15,11,56,38,57,20,25			
		2, 3,15,47,39, 6,17,26		
2″	11,40,18,18,27,44,18, 3,37,51		51,11,52,55	
		2, 3,15,46,47,54,24,31		9, 1
4″	11,40,20,21,43,31, 5,58, 2,22		51,12, 1,56	
		2, 3,15,45,56,42,22,35		9, 1
6″	11,40,22,24,59,17, 2,40,24,57		51,12,10,57	
		2, 3,15,45, 5,30,11,38		9, 1
8″	11,40,24,28,15, 2, 8,10,36,35		51,12,19,58	
		2, 3,15,44,14,17,51,40		9, 1
10″	11,40,26,31,30,46,22,28,28,15		51,12,28,59	
		2, 3,15,43,23, 5,22,41		9, 1
12″	11,40,28,34,46,29,45,33,50,56		51,12,38, 0	
		2, 3,15,42,31,52,44,41		9, 1
14″	11,40,30,38, 2,12,17,26,35,37		51,12,47, 1	
		2, 3,15,41,40,39,57,40		9, 1
16″	11,40,32,41,17,53,58, 6,33,17		51,12,56, 2	
		2, 3,15,40,49,27, 1,38		9, 1
18″	11,40,34,44,33,34,47,33,34,55		51,13, 5, 3	
		2, 3,15,39,58,13,56,35		9, 1
20″	11,40,36,47,49,14,45,47,31,30		51,13,14, 4	
		2, 3,15,39, 7, 0,42,31		9, 1
22″	11,40,38,51, 4,53,52,48,14, 1		51,13,23, 5	
		2, 3,15,38,15,47,19,26		9, 1
24″	11,40,40,54,20,32, 8,35,33,27		51,13,32, 6	
		2, 3,15,37,24,33,47,20		9, 1
26″	11,40,42,57,36, 9,33, 9,20,47		51,13,41, 7	
		2, 3,15,36,33,20, 6,13		9, 1
28″	11,40,45, 0,51,46, 6,29,27, 0		51,13,50, 8	
		2, 3,15,35,42, 6,16, 5		9, 1
30″	11,40,47, 4, 7,21,48,35,43, 5		51,13,59, 9	
		2, 3,15,34,50,52,16,56		9, 1
32″	11,40,49, 7,22,56,39,28, 0, 1		51,14, 8,10	
		2, 3,15,33,59,38, 8,46		9, 1
34″	11,40,51,10,38,30,39, 6, 8,47		51,14,17,11	
		2, 3,15,33, 8,23,51,35		9, 1
36″	11,40,53,13,54, 3,47,30, 0,22		51,14,26,12	
		2, 3,15,32,17, 9,25,23		9, 1
38″	11,40,55,17, 9,36, 4,39,25,45		51,14,35,13	
		2, 3,15,31,25,54,50,10		9, 1
40″	11,40,57,20,25, 7,30,34,15,55		51,14,44,14	
		2, 3,15,30,34,40, 5,56		9, 1
42″	11,40,59,23,40,38, 5,14,21,51		51,14,53,15	
		2, 3,15,29,43,25,12,41		9, 1
44″	11,41, 1,26,56, 7,48,39,34,32		51,15, 2,16	
		2, 3,15,28,52,10,10,25		9, 1
46″	11,41, 3,30,11,36,40,49,44,57		51,15,11,17	
		2, 3,15,28, 0,54,59, 8		9, 1
48″	11,41, 5,33,27, 4,41,44,44, 5		51,15,20,18	
		2, 3,15,27, 9,39,38,50		9, 1
50″	11,41, 7,36,42,31,51,24,22,55		51,15,29,19	
		2, 3,15,26,18,24, 9,31		9, 1
52″	11,41, 9,39,57,58, 9,48,32,26		51,15,38,20	
		2, 3,15,25,27, 8,31,11		9, 1
54″	11,41,11,43,13,23,36,57, 3,37		51,15,47,21	
		2, 3,15,24,35,52,43,50		9, 1
56″	11,41,13,46,28,48,12,49,47,27		51,15,56,22	
		2, 3,15,23,44,36,47,28		9, 1
58″	11,41,15,49,44,11,57,26,34,55		51,16, 5,23	
		2, 3,15,22,53,20,42, 5		
60″	11,41,17,52,59,34,50,47,17, 0			
exact	11,41,17,52,59,34,50,47,35,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°14′ 0″	11,41,17,52,59,34,50,47,35,47			
		2, 3,15,22, 2, 4,29,49		
2″	11,41,19,56,14,56,52,52, 5,36		51,16,23,16	
		2, 3,15,21,10,48, 6,33		9, 1
4″	11,41,21,59,30,18, 3,40,12, 9		51,16,32,17	
		2, 3,15,20,19,31,34,16		9, 1
6″	11,41,24, 2,45,38,23,11,46,25		51,16,41,18	
		2, 3,15,19,28,14,52,58		9, 1
8″	11,41,26, 6, 0,57,51,26,39,23		51,16,50,19	
		2, 3,15,18,36,58, 2,39		9, 1
10″	11,41,28, 9,16,16,28,24,42, 2		51,16,59,20	
		2, 3,15,17,45,41, 3,19		9, 1
12″	11,41,30,12,31,34,14, 5,45,21		51,17, 8,21	
		2, 3,15,16,54,23,54,58		9, 1
14″	11,41,32,15,46,51, 8,29,40,19		51,17,17,22	
		2, 3,15,16, 3, 6,37,36		9, 1
16″	11,41,34,19, 2, 7,11,36,17,55		51,17,26,23	
		2, 3,15,15,11,49,11,13		9, 1
18″	11,41,36,22,17,22,23,25,29, 8		51,17,35,24	
		2, 3,15,14,20,31,35,49		9, 1
20″	11,41,38,25,32,36,43,57, 4,57		51,17,44,25	
		2, 3,15,13,29,13,51,24		9, 1
22″	11,41,40,28,47,50,13,10,56,21		51,17,53,26	
		2, 3,15,12,37,55,57,58		9, 1
24″	11,41,42,32, 3, 2,51, 6,54,19		51,18, 2,27	
		2, 3,15,11,46,37,55,31		9, 1
26″	11,41,44,35,18,14,37,44,49,50		51,18,11,28	
		2, 3,15,10,55,19,44, 3		9, 1
28″	11,41,46,38,33,25,33, 4,33,53		51,18,20,29	
		2, 3,15,10, 4, 1,23,34		9, 1
30″	11,41,48,41,48,35,37, 5,57,27		51,18,29,30	
		2, 3,15, 9,12,42,54, 4		9, 1
32″	11,41,50,45, 3,44,49,48,51,31		51,18,38,31	
		2, 3,15, 8,21,24,15,33		9, 1
34″	11,41,52,48,18,53,11,13, 7, 4		51,18,47,32	
		2, 3,15, 7,30, 5,28, 1		9, 1
36″	11,41,54,51,34, 0,41,18,35, 5		51,18,56,33	
		2, 3,15, 6,38,46,31,28		9, 1
38″	11,41,56,54,49, 7,20, 5, 6,33		51,19, 5,34	
		2, 3,15, 5,47,27,25,54		9, 1
40″	11,41,58,58, 4,13, 7,32,32,27		51,19,14,35	
		2, 3,15, 4,56, 8,11,19		9, 1
42″	11,42, 1, 1,19,18, 3,40,43,46		51,19,23,36	
		2, 3,15, 4, 4,48,47,43		9, 1
44″	11,42, 3, 4,34,22, 8,29,31,29		51,19,32,37	
		2, 3,15, 3,13,29,15, 6		9, 1
46″	11,42, 5, 7,49,25,21,58,46,35		51,19,41,38	
		2, 3,15, 2,22, 9,33,28		9, 1
48″	11,42, 7,11, 4,27,44, 8,20, 3		51,19,50,39	
		2, 3,15, 1,30,49,42,49		9, 1
50″	11,42, 9,14,19,29,14,58, 2,52		51,19,59,40	
		2, 3,15, 0,39,29,43, 9		9, 1
52″	11,42,11,17,34,29,54,27,46, 1		51,20, 8,41	
		2, 3,14,59,48, 9,34,28		9, 1
54″	11,42,13,20,49,29,42,37,20,29		51,20,17,42	
		2, 3,14,58,56,49,16,46		9, 1
56″	11,42,15,24, 4,28,39,26,37,15		51,20,26,43	
		2, 3,14,58, 5,28,50, 3		9, 1
58″	11,42,17,27,19,26,44,55,27,18		51,20,35,44	
		2, 3,14,57,14, 8,14,19		
60″	11,42,19,30,34,23,59, 3,41,37			
exact	11,42,19,30,34,23,59, 4, 7,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°15′ 0″	11,42,19,30,34,23,59, 4, 7,47			
		2, 3,14,56,22,47,32,17		
2″	11,42,21,33,49,20,21,51,40, 4		51,20,53,35	
		2, 3,14,55,31,26,38,42		9, 1
4″	11,42,23,37, 4,15,53,18,18,46		51,21, 2,36	
		2, 3,14,54,40, 5,36, 6		9, 1
6″	11,42,25,40,19,10,33,23,54,52		51,21,11,37	
		2, 3,14,53,48,44,24,29		9, 1
8″	11,42,27,43,34, 4,22, 8,19,21		51,21,20,38	
		2, 3,14,52,57,23, 3,51		9, 1
10″	11,42,29,46,48,57,19,31,23,12		51,21,29,39	
		2, 3,14,52, 6, 1,34,12		9, 1
12″	11,42,31,50, 3,49,25,32,57,24		51,21,38,40	
		2, 3,14,51,14,39,55,32		9, 1
14″	11,42,33,53,18,40,40,12,52,56		51,21,47,41	
		2, 3,14,50,23,18, 7,51		9, 1
16″	11,42,35,56,33,31, 3,31, 0,47		51,21,56,42	
		2, 3,14,49,31,56,11, 9		9, 1
18″	11,42,37,59,48,20,35,27,11,56		51,22, 5,43	
		2, 3,14,48,40,34, 5,26		9, 1
20″	11,42,40, 3, 3, 9,16, 1,17,22		51,22,14,44	
		2, 3,14,47,49,11,50,42		9, 1
22″	11,42,42, 6,17,57, 5,13, 8, 4		51,22,23,45	
		2, 3,14,46,57,49,26,57		9, 1
24″	11,42,44, 9,32,44, 3, 2,35, 1		51,22,32,46	
		2, 3,14,46, 6,26,54,11		9, 1
26″	11,42,46,12,47,30, 9,29,29,12		51,22,41,47	
		2, 3,14,45,15, 4,12,24		9, 1
28″	11,42,48,16, 2,15,24,33,41,36		51,22,50,48	
		2, 3,14,44,23,41,21,36		9, 1
30″	11,42,50,19,16,59,48,15, 3,12		51,22,59,49	
		2, 3,14,43,32,18,21,47		9, 1
32″	11,42,52,22,31,43,20,33,24,59		51,23, 8,50	
		2, 3,14,42,40,55,12,57		9, 1
34″	11,42,54,25,46,26, 1,28,37,56		51,23,17,51	
		2, 3,14,41,49,31,55, 6		9, 1
36″	11,42,56,29, 1, 7,51, 0,33, 2		51,23,26,52	
		2, 3,14,40,58, 8,28,14		9, 1
38″	11,42,58,32,15,48,49, 9, 1,16		51,23,35,53	
		2, 3,14,40, 6,44,52,21		9, 1
40″	11,43, 0,35,30,28,55,53,53,37		51,23,44,54	
		2, 3,14,39,15,21, 7,27		9, 1
42″	11,43, 2,38,45, 8,11,15, 1, 4		51,23,53,55	
		2, 3,14,38,23,57,13,32		9, 1
44″	11,43, 4,41,59,46,35,12,14,36		51,24, 2,56	
		2, 3,14,37,32,33,10,36		9, 1
46″	11,43, 6,45,14,24, 7,45,25,12		51,24,11,57	
		2, 3,14,36,41, 8,58,39		9, 1
48″	11,43, 8,48,29, 0,48,54,23,51		51,24,20,58	
		2, 3,14,35,49,44,37,41		9, 1
50″	11,43,10,51,43,36,38,39, 1,32		51,24,29,59	
		2, 3,14,34,58,20, 7,42		9, 1
52″	11,43,12,54,58,11,36,59, 9,14		51,24,39, 0	
		2, 3,14,34, 6,55,28,42		9, 1
54″	11,43,14,58,12,45,43,54,37,56		51,24,48, 1	
		2, 3,14,33,15,30,40,41		9, 1
56″	11,43,17, 1,27,18,59,25,18,37		51,24,57, 2	
		2, 3,14,32,24, 5,43,39		9, 1
58″	11,43,19, 4,41,51,23,31, 2,16		51,25, 6, 3	
		2, 3,14,31,32,40,37,36		
60″	11,43,21, 7,56,22,56,11,39,52			
exact	11,43,21, 7,56,22,56,12, 5,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°16′ 0″	11,43,21, 7,56,22,56,12, 5,22			
		2, 3,14,30,41,15,25,17		
2″	11,43,23,11,10,53,37,27,30,39		51,25,23,53	
		2, 3,14,29,49,50, 1,24		9, 1
4″	11,43,25,14,25,23,27,17,32, 3		51,25,32,54	
		2, 3,14,28,58,24,28,30		9, 1
6″	11,43,27,17,39,52,25,42, 0,33		51,25,41,55	
		2, 3,14,28, 6,58,46,35		9, 1
8″	11,43,29,20,54,20,32,40,47, 8		51,25,50,56	
		2, 3,14,27,15,32,55,39		9, 1
10″	11,43,31,24, 8,47,48,13,42,47		51,25,59,57	
		2, 3,14,26,24, 6,55,42		9, 1
12″	11,43,33,27,23,14,12,20,38,29		51,26, 8,58	
		2, 3,14,25,32,40,46,44		9, 1
14″	11,43,35,30,37,39,45, 1,25,13		51,26,17,59	
		2, 3,14,24,41,14,28,45		9, 1
16″	11,43,37,33,52, 4,26,15,53,58		51,26,27, 0	
		2, 3,14,23,49,48, 1,45		9, 1
18″	11,43,39,37, 6,28,16, 3,55,43		51,26,36, 1	
		2, 3,14,22,58,21,25,44		9, 1
20″	11,43,41,40,20,51,14,25,21,27		51,26,45, 2	
		2, 3,14,22, 6,54,40,42		9, 1
22″	11,43,43,43,35,13,21,20, 2, 9		51,26,54, 3	
		2, 3,14,21,15,27,46,39		9, 1
24″	11,43,45,46,49,34,36,47,48,48		51,27, 3, 4	
		2, 3,14,20,24, 0,43,35		9, 1
26″	11,43,47,50, 3,55, 0,48,32,23		51,27,12, 5	
		2, 3,14,19,32,33,31,30		9, 1
28″	11,43,49,53,18,14,33,22, 3,53		51,27,21, 6	
		2, 3,14,18,41, 6,10,24		9, 1
30″	11,43,51,56,32,33,14,28,14,17		51,27,30, 7	
		2, 3,14,17,49,38,40,17		9, 1
32″	11,43,53,59,46,51, 4, 6,54,34		51,27,39, 8	
		2, 3,14,16,58,11, 1, 9		9, 1
34″	11,43,56, 3, 1, 8, 2,17,55,43		51,27,48, 9	
		2, 3,14,16, 6,43,13, 0		9, 1
36″	11,43,58, 6,15,24, 9, 1, 8,43		51,27,57,10	
		2, 3,14,15,15,15,15,50		9, 1
38″	11,44, 0, 9,29,39,24,16,24,33		51,28, 6,11	
		2, 3,14,14,23,47, 9,39		9, 1
40″	11,44, 2,12,43,53,48, 3,34,12		51,28,15,12	
		2, 3,14,13,32,18,54,27		9, 1
42″	11,44, 4,15,58, 7,20,22,28,39		51,28,24,13	
		2, 3,14,12,40,50,30,14		9, 1
44″	11,44, 6,19,12,20, 1,12,58,53		51,28,33,14	
		2, 3,14,11,49,21,57, 0		9, 1
46″	11,44, 8,22,26,31,50,34,55,53		51,28,42,15	
		2, 3,14,10,57,53,14,45		9, 1
48″	11,44,10,25,40,42,48,28,10,38		51,28,51,16	
		2, 3,14,10, 6,24,23,29		9, 1
50″	11,44,12,28,54,52,54,52,34, 7		51,29, 0,17	
		2, 3,14, 9,14,55,23,12		9, 1
52″	11,44,14,32, 9, 2, 9,47,57,19		51,29, 9,18	
		2, 3,14, 8,23,26,13,54		9, 1
54″	11,44,16,35,23,10,33,14,11,13		51,29,18,19	
		2, 3,14, 7,31,56,55,35		9, 1
56″	11,44,18,38,37,18, 5,11, 6,48		51,29,27,20	
		2, 3,14, 6,40,27,28,15		9, 1
58″	11,44,20,41,51,24,45,38,35, 3		51,29,36,21	
		2, 3,14, 5,48,57,51,54		
60″	11,44,22,45, 5,30,34,36,26,57			
exact	11,44,22,45, 5,30,34,36,51,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°17′ 0″	11,44,22,45, 5,30,34,36,51,34			
		2, 3,14, 4,57,28, 9,18		
2″	11,44,24,48,19,35,32, 5, 0,52		51,29,54,11	
		2, 3,14, 4, 5,58,15, 7		9, 1
4″	11,44,26,51,33,39,38, 3,15,59		51,30, 3,12	
		2, 3,14, 3,14,28,11,55		9, 1
6″	11,44,28,54,47,42,52,31,27,54		51,30,12,13	
		2, 3,14, 2,22,57,59,42		9, 1
8″	11,44,30,58, 1,45,15,29,27,36		51,30,21,14	
		2, 3,14, 1,31,27,38,28		9, 1
10″	11,44,33, 1,15,46,46,57, 6, 4		51,30,30,15	
		2, 3,14, 0,39,57, 8,13		9, 1
12″	11,44,35, 4,29,47,26,54,14,17		51,30,39,16	
		2, 3,13,59,48,26,28,57		9, 1
14″	11,44,37, 7,43,47,15,20,43,14		51,30,48,17	
		2, 3,13,58,56,55,40,40		9, 1
16″	11,44,39,10,57,46,12,16,23,54		51,30,57,18	
		2, 3,13,58, 5,24,43,22		9, 1
18″	11,44,41,14,11,44,17,41, 7,16		51,31, 6,19	
		2, 3,13,57,13,53,37, 3		9, 1
20″	11,44,43,17,25,41,31,34,44,19		51,31,15,20	
		2, 3,13,56,22,22,21,43		9, 1
22″	11,44,45,20,39,37,53,57, 6, 2		51,31,24,21	
		2, 3,13,55,30,50,57,22		9, 1
24″	11,44,47,23,53,33,24,48, 3,24		51,31,33,22	
		2, 3,13,54,39,19,24, 0		9, 1
26″	11,44,49,27, 7,28, 4, 7,27,24		51,31,42,23	
		2, 3,13,53,47,47,41,37		9, 1
28″	11,44,51,30,21,21,51,55, 9, 1		51,31,51,24	
		2, 3,13,52,56,15,50,13		9, 1
30″	11,44,53,33,35,14,48,10,59,14		51,32, 0,25	
		2, 3,13,52, 4,43,49,48		9, 1
32″	11,44,55,36,49, 6,52,54,49, 2		51,32, 9,26	
		2, 3,13,51,13,11,40,22		9, 1
34″	11,44,57,40, 2,58, 6, 6,29,24		51,32,18,27	
		2, 3,13,50,21,39,21,55		9, 1
36″	11,44,59,43,16,48,27,45,51,19		51,32,27,28	
		2, 3,13,49,30, 6,54,27		9, 1
38″	11,45, 1,46,30,37,57,52,45,46		51,32,36,29	
		2, 3,13,48,38,34,17,58		9, 1
40″	11,45, 3,49,44,26,36,27, 3,44		51,32,45,30	
		2, 3,13,47,47, 1,32,28		9, 1
42″	11,45, 5,52,58,14,23,28,36,12		51,32,54,31	
		2, 3,13,46,55,28,37,57		9, 1
44″	11,45, 7,56,12, 1,18,57,14, 9		51,33, 3,32	
		2, 3,13,46, 3,55,34,25		9, 1
46″	11,45, 9,59,25,47,22,52,48,34		51,33,12,33	
		2, 3,13,45,12,22,21,52		9, 1
48″	11,45,12, 2,39,32,35,15,10,26		51,33,21,34	
		2, 3,13,44,20,49, 0,18		9, 1
50″	11,45,14, 5,53,16,56, 4,10,44		51,33,30,35	
		2, 3,13,43,29,15,29,43		9, 1
52″	11,45,16, 9, 7, 0,25,19,40,27		51,33,39,36	
		2, 3,13,42,37,41,50, 7		9, 1
54″	11,45,18,12,20,43, 3, 1,30,34		51,33,48,37	
		2, 3,13,41,46, 8, 1,30		9, 1
56″	11,45,20,15,34,24,49, 9,32, 4		51,33,57,38	
		2, 3,13,40,54,34, 3,52		9, 1
58″	11,45,22,18,48, 5,43,43,35,56		51,34, 6,39	
		2, 3,13,40, 2,59,57,13		
60″	11,45,24,22, 1,45,46,43,33, 9			
exact	11,45,24,22, 1,45,46,44, 3,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°18′ 0″	11,45,24,22, 1,45,46,44, 3,33			
		2, 3,13,39,11,25,44,48		
2″	11,45,26,25,15,24,58, 9,48,21		51,34,24,27	
		2, 3,13,38,19,51,20,21		9, 1
4″	11,45,28,28,29, 3,18, 1, 8,42		51,34,33,28	
		2, 3,13,37,28,16,46,53		9, 1
6″	11,45,30,31,42,40,46,17,55,35		51,34,42,29	
		2, 3,13,36,36,42, 4,24		9, 1
8″	11,45,32,34,56,17,22,59,59,59		51,34,51,30	
		2, 3,13,35,45, 7,12,54		9, 1
10″	11,45,34,38, 9,53, 8, 7,12,53		51,35, 0,31	
		2, 3,13,34,53,32,12,23		9, 1
12″	11,45,36,41,23,28, 1,39,25,16		51,35, 9,32	
		2, 3,13,34, 1,57, 2,51		9, 1
14″	11,45,38,44,37, 2, 3,36,28, 7		51,35,18,33	
		2, 3,13,33,10,21,44,18		9, 1
16″	11,45,40,47,50,35,13,58,12,25		51,35,27,34	
		2, 3,13,32,18,46,16,44		9, 1
18″	11,45,42,51, 4, 7,32,44,29, 9		51,35,36,35	
		2, 3,13,31,27,10,40, 9		9, 1
20″	11,45,44,54,17,38,59,55, 9,18		51,35,45,36	
		2, 3,13,30,35,34,54,33		9, 1
22″	11,45,46,57,31, 9,35,30, 3,51		51,35,54,37	
		2, 3,13,29,43,58,59,56		9, 1
24″	11,45,49, 0,44,39,19,29, 3,47		51,36, 3,38	
		2, 3,13,28,52,22,56,18		9, 1
26″	11,45,51, 3,58, 8,11,52, 0, 5		51,36,12,39	
		2, 3,13,28, 0,46,43,39		9, 1
28″	11,45,53, 7,11,36,12,38,43,44		51,36,21,40	
		2, 3,13,27, 9,10,21,59		9, 1
30″	11,45,55,10,25, 3,21,49, 5,43		51,36,30,41	
		2, 3,13,26,17,33,51,18		9, 1
32″	11,45,57,13,38,29,39,22,57, 1		51,36,39,42	
		2, 3,13,25,25,57,11,36		9, 1
34″	11,45,59,16,51,55, 5,20, 8,37		51,36,48,43	
		2, 3,13,24,34,20,22,53		9, 1
36″	11,46, 1,20, 5,19,39,40,31,30		51,36,57,44	
		2, 3,13,23,42,43,25, 9		9, 1
38″	11,46, 3,23,18,43,22,23,56,39		51,37, 6,45	
		2, 3,13,22,51, 6,18,24		9, 1
40″	11,46, 5,26,32, 6,13,30,15, 3		51,37,15,46	
		2, 3,13,21,59,29, 2,38		9, 1
42″	11,46, 7,29,45,28,12,59,17,41		51,37,24,47	
		2, 3,13,21, 7,51,37,51		9, 1
44″	11,46, 9,32,58,49,20,50,55,32		51,37,33,48	
		2, 3,13,20,16,14, 4, 3		9, 1
46″	11,46,11,36,12, 9,37, 4,59,35		51,37,42,49	
		2, 3,13,19,24,36,21,14		9, 1
48″	11,46,13,39,25,29, 1,41,20,49		51,37,51,50	
		2, 3,13,18,32,58,29,24		9, 1
50″	11,46,15,42,38,47,34,39,50,13		51,38, 0,51	
		2, 3,13,17,41,20,28,33		9, 1
52″	11,46,17,45,52, 5,16, 0,18,46		51,38, 9,52	
		2, 3,13,16,49,42,18,41		9, 1
54″	11,46,19,49, 5,22, 5,42,37,27		51,38,18,53	
		2, 3,13,15,58, 3,59,48		9, 1
56″	11,46,21,52,18,38, 3,46,37,15		51,38,27,54	
		2, 3,13,15, 6,25,31,54		9, 1
58″	11,46,23,55,31,53,10,12, 9, 9		51,38,36,55	
		2, 3,13,14,14,46,54,59		
60″	11,46,25,58,45, 7,24,59, 4, 8			
exact	11,46,25,58,45, 7,24,59,32,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°19′ 0″	11,46,25,58,45, 7,24,59,32,34			
		2, 3,13,13,23, 8,12,15		
2″	11,46,28, 1,58,20,48, 7,44,49		51,38,54,43	
		2, 3,13,12,31,29,17,32		9, 1
4″	11,46,30, 5,11,33,19,37, 2,21		51,39, 3,44	
		2, 3,13,11,39,50,13,48		9, 1
6″	11,46,32, 8,24,44,59,27,16, 9		51,39,12,45	
		2, 3,13,10,48,11, 1, 3		9, 1
8″	11,46,34,11,37,55,47,38,17,12		51,39,21,46	
		2, 3,13, 9,56,31,39,17		9, 1
10″	11,46,36,14,51, 5,44, 9,56,29		51,39,30,47	
		2, 3,13, 9, 4,52, 8,30		9, 1
12″	11,46,38,18, 4,14,49, 2, 4,59		51,39,39,48	
		2, 3,13, 8,13,12,28,42		9, 1
14″	11,46,40,21,17,23, 2,14,33,41		51,39,48,49	
		2, 3,13, 7,21,32,39,53		9, 1
16″	11,46,42,24,30,30,23,47,13,34		51,39,57,50	
		2, 3,13, 6,29,52,42, 3		9, 1
18″	11,46,44,27,43,36,53,39,55,37		51,40, 6,51	
		2, 3,13, 5,38,12,35,12		9, 1
20″	11,46,46,30,56,42,31,52,30,49		51,40,15,52	
		2, 3,13, 4,46,32,19,20		9, 1
22″	11,46,48,34, 9,47,18,24,50, 9		51,40,24,53	
		2, 3,13, 3,54,51,54,27		9, 1
24″	11,46,50,37,22,51,13,16,44,36		51,40,33,54	
		2, 3,13, 3, 3,11,20,33		9, 1
26″	11,46,52,40,35,54,16,28, 5, 9		51,40,42,55	
		2, 3,13, 2,11,30,37,38		9, 1
28″	11,46,54,43,48,56,27,58,42,47		51,40,51,56	
		2, 3,13, 1,19,49,45,42		9, 1
30″	11,46,56,47, 1,57,47,48,28,29		51,41, 0,57	
		2, 3,13, 0,28, 8,44,45		9, 1
32″	11,46,58,50,14,58,15,57,13,14		51,41, 9,58	
		2, 3,12,59,36,27,34,47		9, 1
34″	11,47, 0,53,27,57,52,24,48, 1		51,41,18,59	
		2, 3,12,58,44,46,15,48		9, 1
36″	11,47, 2,56,40,56,37,11, 3,49		51,41,28, 0	
		2, 3,12,57,53, 4,47,48		9, 1
38″	11,47, 4,59,53,54,30,15,51,37		51,41,37, 1	
		2, 3,12,57, 1,23,10,47		9, 1
40″	11,47, 7, 3, 6,51,31,39, 2,24		51,41,46, 2	
		2, 3,12,56, 9,41,24,45		9, 1
42″	11,47, 9, 6,19,47,41,20,27, 9		51,41,55, 3	
		2, 3,12,55,17,59,29,42		9, 1
44″	11,47,11, 9,32,42,59,19,56,51		51,42, 4, 4	
		2, 3,12,54,26,17,25,38		9, 1
46″	11,47,13,12,45,37,25,37,22,29		51,42,13, 5	
		2, 3,12,53,34,35,12,33		9, 1
48″	11,47,15,15,58,31, 0,12,35, 2		51,42,22, 6	
		2, 3,12,52,42,52,50,27		9, 1
50″	11,47,17,19,11,23,43, 5,25,29		51,42,31, 7	
		2, 3,12,51,51,10,19,20		9, 1
52″	11,47,19,22,24,15,34,15,44,49		51,42,40, 8	
		2, 3,12,50,59,27,39,12		9, 1
54″	11,47,21,25,37, 6,33,43,24, 1		51,42,49, 9	
		2, 3,12,50, 7,44,50, 3		9, 1
56″	11,47,23,28,49,56,41,28,14, 4		51,42,58,10	
		2, 3,12,49,16, 1,51,53		9, 1
58″	11,47,25,32, 2,45,57,30, 5,57		51,43, 7,11	
		2, 3,12,48,24,18,44,42		
60″	11,47,27,35,15,34,21,48,50,39			
exact	11,47,27,35,15,34,21,49,24, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°20′ 0″	11,47,27,35,15,34,21,49,24, 2			
		2, 3,12,47,32,35,32, 7		
2″	11,47,29,38,28,21,54,24,56, 9		51,43,24,58	
		2, 3,12,46,40,52, 7, 9		9, 0
4″	11,47,31,41,41, 8,35,17, 3,18		51,43,33,58	
		2, 3,12,45,49, 8,33,11		9, 0
6″	11,47,33,44,53,54,24,25,36,29		51,43,42,58	
		2, 3,12,44,57,24,50,13		9, 0
8″	11,47,35,48, 6,39,21,50,26,42		51,43,51,58	
		2, 3,12,44, 5,40,58,15		9, 0
10″	11,47,37,51,19,23,27,31,24,57		51,44, 0,58	
		2, 3,12,43,13,56,57,17		9, 0
12″	11,47,39,54,32, 6,41,28,22,14		51,44, 9,58	
		2, 3,12,42,22,12,47,19		9, 0
14″	11,47,41,57,44,49, 3,41, 9,33		51,44,18,58	
		2, 3,12,41,30,28,28,21		9, 0
16″	11,47,44, 0,57,30,34, 9,37,54		51,44,27,58	
		2, 3,12,40,38,44, 0,23		9, 0
18″	11,47,46, 4,10,11,12,53,38,17		51,44,36,58	
		2, 3,12,39,46,59,23,25		9, 0
20″	11,47,48, 7,22,50,59,53, 1,42		51,44,45,58	
		2, 3,12,38,55,14,37,27		9, 0
22″	11,47,50,10,35,29,55, 7,39, 9		51,44,54,58	
		2, 3,12,38, 3,29,42,29		9, 0
24″	11,47,52,13,48, 7,58,37,21,38		51,45, 3,58	
		2, 3,12,37,11,44,38,31		9, 0
26″	11,47,54,17, 0,45,10,22, 0, 9		51,45,12,58	
		2, 3,12,36,19,59,25,33		9, 0
28″	11,47,56,20,13,21,30,21,25,42		51,45,21,58	
		2, 3,12,35,28,14, 3,35		9, 0
30″	11,47,58,23,25,56,58,35,29,17		51,45,30,58	
		2, 3,12,34,36,28,32,37		9, 0
32″	11,48, 0,26,38,31,35, 4, 1,54		51,45,39,58	
		2, 3,12,33,44,42,52,39		9, 0
34″	11,48, 2,29,51, 5,19,46,54,33		51,45,48,58	
		2, 3,12,32,52,57, 3,41		9, 0
36″	11,48, 4,33, 3,38,12,43,58,14		51,45,57,58	
		2, 3,12,32, 1,11, 5,43		9, 0
38″	11,48, 6,36,16,10,13,55, 3,57		51,46, 6,58	
		2, 3,12,31, 9,24,58,45		9, 0
40″	11,48, 8,39,28,41,23,20, 2,42		51,46,15,58	
		2, 3,12,30,17,38,42,47		9, 0
42″	11,48,10,42,41,11,40,58,45,29		51,46,24,58	
		2, 3,12,29,25,52,17,49		9, 0
44″	11,48,12,45,53,41, 6,51, 3,18		51,46,33,58	
		2, 3,12,28,34, 5,43,51		9, 0
46″	11,48,14,49, 6, 9,40,56,47, 9		51,46,42,58	
		2, 3,12,27,42,19, 0,53		9, 0
48″	11,48,16,52,18,37,23,15,48, 2		51,46,51,58	
		2, 3,12,26,50,32, 8,55		9, 0
50″	11,48,18,55,31, 4,13,47,56,57		51,47, 0,58	
		2, 3,12,25,58,45, 7,57		9, 0
52″	11,48,20,58,43,30,12,33, 4,54		51,47, 9,58	
		2, 3,12,25, 6,57,57,59		9, 0
54″	11,48,23, 1,55,55,19,31, 2,53		51,47,18,58	
		2, 3,12,24,15,10,39, 1		9, 0
56″	11,48,25, 5, 8,19,34,41,41,54		51,47,27,58	
		2, 3,12,23,23,23,11, 3		9, 0
58″	11,48,27, 8,20,42,58, 4,52,57		51,47,36,58	
		2, 3,12,22,31,35,34, 5		
60″	11,48,29,11,33, 5,29,40,27, 2			
exact	11,48,29,11,33, 5,29,39,57,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°21′ 0″	11,48,29,11,33, 5,29,39,57,28			
		2, 3,12,21,39,47,44,53		
2″	11,48,31,14,45,27, 9,27,42,21		51,47,55,11	
		2, 3,12,20,47,59,49,42		9, 0
4″	11,48,33,17,57,47,57,27,32, 3		51,48, 4,11	
		2, 3,12,19,56,11,45,31		9, 0
6″	11,48,35,21,10, 7,53,39,17,34		51,48,13,11	
		2, 3,12,19, 4,23,32,20		9, 0
8″	11,48,37,24,22,26,58, 2,49,54		51,48,22,11	
		2, 3,12,18,12,35,10, 9		9, 0
10″	11,48,39,27,34,45,10,38, 0, 3		51,48,31,11	
		2, 3,12,17,20,46,38,58		9, 0
12″	11,48,41,30,47, 2,31,24,39, 1		51,48,40,11	
		2, 3,12,16,28,57,58,47		9, 0
14″	11,48,43,33,59,19, 0,22,37,48		51,48,49,11	
		2, 3,12,15,37, 9, 9,36		9, 0
16″	11,48,45,37,11,34,37,31,47,24		51,48,58,11	
		2, 3,12,14,45,20,11,25		9, 0
18″	11,48,47,40,23,49,22,51,58,49		51,49, 7,11	
		2, 3,12,13,53,31, 4,14		9, 0
20″	11,48,49,43,36, 3,16,23, 3, 3		51,49,16,11	
		2, 3,12,13, 1,41,48, 3		9, 0
22″	11,48,51,46,48,16,18, 4,51, 6		51,49,25,11	
		2, 3,12,12, 9,52,22,52		9, 0
24″	11,48,53,50, 0,28,27,57,13,58		51,49,34,11	
		2, 3,12,11,18, 2,48,41		9, 0
26″	11,48,55,53,12,39,46, 0, 2,39		51,49,43,11	
		2, 3,12,10,26,13, 5,30		9, 0
28″	11,48,57,56,24,50,12,13, 8, 9		51,49,52,11	
		2, 3,12, 9,34,23,13,19		9, 0
30″	11,48,59,59,36,59,46,36,21,28		51,50, 1,11	
		2, 3,12, 8,42,33,12, 8		9, 0
32″	11,49, 2, 2,49, 8,29, 9,33,36		51,50,10,11	
		2, 3,12, 7,50,43, 1,57		9, 0
34″	11,49, 4, 6, 1,16,19,52,35,33		51,50,19,11	
		2, 3,12, 6,58,52,42,46		9, 0
36″	11,49, 6, 9,13,23,18,45,18,19		51,50,28,11	
		2, 3,12, 6, 7, 2,14,35		9, 0
38″	11,49, 8,12,25,29,25,47,32,54		51,50,37,11	
		2, 3,12, 5,15,11,37,24		9, 0
40″	11,49,10,15,37,34,40,59,10,18		51,50,46,11	
		2, 3,12, 4,23,20,51,13		9, 0
42″	11,49,12,18,49,39, 4,20, 1,31		51,50,55,11	
		2, 3,12, 3,31,29,56, 2		9, 0
44″	11,49,14,22, 1,42,35,49,57,33		51,51, 4,11	
		2, 3,12, 2,39,38,51,51		9, 0
46″	11,49,16,25,13,45,15,28,49,24		51,51,13,11	
		2, 3,12, 1,47,47,38,40		9, 0
48″	11,49,18,28,25,47, 3,16,28, 4		51,51,22,11	
		2, 3,12, 0,55,56,16,29		9, 0
50″	11,49,20,31,37,47,59,12,44,33		51,51,31,11	
		2, 3,12, 0, 4, 4,45,18		9, 0
52″	11,49,22,34,49,48, 3,17,29,51		51,51,40,11	
		2, 3,11,59,12,13, 5, 7		9, 0
54″	11,49,24,38, 1,47,15,30,34,58		51,51,49,11	
		2, 3,11,58,20,21,15,56		9, 0
56″	11,49,26,41,13,45,35,51,50,54		51,51,58,11	
		2, 3,11,57,28,29,17,45		9, 0
58″	11,49,28,44,25,43, 4,21, 8,39		51,52, 7,11	
		2, 3,11,56,36,37,10,34		
60″	11,49,30,47,37,39,40,58,19,13			
exact	11,49,30,47,37,39,40,57,46,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°22′ 0″	11,49,30,47,37,39,40,57,46,38			
		2, 3,11,55,44,44,51, 2		
2″	11,49,32,50,49,35,25,42,37,40		51,52,25,24	
		2, 3,11,54,52,52,25,38		9, 0
4″	11,49,34,54, 1,30,18,35, 3,18		51,52,34,24	
		2, 3,11,54, 0,59,51,14		9, 0
6″	11,49,36,57,13,24,19,34,54,32		51,52,43,24	
		2, 3,11,53, 9, 7, 7,50		9, 0
8″	11,49,39, 0,25,17,28,42, 2,22		51,52,52,24	
		2, 3,11,52,17,14,15,26		9, 0
10″	11,49,41, 3,37, 9,45,56,17,48		51,53, 1,24	
		2, 3,11,51,25,21,14, 2		9, 0
12″	11,49,43, 6,49, 1,11,17,31,50		51,53,10,24	
		2, 3,11,50,33,28, 3,38		9, 0
14″	11,49,45,10, 0,51,44,45,35,28		51,53,19,24	
		2, 3,11,49,41,34,44,14		9, 0
16″	11,49,47,13,12,41,26,20,19,42		51,53,28,24	
		2, 3,11,48,49,41,15,50		9, 0
18″	11,49,49,16,24,30,16, 1,35,32		51,53,37,24	
		2, 3,11,47,57,47,38,26		9, 0
20″	11,49,51,19,36,18,13,49,13,58		51,53,46,24	
		2, 3,11,47, 5,53,52, 2		9, 0
22″	11,49,53,22,48, 5,19,43, 6, 0		51,53,55,24	
		2, 3,11,46,13,59,56,38		9, 0
24″	11,49,55,25,59,51,33,43, 2,38		51,54, 4,24	
		2, 3,11,45,22, 5,52,14		9, 0
26″	11,49,57,29,11,36,55,48,54,52		51,54,13,24	
		2, 3,11,44,30,11,38,50		9, 0
28″	11,49,59,32,23,21,26, 0,33,42		51,54,22,24	
		2, 3,11,43,38,17,16,26		9, 0
30″	11,50, 1,35,35, 5, 4,17,50, 8		51,54,31,24	
		2, 3,11,42,46,22,45, 2		9, 0
32″	11,50, 3,38,46,47,50,40,35,10		51,54,40,24	
		2, 3,11,41,54,28, 4,38		9, 0
34″	11,50, 5,41,58,29,45, 8,39,48		51,54,49,24	
		2, 3,11,41, 2,33,15,14		9, 0
36″	11,50, 7,45,10,10,47,41,55, 2		51,54,58,24	
		2, 3,11,40,10,38,16,50		9, 0
38″	11,50, 9,48,21,50,58,20,11,52		51,55, 7,24	
		2, 3,11,39,18,43, 9,26		9, 0
40″	11,50,11,51,33,30,17, 3,21,18		51,55,16,24	
		2, 3,11,38,26,47,53, 2		9, 0
42″	11,50,13,54,45, 8,43,51,14,20		51,55,25,24	
		2, 3,11,37,34,52,27,38		9, 0
44″	11,50,15,57,56,46,18,43,41,58		51,55,34,24	
		2, 3,11,36,42,56,53,14		9, 0
46″	11,50,18, 1, 8,23, 1,40,35,12		51,55,43,24	
		2, 3,11,35,51, 1, 9,50		9, 0
48″	11,50,20, 4,19,58,52,41,45, 2		51,55,52,24	
		2, 3,11,34,59, 5,17,26		9, 0
50″	11,50,22, 7,31,33,51,47, 2,28		51,56, 1,24	
		2, 3,11,34, 7, 9,16, 2		9, 0
52″	11,50,24,10,43, 7,58,56,18,30		51,56,10,24	
		2, 3,11,33,15,13, 5,38		9, 0
54″	11,50,26,13,54,41,14, 9,24, 8		51,56,19,24	
		2, 3,11,32,23,16,46,14		9, 0
56″	11,50,28,17, 6,13,37,26,10,22		51,56,28,24	
		2, 3,11,31,31,20,17,50		9, 0
58″	11,50,30,20,17,45, 8,46,28,12		51,56,37,24	
		2, 3,11,30,39,23,40,26		
60″	11,50,32,23,29,15,48,10, 8,38			
exact	11,50,32,23,29,15,48, 9,39,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°23′ 0″	11,50,32,23,29,15,48, 9,39,29			
		2, 3,11,29,47,26,51, 1		
2″	11,50,34,26,40,45,35,36,30,30		51,56,55,36	
		2, 3,11,28,55,29,55,25		9, 0
4″	11,50,36,29,52,14,31, 6,25,55		51,57, 4,36	
		2, 3,11,28, 3,32,50,49		9, 0
6″	11,50,38,33, 3,42,34,39,16,44		51,57,13,36	
		2, 3,11,27,11,35,37,13		9, 0
8″	11,50,40,36,15, 9,46,14,53,57		51,57,22,36	
		2, 3,11,26,19,38,14,37		9, 0
10″	11,50,42,39,26,36, 5,53, 8,34		51,57,31,36	
		2, 3,11,25,27,40,43, 1		9, 0
12″	11,50,44,42,38, 1,33,33,51,35		51,57,40,36	
		2, 3,11,24,35,43, 2,25		9, 0
14″	11,50,46,45,49,26, 9,16,54, 0		51,57,49,36	
		2, 3,11,23,43,45,12,49		9, 0
16″	11,50,48,49, 0,49,53, 2, 6,49		51,57,58,36	
		2, 3,11,22,51,47,14,13		9, 0
18″	11,50,50,52,12,12,44,49,21, 2		51,58, 7,36	
		2, 3,11,21,59,49, 6,37		9, 0
20″	11,50,52,55,23,34,44,38,27,39		51,58,16,36	
		2, 3,11,21, 7,50,50, 1		9, 0
22″	11,50,54,58,34,55,52,29,17,40		51,58,25,36	
		2, 3,11,20,15,52,24,25		9, 0
24″	11,50,57, 1,46,16, 8,21,42, 5		51,58,34,36	
		2, 3,11,19,23,53,49,49		9, 0
26″	11,50,59, 4,57,35,32,15,31,54		51,58,43,36	
		2, 3,11,18,31,55, 6,13		9, 0
28″	11,51, 1, 8, 8,54, 4,10,38, 7		51,58,52,36	
		2, 3,11,17,39,56,13,37		9, 0
30″	11,51, 3,11,20,11,44, 6,51,44		51,59, 1,36	
		2, 3,11,16,47,57,12, 1		9, 0
32″	11,51, 5,14,31,28,32, 4, 3,45		51,59,10,36	
		2, 3,11,15,55,58, 1,25		9, 0
34″	11,51, 7,17,42,44,28, 2, 5,10		51,59,19,36	
		2, 3,11,15, 3,58,41,49		9, 0
36″	11,51, 9,20,53,59,32, 0,46,59		51,59,28,36	
		2, 3,11,14,11,59,13,13		9, 0
38″	11,51,11,24, 5,13,44, 0, 0,12		51,59,37,36	
		2, 3,11,13,19,59,35,37		9, 0
40″	11,51,13,27,16,27, 3,59,35,49		51,59,46,36	
		2, 3,11,12,27,59,49, 1		9, 0
42″	11,51,15,30,27,39,31,59,24,50		51,59,55,36	
		2, 3,11,11,35,59,53,25		9, 0
44″	11,51,17,33,38,51, 7,59,18,15		52, 0, 4,36	
		2, 3,11,10,43,59,48,49		9, 0
46″	11,51,19,36,50, 1,51,59, 7, 4		52, 0,13,36	
		2, 3,11, 9,51,59,35,13		9, 0
48″	11,51,21,40, 1,11,43,58,42,17		52, 0,22,36	
		2, 3,11, 8,59,59,12,37		9, 0
50″	11,51,23,43,12,20,43,57,54,54		52, 0,31,36	
		2, 3,11, 8, 7,58,41, 1		9, 0
52″	11,51,25,46,23,28,51,56,35,55		52, 0,40,36	
		2, 3,11, 7,15,58, 0,25		9, 0
54″	11,51,27,49,34,36, 7,54,36,20		52, 0,49,36	
		2, 3,11, 6,23,57,10,49		9, 0
56″	11,51,29,52,45,42,31,51,47, 9		52, 0,58,36	
		2, 3,11, 5,31,56,12,13		9, 0
58″	11,51,31,55,56,48, 3,47,59,22		52, 1, 7,36	
		2, 3,11, 4,39,55, 4,37		
60″	11,51,33,59, 7,52,43,43, 3,59			
exact	11,51,33,59, 7,52,43,42,38, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°24′ 0″	11,51,33,59, 7,52,43,42,38, 9			
		2, 3,11, 3,47,53,45,18		
2″	11,51,36, 2,18,56,31,36,23,27		52, 1,25,47	
		2, 3,11, 2,55,52,19,31		9, 0
4″	11,51,38, 5,29,59,27,28,42,58		52, 1,34,47	
		2, 3,11, 2, 3,50,44,44		9, 0
6″	11,51,40, 8,41, 1,31,19,27,42		52, 1,43,47	
		2, 3,11, 1,11,49, 0,57		9, 0
8″	11,51,42,11,52, 2,43, 8,28,39		52, 1,52,47	
		2, 3,11, 0,19,47, 8,10		9, 0
10″	11,51,44,15, 3, 3, 2,55,36,49		52, 2, 1,47	
		2, 3,10,59,27,45, 6,23		9, 0
12″	11,51,46,18,14, 2,30,40,43,12		52, 2,10,47	
		2, 3,10,58,35,42,55,36		9, 0
14″	11,51,48,21,25, 1, 6,23,38,48		52, 2,19,47	
		2, 3,10,57,43,40,35,49		9, 0
16″	11,51,50,24,35,58,50, 4,14,37		52, 2,28,47	
		2, 3,10,56,51,38, 7, 2		9, 0
18″	11,51,52,27,46,55,41,42,21,39		52, 2,37,47	
		2, 3,10,55,59,35,29,15		9, 0
20″	11,51,54,30,57,51,41,17,50,54		52, 2,46,47	
		2, 3,10,55, 7,32,42,28		9, 0
22″	11,51,56,34, 8,46,48,50,33,22		52, 2,55,47	
		2, 3,10,54,15,29,46,41		9, 0
24″	11,51,58,37,19,41, 4,20,20, 3		52, 3, 4,47	
		2, 3,10,53,23,26,41,54		9, 0
26″	11,52, 0,40,30,34,27,47, 1,57		52, 3,13,47	
		2, 3,10,52,31,23,28, 7		9, 0
28″	11,52, 2,43,41,26,59,10,30, 4		52, 3,22,47	
		2, 3,10,51,39,20, 5,20		9, 0
30″	11,52, 4,46,52,18,38,30,35,24		52, 3,31,47	
		2, 3,10,50,47,16,33,33		9, 0
32″	11,52, 6,50, 3, 9,25,47, 8,57		52, 3,40,47	
		2, 3,10,49,55,12,52,46		9, 0
34″	11,52, 8,53,13,59,21, 0, 1,43		52, 3,49,47	
		2, 3,10,49, 3, 9, 2,59		9, 0
36″	11,52,10,56,24,48,24, 9, 4,42		52, 3,58,47	
		2, 3,10,48,11, 5, 4,12		9, 0
38″	11,52,12,59,35,36,35,14, 8,54		52, 4, 7,47	
		2, 3,10,47,19, 0,56,25		9, 0
40″	11,52,15, 2,46,23,54,15, 5,19		52, 4,16,47	
		2, 3,10,46,26,56,39,38		9, 0
42″	11,52,17, 5,57,10,21,11,44,57		52, 4,25,47	
		2, 3,10,45,34,52,13,51		9, 0
44″	11,52,19, 9, 7,55,56, 3,58,48		52, 4,34,47	
		2, 3,10,44,42,47,39, 4		9, 0
46″	11,52,21,12,18,40,38,51,37,52		52, 4,43,47	
		2, 3,10,43,50,42,55,17		9, 0
48″	11,52,23,15,29,24,29,34,33, 9		52, 4,52,47	
		2, 3,10,42,58,38, 2,30		9, 0
50″	11,52,25,18,40, 7,28,12,35,39		52, 5, 1,47	
		2, 3,10,42, 6,33, 0,43		9, 0
52″	11,52,27,21,50,49,34,45,36,22		52, 5,10,47	
		2, 3,10,41,14,27,49,56		9, 0
54″	11,52,29,25, 1,30,49,13,26,18		52, 5,19,47	
		2, 3,10,40,22,22,30, 9		9, 0
56″	11,52,31,28,12,11,11,35,56,27		52, 5,28,47	
		2, 3,10,39,30,17, 1,22		9, 0
58″	11,52,33,31,22,50,41,52,57,49		52, 5,37,47	
		2, 3,10,38,38,11,23,35		
60″	11,52,35,34,33,29,20, 4,21,24			
exact	11,52,35,34,33,29,20, 3,59, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°25′ 0″	11,52,35,34,33,29,20, 3,59, 2			
		2, 3,10,37,46, 5,34,24		
2″	11,52,37,37,44, 7, 6, 9,33,26		52, 5,55,57	
		2, 3,10,36,53,59,38,27		9, 0
4″	11,52,39,40,54,44, 0, 9,11,53		52, 6, 4,57	
		2, 3,10,36, 1,53,33,30		9, 0
6″	11,52,41,44, 5,20, 2, 2,45,23		52, 6,13,57	
		2, 3,10,35, 9,47,19,33		9, 0
8″	11,52,43,47,15,55,11,50, 4,56		52, 6,22,57	
		2, 3,10,34,17,40,56,36		9, 0
10″	11,52,45,50,26,29,29,31, 1,32		52, 6,31,57	
		2, 3,10,33,25,34,24,39		9, 0
12″	11,52,47,53,37, 2,55, 5,26,11		52, 6,40,57	
		2, 3,10,32,33,27,43,42		9, 0
14″	11,52,49,56,47,35,28,33, 9,53		52, 6,49,57	
		2, 3,10,31,41,20,53,45		9, 0
16″	11,52,51,59,58, 7, 9,54, 3,38		52, 6,58,57	
		2, 3,10,30,49,13,54,48		9, 0
18″	11,52,54, 3, 8,37,59, 7,58,26		52, 7, 7,57	
		2, 3,10,29,57, 6,46,51		9, 0
20″	11,52,56, 6,19, 7,56,14,45,17		52, 7,16,57	
		2, 3,10,29, 4,59,29,54		9, 0
22″	11,52,58, 9,29,37, 1,14,15,11		52, 7,25,57	
		2, 3,10,28,12,52, 3,57		9, 0
24″	11,53, 0,12,40, 5,14, 6,19, 8		52, 7,34,57	
		2, 3,10,27,20,44,29, 0		9, 0
26″	11,53, 2,15,50,32,34,50,48, 8		52, 7,43,57	
		2, 3,10,26,28,36,45, 3		9, 0
28″	11,53, 4,19, 0,59, 3,27,33,11		52, 7,52,57	
		2, 3,10,25,36,28,52, 6		9, 0
30″	11,53, 6,22,11,24,39,56,25,17		52, 8, 1,57	
		2, 3,10,24,44,20,50, 9		9, 0
32″	11,53, 8,25,21,49,24,17,15,26		52, 8,10,57	
		2, 3,10,23,52,12,39,12		9, 0
34″	11,53,10,28,32,13,16,29,54,38		52, 8,19,57	
		2, 3,10,23, 0, 4,19,15		9, 0
36″	11,53,12,31,42,36,16,34,13,53		52, 8,28,57	
		2, 3,10,22, 7,55,50,18		9, 0
38″	11,53,14,34,52,58,24,30, 4,11		52, 8,37,57	
		2, 3,10,21,15,47,12,21		9, 0
40″	11,53,16,38, 3,19,40,17,16,32		52, 8,46,57	
		2, 3,10,20,23,38,25,24		9, 0
42″	11,53,18,41,13,40, 3,55,41,56		52, 8,55,57	
		2, 3,10,19,31,29,29,27		9, 0
44″	11,53,20,44,23,59,35,25,11,23		52, 9, 4,57	
		2, 3,10,18,39,20,24,30		9, 0
46″	11,53,22,47,34,18,14,45,35,53		52, 9,13,57	
		2, 3,10,17,47,11,10,33		9, 0
48″	11,53,24,50,44,36, 1,56,46,26		52, 9,22,57	
		2, 3,10,16,55, 1,47,36		9, 0
50″	11,53,26,53,54,52,56,58,34, 2		52, 9,31,57	
		2, 3,10,16, 2,52,15,39		9, 0
52″	11,53,28,57, 5, 8,59,50,49,41		52, 9,40,57	
		2, 3,10,15,10,42,34,42		9, 0
54″	11,53,31, 0,15,24,10,33,24,23		52, 9,49,57	
		2, 3,10,14,18,32,44,45		9, 0
56″	11,53,33, 3,25,38,29, 6, 9, 8		52, 9,58,57	
		2, 3,10,13,26,22,45,48		9, 0
58″	11,53,35, 6,35,51,55,28,54,56		52,10, 7,57	
		2, 3,10,12,34,12,37,51		
60″	11,53,37, 9,46, 4,29,41,32,47			
exact	11,53,37, 9,46, 4,29,41,12,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°26′ 0″	11,53,37, 9,46, 4,29,41,12,49			
		2, 3,10,11,42, 2,18,45		
2″	11,53,39,12,56,16,11,43,31,34		52,10,26, 6	
		2, 3,10,10,49,51,52,39		9, 0
4″	11,53,41,16, 6,27, 1,35,24,13		52,10,35, 6	
		2, 3,10, 9,57,41,17,33		9, 0
6″	11,53,43,19,16,36,59,16,41,46		52,10,44, 6	
		2, 3,10, 9, 5,30,33,27		9, 0
8″	11,53,45,22,26,46, 4,47,15,13		52,10,53, 6	
		2, 3,10, 8,13,19,40,21		9, 0
10″	11,53,47,25,36,54,18, 6,55,34		52,11, 2, 6	
		2, 3,10, 7,21, 8,38,15		9, 0
12″	11,53,49,28,47, 1,39,15,33,49		52,11,11, 6	
		2, 3,10, 6,28,57,27, 9		9, 0
14″	11,53,51,31,57, 8, 8,13, 0,58		52,11,20, 6	
		2, 3,10, 5,36,46, 7, 3		9, 0
16″	11,53,53,35, 7,13,44,59, 8, 1		52,11,29, 6	
		2, 3,10, 4,44,34,37,57		9, 0
18″	11,53,55,38,17,18,29,33,45,58		52,11,38, 6	
		2, 3,10, 3,52,22,59,51		9, 0
20″	11,53,57,41,27,22,21,56,45,49		52,11,47, 6	
		2, 3,10, 3, 0,11,12,45		9, 0
22″	11,53,59,44,37,25,22, 7,58,34		52,11,56, 6	
		2, 3,10, 2, 7,59,16,39		9, 0
24″	11,54, 1,47,47,27,30, 7,15,13		52,12, 5, 6	
		2, 3,10, 1,15,47,11,33		9, 0
26″	11,54, 3,50,57,28,45,54,26,46		52,12,14, 6	
		2, 3,10, 0,23,34,57,27		9, 0
28″	11,54, 5,54, 7,29, 9,29,24,13		52,12,23, 6	
		2, 3, 9,59,31,22,34,21		9, 0
30″	11,54, 7,57,17,28,40,51,58,34		52,12,32, 6	
		2, 3, 9,58,39,10, 2,15		9, 0
32″	11,54,10, 0,27,27,20, 2, 0,49		52,12,41, 6	
		2, 3, 9,57,46,57,21, 9		9, 0
34″	11,54,12, 3,37,25, 6,59,21,58		52,12,50, 6	
		2, 3, 9,56,54,44,31, 3		9, 0
36″	11,54,14, 6,47,22, 1,43,53, 1		52,12,59, 6	
		2, 3, 9,56, 2,31,31,57		9, 0
38″	11,54,16, 9,57,18, 4,15,24,58		52,13, 8, 6	
		2, 3, 9,55,10,18,23,51		9, 0
40″	11,54,18,13, 7,13,14,33,48,49		52,13,17, 6	
		2, 3, 9,54,18, 5, 6,45		9, 0
42″	11,54,20,16,17, 7,32,38,55,34		52,13,26, 6	
		2, 3, 9,53,25,51,40,39		9, 0
44″	11,54,22,19,27, 0,58,30,36,13		52,13,35, 6	
		2, 3, 9,52,33,38, 5,33		9, 0
46″	11,54,24,22,36,53,32, 8,41,46		52,13,44, 6	
		2, 3, 9,51,41,24,21,27		9, 0
48″	11,54,26,25,46,45,13,33, 3,13		52,13,53, 6	
		2, 3, 9,50,49,10,28,21		9, 0
50″	11,54,28,28,56,36, 2,43,31,34		52,14, 2, 6	
		2, 3, 9,49,56,56,26,15		9, 0
52″	11,54,30,32, 6,25,59,39,57,49		52,14,11, 6	
		2, 3, 9,49, 4,42,15, 9		9, 0
54″	11,54,32,35,16,15, 4,22,12,58		52,14,20, 6	
		2, 3, 9,48,12,27,55, 3		9, 0
56″	11,54,34,38,26, 3,16,50, 8, 1		52,14,29, 6	
		2, 3, 9,47,20,13,25,57		9, 0
58″	11,54,36,41,35,50,37, 3,33,58		52,14,38, 6	
		2, 3, 9,46,27,58,47,51		
60″	11,54,38,44,45,37, 5, 2,21,49			
exact	11,54,38,44,45,37, 5, 2, 4,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°27′ 0″	11,54,38,44,45,37, 5, 2, 4,25			
		2, 3, 9,45,35,43,58,51		
2″	11,54,40,47,55,22,40,46, 3,16		52,14,56,14	
		2, 3, 9,44,43,29, 2,37		9, 0
4″	11,54,42,51, 5, 7,24,15, 5,53		52,15, 5,14	
		2, 3, 9,43,51,13,57,23		9, 0
6″	11,54,44,54,14,51,15,29, 3,16		52,15,14,14	
		2, 3, 9,42,58,58,43, 9		9, 0
8″	11,54,46,57,24,34,14,27,46,25		52,15,23,14	
		2, 3, 9,42, 6,43,19,55		9, 0
10″	11,54,49, 0,34,16,21,11, 6,20		52,15,32,14	
		2, 3, 9,41,14,27,47,41		9, 0
12″	11,54,51, 3,43,57,35,38,54, 1		52,15,41,14	
		2, 3, 9,40,22,12, 6,27		9, 0
14″	11,54,53, 6,53,37,57,51, 0,28		52,15,50,14	
		2, 3, 9,39,29,56,16,13		9, 0
16″	11,54,55,10, 3,17,27,47,16,41		52,15,59,14	
		2, 3, 9,38,37,40,16,59		9, 0
18″	11,54,57,13,12,56, 5,27,33,40		52,16, 8,14	
		2, 3, 9,37,45,24, 8,45		9, 0
20″	11,54,59,16,22,33,50,51,42,25		52,16,17,14	
		2, 3, 9,36,53, 7,51,31		9, 0
22″	11,55, 1,19,32,10,43,59,33,56		52,16,26,14	
		2, 3, 9,36, 0,51,25,17		9, 0
24″	11,55, 3,22,41,46,44,50,59,13		52,16,35,14	
		2, 3, 9,35, 8,34,50, 3		9, 0
26″	11,55, 5,25,51,21,53,25,49,16		52,16,44,14	
		2, 3, 9,34,16,18, 5,49		9, 0
28″	11,55, 7,29, 0,56, 9,43,55, 5		52,16,53,14	
		2, 3, 9,33,24, 1,12,35		9, 0
30″	11,55, 9,32,10,29,33,45, 7,40		52,17, 2,14	
		2, 3, 9,32,31,44,10,21		9, 0
32″	11,55,11,35,20, 2, 5,29,18, 1		52,17,11,14	
		2, 3, 9,31,39,26,59, 7		9, 0
34″	11,55,13,38,29,33,44,56,17, 8		52,17,20,14	
		2, 3, 9,30,47, 9,38,53		9, 0
36″	11,55,15,41,39, 4,32, 5,56, 1		52,17,29,14	
		2, 3, 9,29,54,52, 9,39		9, 0
38″	11,55,17,44,48,34,26,58, 5,40		52,17,38,14	
		2, 3, 9,29, 2,34,31,25		9, 0
40″	11,55,19,47,58, 3,29,32,37, 5		52,17,47,14	
		2, 3, 9,28,10,16,44,11		9, 0
42″	11,55,21,51, 7,31,39,49,21,16		52,17,56,14	
		2, 3, 9,27,17,58,47,57		9, 0
44″	11,55,23,54,16,58,57,48, 9,13		52,18, 5,14	
		2, 3, 9,26,25,40,42,43		9, 0
46″	11,55,25,57,26,25,23,28,51,56		52,18,14,14	
		2, 3, 9,25,33,22,28,29		9, 0
48″	11,55,28, 0,35,50,56,51,20,25		52,18,23,14	
		2, 3, 9,24,41, 4, 5,15		9, 0
50″	11,55,30, 3,45,15,37,55,25,40		52,18,32,14	
		2, 3, 9,23,48,45,33, 1		9, 0
52″	11,55,32, 6,54,39,26,40,58,41		52,18,41,14	
		2, 3, 9,22,56,26,51,47		9, 0
54″	11,55,34,10, 4, 2,23, 7,50,28		52,18,50,14	
		2, 3, 9,22, 4, 8, 1,33		9, 0
56″	11,55,36,13,13,24,27,15,52, 1		52,18,59,14	
		2, 3, 9,21,11,49, 2,19		9, 0
58″	11,55,38,16,22,45,39, 4,54,20		52,19, 8,14	
		2, 3, 9,20,19,29,54, 5		
60″	11,55,40,19,32, 5,58,34,48,25			
exact	11,55,40,19,32, 5,58,34,33, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°28′ 0″	11,55,40,19,32, 5,58,34,33, 7			
		2, 3, 9,19,27,10,35,11		
2″	11,55,42,22,41,25,25,45, 8,18		52,19,26,21	
		2, 3, 9,18,34,51, 8,50		9, 0
4″	11,55,44,25,50,44, 0,36,17, 8		52,19,35,21	
		2, 3, 9,17,42,31,33,29		9, 0
6″	11,55,46,29, 0, 1,43, 7,50,37		52,19,44,21	
		2, 3, 9,16,50,11,49, 8		9, 0
8″	11,55,48,32, 9,18,33,19,39,45		52,19,53,21	
		2, 3, 9,15,57,51,55,47		9, 0
10″	11,55,50,35,18,34,31,11,35,32		52,20, 2,21	
		2, 3, 9,15, 5,31,53,26		9, 0
12″	11,55,52,38,27,49,36,43,28,58		52,20,11,21	
		2, 3, 9,14,13,11,42, 5		9, 0
14″	11,55,54,41,37, 3,49,55,11, 3		52,20,20,21	
		2, 3, 9,13,20,51,21,44		9, 0
16″	11,55,56,44,46,17,10,46,32,47		52,20,29,21	
		2, 3, 9,12,28,30,52,23		9, 0
18″	11,55,58,47,55,29,39,17,25,10		52,20,38,21	
		2, 3, 9,11,36,10,14, 2		9, 0
20″	11,56, 0,51, 4,41,15,27,39,12		52,20,47,21	
		2, 3, 9,10,43,49,26,41		9, 0
22″	11,56, 2,54,13,51,59,17, 5,53		52,20,56,21	
		2, 3, 9, 9,51,28,30,20		9, 0
24″	11,56, 4,57,23, 1,50,45,36,13		52,21, 5,21	
		2, 3, 9, 8,59, 7,24,59		9, 0
26″	11,56, 7, 0,32,10,49,53, 1,12		52,21,14,21	
		2, 3, 9, 8, 6,46,10,38		9, 0
28″	11,56, 9, 3,41,18,56,39,11,50		52,21,23,21	
		2, 3, 9, 7,14,24,47,17		9, 0
30″	11,56,11, 6,50,26,11, 3,59, 7		52,21,32,21	
		2, 3, 9, 6,22, 3,14,56		9, 0
32″	11,56,13, 9,59,32,33, 7,14, 3		52,21,41,21	
		2, 3, 9, 5,29,41,33,35		9, 0
34″	11,56,15,13, 8,38, 2,48,47,38		52,21,50,21	
		2, 3, 9, 4,37,19,43,14		9, 0
36″	11,56,17,16,17,42,40, 8,30,52		52,21,59,21	
		2, 3, 9, 3,44,57,43,53		9, 0
38″	11,56,19,19,26,46,25, 6,14,45		52,22, 8,21	
		2, 3, 9, 2,52,35,35,32		9, 0
40″	11,56,21,22,35,49,17,41,50,17		52,22,17,21	
		2, 3, 9, 2, 0,13,18,11		9, 0
42″	11,56,23,25,44,51,17,55, 8,28		52,22,26,21	
		2, 3, 9, 1, 7,50,51,50		9, 0
44″	11,56,25,28,53,52,25,46, 0,18		52,22,35,21	
		2, 3, 9, 0,15,28,16,29		9, 0
46″	11,56,27,32, 2,52,41,14,16,47		52,22,44,21	
		2, 3, 8,59,23, 5,32, 8		9, 0
48″	11,56,29,35,11,52, 4,19,48,55		52,22,53,21	
		2, 3, 8,58,30,42,38,47		9, 0
50″	11,56,31,38,20,50,35, 2,27,42		52,23, 2,21	
		2, 3, 8,57,38,19,36,26		9, 0
52″	11,56,33,41,29,48,13,22, 4, 8		52,23,11,21	
		2, 3, 8,56,45,56,25, 5		9, 0
54″	11,56,35,44,38,44,59,18,29,13		52,23,20,21	
		2, 3, 8,55,53,33, 4,44		9, 0
56″	11,56,37,47,47,40,52,51,33,57		52,23,29,21	
		2, 3, 8,55, 1, 9,35,23		9, 0
58″	11,56,39,50,56,35,54, 1, 9,20		52,23,38,21	
		2, 3, 8,54, 8,45,57, 2		
60″	11,56,41,54, 5,30, 2,47, 6,22			
exact	11,56,41,54, 5,30, 2,46,52,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°29′ 0″	11,56,41,54, 5,30, 2,46,52,27			
		2, 3, 8,53,16,22, 8,12		
2″	11,56,43,57,14,23,19, 9, 0,39		52,23,56,27	
		2, 3, 8,52,23,58,11,45		9, 0
4″	11,56,46, 0,23,15,43, 7,12,24		52,24, 5,27	
		2, 3, 8,51,31,34, 6,18		9, 0
6″	11,56,48, 3,32, 7,14,41,18,42		52,24,14,27	
		2, 3, 8,50,39, 9,51,51		9, 0
8″	11,56,50, 6,40,57,53,51,10,33		52,24,23,27	
		2, 3, 8,49,46,45,28,24		9, 0
10″	11,56,52, 9,49,47,40,36,38,57		52,24,32,27	
		2, 3, 8,48,54,20,55,57		9, 0
12″	11,56,54,12,58,36,34,57,34,54		52,24,41,27	
		2, 3, 8,48, 1,56,14,30		9, 0
14″	11,56,56,16, 7,24,36,53,49,24		52,24,50,27	
		2, 3, 8,47, 9,31,24, 3		9, 0
16″	11,56,58,19,16,11,46,25,13,27		52,24,59,27	
		2, 3, 8,46,17, 6,24,36		9, 0
18″	11,57, 0,22,24,58, 3,31,38, 3		52,25, 8,27	
		2, 3, 8,45,24,41,16, 9		9, 0
20″	11,57, 2,25,33,43,28,12,54,12		52,25,17,27	
		2, 3, 8,44,32,15,58,42		9, 0
22″	11,57, 4,28,42,28, 0,28,52,54		52,25,26,27	
		2, 3, 8,43,39,50,32,15		9, 0
24″	11,57, 6,31,51,11,40,19,25, 9		52,25,35,27	
		2, 3, 8,42,47,24,56,48		9, 0
26″	11,57, 8,34,59,54,27,44,21,57		52,25,44,27	
		2, 3, 8,41,54,59,12,21		9, 0
28″	11,57,10,38, 8,36,22,43,34,18		52,25,53,27	
		2, 3, 8,41, 2,33,18,54		9, 0
30″	11,57,12,41,17,17,25,16,53,12		52,26, 2,27	
		2, 3, 8,40,10, 7,16,27		9, 0
32″	11,57,14,44,25,57,35,24, 9,39		52,26,11,27	
		2, 3, 8,39,17,41, 5, 0		9, 0
34″	11,57,16,47,34,36,53, 5,14,39		52,26,20,27	
		2, 3, 8,38,25,14,44,33		9, 0
36″	11,57,18,50,43,15,18,19,59,12		52,26,29,27	
		2, 3, 8,37,32,48,15, 6		9, 0
38″	11,57,20,53,51,52,51, 8,14,18		52,26,38,27	
		2, 3, 8,36,40,21,36,39		9, 0
40″	11,57,22,57, 0,29,31,29,50,57		52,26,47,27	
		2, 3, 8,35,47,54,49,12		9, 0
42″	11,57,25, 0, 9, 5,19,24,40, 9		52,26,56,27	
		2, 3, 8,34,55,27,52,45		9, 0
44″	11,57,27, 3,17,40,14,52,32,54		52,27, 5,27	
		2, 3, 8,34, 3, 0,47,18		9, 0
46″	11,57,29, 6,26,14,17,53,20,12		52,27,14,27	
		2, 3, 8,33,10,33,32,51		9, 0
48″	11,57,31, 9,34,47,28,26,53, 3		52,27,23,27	
		2, 3, 8,32,18, 6, 9,24		9, 0
50″	11,57,33,12,43,19,46,33, 2,27		52,27,32,27	
		2, 3, 8,31,25,38,36,57		9, 0
52″	11,57,35,15,51,51,12,11,39,24		52,27,41,27	
		2, 3, 8,30,33,10,55,30		9, 0
54″	11,57,37,19, 0,21,45,22,34,54		52,27,50,27	
		2, 3, 8,29,40,43, 5, 3		9, 0
56″	11,57,39,22, 8,51,26, 5,39,57		52,27,59,27	
		2, 3, 8,28,48,15, 5,36		9, 0
58″	11,57,41,25,17,20,14,20,45,33		52,28, 8,27	
		2, 3, 8,27,55,46,57, 9		
60″	11,57,43,28,25,48,10, 7,42,42			
exact	11,57,43,28,25,48,10, 7,30,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°30′ 0″	11,57,43,28,25,48,10, 7,30,22			
		2, 3, 8,27, 3,18,38,24		
2″	11,57,45,31,34,15,13,26, 8,46		52,28,26,32	
		2, 3, 8,26,10,50,11,52		9, 0
4″	11,57,47,34,42,41,24,16,20,38		52,28,35,32	
		2, 3, 8,25,18,21,36,20		9, 0
6″	11,57,49,37,51, 6,42,37,56,58		52,28,44,32	
		2, 3, 8,24,25,52,51,48		9, 0
8″	11,57,51,40,59,31, 8,30,48,46		52,28,53,32	
		2, 3, 8,23,33,23,58,16		9, 0
10″	11,57,53,44, 7,54,41,54,47, 2		52,29, 2,32	
		2, 3, 8,22,40,54,55,44		9, 0
12″	11,57,55,47,16,17,22,49,42,46		52,29,11,32	
		2, 3, 8,21,48,25,44,12		9, 0
14″	11,57,57,50,24,39,11,15,26,58		52,29,20,32	
		2, 3, 8,20,55,56,23,40		9, 0
16″	11,57,59,53,33, 0, 7,11,50,38		52,29,29,32	
		2, 3, 8,20, 3,26,54, 8		9, 0
18″	11,58, 1,56,41,20,10,38,44,46		52,29,38,32	
		2, 3, 8,19,10,57,15,36		9, 0
20″	11,58, 3,59,49,39,21,36, 0,22		52,29,47,32	
		2, 3, 8,18,18,27,28, 4		9, 0
22″	11,58, 6, 2,57,57,40, 3,28,26		52,29,56,32	
		2, 3, 8,17,25,57,31,32		9, 0
24″	11,58, 8, 6, 6,15, 6, 0,59,58		52,30, 5,32	
		2, 3, 8,16,33,27,26, 0		9, 0
26″	11,58,10, 9,14,31,39,28,25,58		52,30,14,32	
		2, 3, 8,15,40,57,11,28		9, 0
28″	11,58,12,12,22,47,20,25,37,26		52,30,23,32	
		2, 3, 8,14,48,26,47,56		9, 0
30″	11,58,14,15,31, 2, 8,52,25,22		52,30,32,32	
		2, 3, 8,13,55,56,15,24		9, 0
32″	11,58,16,18,39,16, 4,48,40,46		52,30,41,32	
		2, 3, 8,13, 3,25,33,52		9, 0
34″	11,58,18,21,47,29, 8,14,14,38		52,30,50,32	
		2, 3, 8,12,10,54,43,20		9, 0
36″	11,58,20,24,55,41,19, 8,57,58		52,30,59,32	
		2, 3, 8,11,18,23,43,48		9, 0
38″	11,58,22,28, 3,52,37,32,41,46		52,31, 8,32	
		2, 3, 8,10,25,52,35,16		9, 0
40″	11,58,24,31,12, 3, 3,25,17, 2		52,31,17,32	
		2, 3, 8, 9,33,21,17,44		9, 0
42″	11,58,26,34,20,12,36,46,34,46		52,31,26,32	
		2, 3, 8, 8,40,49,51,12		9, 0
44″	11,58,28,37,28,21,17,36,25,58		52,31,35,32	
		2, 3, 8, 7,48,18,15,40		9, 0
46″	11,58,30,40,36,29, 5,54,41,38		52,31,44,32	
		2, 3, 8, 6,55,46,31, 8		9, 0
48″	11,58,32,43,44,36, 1,41,12,46		52,31,53,32	
		2, 3, 8, 6, 3,14,37,36		9, 0
50″	11,58,34,46,52,42, 4,55,50,22		52,32, 2,32	
		2, 3, 8, 5,10,42,35, 4		9, 0
52″	11,58,36,50, 0,47,15,38,25,26		52,32,11,32	
		2, 3, 8, 4,18,10,23,32		9, 0
54″	11,58,38,53, 8,51,33,48,48,58		52,32,20,32	
		2, 3, 8, 3,25,38, 3, 0		9, 0
56″	11,58,40,56,16,54,59,26,51,58		52,32,29,32	
		2, 3, 8, 2,33, 5,33,28		9, 0
58″	11,58,42,59,24,57,32,32,25,26		52,32,38,32	
		2, 3, 8, 1,40,32,54,56		
60″	11,58,45, 2,32,59,13, 5,20,22			
exact	11,58,45, 2,32,59,13, 5, 9, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°31′ 0″	11,58,45, 2,32,59,13, 5, 9, 7			
		2, 3, 8, 0,48, 0, 6,16		
2″	11,58,47, 5,41, 0, 1, 5,15,23		52,32,56,36	
		2, 3, 7,59,55,27, 9,40		9, 0
4″	11,58,49, 8,48,59,56,32,25, 3		52,33, 5,36	
		2, 3, 7,59, 2,54, 4, 4		9, 0
6″	11,58,51,11,56,58,59,26,29, 7		52,33,14,36	
		2, 3, 7,58,10,20,49,28		9, 0
8″	11,58,53,15, 4,57, 9,47,18,35		52,33,23,36	
		2, 3, 7,57,17,47,25,52		9, 0
10″	11,58,55,18,12,54,27,34,44,27		52,33,32,36	
		2, 3, 7,56,25,13,53,16		9, 0
12″	11,58,57,21,20,50,52,48,37,43		52,33,41,36	
		2, 3, 7,55,32,40,11,40		9, 0
14″	11,58,59,24,28,46,25,28,49,23		52,33,50,36	
		2, 3, 7,54,40, 6,21, 4		9, 0
16″	11,59, 1,27,36,41, 5,35,10,27		52,33,59,36	
		2, 3, 7,53,47,32,21,28		9, 0
18″	11,59, 3,30,44,34,53, 7,31,55		52,34, 8,36	
		2, 3, 7,52,54,58,12,52		9, 0
20″	11,59, 5,33,52,27,48, 5,44,47		52,34,17,36	
		2, 3, 7,52, 2,23,55,16		9, 0
22″	11,59, 7,37, 0,19,50,29,40, 3		52,34,26,36	
		2, 3, 7,51, 9,49,28,40		9, 0
24″	11,59, 9,40, 8,11, 0,19, 8,43		52,34,35,36	
		2, 3, 7,50,17,14,53, 4		9, 0
26″	11,59,11,43,16, 1,17,34, 1,47		52,34,44,36	
		2, 3, 7,49,24,40, 8,28		9, 0
28″	11,59,13,46,23,50,42,14,10,15		52,34,53,36	
		2, 3, 7,48,32, 5,14,52		9, 0
30″	11,59,15,49,31,39,14,19,25, 7		52,35, 2,36	
		2, 3, 7,47,39,30,12,16		9, 0
32″	11,59,17,52,39,26,53,49,37,23		52,35,11,36	
		2, 3, 7,46,46,55, 0,40		9, 0
34″	11,59,19,55,47,13,40,44,38, 3		52,35,20,36	
		2, 3, 7,45,54,19,40, 4		9, 0
36″	11,59,21,58,54,59,35, 4,18, 7		52,35,29,36	
		2, 3, 7,45, 1,44,10,28		9, 0
38″	11,59,24, 2, 2,44,36,48,28,35		52,35,38,36	
		2, 3, 7,44, 9, 8,31,52		9, 0
40″	11,59,26, 5,10,28,45,57, 0,27		52,35,47,36	
		2, 3, 7,43,16,32,44,16		9, 0
42″	11,59,28, 8,18,12, 2,29,44,43		52,35,56,36	
		2, 3, 7,42,23,56,47,40		9, 0
44″	11,59,30,11,25,54,26,26,32,23		52,36, 5,36	
		2, 3, 7,41,31,20,42, 4		9, 0
46″	11,59,32,14,33,35,57,47,14,27		52,36,14,36	
		2, 3, 7,40,38,44,27,28		9, 0
48″	11,59,34,17,41,16,36,31,41,55		52,36,23,36	
		2, 3, 7,39,46, 8, 3,52		9, 0
50″	11,59,36,20,48,56,22,39,45,47		52,36,32,36	
		2, 3, 7,38,53,31,31,16		9, 0
52″	11,59,38,23,56,35,16,11,17, 3		52,36,41,36	
		2, 3, 7,38, 0,54,49,40		9, 0
54″	11,59,40,27, 4,13,17, 6, 6,43		52,36,50,36	
		2, 3, 7,37, 8,17,59, 4		9, 0
56″	11,59,42,30,11,50,25,24, 5,47		52,36,59,36	
		2, 3, 7,36,15,40,59,28		9, 0
58″	11,59,44,33,19,26,41, 5, 5,15		52,37, 8,36	
		2, 3, 7,35,23, 3,50,52		
60″	11,59,46,36,27, 2, 4, 8,56, 7			
exact	11,59,46,36,27, 2, 4, 8,45,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°32′ 0″	11,59,46,36,27, 2, 4, 8,45,23			
		2, 3, 7,34,30,26,32,15		
2″	11,59,48,39,34,36,34,35,17,38		52,37,26,40	
		2, 3, 7,33,37,49, 5,35		9, 0
4″	11,59,50,42,42,10,12,24,23,13		52,37,35,40	
		2, 3, 7,32,45,11,29,55		9, 0
6″	11,59,52,45,49,42,57,35,53, 8		52,37,44,40	
		2, 3, 7,31,52,33,45,15		9, 0
8″	11,59,54,48,57,14,50, 9,38,23		52,37,53,40	
		2, 3, 7,30,59,55,51,35		9, 0
10″	11,59,56,52, 4,45,50, 5,29,58		52,38, 2,40	
		2, 3, 7,30, 7,17,48,55		9, 0
12″	11,59,58,55,12,15,57,23,18,53		52,38,11,40	
		2, 3, 7,29,14,39,37,15		9, 0
14″	12, 0, 0,58,19,45,12, 2,56, 8		52,38,20,40	
		2, 3, 7,28,22, 1,16,35		9, 0
16″	12, 0, 3, 1,27,13,34, 4,12,43		52,38,29,40	
		2, 3, 7,27,29,22,46,55		9, 0
18″	12, 0, 5, 4,34,41, 3,26,59,38		52,38,38,40	
		2, 3, 7,26,36,44, 8,15		9, 0
20″	12, 0, 7, 7,42, 7,40,11, 7,53		52,38,47,40	
		2, 3, 7,25,44, 5,20,35		9, 0
22″	12, 0, 9,10,49,33,24,16,28,28		52,38,56,40	
		2, 3, 7,24,51,26,23,55		9, 0
24″	12, 0,11,13,56,58,15,42,52,23		52,39, 5,40	
		2, 3, 7,23,58,47,18,15		9, 0
26″	12, 0,13,17, 4,22,14,30,10,38		52,39,14,40	
		2, 3, 7,23, 6, 8, 3,35		9, 0
28″	12, 0,15,20,11,45,20,38,14,13		52,39,23,40	
		2, 3, 7,22,13,28,39,55		9, 0
30″	12, 0,17,23,19, 7,34, 6,54, 8		52,39,32,40	
		2, 3, 7,21,20,49, 7,15		9, 0
32″	12, 0,19,26,26,28,54,56, 1,23		52,39,41,40	
		2, 3, 7,20,28, 9,25,35		9, 0
34″	12, 0,21,29,33,49,23, 5,26,58		52,39,50,40	
		2, 3, 7,19,35,29,34,55		9, 0
36″	12, 0,23,32,41, 8,58,35, 1,53		52,39,59,40	
		2, 3, 7,18,42,49,35,15		9, 0
38″	12, 0,25,35,48,27,41,24,37, 8		52,40, 8,40	
		2, 3, 7,17,50, 9,26,35		9, 0
40″	12, 0,27,38,55,45,31,34, 3,43		52,40,17,40	
		2, 3, 7,16,57,29, 8,55		9, 0
42″	12, 0,29,42, 3, 2,29, 3,12,38		52,40,26,40	
		2, 3, 7,16, 4,48,42,15		9, 0
44″	12, 0,31,45,10,18,33,51,54,53		52,40,35,40	
		2, 3, 7,15,12, 8, 6,35		9, 0
46″	12, 0,33,48,17,33,46, 0, 1,28		52,40,44,40	
		2, 3, 7,14,19,27,21,55		9, 0
48″	12, 0,35,51,24,48, 5,27,23,23		52,40,53,40	
		2, 3, 7,13,26,46,28,15		9, 0
50″	12, 0,37,54,32, 1,32,13,51,38		52,41, 2,40	
		2, 3, 7,12,34, 5,25,35		9, 0
52″	12, 0,39,57,39,14, 6,19,17,13		52,41,11,40	
		2, 3, 7,11,41,24,13,55		9, 0
54″	12, 0,42, 0,46,25,47,43,31, 8		52,41,20,40	
		2, 3, 7,10,48,42,53,15		9, 0
56″	12, 0,44, 3,53,36,36,26,24,23		52,41,29,40	
		2, 3, 7, 9,56, 1,23,35		9, 0
58″	12, 0,46, 7, 0,46,32,27,47,58		52,41,38,40	
		2, 3, 7, 9, 3,19,44,55		
60″	12, 0,48,10, 7,55,35,47,32,53			
exact	12, 0,48,10, 7,55,35,47,30,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°33′ 0″	12, 0,48,10, 7,55,35,47,30,14			
		2, 3, 7, 8,10,37,56,52		
2″	12, 0,50,13,15, 3,46,25,27, 6		52,41,56,42	
		2, 3, 7, 7,17,56, 0,10		9, 0
4″	12, 0,52,16,22,11, 4,21,27,16		52,42, 5,42	
		2, 3, 7, 6,25,13,54,28		9, 0
6″	12, 0,54,19,29,17,29,35,21,44		52,42,14,42	
		2, 3, 7, 5,32,31,39,46		9, 0
8″	12, 0,56,22,36,23, 2, 7, 1,30		52,42,23,42	
		2, 3, 7, 4,39,49,16, 4		9, 0
10″	12, 0,58,25,43,27,41,56,17,34		52,42,32,42	
		2, 3, 7, 3,47, 6,43,22		9, 0
12″	12, 1, 0,28,50,31,29, 3, 0,56		52,42,41,42	
		2, 3, 7, 2,54,24, 1,40		9, 0
14″	12, 1, 2,31,57,34,23,27, 2,36		52,42,50,42	
		2, 3, 7, 2, 1,41,10,58		9, 0
16″	12, 1, 4,35, 4,36,25, 8,13,34		52,42,59,42	
		2, 3, 7, 1, 8,58,11,16		9, 0
18″	12, 1, 6,38,11,37,34, 6,24,50		52,43, 8,42	
		2, 3, 7, 0,16,15, 2,34		9, 0
20″	12, 1, 8,41,18,37,50,21,27,24		52,43,17,42	
		2, 3, 6,59,23,31,44,52		9, 0
22″	12, 1,10,44,25,37,13,53,12,16		52,43,26,42	
		2, 3, 6,58,30,48,18,10		9, 0
24″	12, 1,12,47,32,35,44,41,30,26		52,43,35,42	
		2, 3, 6,57,38, 4,42,28		9, 0
26″	12, 1,14,50,39,33,22,46,12,54		52,43,44,42	
		2, 3, 6,56,45,20,57,46		9, 0
28″	12, 1,16,53,46,30, 8, 7,10,40		52,43,53,42	
		2, 3, 6,55,52,37, 4, 4		9, 0
30″	12, 1,18,56,53,26, 0,44,14,44		52,44, 2,42	
		2, 3, 6,54,59,53, 1,22		9, 0
32″	12, 1,21, 0, 0,21, 0,37,16, 6		52,44,11,42	
		2, 3, 6,54, 7, 8,49,40		9, 0
34″	12, 1,23, 3, 7,15, 7,46, 5,46		52,44,20,42	
		2, 3, 6,53,14,24,28,58		9, 0
36″	12, 1,25, 6,14, 8,22,10,34,44		52,44,29,42	
		2, 3, 6,52,21,39,59,16		9, 0
38″	12, 1,27, 9,21, 0,43,50,34, 0		52,44,38,42	
		2, 3, 6,51,28,55,20,34		9, 0
40″	12, 1,29,12,27,52,12,45,54,34		52,44,47,42	
		2, 3, 6,50,36,10,32,52		9, 0
42″	12, 1,31,15,34,42,48,56,27,26		52,44,56,42	
		2, 3, 6,49,43,25,36,10		9, 0
44″	12, 1,33,18,41,32,32,22, 3,36		52,45, 5,42	
		2, 3, 6,48,50,40,30,28		9, 0
46″	12, 1,35,21,48,21,23, 2,34, 4		52,45,14,42	
		2, 3, 6,47,57,55,15,46		9, 0
48″	12, 1,37,24,55, 9,20,57,49,50		52,45,23,42	
		2, 3, 6,47, 5, 9,52, 4		9, 0
50″	12, 1,39,28, 1,56,26, 7,41,54		52,45,32,42	
		2, 3, 6,46,12,24,19,22		9, 0
52″	12, 1,41,31, 8,42,38,32, 1,16		52,45,41,42	
		2, 3, 6,45,19,38,37,40		9, 0
54″	12, 1,43,34,15,27,58,10,38,56		52,45,50,42	
		2, 3, 6,44,26,52,46,58		9, 0
56″	12, 1,45,37,22,12,25, 3,25,54		52,45,59,42	
		2, 3, 6,43,34, 6,47,16		9, 0
58″	12, 1,47,40,28,55,59,10,13,10		52,46, 8,42	
		2, 3, 6,42,41,20,38,34		
60″	12, 1,49,43,35,38,40,30,51,44			
exact	12, 1,49,43,35,38,40,30,49,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°34′ 0″	12, 1,49,43,35,38,40,30,49,10			
		2, 3, 6,41,48,34,20,35		
2″	12, 1,51,46,42,20,29, 5, 9,45		52,46,26,43	
		2, 3, 6,40,55,47,53,52		9, 0
4″	12, 1,53,49,49, 1,24,53, 3,37		52,46,35,43	
		2, 3, 6,40, 3, 1,18, 9		9, 0
6″	12, 1,55,52,55,41,27,54,21,46		52,46,44,43	
		2, 3, 6,39,10,14,33,26		9, 0
8″	12, 1,57,56, 2,20,38, 8,55,12		52,46,53,43	
		2, 3, 6,38,17,27,39,43		9, 0
10″	12, 1,59,59, 8,58,55,36,34,55		52,47, 2,43	
		2, 3, 6,37,24,40,37, 0		9, 0
12″	12, 2, 2, 2,15,36,20,17,11,55		52,47,11,43	
		2, 3, 6,36,31,53,25,17		9, 0
14″	12, 2, 4, 5,22,12,52,10,37,12		52,47,20,43	
		2, 3, 6,35,39, 6, 4,34		9, 0
16″	12, 2, 6, 8,28,48,31,16,41,46		52,47,29,43	
		2, 3, 6,34,46,18,34,51		9, 0
18″	12, 2, 8,11,35,23,17,35,16,37		52,47,38,43	
		2, 3, 6,33,53,30,56, 8		9, 0
20″	12, 2,10,14,41,57,11, 6,12,45		52,47,47,43	
		2, 3, 6,33, 0,43, 8,25		9, 0
22″	12, 2,12,17,48,30,11,49,21,10		52,47,56,43	
		2, 3, 6,32, 7,55,11,42		9, 0
24″	12, 2,14,20,55, 2,19,44,32,52		52,48, 5,43	
		2, 3, 6,31,15, 7, 5,59		9, 0
26″	12, 2,16,24, 1,33,34,51,38,51		52,48,14,43	
		2, 3, 6,30,22,18,51,16		9, 0
28″	12, 2,18,27, 8, 3,57,10,30, 7		52,48,23,43	
		2, 3, 6,29,29,30,27,33		9, 0
30″	12, 2,20,30,14,33,26,40,57,40		52,48,32,43	
		2, 3, 6,28,36,41,54,50		9, 0
32″	12, 2,22,33,21, 2, 3,22,52,30		52,48,41,43	
		2, 3, 6,27,43,53,13, 7		9, 0
34″	12, 2,24,36,27,29,47,16, 5,37		52,48,50,43	
		2, 3, 6,26,51, 4,22,24		9, 0
36″	12, 2,26,39,33,56,38,20,28, 1		52,48,59,43	
		2, 3, 6,25,58,15,22,41		9, 0
38″	12, 2,28,42,40,22,36,35,50,42		52,49, 8,43	
		2, 3, 6,25, 5,26,13,58		9, 0
40″	12, 2,30,45,46,47,42, 2, 4,40		52,49,17,43	
		2, 3, 6,24,12,36,56,15		9, 0
42″	12, 2,32,48,53,11,54,39, 0,55		52,49,26,43	
		2, 3, 6,23,19,47,29,32		9, 0
44″	12, 2,34,51,59,35,14,26,30,27		52,49,35,43	
		2, 3, 6,22,26,57,53,49		9, 0
46″	12, 2,36,55, 5,57,41,24,24,16		52,49,44,43	
		2, 3, 6,21,34, 8, 9, 6		9, 0
48″	12, 2,38,58,12,19,15,32,33,22		52,49,53,43	
		2, 3, 6,20,41,18,15,23		9, 0
50″	12, 2,41, 1,18,39,56,50,48,45		52,50, 2,43	
		2, 3, 6,19,48,28,12,40		9, 0
52″	12, 2,43, 4,24,59,45,19, 1,25		52,50,11,43	
		2, 3, 6,18,55,38, 0,57		9, 0
54″	12, 2,45, 7,31,18,40,57, 2,22		52,50,20,43	
		2, 3, 6,18, 2,47,40,14		9, 0
56″	12, 2,47,10,37,36,43,44,42,36		52,50,29,43	
		2, 3, 6,17, 9,57,10,31		9, 0
58″	12, 2,49,13,43,53,53,41,53, 7		52,50,38,43	
		2, 3, 6,16,17, 6,31,48		
60″	12, 2,51,16,50,10,10,48,24,55			
exact	12, 2,51,16,50,10,10,48,22, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°35′ 0″	12, 2,51,16,50,10,10,48,22, 8			
		2, 3, 6,15,24,15,43,52		
2″	12, 2,53,19,56,25,35, 4, 6, 0		52,50,56,44	
		2, 3, 6,14,31,24,47, 8		9, 0
4″	12, 2,55,23, 2,40, 6,28,53, 8		52,51, 5,44	
		2, 3, 6,13,38,33,41,24		9, 0
6″	12, 2,57,26, 8,53,45, 2,34,32		52,51,14,44	
		2, 3, 6,12,45,42,26,40		9, 0
8″	12, 2,59,29,15, 6,30,45, 1,12		52,51,23,44	
		2, 3, 6,11,52,51, 2,56		9, 0
10″	12, 3, 1,32,21,18,23,36, 4, 8		52,51,32,44	
		2, 3, 6,10,59,59,30,12		9, 0
12″	12, 3, 3,35,27,29,23,35,34,20		52,51,41,44	
		2, 3, 6,10, 7, 7,48,28		9, 0
14″	12, 3, 5,38,33,39,30,43,22,48		52,51,50,44	
		2, 3, 6, 9,14,15,57,44		9, 0
16″	12, 3, 7,41,39,48,44,59,20,32		52,51,59,44	
		2, 3, 6, 8,21,23,58, 0		9, 0
18″	12, 3, 9,44,45,57, 6,23,18,32		52,52, 8,44	
		2, 3, 6, 7,28,31,49,16		9, 0
20″	12, 3,11,47,52, 4,34,55, 7,48		52,52,17,44	
		2, 3, 6, 6,35,39,31,32		9, 0
22″	12, 3,13,50,58,11,10,34,39,20		52,52,26,44	
		2, 3, 6, 5,42,47, 4,48		9, 0
24″	12, 3,15,54, 4,16,53,21,44, 8		52,52,35,44	
		2, 3, 6, 4,49,54,29, 4		9, 0
26″	12, 3,17,57,10,21,43,16,13,12		52,52,44,44	
		2, 3, 6, 3,57, 1,44,20		9, 0
28″	12, 3,20, 0,16,25,40,17,57,32		52,52,53,44	
		2, 3, 6, 3, 4, 8,50,36		9, 0
30″	12, 3,22, 3,22,28,44,26,48, 8		52,53, 2,44	
		2, 3, 6, 2,11,15,47,52		9, 0
32″	12, 3,24, 6,28,30,55,42,36, 0		52,53,11,44	
		2, 3, 6, 1,18,22,36, 8		9, 0
34″	12, 3,26, 9,34,32,14, 5,12, 8		52,53,20,44	
		2, 3, 6, 0,25,29,15,24		9, 0
36″	12, 3,28,12,40,32,39,34,27,32		52,53,29,44	
		2, 3, 5,59,32,35,45,40		9, 0
38″	12, 3,30,15,46,32,12,10,13,12		52,53,38,44	
		2, 3, 5,58,39,42, 6,56		9, 0
40″	12, 3,32,18,52,30,51,52,20, 8		52,53,47,44	
		2, 3, 5,57,46,48,19,12		9, 0
42″	12, 3,34,21,58,28,38,40,39,20		52,53,56,44	
		2, 3, 5,56,53,54,22,28		9, 0
44″	12, 3,36,25, 4,25,32,35, 1,48		52,54, 5,44	
		2, 3, 5,56, 1, 0,16,44		9, 0
46″	12, 3,38,28,10,21,33,35,18,32		52,54,14,44	
		2, 3, 5,55, 8, 6, 2, 0		9, 0
48″	12, 3,40,31,16,16,41,41,20,32		52,54,23,44	
		2, 3, 5,54,15,11,38,16		9, 0
50″	12, 3,42,34,22,10,56,52,58,48		52,54,32,44	
		2, 3, 5,53,22,17, 5,32		9, 0
52″	12, 3,44,37,28, 4,19,10, 4,20		52,54,41,44	
		2, 3, 5,52,29,22,23,48		9, 0
54″	12, 3,46,40,33,56,48,32,28, 8		52,54,50,44	
		2, 3, 5,51,36,27,33, 4		9, 0
56″	12, 3,48,43,39,48,25, 0, 1,12		52,54,59,44	
		2, 3, 5,50,43,32,33,20		9, 0
58″	12, 3,50,46,45,39, 8,32,34,32		52,55, 8,44	
		2, 3, 5,49,50,37,24,36		
60″	12, 3,52,49,51,28,59, 9,59, 8			
exact	12, 3,52,49,51,28,59,10, 3,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°36′ 0″	12, 3,52,49,51,28,59,10, 3,32			
		2, 3, 5,48,57,42, 7,13		
2″	12, 3,54,52,57,17,56,52,10,45		52,55,26,43	
		2, 3, 5,48, 4,46,40,30		9, 0
4″	12, 3,56,56, 3, 6, 1,38,51,15		52,55,35,43	
		2, 3, 5,47,11,51, 4,47		9, 0
6″	12, 3,58,59, 8,53,13,29,56, 2		52,55,44,43	
		2, 3, 5,46,18,55,20, 4		9, 0
8″	12, 4, 1, 2,14,39,32,25,16, 6		52,55,53,43	
		2, 3, 5,45,25,59,26,21		9, 0
10″	12, 4, 3, 5,20,24,58,24,42,27		52,56, 2,43	
		2, 3, 5,44,33, 3,23,38		9, 0
12″	12, 4, 5, 8,26, 9,31,28, 6, 5		52,56,11,43	
		2, 3, 5,43,40, 7,11,55		9, 0
14″	12, 4, 7,11,31,53,11,35,18, 0		52,56,20,43	
		2, 3, 5,42,47,10,51,12		9, 0
16″	12, 4, 9,14,37,35,58,46, 9,12		52,56,29,43	
		2, 3, 5,41,54,14,21,29		9, 0
18″	12, 4,11,17,43,17,53, 0,30,41		52,56,38,43	
		2, 3, 5,41, 1,17,42,46		9, 0
20″	12, 4,13,20,48,58,54,18,13,27		52,56,47,43	
		2, 3, 5,40, 8,20,55, 3		9, 0
22″	12, 4,15,23,54,39, 2,39, 8,30		52,56,56,43	
		2, 3, 5,39,15,23,58,20		9, 0
24″	12, 4,17,27, 0,18,18, 3, 6,50		52,57, 5,43	
		2, 3, 5,38,22,26,52,37		9, 0
26″	12, 4,19,30, 5,56,40,29,59,27		52,57,14,43	
		2, 3, 5,37,29,29,37,54		9, 0
28″	12, 4,21,33,11,34, 9,59,37,21		52,57,23,43	
		2, 3, 5,36,36,32,14,11		9, 0
30″	12, 4,23,36,17,10,46,31,51,32		52,57,32,43	
		2, 3, 5,35,43,34,41,28		9, 0
32″	12, 4,25,39,22,46,30, 6,33, 0		52,57,41,43	
		2, 3, 5,34,50,36,59,45		9, 0
34″	12, 4,27,42,28,21,20,43,32,45		52,57,50,43	
		2, 3, 5,33,57,39, 9, 2		9, 0
36″	12, 4,29,45,33,55,18,22,41,47		52,57,59,43	
		2, 3, 5,33, 4,41, 9,19		9, 0
38″	12, 4,31,48,39,28,23, 3,51, 6		52,58, 8,43	
		2, 3, 5,32,11,43, 0,36		9, 0
40″	12, 4,33,51,45, 0,34,46,51,42		52,58,17,43	
		2, 3, 5,31,18,44,42,53		9, 0
42″	12, 4,35,54,50,31,53,31,34,35		52,58,26,43	
		2, 3, 5,30,25,46,16,10		9, 0
44″	12, 4,37,57,56, 2,19,17,50,45		52,58,35,43	
		2, 3, 5,29,32,47,40,27		9, 0
46″	12, 4,40, 1, 1,31,52, 5,31,12		52,58,44,43	
		2, 3, 5,28,39,48,55,44		9, 0
48″	12, 4,42, 4, 7, 0,31,54,26,56		52,58,53,43	
		2, 3, 5,27,46,50, 2, 1		9, 0
50″	12, 4,44, 7,12,28,18,44,28,57		52,59, 2,43	
		2, 3, 5,26,53,50,59,18		9, 0
52″	12, 4,46,10,17,55,12,35,28,15		52,59,11,43	
		2, 3, 5,26, 0,51,47,35		9, 0
54″	12, 4,48,13,23,21,13,27,15,50		52,59,20,43	
		2, 3, 5,25, 7,52,26,52		9, 0
56″	12, 4,50,16,28,46,21,19,42,42		52,59,29,43	
		2, 3, 5,24,14,52,57, 9		9, 0
58″	12, 4,52,19,34,10,36,12,39,51		52,59,38,43	
		2, 3, 5,23,21,53,18,26		
60″	12, 4,54,22,39,33,58, 5,58,17			
exact	12, 4,54,22,39,33,58, 6, 2,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°37′ 0″	12, 4,54,22,39,33,58, 6, 2,17			
		2, 3, 5,22,28,53,31, 7		
2″	12, 4,56,25,44,56,26,59,33,24		52,59,56,41	
		2, 3, 5,21,35,53,34,26		9, 0
4″	12, 4,58,28,50,18, 2,53, 7,50		53, 0, 5,41	
		2, 3, 5,20,42,53,28,45		9, 0
6″	12, 5, 0,31,55,38,45,46,36,35		53, 0,14,41	
		2, 3, 5,19,49,53,14, 4		9, 0
8″	12, 5, 2,35, 0,58,35,39,50,39		53, 0,23,41	
		2, 3, 5,18,56,52,50,23		9, 0
10″	12, 5, 4,38, 6,17,32,32,41, 2		53, 0,32,41	
		2, 3, 5,18, 3,52,17,42		9, 0
12″	12, 5, 6,41,11,35,36,24,58,44		53, 0,41,41	
		2, 3, 5,17,10,51,36, 1		9, 0
14″	12, 5, 8,44,16,52,47,16,34,45		53, 0,50,41	
		2, 3, 5,16,17,50,45,20		9, 0
16″	12, 5,10,47,22, 9, 5, 7,20, 5		53, 0,59,41	
		2, 3, 5,15,24,49,45,39		9, 0
18″	12, 5,12,50,27,24,29,57, 5,44		53, 1, 8,41	
		2, 3, 5,14,31,48,36,58		9, 0
20″	12, 5,14,53,32,39, 1,45,42,42		53, 1,17,41	
		2, 3, 5,13,38,47,19,17		9, 0
22″	12, 5,16,56,37,52,40,33, 1,59		53, 1,26,41	
		2, 3, 5,12,45,45,52,36		9, 0
24″	12, 5,18,59,43, 5,26,18,54,35		53, 1,35,41	
		2, 3, 5,11,52,44,16,55		9, 0
26″	12, 5,21, 2,48,17,19, 3,11,30		53, 1,44,41	
		2, 3, 5,10,59,42,32,14		9, 0
28″	12, 5,23, 5,53,28,18,45,43,44		53, 1,53,41	
		2, 3, 5,10, 6,40,38,33		9, 0
30″	12, 5,25, 8,58,38,25,26,22,17		53, 2, 2,41	
		2, 3, 5, 9,13,38,35,52		9, 0
32″	12, 5,27,12, 3,47,39, 4,58, 9		53, 2,11,41	
		2, 3, 5, 8,20,36,24,11		9, 0
34″	12, 5,29,15, 8,55,59,41,22,20		53, 2,20,41	
		2, 3, 5, 7,27,34, 3,30		9, 0
36″	12, 5,31,18,14, 3,27,15,25,50		53, 2,29,41	
		2, 3, 5, 6,34,31,33,49		9, 0
38″	12, 5,33,21,19,10, 1,46,59,39		53, 2,38,41	
		2, 3, 5, 5,41,28,55, 8		9, 0
40″	12, 5,35,24,24,15,43,15,54,47		53, 2,47,41	
		2, 3, 5, 4,48,26, 7,27		9, 0
42″	12, 5,37,27,29,20,31,42, 2,14		53, 2,56,41	
		2, 3, 5, 3,55,23,10,46		9, 0
44″	12, 5,39,30,34,24,27, 5,13, 0		53, 3, 5,41	
		2, 3, 5, 3, 2,20, 5, 5		9, 0
46″	12, 5,41,33,39,27,29,25,18, 5		53, 3,14,41	
		2, 3, 5, 2, 9,16,50,24		9, 0
48″	12, 5,43,36,44,29,38,42, 8,29		53, 3,23,41	
		2, 3, 5, 1,16,13,26,43		9, 0
50″	12, 5,45,39,49,30,54,55,35,12		53, 3,32,41	
		2, 3, 5, 0,23, 9,54, 2		9, 0
52″	12, 5,47,42,54,31,18, 5,29,14		53, 3,41,41	
		2, 3, 4,59,30, 6,12,21		9, 0
54″	12, 5,49,45,59,30,48,11,41,35		53, 3,50,41	
		2, 3, 4,58,37, 2,21,40		9, 0
56″	12, 5,51,49, 4,29,25,14, 3,15		53, 3,59,41	
		2, 3, 4,57,43,58,21,59		9, 0
58″	12, 5,53,52, 9,27, 9,12,25,14		53, 4, 8,41	
		2, 3, 4,56,50,54,13,18		
60″	12, 5,55,55,14,24, 0, 6,38,32			
exact	12, 5,55,55,14,24, 0, 6,41,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°38′ 0″	12, 5,55,55,14,24, 0, 6,41,47			
		2, 3, 4,55,57,49,56, 3		
2″	12, 5,57,58,19,19,57,56,37,50		53, 4,26,39	
		2, 3, 4,55, 4,45,29,24		9, 0
4″	12, 6, 0, 1,24,15, 2,42, 7,14		53, 4,35,39	
		2, 3, 4,54,11,40,53,45		9, 0
6″	12, 6, 2, 4,29, 9,14,23, 0,59		53, 4,44,39	
		2, 3, 4,53,18,36, 9, 6		9, 0
8″	12, 6, 4, 7,34, 2,32,59,10, 5		53, 4,53,39	
		2, 3, 4,52,25,31,15,27		9, 0
10″	12, 6, 6,10,38,54,58,30,25,32		53, 5, 2,39	
		2, 3, 4,51,32,26,12,48		9, 0
12″	12, 6, 8,13,43,46,30,56,38,20		53, 5,11,39	
		2, 3, 4,50,39,21, 1, 9		9, 0
14″	12, 6,10,16,48,37,10,17,39,29		53, 5,20,39	
		2, 3, 4,49,46,15,40,30		9, 0
16″	12, 6,12,19,53,26,56,33,19,59		53, 5,29,39	
		2, 3, 4,48,53,10,10,51		9, 0
18″	12, 6,14,22,58,15,49,43,30,50		53, 5,38,39	
		2, 3, 4,48, 0, 4,32,12		9, 0
20″	12, 6,16,26, 3, 3,49,48, 3, 2		53, 5,47,39	
		2, 3, 4,47, 6,58,44,33		9, 0
22″	12, 6,18,29, 7,50,56,46,47,35		53, 5,56,39	
		2, 3, 4,46,13,52,47,54		9, 0
24″	12, 6,20,32,12,37,10,39,35,29		53, 6, 5,39	
		2, 3, 4,45,20,46,42,15		9, 0
26″	12, 6,22,35,17,22,31,26,17,44		53, 6,14,39	
		2, 3, 4,44,27,40,27,36		9, 0
28″	12, 6,24,38,22, 6,59, 6,45,20		53, 6,23,39	
		2, 3, 4,43,34,34, 3,57		9, 0
30″	12, 6,26,41,26,50,33,40,49,17		53, 6,32,39	
		2, 3, 4,42,41,27,31,18		9, 0
32″	12, 6,28,44,31,33,15, 8,20,35		53, 6,41,39	
		2, 3, 4,41,48,20,49,39		9, 0
34″	12, 6,30,47,36,15, 3,29,10,14		53, 6,50,39	
		2, 3, 4,40,55,13,59, 0		9, 0
36″	12, 6,32,50,40,55,58,43, 9,14		53, 6,59,39	
		2, 3, 4,40, 2, 6,59,21		9, 0
38″	12, 6,34,53,45,36, 0,50, 8,35		53, 7, 8,39	
		2, 3, 4,39, 8,59,50,42		9, 0
40″	12, 6,36,56,50,15, 9,49,59,17		53, 7,17,39	
		2, 3, 4,38,15,52,33, 3		9, 0
42″	12, 6,38,59,54,53,25,42,32,20		53, 7,26,39	
		2, 3, 4,37,22,45, 6,24		9, 0
44″	12, 6,41, 2,59,30,48,27,38,44		53, 7,35,39	
		2, 3, 4,36,29,37,30,45		9, 0
46″	12, 6,43, 6, 4, 7,18, 5, 9,29		53, 7,44,39	
		2, 3, 4,35,36,29,46, 6		9, 0
48″	12, 6,45, 9, 8,42,54,34,55,35		53, 7,53,39	
		2, 3, 4,34,43,21,52,27		9, 0
50″	12, 6,47,12,13,17,37,56,48, 2		53, 8, 2,39	
		2, 3, 4,33,50,13,49,48		9, 0
52″	12, 6,49,15,17,51,28,10,37,50		53, 8,11,39	
		2, 3, 4,32,57, 5,38, 9		9, 0
54″	12, 6,51,18,22,24,25,16,15,59		53, 8,20,39	
		2, 3, 4,32, 3,57,17,30		9, 0
56″	12, 6,53,21,26,56,29,13,33,29		53, 8,29,39	
		2, 3, 4,31,10,48,47,51		9, 0
58″	12, 6,55,24,31,27,40, 2,21,20		53, 8,38,39	
		2, 3, 4,30,17,40, 9,12		
60″	12, 6,57,27,35,57,57,42,30,32			
exact	12, 6,57,27,35,57,57,42,39,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°39′ 0″	12, 6,57,27,35,57,57,42,39,58			
		2, 3, 4,29,24,31,22,30		
2″	12, 6,59,30,40,27,22,14, 2,28		53, 8,56,35	
		2, 3, 4,28,31,22,25,55		9, 0
4″	12, 7, 1,33,44,55,53,36,28,23		53, 9, 5,35	
		2, 3, 4,27,38,13,20,20		9, 0
6″	12, 7, 3,36,49,23,31,49,48,43		53, 9,14,35	
		2, 3, 4,26,45, 4, 5,45		9, 0
8″	12, 7, 5,39,53,50,16,53,54,28		53, 9,23,35	
		2, 3, 4,25,51,54,42,10		9, 0
10″	12, 7, 7,42,58,16, 8,48,36,38		53, 9,32,35	
		2, 3, 4,24,58,45, 9,35		9, 0
12″	12, 7, 9,46, 2,41, 7,33,46,13		53, 9,41,35	
		2, 3, 4,24, 5,35,28, 0		9, 0
14″	12, 7,11,49, 7, 5,13, 9,14,13		53, 9,50,35	
		2, 3, 4,23,12,25,37,25		9, 0
16″	12, 7,13,52,11,28,25,34,51,38		53, 9,59,35	
		2, 3, 4,22,19,15,37,50		9, 0
18″	12, 7,15,55,15,50,44,50,29,28		53,10, 8,35	
		2, 3, 4,21,26, 5,29,15		9, 0
20″	12, 7,17,58,20,12,10,55,58,43		53,10,17,35	
		2, 3, 4,20,32,55,11,40		9, 0
22″	12, 7,20, 1,24,32,43,51,10,23		53,10,26,35	
		2, 3, 4,19,39,44,45, 5		9, 0
24″	12, 7,22, 4,28,52,23,35,55,28		53,10,35,35	
		2, 3, 4,18,46,34, 9,30		9, 0
26″	12, 7,24, 7,33,11,10,10, 4,58		53,10,44,35	
		2, 3, 4,17,53,23,24,55		9, 0
28″	12, 7,26,10,37,29, 3,33,29,53		53,10,53,35	
		2, 3, 4,17, 0,12,31,20		9, 0
30″	12, 7,28,13,41,46, 3,46, 1,13		53,11, 2,35	
		2, 3, 4,16, 7, 1,28,45		9, 0
32″	12, 7,30,16,46, 2,10,47,29,58		53,11,11,35	
		2, 3, 4,15,13,50,17,10		9, 0
34″	12, 7,32,19,50,17,24,37,47, 8		53,11,20,35	
		2, 3, 4,14,20,38,56,35		9, 0
36″	12, 7,34,22,54,31,45,16,43,43		53,11,29,35	
		2, 3, 4,13,27,27,27, 0		9, 0
38″	12, 7,36,25,58,45,12,44,10,43		53,11,38,35	
		2, 3, 4,12,34,15,48,25		9, 0
40″	12, 7,38,29, 2,57,46,59,59, 8		53,11,47,35	
		2, 3, 4,11,41, 4, 0,50		9, 0
42″	12, 7,40,32, 7, 9,28, 3,59,58		53,11,56,35	
		2, 3, 4,10,47,52, 4,15		9, 0
44″	12, 7,42,35,11,20,15,56, 4,13		53,12, 5,35	
		2, 3, 4, 9,54,39,58,40		9, 0
46″	12, 7,44,38,15,30,10,36, 2,53		53,12,14,35	
		2, 3, 4, 9, 1,27,44, 5		9, 0
48″	12, 7,46,41,19,39,12, 3,46,58		53,12,23,35	
		2, 3, 4, 8, 8,15,20,30		9, 0
50″	12, 7,48,44,23,47,20,19, 7,28		53,12,32,35	
		2, 3, 4, 7,15, 2,47,55		9, 0
52″	12, 7,50,47,27,54,35,21,55,23		53,12,41,35	
		2, 3, 4, 6,21,50, 6,20		9, 0
54″	12, 7,52,50,32, 0,57,12, 1,43		53,12,50,35	
		2, 3, 4, 5,28,37,15,45		9, 0
56″	12, 7,54,53,36, 6,25,49,17,28		53,12,59,35	
		2, 3, 4, 4,35,24,16,10		9, 0
58″	12, 7,56,56,40,11, 1,13,33,38		53,13, 8,35	
		2, 3, 4, 3,42,11, 7,35		
60″	12, 7,58,59,44,14,43,24,41,13			
exact	12, 7,58,59,44,14,43,24,49,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°40′ 0″	12, 7,58,59,44,14,43,24,49,20			
		2, 3, 4, 2,48,57,50,57		
2″	12, 8, 1, 2,48,17,32,22,40,17		53,13,26,31	
		2, 3, 4, 1,55,44,24,26		9, 0
4″	12, 8, 3, 5,52,19,28, 7, 4,43		53,13,35,31	
		2, 3, 4, 1, 2,30,48,55		9, 0
6″	12, 8, 5, 8,56,20,30,37,53,38		53,13,44,31	
		2, 3, 4, 0, 9,17, 4,24		9, 0
8″	12, 8, 7,12, 0,20,39,54,58, 2		53,13,53,31	
		2, 3, 3,59,16, 3,10,53		9, 0
10″	12, 8, 9,15, 4,19,55,58, 8,55		53,14, 2,31	
		2, 3, 3,58,22,49, 8,22		9, 0
12″	12, 8,11,18, 8,18,18,47,17,17		53,14,11,31	
		2, 3, 3,57,29,34,56,51		9, 0
14″	12, 8,13,21,12,15,48,22,14, 8		53,14,20,31	
		2, 3, 3,56,36,20,36,20		9, 0
16″	12, 8,15,24,16,12,24,42,50,28		53,14,29,31	
		2, 3, 3,55,43, 6, 6,49		9, 0
18″	12, 8,17,27,20, 8, 7,48,57,17		53,14,38,31	
		2, 3, 3,54,49,51,28,18		9, 0
20″	12, 8,19,30,24, 2,57,40,25,35		53,14,47,31	
		2, 3, 3,53,56,36,40,47		9, 0
22″	12, 8,21,33,27,56,54,17, 6,22		53,14,56,31	
		2, 3, 3,53, 3,21,44,16		9, 0
24″	12, 8,23,36,31,49,57,38,50,38		53,15, 5,31	
		2, 3, 3,52,10, 6,38,45		9, 0
26″	12, 8,25,39,35,42, 7,45,29,23		53,15,14,31	
		2, 3, 3,51,16,51,24,14		9, 0
28″	12, 8,27,42,39,33,24,36,53,37		53,15,23,31	
		2, 3, 3,50,23,36, 0,43		9, 0
30″	12, 8,29,45,43,23,48,12,54,20		53,15,32,31	
		2, 3, 3,49,30,20,28,12		9, 0
32″	12, 8,31,48,47,13,18,33,22,32		53,15,41,31	
		2, 3, 3,48,37, 4,46,41		9, 0
34″	12, 8,33,51,51, 1,55,38, 9,13		53,15,50,31	
		2, 3, 3,47,43,48,56,10		9, 0
36″	12, 8,35,54,54,49,39,27, 5,23		53,15,59,31	
		2, 3, 3,46,50,32,56,39		9, 0
38″	12, 8,37,57,58,36,30, 0, 2, 2		53,16, 8,31	
		2, 3, 3,45,57,16,48, 8		9, 0
40″	12, 8,40, 1, 2,22,27,16,50,10		53,16,17,31	
		2, 3, 3,45, 4, 0,30,37		9, 0
42″	12, 8,42, 4, 6, 7,31,17,20,47		53,16,26,31	
		2, 3, 3,44,10,44, 4, 6		9, 0
44″	12, 8,44, 7, 9,51,42, 1,24,53		53,16,35,31	
		2, 3, 3,43,17,27,28,35		9, 0
46″	12, 8,46,10,13,34,59,28,53,28		53,16,44,31	
		2, 3, 3,42,24,10,44, 4		9, 0
48″	12, 8,48,13,17,17,23,39,37,32		53,16,53,31	
		2, 3, 3,41,30,53,50,33		9, 0
50″	12, 8,50,16,20,58,54,33,28, 5		53,17, 2,31	
		2, 3, 3,40,37,36,48, 2		9, 0
52″	12, 8,52,19,24,39,32,10,16, 7		53,17,11,31	
		2, 3, 3,39,44,19,36,31		9, 0
54″	12, 8,54,22,28,19,16,29,52,38		53,17,20,31	
		2, 3, 3,38,51, 2,16, 0		9, 0
56″	12, 8,56,25,31,58, 7,32, 8,38		53,17,29,31	
		2, 3, 3,37,57,44,46,29		9, 0
58″	12, 8,58,28,35,36, 5,16,55, 7		53,17,38,31	
		2, 3, 3,37, 4,27, 7,58		
60″	12, 9, 0,31,39,13, 9,44, 3, 5			
exact	12, 9, 0,31,39,13, 9,44,16,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°41′ 0″	12, 9, 0,31,39,13, 9,44,16,56			
		2, 3, 3,36,11, 9,21,53		
2″	12, 9, 2,34,42,49,20,53,38,49		53,17,56,25	
		2, 3, 3,35,17,51,25,28		9, 0
4″	12, 9, 4,37,46,24,38,45, 4,17		53,18, 5,25	
		2, 3, 3,34,24,33,20, 3		9, 0
6″	12, 9, 6,40,49,59, 3,18,24,20		53,18,14,25	
		2, 3, 3,33,31,15, 5,38		9, 0
8″	12, 9, 8,43,53,32,34,33,29,58		53,18,23,25	
		2, 3, 3,32,37,56,42,13		9, 0
10″	12, 9,10,46,57, 5,12,30,12,11		53,18,32,25	
		2, 3, 3,31,44,38, 9,48		9, 0
12″	12, 9,12,50, 0,36,57, 8,21,59		53,18,41,25	
		2, 3, 3,30,51,19,28,23		9, 0
14″	12, 9,14,53, 4, 7,48,27,50,22		53,18,50,25	
		2, 3, 3,29,58, 0,37,58		9, 0
16″	12, 9,16,56, 7,37,46,28,28,20		53,18,59,25	
		2, 3, 3,29, 4,41,38,33		9, 0
18″	12, 9,18,59,11, 6,51,10, 6,53		53,19, 8,25	
		2, 3, 3,28,11,22,30, 8		9, 0
20″	12, 9,21, 2,14,35, 2,32,37, 1		53,19,17,25	
		2, 3, 3,27,18, 3,12,43		9, 0
22″	12, 9,23, 5,18, 2,20,35,49,44		53,19,26,25	
		2, 3, 3,26,24,43,46,18		9, 0
24″	12, 9,25, 8,21,28,45,19,36, 2		53,19,35,25	
		2, 3, 3,25,31,24,10,53		9, 0
26″	12, 9,27,11,24,54,16,43,46,55		53,19,44,25	
		2, 3, 3,24,38, 4,26,28		9, 0
28″	12, 9,29,14,28,18,54,48,13,23		53,19,53,25	
		2, 3, 3,23,44,44,33, 3		9, 0
30″	12, 9,31,17,31,42,39,32,46,26		53,20, 2,25	
		2, 3, 3,22,51,24,30,38		9, 0
32″	12, 9,33,20,35, 5,30,57,17, 4		53,20,11,25	
		2, 3, 3,21,58, 4,19,13		9, 0
34″	12, 9,35,23,38,27,29, 1,36,17		53,20,20,25	
		2, 3, 3,21, 4,43,58,48		9, 0
36″	12, 9,37,26,41,48,33,45,35, 5		53,20,29,25	
		2, 3, 3,20,11,23,29,23		9, 0
38″	12, 9,39,29,45, 8,45, 9, 4,28		53,20,38,25	
		2, 3, 3,19,18, 2,50,58		9, 0
40″	12, 9,41,32,48,28, 3,11,55,26		53,20,47,25	
		2, 3, 3,18,24,42, 3,33		9, 0
42″	12, 9,43,35,51,46,27,53,58,59		53,20,56,25	
		2, 3, 3,17,31,21, 7, 8		9, 0
44″	12, 9,45,38,55, 3,59,15, 6, 7		53,21, 5,25	
		2, 3, 3,16,38, 0, 1,43		9, 0
46″	12, 9,47,41,58,20,37,15, 7,50		53,21,14,25	
		2, 3, 3,15,44,38,47,18		9, 0
48″	12, 9,49,45, 1,36,21,53,55, 8		53,21,23,25	
		2, 3, 3,14,51,17,23,53		9, 0
50″	12, 9,51,48, 4,51,13,11,19, 1		53,21,32,25	
		2, 3, 3,13,57,55,51,28		9, 0
52″	12, 9,53,51, 8, 5,11, 7,10,29		53,21,41,25	
		2, 3, 3,13, 4,34,10, 3		9, 0
54″	12, 9,55,54,11,18,15,41,20,32		53,21,50,25	
		2, 3, 3,12,11,12,19,38		9, 0
56″	12, 9,57,57,14,30,26,53,40,10		53,21,59,25	
		2, 3, 3,11,17,50,20,13		9, 0
58″	12,10, 0, 0,17,41,44,44, 0,23		53,22, 8,25	
		2, 3, 3,10,24,28,11,48		
60″	12,10, 2, 3,20,52, 9,12,12,11			
exact	12,10, 2, 3,20,52, 9,12,24,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°42′ 0″	12,10, 2, 3,20,52, 9,12,24,26			
		2, 3, 3, 9,31, 5,55,47		
2″	12,10, 4, 6,24, 1,40,18,20,13		53,22,26,19	
		2, 3, 3, 8,37,43,29,28		9, 0
4″	12,10, 6, 9,27,10,18, 1,49,41		53,22,35,19	
		2, 3, 3, 7,44,20,54, 9		9, 0
6″	12,10, 8,12,30,18, 2,22,43,50		53,22,44,19	
		2, 3, 3, 6,50,58, 9,50		9, 0
8″	12,10,10,15,33,24,53,20,53,40		53,22,53,19	
		2, 3, 3, 5,57,35,16,31		9, 0
10″	12,10,12,18,36,30,50,56,10,11		53,23, 2,19	
		2, 3, 3, 5, 4,12,14,12		9, 0
12″	12,10,14,21,39,35,55, 8,24,23		53,23,11,19	
		2, 3, 3, 4,10,49, 2,53		9, 0
14″	12,10,16,24,42,40, 5,57,27,16		53,23,20,19	
		2, 3, 3, 3,17,25,42,34		9, 0
16″	12,10,18,27,45,43,23,23, 9,50		53,23,29,19	
		2, 3, 3, 2,24, 2,13,15		9, 0
18″	12,10,20,30,48,45,47,25,23, 5		53,23,38,19	
		2, 3, 3, 1,30,38,34,56		9, 0
20″	12,10,22,33,51,47,18, 3,58, 1		53,23,47,19	
		2, 3, 3, 0,37,14,47,37		9, 0
22″	12,10,24,36,54,47,55,18,45,38		53,23,56,19	
		2, 3, 2,59,43,50,51,18		9, 0
24″	12,10,26,39,57,47,39, 9,36,56		53,24, 5,19	
		2, 3, 2,58,50,26,45,59		9, 0
26″	12,10,28,43, 0,46,29,36,22,55		53,24,14,19	
		2, 3, 2,57,57, 2,31,40		9, 0
28″	12,10,30,46, 3,44,26,38,54,35		53,24,23,19	
		2, 3, 2,57, 3,38, 8,21		9, 0
30″	12,10,32,49, 6,41,30,17, 2,56		53,24,32,19	
		2, 3, 2,56,10,13,36, 2		9, 0
32″	12,10,34,52, 9,37,40,30,38,58		53,24,41,19	
		2, 3, 2,55,16,48,54,43		9, 0
34″	12,10,36,55,12,32,57,19,33,41		53,24,50,19	
		2, 3, 2,54,23,24, 4,24		9, 0
36″	12,10,38,58,15,27,20,43,38, 5		53,24,59,19	
		2, 3, 2,53,29,59, 5, 5		9, 0
38″	12,10,41, 1,18,20,50,42,43,10		53,25, 8,19	
		2, 3, 2,52,36,33,56,46		9, 0
40″	12,10,43, 4,21,13,27,16,39,56		53,25,17,19	
		2, 3, 2,51,43, 8,39,27		9, 0
42″	12,10,45, 7,24, 5,10,25,19,23		53,25,26,19	
		2, 3, 2,50,49,43,13, 8		9, 0
44″	12,10,47,10,26,56, 0, 8,32,31		53,25,35,19	
		2, 3, 2,49,56,17,37,49		9, 0
46″	12,10,49,13,29,45,56,26,10,20		53,25,44,19	
		2, 3, 2,49, 2,51,53,30		9, 0
48″	12,10,51,16,32,34,59,18, 3,50		53,25,53,19	
		2, 3, 2,48, 9,26, 0,11		9, 0
50″	12,10,53,19,35,23, 8,44, 4, 1		53,26, 2,19	
		2, 3, 2,47,15,59,57,52		9, 0
52″	12,10,55,22,38,10,24,44, 1,53		53,26,11,19	
		2, 3, 2,46,22,33,46,33		9, 0
54″	12,10,57,25,40,56,47,17,48,26		53,26,20,19	
		2, 3, 2,45,29, 7,26,14		9, 0
56″	12,10,59,28,43,42,16,25,14,40		53,26,29,19	
		2, 3, 2,44,35,40,56,55		9, 0
58″	12,11, 1,31,46,26,52, 6,11,35		53,26,38,19	
		2, 3, 2,43,42,14,18,36		
60″	12,11, 3,34,49,10,34,20,30,11			
exact	12,11, 3,34,49,10,34,20,48, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°43′ 0″	12,11, 3,34,49,10,34,20,48, 4			
		2, 3, 2,42,48,47,33, 9		
2″	12,11, 5,37,51,53,23, 8,21,13		53,26,56,11	
		2, 3, 2,41,55,20,36,58		9, 0
4″	12,11, 7,40,54,35,18,28,58,11		53,27, 5,11	
		2, 3, 2,41, 1,53,31,47		9, 0
6″	12,11, 9,43,57,16,20,22,29,58		53,27,14,11	
		2, 3, 2,40, 8,26,17,36		9, 0
8″	12,11,11,46,59,56,28,48,47,34		53,27,23,11	
		2, 3, 2,39,14,58,54,25		9, 0
10″	12,11,13,50, 2,35,43,47,41,59		53,27,32,11	
		2, 3, 2,38,21,31,22,14		9, 0
12″	12,11,15,53, 5,14, 5,19, 4,13		53,27,41,11	
		2, 3, 2,37,28, 3,41, 3		9, 0
14″	12,11,17,56, 7,51,33,22,45,16		53,27,50,11	
		2, 3, 2,36,34,35,50,52		9, 0
16″	12,11,19,59,10,28, 7,58,36, 8		53,27,59,11	
		2, 3, 2,35,41, 7,51,41		9, 0
18″	12,11,22, 2,13, 3,49, 6,27,49		53,28, 8,11	
		2, 3, 2,34,47,39,43,30		9, 0
20″	12,11,24, 5,15,38,36,46,11,19		53,28,17,11	
		2, 3, 2,33,54,11,26,19		9, 0
22″	12,11,26, 8,18,12,30,57,37,38		53,28,26,11	
		2, 3, 2,33, 0,43, 0, 8		9, 0
24″	12,11,28,11,20,45,31,40,37,46		53,28,35,11	
		2, 3, 2,32, 7,14,24,57		9, 0
26″	12,11,30,14,23,17,38,55, 2,43		53,28,44,11	
		2, 3, 2,31,13,45,40,46		9, 0
28″	12,11,32,17,25,48,52,40,43,29		53,28,53,11	
		2, 3, 2,30,20,16,47,35		9, 0
30″	12,11,34,20,28,19,12,57,31, 4		53,29, 2,11	
		2, 3, 2,29,26,47,45,24		9, 0
32″	12,11,36,23,30,48,39,45,16,28		53,29,11,11	
		2, 3, 2,28,33,18,34,13		9, 0
34″	12,11,38,26,33,17,13, 3,50,41		53,29,20,11	
		2, 3, 2,27,39,49,14, 2		9, 0
36″	12,11,40,29,35,44,52,53, 4,43		53,29,29,11	
		2, 3, 2,26,46,19,44,51		9, 0
38″	12,11,42,32,38,11,39,12,49,34		53,29,38,11	
		2, 3, 2,25,52,50, 6,40		9, 0
40″	12,11,44,35,40,37,32, 2,56,14		53,29,47,11	
		2, 3, 2,24,59,20,19,29		9, 0
42″	12,11,46,38,43, 2,31,23,15,43		53,29,56,11	
		2, 3, 2,24, 5,50,23,18		9, 0
44″	12,11,48,41,45,26,37,13,39, 1		53,30, 5,11	
		2, 3, 2,23,12,20,18, 7		9, 0
46″	12,11,50,44,47,49,49,33,57, 8		53,30,14,11	
		2, 3, 2,22,18,50, 3,56		9, 0
48″	12,11,52,47,50,12, 8,24, 1, 4		53,30,23,11	
		2, 3, 2,21,25,19,40,45		9, 0
50″	12,11,54,50,52,33,33,43,41,49		53,30,32,11	
		2, 3, 2,20,31,49, 8,34		9, 0
52″	12,11,56,53,54,54, 5,32,50,23		53,30,41,11	
		2, 3, 2,19,38,18,27,23		9, 0
54″	12,11,58,56,57,13,43,51,17,46		53,30,50,11	
		2, 3, 2,18,44,47,37,12		9, 0
56″	12,12, 0,59,59,32,28,38,54,58		53,30,59,11	
		2, 3, 2,17,51,16,38, 1		9, 0
58″	12,12, 3, 3, 1,50,19,55,32,59		53,31, 8,11	
		2, 3, 2,16,57,45,29,50		
60″	12,12, 5, 6, 4, 7,17,41, 2,49			
exact	12,12, 5, 6, 4, 7,17,41,18,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°44′ 0″	12,12, 5, 6, 4, 7,17,41,18,46			
		2, 3, 2,16, 4,14,14,28		
2″	12,12, 7, 9, 6,23,21,55,33,14		53,31,26, 3	
		2, 3, 2,15,10,42,48,25		9, 0
4″	12,12, 9,12, 8,38,32,38,21,39		53,31,35, 3	
		2, 3, 2,14,17,11,13,22		9, 0
6″	12,12,11,15,10,52,49,49,35, 1		53,31,44, 3	
		2, 3, 2,13,23,39,29,19		9, 0
8″	12,12,13,18,13, 6,13,29, 4,20		53,31,53, 3	
		2, 3, 2,12,30, 7,36,16		9, 0
10″	12,12,15,21,15,18,43,36,40,36		53,32, 2, 3	
		2, 3, 2,11,36,35,34,13		9, 0
12″	12,12,17,24,17,30,20,12,14,49		53,32,11, 3	
		2, 3, 2,10,43, 3,23,10		9, 0
14″	12,12,19,27,19,41, 3,15,37,59		53,32,20, 3	
		2, 3, 2, 9,49,31, 3, 7		9, 0
16″	12,12,21,30,21,50,52,46,41, 6		53,32,29, 3	
		2, 3, 2, 8,55,58,34, 4		9, 0
18″	12,12,23,33,23,59,48,45,15,10		53,32,38, 3	
		2, 3, 2, 8, 2,25,56, 1		9, 0
20″	12,12,25,36,26, 7,51,11,11,11		53,32,47, 3	
		2, 3, 2, 7, 8,53, 8,58		9, 0
22″	12,12,27,39,28,15, 0, 4,20, 9		53,32,56, 3	
		2, 3, 2, 6,15,20,12,55		9, 0
24″	12,12,29,42,30,21,15,24,33, 4		53,33, 5, 3	
		2, 3, 2, 5,21,47, 7,52		9, 0
26″	12,12,31,45,32,26,37,11,40,56		53,33,14, 3	
		2, 3, 2, 4,28,13,53,49		9, 0
28″	12,12,33,48,34,31, 5,25,34,45		53,33,23, 3	
		2, 3, 2, 3,34,40,30,46		9, 0
30″	12,12,35,51,36,34,40, 6, 5,31		53,33,32, 3	
		2, 3, 2, 2,41, 6,58,43		9, 0
32″	12,12,37,54,38,37,21,13, 4,14		53,33,41, 3	
		2, 3, 2, 1,47,33,17,40		9, 0
34″	12,12,39,57,40,39, 8,46,21,54		53,33,50, 3	
		2, 3, 2, 0,53,59,27,37		9, 0
36″	12,12,42, 0,42,40, 2,45,49,31		53,33,59, 3	
		2, 3, 2, 0, 0,25,28,34		9, 0
38″	12,12,44, 3,44,40, 3,11,18, 5		53,34, 8, 3	
		2, 3, 1,59, 6,51,20,31		9, 0
40″	12,12,46, 6,46,39,10, 2,38,36		53,34,17, 3	
		2, 3, 1,58,13,17, 3,28		9, 0
42″	12,12,48, 9,48,37,23,19,42, 4		53,34,26, 3	
		2, 3, 1,57,19,42,37,25		9, 0
44″	12,12,50,12,50,34,43, 2,19,29		53,34,35, 3	
		2, 3, 1,56,26, 8, 2,22		9, 0
46″	12,12,52,15,52,31, 9,10,21,51		53,34,44, 3	
		2, 3, 1,55,32,33,18,19		9, 0
48″	12,12,54,18,54,26,41,43,40,10		53,34,53, 3	
		2, 3, 1,54,38,58,25,16		9, 0
50″	12,12,56,21,56,21,20,42, 5,26		53,35, 2, 3	
		2, 3, 1,53,45,23,23,13		9, 0
52″	12,12,58,24,58,15, 6, 5,28,39		53,35,11, 3	
		2, 3, 1,52,51,48,12,10		9, 0
54″	12,13, 0,28, 0, 7,57,53,40,49		53,35,20, 3	
		2, 3, 1,51,58,12,52, 7		9, 0
56″	12,13, 2,31, 1,59,56, 6,32,56		53,35,29, 3	
		2, 3, 1,51, 4,37,23, 4		9, 0
58″	12,13, 4,34, 3,51, 0,43,56, 0		53,35,38, 3	
		2, 3, 1,50,11, 1,45, 1		
60″	12,13, 6,37, 5,41,11,45,41, 1			
exact	12,13, 6,37, 5,41,11,46, 2, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°45′ 0″	12,13, 6,37, 5,41,11,46, 2, 3			
		2, 3, 1,49,17,26, 0,13		
2″	12,13, 8,40, 7,30,29,12, 2,16		53,35,55,54	
		2, 3, 1,48,23,50, 4,19		9, 0
4″	12,13,10,43, 9,18,53, 2, 6,35		53,36, 4,54	
		2, 3, 1,47,30,13,59,25		9, 0
6″	12,13,12,46,11, 6,23,16, 6, 0		53,36,13,54	
		2, 3, 1,46,36,37,45,31		9, 0
8″	12,13,14,49,12,52,59,53,51,31		53,36,22,54	
		2, 3, 1,45,43, 1,22,37		9, 0
10″	12,13,16,52,14,38,42,55,14, 8		53,36,31,54	
		2, 3, 1,44,49,24,50,43		9, 0
12″	12,13,18,55,16,23,32,20, 4,51		53,36,40,54	
		2, 3, 1,43,55,48, 9,49		9, 0
14″	12,13,20,58,18, 7,28, 8,14,40		53,36,49,54	
		2, 3, 1,43, 2,11,19,55		9, 0
16″	12,13,23, 1,19,50,30,19,34,35		53,36,58,54	
		2, 3, 1,42, 8,34,21, 1		9, 0
18″	12,13,25, 4,21,32,38,53,55,36		53,37, 7,54	
		2, 3, 1,41,14,57,13, 7		9, 0
20″	12,13,27, 7,23,13,53,51, 8,43		53,37,16,54	
		2, 3, 1,40,21,19,56,13		9, 0
22″	12,13,29,10,24,54,15,11, 4,56		53,37,25,54	
		2, 3, 1,39,27,42,30,19		9, 0
24″	12,13,31,13,26,33,42,53,35,15		53,37,34,54	
		2, 3, 1,38,34, 4,55,25		9, 0
26″	12,13,33,16,28,12,16,58,30,40		53,37,43,54	
		2, 3, 1,37,40,27,11,31		9, 0
28″	12,13,35,19,29,49,57,25,42,11		53,37,52,54	
		2, 3, 1,36,46,49,18,37		9, 0
30″	12,13,37,22,31,26,44,15, 0,48		53,38, 1,54	
		2, 3, 1,35,53,11,16,43		9, 0
32″	12,13,39,25,33, 2,37,26,17,31		53,38,10,54	
		2, 3, 1,34,59,33, 5,49		9, 0
34″	12,13,41,28,34,37,36,59,23,20		53,38,19,54	
		2, 3, 1,34, 5,54,45,55		9, 0
36″	12,13,43,31,36,11,42,54, 9,15		53,38,28,54	
		2, 3, 1,33,12,16,17, 1		9, 0
38″	12,13,45,34,37,44,55,10,26,16		53,38,37,54	
		2, 3, 1,32,18,37,39, 7		9, 0
40″	12,13,47,37,39,17,13,48, 5,23		53,38,46,54	
		2, 3, 1,31,24,58,52,13		9, 0
42″	12,13,49,40,40,48,38,46,57,36		53,38,55,54	
		2, 3, 1,30,31,19,56,19		9, 0
44″	12,13,51,43,42,19,10, 6,53,55		53,39, 4,54	
		2, 3, 1,29,37,40,51,25		9, 0
46″	12,13,53,46,43,48,47,47,45,20		53,39,13,54	
		2, 3, 1,28,44, 1,37,31		9, 0
48″	12,13,55,49,45,17,31,49,22,51		53,39,22,54	
		2, 3, 1,27,50,22,14,37		9, 0
50″	12,13,57,52,46,45,22,11,37,28		53,39,31,54	
		2, 3, 1,26,56,42,42,43		9, 0
52″	12,13,59,55,48,12,18,54,20,11		53,39,40,54	
		2, 3, 1,26, 3, 3, 1,49		9, 0
54″	12,14, 1,58,49,38,21,57,22, 0		53,39,49,54	
		2, 3, 1,25, 9,23,11,55		9, 0
56″	12,14, 4, 1,51, 3,31,20,33,55		53,39,58,54	
		2, 3, 1,24,15,43,13, 1		9, 0
58″	12,14, 6, 4,52,27,47, 3,46,56		53,40, 7,54	
		2, 3, 1,23,22, 3, 5, 7		
60″	12,14, 8, 7,53,51, 9, 6,52, 3			
exact	12,14, 8, 7,53,51, 9, 7,18, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°46′ 0″	12,14, 8, 7,53,51, 9, 7,18, 8			
		2, 3, 1,22,28,22,50,54		
2″	12,14,10,10,55,13,37,30, 9, 2		53,40,25,43	
		2, 3, 1,21,34,42,25,11		9, 0
4″	12,14,12,13,56,35,12,12,34,13		53,40,34,43	
		2, 3, 1,20,41, 1,50,28		9, 0
6″	12,14,14,16,57,55,53,14,24,41		53,40,43,43	
		2, 3, 1,19,47,21, 6,45		9, 0
8″	12,14,16,19,59,15,40,35,31,26		53,40,52,43	
		2, 3, 1,18,53,40,14, 2		9, 0
10″	12,14,18,23, 0,34,34,15,45,28		53,41, 1,43	
		2, 3, 1,17,59,59,12,19		9, 0
12″	12,14,20,26, 1,52,34,14,57,47		53,41,10,43	
		2, 3, 1,17, 6,18, 1,36		9, 0
14″	12,14,22,29, 3, 9,40,32,59,23		53,41,19,43	
		2, 3, 1,16,12,36,41,53		9, 0
16″	12,14,24,32, 4,25,53, 9,41,16		53,41,28,43	
		2, 3, 1,15,18,55,13,10		9, 0
18″	12,14,26,35, 5,41,12, 4,54,26		53,41,37,43	
		2, 3, 1,14,25,13,35,27		9, 0
20″	12,14,28,38, 6,55,37,18,29,53		53,41,46,43	
		2, 3, 1,13,31,31,48,44		9, 0
22″	12,14,30,41, 8, 9, 8,50,18,37		53,41,55,43	
		2, 3, 1,12,37,49,53, 1		9, 0
24″	12,14,32,44, 9,21,46,40,11,38		53,42, 4,43	
		2, 3, 1,11,44, 7,48,18		9, 0
26″	12,14,34,47,10,33,30,47,59,56		53,42,13,43	
		2, 3, 1,10,50,25,34,35		9, 0
28″	12,14,36,50,11,44,21,13,34,31		53,42,22,43	
		2, 3, 1, 9,56,43,11,52		9, 0
30″	12,14,38,53,12,54,17,56,46,23		53,42,31,43	
		2, 3, 1, 9, 3, 0,40, 9		9, 0
32″	12,14,40,56,14, 3,20,57,26,32		53,42,40,43	
		2, 3, 1, 8, 9,17,59,26		9, 0
34″	12,14,42,59,15,11,30,15,25,58		53,42,49,43	
		2, 3, 1, 7,15,35, 9,43		9, 0
36″	12,14,45, 2,16,18,45,50,35,41		53,42,58,43	
		2, 3, 1, 6,21,52,11, 0		9, 0
38″	12,14,47, 5,17,25, 7,42,46,41		53,43, 7,43	
		2, 3, 1, 5,28, 9, 3,17		9, 0
40″	12,14,49, 8,18,30,35,51,49,58		53,43,16,43	
		2, 3, 1, 4,34,25,46,34		9, 0
42″	12,14,51,11,19,35,10,17,36,32		53,43,25,43	
		2, 3, 1, 3,40,42,20,51		9, 0
44″	12,14,53,14,20,38,50,59,57,23		53,43,34,43	
		2, 3, 1, 2,46,58,46, 8		9, 0
46″	12,14,55,17,21,41,37,58,43,31		53,43,43,43	
		2, 3, 1, 1,53,15, 2,25		9, 0
48″	12,14,57,20,22,43,31,13,45,56		53,43,52,43	
		2, 3, 1, 0,59,31, 9,42		9, 0
50″	12,14,59,23,23,44,30,44,55,38		53,44, 1,43	
		2, 3, 1, 0, 5,47, 7,59		9, 0
52″	12,15, 1,26,24,44,36,32, 3,37		53,44,10,43	
		2, 3, 0,59,12, 2,57,16		9, 0
54″	12,15, 3,29,25,43,48,35, 0,53		53,44,19,43	
		2, 3, 0,58,18,18,37,33		9, 0
56″	12,15, 5,32,26,42, 6,53,38,26		53,44,28,43	
		2, 3, 0,57,24,34, 8,50		9, 0
58″	12,15, 7,35,27,39,31,27,47,16		53,44,37,43	
		2, 3, 0,56,30,49,31, 7		
60″	12,15, 9,38,28,36, 2,17,18,23			
exact	12,15, 9,38,28,36, 2,17,41,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°47′ 0″	12,15, 9,38,28,36, 2,17,41,57			
		2, 3, 0,55,37, 4,47, 0		
2″	12,15,11,41,29,31,39,22,28,57		53,44,55,32	
		2, 3, 0,54,43,19,51,28		9, 0
4″	12,15,13,44,30,26,22,42,20,25		53,45, 4,32	
		2, 3, 0,53,49,34,46,56		9, 0
6″	12,15,15,47,31,20,12,17, 7,21		53,45,13,32	
		2, 3, 0,52,55,49,33,24		9, 0
8″	12,15,17,50,32,13, 8, 6,40,45		53,45,22,32	
		2, 3, 0,52, 2, 4,10,52		9, 0
10″	12,15,19,53,33, 5,10,10,51,37		53,45,31,32	
		2, 3, 0,51, 8,18,39,20		9, 0
12″	12,15,21,56,33,56,18,29,30,57		53,45,40,32	
		2, 3, 0,50,14,32,58,48		9, 0
14″	12,15,23,59,34,46,33, 2,29,45		53,45,49,32	
		2, 3, 0,49,20,47, 9,16		9, 0
16″	12,15,26, 2,35,35,53,49,39, 1		53,45,58,32	
		2, 3, 0,48,27, 1,10,44		9, 0
18″	12,15,28, 5,36,24,20,50,49,45		53,46, 7,32	
		2, 3, 0,47,33,15, 3,12		9, 0
20″	12,15,30, 8,37,11,54, 5,52,57		53,46,16,32	
		2, 3, 0,46,39,28,46,40		9, 0
22″	12,15,32,11,37,58,33,34,39,37		53,46,25,32	
		2, 3, 0,45,45,42,21, 8		9, 0
24″	12,15,34,14,38,44,19,17, 0,45		53,46,34,32	
		2, 3, 0,44,51,55,46,36		9, 0
26″	12,15,36,17,39,29,11,12,47,21		53,46,43,32	
		2, 3, 0,43,58, 9, 3, 4		9, 0
28″	12,15,38,20,40,13, 9,21,50,25		53,46,52,32	
		2, 3, 0,43, 4,22,10,32		9, 0
30″	12,15,40,23,40,56,13,44, 0,57		53,47, 1,32	
		2, 3, 0,42,10,35, 9, 0		9, 0
32″	12,15,42,26,41,38,24,19, 9,57		53,47,10,32	
		2, 3, 0,41,16,47,58,28		9, 0
34″	12,15,44,29,42,19,41, 7, 8,25		53,47,19,32	
		2, 3, 0,40,23, 0,38,56		9, 0
36″	12,15,46,32,43, 0, 4, 7,47,21		53,47,28,32	
		2, 3, 0,39,29,13,10,24		9, 0
38″	12,15,48,35,43,39,33,20,57,45		53,47,37,32	
		2, 3, 0,38,35,25,32,52		9, 0
40″	12,15,50,38,44,18, 8,46,30,37		53,47,46,32	
		2, 3, 0,37,41,37,46,20		9, 0
42″	12,15,52,41,44,55,50,24,16,57		53,47,55,32	
		2, 3, 0,36,47,49,50,48		9, 0
44″	12,15,54,44,45,32,38,14, 7,45		53,48, 4,32	
		2, 3, 0,35,54, 1,46,16		9, 0
46″	12,15,56,47,46, 8,32,15,54, 1		53,48,13,32	
		2, 3, 0,35, 0,13,32,44		9, 0
48″	12,15,58,50,46,43,32,29,26,45		53,48,22,32	
		2, 3, 0,34, 6,25,10,12		9, 0
50″	12,16, 0,53,47,17,38,54,36,57		53,48,31,32	
		2, 3, 0,33,12,36,38,40		9, 0
52″	12,16, 2,56,47,50,51,31,15,37		53,48,40,32	
		2, 3, 0,32,18,47,58, 8		9, 0
54″	12,16, 4,59,48,23,10,19,13,45		53,48,49,32	
		2, 3, 0,31,24,59, 8,36		9, 0
56″	12,16, 7, 2,48,54,35,18,22,21		53,48,58,32	
		2, 3, 0,30,31,10,10, 4		9, 0
58″	12,16, 9, 5,49,25, 6,28,32,25		53,49, 7,32	
		2, 3, 0,29,37,21, 2,32		
60″	12,16,11, 8,49,54,43,49,34,57			
exact	12,16,11, 8,49,54,43,50, 3, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°48′ 0″	12,16,11, 8,49,54,43,50, 3, 7			
		2, 3, 0,28,43,31,49, 0		
2″	12,16,13,11,50,23,27,21,52, 7		53,49,25,20	
		2, 3, 0,27,49,42,23,40		9, 0
4″	12,16,15,14,50,51,17, 4,15,47		53,49,34,20	
		2, 3, 0,26,55,52,49,20		9, 0
6″	12,16,17,17,51,18,12,57, 5, 7		53,49,43,20	
		2, 3, 0,26, 2, 3, 6, 0		9, 0
8″	12,16,19,20,51,44,15, 0,11, 7		53,49,52,20	
		2, 3, 0,25, 8,13,13,40		9, 0
10″	12,16,21,23,52, 9,23,13,24,47		53,50, 1,20	
		2, 3, 0,24,14,23,12,20		9, 0
12″	12,16,23,26,52,33,37,36,37, 7		53,50,10,20	
		2, 3, 0,23,20,33, 2, 0		9, 0
14″	12,16,25,29,52,56,58, 9,39, 7		53,50,19,20	
		2, 3, 0,22,26,42,42,40		9, 0
16″	12,16,27,32,53,19,24,52,21,47		53,50,28,20	
		2, 3, 0,21,32,52,14,20		9, 0
18″	12,16,29,35,53,40,57,44,36, 7		53,50,37,20	
		2, 3, 0,20,39, 1,37, 0		9, 0
20″	12,16,31,38,54, 1,36,46,13, 7		53,50,46,20	
		2, 3, 0,19,45,10,50,40		9, 0
22″	12,16,33,41,54,21,21,57, 3,47		53,50,55,20	
		2, 3, 0,18,51,19,55,20		9, 0
24″	12,16,35,44,54,40,13,16,59, 7		53,51, 4,20	
		2, 3, 0,17,57,28,51, 0		9, 0
26″	12,16,37,47,54,58,10,45,50, 7		53,51,13,20	
		2, 3, 0,17, 3,37,37,40		9, 0
28″	12,16,39,50,55,15,14,23,27,47		53,51,22,20	
		2, 3, 0,16, 9,46,15,20		9, 0
30″	12,16,41,53,55,31,24, 9,43, 7		53,51,31,20	
		2, 3, 0,15,15,54,44, 0		9, 0
32″	12,16,43,56,55,46,40, 4,27, 7		53,51,40,20	
		2, 3, 0,14,22, 3, 3,40		9, 0
34″	12,16,45,59,56, 1, 2, 7,30,47		53,51,49,20	
		2, 3, 0,13,28,11,14,20		9, 0
36″	12,16,48, 2,56,14,30,18,45, 7		53,51,58,20	
		2, 3, 0,12,34,19,16, 0		9, 0
38″	12,16,50, 5,56,27, 4,38, 1, 7		53,52, 7,20	
		2, 3, 0,11,40,27, 8,40		9, 0
40″	12,16,52, 8,56,38,45, 5, 9,47		53,52,16,20	
		2, 3, 0,10,46,34,52,20		9, 0
42″	12,16,54,11,56,49,31,40, 2, 7		53,52,25,20	
		2, 3, 0, 9,52,42,27, 0		9, 0
44″	12,16,56,14,56,59,24,22,29, 7		53,52,34,20	
		2, 3, 0, 8,58,49,52,40		9, 0
46″	12,16,58,17,57, 8,23,12,21,47		53,52,43,20	
		2, 3, 0, 8, 4,57, 9,20		9, 0
48″	12,17, 0,20,57,16,28, 9,31, 7		53,52,52,20	
		2, 3, 0, 7,11, 4,17, 0		9, 0
50″	12,17, 2,23,57,23,39,13,48, 7		53,53, 1,20	
		2, 3, 0, 6,17,11,15,40		9, 0
52″	12,17, 4,26,57,29,56,25, 3,47		53,53,10,20	
		2, 3, 0, 5,23,18, 5,20		9, 0
54″	12,17, 6,29,57,35,19,43, 9, 7		53,53,19,20	
		2, 3, 0, 4,29,24,46, 0		9, 0
56″	12,17, 8,32,57,39,49, 7,55, 7		53,53,28,20	
		2, 3, 0, 3,35,31,17,40		9, 0
58″	12,17,10,35,57,43,24,39,12,47		53,53,37,20	
		2, 3, 0, 2,41,37,40,20		
60″	12,17,12,38,57,46, 6,16,53, 7			
exact	12,17,12,38,57,46, 6,17,26, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°49′ 0″	12,17,12,38,57,46, 6,17,26, 1			
		2, 3, 0, 1,47,43,57,25		
2″	12,17,14,41,57,47,54, 1,23,26		53,53,55, 6	
		2, 3, 0, 0,53,50, 2,19		9, 0
4″	12,17,16,44,57,48,47,51,25,45		53,54, 4, 6	
		2, 2,59,59,59,55,58,13		9, 0
6″	12,17,18,47,57,48,47,47,23,58		53,54,13, 6	
		2, 2,59,59, 6, 1,45, 7		9, 0
8″	12,17,20,50,57,47,53,49, 9, 5		53,54,22, 6	
		2, 2,59,58,12, 7,23, 1		9, 0
10″	12,17,22,53,57,46, 5,56,32, 6		53,54,31, 6	
		2, 2,59,57,18,12,51,55		9, 0
12″	12,17,24,56,57,43,24, 9,24, 1		53,54,40, 6	
		2, 2,59,56,24,18,11,49		9, 0
14″	12,17,26,59,57,39,48,27,35,50		53,54,49, 6	
		2, 2,59,55,30,23,22,43		9, 0
16″	12,17,29, 2,57,35,18,50,58,33		53,54,58, 6	
		2, 2,59,54,36,28,24,37		9, 0
18″	12,17,31, 5,57,29,55,19,23,10		53,55, 7, 6	
		2, 2,59,53,42,33,17,31		9, 0
20″	12,17,33, 8,57,23,37,52,40,41		53,55,16, 6	
		2, 2,59,52,48,38, 1,25		9, 0
22″	12,17,35,11,57,16,26,30,42, 6		53,55,25, 6	
		2, 2,59,51,54,42,36,19		9, 0
24″	12,17,37,14,57, 8,21,13,18,25		53,55,34, 6	
		2, 2,59,51, 0,47, 2,13		9, 0
26″	12,17,39,17,56,59,22, 0,20,38		53,55,43, 6	
		2, 2,59,50, 6,51,19, 7		9, 0
28″	12,17,41,20,56,49,28,51,39,45		53,55,52, 6	
		2, 2,59,49,12,55,27, 1		9, 0
30″	12,17,43,23,56,38,41,47, 6,46		53,56, 1, 6	
		2, 2,59,48,18,59,25,55		9, 0
32″	12,17,45,26,56,27, 0,46,32,41		53,56,10, 6	
		2, 2,59,47,25, 3,15,49		9, 0
34″	12,17,47,29,56,14,25,49,48,30		53,56,19, 6	
		2, 2,59,46,31, 6,56,43		9, 0
36″	12,17,49,32,56, 0,56,56,45,13		53,56,28, 6	
		2, 2,59,45,37,10,28,37		9, 0
38″	12,17,51,35,55,46,34, 7,13,50		53,56,37, 6	
		2, 2,59,44,43,13,51,31		9, 0
40″	12,17,53,38,55,31,17,21, 5,21		53,56,46, 6	
		2, 2,59,43,49,17, 5,25		9, 0
42″	12,17,55,41,55,15, 6,38,10,46		53,56,55, 6	
		2, 2,59,42,55,20,10,19		9, 0
44″	12,17,57,44,54,58, 1,58,21, 5		53,57, 4, 6	
		2, 2,59,42, 1,23, 6,13		9, 0
46″	12,17,59,47,54,40, 3,21,27,18		53,57,13, 6	
		2, 2,59,41, 7,25,53, 7		9, 0
48″	12,18, 1,50,54,21,10,47,20,25		53,57,22, 6	
		2, 2,59,40,13,28,31, 1		9, 0
50″	12,18, 3,53,54, 1,24,15,51,26		53,57,31, 6	
		2, 2,59,39,19,30,59,55		9, 0
52″	12,18, 5,56,53,40,43,46,51,21		53,57,40, 6	
		2, 2,59,38,25,33,19,49		9, 0
54″	12,18, 7,59,53,19, 9,20,11,10		53,57,49, 6	
		2, 2,59,37,31,35,30,43		9, 0
56″	12,18,10, 2,52,56,40,55,41,53		53,57,58, 6	
		2, 2,59,36,37,37,32,37		9, 0
58″	12,18,12, 5,52,33,18,33,14,30		53,58, 7, 6	
		2, 2,59,35,43,39,25,31		
60″	12,18,14, 8,52, 9, 2,12,40, 1			
exact	12,18,14, 8,52, 9, 2,13, 9,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°50′ 0″	12,18,14, 8,52, 9, 2,13, 9,44			
		2, 2,59,34,49,41,12,42		
2″	12,18,16,11,51,43,51,54,22,26		53,58,24,52	
		2, 2,59,33,55,42,47,50		9, 0
4″	12,18,18,14,51,17,47,37,10,16		53,58,33,52	
		2, 2,59,33, 1,44,13,58		9, 0
6″	12,18,20,17,50,50,49,21,24,14		53,58,42,52	
		2, 2,59,32, 7,45,31, 6		9, 0
8″	12,18,22,20,50,22,57, 6,55,20		53,58,51,52	
		2, 2,59,31,13,46,39,14		9, 0
10″	12,18,24,23,49,54,10,53,34,34		53,59, 0,52	
		2, 2,59,30,19,47,38,22		9, 0
12″	12,18,26,26,49,24,30,41,12,56		53,59, 9,52	
		2, 2,59,29,25,48,28,30		9, 0
14″	12,18,28,29,48,53,56,29,41,26		53,59,18,52	
		2, 2,59,28,31,49, 9,38		9, 0
16″	12,18,30,32,48,22,28,18,51, 4		53,59,27,52	
		2, 2,59,27,37,49,41,46		9, 0
18″	12,18,32,35,47,50, 6, 8,32,50		53,59,36,52	
		2, 2,59,26,43,50, 4,54		9, 0
20″	12,18,34,38,47,16,49,58,37,44		53,59,45,52	
		2, 2,59,25,49,50,19, 2		9, 0
22″	12,18,36,41,46,42,39,48,56,46		53,59,54,52	
		2, 2,59,24,55,50,24,10		9, 0
24″	12,18,38,44,46, 7,35,39,20,56		54, 0, 3,52	
		2, 2,59,24, 1,50,20,18		9, 0
26″	12,18,40,47,45,31,37,29,41,14		54, 0,12,52	
		2, 2,59,23, 7,50, 7,26		9, 0
28″	12,18,42,50,44,54,45,19,48,40		54, 0,21,52	
		2, 2,59,22,13,49,45,34		9, 0
30″	12,18,44,53,44,16,59, 9,34,14		54, 0,30,52	
		2, 2,59,21,19,49,14,42		9, 0
32″	12,18,46,56,43,38,18,58,48,56		54, 0,39,52	
		2, 2,59,20,25,48,34,50		9, 0
34″	12,18,48,59,42,58,44,47,23,46		54, 0,48,52	
		2, 2,59,19,31,47,45,58		9, 0
36″	12,18,51, 2,42,18,16,35, 9,44		54, 0,57,52	
		2, 2,59,18,37,46,48, 6		9, 0
38″	12,18,53, 5,41,36,54,21,57,50		54, 1, 6,52	
		2, 2,59,17,43,45,41,14		9, 0
40″	12,18,55, 8,40,54,38, 7,39, 4		54, 1,15,52	
		2, 2,59,16,49,44,25,22		9, 0
42″	12,18,57,11,40,11,27,52, 4,26		54, 1,24,52	
		2, 2,59,15,55,43, 0,30		9, 0
44″	12,18,59,14,39,27,23,35, 4,56		54, 1,33,52	
		2, 2,59,15, 1,41,26,38		9, 0
46″	12,19, 1,17,38,42,25,16,31,34		54, 1,42,52	
		2, 2,59,14, 7,39,43,46		9, 0
48″	12,19, 3,20,37,56,32,56,15,20		54, 1,51,52	
		2, 2,59,13,13,37,51,54		9, 0
50″	12,19, 5,23,37, 9,46,34, 7,14		54, 2, 0,52	
		2, 2,59,12,19,35,51, 2		9, 0
52″	12,19, 7,26,36,22, 6, 9,58,16		54, 2, 9,52	
		2, 2,59,11,25,33,41,10		9, 0
54″	12,19, 9,29,35,33,31,43,39,26		54, 2,18,52	
		2, 2,59,10,31,31,22,18		9, 0
56″	12,19,11,32,34,44, 3,15, 1,44		54, 2,27,52	
		2, 2,59, 9,37,28,54,26		9, 0
58″	12,19,13,35,33,53,40,43,56,10		54, 2,36,52	
		2, 2,59, 8,43,26,17,34		
60″	12,19,15,38,33, 2,24,10,13,44			
exact	12,19,15,38,33, 2,24,10,48,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°51′ 0″	12,19,15,38,33, 2,24,10,48,11			
		2, 2,59, 7,49,23,35,23		
2″	12,19,17,41,32,10,13,34,23,34		54, 2,54,37	
		2, 2,59, 6,55,20,40,46		8,59
4″	12,19,19,44,31,17, 8,55, 4,20		54, 3, 3,36	
		2, 2,59, 6, 1,17,37,10		8,59
6″	12,19,21,47,30,23,10,12,41,30		54, 3,12,35	
		2, 2,59, 5, 7,14,24,35		8,59
8″	12,19,23,50,29,28,17,27, 6, 5		54, 3,21,34	
		2, 2,59, 4,13,11, 3, 1		8,59
10″	12,19,25,53,28,32,30,38, 9, 6		54, 3,30,33	
		2, 2,59, 3,19, 7,32,28		8,59
12″	12,19,27,56,27,35,49,45,41,34		54, 3,39,32	
		2, 2,59, 2,25, 3,52,56		8,59
14″	12,19,29,59,26,38,14,49,34,30		54, 3,48,31	
		2, 2,59, 1,31, 0, 4,25		8,59
16″	12,19,32, 2,25,39,45,49,38,55		54, 3,57,30	
		2, 2,59, 0,36,56, 6,55		8,59
18″	12,19,34, 5,24,40,22,45,45,50		54, 4, 6,29	
		2, 2,58,59,42,52, 0,26		8,59
20″	12,19,36, 8,23,40, 5,37,46,16		54, 4,15,28	
		2, 2,58,58,48,47,44,58		8,59
22″	12,19,38,11,22,38,54,25,31,14		54, 4,24,27	
		2, 2,58,57,54,43,20,31		8,59
24″	12,19,40,14,21,36,49, 8,51,45		54, 4,33,26	
		2, 2,58,57, 0,38,47, 5		8,59
26″	12,19,42,17,20,33,49,47,38,50		54, 4,42,25	
		2, 2,58,56, 6,34, 4,40		8,59
28″	12,19,44,20,19,29,56,21,43,30		54, 4,51,24	
		2, 2,58,55,12,29,13,16		8,59
30″	12,19,46,23,18,25, 8,50,56,46		54, 5, 0,23	
		2, 2,58,54,18,24,12,53		8,59
32″	12,19,48,26,17,19,27,15, 9,39		54, 5, 9,22	
		2, 2,58,53,24,19, 3,31		8,59
34″	12,19,50,29,16,12,51,34,13,10		54, 5,18,21	
		2, 2,58,52,30,13,45,10		8,59
36″	12,19,52,32,15, 5,21,47,58,20		54, 5,27,20	
		2, 2,58,51,36, 8,17,50		8,59
38″	12,19,54,35,13,56,57,56,16,10		54, 5,36,19	
		2, 2,58,50,42, 2,41,31		8,59
40″	12,19,56,38,12,47,39,58,57,41		54, 5,45,18	
		2, 2,58,49,47,56,56,13		8,59
42″	12,19,58,41,11,37,27,55,53,54		54, 5,54,17	
		2, 2,58,48,53,51, 1,56		8,59
44″	12,20, 0,44,10,26,21,46,55,50		54, 6, 3,16	
		2, 2,58,47,59,44,58,40		8,59
46″	12,20, 2,47, 9,14,21,31,54,30		54, 6,12,15	
		2, 2,58,47, 5,38,46,25		8,59
48″	12,20, 4,50, 8, 1,27,10,40,55		54, 6,21,14	
		2, 2,58,46,11,32,25,11		8,59
50″	12,20, 6,53, 6,47,38,43, 6, 6		54, 6,30,13	
		2, 2,58,45,17,25,54,58		8,59
52″	12,20, 8,56, 5,32,56, 9, 1, 4		54, 6,39,12	
		2, 2,58,44,23,19,15,46		8,59
54″	12,20,10,59, 4,17,19,28,16,50		54, 6,48,11	
		2, 2,58,43,29,12,27,35		8,59
56″	12,20,13, 2, 3, 0,48,40,44,25		54, 6,57,10	
		2, 2,58,42,35, 5,30,25		8,59
58″	12,20,15, 5, 1,43,23,46,14,50		54, 7, 6, 9	
		2, 2,58,41,40,58,24,16		
60″	12,20,17, 8, 0,25, 4,44,39, 6			
exact	12,20,17, 8, 0,25, 4,44,10, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°52′ 0″	12,20,17, 8, 0,25, 4,44,10, 3			
		2, 2,58,40,46,51, 5,57		
2″	12,20,19,10,59, 5,51,35,16, 0		54, 7,24,20	
		2, 2,58,39,52,43,41,37		8,59
4″	12,20,21,13,57,45,44,18,57,37		54, 7,33,19	
		2, 2,58,38,58,36, 8,18		8,59
6″	12,20,23,16,56,24,42,55, 5,55		54, 7,42,18	
		2, 2,58,38, 4,28,26, 0		8,59
8″	12,20,25,19,55, 2,47,23,31,55		54, 7,51,17	
		2, 2,58,37,10,20,34,43		8,59
10″	12,20,27,22,53,39,57,44, 6,38		54, 8, 0,16	
		2, 2,58,36,16,12,34,27		8,59
12″	12,20,29,25,52,16,13,56,41, 5		54, 8, 9,15	
		2, 2,58,35,22, 4,25,12		8,59
14″	12,20,31,28,50,51,36, 1, 6,17		54, 8,18,14	
		2, 2,58,34,27,56, 6,58		8,59
16″	12,20,33,31,49,26, 3,57,13,15		54, 8,27,13	
		2, 2,58,33,33,47,39,45		8,59
18″	12,20,35,34,47,59,37,44,53, 0		54, 8,36,12	
		2, 2,58,32,39,39, 3,33		8,59
20″	12,20,37,37,46,32,17,23,56,33		54, 8,45,11	
		2, 2,58,31,45,30,18,22		8,59
22″	12,20,39,40,45, 4, 2,54,14,55		54, 8,54,10	
		2, 2,58,30,51,21,24,12		8,59
24″	12,20,41,43,43,34,54,15,39, 7		54, 9, 3, 9	
		2, 2,58,29,57,12,21, 3		8,59
26″	12,20,43,46,42, 4,51,28, 0,10		54, 9,12, 8	
		2, 2,58,29, 3, 3, 8,55		8,59
28″	12,20,45,49,40,33,54,31, 9, 5		54, 9,21, 7	
		2, 2,58,28, 8,53,47,48		8,59
30″	12,20,47,52,39, 2, 3,24,56,53		54, 9,30, 6	
		2, 2,58,27,14,44,17,42		8,59
32″	12,20,49,55,37,29,18, 9,14,35		54, 9,39, 5	
		2, 2,58,26,20,34,38,37		8,59
34″	12,20,51,58,35,55,38,43,53,12		54, 9,48, 4	
		2, 2,58,25,26,24,50,33		8,59
36″	12,20,54, 1,34,21, 5, 8,43,45		54, 9,57, 3	
		2, 2,58,24,32,14,53,30		8,59
38″	12,20,56, 4,32,45,37,23,37,15		54,10, 6, 2	
		2, 2,58,23,38, 4,47,28		8,59
40″	12,20,58, 7,31, 9,15,28,24,43		54,10,15, 1	
		2, 2,58,22,43,54,32,27		8,59
42″	12,21, 0,10,29,31,59,22,57,10		54,10,24, 0	
		2, 2,58,21,49,44, 8,27		8,59
44″	12,21, 2,13,27,53,49, 7, 5,37		54,10,32,59	
		2, 2,58,20,55,33,35,28		8,59
46″	12,21, 4,16,26,14,44,40,41, 5		54,10,41,58	
		2, 2,58,20, 1,22,53,30		8,59
48″	12,21, 6,19,24,34,46, 3,34,35		54,10,50,57	
		2, 2,58,19, 7,12, 2,33		8,59
50″	12,21, 8,22,22,53,53,15,37, 8		54,10,59,56	
		2, 2,58,18,13, 1, 2,37		8,59
52″	12,21,10,25,21,12, 6,16,39,45		54,11, 8,55	
		2, 2,58,17,18,49,53,42		8,59
54″	12,21,12,28,19,29,25, 6,33,27		54,11,17,54	
		2, 2,58,16,24,38,35,48		8,59
56″	12,21,14,31,17,45,49,45, 9,15		54,11,26,53	
		2, 2,58,15,30,27, 8,55		8,59
58″	12,21,16,34,16, 1,20,12,18,10		54,11,35,52	
		2, 2,58,14,36,15,33, 3		
60″	12,21,18,37,14,15,56,27,51,13			
exact	12,21,18,37,14,15,56,27,18,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°53′ 0″	12,21,18,37,14,15,56,27,18,50			
		2, 2,58,13,42, 3,44,52		
2″	12,21,20,40,12,29,38,31, 3,42		54,11,54, 3	
		2, 2,58,12,47,51,50,49		8,59
4″	12,21,22,43,10,42,26,22,54,31		54,12, 3, 2	
		2, 2,58,11,53,39,47,47		8,59
6″	12,21,24,46, 8,54,20, 2,42,18		54,12,12, 1	
		2, 2,58,10,59,27,35,46		8,59
8″	12,21,26,49, 7, 5,19,30,18, 4		54,12,21, 0	
		2, 2,58,10, 5,15,14,46		8,59
10″	12,21,28,52, 5,15,24,45,32,50		54,12,29,59	
		2, 2,58, 9,11, 2,44,47		8,59
12″	12,21,30,55, 3,24,35,48,17,37		54,12,38,58	
		2, 2,58, 8,16,50, 5,49		8,59
14″	12,21,32,58, 1,32,52,38,23,26		54,12,47,57	
		2, 2,58, 7,22,37,17,52		8,59
16″	12,21,35, 0,59,40,15,15,41,18		54,12,56,56	
		2, 2,58, 6,28,24,20,56		8,59
18″	12,21,37, 3,57,46,43,40, 2,14		54,13, 5,55	
		2, 2,58, 5,34,11,15, 1		8,59
20″	12,21,39, 6,55,52,17,51,17,15		54,13,14,54	
		2, 2,58, 4,39,58, 0, 7		8,59
22″	12,21,41, 9,53,56,57,49,17,22		54,13,23,53	
		2, 2,58, 3,45,44,36,14		8,59
24″	12,21,43,12,52, 0,43,33,53,36		54,13,32,52	
		2, 2,58, 2,51,31, 3,22		8,59
26″	12,21,45,15,50, 3,35, 4,56,58		54,13,41,51	
		2, 2,58, 1,57,17,21,31		8,59
28″	12,21,47,18,48, 5,32,22,18,29		54,13,50,50	
		2, 2,58, 1, 3, 3,30,41		8,59
30″	12,21,49,21,46, 6,35,25,49,10		54,13,59,49	
		2, 2,58, 0, 8,49,30,52		8,59
32″	12,21,51,24,44, 6,44,15,20, 2		54,14, 8,48	
		2, 2,57,59,14,35,22, 4		8,59
34″	12,21,53,27,42, 5,58,50,42, 6		54,14,17,47	
		2, 2,57,58,20,21, 4,17		8,59
36″	12,21,55,30,40, 4,19,11,46,23		54,14,26,46	
		2, 2,57,57,26, 6,37,31		8,59
38″	12,21,57,33,38, 1,45,18,23,54		54,14,35,45	
		2, 2,57,56,31,52, 1,46		8,59
40″	12,21,59,36,35,58,17,10,25,40		54,14,44,44	
		2, 2,57,55,37,37,17, 2		8,59
42″	12,22, 1,39,33,53,54,47,42,42		54,14,53,43	
		2, 2,57,54,43,22,23,19		8,59
44″	12,22, 3,42,31,48,38,10, 6, 1		54,15, 2,42	
		2, 2,57,53,49, 7,20,37		8,59
46″	12,22, 5,45,29,42,27,17,26,38		54,15,11,41	
		2, 2,57,52,54,52, 8,56		8,59
48″	12,22, 7,48,27,35,22, 9,35,34		54,15,20,40	
		2, 2,57,52, 0,36,48,16		8,59
50″	12,22, 9,51,25,27,22,46,23,50		54,15,29,39	
		2, 2,57,51, 6,21,18,37		8,59
52″	12,22,11,54,23,18,29, 7,42,27		54,15,38,38	
		2, 2,57,50,12, 5,39,59		8,59
54″	12,22,13,57,21, 8,41,13,22,26		54,15,47,37	
		2, 2,57,49,17,49,52,22		8,59
56″	12,22,16, 0,18,57,59, 3,14,48		54,15,56,36	
		2, 2,57,48,23,33,55,46		8,59
58″	12,22,18, 3,16,46,22,37,10,34		54,16, 5,35	
		2, 2,57,47,29,17,50,11		
60″	12,22,20, 6,14,33,51,55, 0,45			
exact	12,22,20, 6,14,33,51,54,32,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°54′ 0″	12,22,20, 6,14,33,51,54,32,54			
		2, 2,57,46,35, 1,32,40		
2″	12,22,22, 9,12,20,26,56, 5,34		54,16,23,45	
		2, 2,57,45,40,45, 8,55		8,59
4″	12,22,24,12,10, 6, 7,41,14,29		54,16,32,44	
		2, 2,57,44,46,28,36,11		8,59
6″	12,22,26,15, 7,50,54, 9,50,40		54,16,41,43	
		2, 2,57,43,52,11,54,28		8,59
8″	12,22,28,18, 5,34,46,21,45, 8		54,16,50,42	
		2, 2,57,42,57,55, 3,46		8,59
10″	12,22,30,21, 3,17,44,16,48,54		54,16,59,41	
		2, 2,57,42, 3,38, 4, 5		8,59
12″	12,22,32,24, 0,59,47,54,52,59		54,17, 8,40	
		2, 2,57,41, 9,20,55,25		8,59
14″	12,22,34,26,58,40,57,15,48,24		54,17,17,39	
		2, 2,57,40,15, 3,37,46		8,59
16″	12,22,36,29,56,21,12,19,26,10		54,17,26,38	
		2, 2,57,39,20,46,11, 8		8,59
18″	12,22,38,32,54, 0,33, 5,37,18		54,17,35,37	
		2, 2,57,38,26,28,35,31		8,59
20″	12,22,40,35,51,38,59,34,12,49		54,17,44,36	
		2, 2,57,37,32,10,50,55		8,59
22″	12,22,42,38,49,16,31,45, 3,44		54,17,53,35	
		2, 2,57,36,37,52,57,20		8,59
24″	12,22,44,41,46,53, 9,38, 1, 4		54,18, 2,34	
		2, 2,57,35,43,34,54,46		8,59
26″	12,22,46,44,44,28,53,12,55,50		54,18,11,33	
		2, 2,57,34,49,16,43,13		8,59
28″	12,22,48,47,42, 3,42,29,39, 3		54,18,20,32	
		2, 2,57,33,54,58,22,41		8,59
30″	12,22,50,50,39,37,37,28, 1,44		54,18,29,31	
		2, 2,57,33, 0,39,53,10		8,59
32″	12,22,52,53,37,10,38, 7,54,54		54,18,38,30	
		2, 2,57,32, 6,21,14,40		8,59
34″	12,22,54,56,34,42,44,29, 9,34		54,18,47,29	
		2, 2,57,31,12, 2,27,11		8,59
36″	12,22,56,59,32,13,56,31,36,45		54,18,56,28	
		2, 2,57,30,17,43,30,43		8,59
38″	12,22,59, 2,29,44,14,15, 7,28		54,19, 5,27	
		2, 2,57,29,23,24,25,16		8,59
40″	12,23, 1, 5,27,13,37,39,32,44		54,19,14,26	
		2, 2,57,28,29, 5,10,50		8,59
42″	12,23, 3, 8,24,42, 6,44,43,34		54,19,23,25	
		2, 2,57,27,34,45,47,25		8,59
44″	12,23, 5,11,22, 9,41,30,30,59		54,19,32,24	
		2, 2,57,26,40,26,15, 1		8,59
46″	12,23, 7,14,19,36,21,56,46, 0		54,19,41,23	
		2, 2,57,25,46, 6,33,38		8,59
48″	12,23, 9,17,17, 2, 8, 3,19,38		54,19,50,22	
		2, 2,57,24,51,46,43,16		8,59
50″	12,23,11,20,14,26,59,50, 2,54		54,19,59,21	
		2, 2,57,23,57,26,43,55		8,59
52″	12,23,13,23,11,50,57,16,46,49		54,20, 8,20	
		2, 2,57,23, 3, 6,35,35		8,59
54″	12,23,15,26, 9,14, 0,23,22,24		54,20,17,19	
		2, 2,57,22, 8,46,18,16		8,59
56″	12,23,17,29, 6,36, 9, 9,40,40		54,20,26,18	
		2, 2,57,21,14,25,51,58		8,59
58″	12,23,19,32, 3,57,23,35,32,38		54,20,35,17	
		2, 2,57,20,20, 5,16,41		
60″	12,23,21,35, 1,17,43,40,49,19			
exact	12,23,21,35, 1,17,43,40,25,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°55′ 0″	12,23,21,35, 1,17,43,40,25,26			
		2, 2,57,19,25,44,29,50		
2″	12,23,23,37,58,37, 9,24,55,16		54,20,53,26	
		2, 2,57,18,31,23,36,24		8,59
4″	12,23,25,40,55,55,40,48,31,40		54,21, 2,25	
		2, 2,57,17,37, 2,33,59		8,59
6″	12,23,27,43,53,13,17,51, 5,39		54,21,11,24	
		2, 2,57,16,42,41,22,35		8,59
8″	12,23,29,46,50,30, 0,32,28,14		54,21,20,23	
		2, 2,57,15,48,20, 2,12		8,59
10″	12,23,31,49,47,45,48,52,30,26		54,21,29,22	
		2, 2,57,14,53,58,32,50		8,59
12″	12,23,33,52,45, 0,42,51, 3,16		54,21,38,21	
		2, 2,57,13,59,36,54,29		8,59
14″	12,23,35,55,42,14,42,27,57,45		54,21,47,20	
		2, 2,57,13, 5,15, 7, 9		8,59
16″	12,23,37,58,39,27,47,43, 4,54		54,21,56,19	
		2, 2,57,12,10,53,10,50		8,59
18″	12,23,40, 1,36,39,58,36,15,44		54,22, 5,18	
		2, 2,57,11,16,31, 5,32		8,59
20″	12,23,42, 4,33,51,15, 7,21,16		54,22,14,17	
		2, 2,57,10,22, 8,51,15		8,59
22″	12,23,44, 7,31, 1,37,16,12,31		54,22,23,16	
		2, 2,57, 9,27,46,27,59		8,59
24″	12,23,46,10,28,11, 5, 2,40,30		54,22,32,15	
		2, 2,57, 8,33,23,55,44		8,59
26″	12,23,48,13,25,19,38,26,36,14		54,22,41,14	
		2, 2,57, 7,39, 1,14,30		8,59
28″	12,23,50,16,22,27,17,27,50,44		54,22,50,13	
		2, 2,57, 6,44,38,24,17		8,59
30″	12,23,52,19,19,34, 2, 6,15, 1		54,22,59,12	
		2, 2,57, 5,50,15,25, 5		8,59
32″	12,23,54,22,16,39,52,21,40, 6		54,23, 8,11	
		2, 2,57, 4,55,52,16,54		8,59
34″	12,23,56,25,13,44,48,13,57, 0		54,23,17,10	
		2, 2,57, 4, 1,28,59,44		8,59
36″	12,23,58,28,10,48,49,42,56,44		54,23,26, 9	
		2, 2,57, 3, 7, 5,33,35		8,59
38″	12,24, 0,31, 7,51,56,48,30,19		54,23,35, 8	
		2, 2,57, 2,12,41,58,27		8,59
40″	12,24, 2,34, 4,54, 9,30,28,46		54,23,44, 7	
		2, 2,57, 1,18,18,14,20		8,59
42″	12,24, 4,37, 1,55,27,48,43, 6		54,23,53, 6	
		2, 2,57, 0,23,54,21,14		8,59
44″	12,24, 6,39,58,55,51,43, 4,20		54,24, 2, 5	
		2, 2,56,59,29,30,19, 9		8,59
46″	12,24, 8,42,55,55,21,13,23,29		54,24,11, 4	
		2, 2,56,58,35, 6, 8, 5		8,59
48″	12,24,10,45,52,53,56,19,31,34		54,24,20, 3	
		2, 2,56,57,40,41,48, 2		8,59
50″	12,24,12,48,49,51,37, 1,19,36		54,24,29, 2	
		2, 2,56,56,46,17,19, 0		8,59
52″	12,24,14,51,46,48,23,18,38,36		54,24,38, 1	
		2, 2,56,55,51,52,40,59		8,59
54″	12,24,16,54,43,44,15,11,19,35		54,24,47, 0	
		2, 2,56,54,57,27,53,59		8,59
56″	12,24,18,57,40,39,12,39,13,34		54,24,55,59	
		2, 2,56,54, 3, 2,58, 0		8,59
58″	12,24,21, 0,37,33,15,42,11,34		54,25, 4,58	
		2, 2,56,53, 8,37,53, 2		
60″	12,24,23, 3,34,26,24,20, 4,36			
exact	12,24,23, 3,34,26,24,19,44,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°56′ 0″	12,24,23, 3,34,26,24,19,44,32			
		2, 2,56,52,14,12,36,51		
2″	12,24,25, 6,31,18,38,32,21,23		54,25,23, 5	
		2, 2,56,51,19,47,13,46		8,59
4″	12,24,27, 9,28, 9,58,19,35, 9		54,25,32, 4	
		2, 2,56,50,25,21,41,42		8,59
6″	12,24,29,12,25, 0,23,41,16,51		54,25,41, 3	
		2, 2,56,49,30,56, 0,39		8,59
8″	12,24,31,15,21,49,54,37,17,30		54,25,50, 2	
		2, 2,56,48,36,30,10,37		8,59
10″	12,24,33,18,18,38,31, 7,28, 7		54,25,59, 1	
		2, 2,56,47,42, 4,11,36		8,59
12″	12,24,35,21,15,26,13,11,39,43		54,26, 8, 0	
		2, 2,56,46,47,38, 3,36		8,59
14″	12,24,37,24,12,13, 0,49,43,19		54,26,16,59	
		2, 2,56,45,53,11,46,37		8,59
16″	12,24,39,27, 8,58,54, 1,29,56		54,26,25,58	
		2, 2,56,44,58,45,20,39		8,59
18″	12,24,41,30, 5,43,52,46,50,35		54,26,34,57	
		2, 2,56,44, 4,18,45,42		8,59
20″	12,24,43,33, 2,27,57, 5,36,17		54,26,43,56	
		2, 2,56,43, 9,52, 1,46		8,59
22″	12,24,45,35,59,11, 6,57,38, 3		54,26,52,55	
		2, 2,56,42,15,25, 8,51		8,59
24″	12,24,47,38,55,53,22,22,46,54		54,27, 1,54	
		2, 2,56,41,20,58, 6,57		8,59
26″	12,24,49,41,52,34,43,20,53,51		54,27,10,53	
		2, 2,56,40,26,30,56, 4		8,59
28″	12,24,51,44,49,15, 9,51,49,55		54,27,19,52	
		2, 2,56,39,32, 3,36,12		8,59
30″	12,24,53,47,45,54,41,55,26, 7		54,27,28,51	
		2, 2,56,38,37,36, 7,21		8,59
32″	12,24,55,50,42,33,19,31,33,28		54,27,37,50	
		2, 2,56,37,43, 8,29,31		8,59
34″	12,24,57,53,39,11, 2,40, 2,59		54,27,46,49	
		2, 2,56,36,48,40,42,42		8,59
36″	12,24,59,56,35,47,51,20,45,41		54,27,55,48	
		2, 2,56,35,54,12,46,54		8,59
38″	12,25, 1,59,32,23,45,33,32,35		54,28, 4,47	
		2, 2,56,34,59,44,42, 7		8,59
40″	12,25, 4, 2,28,58,45,18,14,42		54,28,13,46	
		2, 2,56,34, 5,16,28,21		8,59
42″	12,25, 6, 5,25,32,50,34,43, 3		54,28,22,45	
		2, 2,56,33,10,48, 5,36		8,59
44″	12,25, 8, 8,22, 6, 1,22,48,39		54,28,31,44	
		2, 2,56,32,16,19,33,52		8,59
46″	12,25,10,11,18,38,17,42,22,31		54,28,40,43	
		2, 2,56,31,21,50,53, 9		8,59
48″	12,25,12,14,15, 9,39,33,15,40		54,28,49,42	
		2, 2,56,30,27,22, 3,27		8,59
50″	12,25,14,17,11,40, 6,55,19, 7		54,28,58,41	
		2, 2,56,29,32,53, 4,46		8,59
52″	12,25,16,20, 8, 9,39,48,23,53		54,29, 7,40	
		2, 2,56,28,38,23,57, 6		8,59
54″	12,25,18,23, 4,38,18,12,20,59		54,29,16,39	
		2, 2,56,27,43,54,40,27		8,59
56″	12,25,20,26, 1, 6, 2, 7, 1,26		54,29,25,38	
		2, 2,56,26,49,25,14,49		8,59
58″	12,25,22,28,57,32,51,32,16,15		54,29,34,37	
		2, 2,56,25,54,55,40,12		
60″	12,25,24,31,53,58,46,27,56,27			
exact	12,25,24,31,53,58,46,27,33, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°57′ 0″	12,25,24,31,53,58,46,27,33, 9			
		2, 2,56,25, 0,25,54,14		
2″	12,25,26,34,50,23,46,53,27,23		54,29,52,44	
		2, 2,56,24, 5,56, 1,30		8,59
4″	12,25,28,37,46,47,52,49,28,53		54,30, 1,43	
		2, 2,56,23,11,25,59,47		8,59
6″	12,25,30,40,43,11, 4,15,28,40		54,30,10,42	
		2, 2,56,22,16,55,49, 5		8,59
8″	12,25,32,43,39,33,21,11,17,45		54,30,19,41	
		2, 2,56,21,22,25,29,24		8,59
10″	12,25,34,46,35,54,43,36,47, 9		54,30,28,40	
		2, 2,56,20,27,55, 0,44		8,59
12″	12,25,36,49,32,15,11,31,47,53		54,30,37,39	
		2, 2,56,19,33,24,23, 5		8,59
14″	12,25,38,52,28,34,44,56,10,58		54,30,46,38	
		2, 2,56,18,38,53,36,27		8,59
16″	12,25,40,55,24,53,23,49,47,25		54,30,55,37	
		2, 2,56,17,44,22,40,50		8,59
18″	12,25,42,58,21,11, 8,12,28,15		54,31, 4,36	
		2, 2,56,16,49,51,36,14		8,59
20″	12,25,45, 1,17,27,58, 4, 4,29		54,31,13,35	
		2, 2,56,15,55,20,22,39		8,59
22″	12,25,47, 4,13,43,53,24,27, 8		54,31,22,34	
		2, 2,56,15, 0,49, 0, 5		8,59
24″	12,25,49, 7, 9,58,54,13,27,13		54,31,31,33	
		2, 2,56,14, 6,17,28,32		8,59
26″	12,25,51,10, 6,13, 0,30,55,45		54,31,40,32	
		2, 2,56,13,11,45,48, 0		8,59
28″	12,25,53,13, 2,26,12,16,43,45		54,31,49,31	
		2, 2,56,12,17,13,58,29		8,59
30″	12,25,55,15,58,38,29,30,42,14		54,31,58,30	
		2, 2,56,11,22,41,59,59		8,59
32″	12,25,57,18,54,49,52,12,42,13		54,32, 7,29	
		2, 2,56,10,28, 9,52,30		8,59
34″	12,25,59,21,51, 0,20,22,34,43		54,32,16,28	
		2, 2,56, 9,33,37,36, 2		8,59
36″	12,26, 1,24,47, 9,54, 0,10,45		54,32,25,27	
		2, 2,56, 8,39, 5,10,35		8,59
38″	12,26, 3,27,43,18,33, 5,21,20		54,32,34,26	
		2, 2,56, 7,44,32,36, 9		8,59
40″	12,26, 5,30,39,26,17,37,57,29		54,32,43,25	
		2, 2,56, 6,49,59,52,44		8,59
42″	12,26, 7,33,35,33, 7,37,50,13		54,32,52,24	
		2, 2,56, 5,55,27, 0,20		8,59
44″	12,26, 9,36,31,39, 3, 4,50,33		54,33, 1,23	
		2, 2,56, 5, 0,53,58,57		8,59
46″	12,26,11,39,27,44, 3,58,49,30		54,33,10,22	
		2, 2,56, 4, 6,20,48,35		8,59
48″	12,26,13,42,23,48,10,19,38, 5		54,33,19,21	
		2, 2,56, 3,11,47,29,14		8,59
50″	12,26,15,45,19,51,22, 7, 7,19		54,33,28,20	
		2, 2,56, 2,17,14, 0,54		8,59
52″	12,26,17,48,15,53,39,21, 8,13		54,33,37,19	
		2, 2,56, 1,22,40,23,35		8,59
54″	12,26,19,51,11,55, 2, 1,31,48		54,33,46,18	
		2, 2,56, 0,28, 6,37,17		8,59
56″	12,26,21,54, 7,55,30, 8, 9, 5		54,33,55,17	
		2, 2,55,59,33,32,42, 0		8,59
58″	12,26,23,57, 3,55, 3,40,51, 5		54,34, 4,16	
		2, 2,55,58,38,58,37,44		
60″	12,26,25,59,59,53,42,39,28,49			
exact	12,26,25,59,59,53,42,39, 9,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°58′ 0″	12,26,25,59,59,53,42,39, 9,14			
		2, 2,55,57,44,24,22,28		
2″	12,26,28, 2,55,51,27, 3,31,42		54,34,22,22	
		2, 2,55,56,49,50, 0, 6		8,59
4″	12,26,30, 5,51,48,16,53,31,48		54,34,31,21	
		2, 2,55,55,55,15,28,45		8,59
6″	12,26,32, 8,47,44,12, 9, 0,33		54,34,40,20	
		2, 2,55,55, 0,40,48,25		8,59
8″	12,26,34,11,43,39,12,49,48,58		54,34,49,19	
		2, 2,55,54, 6, 5,59, 6		8,59
10″	12,26,36,14,39,33,18,55,48, 4		54,34,58,18	
		2, 2,55,53,11,31, 0,48		8,59
12″	12,26,38,17,35,26,30,26,48,52		54,35, 7,17	
		2, 2,55,52,16,55,53,31		8,59
14″	12,26,40,20,31,18,47,22,42,23		54,35,16,16	
		2, 2,55,51,22,20,37,15		8,59
16″	12,26,42,23,27,10, 9,43,19,38		54,35,25,15	
		2, 2,55,50,27,45,12, 0		8,59
18″	12,26,44,26,23, 0,37,28,31,38		54,35,34,14	
		2, 2,55,49,33, 9,37,46		8,59
20″	12,26,46,29,18,50,10,38, 9,24		54,35,43,13	
		2, 2,55,48,38,33,54,33		8,59
22″	12,26,48,32,14,38,49,12, 3,57		54,35,52,12	
		2, 2,55,47,43,58, 2,21		8,59
24″	12,26,50,35,10,26,33,10, 6,18		54,36, 1,11	
		2, 2,55,46,49,22, 1,10		8,59
26″	12,26,52,38, 6,13,22,32, 7,28		54,36,10,10	
		2, 2,55,45,54,45,51, 0		8,59
28″	12,26,54,41, 1,59,17,17,58,28		54,36,19, 9	
		2, 2,55,45, 0, 9,31,51		8,59
30″	12,26,56,43,57,44,17,27,30,19		54,36,28, 8	
		2, 2,55,44, 5,33, 3,43		8,59
32″	12,26,58,46,53,28,23, 0,34, 2		54,36,37, 7	
		2, 2,55,43,10,56,26,36		8,59
34″	12,27, 0,49,49,11,33,57, 0,38		54,36,46, 6	
		2, 2,55,42,16,19,40,30		8,59
36″	12,27, 2,52,44,53,50,16,41, 8		54,36,55, 5	
		2, 2,55,41,21,42,45,25		8,59
38″	12,27, 4,55,40,35,11,59,26,33		54,37, 4, 4	
		2, 2,55,40,27, 5,41,21		8,59
40″	12,27, 6,58,36,15,39, 5, 7,54		54,37,13, 3	
		2, 2,55,39,32,28,28,18		8,59
42″	12,27, 9, 1,31,55,11,33,36,12		54,37,22, 2	
		2, 2,55,38,37,51, 6,16		8,59
44″	12,27,11, 4,27,33,49,24,42,28		54,37,31, 1	
		2, 2,55,37,43,13,35,15		8,59
46″	12,27,13, 7,23,11,32,38,17,43		54,37,40, 0	
		2, 2,55,36,48,35,55,15		8,59
48″	12,27,15,10,18,48,21,14,12,58		54,37,48,59	
		2, 2,55,35,53,58, 6,16		8,59
50″	12,27,17,13,14,24,15,12,19,14		54,37,57,58	
		2, 2,55,34,59,20, 8,18		8,59
52″	12,27,19,16, 9,59,14,32,27,32		54,38, 6,57	
		2, 2,55,34, 4,42, 1,21		8,59
54″	12,27,21,19, 5,33,19,14,28,53		54,38,15,56	
		2, 2,55,33,10, 3,45,25		8,59
56″	12,27,23,22, 1, 6,29,18,14,18		54,38,24,55	
		2, 2,55,32,15,25,20,30		8,59
58″	12,27,25,24,56,38,44,43,34,48		54,38,33,54	
		2, 2,55,31,20,46,46,36		
60″	12,27,27,27,52,10, 5,30,21,24			
exact	12,27,27,27,52,10, 5,30, 5,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
11°59′ 0″	12,27,27,27,52,10, 5,30, 5,34			
		2, 2,55,30,26, 8, 2, 3		
2″	12,27,29,30,47,40,31,38, 7,37		54,38,51,59	
		2, 2,55,29,31,29,10, 4		8,59
4″	12,27,31,33,43,10, 3, 7,17,41		54,39, 0,58	
		2, 2,55,28,36,50, 9, 6		8,59
6″	12,27,33,36,38,38,39,57,26,47		54,39, 9,57	
		2, 2,55,27,42,10,59, 9		8,59
8″	12,27,35,39,34, 6,22, 8,25,56		54,39,18,56	
		2, 2,55,26,47,31,40,13		8,59
10″	12,27,37,42,29,33, 9,40, 6, 9		54,39,27,55	
		2, 2,55,25,52,52,12,18		8,59
12″	12,27,39,45,24,59, 2,32,18,27		54,39,36,54	
		2, 2,55,24,58,12,35,24		8,59
14″	12,27,41,48,20,24, 0,44,53,51		54,39,45,53	
		2, 2,55,24, 3,32,49,31		8,59
16″	12,27,43,51,15,48, 4,17,43,22		54,39,54,52	
		2, 2,55,23, 8,52,54,39		8,59
18″	12,27,45,54,11,11,13,10,38, 1		54,40, 3,51	
		2, 2,55,22,14,12,50,48		8,59
20″	12,27,47,57, 6,33,27,23,28,49		54,40,12,50	
		2, 2,55,21,19,32,37,58		8,59
22″	12,27,50, 0, 1,54,46,56, 6,47		54,40,21,49	
		2, 2,55,20,24,52,16, 9		8,59
24″	12,27,52, 2,57,15,11,48,22,56		54,40,30,48	
		2, 2,55,19,30,11,45,21		8,59
26″	12,27,54, 5,52,34,42, 0, 8,17		54,40,39,47	
		2, 2,55,18,35,31, 5,34		8,59
28″	12,27,56, 8,47,53,17,31,13,51		54,40,48,46	
		2, 2,55,17,40,50,16,48		8,59
30″	12,27,58,11,43,10,58,21,30,39		54,40,57,45	
		2, 2,55,16,46, 9,19, 3		8,59
32″	12,28, 0,14,38,27,44,30,49,42		54,41, 6,44	
		2, 2,55,15,51,28,12,19		8,59
34″	12,28, 2,17,33,43,35,59, 2, 1		54,41,15,43	
		2, 2,55,14,56,46,56,36		8,59
36″	12,28, 4,20,28,58,32,45,58,37		54,41,24,42	
		2, 2,55,14, 2, 5,31,54		8,59
38″	12,28, 6,23,24,12,34,51,30,31		54,41,33,41	
		2, 2,55,13, 7,23,58,13		8,59
40″	12,28, 8,26,19,25,42,15,28,44		54,41,42,40	
		2, 2,55,12,12,42,15,33		8,59
42″	12,28,10,29,14,37,54,57,44,17		54,41,51,39	
		2, 2,55,11,18, 0,23,54		8,59
44″	12,28,12,32, 9,49,12,58, 8,11		54,42, 0,38	
		2, 2,55,10,23,18,23,16		8,59
46″	12,28,14,35, 4,59,36,16,31,27		54,42, 9,37	
		2, 2,55, 9,28,36,13,39		8,59
48″	12,28,16,38, 0, 9, 4,52,45, 6		54,42,18,36	
		2, 2,55, 8,33,53,55, 3		8,59
50″	12,28,18,40,55,17,38,46,40, 9		54,42,27,35	
		2, 2,55, 7,39,11,27,28		8,59
52″	12,28,20,43,50,25,17,58, 7,37		54,42,36,34	
		2, 2,55, 6,44,28,50,54		8,59
54″	12,28,22,46,45,32, 2,26,58,31		54,42,45,33	
		2, 2,55, 5,49,46, 5,21		8,59
56″	12,28,24,49,40,37,52,13, 3,52		54,42,54,32	
		2, 2,55, 4,55, 3,10,49		8,59
58″	12,28,26,52,35,42,47,16,14,41		54,43, 3,31	
		2, 2,55, 4, 0,20, 7,18		
60″	12,28,28,55,30,46,47,36,21,59			
exact	12,28,28,55,30,46,47,36,10, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12° 0′ 0″	12,28,28,55,30,46,47,36,10, 0			
		2, 2,55, 3, 5,36,53,29		
2″	12,28,30,58,25,49,53,13, 3,29		54,43,21,35	
		2, 2,55, 2,10,53,31,54		8,59
4″	12,28,33, 1,20,52, 4, 6,35,23		54,43,30,34	
		2, 2,55, 1,16,10, 1,20		8,59
6″	12,28,35, 4,15,53,20,16,36,43		54,43,39,33	
		2, 2,55, 0,21,26,21,47		8,59
8″	12,28,37, 7,10,53,41,42,58,30		54,43,48,32	
		2, 2,54,59,26,42,33,15		8,59
10″	12,28,39,10, 5,53, 8,25,31,45		54,43,57,31	
		2, 2,54,58,31,58,35,44		8,59
12″	12,28,41,13, 0,51,40,24, 7,29		54,44, 6,30	
		2, 2,54,57,37,14,29,14		8,59
14″	12,28,43,15,55,49,17,38,36,43		54,44,15,29	
		2, 2,54,56,42,30,13,45		8,59
16″	12,28,45,18,50,46, 0, 8,50,28		54,44,24,28	
		2, 2,54,55,47,45,49,17		8,59
18″	12,28,47,21,45,41,47,54,39,45		54,44,33,27	
		2, 2,54,54,53, 1,15,50		8,59
20″	12,28,49,24,40,36,40,55,55,35		54,44,42,26	
		2, 2,54,53,58,16,33,24		8,59
22″	12,28,51,27,35,30,39,12,28,59		54,44,51,25	
		2, 2,54,53, 3,31,41,59		8,59
24″	12,28,53,30,30,23,42,44,10,58		54,45, 0,24	
		2, 2,54,52, 8,46,41,35		8,59
26″	12,28,55,33,25,15,51,30,52,33		54,45, 9,23	
		2, 2,54,51,14, 1,32,12		8,59
28″	12,28,57,36,20, 7, 5,32,24,45		54,45,18,22	
		2, 2,54,50,19,16,13,50		8,59
30″	12,28,59,39,14,57,24,48,38,35		54,45,27,21	
		2, 2,54,49,24,30,46,29		8,59
32″	12,29, 1,42, 9,46,49,19,25, 4		54,45,36,20	
		2, 2,54,48,29,45,10, 9		8,59
34″	12,29, 3,45, 4,35,19, 4,35,13		54,45,45,19	
		2, 2,54,47,34,59,24,50		8,59
36″	12,29, 5,47,59,22,54, 4, 0, 3		54,45,54,18	
		2, 2,54,46,40,13,30,32		8,59
38″	12,29, 7,50,54, 9,34,17,30,35		54,46, 3,17	
		2, 2,54,45,45,27,27,15		8,59
40″	12,29, 9,53,48,55,19,44,57,50		54,46,12,16	
		2, 2,54,44,50,41,14,59		8,59
42″	12,29,11,56,43,40,10,26,12,49		54,46,21,15	
		2, 2,54,43,55,54,53,44		8,59
44″	12,29,13,59,38,24, 6,21, 6,33		54,46,30,14	
		2, 2,54,43, 1, 8,23,30		8,59
46″	12,29,16, 2,33, 7, 7,29,30, 3		54,46,39,13	
		2, 2,54,42, 6,21,44,17		8,59
48″	12,29,18, 5,27,49,13,51,14,20		54,46,48,12	
		2, 2,54,41,11,34,56, 5		8,59
50″	12,29,20, 8,22,30,25,26,10,25		54,46,57,11	
		2, 2,54,40,16,47,58,54		8,59
52″	12,29,22,11,17,10,42,14, 9,19		54,47, 6,10	
		2, 2,54,39,22, 0,52,44		8,59
54″	12,29,24,14,11,50, 4,15, 2, 3		54,47,15, 9	
		2, 2,54,38,27,13,37,35		8,59
56″	12,29,26,17, 6,28,31,28,39,38		54,47,24, 8	
		2, 2,54,37,32,26,13,27		8,59
58″	12,29,28,20, 1, 6, 3,54,53, 5		54,47,33, 7	
		2, 2,54,36,37,38,40,20		
60″	12,29,30,22,55,42,41,33,33,25			
exact	12,29,30,22,55,42,41,33,25,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12° 1′ 0″	12,29,30,22,55,42,41,33,25,17			
		2, 2,54,35,42,50,57,16		
2″	12,29,32,25,50,18,24,24,22,33		54,47,51, 9	
		2, 2,54,34,48, 3, 6, 7		8,59
4″	12,29,34,28,44,53,12,27,28,40		54,48, 0, 8	
		2, 2,54,33,53,15, 5,59		8,59
6″	12,29,36,31,39,27, 5,42,34,39		54,48, 9, 7	
		2, 2,54,32,58,26,56,52		8,59
8″	12,29,38,34,34, 0, 4, 9,31,31		54,48,18, 6	
		2, 2,54,32, 3,38,38,46		8,59
10″	12,29,40,37,28,32, 7,48,10,17		54,48,27, 5	
		2, 2,54,31, 8,50,11,41		8,59
12″	12,29,42,40,23, 3,16,38,21,58		54,48,36, 4	
		2, 2,54,30,14, 1,35,37		8,59
14″	12,29,44,43,17,33,30,39,57,35		54,48,45, 3	
		2, 2,54,29,19,12,50,34		8,59
16″	12,29,46,46,12, 2,49,52,48, 9		54,48,54, 2	
		2, 2,54,28,24,23,56,32		8,59
18″	12,29,48,49, 6,31,14,16,44,41		54,49, 3, 1	
		2, 2,54,27,29,34,53,31		8,59
20″	12,29,50,52, 0,58,43,51,38,12		54,49,12, 0	
		2, 2,54,26,34,45,41,31		8,59
22″	12,29,52,54,55,25,18,37,19,43		54,49,20,59	
		2, 2,54,25,39,56,20,32		8,59
24″	12,29,54,57,49,50,58,33,40,15		54,49,29,58	
		2, 2,54,24,45, 6,50,34		8,59
26″	12,29,57, 0,44,15,43,40,30,49		54,49,38,57	
		2, 2,54,23,50,17,11,37		8,59
28″	12,29,59, 3,38,39,33,57,42,26		54,49,47,56	
		2, 2,54,22,55,27,23,41		8,59
30″	12,30, 1, 6,33, 2,29,25, 6, 7		54,49,56,55	
		2, 2,54,22, 0,37,26,46		8,59
32″	12,30, 3, 9,27,24,30, 2,32,53		54,50, 5,54	
		2, 2,54,21, 5,47,20,52		8,59
34″	12,30, 5,12,21,45,35,49,53,45		54,50,14,53	
		2, 2,54,20,10,57, 5,59		8,59
36″	12,30, 7,15,16, 5,46,46,59,44		54,50,23,52	
		2, 2,54,19,16, 6,42, 7		8,59
38″	12,30, 9,18,10,25, 2,53,41,51		54,50,32,51	
		2, 2,54,18,21,16, 9,16		8,59
40″	12,30,11,21, 4,43,24, 9,51, 7		54,50,41,50	
		2, 2,54,17,26,25,27,26		8,59
42″	12,30,13,23,59, 0,50,35,18,33		54,50,50,49	
		2, 2,54,16,31,34,36,37		8,59
44″	12,30,15,26,53,17,22, 9,55,10		54,50,59,48	
		2, 2,54,15,36,43,36,49		8,59
46″	12,30,17,29,47,32,58,53,31,59		54,51, 8,47	
		2, 2,54,14,41,52,28, 2		8,59
48″	12,30,19,32,41,47,40,46, 0, 1		54,51,17,46	
		2, 2,54,13,47, 1,10,16		8,59
50″	12,30,21,35,36, 1,27,47,10,17		54,51,26,45	
		2, 2,54,12,52, 9,43,31		8,59
52″	12,30,23,38,30,14,19,56,53,48		54,51,35,44	
		2, 2,54,11,57,18, 7,47		8,59
54″	12,30,25,41,24,26,17,15, 1,35		54,51,44,43	
		2, 2,54,11, 2,26,23, 4		8,59
56″	12,30,27,44,18,37,19,41,24,39		54,51,53,42	
		2, 2,54,10, 7,34,29,22		8,59
58″	12,30,29,47,12,47,27,15,54, 1		54,52, 2,41	
		2, 2,54, 9,12,42,26,41		
60″	12,30,31,50, 6,56,39,58,20,42			
exact	12,30,31,50, 6,56,39,58, 9,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12° 2′ 0″	12,30,31,50, 6,56,39,58, 9,14			
		2, 2,54, 8,17,50,13,54		
2″	12,30,33,53, 1, 4,57,48,23, 8		54,52,20,43	
		2, 2,54, 7,22,57,53,11		8,59
4″	12,30,35,55,55,12,20,46,16,19		54,52,29,42	
		2, 2,54, 6,28, 5,23,29		8,59
6″	12,30,37,58,49,18,48,51,39,48		54,52,38,41	
		2, 2,54, 5,33,12,44,48		8,59
8″	12,30,40, 1,43,24,22, 4,24,36		54,52,47,40	
		2, 2,54, 4,38,19,57, 8		8,59
10″	12,30,42, 4,37,29, 0,24,21,44		54,52,56,39	
		2, 2,54, 3,43,27, 0,29		8,59
12″	12,30,44, 7,31,32,43,51,22,13		54,53, 5,38	
		2, 2,54, 2,48,33,54,51		8,59
14″	12,30,46,10,25,35,32,25,17, 4		54,53,14,37	
		2, 2,54, 1,53,40,40,14		8,59
16″	12,30,48,13,19,37,26, 5,57,18		54,53,23,36	
		2, 2,54, 0,58,47,16,38		8,59
18″	12,30,50,16,13,38,24,53,13,56		54,53,32,35	
		2, 2,54, 0, 3,53,44, 3		8,59
20″	12,30,52,19, 7,38,28,46,57,59		54,53,41,34	
		2, 2,53,59, 9, 0, 2,29		8,59
22″	12,30,54,22, 1,37,37,47, 0,28		54,53,50,33	
		2, 2,53,58,14, 6,11,56		8,59
24″	12,30,56,24,55,35,51,53,12,24		54,53,59,32	
		2, 2,53,57,19,12,12,24		8,59
26″	12,30,58,27,49,33,11, 5,24,48		54,54, 8,31	
		2, 2,53,56,24,18, 3,53		8,59
28″	12,31, 0,30,43,29,35,23,28,41		54,54,17,30	
		2, 2,53,55,29,23,46,23		8,59
30″	12,31, 2,33,37,25, 4,47,15, 4		54,54,26,29	
		2, 2,53,54,34,29,19,54		8,59
32″	12,31, 4,36,31,19,39,16,34,58		54,54,35,28	
		2, 2,53,53,39,34,44,26		8,59
34″	12,31, 6,39,25,13,18,51,19,24		54,54,44,27	
		2, 2,53,52,44,39,59,59		8,59
36″	12,31, 8,42,19, 6, 3,31,19,23		54,54,53,26	
		2, 2,53,51,49,45, 6,33		8,59
38″	12,31,10,45,12,57,53,16,25,56		54,55, 2,25	
		2, 2,53,50,54,50, 4, 8		8,59
40″	12,31,12,48, 6,48,48, 6,30, 4		54,55,11,24	
		2, 2,53,49,59,54,52,44		8,59
42″	12,31,14,51, 0,38,48, 1,22,48		54,55,20,23	
		2, 2,53,49, 4,59,32,21		8,59
44″	12,31,16,53,54,27,53, 0,55, 9		54,55,29,22	
		2, 2,53,48,10, 4, 2,59		8,59
46″	12,31,18,56,48,16, 3, 4,58, 8		54,55,38,21	
		2, 2,53,47,15, 8,24,38		8,59
48″	12,31,20,59,42, 3,18,13,22,46		54,55,47,20	
		2, 2,53,46,20,12,37,18		8,59
50″	12,31,23, 2,35,49,38,26, 0, 4		54,55,56,19	
		2, 2,53,45,25,16,40,59		8,59
52″	12,31,25, 5,29,35, 3,42,41, 3		54,56, 5,18	
		2, 2,53,44,30,20,35,41		8,59
54″	12,31,27, 8,23,19,34, 3,16,44		54,56,14,17	
		2, 2,53,43,35,24,21,24		8,59
56″	12,31,29,11,17, 3, 9,27,38, 8		54,56,23,16	
		2, 2,53,42,40,27,58, 8		8,59
58″	12,31,31,14,10,45,49,55,36,16		54,56,32,15	
		2, 2,53,41,45,31,25,53		
60″	12,31,33,17, 4,27,35,27, 2, 9			
exact	12,31,33,17, 4,27,35,26,54,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12° 3′ 0″	12,31,33,17, 4,27,35,26,54,38			
		2, 2,53,40,50,34,43,53		
2″	12,31,35,19,58, 8,26, 1,38,31		54,56,50,16	
		2, 2,53,39,55,37,53,37		8,59
4″	12,31,37,22,51,48,21,39,32, 8		54,56,59,15	
		2, 2,53,39, 0,40,54,22		8,59
6″	12,31,39,25,45,27,22,20,26,30		54,57, 8,14	
		2, 2,53,38, 5,43,46, 8		8,59
8″	12,31,41,28,39, 5,28, 4,12,38		54,57,17,13	
		2, 2,53,37,10,46,28,55		8,59
10″	12,31,43,31,32,42,38,50,41,33		54,57,26,12	
		2, 2,53,36,15,49, 2,43		8,59
12″	12,31,45,34,26,18,54,39,44,16		54,57,35,11	
		2, 2,53,35,20,51,27,32		8,59
14″	12,31,47,37,19,54,15,31,11,48		54,57,44,10	
		2, 2,53,34,25,53,43,22		8,59
16″	12,31,49,40,13,28,41,24,55,10		54,57,53, 9	
		2, 2,53,33,30,55,50,13		8,59
18″	12,31,51,43, 7, 2,12,20,45,23		54,58, 2, 8	
		2, 2,53,32,35,57,48, 5		8,59
20″	12,31,53,46, 0,34,48,18,33,28		54,58,11, 7	
		2, 2,53,31,40,59,36,58		8,59
22″	12,31,55,48,54, 6,29,18,10,26		54,58,20, 6	
		2, 2,53,30,46, 1,16,52		8,59
24″	12,31,57,51,47,37,15,19,27,18		54,58,29, 5	
		2, 2,53,29,51, 2,47,47		8,59
26″	12,31,59,54,41, 7, 6,22,15, 5		54,58,38, 4	
		2, 2,53,28,56, 4, 9,43		8,59
28″	12,32, 1,57,34,36, 2,26,24,48		54,58,47, 3	
		2, 2,53,28, 1, 5,22,40		8,59
30″	12,32, 4, 0,28, 4, 3,31,47,28		54,58,56, 2	
		2, 2,53,27, 6, 6,26,38		8,59
32″	12,32, 6, 3,21,31, 9,38,14, 6		54,59, 5, 1	
		2, 2,53,26,11, 7,21,37		8,59
34″	12,32, 8, 6,14,57,20,45,35,43		54,59,14, 0	
		2, 2,53,25,16, 8, 7,37		8,59
36″	12,32,10, 9, 8,22,36,53,43,20		54,59,22,59	
		2, 2,53,24,21, 8,44,38		8,59
38″	12,32,12,12, 1,46,58, 2,27,58		54,59,31,58	
		2, 2,53,23,26, 9,12,40		8,59
40″	12,32,14,14,55,10,24,11,40,38		54,59,40,57	
		2, 2,53,22,31, 9,31,43		8,59
42″	12,32,16,17,48,32,55,21,12,21		54,59,49,56	
		2, 2,53,21,36, 9,41,47		8,59
44″	12,32,18,20,41,54,31,30,54, 8		54,59,58,55	
		2, 2,53,20,41, 9,42,52		8,59
46″	12,32,20,23,35,15,12,40,37, 0		55, 0, 7,54	
		2, 2,53,19,46, 9,34,58		8,59
48″	12,32,22,26,28,34,58,50,11,58		55, 0,16,53	
		2, 2,53,18,51, 9,18, 5		8,59
50″	12,32,24,29,21,53,49,59,30, 3		55, 0,25,52	
		2, 2,53,17,56, 8,52,13		8,59
52″	12,32,26,32,15,11,46, 8,22,16		55, 0,34,51	
		2, 2,53,17, 1, 8,17,22		8,59
54″	12,32,28,35, 8,28,47,16,39,38		55, 0,43,50	
		2, 2,53,16, 6, 7,33,32		8,59
56″	12,32,30,38, 1,44,53,24,13,10		55, 0,52,49	
		2, 2,53,15,11, 6,40,43		8,59
58″	12,32,32,40,55, 0, 4,30,53,53		55, 1, 1,48	
		2, 2,53,14,16, 5,38,55		
60″	12,32,34,43,48,14,20,36,32,48			
exact	12,32,34,43,48,14,20,36,29,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12° 4′ 0″	12,32,34,43,48,14,20,36,29,20			
		2, 2,53,13,21, 4,27,44		
2″	12,32,36,46,41,27,41,40,57, 4		55, 1,19,48	
		2, 2,53,12,26, 3, 7,56		8,59
4″	12,32,38,49,34,40, 7,44, 5, 0		55, 1,28,47	
		2, 2,53,11,31, 1,39, 9		8,59
6″	12,32,40,52,27,51,38,45,44, 9		55, 1,37,46	
		2, 2,53,10,36, 0, 1,23		8,59
8″	12,32,42,55,21, 2,14,45,45,32		55, 1,46,45	
		2, 2,53, 9,40,58,14,38		8,59
10″	12,32,44,58,14,11,55,44, 0,10		55, 1,55,44	
		2, 2,53, 8,45,56,18,54		8,59
12″	12,32,47, 1, 7,20,41,40,19, 4		55, 2, 4,43	
		2, 2,53, 7,50,54,14,11		8,59
14″	12,32,49, 4, 0,28,32,34,33,15		55, 2,13,42	
		2, 2,53, 6,55,52, 0,29		8,59
16″	12,32,51, 6,53,35,28,26,33,44		55, 2,22,41	
		2, 2,53, 6, 0,49,37,48		8,59
18″	12,32,53, 9,46,41,29,16,11,32		55, 2,31,40	
		2, 2,53, 5, 5,47, 6, 8		8,59
20″	12,32,55,12,39,46,35, 3,17,40		55, 2,40,39	
		2, 2,53, 4,10,44,25,29		8,59
22″	12,32,57,15,32,50,45,47,43, 9		55, 2,49,38	
		2, 2,53, 3,15,41,35,51		8,59
24″	12,32,59,18,25,54, 1,29,19, 0		55, 2,58,37	
		2, 2,53, 2,20,38,37,14		8,59
26″	12,33, 1,21,18,56,22, 7,56,14		55, 3, 7,36	
		2, 2,53, 1,25,35,29,38		8,59
28″	12,33, 3,24,11,57,47,43,25,52		55, 3,16,35	
		2, 2,53, 0,30,32,13, 3		8,59
30″	12,33, 5,27, 4,58,18,15,38,55		55, 3,25,34	
		2, 2,52,59,35,28,47,29		8,59
32″	12,33, 7,29,57,57,53,44,26,24		55, 3,34,33	
		2, 2,52,58,40,25,12,56		8,59
34″	12,33, 9,32,50,56,34, 9,39,20		55, 3,43,32	
		2, 2,52,57,45,21,29,24		8,59
36″	12,33,11,35,43,54,19,31, 8,44		55, 3,52,31	
		2, 2,52,56,50,17,36,53		8,59
38″	12,33,13,38,36,51, 9,48,45,37		55, 4, 1,30	
		2, 2,52,55,55,13,35,23		8,59
40″	12,33,15,41,29,47, 5, 2,21, 0		55, 4,10,29	
		2, 2,52,55, 0, 9,24,54		8,59
42″	12,33,17,44,22,42, 5,11,45,54		55, 4,19,28	
		2, 2,52,54, 5, 5, 5,26		8,59
44″	12,33,19,47,15,36,10,16,51,20		55, 4,28,27	
		2, 2,52,53,10, 0,36,59		8,59
46″	12,33,21,50, 8,29,20,17,28,19		55, 4,37,26	
		2, 2,52,52,14,55,59,33		8,59
48″	12,33,23,53, 1,21,35,13,27,52		55, 4,46,25	
		2, 2,52,51,19,51,13, 8		8,59
50″	12,33,25,55,54,12,55, 4,41, 0		55, 4,55,24	
		2, 2,52,50,24,46,17,44		8,59
52″	12,33,27,58,47, 3,19,50,58,44		55, 5, 4,23	
		2, 2,52,49,29,41,13,21		8,59
54″	12,33,30, 1,39,52,49,32,12, 5		55, 5,13,22	
		2, 2,52,48,34,35,59,59		8,59
56″	12,33,32, 4,32,41,24, 8,12, 4		55, 5,22,21	
		2, 2,52,47,39,30,37,38		8,59
58″	12,33,34, 7,25,29, 3,38,49,42		55, 5,31,20	
		2, 2,52,46,44,25, 6,18		
60″	12,33,36,10,18,15,48, 3,56, 0			
exact	12,33,36,10,18,15,48, 3,56,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12° 5′ 0″	12,33,36,10,18,15,48, 3,56,15			
		2, 2,52,45,49,19,25,56		
2″	12,33,38,13,11, 1,37,23,22,11		55, 5,49,18	
		2, 2,52,44,54,13,36,38		8,59
4″	12,33,40,16, 3,46,31,36,58,49		55, 5,58,17	
		2, 2,52,43,59, 7,38,21		8,59
6″	12,33,42,18,56,30,30,44,37,10		55, 6, 7,16	
		2, 2,52,43, 4, 1,31, 5		8,59
8″	12,33,44,21,49,13,34,46, 8,15		55, 6,16,15	
		2, 2,52,42, 8,55,14,50		8,59
10″	12,33,46,24,41,55,43,41,23, 5		55, 6,25,14	
		2, 2,52,41,13,48,49,36		8,59
12″	12,33,48,27,34,36,57,30,12,41		55, 6,34,13	
		2, 2,52,40,18,42,15,23		8,59
14″	12,33,50,30,27,17,16,12,28, 4		55, 6,43,12	
		2, 2,52,39,23,35,32,11		8,59
16″	12,33,52,33,19,56,39,48, 0,15		55, 6,52,11	
		2, 2,52,38,28,28,40, 0		8,59
18″	12,33,54,36,12,35, 8,16,40,15		55, 7, 1,10	
		2, 2,52,37,33,21,38,50		8,59
20″	12,33,56,39, 5,12,41,38,19, 5		55, 7,10, 9	
		2, 2,52,36,38,14,28,41		8,59
22″	12,33,58,41,57,49,19,52,47,46		55, 7,19, 8	
		2, 2,52,35,43, 7, 9,33		8,59
24″	12,34, 0,44,50,25, 2,59,57,19		55, 7,28, 7	
		2, 2,52,34,47,59,41,26		8,59
26″	12,34, 2,47,42,59,50,59,38,45		55, 7,37, 6	
		2, 2,52,33,52,52, 4,20		8,59
28″	12,34, 4,50,35,33,43,51,43, 5		55, 7,46, 5	
		2, 2,52,32,57,44,18,15		8,59
30″	12,34, 6,53,28, 6,41,36, 1,20		55, 7,55, 4	
		2, 2,52,32, 2,36,23,11		8,59
32″	12,34, 8,56,20,38,44,12,24,31		55, 8, 4, 3	
		2, 2,52,31, 7,28,19, 8		8,59
34″	12,34,10,59,13, 9,51,40,43,39		55, 8,13, 2	
		2, 2,52,30,12,20, 6, 6		8,59
36″	12,34,13, 2, 5,40, 4, 0,49,45		55, 8,22, 1	
		2, 2,52,29,17,11,44, 5		8,59
38″	12,34,15, 4,58, 9,21,12,33,50		55, 8,31, 0	
		2, 2,52,28,22, 3,13, 5		8,59
40″	12,34,17, 7,50,37,43,15,46,55		55, 8,39,59	
		2, 2,52,27,26,54,33, 6		8,59
42″	12,34,19,10,43, 5,10,10,20, 1		55, 8,48,58	
		2, 2,52,26,31,45,44, 8		8,59
44″	12,34,21,13,35,31,41,56, 4, 9		55, 8,57,57	
		2, 2,52,25,36,36,46,11		8,59
46″	12,34,23,16,27,57,18,32,50,20		55, 9, 6,56	
		2, 2,52,24,41,27,39,15		8,59
48″	12,34,25,19,20,22, 0, 0,29,35		55, 9,15,55	
		2, 2,52,23,46,18,23,20		8,59
50″	12,34,27,22,12,45,46,18,52,55		55, 9,24,54	
		2, 2,52,22,51, 8,58,26		8,59
52″	12,34,29,25, 5, 8,37,27,51,21		55, 9,33,53	
		2, 2,52,21,55,59,24,33		8,59
54″	12,34,31,27,57,30,33,27,15,54		55, 9,42,52	
		2, 2,52,21, 0,49,41,41		8,59
56″	12,34,33,30,49,51,34,16,57,35		55, 9,51,51	
		2, 2,52,20, 5,39,49,50		8,59
58″	12,34,35,33,42,11,39,56,47,25		55,10, 0,50	
		2, 2,52,19,10,29,49, 0		
60″	12,34,37,36,34,30,50,26,36,25			
exact	12,34,37,36,34,30,50,26,33,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12° 6′ 0″	12,34,37,36,34,30,50,26,33,23			
		2, 2,52,18,15,19,39, 0		
2″	12,34,39,39,26,49, 5,46,12,23		55,10,18,48	
		2, 2,52,17,20, 9,20,12		8,59
4″	12,34,41,42,19, 6,25,55,32,35		55,10,27,47	
		2, 2,52,16,24,58,52,25		8,59
6″	12,34,43,45,11,22,50,54,25, 0		55,10,36,46	
		2, 2,52,15,29,48,15,39		8,59
8″	12,34,45,48, 3,38,20,42,40,39		55,10,45,45	
		2, 2,52,14,34,37,29,54		8,59
10″	12,34,47,50,55,52,55,20,10,33		55,10,54,44	
		2, 2,52,13,39,26,35,10		8,59
12″	12,34,49,53,48, 6,34,46,45,43		55,11, 3,43	
		2, 2,52,12,44,15,31,27		8,59
14″	12,34,51,56,40,19,19, 2,17,10		55,11,12,42	
		2, 2,52,11,49, 4,18,45		8,59
16″	12,34,53,59,32,31, 8, 6,35,55		55,11,21,41	
		2, 2,52,10,53,52,57, 4		8,59
18″	12,34,56, 2,24,42, 1,59,32,59		55,11,30,40	
		2, 2,52, 9,58,41,26,24		8,59
20″	12,34,58, 5,16,52, 0,40,59,23		55,11,39,39	
		2, 2,52, 9, 3,29,46,45		8,59
22″	12,35, 0, 8, 9, 1, 4,10,46, 8		55,11,48,38	
		2, 2,52, 8, 8,17,58, 7		8,59
24″	12,35, 2,11, 1, 9,12,28,44,15		55,11,57,37	
		2, 2,52, 7,13, 6, 0,30		8,59
26″	12,35, 4,13,53,16,25,34,44,45		55,12, 6,36	
		2, 2,52, 6,17,53,53,54		8,59
28″	12,35, 6,16,45,22,43,28,38,39		55,12,15,35	
		2, 2,52, 5,22,41,38,19		8,59
30″	12,35, 8,19,37,28, 6,10,16,58		55,12,24,34	
		2, 2,52, 4,27,29,13,45		8,59
32″	12,35,10,22,29,32,33,39,30,43		55,12,33,33	
		2, 2,52, 3,32,16,40,12		8,59
34″	12,35,12,25,21,36, 5,56,10,55		55,12,42,32	
		2, 2,52, 2,37, 3,57,40		8,59
36″	12,35,14,28,13,38,43, 0, 8,35		55,12,51,31	
		2, 2,52, 1,41,51, 6, 9		8,59
38″	12,35,16,31, 5,40,24,51,14,44		55,13, 0,30	
		2, 2,52, 0,46,38, 5,39		8,59
40″	12,35,18,33,57,41,11,29,20,23		55,13, 9,29	
		2, 2,51,59,51,24,56,10		8,59
42″	12,35,20,36,49,41, 2,54,16,33		55,13,18,28	
		2, 2,51,58,56,11,37,42		8,59
44″	12,35,22,39,41,39,59, 5,54,15		55,13,27,27	
		2, 2,51,58, 0,58,10,15		8,59
46″	12,35,24,42,33,38, 0, 4, 4,30		55,13,36,26	
		2, 2,51,57, 5,44,33,49		8,59
48″	12,35,26,45,25,35, 5,48,38,19		55,13,45,25	
		2, 2,51,56,10,30,48,24		8,59
50″	12,35,28,48,17,31,16,19,26,43		55,13,54,24	
		2, 2,51,55,15,16,54, 0		8,59
52″	12,35,30,51, 9,26,31,36,20,43		55,14, 3,23	
		2, 2,51,54,20, 2,50,37		8,59
54″	12,35,32,54, 1,20,51,39,11,20		55,14,12,22	
		2, 2,51,53,24,48,38,15		8,59
56″	12,35,34,56,53,14,16,27,49,35		55,14,21,21	
		2, 2,51,52,29,34,16,54		8,59
58″	12,35,36,59,45, 6,46, 2, 6,29		55,14,30,20	
		2, 2,51,51,34,19,46,34		
60″	12,35,39, 2,36,58,20,21,53, 3			
exact	12,35,39, 2,36,58,20,21,53,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12° 7′ 0″	12,35,39, 2,36,58,20,21,53,51			
		2, 2,51,50,39, 5, 7,25		
2″	12,35,41, 5,28,48,59,27, 1,16		55,14,48,17	
		2, 2,51,49,43,50,19, 8		8,59
4″	12,35,43, 8,20,38,43,17,20,24		55,14,57,16	
		2, 2,51,48,48,35,21,52		8,59
6″	12,35,45,11,12,27,31,52,42,16		55,15, 6,15	
		2, 2,51,47,53,20,15,37		8,59
8″	12,35,47,14, 4,15,25,12,57,53		55,15,15,14	
		2, 2,51,46,58, 5, 0,23		8,59
10″	12,35,49,16,56, 2,23,17,58,16		55,15,24,13	
		2, 2,51,46, 2,49,36,10		8,59
12″	12,35,51,19,47,48,26, 7,34,26		55,15,33,12	
		2, 2,51,45, 7,34, 2,58		8,59
14″	12,35,53,22,39,33,33,41,37,24		55,15,42,11	
		2, 2,51,44,12,18,20,47		8,59
16″	12,35,55,25,31,17,45,59,58,11		55,15,51,10	
		2, 2,51,43,17, 2,29,37		8,59
18″	12,35,57,28,23, 1, 3, 2,27,48		55,16, 0, 9	
		2, 2,51,42,21,46,29,28		8,59
20″	12,35,59,31,14,43,24,48,57,16		55,16, 9, 8	
		2, 2,51,41,26,30,20,20		8,59
22″	12,36, 1,34, 6,24,51,19,17,36		55,16,18, 7	
		2, 2,51,40,31,14, 2,13		8,59
24″	12,36, 3,36,58, 5,22,33,19,49		55,16,27, 6	
		2, 2,51,39,35,57,35, 7		8,59
26″	12,36, 5,39,49,44,58,30,54,56		55,16,36, 5	
		2, 2,51,38,40,40,59, 2		8,59
28″	12,36, 7,42,41,23,39,11,53,58		55,16,45, 4	
		2, 2,51,37,45,24,13,58		8,59
30″	12,36, 9,45,33, 1,24,36, 7,56		55,16,54, 3	
		2, 2,51,36,50, 7,19,55		8,59
32″	12,36,11,48,24,38,14,43,27,51		55,17, 3, 2	
		2, 2,51,35,54,50,16,53		8,59
34″	12,36,13,51,16,14, 9,33,44,44		55,17,12, 1	
		2, 2,51,34,59,33, 4,52		8,59
36″	12,36,15,54, 7,49, 9, 6,49,36		55,17,21, 0	
		2, 2,51,34, 4,15,43,52		8,59
38″	12,36,17,56,59,23,13,22,33,28		55,17,29,59	
		2, 2,51,33, 8,58,13,53		8,59
40″	12,36,19,59,50,56,22,20,47,21		55,17,38,58	
		2, 2,51,32,13,40,34,55		8,59
42″	12,36,22, 2,42,28,36, 1,22,16		55,17,47,57	
		2, 2,51,31,18,22,46,58		8,59
44″	12,36,24, 5,33,59,54,24, 9,14		55,17,56,56	
		2, 2,51,30,23, 4,50, 2		8,59
46″	12,36,26, 8,25,30,17,28,59,16		55,18, 5,55	
		2, 2,51,29,27,46,44, 7		8,59
48″	12,36,28,11,16,59,45,15,43,23		55,18,14,54	
		2, 2,51,28,32,28,29,13		8,59
50″	12,36,30,14, 8,28,17,44,12,36		55,18,23,53	
		2, 2,51,27,37,10, 5,20		8,59
52″	12,36,32,16,59,55,54,54,17,56		55,18,32,52	
		2, 2,51,26,41,51,32,28		8,59
54″	12,36,34,19,51,22,36,45,50,24		55,18,41,51	
		2, 2,51,25,46,32,50,37		8,59
56″	12,36,36,22,42,48,23,18,41, 1		55,18,50,50	
		2, 2,51,24,51,13,59,47		8,59
58″	12,36,38,25,34,13,14,32,40,48		55,18,59,49	
		2, 2,51,23,55,54,59,58		
60″	12,36,40,28,25,37,10,27,40,46			
exact	12,36,40,28,25,37,10,27,45,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12° 8′ 0″	12,36,40,28,25,37,10,27,45,51			
		2, 2,51,23, 0,35,51,43		
2″	12,36,42,31,17, 0,11, 3,37,34		55,19,17,45	
		2, 2,51,22, 5,16,33,58		8,59
4″	12,36,44,34, 8,22,16,20,11,32		55,19,26,44	
		2, 2,51,21, 9,57, 7,14		8,59
6″	12,36,46,36,59,43,26,17,18,46		55,19,35,43	
		2, 2,51,20,14,37,31,31		8,59
8″	12,36,48,39,51, 3,40,54,50,17		55,19,44,42	
		2, 2,51,19,19,17,46,49		8,59
10″	12,36,50,42,42,23, 0,12,37, 6		55,19,53,41	
		2, 2,51,18,23,57,53, 8		8,59
12″	12,36,52,45,33,41,24,10,30,14		55,20, 2,40	
		2, 2,51,17,28,37,50,28		8,59
14″	12,36,54,48,24,58,52,48,20,42		55,20,11,39	
		2, 2,51,16,33,17,38,49		8,59
16″	12,36,56,51,16,15,26, 5,59,31		55,20,20,38	
		2, 2,51,15,37,57,18,11		8,59
18″	12,36,58,54, 7,31, 4, 3,17,42		55,20,29,37	
		2, 2,51,14,42,36,48,34		8,59
20″	12,37, 0,56,58,45,46,40, 6,16		55,20,38,36	
		2, 2,51,13,47,16, 9,58		8,59
22″	12,37, 2,59,49,59,33,56,16,14		55,20,47,35	
		2, 2,51,12,51,55,22,23		8,59
24″	12,37, 5, 2,41,12,25,51,38,37		55,20,56,34	
		2, 2,51,11,56,34,25,49		8,59
26″	12,37, 7, 5,32,24,22,26, 4,26		55,21, 5,33	
		2, 2,51,11, 1,13,20,16		8,59
28″	12,37, 9, 8,23,35,23,39,24,42		55,21,14,32	
		2, 2,51,10, 5,52, 5,44		8,59
30″	12,37,11,11,14,45,29,31,30,26		55,21,23,31	
		2, 2,51, 9,10,30,42,13		8,59
32″	12,37,13,14, 5,54,40, 2,12,39		55,21,32,30	
		2, 2,51, 8,15, 9, 9,43		8,59
34″	12,37,15,16,57, 2,55,11,22,22		55,21,41,29	
		2, 2,51, 7,19,47,28,14		8,59
36″	12,37,17,19,48,10,14,58,50,36		55,21,50,28	
		2, 2,51, 6,24,25,37,46		8,59
38″	12,37,19,22,39,16,39,24,28,22		55,21,59,27	
		2, 2,51, 5,29, 3,38,19		8,59
40″	12,37,21,25,30,22, 8,28, 6,41		55,22, 8,26	
		2, 2,51, 4,33,41,29,53		8,59
42″	12,37,23,28,21,26,42, 9,36,34		55,22,17,25	
		2, 2,51, 3,38,19,12,28		8,59
44″	12,37,25,31,12,30,20,28,49, 2		55,22,26,24	
		2, 2,51, 2,42,56,46, 4		8,59
46″	12,37,27,34, 3,33, 3,25,35, 6		55,22,35,23	
		2, 2,51, 1,47,34,10,41		8,59
48″	12,37,29,36,54,34,50,59,45,47		55,22,44,22	
		2, 2,51, 0,52,11,26,19		8,59
50″	12,37,31,39,45,35,43,11,12, 6		55,22,53,21	
		2, 2,50,59,56,48,32,58		8,59
52″	12,37,33,42,36,35,39,59,45, 4		55,23, 2,20	
		2, 2,50,59, 1,25,30,38		8,59
54″	12,37,35,45,27,34,41,25,15,42		55,23,11,19	
		2, 2,50,58, 6, 2,19,19		8,59
56″	12,37,37,48,18,32,47,27,35, 1		55,23,20,18	
		2, 2,50,57,10,38,59, 1		8,59
58″	12,37,39,51, 9,29,58, 6,34, 2		55,23,29,17	
		2, 2,50,56,15,15,29,44		
60″	12,37,41,54, 0,26,13,22, 3,46			
exact	12,37,41,54, 0,26,13,22,12,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12° 9′ 0″	12,37,41,54, 0,26,13,22,12,46			
		2, 2,50,55,19,51,52,23		
2″	12,37,43,56,51,21,33,14, 5, 9		55,23,47,11	
		2, 2,50,54,24,28, 5,12		8,59
4″	12,37,45,59,42,15,57,42,10,21		55,23,56,10	
		2, 2,50,53,29, 4, 9, 2		8,59
6″	12,37,48, 2,33, 9,26,46,19,23		55,24, 5, 9	
		2, 2,50,52,33,40, 3,53		8,59
8″	12,37,50, 5,24, 2, 0,26,23,16		55,24,14, 8	
		2, 2,50,51,38,15,49,45		8,59
10″	12,37,52, 8,14,53,38,42,13, 1		55,24,23, 7	
		2, 2,50,50,42,51,26,38		8,59
12″	12,37,54,11, 5,44,21,33,39,39		55,24,32, 6	
		2, 2,50,49,47,26,54,32		8,59
14″	12,37,56,13,56,34, 9, 0,34,11		55,24,41, 5	
		2, 2,50,48,52, 2,13,27		8,59
16″	12,37,58,16,47,23, 1, 2,47,38		55,24,50, 4	
		2, 2,50,47,56,37,23,23		8,59
18″	12,38, 0,19,38,10,57,40,11, 1		55,24,59, 3	
		2, 2,50,47, 1,12,24,20		8,59
20″	12,38, 2,22,28,57,58,52,35,21		55,25, 8, 2	
		2, 2,50,46, 5,47,16,18		8,59
22″	12,38, 4,25,19,44, 4,39,51,39		55,25,17, 1	
		2, 2,50,45,10,21,59,17		8,59
24″	12,38, 6,28,10,29,15, 1,50,56		55,25,26, 0	
		2, 2,50,44,14,56,33,17		8,59
26″	12,38, 8,31, 1,13,29,58,24,13		55,25,34,59	
		2, 2,50,43,19,30,58,18		8,59
28″	12,38,10,33,51,56,49,29,22,31		55,25,43,58	
		2, 2,50,42,24, 5,14,20		8,59
30″	12,38,12,36,42,39,13,34,36,51		55,25,52,57	
		2, 2,50,41,28,39,21,23		8,59
32″	12,38,14,39,33,20,42,13,58,14		55,26, 1,56	
		2, 2,50,40,33,13,19,27		8,59
34″	12,38,16,42,24, 1,15,27,17,41		55,26,10,55	
		2, 2,50,39,37,47, 8,32		8,59
36″	12,38,18,45,14,40,53,14,26,13		55,26,19,54	
		2, 2,50,38,42,20,48,38		8,59
38″	12,38,20,48, 5,19,35,35,14,51		55,26,28,53	
		2, 2,50,37,46,54,19,45		8,59
40″	12,38,22,50,55,57,22,29,34,36		55,26,37,52	
		2, 2,50,36,51,27,41,53		8,59
42″	12,38,24,53,46,34,13,57,16,29		55,26,46,51	
		2, 2,50,35,56, 0,55, 2		8,59
44″	12,38,26,56,37,10, 9,58,11,31		55,26,55,50	
		2, 2,50,35, 0,33,59,12		8,59
46″	12,38,28,59,27,45,10,32,10,43		55,27, 4,49	
		2, 2,50,34, 5, 6,54,23		8,59
48″	12,38,31, 2,18,19,15,39, 5, 6		55,27,13,48	
		2, 2,50,33, 9,39,40,35		8,59
50″	12,38,33, 5, 8,52,25,18,45,41		55,27,22,47	
		2, 2,50,32,14,12,17,48		8,59
52″	12,38,35, 7,59,24,39,31, 3,29		55,27,31,46	
		2, 2,50,31,18,44,46, 2		8,59
54″	12,38,37,10,49,55,58,15,49,31		55,27,40,45	
		2, 2,50,30,23,17, 5,17		8,59
56″	12,38,39,13,40,26,21,32,54,48		55,27,49,44	
		2, 2,50,29,27,49,15,33		8,59
58″	12,38,41,16,30,55,49,22,10,21		55,27,58,43	
		2, 2,50,28,32,21,16,50		
60″	12,38,43,19,21,24,21,43,27,11			
exact	12,38,43,19,21,24,21,43,33, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°10′ 0″	12,38,43,19,21,24,21,43,33, 9			
		2, 2,50,27,36,53, 9,55		
2″	12,38,45,22,11,51,58,36,43, 4		55,28,16,37	
		2, 2,50,26,41,24,53,18		8,59
4″	12,38,47,25, 2,18,40, 1,36,22		55,28,25,36	
		2, 2,50,25,45,56,27,42		8,59
6″	12,38,49,27,52,44,25,58, 4, 4		55,28,34,35	
		2, 2,50,24,50,27,53, 7		8,59
8″	12,38,51,30,43, 9,16,25,57,11		55,28,43,34	
		2, 2,50,23,54,59, 9,33		8,59
10″	12,38,53,33,33,33,11,25, 6,44		55,28,52,33	
		2, 2,50,22,59,30,17, 0		8,59
12″	12,38,55,36,23,56,10,55,23,44		55,29, 1,32	
		2, 2,50,22, 4, 1,15,28		8,59
14″	12,38,57,39,14,18,14,56,39,12		55,29,10,31	
		2, 2,50,21, 8,32, 4,57		8,59
16″	12,38,59,42, 4,39,23,28,44, 9		55,29,19,30	
		2, 2,50,20,13, 2,45,27		8,59
18″	12,39, 1,44,54,59,36,31,29,36		55,29,28,29	
		2, 2,50,19,17,33,16,58		8,59
20″	12,39, 3,47,45,18,54, 4,46,34		55,29,37,28	
		2, 2,50,18,22, 3,39,30		8,59
22″	12,39, 5,50,35,37,16, 8,26, 4		55,29,46,27	
		2, 2,50,17,26,33,53, 3		8,59
24″	12,39, 7,53,25,54,42,42,19, 7		55,29,55,26	
		2, 2,50,16,31, 3,57,37		8,59
26″	12,39, 9,56,16,11,13,46,16,44		55,30, 4,25	
		2, 2,50,15,35,33,53,12		8,59
28″	12,39,11,59, 6,26,49,20, 9,56		55,30,13,24	
		2, 2,50,14,40, 3,39,48		8,59
30″	12,39,14, 1,56,41,29,23,49,44		55,30,22,23	
		2, 2,50,13,44,33,17,25		8,59
32″	12,39,16, 4,46,55,13,57, 7, 9		55,30,31,22	
		2, 2,50,12,49, 2,46, 3		8,59
34″	12,39,18, 7,37, 8, 2,59,53,12		55,30,40,21	
		2, 2,50,11,53,32, 5,42		8,59
36″	12,39,20,10,27,19,56,31,58,54		55,30,49,20	
		2, 2,50,10,58, 1,16,22		8,59
38″	12,39,22,13,17,30,54,33,15,16		55,30,58,19	
		2, 2,50,10, 2,30,18, 3		8,59
40″	12,39,24,16, 7,40,57, 3,33,19		55,31, 7,18	
		2, 2,50, 9, 6,59,10,45		8,59
42″	12,39,26,18,57,50, 4, 2,44, 4		55,31,16,17	
		2, 2,50, 8,11,27,54,28		8,59
44″	12,39,28,21,47,58,15,30,38,32		55,31,25,16	
		2, 2,50, 7,15,56,29,12		8,59
46″	12,39,30,24,38, 5,31,27, 7,44		55,31,34,15	
		2, 2,50, 6,20,24,54,57		8,59
48″	12,39,32,27,28,11,51,52, 2,41		55,31,43,14	
		2, 2,50, 5,24,53,11,43		8,59
50″	12,39,34,30,18,17,16,45,14,24		55,31,52,13	
		2, 2,50, 4,29,21,19,30		8,59
52″	12,39,36,33, 8,21,46, 6,33,54		55,32, 1,12	
		2, 2,50, 3,33,49,18,18		8,59
54″	12,39,38,35,58,25,19,55,52,12		55,32,10,11	
		2, 2,50, 2,38,17, 8, 7		8,59
56″	12,39,40,38,48,27,58,13, 0,19		55,32,19,10	
		2, 2,50, 1,42,44,48,57		8,59
58″	12,39,42,41,38,29,40,57,49,16		55,32,28, 9	
		2, 2,50, 0,47,12,20,48		
60″	12,39,44,44,28,30,28,10,10, 4			
exact	12,39,44,44,28,30,28,10,20,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°11′ 0″	12,39,44,44,28,30,28,10,20,43			
		2, 2,49,59,51,39,44,51		
2″	12,39,46,47,18,30,19,50, 5,34		55,32,46, 2	
		2, 2,49,58,56, 6,58,49		8,59
4″	12,39,48,50, 8,29,15,57, 4,23		55,32,55, 1	
		2, 2,49,58, 0,34, 3,48		8,59
6″	12,39,50,52,58,27,16,31, 8,11		55,33, 4, 0	
		2, 2,49,57, 5, 0,59,48		8,59
8″	12,39,52,55,48,24,21,32, 7,59		55,33,12,59	
		2, 2,49,56, 9,27,46,49		8,59
10″	12,39,54,58,38,20,30,59,54,48		55,33,21,58	
		2, 2,49,55,13,54,24,51		8,59
12″	12,39,57, 1,28,15,44,54,19,39		55,33,30,57	
		2, 2,49,54,18,20,53,54		8,59
14″	12,39,59, 4,18,10, 3,15,13,33		55,33,39,56	
		2, 2,49,53,22,47,13,58		8,59
16″	12,40, 1, 7, 8, 3,26, 2,27,31		55,33,48,55	
		2, 2,49,52,27,13,25, 3		8,59
18″	12,40, 3, 9,57,55,53,15,52,34		55,33,57,54	
		2, 2,49,51,31,39,27, 9		8,59
20″	12,40, 5,12,47,47,24,55,19,43		55,34, 6,53	
		2, 2,49,50,36, 5,20,16		8,59
22″	12,40, 7,15,37,38, 1, 0,39,59		55,34,15,52	
		2, 2,49,49,40,31, 4,24		8,59
24″	12,40, 9,18,27,27,41,31,44,23		55,34,24,51	
		2, 2,49,48,44,56,39,33		8,59
26″	12,40,11,21,17,16,26,28,23,56		55,34,33,50	
		2, 2,49,47,49,22, 5,43		8,59
28″	12,40,13,24, 7, 4,15,50,29,39		55,34,42,49	
		2, 2,49,46,53,47,22,54		8,59
30″	12,40,15,26,56,51, 9,37,52,33		55,34,51,48	
		2, 2,49,45,58,12,31, 6		8,59
32″	12,40,17,29,46,37, 7,50,23,39		55,35, 0,47	
		2, 2,49,45, 2,37,30,19		8,59
34″	12,40,19,32,36,22,10,27,53,58		55,35, 9,46	
		2, 2,49,44, 7, 2,20,33		8,59
36″	12,40,21,35,26, 6,17,30,14,31		55,35,18,45	
		2, 2,49,43,11,27, 1,48		8,59
38″	12,40,23,38,15,49,28,57,16,19		55,35,27,44	
		2, 2,49,42,15,51,34, 4		8,59
40″	12,40,25,41, 5,31,44,48,50,23		55,35,36,43	
		2, 2,49,41,20,15,57,21		8,59
42″	12,40,27,43,55,13, 5, 4,47,44		55,35,45,42	
		2, 2,49,40,24,40,11,39		8,59
44″	12,40,29,46,44,53,29,44,59,23		55,35,54,41	
		2, 2,49,39,29, 4,16,58		8,59
46″	12,40,31,49,34,32,58,49,16,21		55,36, 3,40	
		2, 2,49,38,33,28,13,18		8,59
48″	12,40,33,52,24,11,32,17,29,39		55,36,12,39	
		2, 2,49,37,37,52, 0,39		8,59
50″	12,40,35,55,13,49,10, 9,30,18		55,36,21,38	
		2, 2,49,36,42,15,39, 1		8,59
52″	12,40,37,58, 3,25,52,25, 9,19		55,36,30,37	
		2, 2,49,35,46,39, 8,24		8,59
54″	12,40,40, 0,53, 1,39, 4,17,43		55,36,39,36	
		2, 2,49,34,51, 2,28,48		8,59
56″	12,40,42, 3,42,36,30, 6,46,31		55,36,48,35	
		2, 2,49,33,55,25,40,13		8,59
58″	12,40,44, 6,32,10,25,32,26,44		55,36,57,34	
		2, 2,49,32,59,48,42,39		
60″	12,40,46, 9,21,43,25,21, 9,23			
exact	12,40,46, 9,21,43,25,21,24,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°12′ 0″	12,40,46, 9,21,43,25,21,24,24			
		2, 2,49,32, 4,11,37,41		
2″	12,40,48,12,11,15,29,33, 2, 5		55,37,15,26	
		2, 2,49,31, 8,34,22,15		8,59
4″	12,40,50,15, 0,46,38, 7,24,20		55,37,24,25	
		2, 2,49,30,12,56,57,50		8,59
6″	12,40,52,17,50,16,51, 4,22,10		55,37,33,24	
		2, 2,49,29,17,19,24,26		8,59
8″	12,40,54,20,39,46, 8,23,46,36		55,37,42,23	
		2, 2,49,28,21,41,42, 3		8,59
10″	12,40,56,23,29,14,30, 5,28,39		55,37,51,22	
		2, 2,49,27,26, 3,50,41		8,59
12″	12,40,58,26,18,41,56, 9,19,20		55,38, 0,21	
		2, 2,49,26,30,25,50,20		8,59
14″	12,41, 0,29, 8, 8,26,35, 9,40		55,38, 9,20	
		2, 2,49,25,34,47,41, 0		8,59
16″	12,41, 2,31,57,34, 1,22,50,40		55,38,18,19	
		2, 2,49,24,39, 9,22,41		8,59
18″	12,41, 4,34,46,58,40,32,13,21		55,38,27,18	
		2, 2,49,23,43,30,55,23		8,59
20″	12,41, 6,37,36,22,24, 3, 8,44		55,38,36,17	
		2, 2,49,22,47,52,19, 6		8,59
22″	12,41, 8,40,25,45,11,55,27,50		55,38,45,16	
		2, 2,49,21,52,13,33,50		8,59
24″	12,41,10,43,15, 7, 4, 9, 1,40		55,38,54,15	
		2, 2,49,20,56,34,39,35		8,59
26″	12,41,12,46, 4,28, 0,43,41,15		55,39, 3,14	
		2, 2,49,20, 0,55,36,21		8,59
28″	12,41,14,48,53,48, 1,39,17,36		55,39,12,13	
		2, 2,49,19, 5,16,24, 8		8,59
30″	12,41,16,51,43, 7, 6,55,41,44		55,39,21,12	
		2, 2,49,18, 9,37, 2,56		8,59
32″	12,41,18,54,32,25,16,32,44,40		55,39,30,11	
		2, 2,49,17,13,57,32,45		8,59
34″	12,41,20,57,21,42,30,30,17,25		55,39,39,10	
		2, 2,49,16,18,17,53,35		8,59
36″	12,41,23, 0,10,58,48,48,11, 0		55,39,48, 9	
		2, 2,49,15,22,38, 5,26		8,59
38″	12,41,25, 3, 0,14,11,26,16,26		55,39,57, 8	
		2, 2,49,14,26,58, 8,18		8,59
40″	12,41,27, 5,49,28,38,24,24,44		55,40, 6, 7	
		2, 2,49,13,31,18, 2,11		8,59
42″	12,41,29, 8,38,42, 9,42,26,55		55,40,15, 6	
		2, 2,49,12,35,37,47, 5		8,59
44″	12,41,31,11,27,54,45,20,14, 0		55,40,24, 5	
		2, 2,49,11,39,57,23, 0		8,59
46″	12,41,33,14,17, 6,25,17,37, 0		55,40,33, 4	
		2, 2,49,10,44,16,49,56		8,59
48″	12,41,35,17, 6,17, 9,34,26,56		55,40,42, 3	
		2, 2,49, 9,48,36, 7,53		8,59
50″	12,41,37,19,55,26,58,10,34,49		55,40,51, 2	
		2, 2,49, 8,52,55,16,51		8,59
52″	12,41,39,22,44,35,51, 5,51,40		55,41, 0, 1	
		2, 2,49, 7,57,14,16,50		8,59
54″	12,41,41,25,33,43,48,20, 8,30		55,41, 9, 0	
		2, 2,49, 7, 1,33, 7,50		8,59
56″	12,41,43,28,22,50,49,53,16,20		55,41,17,59	
		2, 2,49, 6, 5,51,49,51		8,59
58″	12,41,45,31,11,56,55,45, 6,11		55,41,26,58	
		2, 2,49, 5,10,10,22,53		
60″	12,41,47,34, 1, 2, 5,55,29, 4			
exact	12,41,47,34, 1, 2, 5,55,48,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°13′ 0″	12,41,47,34, 1, 2, 5,55,48,21			
		2, 2,49, 4,14,28,48,54		
2″	12,41,49,36,50, 6,20,24,37,15		55,41,44,48	
		2, 2,49, 3,18,47, 4, 6		8,59
4″	12,41,51,39,39, 9,39,11,41,21		55,41,53,47	
		2, 2,49, 2,23, 5,10,19		8,59
6″	12,41,53,42,28,12, 2,16,51,40		55,42, 2,46	
		2, 2,49, 1,27,23, 7,33		8,59
8″	12,41,55,45,17,13,29,39,59,13		55,42,11,45	
		2, 2,49, 0,31,40,55,48		8,59
10″	12,41,57,48, 6,14, 1,20,55, 1		55,42,20,44	
		2, 2,48,59,35,58,35, 4		8,59
12″	12,41,59,50,55,13,37,19,30, 5		55,42,29,43	
		2, 2,48,58,40,16, 5,21		8,59
14″	12,42, 1,53,44,12,17,35,35,26		55,42,38,42	
		2, 2,48,57,44,33,26,39		8,59
16″	12,42, 3,56,33,10, 2, 9, 2, 5		55,42,47,41	
		2, 2,48,56,48,50,38,58		8,59
18″	12,42, 5,59,22, 6,50,59,41, 3		55,42,56,40	
		2, 2,48,55,53, 7,42,18		8,59
20″	12,42, 8, 2,11, 2,44, 7,23,21		55,43, 5,39	
		2, 2,48,54,57,24,36,39		8,59
22″	12,42,10, 4,59,57,41,32, 0, 0		55,43,14,38	
		2, 2,48,54, 1,41,22, 1		8,59
24″	12,42,12, 7,48,51,43,13,22, 1		55,43,23,37	
		2, 2,48,53, 5,57,58,24		8,59
26″	12,42,14,10,37,44,49,11,20,25		55,43,32,36	
		2, 2,48,52,10,14,25,48		8,59
28″	12,42,16,13,26,36,59,25,46,13		55,43,41,35	
		2, 2,48,51,14,30,44,13		8,59
30″	12,42,18,16,15,28,13,56,30,26		55,43,50,34	
		2, 2,48,50,18,46,53,39		8,59
32″	12,42,20,19, 4,18,32,43,24, 5		55,43,59,33	
		2, 2,48,49,23, 2,54, 6		8,59
34″	12,42,22,21,53, 7,55,46,18,11		55,44, 8,32	
		2, 2,48,48,27,18,45,34		8,59
36″	12,42,24,24,41,56,23, 5, 3,45		55,44,17,31	
		2, 2,48,47,31,34,28, 3		8,59
38″	12,42,26,27,30,43,54,39,31,48		55,44,26,30	
		2, 2,48,46,35,50, 1,33		8,59
40″	12,42,28,30,19,30,30,29,33,21		55,44,35,29	
		2, 2,48,45,40, 5,26, 4		8,59
42″	12,42,30,33, 8,16,10,34,59,25		55,44,44,28	
		2, 2,48,44,44,20,41,36		8,59
44″	12,42,32,35,57, 0,54,55,41, 1		55,44,53,27	
		2, 2,48,43,48,35,48, 9		8,59
46″	12,42,34,38,45,44,43,31,29,10		55,45, 2,26	
		2, 2,48,42,52,50,45,43		8,59
48″	12,42,36,41,34,27,36,22,14,53		55,45,11,25	
		2, 2,48,41,57, 5,34,18		8,59
50″	12,42,38,44,23, 9,33,27,49,11		55,45,20,24	
		2, 2,48,41, 1,20,13,54		8,59
52″	12,42,40,47,11,50,34,48, 3, 5		55,45,29,23	
		2, 2,48,40, 5,34,44,31		8,59
54″	12,42,42,50, 0,30,40,22,47,36		55,45,38,22	
		2, 2,48,39, 9,49, 6, 9		8,59
56″	12,42,44,52,49, 9,50,11,53,45		55,45,47,21	
		2, 2,48,38,14, 3,18,48		8,59
58″	12,42,46,55,37,48, 4,15,12,33		55,45,56,20	
		2, 2,48,37,18,17,22,28		
60″	12,42,48,58,26,25,22,32,35, 1			
exact	12,42,48,58,26,25,22,32,51,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°14′ 0″	12,42,48,58,26,25,22,32,51,59			
		2, 2,48,36,22,31,19, 2		
2″	12,42,51, 1,15, 1,45, 4,11, 1		55,46,14,10	
		2, 2,48,35,26,45, 4,52		8,59
4″	12,42,53, 4, 3,37,11,49,15,53		55,46,23, 9	
		2, 2,48,34,30,58,41,43		8,59
6″	12,42,55, 6,52,11,42,47,57,36		55,46,32, 8	
		2, 2,48,33,35,12, 9,35		8,59
8″	12,42,57, 9,40,45,18, 0, 7,11		55,46,41, 7	
		2, 2,48,32,39,25,28,28		8,59
10″	12,42,59,12,29,17,57,25,35,39		55,46,50, 6	
		2, 2,48,31,43,38,38,22		8,59
12″	12,43, 1,15,17,49,41, 4,14, 1		55,46,59, 5	
		2, 2,48,30,47,51,39,17		8,59
14″	12,43, 3,18, 6,20,28,55,53,18		55,47, 8, 4	
		2, 2,48,29,52, 4,31,13		8,59
16″	12,43, 5,20,54,50,21, 0,24,31		55,47,17, 3	
		2, 2,48,28,56,17,14,10		8,59
18″	12,43, 7,23,43,19,17,17,38,41		55,47,26, 2	
		2, 2,48,28, 0,29,48, 8		8,59
20″	12,43, 9,26,31,47,17,47,26,49		55,47,35, 1	
		2, 2,48,27, 4,42,13, 7		8,59
22″	12,43,11,29,20,14,22,29,39,56		55,47,44, 0	
		2, 2,48,26, 8,54,29, 7		8,59
24″	12,43,13,32, 8,40,31,24, 9, 3		55,47,52,59	
		2, 2,48,25,13, 6,36, 8		8,59
26″	12,43,15,34,57, 5,44,30,45,11		55,48, 1,58	
		2, 2,48,24,17,18,34,10		8,59
28″	12,43,17,37,45,30, 1,49,19,21		55,48,10,57	
		2, 2,48,23,21,30,23,13		8,59
30″	12,43,19,40,33,53,23,19,42,34		55,48,19,56	
		2, 2,48,22,25,42, 3,17		8,59
32″	12,43,21,43,22,15,49, 1,45,51		55,48,28,55	
		2, 2,48,21,29,53,34,22		8,59
34″	12,43,23,46,10,37,18,55,20,13		55,48,37,54	
		2, 2,48,20,34, 4,56,28		8,59
36″	12,43,25,48,58,57,53, 0,16,41		55,48,46,53	
		2, 2,48,19,38,16, 9,35		8,59
38″	12,43,27,51,47,17,31,16,26,16		55,48,55,52	
		2, 2,48,18,42,27,13,43		8,59
40″	12,43,29,54,35,36,13,43,39,59		55,49, 4,51	
		2, 2,48,17,46,38, 8,52		8,59
42″	12,43,31,57,23,54, 0,21,48,51		55,49,13,50	
		2, 2,48,16,50,48,55, 2		8,59
44″	12,43,34, 0,12,10,51,10,43,53		55,49,22,49	
		2, 2,48,15,54,59,32,13		8,59
46″	12,43,36, 3, 0,26,46,10,16, 6		55,49,31,48	
		2, 2,48,14,59,10, 0,25		8,59
48″	12,43,38, 5,48,41,45,20,16,31		55,49,40,47	
		2, 2,48,14, 3,20,19,38		8,59
50″	12,43,40, 8,36,55,48,40,36, 9		55,49,49,46	
		2, 2,48,13, 7,30,29,52		8,59
52″	12,43,42,11,25, 8,56,11, 6, 1		55,49,58,45	
		2, 2,48,12,11,40,31, 7		8,59
54″	12,43,44,14,13,21, 7,51,37, 8		55,50, 7,44	
		2, 2,48,11,15,50,23,23		8,59
56″	12,43,46,17, 1,32,23,42, 0,31		55,50,16,43	
		2, 2,48,10,20, 0, 6,40		8,59
58″	12,43,48,19,49,42,43,42, 7,11		55,50,25,42	
		2, 2,48, 9,24, 9,40,58		
60″	12,43,50,22,37,52, 7,51,48, 9			
exact	12,43,50,22,37,52, 7,52, 9,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°15′ 0″	12,43,50,22,37,52, 7,52, 9,59			
		2, 2,48, 8,28,19, 8,35		
2″	12,43,52,25,26, 0,36,11,18,34		55,50,43,30	
		2, 2,48, 7,32,28,25, 5		8,59
4″	12,43,54,28,14, 8, 8,39,43,39		55,50,52,29	
		2, 2,48, 6,36,37,32,36		8,59
6″	12,43,56,31, 2,14,45,17,16,15		55,51, 1,28	
		2, 2,48, 5,40,46,31, 8		8,59
8″	12,43,58,33,50,20,26, 3,47,23		55,51,10,27	
		2, 2,48, 4,44,55,20,41		8,59
10″	12,44, 0,36,38,25,10,59, 8, 4		55,51,19,26	
		2, 2,48, 3,49, 4, 1,15		8,59
12″	12,44, 2,39,26,29, 0, 3, 9,19		55,51,28,25	
		2, 2,48, 2,53,12,32,50		8,59
14″	12,44, 4,42,14,31,53,15,42, 9		55,51,37,24	
		2, 2,48, 1,57,20,55,26		8,59
16″	12,44, 6,45, 2,33,50,36,37,35		55,51,46,23	
		2, 2,48, 1, 1,29, 9, 3		8,59
18″	12,44, 8,47,50,34,52, 5,46,38		55,51,55,22	
		2, 2,48, 0, 5,37,13,41		8,59
20″	12,44,10,50,38,34,57,43, 0,19		55,52, 4,21	
		2, 2,47,59, 9,45, 9,20		8,59
22″	12,44,12,53,26,34, 7,28, 9,39		55,52,13,20	
		2, 2,47,58,13,52,56, 0		8,59
24″	12,44,14,56,14,32,21,21, 5,39		55,52,22,19	
		2, 2,47,57,18, 0,33,41		8,59
26″	12,44,16,59, 2,29,39,21,39,20		55,52,31,18	
		2, 2,47,56,22, 8, 2,23		8,59
28″	12,44,19, 1,50,26, 1,29,41,43		55,52,40,17	
		2, 2,47,55,26,15,22, 6		8,59
30″	12,44,21, 4,38,21,27,45, 3,49		55,52,49,16	
		2, 2,47,54,30,22,32,50		8,59
32″	12,44,23, 7,26,15,58, 7,36,39		55,52,58,15	
		2, 2,47,53,34,29,34,35		8,59
34″	12,44,25,10,14, 9,32,37,11,14		55,53, 7,14	
		2, 2,47,52,38,36,27,21		8,59
36″	12,44,27,13, 2, 2,11,13,38,35		55,53,16,13	
		2, 2,47,51,42,43,11, 8		8,59
38″	12,44,29,15,49,53,53,56,49,43		55,53,25,12	
		2, 2,47,50,46,49,45,56		8,59
40″	12,44,31,18,37,44,40,46,35,39		55,53,34,11	
		2, 2,47,49,50,56,11,45		8,59
42″	12,44,33,21,25,34,31,42,47,24		55,53,43,10	
		2, 2,47,48,55, 2,28,35		8,59
44″	12,44,35,24,13,23,26,45,15,59		55,53,52, 9	
		2, 2,47,47,59, 8,36,26		8,59
46″	12,44,37,27, 1,11,25,53,52,25		55,54, 1, 8	
		2, 2,47,47, 3,14,35,18		8,59
48″	12,44,39,29,48,58,29, 8,27,43		55,54,10, 7	
		2, 2,47,46, 7,20,25,11		8,59
50″	12,44,41,32,36,44,36,28,52,54		55,54,19, 6	
		2, 2,47,45,11,26, 6, 5		8,59
52″	12,44,43,35,24,29,47,54,58,59		55,54,28, 5	
		2, 2,47,44,15,31,38, 0		8,59
54″	12,44,45,38,12,14, 3,26,36,59		55,54,37, 4	
		2, 2,47,43,19,37, 0,56		8,59
56″	12,44,47,40,59,57,23, 3,37,55		55,54,46, 3	
		2, 2,47,42,23,42,14,53		8,59
58″	12,44,49,43,47,39,46,45,52,48		55,54,55, 2	
		2, 2,47,41,27,47,19,51		
60″	12,44,51,46,35,21,14,33,12,39			
exact	12,44,51,46,35,21,14,33,32,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°16′ 0″	12,44,51,46,35,21,14,33,32,18			
		2, 2,47,40,31,52,18, 4		
2″	12,44,53,49,23, 1,46,25,50,22		55,55,12,50	
		2, 2,47,39,35,57, 5,14		8,59
4″	12,44,55,52,10,41,22,22,55,36		55,55,21,49	
		2, 2,47,38,40, 1,43,25		8,59
6″	12,44,57,54,58,20, 2,24,39, 1		55,55,30,48	
		2, 2,47,37,44, 6,12,37		8,59
8″	12,44,59,57,45,57,46,30,51,38		55,55,39,47	
		2, 2,47,36,48,10,32,50		8,59
10″	12,45, 2, 0,33,34,34,41,24,28		55,55,48,46	
		2, 2,47,35,52,14,44, 4		8,59
12″	12,45, 4, 3,21,10,26,56, 8,32		55,55,57,45	
		2, 2,47,34,56,18,46,19		8,59
14″	12,45, 6, 6, 8,45,23,14,54,51		55,56, 6,44	
		2, 2,47,34, 0,22,39,35		8,59
16″	12,45, 8, 8,56,19,23,37,34,26		55,56,15,43	
		2, 2,47,33, 4,26,23,52		8,59
18″	12,45,10,11,43,52,28, 3,58,18		55,56,24,42	
		2, 2,47,32, 8,29,59,10		8,59
20″	12,45,12,14,31,24,36,33,57,28		55,56,33,41	
		2, 2,47,31,12,33,25,29		8,59
22″	12,45,14,17,18,55,49, 7,22,57		55,56,42,40	
		2, 2,47,30,16,36,42,49		8,59
24″	12,45,16,20, 6,26, 5,44, 5,46		55,56,51,39	
		2, 2,47,29,20,39,51,10		8,59
26″	12,45,18,22,53,55,26,23,56,56		55,57, 0,38	
		2, 2,47,28,24,42,50,32		8,59
28″	12,45,20,25,41,23,51, 6,47,28		55,57, 9,37	
		2, 2,47,27,28,45,40,55		8,59
30″	12,45,22,28,28,51,19,52,28,23		55,57,18,36	
		2, 2,47,26,32,48,22,19		8,59
32″	12,45,24,31,16,17,52,40,50,42		55,57,27,35	
		2, 2,47,25,36,50,54,44		8,59
34″	12,45,26,34, 3,43,29,31,45,26		55,57,36,34	
		2, 2,47,24,40,53,18,10		8,59
36″	12,45,28,36,51, 8,10,25, 3,36		55,57,45,33	
		2, 2,47,23,44,55,32,37		8,59
38″	12,45,30,39,38,31,55,20,36,13		55,57,54,32	
		2, 2,47,22,48,57,38, 5		8,59
40″	12,45,32,42,25,54,44,18,14,18		55,58, 3,31	
		2, 2,47,21,52,59,34,34		8,59
42″	12,45,34,45,13,16,37,17,48,52		55,58,12,30	
		2, 2,47,20,57, 1,22, 4		8,59
44″	12,45,36,48, 0,37,34,19,10,56		55,58,21,29	
		2, 2,47,20, 1, 3, 0,35		8,59
46″	12,45,38,50,47,57,35,22,11,31		55,58,30,28	
		2, 2,47,19, 5, 4,30, 7		8,59
48″	12,45,40,53,35,16,40,26,41,38		55,58,39,27	
		2, 2,47,18, 9, 5,50,40		8,59
50″	12,45,42,56,22,34,49,32,32,18		55,58,48,26	
		2, 2,47,17,13, 7, 2,14		8,59
52″	12,45,44,59, 9,52, 2,39,34,32		55,58,57,25	
		2, 2,47,16,17, 8, 4,49		8,59
54″	12,45,47, 1,57, 8,19,47,39,21		55,59, 6,24	
		2, 2,47,15,21, 8,58,25		8,59
56″	12,45,49, 4,44,23,40,56,37,46		55,59,15,23	
		2, 2,47,14,25, 9,43, 2		8,59
58″	12,45,51, 7,31,38, 6, 6,20,48		55,59,24,22	
		2, 2,47,13,29,10,18,40		
60″	12,45,53,10,18,51,35,16,39,28			
exact	12,45,53,10,18,51,35,17, 4,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°17′ 0″	12,45,53,10,18,51,35,17, 4,13			
		2, 2,47,12,33,10,48, 0		
2″	12,45,55,13, 6, 4, 8,27,52,13		55,59,42, 9	
		2, 2,47,11,37,11, 5,51		8,59
4″	12,45,57,15,53,15,45,38,58, 4		55,59,51, 8	
		2, 2,47,10,41,11,14,43		8,59
6″	12,45,59,18,40,26,26,50,12,47		56, 0, 0, 7	
		2, 2,47, 9,45,11,14,36		8,59
8″	12,46, 1,21,27,36,12, 1,27,23		56, 0, 9, 6	
		2, 2,47, 8,49,11, 5,30		8,59
10″	12,46, 3,24,14,45, 1,12,32,53		56, 0,18, 5	
		2, 2,47, 7,53,10,47,25		8,59
12″	12,46, 5,27, 1,52,54,23,20,18		56, 0,27, 4	
		2, 2,47, 6,57,10,20,21		8,59
14″	12,46, 7,29,48,59,51,33,40,39		56, 0,36, 3	
		2, 2,47, 6, 1, 9,44,18		8,59
16″	12,46, 9,32,36, 5,52,43,24,57		56, 0,45, 2	
		2, 2,47, 5, 5, 8,59,16		8,59
18″	12,46,11,35,23,10,57,52,24,13		56, 0,54, 1	
		2, 2,47, 4, 9, 8, 5,15		8,59
20″	12,46,13,38,10,15, 7, 0,29,28		56, 1, 3, 0	
		2, 2,47, 3,13, 7, 2,15		8,59
22″	12,46,15,40,57,18,20, 7,31,43		56, 1,11,59	
		2, 2,47, 2,17, 5,50,16		8,59
24″	12,46,17,43,44,20,37,13,21,59		56, 1,20,58	
		2, 2,47, 1,21, 4,29,18		8,59
26″	12,46,19,46,31,21,58,17,51,17		56, 1,29,57	
		2, 2,47, 0,25, 2,59,21		8,59
28″	12,46,21,49,18,22,23,20,50,38		56, 1,38,56	
		2, 2,46,59,29, 1,20,25		8,59
30″	12,46,23,52, 5,21,52,22,11, 3		56, 1,47,55	
		2, 2,46,58,32,59,32,30		8,59
32″	12,46,25,54,52,20,25,21,43,33		56, 1,56,54	
		2, 2,46,57,36,57,35,36		8,59
34″	12,46,27,57,39,18, 2,19,19, 9		56, 2, 5,53	
		2, 2,46,56,40,55,29,43		8,59
36″	12,46,30, 0,26,14,43,14,48,52		56, 2,14,52	
		2, 2,46,55,44,53,14,51		8,59
38″	12,46,32, 3,13,10,28, 8, 3,43		56, 2,23,51	
		2, 2,46,54,48,50,51, 0		8,59
40″	12,46,34, 6, 0, 5,16,58,54,43		56, 2,32,50	
		2, 2,46,53,52,48,18,10		8,59
42″	12,46,36, 8,46,59, 9,47,12,53		56, 2,41,49	
		2, 2,46,52,56,45,36,21		8,59
44″	12,46,38,11,33,52, 6,32,49,14		56, 2,50,48	
		2, 2,46,52, 0,42,45,33		8,59
46″	12,46,40,14,20,44, 7,15,34,47		56, 2,59,47	
		2, 2,46,51, 4,39,45,46		8,59
48″	12,46,42,17, 7,35,11,55,20,33		56, 3, 8,46	
		2, 2,46,50, 8,36,37, 0		8,59
50″	12,46,44,19,54,25,20,31,57,33		56, 3,17,45	
		2, 2,46,49,12,33,19,15		8,59
52″	12,46,46,22,41,14,33, 5,16,48		56, 3,26,44	
		2, 2,46,48,16,29,52,31		8,59
54″	12,46,48,25,28, 2,49,35, 9,19		56, 3,35,43	
		2, 2,46,47,20,26,16,48		8,59
56″	12,46,50,28,14,50,10, 1,26, 7		56, 3,44,42	
		2, 2,46,46,24,22,32, 6		8,59
58″	12,46,52,31, 1,36,34,23,58,13		56, 3,53,41	
		2, 2,46,45,28,18,38,25		
60″	12,46,54,33,48,22, 2,42,36,38			
exact	12,46,54,33,48,22, 2,43, 6,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°18′ 0″	12,46,54,33,48,22, 2,43, 6,21			
		2, 2,46,44,32,14,38,52		
2″	12,46,56,36,35, 6,34,57,45,13		56, 4,11,26	
		2, 2,46,43,36,10,27,26		8,59
4″	12,46,58,39,21,50,11, 8,12,39		56, 4,20,25	
		2, 2,46,42,40, 6, 7, 1		8,59
6″	12,47, 0,42, 8,32,51,14,19,40		56, 4,29,24	
		2, 2,46,41,44, 1,37,37		8,59
8″	12,47, 2,44,55,14,35,15,57,17		56, 4,38,23	
		2, 2,46,40,47,56,59,14		8,59
10″	12,47, 4,47,41,55,23,12,56,31		56, 4,47,22	
		2, 2,46,39,51,52,11,52		8,59
12″	12,47, 6,50,28,35,15, 5, 8,23		56, 4,56,21	
		2, 2,46,38,55,47,15,31		8,59
14″	12,47, 8,53,15,14,10,52,23,54		56, 5, 5,20	
		2, 2,46,37,59,42,10,11		8,59
16″	12,47,10,56, 1,52,10,34,34, 5		56, 5,14,19	
		2, 2,46,37, 3,36,55,52		8,59
18″	12,47,12,58,48,29,14,11,29,57		56, 5,23,18	
		2, 2,46,36, 7,31,32,34		8,59
20″	12,47,15, 1,35, 5,21,43, 2,31		56, 5,32,17	
		2, 2,46,35,11,26, 0,17		8,59
22″	12,47,17, 4,21,40,33, 9, 2,48		56, 5,41,16	
		2, 2,46,34,15,20,19, 1		8,59
24″	12,47,19, 7, 8,14,48,29,21,49		56, 5,50,15	
		2, 2,46,33,19,14,28,46		8,59
26″	12,47,21, 9,54,48, 7,43,50,35		56, 5,59,14	
		2, 2,46,32,23, 8,29,32		8,59
28″	12,47,23,12,41,20,30,52,20, 7		56, 6, 8,13	
		2, 2,46,31,27, 2,21,19		8,59
30″	12,47,25,15,27,51,57,54,41,26		56, 6,17,12	
		2, 2,46,30,30,56, 4, 7		8,59
32″	12,47,27,18,14,22,28,50,45,33		56, 6,26,11	
		2, 2,46,29,34,49,37,56		8,59
34″	12,47,29,21, 0,52, 3,40,23,29		56, 6,35,10	
		2, 2,46,28,38,43, 2,46		8,59
36″	12,47,31,23,47,20,42,23,26,15		56, 6,44, 9	
		2, 2,46,27,42,36,18,37		8,59
38″	12,47,33,26,33,48,24,59,44,52		56, 6,53, 8	
		2, 2,46,26,46,29,25,29		8,59
40″	12,47,35,29,20,15,11,29,10,21		56, 7, 2, 7	
		2, 2,46,25,50,22,23,22		8,59
42″	12,47,37,32, 6,41, 1,51,33,43		56, 7,11, 6	
		2, 2,46,24,54,15,12,16		8,59
44″	12,47,39,34,53, 5,56, 6,45,59		56, 7,20, 5	
		2, 2,46,23,58, 7,52,11		8,59
46″	12,47,41,37,39,29,54,14,38,10		56, 7,29, 4	
		2, 2,46,23, 2, 0,23, 7		8,59
48″	12,47,43,40,25,52,56,15, 1,17		56, 7,38, 3	
		2, 2,46,22, 5,52,45, 4		8,59
50″	12,47,45,43,12,15, 2, 7,46,21		56, 7,47, 2	
		2, 2,46,21, 9,44,58, 2		8,59
52″	12,47,47,45,58,36,11,52,44,23		56, 7,56, 1	
		2, 2,46,20,13,37, 2, 1		8,59
54″	12,47,49,48,44,56,25,29,46,24		56, 8, 5, 0	
		2, 2,46,19,17,28,57, 1		8,59
56″	12,47,51,51,31,15,42,58,43,25		56, 8,13,59	
		2, 2,46,18,21,20,43, 2		8,59
58″	12,47,53,54,17,34, 4,19,26,27		56, 8,22,58	
		2, 2,46,17,25,12,20, 4		
60″	12,47,55,57, 3,51,29,31,46,31			
exact	12,47,55,57, 3,51,29,32,14,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°19′ 0″	12,47,55,57, 3,51,29,32,14,38			
		2, 2,46,16,29, 3,51,13		
2″	12,47,57,59,50, 7,58,36, 5,51		56, 8,40,43	
		2, 2,46,15,32,55,10,30		8,59
4″	12,48, 0, 2,36,23,31,31,16,21		56, 8,49,42	
		2, 2,46,14,36,46,20,48		8,59
6″	12,48, 2, 5,22,38, 8,17,37, 9		56, 8,58,41	
		2, 2,46,13,40,37,22, 7		8,59
8″	12,48, 4, 8, 8,51,48,54,59,16		56, 9, 7,40	
		2, 2,46,12,44,28,14,27		8,59
10″	12,48, 6,10,55, 4,33,23,13,43		56, 9,16,39	
		2, 2,46,11,48,18,57,48		8,59
12″	12,48, 8,13,41,16,21,42,11,31		56, 9,25,38	
		2, 2,46,10,52, 9,32,10		8,59
14″	12,48,10,16,27,27,13,51,43,41		56, 9,34,37	
		2, 2,46, 9,55,59,57,33		8,59
16″	12,48,12,19,13,37, 9,51,41,14		56, 9,43,36	
		2, 2,46, 8,59,50,13,57		8,59
18″	12,48,14,21,59,46, 9,41,55,11		56, 9,52,35	
		2, 2,46, 8, 3,40,21,22		8,59
20″	12,48,16,24,45,54,13,22,16,33		56,10, 1,34	
		2, 2,46, 7, 7,30,19,48		8,59
22″	12,48,18,27,32, 1,20,52,36,21		56,10,10,33	
		2, 2,46, 6,11,20, 9,15		8,59
24″	12,48,20,30,18, 7,32,12,45,36		56,10,19,32	
		2, 2,46, 5,15, 9,49,43		8,59
26″	12,48,22,33, 4,12,47,22,35,19		56,10,28,31	
		2, 2,46, 4,18,59,21,12		8,59
28″	12,48,24,35,50,17, 6,21,56,31		56,10,37,30	
		2, 2,46, 3,22,48,43,42		8,59
30″	12,48,26,38,36,20,29,10,40,13		56,10,46,29	
		2, 2,46, 2,26,37,57,13		8,59
32″	12,48,28,41,22,22,55,48,37,26		56,10,55,28	
		2, 2,46, 1,30,27, 1,45		8,59
34″	12,48,30,44, 8,24,26,15,39,11		56,11, 4,27	
		2, 2,46, 0,34,15,57,18		8,59
36″	12,48,32,46,54,25, 0,31,36,29		56,11,13,26	
		2, 2,45,59,38, 4,43,52		8,59
38″	12,48,34,49,40,24,38,36,20,21		56,11,22,25	
		2, 2,45,58,41,53,21,27		8,59
40″	12,48,36,52,26,23,20,29,41,48		56,11,31,24	
		2, 2,45,57,45,41,50, 3		8,59
42″	12,48,38,55,12,21, 6,11,31,51		56,11,40,23	
		2, 2,45,56,49,30, 9,40		8,59
44″	12,48,40,57,58,17,55,41,41,31		56,11,49,22	
		2, 2,45,55,53,18,20,18		8,59
46″	12,48,43, 0,44,13,49, 0, 1,49		56,11,58,21	
		2, 2,45,54,57, 6,21,57		8,59
48″	12,48,45, 3,30, 8,46, 6,23,46		56,12, 7,20	
		2, 2,45,54, 0,54,14,37		8,59
50″	12,48,47, 6,16, 2,47, 0,38,23		56,12,16,19	
		2, 2,45,53, 4,41,58,18		8,59
52″	12,48,49, 9, 1,55,51,42,36,41		56,12,25,18	
		2, 2,45,52, 8,29,33, 0		8,59
54″	12,48,51,11,47,48, 0,12, 9,41		56,12,34,17	
		2, 2,45,51,12,16,58,43		8,59
56″	12,48,53,14,33,39,12,29, 8,24		56,12,43,16	
		2, 2,45,50,16, 4,15,27		8,59
58″	12,48,55,17,19,29,28,33,23,51		56,12,52,15	
		2, 2,45,49,19,51,23,12		
60″	12,48,57,20, 5,18,48,24,47, 3			
exact	12,48,57,20, 5,18,48,25,20,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°20′ 0″	12,48,57,20, 5,18,48,25,20,25			
		2, 2,45,48,23,38,25,31		
2″	12,48,59,22,51, 7,12, 3,45,56		56,13, 9,58	
		2, 2,45,47,27,25,15,33		8,58
4″	12,49, 1,25,36,54,39,29, 1,29		56,13,18,56	
		2, 2,45,46,31,11,56,37		8,58
6″	12,49, 3,28,22,41,10,40,58, 6		56,13,27,54	
		2, 2,45,45,34,58,28,43		8,58
8″	12,49, 5,31, 8,26,45,39,26,49		56,13,36,52	
		2, 2,45,44,38,44,51,51		8,58
10″	12,49, 7,33,54,11,24,24,18,40		56,13,45,50	
		2, 2,45,43,42,31, 6, 1		8,58
12″	12,49, 9,36,39,55, 6,55,24,41		56,13,54,48	
		2, 2,45,42,46,17,11,13		8,58
14″	12,49,11,39,25,37,53,12,35,54		56,14, 3,46	
		2, 2,45,41,50, 3, 7,27		8,58
16″	12,49,13,42,11,19,43,15,43,21		56,14,12,44	
		2, 2,45,40,53,48,54,43		8,58
18″	12,49,15,44,57, 0,37, 4,38, 4		56,14,21,42	
		2, 2,45,39,57,34,33, 1		8,58
20″	12,49,17,47,42,40,34,39,11, 5		56,14,30,40	
		2, 2,45,39, 1,20, 2,21		8,58
22″	12,49,19,50,28,19,35,59,13,26		56,14,39,38	
		2, 2,45,38, 5, 5,22,43		8,58
24″	12,49,21,53,13,57,41, 4,36, 9		56,14,48,36	
		2, 2,45,37, 8,50,34, 7		8,58
26″	12,49,23,55,59,34,49,55,10,16		56,14,57,34	
		2, 2,45,36,12,35,36,33		8,58
28″	12,49,25,58,45,11, 2,30,46,49		56,15, 6,32	
		2, 2,45,35,16,20,30, 1		8,58
30″	12,49,28, 1,30,46,18,51,16,50		56,15,15,30	
		2, 2,45,34,20, 5,14,31		8,58
32″	12,49,30, 4,16,20,38,56,31,21		56,15,24,28	
		2, 2,45,33,23,49,50, 3		8,58
34″	12,49,32, 7, 1,54, 2,46,21,24		56,15,33,26	
		2, 2,45,32,27,34,16,37		8,58
36″	12,49,34, 9,47,26,30,20,38, 1		56,15,42,24	
		2, 2,45,31,31,18,34,13		8,58
38″	12,49,36,12,32,58, 1,39,12,14		56,15,51,22	
		2, 2,45,30,35, 2,42,51		8,58
40″	12,49,38,15,18,28,36,41,55, 5		56,16, 0,20	
		2, 2,45,29,38,46,42,31		8,58
42″	12,49,40,18, 3,58,15,28,37,36		56,16, 9,18	
		2, 2,45,28,42,30,33,13		8,58
44″	12,49,42,20,49,26,57,59,10,49		56,16,18,16	
		2, 2,45,27,46,14,14,57		8,58
46″	12,49,44,23,34,54,44,13,25,46		56,16,27,14	
		2, 2,45,26,49,57,47,43		8,58
48″	12,49,46,26,20,21,34,11,13,29		56,16,36,12	
		2, 2,45,25,53,41,11,31		8,58
50″	12,49,48,29, 5,47,27,52,25, 0		56,16,45,10	
		2, 2,45,24,57,24,26,21		8,58
52″	12,49,50,31,51,12,25,16,51,21		56,16,54, 8	
		2, 2,45,24, 1, 7,32,13		8,58
54″	12,49,52,34,36,36,26,24,23,34		56,17, 3, 6	
		2, 2,45,23, 4,50,29, 7		8,58
56″	12,49,54,37,21,59,31,14,52,41		56,17,12, 4	
		2, 2,45,22, 8,33,17, 3		8,58
58″	12,49,56,40, 7,21,39,48, 9,44		56,17,21, 2	
		2, 2,45,21,12,15,56, 1		
60″	12,49,58,42,52,42,52, 4, 5,45			
exact	12,49,58,42,52,42,52, 3,30,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°21′ 0″	12,49,58,42,52,42,52, 3,30,24			
		2, 2,45,20,15,58,22,19		
2″	12,50, 0,45,38, 3, 8, 1,52,43		56,17,39,13	
		2, 2,45,19,19,40,43, 6		8,58
4″	12,50, 2,48,23,22,27,42,35,49		56,17,48,11	
		2, 2,45,18,23,22,54,55		8,58
6″	12,50, 4,51, 8,40,51, 5,30,44		56,17,57, 9	
		2, 2,45,17,27, 4,57,46		8,58
8″	12,50, 6,53,53,58,18,10,28,30		56,18, 6, 7	
		2, 2,45,16,30,46,51,39		8,58
10″	12,50, 8,56,39,14,48,57,20, 9		56,18,15, 5	
		2, 2,45,15,34,28,36,34		8,58
12″	12,50,10,59,24,30,23,25,56,43		56,18,24, 3	
		2, 2,45,14,38,10,12,31		8,58
14″	12,50,13, 2, 9,45, 1,36, 9,14		56,18,33, 1	
		2, 2,45,13,41,51,39,30		8,58
16″	12,50,15, 4,54,58,43,27,48,44		56,18,41,59	
		2, 2,45,12,45,32,57,31		8,58
18″	12,50,17, 7,40,11,29, 0,46,15		56,18,50,57	
		2, 2,45,11,49,14, 6,34		8,58
20″	12,50,19,10,25,23,18,14,52,49		56,18,59,55	
		2, 2,45,10,52,55, 6,39		8,58
22″	12,50,21,13,10,34,11, 9,59,28		56,19, 8,53	
		2, 2,45, 9,56,35,57,46		8,58
24″	12,50,23,15,55,44, 7,45,57,14		56,19,17,51	
		2, 2,45, 9, 0,16,39,55		8,58
26″	12,50,25,18,40,53, 8, 2,37, 9		56,19,26,49	
		2, 2,45, 8, 3,57,13, 6		8,58
28″	12,50,27,21,26, 1,11,59,50,15		56,19,35,47	
		2, 2,45, 7, 7,37,37,19		8,58
30″	12,50,29,24,11, 8,19,37,27,34		56,19,44,45	
		2, 2,45, 6,11,17,52,34		8,58
32″	12,50,31,26,56,14,30,55,20, 8		56,19,53,43	
		2, 2,45, 5,14,57,58,51		8,58
34″	12,50,33,29,41,19,45,53,18,59		56,20, 2,41	
		2, 2,45, 4,18,37,56,10		8,58
36″	12,50,35,32,26,24, 4,31,15, 9		56,20,11,39	
		2, 2,45, 3,22,17,44,31		8,58
38″	12,50,37,35,11,27,26,48,59,40		56,20,20,37	
		2, 2,45, 2,25,57,23,54		8,58
40″	12,50,39,37,56,29,52,46,23,34		56,20,29,35	
		2, 2,45, 1,29,36,54,19		8,58
42″	12,50,41,40,41,31,22,23,17,53		56,20,38,33	
		2, 2,45, 0,33,16,15,46		8,58
44″	12,50,43,43,26,31,55,39,33,39		56,20,47,31	
		2, 2,44,59,36,55,28,15		8,58
46″	12,50,45,46,11,31,32,35, 1,54		56,20,56,29	
		2, 2,44,58,40,34,31,46		8,58
48″	12,50,47,48,56,30,13, 9,33,40		56,21, 5,27	
		2, 2,44,57,44,13,26,19		8,58
50″	12,50,49,51,41,27,57,22,59,59		56,21,14,25	
		2, 2,44,56,47,52,11,54		8,58
52″	12,50,51,54,26,24,45,15,11,53		56,21,23,23	
		2, 2,44,55,51,30,48,31		8,58
54″	12,50,53,57,11,20,36,46, 0,24		56,21,32,21	
		2, 2,44,54,55, 9,16,10		8,58
56″	12,50,55,59,56,15,31,55,16,34		56,21,41,19	
		2, 2,44,53,58,47,34,51		8,58
58″	12,50,58, 2,41, 9,30,42,51,25		56,21,50,17	
		2, 2,44,53, 2,25,44,34		
60″	12,51, 0, 5,26, 2,33, 8,35,59			
exact	12,51, 0, 5,26, 2,33, 8, 6,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°22′ 0″	12,51, 0, 5,26, 2,33, 8, 6,44			
		2, 2,44,52, 6, 3,42, 8		
2″	12,51, 2, 8,10,54,39,11,48,52		56,22, 8,26	
		2, 2,44,51, 9,41,33,42		8,58
4″	12,51, 4,10,55,45,48,53,22,34		56,22,17,24	
		2, 2,44,50,13,19,16,18		8,58
6″	12,51, 6,13,40,36, 2,12,38,52		56,22,26,22	
		2, 2,44,49,16,56,49,56		8,58
8″	12,51, 8,16,25,25,19, 9,28,48		56,22,35,20	
		2, 2,44,48,20,34,14,36		8,58
10″	12,51,10,19,10,13,39,43,43,24		56,22,44,18	
		2, 2,44,47,24,11,30,18		8,58
12″	12,51,12,21,55, 1, 3,55,13,42		56,22,53,16	
		2, 2,44,46,27,48,37, 2		8,58
14″	12,51,14,24,39,47,31,43,50,44		56,23, 2,14	
		2, 2,44,45,31,25,34,48		8,58
16″	12,51,16,27,24,33, 3, 9,25,32		56,23,11,12	
		2, 2,44,44,35, 2,23,36		8,58
18″	12,51,18,30, 9,17,38,11,49, 8		56,23,20,10	
		2, 2,44,43,38,39, 3,26		8,58
20″	12,51,20,32,54, 1,16,50,52,34		56,23,29, 8	
		2, 2,44,42,42,15,34,18		8,58
22″	12,51,22,35,38,43,59, 6,26,52		56,23,38, 6	
		2, 2,44,41,45,51,56,12		8,58
24″	12,51,24,38,23,25,44,58,23, 4		56,23,47, 4	
		2, 2,44,40,49,28, 9, 8		8,58
26″	12,51,26,41, 8, 6,34,26,32,12		56,23,56, 2	
		2, 2,44,39,53, 4,13, 6		8,58
28″	12,51,28,43,52,46,27,30,45,18		56,24, 5, 0	
		2, 2,44,38,56,40, 8, 6		8,58
30″	12,51,30,46,37,25,24,10,53,24		56,24,13,58	
		2, 2,44,38, 0,15,54, 8		8,58
32″	12,51,32,49,22, 3,24,26,47,32		56,24,22,56	
		2, 2,44,37, 3,51,31,12		8,58
34″	12,51,34,52, 6,40,28,18,18,44		56,24,31,54	
		2, 2,44,36, 7,26,59,18		8,58
36″	12,51,36,54,51,16,35,45,18, 2		56,24,40,52	
		2, 2,44,35,11, 2,18,26		8,58
38″	12,51,38,57,35,51,46,47,36,28		56,24,49,50	
		2, 2,44,34,14,37,28,36		8,58
40″	12,51,41, 0,20,26, 1,25, 5, 4		56,24,58,48	
		2, 2,44,33,18,12,29,48		8,58
42″	12,51,43, 3, 4,59,19,37,34,52		56,25, 7,46	
		2, 2,44,32,21,47,22, 2		8,58
44″	12,51,45, 5,49,31,41,24,56,54		56,25,16,44	
		2, 2,44,31,25,22, 5,18		8,58
46″	12,51,47, 8,34, 3, 6,47, 2,12		56,25,25,42	
		2, 2,44,30,28,56,39,36		8,58
48″	12,51,49,11,18,33,35,43,41,48		56,25,34,40	
		2, 2,44,29,32,31, 4,56		8,58
50″	12,51,51,14, 3, 3, 8,14,46,44		56,25,43,38	
		2, 2,44,28,36, 5,21,18		8,58
52″	12,51,53,16,47,31,44,20, 8, 2		56,25,52,36	
		2, 2,44,27,39,39,28,42		8,58
54″	12,51,55,19,31,59,23,59,36,44		56,26, 1,34	
		2, 2,44,26,43,13,27, 8		8,58
56″	12,51,57,22,16,26, 7,13, 3,52		56,26,10,32	
		2, 2,44,25,46,47,16,36		8,58
58″	12,51,59,25, 0,51,54, 0,20,28		56,26,19,30	
		2, 2,44,24,50,20,57, 6		
60″	12,52, 1,27,45,16,44,21,17,34			
exact	12,52, 1,27,45,16,44,20,46,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°23′ 0″	12,52, 1,27,45,16,44,20,46,58			
		2, 2,44,23,53,54,25,27		
2″	12,52, 3,30,29,40,38,15,12,25		56,26,37,39	
		2, 2,44,22,57,27,47,48		8,58
4″	12,52, 5,33,14, 3,35,43, 0,13		56,26,46,37	
		2, 2,44,22, 1, 1, 1,11		8,58
6″	12,52, 7,35,58,25,36,44, 1,24		56,26,55,35	
		2, 2,44,21, 4,34, 5,36		8,58
8″	12,52, 9,38,42,46,41,18, 7, 0		56,27, 4,33	
		2, 2,44,20, 8, 7, 1, 3		8,58
10″	12,52,11,41,27, 6,49,25, 8, 3		56,27,13,31	
		2, 2,44,19,11,39,47,32		8,58
12″	12,52,13,44,11,26, 1, 4,55,35		56,27,22,29	
		2, 2,44,18,15,12,25, 3		8,58
14″	12,52,15,46,55,44,16,17,20,38		56,27,31,27	
		2, 2,44,17,18,44,53,36		8,58
16″	12,52,17,49,40, 1,35, 2,14,14		56,27,40,25	
		2, 2,44,16,22,17,13,11		8,58
18″	12,52,19,52,24,17,57,19,27,25		56,27,49,23	
		2, 2,44,15,25,49,23,48		8,58
20″	12,52,21,55, 8,33,23, 8,51,13		56,27,58,21	
		2, 2,44,14,29,21,25,27		8,58
22″	12,52,23,57,52,47,52,30,16,40		56,28, 7,19	
		2, 2,44,13,32,53,18, 8		8,58
24″	12,52,26, 0,37, 1,25,23,34,48		56,28,16,17	
		2, 2,44,12,36,25, 1,51		8,58
26″	12,52,28, 3,21,14, 1,48,36,39		56,28,25,15	
		2, 2,44,11,39,56,36,36		8,58
28″	12,52,30, 6, 5,25,41,45,13,15		56,28,34,13	
		2, 2,44,10,43,28, 2,23		8,58
30″	12,52,32, 8,49,36,25,13,15,38		56,28,43,11	
		2, 2,44, 9,46,59,19,12		8,58
32″	12,52,34,11,33,46,12,12,34,50		56,28,52, 9	
		2, 2,44, 8,50,30,27, 3		8,58
34″	12,52,36,14,17,55, 2,43, 1,53		56,29, 1, 7	
		2, 2,44, 7,54, 1,25,56		8,58
36″	12,52,38,17, 2, 2,56,44,27,49		56,29,10, 5	
		2, 2,44, 6,57,32,15,51		8,58
38″	12,52,40,19,46, 9,54,16,43,40		56,29,19, 3	
		2, 2,44, 6, 1, 2,56,48		8,58
40″	12,52,42,22,30,15,55,19,40,28		56,29,28, 1	
		2, 2,44, 5, 4,33,28,47		8,58
42″	12,52,44,25,14,20,59,53, 9,15		56,29,36,59	
		2, 2,44, 4, 8, 3,51,48		8,58
44″	12,52,46,27,58,25, 7,57, 1, 3		56,29,45,57	
		2, 2,44, 3,11,34, 5,51		8,58
46″	12,52,48,30,42,28,19,31, 6,54		56,29,54,55	
		2, 2,44, 2,15, 4,10,56		8,58
48″	12,52,50,33,26,30,34,35,17,50		56,30, 3,53	
		2, 2,44, 1,18,34, 7, 3		8,58
50″	12,52,52,36,10,31,53, 9,24,53		56,30,12,51	
		2, 2,44, 0,22, 3,54,12		8,58
52″	12,52,54,38,54,32,15,13,19, 5		56,30,21,49	
		2, 2,43,59,25,33,32,23		8,58
54″	12,52,56,41,38,31,40,46,51,28		56,30,30,47	
		2, 2,43,58,29, 3, 1,36		8,58
56″	12,52,58,44,22,30, 9,49,53, 4		56,30,39,45	
		2, 2,43,57,32,32,21,51		8,58
58″	12,53, 0,47, 6,27,42,22,14,55		56,30,48,43	
		2, 2,43,56,36, 1,33, 8		
60″	12,53, 2,49,50,24,18,23,48, 3			
exact	12,53, 2,49,50,24,18,23,24, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°24′ 0″	12,53, 2,49,50,24,18,23,24, 7			
		2, 2,43,55,39,30,32,49		
2″	12,53, 4,52,34,19,57,53,56,56		56,31, 6,50	
		2, 2,43,54,42,59,25,59		8,58
4″	12,53, 6,55,18,14,40,53,22,55		56,31,15,48	
		2, 2,43,53,46,28,10,11		8,58
6″	12,53, 8,58, 2, 8,27,21,33, 6		56,31,24,46	
		2, 2,43,52,49,56,45,25		8,58
8″	12,53,11, 0,46, 1,17,18,18,31		56,31,33,44	
		2, 2,43,51,53,25,11,41		8,58
10″	12,53,13, 3,29,53,10,43,30,12		56,31,42,42	
		2, 2,43,50,56,53,28,59		8,58
12″	12,53,15, 6,13,44, 7,36,59,11		56,31,51,40	
		2, 2,43,50, 0,21,37,19		8,58
14″	12,53,17, 8,57,34, 7,58,36,30		56,32, 0,38	
		2, 2,43,49, 3,49,36,41		8,58
16″	12,53,19,11,41,23,11,48,13,11		56,32, 9,36	
		2, 2,43,48, 7,17,27, 5		8,58
18″	12,53,21,14,25,11,19, 5,40,16		56,32,18,34	
		2, 2,43,47,10,45, 8,31		8,58
20″	12,53,23,17, 8,58,29,50,48,47		56,32,27,32	
		2, 2,43,46,14,12,40,59		8,58
22″	12,53,25,19,52,44,44, 3,29,46		56,32,36,30	
		2, 2,43,45,17,40, 4,29		8,58
24″	12,53,27,22,36,30, 1,43,34,15		56,32,45,28	
		2, 2,43,44,21, 7,19, 1		8,58
26″	12,53,29,25,20,14,22,50,53,16		56,32,54,26	
		2, 2,43,43,24,34,24,35		8,58
28″	12,53,31,28, 3,57,47,25,17,51		56,33, 3,24	
		2, 2,43,42,28, 1,21,11		8,58
30″	12,53,33,30,47,40,15,26,39, 2		56,33,12,22	
		2, 2,43,41,31,28, 8,49		8,58
32″	12,53,35,33,31,21,46,54,47,51		56,33,21,20	
		2, 2,43,40,34,54,47,29		8,58
34″	12,53,37,36,15, 2,21,49,35,20		56,33,30,18	
		2, 2,43,39,38,21,17,11		8,58
36″	12,53,39,38,58,42, 0,10,52,31		56,33,39,16	
		2, 2,43,38,41,47,37,55		8,58
38″	12,53,41,41,42,20,41,58,30,26		56,33,48,14	
		2, 2,43,37,45,13,49,41		8,58
40″	12,53,43,44,25,58,27,12,20, 7		56,33,57,12	
		2, 2,43,36,48,39,52,29		8,58
42″	12,53,45,47, 9,35,15,52,12,36		56,34, 6,10	
		2, 2,43,35,52, 5,46,19		8,58
44″	12,53,47,49,53,11, 7,57,58,55		56,34,15, 8	
		2, 2,43,34,55,31,31,11		8,58
46″	12,53,49,52,36,46, 3,29,30, 6		56,34,24, 6	
		2, 2,43,33,58,57, 7, 5		8,58
48″	12,53,51,55,20,20, 2,26,37,11		56,34,33, 4	
		2, 2,43,33, 2,22,34, 1		8,58
50″	12,53,53,58, 3,53, 4,49,11,12		56,34,42, 2	
		2, 2,43,32, 5,47,51,59		8,58
52″	12,53,56, 0,47,25,10,37, 3,11		56,34,51, 0	
		2, 2,43,31, 9,13, 0,59		8,58
54″	12,53,58, 3,30,56,19,50, 4,10		56,34,59,58	
		2, 2,43,30,12,38, 1, 1		8,58
56″	12,54, 0, 6,14,26,32,28, 5,11		56,35, 8,56	
		2, 2,43,29,16, 2,52, 5		8,58
58″	12,54, 2, 8,57,55,48,30,57,16		56,35,17,54	
		2, 2,43,28,19,27,34,11		
60″	12,54, 4,11,41,24, 7,58,31,27			
exact	12,54, 4,11,41,24, 7,58, 6,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°25′ 0″	12,54, 4,11,41,24, 7,58, 6,41			
		2, 2,43,27,22,52, 4,43		
2″	12,54, 6,14,24,51,30,50,11,24		56,35,36, 0	
		2, 2,43,26,26,16,28,43		8,58
4″	12,54, 8,17, 8,17,57, 6,40, 7		56,35,44,58	
		2, 2,43,25,29,40,43,45		8,58
6″	12,54,10,19,51,43,26,47,23,52		56,35,53,56	
		2, 2,43,24,33, 4,49,49		8,58
8″	12,54,12,22,35, 7,59,52,13,41		56,36, 2,54	
		2, 2,43,23,36,28,46,55		8,58
10″	12,54,14,25,18,31,36,21, 0,36		56,36,11,52	
		2, 2,43,22,39,52,35, 3		8,58
12″	12,54,16,28, 1,54,16,13,35,39		56,36,20,50	
		2, 2,43,21,43,16,14,13		8,58
14″	12,54,18,30,45,15,59,29,49,52		56,36,29,48	
		2, 2,43,20,46,39,44,25		8,58
16″	12,54,20,33,28,36,46, 9,34,17		56,36,38,46	
		2, 2,43,19,50, 3, 5,39		8,58
18″	12,54,22,36,11,56,36,12,39,56		56,36,47,44	
		2, 2,43,18,53,26,17,55		8,58
20″	12,54,24,38,55,15,29,38,57,51		56,36,56,42	
		2, 2,43,17,56,49,21,13		8,58
22″	12,54,26,41,38,33,26,28,19, 4		56,37, 5,40	
		2, 2,43,17, 0,12,15,33		8,58
24″	12,54,28,44,21,50,26,40,34,37		56,37,14,38	
		2, 2,43,16, 3,35, 0,55		8,58
26″	12,54,30,47, 5, 6,30,15,35,32		56,37,23,36	
		2, 2,43,15, 6,57,37,19		8,58
28″	12,54,32,49,48,21,37,13,12,51		56,37,32,34	
		2, 2,43,14,10,20, 4,45		8,58
30″	12,54,34,52,31,35,47,33,17,36		56,37,41,32	
		2, 2,43,13,13,42,23,13		8,58
32″	12,54,36,55,14,49, 1,15,40,49		56,37,50,30	
		2, 2,43,12,17, 4,32,43		8,58
34″	12,54,38,57,58, 1,18,20,13,32		56,37,59,28	
		2, 2,43,11,20,26,33,15		8,58
36″	12,54,41, 0,41,12,38,46,46,47		56,38, 8,26	
		2, 2,43,10,23,48,24,49		8,58
38″	12,54,43, 3,24,23, 2,35,11,36		56,38,17,24	
		2, 2,43, 9,27,10, 7,25		8,58
40″	12,54,45, 6, 7,32,29,45,19, 1		56,38,26,22	
		2, 2,43, 8,30,31,41, 3		8,58
42″	12,54,47, 8,50,41, 0,17, 0, 4		56,38,35,20	
		2, 2,43, 7,33,53, 5,43		8,58
44″	12,54,49,11,33,48,34,10, 5,47		56,38,44,18	
		2, 2,43, 6,37,14,21,25		8,58
46″	12,54,51,14,16,55,11,24,27,12		56,38,53,16	
		2, 2,43, 5,40,35,28, 9		8,58
48″	12,54,53,17, 0, 0,51,59,55,21		56,39, 2,14	
		2, 2,43, 4,43,56,25,55		8,58
50″	12,54,55,19,43, 5,35,56,21,16		56,39,11,12	
		2, 2,43, 3,47,17,14,43		8,58
52″	12,54,57,22,26, 9,23,13,35,59		56,39,20,10	
		2, 2,43, 2,50,37,54,33		8,58
54″	12,54,59,25, 9,12,13,51,30,32		56,39,29, 8	
		2, 2,43, 1,53,58,25,25		8,58
56″	12,55, 1,27,52,14, 7,49,55,57		56,39,38, 6	
		2, 2,43, 0,57,18,47,19		8,58
58″	12,55, 3,30,35,15, 5, 8,43,16		56,39,47, 4	
		2, 2,43, 0, 0,39, 0,15		
60″	12,55, 5,33,18,15, 5,47,43,31			
exact	12,55, 5,33,18,15, 5,47,18,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°26′ 0″	12,55, 5,33,18,15, 5,47,18,39			
		2, 2,42,59, 3,59, 1,42		
2″	12,55, 7,36, 1,14, 9,46,20,21		56,40, 5,10	
		2, 2,42,58, 7,18,56,32		8,58
4″	12,55, 9,38,44,12,17, 5,16,53		56,40,14, 8	
		2, 2,42,57,10,38,42,24		8,58
6″	12,55,11,41,27, 9,27,43,59,17		56,40,23, 6	
		2, 2,42,56,13,58,19,18		8,58
8″	12,55,13,44,10, 5,41,42,18,35		56,40,32, 4	
		2, 2,42,55,17,17,47,14		8,58
10″	12,55,15,46,53, 0,59, 0, 5,49		56,40,41, 2	
		2, 2,42,54,20,37, 6,12		8,58
12″	12,55,17,49,35,55,19,37,12, 1		56,40,50, 0	
		2, 2,42,53,23,56,16,12		8,58
14″	12,55,19,52,18,48,43,33,28,13		56,40,58,58	
		2, 2,42,52,27,15,17,14		8,58
16″	12,55,21,55, 1,41,10,48,45,27		56,41, 7,56	
		2, 2,42,51,30,34, 9,18		8,58
18″	12,55,23,57,44,32,41,22,54,45		56,41,16,54	
		2, 2,42,50,33,52,52,24		8,58
20″	12,55,26, 0,27,23,15,15,47, 9		56,41,25,52	
		2, 2,42,49,37,11,26,32		8,58
22″	12,55,28, 3,10,12,52,27,13,41		56,41,34,50	
		2, 2,42,48,40,29,51,42		8,58
24″	12,55,30, 5,53, 1,32,57, 5,23		56,41,43,48	
		2, 2,42,47,43,48, 7,54		8,58
26″	12,55,32, 8,35,49,16,45,13,17		56,41,52,46	
		2, 2,42,46,47, 6,15, 8		8,58
28″	12,55,34,11,18,36, 3,51,28,25		56,42, 1,44	
		2, 2,42,45,50,24,13,24		8,58
30″	12,55,36,14, 1,21,54,15,41,49		56,42,10,42	
		2, 2,42,44,53,42, 2,42		8,58
32″	12,55,38,16,44, 6,47,57,44,31		56,42,19,40	
		2, 2,42,43,56,59,43, 2		8,58
34″	12,55,40,19,26,50,44,57,27,33		56,42,28,38	
		2, 2,42,43, 0,17,14,24		8,58
36″	12,55,42,22, 9,33,45,14,41,57		56,42,37,36	
		2, 2,42,42, 3,34,36,48		8,58
38″	12,55,44,24,52,15,48,49,18,45		56,42,46,34	
		2, 2,42,41, 6,51,50,14		8,58
40″	12,55,46,27,34,56,55,41, 8,59		56,42,55,32	
		2, 2,42,40,10, 8,54,42		8,58
42″	12,55,48,30,17,37, 5,50, 3,41		56,43, 4,30	
		2, 2,42,39,13,25,50,12		8,58
44″	12,55,50,33, 0,16,19,15,53,53		56,43,13,28	
		2, 2,42,38,16,42,36,44		8,58
46″	12,55,52,35,42,54,35,58,30,37		56,43,22,26	
		2, 2,42,37,19,59,14,18		8,58
48″	12,55,54,38,25,31,55,57,44,55		56,43,31,24	
		2, 2,42,36,23,15,42,54		8,58
50″	12,55,56,41, 8, 8,19,13,27,49		56,43,40,22	
		2, 2,42,35,26,32, 2,32		8,58
52″	12,55,58,43,50,43,45,45,30,21		56,43,49,20	
		2, 2,42,34,29,48,13,12		8,58
54″	12,56, 0,46,33,18,15,33,43,33		56,43,58,18	
		2, 2,42,33,33, 4,14,54		8,58
56″	12,56, 2,49,15,51,48,37,58,27		56,44, 7,16	
		2, 2,42,32,36,20, 7,38		8,58
58″	12,56, 4,51,58,24,24,58, 6, 5		56,44,16,14	
		2, 2,42,31,39,35,51,24		
60″	12,56, 6,54,40,56, 4,33,57,29			
exact	12,56, 6,54,40,56, 4,33,39,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°27′ 0″	12,56, 6,54,40,56, 4,33,39,31			
		2, 2,42,30,42,51,24,15		
2″	12,56, 8,57,23,26,47,25, 3,46		56,44,34,18	
		2, 2,42,29,46, 6,49,57		8,58
4″	12,56,11, 0, 5,56,33,31,53,43		56,44,43,16	
		2, 2,42,28,49,22, 6,41		8,58
6″	12,56,13, 2,48,25,22,54, 0,24		56,44,52,14	
		2, 2,42,27,52,37,14,27		8,58
8″	12,56,15, 5,30,53,15,31,14,51		56,45, 1,12	
		2, 2,42,26,55,52,13,15		8,58
10″	12,56,17, 8,13,20,11,23,28, 6		56,45,10,10	
		2, 2,42,25,59, 7, 3, 5		8,58
12″	12,56,19,10,55,46,10,30,31,11		56,45,19, 8	
		2, 2,42,25, 2,21,43,57		8,58
14″	12,56,21,13,38,11,12,52,15, 8		56,45,28, 6	
		2, 2,42,24, 5,36,15,51		8,58
16″	12,56,23,16,20,35,18,28,30,59		56,45,37, 4	
		2, 2,42,23, 8,50,38,47		8,58
18″	12,56,25,19, 2,58,27,19, 9,46		56,45,46, 2	
		2, 2,42,22,12, 4,52,45		8,58
20″	12,56,27,21,45,20,39,24, 2,31		56,45,55, 0	
		2, 2,42,21,15,18,57,45		8,58
22″	12,56,29,24,27,41,54,43, 0,16		56,46, 3,58	
		2, 2,42,20,18,32,53,47		8,58
24″	12,56,31,27,10, 2,13,15,54, 3		56,46,12,56	
		2, 2,42,19,21,46,40,51		8,58
26″	12,56,33,29,52,21,35, 2,34,54		56,46,21,54	
		2, 2,42,18,25, 0,18,57		8,58
28″	12,56,35,32,34,40, 0, 2,53,51		56,46,30,52	
		2, 2,42,17,28,13,48, 5		8,58
30″	12,56,37,35,16,57,28,16,41,56		56,46,39,50	
		2, 2,42,16,31,27, 8,15		8,58
32″	12,56,39,37,59,13,59,43,50,11		56,46,48,48	
		2, 2,42,15,34,40,19,27		8,58
34″	12,56,41,40,41,29,34,24, 9,38		56,46,57,46	
		2, 2,42,14,37,53,21,41		8,58
36″	12,56,43,43,23,44,12,17,31,19		56,47, 6,44	
		2, 2,42,13,41, 6,14,57		8,58
38″	12,56,45,46, 5,57,53,23,46,16		56,47,15,42	
		2, 2,42,12,44,18,59,15		8,58
40″	12,56,47,48,48,10,37,42,45,31		56,47,24,40	
		2, 2,42,11,47,31,34,35		8,58
42″	12,56,49,51,30,22,25,14,20, 6		56,47,33,38	
		2, 2,42,10,50,44, 0,57		8,58
44″	12,56,51,54,12,33,15,58,21, 3		56,47,42,36	
		2, 2,42, 9,53,56,18,21		8,58
46″	12,56,53,56,54,43, 9,54,39,24		56,47,51,34	
		2, 2,42, 8,57, 8,26,47		8,58
48″	12,56,55,59,36,52, 7, 3, 6,11		56,48, 0,32	
		2, 2,42, 8, 0,20,26,15		8,58
50″	12,56,58, 2,19, 0, 7,23,32,26		56,48, 9,30	
		2, 2,42, 7, 3,32,16,45		8,58
52″	12,57, 0, 5, 1, 7,10,55,49,11		56,48,18,28	
		2, 2,42, 6, 6,43,58,17		8,58
54″	12,57, 2, 7,43,13,17,39,47,28		56,48,27,26	
		2, 2,42, 5, 9,55,30,51		8,58
56″	12,57, 4,10,25,18,27,35,18,19		56,48,36,24	
		2, 2,42, 4,13, 6,54,27		8,58
58″	12,57, 6,13, 7,22,40,42,12,46		56,48,45,22	
		2, 2,42, 3,16,18, 9, 5		
60″	12,57, 8,15,49,25,57, 0,21,51			
exact	12,57, 8,15,49,25,57, 0, 4,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°28′ 0″	12,57, 8,15,49,25,57, 0, 4,19			
		2, 2,42, 2,19,29,12,55		
2″	12,57,10,18,31,28,16,29,17,14		56,49, 3,25	
		2, 2,42, 1,22,40, 9,30		8,58
4″	12,57,12,21,13,29,39, 9,26,44		56,49,12,23	
		2, 2,42, 0,25,50,57, 7		8,58
6″	12,57,14,23,55,30, 5, 0,23,51		56,49,21,21	
		2, 2,41,59,29, 1,35,46		8,58
8″	12,57,16,26,37,29,34, 1,59,37		56,49,30,19	
		2, 2,41,58,32,12, 5,27		8,58
10″	12,57,18,29,19,28, 6,14, 5, 4		56,49,39,17	
		2, 2,41,57,35,22,26,10		8,58
12″	12,57,20,32, 1,25,41,36,31,14		56,49,48,15	
		2, 2,41,56,38,32,37,55		8,58
14″	12,57,22,34,43,22,20, 9, 9, 9		56,49,57,13	
		2, 2,41,55,41,42,40,42		8,58
16″	12,57,24,37,25,18, 1,51,49,51		56,50, 6,11	
		2, 2,41,54,44,52,34,31		8,58
18″	12,57,26,40, 7,12,46,44,24,22		56,50,15, 9	
		2, 2,41,53,48, 2,19,22		8,58
20″	12,57,28,42,49, 6,34,46,43,44		56,50,24, 7	
		2, 2,41,52,51,11,55,15		8,58
22″	12,57,30,45,30,59,25,58,38,59		56,50,33, 5	
		2, 2,41,51,54,21,22,10		8,58
24″	12,57,32,48,12,51,20,20, 1, 9		56,50,42, 3	
		2, 2,41,50,57,30,40, 7		8,58
26″	12,57,34,50,54,42,17,50,41,16		56,50,51, 1	
		2, 2,41,50, 0,39,49, 6		8,58
28″	12,57,36,53,36,32,18,30,30,22		56,50,59,59	
		2, 2,41,49, 3,48,49, 7		8,58
30″	12,57,38,56,18,21,22,19,19,29		56,51, 8,57	
		2, 2,41,48, 6,57,40,10		8,58
32″	12,57,40,59, 0, 9,29,16,59,39		56,51,17,55	
		2, 2,41,47,10, 6,22,15		8,58
34″	12,57,43, 1,41,56,39,23,21,54		56,51,26,53	
		2, 2,41,46,13,14,55,22		8,58
36″	12,57,45, 4,23,42,52,38,17,16		56,51,35,51	
		2, 2,41,45,16,23,19,31		8,58
38″	12,57,47, 7, 5,28, 9, 1,36,47		56,51,44,49	
		2, 2,41,44,19,31,34,42		8,58
40″	12,57,49, 9,47,12,28,33,11,29		56,51,53,47	
		2, 2,41,43,22,39,40,55		8,58
42″	12,57,51,12,28,55,51,12,52,24		56,52, 2,45	
		2, 2,41,42,25,47,38,10		8,58
44″	12,57,53,15,10,38,17, 0,30,34		56,52,11,43	
		2, 2,41,41,28,55,26,27		8,58
46″	12,57,55,17,52,19,45,55,57, 1		56,52,20,41	
		2, 2,41,40,32, 3, 5,46		8,58
48″	12,57,57,20,34, 0,17,59, 2,47		56,52,29,39	
		2, 2,41,39,35,10,36, 7		8,58
50″	12,57,59,23,15,39,53, 9,38,54		56,52,38,37	
		2, 2,41,38,38,17,57,30		8,58
52″	12,58, 1,25,57,18,31,27,36,24		56,52,47,35	
		2, 2,41,37,41,25, 9,55		8,58
54″	12,58, 3,28,38,56,12,52,46,19		56,52,56,33	
		2, 2,41,36,44,32,13,22		8,58
56″	12,58, 5,31,20,32,57,24,59,41		56,53, 5,31	
		2, 2,41,35,47,39, 7,51		8,58
58″	12,58, 7,34, 2, 8,45, 4, 7,32		56,53,14,29	
		2, 2,41,34,50,45,53,22		
60″	12,58, 9,36,43,43,35,50, 0,54			
exact	12,58, 9,36,43,43,35,49,43,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°29′ 0″	12,58, 9,36,43,43,35,49,43,38			
		2, 2,41,33,53,52,28,12		
2″	12,58,11,39,25,17,29,42,11,50		56,53,32,32	
		2, 2,41,32,56,58,55,40		8,58
4″	12,58,13,42, 6,50,26,41, 7,30		56,53,41,30	
		2, 2,41,32, 0, 5,14,10		8,58
6″	12,58,15,44,48,22,26,46,21,40		56,53,50,28	
		2, 2,41,31, 3,11,23,42		8,58
8″	12,58,17,47,29,53,29,57,45,22		56,53,59,26	
		2, 2,41,30, 6,17,24,16		8,58
10″	12,58,19,50,11,23,36,15, 9,38		56,54, 8,24	
		2, 2,41,29, 9,23,15,52		8,58
12″	12,58,21,52,52,52,45,38,25,30		56,54,17,22	
		2, 2,41,28,12,28,58,30		8,58
14″	12,58,23,55,34,20,58, 7,24, 0		56,54,26,20	
		2, 2,41,27,15,34,32,10		8,58
16″	12,58,25,58,15,48,13,41,56,10		56,54,35,18	
		2, 2,41,26,18,39,56,52		8,58
18″	12,58,28, 0,57,14,32,21,53, 2		56,54,44,16	
		2, 2,41,25,21,45,12,36		8,58
20″	12,58,30, 3,38,39,54, 7, 5,38		56,54,53,14	
		2, 2,41,24,24,50,19,22		8,58
22″	12,58,32, 6,20, 4,18,57,25, 0		56,55, 2,12	
		2, 2,41,23,27,55,17,10		8,58
24″	12,58,34, 9, 1,27,46,52,42,10		56,55,11,10	
		2, 2,41,22,31, 0, 6, 0		8,58
26″	12,58,36,11,42,50,17,52,48,10		56,55,20, 8	
		2, 2,41,21,34, 4,45,52		8,58
28″	12,58,38,14,24,11,51,57,34, 2		56,55,29, 6	
		2, 2,41,20,37, 9,16,46		8,58
30″	12,58,40,17, 5,32,29, 6,50,48		56,55,38, 4	
		2, 2,41,19,40,13,38,42		8,58
32″	12,58,42,19,46,52, 9,20,29,30		56,55,47, 2	
		2, 2,41,18,43,17,51,40		8,58
34″	12,58,44,22,28,10,52,38,21,10		56,55,56, 0	
		2, 2,41,17,46,21,55,40		8,58
36″	12,58,46,25, 9,28,39, 0,16,50		56,56, 4,58	
		2, 2,41,16,49,25,50,42		8,58
38″	12,58,48,27,50,45,28,26, 7,32		56,56,13,56	
		2, 2,41,15,52,29,36,46		8,58
40″	12,58,50,30,32, 1,20,55,44,18		56,56,22,54	
		2, 2,41,14,55,33,13,52		8,58
42″	12,58,52,33,13,16,16,28,58,10		56,56,31,52	
		2, 2,41,13,58,36,42, 0		8,58
44″	12,58,54,35,54,30,15, 5,40,10		56,56,40,50	
		2, 2,41,13, 1,40, 1,10		8,58
46″	12,58,56,38,35,43,16,45,41,20		56,56,49,48	
		2, 2,41,12, 4,43,11,22		8,58
48″	12,58,58,41,16,55,21,28,52,42		56,56,58,46	
		2, 2,41,11, 7,46,12,36		8,58
50″	12,59, 0,43,58, 6,29,15, 5,18		56,57, 7,44	
		2, 2,41,10,10,49, 4,52		8,58
52″	12,59, 2,46,39,16,40, 4,10,10		56,57,16,42	
		2, 2,41, 9,13,51,48,10		8,58
54″	12,59, 4,49,20,25,53,55,58,20		56,57,25,40	
		2, 2,41, 8,16,54,22,30		8,58
56″	12,59, 6,52, 1,34,10,50,20,50		56,57,34,38	
		2, 2,41, 7,19,56,47,52		8,58
58″	12,59, 8,54,42,41,30,47, 8,42		56,57,43,36	
		2, 2,41, 6,22,59, 4,16		
60″	12,59,10,57,23,47,53,46,12,58			
exact	12,59,10,57,23,47,53,46, 3,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°30′ 0″	12,59,10,57,23,47,53,46, 3,38			
		2, 2,41, 5,26, 1,10,37		
2″	12,59,13, 0, 4,53,19,47,14,15		56,58, 1,37	
		2, 2,41, 4,29, 3, 9, 0		8,58
4″	12,59,15, 2,45,57,48,50,23,15		56,58,10,35	
		2, 2,41, 3,32, 4,58,25		8,58
6″	12,59,17, 5,27, 1,20,55,21,40		56,58,19,33	
		2, 2,41, 2,35, 6,38,52		8,58
8″	12,59,19, 8, 8, 3,56, 2, 0,32		56,58,28,31	
		2, 2,41, 1,38, 8,10,21		8,58
10″	12,59,21,10,49, 5,34,10,10,53		56,58,37,29	
		2, 2,41, 0,41, 9,32,52		8,58
12″	12,59,23,13,30, 6,15,19,43,45		56,58,46,27	
		2, 2,40,59,44,10,46,25		8,58
14″	12,59,25,16,11, 5,59,30,30,10		56,58,55,25	
		2, 2,40,58,47,11,51, 0		8,58
16″	12,59,27,18,52, 4,46,42,21,10		56,59, 4,23	
		2, 2,40,57,50,12,46,37		8,58
18″	12,59,29,21,33, 2,36,55, 7,47		56,59,13,21	
		2, 2,40,56,53,13,33,16		8,58
20″	12,59,31,24,13,59,30, 8,41, 3		56,59,22,19	
		2, 2,40,55,56,14,10,57		8,58
22″	12,59,33,26,54,55,26,22,52, 0		56,59,31,17	
		2, 2,40,54,59,14,39,40		8,58
24″	12,59,35,29,35,50,25,37,31,40		56,59,40,15	
		2, 2,40,54, 2,14,59,25		8,58
26″	12,59,37,32,16,44,27,52,31, 5		56,59,49,13	
		2, 2,40,53, 5,15,10,12		8,58
28″	12,59,39,34,57,37,33, 7,41,17		56,59,58,11	
		2, 2,40,52, 8,15,12, 1		8,58
30″	12,59,41,37,38,29,41,22,53,18		57, 0, 7, 9	
		2, 2,40,51,11,15, 4,52		8,58
32″	12,59,43,40,19,20,52,37,58,10		57, 0,16, 7	
		2, 2,40,50,14,14,48,45		8,58
34″	12,59,45,43, 0,11, 6,52,46,55		57, 0,25, 5	
		2, 2,40,49,17,14,23,40		8,58
36″	12,59,47,45,41, 0,24, 7,10,35		57, 0,34, 3	
		2, 2,40,48,20,13,49,37		8,58
38″	12,59,49,48,21,48,44,21, 0,12		57, 0,43, 1	
		2, 2,40,47,23,13, 6,36		8,58
40″	12,59,51,51, 2,36, 7,34, 6,48		57, 0,51,59	
		2, 2,40,46,26,12,14,37		8,58
42″	12,59,53,53,43,22,33,46,21,25		57, 1, 0,57	
		2, 2,40,45,29,11,13,40		8,58
44″	12,59,55,56,24, 8, 2,57,35, 5		57, 1, 9,55	
		2, 2,40,44,32,10, 3,45		8,58
46″	12,59,57,59, 4,52,35, 7,38,50		57, 1,18,53	
		2, 2,40,43,35, 8,44,52		8,58
48″	13, 0, 0, 1,45,36,10,16,23,42		57, 1,27,51	
		2, 2,40,42,38, 7,17, 1		8,58
50″	13, 0, 2, 4,26,18,48,23,40,43		57, 1,36,49	
		2, 2,40,41,41, 5,40,12		8,58
52″	13, 0, 4, 7, 7, 0,29,29,20,55		57, 1,45,47	
		2, 2,40,40,44, 3,54,25		8,58
54″	13, 0, 6, 9,47,41,13,33,15,20		57, 1,54,45	
		2, 2,40,39,47, 1,59,40		8,58
56″	13, 0, 8,12,28,21, 0,35,15, 0		57, 2, 3,43	
		2, 2,40,38,49,59,55,57		8,58
58″	13, 0,10,15, 8,59,50,35,10,57		57, 2,12,41	
		2, 2,40,37,52,57,43,16		
60″	13, 0,12,17,49,37,43,32,54,13			
exact	13, 0,12,17,49,37,43,32,46, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°31′ 0″	13, 0,12,17,49,37,43,32,46, 6			
		2, 2,40,36,55,55,20,42		
2″	13, 0,14,20,30,14,39,28, 6,48		57, 2,30,41	
		2, 2,40,35,58,52,50, 1		8,58
4″	13, 0,16,23,10,50,38,20,56,49		57, 2,39,39	
		2, 2,40,35, 1,50,10,22		8,58
6″	13, 0,18,25,51,25,40,11, 7,11		57, 2,48,37	
		2, 2,40,34, 4,47,21,45		8,58
8″	13, 0,20,28,31,59,44,58,28,56		57, 2,57,35	
		2, 2,40,33, 7,44,24,10		8,58
10″	13, 0,22,31,12,32,52,42,53, 6		57, 3, 6,33	
		2, 2,40,32,10,41,17,37		8,58
12″	13, 0,24,33,53, 5, 3,24,10,43		57, 3,15,31	
		2, 2,40,31,13,38, 2, 6		8,58
14″	13, 0,26,36,33,36,17, 2,12,49		57, 3,24,29	
		2, 2,40,30,16,34,37,37		8,58
16″	13, 0,28,39,14, 6,33,36,50,26		57, 3,33,27	
		2, 2,40,29,19,31, 4,10		8,58
18″	13, 0,30,41,54,35,53, 7,54,36		57, 3,42,25	
		2, 2,40,28,22,27,21,45		8,58
20″	13, 0,32,44,35, 4,15,35,16,21		57, 3,51,23	
		2, 2,40,27,25,23,30,22		8,58
22″	13, 0,34,47,15,31,40,58,46,43		57, 4, 0,21	
		2, 2,40,26,28,19,30, 1		8,58
24″	13, 0,36,49,55,58, 9,18,16,44		57, 4, 9,19	
		2, 2,40,25,31,15,20,42		8,58
26″	13, 0,38,52,36,23,40,33,37,26		57, 4,18,17	
		2, 2,40,24,34,11, 2,25		8,58
28″	13, 0,40,55,16,48,14,44,39,51		57, 4,27,15	
		2, 2,40,23,37, 6,35,10		8,58
30″	13, 0,42,57,57,11,51,51,15, 1		57, 4,36,13	
		2, 2,40,22,40, 1,58,57		8,58
32″	13, 0,45, 0,37,34,31,53,13,58		57, 4,45,11	
		2, 2,40,21,42,57,13,46		8,58
34″	13, 0,47, 3,17,56,14,50,27,44		57, 4,54, 9	
		2, 2,40,20,45,52,19,37		8,58
36″	13, 0,49, 5,58,17, 0,42,47,21		57, 5, 3, 7	
		2, 2,40,19,48,47,16,30		8,58
38″	13, 0,51, 8,38,36,49,30, 3,51		57, 5,12, 5	
		2, 2,40,18,51,42, 4,25		8,58
40″	13, 0,53,11,18,55,41,12, 8,16		57, 5,21, 3	
		2, 2,40,17,54,36,43,22		8,58
42″	13, 0,55,13,59,13,35,48,51,38		57, 5,30, 1	
		2, 2,40,16,57,31,13,21		8,58
44″	13, 0,57,16,39,30,33,20, 4,59		57, 5,38,59	
		2, 2,40,16, 0,25,34,22		8,58
46″	13, 0,59,19,19,46,33,45,39,21		57, 5,47,57	
		2, 2,40,15, 3,19,46,25		8,58
48″	13, 1, 1,22, 0, 1,37, 5,25,46		57, 5,56,55	
		2, 2,40,14, 6,13,49,30		8,58
50″	13, 1, 3,24,40,15,43,19,15,16		57, 6, 5,53	
		2, 2,40,13, 9, 7,43,37		8,58
52″	13, 1, 5,27,20,28,52,26,58,53		57, 6,14,51	
		2, 2,40,12,12, 1,28,46		8,58
54″	13, 1, 7,30, 0,41, 4,28,27,39		57, 6,23,49	
		2, 2,40,11,14,55, 4,57		8,58
56″	13, 1, 9,32,40,52,19,23,32,36		57, 6,32,47	
		2, 2,40,10,17,48,32,10		8,58
58″	13, 1,11,35,21, 2,37,12, 4,46		57, 6,41,45	
		2, 2,40, 9,20,41,50,25		
60″	13, 1,13,38, 1,11,57,53,55,11			
exact	13, 1,13,38, 1,11,57,53,48,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°32′ 0″	13, 1,13,38, 1,11,57,53,48,24			
		2, 2,40, 8,23,34,58,58		
2″	13, 1,15,40,41,20,21,28,47,22		57, 6,59,44	
		2, 2,40, 7,26,27,59,14		8,58
4″	13, 1,17,43,21,27,47,56,46,36		57, 7, 8,42	
		2, 2,40, 6,29,20,50,32		8,58
6″	13, 1,19,46, 1,34,17,17,37, 8		57, 7,17,40	
		2, 2,40, 5,32,13,32,52		8,58
8″	13, 1,21,48,41,39,49,31,10, 0		57, 7,26,38	
		2, 2,40, 4,35, 6, 6,14		8,58
10″	13, 1,23,51,21,44,24,37,16,14		57, 7,35,36	
		2, 2,40, 3,37,58,30,38		8,58
12″	13, 1,25,54, 1,48, 2,35,46,52		57, 7,44,34	
		2, 2,40, 2,40,50,46, 4		8,58
14″	13, 1,27,56,41,50,43,26,32,56		57, 7,53,32	
		2, 2,40, 1,43,42,52,32		8,58
16″	13, 1,29,59,21,52,27, 9,25,28		57, 8, 2,30	
		2, 2,40, 0,46,34,50, 2		8,58
18″	13, 1,32, 2, 1,53,13,44,15,30		57, 8,11,28	
		2, 2,39,59,49,26,38,34		8,58
20″	13, 1,34, 4,41,53, 3,10,54, 4		57, 8,20,26	
		2, 2,39,58,52,18,18, 8		8,58
22″	13, 1,36, 7,21,51,55,29,12,12		57, 8,29,24	
		2, 2,39,57,55, 9,48,44		8,58
24″	13, 1,38,10, 1,49,50,39, 0,56		57, 8,38,22	
		2, 2,39,56,58, 1,10,22		8,58
26″	13, 1,40,12,41,46,48,40,11,18		57, 8,47,20	
		2, 2,39,56, 0,52,23, 2		8,58
28″	13, 1,42,15,21,42,49,32,34,20		57, 8,56,18	
		2, 2,39,55, 3,43,26,44		8,58
30″	13, 1,44,18, 1,37,53,16, 1, 4		57, 9, 5,16	
		2, 2,39,54, 6,34,21,28		8,58
32″	13, 1,46,20,41,31,59,50,22,32		57, 9,14,14	
		2, 2,39,53, 9,25, 7,14		8,58
34″	13, 1,48,23,21,25, 9,15,29,46		57, 9,23,12	
		2, 2,39,52,12,15,44, 2		8,58
36″	13, 1,50,26, 1,17,21,31,13,48		57, 9,32,10	
		2, 2,39,51,15, 6,11,52		8,58
38″	13, 1,52,28,41, 8,36,37,25,40		57, 9,41, 8	
		2, 2,39,50,17,56,30,44		8,58
40″	13, 1,54,31,20,58,54,33,56,24		57, 9,50, 6	
		2, 2,39,49,20,46,40,38		8,58
42″	13, 1,56,34, 0,48,15,20,37, 2		57, 9,59, 4	
		2, 2,39,48,23,36,41,34		8,58
44″	13, 1,58,36,40,36,38,57,18,36		57,10, 8, 2	
		2, 2,39,47,26,26,33,32		8,58
46″	13, 2, 0,39,20,24, 5,23,52, 8		57,10,17, 0	
		2, 2,39,46,29,16,16,32		8,58
48″	13, 2, 2,42, 0,10,34,40, 8,40		57,10,25,58	
		2, 2,39,45,32, 5,50,34		8,58
50″	13, 2, 4,44,39,56, 6,45,59,14		57,10,34,56	
		2, 2,39,44,34,55,15,38		8,58
52″	13, 2, 6,47,19,40,41,41,14,52		57,10,43,54	
		2, 2,39,43,37,44,31,44		8,58
54″	13, 2, 8,49,59,24,19,25,46,36		57,10,52,52	
		2, 2,39,42,40,33,38,52		8,58
56″	13, 2,10,52,39, 6,59,59,25,28		57,11, 1,50	
		2, 2,39,41,43,22,37, 2		8,58
58″	13, 2,12,55,18,48,43,22, 2,30		57,11,10,48	
		2, 2,39,40,46,11,26,14		
60″	13, 2,14,57,58,29,29,33,28,44			
exact	13, 2,14,57,58,29,29,33,23,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°33′ 0″	13, 2,14,57,58,29,29,33,23,33			
		2, 2,39,39,49, 0, 5,56		
2″	13, 2,17, 0,38, 9,18,33,29,29		57,11,28,46	
		2, 2,39,38,51,48,37,10		8,58
4″	13, 2,19, 3,17,48,10,22, 6,39		57,11,37,44	
		2, 2,39,37,54,36,59,26		8,58
6″	13, 2,21, 5,57,26, 4,59, 6, 5		57,11,46,42	
		2, 2,39,36,57,25,12,44		8,58
8″	13, 2,23, 8,37, 3, 2,24,18,49		57,11,55,40	
		2, 2,39,36, 0,13,17, 4		8,58
10″	13, 2,25,11,16,39, 2,37,35,53		57,12, 4,38	
		2, 2,39,35, 3, 1,12,26		8,58
12″	13, 2,27,13,56,14, 5,38,48,19		57,12,13,36	
		2, 2,39,34, 5,48,58,50		8,58
14″	13, 2,29,16,35,48,11,27,47, 9		57,12,22,34	
		2, 2,39,33, 8,36,36,16		8,58
16″	13, 2,31,19,15,21,20, 4,23,25		57,12,31,32	
		2, 2,39,32,11,24, 4,44		8,58
18″	13, 2,33,21,54,53,31,28,28, 9		57,12,40,30	
		2, 2,39,31,14,11,24,14		8,58
20″	13, 2,35,24,34,24,45,39,52,23		57,12,49,28	
		2, 2,39,30,16,58,34,46		8,58
22″	13, 2,37,27,13,55, 2,38,27, 9		57,12,58,26	
		2, 2,39,29,19,45,36,20		8,58
24″	13, 2,39,29,53,24,22,24, 3,29		57,13, 7,24	
		2, 2,39,28,22,32,28,56		8,58
26″	13, 2,41,32,32,52,44,56,32,25		57,13,16,22	
		2, 2,39,27,25,19,12,34		8,58
28″	13, 2,43,35,12,20,10,15,44,59		57,13,25,20	
		2, 2,39,26,28, 5,47,14		8,58
30″	13, 2,45,37,51,46,38,21,32,13		57,13,34,18	
		2, 2,39,25,30,52,12,56		8,58
32″	13, 2,47,40,31,12, 9,13,45, 9		57,13,43,16	
		2, 2,39,24,33,38,29,40		8,58
34″	13, 2,49,43,10,36,42,52,14,49		57,13,52,14	
		2, 2,39,23,36,24,37,26		8,58
36″	13, 2,51,45,50, 0,19,16,52,15		57,14, 1,12	
		2, 2,39,22,39,10,36,14		8,58
38″	13, 2,53,48,29,22,58,27,28,29		57,14,10,10	
		2, 2,39,21,41,56,26, 4		8,58
40″	13, 2,55,51, 8,44,40,23,54,33		57,14,19, 8	
		2, 2,39,20,44,42, 6,56		8,58
42″	13, 2,57,53,48, 5,25, 6, 1,29		57,14,28, 6	
		2, 2,39,19,47,27,38,50		8,58
44″	13, 2,59,56,27,25,12,33,40,19		57,14,37, 4	
		2, 2,39,18,50,13, 1,46		8,58
46″	13, 3, 1,59, 6,44, 2,46,42, 5		57,14,46, 2	
		2, 2,39,17,52,58,15,44		8,58
48″	13, 3, 4, 1,46, 1,55,44,57,49		57,14,55, 0	
		2, 2,39,16,55,43,20,44		8,58
50″	13, 3, 6, 4,25,18,51,28,18,33		57,15, 3,58	
		2, 2,39,15,58,28,16,46		8,58
52″	13, 3, 8, 7, 4,34,49,56,35,19		57,15,12,56	
		2, 2,39,15, 1,13, 3,50		8,58
54″	13, 3,10, 9,43,49,51, 9,39, 9		57,15,21,54	
		2, 2,39,14, 3,57,41,56		8,58
56″	13, 3,12,12,23, 3,55, 7,21, 5		57,15,30,52	
		2, 2,39,13, 6,42,11, 4		8,58
58″	13, 3,14,15, 2,17, 1,49,32, 9		57,15,39,50	
		2, 2,39,12, 9,26,31,14		
60″	13, 3,16,17,41,29,11,16, 3,23			
exact	13, 3,16,17,41,29,11,16, 0,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°34′ 0″	13, 3,16,17,41,29,11,16, 0,13			
		2, 2,39,11,12,10,42, 8		
2″	13, 3,18,20,20,40,23,26,42,21		57,15,57,47	
		2, 2,39,10,14,54,44,21		8,58
4″	13, 3,20,22,59,50,38,21,26,42		57,16, 6,45	
		2, 2,39, 9,17,38,37,36		8,58
6″	13, 3,22,25,38,59,56, 0, 4,18		57,16,15,43	
		2, 2,39, 8,20,22,21,53		8,58
8″	13, 3,24,28,18, 8,16,22,26,11		57,16,24,41	
		2, 2,39, 7,23, 5,57,12		8,58
10″	13, 3,26,30,57,15,39,28,23,23		57,16,33,39	
		2, 2,39, 6,25,49,23,33		8,58
12″	13, 3,28,33,36,22, 5,17,46,56		57,16,42,37	
		2, 2,39, 5,28,32,40,56		8,58
14″	13, 3,30,36,15,27,33,50,27,52		57,16,51,35	
		2, 2,39, 4,31,15,49,21		8,58
16″	13, 3,32,38,54,32, 5, 6,17,13		57,17, 0,33	
		2, 2,39, 3,33,58,48,48		8,58
18″	13, 3,34,41,33,35,39, 5, 6, 1		57,17, 9,31	
		2, 2,39, 2,36,41,39,17		8,58
20″	13, 3,36,44,12,38,15,46,45,18		57,17,18,29	
		2, 2,39, 1,39,24,20,48		8,58
22″	13, 3,38,46,51,39,55,11, 6, 6		57,17,27,27	
		2, 2,39, 0,42, 6,53,21		8,58
24″	13, 3,40,49,30,40,37,17,59,27		57,17,36,25	
		2, 2,38,59,44,49,16,56		8,58
26″	13, 3,42,52, 9,40,22, 7,16,23		57,17,45,23	
		2, 2,38,58,47,31,31,33		8,58
28″	13, 3,44,54,48,39, 9,38,47,56		57,17,54,21	
		2, 2,38,57,50,13,37,12		8,58
30″	13, 3,46,57,27,36,59,52,25, 8		57,18, 3,19	
		2, 2,38,56,52,55,33,53		8,58
32″	13, 3,49, 0, 6,33,52,47,59, 1		57,18,12,17	
		2, 2,38,55,55,37,21,36		8,58
34″	13, 3,51, 2,45,29,48,25,20,37		57,18,21,15	
		2, 2,38,54,58,19, 0,21		8,58
36″	13, 3,53, 5,24,24,46,44,20,58		57,18,30,13	
		2, 2,38,54, 1, 0,30, 8		8,58
38″	13, 3,55, 8, 3,18,47,44,51, 6		57,18,39,11	
		2, 2,38,53, 3,41,50,57		8,58
40″	13, 3,57,10,42,11,51,26,42, 3		57,18,48, 9	
		2, 2,38,52, 6,23, 2,48		8,58
42″	13, 3,59,13,21, 3,57,49,44,51		57,18,57, 7	
		2, 2,38,51, 9, 4, 5,41		8,58
44″	13, 4, 1,15,59,55, 6,53,50,32		57,19, 6, 5	
		2, 2,38,50,11,44,59,36		8,58
46″	13, 4, 3,18,38,45,18,38,50, 8		57,19,15, 3	
		2, 2,38,49,14,25,44,33		8,58
48″	13, 4, 5,21,17,34,33, 4,34,41		57,19,24, 1	
		2, 2,38,48,17, 6,20,32		8,58
50″	13, 4, 7,23,56,22,50,10,55,13		57,19,32,59	
		2, 2,38,47,19,46,47,33		8,58
52″	13, 4, 9,26,35,10, 9,57,42,46		57,19,41,57	
		2, 2,38,46,22,27, 5,36		8,58
54″	13, 4,11,29,13,56,32,24,48,22		57,19,50,55	
		2, 2,38,45,25, 7,14,41		8,58
56″	13, 4,13,31,52,41,57,32, 3, 3		57,19,59,53	
		2, 2,38,44,27,47,14,48		8,58
58″	13, 4,15,34,31,26,25,19,17,51		57,20, 8,51	
		2, 2,38,43,30,27, 5,57		
60″	13, 4,17,37,10, 9,55,46,23,48			
exact	13, 4,17,37,10, 9,55,46,22,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°35′ 0″	13, 4,17,37,10, 9,55,46,22,47			
		2, 2,38,42,33, 6,48, 4		
2″	13, 4,19,39,48,52,28,53,10,51		57,20,26,47	
		2, 2,38,41,35,46,21,17		8,58
4″	13, 4,21,42,27,34, 4,39,32, 8		57,20,35,45	
		2, 2,38,40,38,25,45,32		8,58
6″	13, 4,23,45, 6,14,43, 5,17,40		57,20,44,43	
		2, 2,38,39,41, 5, 0,49		8,58
8″	13, 4,25,47,44,54,24,10,18,29		57,20,53,41	
		2, 2,38,38,43,44, 7, 8		8,58
10″	13, 4,27,50,23,33, 7,54,25,37		57,21, 2,39	
		2, 2,38,37,46,23, 4,29		8,58
12″	13, 4,29,53, 2,10,54,17,30, 6		57,21,11,37	
		2, 2,38,36,49, 1,52,52		8,58
14″	13, 4,31,55,40,47,43,19,22,58		57,21,20,35	
		2, 2,38,35,51,40,32,17		8,58
16″	13, 4,33,58,19,23,34,59,55,15		57,21,29,33	
		2, 2,38,34,54,19, 2,44		8,58
18″	13, 4,36, 0,57,58,29,18,57,59		57,21,38,31	
		2, 2,38,33,56,57,24,13		8,58
20″	13, 4,38, 3,36,32,26,16,22,12		57,21,47,29	
		2, 2,38,32,59,35,36,44		8,58
22″	13, 4,40, 6,15, 5,25,51,58,56		57,21,56,27	
		2, 2,38,32, 2,13,40,17		8,58
24″	13, 4,42, 8,53,37,28, 5,39,13		57,22, 5,25	
		2, 2,38,31, 4,51,34,52		8,58
26″	13, 4,44,11,32, 8,32,57,14, 5		57,22,14,23	
		2, 2,38,30, 7,29,20,29		8,58
28″	13, 4,46,14,10,38,40,26,34,34		57,22,23,21	
		2, 2,38,29,10, 6,57, 8		8,58
30″	13, 4,48,16,49, 7,50,33,31,42		57,22,32,19	
		2, 2,38,28,12,44,24,49		8,58
32″	13, 4,50,19,27,36, 3,17,56,31		57,22,41,17	
		2, 2,38,27,15,21,43,32		8,58
34″	13, 4,52,22, 6, 3,18,39,40, 3		57,22,50,15	
		2, 2,38,26,17,58,53,17		8,58
36″	13, 4,54,24,44,29,36,38,33,20		57,22,59,13	
		2, 2,38,25,20,35,54, 4		8,58
38″	13, 4,56,27,22,54,57,14,27,24		57,23, 8,11	
		2, 2,38,24,23,12,45,53		8,58
40″	13, 4,58,30, 1,19,20,27,13,17		57,23,17, 9	
		2, 2,38,23,25,49,28,44		8,58
42″	13, 5, 0,32,39,42,46,16,42, 1		57,23,26, 7	
		2, 2,38,22,28,26, 2,37		8,58
44″	13, 5, 2,35,18, 5,14,42,44,38		57,23,35, 5	
		2, 2,38,21,31, 2,27,32		8,58
46″	13, 5, 4,37,56,26,45,45,12,10		57,23,44, 3	
		2, 2,38,20,33,38,43,29		8,58
48″	13, 5, 6,40,34,47,19,23,55,39		57,23,53, 1	
		2, 2,38,19,36,14,50,28		8,58
50″	13, 5, 8,43,13, 6,55,38,46, 7		57,24, 1,59	
		2, 2,38,18,38,50,48,29		8,58
52″	13, 5,10,45,51,25,34,29,34,36		57,24,10,57	
		2, 2,38,17,41,26,37,32		8,58
54″	13, 5,12,48,29,43,15,56,12, 8		57,24,19,55	
		2, 2,38,16,44, 2,17,37		8,58
56″	13, 5,14,51, 7,59,59,58,29,45		57,24,28,53	
		2, 2,38,15,46,37,48,44		8,58
58″	13, 5,16,53,46,15,46,36,18,29		57,24,37,51	
		2, 2,38,14,49,13,10,53		
60″	13, 5,18,56,24,30,35,49,29,22			
exact	13, 5,18,56,24,30,35,49,31,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°36′ 0″	13, 5,18,56,24,30,35,49,31,17			
		2, 2,38,13,51,48,24,17		
2″	13, 5,20,59, 2,44,27,37,55,34		57,24,55,46	
		2, 2,38,12,54,23,28,31		8,58
4″	13, 5,23, 1,40,57,22, 1,24, 5		57,25, 4,44	
		2, 2,38,11,56,58,23,47		8,58
6″	13, 5,25, 4,19, 9,18,59,47,52		57,25,13,42	
		2, 2,38,10,59,33,10, 5		8,58
8″	13, 5,27, 6,57,20,18,32,57,57		57,25,22,40	
		2, 2,38,10, 2, 7,47,25		8,58
10″	13, 5,29, 9,35,30,20,40,45,22		57,25,31,38	
		2, 2,38, 9, 4,42,15,47		8,58
12″	13, 5,31,12,13,39,25,23, 1, 9		57,25,40,36	
		2, 2,38, 8, 7,16,35,11		8,58
14″	13, 5,33,14,51,47,32,39,36,20		57,25,49,34	
		2, 2,38, 7, 9,50,45,37		8,58
16″	13, 5,35,17,29,54,42,30,21,57		57,25,58,32	
		2, 2,38, 6,12,24,47, 5		8,58
18″	13, 5,37,20, 8, 0,54,55, 9, 2		57,26, 7,30	
		2, 2,38, 5,14,58,39,35		8,58
20″	13, 5,39,22,46, 6, 9,53,48,37		57,26,16,28	
		2, 2,38, 4,17,32,23, 7		8,58
22″	13, 5,41,25,24,10,27,26,11,44		57,26,25,26	
		2, 2,38, 3,20, 5,57,41		8,58
24″	13, 5,43,28, 2,13,47,32, 9,25		57,26,34,24	
		2, 2,38, 2,22,39,23,17		8,58
26″	13, 5,45,30,40,16,10,11,32,42		57,26,43,22	
		2, 2,38, 1,25,12,39,55		8,58
28″	13, 5,47,33,18,17,35,24,12,37		57,26,52,20	
		2, 2,38, 0,27,45,47,35		8,58
30″	13, 5,49,35,56,18, 3,10, 0,12		57,27, 1,18	
		2, 2,37,59,30,18,46,17		8,58
32″	13, 5,51,38,34,17,33,28,46,29		57,27,10,16	
		2, 2,37,58,32,51,36, 1		8,58
34″	13, 5,53,41,12,16, 6,20,22,30		57,27,19,14	
		2, 2,37,57,35,24,16,47		8,58
36″	13, 5,55,43,50,13,41,44,39,17		57,27,28,12	
		2, 2,37,56,37,56,48,35		8,58
38″	13, 5,57,46,28,10,19,41,27,52		57,27,37,10	
		2, 2,37,55,40,29,11,25		8,58
40″	13, 5,59,49, 6, 6, 0,10,39,17		57,27,46, 8	
		2, 2,37,54,43, 1,25,17		8,58
42″	13, 6, 1,51,44, 0,43,12, 4,34		57,27,55, 6	
		2, 2,37,53,45,33,30,11		8,58
44″	13, 6, 3,54,21,54,28,45,34,45		57,28, 4, 4	
		2, 2,37,52,48, 5,26, 7		8,58
46″	13, 6, 5,56,59,47,16,51, 0,52		57,28,13, 2	
		2, 2,37,51,50,37,13, 5		8,58
48″	13, 6, 7,59,37,39, 7,28,13,57		57,28,22, 0	
		2, 2,37,50,53, 8,51, 5		8,58
50″	13, 6,10, 2,15,30, 0,37, 5, 2		57,28,30,58	
		2, 2,37,49,55,40,20, 7		8,58
52″	13, 6,12, 4,53,19,56,17,25, 9		57,28,39,56	
		2, 2,37,48,58,11,40,11		8,58
54″	13, 6,14, 7,31, 8,54,29, 5,20		57,28,48,54	
		2, 2,37,48, 0,42,51,17		8,58
56″	13, 6,16,10, 8,56,55,11,56,37		57,28,57,52	
		2, 2,37,47, 3,13,53,25		8,58
58″	13, 6,18,12,46,43,58,25,50, 2		57,29, 6,50	
		2, 2,37,46, 5,44,46,35		
60″	13, 6,20,15,24,30, 4,10,36,37			
exact	13, 6,20,15,24,30, 4,10,41,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°37′ 0″	13, 6,20,15,24,30, 4,10,41,30			
		2, 2,37,45, 8,15,31,18		
2″	13, 6,22,18, 2,15,12,26,12,48		57,29,24,44	
		2, 2,37,44,10,46, 6,34		8,58
4″	13, 6,24,20,39,59,23,12,19,22		57,29,33,42	
		2, 2,37,43,13,16,32,52		8,58
6″	13, 6,26,23,17,42,36,28,52,14		57,29,42,40	
		2, 2,37,42,15,46,50,12		8,58
8″	13, 6,28,25,55,24,52,15,42,26		57,29,51,38	
		2, 2,37,41,18,16,58,34		8,58
10″	13, 6,30,28,33, 6,10,32,41, 0		57,30, 0,36	
		2, 2,37,40,20,46,57,58		8,58
12″	13, 6,32,31,10,46,31,19,38,58		57,30, 9,34	
		2, 2,37,39,23,16,48,24		8,58
14″	13, 6,34,33,48,25,54,36,27,22		57,30,18,32	
		2, 2,37,38,25,46,29,52		8,58
16″	13, 6,36,36,26, 4,20,22,57,14		57,30,27,30	
		2, 2,37,37,28,16, 2,22		8,58
18″	13, 6,38,39, 3,41,48,38,59,36		57,30,36,28	
		2, 2,37,36,30,45,25,54		8,58
20″	13, 6,40,41,41,18,19,24,25,30		57,30,45,26	
		2, 2,37,35,33,14,40,28		8,58
22″	13, 6,42,44,18,53,52,39, 5,58		57,30,54,24	
		2, 2,37,34,35,43,46, 4		8,58
24″	13, 6,44,46,56,28,28,22,52, 2		57,31, 3,22	
		2, 2,37,33,38,12,42,42		8,58
26″	13, 6,46,49,34, 2, 6,35,34,44		57,31,12,20	
		2, 2,37,32,40,41,30,22		8,58
28″	13, 6,48,52,11,34,47,17, 5, 6		57,31,21,18	
		2, 2,37,31,43,10, 9, 4		8,58
30″	13, 6,50,54,49, 6,30,27,14,10		57,31,30,16	
		2, 2,37,30,45,38,38,48		8,58
32″	13, 6,52,57,26,37,16, 5,52,58		57,31,39,14	
		2, 2,37,29,48, 6,59,34		8,58
34″	13, 6,55, 0, 4, 7, 4,12,52,32		57,31,48,12	
		2, 2,37,28,50,35,11,22		8,58
36″	13, 6,57, 2,41,35,54,48, 3,54		57,31,57,10	
		2, 2,37,27,53, 3,14,12		8,58
38″	13, 6,59, 5,19, 3,47,51,18, 6		57,32, 6, 8	
		2, 2,37,26,55,31, 8, 4		8,58
40″	13, 7, 1, 7,56,30,43,22,26,10		57,32,15, 6	
		2, 2,37,25,57,58,52,58		8,58
42″	13, 7, 3,10,33,56,41,21,19, 8		57,32,24, 4	
		2, 2,37,25, 0,26,28,54		8,58
44″	13, 7, 5,13,11,21,41,47,48, 2		57,32,33, 2	
		2, 2,37,24, 2,53,55,52		8,58
46″	13, 7, 7,15,48,45,44,41,43,54		57,32,42, 0	
		2, 2,37,23, 5,21,13,52		8,58
48″	13, 7, 9,18,26, 8,50, 2,57,46		57,32,50,58	
		2, 2,37,22, 7,48,22,54		8,58
50″	13, 7,11,21, 3,30,57,51,20,40		57,32,59,56	
		2, 2,37,21,10,15,22,58		8,58
52″	13, 7,13,23,40,52, 8, 6,43,38		57,33, 8,54	
		2, 2,37,20,12,42,14, 4		8,58
54″	13, 7,15,26,18,12,20,48,57,42		57,33,17,52	
		2, 2,37,19,15, 8,56,12		8,58
56″	13, 7,17,28,55,31,35,57,53,54		57,33,26,50	
		2, 2,37,18,17,35,29,22		8,58
58″	13, 7,19,31,32,49,53,33,23,16		57,33,35,48	
		2, 2,37,17,20, 1,53,34		
60″	13, 7,21,34,10, 7,13,35,16,50			
exact	13, 7,21,34,10, 7,13,35,24,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°38′ 0″	13, 7,21,34,10, 7,13,35,24,57			
		2, 2,37,16,22,28, 9,38		
2″	13, 7,23,36,47,23,36, 3,34,35		57,33,53,41	
		2, 2,37,15,24,54,15,57		8,58
4″	13, 7,25,39,24,39, 0,57,50,32		57,34, 2,39	
		2, 2,37,14,27,20,13,18		8,58
6″	13, 7,27,42, 1,53,28,18, 3,50		57,34,11,37	
		2, 2,37,13,29,46, 1,41		8,58
8″	13, 7,29,44,39, 6,58, 4, 5,31		57,34,20,35	
		2, 2,37,12,32,11,41, 6		8,58
10″	13, 7,31,47,16,19,30,15,46,37		57,34,29,33	
		2, 2,37,11,34,37,11,33		8,58
12″	13, 7,33,49,53,31, 4,52,58,10		57,34,38,31	
		2, 2,37,10,37, 2,33, 2		8,58
14″	13, 7,35,52,30,41,41,55,31,12		57,34,47,29	
		2, 2,37, 9,39,27,45,33		8,58
16″	13, 7,37,55, 7,51,21,23,16,45		57,34,56,27	
		2, 2,37, 8,41,52,49, 6		8,58
18″	13, 7,39,57,45, 0, 3,16, 5,51		57,35, 5,25	
		2, 2,37, 7,44,17,43,41		8,58
20″	13, 7,42, 0,22, 7,47,33,49,32		57,35,14,23	
		2, 2,37, 6,46,42,29,18		8,58
22″	13, 7,44, 2,59,14,34,16,18,50		57,35,23,21	
		2, 2,37, 5,49, 7, 5,57		8,58
24″	13, 7,46, 5,36,20,23,23,24,47		57,35,32,19	
		2, 2,37, 4,51,31,33,38		8,58
26″	13, 7,48, 8,13,25,14,54,58,25		57,35,41,17	
		2, 2,37, 3,53,55,52,21		8,58
28″	13, 7,50,10,50,29, 8,50,50,46		57,35,50,15	
		2, 2,37, 2,56,20, 2, 6		8,58
30″	13, 7,52,13,27,32, 5,10,52,52		57,35,59,13	
		2, 2,37, 1,58,44, 2,53		8,58
32″	13, 7,54,16, 4,34, 3,54,55,45		57,36, 8,11	
		2, 2,37, 1, 1, 7,54,42		8,58
34″	13, 7,56,18,41,35, 5, 2,50,27		57,36,17, 9	
		2, 2,37, 0, 3,31,37,33		8,58
36″	13, 7,58,21,18,35, 8,34,28, 0		57,36,26, 7	
		2, 2,36,59, 5,55,11,26		8,58
38″	13, 8, 0,23,55,34,14,29,39,26		57,36,35, 5	
		2, 2,36,58, 8,18,36,21		8,58
40″	13, 8, 2,26,32,32,22,48,15,47		57,36,44, 3	
		2, 2,36,57,10,41,52,18		8,58
42″	13, 8, 4,29, 9,29,33,30, 8, 5		57,36,53, 1	
		2, 2,36,56,13, 4,59,17		8,58
44″	13, 8, 6,31,46,25,46,35, 7,22		57,37, 1,59	
		2, 2,36,55,15,27,57,18		8,58
46″	13, 8, 8,34,23,21, 2, 3, 4,40		57,37,10,57	
		2, 2,36,54,17,50,46,21		8,58
48″	13, 8,10,37, 0,15,19,53,51, 1		57,37,19,55	
		2, 2,36,53,20,13,26,26		8,58
50″	13, 8,12,39,37, 8,40, 7,17,27		57,37,28,53	
		2, 2,36,52,22,35,57,33		8,58
52″	13, 8,14,42,14, 1, 2,43,15, 0		57,37,37,51	
		2, 2,36,51,24,58,19,42		8,58
54″	13, 8,16,44,50,52,27,41,34,42		57,37,46,49	
		2, 2,36,50,27,20,32,53		8,58
56″	13, 8,18,47,27,42,55, 2, 7,35		57,37,55,47	
		2, 2,36,49,29,42,37, 6		8,58
58″	13, 8,20,50, 4,32,24,44,44,41		57,38, 4,45	
		2, 2,36,48,32, 4,32,21		
60″	13, 8,22,52,41,20,56,49,17, 2			
exact	13, 8,22,52,41,20,56,49,28,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°39′ 0″	13, 8,22,52,41,20,56,49,28,54			
		2, 2,36,47,34,26,19,49		
2″	13, 8,24,55,18, 8,31,15,48,43		57,38,22,36	
		2, 2,36,46,36,47,57,13		8,58
4″	13, 8,26,57,54,55, 8, 3,45,56		57,38,31,34	
		2, 2,36,45,39, 9,25,39		8,58
6″	13, 8,29, 0,31,40,47,13,11,35		57,38,40,32	
		2, 2,36,44,41,30,45, 7		8,58
8″	13, 8,31, 3, 8,25,28,43,56,42		57,38,49,30	
		2, 2,36,43,43,51,55,37		8,58
10″	13, 8,33, 5,45, 9,12,35,52,19		57,38,58,28	
		2, 2,36,42,46,12,57, 9		8,58
12″	13, 8,35, 8,21,51,58,48,49,28		57,39, 7,26	
		2, 2,36,41,48,33,49,43		8,58
14″	13, 8,37,10,58,33,47,22,39,11		57,39,16,24	
		2, 2,36,40,50,54,33,19		8,58
16″	13, 8,39,13,35,14,38,17,12,30		57,39,25,22	
		2, 2,36,39,53,15, 7,57		8,58
18″	13, 8,41,16,11,54,31,32,20,27		57,39,34,20	
		2, 2,36,38,55,35,33,37		8,58
20″	13, 8,43,18,48,33,27, 7,54, 4		57,39,43,18	
		2, 2,36,37,57,55,50,19		8,58
22″	13, 8,45,21,25,11,25, 3,44,23		57,39,52,16	
		2, 2,36,37, 0,15,58, 3		8,58
24″	13, 8,47,24, 1,48,25,19,42,26		57,40, 1,14	
		2, 2,36,36, 2,35,56,49		8,58
26″	13, 8,49,26,38,24,27,55,39,15		57,40,10,12	
		2, 2,36,35, 4,55,46,37		8,58
28″	13, 8,51,29,14,59,32,51,25,52		57,40,19,10	
		2, 2,36,34, 7,15,27,27		8,58
30″	13, 8,53,31,51,33,40, 6,53,19		57,40,28, 8	
		2, 2,36,33, 9,34,59,19		8,58
32″	13, 8,55,34,28, 6,49,41,52,38		57,40,37, 6	
		2, 2,36,32,11,54,22,13		8,58
34″	13, 8,57,37, 4,39, 1,36,14,51		57,40,46, 4	
		2, 2,36,31,14,13,36, 9		8,58
36″	13, 8,59,39,41,10,15,49,51, 0		57,40,55, 2	
		2, 2,36,30,16,32,41, 7		8,58
38″	13, 9, 1,42,17,40,32,22,32, 7		57,41, 4, 0	
		2, 2,36,29,18,51,37, 7		8,58
40″	13, 9, 3,44,54, 9,51,14, 9,14		57,41,12,58	
		2, 2,36,28,21,10,24, 9		8,58
42″	13, 9, 5,47,30,38,12,24,33,23		57,41,21,56	
		2, 2,36,27,23,29, 2,13		8,58
44″	13, 9, 7,50, 7, 5,35,53,35,36		57,41,30,54	
		2, 2,36,26,25,47,31,19		8,58
46″	13, 9, 9,52,43,32, 1,41, 6,55		57,41,39,52	
		2, 2,36,25,28, 5,51,27		8,58
48″	13, 9,11,55,19,57,29,46,58,22		57,41,48,50	
		2, 2,36,24,30,24, 2,37		8,58
50″	13, 9,13,57,56,22, 0,11, 0,59		57,41,57,48	
		2, 2,36,23,32,42, 4,49		8,58
52″	13, 9,16, 0,32,45,32,53, 5,48		57,42, 6,46	
		2, 2,36,22,34,59,58, 3		8,58
54″	13, 9,18, 3, 9, 8, 7,53, 3,51		57,42,15,44	
		2, 2,36,21,37,17,42,19		8,58
56″	13, 9,20, 5,45,29,45,10,46,10		57,42,24,42	
		2, 2,36,20,39,35,17,37		8,58
58″	13, 9,22, 8,21,50,24,46, 3,47		57,42,33,40	
		2, 2,36,19,41,52,43,57		
60″	13, 9,24,10,58,10, 6,38,47,44			
exact	13, 9,24,10,58,10, 6,38,56,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°40′ 0″	13, 9,24,10,58,10, 6,38,56,24			
		2, 2,36,18,44,10, 2,22		
2″	13, 9,26,13,34,28,50,48,58,46		57,42,51,31	
		2, 2,36,17,46,27,10,51		8,58
4″	13, 9,28,16,10,46,37,16, 9,37		57,43, 0,29	
		2, 2,36,16,48,44,10,22		8,58
6″	13, 9,30,18,47, 3,26, 0,19,59		57,43, 9,27	
		2, 2,36,15,51, 1, 0,55		8,58
8″	13, 9,32,21,23,19,17, 1,20,54		57,43,18,25	
		2, 2,36,14,53,17,42,30		8,58
10″	13, 9,34,23,59,34,10,19, 3,24		57,43,27,23	
		2, 2,36,13,55,34,15, 7		8,58
12″	13, 9,36,26,35,48, 5,53,18,31		57,43,36,21	
		2, 2,36,12,57,50,38,46		8,58
14″	13, 9,38,29,12, 1, 3,43,57,17		57,43,45,19	
		2, 2,36,12, 0, 6,53,27		8,58
16″	13, 9,40,31,48,13, 3,50,50,44		57,43,54,17	
		2, 2,36,11, 2,22,59,10		8,58
18″	13, 9,42,34,24,24, 6,13,49,54		57,44, 3,15	
		2, 2,36,10, 4,38,55,55		8,58
20″	13, 9,44,37, 0,34,10,52,45,49		57,44,12,13	
		2, 2,36, 9, 6,54,43,42		8,58
22″	13, 9,46,39,36,43,17,47,29,31		57,44,21,11	
		2, 2,36, 8, 9,10,22,31		8,58
24″	13, 9,48,42,12,51,26,57,52, 2		57,44,30, 9	
		2, 2,36, 7,11,25,52,22		8,58
26″	13, 9,50,44,48,58,38,23,44,24		57,44,39, 7	
		2, 2,36, 6,13,41,13,15		8,58
28″	13, 9,52,47,25, 4,52, 4,57,39		57,44,48, 5	
		2, 2,36, 5,15,56,25,10		8,58
30″	13, 9,54,50, 1,10, 8, 1,22,49		57,44,57, 3	
		2, 2,36, 4,18,11,28, 7		8,58
32″	13, 9,56,52,37,14,26,12,50,56		57,45, 6, 1	
		2, 2,36, 3,20,26,22, 6		8,58
34″	13, 9,58,55,13,17,46,39,13, 2		57,45,14,59	
		2, 2,36, 2,22,41, 7, 7		8,58
36″	13,10, 0,57,49,20, 9,20,20, 9		57,45,23,57	
		2, 2,36, 1,24,55,43,10		8,58
38″	13,10, 3, 0,25,21,34,16, 3,19		57,45,32,55	
		2, 2,36, 0,27,10,10,15		8,58
40″	13,10, 5, 3, 1,22, 1,26,13,34		57,45,41,53	
		2, 2,35,59,29,24,28,22		8,58
42″	13,10, 7, 5,37,21,30,50,41,56		57,45,50,51	
		2, 2,35,58,31,38,37,31		8,58
44″	13,10, 9, 8,13,20, 2,29,19,27		57,45,59,49	
		2, 2,35,57,33,52,37,42		8,58
46″	13,10,11,10,49,17,36,21,57, 9		57,46, 8,47	
		2, 2,35,56,36, 6,28,55		8,58
48″	13,10,13,13,25,14,12,28,26, 4		57,46,17,45	
		2, 2,35,55,38,20,11,10		8,58
50″	13,10,15,16, 1, 9,50,48,37,14		57,46,26,43	
		2, 2,35,54,40,33,44,27		8,58
52″	13,10,17,18,37, 4,31,22,21,41		57,46,35,41	
		2, 2,35,53,42,47, 8,46		8,58
54″	13,10,19,21,12,58,14, 9,30,27		57,46,44,39	
		2, 2,35,52,45, 0,24, 7		8,58
56″	13,10,21,23,48,50,59, 9,54,34		57,46,53,37	
		2, 2,35,51,47,13,30,30		8,58
58″	13,10,23,26,24,42,46,23,25, 4		57,47, 2,35	
		2, 2,35,50,49,26,27,55		
60″	13,10,25,29, 0,33,35,49,52,59			
exact	13,10,25,29, 0,33,35,50, 6,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°41′ 0″	13,10,25,29, 0,33,35,50, 6,19			
		2, 2,35,49,51,39,17,50		
2″	13,10,27,31,36,23,27,29,24, 9		57,47,20,25	
		2, 2,35,48,53,51,57,25		8,58
4″	13,10,29,34,12,12,21,21,21,34		57,47,29,23	
		2, 2,35,47,56, 4,28, 2		8,58
6″	13,10,31,36,48, 0,17,25,49,36		57,47,38,21	
		2, 2,35,46,58,16,49,41		8,58
8″	13,10,33,39,23,47,15,42,39,17		57,47,47,19	
		2, 2,35,46, 0,29, 2,22		8,58
10″	13,10,35,41,59,33,16,11,41,39		57,47,56,17	
		2, 2,35,45, 2,41, 6, 5		8,58
12″	13,10,37,44,35,18,18,52,47,44		57,48, 5,15	
		2, 2,35,44, 4,53, 0,50		8,58
14″	13,10,39,47,11, 2,23,45,48,34		57,48,14,13	
		2, 2,35,43, 7, 4,46,37		8,58
16″	13,10,41,49,46,45,30,50,35,11		57,48,23,11	
		2, 2,35,42, 9,16,23,26		8,58
18″	13,10,43,52,22,27,40, 6,58,37		57,48,32, 9	
		2, 2,35,41,11,27,51,17		8,58
20″	13,10,45,54,58, 8,51,34,49,54		57,48,41, 7	
		2, 2,35,40,13,39,10,10		8,58
22″	13,10,47,57,33,49, 5,14, 0, 4		57,48,50, 5	
		2, 2,35,39,15,50,20, 5		8,58
24″	13,10,50, 0, 9,28,21, 4,20, 9		57,48,59, 3	
		2, 2,35,38,18, 1,21, 2		8,58
26″	13,10,52, 2,45, 6,39, 5,41,11		57,49, 8, 1	
		2, 2,35,37,20,12,13, 1		8,58
28″	13,10,54, 5,20,43,59,17,54,12		57,49,16,59	
		2, 2,35,36,22,22,56, 2		8,58
30″	13,10,56, 7,56,20,21,40,50,14		57,49,25,57	
		2, 2,35,35,24,33,30, 5		8,58
32″	13,10,58,10,31,55,46,14,20,19		57,49,34,55	
		2, 2,35,34,26,43,55,10		8,58
34″	13,11, 0,13, 7,30,12,58,15,29		57,49,43,53	
		2, 2,35,33,28,54,11,17		8,58
36″	13,11, 2,15,43, 3,41,52,26,46		57,49,52,51	
		2, 2,35,32,31, 4,18,26		8,58
38″	13,11, 4,18,18,36,12,56,45,12		57,50, 1,49	
		2, 2,35,31,33,14,16,37		8,58
40″	13,11, 6,20,54, 7,46,11, 1,49		57,50,10,47	
		2, 2,35,30,35,24, 5,50		8,58
42″	13,11, 8,23,29,38,21,35, 7,39		57,50,19,45	
		2, 2,35,29,37,33,46, 5		8,58
44″	13,11,10,26, 5, 7,59, 8,53,44		57,50,28,43	
		2, 2,35,28,39,43,17,22		8,58
46″	13,11,12,28,40,36,38,52,11, 6		57,50,37,41	
		2, 2,35,27,41,52,39,41		8,58
48″	13,11,14,31,16, 4,20,44,50,47		57,50,46,39	
		2, 2,35,26,44, 1,53, 2		8,58
50″	13,11,16,33,51,31, 4,46,43,49		57,50,55,37	
		2, 2,35,25,46,10,57,25		8,58
52″	13,11,18,36,26,56,50,57,41,14		57,51, 4,35	
		2, 2,35,24,48,19,52,50		8,58
54″	13,11,20,39, 2,21,39,17,34, 4		57,51,13,33	
		2, 2,35,23,50,28,39,17		8,58
56″	13,11,22,41,37,45,29,46,13,21		57,51,22,31	
		2, 2,35,22,52,37,16,46		8,58
58″	13,11,24,44,13, 8,22,23,30, 7		57,51,31,29	
		2, 2,35,21,54,45,45,17		
60″	13,11,26,46,48,30,17, 9,15,24			
exact	13,11,26,46,48,30,17, 9,33,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°42′ 0″	13,11,26,46,48,30,17, 9,33,19			
		2, 2,35,20,56,54, 6,43		
2″	13,11,28,49,23,51,14, 3,40, 2		57,51,49,17	
		2, 2,35,19,59, 2,17,26		8,58
4″	13,11,30,51,59,11,13, 5,57,28		57,51,58,15	
		2, 2,35,19, 1,10,19,11		8,58
6″	13,11,32,54,34,30,14,16,16,39		57,52, 7,13	
		2, 2,35,18, 3,18,11,58		8,58
8″	13,11,34,57, 9,48,17,34,28,37		57,52,16,11	
		2, 2,35,17, 5,25,55,47		8,58
10″	13,11,36,59,45, 5,23, 0,24,24		57,52,25, 9	
		2, 2,35,16, 7,33,30,38		8,58
12″	13,11,39, 2,20,21,30,33,55, 2		57,52,34, 7	
		2, 2,35,15, 9,40,56,31		8,58
14″	13,11,41, 4,55,36,40,14,51,33		57,52,43, 5	
		2, 2,35,14,11,48,13,26		8,58
16″	13,11,43, 7,30,50,52, 3, 4,59		57,52,52, 3	
		2, 2,35,13,13,55,21,23		8,58
18″	13,11,45,10, 6, 4, 5,58,26,22		57,53, 1, 1	
		2, 2,35,12,16, 2,20,22		8,58
20″	13,11,47,12,41,16,22, 0,46,44		57,53, 9,59	
		2, 2,35,11,18, 9,10,23		8,58
22″	13,11,49,15,16,27,40, 9,57, 7		57,53,18,57	
		2, 2,35,10,20,15,51,26		8,58
24″	13,11,51,17,51,38, 0,25,48,33		57,53,27,55	
		2, 2,35, 9,22,22,23,31		8,58
26″	13,11,53,20,26,47,22,48,12, 4		57,53,36,53	
		2, 2,35, 8,24,28,46,38		8,58
28″	13,11,55,23, 1,55,47,16,58,42		57,53,45,51	
		2, 2,35, 7,26,35, 0,47		8,58
30″	13,11,57,25,37, 3,13,51,59,29		57,53,54,49	
		2, 2,35, 6,28,41, 5,58		8,58
32″	13,11,59,28,12, 9,42,33, 5,27		57,54, 3,47	
		2, 2,35, 5,30,47, 2,11		8,58
34″	13,12, 1,30,47,15,13,20, 7,38		57,54,12,45	
		2, 2,35, 4,32,52,49,26		8,58
36″	13,12, 3,33,22,19,46,12,57, 4		57,54,21,43	
		2, 2,35, 3,34,58,27,43		8,58
38″	13,12, 5,35,57,23,21,11,24,47		57,54,30,41	
		2, 2,35, 2,37, 3,57, 2		8,58
40″	13,12, 7,38,32,25,58,15,21,49		57,54,39,39	
		2, 2,35, 1,39, 9,17,23		8,58
42″	13,12, 9,41, 7,27,37,24,39,12		57,54,48,37	
		2, 2,35, 0,41,14,28,46		8,58
44″	13,12,11,43,42,28,18,39, 7,58		57,54,57,35	
		2, 2,34,59,43,19,31,11		8,58
46″	13,12,13,46,17,28, 1,58,39, 9		57,55, 6,33	
		2, 2,34,58,45,24,24,38		8,58
48″	13,12,15,48,52,26,47,23, 3,47		57,55,15,31	
		2, 2,34,57,47,29, 9, 7		8,58
50″	13,12,17,51,27,24,34,52,12,54		57,55,24,29	
		2, 2,34,56,49,33,44,38		8,58
52″	13,12,19,54, 2,21,24,25,57,32		57,55,33,27	
		2, 2,34,55,51,38,11,11		8,58
54″	13,12,21,56,37,17,16, 4, 8,43		57,55,42,25	
		2, 2,34,54,53,42,28,46		8,58
56″	13,12,23,59,12,12, 9,46,37,29		57,55,51,23	
		2, 2,34,53,55,46,37,23		8,58
58″	13,12,26, 1,47, 6, 5,33,14,52		57,56, 0,21	
		2, 2,34,52,57,50,37, 2		
60″	13,12,28, 4,21,59, 3,23,51,54			
exact	13,12,28, 4,21,59, 3,24, 7,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°43′ 0″	13,12,28, 4,21,59, 3,24, 7,57			
		2, 2,34,51,59,54,29,33		
2″	13,12,30, 6,56,51, 3,18,37,30		57,56,18, 9	
		2, 2,34,51, 1,58,11,24		8,58
4″	13,12,32, 9,31,42, 5,16,48,54		57,56,27, 7	
		2, 2,34,50, 4, 1,44,17		8,58
6″	13,12,34,12, 6,32, 9,18,33,11		57,56,36, 5	
		2, 2,34,49, 6, 5, 8,12		8,58
8″	13,12,36,14,41,21,15,23,41,23		57,56,45, 3	
		2, 2,34,48, 8, 8,23, 9		8,58
10″	13,12,38,17,16, 9,23,32, 4,32		57,56,54, 1	
		2, 2,34,47,10,11,29, 8		8,58
12″	13,12,40,19,50,56,33,43,33,40		57,57, 2,59	
		2, 2,34,46,12,14,26, 9		8,58
14″	13,12,42,22,25,42,45,57,59,49		57,57,11,57	
		2, 2,34,45,14,17,14,12		8,58
16″	13,12,44,25, 0,28, 0,15,14, 1		57,57,20,55	
		2, 2,34,44,16,19,53,17		8,58
18″	13,12,46,27,35,12,16,35, 7,18		57,57,29,53	
		2, 2,34,43,18,22,23,24		8,58
20″	13,12,48,30, 9,55,34,57,30,42		57,57,38,51	
		2, 2,34,42,20,24,44,33		8,58
22″	13,12,50,32,44,37,55,22,15,15		57,57,47,49	
		2, 2,34,41,22,26,56,44		8,58
24″	13,12,52,35,19,19,17,49,11,59		57,57,56,47	
		2, 2,34,40,24,28,59,57		8,58
26″	13,12,54,37,53,59,42,18,11,56		57,58, 5,45	
		2, 2,34,39,26,30,54,12		8,58
28″	13,12,56,40,28,39, 8,49, 6, 8		57,58,14,43	
		2, 2,34,38,28,32,39,29		8,58
30″	13,12,58,43, 3,17,37,21,45,37		57,58,23,41	
		2, 2,34,37,30,34,15,48		8,58
32″	13,13, 0,45,37,55, 7,56, 1,25		57,58,32,39	
		2, 2,34,36,32,35,43, 9		8,58
34″	13,13, 2,48,12,31,40,31,44,34		57,58,41,37	
		2, 2,34,35,34,37, 1,32		8,58
36″	13,13, 4,50,47, 7,15, 8,46, 6		57,58,50,35	
		2, 2,34,34,36,38,10,57		8,58
38″	13,13, 6,53,21,41,51,46,57, 3		57,58,59,33	
		2, 2,34,33,38,39,11,24		8,58
40″	13,13, 8,55,56,15,30,26, 8,27		57,59, 8,31	
		2, 2,34,32,40,40, 2,53		8,58
42″	13,13,10,58,30,48,11, 6,11,20		57,59,17,29	
		2, 2,34,31,42,40,45,24		8,58
44″	13,13,13, 1, 5,19,53,46,56,44		57,59,26,27	
		2, 2,34,30,44,41,18,57		8,58
46″	13,13,15, 3,39,50,38,28,15,41		57,59,35,25	
		2, 2,34,29,46,41,43,32		8,58
48″	13,13,17, 6,14,20,25, 9,59,13		57,59,44,23	
		2, 2,34,28,48,41,59, 9		8,58
50″	13,13,19, 8,48,49,13,51,58,22		57,59,53,21	
		2, 2,34,27,50,42, 5,48		8,58
52″	13,13,21,11,23,17, 4,34, 4,10		58, 0, 2,19	
		2, 2,34,26,52,42, 3,29		8,58
54″	13,13,23,13,57,43,57,16, 7,39		58, 0,11,17	
		2, 2,34,25,54,41,52,12		8,58
56″	13,13,25,16,32, 9,51,57,59,51		58, 0,20,15	
		2, 2,34,24,56,41,31,57		8,58
58″	13,13,27,19, 6,34,48,39,31,48		58, 0,29,13	
		2, 2,34,23,58,41, 2,44		
60″	13,13,29,21,40,58,47,20,34,32			
exact	13,13,29,21,40,58,47,20,56,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°44′ 0″	13,13,29,21,40,58,47,20,56,34			
		2, 2,34,23, 0,40,26,53		
2″	13,13,31,24,15,21,48, 1,23,27		58, 0,46,59	
		2, 2,34,22, 2,39,39,54		8,58
4″	13,13,33,26,49,43,50,41, 3,21		58, 0,55,57	
		2, 2,34,21, 4,38,43,57		8,58
6″	13,13,35,29,24, 4,55,19,47,18		58, 1, 4,55	
		2, 2,34,20, 6,37,39, 2		8,58
8″	13,13,37,31,58,25, 1,57,26,20		58, 1,13,53	
		2, 2,34,19, 8,36,25, 9		8,58
10″	13,13,39,34,32,44,10,33,51,29		58, 1,22,51	
		2, 2,34,18,10,35, 2,18		8,58
12″	13,13,41,37, 7, 2,21, 8,53,47		58, 1,31,49	
		2, 2,34,17,12,33,30,29		8,58
14″	13,13,43,39,41,19,33,42,24,16		58, 1,40,47	
		2, 2,34,16,14,31,49,42		8,58
16″	13,13,45,42,15,35,48,14,13,58		58, 1,49,45	
		2, 2,34,15,16,29,59,57		8,58
18″	13,13,47,44,49,51, 4,44,13,55		58, 1,58,43	
		2, 2,34,14,18,28, 1,14		8,58
20″	13,13,49,47,24, 5,23,12,15, 9		58, 2, 7,41	
		2, 2,34,13,20,25,53,33		8,58
22″	13,13,51,49,58,18,43,38, 8,42		58, 2,16,39	
		2, 2,34,12,22,23,36,54		8,58
24″	13,13,53,52,32,31, 6, 1,45,36		58, 2,25,37	
		2, 2,34,11,24,21,11,17		8,58
26″	13,13,55,55, 6,42,30,22,56,53		58, 2,34,35	
		2, 2,34,10,26,18,36,42		8,58
28″	13,13,57,57,40,52,56,41,33,35		58, 2,43,33	
		2, 2,34, 9,28,15,53, 9		8,58
30″	13,14, 0, 0,15, 2,24,57,26,44		58, 2,52,31	
		2, 2,34, 8,30,13, 0,38		8,58
32″	13,14, 2, 2,49,10,55,10,27,22		58, 3, 1,29	
		2, 2,34, 7,32, 9,59, 9		8,58
34″	13,14, 4, 5,23,18,27,20,26,31		58, 3,10,27	
		2, 2,34, 6,34, 6,48,42		8,58
36″	13,14, 6, 7,57,25, 1,27,15,13		58, 3,19,25	
		2, 2,34, 5,36, 3,29,17		8,58
38″	13,14, 8,10,31,30,37,30,44,30		58, 3,28,23	
		2, 2,34, 4,38, 0, 0,54		8,58
40″	13,14,10,13, 5,35,15,30,45,24		58, 3,37,21	
		2, 2,34, 3,39,56,23,33		8,58
42″	13,14,12,15,39,38,55,27, 8,57		58, 3,46,19	
		2, 2,34, 2,41,52,37,14		8,58
44″	13,14,14,18,13,41,37,19,46,11		58, 3,55,17	
		2, 2,34, 1,43,48,41,57		8,58
46″	13,14,16,20,47,43,21, 8,28, 8		58, 4, 4,15	
		2, 2,34, 0,45,44,37,42		8,58
48″	13,14,18,23,21,44, 6,53, 5,50		58, 4,13,13	
		2, 2,33,59,47,40,24,29		8,58
50″	13,14,20,25,55,43,54,33,30,19		58, 4,22,11	
		2, 2,33,58,49,36, 2,18		8,58
52″	13,14,22,28,29,42,44, 9,32,37		58, 4,31, 9	
		2, 2,33,57,51,31,31, 9		8,58
54″	13,14,24,31, 3,40,35,41, 3,46		58, 4,40, 7	
		2, 2,33,56,53,26,51, 2		8,58
56″	13,14,26,33,37,37,29, 7,54,48		58, 4,49, 5	
		2, 2,33,55,55,22, 1,57		8,58
58″	13,14,28,36,11,33,24,29,56,45		58, 4,58, 3	
		2, 2,33,54,57,17, 3,54		
60″	13,14,30,38,45,28,21,47, 0,39			
exact	13,14,30,38,45,28,21,47,21,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°45′ 0″	13,14,30,38,45,28,21,47,21,28			
		2, 2,33,53,59,11,59,14		
2″	13,14,32,41,19,22,20,59,20,42		58, 5,15,49	
		2, 2,33,53, 1, 6,43,25		8,58
4″	13,14,34,43,53,15,22, 6, 4, 7		58, 5,24,47	
		2, 2,33,52, 3, 1,18,38		8,58
6″	13,14,36,46,27, 7,25, 7,22,45		58, 5,33,45	
		2, 2,33,51, 4,55,44,53		8,58
8″	13,14,38,49, 0,58,30, 3, 7,38		58, 5,42,43	
		2, 2,33,50, 6,50, 2,10		8,58
10″	13,14,40,51,34,48,36,53, 9,48		58, 5,51,41	
		2, 2,33,49, 8,44,10,29		8,58
12″	13,14,42,54, 8,37,45,37,20,17		58, 6, 0,39	
		2, 2,33,48,10,38, 9,50		8,58
14″	13,14,44,56,42,25,56,15,30, 7		58, 6, 9,37	
		2, 2,33,47,12,32, 0,13		8,58
16″	13,14,46,59,16,13, 8,47,30,20		58, 6,18,35	
		2, 2,33,46,14,25,41,38		8,58
18″	13,14,49, 1,49,59,23,13,11,58		58, 6,27,33	
		2, 2,33,45,16,19,14, 5		8,58
20″	13,14,51, 4,23,44,39,32,26, 3		58, 6,36,31	
		2, 2,33,44,18,12,37,34		8,58
22″	13,14,53, 6,57,28,57,45, 3,37		58, 6,45,29	
		2, 2,33,43,20, 5,52, 5		8,58
24″	13,14,55, 9,31,12,17,50,55,42		58, 6,54,27	
		2, 2,33,42,21,58,57,38		8,58
26″	13,14,57,12, 4,54,39,49,53,20		58, 7, 3,25	
		2, 2,33,41,23,51,54,13		8,58
28″	13,14,59,14,38,36, 3,41,47,33		58, 7,12,23	
		2, 2,33,40,25,44,41,50		8,58
30″	13,15, 1,17,12,16,29,26,29,23		58, 7,21,21	
		2, 2,33,39,27,37,20,29		8,58
32″	13,15, 3,19,45,55,57, 3,49,52		58, 7,30,19	
		2, 2,33,38,29,29,50,10		8,58
34″	13,15, 5,22,19,34,26,33,40, 2		58, 7,39,17	
		2, 2,33,37,31,22,10,53		8,58
36″	13,15, 7,24,53,11,57,55,50,55		58, 7,48,15	
		2, 2,33,36,33,14,22,38		8,58
38″	13,15, 9,27,26,48,31,10,13,33		58, 7,57,13	
		2, 2,33,35,35, 6,25,25		8,58
40″	13,15,11,30, 0,24, 6,16,38,58		58, 8, 6,11	
		2, 2,33,34,36,58,19,14		8,58
42″	13,15,13,32,33,58,43,14,58,12		58, 8,15, 9	
		2, 2,33,33,38,50, 4, 5		8,58
44″	13,15,15,35, 7,32,22, 5, 2,17		58, 8,24, 7	
		2, 2,33,32,40,41,39,58		8,58
46″	13,15,17,37,41, 5, 2,46,42,15		58, 8,33, 5	
		2, 2,33,31,42,33, 6,53		8,58
48″	13,15,19,40,14,36,45,19,49, 8		58, 8,42, 3	
		2, 2,33,30,44,24,24,50		8,58
50″	13,15,21,42,48, 7,29,44,13,58		58, 8,51, 1	
		2, 2,33,29,46,15,33,49		8,58
52″	13,15,23,45,21,37,15,59,47,47		58, 8,59,59	
		2, 2,33,28,48, 6,33,50		8,58
54″	13,15,25,47,55, 6, 4, 6,21,37		58, 9, 8,57	
		2, 2,33,27,49,57,24,53		8,58
56″	13,15,27,50,28,33,54, 3,46,30		58, 9,17,55	
		2, 2,33,26,51,48, 6,58		8,58
58″	13,15,29,53, 2, 0,45,51,53,28		58, 9,26,53	
		2, 2,33,25,53,38,40, 5		
60″	13,15,31,55,35,26,39,30,33,33			
exact	13,15,31,55,35,26,39,31, 0,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°46′ 0″	13,15,31,55,35,26,39,31, 0,48			
		2, 2,33,24,55,29, 7, 7		
2″	13,15,33,58, 8,51,35, 0, 7,55		58, 9,44,37	
		2, 2,33,23,57,19,22,30		8,58
4″	13,15,36, 0,42,15,32,19,30,25		58, 9,53,35	
		2, 2,33,22,59, 9,28,55		8,58
6″	13,15,38, 3,15,38,31,28,59,20		58,10, 2,33	
		2, 2,33,22, 0,59,26,22		8,58
8″	13,15,40, 5,49, 0,32,28,25,42		58,10,11,31	
		2, 2,33,21, 2,49,14,51		8,58
10″	13,15,42, 8,22,21,35,17,40,33		58,10,20,29	
		2, 2,33,20, 4,38,54,22		8,58
12″	13,15,44,10,55,41,39,56,34,55		58,10,29,27	
		2, 2,33,19, 6,28,24,55		8,58
14″	13,15,46,13,29, 0,46,24,59,50		58,10,38,25	
		2, 2,33,18, 8,17,46,30		8,58
16″	13,15,48,16, 2,18,54,42,46,20		58,10,47,23	
		2, 2,33,17,10, 6,59, 7		8,58
18″	13,15,50,18,35,36, 4,49,45,27		58,10,56,21	
		2, 2,33,16,11,56, 2,46		8,58
20″	13,15,52,21, 8,52,16,45,48,13		58,11, 5,19	
		2, 2,33,15,13,44,57,27		8,58
22″	13,15,54,23,42, 7,30,30,45,40		58,11,14,17	
		2, 2,33,14,15,33,43,10		8,58
24″	13,15,56,26,15,21,46, 4,28,50		58,11,23,15	
		2, 2,33,13,17,22,19,55		8,58
26″	13,15,58,28,48,35, 3,26,48,45		58,11,32,13	
		2, 2,33,12,19,10,47,42		8,58
28″	13,16, 0,31,21,47,22,37,36,27		58,11,41,11	
		2, 2,33,11,20,59, 6,31		8,58
30″	13,16, 2,33,54,58,43,36,42,58		58,11,50, 9	
		2, 2,33,10,22,47,16,22		8,58
32″	13,16, 4,36,28, 9, 6,23,59,20		58,11,59, 7	
		2, 2,33, 9,24,35,17,15		8,58
34″	13,16, 6,39, 1,18,30,59,16,35		58,12, 8, 5	
		2, 2,33, 8,26,23, 9,10		8,58
36″	13,16, 8,41,34,26,57,22,25,45		58,12,17, 3	
		2, 2,33, 7,28,10,52, 7		8,58
38″	13,16,10,44, 7,34,25,33,17,52		58,12,26, 1	
		2, 2,33, 6,29,58,26, 6		8,58
40″	13,16,12,46,40,40,55,31,43,58		58,12,34,59	
		2, 2,33, 5,31,45,51, 7		8,58
42″	13,16,14,49,13,46,27,17,35, 5		58,12,43,57	
		2, 2,33, 4,33,33, 7,10		8,58
44″	13,16,16,51,46,51, 0,50,42,15		58,12,52,55	
		2, 2,33, 3,35,20,14,15		8,58
46″	13,16,18,54,19,54,36,10,56,30		58,13, 1,53	
		2, 2,33, 2,37, 7,12,22		8,58
48″	13,16,20,56,52,57,13,18, 8,52		58,13,10,51	
		2, 2,33, 1,38,54, 1,31		8,58
50″	13,16,22,59,25,58,52,12,10,23		58,13,19,49	
		2, 2,33, 0,40,40,41,42		8,58
52″	13,16,25, 1,58,59,32,52,52, 5		58,13,28,47	
		2, 2,32,59,42,27,12,55		8,58
54″	13,16,27, 4,31,59,15,20, 5, 0		58,13,37,45	
		2, 2,32,58,44,13,35,10		8,58
56″	13,16,29, 7, 4,57,59,33,40,10		58,13,46,43	
		2, 2,32,57,45,59,48,27		8,58
58″	13,16,31, 9,37,55,45,33,28,37		58,13,55,41	
		2, 2,32,56,47,45,52,46		
60″	13,16,33,12,10,52,33,19,21,23			
exact	13,16,33,12,10,52,33,19,48,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°47′ 0″	13,16,33,12,10,52,33,19,48,41			
		2, 2,32,55,49,31,51, 5		
2″	13,16,35,14,43,48,22,51,39,46		58,14,13,24	
		2, 2,32,54,51,17,37,41		8,58
4″	13,16,37,17,16,43,14, 9,17,27		58,14,22,22	
		2, 2,32,53,53, 3,15,19		8,58
6″	13,16,39,19,49,37, 7,12,32,46		58,14,31,20	
		2, 2,32,52,54,48,43,59		8,58
8″	13,16,41,22,22,30, 2, 1,16,45		58,14,40,18	
		2, 2,32,51,56,34, 3,41		8,58
10″	13,16,43,24,55,21,58,35,20,26		58,14,49,16	
		2, 2,32,50,58,19,14,25		8,58
12″	13,16,45,27,28,12,56,54,34,51		58,14,58,14	
		2, 2,32,50, 0, 4,16,11		8,58
14″	13,16,47,30, 1, 2,56,58,51, 2		58,15, 7,12	
		2, 2,32,49, 1,49, 8,59		8,58
16″	13,16,49,32,33,51,58,48, 0, 1		58,15,16,10	
		2, 2,32,48, 3,33,52,49		8,58
18″	13,16,51,35, 6,40, 2,21,52,50		58,15,25, 8	
		2, 2,32,47, 5,18,27,41		8,58
20″	13,16,53,37,39,27, 7,40,20,31		58,15,34, 6	
		2, 2,32,46, 7, 2,53,35		8,58
22″	13,16,55,40,12,13,14,43,14, 6		58,15,43, 4	
		2, 2,32,45, 8,47,10,31		8,58
24″	13,16,57,42,44,58,23,30,24,37		58,15,52, 2	
		2, 2,32,44,10,31,18,29		8,58
26″	13,16,59,45,17,42,34, 1,43, 6		58,16, 1, 0	
		2, 2,32,43,12,15,17,29		8,58
28″	13,17, 1,47,50,25,46,17, 0,35		58,16, 9,58	
		2, 2,32,42,13,59, 7,31		8,58
30″	13,17, 3,50,23, 8, 0,16, 8, 6		58,16,18,56	
		2, 2,32,41,15,42,48,35		8,58
32″	13,17, 5,52,55,49,15,58,56,41		58,16,27,54	
		2, 2,32,40,17,26,20,41		8,58
34″	13,17, 7,55,28,29,33,25,17,22		58,16,36,52	
		2, 2,32,39,19, 9,43,49		8,58
36″	13,17, 9,58, 1, 8,52,35, 1,11		58,16,45,50	
		2, 2,32,38,20,52,57,59		8,58
38″	13,17,12, 0,33,47,13,27,59,10		58,16,54,48	
		2, 2,32,37,22,36, 3,11		8,58
40″	13,17,14, 3, 6,24,36, 4, 2,21		58,17, 3,46	
		2, 2,32,36,24,18,59,25		8,58
42″	13,17,16, 5,39, 1, 0,23, 1,46		58,17,12,44	
		2, 2,32,35,26, 1,46,41		8,58
44″	13,17,18, 8,11,36,26,24,48,27		58,17,21,42	
		2, 2,32,34,27,44,24,59		8,58
46″	13,17,20,10,44,10,54, 9,13,26		58,17,30,40	
		2, 2,32,33,29,26,54,19		8,58
48″	13,17,22,13,16,44,23,36, 7,45		58,17,39,38	
		2, 2,32,32,31, 9,14,41		8,58
50″	13,17,24,15,49,16,54,45,22,26		58,17,48,36	
		2, 2,32,31,32,51,26, 5		8,58
52″	13,17,26,18,21,48,27,36,48,31		58,17,57,34	
		2, 2,32,30,34,33,28,31		8,58
54″	13,17,28,20,54,19, 2,10,17, 2		58,18, 6,32	
		2, 2,32,29,36,15,21,59		8,58
56″	13,17,30,23,26,48,38,25,39, 1		58,18,15,30	
		2, 2,32,28,37,57, 6,29		8,58
58″	13,17,32,25,59,17,16,22,45,30		58,18,24,28	
		2, 2,32,27,39,38,42, 1		
60″	13,17,34,28,31,44,56, 1,27,31			
exact	13,17,34,28,31,44,56, 1,55, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°48′ 0″	13,17,34,28,31,44,56, 1,55, 8			
		2, 2,32,26,41,20,11,40		
2″	13,17,36,31, 4,11,37,22, 6,48		58,18,42,11	
		2, 2,32,25,43, 1,29,29		8,58
4″	13,17,38,33,36,37,20,23,36,17		58,18,51, 9	
		2, 2,32,24,44,42,38,20		8,58
6″	13,17,40,36, 9, 2, 5, 6,14,37		58,19, 0, 7	
		2, 2,32,23,46,23,38,13		8,58
8″	13,17,42,38,41,25,51,29,52,50		58,19, 9, 5	
		2, 2,32,22,48, 4,29, 8		8,58
10″	13,17,44,41,13,48,39,34,21,58		58,19,18, 3	
		2, 2,32,21,49,45,11, 5		8,58
12″	13,17,46,43,46,10,29,19,33, 3		58,19,27, 1	
		2, 2,32,20,51,25,44, 4		8,58
14″	13,17,48,46,18,31,20,45,17, 7		58,19,35,59	
		2, 2,32,19,53, 6, 8, 5		8,58
16″	13,17,50,48,50,51,13,51,25,12		58,19,44,57	
		2, 2,32,18,54,46,23, 8		8,58
18″	13,17,52,51,23,10, 8,37,48,20		58,19,53,55	
		2, 2,32,17,56,26,29,13		8,58
20″	13,17,54,53,55,28, 5, 4,17,33		58,20, 2,53	
		2, 2,32,16,58, 6,26,20		8,58
22″	13,17,56,56,27,45, 3,10,43,53		58,20,11,51	
		2, 2,32,15,59,46,14,29		8,58
24″	13,17,58,59, 0, 1, 2,56,58,22		58,20,20,49	
		2, 2,32,15, 1,25,53,40		8,58
26″	13,18, 1, 1,32,16, 4,22,52, 2		58,20,29,47	
		2, 2,32,14, 3, 5,23,53		8,58
28″	13,18, 3, 4, 4,30, 7,28,15,55		58,20,38,45	
		2, 2,32,13, 4,44,45, 8		8,58
30″	13,18, 5, 6,36,43,12,13, 1, 3		58,20,47,43	
		2, 2,32,12, 6,23,57,25		8,58
32″	13,18, 7, 9, 8,55,18,36,58,28		58,20,56,41	
		2, 2,32,11, 8, 3, 0,44		8,58
34″	13,18, 9,11,41, 6,26,39,59,12		58,21, 5,39	
		2, 2,32,10, 9,41,55, 5		8,58
36″	13,18,11,14,13,16,36,21,54,17		58,21,14,37	
		2, 2,32, 9,11,20,40,28		8,58
38″	13,18,13,16,45,25,47,42,34,45		58,21,23,35	
		2, 2,32, 8,12,59,16,53		8,58
40″	13,18,15,19,17,34, 0,41,51,38		58,21,32,33	
		2, 2,32, 7,14,37,44,20		8,58
42″	13,18,17,21,49,41,15,19,35,58		58,21,41,31	
		2, 2,32, 6,16,16, 2,49		8,58
44″	13,18,19,24,21,47,31,35,38,47		58,21,50,29	
		2, 2,32, 5,17,54,12,20		8,58
46″	13,18,21,26,53,52,49,29,51, 7		58,21,59,27	
		2, 2,32, 4,19,32,12,53		8,58
48″	13,18,23,29,25,57, 9, 2, 4, 0		58,22, 8,25	
		2, 2,32, 3,21,10, 4,28		8,58
50″	13,18,25,31,58, 0,30,12, 8,28		58,22,17,23	
		2, 2,32, 2,22,47,47, 5		8,58
52″	13,18,27,34,30, 2,52,59,55,33		58,22,26,21	
		2, 2,32, 1,24,25,20,44		8,58
54″	13,18,29,37, 2, 4,17,25,16,17		58,22,35,19	
		2, 2,32, 0,26, 2,45,25		8,58
56″	13,18,31,39,34, 4,43,28, 1,42		58,22,44,17	
		2, 2,31,59,27,40, 1, 8		8,58
58″	13,18,33,42, 6, 4,11, 8, 2,50		58,22,53,15	
		2, 2,31,58,29,17, 7,53		
60″	13,18,35,44,38, 2,40,25,10,43			
exact	13,18,35,44,38, 2,40,25,46,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°49′ 0″	13,18,35,44,38, 2,40,25,46,10			
		2, 2,31,57,30,54, 9,23		
2″	13,18,37,47,10, 0,11,19,55,33		58,23,10,56	
		2, 2,31,56,32,30,58,27		8,57
4″	13,18,39,49,41,56,43,50,54, 0		58,23,19,53	
		2, 2,31,55,34, 7,38,34		8,57
6″	13,18,41,52,13,52,17,58,32,34		58,23,28,50	
		2, 2,31,54,35,44, 9,44		8,57
8″	13,18,43,54,45,46,53,42,42,18		58,23,37,47	
		2, 2,31,53,37,20,31,57		8,57
10″	13,18,45,57,17,40,31, 3,14,15		58,23,46,44	
		2, 2,31,52,38,56,45,13		8,57
12″	13,18,47,59,49,33, 9,59,59,28		58,23,55,41	
		2, 2,31,51,40,32,49,32		8,57
14″	13,18,50, 2,21,24,50,32,49, 0		58,24, 4,38	
		2, 2,31,50,42, 8,44,54		8,57
16″	13,18,52, 4,53,15,32,41,33,54		58,24,13,35	
		2, 2,31,49,43,44,31,19		8,57
18″	13,18,54, 7,25, 5,16,26, 5,13		58,24,22,32	
		2, 2,31,48,45,20, 8,47		8,57
20″	13,18,56, 9,56,54, 1,46,14, 0		58,24,31,29	
		2, 2,31,47,46,55,37,18		8,57
22″	13,18,58,12,28,41,48,41,51,18		58,24,40,26	
		2, 2,31,46,48,30,56,52		8,57
24″	13,19, 0,15, 0,28,37,12,48,10		58,24,49,23	
		2, 2,31,45,50, 6, 7,29		8,57
26″	13,19, 2,17,32,14,27,18,55,39		58,24,58,20	
		2, 2,31,44,51,41, 9, 9		8,57
28″	13,19, 4,20, 3,59,19, 0, 4,48		58,25, 7,17	
		2, 2,31,43,53,16, 1,52		8,57
30″	13,19, 6,22,35,43,12,16, 6,40		58,25,16,14	
		2, 2,31,42,54,50,45,38		8,57
32″	13,19, 8,25, 7,26, 7, 6,52,18		58,25,25,11	
		2, 2,31,41,56,25,20,27		8,57
34″	13,19,10,27,39, 8, 3,32,12,45		58,25,34, 8	
		2, 2,31,40,57,59,46,19		8,57
36″	13,19,12,30,10,49, 1,31,59, 4		58,25,43, 5	
		2, 2,31,39,59,34, 3,14		8,57
38″	13,19,14,32,42,29, 1, 6, 2,18		58,25,52, 2	
		2, 2,31,39, 1, 8,11,12		8,57
40″	13,19,16,35,14, 8, 2,14,13,30		58,26, 0,59	
		2, 2,31,38, 2,42,10,13		8,57
42″	13,19,18,37,45,46, 4,56,23,43		58,26, 9,56	
		2, 2,31,37, 4,16, 0,17		8,57
44″	13,19,20,40,17,23, 9,12,24, 0		58,26,18,53	
		2, 2,31,36, 5,49,41,24		8,57
46″	13,19,22,42,48,59,15, 2, 5,24		58,26,27,50	
		2, 2,31,35, 7,23,13,34		8,57
48″	13,19,24,45,20,34,22,25,18,58		58,26,36,47	
		2, 2,31,34, 8,56,36,47		8,57
50″	13,19,26,47,52, 8,31,21,55,45		58,26,45,44	
		2, 2,31,33,10,29,51, 3		8,57
52″	13,19,28,50,23,41,41,51,46,48		58,26,54,41	
		2, 2,31,32,12, 2,56,22		8,57
54″	13,19,30,52,55,13,53,54,43,10		58,27, 3,38	
		2, 2,31,31,13,35,52,44		8,57
56″	13,19,32,55,26,45, 7,30,35,54		58,27,12,35	
		2, 2,31,30,15, 8,40, 9		8,57
58″	13,19,34,57,58,15,22,39,16, 3		58,27,21,32	
		2, 2,31,29,16,41,18,37		
60″	13,19,37, 0,29,44,39,20,34,40			
exact	13,19,37, 0,29,44,39,20, 3,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°50′ 0″	13,19,37, 0,29,44,39,20, 3,47			
		2, 2,31,28,18,13,44,47		
2″	13,19,39, 3, 1,12,57,33,48,34		58,27,39,40	
		2, 2,31,27,19,46, 5, 7		8,57
4″	13,19,41, 5,32,40,17,19,53,41		58,27,48,37	
		2, 2,31,26,21,18,16,30		8,57
6″	13,19,43, 8, 4, 6,38,38,10,11		58,27,57,34	
		2, 2,31,25,22,50,18,56		8,57
8″	13,19,45,10,35,32, 1,28,29, 7		58,28, 6,31	
		2, 2,31,24,24,22,12,25		8,57
10″	13,19,47,13, 6,56,25,50,41,32		58,28,15,28	
		2, 2,31,23,25,53,56,57		8,57
12″	13,19,49,15,38,19,51,44,38,29		58,28,24,25	
		2, 2,31,22,27,25,32,32		8,57
14″	13,19,51,18, 9,42,19,10,11, 1		58,28,33,22	
		2, 2,31,21,28,56,59,10		8,57
16″	13,19,53,20,41, 3,48, 7,10,11		58,28,42,19	
		2, 2,31,20,30,28,16,51		8,57
18″	13,19,55,23,12,24,18,35,27, 2		58,28,51,16	
		2, 2,31,19,31,59,25,35		8,57
20″	13,19,57,25,43,43,50,34,52,37		58,29, 0,13	
		2, 2,31,18,33,30,25,22		8,57
22″	13,19,59,28,15, 2,24, 5,17,59		58,29, 9,10	
		2, 2,31,17,35, 1,16,12		8,57
24″	13,20, 1,30,46,19,59, 6,34,11		58,29,18, 7	
		2, 2,31,16,36,31,58, 5		8,57
26″	13,20, 3,33,17,36,35,38,32,16		58,29,27, 4	
		2, 2,31,15,38, 2,31, 1		8,57
28″	13,20, 5,35,48,52,13,41, 3,17		58,29,36, 1	
		2, 2,31,14,39,32,55, 0		8,57
30″	13,20, 7,38,20, 6,53,13,58,17		58,29,44,58	
		2, 2,31,13,41, 3,10, 2		8,57
32″	13,20, 9,40,51,20,34,17, 8,19		58,29,53,55	
		2, 2,31,12,42,33,16, 7		8,57
34″	13,20,11,43,22,33,16,50,24,26		58,30, 2,52	
		2, 2,31,11,44, 3,13,15		8,57
36″	13,20,13,45,53,45, 0,53,37,41		58,30,11,49	
		2, 2,31,10,45,33, 1,26		8,57
38″	13,20,15,48,24,55,46,26,39, 7		58,30,20,46	
		2, 2,31, 9,47, 2,40,40		8,57
40″	13,20,17,50,56, 5,33,29,19,47		58,30,29,43	
		2, 2,31, 8,48,32,10,57		8,57
42″	13,20,19,53,27,14,22, 1,30,44		58,30,38,40	
		2, 2,31, 7,50, 1,32,17		8,57
44″	13,20,21,55,58,22,12, 3, 3, 1		58,30,47,37	
		2, 2,31, 6,51,30,44,40		8,57
46″	13,20,23,58,29,29, 3,33,47,41		58,30,56,34	
		2, 2,31, 5,52,59,48, 6		8,57
48″	13,20,26, 1, 0,34,56,33,35,47		58,31, 5,31	
		2, 2,31, 4,54,28,42,35		8,57
50″	13,20,28, 3,31,39,51, 2,18,22		58,31,14,28	
		2, 2,31, 3,55,57,28, 7		8,57
52″	13,20,30, 6, 2,43,46,59,46,29		58,31,23,25	
		2, 2,31, 2,57,26, 4,42		8,57
54″	13,20,32, 8,33,46,44,25,51,11		58,31,32,22	
		2, 2,31, 1,58,54,32,20		8,57
56″	13,20,34,11, 4,48,43,20,23,31		58,31,41,19	
		2, 2,31, 1, 0,22,51, 1		8,57
58″	13,20,36,13,35,49,43,43,14,32		58,31,50,16	
		2, 2,31, 0, 1,51, 0,45		
60″	13,20,38,16, 6,49,45,34,15,17			
exact	13,20,38,16, 6,49,45,33,45,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°51′ 0″	13,20,38,16, 6,49,45,33,45,58			
		2, 2,30,59, 3,18,58,23		
2″	13,20,40,18,37,48,48,52,44,21		58,32, 8,23	
		2, 2,30,58, 4,46,50, 0		8,57
4″	13,20,42,21, 8,46,53,39,34,21		58,32,17,20	
		2, 2,30,57, 6,14,32,40		8,57
6″	13,20,44,23,39,43,59,54, 7, 1		58,32,26,17	
		2, 2,30,56, 7,42, 6,23		8,57
8″	13,20,46,26,10,40, 7,36,13,24		58,32,35,14	
		2, 2,30,55, 9, 9,31, 9		8,57
10″	13,20,48,28,41,35,16,45,44,33		58,32,44,11	
		2, 2,30,54,10,36,46,58		8,57
12″	13,20,50,31,12,29,27,22,31,31		58,32,53, 8	
		2, 2,30,53,12, 3,53,50		8,57
14″	13,20,52,33,43,22,39,26,25,21		58,33, 2, 5	
		2, 2,30,52,13,30,51,45		8,57
16″	13,20,54,36,14,14,52,57,17, 6		58,33,11, 2	
		2, 2,30,51,14,57,40,43		8,57
18″	13,20,56,38,45, 6, 7,54,57,49		58,33,19,59	
		2, 2,30,50,16,24,20,44		8,57
20″	13,20,58,41,15,56,24,19,18,33		58,33,28,56	
		2, 2,30,49,17,50,51,48		8,57
22″	13,21, 0,43,46,45,42,10,10,21		58,33,37,53	
		2, 2,30,48,19,17,13,55		8,57
24″	13,21, 2,46,17,34, 1,27,24,16		58,33,46,50	
		2, 2,30,47,20,43,27, 5		8,57
26″	13,21, 4,48,48,21,22,10,51,21		58,33,55,47	
		2, 2,30,46,22, 9,31,18		8,57
28″	13,21, 6,51,19, 7,44,20,22,39		58,34, 4,44	
		2, 2,30,45,23,35,26,34		8,57
30″	13,21, 8,53,49,53, 7,55,49,13		58,34,13,41	
		2, 2,30,44,25, 1,12,53		8,57
32″	13,21,10,56,20,37,32,57, 2, 6		58,34,22,38	
		2, 2,30,43,26,26,50,15		8,57
34″	13,21,12,58,51,20,59,23,52,21		58,34,31,35	
		2, 2,30,42,27,52,18,40		8,57
36″	13,21,15, 1,22, 3,27,16,11, 1		58,34,40,32	
		2, 2,30,41,29,17,38, 8		8,57
38″	13,21,17, 3,52,44,56,33,49, 9		58,34,49,29	
		2, 2,30,40,30,42,48,39		8,57
40″	13,21,19, 6,23,25,27,16,37,48		58,34,58,26	
		2, 2,30,39,32, 7,50,13		8,57
42″	13,21,21, 8,54, 4,59,24,28, 1		58,35, 7,23	
		2, 2,30,38,33,32,42,50		8,57
44″	13,21,23,11,24,43,32,57,10,51		58,35,16,20	
		2, 2,30,37,34,57,26,30		8,57
46″	13,21,25,13,55,21, 7,54,37,21		58,35,25,17	
		2, 2,30,36,36,22, 1,13		8,57
48″	13,21,27,16,25,57,44,16,38,34		58,35,34,14	
		2, 2,30,35,37,46,26,59		8,57
50″	13,21,29,18,56,33,22, 3, 5,33		58,35,43,11	
		2, 2,30,34,39,10,43,48		8,57
52″	13,21,31,21,27, 8, 1,13,49,21		58,35,52, 8	
		2, 2,30,33,40,34,51,40		8,57
54″	13,21,33,23,57,41,41,48,41, 1		58,36, 1, 5	
		2, 2,30,32,41,58,50,35		8,57
56″	13,21,35,26,28,14,23,47,31,36		58,36,10, 2	
		2, 2,30,31,43,22,40,33		8,57
58″	13,21,37,28,58,46, 7,10,12, 9		58,36,18,59	
		2, 2,30,30,44,46,21,34		
60″	13,21,39,31,29,16,51,56,33,43			
exact	13,21,39,31,29,16,51,56, 6,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°52′ 0″	13,21,39,31,29,16,51,56, 6,46			
		2, 2,30,29,46, 9,50,44		
2″	13,21,41,33,59,46,38, 5,57,30		58,36,37, 5	
		2, 2,30,28,47,33,13,39		8,57
4″	13,21,43,36,30,15,25,39,11, 9		58,36,46, 2	
		2, 2,30,27,48,56,27,37		8,57
6″	13,21,45,39, 0,43,14,35,38,46		58,36,54,59	
		2, 2,30,26,50,19,32,38		8,57
8″	13,21,47,41,31,10, 4,55,11,24		58,37, 3,56	
		2, 2,30,25,51,42,28,42		8,57
10″	13,21,49,44, 1,35,56,37,40, 6		58,37,12,53	
		2, 2,30,24,53, 5,15,49		8,57
12″	13,21,51,46,32, 0,49,42,55,55		58,37,21,50	
		2, 2,30,23,54,27,53,59		8,57
14″	13,21,53,49, 2,24,44,10,49,54		58,37,30,47	
		2, 2,30,22,55,50,23,12		8,57
16″	13,21,55,51,32,47,40, 1,13, 6		58,37,39,44	
		2, 2,30,21,57,12,43,28		8,57
18″	13,21,57,54, 3, 9,37,13,56,34		58,37,48,41	
		2, 2,30,20,58,34,54,47		8,57
20″	13,21,59,56,33,30,35,48,51,21		58,37,57,38	
		2, 2,30,19,59,56,57, 9		8,57
22″	13,22, 1,59, 3,50,35,45,48,30		58,38, 6,35	
		2, 2,30,19, 1,18,50,34		8,57
24″	13,22, 4, 1,34, 9,37, 4,39, 4		58,38,15,32	
		2, 2,30,18, 2,40,35, 2		8,57
26″	13,22, 6, 4, 4,27,39,45,14, 6		58,38,24,29	
		2, 2,30,17, 4, 2,10,33		8,57
28″	13,22, 8, 6,34,44,43,47,24,39		58,38,33,26	
		2, 2,30,16, 5,23,37, 7		8,57
30″	13,22,10, 9, 5, 0,49,11, 1,46		58,38,42,23	
		2, 2,30,15, 6,44,54,44		8,57
32″	13,22,12,11,35,15,55,55,56,30		58,38,51,20	
		2, 2,30,14, 8, 6, 3,24		8,57
34″	13,22,14,14, 5,30, 4, 1,59,54		58,39, 0,17	
		2, 2,30,13, 9,27, 3, 7		8,57
36″	13,22,16,16,35,43,13,29, 3, 1		58,39, 9,14	
		2, 2,30,12,10,47,53,53		8,57
38″	13,22,18,19, 5,55,24,16,56,54		58,39,18,11	
		2, 2,30,11,12, 8,35,42		8,57
40″	13,22,20,21,36, 6,36,25,32,36		58,39,27, 8	
		2, 2,30,10,13,29, 8,34		8,57
42″	13,22,22,24, 6,16,49,54,41,10		58,39,36, 5	
		2, 2,30, 9,14,49,32,29		8,57
44″	13,22,24,26,36,26, 4,44,13,39		58,39,45, 2	
		2, 2,30, 8,16, 9,47,27		8,57
46″	13,22,26,29, 6,34,20,54, 1, 6		58,39,53,59	
		2, 2,30, 7,17,29,53,28		8,57
48″	13,22,28,31,36,41,38,23,54,34		58,40, 2,56	
		2, 2,30, 6,18,49,50,32		8,57
50″	13,22,30,34, 6,47,57,13,45, 6		58,40,11,53	
		2, 2,30, 5,20, 9,38,39		8,57
52″	13,22,32,36,36,53,17,23,23,45		58,40,20,50	
		2, 2,30, 4,21,29,17,49		8,57
54″	13,22,34,39, 6,57,38,52,41,34		58,40,29,47	
		2, 2,30, 3,22,48,48, 2		8,57
56″	13,22,36,41,37, 1, 1,41,29,36		58,40,38,44	
		2, 2,30, 2,24, 8, 9,18		8,57
58″	13,22,38,44, 7, 3,25,49,38,54		58,40,47,41	
		2, 2,30, 1,25,27,21,37		
60″	13,22,40,46,37, 4,51,17, 0,31			
exact	13,22,40,46,37, 4,51,16,36,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°53′ 0″	13,22,40,46,37, 4,51,16,36,14			
		2, 2,30, 0,26,46,22,22		
2″	13,22,42,49, 7, 5,18, 2,58,36		58,41, 5,46	
		2, 2,29,59,28, 5,16,36		8,57
4″	13,22,44,51,37, 4,46, 8,15,12		58,41,14,43	
		2, 2,29,58,29,24, 1,53		8,57
6″	13,22,46,54, 7, 3,15,32,17, 5		58,41,23,40	
		2, 2,29,57,30,42,38,13		8,57
8″	13,22,48,56,37, 0,46,14,55,18		58,41,32,37	
		2, 2,29,56,32, 1, 5,36		8,57
10″	13,22,50,59, 6,57,18,16, 0,54		58,41,41,34	
		2, 2,29,55,33,19,24, 2		8,57
12″	13,22,53, 1,36,52,51,35,24,56		58,41,50,31	
		2, 2,29,54,34,37,33,31		8,57
14″	13,22,55, 4, 6,47,26,12,58,27		58,41,59,28	
		2, 2,29,53,35,55,34, 3		8,57
16″	13,22,57, 6,36,41, 2, 8,32,30		58,42, 8,25	
		2, 2,29,52,37,13,25,38		8,57
18″	13,22,59, 9, 6,33,39,21,58, 8		58,42,17,22	
		2, 2,29,51,38,31, 8,16		8,57
20″	13,23, 1,11,36,25,17,53, 6,24		58,42,26,19	
		2, 2,29,50,39,48,41,57		8,57
22″	13,23, 3,14, 6,15,57,41,48,21		58,42,35,16	
		2, 2,29,49,41, 6, 6,41		8,57
24″	13,23, 5,16,36, 5,38,47,55, 2		58,42,44,13	
		2, 2,29,48,42,23,22,28		8,57
26″	13,23, 7,19, 5,54,21,11,17,30		58,42,53,10	
		2, 2,29,47,43,40,29,18		8,57
28″	13,23, 9,21,35,42, 4,51,46,48		58,43, 2, 7	
		2, 2,29,46,44,57,27,11		8,57
30″	13,23,11,24, 5,28,49,49,13,59		58,43,11, 4	
		2, 2,29,45,46,14,16, 7		8,57
32″	13,23,13,26,35,14,36, 3,30, 6		58,43,20, 1	
		2, 2,29,44,47,30,56, 6		8,57
34″	13,23,15,29, 4,59,23,34,26,12		58,43,28,58	
		2, 2,29,43,48,47,27, 8		8,57
36″	13,23,17,31,34,43,12,21,53,20		58,43,37,55	
		2, 2,29,42,50, 3,49,13		8,57
38″	13,23,19,34, 4,26, 2,25,42,33		58,43,46,52	
		2, 2,29,41,51,20, 2,21		8,57
40″	13,23,21,36,34, 7,53,45,44,54		58,43,55,49	
		2, 2,29,40,52,36, 6,32		8,57
42″	13,23,23,39, 3,48,46,21,51,26		58,44, 4,46	
		2, 2,29,39,53,52, 1,46		8,57
44″	13,23,25,41,33,28,40,13,53,12		58,44,13,43	
		2, 2,29,38,55, 7,48, 3		8,57
46″	13,23,27,44, 3, 7,35,21,41,15		58,44,22,40	
		2, 2,29,37,56,23,25,23		8,57
48″	13,23,29,46,32,45,31,45, 6,38		58,44,31,37	
		2, 2,29,36,57,38,53,46		8,57
50″	13,23,31,49, 2,22,29,24, 0,24		58,44,40,34	
		2, 2,29,35,58,54,13,12		8,57
52″	13,23,33,51,31,58,28,18,13,36		58,44,49,31	
		2, 2,29,35, 0, 9,23,41		8,57
54″	13,23,35,54, 1,33,28,27,37,17		58,44,58,28	
		2, 2,29,34, 1,24,25,13		8,57
56″	13,23,37,56,31, 7,29,52, 2,30		58,45, 7,25	
		2, 2,29,33, 2,39,17,48		8,57
58″	13,23,39,59, 0,40,32,31,20,18		58,45,16,22	
		2, 2,29,32, 3,54, 1,26		
60″	13,23,42, 1,30,12,36,25,21,44			
exact	13,23,42, 1,30,12,36,25, 0,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°54′ 0″	13,23,42, 1,30,12,36,25, 0,32			
		2, 2,29,31, 5, 8,33,48		
2″	13,23,44, 3,59,43,41,33,34,20		58,45,34,26	
		2, 2,29,30, 6,22,59,22		8,57
4″	13,23,46, 6,29,13,47,56,33,42		58,45,43,23	
		2, 2,29,29, 7,37,15,59		8,57
6″	13,23,48, 8,58,42,55,33,49,41		58,45,52,20	
		2, 2,29,28, 8,51,23,39		8,57
8″	13,23,50,11,28,11, 4,25,13,20		58,46, 1,17	
		2, 2,29,27,10, 5,22,22		8,57
10″	13,23,52,13,57,38,14,30,35,42		58,46,10,14	
		2, 2,29,26,11,19,12, 8		8,57
12″	13,23,54,16,27, 4,25,49,47,50		58,46,19,11	
		2, 2,29,25,12,32,52,57		8,57
14″	13,23,56,18,56,29,38,22,40,47		58,46,28, 8	
		2, 2,29,24,13,46,24,49		8,57
16″	13,23,58,21,25,53,52, 9, 5,36		58,46,37, 5	
		2, 2,29,23,14,59,47,44		8,57
18″	13,24, 0,23,55,17, 7, 8,53,20		58,46,46, 2	
		2, 2,29,22,16,13, 1,42		8,57
20″	13,24, 2,26,24,39,23,21,55, 2		58,46,54,59	
		2, 2,29,21,17,26, 6,43		8,57
22″	13,24, 4,28,54, 0,40,48, 1,45		58,47, 3,56	
		2, 2,29,20,18,39, 2,47		8,57
24″	13,24, 6,31,23,20,59,27, 4,32		58,47,12,53	
		2, 2,29,19,19,51,49,54		8,57
26″	13,24, 8,33,52,40,19,18,54,26		58,47,21,50	
		2, 2,29,18,21, 4,28, 4		8,57
28″	13,24,10,36,21,58,40,23,22,30		58,47,30,47	
		2, 2,29,17,22,16,57,17		8,57
30″	13,24,12,38,51,16, 2,40,19,47		58,47,39,44	
		2, 2,29,16,23,29,17,33		8,57
32″	13,24,14,41,20,32,26, 9,37,20		58,47,48,41	
		2, 2,29,15,24,41,28,52		8,57
34″	13,24,16,43,49,47,50,51, 6,12		58,47,57,38	
		2, 2,29,14,25,53,31,14		8,57
36″	13,24,18,46,19, 2,16,44,37,26		58,48, 6,35	
		2, 2,29,13,27, 5,24,39		8,57
38″	13,24,20,48,48,15,43,50, 2, 5		58,48,15,32	
		2, 2,29,12,28,17, 9, 7		8,57
40″	13,24,22,51,17,28,12, 7,11,12		58,48,24,29	
		2, 2,29,11,29,28,44,38		8,57
42″	13,24,24,53,46,39,41,35,55,50		58,48,33,26	
		2, 2,29,10,30,40,11,12		8,57
44″	13,24,26,56,15,50,12,16, 7, 2		58,48,42,23	
		2, 2,29, 9,31,51,28,49		8,57
46″	13,24,28,58,44,59,44, 7,35,51		58,48,51,20	
		2, 2,29, 8,33, 2,37,29		8,57
48″	13,24,31, 1,14, 8,17,10,13,20		58,49, 0,17	
		2, 2,29, 7,34,13,37,12		8,57
50″	13,24,33, 3,43,15,51,23,50,32		58,49, 9,14	
		2, 2,29, 6,35,24,27,58		8,57
52″	13,24,35, 6,12,22,26,48,18,30		58,49,18,11	
		2, 2,29, 5,36,35, 9,47		8,57
54″	13,24,37, 8,41,28, 3,23,28,17		58,49,27, 8	
		2, 2,29, 4,37,45,42,39		8,57
56″	13,24,39,11,10,32,41, 9,10,56		58,49,36, 5	
		2, 2,29, 3,38,56, 6,34		8,57
58″	13,24,41,13,39,36,20, 5,17,30		58,49,45, 2	
		2, 2,29, 2,40, 6,21,32		
60″	13,24,43,16, 8,39, 0,11,39, 2			
exact	13,24,43,16, 8,39, 0,11,21,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°55′ 0″	13,24,43,16, 8,39, 0,11,21,51			
		2, 2,29, 1,41,16,25,36		
2″	13,24,45,18,37,40,41,27,47,27		58,50, 3, 4	
		2, 2,29, 0,42,26,22,32		8,57
4″	13,24,47,21, 6,41,23,54, 9,59		58,50,12, 1	
		2, 2,28,59,43,36,10,31		8,57
6″	13,24,49,23,35,41, 7,30,20,30		58,50,20,58	
		2, 2,28,58,44,45,49,33		8,57
8″	13,24,51,26, 4,39,52,16,10, 3		58,50,29,55	
		2, 2,28,57,45,55,19,38		8,57
10″	13,24,53,28,33,37,38,11,29,41		58,50,38,52	
		2, 2,28,56,47, 4,40,46		8,57
12″	13,24,55,31, 2,34,25,16,10,27		58,50,47,49	
		2, 2,28,55,48,13,52,57		8,57
14″	13,24,57,33,31,30,13,30, 3,24		58,50,56,46	
		2, 2,28,54,49,22,56,11		8,57
16″	13,24,59,36, 0,25, 2,52,59,35		58,51, 5,43	
		2, 2,28,53,50,31,50,28		8,57
18″	13,25, 1,38,29,18,53,24,50, 3		58,51,14,40	
		2, 2,28,52,51,40,35,48		8,57
20″	13,25, 3,40,58,11,45, 5,25,51		58,51,23,37	
		2, 2,28,51,52,49,12,11		8,57
22″	13,25, 5,43,27, 3,37,54,38, 2		58,51,32,34	
		2, 2,28,50,53,57,39,37		8,57
24″	13,25, 7,45,55,54,31,52,17,39		58,51,41,31	
		2, 2,28,49,55, 5,58, 6		8,57
26″	13,25, 9,48,24,44,26,58,15,45		58,51,50,28	
		2, 2,28,48,56,14, 7,38		8,57
28″	13,25,11,50,53,33,23,12,23,23		58,51,59,25	
		2, 2,28,47,57,22, 8,13		8,57
30″	13,25,13,53,22,21,20,34,31,36		58,52, 8,22	
		2, 2,28,46,58,29,59,51		8,57
32″	13,25,15,55,51, 8,19, 4,31,27		58,52,17,19	
		2, 2,28,45,59,37,42,32		8,57
34″	13,25,17,58,19,54,18,42,13,59		58,52,26,16	
		2, 2,28,45, 0,45,16,16		8,57
36″	13,25,20, 0,48,39,19,27,30,15		58,52,35,13	
		2, 2,28,44, 1,52,41, 3		8,57
38″	13,25,22, 3,17,23,21,20,11,18		58,52,44,10	
		2, 2,28,43, 2,59,56,53		8,57
40″	13,25,24, 5,46, 6,24,20, 8,11		58,52,53, 7	
		2, 2,28,42, 4, 7, 3,46		8,57
42″	13,25,26, 8,14,48,28,27,11,57		58,53, 2, 4	
		2, 2,28,41, 5,14, 1,42		8,57
44″	13,25,28,10,43,29,33,41,13,39		58,53,11, 1	
		2, 2,28,40, 6,20,50,41		8,57
46″	13,25,30,13,12, 9,40, 2, 4,20		58,53,19,58	
		2, 2,28,39, 7,27,30,43		8,57
48″	13,25,32,15,40,48,47,29,35, 3		58,53,28,55	
		2, 2,28,38, 8,34, 1,48		8,57
50″	13,25,34,18, 9,26,56, 3,36,51		58,53,37,52	
		2, 2,28,37, 9,40,23,56		8,57
52″	13,25,36,20,38, 4, 5,44, 0,47		58,53,46,49	
		2, 2,28,36,10,46,37, 7		8,57
54″	13,25,38,23, 6,40,16,30,37,54		58,53,55,46	
		2, 2,28,35,11,52,41,21		8,57
56″	13,25,40,25,35,15,28,23,19,15		58,54, 4,43	
		2, 2,28,34,12,58,36,38		8,57
58″	13,25,42,28, 3,49,41,21,55,53		58,54,13,40	
		2, 2,28,33,14, 4,22,58		
60″	13,25,44,30,32,22,55,26,18,51			
exact	13,25,44,30,32,22,55,25,58,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°56′ 0″	13,25,44,30,32,22,55,25,58,34			
		2, 2,28,32,15, 9,58,17		
2″	13,25,46,33, 0,55,10,35,56,51		58,54,31,42	
		2, 2,28,31,16,15,26,35		8,57
4″	13,25,48,35,29,26,26,51,23,26		58,54,40,39	
		2, 2,28,30,17,20,45,56		8,57
6″	13,25,50,37,57,56,44,12, 9,22		58,54,49,36	
		2, 2,28,29,18,25,56,20		8,57
8″	13,25,52,40,26,26, 2,38, 5,42		58,54,58,33	
		2, 2,28,28,19,30,57,47		8,57
10″	13,25,54,42,54,54,22, 9, 3,29		58,55, 7,30	
		2, 2,28,27,20,35,50,17		8,57
12″	13,25,56,45,23,21,42,44,53,46		58,55,16,27	
		2, 2,28,26,21,40,33,50		8,57
14″	13,25,58,47,51,48, 4,25,27,36		58,55,25,24	
		2, 2,28,25,22,45, 8,26		8,57
16″	13,26, 0,50,20,13,27,10,36, 2		58,55,34,21	
		2, 2,28,24,23,49,34, 5		8,57
18″	13,26, 2,52,48,37,51, 0,10, 7		58,55,43,18	
		2, 2,28,23,24,53,50,47		8,57
20″	13,26, 4,55,17, 1,15,54, 0,54		58,55,52,15	
		2, 2,28,22,25,57,58,32		8,57
22″	13,26, 6,57,45,23,41,51,59,26		58,56, 1,12	
		2, 2,28,21,27, 1,57,20		8,57
24″	13,26, 9, 0,13,45, 8,53,56,46		58,56,10, 9	
		2, 2,28,20,28, 5,47,11		8,57
26″	13,26,11, 2,42, 5,36,59,43,57		58,56,19, 6	
		2, 2,28,19,29, 9,28, 5		8,57
28″	13,26,13, 5,10,25, 6, 9,12, 2		58,56,28, 3	
		2, 2,28,18,30,13, 0, 2		8,57
30″	13,26,15, 7,38,43,36,22,12, 4		58,56,37, 0	
		2, 2,28,17,31,16,23, 2		8,57
32″	13,26,17,10, 7, 1, 7,38,35, 6		58,56,45,57	
		2, 2,28,16,32,19,37, 5		8,57
34″	13,26,19,12,35,17,39,58,12,11		58,56,54,54	
		2, 2,28,15,33,22,42,11		8,57
36″	13,26,21,15, 3,33,13,20,54,22		58,57, 3,51	
		2, 2,28,14,34,25,38,20		8,57
38″	13,26,23,17,31,47,47,46,32,42		58,57,12,48	
		2, 2,28,13,35,28,25,32		8,57
40″	13,26,25,20, 0, 1,23,14,58,14		58,57,21,45	
		2, 2,28,12,36,31, 3,47		8,57
42″	13,26,27,22,28,13,59,46, 2, 1		58,57,30,42	
		2, 2,28,11,37,33,33, 5		8,57
44″	13,26,29,24,56,25,37,19,35, 6		58,57,39,39	
		2, 2,28,10,38,35,53,26		8,57
46″	13,26,31,27,24,36,15,55,28,32		58,57,48,36	
		2, 2,28, 9,39,38, 4,50		8,57
48″	13,26,33,29,52,45,55,33,33,22		58,57,57,33	
		2, 2,28, 8,40,40, 7,17		8,57
50″	13,26,35,32,20,54,36,13,40,39		58,58, 6,30	
		2, 2,28, 7,41,42, 0,47		8,57
52″	13,26,37,34,49, 2,17,55,41,26		58,58,15,27	
		2, 2,28, 6,42,43,45,20		8,57
54″	13,26,39,37,17, 9, 0,39,26,46		58,58,24,24	
		2, 2,28, 5,43,45,20,56		8,57
56″	13,26,41,39,45,14,44,24,47,42		58,58,33,21	
		2, 2,28, 4,44,46,47,35		8,57
58″	13,26,43,42,13,19,29,11,35,17		58,58,42,18	
		2, 2,28, 3,45,48, 5,17		
60″	13,26,45,44,41,23,14,59,40,34			
exact	13,26,45,44,41,23,14,59,25, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°57′ 0″	13,26,45,44,41,23,14,59,25, 8			
		2, 2,28, 2,46,49,12,24		
2″	13,26,47,47, 9,26, 1,48,37,32		58,59, 0,19	
		2, 2,28, 1,47,50,12, 5		8,57
4″	13,26,49,49,37,27,49,38,49,37		58,59, 9,16	
		2, 2,28, 0,48,51, 2,49		8,57
6″	13,26,51,52, 5,28,38,29,52,26		58,59,18,13	
		2, 2,27,59,49,51,44,36		8,57
8″	13,26,53,54,33,28,28,21,37, 2		58,59,27,10	
		2, 2,27,58,50,52,17,26		8,57
10″	13,26,55,57, 1,27,19,13,54,28		58,59,36, 7	
		2, 2,27,57,51,52,41,19		8,57
12″	13,26,57,59,29,25,11, 6,35,47		58,59,45, 4	
		2, 2,27,56,52,52,56,15		8,57
14″	13,27, 0, 1,57,22, 3,59,32, 2		58,59,54, 1	
		2, 2,27,55,53,53, 2,14		8,57
16″	13,27, 2, 4,25,17,57,52,34,16		59, 0, 2,58	
		2, 2,27,54,54,52,59,16		8,57
18″	13,27, 4, 6,53,12,52,45,33,32		59, 0,11,55	
		2, 2,27,53,55,52,47,21		8,57
20″	13,27, 6, 9,21, 6,48,38,20,53		59, 0,20,52	
		2, 2,27,52,56,52,26,29		8,57
22″	13,27, 8,11,48,59,45,30,47,22		59, 0,29,49	
		2, 2,27,51,57,51,56,40		8,57
24″	13,27,10,14,16,51,43,22,44, 2		59, 0,38,46	
		2, 2,27,50,58,51,17,54		8,57
26″	13,27,12,16,44,42,42,14, 1,56		59, 0,47,43	
		2, 2,27,49,59,50,30,11		8,57
28″	13,27,14,19,12,32,42, 4,32, 7		59, 0,56,40	
		2, 2,27,49, 0,49,33,31		8,57
30″	13,27,16,21,40,21,42,54, 5,38		59, 1, 5,37	
		2, 2,27,48, 1,48,27,54		8,57
32″	13,27,18,24, 8, 9,44,42,33,32		59, 1,14,34	
		2, 2,27,47, 2,47,13,20		8,57
34″	13,27,20,26,35,56,47,29,46,52		59, 1,23,31	
		2, 2,27,46, 3,45,49,49		8,57
36″	13,27,22,29, 3,42,51,15,36,41		59, 1,32,28	
		2, 2,27,45, 4,44,17,21		8,57
38″	13,27,24,31,31,27,55,59,54, 2		59, 1,41,25	
		2, 2,27,44, 5,42,35,56		8,57
40″	13,27,26,33,59,12, 1,42,29,58		59, 1,50,22	
		2, 2,27,43, 6,40,45,34		8,57
42″	13,27,28,36,26,55, 8,23,15,32		59, 1,59,19	
		2, 2,27,42, 7,38,46,15		8,57
44″	13,27,30,38,54,37,16, 2, 1,47		59, 2, 8,16	
		2, 2,27,41, 8,36,37,59		8,57
46″	13,27,32,41,22,18,24,38,39,46		59, 2,17,13	
		2, 2,27,40, 9,34,20,46		8,57
48″	13,27,34,43,49,58,34,13, 0,32		59, 2,26,10	
		2, 2,27,39,10,31,54,36		8,57
50″	13,27,36,46,17,37,44,44,55, 8		59, 2,35, 7	
		2, 2,27,38,11,29,19,29		8,57
52″	13,27,38,48,45,15,56,14,14,37		59, 2,44, 4	
		2, 2,27,37,12,26,35,25		8,57
54″	13,27,40,51,12,53, 8,40,50, 2		59, 2,53, 1	
		2, 2,27,36,13,23,42,24		8,57
56″	13,27,42,53,40,29,22, 4,32,26		59, 3, 1,58	
		2, 2,27,35,14,20,40,26		8,57
58″	13,27,44,56, 8, 4,36,25,12,52		59, 3,10,55	
		2, 2,27,34,15,17,29,31		
60″	13,27,46,58,35,38,51,42,42,23			
exact	13,27,46,58,35,38,51,42,32, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°58′ 0″	13,27,46,58,35,38,51,42,32, 9			
		2, 2,27,33,16,14, 8,28		
2″	13,27,49, 1, 3,12, 7,56,40,37		59, 3,28,54	
		2, 2,27,32,17,10,39,34		8,57
4″	13,27,51, 3,30,44,25, 7,20,11		59, 3,37,51	
		2, 2,27,31,18, 7, 1,43		8,57
6″	13,27,53, 5,58,15,43,14,21,54		59, 3,46,48	
		2, 2,27,30,19, 3,14,55		8,57
8″	13,27,55, 8,25,46, 2,17,36,49		59, 3,55,45	
		2, 2,27,29,19,59,19,10		8,57
10″	13,27,57,10,53,15,22,16,55,59		59, 4, 4,42	
		2, 2,27,28,20,55,14,28		8,57
12″	13,27,59,13,20,43,43,12,10,27		59, 4,13,39	
		2, 2,27,27,21,51, 0,49		8,57
14″	13,28, 1,15,48,11, 5, 3,11,16		59, 4,22,36	
		2, 2,27,26,22,46,38,13		8,57
16″	13,28, 3,18,15,37,27,49,49,29		59, 4,31,33	
		2, 2,27,25,23,42, 6,40		8,57
18″	13,28, 5,20,43, 2,51,31,56, 9		59, 4,40,30	
		2, 2,27,24,24,37,26,10		8,57
20″	13,28, 7,23,10,27,16, 9,22,19		59, 4,49,27	
		2, 2,27,23,25,32,36,43		8,57
22″	13,28, 9,25,37,50,41,41,59, 2		59, 4,58,24	
		2, 2,27,22,26,27,38,19		8,57
24″	13,28,11,28, 5,13, 8, 9,37,21		59, 5, 7,21	
		2, 2,27,21,27,22,30,58		8,57
26″	13,28,13,30,32,34,35,32, 8,19		59, 5,16,18	
		2, 2,27,20,28,17,14,40		8,57
28″	13,28,15,32,59,55, 3,49,22,59		59, 5,25,15	
		2, 2,27,19,29,11,49,25		8,57
30″	13,28,17,35,27,14,33, 1,12,24		59, 5,34,12	
		2, 2,27,18,30, 6,15,13		8,57
32″	13,28,19,37,54,33, 3, 7,27,37		59, 5,43, 9	
		2, 2,27,17,31, 0,32, 4		8,57
34″	13,28,21,40,21,50,34, 7,59,41		59, 5,52, 6	
		2, 2,27,16,31,54,39,58		8,57
36″	13,28,23,42,49, 7, 6, 2,39,39		59, 6, 1, 3	
		2, 2,27,15,32,48,38,55		8,57
38″	13,28,25,45,16,22,38,51,18,34		59, 6,10, 0	
		2, 2,27,14,33,42,28,55		8,57
40″	13,28,27,47,43,37,12,33,47,29		59, 6,18,57	
		2, 2,27,13,34,36, 9,58		8,57
42″	13,28,29,50,10,50,47, 9,57,27		59, 6,27,54	
		2, 2,27,12,35,29,42, 4		8,57
44″	13,28,31,52,38, 3,22,39,39,31		59, 6,36,51	
		2, 2,27,11,36,23, 5,13		8,57
46″	13,28,33,55, 5,14,59, 2,44,44		59, 6,45,48	
		2, 2,27,10,37,16,19,25		8,57
48″	13,28,35,57,32,25,36,19, 4, 9		59, 6,54,45	
		2, 2,27, 9,38, 9,24,40		8,57
50″	13,28,37,59,59,35,14,28,28,49		59, 7, 3,42	
		2, 2,27, 8,39, 2,20,58		8,57
52″	13,28,40, 2,26,43,53,30,49,47		59, 7,12,39	
		2, 2,27, 7,39,55, 8,19		8,57
54″	13,28,42, 4,53,51,33,25,58, 6		59, 7,21,36	
		2, 2,27, 6,40,47,46,43		8,57
56″	13,28,44, 7,20,58,14,13,44,49		59, 7,30,33	
		2, 2,27, 5,41,40,16,10		8,57
58″	13,28,46, 9,48, 3,55,54, 0,59		59, 7,39,30	
		2, 2,27, 4,42,32,36,40		
60″	13,28,48,12,15, 8,38,26,37,39			
exact	13,28,48,12,15, 8,38,26,26,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
12°59′ 0″	13,28,48,12,15, 8,38,26,26,25			
		2, 2,27, 3,43,24,47, 3		
2″	13,28,50,14,42,12,21,51,13,28		59, 7,57,29	
		2, 2,27, 2,44,16,49,34		8,57
4″	13,28,52,17, 9,15, 6, 8, 3, 2		59, 8, 6,26	
		2, 2,27, 1,45, 8,43, 8		8,57
6″	13,28,54,19,36,16,51,16,46,10		59, 8,15,23	
		2, 2,27, 0,46, 0,27,45		8,57
8″	13,28,56,22, 3,17,37,17,13,55		59, 8,24,20	
		2, 2,26,59,46,52, 3,25		8,57
10″	13,28,58,24,30,17,24, 9,17,20		59, 8,33,17	
		2, 2,26,58,47,43,30, 8		8,57
12″	13,29, 0,26,57,16,11,52,47,28		59, 8,42,14	
		2, 2,26,57,48,34,47,54		8,57
14″	13,29, 2,29,24,14, 0,27,35,22		59, 8,51,11	
		2, 2,26,56,49,25,56,43		8,57
16″	13,29, 4,31,51,10,49,53,32, 5		59, 9, 0, 8	
		2, 2,26,55,50,16,56,35		8,57
18″	13,29, 6,34,18, 6,40,10,28,40		59, 9, 9, 5	
		2, 2,26,54,51, 7,47,30		8,57
20″	13,29, 8,36,45, 1,31,18,16,10		59, 9,18, 2	
		2, 2,26,53,51,58,29,28		8,57
22″	13,29,10,39,11,55,23,16,45,38		59, 9,26,59	
		2, 2,26,52,52,49, 2,29		8,57
24″	13,29,12,41,38,48,16, 5,48, 7		59, 9,35,56	
		2, 2,26,51,53,39,26,33		8,57
26″	13,29,14,44, 5,40, 9,45,14,40		59, 9,44,53	
		2, 2,26,50,54,29,41,40		8,57
28″	13,29,16,46,32,31, 4,14,56,20		59, 9,53,50	
		2, 2,26,49,55,19,47,50		8,57
30″	13,29,18,48,59,20,59,34,44,10		59,10, 2,47	
		2, 2,26,48,56, 9,45, 3		8,57
32″	13,29,20,51,26, 9,55,44,29,13		59,10,11,44	
		2, 2,26,47,56,59,33,19		8,57
34″	13,29,22,53,52,57,52,44, 2,32		59,10,20,41	
		2, 2,26,46,57,49,12,38		8,57
36″	13,29,24,56,19,44,50,33,15,10		59,10,29,38	
		2, 2,26,45,58,38,43, 0		8,57
38″	13,29,26,58,46,30,49,11,58,10		59,10,38,35	
		2, 2,26,44,59,28, 4,25		8,57
40″	13,29,29, 1,13,15,48,40, 2,35		59,10,47,32	
		2, 2,26,44, 0,17,16,53		8,57
42″	13,29,31, 3,39,59,48,57,19,28		59,10,56,29	
		2, 2,26,43, 1, 6,20,24		8,57
44″	13,29,33, 6, 6,42,50, 3,39,52		59,11, 5,26	
		2, 2,26,42, 1,55,14,58		8,57
46″	13,29,35, 8,33,24,51,58,54,50		59,11,14,23	
		2, 2,26,41, 2,44, 0,35		8,57
48″	13,29,37,11, 0, 5,54,42,55,25		59,11,23,20	
		2, 2,26,40, 3,32,37,15		8,57
50″	13,29,39,13,26,45,58,15,32,40		59,11,32,17	
		2, 2,26,39, 4,21, 4,58		8,57
52″	13,29,41,15,53,25, 2,36,37,38		59,11,41,14	
		2, 2,26,38, 5, 9,23,44		8,57
54″	13,29,43,18,20, 3, 7,46, 1,22		59,11,50,11	
		2, 2,26,37, 5,57,33,33		8,57
56″	13,29,45,20,46,40,13,43,34,55		59,11,59, 8	
		2, 2,26,36, 6,45,34,25		8,57
58″	13,29,47,23,13,16,20,29, 9,20		59,12, 8, 5	
		2, 2,26,35, 7,33,26,20		
60″	13,29,49,25,39,51,28, 2,35,40			
exact	13,29,49,25,39,51,28, 2,30,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13° 0′ 0″	13,29,49,25,39,51,28, 2,30,55			
		2, 2,26,34, 8,21, 8,41		
2″	13,29,51,28, 6,25,36,23,39,36		59,12,26, 2	
		2, 2,26,33, 9, 8,42,39		8,57
4″	13,29,53,30,32,58,45,32,22,15		59,12,34,59	
		2, 2,26,32, 9,56, 7,40		8,57
6″	13,29,55,32,59,30,55,28,29,55		59,12,43,56	
		2, 2,26,31,10,43,23,44		8,57
8″	13,29,57,35,26, 2, 6,11,53,39		59,12,52,53	
		2, 2,26,30,11,30,30,51		8,57
10″	13,29,59,37,52,32,17,42,24,30		59,13, 1,50	
		2, 2,26,29,12,17,29, 1		8,57
12″	13,30, 1,40,19, 1,29,59,53,31		59,13,10,47	
		2, 2,26,28,13, 4,18,14		8,57
14″	13,30, 3,42,45,29,43, 4,11,45		59,13,19,44	
		2, 2,26,27,13,50,58,30		8,57
16″	13,30, 5,45,11,56,56,55,10,15		59,13,28,41	
		2, 2,26,26,14,37,29,49		8,57
18″	13,30, 7,47,38,23,11,32,40, 4		59,13,37,38	
		2, 2,26,25,15,23,52,11		8,57
20″	13,30, 9,50, 4,48,26,56,32,15		59,13,46,35	
		2, 2,26,24,16,10, 5,36		8,57
22″	13,30,11,52,31,12,43, 6,37,51		59,13,55,32	
		2, 2,26,23,16,56,10, 4		8,57
24″	13,30,13,54,57,36, 0, 2,47,55		59,14, 4,29	
		2, 2,26,22,17,42, 5,35		8,57
26″	13,30,15,57,23,58,17,44,53,30		59,14,13,26	
		2, 2,26,21,18,27,52, 9		8,57
28″	13,30,17,59,50,19,36,12,45,39		59,14,22,23	
		2, 2,26,20,19,13,29,46		8,57
30″	13,30,20, 2,16,39,55,26,15,25		59,14,31,20	
		2, 2,26,19,19,58,58,26		8,57
32″	13,30,22, 4,42,59,15,25,13,51		59,14,40,17	
		2, 2,26,18,20,44,18, 9		8,57
34″	13,30,24, 7, 9,17,36, 9,32, 0		59,14,49,14	
		2, 2,26,17,21,29,28,55		8,57
36″	13,30,26, 9,35,34,57,39, 0,55		59,14,58,11	
		2, 2,26,16,22,14,30,44		8,57
38″	13,30,28,12, 1,51,19,53,31,39		59,15, 7, 8	
		2, 2,26,15,22,59,23,36		8,57
40″	13,30,30,14,28, 6,42,52,55,15		59,15,16, 5	
		2, 2,26,14,23,44, 7,31		8,57
42″	13,30,32,16,54,21, 6,37, 2,46		59,15,25, 2	
		2, 2,26,13,24,28,42,29		8,57
44″	13,30,34,19,20,34,31, 5,45,15		59,15,33,59	
		2, 2,26,12,25,13, 8,30		8,57
46″	13,30,36,21,46,46,56,18,53,45		59,15,42,56	
		2, 2,26,11,25,57,25,34		8,57
48″	13,30,38,24,12,58,22,16,19,19		59,15,51,53	
		2, 2,26,10,26,41,33,41		8,57
50″	13,30,40,26,39, 8,48,57,53, 0		59,16, 0,50	
		2, 2,26, 9,27,25,32,51		8,57
52″	13,30,42,29, 5,18,16,23,25,51		59,16, 9,47	
		2, 2,26, 8,28, 9,23, 4		8,57
54″	13,30,44,31,31,26,44,32,48,55		59,16,18,44	
		2, 2,26, 7,28,53, 4,20		8,57
56″	13,30,46,33,57,34,13,25,53,15		59,16,27,41	
		2, 2,26, 6,29,36,36,39		8,57
58″	13,30,48,36,23,40,43, 2,29,54		59,16,36,38	
		2, 2,26, 5,30,20, 0, 1		
60″	13,30,50,38,49,46,13,22,29,55			
exact	13,30,50,38,49,46,13,22,24,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13° 1′ 0″	13,30,50,38,49,46,13,22,24,49			
		2, 2,26, 4,31, 3,13,53		
2″	13,30,52,41,15,50,44,25,38,42		59,16,54,34	
		2, 2,26, 3,31,46,19,19		8,57
4″	13,30,54,43,41,54,16,11,58, 1		59,17, 3,31	
		2, 2,26, 2,32,29,15,48		8,57
6″	13,30,56,46, 7,56,48,41,13,49		59,17,12,28	
		2, 2,26, 1,33,12, 3,20		8,57
8″	13,30,58,48,33,58,21,53,17, 9		59,17,21,25	
		2, 2,26, 0,33,54,41,55		8,57
10″	13,31, 0,50,59,58,55,47,59, 4		59,17,30,22	
		2, 2,25,59,34,37,11,33		8,57
12″	13,31, 2,53,25,58,30,25,10,37		59,17,39,19	
		2, 2,25,58,35,19,32,14		8,57
14″	13,31, 4,55,51,57, 5,44,42,51		59,17,48,16	
		2, 2,25,57,36, 1,43,58		8,57
16″	13,31, 6,58,17,54,41,46,26,49		59,17,57,13	
		2, 2,25,56,36,43,46,45		8,57
18″	13,31, 9, 0,43,51,18,30,13,34		59,18, 6,10	
		2, 2,25,55,37,25,40,35		8,57
20″	13,31,11, 3, 9,46,55,55,54, 9		59,18,15, 7	
		2, 2,25,54,38, 7,25,28		8,57
22″	13,31,13, 5,35,41,34, 3,19,37		59,18,24, 4	
		2, 2,25,53,38,49, 1,24		8,57
24″	13,31,15, 8, 1,35,12,52,21, 1		59,18,33, 1	
		2, 2,25,52,39,30,28,23		8,57
26″	13,31,17,10,27,27,52,22,49,24		59,18,41,58	
		2, 2,25,51,40,11,46,25		8,57
28″	13,31,19,12,53,19,32,34,35,49		59,18,50,55	
		2, 2,25,50,40,52,55,30		8,57
30″	13,31,21,15,19,10,13,27,31,19		59,18,59,52	
		2, 2,25,49,41,33,55,38		8,57
32″	13,31,23,17,44,59,55, 1,26,57		59,19, 8,49	
		2, 2,25,48,42,14,46,49		8,57
34″	13,31,25,20,10,48,37,16,13,46		59,19,17,46	
		2, 2,25,47,42,55,29, 3		8,57
36″	13,31,27,22,36,36,20,11,42,49		59,19,26,43	
		2, 2,25,46,43,36, 2,20		8,57
38″	13,31,29,25, 2,23, 3,47,45, 9		59,19,35,40	
		2, 2,25,45,44,16,26,40		8,57
40″	13,31,31,27,28, 8,48, 4,11,49		59,19,44,37	
		2, 2,25,44,44,56,42, 3		8,57
42″	13,31,33,29,53,53,33, 0,53,52		59,19,53,34	
		2, 2,25,43,45,36,48,29		8,57
44″	13,31,35,32,19,37,18,37,42,21		59,20, 2,31	
		2, 2,25,42,46,16,45,58		8,57
46″	13,31,37,34,45,20, 4,54,28,19		59,20,11,28	
		2, 2,25,41,46,56,34,30		8,57
48″	13,31,39,37,11, 1,51,51, 2,49		59,20,20,25	
		2, 2,25,40,47,36,14, 5		8,57
50″	13,31,41,39,36,42,39,27,16,54		59,20,29,22	
		2, 2,25,39,48,15,44,43		8,57
52″	13,31,43,42, 2,22,27,43, 1,37		59,20,38,19	
		2, 2,25,38,48,55, 6,24		8,57
54″	13,31,45,44,28, 1,16,38, 8, 1		59,20,47,16	
		2, 2,25,37,49,34,19, 8		8,57
56″	13,31,47,46,53,39, 6,12,27, 9		59,20,56,13	
		2, 2,25,36,50,13,22,55		8,57
58″	13,31,49,49,19,15,56,25,50, 4		59,21, 5,10	
		2, 2,25,35,50,52,17,45		
60″	13,31,51,51,44,51,47,18, 7,49			
exact	13,31,51,51,44,51,47,18, 3,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13° 2′ 0″	13,31,51,51,44,51,47,18, 3,34			
		2, 2,25,34,51,31, 3,14		
2″	13,31,53,54,10,26,38,49, 6,48		59,21,23, 5	
		2, 2,25,33,52, 9,40, 9		8,57
4″	13,31,55,56,36, 0,30,58,46,57		59,21,32, 2	
		2, 2,25,32,52,48, 8, 7		8,57
6″	13,31,57,59, 1,33,23,46,55, 4		59,21,40,59	
		2, 2,25,31,53,26,27, 8		8,57
8″	13,32, 0, 1,27, 5,17,13,22,12		59,21,49,56	
		2, 2,25,30,54, 4,37,12		8,57
10″	13,32, 2, 3,52,36,11,17,59,24		59,21,58,53	
		2, 2,25,29,54,42,38,19		8,57
12″	13,32, 4, 6,18, 6, 6, 0,37,43		59,22, 7,50	
		2, 2,25,28,55,20,30,29		8,57
14″	13,32, 6, 8,43,35, 1,21, 8,12		59,22,16,47	
		2, 2,25,27,55,58,13,42		8,57
16″	13,32, 8,11, 9, 2,57,19,21,54		59,22,25,44	
		2, 2,25,26,56,35,47,58		8,57
18″	13,32,10,13,34,29,53,55, 9,52		59,22,34,41	
		2, 2,25,25,57,13,13,17		8,57
20″	13,32,12,15,59,55,51, 8,23, 9		59,22,43,38	
		2, 2,25,24,57,50,29,39		8,57
22″	13,32,14,18,25,20,48,58,52,48		59,22,52,35	
		2, 2,25,23,58,27,37, 4		8,57
24″	13,32,16,20,50,44,47,26,29,52		59,23, 1,32	
		2, 2,25,22,59, 4,35,32		8,57
26″	13,32,18,23,16, 7,46,31, 5,24		59,23,10,29	
		2, 2,25,21,59,41,25, 3		8,57
28″	13,32,20,25,41,29,46,12,30,27		59,23,19,26	
		2, 2,25,21, 0,18, 5,37		8,57
30″	13,32,22,28, 6,50,46,30,36, 4		59,23,28,23	
		2, 2,25,20, 0,54,37,14		8,57
32″	13,32,24,30,32,10,47,25,13,18		59,23,37,20	
		2, 2,25,19, 1,30,59,54		8,57
34″	13,32,26,32,57,29,48,56,13,12		59,23,46,17	
		2, 2,25,18, 2, 7,13,37		8,57
36″	13,32,28,35,22,47,51, 3,26,49		59,23,55,14	
		2, 2,25,17, 2,43,18,23		8,57
38″	13,32,30,37,48, 4,53,46,45,12		59,24, 4,11	
		2, 2,25,16, 3,19,14,12		8,57
40″	13,32,32,40,13,20,57, 5,59,24		59,24,13, 8	
		2, 2,25,15, 3,55, 1, 4		8,57
42″	13,32,34,42,38,36, 1, 1, 0,28		59,24,22, 5	
		2, 2,25,14, 4,30,38,59		8,57
44″	13,32,36,45, 3,50, 5,31,39,27		59,24,31, 2	
		2, 2,25,13, 5, 6, 7,57		8,57
46″	13,32,38,47,29, 3,10,37,47,24		59,24,39,59	
		2, 2,25,12, 5,41,27,58		8,57
48″	13,32,40,49,54,15,16,19,15,22		59,24,48,56	
		2, 2,25,11, 6,16,39, 2		8,57
50″	13,32,42,52,19,26,22,35,54,24		59,24,57,53	
		2, 2,25,10, 6,51,41, 9		8,57
52″	13,32,44,54,44,36,29,27,35,33		59,25, 6,50	
		2, 2,25, 9, 7,26,34,19		8,57
54″	13,32,46,57, 9,45,36,54, 9,52		59,25,15,47	
		2, 2,25, 8, 8, 1,18,32		8,57
56″	13,32,48,59,34,53,44,55,28,24		59,25,24,44	
		2, 2,25, 7, 8,35,53,48		8,57
58″	13,32,51, 2, 0, 0,53,31,22,12		59,25,33,41	
		2, 2,25, 6, 9,10,20, 7		
60″	13,32,53, 4,25, 7, 2,41,42,19			
exact	13,32,53, 4,25, 7, 2,41,38,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13° 3′ 0″	13,32,53, 4,25, 7, 2,41,38,48			
		2, 2,25, 5, 9,44,37,14		
2″	13,32,55, 6,50,12,12,26,16, 2		59,25,51,35	
		2, 2,25, 4,10,18,45,39		8,57
4″	13,32,57, 9,15,16,22,45, 1,41		59,26, 0,32	
		2, 2,25, 3,10,52,45, 7		8,57
6″	13,32,59,11,40,19,33,37,46,48		59,26, 9,29	
		2, 2,25, 2,11,26,35,38		8,57
8″	13,33, 1,14, 5,21,45, 4,22,26		59,26,18,26	
		2, 2,25, 1,12, 0,17,12		8,57
10″	13,33, 3,16,30,22,57, 4,39,38		59,26,27,23	
		2, 2,25, 0,12,33,49,49		8,57
12″	13,33, 5,18,55,23, 9,38,29,27		59,26,36,20	
		2, 2,24,59,13, 7,13,29		8,57
14″	13,33, 7,21,20,22,22,45,42,56		59,26,45,17	
		2, 2,24,58,13,40,28,12		8,57
16″	13,33, 9,23,45,20,36,26,11, 8		59,26,54,14	
		2, 2,24,57,14,13,33,58		8,57
18″	13,33,11,26,10,17,50,39,45, 6		59,27, 3,11	
		2, 2,24,56,14,46,30,47		8,57
20″	13,33,13,28,35,14, 5,26,15,53		59,27,12, 8	
		2, 2,24,55,15,19,18,39		8,57
22″	13,33,15,31, 0, 9,20,45,34,32		59,27,21, 5	
		2, 2,24,54,15,51,57,34		8,57
24″	13,33,17,33,25, 3,36,37,32, 6		59,27,30, 2	
		2, 2,24,53,16,24,27,32		8,57
26″	13,33,19,35,49,56,53, 1,59,38		59,27,38,59	
		2, 2,24,52,16,56,48,33		8,57
28″	13,33,21,38,14,49, 9,58,48,11		59,27,47,56	
		2, 2,24,51,17,29, 0,37		8,57
30″	13,33,23,40,39,40,27,27,48,48		59,27,56,53	
		2, 2,24,50,18, 1, 3,44		8,57
32″	13,33,25,43, 4,30,45,28,52,32		59,28, 5,50	
		2, 2,24,49,18,32,57,54		8,57
34″	13,33,27,45,29,20, 4, 1,50,26		59,28,14,47	
		2, 2,24,48,19, 4,43, 7		8,57
36″	13,33,29,47,54, 8,23, 6,33,33		59,28,23,44	
		2, 2,24,47,19,36,19,23		8,57
38″	13,33,31,50,18,55,42,42,52,56		59,28,32,41	
		2, 2,24,46,20, 7,46,42		8,57
40″	13,33,33,52,43,42, 2,50,39,38		59,28,41,38	
		2, 2,24,45,20,39, 5, 4		8,57
42″	13,33,35,55, 8,27,23,29,44,42		59,28,50,35	
		2, 2,24,44,21,10,14,29		8,57
44″	13,33,37,57,33,11,44,39,59,11		59,28,59,32	
		2, 2,24,43,21,41,14,57		8,57
46″	13,33,39,59,57,55, 6,21,14, 8		59,29, 8,29	
		2, 2,24,42,22,12, 6,28		8,57
48″	13,33,42, 2,22,37,28,33,20,36		59,29,17,26	
		2, 2,24,41,22,42,49, 2		8,57
50″	13,33,44, 4,47,18,51,16, 9,38		59,29,26,23	
		2, 2,24,40,23,13,22,39		8,57
52″	13,33,46, 7,11,59,14,29,32,17		59,29,35,20	
		2, 2,24,39,23,43,47,19		8,57
54″	13,33,48, 9,36,38,38,13,19,36		59,29,44,17	
		2, 2,24,38,24,14, 3, 2		8,57
56″	13,33,50,12, 1,17, 2,27,22,38		59,29,53,14	
		2, 2,24,37,24,44, 9,48		8,57
58″	13,33,52,14,25,54,27,11,32,26		59,30, 2,11	
		2, 2,24,36,25,14, 7,37		
60″	13,33,54,16,50,30,52,25,40, 3			
exact	13,33,54,16,50,30,52,25,38,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13° 4′ 0″	13,33,54,16,50,30,52,25,38,29			
		2, 2,24,35,25,43,56,27		
2″	13,33,56,19,15, 6,18, 9,34,56		59,30,20, 4	
		2, 2,24,34,26,13,36,23		8,57
4″	13,33,58,21,39,40,44,23,11,19		59,30,29, 1	
		2, 2,24,33,26,43, 7,22		8,57
6″	13,34, 0,24, 4,14,11, 6,18,41		59,30,37,58	
		2, 2,24,32,27,12,29,24		8,57
8″	13,34, 2,26,28,46,38,18,48, 5		59,30,46,55	
		2, 2,24,31,27,41,42,29		8,57
10″	13,34, 4,28,53,18, 6, 0,30,34		59,30,55,52	
		2, 2,24,30,28,10,46,37		8,57
12″	13,34, 6,31,17,48,34,11,17,11		59,31, 4,49	
		2, 2,24,29,28,39,41,48		8,57
14″	13,34, 8,33,42,18, 2,50,58,59		59,31,13,46	
		2, 2,24,28,29, 8,28, 2		8,57
16″	13,34,10,36, 6,46,31,59,27, 1		59,31,22,43	
		2, 2,24,27,29,37, 5,19		8,57
18″	13,34,12,38,31,14, 1,36,32,20		59,31,31,40	
		2, 2,24,26,30, 5,33,39		8,57
20″	13,34,14,40,55,40,31,42, 5,59		59,31,40,37	
		2, 2,24,25,30,33,53, 2		8,57
22″	13,34,16,43,20, 6, 2,15,59, 1		59,31,49,34	
		2, 2,24,24,31, 2, 3,28		8,57
24″	13,34,18,45,44,30,33,18, 2,29		59,31,58,31	
		2, 2,24,23,31,30, 4,57		8,57
26″	13,34,20,48, 8,54, 4,48, 7,26		59,32, 7,28	
		2, 2,24,22,31,57,57,29		8,57
28″	13,34,22,50,33,16,36,46, 4,55		59,32,16,25	
		2, 2,24,21,32,25,41, 4		8,57
30″	13,34,24,52,57,38, 9,11,45,59		59,32,25,22	
		2, 2,24,20,32,53,15,42		8,57
32″	13,34,26,55,21,58,42, 5, 1,41		59,32,34,19	
		2, 2,24,19,33,20,41,23		8,57
34″	13,34,28,57,46,18,15,25,43, 4		59,32,43,16	
		2, 2,24,18,33,47,58, 7		8,57
36″	13,34,31, 0,10,36,49,13,41,11		59,32,52,13	
		2, 2,24,17,34,15, 5,54		8,57
38″	13,34,33, 2,34,54,23,28,47, 5		59,33, 1,10	
		2, 2,24,16,34,42, 4,44		8,57
40″	13,34,35, 4,59,10,58,10,51,49		59,33,10, 7	
		2, 2,24,15,35, 8,54,37		8,57
42″	13,34,37, 7,23,26,33,19,46,26		59,33,19, 4	
		2, 2,24,14,35,35,35,33		8,57
44″	13,34,39, 9,47,41, 8,55,21,59		59,33,28, 1	
		2, 2,24,13,36, 2, 7,32		8,57
46″	13,34,41,12,11,54,44,57,29,31		59,33,36,58	
		2, 2,24,12,36,28,30,34		8,57
48″	13,34,43,14,36, 7,21,26, 0, 5		59,33,45,55	
		2, 2,24,11,36,54,44,39		8,57
50″	13,34,45,17, 0,18,58,20,44,44		59,33,54,52	
		2, 2,24,10,37,20,49,47		8,57
52″	13,34,47,19,24,29,35,41,34,31		59,34, 3,49	
		2, 2,24, 9,37,46,45,58		8,57
54″	13,34,49,21,48,39,13,28,20,29		59,34,12,46	
		2, 2,24, 8,38,12,33,12		8,57
56″	13,34,51,24,12,47,51,40,53,41		59,34,21,43	
		2, 2,24, 7,38,38,11,29		8,57
58″	13,34,53,26,36,55,30,19, 5,10		59,34,30,40	
		2, 2,24, 6,39, 3,40,49		
60″	13,34,55,29, 1, 2, 9,22,45,59			
exact	13,34,55,29, 1, 2, 9,22,46,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13° 5′ 0″	13,34,55,29, 1, 2, 9,22,46,50			
		2, 2,24, 5,39,29, 1,26		
2″	13,34,57,31,25, 7,48,51,48,16		59,34,48,32	
		2, 2,24, 4,39,54,12,54		8,57
4″	13,34,59,33,49,12,28,46, 1,10		59,34,57,29	
		2, 2,24, 3,40,19,15,25		8,57
6″	13,35, 1,36,13,16, 9, 5,16,35		59,35, 6,26	
		2, 2,24, 2,40,44, 8,59		8,57
8″	13,35, 3,38,37,18,49,49,25,34		59,35,15,23	
		2, 2,24, 1,41, 8,53,36		8,57
10″	13,35, 5,41, 1,20,30,58,19,10		59,35,24,20	
		2, 2,24, 0,41,33,29,16		8,57
12″	13,35, 7,43,25,21,12,31,48,26		59,35,33,17	
		2, 2,23,59,41,57,55,59		8,57
14″	13,35, 9,45,49,20,54,29,44,25		59,35,42,14	
		2, 2,23,58,42,22,13,45		8,57
16″	13,35,11,48,13,19,36,51,58,10		59,35,51,11	
		2, 2,23,57,42,46,22,34		8,57
18″	13,35,13,50,37,17,19,38,20,44		59,36, 0, 8	
		2, 2,23,56,43,10,22,26		8,57
20″	13,35,15,53, 1,14, 2,48,43,10		59,36, 9, 5	
		2, 2,23,55,43,34,13,21		8,57
22″	13,35,17,55,25, 9,46,22,56,31		59,36,18, 2	
		2, 2,23,54,43,57,55,19		8,57
24″	13,35,19,57,49, 4,30,20,51,50		59,36,26,59	
		2, 2,23,53,44,21,28,20		8,57
26″	13,35,22, 0,12,58,14,42,20,10		59,36,35,56	
		2, 2,23,52,44,44,52,24		8,57
28″	13,35,24, 2,36,50,59,27,12,34		59,36,44,53	
		2, 2,23,51,45, 8, 7,31		8,57
30″	13,35,26, 5, 0,42,44,35,20, 5		59,36,53,50	
		2, 2,23,50,45,31,13,41		8,57
32″	13,35,28, 7,24,33,30, 6,33,46		59,37, 2,47	
		2, 2,23,49,45,54,10,54		8,57
34″	13,35,30, 9,48,23,16, 0,44,40		59,37,11,44	
		2, 2,23,48,46,16,59,10		8,57
36″	13,35,32,12,12,12, 2,17,43,50		59,37,20,41	
		2, 2,23,47,46,39,38,29		8,57
38″	13,35,34,14,35,59,48,57,22,19		59,37,29,38	
		2, 2,23,46,47, 2, 8,51		8,57
40″	13,35,36,16,59,46,35,59,31,10		59,37,38,35	
		2, 2,23,45,47,24,30,16		8,57
42″	13,35,38,19,23,32,23,24, 1,26		59,37,47,32	
		2, 2,23,44,47,46,42,44		8,57
44″	13,35,40,21,47,17,11,10,44,10		59,37,56,29	
		2, 2,23,43,48, 8,46,15		8,57
46″	13,35,42,24,11, 0,59,19,30,25		59,38, 5,26	
		2, 2,23,42,48,30,40,49		8,57
48″	13,35,44,26,34,43,47,50,11,14		59,38,14,23	
		2, 2,23,41,48,52,26,26		8,57
50″	13,35,46,28,58,25,36,42,37,40		59,38,23,20	
		2, 2,23,40,49,14, 3, 6		8,57
52″	13,35,48,31,22, 6,25,56,40,46		59,38,32,17	
		2, 2,23,39,49,35,30,49		8,57
54″	13,35,50,33,45,46,15,32,11,35		59,38,41,14	
		2, 2,23,38,49,56,49,35		8,57
56″	13,35,52,36, 9,25, 5,29, 1,10		59,38,50,11	
		2, 2,23,37,50,17,59,24		8,57
58″	13,35,54,38,33, 2,55,47, 0,34		59,38,59, 8	
		2, 2,23,36,50,39, 0,16		
60″	13,35,56,40,56,39,46,26, 0,50			
exact	13,35,56,40,56,39,46,26, 4,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13° 6′ 0″	13,35,56,40,56,39,46,26, 4,25			
		2, 2,23,35,50,59,52,42		
2″	13,35,58,43,20,15,37,25,57, 7		59,39,16,59	
		2, 2,23,34,51,20,35,43		8,57
4″	13,36, 0,45,43,50,28,46,32,50		59,39,25,56	
		2, 2,23,33,51,41, 9,47		8,57
6″	13,36, 2,48, 7,24,20,27,42,37		59,39,34,53	
		2, 2,23,32,52, 1,34,54		8,57
8″	13,36, 4,50,30,57,12,29,17,31		59,39,43,50	
		2, 2,23,31,52,21,51, 4		8,57
10″	13,36, 6,52,54,29, 4,51, 8,35		59,39,52,47	
		2, 2,23,30,52,41,58,17		8,57
12″	13,36, 8,55,17,59,57,33, 6,52		59,40, 1,44	
		2, 2,23,29,53, 1,56,33		8,57
14″	13,36,10,57,41,29,50,35, 3,25		59,40,10,41	
		2, 2,23,28,53,21,45,52		8,57
16″	13,36,13, 0, 4,58,43,56,49,17		59,40,19,38	
		2, 2,23,27,53,41,26,14		8,57
18″	13,36,15, 2,28,26,37,38,15,31		59,40,28,35	
		2, 2,23,26,54, 0,57,39		8,57
20″	13,36,17, 4,51,53,31,39,13,10		59,40,37,32	
		2, 2,23,25,54,20,20, 7		8,57
22″	13,36,19, 7,15,19,25,59,33,17		59,40,46,29	
		2, 2,23,24,54,39,33,38		8,57
24″	13,36,21, 9,38,44,20,39, 6,55		59,40,55,26	
		2, 2,23,23,54,58,38,12		8,57
26″	13,36,23,12, 2, 8,15,37,45, 7		59,41, 4,23	
		2, 2,23,22,55,17,33,49		8,57
28″	13,36,25,14,25,31,10,55,18,56		59,41,13,20	
		2, 2,23,21,55,36,20,29		8,57
30″	13,36,27,16,48,53, 6,31,39,25		59,41,22,17	
		2, 2,23,20,55,54,58,12		8,57
32″	13,36,29,19,12,14, 2,26,37,37		59,41,31,14	
		2, 2,23,19,56,13,26,58		8,57
34″	13,36,31,21,35,33,58,40, 4,35		59,41,40,11	
		2, 2,23,18,56,31,46,47		8,57
36″	13,36,33,23,58,52,55,11,51,22		59,41,49, 8	
		2, 2,23,17,56,49,57,39		8,57
38″	13,36,35,26,22,10,52, 1,49, 1		59,41,58, 5	
		2, 2,23,16,57, 7,59,34		8,57
40″	13,36,37,28,45,27,49, 9,48,35		59,42, 7, 2	
		2, 2,23,15,57,25,52,32		8,57
42″	13,36,39,31, 8,43,46,35,41, 7		59,42,15,59	
		2, 2,23,14,57,43,36,33		8,57
44″	13,36,41,33,31,58,44,19,17,40		59,42,24,56	
		2, 2,23,13,58, 1,11,37		8,57
46″	13,36,43,35,55,12,42,20,29,17		59,42,33,53	
		2, 2,23,12,58,18,37,44		8,57
48″	13,36,45,38,18,25,40,39, 7, 1		59,42,42,50	
		2, 2,23,11,58,35,54,54		8,57
50″	13,36,47,40,41,37,39,15, 1,55		59,42,51,47	
		2, 2,23,10,58,53, 3, 7		8,57
52″	13,36,49,43, 4,48,38, 8, 5, 2		59,43, 0,44	
		2, 2,23, 9,59,10, 2,23		8,57
54″	13,36,51,45,27,58,37,18, 7,25		59,43, 9,41	
		2, 2,23, 8,59,26,52,42		8,57
56″	13,36,53,47,51, 7,36,45, 0, 7		59,43,18,38	
		2, 2,23, 7,59,43,34, 4		8,57
58″	13,36,55,50,14,15,36,28,34,11		59,43,27,35	
		2, 2,23, 7, 0, 0, 6,29		
60″	13,36,57,52,37,22,36,28,40,40			
exact	13,36,57,52,37,22,36,28,48, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13° 7′ 0″	13,36,57,52,37,22,36,28,48, 6			
		2, 2,23, 6, 0,16,30,49		
2″	13,36,59,55, 0,28,36,45,18,55		59,43,45,25	
		2, 2,23, 5, 0,32,45,24		8,57
4″	13,37, 1,57,23,33,37,18, 4,19		59,43,54,22	
		2, 2,23, 4, 0,48,51, 2		8,57
6″	13,37, 3,59,46,37,38, 6,55,21		59,44, 3,19	
		2, 2,23, 3, 1, 4,47,43		8,57
8″	13,37, 6, 2, 9,40,39,11,43, 4		59,44,12,16	
		2, 2,23, 2, 1,20,35,27		8,57
10″	13,37, 8, 4,32,42,40,32,18,31		59,44,21,13	
		2, 2,23, 1, 1,36,14,14		8,57
12″	13,37,10, 6,55,43,42, 8,32,45		59,44,30,10	
		2, 2,23, 0, 1,51,44, 4		8,57
14″	13,37,12, 9,18,43,44, 0,16,49		59,44,39, 7	
		2, 2,22,59, 2, 7, 4,57		8,57
16″	13,37,14,11,41,42,46, 7,21,46		59,44,48, 4	
		2, 2,22,58, 2,22,16,53		8,57
18″	13,37,16,14, 4,40,48,29,38,39		59,44,57, 1	
		2, 2,22,57, 2,37,19,52		8,57
20″	13,37,18,16,27,37,51, 6,58,31		59,45, 5,58	
		2, 2,22,56, 2,52,13,54		8,57
22″	13,37,20,18,50,33,53,59,12,25		59,45,14,55	
		2, 2,22,55, 3, 6,58,59		8,57
24″	13,37,22,21,13,28,57, 6,11,24		59,45,23,52	
		2, 2,22,54, 3,21,35, 7		8,57
26″	13,37,24,23,36,23, 0,27,46,31		59,45,32,49	
		2, 2,22,53, 3,36, 2,18		8,57
28″	13,37,26,25,59,16, 4, 3,48,49		59,45,41,46	
		2, 2,22,52, 3,50,20,32		8,57
30″	13,37,28,28,22, 8, 7,54, 9,21		59,45,50,43	
		2, 2,22,51, 4, 4,29,49		8,57
32″	13,37,30,30,44,59,11,58,39,10		59,45,59,40	
		2, 2,22,50, 4,18,30, 9		8,57
34″	13,37,32,33, 7,49,16,17, 9,19		59,46, 8,37	
		2, 2,22,49, 4,32,21,32		8,57
36″	13,37,34,35,30,38,20,49,30,51		59,46,17,34	
		2, 2,22,48, 4,46, 3,58		8,57
38″	13,37,36,37,53,26,25,35,34,49		59,46,26,31	
		2, 2,22,47, 4,59,37,27		8,57
40″	13,37,38,40,16,13,30,35,12,16		59,46,35,28	
		2, 2,22,46, 5,13, 1,59		8,57
42″	13,37,40,42,38,59,35,48,14,15		59,46,44,25	
		2, 2,22,45, 5,26,17,34		8,57
44″	13,37,42,45, 1,44,41,14,31,49		59,46,53,22	
		2, 2,22,44, 5,39,24,12		8,57
46″	13,37,44,47,24,28,46,53,56, 1		59,47, 2,19	
		2, 2,22,43, 5,52,21,53		8,57
48″	13,37,46,49,47,11,52,46,17,54		59,47,11,16	
		2, 2,22,42, 6, 5,10,37		8,57
50″	13,37,48,52, 9,53,58,51,28,31		59,47,20,13	
		2, 2,22,41, 6,17,50,24		8,57
52″	13,37,50,54,32,35, 5, 9,18,55		59,47,29,10	
		2, 2,22,40, 6,30,21,14		8,57
54″	13,37,52,56,55,15,11,39,40, 9		59,47,38, 7	
		2, 2,22,39, 6,42,43, 7		8,57
56″	13,37,54,59,17,54,18,22,23,16		59,47,47, 4	
		2, 2,22,38, 6,54,56, 3		8,57
58″	13,37,57, 1,40,32,25,17,19,19		59,47,56, 1	
		2, 2,22,37, 7, 7, 0, 2		
60″	13,37,59, 4, 3, 9,32,24,19,21			
exact	13,37,59, 4, 3, 9,32,24,31, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13° 8′ 0″	13,37,59, 4, 3, 9,32,24,31, 8			
		2, 2,22,36, 7,18,56,20		
2″	13,38, 1, 6,25,45,39,43,27,28		59,48,13,50	
		2, 2,22,35, 7,30,42,30		8,57
4″	13,38, 3, 8,48,20,47,14, 9,58		59,48,22,47	
		2, 2,22,34, 7,42,19,43		8,57
6″	13,38, 5,11,10,54,54,56,29,41		59,48,31,44	
		2, 2,22,33, 7,53,47,59		8,57
8″	13,38, 7,13,33,28, 2,50,17,40		59,48,40,41	
		2, 2,22,32, 8, 5, 7,18		8,57
10″	13,38, 9,15,56, 0,10,55,24,58		59,48,49,38	
		2, 2,22,31, 8,16,17,40		8,57
12″	13,38,11,18,18,31,19,11,42,38		59,48,58,35	
		2, 2,22,30, 8,27,19, 5		8,57
14″	13,38,13,20,41, 1,27,39, 1,43		59,49, 7,32	
		2, 2,22,29, 8,38,11,33		8,57
16″	13,38,15,23, 3,30,36,17,13,16		59,49,16,29	
		2, 2,22,28, 8,48,55, 4		8,57
18″	13,38,17,25,25,58,45, 6, 8,20		59,49,25,26	
		2, 2,22,27, 8,59,29,38		8,57
20″	13,38,19,27,48,25,54, 5,37,58		59,49,34,23	
		2, 2,22,26, 9, 9,55,15		8,57
22″	13,38,21,30,10,52, 3,15,33,13		59,49,43,20	
		2, 2,22,25, 9,20,11,55		8,57
24″	13,38,23,32,33,17,12,35,45, 8		59,49,52,17	
		2, 2,22,24, 9,30,19,38		8,57
26″	13,38,25,34,55,41,22, 6, 4,46		59,50, 1,14	
		2, 2,22,23, 9,40,18,24		8,57
28″	13,38,27,37,18, 4,31,46,23,10		59,50,10,11	
		2, 2,22,22, 9,50, 8,13		8,57
30″	13,38,29,39,40,26,41,36,31,23		59,50,19, 8	
		2, 2,22,21, 9,59,49, 5		8,57
32″	13,38,31,42, 2,47,51,36,20,28		59,50,28, 5	
		2, 2,22,20,10, 9,21, 0		8,57
34″	13,38,33,44,25, 8, 1,45,41,28		59,50,37, 2	
		2, 2,22,19,10,18,43,58		8,57
36″	13,38,35,46,47,27,12, 4,25,26		59,50,45,59	
		2, 2,22,18,10,27,57,59		8,57
38″	13,38,37,49, 9,45,22,32,23,25		59,50,54,56	
		2, 2,22,17,10,37, 3, 3		8,57
40″	13,38,39,51,32, 2,33, 9,26,28		59,51, 3,53	
		2, 2,22,16,10,45,59,10		8,57
42″	13,38,41,53,54,18,43,55,25,38		59,51,12,50	
		2, 2,22,15,10,54,46,20		8,57
44″	13,38,43,56,16,33,54,50,11,58		59,51,21,47	
		2, 2,22,14,11, 3,24,33		8,57
46″	13,38,45,58,38,48, 5,53,36,31		59,51,30,44	
		2, 2,22,13,11,11,53,49		8,57
48″	13,38,48, 1, 1, 1,17, 5,30,20		59,51,39,41	
		2, 2,22,12,11,20,14, 8		8,57
50″	13,38,50, 3,23,13,28,25,44,28		59,51,48,38	
		2, 2,22,11,11,28,25,30		8,57
52″	13,38,52, 5,45,24,39,54, 9,58		59,51,57,35	
		2, 2,22,10,11,36,27,55		8,57
54″	13,38,54, 8, 7,34,51,30,37,53		59,52, 6,32	
		2, 2,22, 9,11,44,21,23		8,57
56″	13,38,56,10,29,44, 3,14,59,16		59,52,15,29	
		2, 2,22, 8,11,52, 5,54		8,57
58″	13,38,58,12,51,52,15, 7, 5,10		59,52,24,26	
		2, 2,22, 7,11,59,41,28		
60″	13,39, 0,15,13,59,27, 6,46,38			
exact	13,39, 0,15,13,59,27, 7, 3, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13° 9′ 0″	13,39, 0,15,13,59,27, 7, 3, 7			
		2, 2,22, 6,12, 7, 9,47		
2″	13,39, 2,17,36, 5,39,14,12,54		59,52,42,13	
		2, 2,22, 5,12,14,27,34		8,57
4″	13,39, 4,19,58,10,51,28,40,28		59,52,51,10	
		2, 2,22, 4,12,21,36,24		8,57
6″	13,39, 6,22,20,15, 3,50,16,52		59,53, 0, 7	
		2, 2,22, 3,12,28,36,17		8,57
8″	13,39, 8,24,42,18,16,18,53, 9		59,53, 9, 4	
		2, 2,22, 2,12,35,27,13		8,57
10″	13,39,10,27, 4,20,28,54,20,22		59,53,18, 1	
		2, 2,22, 1,12,42, 9,12		8,57
12″	13,39,12,29,26,21,41,36,29,34		59,53,26,58	
		2, 2,22, 0,12,48,42,14		8,57
14″	13,39,14,31,48,21,54,25,11,48		59,53,35,55	
		2, 2,21,59,12,55, 6,19		8,57
16″	13,39,16,34,10,21, 7,20,18, 7		59,53,44,52	
		2, 2,21,58,13, 1,21,27		8,57
18″	13,39,18,36,32,19,20,21,39,34		59,53,53,49	
		2, 2,21,57,13, 7,27,38		8,57
20″	13,39,20,38,54,16,33,29, 7,12		59,54, 2,46	
		2, 2,21,56,13,13,24,52		8,57
22″	13,39,22,41,16,12,46,42,32, 4		59,54,11,43	
		2, 2,21,55,13,19,13, 9		8,57
24″	13,39,24,43,38, 8, 0, 1,45,13		59,54,20,40	
		2, 2,21,54,13,24,52,29		8,57
26″	13,39,26,46, 0, 2,13,26,37,42		59,54,29,37	
		2, 2,21,53,13,30,22,52		8,57
28″	13,39,28,48,21,55,26,57, 0,34		59,54,38,34	
		2, 2,21,52,13,35,44,18		8,57
30″	13,39,30,50,43,47,40,32,44,52		59,54,47,31	
		2, 2,21,51,13,40,56,47		8,57
32″	13,39,32,53, 5,38,54,13,41,39		59,54,56,28	
		2, 2,21,50,13,46, 0,19		8,57
34″	13,39,34,55,27,29, 7,59,41,58		59,55, 5,25	
		2, 2,21,49,13,50,54,54		8,57
36″	13,39,36,57,49,18,21,50,36,52		59,55,14,22	
		2, 2,21,48,13,55,40,32		8,57
38″	13,39,39, 0,11, 6,35,46,17,24		59,55,23,19	
		2, 2,21,47,14, 0,17,13		8,57
40″	13,39,41, 2,32,53,49,46,34,37		59,55,32,16	
		2, 2,21,46,14, 4,44,57		8,57
42″	13,39,43, 4,54,40, 3,51,19,34		59,55,41,13	
		2, 2,21,45,14, 9, 3,44		8,57
44″	13,39,45, 7,16,25,18, 0,23,18		59,55,50,10	
		2, 2,21,44,14,13,13,34		8,57
46″	13,39,47, 9,38, 9,32,13,36,52		59,55,59, 7	
		2, 2,21,43,14,17,14,27		8,57
48″	13,39,49,11,59,52,46,30,51,19		59,56, 8, 4	
		2, 2,21,42,14,21, 6,23		8,57
50″	13,39,51,14,21,35, 0,51,57,42		59,56,17, 1	
		2, 2,21,41,14,24,49,22		8,57
52″	13,39,53,16,43,16,15,16,47, 4		59,56,25,58	
		2, 2,21,40,14,28,23,24		8,57
54″	13,39,55,19, 4,56,29,45,10,28		59,56,34,55	
		2, 2,21,39,14,31,48,29		8,57
56″	13,39,57,21,26,35,44,16,58,57		59,56,43,52	
		2, 2,21,38,14,35, 4,37		8,57
58″	13,39,59,23,48,13,58,52, 3,34		59,56,52,49	
		2, 2,21,37,14,38,11,48		
60″	13,40, 1,26, 9,51,13,30,15,22			
exact	13,40, 1,26, 9,51,13,30,30, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°10′ 0″	13,40, 1,26, 9,51,13,30,30, 4			
		2, 2,21,36,14,41,11,42		
2″	13,40, 3,28,31,27,28,11,41,46		0,59,57,10,36	
		2, 2,21,35,14,44, 1, 6		8,57
4″	13,40, 5,30,53, 2,42,55,42,52		0,59,57,19,33	
		2, 2,21,34,14,46,41,33		8,57
6″	13,40, 7,33,14,36,57,42,24,25		0,59,57,28,30	
		2, 2,21,33,14,49,13, 3		8,57
8″	13,40, 9,35,36,10,12,31,37,28		0,59,57,37,27	
		2, 2,21,32,14,51,35,36		8,57
10″	13,40,11,37,57,42,27,23,13, 4		0,59,57,46,24	
		2, 2,21,31,14,53,49,12		8,57
12″	13,40,13,40,19,13,42,17, 2,16		0,59,57,55,21	
		2, 2,21,30,14,55,53,51		8,57
14″	13,40,15,42,40,43,57,12,56, 7		0,59,58, 4,18	
		2, 2,21,29,14,57,49,33		8,57
16″	13,40,17,45, 2,13,12,10,45,40		0,59,58,13,15	
		2, 2,21,28,14,59,36,18		8,57
18″	13,40,19,47,23,41,27,10,21,58		0,59,58,22,12	
		2, 2,21,27,15, 1,14, 6		8,57
20″	13,40,21,49,45, 8,42,11,36, 4		0,59,58,31, 9	
		2, 2,21,26,15, 2,42,57		8,57
22″	13,40,23,52, 6,34,57,14,19, 1		0,59,58,40, 6	
		2, 2,21,25,15, 4, 2,51		8,57
24″	13,40,25,54,28, 0,12,18,21,52		0,59,58,49, 3	
		2, 2,21,24,15, 5,13,48		8,57
26″	13,40,27,56,49,24,27,23,35,40		0,59,58,58, 0	
		2, 2,21,23,15, 6,15,48		8,57
28″	13,40,29,59,10,47,42,29,51,28		0,59,59, 6,57	
		2, 2,21,22,15, 7, 8,51		8,57
30″	13,40,32, 1,32, 9,57,37, 0,19		0,59,59,15,54	
		2, 2,21,21,15, 7,52,57		8,57
32″	13,40,34, 3,53,31,12,44,53,16		0,59,59,24,51	
		2, 2,21,20,15, 8,28, 6		8,57
34″	13,40,36, 6,14,51,27,53,21,22		0,59,59,33,48	
		2, 2,21,19,15, 8,54,18		8,57
36″	13,40,38, 8,36,10,43, 2,15,40		0,59,59,42,45	
		2, 2,21,18,15, 9,11,33		8,57
38″	13,40,40,10,57,28,58,11,27,13		0,59,59,51,42	
		2, 2,21,17,15, 9,19,51		8,57
40″	13,40,42,13,18,46,13,20,47, 4		1, 0, 0, 0,39	
		2, 2,21,16,15, 9,19,12		8,57
42″	13,40,44,15,40, 2,28,30, 6,16		1, 0, 0, 9,36	
		2, 2,21,15,15, 9, 9,36		8,57
44″	13,40,46,18, 1,17,43,39,15,52		1, 0, 0,18,33	
		2, 2,21,14,15, 8,51, 3		8,57
46″	13,40,48,20,22,31,58,48, 6,55		1, 0, 0,27,30	
		2, 2,21,13,15, 8,23,33		8,57
48″	13,40,50,22,43,45,13,56,30,28		1, 0, 0,36,27	
		2, 2,21,12,15, 7,47, 6		8,57
50″	13,40,52,25, 4,57,29, 4,17,34		1, 0, 0,45,24	
		2, 2,21,11,15, 7, 1,42		8,57
52″	13,40,54,27,26, 8,44,11,19,16		1, 0, 0,54,21	
		2, 2,21,10,15, 6, 7,21		8,57
54″	13,40,56,29,47,18,59,17,26,37		1, 0, 1, 3,18	
		2, 2,21, 9,15, 5, 4, 3		8,57
56″	13,40,58,32, 8,28,14,22,30,40		1, 0, 1,12,15	
		2, 2,21, 8,15, 3,51,48		8,57
58″	13,41, 0,34,29,36,29,26,22,28		1, 0, 1,21,12	
		2, 2,21, 7,15, 2,30,36		
60″	13,41, 2,36,50,43,44,28,53, 4			
exact	13,41, 2,36,50,43,44,29,14,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°11′ 0″	13,41, 2,36,50,43,44,29,14,23			
		2, 2,21, 6,15, 1, 2,40		
2″	13,41, 4,39,11,49,59,30,17, 3		1, 0, 1,38,57	
		2, 2,21, 5,14,59,23,43		8,57
4″	13,41, 6,41,32,55,14,29,40,46		1, 0, 1,47,54	
		2, 2,21, 4,14,57,35,49		8,57
6″	13,41, 8,43,53,59,29,27,16,35		1, 0, 1,56,51	
		2, 2,21, 3,14,55,38,58		8,57
8″	13,41,10,46,15, 2,44,22,55,33		1, 0, 2, 5,48	
		2, 2,21, 2,14,53,33,10		8,57
10″	13,41,12,48,36, 4,59,16,28,43		1, 0, 2,14,45	
		2, 2,21, 1,14,51,18,25		8,57
12″	13,41,14,50,57, 6,14, 7,47, 8		1, 0, 2,23,42	
		2, 2,21, 0,14,48,54,43		8,57
14″	13,41,16,53,18, 6,28,56,41,51		1, 0, 2,32,39	
		2, 2,20,59,14,46,22, 4		8,57
16″	13,41,18,55,39, 5,43,43, 3,55		1, 0, 2,41,36	
		2, 2,20,58,14,43,40,28		8,57
18″	13,41,20,58, 0, 3,58,26,44,23		1, 0, 2,50,33	
		2, 2,20,57,14,40,49,55		8,57
20″	13,41,23, 0,21, 1,13, 7,34,18		1, 0, 2,59,30	
		2, 2,20,56,14,37,50,25		8,57
22″	13,41,25, 2,41,57,27,45,24,43		1, 0, 3, 8,27	
		2, 2,20,55,14,34,41,58		8,57
24″	13,41,27, 5, 2,52,42,20, 6,41		1, 0, 3,17,24	
		2, 2,20,54,14,31,24,34		8,57
26″	13,41,29, 7,23,46,56,51,31,15		1, 0, 3,26,21	
		2, 2,20,53,14,27,58,13		8,57
28″	13,41,31, 9,44,40,11,19,29,28		1, 0, 3,35,18	
		2, 2,20,52,14,24,22,55		8,57
30″	13,41,33,12, 5,32,25,43,52,23		1, 0, 3,44,15	
		2, 2,20,51,14,20,38,40		8,57
32″	13,41,35,14,26,23,40, 4,31, 3		1, 0, 3,53,12	
		2, 2,20,50,14,16,45,28		8,57
34″	13,41,37,16,47,13,54,21,16,31		1, 0, 4, 2, 9	
		2, 2,20,49,14,12,43,19		8,57
36″	13,41,39,19, 8, 3, 8,33,59,50		1, 0, 4,11, 6	
		2, 2,20,48,14, 8,32,13		8,57
38″	13,41,41,21,28,51,22,42,32, 3		1, 0, 4,20, 3	
		2, 2,20,47,14, 4,12,10		8,57
40″	13,41,43,23,49,38,36,46,44,13		1, 0, 4,29, 0	
		2, 2,20,46,13,59,43,10		8,57
42″	13,41,45,26,10,24,50,46,27,23		1, 0, 4,37,57	
		2, 2,20,45,13,55, 5,13		8,57
44″	13,41,47,28,31,10, 4,41,32,36		1, 0, 4,46,54	
		2, 2,20,44,13,50,18,19		8,57
46″	13,41,49,30,51,54,18,31,50,55		1, 0, 4,55,51	
		2, 2,20,43,13,45,22,28		8,57
48″	13,41,51,33,12,37,32,17,13,23		1, 0, 5, 4,48	
		2, 2,20,42,13,40,17,40		8,57
50″	13,41,53,35,33,19,45,57,31, 3		1, 0, 5,13,45	
		2, 2,20,41,13,35, 3,55		8,57
52″	13,41,55,37,54, 0,59,32,34,58		1, 0, 5,22,42	
		2, 2,20,40,13,29,41,13		8,57
54″	13,41,57,40,14,41,13, 2,16,11		1, 0, 5,31,39	
		2, 2,20,39,13,24, 9,34		8,57
56″	13,41,59,42,35,20,26,26,25,45		1, 0, 5,40,36	
		2, 2,20,38,13,18,28,58		8,57
58″	13,42, 1,44,55,58,39,44,54,43		1, 0, 5,49,33	
		2, 2,20,37,13,12,39,25		
60″	13,42, 3,47,16,35,52,57,34, 8			
exact	13,42, 3,47,16,35,52,57,54,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°12′ 0″	13,42, 3,47,16,35,52,57,54,56			
		2, 2,20,36,13, 6,43,12		
2″	13,42, 5,49,37,12, 6, 4,38, 8		1, 0, 6, 7,17	
		2, 2,20,35,13, 0,35,55		8,57
4″	13,42, 7,51,57,47,19, 5,14, 3		1, 0, 6,16,14	
		2, 2,20,34,12,54,19,41		8,57
6″	13,42, 9,54,18,21,31,59,33,44		1, 0, 6,25,11	
		2, 2,20,33,12,47,54,30		8,57
8″	13,42,11,56,38,54,44,47,28,14		1, 0, 6,34, 8	
		2, 2,20,32,12,41,20,22		8,57
10″	13,42,13,58,59,26,57,28,48,36		1, 0, 6,43, 5	
		2, 2,20,31,12,34,37,17		8,57
12″	13,42,16, 1,19,58,10, 3,25,53		1, 0, 6,52, 2	
		2, 2,20,30,12,27,45,15		8,57
14″	13,42,18, 3,40,28,22,31,11, 8		1, 0, 7, 0,59	
		2, 2,20,29,12,20,44,16		8,57
16″	13,42,20, 6, 0,57,34,51,55,24		1, 0, 7, 9,56	
		2, 2,20,28,12,13,34,20		8,57
18″	13,42,22, 8,21,25,47, 5,29,44		1, 0, 7,18,53	
		2, 2,20,27,12, 6,15,27		8,57
20″	13,42,24,10,41,52,59,11,45,11		1, 0, 7,27,50	
		2, 2,20,26,11,58,47,37		8,57
22″	13,42,26,13, 2,19,11,10,32,48		1, 0, 7,36,47	
		2, 2,20,25,11,51,10,50		8,57
24″	13,42,28,15,22,44,23, 1,43,38		1, 0, 7,45,44	
		2, 2,20,24,11,43,25, 6		8,57
26″	13,42,30,17,43, 8,34,45, 8,44		1, 0, 7,54,41	
		2, 2,20,23,11,35,30,25		8,57
28″	13,42,32,20, 3,31,46,20,39, 9		1, 0, 8, 3,38	
		2, 2,20,22,11,27,26,47		8,57
30″	13,42,34,22,23,53,57,48, 5,56		1, 0, 8,12,35	
		2, 2,20,21,11,19,14,12		8,57
32″	13,42,36,24,44,15, 9, 7,20, 8		1, 0, 8,21,32	
		2, 2,20,20,11,10,52,40		8,57
34″	13,42,38,27, 4,35,20,18,12,48		1, 0, 8,30,29	
		2, 2,20,19,11, 2,22,11		8,57
36″	13,42,40,29,24,54,31,20,34,59		1, 0, 8,39,26	
		2, 2,20,18,10,53,42,45		8,57
38″	13,42,42,31,45,12,42,14,17,44		1, 0, 8,48,23	
		2, 2,20,17,10,44,54,22		8,57
40″	13,42,44,34, 5,29,52,59,12, 6		1, 0, 8,57,20	
		2, 2,20,16,10,35,57, 2		8,57
42″	13,42,46,36,25,46, 3,35, 9, 8		1, 0, 9, 6,17	
		2, 2,20,15,10,26,50,45		8,57
44″	13,42,48,38,46, 1,14, 1,59,53		1, 0, 9,15,14	
		2, 2,20,14,10,17,35,31		8,57
46″	13,42,50,41, 6,15,24,19,35,24		1, 0, 9,24,11	
		2, 2,20,13,10, 8,11,20		8,57
48″	13,42,52,43,26,28,34,27,46,44		1, 0, 9,33, 8	
		2, 2,20,12, 9,58,38,12		8,57
50″	13,42,54,45,46,40,44,26,24,56		1, 0, 9,42, 5	
		2, 2,20,11, 9,48,56, 7		8,57
52″	13,42,56,48, 6,51,54,15,21, 3		1, 0, 9,51, 2	
		2, 2,20,10, 9,39, 5, 5		8,57
54″	13,42,58,50,27, 2, 3,54,26, 8		1, 0, 9,59,59	
		2, 2,20, 9, 9,29, 5, 6		8,57
56″	13,43, 0,52,47,11,13,23,31,14		1, 0,10, 8,56	
		2, 2,20, 8, 9,18,56,10		8,57
58″	13,43, 2,55, 7,19,22,42,27,24		1, 0,10,17,53	
		2, 2,20, 7, 9, 8,38,17		
60″	13,43, 4,57,27,26,31,51, 5,41			
exact	13,43, 4,57,27,26,31,51,27, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°13′ 0″	13,43, 4,57,27,26,31,51,27, 1			
		2, 2,20, 6, 8,58,13,51		
2″	13,43, 6,59,47,32,40,49,40,52		1, 0,10,35,36	
		2, 2,20, 5, 8,47,38,15		8,57
4″	13,43, 9, 2, 7,37,49,37,19, 7		1, 0,10,44,33	
		2, 2,20, 4, 8,36,53,42		8,57
6″	13,43,11, 4,27,41,58,14,12,49		1, 0,10,53,30	
		2, 2,20, 3, 8,26, 0,12		8,57
8″	13,43,13, 6,47,45, 6,40,13, 1		1, 0,11, 2,27	
		2, 2,20, 2, 8,14,57,45		8,57
10″	13,43,15, 9, 7,47,14,55,10,46		1, 0,11,11,24	
		2, 2,20, 1, 8, 3,46,21		8,57
12″	13,43,17,11,27,48,22,58,57, 7		1, 0,11,20,21	
		2, 2,20, 0, 7,52,26, 0		8,57
14″	13,43,19,13,47,48,30,51,23, 7		1, 0,11,29,18	
		2, 2,19,59, 7,40,56,42		8,57
16″	13,43,21,16, 7,47,38,32,19,49		1, 0,11,38,15	
		2, 2,19,58, 7,29,18,27		8,57
18″	13,43,23,18,27,45,46, 1,38,16		1, 0,11,47,12	
		2, 2,19,57, 7,17,31,15		8,57
20″	13,43,25,20,47,42,53,19, 9,31		1, 0,11,56, 9	
		2, 2,19,56, 7, 5,35, 6		8,57
22″	13,43,27,23, 7,39, 0,24,44,37		1, 0,12, 5, 6	
		2, 2,19,55, 6,53,30, 0		8,57
24″	13,43,29,25,27,34, 7,18,14,37		1, 0,12,14, 3	
		2, 2,19,54, 6,41,15,57		8,57
26″	13,43,31,27,47,28,13,59,30,34		1, 0,12,23, 0	
		2, 2,19,53, 6,28,52,57		8,57
28″	13,43,33,30, 7,21,20,28,23,31		1, 0,12,31,57	
		2, 2,19,52, 6,16,21, 0		8,57
30″	13,43,35,32,27,13,26,44,44,31		1, 0,12,40,54	
		2, 2,19,51, 6, 3,40, 6		8,57
32″	13,43,37,34,47, 4,32,48,24,37		1, 0,12,49,51	
		2, 2,19,50, 5,50,50,15		8,57
34″	13,43,39,37, 6,54,38,39,14,52		1, 0,12,58,48	
		2, 2,19,49, 5,37,51,27		8,57
36″	13,43,41,39,26,43,44,17, 6,19		1, 0,13, 7,45	
		2, 2,19,48, 5,24,43,42		8,57
38″	13,43,43,41,46,31,49,41,50, 1		1, 0,13,16,42	
		2, 2,19,47, 5,11,27, 0		8,57
40″	13,43,45,44, 6,18,54,53,17, 1		1, 0,13,25,39	
		2, 2,19,46, 4,58, 1,21		8,57
42″	13,43,47,46,26, 4,59,51,18,22		1, 0,13,34,36	
		2, 2,19,45, 4,44,26,45		8,57
44″	13,43,49,48,45,50, 4,35,45, 7		1, 0,13,43,33	
		2, 2,19,44, 4,30,43,12		8,57
46″	13,43,51,51, 5,34, 9, 6,28,19		1, 0,13,52,30	
		2, 2,19,43, 4,16,50,42		8,57
48″	13,43,53,53,25,17,13,23,19, 1		1, 0,14, 1,27	
		2, 2,19,42, 4, 2,49,15		8,57
50″	13,43,55,55,44,59,17,26, 8,16		1, 0,14,10,24	
		2, 2,19,41, 3,48,38,51		8,57
52″	13,43,57,58, 4,40,21,14,47, 7		1, 0,14,19,21	
		2, 2,19,40, 3,34,19,30		8,57
54″	13,44, 0, 0,24,20,24,49, 6,37		1, 0,14,28,18	
		2, 2,19,39, 3,19,51,12		8,57
56″	13,44, 2, 2,43,59,28, 8,57,49		1, 0,14,37,15	
		2, 2,19,38, 3, 5,13,57		8,57
58″	13,44, 4, 5, 3,37,31,14,11,46		1, 0,14,46,12	
		2, 2,19,37, 2,50,27,45		
60″	13,44, 6, 7,23,14,34, 4,39,31			
exact	13,44, 6, 7,23,14,34, 5, 2,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°14′ 0″	13,44, 6, 7,23,14,34, 5, 2,27			
		2, 2,19,36, 2,35,35,12		
2″	13,44, 8, 9,42,50,36,40,37,39		1, 0,15, 3,55	
		2, 2,19,35, 2,20,31,17		8,57
4″	13,44,10,12, 2,25,39, 1, 8,56		1, 0,15,12,52	
		2, 2,19,34, 2, 5,18,25		8,57
6″	13,44,12,14,21,59,41, 6,27,21		1, 0,15,21,49	
		2, 2,19,33, 1,49,56,36		8,57
8″	13,44,14,16,41,32,42,56,23,57		1, 0,15,30,46	
		2, 2,19,32, 1,34,25,50		8,57
10″	13,44,16,19, 1, 4,44,30,49,47		1, 0,15,39,43	
		2, 2,19,31, 1,18,46, 7		8,57
12″	13,44,18,21,20,35,45,49,35,54		1, 0,15,48,40	
		2, 2,19,30, 1, 2,57,27		8,57
14″	13,44,20,23,40, 5,46,52,33,21		1, 0,15,57,37	
		2, 2,19,29, 0,46,59,50		8,57
16″	13,44,22,25,59,34,47,39,33,11		1, 0,16, 6,34	
		2, 2,19,28, 0,30,53,16		8,57
18″	13,44,24,28,19, 2,48,10,26,27		1, 0,16,15,31	
		2, 2,19,27, 0,14,37,45		8,57
20″	13,44,26,30,38,29,48,25, 4,12		1, 0,16,24,28	
		2, 2,19,25,59,58,13,17		8,57
22″	13,44,28,32,57,55,48,23,17,29		1, 0,16,33,25	
		2, 2,19,24,59,41,39,52		8,57
24″	13,44,30,35,17,20,48, 4,57,21		1, 0,16,42,22	
		2, 2,19,23,59,24,57,30		8,57
26″	13,44,32,37,36,44,47,29,54,51		1, 0,16,51,19	
		2, 2,19,22,59, 8, 6,11		8,57
28″	13,44,34,39,56, 7,46,38, 1, 2		1, 0,17, 0,16	
		2, 2,19,21,58,51, 5,55		8,57
30″	13,44,36,42,15,29,45,29, 6,57		1, 0,17, 9,13	
		2, 2,19,20,58,33,56,42		8,57
32″	13,44,38,44,34,50,44, 3, 3,39		1, 0,17,18,10	
		2, 2,19,19,58,16,38,32		8,57
34″	13,44,40,46,54,10,42,19,42,11		1, 0,17,27, 7	
		2, 2,19,18,57,59,11,25		8,57
36″	13,44,42,49,13,29,40,18,53,36		1, 0,17,36, 4	
		2, 2,19,17,57,41,35,21		8,57
38″	13,44,44,51,32,47,38, 0,28,57		1, 0,17,45, 1	
		2, 2,19,16,57,23,50,20		8,57
40″	13,44,46,53,52, 4,35,24,19,17		1, 0,17,53,58	
		2, 2,19,15,57, 5,56,22		8,57
42″	13,44,48,56,11,20,32,30,15,39		1, 0,18, 2,55	
		2, 2,19,14,56,47,53,27		8,57
44″	13,44,50,58,30,35,29,18, 9, 6		1, 0,18,11,52	
		2, 2,19,13,56,29,41,35		8,57
46″	13,44,53, 0,49,49,25,47,50,41		1, 0,18,20,49	
		2, 2,19,12,56,11,20,46		8,57
48″	13,44,55, 3, 9, 2,21,59,11,27		1, 0,18,29,46	
		2, 2,19,11,55,52,51, 0		8,57
50″	13,44,57, 5,28,14,17,52, 2,27		1, 0,18,38,43	
		2, 2,19,10,55,34,12,17		8,57
52″	13,44,59, 7,47,25,13,26,14,44		1, 0,18,47,40	
		2, 2,19, 9,55,15,24,37		8,57
54″	13,45, 1,10, 6,35, 8,41,39,21		1, 0,18,56,37	
		2, 2,19, 8,54,56,28, 0		8,57
56″	13,45, 3,12,25,44, 3,38, 7,21		1, 0,19, 5,34	
		2, 2,19, 7,54,37,22,26		8,57
58″	13,45, 5,14,44,51,58,15,29,47		1, 0,19,14,31	
		2, 2,19, 6,54,18, 7,55		
60″	13,45, 7,17, 3,58,52,33,37,42			
exact	13,45, 7,17, 3,58,52,34, 9,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°15′ 0″	13,45, 7,17, 3,58,52,34, 9,30			
		2, 2,19, 5,53,58,47,46		
2″	13,45, 9,19,23, 4,46,32,57,16		1, 0,19,32,12	
		2, 2,19, 4,53,39,15,34		8,57
4″	13,45,11,21,42, 9,40,12,12,50		1, 0,19,41, 9	
		2, 2,19, 3,53,19,34,25		8,57
6″	13,45,13,24, 1,13,33,31,47,15		1, 0,19,50, 6	
		2, 2,19, 2,52,59,44,19		8,57
8″	13,45,15,26,20,16,26,31,31,34		1, 0,19,59, 3	
		2, 2,19, 1,52,39,45,16		8,57
10″	13,45,17,28,39,18,19,11,16,50		1, 0,20, 8, 0	
		2, 2,19, 0,52,19,37,16		8,57
12″	13,45,19,30,58,19,11,30,54, 6		1, 0,20,16,57	
		2, 2,18,59,51,59,20,19		8,57
14″	13,45,21,33,17,19, 3,30,14,25		1, 0,20,25,54	
		2, 2,18,58,51,38,54,25		8,57
16″	13,45,23,35,36,17,55, 9, 8,50		1, 0,20,34,51	
		2, 2,18,57,51,18,19,34		8,57
18″	13,45,25,37,55,15,46,27,28,24		1, 0,20,43,48	
		2, 2,18,56,50,57,35,46		8,57
20″	13,45,27,40,14,12,37,25, 4,10		1, 0,20,52,45	
		2, 2,18,55,50,36,43, 1		8,57
22″	13,45,29,42,33, 8,28, 1,47,11		1, 0,21, 1,42	
		2, 2,18,54,50,15,41,19		8,57
24″	13,45,31,44,52, 3,18,17,28,30		1, 0,21,10,39	
		2, 2,18,53,49,54,30,40		8,57
26″	13,45,33,47,10,57, 8,11,59,10		1, 0,21,19,36	
		2, 2,18,52,49,33,11, 4		8,57
28″	13,45,35,49,29,49,57,45,10,14		1, 0,21,28,33	
		2, 2,18,51,49,11,42,31		8,57
30″	13,45,37,51,48,41,46,56,52,45		1, 0,21,37,30	
		2, 2,18,50,48,50, 5, 1		8,57
32″	13,45,39,54, 7,32,35,46,57,46		1, 0,21,46,27	
		2, 2,18,49,48,28,18,34		8,57
34″	13,45,41,56,26,22,24,15,16,20		1, 0,21,55,24	
		2, 2,18,48,48, 6,23,10		8,57
36″	13,45,43,58,45,11,12,21,39,30		1, 0,22, 4,21	
		2, 2,18,47,47,44,18,49		8,57
38″	13,45,46, 1, 3,59, 0, 5,58,19		1, 0,22,13,18	
		2, 2,18,46,47,22, 5,31		8,57
40″	13,45,48, 3,22,45,47,28, 3,50		1, 0,22,22,15	
		2, 2,18,45,46,59,43,16		8,57
42″	13,45,50, 5,41,31,34,27,47, 6		1, 0,22,31,12	
		2, 2,18,44,46,37,12, 4		8,57
44″	13,45,52, 8, 0,16,21, 4,59,10		1, 0,22,40, 9	
		2, 2,18,43,46,14,31,55		8,57
46″	13,45,54,10,19, 0, 7,19,31, 5		1, 0,22,49, 6	
		2, 2,18,42,45,51,42,49		8,57
48″	13,45,56,12,37,42,53,11,13,54		1, 0,22,58, 3	
		2, 2,18,41,45,28,44,46		8,57
50″	13,45,58,14,56,24,38,39,58,40		1, 0,23, 7, 0	
		2, 2,18,40,45, 5,37,46		8,57
52″	13,46, 0,17,15, 5,23,45,36,26		1, 0,23,15,57	
		2, 2,18,39,44,42,21,49		8,57
54″	13,46, 2,19,33,45, 8,27,58,15		1, 0,23,24,54	
		2, 2,18,38,44,18,56,55		8,57
56″	13,46, 4,21,52,23,52,46,55,10		1, 0,23,33,51	
		2, 2,18,37,43,55,23, 4		8,57
58″	13,46, 6,24,11, 1,36,42,18,14		1, 0,23,42,48	
		2, 2,18,36,43,31,40,16		
60″	13,46, 8,26,29,38,20,13,58,30			
exact	13,46, 8,26,29,38,20,14,32,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°16′ 0″	13,46, 8,26,29,38,20,14,32,58			
		2, 2,18,35,43, 7,52, 7		
2″	13,46,10,28,48,14, 3,22,25, 5		1, 0,24, 0,27	
		2, 2,18,34,42,43,51,40		8,57
4″	13,46,12,31, 6,48,46, 6,16,45		1, 0,24, 9,24	
		2, 2,18,33,42,19,42,16		8,57
6″	13,46,14,33,25,22,28,25,59, 1		1, 0,24,18,21	
		2, 2,18,32,41,55,23,55		8,57
8″	13,46,16,35,43,55,10,21,22,56		1, 0,24,27,18	
		2, 2,18,31,41,30,56,37		8,57
10″	13,46,18,38, 2,26,51,52,19,33		1, 0,24,36,15	
		2, 2,18,30,41, 6,20,22		8,57
12″	13,46,20,40,20,57,32,58,39,55		1, 0,24,45,12	
		2, 2,18,29,40,41,35,10		8,57
14″	13,46,22,42,39,27,13,40,15, 5		1, 0,24,54, 9	
		2, 2,18,28,40,16,41, 1		8,57
16″	13,46,24,44,57,55,53,56,56, 6		1, 0,25, 3, 6	
		2, 2,18,27,39,51,37,55		8,57
18″	13,46,26,47,16,23,33,48,34, 1		1, 0,25,12, 3	
		2, 2,18,26,39,26,25,52		8,57
20″	13,46,28,49,34,50,13,14,59,53		1, 0,25,21, 0	
		2, 2,18,25,39, 1, 4,52		8,57
22″	13,46,30,51,53,15,52,16, 4,45		1, 0,25,29,57	
		2, 2,18,24,38,35,34,55		8,57
24″	13,46,32,54,11,40,30,51,39,40		1, 0,25,38,54	
		2, 2,18,23,38, 9,56, 1		8,57
26″	13,46,34,56,30, 4, 9, 1,35,41		1, 0,25,47,51	
		2, 2,18,22,37,44, 8,10		8,57
28″	13,46,36,58,48,26,46,45,43,51		1, 0,25,56,48	
		2, 2,18,21,37,18,11,22		8,57
30″	13,46,39, 1, 6,48,24, 3,55,13		1, 0,26, 5,45	
		2, 2,18,20,36,52, 5,37		8,57
32″	13,46,41, 3,25, 9, 0,56, 0,50		1, 0,26,14,42	
		2, 2,18,19,36,25,50,55		8,57
34″	13,46,43, 5,43,28,37,21,51,45		1, 0,26,23,39	
		2, 2,18,18,35,59,27,16		8,57
36″	13,46,45, 8, 1,47,13,21,19, 1		1, 0,26,32,36	
		2, 2,18,17,35,32,54,40		8,57
38″	13,46,47,10,20, 4,48,54,13,41		1, 0,26,41,33	
		2, 2,18,16,35, 6,13, 7		8,57
40″	13,46,49,12,38,21,24, 0,26,48		1, 0,26,50,30	
		2, 2,18,15,34,39,22,37		8,57
42″	13,46,51,14,56,36,58,39,49,25		1, 0,26,59,27	
		2, 2,18,14,34,12,23,10		8,57
44″	13,46,53,17,14,51,32,52,12,35		1, 0,27, 8,24	
		2, 2,18,13,33,45,14,46		8,57
46″	13,46,55,19,33, 5, 6,37,27,21		1, 0,27,17,21	
		2, 2,18,12,33,17,57,25		8,57
48″	13,46,57,21,51,17,39,55,24,46		1, 0,27,26,18	
		2, 2,18,11,32,50,31, 7		8,57
50″	13,46,59,24, 9,29,12,45,55,53		1, 0,27,35,15	
		2, 2,18,10,32,22,55,52		8,57
52″	13,47, 1,26,27,39,45, 8,51,45		1, 0,27,44,12	
		2, 2,18, 9,31,55,11,40		8,57
54″	13,47, 3,28,45,49,17, 4, 3,25		1, 0,27,53, 9	
		2, 2,18, 8,31,27,18,31		8,57
56″	13,47, 5,31, 3,57,48,31,21,56		1, 0,28, 2, 6	
		2, 2,18, 7,30,59,16,25		8,57
58″	13,47, 7,33,22, 5,19,30,38,21		1, 0,28,11, 3	
		2, 2,18, 6,30,31, 5,22		
60″	13,47, 9,35,40,11,50, 1,43,43			
exact	13,47, 9,35,40,11,50, 2,14,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°17′ 0″	13,47, 9,35,40,11,50, 2,14,13			
		2, 2,18, 5,30, 2,48,47		
2″	13,47,11,37,58,17,20, 5, 3, 0		1, 0,28,28,42	
		2, 2,18, 4,29,34,20, 5		8,56
4″	13,47,13,40,16,21,49,39,23, 5		1, 0,28,37,38	
		2, 2,18, 3,29, 5,42,27		8,56
6″	13,47,15,42,34,25,18,45, 5,32		1, 0,28,46,34	
		2, 2,18, 2,28,36,55,53		8,56
8″	13,47,17,44,52,27,47,22, 1,25		1, 0,28,55,30	
		2, 2,18, 1,28, 8, 0,23		8,56
10″	13,47,19,47,10,29,15,30, 1,48		1, 0,29, 4,26	
		2, 2,18, 0,27,38,55,57		8,56
12″	13,47,21,49,28,29,43, 8,57,45		1, 0,29,13,22	
		2, 2,17,59,27, 9,42,35		8,56
14″	13,47,23,51,46,29,10,18,40,20		1, 0,29,22,18	
		2, 2,17,58,26,40,20,17		8,56
16″	13,47,25,54, 4,27,36,59, 0,37		1, 0,29,31,14	
		2, 2,17,57,26,10,49, 3		8,56
18″	13,47,27,56,22,25, 3, 9,49,40		1, 0,29,40,10	
		2, 2,17,56,25,41, 8,53		8,56
20″	13,47,29,58,40,21,28,50,58,33		1, 0,29,49, 6	
		2, 2,17,55,25,11,19,47		8,56
22″	13,47,32, 0,58,16,54, 2,18,20		1, 0,29,58, 2	
		2, 2,17,54,24,41,21,45		8,56
24″	13,47,34, 3,16,11,18,43,40, 5		1, 0,30, 6,58	
		2, 2,17,53,24,11,14,47		8,56
26″	13,47,36, 5,34, 4,42,54,54,52		1, 0,30,15,54	
		2, 2,17,52,23,40,58,53		8,56
28″	13,47,38, 7,51,57, 6,35,53,45		1, 0,30,24,50	
		2, 2,17,51,23,10,34, 3		8,56
30″	13,47,40,10, 9,48,29,46,27,48		1, 0,30,33,46	
		2, 2,17,50,22,40, 0,17		8,56
32″	13,47,42,12,27,38,52,26,28, 5		1, 0,30,42,42	
		2, 2,17,49,22, 9,17,35		8,56
34″	13,47,44,14,45,28,14,35,45,40		1, 0,30,51,38	
		2, 2,17,48,21,38,25,57		8,56
36″	13,47,46,17, 3,16,36,14,11,37		1, 0,31, 0,34	
		2, 2,17,47,21, 7,25,23		8,56
38″	13,47,48,19,21, 3,57,21,37, 0		1, 0,31, 9,30	
		2, 2,17,46,20,36,15,53		8,56
40″	13,47,50,21,38,50,17,57,52,53		1, 0,31,18,26	
		2, 2,17,45,20, 4,57,27		8,56
42″	13,47,52,23,56,35,38, 2,50,20		1, 0,31,27,22	
		2, 2,17,44,19,33,30, 5		8,56
44″	13,47,54,26,14,19,57,36,20,25		1, 0,31,36,18	
		2, 2,17,43,19, 1,53,47		8,56
46″	13,47,56,28,32, 3,16,38,14,12		1, 0,31,45,14	
		2, 2,17,42,18,30, 8,33		8,56
48″	13,47,58,30,49,45,35, 8,22,45		1, 0,31,54,10	
		2, 2,17,41,17,58,14,23		8,56
50″	13,48, 0,33, 7,26,53, 6,37, 8		1, 0,32, 3, 6	
		2, 2,17,40,17,26,11,17		8,56
52″	13,48, 2,35,25, 7,10,32,48,25		1, 0,32,12, 2	
		2, 2,17,39,16,53,59,15		8,56
54″	13,48, 4,37,42,46,27,26,47,40		1, 0,32,20,58	
		2, 2,17,38,16,21,38,17		8,56
56″	13,48, 6,40, 0,24,43,48,25,57		1, 0,32,29,54	
		2, 2,17,37,15,49, 8,23		8,56
58″	13,48, 8,42,18, 1,59,37,34,20		1, 0,32,38,50	
		2, 2,17,36,15,16,29,33		
60″	13,48,10,44,35,38,14,54, 3,53			
exact	13,48,10,44,35,38,14,53,31, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°18′ 0″	13,48,10,44,35,38,14,53,31, 7			
		2, 2,17,35,14,43,38,21		
2″	13,48,12,46,53,13,29,37, 9,28		1, 0,32,56,56	
		2, 2,17,34,14,10,41,25		8,56
4″	13,48,14,49,10,47,43,47,50,53		1, 0,33, 5,52	
		2, 2,17,33,13,37,35,33		8,56
6″	13,48,16,51,28,20,57,25,26,26		1, 0,33,14,48	
		2, 2,17,32,13, 4,20,45		8,56
8″	13,48,18,53,45,53,10,29,47,11		1, 0,33,23,44	
		2, 2,17,31,12,30,57, 1		8,56
10″	13,48,20,56, 3,24,23, 0,44,12		1, 0,33,32,40	
		2, 2,17,30,11,57,24,21		8,56
12″	13,48,22,58,20,54,34,58, 8,33		1, 0,33,41,36	
		2, 2,17,29,11,23,42,45		8,56
14″	13,48,25, 0,38,23,46,21,51,18		1, 0,33,50,32	
		2, 2,17,28,10,49,52,13		8,56
16″	13,48,27, 2,55,51,57,11,43,31		1, 0,33,59,28	
		2, 2,17,27,10,15,52,45		8,56
18″	13,48,29, 5,13,19, 7,27,36,16		1, 0,34, 8,24	
		2, 2,17,26, 9,41,44,21		8,56
20″	13,48,31, 7,30,45,17, 9,20,37		1, 0,34,17,20	
		2, 2,17,25, 9, 7,27, 1		8,56
22″	13,48,33, 9,48,10,26,16,47,38		1, 0,34,26,16	
		2, 2,17,24, 8,33, 0,45		8,56
24″	13,48,35,12, 5,34,34,49,48,23		1, 0,34,35,12	
		2, 2,17,23, 7,58,25,33		8,56
26″	13,48,37,14,22,57,42,48,13,56		1, 0,34,44, 8	
		2, 2,17,22, 7,23,41,25		8,56
28″	13,48,39,16,40,19,50,11,55,21		1, 0,34,53, 4	
		2, 2,17,21, 6,48,48,21		8,56
30″	13,48,41,18,57,40,57, 0,43,42		1, 0,35, 2, 0	
		2, 2,17,20, 6,13,46,21		8,56
32″	13,48,43,21,15, 1, 3,14,30, 3		1, 0,35,10,56	
		2, 2,17,19, 5,38,35,25		8,56
34″	13,48,45,23,32,20, 8,53, 5,28		1, 0,35,19,52	
		2, 2,17,18, 5, 3,15,33		8,56
36″	13,48,47,25,49,38,13,56,21, 1		1, 0,35,28,48	
		2, 2,17,17, 4,27,46,45		8,56
38″	13,48,49,28, 6,55,18,24, 7,46		1, 0,35,37,44	
		2, 2,17,16, 3,52, 9, 1		8,56
40″	13,48,51,30,24,11,22,16,16,47		1, 0,35,46,40	
		2, 2,17,15, 3,16,22,21		8,56
42″	13,48,53,32,41,26,25,32,39, 8		1, 0,35,55,36	
		2, 2,17,14, 2,40,26,45		8,56
44″	13,48,55,34,58,40,28,13, 5,53		1, 0,36, 4,32	
		2, 2,17,13, 2, 4,22,13		8,56
46″	13,48,57,37,15,53,30,17,28, 6		1, 0,36,13,28	
		2, 2,17,12, 1,28, 8,45		8,56
48″	13,48,59,39,33, 5,31,45,36,51		1, 0,36,22,24	
		2, 2,17,11, 0,51,46,21		8,56
50″	13,49, 1,41,50,16,32,37,23,12		1, 0,36,31,20	
		2, 2,17,10, 0,15,15, 1		8,56
52″	13,49, 3,44, 7,26,32,52,38,13		1, 0,36,40,16	
		2, 2,17, 8,59,38,34,45		8,56
54″	13,49, 5,46,24,35,32,31,12,58		1, 0,36,49,12	
		2, 2,17, 7,59, 1,45,33		8,56
56″	13,49, 7,48,41,43,31,32,58,31		1, 0,36,58, 8	
		2, 2,17, 6,58,24,47,25		8,56
58″	13,49, 9,50,58,50,29,57,45,56		1, 0,37, 7, 4	
		2, 2,17, 5,57,47,40,21		
60″	13,49,11,53,15,56,27,45,26,17			
exact	13,49,11,53,15,56,27,44,58, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°19′ 0″	13,49,11,53,15,56,27,44,58, 9			
		2, 2,17, 4,57,10,21,20		
2″	13,49,13,55,33, 1,24,55,19,29		1, 0,37,25, 8	
		2, 2,17, 3,56,32,56,12		8,56
4″	13,49,15,57,50, 5,21,28,15,41		1, 0,37,34, 4	
		2, 2,17, 2,55,55,22, 8		8,56
6″	13,49,18, 0, 7, 8,17,23,37,49		1, 0,37,43, 0	
		2, 2,17, 1,55,17,39, 8		8,56
8″	13,49,20, 2,24,10,12,41,16,57		1, 0,37,51,56	
		2, 2,17, 0,54,39,47,12		8,56
10″	13,49,22, 4,41,11, 7,21, 4, 9		1, 0,38, 0,52	
		2, 2,16,59,54, 1,46,20		8,56
12″	13,49,24, 6,58,11, 1,22,50,29		1, 0,38, 9,48	
		2, 2,16,58,53,23,36,32		8,56
14″	13,49,26, 9,15, 9,54,46,27, 1		1, 0,38,18,44	
		2, 2,16,57,52,45,17,48		8,56
16″	13,49,28,11,32, 7,47,31,44,49		1, 0,38,27,40	
		2, 2,16,56,52, 6,50, 8		8,56
18″	13,49,30,13,49, 4,39,38,34,57		1, 0,38,36,36	
		2, 2,16,55,51,28,13,32		8,56
20″	13,49,32,16, 6, 0,31, 6,48,29		1, 0,38,45,32	
		2, 2,16,54,50,49,28, 0		8,56
22″	13,49,34,18,22,55,21,56,16,29		1, 0,38,54,28	
		2, 2,16,53,50,10,33,32		8,56
24″	13,49,36,20,39,49,12, 6,50, 1		1, 0,39, 3,24	
		2, 2,16,52,49,31,30, 8		8,56
26″	13,49,38,22,56,42, 1,38,20, 9		1, 0,39,12,20	
		2, 2,16,51,48,52,17,48		8,56
28″	13,49,40,25,13,33,50,30,37,57		1, 0,39,21,16	
		2, 2,16,50,48,12,56,32		8,56
30″	13,49,42,27,30,24,38,43,34,29		1, 0,39,30,12	
		2, 2,16,49,47,33,26,20		8,56
32″	13,49,44,29,47,14,26,17, 0,49		1, 0,39,39, 8	
		2, 2,16,48,46,53,47,12		8,56
34″	13,49,46,32, 4, 3,13,10,48, 1		1, 0,39,48, 4	
		2, 2,16,47,46,13,59, 8		8,56
36″	13,49,48,34,20,50,59,24,47, 9		1, 0,39,57, 0	
		2, 2,16,46,45,34, 2, 8		8,56
38″	13,49,50,36,37,37,44,58,49,17		1, 0,40, 5,56	
		2, 2,16,45,44,53,56,12		8,56
40″	13,49,52,38,54,23,29,52,45,29		1, 0,40,14,52	
		2, 2,16,44,44,13,41,20		8,56
42″	13,49,54,41,11, 8,14, 6,26,49		1, 0,40,23,48	
		2, 2,16,43,43,33,17,32		8,56
44″	13,49,56,43,27,51,57,39,44,21		1, 0,40,32,44	
		2, 2,16,42,42,52,44,48		8,56
46″	13,49,58,45,44,34,40,32,29, 9		1, 0,40,41,40	
		2, 2,16,41,42,12, 3, 8		8,56
48″	13,50, 0,48, 1,16,22,44,32,17		1, 0,40,50,36	
		2, 2,16,40,41,31,12,32		8,56
50″	13,50, 2,50,17,57, 4,15,44,49		1, 0,40,59,32	
		2, 2,16,39,40,50,13, 0		8,56
52″	13,50, 4,52,34,36,45, 5,57,49		1, 0,41, 8,28	
		2, 2,16,38,40, 9, 4,32		8,56
54″	13,50, 6,54,51,15,25,15, 2,21		1, 0,41,17,24	
		2, 2,16,37,39,27,47, 8		8,56
56″	13,50, 8,57, 7,53, 4,42,49,29		1, 0,41,26,20	
		2, 2,16,36,38,46,20,48		8,56
58″	13,50,10,59,24,29,43,29,10,17		1, 0,41,35,16	
		2, 2,16,35,38, 4,45,32		
60″	13,50,13, 1,41, 5,21,33,55,49			
exact	13,50,13, 1,41, 5,21,33,26,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°20′ 0″	13,50,13, 1,41, 5,21,33,26,25			
		2, 2,16,34,37,22,58,19		
2″	13,50,15, 3,57,39,58,56,24,44		1, 0,41,53,20	
		2, 2,16,33,36,41, 4,59		8,56
4″	13,50,17, 6,14,13,35,37,29,43		1, 0,42, 2,16	
		2, 2,16,32,35,59, 2,43		8,56
6″	13,50,19, 8,30,46,11,36,32,26		1, 0,42,11,12	
		2, 2,16,31,35,16,51,31		8,56
8″	13,50,21,10,47,17,46,53,23,57		1, 0,42,20, 8	
		2, 2,16,30,34,34,31,23		8,56
10″	13,50,23,13, 3,48,21,27,55,20		1, 0,42,29, 4	
		2, 2,16,29,33,52, 2,19		8,56
12″	13,50,25,15,20,17,55,19,57,39		1, 0,42,38, 0	
		2, 2,16,28,33, 9,24,19		8,56
14″	13,50,27,17,36,46,28,29,21,58		1, 0,42,46,56	
		2, 2,16,27,32,26,37,23		8,56
16″	13,50,29,19,53,14, 0,55,59,21		1, 0,42,55,52	
		2, 2,16,26,31,43,41,31		8,56
18″	13,50,31,22, 9,40,32,39,40,52		1, 0,43, 4,48	
		2, 2,16,25,31, 0,36,43		8,56
20″	13,50,33,24,26, 6, 3,40,17,35		1, 0,43,13,44	
		2, 2,16,24,30,17,22,59		8,56
22″	13,50,35,26,42,30,33,57,40,34		1, 0,43,22,40	
		2, 2,16,23,29,34, 0,19		8,56
24″	13,50,37,28,58,54, 3,31,40,53		1, 0,43,31,36	
		2, 2,16,22,28,50,28,43		8,56
26″	13,50,39,31,15,16,32,22, 9,36		1, 0,43,40,32	
		2, 2,16,21,28, 6,48,11		8,56
28″	13,50,41,33,31,38, 0,28,57,47		1, 0,43,49,28	
		2, 2,16,20,27,22,58,43		8,56
30″	13,50,43,35,47,58,27,51,56,30		1, 0,43,58,24	
		2, 2,16,19,26,39, 0,19		8,56
32″	13,50,45,38, 4,17,54,30,56,49		1, 0,44, 7,20	
		2, 2,16,18,25,54,52,59		8,56
34″	13,50,47,40,20,36,20,25,49,48		1, 0,44,16,16	
		2, 2,16,17,25,10,36,43		8,56
36″	13,50,49,42,36,53,45,36,26,31		1, 0,44,25,12	
		2, 2,16,16,24,26,11,31		8,56
38″	13,50,51,44,53,10,10, 2,38, 2		1, 0,44,34, 8	
		2, 2,16,15,23,41,37,23		8,56
40″	13,50,53,47, 9,25,33,44,15,25		1, 0,44,43, 4	
		2, 2,16,14,22,56,54,19		8,56
42″	13,50,55,49,25,39,56,41, 9,44		1, 0,44,52, 0	
		2, 2,16,13,22,12, 2,19		8,56
44″	13,50,57,51,41,53,18,53,12, 3		1, 0,45, 0,56	
		2, 2,16,12,21,27, 1,23		8,56
46″	13,50,59,53,58, 5,40,20,13,26		1, 0,45, 9,52	
		2, 2,16,11,20,41,51,31		8,56
48″	13,51, 1,56,14,17, 1, 2, 4,57		1, 0,45,18,48	
		2, 2,16,10,19,56,32,43		8,56
50″	13,51, 3,58,30,27,20,58,37,40		1, 0,45,27,44	
		2, 2,16, 9,19,11, 4,59		8,56
52″	13,51, 6, 0,46,36,40, 9,42,39		1, 0,45,36,40	
		2, 2,16, 8,18,25,28,19		8,56
54″	13,51, 8, 3, 2,44,58,35,10,58		1, 0,45,45,36	
		2, 2,16, 7,17,39,42,43		8,56
56″	13,51,10, 5,18,52,16,14,53,41		1, 0,45,54,32	
		2, 2,16, 6,16,53,48,11		8,56
58″	13,51,12, 7,34,58,33, 8,41,52		1, 0,46, 3,28	
		2, 2,16, 5,16, 7,44,43		
60″	13,51,14, 9,51, 3,49,16,26,35			
exact	13,51,14, 9,51, 3,49,16, 3,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°21′ 0″	13,51,14, 9,51, 3,49,16, 3,36			
		2, 2,16, 4,15,21,29,50		
2″	13,51,16,12, 7, 8, 4,37,33,26		1, 0,46,21,30	
		2, 2,16, 3,14,35, 8,20		8,56
4″	13,51,18,14,23,11,19,12,41,46		1, 0,46,30,26	
		2, 2,16, 2,13,48,37,54		8,56
6″	13,51,20,16,39,13,33, 1,19,40		1, 0,46,39,22	
		2, 2,16, 1,13, 1,58,32		8,56
8″	13,51,22,18,55,14,46, 3,18,12		1, 0,46,48,18	
		2, 2,16, 0,12,15,10,14		8,56
10″	13,51,24,21,11,14,58,18,28,26		1, 0,46,57,14	
		2, 2,15,59,11,28,13, 0		8,56
12″	13,51,26,23,27,14, 9,46,41,26		1, 0,47, 6,10	
		2, 2,15,58,10,41, 6,50		8,56
14″	13,51,28,25,43,12,20,27,48,16		1, 0,47,15, 6	
		2, 2,15,57, 9,53,51,44		8,56
16″	13,51,30,27,59, 9,30,21,40, 0		1, 0,47,24, 2	
		2, 2,15,56, 9, 6,27,42		8,56
18″	13,51,32,30,15, 5,39,28, 7,42		1, 0,47,32,58	
		2, 2,15,55, 8,18,54,44		8,56
20″	13,51,34,32,31, 0,47,47, 2,26		1, 0,47,41,54	
		2, 2,15,54, 7,31,12,50		8,56
22″	13,51,36,34,46,54,55,18,15,16		1, 0,47,50,50	
		2, 2,15,53, 6,43,22, 0		8,56
24″	13,51,38,37, 2,48, 2, 1,37,16		1, 0,47,59,46	
		2, 2,15,52, 5,55,22,14		8,56
26″	13,51,40,39,18,40, 7,56,59,30		1, 0,48, 8,42	
		2, 2,15,51, 5, 7,13,32		8,56
28″	13,51,42,41,34,31,13, 4,13, 2		1, 0,48,17,38	
		2, 2,15,50, 4,18,55,54		8,56
30″	13,51,44,43,50,21,17,23, 8,56		1, 0,48,26,34	
		2, 2,15,49, 3,30,29,20		8,56
32″	13,51,46,46, 6,10,20,53,38,16		1, 0,48,35,30	
		2, 2,15,48, 2,41,53,50		8,56
34″	13,51,48,48,21,58,23,35,32, 6		1, 0,48,44,26	
		2, 2,15,47, 1,53, 9,24		8,56
36″	13,51,50,50,37,45,25,28,41,30		1, 0,48,53,22	
		2, 2,15,46, 1, 4,16, 2		8,56
38″	13,51,52,52,53,31,26,32,57,32		1, 0,49, 2,18	
		2, 2,15,45, 0,15,13,44		8,56
40″	13,51,54,55, 9,16,26,48,11,16		1, 0,49,11,14	
		2, 2,15,43,59,26, 2,30		8,56
42″	13,51,56,57,25, 0,26,14,13,46		1, 0,49,20,10	
		2, 2,15,42,58,36,42,20		8,56
44″	13,51,58,59,40,43,24,50,56, 6		1, 0,49,29, 6	
		2, 2,15,41,57,47,13,14		8,56
46″	13,52, 1, 1,56,25,22,38, 9,20		1, 0,49,38, 2	
		2, 2,15,40,56,57,35,12		8,56
48″	13,52, 3, 4,12, 6,19,35,44,32		1, 0,49,46,58	
		2, 2,15,39,56, 7,48,14		8,56
50″	13,52, 5, 6,27,46,15,43,32,46		1, 0,49,55,54	
		2, 2,15,38,55,17,52,20		8,56
52″	13,52, 7, 8,43,25,11, 1,25, 6		1, 0,50, 4,50	
		2, 2,15,37,54,27,47,30		8,56
54″	13,52, 9,10,59, 3, 5,29,12,36		1, 0,50,13,46	
		2, 2,15,36,53,37,33,44		8,56
56″	13,52,11,13,14,39,59, 6,46,20		1, 0,50,22,42	
		2, 2,15,35,52,47,11, 2		8,56
58″	13,52,13,15,30,15,51,53,57,22		1, 0,50,31,38	
		2, 2,15,34,51,56,39,24		
60″	13,52,15,17,45,50,43,50,36,46			
exact	13,52,15,17,45,50,43,50,14, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°22′ 0″	13,52,15,17,45,50,43,50,14, 2			
		2, 2,15,33,51, 5,56,28		
2″	13,52,17,20, 1,24,34,56,10,30		1, 0,50,49,39	
		2, 2,15,32,50,15, 6,49		8,56
4″	13,52,19,22,16,57,25,11,17,19		1, 0,50,58,35	
		2, 2,15,31,49,24, 8,14		8,56
6″	13,52,21,24,32,29,14,35,25,33		1, 0,51, 7,31	
		2, 2,15,30,48,33, 0,43		8,56
8″	13,52,23,26,48, 0, 3, 8,26,16		1, 0,51,16,27	
		2, 2,15,29,47,41,44,16		8,56
10″	13,52,25,29, 3,29,50,50,10,32		1, 0,51,25,23	
		2, 2,15,28,46,50,18,53		8,56
12″	13,52,27,31,18,58,37,40,29,25		1, 0,51,34,19	
		2, 2,15,27,45,58,44,34		8,56
14″	13,52,29,33,34,26,23,39,13,59		1, 0,51,43,15	
		2, 2,15,26,45, 7, 1,19		8,56
16″	13,52,31,35,49,53, 8,46,15,18		1, 0,51,52,11	
		2, 2,15,25,44,15, 9, 8		8,56
18″	13,52,33,38, 5,18,53, 1,24,26		1, 0,52, 1, 7	
		2, 2,15,24,43,23, 8, 1		8,56
20″	13,52,35,40,20,43,36,24,32,27		1, 0,52,10, 3	
		2, 2,15,23,42,30,57,58		8,56
22″	13,52,37,42,36, 7,18,55,30,25		1, 0,52,18,59	
		2, 2,15,22,41,38,38,59		8,56
24″	13,52,39,44,51,30, 0,34, 9,24		1, 0,52,27,55	
		2, 2,15,21,40,46,11, 4		8,56
26″	13,52,41,47, 6,51,41,20,20,28		1, 0,52,36,51	
		2, 2,15,20,39,53,34,13		8,56
28″	13,52,43,49,22,12,21,13,54,41		1, 0,52,45,47	
		2, 2,15,19,39, 0,48,26		8,56
30″	13,52,45,51,37,32, 0,14,43, 7		1, 0,52,54,43	
		2, 2,15,18,38, 7,53,43		8,56
32″	13,52,47,53,52,50,38,22,36,50		1, 0,53, 3,39	
		2, 2,15,17,37,14,50, 4		8,56
34″	13,52,49,56, 8, 8,15,37,26,54		1, 0,53,12,35	
		2, 2,15,16,36,21,37,29		8,56
36″	13,52,51,58,23,24,51,59, 4,23		1, 0,53,21,31	
		2, 2,15,15,35,28,15,58		8,56
38″	13,52,54, 0,38,40,27,27,20,21		1, 0,53,30,27	
		2, 2,15,14,34,34,45,31		8,56
40″	13,52,56, 2,53,55, 2, 2, 5,52		1, 0,53,39,23	
		2, 2,15,13,33,41, 6, 8		8,56
42″	13,52,58, 5, 9, 8,35,43,12, 0		1, 0,53,48,19	
		2, 2,15,12,32,47,17,49		8,56
44″	13,53, 0, 7,24,21, 8,30,29,49		1, 0,53,57,15	
		2, 2,15,11,31,53,20,34		8,56
46″	13,53, 2, 9,39,32,40,23,50,23		1, 0,54, 6,11	
		2, 2,15,10,30,59,14,23		8,56
48″	13,53, 4,11,54,43,11,23, 4,46		1, 0,54,15, 7	
		2, 2,15, 9,30, 4,59,16		8,56
50″	13,53, 6,14, 9,52,41,28, 4, 2		1, 0,54,24, 3	
		2, 2,15, 8,29,10,35,13		8,56
52″	13,53, 8,16,25, 1,10,38,39,15		1, 0,54,32,59	
		2, 2,15, 7,28,16, 2,14		8,56
54″	13,53,10,18,40, 8,38,54,41,29		1, 0,54,41,55	
		2, 2,15, 6,27,21,20,19		8,56
56″	13,53,12,20,55,15, 6,16, 1,48		1, 0,54,50,51	
		2, 2,15, 5,26,26,29,28		8,56
58″	13,53,14,23,10,20,32,42,31,16		1, 0,54,59,47	
		2, 2,15, 4,25,31,29,41		
60″	13,53,16,25,25,24,58,14, 0,57			
exact	13,53,16,25,25,24,58,13,38,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°23′ 0″	13,53,16,25,25,24,58,13,38,43			
		2, 2,15, 3,24,36,18,44		
2″	13,53,18,27,40,28,22,49,57,27		1, 0,55,17,48	
		2, 2,15, 2,23,41, 0,56		8,56
4″	13,53,20,29,55,30,46,30,58,23		1, 0,55,26,44	
		2, 2,15, 1,22,45,34,12		8,56
6″	13,53,22,32,10,32, 9,16,32,35		1, 0,55,35,40	
		2, 2,15, 0,21,49,58,32		8,56
8″	13,53,24,34,25,32,31, 6,31, 7		1, 0,55,44,36	
		2, 2,14,59,20,54,13,56		8,56
10″	13,53,26,36,40,31,52, 0,45, 3		1, 0,55,53,32	
		2, 2,14,58,19,58,20,24		8,56
12″	13,53,28,38,55,30,11,59, 5,27		1, 0,56, 2,28	
		2, 2,14,57,19, 2,17,56		8,56
14″	13,53,30,41,10,27,31, 1,23,23		1, 0,56,11,24	
		2, 2,14,56,18, 6, 6,32		8,56
16″	13,53,32,43,25,23,49, 7,29,55		1, 0,56,20,20	
		2, 2,14,55,17, 9,46,12		8,56
18″	13,53,34,45,40,19, 6,17,16, 7		1, 0,56,29,16	
		2, 2,14,54,16,13,16,56		8,56
20″	13,53,36,47,55,13,22,30,33, 3		1, 0,56,38,12	
		2, 2,14,53,15,16,38,44		8,56
22″	13,53,38,50,10, 6,37,47,11,47		1, 0,56,47, 8	
		2, 2,14,52,14,19,51,36		8,56
24″	13,53,40,52,24,58,52, 7, 3,23		1, 0,56,56, 4	
		2, 2,14,51,13,22,55,32		8,56
26″	13,53,42,54,39,50, 5,29,58,55		1, 0,57, 5, 0	
		2, 2,14,50,12,25,50,32		8,56
28″	13,53,44,56,54,40,17,55,49,27		1, 0,57,13,56	
		2, 2,14,49,11,28,36,36		8,56
30″	13,53,46,59, 9,29,29,24,26, 3		1, 0,57,22,52	
		2, 2,14,48,10,31,13,44		8,56
32″	13,53,49, 1,24,17,39,55,39,47		1, 0,57,31,48	
		2, 2,14,47, 9,33,41,56		8,56
34″	13,53,51, 3,39, 4,49,29,21,43		1, 0,57,40,44	
		2, 2,14,46, 8,36, 1,12		8,56
36″	13,53,53, 5,53,50,58, 5,22,55		1, 0,57,49,40	
		2, 2,14,45, 7,38,11,32		8,56
38″	13,53,55, 8, 8,36, 5,43,34,27		1, 0,57,58,36	
		2, 2,14,44, 6,40,12,56		8,56
40″	13,53,57,10,23,20,12,23,47,23		1, 0,58, 7,32	
		2, 2,14,43, 5,42, 5,24		8,56
42″	13,53,59,12,38, 3,18, 5,52,47		1, 0,58,16,28	
		2, 2,14,42, 4,43,48,56		8,56
44″	13,54, 1,14,52,45,22,49,41,43		1, 0,58,25,24	
		2, 2,14,41, 3,45,23,32		8,56
46″	13,54, 3,17, 7,26,26,35, 5,15		1, 0,58,34,20	
		2, 2,14,40, 2,46,49,12		8,56
48″	13,54, 5,19,22, 6,29,21,54,27		1, 0,58,43,16	
		2, 2,14,39, 1,48, 5,56		8,56
50″	13,54, 7,21,36,45,31,10, 0,23		1, 0,58,52,12	
		2, 2,14,38, 0,49,13,44		8,56
52″	13,54, 9,23,51,23,31,59,14, 7		1, 0,59, 1, 8	
		2, 2,14,36,59,50,12,36		8,56
54″	13,54,11,26, 6, 0,31,49,26,43		1, 0,59,10, 4	
		2, 2,14,35,58,51, 2,32		8,56
56″	13,54,13,28,20,36,30,40,29,15		1, 0,59,19, 0	
		2, 2,14,34,57,51,43,32		8,56
58″	13,54,15,30,35,11,28,32,12,47		1, 0,59,27,56	
		2, 2,14,33,56,52,15,36		
60″	13,54,17,32,49,45,25,24,28,23			
exact	13,54,17,32,49,45,25,24,15,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°24′ 0″	13,54,17,32,49,45,25,24,15,20			
		2, 2,14,32,55,52,37,13		
2″	13,54,19,35, 4,18,21,16,52,33		1, 0,59,45,55	
		2, 2,14,31,54,52,51,18		8,56
4″	13,54,21,37,18,50,16, 9,43,51		1, 0,59,54,51	
		2, 2,14,30,53,52,56,27		8,56
6″	13,54,23,39,33,21,10, 2,40,18		1, 1, 0, 3,47	
		2, 2,14,29,52,52,52,40		8,56
8″	13,54,25,41,47,51, 2,55,32,58		1, 1, 0,12,43	
		2, 2,14,28,51,52,39,57		8,56
10″	13,54,27,44, 2,19,54,48,12,55		1, 1, 0,21,39	
		2, 2,14,27,50,52,18,18		8,56
12″	13,54,29,46,16,47,45,40,31,13		1, 1, 0,30,35	
		2, 2,14,26,49,51,47,43		8,56
14″	13,54,31,48,31,14,35,32,18,56		1, 1, 0,39,31	
		2, 2,14,25,48,51, 8,12		8,56
16″	13,54,33,50,45,40,24,23,27, 8		1, 1, 0,48,27	
		2, 2,14,24,47,50,19,45		8,56
18″	13,54,35,53, 0, 5,12,13,46,53		1, 1, 0,57,23	
		2, 2,14,23,46,49,22,22		8,56
20″	13,54,37,55,14,28,59, 3, 9,15		1, 1, 1, 6,19	
		2, 2,14,22,45,48,16, 3		8,56
22″	13,54,39,57,28,51,44,51,25,18		1, 1, 1,15,15	
		2, 2,14,21,44,47, 0,48		8,56
24″	13,54,41,59,43,13,29,38,26, 6		1, 1, 1,24,11	
		2, 2,14,20,43,45,36,37		8,56
26″	13,54,44, 1,57,34,13,24, 2,43		1, 1, 1,33, 7	
		2, 2,14,19,42,44, 3,30		8,56
28″	13,54,46, 4,11,53,56, 8, 6,13		1, 1, 1,42, 3	
		2, 2,14,18,41,42,21,27		8,56
30″	13,54,48, 6,26,12,37,50,27,40		1, 1, 1,50,59	
		2, 2,14,17,40,40,30,28		8,56
32″	13,54,50, 8,40,30,18,30,58, 8		1, 1, 1,59,55	
		2, 2,14,16,39,38,30,33		8,56
34″	13,54,52,10,54,46,58, 9,28,41		1, 1, 2, 8,51	
		2, 2,14,15,38,36,21,42		8,56
36″	13,54,54,13, 9, 2,36,45,50,23		1, 1, 2,17,47	
		2, 2,14,14,37,34, 3,55		8,56
38″	13,54,56,15,23,17,14,19,54,18		1, 1, 2,26,43	
		2, 2,14,13,36,31,37,12		8,56
40″	13,54,58,17,37,30,50,51,31,30		1, 1, 2,35,39	
		2, 2,14,12,35,29, 1,33		8,56
42″	13,55, 0,19,51,43,26,20,33, 3		1, 1, 2,44,35	
		2, 2,14,11,34,26,16,58		8,56
44″	13,55, 2,22, 5,55, 0,46,50, 1		1, 1, 2,53,31	
		2, 2,14,10,33,23,23,27		8,56
46″	13,55, 4,24,20, 5,34,10,13,28		1, 1, 3, 2,27	
		2, 2,14, 9,32,20,21, 0		8,56
48″	13,55, 6,26,34,15, 6,30,34,28		1, 1, 3,11,23	
		2, 2,14, 8,31,17, 9,37		8,56
50″	13,55, 8,28,48,23,37,47,44, 5		1, 1, 3,20,19	
		2, 2,14, 7,30,13,49,18		8,56
52″	13,55,10,31, 2,31, 8, 1,33,23		1, 1, 3,29,15	
		2, 2,14, 6,29,10,20, 3		8,56
54″	13,55,12,33,16,37,37,11,53,26		1, 1, 3,38,11	
		2, 2,14, 5,28, 6,41,52		8,56
56″	13,55,14,35,30,43, 5,18,35,18		1, 1, 3,47, 7	
		2, 2,14, 4,27, 2,54,45		8,56
58″	13,55,16,37,44,47,32,21,30, 3		1, 1, 3,56, 3	
		2, 2,14, 3,25,58,58,42		
60″	13,55,18,39,58,50,58,20,28,45			
exact	13,55,18,39,58,50,58,20,18,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°25′ 0″	13,55,18,39,58,50,58,20,18,16			
		2, 2,14, 2,24,54,52,29		
2″	13,55,20,42,12,53,23,15,10,45		1, 1, 4,14, 0	
		2, 2,14, 1,23,50,38,29		8,56
4″	13,55,22,44,26,54,47, 5,49,14		1, 1, 4,22,56	
		2, 2,14, 0,22,46,15,33		8,56
6″	13,55,24,46,40,55, 9,52, 4,47		1, 1, 4,31,52	
		2, 2,13,59,21,41,43,41		8,56
8″	13,55,26,48,54,54,31,33,48,28		1, 1, 4,40,48	
		2, 2,13,58,20,37, 2,53		8,56
10″	13,55,28,51, 8,52,52,10,51,21		1, 1, 4,49,44	
		2, 2,13,57,19,32,13, 9		8,56
12″	13,55,30,53,22,50,11,43, 4,30		1, 1, 4,58,40	
		2, 2,13,56,18,27,14,29		8,56
14″	13,55,32,55,36,46,30,10,18,59		1, 1, 5, 7,36	
		2, 2,13,55,17,22, 6,53		8,56
16″	13,55,34,57,50,41,47,32,25,52		1, 1, 5,16,32	
		2, 2,13,54,16,16,50,21		8,56
18″	13,55,37, 0, 4,36, 3,49,16,13		1, 1, 5,25,28	
		2, 2,13,53,15,11,24,53		8,56
20″	13,55,39, 2,18,29,19, 0,41, 6		1, 1, 5,34,24	
		2, 2,13,52,14, 5,50,29		8,56
22″	13,55,41, 4,32,21,33, 6,31,35		1, 1, 5,43,20	
		2, 2,13,51,13, 0, 7, 9		8,56
24″	13,55,43, 6,46,12,46, 6,38,44		1, 1, 5,52,16	
		2, 2,13,50,11,54,14,53		8,56
26″	13,55,45, 9, 0, 2,58, 0,53,37		1, 1, 6, 1,12	
		2, 2,13,49,10,48,13,41		8,56
28″	13,55,47,11,13,52, 8,49, 7,18		1, 1, 6,10, 8	
		2, 2,13,48, 9,42, 3,33		8,56
30″	13,55,49,13,27,40,18,31,10,51		1, 1, 6,19, 4	
		2, 2,13,47, 8,35,44,29		8,56
32″	13,55,51,15,41,27,27, 6,55,20		1, 1, 6,28, 0	
		2, 2,13,46, 7,29,16,29		8,56
34″	13,55,53,17,55,13,34,36,11,49		1, 1, 6,36,56	
		2, 2,13,45, 6,22,39,33		8,56
36″	13,55,55,20, 8,58,40,58,51,22		1, 1, 6,45,52	
		2, 2,13,44, 5,15,53,41		8,56
38″	13,55,57,22,22,42,46,14,45, 3		1, 1, 6,54,48	
		2, 2,13,43, 4, 8,58,53		8,56
40″	13,55,59,24,36,25,50,23,43,56		1, 1, 7, 3,44	
		2, 2,13,42, 3, 1,55, 9		8,56
42″	13,56, 1,26,50, 7,53,25,39, 5		1, 1, 7,12,40	
		2, 2,13,41, 1,54,42,29		8,56
44″	13,56, 3,29, 3,48,55,20,21,34		1, 1, 7,21,36	
		2, 2,13,40, 0,47,20,53		8,56
46″	13,56, 5,31,17,28,56, 7,42,27		1, 1, 7,30,32	
		2, 2,13,38,59,39,50,21		8,56
48″	13,56, 7,33,31, 7,55,47,32,48		1, 1, 7,39,28	
		2, 2,13,37,58,32,10,53		8,56
50″	13,56, 9,35,44,45,54,19,43,41		1, 1, 7,48,24	
		2, 2,13,36,57,24,22,29		8,56
52″	13,56,11,37,58,22,51,44, 6,10		1, 1, 7,57,20	
		2, 2,13,35,56,16,25, 9		8,56
54″	13,56,13,40,11,58,48, 0,31,19		1, 1, 8, 6,16	
		2, 2,13,34,55, 8,18,53		8,56
56″	13,56,15,42,25,33,43, 8,50,12		1, 1, 8,15,12	
		2, 2,13,33,54, 0, 3,41		8,56
58″	13,56,17,44,39, 7,37, 8,53,53		1, 1, 8,24, 8	
		2, 2,13,32,52,51,39,33		
60″	13,56,19,46,52,40,30, 0,33,26			
exact	13,56,19,46,52,40,30, 0,18,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°26′ 0″	13,56,19,46,52,40,30, 0,18,37			
		2, 2,13,31,51,43, 5, 3		
2″	13,56,21,49, 6,12,21,43,23,40		1, 1, 8,42, 5	
		2, 2,13,30,50,34,22,58		8,56
4″	13,56,23,51,19,43,12,17,46,38		1, 1, 8,51, 1	
		2, 2,13,29,49,25,31,57		8,56
6″	13,56,25,53,33,13, 1,43,18,35		1, 1, 8,59,57	
		2, 2,13,28,48,16,32, 0		8,56
8″	13,56,27,55,46,41,49,59,50,35		1, 1, 9, 8,53	
		2, 2,13,27,47, 7,23, 7		8,56
10″	13,56,29,58, 0, 9,37, 7,13,42		1, 1, 9,17,49	
		2, 2,13,26,45,58, 5,18		8,56
12″	13,56,32, 0,13,36,23, 5,19, 0		1, 1, 9,26,45	
		2, 2,13,25,44,48,38,33		8,56
14″	13,56,34, 2,27, 2, 7,53,57,33		1, 1, 9,35,41	
		2, 2,13,24,43,39, 2,52		8,56
16″	13,56,36, 4,40,26,51,33, 0,25		1, 1, 9,44,37	
		2, 2,13,23,42,29,18,15		8,56
18″	13,56,38, 6,53,50,34, 2,18,40		1, 1, 9,53,33	
		2, 2,13,22,41,19,24,42		8,56
20″	13,56,40, 9, 7,13,15,21,43,22		1, 1,10, 2,29	
		2, 2,13,21,40, 9,22,13		8,56
22″	13,56,42,11,20,34,55,31, 5,35		1, 1,10,11,25	
		2, 2,13,20,38,59,10,48		8,56
24″	13,56,44,13,33,55,34,30,16,23		1, 1,10,20,21	
		2, 2,13,19,37,48,50,27		8,56
26″	13,56,46,15,47,15,12,19, 6,50		1, 1,10,29,17	
		2, 2,13,18,36,38,21,10		8,56
28″	13,56,48,18, 0,33,48,57,28, 0		1, 1,10,38,13	
		2, 2,13,17,35,27,42,57		8,56
30″	13,56,50,20,13,51,24,25,10,57		1, 1,10,47, 9	
		2, 2,13,16,34,16,55,48		8,56
32″	13,56,52,22,27, 7,58,42, 6,45		1, 1,10,56, 5	
		2, 2,13,15,33, 5,59,43		8,56
34″	13,56,54,24,40,23,31,48, 6,28		1, 1,11, 5, 1	
		2, 2,13,14,31,54,54,42		8,56
36″	13,56,56,26,53,38, 3,43, 1,10		1, 1,11,13,57	
		2, 2,13,13,30,43,40,45		8,56
38″	13,56,58,29, 6,51,34,26,41,55		1, 1,11,22,53	
		2, 2,13,12,29,32,17,52		8,56
40″	13,57, 0,31,20, 4, 3,58,59,47		1, 1,11,31,49	
		2, 2,13,11,28,20,46, 3		8,56
42″	13,57, 2,33,33,15,32,19,45,50		1, 1,11,40,45	
		2, 2,13,10,27, 9, 5,18		8,56
44″	13,57, 4,35,46,25,59,28,51, 8		1, 1,11,49,41	
		2, 2,13, 9,25,57,15,37		8,56
46″	13,57, 6,37,59,35,25,26, 6,45		1, 1,11,58,37	
		2, 2,13, 8,24,45,17, 0		8,56
48″	13,57, 8,40,12,43,50,11,23,45		1, 1,12, 7,33	
		2, 2,13, 7,23,33, 9,27		8,56
50″	13,57,10,42,25,51,13,44,33,12		1, 1,12,16,29	
		2, 2,13, 6,22,20,52,58		8,56
52″	13,57,12,44,38,57,36, 5,26,10		1, 1,12,25,25	
		2, 2,13, 5,21, 8,27,33		8,56
54″	13,57,14,46,52, 2,57,13,53,43		1, 1,12,34,21	
		2, 2,13, 4,19,55,53,12		8,56
56″	13,57,16,49, 5, 7,17, 9,46,55		1, 1,12,43,17	
		2, 2,13, 3,18,43, 9,55		8,56
58″	13,57,18,51,18,10,35,52,56,50		1, 1,12,52,13	
		2, 2,13, 2,17,30,17,42		
60″	13,57,20,53,31,12,53,23,14,32			
exact	13,57,20,53,31,12,53,23, 4,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°27′ 0″	13,57,20,53,31,12,53,23, 4,12			
		2, 2,13, 1,16,17,15,31		
2″	13,57,22,55,44,14, 9,40,19,43		1, 1,13,10, 9	
		2, 2,13, 0,15, 4, 5,22		8,56
4″	13,57,24,57,57,14,24,44,25, 5		1, 1,13,19, 5	
		2, 2,12,59,13,50,46,17		8,56
6″	13,57,27, 0,10,13,38,35,11,22		1, 1,13,28, 1	
		2, 2,12,58,12,37,18,16		8,56
8″	13,57,29, 2,23,11,51,12,29,38		1, 1,13,36,57	
		2, 2,12,57,11,23,41,19		8,56
10″	13,57,31, 4,36, 9, 2,36,10,57		1, 1,13,45,53	
		2, 2,12,56,10, 9,55,26		8,56
12″	13,57,33, 6,49, 5,12,46, 6,23		1, 1,13,54,49	
		2, 2,12,55, 8,56, 0,37		8,56
14″	13,57,35, 9, 2, 0,21,42, 7, 0		1, 1,14, 3,45	
		2, 2,12,54, 7,41,56,52		8,56
16″	13,57,37,11,14,54,29,24, 3,52		1, 1,14,12,41	
		2, 2,12,53, 6,27,44,11		8,56
18″	13,57,39,13,27,47,35,51,48, 3		1, 1,14,21,37	
		2, 2,12,52, 5,13,22,34		8,56
20″	13,57,41,15,40,39,41, 5,10,37		1, 1,14,30,33	
		2, 2,12,51, 3,58,52, 1		8,56
22″	13,57,43,17,53,30,45, 4, 2,38		1, 1,14,39,29	
		2, 2,12,50, 2,44,12,32		8,56
24″	13,57,45,20, 6,20,47,48,15,10		1, 1,14,48,25	
		2, 2,12,49, 1,29,24, 7		8,56
26″	13,57,47,22,19, 9,49,17,39,17		1, 1,14,57,21	
		2, 2,12,48, 0,14,26,46		8,56
28″	13,57,49,24,31,57,49,32, 6, 3		1, 1,15, 6,17	
		2, 2,12,46,58,59,20,29		8,56
30″	13,57,51,26,44,44,48,31,26,32		1, 1,15,15,13	
		2, 2,12,45,57,44, 5,16		8,56
32″	13,57,53,28,57,30,46,15,31,48		1, 1,15,24, 9	
		2, 2,12,44,56,28,41, 7		8,56
34″	13,57,55,31,10,15,42,44,12,55		1, 1,15,33, 5	
		2, 2,12,43,55,13, 8, 2		8,56
36″	13,57,57,33,22,59,37,57,20,57		1, 1,15,42, 1	
		2, 2,12,42,53,57,26, 1		8,56
38″	13,57,59,35,35,42,31,54,46,58		1, 1,15,50,57	
		2, 2,12,41,52,41,35, 4		8,56
40″	13,58, 1,37,48,24,24,36,22, 2		1, 1,15,59,53	
		2, 2,12,40,51,25,35,11		8,56
42″	13,58, 3,40, 1, 5,16, 1,57,13		1, 1,16, 8,49	
		2, 2,12,39,50, 9,26,22		8,56
44″	13,58, 5,42,13,45, 6,11,23,35		1, 1,16,17,45	
		2, 2,12,38,48,53, 8,37		8,56
46″	13,58, 7,44,26,23,55, 4,32,12		1, 1,16,26,41	
		2, 2,12,37,47,36,41,56		8,56
48″	13,58, 9,46,39, 1,42,41,14, 8		1, 1,16,35,37	
		2, 2,12,36,46,20, 6,19		8,56
50″	13,58,11,48,51,38,29, 1,20,27		1, 1,16,44,33	
		2, 2,12,35,45, 3,21,46		8,56
52″	13,58,13,51, 4,14,14, 4,42,13		1, 1,16,53,29	
		2, 2,12,34,43,46,28,17		8,56
54″	13,58,15,53,16,48,57,51,10,30		1, 1,17, 2,25	
		2, 2,12,33,42,29,25,52		8,56
56″	13,58,17,55,29,22,40,20,36,22		1, 1,17,11,21	
		2, 2,12,32,41,12,14,31		8,56
58″	13,58,19,57,41,55,21,32,50,53		1, 1,17,20,17	
		2, 2,12,31,39,54,54,14		
60″	13,58,21,59,54,27, 1,27,45, 7			
exact	13,58,21,59,54,27, 1,27,39,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°28′ 0″	13,58,21,59,54,27, 1,27,39,40			
		2, 2,12,30,38,37,24,25		
2″	13,58,24, 2, 6,57,40, 5, 4, 5		1, 1,17,38,11	
		2, 2,12,29,37,19,46,14		8,56
4″	13,58,26, 4,19,27,17,24,50,19		1, 1,17,47, 7	
		2, 2,12,28,36, 1,59, 7		8,56
6″	13,58,28, 6,31,55,53,26,49,26		1, 1,17,56, 3	
		2, 2,12,27,34,44, 3, 4		8,56
8″	13,58,30, 8,44,23,28,10,52,30		1, 1,18, 4,59	
		2, 2,12,26,33,25,58, 5		8,56
10″	13,58,32,10,56,50, 1,36,50,35		1, 1,18,13,55	
		2, 2,12,25,32, 7,44,10		8,56
12″	13,58,34,13, 9,15,33,44,34,45		1, 1,18,22,51	
		2, 2,12,24,30,49,21,19		8,56
14″	13,58,36,15,21,40, 4,33,56, 4		1, 1,18,31,47	
		2, 2,12,23,29,30,49,32		8,56
16″	13,58,38,17,34, 3,34, 4,45,36		1, 1,18,40,43	
		2, 2,12,22,28,12, 8,49		8,56
18″	13,58,40,19,46,26, 2,16,54,25		1, 1,18,49,39	
		2, 2,12,21,26,53,19,10		8,56
20″	13,58,42,21,58,47,29,10,13,35		1, 1,18,58,35	
		2, 2,12,20,25,34,20,35		8,56
22″	13,58,44,24,11, 7,54,44,34,10		1, 1,19, 7,31	
		2, 2,12,19,24,15,13, 4		8,56
24″	13,58,46,26,23,27,18,59,47,14		1, 1,19,16,27	
		2, 2,12,18,22,55,56,37		8,56
26″	13,58,48,28,35,45,41,55,43,51		1, 1,19,25,23	
		2, 2,12,17,21,36,31,14		8,56
28″	13,58,50,30,48, 3, 3,32,15, 5		1, 1,19,34,19	
		2, 2,12,16,20,16,56,55		8,56
30″	13,58,52,33, 0,19,23,49,12, 0		1, 1,19,43,15	
		2, 2,12,15,18,57,13,40		8,56
32″	13,58,54,35,12,34,42,46,25,40		1, 1,19,52,11	
		2, 2,12,14,17,37,21,29		8,56
34″	13,58,56,37,24,49, 0,23,47, 9		1, 1,20, 1, 7	
		2, 2,12,13,16,17,20,22		8,56
36″	13,58,58,39,37, 2,16,41, 7,31		1, 1,20,10, 3	
		2, 2,12,12,14,57,10,19		8,56
38″	13,59, 0,41,49,14,31,38,17,50		1, 1,20,18,59	
		2, 2,12,11,13,36,51,20		8,56
40″	13,59, 2,44, 1,25,45,15, 9,10		1, 1,20,27,55	
		2, 2,12,10,12,16,23,25		8,56
42″	13,59, 4,46,13,35,57,31,32,35		1, 1,20,36,51	
		2, 2,12, 9,10,55,46,34		8,56
44″	13,59, 6,48,25,45, 8,27,19, 9		1, 1,20,45,47	
		2, 2,12, 8, 9,35, 0,47		8,56
46″	13,59, 8,50,37,53,18, 2,19,56		1, 1,20,54,43	
		2, 2,12, 7, 8,14, 6, 4		8,56
48″	13,59,10,52,50, 0,26,16,26, 0		1, 1,21, 3,39	
		2, 2,12, 6, 6,53, 2,25		8,56
50″	13,59,12,55, 2, 6,33, 9,28,25		1, 1,21,12,35	
		2, 2,12, 5, 5,31,49,50		8,56
52″	13,59,14,57,14,11,38,41,18,15		1, 1,21,21,31	
		2, 2,12, 4, 4,10,28,19		8,56
54″	13,59,16,59,26,15,42,51,46,34		1, 1,21,30,27	
		2, 2,12, 3, 2,48,57,52		8,56
56″	13,59,19, 1,38,18,45,40,44,26		1, 1,21,39,23	
		2, 2,12, 2, 1,27,18,29		8,56
58″	13,59,21, 3,50,20,47, 8, 2,55		1, 1,21,48,19	
		2, 2,12, 1, 0, 5,30,10		
60″	13,59,23, 6, 2,21,47,13,33, 5			
exact	13,59,23, 6, 2,21,47,13,26,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°29′ 0″	13,59,23, 6, 2,21,47,13,26,23			
		2, 2,11,59,58,43,32,20		
2″	13,59,25, 8,14,21,45,56,58,43		1, 1,22, 6,13	
		2, 2,11,58,57,21,26, 7		8,56
4″	13,59,27,10,26,20,43,18,24,50		1, 1,22,15, 9	
		2, 2,11,57,55,59,10,58		8,56
6″	13,59,29,12,38,18,39,17,35,48		1, 1,22,24, 5	
		2, 2,11,56,54,36,46,53		8,56
8″	13,59,31,14,50,15,33,54,22,41		1, 1,22,33, 1	
		2, 2,11,55,53,14,13,52		8,56
10″	13,59,33,17, 2,11,27, 8,36,33		1, 1,22,41,57	
		2, 2,11,54,51,51,31,55		8,56
12″	13,59,35,19,14, 6,19, 0, 8,28		1, 1,22,50,53	
		2, 2,11,53,50,28,41, 2		8,56
14″	13,59,37,21,26, 0, 9,28,49,30		1, 1,22,59,49	
		2, 2,11,52,49, 5,41,13		8,56
16″	13,59,39,23,37,52,58,34,30,43		1, 1,23, 8,45	
		2, 2,11,51,47,42,32,28		8,56
18″	13,59,41,25,49,44,46,17, 3,11		1, 1,23,17,41	
		2, 2,11,50,46,19,14,47		8,56
20″	13,59,43,28, 1,35,32,36,17,58		1, 1,23,26,37	
		2, 2,11,49,44,55,48,10		8,56
22″	13,59,45,30,13,25,17,32, 6, 8		1, 1,23,35,33	
		2, 2,11,48,43,32,12,37		8,56
24″	13,59,47,32,25,14, 1, 4,18,45		1, 1,23,44,29	
		2, 2,11,47,42, 8,28, 8		8,56
26″	13,59,49,34,37, 1,43,12,46,53		1, 1,23,53,25	
		2, 2,11,46,40,44,34,43		8,56
28″	13,59,51,36,48,48,23,57,21,36		1, 1,24, 2,21	
		2, 2,11,45,39,20,32,22		8,56
30″	13,59,53,39, 0,34, 3,17,53,58		1, 1,24,11,17	
		2, 2,11,44,37,56,21, 5		8,56
32″	13,59,55,41,12,18,41,14,15, 3		1, 1,24,20,13	
		2, 2,11,43,36,32, 0,52		8,56
34″	13,59,57,43,24, 2,17,46,15,55		1, 1,24,29, 9	
		2, 2,11,42,35, 7,31,43		8,56
36″	13,59,59,45,35,44,52,53,47,38		1, 1,24,38, 5	
		2, 2,11,41,33,42,53,38		8,56
38″	14, 0, 1,47,47,26,26,36,41,16		1, 1,24,47, 1	
		2, 2,11,40,32,18, 6,37		8,56
40″	14, 0, 3,49,59, 6,58,54,47,53		1, 1,24,55,57	
		2, 2,11,39,30,53,10,40		8,56
42″	14, 0, 5,52,10,46,29,47,58,33		1, 1,25, 4,53	
		2, 2,11,38,29,28, 5,47		8,56
44″	14, 0, 7,54,22,24,59,16, 4,20		1, 1,25,13,49	
		2, 2,11,37,28, 2,51,58		8,56
46″	14, 0, 9,56,34, 2,27,18,56,18		1, 1,25,22,45	
		2, 2,11,36,26,37,29,13		8,56
48″	14, 0,11,58,45,38,53,56,25,31		1, 1,25,31,41	
		2, 2,11,35,25,11,57,32		8,56
50″	14, 0,14, 0,57,14,19, 8,23, 3		1, 1,25,40,37	
		2, 2,11,34,23,46,16,55		8,56
52″	14, 0,16, 3, 8,48,42,54,39,58		1, 1,25,49,33	
		2, 2,11,33,22,20,27,22		8,56
54″	14, 0,18, 5,20,22, 5,15, 7,20		1, 1,25,58,29	
		2, 2,11,32,20,54,28,53		8,56
56″	14, 0,20, 7,31,54,26, 9,36,13		1, 1,26, 7,25	
		2, 2,11,31,19,28,21,28		8,56
58″	14, 0,22, 9,43,25,45,37,57,41		1, 1,26,16,21	
		2, 2,11,30,18, 2, 5, 7		
60″	14, 0,24,11,54,56, 3,40, 2,48			
exact	14, 0,24,11,54,56, 3,40, 2,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°30′ 0″	14, 0,24,11,54,56, 3,40, 2,33	2, 2,11,29,16,35,39,48		
2″	14, 0,26,14, 6,25,20,15,42,21	2, 2,11,28,15, 9, 5,35	1, 1,26,34,13	
4″	14, 0,28,16,17,53,35,24,47,56	2, 2,11,27,13,42,22,26	1, 1,26,43, 9	8,56
6″	14, 0,30,18,29,20,49, 7,10,22	2, 2,11,26,12,15,30,21	1, 1,26,52, 5	8,56
8″	14, 0,32,20,40,47, 1,22,40,43	2, 2,11,25,10,48,29,20	1, 1,27, 1, 1	8,56
10″	14, 0,34,22,52,12,12,11,10, 3	2, 2,11,24, 9,21,19,23	1, 1,27, 9,57	8,56
12″	14, 0,36,25, 3,36,21,32,29,26	2, 2,11,23, 7,54, 0,30	1, 1,27,18,53	8,56
14″	14, 0,38,27,14,59,29,26,29,56	2, 2,11,22, 6,26,32,41	1, 1,27,27,49	8,56
16″	14, 0,40,29,26,21,35,53, 2,37	2, 2,11,21, 4,58,55,56	1, 1,27,36,45	8,56
18″	14, 0,42,31,37,42,40,51,58,33	2, 2,11,20, 3,31,10,15	1, 1,27,45,41	8,56
20″	14, 0,44,33,49, 2,44,23, 8,48	2, 2,11,19, 2, 3,15,38	1, 1,27,54,37	8,56
22″	14, 0,46,36, 0,21,46,26,24,26	2, 2,11,18, 0,35,12, 5	1, 1,28, 3,33	8,56
24″	14, 0,48,38,11,39,47, 1,36,31	2, 2,11,16,59, 6,59,36	1, 1,28,12,29	8,56
26″	14, 0,50,40,22,56,46, 8,36, 7	2, 2,11,15,57,38,38,11	1, 1,28,21,25	8,56
28″	14, 0,52,42,34,12,43,47,14,18	2, 2,11,14,56,10, 7,50	1, 1,28,30,21	8,56
30″	14, 0,54,44,45,27,39,57,22, 8	2, 2,11,13,54,41,28,33	1, 1,28,39,17	8,56
32″	14, 0,56,46,56,41,34,38,50,41	2, 2,11,12,53,12,40,20	1, 1,28,48,13	8,56
34″	14, 0,58,49, 7,54,27,51,31, 1	2, 2,11,11,51,43,43,11	1, 1,28,57, 9	8,56
36″	14, 1, 0,51,19, 6,19,35,14,12	2, 2,11,10,50,14,37, 6	1, 1,29, 6, 5	8,56
38″	14, 1, 2,53,30,17, 9,49,51,18	2, 2,11, 9,48,45,22, 5	1, 1,29,15, 1	8,56
40″	14, 1, 4,55,41,26,58,35,13,23	2, 2,11, 8,47,15,58, 8	1, 1,29,23,57	8,56
42″	14, 1, 6,57,52,35,45,51,11,31	2, 2,11, 7,45,46,25,15	1, 1,29,32,53	8,56
44″	14, 1, 9, 0, 3,43,31,37,36,46	2, 2,11, 6,44,16,43,26	1, 1,29,41,49	8,56
46″	14, 1,11, 2,14,50,15,54,20,12	2, 2,11, 5,42,46,52,41	1, 1,29,50,45	8,56
48″	14, 1,13, 4,25,55,58,41,12,53	2, 2,11, 4,41,16,53, 0	1, 1,29,59,41	8,56
50″	14, 1,15, 6,37, 0,39,58, 5,53	2, 2,11, 3,39,46,44,23	1, 1,30, 8,37	8,56
52″	14, 1,17, 8,48, 4,19,44,50,16	2, 2,11, 2,38,16,26,50	1, 1,30,17,33	8,56
54″	14, 1,19,10,59, 6,58, 1,17, 6	2, 2,11, 1,36,46, 0,21	1, 1,30,26,29	8,56
56″	14, 1,21,13,10, 8,34,47,17,27	2, 2,11, 0,35,15,24,56	1, 1,30,35,25	8,56
58″	14, 1,23,15,21, 9,10, 2,42,23	2, 2,10,59,33,44,40,35	1, 1,30,44,21	
60″	14, 1,25,17,32, 8,43,47,22,58			
exact	14, 1,25,17,32, 8,43,47,23,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°31′ 0″	14, 1,25,17,32, 8,43,47,23,10			
		2, 2,10,58,32,13,47,23		
2″	14, 1,27,19,43, 7,16, 1,10,33		1, 1,31, 2,12	
		2, 2,10,57,30,42,45,11		8,56
4″	14, 1,29,21,54, 4,46,43,55,44		1, 1,31,11, 8	
		2, 2,10,56,29,11,34, 3		8,56
6″	14, 1,31,24, 5, 1,15,55,29,47		1, 1,31,20, 4	
		2, 2,10,55,27,40,13,59		8,56
8″	14, 1,33,26,15,56,43,35,43,46		1, 1,31,29, 0	
		2, 2,10,54,26, 8,44,59		8,56
10″	14, 1,35,28,26,51, 9,44,28,45		1, 1,31,37,56	
		2, 2,10,53,24,37, 7, 3		8,56
12″	14, 1,37,30,37,44,34,21,35,48		1, 1,31,46,52	
		2, 2,10,52,23, 5,20,11		8,56
14″	14, 1,39,32,48,36,57,26,55,59		1, 1,31,55,48	
		2, 2,10,51,21,33,24,23		8,56
16″	14, 1,41,34,59,28,19, 0,20,22		1, 1,32, 4,44	
		2, 2,10,50,20, 1,19,39		8,56
18″	14, 1,43,37,10,18,39, 1,40, 1		1, 1,32,13,40	
		2, 2,10,49,18,29, 5,59		8,56
20″	14, 1,45,39,21, 7,57,30,46, 0		1, 1,32,22,36	
		2, 2,10,48,16,56,43,23		8,56
22″	14, 1,47,41,31,56,14,27,29,23		1, 1,32,31,32	
		2, 2,10,47,15,24,11,51		8,56
24″	14, 1,49,43,42,43,29,51,41,14		1, 1,32,40,28	
		2, 2,10,46,13,51,31,23		8,56
26″	14, 1,51,45,53,29,43,43,12,37		1, 1,32,49,24	
		2, 2,10,45,12,18,41,59		8,56
28″	14, 1,53,48, 4,14,56, 1,54,36		1, 1,32,58,20	
		2, 2,10,44,10,45,43,39		8,56
30″	14, 1,55,50,14,59, 6,47,38,15		1, 1,33, 7,16	
		2, 2,10,43, 9,12,36,23		8,56
32″	14, 1,57,52,25,42,16, 0,14,38		1, 1,33,16,12	
		2, 2,10,42, 7,39,20,11		8,56
34″	14, 1,59,54,36,24,23,39,34,49		1, 1,33,25, 8	
		2, 2,10,41, 6, 5,55, 3		8,56
36″	14, 2, 1,56,47, 5,29,45,29,52		1, 1,33,34, 4	
		2, 2,10,40, 4,32,20,59		8,56
38″	14, 2, 3,58,57,45,34,17,50,51		1, 1,33,43, 0	
		2, 2,10,39, 2,58,37,59		8,56
40″	14, 2, 6, 1, 8,24,37,16,28,50		1, 1,33,51,56	
		2, 2,10,38, 1,24,46, 3		8,56
42″	14, 2, 8, 3,19, 2,38,41,14,53		1, 1,34, 0,52	
		2, 2,10,36,59,50,45,11		8,56
44″	14, 2,10, 5,29,39,38,32, 0, 4		1, 1,34, 9,48	
		2, 2,10,35,58,16,35,23		8,56
46″	14, 2,12, 7,40,15,36,48,35,27		1, 1,34,18,44	
		2, 2,10,34,56,42,16,39		8,56
48″	14, 2,14, 9,50,50,33,30,52, 6		1, 1,34,27,40	
		2, 2,10,33,55, 7,48,59		8,56
50″	14, 2,16,12, 1,24,28,38,41, 5		1, 1,34,36,36	
		2, 2,10,32,53,33,12,23		8,56
52″	14, 2,18,14,11,57,22,11,53,28		1, 1,34,45,32	
		2, 2,10,31,51,58,26,51		8,56
54″	14, 2,20,16,22,29,14,10,20,19		1, 1,34,54,28	
		2, 2,10,30,50,23,32,23		8,56
56″	14, 2,22,18,33, 0, 4,33,52,42		1, 1,35, 3,24	
		2, 2,10,29,48,48,28,59		8,56
58″	14, 2,24,20,43,29,53,22,21,41		1, 1,35,12,20	
		2, 2,10,28,47,13,16,39		
60″	14, 2,26,22,53,58,40,35,38,20			
exact	14, 2,26,22,53,58,40,35,40, 7			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
13°32′	0″	14, 2,26,22,53,58,40,35,40, 7			
			2, 2,10,27,45,37,55,40		
	2″	14, 2,28,25, 4,26,26,13,35,47		1, 1,35,30,10	
			2, 2,10,26,44, 2,25,30		8,56
	4″	14, 2,30,27,14,53,10,16, 1,17		1, 1,35,39, 6	
			2, 2,10,25,42,26,46,24		8,56
	6″	14, 2,32,29,25,18,52,42,47,41		1, 1,35,48, 2	
			2, 2,10,24,40,50,58,22		8,56
	8″	14, 2,34,31,35,43,33,33,46, 3		1, 1,35,56,58	
			2, 2,10,23,39,15, 1,24		8,56
	10″	14, 2,36,33,46, 7,12,48,47,27		1, 1,36, 5,54	
			2, 2,10,22,37,38,55,30		8,56
	12″	14, 2,38,35,56,29,50,27,42,57		1, 1,36,14,50	
			2, 2,10,21,36, 2,40,40		8,56
	14″	14, 2,40,38, 6,51,26,30,23,37		1, 1,36,23,46	
			2, 2,10,20,34,26,16,54		8,56
	16″	14, 2,42,40,17,12, 0,56,40,31		1, 1,36,32,42	
			2, 2,10,19,32,49,44,12		8,56
	18″	14, 2,44,42,27,31,33,46,24,43		1, 1,36,41,38	
			2, 2,10,18,31,13, 2,34		8,56
	20″	14, 2,46,44,37,50, 4,59,27,17		1, 1,36,50,34	
			2, 2,10,17,29,36,12, 0		8,56
	22″	14, 2,48,46,48, 7,34,35,39,17		1, 1,36,59,30	
			2, 2,10,16,27,59,12,30		8,56
	24″	14, 2,50,48,58,24, 2,34,51,47		1, 1,37, 8,26	
			2, 2,10,15,26,22, 4, 4		8,56
	26″	14, 2,52,51, 8,39,28,56,55,51		1, 1,37,17,22	
			2, 2,10,14,24,44,46,42		8,56
	28″	14, 2,54,53,18,53,53,41,42,33		1, 1,37,26,18	
			2, 2,10,13,23, 7,20,24		8,56
	30″	14, 2,56,55,29, 7,16,49, 2,57		1, 1,37,35,14	
			2, 2,10,12,21,29,45,10		8,56
	32″	14, 2,58,57,39,19,38,18,48, 7		1, 1,37,44,10	
			2, 2,10,11,19,52, 1, 0		8,56
	34″	14, 3, 0,59,49,30,58,10,49, 7		1, 1,37,53, 6	
			2, 2,10,10,18,14, 7,54		8,56
	36″	14, 3, 3, 1,59,41,16,24,57, 1		1, 1,38, 2, 2	
			2, 2,10, 9,16,36, 5,52		8,56
	38″	14, 3, 5, 4, 9,50,33, 1, 2,53		1, 1,38,10,58	
			2, 2,10, 8,14,57,54,54		8,56
	40″	14, 3, 7, 6,19,58,47,58,57,47		1, 1,38,19,54	
			2, 2,10, 7,13,19,35, 0		8,56
	42″	14, 3, 9, 8,30, 6, 1,18,32,47		1, 1,38,28,50	
			2, 2,10, 6,11,41, 6,10		8,56
	44″	14, 3,11,10,40,12,12,59,38,57		1, 1,38,37,46	
			2, 2,10, 5,10, 2,28,24		8,56
	46″	14, 3,13,12,50,17,23, 2, 7,21		1, 1,38,46,42	
			2, 2,10, 4, 8,23,41,42		8,56
	48″	14, 3,15,15, 0,21,31,25,49, 3		1, 1,38,55,38	
			2, 2,10, 3, 6,44,46, 4		8,56
	50″	14, 3,17,17,10,24,38,10,35, 7		1, 1,39, 4,34	
			2, 2,10, 2, 5, 5,41,30		8,56
	52″	14, 3,19,19,20,26,43,16,16,37		1, 1,39,13,30	
			2, 2,10, 1, 3,26,28, 0		8,56
	54″	14, 3,21,21,30,27,46,42,44,37		1, 1,39,22,26	
			2, 2,10, 0, 1,47, 5,34		8,56
	56″	14, 3,23,23,40,27,48,29,50,11		1, 1,39,31,22	
			2, 2, 9,59, 0, 7,34,12		8,56
	58″	14, 3,25,25,50,26,48,37,24,23		1, 1,39,40,18	
			2, 2, 9,57,58,27,53,54		
	60″	14, 3,27,28, 0,24,47, 5,18,17			
exact		14, 3,27,28, 0,24,47, 5,22, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°33′ 0″	14, 3,27,28, 0,24,47, 5,22, 6	2, 2, 9,56,56,48, 5,12		
2″	14, 3,29,30,10,21,43,53,27,18	2, 2, 9,55,55, 8, 7, 5	1, 1,39,58, 7	8,56
4″	14, 3,31,32,20,17,39, 1,34,23	2, 2, 9,54,53,28, 0, 2	1, 1,40, 7, 3	8,56
6″	14, 3,33,34,30,12,32,29,34,25	2, 2, 9,53,51,47,44, 3	1, 1,40,15,59	8,56
8″	14, 3,35,36,40, 6,24,17,18,28	2, 2, 9,52,50, 7,19, 8	1, 1,40,24,55	8,56
10″	14, 3,37,38,49,59,14,24,37,36	2, 2, 9,51,48,26,45,17	1, 1,40,33,51	8,56
12″	14, 3,39,40,59,51, 2,51,22,53	2, 2, 9,50,46,46, 2,30	1, 1,40,42,47	8,56
14″	14, 3,41,43, 9,41,49,37,25,23	2, 2, 9,49,45, 5,10,47	1, 1,40,51,43	8,56
16″	14, 3,43,45,19,31,34,42,36,10	2, 2, 9,48,43,24,10, 8	1, 1,41, 0,39	8,56
18″	14, 3,45,47,29,20,18, 6,46,18	2, 2, 9,47,41,43, 0,33	1, 1,41, 9,35	8,56
20″	14, 3,47,49,39, 7,59,49,46,51	2, 2, 9,46,40, 1,42, 2	1, 1,41,18,31	8,56
22″	14, 3,49,51,48,54,39,51,28,53	2, 2, 9,45,38,20,14,35	1, 1,41,27,27	8,56
24″	14, 3,51,53,58,40,18,11,43,28	2, 2, 9,44,36,38,38,12	1, 1,41,36,23	8,56
26″	14, 3,53,56, 8,24,54,50,21,40	2, 2, 9,43,34,56,52,53	1, 1,41,45,19	8,56
28″	14, 3,55,58,18, 8,29,47,14,33	2, 2, 9,42,33,14,58,38	1, 1,41,54,15	8,56
30″	14, 3,58, 0,27,51, 3, 2,13,11	2, 2, 9,41,31,32,55,27	1, 1,42, 3,11	8,56
32″	14, 4, 0, 2,37,32,34,35, 8,38	2, 2, 9,40,29,50,43,20	1, 1,42,12, 7	8,56
34″	14, 4, 2, 4,47,13, 4,25,51,58	2, 2, 9,39,28, 8,22,17	1, 1,42,21, 3	8,56
36″	14, 4, 4, 6,56,52,32,34,14,15	2, 2, 9,38,26,25,52,18	1, 1,42,29,59	8,56
38″	14, 4, 6, 9, 6,30,59, 0, 6,33	2, 2, 9,37,24,43,13,23	1, 1,42,38,55	8,56
40″	14, 4, 8,11,16, 8,23,43,19,56	2, 2, 9,36,23, 0,25,32	1, 1,42,47,51	8,56
42″	14, 4,10,13,25,44,46,43,45,28	2, 2, 9,35,21,17,28,45	1, 1,42,56,47	8,56
44″	14, 4,12,15,35,20, 8, 1,14,13	2, 2, 9,34,19,34,23, 2	1, 1,43, 5,43	8,56
46″	14, 4,14,17,44,54,27,35,37,15	2, 2, 9,33,17,51, 8,23	1, 1,43,14,39	8,56
48″	14, 4,16,19,54,27,45,26,45,38	2, 2, 9,32,16, 7,44,48	1, 1,43,23,35	8,56
50″	14, 4,18,22, 4, 0, 1,34,30,26	2, 2, 9,31,14,24,12,17	1, 1,43,32,31	8,56
52″	14, 4,20,24,13,31,15,58,42,43	2, 2, 9,30,12,40,30,50	1, 1,43,41,27	8,56
54″	14, 4,22,26,23, 1,28,39,13,33	2, 2, 9,29,10,56,40,27	1, 1,43,50,23	8,56
56″	14, 4,24,28,32,30,39,35,54, 0	2, 2, 9,28, 9,12,41, 8	1, 1,43,59,19	8,56
58″	14, 4,26,30,41,58,48,48,35, 8	2, 2, 9,27, 7,28,32,53	1, 1,44, 8,15	
60″	14, 4,28,32,51,25,56,17, 8, 1			
exact	14, 4,28,32,51,25,56,17,14,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°34′ 0″	14, 4,28,32,51,25,56,17,14,46	2, 2, 9,26, 5,44,16,32		
2″	14, 4,30,35, 0,52, 2, 1,31,18	2, 2, 9,25, 3,59,50,29	1, 1,44,26, 3	8,56
4″	14, 4,32,37,10,17, 6, 1,21,47	2, 2, 9,24, 2,15,15,30	1, 1,44,34,59	8,56
6″	14, 4,34,39,19,41, 8,16,37,17	2, 2, 9,23, 0,30,31,35	1, 1,44,43,55	8,56
8″	14, 4,36,41,29, 4, 8,47, 8,52	2, 2, 9,21,58,45,38,44	1, 1,44,52,51	8,56
10″	14, 4,38,43,38,26, 7,32,47,36	2, 2, 9,20,57, 0,36,57	1, 1,45, 1,47	8,56
12″	14, 4,40,45,47,47, 4,33,24,33	2, 2, 9,19,55,15,26,14	1, 1,45,10,43	8,56
14″	14, 4,42,47,57, 6,59,48,50,47	2, 2, 9,18,53,30, 6,35	1, 1,45,19,39	8,56
16″	14, 4,44,50, 6,25,53,18,57,22	2, 2, 9,17,51,44,38, 0	1, 1,45,28,35	8,56
18″	14, 4,46,52,15,43,45, 3,35,22	2, 2, 9,16,49,59, 0,29	1, 1,45,37,31	8,56
20″	14, 4,48,54,25, 0,35, 2,35,51	2, 2, 9,15,48,13,14, 2	1, 1,45,46,27	8,56
22″	14, 4,50,56,34,16,23,15,49,53	2, 2, 9,14,46,27,18,39	1, 1,45,55,23	8,56
24″	14, 4,52,58,43,31, 9,43, 8,32	2, 2, 9,13,44,41,14,20	1, 1,46, 4,19	8,56
26″	14, 4,55, 0,52,44,54,24,22,52	2, 2, 9,12,42,55, 1, 5	1, 1,46,13,15	8,56
28″	14, 4,57, 3, 1,57,37,19,23,57	2, 2, 9,11,41, 8,38,54	1, 1,46,22,11	8,56
30″	14, 4,59, 5,11, 9,18,28, 2,51	2, 2, 9,10,39,22, 7,47	1, 1,46,31, 7	8,56
32″	14, 5, 1, 7,20,19,57,50,10,38	2, 2, 9, 9,37,35,27,44	1, 1,46,40, 3	8,56
34″	14, 5, 3, 9,29,29,35,25,38,22	2, 2, 9, 8,35,48,38,45	1, 1,46,48,59	8,56
36″	14, 5, 5,11,38,38,11,14,17, 7	2, 2, 9, 7,34, 1,40,50	1, 1,46,57,55	8,56
38″	14, 5, 7,13,47,45,45,15,57,57	2, 2, 9, 6,32,14,33,59	1, 1,47, 6,51	8,56
40″	14, 5, 9,15,56,52,17,30,31,56	2, 2, 9, 5,30,27,18,12	1, 1,47,15,47	8,56
42″	14, 5,11,18, 5,57,47,57,50, 8	2, 2, 9, 4,28,39,53,29	1, 1,47,24,43	8,56
44″	14, 5,13,20,15, 2,16,37,43,37	2, 2, 9, 3,26,52,19,50	1, 1,47,33,39	8,56
46″	14, 5,15,22,24, 5,43,30, 3,27	2, 2, 9, 2,25, 4,37,15	1, 1,47,42,35	8,56
48″	14, 5,17,24,33, 8, 8,34,40,42	2, 2, 9, 1,23,16,45,44	1, 1,47,51,31	8,56
50″	14, 5,19,26,42, 9,31,51,26,26	2, 2, 9, 0,21,28,45,17	1, 1,48, 0,27	8,56
52″	14, 5,21,28,51, 9,53,20,11,43	2, 2, 8,59,19,40,35,54	1, 1,48, 9,23	8,56
54″	14, 5,23,31, 0, 9,13, 0,47,37	2, 2, 8,58,17,52,17,35	1, 1,48,18,19	8,56
56″	14, 5,25,33, 9, 7,30,53, 5,12	2, 2, 8,57,16, 3,50,20	1, 1,48,27,15	8,56
58″	14, 5,27,35,18, 4,46,56,55,32	2, 2, 8,56,14,15,14, 9	1, 1,48,36,11	
60″	14, 5,29,37,27, 1, 1,12, 9,41			
exact	14, 5,29,37,27, 1, 1,12,20,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°35′ 0″	14, 5,29,37,27, 1, 1,12,20,35	2, 2, 8,55,12,26,30,15		
2″	14, 5,31,39,35,56,13,38,50,50	2, 2, 8,54,10,37,36,17	1, 1,48,53,58	8,56
4″	14, 5,33,41,44,50,24,16,27, 7	2, 2, 8,53, 8,48,33,23	1, 1,49, 2,54	8,56
6″	14, 5,35,43,53,43,33, 5, 0,30	2, 2, 8,52, 6,59,21,33	1, 1,49,11,50	8,56
8″	14, 5,37,46, 2,35,40, 4,22, 3	2, 2, 8,51, 5,10, 0,47	1, 1,49,20,46	8,56
10″	14, 5,39,48,11,26,45,14,22,50	2, 2, 8,50, 3,20,31, 5	1, 1,49,29,42	8,56
12″	14, 5,41,50,20,16,48,34,53,55	2, 2, 8,49, 1,30,52,27	1, 1,49,38,38	8,56
14″	14, 5,43,52,29, 5,50, 5,46,22	2, 2, 8,47,59,41, 4,53	1, 1,49,47,34	8,56
16″	14, 5,45,54,37,53,49,46,51,15	2, 2, 8,46,57,51, 8,23	1, 1,49,56,30	8,56
18″	14, 5,47,56,46,40,47,37,59,38	2, 2, 8,45,56, 1, 2,57	1, 1,50, 5,26	8,56
20″	14, 5,49,58,55,26,43,39, 2,35	2, 2, 8,44,54,10,48,35	1, 1,50,14,22	8,56
22″	14, 5,52, 1, 4,11,37,49,51,10	2, 2, 8,43,52,20,25,17	1, 1,50,23,18	8,56
24″	14, 5,54, 3,12,55,30,10,16,27	2, 2, 8,42,50,29,53, 3	1, 1,50,32,14	8,56
26″	14, 5,56, 5,21,38,20,40, 9,30	2, 2, 8,41,48,39,11,53	1, 1,50,41,10	8,56
28″	14, 5,58, 7,30,20, 9,19,21,23	2, 2, 8,40,46,48,21,47	1, 1,50,50, 6	8,56
30″	14, 6, 0, 9,39, 0,56, 7,43,10	2, 2, 8,39,44,57,22,45	1, 1,50,59, 2	8,56
32″	14, 6, 2,11,47,40,41, 5, 5,55	2, 2, 8,38,43, 6,14,47	1, 1,51, 7,58	8,56
34″	14, 6, 4,13,56,19,24,11,20,42	2, 2, 8,37,41,14,57,53	1, 1,51,16,54	8,56
36″	14, 6, 6,16, 4,57, 5,26,18,35	2, 2, 8,36,39,23,32, 3	1, 1,51,25,50	8,56
38″	14, 6, 8,18,13,33,44,49,50,38	2, 2, 8,35,37,31,57,17	1, 1,51,34,46	8,56
40″	14, 6,10,20,22, 9,22,21,47,55	2, 2, 8,34,35,40,13,35	1, 1,51,43,42	8,56
42″	14, 6,12,22,30,43,58, 2, 1,30	2, 2, 8,33,33,48,20,57	1, 1,51,52,38	8,56
44″	14, 6,14,24,39,17,31,50,22,27	2, 2, 8,32,31,56,19,23	1, 1,52, 1,34	8,56
46″	14, 6,16,26,47,50, 3,46,41,50	2, 2, 8,31,30, 4, 8,53	1, 1,52,10,30	8,56
48″	14, 6,18,28,56,21,33,50,50,43	2, 2, 8,30,28,11,49,27	1, 1,52,19,26	8,56
50″	14, 6,20,31, 4,52, 2, 2,40,10	2, 2, 8,29,26,19,21, 5	1, 1,52,28,22	8,56
52″	14, 6,22,33,13,21,28,22, 1,15	2, 2, 8,28,24,26,43,47	1, 1,52,37,18	8,56
54″	14, 6,24,35,21,49,52,48,45, 2	2, 2, 8,27,22,33,57,33	1, 1,52,46,14	8,56
56″	14, 6,26,37,30,17,15,22,42,35	2, 2, 8,26,20,41, 2,23	1, 1,52,55,10	8,56
58″	14, 6,28,39,38,43,36, 3,44,58	2, 2, 8,25,18,47,58,17	1, 1,53, 4, 6	
60″	14, 6,30,41,47, 8,54,51,43,15			
exact	14, 6,30,41,47, 8,54,51,59, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°36′ 0″	14, 6,30,41,47, 8,54,51,59, 2			
		2, 2, 8,24,16,54,46,54		
2″	14, 6,32,43,55,33,11,46,45,56		1, 1,53,21,51	
		2, 2, 8,23,15, 1,25, 3		8,56
4″	14, 6,34,46, 3,56,26,48,10,59		1, 1,53,30,47	
		2, 2, 8,22,13, 7,54,16		8,56
6″	14, 6,36,48,12,18,39,56, 5,15		1, 1,53,39,43	
		2, 2, 8,21,11,14,14,33		8,56
8″	14, 6,38,50,20,39,51,10,19,48		1, 1,53,48,39	
		2, 2, 8,20, 9,20,25,54		8,56
10″	14, 6,40,52,29, 0, 0,30,45,42		1, 1,53,57,35	
		2, 2, 8,19, 7,26,28,19		8,56
12″	14, 6,42,54,37,19, 7,57,14, 1		1, 1,54, 6,31	
		2, 2, 8,18, 5,32,21,48		8,56
14″	14, 6,44,56,45,37,13,29,35,49		1, 1,54,15,27	
		2, 2, 8,17, 3,38, 6,21		8,56
16″	14, 6,46,58,53,54,17, 7,42,10		1, 1,54,24,23	
		2, 2, 8,16, 1,43,41,58		8,56
18″	14, 6,49, 1, 2,10,18,51,24, 8		1, 1,54,33,19	
		2, 2, 8,14,59,49, 8,39		8,56
20″	14, 6,51, 3,10,25,18,40,32,47		1, 1,54,42,15	
		2, 2, 8,13,57,54,26,24		8,56
22″	14, 6,53, 5,18,39,16,34,59,11		1, 1,54,51,11	
		2, 2, 8,12,55,59,35,13		8,56
24″	14, 6,55, 7,26,52,12,34,34,24		1, 1,55, 0, 7	
		2, 2, 8,11,54, 4,35, 6		8,56
26″	14, 6,57, 9,35, 4, 6,39, 9,30		1, 1,55, 9, 3	
		2, 2, 8,10,52, 9,26, 3		8,56
28″	14, 6,59,11,43,14,58,48,35,33		1, 1,55,17,59	
		2, 2, 8, 9,50,14, 8, 4		8,56
30″	14, 7, 1,13,51,24,49, 2,43,37		1, 1,55,26,55	
		2, 2, 8, 8,48,18,41, 9		8,56
32″	14, 7, 3,15,59,33,37,21,24,46		1, 1,55,35,51	
		2, 2, 8, 7,46,23, 5,18		8,56
34″	14, 7, 5,18, 7,41,23,44,30, 4		1, 1,55,44,47	
		2, 2, 8, 6,44,27,20,31		8,56
36″	14, 7, 7,20,15,48, 8,11,50,35		1, 1,55,53,43	
		2, 2, 8, 5,42,31,26,48		8,56
38″	14, 7, 9,22,23,53,50,43,17,23		1, 1,56, 2,39	
		2, 2, 8, 4,40,35,24, 9		8,56
40″	14, 7,11,24,31,58,31,18,41,32		1, 1,56,11,35	
		2, 2, 8, 3,38,39,12,34		8,56
42″	14, 7,13,26,40, 2, 9,57,54, 6		1, 1,56,20,31	
		2, 2, 8, 2,36,42,52, 3		8,56
44″	14, 7,15,28,48, 4,46,40,46, 9		1, 1,56,29,27	
		2, 2, 8, 1,34,46,22,36		8,56
46″	14, 7,17,30,56, 6,21,27, 8,45		1, 1,56,38,23	
		2, 2, 8, 0,32,49,44,13		8,56
48″	14, 7,19,33, 4, 6,54,16,52,58		1, 1,56,47,19	
		2, 2, 7,59,30,52,56,54		8,56
50″	14, 7,21,35,12, 6,25, 9,49,52		1, 1,56,56,15	
		2, 2, 7,58,28,56, 0,39		8,56
52″	14, 7,23,37,20, 4,54, 5,50,31		1, 1,57, 5,11	
		2, 2, 7,57,26,58,55,28		8,56
54″	14, 7,25,39,28, 2,21, 4,45,59		1, 1,57,14, 7	
		2, 2, 7,56,25, 1,41,21		8,56
56″	14, 7,27,41,35,58,46, 6,27,20		1, 1,57,23, 3	
		2, 2, 7,55,23, 4,18,18		8,56
58″	14, 7,29,43,43,54, 9,10,45,38		1, 1,57,31,59	
		2, 2, 7,54,21, 6,46,19		
60″	14, 7,31,45,51,48,30,17,31,57			
exact	14, 7,31,45,51,48,30,17,46,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°37′ 0″	14, 7,31,45,51,48,30,17,46,29			
		2, 2, 7,53,19, 9, 7, 3		
2″	14, 7,33,47,59,41,49,26,53,32		1, 1,57,49,44	
		2, 2, 7,52,17,11,17,19		8,56
4″	14, 7,35,50, 7,34, 6,38,10,51		1, 1,57,58,40	
		2, 2, 7,51,15,13,18,39		8,56
6″	14, 7,37,52,15,25,21,51,29,30		1, 1,58, 7,36	
		2, 2, 7,50,13,15,11, 3		8,56
8″	14, 7,39,54,23,15,35, 6,40,33		1, 1,58,16,32	
		2, 2, 7,49,11,16,54,31		8,56
10″	14, 7,41,56,31, 4,46,23,35, 4		1, 1,58,25,28	
		2, 2, 7,48, 9,18,29, 3		8,56
12″	14, 7,43,58,38,52,55,42, 4, 7		1, 1,58,34,24	
		2, 2, 7,47, 7,19,54,39		8,56
14″	14, 7,46, 0,46,40, 3, 1,58,46		1, 1,58,43,20	
		2, 2, 7,46, 5,21,11,19		8,56
16″	14, 7,48, 2,54,26, 8,23,10, 5		1, 1,58,52,16	
		2, 2, 7,45, 3,22,19, 3		8,56
18″	14, 7,50, 5, 2,11,11,45,29, 8		1, 1,59, 1,12	
		2, 2, 7,44, 1,23,17,51		8,56
20″	14, 7,52, 7, 9,55,13, 8,46,59		1, 1,59,10, 8	
		2, 2, 7,42,59,24, 7,43		8,56
22″	14, 7,54, 9,17,38,12,32,54,42		1, 1,59,19, 4	
		2, 2, 7,41,57,24,48,39		8,56
24″	14, 7,56,11,25,20, 9,57,43,21		1, 1,59,28, 0	
		2, 2, 7,40,55,25,20,39		8,56
26″	14, 7,58,13,33, 1, 5,23, 4, 0		1, 1,59,36,56	
		2, 2, 7,39,53,25,43,43		8,56
28″	14, 8, 0,15,40,40,58,48,47,43		1, 1,59,45,52	
		2, 2, 7,38,51,25,57,51		8,56
30″	14, 8, 2,17,48,19,50,14,45,34		1, 1,59,54,48	
		2, 2, 7,37,49,26, 3, 3		8,56
32″	14, 8, 4,19,55,57,39,40,48,37		1, 2, 0, 3,44	
		2, 2, 7,36,47,25,59,19		8,56
34″	14, 8, 6,22, 3,34,27, 6,47,56		1, 2, 0,12,40	
		2, 2, 7,35,45,25,46,39		8,56
36″	14, 8, 8,24,11,10,12,32,34,35		1, 2, 0,21,36	
		2, 2, 7,34,43,25,25, 3		8,56
38″	14, 8,10,26,18,44,55,57,59,38		1, 2, 0,30,32	
		2, 2, 7,33,41,24,54,31		8,56
40″	14, 8,12,28,26,18,37,22,54, 9		1, 2, 0,39,28	
		2, 2, 7,32,39,24,15, 3		8,56
42″	14, 8,14,30,33,51,16,47, 9,12		1, 2, 0,48,24	
		2, 2, 7,31,37,23,26,39		8,56
44″	14, 8,16,32,41,22,54,10,35,51		1, 2, 0,57,20	
		2, 2, 7,30,35,22,29,19		8,56
46″	14, 8,18,34,48,53,29,33, 5,10		1, 2, 1, 6,16	
		2, 2, 7,29,33,21,23, 3		8,56
48″	14, 8,20,36,56,23, 2,54,28,13		1, 2, 1,15,12	
		2, 2, 7,28,31,20, 7,51		8,56
50″	14, 8,22,39, 3,51,34,14,36, 4		1, 2, 1,24, 8	
		2, 2, 7,27,29,18,43,43		8,56
52″	14, 8,24,41,11,19, 3,33,19,47		1, 2, 1,33, 4	
		2, 2, 7,26,27,17,10,39		8,56
54″	14, 8,26,43,18,45,30,50,30,26		1, 2, 1,42, 0	
		2, 2, 7,25,25,15,28,39		8,56
56″	14, 8,28,45,26,10,56, 5,59, 5		1, 2, 1,50,56	
		2, 2, 7,24,23,13,37,43		8,56
58″	14, 8,30,47,33,35,19,19,36,48		1, 2, 1,59,52	
		2, 2, 7,23,21,11,37,51		
60″	14, 8,32,49,40,58,40,31,14,39			
exact	14, 8,32,49,40,58,40,31,36,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°38′ 0″	14, 8,32,49,40,58,40,31,36,18	2, 2, 7,22,19, 9,31,17		
2″	14, 8,34,51,48,20,59,41, 7,35	2, 2, 7,21,17, 7,13,42	1, 2, 2,17,35	8,56
4″	14, 8,36,53,55,42,16,48,21,17	2, 2, 7,20,15, 4,47,11	1, 2, 2,26,31	8,56
6″	14, 8,38,56, 3, 2,31,53, 8,28	2, 2, 7,19,13, 2,11,44	1, 2, 2,35,27	8,56
8″	14, 8,40,58,10,21,44,55,20,12	2, 2, 7,18,10,59,27,21	1, 2, 2,44,23	8,56
10″	14, 8,43, 0,17,39,55,54,47,33	2, 2, 7,17, 8,56,34, 2	1, 2, 2,53,19	8,56
12″	14, 8,45, 2,24,57, 4,51,21,35	2, 2, 7,16, 6,53,31,47	1, 2, 3, 2,15	8,56
14″	14, 8,47, 4,32,13,11,44,53,22	2, 2, 7,15, 4,50,20,36	1, 2, 3,11,11	8,56
16″	14, 8,49, 6,39,28,16,35,13,58	2, 2, 7,14, 2,47, 0,29	1, 2, 3,20, 7	8,56
18″	14, 8,51, 8,46,42,19,22,14,27	2, 2, 7,13, 0,43,31,26	1, 2, 3,29, 3	8,56
20″	14, 8,53,10,53,55,20, 5,45,53	2, 2, 7,11,58,39,53,27	1, 2, 3,37,59	8,56
22″	14, 8,55,13, 1, 7,18,45,39,20	2, 2, 7,10,56,36, 6,32	1, 2, 3,46,55	8,56
24″	14, 8,57,15, 8,18,15,21,45,52	2, 2, 7, 9,54,32,10,41	1, 2, 3,55,51	8,56
26″	14, 8,59,17,15,28, 9,53,56,33	2, 2, 7, 8,52,28, 5,54	1, 2, 4, 4,47	8,56
28″	14, 9, 1,19,22,37, 2,22, 2,27	2, 2, 7, 7,50,23,52,11	1, 2, 4,13,43	8,56
30″	14, 9, 3,21,29,44,52,45,54,38	2, 2, 7, 6,48,19,29,32	1, 2, 4,22,39	8,56
32″	14, 9, 5,23,36,51,41, 5,24,10	2, 2, 7, 5,46,14,57,57	1, 2, 4,31,35	8,56
34″	14, 9, 7,25,43,57,27,20,22, 7	2, 2, 7, 4,44,10,17,26	1, 2, 4,40,31	8,56
36″	14, 9, 9,27,51, 2,11,30,39,33	2, 2, 7, 3,42, 5,27,59	1, 2, 4,49,27	8,56
38″	14, 9,11,29,58, 5,53,36, 7,32	2, 2, 7, 2,40, 0,29,36	1, 2, 4,58,23	8,56
40″	14, 9,13,32, 5, 8,33,36,37, 8	2, 2, 7, 1,37,55,22,17	1, 2, 5, 7,19	8,56
42″	14, 9,15,34,12,10,11,31,59,25	2, 2, 7, 0,35,50, 6, 2	1, 2, 5,16,15	8,56
44″	14, 9,17,36,19,10,47,22, 5,27	2, 2, 6,59,33,44,40,51	1, 2, 5,25,11	8,56
46″	14, 9,19,38,26,10,21, 6,46,18	2, 2, 6,58,31,39, 6,44	1, 2, 5,34, 7	8,56
48″	14, 9,21,40,33, 8,52,45,53, 2	2, 2, 6,57,29,33,23,41	1, 2, 5,43, 3	8,56
50″	14, 9,23,42,40, 6,22,19,16,43	2, 2, 6,56,27,27,31,42	1, 2, 5,51,59	8,56
52″	14, 9,25,44,47, 2,49,46,48,25	2, 2, 6,55,25,21,30,47	1, 2, 6, 0,55	8,56
54″	14, 9,27,46,53,58,15, 8,19,12	2, 2, 6,54,23,15,20,56	1, 2, 6, 9,51	8,56
56″	14, 9,29,49, 0,52,38,23,40, 8	2, 2, 6,53,21, 9, 2, 9	1, 2, 6,18,47	8,56
58″	14, 9,31,51, 7,45,59,32,42,17	2, 2, 6,52,19, 2,34,26	1, 2, 6,27,43	
60″	14, 9,33,53,14,38,18,35,16,43			
exact	14, 9,33,53,14,38,18,35,38,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°39′ 0″	14, 9,33,53,14,38,18,35,38,49	2, 2, 6,51,16,56, 0, 9		
2″	14, 9,35,55,21,29,35,31,38,58	2, 2, 6,50,14,49,14,44	1, 2, 6,45,25	8,56
4″	14, 9,37,57,28,19,50,20,53,42	2, 2, 6,49,12,42,20,23	1, 2, 6,54,21	8,56
6″	14, 9,39,59,35, 9, 3, 3,14, 5	2, 2, 6,48,10,35,17, 6	1, 2, 7, 3,17	8,56
8″	14, 9,42, 1,41,57,13,38,31,11	2, 2, 6,47, 8,28, 4,53	1, 2, 7,12,13	8,56
10″	14, 9,44, 3,48,44,22, 6,36, 4	2, 2, 6,46, 6,20,43,44	1, 2, 7,21, 9	8,56
12″	14, 9,46, 5,55,30,28,27,19,48	2, 2, 6,45, 4,13,13,39	1, 2, 7,30, 5	8,56
14″	14, 9,48, 8, 2,15,32,40,33,27	2, 2, 6,44, 2, 5,34,38	1, 2, 7,39, 1	8,56
16″	14, 9,50,10, 8,59,34,46, 8, 5	2, 2, 6,42,59,57,46,41	1, 2, 7,47,57	8,56
18″	14, 9,52,12,15,42,34,43,54,46	2, 2, 6,41,57,49,49,48	1, 2, 7,56,53	8,56
20″	14, 9,54,14,22,24,32,33,44,34	2, 2, 6,40,55,41,43,59	1, 2, 8, 5,49	8,56
22″	14, 9,56,16,29, 5,28,15,28,33	2, 2, 6,39,53,33,29,14	1, 2, 8,14,45	8,56
24″	14, 9,58,18,35,45,21,48,57,47	2, 2, 6,38,51,25, 5,33	1, 2, 8,23,41	8,56
26″	14,10, 0,20,42,24,13,14, 3,20	2, 2, 6,37,49,16,32,56	1, 2, 8,32,37	8,56
28″	14,10, 2,22,49, 2, 2,30,36,16	2, 2, 6,36,47, 7,51,23	1, 2, 8,41,33	8,56
30″	14,10, 4,24,55,38,49,38,27,39	2, 2, 6,35,44,59, 0,54	1, 2, 8,50,29	8,56
32″	14,10, 6,27, 2,14,34,37,28,33	2, 2, 6,34,42,50, 1,29	1, 2, 8,59,25	8,56
34″	14,10, 8,29, 8,49,17,27,30, 2	2, 2, 6,33,40,40,53, 8	1, 2, 9, 8,21	8,56
36″	14,10,10,31,15,22,58, 8,23,10	2, 2, 6,32,38,31,35,51	1, 2, 9,17,17	8,56
38″	14,10,12,33,21,55,36,39,59, 1	2, 2, 6,31,36,22, 9,38	1, 2, 9,26,13	8,56
40″	14,10,14,35,28,27,13, 2, 8,39	2, 2, 6,30,34,12,34,29	1, 2, 9,35, 9	8,56
42″	14,10,16,37,34,57,47,14,43, 8	2, 2, 6,29,32, 2,50,24	1, 2, 9,44, 5	8,56
44″	14,10,18,39,41,27,19,17,33,32	2, 2, 6,28,29,52,57,23	1, 2, 9,53, 1	8,56
46″	14,10,20,41,47,55,49,10,30,55	2, 2, 6,27,27,42,55,26	1, 2,10, 1,57	8,56
48″	14,10,22,43,54,23,16,53,26,21	2, 2, 6,26,25,32,44,33	1, 2,10,10,53	8,56
50″	14,10,24,46, 0,49,42,26,10,54	2, 2, 6,25,23,22,24,44	1, 2,10,19,49	8,56
52″	14,10,26,48, 7,15, 5,48,35,38	2, 2, 6,24,21,11,55,59	1, 2,10,28,45	8,56
54″	14,10,28,50,13,39,27, 0,31,37	2, 2, 6,23,19, 1,18,18	1, 2,10,37,41	8,56
56″	14,10,30,52,20, 2,46, 1,49,55	2, 2, 6,22,16,50,31,41	1, 2,10,46,37	8,56
58″	14,10,32,54,26,25, 2,52,21,36	2, 2, 6,21,14,39,36, 8	1, 2,10,55,33	
60″	14,10,34,56,32,46,17,31,57,44			
exact	14,10,34,56,32,46,17,32,21,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°40′ 0″	14,10,34,56,32,46,17,32,21,22	2, 2, 6,20,12,28,34,13		
2″	14,10,36,58,39, 6,30, 0,55,35	2, 2, 6,19,10,17,20,59	1, 2,11,13,14	8,56
4″	14,10,39, 0,45,25,40,18,16,34	2, 2, 6,18, 8, 5,58,49	1, 2,11,22,10	8,56
6″	14,10,41, 2,51,43,48,24,15,23	2, 2, 6,17, 5,54,27,43	1, 2,11,31, 6	8,56
8″	14,10,43, 4,58, 0,54,18,43, 6	2, 2, 6,16, 3,42,47,41	1, 2,11,40, 2	8,56
10″	14,10,45, 7, 4,16,58, 1,30,47	2, 2, 6,15, 1,30,58,43	1, 2,11,48,58	8,56
12″	14,10,47, 9,10,31,59,32,29,30	2, 2, 6,13,59,19, 0,49	1, 2,11,57,54	8,56
14″	14,10,49,11,16,45,58,51,30,19	2, 2, 6,12,57, 6,53,59	1, 2,12, 6,50	8,56
16″	14,10,51,13,22,58,55,58,24,18	2, 2, 6,11,54,54,38,13	1, 2,12,15,46	8,56
18″	14,10,53,15,29,10,50,53, 2,31	2, 2, 6,10,52,42,13,31	1, 2,12,24,42	8,56
20″	14,10,55,17,35,21,43,35,16, 2	2, 2, 6, 9,50,29,39,53	1, 2,12,33,38	8,56
22″	14,10,57,19,41,31,34, 4,55,55	2, 2, 6, 8,48,16,57,19	1, 2,12,42,34	8,56
24″	14,10,59,21,47,40,22,21,53,14	2, 2, 6, 7,46, 4, 5,49	1, 2,12,51,30	8,56
26″	14,11, 1,23,53,48, 8,25,59, 3	2, 2, 6, 6,43,51, 5,23	1, 2,13, 0,26	8,56
28″	14,11, 3,25,59,54,52,17, 4,26	2, 2, 6, 5,41,37,56, 1	1, 2,13, 9,22	8,56
30″	14,11, 5,28, 6, 0,33,55, 0,27	2, 2, 6, 4,39,24,37,43	1, 2,13,18,18	8,56
32″	14,11, 7,30,12, 5,13,19,38,10	2, 2, 6, 3,37,11,10,29	1, 2,13,27,14	8,56
34″	14,11, 9,32,18, 8,50,30,48,39	2, 2, 6, 2,34,57,34,19	1, 2,13,36,10	8,56
36″	14,11,11,34,24,11,25,28,22,58	2, 2, 6, 1,32,43,49,13	1, 2,13,45, 6	8,56
38″	14,11,13,36,30,12,58,12,12,11	2, 2, 6, 0,30,29,55,11	1, 2,13,54, 2	8,56
40″	14,11,15,38,36,13,28,42, 7,22	2, 2, 5,59,28,15,52,13	1, 2,14, 2,58	8,56
42″	14,11,17,40,42,12,56,57,59,35	2, 2, 5,58,26, 1,40,19	1, 2,14,11,54	8,56
44″	14,11,19,42,48,11,22,59,39,54	2, 2, 5,57,23,47,19,29	1, 2,14,20,50	8,56
46″	14,11,21,44,54, 8,46,46,59,23	2, 2, 5,56,21,32,49,43	1, 2,14,29,46	8,56
48″	14,11,23,47, 0, 5, 8,19,49, 6	2, 2, 5,55,19,18,11, 1	1, 2,14,38,42	8,56
50″	14,11,25,49, 6, 0,27,38, 0, 7	2, 2, 5,54,17, 3,23,23	1, 2,14,47,38	8,56
52″	14,11,27,51,11,54,44,41,23,30	2, 2, 5,53,14,48,26,49	1, 2,14,56,34	8,56
54″	14,11,29,53,17,47,59,29,50,19	2, 2, 5,52,12,33,21,19	1, 2,15, 5,30	8,56
56″	14,11,31,55,23,40,12, 3,11,38	2, 2, 5,51,10,18, 6,53	1, 2,15,14,26	8,56
58″	14,11,33,57,29,31,22,21,18,31	2, 2, 5,50, 8, 2,43,31	1, 2,15,23,22	
60″	14,11,35,59,35,21,30,24, 2, 2			
exact	14,11,35,59,35,21,30,24,28,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°41′ 0″	14,11,35,59,35,21,30,24,28,22	2, 2, 5,49, 5,47,14, 4		
2″	14,11,38, 1,41,10,36,11,42,26	2, 2, 5,48, 3,31,33, 2	1, 2,15,41, 2	8,56
4″	14,11,40, 3,46,58,39,43,15,28	2, 2, 5,47, 1,15,43, 4	1, 2,15,49,58	8,56
6″	14,11,42, 5,52,45,40,58,58,32	2, 2, 5,45,58,59,44,10	1, 2,15,58,54	8,56
8″	14,11,44, 7,58,31,39,58,42,42	2, 2, 5,44,56,43,36,20	1, 2,16, 7,50	8,56
10″	14,11,46,10, 4,16,36,42,19, 2	2, 2, 5,43,54,27,19,34	1, 2,16,16,46	8,56
12″	14,11,48,12,10, 0,31, 9,38,36	2, 2, 5,42,52,10,53,52	1, 2,16,25,42	8,56
14″	14,11,50,14,15,43,23,20,32,28	2, 2, 5,41,49,54,19,14	1, 2,16,34,38	8,56
16″	14,11,52,16,21,25,13,14,51,42	2, 2, 5,40,47,37,35,40	1, 2,16,43,34	8,56
18″	14,11,54,18,27, 6, 0,52,27,22	2, 2, 5,39,45,20,43,10	1, 2,16,52,30	8,56
20″	14,11,56,20,32,45,46,13,10,32	2, 2, 5,38,43, 3,41,44	1, 2,17, 1,26	8,56
22″	14,11,58,22,38,24,29,16,52,16	2, 2, 5,37,40,46,31,22	1, 2,17,10,22	8,56
24″	14,12, 0,24,44, 2,10, 3,23,38	2, 2, 5,36,38,29,12, 4	1, 2,17,19,18	8,56
26″	14,12, 2,26,49,38,48,32,35,42	2, 2, 5,35,36,11,43,50	1, 2,17,28,14	8,56
28″	14,12, 4,28,55,14,24,44,19,32	2, 2, 5,34,33,54, 6,40	1, 2,17,37,10	8,56
30″	14,12, 6,31, 0,48,58,38,26,12	2, 2, 5,33,31,36,20,34	1, 2,17,46, 6	8,56
32″	14,12, 8,33, 6,22,30,14,46,46	2, 2, 5,32,29,18,25,32	1, 2,17,55, 2	8,56
34″	14,12,10,35,11,54,59,33,12,18	2, 2, 5,31,27, 0,21,34	1, 2,18, 3,58	8,56
36″	14,12,12,37,17,26,26,33,33,52	2, 2, 5,30,24,42, 8,40	1, 2,18,12,54	8,56
38″	14,12,14,39,22,56,51,15,42,32	2, 2, 5,29,22,23,46,50	1, 2,18,21,50	8,56
40″	14,12,16,41,28,26,13,39,29,22	2, 2, 5,28,20, 5,16, 4	1, 2,18,30,46	8,56
42″	14,12,18,43,33,54,33,44,45,26	2, 2, 5,27,17,46,36,22	1, 2,18,39,42	8,56
44″	14,12,20,45,39,21,51,31,21,48	2, 2, 5,26,15,27,47,44	1, 2,18,48,38	8,56
46″	14,12,22,47,44,48, 6,59, 9,32	2, 2, 5,25,13, 8,50,10	1, 2,18,57,34	8,56
48″	14,12,24,49,50,13,20, 7,59,42	2, 2, 5,24,10,49,43,40	1, 2,19, 6,30	8,56
50″	14,12,26,51,55,37,30,57,43,22	2, 2, 5,23, 8,30,28,14	1, 2,19,15,26	8,56
52″	14,12,28,54, 1, 0,39,28,11,36	2, 2, 5,22, 6,11, 3,52	1, 2,19,24,22	8,56
54″	14,12,30,56, 6,22,45,39,15,28	2, 2, 5,21, 3,51,30,34	1, 2,19,33,18	8,56
56″	14,12,32,58,11,43,49,30,46, 2	2, 2, 5,20, 1,31,48,20	1, 2,19,42,14	8,56
58″	14,12,35, 0,17, 3,51, 2,34,22	2, 2, 5,18,59,11,57,10	1, 2,19,51,10	
60″	14,12,37, 2,22,22,50,14,31,32			
exact	14,12,37, 2,22,22,50,15, 1,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°42′ 0″	14,12,37, 2,22,22,50,15, 1,13			
		2, 2, 5,17,56,52, 0,15		
2″	14,12,39, 4,27,40,47, 7, 1,28		1, 2,20, 8,49	
		2, 2, 5,16,54,31,51,26		8,56
4″	14,12,41, 6,32,57,41,38,52,54		1, 2,20,17,45	
		2, 2, 5,15,52,11,33,41		8,56
6″	14,12,43, 8,38,13,33,50,26,35		1, 2,20,26,41	
		2, 2, 5,14,49,51, 7, 0		8,56
8″	14,12,45,10,43,28,23,41,33,35		1, 2,20,35,37	
		2, 2, 5,13,47,30,31,23		8,56
10″	14,12,47,12,48,42,11,12, 4,58		1, 2,20,44,33	
		2, 2, 5,12,45, 9,46,50		8,56
12″	14,12,49,14,53,54,56,21,51,48		1, 2,20,53,29	
		2, 2, 5,11,42,48,53,21		8,56
14″	14,12,51,16,59, 6,39,10,45, 9		1, 2,21, 2,25	
		2, 2, 5,10,40,27,50,56		8,56
16″	14,12,53,19, 4,17,19,38,36, 5		1, 2,21,11,21	
		2, 2, 5, 9,38, 6,39,35		8,56
18″	14,12,55,21, 9,26,57,45,15,40		1, 2,21,20,17	
		2, 2, 5, 8,35,45,19,18		8,56
20″	14,12,57,23,14,35,33,30,34,58		1, 2,21,29,13	
		2, 2, 5, 7,33,23,50, 5		8,56
22″	14,12,59,25,19,43, 6,54,25, 3		1, 2,21,38, 9	
		2, 2, 5, 6,31, 2,11,56		8,56
24″	14,13, 1,27,24,49,37,56,36,59		1, 2,21,47, 5	
		2, 2, 5, 5,28,40,24,51		8,56
26″	14,13, 3,29,29,55, 6,37, 1,50		1, 2,21,56, 1	
		2, 2, 5, 4,26,18,28,50		8,56
28″	14,13, 5,31,34,59,32,55,30,40		1, 2,22, 4,57	
		2, 2, 5, 3,23,56,23,53		8,56
30″	14,13, 7,33,40, 2,56,51,54,33		1, 2,22,13,53	
		2, 2, 5, 2,21,34,10, 0		8,56
32″	14,13, 9,35,45, 5,18,26, 4,33		1, 2,22,22,49	
		2, 2, 5, 1,19,11,47,11		8,56
34″	14,13,11,37,50, 6,37,37,51,44		1, 2,22,31,45	
		2, 2, 5, 0,16,49,15,26		8,56
36″	14,13,13,39,55, 6,54,27, 7,10		1, 2,22,40,41	
		2, 2, 4,59,14,26,34,45		8,56
38″	14,13,15,42, 0, 6, 8,53,41,55		1, 2,22,49,37	
		2, 2, 4,58,12, 3,45, 8		8,56
40″	14,13,17,44, 5, 4,20,57,27, 3		1, 2,22,58,33	
		2, 2, 4,57, 9,40,46,35		8,56
42″	14,13,19,46,10, 1,30,38,13,38		1, 2,23, 7,29	
		2, 2, 4,56, 7,17,39, 6		8,56
44″	14,13,21,48,14,57,37,55,52,44		1, 2,23,16,25	
		2, 2, 4,55, 4,54,22,41		8,56
46″	14,13,23,50,19,52,42,50,15,25		1, 2,23,25,21	
		2, 2, 4,54, 2,30,57,20		8,56
48″	14,13,25,52,24,46,45,21,12,45		1, 2,23,34,17	
		2, 2, 4,53, 0, 7,23, 3		8,56
50″	14,13,27,54,29,39,45,28,35,48		1, 2,23,43,13	
		2, 2, 4,51,57,43,39,50		8,56
52″	14,13,29,56,34,31,43,12,15,38		1, 2,23,52, 9	
		2, 2, 4,50,55,19,47,41		8,56
54″	14,13,31,58,39,22,38,32, 3,19		1, 2,24, 1, 5	
		2, 2, 4,49,52,55,46,36		8,56
56″	14,13,34, 0,44,12,31,27,49,55		1, 2,24,10, 1	
		2, 2, 4,48,50,31,36,35		8,56
58″	14,13,36, 2,49, 1,21,59,26,30		1, 2,24,18,57	
		2, 2, 4,47,48, 7,17,38		
60″	14,13,38, 4,53,49,10, 6,44, 8			
exact	14,13,38, 4,53,49,10, 7,18,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°43′ 0″	14,13,38, 4,53,49,10, 7,18,24			
		2, 2, 4,46,45,42,53,21		
2″	14,13,40, 6,58,35,55,50,11,45		1, 2,24,36,34	
		2, 2, 4,45,43,18,16,47		8,56
4″	14,13,42, 9, 3,21,39, 8,28,32		1, 2,24,45,30	
		2, 2, 4,44,40,53,31,17		8,56
6″	14,13,44,11, 8, 6,20, 1,59,49		1, 2,24,54,26	
		2, 2, 4,43,38,28,36,51		8,56
8″	14,13,46,13,12,49,58,30,36,40		1, 2,25, 3,22	
		2, 2, 4,42,36, 3,33,29		8,56
10″	14,13,48,15,17,32,34,34,10, 9		1, 2,25,12,18	
		2, 2, 4,41,33,38,21,11		8,56
12″	14,13,50,17,22,14, 8,12,31,20		1, 2,25,21,14	
		2, 2, 4,40,31,12,59,57		8,56
14″	14,13,52,19,26,54,39,25,31,17		1, 2,25,30,10	
		2, 2, 4,39,28,47,29,47		8,56
16″	14,13,54,21,31,34, 8,13, 1, 4		1, 2,25,39, 6	
		2, 2, 4,38,26,21,50,41		8,56
18″	14,13,56,23,36,12,34,34,51,45		1, 2,25,48, 2	
		2, 2, 4,37,23,56, 2,39		8,56
20″	14,13,58,25,40,49,58,30,54,24		1, 2,25,56,58	
		2, 2, 4,36,21,30, 5,41		8,56
22″	14,14, 0,27,45,26,20, 1, 0, 5		1, 2,26, 5,54	
		2, 2, 4,35,19, 3,59,47		8,56
24″	14,14, 2,29,50, 1,39, 4,59,52		1, 2,26,14,50	
		2, 2, 4,34,16,37,44,57		8,56
26″	14,14, 4,31,54,35,55,42,44,49		1, 2,26,23,46	
		2, 2, 4,33,14,11,21,11		8,56
28″	14,14, 6,33,59, 9, 9,54, 6, 0		1, 2,26,32,42	
		2, 2, 4,32,11,44,48,29		8,56
30″	14,14, 8,36, 3,41,21,38,54,29		1, 2,26,41,38	
		2, 2, 4,31, 9,18, 6,51		8,56
32″	14,14,10,38, 8,12,30,57, 1,20		1, 2,26,50,34	
		2, 2, 4,30, 6,51,16,17		8,56
34″	14,14,12,40,12,42,37,48,17,37		1, 2,26,59,30	
		2, 2, 4,29, 4,24,16,47		8,56
36″	14,14,14,42,17,11,42,12,34,24		1, 2,27, 8,26	
		2, 2, 4,28, 1,57, 8,21		8,56
38″	14,14,16,44,21,39,44, 9,42,45		1, 2,27,17,22	
		2, 2, 4,26,59,29,50,59		8,56
40″	14,14,18,46,26, 6,43,39,33,44		1, 2,27,26,18	
		2, 2, 4,25,57, 2,24,41		8,56
42″	14,14,20,48,30,32,40,41,58,25		1, 2,27,35,14	
		2, 2, 4,24,54,34,49,27		8,56
44″	14,14,22,50,34,57,35,16,47,52		1, 2,27,44,10	
		2, 2, 4,23,52, 7, 5,17		8,56
46″	14,14,24,52,39,21,27,23,53, 9		1, 2,27,53, 6	
		2, 2, 4,22,49,39,12,11		8,56
48″	14,14,26,54,43,44,17, 3, 5,20		1, 2,28, 2, 2	
		2, 2, 4,21,47,11,10, 9		8,56
50″	14,14,28,56,48, 6, 4,14,15,29		1, 2,28,10,58	
		2, 2, 4,20,44,42,59,11		8,56
52″	14,14,30,58,52,26,48,57,14,40		1, 2,28,19,54	
		2, 2, 4,19,42,14,39,17		8,56
54″	14,14,33, 0,56,46,31,11,53,57		1, 2,28,28,50	
		2, 2, 4,18,39,46,10,27		8,56
56″	14,14,35, 3, 1, 5,10,58, 4,24		1, 2,28,37,46	
		2, 2, 4,17,37,17,32,41		8,56
58″	14,14,37, 5, 5,22,48,15,37, 5		1, 2,28,46,42	
		2, 2, 4,16,34,48,45,59		
60″	14,14,39, 7, 9,39,23, 4,23, 4			
exact	14,14,39, 7, 9,39,23, 4,55,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°44′ 0″	14,14,39, 7, 9,39,23, 4,55,32	2, 2, 4,15,32,19,53,56		
2″	14,14,41, 9,13,54,55,24,49,28	2, 2, 4,14,29,50,49,37	1, 2,29, 4,19	8,55
4″	14,14,43,11,18, 9,25,15,39, 5	2, 2, 4,13,27,21,36,23	1, 2,29,13,14	8,55
6″	14,14,45,13,22,22,52,37,15,28	2, 2, 4,12,24,52,14,14	1, 2,29,22, 9	8,55
8″	14,14,47,15,26,35,17,29,29,42	2, 2, 4,11,22,22,43,10	1, 2,29,31, 4	8,55
10″	14,14,49,17,30,46,39,52,12,52	2, 2, 4,10,19,53, 3,11	1, 2,29,39,59	8,55
12″	14,14,51,19,34,56,59,45,16, 3	2, 2, 4, 9,17,23,14,17	1, 2,29,48,54	8,55
14″	14,14,53,21,39, 6,17, 8,30,20	2, 2, 4, 8,14,53,16,28	1, 2,29,57,49	8,55
16″	14,14,55,23,43,14,32, 1,46,48	2, 2, 4, 7,12,23, 9,44	1, 2,30, 6,44	8,55
18″	14,14,57,25,47,21,44,24,56,32	2, 2, 4, 6, 9,52,54, 5	1, 2,30,15,39	8,55
20″	14,14,59,27,51,27,54,17,50,37	2, 2, 4, 5, 7,22,29,31	1, 2,30,24,34	8,55
22″	14,15, 1,29,55,33, 1,40,20, 8	2, 2, 4, 4, 4,51,56, 2	1, 2,30,33,29	8,55
24″	14,15, 3,31,59,37, 6,32,16,10	2, 2, 4, 3, 2,21,13,38	1, 2,30,42,24	8,55
26″	14,15, 5,34, 3,40, 8,53,29,48	2, 2, 4, 1,59,50,22,19	1, 2,30,51,19	8,55
28″	14,15, 7,36, 7,42, 8,43,52, 7	2, 2, 4, 0,57,19,22, 5	1, 2,31, 0,14	8,55
30″	14,15, 9,38,11,43, 6, 3,14,12	2, 2, 3,59,54,48,12,56	1, 2,31, 9, 9	8,55
32″	14,15,11,40,15,43, 0,51,27, 8	2, 2, 3,58,52,16,54,52	1, 2,31,18, 4	8,55
34″	14,15,13,42,19,41,53, 8,22, 0	2, 2, 3,57,49,45,27,53	1, 2,31,26,59	8,55
36″	14,15,15,44,23,39,42,53,49,53	2, 2, 3,56,47,13,51,59	1, 2,31,35,54	8,55
38″	14,15,17,46,27,36,30, 7,41,52	2, 2, 3,55,44,42, 7,10	1, 2,31,44,49	8,55
40″	14,15,19,48,31,32,14,49,49, 2	2, 2, 3,54,42,10,13,26	1, 2,31,53,44	8,55
42″	14,15,21,50,35,26,57, 0, 2,28	2, 2, 3,53,39,38,10,47	1, 2,32, 2,39	8,55
44″	14,15,23,52,39,20,36,38,13,15	2, 2, 3,52,37, 5,59,13	1, 2,32,11,34	8,55
46″	14,15,25,54,43,13,13,44,12,28	2, 2, 3,51,34,33,38,44	1, 2,32,20,29	8,55
48″	14,15,27,56,47, 4,48,17,51,12	2, 2, 3,50,32, 1, 9,20	1, 2,32,29,24	8,55
50″	14,15,29,58,50,55,20,19, 0,32	2, 2, 3,49,29,28,31, 1	1, 2,32,38,19	8,55
52″	14,15,32, 0,54,44,49,47,31,33	2, 2, 3,48,26,55,43,47	1, 2,32,47,14	8,55
54″	14,15,34, 2,58,33,16,43,15,20	2, 2, 3,47,24,22,47,38	1, 2,32,56, 9	8,55
56″	14,15,36, 5, 2,20,41, 6, 2,58	2, 2, 3,46,21,49,42,34	1, 2,33, 5, 4	8,55
58″	14,15,38, 7, 6, 7, 2,55,45,32	2, 2, 3,45,19,16,28,35	1, 2,33,13,59	
60″	14,15,40, 9, 9,52,22,12,14, 7			
exact	14,15,40, 9, 9,52,22,11,45,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°45′ 0″	14,15,40, 9, 9,52,22,11,45,17			
		2, 2, 3,44,16,43, 2,33		
2″	14,15,42,11,13,36,38,54,47,50		1, 2,33,32, 2	
		2, 2, 3,43,14, 9,30,31		8,55
4″	14,15,44,13,17,19,53, 4,18,21		1, 2,33,40,57	
		2, 2, 3,42,11,35,49,34		8,55
6″	14,15,46,15,21, 2, 4,40, 7,55		1, 2,33,49,52	
		2, 2, 3,41, 9, 1,59,42		8,55
8″	14,15,48,17,24,43,13,42, 7,37		1, 2,33,58,47	
		2, 2, 3,40, 6,28, 0,55		8,55
10″	14,15,50,19,28,23,20,10, 8,32		1, 2,34, 7,42	
		2, 2, 3,39, 3,53,53,13		8,55
12″	14,15,52,21,32, 2,24, 4, 1,45		1, 2,34,16,37	
		2, 2, 3,38, 1,19,36,36		8,55
14″	14,15,54,23,35,40,25,23,38,21		1, 2,34,25,32	
		2, 2, 3,36,58,45,11, 4		8,55
16″	14,15,56,25,39,17,24, 8,49,25		1, 2,34,34,27	
		2, 2, 3,35,56,10,36,37		8,55
18″	14,15,58,27,42,53,20,19,26, 2		1, 2,34,43,22	
		2, 2, 3,34,53,35,53,15		8,55
20″	14,16, 0,29,46,28,13,55,19,17		1, 2,34,52,17	
		2, 2, 3,33,51, 1, 0,58		8,55
22″	14,16, 2,31,50, 2, 4,56,20,15		1, 2,35, 1,12	
		2, 2, 3,32,48,25,59,46		8,55
24″	14,16, 4,33,53,34,53,22,20, 1		1, 2,35,10, 7	
		2, 2, 3,31,45,50,49,39		8,55
26″	14,16, 6,35,57, 6,39,13, 9,40		1, 2,35,19, 2	
		2, 2, 3,30,43,15,30,37		8,55
28″	14,16, 8,38, 0,37,22,28,40,17		1, 2,35,27,57	
		2, 2, 3,29,40,40, 2,40		8,55
30″	14,16,10,40, 4, 7, 3, 8,42,57		1, 2,35,36,52	
		2, 2, 3,28,38, 4,25,48		8,55
32″	14,16,12,42, 7,35,41,13, 8,45		1, 2,35,45,47	
		2, 2, 3,27,35,28,40, 1		8,55
34″	14,16,14,44,11, 3,16,41,48,46		1, 2,35,54,42	
		2, 2, 3,26,32,52,45,19		8,55
36″	14,16,16,46,14,29,49,34,34, 5		1, 2,36, 3,37	
		2, 2, 3,25,30,16,41,42		8,55
38″	14,16,18,48,17,55,19,51,15,47		1, 2,36,12,32	
		2, 2, 3,24,27,40,29,10		8,55
40″	14,16,20,50,21,19,47,31,44,57		1, 2,36,21,27	
		2, 2, 3,23,25, 4, 7,43		8,55
42″	14,16,22,52,24,43,12,35,52,40		1, 2,36,30,22	
		2, 2, 3,22,22,27,37,21		8,55
44″	14,16,24,54,28, 5,35, 3,30, 1		1, 2,36,39,17	
		2, 2, 3,21,19,50,58, 4		8,55
46″	14,16,26,56,31,26,54,54,28, 5		1, 2,36,48,12	
		2, 2, 3,20,17,14, 9,52		8,55
48″	14,16,28,58,34,47,12, 8,37,57		1, 2,36,57, 7	
		2, 2, 3,19,14,37,12,45		8,55
50″	14,16,31, 0,38, 6,26,45,50,42		1, 2,37, 6, 2	
		2, 2, 3,18,12, 0, 6,43		8,55
52″	14,16,33, 2,41,24,38,45,57,25		1, 2,37,14,57	
		2, 2, 3,17, 9,22,51,46		8,55
54″	14,16,35, 4,44,41,48, 8,49,11		1, 2,37,23,52	
		2, 2, 3,16, 6,45,27,54		8,55
56″	14,16,37, 6,47,57,54,54,17, 5		1, 2,37,32,47	
		2, 2, 3,15, 4, 7,55, 7		8,55
58″	14,16,39, 8,51,12,59, 2,12,12		1, 2,37,41,42	
		2, 2, 3,14, 1,30,13,25		
60″	14,16,41,10,54,27, 0,32,25,37			
exact	14,16,41,10,54,27, 0,31,57,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°46′ 0″	14,16,41,10,54,27, 0,31,57,28			
		2, 2, 3,12,58,52,19,48		
2″	14,16,43,12,57,39,59,24,17,16		1, 2,37,59,44	
		2, 2, 3,11,56,14,20, 4		8,55
4″	14,16,45,15, 0,51,55,38,37,20		1, 2,38, 8,39	
		2, 2, 3,10,53,36,11,25		8,55
6″	14,16,47,17, 4, 2,49,14,48,45		1, 2,38,17,34	
		2, 2, 3, 9,50,57,53,51		8,55
8″	14,16,49,19, 7,12,40,12,42,36		1, 2,38,26,29	
		2, 2, 3, 8,48,19,27,22		8,55
10″	14,16,51,21,10,21,28,32, 9,58		1, 2,38,35,24	
		2, 2, 3, 7,45,40,51,58		8,55
12″	14,16,53,23,13,29,14,13, 1,56		1, 2,38,44,19	
		2, 2, 3, 6,43, 2, 7,39		8,55
14″	14,16,55,25,16,35,57,15, 9,35		1, 2,38,53,14	
		2, 2, 3, 5,40,23,14,25		8,55
16″	14,16,57,27,19,41,37,38,24, 0		1, 2,39, 2, 9	
		2, 2, 3, 4,37,44,12,16		8,55
18″	14,16,59,29,22,46,15,22,36,16		1, 2,39,11, 4	
		2, 2, 3, 3,35, 5, 1,12		8,55
20″	14,17, 1,31,25,49,50,27,37,28		1, 2,39,19,59	
		2, 2, 3, 2,32,25,41,13		8,55
22″	14,17, 3,33,28,52,22,53,18,41		1, 2,39,28,54	
		2, 2, 3, 1,29,46,12,19		8,55
24″	14,17, 5,35,31,53,52,39,31, 0		1, 2,39,37,49	
		2, 2, 3, 0,27, 6,34,30		8,55
26″	14,17, 7,37,34,54,19,46, 5,30		1, 2,39,46,44	
		2, 2, 2,59,24,26,47,46		8,55
28″	14,17, 9,39,37,53,44,12,53,16		1, 2,39,55,39	
		2, 2, 2,58,21,46,52, 7		8,55
30″	14,17,11,41,40,52, 5,59,45,23		1, 2,40, 4,34	
		2, 2, 2,57,19, 6,47,33		8,55
32″	14,17,13,43,43,49,25, 6,32,56		1, 2,40,13,29	
		2, 2, 2,56,16,26,34, 4		8,55
34″	14,17,15,45,46,45,41,33, 7, 0		1, 2,40,22,24	
		2, 2, 2,55,13,46,11,40		8,55
36″	14,17,17,47,49,40,55,19,18,40		1, 2,40,31,19	
		2, 2, 2,54,11, 5,40,21		8,55
38″	14,17,19,49,52,35, 6,24,59, 1		1, 2,40,40,14	
		2, 2, 2,53, 8,25, 0, 7		8,55
40″	14,17,21,51,55,28,14,49,59, 8		1, 2,40,49, 9	
		2, 2, 2,52, 5,44,10,58		8,55
42″	14,17,23,53,58,20,20,34,10, 6		1, 2,40,58, 4	
		2, 2, 2,51, 3, 3,12,54		8,55
44″	14,17,25,56, 1,11,23,37,23, 0		1, 2,41, 6,59	
		2, 2, 2,50, 0,22, 5,55		8,55
46″	14,17,27,58, 4, 1,23,59,28,55		1, 2,41,15,54	
		2, 2, 2,48,57,40,50, 1		8,55
48″	14,17,30, 0, 6,50,21,40,18,56		1, 2,41,24,49	
		2, 2, 2,47,54,59,25,12		8,55
50″	14,17,32, 2, 9,38,16,39,44, 8		1, 2,41,33,44	
		2, 2, 2,46,52,17,51,28		8,55
52″	14,17,34, 4,12,25, 8,57,35,36		1, 2,41,42,39	
		2, 2, 2,45,49,36, 8,49		8,55
54″	14,17,36, 6,15,10,58,33,44,25		1, 2,41,51,34	
		2, 2, 2,44,46,54,17,15		8,55
56″	14,17,38, 8,17,55,45,28, 1,40		1, 2,42, 0,29	
		2, 2, 2,43,44,12,16,46		8,55
58″	14,17,40,10,20,39,29,40,18,26		1, 2,42, 9,24	
		2, 2, 2,42,41,30, 7,22		
60″	14,17,42,12,23,22,11,10,25,48			
exact	14,17,42,12,23,22,11, 9,59, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°47′ 0″	14,17,42,12,23,22,11, 9,59, 5			
		2, 2, 2,41,38,47,46,15		
2″	14,17,44,14,26, 3,49,57,45,20		1, 2,42,27,25	
		2, 2, 2,40,36, 5,18,50		8,55
4″	14,17,46,16,28,44,26, 3, 4,10		1, 2,42,36,20	
		2, 2, 2,39,33,22,42,30		8,55
6″	14,17,48,18,31,23,59,25,46,40		1, 2,42,45,15	
		2, 2, 2,38,30,39,57,15		8,55
8″	14,17,50,20,34, 2,30, 5,43,55		1, 2,42,54,10	
		2, 2, 2,37,27,57, 3, 5		8,55
10″	14,17,52,22,36,39,58, 2,47, 0		1, 2,43, 3, 5	
		2, 2, 2,36,25,14, 0, 0		8,55
12″	14,17,54,24,39,16,23,16,47, 0		1, 2,43,12, 0	
		2, 2, 2,35,22,30,48, 0		8,55
14″	14,17,56,26,41,51,45,47,35, 0		1, 2,43,20,55	
		2, 2, 2,34,19,47,27, 5		8,55
16″	14,17,58,28,44,26, 5,35, 2, 5		1, 2,43,29,50	
		2, 2, 2,33,17, 3,57,15		8,55
18″	14,18, 0,30,46,59,22,38,59,20		1, 2,43,38,45	
		2, 2, 2,32,14,20,18,30		8,55
20″	14,18, 2,32,49,31,36,59,17,50		1, 2,43,47,40	
		2, 2, 2,31,11,36,30,50		8,55
22″	14,18, 4,34,52, 2,48,35,48,40		1, 2,43,56,35	
		2, 2, 2,30, 8,52,34,15		8,55
24″	14,18, 6,36,54,32,57,28,22,55		1, 2,44, 5,30	
		2, 2, 2,29, 6, 8,28,45		8,55
26″	14,18, 8,38,57, 2, 3,36,51,40		1, 2,44,14,25	
		2, 2, 2,28, 3,24,14,20		8,55
28″	14,18,10,40,59,30, 7, 1, 6, 0		1, 2,44,23,20	
		2, 2, 2,27, 0,39,51, 0		8,55
30″	14,18,12,43, 1,57, 7,40,57, 0		1, 2,44,32,15	
		2, 2, 2,25,57,55,18,45		8,55
32″	14,18,14,45, 4,23, 5,36,15,45		1, 2,44,41,10	
		2, 2, 2,24,55,10,37,35		8,55
34″	14,18,16,47, 6,48, 0,46,53,20		1, 2,44,50, 5	
		2, 2, 2,23,52,25,47,30		8,55
36″	14,18,18,49, 9,11,53,12,40,50		1, 2,44,59, 0	
		2, 2, 2,22,49,40,48,30		8,55
38″	14,18,20,51,11,34,42,53,29,20		1, 2,45, 7,55	
		2, 2, 2,21,46,55,40,35		8,55
40″	14,18,22,53,13,56,29,49, 9,55		1, 2,45,16,50	
		2, 2, 2,20,44,10,23,45		8,55
42″	14,18,24,55,16,17,13,59,33,40		1, 2,45,25,45	
		2, 2, 2,19,41,24,58, 0		8,55
44″	14,18,26,57,18,36,55,24,31,40		1, 2,45,34,40	
		2, 2, 2,18,38,39,23,20		8,55
46″	14,18,28,59,20,55,34, 3,55, 0		1, 2,45,43,35	
		2, 2, 2,17,35,53,39,45		8,55
48″	14,18,31, 1,23,13, 9,57,34,45		1, 2,45,52,30	
		2, 2, 2,16,33, 7,47,15		8,55
50″	14,18,33, 3,25,29,43, 5,22, 0		1, 2,46, 1,25	
		2, 2, 2,15,30,21,45,50		8,55
52″	14,18,35, 5,27,45,13,27, 7,50		1, 2,46,10,20	
		2, 2, 2,14,27,35,35,30		8,55
54″	14,18,37, 7,29,59,41, 2,43,20		1, 2,46,19,15	
		2, 2, 2,13,24,49,16,15		8,55
56″	14,18,39, 9,32,13, 5,51,59,35		1, 2,46,28,10	
		2, 2, 2,12,22, 2,48, 5		8,55
58″	14,18,41,11,34,25,27,54,47,40		1, 2,46,37, 5	
		2, 2, 2,11,19,16,11, 0		
60″	14,18,43,13,36,36,47,10,58,40			
exact	14,18,43,13,36,36,47,10,34,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°48′ 0″	14,18,43,13,36,36,47,10,34,15	2, 2, 2,10,16,29,22,28		
2″	14,18,45,15,38,47, 3,39,56,43	2, 2, 2, 9,13,42,27,23	1, 2,46,55, 5	8,55
4″	14,18,47,17,40,56,17,22,24, 6	2, 2, 2, 8,10,55,23,23	1, 2,47, 4, 0	8,55
6″	14,18,49,19,43, 4,28,17,47,29	2, 2, 2, 7, 8, 8,10,28	1, 2,47,12,55	8,55
8″	14,18,51,21,45,11,36,25,57,57	2, 2, 2, 6, 5,20,48,38	1, 2,47,21,50	8,55
10″	14,18,53,23,47,17,41,46,46,35	2, 2, 2, 5, 2,33,17,53	1, 2,47,30,45	8,55
12″	14,18,55,25,49,22,44,20, 4,28	2, 2, 2, 3,59,45,38,13	1, 2,47,39,40	8,55
14″	14,18,57,27,51,26,44, 5,42,41	2, 2, 2, 2,56,57,49,38	1, 2,47,48,35	8,55
16″	14,18,59,29,53,29,41, 3,32,19	2, 2, 2, 1,54, 9,52, 8	1, 2,47,57,30	8,55
18″	14,19, 1,31,55,31,35,13,24,27	2, 2, 2, 0,51,21,45,43	1, 2,48, 6,25	8,55
20″	14,19, 3,33,57,32,26,35,10,10	2, 2, 1,59,48,33,30,23	1, 2,48,15,20	8,55
22″	14,19, 5,35,59,32,15, 8,40,33	2, 2, 1,58,45,45, 6, 8	1, 2,48,24,15	8,55
24″	14,19, 7,38, 1,31, 0,53,46,41	2, 2, 1,57,42,56,32,58	1, 2,48,33,10	8,55
26″	14,19, 9,40, 3,28,43,50,19,39	2, 2, 1,56,40, 7,50,53	1, 2,48,42, 5	8,55
28″	14,19,11,42, 5,25,23,58,10,32	2, 2, 1,55,37,18,59,53	1, 2,48,51, 0	8,55
30″	14,19,13,44, 7,21, 1,17,10,25	2, 2, 1,54,34,29,59,58	1, 2,48,59,55	8,55
32″	14,19,15,46, 9,15,35,47,10,23	2, 2, 1,53,31,40,51, 8	1, 2,49, 8,50	8,55
34″	14,19,17,48,11, 9, 7,28, 1,31	2, 2, 1,52,28,51,33,23	1, 2,49,17,45	8,55
36″	14,19,19,50,13, 1,36,19,34,54	2, 2, 1,51,26, 2, 6,43	1, 2,49,26,40	8,55
38″	14,19,21,52,14,53, 2,21,41,37	2, 2, 1,50,23,12,31, 8	1, 2,49,35,35	8,55
40″	14,19,23,54,16,43,25,34,12,45	2, 2, 1,49,20,22,46,38	1, 2,49,44,30	8,55
42″	14,19,25,56,18,32,45,56,59,23	2, 2, 1,48,17,32,53,13	1, 2,49,53,25	8,55
44″	14,19,27,58,20,21, 3,29,52,36	2, 2, 1,47,14,42,50,53	1, 2,50, 2,20	8,55
46″	14,19,30, 0,22, 8,18,12,43,29	2, 2, 1,46,11,52,39,38	1, 2,50,11,15	8,55
48″	14,19,32, 2,23,54,30, 5,23, 7	2, 2, 1,45, 9, 2,19,28	1, 2,50,20,10	8,55
50″	14,19,34, 4,25,39,39, 7,42,35	2, 2, 1,44, 6,11,50,23	1, 2,50,29, 5	8,55
52″	14,19,36, 6,27,23,45,19,32,58	2, 2, 1,43, 3,21,12,23	1, 2,50,38, 0	8,55
54″	14,19,38, 8,29, 6,48,40,45,21	2, 2, 1,42, 0,30,25,28	1, 2,50,46,55	8,55
56″	14,19,40,10,30,48,49,11,10,49	2, 2, 1,40,57,39,29,38	1, 2,50,55,50	8,55
58″	14,19,42,12,32,29,46,50,40,27	2, 2, 1,39,54,48,24,53	1, 2,51, 4,45	
60″	14,19,44,14,34, 9,41,39, 5,20			
exact	14,19,44,14,34, 9,41,38,44,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°49′ 0″	14,19,44,14,34, 9,41,38,44,19			
		2, 2, 1,38,51,57, 9, 1		
2″	14,19,46,16,35,48,33,35,53,20		1, 2,51,22,44	
		2, 2, 1,37,49, 5,46,17		8,55
4″	14,19,48,18,37,26,22,41,39,37		1, 2,51,31,39	
		2, 2, 1,36,46,14,14,38		8,55
6″	14,19,50,20,39, 3, 8,55,54,15		1, 2,51,40,34	
		2, 2, 1,35,43,22,34, 4		8,55
8″	14,19,52,22,40,38,52,18,28,19		1, 2,51,49,29	
		2, 2, 1,34,40,30,44,35		8,55
10″	14,19,54,24,42,13,32,49,12,54		1, 2,51,58,24	
		2, 2, 1,33,37,38,46,11		8,55
12″	14,19,56,26,43,47,10,27,59, 5		1, 2,52, 7,19	
		2, 2, 1,32,34,46,38,52		8,55
14″	14,19,58,28,45,19,45,14,37,57		1, 2,52,16,14	
		2, 2, 1,31,31,54,22,38		8,55
16″	14,20, 0,30,46,51,17, 9, 0,35		1, 2,52,25, 9	
		2, 2, 1,30,29, 1,57,29		8,55
18″	14,20, 2,32,48,21,46,10,58, 4		1, 2,52,34, 4	
		2, 2, 1,29,26, 9,23,25		8,55
20″	14,20, 4,34,49,51,12,20,21,29		1, 2,52,42,59	
		2, 2, 1,28,23,16,40,26		8,55
22″	14,20, 6,36,51,19,35,37, 1,55		1, 2,52,51,54	
		2, 2, 1,27,20,23,48,32		8,55
24″	14,20, 8,38,52,46,56, 0,50,27		1, 2,53, 0,49	
		2, 2, 1,26,17,30,47,43		8,55
26″	14,20,10,40,54,13,13,31,38,10		1, 2,53, 9,44	
		2, 2, 1,25,14,37,37,59		8,55
28″	14,20,12,42,55,38,28, 9,16, 9		1, 2,53,18,39	
		2, 2, 1,24,11,44,19,20		8,55
30″	14,20,14,44,57, 2,39,53,35,29		1, 2,53,27,34	
		2, 2, 1,23, 8,50,51,46		8,55
32″	14,20,16,46,58,25,48,44,27,15		1, 2,53,36,29	
		2, 2, 1,22, 5,57,15,17		8,55
34″	14,20,18,48,59,47,54,41,42,32		1, 2,53,45,24	
		2, 2, 1,21, 3, 3,29,53		8,55
36″	14,20,20,51, 1, 8,57,45,12,25		1, 2,53,54,19	
		2, 2, 1,20, 0, 9,35,34		8,55
38″	14,20,22,53, 2,28,57,54,47,59		1, 2,54, 3,14	
		2, 2, 1,18,57,15,32,20		8,55
40″	14,20,24,55, 3,47,55,10,20,19		1, 2,54,12, 9	
		2, 2, 1,17,54,21,20,11		8,55
42″	14,20,26,57, 5, 5,49,31,40,30		1, 2,54,21, 4	
		2, 2, 1,16,51,26,59, 7		8,55
44″	14,20,28,59, 6,22,40,58,39,37		1, 2,54,29,59	
		2, 2, 1,15,48,32,29, 8		8,55
46″	14,20,31, 1, 7,38,29,31, 8,45		1, 2,54,38,54	
		2, 2, 1,14,45,37,50,14		8,55
48″	14,20,33, 3, 8,53,15, 8,58,59		1, 2,54,47,49	
		2, 2, 1,13,42,43, 2,25		8,55
50″	14,20,35, 5,10, 6,57,52, 1,24		1, 2,54,56,44	
		2, 2, 1,12,39,48, 5,41		8,55
52″	14,20,37, 7,11,19,37,40, 7, 5		1, 2,55, 5,39	
		2, 2, 1,11,36,53, 0, 2		8,55
54″	14,20,39, 9,12,31,14,33, 7, 7		1, 2,55,14,34	
		2, 2, 1,10,33,57,45,28		8,55
56″	14,20,41,11,13,41,48,30,52,35		1, 2,55,23,29	
		2, 2, 1, 9,31, 2,21,59		8,55
58″	14,20,43,13,14,51,19,33,14,34		1, 2,55,32,24	
		2, 2, 1, 8,28, 6,49,35		
60″	14,20,45,15,15,59,47,40, 4, 9			
exact	14,20,45,15,15,59,47,39,47,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°50′ 0″	14,20,45,15,15,59,47,39,47,50	2, 2, 1, 7,25,11, 6,29		
2″	14,20,47,17,17, 7,12,50,54,19	2, 2, 1, 6,22,15,16, 8	1, 2,55,50,21	8,55
4″	14,20,49,19,18,13,35, 6,10,27	2, 2, 1, 5,19,19,16,52	1, 2,55,59,16	8,55
6″	14,20,51,21,19,18,54,25,27,19	2, 2, 1, 4,16,23, 8,41	1, 2,56, 8,11	8,55
8″	14,20,53,23,20,23,10,48,36, 0	2, 2, 1, 3,13,26,51,35	1, 2,56,17, 6	8,55
10″	14,20,55,25,21,26,24,15,27,35	2, 2, 1, 2,10,30,25,34	1, 2,56,26, 1	8,55
12″	14,20,57,27,22,28,34,45,53, 9	2, 2, 1, 1, 7,33,50,38	1, 2,56,34,56	8,55
14″	14,20,59,29,23,29,42,19,43,47	2, 2, 1, 0, 4,37, 6,47	1, 2,56,43,51	8,55
16″	14,21, 1,31,24,29,46,56,50,34	2, 2, 0,59, 1,40,14, 1	1, 2,56,52,46	8,55
18″	14,21, 3,33,25,28,48,37, 4,35	2, 2, 0,57,58,43,12,20	1, 2,57, 1,41	8,55
20″	14,21, 5,35,26,26,47,20,16,55	2, 2, 0,56,55,46, 1,44	1, 2,57,10,36	8,55
22″	14,21, 7,37,27,23,43, 6,18,39	2, 2, 0,55,52,48,42,13	1, 2,57,19,31	8,55
24″	14,21, 9,39,28,19,35,55, 0,52	2, 2, 0,54,49,51,13,47	1, 2,57,28,26	8,55
26″	14,21,11,41,29,14,25,46,14,39	2, 2, 0,53,46,53,36,26	1, 2,57,37,21	8,55
28″	14,21,13,43,30, 8,12,39,51, 5	2, 2, 0,52,43,55,50,10	1, 2,57,46,16	8,55
30″	14,21,15,45,31, 0,56,35,41,15	2, 2, 0,51,40,57,54,59	1, 2,57,55,11	8,55
32″	14,21,17,47,31,52,37,33,36,14	2, 2, 0,50,37,59,50,53	1, 2,58, 4, 6	8,55
34″	14,21,19,49,32,43,15,33,27, 7	2, 2, 0,49,35, 1,37,52	1, 2,58,13, 1	8,55
36″	14,21,21,51,33,32,50,35, 4,59	2, 2, 0,48,32, 3,15,56	1, 2,58,21,56	8,55
38″	14,21,23,53,34,21,22,38,20,55	2, 2, 0,47,29, 4,45, 5	1, 2,58,30,51	8,55
40″	14,21,25,55,35, 8,51,43, 6, 0	2, 2, 0,46,26, 6, 5,19	1, 2,58,39,46	8,55
42″	14,21,27,57,35,55,17,49,11,19	2, 2, 0,45,23, 7,16,38	1, 2,58,48,41	8,55
44″	14,21,29,59,36,40,40,56,27,57	2, 2, 0,44,20, 8,19, 2	1, 2,58,57,36	8,55
46″	14,21,32, 1,37,25, 1, 4,46,59	2, 2, 0,43,17, 9,12,31	1, 2,59, 6,31	8,55
48″	14,21,34, 3,38, 8,18,13,59,30	2, 2, 0,42,14, 9,57, 5	1, 2,59,15,26	8,55
50″	14,21,36, 5,38,50,32,23,56,35	2, 2, 0,41,11,10,32,44	1, 2,59,24,21	8,55
52″	14,21,38, 7,39,31,43,34,29,19	2, 2, 0,40, 8,10,59,28	1, 2,59,33,16	8,55
54″	14,21,40, 9,40,11,51,45,28,47	2, 2, 0,39, 5,11,17,17	1, 2,59,42,11	8,55
56″	14,21,42,11,40,50,56,56,46, 4	2, 2, 0,38, 2,11,26,11	1, 2,59,51, 6	8,55
58″	14,21,44,13,41,28,59, 8,12,15	2, 2, 0,36,59,11,26,10	1, 3, 0, 0, 1	
60″	14,21,46,15,42, 5,58,19,38,25			
exact	14,21,46,15,42, 5,58,19,20,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°51′ 0″	14,21,46,15,42, 5,58,19,20,33			
		2, 2, 0,35,56,11,15,27		
2″	14,21,48,17,42,41,54,30,36, 0		1, 3, 0,17,58	
		2, 2, 0,34,53,10,57,29		8,55
4″	14,21,50,19,43,16,47,41,33,29		1, 3, 0,26,53	
		2, 2, 0,33,50,10,30,36		8,55
6″	14,21,52,21,43,50,37,52, 4, 5		1, 3, 0,35,48	
		2, 2, 0,32,47, 9,54,48		8,55
8″	14,21,54,23,44,23,25, 1,58,53		1, 3, 0,44,43	
		2, 2, 0,31,44, 9,10, 5		8,55
10″	14,21,56,25,44,55, 9,11, 8,58		1, 3, 0,53,38	
		2, 2, 0,30,41, 8,16,27		8,55
12″	14,21,58,27,45,25,50,19,25,25		1, 3, 1, 2,33	
		2, 2, 0,29,38, 7,13,54		8,55
14″	14,22, 0,29,45,55,28,26,39,19		1, 3, 1,11,28	
		2, 2, 0,28,35, 6, 2,26		8,55
16″	14,22, 2,31,46,24, 3,32,41,45		1, 3, 1,20,23	
		2, 2, 0,27,32, 4,42, 3		8,55
18″	14,22, 4,33,46,51,35,37,23,48		1, 3, 1,29,18	
		2, 2, 0,26,29, 3,12,45		8,55
20″	14,22, 6,35,47,18, 4,40,36,33		1, 3, 1,38,13	
		2, 2, 0,25,26, 1,34,32		8,55
22″	14,22, 8,37,47,43,30,42,11, 5		1, 3, 1,47, 8	
		2, 2, 0,24,22,59,47,24		8,55
24″	14,22,10,39,48, 7,53,41,58,29		1, 3, 1,56, 3	
		2, 2, 0,23,19,57,51,21		8,55
26″	14,22,12,41,48,31,13,39,49,50		1, 3, 2, 4,58	
		2, 2, 0,22,16,55,46,23		8,55
28″	14,22,14,43,48,53,30,35,36,13		1, 3, 2,13,53	
		2, 2, 0,21,13,53,32,30		8,55
30″	14,22,16,45,49,14,44,29, 8,43		1, 3, 2,22,48	
		2, 2, 0,20,10,51, 9,42		8,55
32″	14,22,18,47,49,34,55,20,18,25		1, 3, 2,31,43	
		2, 2, 0,19, 7,48,37,59		8,55
34″	14,22,20,49,49,54, 3, 8,56,24		1, 3, 2,40,38	
		2, 2, 0,18, 4,45,57,21		8,55
36″	14,22,22,51,50,12, 7,54,53,45		1, 3, 2,49,33	
		2, 2, 0,17, 1,43, 7,48		8,55
38″	14,22,24,53,50,29, 9,38, 1,33		1, 3, 2,58,28	
		2, 2, 0,15,58,40, 9,20		8,55
40″	14,22,26,55,50,45, 8,18,10,53		1, 3, 3, 7,23	
		2, 2, 0,14,55,37, 1,57		8,55
42″	14,22,28,57,51, 0, 3,55,12,50		1, 3, 3,16,18	
		2, 2, 0,13,52,33,45,39		8,55
44″	14,22,30,59,51,13,56,28,58,29		1, 3, 3,25,13	
		2, 2, 0,12,49,30,20,26		8,55
46″	14,22,33, 1,51,26,45,59,18,55		1, 3, 3,34, 8	
		2, 2, 0,11,46,26,46,18		8,55
48″	14,22,35, 3,51,38,32,26, 5,13		1, 3, 3,43, 3	
		2, 2, 0,10,43,23, 3,15		8,55
50″	14,22,37, 5,51,49,15,49, 8,28		1, 3, 3,51,58	
		2, 2, 0, 9,40,19,11,17		8,55
52″	14,22,39, 7,51,58,56, 8,19,45		1, 3, 4, 0,53	
		2, 2, 0, 8,37,15,10,24		8,55
54″	14,22,41, 9,52, 7,33,23,30, 9		1, 3, 4, 9,48	
		2, 2, 0, 7,34,11, 0,36		8,55
56″	14,22,43,11,52,15, 7,34,30,45		1, 3, 4,18,43	
		2, 2, 0, 6,31, 6,41,53		8,55
58″	14,22,45,13,52,21,38,41,12,38		1, 3, 4,27,38	
		2, 2, 0, 5,28, 2,14,15		
60″	14,22,47,15,52,27, 6,43,26,53			
exact	14,22,47,15,52,27, 6,43,15,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°52′ 0″	14,22,47,15,52,27, 6,43,15,31			
		2, 2, 0, 4,24,57,36,28		
2″	14,22,49,17,52,31,31,40,51,59		1, 3, 4,45,33	
		2, 2, 0, 3,21,52,50,55		8,55
4″	14,22,51,19,52,34,53,33,42,54		1, 3, 4,54,28	
		2, 2, 0, 2,18,47,56,27		8,55
6″	14,22,53,21,52,37,12,21,39,21		1, 3, 5, 3,23	
		2, 2, 0, 1,15,42,53, 4		8,55
8″	14,22,55,23,52,38,28, 4,32,25		1, 3, 5,12,18	
		2, 2, 0, 0,12,37,40,46		8,55
10″	14,22,57,25,52,38,40,42,13,11		1, 3, 5,21,13	
		2, 1,59,59, 9,32,19,33		8,55
12″	14,22,59,27,52,37,50,14,32,44		1, 3, 5,30, 8	
		2, 1,59,58, 6,26,49,25		8,55
14″	14,23, 1,29,52,35,56,41,22, 9		1, 3, 5,39, 3	
		2, 1,59,57, 3,21,10,22		8,55
16″	14,23, 3,31,52,33, 0, 2,32,31		1, 3, 5,47,58	
		2, 1,59,56, 0,15,22,24		8,55
18″	14,23, 5,33,52,29, 0,17,54,55		1, 3, 5,56,53	
		2, 1,59,54,57, 9,25,31		8,55
20″	14,23, 7,35,52,23,57,27,20,26		1, 3, 6, 5,48	
		2, 1,59,53,54, 3,19,43		8,55
22″	14,23, 9,37,52,17,51,30,40, 9		1, 3, 6,14,43	
		2, 1,59,52,50,57, 5, 0		8,55
24″	14,23,11,39,52,10,42,27,45, 9		1, 3, 6,23,38	
		2, 1,59,51,47,50,41,22		8,55
26″	14,23,13,41,52, 2,30,18,26,31		1, 3, 6,32,33	
		2, 1,59,50,44,44, 8,49		8,55
28″	14,23,15,43,51,53,15, 2,35,20		1, 3, 6,41,28	
		2, 1,59,49,41,37,27,21		8,55
30″	14,23,17,45,51,42,56,40, 2,41		1, 3, 6,50,23	
		2, 1,59,48,38,30,36,58		8,55
32″	14,23,19,47,51,31,35,10,39,39		1, 3, 6,59,18	
		2, 1,59,47,35,23,37,40		8,55
34″	14,23,21,49,51,19,10,34,17,19		1, 3, 7, 8,13	
		2, 1,59,46,32,16,29,27		8,55
36″	14,23,23,51,51, 5,42,50,46,46		1, 3, 7,17, 8	
		2, 1,59,45,29, 9,12,19		8,55
38″	14,23,25,53,50,51,11,59,59, 5		1, 3, 7,26, 3	
		2, 1,59,44,26, 1,46,16		8,55
40″	14,23,27,55,50,35,38, 1,45,21		1, 3, 7,34,58	
		2, 1,59,43,22,54,11,18		8,55
42″	14,23,29,57,50,19, 0,55,56,39		1, 3, 7,43,53	
		2, 1,59,42,19,46,27,25		8,55
44″	14,23,31,59,50, 1,20,42,24, 4		1, 3, 7,52,48	
		2, 1,59,41,16,38,34,37		8,55
46″	14,23,34, 1,49,42,37,20,58,41		1, 3, 8, 1,43	
		2, 1,59,40,13,30,32,54		8,55
48″	14,23,36, 3,49,22,50,51,31,35		1, 3, 8,10,38	
		2, 1,59,39,10,22,22,16		8,55
50″	14,23,38, 5,49, 2, 1,13,53,51		1, 3, 8,19,33	
		2, 1,59,38, 7,14, 2,43		8,55
52″	14,23,40, 7,48,40, 8,27,56,34		1, 3, 8,28,28	
		2, 1,59,37, 4, 5,34,15		8,55
54″	14,23,42, 9,48,17,12,33,30,49		1, 3, 8,37,23	
		2, 1,59,36, 0,56,56,52		8,55
56″	14,23,44,11,47,53,13,30,27,41		1, 3, 8,46,18	
		2, 1,59,34,57,48,10,34		8,55
58″	14,23,46,13,47,28,11,18,38,15		1, 3, 8,55,13	
		2, 1,59,33,54,39,15,21		
60″	14,23,48,15,47, 2, 5,57,53,36			
exact	14,23,48,15,47, 2, 5,57,43, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°53′ 0″	14,23,48,15,47, 2, 5,57,43, 3			
		2, 1,59,32,51,30,10, 8		
2″	14,23,50,17,46,34,57,27,53,11		1, 3, 9,13, 7	
		2, 1,59,31,48,20,57, 1		8,55
4″	14,23,52,19,46, 6,45,48,50,12		1, 3, 9,22, 2	
		2, 1,59,30,45,11,34,59		8,55
6″	14,23,54,21,45,37,31, 0,25,11		1, 3, 9,30,57	
		2, 1,59,29,42, 2, 4, 2		8,55
8″	14,23,56,23,45, 7,13, 2,29,13		1, 3, 9,39,52	
		2, 1,59,28,38,52,24,10		8,55
10″	14,23,58,25,44,35,51,54,53,23		1, 3, 9,48,47	
		2, 1,59,27,35,42,35,23		8,55
12″	14,24, 0,27,44, 3,27,37,28,46		1, 3, 9,57,42	
		2, 1,59,26,32,32,37,41		8,55
14″	14,24, 2,29,43,30, 0,10, 6,27		1, 3,10, 6,37	
		2, 1,59,25,29,22,31, 4		8,55
16″	14,24, 4,31,42,55,29,32,37,31		1, 3,10,15,32	
		2, 1,59,24,26,12,15,32		8,55
18″	14,24, 6,33,42,19,55,44,53, 3		1, 3,10,24,27	
		2, 1,59,23,23, 1,51, 5		8,55
20″	14,24, 8,35,41,43,18,46,44, 8		1, 3,10,33,22	
		2, 1,59,22,19,51,17,43		8,55
22″	14,24,10,37,41, 5,38,38, 1,51		1, 3,10,42,17	
		2, 1,59,21,16,40,35,26		8,55
24″	14,24,12,39,40,26,55,18,37,17		1, 3,10,51,12	
		2, 1,59,20,13,29,44,14		8,55
26″	14,24,14,41,39,47, 8,48,21,31		1, 3,11, 0, 7	
		2, 1,59,19,10,18,44, 7		8,55
28″	14,24,16,43,39, 6,19, 7, 5,38		1, 3,11, 9, 2	
		2, 1,59,18, 7, 7,35, 5		8,55
30″	14,24,18,45,38,24,26,14,40,43		1, 3,11,17,57	
		2, 1,59,17, 3,56,17, 8		8,55
32″	14,24,20,47,37,41,30,10,57,51		1, 3,11,26,52	
		2, 1,59,16, 0,44,50,16		8,55
34″	14,24,22,49,36,57,30,55,48, 7		1, 3,11,35,47	
		2, 1,59,14,57,33,14,29		8,55
36″	14,24,24,51,36,12,28,29, 2,36		1, 3,11,44,42	
		2, 1,59,13,54,21,29,47		8,55
38″	14,24,26,53,35,26,22,50,32,23		1, 3,11,53,37	
		2, 1,59,12,51, 9,36,10		8,55
40″	14,24,28,55,34,39,14, 0, 8,33		1, 3,12, 2,32	
		2, 1,59,11,47,57,33,38		8,55
42″	14,24,30,57,33,51, 1,57,42,11		1, 3,12,11,27	
		2, 1,59,10,44,45,22,11		8,55
44″	14,24,32,59,33, 1,46,43, 4,22		1, 3,12,20,22	
		2, 1,59, 9,41,33, 1,49		8,55
46″	14,24,35, 1,32,11,28,16, 6,11		1, 3,12,29,17	
		2, 1,59, 8,38,20,32,32		8,55
48″	14,24,37, 3,31,20, 6,36,38,43		1, 3,12,38,12	
		2, 1,59, 7,35, 7,54,20		8,55
50″	14,24,39, 5,30,27,41,44,33, 3		1, 3,12,47, 7	
		2, 1,59, 6,31,55, 7,13		8,55
52″	14,24,41, 7,29,34,13,39,40,16		1, 3,12,56, 2	
		2, 1,59, 5,28,42,11,11		8,55
54″	14,24,43, 9,28,39,42,21,51,27		1, 3,13, 4,57	
		2, 1,59, 4,25,29, 6,14		8,55
56″	14,24,45,11,27,44, 7,50,57,41		1, 3,13,13,52	
		2, 1,59, 3,22,15,52,22		8,55
58″	14,24,47,13,26,47,30, 6,50, 3		1, 3,13,22,47	
		2, 1,59, 2,19, 2,29,35		
60″	14,24,49,15,25,49,49, 9,19,38			
exact	14,24,49,15,25,49,49, 9,10,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°54′ 0″	14,24,49,15,25,49,49, 9,10,42			
		2, 1,59, 1,15,48,57, 1		
2″	14,24,51,17,24,51, 4,58, 7,43		1, 3,13,40,40	
		2, 1,59, 0,12,35,16,21		8,55
4″	14,24,53,19,23,51,17,33,24, 4		1, 3,13,49,35	
		2, 1,58,59, 9,21,26,46		8,55
6″	14,24,55,21,22,50,26,54,50,50		1, 3,13,58,30	
		2, 1,58,58, 6, 7,28,16		8,55
8″	14,24,57,23,21,48,33, 2,19, 6		1, 3,14, 7,25	
		2, 1,58,57, 2,53,20,51		8,55
10″	14,24,59,25,20,45,35,55,39,57		1, 3,14,16,20	
		2, 1,58,55,59,39, 4,31		8,55
12″	14,25, 1,27,19,41,35,34,44,28		1, 3,14,25,15	
		2, 1,58,54,56,24,39,16		8,55
14″	14,25, 3,29,18,36,31,59,23,44		1, 3,14,34,10	
		2, 1,58,53,53,10, 5, 6		8,55
16″	14,25, 5,31,17,30,25, 9,28,50		1, 3,14,43, 5	
		2, 1,58,52,49,55,22, 1		8,55
18″	14,25, 7,33,16,23,15, 4,50,51		1, 3,14,52, 0	
		2, 1,58,51,46,40,30, 1		8,55
20″	14,25, 9,35,15,15, 1,45,20,52		1, 3,15, 0,55	
		2, 1,58,50,43,25,29, 6		8,55
22″	14,25,11,37,14, 5,45,10,49,58		1, 3,15, 9,50	
		2, 1,58,49,40,10,19,16		8,55
24″	14,25,13,39,12,55,25,21, 9,14		1, 3,15,18,45	
		2, 1,58,48,36,55, 0,31		8,55
26″	14,25,15,41,11,44, 2,16, 9,45		1, 3,15,27,40	
		2, 1,58,47,33,39,32,51		8,55
28″	14,25,17,43,10,31,35,55,42,36		1, 3,15,36,35	
		2, 1,58,46,30,23,56,16		8,55
30″	14,25,19,45, 9,18, 6,19,38,52		1, 3,15,45,30	
		2, 1,58,45,27, 8,10,46		8,55
32″	14,25,21,47, 8, 3,33,27,49,38		1, 3,15,54,25	
		2, 1,58,44,23,52,16,21		8,55
34″	14,25,23,49, 6,47,57,20, 5,59		1, 3,16, 3,20	
		2, 1,58,43,20,36,13, 1		8,55
36″	14,25,25,51, 5,31,17,56,19, 0		1, 3,16,12,15	
		2, 1,58,42,17,20, 0,46		8,55
38″	14,25,27,53, 4,13,35,16,19,46		1, 3,16,21,10	
		2, 1,58,41,14, 3,39,36		8,55
40″	14,25,29,55, 2,54,49,19,59,22		1, 3,16,30, 5	
		2, 1,58,40,10,47, 9,31		8,55
42″	14,25,31,57, 1,35, 0, 7, 8,53		1, 3,16,39, 0	
		2, 1,58,39, 7,30,30,31		8,55
44″	14,25,33,59, 0,14, 7,37,39,24		1, 3,16,47,55	
		2, 1,58,38, 4,13,42,36		8,55
46″	14,25,36, 0,58,52,11,51,22, 0		1, 3,16,56,50	
		2, 1,58,37, 0,56,45,46		8,55
48″	14,25,38, 2,57,29,12,48, 7,46		1, 3,17, 5,45	
		2, 1,58,35,57,39,40, 1		8,55
50″	14,25,40, 4,56, 5,10,27,47,47		1, 3,17,14,40	
		2, 1,58,34,54,22,25,21		8,55
52″	14,25,42, 6,54,40, 4,50,13, 8		1, 3,17,23,35	
		2, 1,58,33,51, 5, 1,46		8,55
54″	14,25,44, 8,53,13,55,55,14,54		1, 3,17,32,30	
		2, 1,58,32,47,47,29,16		8,55
56″	14,25,46,10,51,46,43,42,44,10		1, 3,17,41,25	
		2, 1,58,31,44,29,47,51		8,55
58″	14,25,48,12,50,18,28,12,32, 1		1, 3,17,50,20	
		2, 1,58,30,41,11,57,31		
60″	14,25,50,14,48,49, 9,24,29,32			
exact	14,25,50,14,48,49, 9,24,23,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°55′ 0″	14,25,50,14,48,49, 9,24,23,25			
		2, 1,58,29,37,53,57,41		
2″	14,25,52,16,47,18,47,18,21, 6		1, 3,18, 8,12	
		2, 1,58,28,34,35,49,29		8,55
4″	14,25,54,18,45,47,21,54,10,35		1, 3,18,17, 7	
		2, 1,58,27,31,17,32,22		8,55
6″	14,25,56,20,44,14,53,11,42,57		1, 3,18,26, 2	
		2, 1,58,26,27,59, 6,20		8,55
8″	14,25,58,22,42,41,21,10,49,17		1, 3,18,34,57	
		2, 1,58,25,24,40,31,23		8,55
10″	14,26, 0,24,41, 6,45,51,20,40		1, 3,18,43,52	
		2, 1,58,24,21,21,47,31		8,55
12″	14,26, 2,26,39,31, 7,13, 8,11		1, 3,18,52,47	
		2, 1,58,23,18, 2,54,44		8,55
14″	14,26, 4,28,37,54,25,16, 2,55		1, 3,19, 1,42	
		2, 1,58,22,14,43,53, 2		8,55
16″	14,26, 6,30,36,16,39,59,55,57		1, 3,19,10,37	
		2, 1,58,21,11,24,42,25		8,55
18″	14,26, 8,32,34,37,51,24,38,22		1, 3,19,19,32	
		2, 1,58,20, 8, 5,22,53		8,55
20″	14,26,10,34,32,57,59,30, 1,15		1, 3,19,28,27	
		2, 1,58,19, 4,45,54,26		8,55
22″	14,26,12,36,31,17, 4,15,55,41		1, 3,19,37,22	
		2, 1,58,18, 1,26,17, 4		8,55
24″	14,26,14,38,29,35, 5,42,12,45		1, 3,19,46,17	
		2, 1,58,16,58, 6,30,47		8,55
26″	14,26,16,40,27,52, 3,48,43,32		1, 3,19,55,12	
		2, 1,58,15,54,46,35,35		8,55
28″	14,26,18,42,26, 7,58,35,19, 7		1, 3,20, 4, 7	
		2, 1,58,14,51,26,31,28		8,55
30″	14,26,20,44,24,22,50, 1,50,35		1, 3,20,13, 2	
		2, 1,58,13,48, 6,18,26		8,55
32″	14,26,22,46,22,36,38, 8, 9, 1		1, 3,20,21,57	
		2, 1,58,12,44,45,56,29		8,55
34″	14,26,24,48,20,49,22,54, 5,30		1, 3,20,30,52	
		2, 1,58,11,41,25,25,37		8,55
36″	14,26,26,50,19, 1, 4,19,31, 7		1, 3,20,39,47	
		2, 1,58,10,38, 4,45,50		8,55
38″	14,26,28,52,17,11,42,24,16,57		1, 3,20,48,42	
		2, 1,58, 9,34,43,57, 8		8,55
40″	14,26,30,54,15,21,17, 8,14, 5		1, 3,20,57,37	
		2, 1,58, 8,31,22,59,31		8,55
42″	14,26,32,56,13,29,48,31,13,36		1, 3,21, 6,32	
		2, 1,58, 7,28, 1,52,59		8,55
44″	14,26,34,58,11,37,16,33, 6,35		1, 3,21,15,27	
		2, 1,58, 6,24,40,37,32		8,55
46″	14,26,37, 0, 9,43,41,13,44, 7		1, 3,21,24,22	
		2, 1,58, 5,21,19,13,10		8,55
48″	14,26,39, 2, 7,49, 2,32,57,17		1, 3,21,33,17	
		2, 1,58, 4,17,57,39,53		8,55
50″	14,26,41, 4, 5,53,20,30,37,10		1, 3,21,42,12	
		2, 1,58, 3,14,35,57,41		8,55
52″	14,26,43, 6, 3,56,35, 6,34,51		1, 3,21,51, 7	
		2, 1,58, 2,11,14, 6,34		8,55
54″	14,26,45, 8, 1,58,46,20,41,25		1, 3,22, 0, 2	
		2, 1,58, 1, 7,52, 6,32		8,55
56″	14,26,47, 9,59,59,54,12,47,57		1, 3,22, 8,57	
		2, 1,58, 0, 4,29,57,35		8,55
58″	14,26,49,11,57,59,58,42,45,32		1, 3,22,17,52	
		2, 1,57,59, 1, 7,39,43		
60″	14,26,51,13,55,58,59,50,25,15			
exact	14,26,51,13,55,58,59,50,23,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°56′ 0″	14,26,51,13,55,58,59,50,23,25			
		2, 1,57,57,57,45,12,44		
2″	14,26,53,15,53,56,57,35,36, 9		1, 3,22,35,43	
		2, 1,57,56,54,22,37, 1		8,55
4″	14,26,55,17,51,53,51,58,13,10		1, 3,22,44,38	
		2, 1,57,55,50,59,52,23		8,55
6″	14,26,57,19,49,49,42,58, 5,33		1, 3,22,53,33	
		2, 1,57,54,47,36,58,50		8,55
8″	14,26,59,21,47,44,30,35, 4,23		1, 3,23, 2,28	
		2, 1,57,53,44,13,56,22		8,55
10″	14,27, 1,23,45,38,14,49, 0,45		1, 3,23,11,23	
		2, 1,57,52,40,50,44,59		8,55
12″	14,27, 3,25,43,30,55,39,45,44		1, 3,23,20,18	
		2, 1,57,51,37,27,24,41		8,55
14″	14,27, 5,27,41,22,33, 7,10,25		1, 3,23,29,13	
		2, 1,57,50,34, 3,55,28		8,55
16″	14,27, 7,29,39,13, 7,11, 5,53		1, 3,23,38, 8	
		2, 1,57,49,30,40,17,20		8,55
18″	14,27, 9,31,37, 2,37,51,23,13		1, 3,23,47, 3	
		2, 1,57,48,27,16,30,17		8,55
20″	14,27,11,33,34,51, 5, 7,53,30		1, 3,23,55,58	
		2, 1,57,47,23,52,34,19		8,55
22″	14,27,13,35,32,38,29, 0,27,49		1, 3,24, 4,53	
		2, 1,57,46,20,28,29,26		8,55
24″	14,27,15,37,30,24,49,28,57,15		1, 3,24,13,48	
		2, 1,57,45,17, 4,15,38		8,55
26″	14,27,17,39,28,10, 6,33,12,53		1, 3,24,22,43	
		2, 1,57,44,13,39,52,55		8,55
28″	14,27,19,41,25,54,20,13, 5,48		1, 3,24,31,38	
		2, 1,57,43,10,15,21,17		8,55
30″	14,27,21,43,23,37,30,28,27, 5		1, 3,24,40,33	
		2, 1,57,42, 6,50,40,44		8,55
32″	14,27,23,45,21,19,37,19, 7,49		1, 3,24,49,28	
		2, 1,57,41, 3,25,51,16		8,55
34″	14,27,25,47,19, 0,40,44,59, 5		1, 3,24,58,23	
		2, 1,57,40, 0, 0,52,53		8,55
36″	14,27,27,49,16,40,40,45,51,58		1, 3,25, 7,18	
		2, 1,57,38,56,35,45,35		8,55
38″	14,27,29,51,14,19,37,21,37,33		1, 3,25,16,13	
		2, 1,57,37,53,10,29,22		8,55
40″	14,27,31,53,11,57,30,32, 6,55		1, 3,25,25, 8	
		2, 1,57,36,49,45, 4,14		8,55
42″	14,27,33,55, 9,34,20,17,11, 9		1, 3,25,34, 3	
		2, 1,57,35,46,19,30,11		8,55
44″	14,27,35,57, 7,10, 6,36,41,20		1, 3,25,42,58	
		2, 1,57,34,42,53,47,13		8,55
46″	14,27,37,59, 4,44,49,30,28,33		1, 3,25,51,53	
		2, 1,57,33,39,27,55,20		8,55
48″	14,27,40, 1, 2,18,28,58,23,53		1, 3,26, 0,48	
		2, 1,57,32,36, 1,54,32		8,55
50″	14,27,42, 2,59,51, 5, 0,18,25		1, 3,26, 9,43	
		2, 1,57,31,32,35,44,49		8,55
52″	14,27,44, 4,57,22,37,36, 3,14		1, 3,26,18,38	
		2, 1,57,30,29, 9,26,11		8,55
54″	14,27,46, 6,54,53, 6,45,29,25		1, 3,26,27,33	
		2, 1,57,29,25,42,58,38		8,55
56″	14,27,48, 8,52,22,32,28,28, 3		1, 3,26,36,28	
		2, 1,57,28,22,16,22,10		8,55
58″	14,27,50,10,49,50,54,44,50,13		1, 3,26,45,23	
		2, 1,57,27,18,49,36,47		
60″	14,27,52,12,47,18,13,34,27, 0			
exact	14,27,52,12,47,18,13,34,30,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°57′ 0″	14,27,52,12,47,18,13,34,30,19			
		2, 1,57,26,15,22,42,45		
2″	14,27,54,14,44,44,28,57,13, 4		1, 3,27, 3,12	
		2, 1,57,25,11,55,39,33		8,55
4″	14,27,56,16,42, 9,40,52,52,37		1, 3,27,12, 7	
		2, 1,57,24, 8,28,27,26		8,55
6″	14,27,58,18,39,33,49,21,20, 3		1, 3,27,21, 2	
		2, 1,57,23, 5, 1, 6,24		8,55
8″	14,28, 0,20,36,56,54,22,26,27		1, 3,27,29,57	
		2, 1,57,22, 1,33,36,27		8,55
10″	14,28, 2,22,34,18,55,56, 2,54		1, 3,27,38,52	
		2, 1,57,20,58, 5,57,35		8,55
12″	14,28, 4,24,31,39,54, 2, 0,29		1, 3,27,47,47	
		2, 1,57,19,54,38, 9,48		8,55
14″	14,28, 6,26,28,59,48,40,10,17		1, 3,27,56,42	
		2, 1,57,18,51,10,13, 6		8,55
16″	14,28, 8,28,26,18,39,50,23,23		1, 3,28, 5,37	
		2, 1,57,17,47,42, 7,29		8,55
18″	14,28,10,30,23,36,27,32,30,52		1, 3,28,14,32	
		2, 1,57,16,44,13,52,57		8,55
20″	14,28,12,32,20,53,11,46,23,49		1, 3,28,23,27	
		2, 1,57,15,40,45,29,30		8,55
22″	14,28,14,34,18, 8,52,31,53,19		1, 3,28,32,22	
		2, 1,57,14,37,16,57, 8		8,55
24″	14,28,16,36,15,23,29,48,50,27		1, 3,28,41,17	
		2, 1,57,13,33,48,15,51		8,55
26″	14,28,18,38,12,37, 3,37, 6,18		1, 3,28,50,12	
		2, 1,57,12,30,19,25,39		8,55
28″	14,28,20,40, 9,49,33,56,31,57		1, 3,28,59, 7	
		2, 1,57,11,26,50,26,32		8,55
30″	14,28,22,42, 7, 1, 0,46,58,29		1, 3,29, 8, 2	
		2, 1,57,10,23,21,18,30		8,55
32″	14,28,24,44, 4,11,24, 8,16,59		1, 3,29,16,57	
		2, 1,57, 9,19,52, 1,33		8,55
34″	14,28,26,46, 1,20,44, 0,18,32		1, 3,29,25,52	
		2, 1,57, 8,16,22,35,41		8,55
36″	14,28,28,47,58,29, 0,22,54,13		1, 3,29,34,47	
		2, 1,57, 7,12,53, 0,54		8,55
38″	14,28,30,49,55,36,13,15,55, 7		1, 3,29,43,42	
		2, 1,57, 6, 9,23,17,12		8,55
40″	14,28,32,51,52,42,22,39,12,19		1, 3,29,52,37	
		2, 1,57, 5, 5,53,24,35		8,55
42″	14,28,34,53,49,47,28,32,36,54		1, 3,30, 1,32	
		2, 1,57, 4, 2,23,23, 3		8,55
44″	14,28,36,55,46,51,30,55,59,57		1, 3,30,10,27	
		2, 1,57, 2,58,53,12,36		8,55
46″	14,28,38,57,43,54,29,49,12,33		1, 3,30,19,22	
		2, 1,57, 1,55,22,53,14		8,55
48″	14,28,40,59,40,56,25,12, 5,47		1, 3,30,28,17	
		2, 1,57, 0,51,52,24,57		8,55
50″	14,28,43, 1,37,57,17, 4,30,44		1, 3,30,37,12	
		2, 1,56,59,48,21,47,45		8,55
52″	14,28,45, 3,34,57, 5,26,18,29		1, 3,30,46, 7	
		2, 1,56,58,44,51, 1,38		8,55
54″	14,28,47, 5,31,55,50,17,20, 7		1, 3,30,55, 2	
		2, 1,56,57,41,20, 6,36		8,55
56″	14,28,49, 7,28,53,31,37,26,43		1, 3,31, 3,57	
		2, 1,56,56,37,49, 2,39		8,55
58″	14,28,51, 9,25,50, 9,26,29,22		1, 3,31,12,52	
		2, 1,56,55,34,17,49,47		
60″	14,28,53,11,22,45,43,44,19, 9			
exact	14,28,53,11,22,45,43,44,21, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°58′ 0″	14,28,53,11,22,45,43,44,21, 4			
		2, 1,56,54,30,46,28,17		
2″	14,28,55,13,19,40,14,30,49,21		1, 3,31,30,40	
		2, 1,56,53,27,14,57,37		8,55
4″	14,28,57,15,16,33,41,45,46,58		1, 3,31,39,35	
		2, 1,56,52,23,43,18, 2		8,55
6″	14,28,59,17,13,26, 5,29, 5, 0		1, 3,31,48,30	
		2, 1,56,51,20,11,29,32		8,55
8″	14,29, 1,19,10,17,25,40,34,32		1, 3,31,57,25	
		2, 1,56,50,16,39,32, 7		8,55
10″	14,29, 3,21, 7, 7,42,20, 6,39		1, 3,32, 6,20	
		2, 1,56,49,13, 7,25,47		8,55
12″	14,29, 5,23, 3,56,55,27,32,26		1, 3,32,15,15	
		2, 1,56,48, 9,35,10,32		8,55
14″	14,29, 7,25, 0,45, 5, 2,42,58		1, 3,32,24,10	
		2, 1,56,47, 6, 2,46,22		8,55
16″	14,29, 9,26,57,32,11, 5,29,20		1, 3,32,33, 5	
		2, 1,56,46, 2,30,13,17		8,55
18″	14,29,11,28,54,18,13,35,42,37		1, 3,32,42, 0	
		2, 1,56,44,58,57,31,17		8,55
20″	14,29,13,30,51, 3,12,33,13,54		1, 3,32,50,55	
		2, 1,56,43,55,24,40,22		8,55
22″	14,29,15,32,47,47, 7,57,54,16		1, 3,32,59,50	
		2, 1,56,42,51,51,40,32		8,55
24″	14,29,17,34,44,29,59,49,34,48		1, 3,33, 8,45	
		2, 1,56,41,48,18,31,47		8,55
26″	14,29,19,36,41,11,48, 8, 6,35		1, 3,33,17,40	
		2, 1,56,40,44,45,14, 7		8,55
28″	14,29,21,38,37,52,32,53,20,42		1, 3,33,26,35	
		2, 1,56,39,41,11,47,32		8,55
30″	14,29,23,40,34,32,14, 5, 8,14		1, 3,33,35,30	
		2, 1,56,38,37,38,12, 2		8,55
32″	14,29,25,42,31,10,51,43,20,16		1, 3,33,44,25	
		2, 1,56,37,34, 4,27,37		8,55
34″	14,29,27,44,27,48,25,47,47,53		1, 3,33,53,20	
		2, 1,56,36,30,30,34,17		8,55
36″	14,29,29,46,24,24,56,18,22,10		1, 3,34, 2,15	
		2, 1,56,35,26,56,32, 2		8,55
38″	14,29,31,48,21, 0,23,14,54,12		1, 3,34,11,10	
		2, 1,56,34,23,22,20,52		8,55
40″	14,29,33,50,17,34,46,37,15, 4		1, 3,34,20, 5	
		2, 1,56,33,19,48, 0,47		8,55
42″	14,29,35,52,14, 8, 6,25,15,51		1, 3,34,29, 0	
		2, 1,56,32,16,13,31,47		8,55
44″	14,29,37,54,10,40,22,38,47,38		1, 3,34,37,55	
		2, 1,56,31,12,38,53,52		8,55
46″	14,29,39,56, 7,11,35,17,41,30		1, 3,34,46,50	
		2, 1,56,30, 9, 4, 7, 2		8,55
48″	14,29,41,58, 3,41,44,21,48,32		1, 3,34,55,45	
		2, 1,56,29, 5,29,11,17		8,55
50″	14,29,44, 0, 0,10,49,50,59,49		1, 3,35, 4,40	
		2, 1,56,28, 1,54, 6,37		8,55
52″	14,29,46, 1,56,38,51,45, 6,26		1, 3,35,13,35	
		2, 1,56,26,58,18,53, 2		8,55
54″	14,29,48, 3,53, 5,50, 3,59,28		1, 3,35,22,30	
		2, 1,56,25,54,43,30,32		8,55
56″	14,29,50, 5,49,31,44,47,30, 0		1, 3,35,31,25	
		2, 1,56,24,51, 7,59, 7		8,55
58″	14,29,52, 7,45,56,35,55,29, 7		1, 3,35,40,20	
		2, 1,56,23,47,32,18,47		
60″	14,29,54, 9,42,20,23,27,47,54			
exact	14,29,54, 9,42,20,23,27,50, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
13°59′ 0″	14,29,54, 9,42,20,23,27,50, 2			
		2, 1,56,22,43,56,29,56		
2″	14,29,56,11,38,43, 7,24,19,58		1, 3,35,58, 8	
		2, 1,56,21,40,20,31,48		8,55
4″	14,29,58,13,35, 4,47,44,51,46		1, 3,36, 7, 3	
		2, 1,56,20,36,44,24,45		8,55
6″	14,30, 0,15,31,25,24,29,16,31		1, 3,36,15,58	
		2, 1,56,19,33, 8, 8,47		8,55
8″	14,30, 2,17,27,44,57,37,25,18		1, 3,36,24,53	
		2, 1,56,18,29,31,43,54		8,55
10″	14,30, 4,19,24, 3,27, 9, 9,12		1, 3,36,33,48	
		2, 1,56,17,25,55,10, 6		8,55
12″	14,30, 6,21,20,20,53, 4,19,18		1, 3,36,42,43	
		2, 1,56,16,22,18,27,23		8,55
14″	14,30, 8,23,16,37,15,22,46,41		1, 3,36,51,38	
		2, 1,56,15,18,41,35,45		8,55
16″	14,30,10,25,12,52,34, 4,22,26		1, 3,37, 0,33	
		2, 1,56,14,15, 4,35,12		8,55
18″	14,30,12,27, 9, 6,49, 8,57,38		1, 3,37, 9,28	
		2, 1,56,13,11,27,25,44		8,55
20″	14,30,14,29, 5,20, 0,36,23,22		1, 3,37,18,23	
		2, 1,56,12, 7,50, 7,21		8,55
22″	14,30,16,31, 1,32, 8,26,30,43		1, 3,37,27,18	
		2, 1,56,11, 4,12,40, 3		8,55
24″	14,30,18,32,57,43,12,39,10,46		1, 3,37,36,13	
		2, 1,56,10, 0,35, 3,50		8,55
26″	14,30,20,34,53,53,13,14,14,36		1, 3,37,45, 8	
		2, 1,56, 8,56,57,18,42		8,55
28″	14,30,22,36,50, 2,10,11,33,18		1, 3,37,54, 3	
		2, 1,56, 7,53,19,24,39		8,55
30″	14,30,24,38,46,10, 3,30,57,57		1, 3,38, 2,58	
		2, 1,56, 6,49,41,21,41		8,55
32″	14,30,26,40,42,16,53,12,19,38		1, 3,38,11,53	
		2, 1,56, 5,46, 3, 9,48		8,55
34″	14,30,28,42,38,22,39,15,29,26		1, 3,38,20,48	
		2, 1,56, 4,42,24,49, 0		8,55
36″	14,30,30,44,34,27,21,40,18,26		1, 3,38,29,43	
		2, 1,56, 3,38,46,19,17		8,55
38″	14,30,32,46,30,31, 0,26,37,43		1, 3,38,38,38	
		2, 1,56, 2,35, 7,40,39		8,55
40″	14,30,34,48,26,33,35,34,18,22		1, 3,38,47,33	
		2, 1,56, 1,31,28,53, 6		8,55
42″	14,30,36,50,22,35, 7, 3,11,28		1, 3,38,56,28	
		2, 1,56, 0,27,49,56,38		8,55
44″	14,30,38,52,18,35,34,53, 8, 6		1, 3,39, 5,23	
		2, 1,55,59,24,10,51,15		8,55
46″	14,30,40,54,14,34,59, 3,59,21		1, 3,39,14,18	
		2, 1,55,58,20,31,36,57		8,55
48″	14,30,42,56,10,33,19,35,36,18		1, 3,39,23,13	
		2, 1,55,57,16,52,13,44		8,55
50″	14,30,44,58, 6,30,36,27,50, 2		1, 3,39,32, 8	
		2, 1,55,56,13,12,41,36		8,55
52″	14,30,47, 0, 2,26,49,40,31,38		1, 3,39,41, 3	
		2, 1,55,55, 9,33, 0,33		8,55
54″	14,30,49, 1,58,21,59,13,32,11		1, 3,39,49,58	
		2, 1,55,54, 5,53,10,35		8,55
56″	14,30,51, 3,54,16, 5, 6,42,46		1, 3,39,58,53	
		2, 1,55,53, 2,13,11,42		8,55
58″	14,30,53, 5,50, 9, 7,19,54,28		1, 3,40, 7,48	
		2, 1,55,51,58,33, 3,54		
60″	14,30,55, 7,46, 1, 5,52,58,22			
exact	14,30,55, 7,46, 1, 5,53, 9, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14° 0′ 0″	14,30,55, 7,46, 1, 5,53, 9, 1			
		2, 1,55,50,54,52,48,16		
2″	14,30,57, 9,41,52, 0,45,57,17		1, 3,40,25,34	
		2, 1,55,49,51,12,22,42		8,55
4″	14,30,59,11,37,41,51,58,19,59		1, 3,40,34,29	
		2, 1,55,48,47,31,48,13		8,55
6″	14,31, 1,13,33,30,39,30, 8,12		1, 3,40,43,24	
		2, 1,55,47,43,51, 4,49		8,55
8″	14,31, 3,15,29,18,23,21,13, 1		1, 3,40,52,19	
		2, 1,55,46,40,10,12,30		8,55
10″	14,31, 5,17,25, 5, 3,31,25,31		1, 3,41, 1,14	
		2, 1,55,45,36,29,11,16		8,55
12″	14,31, 7,19,20,50,40, 0,36,47		1, 3,41,10, 9	
		2, 1,55,44,32,48, 1, 7		8,55
14″	14,31, 9,21,16,35,12,48,37,54		1, 3,41,19, 4	
		2, 1,55,43,29, 6,42, 3		8,55
16″	14,31,11,23,12,18,41,55,19,57		1, 3,41,27,59	
		2, 1,55,42,25,25,14, 4		8,55
18″	14,31,13,25, 8, 1, 7,20,34, 1		1, 3,41,36,54	
		2, 1,55,41,21,43,37,10		8,55
20″	14,31,15,27, 3,42,29, 4,11,11		1, 3,41,45,49	
		2, 1,55,40,18, 1,51,21		8,55
22″	14,31,17,28,59,22,47, 6, 2,32		1, 3,41,54,44	
		2, 1,55,39,14,19,56,37		8,55
24″	14,31,19,30,55, 2, 1,25,59, 9		1, 3,42, 3,39	
		2, 1,55,38,10,37,52,58		8,55
26″	14,31,21,32,50,40,12, 3,52, 7		1, 3,42,12,34	
		2, 1,55,37, 6,55,40,24		8,55
28″	14,31,23,34,46,17,18,59,32,31		1, 3,42,21,29	
		2, 1,55,36, 3,13,18,55		8,55
30″	14,31,25,36,41,53,22,12,51,26		1, 3,42,30,24	
		2, 1,55,34,59,30,48,31		8,55
32″	14,31,27,38,37,28,21,43,39,57		1, 3,42,39,19	
		2, 1,55,33,55,48, 9,12		8,55
34″	14,31,29,40,33, 2,17,31,49, 9		1, 3,42,48,14	
		2, 1,55,32,52, 5,20,58		8,55
36″	14,31,31,42,28,35, 9,37,10, 7		1, 3,42,57, 9	
		2, 1,55,31,48,22,23,49		8,55
38″	14,31,33,44,24, 6,57,59,33,56		1, 3,43, 6, 4	
		2, 1,55,30,44,39,17,45		8,55
40″	14,31,35,46,19,37,42,38,51,41		1, 3,43,14,59	
		2, 1,55,29,40,56, 2,46		8,55
42″	14,31,37,48,15, 7,23,34,54,27		1, 3,43,23,54	
		2, 1,55,28,37,12,38,52		8,55
44″	14,31,39,50,10,36, 0,47,33,19		1, 3,43,32,49	
		2, 1,55,27,33,29, 6, 3		8,55
46″	14,31,41,52, 6, 3,34,16,39,22		1, 3,43,41,44	
		2, 1,55,26,29,45,24,19		8,55
48″	14,31,43,54, 1,30, 4, 2, 3,41		1, 3,43,50,39	
		2, 1,55,25,26, 1,33,40		8,55
50″	14,31,45,55,56,55,30, 3,37,21		1, 3,43,59,34	
		2, 1,55,24,22,17,34, 6		8,55
52″	14,31,47,57,52,19,52,21,11,27		1, 3,44, 8,29	
		2, 1,55,23,18,33,25,37		8,55
54″	14,31,49,59,47,43,10,54,37, 4		1, 3,44,17,24	
		2, 1,55,22,14,49, 8,13		8,55
56″	14,31,52, 1,43, 5,25,43,45,17		1, 3,44,26,19	
		2, 1,55,21,11, 4,41,54		8,55
58″	14,31,54, 3,38,26,36,48,27,11		1, 3,44,35,14	
		2, 1,55,20, 7,20, 6,40		
60″	14,31,56, 5,33,46,44, 8,33,51			
exact	14,31,56, 5,33,46,44, 8,47,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14° 1′ 0″	14,31,56, 5,33,46,44, 8,47,12			
		2, 1,55,19, 3,35,23,53		
2″	14,31,58, 7,29, 5,47,44,11, 5		1, 3,44,52,59	
		2, 1,55,17,59,50,30,54		8,55
4″	14,32, 0, 9,24,23,47,34,41,59		1, 3,45, 1,54	
		2, 1,55,16,56, 5,29, 0		8,55
6″	14,32, 2,11,19,40,43,40,10,59		1, 3,45,10,49	
		2, 1,55,15,52,20,18,11		8,55
8″	14,32, 4,13,14,56,36, 0,29,10		1, 3,45,19,44	
		2, 1,55,14,48,34,58,27		8,55
10″	14,32, 6,15,10,11,24,35,27,37		1, 3,45,28,39	
		2, 1,55,13,44,49,29,48		8,55
12″	14,32, 8,17, 5,25, 9,24,57,25		1, 3,45,37,34	
		2, 1,55,12,41, 3,52,14		8,55
14″	14,32,10,19, 0,37,50,28,49,39		1, 3,45,46,29	
		2, 1,55,11,37,18, 5,45		8,55
16″	14,32,12,20,55,49,27,46,55,24		1, 3,45,55,24	
		2, 1,55,10,33,32,10,21		8,55
18″	14,32,14,22,51, 0, 1,19, 5,45		1, 3,46, 4,19	
		2, 1,55, 9,29,46, 6, 2		8,55
20″	14,32,16,24,46, 9,31, 5,11,47		1, 3,46,13,14	
		2, 1,55, 8,25,59,52,48		8,55
22″	14,32,18,26,41,17,57, 5, 4,35		1, 3,46,22, 9	
		2, 1,55, 7,22,13,30,39		8,55
24″	14,32,20,28,36,25,19,18,35,14		1, 3,46,31, 4	
		2, 1,55, 6,18,26,59,35		8,55
26″	14,32,22,30,31,31,37,45,34,49		1, 3,46,39,59	
		2, 1,55, 5,14,40,19,36		8,55
28″	14,32,24,32,26,36,52,25,54,25		1, 3,46,48,54	
		2, 1,55, 4,10,53,30,42		8,55
30″	14,32,26,34,21,41, 3,19,25, 7		1, 3,46,57,49	
		2, 1,55, 3, 7, 6,32,53		8,55
32″	14,32,28,36,16,44,10,25,58, 0		1, 3,47, 6,44	
		2, 1,55, 2, 3,19,26, 9		8,55
34″	14,32,30,38,11,46,13,45,24, 9		1, 3,47,15,39	
		2, 1,55, 0,59,32,10,30		8,55
36″	14,32,32,40, 6,47,13,17,34,39		1, 3,47,24,34	
		2, 1,54,59,55,44,45,56		8,55
38″	14,32,34,42, 1,47, 9, 2,20,35		1, 3,47,33,29	
		2, 1,54,58,51,57,12,27		8,55
40″	14,32,36,43,56,46, 0,59,33, 2		1, 3,47,42,24	
		2, 1,54,57,48, 9,30, 3		8,55
42″	14,32,38,45,51,43,49, 9, 3, 5		1, 3,47,51,19	
		2, 1,54,56,44,21,38,44		8,55
44″	14,32,40,47,46,40,33,30,41,49		1, 3,48, 0,14	
		2, 1,54,55,40,33,38,30		8,55
46″	14,32,42,49,41,36,14, 4,20,19		1, 3,48, 9, 9	
		2, 1,54,54,36,45,29,21		8,55
48″	14,32,44,51,36,30,50,49,49,40		1, 3,48,18, 4	
		2, 1,54,53,32,57,11,17		8,55
50″	14,32,46,53,31,24,23,47, 0,57		1, 3,48,26,59	
		2, 1,54,52,29, 8,44,18		8,55
52″	14,32,48,55,26,16,52,55,45,15		1, 3,48,35,54	
		2, 1,54,51,25,20, 8,24		8,55
54″	14,32,50,57,21, 8,18,15,53,39		1, 3,48,44,49	
		2, 1,54,50,21,31,23,35		8,55
56″	14,32,52,59,15,58,39,47,17,14		1, 3,48,53,44	
		2, 1,54,49,17,42,29,51		8,55
58″	14,32,55, 1,10,47,57,29,47, 5		1, 3,49, 2,39	
		2, 1,54,48,13,53,27,12		
60″	14,32,57, 3, 5,36,11,23,14,17			
exact	14,32,57, 3, 5,36,11,23,31,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14° 2′ 0″	14,32,57, 3, 5,36,11,23,31,17			
		2, 1,54,47,10, 4,17,21		
2″	14,32,59, 5, 0,23,21,27,48,38		1, 3,49,20,22	
		2, 1,54,46, 6,14,56,59		8,55
4″	14,33, 1, 6,55, 9,27,42,45,37		1, 3,49,29,17	
		2, 1,54,45, 2,25,27,42		8,55
6″	14,33, 3, 8,49,54,30, 8,13,19		1, 3,49,38,12	
		2, 1,54,43,58,35,49,30		8,55
8″	14,33, 5,10,44,38,28,44, 2,49		1, 3,49,47, 7	
		2, 1,54,42,54,46, 2,23		8,55
10″	14,33, 7,12,39,21,23,30, 5,12		1, 3,49,56, 2	
		2, 1,54,41,50,56, 6,21		8,55
12″	14,33, 9,14,34, 3,14,26,11,33		1, 3,50, 4,57	
		2, 1,54,40,47, 6, 1,24		8,55
14″	14,33,11,16,28,44, 1,32,12,57		1, 3,50,13,52	
		2, 1,54,39,43,15,47,32		8,55
16″	14,33,13,18,23,23,44,48, 0,29		1, 3,50,22,47	
		2, 1,54,38,39,25,24,45		8,55
18″	14,33,15,20,18, 2,24,13,25,14		1, 3,50,31,42	
		2, 1,54,37,35,34,53, 3		8,55
20″	14,33,17,22,12,39,59,48,18,17		1, 3,50,40,37	
		2, 1,54,36,31,44,12,26		8,55
22″	14,33,19,24, 7,16,31,32,30,43		1, 3,50,49,32	
		2, 1,54,35,27,53,22,54		8,55
24″	14,33,21,26, 1,51,59,25,53,37		1, 3,50,58,27	
		2, 1,54,34,24, 2,24,27		8,55
26″	14,33,23,27,56,26,23,28,18, 4		1, 3,51, 7,22	
		2, 1,54,33,20,11,17, 5		8,55
28″	14,33,25,29,50,59,43,39,35, 9		1, 3,51,16,17	
		2, 1,54,32,16,20, 0,48		8,55
30″	14,33,27,31,45,31,59,59,35,57		1, 3,51,25,12	
		2, 1,54,31,12,28,35,36		8,55
32″	14,33,29,33,40, 3,12,28,11,33		1, 3,51,34, 7	
		2, 1,54,30, 8,37, 1,29		8,55
34″	14,33,31,35,34,33,21, 5,13, 2		1, 3,51,43, 2	
		2, 1,54,29, 4,45,18,27		8,55
36″	14,33,33,37,29, 2,25,50,31,29		1, 3,51,51,57	
		2, 1,54,28, 0,53,26,30		8,55
38″	14,33,35,39,23,30,26,43,57,59		1, 3,52, 0,52	
		2, 1,54,26,57, 1,25,38		8,55
40″	14,33,37,41,17,57,23,45,23,37		1, 3,52, 9,47	
		2, 1,54,25,53, 9,15,51		8,55
42″	14,33,39,43,12,23,16,54,39,28		1, 3,52,18,42	
		2, 1,54,24,49,16,57, 9		8,55
44″	14,33,41,45, 6,48, 6,11,36,37		1, 3,52,27,37	
		2, 1,54,23,45,24,29,32		8,55
46″	14,33,43,47, 1,11,51,36, 6, 9		1, 3,52,36,32	
		2, 1,54,22,41,31,53, 0		8,55
48″	14,33,45,48,55,34,33, 7,59, 9		1, 3,52,45,27	
		2, 1,54,21,37,39, 7,33		8,55
50″	14,33,47,50,49,56,10,47, 6,42		1, 3,52,54,22	
		2, 1,54,20,33,46,13,11		8,55
52″	14,33,49,52,44,16,44,33,19,53		1, 3,53, 3,17	
		2, 1,54,19,29,53, 9,54		8,55
54″	14,33,51,54,38,36,14,26,29,47		1, 3,53,12,12	
		2, 1,54,18,25,59,57,42		8,55
56″	14,33,53,56,32,54,40,26,27,29		1, 3,53,21, 7	
		2, 1,54,17,22, 6,36,35		8,55
58″	14,33,55,58,27,12, 2,33, 4, 4		1, 3,53,30, 2	
		2, 1,54,16,18,13, 6,33		
60″	14,33,58, 0,21,28,20,46,10,37			
exact	14,33,58, 0,21,28,20,46,25,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14° 3′ 0″	14,33,58, 0,21,28,20,46,25,23			
		2, 1,54,15,14,19,29,16		
2″	14,34, 0, 2,15,43,35, 5,54,39		1, 3,53,47,45	
		2, 1,54,14,10,25,41,31		8,55
4″	14,34, 2, 4, 9,57,45,31,36,10		1, 3,53,56,40	
		2, 1,54,13, 6,31,44,51		8,55
6″	14,34, 4, 6, 4,10,52, 3,21, 1		1, 3,54, 5,35	
		2, 1,54,12, 2,37,39,16		8,55
8″	14,34, 6, 7,58,22,54,41, 0,17		1, 3,54,14,30	
		2, 1,54,10,58,43,24,46		8,55
10″	14,34, 8, 9,52,33,53,24,25, 3		1, 3,54,23,25	
		2, 1,54, 9,54,49, 1,21		8,55
12″	14,34,10,11,46,43,48,13,26,24		1, 3,54,32,20	
		2, 1,54, 8,50,54,29, 1		8,55
14″	14,34,12,13,40,52,39, 7,55,25		1, 3,54,41,15	
		2, 1,54, 7,46,59,47,46		8,55
16″	14,34,14,15,35, 0,26, 7,43,11		1, 3,54,50,10	
		2, 1,54, 6,43, 4,57,36		8,55
18″	14,34,16,17,29, 7, 9,12,40,47		1, 3,54,59, 5	
		2, 1,54, 5,39, 9,58,31		8,55
20″	14,34,18,19,23,12,48,22,39,18		1, 3,55, 8, 0	
		2, 1,54, 4,35,14,50,31		8,55
22″	14,34,20,21,17,17,23,37,29,49		1, 3,55,16,55	
		2, 1,54, 3,31,19,33,36		8,55
24″	14,34,22,23,11,20,54,57, 3,25		1, 3,55,25,50	
		2, 1,54, 2,27,24, 7,46		8,55
26″	14,34,24,25, 5,23,22,21,11,11		1, 3,55,34,45	
		2, 1,54, 1,23,28,33, 1		8,55
28″	14,34,26,26,59,24,45,49,44,12		1, 3,55,43,40	
		2, 1,54, 0,19,32,49,21		8,55
30″	14,34,28,28,53,25, 5,22,33,33		1, 3,55,52,35	
		2, 1,53,59,15,36,56,46		8,55
32″	14,34,30,30,47,24,20,59,30,19		1, 3,56, 1,30	
		2, 1,53,58,11,40,55,16		8,55
34″	14,34,32,32,41,22,32,40,25,35		1, 3,56,10,25	
		2, 1,53,57, 7,44,44,51		8,55
36″	14,34,34,34,35,19,40,25,10,26		1, 3,56,19,20	
		2, 1,53,56, 3,48,25,31		8,55
38″	14,34,36,36,29,15,44,13,35,57		1, 3,56,28,15	
		2, 1,53,54,59,51,57,16		8,55
40″	14,34,38,38,23,10,44, 5,33,13		1, 3,56,37,10	
		2, 1,53,53,55,55,20, 6		8,55
42″	14,34,40,40,17, 4,40, 0,53,19		1, 3,56,46, 5	
		2, 1,53,52,51,58,34, 1		8,55
44″	14,34,42,42,10,57,31,59,27,20		1, 3,56,55, 0	
		2, 1,53,51,48, 1,39, 1		8,55
46″	14,34,44,44, 4,49,20, 1, 6,21		1, 3,57, 3,55	
		2, 1,53,50,44, 4,35, 6		8,55
48″	14,34,46,45,58,40, 4, 5,41,27		1, 3,57,12,50	
		2, 1,53,49,40, 7,22,16		8,55
50″	14,34,48,47,52,29,44,13, 3,43		1, 3,57,21,45	
		2, 1,53,48,36,10, 0,31		8,55
52″	14,34,50,49,46,18,20,23, 4,14		1, 3,57,30,40	
		2, 1,53,47,32,12,29,51		8,55
54″	14,34,52,51,40, 5,52,35,34, 5		1, 3,57,39,35	
		2, 1,53,46,28,14,50,16		8,55
56″	14,34,54,53,33,52,20,50,24,21		1, 3,57,48,30	
		2, 1,53,45,24,17, 1,46		8,55
58″	14,34,56,55,27,37,45, 7,26, 7		1, 3,57,57,25	
		2, 1,53,44,20,19, 4,21		
60″	14,34,58,57,21,22, 5,26,30,28			
exact	14,34,58,57,21,22, 5,26,51,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14° 4′ 0″	14,34,58,57,21,22, 5,26,51,11	2, 1,53,43,16,21, 0,12		
2″	14,35, 0,59,15, 5,21,47,51,23	2, 1,53,42,12,22,45, 6	1, 3,58,15, 6	
4″	14,35, 3, 1, 8,47,34,10,36,29	2, 1,53,41, 8,24,21, 5	1, 3,58,24, 1	8,55
6″	14,35, 5, 3, 2,28,42,34,57,34	2, 1,53,40, 4,25,48, 9	1, 3,58,32,56	8,55
8″	14,35, 7, 4,56, 8,47, 0,45,43	2, 1,53,39, 0,27, 6,18	1, 3,58,41,51	8,55
10″	14,35, 9, 6,49,47,47,27,52, 1	2, 1,53,37,56,28,15,32	1, 3,58,50,46	8,55
12″	14,35,11, 8,43,25,43,56, 7,33	2, 1,53,36,52,29,15,51	1, 3,58,59,41	8,55
14″	14,35,13,10,37, 2,36,25,23,24	2, 1,53,35,48,30, 7,15	1, 3,59, 8,36	8,55
16″	14,35,15,12,30,38,24,55,30,39	2, 1,53,34,44,30,49,44	1, 3,59,17,31	8,55
18″	14,35,17,14,24,13, 9,26,20,23	2, 1,53,33,40,31,23,18	1, 3,59,26,26	8,55
20″	14,35,19,16,17,46,49,57,43,41	2, 1,53,32,36,31,47,57	1, 3,59,35,21	8,55
22″	14,35,21,18,11,19,26,29,31,38	2, 1,53,31,32,32, 3,41	1, 3,59,44,16	8,55
24″	14,35,23,20, 4,50,59, 1,35,19	2, 1,53,30,28,32,10,30	1, 3,59,53,11	8,55
26″	14,35,25,21,58,21,27,33,45,49	2, 1,53,29,24,32, 8,24	1, 4, 0, 2, 6	8,55
28″	14,35,27,23,51,50,52, 5,54,13	2, 1,53,28,20,31,57,23	1, 4, 0,11, 1	8,55
30″	14,35,29,25,45,19,12,37,51,36	2, 1,53,27,16,31,37,27	1, 4, 0,19,56	8,55
32″	14,35,31,27,38,46,29, 9,29, 3	2, 1,53,26,12,31, 8,36	1, 4, 0,28,51	8,55
34″	14,35,33,29,32,12,41,40,37,39	2, 1,53,25, 8,30,30,50	1, 4, 0,37,46	8,55
36″	14,35,35,31,25,37,50,11, 8,29	2, 1,53,24, 4,29,44, 9	1, 4, 0,46,41	8,55
38″	14,35,37,33,19, 1,54,40,52,38	2, 1,53,23, 0,28,48,33	1, 4, 0,55,36	8,55
40″	14,35,39,35,12,24,55, 9,41,11	2, 1,53,21,56,27,44, 2	1, 4, 1, 4,31	8,55
42″	14,35,41,37, 5,46,51,37,25,13	2, 1,53,20,52,26,30,36	1, 4, 1,13,26	8,55
44″	14,35,43,38,59, 7,44, 3,55,49	2, 1,53,19,48,25, 8,15	1, 4, 1,22,21	8,55
46″	14,35,45,40,52,27,32,29, 4, 4	2, 1,53,18,44,23,36,59	1, 4, 1,31,16	8,55
48″	14,35,47,42,45,46,16,52,41, 3	2, 1,53,17,40,21,56,48	1, 4, 1,40,11	8,55
50″	14,35,49,44,39, 3,57,14,37,51	2, 1,53,16,36,20, 7,42	1, 4, 1,49, 6	8,55
52″	14,35,51,46,32,20,33,34,45,33	2, 1,53,15,32,18, 9,41	1, 4, 1,58, 1	8,55
54″	14,35,53,48,25,36, 5,52,55,14	2, 1,53,14,28,16, 2,45	1, 4, 2, 6,56	8,55
56″	14,35,55,50,18,50,34, 8,57,59	2, 1,53,13,24,13,46,54	1, 4, 2,15,51	8,55
58″	14,35,57,52,12, 3,58,22,44,53	2, 1,53,12,20,11,22, 8	1, 4, 2,24,46	
60″	14,35,59,54, 5,16,18,34, 7, 1			
exact	14,35,59,54, 5,16,18,34,27,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14° 5′ 0″	14,35,59,54, 5,16,18,34,27,49			
		2, 1,53,11,16, 8,50,44		
2″	14,36, 1,55,58,27,34,43,18,33		1, 4, 2,42,26	
		2, 1,53,10,12, 6, 8,18		8,55
4″	14,36, 3,57,51,37,46,49,26,51		1, 4, 2,51,21	
		2, 1,53, 9, 8, 3,16,57		8,55
6″	14,36, 5,59,44,46,54,52,43,48		1, 4, 3, 0,16	
		2, 1,53, 8, 4, 0,16,41		8,55
8″	14,36, 8, 1,37,54,58,53, 0,29		1, 4, 3, 9,11	
		2, 1,53, 6,59,57, 7,30		8,55
10″	14,36,10, 3,31, 1,58,50, 7,59		1, 4, 3,18, 6	
		2, 1,53, 5,55,53,49,24		8,55
12″	14,36,12, 5,24, 7,54,43,57,23		1, 4, 3,27, 1	
		2, 1,53, 4,51,50,22,23		8,55
14″	14,36,14, 7,17,12,46,34,19,46		1, 4, 3,35,56	
		2, 1,53, 3,47,46,46,27		8,55
16″	14,36,16, 9,10,16,34,21, 6,13		1, 4, 3,44,51	
		2, 1,53, 2,43,43, 1,36		8,55
18″	14,36,18,11, 3,19,18, 4, 7,49		1, 4, 3,53,46	
		2, 1,53, 1,39,39, 7,50		8,55
20″	14,36,20,12,56,20,57,43,15,39		1, 4, 4, 2,41	
		2, 1,53, 0,35,35, 5, 9		8,55
22″	14,36,22,14,49,21,33,18,20,48		1, 4, 4,11,36	
		2, 1,52,59,31,30,53,33		8,55
24″	14,36,24,16,42,21, 4,49,14,21		1, 4, 4,20,31	
		2, 1,52,58,27,26,33, 2		8,55
26″	14,36,26,18,35,19,32,15,47,23		1, 4, 4,29,26	
		2, 1,52,57,23,22, 3,36		8,55
28″	14,36,28,20,28,16,55,37,50,59		1, 4, 4,38,21	
		2, 1,52,56,19,17,25,15		8,55
30″	14,36,30,22,21,13,14,55,16,14		1, 4, 4,47,16	
		2, 1,52,55,15,12,37,59		8,55
32″	14,36,32,24,14, 8,30, 7,54,13		1, 4, 4,56,11	
		2, 1,52,54,11, 7,41,48		8,55
34″	14,36,34,26, 7, 2,41,15,36, 1		1, 4, 5, 5, 6	
		2, 1,52,53, 7, 2,36,42		8,55
36″	14,36,36,27,59,55,48,18,12,43		1, 4, 5,14, 1	
		2, 1,52,52, 2,57,22,41		8,55
38″	14,36,38,29,52,47,51,15,35,24		1, 4, 5,22,56	
		2, 1,52,50,58,51,59,45		8,55
40″	14,36,40,31,45,38,50, 7,35, 9		1, 4, 5,31,51	
		2, 1,52,49,54,46,27,54		8,55
42″	14,36,42,33,38,28,44,54, 3, 3		1, 4, 5,40,46	
		2, 1,52,48,50,40,47, 8		8,55
44″	14,36,44,35,31,17,35,34,50,11		1, 4, 5,49,41	
		2, 1,52,47,46,34,57,27		8,55
46″	14,36,46,37,24, 5,22, 9,47,38		1, 4, 5,58,36	
		2, 1,52,46,42,28,58,51		8,55
48″	14,36,48,39,16,52, 4,38,46,29		1, 4, 6, 7,31	
		2, 1,52,45,38,22,51,20		8,55
50″	14,36,50,41, 9,37,43, 1,37,49		1, 4, 6,16,26	
		2, 1,52,44,34,16,34,54		8,55
52″	14,36,52,43, 2,22,17,18,12,43		1, 4, 6,25,21	
		2, 1,52,43,30,10, 9,33		8,55
54″	14,36,54,44,55, 5,47,28,22,16		1, 4, 6,34,16	
		2, 1,52,42,26, 3,35,17		8,55
56″	14,36,56,46,47,48,13,31,57,33		1, 4, 6,43,11	
		2, 1,52,41,21,56,52, 6		8,55
58″	14,36,58,48,40,29,35,28,49,39		1, 4, 6,52, 6	
		2, 1,52,40,17,50, 0, 0		
60″	14,37, 0,50,33, 9,53,18,49,39			
exact	14,37, 0,50,33, 9,53,19,11,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14° 6′ 0″	14,37, 0,50,33, 9,53,19,11,59			
		2, 1,52,39,13,43, 1,28		
2″	14,37, 2,52,25,49, 7, 2,13,27		1, 4, 7, 9,45	
		2, 1,52,38, 9,35,51,43		8,55
4″	14,37, 4,54,18,27,16,38, 5,10		1, 4, 7,18,40	
		2, 1,52,37, 5,28,33, 3		8,55
6″	14,37, 6,56,11, 4,22, 6,38,13		1, 4, 7,27,35	
		2, 1,52,36, 1,21, 5,28		8,55
8″	14,37, 8,58, 3,40,23,27,43,41		1, 4, 7,36,30	
		2, 1,52,34,57,13,28,58		8,55
10″	14,37,10,59,56,15,20,41,12,39		1, 4, 7,45,25	
		2, 1,52,33,53, 5,43,33		8,55
12″	14,37,13, 1,48,49,13,46,56,12		1, 4, 7,54,20	
		2, 1,52,32,48,57,49,13		8,55
14″	14,37,15, 3,41,22, 2,44,45,25		1, 4, 8, 3,15	
		2, 1,52,31,44,49,45,58		8,55
16″	14,37,17, 5,33,53,47,34,31,23		1, 4, 8,12,10	
		2, 1,52,30,40,41,33,48		8,55
18″	14,37,19, 7,26,24,28,16, 5,11		1, 4, 8,21, 5	
		2, 1,52,29,36,33,12,43		8,55
20″	14,37,21, 9,18,54, 4,49,17,54		1, 4, 8,30, 0	
		2, 1,52,28,32,24,42,43		8,55
22″	14,37,23,11,11,22,37,14, 0,37		1, 4, 8,38,55	
		2, 1,52,27,28,16, 3,48		8,55
24″	14,37,25,13, 3,50, 5,30, 4,25		1, 4, 8,47,50	
		2, 1,52,26,24, 7,15,58		8,55
26″	14,37,27,14,56,16,29,37,20,23		1, 4, 8,56,45	
		2, 1,52,25,19,58,19,13		8,55
28″	14,37,29,16,48,41,49,35,39,36		1, 4, 9, 5,40	
		2, 1,52,24,15,49,13,33		8,55
30″	14,37,31,18,41, 6, 5,24,53, 9		1, 4, 9,14,35	
		2, 1,52,23,11,39,58,58		8,55
32″	14,37,33,20,33,29,17, 4,52, 7		1, 4, 9,23,30	
		2, 1,52,22, 7,30,35,28		8,55
34″	14,37,35,22,25,51,24,35,27,35		1, 4, 9,32,25	
		2, 1,52,21, 3,21, 3, 3		8,55
36″	14,37,37,24,18,12,27,56,30,38		1, 4, 9,41,20	
		2, 1,52,19,59,11,21,43		8,55
38″	14,37,39,26,10,32,27, 7,52,21		1, 4, 9,50,15	
		2, 1,52,18,55, 1,31,28		8,55
40″	14,37,41,28, 2,51,22, 9,23,49		1, 4, 9,59,10	
		2, 1,52,17,50,51,32,18		8,55
42″	14,37,43,29,55, 9,13, 0,56, 7		1, 4,10, 8, 5	
		2, 1,52,16,46,41,24,13		8,55
44″	14,37,45,31,47,25,59,42,20,20		1, 4,10,17, 0	
		2, 1,52,15,42,31, 7,13		8,55
46″	14,37,47,33,39,41,42,13,27,33		1, 4,10,25,55	
		2, 1,52,14,38,20,41,18		8,55
48″	14,37,49,35,31,56,20,34, 8,51		1, 4,10,34,50	
		2, 1,52,13,34,10, 6,28		8,55
50″	14,37,51,37,24, 9,54,44,15,19		1, 4,10,43,45	
		2, 1,52,12,29,59,22,43		8,55
52″	14,37,53,39,16,22,24,43,38, 2		1, 4,10,52,40	
		2, 1,52,11,25,48,30, 3		8,55
54″	14,37,55,41, 8,33,50,32, 8, 5		1, 4,11, 1,35	
		2, 1,52,10,21,37,28,28		8,55
56″	14,37,57,43, 0,44,12, 9,36,33		1, 4,11,10,30	
		2, 1,52, 9,17,26,17,58		8,55
58″	14,37,59,44,52,53,29,35,54,31		1, 4,11,19,25	
		2, 1,52, 8,13,14,58,33		
60″	14,38, 1,46,45, 1,42,50,53, 4			
exact	14,38, 1,46,45, 1,42,51,17,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14° 7′ 0″	14,38, 1,46,45, 1,42,51,17,57	2, 1,52, 7, 9, 3,32,59		
2″	14,38, 3,48,37, 8,51,54,50,56	2, 1,52, 6, 4,51,55,56	1, 4,11,37, 3	8,55
4″	14,38, 5,50,29,14,56,46,46,52	2, 1,52, 5, 0,40, 9,58	1, 4,11,45,58	8,55
6″	14,38, 7,52,21,19,57,26,56,50	2, 1,52, 3,56,28,15, 5	1, 4,11,54,53	8,55
8″	14,38, 9,54,13,23,53,55,11,55	2, 1,52, 2,52,16,11,17	1, 4,12, 3,48	8,55
10″	14,38,11,56, 5,26,46,11,23,12	2, 1,52, 1,48, 3,58,34	1, 4,12,12,43	8,55
12″	14,38,13,57,57,28,34,15,21,46	2, 1,52, 0,43,51,36,56	1, 4,12,21,38	8,55
14″	14,38,15,59,49,29,18, 6,58,42	2, 1,51,59,39,39, 6,23	1, 4,12,30,33	8,55
16″	14,38,18, 1,41,28,57,46, 5, 5	2, 1,51,58,35,26,26,55	1, 4,12,39,28	8,55
18″	14,38,20, 3,33,27,33,12,32, 0	2, 1,51,57,31,13,38,32	1, 4,12,48,23	8,55
20″	14,38,22, 5,25,25, 4,26,10,32	2, 1,51,56,27, 0,41,14	1, 4,12,57,18	8,55
22″	14,38,24, 7,17,21,31,26,51,46	2, 1,51,55,22,47,35, 1	1, 4,13, 6,13	8,55
24″	14,38,26, 9, 9,16,54,14,26,47	2, 1,51,54,18,34,19,53	1, 4,13,15, 8	8,55
26″	14,38,28,11, 1,11,12,48,46,40	2, 1,51,53,14,20,55,50	1, 4,13,24, 3	8,55
28″	14,38,30,12,53, 4,27, 9,42,30	2, 1,51,52,10, 7,22,52	1, 4,13,32,58	8,55
30″	14,38,32,14,44,56,37,17, 5,22	2, 1,51,51, 5,53,40,59	1, 4,13,41,53	8,55
32″	14,38,34,16,36,47,43,10,46,21	2, 1,51,50, 1,39,50,11	1, 4,13,50,48	8,55
34″	14,38,36,18,28,37,44,50,36,32	2, 1,51,48,57,25,50,28	1, 4,13,59,43	8,55
36″	14,38,38,20,20,26,42,16,27, 0	2, 1,51,47,53,11,41,50	1, 4,14, 8,38	8,55
38″	14,38,40,22,12,14,35,28, 8,50	2, 1,51,46,48,57,24,17	1, 4,14,17,33	8,55
40″	14,38,42,24, 4, 1,24,25,33, 7	2, 1,51,45,44,42,57,49	1, 4,14,26,28	8,55
42″	14,38,44,25,55,47, 9, 8,30,56	2, 1,51,44,40,28,22,26	1, 4,14,35,23	8,55
44″	14,38,46,27,47,31,49,36,53,22	2, 1,51,43,36,13,38, 8	1, 4,14,44,18	8,55
46″	14,38,48,29,39,15,25,50,31,30	2, 1,51,42,31,58,44,55	1, 4,14,53,13	8,55
48″	14,38,50,31,30,57,57,49,16,25	2, 1,51,41,27,43,42,47	1, 4,15, 2, 8	8,55
50″	14,38,52,33,22,39,25,32,59,12	2, 1,51,40,23,28,31,44	1, 4,15,11, 3	8,55
52″	14,38,54,35,14,19,49, 1,30,56	2, 1,51,39,19,13,11,46	1, 4,15,19,58	8,55
54″	14,38,56,37, 5,59, 8,14,42,42	2, 1,51,38,14,57,42,53	1, 4,15,28,53	8,55
56″	14,38,58,38,57,37,23,12,25,35	2, 1,51,37,10,42, 5, 5	1, 4,15,37,48	8,55
58″	14,39, 0,40,49,14,33,54,30,40	2, 1,51,36, 6,26,18,22	1, 4,15,46,43	
60″	14,39, 2,42,40,50,40,20,49, 2			
exact	14,39, 2,42,40,50,40,21,17,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14° 8′ 0″	14,39, 2,42,40,50,40,21,17,32	2, 1,51,35, 2,10,25,51		
2″	14,39, 4,44,32,25,42,31,43,23	2, 1,51,33,57,54,21,31	1, 4,16, 4,20	8,55
4″	14,39, 6,46,23,59,40,26, 4,54	2, 1,51,32,53,38, 8,16	1, 4,16,13,15	8,55
6″	14,39, 8,48,15,32,34, 4,13,10	2, 1,51,31,49,21,46, 6	1, 4,16,22,10	8,55
8″	14,39,10,50, 7, 4,23,25,59,16	2, 1,51,30,45, 5,15, 1	1, 4,16,31, 5	8,55
10″	14,39,12,51,58,35, 8,31,14,17	2, 1,51,29,40,48,35, 1	1, 4,16,40, 0	8,55
12″	14,39,14,53,50, 4,49,19,49,18	2, 1,51,28,36,31,46, 6	1, 4,16,48,55	8,55
14″	14,39,16,55,41,33,25,51,35,24	2, 1,51,27,32,14,48,16	1, 4,16,57,50	8,55
16″	14,39,18,57,33, 0,58, 6,23,40	2, 1,51,26,27,57,41,31	1, 4,17, 6,45	8,55
18″	14,39,20,59,24,27,26, 4, 5,11	2, 1,51,25,23,40,25,51	1, 4,17,15,40	8,55
20″	14,39,23, 1,15,52,49,44,31, 2	2, 1,51,24,19,23, 1,16	1, 4,17,24,35	8,55
22″	14,39,25, 3, 7,17, 9, 7,32,18	2, 1,51,23,15, 5,27,46	1, 4,17,33,30	8,55
24″	14,39,27, 4,58,40,24,13, 0, 4	2, 1,51,22,10,47,45,21	1, 4,17,42,25	8,55
26″	14,39,29, 6,50, 2,35, 0,45,25	2, 1,51,21, 6,29,54, 1	1, 4,17,51,20	8,55
28″	14,39,31, 8,41,23,41,30,39,26	2, 1,51,20, 2,11,53,46	1, 4,18, 0,15	8,55
30″	14,39,33,10,32,43,43,42,33,12	2, 1,51,18,57,53,44,36	1, 4,18, 9,10	8,55
32″	14,39,35,12,24, 2,41,36,17,48	2, 1,51,17,53,35,26,31	1, 4,18,18, 5	8,55
34″	14,39,37,14,15,20,35,11,44,19	2, 1,51,16,49,16,59,31	1, 4,18,27, 0	8,55
36″	14,39,39,16, 6,37,24,28,43,50	2, 1,51,15,44,58,23,36	1, 4,18,35,55	8,55
38″	14,39,41,17,57,53, 9,27, 7,26	2, 1,51,14,40,39,38,46	1, 4,18,44,50	8,55
40″	14,39,43,19,49, 7,50, 6,46,12	2, 1,51,13,36,20,45, 1	1, 4,18,53,45	8,55
42″	14,39,45,21,40,21,26,27,31,13	2, 1,51,12,32, 1,42,21	1, 4,19, 2,40	8,55
44″	14,39,47,23,31,33,58,29,13,34	2, 1,51,11,27,42,30,46	1, 4,19,11,35	8,55
46″	14,39,49,25,22,45,26,11,44,20	2, 1,51,10,23,23,10,16	1, 4,19,20,30	8,55
48″	14,39,51,27,13,55,49,34,54,36	2, 1,51, 9,19, 3,40,51	1, 4,19,29,25	8,55
50″	14,39,53,29, 5, 5, 8,38,35,27	2, 1,51, 8,14,44, 2,31	1, 4,19,38,20	8,55
52″	14,39,55,30,56,13,23,22,37,58	2, 1,51, 7,10,24,15,16	1, 4,19,47,15	8,55
54″	14,39,57,32,47,20,33,46,53,14	2, 1,51, 6, 6, 4,19, 6	1, 4,19,56,10	8,55
56″	14,39,59,34,38,26,39,51,12,20	2, 1,51, 5, 1,44,14, 1	1, 4,20, 5, 5	8,55
58″	14,40, 1,36,29,31,41,35,26,21	2, 1,51, 3,57,24, 0, 1	1, 4,20,14, 0	
60″	14,40, 3,38,20,35,38,59,26,22			
exact	14,40, 3,38,20,35,39, 0, 0,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14° 9′ 0″	14,40, 3,38,20,35,39, 0, 0,11			
		2, 1,51, 2,53, 3,40,41		
2″	14,40, 5,40,11,38,32, 3,40,52		1, 4,20,31,35	
		2, 1,51, 1,48,43, 9, 6		8,54
4″	14,40, 7,42, 2,40,20,46,49,58		1, 4,20,40,29	
		2, 1,51, 0,44,22,28,37		8,54
6″	14,40, 9,43,53,41, 5, 9,18,35		1, 4,20,49,23	
		2, 1,50,59,40, 1,39,14		8,54
8″	14,40,11,45,44,40,45,10,57,49		1, 4,20,58,17	
		2, 1,50,58,35,40,40,57		8,54
10″	14,40,13,47,35,39,20,51,38,46		1, 4,21, 7,11	
		2, 1,50,57,31,19,33,46		8,54
12″	14,40,15,49,26,36,52,11,12,32		1, 4,21,16, 5	
		2, 1,50,56,26,58,17,41		8,54
14″	14,40,17,51,17,33,19, 9,30,13		1, 4,21,24,59	
		2, 1,50,55,22,36,52,42		8,54
16″	14,40,19,53, 8,28,41,46,22,55		1, 4,21,33,53	
		2, 1,50,54,18,15,18,49		8,54
18″	14,40,21,54,59,23, 0, 1,41,44		1, 4,21,42,47	
		2, 1,50,53,13,53,36, 2		8,54
20″	14,40,23,56,50,16,13,55,17,46		1, 4,21,51,41	
		2, 1,50,52, 9,31,44,21		8,54
22″	14,40,25,58,41, 8,23,27, 2, 7		1, 4,22, 0,35	
		2, 1,50,51, 5, 9,43,46		8,54
24″	14,40,28, 0,31,59,28,36,45,53		1, 4,22, 9,29	
		2, 1,50,50, 0,47,34,17		8,54
26″	14,40,30, 2,22,49,29,24,20,10		1, 4,22,18,23	
		2, 1,50,48,56,25,15,54		8,54
28″	14,40,32, 4,13,38,25,49,36, 4		1, 4,22,27,17	
		2, 1,50,47,52, 2,48,37		8,54
30″	14,40,34, 6, 4,26,17,52,24,41		1, 4,22,36,11	
		2, 1,50,46,47,40,12,26		8,54
32″	14,40,36, 7,55,13, 5,32,37, 7		1, 4,22,45, 5	
		2, 1,50,45,43,17,27,21		8,54
34″	14,40,38, 9,45,58,48,50, 4,28		1, 4,22,53,59	
		2, 1,50,44,38,54,33,22		8,54
36″	14,40,40,11,36,43,27,44,37,50		1, 4,23, 2,53	
		2, 1,50,43,34,31,30,29		8,54
38″	14,40,42,13,27,27, 2,16, 8,19		1, 4,23,11,47	
		2, 1,50,42,30, 8,18,42		8,54
40″	14,40,44,15,18, 9,32,24,27, 1		1, 4,23,20,41	
		2, 1,50,41,25,44,58, 1		8,54
42″	14,40,46,17, 8,50,58, 9,25, 2		1, 4,23,29,35	
		2, 1,50,40,21,21,28,26		8,54
44″	14,40,48,18,59,31,19,30,53,28		1, 4,23,38,29	
		2, 1,50,39,16,57,49,57		8,54
46″	14,40,50,20,50,10,36,28,43,25		1, 4,23,47,23	
		2, 1,50,38,12,34, 2,34		8,54
48″	14,40,52,22,40,48,49, 2,45,59		1, 4,23,56,17	
		2, 1,50,37, 8,10, 6,17		8,54
50″	14,40,54,24,31,25,57,12,52,16		1, 4,24, 5,11	
		2, 1,50,36, 3,46, 1, 6		8,54
52″	14,40,56,26,22, 2, 0,58,53,22		1, 4,24,14, 5	
		2, 1,50,34,59,21,47, 1		8,54
54″	14,40,58,28,12,37, 0,20,40,23		1, 4,24,22,59	
		2, 1,50,33,54,57,24, 2		8,54
56″	14,41, 0,30, 3,10,55,18, 4,25		1, 4,24,31,53	
		2, 1,50,32,50,32,52, 9		8,54
58″	14,41, 2,31,53,43,45,50,56,34		1, 4,24,40,47	
		2, 1,50,31,46, 8,11,22		
60″	14,41, 4,33,44,15,31,59, 7,56			
exact	14,41, 4,33,44,15,31,58,32,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°10′ 0″	14,41, 4,33,44,15,31,58,32,56			
		2, 1,50,30,41,43,18, 3		
2″	14,41, 6,35,34,46,13,41,50,59		1, 4,24,58,50	
		2, 1,50,29,37,18,19,13		8,54
4″	14,41, 8,37,25,15,51, 0,10,12		1, 4,25, 7,44	
		2, 1,50,28,32,53,11,29		8,54
6″	14,41,10,39,15,44,23,53,21,41		1, 4,25,16,38	
		2, 1,50,27,28,27,54,51		8,54
8″	14,41,12,41, 6,11,52,21,16,32		1, 4,25,25,32	
		2, 1,50,26,24, 2,29,19		8,54
10″	14,41,14,42,56,38,16,23,45,51		1, 4,25,34,26	
		2, 1,50,25,19,36,54,53		8,54
12″	14,41,16,44,47, 3,36, 0,40,44		1, 4,25,43,20	
		2, 1,50,24,15,11,11,33		8,54
14″	14,41,18,46,37,27,51,11,52,17		1, 4,25,52,14	
		2, 1,50,23,10,45,19,19		8,54
16″	14,41,20,48,27,51, 1,57,11,36		1, 4,26, 1, 8	
		2, 1,50,22, 6,19,18,11		8,54
18″	14,41,22,50,18,13, 8,16,29,47		1, 4,26,10, 2	
		2, 1,50,21, 1,53, 8, 9		8,54
20″	14,41,24,52, 8,34,10, 9,37,56		1, 4,26,18,56	
		2, 1,50,19,57,26,49,13		8,54
22″	14,41,26,53,58,54, 7,36,27, 9		1, 4,26,27,50	
		2, 1,50,18,53, 0,21,23		8,54
24″	14,41,28,55,49,13, 0,36,48,32		1, 4,26,36,44	
		2, 1,50,17,48,33,44,39		8,54
26″	14,41,30,57,39,30,49,10,33,11		1, 4,26,45,38	
		2, 1,50,16,44, 6,59, 1		8,54
28″	14,41,32,59,29,47,33,17,32,12		1, 4,26,54,32	
		2, 1,50,15,39,40, 4,29		8,54
30″	14,41,35, 1,20, 3,12,57,36,41		1, 4,27, 3,26	
		2, 1,50,14,35,13, 1, 3		8,54
32″	14,41,37, 3,10,17,48,10,37,44		1, 4,27,12,20	
		2, 1,50,13,30,45,48,43		8,54
34″	14,41,39, 5, 0,31,18,56,26,27		1, 4,27,21,14	
		2, 1,50,12,26,18,27,29		8,54
36″	14,41,41, 6,50,43,45,14,53,56		1, 4,27,30, 8	
		2, 1,50,11,21,50,57,21		8,54
38″	14,41,43, 8,40,55, 7, 5,51,17		1, 4,27,39, 2	
		2, 1,50,10,17,23,18,19		8,54
40″	14,41,45,10,31, 5,24,29, 9,36		1, 4,27,47,56	
		2, 1,50, 9,12,55,30,23		8,54
42″	14,41,47,12,21,14,37,24,39,59		1, 4,27,56,50	
		2, 1,50, 8, 8,27,33,33		8,54
44″	14,41,49,14,11,22,45,52,13,32		1, 4,28, 5,44	
		2, 1,50, 7, 3,59,27,49		8,54
46″	14,41,51,16, 1,29,49,51,41,21		1, 4,28,14,38	
		2, 1,50, 5,59,31,13,11		8,54
48″	14,41,53,17,51,35,49,22,54,32		1, 4,28,23,32	
		2, 1,50, 4,55, 2,49,39		8,54
50″	14,41,55,19,41,40,44,25,44,11		1, 4,28,32,26	
		2, 1,50, 3,50,34,17,13		8,54
52″	14,41,57,21,31,44,35, 0, 1,24		1, 4,28,41,20	
		2, 1,50, 2,46, 5,35,53		8,54
54″	14,41,59,23,21,47,21, 5,37,17		1, 4,28,50,14	
		2, 1,50, 1,41,36,45,39		8,54
56″	14,42, 1,25,11,49, 2,42,22,56		1, 4,28,59, 8	
		2, 1,50, 0,37, 7,46,31		8,54
58″	14,42, 3,27, 1,49,39,50, 9,27		1, 4,29, 8, 2	
		2, 1,49,59,32,38,38,29		
60″	14,42, 5,28,51,49,12,28,47,56			
exact	14,42, 5,28,51,49,12,28,20,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°11′ 0″	14,42, 5,28,51,49,12,28,20,30	2, 1,49,58,28, 9,18,32		
2″	14,42, 7,30,41,47,40,37,39, 2	2, 1,49,57,23,39,52,29	1, 4,29,26, 3	
4″	14,42, 9,32,31,45, 4,17,31,31	2, 1,49,56,19,10,17,32	1, 4,29,34,57	8,54
6″	14,42,11,34,21,41,23,27,49, 3	2, 1,49,55,14,40,33,41	1, 4,29,43,51	8,54
8″	14,42,13,36,11,36,38, 8,22,44	2, 1,49,54,10,10,40,56	1, 4,29,52,45	8,54
10″	14,42,15,38, 1,30,48,19, 3,40	2, 1,49,53, 5,40,39,17	1, 4,30, 1,39	8,54
12″	14,42,17,39,51,23,53,59,42,57	2, 1,49,52, 1,10,28,44	1, 4,30,10,33	8,54
14″	14,42,19,41,41,15,55,10,11,41	2, 1,49,50,56,40, 9,17	1, 4,30,19,27	8,54
16″	14,42,21,43,31, 6,51,50,20,58	2, 1,49,49,52, 9,40,56	1, 4,30,28,21	8,54
18″	14,42,23,45,20,56,44, 0, 1,54	2, 1,49,48,47,39, 3,41	1, 4,30,37,15	8,54
20″	14,42,25,47,10,45,31,39, 5,35	2, 1,49,47,43, 8,17,32	1, 4,30,46, 9	8,54
22″	14,42,27,49, 0,33,14,47,23, 7	2, 1,49,46,38,37,22,29	1, 4,30,55, 3	8,54
24″	14,42,29,50,50,19,53,24,45,36	2, 1,49,45,34, 6,18,32	1, 4,31, 3,57	8,54
26″	14,42,31,52,40, 5,27,31, 4, 8	2, 1,49,44,29,35, 5,41	1, 4,31,12,51	8,54
28″	14,42,33,54,29,49,57, 6, 9,49	2, 1,49,43,25, 3,43,56	1, 4,31,21,45	8,54
30″	14,42,35,56,19,33,22, 9,53,45	2, 1,49,42,20,32,13,17	1, 4,31,30,39	8,54
32″	14,42,37,58, 9,15,42,42, 7, 2	2, 1,49,41,16, 0,33,44	1, 4,31,39,33	8,54
34″	14,42,39,59,58,56,58,42,40,46	2, 1,49,40,11,28,45,17	1, 4,31,48,27	8,54
36″	14,42,42, 1,48,37,10,11,26, 3	2, 1,49,39, 6,56,47,56	1, 4,31,57,21	8,54
38″	14,42,44, 3,38,16,17, 8,13,59	2, 1,49,38, 2,24,41,41	1, 4,32, 6,15	8,54
40″	14,42,46, 5,27,54,19,32,55,40	2, 1,49,36,57,52,26,32	1, 4,32,15, 9	8,54
42″	14,42,48, 7,17,31,17,25,22,12	2, 1,49,35,53,20, 2,29	1, 4,32,24, 3	8,54
44″	14,42,50, 9, 7, 7,10,45,24,41	2, 1,49,34,48,47,29,32	1, 4,32,32,57	8,54
46″	14,42,52,10,56,41,59,32,54,13	2, 1,49,33,44,14,47,41	1, 4,32,41,51	8,54
48″	14,42,54,12,46,15,43,47,41,54	2, 1,49,32,39,41,56,56	1, 4,32,50,45	8,54
50″	14,42,56,14,35,48,23,29,38,50	2, 1,49,31,35, 8,57,17	1, 4,32,59,39	8,54
52″	14,42,58,16,25,19,58,38,36, 7	2, 1,49,30,30,35,48,44	1, 4,33, 8,33	8,54
54″	14,43, 0,18,14,50,29,14,24,51	2, 1,49,29,26, 2,31,17	1, 4,33,17,27	8,54
56″	14,43, 2,20, 4,19,55,16,56, 8	2, 1,49,28,21,29, 4,56	1, 4,33,26,21	8,54
58″	14,43, 4,21,53,48,16,46, 1, 4	2, 1,49,27,16,55,29,41	1, 4,33,35,15	
60″	14,43, 6,23,43,15,33,41,30,45			
exact	14,43, 6,23,43,15,33,41, 5,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°12′ 0″	14,43, 6,23,43,15,33,41, 5,12			
		2, 1,49,26,12,21,42,44		
2″	14,43, 8,25,32,41,46, 2,47,56		1, 4,33,53,15	
		2, 1,49,25, 7,47,49,29		8,54
4″	14,43,10,27,22, 6,53,50,37,25		1, 4,34, 2, 9	
		2, 1,49,24, 3,13,47,20		8,54
6″	14,43,12,29,11,30,57, 4,24,45		1, 4,34,11, 3	
		2, 1,49,22,58,39,36,17		8,54
8″	14,43,14,31, 0,53,55,44, 1, 2		1, 4,34,19,57	
		2, 1,49,21,54, 5,16,20		8,54
10″	14,43,16,32,50,15,49,49,17,22		1, 4,34,28,51	
		2, 1,49,20,49,30,47,29		8,54
12″	14,43,18,34,39,36,39,20, 4,51		1, 4,34,37,45	
		2, 1,49,19,44,56, 9,44		8,54
14″	14,43,20,36,28,56,24,16,14,35		1, 4,34,46,39	
		2, 1,49,18,40,21,23, 5		8,54
16″	14,43,22,38,18,15, 4,37,37,40		1, 4,34,55,33	
		2, 1,49,17,35,46,27,32		8,54
18″	14,43,24,40, 7,32,40,24, 5,12		1, 4,35, 4,27	
		2, 1,49,16,31,11,23, 5		8,54
20″	14,43,26,41,56,49,11,35,28,17		1, 4,35,13,21	
		2, 1,49,15,26,36, 9,44		8,54
22″	14,43,28,43,46, 4,38,11,38, 1		1, 4,35,22,15	
		2, 1,49,14,22, 0,47,29		8,54
24″	14,43,30,45,35,19, 0,12,25,30		1, 4,35,31, 9	
		2, 1,49,13,17,25,16,20		8,54
26″	14,43,32,47,24,32,17,37,41,50		1, 4,35,40, 3	
		2, 1,49,12,12,49,36,17		8,54
28″	14,43,34,49,13,44,30,27,18, 7		1, 4,35,48,57	
		2, 1,49,11, 8,13,47,20		8,54
30″	14,43,36,51, 2,55,38,41, 5,27		1, 4,35,57,51	
		2, 1,49,10, 3,37,49,29		8,54
32″	14,43,38,52,52, 5,42,18,54,56		1, 4,36, 6,45	
		2, 1,49, 8,59, 1,42,44		8,54
34″	14,43,40,54,41,14,41,20,37,40		1, 4,36,15,39	
		2, 1,49, 7,54,25,27, 5		8,54
36″	14,43,42,56,30,22,35,46, 4,45		1, 4,36,24,33	
		2, 1,49, 6,49,49, 2,32		8,54
38″	14,43,44,58,19,29,25,35, 7,17		1, 4,36,33,27	
		2, 1,49, 5,45,12,29, 5		8,54
40″	14,43,47, 0, 8,35,10,47,36,22		1, 4,36,42,21	
		2, 1,49, 4,40,35,46,44		8,54
42″	14,43,49, 1,57,39,51,23,23, 6		1, 4,36,51,15	
		2, 1,49, 3,35,58,55,29		8,54
44″	14,43,51, 3,46,43,27,22,18,35		1, 4,37, 0, 9	
		2, 1,49, 2,31,21,55,20		8,54
46″	14,43,53, 5,35,45,58,44,13,55		1, 4,37, 9, 3	
		2, 1,49, 1,26,44,46,17		8,54
48″	14,43,55, 7,24,47,25,29, 0,12		1, 4,37,17,57	
		2, 1,49, 0,22, 7,28,20		8,54
50″	14,43,57, 9,13,47,47,36,28,32		1, 4,37,26,51	
		2, 1,48,59,17,30, 1,29		8,54
52″	14,43,59,11, 2,47, 5, 6,30, 1		1, 4,37,35,45	
		2, 1,48,58,12,52,25,44		8,54
54″	14,44, 1,12,51,45,17,58,55,45		1, 4,37,44,39	
		2, 1,48,57, 8,14,41, 5		8,54
56″	14,44, 3,14,40,42,26,13,36,50		1, 4,37,53,33	
		2, 1,48,56, 3,36,47,32		8,54
58″	14,44, 5,16,29,38,29,50,24,22		1, 4,38, 2,27	
		2, 1,48,54,58,58,45, 5		
60″	14,44, 7,18,18,33,28,49, 9,27			
exact	14,44, 7,18,18,33,28,48,47, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°13′ 0″	14,44, 7,18,18,33,28,48,47, 5			
		2, 1,48,53,54,20,31,15		
2″	14,44, 9,20, 7,27,23, 9,18,20		1, 4,38,20,25	
		2, 1,48,52,49,42,10,50		8,54
4″	14,44,11,21,56,20,12,51,29,10		1, 4,38,29,19	
		2, 1,48,51,45, 3,41,31		8,54
6″	14,44,13,23,45,11,57,55,10,41		1, 4,38,38,13	
		2, 1,48,50,40,25, 3,18		8,54
8″	14,44,15,25,34, 2,38,20,13,59		1, 4,38,47, 7	
		2, 1,48,49,35,46,16,11		8,54
10″	14,44,17,27,22,52,14, 6,30,10		1, 4,38,56, 1	
		2, 1,48,48,31, 7,20,10		8,54
12″	14,44,19,29,11,40,45,13,50,20		1, 4,39, 4,55	
		2, 1,48,47,26,28,15,15		8,54
14″	14,44,21,31, 0,28,11,42, 5,35		1, 4,39,13,49	
		2, 1,48,46,21,49, 1,26		8,54
16″	14,44,23,32,49,14,33,31, 7, 1		1, 4,39,22,43	
		2, 1,48,45,17, 9,38,43		8,54
18″	14,44,25,34,37,59,50,40,45,44		1, 4,39,31,37	
		2, 1,48,44,12,30, 7, 6		8,54
20″	14,44,27,36,26,44, 3,10,52,50		1, 4,39,40,31	
		2, 1,48,43, 7,50,26,35		8,54
22″	14,44,29,38,15,27,11, 1,19,25		1, 4,39,49,25	
		2, 1,48,42, 3,10,37,10		8,54
24″	14,44,31,40, 4, 9,14,11,56,35		1, 4,39,58,19	
		2, 1,48,40,58,30,38,51		8,54
26″	14,44,33,41,52,50,12,42,35,26		1, 4,40, 7,13	
		2, 1,48,39,53,50,31,38		8,54
28″	14,44,35,43,41,30, 6,33, 7, 4		1, 4,40,16, 7	
		2, 1,48,38,49,10,15,31		8,54
30″	14,44,37,45,30, 8,55,43,22,35		1, 4,40,25, 1	
		2, 1,48,37,44,29,50,30		8,54
32″	14,44,39,47,18,46,40,13,13, 5		1, 4,40,33,55	
		2, 1,48,36,39,49,16,35		8,54
34″	14,44,41,49, 7,23,20, 2,29,40		1, 4,40,42,49	
		2, 1,48,35,35, 8,33,46		8,54
36″	14,44,43,50,55,58,55,11, 3,26		1, 4,40,51,43	
		2, 1,48,34,30,27,42, 3		8,54
38″	14,44,45,52,44,33,25,38,45,29		1, 4,41, 0,37	
		2, 1,48,33,25,46,41,26		8,54
40″	14,44,47,54,33, 6,51,25,26,55		1, 4,41, 9,31	
		2, 1,48,32,21, 5,31,55		8,54
42″	14,44,49,56,21,39,12,30,58,50		1, 4,41,18,25	
		2, 1,48,31,16,24,13,30		8,54
44″	14,44,51,58,10,10,28,55,12,20		1, 4,41,27,19	
		2, 1,48,30,11,42,46,11		8,54
46″	14,44,53,59,58,40,40,37,58,31		1, 4,41,36,13	
		2, 1,48,29, 7, 1, 9,58		8,54
48″	14,44,56, 1,47, 9,47,39, 8,29		1, 4,41,45, 7	
		2, 1,48,28, 2,19,24,51		8,54
50″	14,44,58, 3,35,37,49,58,33,20		1, 4,41,54, 1	
		2, 1,48,26,57,37,30,50		8,54
52″	14,45, 0, 5,24, 4,47,36, 4,10		1, 4,42, 2,55	
		2, 1,48,25,52,55,27,55		8,54
54″	14,45, 2, 7,12,30,40,31,32, 5		1, 4,42,11,49	
		2, 1,48,24,48,13,16, 6		8,54
56″	14,45, 4, 9, 0,55,28,44,48,11		1, 4,42,20,43	
		2, 1,48,23,43,30,55,23		8,54
58″	14,45, 6,10,49,19,12,15,43,34		1, 4,42,29,37	
		2, 1,48,22,38,48,25,46		
60″	14,45, 8,12,37,41,51, 4, 9,20			
exact	14,45, 8,12,37,41,51, 3,43,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°14′ 0″	14,45, 8,12,37,41,51, 3,43,53			
		2, 1,48,21,34, 5,44,40		
2″	14,45,10,14,26, 3,25, 9,28,33		1, 4,42,47,35	
		2, 1,48,20,29,22,57, 5		8,54
4″	14,45,12,16,14,23,54,32,25,38		1, 4,42,56,29	
		2, 1,48,19,24,40, 0,36		8,54
6″	14,45,14,18, 2,43,19,12,26,14		1, 4,43, 5,23	
		2, 1,48,18,19,56,55,13		8,54
8″	14,45,16,19,51, 1,39, 9,21,27		1, 4,43,14,17	
		2, 1,48,17,15,13,40,56		8,54
10″	14,45,18,21,39,18,54,23, 2,23		1, 4,43,23,11	
		2, 1,48,16,10,30,17,45		8,54
12″	14,45,20,23,27,35, 4,53,20, 8		1, 4,43,32, 5	
		2, 1,48,15, 5,46,45,40		8,54
14″	14,45,22,25,15,50,10,40, 5,48		1, 4,43,40,59	
		2, 1,48,14, 1, 3, 4,41		8,54
16″	14,45,24,27, 4, 4,11,43,10,29		1, 4,43,49,53	
		2, 1,48,12,56,19,14,48		8,54
18″	14,45,26,28,52,17, 8, 2,25,17		1, 4,43,58,47	
		2, 1,48,11,51,35,16, 1		8,54
20″	14,45,28,30,40,28,59,37,41,18		1, 4,44, 7,41	
		2, 1,48,10,46,51, 8,20		8,54
22″	14,45,30,32,28,39,46,28,49,38		1, 4,44,16,35	
		2, 1,48, 9,42, 6,51,45		8,54
24″	14,45,32,34,16,49,28,35,41,23		1, 4,44,25,29	
		2, 1,48, 8,37,22,26,16		8,54
26″	14,45,34,36, 4,58, 5,58, 7,39		1, 4,44,34,23	
		2, 1,48, 7,32,37,51,53		8,54
28″	14,45,36,37,53, 5,38,35,59,32		1, 4,44,43,17	
		2, 1,48, 6,27,53, 8,36		8,54
30″	14,45,38,39,41,12, 6,29, 8, 8		1, 4,44,52,11	
		2, 1,48, 5,23, 8,16,25		8,54
32″	14,45,40,41,29,17,29,37,24,33		1, 4,45, 1, 5	
		2, 1,48, 4,18,23,15,20		8,54
34″	14,45,42,43,17,21,48, 0,39,53		1, 4,45, 9,59	
		2, 1,48, 3,13,38, 5,21		8,54
36″	14,45,44,45, 5,25, 1,38,45,14		1, 4,45,18,53	
		2, 1,48, 2, 8,52,46,28		8,54
38″	14,45,46,46,53,27,10,31,31,42		1, 4,45,27,47	
		2, 1,48, 1, 4, 7,18,41		8,54
40″	14,45,48,48,41,28,14,38,50,23		1, 4,45,36,41	
		2, 1,47,59,59,21,42, 0		8,54
42″	14,45,50,50,29,28,14, 0,32,23		1, 4,45,45,35	
		2, 1,47,58,54,35,56,25		8,54
44″	14,45,52,52,17,27, 8,36,28,48		1, 4,45,54,29	
		2, 1,47,57,49,50, 1,56		8,54
46″	14,45,54,54, 5,24,58,26,30,44		1, 4,46, 3,23	
		2, 1,47,56,45, 3,58,33		8,54
48″	14,45,56,55,53,21,43,30,29,17		1, 4,46,12,17	
		2, 1,47,55,40,17,46,16		8,54
50″	14,45,58,57,41,17,23,48,15,33		1, 4,46,21,11	
		2, 1,47,54,35,31,25, 5		8,54
52″	14,46, 0,59,29,11,59,19,40,38		1, 4,46,30, 5	
		2, 1,47,53,30,44,55, 0		8,54
54″	14,46, 3, 1,17, 5,30, 4,35,38		1, 4,46,38,59	
		2, 1,47,52,25,58,16, 1		8,54
56″	14,46, 5, 3, 4,57,56, 2,51,39		1, 4,46,47,53	
		2, 1,47,51,21,11,28, 8		8,54
58″	14,46, 7, 4,52,49,17,14,19,47		1, 4,46,56,47	
		2, 1,47,50,16,24,31,21		
60″	14,46, 9, 6,40,39,33,38,51, 8			
exact	14,46, 9, 6,40,39,33,38,31, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°15′ 0″	14,46, 9, 6,40,39,33,38,31, 2			
		2, 1,47,49,11,37,23,34		
2″	14,46,11, 8,28,28,45,15,54,36		1, 4,47,14,43	
		2, 1,47,48, 6,50, 8,51		8,54
4″	14,46,13,10,16,16,52, 6, 3,27		1, 4,47,23,37	
		2, 1,47,47, 2, 2,45,14		8,54
6″	14,46,15,12, 4, 3,54, 8,48,41		1, 4,47,32,31	
		2, 1,47,45,57,15,12,43		8,54
8″	14,46,17,13,51,49,51,24, 1,24		1, 4,47,41,25	
		2, 1,47,44,52,27,31,18		8,54
10″	14,46,19,15,39,34,43,51,32,42		1, 4,47,50,19	
		2, 1,47,43,47,39,40,59		8,54
12″	14,46,21,17,27,18,31,31,13,41		1, 4,47,59,13	
		2, 1,47,42,42,51,41,46		8,54
14″	14,46,23,19,15, 1,14,22,55,27		1, 4,48, 8, 7	
		2, 1,47,41,38, 3,33,39		8,54
16″	14,46,25,21, 2,42,52,26,29, 6		1, 4,48,17, 1	
		2, 1,47,40,33,15,16,38		8,54
18″	14,46,27,22,50,23,25,41,45,44		1, 4,48,25,55	
		2, 1,47,39,28,26,50,43		8,54
20″	14,46,29,24,38, 2,54, 8,36,27		1, 4,48,34,49	
		2, 1,47,38,23,38,15,54		8,54
22″	14,46,31,26,25,41,17,46,52,21		1, 4,48,43,43	
		2, 1,47,37,18,49,32,11		8,54
24″	14,46,33,28,13,18,36,36,24,32		1, 4,48,52,37	
		2, 1,47,36,14, 0,39,34		8,54
26″	14,46,35,30, 0,54,50,37, 4, 6		1, 4,49, 1,31	
		2, 1,47,35, 9,11,38, 3		8,54
28″	14,46,37,31,48,29,59,48,42, 9		1, 4,49,10,25	
		2, 1,47,34, 4,22,27,38		8,54
30″	14,46,39,33,36, 4, 4,11, 9,47		1, 4,49,19,19	
		2, 1,47,32,59,33, 8,19		8,54
32″	14,46,41,35,23,37, 3,44,18, 6		1, 4,49,28,13	
		2, 1,47,31,54,43,40, 6		8,54
34″	14,46,43,37,11, 8,58,27,58,12		1, 4,49,37, 7	
		2, 1,47,30,49,54, 2,59		8,54
36″	14,46,45,38,58,39,48,22, 1,11		1, 4,49,46, 1	
		2, 1,47,29,45, 4,16,58		8,54
38″	14,46,47,40,46, 9,33,26,18, 9		1, 4,49,54,55	
		2, 1,47,28,40,14,22, 3		8,54
40″	14,46,49,42,33,38,13,40,40,12		1, 4,50, 3,49	
		2, 1,47,27,35,24,18,14		8,54
42″	14,46,51,44,21, 5,49, 4,58,26		1, 4,50,12,43	
		2, 1,47,26,30,34, 5,31		8,54
44″	14,46,53,46, 8,32,19,39, 3,57		1, 4,50,21,37	
		2, 1,47,25,25,43,43,54		8,54
46″	14,46,55,47,55,57,45,22,47,51		1, 4,50,30,31	
		2, 1,47,24,20,53,13,23		8,54
48″	14,46,57,49,43,22, 6,16, 1,14		1, 4,50,39,25	
		2, 1,47,23,16, 2,33,58		8,54
50″	14,46,59,51,30,45,22,18,35,12		1, 4,50,48,19	
		2, 1,47,22,11,11,45,39		8,54
52″	14,47, 1,53,18, 7,33,30,20,51		1, 4,50,57,13	
		2, 1,47,21, 6,20,48,26		8,54
54″	14,47, 3,55, 5,28,39,51, 9,17		1, 4,51, 6, 7	
		2, 1,47,20, 1,29,42,19		8,54
56″	14,47, 5,56,52,48,41,20,51,36		1, 4,51,15, 1	
		2, 1,47,18,56,38,27,18		8,54
58″	14,47, 7,58,40, 7,37,59,18,54		1, 4,51,23,55	
		2, 1,47,17,51,47, 3,23		
60″	14,47,10, 0,27,25,29,46,22,17			
exact	14,47,10, 0,27,25,29,46, 1,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°16′ 0″	14,47,10, 0,27,25,29,46, 1,44			
		2, 1,47,16,46,55,28,32		
2″	14,47,12, 2,14,42,16,41,30,16		1, 4,51,41,51	
		2, 1,47,15,42, 3,46,41		8,54
4″	14,47,14, 4, 1,57,58,45,16,57		1, 4,51,50,45	
		2, 1,47,14,37,11,55,56		8,54
6″	14,47,16, 5,49,12,35,57,12,53		1, 4,51,59,39	
		2, 1,47,13,32,19,56,17		8,54
8″	14,47,18, 7,36,26, 8,17, 9,10		1, 4,52, 8,33	
		2, 1,47,12,27,27,47,44		8,54
10″	14,47,20, 9,23,38,35,44,56,54		1, 4,52,17,27	
		2, 1,47,11,22,35,30,17		8,54
12″	14,47,22,11,10,49,58,20,27,11		1, 4,52,26,21	
		2, 1,47,10,17,43, 3,56		8,54
14″	14,47,24,12,58, 0,16, 3,31, 7		1, 4,52,35,15	
		2, 1,47, 9,12,50,28,41		8,54
16″	14,47,26,14,45, 9,28,53,59,48		1, 4,52,44, 9	
		2, 1,47, 8, 7,57,44,32		8,54
18″	14,47,28,16,32,17,36,51,44,20		1, 4,52,53, 3	
		2, 1,47, 7, 3, 4,51,29		8,54
20″	14,47,30,18,19,24,39,56,35,49		1, 4,53, 1,57	
		2, 1,47, 5,58,11,49,32		8,54
22″	14,47,32,20, 6,30,38, 8,25,21		1, 4,53,10,51	
		2, 1,47, 4,53,18,38,41		8,54
24″	14,47,34,21,53,35,31,27, 4, 2		1, 4,53,19,45	
		2, 1,47, 3,48,25,18,56		8,54
26″	14,47,36,23,40,39,19,52,22,58		1, 4,53,28,39	
		2, 1,47, 2,43,31,50,17		8,54
28″	14,47,38,25,27,42, 3,24,13,15		1, 4,53,37,33	
		2, 1,47, 1,38,38,12,44		8,54
30″	14,47,40,27,14,43,42, 2,25,59		1, 4,53,46,27	
		2, 1,47, 0,33,44,26,17		8,54
32″	14,47,42,29, 1,44,15,46,52,16		1, 4,53,55,21	
		2, 1,46,59,28,50,30,56		8,54
34″	14,47,44,30,48,43,44,37,23,12		1, 4,54, 4,15	
		2, 1,46,58,23,56,26,41		8,54
36″	14,47,46,32,35,42, 8,33,49,53		1, 4,54,13, 9	
		2, 1,46,57,19, 2,13,32		8,54
38″	14,47,48,34,22,39,27,36, 3,25		1, 4,54,22, 3	
		2, 1,46,56,14, 7,51,29		8,54
40″	14,47,50,36, 9,35,41,43,54,54		1, 4,54,30,57	
		2, 1,46,55, 9,13,20,32		8,54
42″	14,47,52,37,56,30,50,57,15,26		1, 4,54,39,51	
		2, 1,46,54, 4,18,40,41		8,54
44″	14,47,54,39,43,24,55,15,56, 7		1, 4,54,48,45	
		2, 1,46,52,59,23,51,56		8,54
46″	14,47,56,41,30,17,54,39,48, 3		1, 4,54,57,39	
		2, 1,46,51,54,28,54,17		8,54
48″	14,47,58,43,17, 9,49, 8,42,20		1, 4,55, 6,33	
		2, 1,46,50,49,33,47,44		8,54
50″	14,48, 0,45, 4, 0,38,42,30, 4		1, 4,55,15,27	
		2, 1,46,49,44,38,32,17		8,54
52″	14,48, 2,46,50,50,23,21, 2,21		1, 4,55,24,21	
		2, 1,46,48,39,43, 7,56		8,54
54″	14,48, 4,48,37,39, 3, 4,10,17		1, 4,55,33,15	
		2, 1,46,47,34,47,34,41		8,54
56″	14,48, 6,50,24,26,37,51,44,58		1, 4,55,42, 9	
		2, 1,46,46,29,51,52,32		8,54
58″	14,48, 8,52,11,13, 7,43,37,30		1, 4,55,51, 3	
		2, 1,46,45,24,56, 1,29		
60″	14,48,10,53,57,58,32,39,38,59			
exact	14,48,10,53,57,58,32,39,26,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°17′ 0″	14,48,10,53,57,58,32,39,26,55			
		2, 1,46,44,20, 0, 0,11		
2″	14,48,12,55,44,42,52,39,27, 6		1, 4,56, 8,57	
		2, 1,46,43,15, 3,51,14		8,54
4″	14,48,14,57,31,26, 7,43,18,20		1, 4,56,17,51	
		2, 1,46,42,10, 7,33,23		8,54
6″	14,48,16,59,18, 8,17,50,51,43		1, 4,56,26,45	
		2, 1,46,41, 5,11, 6,38		8,54
8″	14,48,19, 1, 4,49,23, 1,58,21		1, 4,56,35,39	
		2, 1,46,40, 0,14,30,59		8,54
10″	14,48,21, 2,51,29,23,16,29,20		1, 4,56,44,33	
		2, 1,46,38,55,17,46,26		8,54
12″	14,48,23, 4,38, 8,18,34,15,46		1, 4,56,53,27	
		2, 1,46,37,50,20,52,59		8,54
14″	14,48,25, 6,24,46, 8,55, 8,45		1, 4,57, 2,21	
		2, 1,46,36,45,23,50,38		8,54
16″	14,48,27, 8,11,22,54,18,59,23		1, 4,57,11,15	
		2, 1,46,35,40,26,39,23		8,54
18″	14,48,29, 9,57,58,34,45,38,46		1, 4,57,20, 9	
		2, 1,46,34,35,29,19,14		8,54
20″	14,48,31,11,44,33,10,14,58, 0		1, 4,57,29, 3	
		2, 1,46,33,30,31,50,11		8,54
22″	14,48,33,13,31, 6,40,46,48,11		1, 4,57,37,57	
		2, 1,46,32,25,34,12,14		8,54
24″	14,48,35,15,17,39, 6,21, 0,25		1, 4,57,46,51	
		2, 1,46,31,20,36,25,23		8,54
26″	14,48,37,17, 4,10,26,57,25,48		1, 4,57,55,45	
		2, 1,46,30,15,38,29,38		8,54
28″	14,48,39,18,50,40,42,35,55,26		1, 4,58, 4,39	
		2, 1,46,29,10,40,24,59		8,54
30″	14,48,41,20,37, 9,53,16,20,25		1, 4,58,13,33	
		2, 1,46,28, 5,42,11,26		8,54
32″	14,48,43,22,23,37,58,58,31,51		1, 4,58,22,27	
		2, 1,46,27, 0,43,48,59		8,54
34″	14,48,45,24,10, 4,59,42,20,50		1, 4,58,31,21	
		2, 1,46,25,55,45,17,38		8,54
36″	14,48,47,25,56,30,55,27,38,28		1, 4,58,40,15	
		2, 1,46,24,50,46,37,23		8,54
38″	14,48,49,27,42,55,46,14,15,51		1, 4,58,49, 9	
		2, 1,46,23,45,47,48,14		8,54
40″	14,48,51,29,29,19,32, 2, 4, 5		1, 4,58,58, 3	
		2, 1,46,22,40,48,50,11		8,54
42″	14,48,53,31,15,42,12,50,54,16		1, 4,59, 6,57	
		2, 1,46,21,35,49,43,14		8,54
44″	14,48,55,33, 2, 3,48,40,37,30		1, 4,59,15,51	
		2, 1,46,20,30,50,27,23		8,54
46″	14,48,57,34,48,24,19,31, 4,53		1, 4,59,24,45	
		2, 1,46,19,25,51, 2,38		8,54
48″	14,48,59,36,34,43,45,22, 7,31		1, 4,59,33,39	
		2, 1,46,18,20,51,28,59		8,54
50″	14,49, 1,38,21, 2, 6,13,36,30		1, 4,59,42,33	
		2, 1,46,17,15,51,46,26		8,54
52″	14,49, 3,40, 7,19,22, 5,22,56		1, 4,59,51,27	
		2, 1,46,16,10,51,54,59		8,54
54″	14,49, 5,41,53,35,32,57,17,55		1, 5, 0, 0,21	
		2, 1,46,15, 5,51,54,38		8,54
56″	14,49, 7,43,39,50,38,49,12,33		1, 5, 0, 9,15	
		2, 1,46,14, 0,51,45,23		8,54
58″	14,49, 9,45,26, 4,39,40,57,56		1, 5, 0,18, 9	
		2, 1,46,12,55,51,27,14		
60″	14,49,11,47,12,17,35,32,25,10			
exact	14,49,11,47,12,17,35,32,15,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°18′ 0″	14,49,11,47,12,17,35,32,15,21			
		2, 1,46,11,50,50,59, 5		
2″	14,49,13,48,58,29,26,23,14,26		1, 5, 0,36, 2	
		2, 1,46,10,45,50,23, 3		8,54
4″	14,49,15,50,44,40,12,13,37,29		1, 5, 0,44,56	
		2, 1,46, 9,40,49,38, 7		8,54
6″	14,49,17,52,30,49,53, 3,15,36		1, 5, 0,53,50	
		2, 1,46, 8,35,48,44,17		8,54
8″	14,49,19,54,16,58,28,51,59,53		1, 5, 1, 2,44	
		2, 1,46, 7,30,47,41,33		8,54
10″	14,49,21,56, 3, 5,59,39,41,26		1, 5, 1,11,38	
		2, 1,46, 6,25,46,29,55		8,54
12″	14,49,23,57,49,12,25,26,11,21		1, 5, 1,20,32	
		2, 1,46, 5,20,45, 9,23		8,54
14″	14,49,25,59,35,17,46,11,20,44		1, 5, 1,29,26	
		2, 1,46, 4,15,43,39,57		8,54
16″	14,49,28, 1,21,22, 1,55, 0,41		1, 5, 1,38,20	
		2, 1,46, 3,10,42, 1,37		8,54
18″	14,49,30, 3, 7,25,12,37, 2,18		1, 5, 1,47,14	
		2, 1,46, 2, 5,40,14,23		8,54
20″	14,49,32, 4,53,27,18,17,16,41		1, 5, 1,56, 8	
		2, 1,46, 1, 0,38,18,15		8,54
22″	14,49,34, 6,39,28,18,55,34,56		1, 5, 2, 5, 2	
		2, 1,45,59,55,36,13,13		8,54
24″	14,49,36, 8,25,28,14,31,48, 9		1, 5, 2,13,56	
		2, 1,45,58,50,33,59,17		8,54
26″	14,49,38,10,11,27, 5, 5,47,26		1, 5, 2,22,50	
		2, 1,45,57,45,31,36,27		8,54
28″	14,49,40,11,57,24,50,37,23,53		1, 5, 2,31,44	
		2, 1,45,56,40,29, 4,43		8,54
30″	14,49,42,13,43,21,31, 6,28,36		1, 5, 2,40,38	
		2, 1,45,55,35,26,24, 5		8,54
32″	14,49,44,15,29,17, 6,32,52,41		1, 5, 2,49,32	
		2, 1,45,54,30,23,34,33		8,54
34″	14,49,46,17,15,11,36,56,27,14		1, 5, 2,58,26	
		2, 1,45,53,25,20,36, 7		8,54
36″	14,49,48,19, 1, 5, 2,17, 3,21		1, 5, 3, 7,20	
		2, 1,45,52,20,17,28,47		8,54
38″	14,49,50,20,46,57,22,34,32, 8		1, 5, 3,16,14	
		2, 1,45,51,15,14,12,33		8,54
40″	14,49,52,22,32,48,37,48,44,41		1, 5, 3,25, 8	
		2, 1,45,50,10,10,47,25		8,54
42″	14,49,54,24,18,38,47,59,32, 6		1, 5, 3,34, 2	
		2, 1,45,49, 5, 7,13,23		8,54
44″	14,49,56,26, 4,27,53, 6,45,29		1, 5, 3,42,56	
		2, 1,45,48, 0, 3,30,27		8,54
46″	14,49,58,27,50,15,53,10,15,56		1, 5, 3,51,50	
		2, 1,45,46,54,59,38,37		8,54
48″	14,50, 0,29,36, 2,48, 9,54,33		1, 5, 4, 0,44	
		2, 1,45,45,49,55,37,53		8,54
50″	14,50, 2,31,21,48,38, 5,32,26		1, 5, 4, 9,38	
		2, 1,45,44,44,51,28,15		8,54
52″	14,50, 4,33, 7,33,22,57, 0,41		1, 5, 4,18,32	
		2, 1,45,43,39,47, 9,43		8,54
54″	14,50, 6,34,53,17, 2,44,10,24		1, 5, 4,27,26	
		2, 1,45,42,34,42,42,17		8,54
56″	14,50, 8,36,38,59,37,26,52,41		1, 5, 4,36,20	
		2, 1,45,41,29,38, 5,57		8,54
58″	14,50,10,38,24,41, 7, 4,58,38		1, 5, 4,45,14	
		2, 1,45,40,24,33,20,43		
60″	14,50,12,40,10,21,31,38,19,21			
exact	14,50,12,40,10,21,31,38,13,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°19′ 0″	14,50,12,40,10,21,31,38,13,33			
		2, 1,45,39,19,28,25,51		
2″	14,50,14,41,56, 0,51, 6,39,24		1, 5, 5, 3, 5	
		2, 1,45,38,14,23,22,46		8,54
4″	14,50,16,43,41,39, 5,30, 2,10		1, 5, 5,11,59	
		2, 1,45,37, 9,18,10,47		8,54
6″	14,50,18,45,27,16,14,48,12,57		1, 5, 5,20,53	
		2, 1,45,36, 4,12,49,54		8,54
8″	14,50,20,47,12,52,19, 1, 2,51		1, 5, 5,29,47	
		2, 1,45,34,59, 7,20, 7		8,54
10″	14,50,22,48,58,27,18, 8,22,58		1, 5, 5,38,41	
		2, 1,45,33,54, 1,41,26		8,54
12″	14,50,24,50,44, 1,12,10, 4,24		1, 5, 5,47,35	
		2, 1,45,32,48,55,53,51		8,54
14″	14,50,26,52,29,34, 1, 5,58,15		1, 5, 5,56,29	
		2, 1,45,31,43,49,57,22		8,54
16″	14,50,28,54,15, 5,44,55,55,37		1, 5, 6, 5,23	
		2, 1,45,30,38,43,51,59		8,54
18″	14,50,30,56, 0,36,23,39,47,36		1, 5, 6,14,17	
		2, 1,45,29,33,37,37,42		8,54
20″	14,50,32,57,46, 5,57,17,25,18		1, 5, 6,23,11	
		2, 1,45,28,28,31,14,31		8,54
22″	14,50,34,59,31,34,25,48,39,49		1, 5, 6,32, 5	
		2, 1,45,27,23,24,42,26		8,54
24″	14,50,37, 1,17, 1,49,13,22,15		1, 5, 6,40,59	
		2, 1,45,26,18,18, 1,27		8,54
26″	14,50,39, 3, 2,28, 7,31,23,42		1, 5, 6,49,53	
		2, 1,45,25,13,11,11,34		8,54
28″	14,50,41, 4,47,53,20,42,35,16		1, 5, 6,58,47	
		2, 1,45,24, 8, 4,12,47		8,54
30″	14,50,43, 6,33,17,28,46,48, 3		1, 5, 7, 7,41	
		2, 1,45,23, 2,57, 5, 6		8,54
32″	14,50,45, 8,18,40,31,43,53, 9		1, 5, 7,16,35	
		2, 1,45,21,57,49,48,31		8,54
34″	14,50,47,10, 4, 2,29,33,41,40		1, 5, 7,25,29	
		2, 1,45,20,52,42,23, 2		8,54
36″	14,50,49,11,49,23,22,16, 4,42		1, 5, 7,34,23	
		2, 1,45,19,47,34,48,39		8,54
38″	14,50,51,13,34,43, 9,50,53,21		1, 5, 7,43,17	
		2, 1,45,18,42,27, 5,22		8,54
40″	14,50,53,15,20, 1,52,17,58,43		1, 5, 7,52,11	
		2, 1,45,17,37,19,13,11		8,54
42″	14,50,55,17, 5,19,29,37,11,54		1, 5, 8, 1, 5	
		2, 1,45,16,32,11,12, 6		8,54
44″	14,50,57,18,50,36, 1,48,24, 0		1, 5, 8, 9,59	
		2, 1,45,15,27, 3, 2, 7		8,54
46″	14,50,59,20,35,51,28,51,26, 7		1, 5, 8,18,53	
		2, 1,45,14,21,54,43,14		8,54
48″	14,51, 1,22,21, 5,50,46, 9,21		1, 5, 8,27,47	
		2, 1,45,13,16,46,15,27		8,54
50″	14,51, 3,24, 6,19, 7,32,24,48		1, 5, 8,36,41	
		2, 1,45,12,11,37,38,46		8,54
52″	14,51, 5,25,51,31,19,10, 3,34		1, 5, 8,45,35	
		2, 1,45,11, 6,28,53,11		8,54
54″	14,51, 7,27,36,42,25,38,56,45		1, 5, 8,54,29	
		2, 1,45,10, 1,19,58,42		8,54
56″	14,51, 9,29,21,52,26,58,55,27		1, 5, 9, 3,23	
		2, 1,45, 8,56,10,55,19		8,54
58″	14,51,11,31, 7, 1,23, 9,50,46		1, 5, 9,12,17	
		2, 1,45, 7,51, 1,43, 2		
60″	14,51,13,32,52, 9,14,11,33,48			
exact	14,51,13,32,52, 9,14,11,25,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°20′ 0″	14,51,13,32,52, 9,14,11,25,52			
		2, 1,45, 6,45,52,21, 5		
2″	14,51,15,34,37,16, 0, 3,46,57		1, 5, 9,30, 8	
		2, 1,45, 5,40,42,50,57		8,54
4″	14,51,17,36,22,21,40,46,37,54		1, 5, 9,39, 2	
		2, 1,45, 4,35,33,11,55		8,54
6″	14,51,19,38, 7,26,16,19,49,49		1, 5, 9,47,56	
		2, 1,45, 3,30,23,23,59		8,54
8″	14,51,21,39,52,29,46,43,13,48		1, 5, 9,56,50	
		2, 1,45, 2,25,13,27, 9		8,54
10″	14,51,23,41,37,32,11,56,40,57		1, 5,10, 5,44	
		2, 1,45, 1,20, 3,21,25		8,54
12″	14,51,25,43,22,33,32, 0, 2,22		1, 5,10,14,38	
		2, 1,45, 0,14,53, 6,47		8,54
14″	14,51,27,45, 7,33,46,53, 9, 9		1, 5,10,23,32	
		2, 1,44,59, 9,42,43,15		8,54
16″	14,51,29,46,52,32,56,35,52,24		1, 5,10,32,26	
		2, 1,44,58, 4,32,10,49		8,54
18″	14,51,31,48,37,31, 1, 8, 3,13		1, 5,10,41,20	
		2, 1,44,56,59,21,29,29		8,54
20″	14,51,33,50,22,28, 0,29,32,42		1, 5,10,50,14	
		2, 1,44,55,54,10,39,15		8,54
22″	14,51,35,52, 7,23,54,40,11,57		1, 5,10,59, 8	
		2, 1,44,54,48,59,40, 7		8,54
24″	14,51,37,53,52,18,43,39,52, 4		1, 5,11, 8, 2	
		2, 1,44,53,43,48,32, 5		8,54
26″	14,51,39,55,37,12,27,28,24, 9		1, 5,11,16,56	
		2, 1,44,52,38,37,15, 9		8,54
28″	14,51,41,57,22, 5, 6, 5,39,18		1, 5,11,25,50	
		2, 1,44,51,33,25,49,19		8,54
30″	14,51,43,59, 6,56,39,31,28,37		1, 5,11,34,44	
		2, 1,44,50,28,14,14,35		8,54
32″	14,51,46, 0,51,47, 7,45,43,12		1, 5,11,43,38	
		2, 1,44,49,23, 2,30,57		8,54
34″	14,51,48, 2,36,36,30,48,14, 9		1, 5,11,52,32	
		2, 1,44,48,17,50,38,25		8,54
36″	14,51,50, 4,21,24,48,38,52,34		1, 5,12, 1,26	
		2, 1,44,47,12,38,36,59		8,54
38″	14,51,52, 6, 6,12, 1,17,29,33		1, 5,12,10,20	
		2, 1,44,46, 7,26,26,39		8,54
40″	14,51,54, 7,50,58, 8,43,56,12		1, 5,12,19,14	
		2, 1,44,45, 2,14, 7,25		8,54
42″	14,51,56, 9,35,43,10,58, 3,37		1, 5,12,28, 8	
		2, 1,44,43,57, 1,39,17		8,54
44″	14,51,58,11,20,27, 7,59,42,54		1, 5,12,37, 2	
		2, 1,44,42,51,49, 2,15		8,54
46″	14,52, 0,13, 5, 9,59,48,45, 9		1, 5,12,45,56	
		2, 1,44,41,46,36,16,19		8,54
48″	14,52, 2,14,49,51,46,25, 1,28		1, 5,12,54,50	
		2, 1,44,40,41,23,21,29		8,54
50″	14,52, 4,16,34,32,27,48,22,57		1, 5,13, 3,44	
		2, 1,44,39,36,10,17,45		8,54
52″	14,52, 6,18,19,12, 3,58,40,42		1, 5,13,12,38	
		2, 1,44,38,30,57, 5, 7		8,54
54″	14,52, 8,20, 3,50,34,55,45,49		1, 5,13,21,32	
		2, 1,44,37,25,43,43,35		8,54
56″	14,52,10,21,48,28, 0,39,29,24		1, 5,13,30,26	
		2, 1,44,36,20,30,13, 9		8,54
58″	14,52,12,23,33, 4,21, 9,42,33		1, 5,13,39,20	
		2, 1,44,35,15,16,33,49		
60″	14,52,14,25,17,39,36,26,16,22			
exact	14,52,14,25,17,39,36,26,14,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°21′ 0″	14,52,14,25,17,39,36,26,14,30	2, 1,44,34,10, 2,45,21		
2″	14,52,16,27, 2,13,46,28,59,51	2, 1,44,33, 4,48,48,12	1, 5,13,57, 9	8,54
4″	14,52,18,28,46,46,51,17,48, 3	2, 1,44,31,59,34,42, 9	1, 5,14, 6, 3	8,54
6″	14,52,20,30,31,18,50,52,30,12	2, 1,44,30,54,20,27,12	1, 5,14,14,57	8,54
8″	14,52,22,32,15,49,45,12,57,24	2, 1,44,29,49, 6, 3,21	1, 5,14,23,51	8,54
10″	14,52,24,34, 0,19,34,19, 0,45	2, 1,44,28,43,51,30,36	1, 5,14,32,45	8,54
12″	14,52,26,35,44,48,18,10,31,21	2, 1,44,27,38,36,48,57	1, 5,14,41,39	8,54
14″	14,52,28,37,29,15,56,47,20,18	2, 1,44,26,33,21,58,24	1, 5,14,50,33	8,54
16″	14,52,30,39,13,42,30, 9,18,42	2, 1,44,25,28, 6,58,57	1, 5,14,59,27	8,54
18″	14,52,32,40,58, 7,58,16,17,39	2, 1,44,24,22,51,50,36	1, 5,15, 8,21	8,54
20″	14,52,34,42,42,32,21, 8, 8,15	2, 1,44,23,17,36,33,21	1, 5,15,17,15	8,54
22″	14,52,36,44,26,55,38,44,41,36	2, 1,44,22,12,21, 7,12	1, 5,15,26, 9	8,54
24″	14,52,38,46,11,17,51, 5,48,48	2, 1,44,21, 7, 5,32, 9	1, 5,15,35, 3	8,54
26″	14,52,40,47,55,38,58,11,20,57	2, 1,44,20, 1,49,48,12	1, 5,15,43,57	8,54
28″	14,52,42,49,39,59, 0, 1, 9, 9	2, 1,44,18,56,33,55,21	1, 5,15,52,51	8,54
30″	14,52,44,51,24,17,56,35, 4,30	2, 1,44,17,51,17,53,36	1, 5,16, 1,45	8,54
32″	14,52,46,53, 8,35,47,52,58, 6	2, 1,44,16,46, 1,42,57	1, 5,16,10,39	8,54
34″	14,52,48,54,52,52,33,54,41, 3	2, 1,44,15,40,45,23,24	1, 5,16,19,33	8,54
36″	14,52,50,56,37, 8,14,40, 4,27	2, 1,44,14,35,28,54,57	1, 5,16,28,27	8,54
38″	14,52,52,58,21,22,50, 8,59,24	2, 1,44,13,30,12,17,36	1, 5,16,37,21	8,54
40″	14,52,55, 0, 5,36,20,21,17, 0	2, 1,44,12,24,55,31,21	1, 5,16,46,15	8,54
42″	14,52,57, 1,49,48,45,16,48,21	2, 1,44,11,19,38,36,12	1, 5,16,55, 9	8,54
44″	14,52,59, 3,34, 0, 4,55,24,33	2, 1,44,10,14,21,32, 9	1, 5,17, 4, 3	8,54
46″	14,53, 1, 5,18,10,19,16,56,42	2, 1,44, 9, 9, 4,19,12	1, 5,17,12,57	8,54
48″	14,53, 3, 7, 2,19,28,21,15,54	2, 1,44, 8, 3,46,57,21	1, 5,17,21,51	8,54
50″	14,53, 5, 8,46,27,32, 8,13,15	2, 1,44, 6,58,29,26,36	1, 5,17,30,45	8,54
52″	14,53, 7,10,30,34,30,37,39,51	2, 1,44, 5,53,11,46,57	1, 5,17,39,39	8,54
54″	14,53, 9,12,14,40,23,49,26,48	2, 1,44, 4,47,53,58,24	1, 5,17,48,33	8,54
56″	14,53,11,13,58,45,11,43,25,12	2, 1,44, 3,42,36, 0,57	1, 5,17,57,27	8,54
58″	14,53,13,15,42,48,54,19,26, 9	2, 1,44, 2,37,17,54,36	1, 5,18, 6,21	
60″	14,53,15,17,26,51,31,37,20,45			
exact	14,53,15,17,26,51,31,37,19,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°22′ 0″	14,53,15,17,26,51,31,37,19,32			
		2, 1,44, 1,31,59,39,16		
2″	14,53,17,19,10,53, 3,36,58,48		1, 5,18,24, 9	
		2, 1,44, 0,26,41,15, 7		8,54
4″	14,53,19,20,54,53,30,18,13,55		1, 5,18,33, 3	
		2, 1,43,59,21,22,42, 4		8,54
6″	14,53,21,22,38,52,51,40,55,59		1, 5,18,41,57	
		2, 1,43,58,16, 4, 0, 7		8,54
8″	14,53,23,24,22,51, 7,44,56, 6		1, 5,18,50,51	
		2, 1,43,57,10,45, 9,16		8,54
10″	14,53,25,26, 6,48,18,30, 5,22		1, 5,18,59,45	
		2, 1,43,56, 5,26, 9,31		8,54
12″	14,53,27,27,50,44,23,56,14,53		1, 5,19, 8,39	
		2, 1,43,55, 0, 7, 0,52		8,54
14″	14,53,29,29,34,39,24, 3,15,45		1, 5,19,17,33	
		2, 1,43,53,54,47,43,19		8,54
16″	14,53,31,31,18,33,18,50,59, 4		1, 5,19,26,27	
		2, 1,43,52,49,28,16,52		8,54
18″	14,53,33,33, 2,26, 8,19,15,56		1, 5,19,35,21	
		2, 1,43,51,44, 8,41,31		8,54
20″	14,53,35,34,46,17,52,27,57,27		1, 5,19,44,15	
		2, 1,43,50,38,48,57,16		8,54
22″	14,53,37,36,30, 8,31,16,54,43		1, 5,19,53, 9	
		2, 1,43,49,33,29, 4, 7		8,54
24″	14,53,39,38,13,58, 4,45,58,50		1, 5,20, 2, 3	
		2, 1,43,48,28, 9, 2, 4		8,54
26″	14,53,41,39,57,46,32,55, 0,54		1, 5,20,10,57	
		2, 1,43,47,22,48,51, 7		8,54
28″	14,53,43,41,41,33,55,43,52, 1		1, 5,20,19,51	
		2, 1,43,46,17,28,31,16		8,54
30″	14,53,45,43,25,20,13,12,23,17		1, 5,20,28,45	
		2, 1,43,45,12, 8, 2,31		8,54
32″	14,53,47,45, 9, 5,25,20,25,48		1, 5,20,37,39	
		2, 1,43,44, 6,47,24,52		8,54
34″	14,53,49,46,52,49,32, 7,50,40		1, 5,20,46,33	
		2, 1,43,43, 1,26,38,19		8,54
36″	14,53,51,48,36,32,33,34,28,59		1, 5,20,55,27	
		2, 1,43,41,56, 5,42,52		8,54
38″	14,53,53,50,20,14,29,40,11,51		1, 5,21, 4,21	
		2, 1,43,40,50,44,38,31		8,54
40″	14,53,55,52, 3,55,20,24,50,22		1, 5,21,13,15	
		2, 1,43,39,45,23,25,16		8,54
42″	14,53,57,53,47,35, 5,48,15,38		1, 5,21,22, 9	
		2, 1,43,38,40, 2, 3, 7		8,54
44″	14,53,59,55,31,13,45,50,18,45		1, 5,21,31, 3	
		2, 1,43,37,34,40,32, 4		8,54
46″	14,54, 1,57,14,51,20,30,50,49		1, 5,21,39,57	
		2, 1,43,36,29,18,52, 7		8,54
48″	14,54, 3,58,58,27,49,49,42,56		1, 5,21,48,51	
		2, 1,43,35,23,57, 3,16		8,54
50″	14,54, 6, 0,42, 3,13,46,46,12		1, 5,21,57,45	
		2, 1,43,34,18,35, 5,31		8,54
52″	14,54, 8, 2,25,37,32,21,51,43		1, 5,22, 6,39	
		2, 1,43,33,13,12,58,52		8,54
54″	14,54,10, 4, 9,10,45,34,50,35		1, 5,22,15,33	
		2, 1,43,32, 7,50,43,19		8,54
56″	14,54,12, 5,52,42,53,25,33,54		1, 5,22,24,27	
		2, 1,43,31, 2,28,18,52		8,54
58″	14,54,14, 7,36,13,55,53,52,46		1, 5,22,33,21	
		2, 1,43,29,57, 5,45,31		
60″	14,54,16, 9,19,43,52,59,38,17			
exact	14,54,16, 9,19,43,52,59,38,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°23′ 0″	14,54,16, 9,19,43,52,59,38,54			
		2, 1,43,28,51,43, 3,25		
2″	14,54,18,11, 3,12,44,42,42,19		1, 5,22,51, 8	
		2, 1,43,27,46,20,12,17		8,54
4″	14,54,20,12,46,40,31, 2,54,36		1, 5,23, 0, 2	
		2, 1,43,26,40,57,12,15		8,54
6″	14,54,22,14,30, 7,12, 0, 6,51		1, 5,23, 8,56	
		2, 1,43,25,35,34, 3,19		8,54
8″	14,54,24,16,13,32,47,34,10,10		1, 5,23,17,50	
		2, 1,43,24,30,10,45,29		8,54
10″	14,54,26,17,56,57,17,44,55,39		1, 5,23,26,44	
		2, 1,43,23,24,47,18,45		8,54
12″	14,54,28,19,40,20,42,32,14,24		1, 5,23,35,38	
		2, 1,43,22,19,23,43, 7		8,54
14″	14,54,30,21,23,43, 1,55,57,31		1, 5,23,44,32	
		2, 1,43,21,13,59,58,35		8,54
16″	14,54,32,23, 7, 4,15,55,56, 6		1, 5,23,53,26	
		2, 1,43,20, 8,36, 5, 9		8,54
18″	14,54,34,24,50,24,24,32, 1,15		1, 5,24, 2,20	
		2, 1,43,19, 3,12, 2,49		8,54
20″	14,54,36,26,33,43,27,44, 4, 4		1, 5,24,11,14	
		2, 1,43,17,57,47,51,35		8,54
22″	14,54,38,28,17, 1,25,31,55,39		1, 5,24,20, 8	
		2, 1,43,16,52,23,31,27		8,54
24″	14,54,40,30, 0,18,17,55,27, 6		1, 5,24,29, 2	
		2, 1,43,15,46,59, 2,25		8,54
26″	14,54,42,31,43,34, 4,54,29,31		1, 5,24,37,56	
		2, 1,43,14,41,34,24,29		8,54
28″	14,54,44,33,26,48,46,28,54, 0		1, 5,24,46,50	
		2, 1,43,13,36, 9,37,39		8,54
30″	14,54,46,35,10, 2,22,38,31,39		1, 5,24,55,44	
		2, 1,43,12,30,44,41,55		8,54
32″	14,54,48,36,53,14,53,23,13,34		1, 5,25, 4,38	
		2, 1,43,11,25,19,37,17		8,54
34″	14,54,50,38,36,26,18,42,50,51		1, 5,25,13,32	
		2, 1,43,10,19,54,23,45		8,54
36″	14,54,52,40,19,36,38,37,14,36		1, 5,25,22,26	
		2, 1,43, 9,14,29, 1,19		8,54
38″	14,54,54,42, 2,45,53, 6,15,55		1, 5,25,31,20	
		2, 1,43, 8, 9, 3,29,59		8,54
40″	14,54,56,43,45,54, 2, 9,45,54		1, 5,25,40,14	
		2, 1,43, 7, 3,37,49,45		8,54
42″	14,54,58,45,29, 1, 5,47,35,39		1, 5,25,49, 8	
		2, 1,43, 5,58,12, 0,37		8,54
44″	14,55, 0,47,12, 7, 3,59,36,16		1, 5,25,58, 2	
		2, 1,43, 4,52,46, 2,35		8,54
46″	14,55, 2,48,55,11,56,45,38,51		1, 5,26, 6,56	
		2, 1,43, 3,47,19,55,39		8,54
48″	14,55, 4,50,38,15,44, 5,34,30		1, 5,26,15,50	
		2, 1,43, 2,41,53,39,49		8,54
50″	14,55, 6,52,21,18,25,59,14,19		1, 5,26,24,44	
		2, 1,43, 1,36,27,15, 5		8,54
52″	14,55, 8,54, 4,20, 2,26,29,24		1, 5,26,33,38	
		2, 1,43, 0,31, 0,41,27		8,54
54″	14,55,10,55,47,20,33,27,10,51		1, 5,26,42,32	
		2, 1,42,59,25,33,58,55		8,54
56″	14,55,12,57,30,19,59, 1, 9,46		1, 5,26,51,26	
		2, 1,42,58,20, 7, 7,29		8,54
58″	14,55,14,59,13,18,19, 8,17,15		1, 5,27, 0,20	
		2, 1,42,57,14,40, 7, 9		
60″	14,55,17, 0,56,15,33,48,24,24			
exact	14,55,17, 0,56,15,33,48,28,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°24′ 0″	14,55,17, 0,56,15,33,48,28,26			
		2, 1,42,56, 9,12,58,24		
2″	14,55,19, 2,39,11,43, 1,26,50		1, 5,27,18, 6	
		2, 1,42,55, 3,45,40,18		8,54
4″	14,55,21, 4,22, 6,46,47, 7, 8		1, 5,27,27, 0	
		2, 1,42,53,58,18,13,18		8,54
6″	14,55,23, 6, 5, 0,45, 5,20,26		1, 5,27,35,54	
		2, 1,42,52,52,50,37,24		8,54
8″	14,55,25, 7,47,53,37,55,57,50		1, 5,27,44,48	
		2, 1,42,51,47,22,52,36		8,54
10″	14,55,27, 9,30,45,25,18,50,26		1, 5,27,53,42	
		2, 1,42,50,41,54,58,54		8,54
12″	14,55,29,11,13,36, 7,13,49,20		1, 5,28, 2,36	
		2, 1,42,49,36,26,56,18		8,54
14″	14,55,31,12,56,25,43,40,45,38		1, 5,28,11,30	
		2, 1,42,48,30,58,44,48		8,54
16″	14,55,33,14,39,14,14,39,30,26		1, 5,28,20,24	
		2, 1,42,47,25,30,24,24		8,54
18″	14,55,35,16,22, 1,40, 9,54,50		1, 5,28,29,18	
		2, 1,42,46,20, 1,55, 6		8,54
20″	14,55,37,18, 4,48, 0,11,49,56		1, 5,28,38,12	
		2, 1,42,45,14,33,16,54		8,54
22″	14,55,39,19,47,33,14,45, 6,50		1, 5,28,47, 6	
		2, 1,42,44, 9, 4,29,48		8,54
24″	14,55,41,21,30,17,23,49,36,38		1, 5,28,56, 0	
		2, 1,42,43, 3,35,33,48		8,54
26″	14,55,43,23,13, 0,27,25,10,26		1, 5,29, 4,54	
		2, 1,42,41,58, 6,28,54		8,54
28″	14,55,45,24,55,42,25,31,39,20		1, 5,29,13,48	
		2, 1,42,40,52,37,15, 6		8,54
30″	14,55,47,26,38,23,18, 8,54,26		1, 5,29,22,42	
		2, 1,42,39,47, 7,52,24		8,54
32″	14,55,49,28,21, 3, 5,16,46,50		1, 5,29,31,36	
		2, 1,42,38,41,38,20,48		8,54
34″	14,55,51,30, 3,41,46,55, 7,38		1, 5,29,40,30	
		2, 1,42,37,36, 8,40,18		8,54
36″	14,55,53,31,46,19,23, 3,47,56		1, 5,29,49,24	
		2, 1,42,36,30,38,50,54		8,54
38″	14,55,55,33,28,55,53,42,38,50		1, 5,29,58,18	
		2, 1,42,35,25, 8,52,36		8,54
40″	14,55,57,35,11,31,18,51,31,26		1, 5,30, 7,12	
		2, 1,42,34,19,38,45,24		8,54
42″	14,55,59,36,54, 5,38,30,16,50		1, 5,30,16, 6	
		2, 1,42,33,14, 8,29,18		8,54
44″	14,56, 1,38,36,38,52,38,46, 8		1, 5,30,25, 0	
		2, 1,42,32, 8,38, 4,18		8,54
46″	14,56, 3,40,19,11, 1,16,50,26		1, 5,30,33,54	
		2, 1,42,31, 3, 7,30,24		8,54
48″	14,56, 5,42, 1,42, 4,24,20,50		1, 5,30,42,48	
		2, 1,42,29,57,36,47,36		8,54
50″	14,56, 7,43,44,12, 2, 1, 8,26		1, 5,30,51,42	
		2, 1,42,28,52, 5,55,54		8,54
52″	14,56, 9,45,26,40,54, 7, 4,20		1, 5,31, 0,36	
		2, 1,42,27,46,34,55,18		8,54
54″	14,56,11,47, 9, 8,40,41,59,38		1, 5,31, 9,30	
		2, 1,42,26,41, 3,45,48		8,54
56″	14,56,13,48,51,35,21,45,45,26		1, 5,31,18,24	
		2, 1,42,25,35,32,27,24		8,54
58″	14,56,15,50,34, 0,57,18,12,50		1, 5,31,27,18	
		2, 1,42,24,30, 1, 0, 6		
60″	14,56,17,52,16,25,27,19,12,56			
exact	14,56,17,52,16,25,27,19,21,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°25′ 0″	14,56,17,52,16,25,27,19,21,56			
		2, 1,42,23,24,29,24,49		
2″	14,56,19,53,58,48,51,48,46,45		1, 5,31,45, 2	
		2, 1,42,22,18,57,39,47		8,54
4″	14,56,21,55,41,11,10,46,26,32		1, 5,31,53,56	
		2, 1,42,21,13,25,45,51		8,54
6″	14,56,23,57,23,32,24,12,12,23		1, 5,32, 2,50	
		2, 1,42,20, 7,53,43, 1		8,54
8″	14,56,25,59, 5,52,32, 5,55,24		1, 5,32,11,44	
		2, 1,42,19, 2,21,31,17		8,54
10″	14,56,28, 0,48,11,34,27,26,41		1, 5,32,20,38	
		2, 1,42,17,56,49,10,39		8,54
12″	14,56,30, 2,30,29,31,16,37,20		1, 5,32,29,32	
		2, 1,42,16,51,16,41, 7		8,54
14″	14,56,32, 4,12,46,22,33,18,27		1, 5,32,38,26	
		2, 1,42,15,45,44, 2,41		8,54
16″	14,56,34, 5,55, 2, 8,17,21, 8		1, 5,32,47,20	
		2, 1,42,14,40,11,15,21		8,54
18″	14,56,36, 7,37,16,48,28,36,29		1, 5,32,56,14	
		2, 1,42,13,34,38,19, 7		8,54
20″	14,56,38, 9,19,30,23, 6,55,36		1, 5,33, 5, 8	
		2, 1,42,12,29, 5,13,59		8,54
22″	14,56,40,11, 1,42,52,12, 9,35		1, 5,33,14, 2	
		2, 1,42,11,23,31,59,57		8,54
24″	14,56,42,12,43,54,15,44, 9,32		1, 5,33,22,56	
		2, 1,42,10,17,58,37, 1		8,54
26″	14,56,44,14,26, 4,33,42,46,33		1, 5,33,31,50	
		2, 1,42, 9,12,25, 5,11		8,54
28″	14,56,46,16, 8,13,46, 7,51,44		1, 5,33,40,44	
		2, 1,42, 8, 6,51,24,27		8,54
30″	14,56,48,17,50,21,52,59,16,11		1, 5,33,49,38	
		2, 1,42, 7, 1,17,34,49		8,54
32″	14,56,50,19,32,28,54,16,51, 0		1, 5,33,58,32	
		2, 1,42, 5,55,43,36,17		8,54
34″	14,56,52,21,14,34,50, 0,27,17		1, 5,34, 7,26	
		2, 1,42, 4,50, 9,28,51		8,54
36″	14,56,54,22,56,39,40, 9,56, 8		1, 5,34,16,20	
		2, 1,42, 3,44,35,12,31		8,54
38″	14,56,56,24,38,43,24,45, 8,39		1, 5,34,25,14	
		2, 1,42, 2,39, 0,47,17		8,54
40″	14,56,58,26,20,46, 3,45,55,56		1, 5,34,34, 8	
		2, 1,42, 1,33,26,13, 9		8,54
42″	14,57, 0,28, 2,47,37,12, 9, 5		1, 5,34,43, 2	
		2, 1,42, 0,27,51,30, 7		8,54
44″	14,57, 2,29,44,48, 5, 3,39,12		1, 5,34,51,56	
		2, 1,41,59,22,16,38,11		8,54
46″	14,57, 4,31,26,47,27,20,17,23		1, 5,35, 0,50	
		2, 1,41,58,16,41,37,21		8,54
48″	14,57, 6,33, 8,45,44, 1,54,44		1, 5,35, 9,44	
		2, 1,41,57,11, 6,27,37		8,54
50″	14,57, 8,34,50,42,55, 8,22,21		1, 5,35,18,38	
		2, 1,41,56, 5,31, 8,59		8,54
52″	14,57,10,36,32,39, 0,39,31,20		1, 5,35,27,32	
		2, 1,41,54,59,55,41,27		8,54
54″	14,57,12,38,14,34, 0,35,12,47		1, 5,35,36,26	
		2, 1,41,53,54,20, 5, 1		8,54
56″	14,57,14,39,56,27,54,55,17,48		1, 5,35,45,20	
		2, 1,41,52,48,44,19,41		8,54
58″	14,57,16,41,38,20,43,39,37,29		1, 5,35,54,14	
		2, 1,41,51,43, 8,25,27		
60″	14,57,18,43,20,12,26,48, 2,56			
exact	14,57,18,43,20,12,26,48,11, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°26′ 0″	14,57,18,43,20,12,26,48,11, 6			
		2, 1,41,50,37,32,23,17		
2″	14,57,20,45, 2, 3, 4,20,34,23		1, 5,36,11,58	
		2, 1,41,49,31,56,11,19		8,54
4″	14,57,22,46,43,52,36,16,45,42		1, 5,36,20,52	
		2, 1,41,48,26,19,50,27		8,54
6″	14,57,24,48,25,41, 2,36,36, 9		1, 5,36,29,46	
		2, 1,41,47,20,43,20,41		8,54
8″	14,57,26,50, 7,28,23,19,56,50		1, 5,36,38,40	
		2, 1,41,46,15, 6,42, 1		8,54
10″	14,57,28,51,49,14,38,26,38,51		1, 5,36,47,34	
		2, 1,41,45, 9,29,54,27		8,54
12″	14,57,30,53,30,59,47,56,33,18		1, 5,36,56,28	
		2, 1,41,44, 3,52,57,59		8,54
14″	14,57,32,55,12,43,51,49,31,17		1, 5,37, 5,22	
		2, 1,41,42,58,15,52,37		8,54
16″	14,57,34,56,54,26,50, 5,23,54		1, 5,37,14,16	
		2, 1,41,41,52,38,38,21		8,54
18″	14,57,36,58,36, 8,42,44, 2,15		1, 5,37,23,10	
		2, 1,41,40,47, 1,15,11		8,54
20″	14,57,39, 0,17,49,29,45,17,26		1, 5,37,32, 4	
		2, 1,41,39,41,23,43, 7		8,54
22″	14,57,41, 1,59,29,11, 9, 0,33		1, 5,37,40,58	
		2, 1,41,38,35,46, 2, 9		8,54
24″	14,57,43, 3,41, 7,46,55, 2,42		1, 5,37,49,52	
		2, 1,41,37,30, 8,12,17		8,54
26″	14,57,45, 5,22,45,17, 3,14,59		1, 5,37,58,46	
		2, 1,41,36,24,30,13,31		8,54
28″	14,57,47, 7, 4,21,41,33,28,30		1, 5,38, 7,40	
		2, 1,41,35,18,52, 5,51		8,54
30″	14,57,49, 8,45,57, 0,25,34,21		1, 5,38,16,34	
		2, 1,41,34,13,13,49,17		8,54
32″	14,57,51,10,27,31,13,39,23,38		1, 5,38,25,28	
		2, 1,41,33, 7,35,23,49		8,54
34″	14,57,53,12, 9, 4,21,14,47,27		1, 5,38,34,22	
		2, 1,41,32, 1,56,49,27		8,54
36″	14,57,55,13,50,36,23,11,36,54		1, 5,38,43,16	
		2, 1,41,30,56,18, 6,11		8,54
38″	14,57,57,15,32, 7,19,29,43, 5		1, 5,38,52,10	
		2, 1,41,29,50,39,14, 1		8,54
40″	14,57,59,17,13,37,10, 8,57, 6		1, 5,39, 1, 4	
		2, 1,41,28,45, 0,12,57		8,54
42″	14,58, 1,18,55, 5,55, 9,10, 3		1, 5,39, 9,58	
		2, 1,41,27,39,21, 2,59		8,54
44″	14,58, 3,20,36,33,34,30,13, 2		1, 5,39,18,52	
		2, 1,41,26,33,41,44, 7		8,54
46″	14,58, 5,22,18, 0, 8,11,57, 9		1, 5,39,27,46	
		2, 1,41,25,28, 2,16,21		8,54
48″	14,58, 7,23,59,25,36,14,13,30		1, 5,39,36,40	
		2, 1,41,24,22,22,39,41		8,54
50″	14,58, 9,25,40,49,58,36,53,11		1, 5,39,45,34	
		2, 1,41,23,16,42,54, 7		8,54
52″	14,58,11,27,22,13,15,19,47,18		1, 5,39,54,28	
		2, 1,41,22,11, 2,59,39		8,54
54″	14,58,13,29, 3,35,26,22,46,57		1, 5,40, 3,22	
		2, 1,41,21, 5,22,56,17		8,54
56″	14,58,15,30,44,56,31,45,43,14		1, 5,40,12,16	
		2, 1,41,19,59,42,44, 1		8,54
58″	14,58,17,32,26,16,31,28,27,15		1, 5,40,21,10	
		2, 1,41,18,54, 2,22,51		
60″	14,58,19,34, 7,35,25,30,50, 6			
exact	14,58,19,34, 7,35,25,31, 5,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°27′ 0″	14,58,19,34, 7,35,25,31, 5,38			
		2, 1,41,17,48,21,54,22		
2″	14,58,21,35,48,53,13,53, 0, 0		1, 5,40,38,52	
		2, 1,41,16,42,41,15,30		8,54
4″	14,58,23,37,30, 9,56,34,15,30		1, 5,40,47,46	
		2, 1,41,15,37, 0,27,44		8,54
6″	14,58,25,39,11,25,33,34,43,14		1, 5,40,56,40	
		2, 1,41,14,31,19,31, 4		8,54
8″	14,58,27,40,52,40, 4,54,14,18		1, 5,41, 5,34	
		2, 1,41,13,25,38,25,30		8,54
10″	14,58,29,42,33,53,30,32,39,48		1, 5,41,14,28	
		2, 1,41,12,19,57,11, 2		8,54
12″	14,58,31,44,15, 5,50,29,50,50		1, 5,41,23,22	
		2, 1,41,11,14,15,47,40		8,54
14″	14,58,33,45,56,17, 4,45,38,30		1, 5,41,32,16	
		2, 1,41,10, 8,34,15,24		8,54
16″	14,58,35,47,37,27,13,19,53,54		1, 5,41,41,10	
		2, 1,41, 9, 2,52,34,14		8,54
18″	14,58,37,49,18,36,16,12,28, 8		1, 5,41,50, 4	
		2, 1,41, 7,57,10,44,10		8,54
20″	14,58,39,50,59,44,13,23,12,18		1, 5,41,58,58	
		2, 1,41, 6,51,28,45,12		8,54
22″	14,58,41,52,40,51, 4,51,57,30		1, 5,42, 7,52	
		2, 1,41, 5,45,46,37,20		8,54
24″	14,58,43,54,21,56,50,38,34,50		1, 5,42,16,46	
		2, 1,41, 4,40, 4,20,34		8,54
26″	14,58,45,56, 3, 1,30,42,55,24		1, 5,42,25,40	
		2, 1,41, 3,34,21,54,54		8,54
28″	14,58,47,57,44, 5, 5, 4,50,18		1, 5,42,34,34	
		2, 1,41, 2,28,39,20,20		8,54
30″	14,58,49,59,25, 7,33,44,10,38		1, 5,42,43,28	
		2, 1,41, 1,22,56,36,52		8,54
32″	14,58,52, 1, 6, 8,56,40,47,30		1, 5,42,52,22	
		2, 1,41, 0,17,13,44,30		8,54
34″	14,58,54, 2,47, 9,13,54,32, 0		1, 5,43, 1,16	
		2, 1,40,59,11,30,43,14		8,54
36″	14,58,56, 4,28, 8,25,25,15,14		1, 5,43,10,10	
		2, 1,40,58, 5,47,33, 4		8,54
38″	14,58,58, 6, 9, 6,31,12,48,18		1, 5,43,19, 4	
		2, 1,40,57, 0, 4,14, 0		8,54
40″	14,59, 0, 7,50, 3,31,17, 2,18		1, 5,43,27,58	
		2, 1,40,55,54,20,46, 2		8,54
42″	14,59, 2, 9,30,59,25,37,48,20		1, 5,43,36,52	
		2, 1,40,54,48,37, 9,10		8,54
44″	14,59, 4,11,11,54,14,14,57,30		1, 5,43,45,46	
		2, 1,40,53,42,53,23,24		8,54
46″	14,59, 6,12,52,47,57, 8,20,54		1, 5,43,54,40	
		2, 1,40,52,37, 9,28,44		8,54
48″	14,59, 8,14,33,40,34,17,49,38		1, 5,44, 3,34	
		2, 1,40,51,31,25,25,10		8,54
50″	14,59,10,16,14,32, 5,43,14,48		1, 5,44,12,28	
		2, 1,40,50,25,41,12,42		8,54
52″	14,59,12,17,55,22,31,24,27,30		1, 5,44,21,22	
		2, 1,40,49,19,56,51,20		8,54
54″	14,59,14,19,36,11,51,21,18,50		1, 5,44,30,16	
		2, 1,40,48,14,12,21, 4		8,54
56″	14,59,16,21,17, 0, 5,33,39,54		1, 5,44,39,10	
		2, 1,40,47, 8,27,41,54		8,54
58″	14,59,18,22,57,47,14, 1,21,48		1, 5,44,48, 4	
		2, 1,40,46, 2,42,53,50		
60″	14,59,20,24,38,33,16,44,15,38			
exact	14,59,20,24,38,33,16,44,33,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°28′ 0″	14,59,20,24,38,33,16,44,33,11			
		2, 1,40,44,56,57,58,41		
2″	14,59,22,26,19,18,13,42,31,52		1, 5,45, 5,45	
		2, 1,40,43,51,12,52,56		8,54
4″	14,59,24,28, 0, 2, 4,55,24,48		1, 5,45,14,39	
		2, 1,40,42,45,27,38,17		8,54
6″	14,59,26,29,40,44,50,23, 3, 5		1, 5,45,23,33	
		2, 1,40,41,39,42,14,44		8,54
8″	14,59,28,31,21,26,30, 5,17,49		1, 5,45,32,27	
		2, 1,40,40,33,56,42,17		8,54
10″	14,59,30,33, 2, 7, 4, 2, 0, 6		1, 5,45,41,21	
		2, 1,40,39,28,11, 0,56		8,54
12″	14,59,32,34,42,46,32,13, 1, 2		1, 5,45,50,15	
		2, 1,40,38,22,25,10,41		8,54
14″	14,59,34,36,23,24,54,38,11,43		1, 5,45,59, 9	
		2, 1,40,37,16,39,11,32		8,54
16″	14,59,36,38, 4, 2,11,17,23,15		1, 5,46, 8, 3	
		2, 1,40,36,10,53, 3,29		8,54
18″	14,59,38,39,44,38,22,10,26,44		1, 5,46,16,57	
		2, 1,40,35, 5, 6,46,32		8,54
20″	14,59,40,41,25,13,27,17,13,16		1, 5,46,25,51	
		2, 1,40,33,59,20,20,41		8,54
22″	14,59,42,43, 5,47,26,37,33,57		1, 5,46,34,45	
		2, 1,40,32,53,33,45,56		8,54
24″	14,59,44,44,46,20,20,11,19,53		1, 5,46,43,39	
		2, 1,40,31,47,47, 2,17		8,54
26″	14,59,46,46,26,52, 7,58,22,10		1, 5,46,52,33	
		2, 1,40,30,42, 0, 9,44		8,54
28″	14,59,48,48, 7,22,49,58,31,54		1, 5,47, 1,27	
		2, 1,40,29,36,13, 8,17		8,54
30″	14,59,50,49,47,52,26,11,40,11		1, 5,47,10,21	
		2, 1,40,28,30,25,57,56		8,54
32″	14,59,52,51,28,20,56,37,38, 7		1, 5,47,19,15	
		2, 1,40,27,24,38,38,41		8,54
34″	14,59,54,53, 8,48,21,16,16,48		1, 5,47,28, 9	
		2, 1,40,26,18,51,10,32		8,54
36″	14,59,56,54,49,14,40, 7,27,20		1, 5,47,37, 3	
		2, 1,40,25,13, 3,33,29		8,54
38″	14,59,58,56,29,39,53,11, 0,49		1, 5,47,45,57	
		2, 1,40,24, 7,15,47,32		8,54
40″	15, 0, 0,58,10, 4, 0,26,48,21		1, 5,47,54,51	
		2, 1,40,23, 1,27,52,41		8,54
42″	15, 0, 2,59,50,27, 1,54,41, 2		1, 5,48, 3,45	
		2, 1,40,21,55,39,48,56		8,54
44″	15, 0, 5, 1,30,48,57,34,29,58		1, 5,48,12,39	
		2, 1,40,20,49,51,36,17		8,54
46″	15, 0, 7, 3,11, 9,47,26, 6,15		1, 5,48,21,33	
		2, 1,40,19,44, 3,14,44		8,54
48″	15, 0, 9, 4,51,29,31,29,20,59		1, 5,48,30,27	
		2, 1,40,18,38,14,44,17		8,54
50″	15, 0,11, 6,31,48, 9,44, 5,16		1, 5,48,39,21	
		2, 1,40,17,32,26, 4,56		8,54
52″	15, 0,13, 8,12, 5,42,10,10,12		1, 5,48,48,15	
		2, 1,40,16,26,37,16,41		8,54
54″	15, 0,15, 9,52,22, 8,47,26,53		1, 5,48,57, 9	
		2, 1,40,15,20,48,19,32		8,54
56″	15, 0,17,11,32,37,29,35,46,25		1, 5,49, 6, 3	
		2, 1,40,14,14,59,13,29		8,54
58″	15, 0,19,13,12,51,44,34,59,54		1, 5,49,14,57	
		2, 1,40,13, 9, 9,58,32		
60″	15, 0,21,14,53, 4,53,44,58,26			
exact	15, 0,21,14,53, 4,53,45,19,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°29′ 0″	15, 0,21,14,53, 4,53,45,19,25	2, 1,40,12, 3,20,36,50		
2″	15, 0,23,16,33,16,57, 5,56,15	2, 1,40,10,57,31, 4,14	1, 5,49,32,36	8,54
4″	15, 0,25,18,13,27,54,37, 0,29	2, 1,40, 9,51,41,22,44	1, 5,49,41,30	8,54
6″	15, 0,27,19,53,37,46,18,23,13	2, 1,40, 8,45,51,32,20	1, 5,49,50,24	8,54
8″	15, 0,29,21,33,46,32, 9,55,33	2, 1,40, 7,40, 1,33, 2	1, 5,49,59,18	8,54
10″	15, 0,31,23,13,54,12,11,28,35	2, 1,40, 6,34,11,24,50	1, 5,50, 8,12	8,54
12″	15, 0,33,24,54, 0,46,22,53,25	2, 1,40, 5,28,21, 7,44	1, 5,50,17, 6	8,54
14″	15, 0,35,26,34, 6,14,44, 1, 9	2, 1,40, 4,22,30,41,44	1, 5,50,26, 0	8,54
16″	15, 0,37,28,14,10,37,14,42,53	2, 1,40, 3,16,40, 6,50	1, 5,50,34,54	8,54
18″	15, 0,39,29,54,13,53,54,49,43	2, 1,40, 2,10,49,23, 2	1, 5,50,43,48	8,54
20″	15, 0,41,31,34,16, 4,44,12,45	2, 1,40, 1, 4,58,30,20	1, 5,50,52,42	8,54
22″	15, 0,43,33,14,17, 9,42,43, 5	2, 1,39,59,59, 7,28,44	1, 5,51, 1,36	8,54
24″	15, 0,45,34,54,17, 8,50,11,49	2, 1,39,58,53,16,18,14	1, 5,51,10,30	8,54
26″	15, 0,47,36,34,16, 2, 6,30, 3	2, 1,39,57,47,24,58,50	1, 5,51,19,24	8,54
28″	15, 0,49,38,14,13,49,31,28,53	2, 1,39,56,41,33,30,32	1, 5,51,28,18	8,54
30″	15, 0,51,39,54,10,31, 4,59,25	2, 1,39,55,35,41,53,20	1, 5,51,37,12	8,54
32″	15, 0,53,41,34, 6, 6,46,52,45	2, 1,39,54,29,50, 7,14	1, 5,51,46, 6	8,54
34″	15, 0,55,43,14, 0,36,36,59,59	2, 1,39,53,23,58,12,14	1, 5,51,55, 0	8,54
36″	15, 0,57,44,53,54, 0,35,12,13	2, 1,39,52,18, 6, 8,20	1, 5,52, 3,54	8,54
38″	15, 0,59,46,33,46,18,41,20,33	2, 1,39,51,12,13,55,32	1, 5,52,12,48	8,54
40″	15, 1, 1,48,13,37,30,55,16, 5	2, 1,39,50, 6,21,33,50	1, 5,52,21,42	8,54
42″	15, 1, 3,49,53,27,37,16,49,55	2, 1,39,49, 0,29, 3,14	1, 5,52,30,36	8,54
44″	15, 1, 5,51,33,16,37,45,53, 9	2, 1,39,47,54,36,23,44	1, 5,52,39,30	8,54
46″	15, 1, 7,53,13, 4,32,22,16,53	2, 1,39,46,48,43,35,20	1, 5,52,48,24	8,54
48″	15, 1, 9,54,52,51,21, 5,52,13	2, 1,39,45,42,50,38, 2	1, 5,52,57,18	8,54
50″	15, 1,11,56,32,37, 3,56,30,15	2, 1,39,44,36,57,31,50	1, 5,53, 6,12	8,54
52″	15, 1,13,58,12,21,40,54, 2, 5	2, 1,39,43,31, 4,16,44	1, 5,53,15, 6	8,54
54″	15, 1,15,59,52, 5,11,58,18,49	2, 1,39,42,25,10,52,44	1, 5,53,24, 0	8,54
56″	15, 1,18, 1,31,47,37, 9,11,33	2, 1,39,41,19,17,19,50	1, 5,53,32,54	8,54
58″	15, 1,20, 3,11,28,56,26,31,23	2, 1,39,40,13,23,38, 2	1, 5,53,41,48	
60″	15, 1,22, 4,51, 9, 9,50, 9,25			
exact	15, 1,22, 4,51, 9, 9,50,28, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°30′ 0″	15, 1,22, 4,51, 9, 9,50,28, 2			
		2, 1,39,39, 7,29,49,26		
2″	15, 1,24, 6,30,48,17,20,17,28		1, 5,53,59,27	
		2, 1,39,38, 1,35,49,59		8,54
4″	15, 1,26, 8,10,26,18,56, 7,27		1, 5,54, 8,21	
		2, 1,39,36,55,41,41,38		8,54
6″	15, 1,28, 9,50, 3,14,37,49, 5		1, 5,54,17,15	
		2, 1,39,35,49,47,24,23		8,54
8″	15, 1,30,11,29,39, 4,25,13,28		1, 5,54,26, 9	
		2, 1,39,34,43,52,58,14		8,54
10″	15, 1,32,13, 9,13,48,18,11,42		1, 5,54,35, 3	
		2, 1,39,33,37,58,23,11		8,54
12″	15, 1,34,14,48,47,26,16,34,53		1, 5,54,43,57	
		2, 1,39,32,32, 3,39,14		8,54
14″	15, 1,36,16,28,19,58,20,14, 7		1, 5,54,52,51	
		2, 1,39,31,26, 8,46,23		8,54
16″	15, 1,38,18, 7,51,24,29, 0,30		1, 5,55, 1,45	
		2, 1,39,30,20,13,44,38		8,54
18″	15, 1,40,19,47,21,44,42,45, 8		1, 5,55,10,39	
		2, 1,39,29,14,18,33,59		8,54
20″	15, 1,42,21,26,50,59, 1,19, 7		1, 5,55,19,33	
		2, 1,39,28, 8,23,14,26		8,54
22″	15, 1,44,23, 6,19, 7,24,33,33		1, 5,55,28,27	
		2, 1,39,27, 2,27,45,59		8,54
24″	15, 1,46,24,45,46, 9,52,19,32		1, 5,55,37,21	
		2, 1,39,25,56,32, 8,38		8,54
26″	15, 1,48,26,25,12, 6,24,28,10		1, 5,55,46,15	
		2, 1,39,24,50,36,22,23		8,54
28″	15, 1,50,28, 4,36,57, 0,50,33		1, 5,55,55, 9	
		2, 1,39,23,44,40,27,14		8,54
30″	15, 1,52,29,44, 0,41,41,17,47		1, 5,56, 4, 3	
		2, 1,39,22,38,44,23,11		8,54
32″	15, 1,54,31,23,23,20,25,40,58		1, 5,56,12,57	
		2, 1,39,21,32,48,10,14		8,54
34″	15, 1,56,33, 2,44,53,13,51,12		1, 5,56,21,51	
		2, 1,39,20,26,51,48,23		8,54
36″	15, 1,58,34,42, 5,20, 5,39,35		1, 5,56,30,45	
		2, 1,39,19,20,55,17,38		8,54
38″	15, 2, 0,36,21,24,41, 0,57,13		1, 5,56,39,39	
		2, 1,39,18,14,58,37,59		8,54
40″	15, 2, 2,38, 0,42,55,59,35,12		1, 5,56,48,33	
		2, 1,39,17, 9, 1,49,26		8,54
42″	15, 2, 4,39,40, 0, 5, 1,24,38		1, 5,56,57,27	
		2, 1,39,16, 3, 4,51,59		8,54
44″	15, 2, 6,41,19,16, 8, 6,16,37		1, 5,57, 6,21	
		2, 1,39,14,57, 7,45,38		8,54
46″	15, 2, 8,42,58,31, 5,14, 2,15		1, 5,57,15,15	
		2, 1,39,13,51,10,30,23		8,54
48″	15, 2,10,44,37,44,56,24,32,38		1, 5,57,24, 9	
		2, 1,39,12,45,13, 6,14		8,54
50″	15, 2,12,46,16,57,41,37,38,52		1, 5,57,33, 3	
		2, 1,39,11,39,15,33,11		8,54
52″	15, 2,14,47,56, 9,20,53,12, 3		1, 5,57,41,57	
		2, 1,39,10,33,17,51,14		8,54
54″	15, 2,16,49,35,19,54,11, 3,17		1, 5,57,50,51	
		2, 1,39, 9,27,20, 0,23		8,54
56″	15, 2,18,51,14,29,21,31, 3,40		1, 5,57,59,45	
		2, 1,39, 8,21,22, 0,38		8,54
58″	15, 2,20,52,53,37,42,53, 4,18		1, 5,58, 8,39	
		2, 1,39, 7,15,23,51,59		
60″	15, 2,22,54,32,44,58,16,56,17			
exact	15, 2,22,54,32,44,58,17,20,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°31′ 0″	15, 2,22,54,32,44,58,17,20,48			
		2, 1,39, 6, 9,25,37, 3		
2″	15, 2,24,56,11,51, 7,42,57,51		1, 5,58,26,16	
		2, 1,39, 5, 3,27,10,47		8,54
4″	15, 2,26,57,50,56,11,10, 8,38		1, 5,58,35,10	
		2, 1,39, 3,57,28,35,37		8,54
6″	15, 2,28,59,30, 0, 8,38,44,15		1, 5,58,44, 4	
		2, 1,39, 2,51,29,51,33		8,54
8″	15, 2,31, 1, 9, 3, 0, 8,35,48		1, 5,58,52,58	
		2, 1,39, 1,45,30,58,35		8,54
10″	15, 2,33, 2,48, 4,45,39,34,23		1, 5,59, 1,52	
		2, 1,39, 0,39,31,56,43		8,54
12″	15, 2,35, 4,27, 5,25,11,31, 6		1, 5,59,10,46	
		2, 1,38,59,33,32,45,57		8,54
14″	15, 2,37, 6, 6, 4,58,44,17, 3		1, 5,59,19,40	
		2, 1,38,58,27,33,26,17		8,54
16″	15, 2,39, 7,45, 3,26,17,43,20		1, 5,59,28,34	
		2, 1,38,57,21,33,57,43		8,54
18″	15, 2,41, 9,24, 0,47,51,41, 3		1, 5,59,37,28	
		2, 1,38,56,15,34,20,15		8,54
20″	15, 2,43,11, 2,57, 3,26, 1,18		1, 5,59,46,22	
		2, 1,38,55, 9,34,33,53		8,54
22″	15, 2,45,12,41,52,13, 0,35,11		1, 5,59,55,16	
		2, 1,38,54, 3,34,38,37		8,54
24″	15, 2,47,14,20,46,16,35,13,48		1, 6, 0, 4,10	
		2, 1,38,52,57,34,34,27		8,54
26″	15, 2,49,15,59,39,14, 9,48,15		1, 6, 0,13, 4	
		2, 1,38,51,51,34,21,23		8,54
28″	15, 2,51,17,38,31, 5,44, 9,38		1, 6, 0,21,58	
		2, 1,38,50,45,33,59,25		8,54
30″	15, 2,53,19,17,21,51,18, 9, 3		1, 6, 0,30,52	
		2, 1,38,49,39,33,28,33		8,54
32″	15, 2,55,20,56,11,30,51,37,36		1, 6, 0,39,46	
		2, 1,38,48,33,32,48,47		8,54
34″	15, 2,57,22,35, 0, 4,24,26,23		1, 6, 0,48,40	
		2, 1,38,47,27,32, 0, 7		8,54
36″	15, 2,59,24,13,47,31,56,26,30		1, 6, 0,57,34	
		2, 1,38,46,21,31, 2,33		8,54
38″	15, 3, 1,25,52,33,53,27,29, 3		1, 6, 1, 6,28	
		2, 1,38,45,15,29,56, 5		8,54
40″	15, 3, 3,27,31,19, 8,57,25, 8		1, 6, 1,15,22	
		2, 1,38,44, 9,28,40,43		8,54
42″	15, 3, 5,29,10, 3,18,26, 5,51		1, 6, 1,24,16	
		2, 1,38,43, 3,27,16,27		8,54
44″	15, 3, 7,30,48,46,21,53,22,18		1, 6, 1,33,10	
		2, 1,38,41,57,25,43,17		8,54
46″	15, 3, 9,32,27,28,19,19, 5,35		1, 6, 1,42, 4	
		2, 1,38,40,51,24, 1,13		8,54
48″	15, 3,11,34, 6, 9,10,43, 6,48		1, 6, 1,50,58	
		2, 1,38,39,45,22,10,15		8,54
50″	15, 3,13,35,44,48,56, 5,17, 3		1, 6, 1,59,52	
		2, 1,38,38,39,20,10,23		8,54
52″	15, 3,15,37,23,27,35,25,27,26		1, 6, 2, 8,46	
		2, 1,38,37,33,18, 1,37		8,54
54″	15, 3,17,39, 2, 5, 8,43,29, 3		1, 6, 2,17,40	
		2, 1,38,36,27,15,43,57		8,54
56″	15, 3,19,40,40,41,35,59,13, 0		1, 6, 2,26,34	
		2, 1,38,35,21,13,17,23		8,54
58″	15, 3,21,42,19,16,57,12,30,23		1, 6, 2,35,28	
		2, 1,38,34,15,10,41,55		
60″	15, 3,23,43,57,51,12,23,12,18			
exact	15, 3,23,43,57,51,12,23,37,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°32′ 0″	15, 3,23,43,57,51,12,23,37,30			
		2, 1,38,33, 9, 8, 0,19		
2″	15, 3,25,45,36,24,21,31,37,49		1, 6, 2,53, 4	
		2, 1,38,32, 3, 5, 7,15		8,54
4″	15, 3,27,47,14,56,24,36,45, 4		1, 6, 3, 1,58	
		2, 1,38,30,57, 2, 5,17		8,54
6″	15, 3,29,48,53,27,21,38,50,21		1, 6, 3,10,52	
		2, 1,38,29,50,58,54,25		8,54
8″	15, 3,31,50,31,57,12,37,44,46		1, 6, 3,19,46	
		2, 1,38,28,44,55,34,39		8,54
10″	15, 3,33,52,10,25,57,33,19,25		1, 6, 3,28,40	
		2, 1,38,27,38,52, 5,59		8,54
12″	15, 3,35,53,48,53,36,25,25,24		1, 6, 3,37,34	
		2, 1,38,26,32,48,28,25		8,54
14″	15, 3,37,55,27,20, 9,13,53,49		1, 6, 3,46,28	
		2, 1,38,25,26,44,41,57		8,54
16″	15, 3,39,57, 5,45,35,58,35,46		1, 6, 3,55,22	
		2, 1,38,24,20,40,46,35		8,54
18″	15, 3,41,58,44, 9,56,39,22,21		1, 6, 4, 4,16	
		2, 1,38,23,14,36,42,19		8,54
20″	15, 3,44, 0,22,33,11,16, 4,40		1, 6, 4,13,10	
		2, 1,38,22, 8,32,29, 9		8,54
22″	15, 3,46, 2, 0,55,19,48,33,49		1, 6, 4,22, 4	
		2, 1,38,21, 2,28, 7, 5		8,54
24″	15, 3,48, 3,39,16,22,16,40,54		1, 6, 4,30,58	
		2, 1,38,19,56,23,36, 7		8,54
26″	15, 3,50, 5,17,36,18,40,17, 1		1, 6, 4,39,52	
		2, 1,38,18,50,18,56,15		8,54
28″	15, 3,52, 6,55,55, 8,59,13,16		1, 6, 4,48,46	
		2, 1,38,17,44,14, 7,29		8,54
30″	15, 3,54, 8,34,12,53,13,20,45		1, 6, 4,57,40	
		2, 1,38,16,38, 9, 9,49		8,54
32″	15, 3,56,10,12,29,31,22,30,34		1, 6, 5, 6,34	
		2, 1,38,15,32, 4, 3,15		8,54
34″	15, 3,58,11,50,45, 3,26,33,49		1, 6, 5,15,28	
		2, 1,38,14,25,58,47,47		8,54
36″	15, 4, 0,13,28,59,29,25,21,36		1, 6, 5,24,22	
		2, 1,38,13,19,53,23,25		8,54
38″	15, 4, 2,15, 7,12,49,18,45, 1		1, 6, 5,33,16	
		2, 1,38,12,13,47,50, 9		8,54
40″	15, 4, 4,16,45,25, 3, 6,35,10		1, 6, 5,42,10	
		2, 1,38,11, 7,42, 7,59		8,54
42″	15, 4, 6,18,23,36,10,48,43, 9		1, 6, 5,51, 4	
		2, 1,38,10, 1,36,16,55		8,54
44″	15, 4, 8,20, 1,46,12,25, 0, 4		1, 6, 5,59,58	
		2, 1,38, 8,55,30,16,57		8,54
46″	15, 4,10,21,39,55, 7,55,17, 1		1, 6, 6, 8,52	
		2, 1,38, 7,49,24, 8, 5		8,54
48″	15, 4,12,23,18, 2,57,19,25, 6		1, 6, 6,17,46	
		2, 1,38, 6,43,17,50,19		8,54
50″	15, 4,14,24,56, 9,40,37,15,25		1, 6, 6,26,40	
		2, 1,38, 5,37,11,23,39		8,54
52″	15, 4,16,26,34,15,17,48,39, 4		1, 6, 6,35,34	
		2, 1,38, 4,31, 4,48, 5		8,54
54″	15, 4,18,28,12,19,48,53,27, 9		1, 6, 6,44,28	
		2, 1,38, 3,24,58, 3,37		8,54
56″	15, 4,20,29,50,23,13,51,30,46		1, 6, 6,53,22	
		2, 1,38, 2,18,51,10,15		8,54
58″	15, 4,22,31,28,25,32,42,41, 1		1, 6, 7, 2,16	
		2, 1,38, 1,12,44, 7,59		
60″	15, 4,24,33, 6,26,45,26,49, 0			
exact	15, 4,24,33, 6,26,45,27,16, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°33′ 0″	15, 4,24,33, 6,26,45,27,16, 2			
		2, 1,38, 0, 6,36,59,49		
2″	15, 4,26,34,44,26,52, 4,15,51		1, 6, 7,19,51	
		2, 1,37,59, 0,29,39,58		8,54
4″	15, 4,28,36,22,25,52,33,55,49		1, 6, 7,28,45	
		2, 1,37,57,54,22,11,13		8,54
6″	15, 4,30,38, 0,23,46,56, 7, 2		1, 6, 7,37,39	
		2, 1,37,56,48,14,33,34		8,54
8″	15, 4,32,39,38,20,35,10,40,36		1, 6, 7,46,33	
		2, 1,37,55,42, 6,47, 1		8,54
10″	15, 4,34,41,16,16,17,17,27,37		1, 6, 7,55,27	
		2, 1,37,54,35,58,51,34		8,54
12″	15, 4,36,42,54,10,53,16,19,11		1, 6, 8, 4,21	
		2, 1,37,53,29,50,47,13		8,54
14″	15, 4,38,44,32, 4,23, 7, 6,24		1, 6, 8,13,15	
		2, 1,37,52,23,42,33,58		8,54
16″	15, 4,40,46, 9,56,46,49,40,22		1, 6, 8,22, 9	
		2, 1,37,51,17,34,11,49		8,54
18″	15, 4,42,47,47,48, 4,23,52,11		1, 6, 8,31, 3	
		2, 1,37,50,11,25,40,46		8,54
20″	15, 4,44,49,25,38,15,49,32,57		1, 6, 8,39,57	
		2, 1,37,49, 5,17, 0,49		8,54
22″	15, 4,46,51, 3,27,21, 6,33,46		1, 6, 8,48,51	
		2, 1,37,47,59, 8,11,58		8,54
24″	15, 4,48,52,41,15,20,14,45,44		1, 6, 8,57,45	
		2, 1,37,46,52,59,14,13		8,54
26″	15, 4,50,54,19, 2,13,13,59,57		1, 6, 9, 6,39	
		2, 1,37,45,46,50, 7,34		8,54
28″	15, 4,52,55,56,48, 0, 4, 7,31		1, 6, 9,15,33	
		2, 1,37,44,40,40,52, 1		8,54
30″	15, 4,54,57,34,32,40,44,59,32		1, 6, 9,24,27	
		2, 1,37,43,34,31,27,34		8,54
32″	15, 4,56,59,12,16,15,16,27, 6		1, 6, 9,33,21	
		2, 1,37,42,28,21,54,13		8,54
34″	15, 4,59, 0,49,58,43,38,21,19		1, 6, 9,42,15	
		2, 1,37,41,22,12,11,58		8,54
36″	15, 5, 1, 2,27,40, 5,50,33,17		1, 6, 9,51, 9	
		2, 1,37,40,16, 2,20,49		8,54
38″	15, 5, 3, 4, 5,20,21,52,54, 6		1, 6,10, 0, 3	
		2, 1,37,39, 9,52,20,46		8,54
40″	15, 5, 5, 5,42,59,31,45,14,52		1, 6,10, 8,57	
		2, 1,37,38, 3,42,11,49		8,54
42″	15, 5, 7, 7,20,37,35,27,26,41		1, 6,10,17,51	
		2, 1,37,36,57,31,53,58		8,54
44″	15, 5, 9, 8,58,14,32,59,20,39		1, 6,10,26,45	
		2, 1,37,35,51,21,27,13		8,54
46″	15, 5,11,10,35,50,24,20,47,52		1, 6,10,35,39	
		2, 1,37,34,45,10,51,34		8,54
48″	15, 5,13,12,13,25, 9,31,39,26		1, 6,10,44,33	
		2, 1,37,33,39, 0, 7, 1		8,54
50″	15, 5,15,13,50,58,48,31,46,27		1, 6,10,53,27	
		2, 1,37,32,32,49,13,34		8,54
52″	15, 5,17,15,28,31,21,21, 0, 1		1, 6,11, 2,21	
		2, 1,37,31,26,38,11,13		8,54
54″	15, 5,19,17, 6, 2,47,59,11,14		1, 6,11,11,15	
		2, 1,37,30,20,26,59,58		8,54
56″	15, 5,21,18,43,33, 8,26,11,12		1, 6,11,20, 9	
		2, 1,37,29,14,15,39,49		8,54
58″	15, 5,23,20,21, 2,22,41,51, 1		1, 6,11,29, 3	
		2, 1,37,28, 8, 4,10,46		
60″	15, 5,25,21,58,30,30,46, 1,47			
exact	15, 5,25,21,58,30,30,46,32,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°34′ 0″	15, 5,25,21,58,30,30,46,32,25			
		2, 1,37,27, 1,52,36,10		
2″	15, 5,27,23,35,57,32,39, 8,35		1, 6,11,46,37	
		2, 1,37,25,55,40,49,33		8,54
4″	15, 5,29,25,13,23,28,19,58, 8		1, 6,11,55,31	
		2, 1,37,24,49,28,54, 2		8,54
6″	15, 5,31,26,50,48,17,48,52,10		1, 6,12, 4,25	
		2, 1,37,23,43,16,49,37		8,54
8″	15, 5,33,28,28,12, 1, 5,41,47		1, 6,12,13,19	
		2, 1,37,22,37, 4,36,18		8,54
10″	15, 5,35,30, 5,34,38,10,18, 5		1, 6,12,22,13	
		2, 1,37,21,30,52,14, 5		8,54
12″	15, 5,37,31,42,56, 9, 2,32,10		1, 6,12,31, 7	
		2, 1,37,20,24,39,42,58		8,54
14″	15, 5,39,33,20,16,33,42,15, 8		1, 6,12,40, 1	
		2, 1,37,19,18,27, 2,57		8,54
16″	15, 5,41,34,57,35,52, 9,18, 5		1, 6,12,48,55	
		2, 1,37,18,12,14,14, 2		8,54
18″	15, 5,43,36,34,54, 4,23,32, 7		1, 6,12,57,49	
		2, 1,37,17, 6, 1,16,13		8,54
20″	15, 5,45,38,12,11,10,24,48,20		1, 6,13, 6,43	
		2, 1,37,15,59,48, 9,30		8,54
22″	15, 5,47,39,49,27,10,12,57,50		1, 6,13,15,37	
		2, 1,37,14,53,34,53,53		8,54
24″	15, 5,49,41,26,42, 3,47,51,43		1, 6,13,24,31	
		2, 1,37,13,47,21,29,22		8,54
26″	15, 5,51,43, 3,55,51, 9,21, 5		1, 6,13,33,25	
		2, 1,37,12,41, 7,55,57		8,54
28″	15, 5,53,44,41, 8,32,17,17, 2		1, 6,13,42,19	
		2, 1,37,11,34,54,13,38		8,54
30″	15, 5,55,46,18,20, 7,11,30,40		1, 6,13,51,13	
		2, 1,37,10,28,40,22,25		8,54
32″	15, 5,57,47,55,30,35,51,53, 5		1, 6,14, 0, 7	
		2, 1,37, 9,22,26,22,18		8,54
34″	15, 5,59,49,32,39,58,18,15,23		1, 6,14, 9, 1	
		2, 1,37, 8,16,12,13,17		8,54
36″	15, 6, 1,51, 9,48,14,30,28,40		1, 6,14,17,55	
		2, 1,37, 7, 9,57,55,22		8,54
38″	15, 6, 3,52,46,55,24,28,24, 2		1, 6,14,26,49	
		2, 1,37, 6, 3,43,28,33		8,54
40″	15, 6, 5,54,24, 1,28,11,52,35		1, 6,14,35,43	
		2, 1,37, 4,57,28,52,50		8,54
42″	15, 6, 7,56, 1, 6,25,40,45,25		1, 6,14,44,37	
		2, 1,37, 3,51,14, 8,13		8,54
44″	15, 6, 9,57,38,10,16,54,53,38		1, 6,14,53,31	
		2, 1,37, 2,44,59,14,42		8,54
46″	15, 6,11,59,15,13, 1,54, 8,20		1, 6,15, 2,25	
		2, 1,37, 1,38,44,12,17		8,54
48″	15, 6,14, 0,52,14,40,38,20,37		1, 6,15,11,19	
		2, 1,37, 0,32,29, 0,58		8,54
50″	15, 6,16, 2,29,15,13, 7,21,35		1, 6,15,20,13	
		2, 1,36,59,26,13,40,45		8,54
52″	15, 6,18, 4, 6,14,39,21, 2,20		1, 6,15,29, 7	
		2, 1,36,58,19,58,11,38		8,54
54″	15, 6,20, 5,43,12,59,19,13,58		1, 6,15,38, 1	
		2, 1,36,57,13,42,33,37		8,54
56″	15, 6,22, 7,20,10,13, 1,47,35		1, 6,15,46,55	
		2, 1,36,56, 7,26,46,42		8,54
58″	15, 6,24, 8,57, 6,20,28,34,17		1, 6,15,55,49	
		2, 1,36,55, 1,10,50,53		
60″	15, 6,26,10,34, 1,21,39,25,10			
exact	15, 6,26,10,34, 1,21,40, 0,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°35′ 0″	15, 6,26,10,34, 1,21,40, 0,46			
		2, 1,36,53,54,54,49,58		
2″	15, 6,28,12,10,55,16,34,50,44		1, 6,16,13,21	
		2, 1,36,52,48,38,36,37		8,53
4″	15, 6,30,13,47,48, 5,13,27,21		1, 6,16,22,14	
		2, 1,36,51,42,22,14,23		8,53
6″	15, 6,32,15,24,39,47,35,41,44		1, 6,16,31, 7	
		2, 1,36,50,36, 5,43,16		8,53
8″	15, 6,34,17, 1,30,23,41,25, 0		1, 6,16,40, 0	
		2, 1,36,49,29,49, 3,16		8,53
10″	15, 6,36,18,38,19,53,30,28,16		1, 6,16,48,53	
		2, 1,36,48,23,32,14,23		8,53
12″	15, 6,38,20,15, 8,17, 2,42,39		1, 6,16,57,46	
		2, 1,36,47,17,15,16,37		8,53
14″	15, 6,40,21,51,55,34,17,59,16		1, 6,17, 6,39	
		2, 1,36,46,10,58, 9,58		8,53
16″	15, 6,42,23,28,41,45,16, 9,14		1, 6,17,15,32	
		2, 1,36,45, 4,40,54,26		8,53
18″	15, 6,44,25, 5,26,49,57, 3,40		1, 6,17,24,25	
		2, 1,36,43,58,23,30, 1		8,53
20″	15, 6,46,26,42,10,48,20,33,41		1, 6,17,33,18	
		2, 1,36,42,52, 5,56,43		8,53
22″	15, 6,48,28,18,53,40,26,30,24		1, 6,17,42,11	
		2, 1,36,41,45,48,14,32		8,53
24″	15, 6,50,29,55,35,26,14,44,56		1, 6,17,51, 4	
		2, 1,36,40,39,30,23,28		8,53
26″	15, 6,52,31,32,16, 5,45, 8,24		1, 6,17,59,57	
		2, 1,36,39,33,12,23,31		8,53
28″	15, 6,54,33, 8,55,38,57,31,55		1, 6,18, 8,50	
		2, 1,36,38,26,54,14,41		8,53
30″	15, 6,56,34,45,34, 5,51,46,36		1, 6,18,17,43	
		2, 1,36,37,20,35,56,58		8,53
32″	15, 6,58,36,22,11,26,27,43,34		1, 6,18,26,36	
		2, 1,36,36,14,17,30,22		8,53
34″	15, 7, 0,37,58,47,40,45,13,56		1, 6,18,35,29	
		2, 1,36,35, 7,58,54,53		8,53
36″	15, 7, 2,39,35,22,48,44, 8,49		1, 6,18,44,22	
		2, 1,36,34, 1,40,10,31		8,53
38″	15, 7, 4,41,11,56,50,24,19,20		1, 6,18,53,15	
		2, 1,36,32,55,21,17,16		8,53
40″	15, 7, 6,42,48,29,45,45,36,36		1, 6,19, 2, 8	
		2, 1,36,31,49, 2,15, 8		8,53
42″	15, 7, 8,44,25, 1,34,47,51,44		1, 6,19,11, 1	
		2, 1,36,30,42,43, 4, 7		8,53
44″	15, 7,10,46, 1,32,17,30,55,51		1, 6,19,19,54	
		2, 1,36,29,36,23,44,13		8,53
46″	15, 7,12,47,38, 1,53,54,40, 4		1, 6,19,28,47	
		2, 1,36,28,30, 4,15,26		8,53
48″	15, 7,14,49,14,30,23,58,55,30		1, 6,19,37,40	
		2, 1,36,27,23,44,37,46		8,53
50″	15, 7,16,50,50,57,47,43,33,16		1, 6,19,46,33	
		2, 1,36,26,17,24,51,13		8,53
52″	15, 7,18,52,27,24, 5, 8,24,29		1, 6,19,55,26	
		2, 1,36,25,11, 4,55,47		8,53
54″	15, 7,20,54, 3,49,16,13,20,16		1, 6,20, 4,19	
		2, 1,36,24, 4,44,51,28		8,53
56″	15, 7,22,55,40,13,20,58,11,44		1, 6,20,13,12	
		2, 1,36,22,58,24,38,16		8,53
58″	15, 7,24,57,16,36,19,22,50, 0		1, 6,20,22, 5	
		2, 1,36,21,52, 4,16,11		
60″	15, 7,26,58,52,58,11,27, 6,11			
exact	15, 7,26,58,52,58,11,26,33,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°36′ 0″	15, 7,26,58,52,58,11,26,33,22			
		2, 1,36,20,45,43,41,49		
2″	15, 7,29, 0,29,18,57,10,15,11		1, 6,20,40, 5	
		2, 1,36,19,39,23, 1,44		8,53
4″	15, 7,31, 2, 5,38,36,33,16,55		1, 6,20,48,58	
		2, 1,36,18,33, 2,12,46		8,53
6″	15, 7,33, 3,41,57, 9,35,29,41		1, 6,20,57,51	
		2, 1,36,17,26,41,14,55		8,53
8″	15, 7,35, 5,18,14,36,16,44,36		1, 6,21, 6,44	
		2, 1,36,16,20,20, 8,11		8,53
10″	15, 7,37, 6,54,30,56,36,52,47		1, 6,21,15,37	
		2, 1,36,15,13,58,52,34		8,53
12″	15, 7,39, 8,30,46,10,35,45,21		1, 6,21,24,30	
		2, 1,36,14, 7,37,28, 4		8,53
14″	15, 7,41,10, 7, 0,18,13,13,25		1, 6,21,33,23	
		2, 1,36,13, 1,15,54,41		8,53
16″	15, 7,43,11,43,13,19,29, 8, 6		1, 6,21,42,16	
		2, 1,36,11,54,54,12,25		8,53
18″	15, 7,45,13,19,25,14,23,20,31		1, 6,21,51, 9	
		2, 1,36,10,48,32,21,16		8,53
20″	15, 7,47,14,55,36, 2,55,41,47		1, 6,22, 0, 2	
		2, 1,36, 9,42,10,21,14		8,53
22″	15, 7,49,16,31,45,45, 6, 3, 1		1, 6,22, 8,55	
		2, 1,36, 8,35,48,12,19		8,53
24″	15, 7,51,18, 7,54,20,54,15,20		1, 6,22,17,48	
		2, 1,36, 7,29,25,54,31		8,53
26″	15, 7,53,19,44, 1,50,20, 9,51		1, 6,22,26,41	
		2, 1,36, 6,23, 3,27,50		8,53
28″	15, 7,55,21,20, 8,13,23,37,41		1, 6,22,35,34	
		2, 1,36, 5,16,40,52,16		8,53
30″	15, 7,57,22,56,13,30, 4,29,57		1, 6,22,44,27	
		2, 1,36, 4,10,18, 7,49		8,53
32″	15, 7,59,24,32,17,40,22,37,46		1, 6,22,53,20	
		2, 1,36, 3, 3,55,14,29		8,53
34″	15, 8, 1,26, 8,20,44,17,52,15		1, 6,23, 2,13	
		2, 1,36, 1,57,32,12,16		8,53
36″	15, 8, 3,27,44,22,41,50, 4,31		1, 6,23,11, 6	
		2, 1,36, 0,51, 9, 1,10		8,53
38″	15, 8, 5,29,20,23,32,59, 5,41		1, 6,23,19,59	
		2, 1,35,59,44,45,41,11		8,53
40″	15, 8, 7,30,56,23,17,44,46,52		1, 6,23,28,52	
		2, 1,35,58,38,22,12,19		8,53
42″	15, 8, 9,32,32,21,56, 6,59,11		1, 6,23,37,45	
		2, 1,35,57,31,58,34,34		8,53
44″	15, 8,11,34, 8,19,28, 5,33,45		1, 6,23,46,38	
		2, 1,35,56,25,34,47,56		8,53
46″	15, 8,13,35,44,15,53,40,21,41		1, 6,23,55,31	
		2, 1,35,55,19,10,52,25		8,53
48″	15, 8,15,37,20,11,12,51,14, 6		1, 6,24, 4,24	
		2, 1,35,54,12,46,48, 1		8,53
50″	15, 8,17,38,56, 5,25,38, 2, 7		1, 6,24,13,17	
		2, 1,35,53, 6,22,34,44		8,53
52″	15, 8,19,40,31,58,32, 0,36,51		1, 6,24,22,10	
		2, 1,35,51,59,58,12,34		8,53
54″	15, 8,21,42, 7,50,31,58,49,25		1, 6,24,31, 3	
		2, 1,35,50,53,33,41,31		8,53
56″	15, 8,23,43,43,41,25,32,30,56		1, 6,24,39,56	
		2, 1,35,49,47, 9, 1,35		8,53
58″	15, 8,25,45,19,31,12,41,32,31		1, 6,24,48,49	
		2, 1,35,48,40,44,12,46		
60″	15, 8,27,46,55,19,53,25,45,17			
exact	15, 8,27,46,55,19,53,25,20,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°37′ 0″	15, 8,27,46,55,19,53,25,20,39			
		2, 1,35,47,34,19,12,20		
2″	15, 8,29,48,31, 7,27,44,32,59		1, 6,25, 6,47	
		2, 1,35,46,27,54, 5,33		8,53
4″	15, 8,31,50, 6,53,55,38,38,32		1, 6,25,15,40	
		2, 1,35,45,21,28,49,53		8,53
6″	15, 8,33,51,42,39,17, 7,28,25		1, 6,25,24,33	
		2, 1,35,44,15, 3,25,20		8,53
8″	15, 8,35,53,18,23,32,10,53,45		1, 6,25,33,26	
		2, 1,35,43, 8,37,51,54		8,53
10″	15, 8,37,54,54, 6,40,48,45,39		1, 6,25,42,19	
		2, 1,35,42, 2,12, 9,35		8,53
12″	15, 8,39,56,29,48,43, 0,55,14		1, 6,25,51,12	
		2, 1,35,40,55,46,18,23		8,53
14″	15, 8,41,58, 5,29,38,47,13,37		1, 6,26, 0, 5	
		2, 1,35,39,49,20,18,18		8,53
16″	15, 8,43,59,41, 9,28, 7,31,55		1, 6,26, 8,58	
		2, 1,35,38,42,54, 9,20		8,53
18″	15, 8,46, 1,16,48,11, 1,41,15		1, 6,26,17,51	
		2, 1,35,37,36,27,51,29		8,53
20″	15, 8,48, 2,52,25,47,29,32,44		1, 6,26,26,44	
		2, 1,35,36,30, 1,24,45		8,53
22″	15, 8,50, 4,28, 2,17,30,57,29		1, 6,26,35,37	
		2, 1,35,35,23,34,49, 8		8,53
24″	15, 8,52, 6, 3,37,41, 5,46,37		1, 6,26,44,30	
		2, 1,35,34,17, 8, 4,38		8,53
26″	15, 8,54, 7,39,11,58,13,51,15		1, 6,26,53,23	
		2, 1,35,33,10,41,11,15		8,53
28″	15, 8,56, 9,14,45, 8,55, 2,30		1, 6,27, 2,16	
		2, 1,35,32, 4,14, 8,59		8,53
30″	15, 8,58,10,50,17,13, 9,11,29		1, 6,27,11, 9	
		2, 1,35,30,57,46,57,50		8,53
32″	15, 9, 0,12,25,48,10,56, 9,19		1, 6,27,20, 2	
		2, 1,35,29,51,19,37,48		8,53
34″	15, 9, 2,14, 1,18, 2,15,47, 7		1, 6,27,28,55	
		2, 1,35,28,44,52, 8,53		8,53
36″	15, 9, 4,15,36,46,47, 7,56, 0		1, 6,27,37,48	
		2, 1,35,27,38,24,31, 5		8,53
38″	15, 9, 6,17,12,14,25,32,27, 5		1, 6,27,46,41	
		2, 1,35,26,31,56,44,24		8,53
40″	15, 9, 8,18,47,40,57,29,11,29		1, 6,27,55,34	
		2, 1,35,25,25,28,48,50		8,53
42″	15, 9,10,20,23, 6,22,58, 0,19		1, 6,28, 4,27	
		2, 1,35,24,19, 0,44,23		8,53
44″	15, 9,12,21,58,30,41,58,44,42		1, 6,28,13,20	
		2, 1,35,23,12,32,31, 3		8,53
46″	15, 9,14,23,33,53,54,31,15,45		1, 6,28,22,13	
		2, 1,35,22, 6, 4, 8,50		8,53
48″	15, 9,16,25, 9,16, 0,35,24,35		1, 6,28,31, 6	
		2, 1,35,20,59,35,37,44		8,53
50″	15, 9,18,26,44,37, 0,11, 2,19		1, 6,28,39,59	
		2, 1,35,19,53, 6,57,45		8,53
52″	15, 9,20,28,19,56,53,18, 0, 4		1, 6,28,48,52	
		2, 1,35,18,46,38, 8,53		8,53
54″	15, 9,22,29,55,15,39,56, 8,57		1, 6,28,57,45	
		2, 1,35,17,40, 9,11, 8		8,53
56″	15, 9,24,31,30,33,20, 5,20, 5		1, 6,29, 6,38	
		2, 1,35,16,33,40, 4,30		8,53
58″	15, 9,26,33, 5,49,53,45,24,35		1, 6,29,15,31	
		2, 1,35,15,27,10,48,59		
60″	15, 9,28,34,41, 5,20,56,13,34			
exact	15, 9,28,34,41, 5,20,55,51,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°38′ 0″	15, 9,28,34,41, 5,20,55,51,16			
		2, 1,35,14,20,41,22, 7		
2″	15, 9,30,36,16,19,41,37,13,23		1, 6,29,33,27	
		2, 1,35,13,14,11,48,40		8,53
4″	15, 9,32,37,51,32,55,49, 2, 3		1, 6,29,42,20	
		2, 1,35,12, 7,42, 6,20		8,53
6″	15, 9,34,39,26,45, 3,31, 8,23		1, 6,29,51,13	
		2, 1,35,11, 1,12,15, 7		8,53
8″	15, 9,36,41, 1,56, 4,43,23,30		1, 6,30, 0, 6	
		2, 1,35, 9,54,42,15, 1		8,53
10″	15, 9,38,42,37, 5,59,25,38,31		1, 6,30, 8,59	
		2, 1,35, 8,48,12, 6, 2		8,53
12″	15, 9,40,44,12,14,47,37,44,33		1, 6,30,17,52	
		2, 1,35, 7,41,41,48,10		8,53
14″	15, 9,42,45,47,22,29,19,32,43		1, 6,30,26,45	
		2, 1,35, 6,35,11,21,25		8,53
16″	15, 9,44,47,22,29, 4,30,54, 8		1, 6,30,35,38	
		2, 1,35, 5,28,40,45,47		8,53
18″	15, 9,46,48,57,34,33,11,39,55		1, 6,30,44,31	
		2, 1,35, 4,22,10, 1,16		8,53
20″	15, 9,48,50,32,38,55,21,41,11		1, 6,30,53,24	
		2, 1,35, 3,15,39, 7,52		8,53
22″	15, 9,50,52, 7,42,11, 0,49, 3		1, 6,31, 2,17	
		2, 1,35, 2, 9, 8, 5,35		8,53
24″	15, 9,52,53,42,44,20, 8,54,38		1, 6,31,11,10	
		2, 1,35, 1, 2,36,54,25		8,53
26″	15, 9,54,55,17,45,22,45,49, 3		1, 6,31,20, 3	
		2, 1,34,59,56, 5,34,22		8,53
28″	15, 9,56,56,52,45,18,51,23,25		1, 6,31,28,56	
		2, 1,34,58,49,34, 5,26		8,53
30″	15, 9,58,58,27,44, 8,25,28,51		1, 6,31,37,49	
		2, 1,34,57,43, 2,27,37		8,53
32″	15,10, 1, 0, 2,41,51,27,56,28		1, 6,31,46,42	
		2, 1,34,56,36,30,40,55		8,53
34″	15,10, 3, 1,37,38,27,58,37,23		1, 6,31,55,35	
		2, 1,34,55,29,58,45,20		8,53
36″	15,10, 5, 3,12,33,57,57,22,43		1, 6,32, 4,28	
		2, 1,34,54,23,26,40,52		8,53
38″	15,10, 7, 4,47,28,21,24, 3,35		1, 6,32,13,21	
		2, 1,34,53,16,54,27,31		8,53
40″	15,10, 9, 6,22,21,38,18,31, 6		1, 6,32,22,14	
		2, 1,34,52,10,22, 5,17		8,53
42″	15,10,11, 7,57,13,48,40,36,23		1, 6,32,31, 7	
		2, 1,34,51, 3,49,34,10		8,53
44″	15,10,13, 9,32, 4,52,30,10,33		1, 6,32,40, 0	
		2, 1,34,49,57,16,54,10		8,53
46″	15,10,15,11, 6,54,49,47, 4,43		1, 6,32,48,53	
		2, 1,34,48,50,44, 5,17		8,53
48″	15,10,17,12,41,43,40,31,10, 0		1, 6,32,57,46	
		2, 1,34,47,44,11, 7,31		8,53
50″	15,10,19,14,16,31,24,42,17,31		1, 6,33, 6,39	
		2, 1,34,46,37,38, 0,52		8,53
52″	15,10,21,15,51,18, 2,20,18,23		1, 6,33,15,32	
		2, 1,34,45,31, 4,45,20		8,53
54″	15,10,23,17,26, 3,33,25, 3,43		1, 6,33,24,25	
		2, 1,34,44,24,31,20,55		8,53
56″	15,10,25,19, 0,47,57,56,24,38		1, 6,33,33,18	
		2, 1,34,43,17,57,47,37		8,53
58″	15,10,27,20,35,31,15,54,12,15		1, 6,33,42,11	
		2, 1,34,42,11,24, 5,26		
60″	15,10,29,22,10,13,27,18,17,41			
exact	15,10,29,22,10,13,27,17,52, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°39′ 0″	15,10,29,22,10,13,27,17,52, 3			
		2, 1,34,41, 4,50,11,46		
2″	15,10,31,23,44,54,32, 8, 3,49		1, 6,34, 0, 7	
		2, 1,34,39,58,16,11,39		8,53
4″	15,10,33,25,19,34,30,24,15,28		1, 6,34, 9, 0	
		2, 1,34,38,51,42, 2,39		8,53
6″	15,10,35,26,54,13,22, 6,18, 7		1, 6,34,17,53	
		2, 1,34,37,45, 7,44,46		8,53
8″	15,10,37,28,28,51, 7,14, 2,53		1, 6,34,26,46	
		2, 1,34,36,38,33,18, 0		8,53
10″	15,10,39,30, 3,27,45,47,20,53		1, 6,34,35,39	
		2, 1,34,35,31,58,42,21		8,53
12″	15,10,41,31,38, 3,17,46, 3,14		1, 6,34,44,32	
		2, 1,34,34,25,23,57,49		8,53
14″	15,10,43,33,12,37,43,10, 1, 3		1, 6,34,53,25	
		2, 1,34,33,18,49, 4,24		8,53
16″	15,10,45,34,47,11, 1,59, 5,27		1, 6,35, 2,18	
		2, 1,34,32,12,14, 2, 6		8,53
18″	15,10,47,36,21,43,14,13, 7,33		1, 6,35,11,11	
		2, 1,34,31, 5,38,50,55		8,53
20″	15,10,49,37,56,14,19,51,58,28		1, 6,35,20, 4	
		2, 1,34,29,59, 3,30,51		8,53
22″	15,10,51,39,30,44,18,55,29,19		1, 6,35,28,57	
		2, 1,34,28,52,28, 1,54		8,53
24″	15,10,53,41, 5,13,11,23,31,13		1, 6,35,37,50	
		2, 1,34,27,45,52,24, 4		8,53
26″	15,10,55,42,39,40,57,15,55,17		1, 6,35,46,43	
		2, 1,34,26,39,16,37,21		8,53
28″	15,10,57,44,14, 7,36,32,32,38		1, 6,35,55,36	
		2, 1,34,25,32,40,41,45		8,53
30″	15,10,59,45,48,33, 9,13,14,23		1, 6,36, 4,29	
		2, 1,34,24,26, 4,37,16		8,53
32″	15,11, 1,47,22,57,35,17,51,39		1, 6,36,13,22	
		2, 1,34,23,19,28,23,54		8,53
34″	15,11, 3,48,57,20,54,46,15,33		1, 6,36,22,15	
		2, 1,34,22,12,52, 1,39		8,53
36″	15,11, 5,50,31,43, 7,38,17,12		1, 6,36,31, 8	
		2, 1,34,21, 6,15,30,31		8,53
38″	15,11, 7,52, 6, 4,13,53,47,43		1, 6,36,40, 1	
		2, 1,34,19,59,38,50,30		8,53
40″	15,11, 9,53,40,24,13,32,38,13		1, 6,36,48,54	
		2, 1,34,18,53, 2, 1,36		8,53
42″	15,11,11,55,14,43, 6,34,39,49		1, 6,36,57,47	
		2, 1,34,17,46,25, 3,49		8,53
44″	15,11,13,56,49, 0,52,59,43,38		1, 6,37, 6,40	
		2, 1,34,16,39,47,57, 9		8,53
46″	15,11,15,58,23,17,32,47,40,47		1, 6,37,15,33	
		2, 1,34,15,33,10,41,36		8,53
48″	15,11,17,59,57,33, 5,58,22,23		1, 6,37,24,26	
		2, 1,34,14,26,33,17,10		8,53
50″	15,11,20, 1,31,47,32,31,39,33		1, 6,37,33,19	
		2, 1,34,13,19,55,43,51		8,53
52″	15,11,22, 3, 6, 0,52,27,23,24		1, 6,37,42,12	
		2, 1,34,12,13,18, 1,39		8,53
54″	15,11,24, 4,40,13, 5,45,25, 3		1, 6,37,51, 5	
		2, 1,34,11, 6,40,10,34		8,53
56″	15,11,26, 6,14,24,12,25,35,37		1, 6,37,59,58	
		2, 1,34,10, 0, 2,10,36		8,53
58″	15,11,28, 7,48,34,12,27,46,13		1, 6,38, 8,51	
		2, 1,34, 8,53,24, 1,45		
60″	15,11,30, 9,22,43, 5,51,47,58			
exact	15,11,30, 9,22,43, 5,51,28, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°40′ 0″	15,11,30, 9,22,43, 5,51,28, 4			
		2, 1,34, 7,46,45,41,55		
2″	15,11,32,10,56,50,52,37, 9,59		1, 6,38,26,45	
		2, 1,34, 6,40, 7,15,10		8,53
4″	15,11,34,12,30,57,32,44,25, 9		1, 6,38,35,38	
		2, 1,34, 5,33,28,39,32		8,53
6″	15,11,36,14, 5, 3, 6,13, 4,41		1, 6,38,44,31	
		2, 1,34, 4,26,49,55, 1		8,53
8″	15,11,38,15,39, 7,33, 2,59,42		1, 6,38,53,24	
		2, 1,34, 3,20,11, 1,37		8,53
10″	15,11,40,17,13,10,53,14, 1,19		1, 6,39, 2,17	
		2, 1,34, 2,13,31,59,20		8,53
12″	15,11,42,18,47,13, 6,46, 0,39		1, 6,39,11,10	
		2, 1,34, 1, 6,52,48,10		8,53
14″	15,11,44,20,21,14,13,38,48,49		1, 6,39,20, 3	
		2, 1,34, 0, 0,13,28, 7		8,53
16″	15,11,46,21,55,14,13,52,16,56		1, 6,39,28,56	
		2, 1,33,58,53,33,59,11		8,53
18″	15,11,48,23,29,13, 7,26,16, 7		1, 6,39,37,49	
		2, 1,33,57,46,54,21,22		8,53
20″	15,11,50,25, 3,10,54,20,37,29		1, 6,39,46,42	
		2, 1,33,56,40,14,34,40		8,53
22″	15,11,52,26,37, 7,34,35,12, 9		1, 6,39,55,35	
		2, 1,33,55,33,34,39, 5		8,53
24″	15,11,54,28,11, 3, 8, 9,51,14		1, 6,40, 4,28	
		2, 1,33,54,26,54,34,37		8,53
26″	15,11,56,29,44,57,35, 4,25,51		1, 6,40,13,21	
		2, 1,33,53,20,14,21,16		8,53
28″	15,11,58,31,18,50,55,18,47, 7		1, 6,40,22,14	
		2, 1,33,52,13,33,59, 2		8,53
30″	15,12, 0,32,52,43, 8,52,46, 9		1, 6,40,31, 7	
		2, 1,33,51, 6,53,27,55		8,53
32″	15,12, 2,34,26,34,15,46,14, 4		1, 6,40,40, 0	
		2, 1,33,50, 0,12,47,55		8,53
34″	15,12, 4,36, 0,24,15,59, 1,59		1, 6,40,48,53	
		2, 1,33,48,53,31,59, 2		8,53
36″	15,12, 6,37,34,13, 9,31, 1, 1		1, 6,40,57,46	
		2, 1,33,47,46,51, 1,16		8,53
38″	15,12, 8,39, 8, 0,56,22, 2,17		1, 6,41, 6,39	
		2, 1,33,46,40, 9,54,37		8,53
40″	15,12,10,40,41,47,36,31,56,54		1, 6,41,15,32	
		2, 1,33,45,33,28,39, 5		8,53
42″	15,12,12,42,15,33,10, 0,35,59		1, 6,41,24,25	
		2, 1,33,44,26,47,14,40		8,53
44″	15,12,14,43,49,17,36,47,50,39		1, 6,41,33,18	
		2, 1,33,43,20, 5,41,22		8,53
46″	15,12,16,45,23, 0,56,53,32, 1		1, 6,41,42,11	
		2, 1,33,42,13,23,59,11		8,53
48″	15,12,18,46,56,43,10,17,31,12		1, 6,41,51, 4	
		2, 1,33,41, 6,42, 8, 7		8,53
50″	15,12,20,48,30,24,16,59,39,19		1, 6,41,59,57	
		2, 1,33,40, 0, 0, 8,10		8,53
52″	15,12,22,50, 4, 4,16,59,47,29		1, 6,42, 8,50	
		2, 1,33,38,53,17,59,20		8,53
54″	15,12,24,51,37,43,10,17,46,49		1, 6,42,17,43	
		2, 1,33,37,46,35,41,37		8,53
56″	15,12,26,53,11,20,56,53,28,26		1, 6,42,26,36	
		2, 1,33,36,39,53,15, 1		8,53
58″	15,12,28,54,44,57,36,46,43,27		1, 6,42,35,29	
		2, 1,33,35,33,10,39,32		
60″	15,12,30,56,18,33, 9,57,22,59			
exact	15,12,30,56,18,33, 9,57, 2,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°41′ 0″	15,12,30,56,18,33, 9,57, 2,38			
		2, 1,33,34,26,27,53, 9		
2″	15,12,32,57,52, 7,36,24,55,47		1, 6,42,53,23	
		2, 1,33,33,19,44,59,46		8,53
4″	15,12,34,59,25,40,56, 9,55,33		1, 6,43, 2,16	
		2, 1,33,32,13, 1,57,30		8,53
6″	15,12,37, 0,59,13, 9,11,53, 3		1, 6,43,11, 9	
		2, 1,33,31, 6,18,46,21		8,53
8″	15,12,39, 2,32,44,15,30,39,24		1, 6,43,20, 2	
		2, 1,33,29,59,35,26,19		8,53
10″	15,12,41, 4, 6,14,15, 6, 5,43		1, 6,43,28,55	
		2, 1,33,28,52,51,57,24		8,53
12″	15,12,43, 5,39,43, 7,58, 3, 7		1, 6,43,37,48	
		2, 1,33,27,46, 8,19,36		8,53
14″	15,12,45, 7,13,10,54, 6,22,43		1, 6,43,46,41	
		2, 1,33,26,39,24,32,55		8,53
16″	15,12,47, 8,46,37,33,30,55,38		1, 6,43,55,34	
		2, 1,33,25,32,40,37,21		8,53
18″	15,12,49,10,20, 3, 6,11,32,59		1, 6,44, 4,27	
		2, 1,33,24,25,56,32,54		8,53
20″	15,12,51,11,53,27,32, 8, 5,53		1, 6,44,13,20	
		2, 1,33,23,19,12,19,34		8,53
22″	15,12,53,13,26,50,51,20,25,27		1, 6,44,22,13	
		2, 1,33,22,12,27,57,21		8,53
24″	15,12,55,15, 0,13, 3,48,22,48		1, 6,44,31, 6	
		2, 1,33,21, 5,43,26,15		8,53
26″	15,12,57,16,33,34, 9,31,49, 3		1, 6,44,39,59	
		2, 1,33,19,58,58,46,16		8,53
28″	15,12,59,18, 6,54, 8,30,35,19		1, 6,44,48,52	
		2, 1,33,18,52,13,57,24		8,53
30″	15,13, 1,19,40,13, 0,44,32,43		1, 6,44,57,45	
		2, 1,33,17,45,28,59,39		8,53
32″	15,13, 3,21,13,30,46,13,32,22		1, 6,45, 6,38	
		2, 1,33,16,38,43,53, 1		8,53
34″	15,13, 5,22,46,47,24,57,25,23		1, 6,45,15,31	
		2, 1,33,15,31,58,37,30		8,53
36″	15,13, 7,24,20, 2,56,56, 2,53		1, 6,45,24,24	
		2, 1,33,14,25,13,13, 6		8,53
38″	15,13, 9,25,53,17,22, 9,15,59		1, 6,45,33,17	
		2, 1,33,13,18,27,39,49		8,53
40″	15,13,11,27,26,30,40,36,55,48		1, 6,45,42,10	
		2, 1,33,12,11,41,57,39		8,53
42″	15,13,13,28,59,42,52,18,53,27		1, 6,45,51, 3	
		2, 1,33,11, 4,56, 6,36		8,53
44″	15,13,15,30,32,53,57,15, 0, 3		1, 6,45,59,56	
		2, 1,33, 9,58,10, 6,40		8,53
46″	15,13,17,32, 6, 3,55,25, 6,43		1, 6,46, 8,49	
		2, 1,33, 8,51,23,57,51		8,53
48″	15,13,19,33,39,12,46,49, 4,34		1, 6,46,17,42	
		2, 1,33, 7,44,37,40, 9		8,53
50″	15,13,21,35,12,20,31,26,44,43		1, 6,46,26,35	
		2, 1,33, 6,37,51,13,34		8,53
52″	15,13,23,36,45,27, 9,17,58,17		1, 6,46,35,28	
		2, 1,33, 5,31, 4,38, 6		8,53
54″	15,13,25,38,18,32,40,22,36,23		1, 6,46,44,21	
		2, 1,33, 4,24,17,53,45		8,53
56″	15,13,27,39,51,37, 4,40,30, 8		1, 6,46,53,14	
		2, 1,33, 3,17,31, 0,31		8,53
58″	15,13,29,41,24,40,22,11,30,39		1, 6,47, 2, 7	
		2, 1,33, 2,10,43,58,24		
60″	15,13,31,42,57,42,32,55,29, 3			
exact	15,13,31,42,57,42,32,55,17,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°42′ 0″	15,13,31,42,57,42,32,55,17,21			
		2, 1,33, 1, 3,56,46, 5		
2″	15,13,33,44,30,43,36,52, 3,26		1, 6,47,19,59	
		2, 1,32,59,57, 9,26, 6		8,53
4″	15,13,35,46, 3,43,34, 1,29,32		1, 6,47,28,52	
		2, 1,32,58,50,21,57,14		8,53
6″	15,13,37,47,36,42,24,23,26,46		1, 6,47,37,45	
		2, 1,32,57,43,34,19,29		8,53
8″	15,13,39,49, 9,40, 7,57,46,15		1, 6,47,46,38	
		2, 1,32,56,36,46,32,51		8,53
10″	15,13,41,50,42,36,44,44,19, 6		1, 6,47,55,31	
		2, 1,32,55,29,58,37,20		8,53
12″	15,13,43,52,15,32,14,42,56,26		1, 6,48, 4,24	
		2, 1,32,54,23,10,32,56		8,53
14″	15,13,45,53,48,26,37,53,29,22		1, 6,48,13,17	
		2, 1,32,53,16,22,19,39		8,53
16″	15,13,47,55,21,19,54,15,49, 1		1, 6,48,22,10	
		2, 1,32,52, 9,33,57,29		8,53
18″	15,13,49,56,54,12, 3,49,46,30		1, 6,48,31, 3	
		2, 1,32,51, 2,45,26,26		8,53
20″	15,13,51,58,27, 3, 6,35,12,56		1, 6,48,39,56	
		2, 1,32,49,55,56,46,30		8,53
22″	15,13,53,59,59,53, 2,31,59,26		1, 6,48,48,49	
		2, 1,32,48,49, 7,57,41		8,53
24″	15,13,56, 1,32,41,51,39,57, 7		1, 6,48,57,42	
		2, 1,32,47,42,18,59,59		8,53
26″	15,13,58, 3, 5,29,33,58,57, 6		1, 6,49, 6,35	
		2, 1,32,46,35,29,53,24		8,53
28″	15,14, 0, 4,38,16, 9,28,50,30		1, 6,49,15,28	
		2, 1,32,45,28,40,37,56		8,53
30″	15,14, 2, 6,11, 1,38, 9,28,26		1, 6,49,24,21	
		2, 1,32,44,21,51,13,35		8,53
32″	15,14, 4, 7,43,46, 0, 0,42, 1		1, 6,49,33,14	
		2, 1,32,43,15, 1,40,21		8,53
34″	15,14, 6, 9,16,29,15, 2,22,22		1, 6,49,42, 7	
		2, 1,32,42, 8,11,58,14		8,53
36″	15,14, 8,10,49,11,23,14,20,36		1, 6,49,51, 0	
		2, 1,32,41, 1,22, 7,14		8,53
38″	15,14,10,12,21,52,24,36,27,50		1, 6,49,59,53	
		2, 1,32,39,54,32, 7,21		8,53
40″	15,14,12,13,54,32,19, 8,35,11		1, 6,50, 8,46	
		2, 1,32,38,47,41,58,35		8,53
42″	15,14,14,15,27,11, 6,50,33,46		1, 6,50,17,39	
		2, 1,32,37,40,51,40,56		8,53
44″	15,14,16,16,59,48,47,42,14,42		1, 6,50,26,32	
		2, 1,32,36,34, 1,14,24		8,53
46″	15,14,18,18,32,25,21,43,29, 6		1, 6,50,35,25	
		2, 1,32,35,27,10,38,59		8,53
48″	15,14,20,20, 5, 0,48,54, 8, 5		1, 6,50,44,18	
		2, 1,32,34,20,19,54,41		8,53
50″	15,14,22,21,37,35, 9,14, 2,46		1, 6,50,53,11	
		2, 1,32,33,13,29, 1,30		8,53
52″	15,14,24,23,10, 8,22,43, 4,16		1, 6,51, 2, 4	
		2, 1,32,32, 6,37,59,26		8,53
54″	15,14,26,24,42,40,29,21, 3,42		1, 6,51,10,57	
		2, 1,32,30,59,46,48,29		8,53
56″	15,14,28,26,15,11,29, 7,52,11		1, 6,51,19,50	
		2, 1,32,29,52,55,28,39		8,53
58″	15,14,30,27,47,41,22, 3,20,50		1, 6,51,28,43	
		2, 1,32,28,46, 3,59,56		
60″	15,14,32,29,20,10, 8, 7,20,46			
exact	15,14,32,29,20,10, 8, 7,12, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°43′ 0″	15,14,32,29,20,10, 8, 7,12, 5			
		2, 1,32,27,39,12,21,20		
2″	15,14,34,30,52,37,47,19,33,25		1, 6,51,46,33	
		2, 1,32,26,32,20,34,47		8,53
4″	15,14,36,32,25, 4,19,40, 8,12		1, 6,51,55,26	
		2, 1,32,25,25,28,39,21		8,53
6″	15,14,38,33,57,29,45, 8,47,33		1, 6,52, 4,19	
		2, 1,32,24,18,36,35, 2		8,53
8″	15,14,40,35,29,54, 3,45,22,35		1, 6,52,13,12	
		2, 1,32,23,11,44,21,50		8,53
10″	15,14,42,37, 2,17,15,29,44,25		1, 6,52,22, 5	
		2, 1,32,22, 4,51,59,45		8,53
12″	15,14,44,38,34,39,20,21,44,10		1, 6,52,30,58	
		2, 1,32,20,57,59,28,47		8,53
14″	15,14,46,40, 7, 0,18,21,12,57		1, 6,52,39,51	
		2, 1,32,19,51, 6,48,56		8,53
16″	15,14,48,41,39,20, 9,28, 1,53		1, 6,52,48,44	
		2, 1,32,18,44,14, 0,12		8,53
18″	15,14,50,43,11,38,53,42, 2, 5		1, 6,52,57,37	
		2, 1,32,17,37,21, 2,35		8,53
20″	15,14,52,44,43,56,31, 3, 4,40		1, 6,53, 6,30	
		2, 1,32,16,30,27,56, 5		8,53
22″	15,14,54,46,16,13, 1,31, 0,45		1, 6,53,15,23	
		2, 1,32,15,23,34,40,42		8,53
24″	15,14,56,47,48,28,25, 5,41,27		1, 6,53,24,16	
		2, 1,32,14,16,41,16,26		8,53
26″	15,14,58,49,20,42,41,46,57,53		1, 6,53,33, 9	
		2, 1,32,13, 9,47,43,17		8,53
28″	15,15, 0,50,52,55,51,34,41,10		1, 6,53,42, 2	
		2, 1,32,12, 2,54, 1,15		8,53
30″	15,15, 2,52,25, 7,54,28,42,25		1, 6,53,50,55	
		2, 1,32,10,56, 0,10,20		8,53
32″	15,15, 4,53,57,18,50,28,52,45		1, 6,53,59,48	
		2, 1,32, 9,49, 6,10,32		8,53
34″	15,15, 6,55,29,28,39,35, 3,17		1, 6,54, 8,41	
		2, 1,32, 8,42,12, 1,51		8,53
36″	15,15, 8,57, 1,37,21,47, 5, 8		1, 6,54,17,34	
		2, 1,32, 7,35,17,44,17		8,53
38″	15,15,10,58,33,44,57, 4,49,25		1, 6,54,26,27	
		2, 1,32, 6,28,23,17,50		8,53
40″	15,15,13, 0, 5,51,25,28, 7,15		1, 6,54,35,20	
		2, 1,32, 5,21,28,42,30		8,53
42″	15,15,15, 1,37,56,46,56,49,45		1, 6,54,44,13	
		2, 1,32, 4,14,33,58,17		8,53
44″	15,15,17, 3,10, 1, 1,30,48, 2		1, 6,54,53, 6	
		2, 1,32, 3, 7,39, 5,11		8,53
46″	15,15,19, 4,42, 4, 9, 9,53,13		1, 6,55, 1,59	
		2, 1,32, 2, 0,44, 3,12		8,53
48″	15,15,21, 6,14, 6, 9,53,56,25		1, 6,55,10,52	
		2, 1,32, 0,53,48,52,20		8,53
50″	15,15,23, 7,46, 7, 3,42,48,45		1, 6,55,19,45	
		2, 1,31,59,46,53,32,35		8,53
52″	15,15,25, 9,18, 6,50,36,21,20		1, 6,55,28,38	
		2, 1,31,58,39,58, 3,57		8,53
54″	15,15,27,10,50, 5,30,34,25,17		1, 6,55,37,31	
		2, 1,31,57,33, 2,26,26		8,53
56″	15,15,29,12,22, 3, 3,36,51,43		1, 6,55,46,24	
		2, 1,31,56,26, 6,40, 2		8,53
58″	15,15,31,13,53,59,29,43,31,45		1, 6,55,55,17	
		2, 1,31,55,19,10,44,45		
60″	15,15,33,15,25,54,48,54,16,30			
exact	15,15,33,15,25,54,48,54, 5, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°44′ 0″	15,15,33,15,25,54,48,54, 5, 2			
		2, 1,31,54,12,14,39,30		
2″	15,15,35,16,57,49, 1, 8,44,32		1, 6,56,13, 7	
		2, 1,31,53, 5,18,26,23		8,53
4″	15,15,37,18,29,42, 6,27,10,55		1, 6,56,22, 0	
		2, 1,31,51,58,22, 4,23		8,53
6″	15,15,39,20, 1,34, 4,49,15,18		1, 6,56,30,53	
		2, 1,31,50,51,25,33,30		8,53
8″	15,15,41,21,33,24,56,14,48,48		1, 6,56,39,46	
		2, 1,31,49,44,28,53,44		8,53
10″	15,15,43,23, 5,14,40,43,42,32		1, 6,56,48,39	
		2, 1,31,48,37,32, 5, 5		8,53
12″	15,15,45,24,37, 3,18,15,47,37		1, 6,56,57,32	
		2, 1,31,47,30,35, 7,33		8,53
14″	15,15,47,26, 8,50,48,50,55,10		1, 6,57, 6,25	
		2, 1,31,46,23,38, 1, 8		8,53
16″	15,15,49,27,40,37,12,28,56,18		1, 6,57,15,18	
		2, 1,31,45,16,40,45,50		8,53
18″	15,15,51,29,12,22,29, 9,42, 8		1, 6,57,24,11	
		2, 1,31,44, 9,43,21,39		8,53
20″	15,15,53,30,44, 6,38,53, 3,47		1, 6,57,33, 4	
		2, 1,31,43, 2,45,48,35		8,53
22″	15,15,55,32,15,49,41,38,52,22		1, 6,57,41,57	
		2, 1,31,41,55,48, 6,38		8,53
24″	15,15,57,33,47,31,37,26,59, 0		1, 6,57,50,50	
		2, 1,31,40,48,50,15,48		8,53
26″	15,15,59,35,19,12,26,17,14,48		1, 6,57,59,43	
		2, 1,31,39,41,52,16, 5		8,53
28″	15,16, 1,36,50,52, 8, 9,30,53		1, 6,58, 8,36	
		2, 1,31,38,34,54, 7,29		8,53
30″	15,16, 3,38,22,30,43, 3,38,22		1, 6,58,17,29	
		2, 1,31,37,27,55,50, 0		8,53
32″	15,16, 5,39,54, 8,10,59,28,22		1, 6,58,26,22	
		2, 1,31,36,20,57,23,38		8,53
34″	15,16, 7,41,25,44,31,56,52, 0		1, 6,58,35,15	
		2, 1,31,35,13,58,48,23		8,53
36″	15,16, 9,42,57,19,45,55,40,23		1, 6,58,44, 8	
		2, 1,31,34, 7, 0, 4,15		8,53
38″	15,16,11,44,28,53,52,55,44,38		1, 6,58,53, 1	
		2, 1,31,33, 0, 1,11,14		8,53
40″	15,16,13,46, 0,26,52,56,55,52		1, 6,59, 1,54	
		2, 1,31,31,53, 2, 9,20		8,53
42″	15,16,15,47,31,58,45,59, 5,12		1, 6,59,10,47	
		2, 1,31,30,46, 2,58,33		8,53
44″	15,16,17,49, 3,29,32, 2, 3,45		1, 6,59,19,40	
		2, 1,31,29,39, 3,38,53		8,53
46″	15,16,19,50,34,59,11, 5,42,38		1, 6,59,28,33	
		2, 1,31,28,32, 4,10,20		8,53
48″	15,16,21,52, 6,27,43, 9,52,58		1, 6,59,37,26	
		2, 1,31,27,25, 4,32,54		8,53
50″	15,16,23,53,37,55, 8,14,25,52		1, 6,59,46,19	
		2, 1,31,26,18, 4,46,35		8,53
52″	15,16,25,55, 9,21,26,19,12,27		1, 6,59,55,12	
		2, 1,31,25,11, 4,51,23		8,53
54″	15,16,27,56,40,46,37,24, 3,50		1, 7, 0, 4, 5	
		2, 1,31,24, 4, 4,47,18		8,53
56″	15,16,29,58,12,10,41,28,51, 8		1, 7, 0,12,58	
		2, 1,31,22,57, 4,34,20		8,53
58″	15,16,31,59,43,33,38,33,25,28		1, 7, 0,21,51	
		2, 1,31,21,50, 4,12,29		
60″	15,16,34, 1,14,55,28,37,37,57			
exact	15,16,34, 1,14,55,28,37,32,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°45′ 0″	15,16,34, 1,14,55,28,37,32,42			
		2, 1,31,20,43, 3,41,12		
2″	15,16,36, 2,46,16,11,41,13,54		1, 7, 0,39,39	
		2, 1,31,19,36, 3, 1,33		8,53
4″	15,16,38, 4,17,35,47,44,15,27		1, 7, 0,48,32	
		2, 1,31,18,29, 2,13, 1		8,53
6″	15,16,40, 5,48,54,16,46,28,28		1, 7, 0,57,25	
		2, 1,31,17,22, 1,15,36		8,53
8″	15,16,42, 7,20,11,38,47,44, 4		1, 7, 1, 6,18	
		2, 1,31,16,15, 0, 9,18		8,53
10″	15,16,44, 8,51,27,53,47,53,22		1, 7, 1,15,11	
		2, 1,31,15, 7,58,54, 7		8,53
12″	15,16,46,10,22,43, 1,46,47,29		1, 7, 1,24, 4	
		2, 1,31,14, 0,57,30, 3		8,53
14″	15,16,48,11,53,57, 2,44,17,32		1, 7, 1,32,57	
		2, 1,31,12,53,55,57, 6		8,53
16″	15,16,50,13,25, 9,56,40,14,38		1, 7, 1,41,50	
		2, 1,31,11,46,54,15,16		8,53
18″	15,16,52,14,56,21,43,34,29,54		1, 7, 1,50,43	
		2, 1,31,10,39,52,24,33		8,53
20″	15,16,54,16,27,32,23,26,54,27		1, 7, 1,59,36	
		2, 1,31, 9,32,50,24,57		8,53
22″	15,16,56,17,58,41,56,17,19,24		1, 7, 2, 8,29	
		2, 1,31, 8,25,48,16,28		8,53
24″	15,16,58,19,29,50,22, 5,35,52		1, 7, 2,17,22	
		2, 1,31, 7,18,45,59, 6		8,53
26″	15,17, 0,21, 0,57,40,51,34,58		1, 7, 2,26,15	
		2, 1,31, 6,11,43,32,51		8,53
28″	15,17, 2,22,32, 3,52,35, 7,49		1, 7, 2,35, 8	
		2, 1,31, 5, 4,40,57,43		8,53
30″	15,17, 4,24, 3, 8,57,16, 5,32		1, 7, 2,44, 1	
		2, 1,31, 3,57,38,13,42		8,53
32″	15,17, 6,25,34,12,54,54,19,14		1, 7, 2,52,54	
		2, 1,31, 2,50,35,20,48		8,53
34″	15,17, 8,27, 5,15,45,29,40, 2		1, 7, 3, 1,47	
		2, 1,31, 1,43,32,19, 1		8,53
36″	15,17,10,28,36,17,29, 1,59, 3		1, 7, 3,10,40	
		2, 1,31, 0,36,29, 8,21		8,53
38″	15,17,12,30, 7,18, 5,31, 7,24		1, 7, 3,19,33	
		2, 1,30,59,29,25,48,48		8,53
40″	15,17,14,31,38,17,34,56,56,12		1, 7, 3,28,26	
		2, 1,30,58,22,22,20,22		8,53
42″	15,17,16,33, 9,15,57,19,16,34		1, 7, 3,37,19	
		2, 1,30,57,15,18,43, 3		8,53
44″	15,17,18,34,40,13,12,37,59,37		1, 7, 3,46,12	
		2, 1,30,56, 8,14,56,51		8,53
46″	15,17,20,36,11, 9,20,52,56,28		1, 7, 3,55, 5	
		2, 1,30,55, 1,11, 1,46		8,53
48″	15,17,22,37,42, 4,22, 3,58,14		1, 7, 4, 3,58	
		2, 1,30,53,54, 6,57,48		8,53
50″	15,17,24,39,12,58,16,10,56, 2		1, 7, 4,12,51	
		2, 1,30,52,47, 2,44,57		8,53
52″	15,17,26,40,43,51, 3,13,40,59		1, 7, 4,21,44	
		2, 1,30,51,39,58,23,13		8,53
54″	15,17,28,42,14,42,43,12, 4,12		1, 7, 4,30,37	
		2, 1,30,50,32,53,52,36		8,53
56″	15,17,30,43,45,33,16, 5,56,48		1, 7, 4,39,30	
		2, 1,30,49,25,49,13, 6		8,53
58″	15,17,32,45,16,22,41,55, 9,54		1, 7, 4,48,23	
		2, 1,30,48,18,44,24,43		
60″	15,17,34,46,47,11, 0,39,34,37			
exact	15,17,34,46,47,11, 0,39,29,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°46′ 0″	15,17,34,46,47,11, 0,39,29,57			
		2, 1,30,47,11,39,27, 2		
2″	15,17,36,48,17,58,12,18,56,59		1, 7, 5, 6,10	
		2, 1,30,46, 4,34,20,52		8,53
4″	15,17,38,49,48,44,16,53,17,51		1, 7, 5,15, 3	
		2, 1,30,44,57,29, 5,49		8,53
6″	15,17,40,51,19,29,14,22,23,40		1, 7, 5,23,56	
		2, 1,30,43,50,23,41,53		8,53
8″	15,17,42,52,50,13, 4,46, 5,33		1, 7, 5,32,49	
		2, 1,30,42,43,18, 9, 4		8,53
10″	15,17,44,54,20,55,48, 4,14,37		1, 7, 5,41,42	
		2, 1,30,41,36,12,27,22		8,53
12″	15,17,46,55,51,37,24,16,41,59		1, 7, 5,50,35	
		2, 1,30,40,29, 6,36,47		8,53
14″	15,17,48,57,22,17,53,23,18,46		1, 7, 5,59,28	
		2, 1,30,39,22, 0,37,19		8,53
16″	15,17,50,58,52,57,15,23,56, 5		1, 7, 6, 8,21	
		2, 1,30,38,14,54,28,58		8,53
18″	15,17,53, 0,23,35,30,18,25, 3		1, 7, 6,17,14	
		2, 1,30,37, 7,48,11,44		8,53
20″	15,17,55, 1,54,12,38, 6,36,47		1, 7, 6,26, 7	
		2, 1,30,36, 0,41,45,37		8,53
22″	15,17,57, 3,24,48,38,48,22,24		1, 7, 6,35, 0	
		2, 1,30,34,53,35,10,37		8,53
24″	15,17,59, 4,55,23,32,23,33, 1		1, 7, 6,43,53	
		2, 1,30,33,46,28,26,44		8,53
26″	15,18, 1, 6,25,57,18,51,59,45		1, 7, 6,52,46	
		2, 1,30,32,39,21,33,58		8,53
28″	15,18, 3, 7,56,29,58,13,33,43		1, 7, 7, 1,39	
		2, 1,30,31,32,14,32,19		8,53
30″	15,18, 5, 9,27, 1,30,28, 6, 2		1, 7, 7,10,32	
		2, 1,30,30,25, 7,21,47		8,53
32″	15,18, 7,10,57,31,55,35,27,49		1, 7, 7,19,25	
		2, 1,30,29,18, 0, 2,22		8,53
34″	15,18, 9,12,28, 1,13,35,30,11		1, 7, 7,28,18	
		2, 1,30,28,10,52,34, 4		8,53
36″	15,18,11,13,58,29,24,28, 4,15		1, 7, 7,37,11	
		2, 1,30,27, 3,44,56,53		8,53
38″	15,18,13,15,28,56,28,13, 1, 8		1, 7, 7,46, 4	
		2, 1,30,25,56,37,10,49		8,53
40″	15,18,15,16,59,22,24,50,11,57		1, 7, 7,54,57	
		2, 1,30,24,49,29,15,52		8,53
42″	15,18,17,18,29,47,14,19,27,49		1, 7, 8, 3,50	
		2, 1,30,23,42,21,12, 2		8,53
44″	15,18,19,20, 0,10,56,40,39,51		1, 7, 8,12,43	
		2, 1,30,22,35,12,59,19		8,53
46″	15,18,21,21,30,33,31,53,39,10		1, 7, 8,21,36	
		2, 1,30,21,28, 4,37,43		8,53
48″	15,18,23,23, 0,54,59,58,16,53		1, 7, 8,30,29	
		2, 1,30,20,20,56, 7,14		8,53
50″	15,18,25,24,31,15,20,54,24, 7		1, 7, 8,39,22	
		2, 1,30,19,13,47,27,52		8,53
52″	15,18,27,26, 1,34,34,41,51,59		1, 7, 8,48,15	
		2, 1,30,18, 6,38,39,37		8,53
54″	15,18,29,27,31,52,41,20,31,36		1, 7, 8,57, 8	
		2, 1,30,16,59,29,42,29		8,53
56″	15,18,31,29, 2, 9,40,50,14, 5		1, 7, 9, 6, 1	
		2, 1,30,15,52,20,36,28		8,53
58″	15,18,33,30,32,25,33,10,50,33		1, 7, 9,14,54	
		2, 1,30,14,45,11,21,34		
60″	15,18,35,32, 2,40,18,22,12, 7			
exact	15,18,35,32, 2,40,18,22,10, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°47′ 0″	15,18,35,32, 2,40,18,22,10, 3			
		2, 1,30,13,38, 1,57,39		
2″	15,18,37,33,32,53,56,24, 7,42		1, 7, 9,32,40	
		2, 1,30,12,30,52,24,59		8,53
4″	15,18,39,35, 3, 6,27,16,32,41		1, 7, 9,41,33	
		2, 1,30,11,23,42,43,26		8,53
6″	15,18,41,36,33,17,50,59,16, 7		1, 7, 9,50,26	
		2, 1,30,10,16,32,53, 0		8,53
8″	15,18,43,38, 3,28, 7,32, 9, 7		1, 7, 9,59,19	
		2, 1,30, 9, 9,22,53,41		8,53
10″	15,18,45,39,33,37,16,55, 2,48		1, 7,10, 8,12	
		2, 1,30, 8, 2,12,45,29		8,53
12″	15,18,47,41, 3,45,19, 7,48,17		1, 7,10,17, 5	
		2, 1,30, 6,55, 2,28,24		8,53
14″	15,18,49,42,33,52,14,10,16,41		1, 7,10,25,58	
		2, 1,30, 5,47,52, 2,26		8,53
16″	15,18,51,44, 3,58, 2, 2,19, 7		1, 7,10,34,51	
		2, 1,30, 4,40,41,27,35		8,53
18″	15,18,53,45,34, 2,42,43,46,42		1, 7,10,43,44	
		2, 1,30, 3,33,30,43,51		8,53
20″	15,18,55,47, 4, 6,16,14,30,33		1, 7,10,52,37	
		2, 1,30, 2,26,19,51,14		8,53
22″	15,18,57,48,34, 8,42,34,21,47		1, 7,11, 1,30	
		2, 1,30, 1,19, 8,49,44		8,53
24″	15,18,59,50, 4,10, 1,43,11,31		1, 7,11,10,23	
		2, 1,30, 0,11,57,39,21		8,53
26″	15,19, 1,51,34,10,13,40,50,52		1, 7,11,19,16	
		2, 1,29,59, 4,46,20, 5		8,53
28″	15,19, 3,53, 4, 9,18,27,10,57		1, 7,11,28, 9	
		2, 1,29,57,57,34,51,56		8,53
30″	15,19, 5,54,34, 7,16, 2, 2,53		1, 7,11,37, 2	
		2, 1,29,56,50,23,14,54		8,53
32″	15,19, 7,56, 4, 4, 6,25,17,47		1, 7,11,45,55	
		2, 1,29,55,43,11,28,59		8,53
34″	15,19, 9,57,33,59,49,36,46,46		1, 7,11,54,48	
		2, 1,29,54,35,59,34,11		8,53
36″	15,19,11,59, 3,54,25,36,20,57		1, 7,12, 3,41	
		2, 1,29,53,28,47,30,30		8,53
38″	15,19,14, 0,33,47,54,23,51,27		1, 7,12,12,34	
		2, 1,29,52,21,35,17,56		8,53
40″	15,19,16, 2, 3,40,15,59, 9,23		1, 7,12,21,27	
		2, 1,29,51,14,22,56,29		8,53
42″	15,19,18, 3,33,31,30,22, 5,52		1, 7,12,30,20	
		2, 1,29,50, 7,10,26, 9		8,53
44″	15,19,20, 5, 3,21,37,32,32, 1		1, 7,12,39,13	
		2, 1,29,48,59,57,46,56		8,53
46″	15,19,22, 6,33,10,37,30,18,57		1, 7,12,48, 6	
		2, 1,29,47,52,44,58,50		8,53
48″	15,19,24, 8, 2,58,30,15,17,47		1, 7,12,56,59	
		2, 1,29,46,45,32, 1,51		8,53
50″	15,19,26, 9,32,45,15,47,19,38		1, 7,13, 5,52	
		2, 1,29,45,38,18,55,59		8,53
52″	15,19,28,11, 2,30,54, 6,15,37		1, 7,13,14,45	
		2, 1,29,44,31, 5,41,14		8,53
54″	15,19,30,12,32,15,25,11,56,51		1, 7,13,23,38	
		2, 1,29,43,23,52,17,36		8,53
56″	15,19,32,14, 1,58,49, 4,14,27		1, 7,13,32,31	
		2, 1,29,42,16,38,45, 5		8,53
58″	15,19,34,15,31,41, 5,42,59,32		1, 7,13,41,24	
		2, 1,29,41, 9,25, 3,41		
60″	15,19,36,17, 1,22,15, 8, 3,13			
exact	15,19,36,17, 1,22,15, 8, 4,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°48′ 0″	15,19,36,17, 1,22,15, 8, 4,36			
		2, 1,29,40, 2,11,13,37		
2″	15,19,38,18,31, 2,17,19,18,13		1, 7,13,59, 9	
		2, 1,29,38,54,57,14,28		8,53
4″	15,19,40,20, 0,41,12,16,32,41		1, 7,14, 8, 2	
		2, 1,29,37,47,43, 6,26		8,53
6″	15,19,42,21,30,18,59,59,39, 7		1, 7,14,16,55	
		2, 1,29,36,40,28,49,31		8,53
8″	15,19,44,22,59,55,40,28,28,38		1, 7,14,25,48	
		2, 1,29,35,33,14,23,43		8,53
10″	15,19,46,24,29,31,13,42,52,21		1, 7,14,34,41	
		2, 1,29,34,25,59,49, 2		8,53
12″	15,19,48,25,59, 5,39,42,41,23		1, 7,14,43,34	
		2, 1,29,33,18,45, 5,28		8,53
14″	15,19,50,27,28,38,58,27,46,51		1, 7,14,52,27	
		2, 1,29,32,11,30,13, 1		8,53
16″	15,19,52,28,58,11, 9,57,59,52		1, 7,15, 1,20	
		2, 1,29,31, 4,15,11,41		8,53
18″	15,19,54,30,27,42,14,13,11,33		1, 7,15,10,13	
		2, 1,29,29,57, 0, 1,28		8,53
20″	15,19,56,31,57,12,11,13,13, 1		1, 7,15,19, 6	
		2, 1,29,28,49,44,42,22		8,53
22″	15,19,58,33,26,41, 0,57,55,23		1, 7,15,27,59	
		2, 1,29,27,42,29,14,23		8,53
24″	15,20, 0,34,56, 8,43,27, 9,46		1, 7,15,36,52	
		2, 1,29,26,35,13,37,31		8,53
26″	15,20, 2,36,25,35,18,40,47,17		1, 7,15,45,45	
		2, 1,29,25,27,57,51,46		8,53
28″	15,20, 4,37,55, 0,46,38,39, 3		1, 7,15,54,38	
		2, 1,29,24,20,41,57, 8		8,53
30″	15,20, 6,39,24,25, 7,20,36,11		1, 7,16, 3,31	
		2, 1,29,23,13,25,53,37		8,53
32″	15,20, 8,40,53,48,20,46,29,48		1, 7,16,12,24	
		2, 1,29,22, 6, 9,41,13		8,53
34″	15,20,10,42,23,10,26,56,11, 1		1, 7,16,21,17	
		2, 1,29,20,58,53,19,56		8,53
36″	15,20,12,43,52,31,25,49,30,57		1, 7,16,30,10	
		2, 1,29,19,51,36,49,46		8,53
38″	15,20,14,45,21,51,17,26,20,43		1, 7,16,39, 3	
		2, 1,29,18,44,20,10,43		8,53
40″	15,20,16,46,51,10, 1,46,31,26		1, 7,16,47,56	
		2, 1,29,17,37, 3,22,47		8,53
42″	15,20,18,48,20,27,38,49,54,13		1, 7,16,56,49	
		2, 1,29,16,29,46,25,58		8,53
44″	15,20,20,49,49,44, 8,36,20,11		1, 7,17, 5,42	
		2, 1,29,15,22,29,20,16		8,53
46″	15,20,22,51,18,59,31, 5,40,27		1, 7,17,14,35	
		2, 1,29,14,15,12, 5,41		8,53
48″	15,20,24,52,48,13,46,17,46, 8		1, 7,17,23,28	
		2, 1,29,13, 7,54,42,13		8,53
50″	15,20,26,54,17,26,54,12,28,21		1, 7,17,32,21	
		2, 1,29,12, 0,37, 9,52		8,53
52″	15,20,28,55,46,38,54,49,38,13		1, 7,17,41,14	
		2, 1,29,10,53,19,28,38		8,53
54″	15,20,30,57,15,49,48, 9, 6,51		1, 7,17,50, 7	
		2, 1,29, 9,46, 1,38,31		8,53
56″	15,20,32,58,44,59,34,10,45,22		1, 7,17,59, 0	
		2, 1,29, 8,38,43,39,31		8,53
58″	15,20,35, 0,14, 8,12,54,24,53		1, 7,18, 7,53	
		2, 1,29, 7,31,25,31,38		
60″	15,20,37, 1,43,15,44,19,56,31			
exact	15,20,37, 1,43,15,44,20, 3,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°49′ 0″	15,20,37, 1,43,15,44,20, 3,40			
		2, 1,29, 6,24, 7,15,35		
2″	15,20,39, 3,12,22, 8,27,19,15		1, 7,18,25,36	
		2, 1,29, 5,16,48,49,59		8,53
4″	15,20,41, 4,41,27,25,16, 9,14		1, 7,18,34,29	
		2, 1,29, 4, 9,30,15,30		8,53
6″	15,20,43, 6,10,31,34,46,24,44		1, 7,18,43,22	
		2, 1,29, 3, 2,11,32, 8		8,53
8″	15,20,45, 7,39,34,36,57,56,52		1, 7,18,52,15	
		2, 1,29, 1,54,52,39,53		8,53
10″	15,20,47, 9, 8,36,31,50,36,45		1, 7,19, 1, 8	
		2, 1,29, 0,47,33,38,45		8,53
12″	15,20,49,10,37,37,19,24,15,30		1, 7,19,10, 1	
		2, 1,28,59,40,14,28,44		8,53
14″	15,20,51,12, 6,36,59,38,44,14		1, 7,19,18,54	
		2, 1,28,58,32,55, 9,50		8,53
16″	15,20,53,13,35,35,32,33,54, 4		1, 7,19,27,47	
		2, 1,28,57,25,35,42, 3		8,53
18″	15,20,55,15, 4,32,58, 9,36, 7		1, 7,19,36,40	
		2, 1,28,56,18,16, 5,23		8,53
20″	15,20,57,16,33,29,16,25,41,30		1, 7,19,45,33	
		2, 1,28,55,10,56,19,50		8,53
22″	15,20,59,18, 2,24,27,22, 1,20		1, 7,19,54,26	
		2, 1,28,54, 3,36,25,24		8,53
24″	15,21, 1,19,31,18,30,58,26,44		1, 7,20, 3,19	
		2, 1,28,52,56,16,22, 5		8,53
26″	15,21, 3,21, 0,11,27,14,48,49		1, 7,20,12,12	
		2, 1,28,51,48,56, 9,53		8,53
28″	15,21, 5,22,29, 3,16,10,58,42		1, 7,20,21, 5	
		2, 1,28,50,41,35,48,48		8,53
30″	15,21, 7,23,57,53,57,46,47,30		1, 7,20,29,58	
		2, 1,28,49,34,15,18,50		8,53
32″	15,21, 9,25,26,43,32, 2, 6,20		1, 7,20,38,51	
		2, 1,28,48,26,54,39,59		8,53
34″	15,21,11,26,55,31,58,56,46,19		1, 7,20,47,44	
		2, 1,28,47,19,33,52,15		8,53
36″	15,21,13,28,24,19,18,30,38,34		1, 7,20,56,37	
		2, 1,28,46,12,12,55,38		8,53
38″	15,21,15,29,53, 5,30,43,34,12		1, 7,21, 5,30	
		2, 1,28,45, 4,51,50, 8		8,53
40″	15,21,17,31,21,50,35,35,24,20		1, 7,21,14,23	
		2, 1,28,43,57,30,35,45		8,53
42″	15,21,19,32,50,34,33, 6, 0, 5		1, 7,21,23,16	
		2, 1,28,42,50, 9,12,29		8,53
44″	15,21,21,34,19,17,23,15,12,34		1, 7,21,32, 9	
		2, 1,28,41,42,47,40,20		8,53
46″	15,21,23,35,47,59, 6, 2,52,54		1, 7,21,41, 2	
		2, 1,28,40,35,25,59,18		8,53
48″	15,21,25,37,16,39,41,28,52,12		1, 7,21,49,55	
		2, 1,28,39,28, 4, 9,23		8,53
50″	15,21,27,38,45,19, 9,33, 1,35		1, 7,21,58,48	
		2, 1,28,38,20,42,10,35		8,53
52″	15,21,29,40,13,57,30,15,12,10		1, 7,22, 7,41	
		2, 1,28,37,13,20, 2,54		8,53
54″	15,21,31,41,42,34,43,35,15, 4		1, 7,22,16,34	
		2, 1,28,36, 5,57,46,20		8,53
56″	15,21,33,43,11,10,49,33, 1,24		1, 7,22,25,27	
		2, 1,28,34,58,35,20,53		8,53
58″	15,21,35,44,39,45,48, 8,22,17		1, 7,22,34,20	
		2, 1,28,33,51,12,46,33		
60″	15,21,37,46, 8,19,39,21, 8,50			
exact	15,21,37,46, 8,19,39,21,15,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°50′ 0″	15,21,37,46, 8,19,39,21,15,42			
		2, 1,28,32,43,50, 4, 8		
2″	15,21,39,47,36,52,23,11,19,50		1, 7,22,52, 2	
		2, 1,28,31,36,27,12, 6		8,53
4″	15,21,41,49, 5,23,59,38,31,56		1, 7,23, 0,55	
		2, 1,28,30,29, 4,11,11		8,53
6″	15,21,43,50,33,54,28,42,43, 7		1, 7,23, 9,48	
		2, 1,28,29,21,41, 1,23		8,53
8″	15,21,45,52, 2,23,50,23,44,30		1, 7,23,18,41	
		2, 1,28,28,14,17,42,42		8,53
10″	15,21,47,53,30,52, 4,41,27,12		1, 7,23,27,34	
		2, 1,28,27, 6,54,15, 8		8,53
12″	15,21,49,54,59,19,11,35,42,20		1, 7,23,36,27	
		2, 1,28,25,59,30,38,41		8,53
14″	15,21,51,56,27,45,11, 6,21, 1		1, 7,23,45,20	
		2, 1,28,24,52, 6,53,21		8,53
16″	15,21,53,57,56,10, 3,13,14,22		1, 7,23,54,13	
		2, 1,28,23,44,42,59, 8		8,53
18″	15,21,55,59,24,33,47,56,13,30		1, 7,24, 3, 6	
		2, 1,28,22,37,18,56, 2		8,53
20″	15,21,58, 0,52,56,25,15, 9,32		1, 7,24,11,59	
		2, 1,28,21,29,54,44, 3		8,53
22″	15,22, 0, 2,21,17,55, 9,53,35		1, 7,24,20,52	
		2, 1,28,20,22,30,23,11		8,53
24″	15,22, 2, 3,49,38,17,40,16,46		1, 7,24,29,45	
		2, 1,28,19,15, 5,53,26		8,53
26″	15,22, 4, 5,17,57,32,46,10,12		1, 7,24,38,38	
		2, 1,28,18, 7,41,14,48		8,53
28″	15,22, 6, 6,46,15,40,27,25, 0		1, 7,24,47,31	
		2, 1,28,17, 0,16,27,17		8,53
30″	15,22, 8, 8,14,32,40,43,52,17		1, 7,24,56,24	
		2, 1,28,15,52,51,30,53		8,53
32″	15,22,10, 9,42,48,33,35,23,10		1, 7,25, 5,17	
		2, 1,28,14,45,26,25,36		8,53
34″	15,22,12,11,11, 3,19, 1,48,46		1, 7,25,14,10	
		2, 1,28,13,38, 1,11,26		8,53
36″	15,22,14,12,39,16,57, 3, 0,12		1, 7,25,23, 3	
		2, 1,28,12,30,35,48,23		8,53
38″	15,22,16,14, 7,29,27,38,48,35		1, 7,25,31,56	
		2, 1,28,11,23,10,16,27		8,53
40″	15,22,18,15,35,40,50,49, 5, 2		1, 7,25,40,49	
		2, 1,28,10,15,44,35,38		8,53
42″	15,22,20,17, 3,51, 6,33,40,40		1, 7,25,49,42	
		2, 1,28, 9, 8,18,45,56		8,53
44″	15,22,22,18,32, 0,14,52,26,36		1, 7,25,58,35	
		2, 1,28, 8, 0,52,47,21		8,53
46″	15,22,24,20, 0, 8,15,45,13,57		1, 7,26, 7,28	
		2, 1,28, 6,53,26,39,53		8,53
48″	15,22,26,21,28,15, 9,11,53,50		1, 7,26,16,21	
		2, 1,28, 5,46, 0,23,32		8,53
50″	15,22,28,22,56,20,55,12,17,22		1, 7,26,25,14	
		2, 1,28, 4,38,33,58,18		8,53
52″	15,22,30,24,24,25,33,46,15,40		1, 7,26,34, 7	
		2, 1,28, 3,31, 7,24,11		8,53
54″	15,22,32,25,52,29, 4,53,39,51		1, 7,26,43, 0	
		2, 1,28, 2,23,40,41,11		8,53
56″	15,22,34,27,20,31,28,34,21, 2		1, 7,26,51,53	
		2, 1,28, 1,16,13,49,18		8,53
58″	15,22,36,28,48,32,44,48,10,20		1, 7,27, 0,46	
		2, 1,28, 0, 8,46,48,32		
60″	15,22,38,30,16,32,53,34,58,52			
exact	15,22,38,30,16,32,53,35, 7,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°51′ 0″	15,22,38,30,16,32,53,35, 7,38			
		2, 1,27,59, 1,19,39,55		
2″	15,22,40,31,44,31,54,54,47,33		1, 7,27,18,27	
		2, 1,27,57,53,52,21,28		8,53
4″	15,22,42,33,12,29,48,47, 9, 1		1, 7,27,27,20	
		2, 1,27,56,46,24,54, 8		8,53
6″	15,22,44,34,40,26,35,12, 3, 9		1, 7,27,36,13	
		2, 1,27,55,38,57,17,55		8,53
8″	15,22,46,36, 8,22,14, 9,21, 4		1, 7,27,45, 6	
		2, 1,27,54,31,29,32,49		8,53
10″	15,22,48,37,36,16,45,38,53,53		1, 7,27,53,59	
		2, 1,27,53,24, 1,38,50		8,53
12″	15,22,50,39, 4,10, 9,40,32,43		1, 7,28, 2,52	
		2, 1,27,52,16,33,35,58		8,53
14″	15,22,52,40,32, 2,26,14, 8,41		1, 7,28,11,45	
		2, 1,27,51, 9, 5,24,13		8,53
16″	15,22,54,41,59,53,35,19,32,54		1, 7,28,20,38	
		2, 1,27,50, 1,37, 3,35		8,53
18″	15,22,56,43,27,43,36,56,36,29		1, 7,28,29,31	
		2, 1,27,48,54, 8,34, 4		8,53
20″	15,22,58,44,55,32,31, 5,10,33		1, 7,28,38,24	
		2, 1,27,47,46,39,55,40		8,53
22″	15,23, 0,46,23,20,17,45, 6,13		1, 7,28,47,17	
		2, 1,27,46,39,11, 8,23		8,53
24″	15,23, 2,47,51, 6,56,56,14,36		1, 7,28,56,10	
		2, 1,27,45,31,42,12,13		8,53
26″	15,23, 4,49,18,52,28,38,26,49		1, 7,29, 5, 3	
		2, 1,27,44,24,13, 7,10		8,53
28″	15,23, 6,50,46,36,52,51,33,59		1, 7,29,13,56	
		2, 1,27,43,16,43,53,14		8,53
30″	15,23, 8,52,14,20, 9,35,27,13		1, 7,29,22,49	
		2, 1,27,42, 9,14,30,25		8,53
32″	15,23,10,53,42, 2,18,49,57,38		1, 7,29,31,42	
		2, 1,27,41, 1,44,58,43		8,53
34″	15,23,12,55, 9,43,20,34,56,21		1, 7,29,40,35	
		2, 1,27,39,54,15,18, 8		8,53
36″	15,23,14,56,37,23,14,50,14,29		1, 7,29,49,28	
		2, 1,27,38,46,45,28,40		8,53
38″	15,23,16,58, 5, 2, 1,35,43, 9		1, 7,29,58,21	
		2, 1,27,37,39,15,30,19		8,53
40″	15,23,18,59,32,39,40,51,13,28		1, 7,30, 7,14	
		2, 1,27,36,31,45,23, 5		8,53
42″	15,23,21, 1, 0,16,12,36,36,33		1, 7,30,16, 7	
		2, 1,27,35,24,15, 6,58		8,53
44″	15,23,23, 2,27,51,36,51,43,31		1, 7,30,25, 0	
		2, 1,27,34,16,44,41,58		8,53
46″	15,23,25, 3,55,25,53,36,25,29		1, 7,30,33,53	
		2, 1,27,33, 9,14, 8, 5		8,53
48″	15,23,27, 5,22,59, 2,50,33,34		1, 7,30,42,46	
		2, 1,27,32, 1,43,25,19		8,53
50″	15,23,29, 6,50,31, 4,33,58,53		1, 7,30,51,39	
		2, 1,27,30,54,12,33,40		8,53
52″	15,23,31, 8,18, 1,58,46,32,33		1, 7,31, 0,32	
		2, 1,27,29,46,41,33, 8		8,53
54″	15,23,33, 9,45,31,45,28, 5,41		1, 7,31, 9,25	
		2, 1,27,28,39,10,23,43		8,53
56″	15,23,35,11,13, 0,24,38,29,24		1, 7,31,18,18	
		2, 1,27,27,31,39, 5,25		8,53
58″	15,23,37,12,40,27,56,17,34,49		1, 7,31,27,11	
		2, 1,27,26,24, 7,38,14		
60″	15,23,39,14, 7,54,20,25,13, 3			
exact	15,23,39,14, 7,54,20,25,24,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°52′ 0″	15,23,39,14, 7,54,20,25,24,52			
		2, 1,27,25,16,36, 3,31		
2″	15,23,41,15,35,19,37, 1,28,23		1, 7,31,44,51	
		2, 1,27,24, 9, 4,18,40		8,53
4″	15,23,43,17, 2,43,46, 5,47, 3		1, 7,31,53,44	
		2, 1,27,23, 1,32,24,56		8,53
6″	15,23,45,18,30, 6,47,38,11,59		1, 7,32, 2,37	
		2, 1,27,21,54, 0,22,19		8,53
8″	15,23,47,19,57,28,41,38,34,18		1, 7,32,11,30	
		2, 1,27,20,46,28,10,49		8,53
10″	15,23,49,21,24,49,28, 6,45, 7		1, 7,32,20,23	
		2, 1,27,19,38,55,50,26		8,53
12″	15,23,51,22,52, 9, 7, 2,35,33		1, 7,32,29,16	
		2, 1,27,18,31,23,21,10		8,53
14″	15,23,53,24,19,27,38,25,56,43		1, 7,32,38, 9	
		2, 1,27,17,23,50,43, 1		8,53
16″	15,23,55,25,46,45, 2,16,39,44		1, 7,32,47, 2	
		2, 1,27,16,16,17,55,59		8,53
18″	15,23,57,27,14, 1,18,34,35,43		1, 7,32,55,55	
		2, 1,27,15, 8,45, 0, 4		8,53
20″	15,23,59,28,41,16,27,19,35,47		1, 7,33, 4,48	
		2, 1,27,14, 1,11,55,16		8,53
22″	15,24, 1,30, 8,30,28,31,31, 3		1, 7,33,13,41	
		2, 1,27,12,53,38,41,35		8,53
24″	15,24, 3,31,35,43,22,10,12,38		1, 7,33,22,34	
		2, 1,27,11,46, 5,19, 1		8,53
26″	15,24, 5,33, 2,55, 8,15,31,39		1, 7,33,31,27	
		2, 1,27,10,38,31,47,34		8,53
28″	15,24, 7,34,30, 5,46,47,19,13		1, 7,33,40,20	
		2, 1,27, 9,30,58, 7,14		8,53
30″	15,24, 9,35,57,15,17,45,26,27		1, 7,33,49,13	
		2, 1,27, 8,23,24,18, 1		8,53
32″	15,24,11,37,24,23,41, 9,44,28		1, 7,33,58, 6	
		2, 1,27, 7,15,50,19,55		8,53
34″	15,24,13,38,51,30,57, 0, 4,23		1, 7,34, 6,59	
		2, 1,27, 6, 8,16,12,56		8,53
36″	15,24,15,40,18,37, 5,16,17,19		1, 7,34,15,52	
		2, 1,27, 5, 0,41,57, 4		8,53
38″	15,24,17,41,45,42, 5,58,14,23		1, 7,34,24,45	
		2, 1,27, 3,53, 7,32,19		8,53
40″	15,24,19,43,12,45,59, 5,46,42		1, 7,34,33,38	
		2, 1,27, 2,45,32,58,41		8,53
42″	15,24,21,44,39,48,44,38,45,23		1, 7,34,42,31	
		2, 1,27, 1,37,58,16,10		8,53
44″	15,24,23,46, 6,50,22,37, 1,33		1, 7,34,51,24	
		2, 1,27, 0,30,23,24,46		8,53
46″	15,24,25,47,33,50,53, 0,26,19		1, 7,35, 0,17	
		2, 1,26,59,22,48,24,29		8,53
48″	15,24,27,49, 0,50,15,48,50,48		1, 7,35, 9,10	
		2, 1,26,58,15,13,15,19		8,53
50″	15,24,29,50,27,48,31, 2, 6, 7		1, 7,35,18, 3	
		2, 1,26,57, 7,37,57,16		8,53
52″	15,24,31,51,54,45,38,40, 3,23		1, 7,35,26,56	
		2, 1,26,56, 0, 2,30,20		8,53
54″	15,24,33,53,21,41,38,42,33,43		1, 7,35,35,49	
		2, 1,26,54,52,26,54,31		8,53
56″	15,24,35,54,48,36,31, 9,28,14		1, 7,35,44,42	
		2, 1,26,53,44,51, 9,49		8,53
58″	15,24,37,56,15,30,16, 0,38, 3		1, 7,35,53,35	
		2, 1,26,52,37,15,16,14		
60″	15,24,39,57,42,22,53,15,54,17			
exact	15,24,39,57,42,22,53,16,11,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°53′ 0″	15,24,39,57,42,22,53,16,11,17			
		2, 1,26,51,29,39,15,35		
2″	15,24,41,59, 9,14,22,55,26,52		1, 7,36,11,13	
		2, 1,26,50,22, 3, 4,22		8,53
4″	15,24,44, 0,36, 4,44,58,31,14		1, 7,36,20, 6	
		2, 1,26,49,14,26,44,16		8,53
6″	15,24,46, 2, 2,53,59,25,15,30		1, 7,36,28,59	
		2, 1,26,48, 6,50,15,17		8,53
8″	15,24,48, 3,29,42, 6,15,30,47		1, 7,36,37,52	
		2, 1,26,46,59,13,37,25		8,53
10″	15,24,50, 4,56,29, 5,29, 8,12		1, 7,36,46,45	
		2, 1,26,45,51,36,50,40		8,53
12″	15,24,52, 6,23,14,57, 5,58,52		1, 7,36,55,38	
		2, 1,26,44,43,59,55, 2		8,53
14″	15,24,54, 7,49,59,41, 5,53,54		1, 7,37, 4,31	
		2, 1,26,43,36,22,50,31		8,53
16″	15,24,56, 9,16,43,17,28,44,25		1, 7,37,13,24	
		2, 1,26,42,28,45,37, 7		8,53
18″	15,24,58,10,43,25,46,14,21,32		1, 7,37,22,17	
		2, 1,26,41,21, 8,14,50		8,53
20″	15,25, 0,12,10, 7, 7,22,36,22		1, 7,37,31,10	
		2, 1,26,40,13,30,43,40		8,53
22″	15,25, 2,13,36,47,20,53,20, 2		1, 7,37,40, 3	
		2, 1,26,39, 5,53, 3,37		8,53
24″	15,25, 4,15, 3,26,26,46,23,39		1, 7,37,48,56	
		2, 1,26,37,58,15,14,41		8,53
26″	15,25, 6,16,30, 4,25, 1,38,20		1, 7,37,57,49	
		2, 1,26,36,50,37,16,52		8,53
28″	15,25, 8,17,56,41,15,38,55,12		1, 7,38, 6,42	
		2, 1,26,35,42,59,10,10		8,53
30″	15,25,10,19,23,16,58,38, 5,22		1, 7,38,15,35	
		2, 1,26,34,35,20,54,35		8,53
32″	15,25,12,20,49,51,33,58,59,57		1, 7,38,24,28	
		2, 1,26,33,27,42,30, 7		8,53
34″	15,25,14,22,16,25, 1,41,30, 4		1, 7,38,33,21	
		2, 1,26,32,20, 3,56,46		8,53
36″	15,25,16,23,42,57,21,45,26,50		1, 7,38,42,14	
		2, 1,26,31,12,25,14,32		8,53
38″	15,25,18,25, 9,28,34,10,41,22		1, 7,38,51, 7	
		2, 1,26,30, 4,46,23,25		8,53
40″	15,25,20,26,35,58,38,57, 4,47		1, 7,39, 0, 0	
		2, 1,26,28,57, 7,23,25		8,53
42″	15,25,22,28, 2,27,36, 4,28,12		1, 7,39, 8,53	
		2, 1,26,27,49,28,14,32		8,53
44″	15,25,24,29,28,55,25,32,42,44		1, 7,39,17,46	
		2, 1,26,26,41,48,56,46		8,53
46″	15,25,26,30,55,22, 7,21,39,30		1, 7,39,26,39	
		2, 1,26,25,34, 9,30, 7		8,53
48″	15,25,28,32,21,47,41,31, 9,37		1, 7,39,35,32	
		2, 1,26,24,26,29,54,35		8,53
50″	15,25,30,33,48,12, 8, 1, 4,12		1, 7,39,44,25	
		2, 1,26,23,18,50,10,10		8,53
52″	15,25,32,35,14,35,26,51,14,22		1, 7,39,53,18	
		2, 1,26,22,11,10,16,52		8,53
54″	15,25,34,36,40,57,38, 1,31,14		1, 7,40, 2,11	
		2, 1,26,21, 3,30,14,41		8,53
56″	15,25,36,38, 7,18,41,31,45,55		1, 7,40,11, 4	
		2, 1,26,19,55,50, 3,37		8,53
58″	15,25,38,39,33,38,37,21,49,32		1, 7,40,19,57	
		2, 1,26,18,48, 9,43,40		
60″	15,25,40,40,59,57,25,31,33,12			
exact	15,25,40,40,59,57,25,31,49,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°54′ 0″	15,25,40,40,59,57,25,31,49,18	2, 1,26,17,40,29,16,42		
2″	15,25,42,42,26,15, 6, 1, 6, 0	2, 1,26,16,32,48,39, 7	1, 7,40,37,35	8,53
4″	15,25,44,43,52,31,38,49,45, 7	2, 1,26,15,25, 7,52,39	1, 7,40,46,28	8,53
6″	15,25,46,45,18,47, 3,57,37,46	2, 1,26,14,17,26,57,18	1, 7,40,55,21	8,53
8″	15,25,48,46,45, 1,21,24,35, 4	2, 1,26,13, 9,45,53, 4	1, 7,41, 4,14	8,53
10″	15,25,50,48,11,14,31,10,28, 8	2, 1,26,12, 2, 4,39,57	1, 7,41,13, 7	8,53
12″	15,25,52,49,37,26,33,15, 8, 5	2, 1,26,10,54,23,17,57	1, 7,41,22, 0	8,53
14″	15,25,54,51, 3,37,27,38,26, 2	2, 1,26, 9,46,41,47, 4	1, 7,41,30,53	8,53
16″	15,25,56,52,29,47,14,20,13, 6	2, 1,26, 8,39, 0, 7,18	1, 7,41,39,46	8,53
18″	15,25,58,53,55,55,53,20,20,24	2, 1,26, 7,31,18,18,39	1, 7,41,48,39	8,53
20″	15,26, 0,55,22, 3,24,38,39, 3	2, 1,26, 6,23,36,21, 7	1, 7,41,57,32	8,53
22″	15,26, 2,56,48, 9,48,15, 0,10	2, 1,26, 5,15,54,14,42	1, 7,42, 6,25	8,53
24″	15,26, 4,58,14,15, 4, 9,14,52	2, 1,26, 4, 8,11,59,24	1, 7,42,15,18	8,53
26″	15,26, 6,59,40,19,12,21,14,16	2, 1,26, 3, 0,29,35,13	1, 7,42,24,11	8,53
28″	15,26, 9, 1, 6,22,12,50,49,29	2, 1,26, 1,52,47, 2, 9	1, 7,42,33, 4	8,53
30″	15,26,11, 2,32,24, 5,37,51,38	2, 1,26, 0,45, 4,20,12	1, 7,42,41,57	8,53
32″	15,26,13, 3,58,24,50,42,11,50	2, 1,25,59,37,21,29,22	1, 7,42,50,50	8,53
34″	15,26,15, 5,24,24,28, 3,41,12	2, 1,25,58,29,38,29,39	1, 7,42,59,43	8,53
36″	15,26,17, 6,50,22,57,42,10,51	2, 1,25,57,21,55,21, 3	1, 7,43, 8,36	8,53
38″	15,26,19, 8,16,20,19,37,31,54	2, 1,25,56,14,12, 3,34	1, 7,43,17,29	8,53
40″	15,26,21, 9,42,16,33,49,35,28	2, 1,25,55, 6,28,37,12	1, 7,43,26,22	8,53
42″	15,26,23,11, 8,11,40,18,12,40	2, 1,25,53,58,45, 1,57	1, 7,43,35,15	8,53
44″	15,26,25,12,34, 5,39, 3,14,37	2, 1,25,52,51, 1,17,49	1, 7,43,44, 8	8,53
46″	15,26,27,13,59,58,30, 4,32,26	2, 1,25,51,43,17,24,48	1, 7,43,53, 1	8,53
48″	15,26,29,15,25,50,13,21,57,14	2, 1,25,50,35,33,22,54	1, 7,44, 1,54	8,53
50″	15,26,31,16,51,40,48,55,20, 8	2, 1,25,49,27,49,12, 7	1, 7,44,10,47	8,53
52″	15,26,33,18,17,30,16,44,32,15	2, 1,25,48,20, 4,52,27	1, 7,44,19,40	8,53
54″	15,26,35,19,43,18,36,49,24,42	2, 1,25,47,12,20,23,54	1, 7,44,28,33	8,53
56″	15,26,37,21, 9, 5,49, 9,48,36	2, 1,25,46, 4,35,46,28	1, 7,44,37,26	8,53
58″	15,26,39,22,34,51,53,45,35, 4	2, 1,25,44,56,51, 0, 9	1, 7,44,46,19	
60″	15,26,41,24, 0,36,50,36,35,13			
exact	15,26,41,24, 0,36,50,36,59,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°55′ 0″	15,26,41,24, 0,36,50,36,59,51			
		2, 1,25,43,49, 6, 7,30		
2″	15,26,43,25,26,20,39,43, 7,21		1, 7,45, 3,55	
		2, 1,25,42,41,21, 3,35		8,53
4″	15,26,45,26,52, 3,21, 4,10,56		1, 7,45,12,48	
		2, 1,25,41,33,35,50,47		8,53
6″	15,26,47,28,17,44,54,40, 1,43		1, 7,45,21,41	
		2, 1,25,40,25,50,29, 6		8,53
8″	15,26,49,29,43,25,20,30,30,49		1, 7,45,30,34	
		2, 1,25,39,18, 4,58,32		8,53
10″	15,26,51,31, 9, 4,38,35,29,21		1, 7,45,39,27	
		2, 1,25,38,10,19,19, 5		8,53
12″	15,26,53,32,34,42,48,54,48,26		1, 7,45,48,20	
		2, 1,25,37, 2,33,30,45		8,53
14″	15,26,55,34, 0,19,51,28,19,11		1, 7,45,57,13	
		2, 1,25,35,54,47,33,32		8,53
16″	15,26,57,35,25,55,46,15,52,43		1, 7,46, 6, 6	
		2, 1,25,34,47, 1,27,26		8,53
18″	15,26,59,36,51,30,33,17,20, 9		1, 7,46,14,59	
		2, 1,25,33,39,15,12,27		8,53
20″	15,27, 1,38,17, 4,12,32,32,36		1, 7,46,23,52	
		2, 1,25,32,31,28,48,35		8,53
22″	15,27, 3,39,42,36,44, 1,21,11		1, 7,46,32,45	
		2, 1,25,31,23,42,15,50		8,53
24″	15,27, 5,41, 8, 8, 7,43,37, 1		1, 7,46,41,38	
		2, 1,25,30,15,55,34,12		8,53
26″	15,27, 7,42,33,38,23,39,11,13		1, 7,46,50,31	
		2, 1,25,29, 8, 8,43,41		8,53
28″	15,27, 9,43,59, 7,31,47,54,54		1, 7,46,59,24	
		2, 1,25,28, 0,21,44,17		8,53
30″	15,27,11,45,24,35,32, 9,39,11		1, 7,47, 8,17	
		2, 1,25,26,52,34,36, 0		8,53
32″	15,27,13,46,50, 2,24,44,15,11		1, 7,47,17,10	
		2, 1,25,25,44,47,18,50		8,53
34″	15,27,15,48,15,28, 9,31,34, 1		1, 7,47,26, 3	
		2, 1,25,24,36,59,52,47		8,53
36″	15,27,17,49,40,52,46,31,26,48		1, 7,47,34,56	
		2, 1,25,23,29,12,17,51		8,53
38″	15,27,19,51, 6,16,15,43,44,39		1, 7,47,43,49	
		2, 1,25,22,21,24,34, 2		8,53
40″	15,27,21,52,31,38,37, 8,18,41		1, 7,47,52,42	
		2, 1,25,21,13,36,41,20		8,53
42″	15,27,23,53,56,59,50,45, 0, 1		1, 7,48, 1,35	
		2, 1,25,20, 5,48,39,45		8,53
44″	15,27,25,55,22,19,56,33,39,46		1, 7,48,10,28	
		2, 1,25,18,58, 0,29,17		8,53
46″	15,27,27,56,47,38,54,34, 9, 3		1, 7,48,19,21	
		2, 1,25,17,50,12, 9,56		8,53
48″	15,27,29,58,12,56,44,46,18,59		1, 7,48,28,14	
		2, 1,25,16,42,23,41,42		8,53
50″	15,27,31,59,38,13,27,10, 0,41		1, 7,48,37, 7	
		2, 1,25,15,34,35, 4,35		8,53
52″	15,27,34, 1, 3,29, 1,45, 5,16		1, 7,48,46, 0	
		2, 1,25,14,26,46,18,35		8,53
54″	15,27,36, 2,28,43,28,31,23,51		1, 7,48,54,53	
		2, 1,25,13,18,57,23,42		8,53
56″	15,27,38, 3,53,56,47,28,47,33		1, 7,49, 3,46	
		2, 1,25,12,11, 8,19,56		8,53
58″	15,27,40, 5,19, 8,58,37, 7,29		1, 7,49,12,39	
		2, 1,25,11, 3,19, 7,17		
60″	15,27,42, 6,44,20, 1,56,14,46			
exact	15,27,42, 6,44,20, 1,56,42,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°56′ 0″	15,27,42, 6,44,20, 1,56,42,24			
		2, 1,25, 9,55,29,48,37		
2″	15,27,44, 8, 9,29,57,26,31, 1		1, 7,49,30,13	
		2, 1,25, 8,47,40,18,24		8,53
4″	15,27,46, 9,34,38,45, 6,49,25		1, 7,49,39, 6	
		2, 1,25, 7,39,50,39,18		8,53
6″	15,27,48,10,59,46,24,57,28,43		1, 7,49,47,59	
		2, 1,25, 6,32, 0,51,19		8,53
8″	15,27,50,12,24,52,56,58,20, 2		1, 7,49,56,52	
		2, 1,25, 5,24,10,54,27		8,53
10″	15,27,52,13,49,58,21, 9,14,29		1, 7,50, 5,45	
		2, 1,25, 4,16,20,48,42		8,53
12″	15,27,54,15,15, 2,37,30, 3,11		1, 7,50,14,38	
		2, 1,25, 3, 8,30,34, 4		8,53
14″	15,27,56,16,40, 5,46, 0,37,15		1, 7,50,23,31	
		2, 1,25, 2, 0,40,10,33		8,53
16″	15,27,58,18, 5, 7,46,40,47,48		1, 7,50,32,24	
		2, 1,25, 0,52,49,38, 9		8,53
18″	15,28, 0,19,30, 8,39,30,25,57		1, 7,50,41,17	
		2, 1,24,59,44,58,56,52		8,53
20″	15,28, 2,20,55, 8,24,29,22,49		1, 7,50,50,10	
		2, 1,24,58,37, 8, 6,42		8,53
22″	15,28, 4,22,20, 7, 1,37,29,31		1, 7,50,59, 3	
		2, 1,24,57,29,17, 7,39		8,53
24″	15,28, 6,23,45, 4,30,54,37,10		1, 7,51, 7,56	
		2, 1,24,56,21,25,59,43		8,53
26″	15,28, 8,25,10, 0,52,20,36,53		1, 7,51,16,49	
		2, 1,24,55,13,34,42,54		8,53
28″	15,28,10,26,34,56, 5,55,19,47		1, 7,51,25,42	
		2, 1,24,54, 5,43,17,12		8,53
30″	15,28,12,27,59,50,11,38,36,59		1, 7,51,34,35	
		2, 1,24,52,57,51,42,37		8,53
32″	15,28,14,29,24,43, 9,30,19,36		1, 7,51,43,28	
		2, 1,24,51,49,59,59, 9		8,53
34″	15,28,16,30,49,34,59,30,18,45		1, 7,51,52,21	
		2, 1,24,50,42, 8, 6,48		8,53
36″	15,28,18,32,14,25,41,38,25,33		1, 7,52, 1,14	
		2, 1,24,49,34,16, 5,34		8,53
38″	15,28,20,33,39,15,15,54,31, 7		1, 7,52,10, 7	
		2, 1,24,48,26,23,55,27		8,53
40″	15,28,22,35, 4, 3,42,18,26,34		1, 7,52,19, 0	
		2, 1,24,47,18,31,36,27		8,53
42″	15,28,24,36,28,51, 0,50, 3, 1		1, 7,52,27,53	
		2, 1,24,46,10,39, 8,34		8,53
44″	15,28,26,37,53,37,11,29,11,35		1, 7,52,36,46	
		2, 1,24,45, 2,46,31,48		8,53
46″	15,28,28,39,18,22,14,15,43,23		1, 7,52,45,39	
		2, 1,24,43,54,53,46, 9		8,53
48″	15,28,30,40,43, 6, 9, 9,29,32		1, 7,52,54,32	
		2, 1,24,42,47, 0,51,37		8,53
50″	15,28,32,42, 7,48,56,10,21, 9		1, 7,53, 3,25	
		2, 1,24,41,39, 7,48,12		8,53
52″	15,28,34,43,32,30,35,18, 9,21		1, 7,53,12,18	
		2, 1,24,40,31,14,35,54		8,53
54″	15,28,36,44,57,11, 6,32,45,15		1, 7,53,21,11	
		2, 1,24,39,23,21,14,43		8,53
56″	15,28,38,46,21,50,29,53,59,58		1, 7,53,30, 4	
		2, 1,24,38,15,27,44,39		8,53
58″	15,28,40,47,46,28,45,21,44,37		1, 7,53,38,57	
		2, 1,24,37, 7,34, 5,42		
60″	15,28,42,49,11, 5,52,55,50,19			
exact	15,28,42,49,11, 5,52,56,15, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°57′ 0″	15,28,42,49,11, 5,52,56,15, 2			
		2, 1,24,35,59,40,20,39		
2″	15,28,44,50,35,41,52,36,35,41		1, 7,53,56,31	
		2, 1,24,34,51,46,24, 8		8,53
4″	15,28,46,52, 0,16,44,22,59,49		1, 7,54, 5,24	
		2, 1,24,33,43,52,18,44		8,53
6″	15,28,48,53,24,50,28,15,18,33		1, 7,54,14,17	
		2, 1,24,32,35,58, 4,27		8,53
8″	15,28,50,54,49,23, 4,13,23, 0		1, 7,54,23,10	
		2, 1,24,31,28, 3,41,17		8,53
10″	15,28,52,56,13,54,32,17, 4,17		1, 7,54,32, 3	
		2, 1,24,30,20, 9, 9,14		8,53
12″	15,28,54,57,38,24,52,26,13,31		1, 7,54,40,56	
		2, 1,24,29,12,14,28,18		8,53
14″	15,28,56,59, 2,54, 4,40,41,49		1, 7,54,49,49	
		2, 1,24,28, 4,19,38,29		8,53
16″	15,28,59, 0,27,22, 9, 0,20,18		1, 7,54,58,42	
		2, 1,24,26,56,24,39,47		8,53
18″	15,29, 1, 1,51,49, 5,25, 0, 5		1, 7,55, 7,35	
		2, 1,24,25,48,29,32,12		8,53
20″	15,29, 3, 3,16,14,53,54,32,17		1, 7,55,16,28	
		2, 1,24,24,40,34,15,44		8,53
22″	15,29, 5, 4,40,39,34,28,48, 1		1, 7,55,25,21	
		2, 1,24,23,32,38,50,23		8,53
24″	15,29, 7, 6, 5, 3, 7, 7,38,24		1, 7,55,34,14	
		2, 1,24,22,24,43,16, 9		8,53
26″	15,29, 9, 7,29,25,31,50,54,33		1, 7,55,43, 7	
		2, 1,24,21,16,47,33, 2		8,53
28″	15,29,11, 8,53,46,48,38,27,35		1, 7,55,52, 0	
		2, 1,24,20, 8,51,41, 2		8,53
30″	15,29,13,10,18, 6,57,30, 8,37		1, 7,56, 0,53	
		2, 1,24,19, 0,55,40, 9		8,53
32″	15,29,15,11,42,25,58,25,48,46		1, 7,56, 9,46	
		2, 1,24,17,52,59,30,23		8,53
34″	15,29,17,13, 6,43,51,25,19, 9		1, 7,56,18,39	
		2, 1,24,16,45, 3,11,44		8,53
36″	15,29,19,14,31, 0,36,28,30,53		1, 7,56,27,32	
		2, 1,24,15,37, 6,44,12		8,53
38″	15,29,21,15,55,16,13,35,15, 5		1, 7,56,36,25	
		2, 1,24,14,29,10, 7,47		8,53
40″	15,29,23,17,19,30,42,45,22,52		1, 7,56,45,18	
		2, 1,24,13,21,13,22,29		8,53
42″	15,29,25,18,43,44, 3,58,45,21		1, 7,56,54,11	
		2, 1,24,12,13,16,28,18		8,53
44″	15,29,27,20, 7,56,17,15,13,39		1, 7,57, 3, 4	
		2, 1,24,11, 5,19,25,14		8,53
46″	15,29,29,21,32, 7,22,34,38,53		1, 7,57,11,57	
		2, 1,24, 9,57,22,13,17		8,53
48″	15,29,31,22,56,17,19,56,52,10		1, 7,57,20,50	
		2, 1,24, 8,49,24,52,27		8,53
50″	15,29,33,24,20,26, 9,21,44,37		1, 7,57,29,43	
		2, 1,24, 7,41,27,22,44		8,53
52″	15,29,35,25,44,33,50,49, 7,21		1, 7,57,38,36	
		2, 1,24, 6,33,29,44, 8		8,53
54″	15,29,37,27, 8,40,24,18,51,29		1, 7,57,47,29	
		2, 1,24, 5,25,31,56,39		8,53
56″	15,29,39,28,32,45,49,50,48, 8		1, 7,57,56,22	
		2, 1,24, 4,17,34, 0,17		8,53
58″	15,29,41,29,56,50, 7,24,48,25		1, 7,58, 5,15	
		2, 1,24, 3, 9,35,55, 2		
60″	15,29,43,31,20,53,17, 0,43,27			
exact	15,29,43,31,20,53,17, 1,14,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°58′ 0″	15,29,43,31,20,53,17, 1,14,25	2, 1,24, 2, 1,37,44,13		
2″	15,29,45,32,44,55,18,38,58,38	2, 1,24, 0,53,39,21,26	1, 7,58,22,47	8,53
4″	15,29,47,34, 8,56,12,18,20, 4	2, 1,23,59,45,40,49,46	1, 7,58,31,40	8,53
6″	15,29,49,35,32,55,57,59, 9,50	2, 1,23,58,37,42, 9,13	1, 7,58,40,33	8,53
8″	15,29,51,36,56,54,35,41,19, 3	2, 1,23,57,29,43,19,47	1, 7,58,49,26	8,53
10″	15,29,53,38,20,52, 5,24,38,50	2, 1,23,56,21,44,21,28	1, 7,58,58,19	8,53
12″	15,29,55,39,44,48,27, 9, 0,18	2, 1,23,55,13,45,14,16	1, 7,59, 7,12	8,53
14″	15,29,57,41, 8,43,40,54,14,34	2, 1,23,54, 5,45,58,11	1, 7,59,16, 5	8,53
16″	15,29,59,42,32,37,46,40,12,45	2, 1,23,52,57,46,33,13	1, 7,59,24,58	8,53
18″	15,30, 1,43,56,30,44,26,45,58	2, 1,23,51,49,46,59,22	1, 7,59,33,51	8,53
20″	15,30, 3,45,20,22,34,13,45,20	2, 1,23,50,41,47,16,38	1, 7,59,42,44	8,53
22″	15,30, 5,46,44,13,16, 1, 1,58	2, 1,23,49,33,47,25, 1	1, 7,59,51,37	8,53
24″	15,30, 7,48, 8, 2,49,48,26,59	2, 1,23,48,25,47,24,31	1, 8, 0, 0,30	8,53
26″	15,30, 9,49,31,51,15,35,51,30	2, 1,23,47,17,47,15, 8	1, 8, 0, 9,23	8,53
28″	15,30,11,50,55,38,33,23, 6,38	2, 1,23,46, 9,46,56,52	1, 8, 0,18,16	8,53
30″	15,30,13,52,19,24,43,10, 3,30	2, 1,23,45, 1,46,29,43	1, 8, 0,27, 9	8,53
32″	15,30,15,53,43, 9,44,56,33,13	2, 1,23,43,53,45,53,41	1, 8, 0,36, 2	8,53
34″	15,30,17,55, 6,53,38,42,26,54	2, 1,23,42,45,45, 8,46	1, 8, 0,44,55	8,53
36″	15,30,19,56,30,36,24,27,35,40	2, 1,23,41,37,44,14,58	1, 8, 0,53,48	8,53
38″	15,30,21,57,54,18, 2,11,50,38	2, 1,23,40,29,43,12,17	1, 8, 1, 2,41	8,53
40″	15,30,23,59,17,58,31,55, 2,55	2, 1,23,39,21,42, 0,43	1, 8, 1,11,34	8,53
42″	15,30,26, 0,41,37,53,37, 3,38	2, 1,23,38,13,40,40,16	1, 8, 1,20,27	8,53
44″	15,30,28, 2, 5,16, 7,17,43,54	2, 1,23,37, 5,39,10,56	1, 8, 1,29,20	8,53
46″	15,30,30, 3,28,53,12,56,54,50	2, 1,23,35,57,37,32,43	1, 8, 1,38,13	8,53
48″	15,30,32, 4,52,29,10,34,27,33	2, 1,23,34,49,35,45,37	1, 8, 1,47, 6	8,53
50″	15,30,34, 6,16, 4, 0,10,13,10	2, 1,23,33,41,33,49,38	1, 8, 1,55,59	8,53
52″	15,30,36, 7,39,37,41,44, 2,48	2, 1,23,32,33,31,44,46	1, 8, 2, 4,52	8,53
54″	15,30,38, 9, 3,10,15,15,47,34	2, 1,23,31,25,29,31, 1	1, 8, 2,13,45	8,53
56″	15,30,40,10,26,41,40,45,18,35	2, 1,23,30,17,27, 8,23	1, 8, 2,22,38	8,53
58″	15,30,42,11,50,11,58,12,26,58	2, 1,23,29, 9,24,36,52	1, 8, 2,31,31	
60″	15,30,44,13,13,41, 7,37, 3,50			
exact	15,30,44,13,13,41, 7,37,35,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
14°59′ 0″	15,30,44,13,13,41, 7,37,35,47			
		2, 1,23,28, 1,21,59,57		
2″	15,30,46,14,37, 9, 8,59,35,44		1, 8, 2,49, 2	
		2, 1,23,26,53,19,10,55		8,52
4″	15,30,48,16, 0,36, 2,18,46,39		1, 8, 2,57,54	
		2, 1,23,25,45,16,13, 1		8,52
6″	15,30,50,17,24, 1,47,34,59,40		1, 8, 3, 6,46	
		2, 1,23,24,37,13, 6,15		8,52
8″	15,30,52,18,47,26,24,48, 5,55		1, 8, 3,15,38	
		2, 1,23,23,29, 9,50,37		8,52
10″	15,30,54,20,10,49,53,57,56,32		1, 8, 3,24,30	
		2, 1,23,22,21, 6,26, 7		8,52
12″	15,30,56,21,34,12,15, 4,22,39		1, 8, 3,33,22	
		2, 1,23,21,13, 2,52,45		8,52
14″	15,30,58,22,57,33,28, 7,15,24		1, 8, 3,42,14	
		2, 1,23,20, 4,59,10,31		8,52
16″	15,31, 0,24,20,53,33, 6,25,55		1, 8, 3,51, 6	
		2, 1,23,18,56,55,19,25		8,52
18″	15,31, 2,25,44,12,30, 1,45,20		1, 8, 3,59,58	
		2, 1,23,17,48,51,19,27		8,52
20″	15,31, 4,27, 7,30,18,53, 4,47		1, 8, 4, 8,50	
		2, 1,23,16,40,47,10,37		8,52
22″	15,31, 6,28,30,46,59,40,15,24		1, 8, 4,17,42	
		2, 1,23,15,32,42,52,55		8,52
24″	15,31, 8,29,54, 2,32,23, 8,19		1, 8, 4,26,34	
		2, 1,23,14,24,38,26,21		8,52
26″	15,31,10,31,17,16,57, 1,34,40		1, 8, 4,35,26	
		2, 1,23,13,16,33,50,55		8,52
28″	15,31,12,32,40,30,13,35,25,35		1, 8, 4,44,18	
		2, 1,23,12, 8,29, 6,37		8,52
30″	15,31,14,34, 3,42,22, 4,32,12		1, 8, 4,53,10	
		2, 1,23,11, 0,24,13,27		8,52
32″	15,31,16,35,26,53,22,28,45,39		1, 8, 5, 2, 2	
		2, 1,23, 9,52,19,11,25		8,52
34″	15,31,18,36,50, 3,14,47,57, 4		1, 8, 5,10,54	
		2, 1,23, 8,44,14, 0,31		8,52
36″	15,31,20,38,13,11,59, 1,57,35		1, 8, 5,19,46	
		2, 1,23, 7,36, 8,40,45		8,52
38″	15,31,22,39,36,19,35,10,38,20		1, 8, 5,28,38	
		2, 1,23, 6,28, 3,12, 7		8,52
40″	15,31,24,40,59,26, 3,13,50,27		1, 8, 5,37,30	
		2, 1,23, 5,19,57,34,37		8,52
42″	15,31,26,42,22,31,23,11,25, 4		1, 8, 5,46,22	
		2, 1,23, 4,11,51,48,15		8,52
44″	15,31,28,43,45,35,35, 3,13,19		1, 8, 5,55,14	
		2, 1,23, 3, 3,45,53, 1		8,52
46″	15,31,30,45, 8,38,38,49, 6,20		1, 8, 6, 4, 6	
		2, 1,23, 1,55,39,48,55		8,52
48″	15,31,32,46,31,40,34,28,55,15		1, 8, 6,12,58	
		2, 1,23, 0,47,33,35,57		8,52
50″	15,31,34,47,54,41,22, 2,31,12		1, 8, 6,21,50	
		2, 1,22,59,39,27,14, 7		8,52
52″	15,31,36,49,17,41, 1,29,45,19		1, 8, 6,30,42	
		2, 1,22,58,31,20,43,25		8,52
54″	15,31,38,50,40,39,32,50,28,44		1, 8, 6,39,34	
		2, 1,22,57,23,14, 3,51		8,52
56″	15,31,40,52, 3,36,56, 4,32,35		1, 8, 6,48,26	
		2, 1,22,56,15, 7,15,25		8,52
58″	15,31,42,53,26,33,11,11,48, 0		1, 8, 6,57,18	
		2, 1,22,55, 7, 0,18, 7		
60″	15,31,44,54,49,28,18,12, 6, 7			
exact	15,31,44,54,49,28,18,11,33, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15° 0′ 0″	15,31,44,54,49,28,18,11,33, 5			
		2, 1,22,53,58,53, 8,29		
2″	15,31,46,56,12,22,17, 4,41,34		1, 8, 7,15,16	
		2, 1,22,52,50,45,53,13		8,52
4″	15,31,48,57,35,15, 7,50,34,47		1, 8, 7,24, 8	
		2, 1,22,51,42,38,29, 5		8,52
6″	15,31,50,58,58, 6,50,29, 3,52		1, 8, 7,33, 0	
		2, 1,22,50,34,30,56, 5		8,52
8″	15,31,53, 0,20,57,24,59,59,57		1, 8, 7,41,52	
		2, 1,22,49,26,23,14,13		8,52
10″	15,31,55, 1,43,46,51,23,14,10		1, 8, 7,50,44	
		2, 1,22,48,18,15,23,29		8,52
12″	15,31,57, 3, 6,35, 9,38,37,39		1, 8, 7,59,36	
		2, 1,22,47,10, 7,23,53		8,52
14″	15,31,59, 4,29,22,19,46, 1,32		1, 8, 8, 8,28	
		2, 1,22,46, 1,59,15,25		8,52
16″	15,32, 1, 5,52, 8,21,45,16,57		1, 8, 8,17,20	
		2, 1,22,44,53,50,58, 5		8,52
18″	15,32, 3, 7,14,53,15,36,15, 2		1, 8, 8,26,12	
		2, 1,22,43,45,42,31,53		8,52
20″	15,32, 5, 8,37,37, 1,18,46,55		1, 8, 8,35, 4	
		2, 1,22,42,37,33,56,49		8,52
22″	15,32, 7,10, 0,19,38,52,43,44		1, 8, 8,43,56	
		2, 1,22,41,29,25,12,53		8,52
24″	15,32, 9,11,23, 1, 8,17,56,37		1, 8, 8,52,48	
		2, 1,22,40,21,16,20, 5		8,52
26″	15,32,11,12,45,41,29,34,16,42		1, 8, 9, 1,40	
		2, 1,22,39,13, 7,18,25		8,52
28″	15,32,13,14, 8,20,42,41,35, 7		1, 8, 9,10,32	
		2, 1,22,38, 4,58, 7,53		8,52
30″	15,32,15,15,30,58,47,39,43, 0		1, 8, 9,19,24	
		2, 1,22,36,56,48,48,29		8,52
32″	15,32,17,16,53,35,44,28,31,29		1, 8, 9,28,16	
		2, 1,22,35,48,39,20,13		8,52
34″	15,32,19,18,16,11,33, 7,51,42		1, 8, 9,37, 8	
		2, 1,22,34,40,29,43, 5		8,52
36″	15,32,21,19,38,46,13,37,34,47		1, 8, 9,46, 0	
		2, 1,22,33,32,19,57, 5		8,52
38″	15,32,23,21, 1,19,45,57,31,52		1, 8, 9,54,52	
		2, 1,22,32,24,10, 2,13		8,52
40″	15,32,25,22,23,52,10, 7,34, 5		1, 8,10, 3,44	
		2, 1,22,31,15,59,58,29		8,52
42″	15,32,27,23,46,23,26, 7,32,34		1, 8,10,12,36	
		2, 1,22,30, 7,49,45,53		8,52
44″	15,32,29,25, 8,53,33,57,18,27		1, 8,10,21,28	
		2, 1,22,28,59,39,24,25		8,52
46″	15,32,31,26,31,22,33,36,42,52		1, 8,10,30,20	
		2, 1,22,27,51,28,54, 5		8,52
48″	15,32,33,27,53,50,25, 5,36,57		1, 8,10,39,12	
		2, 1,22,26,43,18,14,53		8,52
50″	15,32,35,29,16,17, 8,23,51,50		1, 8,10,48, 4	
		2, 1,22,25,35, 7,26,49		8,52
52″	15,32,37,30,38,42,43,31,18,39		1, 8,10,56,56	
		2, 1,22,24,26,56,29,53		8,52
54″	15,32,39,32, 1, 7,10,27,48,32		1, 8,11, 5,48	
		2, 1,22,23,18,45,24, 5		8,52
56″	15,32,41,33,23,30,29,13,12,37		1, 8,11,14,40	
		2, 1,22,22,10,34, 9,25		8,52
58″	15,32,43,34,45,52,39,47,22, 2		1, 8,11,23,32	
		2, 1,22,21, 2,22,45,53		
60″	15,32,45,36, 8,13,42,10, 7,55			
exact	15,32,45,36, 8,13,42, 9,38,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15° 1′ 0″	15,32,45,36, 8,13,42, 9,38,50			
		2, 1,22,19,54,11,10,24		
2″	15,32,47,37,30,33,36,20,49,14		1, 8,11,41,29	
		2, 1,22,18,45,59,28,55		8,52
4″	15,32,49,38,52,52,22,20,18, 9		1, 8,11,50,21	
		2, 1,22,17,37,47,38,34		8,52
6″	15,32,51,40,15,10, 0, 7,56,43		1, 8,11,59,13	
		2, 1,22,16,29,35,39,21		8,52
8″	15,32,53,41,37,26,29,43,36, 4		1, 8,12, 8, 5	
		2, 1,22,15,21,23,31,16		8,52
10″	15,32,55,42,59,41,51, 7, 7,20		1, 8,12,16,57	
		2, 1,22,14,13,11,14,19		8,52
12″	15,32,57,44,21,56, 4,18,21,39		1, 8,12,25,49	
		2, 1,22,13, 4,58,48,30		8,52
14″	15,32,59,45,44, 9, 9,17,10, 9		1, 8,12,34,41	
		2, 1,22,11,56,46,13,49		8,52
16″	15,33, 1,47, 6,21, 6, 3,23,58		1, 8,12,43,33	
		2, 1,22,10,48,33,30,16		8,52
18″	15,33, 3,48,28,31,54,36,54,14		1, 8,12,52,25	
		2, 1,22, 9,40,20,37,51		8,52
20″	15,33, 5,49,50,41,34,57,32, 5		1, 8,13, 1,17	
		2, 1,22, 8,32, 7,36,34		8,52
22″	15,33, 7,51,12,50, 7, 5, 8,39		1, 8,13,10, 9	
		2, 1,22, 7,23,54,26,25		8,52
24″	15,33, 9,52,34,57,30,59,35, 4		1, 8,13,19, 1	
		2, 1,22, 6,15,41, 7,24		8,52
26″	15,33,11,53,57, 3,46,40,42,28		1, 8,13,27,53	
		2, 1,22, 5, 7,27,39,31		8,52
28″	15,33,13,55,19, 8,54, 8,21,59		1, 8,13,36,45	
		2, 1,22, 3,59,14, 2,46		8,52
30″	15,33,15,56,41,12,53,22,24,45		1, 8,13,45,37	
		2, 1,22, 2,51, 0,17, 9		8,52
32″	15,33,17,58, 3,15,44,22,41,54		1, 8,13,54,29	
		2, 1,22, 1,42,46,22,40		8,52
34″	15,33,19,59,25,17,27, 9, 4,34		1, 8,14, 3,21	
		2, 1,22, 0,34,32,19,19		8,52
36″	15,33,22, 0,47,18, 1,41,23,53		1, 8,14,12,13	
		2, 1,21,59,26,18, 7, 6		8,52
38″	15,33,24, 2, 9,17,27,59,30,59		1, 8,14,21, 5	
		2, 1,21,58,18, 3,46, 1		8,52
40″	15,33,26, 3,31,15,46, 3,17, 0		1, 8,14,29,57	
		2, 1,21,57, 9,49,16, 4		8,52
42″	15,33,28, 4,53,12,55,52,33, 4		1, 8,14,38,49	
		2, 1,21,56, 1,34,37,15		8,52
44″	15,33,30, 6,15, 8,57,27,10,19		1, 8,14,47,41	
		2, 1,21,54,53,19,49,34		8,52
46″	15,33,32, 7,37, 3,50,46,59,53		1, 8,14,56,33	
		2, 1,21,53,45, 4,53, 1		8,52
48″	15,33,34, 8,58,57,35,51,52,54		1, 8,15, 5,25	
		2, 1,21,52,36,49,47,36		8,52
50″	15,33,36,10,20,50,12,41,40,30		1, 8,15,14,17	
		2, 1,21,51,28,34,33,19		8,52
52″	15,33,38,11,42,41,41,16,13,49		1, 8,15,23, 9	
		2, 1,21,50,20,19,10,10		8,52
54″	15,33,40,13, 4,32, 1,35,23,59		1, 8,15,32, 1	
		2, 1,21,49,12, 3,38, 9		8,52
56″	15,33,42,14,26,21,13,39, 2, 8		1, 8,15,40,53	
		2, 1,21,48, 3,47,57,16		8,52
58″	15,33,44,15,48, 9,17,26,59,24		1, 8,15,49,45	
		2, 1,21,46,55,32, 7,31		
60″	15,33,46,17, 9,56,12,59, 6,55			
exact	15,33,46,17, 9,56,12,58,44,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15° 2′ 0″	15,33,46,17, 9,56,12,58,44,18			
		2, 1,21,45,47,16, 6,22		
2″	15,33,48,18,31,42, 0,14,50,40		1, 8,16, 7,40	
		2, 1,21,44,38,59,58,42		8,52
4″	15,33,50,19,53,26,39,14,49,22		1, 8,16,16,32	
		2, 1,21,43,30,43,42,10		8,52
6″	15,33,52,21,15,10, 9,58,31,32		1, 8,16,25,24	
		2, 1,21,42,22,27,16,46		8,52
8″	15,33,54,22,36,52,32,25,48,18		1, 8,16,34,16	
		2, 1,21,41,14,10,42,30		8,52
10″	15,33,56,23,58,33,46,36,30,48		1, 8,16,43, 8	
		2, 1,21,40, 5,53,59,22		8,52
12″	15,33,58,25,20,13,52,30,30,10		1, 8,16,52, 0	
		2, 1,21,38,57,37, 7,22		8,52
14″	15,34, 0,26,41,52,50, 7,37,32		1, 8,17, 0,52	
		2, 1,21,37,49,20, 6,30		8,52
16″	15,34, 2,28, 3,30,39,27,44, 2		1, 8,17, 9,44	
		2, 1,21,36,41, 2,56,46		8,52
18″	15,34, 4,29,25, 7,20,30,40,48		1, 8,17,18,36	
		2, 1,21,35,32,45,38,10		8,52
20″	15,34, 6,30,46,42,53,16,18,58		1, 8,17,27,28	
		2, 1,21,34,24,28,10,42		8,52
22″	15,34, 8,32, 8,17,17,44,29,40		1, 8,17,36,20	
		2, 1,21,33,16,10,34,22		8,52
24″	15,34,10,33,29,50,33,55, 4, 2		1, 8,17,45,12	
		2, 1,21,32, 7,52,49,10		8,52
26″	15,34,12,34,51,22,41,47,53,12		1, 8,17,54, 4	
		2, 1,21,30,59,34,55, 6		8,52
28″	15,34,14,36,12,53,41,22,48,18		1, 8,18, 2,56	
		2, 1,21,29,51,16,52,10		8,52
30″	15,34,16,37,34,23,32,39,40,28		1, 8,18,11,48	
		2, 1,21,28,42,58,40,22		8,52
32″	15,34,18,38,55,52,15,38,20,50		1, 8,18,20,40	
		2, 1,21,27,34,40,19,42		8,52
34″	15,34,20,40,17,19,50,18,40,32		1, 8,18,29,32	
		2, 1,21,26,26,21,50,10		8,52
36″	15,34,22,41,38,46,16,40,30,42		1, 8,18,38,24	
		2, 1,21,25,18, 3,11,46		8,52
38″	15,34,24,43, 0,11,34,43,42,28		1, 8,18,47,16	
		2, 1,21,24, 9,44,24,30		8,52
40″	15,34,26,44,21,35,44,28, 6,58		1, 8,18,56, 8	
		2, 1,21,23, 1,25,28,22		8,52
42″	15,34,28,45,42,58,45,53,35,20		1, 8,19, 5, 0	
		2, 1,21,21,53, 6,23,22		8,52
44″	15,34,30,47, 4,20,38,59,58,42		1, 8,19,13,52	
		2, 1,21,20,44,47, 9,30		8,52
46″	15,34,32,48,25,41,23,47, 8,12		1, 8,19,22,44	
		2, 1,21,19,36,27,46,46		8,52
48″	15,34,34,49,47, 1, 0,14,54,58		1, 8,19,31,36	
		2, 1,21,18,28, 8,15,10		8,52
50″	15,34,36,51, 8,19,28,23,10, 8		1, 8,19,40,28	
		2, 1,21,17,19,48,34,42		8,52
52″	15,34,38,52,29,36,48,11,44,50		1, 8,19,49,20	
		2, 1,21,16,11,28,45,22		8,52
54″	15,34,40,53,50,52,59,40,30,12		1, 8,19,58,12	
		2, 1,21,15, 3, 8,47,10		8,52
56″	15,34,42,55,12, 8, 2,49,17,22		1, 8,20, 7, 4	
		2, 1,21,13,54,48,40, 6		8,52
58″	15,34,44,56,33,21,57,37,57,28		1, 8,20,15,56	
		2, 1,21,12,46,28,24,10		
60″	15,34,46,57,54,34,44, 6,21,38			
exact	15,34,46,57,54,34,44, 5,59,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15° 3′ 0″	15,34,46,57,54,34,44, 5,59,24			
		2, 1,21,11,38, 7,56,58		
2″	15,34,48,59,15,46,22,13,56,22		1, 8,20,33,50	
		2, 1,21,10,29,47,23, 8		8,52
4″	15,34,51, 0,36,56,52, 1,19,30		1, 8,20,42,42	
		2, 1,21, 9,21,26,40,26		8,52
6″	15,34,53, 1,58, 6,13,27,59,56		1, 8,20,51,34	
		2, 1,21, 8,13, 5,48,52		8,52
8″	15,34,55, 3,19,14,26,33,48,48		1, 8,21, 0,26	
		2, 1,21, 7, 4,44,48,26		8,52
10″	15,34,57, 4,40,21,31,18,37,14		1, 8,21, 9,18	
		2, 1,21, 5,56,23,39, 8		8,52
12″	15,34,59, 6, 1,27,27,42,16,22		1, 8,21,18,10	
		2, 1,21, 4,48, 2,20,58		8,52
14″	15,35, 1, 7,22,32,15,44,37,20		1, 8,21,27, 2	
		2, 1,21, 3,39,40,53,56		8,52
16″	15,35, 3, 8,43,35,55,25,31,16		1, 8,21,35,54	
		2, 1,21, 2,31,19,18, 2		8,52
18″	15,35, 5,10, 4,38,26,44,49,18		1, 8,21,44,46	
		2, 1,21, 1,22,57,33,16		8,52
20″	15,35, 7,11,25,39,49,42,22,34		1, 8,21,53,38	
		2, 1,21, 0,14,35,39,38		8,52
22″	15,35, 9,12,46,40, 4,18, 2,12		1, 8,22, 2,30	
		2, 1,20,59, 6,13,37, 8		8,52
24″	15,35,11,14, 7,39,10,31,39,20		1, 8,22,11,22	
		2, 1,20,57,57,51,25,46		8,52
26″	15,35,13,15,28,37, 8,23, 5, 6		1, 8,22,20,14	
		2, 1,20,56,49,29, 5,32		8,52
28″	15,35,15,16,49,33,57,52,10,38		1, 8,22,29, 6	
		2, 1,20,55,41, 6,36,26		8,52
30″	15,35,17,18,10,29,38,58,47, 4		1, 8,22,37,58	
		2, 1,20,54,32,43,58,28		8,52
32″	15,35,19,19,31,24,11,42,45,32		1, 8,22,46,50	
		2, 1,20,53,24,21,11,38		8,52
34″	15,35,21,20,52,17,36, 3,57,10		1, 8,22,55,42	
		2, 1,20,52,15,58,15,56		8,52
36″	15,35,23,22,13, 9,52, 2,13, 6		1, 8,23, 4,34	
		2, 1,20,51, 7,35,11,22		8,52
38″	15,35,25,23,34, 0,59,37,24,28		1, 8,23,13,26	
		2, 1,20,49,59,11,57,56		8,52
40″	15,35,27,24,54,50,58,49,22,24		1, 8,23,22,18	
		2, 1,20,48,50,48,35,38		8,52
42″	15,35,29,26,15,39,49,37,58, 2		1, 8,23,31,10	
		2, 1,20,47,42,25, 4,28		8,52
44″	15,35,31,27,36,27,32, 3, 2,30		1, 8,23,40, 2	
		2, 1,20,46,34, 1,24,26		8,52
46″	15,35,33,28,57,14, 6, 4,26,56		1, 8,23,48,54	
		2, 1,20,45,25,37,35,32		8,52
48″	15,35,35,30,17,59,31,42, 2,28		1, 8,23,57,46	
		2, 1,20,44,17,13,37,46		8,52
50″	15,35,37,31,38,43,48,55,40,14		1, 8,24, 6,38	
		2, 1,20,43, 8,49,31, 8		8,52
52″	15,35,39,32,59,26,57,45,11,22		1, 8,24,15,30	
		2, 1,20,42, 0,25,15,38		8,52
54″	15,35,41,34,20, 8,58,10,27, 0		1, 8,24,24,22	
		2, 1,20,40,52, 0,51,16		8,52
56″	15,35,43,35,40,49,50,11,18,16		1, 8,24,33,14	
		2, 1,20,39,43,36,18, 2		8,52
58″	15,35,45,37, 1,29,33,47,36,18		1, 8,24,42, 6	
		2, 1,20,38,35,11,35,56		
60″	15,35,47,38,22, 8, 8,59,12,14			
exact	15,35,47,38,22, 8, 8,58,52,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15° 4′ 0″	15,35,47,38,22, 8, 8,58,52,48			
		2, 1,20,37,26,46,42,52		
2″	15,35,49,39,42,45,35,45,35,40		1, 8,24,59,59	
		2, 1,20,36,18,21,42,53		8,52
4″	15,35,51,41, 3,21,54, 7,18,33		1, 8,25, 8,51	
		2, 1,20,35, 9,56,34, 2		8,52
6″	15,35,53,42,23,57, 4, 3,52,35		1, 8,25,17,43	
		2, 1,20,34, 1,31,16,19		8,52
8″	15,35,55,43,44,31, 5,35, 8,54		1, 8,25,26,35	
		2, 1,20,32,53, 5,49,44		8,52
10″	15,35,57,45, 5, 3,58,40,58,38		1, 8,25,35,27	
		2, 1,20,31,44,40,14,17		8,52
12″	15,35,59,46,25,35,43,21,12,55		1, 8,25,44,19	
		2, 1,20,30,36,14,29,58		8,52
14″	15,36, 1,47,46, 6,19,35,42,53		1, 8,25,53,11	
		2, 1,20,29,27,48,36,47		8,52
16″	15,36, 3,49, 6,35,47,24,19,40		1, 8,26, 2, 3	
		2, 1,20,28,19,22,34,44		8,52
18″	15,36, 5,50,27, 4, 6,46,54,24		1, 8,26,10,55	
		2, 1,20,27,10,56,23,49		8,52
20″	15,36, 7,51,47,31,17,43,18,13		1, 8,26,19,47	
		2, 1,20,26, 2,30, 4, 2		8,52
22″	15,36, 9,53, 7,57,20,13,22,15		1, 8,26,28,39	
		2, 1,20,24,54, 3,35,23		8,52
24″	15,36,11,54,28,22,14,16,57,38		1, 8,26,37,31	
		2, 1,20,23,45,36,57,52		8,52
26″	15,36,13,55,48,45,59,53,55,30		1, 8,26,46,23	
		2, 1,20,22,37,10,11,29		8,52
28″	15,36,15,57, 9, 8,37, 4, 6,59		1, 8,26,55,15	
		2, 1,20,21,28,43,16,14		8,52
30″	15,36,17,58,29,30, 5,47,23,13		1, 8,27, 4, 7	
		2, 1,20,20,20,16,12, 7		8,52
32″	15,36,19,59,49,50,26, 3,35,20		1, 8,27,12,59	
		2, 1,20,19,11,48,59, 8		8,52
34″	15,36,22, 1,10, 9,37,52,34,28		1, 8,27,21,51	
		2, 1,20,18, 3,21,37,17		8,52
36″	15,36,24, 2,30,27,41,14,11,45		1, 8,27,30,43	
		2, 1,20,16,54,54, 6,34		8,52
38″	15,36,26, 3,50,44,36, 8,18,19		1, 8,27,39,35	
		2, 1,20,15,46,26,26,59		8,52
40″	15,36,28, 5,11, 0,22,34,45,18		1, 8,27,48,27	
		2, 1,20,14,37,58,38,32		8,52
42″	15,36,30, 6,31,15, 0,33,23,50		1, 8,27,57,19	
		2, 1,20,13,29,30,41,13		8,52
44″	15,36,32, 7,51,28,30, 4, 5, 3		1, 8,28, 6,11	
		2, 1,20,12,21, 2,35, 2		8,52
46″	15,36,34, 9,11,40,51, 6,40, 5		1, 8,28,15, 3	
		2, 1,20,11,12,34,19,59		8,52
48″	15,36,36,10,31,52, 3,41, 0, 4		1, 8,28,23,55	
		2, 1,20,10, 4, 5,56, 4		8,52
50″	15,36,38,11,52, 2, 7,46,56, 8		1, 8,28,32,47	
		2, 1,20, 8,55,37,23,17		8,52
52″	15,36,40,13,12,11, 3,24,19,25		1, 8,28,41,39	
		2, 1,20, 7,47, 8,41,38		8,52
54″	15,36,42,14,32,18,50,33, 1, 3		1, 8,28,50,31	
		2, 1,20, 6,38,39,51, 7		8,52
56″	15,36,44,15,52,25,29,12,52,10		1, 8,28,59,23	
		2, 1,20, 5,30,10,51,44		8,52
58″	15,36,46,17,12,30,59,23,43,54		1, 8,29, 8,15	
		2, 1,20, 4,21,41,43,29		
60″	15,36,48,18,32,35,21, 5,27,23			
exact	15,36,48,18,32,35,21, 5,11,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15° 5′ 0″	15,36,48,18,32,35,21, 5,11,51			
		2, 1,20, 3,13,12,24,39		
2″	15,36,50,19,52,38,34,17,36,30		1, 8,29,26, 6	
		2, 1,20, 2, 4,42,58,33		8,52
4″	15,36,52,21,12,40,39, 0,35, 3		1, 8,29,34,58	
		2, 1,20, 0,56,13,23,35		8,52
6″	15,36,54,22,32,41,35,13,58,38		1, 8,29,43,50	
		2, 1,19,59,47,43,39,45		8,52
8″	15,36,56,23,52,41,22,57,38,23		1, 8,29,52,42	
		2, 1,19,58,39,13,47, 3		8,52
10″	15,36,58,25,12,40, 2,11,25,26		1, 8,30, 1,34	
		2, 1,19,57,30,43,45,29		8,52
12″	15,37, 0,26,32,37,32,55,10,55		1, 8,30,10,26	
		2, 1,19,56,22,13,35, 3		8,52
14″	15,37, 2,27,52,33,55, 8,45,58		1, 8,30,19,18	
		2, 1,19,55,13,43,15,45		8,52
16″	15,37, 4,29,12,29, 8,52, 1,43		1, 8,30,28,10	
		2, 1,19,54, 5,12,47,35		8,52
18″	15,37, 6,30,32,23,14, 4,49,18		1, 8,30,37, 2	
		2, 1,19,52,56,42,10,33		8,52
20″	15,37, 8,31,52,16,10,46,59,51		1, 8,30,45,54	
		2, 1,19,51,48,11,24,39		8,52
22″	15,37,10,33,12, 7,58,58,24,30		1, 8,30,54,46	
		2, 1,19,50,39,40,29,53		8,52
24″	15,37,12,34,31,58,38,38,54,23		1, 8,31, 3,38	
		2, 1,19,49,31, 9,26,15		8,52
26″	15,37,14,35,51,48, 9,48,20,38		1, 8,31,12,30	
		2, 1,19,48,22,38,13,45		8,52
28″	15,37,16,37,11,36,32,26,34,23		1, 8,31,21,22	
		2, 1,19,47,14, 6,52,23		8,52
30″	15,37,18,38,31,23,46,33,26,46		1, 8,31,30,14	
		2, 1,19,46, 5,35,22, 9		8,52
32″	15,37,20,39,51, 9,52, 8,48,55		1, 8,31,39, 6	
		2, 1,19,44,57, 3,43, 3		8,52
34″	15,37,22,41,10,54,49,12,31,58		1, 8,31,47,58	
		2, 1,19,43,48,31,55, 5		8,52
36″	15,37,24,42,30,38,37,44,27, 3		1, 8,31,56,50	
		2, 1,19,42,39,59,58,15		8,52
38″	15,37,26,43,50,21,17,44,25,18		1, 8,32, 5,42	
		2, 1,19,41,31,27,52,33		8,52
40″	15,37,28,45,10, 2,49,12,17,51		1, 8,32,14,34	
		2, 1,19,40,22,55,37,59		8,52
42″	15,37,30,46,29,43,12, 7,55,50		1, 8,32,23,26	
		2, 1,19,39,14,23,14,33		8,52
44″	15,37,32,47,49,22,26,31,10,23		1, 8,32,32,18	
		2, 1,19,38, 5,50,42,15		8,52
46″	15,37,34,49, 9, 0,32,21,52,38		1, 8,32,41,10	
		2, 1,19,36,57,18, 1, 5		8,52
48″	15,37,36,50,28,37,29,39,53,43		1, 8,32,50, 2	
		2, 1,19,35,48,45,11, 3		8,52
50″	15,37,38,51,48,13,18,25, 4,46		1, 8,32,58,54	
		2, 1,19,34,40,12,12, 9		8,52
52″	15,37,40,53, 7,47,58,37,16,55		1, 8,33, 7,46	
		2, 1,19,33,31,39, 4,23		8,52
54″	15,37,42,54,27,21,30,16,21,18		1, 8,33,16,38	
		2, 1,19,32,23, 5,47,45		8,52
56″	15,37,44,55,46,53,53,22, 9, 3		1, 8,33,25,30	
		2, 1,19,31,14,32,22,15		8,52
58″	15,37,46,57, 6,25, 7,54,31,18		1, 8,33,34,22	
		2, 1,19,30, 5,58,47,53		
60″	15,37,48,58,25,55,13,53,19,11			
exact	15,37,48,58,25,55,13,53, 2,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15° 6′ 0″	15,37,48,58,25,55,13,53, 2,42			
		2, 1,19,28,57,25, 2,58		
2″	15,37,50,59,45,24,11,18, 5,40		1, 8,33,52,13	
		2, 1,19,27,48,51,10,45		8,52
4″	15,37,53, 1, 4,52, 0, 9,16,25		1, 8,34, 1, 5	
		2, 1,19,26,40,17, 9,40		8,52
6″	15,37,55, 2,24,18,40,26,26, 5		1, 8,34, 9,57	
		2, 1,19,25,31,42,59,43		8,52
8″	15,37,57, 3,43,44,12, 9,25,48		1, 8,34,18,49	
		2, 1,19,24,23, 8,40,54		8,52
10″	15,37,59, 5, 3, 8,35,18, 6,42		1, 8,34,27,41	
		2, 1,19,23,14,34,13,13		8,52
12″	15,38, 1, 6,22,31,49,52,19,55		1, 8,34,36,33	
		2, 1,19,22, 5,59,36,40		8,52
14″	15,38, 3, 7,41,53,55,51,56,35		1, 8,34,45,25	
		2, 1,19,20,57,24,51,15		8,52
16″	15,38, 5, 9, 1,14,53,16,47,50		1, 8,34,54,17	
		2, 1,19,19,48,49,56,58		8,52
18″	15,38, 7,10,20,34,42, 6,44,48		1, 8,35, 3, 9	
		2, 1,19,18,40,14,53,49		8,52
20″	15,38, 9,11,39,53,22,21,38,37		1, 8,35,12, 1	
		2, 1,19,17,31,39,41,48		8,52
22″	15,38,11,12,59,10,54, 1,20,25		1, 8,35,20,53	
		2, 1,19,16,23, 4,20,55		8,52
24″	15,38,13,14,18,27,17, 5,41,20		1, 8,35,29,45	
		2, 1,19,15,14,28,51,10		8,52
26″	15,38,15,15,37,42,31,34,32,30		1, 8,35,38,37	
		2, 1,19,14, 5,53,12,33		8,52
28″	15,38,17,16,56,56,37,27,45, 3		1, 8,35,47,29	
		2, 1,19,12,57,17,25, 4		8,52
30″	15,38,19,18,16, 9,34,45,10, 7		1, 8,35,56,21	
		2, 1,19,11,48,41,28,43		8,52
32″	15,38,21,19,35,21,23,26,38,50		1, 8,36, 5,13	
		2, 1,19,10,40, 5,23,30		8,52
34″	15,38,23,20,54,32, 3,32, 2,20		1, 8,36,14, 5	
		2, 1,19, 9,31,29, 9,25		8,52
36″	15,38,25,22,13,41,35, 1,11,45		1, 8,36,22,57	
		2, 1,19, 8,22,52,46,28		8,52
38″	15,38,27,23,32,49,57,53,58,13		1, 8,36,31,49	
		2, 1,19, 7,14,16,14,39		8,52
40″	15,38,29,24,51,57,12,10,12,52		1, 8,36,40,41	
		2, 1,19, 6, 5,39,33,58		8,52
42″	15,38,31,26,11, 3,17,49,46,50		1, 8,36,49,33	
		2, 1,19, 4,57, 2,44,25		8,52
44″	15,38,33,27,30, 8,14,52,31,15		1, 8,36,58,25	
		2, 1,19, 3,48,25,46, 0		8,52
46″	15,38,35,28,49,12, 3,18,17,15		1, 8,37, 7,17	
		2, 1,19, 2,39,48,38,43		8,52
48″	15,38,37,30, 8,14,43, 6,55,58		1, 8,37,16, 9	
		2, 1,19, 1,31,11,22,34		8,52
50″	15,38,39,31,27,16,14,18,18,32		1, 8,37,25, 1	
		2, 1,19, 0,22,33,57,33		8,52
52″	15,38,41,32,46,16,36,52,16, 5		1, 8,37,33,53	
		2, 1,18,59,13,56,23,40		8,52
54″	15,38,43,34, 5,15,50,48,39,45		1, 8,37,42,45	
		2, 1,18,58, 5,18,40,55		8,52
56″	15,38,45,35,24,13,56, 7,20,40		1, 8,37,51,37	
		2, 1,18,56,56,40,49,18		8,52
58″	15,38,47,36,43,10,52,48, 9,58		1, 8,38, 0,29	
		2, 1,18,55,48, 2,48,49		
60″	15,38,49,38, 2, 6,40,50,58,47			
exact	15,38,49,38, 2, 6,40,50,50,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15° 7′ 0″	15,38,49,38, 2, 6,40,50,50,17			
		2, 1,18,54,39,24,38,26		
2″	15,38,51,39,21, 1,20,15,28,43		1, 8,38,18,18	
		2, 1,18,53,30,46,20, 8		8,52
4″	15,38,53,40,39,54,51, 1,48,51		1, 8,38,27,10	
		2, 1,18,52,22, 7,52,58		8,52
6″	15,38,55,41,58,47,13, 9,41,49		1, 8,38,36, 2	
		2, 1,18,51,13,29,16,56		8,52
8″	15,38,57,43,17,38,26,38,58,45		1, 8,38,44,54	
		2, 1,18,50, 4,50,32, 2		8,52
10″	15,38,59,44,36,28,31,29,30,47		1, 8,38,53,46	
		2, 1,18,48,56,11,38,16		8,52
12″	15,39, 1,45,55,17,27,41, 9, 3		1, 8,39, 2,38	
		2, 1,18,47,47,32,35,38		8,52
14″	15,39, 3,47,14, 5,15,13,44,41		1, 8,39,11,30	
		2, 1,18,46,38,53,24, 8		8,52
16″	15,39, 5,48,32,51,54, 7, 8,49		1, 8,39,20,22	
		2, 1,18,45,30,14, 3,46		8,52
18″	15,39, 7,49,51,37,24,21,12,35		1, 8,39,29,14	
		2, 1,18,44,21,34,34,32		8,52
20″	15,39, 9,51,10,21,45,55,47, 7		1, 8,39,38, 6	
		2, 1,18,43,12,54,56,26		8,52
22″	15,39,11,52,29, 4,58,50,43,33		1, 8,39,46,58	
		2, 1,18,42, 4,15, 9,28		8,52
24″	15,39,13,53,47,47, 3, 5,53, 1		1, 8,39,55,50	
		2, 1,18,40,55,35,13,38		8,52
26″	15,39,15,55, 6,27,58,41, 6,39		1, 8,40, 4,42	
		2, 1,18,39,46,55, 8,56		8,52
28″	15,39,17,56,25, 7,45,36,15,35		1, 8,40,13,34	
		2, 1,18,38,38,14,55,22		8,52
30″	15,39,19,57,43,46,23,51,10,57		1, 8,40,22,26	
		2, 1,18,37,29,34,32,56		8,52
32″	15,39,21,59, 2,23,53,25,43,53		1, 8,40,31,18	
		2, 1,18,36,20,54, 1,38		8,52
34″	15,39,24, 0,21, 0,14,19,45,31		1, 8,40,40,10	
		2, 1,18,35,12,13,21,28		8,52
36″	15,39,26, 1,39,35,26,33, 6,59		1, 8,40,49, 2	
		2, 1,18,34, 3,32,32,26		8,52
38″	15,39,28, 2,58, 9,30, 5,39,25		1, 8,40,57,54	
		2, 1,18,32,54,51,34,32		8,52
40″	15,39,30, 4,16,42,24,57,13,57		1, 8,41, 6,46	
		2, 1,18,31,46,10,27,46		8,52
42″	15,39,32, 5,35,14,11, 7,41,43		1, 8,41,15,38	
		2, 1,18,30,37,29,12, 8		8,52
44″	15,39,34, 6,53,44,48,36,53,51		1, 8,41,24,30	
		2, 1,18,29,28,47,47,38		8,52
46″	15,39,36, 8,12,14,17,24,41,29		1, 8,41,33,22	
		2, 1,18,28,20, 6,14,16		8,52
48″	15,39,38, 9,30,42,37,30,55,45		1, 8,41,42,14	
		2, 1,18,27,11,24,32, 2		8,52
50″	15,39,40,10,49, 9,48,55,27,47		1, 8,41,51, 6	
		2, 1,18,26, 2,42,40,56		8,52
52″	15,39,42,12, 7,35,51,38, 8,43		1, 8,41,59,58	
		2, 1,18,24,54, 0,40,58		8,52
54″	15,39,44,13,26, 0,45,38,49,41		1, 8,42, 8,50	
		2, 1,18,23,45,18,32, 8		8,52
56″	15,39,46,14,44,24,30,57,21,49		1, 8,42,17,42	
		2, 1,18,22,36,36,14,26		8,52
58″	15,39,48,16, 2,47, 7,33,36,15		1, 8,42,26,34	
		2, 1,18,21,27,53,47,52		
60″	15,39,50,17,21, 8,35,27,24, 7			
exact	15,39,50,17,21, 8,35,27,18,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15° 8′ 0″	15,39,50,17,21, 8,35,27,18,17			
		2, 1,18,20,19,11,11,42		
2″	15,39,52,18,39,28,54,38,29,59		1, 8,42,44,21	
		2, 1,18,19,10,28,27,21		8,52
4″	15,39,54,19,57,48, 5, 6,57,20		1, 8,42,53,13	
		2, 1,18,18, 1,45,34, 8		8,52
6″	15,39,56,21,16, 6, 6,52,31,28		1, 8,43, 2, 5	
		2, 1,18,16,53, 2,32, 3		8,52
8″	15,39,58,22,34,22,59,55, 3,31		1, 8,43,10,57	
		2, 1,18,15,44,19,21, 6		8,52
10″	15,40, 0,23,52,38,44,14,24,37		1, 8,43,19,49	
		2, 1,18,14,35,36, 1,17		8,52
12″	15,40, 2,25,10,53,19,50,25,54		1, 8,43,28,41	
		2, 1,18,13,26,52,32,36		8,52
14″	15,40, 4,26,29, 6,46,42,58,30		1, 8,43,37,33	
		2, 1,18,12,18, 8,55, 3		8,52
16″	15,40, 6,27,47,19, 4,51,53,33		1, 8,43,46,25	
		2, 1,18,11, 9,25, 8,38		8,52
18″	15,40, 8,29, 5,30,14,17, 2,11		1, 8,43,55,17	
		2, 1,18,10, 0,41,13,21		8,52
20″	15,40,10,30,23,40,14,58,15,32		1, 8,44, 4, 9	
		2, 1,18, 8,51,57, 9,12		8,52
22″	15,40,12,31,41,49, 6,55,24,44		1, 8,44,13, 1	
		2, 1,18, 7,43,12,56,11		8,52
24″	15,40,14,32,59,56,50, 8,20,55		1, 8,44,21,53	
		2, 1,18, 6,34,28,34,18		8,52
26″	15,40,16,34,18, 3,24,36,55,13		1, 8,44,30,45	
		2, 1,18, 5,25,44, 3,33		8,52
28″	15,40,18,35,36, 8,50,20,58,46		1, 8,44,39,37	
		2, 1,18, 4,16,59,23,56		8,52
30″	15,40,20,36,54,13, 7,20,22,42		1, 8,44,48,29	
		2, 1,18, 3, 8,14,35,27		8,52
32″	15,40,22,38,12,16,15,34,58, 9		1, 8,44,57,21	
		2, 1,18, 1,59,29,38, 6		8,52
34″	15,40,24,39,30,18,15, 4,36,15		1, 8,45, 6,13	
		2, 1,18, 0,50,44,31,53		8,52
36″	15,40,26,40,48,19, 5,49, 8, 8		1, 8,45,15, 5	
		2, 1,17,59,41,59,16,48		8,52
38″	15,40,28,42, 6,18,47,48,24,56		1, 8,45,23,57	
		2, 1,17,58,33,13,52,51		8,52
40″	15,40,30,43,24,17,21, 2,17,47		1, 8,45,32,49	
		2, 1,17,57,24,28,20, 2		8,52
42″	15,40,32,44,42,14,45,30,37,49		1, 8,45,41,41	
		2, 1,17,56,15,42,38,21		8,52
44″	15,40,34,46, 0,11, 1,13,16,10		1, 8,45,50,33	
		2, 1,17,55, 6,56,47,48		8,52
46″	15,40,36,47,18, 6, 8,10, 3,58		1, 8,45,59,25	
		2, 1,17,53,58,10,48,23		8,52
48″	15,40,38,48,36, 0, 6,20,52,21		1, 8,46, 8,17	
		2, 1,17,52,49,24,40, 6		8,52
50″	15,40,40,49,53,52,55,45,32,27		1, 8,46,17, 9	
		2, 1,17,51,40,38,22,57		8,52
52″	15,40,42,51,11,44,36,23,55,24		1, 8,46,26, 1	
		2, 1,17,50,31,51,56,56		8,52
54″	15,40,44,52,29,35, 8,15,52,20		1, 8,46,34,53	
		2, 1,17,49,23, 5,22, 3		8,52
56″	15,40,46,53,47,24,31,21,14,23		1, 8,46,43,45	
		2, 1,17,48,14,18,38,18		8,52
58″	15,40,48,55, 5,12,45,39,52,41		1, 8,46,52,37	
		2, 1,17,47, 5,31,45,41		
60″	15,40,50,56,22,59,51,11,38,22			
exact	15,40,50,56,22,59,51,11,29,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15° 9′ 0″	15,40,50,56,22,59,51,11,29,14	2, 1,17,45,56,44,43,21		
2″	15,40,52,57,40,45,47,56,12,35	2, 1,17,44,47,57,32,57	1, 8,47,10,24	8,52
4″	15,40,54,58,58,30,35,53,45,32	2, 1,17,43,39,10,13,41	1, 8,47,19,16	8,52
6″	15,40,57, 0,16,14,15, 3,59,13	2, 1,17,42,30,22,45,33	1, 8,47,28, 8	8,52
8″	15,40,59, 1,33,56,45,26,44,46	2, 1,17,41,21,35, 8,33	1, 8,47,37, 0	8,52
10″	15,41, 1, 2,51,38, 7, 1,53,19	2, 1,17,40,12,47,22,41	1, 8,47,45,52	8,52
12″	15,41, 3, 4, 9,18,19,49,16, 0	2, 1,17,39, 3,59,27,57	1, 8,47,54,44	8,52
14″	15,41, 5, 5,26,57,23,48,43,57	2, 1,17,37,55,11,24,21	1, 8,48, 3,36	8,52
16″	15,41, 7, 6,44,35,19, 0, 8,18	2, 1,17,36,46,23,11,53	1, 8,48,12,28	8,52
18″	15,41, 9, 8, 2,12, 5,23,20,11	2, 1,17,35,37,34,50,33	1, 8,48,21,20	8,52
20″	15,41,11, 9,19,47,42,58,10,44	2, 1,17,34,28,46,20,21	1, 8,48,30,12	8,52
22″	15,41,13,10,37,22,11,44,31, 5	2, 1,17,33,19,57,41,17	1, 8,48,39, 4	8,52
24″	15,41,15,11,54,55,31,42,12,22	2, 1,17,32,11, 8,53,21	1, 8,48,47,56	8,52
26″	15,41,17,13,12,27,42,51, 5,43	2, 1,17,31, 2,19,56,33	1, 8,48,56,48	8,52
28″	15,41,19,14,29,58,45,11, 2,16	2, 1,17,29,53,30,50,53	1, 8,49, 5,40	8,52
30″	15,41,21,15,47,28,38,41,53, 9	2, 1,17,28,44,41,36,21	1, 8,49,14,32	8,52
32″	15,41,23,17, 4,57,23,23,29,30	2, 1,17,27,35,52,12,57	1, 8,49,23,24	8,52
34″	15,41,25,18,22,24,59,15,42,27	2, 1,17,26,27, 2,40,41	1, 8,49,32,16	8,52
36″	15,41,27,19,39,51,26,18,23, 8	2, 1,17,25,18,12,59,33	1, 8,49,41, 8	8,52
38″	15,41,29,20,57,16,44,31,22,41	2, 1,17,24, 9,23, 9,33	1, 8,49,50, 0	8,52
40″	15,41,31,22,14,40,53,54,32,14	2, 1,17,23, 0,33,10,41	1, 8,49,58,52	8,52
42″	15,41,33,23,32, 3,54,27,42,55	2, 1,17,21,51,43, 2,57	1, 8,50, 7,44	8,52
44″	15,41,35,24,49,25,46,10,45,52	2, 1,17,20,42,52,46,21	1, 8,50,16,36	8,52
46″	15,41,37,26, 6,46,29, 3,32,13	2, 1,17,19,34, 2,20,53	1, 8,50,25,28	8,52
48″	15,41,39,27,24, 6, 3, 5,53, 6	2, 1,17,18,25,11,46,33	1, 8,50,34,20	8,52
50″	15,41,41,28,41,24,28,17,39,39	2, 1,17,17,16,21, 3,21	1, 8,50,43,12	8,52
52″	15,41,43,29,58,41,44,38,43, 0	2, 1,17,16, 7,30,11,17	1, 8,50,52, 4	8,52
54″	15,41,45,31,15,57,52, 8,54,17	2, 1,17,14,58,39,10,21	1, 8,51, 0,56	8,52
56″	15,41,47,32,33,12,50,48, 4,38	2, 1,17,13,49,48, 0,33	1, 8,51, 9,48	8,52
58″	15,41,49,33,50,26,40,36, 5,11	2, 1,17,12,40,56,41,53	1, 8,51,18,40	
60″	15,41,51,35, 7,39,21,32,47, 4			
exact	15,41,51,35, 7,39,21,32,44,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°10′ 0″	15,41,51,35, 7,39,21,32,44,31			
		2, 1,17,11,32, 5,14, 3		
2″	15,41,53,36,24,50,53,37,58,34		1, 8,51,36,25	
		2, 1,17,10,23,13,37,38		8,52
4″	15,41,55,37,42, 1,16,51,36,12		1, 8,51,45,17	
		2, 1,17, 9,14,21,52,21		8,52
6″	15,41,57,38,59,10,31,13,28,33		1, 8,51,54, 9	
		2, 1,17, 8, 5,29,58,12		8,52
8″	15,41,59,40,16,18,36,43,26,45		1, 8,52, 3, 1	
		2, 1,17, 6,56,37,55,11		8,52
10″	15,42, 1,41,33,25,33,21,21,56		1, 8,52,11,53	
		2, 1,17, 5,47,45,43,18		8,52
12″	15,42, 3,42,50,31,21, 7, 5,14		1, 8,52,20,45	
		2, 1,17, 4,38,53,22,33		8,52
14″	15,42, 5,44, 7,36, 0, 0,27,47		1, 8,52,29,37	
		2, 1,17, 3,30, 0,52,56		8,52
16″	15,42, 7,45,24,39,30, 1,20,43		1, 8,52,38,29	
		2, 1,17, 2,21, 8,14,27		8,52
18″	15,42, 9,46,41,41,51, 9,35,10		1, 8,52,47,21	
		2, 1,17, 1,12,15,27, 6		8,52
20″	15,42,11,47,58,43, 3,25, 2,16		1, 8,52,56,13	
		2, 1,17, 0, 3,22,30,53		8,52
22″	15,42,13,49,15,43, 6,47,33, 9		1, 8,53, 5, 5	
		2, 1,16,58,54,29,25,48		8,52
24″	15,42,15,50,32,42, 1,16,58,57		1, 8,53,13,57	
		2, 1,16,57,45,36,11,51		8,52
26″	15,42,17,51,49,39,46,53,10,48		1, 8,53,22,49	
		2, 1,16,56,36,42,49, 2		8,52
28″	15,42,19,53, 6,36,23,35,59,50		1, 8,53,31,41	
		2, 1,16,55,27,49,17,21		8,52
30″	15,42,21,54,23,31,51,25,17,11		1, 8,53,40,33	
		2, 1,16,54,18,55,36,48		8,52
32″	15,42,23,55,40,26,10,20,53,59		1, 8,53,49,25	
		2, 1,16,53,10, 1,47,23		8,52
34″	15,42,25,56,57,19,20,22,41,22		1, 8,53,58,17	
		2, 1,16,52, 1, 7,49, 6		8,52
36″	15,42,27,58,14,11,21,30,30,28		1, 8,54, 7, 9	
		2, 1,16,50,52,13,41,57		8,52
38″	15,42,29,59,31, 2,13,44,12,25		1, 8,54,16, 1	
		2, 1,16,49,43,19,25,56		8,52
40″	15,42,32, 0,47,51,57, 3,38,21		1, 8,54,24,53	
		2, 1,16,48,34,25, 1, 3		8,52
42″	15,42,34, 2, 4,40,31,28,39,24		1, 8,54,33,45	
		2, 1,16,47,25,30,27,18		8,52
44″	15,42,36, 3,21,27,56,59, 6,42		1, 8,54,42,37	
		2, 1,16,46,16,35,44,41		8,52
46″	15,42,38, 4,38,14,13,34,51,23		1, 8,54,51,29	
		2, 1,16,45, 7,40,53,12		8,52
48″	15,42,40, 5,54,59,21,15,44,35		1, 8,55, 0,21	
		2, 1,16,43,58,45,52,51		8,52
50″	15,42,42, 7,11,43,20, 1,37,26		1, 8,55, 9,13	
		2, 1,16,42,49,50,43,38		8,52
52″	15,42,44, 8,28,26, 9,52,21, 4		1, 8,55,18, 5	
		2, 1,16,41,40,55,25,33		8,52
54″	15,42,46, 9,45, 7,50,47,46,37		1, 8,55,26,57	
		2, 1,16,40,31,59,58,36		8,52
56″	15,42,48,11, 1,48,22,47,45,13		1, 8,55,35,49	
		2, 1,16,39,23, 4,22,47		8,52
58″	15,42,50,12,18,27,45,52, 8, 0		1, 8,55,44,41	
		2, 1,16,38,14, 8,38, 6		
60″	15,42,52,13,35, 6, 0, 0,46, 6			
exact	15,42,52,13,35, 6, 0, 0,44,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°11′ 0″	15,42,52,13,35, 6, 0, 0,44,21			
		2, 1,16,37, 5,12,44,25		
2″	15,42,54,14,51,43, 5,13,28,46		1, 8,56, 2,25	
		2, 1,16,35,56,16,42, 0		8,52
4″	15,42,56,16, 8,19, 1,30,10,46		1, 8,56,11,17	
		2, 1,16,34,47,20,30,43		8,52
6″	15,42,58,17,24,53,48,50,41,29		1, 8,56,20, 9	
		2, 1,16,33,38,24,10,34		8,52
8″	15,43, 0,18,41,27,27,14,52, 3		1, 8,56,29, 1	
		2, 1,16,32,29,27,41,33		8,52
10″	15,43, 2,19,57,59,56,42,33,36		1, 8,56,37,53	
		2, 1,16,31,20,31, 3,40		8,52
12″	15,43, 4,21,14,31,17,13,37,16		1, 8,56,46,45	
		2, 1,16,30,11,34,16,55		8,52
14″	15,43, 6,22,31, 1,28,47,54,11		1, 8,56,55,37	
		2, 1,16,29, 2,37,21,18		8,52
16″	15,43, 8,23,47,30,31,25,15,29		1, 8,57, 4,29	
		2, 1,16,27,53,40,16,49		8,52
18″	15,43,10,25, 3,58,25, 5,32,18		1, 8,57,13,21	
		2, 1,16,26,44,43, 3,28		8,52
20″	15,43,12,26,20,25, 9,48,35,46		1, 8,57,22,13	
		2, 1,16,25,35,45,41,15		8,52
22″	15,43,14,27,36,50,45,34,17, 1		1, 8,57,31, 5	
		2, 1,16,24,26,48,10,10		8,52
24″	15,43,16,28,53,15,12,22,27,11		1, 8,57,39,57	
		2, 1,16,23,17,50,30,13		8,52
26″	15,43,18,30, 9,38,30,12,57,24		1, 8,57,48,49	
		2, 1,16,22, 8,52,41,24		8,52
28″	15,43,20,31,26, 0,39, 5,38,48		1, 8,57,57,41	
		2, 1,16,20,59,54,43,43		8,52
30″	15,43,22,32,42,21,39, 0,22,31		1, 8,58, 6,33	
		2, 1,16,19,50,56,37,10		8,52
32″	15,43,24,33,58,41,29,56,59,41		1, 8,58,15,25	
		2, 1,16,18,41,58,21,45		8,52
34″	15,43,26,35,15, 0,11,55,21,26		1, 8,58,24,17	
		2, 1,16,17,32,59,57,28		8,52
36″	15,43,28,36,31,17,44,55,18,54		1, 8,58,33, 9	
		2, 1,16,16,24, 1,24,19		8,52
38″	15,43,30,37,47,34, 8,56,43,13		1, 8,58,42, 1	
		2, 1,16,15,15, 2,42,18		8,52
40″	15,43,32,39, 3,49,23,59,25,31		1, 8,58,50,53	
		2, 1,16,14, 6, 3,51,25		8,52
42″	15,43,34,40,20, 3,30, 3,16,56		1, 8,58,59,45	
		2, 1,16,12,57, 4,51,40		8,52
44″	15,43,36,41,36,16,27, 8, 8,36		1, 8,59, 8,37	
		2, 1,16,11,48, 5,43, 3		8,52
46″	15,43,38,42,52,28,15,13,51,39		1, 8,59,17,29	
		2, 1,16,10,39, 6,25,34		8,52
48″	15,43,40,44, 8,38,54,20,17,13		1, 8,59,26,21	
		2, 1,16, 9,30, 6,59,13		8,52
50″	15,43,42,45,24,48,24,27,16,26		1, 8,59,35,13	
		2, 1,16, 8,21, 7,24, 0		8,52
52″	15,43,44,46,40,56,45,34,40,26		1, 8,59,44, 5	
		2, 1,16, 7,12, 7,39,55		8,52
54″	15,43,46,47,57, 3,57,42,20,21		1, 8,59,52,57	
		2, 1,16, 6, 3, 7,46,58		8,52
56″	15,43,48,49,13,10, 0,50, 7,19		1, 9, 0, 1,49	
		2, 1,16, 4,54, 7,45, 9		8,52
58″	15,43,50,50,29,14,54,57,52,28		1, 9, 0,10,41	
		2, 1,16, 3,45, 7,34,28		
60″	15,43,52,51,45,18,40, 5,26,56			
exact	15,43,52,51,45,18,40, 5,27,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°12′ 0″	15,43,52,51,45,18,40, 5,27,50			
		2, 1,16, 2,36, 7,15, 5		
2″	15,43,54,53, 1,21,16,12,42,55		1, 9, 0,28,24	
		2, 1,16, 1,27, 6,46,41		8,52
4″	15,43,56,54,17,22,43,19,29,36		1, 9, 0,37,16	
		2, 1,16, 0,18, 6, 9,25		8,52
6″	15,43,58,55,33,23, 1,25,39, 1		1, 9, 0,46, 8	
		2, 1,15,59, 9, 5,23,17		8,52
8″	15,44, 0,56,49,22,10,31, 2,18		1, 9, 0,55, 0	
		2, 1,15,58, 0, 4,28,17		8,52
10″	15,44, 2,58, 5,20,10,35,30,35		1, 9, 1, 3,52	
		2, 1,15,56,51, 3,24,25		8,52
12″	15,44, 4,59,21,17, 1,38,55, 0		1, 9, 1,12,44	
		2, 1,15,55,42, 2,11,41		8,52
14″	15,44, 7, 0,37,12,43,41, 6,41		1, 9, 1,21,36	
		2, 1,15,54,33, 0,50, 5		8,52
16″	15,44, 9, 1,53, 7,16,41,56,46		1, 9, 1,30,28	
		2, 1,15,53,23,59,19,37		8,52
18″	15,44,11, 3, 9, 0,40,41,16,23		1, 9, 1,39,20	
		2, 1,15,52,14,57,40,17		8,52
20″	15,44,13, 4,24,52,55,38,56,40		1, 9, 1,48,12	
		2, 1,15,51, 5,55,52, 5		8,52
22″	15,44,15, 5,40,44, 1,34,48,45		1, 9, 1,57, 4	
		2, 1,15,49,56,53,55, 1		8,52
24″	15,44,17, 6,56,33,58,28,43,46		1, 9, 2, 5,56	
		2, 1,15,48,47,51,49, 5		8,52
26″	15,44,19, 8,12,22,46,20,32,51		1, 9, 2,14,48	
		2, 1,15,47,38,49,34,17		8,52
28″	15,44,21, 9,28,10,25,10, 7, 8		1, 9, 2,23,40	
		2, 1,15,46,29,47,10,37		8,52
30″	15,44,23,10,43,56,54,57,17,45		1, 9, 2,32,32	
		2, 1,15,45,20,44,38, 5		8,52
32″	15,44,25,11,59,42,15,41,55,50		1, 9, 2,41,24	
		2, 1,15,44,11,41,56,41		8,52
34″	15,44,27,13,15,26,27,23,52,31		1, 9, 2,50,16	
		2, 1,15,43, 2,39, 6,25		8,52
36″	15,44,29,14,31, 9,30, 2,58,56		1, 9, 2,59, 8	
		2, 1,15,41,53,36, 7,17		8,52
38″	15,44,31,15,46,51,23,39, 6,13		1, 9, 3, 8, 0	
		2, 1,15,40,44,32,59,17		8,52
40″	15,44,33,17, 2,32, 8,12, 5,30		1, 9, 3,16,52	
		2, 1,15,39,35,29,42,25		8,52
42″	15,44,35,18,18,11,43,41,47,55		1, 9, 3,25,44	
		2, 1,15,38,26,26,16,41		8,52
44″	15,44,37,19,33,50,10, 8, 4,36		1, 9, 3,34,36	
		2, 1,15,37,17,22,42, 5		8,52
46″	15,44,39,20,49,27,27,30,46,41		1, 9, 3,43,28	
		2, 1,15,36, 8,18,58,37		8,52
48″	15,44,41,22, 5, 3,35,49,45,18		1, 9, 3,52,20	
		2, 1,15,34,59,15, 6,17		8,52
50″	15,44,43,23,20,38,35, 4,51,35		1, 9, 4, 1,12	
		2, 1,15,33,50,11, 5, 5		8,52
52″	15,44,45,24,36,12,25,15,56,40		1, 9, 4,10, 4	
		2, 1,15,32,41, 6,55, 1		8,52
54″	15,44,47,25,51,45, 6,22,51,41		1, 9, 4,18,56	
		2, 1,15,31,32, 2,36, 5		8,52
56″	15,44,49,27, 7,16,38,25,27,46		1, 9, 4,27,48	
		2, 1,15,30,22,58, 8,17		8,52
58″	15,44,51,28,22,47, 1,23,36, 3		1, 9, 4,36,40	
		2, 1,15,29,13,53,31,37		
60″	15,44,53,29,38,16,15,17, 7,40			
exact	15,44,53,29,38,16,15,17,12,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°13′ 0″	15,44,53,29,38,16,15,17,12,57			
		2, 1,15,28, 4,48,46,40		
2″	15,44,55,30,53,44,20, 5,59,37		1, 9, 4,54,21	
		2, 1,15,26,55,43,52,19		8,52
4″	15,44,57,32, 9,11,15,49,51,56		1, 9, 5, 3,13	
		2, 1,15,25,46,38,49, 6		8,52
6″	15,44,59,33,24,37, 2,28,41, 2		1, 9, 5,12, 5	
		2, 1,15,24,37,33,37, 1		8,52
8″	15,45, 1,34,40, 1,40, 2,18, 3		1, 9, 5,20,57	
		2, 1,15,23,28,28,16, 4		8,52
10″	15,45, 3,35,55,25, 8,30,34, 7		1, 9, 5,29,49	
		2, 1,15,22,19,22,46,15		8,52
12″	15,45, 5,37,10,47,27,53,20,22		1, 9, 5,38,41	
		2, 1,15,21,10,17, 7,34		8,52
14″	15,45, 7,38,26, 8,38,10,27,56		1, 9, 5,47,33	
		2, 1,15,20, 1,11,20, 1		8,52
16″	15,45, 9,39,41,28,39,21,47,57		1, 9, 5,56,25	
		2, 1,15,18,52, 5,23,36		8,52
18″	15,45,11,40,56,47,31,27,11,33		1, 9, 6, 5,17	
		2, 1,15,17,42,59,18,19		8,52
20″	15,45,13,42,12, 5,14,26,29,52		1, 9, 6,14, 9	
		2, 1,15,16,33,53, 4,10		8,52
22″	15,45,15,43,27,21,48,19,34, 2		1, 9, 6,23, 1	
		2, 1,15,15,24,46,41, 9		8,52
24″	15,45,17,44,42,37,13, 6,15,11		1, 9, 6,31,53	
		2, 1,15,14,15,40, 9,16		8,52
26″	15,45,19,45,57,51,28,46,24,27		1, 9, 6,40,45	
		2, 1,15,13, 6,33,28,31		8,52
28″	15,45,21,47,13, 4,35,19,52,58		1, 9, 6,49,37	
		2, 1,15,11,57,26,38,54		8,52
30″	15,45,23,48,28,16,32,46,31,52		1, 9, 6,58,29	
		2, 1,15,10,48,19,40,25		8,52
32″	15,45,25,49,43,27,21, 6,12,17		1, 9, 7, 7,21	
		2, 1,15, 9,39,12,33, 4		8,52
34″	15,45,27,50,58,37, 0,18,45,21		1, 9, 7,16,13	
		2, 1,15, 8,30, 5,16,51		8,52
36″	15,45,29,52,13,45,30,24, 2,12		1, 9, 7,25, 5	
		2, 1,15, 7,20,57,51,46		8,52
38″	15,45,31,53,28,52,51,21,53,58		1, 9, 7,33,57	
		2, 1,15, 6,11,50,17,49		8,52
40″	15,45,33,54,43,59, 3,12,11,47		1, 9, 7,42,49	
		2, 1,15, 5, 2,42,35, 0		8,52
42″	15,45,35,55,59, 4, 5,54,46,47		1, 9, 7,51,41	
		2, 1,15, 3,53,34,43,19		8,52
44″	15,45,37,57,14, 7,59,29,30, 6		1, 9, 8, 0,33	
		2, 1,15, 2,44,26,42,46		8,52
46″	15,45,39,58,29,10,43,56,12,52		1, 9, 8, 9,25	
		2, 1,15, 1,35,18,33,21		8,52
48″	15,45,41,59,44,12,19,14,46,13		1, 9, 8,18,17	
		2, 1,15, 0,26,10,15, 4		8,52
50″	15,45,44, 0,59,12,45,25, 1,17		1, 9, 8,27, 9	
		2, 1,14,59,17, 1,47,55		8,52
52″	15,45,46, 2,14,12, 2,26,49,12		1, 9, 8,36, 1	
		2, 1,14,58, 7,53,11,54		8,52
54″	15,45,48, 3,29,10,10,20, 1, 6		1, 9, 8,44,53	
		2, 1,14,56,58,44,27, 1		8,52
56″	15,45,50, 4,44, 7, 9, 4,28, 7		1, 9, 8,53,45	
		2, 1,14,55,49,35,33,16		8,52
58″	15,45,52, 5,59, 2,58,40, 1,23		1, 9, 9, 2,37	
		2, 1,14,54,40,26,30,39		
60″	15,45,54, 7,13,57,39, 6,32, 2			
exact	15,45,54, 7,13,57,39, 6,36,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°14′ 0″	15,45,54, 7,13,57,39, 6,36,38			
		2, 1,14,53,31,17,19,48		
2″	15,45,56, 8,28,51,10,23,56,26		1, 9, 9,20,18	
		2, 1,14,52,22, 7,59,30		8,52
4″	15,45,58, 9,43,43,32,31,55,56		1, 9, 9,29,10	
		2, 1,14,51,12,58,30,20		8,52
6″	15,46, 0,10,58,34,45,30,26,16		1, 9, 9,38, 2	
		2, 1,14,50, 3,48,52,18		8,52
8″	15,46, 2,12,13,24,49,19,18,34		1, 9, 9,46,54	
		2, 1,14,48,54,39, 5,24		8,52
10″	15,46, 4,13,28,13,43,58,23,58		1, 9, 9,55,46	
		2, 1,14,47,45,29, 9,38		8,52
12″	15,46, 6,14,43, 1,29,27,33,36		1, 9,10, 4,38	
		2, 1,14,46,36,19, 5, 0		8,52
14″	15,46, 8,15,57,48, 5,46,38,36		1, 9,10,13,30	
		2, 1,14,45,27, 8,51,30		8,52
16″	15,46,10,17,12,33,32,55,30, 6		1, 9,10,22,22	
		2, 1,14,44,17,58,29, 8		8,52
18″	15,46,12,18,27,17,50,53,59,14		1, 9,10,31,14	
		2, 1,14,43, 8,47,57,54		8,52
20″	15,46,14,19,42, 0,59,41,57, 8		1, 9,10,40, 6	
		2, 1,14,41,59,37,17,48		8,52
22″	15,46,16,20,56,42,59,19,14,56		1, 9,10,48,58	
		2, 1,14,40,50,26,28,50		8,52
24″	15,46,18,22,11,23,49,45,43,46		1, 9,10,57,50	
		2, 1,14,39,41,15,31, 0		8,52
26″	15,46,20,23,26, 3,31, 1,14,46		1, 9,11, 6,42	
		2, 1,14,38,32, 4,24,18		8,52
28″	15,46,22,24,40,42, 3, 5,39, 4		1, 9,11,15,34	
		2, 1,14,37,22,53, 8,44		8,52
30″	15,46,24,25,55,19,25,58,47,48		1, 9,11,24,26	
		2, 1,14,36,13,41,44,18		8,52
32″	15,46,26,27, 9,55,39,40,32, 6		1, 9,11,33,18	
		2, 1,14,35, 4,30,11, 0		8,52
34″	15,46,28,28,24,30,44,10,43, 6		1, 9,11,42,10	
		2, 1,14,33,55,18,28,50		8,52
36″	15,46,30,29,39, 4,39,29,11,56		1, 9,11,51, 2	
		2, 1,14,32,46, 6,37,48		8,52
38″	15,46,32,30,53,37,25,35,49,44		1, 9,11,59,54	
		2, 1,14,31,36,54,37,54		8,52
40″	15,46,34,32, 8, 9, 2,30,27,38		1, 9,12, 8,46	
		2, 1,14,30,27,42,29, 8		8,52
42″	15,46,36,33,22,39,30,12,56,46		1, 9,12,17,38	
		2, 1,14,29,18,30,11,30		8,52
44″	15,46,38,34,37, 8,48,43, 8,16		1, 9,12,26,30	
		2, 1,14,28, 9,17,45, 0		8,52
46″	15,46,40,35,51,36,58, 0,53,16		1, 9,12,35,22	
		2, 1,14,27, 0, 5, 9,38		8,52
48″	15,46,42,37, 6, 3,58, 6, 2,54		1, 9,12,44,14	
		2, 1,14,25,50,52,25,24		8,52
50″	15,46,44,38,20,29,48,58,28,18		1, 9,12,53, 6	
		2, 1,14,24,41,39,32,18		8,52
52″	15,46,46,39,34,54,30,38, 0,36		1, 9,13, 1,58	
		2, 1,14,23,32,26,30,20		8,52
54″	15,46,48,40,49,18, 3, 4,30,56		1, 9,13,10,50	
		2, 1,14,22,23,13,19,30		8,52
56″	15,46,50,42, 3,40,26,17,50,26		1, 9,13,19,42	
		2, 1,14,21,13,59,59,48		8,52
58″	15,46,52,43,18, 1,40,17,50,14		1, 9,13,28,34	
		2, 1,14,20, 4,46,31,14		
60″	15,46,54,44,32,21,45, 4,21,28			
exact	15,46,54,44,32,21,45, 4,34,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°15′ 0″	15,46,54,44,32,21,45, 4,34,44			
		2, 1,14,18,55,32,55, 8		
2″	15,46,56,45,46,40,40,37,29,52		1, 9,13,46,13	
		2, 1,14,17,46,19, 8,55		8,52
4″	15,46,58,47, 0,58,26,56,38,47		1, 9,13,55, 5	
		2, 1,14,16,37, 5,13,50		8,52
6″	15,47, 0,48,15,15, 4, 1,52,37		1, 9,14, 3,57	
		2, 1,14,15,27,51, 9,53		8,52
8″	15,47, 2,49,29,30,31,53, 2,30		1, 9,14,12,49	
		2, 1,14,14,18,36,57, 4		8,52
10″	15,47, 4,50,43,44,50,29,59,34		1, 9,14,21,41	
		2, 1,14,13, 9,22,35,23		8,52
12″	15,47, 6,51,57,57,59,52,34,57		1, 9,14,30,33	
		2, 1,14,12, 0, 8, 4,50		8,52
14″	15,47, 8,53,12,10, 0, 0,39,47		1, 9,14,39,25	
		2, 1,14,10,50,53,25,25		8,52
16″	15,47,10,54,26,20,50,54, 5,12		1, 9,14,48,17	
		2, 1,14, 9,41,38,37, 8		8,52
18″	15,47,12,55,40,30,32,32,42,20		1, 9,14,57, 9	
		2, 1,14, 8,32,23,39,59		8,52
20″	15,47,14,56,54,39, 4,56,22,19		1, 9,15, 6, 1	
		2, 1,14, 7,23, 8,33,58		8,52
22″	15,47,16,58, 8,46,28, 4,56,17		1, 9,15,14,53	
		2, 1,14, 6,13,53,19, 5		8,52
24″	15,47,18,59,22,52,41,58,15,22		1, 9,15,23,45	
		2, 1,14, 5, 4,37,55,20		8,52
26″	15,47,21, 0,36,57,46,36,10,42		1, 9,15,32,37	
		2, 1,14, 3,55,22,22,43		8,52
28″	15,47,23, 1,51, 1,41,58,33,25		1, 9,15,41,29	
		2, 1,14, 2,46, 6,41,14		8,52
30″	15,47,25, 3, 5, 4,28, 5,14,39		1, 9,15,50,21	
		2, 1,14, 1,36,50,50,53		8,52
32″	15,47,27, 4,19, 6, 4,56, 5,32		1, 9,15,59,13	
		2, 1,14, 0,27,34,51,40		8,52
34″	15,47,29, 5,33, 6,32,30,57,12		1, 9,16, 8, 5	
		2, 1,13,59,18,18,43,35		8,52
36″	15,47,31, 6,47, 5,50,49,40,47		1, 9,16,16,57	
		2, 1,13,58, 9, 2,26,38		8,52
38″	15,47,33, 8, 1, 3,59,52, 7,25		1, 9,16,25,49	
		2, 1,13,56,59,46, 0,49		8,52
40″	15,47,35, 9,15, 0,59,38, 8,14		1, 9,16,34,41	
		2, 1,13,55,50,29,26, 8		8,52
42″	15,47,37,10,28,56,50, 7,34,22		1, 9,16,43,33	
		2, 1,13,54,41,12,42,35		8,52
44″	15,47,39,11,42,51,31,20,16,57		1, 9,16,52,25	
		2, 1,13,53,31,55,50,10		8,52
46″	15,47,41,12,56,45, 3,16, 7, 7		1, 9,17, 1,17	
		2, 1,13,52,22,38,48,53		8,52
48″	15,47,43,14,10,37,25,54,56, 0		1, 9,17,10, 9	
		2, 1,13,51,13,21,38,44		8,52
50″	15,47,45,15,24,28,39,16,34,44		1, 9,17,19, 1	
		2, 1,13,50, 4, 4,19,43		8,52
52″	15,47,47,16,38,18,43,20,54,27		1, 9,17,27,53	
		2, 1,13,48,54,46,51,50		8,52
54″	15,47,49,17,52, 7,38, 7,46,17		1, 9,17,36,45	
		2, 1,13,47,45,29,15, 5		8,52
56″	15,47,51,19, 5,55,23,37, 1,22		1, 9,17,45,37	
		2, 1,13,46,36,11,29,28		8,52
58″	15,47,53,20,19,41,59,48,30,50		1, 9,17,54,29	
		2, 1,13,45,26,53,34,59		
60″	15,47,55,21,33,27,26,42, 5,49			
exact	15,47,55,21,33,27,26,42,22, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°16′ 0″	15,47,55,21,33,27,26,42,22, 4			
		2, 1,13,44,17,35,33,17		
2″	15,47,57,22,47,11,44,17,55,21		1, 9,18,12, 6	
		2, 1,13,43, 8,17,21,11		8,52
4″	15,47,59,24, 0,54,52,35,16,32		1, 9,18,20,58	
		2, 1,13,41,58,59, 0,13		8,52
6″	15,48, 1,25,14,36,51,34,16,45		1, 9,18,29,50	
		2, 1,13,40,49,40,30,23		8,52
8″	15,48, 3,26,28,17,41,14,47, 8		1, 9,18,38,42	
		2, 1,13,39,40,21,51,41		8,52
10″	15,48, 5,27,41,57,21,36,38,49		1, 9,18,47,34	
		2, 1,13,38,31, 3, 4, 7		8,52
12″	15,48, 7,28,55,35,52,39,42,56		1, 9,18,56,26	
		2, 1,13,37,21,44, 7,41		8,52
14″	15,48, 9,30, 9,13,14,23,50,37		1, 9,19, 5,18	
		2, 1,13,36,12,25, 2,23		8,52
16″	15,48,11,31,22,49,26,48,53, 0		1, 9,19,14,10	
		2, 1,13,35, 3, 5,48,13		8,52
18″	15,48,13,32,36,24,29,54,41,13		1, 9,19,23, 2	
		2, 1,13,33,53,46,25,11		8,52
20″	15,48,15,33,49,58,23,41, 6,24		1, 9,19,31,54	
		2, 1,13,32,44,26,53,17		8,52
22″	15,48,17,35, 3,31, 8, 7,59,41		1, 9,19,40,46	
		2, 1,13,31,35, 7,12,31		8,52
24″	15,48,19,36,17, 2,43,15,12,12		1, 9,19,49,38	
		2, 1,13,30,25,47,22,53		8,52
26″	15,48,21,37,30,33, 9, 2,35, 5		1, 9,19,58,30	
		2, 1,13,29,16,27,24,23		8,52
28″	15,48,23,38,44, 2,25,29,59,28		1, 9,20, 7,22	
		2, 1,13,28, 7, 7,17, 1		8,52
30″	15,48,25,39,57,30,32,37,16,29		1, 9,20,16,14	
		2, 1,13,26,57,47, 0,47		8,52
32″	15,48,27,41,10,57,30,24,17,16		1, 9,20,25, 6	
		2, 1,13,25,48,26,35,41		8,52
34″	15,48,29,42,24,23,18,50,52,57		1, 9,20,33,58	
		2, 1,13,24,39, 6, 1,43		8,52
36″	15,48,31,43,37,47,57,56,54,40		1, 9,20,42,50	
		2, 1,13,23,29,45,18,53		8,52
38″	15,48,33,44,51,11,27,42,13,33		1, 9,20,51,42	
		2, 1,13,22,20,24,27,11		8,52
40″	15,48,35,46, 4,33,48, 6,40,44		1, 9,21, 0,34	
		2, 1,13,21,11, 3,26,37		8,52
42″	15,48,37,47,17,54,59,10, 7,21		1, 9,21, 9,26	
		2, 1,13,20, 1,42,17,11		8,52
44″	15,48,39,48,31,15, 0,52,24,32		1, 9,21,18,18	
		2, 1,13,18,52,20,58,53		8,52
46″	15,48,41,49,44,33,53,13,23,25		1, 9,21,27,10	
		2, 1,13,17,42,59,31,43		8,52
48″	15,48,43,50,57,51,36,12,55, 8		1, 9,21,36, 2	
		2, 1,13,16,33,37,55,41		8,52
50″	15,48,45,52,11, 8, 9,50,50,49		1, 9,21,44,54	
		2, 1,13,15,24,16,10,47		8,52
52″	15,48,47,53,24,23,34, 7, 1,36		1, 9,21,53,46	
		2, 1,13,14,14,54,17, 1		8,52
54″	15,48,49,54,37,37,49, 1,18,37		1, 9,22, 2,38	
		2, 1,13,13, 5,32,14,23		8,52
56″	15,48,51,55,50,50,54,33,33, 0		1, 9,22,11,30	
		2, 1,13,11,56,10, 2,53		8,52
58″	15,48,53,57, 4, 2,50,43,35,53		1, 9,22,20,22	
		2, 1,13,10,46,47,42,31		
60″	15,48,55,58,17,13,37,31,18,24			
exact	15,48,55,58,17,13,37,31,32,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°17′ 0″	15,48,55,58,17,13,37,31,32,25	2, 1,13, 9,37,25,14,54		
2″	15,48,57,59,30,23,14,56,47,19	2, 1,13, 8,28, 2,36,55	1, 9,22,37,59	8,52
4″	15,49, 0, 0,43,31,42,59,24,14	2, 1,13, 7,18,39,50, 4	1, 9,22,46,51	8,52
6″	15,49, 2, 1,56,39, 1,39,14,18	2, 1,13, 6, 9,16,54,21	1, 9,22,55,43	8,52
8″	15,49, 4, 3, 9,45,10,56, 8,39	2, 1,13, 4,59,53,49,46	1, 9,23, 4,35	8,52
10″	15,49, 6, 4,22,50,10,49,58,25	2, 1,13, 3,50,30,36,19	1, 9,23,13,27	8,52
12″	15,49, 8, 5,35,54, 1,20,34,44	2, 1,13, 2,41, 7,14, 0	1, 9,23,22,19	8,52
14″	15,49,10, 6,48,56,42,27,48,44	2, 1,13, 1,31,43,42,49	1, 9,23,31,11	8,52
16″	15,49,12, 8, 1,58,14,11,31,33	2, 1,13, 0,22,20, 2,46	1, 9,23,40, 3	8,52
18″	15,49,14, 9,14,58,36,31,34,19	2, 1,12,59,12,56,13,51	1, 9,23,48,55	8,52
20″	15,49,16,10,27,57,49,27,48,10	2, 1,12,58, 3,32,16, 4	1, 9,23,57,47	8,52
22″	15,49,18,11,40,55,53, 0, 4,14	2, 1,12,56,54, 8, 9,25	1, 9,24, 6,39	8,52
24″	15,49,20,12,53,52,47, 8,13,39	2, 1,12,55,44,43,53,54	1, 9,24,15,31	8,52
26″	15,49,22,14, 6,48,31,52, 7,33	2, 1,12,54,35,19,29,31	1, 9,24,24,23	8,52
28″	15,49,24,15,19,43, 7,11,37, 4	2, 1,12,53,25,54,56,16	1, 9,24,33,15	8,52
30″	15,49,26,16,32,36,33, 6,33,20	2, 1,12,52,16,30,14, 9	1, 9,24,42, 7	8,52
32″	15,49,28,17,45,28,49,36,47,29	2, 1,12,51, 7, 5,23,10	1, 9,24,50,59	8,52
34″	15,49,30,18,58,19,56,42,10,39	2, 1,12,49,57,40,23,19	1, 9,24,59,51	8,52
36″	15,49,32,20,11, 9,54,22,33,58	2, 1,12,48,48,15,14,36	1, 9,25, 8,43	8,52
38″	15,49,34,21,23,58,42,37,48,34	2, 1,12,47,38,49,57, 1	1, 9,25,17,35	8,52
40″	15,49,36,22,36,46,21,27,45,35	2, 1,12,46,29,24,30,34	1, 9,25,26,27	8,52
42″	15,49,38,23,49,32,50,52,16, 9	2, 1,12,45,19,58,55,15	1, 9,25,35,19	8,52
44″	15,49,40,25, 2,18,10,51,11,24	2, 1,12,44,10,33,11, 4	1, 9,25,44,11	8,52
46″	15,49,42,26,15, 2,21,24,22,28	2, 1,12,43, 1, 7,18, 1	1, 9,25,53, 3	8,52
48″	15,49,44,27,27,45,22,31,40,29	2, 1,12,41,51,41,16, 6	1, 9,26, 1,55	8,52
50″	15,49,46,28,40,27,14,12,56,35	2, 1,12,40,42,15, 5,19	1, 9,26,10,47	8,52
52″	15,49,48,29,53, 7,56,28, 1,54	2, 1,12,39,32,48,45,40	1, 9,26,19,39	8,52
54″	15,49,50,31, 5,47,29,16,47,34	2, 1,12,38,23,22,17, 9	1, 9,26,28,31	8,52
56″	15,49,52,32,18,25,52,39, 4,43	2, 1,12,37,13,55,39,46	1, 9,26,37,23	8,52
58″	15,49,54,33,31, 3, 6,34,44,29	2, 1,12,36, 4,28,53,31	1, 9,26,46,15	
60″	15,49,56,34,43,39,11, 3,38, 0			
exact	15,49,56,34,43,39,11, 3,58,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°18′ 0″	15,49,56,34,43,39,11, 3,58,35			
		2, 1,12,34,55, 2, 0,35		
2″	15,49,58,35,56,14, 6, 5,59,10		1, 9,27, 3,50	
		2, 1,12,33,45,34,56,45		8,52
4″	15,50, 0,37, 8,47,51,40,55,55		1, 9,27,12,42	
		2, 1,12,32,36, 7,44, 3		8,52
6″	15,50, 2,38,21,20,27,48,39,58		1, 9,27,21,34	
		2, 1,12,31,26,40,22,29		8,52
8″	15,50, 4,39,33,51,54,29, 2,27		1, 9,27,30,26	
		2, 1,12,30,17,12,52, 3		8,52
10″	15,50, 6,40,46,22,11,41,54,30		1, 9,27,39,18	
		2, 1,12,29, 7,45,12,45		8,52
12″	15,50, 8,41,58,51,19,27, 7,15		1, 9,27,48,10	
		2, 1,12,27,58,17,24,35		8,52
14″	15,50,10,43,11,19,17,44,31,50		1, 9,27,57, 2	
		2, 1,12,26,48,49,27,33		8,52
16″	15,50,12,44,23,46, 6,33,59,23		1, 9,28, 5,54	
		2, 1,12,25,39,21,21,39		8,52
18″	15,50,14,45,36,11,45,55,21, 2		1, 9,28,14,46	
		2, 1,12,24,29,53, 6,53		8,52
20″	15,50,16,46,48,36,15,48,27,55		1, 9,28,23,38	
		2, 1,12,23,20,24,43,15		8,52
22″	15,50,18,48, 0,59,36,13,11,10		1, 9,28,32,30	
		2, 1,12,22,10,56,10,45		8,52
24″	15,50,20,49,13,21,47, 9,21,55		1, 9,28,41,22	
		2, 1,12,21, 1,27,29,23		8,52
26″	15,50,22,50,25,42,48,36,51,18		1, 9,28,50,14	
		2, 1,12,19,51,58,39, 9		8,52
28″	15,50,24,51,38, 2,40,35,30,27		1, 9,28,59, 6	
		2, 1,12,18,42,29,40, 3		8,52
30″	15,50,26,52,50,21,23, 5,10,30		1, 9,29, 7,58	
		2, 1,12,17,33, 0,32, 5		8,52
32″	15,50,28,54, 2,38,56, 5,42,35		1, 9,29,16,50	
		2, 1,12,16,23,31,15,15		8,52
34″	15,50,30,55,14,55,19,36,57,50		1, 9,29,25,42	
		2, 1,12,15,14, 1,49,33		8,52
36″	15,50,32,56,27,10,33,38,47,23		1, 9,29,34,34	
		2, 1,12,14, 4,32,14,59		8,52
38″	15,50,34,57,39,24,38,11, 2,22		1, 9,29,43,26	
		2, 1,12,12,55, 2,31,33		8,52
40″	15,50,36,58,51,37,33,13,33,55		1, 9,29,52,18	
		2, 1,12,11,45,32,39,15		8,52
42″	15,50,39, 0, 3,49,18,46,13,10		1, 9,30, 1,10	
		2, 1,12,10,36, 2,38, 5		8,52
44″	15,50,41, 1,15,59,54,48,51,15		1, 9,30,10, 2	
		2, 1,12, 9,26,32,28, 3		8,52
46″	15,50,43, 2,28, 9,21,21,19,18		1, 9,30,18,54	
		2, 1,12, 8,17, 2, 9, 9		8,52
48″	15,50,45, 3,40,17,38,23,28,27		1, 9,30,27,46	
		2, 1,12, 7, 7,31,41,23		8,52
50″	15,50,47, 4,52,24,45,55, 9,50		1, 9,30,36,38	
		2, 1,12, 5,58, 1, 4,45		8,52
52″	15,50,49, 6, 4,30,43,56,14,35		1, 9,30,45,30	
		2, 1,12, 4,48,30,19,15		8,52
54″	15,50,51, 7,16,35,32,26,33,50		1, 9,30,54,22	
		2, 1,12, 3,38,59,24,53		8,52
56″	15,50,53, 8,28,39,11,25,58,43		1, 9,31, 3,14	
		2, 1,12, 2,29,28,21,39		8,52
58″	15,50,55, 9,40,41,40,54,20,22		1, 9,31,12, 6	
		2, 1,12, 1,19,57, 9,33		
60″	15,50,57,10,52,43, 0,51,29,55			
exact	15,50,57,10,52,43, 0,51,52,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°19′ 0″	15,50,57,10,52,43, 0,51,52,23			
		2, 1,12, 0,10,25,51, 0		
2″	15,50,59,12, 4,43,11,17,43,23		1, 9,31,29,40	
		2, 1,11,59, 0,54,21,20		8,52
4″	15,51, 1,13,16,42,12,12, 4,43		1, 9,31,38,32	
		2, 1,11,57,51,22,42,48		8,52
6″	15,51, 3,14,28,40, 3,34,47,31		1, 9,31,47,24	
		2, 1,11,56,41,50,55,24		8,52
8″	15,51, 5,15,40,36,45,25,42,55		1, 9,31,56,16	
		2, 1,11,55,32,18,59, 8		8,52
10″	15,51, 7,16,52,32,17,44,42, 3		1, 9,32, 5, 8	
		2, 1,11,54,22,46,54, 0		8,52
12″	15,51, 9,18, 4,26,40,31,36, 3		1, 9,32,14, 0	
		2, 1,11,53,13,14,40, 0		8,52
14″	15,51,11,19,16,19,53,46,16, 3		1, 9,32,22,52	
		2, 1,11,52, 3,42,17, 8		8,52
16″	15,51,13,20,28,11,57,28,33,11		1, 9,32,31,44	
		2, 1,11,50,54, 9,45,24		8,52
18″	15,51,15,21,40, 2,51,38,18,35		1, 9,32,40,36	
		2, 1,11,49,44,37, 4,48		8,52
20″	15,51,17,22,51,52,36,15,23,23		1, 9,32,49,28	
		2, 1,11,48,35, 4,15,20		8,52
22″	15,51,19,24, 3,41,11,19,38,43		1, 9,32,58,20	
		2, 1,11,47,25,31,17, 0		8,52
24″	15,51,21,25,15,28,36,50,55,43		1, 9,33, 7,12	
		2, 1,11,46,15,58, 9,48		8,52
26″	15,51,23,26,27,14,52,49, 5,31		1, 9,33,16, 4	
		2, 1,11,45, 6,24,53,44		8,52
28″	15,51,25,27,38,59,59,13,59,15		1, 9,33,24,56	
		2, 1,11,43,56,51,28,48		8,52
30″	15,51,27,28,50,43,56, 5,28, 3		1, 9,33,33,48	
		2, 1,11,42,47,17,55, 0		8,52
32″	15,51,29,30, 2,26,43,23,23, 3		1, 9,33,42,40	
		2, 1,11,41,37,44,12,20		8,52
34″	15,51,31,31,14, 8,21, 7,35,23		1, 9,33,51,32	
		2, 1,11,40,28,10,20,48		8,52
36″	15,51,33,32,25,48,49,17,56,11		1, 9,34, 0,24	
		2, 1,11,39,18,36,20,24		8,52
38″	15,51,35,33,37,28, 7,54,16,35		1, 9,34, 9,16	
		2, 1,11,38, 9, 2,11, 8		8,52
40″	15,51,37,34,49, 6,16,56,27,43		1, 9,34,18, 8	
		2, 1,11,36,59,27,53, 0		8,52
42″	15,51,39,36, 0,43,16,24,20,43		1, 9,34,27, 0	
		2, 1,11,35,49,53,26, 0		8,52
44″	15,51,41,37,12,19, 6,17,46,43		1, 9,34,35,52	
		2, 1,11,34,40,18,50, 8		8,52
46″	15,51,43,38,23,53,46,36,36,51		1, 9,34,44,44	
		2, 1,11,33,30,44, 5,24		8,52
48″	15,51,45,39,35,27,17,20,42,15		1, 9,34,53,36	
		2, 1,11,32,21, 9,11,48		8,52
50″	15,51,47,40,46,59,38,29,54, 3		1, 9,35, 2,28	
		2, 1,11,31,11,34, 9,20		8,52
52″	15,51,49,41,58,30,50, 4, 3,23		1, 9,35,11,20	
		2, 1,11,30, 1,58,58, 0		8,52
54″	15,51,51,43,10, 0,52, 3, 1,23		1, 9,35,20,12	
		2, 1,11,28,52,23,37,48		8,52
56″	15,51,53,44,21,29,44,26,39,11		1, 9,35,29, 4	
		2, 1,11,27,42,48, 8,44		8,52
58″	15,51,55,45,32,57,27,14,47,55		1, 9,35,37,56	
		2, 1,11,26,33,12,30,48		
60″	15,51,57,46,44,24, 0,27,18,43			
exact	15,51,57,46,44,24, 0,27,44,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°20′ 0″	15,51,57,46,44,24, 0,27,44,39			
		2, 1,11,25,23,36,46,46		
2″	15,51,59,47,55,49,24, 4,31,25		1, 9,35,55,28	
		2, 1,11,24,14, 0,51,18		8,52
4″	15,52, 1,49, 7,13,38, 5,22,43		1, 9,36, 4,20	
		2, 1,11,23, 4,24,46,58		8,52
6″	15,52, 3,50,18,36,42,30, 9,41		1, 9,36,13,12	
		2, 1,11,21,54,48,33,46		8,52
8″	15,52, 5,51,29,58,37,18,43,27		1, 9,36,22, 4	
		2, 1,11,20,45,12,11,42		8,52
10″	15,52, 7,52,41,19,22,30,55, 9		1, 9,36,30,56	
		2, 1,11,19,35,35,40,46		8,52
12″	15,52, 9,53,52,38,58, 6,35,55		1, 9,36,39,48	
		2, 1,11,18,25,59, 0,58		8,52
14″	15,52,11,55, 3,57,24, 5,36,53		1, 9,36,48,40	
		2, 1,11,17,16,22,12,18		8,52
16″	15,52,13,56,15,14,40,27,49,11		1, 9,36,57,32	
		2, 1,11,16, 6,45,14,46		8,52
18″	15,52,15,57,26,30,47,13, 3,57		1, 9,37, 6,24	
		2, 1,11,14,57, 8, 8,22		8,52
20″	15,52,17,58,37,45,44,21,12,19		1, 9,37,15,16	
		2, 1,11,13,47,30,53, 6		8,52
22″	15,52,19,59,48,59,31,52, 5,25		1, 9,37,24, 8	
		2, 1,11,12,37,53,28,58		8,52
24″	15,52,22, 1, 0,12, 9,45,34,23		1, 9,37,33, 0	
		2, 1,11,11,28,15,55,58		8,52
26″	15,52,24, 2,11,23,38, 1,30,21		1, 9,37,41,52	
		2, 1,11,10,18,38,14, 6		8,52
28″	15,52,26, 3,22,33,56,39,44,27		1, 9,37,50,44	
		2, 1,11, 9, 9, 0,23,22		8,52
30″	15,52,28, 4,33,43, 5,40, 7,49		1, 9,37,59,36	
		2, 1,11, 7,59,22,23,46		8,52
32″	15,52,30, 5,44,51, 5, 2,31,35		1, 9,38, 8,28	
		2, 1,11, 6,49,44,15,18		8,52
34″	15,52,32, 6,55,57,54,46,46,53		1, 9,38,17,20	
		2, 1,11, 5,40, 5,57,58		8,52
36″	15,52,34, 8, 7, 3,34,52,44,51		1, 9,38,26,12	
		2, 1,11, 4,30,27,31,46		8,52
38″	15,52,36, 9,18, 8, 5,20,16,37		1, 9,38,35, 4	
		2, 1,11, 3,20,48,56,42		8,52
40″	15,52,38,10,29,11,26, 9,13,19		1, 9,38,43,56	
		2, 1,11, 2,11,10,12,46		8,52
42″	15,52,40,11,40,13,37,19,26, 5		1, 9,38,52,48	
		2, 1,11, 1, 1,31,19,58		8,52
44″	15,52,42,12,51,14,38,50,46, 3		1, 9,39, 1,40	
		2, 1,10,59,51,52,18,18		8,52
46″	15,52,44,14, 2,14,30,43, 4,21		1, 9,39,10,32	
		2, 1,10,58,42,13, 7,46		8,52
48″	15,52,46,15,13,13,12,56,12, 7		1, 9,39,19,24	
		2, 1,10,57,32,33,48,22		8,52
50″	15,52,48,16,24,10,45,30, 0,29		1, 9,39,28,16	
		2, 1,10,56,22,54,20, 6		8,52
52″	15,52,50,17,35, 7, 8,24,20,35		1, 9,39,37, 8	
		2, 1,10,55,13,14,42,58		8,52
54″	15,52,52,18,46, 2,21,39, 3,33		1, 9,39,46, 0	
		2, 1,10,54, 3,34,56,58		8,52
56″	15,52,54,19,56,56,25,14, 0,31		1, 9,39,54,52	
		2, 1,10,52,53,55, 2, 6		8,52
58″	15,52,56,21, 7,49,19, 9, 2,37		1, 9,40, 3,44	
		2, 1,10,51,44,14,58,22		
60″	15,52,58,22,18,41, 3,24, 0,59			
exact	15,52,58,22,18,41, 3,24,25,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°21′ 0″	15,52,58,22,18,41, 3,24,25,19			
		2, 1,10,50,34,34,48,32		
2″	15,53, 0,23,29,31,37,59,13,51		1, 9,40,21,16	
		2, 1,10,49,24,54,27,16		8,52
4″	15,53, 2,24,40,21, 2,53,41, 7		1, 9,40,30, 8	
		2, 1,10,48,15,13,57, 8		8,52
6″	15,53, 4,25,51, 9,18, 7,38,15		1, 9,40,39, 0	
		2, 1,10,47, 5,33,18, 8		8,52
8″	15,53, 6,27, 1,56,23,40,56,23		1, 9,40,47,52	
		2, 1,10,45,55,52,30,16		8,52
10″	15,53, 8,28,12,42,19,33,26,39		1, 9,40,56,44	
		2, 1,10,44,46,11,33,32		8,52
12″	15,53,10,29,23,27, 5,45, 0,11		1, 9,41, 5,36	
		2, 1,10,43,36,30,27,56		8,52
14″	15,53,12,30,34,10,42,15,28, 7		1, 9,41,14,28	
		2, 1,10,42,26,49,13,28		8,52
16″	15,53,14,31,44,53, 9, 4,41,35		1, 9,41,23,20	
		2, 1,10,41,17, 7,50, 8		8,52
18″	15,53,16,32,55,34,26,12,31,43		1, 9,41,32,12	
		2, 1,10,40, 7,26,17,56		8,52
20″	15,53,18,34, 6,14,33,38,49,39		1, 9,41,41, 4	
		2, 1,10,38,57,44,36,52		8,52
22″	15,53,20,35,16,53,31,23,26,31		1, 9,41,49,56	
		2, 1,10,37,48, 2,46,56		8,52
24″	15,53,22,36,27,31,19,26,13,27		1, 9,41,58,48	
		2, 1,10,36,38,20,48, 8		8,52
26″	15,53,24,37,38, 7,57,47, 1,35		1, 9,42, 7,40	
		2, 1,10,35,28,38,40,28		8,52
28″	15,53,26,38,48,43,26,25,42, 3		1, 9,42,16,32	
		2, 1,10,34,18,56,23,56		8,52
30″	15,53,28,39,59,17,45,22, 5,59		1, 9,42,25,24	
		2, 1,10,33, 9,13,58,32		8,52
32″	15,53,30,41, 9,50,54,36, 4,31		1, 9,42,34,16	
		2, 1,10,31,59,31,24,16		8,52
34″	15,53,32,42,20,22,54, 7,28,47		1, 9,42,43, 8	
		2, 1,10,30,49,48,41, 8		8,52
36″	15,53,34,43,30,53,43,56, 9,55		1, 9,42,52, 0	
		2, 1,10,29,40, 5,49, 8		8,52
38″	15,53,36,44,41,23,24, 1,59, 3		1, 9,43, 0,52	
		2, 1,10,28,30,22,48,16		8,52
40″	15,53,38,45,51,51,54,24,47,19		1, 9,43, 9,44	
		2, 1,10,27,20,39,38,32		8,52
42″	15,53,40,47, 2,19,15, 4,25,51		1, 9,43,18,36	
		2, 1,10,26,10,56,19,56		8,52
44″	15,53,42,48,12,45,26, 0,45,47		1, 9,43,27,28	
		2, 1,10,25, 1,12,52,28		8,52
46″	15,53,44,49,23,10,27,13,38,15		1, 9,43,36,20	
		2, 1,10,23,51,29,16, 8		8,52
48″	15,53,46,50,33,34,18,42,54,23		1, 9,43,45,12	
		2, 1,10,22,41,45,30,56		8,52
50″	15,53,48,51,43,57, 0,28,25,19		1, 9,43,54, 4	
		2, 1,10,21,32, 1,36,52		8,52
52″	15,53,50,52,54,18,32,30, 2,11		1, 9,44, 2,56	
		2, 1,10,20,22,17,33,56		8,52
54″	15,53,52,54, 4,38,54,47,36, 7		1, 9,44,11,48	
		2, 1,10,19,12,33,22, 8		8,52
56″	15,53,54,55,14,58, 7,20,58,15		1, 9,44,20,40	
		2, 1,10,18, 2,49, 1,28		8,52
58″	15,53,56,56,25,16,10, 9,59,43		1, 9,44,29,32	
		2, 1,10,16,53, 4,31,56		
60″	15,53,58,57,35,33, 3,14,31,39			
exact	15,53,58,57,35,33, 3,15, 3,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°22′ 0″	15,53,58,57,35,33, 3,15, 3,22			
		2, 1,10,15,43,19,56,55		
2″	15,54, 0,58,45,48,46,35, 0,17		1, 9,44,47, 2	
		2, 1,10,14,33,35, 9,53		8,52
4″	15,54, 2,59,56, 3,20,10,10,10		1, 9,44,55,54	
		2, 1,10,13,23,50,13,59		8,52
6″	15,54, 5, 1, 6,16,44, 0,24, 9		1, 9,45, 4,46	
		2, 1,10,12,14, 5, 9,13		8,52
8″	15,54, 7, 2,16,28,58, 5,33,22		1, 9,45,13,38	
		2, 1,10,11, 4,19,55,35		8,52
10″	15,54, 9, 3,26,40, 2,25,28,57		1, 9,45,22,30	
		2, 1,10, 9,54,34,33, 5		8,52
12″	15,54,11, 4,36,49,57, 0, 2, 2		1, 9,45,31,22	
		2, 1,10, 8,44,49, 1,43		8,52
14″	15,54,13, 5,46,58,41,49, 3,45		1, 9,45,40,14	
		2, 1,10, 7,35, 3,21,29		8,52
16″	15,54,15, 6,57, 6,16,52,25,14		1, 9,45,49, 6	
		2, 1,10, 6,25,17,32,23		8,52
18″	15,54,17, 8, 7,12,42, 9,57,37		1, 9,45,57,58	
		2, 1,10, 5,15,31,34,25		8,52
20″	15,54,19, 9,17,17,57,41,32, 2		1, 9,46, 6,50	
		2, 1,10, 4, 5,45,27,35		8,52
22″	15,54,21,10,27,22, 3,26,59,37		1, 9,46,15,42	
		2, 1,10, 2,55,59,11,53		8,52
24″	15,54,23,11,37,24,59,26,11,30		1, 9,46,24,34	
		2, 1,10, 1,46,12,47,19		8,52
26″	15,54,25,12,47,26,45,38,58,49		1, 9,46,33,26	
		2, 1,10, 0,36,26,13,53		8,52
28″	15,54,27,13,57,27,22, 5,12,42		1, 9,46,42,18	
		2, 1, 9,59,26,39,31,35		8,52
30″	15,54,29,15, 7,26,48,44,44,17		1, 9,46,51,10	
		2, 1, 9,58,16,52,40,25		8,52
32″	15,54,31,16,17,25, 5,37,24,42		1, 9,47, 0, 2	
		2, 1, 9,57, 7, 5,40,23		8,52
34″	15,54,33,17,27,22,12,43, 5, 5		1, 9,47, 8,54	
		2, 1, 9,55,57,18,31,29		8,52
36″	15,54,35,18,37,18,10, 1,36,34		1, 9,47,17,46	
		2, 1, 9,54,47,31,13,43		8,52
38″	15,54,37,19,47,12,57,32,50,17		1, 9,47,26,38	
		2, 1, 9,53,37,43,47, 5		8,52
40″	15,54,39,20,57, 6,35,16,37,22		1, 9,47,35,30	
		2, 1, 9,52,27,56,11,35		8,52
42″	15,54,41,22, 6,59, 3,12,48,57		1, 9,47,44,22	
		2, 1, 9,51,18, 8,27,13		8,52
44″	15,54,43,23,16,50,21,21,16,10		1, 9,47,53,14	
		2, 1, 9,50, 8,20,33,59		8,52
46″	15,54,45,24,26,40,29,41,50, 9		1, 9,48, 2, 6	
		2, 1, 9,48,58,32,31,53		8,52
48″	15,54,47,25,36,29,28,14,22, 2		1, 9,48,10,58	
		2, 1, 9,47,48,44,20,55		8,52
50″	15,54,49,26,46,17,16,58,42,57		1, 9,48,19,50	
		2, 1, 9,46,38,56, 1, 5		8,52
52″	15,54,51,27,56, 3,55,54,44, 2		1, 9,48,28,42	
		2, 1, 9,45,29, 7,32,23		8,52
54″	15,54,53,29, 5,49,25, 2,16,25		1, 9,48,37,34	
		2, 1, 9,44,19,18,54,49		8,52
56″	15,54,55,30,15,33,44,21,11,14		1, 9,48,46,26	
		2, 1, 9,43, 9,30, 8,23		8,52
58″	15,54,57,31,25,16,53,51,19,37		1, 9,48,55,18	
		2, 1, 9,41,59,41,13, 5		
60″	15,54,59,32,34,58,53,32,32,42			
exact	15,54,59,32,34,58,53,33, 6,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°23′ 0″	15,54,59,32,34,58,53,33, 6,53			
		2, 1, 9,40,49,52,12,35		
2″	15,55, 1,33,44,39,43,25,19,28		1, 9,49,12,47	
		2, 1, 9,39,40, 2,59,48		8,51
4″	15,55, 3,34,54,19,23,28,19,16		1, 9,49,21,38	
		2, 1, 9,38,30,13,38,10		8,51
6″	15,55, 5,36, 3,57,53,41,57,26		1, 9,49,30,29	
		2, 1, 9,37,20,24, 7,41		8,51
8″	15,55, 7,37,13,35,14, 6, 5, 7		1, 9,49,39,20	
		2, 1, 9,36,10,34,28,21		8,51
10″	15,55, 9,38,23,11,24,40,33,28		1, 9,49,48,11	
		2, 1, 9,35, 0,44,40,10		8,51
12″	15,55,11,39,32,46,25,25,13,38		1, 9,49,57, 2	
		2, 1, 9,33,50,54,43, 8		8,51
14″	15,55,13,40,42,20,16,19,56,46		1, 9,50, 5,53	
		2, 1, 9,32,41, 4,37,15		8,51
16″	15,55,15,41,51,52,57,24,34, 1		1, 9,50,14,44	
		2, 1, 9,31,31,14,22,31		8,51
18″	15,55,17,43, 1,24,28,38,56,32		1, 9,50,23,35	
		2, 1, 9,30,21,23,58,56		8,51
20″	15,55,19,44,10,54,50, 2,55,28		1, 9,50,32,26	
		2, 1, 9,29,11,33,26,30		8,51
22″	15,55,21,45,20,24, 1,36,21,58		1, 9,50,41,17	
		2, 1, 9,28, 1,42,45,13		8,51
24″	15,55,23,46,29,52, 3,19, 7,11		1, 9,50,50, 8	
		2, 1, 9,26,51,51,55, 5		8,51
26″	15,55,25,47,39,18,55,11, 2,16		1, 9,50,58,59	
		2, 1, 9,25,42, 0,56, 6		8,51
28″	15,55,27,48,48,44,37,11,58,22		1, 9,51, 7,50	
		2, 1, 9,24,32, 9,48,16		8,51
30″	15,55,29,49,58, 9, 9,21,46,38		1, 9,51,16,41	
		2, 1, 9,23,22,18,31,35		8,51
32″	15,55,31,51, 7,32,31,40,18,13		1, 9,51,25,32	
		2, 1, 9,22,12,27, 6, 3		8,51
34″	15,55,33,52,16,54,44, 7,24,16		1, 9,51,34,23	
		2, 1, 9,21, 2,35,31,40		8,51
36″	15,55,35,53,26,15,46,42,55,56		1, 9,51,43,14	
		2, 1, 9,19,52,43,48,26		8,51
38″	15,55,37,54,35,35,39,26,44,22		1, 9,51,52, 5	
		2, 1, 9,18,42,51,56,21		8,51
40″	15,55,39,55,44,54,22,18,40,43		1, 9,52, 0,56	
		2, 1, 9,17,32,59,55,25		8,51
42″	15,55,41,56,54,11,55,18,36, 8		1, 9,52, 9,47	
		2, 1, 9,16,23, 7,45,38		8,51
44″	15,55,43,58, 3,28,18,26,21,46		1, 9,52,18,38	
		2, 1, 9,15,13,15,27, 0		8,51
46″	15,55,45,59,12,43,31,41,48,46		1, 9,52,27,29	
		2, 1, 9,14, 3,22,59,31		8,51
48″	15,55,48, 0,21,57,35, 4,48,17		1, 9,52,36,20	
		2, 1, 9,12,53,30,23,11		8,51
50″	15,55,50, 1,31,10,28,35,11,28		1, 9,52,45,11	
		2, 1, 9,11,43,37,38, 0		8,51
52″	15,55,52, 2,40,22,12,12,49,28		1, 9,52,54, 2	
		2, 1, 9,10,33,44,43,58		8,51
54″	15,55,54, 3,49,32,45,57,33,26		1, 9,53, 2,53	
		2, 1, 9, 9,23,51,41, 5		8,51
56″	15,55,56, 4,58,42, 9,49,14,31		1, 9,53,11,44	
		2, 1, 9, 8,13,58,29,21		8,51
58″	15,55,58, 6, 7,50,23,47,43,52		1, 9,53,20,35	
		2, 1, 9, 7, 4, 5, 8,46		
60″	15,56, 0, 7,16,57,27,52,52,38			
exact	15,56, 0, 7,16,57,27,52,23, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°24′ 0″	15,56, 0, 7,16,57,27,52,23, 6	2, 1, 9, 5,54,11,36, 8		
2″	15,56, 2, 8,26, 3,22, 3,59,14	2, 1, 9, 4,44,17,57,38	1, 9,53,38,30	8,51
4″	15,56, 4, 9,35, 8, 6,21,56,52	2, 1, 9, 3,34,24,10,17	1, 9,53,47,21	8,51
6″	15,56, 6,10,44,11,40,46, 7, 9	2, 1, 9, 2,24,30,14, 5	1, 9,53,56,12	8,51
8″	15,56, 8,11,53,14, 5,16,21,14	2, 1, 9, 1,14,36, 9, 2	1, 9,54, 5, 3	8,51
10″	15,56,10,13, 2,15,19,52,30,16	2, 1, 9, 0, 4,41,55, 8	1, 9,54,13,54	8,51
12″	15,56,12,14,11,15,24,34,25,24	2, 1, 8,58,54,47,32,23	1, 9,54,22,45	8,51
14″	15,56,14,15,20,14,19,21,57,47	2, 1, 8,57,44,53, 0,47	1, 9,54,31,36	8,51
16″	15,56,16,16,29,12, 4,14,58,34	2, 1, 8,56,34,58,20,20	1, 9,54,40,27	8,51
18″	15,56,18,17,38, 8,39,13,18,54	2, 1, 8,55,25, 3,31, 2	1, 9,54,49,18	8,51
20″	15,56,20,18,47, 4, 4,16,49,56	2, 1, 8,54,15, 8,32,53	1, 9,54,58, 9	8,51
22″	15,56,22,19,55,58,19,25,22,49	2, 1, 8,53, 5,13,25,53	1, 9,55, 7, 0	8,51
24″	15,56,24,21, 4,51,24,38,48,42	2, 1, 8,51,55,18,10, 2	1, 9,55,15,51	8,51
26″	15,56,26,22,13,43,19,56,58,44	2, 1, 8,50,45,22,45,20	1, 9,55,24,42	8,51
28″	15,56,28,23,22,34, 5,19,44, 4	2, 1, 8,49,35,27,11,47	1, 9,55,33,33	8,51
30″	15,56,30,24,31,23,40,46,55,51	2, 1, 8,48,25,31,29,23	1, 9,55,42,24	8,51
32″	15,56,32,25,40,12, 6,18,25,14	2, 1, 8,47,15,35,38, 8	1, 9,55,51,15	8,51
34″	15,56,34,26,48,59,21,54, 3,22	2, 1, 8,46, 5,39,38, 2	1, 9,56, 0, 6	8,51
36″	15,56,36,27,57,45,27,33,41,24	2, 1, 8,44,55,43,29, 5	1, 9,56, 8,57	8,51
38″	15,56,38,29, 6,30,23,17,10,29	2, 1, 8,43,45,47,11,17	1, 9,56,17,48	8,51
40″	15,56,40,30,15,14, 9, 4,21,46	2, 1, 8,42,35,50,44,38	1, 9,56,26,39	8,51
42″	15,56,42,31,23,56,44,55, 6,24	2, 1, 8,41,25,54, 9, 8	1, 9,56,35,30	8,51
44″	15,56,44,32,32,38,10,49,15,32	2, 1, 8,40,15,57,24,47	1, 9,56,44,21	8,51
46″	15,56,46,33,41,18,26,46,40,19	2, 1, 8,39, 6, 0,31,35	1, 9,56,53,12	8,51
48″	15,56,48,34,49,57,32,47,11,54	2, 1, 8,37,56, 3,29,32	1, 9,57, 2, 3	8,51
50″	15,56,50,35,58,35,28,50,41,26	2, 1, 8,36,46, 6,18,38	1, 9,57,10,54	8,51
52″	15,56,52,37, 7,12,14,57, 0, 4	2, 1, 8,35,36, 8,58,53	1, 9,57,19,45	8,51
54″	15,56,54,38,15,47,51, 5,58,57	2, 1, 8,34,26,11,30,17	1, 9,57,28,36	8,51
56″	15,56,56,39,24,22,17,17,29,14	2, 1, 8,33,16,13,52,50	1, 9,57,37,27	8,51
58″	15,56,58,40,32,55,33,31,22, 4	2, 1, 8,32, 6,16, 6,32	1, 9,57,46,18	
60″	15,57, 0,41,41,27,39,47,28,36			
exact	15,57, 0,41,41,27,39,46,58,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°25′ 0″	15,57, 0,41,41,27,39,46,58,21	2, 1, 8,30,56,18, 8,14		
2″	15,57, 2,42,49,58,36, 5, 6,35	2, 1, 8,29,46,20, 4, 1	1, 9,58, 4,13	8,51
4″	15,57, 4,43,58,28,22,25,10,36	2, 1, 8,28,36,21,50,57	1, 9,58,13, 4	8,51
6″	15,57, 6,45, 6,56,58,47, 1,33	2, 1, 8,27,26,23,29, 2	1, 9,58,21,55	8,51
8″	15,57, 8,46,15,24,25,10,30,35	2, 1, 8,26,16,24,58,16	1, 9,58,30,46	8,51
10″	15,57,10,47,23,50,41,35,28,51	2, 1, 8,25, 6,26,18,39	1, 9,58,39,37	8,51
12″	15,57,12,48,32,15,48, 1,47,30	2, 1, 8,23,56,27,30,11	1, 9,58,48,28	8,51
14″	15,57,14,49,40,39,44,29,17,41	2, 1, 8,22,46,28,32,52	1, 9,58,57,19	8,51
16″	15,57,16,50,49, 2,30,57,50,33	2, 1, 8,21,36,29,26,42	1, 9,59, 6,10	8,51
18″	15,57,18,51,57,24, 7,27,17,15	2, 1, 8,20,26,30,11,41	1, 9,59,15, 1	8,51
20″	15,57,20,53, 5,44,33,57,28,56	2, 1, 8,19,16,30,47,49	1, 9,59,23,52	8,51
22″	15,57,22,54,14, 3,50,28,16,45	2, 1, 8,18, 6,31,15, 6	1, 9,59,32,43	8,51
24″	15,57,24,55,22,21,56,59,31,51	2, 1, 8,16,56,31,33,32	1, 9,59,41,34	8,51
26″	15,57,26,56,30,38,53,31, 5,23	2, 1, 8,15,46,31,43, 7	1, 9,59,50,25	8,51
28″	15,57,28,57,38,54,40, 2,48,30	2, 1, 8,14,36,31,43,51	1, 9,59,59,16	8,51
30″	15,57,30,58,47, 9,16,34,32,21	2, 1, 8,13,26,31,35,44	1,10, 0, 8, 7	8,51
32″	15,57,32,59,55,22,43, 6, 8, 5	2, 1, 8,12,16,31,18,46	1,10, 0,16,58	8,51
34″	15,57,35, 1, 3,34,59,37,26,51	2, 1, 8,11, 6,30,52,57	1,10, 0,25,49	8,51
36″	15,57,37, 2,11,46, 6, 8,19,48	2, 1, 8, 9,56,30,18,17	1,10, 0,34,40	8,51
38″	15,57,39, 3,19,56, 2,38,38, 5	2, 1, 8, 8,46,29,34,46	1,10, 0,43,31	8,51
40″	15,57,41, 4,28, 4,49, 8,12,51	2, 1, 8, 7,36,28,42,24	1,10, 0,52,22	8,51
42″	15,57,43, 5,36,12,25,36,55,15	2, 1, 8, 6,26,27,41,11	1,10, 1, 1,13	8,51
44″	15,57,45, 6,44,18,52, 4,36,26	2, 1, 8, 5,16,26,31, 7	1,10, 1,10, 4	8,51
46″	15,57,47, 7,52,24, 8,31, 7,33	2, 1, 8, 4, 6,25,12,12	1,10, 1,18,55	8,51
48″	15,57,49, 9, 0,28,14,56,19,45	2, 1, 8, 2,56,23,44,26	1,10, 1,27,46	8,51
50″	15,57,51,10, 8,31,11,20, 4,11	2, 1, 8, 1,46,22, 7,49	1,10, 1,36,37	8,51
52″	15,57,53,11,16,32,57,42,12, 0	2, 1, 8, 0,36,20,22,21	1,10, 1,45,28	8,51
54″	15,57,55,12,24,33,34, 2,34,21	2, 1, 7,59,26,18,28, 2	1,10, 1,54,19	8,51
56″	15,57,57,13,32,33, 0,21, 2,23	2, 1, 7,58,16,16,24,52	1,10, 2, 3,10	8,51
58″	15,57,59,14,40,31,16,37,27,15	2, 1, 7,57, 6,14,12,51	1,10, 2,12, 1	
60″	15,58, 1,15,48,28,22,51,40, 6			
exact	15,58, 1,15,48,28,22,51,18, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°26′ 0″	15,58, 1,15,48,28,22,51,18, 9			
		2, 1, 7,55,56,11,49,31		
2″	15,58, 3,16,56,24,19, 3, 7,40		1,10, 2,29,54	
		2, 1, 7,54,46, 9,19,37		8,51
4″	15,58, 5,18, 4,19, 5,12,27,17		1,10, 2,38,45	
		2, 1, 7,53,36, 6,40,52		8,51
6″	15,58, 7,19,12,12,41,19, 8, 9		1,10, 2,47,36	
		2, 1, 7,52,26, 3,53,16		8,51
8″	15,58, 9,20,20, 5, 7,23, 1,25		1,10, 2,56,27	
		2, 1, 7,51,16, 0,56,49		8,51
10″	15,58,11,21,27,56,23,23,58,14		1,10, 3, 5,18	
		2, 1, 7,50, 5,57,51,31		8,51
12″	15,58,13,22,35,46,29,21,49,45		1,10, 3,14, 9	
		2, 1, 7,48,55,54,37,22		8,51
14″	15,58,15,23,43,35,25,16,27, 7		1,10, 3,23, 0	
		2, 1, 7,47,45,51,14,22		8,51
16″	15,58,17,24,51,23,11, 7,41,29		1,10, 3,31,51	
		2, 1, 7,46,35,47,42,31		8,51
18″	15,58,19,25,59, 9,46,55,24, 0		1,10, 3,40,42	
		2, 1, 7,45,25,44, 1,49		8,51
20″	15,58,21,27, 6,55,12,39,25,49		1,10, 3,49,33	
		2, 1, 7,44,15,40,12,16		8,51
22″	15,58,23,28,14,39,28,19,38, 5		1,10, 3,58,24	
		2, 1, 7,43, 5,36,13,52		8,51
24″	15,58,25,29,22,22,33,55,51,57		1,10, 4, 7,15	
		2, 1, 7,41,55,32, 6,37		8,51
26″	15,58,27,30,30, 4,29,27,58,34		1,10, 4,16, 6	
		2, 1, 7,40,45,27,50,31		8,51
28″	15,58,29,31,37,45,14,55,49, 5		1,10, 4,24,57	
		2, 1, 7,39,35,23,25,34		8,51
30″	15,58,31,32,45,24,50,19,14,39		1,10, 4,33,48	
		2, 1, 7,38,25,18,51,46		8,51
32″	15,58,33,33,53, 3,15,38, 6,25		1,10, 4,42,39	
		2, 1, 7,37,15,14, 9, 7		8,51
34″	15,58,35,35, 0,40,30,52,15,32		1,10, 4,51,30	
		2, 1, 7,36, 5, 9,17,37		8,51
36″	15,58,37,36, 8,16,36, 1,33, 9		1,10, 5, 0,21	
		2, 1, 7,34,55, 4,17,16		8,51
38″	15,58,39,37,15,51,31, 5,50,25		1,10, 5, 9,12	
		2, 1, 7,33,44,59, 8, 4		8,51
40″	15,58,41,38,23,25,16, 4,58,29		1,10, 5,18, 3	
		2, 1, 7,32,34,53,50, 1		8,51
42″	15,58,43,39,30,57,50,58,48,30		1,10, 5,26,54	
		2, 1, 7,31,24,48,23, 7		8,51
44″	15,58,45,40,38,29,15,47,11,37		1,10, 5,35,45	
		2, 1, 7,30,14,42,47,22		8,51
46″	15,58,47,41,45,59,30,29,58,59		1,10, 5,44,36	
		2, 1, 7,29, 4,37, 2,46		8,51
48″	15,58,49,42,53,28,35, 7, 1,45		1,10, 5,53,27	
		2, 1, 7,27,54,31, 9,19		8,51
50″	15,58,51,44, 0,56,29,38,11, 4		1,10, 6, 2,18	
		2, 1, 7,26,44,25, 7, 1		8,51
52″	15,58,53,45, 8,23,14, 3,18, 5		1,10, 6,11, 9	
		2, 1, 7,25,34,18,55,52		8,51
54″	15,58,55,46,15,48,48,22,13,57		1,10, 6,20, 0	
		2, 1, 7,24,24,12,35,52		8,51
56″	15,58,57,47,23,13,12,34,49,49		1,10, 6,28,51	
		2, 1, 7,23,14, 6, 7, 1		8,51
58″	15,58,59,48,30,36,26,40,56,50		1,10, 6,37,42	
		2, 1, 7,22, 3,59,29,19		
60″	15,59, 1,49,37,58,30,40,26, 9			
exact	15,59, 1,49,37,58,30,40, 7,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°27′ 0″	15,59, 1,49,37,58,30,40, 7,13			
		2, 1, 7,20,53,52,40,37		
2″	15,59, 3,50,45,19,24,32,47,50		1,10, 6,55,33	
		2, 1, 7,19,43,45,45, 4		8,51
4″	15,59, 5,51,52,39, 8,18,32,54		1,10, 7, 4,24	
		2, 1, 7,18,33,38,40,40		8,51
6″	15,59, 7,52,59,57,41,57,13,34		1,10, 7,13,15	
		2, 1, 7,17,23,31,27,25		8,51
8″	15,59, 9,54, 7,15, 5,28,40,59		1,10, 7,22, 6	
		2, 1, 7,16,13,24, 5,19		8,51
10″	15,59,11,55,14,31,18,52,46,18		1,10, 7,30,57	
		2, 1, 7,15, 3,16,34,22		8,51
12″	15,59,13,56,21,46,22, 9,20,40		1,10, 7,39,48	
		2, 1, 7,13,53, 8,54,34		8,51
14″	15,59,15,57,29, 0,15,18,15,14		1,10, 7,48,39	
		2, 1, 7,12,43, 1, 5,55		8,51
16″	15,59,17,58,36,12,58,19,21, 9		1,10, 7,57,30	
		2, 1, 7,11,32,53, 8,25		8,51
18″	15,59,19,59,43,24,31,12,29,34		1,10, 8, 6,21	
		2, 1, 7,10,22,45, 2, 4		8,51
20″	15,59,22, 0,50,34,53,57,31,38		1,10, 8,15,12	
		2, 1, 7, 9,12,36,46,52		8,51
22″	15,59,24, 1,57,44, 6,34,18,30		1,10, 8,24, 3	
		2, 1, 7, 8, 2,28,22,49		8,51
24″	15,59,26, 3, 4,52, 9, 2,41,19		1,10, 8,32,54	
		2, 1, 7, 6,52,19,49,55		8,51
26″	15,59,28, 4,11,59, 1,22,31,14		1,10, 8,41,45	
		2, 1, 7, 5,42,11, 8,10		8,51
28″	15,59,30, 5,19, 4,43,33,39,24		1,10, 8,50,36	
		2, 1, 7, 4,32, 2,17,34		8,51
30″	15,59,32, 6,26, 9,15,35,56,58		1,10, 8,59,27	
		2, 1, 7, 3,21,53,18, 7		8,51
32″	15,59,34, 7,33,12,37,29,15, 5		1,10, 9, 8,18	
		2, 1, 7, 2,11,44, 9,49		8,51
34″	15,59,36, 8,40,14,49,13,24,54		1,10, 9,17, 9	
		2, 1, 7, 1, 1,34,52,40		8,51
36″	15,59,38, 9,47,15,50,48,17,34		1,10, 9,26, 0	
		2, 1, 6,59,51,25,26,40		8,51
38″	15,59,40,10,54,15,42,13,44,14		1,10, 9,34,51	
		2, 1, 6,58,41,15,51,49		8,51
40″	15,59,42,12, 1,14,23,29,36, 3		1,10, 9,43,42	
		2, 1, 6,57,31, 6, 8, 7		8,51
42″	15,59,44,13, 8,11,54,35,44,10		1,10, 9,52,33	
		2, 1, 6,56,20,56,15,34		8,51
44″	15,59,46,14,15, 8,15,31,59,44		1,10,10, 1,24	
		2, 1, 6,55,10,46,14,10		8,51
46″	15,59,48,15,22, 3,26,18,13,54		1,10,10,10,15	
		2, 1, 6,54, 0,36, 3,55		8,51
48″	15,59,50,16,28,57,26,54,17,49		1,10,10,19, 6	
		2, 1, 6,52,50,25,44,49		8,51
50″	15,59,52,17,35,50,17,20, 2,38		1,10,10,27,57	
		2, 1, 6,51,40,15,16,52		8,51
52″	15,59,54,18,42,41,57,35,19,30		1,10,10,36,48	
		2, 1, 6,50,30, 4,40, 4		8,51
54″	15,59,56,19,49,32,27,39,59,34		1,10,10,45,39	
		2, 1, 6,49,19,53,54,25		8,51
56″	15,59,58,20,56,21,47,33,53,59		1,10,10,54,30	
		2, 1, 6,48, 9,42,59,55		8,51
58″	16, 0, 0,22, 3, 9,57,16,53,54		1,10,11, 3,21	
		2, 1, 6,46,59,31,56,34		
60″	16, 0, 2,23, 9,56,56,48,50,28			
exact	16, 0, 2,23, 9,56,56,48,29,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°28′ 0″	16, 0, 2,23, 9,56,56,48,29,25	2, 1, 6,45,49,20,42,11		
2″	16, 0, 4,24,16,42,46, 9,11,36	2, 1, 6,44,39, 9,20,59	1,10,11,21,12	8,51
4″	16, 0, 6,25,23,27,25,18,32,35	2, 1, 6,43,28,57,50,56	1,10,11,30, 3	8,51
6″	16, 0, 8,26,30,10,54,16,23,31	2, 1, 6,42,18,46,12, 2	1,10,11,38,54	8,51
8″	16, 0,10,27,36,53,13, 2,35,33	2, 1, 6,41, 8,34,24,17	1,10,11,47,45	8,51
10″	16, 0,12,28,43,34,21,36,59,50	2, 1, 6,39,58,22,27,41	1,10,11,56,36	8,51
12″	16, 0,14,29,50,14,19,59,27,31	2, 1, 6,38,48,10,22,14	1,10,12, 5,27	8,51
14″	16, 0,16,30,56,53, 8, 9,49,45	2, 1, 6,37,37,58, 7,56	1,10,12,14,18	8,51
16″	16, 0,18,32, 3,30,46, 7,57,41	2, 1, 6,36,27,45,44,47	1,10,12,23, 9	8,51
18″	16, 0,20,33,10, 7,13,53,42,28	2, 1, 6,35,17,33,12,47	1,10,12,32, 0	8,51
20″	16, 0,22,34,16,42,31,26,55,15	2, 1, 6,34, 7,20,31,56	1,10,12,40,51	8,51
22″	16, 0,24,35,23,16,38,47,27,11	2, 1, 6,32,57, 7,42,14	1,10,12,49,42	8,51
24″	16, 0,26,36,29,49,35,55, 9,25	2, 1, 6,31,46,54,43,41	1,10,12,58,33	8,51
26″	16, 0,28,37,36,21,22,49,53, 6	2, 1, 6,30,36,41,36,17	1,10,13, 7,24	8,51
28″	16, 0,30,38,42,51,59,31,29,23	2, 1, 6,29,26,28,20, 2	1,10,13,16,15	8,51
30″	16, 0,32,39,49,21,25,59,49,25	2, 1, 6,28,16,14,54,56	1,10,13,25, 6	8,51
32″	16, 0,34,40,55,49,42,14,44,21	2, 1, 6,27, 6, 1,20,59	1,10,13,33,57	8,51
34″	16, 0,36,42, 2,16,48,16, 5,20	2, 1, 6,25,55,47,38,11	1,10,13,42,48	8,51
36″	16, 0,38,43, 8,42,44, 3,43,31	2, 1, 6,24,45,33,46,32	1,10,13,51,39	8,51
38″	16, 0,40,44,15, 7,29,37,30, 3	2, 1, 6,23,35,19,46, 2	1,10,14, 0,30	8,51
40″	16, 0,42,45,21,31, 4,57,16, 5	2, 1, 6,22,25, 5,36,41	1,10,14, 9,21	8,51
42″	16, 0,44,46,27,53,30, 2,52,46	2, 1, 6,21,14,51,18,29	1,10,14,18,12	8,51
44″	16, 0,46,47,34,14,44,54,11,15	2, 1, 6,20, 4,36,51,26	1,10,14,27, 3	8,51
46″	16, 0,48,48,40,34,49,31, 2,41	2, 1, 6,18,54,22,15,32	1,10,14,35,54	8,51
48″	16, 0,50,49,46,53,43,53,18,13	2, 1, 6,17,44, 7,30,47	1,10,14,44,45	8,51
50″	16, 0,52,50,53,11,28, 0,49, 0	2, 1, 6,16,33,52,37,11	1,10,14,53,36	8,51
52″	16, 0,54,51,59,28, 1,53,26,11	2, 1, 6,15,23,37,34,44	1,10,15, 2,27	8,51
54″	16, 0,56,53, 5,43,25,31, 0,55	2, 1, 6,14,13,22,23,26	1,10,15,11,18	8,51
56″	16, 0,58,54,11,57,38,53,24,21	2, 1, 6,13, 3, 7, 3,17	1,10,15,20, 9	8,51
58″	16, 1, 0,55,18,10,42, 0,27,38	2, 1, 6,11,52,51,34,17	1,10,15,29, 0	
60″	16, 1, 2,56,24,22,34,52, 1,55			
exact	16, 1, 2,56,24,22,34,51,47,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°29′ 0″	16, 1, 2,56,24,22,34,51,47,53	2, 1, 6,10,42,35,54,51		
2″	16, 1, 4,57,30,33,17,27,42,44	2, 1, 6, 9,32,20, 8, 2	1,10,15,46,49	8,51
4″	16, 1, 6,58,36,42,49,47,50,46	2, 1, 6, 8,22, 4,12,22	1,10,15,55,40	8,51
6″	16, 1, 8,59,42,51,11,52, 3, 8	2, 1, 6, 7,11,48, 7,51	1,10,16, 4,31	8,51
8″	16, 1,11, 0,48,58,23,40,10,59	2, 1, 6, 6, 1,31,54,29	1,10,16,13,22	8,51
10″	16, 1,13, 1,55, 4,25,12, 5,28	2, 1, 6, 4,51,15,32,16	1,10,16,22,13	8,51
12″	16, 1,15, 3, 1, 9,16,27,37,44	2, 1, 6, 3,40,59, 1,12	1,10,16,31, 4	8,51
14″	16, 1,17, 4, 7,12,57,26,38,56	2, 1, 6, 2,30,42,21,17	1,10,16,39,55	8,51
16″	16, 1,19, 5,13,15,28, 9, 0,13	2, 1, 6, 1,20,25,32,31	1,10,16,48,46	8,51
18″	16, 1,21, 6,19,16,48,34,32,44	2, 1, 6, 0,10, 8,34,54	1,10,16,57,37	8,51
20″	16, 1,23, 7,25,16,58,43, 7,38	2, 1, 5,58,59,51,28,26	1,10,17, 6,28	8,51
22″	16, 1,25, 8,31,15,58,34,36, 4	2, 1, 5,57,49,34,13, 7	1,10,17,15,19	8,51
24″	16, 1,27, 9,37,13,48, 8,49,11	2, 1, 5,56,39,16,48,57	1,10,17,24,10	8,51
26″	16, 1,29,10,43,10,27,25,38, 8	2, 1, 5,55,28,59,15,56	1,10,17,33, 1	8,51
28″	16, 1,31,11,49, 5,56,24,54, 4	2, 1, 5,54,18,41,34, 4	1,10,17,41,52	8,51
30″	16, 1,33,12,55, 0,15, 6,28, 8	2, 1, 5,53, 8,23,43,21	1,10,17,50,43	8,51
32″	16, 1,35,14, 0,53,23,30,11,29	2, 1, 5,51,58, 5,43,47	1,10,17,59,34	8,51
34″	16, 1,37,15, 6,45,21,35,55,16	2, 1, 5,50,47,47,35,22	1,10,18, 8,25	8,51
36″	16, 1,39,16,12,36, 9,23,30,38	2, 1, 5,49,37,29,18, 6	1,10,18,17,16	8,51
38″	16, 1,41,17,18,25,46,52,48,44	2, 1, 5,48,27,10,51,59	1,10,18,26, 7	8,51
40″	16, 1,43,18,24,14,14, 3,40,43	2, 1, 5,47,16,52,17, 1	1,10,18,34,58	8,51
42″	16, 1,45,19,30, 1,30,55,57,44	2, 1, 5,46, 6,33,33,12	1,10,18,43,49	8,51
44″	16, 1,47,20,35,47,37,29,30,56	2, 1, 5,44,56,14,40,32	1,10,18,52,40	8,51
46″	16, 1,49,21,41,32,33,44,11,28	2, 1, 5,43,45,55,39, 1	1,10,19, 1,31	8,51
48″	16, 1,51,22,47,16,19,39,50,29	2, 1, 5,42,35,36,28,39	1,10,19,10,22	8,51
50″	16, 1,53,23,52,58,55,16,19, 8	2, 1, 5,41,25,17, 9,26	1,10,19,19,13	8,51
52″	16, 1,55,24,58,40,20,33,28,34	2, 1, 5,40,14,57,41,22	1,10,19,28, 4	8,51
54″	16, 1,57,26, 4,20,35,31, 9,56	2, 1, 5,39, 4,38, 4,27	1,10,19,36,55	8,51
56″	16, 1,59,27, 9,59,40, 9,14,23	2, 1, 5,37,54,18,18,41	1,10,19,45,46	8,51
58″	16, 2, 1,28,15,37,34,27,33, 4	2, 1, 5,36,43,58,24, 4	1,10,19,54,37	
60″	16, 2, 3,29,21,14,18,25,57, 8			
exact	16, 2, 3,29,21,14,18,25,45, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°30′ 0″	16, 2, 3,29,21,14,18,25,45, 0	2, 1, 5,35,33,38,19,15		
2″	16, 2, 5,30,26,49,52, 4, 4,15	2, 1, 5,34,23,18, 6,50	1,10,20,12,25	8,51
4″	16, 2, 7,31,32,24,15,22,11, 5	2, 1, 5,33,12,57,45,34	1,10,20,21,16	8,51
6″	16, 2, 9,32,37,57,28,19,56,39	2, 1, 5,32, 2,37,15,27	1,10,20,30, 7	8,51
8″	16, 2,11,33,43,29,30,57,12, 6	2, 1, 5,30,52,16,36,29	1,10,20,38,58	8,51
10″	16, 2,13,34,49, 0,23,13,48,35	2, 1, 5,29,41,55,48,40	1,10,20,47,49	8,51
12″	16, 2,15,35,54,30, 5, 9,37,15	2, 1, 5,28,31,34,52, 0	1,10,20,56,40	8,51
14″	16, 2,17,36,59,58,36,44,29,15	2, 1, 5,27,21,13,46,29	1,10,21, 5,31	8,51
16″	16, 2,19,38, 5,25,57,58,15,44	2, 1, 5,26,10,52,32, 7	1,10,21,14,22	8,51
18″	16, 2,21,39,10,52, 8,50,47,51	2, 1, 5,25, 0,31, 8,54	1,10,21,23,13	8,51
20″	16, 2,23,40,16,17, 9,21,56,45	2, 1, 5,23,50, 9,36,50	1,10,21,32, 4	8,51
22″	16, 2,25,41,21,40,59,31,33,35	2, 1, 5,22,39,47,55,55	1,10,21,40,55	8,51
24″	16, 2,27,42,27, 3,39,19,29,30	2, 1, 5,21,29,26, 6, 9	1,10,21,49,46	8,51
26″	16, 2,29,43,32,25, 8,45,35,39	2, 1, 5,20,19, 4, 7,32	1,10,21,58,37	8,51
28″	16, 2,31,44,37,45,27,49,43,11	2, 1, 5,19, 8,42, 0, 4	1,10,22, 7,28	8,51
30″	16, 2,33,45,43, 4,36,31,43,15	2, 1, 5,17,58,19,43,45	1,10,22,16,19	8,51
32″	16, 2,35,46,48,22,34,51,27, 0	2, 1, 5,16,47,57,18,35	1,10,22,25,10	8,51
34″	16, 2,37,47,53,39,22,48,45,35	2, 1, 5,15,37,34,44,34	1,10,22,34, 1	8,51
36″	16, 2,39,48,58,55, 0,23,30, 9	2, 1, 5,14,27,12, 1,42	1,10,22,42,52	8,51
38″	16, 2,41,50, 4, 9,27,35,31,51	2, 1, 5,13,16,49, 9,59	1,10,22,51,43	8,51
40″	16, 2,43,51, 9,22,44,24,41,50	2, 1, 5,12, 6,26, 9,25	1,10,23, 0,34	8,51
42″	16, 2,45,52,14,34,50,50,51,15	2, 1, 5,10,56, 3, 0, 0	1,10,23, 9,25	8,51
44″	16, 2,47,53,19,45,46,53,51,15	2, 1, 5, 9,45,39,41,44	1,10,23,18,16	8,51
46″	16, 2,49,54,24,55,32,33,32,59	2, 1, 5, 8,35,16,14,37	1,10,23,27, 7	8,51
48″	16, 2,51,55,30, 4, 7,49,47,36	2, 1, 5, 7,24,52,38,39	1,10,23,35,58	8,51
50″	16, 2,53,56,35,11,32,42,26,15	2, 1, 5, 6,14,28,53,50	1,10,23,44,49	8,51
52″	16, 2,55,57,40,17,47,11,20, 5	2, 1, 5, 5, 4, 5, 0,10	1,10,23,53,40	8,51
54″	16, 2,57,58,45,22,51,16,20,15	2, 1, 5, 3,53,40,57,39	1,10,24, 2,31	8,51
56″	16, 2,59,59,50,26,44,57,17,54	2, 1, 5, 2,43,16,46,17	1,10,24,11,22	8,51
58″	16, 3, 2, 0,55,29,28,14, 4,11	2, 1, 5, 1,32,52,26, 4	1,10,24,20,13	
60″	16, 3, 4, 2, 0,31, 1, 6,30,15			
exact	16, 3, 4, 2, 0,31, 1, 6,22,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°31′ 0″	16, 3, 4, 2, 0,31, 1, 6,22,21	2, 1, 5, 0,22,27,56, 3		
2″	16, 3, 6, 3, 5,31,23,34,18,24	2, 1, 4,59,12, 3,18, 4	1,10,24,37,59	8,51
4″	16, 3, 8, 4,10,30,35,37,36,28	2, 1, 4,58, 1,38,31,14	1,10,24,46,50	8,51
6″	16, 3,10, 5,15,28,37,16, 7,42	2, 1, 4,56,51,13,35,33	1,10,24,55,41	8,51
8″	16, 3,12, 6,20,25,28,29,43,15	2, 1, 4,55,40,48,31, 1	1,10,25, 4,32	8,51
10″	16, 3,14, 7,25,21, 9,18,14,16	2, 1, 4,54,30,23,17,38	1,10,25,13,23	8,51
12″	16, 3,16, 8,30,15,39,41,31,54	2, 1, 4,53,19,57,55,24	1,10,25,22,14	8,51
14″	16, 3,18, 9,35, 8,59,39,27,18	2, 1, 4,52, 9,32,24,19	1,10,25,31, 5	8,51
16″	16, 3,20,10,40, 1, 9,11,51,37	2, 1, 4,50,59, 6,44,23	1,10,25,39,56	8,51
18″	16, 3,22,11,44,52, 8,18,36, 0	2, 1, 4,49,48,40,55,36	1,10,25,48,47	8,51
20″	16, 3,24,12,49,41,56,59,31,36	2, 1, 4,48,38,14,57,58	1,10,25,57,38	8,51
22″	16, 3,26,13,54,30,35,14,29,34	2, 1, 4,47,27,48,51,29	1,10,26, 6,29	8,51
24″	16, 3,28,14,59,18, 3, 3,21, 3	2, 1, 4,46,17,22,36, 9	1,10,26,15,20	8,51
26″	16, 3,30,16, 4, 4,20,25,57,12	2, 1, 4,45, 6,56,11,58	1,10,26,24,11	8,51
28″	16, 3,32,17, 8,49,27,22, 9,10	2, 1, 4,43,56,29,38,56	1,10,26,33, 2	8,51
30″	16, 3,34,18,13,33,23,51,48, 6	2, 1, 4,42,46, 2,57, 3	1,10,26,41,53	8,51
32″	16, 3,36,19,18,16, 9,54,45, 9	2, 1, 4,41,35,36, 6,19	1,10,26,50,44	8,51
34″	16, 3,38,20,22,57,45,30,51,28	2, 1, 4,40,25, 9, 6,44	1,10,26,59,35	8,51
36″	16, 3,40,21,27,38,10,39,58,12	2, 1, 4,39,14,41,58,18	1,10,27, 8,26	8,51
38″	16, 3,42,22,32,17,25,21,56,30	2, 1, 4,38, 4,14,41, 1	1,10,27,17,17	8,51
40″	16, 3,44,23,36,55,29,36,37,31	2, 1, 4,36,53,47,14,53	1,10,27,26, 8	8,51
42″	16, 3,46,24,41,32,23,23,52,24	2, 1, 4,35,43,19,39,54	1,10,27,34,59	8,51
44″	16, 3,48,25,46, 8, 6,43,32,18	2, 1, 4,34,32,51,56, 4	1,10,27,43,50	8,51
46″	16, 3,50,26,50,42,39,35,28,22	2, 1, 4,33,22,24, 3,23	1,10,27,52,41	8,51
48″	16, 3,52,27,55,16, 1,59,31,45	2, 1, 4,32,11,56, 1,51	1,10,28, 1,32	8,51
50″	16, 3,54,28,59,48,13,55,33,36	2, 1, 4,31, 1,27,51,28	1,10,28,10,23	8,51
52″	16, 3,56,30, 4,19,15,23,25, 4	2, 1, 4,29,50,59,32,14	1,10,28,19,14	8,51
54″	16, 3,58,31, 8,49, 6,22,57,18	2, 1, 4,28,40,31, 4, 9	1,10,28,28, 5	8,51
56″	16, 4, 0,32,13,17,46,54, 1,27	2, 1, 4,27,30, 2,27,13	1,10,28,36,56	8,51
58″	16, 4, 2,33,17,45,16,56,28,40	2, 1, 4,26,19,33,41,26	1,10,28,45,47	
60″	16, 4, 4,34,22,11,36,30,10, 6			
exact	16, 4, 4,34,22,11,36,30, 0,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°32′ 0″	16, 4, 4,34,22,11,36,30, 0,53	2, 1, 4,25, 9, 4,45,53		
2″	16, 4, 6,35,26,36,45,34,46,46	2, 1, 4,23,58,35,42,21	1,10,29, 3,32	8,51
4″	16, 4, 8,36,31, 0,44,10,29, 7	2, 1, 4,22,48, 6,29,58	1,10,29,12,23	8,51
6″	16, 4,10,37,35,23,32,16,59, 5	2, 1, 4,21,37,37, 8,44	1,10,29,21,14	8,51
8″	16, 4,12,38,39,45, 9,54, 7,49	2, 1, 4,20,27, 7,38,39	1,10,29,30, 5	8,51
10″	16, 4,14,39,44, 5,37, 1,46,28	2, 1, 4,19,16,37,59,43	1,10,29,38,56	8,51
12″	16, 4,16,40,48,24,53,39,46,11	2, 1, 4,18, 6, 8,11,56	1,10,29,47,47	8,51
14″	16, 4,18,41,52,42,59,47,58, 7	2, 1, 4,16,55,38,15,18	1,10,29,56,38	8,51
16″	16, 4,20,42,56,59,55,26,13,25	2, 1, 4,15,45, 8, 9,49	1,10,30, 5,29	8,51
18″	16, 4,22,44, 1,15,40,34,23,14	2, 1, 4,14,34,37,55,29	1,10,30,14,20	8,51
20″	16, 4,24,45, 5,30,15,12,18,43	2, 1, 4,13,24, 7,32,18	1,10,30,23,11	8,51
22″	16, 4,26,46, 9,43,39,19,51, 1	2, 1, 4,12,13,37, 0,16	1,10,30,32, 2	8,51
24″	16, 4,28,47,13,55,52,56,51,17	2, 1, 4,11, 3, 6,19,23	1,10,30,40,53	8,51
26″	16, 4,30,48,18, 6,56, 3,10,40	2, 1, 4, 9,52,35,29,39	1,10,30,49,44	8,51
28″	16, 4,32,49,22,16,48,38,40,19	2, 1, 4, 8,42, 4,31, 4	1,10,30,58,35	8,51
30″	16, 4,34,50,26,25,30,43,11,23	2, 1, 4, 7,31,33,23,38	1,10,31, 7,26	8,51
32″	16, 4,36,51,30,33, 2,16,35, 1	2, 1, 4, 6,21, 2, 7,21	1,10,31,16,17	8,51
34″	16, 4,38,52,34,39,23,18,42,22	2, 1, 4, 5,10,30,42,13	1,10,31,25, 8	8,51
36″	16, 4,40,53,38,44,33,49,24,35	2, 1, 4, 3,59,59, 8,14	1,10,31,33,59	8,51
38″	16, 4,42,54,42,48,33,48,32,49	2, 1, 4, 2,49,27,25,24	1,10,31,42,50	8,51
40″	16, 4,44,55,46,51,23,15,58,13	2, 1, 4, 1,38,55,33,43	1,10,31,51,41	8,51
42″	16, 4,46,56,50,53, 2,11,31,56	2, 1, 4, 0,28,23,33,11	1,10,32, 0,32	8,51
44″	16, 4,48,57,54,53,30,35, 5, 7	2, 1, 3,59,17,51,23,48	1,10,32, 9,23	8,51
46″	16, 4,50,58,58,52,48,26,28,55	2, 1, 3,58, 7,19, 5,34	1,10,32,18,14	8,51
48″	16, 4,53, 0, 2,50,55,45,34,29	2, 1, 3,56,56,46,38,29	1,10,32,27, 5	8,51
50″	16, 4,55, 1, 6,47,52,32,12,58	2, 1, 3,55,46,14, 2,33	1,10,32,35,56	8,51
52″	16, 4,57, 2,10,43,38,46,15,31	2, 1, 3,54,35,41,17,46	1,10,32,44,47	8,51
54″	16, 4,59, 3,14,38,14,27,33,17	2, 1, 3,53,25, 8,24, 8	1,10,32,53,38	8,51
56″	16, 5, 1, 4,18,31,39,35,57,25	2, 1, 3,52,14,35,21,39	1,10,33, 2,29	8,51
58″	16, 5, 3, 5,22,23,54,11,19, 4	2, 1, 3,51, 4, 2,10,19	1,10,33,11,20	
60″	16, 5, 5, 6,26,14,58,13,29,23			
exact	16, 5, 5, 6,26,14,58,13,20,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°33′ 0″	16, 5, 5, 6,26,14,58,13,20,46			
		2, 1, 3,49,53,28,49,22		
2″	16, 5, 7, 7,30, 4,51,42,10, 8		1,10,33,29, 4	
		2, 1, 3,48,42,55,20,18		8,51
4″	16, 5, 9, 8,33,53,34,37,30,26		1,10,33,37,55	
		2, 1, 3,47,32,21,42,23		8,51
6″	16, 5,11, 9,37,41, 6,59,12,49		1,10,33,46,46	
		2, 1, 3,46,21,47,55,37		8,51
8″	16, 5,13,10,41,27,28,47, 8,26		1,10,33,55,37	
		2, 1, 3,45,11,14, 0, 0		8,51
10″	16, 5,15,11,45,12,40, 1, 8,26		1,10,34, 4,28	
		2, 1, 3,44, 0,39,55,32		8,51
12″	16, 5,17,12,48,56,40,41, 3,58		1,10,34,13,19	
		2, 1, 3,42,50, 5,42,13		8,51
14″	16, 5,19,13,52,39,30,46,46,11		1,10,34,22,10	
		2, 1, 3,41,39,31,20, 3		8,51
16″	16, 5,21,14,56,21,10,18, 6,14		1,10,34,31, 1	
		2, 1, 3,40,28,56,49, 2		8,51
18″	16, 5,23,16, 0, 1,39,14,55,16		1,10,34,39,52	
		2, 1, 3,39,18,22, 9,10		8,51
20″	16, 5,25,17, 3,40,57,37, 4,26		1,10,34,48,43	
		2, 1, 3,38, 7,47,20,27		8,51
22″	16, 5,27,18, 7,19, 5,24,24,53		1,10,34,57,34	
		2, 1, 3,36,57,12,22,53		8,51
24″	16, 5,29,19,10,56, 2,36,47,46		1,10,35, 6,25	
		2, 1, 3,35,46,37,16,28		8,51
26″	16, 5,31,20,14,31,49,14, 4,14		1,10,35,15,16	
		2, 1, 3,34,36, 2, 1,12		8,51
28″	16, 5,33,21,18, 6,25,16, 5,26		1,10,35,24, 7	
		2, 1, 3,33,25,26,37, 5		8,51
30″	16, 5,35,22,21,39,50,42,42,31		1,10,35,32,58	
		2, 1, 3,32,14,51, 4, 7		8,51
32″	16, 5,37,23,25,12, 5,33,46,38		1,10,35,41,49	
		2, 1, 3,31, 4,15,22,18		8,51
34″	16, 5,39,24,28,43, 9,49, 8,56		1,10,35,50,40	
		2, 1, 3,29,53,39,31,38		8,51
36″	16, 5,41,25,32,13, 3,28,40,34		1,10,35,59,31	
		2, 1, 3,28,43, 3,32, 7		8,51
38″	16, 5,43,26,35,41,46,32,12,41		1,10,36, 8,22	
		2, 1, 3,27,32,27,23,45		8,51
40″	16, 5,45,27,39, 9,18,59,36,26		1,10,36,17,13	
		2, 1, 3,26,21,51, 6,32		8,51
42″	16, 5,47,28,42,35,40,50,42,58		1,10,36,26, 4	
		2, 1, 3,25,11,14,40,28		8,51
44″	16, 5,49,29,46, 0,52, 5,23,26		1,10,36,34,55	
		2, 1, 3,24, 0,38, 5,33		8,51
46″	16, 5,51,30,49,24,52,43,28,59		1,10,36,43,46	
		2, 1, 3,22,50, 1,21,47		8,51
48″	16, 5,53,31,52,47,42,44,50,46		1,10,36,52,37	
		2, 1, 3,21,39,24,29,10		8,51
50″	16, 5,55,32,56, 9,22, 9,19,56		1,10,37, 1,28	
		2, 1, 3,20,28,47,27,42		8,51
52″	16, 5,57,33,59,29,50,56,47,38		1,10,37,10,19	
		2, 1, 3,19,18,10,17,23		8,51
54″	16, 5,59,35, 2,49, 9, 7, 5, 1		1,10,37,19,10	
		2, 1, 3,18, 7,32,58,13		8,51
56″	16, 6, 1,36, 6, 7,16,40, 3,14		1,10,37,28, 1	
		2, 1, 3,16,56,55,30,12		8,51
58″	16, 6, 3,37, 9,24,13,35,33,26		1,10,37,36,52	
		2, 1, 3,15,46,17,53,20		
60″	16, 6, 5,38,12,39,59,53,26,46			
exact	16, 6, 5,38,12,39,59,53,21,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°34′ 0″	16, 6, 5,38,12,39,59,53,21,34	2, 1, 3,14,35,40, 7,11		
2″	16, 6, 7,39,15,54,35,33,28,45	2, 1, 3,13,25, 2,12,36	1,10,37,54,35	8,51
4″	16, 6, 9,40,19, 8, 0,35,41,21	2, 1, 3,12,14,24, 9,10	1,10,38, 3,26	8,51
6″	16, 6,11,41,22,20,14,59,50,31	2, 1, 3,11, 3,45,56,53	1,10,38,12,17	8,51
8″	16, 6,13,42,25,31,18,45,47,24	2, 1, 3, 9,53, 7,35,45	1,10,38,21, 8	8,51
10″	16, 6,15,43,28,41,11,53,23, 9	2, 1, 3, 8,42,29, 5,46	1,10,38,29,59	8,51
12″	16, 6,17,44,31,49,54,22,28,55	2, 1, 3, 7,31,50,26,56	1,10,38,38,50	8,51
14″	16, 6,19,45,34,57,26,12,55,51	2, 1, 3, 6,21,11,39,15	1,10,38,47,41	8,51
16″	16, 6,21,46,38, 3,47,24,35, 6	2, 1, 3, 5,10,32,42,43	1,10,38,56,32	8,51
18″	16, 6,23,47,41, 8,57,57,17,49	2, 1, 3, 3,59,53,37,20	1,10,39, 5,23	8,51
20″	16, 6,25,48,44,12,57,50,55, 9	2, 1, 3, 2,49,14,23, 6	1,10,39,14,14	8,51
22″	16, 6,27,49,47,15,47, 5,18,15	2, 1, 3, 1,38,35, 0, 1	1,10,39,23, 5	8,51
24″	16, 6,29,50,50,17,25,40,18,16	2, 1, 3, 0,27,55,28, 5	1,10,39,31,56	8,51
26″	16, 6,31,51,53,17,53,35,46,21	2, 1, 2,59,17,15,47,18	1,10,39,40,47	8,51
28″	16, 6,33,52,56,17,10,51,33,39	2, 1, 2,58, 6,35,57,40	1,10,39,49,38	8,51
30″	16, 6,35,53,59,15,17,27,31,19	2, 1, 2,56,55,55,59,11	1,10,39,58,29	8,51
32″	16, 6,37,55, 2,12,13,23,30,30	2, 1, 2,55,45,15,51,51	1,10,40, 7,20	8,51
34″	16, 6,39,56, 5, 7,58,39,22,21	2, 1, 2,54,34,35,35,40	1,10,40,16,11	8,51
36″	16, 6,41,57, 8, 2,33,14,58, 1	2, 1, 2,53,23,55,10,38	1,10,40,25, 2	8,51
38″	16, 6,43,58,10,55,57,10, 8,39	2, 1, 2,52,13,14,36,45	1,10,40,33,53	8,51
40″	16, 6,45,59,13,48,10,24,45,24	2, 1, 2,51, 2,33,54, 1	1,10,40,42,44	8,51
42″	16, 6,48, 0,16,39,12,58,39,25	2, 1, 2,49,51,53, 2,26	1,10,40,51,35	8,51
44″	16, 6,50, 1,19,29, 4,51,41,51	2, 1, 2,48,41,12, 2, 0	1,10,41, 0,26	8,51
46″	16, 6,52, 2,22,17,46, 3,43,51	2, 1, 2,47,30,30,52,43	1,10,41, 9,17	8,51
48″	16, 6,54, 3,25, 5,16,34,36,34	2, 1, 2,46,19,49,34,35	1,10,41,18, 8	8,51
50″	16, 6,56, 4,27,51,36,24,11, 9	2, 1, 2,45, 9, 8, 7,36	1,10,41,26,59	8,51
52″	16, 6,58, 5,30,36,45,32,18,45	2, 1, 2,43,58,26,31,46	1,10,41,35,50	8,51
54″	16, 7, 0, 6,33,20,43,58,50,31	2, 1, 2,42,47,44,47, 5	1,10,41,44,41	8,51
56″	16, 7, 2, 7,36, 3,31,43,37,36	2, 1, 2,41,37, 2,53,33	1,10,41,53,32	8,51
58″	16, 7, 4, 8,38,45, 8,46,31, 9	2, 1, 2,40,26,20,51,10	1,10,42, 2,23	
60″	16, 7, 6, 9,41,25,35, 7,22,19			
exact	16, 7, 6, 9,41,25,35, 7,22, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°35′ 0″	16, 7, 6, 9,41,25,35, 7,22, 9	2, 1, 2,39,15,38,39,58		
2″	16, 7, 8,10,44, 4,50,46, 2, 7	2, 1, 2,38, 4,56,19,53	1,10,42,20, 5	8,51
4″	16, 7,10,11,46,42,55,42,22, 0	2, 1, 2,36,54,13,50,57	1,10,42,28,56	8,51
6″	16, 7,12,12,49,19,49,56,12,57	2, 1, 2,35,43,31,13,10	1,10,42,37,47	8,51
8″	16, 7,14,13,51,55,33,27,26, 7	2, 1, 2,34,32,48,26,32	1,10,42,46,38	8,51
10″	16, 7,16,14,54,30, 6,15,52,39	2, 1, 2,33,22, 5,31, 3	1,10,42,55,29	8,51
12″	16, 7,18,15,57, 3,28,21,23,42	2, 1, 2,32,11,22,26,43	1,10,43, 4,20	8,51
14″	16, 7,20,16,59,35,39,43,50,25	2, 1, 2,31, 0,39,13,32	1,10,43,13,11	8,51
16″	16, 7,22,18, 2, 6,40,23, 3,57	2, 1, 2,29,49,55,51,30	1,10,43,22, 2	8,51
18″	16, 7,24,19, 4,36,30,18,55,27	2, 1, 2,28,39,12,20,37	1,10,43,30,53	8,51
20″	16, 7,26,20, 7, 5, 9,31,16, 4	2, 1, 2,27,28,28,40,53	1,10,43,39,44	8,51
22″	16, 7,28,21, 9,32,37,59,56,57	2, 1, 2,26,17,44,52,18	1,10,43,48,35	8,51
24″	16, 7,30,22,11,58,55,44,49,15	2, 1, 2,25, 7, 0,54,52	1,10,43,57,26	8,51
26″	16, 7,32,23,14,24, 2,45,44, 7	2, 1, 2,23,56,16,48,35	1,10,44, 6,17	8,51
28″	16, 7,34,24,16,47,59, 2,32,42	2, 1, 2,22,45,32,33,27	1,10,44,15, 8	8,51
30″	16, 7,36,25,19,10,44,35, 6, 9	2, 1, 2,21,34,48, 9,28	1,10,44,23,59	8,51
32″	16, 7,38,26,21,32,19,23,15,37	2, 1, 2,20,24, 3,36,38	1,10,44,32,50	8,51
34″	16, 7,40,27,23,52,43,26,52,15	2, 1, 2,19,13,18,54,57	1,10,44,41,41	8,51
36″	16, 7,42,28,26,11,56,45,47,12	2, 1, 2,18, 2,34, 4,25	1,10,44,50,32	8,51
38″	16, 7,44,29,28,29,59,19,51,37	2, 1, 2,16,51,49, 5, 2	1,10,44,59,23	8,51
40″	16, 7,46,30,30,46,51, 8,56,39	2, 1, 2,15,41, 3,56,48	1,10,45, 8,14	8,51
42″	16, 7,48,31,33, 2,32,12,53,27	2, 1, 2,14,30,18,39,43	1,10,45,17, 5	8,51
44″	16, 7,50,32,35,17, 2,31,33,10	2, 1, 2,13,19,33,13,47	1,10,45,25,56	8,51
46″	16, 7,52,33,37,30,22, 4,46,57	2, 1, 2,12, 8,47,39, 0	1,10,45,34,47	8,51
48″	16, 7,54,34,39,42,30,52,25,57	2, 1, 2,10,58, 1,55,22	1,10,45,43,38	8,51
50″	16, 7,56,35,41,53,28,54,21,19	2, 1, 2, 9,47,16, 2,53	1,10,45,52,29	8,51
52″	16, 7,58,36,44, 3,16,10,24,12	2, 1, 2, 8,36,30, 1,33	1,10,46, 1,20	8,51
54″	16, 8, 0,37,46,11,52,40,25,45	2, 1, 2, 7,25,43,51,22	1,10,46,10,11	8,51
56″	16, 8, 2,38,48,19,18,24,17, 7	2, 1, 2, 6,14,57,32,20	1,10,46,19, 2	8,51
58″	16, 8, 4,39,50,25,33,21,49,27	2, 1, 2, 5, 4,11, 4,27	1,10,46,27,53	
60″	16, 8, 6,40,52,30,37,32,53,54			
exact	16, 8, 6,40,52,30,37,33, 0,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°36′ 0″	16, 8, 6,40,52,30,37,33, 0,45			
		2, 1, 2, 3,53,24,28,21		
2″	16, 8, 8,41,54,34,30,57,29, 6		1,10,46,45,33	
		2, 1, 2, 2,42,37,42,48		8,51
4″	16, 8,10,42,56,37,13,35,11,54		1,10,46,54,24	
		2, 1, 2, 1,31,50,48,24		8,51
6″	16, 8,12,43,58,38,45,26, 0,18		1,10,47, 3,15	
		2, 1, 2, 0,21, 3,45, 9		8,51
8″	16, 8,14,45, 0,39, 6,29,45,27		1,10,47,12, 6	
		2, 1, 1,59,10,16,33, 3		8,51
10″	16, 8,16,46, 2,38,16,46,18,30		1,10,47,20,57	
		2, 1, 1,57,59,29,12, 6		8,51
12″	16, 8,18,47, 4,36,16,15,30,36		1,10,47,29,48	
		2, 1, 1,56,48,41,42,18		8,51
14″	16, 8,20,48, 6,33, 4,57,12,54		1,10,47,38,39	
		2, 1, 1,55,37,54, 3,39		8,51
16″	16, 8,22,49, 8,28,42,51,16,33		1,10,47,47,30	
		2, 1, 1,54,27, 6,16, 9		8,51
18″	16, 8,24,50,10,23, 9,57,32,42		1,10,47,56,21	
		2, 1, 1,53,16,18,19,48		8,51
20″	16, 8,26,51,12,16,26,15,52,30		1,10,48, 5,12	
		2, 1, 1,52, 5,30,14,36		8,51
22″	16, 8,28,52,14, 8,31,46, 7, 6		1,10,48,14, 3	
		2, 1, 1,50,54,42, 0,33		8,51
24″	16, 8,30,53,15,59,26,28, 7,39		1,10,48,22,54	
		2, 1, 1,49,43,53,37,39		8,51
26″	16, 8,32,54,17,49,10,21,45,18		1,10,48,31,45	
		2, 1, 1,48,33, 5, 5,54		8,51
28″	16, 8,34,55,19,37,43,26,51,12		1,10,48,40,36	
		2, 1, 1,47,22,16,25,18		8,51
30″	16, 8,36,56,21,25, 5,43,16,30		1,10,48,49,27	
		2, 1, 1,46,11,27,35,51		8,51
32″	16, 8,38,57,23,11,17,10,52,21		1,10,48,58,18	
		2, 1, 1,45, 0,38,37,33		8,51
34″	16, 8,40,58,24,56,17,49,29,54		1,10,49, 7, 9	
		2, 1, 1,43,49,49,30,24		8,51
36″	16, 8,42,59,26,40, 7,39, 0,18		1,10,49,16, 0	
		2, 1, 1,42,39, 0,14,24		8,51
38″	16, 8,45, 0,28,22,46,39,14,42		1,10,49,24,51	
		2, 1, 1,41,28,10,49,33		8,51
40″	16, 8,47, 1,30, 4,14,50, 4,15		1,10,49,33,42	
		2, 1, 1,40,17,21,15,51		8,51
42″	16, 8,49, 2,31,44,32,11,20, 6		1,10,49,42,33	
		2, 1, 1,39, 6,31,33,18		8,51
44″	16, 8,51, 3,33,23,38,42,53,24		1,10,49,51,24	
		2, 1, 1,37,55,41,41,54		8,51
46″	16, 8,53, 4,35, 1,34,24,35,18		1,10,50, 0,15	
		2, 1, 1,36,44,51,41,39		8,51
48″	16, 8,55, 5,36,38,19,16,16,57		1,10,50, 9, 6	
		2, 1, 1,35,34, 1,32,33		8,51
50″	16, 8,57, 6,38,13,53,17,49,30		1,10,50,17,57	
		2, 1, 1,34,23,11,14,36		8,51
52″	16, 8,59, 7,39,48,16,29, 4, 6		1,10,50,26,48	
		2, 1, 1,33,12,20,47,48		8,51
54″	16, 9, 1, 8,41,21,28,49,51,54		1,10,50,35,39	
		2, 1, 1,32, 1,30,12, 9		8,51
56″	16, 9, 3, 9,42,53,30,20, 4, 3		1,10,50,44,30	
		2, 1, 1,30,50,39,27,39		8,51
58″	16, 9, 5,10,44,24,20,59,31,42		1,10,50,53,21	
		2, 1, 1,29,39,48,34,18		
60″	16, 9, 7,11,45,54, 0,48, 6, 0			
exact	16, 9, 7,11,45,54, 0,48,14,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°37′ 0″	16, 9, 7,11,45,54, 0,48,14,59	2, 1, 1,28,28,57,32,59		
2″	16, 9, 9,12,47,22,29,45,47,58	2, 1, 1,27,18, 6,22, 0	1,10,51,10,59	8,51
4″	16, 9,11,13,48,49,47,52, 9,58	2, 1, 1,26, 7,15, 2,10	1,10,51,19,50	8,51
6″	16, 9,13,14,50,15,55, 7,12, 8	2, 1, 1,24,56,23,33,29	1,10,51,28,41	8,51
8″	16, 9,15,15,51,40,51,30,45,37	2, 1, 1,23,45,31,55,57	1,10,51,37,32	8,51
10″	16, 9,17,16,53, 4,37, 2,41,34	2, 1, 1,22,34,40, 9,34	1,10,51,46,23	8,51
12″	16, 9,19,17,54,27,11,42,51, 8	2, 1, 1,21,23,48,14,20	1,10,51,55,14	8,51
14″	16, 9,21,18,55,48,35,31, 5,28	2, 1, 1,20,12,56,10,15	1,10,52, 4, 5	8,51
16″	16, 9,23,19,57, 8,48,27,15,43	2, 1, 1,19, 2, 3,57,19	1,10,52,12,56	8,51
18″	16, 9,25,20,58,27,50,31,13, 2	2, 1, 1,17,51,11,35,32	1,10,52,21,47	8,51
20″	16, 9,27,21,59,45,41,42,48,34	2, 1, 1,16,40,19, 4,54	1,10,52,30,38	8,51
22″	16, 9,29,23, 1, 2,22, 1,53,28	2, 1, 1,15,29,26,25,25	1,10,52,39,29	8,51
24″	16, 9,31,24, 2,17,51,28,18,53	2, 1, 1,14,18,33,37, 5	1,10,52,48,20	8,51
26″	16, 9,33,25, 3,32,10, 1,55,58	2, 1, 1,13, 7,40,39,54	1,10,52,57,11	8,51
28″	16, 9,35,26, 4,45,17,42,35,52	2, 1, 1,11,56,47,33,52	1,10,53, 6, 2	8,51
30″	16, 9,37,27, 5,57,14,30, 9,44	2, 1, 1,10,45,54,18,59	1,10,53,14,53	8,51
32″	16, 9,39,28, 7, 8, 0,24,28,43	2, 1, 1, 9,35, 0,55,15	1,10,53,23,44	8,51
34″	16, 9,41,29, 8,17,35,25,23,58	2, 1, 1, 8,24, 7,22,40	1,10,53,32,35	8,51
36″	16, 9,43,30, 9,25,59,32,46,38	2, 1, 1, 7,13,13,41,14	1,10,53,41,26	8,51
38″	16, 9,45,31,10,33,12,46,27,52	2, 1, 1, 6, 2,19,50,57	1,10,53,50,17	8,51
40″	16, 9,47,32,11,39,15, 6,18,49	2, 1, 1, 4,51,25,51,49	1,10,53,59, 8	8,51
42″	16, 9,49,33,12,44, 6,32,10,38	2, 1, 1, 3,40,31,43,50	1,10,54, 7,59	8,51
44″	16, 9,51,34,13,47,47, 3,54,28	2, 1, 1, 2,29,37,27, 0	1,10,54,16,50	8,51
46″	16, 9,53,35,14,50,16,41,21,28	2, 1, 1, 1,18,43, 1,19	1,10,54,25,41	8,51
48″	16, 9,55,36,15,51,35,24,22,47	2, 1, 1, 0, 7,48,26,47	1,10,54,34,32	8,51
50″	16, 9,57,37,16,51,43,12,49,34	2, 1, 0,58,56,53,43,24	1,10,54,43,23	8,51
52″	16, 9,59,38,17,50,40, 6,32,58	2, 1, 0,57,45,58,51,10	1,10,54,52,14	8,51
54″	16,10, 1,39,18,48,26, 5,24, 8	2, 1, 0,56,35, 3,50, 5	1,10,55, 1, 5	8,51
56″	16,10, 3,40,19,45, 1, 9,14,13	2, 1, 0,55,24, 8,40, 9	1,10,55, 9,56	8,51
58″	16,10, 5,41,20,40,25,17,54,22	2, 1, 0,54,13,13,21,22	1,10,55,18,47	
60″	16,10, 7,42,21,34,38,31,15,44			
exact	16,10, 7,42,21,34,38,31,21,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°38′ 0″	16,10, 7,42,21,34,38,31,21,53	2, 1, 0,53, 2,17,54,32		
2″	16,10, 9,43,22,27,40,49,16,25	2, 1, 0,51,51,22,18, 7	1,10,55,36,25	8,51
4″	16,10,11,44,23,19,32,11,34,32	2, 1, 0,50,40,26,32,51	1,10,55,45,16	8,51
6″	16,10,13,45,24,10,12,38, 7,23	2, 1, 0,49,29,30,38,44	1,10,55,54, 7	8,51
8″	16,10,15,46,24,59,42, 8,46, 7	2, 1, 0,48,18,34,35,46	1,10,56, 2,58	8,51
10″	16,10,17,47,25,48, 0,43,21,53	2, 1, 0,47, 7,38,23,57	1,10,56,11,49	8,51
12″	16,10,19,48,26,35, 8,21,45,50	2, 1, 0,45,56,42, 3,17	1,10,56,20,40	8,51
14″	16,10,21,49,27,21, 5, 3,49, 7	2, 1, 0,44,45,45,33,46	1,10,56,29,31	8,51
16″	16,10,23,50,28, 5,50,49,22,53	2, 1, 0,43,34,48,55,24	1,10,56,38,22	8,51
18″	16,10,25,51,28,49,25,38,18,17	2, 1, 0,42,23,52, 8,11	1,10,56,47,13	8,51
20″	16,10,27,52,29,31,49,30,26,28	2, 1, 0,41,12,55,12, 7	1,10,56,56, 4	8,51
22″	16,10,29,53,30,13, 2,25,38,35	2, 1, 0,40, 1,58, 7,12	1,10,57, 4,55	8,51
24″	16,10,31,54,30,53, 4,23,45,47	2, 1, 0,38,51, 0,53,26	1,10,57,13,46	8,51
26″	16,10,33,55,31,31,55,24,39,13	2, 1, 0,37,40, 3,30,49	1,10,57,22,37	8,51
28″	16,10,35,56,32, 9,35,28,10, 2	2, 1, 0,36,29, 5,59,21	1,10,57,31,28	8,51
30″	16,10,37,57,32,46, 4,34, 9,23	2, 1, 0,35,18, 8,19, 2	1,10,57,40,19	8,51
32″	16,10,39,58,33,21,22,42,28,25	2, 1, 0,34, 7,10,29,52	1,10,57,49,10	8,51
34″	16,10,41,59,33,55,29,52,58,17	2, 1, 0,32,56,12,31,51	1,10,57,58, 1	8,51
36″	16,10,44, 0,34,28,26, 5,30, 8	2, 1, 0,31,45,14,24,59	1,10,58, 6,52	8,51
38″	16,10,46, 1,35, 0,11,19,55, 7	2, 1, 0,30,34,16, 9,16	1,10,58,15,43	8,51
40″	16,10,48, 2,35,30,45,36, 4,23	2, 1, 0,29,23,17,44,42	1,10,58,24,34	8,51
42″	16,10,50, 3,36, 0, 8,53,49, 5	2, 1, 0,28,12,19,11,17	1,10,58,33,25	8,51
44″	16,10,52, 4,36,28,21,13, 0,22	2, 1, 0,27, 1,20,29, 1	1,10,58,42,16	8,51
46″	16,10,54, 5,36,55,22,33,29,23	2, 1, 0,25,50,21,37,54	1,10,58,51, 7	8,51
48″	16,10,56, 6,37,21,12,55, 7,17	2, 1, 0,24,39,22,37,56	1,10,58,59,58	8,51
50″	16,10,58, 7,37,45,52,17,45,13	2, 1, 0,23,28,23,29, 7	1,10,59, 8,49	8,51
52″	16,11, 0, 8,38, 9,20,41,14,20	2, 1, 0,22,17,24,11,27	1,10,59,17,40	8,51
54″	16,11, 2, 9,38,31,38, 5,25,47	2, 1, 0,21, 6,24,44,56	1,10,59,26,31	8,51
56″	16,11, 4,10,38,52,44,30,10,43	2, 1, 0,19,55,25, 9,34	1,10,59,35,22	8,51
58″	16,11, 6,11,39,12,39,55,20,17	2, 1, 0,18,44,25,25,21	1,10,59,44,13	
60″	16,11, 8,12,39,31,24,20,45,38			
exact	16,11, 8,12,39,31,24,20,57,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°39′ 0″	16,11, 8,12,39,31,24,20,57,55			
		2, 1, 0,17,33,25,33,38		
2″	16,11,10,13,39,48,57,46,31,33		1,11, 0, 1,49	
		2, 1, 0,16,22,25,31,49		8,51
4″	16,11,12,14,40, 5,20,12, 3,22		1,11, 0,10,40	
		2, 1, 0,15,11,25,21, 9		8,51
6″	16,11,14,15,40,20,31,37,24,31		1,11, 0,19,31	
		2, 1, 0,14, 0,25, 1,38		8,51
8″	16,11,16,16,40,34,32, 2,26, 9		1,11, 0,28,22	
		2, 1, 0,12,49,24,33,16		8,51
10″	16,11,18,17,40,47,21,26,59,25		1,11, 0,37,13	
		2, 1, 0,11,38,23,56, 3		8,51
12″	16,11,20,18,40,58,59,50,55,28		1,11, 0,46, 4	
		2, 1, 0,10,27,23, 9,59		8,51
14″	16,11,22,19,41, 9,27,14, 5,27		1,11, 0,54,55	
		2, 1, 0, 9,16,22,15, 4		8,51
16″	16,11,24,20,41,18,43,36,20,31		1,11, 1, 3,46	
		2, 1, 0, 8, 5,21,11,18		8,51
18″	16,11,26,21,41,26,48,57,31,49		1,11, 1,12,37	
		2, 1, 0, 6,54,19,58,41		8,51
20″	16,11,28,22,41,33,43,17,30,30		1,11, 1,21,28	
		2, 1, 0, 5,43,18,37,13		8,51
22″	16,11,30,23,41,39,26,36, 7,43		1,11, 1,30,19	
		2, 1, 0, 4,32,17, 6,54		8,51
24″	16,11,32,24,41,43,58,53,14,37		1,11, 1,39,10	
		2, 1, 0, 3,21,15,27,44		8,51
26″	16,11,34,25,41,47,20, 8,42,21		1,11, 1,48, 1	
		2, 1, 0, 2,10,13,39,43		8,51
28″	16,11,36,26,41,49,30,22,22, 4		1,11, 1,56,52	
		2, 1, 0, 0,59,11,42,51		8,51
30″	16,11,38,27,41,50,29,34, 4,55		1,11, 2, 5,43	
		2, 0,59,59,48, 9,37, 8		8,51
32″	16,11,40,28,41,50,17,43,42, 3		1,11, 2,14,34	
		2, 0,59,58,37, 7,22,34		8,51
34″	16,11,42,29,41,48,54,51, 4,37		1,11, 2,23,25	
		2, 0,59,57,26, 4,59, 9		8,51
36″	16,11,44,30,41,46,20,56, 3,46		1,11, 2,32,16	
		2, 0,59,56,15, 2,26,53		8,51
38″	16,11,46,31,41,42,35,58,30,39		1,11, 2,41, 7	
		2, 0,59,55, 3,59,45,46		8,51
40″	16,11,48,32,41,37,39,58,16,25		1,11, 2,49,58	
		2, 0,59,53,52,56,55,48		8,51
42″	16,11,50,33,41,31,32,55,12,13		1,11, 2,58,49	
		2, 0,59,52,41,53,56,59		8,51
44″	16,11,52,34,41,24,14,49, 9,12		1,11, 3, 7,40	
		2, 0,59,51,30,50,49,19		8,51
46″	16,11,54,35,41,15,45,39,58,31		1,11, 3,16,31	
		2, 0,59,50,19,47,32,48		8,51
48″	16,11,56,36,41, 6, 5,27,31,19		1,11, 3,25,22	
		2, 0,59,49, 8,44, 7,26		8,51
50″	16,11,58,37,40,55,14,11,38,45		1,11, 3,34,13	
		2, 0,59,47,57,40,33,13		8,51
52″	16,12, 0,38,40,43,11,52,11,58		1,11, 3,43, 4	
		2, 0,59,46,46,36,50, 9		8,51
54″	16,12, 2,39,40,29,58,29, 2, 7		1,11, 3,51,55	
		2, 0,59,45,35,32,58,14		8,51
56″	16,12, 4,40,40,15,34, 2, 0,21		1,11, 4, 0,46	
		2, 0,59,44,24,28,57,28		8,51
58″	16,12, 6,41,39,59,58,30,57,49		1,11, 4, 9,37	
		2, 0,59,43,13,24,47,51		
60″	16,12, 8,42,39,43,11,55,45,40			
exact	16,12, 8,42,39,43,11,55,58,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°40′ 0″	16,12, 8,42,39,43,11,55,58,57			
		2, 0,59,42, 2,20,30,55		
2″	16,12,10,43,39,25,14,16,29,52		1,11, 4,27,12	
		2, 0,59,40,51,16, 3,43		8,51
4″	16,12,12,44,39, 6, 5,32,33,35		1,11, 4,36, 3	
		2, 0,59,39,40,11,27,40		8,51
6″	16,12,14,45,38,45,45,44, 1,15		1,11, 4,44,54	
		2, 0,59,38,29, 6,42,46		8,51
8″	16,12,16,46,38,24,14,50,44, 1		1,11, 4,53,45	
		2, 0,59,37,18, 1,49, 1		8,51
10″	16,12,18,47,38, 1,32,52,33, 2		1,11, 5, 2,36	
		2, 0,59,36, 6,56,46,25		8,51
12″	16,12,20,48,37,37,39,49,19,27		1,11, 5,11,27	
		2, 0,59,34,55,51,34,58		8,51
14″	16,12,22,49,37,12,35,40,54,25		1,11, 5,20,18	
		2, 0,59,33,44,46,14,40		8,51
16″	16,12,24,50,36,46,20,27, 9, 5		1,11, 5,29, 9	
		2, 0,59,32,33,40,45,31		8,51
18″	16,12,26,51,36,18,54, 7,54,36		1,11, 5,38, 0	
		2, 0,59,31,22,35, 7,31		8,51
20″	16,12,28,52,35,50,16,43, 2, 7		1,11, 5,46,51	
		2, 0,59,30,11,29,20,40		8,51
22″	16,12,30,53,35,20,28,12,22,47		1,11, 5,55,42	
		2, 0,59,29, 0,23,24,58		8,51
24″	16,12,32,54,34,49,28,35,47,45		1,11, 6, 4,33	
		2, 0,59,27,49,17,20,25		8,51
26″	16,12,34,55,34,17,17,53, 8,10		1,11, 6,13,24	
		2, 0,59,26,38,11, 7, 1		8,51
28″	16,12,36,56,33,43,56, 4,15,11		1,11, 6,22,15	
		2, 0,59,25,27, 4,44,46		8,51
30″	16,12,38,57,33, 9,23, 8,59,57		1,11, 6,31, 6	
		2, 0,59,24,15,58,13,40		8,51
32″	16,12,40,58,32,33,39, 7,13,37		1,11, 6,39,57	
		2, 0,59,23, 4,51,33,43		8,51
34″	16,12,42,59,31,56,43,58,47,20		1,11, 6,48,48	
		2, 0,59,21,53,44,44,55		8,51
36″	16,12,45, 0,31,18,37,43,32,15		1,11, 6,57,39	
		2, 0,59,20,42,37,47,16		8,51
38″	16,12,47, 1,30,39,20,21,19,31		1,11, 7, 6,30	
		2, 0,59,19,31,30,40,46		8,51
40″	16,12,49, 2,29,58,51,52, 0,17		1,11, 7,15,21	
		2, 0,59,18,20,23,25,25		8,51
42″	16,12,51, 3,29,17,12,15,25,42		1,11, 7,24,12	
		2, 0,59,17, 9,16, 1,13		8,51
44″	16,12,53, 4,28,34,21,31,26,55		1,11, 7,33, 3	
		2, 0,59,15,58, 8,28,10		8,51
46″	16,12,55, 5,27,50,19,39,55, 5		1,11, 7,41,54	
		2, 0,59,14,47, 0,46,16		8,51
48″	16,12,57, 6,27, 5, 6,40,41,21		1,11, 7,50,45	
		2, 0,59,13,35,52,55,31		8,51
50″	16,12,59, 7,26,18,42,33,36,52		1,11, 7,59,36	
		2, 0,59,12,24,44,55,55		8,51
52″	16,13, 1, 8,25,31, 7,18,32,47		1,11, 8, 8,27	
		2, 0,59,11,13,36,47,28		8,51
54″	16,13, 3, 9,24,42,20,55,20,15		1,11, 8,17,18	
		2, 0,59,10, 2,28,30,10		8,51
56″	16,13, 5,10,23,52,23,23,50,25		1,11, 8,26, 9	
		2, 0,59, 8,51,20, 4, 1		8,51
58″	16,13, 7,11,23, 1,14,43,54,26		1,11, 8,35, 0	
		2, 0,59, 7,40,11,29, 1		
60″	16,13, 9,12,22, 8,54,55,23,27			
exact	16,13, 9,12,22, 8,54,55,40,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°41′ 0″	16,13, 9,12,22, 8,54,55,40,22			
		2, 0,59, 6,29, 2,47, 3		
2″	16,13,11,13,21,15,23,58,27,25		1,11, 8,52,34	
		2, 0,59, 5,17,53,54,29		8,51
4″	16,13,13,14,20,20,41,52,21,54		1,11, 9, 1,25	
		2, 0,59, 4, 6,44,53, 4		8,51
6″	16,13,15,15,19,24,48,37,14,58		1,11, 9,10,16	
		2, 0,59, 2,55,35,42,48		8,51
8″	16,13,17,16,18,27,44,12,57,46		1,11, 9,19, 7	
		2, 0,59, 1,44,26,23,41		8,51
10″	16,13,19,17,17,29,28,39,21,27		1,11, 9,27,58	
		2, 0,59, 0,33,16,55,43		8,51
12″	16,13,21,18,16,30, 1,56,17,10		1,11, 9,36,49	
		2, 0,58,59,22, 7,18,54		8,51
14″	16,13,23,19,15,29,24, 3,36, 4		1,11, 9,45,40	
		2, 0,58,58,10,57,33,14		8,51
16″	16,13,25,20,14,27,35, 1, 9,18		1,11, 9,54,31	
		2, 0,58,56,59,47,38,43		8,51
18″	16,13,27,21,13,24,34,48,48, 1		1,11,10, 3,22	
		2, 0,58,55,48,37,35,21		8,51
20″	16,13,29,22,12,20,23,26,23,22		1,11,10,12,13	
		2, 0,58,54,37,27,23, 8		8,51
22″	16,13,31,23,11,15, 0,53,46,30		1,11,10,21, 4	
		2, 0,58,53,26,17, 2, 4		8,51
24″	16,13,33,24,10, 8,27,10,48,34		1,11,10,29,55	
		2, 0,58,52,15, 6,32, 9		8,51
26″	16,13,35,25, 9, 0,42,17,20,43		1,11,10,38,46	
		2, 0,58,51, 3,55,53,23		8,51
28″	16,13,37,26, 7,51,46,13,14, 6		1,11,10,47,37	
		2, 0,58,49,52,45, 5,46		8,51
30″	16,13,39,27, 6,41,38,58,19,52		1,11,10,56,28	
		2, 0,58,48,41,34, 9,18		8,51
32″	16,13,41,28, 5,30,20,32,29,10		1,11,11, 5,19	
		2, 0,58,47,30,23, 3,59		8,51
34″	16,13,43,29, 4,17,50,55,33, 9		1,11,11,14,10	
		2, 0,58,46,19,11,49,49		8,51
36″	16,13,45,30, 3, 4,10, 7,22,58		1,11,11,23, 1	
		2, 0,58,45, 8, 0,26,48		8,51
38″	16,13,47,31, 1,49,18, 7,49,46		1,11,11,31,52	
		2, 0,58,43,56,48,54,56		8,51
40″	16,13,49,32, 0,33,14,56,44,42		1,11,11,40,43	
		2, 0,58,42,45,37,14,13		8,51
42″	16,13,51,32,59,16, 0,33,58,55		1,11,11,49,34	
		2, 0,58,41,34,25,24,39		8,51
44″	16,13,53,33,57,57,34,59,23,34		1,11,11,58,25	
		2, 0,58,40,23,13,26,14		8,51
46″	16,13,55,34,56,37,58,12,49,48		1,11,12, 7,16	
		2, 0,58,39,12, 1,18,58		8,51
48″	16,13,57,35,55,17,10,14, 8,46		1,11,12,16, 7	
		2, 0,58,38, 0,49, 2,51		8,51
50″	16,13,59,36,53,55,11, 3,11,37		1,11,12,24,58	
		2, 0,58,36,49,36,37,53		8,51
52″	16,14, 1,37,52,32, 0,39,49,30		1,11,12,33,49	
		2, 0,58,35,38,24, 4, 4		8,51
54″	16,14, 3,38,51, 7,39, 3,53,34		1,11,12,42,40	
		2, 0,58,34,27,11,21,24		8,51
56″	16,14, 5,39,49,42, 6,15,14,58		1,11,12,51,31	
		2, 0,58,33,15,58,29,53		8,51
58″	16,14, 7,40,48,15,22,13,44,51		1,11,13, 0,22	
		2, 0,58,32, 4,45,29,31		
60″	16,14, 9,41,46,47,26,59,14,22			
exact	16,14, 9,41,46,47,26,59,37, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°42′ 0″	16,14, 9,41,46,47,26,59,37, 0			
		2, 0,58,30,53,32,22,41		
2″	16,14,11,42,45,18,20,31,59,41		1,11,13,17,54	
		2, 0,58,29,42,19, 4,47		8,51
4″	16,14,13,43,43,48, 2,51, 4,28		1,11,13,26,45	
		2, 0,58,28,31, 5,38, 2		8,51
6″	16,14,15,44,42,16,33,56,42,30		1,11,13,35,36	
		2, 0,58,27,19,52, 2,26		8,51
8″	16,14,17,45,40,43,53,48,44,56		1,11,13,44,27	
		2, 0,58,26, 8,38,17,59		8,51
10″	16,14,19,46,39,10, 2,27, 2,55		1,11,13,53,18	
		2, 0,58,24,57,24,24,41		8,51
12″	16,14,21,47,37,34,59,51,27,36		1,11,14, 2, 9	
		2, 0,58,23,46,10,22,32		8,51
14″	16,14,23,48,35,58,46, 1,50, 8		1,11,14,11, 0	
		2, 0,58,22,34,56,11,32		8,51
16″	16,14,25,49,34,21,20,58, 1,40		1,11,14,19,51	
		2, 0,58,21,23,41,51,41		8,51
18″	16,14,27,50,32,42,44,39,53,21		1,11,14,28,42	
		2, 0,58,20,12,27,22,59		8,51
20″	16,14,29,51,31, 2,57, 7,16,20		1,11,14,37,33	
		2, 0,58,19, 1,12,45,26		8,51
22″	16,14,31,52,29,21,58,20, 1,46		1,11,14,46,24	
		2, 0,58,17,49,57,59, 2		8,51
24″	16,14,33,53,27,39,48,18, 0,48		1,11,14,55,15	
		2, 0,58,16,38,43, 3,47		8,51
26″	16,14,35,54,25,56,27, 1, 4,35		1,11,15, 4, 6	
		2, 0,58,15,27,27,59,41		8,51
28″	16,14,37,55,24,11,54,29, 4,16		1,11,15,12,57	
		2, 0,58,14,16,12,46,44		8,51
30″	16,14,39,56,22,26,10,41,51, 0		1,11,15,21,48	
		2, 0,58,13, 4,57,24,56		8,51
32″	16,14,41,57,20,39,15,39,15,56		1,11,15,30,39	
		2, 0,58,11,53,41,54,17		8,51
34″	16,14,43,58,18,51, 9,21,10,13		1,11,15,39,30	
		2, 0,58,10,42,26,14,47		8,51
36″	16,14,45,59,17, 1,51,47,25, 0		1,11,15,48,21	
		2, 0,58, 9,31,10,26,26		8,51
38″	16,14,48, 0,15,11,22,57,51,26		1,11,15,57,12	
		2, 0,58, 8,19,54,29,14		8,51
40″	16,14,50, 1,13,19,42,52,20,40		1,11,16, 6, 3	
		2, 0,58, 7, 8,38,23,11		8,51
42″	16,14,52, 2,11,26,51,30,43,51		1,11,16,14,54	
		2, 0,58, 5,57,22, 8,17		8,51
44″	16,14,54, 3, 9,32,48,52,52, 8		1,11,16,23,45	
		2, 0,58, 4,46, 5,44,32		8,51
46″	16,14,56, 4, 7,37,34,58,36,40		1,11,16,32,36	
		2, 0,58, 3,34,49,11,56		8,51
48″	16,14,58, 5, 5,41, 9,47,48,36		1,11,16,41,27	
		2, 0,58, 2,23,32,30,29		8,51
50″	16,15, 0, 6, 3,43,33,20,19, 5		1,11,16,50,18	
		2, 0,58, 1,12,15,40,11		8,51
52″	16,15, 2, 7, 1,44,45,35,59,16		1,11,16,59, 9	
		2, 0,58, 0, 0,58,41, 2		8,51
54″	16,15, 4, 7,59,44,46,34,40,18		1,11,17, 8, 0	
		2, 0,57,58,49,41,33, 2		8,51
56″	16,15, 6, 8,57,43,36,16,13,20		1,11,17,16,51	
		2, 0,57,57,38,24,16,11		8,51
58″	16,15, 8, 9,55,41,14,40,29,31		1,11,17,25,42	
		2, 0,57,56,27, 6,50,29		
60″	16,15,10,10,53,37,41,47,20, 0			
exact	16,15,10,10,53,37,41,47,43,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°43′ 0″	16,15,10,10,53,37,41,47,43,12			
		2, 0,57,55,15,49,18,28		
2″	16,15,12,11,51,32,57,37, 1,40		1,11,17,43,13	
		2, 0,57,54, 4,31,35,15		8,51
4″	16,15,14,12,49,27, 2, 8,36,55		1,11,17,52, 4	
		2, 0,57,52,53,13,43,11		8,51
6″	16,15,16,13,47,19,55,22,20, 6		1,11,18, 0,55	
		2, 0,57,51,41,55,42,16		8,51
8″	16,15,18,14,45,11,37,18, 2,22		1,11,18, 9,46	
		2, 0,57,50,30,37,32,30		8,51
10″	16,15,20,15,43, 2, 7,55,34,52		1,11,18,18,37	
		2, 0,57,49,19,19,13,53		8,51
12″	16,15,22,16,40,51,27,14,48,45		1,11,18,27,28	
		2, 0,57,48, 8, 0,46,25		8,51
14″	16,15,24,17,38,39,35,15,35,10		1,11,18,36,19	
		2, 0,57,46,56,42,10, 6		8,51
16″	16,15,26,18,36,26,31,57,45,16		1,11,18,45,10	
		2, 0,57,45,45,23,24,56		8,51
18″	16,15,28,19,34,12,17,21,10,12		1,11,18,54, 1	
		2, 0,57,44,34, 4,30,55		8,51
20″	16,15,30,20,31,56,51,25,41, 7		1,11,19, 2,52	
		2, 0,57,43,22,45,28, 3		8,51
22″	16,15,32,21,29,40,14,11, 9,10		1,11,19,11,43	
		2, 0,57,42,11,26,16,20		8,51
24″	16,15,34,22,27,22,25,37,25,30		1,11,19,20,34	
		2, 0,57,41, 0, 6,55,46		8,51
26″	16,15,36,23,25, 3,25,44,21,16		1,11,19,29,25	
		2, 0,57,39,48,47,26,21		8,51
28″	16,15,38,24,22,43,14,31,47,37		1,11,19,38,16	
		2, 0,57,38,37,27,48, 5		8,51
30″	16,15,40,25,20,21,51,59,35,42		1,11,19,47, 7	
		2, 0,57,37,26, 8, 0,58		8,51
32″	16,15,42,26,17,59,18, 7,36,40		1,11,19,55,58	
		2, 0,57,36,14,48, 5, 0		8,51
34″	16,15,44,27,15,35,32,55,41,40		1,11,20, 4,49	
		2, 0,57,35, 3,28, 0,11		8,51
36″	16,15,46,28,13,10,36,23,41,51		1,11,20,13,40	
		2, 0,57,33,52, 7,46,31		8,51
38″	16,15,48,29,10,44,28,31,28,22		1,11,20,22,31	
		2, 0,57,32,40,47,24, 0		8,51
40″	16,15,50,30, 8,17, 9,18,52,22		1,11,20,31,22	
		2, 0,57,31,29,26,52,38		8,51
42″	16,15,52,31, 5,48,38,45,45, 0		1,11,20,40,13	
		2, 0,57,30,18, 6,12,25		8,51
44″	16,15,54,32, 3,18,56,51,57,25		1,11,20,49, 4	
		2, 0,57,29, 6,45,23,21		8,51
46″	16,15,56,33, 0,48, 3,37,20,46		1,11,20,57,55	
		2, 0,57,27,55,24,25,26		8,51
48″	16,15,58,33,58,15,59, 1,46,12		1,11,21, 6,46	
		2, 0,57,26,44, 3,18,40		8,51
50″	16,16, 0,34,55,42,43, 5, 4,52		1,11,21,15,37	
		2, 0,57,25,32,42, 3, 3		8,51
52″	16,16, 2,35,53, 8,15,47, 7,55		1,11,21,24,28	
		2, 0,57,24,21,20,38,35		8,51
54″	16,16, 4,36,50,32,37, 7,46,30		1,11,21,33,19	
		2, 0,57,23, 9,59, 5,16		8,51
56″	16,16, 6,37,47,55,47, 6,51,46		1,11,21,42,10	
		2, 0,57,21,58,37,23, 6		8,51
58″	16,16, 8,38,45,17,45,44,14,52		1,11,21,51, 1	
		2, 0,57,20,47,15,32, 5		
60″	16,16,10,39,42,38,32,59,46,57			
exact	16,16,10,39,42,38,33, 0,12,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°44′ 0″	16,16,10,39,42,38,33, 0,12,50			
		2, 0,57,19,35,53,35, 3		
2″	16,16,12,40,39,58, 8,53,47,53		1,11,22, 8,31	
		2, 0,57,18,24,31,26,32		8,51
4″	16,16,14,41,37,16,33,25,14,25		1,11,22,17,22	
		2, 0,57,17,13, 9, 9,10		8,51
6″	16,16,16,42,34,33,46,34,23,35		1,11,22,26,13	
		2, 0,57,16, 1,46,42,57		8,51
8″	16,16,18,43,31,49,48,21, 6,32		1,11,22,35, 4	
		2, 0,57,14,50,24, 7,53		8,51
10″	16,16,20,44,29, 4,38,45,14,25		1,11,22,43,55	
		2, 0,57,13,39, 1,23,58		8,51
12″	16,16,22,45,26,18,17,46,38,23		1,11,22,52,46	
		2, 0,57,12,27,38,31,12		8,51
14″	16,16,24,46,23,30,45,25, 9,35		1,11,23, 1,37	
		2, 0,57,11,16,15,29,35		8,51
16″	16,16,26,47,20,42, 1,40,39,10		1,11,23,10,28	
		2, 0,57,10, 4,52,19, 7		8,51
18″	16,16,28,48,17,52, 6,32,58,17		1,11,23,19,19	
		2, 0,57, 8,53,28,59,48		8,51
20″	16,16,30,49,15, 1, 0, 1,58, 5		1,11,23,28,10	
		2, 0,57, 7,42, 5,31,38		8,51
22″	16,16,32,50,12, 8,42, 7,29,43		1,11,23,37, 1	
		2, 0,57, 6,30,41,54,37		8,51
24″	16,16,34,51, 9,15,12,49,24,20		1,11,23,45,52	
		2, 0,57, 5,19,18, 8,45		8,51
26″	16,16,36,52, 6,20,32, 7,33, 5		1,11,23,54,43	
		2, 0,57, 4, 7,54,14, 2		8,51
28″	16,16,38,53, 3,24,40, 1,47, 7		1,11,24, 3,34	
		2, 0,57, 2,56,30,10,28		8,51
30″	16,16,40,54, 0,27,36,31,57,35		1,11,24,12,25	
		2, 0,57, 1,45, 5,58, 3		8,51
32″	16,16,42,54,57,29,21,37,55,38		1,11,24,21,16	
		2, 0,57, 0,33,41,36,47		8,51
34″	16,16,44,55,54,29,55,19,32,25		1,11,24,30, 7	
		2, 0,56,59,22,17, 6,40		8,51
36″	16,16,46,56,51,29,17,36,39, 5		1,11,24,38,58	
		2, 0,56,58,10,52,27,42		8,51
38″	16,16,48,57,48,27,28,29, 6,47		1,11,24,47,49	
		2, 0,56,56,59,27,39,53		8,51
40″	16,16,50,58,45,24,27,56,46,40		1,11,24,56,40	
		2, 0,56,55,48, 2,43,13		8,51
42″	16,16,52,59,42,20,15,59,29,53		1,11,25, 5,31	
		2, 0,56,54,36,37,37,42		8,51
44″	16,16,55, 0,39,14,52,37, 7,35		1,11,25,14,22	
		2, 0,56,53,25,12,23,20		8,51
46″	16,16,57, 1,36, 8,17,49,30,55		1,11,25,23,13	
		2, 0,56,52,13,47, 0, 7		8,51
48″	16,16,59, 2,33, 0,31,36,31, 2		1,11,25,32, 4	
		2, 0,56,51, 2,21,28, 3		8,51
50″	16,17, 1, 3,29,51,33,57,59, 5		1,11,25,40,55	
		2, 0,56,49,50,55,47, 8		8,51
52″	16,17, 3, 4,26,41,24,53,46,13		1,11,25,49,46	
		2, 0,56,48,39,29,57,22		8,51
54″	16,17, 5, 5,23,30, 4,23,43,35		1,11,25,58,37	
		2, 0,56,47,28, 3,58,45		8,51
56″	16,17, 7, 6,20,17,32,27,42,20		1,11,26, 7,28	
		2, 0,56,46,16,37,51,17		8,51
58″	16,17, 9, 7,17, 3,49, 5,33,37		1,11,26,16,19	
		2, 0,56,45, 5,11,34,58		
60″	16,17,11, 8,13,48,54,17, 8,35			
exact	16,17,11, 8,13,48,54,17,39,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°45′ 0″	16,17,11, 8,13,48,54,17,39,21			
		2, 0,56,43,53,45,13, 5		
2″	16,17,13, 9,10,32,48, 2,52,26		1,11,26,33,47	
		2, 0,56,42,42,18,39,18		8,51
4″	16,17,15,10, 7,15,30,21,31,44		1,11,26,42,38	
		2, 0,56,41,30,51,56,40		8,51
6″	16,17,17,11, 3,57, 1,13,28,24		1,11,26,51,29	
		2, 0,56,40,19,25, 5,11		8,51
8″	16,17,19,12, 0,37,20,38,33,35		1,11,27, 0,20	
		2, 0,56,39, 7,58, 4,51		8,51
10″	16,17,21,12,57,16,28,36,38,26		1,11,27, 9,11	
		2, 0,56,37,56,30,55,40		8,51
12″	16,17,23,13,53,54,25, 7,34, 6		1,11,27,18, 2	
		2, 0,56,36,45, 3,37,38		8,51
14″	16,17,25,14,50,31,10,11,11,44		1,11,27,26,53	
		2, 0,56,35,33,36,10,45		8,51
16″	16,17,27,15,47, 6,43,47,22,29		1,11,27,35,44	
		2, 0,56,34,22, 8,35, 1		8,51
18″	16,17,29,16,43,41, 5,55,57,30		1,11,27,44,35	
		2, 0,56,33,10,40,50,26		8,51
20″	16,17,31,17,40,14,16,36,47,56		1,11,27,53,26	
		2, 0,56,31,59,12,57, 0		8,51
22″	16,17,33,18,36,46,15,49,44,56		1,11,28, 2,17	
		2, 0,56,30,47,44,54,43		8,51
24″	16,17,35,19,33,17, 3,34,39,39		1,11,28,11, 8	
		2, 0,56,29,36,16,43,35		8,51
26″	16,17,37,20,29,46,39,51,23,14		1,11,28,19,59	
		2, 0,56,28,24,48,23,36		8,51
28″	16,17,39,21,26,15, 4,39,46,50		1,11,28,28,50	
		2, 0,56,27,13,19,54,46		8,51
30″	16,17,41,22,22,42,17,59,41,36		1,11,28,37,41	
		2, 0,56,26, 1,51,17, 5		8,51
32″	16,17,43,23,19, 8,19,50,58,41		1,11,28,46,32	
		2, 0,56,24,50,22,30,33		8,51
34″	16,17,45,24,15,33,10,13,29,14		1,11,28,55,23	
		2, 0,56,23,38,53,35,10		8,51
36″	16,17,47,25,11,56,49, 7, 4,24		1,11,29, 4,14	
		2, 0,56,22,27,24,30,56		8,51
38″	16,17,49,26, 8,19,16,31,35,20		1,11,29,13, 5	
		2, 0,56,21,15,55,17,51		8,51
40″	16,17,51,27, 4,40,32,26,53,11		1,11,29,21,56	
		2, 0,56,20, 4,25,55,55		8,51
42″	16,17,53,28, 1, 0,36,52,49, 6		1,11,29,30,47	
		2, 0,56,18,52,56,25, 8		8,51
44″	16,17,55,28,57,19,29,49,14,14		1,11,29,39,38	
		2, 0,56,17,41,26,45,30		8,51
46″	16,17,57,29,53,37,11,15,59,44		1,11,29,48,29	
		2, 0,56,16,29,56,57, 1		8,51
48″	16,17,59,30,49,53,41,12,56,45		1,11,29,57,20	
		2, 0,56,15,18,26,59,41		8,51
50″	16,18, 1,31,46, 8,59,39,56,26		1,11,30, 6,11	
		2, 0,56,14, 6,56,53,30		8,51
52″	16,18, 3,32,42,23, 6,36,49,56		1,11,30,15, 2	
		2, 0,56,12,55,26,38,28		8,51
54″	16,18, 5,33,38,36, 2, 3,28,24		1,11,30,23,53	
		2, 0,56,11,43,56,14,35		8,51
56″	16,18, 7,34,34,47,45,59,42,59		1,11,30,32,44	
		2, 0,56,10,32,25,41,51		8,51
58″	16,18, 9,35,30,58,18,25,24,50		1,11,30,41,35	
		2, 0,56, 9,20,55, 0,16		
60″	16,18,11,36,27, 7,39,20,25, 6			
exact	16,18,11,36,27, 7,39,20,55,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°46′ 0″	16,18,11,36,27, 7,39,20,55,42			
		2, 0,56, 8, 9,24,13,13		
2″	16,18,13,37,23,15,48,45, 8,55		1,11,30,59, 2	
		2, 0,56, 6,57,53,14,11		8,50
4″	16,18,15,38,19,22,46,38,23, 6		1,11,31, 7,52	
		2, 0,56, 5,46,22, 6,19		8,50
6″	16,18,17,39,15,28,33, 0,29,25		1,11,31,16,42	
		2, 0,56, 4,34,50,49,37		8,50
8″	16,18,19,40,11,33, 7,51,19, 2		1,11,31,25,32	
		2, 0,56, 3,23,19,24, 5		8,50
10″	16,18,21,41, 7,36,31,10,43, 7		1,11,31,34,22	
		2, 0,56, 2,11,47,49,43		8,50
12″	16,18,23,42, 3,38,42,58,32,50		1,11,31,43,12	
		2, 0,56, 1, 0,16, 6,31		8,50
14″	16,18,25,42,59,39,43,14,39,21		1,11,31,52, 2	
		2, 0,55,59,48,44,14,29		8,50
16″	16,18,27,43,55,39,31,58,53,50		1,11,32, 0,52	
		2, 0,55,58,37,12,13,37		8,50
18″	16,18,29,44,51,38, 9,11, 7,27		1,11,32, 9,42	
		2, 0,55,57,25,40, 3,55		8,50
20″	16,18,31,45,47,35,34,51,11,22		1,11,32,18,32	
		2, 0,55,56,14, 7,45,23		8,50
22″	16,18,33,46,43,31,48,58,56,45		1,11,32,27,22	
		2, 0,55,55, 2,35,18, 1		8,50
24″	16,18,35,47,39,26,51,34,14,46		1,11,32,36,12	
		2, 0,55,53,51, 2,41,49		8,50
26″	16,18,37,48,35,20,42,36,56,35		1,11,32,45, 2	
		2, 0,55,52,39,29,56,47		8,50
28″	16,18,39,49,31,13,22, 6,53,22		1,11,32,53,52	
		2, 0,55,51,27,57, 2,55		8,50
30″	16,18,41,50,27, 4,50, 3,56,17		1,11,33, 2,42	
		2, 0,55,50,16,24, 0,13		8,50
32″	16,18,43,51,22,55, 6,27,56,30		1,11,33,11,32	
		2, 0,55,49, 4,50,48,41		8,50
34″	16,18,45,52,18,44,11,18,45,11		1,11,33,20,22	
		2, 0,55,47,53,17,28,19		8,50
36″	16,18,47,53,14,32, 4,36,13,30		1,11,33,29,12	
		2, 0,55,46,41,43,59, 7		8,50
38″	16,18,49,54,10,18,46,20,12,37		1,11,33,38, 2	
		2, 0,55,45,30,10,21, 5		8,50
40″	16,18,51,55, 6, 4,16,30,33,42		1,11,33,46,52	
		2, 0,55,44,18,36,34,13		8,50
42″	16,18,53,56, 1,48,35, 7, 7,55		1,11,33,55,42	
		2, 0,55,43, 7, 2,38,31		8,50
44″	16,18,55,56,57,31,42, 9,46,26		1,11,34, 4,32	
		2, 0,55,41,55,28,33,59		8,50
46″	16,18,57,57,53,13,37,38,20,25		1,11,34,13,22	
		2, 0,55,40,43,54,20,37		8,50
48″	16,18,59,58,48,54,21,32,41, 2		1,11,34,22,12	
		2, 0,55,39,32,19,58,25		8,50
50″	16,19, 1,59,44,33,53,52,39,27		1,11,34,31, 2	
		2, 0,55,38,20,45,27,23		8,50
52″	16,19, 4, 0,40,12,14,38, 6,50		1,11,34,39,52	
		2, 0,55,37, 9,10,47,31		8,50
54″	16,19, 6, 1,35,49,23,48,54,21		1,11,34,48,42	
		2, 0,55,35,57,35,58,49		8,50
56″	16,19, 8, 2,31,25,21,24,53,10		1,11,34,57,32	
		2, 0,55,34,46, 1, 1,17		8,50
58″	16,19,10, 3,27, 0, 7,25,54,27		1,11,35, 6,22	
		2, 0,55,33,34,25,54,55		
60″	16,19,12, 4,22,33,41,51,49,22			
exact	16,19,12, 4,22,33,41,51,14,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°47′ 0″	16,19,12, 4,22,33,41,51,14,28			
		2, 0,55,32,22,50,36, 7		
2″	16,19,14, 5,18, 6, 4,41,50,35		1,11,35,24,16	
		2, 0,55,31,11,15,11,51		8,50
4″	16,19,16, 6,13,37,15,57, 2,26		1,11,35,33, 6	
		2, 0,55,29,59,39,38,45		8,50
6″	16,19,18, 7, 9, 7,15,36,41,11		1,11,35,41,56	
		2, 0,55,28,48, 3,56,49		8,50
8″	16,19,20, 8, 4,36, 3,40,38, 0		1,11,35,50,46	
		2, 0,55,27,36,28, 6, 3		8,50
10″	16,19,22, 9, 0, 3,40, 8,44, 3		1,11,35,59,36	
		2, 0,55,26,24,52, 6,27		8,50
12″	16,19,24, 9,55,30, 5, 0,50,30		1,11,36, 8,26	
		2, 0,55,25,13,15,58, 1		8,50
14″	16,19,26,10,50,55,18,16,48,31		1,11,36,17,16	
		2, 0,55,24, 1,39,40,45		8,50
16″	16,19,28,11,46,19,19,56,29,16		1,11,36,26, 6	
		2, 0,55,22,50, 3,14,39		8,50
18″	16,19,30,12,41,42, 9,59,43,55		1,11,36,34,56	
		2, 0,55,21,38,26,39,43		8,50
20″	16,19,32,13,37, 3,48,26,23,38		1,11,36,43,46	
		2, 0,55,20,26,49,55,57		8,50
22″	16,19,34,14,32,24,15,16,19,35		1,11,36,52,36	
		2, 0,55,19,15,13, 3,21		8,50
24″	16,19,36,15,27,43,30,29,22,56		1,11,37, 1,26	
		2, 0,55,18, 3,36, 1,55		8,50
26″	16,19,38,16,23, 1,34, 5,24,51		1,11,37,10,16	
		2, 0,55,16,51,58,51,39		8,50
28″	16,19,40,17,18,18,26, 4,16,30		1,11,37,19, 6	
		2, 0,55,15,40,21,32,33		8,50
30″	16,19,42,18,13,34, 6,25,49, 3		1,11,37,27,56	
		2, 0,55,14,28,44, 4,37		8,50
32″	16,19,44,19, 8,48,35, 9,53,40		1,11,37,36,46	
		2, 0,55,13,17, 6,27,51		8,50
34″	16,19,46,20, 4, 1,52,16,21,31		1,11,37,45,36	
		2, 0,55,12, 5,28,42,15		8,50
36″	16,19,48,20,59,13,57,45, 3,46		1,11,37,54,26	
		2, 0,55,10,53,50,47,49		8,50
38″	16,19,50,21,54,24,51,35,51,35		1,11,38, 3,16	
		2, 0,55, 9,42,12,44,33		8,50
40″	16,19,52,22,49,34,33,48,36, 8		1,11,38,12, 6	
		2, 0,55, 8,30,34,32,27		8,50
42″	16,19,54,23,44,43, 4,23, 8,35		1,11,38,20,56	
		2, 0,55, 7,18,56,11,31		8,50
44″	16,19,56,24,39,50,23,19,20, 6		1,11,38,29,46	
		2, 0,55, 6, 7,17,41,45		8,50
46″	16,19,58,25,34,56,30,37, 1,51		1,11,38,38,36	
		2, 0,55, 4,55,39, 3, 9		8,50
48″	16,20, 0,26,30, 1,26,16, 5, 0		1,11,38,47,26	
		2, 0,55, 3,44, 0,15,43		8,50
50″	16,20, 2,27,25, 5,10,16,20,43		1,11,38,56,16	
		2, 0,55, 2,32,21,19,27		8,50
52″	16,20, 4,28,20, 7,42,37,40,10		1,11,39, 5, 6	
		2, 0,55, 1,20,42,14,21		8,50
54″	16,20, 6,29,15, 9, 3,19,54,31		1,11,39,13,56	
		2, 0,55, 0, 9, 3, 0,25		8,50
56″	16,20, 8,30,10, 9,12,22,54,56		1,11,39,22,46	
		2, 0,54,58,57,23,37,39		8,50
58″	16,20,10,31, 5, 8, 9,46,32,35		1,11,39,31,36	
		2, 0,54,57,45,44, 6, 3		
60″	16,20,12,32, 0, 5,55,30,38,38			
exact	16,20,12,32, 0, 5,55,30, 7,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°48′ 0″	16,20,12,32, 0, 5,55,30, 7,50			
		2, 0,54,56,34, 4,22,25		
2″	16,20,14,32,55, 2,29,34,30,15		1,11,39,49,29	
		2, 0,54,55,22,24,32,56		8,50
4″	16,20,16,33,49,57,51,59, 3,11		1,11,39,58,19	
		2, 0,54,54,10,44,34,37		8,50
6″	16,20,18,34,44,52, 2,43,37,48		1,11,40, 7, 9	
		2, 0,54,52,59, 4,27,28		8,50
8″	16,20,20,35,39,45, 1,48, 5,16		1,11,40,15,59	
		2, 0,54,51,47,24,11,29		8,50
10″	16,20,22,36,34,36,49,12,16,45		1,11,40,24,49	
		2, 0,54,50,35,43,46,40		8,50
12″	16,20,24,37,29,27,24,56, 3,25		1,11,40,33,39	
		2, 0,54,49,24, 3,13, 1		8,50
14″	16,20,26,38,24,16,48,59,16,26		1,11,40,42,29	
		2, 0,54,48,12,22,30,32		8,50
16″	16,20,28,39,19, 5, 1,21,46,58		1,11,40,51,19	
		2, 0,54,47, 0,41,39,13		8,50
18″	16,20,30,40,13,52, 2, 3,26,11		1,11,41, 0, 9	
		2, 0,54,45,49, 0,39, 4		8,50
20″	16,20,32,41, 8,37,51, 4, 5,15		1,11,41, 8,59	
		2, 0,54,44,37,19,30, 5		8,50
22″	16,20,34,42, 3,22,28,23,35,20		1,11,41,17,49	
		2, 0,54,43,25,38,12,16		8,50
24″	16,20,36,42,58, 5,54, 1,47,36		1,11,41,26,39	
		2, 0,54,42,13,56,45,37		8,50
26″	16,20,38,43,52,48, 7,58,33,13		1,11,41,35,29	
		2, 0,54,41, 2,15,10, 8		8,50
28″	16,20,40,44,47,29,10,13,43,21		1,11,41,44,19	
		2, 0,54,39,50,33,25,49		8,50
30″	16,20,42,45,42, 9, 0,47, 9,10		1,11,41,53, 9	
		2, 0,54,38,38,51,32,40		8,50
32″	16,20,44,46,36,47,39,38,41,50		1,11,42, 1,59	
		2, 0,54,37,27, 9,30,41		8,50
34″	16,20,46,47,31,25, 6,48,12,31		1,11,42,10,49	
		2, 0,54,36,15,27,19,52		8,50
36″	16,20,48,48,26, 1,22,15,32,23		1,11,42,19,39	
		2, 0,54,35, 3,45, 0,13		8,50
38″	16,20,50,49,20,36,26, 0,32,36		1,11,42,28,29	
		2, 0,54,33,52, 2,31,44		8,50
40″	16,20,52,50,15,10,18, 3, 4,20		1,11,42,37,19	
		2, 0,54,32,40,19,54,25		8,50
42″	16,20,54,51, 9,42,58,22,58,45		1,11,42,46, 9	
		2, 0,54,31,28,37, 8,16		8,50
44″	16,20,56,52, 4,14,27, 0, 7, 1		1,11,42,54,59	
		2, 0,54,30,16,54,13,17		8,50
46″	16,20,58,52,58,44,43,54,20,18		1,11,43, 3,49	
		2, 0,54,29, 5,11, 9,28		8,50
48″	16,21, 0,53,53,13,49, 5,29,46		1,11,43,12,39	
		2, 0,54,27,53,27,56,49		8,50
50″	16,21, 2,54,47,41,42,33,26,35		1,11,43,21,29	
		2, 0,54,26,41,44,35,20		8,50
52″	16,21, 4,55,42, 8,24,18, 1,55		1,11,43,30,19	
		2, 0,54,25,30, 1, 5, 1		8,50
54″	16,21, 6,56,36,33,54,19, 6,56		1,11,43,39, 9	
		2, 0,54,24,18,17,25,52		8,50
56″	16,21, 8,57,30,58,12,36,32,48		1,11,43,47,59	
		2, 0,54,23, 6,33,37,53		8,50
58″	16,21,10,58,25,21,19,10,10,41		1,11,43,56,49	
		2, 0,54,21,54,49,41, 4		
60″	16,21,12,59,19,43,13,59,51,45			
exact	16,21,12,59,19,43,13,59,27,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°49′ 0″	16,21,12,59,19,43,13,59,27,35			
		2, 0,54,20,43, 5,32,47		
2″	16,21,15, 0,14, 3,57, 5, 0,22		1,11,44,14,40	
		2, 0,54,19,31,21,18, 7		8,50
4″	16,21,17, 1, 8,23,28,26,18,29		1,11,44,23,30	
		2, 0,54,18,19,36,54,37		8,50
6″	16,21,19, 2, 2,41,48, 3,13, 6		1,11,44,32,20	
		2, 0,54,17, 7,52,22,17		8,50
8″	16,21,21, 2,56,58,55,55,35,23		1,11,44,41,10	
		2, 0,54,15,56, 7,41, 7		8,50
10″	16,21,23, 3,51,14,52, 3,16,30		1,11,44,50, 0	
		2, 0,54,14,44,22,51, 7		8,50
12″	16,21,25, 4,45,29,36,26, 7,37		1,11,44,58,50	
		2, 0,54,13,32,37,52,17		8,50
14″	16,21,27, 5,39,43, 9, 3,59,54		1,11,45, 7,40	
		2, 0,54,12,20,52,44,37		8,50
16″	16,21,29, 6,33,55,29,56,44,31		1,11,45,16,30	
		2, 0,54,11, 9, 7,28, 7		8,50
18″	16,21,31, 7,28, 6,39, 4,12,38		1,11,45,25,20	
		2, 0,54, 9,57,22, 2,47		8,50
20″	16,21,33, 8,22,16,36,26,15,25		1,11,45,34,10	
		2, 0,54, 8,45,36,28,37		8,50
22″	16,21,35, 9,16,25,22, 2,44, 2		1,11,45,43, 0	
		2, 0,54, 7,33,50,45,37		8,50
24″	16,21,37,10,10,32,55,53,29,39		1,11,45,51,50	
		2, 0,54, 6,22, 4,53,47		8,50
26″	16,21,39,11, 4,39,17,58,23,26		1,11,46, 0,40	
		2, 0,54, 5,10,18,53, 7		8,50
28″	16,21,41,11,58,44,28,17,16,33		1,11,46, 9,30	
		2, 0,54, 3,58,32,43,37		8,50
30″	16,21,43,12,52,48,26,50, 0,10		1,11,46,18,20	
		2, 0,54, 2,46,46,25,17		8,50
32″	16,21,45,13,46,51,13,36,25,27		1,11,46,27,10	
		2, 0,54, 1,34,59,58, 7		8,50
34″	16,21,47,14,40,52,48,36,23,34		1,11,46,36, 0	
		2, 0,54, 0,23,13,22, 7		8,50
36″	16,21,49,15,34,53,11,49,45,41		1,11,46,44,50	
		2, 0,53,59,11,26,37,17		8,50
38″	16,21,51,16,28,52,23,16,22,58		1,11,46,53,40	
		2, 0,53,57,59,39,43,37		8,50
40″	16,21,53,17,22,50,22,56, 6,35		1,11,47, 2,30	
		2, 0,53,56,47,52,41, 7		8,50
42″	16,21,55,18,16,47,10,48,47,42		1,11,47,11,20	
		2, 0,53,55,36, 5,29,47		8,50
44″	16,21,57,19,10,42,46,54,17,29		1,11,47,20,10	
		2, 0,53,54,24,18, 9,37		8,50
46″	16,21,59,20, 4,37,11,12,27, 6		1,11,47,29, 0	
		2, 0,53,53,12,30,40,37		8,50
48″	16,22, 1,20,58,30,23,43, 7,43		1,11,47,37,50	
		2, 0,53,52, 0,43, 2,47		8,50
50″	16,22, 3,21,52,22,24,26,10,30		1,11,47,46,40	
		2, 0,53,50,48,55,16, 7		8,50
52″	16,22, 5,22,46,13,13,21,26,37		1,11,47,55,30	
		2, 0,53,49,37, 7,20,37		8,50
54″	16,22, 7,23,40, 2,50,28,47,14		1,11,48, 4,20	
		2, 0,53,48,25,19,16,17		8,50
56″	16,22, 9,24,33,51,15,48, 3,31		1,11,48,13,10	
		2, 0,53,47,13,31, 3, 7		8,50
58″	16,22,11,25,27,38,29,19, 6,38		1,11,48,22, 0	
		2, 0,53,46, 1,42,41, 7		
60″	16,22,13,26,21,24,31, 1,47,45			
exact	16,22,13,26,21,24,31, 1,25,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°50′ 0″	16,22,13,26,21,24,31, 1,25,12			
		2, 0,53,44,49,54, 7,52		
2″	16,22,15,27,15, 9,20,55,33, 4		1,11,48,39,50	
		2, 0,53,43,38, 5,28, 2		8,50
4″	16,22,17,28, 8,52,59, 1, 1, 6		1,11,48,48,40	
		2, 0,53,42,26,16,39,22		8,50
6″	16,22,19,29, 2,35,25,17,40,28		1,11,48,57,30	
		2, 0,53,41,14,27,41,52		8,50
8″	16,22,21,29,56,16,39,45,22,20		1,11,49, 6,20	
		2, 0,53,40, 2,38,35,32		8,50
10″	16,22,23,30,49,56,42,23,57,52		1,11,49,15,10	
		2, 0,53,38,50,49,20,22		8,50
12″	16,22,25,31,43,35,33,13,18,14		1,11,49,24, 0	
		2, 0,53,37,38,59,56,22		8,50
14″	16,22,27,32,37,13,12,13,14,36		1,11,49,32,50	
		2, 0,53,36,27,10,23,32		8,50
16″	16,22,29,33,30,49,39,23,38, 8		1,11,49,41,40	
		2, 0,53,35,15,20,41,52		8,50
18″	16,22,31,34,24,24,54,44,20, 0		1,11,49,50,30	
		2, 0,53,34, 3,30,51,22		8,50
20″	16,22,33,35,17,58,58,15,11,22		1,11,49,59,20	
		2, 0,53,32,51,40,52, 2		8,50
22″	16,22,35,36,11,31,49,56, 3,24		1,11,50, 8,10	
		2, 0,53,31,39,50,43,52		8,50
24″	16,22,37,37, 5, 3,29,46,47,16		1,11,50,17, 0	
		2, 0,53,30,28, 0,26,52		8,50
26″	16,22,39,37,58,33,57,47,14, 8		1,11,50,25,50	
		2, 0,53,29,16,10, 1, 2		8,50
28″	16,22,41,38,52, 3,13,57,15,10		1,11,50,34,40	
		2, 0,53,28, 4,19,26,22		8,50
30″	16,22,43,39,45,31,18,16,41,32		1,11,50,43,30	
		2, 0,53,26,52,28,42,52		8,50
32″	16,22,45,40,38,58,10,45,24,24		1,11,50,52,20	
		2, 0,53,25,40,37,50,32		8,50
34″	16,22,47,41,32,23,51,23,14,56		1,11,51, 1,10	
		2, 0,53,24,28,46,49,22		8,50
36″	16,22,49,42,25,48,20,10, 4,18		1,11,51,10, 0	
		2, 0,53,23,16,55,39,22		8,50
38″	16,22,51,43,19,11,37, 5,43,40		1,11,51,18,50	
		2, 0,53,22, 5, 4,20,32		8,50
40″	16,22,53,44,12,33,42,10, 4,12		1,11,51,27,40	
		2, 0,53,20,53,12,52,52		8,50
42″	16,22,55,45, 5,54,35,22,57, 4		1,11,51,36,30	
		2, 0,53,19,41,21,16,22		8,50
44″	16,22,57,45,59,14,16,44,13,26		1,11,51,45,20	
		2, 0,53,18,29,29,31, 2		8,50
46″	16,22,59,46,52,32,46,13,44,28		1,11,51,54,10	
		2, 0,53,17,17,37,36,52		8,50
48″	16,23, 1,47,45,50, 3,51,21,20		1,11,52, 3, 0	
		2, 0,53,16, 5,45,33,52		8,50
50″	16,23, 3,48,39, 6, 9,36,55,12		1,11,52,11,50	
		2, 0,53,14,53,53,22, 2		8,50
52″	16,23, 5,49,32,21, 3,30,17,14		1,11,52,20,40	
		2, 0,53,13,42, 1, 1,22		8,50
54″	16,23, 7,50,25,34,45,31,18,36		1,11,52,29,30	
		2, 0,53,12,30, 8,31,52		8,50
56″	16,23, 9,51,18,47,15,39,50,28		1,11,52,38,20	
		2, 0,53,11,18,15,53,32		8,50
58″	16,23,11,52,11,58,33,55,44, 0		1,11,52,47,10	
		2, 0,53,10, 6,23, 6,22		
60″	16,23,13,53, 5, 8,40,18,50,22			
exact	16,23,13,53, 5, 8,40,18,31,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°51′ 0″	16,23,13,53, 5, 8,40,18,31,47			
		2, 0,53, 8,54,30, 8,20		
2″	16,23,15,53,58,17,34,48,40, 7		1,11,53, 4,58	
		2, 0,53, 7,42,37, 3,22		8,50
4″	16,23,17,54,51,25,17,25,43,29		1,11,53,13,48	
		2, 0,53, 6,30,43,49,34		8,50
6″	16,23,19,55,44,31,48, 9,33, 3		1,11,53,22,38	
		2, 0,53, 5,18,50,26,56		8,50
8″	16,23,21,56,37,37, 6,59,59,59		1,11,53,31,28	
		2, 0,53, 4, 6,56,55,28		8,50
10″	16,23,23,57,30,41,13,56,55,27		1,11,53,40,18	
		2, 0,53, 2,55, 3,15,10		8,50
12″	16,23,25,58,23,44, 9, 0,10,37		1,11,53,49, 8	
		2, 0,53, 1,43, 9,26, 2		8,50
14″	16,23,27,59,16,45,52, 9,36,39		1,11,53,57,58	
		2, 0,53, 0,31,15,28, 4		8,50
16″	16,23,30, 0, 9,46,23,25, 4,43		1,11,54, 6,48	
		2, 0,52,59,19,21,21,16		8,50
18″	16,23,32, 1, 2,45,42,46,25,59		1,11,54,15,38	
		2, 0,52,58, 7,27, 5,38		8,50
20″	16,23,34, 1,55,43,50,13,31,37		1,11,54,24,28	
		2, 0,52,56,55,32,41,10		8,50
22″	16,23,36, 2,48,40,45,46,12,47		1,11,54,33,18	
		2, 0,52,55,43,38, 7,52		8,50
24″	16,23,38, 3,41,36,29,24,20,39		1,11,54,42, 8	
		2, 0,52,54,31,43,25,44		8,50
26″	16,23,40, 4,34,31, 1, 7,46,23		1,11,54,50,58	
		2, 0,52,53,19,48,34,46		8,50
28″	16,23,42, 5,27,24,20,56,21, 9		1,11,54,59,48	
		2, 0,52,52, 7,53,34,58		8,50
30″	16,23,44, 6,20,16,28,49,56, 7		1,11,55, 8,38	
		2, 0,52,50,55,58,26,20		8,50
32″	16,23,46, 7,13, 7,24,48,22,27		1,11,55,17,28	
		2, 0,52,49,44, 3, 8,52		8,50
34″	16,23,48, 8, 5,57, 8,51,31,19		1,11,55,26,18	
		2, 0,52,48,32, 7,42,34		8,50
36″	16,23,50, 8,58,45,40,59,13,53		1,11,55,35, 8	
		2, 0,52,47,20,12, 7,26		8,50
38″	16,23,52, 9,51,33, 1,11,21,19		1,11,55,43,58	
		2, 0,52,46, 8,16,23,28		8,50
40″	16,23,54,10,44,19, 9,27,44,47		1,11,55,52,48	
		2, 0,52,44,56,20,30,40		8,50
42″	16,23,56,11,37, 4, 5,48,15,27		1,11,56, 1,38	
		2, 0,52,43,44,24,29, 2		8,50
44″	16,23,58,12,29,47,50,12,44,29		1,11,56,10,28	
		2, 0,52,42,32,28,18,34		8,50
46″	16,24, 0,13,22,30,22,41, 3, 3		1,11,56,19,18	
		2, 0,52,41,20,31,59,16		8,50
48″	16,24, 2,14,15,11,43,13, 2,19		1,11,56,28, 8	
		2, 0,52,40, 8,35,31, 8		8,50
50″	16,24, 4,15, 7,51,51,48,33,27		1,11,56,36,58	
		2, 0,52,38,56,38,54,10		8,50
52″	16,24, 6,16, 0,30,48,27,27,37		1,11,56,45,48	
		2, 0,52,37,44,42, 8,22		8,50
54″	16,24, 8,16,53, 8,33, 9,35,59		1,11,56,54,38	
		2, 0,52,36,32,45,13,44		8,50
56″	16,24,10,17,45,45, 5,54,49,43		1,11,57, 3,28	
		2, 0,52,35,20,48,10,16		8,50
58″	16,24,12,18,38,20,26,42,59,59		1,11,57,12,18	
		2, 0,52,34, 8,50,57,58		
60″	16,24,14,19,30,54,35,33,57,57			
exact	16,24,14,19,30,54,35,33,38, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°52′ 0″	16,24,14,19,30,54,35,33,38, 7			
		2, 0,52,32,56,53,34,50		
2″	16,24,16,20,23,27,32,27,12,57		1,11,57,30, 6	
		2, 0,52,31,44,56, 4,44		8,50
4″	16,24,18,21,15,59,17,23,17,41		1,11,57,38,56	
		2, 0,52,30,32,58,25,48		8,50
6″	16,24,20,22, 8,29,50,21,43,29		1,11,57,47,46	
		2, 0,52,29,21, 0,38, 2		8,50
8″	16,24,22,23, 0,59,11,22,21,31		1,11,57,56,36	
		2, 0,52,28, 9, 2,41,26		8,50
10″	16,24,24,23,53,27,20,25, 2,57		1,11,58, 5,26	
		2, 0,52,26,57, 4,36, 0		8,50
12″	16,24,26,24,45,54,17,29,38,57		1,11,58,14,16	
		2, 0,52,25,45, 6,21,44		8,50
14″	16,24,28,25,38,20, 2,36, 0,41		1,11,58,23, 6	
		2, 0,52,24,33, 7,58,38		8,50
16″	16,24,30,26,30,44,35,43,59,19		1,11,58,31,56	
		2, 0,52,23,21, 9,26,42		8,50
18″	16,24,32,27,23, 7,56,53,26, 1		1,11,58,40,46	
		2, 0,52,22, 9,10,45,56		8,50
20″	16,24,34,28,15,30, 6, 4,11,57		1,11,58,49,36	
		2, 0,52,20,57,11,56,20		8,50
22″	16,24,36,29, 7,51, 3,16, 8,17		1,11,58,58,26	
		2, 0,52,19,45,12,57,54		8,50
24″	16,24,38,30, 0,10,48,29, 6,11		1,11,59, 7,16	
		2, 0,52,18,33,13,50,38		8,50
26″	16,24,40,30,52,29,21,42,56,49		1,11,59,16, 6	
		2, 0,52,17,21,14,34,32		8,50
28″	16,24,42,31,44,46,42,57,31,21		1,11,59,24,56	
		2, 0,52,16, 9,15, 9,36		8,50
30″	16,24,44,32,37, 2,52,12,40,57		1,11,59,33,46	
		2, 0,52,14,57,15,35,50		8,50
32″	16,24,46,33,29,17,49,28,16,47		1,11,59,42,36	
		2, 0,52,13,45,15,53,14		8,50
34″	16,24,48,34,21,31,34,44,10, 1		1,11,59,51,26	
		2, 0,52,12,33,16, 1,48		8,50
36″	16,24,50,35,13,44, 8, 0,11,49		1,12, 0, 0,16	
		2, 0,52,11,21,16, 1,32		8,50
38″	16,24,52,36, 5,55,29,16,13,21		1,12, 0, 9, 6	
		2, 0,52,10, 9,15,52,26		8,50
40″	16,24,54,36,58, 5,38,32, 5,47		1,12, 0,17,56	
		2, 0,52, 8,57,15,34,30		8,50
42″	16,24,56,37,50,14,35,47,40,17		1,12, 0,26,46	
		2, 0,52, 7,45,15, 7,44		8,50
44″	16,24,58,38,42,22,21, 2,48, 1		1,12, 0,35,36	
		2, 0,52, 6,33,14,32, 8		8,50
46″	16,25, 0,39,34,28,54,17,20, 9		1,12, 0,44,26	
		2, 0,52, 5,21,13,47,42		8,50
48″	16,25, 2,40,26,34,15,31, 7,51		1,12, 0,53,16	
		2, 0,52, 4, 9,12,54,26		8,50
50″	16,25, 4,41,18,38,24,44, 2,17		1,12, 1, 2, 6	
		2, 0,52, 2,57,11,52,20		8,50
52″	16,25, 6,42,10,41,21,55,54,37		1,12, 1,10,56	
		2, 0,52, 1,45,10,41,24		8,50
54″	16,25, 8,43, 2,43, 7, 6,36, 1		1,12, 1,19,46	
		2, 0,52, 0,33, 9,21,38		8,50
56″	16,25,10,43,54,43,40,15,57,39		1,12, 1,28,36	
		2, 0,51,59,21, 7,53, 2		8,50
58″	16,25,12,44,46,43, 1,23,50,41		1,12, 1,37,26	
		2, 0,51,58, 9, 6,15,36		
60″	16,25,14,45,38,41,10,30, 6,17			
exact	16,25,14,45,38,41,10,29,54,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°53′ 0″	16,25,14,45,38,41,10,29,54,44			
		2, 0,51,56,57, 4,28, 1		
2″	16,25,16,46,30,38, 7,34,22,45		1,12, 1,55,12	
		2, 0,51,55,45, 2,32,49		8,50
4″	16,25,18,47,22,33,52,36,55,34		1,12, 2, 4, 2	
		2, 0,51,54,33, 0,28,47		8,50
6″	16,25,20,48,14,28,25,37,24,21		1,12, 2,12,52	
		2, 0,51,53,20,58,15,55		8,50
8″	16,25,22,49, 6,21,46,35,40,16		1,12, 2,21,42	
		2, 0,51,52, 8,55,54,13		8,50
10″	16,25,24,49,58,13,55,31,34,29		1,12, 2,30,32	
		2, 0,51,50,56,53,23,41		8,50
12″	16,25,26,50,50, 4,52,24,58,10		1,12, 2,39,22	
		2, 0,51,49,44,50,44,19		8,50
14″	16,25,28,51,41,54,37,15,42,29		1,12, 2,48,12	
		2, 0,51,48,32,47,56, 7		8,50
16″	16,25,30,52,33,43,10, 3,38,36		1,12, 2,57, 2	
		2, 0,51,47,20,44,59, 5		8,50
18″	16,25,32,53,25,30,30,48,37,41		1,12, 3, 5,52	
		2, 0,51,46, 8,41,53,13		8,50
20″	16,25,34,54,17,16,39,30,30,54		1,12, 3,14,42	
		2, 0,51,44,56,38,38,31		8,50
22″	16,25,36,55, 9, 1,36, 9, 9,25		1,12, 3,23,32	
		2, 0,51,43,44,35,14,59		8,50
24″	16,25,38,56, 0,45,20,44,24,24		1,12, 3,32,22	
		2, 0,51,42,32,31,42,37		8,50
26″	16,25,40,56,52,27,53,16, 7, 1		1,12, 3,41,12	
		2, 0,51,41,20,28, 1,25		8,50
28″	16,25,42,57,44, 9,13,44, 8,26		1,12, 3,50, 2	
		2, 0,51,40, 8,24,11,23		8,50
30″	16,25,44,58,35,49,22, 8,19,49		1,12, 3,58,52	
		2, 0,51,38,56,20,12,31		8,50
32″	16,25,46,59,27,28,18,28,32,20		1,12, 4, 7,42	
		2, 0,51,37,44,16, 4,49		8,50
34″	16,25,49, 0,19, 6, 2,44,37, 9		1,12, 4,16,32	
		2, 0,51,36,32,11,48,17		8,50
36″	16,25,51, 1,10,42,34,56,25,26		1,12, 4,25,22	
		2, 0,51,35,20, 7,22,55		8,50
38″	16,25,53, 2, 2,17,55, 3,48,21		1,12, 4,34,12	
		2, 0,51,34, 8, 2,48,43		8,50
40″	16,25,55, 2,53,52, 3, 6,37, 4		1,12, 4,43, 2	
		2, 0,51,32,55,58, 5,41		8,50
42″	16,25,57, 3,45,24,59, 4,42,45		1,12, 4,51,52	
		2, 0,51,31,43,53,13,49		8,50
44″	16,25,59, 4,36,56,42,57,56,34		1,12, 5, 0,42	
		2, 0,51,30,31,48,13, 7		8,50
46″	16,26, 1, 5,28,27,14,46, 9,41		1,12, 5, 9,32	
		2, 0,51,29,19,43, 3,35		8,50
48″	16,26, 3, 6,19,56,34,29,13,16		1,12, 5,18,22	
		2, 0,51,28, 7,37,45,13		8,50
50″	16,26, 5, 7,11,24,42, 6,58,29		1,12, 5,27,12	
		2, 0,51,26,55,32,18, 1		8,50
52″	16,26, 7, 8, 2,51,37,39,16,30		1,12, 5,36, 2	
		2, 0,51,25,43,26,41,59		8,50
54″	16,26, 9, 8,54,17,21, 5,58,29		1,12, 5,44,52	
		2, 0,51,24,31,20,57, 7		8,50
56″	16,26,11, 9,45,41,52,26,55,36		1,12, 5,53,42	
		2, 0,51,23,19,15, 3,25		8,50
58″	16,26,13,10,37, 5,11,41,59, 1		1,12, 6, 2,32	
		2, 0,51,22, 7, 9, 0,53		
60″	16,26,15,11,28,27,18,50,59,54			
exact	16,26,15,11,28,27,18,50,51,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°54′ 0″	16,26,15,11,28,27,18,50,51,52			
		2, 0,51,20,55, 2,48,33		
2″	16,26,17,12,19,48,13,53,40,25		1,12, 6,20,16	
		2, 0,51,19,42,56,28,17		8,50
4″	16,26,19,13,11, 7,56,50, 8,42		1,12, 6,29, 6	
		2, 0,51,18,30,49,59,11		8,50
6″	16,26,21,14, 2,26,27,40, 7,53		1,12, 6,37,56	
		2, 0,51,17,18,43,21,15		8,50
8″	16,26,23,14,53,43,46,23,29, 8		1,12, 6,46,46	
		2, 0,51,16, 6,36,34,29		8,50
10″	16,26,25,15,44,59,53, 0, 3,37		1,12, 6,55,36	
		2, 0,51,14,54,29,38,53		8,50
12″	16,26,27,16,36,14,47,29,42,30		1,12, 7, 4,26	
		2, 0,51,13,42,22,34,27		8,50
14″	16,26,29,17,27,28,29,52,16,57		1,12, 7,13,16	
		2, 0,51,12,30,15,21,11		8,50
16″	16,26,31,18,18,41, 0, 7,38, 8		1,12, 7,22, 6	
		2, 0,51,11,18, 7,59, 5		8,50
18″	16,26,33,19, 9,52,18,15,37,13		1,12, 7,30,56	
		2, 0,51,10, 6, 0,28, 9		8,50
20″	16,26,35,20, 1, 2,24,16, 5,22		1,12, 7,39,46	
		2, 0,51, 8,53,52,48,23		8,50
22″	16,26,37,20,52,11,18, 8,53,45		1,12, 7,48,36	
		2, 0,51, 7,41,44,59,47		8,50
24″	16,26,39,21,43,18,59,53,53,32		1,12, 7,57,26	
		2, 0,51, 6,29,37, 2,21		8,50
26″	16,26,41,22,34,25,29,30,55,53		1,12, 8, 6,16	
		2, 0,51, 5,17,28,56, 5		8,50
28″	16,26,43,23,25,30,46,59,51,58		1,12, 8,15, 6	
		2, 0,51, 4, 5,20,40,59		8,50
30″	16,26,45,24,16,34,52,20,32,57		1,12, 8,23,56	
		2, 0,51, 2,53,12,17, 3		8,50
32″	16,26,47,25, 7,37,45,32,50, 0		1,12, 8,32,46	
		2, 0,51, 1,41, 3,44,17		8,50
34″	16,26,49,25,58,39,26,36,34,17		1,12, 8,41,36	
		2, 0,51, 0,28,55, 2,41		8,50
36″	16,26,51,26,49,39,55,31,36,58		1,12, 8,50,26	
		2, 0,50,59,16,46,12,15		8,50
38″	16,26,53,27,40,39,12,17,49,13		1,12, 8,59,16	
		2, 0,50,58, 4,37,12,59		8,50
40″	16,26,55,28,31,37,16,55, 2,12		1,12, 9, 8, 6	
		2, 0,50,56,52,28, 4,53		8,50
42″	16,26,57,29,22,34, 9,23, 7, 5		1,12, 9,16,56	
		2, 0,50,55,40,18,47,57		8,50
44″	16,26,59,30,13,29,49,41,55, 2		1,12, 9,25,46	
		2, 0,50,54,28, 9,22,11		8,50
46″	16,27, 1,31, 4,24,17,51,17,13		1,12, 9,34,36	
		2, 0,50,53,15,59,47,35		8,50
48″	16,27, 3,31,55,17,33,51, 4,48		1,12, 9,43,26	
		2, 0,50,52, 3,50, 4, 9		8,50
50″	16,27, 5,32,46, 9,37,41, 8,57		1,12, 9,52,16	
		2, 0,50,50,51,40,11,53		8,50
52″	16,27, 7,33,37, 0,29,21,20,50		1,12,10, 1, 6	
		2, 0,50,49,39,30,10,47		8,50
54″	16,27, 9,34,27,50, 8,51,31,37		1,12,10, 9,56	
		2, 0,50,48,27,20, 0,51		8,50
56″	16,27,11,35,18,38,36,11,32,28		1,12,10,18,46	
		2, 0,50,47,15, 9,42, 5		8,50
58″	16,27,13,36, 9,25,51,21,14,33		1,12,10,27,36	
		2, 0,50,46, 2,59,14,29		
60″	16,27,15,37, 0,11,54,20,29, 2			
exact	16,27,15,37, 0,11,54,20,19,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°55′ 0″	16,27,15,37, 0,11,54,20,19,30			
		2, 0,50,44,50,48,37, 6		
2″	16,27,17,37,50,56,45, 8,56,36		1,12,10,45,20	
		2, 0,50,43,38,37,51,46		8,50
4″	16,27,19,38,41,40,23,46,48,22		1,12,10,54,10	
		2, 0,50,42,26,26,57,36		8,50
6″	16,27,21,39,32,22,50,13,45,58		1,12,11, 3, 0	
		2, 0,50,41,14,15,54,36		8,50
8″	16,27,23,40,23, 4, 4,29,40,34		1,12,11,11,50	
		2, 0,50,40, 2, 4,42,46		8,50
10″	16,27,25,41,13,44, 6,34,23,20		1,12,11,20,40	
		2, 0,50,38,49,53,22, 6		8,50
12″	16,27,27,42, 4,22,56,27,45,26		1,12,11,29,30	
		2, 0,50,37,37,41,52,36		8,50
14″	16,27,29,42,55, 0,34, 9,38, 2		1,12,11,38,20	
		2, 0,50,36,25,30,14,16		8,50
16″	16,27,31,43,45,36,59,39,52,18		1,12,11,47,10	
		2, 0,50,35,13,18,27, 6		8,50
18″	16,27,33,44,36,12,12,58,19,24		1,12,11,56, 0	
		2, 0,50,34, 1, 6,31, 6		8,50
20″	16,27,35,45,26,46,14, 4,50,30		1,12,12, 4,50	
		2, 0,50,32,48,54,26,16		8,50
22″	16,27,37,46,17,19, 2,59,16,46		1,12,12,13,40	
		2, 0,50,31,36,42,12,36		8,50
24″	16,27,39,47, 7,50,39,41,29,22		1,12,12,22,30	
		2, 0,50,30,24,29,50, 6		8,50
26″	16,27,41,47,58,21, 4,11,19,28		1,12,12,31,20	
		2, 0,50,29,12,17,18,46		8,50
28″	16,27,43,48,48,50,16,28,38,14		1,12,12,40,10	
		2, 0,50,28, 0, 4,38,36		8,50
30″	16,27,45,49,39,18,16,33,16,50		1,12,12,49, 0	
		2, 0,50,26,47,51,49,36		8,50
32″	16,27,47,50,29,45, 4,25, 6,26		1,12,12,57,50	
		2, 0,50,25,35,38,51,46		8,50
34″	16,27,49,51,20,10,40, 3,58,12		1,12,13, 6,40	
		2, 0,50,24,23,25,45, 6		8,50
36″	16,27,51,52,10,35, 3,29,43,18		1,12,13,15,30	
		2, 0,50,23,11,12,29,36		8,50
38″	16,27,53,53, 0,58,14,42,12,54		1,12,13,24,20	
		2, 0,50,21,58,59, 5,16		8,50
40″	16,27,55,53,51,20,13,41,18,10		1,12,13,33,10	
		2, 0,50,20,46,45,32, 6		8,50
42″	16,27,57,54,41,41, 0,26,50,16		1,12,13,42, 0	
		2, 0,50,19,34,31,50, 6		8,50
44″	16,27,59,55,32, 0,34,58,40,22		1,12,13,50,50	
		2, 0,50,18,22,17,59,16		8,50
46″	16,28, 1,56,22,18,57,16,39,38		1,12,13,59,40	
		2, 0,50,17,10, 3,59,36		8,50
48″	16,28, 3,57,12,36, 7,20,39,14		1,12,14, 8,30	
		2, 0,50,15,57,49,51, 6		8,50
50″	16,28, 5,58, 2,52, 5,10,30,20		1,12,14,17,20	
		2, 0,50,14,45,35,33,46		8,50
52″	16,28, 7,58,53, 6,50,46, 4, 6		1,12,14,26,10	
		2, 0,50,13,33,21, 7,36		8,50
54″	16,28, 9,59,43,20,24, 7,11,42		1,12,14,35, 0	
		2, 0,50,12,21, 6,32,36		8,50
56″	16,28,12, 0,33,32,45,13,44,18		1,12,14,43,50	
		2, 0,50,11, 8,51,48,46		8,50
58″	16,28,14, 1,23,43,54, 5,33, 4		1,12,14,52,40	
		2, 0,50, 9,56,36,56, 6		
60″	16,28,16, 2,13,53,50,42,29,10			
exact	16,28,16, 2,13,53,50,42,27,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°56′ 0″	16,28,16, 2,13,53,50,42,27,23			
		2, 0,50, 8,44,21,54,18		
2″	16,28,18, 3, 4, 2,35, 4,21,41		1,12,15,10,22	
		2, 0,50, 7,32, 6,43,56		8,50
4″	16,28,20, 3,54,10, 7,11, 5,37		1,12,15,19,12	
		2, 0,50, 6,19,51,24,44		8,50
6″	16,28,22, 4,44,16,27, 2,30,21		1,12,15,28, 2	
		2, 0,50, 5, 7,35,56,42		8,50
8″	16,28,24, 5,34,21,34,38,27, 3		1,12,15,36,52	
		2, 0,50, 3,55,20,19,50		8,50
10″	16,28,26, 6,24,25,29,58,46,53		1,12,15,45,42	
		2, 0,50, 2,43, 4,34, 8		8,50
12″	16,28,28, 7,14,28,13, 3,21, 1		1,12,15,54,32	
		2, 0,50, 1,30,48,39,36		8,50
14″	16,28,30, 8, 4,29,43,52, 0,37		1,12,16, 3,22	
		2, 0,50, 0,18,32,36,14		8,50
16″	16,28,32, 8,54,30, 2,24,36,51		1,12,16,12,12	
		2, 0,49,59, 6,16,24, 2		8,50
18″	16,28,34, 9,44,29, 8,41, 0,53		1,12,16,21, 2	
		2, 0,49,57,54, 0, 3, 0		8,50
20″	16,28,36,10,34,27, 2,41, 3,53		1,12,16,29,52	
		2, 0,49,56,41,43,33, 8		8,50
22″	16,28,38,11,24,23,44,24,37, 1		1,12,16,38,42	
		2, 0,49,55,29,26,54,26		8,50
24″	16,28,40,12,14,19,13,51,31,27		1,12,16,47,32	
		2, 0,49,54,17,10, 6,54		8,50
26″	16,28,42,13, 4,13,31, 1,38,21		1,12,16,56,22	
		2, 0,49,53, 4,53,10,32		8,50
28″	16,28,44,13,54, 6,35,54,48,53		1,12,17, 5,12	
		2, 0,49,51,52,36, 5,20		8,50
30″	16,28,46,14,43,58,28,30,54,13		1,12,17,14, 2	
		2, 0,49,50,40,18,51,18		8,50
32″	16,28,48,15,33,49, 8,49,45,31		1,12,17,22,52	
		2, 0,49,49,28, 1,28,26		8,50
34″	16,28,50,16,23,38,36,51,13,57		1,12,17,31,42	
		2, 0,49,48,15,43,56,44		8,50
36″	16,28,52,17,13,26,52,35,10,41		1,12,17,40,32	
		2, 0,49,47, 3,26,16,12		8,50
38″	16,28,54,18, 3,13,56, 1,26,53		1,12,17,49,22	
		2, 0,49,45,51, 8,26,50		8,50
40″	16,28,56,18,52,59,47, 9,53,43		1,12,17,58,12	
		2, 0,49,44,38,50,28,38		8,50
42″	16,28,58,19,42,44,26, 0,22,21		1,12,18, 7, 2	
		2, 0,49,43,26,32,21,36		8,50
44″	16,29, 0,20,32,27,52,32,43,57		1,12,18,15,52	
		2, 0,49,42,14,14, 5,44		8,50
46″	16,29, 2,21,22,10, 6,46,49,41		1,12,18,24,42	
		2, 0,49,41, 1,55,41, 2		8,50
48″	16,29, 4,22,11,51, 8,42,30,43		1,12,18,33,32	
		2, 0,49,39,49,37, 7,30		8,50
50″	16,29, 6,23, 1,30,58,19,38,13		1,12,18,42,22	
		2, 0,49,38,37,18,25, 8		8,50
52″	16,29, 8,23,51, 9,35,38, 3,21		1,12,18,51,12	
		2, 0,49,37,24,59,33,56		8,50
54″	16,29,10,24,40,47, 0,37,37,17		1,12,19, 0, 2	
		2, 0,49,36,12,40,33,54		8,50
56″	16,29,12,25,30,23,13,18,11,11		1,12,19, 8,52	
		2, 0,49,35, 0,21,25, 2		8,50
58″	16,29,14,26,19,58,13,39,36,13		1,12,19,17,42	
		2, 0,49,33,48, 2, 7,20		
60″	16,29,16,27, 9,32, 1,41,43,33			
exact	16,29,16,27, 9,32, 1,41,45, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°57′ 0″	16,29,16,27, 9,32, 1,41,45, 3			
		2, 0,49,32,35,42,40,50		
2″	16,29,18,27,59, 4,37,24,25,53		1,12,19,35,22	
		2, 0,49,31,23,23, 5,28		8,50
4″	16,29,20,28,48,36, 0,47,31,21		1,12,19,44,12	
		2, 0,49,30,11, 3,21,16		8,50
6″	16,29,22,29,38, 6,11,50,52,37		1,12,19,53, 2	
		2, 0,49,28,58,43,28,14		8,50
8″	16,29,24,30,27,35,10,34,20,51		1,12,20, 1,52	
		2, 0,49,27,46,23,26,22		8,50
10″	16,29,26,31,17, 2,56,57,47,13		1,12,20,10,42	
		2, 0,49,26,34, 3,15,40		8,50
12″	16,29,28,32, 6,29,31, 1, 2,53		1,12,20,19,32	
		2, 0,49,25,21,42,56, 8		8,50
14″	16,29,30,32,55,54,52,43,59, 1		1,12,20,28,22	
		2, 0,49,24, 9,22,27,46		8,50
16″	16,29,32,33,45,19, 2, 6,26,47		1,12,20,37,12	
		2, 0,49,22,57, 1,50,34		8,50
18″	16,29,34,34,34,41,59, 8,17,21		1,12,20,46, 2	
		2, 0,49,21,44,41, 4,32		8,50
20″	16,29,36,35,24, 3,43,49,21,53		1,12,20,54,52	
		2, 0,49,20,32,20, 9,40		8,50
22″	16,29,38,36,13,24,16, 9,31,33		1,12,21, 3,42	
		2, 0,49,19,19,59, 5,58		8,50
24″	16,29,40,37, 2,43,36, 8,37,31		1,12,21,12,32	
		2, 0,49,18, 7,37,53,26		8,50
26″	16,29,42,37,52, 1,43,46,30,57		1,12,21,21,22	
		2, 0,49,16,55,16,32, 4		8,50
28″	16,29,44,38,41,18,39, 3, 3, 1		1,12,21,30,12	
		2, 0,49,15,42,55, 1,52		8,50
30″	16,29,46,39,30,34,21,58, 4,53		1,12,21,39, 2	
		2, 0,49,14,30,33,22,50		8,50
32″	16,29,48,40,19,48,52,31,27,43		1,12,21,47,52	
		2, 0,49,13,18,11,34,58		8,50
34″	16,29,50,41, 9, 2,10,43, 2,41		1,12,21,56,42	
		2, 0,49,12, 5,49,38,16		8,50
36″	16,29,52,41,58,14,16,32,40,57		1,12,22, 5,32	
		2, 0,49,10,53,27,32,44		8,50
38″	16,29,54,42,47,25,10, 0,13,41		1,12,22,14,22	
		2, 0,49, 9,41, 5,18,22		8,50
40″	16,29,56,43,36,34,51, 5,32, 3		1,12,22,23,12	
		2, 0,49, 8,28,42,55,10		8,50
42″	16,29,58,44,25,43,19,48,27,13		1,12,22,32, 2	
		2, 0,49, 7,16,20,23, 8		8,50
44″	16,30, 0,45,14,50,36, 8,50,21		1,12,22,40,52	
		2, 0,49, 6, 3,57,42,16		8,50
46″	16,30, 2,46, 3,56,40, 6,32,37		1,12,22,49,42	
		2, 0,49, 4,51,34,52,34		8,50
48″	16,30, 4,46,53, 1,31,41,25,11		1,12,22,58,32	
		2, 0,49, 3,39,11,54, 2		8,50
50″	16,30, 6,47,42, 5,10,53,19,13		1,12,23, 7,22	
		2, 0,49, 2,26,48,46,40		8,50
52″	16,30, 8,48,31, 7,37,42, 5,53		1,12,23,16,12	
		2, 0,49, 1,14,25,30,28		8,50
54″	16,30,10,49,20, 8,52, 7,36,21		1,12,23,25, 2	
		2, 0,49, 0, 2, 2, 5,26		8,50
56″	16,30,12,50, 9, 8,54, 9,41,47		1,12,23,33,52	
		2, 0,48,58,49,38,31,34		8,50
58″	16,30,14,50,58, 7,43,48,13,21		1,12,23,42,42	
		2, 0,48,57,37,14,48,52		
60″	16,30,16,51,47, 5,21, 3, 2,13			
exact	16,30,16,51,47, 5,21, 3, 1,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°58′ 0″	16,30,16,51,47, 5,21, 3, 1,51			
		2, 0,48,56,24,50,57,21		
2″	16,30,18,52,36, 1,45,53,59,12		1,12,24, 0,22	
		2, 0,48,55,12,26,56,59		8,50
4″	16,30,20,53,24,56,58,20,56,11		1,12,24, 9,12	
		2, 0,48,54, 0, 2,47,47		8,50
6″	16,30,22,54,13,50,58,23,43,58		1,12,24,18, 2	
		2, 0,48,52,47,38,29,45		8,50
8″	16,30,24,55, 2,43,46, 2,13,43		1,12,24,26,52	
		2, 0,48,51,35,14, 2,53		8,50
10″	16,30,26,55,51,35,21,16,16,36		1,12,24,35,42	
		2, 0,48,50,22,49,27,11		8,50
12″	16,30,28,56,40,25,44, 5,43,47		1,12,24,44,32	
		2, 0,48,49,10,24,42,39		8,50
14″	16,30,30,57,29,14,54,30,26,26		1,12,24,53,22	
		2, 0,48,47,57,59,49,17		8,50
16″	16,30,32,58,18, 2,52,30,15,43		1,12,25, 2,12	
		2, 0,48,46,45,34,47, 5		8,50
18″	16,30,34,59, 6,49,38, 5, 2,48		1,12,25,11, 2	
		2, 0,48,45,33, 9,36, 3		8,50
20″	16,30,36,59,55,35,11,14,38,51		1,12,25,19,52	
		2, 0,48,44,20,44,16,11		8,50
22″	16,30,39, 0,44,19,31,58,55, 2		1,12,25,28,42	
		2, 0,48,43, 8,18,47,29		8,50
24″	16,30,41, 1,33, 2,40,17,42,31		1,12,25,37,32	
		2, 0,48,41,55,53, 9,57		8,50
26″	16,30,43, 2,21,44,36,10,52,28		1,12,25,46,22	
		2, 0,48,40,43,27,23,35		8,50
28″	16,30,45, 3,10,25,19,38,16, 3		1,12,25,55,12	
		2, 0,48,39,31, 1,28,23		8,50
30″	16,30,47, 3,59, 4,50,39,44,26		1,12,26, 4, 2	
		2, 0,48,38,18,35,24,21		8,50
32″	16,30,49, 4,47,43, 9,15, 8,47		1,12,26,12,52	
		2, 0,48,37, 6, 9,11,29		8,50
34″	16,30,51, 5,36,20,15,24,20,16		1,12,26,21,42	
		2, 0,48,35,53,42,49,47		8,50
36″	16,30,53, 6,24,56, 9, 7,10, 3		1,12,26,30,32	
		2, 0,48,34,41,16,19,15		8,50
38″	16,30,55, 7,13,30,50,23,29,18		1,12,26,39,22	
		2, 0,48,33,28,49,39,53		8,50
40″	16,30,57, 8, 2, 4,19,13, 9,11		1,12,26,48,12	
		2, 0,48,32,16,22,51,41		8,50
42″	16,30,59, 8,50,36,35,36, 0,52		1,12,26,57, 2	
		2, 0,48,31, 3,55,54,39		8,50
44″	16,31, 1, 9,39, 7,39,31,55,31		1,12,27, 5,52	
		2, 0,48,29,51,28,48,47		8,50
46″	16,31, 3,10,27,37,31, 0,44,18		1,12,27,14,42	
		2, 0,48,28,39, 1,34, 5		8,50
48″	16,31, 5,11,16, 6,10, 2,18,23		1,12,27,23,32	
		2, 0,48,27,26,34,10,33		8,50
50″	16,31, 7,12, 4,33,36,36,28,56		1,12,27,32,22	
		2, 0,48,26,14, 6,38,11		8,50
52″	16,31, 9,12,52,59,50,43, 7, 7		1,12,27,41,12	
		2, 0,48,25, 1,38,56,59		8,50
54″	16,31,11,13,41,24,52,22, 4, 6		1,12,27,50, 2	
		2, 0,48,23,49,11, 6,57		8,50
56″	16,31,13,14,29,48,41,33,11, 3		1,12,27,58,52	
		2, 0,48,22,36,43, 8, 5		8,50
58″	16,31,15,15,18,11,18,16,19, 8		1,12,28, 7,42	
		2, 0,48,21,24,15, 0,23		
60″	16,31,17,16, 6,32,42,31,19,31			
exact	16,31,17,16, 6,32,42,31,26,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
15°59′ 0″	16,31,17,16, 6,32,42,31,26,58			
		2, 0,48,20,11,46,44,31		
2″	16,31,19,16,54,52,54,18,11,29		1,12,28,25,20	
		2, 0,48,18,59,18,19,11		8,50
4″	16,31,21,17,43,11,53,36,30,40		1,12,28,34,10	
		2, 0,48,17,46,49,45, 1		8,50
6″	16,31,23,18,31,29,40,26,15,41		1,12,28,43, 0	
		2, 0,48,16,34,21, 2, 1		8,50
8″	16,31,25,19,19,46,14,47,17,42		1,12,28,51,50	
		2, 0,48,15,21,52,10,11		8,50
10″	16,31,27,20, 8, 1,36,39,27,53		1,12,29, 0,40	
		2, 0,48,14, 9,23, 9,31		8,50
12″	16,31,29,20,56,15,46, 2,37,24		1,12,29, 9,30	
		2, 0,48,12,56,54, 0, 1		8,50
14″	16,31,31,21,44,28,42,56,37,25		1,12,29,18,20	
		2, 0,48,11,44,24,41,41		8,50
16″	16,31,33,22,32,40,27,21,19, 6		1,12,29,27,10	
		2, 0,48,10,31,55,14,31		8,50
18″	16,31,35,23,20,50,59,16,33,37		1,12,29,36, 0	
		2, 0,48, 9,19,25,38,31		8,50
20″	16,31,37,24, 9, 0,18,42,12, 8		1,12,29,44,50	
		2, 0,48, 8, 6,55,53,41		8,50
22″	16,31,39,24,57, 8,25,38, 5,49		1,12,29,53,40	
		2, 0,48, 6,54,26, 0, 1		8,50
24″	16,31,41,25,45,15,20, 4, 5,50		1,12,30, 2,30	
		2, 0,48, 5,41,55,57,31		8,50
26″	16,31,43,26,33,21, 2, 0, 3,21		1,12,30,11,20	
		2, 0,48, 4,29,25,46,11		8,50
28″	16,31,45,27,21,25,31,25,49,32		1,12,30,20,10	
		2, 0,48, 3,16,55,26, 1		8,50
30″	16,31,47,28, 9,28,48,21,15,33		1,12,30,29, 0	
		2, 0,48, 2, 4,24,57, 1		8,50
32″	16,31,49,28,57,30,52,46,12,34		1,12,30,37,50	
		2, 0,48, 0,51,54,19,11		8,50
34″	16,31,51,29,45,31,44,40,31,45		1,12,30,46,40	
		2, 0,47,59,39,23,32,31		8,50
36″	16,31,53,30,33,31,24, 4, 4,16		1,12,30,55,30	
		2, 0,47,58,26,52,37, 1		8,50
38″	16,31,55,31,21,29,50,56,41,17		1,12,31, 4,20	
		2, 0,47,57,14,21,32,41		8,50
40″	16,31,57,32, 9,27, 5,18,13,58		1,12,31,13,10	
		2, 0,47,56, 1,50,19,31		8,50
42″	16,31,59,32,57,23, 7, 8,33,29		1,12,31,22, 0	
		2, 0,47,54,49,18,57,31		8,50
44″	16,32, 1,33,45,17,56,27,31, 0		1,12,31,30,50	
		2, 0,47,53,36,47,26,41		8,50
46″	16,32, 3,34,33,11,33,14,57,41		1,12,31,39,40	
		2, 0,47,52,24,15,47, 1		8,50
48″	16,32, 5,35,21, 3,57,30,44,42		1,12,31,48,30	
		2, 0,47,51,11,43,58,31		8,50
50″	16,32, 7,36, 8,55, 9,14,43,13		1,12,31,57,20	
		2, 0,47,49,59,12, 1,11		8,50
52″	16,32, 9,36,56,45, 8,26,44,24		1,12,32, 6,10	
		2, 0,47,48,46,39,55, 1		8,50
54″	16,32,11,37,44,33,55, 6,39,25		1,12,32,15, 0	
		2, 0,47,47,34, 7,40, 1		8,50
56″	16,32,13,38,32,21,29,14,19,26		1,12,32,23,50	
		2, 0,47,46,21,35,16,11		8,50
58″	16,32,15,39,20, 7,50,49,35,37		1,12,32,32,40	
		2, 0,47,45, 9, 2,43,31		
60″	16,32,17,40, 7,52,59,52,19, 8			
exact	16,32,17,40, 7,52,59,52,29,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16° 0′ 0″	16,32,17,40, 7,52,59,52,29,26			
		2, 0,47,43,56,30, 3, 0		
2″	16,32,19,40,55,36,56,22,32,26		1,12,32,50,16	
		2, 0,47,42,43,57,12,44		8,50
4″	16,32,21,41,43,19,40,19,45,10		1,12,32,59, 6	
		2, 0,47,41,31,24,13,38		8,50
6″	16,32,23,42,31, 1,11,43,58,48		1,12,33, 7,56	
		2, 0,47,40,18,51, 5,42		8,50
8″	16,32,25,43,18,41,30,35, 4,30		1,12,33,16,46	
		2, 0,47,39, 6,17,48,56		8,50
10″	16,32,27,44, 6,20,36,52,53,26		1,12,33,25,36	
		2, 0,47,37,53,44,23,20		8,50
12″	16,32,29,44,53,58,30,37,16,46		1,12,33,34,26	
		2, 0,47,36,41,10,48,54		8,50
14″	16,32,31,45,41,35,11,48, 5,40		1,12,33,43,16	
		2, 0,47,35,28,37, 5,38		8,50
16″	16,32,33,46,29,10,40,25,11,18		1,12,33,52, 6	
		2, 0,47,34,16, 3,13,32		8,50
18″	16,32,35,47,16,44,56,28,24,50		1,12,34, 0,56	
		2, 0,47,33, 3,29,12,36		8,50
20″	16,32,37,48, 4,17,59,57,37,26		1,12,34, 9,46	
		2, 0,47,31,50,55, 2,50		8,50
22″	16,32,39,48,51,49,50,52,40,16		1,12,34,18,36	
		2, 0,47,30,38,20,44,14		8,50
24″	16,32,41,49,39,20,29,13,24,30		1,12,34,27,26	
		2, 0,47,29,25,46,16,48		8,50
26″	16,32,43,50,26,49,54,59,41,18		1,12,34,36,16	
		2, 0,47,28,13,11,40,32		8,50
28″	16,32,45,51,14,18, 8,11,21,50		1,12,34,45, 6	
		2, 0,47,27, 0,36,55,26		8,50
30″	16,32,47,52, 1,45, 8,48,17,16		1,12,34,53,56	
		2, 0,47,25,48, 2, 1,30		8,50
32″	16,32,49,52,49,10,56,50,18,46		1,12,35, 2,46	
		2, 0,47,24,35,26,58,44		8,50
34″	16,32,51,53,36,35,32,17,17,30		1,12,35,11,36	
		2, 0,47,23,22,51,47, 8		8,50
36″	16,32,53,54,23,58,55, 9, 4,38		1,12,35,20,26	
		2, 0,47,22,10,16,26,42		8,50
38″	16,32,55,55,11,21, 5,25,31,20		1,12,35,29,16	
		2, 0,47,20,57,40,57,26		8,50
40″	16,32,57,55,58,42, 3, 6,28,46		1,12,35,38, 6	
		2, 0,47,19,45, 5,19,20		8,50
42″	16,32,59,56,46, 1,48,11,48, 6		1,12,35,46,56	
		2, 0,47,18,32,29,32,24		8,50
44″	16,33, 1,57,33,20,20,41,20,30		1,12,35,55,46	
		2, 0,47,17,19,53,36,38		8,50
46″	16,33, 3,58,20,37,40,34,57, 8		1,12,36, 4,36	
		2, 0,47,16, 7,17,32, 2		8,50
48″	16,33, 5,59, 7,53,47,52,29,10		1,12,36,13,26	
		2, 0,47,14,54,41,18,36		8,50
50″	16,33, 7,59,55, 8,42,33,47,46		1,12,36,22,16	
		2, 0,47,13,42, 4,56,20		8,50
52″	16,33,10, 0,42,22,24,38,44, 6		1,12,36,31, 6	
		2, 0,47,12,29,28,25,14		8,50
54″	16,33,12, 1,29,34,54, 7, 9,20		1,12,36,39,56	
		2, 0,47,11,16,51,45,18		8,50
56″	16,33,14, 2,16,46,10,58,54,38		1,12,36,48,46	
		2, 0,47,10, 4,14,56,32		8,50
58″	16,33,16, 3, 3,56,15,13,51,10		1,12,36,57,36	
		2, 0,47, 8,51,37,58,56		
60″	16,33,18, 3,51, 5, 6,51,50, 6			
exact	16,33,18, 3,51, 5, 6,51,58, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16° 1′ 0″	16,33,18, 3,51, 5, 6,51,58, 6	2, 0,47, 7,39, 0,53,27		
2″	16,33,20, 4,38,12,45,52,51,33	2, 0,47, 6,26,23,38,15	1,12,37,15,12	8,50
4″	16,33,22, 5,25,19,12,16,29,48	2, 0,47, 5,13,46,14,13	1,12,37,24, 2	8,50
6″	16,33,24, 6,12,24,26, 2,44, 1	2, 0,47, 4, 1, 8,41,21	1,12,37,32,52	8,50
8″	16,33,26, 6,59,28,27,11,25,22	2, 0,47, 2,48,30,59,39	1,12,37,41,42	8,50
10″	16,33,28, 7,46,31,15,42,25, 1	2, 0,47, 1,35,53, 9, 7	1,12,37,50,32	8,50
12″	16,33,30, 8,33,32,51,35,34, 8	2, 0,47, 0,23,15, 9,45	1,12,37,59,22	8,50
14″	16,33,32, 9,20,33,14,50,43,53	2, 0,46,59,10,37, 1,33	1,12,38, 8,12	8,50
16″	16,33,34,10, 7,32,25,27,45,26	2, 0,46,57,57,58,44,31	1,12,38,17, 2	8,50
18″	16,33,36,10,54,30,23,26,29,57	2, 0,46,56,45,20,18,39	1,12,38,25,52	8,50
20″	16,33,38,11,41,27, 8,46,48,36	2, 0,46,55,32,41,43,57	1,12,38,34,42	8,50
22″	16,33,40,12,28,22,41,28,32,33	2, 0,46,54,20, 3, 0,25	1,12,38,43,32	8,50
24″	16,33,42,13,15,17, 1,31,32,58	2, 0,46,53, 7,24, 8, 3	1,12,38,52,22	8,50
26″	16,33,44,14, 2,10, 8,55,41, 1	2, 0,46,51,54,45, 6,51	1,12,39, 1,12	8,50
28″	16,33,46,14,49, 2, 3,40,47,52	2, 0,46,50,42, 5,56,49	1,12,39,10, 2	8,50
30″	16,33,48,15,35,52,45,46,44,41	2, 0,46,49,29,26,37,57	1,12,39,18,52	8,50
32″	16,33,50,16,22,42,15,13,22,38	2, 0,46,48,16,47,10,15	1,12,39,27,42	8,50
34″	16,33,52,17, 9,30,32, 0,32,53	2, 0,46,47, 4, 7,33,43	1,12,39,36,32	8,50
36″	16,33,54,17,56,17,36, 8, 6,36	2, 0,46,45,51,27,48,21	1,12,39,45,22	8,50
38″	16,33,56,18,43, 3,27,35,54,57	2, 0,46,44,38,47,54, 9	1,12,39,54,12	8,50
40″	16,33,58,19,29,48, 6,23,49, 6	2, 0,46,43,26, 7,51, 7	1,12,40, 3, 2	8,50
42″	16,34, 0,20,16,31,32,31,40,13	2, 0,46,42,13,27,39,15	1,12,40,11,52	8,50
44″	16,34, 2,21, 3,13,45,59,19,28	2, 0,46,41, 0,47,18,33	1,12,40,20,42	8,50
46″	16,34, 4,21,49,54,46,46,38, 1	2, 0,46,39,48, 6,49, 1	1,12,40,29,32	8,50
48″	16,34, 6,22,36,34,34,53,27, 2	2, 0,46,38,35,26,10,39	1,12,40,38,22	8,50
50″	16,34, 8,23,23,13,10,19,37,41	2, 0,46,37,22,45,23,27	1,12,40,47,12	8,50
52″	16,34,10,24, 9,50,33, 5, 1, 8	2, 0,46,36,10, 4,27,25	1,12,40,56, 2	8,50
54″	16,34,12,24,56,26,43, 9,28,33	2, 0,46,34,57,23,22,33	1,12,41, 4,52	8,50
56″	16,34,14,25,43, 1,40,32,51, 6	2, 0,46,33,44,42, 8,51	1,12,41,13,42	8,50
58″	16,34,16,26,29,35,25,14,59,57	2, 0,46,32,32, 0,46,19	1,12,41,22,32	
60″	16,34,18,27,16, 7,57,15,46,16			
exact	16,34,18,27,16, 7,57,16, 1,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16° 2′ 0″	16,34,18,27,16, 7,57,16, 1,47			
		2, 0,46,31,19,19,16,32		
2″	16,34,20,28, 2,39,16,35,18,19		1,12,41,40, 6	
		2, 0,46,30, 6,37,36,26		8,50
4″	16,34,22,28,49, 9,23,12,54,45		1,12,41,48,56	
		2, 0,46,28,53,55,47,30		8,50
6″	16,34,24,29,35,38,17, 8,42,15		1,12,41,57,46	
		2, 0,46,27,41,13,49,44		8,50
8″	16,34,26,30,22, 5,58,22,31,59		1,12,42, 6,36	
		2, 0,46,26,28,31,43, 8		8,50
10″	16,34,28,31, 8,32,26,54,15, 7		1,12,42,15,26	
		2, 0,46,25,15,49,27,42		8,50
12″	16,34,30,31,54,57,42,43,42,49		1,12,42,24,16	
		2, 0,46,24, 3, 7, 3,26		8,50
14″	16,34,32,32,41,21,45,50,46,15		1,12,42,33, 6	
		2, 0,46,22,50,24,30,20		8,50
16″	16,34,34,33,27,44,36,15,16,35		1,12,42,41,56	
		2, 0,46,21,37,41,48,24		8,50
18″	16,34,36,34,14, 6,13,57, 4,59		1,12,42,50,46	
		2, 0,46,20,24,58,57,38		8,50
20″	16,34,38,35, 0,26,38,56, 2,37		1,12,42,59,36	
		2, 0,46,19,12,15,58, 2		8,50
22″	16,34,40,35,46,45,51,12, 0,39		1,12,43, 8,26	
		2, 0,46,17,59,32,49,36		8,50
24″	16,34,42,36,33, 3,50,44,50,15		1,12,43,17,16	
		2, 0,46,16,46,49,32,20		8,50
26″	16,34,44,37,19,20,37,34,22,35		1,12,43,26, 6	
		2, 0,46,15,34, 6, 6,14		8,50
28″	16,34,46,38, 5,36,11,40,28,49		1,12,43,34,56	
		2, 0,46,14,21,22,31,18		8,50
30″	16,34,48,38,51,50,33, 3, 0, 7		1,12,43,43,46	
		2, 0,46,13, 8,38,47,32		8,50
32″	16,34,50,39,38, 3,41,41,47,39		1,12,43,52,36	
		2, 0,46,11,55,54,54,56		8,50
34″	16,34,52,40,24,15,37,36,42,35		1,12,44, 1,26	
		2, 0,46,10,43,10,53,30		8,50
36″	16,34,54,41,10,26,20,47,36, 5		1,12,44,10,16	
		2, 0,46, 9,30,26,43,14		8,50
38″	16,34,56,41,56,35,51,14,19,19		1,12,44,19, 6	
		2, 0,46, 8,17,42,24, 8		8,50
40″	16,34,58,42,42,44, 8,56,43,27		1,12,44,27,56	
		2, 0,46, 7, 4,57,56,12		8,50
42″	16,35, 0,43,28,51,13,54,39,39		1,12,44,36,46	
		2, 0,46, 5,52,13,19,26		8,50
44″	16,35, 2,44,14,57, 6, 7,59, 5		1,12,44,45,36	
		2, 0,46, 4,39,28,33,50		8,50
46″	16,35, 4,45, 1, 1,45,36,32,55		1,12,44,54,26	
		2, 0,46, 3,26,43,39,24		8,50
48″	16,35, 6,45,47, 5,12,20,12,19		1,12,45, 3,16	
		2, 0,46, 2,13,58,36, 8		8,50
50″	16,35, 8,46,33, 7,26,18,48,27		1,12,45,12, 6	
		2, 0,46, 1, 1,13,24, 2		8,50
52″	16,35,10,47,19, 8,27,32,12,29		1,12,45,20,56	
		2, 0,45,59,48,28, 3, 6		8,50
54″	16,35,12,48, 5, 8,16, 0,15,35		1,12,45,29,46	
		2, 0,45,58,35,42,33,20		8,50
56″	16,35,14,48,51, 6,51,42,48,55		1,12,45,38,36	
		2, 0,45,57,22,56,54,44		8,50
58″	16,35,16,49,37, 4,14,39,43,39		1,12,45,47,26	
		2, 0,45,56,10,11, 7,18		
60″	16,35,18,50,23, 0,24,50,50,57			
exact	16,35,18,50,23, 0,24,51, 9,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16° 3′ 0″	16,35,18,50,23, 0,24,51, 9,10			
		2, 0,45,54,57,25,12,55		
2″	16,35,20,51, 8,55,22,16,22, 5		1,12,46, 4,58	
		2, 0,45,53,44,39, 7,57		8,50
4″	16,35,22,51,54,49, 6,55,30, 2		1,12,46,13,48	
		2, 0,45,52,31,52,54, 9		8,50
6″	16,35,24,52,40,41,38,48,24,11		1,12,46,22,38	
		2, 0,45,51,19, 6,31,31		8,50
8″	16,35,26,53,26,32,57,54,55,42		1,12,46,31,28	
		2, 0,45,50, 6,20, 0, 3		8,50
10″	16,35,28,54,12,23, 4,14,55,45		1,12,46,40,18	
		2, 0,45,48,53,33,19,45		8,50
12″	16,35,30,54,58,11,57,48,15,30		1,12,46,49, 8	
		2, 0,45,47,40,46,30,37		8,50
14″	16,35,32,55,43,59,38,34,46, 7		1,12,46,57,58	
		2, 0,45,46,27,59,32,39		8,50
16″	16,35,34,56,29,46, 6,34,18,46		1,12,47, 6,48	
		2, 0,45,45,15,12,25,51		8,50
18″	16,35,36,57,15,31,21,46,44,37		1,12,47,15,38	
		2, 0,45,44, 2,25,10,13		8,50
20″	16,35,38,58, 1,15,24,11,54,50		1,12,47,24,28	
		2, 0,45,42,49,37,45,45		8,50
22″	16,35,40,58,46,58,13,49,40,35		1,12,47,33,18	
		2, 0,45,41,36,50,12,27		8,50
24″	16,35,42,59,32,39,50,39,53, 2		1,12,47,42, 8	
		2, 0,45,40,24, 2,30,19		8,50
26″	16,35,45, 0,18,20,14,42,23,21		1,12,47,50,58	
		2, 0,45,39,11,14,39,21		8,50
28″	16,35,47, 1, 3,59,25,57, 2,42		1,12,47,59,48	
		2, 0,45,37,58,26,39,33		8,50
30″	16,35,49, 1,49,37,24,23,42,15		1,12,48, 8,38	
		2, 0,45,36,45,38,30,55		8,50
32″	16,35,51, 2,35,14,10, 2,13,10		1,12,48,17,28	
		2, 0,45,35,32,50,13,27		8,50
34″	16,35,53, 3,20,49,42,52,26,37		1,12,48,26,18	
		2, 0,45,34,20, 1,47, 9		8,50
36″	16,35,55, 4, 6,24, 2,54,13,46		1,12,48,35, 8	
		2, 0,45,33, 7,13,12, 1		8,50
38″	16,35,57, 4,51,57,10, 7,25,47		1,12,48,43,58	
		2, 0,45,31,54,24,28, 3		8,50
40″	16,35,59, 5,37,29, 4,31,53,50		1,12,48,52,48	
		2, 0,45,30,41,35,35,15		8,50
42″	16,36, 1, 6,22,59,46, 7,29, 5		1,12,49, 1,38	
		2, 0,45,29,28,46,33,37		8,50
44″	16,36, 3, 7, 8,29,14,54, 2,42		1,12,49,10,28	
		2, 0,45,28,15,57,23, 9		8,50
46″	16,36, 5, 7,53,57,30,51,25,51		1,12,49,19,18	
		2, 0,45,27, 3, 8, 3,51		8,50
48″	16,36, 7, 8,39,24,33,59,29,42		1,12,49,28, 8	
		2, 0,45,25,50,18,35,43		8,50
50″	16,36, 9, 9,24,50,24,18, 5,25		1,12,49,36,58	
		2, 0,45,24,37,28,58,45		8,50
52″	16,36,11,10,10,15, 1,47, 4,10		1,12,49,45,48	
		2, 0,45,23,24,39,12,57		8,50
54″	16,36,13,10,55,38,26,26,17, 7		1,12,49,54,38	
		2, 0,45,22,11,49,18,19		8,50
56″	16,36,15,11,41, 0,38,15,35,26		1,12,50, 3,28	
		2, 0,45,20,58,59,14,51		8,50
58″	16,36,17,12,26,21,37,14,50,17		1,12,50,12,18	
		2, 0,45,19,46, 9, 2,33		
60″	16,36,19,13,11,41,23,23,52,50			
exact	16,36,19,13,11,41,23,24, 8,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16° 4′ 0″	16,36,19,13,11,41,23,24, 8,52			
		2, 0,45,18,33,18,43,16		
2″	16,36,21,13,56,59,56,42,52, 8		1,12,50,29,50	
		2, 0,45,17,20,28,13,26		8,50
4″	16,36,23,14,42,17,17,11, 5,34		1,12,50,38,40	
		2, 0,45,16, 7,37,34,46		8,50
6″	16,36,25,15,27,33,24,48,40,20		1,12,50,47,30	
		2, 0,45,14,54,46,47,16		8,50
8″	16,36,27,16,12,48,19,35,27,36		1,12,50,56,20	
		2, 0,45,13,41,55,50,56		8,50
10″	16,36,29,16,58, 2, 1,31,18,32		1,12,51, 5,10	
		2, 0,45,12,29, 4,45,46		8,50
12″	16,36,31,17,43,14,30,36, 4,18		1,12,51,14, 0	
		2, 0,45,11,16,13,31,46		8,50
14″	16,36,33,18,28,25,46,49,36, 4		1,12,51,22,50	
		2, 0,45,10, 3,22, 8,56		8,50
16″	16,36,35,19,13,35,50,11,45, 0		1,12,51,31,40	
		2, 0,45, 8,50,30,37,16		8,50
18″	16,36,37,19,58,44,40,42,22,16		1,12,51,40,30	
		2, 0,45, 7,37,38,56,46		8,50
20″	16,36,39,20,43,52,18,21,19, 2		1,12,51,49,20	
		2, 0,45, 6,24,47, 7,26		8,50
22″	16,36,41,21,28,58,43, 8,26,28		1,12,51,58,10	
		2, 0,45, 5,11,55, 9,16		8,50
24″	16,36,43,22,14, 3,55, 3,35,44		1,12,52, 7, 0	
		2, 0,45, 3,59, 3, 2,16		8,50
26″	16,36,45,22,59, 7,54, 6,38, 0		1,12,52,15,50	
		2, 0,45, 2,46,10,46,26		8,50
28″	16,36,47,23,44,10,40,17,24,26		1,12,52,24,40	
		2, 0,45, 1,33,18,21,46		8,50
30″	16,36,49,24,29,12,13,35,46,12		1,12,52,33,30	
		2, 0,45, 0,20,25,48,16		8,50
32″	16,36,51,25,14,12,34, 1,34,28		1,12,52,42,20	
		2, 0,44,59, 7,33, 5,56		8,50
34″	16,36,53,25,59,11,41,34,40,24		1,12,52,51,10	
		2, 0,44,57,54,40,14,46		8,50
36″	16,36,55,26,44, 9,36,14,55,10		1,12,53, 0, 0	
		2, 0,44,56,41,47,14,46		8,50
38″	16,36,57,27,29, 6,18, 2, 9,56		1,12,53, 8,50	
		2, 0,44,55,28,54, 5,56		8,50
40″	16,36,59,28,14, 1,46,56,15,52		1,12,53,17,40	
		2, 0,44,54,16, 0,48,16		8,50
42″	16,37, 1,28,58,56, 2,57, 4, 8		1,12,53,26,30	
		2, 0,44,53, 3, 7,21,46		8,50
44″	16,37, 3,29,43,49, 6, 4,25,54		1,12,53,35,20	
		2, 0,44,51,50,13,46,26		8,50
46″	16,37, 5,30,28,40,56,18,12,20		1,12,53,44,10	
		2, 0,44,50,37,20, 2,16		8,50
48″	16,37, 7,31,13,31,33,38,14,36		1,12,53,53, 0	
		2, 0,44,49,24,26, 9,16		8,50
50″	16,37, 9,31,58,20,58, 4,23,52		1,12,54, 1,50	
		2, 0,44,48,11,32, 7,26		8,50
52″	16,37,11,32,43, 9, 9,36,31,18		1,12,54,10,40	
		2, 0,44,46,58,37,56,46		8,50
54″	16,37,13,33,27,56, 8,14,28, 4		1,12,54,19,30	
		2, 0,44,45,45,43,37,16		8,50
56″	16,37,15,34,12,41,53,58, 5,20		1,12,54,28,20	
		2, 0,44,44,32,49, 8,56		8,50
58″	16,37,17,34,57,26,26,47,14,16		1,12,54,37,10	
		2, 0,44,43,19,54,31,46		
60″	16,37,19,35,42, 9,46,41,46, 2			
exact	16,37,19,35,42, 9,46,42, 9,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16° 5′ 0″	16,37,19,35,42, 9,46,42, 9,27			
		2, 0,44,42, 6,59,48,14		
2″	16,37,21,36,26,51,53,41,57,41		1,12,54,54,40	
		2, 0,44,40,54, 4,53,34		8,50
4″	16,37,23,37,11,32,47,46,51,15		1,12,55, 3,30	
		2, 0,44,39,41, 9,50, 4		8,50
6″	16,37,25,37,56,12,28,56,41,19		1,12,55,12,20	
		2, 0,44,38,28,14,37,44		8,50
8″	16,37,27,38,40,50,57,11,19, 3		1,12,55,21,10	
		2, 0,44,37,15,19,16,34		8,50
10″	16,37,29,39,25,28,12,30,35,37		1,12,55,30, 0	
		2, 0,44,36, 2,23,46,34		8,50
12″	16,37,31,40,10, 4,14,54,22,11		1,12,55,38,50	
		2, 0,44,34,49,28, 7,44		8,50
14″	16,37,33,40,54,39, 4,22,29,55		1,12,55,47,40	
		2, 0,44,33,36,32,20, 4		8,50
16″	16,37,35,41,39,12,40,54,49,59		1,12,55,56,30	
		2, 0,44,32,23,36,23,34		8,50
18″	16,37,37,42,23,45, 4,31,13,33		1,12,56, 5,20	
		2, 0,44,31,10,40,18,14		8,50
20″	16,37,39,43, 8,16,15,11,31,47		1,12,56,14,10	
		2, 0,44,29,57,44, 4, 4		8,50
22″	16,37,41,43,52,46,12,55,35,51		1,12,56,23, 0	
		2, 0,44,28,44,47,41, 4		8,50
24″	16,37,43,44,37,14,57,43,16,55		1,12,56,31,50	
		2, 0,44,27,31,51, 9,14		8,50
26″	16,37,45,45,21,42,29,34,26, 9		1,12,56,40,40	
		2, 0,44,26,18,54,28,34		8,50
28″	16,37,47,46, 6, 8,48,28,54,43		1,12,56,49,30	
		2, 0,44,25, 5,57,39, 4		8,50
30″	16,37,49,46,50,33,54,26,33,47		1,12,56,58,20	
		2, 0,44,23,53, 0,40,44		8,50
32″	16,37,51,47,34,57,47,27,14,31		1,12,57, 7,10	
		2, 0,44,22,40, 3,33,34		8,50
34″	16,37,53,48,19,20,27,30,48, 5		1,12,57,16, 0	
		2, 0,44,21,27, 6,17,34		8,50
36″	16,37,55,49, 3,41,54,37, 5,39		1,12,57,24,50	
		2, 0,44,20,14, 8,52,44		8,50
38″	16,37,57,49,48, 2, 8,45,58,23		1,12,57,33,40	
		2, 0,44,19, 1,11,19, 4		8,50
40″	16,37,59,50,32,21, 9,57,17,27		1,12,57,42,30	
		2, 0,44,17,48,13,36,34		8,50
42″	16,38, 1,51,16,38,58,10,54, 1		1,12,57,51,20	
		2, 0,44,16,35,15,45,14		8,50
44″	16,38, 3,52, 0,55,33,26,39,15		1,12,58, 0,10	
		2, 0,44,15,22,17,45, 4		8,50
46″	16,38, 5,52,45,10,55,44,24,19		1,12,58, 9, 0	
		2, 0,44,14, 9,19,36, 4		8,50
48″	16,38, 7,53,29,25, 5, 4, 0,23		1,12,58,17,50	
		2, 0,44,12,56,21,18,14		8,50
50″	16,38, 9,54,13,38, 1,25,18,37		1,12,58,26,40	
		2, 0,44,11,43,22,51,34		8,50
52″	16,38,11,54,57,49,44,48,10,11		1,12,58,35,30	
		2, 0,44,10,30,24,16, 4		8,50
54″	16,38,13,55,42, 0,15,12,26,15		1,12,58,44,20	
		2, 0,44, 9,17,25,31,44		8,50
56″	16,38,15,56,26, 9,32,37,57,59		1,12,58,53,10	
		2, 0,44, 8, 4,26,38,34		8,50
58″	16,38,17,57,10,17,37, 4,36,33		1,12,59, 2, 0	
		2, 0,44, 6,51,27,36,34		
60″	16,38,19,57,54,24,28,32,13, 7			
exact	16,38,19,57,54,24,28,32,39,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16° 6′ 0″	16,38,19,57,54,24,28,32,39,27			
		2, 0,44, 5,38,28,28,31		
2″	16,38,21,58,38,30, 7, 1, 7,58		1,12,59,19,29	
		2, 0,44, 4,25,29, 9, 2		8,50
4″	16,38,23,59,22,34,32,30,17, 0		1,12,59,28,19	
		2, 0,44, 3,12,29,40,43		8,50
6″	16,38,26, 0, 6,37,44,59,57,43		1,12,59,37, 9	
		2, 0,44, 1,59,30, 3,34		8,50
8″	16,38,28, 0,50,39,44,30, 1,17		1,12,59,45,59	
		2, 0,44, 0,46,30,17,35		8,50
10″	16,38,30, 1,34,40,31, 0,18,52		1,12,59,54,49	
		2, 0,43,59,33,30,22,46		8,50
12″	16,38,32, 2,18,40, 4,30,41,38		1,13, 0, 3,39	
		2, 0,43,58,20,30,19, 7		8,50
14″	16,38,34, 3, 2,38,25, 1, 0,45		1,13, 0,12,29	
		2, 0,43,57, 7,30, 6,38		8,50
16″	16,38,36, 3,46,35,32,31, 7,23		1,13, 0,21,19	
		2, 0,43,55,54,29,45,19		8,50
18″	16,38,38, 4,30,31,27, 0,52,42		1,13, 0,30, 9	
		2, 0,43,54,41,29,15,10		8,50
20″	16,38,40, 5,14,26, 8,30, 7,52		1,13, 0,38,59	
		2, 0,43,53,28,28,36,11		8,50
22″	16,38,42, 5,58,19,36,58,44, 3		1,13, 0,47,49	
		2, 0,43,52,15,27,48,22		8,50
24″	16,38,44, 6,42,11,52,26,32,25		1,13, 0,56,39	
		2, 0,43,51, 2,26,51,43		8,50
26″	16,38,46, 7,26, 2,54,53,24, 8		1,13, 1, 5,29	
		2, 0,43,49,49,25,46,14		8,50
28″	16,38,48, 8, 9,52,44,19,10,22		1,13, 1,14,19	
		2, 0,43,48,36,24,31,55		8,50
30″	16,38,50, 8,53,41,20,43,42,17		1,13, 1,23, 9	
		2, 0,43,47,23,23, 8,46		8,50
32″	16,38,52, 9,37,28,44, 6,51, 3		1,13, 1,31,59	
		2, 0,43,46,10,21,36,47		8,50
34″	16,38,54,10,21,14,54,28,27,50		1,13, 1,40,49	
		2, 0,43,44,57,19,55,58		8,50
36″	16,38,56,11, 4,59,51,48,23,48		1,13, 1,49,39	
		2, 0,43,43,44,18, 6,19		8,50
38″	16,38,58,11,48,43,36, 6,30, 7		1,13, 1,58,29	
		2, 0,43,42,31,16, 7,50		8,50
40″	16,39, 0,12,32,26, 7,22,37,57		1,13, 2, 7,19	
		2, 0,43,41,18,14, 0,31		8,50
42″	16,39, 2,13,16, 7,25,36,38,28		1,13, 2,16, 9	
		2, 0,43,40, 5,11,44,22		8,50
44″	16,39, 4,13,59,47,30,48,22,50		1,13, 2,24,59	
		2, 0,43,38,52, 9,19,23		8,50
46″	16,39, 6,14,43,26,22,57,42,13		1,13, 2,33,49	
		2, 0,43,37,39, 6,45,34		8,50
48″	16,39, 8,15,27, 4, 2, 4,27,47		1,13, 2,42,39	
		2, 0,43,36,26, 4, 2,55		8,50
50″	16,39,10,16,10,40,28, 8,30,42		1,13, 2,51,29	
		2, 0,43,35,13, 1,11,26		8,50
52″	16,39,12,16,54,15,41, 9,42, 8		1,13, 3, 0,19	
		2, 0,43,33,59,58,11, 7		8,50
54″	16,39,14,17,37,49,41, 7,53,15		1,13, 3, 9, 9	
		2, 0,43,32,46,55, 1,58		8,50
56″	16,39,16,18,21,22,28, 2,55,13		1,13, 3,17,59	
		2, 0,43,31,33,51,43,59		8,50
58″	16,39,18,19, 4,54, 1,54,39,12		1,13, 3,26,49	
		2, 0,43,30,20,48,17,10		
60″	16,39,20,19,48,24,22,42,56,22			
exact	16,39,20,19,48,24,22,43,27,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16° 7′ 0″	16,39,20,19,48,24,22,43,27,23			
		2, 0,43,29, 7,44,44,45		
2″	16,39,22,20,31,53,30,28,12, 8		1,13, 3,44,16	
		2, 0,43,27,54,41, 0,29		8,50
4″	16,39,24,21,15,21,25, 9,12,37		1,13, 3,53, 6	
		2, 0,43,26,41,37, 7,23		8,50
6″	16,39,26,21,58,48, 6,46,20, 0		1,13, 4, 1,56	
		2, 0,43,25,28,33, 5,27		8,50
8″	16,39,28,22,42,13,35,19,25,27		1,13, 4,10,46	
		2, 0,43,24,15,28,54,41		8,50
10″	16,39,30,23,25,37,50,48,20, 8		1,13, 4,19,36	
		2, 0,43,23, 2,24,35, 5		8,50
12″	16,39,32,24, 9, 0,53,12,55,13		1,13, 4,28,26	
		2, 0,43,21,49,20, 6,39		8,50
14″	16,39,34,24,52,22,42,33, 1,52		1,13, 4,37,16	
		2, 0,43,20,36,15,29,23		8,50
16″	16,39,36,25,35,43,18,48,31,15		1,13, 4,46, 6	
		2, 0,43,19,23,10,43,17		8,50
18″	16,39,38,26,19, 2,41,59,14,32		1,13, 4,54,56	
		2, 0,43,18,10, 5,48,21		8,50
20″	16,39,40,27, 2,20,52, 5, 2,53		1,13, 5, 3,46	
		2, 0,43,16,57, 0,44,35		8,50
22″	16,39,42,27,45,37,49, 5,47,28		1,13, 5,12,36	
		2, 0,43,15,43,55,31,59		8,50
24″	16,39,44,28,28,53,33, 1,19,27		1,13, 5,21,26	
		2, 0,43,14,30,50,10,33		8,50
26″	16,39,46,29,12, 8, 3,51,30, 0		1,13, 5,30,16	
		2, 0,43,13,17,44,40,17		8,50
28″	16,39,48,29,55,21,21,36,10,17		1,13, 5,39, 6	
		2, 0,43,12, 4,39, 1,11		8,50
30″	16,39,50,30,38,33,26,15,11,28		1,13, 5,47,56	
		2, 0,43,10,51,33,13,15		8,50
32″	16,39,52,31,21,44,17,48,24,43		1,13, 5,56,46	
		2, 0,43, 9,38,27,16,29		8,50
34″	16,39,54,32, 4,53,56,15,41,12		1,13, 6, 5,36	
		2, 0,43, 8,25,21,10,53		8,50
36″	16,39,56,32,48, 2,21,36,52, 5		1,13, 6,14,26	
		2, 0,43, 7,12,14,56,27		8,50
38″	16,39,58,33,31, 9,33,51,48,32		1,13, 6,23,16	
		2, 0,43, 5,59, 8,33,11		8,50
40″	16,40, 0,34,14,15,33, 0,21,43		1,13, 6,32, 6	
		2, 0,43, 4,46, 2, 1, 5		8,50
42″	16,40, 2,34,57,20,19, 2,22,48		1,13, 6,40,56	
		2, 0,43, 3,32,55,20, 9		8,50
44″	16,40, 4,35,40,23,51,57,42,57		1,13, 6,49,46	
		2, 0,43, 2,19,48,30,23		8,50
46″	16,40, 6,36,23,26,11,46,13,20		1,13, 6,58,36	
		2, 0,43, 1, 6,41,31,47		8,50
48″	16,40, 8,37, 6,27,18,27,45, 7		1,13, 7, 7,26	
		2, 0,42,59,53,34,24,21		8,50
50″	16,40,10,37,49,27,12, 2, 9,28		1,13, 7,16,16	
		2, 0,42,58,40,27, 8, 5		8,50
52″	16,40,12,38,32,25,52,29,17,33		1,13, 7,25, 6	
		2, 0,42,57,27,19,42,59		8,50
54″	16,40,14,39,15,23,19,49, 0,32		1,13, 7,33,56	
		2, 0,42,56,14,12, 9, 3		8,50
56″	16,40,16,39,58,19,34, 1, 9,35		1,13, 7,42,46	
		2, 0,42,55, 1, 4,26,17		8,50
58″	16,40,18,40,41,14,35, 5,35,52		1,13, 7,51,36	
		2, 0,42,53,47,56,34,41		
60″	16,40,20,41,24, 8,23, 2,10,33			
exact	16,40,20,41,24, 8,23, 2,41,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16° 8′ 0″	16,40,20,41,24, 8,23, 2,41,49	2, 0,42,52,34,48,37,37		
2″	16,40,22,42, 7, 0,57,51,19,26	2, 0,42,51,21,40,28,35	1,13, 8, 9, 2	8,50
4″	16,40,24,42,49,52,19,31,48, 1	2, 0,42,50, 8,32,10,43	1,13, 8,17,52	8,50
6″	16,40,26,43,32,42,28, 3,58,44	2, 0,42,48,55,23,44, 1	1,13, 8,26,42	8,50
8″	16,40,28,44,15,31,23,27,42,45	2, 0,42,47,42,15, 8,29	1,13, 8,35,32	8,50
10″	16,40,30,44,58,19, 5,42,51,14	2, 0,42,46,29, 6,24, 7	1,13, 8,44,22	8,50
12″	16,40,32,45,41, 5,34,49,15,21	2, 0,42,45,15,57,30,55	1,13, 8,53,12	8,50
14″	16,40,34,46,23,50,50,46,46,16	2, 0,42,44, 2,48,28,53	1,13, 9, 2, 2	8,50
16″	16,40,36,47, 6,34,53,35,15, 9	2, 0,42,42,49,39,18, 1	1,13, 9,10,52	8,50
18″	16,40,38,47,49,17,43,14,33,10	2, 0,42,41,36,29,58,19	1,13, 9,19,42	8,50
20″	16,40,40,48,31,59,19,44,31,29	2, 0,42,40,23,20,29,47	1,13, 9,28,32	8,50
22″	16,40,42,49,14,39,43, 5, 1,16	2, 0,42,39,10,10,52,25	1,13, 9,37,22	8,50
24″	16,40,44,49,57,18,53,15,53,41	2, 0,42,37,57, 1, 6,13	1,13, 9,46,12	8,50
26″	16,40,46,50,39,56,50,16,59,54	2, 0,42,36,43,51,11,11	1,13, 9,55, 2	8,50
28″	16,40,48,51,22,33,34, 8,11, 5	2, 0,42,35,30,41, 7,19	1,13,10, 3,52	8,50
30″	16,40,50,52, 5, 9, 4,49,18,24	2, 0,42,34,17,30,54,37	1,13,10,12,42	8,50
32″	16,40,52,52,47,43,22,20,13, 1	2, 0,42,33, 4,20,33, 5	1,13,10,21,32	8,50
34″	16,40,54,53,30,16,26,40,46, 6	2, 0,42,31,51,10, 2,43	1,13,10,30,22	8,50
36″	16,40,56,54,12,48,17,50,48,49	2, 0,42,30,37,59,23,31	1,13,10,39,12	8,50
38″	16,40,58,54,55,18,55,50,12,20	2, 0,42,29,24,48,35,29	1,13,10,48, 2	8,50
40″	16,41, 0,55,37,48,20,38,47,49	2, 0,42,28,11,37,38,37	1,13,10,56,52	8,50
42″	16,41, 2,56,20,16,32,16,26,26	2, 0,42,26,58,26,32,55	1,13,11, 5,42	8,50
44″	16,41, 4,57, 2,43,30,42,59,21	2, 0,42,25,45,15,18,23	1,13,11,14,32	8,50
46″	16,41, 6,57,45, 9,15,58,17,44	2, 0,42,24,32, 3,55, 1	1,13,11,23,22	8,50
48″	16,41, 8,58,27,33,48, 2,12,45	2, 0,42,23,18,52,22,49	1,13,11,32,12	8,50
50″	16,41,10,59, 9,57, 6,54,35,34	2, 0,42,22, 5,40,41,47	1,13,11,41, 2	8,50
52″	16,41,12,59,52,19,12,35,17,21	2, 0,42,20,52,28,51,55	1,13,11,49,52	8,50
54″	16,41,15, 0,34,40, 5, 4, 9,16	2, 0,42,19,39,16,53,13	1,13,11,58,42	8,50
56″	16,41,17, 1,16,59,44,21, 2,29	2, 0,42,18,26, 4,45,41	1,13,12, 7,32	8,50
58″	16,41,19, 1,59,18,10,25,48,10	2, 0,42,17,12,52,29,19	1,13,12,16,22	
60″	16,41,21, 2,41,35,23,18,17,29			
exact	16,41,21, 2,41,35,23,18,51,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16° 9′ 0″	16,41,21, 2,41,35,23,18,51,17			
		2, 0,42,15,59,40, 7,46		
2″	16,41,23, 3,23,51,22,58,59, 3		1,13,12,33,47	
		2, 0,42,14,46,27,33,59		8,49
4″	16,41,25, 4, 6, 6, 9,26,33, 2		1,13,12,42,36	
		2, 0,42,13,33,14,51,23		8,49
6″	16,41,27, 4,48,19,42,41,24,25		1,13,12,51,25	
		2, 0,42,12,20, 1,59,58		8,49
8″	16,41,29, 5,30,32, 2,43,24,23		1,13,13, 0,14	
		2, 0,42,11, 6,48,59,44		8,49
10″	16,41,31, 6,12,43, 9,32,24, 7		1,13,13, 9, 3	
		2, 0,42, 9,53,35,50,41		8,49
12″	16,41,33, 6,54,53, 3, 8,14,48		1,13,13,17,52	
		2, 0,42, 8,40,22,32,49		8,49
14″	16,41,35, 7,37, 1,43,30,47,37		1,13,13,26,41	
		2, 0,42, 7,27, 9, 6, 8		8,49
16″	16,41,37, 8,19, 9,10,39,53,45		1,13,13,35,30	
		2, 0,42, 6,13,55,30,38		8,49
18″	16,41,39, 9, 1,15,24,35,24,23		1,13,13,44,19	
		2, 0,42, 5, 0,41,46,19		8,49
20″	16,41,41, 9,43,20,25,17,10,42		1,13,13,53, 8	
		2, 0,42, 3,47,27,53,11		8,49
22″	16,41,43,10,25,24,12,45, 3,53		1,13,14, 1,57	
		2, 0,42, 2,34,13,51,14		8,49
24″	16,41,45,11, 7,26,46,58,55, 7		1,13,14,10,46	
		2, 0,42, 1,20,59,40,28		8,49
26″	16,41,47,11,49,28, 7,58,35,35		1,13,14,19,35	
		2, 0,42, 0, 7,45,20,53		8,49
28″	16,41,49,12,31,28,15,43,56,28		1,13,14,28,24	
		2, 0,41,58,54,30,52,29		8,49
30″	16,41,51,13,13,27,10,14,48,57		1,13,14,37,13	
		2, 0,41,57,41,16,15,16		8,49
32″	16,41,53,13,55,24,51,31, 4,13		1,13,14,46, 2	
		2, 0,41,56,28, 1,29,14		8,49
34″	16,41,55,14,37,21,19,32,33,27		1,13,14,54,51	
		2, 0,41,55,14,46,34,23		8,49
36″	16,41,57,15,19,16,34,19, 7,50		1,13,15, 3,40	
		2, 0,41,54, 1,31,30,43		8,49
38″	16,41,59,16, 1,10,35,50,38,33		1,13,15,12,29	
		2, 0,41,52,48,16,18,14		8,49
40″	16,42, 1,16,43, 3,24, 6,56,47		1,13,15,21,18	
		2, 0,41,51,35, 0,56,56		8,49
42″	16,42, 3,17,24,54,59, 7,53,43		1,13,15,30, 7	
		2, 0,41,50,21,45,26,49		8,49
44″	16,42, 5,18, 6,45,20,53,20,32		1,13,15,38,56	
		2, 0,41,49, 8,29,47,53		8,49
46″	16,42, 7,18,48,34,29,23, 8,25		1,13,15,47,45	
		2, 0,41,47,55,14, 0, 8		8,49
48″	16,42, 9,19,30,22,24,37, 8,33		1,13,15,56,34	
		2, 0,41,46,41,58, 3,34		8,49
50″	16,42,11,20,12, 9, 6,35,12, 7		1,13,16, 5,23	
		2, 0,41,45,28,41,58,11		8,49
52″	16,42,13,20,53,54,35,17,10,18		1,13,16,14,12	
		2, 0,41,44,15,25,43,59		8,49
54″	16,42,15,21,35,38,50,42,54,17		1,13,16,23, 1	
		2, 0,41,43, 2, 9,20,58		8,49
56″	16,42,17,22,17,21,52,52,15,15		1,13,16,31,50	
		2, 0,41,41,48,52,49, 8		8,49
58″	16,42,19,22,59, 3,41,45, 4,23		1,13,16,40,39	
		2, 0,41,40,35,36, 8,29		
60″	16,42,21,23,40,44,17,21,12,52			
exact	16,42,21,23,40,44,17,20,44,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°10′ 0″	16,42,21,23,40,44,17,20,44,24			
		2, 0,41,39,22,19,15,54		
2″	16,42,23,24,22,23,39,40, 0,18		1,13,16,58,30	
		2, 0,41,38, 9, 2,17,24		8,49
4″	16,42,25,25, 4, 1,48,42,17,42		1,13,17, 7,19	
		2, 0,41,36,55,45,10, 5		8,49
6″	16,42,27,25,45,38,44,27,27,47		1,13,17,16, 8	
		2, 0,41,35,42,27,53,57		8,49
8″	16,42,29,26,27,14,26,55,21,44		1,13,17,24,57	
		2, 0,41,34,29,10,29, 0		8,49
10″	16,42,31,27, 8,48,56, 5,50,44		1,13,17,33,46	
		2, 0,41,33,15,52,55,14		8,49
12″	16,42,33,27,50,22,11,58,45,58		1,13,17,42,35	
		2, 0,41,32, 2,35,12,39		8,49
14″	16,42,35,28,31,54,14,33,58,37		1,13,17,51,24	
		2, 0,41,30,49,17,21,15		8,49
16″	16,42,37,29,13,25, 3,51,19,52		1,13,18, 0,13	
		2, 0,41,29,35,59,21, 2		8,49
18″	16,42,39,29,54,54,39,50,40,54		1,13,18, 9, 2	
		2, 0,41,28,22,41,12, 0		8,49
20″	16,42,41,30,36,23, 2,31,52,54		1,13,18,17,51	
		2, 0,41,27, 9,22,54, 9		8,49
22″	16,42,43,31,17,50,11,54,47, 3		1,13,18,26,40	
		2, 0,41,25,56, 4,27,29		8,49
24″	16,42,45,31,59,16, 7,59,14,32		1,13,18,35,29	
		2, 0,41,24,42,45,52, 0		8,49
26″	16,42,47,32,40,40,50,45, 6,32		1,13,18,44,18	
		2, 0,41,23,29,27, 7,42		8,49
28″	16,42,49,33,22, 4,20,12,14,14		1,13,18,53, 7	
		2, 0,41,22,16, 8,14,35		8,49
30″	16,42,51,34, 3,26,36,20,28,49		1,13,19, 1,56	
		2, 0,41,21, 2,49,12,39		8,49
32″	16,42,53,34,44,47,39, 9,41,28		1,13,19,10,45	
		2, 0,41,19,49,30, 1,54		8,49
34″	16,42,55,35,26, 7,28,39,43,22		1,13,19,19,34	
		2, 0,41,18,36,10,42,20		8,49
36″	16,42,57,36, 7,26, 4,50,25,42		1,13,19,28,23	
		2, 0,41,17,22,51,13,57		8,49
38″	16,42,59,36,48,43,27,41,39,39		1,13,19,37,12	
		2, 0,41,16, 9,31,36,45		8,49
40″	16,43, 1,37,29,59,37,13,16,24		1,13,19,46, 1	
		2, 0,41,14,56,11,50,44		8,49
42″	16,43, 3,38,11,14,33,25, 7, 8		1,13,19,54,50	
		2, 0,41,13,42,51,55,54		8,49
44″	16,43, 5,38,52,28,16,17, 3, 2		1,13,20, 3,39	
		2, 0,41,12,29,31,52,15		8,49
46″	16,43, 7,39,33,40,45,48,55,17		1,13,20,12,28	
		2, 0,41,11,16,11,39,47		8,49
48″	16,43, 9,40,14,52, 2, 0,35, 4		1,13,20,21,17	
		2, 0,41,10, 2,51,18,30		8,49
50″	16,43,11,40,56, 2, 4,51,53,34		1,13,20,30, 6	
		2, 0,41, 8,49,30,48,24		8,49
52″	16,43,13,41,37,10,54,22,41,58		1,13,20,38,55	
		2, 0,41, 7,36,10, 9,29		8,49
54″	16,43,15,42,18,18,30,32,51,27		1,13,20,47,44	
		2, 0,41, 6,22,49,21,45		8,49
56″	16,43,17,42,59,24,53,22,13,12		1,13,20,56,33	
		2, 0,41, 5, 9,28,25,12		8,49
58″	16,43,19,43,40,30, 2,50,38,24		1,13,21, 5,22	
		2, 0,41, 3,56, 7,19,50		
60″	16,43,21,44,21,33,58,57,58,14			
exact	16,43,21,44,21,33,58,57,29,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°11′ 0″	16,43,21,44,21,33,58,57,29,53			
		2, 0,41, 2,42,46, 2,40		
2″	16,43,23,45, 2,36,41,43,32,33		1,13,21,23,12	
		2, 0,41, 1,29,24,39,28		8,49
4″	16,43,25,45,43,38,11, 8,12, 1		1,13,21,32, 1	
		2, 0,41, 0,16, 3, 7,27		8,49
6″	16,43,27,46,24,38,27,11,19,28		1,13,21,40,50	
		2, 0,40,59, 2,41,26,37		8,49
8″	16,43,29,47, 5,37,29,52,46, 5		1,13,21,49,39	
		2, 0,40,57,49,19,36,58		8,49
10″	16,43,31,47,46,35,19,12,23, 3		1,13,21,58,28	
		2, 0,40,56,35,57,38,30		8,49
12″	16,43,33,48,27,31,55,10, 1,33		1,13,22, 7,17	
		2, 0,40,55,22,35,31,13		8,49
14″	16,43,35,49, 8,27,17,45,32,46		1,13,22,16, 6	
		2, 0,40,54, 9,13,15, 7		8,49
16″	16,43,37,49,49,21,26,58,47,53		1,13,22,24,55	
		2, 0,40,52,55,50,50,12		8,49
18″	16,43,39,50,30,14,22,49,38, 5		1,13,22,33,44	
		2, 0,40,51,42,28,16,28		8,49
20″	16,43,41,51,11, 6, 5,17,54,33		1,13,22,42,33	
		2, 0,40,50,29, 5,33,55		8,49
22″	16,43,43,51,51,56,34,23,28,28		1,13,22,51,22	
		2, 0,40,49,15,42,42,33		8,49
24″	16,43,45,52,32,45,50, 6,11, 1		1,13,23, 0,11	
		2, 0,40,48, 2,19,42,22		8,49
26″	16,43,47,53,13,33,52,25,53,23		1,13,23, 9, 0	
		2, 0,40,46,48,56,33,22		8,49
28″	16,43,49,53,54,20,41,22,26,45		1,13,23,17,49	
		2, 0,40,45,35,33,15,33		8,49
30″	16,43,51,54,35, 6,16,55,42,18		1,13,23,26,38	
		2, 0,40,44,22, 9,48,55		8,49
32″	16,43,53,55,15,50,39, 5,31,13		1,13,23,35,27	
		2, 0,40,43, 8,46,13,28		8,49
34″	16,43,55,55,56,33,47,51,44,41		1,13,23,44,16	
		2, 0,40,41,55,22,29,12		8,49
36″	16,43,57,56,37,15,43,14,13,53		1,13,23,53, 5	
		2, 0,40,40,41,58,36, 7		8,49
38″	16,43,59,57,17,56,25,12,50, 0		1,13,24, 1,54	
		2, 0,40,39,28,34,34,13		8,49
40″	16,44, 1,57,58,35,53,47,24,13		1,13,24,10,43	
		2, 0,40,38,15,10,23,30		8,49
42″	16,44, 3,58,39,14, 8,57,47,43		1,13,24,19,32	
		2, 0,40,37, 1,46, 3,58		8,49
44″	16,44, 5,59,19,51,10,43,51,41		1,13,24,28,21	
		2, 0,40,35,48,21,35,37		8,49
46″	16,44, 8, 0, 0,26,59, 5,27,18		1,13,24,37,10	
		2, 0,40,34,34,56,58,27		8,49
48″	16,44,10, 0,41, 1,34, 2,25,45		1,13,24,45,59	
		2, 0,40,33,21,32,12,28		8,49
50″	16,44,12, 1,21,34,55,34,38,13		1,13,24,54,48	
		2, 0,40,32, 8, 7,17,40		8,49
52″	16,44,14, 2, 2, 7, 3,41,55,53		1,13,25, 3,37	
		2, 0,40,30,54,42,14, 3		8,49
54″	16,44,16, 2,42,37,58,24, 9,56		1,13,25,12,26	
		2, 0,40,29,41,17, 1,37		8,49
56″	16,44,18, 3,23, 7,39,41,11,33		1,13,25,21,15	
		2, 0,40,28,27,51,40,22		8,49
58″	16,44,20, 4, 3,36, 7,32,51,55		1,13,25,30, 4	
		2, 0,40,27,14,26,10,18		
60″	16,44,22, 4,44, 3,21,59, 2,13			
exact	16,44,22, 4,44, 3,21,58,36,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°12′ 0″	16,44,22, 4,44, 3,21,58,36,28			
		2, 0,40,26, 1, 0,28,44		
2″	16,44,24, 5,24,29,22,59, 5,12		1,13,25,47,53	
		2, 0,40,24,47,34,40,51		8,49
4″	16,44,26, 6, 4,54,10,33,46, 3		1,13,25,56,42	
		2, 0,40,23,34, 8,44, 9		8,49
6″	16,44,28, 6,45,17,44,42,30,12		1,13,26, 5,31	
		2, 0,40,22,20,42,38,38		8,49
8″	16,44,30, 7,25,40, 5,25, 8,50		1,13,26,14,20	
		2, 0,40,21, 7,16,24,18		8,49
10″	16,44,32, 8, 6, 1,12,41,33, 8		1,13,26,23, 9	
		2, 0,40,19,53,50, 1, 9		8,49
12″	16,44,34, 8,46,21, 6,31,34,17		1,13,26,31,58	
		2, 0,40,18,40,23,29,11		8,49
14″	16,44,36, 9,26,39,46,55, 3,28		1,13,26,40,47	
		2, 0,40,17,26,56,48,24		8,49
16″	16,44,38,10, 6,57,13,51,51,52		1,13,26,49,36	
		2, 0,40,16,13,29,58,48		8,49
18″	16,44,40,10,47,13,27,21,50,40		1,13,26,58,25	
		2, 0,40,15, 0, 3, 0,23		8,49
20″	16,44,42,11,27,28,27,24,51, 3		1,13,27, 7,14	
		2, 0,40,13,46,35,53, 9		8,49
22″	16,44,44,12, 7,42,14, 0,44,12		1,13,27,16, 3	
		2, 0,40,12,33, 8,37, 6		8,49
24″	16,44,46,12,47,54,47, 9,21,18		1,13,27,24,52	
		2, 0,40,11,19,41,12,14		8,49
26″	16,44,48,13,28, 6, 6,50,33,32		1,13,27,33,41	
		2, 0,40,10, 6,13,38,33		8,49
28″	16,44,50,14, 8,16,13, 4,12, 5		1,13,27,42,30	
		2, 0,40, 8,52,45,56, 3		8,49
30″	16,44,52,14,48,25, 5,50, 8, 8		1,13,27,51,19	
		2, 0,40, 7,39,18, 4,44		8,49
32″	16,44,54,15,28,32,45, 8,12,52		1,13,28, 0, 8	
		2, 0,40, 6,25,50, 4,36		8,49
34″	16,44,56,16, 8,39,10,58,17,28		1,13,28, 8,57	
		2, 0,40, 5,12,21,55,39		8,49
36″	16,44,58,16,48,44,23,20,13, 7		1,13,28,17,46	
		2, 0,40, 3,58,53,37,53		8,49
38″	16,45, 0,17,28,48,22,13,51, 0		1,13,28,26,35	
		2, 0,40, 2,45,25,11,18		8,49
40″	16,45, 2,18, 8,51, 7,39, 2,18		1,13,28,35,24	
		2, 0,40, 1,31,56,35,54		8,49
42″	16,45, 4,18,48,52,39,35,38,12		1,13,28,44,13	
		2, 0,40, 0,18,27,51,41		8,49
44″	16,45, 6,19,28,52,58, 3,29,53		1,13,28,53, 2	
		2, 0,39,59, 4,58,58,39		8,49
46″	16,45, 8,20, 8,52, 3, 2,28,32		1,13,29, 1,51	
		2, 0,39,57,51,29,56,48		8,49
48″	16,45,10,20,48,49,54,32,25,20		1,13,29,10,40	
		2, 0,39,56,38, 0,46, 8		8,49
50″	16,45,12,21,28,46,32,33,11,28		1,13,29,19,29	
		2, 0,39,55,24,31,26,39		8,49
52″	16,45,14,22, 8,41,57, 4,38, 7		1,13,29,28,18	
		2, 0,39,54,11, 1,58,21		8,49
54″	16,45,16,22,48,36, 8, 6,36,28		1,13,29,37, 7	
		2, 0,39,52,57,32,21,14		8,49
56″	16,45,18,23,28,29, 5,38,57,42		1,13,29,45,56	
		2, 0,39,51,44, 2,35,18		8,49
58″	16,45,20,24, 8,20,49,41,33, 0		1,13,29,54,45	
		2, 0,39,50,30,32,40,33		
60″	16,45,22,24,48,11,20,14,13,33			
exact	16,45,22,24,48,11,20,13,53, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°13′ 0″	16,45,22,24,48,11,20,13,53, 5			
		2, 0,39,49,17, 2,34,46		
2″	16,45,24,25,28, 0,37,16,27,51		1,13,30,12,32	
		2, 0,39,48, 3,32,22,14		8,49
4″	16,45,26,26, 7,48,40,48,50, 5		1,13,30,21,21	
		2, 0,39,46,50, 2, 0,53		8,49
6″	16,45,28,26,47,35,30,50,50,58		1,13,30,30,10	
		2, 0,39,45,36,31,30,43		8,49
8″	16,45,30,27,27,21, 7,22,21,41		1,13,30,38,59	
		2, 0,39,44,23, 0,51,44		8,49
10″	16,45,32,28, 7, 5,30,23,13,25		1,13,30,47,48	
		2, 0,39,43, 9,30, 3,56		8,49
12″	16,45,34,28,46,48,39,53,17,21		1,13,30,56,37	
		2, 0,39,41,55,59, 7,19		8,49
14″	16,45,36,29,26,30,35,52,24,40		1,13,31, 5,26	
		2, 0,39,40,42,28, 1,53		8,49
16″	16,45,38,30, 6,11,18,20,26,33		1,13,31,14,15	
		2, 0,39,39,28,56,47,38		8,49
18″	16,45,40,30,45,50,47,17,14,11		1,13,31,23, 4	
		2, 0,39,38,15,25,24,34		8,49
20″	16,45,42,31,25,29, 2,42,38,45		1,13,31,31,53	
		2, 0,39,37, 1,53,52,41		8,49
22″	16,45,44,32, 5, 6, 4,36,31,26		1,13,31,40,42	
		2, 0,39,35,48,22,11,59		8,49
24″	16,45,46,32,44,41,52,58,43,25		1,13,31,49,31	
		2, 0,39,34,34,50,22,28		8,49
26″	16,45,48,33,24,16,27,49, 5,53		1,13,31,58,20	
		2, 0,39,33,21,18,24, 8		8,49
28″	16,45,50,34, 3,49,49, 7,30, 1		1,13,32, 7, 9	
		2, 0,39,32, 7,46,16,59		8,49
30″	16,45,52,34,43,21,56,53,47, 0		1,13,32,15,58	
		2, 0,39,30,54,14, 1, 1		8,49
32″	16,45,54,35,22,52,51, 7,48, 1		1,13,32,24,47	
		2, 0,39,29,40,41,36,14		8,49
34″	16,45,56,36, 2,22,31,49,24,15		1,13,32,33,36	
		2, 0,39,28,27, 9, 2,38		8,49
36″	16,45,58,36,41,50,58,58,26,53		1,13,32,42,25	
		2, 0,39,27,13,36,20,13		8,49
38″	16,46, 0,37,21,18,12,34,47, 6		1,13,32,51,14	
		2, 0,39,26, 0, 3,28,59		8,49
40″	16,46, 2,38, 0,44,12,38,16, 5		1,13,33, 0, 3	
		2, 0,39,24,46,30,28,56		8,49
42″	16,46, 4,38,40, 8,59, 8,45, 1		1,13,33, 8,52	
		2, 0,39,23,32,57,20, 4		8,49
44″	16,46, 6,39,19,32,32, 6, 5, 5		1,13,33,17,41	
		2, 0,39,22,19,24, 2,23		8,49
46″	16,46, 8,39,58,54,51,30, 7,28		1,13,33,26,30	
		2, 0,39,21, 5,50,35,53		8,49
48″	16,46,10,40,38,15,57,20,43,21		1,13,33,35,19	
		2, 0,39,19,52,17, 0,34		8,49
50″	16,46,12,41,17,35,49,37,43,55		1,13,33,44, 8	
		2, 0,39,18,38,43,16,26		8,49
52″	16,46,14,41,56,54,28,21, 0,21		1,13,33,52,57	
		2, 0,39,17,25, 9,23,29		8,49
54″	16,46,16,42,36,11,53,30,23,50		1,13,34, 1,46	
		2, 0,39,16,11,35,21,43		8,49
56″	16,46,18,43,15,28, 5, 5,45,33		1,13,34,10,35	
		2, 0,39,14,58, 1,11, 8		8,49
58″	16,46,20,43,54,43, 3, 6,56,41		1,13,34,19,24	
		2, 0,39,13,44,26,51,44		
60″	16,46,22,44,33,56,47,33,48,25			
exact	16,46,22,44,33,56,47,33,28,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°14′ 0″	16,46,22,44,33,56,47,33,28,42			
		2, 0,39,12,30,52,21,28		
2″	16,46,24,45,13, 9,18,25,50,10		1,13,34,37,10	
		2, 0,39,11,17,17,44,18		8,49
4″	16,46,26,45,52,20,35,43,34,28		1,13,34,45,59	
		2, 0,39,10, 3,42,58,19		8,49
6″	16,46,28,46,31,30,39,26,32,47		1,13,34,54,48	
		2, 0,39, 8,50, 8, 3,31		8,49
8″	16,46,30,47,10,39,29,34,36,18		1,13,35, 3,37	
		2, 0,39, 7,36,32,59,54		8,49
10″	16,46,32,47,49,47, 6, 7,36,12		1,13,35,12,26	
		2, 0,39, 6,22,57,47,28		8,49
12″	16,46,34,48,28,53,29, 5,23,40		1,13,35,21,15	
		2, 0,39, 5, 9,22,26,13		8,49
14″	16,46,36,49, 7,58,38,27,49,53		1,13,35,30, 4	
		2, 0,39, 3,55,46,56, 9		8,49
16″	16,46,38,49,47, 2,34,14,46, 2		1,13,35,38,53	
		2, 0,39, 2,42,11,17,16		8,49
18″	16,46,40,50,26, 5,16,26, 3,18		1,13,35,47,42	
		2, 0,39, 1,28,35,29,34		8,49
20″	16,46,42,51, 5, 6,45, 1,32,52		1,13,35,56,31	
		2, 0,39, 0,14,59,33, 3		8,49
22″	16,46,44,51,44, 7, 0, 1, 5,55		1,13,36, 5,20	
		2, 0,38,59, 1,23,27,43		8,49
24″	16,46,46,52,23, 6, 1,24,33,38		1,13,36,14, 9	
		2, 0,38,57,47,47,13,34		8,49
26″	16,46,48,53, 2, 3,49,11,47,12		1,13,36,22,58	
		2, 0,38,56,34,10,50,36		8,49
28″	16,46,50,53,41, 0,23,22,37,48		1,13,36,31,47	
		2, 0,38,55,20,34,18,49		8,49
30″	16,46,52,54,19,55,43,56,56,37		1,13,36,40,36	
		2, 0,38,54, 6,57,38,13		8,49
32″	16,46,54,54,58,49,50,54,34,50		1,13,36,49,25	
		2, 0,38,52,53,20,48,48		8,49
34″	16,46,56,55,37,42,44,15,23,38		1,13,36,58,14	
		2, 0,38,51,39,43,50,34		8,49
36″	16,46,58,56,16,34,23,59,14,12		1,13,37, 7, 3	
		2, 0,38,50,26, 6,43,31		8,49
38″	16,47, 0,56,55,24,50, 5,57,43		1,13,37,15,52	
		2, 0,38,49,12,29,27,39		8,49
40″	16,47, 2,57,34,14, 2,35,25,22		1,13,37,24,41	
		2, 0,38,47,58,52, 2,58		8,49
42″	16,47, 4,58,13, 2, 1,27,28,20		1,13,37,33,30	
		2, 0,38,46,45,14,29,28		8,49
44″	16,47, 6,58,51,48,46,41,57,48		1,13,37,42,19	
		2, 0,38,45,31,36,47, 9		8,49
46″	16,47, 8,59,30,34,18,18,44,57		1,13,37,51, 8	
		2, 0,38,44,17,58,56, 1		8,49
48″	16,47,11, 0, 9,18,36,17,40,58		1,13,37,59,57	
		2, 0,38,43, 4,20,56, 4		8,49
50″	16,47,13, 0,48, 1,40,38,37, 2		1,13,38, 8,46	
		2, 0,38,41,50,42,47,18		8,49
52″	16,47,15, 1,26,43,31,21,24,20		1,13,38,17,35	
		2, 0,38,40,37, 4,29,43		8,49
54″	16,47,17, 2, 5,24, 8,25,54, 3		1,13,38,26,24	
		2, 0,38,39,23,26, 3,19		8,49
56″	16,47,19, 2,44, 3,31,51,57,22		1,13,38,35,13	
		2, 0,38,38, 9,47,28, 6		8,49
58″	16,47,21, 3,22,41,41,39,25,28		1,13,38,44, 2	
		2, 0,38,36,56, 8,44, 4		
60″	16,47,23, 4, 1,18,37,48, 9,32			
exact	16,47,23, 4, 1,18,37,47,52,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°15′ 0″	16,47,23, 4, 1,18,37,47,52,32	2, 0,38,35,42,29,49,28		
2″	16,47,25, 4,39,54,20,17,42, 0	2, 0,38,34,28,50,47,41	1,13,39, 1,47	8,49
4″	16,47,27, 5,18,28,49, 8,29,41	2, 0,38,33,15,11,37, 5	1,13,39,10,36	8,49
6″	16,47,29, 5,57, 2, 4,20, 6,46	2, 0,38,32, 1,32,17,40	1,13,39,19,25	8,49
8″	16,47,31, 6,35,34, 5,52,24,26	2, 0,38,30,47,52,49,26	1,13,39,28,14	8,49
10″	16,47,33, 7,14, 4,53,45,13,52	2, 0,38,29,34,13,12,23	1,13,39,37, 3	8,49
12″	16,47,35, 7,52,34,27,58,26,15	2, 0,38,28,20,33,26,31	1,13,39,45,52	8,49
14″	16,47,37, 8,31, 2,48,31,52,46	2, 0,38,27, 6,53,31,50	1,13,39,54,41	8,49
16″	16,47,39, 9, 9,29,55,25,24,36	2, 0,38,25,53,13,28,20	1,13,40, 3,30	8,49
18″	16,47,41, 9,47,55,48,38,52,56	2, 0,38,24,39,33,16, 1	1,13,40,12,19	8,49
20″	16,47,43,10,26,20,28,12, 8,57	2, 0,38,23,25,52,54,53	1,13,40,21, 8	8,49
22″	16,47,45,11, 4,43,54, 5, 3,50	2, 0,38,22,12,12,24,56	1,13,40,29,57	8,49
24″	16,47,47,11,43, 6, 6,17,28,46	2, 0,38,20,58,31,46,10	1,13,40,38,46	8,49
26″	16,47,49,12,21,27, 4,49,14,56	2, 0,38,19,44,50,58,35	1,13,40,47,35	8,49
28″	16,47,51,12,59,46,49,40,13,31	2, 0,38,18,31,10, 2,11	1,13,40,56,24	8,49
30″	16,47,53,13,38, 5,20,50,15,42	2, 0,38,17,17,28,56,58	1,13,41, 5,13	8,49
32″	16,47,55,14,16,22,38,19,12,40	2, 0,38,16, 3,47,42,56	1,13,41,14, 2	8,49
34″	16,47,57,14,54,38,42, 6,55,36	2, 0,38,14,50, 6,20, 5	1,13,41,22,51	8,49
36″	16,47,59,15,32,53,32,13,15,41	2, 0,38,13,36,24,48,25	1,13,41,31,40	8,49
38″	16,48, 1,16,11, 7, 8,38, 4, 6	2, 0,38,12,22,43, 7,56	1,13,41,40,29	8,49
40″	16,48, 3,16,49,19,31,21,12, 2	2, 0,38,11, 9, 1,18,38	1,13,41,49,18	8,49
42″	16,48, 5,17,27,30,40,22,30,40	2, 0,38, 9,55,19,20,31	1,13,41,58, 7	8,49
44″	16,48, 7,18, 5,40,35,41,51,11	2, 0,38, 8,41,37,13,35	1,13,42, 6,56	8,49
46″	16,48, 9,18,43,49,17,19, 4,46	2, 0,38, 7,27,54,57,50	1,13,42,15,45	8,49
48″	16,48,11,19,21,56,45,14, 2,36	2, 0,38, 6,14,12,33,16	1,13,42,24,34	8,49
50″	16,48,13,20, 0, 2,59,26,35,52	2, 0,38, 5, 0,29,59,53	1,13,42,33,23	8,49
52″	16,48,15,20,38, 7,59,56,35,45	2, 0,38, 3,46,47,17,41	1,13,42,42,12	8,49
54″	16,48,17,21,16,11,46,43,53,26	2, 0,38, 2,33, 4,26,40	1,13,42,51, 1	8,49
56″	16,48,19,21,54,14,19,48,20, 6	2, 0,38, 1,19,21,26,50	1,13,42,59,50	8,49
58″	16,48,21,22,32,15,39, 9,46,56	2, 0,38, 0, 5,38,18,11	1,13,43, 8,39	
60″	16,48,23,23,10,15,44,48, 5, 7			
exact	16,48,23,23,10,15,44,47,53,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°16′ 0″	16,48,23,23,10,15,44,47,53,53			
		2, 0,37,58,51,54,59,29		
2″	16,48,25,23,48,14,36,42,53,22		1,13,43,26,22	
		2, 0,37,57,38,11,33, 7		8,49
4″	16,48,27,24,26,12,14,54,26,29		1,13,43,35,11	
		2, 0,37,56,24,27,57,56		8,49
6″	16,48,29,25, 4, 8,39,22,24,25		1,13,43,44, 0	
		2, 0,37,55,10,44,13,56		8,49
8″	16,48,31,25,42, 3,50, 6,38,21		1,13,43,52,49	
		2, 0,37,53,57, 0,21, 7		8,49
10″	16,48,33,26,19,57,47, 6,59,28		1,13,44, 1,38	
		2, 0,37,52,43,16,19,29		8,49
12″	16,48,35,26,57,50,30,23,18,57		1,13,44,10,27	
		2, 0,37,51,29,32, 9, 2		8,49
14″	16,48,37,27,35,41,59,55,27,59		1,13,44,19,16	
		2, 0,37,50,15,47,49,46		8,49
16″	16,48,39,28,13,32,15,43,17,45		1,13,44,28, 5	
		2, 0,37,49, 2, 3,21,41		8,49
18″	16,48,41,28,51,21,17,46,39,26		1,13,44,36,54	
		2, 0,37,47,48,18,44,47		8,49
20″	16,48,43,29,29, 9, 6, 5,24,13		1,13,44,45,43	
		2, 0,37,46,34,33,59, 4		8,49
22″	16,48,45,30, 6,55,40,39,23,17		1,13,44,54,32	
		2, 0,37,45,20,49, 4,32		8,49
24″	16,48,47,30,44,41, 1,28,27,49		1,13,45, 3,21	
		2, 0,37,44, 7, 4, 1,11		8,49
26″	16,48,49,31,22,25, 8,32,29, 0		1,13,45,12,10	
		2, 0,37,42,53,18,49, 1		8,49
28″	16,48,51,32, 0, 8, 1,51,18, 1		1,13,45,20,59	
		2, 0,37,41,39,33,28, 2		8,49
30″	16,48,53,32,37,49,41,24,46, 3		1,13,45,29,48	
		2, 0,37,40,25,47,58,14		8,49
32″	16,48,55,33,15,30, 7,12,44,17		1,13,45,38,37	
		2, 0,37,39,12, 2,19,37		8,49
34″	16,48,57,33,53, 9,19,15, 3,54		1,13,45,47,26	
		2, 0,37,37,58,16,32,11		8,49
36″	16,48,59,34,30,47,17,31,36, 5		1,13,45,56,15	
		2, 0,37,36,44,30,35,56		8,49
38″	16,49, 1,35, 8,24, 2, 2,12, 1		1,13,46, 5, 4	
		2, 0,37,35,30,44,30,52		8,49
40″	16,49, 3,35,45,59,32,46,42,53		1,13,46,13,53	
		2, 0,37,34,16,58,16,59		8,49
42″	16,49, 5,36,23,33,49,44,59,52		1,13,46,22,42	
		2, 0,37,33, 3,11,54,17		8,49
44″	16,49, 7,37, 1, 6,52,56,54, 9		1,13,46,31,31	
		2, 0,37,31,49,25,22,46		8,49
46″	16,49, 9,37,38,38,42,22,16,55		1,13,46,40,20	
		2, 0,37,30,35,38,42,26		8,49
48″	16,49,11,38,16, 9,18, 0,59,21		1,13,46,49, 9	
		2, 0,37,29,21,51,53,17		8,49
50″	16,49,13,38,53,38,39,52,52,38		1,13,46,57,58	
		2, 0,37,28, 8, 4,55,19		8,49
52″	16,49,15,39,31, 6,47,57,47,57		1,13,47, 6,47	
		2, 0,37,26,54,17,48,32		8,49
54″	16,49,17,40, 8,33,42,15,36,29		1,13,47,15,36	
		2, 0,37,25,40,30,32,56		8,49
56″	16,49,19,40,45,59,22,46, 9,25		1,13,47,24,25	
		2, 0,37,24,26,43, 8,31		8,49
58″	16,49,21,41,23,23,49,29,17,56		1,13,47,33,14	
		2, 0,37,23,12,55,35,17		
60″	16,49,23,42, 0,47, 2,24,53,13			
exact	16,49,23,42, 0,47, 2,24,42,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°17′ 0″	16,49,23,42, 0,47, 2,24,42,17			
		2, 0,37,21,59, 7,52, 9		
2″	16,49,25,42,38, 9, 1,32,34,26		1,13,47,50,56	
		2, 0,37,20,45,20, 1,13		8,49
4″	16,49,27,43,15,29,46,52,35,39		1,13,47,59,45	
		2, 0,37,19,31,32, 1,28		8,49
6″	16,49,29,43,52,49,18,24,37, 7		1,13,48, 8,34	
		2, 0,37,18,17,43,52,54		8,49
8″	16,49,31,44,30, 7,36, 8,30, 1		1,13,48,17,23	
		2, 0,37,17, 3,55,35,31		8,49
10″	16,49,33,45, 7,24,40, 4, 5,32		1,13,48,26,12	
		2, 0,37,15,50, 7, 9,19		8,49
12″	16,49,35,45,44,40,30,11,14,51		1,13,48,35, 1	
		2, 0,37,14,36,18,34,18		8,49
14″	16,49,37,46,21,55, 6,29,49, 9		1,13,48,43,50	
		2, 0,37,13,22,29,50,28		8,49
16″	16,49,39,46,59, 8,28,59,39,37		1,13,48,52,39	
		2, 0,37,12, 8,40,57,49		8,49
18″	16,49,41,47,36,20,37,40,37,26		1,13,49, 1,28	
		2, 0,37,10,54,51,56,21		8,49
20″	16,49,43,48,13,31,32,32,33,47		1,13,49,10,17	
		2, 0,37, 9,41, 2,46, 4		8,49
22″	16,49,45,48,50,41,13,35,19,51		1,13,49,19, 6	
		2, 0,37, 8,27,13,26,58		8,49
24″	16,49,47,49,27,49,40,48,46,49		1,13,49,27,55	
		2, 0,37, 7,13,23,59, 3		8,49
26″	16,49,49,50, 4,56,54,12,45,52		1,13,49,36,44	
		2, 0,37, 5,59,34,22,19		8,49
28″	16,49,51,50,42, 2,53,47, 8,11		1,13,49,45,33	
		2, 0,37, 4,45,44,36,46		8,49
30″	16,49,53,51,19, 7,39,31,44,57		1,13,49,54,22	
		2, 0,37, 3,31,54,42,24		8,49
32″	16,49,55,51,56,11,11,26,27,21		1,13,50, 3,11	
		2, 0,37, 2,18, 4,39,13		8,49
34″	16,49,57,52,33,13,29,31, 6,34		1,13,50,12, 0	
		2, 0,37, 1, 4,14,27,13		8,49
36″	16,49,59,53,10,14,33,45,33,47		1,13,50,20,49	
		2, 0,36,59,50,24, 6,24		8,49
38″	16,50, 1,53,47,14,24, 9,40,11		1,13,50,29,38	
		2, 0,36,58,36,33,36,46		8,49
40″	16,50, 3,54,24,13, 0,43,16,57		1,13,50,38,27	
		2, 0,36,57,22,42,58,19		8,49
42″	16,50, 5,55, 1,10,23,26,15,16		1,13,50,47,16	
		2, 0,36,56, 8,52,11, 3		8,49
44″	16,50, 7,55,38, 6,32,18,26,19		1,13,50,56, 5	
		2, 0,36,54,55, 1,14,58		8,49
46″	16,50, 9,56,15, 1,27,19,41,17		1,13,51, 4,54	
		2, 0,36,53,41,10,10, 4		8,49
48″	16,50,11,56,51,55, 8,29,51,21		1,13,51,13,43	
		2, 0,36,52,27,18,56,21		8,49
50″	16,50,13,57,28,47,35,48,47,42		1,13,51,22,32	
		2, 0,36,51,13,27,33,49		8,49
52″	16,50,15,58, 5,38,49,16,21,31		1,13,51,31,21	
		2, 0,36,49,59,36, 2,28		8,49
54″	16,50,17,58,42,28,48,52,23,59		1,13,51,40,10	
		2, 0,36,48,45,44,22,18		8,49
56″	16,50,19,59,19,17,34,36,46,17		1,13,51,48,59	
		2, 0,36,47,31,52,33,19		8,49
58″	16,50,21,59,56, 5, 6,29,19,36		1,13,51,57,48	
		2, 0,36,46,18, 0,35,31		
60″	16,50,24, 0,32,51,24,29,55, 7			
exact	16,50,24, 0,32,51,24,29,47,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°18′ 0″	16,50,24, 0,32,51,24,29,47,30			
		2, 0,36,45, 4, 8,28, 9		
2″	16,50,26, 1, 9,36,28,38,15,39		1,13,52,15,29	
		2, 0,36,43,50,16,12,40		8,49
4″	16,50,28, 1,46,20,18,54,28,19		1,13,52,24,18	
		2, 0,36,42,36,23,48,22		8,49
6″	16,50,30, 2,23, 2,55,18,16,41		1,13,52,33, 7	
		2, 0,36,41,22,31,15,15		8,49
8″	16,50,32, 2,59,44,17,49,31,56		1,13,52,41,56	
		2, 0,36,40, 8,38,33,19		8,49
10″	16,50,34, 3,36,24,26,28, 5,15		1,13,52,50,45	
		2, 0,36,38,54,45,42,34		8,49
12″	16,50,36, 4,13, 3,21,13,47,49		1,13,52,59,34	
		2, 0,36,37,40,52,43, 0		8,49
14″	16,50,38, 4,49,41, 2, 6,30,49		1,13,53, 8,23	
		2, 0,36,36,26,59,34,37		8,49
16″	16,50,40, 5,26,17,29, 6, 5,26		1,13,53,17,12	
		2, 0,36,35,13, 6,17,25		8,49
18″	16,50,42, 6, 2,52,42,12,22,51		1,13,53,26, 1	
		2, 0,36,33,59,12,51,24		8,49
20″	16,50,44, 6,39,26,41,25,14,15		1,13,53,34,50	
		2, 0,36,32,45,19,16,34		8,49
22″	16,50,46, 7,15,59,26,44,30,49		1,13,53,43,39	
		2, 0,36,31,31,25,32,55		8,49
24″	16,50,48, 7,52,30,58,10, 3,44		1,13,53,52,28	
		2, 0,36,30,17,31,40,27		8,49
26″	16,50,50, 8,29, 1,15,41,44,11		1,13,54, 1,17	
		2, 0,36,29, 3,37,39,10		8,49
28″	16,50,52, 9, 5,30,19,19,23,21		1,13,54,10, 6	
		2, 0,36,27,49,43,29, 4		8,49
30″	16,50,54, 9,41,58, 9, 2,52,25		1,13,54,18,55	
		2, 0,36,26,35,49,10, 9		8,49
32″	16,50,56,10,18,24,44,52, 2,34		1,13,54,27,44	
		2, 0,36,25,21,54,42,25		8,49
34″	16,50,58,10,54,50, 6,46,44,59		1,13,54,36,33	
		2, 0,36,24, 8, 0, 5,52		8,49
36″	16,51, 0,11,31,14,14,46,50,51		1,13,54,45,22	
		2, 0,36,22,54, 5,20,30		8,49
38″	16,51, 2,12, 7,37, 8,52,11,21		1,13,54,54,11	
		2, 0,36,21,40,10,26,19		8,49
40″	16,51, 4,12,43,58,49, 2,37,40		1,13,55, 3, 0	
		2, 0,36,20,26,15,23,19		8,49
42″	16,51, 6,13,20,19,15,18, 0,59		1,13,55,11,49	
		2, 0,36,19,12,20,11,30		8,49
44″	16,51, 8,13,56,38,27,38,12,29		1,13,55,20,38	
		2, 0,36,17,58,24,50,52		8,49
46″	16,51,10,14,32,56,26, 3, 3,21		1,13,55,29,27	
		2, 0,36,16,44,29,21,25		8,49
48″	16,51,12,15, 9,13,10,32,24,46		1,13,55,38,16	
		2, 0,36,15,30,33,43, 9		8,49
50″	16,51,14,15,45,28,41, 6, 7,55		1,13,55,47, 5	
		2, 0,36,14,16,37,56, 4		8,49
52″	16,51,16,16,21,42,57,44, 3,59		1,13,55,55,54	
		2, 0,36,13, 2,42, 0,10		8,49
54″	16,51,18,16,57,56, 0,26, 4, 9		1,13,56, 4,43	
		2, 0,36,11,48,45,55,27		8,49
56″	16,51,20,17,34, 7,49,11,59,36		1,13,56,13,32	
		2, 0,36,10,34,49,41,55		8,49
58″	16,51,22,18,10,18,24, 1,41,31		1,13,56,22,21	
		2, 0,36, 9,20,53,19,34		
60″	16,51,24,18,46,27,44,55, 1, 5			
exact	16,51,24,18,46,27,44,54,59,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°19′ 0″	16,51,24,18,46,27,44,54,59,28			
		2, 0,36, 8, 6,56,48,11		
2″	16,51,26,19,22,35,51,51,47,39		1,13,56,40, 0	
		2, 0,36, 6,53, 0, 8,11		8,49
4″	16,51,28,19,58,42,44,51,55,50		1,13,56,48,49	
		2, 0,36, 5,39, 3,19,22		8,49
6″	16,51,30,20,34,48,23,55,15,12		1,13,56,57,38	
		2, 0,36, 4,25, 6,21,44		8,49
8″	16,51,32,21,10,52,49, 1,36,56		1,13,57, 6,27	
		2, 0,36, 3,11, 9,15,17		8,49
10″	16,51,34,21,46,56, 0,10,52,13		1,13,57,15,16	
		2, 0,36, 1,57,12, 0, 1		8,49
12″	16,51,36,22,22,57,57,22,52,14		1,13,57,24, 5	
		2, 0,36, 0,43,14,35,56		8,49
14″	16,51,38,22,58,58,40,37,28,10		1,13,57,32,54	
		2, 0,35,59,29,17, 3, 2		8,49
16″	16,51,40,23,34,58, 9,54,31,12		1,13,57,41,43	
		2, 0,35,58,15,19,21,19		8,49
18″	16,51,42,24,10,56,25,13,52,31		1,13,57,50,32	
		2, 0,35,57, 1,21,30,47		8,49
20″	16,51,44,24,46,53,26,35,23,18		1,13,57,59,21	
		2, 0,35,55,47,23,31,26		8,49
22″	16,51,46,25,22,49,13,58,54,44		1,13,58, 8,10	
		2, 0,35,54,33,25,23,16		8,49
24″	16,51,48,25,58,43,47,24,18, 0		1,13,58,16,59	
		2, 0,35,53,19,27, 6,17		8,49
26″	16,51,50,26,34,37, 6,51,24,17		1,13,58,25,48	
		2, 0,35,52, 5,28,40,29		8,49
28″	16,51,52,27,10,29,12,20, 4,46		1,13,58,34,37	
		2, 0,35,50,51,30, 5,52		8,49
30″	16,51,54,27,46,20, 3,50,10,38		1,13,58,43,26	
		2, 0,35,49,37,31,22,26		8,49
32″	16,51,56,28,22, 9,41,21,33, 4		1,13,58,52,15	
		2, 0,35,48,23,32,30,11		8,49
34″	16,51,58,28,57,58, 4,54, 3,15		1,13,59, 1, 4	
		2, 0,35,47, 9,33,29, 7		8,49
36″	16,52, 0,29,33,45,14,27,32,22		1,13,59, 9,53	
		2, 0,35,45,55,34,19,14		8,49
38″	16,52, 2,30, 9,31,10, 1,51,36		1,13,59,18,42	
		2, 0,35,44,41,35, 0,32		8,49
40″	16,52, 4,30,45,15,51,36,52, 8		1,13,59,27,31	
		2, 0,35,43,27,35,33, 1		8,49
42″	16,52, 6,31,20,59,19,12,25, 9		1,13,59,36,20	
		2, 0,35,42,13,35,56,41		8,49
44″	16,52, 8,31,56,41,32,48,21,50		1,13,59,45, 9	
		2, 0,35,40,59,36,11,32		8,49
46″	16,52,10,32,32,22,32,24,33,22		1,13,59,53,58	
		2, 0,35,39,45,36,17,34		8,49
48″	16,52,12,33, 8, 2,18, 0,50,56		1,14, 0, 2,47	
		2, 0,35,38,31,36,14,47		8,49
50″	16,52,14,33,43,40,49,37, 5,43		1,14, 0,11,36	
		2, 0,35,37,17,36, 3,11		8,49
52″	16,52,16,34,19,18, 7,13, 8,54		1,14, 0,20,25	
		2, 0,35,36, 3,35,42,46		8,49
54″	16,52,18,34,54,54,10,48,51,40		1,14, 0,29,14	
		2, 0,35,34,49,35,13,32		8,49
56″	16,52,20,35,30,29, 0,24, 5,12		1,14, 0,38, 3	
		2, 0,35,33,35,34,35,29		8,49
58″	16,52,22,36, 6, 2,35,58,40,41		1,14, 0,46,52	
		2, 0,35,32,21,33,48,37		
60″	16,52,24,36,41,34,57,32,29,18			
exact	16,52,24,36,41,34,57,32,28,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°20′ 0″	16,52,24,36,41,34,57,32,28,27			
		2, 0,35,31, 7,32,52,53		
2″	16,52,26,37,17, 6, 5, 5,21,20		1,14, 1, 4,30	
		2, 0,35,29,53,31,48,23		8,49
4″	16,52,28,37,52,35,58,37, 9,43		1,14, 1,13,19	
		2, 0,35,28,39,30,35, 4		8,49
6″	16,52,30,38,28, 4,38, 7,44,47		1,14, 1,22, 8	
		2, 0,35,27,25,29,12,56		8,49
8″	16,52,32,39, 3,32, 3,36,57,43		1,14, 1,30,57	
		2, 0,35,26,11,27,41,59		8,49
10″	16,52,34,39,38,58,15, 4,39,42		1,14, 1,39,46	
		2, 0,35,24,57,26, 2,13		8,49
12″	16,52,36,40,14,23,12,30,41,55		1,14, 1,48,35	
		2, 0,35,23,43,24,13,38		8,49
14″	16,52,38,40,49,46,55,54,55,33		1,14, 1,57,24	
		2, 0,35,22,29,22,16,14		8,49
16″	16,52,40,41,25, 9,25,17,11,47		1,14, 2, 6,13	
		2, 0,35,21,15,20,10, 1		8,49
18″	16,52,42,42, 0,30,40,37,21,48		1,14, 2,15, 2	
		2, 0,35,20, 1,17,54,59		8,49
20″	16,52,44,42,35,50,41,55,16,47		1,14, 2,23,51	
		2, 0,35,18,47,15,31, 8		8,49
22″	16,52,46,43,11, 9,29,10,47,55		1,14, 2,32,40	
		2, 0,35,17,33,12,58,28		8,49
24″	16,52,48,43,46,27, 2,23,46,23		1,14, 2,41,29	
		2, 0,35,16,19,10,16,59		8,49
26″	16,52,50,44,21,43,21,34, 3,22		1,14, 2,50,18	
		2, 0,35,15, 5, 7,26,41		8,49
28″	16,52,52,44,56,58,26,41,30, 3		1,14, 2,59, 7	
		2, 0,35,13,51, 4,27,34		8,49
30″	16,52,54,45,32,12,17,45,57,37		1,14, 3, 7,56	
		2, 0,35,12,37, 1,19,38		8,49
32″	16,52,56,46, 7,24,54,47,17,15		1,14, 3,16,45	
		2, 0,35,11,22,58, 2,53		8,49
34″	16,52,58,46,42,36,17,45,20, 8		1,14, 3,25,34	
		2, 0,35,10, 8,54,37,19		8,49
36″	16,53, 0,47,17,46,26,39,57,27		1,14, 3,34,23	
		2, 0,35, 8,54,51, 2,56		8,49
38″	16,53, 2,47,52,55,21,31, 0,23		1,14, 3,43,12	
		2, 0,35, 7,40,47,19,44		8,49
40″	16,53, 4,48,28, 3, 2,18,20, 7		1,14, 3,52, 1	
		2, 0,35, 6,26,43,27,43		8,49
42″	16,53, 6,49, 3, 9,29, 1,47,50		1,14, 4, 0,50	
		2, 0,35, 5,12,39,26,53		8,49
44″	16,53, 8,49,38,14,41,41,14,43		1,14, 4, 9,39	
		2, 0,35, 3,58,35,17,14		8,49
46″	16,53,10,50,13,18,40,16,31,57		1,14, 4,18,28	
		2, 0,35, 2,44,30,58,46		8,49
48″	16,53,12,50,48,21,24,47,30,43		1,14, 4,27,17	
		2, 0,35, 1,30,26,31,29		8,49
50″	16,53,14,51,23,22,55,14, 2,12		1,14, 4,36, 6	
		2, 0,35, 0,16,21,55,23		8,49
52″	16,53,16,51,58,23,11,35,57,35		1,14, 4,44,55	
		2, 0,34,59, 2,17,10,28		8,49
54″	16,53,18,52,33,22,13,53, 8, 3		1,14, 4,53,44	
		2, 0,34,57,48,12,16,44		8,49
56″	16,53,20,53, 8,20, 2, 5,24,47		1,14, 5, 2,33	
		2, 0,34,56,34, 7,14,11		8,49
58″	16,53,22,53,43,16,36,12,38,58		1,14, 5,11,22	
		2, 0,34,55,20, 2, 2,49		
60″	16,53,24,54,18,11,56,14,41,47			
exact	16,53,24,54,18,11,56,14,44,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°21′ 0″	16,53,24,54,18,11,56,14,44,55	2, 0,34,54, 5,56,42,58		
2″	16,53,26,54,53, 6, 2,11,27,53	2, 0,34,52,51,51,14, 0	1,14, 5,28,58	8,49
4″	16,53,28,55,27,58,54, 2,41,53	2, 0,34,51,37,45,36,13	1,14, 5,37,47	8,49
6″	16,53,30,56, 2,50,31,48,18, 6	2, 0,34,50,23,39,49,37	1,14, 5,46,36	8,49
8″	16,53,32,56,37,40,55,28, 7,43	2, 0,34,49, 9,33,54,12	1,14, 5,55,25	8,49
10″	16,53,34,57,12,30, 5, 2, 1,55	2, 0,34,47,55,27,49,58	1,14, 6, 4,14	8,49
12″	16,53,36,57,47,18, 0,29,51,53	2, 0,34,46,41,21,36,55	1,14, 6,13, 3	8,49
14″	16,53,38,58,22, 4,41,51,28,48	2, 0,34,45,27,15,15, 3	1,14, 6,21,52	8,49
16″	16,53,40,58,56,50, 9, 6,43,51	2, 0,34,44,13, 8,44,22	1,14, 6,30,41	8,49
18″	16,53,42,59,31,34,22,15,28,13	2, 0,34,42,59, 2, 4,52	1,14, 6,39,30	8,49
20″	16,53,45, 0, 6,17,21,17,33, 5	2, 0,34,41,44,55,16,33	1,14, 6,48,19	8,49
22″	16,53,47, 0,40,59, 6,12,49,38	2, 0,34,40,30,48,19,25	1,14, 6,57, 8	8,49
24″	16,53,49, 1,15,39,37, 1, 9, 3	2, 0,34,39,16,41,13,28	1,14, 7, 5,57	8,49
26″	16,53,51, 1,50,18,53,42,22,31	2, 0,34,38, 2,33,58,42	1,14, 7,14,46	8,49
28″	16,53,53, 2,24,56,56,16,21,13	2, 0,34,36,48,26,35, 7	1,14, 7,23,35	8,49
30″	16,53,55, 2,59,33,44,42,56,20	2, 0,34,35,34,19, 2,43	1,14, 7,32,24	8,49
32″	16,53,57, 3,34, 9,19, 1,59, 3	2, 0,34,34,20,11,21,30	1,14, 7,41,13	8,49
34″	16,53,59, 4, 8,43,39,13,20,33	2, 0,34,33, 6, 3,31,28	1,14, 7,50, 2	8,49
36″	16,54, 1, 4,43,16,45,16,52, 1	2, 0,34,31,51,55,32,37	1,14, 7,58,51	8,49
38″	16,54, 3, 5,17,48,37,12,24,38	2, 0,34,30,37,47,24,57	1,14, 8, 7,40	8,49
40″	16,54, 5, 5,52,19,14,59,49,35	2, 0,34,29,23,39, 8,28	1,14, 8,16,29	8,49
42″	16,54, 7, 6,26,48,38,38,58, 3	2, 0,34,28, 9,30,43,10	1,14, 8,25,18	8,49
44″	16,54, 9, 7, 1,16,48, 9,41,13	2, 0,34,26,55,22, 9, 3	1,14, 8,34, 7	8,49
46″	16,54,11, 7,35,43,43,31,50,16	2, 0,34,25,41,13,26, 7	1,14, 8,42,56	8,49
48″	16,54,13, 8,10, 9,24,45,16,23	2, 0,34,24,27, 4,34,22	1,14, 8,51,45	8,49
50″	16,54,15, 8,44,33,51,49,50,45	2, 0,34,23,12,55,33,48	1,14, 9, 0,34	8,49
52″	16,54,17, 9,18,57, 4,45,24,33	2, 0,34,21,58,46,24,25	1,14, 9, 9,23	8,49
54″	16,54,19, 9,53,19, 3,31,48,58	2, 0,34,20,44,37, 6,13	1,14, 9,18,12	8,49
56″	16,54,21,10,27,39,48, 8,55,11	2, 0,34,19,30,27,39,12	1,14, 9,27, 1	8,49
58″	16,54,23,11, 1,59,18,36,34,23	2, 0,34,18,16,18, 3,22	1,14, 9,35,50	
60″	16,54,25,11,36,17,34,54,37,45			
exact	16,54,25,11,36,17,34,54,39,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°22′ 0″	16,54,25,11,36,17,34,54,39,39			
		2, 0,34,17, 2, 8,19, 5		
2″	16,54,27,12,10,34,37, 2,58,44		1,14, 9,53,26	
		2, 0,34,15,47,58,25,39		8,49
4″	16,54,29,12,44,50,25, 1,24,23		1,14,10, 2,15	
		2, 0,34,14,33,48,23,24		8,49
6″	16,54,31,13,19, 4,58,49,47,47		1,14,10,11, 4	
		2, 0,34,13,19,38,12,20		8,49
8″	16,54,33,13,53,18,18,28, 0, 7		1,14,10,19,53	
		2, 0,34,12, 5,27,52,27		8,49
10″	16,54,35,14,27,30,23,55,52,34		1,14,10,28,42	
		2, 0,34,10,51,17,23,45		8,49
12″	16,54,37,15, 1,41,15,13,16,19		1,14,10,37,31	
		2, 0,34, 9,37, 6,46,14		8,49
14″	16,54,39,15,35,50,52,20, 2,33		1,14,10,46,20	
		2, 0,34, 8,22,55,59,54		8,49
16″	16,54,41,16, 9,59,15,16, 2,27		1,14,10,55, 9	
		2, 0,34, 7, 8,45, 4,45		8,49
18″	16,54,43,16,44, 6,24, 1, 7,12		1,14,11, 3,58	
		2, 0,34, 5,54,34, 0,47		8,49
20″	16,54,45,17,18,12,18,35, 7,59		1,14,11,12,47	
		2, 0,34, 4,40,22,48, 0		8,49
22″	16,54,47,17,52,16,58,57,55,59		1,14,11,21,36	
		2, 0,34, 3,26,11,26,24		8,49
24″	16,54,49,18,26,20,25, 9,22,23		1,14,11,30,25	
		2, 0,34, 2,11,59,55,59		8,49
26″	16,54,51,19, 0,22,37, 9,18,22		1,14,11,39,14	
		2, 0,34, 0,57,48,16,45		8,49
28″	16,54,53,19,34,23,34,57,35, 7		1,14,11,48, 3	
		2, 0,33,59,43,36,28,42		8,49
30″	16,54,55,20, 8,23,18,34, 3,49		1,14,11,56,52	
		2, 0,33,58,29,24,31,50		8,49
32″	16,54,57,20,42,21,47,58,35,39		1,14,12, 5,41	
		2, 0,33,57,15,12,26, 9		8,49
34″	16,54,59,21,16,19, 3,11, 1,48		1,14,12,14,30	
		2, 0,33,56, 1, 0,11,39		8,49
36″	16,55, 1,21,50,15, 4,11,13,27		1,14,12,23,19	
		2, 0,33,54,46,47,48,20		8,49
38″	16,55, 3,22,24, 9,50,59, 1,47		1,14,12,32, 8	
		2, 0,33,53,32,35,16,12		8,49
40″	16,55, 5,22,58, 3,23,34,17,59		1,14,12,40,57	
		2, 0,33,52,18,22,35,15		8,49
42″	16,55, 7,23,31,55,41,56,53,14		1,14,12,49,46	
		2, 0,33,51, 4, 9,45,29		8,49
44″	16,55, 9,24, 5,46,46, 6,38,43		1,14,12,58,35	
		2, 0,33,49,49,56,46,54		8,49
46″	16,55,11,24,39,36,36, 3,25,37		1,14,13, 7,24	
		2, 0,33,48,35,43,39,30		8,49
48″	16,55,13,25,13,25,11,47, 5, 7		1,14,13,16,13	
		2, 0,33,47,21,30,23,17		8,49
50″	16,55,15,25,47,12,33,17,28,24		1,14,13,25, 2	
		2, 0,33,46, 7,16,58,15		8,49
52″	16,55,17,26,20,58,40,34,26,39		1,14,13,33,51	
		2, 0,33,44,53, 3,24,24		8,49
54″	16,55,19,26,54,43,33,37,51, 3		1,14,13,42,40	
		2, 0,33,43,38,49,41,44		8,49
56″	16,55,21,27,28,27,12,27,32,47		1,14,13,51,29	
		2, 0,33,42,24,35,50,15		8,49
58″	16,55,23,28, 2, 9,37, 3,23, 2		1,14,14, 0,18	
		2, 0,33,41,10,21,49,57		
60″	16,55,25,28,35,50,47,25,12,59			
exact	16,55,25,28,35,50,47,25,23,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°23′ 0″	16,55,25,28,35,50,47,25,23,46	2, 0,33,39,56, 7,41,56		
2″	16,55,27,29, 9,30,43,33, 5,42	2, 0,33,38,41,53,24, 4	1,14,14,17,52	
4″	16,55,29,29,43, 9,25,26,29,46	2, 0,33,37,27,38,57,23	1,14,14,26,41	8,49
6″	16,55,31,30,16,46,53, 5,27, 9	2, 0,33,36,13,24,21,53	1,14,14,35,30	8,49
8″	16,55,33,30,50,23, 6,29,49, 2	2, 0,33,34,59, 9,37,34	1,14,14,44,19	8,49
10″	16,55,35,31,23,58, 5,39,26,36	2, 0,33,33,44,54,44,26	1,14,14,53, 8	8,49
12″	16,55,37,31,57,31,50,34,11, 2	2, 0,33,32,30,39,42,29	1,14,15, 1,57	8,49
14″	16,55,39,32,31, 4,21,13,53,31	2, 0,33,31,16,24,31,43	1,14,15,10,46	8,49
16″	16,55,41,33, 4,35,37,38,25,14	2, 0,33,30, 2, 9,12, 8	1,14,15,19,35	8,49
18″	16,55,43,33,38, 5,39,47,37,22	2, 0,33,28,47,53,43,44	1,14,15,28,24	8,49
20″	16,55,45,34,11,34,27,41,21, 6	2, 0,33,27,33,38, 6,31	1,14,15,37,13	8,49
22″	16,55,47,34,45, 2, 1,19,27,37	2, 0,33,26,19,22,20,29	1,14,15,46, 2	8,49
24″	16,55,49,35,18,28,20,41,48, 6	2, 0,33,25, 5, 6,25,38	1,14,15,54,51	8,49
26″	16,55,51,35,51,53,25,48,13,44	2, 0,33,23,50,50,21,58	1,14,16, 3,40	8,49
28″	16,55,53,36,25,17,16,38,35,42	2, 0,33,22,36,34, 9,29	1,14,16,12,29	8,49
30″	16,55,55,36,58,39,53,12,45,11	2, 0,33,21,22,17,48,11	1,14,16,21,18	8,49
32″	16,55,57,37,32, 1,15,30,33,22	2, 0,33,20, 8, 1,18, 4	1,14,16,30, 7	8,49
34″	16,55,59,38, 5,21,23,31,51,26	2, 0,33,18,53,44,39, 8	1,14,16,38,56	8,49
36″	16,56, 1,38,38,40,17,16,30,34	2, 0,33,17,39,27,51,23	1,14,16,47,45	8,49
38″	16,56, 3,39,11,57,56,44,21,57	2, 0,33,16,25,10,54,49	1,14,16,56,34	8,49
40″	16,56, 5,39,45,14,21,55,16,46	2, 0,33,15,10,53,49,26	1,14,17, 5,23	8,49
42″	16,56, 7,40,18,29,32,49, 6,12	2, 0,33,13,56,36,35,14	1,14,17,14,12	8,49
44″	16,56, 9,40,51,43,29,25,41,26	2, 0,33,12,42,19,12,13	1,14,17,23, 1	8,49
46″	16,56,11,41,24,56,11,44,53,39	2, 0,33,11,28, 1,40,23	1,14,17,31,50	8,49
48″	16,56,13,41,58, 7,39,46,34, 2	2, 0,33,10,13,43,59,44	1,14,17,40,39	8,49
50″	16,56,15,42,31,17,53,30,33,46	2, 0,33, 8,59,26,10,16	1,14,17,49,28	8,49
52″	16,56,17,43, 4,26,52,56,44, 2	2, 0,33, 7,45, 8,11,59	1,14,17,58,17	8,49
54″	16,56,19,43,37,34,38, 4,56, 1	2, 0,33, 6,30,50, 4,53	1,14,18, 7, 6	8,49
56″	16,56,21,44,10,41, 8,55, 0,54	2, 0,33, 5,16,31,48,58	1,14,18,15,55	8,49
58″	16,56,23,44,43,46,25,26,49,52	2, 0,33, 4, 2,13,24,14	1,14,18,24,44	
60″	16,56,25,45,16,50,27,40,14, 6			
exact	16,56,25,45,16,50,27,40,28,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°24′ 0″	16,56,25,45,16,50,27,40,28,41			
		2, 0,33, 2,47,54,52,10		
2″	16,56,27,45,49,53,15,35,20,51		1,14,18,42,16	
		2, 0,33, 1,33,36, 9,54		8,49
4″	16,56,29,46,22,54,49,11,30,45		1,14,18,51, 5	
		2, 0,33, 0,19,17,18,49		8,49
6″	16,56,31,46,55,55, 8,28,49,34		1,14,18,59,54	
		2, 0,32,59, 4,58,18,55		8,49
8″	16,56,33,47,28,54,13,27, 8,29		1,14,19, 8,43	
		2, 0,32,57,50,39,10,12		8,49
10″	16,56,35,48, 1,52, 4, 6,18,41		1,14,19,17,32	
		2, 0,32,56,36,19,52,40		8,49
12″	16,56,37,48,34,48,40,26,11,21		1,14,19,26,21	
		2, 0,32,55,22, 0,26,19		8,49
14″	16,56,39,49, 7,44, 2,26,37,40		1,14,19,35,10	
		2, 0,32,54, 7,40,51, 9		8,49
16″	16,56,41,49,40,38,10, 7,28,49		1,14,19,43,59	
		2, 0,32,52,53,21, 7,10		8,49
18″	16,56,43,50,13,31, 3,28,35,59		1,14,19,52,48	
		2, 0,32,51,39, 1,14,22		8,49
20″	16,56,45,50,46,22,42,29,50,21		1,14,20, 1,37	
		2, 0,32,50,24,41,12,45		8,49
22″	16,56,47,51,19,13, 7,11, 3, 6		1,14,20,10,26	
		2, 0,32,49,10,21, 2,19		8,49
24″	16,56,49,51,52, 2,17,32, 5,25		1,14,20,19,15	
		2, 0,32,47,56, 0,43, 4		8,49
26″	16,56,51,52,24,50,13,32,48,29		1,14,20,28, 4	
		2, 0,32,46,41,40,15, 0		8,49
28″	16,56,53,52,57,36,55,13, 3,29		1,14,20,36,53	
		2, 0,32,45,27,19,38, 7		8,49
30″	16,56,55,53,30,22,22,32,41,36		1,14,20,45,42	
		2, 0,32,44,12,58,52,25		8,49
32″	16,56,57,54, 3, 6,35,31,34, 1		1,14,20,54,31	
		2, 0,32,42,58,37,57,54		8,49
34″	16,56,59,54,35,49,34, 9,31,55		1,14,21, 3,20	
		2, 0,32,41,44,16,54,34		8,49
36″	16,57, 1,55, 8,31,18,26,26,29		1,14,21,12, 9	
		2, 0,32,40,29,55,42,25		8,49
38″	16,57, 3,55,41,11,48,22, 8,54		1,14,21,20,58	
		2, 0,32,39,15,34,21,27		8,49
40″	16,57, 5,56,13,51, 3,56,30,21		1,14,21,29,47	
		2, 0,32,38, 1,12,51,40		8,49
42″	16,57, 7,56,46,29, 5, 9,22, 1		1,14,21,38,36	
		2, 0,32,36,46,51,13, 4		8,49
44″	16,57, 9,57,19, 5,52, 0,35, 5		1,14,21,47,25	
		2, 0,32,35,32,29,25,39		8,49
46″	16,57,11,57,51,41,24,30, 0,44		1,14,21,56,14	
		2, 0,32,34,18, 7,29,25		8,49
48″	16,57,13,58,24,15,42,37,30, 9		1,14,22, 5, 3	
		2, 0,32,33, 3,45,24,22		8,49
50″	16,57,15,58,56,48,46,22,54,31		1,14,22,13,52	
		2, 0,32,31,49,23,10,30		8,49
52″	16,57,17,59,29,20,35,46, 5, 1		1,14,22,22,41	
		2, 0,32,30,35, 0,47,49		8,49
54″	16,57,20, 0, 1,51,10,46,52,50		1,14,22,31,30	
		2, 0,32,29,20,38,16,19		8,49
56″	16,57,22, 0,34,20,31,25, 9, 9		1,14,22,40,19	
		2, 0,32,28, 6,15,36, 0		8,49
58″	16,57,24, 1, 6,48,37,40,45, 9		1,14,22,49, 8	
		2, 0,32,26,51,52,46,52		
60″	16,57,26, 1,39,15,29,33,32, 1			
exact	16,57,26, 1,39,15,29,33,46,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°25′ 0″	16,57,26, 1,39,15,29,33,46,12	2, 0,32,25,37,29,50,29		
2″	16,57,28, 2,11,41, 7, 3,36,41	2, 0,32,24,23, 6,43,50	1,14,23, 6,39	8,49
4″	16,57,30, 2,44, 5,30,10,20,31	2, 0,32,23, 8,43,28,22	1,14,23,15,28	8,49
6″	16,57,32, 3,16,28,38,53,48,53	2, 0,32,21,54,20, 4, 5	1,14,23,24,17	8,49
8″	16,57,34, 3,48,50,33,13,52,58	2, 0,32,20,39,56,30,59	1,14,23,33, 6	8,49
10″	16,57,36, 4,21,11,13,10,23,57	2, 0,32,19,25,32,49, 4	1,14,23,41,55	8,49
12″	16,57,38, 4,53,30,38,43,13, 1	2, 0,32,18,11, 8,58,20	1,14,23,50,44	8,49
14″	16,57,40, 5,25,48,49,52,11,21	2, 0,32,16,56,44,58,47	1,14,23,59,33	8,49
16″	16,57,42, 5,58, 5,46,37,10, 8	2, 0,32,15,42,20,50,25	1,14,24, 8,22	8,49
18″	16,57,44, 6,30,21,28,58, 0,33	2, 0,32,14,27,56,33,14	1,14,24,17,11	8,49
20″	16,57,46, 7, 2,35,56,54,33,47	2, 0,32,13,13,32, 7,14	1,14,24,26, 0	8,49
22″	16,57,48, 7,34,49,10,26,41, 1	2, 0,32,11,59, 7,32,25	1,14,24,34,49	8,49
24″	16,57,50, 8, 7, 1, 9,34,13,26	2, 0,32,10,44,42,48,47	1,14,24,43,38	8,49
26″	16,57,52, 8,39,11,54,17, 2,13	2, 0,32, 9,30,17,56,20	1,14,24,52,27	8,49
28″	16,57,54, 9,11,21,24,34,58,33	2, 0,32, 8,15,52,55, 4	1,14,25, 1,16	8,49
30″	16,57,56, 9,43,29,40,27,53,37	2, 0,32, 7, 1,27,44,59	1,14,25,10, 5	8,49
32″	16,57,58,10,15,36,41,55,38,36	2, 0,32, 5,47, 2,26, 5	1,14,25,18,54	8,49
34″	16,58, 0,10,47,42,28,58, 4,41	2, 0,32, 4,32,36,58,22	1,14,25,27,43	8,49
36″	16,58, 2,11,19,47, 1,35, 3, 3	2, 0,32, 3,18,11,21,50	1,14,25,36,32	8,49
38″	16,58, 4,11,51,50,19,46,24,53	2, 0,32, 2, 3,45,36,29	1,14,25,45,21	8,49
40″	16,58, 6,12,23,52,23,32, 1,22	2, 0,32, 0,49,19,42,19	1,14,25,54,10	8,49
42″	16,58, 8,12,55,53,12,51,43,41	2, 0,31,59,34,53,39,20	1,14,26, 2,59	8,49
44″	16,58,10,13,27,52,47,45,23, 1	2, 0,31,58,20,27,27,32	1,14,26,11,48	8,49
46″	16,58,12,13,59,51, 8,12,50,33	2, 0,31,57, 6, 1, 6,55	1,14,26,20,37	8,49
48″	16,58,14,14,31,48,14,13,57,28	2, 0,31,55,51,34,37,29	1,14,26,29,26	8,49
50″	16,58,16,15, 3,44, 5,48,34,57	2, 0,31,54,37, 7,59,14	1,14,26,38,15	8,49
52″	16,58,18,15,35,38,42,56,34,11	2, 0,31,53,22,41,12,10	1,14,26,47, 4	8,49
54″	16,58,20,16, 7,32, 5,37,46,21	2, 0,31,52, 8,14,16,17	1,14,26,55,53	8,49
56″	16,58,22,16,39,24,13,52, 2,38	2, 0,31,50,53,47,11,35	1,14,27, 4,42	8,49
58″	16,58,24,17,11,15, 7,39,14,13	2, 0,31,49,39,19,58, 4	1,14,27,13,31	
60″	16,58,26,17,43, 4,46,59,12,17			
exact	16,58,26,17,43, 4,46,59,28,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°26′ 0″	16,58,26,17,43, 4,46,59,28,27			
		2, 0,31,48,24,52,37,33		
2″	16,58,28,18,14,53,11,52, 6, 0		1,14,27,31, 1	
		2, 0,31,47,10,25, 6,32		8,49
4″	16,58,30,18,46,40,22,17,12,32		1,14,27,39,50	
		2, 0,31,45,55,57,26,42		8,49
6″	16,58,32,19,18,26,18,14,39,14		1,14,27,48,39	
		2, 0,31,44,41,29,38, 3		8,49
8″	16,58,34,19,50,10,59,44,17,17		1,14,27,57,28	
		2, 0,31,43,27, 1,40,35		8,49
10″	16,58,36,20,21,54,26,45,57,52		1,14,28, 6,17	
		2, 0,31,42,12,33,34,18		8,49
12″	16,58,38,20,53,36,39,19,32,10		1,14,28,15, 6	
		2, 0,31,40,58, 5,19,12		8,49
14″	16,58,40,21,25,17,37,24,51,22		1,14,28,23,55	
		2, 0,31,39,43,36,55,17		8,49
16″	16,58,42,21,56,57,21, 1,46,39		1,14,28,32,44	
		2, 0,31,38,29, 8,22,33		8,49
18″	16,58,44,22,28,35,50,10, 9,12		1,14,28,41,33	
		2, 0,31,37,14,39,41, 0		8,49
20″	16,58,46,23, 0,13, 4,49,50,12		1,14,28,50,22	
		2, 0,31,36, 0,10,50,38		8,49
22″	16,58,48,23,31,49, 5, 0,40,50		1,14,28,59,11	
		2, 0,31,34,45,41,51,27		8,49
24″	16,58,50,24, 3,23,50,42,32,17		1,14,29, 8, 0	
		2, 0,31,33,31,12,43,27		8,49
26″	16,58,52,24,34,57,21,55,15,44		1,14,29,16,49	
		2, 0,31,32,16,43,26,38		8,49
28″	16,58,54,25, 6,29,38,38,42,22		1,14,29,25,38	
		2, 0,31,31, 2,14, 1, 0		8,49
30″	16,58,56,25,38, 0,40,52,43,22		1,14,29,34,27	
		2, 0,31,29,47,44,26,33		8,49
32″	16,58,58,26, 9,30,28,37, 9,55		1,14,29,43,16	
		2, 0,31,28,33,14,43,17		8,49
34″	16,59, 0,26,40,59, 1,51,53,12		1,14,29,52, 5	
		2, 0,31,27,18,44,51,12		8,49
36″	16,59, 2,27,12,26,20,36,44,24		1,14,30, 0,54	
		2, 0,31,26, 4,14,50,18		8,49
38″	16,59, 4,27,43,52,24,51,34,42		1,14,30, 9,43	
		2, 0,31,24,49,44,40,35		8,49
40″	16,59, 6,28,15,17,14,36,15,17		1,14,30,18,32	
		2, 0,31,23,35,14,22, 3		8,49
42″	16,59, 8,28,46,40,49,50,37,20		1,14,30,27,21	
		2, 0,31,22,20,43,54,42		8,49
44″	16,59,10,29,18, 3,10,34,32, 2		1,14,30,36,10	
		2, 0,31,21, 6,13,18,32		8,49
46″	16,59,12,29,49,24,16,47,50,34		1,14,30,44,59	
		2, 0,31,19,51,42,33,33		8,49
48″	16,59,14,30,20,44, 8,30,24, 7		1,14,30,53,48	
		2, 0,31,18,37,11,39,45		8,49
50″	16,59,16,30,52, 2,45,42, 3,52		1,14,31, 2,37	
		2, 0,31,17,22,40,37, 8		8,49
52″	16,59,18,31,23,20, 8,22,41, 0		1,14,31,11,26	
		2, 0,31,16, 8, 9,25,42		8,49
54″	16,59,20,31,54,36,16,32, 6,42		1,14,31,20,15	
		2, 0,31,14,53,38, 5,27		8,49
56″	16,59,22,32,25,51,10,10,12, 9		1,14,31,29, 4	
		2, 0,31,13,39, 6,36,23		8,49
58″	16,59,24,32,57, 4,49,16,48,32		1,14,31,37,53	
		2, 0,31,12,24,34,58,30		
60″	16,59,26,33,28,17,13,51,47, 2			
exact	16,59,26,33,28,17,13,52, 8, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°27′ 0″	16,59,26,33,28,17,13,52, 8, 0			
		2, 0,31,11,10, 3,14, 4		
2″	16,59,28,33,59,28,23,55,22, 4		1,14,31,55,21	
		2, 0,31, 9,55,31,18,43		8,49
4″	16,59,30,34,30,38,19,26,40,47		1,14,32, 4,10	
		2, 0,31, 8,40,59,14,33		8,49
6″	16,59,32,35, 1,47, 0,25,55,20		1,14,32,12,59	
		2, 0,31, 7,26,27, 1,34		8,49
8″	16,59,34,35,32,54,26,52,56,54		1,14,32,21,48	
		2, 0,31, 6,11,54,39,46		8,49
10″	16,59,36,36, 4, 0,38,47,36,40		1,14,32,30,37	
		2, 0,31, 4,57,22, 9, 9		8,49
12″	16,59,38,36,35, 5,36, 9,45,49		1,14,32,39,26	
		2, 0,31, 3,42,49,29,43		8,49
14″	16,59,40,37, 6, 9,18,59,15,32		1,14,32,48,15	
		2, 0,31, 2,28,16,41,28		8,49
16″	16,59,42,37,37,11,47,15,57, 0		1,14,32,57, 4	
		2, 0,31, 1,13,43,44,24		8,49
18″	16,59,44,38, 8,13, 0,59,41,24		1,14,33, 5,53	
		2, 0,30,59,59,10,38,31		8,49
20″	16,59,46,38,39,13, 0,10,19,55		1,14,33,14,42	
		2, 0,30,58,44,37,23,49		8,49
22″	16,59,48,39,10,11,44,47,43,44		1,14,33,23,31	
		2, 0,30,57,30, 4, 0,18		8,49
24″	16,59,50,39,41, 9,14,51,44, 2		1,14,33,32,20	
		2, 0,30,56,15,30,27,58		8,49
26″	16,59,52,40,12, 5,30,22,12, 0		1,14,33,41, 9	
		2, 0,30,55, 0,56,46,49		8,49
28″	16,59,54,40,43, 0,31,18,58,49		1,14,33,49,58	
		2, 0,30,53,46,22,56,51		8,49
30″	16,59,56,41,13,54,17,41,55,40		1,14,33,58,47	
		2, 0,30,52,31,48,58, 4		8,49
32″	16,59,58,41,44,46,49,30,53,44		1,14,34, 7,36	
		2, 0,30,51,17,14,50,28		8,49
34″	17, 0, 0,42,15,38, 6,45,44,12		1,14,34,16,25	
		2, 0,30,50, 2,40,34, 3		8,49
36″	17, 0, 2,42,46,28, 9,26,18,15		1,14,34,25,14	
		2, 0,30,48,48, 6, 8,49		8,49
38″	17, 0, 4,43,17,16,57,32,27, 4		1,14,34,34, 3	
		2, 0,30,47,33,31,34,46		8,49
40″	17, 0, 6,43,48, 4,31, 4, 1,50		1,14,34,42,52	
		2, 0,30,46,18,56,51,54		8,49
42″	17, 0, 8,44,18,50,50, 0,53,44		1,14,34,51,41	
		2, 0,30,45, 4,22, 0,13		8,49
44″	17, 0,10,44,49,35,54,22,53,57		1,14,35, 0,30	
		2, 0,30,43,49,46,59,43		8,49
46″	17, 0,12,45,20,19,44, 9,53,40		1,14,35, 9,19	
		2, 0,30,42,35,11,50,24		8,49
48″	17, 0,14,45,51, 2,19,21,44, 4		1,14,35,18, 8	
		2, 0,30,41,20,36,32,16		8,49
50″	17, 0,16,46,21,43,39,58,16,20		1,14,35,26,57	
		2, 0,30,40, 6, 1, 5,19		8,49
52″	17, 0,18,46,52,23,45,59,21,39		1,14,35,35,46	
		2, 0,30,38,51,25,29,33		8,49
54″	17, 0,20,47,23, 2,37,24,51,12		1,14,35,44,35	
		2, 0,30,37,36,49,44,58		8,49
56″	17, 0,22,47,53,40,14,14,36,10		1,14,35,53,24	
		2, 0,30,36,22,13,51,34		8,49
58″	17, 0,24,48,24,16,36,28,27,44		1,14,36, 2,13	
		2, 0,30,35, 7,37,49,21		
60″	17, 0,26,48,54,51,44, 6,17, 5			
exact	17, 0,26,48,54,51,44, 6,37,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°28′ 0″	17, 0,26,48,54,51,44, 6,37,47			
		2, 0,30,33,53, 1,40,41		
2″	17, 0,28,49,25,25,37, 8,18,28		1,14,36,19,40	
		2, 0,30,32,38,25,21, 1		8,49
4″	17, 0,30,49,55,58,15,33,39,29		1,14,36,28,29	
		2, 0,30,31,23,48,52,32		8,49
6″	17, 0,32,50,26,29,39,22,32, 1		1,14,36,37,18	
		2, 0,30,30, 9,12,15,14		8,49
8″	17, 0,34,50,56,59,48,34,47,15		1,14,36,46, 7	
		2, 0,30,28,54,35,29, 7		8,49
10″	17, 0,36,51,27,28,43,10,16,22		1,14,36,54,56	
		2, 0,30,27,39,58,34,11		8,49
12″	17, 0,38,51,57,56,23, 8,50,33		1,14,37, 3,45	
		2, 0,30,26,25,21,30,26		8,49
14″	17, 0,40,52,28,22,48,30,20,59		1,14,37,12,34	
		2, 0,30,25,10,44,17,52		8,49
16″	17, 0,42,52,58,47,59,14,38,51		1,14,37,21,23	
		2, 0,30,23,56, 6,56,29		8,49
18″	17, 0,44,53,29,11,55,21,35,20		1,14,37,30,12	
		2, 0,30,22,41,29,26,17		8,49
20″	17, 0,46,53,59,34,36,51, 1,37		1,14,37,39, 1	
		2, 0,30,21,26,51,47,16		8,49
22″	17, 0,48,54,29,56, 3,42,48,53		1,14,37,47,50	
		2, 0,30,20,12,13,59,26		8,49
24″	17, 0,50,55, 0,16,15,56,48,19		1,14,37,56,39	
		2, 0,30,18,57,36, 2,47		8,49
26″	17, 0,52,55,30,35,13,32,51, 6		1,14,38, 5,28	
		2, 0,30,17,42,57,57,19		8,49
28″	17, 0,54,56, 0,52,56,30,48,25		1,14,38,14,17	
		2, 0,30,16,28,19,43, 2		8,49
30″	17, 0,56,56,31, 9,24,50,31,27		1,14,38,23, 6	
		2, 0,30,15,13,41,19,56		8,49
32″	17, 0,58,57, 1,24,38,31,51,23		1,14,38,31,55	
		2, 0,30,13,59, 2,48, 1		8,49
34″	17, 1, 0,57,31,38,37,34,39,24		1,14,38,40,44	
		2, 0,30,12,44,24, 7,17		8,49
36″	17, 1, 2,58, 1,51,21,58,46,41		1,14,38,49,33	
		2, 0,30,11,29,45,17,44		8,49
38″	17, 1, 4,58,32, 2,51,44, 4,25		1,14,38,58,22	
		2, 0,30,10,15, 6,19,22		8,49
40″	17, 1, 6,59, 2,13, 6,50,23,47		1,14,39, 7,11	
		2, 0,30, 9, 0,27,12,11		8,49
42″	17, 1, 8,59,32,22, 7,17,35,58		1,14,39,16, 0	
		2, 0,30, 7,45,47,56,11		8,49
44″	17, 1,11, 0, 2,29,53, 5,32, 9		1,14,39,24,49	
		2, 0,30, 6,31, 8,31,22		8,49
46″	17, 1,13, 0,32,36,24,14, 3,31		1,14,39,33,38	
		2, 0,30, 5,16,28,57,44		8,49
48″	17, 1,15, 1, 2,41,40,43, 1,15		1,14,39,42,27	
		2, 0,30, 4, 1,49,15,17		8,49
50″	17, 1,17, 1,32,45,42,32,16,32		1,14,39,51,16	
		2, 0,30, 2,47, 9,24, 1		8,49
52″	17, 1,19, 2, 2,48,29,41,40,33		1,14,40, 0, 5	
		2, 0,30, 1,32,29,23,56		8,49
54″	17, 1,21, 2,32,50, 2,11, 4,29		1,14,40, 8,54	
		2, 0,30, 0,17,49,15, 2		8,49
56″	17, 1,23, 3, 2,50,20, 0,19,31		1,14,40,17,43	
		2, 0,29,59, 3, 8,57,19		8,49
58″	17, 1,25, 3,32,49,23, 9,16,50		1,14,40,26,32	
		2, 0,29,57,48,28,30,47		
60″	17, 1,27, 4, 2,47,11,37,47,37			
exact	17, 1,27, 4, 2,47,11,38,11,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°29′ 0″	17, 1,27, 4, 2,47,11,38,11,13			
		2, 0,29,56,33,47,58, 7		
2″	17, 1,29, 4,32,43,45,26, 9,20		1,14,40,43,58	
		2, 0,29,55,19, 7,14, 9		8,49
4″	17, 1,31, 5, 2,39, 4,33,23,29		1,14,40,52,47	
		2, 0,29,54, 4,26,21,22		8,49
6″	17, 1,33, 5,32,33, 8,59,44,51		1,14,41, 1,36	
		2, 0,29,52,49,45,19,46		8,49
8″	17, 1,35, 6, 2,25,58,45, 4,37		1,14,41,10,25	
		2, 0,29,51,35, 4, 9,21		8,49
10″	17, 1,37, 6,32,17,33,49,13,58		1,14,41,19,14	
		2, 0,29,50,20,22,50, 7		8,49
12″	17, 1,39, 7, 2, 7,54,12, 4, 5		1,14,41,28, 3	
		2, 0,29,49, 5,41,22, 4		8,49
14″	17, 1,41, 7,31,56,59,53,26, 9		1,14,41,36,52	
		2, 0,29,47,50,59,45,12		8,49
16″	17, 1,43, 8, 1,44,50,53,11,21		1,14,41,45,41	
		2, 0,29,46,36,17,59,31		8,49
18″	17, 1,45, 8,31,31,27,11,10,52		1,14,41,54,30	
		2, 0,29,45,21,36, 5, 1		8,49
20″	17, 1,47, 9, 1,16,48,47,15,53		1,14,42, 3,19	
		2, 0,29,44, 6,54, 1,42		8,49
22″	17, 1,49, 9,31, 0,55,41,17,35		1,14,42,12, 8	
		2, 0,29,42,52,11,49,34		8,49
24″	17, 1,51,10, 0,43,47,53, 7, 9		1,14,42,20,57	
		2, 0,29,41,37,29,28,37		8,49
26″	17, 1,53,10,30,25,25,22,35,46		1,14,42,29,46	
		2, 0,29,40,22,46,58,51		8,49
28″	17, 1,55,11, 0, 5,48, 9,34,37		1,14,42,38,35	
		2, 0,29,39, 8, 4,20,16		8,49
30″	17, 1,57,11,29,44,56,13,54,53		1,14,42,47,24	
		2, 0,29,37,53,21,32,52		8,49
32″	17, 1,59,11,59,22,49,35,27,45		1,14,42,56,13	
		2, 0,29,36,38,38,36,39		8,49
34″	17, 2, 1,12,28,59,28,14, 4,24		1,14,43, 5, 2	
		2, 0,29,35,23,55,31,37		8,49
36″	17, 2, 3,12,58,34,52, 9,36, 1		1,14,43,13,51	
		2, 0,29,34, 9,12,17,46		8,49
38″	17, 2, 5,13,28, 9, 1,21,53,47		1,14,43,22,40	
		2, 0,29,32,54,28,55, 6		8,49
40″	17, 2, 7,13,57,41,55,50,48,53		1,14,43,31,29	
		2, 0,29,31,39,45,23,37		8,49
42″	17, 2, 9,14,27,13,35,36,12,30		1,14,43,40,18	
		2, 0,29,30,25, 1,43,19		8,49
44″	17, 2,11,14,56,44, 0,37,55,49		1,14,43,49, 7	
		2, 0,29,29,10,17,54,12		8,49
46″	17, 2,13,15,26,13,10,55,50, 1		1,14,43,57,56	
		2, 0,29,27,55,33,56,16		8,49
48″	17, 2,15,15,55,41, 6,29,46,17		1,14,44, 6,45	
		2, 0,29,26,40,49,49,31		8,49
50″	17, 2,17,16,25, 7,47,19,35,48		1,14,44,15,34	
		2, 0,29,25,26, 5,33,57		8,49
52″	17, 2,19,16,54,33,13,25, 9,45		1,14,44,24,23	
		2, 0,29,24,11,21, 9,34		8,49
54″	17, 2,21,17,23,57,24,46,19,19		1,14,44,33,12	
		2, 0,29,22,56,36,36,22		8,49
56″	17, 2,23,17,53,20,21,22,55,41		1,14,44,42, 1	
		2, 0,29,21,41,51,54,21		8,49
58″	17, 2,25,18,22,42, 3,14,50, 2		1,14,44,50,50	
		2, 0,29,20,27, 7, 3,31		
60″	17, 2,27,18,52, 2,30,21,53,33			
exact	17, 2,27,18,52, 2,30,22,22, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°30′ 0″	17, 2,27,18,52, 2,30,22,22, 9	2, 0,29,19,12,22, 7, 1		
2″	17, 2,29,19,21,21,42,44,29,10	2, 0,29,17,57,36,58,46	1,14,45, 8,15	8,49
4″	17, 2,31,19,50,39,40,21,27,56	2, 0,29,16,42,51,41,42	1,14,45,17, 4	8,49
6″	17, 2,33,20,19,56,23,13, 9,38	2, 0,29,15,28, 6,15,49	1,14,45,25,53	8,49
8″	17, 2,35,20,49,11,51,19,25,27	2, 0,29,14,13,20,41, 7	1,14,45,34,42	8,49
10″	17, 2,37,21,18,26, 4,40, 6,34	2, 0,29,12,58,34,57,36	1,14,45,43,31	8,49
12″	17, 2,39,21,47,39, 3,15, 4,10	2, 0,29,11,43,49, 5,16	1,14,45,52,20	8,49
14″	17, 2,41,22,16,50,47, 4, 9,26	2, 0,29,10,29, 3, 4, 7	1,14,46, 1, 9	8,49
16″	17, 2,43,22,46, 1,16, 7,13,33	2, 0,29, 9,14,16,54, 9	1,14,46, 9,58	8,49
18″	17, 2,45,23,15,10,30,24, 7,42	2, 0,29, 7,59,30,35,22	1,14,46,18,47	8,49
20″	17, 2,47,23,44,18,29,54,43, 4	2, 0,29, 6,44,44, 7,46	1,14,46,27,36	8,49
22″	17, 2,49,24,13,25,14,38,50,50	2, 0,29, 5,29,57,31,21	1,14,46,36,25	8,49
24″	17, 2,51,24,42,30,44,36,22,11	2, 0,29, 4,15,10,46, 7	1,14,46,45,14	8,49
26″	17, 2,53,25,11,34,59,47, 8,18	2, 0,29, 3, 0,23,52, 4	1,14,46,54, 3	8,49
28″	17, 2,55,25,40,38, 0,11, 0,22	2, 0,29, 1,45,36,49,12	1,14,47, 2,52	8,49
30″	17, 2,57,26, 9,39,45,47,49,34	2, 0,29, 0,30,49,37,31	1,14,47,11,41	8,49
32″	17, 2,59,26,38,40,16,37,27, 5	2, 0,28,59,16, 2,17, 1	1,14,47,20,30	8,49
34″	17, 3, 1,27, 7,39,32,39,44, 6	2, 0,28,58, 1,14,47,42	1,14,47,29,19	8,49
36″	17, 3, 3,27,36,37,33,54,31,48	2, 0,28,56,46,27, 9,34	1,14,47,38, 8	8,49
38″	17, 3, 5,28, 5,34,20,21,41,22	2, 0,28,55,31,39,22,37	1,14,47,46,57	8,49
40″	17, 3, 7,28,34,29,52, 1, 3,59	2, 0,28,54,16,51,26,51	1,14,47,55,46	8,49
42″	17, 3, 9,29, 3,24, 8,52,30,50	2, 0,28,53, 2, 3,22,16	1,14,48, 4,35	8,49
44″	17, 3,11,29,32,17,10,55,53, 6	2, 0,28,51,47,15, 8,52	1,14,48,13,24	8,49
46″	17, 3,13,30, 1, 8,58,11, 1,58	2, 0,28,50,32,26,46,39	1,14,48,22,13	8,49
48″	17, 3,15,30,29,59,30,37,48,37	2, 0,28,49,17,38,15,37	1,14,48,31, 2	8,49
50″	17, 3,17,30,58,48,48,16, 4,14	2, 0,28,48, 2,49,35,46	1,14,48,39,51	8,49
52″	17, 3,19,31,27,36,51, 5,40, 0	2, 0,28,46,48, 0,47, 6	1,14,48,48,40	8,49
54″	17, 3,21,31,56,23,39, 6,27, 6	2, 0,28,45,33,11,49,37	1,14,48,57,29	8,49
56″	17, 3,23,32,25, 9,12,18,16,43	2, 0,28,44,18,22,43,19	1,14,49, 6,18	8,49
58″	17, 3,25,32,53,53,30,41, 0, 2	2, 0,28,43, 3,33,28,12	1,14,49,15, 7	
60″	17, 3,27,33,22,36,34,14,28,14			
exact	17, 3,27,33,22,36,34,15, 4,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°31′ 0″	17, 3,27,33,22,36,34,15, 4,53			
		2, 0,28,41,48,44, 8, 5		
2″	17, 3,29,33,51,18,22,59,12,58		1,14,49,32,29	
		2, 0,28,40,33,54,35,36		8,48
4″	17, 3,31,34,19,58,56,53,48,34		1,14,49,41,17	
		2, 0,28,39,19, 4,54,19		8,48
6″	17, 3,33,34,48,38,15,58,42,53		1,14,49,50, 5	
		2, 0,28,38, 4,15, 4,14		8,48
8″	17, 3,35,35,17,16,20,13,47, 7		1,14,49,58,53	
		2, 0,28,36,49,25, 5,21		8,48
10″	17, 3,37,35,45,53, 9,38,52,28		1,14,50, 7,41	
		2, 0,28,35,34,34,57,40		8,48
12″	17, 3,39,36,14,28,44,13,50, 8		1,14,50,16,29	
		2, 0,28,34,19,44,41,11		8,48
14″	17, 3,41,36,43, 3, 3,58,31,19		1,14,50,25,17	
		2, 0,28,33, 4,54,15,54		8,48
16″	17, 3,43,37,11,36, 8,52,47,13		1,14,50,34, 5	
		2, 0,28,31,50, 3,41,49		8,48
18″	17, 3,45,37,40, 7,58,56,29, 2		1,14,50,42,53	
		2, 0,28,30,35,12,58,56		8,48
20″	17, 3,47,38, 8,38,34, 9,27,58		1,14,50,51,41	
		2, 0,28,29,20,22, 7,15		8,48
22″	17, 3,49,38,37, 7,54,31,35,13		1,14,51, 0,29	
		2, 0,28,28, 5,31, 6,46		8,48
24″	17, 3,51,39, 5,36, 0, 2,41,59		1,14,51, 9,17	
		2, 0,28,26,50,39,57,29		8,48
26″	17, 3,53,39,34, 2,50,42,39,28		1,14,51,18, 5	
		2, 0,28,25,35,48,39,24		8,48
28″	17, 3,55,40, 2,28,26,31,18,52		1,14,51,26,53	
		2, 0,28,24,20,57,12,31		8,48
30″	17, 3,57,40,30,52,47,28,31,23		1,14,51,35,41	
		2, 0,28,23, 6, 5,36,50		8,48
32″	17, 3,59,40,59,15,53,34, 8,13		1,14,51,44,29	
		2, 0,28,21,51,13,52,21		8,48
34″	17, 4, 1,41,27,37,44,48, 0,34		1,14,51,53,17	
		2, 0,28,20,36,21,59, 4		8,48
36″	17, 4, 3,41,55,58,21, 9,59,38		1,14,52, 2, 5	
		2, 0,28,19,21,29,56,59		8,48
38″	17, 4, 5,42,24,17,42,39,56,37		1,14,52,10,53	
		2, 0,28,18, 6,37,46, 6		8,48
40″	17, 4, 7,42,52,35,49,17,42,43		1,14,52,19,41	
		2, 0,28,16,51,45,26,25		8,48
42″	17, 4, 9,43,20,52,41, 3, 9, 8		1,14,52,28,29	
		2, 0,28,15,36,52,57,56		8,48
44″	17, 4,11,43,49, 8,17,56, 7, 4		1,14,52,37,17	
		2, 0,28,14,22, 0,20,39		8,48
46″	17, 4,13,44,17,22,39,56,27,43		1,14,52,46, 5	
		2, 0,28,13, 7, 7,34,34		8,48
48″	17, 4,15,44,45,35,47, 4, 2,17		1,14,52,54,53	
		2, 0,28,11,52,14,39,41		8,48
50″	17, 4,17,45,13,47,39,18,41,58		1,14,53, 3,41	
		2, 0,28,10,37,21,36, 0		8,48
52″	17, 4,19,45,41,58,16,40,17,58		1,14,53,12,29	
		2, 0,28, 9,22,28,23,31		8,48
54″	17, 4,21,46,10, 7,39, 8,41,29		1,14,53,21,17	
		2, 0,28, 8, 7,35, 2,14		8,48
56″	17, 4,23,46,38,15,46,43,43,43		1,14,53,30, 5	
		2, 0,28, 6,52,41,32, 9		8,48
58″	17, 4,25,47, 6,22,39,25,15,52		1,14,53,38,53	
		2, 0,28, 5,37,47,53,16		
60″	17, 4,27,47,34,28,17,13, 9, 8			
exact	17, 4,27,47,34,28,17,12,34,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°32′ 0″	17, 4,27,47,34,28,17,12,34,14	2, 0,28, 4,22,54, 2, 0		
2″	17, 4,29,48, 2,32,40, 6,36,14	2, 0,28, 3, 8, 0, 5,17	1,14,53,56,43	8,48
4″	17, 4,31,48,30,35,48, 6,41,31	2, 0,28, 1,53, 5,59,46	1,14,54, 5,31	8,48
6″	17, 4,33,48,58,37,41,12,41,17	2, 0,28, 0,38,11,45,27	1,14,54,14,19	8,48
8″	17, 4,35,49,26,38,19,24,26,44	2, 0,27,59,23,17,22,20	1,14,54,23, 7	8,48
10″	17, 4,37,49,54,37,42,41,49, 4	2, 0,27,58, 8,22,50,25	1,14,54,31,55	8,48
12″	17, 4,39,50,22,35,51, 4,39,29	2, 0,27,56,53,28, 9,42	1,14,54,40,43	8,48
14″	17, 4,41,50,50,32,44,32,49,11	2, 0,27,55,38,33,20,11	1,14,54,49,31	8,48
16″	17, 4,43,51,18,28,23, 6, 9,22	2, 0,27,54,23,38,21,52	1,14,54,58,19	8,48
18″	17, 4,45,51,46,22,46,44,31,14	2, 0,27,53, 8,43,14,45	1,14,55, 7, 7	8,48
20″	17, 4,47,52,14,15,55,27,45,59	2, 0,27,51,53,47,58,50	1,14,55,15,55	8,48
22″	17, 4,49,52,42, 7,49,15,44,49	2, 0,27,50,38,52,34, 7	1,14,55,24,43	8,48
24″	17, 4,51,53, 9,58,28, 8,18,56	2, 0,27,49,23,57, 0,36	1,14,55,33,31	8,48
26″	17, 4,53,53,37,47,52, 5,19,32	2, 0,27,48, 9, 1,18,17	1,14,55,42,19	8,48
28″	17, 4,55,54, 5,36, 1, 6,37,49	2, 0,27,46,54, 5,27,10	1,14,55,51, 7	8,48
30″	17, 4,57,54,33,22,55,12, 4,59	2, 0,27,45,39, 9,27,15	1,14,55,59,55	8,48
32″	17, 4,59,55, 1, 8,34,21,32,14	2, 0,27,44,24,13,18,32	1,14,56, 8,43	8,48
34″	17, 5, 1,55,28,52,58,34,50,46	2, 0,27,43, 9,17, 1, 1	1,14,56,17,31	8,48
36″	17, 5, 3,55,56,36, 7,51,51,47	2, 0,27,41,54,20,34,42	1,14,56,26,19	8,48
38″	17, 5, 5,56,24,18, 2,12,26,29	2, 0,27,40,39,23,59,35	1,14,56,35, 7	8,48
40″	17, 5, 7,56,51,58,41,36,26, 4	2, 0,27,39,24,27,15,40	1,14,56,43,55	8,48
42″	17, 5, 9,57,19,38, 6, 3,41,44	2, 0,27,38, 9,30,22,57	1,14,56,52,43	8,48
44″	17, 5,11,57,47,16,15,34, 4,41	2, 0,27,36,54,33,21,26	1,14,57, 1,31	8,48
46″	17, 5,13,58,14,53,10, 7,26, 7	2, 0,27,35,39,36,11, 7	1,14,57,10,19	8,48
48″	17, 5,15,58,42,28,49,43,37,14	2, 0,27,34,24,38,52, 0	1,14,57,19, 7	8,48
50″	17, 5,17,59,10, 3,14,22,29,14	2, 0,27,33, 9,41,24, 5	1,14,57,27,55	8,48
52″	17, 5,19,59,37,36,24, 3,53,19	2, 0,27,31,54,43,47,22	1,14,57,36,43	8,48
54″	17, 5,22, 0, 5, 8,18,47,40,41	2, 0,27,30,39,46, 1,51	1,14,57,45,31	8,48
56″	17, 5,24, 0,32,38,58,33,42,32	2, 0,27,29,24,48, 7,32	1,14,57,54,19	8,48
58″	17, 5,26, 1, 0, 8,23,21,50, 4	2, 0,27,28, 9,50, 4,25	1,14,58, 3, 7	
60″	17, 5,28, 1,27,36,33,11,54,29			
exact	17, 5,28, 1,27,36,33,11,25,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°33′ 0″	17, 5,28, 1,27,36,33,11,25,32	2, 0,27,26,54,51,49,27		
2″	17, 5,30, 1,55, 3,28, 3,14,59	2, 0,27,25,39,53,28,32	1,14,58,20,55	8,48
4″	17, 5,32, 2,22,29, 7,56,43,31	2, 0,27,24,24,54,58,49	1,14,58,29,43	8,48
6″	17, 5,34, 2,49,53,32,51,42,20	2, 0,27,23, 9,56,20,18	1,14,58,38,31	8,48
8″	17, 5,36, 3,17,16,42,48, 2,38	2, 0,27,21,54,57,32,59	1,14,58,47,19	8,48
10″	17, 5,38, 3,44,38,37,45,35,37	2, 0,27,20,39,58,36,52	1,14,58,56, 7	8,48
12″	17, 5,40, 4,11,59,17,44,12,29	2, 0,27,19,24,59,31,57	1,14,59, 4,55	8,48
14″	17, 5,42, 4,39,18,42,43,44,26	2, 0,27,18,10, 0,18,14	1,14,59,13,43	8,48
16″	17, 5,44, 5, 6,36,52,44, 2,40	2, 0,27,16,55, 0,55,43	1,14,59,22,31	8,48
18″	17, 5,46, 5,33,53,47,44,58,23	2, 0,27,15,40, 1,24,24	1,14,59,31,19	8,48
20″	17, 5,48, 6, 1, 9,27,46,22,47	2, 0,27,14,25, 1,44,17	1,14,59,40, 7	8,48
22″	17, 5,50, 6,28,23,52,48, 7, 4	2, 0,27,13,10, 1,55,22	1,14,59,48,55	8,48
24″	17, 5,52, 6,55,37, 2,50, 2,26	2, 0,27,11,55, 1,57,39	1,14,59,57,43	8,48
26″	17, 5,54, 7,22,48,57,52, 0, 5	2, 0,27,10,40, 1,51, 8	1,15, 0, 6,31	8,48
28″	17, 5,56, 7,49,59,37,53,51,13	2, 0,27, 9,25, 1,35,49	1,15, 0,15,19	8,48
30″	17, 5,58, 8,17, 9, 2,55,27, 2	2, 0,27, 8,10, 1,11,42	1,15, 0,24, 7	8,48
32″	17, 6, 0, 8,44,17,12,56,38,44	2, 0,27, 6,55, 0,38,47	1,15, 0,32,55	8,48
34″	17, 6, 2, 9,11,24, 7,57,17,31	2, 0,27, 5,39,59,57, 4	1,15, 0,41,43	8,48
36″	17, 6, 4, 9,38,29,47,57,14,35	2, 0,27, 4,24,59, 6,33	1,15, 0,50,31	8,48
38″	17, 6, 6,10, 5,34,12,56,21, 8	2, 0,27, 3, 9,58, 7,14	1,15, 0,59,19	8,48
40″	17, 6, 8,10,32,37,22,54,28,22	2, 0,27, 1,54,56,59, 7	1,15, 1, 8, 7	8,48
42″	17, 6,10,10,59,39,17,51,27,29	2, 0,27, 0,39,55,42,12	1,15, 1,16,55	8,48
44″	17, 6,12,11,26,39,57,47, 9,41	2, 0,26,59,24,54,16,29	1,15, 1,25,43	8,48
46″	17, 6,14,11,53,39,22,41,26,10	2, 0,26,58, 9,52,41,58	1,15, 1,34,31	8,48
48″	17, 6,16,12,20,37,32,34, 8, 8	2, 0,26,56,54,50,58,39	1,15, 1,43,19	8,48
50″	17, 6,18,12,47,34,27,25, 6,47	2, 0,26,55,39,49, 6,32	1,15, 1,52, 7	8,48
52″	17, 6,20,13,14,30, 7,14,13,19	2, 0,26,54,24,47, 5,37	1,15, 2, 0,55	8,48
54″	17, 6,22,13,41,24,32, 1,18,56	2, 0,26,53, 9,44,55,54	1,15, 2, 9,43	8,48
56″	17, 6,24,14, 8,17,41,46,14,50	2, 0,26,51,54,42,37,23	1,15, 2,18,31	8,48
58″	17, 6,26,14,35, 9,36,28,52,13	2, 0,26,50,39,40,10, 4	1,15, 2,27,19	
60″	17, 6,28,15, 2, 0,16, 9, 2,17			
exact	17, 6,28,15, 2, 0,16, 8,34,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°34′ 0″	17, 6,28,15, 2, 0,16, 8,34,37			
		2, 0,26,49,24,37,31, 7		
2″	17, 6,30,15,28,49,40,46, 5,44		1,15, 2,45, 6	
		2, 0,26,48, 9,34,46, 1		8,48
4″	17, 6,32,15,55,37,50,20,51,45		1,15, 2,53,54	
		2, 0,26,46,54,31,52, 7		8,48
6″	17, 6,34,16,22,24,44,52,43,52		1,15, 3, 2,42	
		2, 0,26,45,39,28,49,25		8,48
8″	17, 6,36,16,49,10,24,21,33,17		1,15, 3,11,30	
		2, 0,26,44,24,25,37,55		8,48
10″	17, 6,38,17,15,54,48,47,11,12		1,15, 3,20,18	
		2, 0,26,43, 9,22,17,37		8,48
12″	17, 6,40,17,42,37,58, 9,28,49		1,15, 3,29, 6	
		2, 0,26,41,54,18,48,31		8,48
14″	17, 6,42,18, 9,19,52,28,17,20		1,15, 3,37,54	
		2, 0,26,40,39,15,10,37		8,48
16″	17, 6,44,18,36, 0,31,43,27,57		1,15, 3,46,42	
		2, 0,26,39,24,11,23,55		8,48
18″	17, 6,46,19, 2,39,55,54,51,52		1,15, 3,55,30	
		2, 0,26,38, 9, 7,28,25		8,48
20″	17, 6,48,19,29,18, 5, 2,20,17		1,15, 4, 4,18	
		2, 0,26,36,54, 3,24, 7		8,48
22″	17, 6,50,19,55,54,59, 5,44,24		1,15, 4,13, 6	
		2, 0,26,35,38,59,11, 1		8,48
24″	17, 6,52,20,22,30,38, 4,55,25		1,15, 4,21,54	
		2, 0,26,34,23,54,49, 7		8,48
26″	17, 6,54,20,49, 5, 1,59,44,32		1,15, 4,30,42	
		2, 0,26,33, 8,50,18,25		8,48
28″	17, 6,56,21,15,38,10,50, 2,57		1,15, 4,39,30	
		2, 0,26,31,53,45,38,55		8,48
30″	17, 6,58,21,42,10, 4,35,41,52		1,15, 4,48,18	
		2, 0,26,30,38,40,50,37		8,48
32″	17, 7, 0,22, 8,40,43,16,32,29		1,15, 4,57, 6	
		2, 0,26,29,23,35,53,31		8,48
34″	17, 7, 2,22,35,10, 6,52,26, 0		1,15, 5, 5,54	
		2, 0,26,28, 8,30,47,37		8,48
36″	17, 7, 4,23, 1,38,15,23,13,37		1,15, 5,14,42	
		2, 0,26,26,53,25,32,55		8,48
38″	17, 7, 6,23,28, 5, 8,48,46,32		1,15, 5,23,30	
		2, 0,26,25,38,20, 9,25		8,48
40″	17, 7, 8,23,54,30,47, 8,55,57		1,15, 5,32,18	
		2, 0,26,24,23,14,37, 7		8,48
42″	17, 7,10,24,20,55,10,23,33, 4		1,15, 5,41, 6	
		2, 0,26,23, 8, 8,56, 1		8,48
44″	17, 7,12,24,47,18,18,32,29, 5		1,15, 5,49,54	
		2, 0,26,21,53, 3, 6, 7		8,48
46″	17, 7,14,25,13,40,11,35,35,12		1,15, 5,58,42	
		2, 0,26,20,37,57, 7,25		8,48
48″	17, 7,16,25,40, 0,49,32,42,37		1,15, 6, 7,30	
		2, 0,26,19,22,50,59,55		8,48
50″	17, 7,18,26, 6,20,12,23,42,32		1,15, 6,16,18	
		2, 0,26,18, 7,44,43,37		8,48
52″	17, 7,20,26,32,38,20, 8,26, 9		1,15, 6,25, 6	
		2, 0,26,16,52,38,18,31		8,48
54″	17, 7,22,26,58,55,12,46,44,40		1,15, 6,33,54	
		2, 0,26,15,37,31,44,37		8,48
56″	17, 7,24,27,25,10,50,18,29,17		1,15, 6,42,42	
		2, 0,26,14,22,25, 1,55		8,48
58″	17, 7,26,27,51,25,12,43,31,12		1,15, 6,51,30	
		2, 0,26,13, 7,18,10,25		
60″	17, 7,28,28,17,38,20, 1,41,37			
exact	17, 7,28,28,17,38,20, 1,17,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°35′ 0″	17, 7,28,28,17,38,20, 1,17,56	2, 0,26,11,52,11, 7,40		
2″	17, 7,30,28,43,50,12,12,25,36	2, 0,26,10,37, 3,58,24	1,15, 7, 9,16	8,48
4″	17, 7,32,29,10, 0,49,16,24, 0	2, 0,26, 9,21,56,40,20	1,15, 7,18, 4	8,48
6″	17, 7,34,29,36,10,11,13, 4,20	2, 0,26, 8, 6,49,13,28	1,15, 7,26,52	8,48
8″	17, 7,36,30, 2,18,18, 2,17,48	2, 0,26, 6,51,41,37,48	1,15, 7,35,40	8,48
10″	17, 7,38,30,28,25, 9,43,55,36	2, 0,26, 5,36,33,53,20	1,15, 7,44,28	8,48
12″	17, 7,40,30,54,30,46,17,48,56	2, 0,26, 4,21,26, 0, 4	1,15, 7,53,16	8,48
14″	17, 7,42,31,20,35, 7,43,49, 0	2, 0,26, 3, 6,17,58, 0	1,15, 8, 2, 4	8,48
16″	17, 7,44,31,46,38,14, 1,47, 0	2, 0,26, 1,51, 9,47, 8	1,15, 8,10,52	8,48
18″	17, 7,46,32,12,40, 5,11,34, 8	2, 0,26, 0,36, 1,27,28	1,15, 8,19,40	8,48
20″	17, 7,48,32,38,40,41,13, 1,36	2, 0,25,59,20,52,59, 0	1,15, 8,28,28	8,48
22″	17, 7,50,33, 4,40, 2, 6, 0,36	2, 0,25,58, 5,44,21,44	1,15, 8,37,16	8,48
24″	17, 7,52,33,30,38, 7,50,22,20	2, 0,25,56,50,35,35,40	1,15, 8,46, 4	8,48
26″	17, 7,54,33,56,34,58,25,58, 0	2, 0,25,55,35,26,40,48	1,15, 8,54,52	8,48
28″	17, 7,56,34,22,30,33,52,38,48	2, 0,25,54,20,17,37, 8	1,15, 9, 3,40	8,48
30″	17, 7,58,34,48,24,54,10,15,56	2, 0,25,53, 5, 8,24,40	1,15, 9,12,28	8,48
32″	17, 8, 0,35,14,17,59,18,40,36	2, 0,25,51,49,59, 3,24	1,15, 9,21,16	8,48
34″	17, 8, 2,35,40, 9,49,17,44, 0	2, 0,25,50,34,49,33,20	1,15, 9,30, 4	8,48
36″	17, 8, 4,36, 6, 0,24, 7,17,20	2, 0,25,49,19,39,54,28	1,15, 9,38,52	8,48
38″	17, 8, 6,36,31,49,43,47,11,48	2, 0,25,48, 4,30, 6,48	1,15, 9,47,40	8,48
40″	17, 8, 8,36,57,37,48,17,18,36	2, 0,25,46,49,20,10,20	1,15, 9,56,28	8,48
42″	17, 8,10,37,23,24,37,37,28,56	2, 0,25,45,34,10, 5, 4	1,15,10, 5,16	8,48
44″	17, 8,12,37,49,10,11,47,34, 0	2, 0,25,44,18,59,51, 0	1,15,10,14, 4	8,48
46″	17, 8,14,38,14,54,30,47,25, 0	2, 0,25,43, 3,49,28, 8	1,15,10,22,52	8,48
48″	17, 8,16,38,40,37,34,36,53, 8	2, 0,25,41,48,38,56,28	1,15,10,31,40	8,48
50″	17, 8,18,39, 6,19,23,15,49,36	2, 0,25,40,33,28,16, 0	1,15,10,40,28	8,48
52″	17, 8,20,39,31,59,56,44, 5,36	2, 0,25,39,18,17,26,44	1,15,10,49,16	8,48
54″	17, 8,22,39,57,39,15, 1,32,20	2, 0,25,38, 3, 6,28,40	1,15,10,58, 4	8,48
56″	17, 8,24,40,23,17,18, 8, 1, 0	2, 0,25,36,47,55,21,48	1,15,11, 6,52	8,48
58″	17, 8,26,40,48,54, 6, 3,22,48	2, 0,25,35,32,44, 6, 8	1,15,11,15,40	
60″	17, 8,28,41,14,29,38,47,28,56			
exact	17, 8,28,41,14,29,38,47,12,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°36′ 0″	17, 8,28,41,14,29,38,47,12,27	2, 0,25,34,17,32,39,49		
2″	17, 8,30,41,40, 3,56,19,52,16	2, 0,25,33, 2,21, 6,25	1,15,11,33,24	8,48
4″	17, 8,32,42, 5,36,58,40,58,41	2, 0,25,31,47, 9,24,13	1,15,11,42,12	8,48
6″	17, 8,34,42,31, 8,45,50,22,54	2, 0,25,30,31,57,33,13	1,15,11,51, 0	8,48
8″	17, 8,36,42,56,39,17,47,56, 7	2, 0,25,29,16,45,33,25	1,15,11,59,48	8,48
10″	17, 8,38,43,22, 8,34,33,29,32	2, 0,25,28, 1,33,24,49	1,15,12, 8,36	8,48
12″	17, 8,40,43,47,36,36, 6,54,21	2, 0,25,26,46,21, 7,25	1,15,12,17,24	8,48
14″	17, 8,42,44,13, 3,22,28, 1,46	2, 0,25,25,31, 8,41,13	1,15,12,26,12	8,48
16″	17, 8,44,44,38,28,53,36,42,59	2, 0,25,24,15,56, 6,13	1,15,12,35, 0	8,48
18″	17, 8,46,45, 3,53, 9,32,49,12	2, 0,25,23, 0,43,22,25	1,15,12,43,48	8,48
20″	17, 8,48,45,29,16,10,16,11,37	2, 0,25,21,45,30,29,49	1,15,12,52,36	8,48
22″	17, 8,50,45,54,37,55,46,41,26	2, 0,25,20,30,17,28,25	1,15,13, 1,24	8,48
24″	17, 8,52,46,19,58,26, 4, 9,51	2, 0,25,19,15, 4,18,13	1,15,13,10,12	8,48
26″	17, 8,54,46,45,17,41, 8,28, 4	2, 0,25,17,59,50,59,13	1,15,13,19, 0	8,48
28″	17, 8,56,47,10,35,40,59,27,17	2, 0,25,16,44,37,31,25	1,15,13,27,48	8,48
30″	17, 8,58,47,35,52,25,36,58,42	2, 0,25,15,29,23,54,49	1,15,13,36,36	8,48
32″	17, 9, 0,48, 1, 7,55, 0,53,31	2, 0,25,14,14,10, 9,25	1,15,13,45,24	8,48
34″	17, 9, 2,48,26,22, 9,11, 2,56	2, 0,25,12,58,56,15,13	1,15,13,54,12	8,48
36″	17, 9, 4,48,51,35, 8, 7,18, 9	2, 0,25,11,43,42,12,13	1,15,14, 3, 0	8,48
38″	17, 9, 6,49,16,46,51,49,30,22	2, 0,25,10,28,28, 0,25	1,15,14,11,48	8,48
40″	17, 9, 8,49,41,57,20,17,30,47	2, 0,25, 9,13,13,39,49	1,15,14,20,36	8,48
42″	17, 9,10,50, 7, 6,33,31,10,36	2, 0,25, 7,57,59,10,25	1,15,14,29,24	8,48
44″	17, 9,12,50,32,14,31,30,21, 1	2, 0,25, 6,42,44,32,13	1,15,14,38,12	8,48
46″	17, 9,14,50,57,21,14,14,53,14	2, 0,25, 5,27,29,45,13	1,15,14,47, 0	8,48
48″	17, 9,16,51,22,26,41,44,38,27	2, 0,25, 4,12,14,49,25	1,15,14,55,48	8,48
50″	17, 9,18,51,47,30,53,59,27,52	2, 0,25, 2,56,59,44,49	1,15,15, 4,36	8,48
52″	17, 9,20,52,12,33,50,59,12,41	2, 0,25, 1,41,44,31,25	1,15,15,13,24	8,48
54″	17, 9,22,52,37,35,32,43,44, 6	2, 0,25, 0,26,29, 9,13	1,15,15,22,12	8,48
56″	17, 9,24,53, 2,35,59,12,53,19	2, 0,24,59,11,13,38,13	1,15,15,31, 0	8,48
58″	17, 9,26,53,27,35,10,26,31,32	2, 0,24,57,55,57,58,25	1,15,15,39,48	
60″	17, 9,28,53,52,33, 6,24,29,57			
exact	17, 9,28,53,52,33, 6,24,15,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°37′ 0″	17, 9,28,53,52,33, 6,24,15,44			
		2, 0,24,56,40,42, 8,15		
2″	17, 9,30,54,17,29,47, 6,23,59		1,15,15,57,31	
		2, 0,24,55,25,26,10,44		8,48
4″	17, 9,32,54,42,25,12,32,34,43		1,15,16, 6,19	
		2, 0,24,54,10,10, 4,25		8,48
6″	17, 9,34,55, 7,19,22,42,39, 8		1,15,16,15, 7	
		2, 0,24,52,54,53,49,18		8,48
8″	17, 9,36,55,32,12,17,36,28,26		1,15,16,23,55	
		2, 0,24,51,39,37,25,23		8,48
10″	17, 9,38,55,57, 3,57,13,53,49		1,15,16,32,43	
		2, 0,24,50,24,20,52,40		8,48
12″	17, 9,40,56,21,54,21,34,46,29		1,15,16,41,31	
		2, 0,24,49, 9, 4,11, 9		8,48
14″	17, 9,42,56,46,43,30,38,57,38		1,15,16,50,19	
		2, 0,24,47,53,47,20,50		8,48
16″	17, 9,44,57,11,31,24,26,18,28		1,15,16,59, 7	
		2, 0,24,46,38,30,21,43		8,48
18″	17, 9,46,57,36,18, 2,56,40,11		1,15,17, 7,55	
		2, 0,24,45,23,13,13,48		8,48
20″	17, 9,48,58, 1, 3,26, 9,53,59		1,15,17,16,43	
		2, 0,24,44, 7,55,57, 5		8,48
22″	17, 9,50,58,25,47,34, 5,51, 4		1,15,17,25,31	
		2, 0,24,42,52,38,31,34		8,48
24″	17, 9,52,58,50,30,26,44,22,38		1,15,17,34,19	
		2, 0,24,41,37,20,57,15		8,48
26″	17, 9,54,59,15,12, 4, 5,19,53		1,15,17,43, 7	
		2, 0,24,40,22, 3,14, 8		8,48
28″	17, 9,56,59,39,52,26, 8,34, 1		1,15,17,51,55	
		2, 0,24,39, 6,45,22,13		8,48
30″	17, 9,59, 0, 4,31,32,53,56,14		1,15,18, 0,43	
		2, 0,24,37,51,27,21,30		8,48
32″	17,10, 1, 0,29, 9,24,21,17,44		1,15,18, 9,31	
		2, 0,24,36,36, 9,11,59		8,48
34″	17,10, 3, 0,53,46, 0,30,29,43		1,15,18,18,19	
		2, 0,24,35,20,50,53,40		8,48
36″	17,10, 5, 1,18,21,21,21,23,23		1,15,18,27, 7	
		2, 0,24,34, 5,32,26,33		8,48
38″	17,10, 7, 1,42,55,26,53,49,56		1,15,18,35,55	
		2, 0,24,32,50,13,50,38		8,48
40″	17,10, 9, 2, 7,28,17, 7,40,34		1,15,18,44,43	
		2, 0,24,31,34,55, 5,55		8,48
42″	17,10,11, 2,31,59,52, 2,46,29		1,15,18,53,31	
		2, 0,24,30,19,36,12,24		8,48
44″	17,10,13, 2,56,30,11,38,58,53		1,15,19, 2,19	
		2, 0,24,29, 4,17,10, 5		8,48
46″	17,10,15, 3,20,59,15,56, 8,58		1,15,19,11, 7	
		2, 0,24,27,48,57,58,58		8,48
48″	17,10,17, 3,45,27, 4,54, 7,56		1,15,19,19,55	
		2, 0,24,26,33,38,39, 3		8,48
50″	17,10,19, 4, 9,53,38,32,46,59		1,15,19,28,43	
		2, 0,24,25,18,19,10,20		8,48
52″	17,10,21, 4,34,18,56,51,57,19		1,15,19,37,31	
		2, 0,24,24, 2,59,32,49		8,48
54″	17,10,23, 4,58,42,59,51,30, 8		1,15,19,46,19	
		2, 0,24,22,47,39,46,30		8,48
56″	17,10,25, 5,23, 5,47,31,16,38		1,15,19,55, 7	
		2, 0,24,21,32,19,51,23		8,48
58″	17,10,27, 5,47,27,19,51, 8, 1		1,15,20, 3,55	
		2, 0,24,20,16,59,47,28		
60″	17,10,29, 6,11,47,36,50,55,29			
exact	17,10,29, 6,11,47,36,50,46, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°38′ 0″	17,10,29, 6,11,47,36,50,46, 0	2, 0,24,19, 1,39,33,38		
2″	17,10,31, 6,36, 6,38,30,19,38	2, 0,24,17,46,19,12, 2	1,15,20,21,36	8,48
4″	17,10,33, 7, 0,24,24,49,31,40	2, 0,24,16,30,58,41,38	1,15,20,30,24	8,48
6″	17,10,35, 7,24,40,55,48,13,18	2, 0,24,15,15,38, 2,26	1,15,20,39,12	8,48
8″	17,10,37, 7,48,56,11,26,15,44	2, 0,24,14, 0,17,14,26	1,15,20,48, 0	8,48
10″	17,10,39, 8,13,10,11,43,30,10	2, 0,24,12,44,56,17,38	1,15,20,56,48	8,48
12″	17,10,41, 8,37,22,56,39,47,48	2, 0,24,11,29,35,12, 2	1,15,21, 5,36	8,48
14″	17,10,43, 9, 1,34,26,14,59,50	2, 0,24,10,14,13,57,38	1,15,21,14,24	8,48
16″	17,10,45, 9,25,44,40,28,57,28	2, 0,24, 8,58,52,34,26	1,15,21,23,12	8,48
18″	17,10,47, 9,49,53,39,21,31,54	2, 0,24, 7,43,31, 2,26	1,15,21,32, 0	8,48
20″	17,10,49,10,14, 1,22,52,34,20	2, 0,24, 6,28, 9,21,38	1,15,21,40,48	8,48
22″	17,10,51,10,38, 7,51, 1,55,58	2, 0,24, 5,12,47,32, 2	1,15,21,49,36	8,48
24″	17,10,53,11, 2,13, 3,49,28, 0	2, 0,24, 3,57,25,33,38	1,15,21,58,24	8,48
26″	17,10,55,11,26,17, 1,15, 1,38	2, 0,24, 2,42, 3,26,26	1,15,22, 7,12	8,48
28″	17,10,57,11,50,19,43,18,28, 4	2, 0,24, 1,26,41,10,26	1,15,22,16, 0	8,48
30″	17,10,59,12,14,21, 9,59,38,30	2, 0,24, 0,11,18,45,38	1,15,22,24,48	8,48
32″	17,11, 1,12,38,21,21,18,24, 8	2, 0,23,58,55,56,12, 2	1,15,22,33,36	8,48
34″	17,11, 3,13, 2,20,17,14,36,10	2, 0,23,57,40,33,29,38	1,15,22,42,24	8,48
36″	17,11, 5,13,26,17,57,48, 5,48	2, 0,23,56,25,10,38,26	1,15,22,51,12	8,48
38″	17,11, 7,13,50,14,22,58,44,14	2, 0,23,55, 9,47,38,26	1,15,23, 0, 0	8,48
40″	17,11, 9,14,14, 9,32,46,22,40	2, 0,23,53,54,24,29,38	1,15,23, 8,48	8,48
42″	17,11,11,14,38, 3,27,10,52,18	2, 0,23,52,39, 1,12, 2	1,15,23,17,36	8,48
44″	17,11,13,15, 1,56, 6,12, 4,20	2, 0,23,51,23,37,45,38	1,15,23,26,24	8,48
46″	17,11,15,15,25,47,29,49,49,58	2, 0,23,50, 8,14,10,26	1,15,23,35,12	8,48
48″	17,11,17,15,49,37,38, 4, 0,24	2, 0,23,48,52,50,26,26	1,15,23,44, 0	8,48
50″	17,11,19,16,13,26,30,54,26,50	2, 0,23,47,37,26,33,38	1,15,23,52,48	8,48
52″	17,11,21,16,37,14, 8,21, 0,28	2, 0,23,46,22, 2,32, 2	1,15,24, 1,36	8,48
54″	17,11,23,17, 1, 0,30,23,32,30	2, 0,23,45, 6,38,21,38	1,15,24,10,24	8,48
56″	17,11,25,17,24,45,37, 1,54, 8	2, 0,23,43,51,14, 2,26	1,15,24,19,12	8,48
58″	17,11,27,17,48,29,28,15,56,34	2, 0,23,42,35,49,34,26	1,15,24,28, 0	
60″	17,11,29,18,12,12, 4, 5,31, 0			
exact	17,11,29,18,12,12, 4, 5,22, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°39′ 0″	17,11,29,18,12,12, 4, 5,22, 4			
		2, 0,23,41,20,24,56,40		
2″	17,11,31,18,35,53,24,30,18,44		1,15,24,45,40	
		2, 0,23,40, 5, 0,11, 0		8,48
4″	17,11,33,18,59,33,29,30,29,44		1,15,24,54,28	
		2, 0,23,38,49,35,16,32		8,48
6″	17,11,35,19,23,12,19, 5,46,16		1,15,25, 3,16	
		2, 0,23,37,34,10,13,16		8,48
8″	17,11,37,19,46,49,53,15,59,32		1,15,25,12, 4	
		2, 0,23,36,18,45, 1,12		8,48
10″	17,11,39,20,10,26,12, 1, 0,44		1,15,25,20,52	
		2, 0,23,35, 3,19,40,20		8,48
12″	17,11,41,20,34, 1,15,20,41, 4		1,15,25,29,40	
		2, 0,23,33,47,54,10,40		8,48
14″	17,11,43,20,57,35, 3,14,51,44		1,15,25,38,28	
		2, 0,23,32,32,28,32,12		8,48
16″	17,11,45,21,21, 7,35,43,23,56		1,15,25,47,16	
		2, 0,23,31,17, 2,44,56		8,48
18″	17,11,47,21,44,38,52,46, 8,52		1,15,25,56, 4	
		2, 0,23,30, 1,36,48,52		8,48
20″	17,11,49,22, 8, 8,54,22,57,44		1,15,26, 4,52	
		2, 0,23,28,46,10,44, 0		8,48
22″	17,11,51,22,31,37,40,33,41,44		1,15,26,13,40	
		2, 0,23,27,30,44,30,20		8,48
24″	17,11,53,22,55, 5,11,18,12, 4		1,15,26,22,28	
		2, 0,23,26,15,18, 7,52		8,48
26″	17,11,55,23,18,31,26,36,19,56		1,15,26,31,16	
		2, 0,23,24,59,51,36,36		8,48
28″	17,11,57,23,41,56,26,27,56,32		1,15,26,40, 4	
		2, 0,23,23,44,24,56,32		8,48
30″	17,11,59,24, 5,20,10,52,53, 4		1,15,26,48,52	
		2, 0,23,22,28,58, 7,40		8,48
32″	17,12, 1,24,28,42,39,51, 0,44		1,15,26,57,40	
		2, 0,23,21,13,31,10, 0		8,48
34″	17,12, 3,24,52, 3,53,22,10,44		1,15,27, 6,28	
		2, 0,23,19,58, 4, 3,32		8,48
36″	17,12, 5,25,15,23,51,26,14,16		1,15,27,15,16	
		2, 0,23,18,42,36,48,16		8,48
38″	17,12, 7,25,38,42,34, 3, 2,32		1,15,27,24, 4	
		2, 0,23,17,27, 9,24,12		8,48
40″	17,12, 9,26, 2, 0, 1,12,26,44		1,15,27,32,52	
		2, 0,23,16,11,41,51,20		8,48
42″	17,12,11,26,25,16,12,54,18, 4		1,15,27,41,40	
		2, 0,23,14,56,14, 9,40		8,48
44″	17,12,13,26,48,31, 9, 8,27,44		1,15,27,50,28	
		2, 0,23,13,40,46,19,12		8,48
46″	17,12,15,27,11,44,49,54,46,56		1,15,27,59,16	
		2, 0,23,12,25,18,19,56		8,48
48″	17,12,17,27,34,57,15,13, 6,52		1,15,28, 8, 4	
		2, 0,23,11, 9,50,11,52		8,48
50″	17,12,19,27,58, 8,25, 3,18,44		1,15,28,16,52	
		2, 0,23, 9,54,21,55, 0		8,48
52″	17,12,21,28,21,18,19,25,13,44		1,15,28,25,40	
		2, 0,23, 8,38,53,29,20		8,48
54″	17,12,23,28,44,26,58,18,43, 4		1,15,28,34,28	
		2, 0,23, 7,23,24,54,52		8,48
56″	17,12,25,29, 7,34,21,43,37,56		1,15,28,43,16	
		2, 0,23, 6, 7,56,11,36		8,48
58″	17,12,27,29,30,40,29,39,49,32		1,15,28,52, 4	
		2, 0,23, 4,52,27,19,32		
60″	17,12,29,29,53,45,22, 7, 9, 4			
exact	17,12,29,29,53,45,22, 7, 3,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°40′ 0″	17,12,29,29,53,45,22, 7, 3,24			
		2, 0,23, 3,36,58,18, 3		
2″	17,12,31,30,16,48,59, 5,21,27		1,15,29, 9,42	
		2, 0,23, 2,21,29, 8,21		8,48
4″	17,12,33,30,39,51,20,34,29,48		1,15,29,18,30	
		2, 0,23, 1, 5,59,49,51		8,48
6″	17,12,35,31, 2,52,26,34,19,39		1,15,29,27,18	
		2, 0,22,59,50,30,22,33		8,48
8″	17,12,37,31,25,52,17, 4,42,12		1,15,29,36, 6	
		2, 0,22,58,35, 0,46,27		8,48
10″	17,12,39,31,48,50,52, 5,28,39		1,15,29,44,54	
		2, 0,22,57,19,31, 1,33		8,48
12″	17,12,41,32,11,48,11,36,30,12		1,15,29,53,42	
		2, 0,22,56, 4, 1, 7,51		8,48
14″	17,12,43,32,34,44,15,37,38, 3		1,15,30, 2,30	
		2, 0,22,54,48,31, 5,21		8,48
16″	17,12,45,32,57,39, 4, 8,43,24		1,15,30,11,18	
		2, 0,22,53,33, 0,54, 3		8,48
18″	17,12,47,33,20,32,37, 9,37,27		1,15,30,20, 6	
		2, 0,22,52,17,30,33,57		8,48
20″	17,12,49,33,43,24,54,40,11,24		1,15,30,28,54	
		2, 0,22,51, 2, 0, 5, 3		8,48
22″	17,12,51,34, 6,15,56,40,16,27		1,15,30,37,42	
		2, 0,22,49,46,29,27,21		8,48
24″	17,12,53,34,29, 5,43, 9,43,48		1,15,30,46,30	
		2, 0,22,48,30,58,40,51		8,48
26″	17,12,55,34,51,54,14, 8,24,39		1,15,30,55,18	
		2, 0,22,47,15,27,45,33		8,48
28″	17,12,57,35,14,41,29,36,10,12		1,15,31, 4, 6	
		2, 0,22,45,59,56,41,27		8,48
30″	17,12,59,35,37,27,29,32,51,39		1,15,31,12,54	
		2, 0,22,44,44,25,28,33		8,48
32″	17,13, 1,36, 0,12,13,58,20,12		1,15,31,21,42	
		2, 0,22,43,28,54, 6,51		8,48
34″	17,13, 3,36,22,55,42,52,27, 3		1,15,31,30,30	
		2, 0,22,42,13,22,36,21		8,48
36″	17,13, 5,36,45,37,56,15, 3,24		1,15,31,39,18	
		2, 0,22,40,57,50,57, 3		8,48
38″	17,13, 7,37, 8,18,54, 6, 0,27		1,15,31,48, 6	
		2, 0,22,39,42,19, 8,57		8,48
40″	17,13, 9,37,30,58,36,25, 9,24		1,15,31,56,54	
		2, 0,22,38,26,47,12, 3		8,48
42″	17,13,11,37,53,37, 3,12,21,27		1,15,32, 5,42	
		2, 0,22,37,11,15, 6,21		8,48
44″	17,13,13,38,16,14,14,27,27,48		1,15,32,14,30	
		2, 0,22,35,55,42,51,51		8,48
46″	17,13,15,38,38,50,10,10,19,39		1,15,32,23,18	
		2, 0,22,34,40,10,28,33		8,48
48″	17,13,17,39, 1,24,50,20,48,12		1,15,32,32, 6	
		2, 0,22,33,24,37,56,27		8,48
50″	17,13,19,39,23,58,14,58,44,39		1,15,32,40,54	
		2, 0,22,32, 9, 5,15,33		8,48
52″	17,13,21,39,46,30,24, 4, 0,12		1,15,32,49,42	
		2, 0,22,30,53,32,25,51		8,48
54″	17,13,23,40, 9, 1,17,36,26, 3		1,15,32,58,30	
		2, 0,22,29,37,59,27,21		8,48
56″	17,13,25,40,31,30,55,35,53,24		1,15,33, 7,18	
		2, 0,22,28,22,26,20, 3		8,48
58″	17,13,27,40,53,59,18, 2,13,27		1,15,33,16, 6	
		2, 0,22,27, 6,53, 3,57		
60″	17,13,29,41,16,26,24,55,17,24			
exact	17,13,29,41,16,26,24,55,10,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°41′ 0″	17,13,29,41,16,26,24,55,10,10	2, 0,22,25,51,19,38,27		
2″	17,13,31,41,38,52,16,14,48,37	2, 0,22,24,35,46, 4,43	1,15,33,33,44	8,48
4″	17,13,33,42, 1,16,52, 0,53,20	2, 0,22,23,20,12,22,11	1,15,33,42,32	8,48
6″	17,13,35,42,23,40,12,13,15,31	2, 0,22,22, 4,38,30,51	1,15,33,51,20	8,48
8″	17,13,37,42,46, 2,16,51,46,22	2, 0,22,20,49, 4,30,43	1,15,34, 0, 8	8,48
10″	17,13,39,43, 8,23, 5,56,17, 5	2, 0,22,19,33,30,21,47	1,15,34, 8,56	8,48
12″	17,13,41,43,30,42,39,26,38,52	2, 0,22,18,17,56, 4, 3	1,15,34,17,44	8,48
14″	17,13,43,43,53, 0,57,22,42,55	2, 0,22,17, 2,21,37,31	1,15,34,26,32	8,48
16″	17,13,45,44,15,17,59,44,20,26	2, 0,22,15,46,47, 2,11	1,15,34,35,20	8,48
18″	17,13,47,44,37,33,46,31,22,37	2, 0,22,14,31,12,18, 3	1,15,34,44, 8	8,48
20″	17,13,49,44,59,48,17,43,40,40	2, 0,22,13,15,37,25, 7	1,15,34,52,56	8,48
22″	17,13,51,45,22, 1,33,21, 5,47	2, 0,22,12, 0, 2,23,23	1,15,35, 1,44	8,48
24″	17,13,53,45,44,13,33,23,29,10	2, 0,22,10,44,27,12,51	1,15,35,10,32	8,48
26″	17,13,55,46, 6,24,17,50,42, 1	2, 0,22, 9,28,51,53,31	1,15,35,19,20	8,48
28″	17,13,57,46,28,33,46,42,35,32	2, 0,22, 8,13,16,25,23	1,15,35,28, 8	8,48
30″	17,13,59,46,50,41,59,59, 0,55	2, 0,22, 6,57,40,48,27	1,15,35,36,56	8,48
32″	17,14, 1,47,12,48,57,39,49,22	2, 0,22, 5,42, 5, 2,43	1,15,35,45,44	8,48
34″	17,14, 3,47,34,54,39,44,52, 5	2, 0,22, 4,26,29, 8,11	1,15,35,54,32	8,48
36″	17,14, 5,47,56,59, 6,14, 0,16	2, 0,22, 3,10,53, 4,51	1,15,36, 3,20	8,48
38″	17,14, 7,48,19, 2,17, 7, 5, 7	2, 0,22, 1,55,16,52,43	1,15,36,12, 8	8,48
40″	17,14, 9,48,41, 4,12,23,57,50	2, 0,22, 0,39,40,31,47	1,15,36,20,56	8,48
42″	17,14,11,49, 3, 4,52, 4,29,37	2, 0,21,59,24, 4, 2, 3	1,15,36,29,44	8,48
44″	17,14,13,49,25, 4,16, 8,31,40	2, 0,21,58, 8,27,23,31	1,15,36,38,32	8,48
46″	17,14,15,49,47, 2,24,35,55,11	2, 0,21,56,52,50,36,11	1,15,36,47,20	8,48
48″	17,14,17,50, 8,59,17,26,31,22	2, 0,21,55,37,13,40, 3	1,15,36,56, 8	8,48
50″	17,14,19,50,30,54,54,40,11,25	2, 0,21,54,21,36,35, 7	1,15,37, 4,56	8,48
52″	17,14,21,50,52,49,16,16,46,32	2, 0,21,53, 5,59,21,23	1,15,37,13,44	8,48
54″	17,14,23,51,14,42,22,16, 7,55	2, 0,21,51,50,21,58,51	1,15,37,22,32	8,48
56″	17,14,25,51,36,34,12,38, 6,46	2, 0,21,50,34,44,27,31	1,15,37,31,20	8,48
58″	17,14,27,51,58,24,47,22,34,17	2, 0,21,49,19, 6,47,23	1,15,37,40, 8	
60″	17,14,29,52,20,14, 6,29,21,40			
exact	17,14,29,52,20,14, 6,29,23,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°42′ 0″	17,14,29,52,20,14, 6,29,23,14			
		2, 0,21,48, 3,28,58,34		
2″	17,14,31,52,42, 2, 9,58,21,48		1,15,37,57,44	
		2, 0,21,46,47,51, 0,50		8,48
4″	17,14,33,53, 3,48,57,49,22,38		1,15,38, 6,32	
		2, 0,21,45,32,12,54,18		8,48
6″	17,14,35,53,25,34,30, 2,16,56		1,15,38,15,20	
		2, 0,21,44,16,34,38,58		8,48
8″	17,14,37,53,47,18,46,36,55,54		1,15,38,24, 8	
		2, 0,21,43, 0,56,14,50		8,48
10″	17,14,39,54, 9, 1,47,33,10,44		1,15,38,32,56	
		2, 0,21,41,45,17,41,54		8,48
12″	17,14,41,54,30,43,32,50,52,38		1,15,38,41,44	
		2, 0,21,40,29,39, 0,10		8,48
14″	17,14,43,54,52,24, 2,29,52,48		1,15,38,50,32	
		2, 0,21,39,14, 0, 9,38		8,48
16″	17,14,45,55,14, 3,16,30, 2,26		1,15,38,59,20	
		2, 0,21,37,58,21,10,18		8,48
18″	17,14,47,55,35,41,14,51,12,44		1,15,39, 8, 8	
		2, 0,21,36,42,42, 2,10		8,48
20″	17,14,49,55,57,17,57,33,14,54		1,15,39,16,56	
		2, 0,21,35,27, 2,45,14		8,48
22″	17,14,51,56,18,53,24,36, 0, 8		1,15,39,25,44	
		2, 0,21,34,11,23,19,30		8,48
24″	17,14,53,56,40,27,35,59,19,38		1,15,39,34,32	
		2, 0,21,32,55,43,44,58		8,48
26″	17,14,55,57, 2, 0,31,43, 4,36		1,15,39,43,20	
		2, 0,21,31,40, 4, 1,38		8,48
28″	17,14,57,57,23,32,11,47, 6,14		1,15,39,52, 8	
		2, 0,21,30,24,24, 9,30		8,48
30″	17,14,59,57,45, 2,36,11,15,44		1,15,40, 0,56	
		2, 0,21,29, 8,44, 8,34		8,48
32″	17,15, 1,58, 6,31,44,55,24,18		1,15,40, 9,44	
		2, 0,21,27,53, 3,58,50		8,48
34″	17,15, 3,58,27,59,37,59,23, 8		1,15,40,18,32	
		2, 0,21,26,37,23,40,18		8,48
36″	17,15, 5,58,49,26,15,23, 3,26		1,15,40,27,20	
		2, 0,21,25,21,43,12,58		8,48
38″	17,15, 7,59,10,51,37, 6,16,24		1,15,40,36, 8	
		2, 0,21,24, 6, 2,36,50		8,48
40″	17,15, 9,59,32,15,43, 8,53,14		1,15,40,44,56	
		2, 0,21,22,50,21,51,54		8,48
42″	17,15,11,59,53,38,33,30,45, 8		1,15,40,53,44	
		2, 0,21,21,34,40,58,10		8,48
44″	17,15,14, 0,15, 0, 8,11,43,18		1,15,41, 2,32	
		2, 0,21,20,18,59,55,38		8,48
46″	17,15,16, 0,36,20,27,11,38,56		1,15,41,11,20	
		2, 0,21,19, 3,18,44,18		8,48
48″	17,15,18, 0,57,39,30,30,23,14		1,15,41,20, 8	
		2, 0,21,17,47,37,24,10		8,48
50″	17,15,20, 1,18,57,18, 7,47,24		1,15,41,28,56	
		2, 0,21,16,31,55,55,14		8,48
52″	17,15,22, 1,40,13,50, 3,42,38		1,15,41,37,44	
		2, 0,21,15,16,14,17,30		8,48
54″	17,15,24, 2, 1,29, 6,18, 0, 8		1,15,41,46,32	
		2, 0,21,14, 0,32,30,58		8,48
56″	17,15,26, 2,22,43, 6,50,31, 6		1,15,41,55,20	
		2, 0,21,12,44,50,35,38		8,48
58″	17,15,28, 2,43,55,51,41, 6,44		1,15,42, 4, 8	
		2, 0,21,11,29, 8,31,30		
60″	17,15,30, 3, 5, 7,20,49,38,14			
exact	17,15,30, 3, 5, 7,20,49,44, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°43′ 0″	17,15,30, 3, 5, 7,20,49,44, 8			
		2, 0,21,10,13,26,19, 6		
2″	17,15,32, 3,26,17,34,16, 3,14		1,15,42,21,42	
		2, 0,21, 8,57,43,57,24		8,48
4″	17,15,34, 3,47,26,32, 0, 0,38		1,15,42,30,30	
		2, 0,21, 7,42, 1,26,54		8,48
6″	17,15,36, 4, 8,34,14, 1,27,32		1,15,42,39,18	
		2, 0,21, 6,26,18,47,36		8,48
8″	17,15,38, 4,29,40,40,20,15, 8		1,15,42,48, 6	
		2, 0,21, 5,10,35,59,30		8,48
10″	17,15,40, 4,50,45,50,56,14,38		1,15,42,56,54	
		2, 0,21, 3,54,53, 2,36		8,48
12″	17,15,42, 5,11,49,45,49,17,14		1,15,43, 5,42	
		2, 0,21, 2,39, 9,56,54		8,48
14″	17,15,44, 5,32,52,24,59,14, 8		1,15,43,14,30	
		2, 0,21, 1,23,26,42,24		8,48
16″	17,15,46, 5,53,53,48,25,56,32		1,15,43,23,18	
		2, 0,21, 0, 7,43,19, 6		8,48
18″	17,15,48, 6,14,53,56, 9,15,38		1,15,43,32, 6	
		2, 0,20,58,51,59,47, 0		8,48
20″	17,15,50, 6,35,52,48, 9, 2,38		1,15,43,40,54	
		2, 0,20,57,36,16, 6, 6		8,48
22″	17,15,52, 6,56,50,24,25, 8,44		1,15,43,49,42	
		2, 0,20,56,20,32,16,24		8,48
24″	17,15,54, 7,17,46,44,57,25, 8		1,15,43,58,30	
		2, 0,20,55, 4,48,17,54		8,48
26″	17,15,56, 7,38,41,49,45,43, 2		1,15,44, 7,18	
		2, 0,20,53,49, 4,10,36		8,48
28″	17,15,58, 7,59,35,38,49,53,38		1,15,44,16, 6	
		2, 0,20,52,33,19,54,30		8,48
30″	17,16, 0, 8,20,28,12, 9,48, 8		1,15,44,24,54	
		2, 0,20,51,17,35,29,36		8,48
32″	17,16, 2, 8,41,19,29,45,17,44		1,15,44,33,42	
		2, 0,20,50, 1,50,55,54		8,48
34″	17,16, 4, 9, 2, 9,31,36,13,38		1,15,44,42,30	
		2, 0,20,48,46, 6,13,24		8,48
36″	17,16, 6, 9,22,58,17,42,27, 2		1,15,44,51,18	
		2, 0,20,47,30,21,22, 6		8,48
38″	17,16, 8, 9,43,45,48, 3,49, 8		1,15,45, 0, 6	
		2, 0,20,46,14,36,22, 0		8,48
40″	17,16,10,10, 4,32, 2,40,11, 8		1,15,45, 8,54	
		2, 0,20,44,58,51,13, 6		8,48
42″	17,16,12,10,25,17, 1,31,24,14		1,15,45,17,42	
		2, 0,20,43,43, 5,55,24		8,48
44″	17,16,14,10,46, 0,44,37,19,38		1,15,45,26,30	
		2, 0,20,42,27,20,28,54		8,48
46″	17,16,16,11, 6,43,11,57,48,32		1,15,45,35,18	
		2, 0,20,41,11,34,53,36		8,48
48″	17,16,18,11,27,24,23,32,42, 8		1,15,45,44, 6	
		2, 0,20,39,55,49, 9,30		8,48
50″	17,16,20,11,48, 4,19,21,51,38		1,15,45,52,54	
		2, 0,20,38,40, 3,16,36		8,48
52″	17,16,22,12, 8,42,59,25, 8,14		1,15,46, 1,42	
		2, 0,20,37,24,17,14,54		8,48
54″	17,16,24,12,29,20,23,42,23, 8		1,15,46,10,30	
		2, 0,20,36, 8,31, 4,24		8,48
56″	17,16,26,12,49,56,32,13,27,32		1,15,46,19,18	
		2, 0,20,34,52,44,45, 6		8,48
58″	17,16,28,13,10,31,24,58,12,38		1,15,46,28, 6	
		2, 0,20,33,36,58,17, 0		
60″	17,16,30,13,31, 5, 1,56,29,38			
exact	17,16,30,13,31, 5, 1,56,35,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°44′ 0″	17,16,30,13,31, 5, 1,56,35,10			
		2, 0,20,32,21,11,40,44		
2″	17,16,32,13,51,37,23, 8,15,54		1,15,46,45,39	
		2, 0,20,31, 5,24,55, 5		8,48
4″	17,16,34,14,12, 8,28,33,10,59		1,15,46,54,27	
		2, 0,20,29,49,38, 0,38		8,48
6″	17,16,36,14,32,38,18,11,11,37		1,15,47, 3,15	
		2, 0,20,28,33,50,57,23		8,48
8″	17,16,38,14,53, 6,52, 2, 9, 0		1,15,47,12, 3	
		2, 0,20,27,18, 3,45,20		8,48
10″	17,16,40,15,13,34,10, 5,54,20		1,15,47,20,51	
		2, 0,20,26, 2,16,24,29		8,48
12″	17,16,42,15,34, 0,12,22,18,49		1,15,47,29,39	
		2, 0,20,24,46,28,54,50		8,48
14″	17,16,44,15,54,24,58,51,13,39		1,15,47,38,27	
		2, 0,20,23,30,41,16,23		8,48
16″	17,16,46,16,14,48,29,32,30, 2		1,15,47,47,15	
		2, 0,20,22,14,53,29, 8		8,48
18″	17,16,48,16,35,10,44,25,59,10		1,15,47,56, 3	
		2, 0,20,20,59, 5,33, 5		8,48
20″	17,16,50,16,55,31,43,31,32,15		1,15,48, 4,51	
		2, 0,20,19,43,17,28,14		8,48
22″	17,16,52,17,15,51,26,49, 0,29		1,15,48,13,39	
		2, 0,20,18,27,29,14,35		8,48
24″	17,16,54,17,36, 9,54,18,15, 4		1,15,48,22,27	
		2, 0,20,17,11,40,52, 8		8,48
26″	17,16,56,17,56,27, 5,59, 7,12		1,15,48,31,15	
		2, 0,20,15,55,52,20,53		8,48
28″	17,16,58,18,16,43, 1,51,28, 5		1,15,48,40, 3	
		2, 0,20,14,40, 3,40,50		8,48
30″	17,17, 0,18,36,57,41,55, 8,55		1,15,48,48,51	
		2, 0,20,13,24,14,51,59		8,48
32″	17,17, 2,18,57,11, 6,10, 0,54		1,15,48,57,39	
		2, 0,20,12, 8,25,54,20		8,48
34″	17,17, 4,19,17,23,14,35,55,14		1,15,49, 6,27	
		2, 0,20,10,52,36,47,53		8,48
36″	17,17, 6,19,37,34, 7,12,43, 7		1,15,49,15,15	
		2, 0,20, 9,36,47,32,38		8,48
38″	17,17, 8,19,57,43,44, 0,15,45		1,15,49,24, 3	
		2, 0,20, 8,20,58, 8,35		8,48
40″	17,17,10,20,17,52, 4,58,24,20		1,15,49,32,51	
		2, 0,20, 7, 5, 8,35,44		8,48
42″	17,17,12,20,37,59,10, 7, 0, 4		1,15,49,41,39	
		2, 0,20, 5,49,18,54, 5		8,48
44″	17,17,14,20,58, 4,59,25,54, 9		1,15,49,50,27	
		2, 0,20, 4,33,29, 3,38		8,48
46″	17,17,16,21,18, 9,32,54,57,47		1,15,49,59,15	
		2, 0,20, 3,17,39, 4,23		8,48
48″	17,17,18,21,38,12,50,34, 2,10		1,15,50, 8, 3	
		2, 0,20, 2, 1,48,56,20		8,48
50″	17,17,20,21,58,14,52,22,58,30		1,15,50,16,51	
		2, 0,20, 0,45,58,39,29		8,48
52″	17,17,22,22,18,15,38,21,37,59		1,15,50,25,39	
		2, 0,19,59,30, 8,13,50		8,48
54″	17,17,24,22,38,15, 8,29,51,49		1,15,50,34,27	
		2, 0,19,58,14,17,39,23		8,48
56″	17,17,26,22,58,13,22,47,31,12		1,15,50,43,15	
		2, 0,19,56,58,26,56, 8		8,48
58″	17,17,28,23,18,10,21,14,27,20		1,15,50,52, 3	
		2, 0,19,55,42,36, 4, 5		
60″	17,17,30,23,38, 6, 3,50,31,25			
exact	17,17,30,23,38, 6, 3,50,39,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°45′ 0″	17,17,30,23,38, 6, 3,50,39,25			
		2, 0,19,54,26,45, 4, 9		
2″	17,17,32,23,58, 0,30,35,43,34		1,15,51, 9,35	
		2, 0,19,53,10,53,54,34		8,48
4″	17,17,34,24,17,53,41,29,38, 8		1,15,51,18,23	
		2, 0,19,51,55, 2,36,11		8,48
6″	17,17,36,24,37,45,36,32,14,19		1,15,51,27,11	
		2, 0,19,50,39,11, 9, 0		8,48
8″	17,17,38,24,57,36,15,43,23,19		1,15,51,35,59	
		2, 0,19,49,23,19,33, 1		8,48
10″	17,17,40,25,17,25,39, 2,56,20		1,15,51,44,47	
		2, 0,19,48, 7,27,48,14		8,48
12″	17,17,42,25,37,13,46,30,44,34		1,15,51,53,35	
		2, 0,19,46,51,35,54,39		8,48
14″	17,17,44,25,57, 0,38, 6,39,13		1,15,52, 2,23	
		2, 0,19,45,35,43,52,16		8,48
16″	17,17,46,26,16,46,13,50,31,29		1,15,52,11,11	
		2, 0,19,44,19,51,41, 5		8,48
18″	17,17,48,26,36,30,33,42,12,34		1,15,52,19,59	
		2, 0,19,43, 3,59,21, 6		8,48
20″	17,17,50,26,56,13,37,41,33,40		1,15,52,28,47	
		2, 0,19,41,48, 6,52,19		8,48
22″	17,17,52,27,15,55,25,48,25,59		1,15,52,37,35	
		2, 0,19,40,32,14,14,44		8,48
24″	17,17,54,27,35,35,58, 2,40,43		1,15,52,46,23	
		2, 0,19,39,16,21,28,21		8,48
26″	17,17,56,27,55,15,14,24, 9, 4		1,15,52,55,11	
		2, 0,19,38, 0,28,33,10		8,48
28″	17,17,58,28,14,53,14,52,42,14		1,15,53, 3,59	
		2, 0,19,36,44,35,29,11		8,48
30″	17,18, 0,28,34,29,59,28,11,25		1,15,53,12,47	
		2, 0,19,35,28,42,16,24		8,48
32″	17,18, 2,28,54, 5,28,10,27,49		1,15,53,21,35	
		2, 0,19,34,12,48,54,49		8,48
34″	17,18, 4,29,13,39,40,59,22,38		1,15,53,30,23	
		2, 0,19,32,56,55,24,26		8,48
36″	17,18, 6,29,33,12,37,54,47, 4		1,15,53,39,11	
		2, 0,19,31,41, 1,45,15		8,48
38″	17,18, 8,29,52,44,18,56,32,19		1,15,53,47,59	
		2, 0,19,30,25, 7,57,16		8,48
40″	17,18,10,30,12,14,44, 4,29,35		1,15,53,56,47	
		2, 0,19,29, 9,14, 0,29		8,48
42″	17,18,12,30,31,43,53,18,30, 4		1,15,54, 5,35	
		2, 0,19,27,53,19,54,54		8,48
44″	17,18,14,30,51,11,46,38,24,58		1,15,54,14,23	
		2, 0,19,26,37,25,40,31		8,48
46″	17,18,16,31,10,38,24, 4, 5,29		1,15,54,23,11	
		2, 0,19,25,21,31,17,20		8,48
48″	17,18,18,31,30, 3,45,35,22,49		1,15,54,31,59	
		2, 0,19,24, 5,36,45,21		8,48
50″	17,18,20,31,49,27,51,12, 8,10		1,15,54,40,47	
		2, 0,19,22,49,42, 4,34		8,48
52″	17,18,22,32, 8,50,40,54,12,44		1,15,54,49,35	
		2, 0,19,21,33,47,14,59		8,48
54″	17,18,24,32,28,12,14,41,27,43		1,15,54,58,23	
		2, 0,19,20,17,52,16,36		8,48
56″	17,18,26,32,47,32,32,33,44,19		1,15,55, 7,11	
		2, 0,19,19, 1,57, 9,25		8,48
58″	17,18,28,33, 6,51,34,30,53,44		1,15,55,15,59	
		2, 0,19,17,46, 1,53,26		
60″	17,18,30,33,26, 9,20,32,47,10			
exact	17,18,30,33,26, 9,20,33, 0,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°46′ 0″	17,18,30,33,26, 9,20,33, 0,41			
		2, 0,19,16,30, 6,30, 4		
2″	17,18,32,33,45,25,50,39,30,45		1,15,55,33,29	
		2, 0,19,15,14,10,56,35		8,48
4″	17,18,34,34, 4,41, 4,50,27,20		1,15,55,42,17	
		2, 0,19,13,58,15,14,18		8,48
6″	17,18,36,34,23,55, 3, 5,41,38		1,15,55,51, 5	
		2, 0,19,12,42,19,23,13		8,48
8″	17,18,38,34,43, 7,45,25, 4,51		1,15,55,59,53	
		2, 0,19,11,26,23,23,20		8,48
10″	17,18,40,35, 2,19,11,48,28,11		1,15,56, 8,41	
		2, 0,19,10,10,27,14,39		8,48
12″	17,18,42,35,21,29,22,15,42,50		1,15,56,17,29	
		2, 0,19, 8,54,30,57,10		8,48
14″	17,18,44,35,40,38,16,46,40, 0		1,15,56,26,17	
		2, 0,19, 7,38,34,30,53		8,48
16″	17,18,46,35,59,45,55,21,10,53		1,15,56,35, 5	
		2, 0,19, 6,22,37,55,48		8,48
18″	17,18,48,36,18,52,17,59, 6,41		1,15,56,43,53	
		2, 0,19, 5, 6,41,11,55		8,48
20″	17,18,50,36,37,57,24,40,18,36		1,15,56,52,41	
		2, 0,19, 3,50,44,19,14		8,48
22″	17,18,52,36,57, 1,15,24,37,50		1,15,57, 1,29	
		2, 0,19, 2,34,47,17,45		8,48
24″	17,18,54,37,16, 3,50,11,55,35		1,15,57,10,17	
		2, 0,19, 1,18,50, 7,28		8,48
26″	17,18,56,37,35, 5, 9, 2, 3, 3		1,15,57,19, 5	
		2, 0,19, 0, 2,52,48,23		8,48
28″	17,18,58,37,54, 5,11,54,51,26		1,15,57,27,53	
		2, 0,18,58,46,55,20,30		8,48
30″	17,19, 0,38,13, 3,58,50,11,56		1,15,57,36,41	
		2, 0,18,57,30,57,43,49		8,48
32″	17,19, 2,38,32, 1,29,47,55,45		1,15,57,45,29	
		2, 0,18,56,14,59,58,20		8,48
34″	17,19, 4,38,50,57,44,47,54, 5		1,15,57,54,17	
		2, 0,18,54,59, 2, 4, 3		8,48
36″	17,19, 6,39, 9,52,43,49,58, 8		1,15,58, 3, 5	
		2, 0,18,53,43, 4, 0,58		8,48
38″	17,19, 8,39,28,46,26,53,59, 6		1,15,58,11,53	
		2, 0,18,52,27, 5,49, 5		8,48
40″	17,19,10,39,47,38,53,59,48,11		1,15,58,20,41	
		2, 0,18,51,11, 7,28,24		8,48
42″	17,19,12,40, 6,30, 5, 7,16,35		1,15,58,29,29	
		2, 0,18,49,55, 8,58,55		8,48
44″	17,19,14,40,25,20, 0,16,15,30		1,15,58,38,17	
		2, 0,18,48,39,10,20,38		8,48
46″	17,19,16,40,44, 8,39,26,36, 8		1,15,58,47, 5	
		2, 0,18,47,23,11,33,33		8,48
48″	17,19,18,41, 2,56, 2,38, 9,41		1,15,58,55,53	
		2, 0,18,46, 7,12,37,40		8,48
50″	17,19,20,41,21,42, 9,50,47,21		1,15,59, 4,41	
		2, 0,18,44,51,13,32,59		8,48
52″	17,19,22,41,40,27, 1, 4,20,20		1,15,59,13,29	
		2, 0,18,43,35,14,19,30		8,48
54″	17,19,24,41,59,10,36,18,39,50		1,15,59,22,17	
		2, 0,18,42,19,14,57,13		8,48
56″	17,19,26,42,17,52,55,33,37, 3		1,15,59,31, 5	
		2, 0,18,41, 3,15,26, 8		8,48
58″	17,19,28,42,36,33,58,49, 3,11		1,15,59,39,53	
		2, 0,18,39,47,15,46,15		
60″	17,19,30,42,55,13,46, 4,49,26			
exact	17,19,30,42,55,13,46, 5, 3,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°47′ 0″	17,19,30,42,55,13,46, 5, 3,35			
		2, 0,18,38,31,15,59, 9		
2″	17,19,32,43,13,52,17,21, 2,44		1,15,59,57,22	
		2, 0,18,37,15,16, 1,47		8,48
4″	17,19,34,43,32,29,32,37, 4,31		1,16, 0, 6,10	
		2, 0,18,35,59,15,55,37		8,48
6″	17,19,36,43,51, 5,31,53, 0, 8		1,16, 0,14,58	
		2, 0,18,34,43,15,40,39		8,48
8″	17,19,38,44, 9,40,15, 8,40,47		1,16, 0,23,46	
		2, 0,18,33,27,15,16,53		8,48
10″	17,19,40,44,28,13,42,23,57,40		1,16, 0,32,34	
		2, 0,18,32,11,14,44,19		8,48
12″	17,19,42,44,46,45,53,38,41,59		1,16, 0,41,22	
		2, 0,18,30,55,14, 2,57		8,48
14″	17,19,44,45, 5,16,48,52,44,56		1,16, 0,50,10	
		2, 0,18,29,39,13,12,47		8,48
16″	17,19,46,45,23,46,28, 5,57,43		1,16, 0,58,58	
		2, 0,18,28,23,12,13,49		8,48
18″	17,19,48,45,42,14,51,18,11,32		1,16, 1, 7,46	
		2, 0,18,27, 7,11, 6, 3		8,48
20″	17,19,50,46, 0,41,58,29,17,35		1,16, 1,16,34	
		2, 0,18,25,51, 9,49,29		8,48
22″	17,19,52,46,19, 7,49,39, 7, 4		1,16, 1,25,22	
		2, 0,18,24,35, 8,24, 7		8,48
24″	17,19,54,46,37,32,24,47,31,11		1,16, 1,34,10	
		2, 0,18,23,19, 6,49,57		8,48
26″	17,19,56,46,55,55,43,54,21, 8		1,16, 1,42,58	
		2, 0,18,22, 3, 5, 6,59		8,48
28″	17,19,58,47,14,17,46,59,28, 7		1,16, 1,51,46	
		2, 0,18,20,47, 3,15,13		8,48
30″	17,20, 0,47,32,38,34, 2,43,20		1,16, 2, 0,34	
		2, 0,18,19,31, 1,14,39		8,48
32″	17,20, 2,47,50,58, 5, 3,57,59		1,16, 2, 9,22	
		2, 0,18,18,14,59, 5,17		8,48
34″	17,20, 4,48, 9,16,20, 3, 3,16		1,16, 2,18,10	
		2, 0,18,16,58,56,47, 7		8,48
36″	17,20, 6,48,27,33,18,59,50,23		1,16, 2,26,58	
		2, 0,18,15,42,54,20, 9		8,48
38″	17,20, 8,48,45,49, 1,54,10,32		1,16, 2,35,46	
		2, 0,18,14,26,51,44,23		8,48
40″	17,20,10,49, 4, 3,28,45,54,55		1,16, 2,44,34	
		2, 0,18,13,10,48,59,49		8,48
42″	17,20,12,49,22,16,39,34,54,44		1,16, 2,53,22	
		2, 0,18,11,54,46, 6,27		8,48
44″	17,20,14,49,40,28,34,21, 1,11		1,16, 3, 2,10	
		2, 0,18,10,38,43, 4,17		8,48
46″	17,20,16,49,58,39,13, 4, 5,28		1,16, 3,10,58	
		2, 0,18, 9,22,39,53,19		8,48
48″	17,20,18,50,16,48,35,43,58,47		1,16, 3,19,46	
		2, 0,18, 8, 6,36,33,33		8,48
50″	17,20,20,50,34,56,42,20,32,20		1,16, 3,28,34	
		2, 0,18, 6,50,33, 4,59		8,48
52″	17,20,22,50,53, 3,32,53,37,19		1,16, 3,37,22	
		2, 0,18, 5,34,29,27,37		8,48
54″	17,20,24,51,11, 9, 7,23, 4,56		1,16, 3,46,10	
		2, 0,18, 4,18,25,41,27		8,48
56″	17,20,26,51,29,13,25,48,46,23		1,16, 3,54,58	
		2, 0,18, 3, 2,21,46,29		8,48
58″	17,20,28,51,47,16,28,10,32,52		1,16, 4, 3,46	
		2, 0,18, 1,46,17,42,43		
60″	17,20,30,52, 5,18,14,28,15,35			
exact	17,20,30,52, 5,18,14,28,33,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°48′ 0″	17,20,30,52, 5,18,14,28,33,35			
		2, 0,18, 0,30,13,32, 7		
2″	17,20,32,52,23,18,44,42, 5,42		1,16, 4,21,14	
		2, 0,17,59,14, 9,10,53		8,48
4″	17,20,34,52,41,17,58,51,16,35		1,16, 4,30, 2	
		2, 0,17,57,58, 4,40,51		8,48
6″	17,20,36,52,59,15,56,55,57,26		1,16, 4,38,50	
		2, 0,17,56,42, 0, 2, 1		8,48
8″	17,20,38,53,17,12,38,55,59,27		1,16, 4,47,38	
		2, 0,17,55,25,55,14,23		8,48
10″	17,20,40,53,35, 8, 4,51,13,50		1,16, 4,56,26	
		2, 0,17,54, 9,50,17,57		8,48
12″	17,20,42,53,53, 2,14,41,31,47		1,16, 5, 5,14	
		2, 0,17,52,53,45,12,43		8,48
14″	17,20,44,54,10,55, 8,26,44,30		1,16, 5,14, 2	
		2, 0,17,51,37,39,58,41		8,48
16″	17,20,46,54,28,46,46, 6,43,11		1,16, 5,22,50	
		2, 0,17,50,21,34,35,51		8,48
18″	17,20,48,54,46,37, 7,41,19, 2		1,16, 5,31,38	
		2, 0,17,49, 5,29, 4,13		8,48
20″	17,20,50,55, 4,26,13,10,23,15		1,16, 5,40,26	
		2, 0,17,47,49,23,23,47		8,48
22″	17,20,52,55,22,14, 2,33,47, 2		1,16, 5,49,14	
		2, 0,17,46,33,17,34,33		8,48
24″	17,20,54,55,40, 0,35,51,21,35		1,16, 5,58, 2	
		2, 0,17,45,17,11,36,31		8,48
26″	17,20,56,55,57,45,53, 2,58, 6		1,16, 6, 6,50	
		2, 0,17,44, 1, 5,29,41		8,48
28″	17,20,58,56,15,29,54, 8,27,47		1,16, 6,15,38	
		2, 0,17,42,44,59,14, 3		8,48
30″	17,21, 0,56,33,12,39, 7,41,50		1,16, 6,24,26	
		2, 0,17,41,28,52,49,37		8,48
32″	17,21, 2,56,50,54, 8, 0,31,27		1,16, 6,33,14	
		2, 0,17,40,12,46,16,23		8,48
34″	17,21, 4,57, 8,34,20,46,47,50		1,16, 6,42, 2	
		2, 0,17,38,56,39,34,21		8,48
36″	17,21, 6,57,26,13,17,26,22,11		1,16, 6,50,50	
		2, 0,17,37,40,32,43,31		8,48
38″	17,21, 8,57,43,50,57,59, 5,42		1,16, 6,59,38	
		2, 0,17,36,24,25,43,53		8,48
40″	17,21,10,58, 1,27,22,24,49,35		1,16, 7, 8,26	
		2, 0,17,35, 8,18,35,27		8,48
42″	17,21,12,58,19, 2,30,43,25, 2		1,16, 7,17,14	
		2, 0,17,33,52,11,18,13		8,48
44″	17,21,14,58,36,36,22,54,43,15		1,16, 7,26, 2	
		2, 0,17,32,36, 3,52,11		8,48
46″	17,21,16,58,54, 8,58,58,35,26		1,16, 7,34,50	
		2, 0,17,31,19,56,17,21		8,48
48″	17,21,18,59,11,40,18,54,52,47		1,16, 7,43,38	
		2, 0,17,30, 3,48,33,43		8,48
50″	17,21,20,59,29,10,22,43,26,30		1,16, 7,52,26	
		2, 0,17,28,47,40,41,17		8,48
52″	17,21,22,59,46,39,10,24, 7,47		1,16, 8, 1,14	
		2, 0,17,27,31,32,40, 3		8,48
54″	17,21,25, 0, 4, 6,41,56,47,50		1,16, 8,10, 2	
		2, 0,17,26,15,24,30, 1		8,48
56″	17,21,27, 0,21,32,57,21,17,51		1,16, 8,18,50	
		2, 0,17,24,59,16,11,11		8,48
58″	17,21,29, 0,38,57,56,37,29, 2		1,16, 8,27,38	
		2, 0,17,23,43, 7,43,33		
60″	17,21,31, 0,56,21,39,45,12,35			
exact	17,21,31, 0,56,21,39,45,36,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°49′ 0″	17,21,31, 0,56,21,39,45,36,56			
		2, 0,17,22,26,59, 9,39		
2″	17,21,33, 1,13,44, 6,44,46,35		1,16, 8,45, 4	
		2, 0,17,21,10,50,24,35		8,48
4″	17,21,35, 1,31, 5,17,35,11,10		1,16, 8,53,52	
		2, 0,17,19,54,41,30,43		8,48
6″	17,21,37, 1,48,25,12,16,41,53		1,16, 9, 2,40	
		2, 0,17,18,38,32,28, 3		8,48
8″	17,21,39, 2, 5,43,50,49, 9,56		1,16, 9,11,28	
		2, 0,17,17,22,23,16,35		8,48
10″	17,21,41, 2,23, 1,13,12,26,31		1,16, 9,20,16	
		2, 0,17,16, 6,13,56,19		8,48
12″	17,21,43, 2,40,17,19,26,22,50		1,16, 9,29, 4	
		2, 0,17,14,50, 4,27,15		8,48
14″	17,21,45, 2,57,32, 9,30,50, 5		1,16, 9,37,52	
		2, 0,17,13,33,54,49,23		8,48
16″	17,21,47, 3,14,45,43,25,39,28		1,16, 9,46,40	
		2, 0,17,12,17,45, 2,43		8,48
18″	17,21,49, 3,31,58, 1,10,42,11		1,16, 9,55,28	
		2, 0,17,11, 1,35, 7,15		8,48
20″	17,21,51, 3,49, 9, 2,45,49,26		1,16,10, 4,16	
		2, 0,17, 9,45,25, 2,59		8,48
22″	17,21,53, 4, 6,18,48,10,52,25		1,16,10,13, 4	
		2, 0,17, 8,29,14,49,55		8,48
24″	17,21,55, 4,23,27,17,25,42,20		1,16,10,21,52	
		2, 0,17, 7,13, 4,28, 3		8,48
26″	17,21,57, 4,40,34,30,30,10,23		1,16,10,30,40	
		2, 0,17, 5,56,53,57,23		8,48
28″	17,21,59, 4,57,40,27,24, 7,46		1,16,10,39,28	
		2, 0,17, 4,40,43,17,55		8,48
30″	17,22, 1, 5,14,45, 8, 7,25,41		1,16,10,48,16	
		2, 0,17, 3,24,32,29,39		8,48
32″	17,22, 3, 5,31,48,32,39,55,20		1,16,10,57, 4	
		2, 0,17, 2, 8,21,32,35		8,48
34″	17,22, 5, 5,48,50,41, 1,27,55		1,16,11, 5,52	
		2, 0,17, 0,52,10,26,43		8,48
36″	17,22, 7, 6, 5,51,33,11,54,38		1,16,11,14,40	
		2, 0,16,59,35,59,12, 3		8,48
38″	17,22, 9, 6,22,51, 9,11, 6,41		1,16,11,23,28	
		2, 0,16,58,19,47,48,35		8,48
40″	17,22,11, 6,39,49,28,58,55,16		1,16,11,32,16	
		2, 0,16,57, 3,36,16,19		8,48
42″	17,22,13, 6,56,46,32,35,11,35		1,16,11,41, 4	
		2, 0,16,55,47,24,35,15		8,48
44″	17,22,15, 7,13,42,19,59,46,50		1,16,11,49,52	
		2, 0,16,54,31,12,45,23		8,48
46″	17,22,17, 7,30,36,51,12,32,13		1,16,11,58,40	
		2, 0,16,53,15, 0,46,43		8,48
48″	17,22,19, 7,47,30, 6,13,18,56		1,16,12, 7,28	
		2, 0,16,51,58,48,39,15		8,48
50″	17,22,21, 8, 4,22, 5, 1,58,11		1,16,12,16,16	
		2, 0,16,50,42,36,22,59		8,48
52″	17,22,23, 8,21,12,47,38,21,10		1,16,12,25, 4	
		2, 0,16,49,26,23,57,55		8,48
54″	17,22,25, 8,38, 2,14, 2,19, 5		1,16,12,33,52	
		2, 0,16,48,10,11,24, 3		8,48
56″	17,22,27, 8,54,50,24,13,43, 8		1,16,12,42,40	
		2, 0,16,46,53,58,41,23		8,48
58″	17,22,29, 9,11,37,18,12,24,31		1,16,12,51,28	
		2, 0,16,45,37,45,49,55		
60″	17,22,31, 9,28,22,55,58,14,26			
exact	17,22,31, 9,28,22,55,58,40,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°50′ 0″	17,22,31, 9,28,22,55,58,40,46			
		2, 0,16,44,21,32,52,26		
2″	17,22,33, 9,45, 7,17,31,33,12		1,16,13, 8,52	
		2, 0,16,43, 5,19,43,34		8,48
4″	17,22,35,10, 1,50,22,51,16,46		1,16,13,17,40	
		2, 0,16,41,49, 6,25,54		8,48
6″	17,22,37,10,18,32,11,57,42,40		1,16,13,26,28	
		2, 0,16,40,32,52,59,26		8,48
8″	17,22,39,10,35,12,44,50,42, 6		1,16,13,35,16	
		2, 0,16,39,16,39,24,10		8,48
10″	17,22,41,10,51,52, 1,30, 6,16		1,16,13,44, 4	
		2, 0,16,38, 0,25,40, 6		8,48
12″	17,22,43,11, 8,30, 1,55,46,22		1,16,13,52,52	
		2, 0,16,36,44,11,47,14		8,48
14″	17,22,45,11,25, 6,46, 7,33,36		1,16,14, 1,40	
		2, 0,16,35,27,57,45,34		8,48
16″	17,22,47,11,41,42,14, 5,19,10		1,16,14,10,28	
		2, 0,16,34,11,43,35, 6		8,48
18″	17,22,49,11,58,16,25,48,54,16		1,16,14,19,16	
		2, 0,16,32,55,29,15,50		8,48
20″	17,22,51,12,14,49,21,18,10, 6		1,16,14,28, 4	
		2, 0,16,31,39,14,47,46		8,48
22″	17,22,53,12,31,21, 0,32,57,52		1,16,14,36,52	
		2, 0,16,30,23, 0,10,54		8,48
24″	17,22,55,12,47,51,23,33, 8,46		1,16,14,45,40	
		2, 0,16,29, 6,45,25,14		8,48
26″	17,22,57,13, 4,20,30,18,34, 0		1,16,14,54,28	
		2, 0,16,27,50,30,30,46		8,48
28″	17,22,59,13,20,48,20,49, 4,46		1,16,15, 3,16	
		2, 0,16,26,34,15,27,30		8,48
30″	17,23, 1,13,37,14,55, 4,32,16		1,16,15,12, 4	
		2, 0,16,25,18, 0,15,26		8,48
32″	17,23, 3,13,53,40,13, 4,47,42		1,16,15,20,52	
		2, 0,16,24, 1,44,54,34		8,48
34″	17,23, 5,14,10, 4,14,49,42,16		1,16,15,29,40	
		2, 0,16,22,45,29,24,54		8,48
36″	17,23, 7,14,26,27, 0,19, 7,10		1,16,15,38,28	
		2, 0,16,21,29,13,46,26		8,48
38″	17,23, 9,14,42,48,29,32,53,36		1,16,15,47,16	
		2, 0,16,20,12,57,59,10		8,48
40″	17,23,11,14,59, 8,42,30,52,46		1,16,15,56, 4	
		2, 0,16,18,56,42, 3, 6		8,48
42″	17,23,13,15,15,27,39,12,55,52		1,16,16, 4,52	
		2, 0,16,17,40,25,58,14		8,48
44″	17,23,15,15,31,45,19,38,54, 6		1,16,16,13,40	
		2, 0,16,16,24, 9,44,34		8,48
46″	17,23,17,15,48, 1,43,48,38,40		1,16,16,22,28	
		2, 0,16,15, 7,53,22, 6		8,48
48″	17,23,19,16, 4,16,51,42, 0,46		1,16,16,31,16	
		2, 0,16,13,51,36,50,50		8,48
50″	17,23,21,16,20,30,43,18,51,36		1,16,16,40, 4	
		2, 0,16,12,35,20,10,46		8,48
52″	17,23,23,16,36,43,18,39, 2,22		1,16,16,48,52	
		2, 0,16,11,19, 3,21,54		8,48
54″	17,23,25,16,52,54,37,42,24,16		1,16,16,57,40	
		2, 0,16,10, 2,46,24,14		8,48
56″	17,23,27,17, 9, 4,40,28,48,30		1,16,17, 6,28	
		2, 0,16, 8,46,29,17,46		8,48
58″	17,23,29,17,25,13,26,58, 6,16		1,16,17,15,16	
		2, 0,16, 7,30,12, 2,30		
60″	17,23,31,17,41,20,57,10, 8,46			
exact	17,23,31,17,41,20,57,10,33, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°51′ 0″	17,23,31,17,41,20,57,10,33, 5			
		2, 0,16, 6,13,54,41,11		
2″	17,23,33,17,57,27,11, 5,14,16		1,16,17,32,40	
		2, 0,16, 4,57,37, 8,31		8,48
4″	17,23,35,18,13,32, 8,42,22,47		1,16,17,41,28	
		2, 0,16, 3,41,19,27, 3		8,48
6″	17,23,37,18,29,35,50, 1,49,50		1,16,17,50,16	
		2, 0,16, 2,25, 1,36,47		8,48
8″	17,23,39,18,45,38,15, 3,26,37		1,16,17,59, 4	
		2, 0,16, 1, 8,43,37,43		8,48
10″	17,23,41,19, 1,39,23,47, 4,20		1,16,18, 7,52	
		2, 0,15,59,52,25,29,51		8,48
12″	17,23,43,19,17,39,16,12,34,11		1,16,18,16,40	
		2, 0,15,58,36, 7,13,11		8,48
14″	17,23,45,19,33,37,52,19,47,22		1,16,18,25,28	
		2, 0,15,57,19,48,47,43		8,48
16″	17,23,47,19,49,35,12, 8,35, 5		1,16,18,34,16	
		2, 0,15,56, 3,30,13,27		8,48
18″	17,23,49,20, 5,31,15,38,48,32		1,16,18,43, 4	
		2, 0,15,54,47,11,30,23		8,48
20″	17,23,51,20,21,26, 2,50,18,55		1,16,18,51,52	
		2, 0,15,53,30,52,38,31		8,48
22″	17,23,53,20,37,19,33,42,57,26		1,16,19, 0,40	
		2, 0,15,52,14,33,37,51		8,48
24″	17,23,55,20,53,11,48,16,35,17		1,16,19, 9,28	
		2, 0,15,50,58,14,28,23		8,48
26″	17,23,57,21, 9, 2,46,31, 3,40		1,16,19,18,16	
		2, 0,15,49,41,55,10, 7		8,48
28″	17,23,59,21,24,52,28,26,13,47		1,16,19,27, 4	
		2, 0,15,48,25,35,43, 3		8,48
30″	17,24, 1,21,40,40,54, 1,56,50		1,16,19,35,52	
		2, 0,15,47, 9,16, 7,11		8,48
32″	17,24, 3,21,56,28, 3,18, 4, 1		1,16,19,44,40	
		2, 0,15,45,52,56,22,31		8,48
34″	17,24, 5,22,12,13,56,14,26,32		1,16,19,53,28	
		2, 0,15,44,36,36,29, 3		8,48
36″	17,24, 7,22,27,58,32,50,55,35		1,16,20, 2,16	
		2, 0,15,43,20,16,26,47		8,48
38″	17,24, 9,22,43,41,53, 7,22,22		1,16,20,11, 4	
		2, 0,15,42, 3,56,15,43		8,48
40″	17,24,11,22,59,23,57, 3,38, 5		1,16,20,19,52	
		2, 0,15,40,47,35,55,51		8,48
42″	17,24,13,23,15, 4,44,39,33,56		1,16,20,28,40	
		2, 0,15,39,31,15,27,11		8,48
44″	17,24,15,23,30,44,15,55, 1, 7		1,16,20,37,28	
		2, 0,15,38,14,54,49,43		8,48
46″	17,24,17,23,46,22,30,49,50,50		1,16,20,46,16	
		2, 0,15,36,58,34, 3,27		8,48
48″	17,24,19,24, 1,59,29,23,54,17		1,16,20,55, 4	
		2, 0,15,35,42,13, 8,23		8,48
50″	17,24,21,24,17,35,11,37, 2,40		1,16,21, 3,52	
		2, 0,15,34,25,52, 4,31		8,48
52″	17,24,23,24,33, 9,37,29, 7,11		1,16,21,12,40	
		2, 0,15,33, 9,30,51,51		8,48
54″	17,24,25,24,48,42,46,59,59, 2		1,16,21,21,28	
		2, 0,15,31,53, 9,30,23		8,48
56″	17,24,27,25, 4,14,40, 9,29,25		1,16,21,30,16	
		2, 0,15,30,36,48, 0, 7		8,48
58″	17,24,29,25,19,45,16,57,29,32		1,16,21,39, 4	
		2, 0,15,29,20,26,21, 3		
60″	17,24,31,25,35,14,37,23,50,35			
exact	17,24,31,25,35,14,37,24,22,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°52′ 0″	17,24,31,25,35,14,37,24,22,46	2, 0,15,28, 4, 4,36,36		
2″	17,24,33,25,50,42,41,28,59,22	2, 0,15,26,47,42,40,10	1,16,21,56,26	8,48
4″	17,24,35,26, 6, 9,29,11,39,32	2, 0,15,25,31,20,34,56	1,16,22, 5,14	8,48
6″	17,24,37,26,21,35, 0,32,14,28	2, 0,15,24,14,58,20,54	1,16,22,14, 2	8,48
8″	17,24,39,26,36,59,15,30,35,22	2, 0,15,22,58,35,58, 4	1,16,22,22,50	8,48
10″	17,24,41,26,52,22,14, 6,33,26	2, 0,15,21,42,13,26,26	1,16,22,31,38	8,48
12″	17,24,43,27, 7,43,56,19,59,52	2, 0,15,20,25,50,46, 0	1,16,22,40,26	8,48
14″	17,24,45,27,23, 4,22,10,45,52	2, 0,15,19, 9,27,56,46	1,16,22,49,14	8,48
16″	17,24,47,27,38,23,31,38,42,38	2, 0,15,17,53, 4,58,44	1,16,22,58, 2	8,48
18″	17,24,49,27,53,41,24,43,41,22	2, 0,15,16,36,41,51,54	1,16,23, 6,50	8,48
20″	17,24,51,28, 8,58, 1,25,33,16	2, 0,15,15,20,18,36,16	1,16,23,15,38	8,48
22″	17,24,53,28,24,13,21,44, 9,32	2, 0,15,14, 3,55,11,50	1,16,23,24,26	8,48
24″	17,24,55,28,39,27,25,39,21,22	2, 0,15,12,47,31,38,36	1,16,23,33,14	8,48
26″	17,24,57,28,54,40,13,10,59,58	2, 0,15,11,31, 7,56,34	1,16,23,42, 2	8,48
28″	17,24,59,29, 9,51,44,18,56,32	2, 0,15,10,14,44, 5,44	1,16,23,50,50	8,48
30″	17,25, 1,29,25, 1,59, 3, 2,16	2, 0,15, 8,58,20, 6, 6	1,16,23,59,38	8,48
32″	17,25, 3,29,40,10,57,23, 8,22	2, 0,15, 7,41,55,57,40	1,16,24, 8,26	8,48
34″	17,25, 5,29,55,18,39,19, 6, 2	2, 0,15, 6,25,31,40,26	1,16,24,17,14	8,48
36″	17,25, 7,30,10,25, 4,50,46,28	2, 0,15, 5, 9, 7,14,24	1,16,24,26, 2	8,48
38″	17,25, 9,30,25,30,13,58, 0,52	2, 0,15, 3,52,42,39,34	1,16,24,34,50	8,48
40″	17,25,11,30,40,34, 6,40,40,26	2, 0,15, 2,36,17,55,56	1,16,24,43,38	8,48
42″	17,25,13,30,55,36,42,58,36,22	2, 0,15, 1,19,53, 3,30	1,16,24,52,26	8,48
44″	17,25,15,31,10,38, 2,51,39,52	2, 0,15, 0, 3,28, 2,16	1,16,25, 1,14	8,48
46″	17,25,17,31,25,38, 6,19,42, 8	2, 0,14,58,47, 2,52,14	1,16,25,10, 2	8,48
48″	17,25,19,31,40,36,53,22,34,22	2, 0,14,57,30,37,33,24	1,16,25,18,50	8,48
50″	17,25,21,31,55,34,24, 0, 7,46	2, 0,14,56,14,12, 5,46	1,16,25,27,38	8,48
52″	17,25,23,32,10,30,38,12,13,32	2, 0,14,54,57,46,29,20	1,16,25,36,26	8,48
54″	17,25,25,32,25,25,35,58,42,52	2, 0,14,53,41,20,44, 6	1,16,25,45,14	8,48
56″	17,25,27,32,40,19,17,19,26,58	2, 0,14,52,24,54,50, 4	1,16,25,54, 2	8,48
58″	17,25,29,32,55,11,42,14,17, 2	2, 0,14,51, 8,28,47,14	1,16,26, 2,50	
60″	17,25,31,33,10, 2,50,43, 4,16			
exact	17,25,31,33,10, 2,50,43,39,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°53′ 0″	17,25,31,33,10, 2,50,43,39,39			
		2, 0,14,49,52, 2,39,22		
2″	17,25,33,33,24,52,42,46,19, 1		1,16,26,20,10	
		2, 0,14,48,35,36,19,12		8,47
4″	17,25,35,33,39,41,18,22,38,13		1,16,26,28,57	
		2, 0,14,47,19, 9,50,15		8,47
6″	17,25,37,33,54,28,37,32,28,28		1,16,26,37,44	
		2, 0,14,46, 2,43,12,31		8,47
8″	17,25,39,34, 9,14,40,15,40,59		1,16,26,46,31	
		2, 0,14,44,46,16,26, 0		8,47
10″	17,25,41,34,23,59,26,32, 6,59		1,16,26,55,18	
		2, 0,14,43,29,49,30,42		8,47
12″	17,25,43,34,38,42,56,21,37,41		1,16,27, 4, 5	
		2, 0,14,42,13,22,26,37		8,47
14″	17,25,45,34,53,25, 9,44, 4,18		1,16,27,12,52	
		2, 0,14,40,56,55,13,45		8,47
16″	17,25,47,35, 8, 6, 6,39,18, 3		1,16,27,21,39	
		2, 0,14,39,40,27,52, 6		8,47
18″	17,25,49,35,22,45,47, 7,10, 9		1,16,27,30,26	
		2, 0,14,38,24, 0,21,40		8,47
20″	17,25,51,35,37,24,11, 7,31,49		1,16,27,39,13	
		2, 0,14,37, 7,32,42,27		8,47
22″	17,25,53,35,52, 1,18,40,14,16		1,16,27,48, 0	
		2, 0,14,35,51, 4,54,27		8,47
24″	17,25,55,36, 6,37, 9,45, 8,43		1,16,27,56,47	
		2, 0,14,34,34,36,57,40		8,47
26″	17,25,57,36,21,11,44,22, 6,23		1,16,28, 5,34	
		2, 0,14,33,18, 8,52, 6		8,47
28″	17,25,59,36,35,45, 2,30,58,29		1,16,28,14,21	
		2, 0,14,32, 1,40,37,45		8,47
30″	17,26, 1,36,50,17, 4,11,36,14		1,16,28,23, 8	
		2, 0,14,30,45,12,14,37		8,47
32″	17,26, 3,37, 4,47,49,23,50,51		1,16,28,31,55	
		2, 0,14,29,28,43,42,42		8,47
34″	17,26, 5,37,19,17,18, 7,33,33		1,16,28,40,42	
		2, 0,14,28,12,15, 2, 0		8,47
36″	17,26, 7,37,33,45,30,22,35,33		1,16,28,49,29	
		2, 0,14,26,55,46,12,31		8,47
38″	17,26, 9,37,48,12,26, 8,48, 4		1,16,28,58,16	
		2, 0,14,25,39,17,14,15		8,47
40″	17,26,11,38, 2,38, 5,26, 2,19		1,16,29, 7, 3	
		2, 0,14,24,22,48, 7,12		8,47
42″	17,26,13,38,17, 2,28,14, 9,31		1,16,29,15,50	
		2, 0,14,23, 6,18,51,22		8,47
44″	17,26,15,38,31,25,34,33, 0,53		1,16,29,24,37	
		2, 0,14,21,49,49,26,45		8,47
46″	17,26,17,38,45,47,24,22,27,38		1,16,29,33,24	
		2, 0,14,20,33,19,53,21		8,47
48″	17,26,19,39, 0, 7,57,42,20,59		1,16,29,42,11	
		2, 0,14,19,16,50,11,10		8,47
50″	17,26,21,39,14,27,14,32,32, 9		1,16,29,50,58	
		2, 0,14,18, 0,20,20,12		8,47
52″	17,26,23,39,28,45,14,52,52,21		1,16,29,59,45	
		2, 0,14,16,43,50,20,27		8,47
54″	17,26,25,39,43, 1,58,43,12,48		1,16,30, 8,32	
		2, 0,14,15,27,20,11,55		8,47
56″	17,26,27,39,57,17,26, 3,24,43		1,16,30,17,19	
		2, 0,14,14,10,49,54,36		8,47
58″	17,26,29,40,11,31,36,53,19,19		1,16,30,26, 6	
		2, 0,14,12,54,19,28,30		
60″	17,26,31,40,25,44,31,12,47,49			
exact	17,26,31,40,25,44,31,12,14,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°54′ 0″	17,26,31,40,25,44,31,12,14,29			
		2, 0,14,11,37,48,50,11		
2″	17,26,33,40,39,56, 9, 1, 4,40		1,16,30,43,54	
		2, 0,14,10,21,18, 6,17		8,47
4″	17,26,35,40,54, 6,30,19,10,57		1,16,30,52,41	
		2, 0,14, 9, 4,47,13,36		8,47
6″	17,26,37,41, 8,15,35, 6,24,33		1,16,31, 1,28	
		2, 0,14, 7,48,16,12, 8		8,47
8″	17,26,39,41,22,23,23,22,36,41		1,16,31,10,15	
		2, 0,14, 6,31,45, 1,53		8,47
10″	17,26,41,41,36,29,55, 7,38,34		1,16,31,19, 2	
		2, 0,14, 5,15,13,42,51		8,47
12″	17,26,43,41,50,35,10,21,21,25		1,16,31,27,49	
		2, 0,14, 3,58,42,15, 2		8,47
14″	17,26,45,42, 4,39, 9, 3,36,27		1,16,31,36,36	
		2, 0,14, 2,42,10,38,26		8,47
16″	17,26,47,42,18,41,51,14,14,53		1,16,31,45,23	
		2, 0,14, 1,25,38,53, 3		8,47
18″	17,26,49,42,32,43,16,53, 7,56		1,16,31,54,10	
		2, 0,14, 0, 9, 6,58,53		8,47
20″	17,26,51,42,46,43,26, 0, 6,49		1,16,32, 2,57	
		2, 0,13,58,52,34,55,56		8,47
22″	17,26,53,43, 0,42,18,35, 2,45		1,16,32,11,44	
		2, 0,13,57,36, 2,44,12		8,47
24″	17,26,55,43,14,39,54,37,46,57		1,16,32,20,31	
		2, 0,13,56,19,30,23,41		8,47
26″	17,26,57,43,28,36,14, 8,10,38		1,16,32,29,18	
		2, 0,13,55, 2,57,54,23		8,47
28″	17,26,59,43,42,31,17, 6, 5, 1		1,16,32,38, 5	
		2, 0,13,53,46,25,16,18		8,47
30″	17,27, 1,43,56,25, 3,31,21,19		1,16,32,46,52	
		2, 0,13,52,29,52,29,26		8,47
32″	17,27, 3,44,10,17,33,23,50,45		1,16,32,55,39	
		2, 0,13,51,13,19,33,47		8,47
34″	17,27, 5,44,24, 8,46,43,24,32		1,16,33, 4,26	
		2, 0,13,49,56,46,29,21		8,47
36″	17,27, 7,44,37,58,43,29,53,53		1,16,33,13,13	
		2, 0,13,48,40,13,16, 8		8,47
38″	17,27, 9,44,51,47,23,43,10, 1		1,16,33,22, 0	
		2, 0,13,47,23,39,54, 8		8,47
40″	17,27,11,45, 5,34,47,23, 4, 9		1,16,33,30,47	
		2, 0,13,46, 7, 6,23,21		8,47
42″	17,27,13,45,19,20,54,29,27,30		1,16,33,39,34	
		2, 0,13,44,50,32,43,47		8,47
44″	17,27,15,45,33, 5,45, 2,11,17		1,16,33,48,21	
		2, 0,13,43,33,58,55,26		8,47
46″	17,27,17,45,46,49,19, 1, 6,43		1,16,33,57, 8	
		2, 0,13,42,17,24,58,18		8,47
48″	17,27,19,46, 0,31,36,26, 5, 1		1,16,34, 5,55	
		2, 0,13,41, 0,50,52,23		8,47
50″	17,27,21,46,14,12,37,16,57,24		1,16,34,14,42	
		2, 0,13,39,44,16,37,41		8,47
52″	17,27,23,46,27,52,21,33,35, 5		1,16,34,23,29	
		2, 0,13,38,27,42,14,12		8,47
54″	17,27,25,46,41,30,49,15,49,17		1,16,34,32,16	
		2, 0,13,37,11, 7,41,56		8,47
56″	17,27,27,46,55, 8, 0,23,31,13		1,16,34,41, 3	
		2, 0,13,35,54,33, 0,53		8,47
58″	17,27,29,47, 8,43,54,56,32, 6		1,16,34,49,50	
		2, 0,13,34,37,58,11, 3		
60″	17,27,31,47,22,18,32,54,43, 9			
exact	17,27,31,47,22,18,32,54,18,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°55′ 0″	17,27,31,47,22,18,32,54,18,58	2, 0,13,33,21,23, 9,45		
2″	17,27,33,47,35,51,54,17,28,43	2, 0,13,32, 4,48, 2,10	1,16,35, 7,35	8,47
4″	17,27,35,47,49,23,59, 5,30,53	2, 0,13,30,48,12,45,48	1,16,35,16,22	8,47
6″	17,27,37,48, 2,54,47,18,16,41	2, 0,13,29,31,37,20,39	1,16,35,25, 9	8,47
8″	17,27,39,48,16,24,18,55,37,20	2, 0,13,28,15, 1,46,43	1,16,35,33,56	8,47
10″	17,27,41,48,29,52,33,57,24, 3	2, 0,13,26,58,26, 4, 0	1,16,35,42,43	8,47
12″	17,27,43,48,43,19,32,23,28, 3	2, 0,13,25,41,50,12,30	1,16,35,51,30	8,47
14″	17,27,45,48,56,45,14,13,40,33	2, 0,13,24,25,14,12,13	1,16,36, 0,17	8,47
16″	17,27,47,49,10, 9,39,27,52,46	2, 0,13,23, 8,38, 3, 9	1,16,36, 9, 4	8,47
18″	17,27,49,49,23,32,48, 5,55,55	2, 0,13,21,52, 1,45,18	1,16,36,17,51	8,47
20″	17,27,51,49,36,54,40, 7,41,13	2, 0,13,20,35,25,18,40	1,16,36,26,38	8,47
22″	17,27,53,49,50,15,15,32,59,53	2, 0,13,19,18,48,43,15	1,16,36,35,25	8,47
24″	17,27,55,50, 3,34,34,21,43, 8	2, 0,13,18, 2,11,59, 3	1,16,36,44,12	8,47
26″	17,27,57,50,16,52,36,33,42,11	2, 0,13,16,45,35, 6, 4	1,16,36,52,59	8,47
28″	17,27,59,50,30, 9,22, 8,48,15	2, 0,13,15,28,58, 4,18	1,16,37, 1,46	8,47
30″	17,28, 1,50,43,24,51, 6,52,33	2, 0,13,14,12,20,53,45	1,16,37,10,33	8,47
32″	17,28, 3,50,56,39, 3,27,46,18	2, 0,13,12,55,43,34,25	1,16,37,19,20	8,47
34″	17,28, 5,51, 9,51,59,11,20,43	2, 0,13,11,39, 6, 6,18	1,16,37,28, 7	8,47
36″	17,28, 7,51,23, 3,38,17,27, 1	2, 0,13,10,22,28,29,24	1,16,37,36,54	8,47
38″	17,28, 9,51,36,14, 0,45,56,25	2, 0,13, 9, 5,50,43,43	1,16,37,45,41	8,47
40″	17,28,11,51,49,23, 6,36,40, 8	2, 0,13, 7,49,12,49,15	1,16,37,54,28	8,47
42″	17,28,13,52, 2,30,55,49,29,23	2, 0,13, 6,32,34,46, 0	1,16,38, 3,15	8,47
44″	17,28,15,52,15,37,28,24,15,23	2, 0,13, 5,15,56,33,58	1,16,38,12, 2	8,47
46″	17,28,17,52,28,42,44,20,49,21	2, 0,13, 3,59,18,13, 9	1,16,38,20,49	8,47
48″	17,28,19,52,41,46,43,39, 2,30	2, 0,13, 2,42,39,43,33	1,16,38,29,36	8,47
50″	17,28,21,52,54,49,26,18,46, 3	2, 0,13, 1,26, 1, 5,10	1,16,38,38,23	8,47
52″	17,28,23,53, 7,50,52,19,51,13	2, 0,13, 0, 9,22,18, 0	1,16,38,47,10	8,47
54″	17,28,25,53,20,51, 1,42, 9,13	2, 0,12,58,52,43,22, 3	1,16,38,55,57	8,47
56″	17,28,27,53,33,49,54,25,31,16	2, 0,12,57,36, 4,17,19	1,16,39, 4,44	8,47
58″	17,28,29,53,46,47,30,29,48,35	2, 0,12,56,19,25, 3,48	1,16,39,13,31	
60″	17,28,31,53,59,43,49,54,52,23			
exact	17,28,31,53,59,43,49,54,25,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°56′ 0″	17,28,31,53,59,43,49,54,25,45	2, 0,12,55, 2,45,38,46		
2″	17,28,33,54,12,38,52,40, 4,31	2, 0,12,53,46, 6, 7,30	1,16,39,31,16	8,47
4″	17,28,35,54,25,32,38,46,12, 1	2, 0,12,52,29,26,27,27	1,16,39,40, 3	8,47
6″	17,28,37,54,38,25, 8,12,39,28	2, 0,12,51,12,46,38,37	1,16,39,48,50	8,47
8″	17,28,39,54,51,16,20,59,18, 5	2, 0,12,49,56, 6,41, 0	1,16,39,57,37	8,47
10″	17,28,41,55, 4, 6,17, 5,59, 5	2, 0,12,48,39,26,34,36	1,16,40, 6,24	8,47
12″	17,28,43,55,16,54,56,32,33,41	2, 0,12,47,22,46,19,25	1,16,40,15,11	8,47
14″	17,28,45,55,29,42,19,18,53, 6	2, 0,12,46, 6, 5,55,27	1,16,40,23,58	8,47
16″	17,28,47,55,42,28,25,24,48,33	2, 0,12,44,49,25,22,42	1,16,40,32,45	8,47
18″	17,28,49,55,55,13,14,50,11,15	2, 0,12,43,32,44,41,10	1,16,40,41,32	8,47
20″	17,28,51,56, 7,56,47,34,52,25	2, 0,12,42,16, 3,50,51	1,16,40,50,19	8,47
22″	17,28,53,56,20,39, 3,38,43,16	2, 0,12,40,59,22,51,45	1,16,40,59, 6	8,47
24″	17,28,55,56,33,20, 3, 1,35, 1	2, 0,12,39,42,41,43,52	1,16,41, 7,53	8,47
26″	17,28,57,56,45,59,45,43,18,53	2, 0,12,38,26, 0,27,12	1,16,41,16,40	8,47
28″	17,28,59,56,58,38,11,43,46, 5	2, 0,12,37, 9,19, 1,45	1,16,41,25,27	8,47
30″	17,29, 1,57,11,15,21, 2,47,50	2, 0,12,35,52,37,27,31	1,16,41,34,14	8,47
32″	17,29, 3,57,23,51,13,40,15,21	2, 0,12,34,35,55,44,30	1,16,41,43, 1	8,47
34″	17,29, 5,57,36,25,49,35,59,51	2, 0,12,33,19,13,52,42	1,16,41,51,48	8,47
36″	17,29, 7,57,48,59, 8,49,52,33	2, 0,12,32, 2,31,52, 7	1,16,42, 0,35	8,47
38″	17,29, 9,58, 1,31,11,21,44,40	2, 0,12,30,45,49,42,45	1,16,42, 9,22	8,47
40″	17,29,11,58,14, 1,57,11,27,25	2, 0,12,29,29, 7,24,36	1,16,42,18, 9	8,47
42″	17,29,13,58,26,31,26,18,52, 1	2, 0,12,28,12,24,57,40	1,16,42,26,56	8,47
44″	17,29,15,58,38,59,38,43,49,41	2, 0,12,26,55,42,21,57	1,16,42,35,43	8,47
46″	17,29,17,58,51,26,34,26,11,38	2, 0,12,25,38,59,37,27	1,16,42,44,30	8,47
48″	17,29,19,59, 3,52,13,25,49, 5	2, 0,12,24,22,16,44,10	1,16,42,53,17	8,47
50″	17,29,21,59,16,16,35,42,33,15	2, 0,12,23, 5,33,42, 6	1,16,43, 2, 4	8,47
52″	17,29,23,59,28,39,41,16,15,21	2, 0,12,21,48,50,31,15	1,16,43,10,51	8,47
54″	17,29,25,59,41, 1,30, 6,46,36	2, 0,12,20,32, 7,11,37	1,16,43,19,38	8,47
56″	17,29,27,59,53,22, 2,13,58,13	2, 0,12,19,15,23,43,12	1,16,43,28,25	8,47
58″	17,29,30, 0, 5,41,17,37,41,25	2, 0,12,17,58,40, 6, 0	1,16,43,37,12	
60″	17,29,32, 0,17,59,16,17,47,25			
exact	17,29,32, 0,17,59,16,17,28,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°57′ 0″	17,29,32, 0,17,59,16,17,28,33			
		2, 0,12,16,41,56,17,56		
2″	17,29,34, 0,30,15,58,13,46,29		1,16,43,54,55	
		2, 0,12,15,25,12,23, 1		8,47
4″	17,29,36, 0,42,31,23,26, 9,30		1,16,44, 3,42	
		2, 0,12,14, 8,28,19,19		8,47
6″	17,29,38, 0,54,45,31,54,28,49		1,16,44,12,29	
		2, 0,12,12,51,44, 6,50		8,47
8″	17,29,40, 1, 6,58,23,38,35,39		1,16,44,21,16	
		2, 0,12,11,34,59,45,34		8,47
10″	17,29,42, 1,19, 9,58,38,21,13		1,16,44,30, 3	
		2, 0,12,10,18,15,15,31		8,47
12″	17,29,44, 1,31,20,16,53,36,44		1,16,44,38,50	
		2, 0,12, 9, 1,30,36,41		8,47
14″	17,29,46, 1,43,29,18,24,13,25		1,16,44,47,37	
		2, 0,12, 7,44,45,49, 4		8,47
16″	17,29,48, 1,55,37, 3,10, 2,29		1,16,44,56,24	
		2, 0,12, 6,28, 0,52,40		8,47
18″	17,29,50, 2, 7,43,31,10,55, 9		1,16,45, 5,11	
		2, 0,12, 5,11,15,47,29		8,47
20″	17,29,52, 2,19,48,42,26,42,38		1,16,45,13,58	
		2, 0,12, 3,54,30,33,31		8,47
22″	17,29,54, 2,31,52,36,57,16, 9		1,16,45,22,45	
		2, 0,12, 2,37,45,10,46		8,47
24″	17,29,56, 2,43,55,14,42,26,55		1,16,45,31,32	
		2, 0,12, 1,20,59,39,14		8,47
26″	17,29,58, 2,55,56,35,42, 6, 9		1,16,45,40,19	
		2, 0,12, 0, 4,13,58,55		8,47
28″	17,30, 0, 3, 7,56,39,56, 5, 4		1,16,45,49, 6	
		2, 0,11,58,47,28, 9,49		8,47
30″	17,30, 2, 3,19,55,27,24,14,53		1,16,45,57,53	
		2, 0,11,57,30,42,11,56		8,47
32″	17,30, 4, 3,31,52,58, 6,26,49		1,16,46, 6,40	
		2, 0,11,56,13,56, 5,16		8,47
34″	17,30, 6, 3,43,49,12, 2,32, 5		1,16,46,15,27	
		2, 0,11,54,57, 9,49,49		8,47
36″	17,30, 8, 3,55,44, 9,12,21,54		1,16,46,24,14	
		2, 0,11,53,40,23,25,35		8,47
38″	17,30,10, 4, 7,37,49,35,47,29		1,16,46,33, 1	
		2, 0,11,52,23,36,52,34		8,47
40″	17,30,12, 4,19,30,13,12,40, 3		1,16,46,41,48	
		2, 0,11,51, 6,50,10,46		8,47
42″	17,30,14, 4,31,21,20, 2,50,49		1,16,46,50,35	
		2, 0,11,49,50, 3,20,11		8,47
44″	17,30,16, 4,43,11,10, 6,11, 0		1,16,46,59,22	
		2, 0,11,48,33,16,20,49		8,47
46″	17,30,18, 4,54,59,43,22,31,49		1,16,47, 8, 9	
		2, 0,11,47,16,29,12,40		8,47
48″	17,30,20, 5, 6,46,59,51,44,29		1,16,47,16,56	
		2, 0,11,45,59,41,55,44		8,47
50″	17,30,22, 5,18,32,59,33,40,13		1,16,47,25,43	
		2, 0,11,44,42,54,30, 1		8,47
52″	17,30,24, 5,30,17,42,28,10,14		1,16,47,34,30	
		2, 0,11,43,26, 6,55,31		8,47
54″	17,30,26, 5,42, 1, 8,35, 5,45		1,16,47,43,17	
		2, 0,11,42, 9,19,12,14		8,47
56″	17,30,28, 5,53,43,17,54,17,59		1,16,47,52, 4	
		2, 0,11,40,52,31,20,10		8,47
58″	17,30,30, 6, 5,24,10,25,38, 9		1,16,48, 0,51	
		2, 0,11,39,35,43,19,19		
60″	17,30,32, 6,17, 3,46, 8,57,28			
exact	17,30,32, 6,17, 3,46, 8,42, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°58′ 0″	17,30,32, 6,17, 3,46, 8,42, 2			
		2, 0,11,38,18,55, 7,58		
2″	17,30,34, 6,28,42, 5, 3,50, 0		1,16,48,18,32	
		2, 0,11,37, 2, 6,49,26		8,47
4″	17,30,36, 6,40,19, 7,10,39,26		1,16,48,27,19	
		2, 0,11,35,45,18,22, 7		8,47
6″	17,30,38, 6,51,54,52,29, 1,33		1,16,48,36, 6	
		2, 0,11,34,28,29,46, 1		8,47
8″	17,30,40, 7, 3,29,20,58,47,34		1,16,48,44,53	
		2, 0,11,33,11,41, 1, 8		8,47
10″	17,30,42, 7,15, 2,32,39,48,42		1,16,48,53,40	
		2, 0,11,31,54,52, 7,28		8,47
12″	17,30,44, 7,26,34,27,31,56,10		1,16,49, 2,27	
		2, 0,11,30,38, 3, 5, 1		8,47
14″	17,30,46, 7,38, 5, 5,35, 1,11		1,16,49,11,14	
		2, 0,11,29,21,13,53,47		8,47
16″	17,30,48, 7,49,34,26,48,54,58		1,16,49,20, 1	
		2, 0,11,28, 4,24,33,46		8,47
18″	17,30,50, 8, 1, 2,31,13,28,44		1,16,49,28,48	
		2, 0,11,26,47,35, 4,58		8,47
20″	17,30,52, 8,12,29,18,48,33,42		1,16,49,37,35	
		2, 0,11,25,30,45,27,23		8,47
22″	17,30,54, 8,23,54,49,34, 1, 5		1,16,49,46,22	
		2, 0,11,24,13,55,41, 1		8,47
24″	17,30,56, 8,35,19, 3,29,42, 6		1,16,49,55, 9	
		2, 0,11,22,57, 5,45,52		8,47
26″	17,30,58, 8,46,42, 0,35,27,58		1,16,50, 3,56	
		2, 0,11,21,40,15,41,56		8,47
28″	17,31, 0, 8,58, 3,40,51, 9,54		1,16,50,12,43	
		2, 0,11,20,23,25,29,13		8,47
30″	17,31, 2, 9, 9,24, 4,16,39, 7		1,16,50,21,30	
		2, 0,11,19, 6,35, 7,43		8,47
32″	17,31, 4, 9,20,43,10,51,46,50		1,16,50,30,17	
		2, 0,11,17,49,44,37,26		8,47
34″	17,31, 6, 9,32, 1, 0,36,24,16		1,16,50,39, 4	
		2, 0,11,16,32,53,58,22		8,47
36″	17,31, 8, 9,43,17,33,30,22,38		1,16,50,47,51	
		2, 0,11,15,16, 3,10,31		8,47
38″	17,31,10, 9,54,32,49,33,33, 9		1,16,50,56,38	
		2, 0,11,13,59,12,13,53		8,47
40″	17,31,12,10, 5,46,48,45,47, 2		1,16,51, 5,25	
		2, 0,11,12,42,21, 8,28		8,47
42″	17,31,14,10,16,59,31, 6,55,30		1,16,51,14,12	
		2, 0,11,11,25,29,54,16		8,47
44″	17,31,16,10,28,10,56,36,49,46		1,16,51,22,59	
		2, 0,11,10, 8,38,31,17		8,47
46″	17,31,18,10,39,21, 5,15,21, 3		1,16,51,31,46	
		2, 0,11, 8,51,46,59,31		8,47
48″	17,31,20,10,50,29,57, 2,20,34		1,16,51,40,33	
		2, 0,11, 7,34,55,18,58		8,47
50″	17,31,22,11, 1,37,31,57,39,32		1,16,51,49,20	
		2, 0,11, 6,18, 3,29,38		8,47
52″	17,31,24,11,12,43,50, 1, 9,10		1,16,51,58, 7	
		2, 0,11, 5, 1,11,31,31		8,47
54″	17,31,26,11,23,48,51,12,40,41		1,16,52, 6,54	
		2, 0,11, 3,44,19,24,37		8,47
56″	17,31,28,11,34,52,35,32, 5,18		1,16,52,15,41	
		2, 0,11, 2,27,27, 8,56		8,47
58″	17,31,30,11,45,55, 2,59,14,14		1,16,52,24,28	
		2, 0,11, 1,10,34,44,28		
60″	17,31,32,11,56,56,13,33,58,42			
exact	17,31,32,11,56,56,13,33,41,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
16°59′ 0″	17,31,32,11,56,56,13,33,41,56			
		2, 0,10,59,53,42, 9,32		
2″	17,31,34,12, 7,56, 7,15,51,28		1,16,52,42, 8	
		2, 0,10,58,36,49,27,24		8,47
4″	17,31,36,12,18,54,44, 5,18,52		1,16,52,50,55	
		2, 0,10,57,19,56,36,29		8,47
6″	17,31,38,12,29,52, 4, 1,55,21		1,16,52,59,42	
		2, 0,10,56, 3, 3,36,47		8,47
8″	17,31,40,12,40,48, 7, 5,32, 8		1,16,53, 8,29	
		2, 0,10,54,46,10,28,18		8,47
10″	17,31,42,12,51,42,53,16, 0,26		1,16,53,17,16	
		2, 0,10,53,29,17,11, 2		8,47
12″	17,31,44,13, 2,36,22,33,11,28		1,16,53,26, 3	
		2, 0,10,52,12,23,44,59		8,47
14″	17,31,46,13,13,28,34,56,56,27		1,16,53,34,50	
		2, 0,10,50,55,30,10, 9		8,47
16″	17,31,48,13,24,19,30,27, 6,36		1,16,53,43,37	
		2, 0,10,49,38,36,26,32		8,47
18″	17,31,50,13,35, 9, 9, 3,33, 8		1,16,53,52,24	
		2, 0,10,48,21,42,34, 8		8,47
20″	17,31,52,13,45,57,30,46, 7,16		1,16,54, 1,11	
		2, 0,10,47, 4,48,32,57		8,47
22″	17,31,54,13,56,44,35,34,40,13		1,16,54, 9,58	
		2, 0,10,45,47,54,22,59		8,47
24″	17,31,56,14, 7,30,23,29, 3,12		1,16,54,18,45	
		2, 0,10,44,31, 0, 4,14		8,47
26″	17,31,58,14,18,14,54,29, 7,26		1,16,54,27,32	
		2, 0,10,43,14, 5,36,42		8,47
28″	17,32, 0,14,28,58, 8,34,44, 8		1,16,54,36,19	
		2, 0,10,41,57,11, 0,23		8,47
30″	17,32, 2,14,39,40, 5,45,44,31		1,16,54,45, 6	
		2, 0,10,40,40,16,15,17		8,47
32″	17,32, 4,14,50,20,46, 1,59,48		1,16,54,53,53	
		2, 0,10,39,23,21,21,24		8,47
34″	17,32, 6,15, 1, 0, 9,23,21,12		1,16,55, 2,40	
		2, 0,10,38, 6,26,18,44		8,47
36″	17,32, 8,15,11,38,15,49,39,56		1,16,55,11,27	
		2, 0,10,36,49,31, 7,17		8,47
38″	17,32,10,15,22,15, 5,20,47,13		1,16,55,20,14	
		2, 0,10,35,32,35,47, 3		8,47
40″	17,32,12,15,32,50,37,56,34,16		1,16,55,29, 1	
		2, 0,10,34,15,40,18, 2		8,47
42″	17,32,14,15,43,24,53,36,52,18		1,16,55,37,48	
		2, 0,10,32,58,44,40,14		8,47
44″	17,32,16,15,53,57,52,21,32,32		1,16,55,46,35	
		2, 0,10,31,41,48,53,39		8,47
46″	17,32,18,16, 4,29,34,10,26,11		1,16,55,55,22	
		2, 0,10,30,24,52,58,17		8,47
48″	17,32,20,16,14,59,59, 3,24,28		1,16,56, 4, 9	
		2, 0,10,29, 7,56,54, 8		8,47
50″	17,32,22,16,25,29, 7, 0,18,36		1,16,56,12,56	
		2, 0,10,27,51, 0,41,12		8,47
52″	17,32,24,16,35,56,58, 0,59,48		1,16,56,21,43	
		2, 0,10,26,34, 4,19,29		8,47
54″	17,32,26,16,46,23,32, 5,19,17		1,16,56,30,30	
		2, 0,10,25,17, 7,48,59		8,47
56″	17,32,28,16,56,48,49,13, 8,16		1,16,56,39,17	
		2, 0,10,24, 0,11, 9,42		8,47
58″	17,32,30,17, 7,12,49,24,17,58		1,16,56,48, 4	
		2, 0,10,22,43,14,21,38		
60″	17,32,32,17,17,35,32,38,39,36			
exact	17,32,32,17,17,35,32,38,25, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17° 0′ 0″	17,32,32,17,17,35,32,38,25, 2			
		2, 0,10,21,26,17,23,22		
2″	17,32,34,17,27,56,58,55,48,24		1,16,57, 5,43	
		2, 0,10,20, 9,20,17,39		8,47
4″	17,32,36,17,38,17, 8,16, 6, 3		1,16,57,14,30	
		2, 0,10,18,52,23, 3, 9		8,47
6″	17,32,38,17,48,36, 0,39, 9,12		1,16,57,23,17	
		2, 0,10,17,35,25,39,52		8,47
8″	17,32,40,17,58,53,36, 4,49, 4		1,16,57,32, 4	
		2, 0,10,16,18,28, 7,48		8,47
10″	17,32,42,18, 9, 9,54,32,56,52		1,16,57,40,51	
		2, 0,10,15, 1,30,26,57		8,47
12″	17,32,44,18,19,24,56, 3,23,49		1,16,57,49,38	
		2, 0,10,13,44,32,37,19		8,47
14″	17,32,46,18,29,38,40,36, 1, 8		1,16,57,58,25	
		2, 0,10,12,27,34,38,54		8,47
16″	17,32,48,18,39,51, 8,10,40, 2		1,16,58, 7,12	
		2, 0,10,11,10,36,31,42		8,47
18″	17,32,50,18,50, 2,18,47,11,44		1,16,58,15,59	
		2, 0,10, 9,53,38,15,43		8,47
20″	17,32,52,19, 0,12,12,25,27,27		1,16,58,24,46	
		2, 0,10, 8,36,39,50,57		8,47
22″	17,32,54,19,10,20,49, 5,18,24		1,16,58,33,33	
		2, 0,10, 7,19,41,17,24		8,47
24″	17,32,56,19,20,28, 8,46,35,48		1,16,58,42,20	
		2, 0,10, 6, 2,42,35, 4		8,47
26″	17,32,58,19,30,34,11,29,10,52		1,16,58,51, 7	
		2, 0,10, 4,45,43,43,57		8,47
28″	17,33, 0,19,40,38,57,12,54,49		1,16,58,59,54	
		2, 0,10, 3,28,44,44, 3		8,47
30″	17,33, 2,19,50,42,25,57,38,52		1,16,59, 8,41	
		2, 0,10, 2,11,45,35,22		8,47
32″	17,33, 4,20, 0,44,37,43,14,14		1,16,59,17,28	
		2, 0,10, 0,54,46,17,54		8,47
34″	17,33, 6,20,10,45,32,29,32, 8		1,16,59,26,15	
		2, 0, 9,59,37,46,51,39		8,47
36″	17,33, 8,20,20,45,10,16,23,47		1,16,59,35, 2	
		2, 0, 9,58,20,47,16,37		8,47
38″	17,33,10,20,30,43,31, 3,40,24		1,16,59,43,49	
		2, 0, 9,57, 3,47,32,48		8,47
40″	17,33,12,20,40,40,34,51,13,12		1,16,59,52,36	
		2, 0, 9,55,46,47,40,12		8,47
42″	17,33,14,20,50,36,21,38,53,24		1,17, 0, 1,23	
		2, 0, 9,54,29,47,38,49		8,47
44″	17,33,16,21, 0,30,51,26,32,13		1,17, 0,10,10	
		2, 0, 9,53,12,47,28,39		8,47
46″	17,33,18,21,10,24, 4,14, 0,52		1,17, 0,18,57	
		2, 0, 9,51,55,47, 9,42		8,47
48″	17,33,20,21,20,16, 0, 1,10,34		1,17, 0,27,44	
		2, 0, 9,50,38,46,41,58		8,47
50″	17,33,22,21,30, 6,38,47,52,32		1,17, 0,36,31	
		2, 0, 9,49,21,46, 5,27		8,47
52″	17,33,24,21,39,56, 0,33,57,59		1,17, 0,45,18	
		2, 0, 9,48, 4,45,20, 9		8,47
54″	17,33,26,21,49,44, 5,19,18, 8		1,17, 0,54, 5	
		2, 0, 9,46,47,44,26, 4		8,47
56″	17,33,28,21,59,30,53, 3,44,12		1,17, 1, 2,52	
		2, 0, 9,45,30,43,23,12		8,47
58″	17,33,30,22, 9,16,23,47, 7,24		1,17, 1,11,39	
		2, 0, 9,44,13,42,11,33		
60″	17,33,32,22,19, 0,37,29,18,57			
exact	17,33,32,22,19, 0,37,29, 9,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17° 1′ 0″	17,33,32,22,19, 0,37,29, 9,11			
		2, 0, 9,42,56,40,50, 9		
2″	17,33,34,22,28,43,34, 9,59,20		1,17, 1,29,17	
		2, 0, 9,41,39,39,20,52		8,47
4″	17,33,36,22,38,25,13,49,20,12		1,17, 1,38, 4	
		2, 0, 9,40,22,37,42,48		8,47
6″	17,33,38,22,48, 5,36,27, 3, 0		1,17, 1,46,51	
		2, 0, 9,39, 5,35,55,57		8,47
8″	17,33,40,22,57,44,42, 2,58,57		1,17, 1,55,38	
		2, 0, 9,37,48,34, 0,19		8,47
10″	17,33,42,23, 7,22,30,36,59,16		1,17, 2, 4,25	
		2, 0, 9,36,31,31,55,54		8,47
12″	17,33,44,23,16,59, 2, 8,55,10		1,17, 2,13,12	
		2, 0, 9,35,14,29,42,42		8,47
14″	17,33,46,23,26,34,16,38,37,52		1,17, 2,21,59	
		2, 0, 9,33,57,27,20,43		8,47
16″	17,33,48,23,36, 8,14, 5,58,35		1,17, 2,30,46	
		2, 0, 9,32,40,24,49,57		8,47
18″	17,33,50,23,45,40,54,30,48,32		1,17, 2,39,33	
		2, 0, 9,31,23,22,10,24		8,47
20″	17,33,52,23,55,12,17,52,58,56		1,17, 2,48,20	
		2, 0, 9,30, 6,19,22, 4		8,47
22″	17,33,54,24, 4,42,24,12,21, 0		1,17, 2,57, 7	
		2, 0, 9,28,49,16,24,57		8,47
24″	17,33,56,24,14,11,13,28,45,57		1,17, 3, 5,54	
		2, 0, 9,27,32,13,19, 3		8,47
26″	17,33,58,24,23,38,45,42, 5, 0		1,17, 3,14,41	
		2, 0, 9,26,15,10, 4,22		8,47
28″	17,34, 0,24,33, 5, 0,52, 9,22		1,17, 3,23,28	
		2, 0, 9,24,58, 6,40,54		8,47
30″	17,34, 2,24,42,29,58,58,50,16		1,17, 3,32,15	
		2, 0, 9,23,41, 3, 8,39		8,47
32″	17,34, 4,24,51,53,40, 1,58,55		1,17, 3,41, 2	
		2, 0, 9,22,23,59,27,37		8,47
34″	17,34, 6,25, 1,16, 4, 1,26,32		1,17, 3,49,49	
		2, 0, 9,21, 6,55,37,48		8,47
36″	17,34, 8,25,10,37,10,57, 4,20		1,17, 3,58,36	
		2, 0, 9,19,49,51,39,12		8,47
38″	17,34,10,25,19,57, 0,48,43,32		1,17, 4, 7,23	
		2, 0, 9,18,32,47,31,49		8,47
40″	17,34,12,25,29,15,33,36,15,21		1,17, 4,16,10	
		2, 0, 9,17,15,43,15,39		8,47
42″	17,34,14,25,38,32,49,19,31, 0		1,17, 4,24,57	
		2, 0, 9,15,58,38,50,42		8,47
44″	17,34,16,25,47,48,47,58,21,42		1,17, 4,33,44	
		2, 0, 9,14,41,34,16,58		8,47
46″	17,34,18,25,57, 3,29,32,38,40		1,17, 4,42,31	
		2, 0, 9,13,24,29,34,27		8,47
48″	17,34,20,26, 6,16,54, 2,13, 7		1,17, 4,51,18	
		2, 0, 9,12, 7,24,43, 9		8,47
50″	17,34,22,26,15,29, 1,26,56,16		1,17, 5, 0, 5	
		2, 0, 9,10,50,19,43, 4		8,47
52″	17,34,24,26,24,39,51,46,39,20		1,17, 5, 8,52	
		2, 0, 9, 9,33,14,34,12		8,47
54″	17,34,26,26,33,49,25, 1,13,32		1,17, 5,17,39	
		2, 0, 9, 8,16, 9,16,33		8,47
56″	17,34,28,26,42,57,41,10,30, 5		1,17, 5,26,26	
		2, 0, 9, 6,59, 3,50, 7		8,47
58″	17,34,30,26,52, 4,40,14,20,12		1,17, 5,35,13	
		2, 0, 9, 5,41,58,14,54		
60″	17,34,32,27, 1,10,22,12,35, 6			
exact	17,34,32,27, 1,10,22,12,33,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17° 2′ 0″	17,34,32,27, 1,10,22,12,33,21	2, 0, 9, 4,24,52,30,36		
2″	17,34,34,27,10,14,47, 5, 3,57	2, 0, 9, 3, 7,46,37,48	1,17, 5,52,48	8,47
4″	17,34,36,27,19,17,54,51,41,45	2, 0, 9, 1,50,40,36,13	1,17, 6, 1,35	8,47
6″	17,34,38,27,28,19,45,32,17,58	2, 0, 9, 0,33,34,25,51	1,17, 6,10,22	8,47
8″	17,34,40,27,37,20,19, 6,43,49	2, 0, 8,59,16,28, 6,42	1,17, 6,19, 9	8,47
10″	17,34,42,27,46,19,35,34,50,31	2, 0, 8,57,59,21,38,46	1,17, 6,27,56	8,47
12″	17,34,44,27,55,17,34,56,29,17	2, 0, 8,56,42,15, 2, 3	1,17, 6,36,43	8,47
14″	17,34,46,28, 4,14,17,11,31,20	2, 0, 8,55,25, 8,16,33	1,17, 6,45,30	8,47
16″	17,34,48,28,13, 9,42,19,47,53	2, 0, 8,54, 8, 1,22,16	1,17, 6,54,17	8,47
18″	17,34,50,28,22, 3,50,21,10, 9	2, 0, 8,52,50,54,19,12	1,17, 7, 3, 4	8,47
20″	17,34,52,28,30,56,41,15,29,21	2, 0, 8,51,33,47, 7,21	1,17, 7,11,51	8,47
22″	17,34,54,28,39,48,15, 2,36,42	2, 0, 8,50,16,39,46,43	1,17, 7,20,38	8,47
24″	17,34,56,28,48,38,31,42,23,25	2, 0, 8,48,59,32,17,18	1,17, 7,29,25	8,47
26″	17,34,58,28,57,27,31,14,40,43	2, 0, 8,47,42,24,39, 6	1,17, 7,38,12	8,47
28″	17,35, 0,29, 6,15,13,39,19,49	2, 0, 8,46,25,16,52, 7	1,17, 7,46,59	8,47
30″	17,35, 2,29,15, 1,38,56,11,56	2, 0, 8,45, 8, 8,56,21	1,17, 7,55,46	8,47
32″	17,35, 4,29,23,46,47, 5, 8,17	2, 0, 8,43,51, 0,51,48	1,17, 8, 4,33	8,47
34″	17,35, 6,29,32,30,38, 6, 0, 5	2, 0, 8,42,33,52,38,28	1,17, 8,13,20	8,47
36″	17,35, 8,29,41,13,11,58,38,33	2, 0, 8,41,16,44,16,21	1,17, 8,22, 7	8,47
38″	17,35,10,29,49,54,28,42,54,54	2, 0, 8,39,59,35,45,27	1,17, 8,30,54	8,47
40″	17,35,12,29,58,34,28,18,40,21	2, 0, 8,38,42,27, 5,46	1,17, 8,39,41	8,47
42″	17,35,14,30, 7,13,10,45,46, 7	2, 0, 8,37,25,18,17,18	1,17, 8,48,28	8,47
44″	17,35,16,30,15,50,36, 4, 3,25	2, 0, 8,36, 8, 9,20, 3	1,17, 8,57,15	8,47
46″	17,35,18,30,24,26,44,13,23,28	2, 0, 8,34,51, 0,14, 1	1,17, 9, 6, 2	8,47
48″	17,35,20,30,33, 1,35,13,37,29	2, 0, 8,33,33,50,59,12	1,17, 9,14,49	8,47
50″	17,35,22,30,41,35, 9, 4,36,41	2, 0, 8,32,16,41,35,36	1,17, 9,23,36	8,47
52″	17,35,24,30,50, 7,25,46,12,17	2, 0, 8,30,59,32, 3,13	1,17, 9,32,23	8,47
54″	17,35,26,30,58,38,25,18,15,30	2, 0, 8,29,42,22,22, 3	1,17, 9,41,10	8,47
56″	17,35,28,31, 7, 8, 7,40,37,33	2, 0, 8,28,25,12,32, 6	1,17, 9,49,57	8,47
58″	17,35,30,31,15,36,32,53, 9,39	2, 0, 8,27, 8, 2,33,22	1,17, 9,58,44	
60″	17,35,32,31,24, 3,40,55,43, 1			
exact	17,35,32,31,24, 3,40,55,37,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17° 3′ 0″	17,35,32,31,24, 3,40,55,37,35			
		2, 0, 8,25,50,52,25,25		
2″	17,35,34,31,32,29,31,48, 3, 0		1,17,10,16,19	
		2, 0, 8,24,33,42, 9, 6		8,47
4″	17,35,36,31,40,54, 5,30,12, 6		1,17,10,25, 6	
		2, 0, 8,23,16,31,44, 0		8,47
6″	17,35,38,31,49,17,22, 1,56, 6		1,17,10,33,53	
		2, 0, 8,21,59,21,10, 7		8,47
8″	17,35,40,31,57,39,21,23, 6,13		1,17,10,42,40	
		2, 0, 8,20,42,10,27,27		8,47
10″	17,35,42,32, 6, 0, 3,33,33,40		1,17,10,51,27	
		2, 0, 8,19,24,59,36, 0		8,47
12″	17,35,44,32,14,19,28,33, 9,40		1,17,11, 0,14	
		2, 0, 8,18, 7,48,35,46		8,47
14″	17,35,46,32,22,37,36,21,45,26		1,17,11, 9, 1	
		2, 0, 8,16,50,37,26,45		8,47
16″	17,35,48,32,30,54,26,59,12,11		1,17,11,17,48	
		2, 0, 8,15,33,26, 8,57		8,47
18″	17,35,50,32,39,10, 0,25,21, 8		1,17,11,26,35	
		2, 0, 8,14,16,14,42,22		8,47
20″	17,35,52,32,47,24,16,40, 3,30		1,17,11,35,22	
		2, 0, 8,12,59, 3, 7, 0		8,47
22″	17,35,54,32,55,37,15,43,10,30		1,17,11,44, 9	
		2, 0, 8,11,41,51,22,51		8,47
24″	17,35,56,33, 3,48,57,34,33,21		1,17,11,52,56	
		2, 0, 8,10,24,39,29,55		8,47
26″	17,35,58,33,11,59,22,14, 3,16		1,17,12, 1,43	
		2, 0, 8, 9, 7,27,28,12		8,47
28″	17,36, 0,33,20, 8,29,41,31,28		1,17,12,10,30	
		2, 0, 8, 7,50,15,17,42		8,47
30″	17,36, 2,33,28,16,19,56,49,10		1,17,12,19,17	
		2, 0, 8, 6,33, 2,58,25		8,47
32″	17,36, 4,33,36,22,52,59,47,35		1,17,12,28, 4	
		2, 0, 8, 5,15,50,30,21		8,47
34″	17,36, 6,33,44,28, 8,50,17,56		1,17,12,36,51	
		2, 0, 8, 3,58,37,53,30		8,47
36″	17,36, 8,33,52,32, 7,28,11,26		1,17,12,45,38	
		2, 0, 8, 2,41,25, 7,52		8,47
38″	17,36,10,34, 0,34,48,53,19,18		1,17,12,54,25	
		2, 0, 8, 1,24,12,13,27		8,47
40″	17,36,12,34, 8,36,13, 5,32,45		1,17,13, 3,12	
		2, 0, 8, 0, 6,59,10,15		8,47
42″	17,36,14,34,16,36,20, 4,43, 0		1,17,13,11,59	
		2, 0, 7,58,49,45,58,16		8,47
44″	17,36,16,34,24,35, 9,50,41,16		1,17,13,20,46	
		2, 0, 7,57,32,32,37,30		8,47
46″	17,36,18,34,32,32,42,23,18,46		1,17,13,29,33	
		2, 0, 7,56,15,19, 7,57		8,47
48″	17,36,20,34,40,28,57,42,26,43		1,17,13,38,20	
		2, 0, 7,54,58, 5,29,37		8,47
50″	17,36,22,34,48,23,55,47,56,20		1,17,13,47, 7	
		2, 0, 7,53,40,51,42,30		8,47
52″	17,36,24,34,56,17,36,39,38,50		1,17,13,55,54	
		2, 0, 7,52,23,37,46,36		8,47
54″	17,36,26,35, 4,10, 0,17,25,26		1,17,14, 4,41	
		2, 0, 7,51, 6,23,41,55		8,47
56″	17,36,28,35,12, 1, 6,41, 7,21		1,17,14,13,28	
		2, 0, 7,49,49, 9,28,27		8,47
58″	17,36,30,35,19,50,55,50,35,48		1,17,14,22,15	
		2, 0, 7,48,31,55, 6,12		
60″	17,36,32,35,27,39,27,45,42, 0			
exact	17,36,32,35,27,39,27,45,43, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17° 4′ 0″	17,36,32,35,27,39,27,45,43, 7	2, 0, 7,47,14,40,35,19		
2″	17,36,34,35,35,26,42,26,18,26	2, 0, 7,45,57,25,55,31	1,17,14,39,48	8,47
4″	17,36,36,35,43,12,39,52,13,57	2, 0, 7,44,40,11, 6,56	1,17,14,48,35	8,47
6″	17,36,38,35,50,57,20, 3,20,53	2, 0, 7,43,22,56, 9,34	1,17,14,57,22	8,47
8″	17,36,40,35,58,40,42,59,30,27	2, 0, 7,42, 5,41, 3,25	1,17,15, 6, 9	8,47
10″	17,36,42,36, 6,22,48,40,33,52	2, 0, 7,40,48,25,48,29	1,17,15,14,56	8,47
12″	17,36,44,36,14, 3,37, 6,22,21	2, 0, 7,39,31,10,24,46	1,17,15,23,43	8,47
14″	17,36,46,36,21,43, 8,16,47, 7	2, 0, 7,38,13,54,52,16	1,17,15,32,30	8,47
16″	17,36,48,36,29,21,22,11,39,23	2, 0, 7,36,56,39,10,59	1,17,15,41,17	8,47
18″	17,36,50,36,36,58,18,50,50,22	2, 0, 7,35,39,23,20,55	1,17,15,50, 4	8,47
20″	17,36,52,36,44,33,58,14,11,17	2, 0, 7,34,22, 7,22, 4	1,17,15,58,51	8,47
22″	17,36,54,36,52, 8,20,21,33,21	2, 0, 7,33, 4,51,14,26	1,17,16, 7,38	8,47
24″	17,36,56,36,59,41,25,12,47,47	2, 0, 7,31,47,34,58, 1	1,17,16,16,25	8,47
26″	17,36,58,37, 7,13,12,47,45,48	2, 0, 7,30,30,18,32,49	1,17,16,25,12	8,47
28″	17,37, 0,37,14,43,43, 6,18,37	2, 0, 7,29,13, 1,58,50	1,17,16,33,59	8,47
30″	17,37, 2,37,22,12,56, 8,17,27	2, 0, 7,27,55,45,16, 4	1,17,16,42,46	8,47
32″	17,37, 4,37,29,40,51,53,33,31	2, 0, 7,26,38,28,24,31	1,17,16,51,33	8,47
34″	17,37, 6,37,37, 7,30,21,58, 2	2, 0, 7,25,21,11,24,11	1,17,17, 0,20	8,47
36″	17,37, 8,37,44,32,51,33,22,13	2, 0, 7,24, 3,54,15, 4	1,17,17, 9, 7	8,47
38″	17,37,10,37,51,56,55,27,37,17	2, 0, 7,22,46,36,57,10	1,17,17,17,54	8,47
40″	17,37,12,37,59,19,42, 4,34,27	2, 0, 7,21,29,19,30,29	1,17,17,26,41	8,47
42″	17,37,14,38, 6,41,11,24, 4,56	2, 0, 7,20,12, 1,55, 1	1,17,17,35,28	8,47
44″	17,37,16,38,14, 1,23,25,59,57	2, 0, 7,18,54,44,10,46	1,17,17,44,15	8,47
46″	17,37,18,38,21,20,18,10,10,43	2, 0, 7,17,37,26,17,44	1,17,17,53, 2	8,47
48″	17,37,20,38,28,37,55,36,28,27	2, 0, 7,16,20, 8,15,55	1,17,18, 1,49	8,47
50″	17,37,22,38,35,54,15,44,44,22	2, 0, 7,15, 2,50, 5,19	1,17,18,10,36	8,47
52″	17,37,24,38,43, 9,18,34,49,41	2, 0, 7,13,45,31,45,56	1,17,18,19,23	8,47
54″	17,37,26,38,50,23, 4, 6,35,37	2, 0, 7,12,28,13,17,46	1,17,18,28,10	8,47
56″	17,37,28,38,57,35,32,19,53,23	2, 0, 7,11,10,54,40,49	1,17,18,36,57	8,47
58″	17,37,30,39, 4,46,43,14,34,12	2, 0, 7, 9,53,35,55, 5	1,17,18,45,44	
60″	17,37,32,39,11,56,36,50,29,17			
exact	17,37,32,39,11,56,36,50,32,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17° 5′ 0″	17,37,32,39,11,56,36,50,32,18			
		2, 0, 7, 8,36,17, 0,59		
2″	17,37,34,39,19, 5,13, 7,33,17		1,17,19, 3,16	
		2, 0, 7, 7,18,57,57,43		8,47
4″	17,37,36,39,26,12,32, 5,31, 0		1,17,19,12, 3	
		2, 0, 7, 6, 1,38,45,40		8,47
6″	17,37,38,39,33,18,33,44,16,40		1,17,19,20,50	
		2, 0, 7, 4,44,19,24,50		8,47
8″	17,37,40,39,40,23,18, 3,41,30		1,17,19,29,37	
		2, 0, 7, 3,26,59,55,13		8,47
10″	17,37,42,39,47,26,45, 3,36,43		1,17,19,38,24	
		2, 0, 7, 2, 9,40,16,49		8,47
12″	17,37,44,39,54,28,54,43,53,32		1,17,19,47,11	
		2, 0, 7, 0,52,20,29,38		8,47
14″	17,37,46,40, 1,29,47, 4,23,10		1,17,19,55,58	
		2, 0, 6,59,35, 0,33,40		8,47
16″	17,37,48,40, 8,29,22, 4,56,50		1,17,20, 4,45	
		2, 0, 6,58,17,40,28,55		8,47
18″	17,37,50,40,15,27,39,45,25,45		1,17,20,13,32	
		2, 0, 6,57, 0,20,15,23		8,47
20″	17,37,52,40,22,24,40, 5,41, 8		1,17,20,22,19	
		2, 0, 6,55,42,59,53, 4		8,47
22″	17,37,54,40,29,20,23, 5,34,12		1,17,20,31, 6	
		2, 0, 6,54,25,39,21,58		8,47
24″	17,37,56,40,36,14,48,44,56,10		1,17,20,39,53	
		2, 0, 6,53, 8,18,42, 5		8,47
26″	17,37,58,40,43, 7,57, 3,38,15		1,17,20,48,40	
		2, 0, 6,51,50,57,53,25		8,47
28″	17,38, 0,40,49,59,48, 1,31,40		1,17,20,57,27	
		2, 0, 6,50,33,36,55,58		8,47
30″	17,38, 2,40,56,50,21,38,27,38		1,17,21, 6,14	
		2, 0, 6,49,16,15,49,44		8,47
32″	17,38, 4,41, 3,39,37,54,17,22		1,17,21,15, 1	
		2, 0, 6,47,58,54,34,43		8,47
34″	17,38, 6,41,10,27,36,48,52, 5		1,17,21,23,48	
		2, 0, 6,46,41,33,10,55		8,47
36″	17,38, 8,41,17,14,18,22, 3, 0		1,17,21,32,35	
		2, 0, 6,45,24,11,38,20		8,47
38″	17,38,10,41,23,59,42,33,41,20		1,17,21,41,22	
		2, 0, 6,44, 6,49,56,58		8,47
40″	17,38,12,41,30,43,49,23,38,18		1,17,21,50, 9	
		2, 0, 6,42,49,28, 6,49		8,47
42″	17,38,14,41,37,26,38,51,45, 7		1,17,21,58,56	
		2, 0, 6,41,32, 6, 7,53		8,47
44″	17,38,16,41,44, 8,10,57,53, 0		1,17,22, 7,43	
		2, 0, 6,40,14,44, 0,10		8,47
46″	17,38,18,41,50,48,25,41,53,10		1,17,22,16,30	
		2, 0, 6,38,57,21,43,40		8,47
48″	17,38,20,41,57,27,23, 3,36,50		1,17,22,25,17	
		2, 0, 6,37,39,59,18,23		8,47
50″	17,38,22,42, 4, 5, 3, 2,55,13		1,17,22,34, 4	
		2, 0, 6,36,22,36,44,19		8,47
52″	17,38,24,42,10,41,25,39,39,32		1,17,22,42,51	
		2, 0, 6,35, 5,14, 1,28		8,47
54″	17,38,26,42,17,16,30,53,41, 0		1,17,22,51,38	
		2, 0, 6,33,47,51, 9,50		8,47
56″	17,38,28,42,23,50,18,44,50,50		1,17,23, 0,25	
		2, 0, 6,32,30,28, 9,25		8,47
58″	17,38,30,42,30,22,49,13, 0,15		1,17,23, 9,12	
		2, 0, 6,31,13, 5, 0,13		
60″	17,38,32,42,36,54, 2,18, 0,28			
exact	17,38,32,42,36,54, 2,18, 8,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17° 6′ 0″	17,38,32,42,36,54, 2,18, 8,40			
		2, 0, 6,29,55,41,43, 7		
2″	17,38,34,42,43,23,57,59,51,47		1,17,23,26,42	
		2, 0, 6,28,38,18,16,25		8,47
4″	17,38,36,42,49,52,36,18, 8,12		1,17,23,35,29	
		2, 0, 6,27,20,54,40,56		8,47
6″	17,38,38,42,56,19,57,12,49, 8		1,17,23,44,16	
		2, 0, 6,26, 3,30,56,40		8,47
8″	17,38,40,43, 2,46, 0,43,45,48		1,17,23,53, 3	
		2, 0, 6,24,46, 7, 3,37		8,47
10″	17,38,42,43, 9,10,46,50,49,25		1,17,24, 1,50	
		2, 0, 6,23,28,43, 1,47		8,47
12″	17,38,44,43,15,34,15,33,51,12		1,17,24,10,37	
		2, 0, 6,22,11,18,51,10		8,47
14″	17,38,46,43,21,56,26,52,42,22		1,17,24,19,24	
		2, 0, 6,20,53,54,31,46		8,47
16″	17,38,48,43,28,17,20,47,14, 8		1,17,24,28,11	
		2, 0, 6,19,36,30, 3,35		8,47
18″	17,38,50,43,34,36,57,17,17,43		1,17,24,36,58	
		2, 0, 6,18,19, 5,26,37		8,47
20″	17,38,52,43,40,55,16,22,44,20		1,17,24,45,45	
		2, 0, 6,17, 1,40,40,52		8,47
22″	17,38,54,43,47,12,18, 3,25,12		1,17,24,54,32	
		2, 0, 6,15,44,15,46,20		8,47
24″	17,38,56,43,53,28, 2,19,11,32		1,17,25, 3,19	
		2, 0, 6,14,26,50,43, 1		8,47
26″	17,38,58,43,59,42,29, 9,54,33		1,17,25,12, 6	
		2, 0, 6,13, 9,25,30,55		8,47
28″	17,39, 0,44, 5,55,38,35,25,28		1,17,25,20,53	
		2, 0, 6,11,52, 0,10, 2		8,47
30″	17,39, 2,44,12, 7,30,35,35,30		1,17,25,29,40	
		2, 0, 6,10,34,34,40,22		8,47
32″	17,39, 4,44,18,18, 5,10,15,52		1,17,25,38,27	
		2, 0, 6, 9,17, 9, 1,55		8,47
34″	17,39, 6,44,24,27,22,19,17,47		1,17,25,47,14	
		2, 0, 6, 7,59,43,14,41		8,47
36″	17,39, 8,44,30,35,22, 2,32,28		1,17,25,56, 1	
		2, 0, 6, 6,42,17,18,40		8,47
38″	17,39,10,44,36,42, 4,19,51, 8		1,17,26, 4,48	
		2, 0, 6, 5,24,51,13,52		8,47
40″	17,39,12,44,42,47,29,11, 5, 0		1,17,26,13,35	
		2, 0, 6, 4, 7,25, 0,17		8,47
42″	17,39,14,44,48,51,36,36, 5,17		1,17,26,22,22	
		2, 0, 6, 2,49,58,37,55		8,47
44″	17,39,16,44,54,54,26,34,43,12		1,17,26,31, 9	
		2, 0, 6, 1,32,32, 6,46		8,47
46″	17,39,18,45, 0,55,59, 6,49,58		1,17,26,39,56	
		2, 0, 6, 0,15, 5,26,50		8,47
48″	17,39,20,45, 6,56,14,12,16,48		1,17,26,48,43	
		2, 0, 5,58,57,38,38, 7		8,47
50″	17,39,22,45,12,55,11,50,54,55		1,17,26,57,30	
		2, 0, 5,57,40,11,40,37		8,47
52″	17,39,24,45,18,52,52, 2,35,32		1,17,27, 6,17	
		2, 0, 5,56,22,44,34,20		8,47
54″	17,39,26,45,24,49,14,47, 9,52		1,17,27,15, 4	
		2, 0, 5,55, 5,17,19,16		8,47
56″	17,39,28,45,30,44,20, 4,29, 8		1,17,27,23,51	
		2, 0, 5,53,47,49,55,25		8,47
58″	17,39,30,45,36,38, 7,54,24,33		1,17,27,32,38	
		2, 0, 5,52,30,22,22,47		
60″	17,39,32,45,42,30,38,16,47,20			
exact	17,39,32,45,42,30,38,16,56,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17° 7′ 0″	17,39,32,45,42,30,38,16,56,57	2, 0, 5,51,12,54,42,28		
2″	17,39,34,45,48,21,51,11,39,25	2, 0, 5,49,55,26,52,21	1,17,27,50, 7	8,47
4″	17,39,36,45,54,11,46,38,31,46	2, 0, 5,48,37,58,53,27	1,17,27,58,54	8,47
6″	17,39,38,46, 0, 0,24,37,25,13	2, 0, 5,47,20,30,45,46	1,17,28, 7,41	8,47
8″	17,39,40,46, 5,47,45, 8,10,59	2, 0, 5,46, 3, 2,29,18	1,17,28,16,28	8,47
10″	17,39,42,46,11,33,48,10,40,17	2, 0, 5,44,45,34, 4, 3	1,17,28,25,15	8,47
12″	17,39,44,46,17,18,33,44,44,20	2, 0, 5,43,28, 5,30, 1	1,17,28,34, 2	8,47
14″	17,39,46,46,23, 2, 1,50,14,21	2, 0, 5,42,10,36,47,12	1,17,28,42,49	8,47
16″	17,39,48,46,28,44,12,27, 1,33	2, 0, 5,40,53, 7,55,36	1,17,28,51,36	8,47
18″	17,39,50,46,34,25, 5,34,57, 9	2, 0, 5,39,35,38,55,13	1,17,29, 0,23	8,47
20″	17,39,52,46,40, 4,41,13,52,22	2, 0, 5,38,18, 9,46, 3	1,17,29, 9,10	8,47
22″	17,39,54,46,45,42,59,23,38,25	2, 0, 5,37, 0,40,28, 6	1,17,29,17,57	8,47
24″	17,39,56,46,51,20, 0, 4, 6,31	2, 0, 5,35,43,11, 1,22	1,17,29,26,44	8,47
26″	17,39,58,46,56,55,43,15, 7,53	2, 0, 5,34,25,41,25,51	1,17,29,35,31	8,47
28″	17,40, 0,47, 2,30, 8,56,33,44	2, 0, 5,33, 8,11,41,33	1,17,29,44,18	8,47
30″	17,40, 2,47, 8, 3,17, 8,15,17	2, 0, 5,31,50,41,48,28	1,17,29,53, 5	8,47
32″	17,40, 4,47,13,35, 7,50, 3,45	2, 0, 5,30,33,11,46,36	1,17,30, 1,52	8,47
34″	17,40, 6,47,19, 5,41, 1,50,21	2, 0, 5,29,15,41,35,57	1,17,30,10,39	8,47
36″	17,40, 8,47,24,34,56,43,26,18	2, 0, 5,27,58,11,16,31	1,17,30,19,26	8,47
38″	17,40,10,47,30, 2,54,54,42,49	2, 0, 5,26,40,40,48,18	1,17,30,28,13	8,47
40″	17,40,12,47,35,29,35,35,31, 7	2, 0, 5,25,23,10,11,18	1,17,30,37, 0	8,47
42″	17,40,14,47,40,54,58,45,42,25	2, 0, 5,24, 5,39,25,31	1,17,30,45,47	8,47
44″	17,40,16,47,46,19, 4,25, 7,56	2, 0, 5,22,48, 8,30,57	1,17,30,54,34	8,47
46″	17,40,18,47,51,41,52,33,38,53	2, 0, 5,21,30,37,27,36	1,17,31, 3,21	8,47
48″	17,40,20,47,57, 3,23,11, 6,29	2, 0, 5,20,13, 6,15,28	1,17,31,12, 8	8,47
50″	17,40,22,48, 2,23,36,17,21,57	2, 0, 5,18,55,34,54,33	1,17,31,20,55	8,47
52″	17,40,24,48, 7,42,31,52,16,30	2, 0, 5,17,38, 3,24,51	1,17,31,29,42	8,47
54″	17,40,26,48,13, 0, 9,55,41,21	2, 0, 5,16,20,31,46,22	1,17,31,38,29	8,47
56″	17,40,28,48,18,16,30,27,27,43	2, 0, 5,15, 2,59,59, 6	1,17,31,47,16	8,47
58″	17,40,30,48,23,31,33,27,26,49	2, 0, 5,13,45,28, 3, 3	1,17,31,56, 3	
60″	17,40,32,48,28,45,18,55,29,52			
exact	17,40,32,48,28,45,18,55,43, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17° 8′ 0″	17,40,32,48,28,45,18,55,43, 7	2, 0, 5,12,27,55,59,42		
2″	17,40,34,48,33,57,46,51,42,49	2, 0, 5,11,10,23,46,11	1,17,32,13,31	8,47
4″	17,40,36,48,39, 8,57,15,29, 0	2, 0, 5, 9,52,51,23,53	1,17,32,22,18	8,47
6″	17,40,38,48,44,18,50, 6,52,53	2, 0, 5, 8,35,18,52,48	1,17,32,31, 5	8,47
8″	17,40,40,48,49,27,25,25,45,41	2, 0, 5, 7,17,46,12,56	1,17,32,39,52	8,47
10″	17,40,42,48,54,34,43,11,58,37	2, 0, 5, 6, 0,13,24,17	1,17,32,48,39	8,47
12″	17,40,44,48,59,40,43,25,22,54	2, 0, 5, 4,42,40,26,51	1,17,32,57,26	8,47
14″	17,40,46,49, 4,45,26, 5,49,45	2, 0, 5, 3,25, 7,20,38	1,17,33, 6,13	8,47
16″	17,40,48,49, 9,48,51,13,10,23	2, 0, 5, 2, 7,34, 5,38	1,17,33,15, 0	8,47
18″	17,40,50,49,14,50,58,47,16, 1	2, 0, 5, 0,50, 0,41,51	1,17,33,23,47	8,47
20″	17,40,52,49,19,51,48,47,57,52	2, 0, 4,59,32,27, 9,17	1,17,33,32,34	8,47
22″	17,40,54,49,24,51,21,15, 7, 9	2, 0, 4,58,14,53,27,56	1,17,33,41,21	8,47
24″	17,40,56,49,29,49,36, 8,35, 5	2, 0, 4,56,57,19,37,48	1,17,33,50, 8	8,47
26″	17,40,58,49,34,46,33,28,12,53	2, 0, 4,55,39,45,38,53	1,17,33,58,55	8,47
28″	17,41, 0,49,39,42,13,13,51,46	2, 0, 4,54,22,11,31,11	1,17,34, 7,42	8,47
30″	17,41, 2,49,44,36,35,25,22,57	2, 0, 4,53, 4,37,14,42	1,17,34,16,29	8,47
32″	17,41, 4,49,49,29,40, 2,37,39	2, 0, 4,51,47, 2,49,26	1,17,34,25,16	8,47
34″	17,41, 6,49,54,21,27, 5,27, 5	2, 0, 4,50,29,28,15,23	1,17,34,34, 3	8,47
36″	17,41, 8,49,59,11,56,33,42,28	2, 0, 4,49,11,53,32,33	1,17,34,42,50	8,47
38″	17,41,10,50, 4, 1, 8,27,15, 1	2, 0, 4,47,54,18,40,56	1,17,34,51,37	8,47
40″	17,41,12,50, 8,49, 2,45,55,57	2, 0, 4,46,36,43,40,32	1,17,35, 0,24	8,47
42″	17,41,14,50,13,35,39,29,36,29	2, 0, 4,45,19, 8,31,21	1,17,35, 9,11	8,47
44″	17,41,16,50,18,20,58,38, 7,50	2, 0, 4,44, 1,33,13,23	1,17,35,17,58	8,47
46″	17,41,18,50,23, 5, 0,11,21,13	2, 0, 4,42,43,57,46,38	1,17,35,26,45	8,47
48″	17,41,20,50,27,47,44, 9, 7,51	2, 0, 4,41,26,22,11, 6	1,17,35,35,32	8,47
50″	17,41,22,50,32,29,10,31,18,57	2, 0, 4,40, 8,46,26,47	1,17,35,44,19	8,47
52″	17,41,24,50,37, 9,19,17,45,44	2, 0, 4,38,51,10,33,41	1,17,35,53, 6	8,47
54″	17,41,26,50,41,48,10,28,19,25	2, 0, 4,37,33,34,31,48	1,17,36, 1,53	8,47
56″	17,41,28,50,46,25,44, 2,51,13	2, 0, 4,36,15,58,21, 8	1,17,36,10,40	8,47
58″	17,41,30,50,51, 2, 0, 1,12,21	2, 0, 4,34,58,22, 1,41	1,17,36,19,27	
60″	17,41,32,50,55,36,58,23,14, 2			
exact	17,41,32,50,55,36,58,23,34,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17° 9′ 0″	17,41,32,50,55,36,58,23,34,21	2, 0, 4,33,40,45,35,32		
2″	17,41,34,51, 0,10,39, 9, 9,53	2, 0, 4,32,23, 8,58,39	1,17,36,36,53	8,47
4″	17,41,36,51, 4,43, 2,18, 8,32	2, 0, 4,31, 5,32,12,59	1,17,36,45,40	8,47
6″	17,41,38,51, 9,14, 7,50,21,31	2, 0, 4,29,47,55,18,32	1,17,36,54,27	8,47
8″	17,41,40,51,13,43,55,45,40, 3	2, 0, 4,28,30,18,15,18	1,17,37, 3,14	8,47
10″	17,41,42,51,18,12,26, 3,55,21	2, 0, 4,27,12,41, 3,17	1,17,37,12, 1	8,47
12″	17,41,44,51,22,39,38,44,58,38	2, 0, 4,25,55, 3,42,29	1,17,37,20,48	8,47
14″	17,41,46,51,27, 5,33,48,41, 7	2, 0, 4,24,37,26,12,54	1,17,37,29,35	8,47
16″	17,41,48,51,31,30,11,14,54, 1	2, 0, 4,23,19,48,34,32	1,17,37,38,22	8,47
18″	17,41,50,51,35,53,31, 3,28,33	2, 0, 4,22, 2,10,47,23	1,17,37,47, 9	8,47
20″	17,41,52,51,40,15,33,14,15,56	2, 0, 4,20,44,32,51,27	1,17,37,55,56	8,47
22″	17,41,54,51,44,36,17,47, 7,23	2, 0, 4,19,26,54,46,44	1,17,38, 4,43	8,47
24″	17,41,56,51,48,55,44,41,54, 7	2, 0, 4,18, 9,16,33,14	1,17,38,13,30	8,47
26″	17,41,58,51,53,13,53,58,27,21	2, 0, 4,16,51,38,10,57	1,17,38,22,17	8,47
28″	17,42, 0,51,57,30,45,36,38,18	2, 0, 4,15,33,59,39,53	1,17,38,31, 4	8,47
30″	17,42, 2,52, 1,46,19,36,18,11	2, 0, 4,14,16,21, 0, 2	1,17,38,39,51	8,47
32″	17,42, 4,52, 6, 0,35,57,18,13	2, 0, 4,12,58,42,11,24	1,17,38,48,38	8,47
34″	17,42, 6,52,10,13,34,39,29,37	2, 0, 4,11,41, 3,13,59	1,17,38,57,25	8,47
36″	17,42, 8,52,14,25,15,42,43,36	2, 0, 4,10,23,24, 7,47	1,17,39, 6,12	8,47
38″	17,42,10,52,18,35,39, 6,51,23	2, 0, 4, 9, 5,44,52,48	1,17,39,14,59	8,47
40″	17,42,12,52,22,44,44,51,44,11	2, 0, 4, 7,48, 5,29, 2	1,17,39,23,46	8,47
42″	17,42,14,52,26,52,32,57,13,13	2, 0, 4, 6,30,25,56,29	1,17,39,32,33	8,47
44″	17,42,16,52,30,59, 3,23, 9,42	2, 0, 4, 5,12,46,15, 9	1,17,39,41,20	8,47
46″	17,42,18,52,35, 4,16, 9,24,51	2, 0, 4, 3,55, 6,25, 2	1,17,39,50, 7	8,47
48″	17,42,20,52,39, 8,11,15,49,53	2, 0, 4, 2,37,26,26, 8	1,17,39,58,54	8,47
50″	17,42,22,52,43,10,48,42,16, 1	2, 0, 4, 1,19,46,18,27	1,17,40, 7,41	8,47
52″	17,42,24,52,47,12, 8,28,34,28	2, 0, 4, 0, 2, 6, 1,59	1,17,40,16,28	8,47
54″	17,42,26,52,51,12,10,34,36,27	2, 0, 3,58,44,25,36,44	1,17,40,25,15	8,47
56″	17,42,28,52,55,10,55, 0,13,11	2, 0, 3,57,26,45, 2,42	1,17,40,34, 2	8,47
58″	17,42,30,52,59, 8,21,45,15,53	2, 0, 3,56, 9, 4,19,53	1,17,40,42,49	
60″	17,42,32,53, 3, 4,30,49,35,46			
exact	17,42,32,53, 3, 4,30,49,59, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°10′ 0″	17,42,32,53, 3, 4,30,49,59, 6			
		2, 0, 3,54,51,23,30,42		
2″	17,42,34,53, 6,59,22,13,29,48		1,17,41, 0,13	
		2, 0, 3,53,33,42,30,29		8,47
4″	17,42,36,53,10,52,55,56, 0,17		1,17,41, 9, 0	
		2, 0, 3,52,16, 1,21,29		8,47
6″	17,42,38,53,14,45,11,57,21,46		1,17,41,17,47	
		2, 0, 3,50,58,20, 3,42		8,47
8″	17,42,40,53,18,36,10,17,25,28		1,17,41,26,34	
		2, 0, 3,49,40,38,37, 8		8,47
10″	17,42,42,53,22,25,50,56, 2,36		1,17,41,35,21	
		2, 0, 3,48,22,57, 1,47		8,47
12″	17,42,44,53,26,14,13,53, 4,23		1,17,41,44, 8	
		2, 0, 3,47, 5,15,17,39		8,47
14″	17,42,46,53,30, 1,19, 8,22, 2		1,17,41,52,55	
		2, 0, 3,45,47,33,24,44		8,47
16″	17,42,48,53,33,47, 6,41,46,46		1,17,42, 1,42	
		2, 0, 3,44,29,51,23, 2		8,47
18″	17,42,50,53,37,31,36,33, 9,48		1,17,42,10,29	
		2, 0, 3,43,12, 9,12,33		8,47
20″	17,42,52,53,41,14,48,42,22,21		1,17,42,19,16	
		2, 0, 3,41,54,26,53,17		8,47
22″	17,42,54,53,44,56,43, 9,15,38		1,17,42,28, 3	
		2, 0, 3,40,36,44,25,14		8,47
24″	17,42,56,53,48,37,19,53,40,52		1,17,42,36,50	
		2, 0, 3,39,19, 1,48,24		8,47
26″	17,42,58,53,52,16,38,55,29,16		1,17,42,45,37	
		2, 0, 3,38, 1,19, 2,47		8,47
28″	17,43, 0,53,55,54,40,14,32, 3		1,17,42,54,24	
		2, 0, 3,36,43,36, 8,23		8,47
30″	17,43, 2,53,59,31,23,50,40,26		1,17,43, 3,11	
		2, 0, 3,35,25,53, 5,12		8,47
32″	17,43, 4,54, 3, 6,49,43,45,38		1,17,43,11,58	
		2, 0, 3,34, 8, 9,53,14		8,47
34″	17,43, 6,54, 6,40,57,53,38,52		1,17,43,20,45	
		2, 0, 3,32,50,26,32,29		8,47
36″	17,43, 8,54,10,13,48,20,11,21		1,17,43,29,32	
		2, 0, 3,31,32,43, 2,57		8,47
38″	17,43,10,54,13,45,21, 3,14,18		1,17,43,38,19	
		2, 0, 3,30,14,59,24,38		8,47
40″	17,43,12,54,17,15,36, 2,38,56		1,17,43,47, 6	
		2, 0, 3,28,57,15,37,32		8,47
42″	17,43,14,54,20,44,33,18,16,28		1,17,43,55,53	
		2, 0, 3,27,39,31,41,39		8,47
44″	17,43,16,54,24,12,12,49,58, 7		1,17,44, 4,40	
		2, 0, 3,26,21,47,36,59		8,47
46″	17,43,18,54,27,38,34,37,35, 6		1,17,44,13,27	
		2, 0, 3,25, 4, 3,23,32		8,47
48″	17,43,20,54,31, 3,38,40,58,38		1,17,44,22,14	
		2, 0, 3,23,46,19, 1,18		8,47
50″	17,43,22,54,34,27,24,59,59,56		1,17,44,31, 1	
		2, 0, 3,22,28,34,30,17		8,47
52″	17,43,24,54,37,49,53,34,30,13		1,17,44,39,48	
		2, 0, 3,21,10,49,50,29		8,47
54″	17,43,26,54,41,11, 4,24,20,42		1,17,44,48,35	
		2, 0, 3,19,53, 5, 1,54		8,47
56″	17,43,28,54,44,30,57,29,22,36		1,17,44,57,22	
		2, 0, 3,18,35,20, 4,32		8,47
58″	17,43,30,54,47,49,32,49,27, 8		1,17,45, 6, 9	
		2, 0, 3,17,17,34,58,23		
60″	17,43,32,54,51, 6,50,24,25,31			
exact	17,43,32,54,51, 6,50,24,47, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°11′ 0″	17,43,32,54,51, 6,50,24,47, 4	2, 0, 3,15,59,49,45,52		
2″	17,43,34,54,54,22,50,14,32,56	2, 0, 3,14,42, 4,22,20	1,17,45,23,32	8,47
4″	17,43,36,54,57,37,32,18,55,16	2, 0, 3,13,24,18,50, 1	1,17,45,32,19	8,47
6″	17,43,38,55, 0,50,56,37,45,17	2, 0, 3,12, 6,33, 8,55	1,17,45,41, 6	8,47
8″	17,43,40,55, 4, 3, 3,10,54,12	2, 0, 3,10,48,47,19, 2	1,17,45,49,53	8,47
10″	17,43,42,55, 7,13,51,58,13,14	2, 0, 3, 9,31, 1,20,22	1,17,45,58,40	8,47
12″	17,43,44,55,10,23,22,59,33,36	2, 0, 3, 8,13,15,12,55	1,17,46, 7,27	8,47
14″	17,43,46,55,13,31,36,14,46,31	2, 0, 3, 6,55,28,56,41	1,17,46,16,14	8,47
16″	17,43,48,55,16,38,31,43,43,12	2, 0, 3, 5,37,42,31,40	1,17,46,25, 1	8,47
18″	17,43,50,55,19,44, 9,26,14,52	2, 0, 3, 4,19,55,57,52	1,17,46,33,48	8,47
20″	17,43,52,55,22,48,29,22,12,44	2, 0, 3, 3, 2, 9,15,17	1,17,46,42,35	8,47
22″	17,43,54,55,25,51,31,31,28, 1	2, 0, 3, 1,44,22,23,55	1,17,46,51,22	8,47
24″	17,43,56,55,28,53,15,53,51,56	2, 0, 3, 0,26,35,23,46	1,17,47, 0, 9	8,47
26″	17,43,58,55,31,53,42,29,15,42	2, 0, 2,59, 8,48,14,50	1,17,47, 8,56	8,47
28″	17,44, 0,55,34,52,51,17,30,32	2, 0, 2,57,51, 0,57, 7	1,17,47,17,43	8,47
30″	17,44, 2,55,37,50,42,18,27,39	2, 0, 2,56,33,13,30,37	1,17,47,26,30	8,47
32″	17,44, 4,55,40,47,15,31,58,16	2, 0, 2,55,15,25,55,20	1,17,47,35,17	8,47
34″	17,44, 6,55,43,42,30,57,53,36	2, 0, 2,53,57,38,11,16	1,17,47,44, 4	8,47
36″	17,44, 8,55,46,36,28,36, 4,52	2, 0, 2,52,39,50,18,25	1,17,47,52,51	8,47
38″	17,44,10,55,49,29, 8,26,23,17	2, 0, 2,51,22, 2,16,47	1,17,48, 1,38	8,47
40″	17,44,12,55,52,20,30,28,40, 4	2, 0, 2,50, 4,14, 6,22	1,17,48,10,25	8,47
42″	17,44,14,55,55,10,34,42,46,26	2, 0, 2,48,46,25,47,10	1,17,48,19,12	8,47
44″	17,44,16,55,57,59,21, 8,33,36	2, 0, 2,47,28,37,19,11	1,17,48,27,59	8,47
46″	17,44,18,56, 0,46,49,45,52,47	2, 0, 2,46,10,48,42,25	1,17,48,36,46	8,47
48″	17,44,20,56, 3,33, 0,34,35,12	2, 0, 2,44,52,59,56,52	1,17,48,45,33	8,47
50″	17,44,22,56, 6,17,53,34,32, 4	2, 0, 2,43,35,11, 2,32	1,17,48,54,20	8,47
52″	17,44,24,56, 9, 1,28,45,34,36	2, 0, 2,42,17,21,59,25	1,17,49, 3, 7	8,47
54″	17,44,26,56,11,43,46, 7,34, 1	2, 0, 2,40,59,32,47,31	1,17,49,11,54	8,47
56″	17,44,28,56,14,24,45,40,21,32	2, 0, 2,39,41,43,26,50	1,17,49,20,41	8,47
58″	17,44,30,56,17, 4,27,23,48,22	2, 0, 2,38,23,53,57,22	1,17,49,29,28	
60″	17,44,32,56,19,42,51,17,45,44			
exact	17,44,32,56,19,42,51,18, 9,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°12′ 0″	17,44,32,56,19,42,51,18, 9,17			
		2, 0, 2,37, 6, 4,21,47		
2″	17,44,34,56,22,19,57,22,31, 4		1,17,49,46,50	
		2, 0, 2,35,48,14,34,57		8,47
4″	17,44,36,56,24,55,45,37, 6, 1		1,17,49,55,37	
		2, 0, 2,34,30,24,39,20		8,47
6″	17,44,38,56,27,30,16, 1,45,21		1,17,50, 4,24	
		2, 0, 2,33,12,34,34,56		8,47
8″	17,44,40,56,30, 3,28,36,20,17		1,17,50,13,11	
		2, 0, 2,31,54,44,21,45		8,47
10″	17,44,42,56,32,35,23,20,42, 2		1,17,50,21,58	
		2, 0, 2,30,36,53,59,47		8,47
12″	17,44,44,56,35, 6, 0,14,41,49		1,17,50,30,45	
		2, 0, 2,29,19, 3,29, 2		8,47
14″	17,44,46,56,37,35,19,18,10,51		1,17,50,39,32	
		2, 0, 2,28, 1,12,49,30		8,47
16″	17,44,48,56,40, 3,20,31, 0,21		1,17,50,48,19	
		2, 0, 2,26,43,22, 1,11		8,47
18″	17,44,50,56,42,30, 3,53, 1,32		1,17,50,57, 6	
		2, 0, 2,25,25,31, 4, 5		8,47
20″	17,44,52,56,44,55,29,24, 5,37		1,17,51, 5,53	
		2, 0, 2,24, 7,39,58,12		8,47
22″	17,44,54,56,47,19,37, 4, 3,49		1,17,51,14,40	
		2, 0, 2,22,49,48,43,32		8,47
24″	17,44,56,56,49,42,26,52,47,21		1,17,51,23,27	
		2, 0, 2,21,31,57,20, 5		8,47
26″	17,44,58,56,52, 3,58,50, 7,26		1,17,51,32,14	
		2, 0, 2,20,14, 5,47,51		8,47
28″	17,45, 0,56,54,24,12,55,55,17		1,17,51,41, 1	
		2, 0, 2,18,56,14, 6,50		8,47
30″	17,45, 2,56,56,43, 9,10, 2, 7		1,17,51,49,48	
		2, 0, 2,17,38,22,17, 2		8,47
32″	17,45, 4,56,59, 0,47,32,19, 9		1,17,51,58,35	
		2, 0, 2,16,20,30,18,27		8,47
34″	17,45, 6,57, 1,17, 8, 2,37,36		1,17,52, 7,22	
		2, 0, 2,15, 2,38,11, 5		8,47
36″	17,45, 8,57, 3,32,10,40,48,41		1,17,52,16, 9	
		2, 0, 2,13,44,45,54,56		8,47
38″	17,45,10,57, 5,45,55,26,43,37		1,17,52,24,56	
		2, 0, 2,12,26,53,30, 0		8,47
40″	17,45,12,57, 7,58,22,20,13,37		1,17,52,33,43	
		2, 0, 2,11, 9, 0,56,17		8,47
42″	17,45,14,57,10, 9,31,21, 9,54		1,17,52,42,30	
		2, 0, 2, 9,51, 8,13,47		8,47
44″	17,45,16,57,12,19,22,29,23,41		1,17,52,51,17	
		2, 0, 2, 8,33,15,22,30		8,47
46″	17,45,18,57,14,27,55,44,46,11		1,17,53, 0, 4	
		2, 0, 2, 7,15,22,22,26		8,47
48″	17,45,20,57,16,35,11, 7, 8,37		1,17,53, 8,51	
		2, 0, 2, 5,57,29,13,35		8,47
50″	17,45,22,57,18,41, 8,36,22,12		1,17,53,17,38	
		2, 0, 2, 4,39,35,55,57		8,47
52″	17,45,24,57,20,45,48,12,18, 9		1,17,53,26,25	
		2, 0, 2, 3,21,42,29,32		8,47
54″	17,45,26,57,22,49, 9,54,47,41		1,17,53,35,12	
		2, 0, 2, 2, 3,48,54,20		8,47
56″	17,45,28,57,24,51,13,43,42, 1		1,17,53,43,59	
		2, 0, 2, 0,45,55,10,21		8,47
58″	17,45,30,57,26,51,59,38,52,22		1,17,53,52,46	
		2, 0, 1,59,28, 1,17,35		
60″	17,45,32,57,28,51,27,40, 9,57			
exact	17,45,32,57,28,51,27,40,38, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°13′ 0″	17,45,32,57,28,51,27,40,38, 5	2, 0, 1,58,10, 7,19, 9		
2″	17,45,34,57,30,49,37,47,57,14	2, 0, 1,56,52,13, 9, 2	1,17,54,10, 7	8,47
4″	17,45,36,57,32,46,30, 1, 6,16	2, 0, 1,55,34,18,50, 8	1,17,54,18,54	8,47
6″	17,45,38,57,34,42, 4,19,56,24	2, 0, 1,54,16,24,22,27	1,17,54,27,41	8,47
8″	17,45,40,57,36,36,20,44,18,51	2, 0, 1,52,58,29,45,59	1,17,54,36,28	8,47
10″	17,45,42,57,38,29,19,14, 4,50	2, 0, 1,51,40,35, 0,44	1,17,54,45,15	8,47
12″	17,45,44,57,40,20,59,49, 5,34	2, 0, 1,50,22,40, 6,42	1,17,54,54, 2	8,47
14″	17,45,46,57,42,11,22,29,12,16	2, 0, 1,49, 4,45, 3,53	1,17,55, 2,49	8,47
16″	17,45,48,57,44, 0,27,14,16, 9	2, 0, 1,47,46,49,52,17	1,17,55,11,36	8,47
18″	17,45,50,57,45,48,14, 4, 8,26	2, 0, 1,46,28,54,31,54	1,17,55,20,23	8,47
20″	17,45,52,57,47,34,42,58,40,20	2, 0, 1,45,10,59, 2,44	1,17,55,29,10	8,47
22″	17,45,54,57,49,19,53,57,43, 4	2, 0, 1,43,53, 3,24,47	1,17,55,37,57	8,47
24″	17,45,56,57,51, 3,47, 1, 7,51	2, 0, 1,42,35, 7,38, 3	1,17,55,46,44	8,47
26″	17,45,58,57,52,46,22, 8,45,54	2, 0, 1,41,17,11,42,32	1,17,55,55,31	8,47
28″	17,46, 0,57,54,27,39,20,28,26	2, 0, 1,39,59,15,38,14	1,17,56, 4,18	8,47
30″	17,46, 2,57,56, 7,38,36, 6,40	2, 0, 1,38,41,19,25, 9	1,17,56,13, 5	8,47
32″	17,46, 4,57,57,46,19,55,31,49	2, 0, 1,37,23,23, 3,17	1,17,56,21,52	8,47
34″	17,46, 6,57,59,23,43,18,35, 6	2, 0, 1,36, 5,26,32,38	1,17,56,30,39	8,47
36″	17,46, 8,58, 0,59,48,45, 7,44	2, 0, 1,34,47,29,53,12	1,17,56,39,26	8,47
38″	17,46,10,58, 2,34,36,15, 0,56	2, 0, 1,33,29,33, 4,59	1,17,56,48,13	8,47
40″	17,46,12,58, 4, 8, 5,48, 5,55	2, 0, 1,32,11,36, 7,59	1,17,56,57, 0	8,47
42″	17,46,14,58, 5,40,17,24,13,54	2, 0, 1,30,53,39, 2,12	1,17,57, 5,47	8,47
44″	17,46,16,58, 7,11,11, 3,16, 6	2, 0, 1,29,35,41,47,38	1,17,57,14,34	8,47
46″	17,46,18,58, 8,40,46,45, 3,44	2, 0, 1,28,17,44,24,17	1,17,57,23,21	8,47
48″	17,46,20,58,10, 9, 4,29,28, 1	2, 0, 1,26,59,46,52, 9	1,17,57,32, 8	8,47
50″	17,46,22,58,11,36, 4,16,20,10	2, 0, 1,25,41,49,11,14	1,17,57,40,55	8,47
52″	17,46,24,58,13, 1,46, 5,31,24	2, 0, 1,24,23,51,21,32	1,17,57,49,42	8,47
54″	17,46,26,58,14,26, 9,56,52,56	2, 0, 1,23, 5,53,23, 3	1,17,57,58,29	8,47
56″	17,46,28,58,15,49,15,50,15,59	2, 0, 1,21,47,55,15,47	1,17,58, 7,16	8,47
58″	17,46,30,58,17,11, 3,45,31,46	2, 0, 1,20,29,56,59,44	1,17,58,16, 3	
60″	17,46,32,58,18,31,33,42,31,30			
exact	17,46,32,58,18,31,33,43, 7, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°14′ 0″	17,46,32,58,18,31,33,43, 7, 9			
		2, 0, 1,19,11,58,38,40		
2″	17,46,34,58,19,50,45,41,45,49		1,17,58,33,22	
		2, 0, 1,17,54, 0, 5,18		8,46
4″	17,46,36,58,21, 8,39,41,51, 7		1,17,58,42, 8	
		2, 0, 1,16,36, 1,23,10		8,46
6″	17,46,38,58,22,25,15,43,14,17		1,17,58,50,54	
		2, 0, 1,15,18, 2,32,16		8,46
8″	17,46,40,58,23,40,33,45,46,33		1,17,58,59,40	
		2, 0, 1,14, 0, 3,32,36		8,46
10″	17,46,42,58,24,54,33,49,19, 9		1,17,59, 8,26	
		2, 0, 1,12,42, 4,24,10		8,46
12″	17,46,44,58,26, 7,15,53,43,19		1,17,59,17,12	
		2, 0, 1,11,24, 5, 6,58		8,46
14″	17,46,46,58,27,18,39,58,50,17		1,17,59,25,58	
		2, 0, 1,10, 6, 5,41, 0		8,46
16″	17,46,48,58,28,28,46, 4,31,17		1,17,59,34,44	
		2, 0, 1, 8,48, 6, 6,16		8,46
18″	17,46,50,58,29,37,34,10,37,33		1,17,59,43,30	
		2, 0, 1, 7,30, 6,22,46		8,46
20″	17,46,52,58,30,45, 4,17, 0,19		1,17,59,52,16	
		2, 0, 1, 6,12, 6,30,30		8,46
22″	17,46,54,58,31,51,16,23,30,49		1,18, 0, 1, 2	
		2, 0, 1, 4,54, 6,29,28		8,46
24″	17,46,56,58,32,56,10,30, 0,17		1,18, 0, 9,48	
		2, 0, 1, 3,36, 6,19,40		8,46
26″	17,46,58,58,33,59,46,36,19,57		1,18, 0,18,34	
		2, 0, 1, 2,18, 6, 1, 6		8,46
28″	17,47, 0,58,35, 2, 4,42,21, 3		1,18, 0,27,20	
		2, 0, 1, 1, 0, 5,33,46		8,46
30″	17,47, 2,58,36, 3, 4,47,54,49		1,18, 0,36, 6	
		2, 0, 0,59,42, 4,57,40		8,46
32″	17,47, 4,58,37, 2,46,52,52,29		1,18, 0,44,52	
		2, 0, 0,58,24, 4,12,48		8,46
34″	17,47, 6,58,38, 1,10,57, 5,17		1,18, 0,53,38	
		2, 0, 0,57, 6, 3,19,10		8,46
36″	17,47, 8,58,38,58,17, 0,24,27		1,18, 1, 2,24	
		2, 0, 0,55,48, 2,16,46		8,46
38″	17,47,10,58,39,54, 5, 2,41,13		1,18, 1,11,10	
		2, 0, 0,54,30, 1, 5,36		8,46
40″	17,47,12,58,40,48,35, 3,46,49		1,18, 1,19,56	
		2, 0, 0,53,11,59,45,40		8,46
42″	17,47,14,58,41,41,47, 3,32,29		1,18, 1,28,42	
		2, 0, 0,51,53,58,16,58		8,46
44″	17,47,16,58,42,33,41, 1,49,27		1,18, 1,37,28	
		2, 0, 0,50,35,56,39,30		8,46
46″	17,47,18,58,43,24,16,58,28,57		1,18, 1,46,14	
		2, 0, 0,49,17,54,53,16		8,46
48″	17,47,20,58,44,13,34,53,22,13		1,18, 1,55, 0	
		2, 0, 0,47,59,52,58,16		8,46
50″	17,47,22,58,45, 1,34,46,20,29		1,18, 2, 3,46	
		2, 0, 0,46,41,50,54,30		8,46
52″	17,47,24,58,45,48,16,37,14,59		1,18, 2,12,32	
		2, 0, 0,45,23,48,41,58		8,46
54″	17,47,26,58,46,33,40,25,56,57		1,18, 2,21,18	
		2, 0, 0,44, 5,46,20,40		8,46
56″	17,47,28,58,47,17,46,12,17,37		1,18, 2,30, 4	
		2, 0, 0,42,47,43,50,36		8,46
58″	17,47,30,58,48, 0,33,56, 8,13		1,18, 2,38,50	
		2, 0, 0,41,29,41,11,46		
60″	17,47,32,58,48,42, 3,37,19,59			
exact	17,47,32,58,48,42, 3,36,51,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°15′ 0″	17,47,32,58,48,42, 3,36,51,30			
		2, 0, 0,40,11,38,21, 3		
2″	17,47,34,58,49,22,15,15,12,33		1,18, 2,56,35	
		2, 0, 0,38,53,35,24,28		8,46
4″	17,47,36,58,50, 1, 8,50,37, 1		1,18, 3, 5,21	
		2, 0, 0,37,35,32,19, 7		8,46
6″	17,47,38,58,50,38,44,22,56, 8		1,18, 3,14, 7	
		2, 0, 0,36,17,29, 5, 0		8,46
8″	17,47,40,58,51,15, 1,52, 1, 8		1,18, 3,22,53	
		2, 0, 0,34,59,25,42, 7		8,46
10″	17,47,42,58,51,50, 1,17,43,15		1,18, 3,31,39	
		2, 0, 0,33,41,22,10,28		8,46
12″	17,47,44,58,52,23,42,39,53,43		1,18, 3,40,25	
		2, 0, 0,32,23,18,30, 3		8,46
14″	17,47,46,58,52,56, 5,58,23,46		1,18, 3,49,11	
		2, 0, 0,31, 5,14,40,52		8,46
16″	17,47,48,58,53,27,11,13, 4,38		1,18, 3,57,57	
		2, 0, 0,29,47,10,42,55		8,46
18″	17,47,50,58,53,56,58,23,47,33		1,18, 4, 6,43	
		2, 0, 0,28,29, 6,36,12		8,46
20″	17,47,52,58,54,25,27,30,23,45		1,18, 4,15,29	
		2, 0, 0,27,11, 2,20,43		8,46
22″	17,47,54,58,54,52,38,32,44,28		1,18, 4,24,15	
		2, 0, 0,25,52,57,56,28		8,46
24″	17,47,56,58,55,18,31,30,40,56		1,18, 4,33, 1	
		2, 0, 0,24,34,53,23,27		8,46
26″	17,47,58,58,55,43, 6,24, 4,23		1,18, 4,41,47	
		2, 0, 0,23,16,48,41,40		8,46
28″	17,48, 0,58,56, 6,23,12,46, 3		1,18, 4,50,33	
		2, 0, 0,21,58,43,51, 7		8,46
30″	17,48, 2,58,56,28,21,56,37,10		1,18, 4,59,19	
		2, 0, 0,20,40,38,51,48		8,46
32″	17,48, 4,58,56,49, 2,35,28,58		1,18, 5, 8, 5	
		2, 0, 0,19,22,33,43,43		8,46
34″	17,48, 6,58,57, 8,25, 9,12,41		1,18, 5,16,51	
		2, 0, 0,18, 4,28,26,52		8,46
36″	17,48, 8,58,57,26,29,37,39,33		1,18, 5,25,37	
		2, 0, 0,16,46,23, 1,15		8,46
38″	17,48,10,58,57,43,16, 0,40,48		1,18, 5,34,23	
		2, 0, 0,15,28,17,26,52		8,46
40″	17,48,12,58,57,58,44,18, 7,40		1,18, 5,43, 9	
		2, 0, 0,14,10,11,43,43		8,46
42″	17,48,14,58,58,12,54,29,51,23		1,18, 5,51,55	
		2, 0, 0,12,52, 5,51,48		8,46
44″	17,48,16,58,58,25,46,35,43,11		1,18, 6, 0,41	
		2, 0, 0,11,33,59,51, 7		8,46
46″	17,48,18,58,58,37,20,35,34,18		1,18, 6, 9,27	
		2, 0, 0,10,15,53,41,40		8,46
48″	17,48,20,58,58,47,36,29,15,58		1,18, 6,18,13	
		2, 0, 0, 8,57,47,23,27		8,46
50″	17,48,22,58,58,56,34,16,39,25		1,18, 6,26,59	
		2, 0, 0, 7,39,40,56,28		8,46
52″	17,48,24,58,59, 4,13,57,35,53		1,18, 6,35,45	
		2, 0, 0, 6,21,34,20,43		8,46
54″	17,48,26,58,59,10,35,31,56,36		1,18, 6,44,31	
		2, 0, 0, 5, 3,27,36,12		8,46
56″	17,48,28,58,59,15,38,59,32,48		1,18, 6,53,17	
		2, 0, 0, 3,45,20,42,55		8,46
58″	17,48,30,58,59,19,24,20,15,43		1,18, 7, 2, 3	
		2, 0, 0, 2,27,13,40,52		
60″	17,48,32,58,59,21,51,33,56,35			
exact	17,48,32,58,59,21,51,33,27,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°16′ 0″	17,48,32,58,59,21,51,33,27,32	2, 0, 0, 1, 9, 6,27, 1		
2″	17,48,34,58,59,23, 0,39,54,33	1,59,59,59,50,59, 7,14	1,18, 7,19,47	8,46
4″	17,48,36,58,59,22,51,39, 1,47	1,59,59,58,32,51,38,41	1,18, 7,28,33	8,46
6″	17,48,38,58,59,21,24,30,40,28	1,59,59,57,14,44, 1,22	1,18, 7,37,19	8,46
8″	17,48,40,58,59,18,39,14,41,50	1,59,59,55,56,36,15,17	1,18, 7,46, 5	8,46
10″	17,48,42,58,59,14,35,50,57, 7	1,59,59,54,38,28,20,26	1,18, 7,54,51	8,46
12″	17,48,44,58,59, 9,14,19,17,33	1,59,59,53,20,20,16,49	1,18, 8, 3,37	8,46
14″	17,48,46,58,59, 2,34,39,34,22	1,59,59,52, 2,12, 4,26	1,18, 8,12,23	8,46
16″	17,48,48,58,58,54,36,51,38,48	1,59,59,50,44, 3,43,17	1,18, 8,21, 9	8,46
18″	17,48,50,58,58,45,20,55,22, 5	1,59,59,49,25,55,13,22	1,18, 8,29,55	8,46
20″	17,48,52,58,58,34,46,50,35,27	1,59,59,48, 7,46,34,41	1,18, 8,38,41	8,46
22″	17,48,54,58,58,22,54,37,10, 8	1,59,59,46,49,37,47,14	1,18, 8,47,27	8,46
24″	17,48,56,58,58, 9,44,14,57,22	1,59,59,45,31,28,51, 1	1,18, 8,56,13	8,46
26″	17,48,58,58,57,55,15,43,48,23	1,59,59,44,13,19,46, 2	1,18, 9, 4,59	8,46
28″	17,49, 0,58,57,39,29, 3,34,25	1,59,59,42,55,10,32,17	1,18, 9,13,45	8,46
30″	17,49, 2,58,57,22,24,14, 6,42	1,59,59,41,37, 1, 9,46	1,18, 9,22,31	8,46
32″	17,49, 4,58,57, 4, 1,15,16,28	1,59,59,40,18,51,38,29	1,18, 9,31,17	8,46
34″	17,49, 6,58,56,44,20, 6,54,57	1,59,59,39, 0,41,58,26	1,18, 9,40, 3	8,46
36″	17,49, 8,58,56,23,20,48,53,23	1,59,59,37,42,32, 9,37	1,18, 9,48,49	8,46
38″	17,49,10,58,56, 1, 3,21, 3, 0	1,59,59,36,24,22,12, 2	1,18, 9,57,35	8,46
40″	17,49,12,58,55,37,27,43,15, 2	1,59,59,35, 6,12, 5,41	1,18,10, 6,21	8,46
42″	17,49,14,58,55,12,33,55,20,43	1,59,59,33,48, 1,50,34	1,18,10,15, 7	8,46
44″	17,49,16,58,54,46,21,57,11,17	1,59,59,32,29,51,26,41	1,18,10,23,53	8,46
46″	17,49,18,58,54,18,51,48,37,58	1,59,59,31,11,40,54, 2	1,18,10,32,39	8,46
48″	17,49,20,58,53,50, 3,29,32, 0	1,59,59,29,53,30,12,37	1,18,10,41,25	8,46
50″	17,49,22,58,53,19,56,59,44,37	1,59,59,28,35,19,22,26	1,18,10,50,11	8,46
52″	17,49,24,58,52,48,32,19, 7, 3	1,59,59,27,17, 8,23,29	1,18,10,58,57	8,46
54″	17,49,26,58,52,15,49,27,30,32	1,59,59,25,58,57,15,46	1,18,11, 7,43	8,46
56″	17,49,28,58,51,41,48,24,46,18	1,59,59,24,40,45,59,17	1,18,11,16,29	8,46
58″	17,49,30,58,51, 6,29,10,45,35	1,59,59,23,22,34,34, 2	1,18,11,25,15	
60″	17,49,32,58,50,29,51,45,19,37			
exact	17,49,32,58,50,29,51,44,53, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°17′ 0″	17,49,32,58,50,29,51,44,53, 3			
		1,59,59,22, 4,22,57,16		
2″	17,49,34,58,49,51,56, 7,50,19		1,18,11,42,58	
		1,59,59,20,46,11,14,18		8,46
4″	17,49,36,58,49,12,42,19, 4,37		1,18,11,51,44	
		1,59,59,19,27,59,22,34		8,46
6″	17,49,38,58,48,32,10,18,27,11		1,18,12, 0,30	
		1,59,59,18, 9,47,22, 4		8,46
8″	17,49,40,58,47,50,20, 5,49,15		1,18,12, 9,16	
		1,59,59,16,51,35,12,48		8,46
10″	17,49,42,58,47, 7,11,41, 2, 3		1,18,12,18, 2	
		1,59,59,15,33,22,54,46		8,46
12″	17,49,44,58,46,22,45, 3,56,49		1,18,12,26,48	
		1,59,59,14,15,10,27,58		8,46
14″	17,49,46,58,45,37, 0,14,24,47		1,18,12,35,34	
		1,59,59,12,56,57,52,24		8,46
16″	17,49,48,58,44,49,57,12,17,11		1,18,12,44,20	
		1,59,59,11,38,45, 8, 4		8,46
18″	17,49,50,58,44, 1,35,57,25,15		1,18,12,53, 6	
		1,59,59,10,20,32,14,58		8,46
20″	17,49,52,58,43,11,56,29,40,13		1,18,13, 1,52	
		1,59,59, 9, 2,19,13, 6		8,46
22″	17,49,54,58,42,20,58,48,53,19		1,18,13,10,38	
		1,59,59, 7,44, 6, 2,28		8,46
24″	17,49,56,58,41,28,42,54,55,47		1,18,13,19,24	
		1,59,59, 6,25,52,43, 4		8,46
26″	17,49,58,58,40,35, 8,47,38,51		1,18,13,28,10	
		1,59,59, 5, 7,39,14,54		8,46
28″	17,50, 0,58,39,40,16,26,53,45		1,18,13,36,56	
		1,59,59, 3,49,25,37,58		8,46
30″	17,50, 2,58,38,44, 5,52,31,43		1,18,13,45,42	
		1,59,59, 2,31,11,52,16		8,46
32″	17,50, 4,58,37,46,37, 4,23,59		1,18,13,54,28	
		1,59,59, 1,12,57,57,48		8,46
34″	17,50, 6,58,36,47,50, 2,21,47		1,18,14, 3,14	
		1,59,58,59,54,43,54,34		8,46
36″	17,50, 8,58,35,47,44,46,16,21		1,18,14,12, 0	
		1,59,58,58,36,29,42,34		8,46
38″	17,50,10,58,34,46,21,15,58,55		1,18,14,20,46	
		1,59,58,57,18,15,21,48		8,46
40″	17,50,12,58,33,43,39,31,20,43		1,18,14,29,32	
		1,59,58,56, 0, 0,52,16		8,46
42″	17,50,14,58,32,39,39,32,12,59		1,18,14,38,18	
		1,59,58,54,41,46,13,58		8,46
44″	17,50,16,58,31,34,21,18,26,57		1,18,14,47, 4	
		1,59,58,53,23,31,26,54		8,46
46″	17,50,18,58,30,27,44,49,53,51		1,18,14,55,50	
		1,59,58,52, 5,16,31, 4		8,46
48″	17,50,20,58,29,19,50, 6,24,55		1,18,15, 4,36	
		1,59,58,50,47, 1,26,28		8,46
50″	17,50,22,58,28,10,37, 7,51,23		1,18,15,13,22	
		1,59,58,49,28,46,13, 6		8,46
52″	17,50,24,58,27, 0, 5,54, 4,29		1,18,15,22, 8	
		1,59,58,48,10,30,50,58		8,46
54″	17,50,26,58,25,48,16,24,55,27		1,18,15,30,54	
		1,59,58,46,52,15,20, 4		8,46
56″	17,50,28,58,24,35, 8,40,15,31		1,18,15,39,40	
		1,59,58,45,33,59,40,24		8,46
58″	17,50,30,58,23,20,42,39,55,55		1,18,15,48,26	
		1,59,58,44,15,43,51,58		
60″	17,50,32,58,22, 4,58,23,47,53			
exact	17,50,32,58,22, 4,58,23,27,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°18′ 0″	17,50,32,58,22, 4,58,23,27,18			
		1,59,58,42,57,27,52,33		
2″	17,50,34,58,20,47,55,51,19,51		1,18,16, 6, 7	
		1,59,58,41,39,11,46,26		8,46
4″	17,50,36,58,19,29,35, 3, 6,17		1,18,16,14,53	
		1,59,58,40,20,55,31,33		8,46
6″	17,50,38,58,18, 9,55,58,37,50		1,18,16,23,39	
		1,59,58,39, 2,39, 7,54		8,46
8″	17,50,40,58,16,48,58,37,45,44		1,18,16,32,25	
		1,59,58,37,44,22,35,29		8,46
10″	17,50,42,58,15,26,43, 0,21,13		1,18,16,41,11	
		1,59,58,36,26, 5,54,18		8,46
12″	17,50,44,58,14, 3, 9, 6,15,31		1,18,16,49,57	
		1,59,58,35, 7,49, 4,21		8,46
14″	17,50,46,58,12,38,16,55,19,52		1,18,16,58,43	
		1,59,58,33,49,32, 5,38		8,46
16″	17,50,48,58,11,12, 6,27,25,30		1,18,17, 7,29	
		1,59,58,32,31,14,58, 9		8,46
18″	17,50,50,58, 9,44,37,42,23,39		1,18,17,16,15	
		1,59,58,31,12,57,41,54		8,46
20″	17,50,52,58, 8,15,50,40, 5,33		1,18,17,25, 1	
		1,59,58,29,54,40,16,53		8,46
22″	17,50,54,58, 6,45,45,20,22,26		1,18,17,33,47	
		1,59,58,28,36,22,43, 6		8,46
24″	17,50,56,58, 5,14,21,43, 5,32		1,18,17,42,33	
		1,59,58,27,18, 5, 0,33		8,46
26″	17,50,58,58, 3,41,39,48, 6, 5		1,18,17,51,19	
		1,59,58,25,59,47, 9,14		8,46
28″	17,51, 0,58, 2, 7,39,35,15,19		1,18,18, 0, 5	
		1,59,58,24,41,29, 9, 9		8,46
30″	17,51, 2,58, 0,32,21, 4,24,28		1,18,18, 8,51	
		1,59,58,23,23,11, 0,18		8,46
32″	17,51, 4,57,58,55,44,15,24,46		1,18,18,17,37	
		1,59,58,22, 4,52,42,41		8,46
34″	17,51, 6,57,57,17,49, 8, 7,27		1,18,18,26,23	
		1,59,58,20,46,34,16,18		8,46
36″	17,51, 8,57,55,38,35,42,23,45		1,18,18,35, 9	
		1,59,58,19,28,15,41, 9		8,46
38″	17,51,10,57,53,58, 3,58, 4,54		1,18,18,43,55	
		1,59,58,18, 9,56,57,14		8,46
40″	17,51,12,57,52,16,13,55, 2, 8		1,18,18,52,41	
		1,59,58,16,51,38, 4,33		8,46
42″	17,51,14,57,50,33, 5,33, 6,41		1,18,19, 1,27	
		1,59,58,15,33,19, 3, 6		8,46
44″	17,51,16,57,48,48,38,52, 9,47		1,18,19,10,13	
		1,59,58,14,14,59,52,53		8,46
46″	17,51,18,57,47, 2,53,52, 2,40		1,18,19,18,59	
		1,59,58,12,56,40,33,54		8,46
48″	17,51,20,57,45,15,50,32,36,34		1,18,19,27,45	
		1,59,58,11,38,21, 6, 9		8,46
50″	17,51,22,57,43,27,28,53,42,43		1,18,19,36,31	
		1,59,58,10,20, 1,29,38		8,46
52″	17,51,24,57,41,37,48,55,12,21		1,18,19,45,17	
		1,59,58, 9, 1,41,44,21		8,46
54″	17,51,26,57,39,46,50,36,56,42		1,18,19,54, 3	
		1,59,58, 7,43,21,50,18		8,46
56″	17,51,28,57,37,54,33,58,47, 0		1,18,20, 2,49	
		1,59,58, 6,25, 1,47,29		8,46
58″	17,51,30,57,36, 0,59, 0,34,29		1,18,20,11,35	
		1,59,58, 5, 6,41,35,54		
60″	17,51,32,57,34, 6, 5,42,10,23			
exact	17,51,32,57,34, 6, 5,41,50,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°19′ 0″	17,51,32,57,34, 6, 5,41,50,54			
		1,59,58, 3,48,21,13,32		
2″	17,51,34,57,32, 9,54, 3, 4,26		1,18,20,29,15	
		1,59,58, 2,30, 0,44,17		8,46
4″	17,51,36,57,30,12,24, 3,48,43		1,18,20,38, 1	
		1,59,58, 1,11,40, 6,16		8,46
6″	17,51,38,57,28,13,35,43,54,59		1,18,20,46,47	
		1,59,57,59,53,19,19,29		8,46
8″	17,51,40,57,26,13,29, 3,14,28		1,18,20,55,33	
		1,59,57,58,34,58,23,56		8,46
10″	17,51,42,57,24,12, 4, 1,38,24		1,18,21, 4,19	
		1,59,57,57,16,37,19,37		8,46
12″	17,51,44,57,22, 9,20,38,58, 1		1,18,21,13, 5	
		1,59,57,55,58,16, 6,32		8,46
14″	17,51,46,57,20, 5,18,55, 4,33		1,18,21,21,51	
		1,59,57,54,39,54,44,41		8,46
16″	17,51,48,57,17,59,58,49,49,14		1,18,21,30,37	
		1,59,57,53,21,33,14, 4		8,46
18″	17,51,50,57,15,53,20,23, 3,18		1,18,21,39,23	
		1,59,57,52, 3,11,34,41		8,46
20″	17,51,52,57,13,45,23,34,37,59		1,18,21,48, 9	
		1,59,57,50,44,49,46,32		8,46
22″	17,51,54,57,11,36, 8,24,24,31		1,18,21,56,55	
		1,59,57,49,26,27,49,37		8,46
24″	17,51,56,57, 9,25,34,52,14, 8		1,18,22, 5,41	
		1,59,57,48, 8, 5,43,56		8,46
26″	17,51,58,57, 7,13,42,57,58, 4		1,18,22,14,27	
		1,59,57,46,49,43,29,29		8,46
28″	17,52, 0,57, 5, 0,32,41,27,33		1,18,22,23,13	
		1,59,57,45,31,21, 6,16		8,46
30″	17,52, 2,57, 2,46, 4, 2,33,49		1,18,22,31,59	
		1,59,57,44,12,58,34,17		8,46
32″	17,52, 4,57, 0,30,17, 1, 8, 6		1,18,22,40,45	
		1,59,57,42,54,35,53,32		8,46
34″	17,52, 6,56,58,13,11,37, 1,38		1,18,22,49,31	
		1,59,57,41,36,13, 4, 1		8,46
36″	17,52, 8,56,55,54,47,50, 5,39		1,18,22,58,17	
		1,59,57,40,17,50, 5,44		8,46
38″	17,52,10,56,53,35, 5,40,11,23		1,18,23, 7, 3	
		1,59,57,38,59,26,58,41		8,46
40″	17,52,12,56,51,14, 5, 7,10, 4		1,18,23,15,49	
		1,59,57,37,41, 3,42,52		8,46
42″	17,52,14,56,48,51,46,10,52,56		1,18,23,24,35	
		1,59,57,36,22,40,18,17		8,46
44″	17,52,16,56,46,28, 8,51,11,13		1,18,23,33,21	
		1,59,57,35, 4,16,44,56		8,46
46″	17,52,18,56,44, 3,13, 7,56, 9		1,18,23,42, 7	
		1,59,57,33,45,53, 2,49		8,46
48″	17,52,20,56,41,36,59, 0,58,58		1,18,23,50,53	
		1,59,57,32,27,29,11,56		8,46
50″	17,52,22,56,39, 9,26,30,10,54		1,18,23,59,39	
		1,59,57,31, 9, 5,12,17		8,46
52″	17,52,24,56,36,40,35,35,23,11		1,18,24, 8,25	
		1,59,57,29,50,41, 3,52		8,46
54″	17,52,26,56,34,10,26,16,27, 3		1,18,24,17,11	
		1,59,57,28,32,16,46,41		8,46
56″	17,52,28,56,31,38,58,33,13,44		1,18,24,25,57	
		1,59,57,27,13,52,20,44		8,46
58″	17,52,30,56,29, 6,12,25,34,28		1,18,24,34,43	
		1,59,57,25,55,27,46, 1		
60″	17,52,32,56,26,32, 7,53,20,29			
exact	17,52,32,56,26,32, 7,53, 6, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°20′ 0″	17,52,32,56,26,32, 7,53, 6, 0			
		1,59,57,24,37, 3, 0,59		
2″	17,52,34,56,23,56,44,56, 6,59		1,18,24,52,21	
		1,59,57,23,18,38, 8,38		8,46
4″	17,52,36,56,21,20, 3,34,15,37		1,18,25, 1, 7	
		1,59,57,22, 0,13, 7,31		8,46
6″	17,52,38,56,18,42, 3,47,23, 8		1,18,25, 9,53	
		1,59,57,20,41,47,57,38		8,46
8″	17,52,40,56,16, 2,45,35,20,46		1,18,25,18,39	
		1,59,57,19,23,22,38,59		8,46
10″	17,52,42,56,13,22, 8,57,59,45		1,18,25,27,25	
		1,59,57,18, 4,57,11,34		8,46
12″	17,52,44,56,10,40,13,55,11,19		1,18,25,36,11	
		1,59,57,16,46,31,35,23		8,46
14″	17,52,46,56, 7,57, 0,26,46,42		1,18,25,44,57	
		1,59,57,15,28, 5,50,26		8,46
16″	17,52,48,56, 5,12,28,32,37, 8		1,18,25,53,43	
		1,59,57,14, 9,39,56,43		8,46
18″	17,52,50,56, 2,26,38,12,33,51		1,18,26, 2,29	
		1,59,57,12,51,13,54,14		8,46
20″	17,52,52,55,59,39,29,26,28, 5		1,18,26,11,15	
		1,59,57,11,32,47,42,59		8,46
22″	17,52,54,55,56,51, 2,14,11, 4		1,18,26,20, 1	
		1,59,57,10,14,21,22,58		8,46
24″	17,52,56,55,54, 1,16,35,34, 2		1,18,26,28,47	
		1,59,57, 8,55,54,54,11		8,46
26″	17,52,58,55,51,10,12,30,28,13		1,18,26,37,33	
		1,59,57, 7,37,28,16,38		8,46
28″	17,53, 0,55,48,17,49,58,44,51		1,18,26,46,19	
		1,59,57, 6,19, 1,30,19		8,46
30″	17,53, 2,55,45,24, 9, 0,15,10		1,18,26,55, 5	
		1,59,57, 5, 0,34,35,14		8,46
32″	17,53, 4,55,42,29, 9,34,50,24		1,18,27, 3,51	
		1,59,57, 3,42, 7,31,23		8,46
34″	17,53, 6,55,39,32,51,42,21,47		1,18,27,12,37	
		1,59,57, 2,23,40,18,46		8,46
36″	17,53, 8,55,36,35,15,22,40,33		1,18,27,21,23	
		1,59,57, 1, 5,12,57,23		8,46
38″	17,53,10,55,33,36,20,35,37,56		1,18,27,30, 9	
		1,59,56,59,46,45,27,14		8,46
40″	17,53,12,55,30,36, 7,21, 5,10		1,18,27,38,55	
		1,59,56,58,28,17,48,19		8,46
42″	17,53,14,55,27,34,35,38,53,29		1,18,27,47,41	
		1,59,56,57, 9,50, 0,38		8,46
44″	17,53,16,55,24,31,45,28,54, 7		1,18,27,56,27	
		1,59,56,55,51,22, 4,11		8,46
46″	17,53,18,55,21,27,36,50,58,18		1,18,28, 5,13	
		1,59,56,54,32,53,58,58		8,46
48″	17,53,20,55,18,22, 9,44,57,16		1,18,28,13,59	
		1,59,56,53,14,25,44,59		8,46
50″	17,53,22,55,15,15,24,10,42,15		1,18,28,22,45	
		1,59,56,51,55,57,22,14		8,46
52″	17,53,24,55,12, 7,20, 8, 4,29		1,18,28,31,31	
		1,59,56,50,37,28,50,43		8,46
54″	17,53,26,55, 8,57,57,36,55,12		1,18,28,40,17	
		1,59,56,49,19, 0,10,26		8,46
56″	17,53,28,55, 5,47,16,37, 5,38		1,18,28,49, 3	
		1,59,56,48, 0,31,21,23		8,46
58″	17,53,30,55, 2,35,17, 8,27, 1		1,18,28,57,49	
		1,59,56,46,42, 2,23,34		
60″	17,53,32,54,59,21,59,10,50,35			
exact	17,53,32,54,59,21,59,10,36, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°21′ 0″	17,53,32,54,59,21,59,10,36, 9			
		1,59,56,45,23,33,15,34		
2″	17,53,34,54,56, 7,22,43,51,43		1,18,29,15,26	
		1,59,56,44, 5, 4, 0, 8		8,46
4″	17,53,36,54,52,51,27,47,51,51		1,18,29,24,12	
		1,59,56,42,46,34,35,56		8,46
6″	17,53,38,54,49,34,14,22,27,47		1,18,29,32,58	
		1,59,56,41,28, 5, 2,58		8,46
8″	17,53,40,54,46,15,42,27,30,45		1,18,29,41,44	
		1,59,56,40, 9,35,21,14		8,46
10″	17,53,42,54,42,55,52, 2,51,59		1,18,29,50,30	
		1,59,56,38,51, 5,30,44		8,46
12″	17,53,44,54,39,34,43, 8,22,43		1,18,29,59,16	
		1,59,56,37,32,35,31,28		8,46
14″	17,53,46,54,36,12,15,43,54,11		1,18,30, 8, 2	
		1,59,56,36,14, 5,23,26		8,46
16″	17,53,48,54,32,48,29,49,17,37		1,18,30,16,48	
		1,59,56,34,55,35, 6,38		8,46
18″	17,53,50,54,29,23,25,24,24,15		1,18,30,25,34	
		1,59,56,33,37, 4,41, 4		8,46
20″	17,53,52,54,25,57, 2,29, 5,19		1,18,30,34,20	
		1,59,56,32,18,34, 6,44		8,46
22″	17,53,54,54,22,29,21, 3,12, 3		1,18,30,43, 6	
		1,59,56,31, 0, 3,23,38		8,46
24″	17,53,56,54,19, 0,21, 6,35,41		1,18,30,51,52	
		1,59,56,29,41,32,31,46		8,46
26″	17,53,58,54,15,30, 2,39, 7,27		1,18,31, 0,38	
		1,59,56,28,23, 1,31, 8		8,46
28″	17,54, 0,54,11,58,25,40,38,35		1,18,31, 9,24	
		1,59,56,27, 4,30,21,44		8,46
30″	17,54, 2,54, 8,25,30,11, 0,19		1,18,31,18,10	
		1,59,56,25,45,59, 3,34		8,46
32″	17,54, 4,54, 4,51,16,10, 3,53		1,18,31,26,56	
		1,59,56,24,27,27,36,38		8,46
34″	17,54, 6,54, 1,15,43,37,40,31		1,18,31,35,42	
		1,59,56,23, 8,56, 0,56		8,46
36″	17,54, 8,53,57,38,52,33,41,27		1,18,31,44,28	
		1,59,56,21,50,24,16,28		8,46
38″	17,54,10,53,54, 0,42,57,57,55		1,18,31,53,14	
		1,59,56,20,31,52,23,14		8,46
40″	17,54,12,53,50,21,14,50,21, 9		1,18,32, 2, 0	
		1,59,56,19,13,20,21,14		8,46
42″	17,54,14,53,46,40,28,10,42,23		1,18,32,10,46	
		1,59,56,17,54,48,10,28		8,46
44″	17,54,16,53,42,58,22,58,52,51		1,18,32,19,32	
		1,59,56,16,36,15,50,56		8,46
46″	17,54,18,53,39,14,59,14,43,47		1,18,32,28,18	
		1,59,56,15,17,43,22,38		8,46
48″	17,54,20,53,35,30,16,58, 6,25		1,18,32,37, 4	
		1,59,56,13,59,10,45,34		8,46
50″	17,54,22,53,31,44,16, 8,51,59		1,18,32,45,50	
		1,59,56,12,40,37,59,44		8,46
52″	17,54,24,53,27,56,56,46,51,43		1,18,32,54,36	
		1,59,56,11,22, 5, 5, 8		8,46
54″	17,54,26,53,24, 8,18,51,56,51		1,18,33, 3,22	
		1,59,56,10, 3,32, 1,46		8,46
56″	17,54,28,53,20,18,22,23,58,37		1,18,33,12, 8	
		1,59,56, 8,44,58,49,38		8,46
58″	17,54,30,53,16,27, 7,22,48,15		1,18,33,20,54	
		1,59,56, 7,26,25,28,44		
60″	17,54,32,53,12,34,33,48,16,59			
exact	17,54,32,53,12,34,33,48, 6,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°22′ 0″	17,54,32,53,12,34,33,48, 6,28			
		1,59,56, 6, 7,51,58, 2		
2″	17,54,34,53, 8,40,41,40, 4,30		1,18,33,38,30	
		1,59,56, 4,49,18,19,32		8,46
4″	17,54,36,53, 4,45,30,58,24, 2		1,18,33,47,16	
		1,59,56, 3,30,44,32,16		8,46
6″	17,54,38,53, 0,49, 1,42,56,18		1,18,33,56, 2	
		1,59,56, 2,12,10,36,14		8,46
8″	17,54,40,52,56,51,13,53,32,32		1,18,34, 4,48	
		1,59,56, 0,53,36,31,26		8,46
10″	17,54,42,52,52,52, 7,30, 3,58		1,18,34,13,34	
		1,59,55,59,35, 2,17,52		8,46
12″	17,54,44,52,48,51,42,32,21,50		1,18,34,22,20	
		1,59,55,58,16,27,55,32		8,46
14″	17,54,46,52,44,49,59, 0,17,22		1,18,34,31, 6	
		1,59,55,56,57,53,24,26		8,46
16″	17,54,48,52,40,46,56,53,41,48		1,18,34,39,52	
		1,59,55,55,39,18,44,34		8,46
18″	17,54,50,52,36,42,36,12,26,22		1,18,34,48,38	
		1,59,55,54,20,43,55,56		8,46
20″	17,54,52,52,32,36,56,56,22,18		1,18,34,57,24	
		1,59,55,53, 2, 8,58,32		8,46
22″	17,54,54,52,28,29,59, 5,20,50		1,18,35, 6,10	
		1,59,55,51,43,33,52,22		8,46
24″	17,54,56,52,24,21,42,39,13,12		1,18,35,14,56	
		1,59,55,50,24,58,37,26		8,46
26″	17,54,58,52,20,12, 7,37,50,38		1,18,35,23,42	
		1,59,55,49, 6,23,13,44		8,46
28″	17,55, 0,52,16, 1,14, 1, 4,22		1,18,35,32,28	
		1,59,55,47,47,47,41,16		8,46
30″	17,55, 2,52,11,49, 1,48,45,38		1,18,35,41,14	
		1,59,55,46,29,12, 0, 2		8,46
32″	17,55, 4,52, 7,35,31, 0,45,40		1,18,35,50, 0	
		1,59,55,45,10,36,10, 2		8,46
34″	17,55, 6,52, 3,20,41,36,55,42		1,18,35,58,46	
		1,59,55,43,52, 0,11,16		8,46
36″	17,55, 8,51,59, 4,33,37, 6,58		1,18,36, 7,32	
		1,59,55,42,33,24, 3,44		8,46
38″	17,55,10,51,54,47, 7, 1,10,42		1,18,36,16,18	
		1,59,55,41,14,47,47,26		8,46
40″	17,55,12,51,50,28,21,48,58, 8		1,18,36,25, 4	
		1,59,55,39,56,11,22,22		8,46
42″	17,55,14,51,46, 8,18, 0,20,30		1,18,36,33,50	
		1,59,55,38,37,34,48,32		8,46
44″	17,55,16,51,41,46,55,35, 9, 2		1,18,36,42,36	
		1,59,55,37,18,58, 5,56		8,46
46″	17,55,18,51,37,24,14,33,14,58		1,18,36,51,22	
		1,59,55,36, 0,21,14,34		8,46
48″	17,55,20,51,33, 0,14,54,29,32		1,18,37, 0, 8	
		1,59,55,34,41,44,14,26		8,46
50″	17,55,22,51,28,34,56,38,43,58		1,18,37, 8,54	
		1,59,55,33,23, 7, 5,32		8,46
52″	17,55,24,51,24, 8,19,45,49,30		1,18,37,17,40	
		1,59,55,32, 4,29,47,52		8,46
54″	17,55,26,51,19,40,24,15,37,22		1,18,37,26,26	
		1,59,55,30,45,52,21,26		8,46
56″	17,55,28,51,15,11,10, 7,58,48		1,18,37,35,12	
		1,59,55,29,27,14,46,14		8,46
58″	17,55,30,51,10,40,37,22,45, 2		1,18,37,43,58	
		1,59,55,28, 8,37, 2,16		
60″	17,55,32,51, 6, 8,45,59,47,18			
exact	17,55,32,51, 6, 8,45,59,43,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°23′ 0″	17,55,32,51, 6, 8,45,59,43,33			
		1,59,55,26,49,59, 9, 6		
2″	17,55,34,51, 1,35,35,58,52,39		1,18,38, 1,32	
		1,59,55,25,31,21, 7,34		8,46
4″	17,55,36,50,57, 1, 7,20, 0,13		1,18,38,10,18	
		1,59,55,24,12,42,57,16		8,46
6″	17,55,38,50,52,25,20, 2,57,29		1,18,38,19, 4	
		1,59,55,22,54, 4,38,12		8,46
8″	17,55,40,50,47,48,14, 7,35,41		1,18,38,27,50	
		1,59,55,21,35,26,10,22		8,46
10″	17,55,42,50,43, 9,49,33,46, 3		1,18,38,36,36	
		1,59,55,20,16,47,33,46		8,46
12″	17,55,44,50,38,30, 6,21,19,49		1,18,38,45,22	
		1,59,55,18,58, 8,48,24		8,46
14″	17,55,46,50,33,49, 4,30, 8,13		1,18,38,54, 8	
		1,59,55,17,39,29,54,16		8,46
16″	17,55,48,50,29, 6,44, 0, 2,29		1,18,39, 2,54	
		1,59,55,16,20,50,51,22		8,46
18″	17,55,50,50,24,23, 4,50,53,51		1,18,39,11,40	
		1,59,55,15, 2,11,39,42		8,46
20″	17,55,52,50,19,38, 7, 2,33,33		1,18,39,20,26	
		1,59,55,13,43,32,19,16		8,46
22″	17,55,54,50,14,51,50,34,52,49		1,18,39,29,12	
		1,59,55,12,24,52,50, 4		8,46
24″	17,55,56,50,10, 4,15,27,42,53		1,18,39,37,58	
		1,59,55,11, 6,13,12, 6		8,46
26″	17,55,58,50, 5,15,21,40,54,59		1,18,39,46,44	
		1,59,55, 9,47,33,25,22		8,46
28″	17,56, 0,50, 0,25, 9,14,20,21		1,18,39,55,30	
		1,59,55, 8,28,53,29,52		8,46
30″	17,56, 2,49,55,33,38, 7,50,13		1,18,40, 4,16	
		1,59,55, 7,10,13,25,36		8,46
32″	17,56, 4,49,50,40,48,21,15,49		1,18,40,13, 2	
		1,59,55, 5,51,33,12,34		8,46
34″	17,56, 6,49,45,46,39,54,28,23		1,18,40,21,48	
		1,59,55, 4,32,52,50,46		8,46
36″	17,56, 8,49,40,51,12,47,19, 9		1,18,40,30,34	
		1,59,55, 3,14,12,20,12		8,46
38″	17,56,10,49,35,54,26,59,39,21		1,18,40,39,20	
		1,59,55, 1,55,31,40,52		8,46
40″	17,56,12,49,30,56,22,31,20,13		1,18,40,48, 6	
		1,59,55, 0,36,50,52,46		8,46
42″	17,56,14,49,25,56,59,22,12,59		1,18,40,56,52	
		1,59,54,59,18, 9,55,54		8,46
44″	17,56,16,49,20,56,17,32, 8,53		1,18,41, 5,38	
		1,59,54,57,59,28,50,16		8,46
46″	17,56,18,49,15,54,17, 0,59, 9		1,18,41,14,24	
		1,59,54,56,40,47,35,52		8,46
48″	17,56,20,49,10,50,57,48,35, 1		1,18,41,23,10	
		1,59,54,55,22, 6,12,42		8,46
50″	17,56,22,49, 5,46,19,54,47,43		1,18,41,31,56	
		1,59,54,54, 3,24,40,46		8,46
52″	17,56,24,49, 0,40,23,19,28,29		1,18,41,40,42	
		1,59,54,52,44,43, 0, 4		8,46
54″	17,56,26,48,55,33, 8, 2,28,33		1,18,41,49,28	
		1,59,54,51,26, 1,10,36		8,46
56″	17,56,28,48,50,24,34, 3,39, 9		1,18,41,58,14	
		1,59,54,50, 7,19,12,22		8,46
58″	17,56,30,48,45,14,41,22,51,31		1,18,42, 7, 0	
		1,59,54,48,48,37, 5,22		
60″	17,56,32,48,40, 3,29,59,56,53			
exact	17,56,32,48,40, 3,29,59,55,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°24′ 0″	17,56,32,48,40, 3,29,59,55,33			
		1,59,54,47,29,54,49,28		
2″	17,56,34,48,34,50,59,54,45, 1		1,18,42,24,32	
		1,59,54,46,11,12,24,56		8,46
4″	17,56,36,48,29,37,11, 7, 9,57		1,18,42,33,18	
		1,59,54,44,52,29,51,38		8,46
6″	17,56,38,48,24,22, 3,37, 1,35		1,18,42,42, 4	
		1,59,54,43,33,47, 9,34		8,46
8″	17,56,40,48,19, 5,37,24,11, 9		1,18,42,50,50	
		1,59,54,42,15, 4,18,44		8,46
10″	17,56,42,48,13,47,52,28,29,53		1,18,42,59,36	
		1,59,54,40,56,21,19, 8		8,46
12″	17,56,44,48, 8,28,48,49,49, 1		1,18,43, 8,22	
		1,59,54,39,37,38,10,46		8,46
14″	17,56,46,48, 3, 8,26,27,59,47		1,18,43,17, 8	
		1,59,54,38,18,54,53,38		8,46
16″	17,56,48,47,57,46,45,22,53,25		1,18,43,25,54	
		1,59,54,37, 0,11,27,44		8,46
18″	17,56,50,47,52,23,45,34,21, 9		1,18,43,34,40	
		1,59,54,35,41,27,53, 4		8,46
20″	17,56,52,47,46,59,27, 2,14,13		1,18,43,43,26	
		1,59,54,34,22,44, 9,38		8,46
22″	17,56,54,47,41,33,49,46,23,51		1,18,43,52,12	
		1,59,54,33, 4, 0,17,26		8,46
24″	17,56,56,47,36, 6,53,46,41,17		1,18,44, 0,58	
		1,59,54,31,45,16,16,28		8,46
26″	17,56,58,47,30,38,39, 2,57,45		1,18,44, 9,44	
		1,59,54,30,26,32, 6,44		8,46
28″	17,57, 0,47,25, 9, 5,35, 4,29		1,18,44,18,30	
		1,59,54,29, 7,47,48,14		8,46
30″	17,57, 2,47,19,38,13,22,52,43		1,18,44,27,16	
		1,59,54,27,49, 3,20,58		8,46
32″	17,57, 4,47,14, 6, 2,26,13,41		1,18,44,36, 2	
		1,59,54,26,30,18,44,56		8,46
34″	17,57, 6,47, 8,32,32,44,58,37		1,18,44,44,48	
		1,59,54,25,11,34, 0, 8		8,46
36″	17,57, 8,47, 2,57,44,18,58,45		1,18,44,53,34	
		1,59,54,23,52,49, 6,34		8,46
38″	17,57,10,46,57,21,37, 8, 5,19		1,18,45, 2,20	
		1,59,54,22,34, 4, 4,14		8,46
40″	17,57,12,46,51,44,11,12, 9,33		1,18,45,11, 6	
		1,59,54,21,15,18,53, 8		8,46
42″	17,57,14,46,46, 5,26,31, 2,41		1,18,45,19,52	
		1,59,54,19,56,33,33,16		8,46
44″	17,57,16,46,40,25,23, 4,35,57		1,18,45,28,38	
		1,59,54,18,37,48, 4,38		8,46
46″	17,57,18,46,34,44, 0,52,40,35		1,18,45,37,24	
		1,59,54,17,19, 2,27,14		8,46
48″	17,57,20,46,29, 1,19,55, 7,49		1,18,45,46,10	
		1,59,54,16, 0,16,41, 4		8,46
50″	17,57,22,46,23,17,20,11,48,53		1,18,45,54,56	
		1,59,54,14,41,30,46, 8		8,46
52″	17,57,24,46,17,32, 1,42,35, 1		1,18,46, 3,42	
		1,59,54,13,22,44,42,26		8,46
54″	17,57,26,46,11,45,24,27,17,27		1,18,46,12,28	
		1,59,54,12, 3,58,29,58		8,46
56″	17,57,28,46, 5,57,28,25,47,25		1,18,46,21,14	
		1,59,54,10,45,12, 8,44		8,46
58″	17,57,30,46, 0, 8,13,37,56, 9		1,18,46,30, 0	
		1,59,54, 9,26,25,38,44		
60″	17,57,32,45,54,17,40, 3,34,53			
exact	17,57,32,45,54,17,40, 3,32, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°25′ 0″	17,57,32,45,54,17,40, 3,32, 9			
		1,59,54, 8, 7,38,59,51		
2″	17,57,34,45,48,25,47,42,32, 0		1,18,46,47,32	
		1,59,54, 6,48,52,12,19		8,46
4″	17,57,36,45,42,32,36,34,44,19		1,18,46,56,18	
		1,59,54, 5,30, 5,16, 1		8,46
6″	17,57,38,45,36,38, 6,40, 0,20		1,18,47, 5, 4	
		1,59,54, 4,11,18,10,57		8,46
8″	17,57,40,45,30,42,17,58,11,17		1,18,47,13,50	
		1,59,54, 2,52,30,57, 7		8,46
10″	17,57,42,45,24,45,10,29, 8,24		1,18,47,22,36	
		1,59,54, 1,33,43,34,31		8,46
12″	17,57,44,45,18,46,44,12,42,55		1,18,47,31,22	
		1,59,54, 0,14,56, 3, 9		8,46
14″	17,57,46,45,12,46,59, 8,46, 4		1,18,47,40, 8	
		1,59,53,58,56, 8,23, 1		8,46
16″	17,57,48,45, 6,45,55,17, 9, 5		1,18,47,48,54	
		1,59,53,57,37,20,34, 7		8,46
18″	17,57,50,45, 0,43,32,37,43,12		1,18,47,57,40	
		1,59,53,56,18,32,36,27		8,46
20″	17,57,52,44,54,39,51,10,19,39		1,18,48, 6,26	
		1,59,53,54,59,44,30, 1		8,46
22″	17,57,54,44,48,34,50,54,49,40		1,18,48,15,12	
		1,59,53,53,40,56,14,49		8,46
24″	17,57,56,44,42,28,31,51, 4,29		1,18,48,23,58	
		1,59,53,52,22, 7,50,51		8,46
26″	17,57,58,44,36,20,53,58,55,20		1,18,48,32,44	
		1,59,53,51, 3,19,18, 7		8,46
28″	17,58, 0,44,30,11,57,18,13,27		1,18,48,41,30	
		1,59,53,49,44,30,36,37		8,46
30″	17,58, 2,44,24, 1,41,48,50, 4		1,18,48,50,16	
		1,59,53,48,25,41,46,21		8,46
32″	17,58, 4,44,17,50, 7,30,36,25		1,18,48,59, 2	
		1,59,53,47, 6,52,47,19		8,46
34″	17,58, 6,44,11,37,14,23,23,44		1,18,49, 7,48	
		1,59,53,45,48, 3,39,31		8,46
36″	17,58, 8,44, 5,23, 2,27, 3,15		1,18,49,16,34	
		1,59,53,44,29,14,22,57		8,46
38″	17,58,10,43,59, 7,31,41,26,12		1,18,49,25,20	
		1,59,53,43,10,24,57,37		8,46
40″	17,58,12,43,52,50,42, 6,23,49		1,18,49,34, 6	
		1,59,53,41,51,35,23,31		8,46
42″	17,58,14,43,46,32,33,41,47,20		1,18,49,42,52	
		1,59,53,40,32,45,40,39		8,46
44″	17,58,16,43,40,13, 6,27,27,59		1,18,49,51,38	
		1,59,53,39,13,55,49, 1		8,46
46″	17,58,18,43,33,52,20,23,17, 0		1,18,50, 0,24	
		1,59,53,37,55, 5,48,37		8,46
48″	17,58,20,43,27,30,15,29, 5,37		1,18,50, 9,10	
		1,59,53,36,36,15,39,27		8,46
50″	17,58,22,43,21, 6,51,44,45, 4		1,18,50,17,56	
		1,59,53,35,17,25,21,31		8,46
52″	17,58,24,43,14,42, 9,10, 6,35		1,18,50,26,42	
		1,59,53,33,58,34,54,49		8,46
54″	17,58,26,43, 8,16, 7,45, 1,24		1,18,50,35,28	
		1,59,53,32,39,44,19,21		8,46
56″	17,58,28,43, 1,48,47,29,20,45		1,18,50,44,14	
		1,59,53,31,20,53,35, 7		8,46
58″	17,58,30,42,55,20, 8,22,55,52		1,18,50,53, 0	
		1,59,53,30, 2, 2,42, 7		
60″	17,58,32,42,48,50,10,25,37,59			
exact	17,58,32,42,48,50,10,25,44,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°26′ 0″	17,58,32,42,48,50,10,25,44,38			
		1,59,53,28,43,11,41, 0		
2″	17,58,34,42,42,18,53,37,25,38		1,18,51,10,29	
		1,59,53,27,24,20,30,31		8,46
4″	17,58,36,42,35,46,17,57,56, 9		1,18,51,19,15	
		1,59,53,26, 5,29,11,16		8,46
6″	17,58,38,42,29,12,23,27, 7,25		1,18,51,28, 1	
		1,59,53,24,46,37,43,15		8,46
8″	17,58,40,42,22,37,10, 4,50,40		1,18,51,36,47	
		1,59,53,23,27,46, 6,28		8,46
10″	17,58,42,42,16, 0,37,50,57, 8		1,18,51,45,33	
		1,59,53,22, 8,54,20,55		8,46
12″	17,58,44,42, 9,22,46,45,18, 3		1,18,51,54,19	
		1,59,53,20,50, 2,26,36		8,46
14″	17,58,46,42, 2,43,36,47,44,39		1,18,52, 3, 5	
		1,59,53,19,31,10,23,31		8,46
16″	17,58,48,41,56, 3, 7,58, 8,10		1,18,52,11,51	
		1,59,53,18,12,18,11,40		8,46
18″	17,58,50,41,49,21,20,16,19,50		1,18,52,20,37	
		1,59,53,16,53,25,51, 3		8,46
20″	17,58,52,41,42,38,13,42,10,53		1,18,52,29,23	
		1,59,53,15,34,33,21,40		8,46
22″	17,58,54,41,35,53,48,15,32,33		1,18,52,38, 9	
		1,59,53,14,15,40,43,31		8,46
24″	17,58,56,41,29, 8, 3,56,16, 4		1,18,52,46,55	
		1,59,53,12,56,47,56,36		8,46
26″	17,58,58,41,22,21, 0,44,12,40		1,18,52,55,41	
		1,59,53,11,37,55, 0,55		8,46
28″	17,59, 0,41,15,32,38,39,13,35		1,18,53, 4,27	
		1,59,53,10,19, 1,56,28		8,46
30″	17,59, 2,41, 8,42,57,41,10, 3		1,18,53,13,13	
		1,59,53, 9, 0, 8,43,15		8,46
32″	17,59, 4,41, 1,51,57,49,53,18		1,18,53,21,59	
		1,59,53, 7,41,15,21,16		8,46
34″	17,59, 6,40,54,59,39, 5,14,34		1,18,53,30,45	
		1,59,53, 6,22,21,50,31		8,46
36″	17,59, 8,40,48, 6, 1,27, 5, 5		1,18,53,39,31	
		1,59,53, 5, 3,28,11, 0		8,46
38″	17,59,10,40,41,11, 4,55,16, 5		1,18,53,48,17	
		1,59,53, 3,44,34,22,43		8,46
40″	17,59,12,40,34,14,49,29,38,48		1,18,53,57, 3	
		1,59,53, 2,25,40,25,40		8,46
42″	17,59,14,40,27,17,15,10, 4,28		1,18,54, 5,49	
		1,59,53, 1, 6,46,19,51		8,46
44″	17,59,16,40,20,18,21,56,24,19		1,18,54,14,35	
		1,59,52,59,47,52, 5,16		8,46
46″	17,59,18,40,13,18, 9,48,29,35		1,18,54,23,21	
		1,59,52,58,28,57,41,55		8,46
48″	17,59,20,40, 6,16,38,46,11,30		1,18,54,32, 7	
		1,59,52,57,10, 3, 9,48		8,46
50″	17,59,22,39,59,13,48,49,21,18		1,18,54,40,53	
		1,59,52,55,51, 8,28,55		8,46
52″	17,59,24,39,52, 9,39,57,50,13		1,18,54,49,39	
		1,59,52,54,32,13,39,16		8,46
54″	17,59,26,39,45, 4,12,11,29,29		1,18,54,58,25	
		1,59,52,53,13,18,40,51		8,46
56″	17,59,28,39,37,57,25,30,10,20		1,18,55, 7,11	
		1,59,52,51,54,23,33,40		8,46
58″	17,59,30,39,30,49,19,53,44, 0		1,18,55,15,57	
		1,59,52,50,35,28,17,43		
60″	17,59,32,39,23,39,55,22, 1,43			
exact	17,59,32,39,23,39,55,22, 5,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°27′ 0″	17,59,32,39,23,39,55,22, 5,52			
		1,59,52,49,16,32,53,36		
2″	17,59,34,39,16,29,11,54,59,28		1,18,55,33,26	
		1,59,52,47,57,37,20,10		8,46
4″	17,59,36,39, 9,17, 9,32,19,38		1,18,55,42,12	
		1,59,52,46,38,41,37,58		8,46
6″	17,59,38,39, 2, 3,48,13,57,36		1,18,55,50,58	
		1,59,52,45,19,45,47, 0		8,46
8″	17,59,40,38,54,49, 7,59,44,36		1,18,55,59,44	
		1,59,52,44, 0,49,47,16		8,46
10″	17,59,42,38,47,33, 8,49,31,52		1,18,56, 8,30	
		1,59,52,42,41,53,38,46		8,46
12″	17,59,44,38,40,15,50,43,10,38		1,18,56,17,16	
		1,59,52,41,22,57,21,30		8,46
14″	17,59,46,38,32,57,13,40,32, 8		1,18,56,26, 2	
		1,59,52,40, 4, 0,55,28		8,46
16″	17,59,48,38,25,37,17,41,27,36		1,18,56,34,48	
		1,59,52,38,45, 4,20,40		8,46
18″	17,59,50,38,18,16, 2,45,48,16		1,18,56,43,34	
		1,59,52,37,26, 7,37, 6		8,46
20″	17,59,52,38,10,53,28,53,25,22		1,18,56,52,20	
		1,59,52,36, 7,10,44,46		8,46
22″	17,59,54,38, 3,29,36, 4,10, 8		1,18,57, 1, 6	
		1,59,52,34,48,13,43,40		8,46
24″	17,59,56,37,56, 4,24,17,53,48		1,18,57, 9,52	
		1,59,52,33,29,16,33,48		8,46
26″	17,59,58,37,48,37,53,34,27,36		1,18,57,18,38	
		1,59,52,32,10,19,15,10		8,46
28″	18, 0, 0,37,41,10, 3,53,42,46		1,18,57,27,24	
		1,59,52,30,51,21,47,46		8,46
30″	18, 0, 2,37,33,40,55,15,30,32		1,18,57,36,10	
		1,59,52,29,32,24,11,36		8,46
32″	18, 0, 4,37,26,10,27,39,42, 8		1,18,57,44,56	
		1,59,52,28,13,26,26,40		8,46
34″	18, 0, 6,37,18,38,41, 6, 8,48		1,18,57,53,42	
		1,59,52,26,54,28,32,58		8,46
36″	18, 0, 8,37,11, 5,35,34,41,46		1,18,58, 2,28	
		1,59,52,25,35,30,30,30		8,46
38″	18, 0,10,37, 3,31,11, 5,12,16		1,18,58,11,14	
		1,59,52,24,16,32,19,16		8,46
40″	18, 0,12,36,55,55,27,37,31,32		1,18,58,20, 0	
		1,59,52,22,57,33,59,16		8,46
42″	18, 0,14,36,48,18,25,11,30,48		1,18,58,28,46	
		1,59,52,21,38,35,30,30		8,46
44″	18, 0,16,36,40,40, 3,47, 1,18		1,18,58,37,32	
		1,59,52,20,19,36,52,58		8,46
46″	18, 0,18,36,33, 0,23,23,54,16		1,18,58,46,18	
		1,59,52,19, 0,38, 6,40		8,46
48″	18, 0,20,36,25,19,24, 2, 0,56		1,18,58,55, 4	
		1,59,52,17,41,39,11,36		8,46
50″	18, 0,22,36,17,37, 5,41,12,32		1,18,59, 3,50	
		1,59,52,16,22,40, 7,46		8,46
52″	18, 0,24,36, 9,53,28,21,20,18		1,18,59,12,36	
		1,59,52,15, 3,40,55,10		8,46
54″	18, 0,26,36, 2, 8,32, 2,15,28		1,18,59,21,22	
		1,59,52,13,44,41,33,48		8,46
56″	18, 0,28,35,54,22,16,43,49,16		1,18,59,30, 8	
		1,59,52,12,25,42, 3,40		8,46
58″	18, 0,30,35,46,34,42,25,52,56		1,18,59,38,54	
		1,59,52,11, 6,42,24,46		
60″	18, 0,32,35,38,45,49, 8,17,42			
exact	18, 0,32,35,38,45,49, 8,30,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°28′ 0″	18, 0,32,35,38,45,49, 8,30,21	1,59,52, 9,47,42,38,24		
2″	18, 0,34,35,30,55,36,51, 8,45	1,59,52, 8,28,42,42, 3	1,18,59,56,21	8,46
4″	18, 0,36,35,23, 4, 5,33,50,48	1,59,52, 7, 9,42,36,56	1,19, 0, 5, 7	8,46
6″	18, 0,38,35,15,11,15,16,27,44	1,59,52, 5,50,42,23, 3	1,19, 0,13,53	8,46
8″	18, 0,40,35, 7,17, 5,58,50,47	1,59,52, 4,31,42, 0,24	1,19, 0,22,39	8,46
10″	18, 0,42,34,59,21,37,40,51,11	1,59,52, 3,12,41,28,59	1,19, 0,31,25	8,46
12″	18, 0,44,34,51,24,50,22,20,10	1,59,52, 1,53,40,48,48	1,19, 0,40,11	8,46
14″	18, 0,46,34,43,26,44, 3, 8,58	1,59,52, 0,34,39,59,51	1,19, 0,48,57	8,46
16″	18, 0,48,34,35,27,18,43, 8,49	1,59,51,59,15,39, 2, 8	1,19, 0,57,43	8,46
18″	18, 0,50,34,27,26,34,22,10,57	1,59,51,57,56,37,55,39	1,19, 1, 6,29	8,46
20″	18, 0,52,34,19,24,31, 0, 6,36	1,59,51,56,37,36,40,24	1,19, 1,15,15	8,46
22″	18, 0,54,34,11,21, 8,36,47, 0	1,59,51,55,18,35,16,23	1,19, 1,24, 1	8,46
24″	18, 0,56,34, 3,16,27,12, 3,23	1,59,51,53,59,33,43,36	1,19, 1,32,47	8,46
26″	18, 0,58,33,55,10,26,45,46,59	1,59,51,52,40,32, 2, 3	1,19, 1,41,33	8,46
28″	18, 1, 0,33,47, 3, 7,17,49, 2	1,59,51,51,21,30,11,44	1,19, 1,50,19	8,46
30″	18, 1, 2,33,38,54,28,48, 0,46	1,59,51,50, 2,28,12,39	1,19, 1,59, 5	8,46
32″	18, 1, 4,33,30,44,31,16,13,25	1,59,51,48,43,26, 4,48	1,19, 2, 7,51	8,46
34″	18, 1, 6,33,22,33,14,42,18,13	1,59,51,47,24,23,48,11	1,19, 2,16,37	8,46
36″	18, 1, 8,33,14,20,39, 6, 6,24	1,59,51,46, 5,21,22,48	1,19, 2,25,23	8,46
38″	18, 1,10,33, 6, 6,44,27,29,12	1,59,51,44,46,18,48,39	1,19, 2,34, 9	8,46
40″	18, 1,12,32,57,51,30,46,17,51	1,59,51,43,27,16, 5,44	1,19, 2,42,55	8,46
42″	18, 1,14,32,49,34,58, 2,23,35	1,59,51,42, 8,13,14, 3	1,19, 2,51,41	8,46
44″	18, 1,16,32,41,17, 6,15,37,38	1,59,51,40,49,10,13,36	1,19, 3, 0,27	8,46
46″	18, 1,18,32,32,57,55,25,51,14	1,59,51,39,30, 7, 4,23	1,19, 3, 9,13	8,46
48″	18, 1,20,32,24,37,25,32,55,37	1,59,51,38,11, 3,46,24	1,19, 3,17,59	8,46
50″	18, 1,22,32,16,15,36,36,42, 1	1,59,51,36,52, 0,19,39	1,19, 3,26,45	8,46
52″	18, 1,24,32, 7,52,28,37, 1,40	1,59,51,35,32,56,44, 8	1,19, 3,35,31	8,46
54″	18, 1,26,31,59,28, 1,33,45,48	1,59,51,34,13,52,59,51	1,19, 3,44,17	8,46
56″	18, 1,28,31,51, 2,15,26,45,39	1,59,51,32,54,49, 6,48	1,19, 3,53, 3	8,46
58″	18, 1,30,31,42,35,10,15,52,27	1,59,51,31,35,45, 4,59	1,19, 4, 1,49	
60″	18, 1,32,31,34, 6,46, 0,57,26			
exact	18, 1,32,31,34, 6,46, 1,14,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°29′ 0″	18, 1,32,31,34, 6,46, 1,14,12			
		1,59,51,30,16,40,56, 7		
2″	18, 1,34,31,25,37, 2,42,10,19		1,19, 4,19,14	
		1,59,51,28,57,36,36,53		8,46
4″	18, 1,36,31,17, 6, 0,18,47,12		1,19, 4,28, 0	
		1,59,51,27,38,32, 8,53		8,46
6″	18, 1,38,31, 8,33,38,50,56, 5		1,19, 4,36,46	
		1,59,51,26,19,27,32, 7		8,46
8″	18, 1,40,30,59,59,58,18,28,12		1,19, 4,45,32	
		1,59,51,25, 0,22,46,35		8,46
10″	18, 1,42,30,51,24,58,41,14,47		1,19, 4,54,18	
		1,59,51,23,41,17,52,17		8,46
12″	18, 1,44,30,42,48,39,59, 7, 4		1,19, 5, 3, 4	
		1,59,51,22,22,12,49,13		8,46
14″	18, 1,46,30,34,11, 2,11,56,17		1,19, 5,11,50	
		1,59,51,21, 3, 7,37,23		8,46
16″	18, 1,48,30,25,32, 5,19,33,40		1,19, 5,20,36	
		1,59,51,19,44, 2,16,47		8,46
18″	18, 1,50,30,16,51,49,21,50,27		1,19, 5,29,22	
		1,59,51,18,24,56,47,25		8,46
20″	18, 1,52,30, 8,10,14,18,37,52		1,19, 5,38, 8	
		1,59,51,17, 5,51, 9,17		8,46
22″	18, 1,54,29,59,27,20, 9,47, 9		1,19, 5,46,54	
		1,59,51,15,46,45,22,23		8,46
24″	18, 1,56,29,50,43, 6,55, 9,32		1,19, 5,55,40	
		1,59,51,14,27,39,26,43		8,46
26″	18, 1,58,29,41,57,34,34,36,15		1,19, 6, 4,26	
		1,59,51,13, 8,33,22,17		8,46
28″	18, 2, 0,29,33,10,43, 7,58,32		1,19, 6,13,12	
		1,59,51,11,49,27, 9, 5		8,46
30″	18, 2, 2,29,24,22,32,35, 7,37		1,19, 6,21,58	
		1,59,51,10,30,20,47, 7		8,46
32″	18, 2, 4,29,15,33, 2,55,54,44		1,19, 6,30,44	
		1,59,51, 9,11,14,16,23		8,46
34″	18, 2, 6,29, 6,42,14,10,11, 7		1,19, 6,39,30	
		1,59,51, 7,52, 7,36,53		8,46
36″	18, 2, 8,28,57,50, 6,17,48, 0		1,19, 6,48,16	
		1,59,51, 6,33, 0,48,37		8,46
38″	18, 2,10,28,48,56,39,18,36,37		1,19, 6,57, 2	
		1,59,51, 5,13,53,51,35		8,46
40″	18, 2,12,28,40, 1,53,12,28,12		1,19, 7, 5,48	
		1,59,51, 3,54,46,45,47		8,46
42″	18, 2,14,28,31, 5,47,59,13,59		1,19, 7,14,34	
		1,59,51, 2,35,39,31,13		8,46
44″	18, 2,16,28,22, 8,23,38,45,12		1,19, 7,23,20	
		1,59,51, 1,16,32, 7,53		8,46
46″	18, 2,18,28,13, 9,40,10,53, 5		1,19, 7,32, 6	
		1,59,50,59,57,24,35,47		8,46
48″	18, 2,20,28, 4, 9,37,35,28,52		1,19, 7,40,52	
		1,59,50,58,38,16,54,55		8,46
50″	18, 2,22,27,55, 8,15,52,23,47		1,19, 7,49,38	
		1,59,50,57,19, 9, 5,17		8,46
52″	18, 2,24,27,46, 5,35, 1,29, 4		1,19, 7,58,24	
		1,59,50,56, 0, 1, 6,53		8,46
54″	18, 2,26,27,37, 1,35, 2,35,57		1,19, 8, 7,10	
		1,59,50,54,40,52,59,43		8,46
56″	18, 2,28,27,27,56,15,55,35,40		1,19, 8,15,56	
		1,59,50,53,21,44,43,47		8,46
58″	18, 2,30,27,18,49,37,40,19,27		1,19, 8,24,42	
		1,59,50,52, 2,36,19, 5		
60″	18, 2,32,27, 9,41,40,16,38,32			
exact	18, 2,32,27, 9,41,40,16,55,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°30′ 0″	18, 2,32,27, 9,41,40,16,55,13			
		1,59,50,50,43,27,47,27		
2″	18, 2,34,27, 0,32,23,44,42,40		1,19, 8,42, 6	
		1,59,50,49,24,19, 5,21		8,46
4″	18, 2,36,26,51,21,48, 3,48, 1		1,19, 8,50,52	
		1,59,50,48, 5,10,14,29		8,46
6″	18, 2,38,26,42, 9,53,14, 2,30		1,19, 8,59,38	
		1,59,50,46,46, 1,14,51		8,46
8″	18, 2,40,26,32,56,39,15,17,21		1,19, 9, 8,24	
		1,59,50,45,26,52, 6,27		8,46
10″	18, 2,42,26,23,42, 6, 7,23,48		1,19, 9,17,10	
		1,59,50,44, 7,42,49,17		8,46
12″	18, 2,44,26,14,26,13,50,13, 5		1,19, 9,25,56	
		1,59,50,42,48,33,23,21		8,46
14″	18, 2,46,26, 5, 9, 2,23,36,26		1,19, 9,34,42	
		1,59,50,41,29,23,48,39		8,46
16″	18, 2,48,25,55,50,31,47,25, 5		1,19, 9,43,28	
		1,59,50,40,10,14, 5,11		8,46
18″	18, 2,50,25,46,30,42, 1,30,16		1,19, 9,52,14	
		1,59,50,38,51, 4,12,57		8,46
20″	18, 2,52,25,37, 9,33, 5,43,13		1,19,10, 1, 0	
		1,59,50,37,31,54,11,57		8,46
22″	18, 2,54,25,27,47, 4,59,55,10		1,19,10, 9,46	
		1,59,50,36,12,44, 2,11		8,46
24″	18, 2,56,25,18,23,17,43,57,21		1,19,10,18,32	
		1,59,50,34,53,33,43,39		8,46
26″	18, 2,58,25, 8,58,11,17,41, 0		1,19,10,27,18	
		1,59,50,33,34,23,16,21		8,46
28″	18, 3, 0,24,59,31,45,40,57,21		1,19,10,36, 4	
		1,59,50,32,15,12,40,17		8,46
30″	18, 3, 2,24,50, 4, 0,53,37,38		1,19,10,44,50	
		1,59,50,30,56, 1,55,27		8,46
32″	18, 3, 4,24,40,34,56,55,33, 5		1,19,10,53,36	
		1,59,50,29,36,51, 1,51		8,46
34″	18, 3, 6,24,31, 4,33,46,34,56		1,19,11, 2,22	
		1,59,50,28,17,39,59,29		8,46
36″	18, 3, 8,24,21,32,51,26,34,25		1,19,11,11, 8	
		1,59,50,26,58,28,48,21		8,46
38″	18, 3,10,24,11,59,49,55,22,46		1,19,11,19,54	
		1,59,50,25,39,17,28,27		8,46
40″	18, 3,12,24, 2,25,29,12,51,13		1,19,11,28,40	
		1,59,50,24,20, 5,59,47		8,46
42″	18, 3,14,23,52,49,49,18,51, 0		1,19,11,37,26	
		1,59,50,23, 0,54,22,21		8,46
44″	18, 3,16,23,43,12,50,13,13,21		1,19,11,46,12	
		1,59,50,21,41,42,36, 9		8,46
46″	18, 3,18,23,33,34,31,55,49,30		1,19,11,54,58	
		1,59,50,20,22,30,41,11		8,46
48″	18, 3,20,23,23,54,54,26,30,41		1,19,12, 3,44	
		1,59,50,19, 3,18,37,27		8,46
50″	18, 3,22,23,14,13,57,45, 8, 8		1,19,12,12,30	
		1,59,50,17,44, 6,24,57		8,46
52″	18, 3,24,23, 4,31,41,51,33, 5		1,19,12,21,16	
		1,59,50,16,24,54, 3,41		8,46
54″	18, 3,26,22,54,48, 6,45,36,46		1,19,12,30, 2	
		1,59,50,15, 5,41,33,39		8,46
56″	18, 3,28,22,45, 3,12,27,10,25		1,19,12,38,48	
		1,59,50,13,46,28,54,51		8,46
58″	18, 3,30,22,35,16,58,56, 5,16		1,19,12,47,34	
		1,59,50,12,27,16, 7,17		
60″	18, 3,32,22,25,29,26,12,12,33			
exact	18, 3,32,22,25,29,26,12,32,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°31′ 0″	18, 3,32,22,25,29,26,12,32,52	1,59,50,11, 8, 3,13, 9		
2″	18, 3,34,22,15,40,34,15,46, 1	1,59,50, 9,48,50, 8,12	1,19,13, 4,57	8,46
4″	18, 3,36,22, 5,50,23, 5,54,13	1,59,50, 8,29,36,54,29	1,19,13,13,43	8,46
6″	18, 3,38,21,55,58,52,42,48,42	1,59,50, 7,10,23,32, 0	1,19,13,22,29	8,46
8″	18, 3,40,21,46, 6, 3, 6,20,42	1,59,50, 5,51,10, 0,45	1,19,13,31,15	8,46
10″	18, 3,42,21,36,11,54,16,21,27	1,59,50, 4,31,56,20,44	1,19,13,40, 1	8,46
12″	18, 3,44,21,26,16,26,12,42,11	1,59,50, 3,12,42,31,57	1,19,13,48,47	8,46
14″	18, 3,46,21,16,19,38,55,14, 8	1,59,50, 1,53,28,34,24	1,19,13,57,33	8,46
16″	18, 3,48,21, 6,21,32,23,48,32	1,59,50, 0,34,14,28, 5	1,19,14, 6,19	8,46
18″	18, 3,50,20,56,22, 6,38,16,37	1,59,49,59,15, 0,13, 0	1,19,14,15, 5	8,46
20″	18, 3,52,20,46,21,21,38,29,37	1,59,49,57,55,45,49, 9	1,19,14,23,51	8,46
22″	18, 3,54,20,36,19,17,24,18,46	1,59,49,56,36,31,16,32	1,19,14,32,37	8,46
24″	18, 3,56,20,26,15,53,55,35,18	1,59,49,55,17,16,35, 9	1,19,14,41,23	8,46
26″	18, 3,58,20,16,11,11,12,10,27	1,59,49,53,58, 1,45, 0	1,19,14,50, 9	8,46
28″	18, 4, 0,20, 6, 5, 9,13,55,27	1,59,49,52,38,46,46, 5	1,19,14,58,55	8,46
30″	18, 4, 2,19,55,57,48, 0,41,32	1,59,49,51,19,31,38,24	1,19,15, 7,41	8,46
32″	18, 4, 4,19,45,49, 7,32,19,56	1,59,49,50, 0,16,21,57	1,19,15,16,27	8,46
34″	18, 4, 6,19,35,39, 7,48,41,53	1,59,49,48,41, 0,56,44	1,19,15,25,13	8,46
36″	18, 4, 8,19,25,27,48,49,38,37	1,59,49,47,21,45,22,45	1,19,15,33,59	8,46
38″	18, 4,10,19,15,15,10,35, 1,22	1,59,49,46, 2,29,40, 0	1,19,15,42,45	8,46
40″	18, 4,12,19, 5, 1,13, 4,41,22	1,59,49,44,43,13,48,29	1,19,15,51,31	8,46
42″	18, 4,14,18,54,45,56,18,29,51	1,59,49,43,23,57,48,12	1,19,16, 0,17	8,46
44″	18, 4,16,18,44,29,20,16,18, 3	1,59,49,42, 4,41,39, 9	1,19,16, 9, 3	8,46
46″	18, 4,18,18,34,11,24,57,57,12	1,59,49,40,45,25,21,20	1,19,16,17,49	8,46
48″	18, 4,20,18,23,52,10,23,18,32	1,59,49,39,26, 8,54,45	1,19,16,26,35	8,46
50″	18, 4,22,18,13,31,36,32,13,17	1,59,49,38, 6,52,19,24	1,19,16,35,21	8,46
52″	18, 4,24,18, 3, 9,43,24,32,41	1,59,49,36,47,35,35,17	1,19,16,44, 7	8,46
54″	18, 4,26,17,52,46,31, 0, 7,58	1,59,49,35,28,18,42,24	1,19,16,52,53	8,46
56″	18, 4,28,17,42,21,59,18,50,22	1,59,49,34, 9, 1,40,45	1,19,17, 1,39	8,46
58″	18, 4,30,17,31,56, 8,20,31, 7	1,59,49,32,49,44,30,20	1,19,17,10,25	
60″	18, 4,32,17,21,28,58, 5, 1,27			
exact	18, 4,32,17,21,28,58, 5,28,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°32′ 0″	18, 4,32,17,21,28,58, 5,28,18			
		1,59,49,31,30,27,13,56		
2″	18, 4,34,17,11, 0,28,32,42,14		1,19,17,27,46	
		1,59,49,30,11, 9,46,10		8,46
4″	18, 4,36,17, 0,30,39,42,28,24		1,19,17,36,32	
		1,59,49,28,51,52, 9,38		8,46
6″	18, 4,38,16,49,59,31,34,38, 2		1,19,17,45,18	
		1,59,49,27,32,34,24,20		8,46
8″	18, 4,40,16,39,27, 4, 9, 2,22		1,19,17,54, 4	
		1,59,49,26,13,16,30,16		8,46
10″	18, 4,42,16,28,53,17,25,32,38		1,19,18, 2,50	
		1,59,49,24,53,58,27,26		8,46
12″	18, 4,44,16,18,18,11,24, 0, 4		1,19,18,11,36	
		1,59,49,23,34,40,15,50		8,46
14″	18, 4,46,16, 7,41,46, 4,15,54		1,19,18,20,22	
		1,59,49,22,15,21,55,28		8,46
16″	18, 4,48,15,57, 4, 1,26,11,22		1,19,18,29, 8	
		1,59,49,20,56, 3,26,20		8,46
18″	18, 4,50,15,46,24,57,29,37,42		1,19,18,37,54	
		1,59,49,19,36,44,48,26		8,46
20″	18, 4,52,15,35,44,34,14,26, 8		1,19,18,46,40	
		1,59,49,18,17,26, 1,46		8,46
22″	18, 4,54,15,25, 2,51,40,27,54		1,19,18,55,26	
		1,59,49,16,58, 7, 6,20		8,46
24″	18, 4,56,15,14,19,49,47,34,14		1,19,19, 4,12	
		1,59,49,15,38,48, 2, 8		8,46
26″	18, 4,58,15, 3,35,28,35,36,22		1,19,19,12,58	
		1,59,49,14,19,28,49,10		8,46
28″	18, 5, 0,14,52,49,48, 4,25,32		1,19,19,21,44	
		1,59,49,13, 0, 9,27,26		8,46
30″	18, 5, 2,14,42, 2,48,13,52,58		1,19,19,30,30	
		1,59,49,11,40,49,56,56		8,46
32″	18, 5, 4,14,31,14,29, 3,49,54		1,19,19,39,16	
		1,59,49,10,21,30,17,40		8,46
34″	18, 5, 6,14,20,24,50,34, 7,34		1,19,19,48, 2	
		1,59,49, 9, 2,10,29,38		8,46
36″	18, 5, 8,14, 9,33,52,44,37,12		1,19,19,56,48	
		1,59,49, 7,42,50,32,50		8,46
38″	18, 5,10,13,58,41,35,35,10, 2		1,19,20, 5,34	
		1,59,49, 6,23,30,27,16		8,46
40″	18, 5,12,13,47,47,59, 5,37,18		1,19,20,14,20	
		1,59,49, 5, 4,10,12,56		8,46
42″	18, 5,14,13,36,53, 3,15,50,14		1,19,20,23, 6	
		1,59,49, 3,44,49,49,50		8,46
44″	18, 5,16,13,25,56,48, 5,40, 4		1,19,20,31,52	
		1,59,49, 2,25,29,17,58		8,46
46″	18, 5,18,13,14,59,13,34,58, 2		1,19,20,40,38	
		1,59,49, 1, 6, 8,37,20		8,46
48″	18, 5,20,13, 4, 0,19,43,35,22		1,19,20,49,24	
		1,59,48,59,46,47,47,56		8,46
50″	18, 5,22,12,53, 0, 6,31,23,18		1,19,20,58,10	
		1,59,48,58,27,26,49,46		8,46
52″	18, 5,24,12,41,58,33,58,13, 4		1,19,21, 6,56	
		1,59,48,57, 8, 5,42,50		8,46
54″	18, 5,26,12,30,55,42, 3,55,54		1,19,21,15,42	
		1,59,48,55,48,44,27, 8		8,46
56″	18, 5,28,12,19,51,30,48,23, 2		1,19,21,24,28	
		1,59,48,54,29,23, 2,40		8,46
58″	18, 5,30,12, 8,46, 0,11,25,42		1,19,21,33,14	
		1,59,48,53,10, 1,29,26		
60″	18, 5,32,11,57,39,10,12,55, 8			
exact	18, 5,32,11,57,39,10,13,24,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°33′ 0″	18, 5,32,11,57,39,10,13,24,23			
		1,59,48,51,50,39,50,31		
2″	18, 5,34,11,46,31, 0,53,14,54		1,19,21,50,33	
		1,59,48,50,31,17,59,58		8,46
4″	18, 5,36,11,35,21,32,11,14,52		1,19,21,59,19	
		1,59,48,49,11,56, 0,39		8,46
6″	18, 5,38,11,24,10,44, 7,15,31		1,19,22, 8, 5	
		1,59,48,47,52,33,52,34		8,46
8″	18, 5,40,11,12,58,36,41, 8, 5		1,19,22,16,51	
		1,59,48,46,33,11,35,43		8,46
10″	18, 5,42,11, 1,45, 9,52,43,48		1,19,22,25,37	
		1,59,48,45,13,49,10, 6		8,46
12″	18, 5,44,10,50,30,23,41,53,54		1,19,22,34,23	
		1,59,48,43,54,26,35,43		8,46
14″	18, 5,46,10,39,14,18, 8,29,37		1,19,22,43, 9	
		1,59,48,42,35, 3,52,34		8,46
16″	18, 5,48,10,27,56,53,12,22,11		1,19,22,51,55	
		1,59,48,41,15,41, 0,39		8,46
18″	18, 5,50,10,16,38, 8,53,22,50		1,19,23, 0,41	
		1,59,48,39,56,17,59,58		8,46
20″	18, 5,52,10, 5,18, 5,11,22,48		1,19,23, 9,27	
		1,59,48,38,36,54,50,31		8,46
22″	18, 5,54, 9,53,56,42, 6,13,19		1,19,23,18,13	
		1,59,48,37,17,31,32,18		8,46
24″	18, 5,56, 9,42,33,59,37,45,37		1,19,23,26,59	
		1,59,48,35,58, 8, 5,19		8,46
26″	18, 5,58, 9,31, 9,57,45,50,56		1,19,23,35,45	
		1,59,48,34,38,44,29,34		8,46
28″	18, 6, 0, 9,19,44,36,30,20,30		1,19,23,44,31	
		1,59,48,33,19,20,45, 3		8,46
30″	18, 6, 2, 9, 8,17,55,51, 5,33		1,19,23,53,17	
		1,59,48,31,59,56,51,46		8,46
32″	18, 6, 4, 8,56,49,55,47,57,19		1,19,24, 2, 3	
		1,59,48,30,40,32,49,43		8,46
34″	18, 6, 6, 8,45,20,36,20,47, 2		1,19,24,10,49	
		1,59,48,29,21, 8,38,54		8,46
36″	18, 6, 8, 8,33,49,57,29,25,56		1,19,24,19,35	
		1,59,48,28, 1,44,19,19		8,46
38″	18, 6,10, 8,22,17,59,13,45,15		1,19,24,28,21	
		1,59,48,26,42,19,50,58		8,46
40″	18, 6,12, 8,10,44,41,33,36,13		1,19,24,37, 7	
		1,59,48,25,22,55,13,51		8,46
42″	18, 6,14, 7,59,10, 4,28,50, 4		1,19,24,45,53	
		1,59,48,24, 3,30,27,58		8,46
44″	18, 6,16, 7,47,34, 7,59,18, 2		1,19,24,54,39	
		1,59,48,22,44, 5,33,19		8,46
46″	18, 6,18, 7,35,56,52, 4,51,21		1,19,25, 3,25	
		1,59,48,21,24,40,29,54		8,46
48″	18, 6,20, 7,24,18,16,45,21,15		1,19,25,12,11	
		1,59,48,20, 5,15,17,43		8,46
50″	18, 6,22, 7,12,38,22, 0,38,58		1,19,25,20,57	
		1,59,48,18,45,49,56,46		8,46
52″	18, 6,24, 7, 0,57, 7,50,35,44		1,19,25,29,43	
		1,59,48,17,26,24,27, 3		8,46
54″	18, 6,26, 6,49,14,34,15, 2,47		1,19,25,38,29	
		1,59,48,16, 6,58,48,34		8,46
56″	18, 6,28, 6,37,30,41,13,51,21		1,19,25,47,15	
		1,59,48,14,47,33, 1,19		8,46
58″	18, 6,30, 6,25,45,28,46,52,40		1,19,25,56, 1	
		1,59,48,13,28, 7, 5,18		
60″	18, 6,32, 6,13,58,56,53,57,58			
exact	18, 6,32, 6,13,58,56,54,25,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°34′ 0″	18, 6,32, 6,13,58,56,54,25,45			
		1,59,48,12, 8,41, 3,37		
2″	18, 6,34, 6, 2,11, 5,35,29,22		1,19,26,13,20	
		1,59,48,10,49,14,50,17		8,46
4″	18, 6,36, 5,50,21,54,50,19,39		1,19,26,22, 6	
		1,59,48, 9,29,48,28,11		8,46
6″	18, 6,38, 5,38,31,24,38,47,50		1,19,26,30,52	
		1,59,48, 8,10,21,57,19		8,46
8″	18, 6,40, 5,26,39,35, 0,45, 9		1,19,26,39,38	
		1,59,48, 6,50,55,17,41		8,46
10″	18, 6,42, 5,14,46,25,56, 2,50		1,19,26,48,24	
		1,59,48, 5,31,28,29,17		8,46
12″	18, 6,44, 5, 2,51,57,24,32, 7		1,19,26,57,10	
		1,59,48, 4,12, 1,32, 7		8,46
14″	18, 6,46, 4,50,56, 9,26, 4,14		1,19,27, 5,56	
		1,59,48, 2,52,34,26,11		8,46
16″	18, 6,48, 4,38,59, 2, 0,30,25		1,19,27,14,42	
		1,59,48, 1,33, 7,11,29		8,46
18″	18, 6,50, 4,27, 0,35, 7,41,54		1,19,27,23,28	
		1,59,48, 0,13,39,48, 1		8,46
20″	18, 6,52, 4,15, 0,48,47,29,55		1,19,27,32,14	
		1,59,47,58,54,12,15,47		8,46
22″	18, 6,54, 4, 2,59,42,59,45,42		1,19,27,41, 0	
		1,59,47,57,34,44,34,47		8,46
24″	18, 6,56, 3,50,57,17,44,20,29		1,19,27,49,46	
		1,59,47,56,15,16,45, 1		8,46
26″	18, 6,58, 3,38,53,33, 1, 5,30		1,19,27,58,32	
		1,59,47,54,55,48,46,29		8,46
28″	18, 7, 0, 3,26,48,28,49,51,59		1,19,28, 7,18	
		1,59,47,53,36,20,39,11		8,46
30″	18, 7, 2, 3,14,42, 5,10,31,10		1,19,28,16, 4	
		1,59,47,52,16,52,23, 7		8,46
32″	18, 7, 4, 3, 2,34,22, 2,54,17		1,19,28,24,50	
		1,59,47,50,57,23,58,17		8,46
34″	18, 7, 6, 2,50,25,19,26,52,34		1,19,28,33,36	
		1,59,47,49,37,55,24,41		8,46
36″	18, 7, 8, 2,38,14,57,22,17,15		1,19,28,42,22	
		1,59,47,48,18,26,42,19		8,46
38″	18, 7,10, 2,26, 3,15,48,59,34		1,19,28,51, 8	
		1,59,47,46,58,57,51,11		8,46
40″	18, 7,12, 2,13,50,14,46,50,45		1,19,28,59,54	
		1,59,47,45,39,28,51,17		8,46
42″	18, 7,14, 2, 1,35,54,15,42, 2		1,19,29, 8,40	
		1,59,47,44,19,59,42,37		8,46
44″	18, 7,16, 1,49,20,14,15,24,39		1,19,29,17,26	
		1,59,47,43, 0,30,25,11		8,46
46″	18, 7,18, 1,37, 3,14,45,49,50		1,19,29,26,12	
		1,59,47,41,41, 0,58,59		8,46
48″	18, 7,20, 1,24,44,55,46,48,49		1,19,29,34,58	
		1,59,47,40,21,31,24, 1		8,46
50″	18, 7,22, 1,12,25,17,18,12,50		1,19,29,43,44	
		1,59,47,39, 2, 1,40,17		8,46
52″	18, 7,24, 1, 0, 4,19,19,53, 7		1,19,29,52,30	
		1,59,47,37,42,31,47,47		8,46
54″	18, 7,26, 0,47,42, 1,51,40,54		1,19,30, 1,16	
		1,59,47,36,23, 1,46,31		8,46
56″	18, 7,28, 0,35,18,24,53,27,25		1,19,30,10, 2	
		1,59,47,35, 3,31,36,29		8,46
58″	18, 7,30, 0,22,53,28,25, 3,54		1,19,30,18,48	
		1,59,47,33,44, 1,17,41		
60″	18, 7,32, 0,10,27,12,26,21,35			
exact	18, 7,32, 0,10,27,12,26,58,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°35′ 0″	18, 7,32, 0,10,27,12,26,58,46			
		1,59,47,32,24,30,53,59		
2″	18, 7,33,59,57,59,36,57,52,45		1,19,30,36, 4	
		1,59,47,31, 5, 0,17,55		8,45
4″	18, 7,35,59,45,30,41,58,10,40		1,19,30,44,49	
		1,59,47,29,45,29,33, 6		8,45
6″	18, 7,37,59,33, 0,27,27,43,46		1,19,30,53,34	
		1,59,47,28,25,58,39,32		8,45
8″	18, 7,39,59,20,28,53,26,23,18		1,19,31, 2,19	
		1,59,47,27, 6,27,37,13		8,45
10″	18, 7,41,59, 7,55,59,54, 0,31		1,19,31,11, 4	
		1,59,47,25,46,56,26, 9		8,45
12″	18, 7,43,58,55,21,46,50,26,40		1,19,31,19,49	
		1,59,47,24,27,25, 6,20		8,45
14″	18, 7,45,58,42,46,14,15,33, 0		1,19,31,28,34	
		1,59,47,23, 7,53,37,46		8,45
16″	18, 7,47,58,30, 9,22, 9,10,46		1,19,31,37,19	
		1,59,47,21,48,22, 0,27		8,45
18″	18, 7,49,58,17,31,10,31,11,13		1,19,31,46, 4	
		1,59,47,20,28,50,14,23		8,45
20″	18, 7,51,58, 4,51,39,21,25,36		1,19,31,54,49	
		1,59,47,19, 9,18,19,34		8,45
22″	18, 7,53,57,52,10,48,39,45,10		1,19,32, 3,34	
		1,59,47,17,49,46,16, 0		8,45
24″	18, 7,55,57,39,28,38,26, 1,10		1,19,32,12,19	
		1,59,47,16,30,14, 3,41		8,45
26″	18, 7,57,57,26,45, 8,40, 4,51		1,19,32,21, 4	
		1,59,47,15,10,41,42,37		8,45
28″	18, 7,59,57,14, 0,19,21,47,28		1,19,32,29,49	
		1,59,47,13,51, 9,12,48		8,45
30″	18, 8, 1,57, 1,14,10,31, 0,16		1,19,32,38,34	
		1,59,47,12,31,36,34,14		8,45
32″	18, 8, 3,56,48,26,42, 7,34,30		1,19,32,47,19	
		1,59,47,11,12, 3,46,55		8,45
34″	18, 8, 5,56,35,37,54,11,21,25		1,19,32,56, 4	
		1,59,47, 9,52,30,50,51		8,45
36″	18, 8, 7,56,22,47,46,42,12,16		1,19,33, 4,49	
		1,59,47, 8,32,57,46, 2		8,45
38″	18, 8, 9,56, 9,56,19,39,58,18		1,19,33,13,34	
		1,59,47, 7,13,24,32,28		8,45
40″	18, 8,11,55,57, 3,33, 4,30,46		1,19,33,22,19	
		1,59,47, 5,53,51,10, 9		8,45
42″	18, 8,13,55,44, 9,26,55,40,55		1,19,33,31, 4	
		1,59,47, 4,34,17,39, 5		8,45
44″	18, 8,15,55,31,14, 1,13,20, 0		1,19,33,39,49	
		1,59,47, 3,14,43,59,16		8,45
46″	18, 8,17,55,18,17,15,57,19,16		1,19,33,48,34	
		1,59,47, 1,55,10,10,42		8,45
48″	18, 8,19,55, 5,19,11, 7,29,58		1,19,33,57,19	
		1,59,47, 0,35,36,13,23		8,45
50″	18, 8,21,54,52,19,46,43,43,21		1,19,34, 6, 4	
		1,59,46,59,16, 2, 7,19		8,45
52″	18, 8,23,54,39,19, 2,45,50,40		1,19,34,14,49	
		1,59,46,57,56,27,52,30		8,45
54″	18, 8,25,54,26,16,59,13,43,10		1,19,34,23,34	
		1,59,46,56,36,53,28,56		8,45
56″	18, 8,27,54,13,13,36, 7,12, 6		1,19,34,32,19	
		1,59,46,55,17,18,56,37		8,45
58″	18, 8,29,54, 0, 8,53,26, 8,43		1,19,34,41, 4	
		1,59,46,53,57,44,15,33		
60″	18, 8,31,53,47, 2,51,10,24,16			
exact	18, 8,31,53,47, 2,51, 9,51,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°36′ 0″	18, 8,31,53,47, 2,51, 9,51,36	1,59,46,52,38, 9,22,20		
2″	18, 8,33,53,33,55,29,19,13,56	1,59,46,51,18,34,23,32	1,19,34,58,48	
4″	18, 8,35,53,20,46,47,53,37,28	1,59,46,49,58,59,15,59	1,19,35, 7,33	8,45
6″	18, 8,37,53, 7,36,46,52,53,27	1,59,46,48,39,23,59,41	1,19,35,16,18	8,45
8″	18, 8,39,52,54,25,26,16,53, 8	1,59,46,47,19,48,34,38	1,19,35,25, 3	8,45
10″	18, 8,41,52,41,12,46, 5,27,46	1,59,46,46, 0,13, 0,50	1,19,35,33,48	8,45
12″	18, 8,43,52,27,58,46,18,28,36	1,59,46,44,40,37,18,17	1,19,35,42,33	8,45
14″	18, 8,45,52,14,43,26,55,46,53	1,59,46,43,21, 1,26,59	1,19,35,51,18	8,45
16″	18, 8,47,52, 1,26,47,57,13,52	1,59,46,42, 1,25,26,56	1,19,36, 0, 3	8,45
18″	18, 8,49,51,48, 8,49,22,40,48	1,59,46,40,41,49,18, 8	1,19,36, 8,48	8,45
20″	18, 8,51,51,34,49,31,11,58,56	1,59,46,39,22,13, 0,35	1,19,36,17,33	8,45
22″	18, 8,53,51,21,28,53,24,59,31	1,59,46,38, 2,36,34,17	1,19,36,26,18	8,45
24″	18, 8,55,51, 8, 6,56, 1,33,48	1,59,46,36,42,59,59,14	1,19,36,35, 3	8,45
26″	18, 8,57,50,54,43,39, 1,33, 2	1,59,46,35,23,23,15,26	1,19,36,43,48	8,45
28″	18, 8,59,50,41,19, 2,24,48,28	1,59,46,34, 3,46,22,53	1,19,36,52,33	8,45
30″	18, 9, 1,50,27,53, 6,11,11,21	1,59,46,32,44, 9,21,35	1,19,37, 1,18	8,45
32″	18, 9, 3,50,14,25,50,20,32,56	1,59,46,31,24,32,11,32	1,19,37,10, 3	8,45
34″	18, 9, 5,50, 0,57,14,52,44,28	1,59,46,30, 4,54,52,44	1,19,37,18,48	8,45
36″	18, 9, 7,49,47,27,19,47,37,12	1,59,46,28,45,17,25,11	1,19,37,27,33	8,45
38″	18, 9, 9,49,33,56, 5, 5, 2,23	1,59,46,27,25,39,48,53	1,19,37,36,18	8,45
40″	18, 9,11,49,20,23,30,44,51,16	1,59,46,26, 6, 2, 3,50	1,19,37,45, 3	8,45
42″	18, 9,13,49, 6,49,36,46,55, 6	1,59,46,24,46,24,10, 2	1,19,37,53,48	8,45
44″	18, 9,15,48,53,14,23,11, 5, 8	1,59,46,23,26,46, 7,29	1,19,38, 2,33	8,45
46″	18, 9,17,48,39,37,49,57,12,37	1,59,46,22, 7, 7,56,11	1,19,38,11,18	8,45
48″	18, 9,19,48,25,59,57, 5, 8,48	1,59,46,20,47,29,36, 8	1,19,38,20, 3	8,45
50″	18, 9,21,48,12,20,44,34,44,56	1,59,46,19,27,51, 7,20	1,19,38,28,48	8,45
52″	18, 9,23,47,58,40,12,25,52,16	1,59,46,18, 8,12,29,47	1,19,38,37,33	8,45
54″	18, 9,25,47,44,58,20,38,22, 3	1,59,46,16,48,33,43,29	1,19,38,46,18	8,45
56″	18, 9,27,47,31,15, 9,12, 5,32	1,59,46,15,28,54,48,26	1,19,38,55, 3	8,45
58″	18, 9,29,47,17,30,38, 6,53,58	1,59,46,14, 9,15,44,38	1,19,39, 3,48	
60″	18, 9,31,47, 3,44,47,22,38,36			
exact	18, 9,31,47, 3,44,47,22,14,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°37′ 0″	18, 9,31,47, 3,44,47,22,14,10	1,59,46,12,49,36,29,23		
2″	18, 9,33,46,49,57,36,58,43,33	1,59,46,11,29,57, 7,54	1,19,39,21,29	
4″	18, 9,35,46,36, 9, 6,55,51,27	1,59,46,10,10,17,37,40	1,19,39,30,14	8,45
6″	18, 9,37,46,22,19,17,13,29, 7	1,59,46, 8,50,37,58,41	1,19,39,38,59	8,45
8″	18, 9,39,46, 8,28, 7,51,27,48	1,59,46, 7,30,58,10,57	1,19,39,47,44	8,45
10″	18, 9,41,45,54,35,38,49,38,45	1,59,46, 6,11,18,14,28	1,19,39,56,29	8,45
12″	18, 9,43,45,40,41,50, 7,53,13	1,59,46, 4,51,38, 9,14	1,19,40, 5,14	8,45
14″	18, 9,45,45,26,46,41,46, 2,27	1,59,46, 3,31,57,55,15	1,19,40,13,59	8,45
16″	18, 9,47,45,12,50,13,43,57,42	1,59,46, 2,12,17,32,31	1,19,40,22,44	8,45
18″	18, 9,49,44,58,52,26, 1,30,13	1,59,46, 0,52,37, 1, 2	1,19,40,31,29	8,45
20″	18, 9,51,44,44,53,18,38,31,15	1,59,45,59,32,56,20,48	1,19,40,40,14	8,45
22″	18, 9,53,44,30,52,51,34,52, 3	1,59,45,58,13,15,31,49	1,19,40,48,59	8,45
24″	18, 9,55,44,16,51, 4,50,23,52	1,59,45,56,53,34,34, 5	1,19,40,57,44	8,45
26″	18, 9,57,44, 2,47,58,24,57,57	1,59,45,55,33,53,27,36	1,19,41, 6,29	8,45
28″	18, 9,59,43,48,43,32,18,25,33	1,59,45,54,14,12,12,22	1,19,41,15,14	8,45
30″	18,10, 1,43,34,37,46,30,37,55	1,59,45,52,54,30,48,23	1,19,41,23,59	8,45
32″	18,10, 3,43,20,30,41, 1,26,18	1,59,45,51,34,49,15,39	1,19,41,32,44	8,45
34″	18,10, 5,43, 6,22,15,50,41,57	1,59,45,50,15, 7,34,10	1,19,41,41,29	8,45
36″	18,10, 7,42,52,12,30,58,16, 7	1,59,45,48,55,25,43,56	1,19,41,50,14	8,45
38″	18,10, 9,42,38, 1,26,24, 0, 3	1,59,45,47,35,43,44,57	1,19,41,58,59	8,45
40″	18,10,11,42,23,49, 2, 7,45, 0	1,59,45,46,16, 1,37,13	1,19,42, 7,44	8,45
42″	18,10,13,42, 9,35,18, 9,22,13	1,59,45,44,56,19,20,44	1,19,42,16,29	8,45
44″	18,10,15,41,55,20,14,28,42,57	1,59,45,43,36,36,55,30	1,19,42,25,14	8,45
46″	18,10,17,41,41, 3,51, 5,38,27	1,59,45,42,16,54,21,31	1,19,42,33,59	8,45
48″	18,10,19,41,26,46, 7,59,59,58	1,59,45,40,57,11,38,47	1,19,42,42,44	8,45
50″	18,10,21,41,12,27, 5,11,38,45	1,59,45,39,37,28,47,18	1,19,42,51,29	8,45
52″	18,10,23,40,58, 6,42,40,26, 3	1,59,45,38,17,45,47, 4	1,19,43, 0,14	8,45
54″	18,10,25,40,43,45, 0,26,13, 7	1,59,45,36,58, 2,38, 5	1,19,43, 8,59	8,45
56″	18,10,27,40,29,21,58,28,51,12	1,59,45,35,38,19,20,21	1,19,43,17,44	8,45
58″	18,10,29,40,14,57,36,48,11,33	1,59,45,34,18,35,53,52	1,19,43,26,29	
60″	18,10,31,40, 0,31,55,24, 5,25			
exact	18,10,31,40, 0,31,55,23,38,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°38′ 0″	18,10,31,40, 0,31,55,23,38,15			
		1,59,45,32,58,52,15,52		
2″	18,10,33,39,46, 4,54,15,54, 7		1,19,43,44,10	
		1,59,45,31,39, 8,31,42		8,45
4″	18,10,35,39,31,36,33,24,25,49		1,19,43,52,55	
		1,59,45,30,19,24,38,47		8,45
6″	18,10,37,39,17, 6,52,49, 4,36		1,19,44, 1,40	
		1,59,45,28,59,40,37, 7		8,45
8″	18,10,39,39, 2,35,52,29,41,43		1,19,44,10,25	
		1,59,45,27,39,56,26,42		8,45
10″	18,10,41,38,48, 3,32,26, 8,25		1,19,44,19,10	
		1,59,45,26,20,12, 7,32		8,45
12″	18,10,43,38,33,29,52,38,15,57		1,19,44,27,55	
		1,59,45,25, 0,27,39,37		8,45
14″	18,10,45,38,18,54,53, 5,55,34		1,19,44,36,40	
		1,59,45,23,40,43, 2,57		8,45
16″	18,10,47,38, 4,18,33,48,58,31		1,19,44,45,25	
		1,59,45,22,20,58,17,32		8,45
18″	18,10,49,37,49,40,54,47,16, 3		1,19,44,54,10	
		1,59,45,21, 1,13,23,22		8,45
20″	18,10,51,37,35, 1,56, 0,39,25		1,19,45, 2,55	
		1,59,45,19,41,28,20,27		8,45
22″	18,10,53,37,20,21,37,28,59,52		1,19,45,11,40	
		1,59,45,18,21,43, 8,47		8,45
24″	18,10,55,37, 5,39,59,12, 8,39		1,19,45,20,25	
		1,59,45,17, 1,57,48,22		8,45
26″	18,10,57,36,50,57, 1, 9,57, 1		1,19,45,29,10	
		1,59,45,15,42,12,19,12		8,45
28″	18,10,59,36,36,12,43,22,16,13		1,19,45,37,55	
		1,59,45,14,22,26,41,17		8,45
30″	18,11, 1,36,21,27, 5,48,57,30		1,19,45,46,40	
		1,59,45,13, 2,40,54,37		8,45
32″	18,11, 3,36, 6,40, 8,29,52, 7		1,19,45,55,25	
		1,59,45,11,42,54,59,12		8,45
34″	18,11, 5,35,51,51,51,24,51,19		1,19,46, 4,10	
		1,59,45,10,23, 8,55, 2		8,45
36″	18,11, 7,35,37, 2,14,33,46,21		1,19,46,12,55	
		1,59,45, 9, 3,22,42, 7		8,45
38″	18,11, 9,35,22,11,17,56,28,28		1,19,46,21,40	
		1,59,45, 7,43,36,20,27		8,45
40″	18,11,11,35, 7,19, 1,32,48,55		1,19,46,30,25	
		1,59,45, 6,23,49,50, 2		8,45
42″	18,11,13,34,52,25,25,22,38,57		1,19,46,39,10	
		1,59,45, 5, 4, 3,10,52		8,45
44″	18,11,15,34,37,30,29,25,49,49		1,19,46,47,55	
		1,59,45, 3,44,16,22,57		8,45
46″	18,11,17,34,22,34,13,42,12,46		1,19,46,56,40	
		1,59,45, 2,24,29,26,17		8,45
48″	18,11,19,34, 7,36,38,11,39, 3		1,19,47, 5,25	
		1,59,45, 1, 4,42,20,52		8,45
50″	18,11,21,33,52,37,42,53,59,55		1,19,47,14,10	
		1,59,44,59,44,55, 6,42		8,45
52″	18,11,23,33,37,37,27,49, 6,37		1,19,47,22,55	
		1,59,44,58,25, 7,43,47		8,45
54″	18,11,25,33,22,35,52,56,50,24		1,19,47,31,40	
		1,59,44,57, 5,20,12, 7		8,45
56″	18,11,27,33, 7,32,58,17, 2,31		1,19,47,40,25	
		1,59,44,55,45,32,31,42		8,45
58″	18,11,29,32,52,28,43,49,34,13		1,19,47,49,10	
		1,59,44,54,25,44,42,32		
60″	18,11,31,32,37,23, 9,34,16,45			
exact	18,11,31,32,37,23, 9,33,57,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°39′ 0″	18,11,31,32,37,23, 9,33,57,27			
		1,59,44,53, 5,56,42,31		
2″	18,11,33,32,22,16,15,30,39,58		1,19,48, 6,49	
		1,59,44,51,46, 8,35,42		8,45
4″	18,11,35,32, 7, 8, 1,39,15,40		1,19,48,15,34	
		1,59,44,50,26,20,20, 8		8,45
6″	18,11,37,31,51,58,27,59,35,48		1,19,48,24,19	
		1,59,44,49, 6,31,55,49		8,45
8″	18,11,39,31,36,47,34,31,31,37		1,19,48,33, 4	
		1,59,44,47,46,43,22,45		8,45
10″	18,11,41,31,21,35,21,14,54,22		1,19,48,41,49	
		1,59,44,46,26,54,40,56		8,45
12″	18,11,43,31, 6,21,48, 9,35,18		1,19,48,50,34	
		1,59,44,45, 7, 5,50,22		8,45
14″	18,11,45,30,51, 6,55,15,25,40		1,19,48,59,19	
		1,59,44,43,47,16,51, 3		8,45
16″	18,11,47,30,35,50,42,32,16,43		1,19,49, 8, 4	
		1,59,44,42,27,27,42,59		8,45
18″	18,11,49,30,20,33, 9,59,59,42		1,19,49,16,49	
		1,59,44,41, 7,38,26,10		8,45
20″	18,11,51,30, 5,14,17,38,25,52		1,19,49,25,34	
		1,59,44,39,47,49, 0,36		8,45
22″	18,11,53,29,49,54, 5,27,26,28		1,19,49,34,19	
		1,59,44,38,27,59,26,17		8,45
24″	18,11,55,29,34,32,33,26,52,45		1,19,49,43, 4	
		1,59,44,37, 8, 9,43,13		8,45
26″	18,11,57,29,19, 9,41,36,35,58		1,19,49,51,49	
		1,59,44,35,48,19,51,24		8,45
28″	18,11,59,29, 3,45,29,56,27,22		1,19,50, 0,34	
		1,59,44,34,28,29,50,50		8,45
30″	18,12, 1,28,48,19,58,26,18,12		1,19,50, 9,19	
		1,59,44,33, 8,39,41,31		8,45
32″	18,12, 3,28,32,53, 7, 5,59,43		1,19,50,18, 4	
		1,59,44,31,48,49,23,27		8,45
34″	18,12, 5,28,17,24,55,55,23,10		1,19,50,26,49	
		1,59,44,30,28,58,56,38		8,45
36″	18,12, 7,28, 1,55,24,54,19,48		1,19,50,35,34	
		1,59,44,29, 9, 8,21, 4		8,45
38″	18,12, 9,27,46,24,34, 2,40,52		1,19,50,44,19	
		1,59,44,27,49,17,36,45		8,45
40″	18,12,11,27,30,52,23,20,17,37		1,19,50,53, 4	
		1,59,44,26,29,26,43,41		8,45
42″	18,12,13,27,15,18,52,47, 1,18		1,19,51, 1,49	
		1,59,44,25, 9,35,41,52		8,45
44″	18,12,15,26,59,44, 2,22,43,10		1,19,51,10,34	
		1,59,44,23,49,44,31,18		8,45
46″	18,12,17,26,44, 7,52, 7,14,28		1,19,51,19,19	
		1,59,44,22,29,53,11,59		8,45
48″	18,12,19,26,28,30,22, 0,26,27		1,19,51,28, 4	
		1,59,44,21,10, 1,43,55		8,45
50″	18,12,21,26,12,51,32, 2,10,22		1,19,51,36,49	
		1,59,44,19,50,10, 7, 6		8,45
52″	18,12,23,25,57,11,22,12,17,28		1,19,51,45,34	
		1,59,44,18,30,18,21,32		8,45
54″	18,12,25,25,41,29,52,30,39, 0		1,19,51,54,19	
		1,59,44,17,10,26,27,13		8,45
56″	18,12,27,25,25,47, 2,57, 6,13		1,19,52, 3, 4	
		1,59,44,15,50,34,24, 9		8,45
58″	18,12,29,25,10, 2,53,31,30,22		1,19,52,11,49	
		1,59,44,14,30,42,12,20		
60″	18,12,31,24,54,17,24,13,42,42			
exact	18,12,31,24,54,17,24,13,27,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°40′ 0″	18,12,31,24,54,17,24,13,27,13			
		1,59,44,13,10,49,50, 3		
2″	18,12,33,24,38,30,35, 3,17,16		1,19,52,29,26	
		1,59,44,11,50,57,20,37		8,45
4″	18,12,35,24,22,42,26, 0,37,53		1,19,52,38,11	
		1,59,44,10,31, 4,42,26		8,45
6″	18,12,37,24, 6,52,57, 5,20,19		1,19,52,46,56	
		1,59,44, 9,11,11,55,30		8,45
8″	18,12,39,23,51, 2, 8,17,15,49		1,19,52,55,41	
		1,59,44, 7,51,18,59,49		8,45
10″	18,12,41,23,35, 9,59,36,15,38		1,19,53, 4,26	
		1,59,44, 6,31,25,55,23		8,45
12″	18,12,43,23,19,16,31, 2,11, 1		1,19,53,13,11	
		1,59,44, 5,11,32,42,12		8,45
14″	18,12,45,23, 3,21,42,34,53,13		1,19,53,21,56	
		1,59,44, 3,51,39,20,16		8,45
16″	18,12,47,22,47,25,34,14,13,29		1,19,53,30,41	
		1,59,44, 2,31,45,49,35		8,45
18″	18,12,49,22,31,28, 6, 0, 3, 4		1,19,53,39,26	
		1,59,44, 1,11,52,10, 9		8,45
20″	18,12,51,22,15,29,17,52,13,13		1,19,53,48,11	
		1,59,43,59,51,58,21,58		8,45
22″	18,12,53,21,59,29, 9,50,35,11		1,19,53,56,56	
		1,59,43,58,32, 4,25, 2		8,45
24″	18,12,55,21,43,27,41,55, 0,13		1,19,54, 5,41	
		1,59,43,57,12,10,19,21		8,45
26″	18,12,57,21,27,24,54, 5,19,34		1,19,54,14,26	
		1,59,43,55,52,16, 4,55		8,45
28″	18,12,59,21,11,20,46,21,24,29		1,19,54,23,11	
		1,59,43,54,32,21,41,44		8,45
30″	18,13, 1,20,55,15,18,43, 6,13		1,19,54,31,56	
		1,59,43,53,12,27, 9,48		8,45
32″	18,13, 3,20,39, 8,31,10,16, 1		1,19,54,40,41	
		1,59,43,51,52,32,29, 7		8,45
34″	18,13, 5,20,23, 0,23,42,45, 8		1,19,54,49,26	
		1,59,43,50,32,37,39,41		8,45
36″	18,13, 7,20, 6,50,56,20,24,49		1,19,54,58,11	
		1,59,43,49,12,42,41,30		8,45
38″	18,13, 9,19,50,40, 9, 3, 6,19		1,19,55, 6,56	
		1,59,43,47,52,47,34,34		8,45
40″	18,13,11,19,34,28, 1,50,40,53		1,19,55,15,41	
		1,59,43,46,32,52,18,53		8,45
42″	18,13,13,19,18,14,34,42,59,46		1,19,55,24,26	
		1,59,43,45,12,56,54,27		8,45
44″	18,13,15,19, 1,59,47,39,54,13		1,19,55,33,11	
		1,59,43,43,53, 1,21,16		8,45
46″	18,13,17,18,45,43,40,41,15,29		1,19,55,41,56	
		1,59,43,42,33, 5,39,20		8,45
48″	18,13,19,18,29,26,13,46,54,49		1,19,55,50,41	
		1,59,43,41,13, 9,48,39		8,45
50″	18,13,21,18,13, 7,26,56,43,28		1,19,55,59,26	
		1,59,43,39,53,13,49,13		8,45
52″	18,13,23,17,56,47,20,10,32,41		1,19,56, 8,11	
		1,59,43,38,33,17,41, 2		8,45
54″	18,13,25,17,40,25,53,28,13,43		1,19,56,16,56	
		1,59,43,37,13,21,24, 6		8,45
56″	18,13,27,17,24, 3, 6,49,37,49		1,19,56,25,41	
		1,59,43,35,53,24,58,25		8,45
58″	18,13,29,17, 7,39, 0,14,36,14		1,19,56,34,26	
		1,59,43,34,33,28,23,59		
60″	18,13,31,16,51,13,33,43, 0,13			
exact	18,13,31,16,51,13,33,42,44,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°41′ 0″	18,13,31,16,51,13,33,42,44,55			
		1,59,43,33,13,31,39,13		
2″	18,13,33,16,34,46,47,14,24, 8		1,19,56,52, 2	
		1,59,43,31,53,34,47,11		8,45
4″	18,13,35,16,18,18,40,49,11,19		1,19,57, 0,47	
		1,59,43,30,33,37,46,24		8,45
6″	18,13,37,16, 1,49,14,26,57,43		1,19,57, 9,32	
		1,59,43,29,13,40,36,52		8,45
8″	18,13,39,15,45,18,28, 7,34,35		1,19,57,18,17	
		1,59,43,27,53,43,18,35		8,45
10″	18,13,41,15,28,46,21,50,53,10		1,19,57,27, 2	
		1,59,43,26,33,45,51,33		8,45
12″	18,13,43,15,12,12,55,36,44,43		1,19,57,35,47	
		1,59,43,25,13,48,15,46		8,45
14″	18,13,45,14,55,38, 9,25, 0,29		1,19,57,44,32	
		1,59,43,23,53,50,31,14		8,45
16″	18,13,47,14,39, 2, 3,15,31,43		1,19,57,53,17	
		1,59,43,22,33,52,37,57		8,45
18″	18,13,49,14,22,24,37, 8, 9,40		1,19,58, 2, 2	
		1,59,43,21,13,54,35,55		8,45
20″	18,13,51,14, 5,45,51, 2,45,35		1,19,58,10,47	
		1,59,43,19,53,56,25, 8		8,45
22″	18,13,53,13,49, 5,44,59,10,43		1,19,58,19,32	
		1,59,43,18,33,58, 5,36		8,45
24″	18,13,55,13,32,24,18,57,16,19		1,19,58,28,17	
		1,59,43,17,13,59,37,19		8,45
26″	18,13,57,13,15,41,32,56,53,38		1,19,58,37, 2	
		1,59,43,15,54, 1, 0,17		8,45
28″	18,13,59,12,58,57,26,57,53,55		1,19,58,45,47	
		1,59,43,14,34, 2,14,30		8,45
30″	18,14, 1,12,42,12, 1, 0, 8,25		1,19,58,54,32	
		1,59,43,13,14, 3,19,58		8,45
32″	18,14, 3,12,25,25,15, 3,28,23		1,19,59, 3,17	
		1,59,43,11,54, 4,16,41		8,45
34″	18,14, 5,12, 8,37, 9, 7,45, 4		1,19,59,12, 2	
		1,59,43,10,34, 5, 4,39		8,45
36″	18,14, 7,11,51,47,43,12,49,43		1,19,59,20,47	
		1,59,43, 9,14, 5,43,52		8,45
38″	18,14, 9,11,34,56,57,18,33,35		1,19,59,29,32	
		1,59,43, 7,54, 6,14,20		8,45
40″	18,14,11,11,18, 4,51,24,47,55		1,19,59,38,17	
		1,59,43, 6,34, 6,36, 3		8,45
42″	18,14,13,11, 1,11,25,31,23,58		1,19,59,47, 2	
		1,59,43, 5,14, 6,49, 1		8,45
44″	18,14,15,10,44,16,39,38,12,59		1,19,59,55,47	
		1,59,43, 3,54, 6,53,14		8,45
46″	18,14,17,10,27,20,33,45, 6,13		1,20, 0, 4,32	
		1,59,43, 2,34, 6,48,42		8,45
48″	18,14,19,10,10,23, 7,51,54,55		1,20, 0,13,17	
		1,59,43, 1,14, 6,35,25		8,45
50″	18,14,21, 9,53,24,21,58,30,20		1,20, 0,22, 2	
		1,59,42,59,54, 6,13,23		8,45
52″	18,14,23, 9,36,24,16, 4,43,43		1,20, 0,30,47	
		1,59,42,58,34, 5,42,36		8,45
54″	18,14,25, 9,19,22,50,10,26,19		1,20, 0,39,32	
		1,59,42,57,14, 5, 3, 4		8,45
56″	18,14,27, 9, 2,20, 4,15,29,23		1,20, 0,48,17	
		1,59,42,55,54, 4,14,47		8,45
58″	18,14,29, 8,45,15,58,19,44,10		1,20, 0,57, 2	
		1,59,42,54,34, 3,17,45		
60″	18,14,31, 8,28,10,32,23, 1,55			
exact	18,14,31, 8,28,10,32,22,49,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°42′ 0″	18,14,31, 8,28,10,32,22,49,45			
		1,59,42,53,14, 2,10,44		
2″	18,14,33, 8,11, 3,46,25, 0,29		1,20, 1,14,37	
		1,59,42,51,54, 0,56, 7		8,45
4″	18,14,35, 7,53,55,40,25,56,36		1,20, 1,23,22	
		1,59,42,50,33,59,32,45		8,45
6″	18,14,37, 7,36,46,14,25,29,21		1,20, 1,32, 7	
		1,59,42,49,13,58, 0,38		8,45
8″	18,14,39, 7,19,35,28,23,29,59		1,20, 1,40,52	
		1,59,42,47,53,56,19,46		8,45
10″	18,14,41, 7, 2,23,22,19,49,45		1,20, 1,49,37	
		1,59,42,46,33,54,30, 9		8,45
12″	18,14,43, 6,45, 9,56,14,19,54		1,20, 1,58,22	
		1,59,42,45,13,52,31,47		8,45
14″	18,14,45, 6,27,55,10, 6,51,41		1,20, 2, 7, 7	
		1,59,42,43,53,50,24,40		8,45
16″	18,14,47, 6,10,39, 3,57,16,21		1,20, 2,15,52	
		1,59,42,42,33,48, 8,48		8,45
18″	18,14,49, 5,53,21,37,45,25, 9		1,20, 2,24,37	
		1,59,42,41,13,45,44,11		8,45
20″	18,14,51, 5,36, 2,51,31, 9,20		1,20, 2,33,22	
		1,59,42,39,53,43,10,49		8,45
22″	18,14,53, 5,18,42,45,14,20, 9		1,20, 2,42, 7	
		1,59,42,38,33,40,28,42		8,45
24″	18,14,55, 5, 1,21,18,54,48,51		1,20, 2,50,52	
		1,59,42,37,13,37,37,50		8,45
26″	18,14,57, 4,43,58,32,32,26,41		1,20, 2,59,37	
		1,59,42,35,53,34,38,13		8,45
28″	18,14,59, 4,26,34,26, 7, 4,54		1,20, 3, 8,22	
		1,59,42,34,33,31,29,51		8,45
30″	18,15, 1, 4, 9, 8,59,38,34,45		1,20, 3,17, 7	
		1,59,42,33,13,28,12,44		8,45
32″	18,15, 3, 3,51,42,13, 6,47,29		1,20, 3,25,52	
		1,59,42,31,53,24,46,52		8,45
34″	18,15, 5, 3,34,14, 6,31,34,21		1,20, 3,34,37	
		1,59,42,30,33,21,12,15		8,45
36″	18,15, 7, 3,16,44,39,52,46,36		1,20, 3,43,22	
		1,59,42,29,13,17,28,53		8,45
38″	18,15, 9, 2,59,13,53,10,15,29		1,20, 3,52, 7	
		1,59,42,27,53,13,36,46		8,45
40″	18,15,11, 2,41,41,46,23,52,15		1,20, 4, 0,52	
		1,59,42,26,33, 9,35,54		8,45
42″	18,15,13, 2,24, 8,19,33,28, 9		1,20, 4, 9,37	
		1,59,42,25,13, 5,26,17		8,45
44″	18,15,15, 2, 6,33,32,38,54,26		1,20, 4,18,22	
		1,59,42,23,53, 1, 7,55		8,45
46″	18,15,17, 1,48,57,25,40, 2,21		1,20, 4,27, 7	
		1,59,42,22,32,56,40,48		8,45
48″	18,15,19, 1,31,19,58,36,43, 9		1,20, 4,35,52	
		1,59,42,21,12,52, 4,56		8,45
50″	18,15,21, 1,13,41,11,28,48, 5		1,20, 4,44,37	
		1,59,42,19,52,47,20,19		8,45
52″	18,15,23, 0,56, 1, 4,16, 8,24		1,20, 4,53,22	
		1,59,42,18,32,42,26,57		8,45
54″	18,15,25, 0,38,19,36,58,35,21		1,20, 5, 2, 7	
		1,59,42,17,12,37,24,50		8,45
56″	18,15,27, 0,20,36,49,36, 0,11		1,20, 5,10,52	
		1,59,42,15,52,32,13,58		8,45
58″	18,15,29, 0, 2,52,42, 8,14, 9		1,20, 5,19,37	
		1,59,42,14,32,26,54,21		
60″	18,15,30,59,45, 7,14,35, 8,30			
exact	18,15,30,59,45, 7,14,35, 2,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°43′ 0″	18,15,30,59,45, 7,14,35, 2,53			
		1,59,42,13,12,21,25,20		
2″	18,15,32,59,27,20,26,56,28,13		1,20, 5,37,10	
		1,59,42,11,52,15,48,10		8,45
4″	18,15,34,59, 9,32,19,12,16,23		1,20, 5,45,55	
		1,59,42,10,32,10, 2,15		8,45
6″	18,15,36,58,51,42,51,22,18,38		1,20, 5,54,40	
		1,59,42, 9,12, 4, 7,35		8,45
8″	18,15,38,58,33,52, 3,26,26,13		1,20, 6, 3,25	
		1,59,42, 7,51,58, 4,10		8,45
10″	18,15,40,58,15,59,55,24,30,23		1,20, 6,12,10	
		1,59,42, 6,31,51,52, 0		8,45
12″	18,15,42,57,58, 6,27,16,22,23		1,20, 6,20,55	
		1,59,42, 5,11,45,31, 5		8,45
14″	18,15,44,57,40,11,39, 1,53,28		1,20, 6,29,40	
		1,59,42, 3,51,39, 1,25		8,45
16″	18,15,46,57,22,15,30,40,54,53		1,20, 6,38,25	
		1,59,42, 2,31,32,23, 0		8,45
18″	18,15,48,57, 4,18, 2,13,17,53		1,20, 6,47,10	
		1,59,42, 1,11,25,35,50		8,45
20″	18,15,50,56,46,19,13,38,53,43		1,20, 6,55,55	
		1,59,41,59,51,18,39,55		8,45
22″	18,15,52,56,28,19, 4,57,33,38		1,20, 7, 4,40	
		1,59,41,58,31,11,35,15		8,45
24″	18,15,54,56,10,17,36, 9, 8,53		1,20, 7,13,25	
		1,59,41,57,11, 4,21,50		8,45
26″	18,15,56,55,52,14,47,13,30,43		1,20, 7,22,10	
		1,59,41,55,50,56,59,40		8,45
28″	18,15,58,55,34,10,38,10,30,23		1,20, 7,30,55	
		1,59,41,54,30,49,28,45		8,45
30″	18,16, 0,55,16, 5, 8,59,59, 8		1,20, 7,39,40	
		1,59,41,53,10,41,49, 5		8,45
32″	18,16, 2,54,57,58,19,41,48,13		1,20, 7,48,25	
		1,59,41,51,50,34, 0,40		8,45
34″	18,16, 4,54,39,50,10,15,48,53		1,20, 7,57,10	
		1,59,41,50,30,26, 3,30		8,45
36″	18,16, 6,54,21,40,40,41,52,23		1,20, 8, 5,55	
		1,59,41,49,10,17,57,35		8,45
38″	18,16, 8,54, 3,29,50,59,49,58		1,20, 8,14,40	
		1,59,41,47,50, 9,42,55		8,45
40″	18,16,10,53,45,17,41, 9,32,53		1,20, 8,23,25	
		1,59,41,46,30, 1,19,30		8,45
42″	18,16,12,53,27, 4,11,10,52,23		1,20, 8,32,10	
		1,59,41,45, 9,52,47,20		8,45
44″	18,16,14,53, 8,49,21, 3,39,43		1,20, 8,40,55	
		1,59,41,43,49,44, 6,25		8,45
46″	18,16,16,52,50,33,10,47,46, 8		1,20, 8,49,40	
		1,59,41,42,29,35,16,45		8,45
48″	18,16,18,52,32,15,40,23, 2,53		1,20, 8,58,25	
		1,59,41,41, 9,26,18,20		8,45
50″	18,16,20,52,13,56,49,49,21,13		1,20, 9, 7,10	
		1,59,41,39,49,17,11,10		8,45
52″	18,16,22,51,55,36,39, 6,32,23		1,20, 9,15,55	
		1,59,41,38,29, 7,55,15		8,45
54″	18,16,24,51,37,15, 8,14,27,38		1,20, 9,24,40	
		1,59,41,37, 8,58,30,35		8,45
56″	18,16,26,51,18,52,17,12,58,13		1,20, 9,33,25	
		1,59,41,35,48,48,57,10		8,45
58″	18,16,28,51, 0,28, 6, 1,55,23		1,20, 9,42,10	
		1,59,41,34,28,39,15, 0		
60″	18,16,30,50,42, 2,34,41,10,23			
exact	18,16,30,50,42, 2,34,41, 7,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°44′ 0″	18,16,30,50,42, 2,34,41, 7,25			
		1,59,41,33, 8,29,23,44		
2″	18,16,32,50,23,35,43,10,31, 9		1,20, 9,59,41	
		1,59,41,31,48,19,24, 3		8,45
4″	18,16,34,50, 5, 7,31,29,55,12		1,20,10, 8,26	
		1,59,41,30,28, 9,15,37		8,45
6″	18,16,36,49,46,37,59,39,10,49		1,20,10,17,11	
		1,59,41,29, 7,58,58,26		8,45
8″	18,16,38,49,28, 7, 7,38, 9,15		1,20,10,25,56	
		1,59,41,27,47,48,32,30		8,45
10″	18,16,40,49, 9,34,55,26,41,45		1,20,10,34,41	
		1,59,41,26,27,37,57,49		8,45
12″	18,16,42,48,51, 1,23, 4,39,34		1,20,10,43,26	
		1,59,41,25, 7,27,14,23		8,45
14″	18,16,44,48,32,26,30,31,53,57		1,20,10,52,11	
		1,59,41,23,47,16,22,12		8,45
16″	18,16,46,48,13,50,17,48,16, 9		1,20,11, 0,56	
		1,59,41,22,27, 5,21,16		8,45
18″	18,16,48,47,55,12,44,53,37,25		1,20,11, 9,41	
		1,59,41,21, 6,54,11,35		8,45
20″	18,16,50,47,36,33,51,47,49, 0		1,20,11,18,26	
		1,59,41,19,46,42,53, 9		8,45
22″	18,16,52,47,17,53,38,30,42, 9		1,20,11,27,11	
		1,59,41,18,26,31,25,58		8,45
24″	18,16,54,46,59,12, 5, 2, 8, 7		1,20,11,35,56	
		1,59,41,17, 6,19,50, 2		8,45
26″	18,16,56,46,40,29,11,21,58, 9		1,20,11,44,41	
		1,59,41,15,46, 8, 5,21		8,45
28″	18,16,58,46,21,44,57,30, 3,30		1,20,11,53,26	
		1,59,41,14,25,56,11,55		8,45
30″	18,17, 0,46, 2,59,23,26,15,25		1,20,12, 2,11	
		1,59,41,13, 5,44, 9,44		8,45
32″	18,17, 2,45,44,12,29,10,25, 9		1,20,12,10,56	
		1,59,41,11,45,31,58,48		8,45
34″	18,17, 4,45,25,24,14,42,23,57		1,20,12,19,41	
		1,59,41,10,25,19,39, 7		8,45
36″	18,17, 6,45, 6,34,40, 2, 3, 4		1,20,12,28,26	
		1,59,41, 9, 5, 7,10,41		8,45
38″	18,17, 8,44,47,43,45, 9,13,45		1,20,12,37,11	
		1,59,41, 7,44,54,33,30		8,45
40″	18,17,10,44,28,51,30, 3,47,15		1,20,12,45,56	
		1,59,41, 6,24,41,47,34		8,45
42″	18,17,12,44, 9,57,54,45,34,49		1,20,12,54,41	
		1,59,41, 5, 4,28,52,53		8,45
44″	18,17,14,43,51, 2,59,14,27,42		1,20,13, 3,26	
		1,59,41, 3,44,15,49,27		8,45
46″	18,17,16,43,32, 6,43,30,17, 9		1,20,13,12,11	
		1,59,41, 2,24, 2,37,16		8,45
48″	18,17,18,43,13, 9, 7,32,54,25		1,20,13,20,56	
		1,59,41, 1, 3,49,16,20		8,45
50″	18,17,20,42,54,10,11,22,10,45		1,20,13,29,41	
		1,59,40,59,43,35,46,39		8,45
52″	18,17,22,42,35, 9,54,57,57,24		1,20,13,38,26	
		1,59,40,58,23,22, 8,13		8,45
54″	18,17,24,42,16, 8,18,20, 5,37		1,20,13,47,11	
		1,59,40,57, 3, 8,21, 2		8,45
56″	18,17,26,41,57, 5,21,28,26,39		1,20,13,55,56	
		1,59,40,55,42,54,25, 6		8,45
58″	18,17,28,41,38, 1, 4,22,51,45		1,20,14, 4,41	
		1,59,40,54,22,40,20,25		
60″	18,17,30,41,18,55,27, 3,12,10			
exact	18,17,30,41,18,55,27, 3, 8,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°45′ 0″	18,17,30,41,18,55,27, 3, 8,24	1,59,40,53, 2,26, 6,42		
2″	18,17,32,40,59,48,29,29,15, 6	1,59,40,51,42,11,44,30	1,20,14,22,12	
4″	18,17,34,40,40,40,11,40,59,36	1,59,40,50,21,57,13,33	1,20,14,30,57	8,45
6″	18,17,36,40,21,30,33,38,13, 9	1,59,40,49, 1,42,33,51	1,20,14,39,42	8,45
8″	18,17,38,40, 2,19,35,20,47, 0	1,59,40,47,41,27,45,24	1,20,14,48,27	8,45
10″	18,17,40,39,43, 7,16,48,32,24	1,59,40,46,21,12,48,12	1,20,14,57,12	8,45
12″	18,17,42,39,23,53,38, 1,20,36	1,59,40,45, 0,57,42,15	1,20,15, 5,57	8,45
14″	18,17,44,39, 4,38,38,59, 2,51	1,59,40,43,40,42,27,33	1,20,15,14,42	8,45
16″	18,17,46,38,45,22,19,41,30,24	1,59,40,42,20,27, 4, 6	1,20,15,23,27	8,45
18″	18,17,48,38,26, 4,40, 8,34,30	1,59,40,41, 0,11,31,54	1,20,15,32,12	8,45
20″	18,17,50,38, 6,45,40,20, 6,24	1,59,40,39,39,55,50,57	1,20,15,40,57	8,45
22″	18,17,52,37,47,25,20,15,57,21	1,59,40,38,19,40, 1,15	1,20,15,49,42	8,45
24″	18,17,54,37,28, 3,39,55,58,36	1,59,40,36,59,24, 2,48	1,20,15,58,27	8,45
26″	18,17,56,37, 8,40,39,20, 1,24	1,59,40,35,39, 7,55,36	1,20,16, 7,12	8,45
28″	18,17,58,36,49,16,18,27,57, 0	1,59,40,34,18,51,39,39	1,20,16,15,57	8,45
30″	18,18, 0,36,29,50,37,19,36,39	1,59,40,32,58,35,14,57	1,20,16,24,42	8,45
32″	18,18, 2,36,10,23,35,54,51,36	1,59,40,31,38,18,41,30	1,20,16,33,27	8,45
34″	18,18, 4,35,50,55,14,13,33, 6	1,59,40,30,18, 1,59,18	1,20,16,42,12	8,45
36″	18,18, 6,35,31,25,32,15,32,24	1,59,40,28,57,45, 8,21	1,20,16,50,57	8,45
38″	18,18, 8,35,11,54,30, 0,40,45	1,59,40,27,37,28, 8,39	1,20,16,59,42	8,45
40″	18,18,10,34,52,22, 7,28,49,24	1,59,40,26,17,11, 0,12	1,20,17, 8,27	8,45
42″	18,18,12,34,32,48,24,39,49,36	1,59,40,24,56,53,43, 0	1,20,17,17,12	8,45
44″	18,18,14,34,13,13,21,33,32,36	1,59,40,23,36,36,17, 3	1,20,17,25,57	8,45
46″	18,18,16,33,53,36,58, 9,49,39	1,59,40,22,16,18,42,21	1,20,17,34,42	8,45
48″	18,18,18,33,33,59,14,28,32, 0	1,59,40,20,56, 0,58,54	1,20,17,43,27	8,45
50″	18,18,20,33,14,20,10,29,30,54	1,59,40,19,35,43, 6,42	1,20,17,52,12	8,45
52″	18,18,22,32,54,39,46,12,37,36	1,59,40,18,15,25, 5,45	1,20,18, 0,57	8,45
54″	18,18,24,32,34,58, 1,37,43,21	1,59,40,16,55, 6,56, 3	1,20,18, 9,42	8,45
56″	18,18,26,32,15,14,56,44,39,24	1,59,40,15,34,48,37,36	1,20,18,18,27	8,45
58″	18,18,28,31,55,30,31,33,17, 0	1,59,40,14,14,30,10,24	1,20,18,27,12	
60″	18,18,30,31,35,44,46, 3,27,24			
exact	18,18,30,31,35,44,46, 3,32,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°46′ 0″	18,18,30,31,35,44,46, 3,32,50			
		1,59,40,12,54,11,34,56		
2″	18,18,32,31,15,57,40,15, 7,46		1,20,18,44,40	
		1,59,40,11,33,52,50,16		8,45
4″	18,18,34,30,56, 9,14, 7,58, 2		1,20,18,53,25	
		1,59,40,10,13,33,56,51		8,45
6″	18,18,36,30,36,19,27,41,54,53		1,20,19, 2,10	
		1,59,40, 8,53,14,54,41		8,45
8″	18,18,38,30,16,28,20,56,49,34		1,20,19,10,55	
		1,59,40, 7,32,55,43,46		8,45
10″	18,18,40,29,56,35,53,52,33,20		1,20,19,19,40	
		1,59,40, 6,12,36,24, 6		8,45
12″	18,18,42,29,36,42, 6,28,57,26		1,20,19,28,25	
		1,59,40, 4,52,16,55,41		8,45
14″	18,18,44,29,16,46,58,45,53, 7		1,20,19,37,10	
		1,59,40, 3,31,57,18,31		8,45
16″	18,18,46,28,56,50,30,43,11,38		1,20,19,45,55	
		1,59,40, 2,11,37,32,36		8,45
18″	18,18,48,28,36,52,42,20,44,14		1,20,19,54,40	
		1,59,40, 0,51,17,37,56		8,45
20″	18,18,50,28,16,53,33,38,22,10		1,20,20, 3,25	
		1,59,39,59,30,57,34,31		8,45
22″	18,18,52,27,56,53, 4,35,56,41		1,20,20,12,10	
		1,59,39,58,10,37,22,21		8,45
24″	18,18,54,27,36,51,15,13,19, 2		1,20,20,20,55	
		1,59,39,56,50,17, 1,26		8,45
26″	18,18,56,27,16,48, 5,30,20,28		1,20,20,29,40	
		1,59,39,55,29,56,31,46		8,45
28″	18,18,58,26,56,43,35,26,52,14		1,20,20,38,25	
		1,59,39,54, 9,35,53,21		8,45
30″	18,19, 0,26,36,37,45, 2,45,35		1,20,20,47,10	
		1,59,39,52,49,15, 6,11		8,45
32″	18,19, 2,26,16,30,34,17,51,46		1,20,20,55,55	
		1,59,39,51,28,54,10,16		8,45
34″	18,19, 4,25,56,22, 3,12, 2, 2		1,20,21, 4,40	
		1,59,39,50, 8,33, 5,36		8,45
36″	18,19, 6,25,36,12,11,45, 7,38		1,20,21,13,25	
		1,59,39,48,48,11,52,11		8,45
38″	18,19, 8,25,16, 0,59,56,59,49		1,20,21,22,10	
		1,59,39,47,27,50,30, 1		8,45
40″	18,19,10,24,55,48,27,47,29,50		1,20,21,30,55	
		1,59,39,46, 7,28,59, 6		8,45
42″	18,19,12,24,35,34,35,16,28,56		1,20,21,39,40	
		1,59,39,44,47, 7,19,26		8,45
44″	18,19,14,24,15,19,22,23,48,22		1,20,21,48,25	
		1,59,39,43,26,45,31, 1		8,45
46″	18,19,16,23,55, 2,49, 9,19,23		1,20,21,57,10	
		1,59,39,42, 6,23,33,51		8,45
48″	18,19,18,23,34,44,55,32,53,14		1,20,22, 5,55	
		1,59,39,40,46, 1,27,56		8,45
50″	18,19,20,23,14,25,41,34,21,10		1,20,22,14,40	
		1,59,39,39,25,39,13,16		8,45
52″	18,19,22,22,54, 5, 7,13,34,26		1,20,22,23,25	
		1,59,39,38, 5,16,49,51		8,45
54″	18,19,24,22,33,43,12,30,24,17		1,20,22,32,10	
		1,59,39,36,44,54,17,41		8,45
56″	18,19,26,22,13,19,57,24,41,58		1,20,22,40,55	
		1,59,39,35,24,31,36,46		8,45
58″	18,19,28,21,52,55,21,56,18,44		1,20,22,49,40	
		1,59,39,34, 4, 8,47, 6		
60″	18,19,30,21,32,29,26, 5, 5,50			
exact	18,19,30,21,32,29,26, 5, 9,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°47′ 0″	18,19,30,21,32,29,26, 5, 9,45			
		1,59,39,32,43,45,49,11		
2″	18,19,32,21,12, 2, 9,50,58,56		1,20,23, 7, 7	
		1,59,39,31,23,22,42, 4		8,45
4″	18,19,34,20,51,33,33,13,41, 0		1,20,23,15,52	
		1,59,39,30, 2,59,26,12		8,45
6″	18,19,36,20,31, 3,36,13, 7,12		1,20,23,24,37	
		1,59,39,28,42,36, 1,35		8,45
8″	18,19,38,20,10,32,18,49, 8,47		1,20,23,33,22	
		1,59,39,27,22,12,28,13		8,45
10″	18,19,40,19,49,59,41, 1,37, 0		1,20,23,42, 7	
		1,59,39,26, 1,48,46, 6		8,45
12″	18,19,42,19,29,25,42,50,23, 6		1,20,23,50,52	
		1,59,39,24,41,24,55,14		8,45
14″	18,19,44,19, 8,50,24,15,18,20		1,20,23,59,37	
		1,59,39,23,21, 0,55,37		8,45
16″	18,19,46,18,48,13,45,16,13,57		1,20,24, 8,22	
		1,59,39,22, 0,36,47,15		8,45
18″	18,19,48,18,27,35,45,53, 1,12		1,20,24,17, 7	
		1,59,39,20,40,12,30, 8		8,45
20″	18,19,50,18, 6,56,26, 5,31,20		1,20,24,25,52	
		1,59,39,19,19,48, 4,16		8,45
22″	18,19,52,17,46,15,45,53,35,36		1,20,24,34,37	
		1,59,39,17,59,23,29,39		8,45
24″	18,19,54,17,25,33,45,17, 5,15		1,20,24,43,22	
		1,59,39,16,38,58,46,17		8,45
26″	18,19,56,17, 4,50,24,15,51,32		1,20,24,52, 7	
		1,59,39,15,18,33,54,10		8,45
28″	18,19,58,16,44, 5,42,49,45,42		1,20,25, 0,52	
		1,59,39,13,58, 8,53,18		8,45
30″	18,20, 0,16,23,19,40,58,39, 0		1,20,25, 9,37	
		1,59,39,12,37,43,43,41		8,45
32″	18,20, 2,16, 2,32,18,42,22,41		1,20,25,18,22	
		1,59,39,11,17,18,25,19		8,45
34″	18,20, 4,15,41,43,36, 0,48, 0		1,20,25,27, 7	
		1,59,39, 9,56,52,58,12		8,45
36″	18,20, 6,15,20,53,32,53,46,12		1,20,25,35,52	
		1,59,39, 8,36,27,22,20		8,45
38″	18,20, 8,15, 0, 2, 9,21, 8,32		1,20,25,44,37	
		1,59,39, 7,16, 1,37,43		8,45
40″	18,20,10,14,39, 9,25,22,46,15		1,20,25,53,22	
		1,59,39, 5,55,35,44,21		8,45
42″	18,20,12,14,18,15,20,58,30,36		1,20,26, 2, 7	
		1,59,39, 4,35, 9,42,14		8,45
44″	18,20,14,13,57,19,56, 8,12,50		1,20,26,10,52	
		1,59,39, 3,14,43,31,22		8,45
46″	18,20,16,13,36,23,10,51,44,12		1,20,26,19,37	
		1,59,39, 1,54,17,11,45		8,45
48″	18,20,18,13,15,25, 5, 8,55,57		1,20,26,28,22	
		1,59,39, 0,33,50,43,23		8,45
50″	18,20,20,12,54,25,38,59,39,20		1,20,26,37, 7	
		1,59,38,59,13,24, 6,16		8,45
52″	18,20,22,12,33,24,52,23,45,36		1,20,26,45,52	
		1,59,38,57,52,57,20,24		8,45
54″	18,20,24,12,12,22,45,21, 6, 0		1,20,26,54,37	
		1,59,38,56,32,30,25,47		8,45
56″	18,20,26,11,51,19,17,51,31,47		1,20,27, 3,22	
		1,59,38,55,12, 3,22,25		8,45
58″	18,20,28,11,30,14,29,54,54,12		1,20,27,12, 7	
		1,59,38,53,51,36,10,18		
60″	18,20,30,11, 9, 8,21,31, 4,30			
exact	18,20,30,11, 9, 8,21,31,10,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°48′ 0″	18,20,30,11, 9, 8,21,31,10,12			
		1,59,38,52,31, 8,50,11		
2″	18,20,32,10,48, 0,52,40, 0,23		1,20,27,29,33	
		1,59,38,51,10,41,20,38		8,45
4″	18,20,34,10,26,52, 3,21,21, 1		1,20,27,38,18	
		1,59,38,49,50,13,42,20		8,45
6″	18,20,36,10, 5,41,53,35, 3,21		1,20,27,47, 3	
		1,59,38,48,29,45,55,17		8,45
8″	18,20,38, 9,44,30,23,20,58,38		1,20,27,55,48	
		1,59,38,47, 9,17,59,29		8,45
10″	18,20,40, 9,23,17,32,38,58, 7		1,20,28, 4,33	
		1,59,38,45,48,49,54,56		8,45
12″	18,20,42, 9, 2, 3,21,28,53, 3		1,20,28,13,18	
		1,59,38,44,28,21,41,38		8,45
14″	18,20,44, 8,40,47,49,50,34,41		1,20,28,22, 3	
		1,59,38,43, 7,53,19,35		8,45
16″	18,20,46, 8,19,30,57,43,54,16		1,20,28,30,48	
		1,59,38,41,47,24,48,47		8,45
18″	18,20,48, 7,58,12,45, 8,43, 3		1,20,28,39,33	
		1,59,38,40,26,56, 9,14		8,45
20″	18,20,50, 7,36,53,12, 4,52,17		1,20,28,48,18	
		1,59,38,39, 6,27,20,56		8,45
22″	18,20,52, 7,15,32,18,32,13,13		1,20,28,57, 3	
		1,59,38,37,45,58,23,53		8,45
24″	18,20,54, 6,54,10, 4,30,37, 6		1,20,29, 5,48	
		1,59,38,36,25,29,18, 5		8,45
26″	18,20,56, 6,32,46,29,59,55,11		1,20,29,14,33	
		1,59,38,35, 5, 0, 3,32		8,45
28″	18,20,58, 6,11,21,34,59,58,43		1,20,29,23,18	
		1,59,38,33,44,30,40,14		8,45
30″	18,21, 0, 5,49,55,19,30,38,57		1,20,29,32, 3	
		1,59,38,32,24, 1, 8,11		8,45
32″	18,21, 2, 5,28,27,43,31,47, 8		1,20,29,40,48	
		1,59,38,31, 3,31,27,23		8,45
34″	18,21, 4, 5, 6,58,47, 3,14,31		1,20,29,49,33	
		1,59,38,29,43, 1,37,50		8,45
36″	18,21, 6, 4,45,28,30, 4,52,21		1,20,29,58,18	
		1,59,38,28,22,31,39,32		8,45
38″	18,21, 8, 4,23,56,52,36,31,53		1,20,30, 7, 3	
		1,59,38,27, 2, 1,32,29		8,45
40″	18,21,10, 4, 2,23,54,38, 4,22		1,20,30,15,48	
		1,59,38,25,41,31,16,41		8,45
42″	18,21,12, 3,40,49,36, 9,21, 3		1,20,30,24,33	
		1,59,38,24,21, 0,52, 8		8,45
44″	18,21,14, 3,19,13,57,10,13,11		1,20,30,33,18	
		1,59,38,23, 0,30,18,50		8,45
46″	18,21,16, 2,57,36,57,40,32, 1		1,20,30,42, 3	
		1,59,38,21,39,59,36,47		8,45
48″	18,21,18, 2,35,58,37,40, 8,48		1,20,30,50,48	
		1,59,38,20,19,28,45,59		8,45
50″	18,21,20, 2,14,18,57, 8,54,47		1,20,30,59,33	
		1,59,38,18,58,57,46,26		8,45
52″	18,21,22, 1,52,37,56, 6,41,13		1,20,31, 8,18	
		1,59,38,17,38,26,38, 8		8,45
54″	18,21,24, 1,30,55,34,33,19,21		1,20,31,17, 3	
		1,59,38,16,17,55,21, 5		8,45
56″	18,21,26, 1, 9,11,52,28,40,26		1,20,31,25,48	
		1,59,38,14,57,23,55,17		8,45
58″	18,21,28, 0,47,26,49,52,35,43		1,20,31,34,33	
		1,59,38,13,36,52,20,44		
60″	18,21,30, 0,25,40,26,44,56,27			
exact	18,21,30, 0,25,40,26,45, 7,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°49′ 0″	18,21,30, 0,25,40,26,45, 7,15			
		1,59,38,12,16,20,38,40		
2″	18,21,32, 0, 3,52,43, 5,45,55		1,20,31,51,57	
		1,59,38,10,55,48,46,43		8,45
4″	18,21,33,59,42, 3,38,54,32,38		1,20,32, 0,42	
		1,59,38, 9,35,16,46, 1		8,45
6″	18,21,35,59,20,13,14,11,18,39		1,20,32, 9,27	
		1,59,38, 8,14,44,36,34		8,45
8″	18,21,37,58,58,21,28,55,55,13		1,20,32,18,12	
		1,59,38, 6,54,12,18,22		8,45
10″	18,21,39,58,36,28,23, 8,13,35		1,20,32,26,57	
		1,59,38, 5,33,39,51,25		8,45
12″	18,21,41,58,14,33,56,48, 5, 0		1,20,32,35,42	
		1,59,38, 4,13, 7,15,43		8,45
14″	18,21,43,57,52,38, 9,55,20,43		1,20,32,44,27	
		1,59,38, 2,52,34,31,16		8,45
16″	18,21,45,57,30,41, 2,29,51,59		1,20,32,53,12	
		1,59,38, 1,32, 1,38, 4		8,45
18″	18,21,47,57, 8,42,34,31,30, 3		1,20,33, 1,57	
		1,59,38, 0,11,28,36, 7		8,45
20″	18,21,49,56,46,42,46, 0, 6,10		1,20,33,10,42	
		1,59,37,58,50,55,25,25		8,45
22″	18,21,51,56,24,41,36,55,31,35		1,20,33,19,27	
		1,59,37,57,30,22, 5,58		8,45
24″	18,21,53,56, 2,39, 7,17,37,33		1,20,33,28,12	
		1,59,37,56, 9,48,37,46		8,45
26″	18,21,55,55,40,35,17, 6,15,19		1,20,33,36,57	
		1,59,37,54,49,15, 0,49		8,45
28″	18,21,57,55,18,30, 6,21,16, 8		1,20,33,45,42	
		1,59,37,53,28,41,15, 7		8,45
30″	18,21,59,54,56,23,35, 2,31,15		1,20,33,54,27	
		1,59,37,52, 8, 7,20,40		8,45
32″	18,22, 1,54,34,15,43, 9,51,55		1,20,34, 3,12	
		1,59,37,50,47,33,17,28		8,45
34″	18,22, 3,54,12, 6,30,43, 9,23		1,20,34,11,57	
		1,59,37,49,26,59, 5,31		8,45
36″	18,22, 5,53,49,55,57,42,14,54		1,20,34,20,42	
		1,59,37,48, 6,24,44,49		8,45
38″	18,22, 7,53,27,44, 4, 6,59,43		1,20,34,29,27	
		1,59,37,46,45,50,15,22		8,45
40″	18,22, 9,53, 5,30,49,57,15, 5		1,20,34,38,12	
		1,59,37,45,25,15,37,10		8,45
42″	18,22,11,52,43,16,15,12,52,15		1,20,34,46,57	
		1,59,37,44, 4,40,50,13		8,45
44″	18,22,13,52,21, 0,19,53,42,28		1,20,34,55,42	
		1,59,37,42,44, 5,54,31		8,45
46″	18,22,15,51,58,43, 3,59,36,59		1,20,35, 4,27	
		1,59,37,41,23,30,50, 4		8,45
48″	18,22,17,51,36,24,27,30,27, 3		1,20,35,13,12	
		1,59,37,40, 2,55,36,52		8,45
50″	18,22,19,51,14, 4,30,26, 3,55		1,20,35,21,57	
		1,59,37,38,42,20,14,55		8,45
52″	18,22,21,50,51,43,12,46,18,50		1,20,35,30,42	
		1,59,37,37,21,44,44,13		8,45
54″	18,22,23,50,29,20,34,31, 3, 3		1,20,35,39,27	
		1,59,37,36, 1, 9, 4,46		8,45
56″	18,22,25,50, 6,56,35,40, 7,49		1,20,35,48,12	
		1,59,37,34,40,33,16,34		8,45
58″	18,22,27,49,44,31,16,13,24,23		1,20,35,56,57	
		1,59,37,33,19,57,19,37		
60″	18,22,29,49,22, 4,36,10,44, 0			
exact	18,22,29,49,22, 4,36,10,56, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°50′ 0″	18,22,29,49,22, 4,36,10,56, 2			
		1,59,37,31,59,21,15,22		
2″	18,22,31,48,59,36,35,32,11,24		1,20,36,14,20	
		1,59,37,30,38,45, 1, 2		8,45
4″	18,22,33,48,37, 7,14,17,12,26		1,20,36,23, 5	
		1,59,37,29,18, 8,37,57		8,45
6″	18,22,35,48,14,36,32,25,50,23		1,20,36,31,50	
		1,59,37,27,57,32, 6, 7		8,45
8″	18,22,37,47,52, 4,29,57,56,30		1,20,36,40,35	
		1,59,37,26,36,55,25,32		8,45
10″	18,22,39,47,29,31, 6,53,22, 2		1,20,36,49,20	
		1,59,37,25,16,18,36,12		8,45
12″	18,22,41,47, 6,56,23,11,58,14		1,20,36,58, 5	
		1,59,37,23,55,41,38, 7		8,45
14″	18,22,43,46,44,20,18,53,36,21		1,20,37, 6,50	
		1,59,37,22,35, 4,31,17		8,45
16″	18,22,45,46,21,42,53,58, 7,38		1,20,37,15,35	
		1,59,37,21,14,27,15,42		8,45
18″	18,22,47,45,59, 4, 8,25,23,20		1,20,37,24,20	
		1,59,37,19,53,49,51,22		8,45
20″	18,22,49,45,36,24, 2,15,14,42		1,20,37,33, 5	
		1,59,37,18,33,12,18,17		8,45
22″	18,22,51,45,13,42,35,27,32,59		1,20,37,41,50	
		1,59,37,17,12,34,36,27		8,45
24″	18,22,53,44,50,59,48, 2, 9,26		1,20,37,50,35	
		1,59,37,15,51,56,45,52		8,45
26″	18,22,55,44,28,15,39,58,55,18		1,20,37,59,20	
		1,59,37,14,31,18,46,32		8,45
28″	18,22,57,44, 5,30,11,17,41,50		1,20,38, 8, 5	
		1,59,37,13,10,40,38,27		8,45
30″	18,22,59,43,42,43,21,58,20,17		1,20,38,16,50	
		1,59,37,11,50, 2,21,37		8,45
32″	18,23, 1,43,19,55,12, 0,41,54		1,20,38,25,35	
		1,59,37,10,29,23,56, 2		8,45
34″	18,23, 3,42,57, 5,41,24,37,56		1,20,38,34,20	
		1,59,37, 9, 8,45,21,42		8,45
36″	18,23, 5,42,34,14,50, 9,59,38		1,20,38,43, 5	
		1,59,37, 7,48, 6,38,37		8,45
38″	18,23, 7,42,11,22,38,16,38,15		1,20,38,51,50	
		1,59,37, 6,27,27,46,47		8,45
40″	18,23, 9,41,48,29, 5,44,25, 2		1,20,39, 0,35	
		1,59,37, 5, 6,48,46,12		8,45
42″	18,23,11,41,25,34,12,33,11,14		1,20,39, 9,20	
		1,59,37, 3,46, 9,36,52		8,45
44″	18,23,13,41, 2,37,58,42,48, 6		1,20,39,18, 5	
		1,59,37, 2,25,30,18,47		8,45
46″	18,23,15,40,39,40,24,13, 6,53		1,20,39,26,50	
		1,59,37, 1, 4,50,51,57		8,45
48″	18,23,17,40,16,41,29, 3,58,50		1,20,39,35,35	
		1,59,36,59,44,11,16,22		8,45
50″	18,23,19,39,53,41,13,15,15,12		1,20,39,44,20	
		1,59,36,58,23,31,32, 2		8,45
52″	18,23,21,39,30,39,36,46,47,14		1,20,39,53, 5	
		1,59,36,57, 2,51,38,57		8,45
54″	18,23,23,39, 7,36,39,38,26,11		1,20,40, 1,50	
		1,59,36,55,42,11,37, 7		8,45
56″	18,23,25,38,44,32,21,50, 3,18		1,20,40,10,35	
		1,59,36,54,21,31,26,32		8,45
58″	18,23,27,38,21,26,43,21,29,50		1,20,40,19,20	
		1,59,36,53, 0,51, 7,12		
60″	18,23,29,37,58,19,44,12,37, 2			
exact	18,23,29,37,58,19,44,12,53,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°51′ 0″	18,23,29,37,58,19,44,12,53,46			
		1,59,36,51,40,10,41, 1		
2″	18,23,31,37,35,11,24,23,34,47		1,20,40,36,42	
		1,59,36,50,19,30, 4,19		8,45
4″	18,23,33,37,12, 1,43,53,39, 6		1,20,40,45,27	
		1,59,36,48,58,49,18,52		8,45
6″	18,23,35,36,48,50,42,42,57,58		1,20,40,54,12	
		1,59,36,47,38, 8,24,40		8,45
8″	18,23,37,36,25,38,20,51,22,38		1,20,41, 2,57	
		1,59,36,46,17,27,21,43		8,45
10″	18,23,39,36, 2,24,38,18,44,21		1,20,41,11,42	
		1,59,36,44,56,46,10, 1		8,45
12″	18,23,41,35,39, 9,35, 4,54,22		1,20,41,20,27	
		1,59,36,43,36, 4,49,34		8,45
14″	18,23,43,35,15,53,11, 9,43,56		1,20,41,29,12	
		1,59,36,42,15,23,20,22		8,45
16″	18,23,45,34,52,35,26,33, 4,18		1,20,41,37,57	
		1,59,36,40,54,41,42,25		8,45
18″	18,23,47,34,29,16,21,14,46,43		1,20,41,46,42	
		1,59,36,39,33,59,55,43		8,45
20″	18,23,49,34, 5,55,55,14,42,26		1,20,41,55,27	
		1,59,36,38,13,18, 0,16		8,45
22″	18,23,51,33,42,34, 8,32,42,42		1,20,42, 4,12	
		1,59,36,36,52,35,56, 4		8,45
24″	18,23,53,33,19,11, 1, 8,38,46		1,20,42,12,57	
		1,59,36,35,31,53,43, 7		8,45
26″	18,23,55,32,55,46,33, 2,21,53		1,20,42,21,42	
		1,59,36,34,11,11,21,25		8,45
28″	18,23,57,32,32,20,44,13,43,18		1,20,42,30,27	
		1,59,36,32,50,28,50,58		8,45
30″	18,23,59,32, 8,53,34,42,34,16		1,20,42,39,12	
		1,59,36,31,29,46,11,46		8,45
32″	18,24, 1,31,45,25, 4,28,46, 2		1,20,42,47,57	
		1,59,36,30, 9, 3,23,49		8,45
34″	18,24, 3,31,21,55,13,32, 9,51		1,20,42,56,42	
		1,59,36,28,48,20,27, 7		8,45
36″	18,24, 5,30,58,24, 1,52,36,58		1,20,43, 5,27	
		1,59,36,27,27,37,21,40		8,45
38″	18,24, 7,30,34,51,29,29,58,38		1,20,43,14,12	
		1,59,36,26, 6,54, 7,28		8,45
40″	18,24, 9,30,11,17,36,24, 6, 6		1,20,43,22,57	
		1,59,36,24,46,10,44,31		8,45
42″	18,24,11,29,47,42,22,34,50,37		1,20,43,31,42	
		1,59,36,23,25,27,12,49		8,45
44″	18,24,13,29,24, 5,48, 2, 3,26		1,20,43,40,27	
		1,59,36,22, 4,43,32,22		8,45
46″	18,24,15,29, 0,27,52,45,35,48		1,20,43,49,12	
		1,59,36,20,43,59,43,10		8,45
48″	18,24,17,28,36,48,36,45,18,58		1,20,43,57,57	
		1,59,36,19,23,15,45,13		8,45
50″	18,24,19,28,13, 8, 0, 1, 4,11		1,20,44, 6,42	
		1,59,36,18, 2,31,38,31		8,45
52″	18,24,21,27,49,26, 2,32,42,42		1,20,44,15,27	
		1,59,36,16,41,47,23, 4		8,45
54″	18,24,23,27,25,42,44,20, 5,46		1,20,44,24,12	
		1,59,36,15,21, 2,58,52		8,45
56″	18,24,25,27, 1,58, 5,23, 4,38		1,20,44,32,57	
		1,59,36,14, 0,18,25,55		8,45
58″	18,24,27,26,38,12, 5,41,30,33		1,20,44,41,42	
		1,59,36,12,39,33,44,13		
60″	18,24,29,26,14,24,45,15,14,46			
exact	18,24,29,26,14,24,45,15,39,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°52′ 0″	18,24,29,26,14,24,45,15,39,46			
		1,59,36,11,18,48,56,22		
2″	18,24,31,25,50,36, 4, 4,36, 8		1,20,44,59, 1	
		1,59,36, 9,58, 3,57,21		8,45
4″	18,24,33,25,26,46, 2, 8,33,29		1,20,45, 7,46	
		1,59,36, 8,37,18,49,35		8,45
6″	18,24,35,25, 2,54,39,27,23, 4		1,20,45,16,31	
		1,59,36, 7,16,33,33, 4		8,45
8″	18,24,37,24,39, 1,56, 0,56, 8		1,20,45,25,16	
		1,59,36, 5,55,48, 7,48		8,45
10″	18,24,39,24,15, 7,51,49, 3,56		1,20,45,34, 1	
		1,59,36, 4,35, 2,33,47		8,45
12″	18,24,41,23,51,12,26,51,37,43		1,20,45,42,46	
		1,59,36, 3,14,16,51, 1		8,45
14″	18,24,43,23,27,15,41, 8,28,44		1,20,45,51,31	
		1,59,36, 1,53,30,59,30		8,45
16″	18,24,45,23, 3,17,34,39,28,14		1,20,46, 0,16	
		1,59,36, 0,32,44,59,14		8,45
18″	18,24,47,22,39,18, 7,24,27,28		1,20,46, 9, 1	
		1,59,35,59,11,58,50,13		8,45
20″	18,24,49,22,15,17,19,23,17,41		1,20,46,17,46	
		1,59,35,57,51,12,32,27		8,45
22″	18,24,51,21,51,15,10,35,50, 8		1,20,46,26,31	
		1,59,35,56,30,26, 5,56		8,45
24″	18,24,53,21,27,11,41, 1,56, 4		1,20,46,35,16	
		1,59,35,55, 9,39,30,40		8,45
26″	18,24,55,21, 3, 6,50,41,26,44		1,20,46,44, 1	
		1,59,35,53,48,52,46,39		8,45
28″	18,24,57,20,39, 0,39,34,13,23		1,20,46,52,46	
		1,59,35,52,28, 5,53,53		8,45
30″	18,24,59,20,14,53, 7,40, 7,16		1,20,47, 1,31	
		1,59,35,51, 7,18,52,22		8,45
32″	18,25, 1,19,50,44,14,58,59,38		1,20,47,10,16	
		1,59,35,49,46,31,42, 6		8,45
34″	18,25, 3,19,26,34, 1,30,41,44		1,20,47,19, 1	
		1,59,35,48,25,44,23, 5		8,45
36″	18,25, 5,19, 2,22,27,15, 4,49		1,20,47,27,46	
		1,59,35,47, 4,56,55,19		8,45
38″	18,25, 7,18,38, 9,32,12, 0, 8		1,20,47,36,31	
		1,59,35,45,44, 9,18,48		8,45
40″	18,25, 9,18,13,55,16,21,18,56		1,20,47,45,16	
		1,59,35,44,23,21,33,32		8,45
42″	18,25,11,17,49,39,39,42,52,28		1,20,47,54, 1	
		1,59,35,43, 2,33,39,31		8,45
44″	18,25,13,17,25,22,42,16,31,59		1,20,48, 2,46	
		1,59,35,41,41,45,36,45		8,45
46″	18,25,15,17, 1, 4,24, 2, 8,44		1,20,48,11,31	
		1,59,35,40,20,57,25,14		8,45
48″	18,25,17,16,36,44,44,59,33,58		1,20,48,20,16	
		1,59,35,39, 0, 9, 4,58		8,45
50″	18,25,19,16,12,23,45, 8,38,56		1,20,48,29, 1	
		1,59,35,37,39,20,35,57		8,45
52″	18,25,21,15,48, 1,24,29,14,53		1,20,48,37,46	
		1,59,35,36,18,31,58,11		8,45
54″	18,25,23,15,23,37,43, 1,13, 4		1,20,48,46,31	
		1,59,35,34,57,43,11,40		8,45
56″	18,25,25,14,59,12,40,44,24,44		1,20,48,55,16	
		1,59,35,33,36,54,16,24		8,45
58″	18,25,27,14,34,46,17,38,41, 8		1,20,49, 4, 1	
		1,59,35,32,16, 5,12,23		
60″	18,25,29,14,10,18,33,43,53,31			
exact	18,25,29,14,10,18,33,44,15,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°53′ 0″	18,25,29,14,10,18,33,44,15,27			
		1,59,35,30,55,16, 2, 8		
2″	18,25,31,13,45,49,29, 0,17,35		1,20,49,21,20	
		1,59,35,29,34,26,40,48		8,45
4″	18,25,33,13,21,19, 3,26,58,23		1,20,49,30, 5	
		1,59,35,28,13,37,10,43		8,45
6″	18,25,35,12,56,47,17, 4, 9, 6		1,20,49,38,50	
		1,59,35,26,52,47,31,53		8,45
8″	18,25,37,12,32,14, 9,51,40,59		1,20,49,47,35	
		1,59,35,25,31,57,44,18		8,45
10″	18,25,39,12, 7,39,41,49,25,17		1,20,49,56,20	
		1,59,35,24,11, 7,47,58		8,45
12″	18,25,41,11,43, 3,52,57,13,15		1,20,50, 5, 5	
		1,59,35,22,50,17,42,53		8,45
14″	18,25,43,11,18,26,43,14,56, 8		1,20,50,13,50	
		1,59,35,21,29,27,29, 3		8,45
16″	18,25,45,10,53,48,12,42,25,11		1,20,50,22,35	
		1,59,35,20, 8,37, 6,28		8,45
18″	18,25,47,10,29, 8,21,19,31,39		1,20,50,31,20	
		1,59,35,18,47,46,35, 8		8,45
20″	18,25,49,10, 4,27, 9, 6, 6,47		1,20,50,40, 5	
		1,59,35,17,26,55,55, 3		8,45
22″	18,25,51, 9,39,44,36, 2, 1,50		1,20,50,48,50	
		1,59,35,16, 6, 5, 6,13		8,45
24″	18,25,53, 9,15, 0,42, 7, 8, 3		1,20,50,57,35	
		1,59,35,14,45,14, 8,38		8,45
26″	18,25,55, 8,50,15,27,21,16,41		1,20,51, 6,20	
		1,59,35,13,24,23, 2,18		8,45
28″	18,25,57, 8,25,28,51,44,18,59		1,20,51,15, 5	
		1,59,35,12, 3,31,47,13		8,45
30″	18,25,59, 8, 0,40,55,16, 6,12		1,20,51,23,50	
		1,59,35,10,42,40,23,23		8,45
32″	18,26, 1, 7,35,51,37,56,29,35		1,20,51,32,35	
		1,59,35, 9,21,48,50,48		8,45
34″	18,26, 3, 7,11, 0,59,45,20,23		1,20,51,41,20	
		1,59,35, 8, 0,57, 9,28		8,45
36″	18,26, 5, 6,46, 9, 0,42,29,51		1,20,51,50, 5	
		1,59,35, 6,40, 5,19,23		8,45
38″	18,26, 7, 6,21,15,40,47,49,14		1,20,51,58,50	
		1,59,35, 5,19,13,20,33		8,45
40″	18,26, 9, 5,56,21, 0, 1, 9,47		1,20,52, 7,35	
		1,59,35, 3,58,21,12,58		8,45
42″	18,26,11, 5,31,24,58,22,22,45		1,20,52,16,20	
		1,59,35, 2,37,28,56,38		8,45
44″	18,26,13, 5, 6,27,35,51,19,23		1,20,52,25, 5	
		1,59,35, 1,16,36,31,33		8,45
46″	18,26,15, 4,41,28,52,27,50,56		1,20,52,33,50	
		1,59,34,59,55,43,57,43		8,45
48″	18,26,17, 4,16,28,48,11,48,39		1,20,52,42,35	
		1,59,34,58,34,51,15, 8		8,45
50″	18,26,19, 3,51,27,23, 3, 3,47		1,20,52,51,20	
		1,59,34,57,13,58,23,48		8,45
52″	18,26,21, 3,26,24,37, 1,27,35		1,20,53, 0, 5	
		1,59,34,55,53, 5,23,43		8,45
54″	18,26,23, 3, 1,20,30, 6,51,18		1,20,53, 8,50	
		1,59,34,54,32,12,14,53		8,45
56″	18,26,25, 2,36,15, 2,19, 6,11		1,20,53,17,35	
		1,59,34,53,11,18,57,18		8,45
58″	18,26,27, 2,11, 8,13,38, 3,29		1,20,53,26,20	
		1,59,34,51,50,25,30,58		
60″	18,26,29, 1,46, 0, 4, 3,34,27			
exact	18,26,29, 1,46, 0, 4, 4, 4,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°54′ 0″	18,26,29, 1,46, 0, 4, 4, 4,23			
		1,59,34,50,29,31,59, 4		
2″	18,26,31, 1,20,50,33,36, 3,27		1,20,53,43,37	
		1,59,34,49, 8,38,15,27		8,45
4″	18,26,33, 0,55,39,42,14,18,54		1,20,53,52,22	
		1,59,34,47,47,44,23, 5		8,45
6″	18,26,35, 0,30,27,29,58,41,59		1,20,54, 1, 7	
		1,59,34,46,26,50,21,58		8,45
8″	18,26,37, 0, 5,13,56,49, 3,57		1,20,54, 9,52	
		1,59,34,45, 5,56,12, 6		8,45
10″	18,26,38,59,39,59, 2,45,16, 3		1,20,54,18,37	
		1,59,34,43,45, 1,53,29		8,45
12″	18,26,40,59,14,42,47,47, 9,32		1,20,54,27,22	
		1,59,34,42,24, 7,26, 7		8,45
14″	18,26,42,58,49,25,11,54,35,39		1,20,54,36, 7	
		1,59,34,41, 3,12,50, 0		8,45
16″	18,26,44,58,24, 6,15, 7,25,39		1,20,54,44,52	
		1,59,34,39,42,18, 5, 8		8,45
18″	18,26,46,57,58,45,57,25,30,47		1,20,54,53,37	
		1,59,34,38,21,23,11,31		8,45
20″	18,26,48,57,33,24,18,48,42,18		1,20,55, 2,22	
		1,59,34,37, 0,28, 9, 9		8,45
22″	18,26,50,57, 8, 1,19,16,51,27		1,20,55,11, 7	
		1,59,34,35,39,32,58, 2		8,45
24″	18,26,52,56,42,36,58,49,49,29		1,20,55,19,52	
		1,59,34,34,18,37,38,10		8,45
26″	18,26,54,56,17,11,17,27,27,39		1,20,55,28,37	
		1,59,34,32,57,42, 9,33		8,45
28″	18,26,56,55,51,44,15, 9,37,12		1,20,55,37,22	
		1,59,34,31,36,46,32,11		8,45
30″	18,26,58,55,26,15,51,56, 9,23		1,20,55,46, 7	
		1,59,34,30,15,50,46, 4		8,45
32″	18,27, 0,55, 0,46, 7,46,55,27		1,20,55,54,52	
		1,59,34,28,54,54,51,12		8,45
34″	18,27, 2,54,35,15, 2,41,46,39		1,20,56, 3,37	
		1,59,34,27,33,58,47,35		8,45
36″	18,27, 4,54, 9,42,36,40,34,14		1,20,56,12,22	
		1,59,34,26,13, 2,35,13		8,45
38″	18,27, 6,53,44, 8,49,43, 9,27		1,20,56,21, 7	
		1,59,34,24,52, 6,14, 6		8,45
40″	18,27, 8,53,18,33,41,49,23,33		1,20,56,29,52	
		1,59,34,23,31, 9,44,14		8,45
42″	18,27,10,52,52,57,12,59, 7,47		1,20,56,38,37	
		1,59,34,22,10,13, 5,37		8,45
44″	18,27,12,52,27,19,23,12,13,24		1,20,56,47,22	
		1,59,34,20,49,16,18,15		8,45
46″	18,27,14,52, 1,40,12,28,31,39		1,20,56,56, 7	
		1,59,34,19,28,19,22, 8		8,45
48″	18,27,16,51,35,59,40,47,53,47		1,20,57, 4,52	
		1,59,34,18, 7,22,17,16		8,45
50″	18,27,18,51,10,17,48,10,11, 3		1,20,57,13,37	
		1,59,34,16,46,25, 3,39		8,45
52″	18,27,20,50,44,34,34,35,14,42		1,20,57,22,22	
		1,59,34,15,25,27,41,17		8,45
54″	18,27,22,50,18,50, 0, 2,55,59		1,20,57,31, 7	
		1,59,34,14, 4,30,10,10		8,45
56″	18,27,24,49,53, 4, 4,33, 6, 9		1,20,57,39,52	
		1,59,34,12,43,32,30,18		8,45
58″	18,27,26,49,27,16,48, 5,36,27		1,20,57,48,37	
		1,59,34,11,22,34,41,41		
60″	18,27,28,49, 1,28,10,40,18, 8			
exact	18,27,28,49, 1,28,10,40,52,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°55′ 0″	18,27,28,49, 1,28,10,40,52,17			
		1,59,34,10, 1,36,47,55		
2″	18,27,30,48,35,38,12,17,40,12		1,20,58, 5,52	
		1,59,34, 8,40,38,42, 3		8,44
4″	18,27,32,48, 9,46,52,56,22,15		1,20,58,14,36	
		1,59,34, 7,19,40,27,27		8,44
6″	18,27,34,47,43,54,12,36,49,42		1,20,58,23,20	
		1,59,34, 5,58,42, 4, 7		8,44
8″	18,27,36,47,18, 0,11,18,53,49		1,20,58,32, 4	
		1,59,34, 4,37,43,32, 3		8,44
10″	18,27,38,46,52, 4,49, 2,25,52		1,20,58,40,48	
		1,59,34, 3,16,44,51,15		8,44
12″	18,27,40,46,26, 8, 5,47,17, 7		1,20,58,49,32	
		1,59,34, 1,55,46, 1,43		8,44
14″	18,27,42,46, 0,10, 1,33,18,50		1,20,58,58,16	
		1,59,34, 0,34,47, 3,27		8,44
16″	18,27,44,45,34,10,36,20,22,17		1,20,59, 7, 0	
		1,59,33,59,13,47,56,27		8,44
18″	18,27,46,45, 8, 9,50, 8,18,44		1,20,59,15,44	
		1,59,33,57,52,48,40,43		8,44
20″	18,27,48,44,42, 7,42,56,59,27		1,20,59,24,28	
		1,59,33,56,31,49,16,15		8,44
22″	18,27,50,44,16, 4,14,46,15,42		1,20,59,33,12	
		1,59,33,55,10,49,43, 3		8,44
24″	18,27,52,43,49,59,25,35,58,45		1,20,59,41,56	
		1,59,33,53,49,50, 1, 7		8,44
26″	18,27,54,43,23,53,15,25,59,52		1,20,59,50,40	
		1,59,33,52,28,50,10,27		8,44
28″	18,27,56,42,57,45,44,16,10,19		1,20,59,59,24	
		1,59,33,51, 7,50,11, 3		8,44
30″	18,27,58,42,31,36,52, 6,21,22		1,21, 0, 8, 8	
		1,59,33,49,46,50, 2,55		8,44
32″	18,28, 0,42, 5,26,38,56,24,17		1,21, 0,16,52	
		1,59,33,48,25,49,46, 3		8,44
34″	18,28, 2,41,39,15, 4,46,10,20		1,21, 0,25,36	
		1,59,33,47, 4,49,20,27		8,44
36″	18,28, 4,41,13, 2, 9,35,30,47		1,21, 0,34,20	
		1,59,33,45,43,48,46, 7		8,44
38″	18,28, 6,40,46,47,53,24,16,54		1,21, 0,43, 4	
		1,59,33,44,22,48, 3, 3		8,44
40″	18,28, 8,40,20,32,16,12,19,57		1,21, 0,51,48	
		1,59,33,43, 1,47,11,15		8,44
42″	18,28,10,39,54,15,17,59,31,12		1,21, 1, 0,32	
		1,59,33,41,40,46,10,43		8,44
44″	18,28,12,39,27,56,58,45,41,55		1,21, 1, 9,16	
		1,59,33,40,19,45, 1,27		8,44
46″	18,28,14,39, 1,37,18,30,43,22		1,21, 1,18, 0	
		1,59,33,38,58,43,43,27		8,44
48″	18,28,16,38,35,16,17,14,26,49		1,21, 1,26,44	
		1,59,33,37,37,42,16,43		8,44
50″	18,28,18,38, 8,53,54,56,43,32		1,21, 1,35,28	
		1,59,33,36,16,40,41,15		8,44
52″	18,28,20,37,42,30,11,37,24,47		1,21, 1,44,12	
		1,59,33,34,55,38,57, 3		8,44
54″	18,28,22,37,16, 5, 7,16,21,50		1,21, 1,52,56	
		1,59,33,33,34,37, 4, 7		8,44
56″	18,28,24,36,49,38,41,53,25,57		1,21, 2, 1,40	
		1,59,33,32,13,35, 2,27		8,44
58″	18,28,26,36,23,10,55,28,28,24		1,21, 2,10,24	
		1,59,33,30,52,32,52, 3		
60″	18,28,28,35,56,41,48, 1,20,27			
exact	18,28,28,35,56,41,48, 0,47, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°56′ 0″	18,28,28,35,56,41,48, 0,47, 4			
		1,59,33,29,31,30,29,25		
2″	18,28,30,35,30,11,19,31,16,29		1,21, 2,28, 6	
		1,59,33,28,10,28, 1,19		8,44
4″	18,28,32,35, 3,39,29,59,17,48		1,21, 2,36,50	
		1,59,33,26,49,25,24,29		8,44
6″	18,28,34,34,37, 6,19,24,42,17		1,21, 2,45,34	
		1,59,33,25,28,22,38,55		8,44
8″	18,28,36,34,10,31,47,47,21,12		1,21, 2,54,18	
		1,59,33,24, 7,19,44,37		8,44
10″	18,28,38,33,43,55,55, 7, 5,49		1,21, 3, 3, 2	
		1,59,33,22,46,16,41,35		8,44
12″	18,28,40,33,17,18,41,23,47,24		1,21, 3,11,46	
		1,59,33,21,25,13,29,49		8,44
14″	18,28,42,32,50,40, 6,37,17,13		1,21, 3,20,30	
		1,59,33,20, 4,10, 9,19		8,44
16″	18,28,44,32,24, 0,10,47,26,32		1,21, 3,29,14	
		1,59,33,18,43, 6,40, 5		8,44
18″	18,28,46,31,57,18,53,54, 6,37		1,21, 3,37,58	
		1,59,33,17,22, 3, 2, 7		8,44
20″	18,28,48,31,30,36,15,57, 8,44		1,21, 3,46,42	
		1,59,33,16, 0,59,15,25		8,44
22″	18,28,50,31, 3,52,16,56,24, 9		1,21, 3,55,26	
		1,59,33,14,39,55,19,59		8,44
24″	18,28,52,30,37, 6,56,51,44, 8		1,21, 4, 4,10	
		1,59,33,13,18,51,15,49		8,44
26″	18,28,54,30,10,20,15,42,59,57		1,21, 4,12,54	
		1,59,33,11,57,47, 2,55		8,44
28″	18,28,56,29,43,32,13,30, 2,52		1,21, 4,21,38	
		1,59,33,10,36,42,41,17		8,44
30″	18,28,58,29,16,42,50,12,44, 9		1,21, 4,30,22	
		1,59,33, 9,15,38,10,55		8,44
32″	18,29, 0,28,49,52, 5,50,55, 4		1,21, 4,39, 6	
		1,59,33, 7,54,33,31,49		8,44
34″	18,29, 2,28,23, 0, 0,24,26,53		1,21, 4,47,50	
		1,59,33, 6,33,28,43,59		8,44
36″	18,29, 4,27,56, 6,33,53,10,52		1,21, 4,56,34	
		1,59,33, 5,12,23,47,25		8,44
38″	18,29, 6,27,29,11,46,16,58,17		1,21, 5, 5,18	
		1,59,33, 3,51,18,42, 7		8,44
40″	18,29, 8,27, 2,15,37,35,40,24		1,21, 5,14, 2	
		1,59,33, 2,30,13,28, 5		8,44
42″	18,29,10,26,35,18, 7,49, 8,29		1,21, 5,22,46	
		1,59,33, 1, 9, 8, 5,19		8,44
44″	18,29,12,26, 8,19,16,57,13,48		1,21, 5,31,30	
		1,59,32,59,48, 2,33,49		8,44
46″	18,29,14,25,41,19, 4,59,47,37		1,21, 5,40,14	
		1,59,32,58,26,56,53,35		8,44
48″	18,29,16,25,14,17,31,56,41,12		1,21, 5,48,58	
		1,59,32,57, 5,51, 4,37		8,44
50″	18,29,18,24,47,14,37,47,45,49		1,21, 5,57,42	
		1,59,32,55,44,45, 6,55		8,44
52″	18,29,20,24,20,10,22,32,52,44		1,21, 6, 6,26	
		1,59,32,54,23,39, 0,29		8,44
54″	18,29,22,23,53, 4,46,11,53,13		1,21, 6,15,10	
		1,59,32,53, 2,32,45,19		8,44
56″	18,29,24,23,25,57,48,44,38,32		1,21, 6,23,54	
		1,59,32,51,41,26,21,25		8,44
58″	18,29,26,22,58,49,30,10,59,57		1,21, 6,32,38	
		1,59,32,50,20,19,48,47		
60″	18,29,28,22,31,39,50,30,48,44			
exact	18,29,28,22,31,39,50,30,18,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°57′ 0″	18,29,28,22,31,39,50,30,18,48			
		1,59,32,48,59,13, 4,17		
2″	18,29,30,22, 4,28,49,43,23, 5		1,21, 6,50,19	
		1,59,32,47,38, 6,13,58		8,44
4″	18,29,32,21,37,16,27,49,37, 3		1,21, 6,59, 3	
		1,59,32,46,16,59,14,55		8,44
6″	18,29,34,21,10, 2,44,48,51,58		1,21, 7, 7,47	
		1,59,32,44,55,52, 7, 8		8,44
8″	18,29,36,20,42,47,40,40,59, 6		1,21, 7,16,31	
		1,59,32,43,34,44,50,37		8,44
10″	18,29,38,20,15,31,15,25,49,43		1,21, 7,25,15	
		1,59,32,42,13,37,25,22		8,44
12″	18,29,40,19,48,13,29, 3,15, 5		1,21, 7,33,59	
		1,59,32,40,52,29,51,23		8,44
14″	18,29,42,19,20,54,21,33, 6,28		1,21, 7,42,43	
		1,59,32,39,31,22, 8,40		8,44
16″	18,29,44,18,53,33,52,55,15, 8		1,21, 7,51,27	
		1,59,32,38,10,14,17,13		8,44
18″	18,29,46,18,26,12, 3, 9,32,21		1,21, 8, 0,11	
		1,59,32,36,49, 6,17, 2		8,44
20″	18,29,48,17,58,48,52,15,49,23		1,21, 8, 8,55	
		1,59,32,35,27,58, 8, 7		8,44
22″	18,29,50,17,31,24,20,13,57,30		1,21, 8,17,39	
		1,59,32,34, 6,49,50,28		8,44
24″	18,29,52,17, 3,58,27, 3,47,58		1,21, 8,26,23	
		1,59,32,32,45,41,24, 5		8,44
26″	18,29,54,16,36,31,12,45,12, 3		1,21, 8,35, 7	
		1,59,32,31,24,32,48,58		8,44
28″	18,29,56,16, 9, 2,37,18, 1, 1		1,21, 8,43,51	
		1,59,32,30, 3,24, 5, 7		8,44
30″	18,29,58,15,41,32,40,42, 6, 8		1,21, 8,52,35	
		1,59,32,28,42,15,12,32		8,44
32″	18,30, 0,15,14, 1,22,57,18,40		1,21, 9, 1,19	
		1,59,32,27,21, 6,11,13		8,44
34″	18,30, 2,14,46,28,44, 3,29,53		1,21, 9,10, 3	
		1,59,32,25,59,57, 1,10		8,44
36″	18,30, 4,14,18,54,44, 0,31, 3		1,21, 9,18,47	
		1,59,32,24,38,47,42,23		8,44
38″	18,30, 6,13,51,19,22,48,13,26		1,21, 9,27,31	
		1,59,32,23,17,38,14,52		8,44
40″	18,30, 8,13,23,42,40,26,28,18		1,21, 9,36,15	
		1,59,32,21,56,28,38,37		8,44
42″	18,30,10,12,56, 4,36,55, 6,55		1,21, 9,44,59	
		1,59,32,20,35,18,53,38		8,44
44″	18,30,12,12,28,25,12,14, 0,33		1,21, 9,53,43	
		1,59,32,19,14, 8,59,55		8,44
46″	18,30,14,12, 0,44,26,23, 0,28		1,21,10, 2,27	
		1,59,32,17,52,58,57,28		8,44
48″	18,30,16,11,33, 2,19,21,57,56		1,21,10,11,11	
		1,59,32,16,31,48,46,17		8,44
50″	18,30,18,11, 5,18,51,10,44,13		1,21,10,19,55	
		1,59,32,15,10,38,26,22		8,44
52″	18,30,20,10,37,34, 1,49,10,35		1,21,10,28,39	
		1,59,32,13,49,27,57,43		8,44
54″	18,30,22,10, 9,47,51,17, 8,18		1,21,10,37,23	
		1,59,32,12,28,17,20,20		8,44
56″	18,30,24, 9,42, 0,19,34,28,38		1,21,10,46, 7	
		1,59,32,11, 7, 6,34,13		8,44
58″	18,30,26, 9,14,11,26,41, 2,51		1,21,10,54,51	
		1,59,32, 9,45,55,39,22		
60″	18,30,28, 8,46,21,12,36,42,13			
exact	18,30,28, 8,46,21,12,36,19,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°58′ 0″	18,30,28, 8,46,21,12,36,19,49			
		1,59,32, 8,24,44,33,17		
2″	18,30,30, 8,18,29,37,20,53, 6		1,21,11,12,30	
		1,59,32, 7, 3,33,20,47		8,44
4″	18,30,32, 7,50,36,40,54,13,53		1,21,11,21,14	
		1,59,32, 5,42,21,59,33		8,44
6″	18,30,34, 7,22,42,23,16,13,26		1,21,11,29,58	
		1,59,32, 4,21,10,29,35		8,44
8″	18,30,36, 6,54,46,44,26,43, 1		1,21,11,38,42	
		1,59,32, 2,59,58,50,53		8,44
10″	18,30,38, 6,26,49,44,25,33,54		1,21,11,47,26	
		1,59,32, 1,38,47, 3,27		8,44
12″	18,30,40, 5,58,51,23,12,37,21		1,21,11,56,10	
		1,59,32, 0,17,35, 7,17		8,44
14″	18,30,42, 5,30,51,40,47,44,38		1,21,12, 4,54	
		1,59,31,58,56,23, 2,23		8,44
16″	18,30,44, 5, 2,50,37,10,47, 1		1,21,12,13,38	
		1,59,31,57,35,10,48,45		8,44
18″	18,30,46, 4,34,48,12,21,35,46		1,21,12,22,22	
		1,59,31,56,13,58,26,23		8,44
20″	18,30,48, 4, 6,44,26,20, 2, 9		1,21,12,31, 6	
		1,59,31,54,52,45,55,17		8,44
22″	18,30,50, 3,38,39,19, 5,57,26		1,21,12,39,50	
		1,59,31,53,31,33,15,27		8,44
24″	18,30,52, 3,10,32,50,39,12,53		1,21,12,48,34	
		1,59,31,52,10,20,26,53		8,44
26″	18,30,54, 2,42,25, 0,59,39,46		1,21,12,57,18	
		1,59,31,50,49, 7,29,35		8,44
28″	18,30,56, 2,14,15,50, 7, 9,21		1,21,13, 6, 2	
		1,59,31,49,27,54,23,33		8,44
30″	18,30,58, 1,46, 5,18, 1,32,54		1,21,13,14,46	
		1,59,31,48, 6,41, 8,47		8,44
32″	18,31, 0, 1,17,53,24,42,41,41		1,21,13,23,30	
		1,59,31,46,45,27,45,17		8,44
34″	18,31, 2, 0,49,40,10,10,26,58		1,21,13,32,14	
		1,59,31,45,24,14,13, 3		8,44
36″	18,31, 4, 0,21,25,34,24,40, 1		1,21,13,40,58	
		1,59,31,44, 3, 0,32, 5		8,44
38″	18,31, 5,59,53, 9,37,25,12, 6		1,21,13,49,42	
		1,59,31,42,41,46,42,23		8,44
40″	18,31, 7,59,24,52,19,11,54,29		1,21,13,58,26	
		1,59,31,41,20,32,43,57		8,44
42″	18,31, 9,58,56,33,39,44,38,26		1,21,14, 7,10	
		1,59,31,39,59,18,36,47		8,44
44″	18,31,11,58,28,13,39, 3,15,13		1,21,14,15,54	
		1,59,31,38,38, 4,20,53		8,44
46″	18,31,13,57,59,52,17, 7,36, 6		1,21,14,24,38	
		1,59,31,37,16,49,56,15		8,44
48″	18,31,15,57,31,29,33,57,32,21		1,21,14,33,22	
		1,59,31,35,55,35,22,53		8,44
50″	18,31,17,57, 3, 5,29,32,55,14		1,21,14,42, 6	
		1,59,31,34,34,20,40,47		8,44
52″	18,31,19,56,34,40, 3,53,36, 1		1,21,14,50,50	
		1,59,31,33,13, 5,49,57		8,44
54″	18,31,21,56, 6,13,16,59,25,58		1,21,14,59,34	
		1,59,31,31,51,50,50,23		8,44
56″	18,31,23,55,37,45, 8,50,16,21		1,21,15, 8,18	
		1,59,31,30,30,35,42, 5		8,44
58″	18,31,25,55, 9,15,39,25,58,26		1,21,15,17, 2	
		1,59,31,29, 9,20,25, 3		
60″	18,31,27,54,40,44,48,46,23,29			
exact	18,31,27,54,40,44,48,46, 4,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
17°59′ 0″	18,31,27,54,40,44,48,46, 4,40			
		1,59,31,27,48, 4,57,10		
2″	18,31,29,54,12,12,36,51, 1,50		1,21,15,34,39	
		1,59,31,26,26,49,22,31		8,44
4″	18,31,31,53,43,39, 3,40,24,21		1,21,15,43,23	
		1,59,31,25, 5,33,39, 8		8,44
6″	18,31,33,53,15, 4, 9,14, 3,29		1,21,15,52, 7	
		1,59,31,23,44,17,47, 1		8,44
8″	18,31,35,52,46,27,53,31,50,30		1,21,16, 0,51	
		1,59,31,22,23, 1,46,10		8,44
10″	18,31,37,52,17,50,16,33,36,40		1,21,16, 9,35	
		1,59,31,21, 1,45,36,35		8,44
12″	18,31,39,51,49,11,18,19,13,15		1,21,16,18,19	
		1,59,31,19,40,29,18,16		8,44
14″	18,31,41,51,20,30,58,48,31,31		1,21,16,27, 3	
		1,59,31,18,19,12,51,13		8,44
16″	18,31,43,50,51,49,18, 1,22,44		1,21,16,35,47	
		1,59,31,16,57,56,15,26		8,44
18″	18,31,45,50,23, 6,15,57,38,10		1,21,16,44,31	
		1,59,31,15,36,39,30,55		8,44
20″	18,31,47,49,54,21,52,37, 9, 5		1,21,16,53,15	
		1,59,31,14,15,22,37,40		8,44
22″	18,31,49,49,25,36, 7,59,46,45		1,21,17, 1,59	
		1,59,31,12,54, 5,35,41		8,44
24″	18,31,51,48,56,49, 2, 5,22,26		1,21,17,10,43	
		1,59,31,11,32,48,24,58		8,44
26″	18,31,53,48,28, 0,34,53,47,24		1,21,17,19,27	
		1,59,31,10,11,31, 5,31		8,44
28″	18,31,55,47,59,10,46,24,52,55		1,21,17,28,11	
		1,59,31, 8,50,13,37,20		8,44
30″	18,31,57,47,30,19,36,38,30,15		1,21,17,36,55	
		1,59,31, 7,28,56, 0,25		8,44
32″	18,31,59,47, 1,27, 5,34,30,40		1,21,17,45,39	
		1,59,31, 6, 7,38,14,46		8,44
34″	18,32, 1,46,32,33,13,12,45,26		1,21,17,54,23	
		1,59,31, 4,46,20,20,23		8,44
36″	18,32, 3,46, 3,37,59,33, 5,49		1,21,18, 3, 7	
		1,59,31, 3,25, 2,17,16		8,44
38″	18,32, 5,45,34,41,24,35,23, 5		1,21,18,11,51	
		1,59,31, 2, 3,44, 5,25		8,44
40″	18,32, 7,45, 5,43,28,19,28,30		1,21,18,20,35	
		1,59,31, 0,42,25,44,50		8,44
42″	18,32, 9,44,36,44,10,45,13,20		1,21,18,29,19	
		1,59,30,59,21, 7,15,31		8,44
44″	18,32,11,44, 7,43,31,52,28,51		1,21,18,38, 3	
		1,59,30,57,59,48,37,28		8,44
46″	18,32,13,43,38,41,31,41, 6,19		1,21,18,46,47	
		1,59,30,56,38,29,50,41		8,44
48″	18,32,15,43, 9,38,10,10,57, 0		1,21,18,55,31	
		1,59,30,55,17,10,55,10		8,44
50″	18,32,17,42,40,33,27,21,52,10		1,21,19, 4,15	
		1,59,30,53,55,51,50,55		8,44
52″	18,32,19,42,11,27,23,13,43, 5		1,21,19,12,59	
		1,59,30,52,34,32,37,56		8,44
54″	18,32,21,41,42,19,57,46,21, 1		1,21,19,21,43	
		1,59,30,51,13,13,16,13		8,44
56″	18,32,23,41,13,11,10,59,37,14		1,21,19,30,27	
		1,59,30,49,51,53,45,46		8,44
58″	18,32,25,40,44, 1, 2,53,23, 0		1,21,19,39,11	
		1,59,30,48,30,34, 6,35		
60″	18,32,27,40,14,49,33,27,29,35			
exact	18,32,27,40,14,49,33,27,10, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18° 0′ 0″	18,32,27,40,14,49,33,27,10, 9			
		1,59,30,47, 9,14,16,39		
2″	18,32,29,39,45,36,42,41,26,48		1,21,19,56,47	
		1,59,30,45,47,54,19,52		8,44
4″	18,32,31,39,16,22,30,35,46,40		1,21,20, 5,31	
		1,59,30,44,26,34,14,21		8,44
6″	18,32,33,38,47, 6,57,10, 1, 1		1,21,20,14,15	
		1,59,30,43, 5,14, 0, 6		8,44
8″	18,32,35,38,17,50, 2,24, 1, 7		1,21,20,22,59	
		1,59,30,41,43,53,37, 7		8,44
10″	18,32,37,37,48,31,46,17,38,14		1,21,20,31,43	
		1,59,30,40,22,33, 5,24		8,44
12″	18,32,39,37,19,12, 8,50,43,38		1,21,20,40,27	
		1,59,30,39, 1,12,24,57		8,44
14″	18,32,41,36,49,51,10, 3, 8,35		1,21,20,49,11	
		1,59,30,37,39,51,35,46		8,44
16″	18,32,43,36,20,28,49,54,44,21		1,21,20,57,55	
		1,59,30,36,18,30,37,51		8,44
18″	18,32,45,35,51, 5, 8,25,22,12		1,21,21, 6,39	
		1,59,30,34,57, 9,31,12		8,44
20″	18,32,47,35,21,40, 5,34,53,24		1,21,21,15,23	
		1,59,30,33,35,48,15,49		8,44
22″	18,32,49,34,52,13,41,23, 9,13		1,21,21,24, 7	
		1,59,30,32,14,26,51,42		8,44
24″	18,32,51,34,22,45,55,50, 0,55		1,21,21,32,51	
		1,59,30,30,53, 5,18,51		8,44
26″	18,32,53,33,53,16,48,55,19,46		1,21,21,41,35	
		1,59,30,29,31,43,37,16		8,44
28″	18,32,55,33,23,46,20,38,57, 2		1,21,21,50,19	
		1,59,30,28,10,21,46,57		8,44
30″	18,32,57,32,54,14,31, 0,43,59		1,21,21,59, 3	
		1,59,30,26,48,59,47,54		8,44
32″	18,32,59,32,24,41,20, 0,31,53		1,21,22, 7,47	
		1,59,30,25,27,37,40, 7		8,44
34″	18,33, 1,31,55, 6,47,38,12, 0		1,21,22,16,31	
		1,59,30,24, 6,15,23,36		8,44
36″	18,33, 3,31,25,30,53,53,35,36		1,21,22,25,15	
		1,59,30,22,44,52,58,21		8,44
38″	18,33, 5,30,55,53,38,46,33,57		1,21,22,33,59	
		1,59,30,21,23,30,24,22		8,44
40″	18,33, 7,30,26,15, 2,16,58,19		1,21,22,42,43	
		1,59,30,20, 2, 7,41,39		8,44
42″	18,33, 9,29,56,35, 4,24,39,58		1,21,22,51,27	
		1,59,30,18,40,44,50,12		8,44
44″	18,33,11,29,26,53,45, 9,30,10		1,21,23, 0,11	
		1,59,30,17,19,21,50, 1		8,44
46″	18,33,13,28,57,11, 4,31,20,11		1,21,23, 8,55	
		1,59,30,15,57,58,41, 6		8,44
48″	18,33,15,28,27,27, 2,30, 1,17		1,21,23,17,39	
		1,59,30,14,36,35,23,27		8,44
50″	18,33,17,27,57,41,39, 5,24,44		1,21,23,26,23	
		1,59,30,13,15,11,57, 4		8,44
52″	18,33,19,27,27,54,54,17,21,48		1,21,23,35, 7	
		1,59,30,11,53,48,21,57		8,44
54″	18,33,21,26,58, 6,48, 5,43,45		1,21,23,43,51	
		1,59,30,10,32,24,38, 6		8,44
56″	18,33,23,26,28,17,20,30,21,51		1,21,23,52,35	
		1,59,30, 9,11, 0,45,31		8,44
58″	18,33,25,25,58,26,31,31, 7,22		1,21,24, 1,19	
		1,59,30, 7,49,36,44,12		
60″	18,33,27,25,28,34,21, 7,51,34			
exact	18,33,27,25,28,34,21, 7,35,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18° 1′ 0″	18,33,27,25,28,34,21, 7,35,22			
		1,59,30, 6,28,12,32,29		
2″	18,33,29,24,58,40,49,20, 7,51		1,21,24,18,54	
		1,59,30, 5, 6,48,13,35		8,44
4″	18,33,31,24,28,45,56, 8,21,26		1,21,24,27,38	
		1,59,30, 3,45,23,45,57		8,44
6″	18,33,33,23,58,49,41,32, 7,23		1,21,24,36,22	
		1,59,30, 2,23,59, 9,35		8,44
8″	18,33,35,23,28,52, 5,31,16,58		1,21,24,45, 6	
		1,59,30, 1, 2,34,24,29		8,44
10″	18,33,37,22,58,53, 8, 5,41,27		1,21,24,53,50	
		1,59,29,59,41, 9,30,39		8,44
12″	18,33,39,22,28,52,49,15,12, 6		1,21,25, 2,34	
		1,59,29,58,19,44,28, 5		8,44
14″	18,33,41,21,58,51, 8,59,40,11		1,21,25,11,18	
		1,59,29,56,58,19,16,47		8,44
16″	18,33,43,21,28,48, 7,18,56,58		1,21,25,20, 2	
		1,59,29,55,36,53,56,45		8,44
18″	18,33,45,20,58,43,44,12,53,43		1,21,25,28,46	
		1,59,29,54,15,28,27,59		8,44
20″	18,33,47,20,28,37,59,41,21,42		1,21,25,37,30	
		1,59,29,52,54, 2,50,29		8,44
22″	18,33,49,19,58,30,53,44,12,11		1,21,25,46,14	
		1,59,29,51,32,37, 4,15		8,44
24″	18,33,51,19,28,22,26,21,16,26		1,21,25,54,58	
		1,59,29,50,11,11, 9,17		8,44
26″	18,33,53,18,58,12,37,32,25,43		1,21,26, 3,42	
		1,59,29,48,49,45, 5,35		8,44
28″	18,33,55,18,28, 1,27,17,31,18		1,21,26,12,26	
		1,59,29,47,28,18,53, 9		8,44
30″	18,33,57,17,57,48,55,36,24,27		1,21,26,21,10	
		1,59,29,46, 6,52,31,59		8,44
32″	18,33,59,17,27,35, 2,28,56,26		1,21,26,29,54	
		1,59,29,44,45,26, 2, 5		8,44
34″	18,34, 1,16,57,19,47,54,58,31		1,21,26,38,38	
		1,59,29,43,23,59,23,27		8,44
36″	18,34, 3,16,27, 3,11,54,21,58		1,21,26,47,22	
		1,59,29,42, 2,32,36, 5		8,44
38″	18,34, 5,15,56,45,14,26,58, 3		1,21,26,56, 6	
		1,59,29,40,41, 5,39,59		8,44
40″	18,34, 7,15,26,25,55,32,38, 2		1,21,27, 4,50	
		1,59,29,39,19,38,35, 9		8,44
42″	18,34, 9,14,56, 5,15,11,13,11		1,21,27,13,34	
		1,59,29,37,58,11,21,35		8,44
44″	18,34,11,14,25,43,13,22,34,46		1,21,27,22,18	
		1,59,29,36,36,43,59,17		8,44
46″	18,34,13,13,55,19,50, 6,34, 3		1,21,27,31, 2	
		1,59,29,35,15,16,28,15		8,44
48″	18,34,15,13,24,55, 5,23, 2,18		1,21,27,39,46	
		1,59,29,33,53,48,48,29		8,44
50″	18,34,17,12,54,28,59,11,50,47		1,21,27,48,30	
		1,59,29,32,32,20,59,59		8,44
52″	18,34,19,12,24, 1,31,32,50,46		1,21,27,57,14	
		1,59,29,31,10,53, 2,45		8,44
54″	18,34,21,11,53,32,42,25,53,31		1,21,28, 5,58	
		1,59,29,29,49,24,56,47		8,44
56″	18,34,23,11,23, 2,31,50,50,18		1,21,28,14,42	
		1,59,29,28,27,56,42, 5		8,44
58″	18,34,25,10,52,30,59,47,32,23		1,21,28,23,26	
		1,59,29,27, 6,28,18,39		
60″	18,34,27,10,21,58, 6,15,51, 2			
exact	18,34,27,10,21,58, 6,15,41,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18° 2′ 0″	18,34,27,10,21,58, 6,15,41,40			
		1,59,29,25,44,59,45,25		
2″	18,34,29, 9,51,23,51,15,27, 5		1,21,28,40,59	
		1,59,29,24,23,31, 4,26		8,44
4″	18,34,31, 9,20,48,14,46,31,31		1,21,28,49,43	
		1,59,29,23, 2, 2,14,43		8,44
6″	18,34,33, 8,50,11,16,48,46,14		1,21,28,58,27	
		1,59,29,21,40,33,16,16		8,44
8″	18,34,35, 8,19,32,57,22, 2,30		1,21,29, 7,11	
		1,59,29,20,19, 4, 9, 5		8,44
10″	18,34,37, 7,48,53,16,26,11,35		1,21,29,15,55	
		1,59,29,18,57,34,53,10		8,44
12″	18,34,39, 7,18,12,14, 1, 4,45		1,21,29,24,39	
		1,59,29,17,36, 5,28,31		8,44
14″	18,34,41, 6,47,29,50, 6,33,16		1,21,29,33,23	
		1,59,29,16,14,35,55, 8		8,44
16″	18,34,43, 6,16,46, 4,42,28,24		1,21,29,42, 7	
		1,59,29,14,53, 6,13, 1		8,44
18″	18,34,45, 5,46, 0,57,48,41,25		1,21,29,50,51	
		1,59,29,13,31,36,22,10		8,44
20″	18,34,47, 5,15,14,29,25, 3,35		1,21,29,59,35	
		1,59,29,12,10, 6,22,35		8,44
22″	18,34,49, 4,44,26,39,31,26,10		1,21,30, 8,19	
		1,59,29,10,48,36,14,16		8,44
24″	18,34,51, 4,13,37,28, 7,40,26		1,21,30,17, 3	
		1,59,29, 9,27, 5,57,13		8,44
26″	18,34,53, 3,42,46,55,13,37,39		1,21,30,25,47	
		1,59,29, 8, 5,35,31,26		8,44
28″	18,34,55, 3,11,55, 0,49, 9, 5		1,21,30,34,31	
		1,59,29, 6,44, 4,56,55		8,44
30″	18,34,57, 2,41, 1,44,54, 6, 0		1,21,30,43,15	
		1,59,29, 5,22,34,13,40		8,44
32″	18,34,59, 2,10, 7, 7,28,19,40		1,21,30,51,59	
		1,59,29, 4, 1, 3,21,41		8,44
34″	18,35, 1, 1,39,11, 8,31,41,21		1,21,31, 0,43	
		1,59,29, 2,39,32,20,58		8,44
36″	18,35, 3, 1, 8,13,48, 4, 2,19		1,21,31, 9,27	
		1,59,29, 1,18, 1,11,31		8,44
38″	18,35, 5, 0,37,15, 6, 5,13,50		1,21,31,18,11	
		1,59,28,59,56,29,53,20		8,44
40″	18,35, 7, 0, 6,15, 2,35, 7,10		1,21,31,26,55	
		1,59,28,58,34,58,26,25		8,44
42″	18,35, 8,59,35,13,37,33,33,35		1,21,31,35,39	
		1,59,28,57,13,26,50,46		8,44
44″	18,35,10,59, 4,10,51, 0,24,21		1,21,31,44,23	
		1,59,28,55,51,55, 6,23		8,44
46″	18,35,12,58,33, 6,42,55,30,44		1,21,31,53, 7	
		1,59,28,54,30,23,13,16		8,44
48″	18,35,14,58, 2, 1,13,18,44, 0		1,21,32, 1,51	
		1,59,28,53, 8,51,11,25		8,44
50″	18,35,16,57,30,54,22, 9,55,25		1,21,32,10,35	
		1,59,28,51,47,19, 0,50		8,44
52″	18,35,18,56,59,46, 9,28,56,15		1,21,32,19,19	
		1,59,28,50,25,46,41,31		8,44
54″	18,35,20,56,28,36,35,15,37,46		1,21,32,28, 3	
		1,59,28,49, 4,14,13,28		8,44
56″	18,35,22,55,57,25,39,29,51,14		1,21,32,36,47	
		1,59,28,47,42,41,36,41		8,44
58″	18,35,24,55,26,13,22,11,27,55		1,21,32,45,31	
		1,59,28,46,21, 8,51,10		
60″	18,35,26,54,54,59,43,20,19, 5			
exact	18,35,26,54,54,59,43,20,12,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18° 3′ 0″	18,35,26,54,54,59,43,20,12,47	1,59,28,44,59,35,56,11		
2″	18,35,28,54,23,44,42,56, 8,58	1,59,28,43,38, 2,53, 9	1,21,33, 3, 2	8,44
4″	18,35,30,53,52,28,20,59, 2, 7	1,59,28,42,16,29,41,23	1,21,33,11,46	8,44
6″	18,35,32,53,21,10,37,28,43,30	1,59,28,40,54,56,20,53	1,21,33,20,30	8,44
8″	18,35,34,52,49,51,32,25, 4,23	1,59,28,39,33,22,51,39	1,21,33,29,14	8,44
10″	18,35,36,52,18,31, 5,47,56, 2	1,59,28,38,11,49,13,41	1,21,33,37,58	8,44
12″	18,35,38,51,47, 9,17,37, 9,43	1,59,28,36,50,15,26,59	1,21,33,46,42	8,44
14″	18,35,40,51,15,46, 7,52,36,42	1,59,28,35,28,41,31,33	1,21,33,55,26	8,44
16″	18,35,42,50,44,21,36,34, 8,15	1,59,28,34, 7, 7,27,23	1,21,34, 4,10	8,44
18″	18,35,44,50,12,55,43,41,35,38	1,59,28,32,45,33,14,29	1,21,34,12,54	8,44
20″	18,35,46,49,41,28,29,14,50, 7	1,59,28,31,23,58,52,51	1,21,34,21,38	8,44
22″	18,35,48,49, 9,59,53,13,42,58	1,59,28,30, 2,24,22,29	1,21,34,30,22	8,44
24″	18,35,50,48,38,29,55,38, 5,27	1,59,28,28,40,49,43,23	1,21,34,39, 6	8,44
26″	18,35,52,48, 6,58,36,27,48,50	1,59,28,27,19,14,55,33	1,21,34,47,50	8,44
28″	18,35,54,47,35,25,55,42,44,23	1,59,28,25,57,39,58,59	1,21,34,56,34	8,44
30″	18,35,56,47, 3,51,53,22,43,22	1,59,28,24,36, 4,53,41	1,21,35, 5,18	8,44
32″	18,35,58,46,32,16,29,27,37, 3	1,59,28,23,14,29,39,39	1,21,35,14, 2	8,44
34″	18,36, 0,46, 0,39,43,57,16,42	1,59,28,21,52,54,16,53	1,21,35,22,46	8,44
36″	18,36, 2,45,29, 1,36,51,33,35	1,59,28,20,31,18,45,23	1,21,35,31,30	8,44
38″	18,36, 4,44,57,22, 8,10,18,58	1,59,28,19, 9,43, 5, 9	1,21,35,40,14	8,44
40″	18,36, 6,44,25,41,17,53,24, 7	1,59,28,17,48, 7,16,11	1,21,35,48,58	8,44
42″	18,36, 8,43,53,59, 6, 0,40,18	1,59,28,16,26,31,18,29	1,21,35,57,42	8,44
44″	18,36,10,43,22,15,32,31,58,47	1,59,28,15, 4,55,12, 3	1,21,36, 6,26	8,44
46″	18,36,12,42,50,30,37,27,10,50	1,59,28,13,43,18,56,53	1,21,36,15,10	8,44
48″	18,36,14,42,18,44,20,46, 7,43	1,59,28,12,21,42,32,59	1,21,36,23,54	8,44
50″	18,36,16,41,46,56,42,28,40,42	1,59,28,11, 0, 6, 0,21	1,21,36,32,38	8,44
52″	18,36,18,41,15, 7,42,34,41, 3	1,59,28, 9,38,29,18,59	1,21,36,41,22	8,44
54″	18,36,20,40,43,17,21, 4, 0, 2	1,59,28, 8,16,52,28,53	1,21,36,50, 6	8,44
56″	18,36,22,40,11,25,37,56,28,55	1,59,28, 6,55,15,30, 3	1,21,36,58,50	8,44
58″	18,36,24,39,39,32,33,11,58,58	1,59,28, 5,33,38,22,29	1,21,37, 7,34	
60″	18,36,26,39, 7,38, 6,50,21,27			
exact	18,36,26,39, 7,38, 6,50,14,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18° 4′ 0″	18,36,26,39, 7,38, 6,50,14,44	1,59,28, 4,12, 1, 5,33		
2″	18,36,28,38,35,42,18,51,20,17	1,59,28, 2,50,23,40,29	1,21,37,25, 4	8,44
4″	18,36,30,38, 3,45, 9,15, 0,46	1,59,28, 1,28,46, 6,41	1,21,37,33,48	8,44
6″	18,36,32,37,31,46,38, 1, 7,27	1,59,28, 0, 7, 8,24, 9	1,21,37,42,32	8,44
8″	18,36,34,36,59,46,45, 9,31,36	1,59,27,58,45,30,32,53	1,21,37,51,16	8,44
10″	18,36,36,36,27,45,30,40, 4,29	1,59,27,57,23,52,32,53	1,21,38, 0, 0	8,44
12″	18,36,38,35,55,42,54,32,37,22	1,59,27,56, 2,14,24, 9	1,21,38, 8,44	8,44
14″	18,36,40,35,23,38,56,47, 1,31	1,59,27,54,40,36, 6,41	1,21,38,17,28	8,44
16″	18,36,42,34,51,33,37,23, 8,12	1,59,27,53,18,57,40,29	1,21,38,26,12	8,44
18″	18,36,44,34,19,26,56,20,48,41	1,59,27,51,57,19, 5,33	1,21,38,34,56	8,44
20″	18,36,46,33,47,18,53,39,54,14	1,59,27,50,35,40,21,53	1,21,38,43,40	8,44
22″	18,36,48,33,15, 9,29,20,16, 7	1,59,27,49,14, 1,29,29	1,21,38,52,24	8,44
24″	18,36,50,32,42,58,43,21,45,36	1,59,27,47,52,22,28,21	1,21,39, 1, 8	8,44
26″	18,36,52,32,10,46,35,44,13,57	1,59,27,46,30,43,18,29	1,21,39, 9,52	8,44
28″	18,36,54,31,38,33, 6,27,32,26	1,59,27,45, 9, 3,59,53	1,21,39,18,36	8,44
30″	18,36,56,31, 6,18,15,31,32,19	1,59,27,43,47,24,32,33	1,21,39,27,20	8,44
32″	18,36,58,30,34, 2, 2,56, 4,52	1,59,27,42,25,44,56,29	1,21,39,36, 4	8,44
34″	18,37, 0,30, 1,44,28,41, 1,21	1,59,27,41, 4, 5,11,41	1,21,39,44,48	8,44
36″	18,37, 2,29,29,25,32,46,13, 2	1,59,27,39,42,25,18, 9	1,21,39,53,32	8,44
38″	18,37, 4,28,57, 5,15,11,31,11	1,59,27,38,20,45,15,53	1,21,40, 2,16	8,44
40″	18,37, 6,28,24,43,35,56,47, 4	1,59,27,36,59, 5, 4,53	1,21,40,11, 0	8,44
42″	18,37, 8,27,52,20,35, 1,51,57	1,59,27,35,37,24,45, 9	1,21,40,19,44	8,44
44″	18,37,10,27,19,56,12,26,37, 6	1,59,27,34,15,44,16,41	1,21,40,28,28	8,44
46″	18,37,12,26,47,30,28,10,53,47	1,59,27,32,54, 3,39,29	1,21,40,37,12	8,44
48″	18,37,14,26,15, 3,22,14,33,16	1,59,27,31,32,22,53,33	1,21,40,45,56	8,44
50″	18,37,16,25,42,34,54,37,26,49	1,59,27,30,10,41,58,53	1,21,40,54,40	8,44
52″	18,37,18,25,10, 5, 5,19,25,42	1,59,27,28,49, 0,55,29	1,21,41, 3,24	8,44
54″	18,37,20,24,37,33,54,20,21,11	1,59,27,27,27,19,43,21	1,21,41,12, 8	8,44
56″	18,37,22,24, 5, 1,21,40, 4,32	1,59,27,26, 5,38,22,29	1,21,41,20,52	8,44
58″	18,37,24,23,32,27,27,18,27, 1	1,59,27,24,43,56,52,53	1,21,41,29,36	
60″	18,37,26,22,59,52,11,15,19,54			
exact	18,37,26,22,59,52,11,15,15,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18° 5′ 0″	18,37,26,22,59,52,11,15,15,55			
		1,59,27,23,22,15,14,14		
2″	18,37,28,22,27,15,33,30,30, 9		1,21,41,47, 5	
		1,59,27,22, 0,33,27, 9		8,44
4″	18,37,30,21,54,37,34, 3,57,18		1,21,41,55,49	
		1,59,27,20,38,51,31,20		8,44
6″	18,37,32,21,21,58,12,55,28,38		1,21,42, 4,33	
		1,59,27,19,17, 9,26,47		8,44
8″	18,37,34,20,49,17,30, 4,55,25		1,21,42,13,17	
		1,59,27,17,55,27,13,30		8,44
10″	18,37,36,20,16,35,25,32, 8,55		1,21,42,22, 1	
		1,59,27,16,33,44,51,29		8,44
12″	18,37,38,19,43,51,59,17, 0,24		1,21,42,30,45	
		1,59,27,15,12, 2,20,44		8,44
14″	18,37,40,19,11, 7,11,19,21, 8		1,21,42,39,29	
		1,59,27,13,50,19,41,15		8,44
16″	18,37,42,18,38,21, 1,39, 2,23		1,21,42,48,13	
		1,59,27,12,28,36,53, 2		8,44
18″	18,37,44,18, 5,33,30,15,55,25		1,21,42,56,57	
		1,59,27,11, 6,53,56, 5		8,44
20″	18,37,46,17,32,44,37, 9,51,30		1,21,43, 5,41	
		1,59,27, 9,45,10,50,24		8,44
22″	18,37,48,16,59,54,22,20,41,54		1,21,43,14,25	
		1,59,27, 8,23,27,35,59		8,44
24″	18,37,50,16,27, 2,45,48,17,53		1,21,43,23, 9	
		1,59,27, 7, 1,44,12,50		8,44
26″	18,37,52,15,54, 9,47,32,30,43		1,21,43,31,53	
		1,59,27, 5,40, 0,40,57		8,44
28″	18,37,54,15,21,15,27,33,11,40		1,21,43,40,37	
		1,59,27, 4,18,17, 0,20		8,44
30″	18,37,56,14,48,19,45,50,12, 0		1,21,43,49,21	
		1,59,27, 2,56,33,10,59		8,44
32″	18,37,58,14,15,22,42,23,22,59		1,21,43,58, 5	
		1,59,27, 1,34,49,12,54		8,44
34″	18,38, 0,13,42,24,17,12,35,53		1,21,44, 6,49	
		1,59,27, 0,13, 5, 6, 5		8,44
36″	18,38, 2,13, 9,24,30,17,41,58		1,21,44,15,33	
		1,59,26,58,51,20,50,32		8,44
38″	18,38, 4,12,36,23,21,38,32,30		1,21,44,24,17	
		1,59,26,57,29,36,26,15		8,44
40″	18,38, 6,12, 3,20,51,14,58,45		1,21,44,33, 1	
		1,59,26,56, 7,51,53,14		8,44
42″	18,38, 8,11,30,16,59, 6,51,59		1,21,44,41,45	
		1,59,26,54,46, 7,11,29		8,44
44″	18,38,10,10,57,11,45,14, 3,28		1,21,44,50,29	
		1,59,26,53,24,22,21, 0		8,44
46″	18,38,12,10,24, 5, 9,36,24,28		1,21,44,59,13	
		1,59,26,52, 2,37,21,47		8,44
48″	18,38,14, 9,50,57,12,13,46,15		1,21,45, 7,57	
		1,59,26,50,40,52,13,50		8,44
50″	18,38,16, 9,17,47,53, 6, 0, 5		1,21,45,16,41	
		1,59,26,49,19, 6,57, 9		8,44
52″	18,38,18, 8,44,37,12,12,57,14		1,21,45,25,25	
		1,59,26,47,57,21,31,44		8,44
54″	18,38,20, 8,11,25, 9,34,28,58		1,21,45,34, 9	
		1,59,26,46,35,35,57,35		8,44
56″	18,38,22, 7,38,11,45,10,26,33		1,21,45,42,53	
		1,59,26,45,13,50,14,42		8,44
58″	18,38,24, 7, 4,56,59, 0,41,15		1,21,45,51,37	
		1,59,26,43,52, 4,23, 5		
60″	18,38,26, 6,31,40,51, 5, 4,20			
exact	18,38,26, 6,31,40,51, 5, 7, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18° 6′ 0″	18,38,26, 6,31,40,51, 5, 7, 5	1,59,26,42,30,18,23, 0		
2″	18,38,28, 5,58,23,21,23,30, 5	1,59,26,41, 8,32,13,56	1,21,46, 9, 4	8,44
4″	18,38,30, 5,25, 4,29,55,44, 1	1,59,26,39,46,45,56, 8	1,21,46,17,48	8,44
6″	18,38,32, 4,51,44,16,41,40, 9	1,59,26,38,24,59,29,36	1,21,46,26,32	8,44
8″	18,38,34, 4,18,22,41,41, 9,45	1,59,26,37, 3,12,54,20	1,21,46,35,16	8,44
10″	18,38,36, 3,44,59,44,54, 4, 5	1,59,26,35,41,26,10,20	1,21,46,44, 0	8,44
12″	18,38,38, 3,11,35,26,20,14,25	1,59,26,34,19,39,17,36	1,21,46,52,44	8,44
14″	18,38,40, 2,38, 9,45,59,32, 1	1,59,26,32,57,52,16, 8	1,21,47, 1,28	8,44
16″	18,38,42, 2, 4,42,43,51,48, 9	1,59,26,31,36, 5, 5,56	1,21,47,10,12	8,44
18″	18,38,44, 1,31,14,19,56,54, 5	1,59,26,30,14,17,47, 0	1,21,47,18,56	8,44
20″	18,38,46, 0,57,44,34,14,41, 5	1,59,26,28,52,30,19,20	1,21,47,27,40	8,44
22″	18,38,48, 0,24,13,26,45, 0,25	1,59,26,27,30,42,42,56	1,21,47,36,24	8,44
24″	18,38,49,59,50,40,57,27,43,21	1,59,26,26, 8,54,57,48	1,21,47,45, 8	8,44
26″	18,38,51,59,17, 7, 6,22,41, 9	1,59,26,24,47, 7, 3,56	1,21,47,53,52	8,44
28″	18,38,53,58,43,31,53,29,45, 5	1,59,26,23,25,19, 1,20	1,21,48, 2,36	8,44
30″	18,38,55,58, 9,55,18,48,46,25	1,59,26,22, 3,30,50, 0	1,21,48,11,20	8,44
32″	18,38,57,57,36,17,22,19,36,25	1,59,26,20,41,42,29,56	1,21,48,20, 4	8,44
34″	18,38,59,57, 2,38, 4, 2, 6,21	1,59,26,19,19,54, 1, 8	1,21,48,28,48	8,44
36″	18,39, 1,56,28,57,23,56, 7,29	1,59,26,17,58, 5,23,36	1,21,48,37,32	8,44
38″	18,39, 3,55,55,15,22, 1,31, 5	1,59,26,16,36,16,37,20	1,21,48,46,16	8,44
40″	18,39, 5,55,21,31,58,18, 8,25	1,59,26,15,14,27,42,20	1,21,48,55, 0	8,44
42″	18,39, 7,54,47,47,12,45,50,45	1,59,26,13,52,38,38,36	1,21,49, 3,44	8,44
44″	18,39, 9,54,14, 1, 5,24,29,21	1,59,26,12,30,49,26, 8	1,21,49,12,28	8,44
46″	18,39,11,53,40,13,36,13,55,29	1,59,26,11, 9, 0, 4,56	1,21,49,21,12	8,44
48″	18,39,13,53, 6,24,45,14, 0,25	1,59,26, 9,47,10,35, 0	1,21,49,29,56	8,44
50″	18,39,15,52,32,34,32,24,35,25	1,59,26, 8,25,20,56,20	1,21,49,38,40	8,44
52″	18,39,17,51,58,42,57,45,31,45	1,59,26, 7, 3,31, 8,56	1,21,49,47,24	8,44
54″	18,39,19,51,24,50, 1,16,40,41	1,59,26, 5,41,41,12,48	1,21,49,56, 8	8,44
56″	18,39,21,50,50,55,42,57,53,29	1,59,26, 4,19,51, 7,56	1,21,50, 4,52	8,44
58″	18,39,23,50,17, 0, 2,49, 1,25	1,59,26, 2,58, 0,54,20	1,21,50,13,36	
60″	18,39,25,49,43, 3, 0,49,55,45			
exact	18,39,25,49,43, 3, 0,50, 1,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18° 7′ 0″	18,39,25,49,43, 3, 0,50, 1,26			
		1,59,26, 1,36,10,32,36		
2″	18,39,27,49, 9, 4,37, 0,34, 2		1,21,50,31, 1	
		1,59,26, 0,14,20, 1,35		8,44
4″	18,39,29,48,35, 4,51,20,35,37		1,21,50,39,45	
		1,59,25,58,52,29,21,50		8,44
6″	18,39,31,48, 1, 3,43,49,57,27		1,21,50,48,29	
		1,59,25,57,30,38,33,21		8,44
8″	18,39,33,47,27, 1,14,28,30,48		1,21,50,57,13	
		1,59,25,56, 8,47,36, 8		8,44
10″	18,39,35,46,52,57,23,16, 6,56		1,21,51, 5,57	
		1,59,25,54,46,56,30,11		8,44
12″	18,39,37,46,18,52,10,12,37, 7		1,21,51,14,41	
		1,59,25,53,25, 5,15,30		8,44
14″	18,39,39,45,44,45,35,17,52,37		1,21,51,23,25	
		1,59,25,52, 3,13,52, 5		8,44
16″	18,39,41,45,10,37,38,31,44,42		1,21,51,32, 9	
		1,59,25,50,41,22,19,56		8,44
18″	18,39,43,44,36,28,19,54, 4,38		1,21,51,40,53	
		1,59,25,49,19,30,39, 3		8,44
20″	18,39,45,44, 2,17,39,24,43,41		1,21,51,49,37	
		1,59,25,47,57,38,49,26		8,44
22″	18,39,47,43,28, 5,37, 3,33, 7		1,21,51,58,21	
		1,59,25,46,35,46,51, 5		8,44
24″	18,39,49,42,53,52,12,50,24,12		1,21,52, 7, 5	
		1,59,25,45,13,54,44, 0		8,44
26″	18,39,51,42,19,37,26,45, 8,12		1,21,52,15,49	
		1,59,25,43,52, 2,28,11		8,44
28″	18,39,53,41,45,21,18,47,36,23		1,21,52,24,33	
		1,59,25,42,30,10, 3,38		8,44
30″	18,39,55,41,11, 3,48,57,40, 1		1,21,52,33,17	
		1,59,25,41, 8,17,30,21		8,44
32″	18,39,57,40,36,44,57,15,10,22		1,21,52,42, 1	
		1,59,25,39,46,24,48,20		8,44
34″	18,39,59,40, 2,24,43,39,58,42		1,21,52,50,45	
		1,59,25,38,24,31,57,35		8,44
36″	18,40, 1,39,28, 3, 8,11,56,17		1,21,52,59,29	
		1,59,25,37, 2,38,58, 6		8,44
38″	18,40, 3,38,53,40,10,50,54,23		1,21,53, 8,13	
		1,59,25,35,40,45,49,53		8,44
40″	18,40, 5,38,19,15,51,36,44,16		1,21,53,16,57	
		1,59,25,34,18,52,32,56		8,44
42″	18,40, 7,37,44,50,10,29,17,12		1,21,53,25,41	
		1,59,25,32,56,59, 7,15		8,44
44″	18,40, 9,37,10,23, 7,28,24,27		1,21,53,34,25	
		1,59,25,31,35, 5,32,50		8,44
46″	18,40,11,36,35,54,42,33,57,17		1,21,53,43, 9	
		1,59,25,30,13,11,49,41		8,44
48″	18,40,13,36, 1,24,55,45,46,58		1,21,53,51,53	
		1,59,25,28,51,17,57,48		8,44
50″	18,40,15,35,26,53,47, 3,44,46		1,21,54, 0,37	
		1,59,25,27,29,23,57,11		8,44
52″	18,40,17,34,52,21,16,27,41,57		1,21,54, 9,21	
		1,59,25,26, 7,29,47,50		8,44
54″	18,40,19,34,17,47,23,57,29,47		1,21,54,18, 5	
		1,59,25,24,45,35,29,45		8,44
56″	18,40,21,33,43,12, 9,32,59,32		1,21,54,26,49	
		1,59,25,23,23,41, 2,56		8,44
58″	18,40,23,33, 8,35,33,14, 2,28		1,21,54,35,33	
		1,59,25,22, 1,46,27,23		
60″	18,40,25,32,33,57,35, 0,29,51			
exact	18,40,25,32,33,57,35, 0,34,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18° 8′ 0″	18,40,25,32,33,57,35, 0,34,31			
		1,59,25,20,39,51,43,46		
2″	18,40,27,31,59,18,14,52,18,17		1,21,54,52,58	
		1,59,25,19,17,56,50,48		8,44
4″	18,40,29,31,24,37,32,49, 9, 5		1,21,55, 1,42	
		1,59,25,17,56, 1,49, 6		8,44
6″	18,40,31,30,49,55,28,50,58,11		1,21,55,10,26	
		1,59,25,16,34, 6,38,40		8,44
8″	18,40,33,30,15,12, 2,57,36,51		1,21,55,19,10	
		1,59,25,15,12,11,19,30		8,44
10″	18,40,35,29,40,27,15, 8,56,21		1,21,55,27,54	
		1,59,25,13,50,15,51,36		8,44
12″	18,40,37,29, 5,41, 5,24,47,57		1,21,55,36,38	
		1,59,25,12,28,20,14,58		8,44
14″	18,40,39,28,30,53,33,45, 2,55		1,21,55,45,22	
		1,59,25,11, 6,24,29,36		8,44
16″	18,40,41,27,56, 4,40, 9,32,31		1,21,55,54, 6	
		1,59,25, 9,44,28,35,30		8,44
18″	18,40,43,27,21,14,24,38, 8, 1		1,21,56, 2,50	
		1,59,25, 8,22,32,32,40		8,44
20″	18,40,45,26,46,22,47,10,40,41		1,21,56,11,34	
		1,59,25, 7, 0,36,21, 6		8,44
22″	18,40,47,26,11,29,47,47, 1,47		1,21,56,20,18	
		1,59,25, 5,38,40, 0,48		8,44
24″	18,40,49,25,36,35,26,27, 2,35		1,21,56,29, 2	
		1,59,25, 4,16,43,31,46		8,44
26″	18,40,51,25, 1,39,43,10,34,21		1,21,56,37,46	
		1,59,25, 2,54,46,54, 0		8,44
28″	18,40,53,24,26,42,37,57,28,21		1,21,56,46,30	
		1,59,25, 1,32,50, 7,30		8,44
30″	18,40,55,23,51,44,10,47,35,51		1,21,56,55,14	
		1,59,25, 0,10,53,12,16		8,44
32″	18,40,57,23,16,44,21,40,48, 7		1,21,57, 3,58	
		1,59,24,58,48,56, 8,18		8,44
34″	18,40,59,22,41,43,10,36,56,25		1,21,57,12,42	
		1,59,24,57,26,58,55,36		8,44
36″	18,41, 1,22, 6,40,37,35,52, 1		1,21,57,21,26	
		1,59,24,56, 5, 1,34,10		8,44
38″	18,41, 3,21,31,36,42,37,26,11		1,21,57,30,10	
		1,59,24,54,43, 4, 4, 0		8,44
40″	18,41, 5,20,56,31,25,41,30,11		1,21,57,38,54	
		1,59,24,53,21, 6,25, 6		8,44
42″	18,41, 7,20,21,24,46,47,55,17		1,21,57,47,38	
		1,59,24,51,59, 8,37,28		8,44
44″	18,41, 9,19,46,16,45,56,32,45		1,21,57,56,22	
		1,59,24,50,37,10,41, 6		8,44
46″	18,41,11,19,11, 7,23, 7,13,51		1,21,58, 5, 6	
		1,59,24,49,15,12,36, 0		8,44
48″	18,41,13,18,35,56,38,19,49,51		1,21,58,13,50	
		1,59,24,47,53,14,22,10		8,44
50″	18,41,15,18, 0,44,31,34,12, 1		1,21,58,22,34	
		1,59,24,46,31,15,59,36		8,44
52″	18,41,17,17,25,31, 2,50,11,37		1,21,58,31,18	
		1,59,24,45, 9,17,28,18		8,44
54″	18,41,19,16,50,16,12, 7,39,55		1,21,58,40, 2	
		1,59,24,43,47,18,48,16		8,44
56″	18,41,21,16,14,59,59,26,28,11		1,21,58,48,46	
		1,59,24,42,25,19,59,30		8,44
58″	18,41,23,15,39,42,24,46,27,41		1,21,58,57,30	
		1,59,24,41, 3,21, 2, 0		
60″	18,41,25,15, 4,23,28, 7,29,41			
exact	18,41,25,15, 4,23,28, 7,44,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18° 9′ 0″	18,41,25,15, 4,23,28, 7,44,23			
		1,59,24,39,41,21,57,15		
2″	18,41,27,14,29, 3, 9,29,41,38		1,21,59,14,52	
		1,59,24,38,19,22,42,23		8,44
4″	18,41,29,13,53,41,28,52,24, 1		1,21,59,23,36	
		1,59,24,36,57,23,18,47		8,44
6″	18,41,31,13,18,18,26,15,42,48		1,21,59,32,20	
		1,59,24,35,35,23,46,27		8,44
8″	18,41,33,12,42,54, 1,39,29,15		1,21,59,41, 4	
		1,59,24,34,13,24, 5,23		8,44
10″	18,41,35,12, 7,28,15, 3,34,38		1,21,59,49,48	
		1,59,24,32,51,24,15,35		8,44
12″	18,41,37,11,32, 1, 6,27,50,13		1,21,59,58,32	
		1,59,24,31,29,24,17, 3		8,44
14″	18,41,39,10,56,32,35,52, 7,16		1,22, 0, 7,16	
		1,59,24,30, 7,24, 9,47		8,44
16″	18,41,41,10,21, 2,43,16,17, 3		1,22, 0,16, 0	
		1,59,24,28,45,23,53,47		8,44
18″	18,41,43, 9,45,31,28,40,10,50		1,22, 0,24,44	
		1,59,24,27,23,23,29, 3		8,44
20″	18,41,45, 9, 9,58,52, 3,39,53		1,22, 0,33,28	
		1,59,24,26, 1,22,55,35		8,44
22″	18,41,47, 8,34,24,53,26,35,28		1,22, 0,42,12	
		1,59,24,24,39,22,13,23		8,44
24″	18,41,49, 7,58,49,32,48,48,51		1,22, 0,50,56	
		1,59,24,23,17,21,22,27		8,44
26″	18,41,51, 7,23,12,50,10,11,18		1,22, 0,59,40	
		1,59,24,21,55,20,22,47		8,44
28″	18,41,53, 6,47,34,45,30,34, 5		1,22, 1, 8,24	
		1,59,24,20,33,19,14,23		8,44
30″	18,41,55, 6,11,55,18,49,48,28		1,22, 1,17, 8	
		1,59,24,19,11,17,57,15		8,44
32″	18,41,57, 5,36,14,30, 7,45,43		1,22, 1,25,52	
		1,59,24,17,49,16,31,23		8,44
34″	18,41,59, 5, 0,32,19,24,17, 6		1,22, 1,34,36	
		1,59,24,16,27,14,56,47		8,44
36″	18,42, 1, 4,24,48,46,39,13,53		1,22, 1,43,20	
		1,59,24,15, 5,13,13,27		8,44
38″	18,42, 3, 3,49, 3,51,52,27,20		1,22, 1,52, 4	
		1,59,24,13,43,11,21,23		8,44
40″	18,42, 5, 3,13,17,35, 3,48,43		1,22, 2, 0,48	
		1,59,24,12,21, 9,20,35		8,44
42″	18,42, 7, 2,37,29,56,13, 9,18		1,22, 2, 9,32	
		1,59,24,10,59, 7,11, 3		8,44
44″	18,42, 9, 2, 1,40,55,20,20,21		1,22, 2,18,16	
		1,59,24, 9,37, 4,52,47		8,44
46″	18,42,11, 1,25,50,32,25,13, 8		1,22, 2,27, 0	
		1,59,24, 8,15, 2,25,47		8,44
48″	18,42,13, 0,49,58,47,27,38,55		1,22, 2,35,44	
		1,59,24, 6,52,59,50, 3		8,44
50″	18,42,15, 0,14, 5,40,27,28,58		1,22, 2,44,28	
		1,59,24, 5,30,57, 5,35		8,44
52″	18,42,16,59,38,11,11,24,34,33		1,22, 2,53,12	
		1,59,24, 4, 8,54,12,23		8,44
54″	18,42,18,59, 2,15,20,18,46,56		1,22, 3, 1,56	
		1,59,24, 2,46,51,10,27		8,44
56″	18,42,20,58,26,18, 7, 9,57,23		1,22, 3,10,40	
		1,59,24, 1,24,47,59,47		8,44
58″	18,42,22,57,50,19,31,57,57,10		1,22, 3,19,24	
		1,59,24, 0, 2,44,40,23		
60″	18,42,24,57,14,19,34,42,37,33			
exact	18,42,24,57,14,19,34,42,51,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°10′ 0″	18,42,24,57,14,19,34,42,51,30			
		1,59,23,58,40,41,13,48		
2″	18,42,26,56,38,18,15,24, 5,18		1,22, 3,36,45	
		1,59,23,57,18,37,37, 3		8,44
4″	18,42,28,56, 2,15,34, 1,42,21		1,22, 3,45,29	
		1,59,23,55,56,33,51,34		8,44
6″	18,42,30,55,26,11,30,35,33,55		1,22, 3,54,13	
		1,59,23,54,34,29,57,21		8,44
8″	18,42,32,54,50, 6, 5, 5,31,16		1,22, 4, 2,57	
		1,59,23,53,12,25,54,24		8,44
10″	18,42,34,54,13,59,17,31,25,40		1,22, 4,11,41	
		1,59,23,51,50,21,42,43		8,44
12″	18,42,36,53,37,51, 7,53, 8,23		1,22, 4,20,25	
		1,59,23,50,28,17,22,18		8,44
14″	18,42,38,53, 1,41,36,10,30,41		1,22, 4,29, 9	
		1,59,23,49, 6,12,53, 9		8,44
16″	18,42,40,52,25,30,42,23,23,50		1,22, 4,37,53	
		1,59,23,47,44, 8,15,16		8,44
18″	18,42,42,51,49,18,26,31,39, 6		1,22, 4,46,37	
		1,59,23,46,22, 3,28,39		8,44
20″	18,42,44,51,13, 4,48,35, 7,45		1,22, 4,55,21	
		1,59,23,44,59,58,33,18		8,44
22″	18,42,46,50,36,49,48,33,41, 3		1,22, 5, 4, 5	
		1,59,23,43,37,53,29,13		8,44
24″	18,42,48,50, 0,33,26,27,10,16		1,22, 5,12,49	
		1,59,23,42,15,48,16,24		8,44
26″	18,42,50,49,24,15,42,15,26,40		1,22, 5,21,33	
		1,59,23,40,53,42,54,51		8,44
28″	18,42,52,48,47,56,35,58,21,31		1,22, 5,30,17	
		1,59,23,39,31,37,24,34		8,44
30″	18,42,54,48,11,36, 7,35,46, 5		1,22, 5,39, 1	
		1,59,23,38, 9,31,45,33		8,44
32″	18,42,56,47,35,14,17, 7,31,38		1,22, 5,47,45	
		1,59,23,36,47,25,57,48		8,44
34″	18,42,58,46,58,51, 4,33,29,26		1,22, 5,56,29	
		1,59,23,35,25,20, 1,19		8,44
36″	18,43, 0,46,22,26,29,53,30,45		1,22, 6, 5,13	
		1,59,23,34, 3,13,56, 6		8,44
38″	18,43, 2,45,46, 0,33, 7,26,51		1,22, 6,13,57	
		1,59,23,32,41, 7,42, 9		8,44
40″	18,43, 4,45, 9,33,14,15, 9, 0		1,22, 6,22,41	
		1,59,23,31,19, 1,19,28		8,44
42″	18,43, 6,44,33, 4,33,16,28,28		1,22, 6,31,25	
		1,59,23,29,56,54,48, 3		8,44
44″	18,43, 8,43,56,34,30,11,16,31		1,22, 6,40, 9	
		1,59,23,28,34,48, 7,54		8,44
46″	18,43,10,43,20, 3, 4,59,24,25		1,22, 6,48,53	
		1,59,23,27,12,41,19, 1		8,44
48″	18,43,12,42,43,30,17,40,43,26		1,22, 6,57,37	
		1,59,23,25,50,34,21,24		8,44
50″	18,43,14,42, 6,56, 8,15, 4,50		1,22, 7, 6,21	
		1,59,23,24,28,27,15, 3		8,44
52″	18,43,16,41,30,20,36,42,19,53		1,22, 7,15, 5	
		1,59,23,23, 6,19,59,58		8,44
54″	18,43,18,40,53,43,43, 2,19,51		1,22, 7,23,49	
		1,59,23,21,44,12,36, 9		8,44
56″	18,43,20,40,17, 5,27,14,56, 0		1,22, 7,32,33	
		1,59,23,20,22, 5, 3,36		8,44
58″	18,43,22,39,40,25,49,19,59,36		1,22, 7,41,17	
		1,59,23,18,59,57,22,19		
60″	18,43,24,39, 3,44,49,17,21,55			
exact	18,43,24,39, 3,44,49,17,38,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°11′ 0″	18,43,24,39, 3,44,49,17,38,48			
		1,59,23,17,37,49,34,11		
2″	18,43,26,38,27, 2,27, 7,12,59		1,22, 7,58,37	
		1,59,23,16,15,41,35,34		8,44
4″	18,43,28,37,50,18,42,48,48,33		1,22, 8, 7,21	
		1,59,23,14,53,33,28,13		8,44
6″	18,43,30,37,13,33,36,22,16,46		1,22, 8,16, 5	
		1,59,23,13,31,25,12, 8		8,44
8″	18,43,32,36,36,47, 7,47,28,54		1,22, 8,24,49	
		1,59,23,12, 9,16,47,19		8,44
10″	18,43,34,35,59,59,17, 4,16,13		1,22, 8,33,33	
		1,59,23,10,47, 8,13,46		8,44
12″	18,43,36,35,23,10, 4,12,29,59		1,22, 8,42,17	
		1,59,23, 9,24,59,31,29		8,44
14″	18,43,38,34,46,19,29,12, 1,28		1,22, 8,51, 1	
		1,59,23, 8, 2,50,40,28		8,44
16″	18,43,40,34, 9,27,32, 2,41,56		1,22, 8,59,45	
		1,59,23, 6,40,41,40,43		8,44
18″	18,43,42,33,32,34,12,44,22,39		1,22, 9, 8,29	
		1,59,23, 5,18,32,32,14		8,44
20″	18,43,44,32,55,39,31,16,54,53		1,22, 9,17,13	
		1,59,23, 3,56,23,15, 1		8,44
22″	18,43,46,32,18,43,27,40, 9,54		1,22, 9,25,57	
		1,59,23, 2,34,13,49, 4		8,44
24″	18,43,48,31,41,46, 1,53,58,58		1,22, 9,34,41	
		1,59,23, 1,12, 4,14,23		8,44
26″	18,43,50,31, 4,47,13,58,13,21		1,22, 9,43,25	
		1,59,22,59,49,54,30,58		8,44
28″	18,43,52,30,27,47, 3,52,44,19		1,22, 9,52, 9	
		1,59,22,58,27,44,38,49		8,44
30″	18,43,54,29,50,45,31,37,23, 8		1,22,10, 0,53	
		1,59,22,57, 5,34,37,56		8,44
32″	18,43,56,29,13,42,37,12, 1, 4		1,22,10, 9,37	
		1,59,22,55,43,24,28,19		8,44
34″	18,43,58,28,36,38,20,36,29,23		1,22,10,18,21	
		1,59,22,54,21,14, 9,58		8,44
36″	18,44, 0,27,59,32,41,50,39,21		1,22,10,27, 5	
		1,59,22,52,59, 3,42,53		8,44
38″	18,44, 2,27,22,25,40,54,22,14		1,22,10,35,49	
		1,59,22,51,36,53, 7, 4		8,44
40″	18,44, 4,26,45,17,17,47,29,18		1,22,10,44,33	
		1,59,22,50,14,42,22,31		8,44
42″	18,44, 6,26, 8, 7,32,29,51,49		1,22,10,53,17	
		1,59,22,48,52,31,29,14		8,44
44″	18,44, 8,25,30,56,25, 1,21, 3		1,22,11, 2, 1	
		1,59,22,47,30,20,27,13		8,44
46″	18,44,10,24,53,43,55,21,48,16		1,22,11,10,45	
		1,59,22,46, 8, 9,16,28		8,44
48″	18,44,12,24,16,30, 3,31, 4,44		1,22,11,19,29	
		1,59,22,44,45,57,56,59		8,44
50″	18,44,14,23,39,14,49,29, 1,43		1,22,11,28,13	
		1,59,22,43,23,46,28,46		8,44
52″	18,44,16,23, 1,58,13,15,30,29		1,22,11,36,57	
		1,59,22,42, 1,34,51,49		8,44
54″	18,44,18,22,24,40,14,50,22,18		1,22,11,45,41	
		1,59,22,40,39,23, 6, 8		8,44
56″	18,44,20,21,47,20,54,13,28,26		1,22,11,54,25	
		1,59,22,39,17,11,11,43		8,44
58″	18,44,22,21,10, 0,11,24,40, 9		1,22,12, 3, 9	
		1,59,22,37,54,59, 8,34		
60″	18,44,24,20,32,38, 6,23,48,43			
exact	18,44,24,20,32,38, 6,24,11,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°12′ 0″	18,44,24,20,32,38, 6,24,11,46			
		1,59,22,36,32,46,59, 8		
2″	18,44,26,19,55,14,39,11,10,54		1,22,12,20,27	
		1,59,22,35,10,34,38,41		8,44
4″	18,44,28,19,17,49,49,45,49,35		1,22,12,29,11	
		1,59,22,33,48,22, 9,30		8,44
6″	18,44,30,18,40,23,38, 7,59, 5		1,22,12,37,55	
		1,59,22,32,26, 9,31,35		8,44
8″	18,44,32,18, 2,56, 4,17,30,40		1,22,12,46,39	
		1,59,22,31, 3,56,44,56		8,44
10″	18,44,34,17,25,27, 8,14,15,36		1,22,12,55,23	
		1,59,22,29,41,43,49,33		8,44
12″	18,44,36,16,47,56,49,58, 5, 9		1,22,13, 4, 7	
		1,59,22,28,19,30,45,26		8,44
14″	18,44,38,16,10,25, 9,28,50,35		1,22,13,12,51	
		1,59,22,26,57,17,32,35		8,44
16″	18,44,40,15,32,52, 6,46,23,10		1,22,13,21,35	
		1,59,22,25,35, 4,11, 0		8,44
18″	18,44,42,14,55,17,41,50,34,10		1,22,13,30,19	
		1,59,22,24,12,50,40,41		8,44
20″	18,44,44,14,17,41,54,41,14,51		1,22,13,39, 3	
		1,59,22,22,50,37, 1,38		8,44
22″	18,44,46,13,40, 4,45,18,16,29		1,22,13,47,47	
		1,59,22,21,28,23,13,51		8,44
24″	18,44,48,13, 2,26,13,41,30,20		1,22,13,56,31	
		1,59,22,20, 6, 9,17,20		8,44
26″	18,44,50,12,24,46,19,50,47,40		1,22,14, 5,15	
		1,59,22,18,43,55,12, 5		8,44
28″	18,44,52,11,47, 5, 3,45,59,45		1,22,14,13,59	
		1,59,22,17,21,40,58, 6		8,44
30″	18,44,54,11, 9,22,25,26,57,51		1,22,14,22,43	
		1,59,22,15,59,26,35,23		8,44
32″	18,44,56,10,31,38,24,53,33,14		1,22,14,31,27	
		1,59,22,14,37,12, 3,56		8,44
34″	18,44,58, 9,53,53, 2, 5,37,10		1,22,14,40,11	
		1,59,22,13,14,57,23,45		8,44
36″	18,45, 0, 9,16, 6,17, 3, 0,55		1,22,14,48,55	
		1,59,22,11,52,42,34,50		8,44
38″	18,45, 2, 8,38,18, 9,45,35,45		1,22,14,57,39	
		1,59,22,10,30,27,37,11		8,44
40″	18,45, 4, 8, 0,28,40,13,12,56		1,22,15, 6,23	
		1,59,22, 9, 8,12,30,48		8,44
42″	18,45, 6, 7,22,37,48,25,43,44		1,22,15,15, 7	
		1,59,22, 7,45,57,15,41		8,44
44″	18,45, 8, 6,44,45,34,22,59,25		1,22,15,23,51	
		1,59,22, 6,23,41,51,50		8,44
46″	18,45,10, 6, 6,51,58, 4,51,15		1,22,15,32,35	
		1,59,22, 5, 1,26,19,15		8,44
48″	18,45,12, 5,28,56,59,31,10,30		1,22,15,41,19	
		1,59,22, 3,39,10,37,56		8,44
50″	18,45,14, 4,51, 0,38,41,48,26		1,22,15,50, 3	
		1,59,22, 2,16,54,47,53		8,44
52″	18,45,16, 4,13, 2,55,36,36,19		1,22,15,58,47	
		1,59,22, 0,54,38,49, 6		8,44
54″	18,45,18, 3,35, 3,50,15,25,25		1,22,16, 7,31	
		1,59,21,59,32,22,41,35		8,44
56″	18,45,20, 2,57, 3,22,38, 7, 0		1,22,16,16,15	
		1,59,21,58,10, 6,25,20		8,44
58″	18,45,22, 2,19, 1,32,44,32,20		1,22,16,24,59	
		1,59,21,56,47,50, 0,21		
60″	18,45,24, 1,40,58,20,34,32,41			
exact	18,45,24, 1,40,58,20,34,58,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°13′ 0″	18,45,24, 1,40,58,20,34,58,20			
		1,59,21,55,25,33,29,23		
2″	18,45,26, 1, 2,53,46, 8,27,43		1,22,16,42,15	
		1,59,21,54, 3,16,47, 8		8,44
4″	18,45,28, 0,24,47,49,25,14,51		1,22,16,50,59	
		1,59,21,52,40,59,56, 9		8,44
6″	18,45,29,59,46,40,30,25,11, 0		1,22,16,59,43	
		1,59,21,51,18,42,56,26		8,44
8″	18,45,31,59, 8,31,49, 8, 7,26		1,22,17, 8,27	
		1,59,21,49,56,25,47,59		8,44
10″	18,45,33,58,30,21,45,33,55,25		1,22,17,17,11	
		1,59,21,48,34, 8,30,48		8,44
12″	18,45,35,57,52,10,19,42,26,13		1,22,17,25,55	
		1,59,21,47,11,51, 4,53		8,44
14″	18,45,37,57,13,57,31,33,31, 6		1,22,17,34,39	
		1,59,21,45,49,33,30,14		8,44
16″	18,45,39,56,35,43,21, 7, 1,20		1,22,17,43,23	
		1,59,21,44,27,15,46,51		8,44
18″	18,45,41,55,57,27,48,22,48,11		1,22,17,52, 7	
		1,59,21,43, 4,57,54,44		8,44
20″	18,45,43,55,19,10,53,20,42,55		1,22,18, 0,51	
		1,59,21,41,42,39,53,53		8,44
22″	18,45,45,54,40,52,36, 0,36,48		1,22,18, 9,35	
		1,59,21,40,20,21,44,18		8,44
24″	18,45,47,54, 2,32,56,22,21, 6		1,22,18,18,19	
		1,59,21,38,58, 3,25,59		8,44
26″	18,45,49,53,24,11,54,25,47, 5		1,22,18,27, 3	
		1,59,21,37,35,44,58,56		8,44
28″	18,45,51,52,45,49,30,10,46, 1		1,22,18,35,47	
		1,59,21,36,13,26,23, 9		8,44
30″	18,45,53,52, 7,25,43,37, 9,10		1,22,18,44,31	
		1,59,21,34,51, 7,38,38		8,44
32″	18,45,55,51,29, 0,34,44,47,48		1,22,18,53,15	
		1,59,21,33,28,48,45,23		8,44
34″	18,45,57,50,50,34, 3,33,33,11		1,22,19, 1,59	
		1,59,21,32, 6,29,43,24		8,44
36″	18,45,59,50,12, 6,10, 3,16,35		1,22,19,10,43	
		1,59,21,30,44,10,32,41		8,44
38″	18,46, 1,49,33,36,54,13,49,16		1,22,19,19,27	
		1,59,21,29,21,51,13,14		8,44
40″	18,46, 3,48,55, 6,16, 5, 2,30		1,22,19,28,11	
		1,59,21,27,59,31,45, 3		8,44
42″	18,46, 5,48,16,34,15,36,47,33		1,22,19,36,55	
		1,59,21,26,37,12, 8, 8		8,44
44″	18,46, 7,47,38, 0,52,48,55,41		1,22,19,45,39	
		1,59,21,25,14,52,22,29		8,44
46″	18,46, 9,46,59,26, 7,41,18,10		1,22,19,54,23	
		1,59,21,23,52,32,28, 6		8,44
48″	18,46,11,46,20,50, 0,13,46,16		1,22,20, 3, 7	
		1,59,21,22,30,12,24,59		8,44
50″	18,46,13,45,42,12,30,26,11,15		1,22,20,11,51	
		1,59,21,21, 7,52,13, 8		8,44
52″	18,46,15,45, 3,33,38,18,24,23		1,22,20,20,35	
		1,59,21,19,45,31,52,33		8,44
54″	18,46,17,44,24,53,23,50,16,56		1,22,20,29,19	
		1,59,21,18,23,11,23,14		8,44
56″	18,46,19,43,46,11,47, 1,40,10		1,22,20,38, 3	
		1,59,21,17, 0,50,45,11		8,44
58″	18,46,21,43, 7,28,47,52,25,21		1,22,20,46,47	
		1,59,21,15,38,29,58,24		
60″	18,46,23,42,28,44,26,22,23,45			
exact	18,46,23,42,28,44,26,22,49, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°14′ 0″	18,46,23,42,28,44,26,22,49, 2			
		1,59,21,14,16, 9, 5,44		
2″	18,46,25,41,49,58,42,31,54,46		1,22,21, 4, 3	
		1,59,21,12,53,48, 1,41		8,44
4″	18,46,27,41,11,11,36,19,56,27		1,22,21,12,47	
		1,59,21,11,31,26,48,54		8,44
6″	18,46,29,40,32,23, 7,46,45,21		1,22,21,21,31	
		1,59,21,10, 9, 5,27,23		8,44
8″	18,46,31,39,53,33,16,52,12,44		1,22,21,30,15	
		1,59,21, 8,46,43,57, 8		8,44
10″	18,46,33,39,14,42, 3,36, 9,52		1,22,21,38,59	
		1,59,21, 7,24,22,18, 9		8,44
12″	18,46,35,38,35,49,27,58,28, 1		1,22,21,47,43	
		1,59,21, 6, 2, 0,30,26		8,44
14″	18,46,37,37,56,55,29,58,58,27		1,22,21,56,27	
		1,59,21, 4,39,38,33,59		8,44
16″	18,46,39,37,18, 0, 9,37,32,26		1,22,22, 5,11	
		1,59,21, 3,17,16,28,48		8,44
18″	18,46,41,36,39, 3,26,54, 1,14		1,22,22,13,55	
		1,59,21, 1,54,54,14,53		8,44
20″	18,46,43,36, 0, 5,21,48,16, 7		1,22,22,22,39	
		1,59,21, 0,32,31,52,14		8,44
22″	18,46,45,35,21, 5,54,20, 8,21		1,22,22,31,23	
		1,59,20,59,10, 9,20,51		8,44
24″	18,46,47,34,42, 5, 4,29,29,12		1,22,22,40, 7	
		1,59,20,57,47,46,40,44		8,44
26″	18,46,49,34, 3, 2,52,16, 9,56		1,22,22,48,51	
		1,59,20,56,25,23,51,53		8,44
28″	18,46,51,33,23,59,17,40, 1,49		1,22,22,57,35	
		1,59,20,55, 3, 0,54,18		8,44
30″	18,46,53,32,44,54,20,40,56, 7		1,22,23, 6,19	
		1,59,20,53,40,37,47,59		8,44
32″	18,46,55,32, 5,48, 1,18,44, 6		1,22,23,15, 3	
		1,59,20,52,18,14,32,56		8,44
34″	18,46,57,31,26,40,19,33,17, 2		1,22,23,23,47	
		1,59,20,50,55,51, 9, 9		8,44
36″	18,46,59,30,47,31,15,24,26,11		1,22,23,32,31	
		1,59,20,49,33,27,36,38		8,44
38″	18,47, 1,30, 8,20,48,52, 2,49		1,22,23,41,15	
		1,59,20,48,11, 3,55,23		8,44
40″	18,47, 3,29,29, 8,59,55,58,12		1,22,23,49,59	
		1,59,20,46,48,40, 5,24		8,44
42″	18,47, 5,28,49,55,48,36, 3,36		1,22,23,58,43	
		1,59,20,45,26,16, 6,41		8,44
44″	18,47, 7,28,10,41,14,52,10,17		1,22,24, 7,27	
		1,59,20,44, 3,51,59,14		8,44
46″	18,47, 9,27,31,25,18,44, 9,31		1,22,24,16,11	
		1,59,20,42,41,27,43, 3		8,44
48″	18,47,11,26,52, 8, 0,11,52,34		1,22,24,24,55	
		1,59,20,41,19, 3,18, 8		8,44
50″	18,47,13,26,12,49,19,15,10,42		1,22,24,33,39	
		1,59,20,39,56,38,44,29		8,44
52″	18,47,15,25,33,29,15,53,55,11		1,22,24,42,23	
		1,59,20,38,34,14, 2, 6		8,44
54″	18,47,17,24,54, 7,50, 7,57,17		1,22,24,51, 7	
		1,59,20,37,11,49,10,59		8,44
56″	18,47,19,24,14,45, 1,57, 8,16		1,22,24,59,51	
		1,59,20,35,49,24,11, 8		8,44
58″	18,47,21,23,35,20,51,21,19,24		1,22,25, 8,35	
		1,59,20,34,26,59, 2,33		
60″	18,47,23,22,55,55,18,20,21,57			
exact	18,47,23,22,55,55,18,20,56,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°15′ 0″	18,47,23,22,55,55,18,20,56,54			
		1,59,20,33, 4,33,48,53		
2″	18,47,25,22,16,28,22,54,45,47		1,22,25,25,48	
		1,59,20,31,42, 8,23, 5		8,43
4″	18,47,27,21,37, 0, 5, 3, 8,52		1,22,25,34,31	
		1,59,20,30,19,42,48,34		8,43
6″	18,47,29,20,57,30,24,45,57,26		1,22,25,43,14	
		1,59,20,28,57,17, 5,20		8,43
8″	18,47,31,20,17,59,22, 3, 2,46		1,22,25,51,57	
		1,59,20,27,34,51,13,23		8,43
10″	18,47,33,19,38,26,56,54,16, 9		1,22,26, 0,40	
		1,59,20,26,12,25,12,43		8,43
12″	18,47,35,18,58,53, 9,19,28,52		1,22,26, 9,23	
		1,59,20,24,49,59, 3,20		8,43
14″	18,47,37,18,19,17,59,18,32,12		1,22,26,18, 6	
		1,59,20,23,27,32,45,14		8,43
16″	18,47,39,17,39,41,26,51,17,26		1,22,26,26,49	
		1,59,20,22, 5, 6,18,25		8,43
18″	18,47,41,17, 0, 3,31,57,35,51		1,22,26,35,32	
		1,59,20,20,42,39,42,53		8,43
20″	18,47,43,16,20,24,14,37,18,44		1,22,26,44,15	
		1,59,20,19,20,12,58,38		8,43
22″	18,47,45,15,40,43,34,50,17,22		1,22,26,52,58	
		1,59,20,17,57,46, 5,40		8,43
24″	18,47,47,15, 1, 1,32,36,23, 2		1,22,27, 1,41	
		1,59,20,16,35,19, 3,59		8,43
26″	18,47,49,14,21,18, 7,55,27, 1		1,22,27,10,24	
		1,59,20,15,12,51,53,35		8,43
28″	18,47,51,13,41,33,20,47,20,36		1,22,27,19, 7	
		1,59,20,13,50,24,34,28		8,43
30″	18,47,53,13, 1,47,11,11,55, 4		1,22,27,27,50	
		1,59,20,12,27,57, 6,38		8,43
32″	18,47,55,12,21,59,39, 9, 1,42		1,22,27,36,33	
		1,59,20,11, 5,29,30, 5		8,43
34″	18,47,57,11,42,10,44,38,31,47		1,22,27,45,16	
		1,59,20, 9,43, 1,44,49		8,43
36″	18,47,59,11, 2,20,27,40,16,36		1,22,27,53,59	
		1,59,20, 8,20,33,50,50		8,43
38″	18,48, 1,10,22,28,48,14, 7,26		1,22,28, 2,42	
		1,59,20, 6,58, 5,48, 8		8,43
40″	18,48, 3, 9,42,35,46,19,55,34		1,22,28,11,25	
		1,59,20, 5,35,37,36,43		8,43
42″	18,48, 5, 9, 2,41,21,57,32,17		1,22,28,20, 8	
		1,59,20, 4,13, 9,16,35		8,43
44″	18,48, 7, 8,22,45,35, 6,48,52		1,22,28,28,51	
		1,59,20, 2,50,40,47,44		8,43
46″	18,48, 9, 7,42,48,25,47,36,36		1,22,28,37,34	
		1,59,20, 1,28,12,10,10		8,43
48″	18,48,11, 7, 2,49,53,59,46,46		1,22,28,46,17	
		1,59,20, 0, 5,43,23,53		8,43
50″	18,48,13, 6,22,49,59,43,10,39		1,22,28,55, 0	
		1,59,19,58,43,14,28,53		8,43
52″	18,48,15, 5,42,48,42,57,39,32		1,22,29, 3,43	
		1,59,19,57,20,45,25,10		8,43
54″	18,48,17, 5, 2,46, 3,43, 4,42		1,22,29,12,26	
		1,59,19,55,58,16,12,44		8,43
56″	18,48,19, 4,22,42, 1,59,17,26		1,22,29,21, 9	
		1,59,19,54,35,46,51,35		8,43
58″	18,48,21, 3,42,36,37,46, 9, 1		1,22,29,29,52	
		1,59,19,53,13,17,21,43		
60″	18,48,23, 3, 2,29,51, 3,30,44			
exact	18,48,23, 3, 2,29,51, 2,57,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°16′ 0″	18,48,23, 3, 2,29,51, 2,57,36			
		1,59,19,51,50,47,39,38		
2″	18,48,25, 2,22,21,41,50,37,14		1,22,29,47,32	
		1,59,19,50,28,17,52, 6		8,43
4″	18,48,27, 1,42,12,10, 8,29,20		1,22,29,56,15	
		1,59,19,49, 5,47,55,51		8,43
6″	18,48,29, 1, 2, 1,15,56,25,11		1,22,30, 4,58	
		1,59,19,47,43,17,50,53		8,43
8″	18,48,31, 0,21,48,59,14,16, 4		1,22,30,13,41	
		1,59,19,46,20,47,37,12		8,43
10″	18,48,32,59,41,35,20, 1,53,16		1,22,30,22,24	
		1,59,19,44,58,17,14,48		8,43
12″	18,48,34,59, 1,20,18,19, 8, 4		1,22,30,31, 7	
		1,59,19,43,35,46,43,41		8,43
14″	18,48,36,58,21, 3,54, 5,51,45		1,22,30,39,50	
		1,59,19,42,13,16, 3,51		8,43
16″	18,48,38,57,40,46, 7,21,55,36		1,22,30,48,33	
		1,59,19,40,50,45,15,18		8,43
18″	18,48,40,57, 0,26,58, 7,10,54		1,22,30,57,16	
		1,59,19,39,28,14,18, 2		8,43
20″	18,48,42,56,20, 6,26,21,28,56		1,22,31, 5,59	
		1,59,19,38, 5,43,12, 3		8,43
22″	18,48,44,55,39,44,32, 4,40,59		1,22,31,14,42	
		1,59,19,36,43,11,57,21		8,43
24″	18,48,46,54,59,21,15,16,38,20		1,22,31,23,25	
		1,59,19,35,20,40,33,56		8,43
26″	18,48,48,54,18,56,35,57,12,16		1,22,31,32, 8	
		1,59,19,33,58, 9, 1,48		8,43
28″	18,48,50,53,38,30,34, 6,14, 4		1,22,31,40,51	
		1,59,19,32,35,37,20,57		8,43
30″	18,48,52,52,58, 3, 9,43,35, 1		1,22,31,49,34	
		1,59,19,31,13, 5,31,23		8,43
32″	18,48,54,52,17,34,22,49, 6,24		1,22,31,58,17	
		1,59,19,29,50,33,33, 6		8,43
34″	18,48,56,51,37, 4,13,22,39,30		1,22,32, 7, 0	
		1,59,19,28,28, 1,26, 6		8,43
36″	18,48,58,50,56,32,41,24, 5,36		1,22,32,15,43	
		1,59,19,27, 5,29,10,23		8,43
38″	18,49, 0,50,15,59,46,53,15,59		1,22,32,24,26	
		1,59,19,25,42,56,45,57		8,43
40″	18,49, 2,49,35,25,29,50, 1,56		1,22,32,33, 9	
		1,59,19,24,20,24,12,48		8,43
42″	18,49, 4,48,54,49,50,14,14,44		1,22,32,41,52	
		1,59,19,22,57,51,30,56		8,43
44″	18,49, 6,48,14,12,48, 5,45,40		1,22,32,50,35	
		1,59,19,21,35,18,40,21		8,43
46″	18,49, 8,47,33,34,23,24,26, 1		1,22,32,59,18	
		1,59,19,20,12,45,41, 3		8,43
48″	18,49,10,46,52,54,36,10, 7, 4		1,22,33, 8, 1	
		1,59,19,18,50,12,33, 2		8,43
50″	18,49,12,46,12,13,26,22,40, 6		1,22,33,16,44	
		1,59,19,17,27,39,16,18		8,43
52″	18,49,14,45,31,30,54, 1,56,24		1,22,33,25,27	
		1,59,19,16, 5, 5,50,51		8,43
54″	18,49,16,44,50,46,59, 7,47,15		1,22,33,34,10	
		1,59,19,14,42,32,16,41		8,43
56″	18,49,18,44,10, 1,41,40, 3,56		1,22,33,42,53	
		1,59,19,13,19,58,33,48		8,43
58″	18,49,20,43,29,15, 1,38,37,44		1,22,33,51,36	
		1,59,19,11,57,24,42,12		
60″	18,49,22,42,48,26,59, 3,19,56			
exact	18,49,22,42,48,26,59, 2,49,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°17′ 0″	18,49,22,42,48,26,59, 2,49,20			
		1,59,19,10,34,50,38,42		
2″	18,49,24,42, 7,37,33,53,28, 2		1,22,34, 9,15	
		1,59,19, 9,12,16,29,27		8,43
4″	18,49,26,41,26,46,46, 9,57,29		1,22,34,17,58	
		1,59,19, 7,49,42,11,29		8,43
6″	18,49,28,40,45,54,35,52, 8,58		1,22,34,26,41	
		1,59,19, 6,27, 7,44,48		8,43
8″	18,49,30,40, 5, 1, 2,59,53,46		1,22,34,35,24	
		1,59,19, 5, 4,33, 9,24		8,43
10″	18,49,32,39,24, 6, 7,33, 3,10		1,22,34,44, 7	
		1,59,19, 3,41,58,25,17		8,43
12″	18,49,34,38,43, 9,49,31,28,27		1,22,34,52,50	
		1,59,19, 2,19,23,32,27		8,43
14″	18,49,36,38, 2,12, 8,55, 0,54		1,22,35, 1,33	
		1,59,19, 0,56,48,30,54		8,43
16″	18,49,38,37,21,13, 5,43,31,48		1,22,35,10,16	
		1,59,18,59,34,13,20,38		8,43
18″	18,49,40,36,40,12,39,56,52,26		1,22,35,18,59	
		1,59,18,58,11,38, 1,39		8,43
20″	18,49,42,35,59,10,51,34,54, 5		1,22,35,27,42	
		1,59,18,56,49, 2,33,57		8,43
22″	18,49,44,35,18, 7,40,37,28, 2		1,22,35,36,25	
		1,59,18,55,26,26,57,32		8,43
24″	18,49,46,34,37, 3, 7, 4,25,34		1,22,35,45, 8	
		1,59,18,54, 3,51,12,24		8,43
26″	18,49,48,33,55,57,10,55,37,58		1,22,35,53,51	
		1,59,18,52,41,15,18,33		8,43
28″	18,49,50,33,14,49,52,10,56,31		1,22,36, 2,34	
		1,59,18,51,18,39,15,59		8,43
30″	18,49,52,32,33,41,10,50,12,30		1,22,36,11,17	
		1,59,18,49,56, 3, 4,42		8,43
32″	18,49,54,31,52,31, 6,53,17,12		1,22,36,20, 0	
		1,59,18,48,33,26,44,42		8,43
34″	18,49,56,31,11,19,40,20, 1,54		1,22,36,28,43	
		1,59,18,47,10,50,15,59		8,43
36″	18,49,58,30,30, 6,51,10,17,53		1,22,36,37,26	
		1,59,18,45,48,13,38,33		8,43
38″	18,50, 0,29,48,52,39,23,56,26		1,22,36,46, 9	
		1,59,18,44,25,36,52,24		8,43
40″	18,50, 2,29, 7,37, 5, 0,48,50		1,22,36,54,52	
		1,59,18,43, 2,59,57,32		8,43
42″	18,50, 4,28,26,20, 8, 0,46,22		1,22,37, 3,35	
		1,59,18,41,40,22,53,57		8,43
44″	18,50, 6,27,45, 1,48,23,40,19		1,22,37,12,18	
		1,59,18,40,17,45,41,39		8,43
46″	18,50, 8,27, 3,42, 6, 9,21,58		1,22,37,21, 1	
		1,59,18,38,55, 8,20,38		8,43
48″	18,50,10,26,22,21, 1,17,42,36		1,22,37,29,44	
		1,59,18,37,32,30,50,54		8,43
50″	18,50,12,25,40,58,33,48,33,30		1,22,37,38,27	
		1,59,18,36, 9,53,12,27		8,43
52″	18,50,14,24,59,34,43,41,45,57		1,22,37,47,10	
		1,59,18,34,47,15,25,17		8,43
54″	18,50,16,24,18, 9,30,57,11,14		1,22,37,55,53	
		1,59,18,33,24,37,29,24		8,43
56″	18,50,18,23,36,42,55,34,40,38		1,22,38, 4,36	
		1,59,18,32, 1,59,24,48		8,43
58″	18,50,20,22,55,14,57,34, 5,26		1,22,38,13,19	
		1,59,18,30,39,21,11,29		
60″	18,50,22,22,13,45,36,55,16,55			
exact	18,50,22,22,13,45,36,54,52,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°18′ 0″	18,50,22,22,13,45,36,54,52,58			
		1,59,18,29,16,42,46,51		
2″	18,50,24,21,32,14,53,37,39,49		1,22,38,30,56	
		1,59,18,27,54, 4,15,55		8,43
4″	18,50,26,20,50,42,47,41,55,44		1,22,38,39,39	
		1,59,18,26,31,25,36,16		8,43
6″	18,50,28,20, 9, 9,19, 7,32, 0		1,22,38,48,22	
		1,59,18,25, 8,46,47,54		8,43
8″	18,50,30,19,27,34,27,54,19,54		1,22,38,57, 5	
		1,59,18,23,46, 7,50,49		8,43
10″	18,50,32,18,45,58,14, 2,10,43		1,22,39, 5,48	
		1,59,18,22,23,28,45, 1		8,43
12″	18,50,34,18, 4,20,37,30,55,44		1,22,39,14,31	
		1,59,18,21, 0,49,30,30		8,43
14″	18,50,36,17,22,41,38,20,26,14		1,22,39,23,14	
		1,59,18,19,38,10, 7,16		8,43
16″	18,50,38,16,41, 1,16,30,33,30		1,22,39,31,57	
		1,59,18,18,15,30,35,19		8,43
18″	18,50,40,15,59,19,32, 1, 8,49		1,22,39,40,40	
		1,59,18,16,52,50,54,39		8,43
20″	18,50,42,15,17,36,24,52, 3,28		1,22,39,49,23	
		1,59,18,15,30,11, 5,16		8,43
22″	18,50,44,14,35,51,55, 3, 8,44		1,22,39,58, 6	
		1,59,18,14, 7,31, 7,10		8,43
24″	18,50,46,13,54, 6, 2,34,15,54		1,22,40, 6,49	
		1,59,18,12,44,51, 0,21		8,43
26″	18,50,48,13,12,18,47,25,16,15		1,22,40,15,32	
		1,59,18,11,22,10,44,49		8,43
28″	18,50,50,12,30,30, 9,36, 1, 4		1,22,40,24,15	
		1,59,18, 9,59,30,20,34		8,43
30″	18,50,52,11,48,40, 9, 6,21,38		1,22,40,32,58	
		1,59,18, 8,36,49,47,36		8,43
32″	18,50,54,11, 6,48,45,56, 9,14		1,22,40,41,41	
		1,59,18, 7,14, 9, 5,55		8,43
34″	18,50,56,10,24,56, 0, 5,15, 9		1,22,40,50,24	
		1,59,18, 5,51,28,15,31		8,43
36″	18,50,58, 9,43, 1,51,33,30,40		1,22,40,59, 7	
		1,59,18, 4,28,47,16,24		8,43
38″	18,51, 0, 9, 1, 6,20,20,47, 4		1,22,41, 7,50	
		1,59,18, 3, 6, 6, 8,34		8,43
40″	18,51, 2, 8,19, 9,26,26,55,38		1,22,41,16,33	
		1,59,18, 1,43,24,52, 1		8,43
42″	18,51, 4, 7,37,11, 9,51,47,39		1,22,41,25,16	
		1,59,18, 0,20,43,26,45		8,43
44″	18,51, 6, 6,55,11,30,35,14,24		1,22,41,33,59	
		1,59,17,58,58, 1,52,46		8,43
46″	18,51, 8, 6,13,10,28,37, 7,10		1,22,41,42,42	
		1,59,17,57,35,20,10, 4		8,43
48″	18,51,10, 5,31, 8, 3,57,17,14		1,22,41,51,25	
		1,59,17,56,12,38,18,39		8,43
50″	18,51,12, 4,49, 4,16,35,35,53		1,22,42, 0, 8	
		1,59,17,54,49,56,18,31		8,43
52″	18,51,14, 4, 6,59, 6,31,54,24		1,22,42, 8,51	
		1,59,17,53,27,14, 9,40		8,43
54″	18,51,16, 3,24,52,33,46, 4, 4		1,22,42,17,34	
		1,59,17,52, 4,31,52, 6		8,43
56″	18,51,18, 2,42,44,38,17,56,10		1,22,42,26,17	
		1,59,17,50,41,49,25,49		8,43
58″	18,51,20, 2, 0,35,20, 7,21,59		1,22,42,35, 0	
		1,59,17,49,19, 6,50,49		
60″	18,51,22, 1,18,24,39,14,12,48			
exact	18,51,22, 1,18,24,39,13,51,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°19′ 0″	18,51,22, 1,18,24,39,13,51,58			
		1,59,17,47,56,24, 4,50		
2″	18,51,24, 0,36,12,35,37,56,48		1,22,42,52,35	
		1,59,17,46,33,41,12,15		8,43
4″	18,51,25,59,53,59, 9,19, 9, 3		1,22,43, 1,18	
		1,59,17,45,10,58,10,57		8,43
6″	18,51,27,59,11,44,20,17,20, 0		1,22,43,10, 1	
		1,59,17,43,48,15, 0,56		8,43
8″	18,51,29,58,29,28, 8,32,20,56		1,22,43,18,44	
		1,59,17,42,25,31,42,12		8,43
10″	18,51,31,57,47,10,34, 4, 3, 8		1,22,43,27,27	
		1,59,17,41, 2,48,14,45		8,43
12″	18,51,33,57, 4,51,36,52,17,53		1,22,43,36,10	
		1,59,17,39,40, 4,38,35		8,43
14″	18,51,35,56,22,31,16,56,56,28		1,22,43,44,53	
		1,59,17,38,17,20,53,42		8,43
16″	18,51,37,55,40, 9,34,17,50,10		1,22,43,53,36	
		1,59,17,36,54,37, 0, 6		8,43
18″	18,51,39,54,57,46,28,54,50,16		1,22,44, 2,19	
		1,59,17,35,31,52,57,47		8,43
20″	18,51,41,54,15,22, 0,47,48, 3		1,22,44,11, 2	
		1,59,17,34, 9, 8,46,45		8,43
22″	18,51,43,53,32,56, 9,56,34,48		1,22,44,19,45	
		1,59,17,32,46,24,27, 0		8,43
24″	18,51,45,52,50,28,56,21, 1,48		1,22,44,28,28	
		1,59,17,31,23,39,58,32		8,43
26″	18,51,47,52, 8, 0,20, 1, 0,20		1,22,44,37,11	
		1,59,17,30, 0,55,21,21		8,43
28″	18,51,49,51,25,30,20,56,21,41		1,22,44,45,54	
		1,59,17,28,38,10,35,27		8,43
30″	18,51,51,50,42,58,59, 6,57, 8		1,22,44,54,37	
		1,59,17,27,15,25,40,50		8,43
32″	18,51,53,50, 0,26,14,32,37,58		1,22,45, 3,20	
		1,59,17,25,52,40,37,30		8,43
34″	18,51,55,49,17,52, 7,13,15,28		1,22,45,12, 3	
		1,59,17,24,29,55,25,27		8,43
36″	18,51,57,48,35,16,37, 8,40,55		1,22,45,20,46	
		1,59,17,23, 7,10, 4,41		8,43
38″	18,51,59,47,52,39,44,18,45,36		1,22,45,29,29	
		1,59,17,21,44,24,35,12		8,43
40″	18,52, 1,47,10, 1,28,43,20,48		1,22,45,38,12	
		1,59,17,20,21,38,57, 0		8,43
42″	18,52, 3,46,27,21,50,22,17,48		1,22,45,46,55	
		1,59,17,18,58,53,10, 5		8,43
44″	18,52, 5,45,44,40,49,15,27,53		1,22,45,55,38	
		1,59,17,17,36, 7,14,27		8,43
46″	18,52, 7,45, 1,58,25,22,42,20		1,22,46, 4,21	
		1,59,17,16,13,21,10, 6		8,43
48″	18,52, 9,44,19,14,38,43,52,26		1,22,46,13, 4	
		1,59,17,14,50,34,57, 2		8,43
50″	18,52,11,43,36,29,29,18,49,28		1,22,46,21,47	
		1,59,17,13,27,48,35,15		8,43
52″	18,52,13,42,53,42,57, 7,24,43		1,22,46,30,30	
		1,59,17,12, 5, 2, 4,45		8,43
54″	18,52,15,42,10,55, 2, 9,29,28		1,22,46,39,13	
		1,59,17,10,42,15,25,32		8,43
56″	18,52,17,41,28, 5,44,24,55, 0		1,22,46,47,56	
		1,59,17, 9,19,28,37,36		8,43
58″	18,52,19,40,45,15, 3,53,32,36		1,22,46,56,39	
		1,59,17, 7,56,41,40,57		
60″	18,52,21,40, 2,23, 0,35,13,33			
exact	18,52,21,40, 2,23, 0,34,52,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°20′ 0″	18,52,21,40, 2,23, 0,34,52,30			
		1,59,17, 6,33,54,33,26		
2″	18,52,23,39,19,29,34,29,25,56		1,22,47,14,13	
		1,59,17, 5,11, 7,19,13		8,43
4″	18,52,25,38,36,34,45,36,45, 9		1,22,47,22,56	
		1,59,17, 3,48,19,56,17		8,43
6″	18,52,27,37,53,38,33,56,41,26		1,22,47,31,39	
		1,59,17, 2,25,32,24,38		8,43
8″	18,52,29,37,10,40,59,29, 6, 4		1,22,47,40,22	
		1,59,17, 1, 2,44,44,16		8,43
10″	18,52,31,36,27,42, 2,13,50,20		1,22,47,49, 5	
		1,59,16,59,39,56,55,11		8,43
12″	18,52,33,35,44,41,42,10,45,31		1,22,47,57,48	
		1,59,16,58,17, 8,57,23		8,43
14″	18,52,35,35, 1,39,59,19,42,54		1,22,48, 6,31	
		1,59,16,56,54,20,50,52		8,43
16″	18,52,37,34,18,36,53,40,33,46		1,22,48,15,14	
		1,59,16,55,31,32,35,38		8,43
18″	18,52,39,33,35,32,25,13, 9,24		1,22,48,23,57	
		1,59,16,54, 8,44,11,41		8,43
20″	18,52,41,32,52,26,33,57,21, 5		1,22,48,32,40	
		1,59,16,52,45,55,39, 1		8,43
22″	18,52,43,32, 9,19,19,53, 0, 6		1,22,48,41,23	
		1,59,16,51,23, 6,57,38		8,43
24″	18,52,45,31,26,10,42,59,57,44		1,22,48,50, 6	
		1,59,16,50, 0,18, 7,32		8,43
26″	18,52,47,30,43, 0,43,18, 5,16		1,22,48,58,49	
		1,59,16,48,37,29, 8,43		8,43
28″	18,52,49,29,59,49,20,47,13,59		1,22,49, 7,32	
		1,59,16,47,14,40, 1,11		8,43
30″	18,52,51,29,16,36,35,27,15,10		1,22,49,16,15	
		1,59,16,45,51,50,44,56		8,43
32″	18,52,53,28,33,22,27,18, 0, 6		1,22,49,24,58	
		1,59,16,44,29, 1,19,58		8,43
34″	18,52,55,27,50, 6,56,19,20, 4		1,22,49,33,41	
		1,59,16,43, 6,11,46,17		8,43
36″	18,52,57,27, 6,50, 2,31, 6,21		1,22,49,42,24	
		1,59,16,41,43,22, 3,53		8,43
38″	18,52,59,26,23,31,45,53,10,14		1,22,49,51, 7	
		1,59,16,40,20,32,12,46		8,43
40″	18,53, 1,25,40,12, 6,25,23, 0		1,22,49,59,50	
		1,59,16,38,57,42,12,56		8,43
42″	18,53, 3,24,56,51, 4, 7,35,56		1,22,50, 8,33	
		1,59,16,37,34,52, 4,23		8,43
44″	18,53, 5,24,13,28,38,59,40,19		1,22,50,17,16	
		1,59,16,36,12, 1,47, 7		8,43
46″	18,53, 7,23,30, 4,51, 1,27,26		1,22,50,25,59	
		1,59,16,34,49,11,21, 8		8,43
48″	18,53, 9,22,46,39,40,12,48,34		1,22,50,34,42	
		1,59,16,33,26,20,46,26		8,43
50″	18,53,11,22, 3,13, 6,33,35, 0		1,22,50,43,25	
		1,59,16,32, 3,30, 3, 1		8,43
52″	18,53,13,21,19,45,10, 3,38, 1		1,22,50,52, 8	
		1,59,16,30,40,39,10,53		8,43
54″	18,53,15,20,36,15,50,42,48,54		1,22,51, 0,51	
		1,59,16,29,17,48,10, 2		8,43
56″	18,53,17,19,52,45, 8,30,58,56		1,22,51, 9,34	
		1,59,16,27,54,57, 0,28		8,43
58″	18,53,19,19, 9,13, 3,27,59,24		1,22,51,18,17	
		1,59,16,26,32, 5,42,11		
60″	18,53,21,18,25,39,35,33,41,35			
exact	18,53,21,18,25,39,35,33,23,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°21′ 0″	18,53,21,18,25,39,35,33,23,22	1,59,16,25, 9,14,13,22		
2″	18,53,23,17,42, 4,44,47,36,44	1,59,16,23,46,22,37,32	1,22,51,35,50	8,43
4″	18,53,25,16,58,28,31,10,14,16	1,59,16,22,23,30,52,59	1,22,51,44,33	8,43
6″	18,53,27,16,14,50,54,41, 7,15	1,59,16,21, 0,38,59,43	1,22,51,53,16	8,43
8″	18,53,29,15,31,11,55,20, 6,58	1,59,16,19,37,46,57,44	1,22,52, 1,59	8,43
10″	18,53,31,14,47,31,33, 7, 4,42	1,59,16,18,14,54,47, 2	1,22,52,10,42	8,43
12″	18,53,33,14, 3,49,48, 1,51,44	1,59,16,16,52, 2,27,37	1,22,52,19,25	8,43
14″	18,53,35,13,20, 6,40, 4,19,21	1,59,16,15,29, 9,59,29	1,22,52,28, 8	8,43
16″	18,53,37,12,36,22, 9,14,18,50	1,59,16,14, 6,17,22,38	1,22,52,36,51	8,43
18″	18,53,39,11,52,36,15,31,41,28	1,59,16,12,43,24,37, 4	1,22,52,45,34	8,43
20″	18,53,41,11, 8,48,58,56,18,32	1,59,16,11,20,31,42,47	1,22,52,54,17	8,43
22″	18,53,43,10,25, 0,19,28, 1,19	1,59,16, 9,57,38,39,47	1,22,53, 3, 0	8,43
24″	18,53,45, 9,41,10,17, 6,41, 6	1,59,16, 8,34,45,28, 4	1,22,53,11,43	8,43
26″	18,53,47, 8,57,18,51,52, 9,10	1,59,16, 7,11,52, 7,38	1,22,53,20,26	8,43
28″	18,53,49, 8,13,26, 3,44,16,48	1,59,16, 5,48,58,38,29	1,22,53,29, 9	8,43
30″	18,53,51, 7,29,31,52,42,55,17	1,59,16, 4,26, 5, 0,37	1,22,53,37,52	8,43
32″	18,53,53, 6,45,36,18,47,55,54	1,59,16, 3, 3,11,14, 2	1,22,53,46,35	8,43
34″	18,53,55, 6, 1,39,21,59, 9,56	1,59,16, 1,40,17,18,44	1,22,53,55,18	8,43
36″	18,53,57, 5,17,41, 2,16,28,40	1,59,16, 0,17,23,14,43	1,22,54, 4, 1	8,43
38″	18,53,59, 4,33,41,19,39,43,23	1,59,15,58,54,29, 1,59	1,22,54,12,44	8,43
40″	18,54, 1, 3,49,40,14, 8,45,22	1,59,15,57,31,34,40,32	1,22,54,21,27	8,43
42″	18,54, 3, 3, 5,37,45,43,25,54	1,59,15,56, 8,40,10,22	1,22,54,30,10	8,43
44″	18,54, 5, 2,21,33,54,23,36,16	1,59,15,54,45,45,31,29	1,22,54,38,53	8,43
46″	18,54, 7, 1,37,28,40, 9, 7,45	1,59,15,53,22,50,43,53	1,22,54,47,36	8,43
48″	18,54, 9, 0,53,22, 2,59,51,38	1,59,15,51,59,55,47,34	1,22,54,56,19	8,43
50″	18,54,11, 0, 9,14, 2,55,39,12	1,59,15,50,37, 0,42,32	1,22,55, 5, 2	8,43
52″	18,54,12,59,25, 4,39,56,21,44	1,59,15,49,14, 5,28,47	1,22,55,13,45	8,43
54″	18,54,14,58,40,53,54, 1,50,31	1,59,15,47,51,10, 6,19	1,22,55,22,28	8,43
56″	18,54,16,57,56,41,45,11,56,50	1,59,15,46,28,14,35, 8	1,22,55,31,11	8,43
58″	18,54,18,57,12,28,13,26,31,58	1,59,15,45, 5,18,55,14	1,22,55,39,54	
60″	18,54,20,56,28,13,18,45,27,12			
exact	18,54,20,56,28,13,18,45,16, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°22′ 0″	18,54,20,56,28,13,18,45,16, 5			
		1,59,15,43,42,23, 5,25		
2″	18,54,22,55,43,57, 1, 8,21,30		1,22,55,57,25	
		1,59,15,42,19,27, 8, 0		8,43
4″	18,54,24,54,59,39,20,35,29,30		1,22,56, 6, 8	
		1,59,15,40,56,31, 1,52		8,43
6″	18,54,26,54,15,20,17, 6,31,22		1,22,56,14,51	
		1,59,15,39,33,34,47, 1		8,43
8″	18,54,28,53,30,59,50,41,18,23		1,22,56,23,34	
		1,59,15,38,10,38,23,27		8,43
10″	18,54,30,52,46,38, 1,19,41,50		1,22,56,32,17	
		1,59,15,36,47,41,51,10		8,43
12″	18,54,32,52, 2,14,49, 1,33, 0		1,22,56,41, 0	
		1,59,15,35,24,45,10,10		8,43
14″	18,54,34,51,17,50,13,46,43,10		1,22,56,49,43	
		1,59,15,34, 1,48,20,27		8,43
16″	18,54,36,50,33,24,15,35, 3,37		1,22,56,58,26	
		1,59,15,32,38,51,22, 1		8,43
18″	18,54,38,49,48,56,54,26,25,38		1,22,57, 7, 9	
		1,59,15,31,15,54,14,52		8,43
20″	18,54,40,49, 4,28,10,20,40,30		1,22,57,15,52	
		1,59,15,29,52,56,59, 0		8,43
22″	18,54,42,48,19,58, 3,17,39,30		1,22,57,24,35	
		1,59,15,28,29,59,34,25		8,43
24″	18,54,44,47,35,26,33,17,13,55		1,22,57,33,18	
		1,59,15,27, 7, 2, 1, 7		8,43
26″	18,54,46,46,50,53,40,19,15, 2		1,22,57,42, 1	
		1,59,15,25,44, 4,19, 6		8,43
28″	18,54,48,46, 6,19,24,23,34, 8		1,22,57,50,44	
		1,59,15,24,21, 6,28,22		8,43
30″	18,54,50,45,21,43,45,30, 2,30		1,22,57,59,27	
		1,59,15,22,58, 8,28,55		8,43
32″	18,54,52,44,37, 6,43,38,31,25		1,22,58, 8,10	
		1,59,15,21,35,10,20,45		8,43
34″	18,54,54,43,52,28,18,48,52,10		1,22,58,16,53	
		1,59,15,20,12,12, 3,52		8,43
36″	18,54,56,43, 7,48,31, 0,56, 2		1,22,58,25,36	
		1,59,15,18,49,13,38,16		8,43
38″	18,54,58,42,23, 7,20,14,34,18		1,22,58,34,19	
		1,59,15,17,26,15, 3,57		8,43
40″	18,55, 0,41,38,24,46,29,38,15		1,22,58,43, 2	
		1,59,15,16, 3,16,20,55		8,43
42″	18,55, 2,40,53,40,49,45,59,10		1,22,58,51,45	
		1,59,15,14,40,17,29,10		8,43
44″	18,55, 4,40, 8,55,30, 3,28,20		1,22,59, 0,28	
		1,59,15,13,17,18,28,42		8,43
46″	18,55, 6,39,24, 8,47,21,57, 2		1,22,59, 9,11	
		1,59,15,11,54,19,19,31		8,43
48″	18,55, 8,38,39,20,41,41,16,33		1,22,59,17,54	
		1,59,15,10,31,20, 1,37		8,43
50″	18,55,10,37,54,31,13, 1,18,10		1,22,59,26,37	
		1,59,15, 9, 8,20,35, 0		8,43
52″	18,55,12,37, 9,40,21,21,53,10		1,22,59,35,20	
		1,59,15, 7,45,20,59,40		8,43
54″	18,55,14,36,24,48, 6,42,52,50		1,22,59,44, 3	
		1,59,15, 6,22,21,15,37		8,43
56″	18,55,16,35,39,54,29, 4, 8,27		1,22,59,52,46	
		1,59,15, 4,59,21,22,51		8,43
58″	18,55,18,34,54,59,28,25,31,18		1,23, 0, 1,29	
		1,59,15, 3,36,21,21,22		
60″	18,55,20,34,10, 3, 4,46,52,40			
exact	18,55,20,34,10, 3, 4,46,44,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°23′ 0″	18,55,20,34,10, 3, 4,46,44,53			
		1,59,15, 2,13,21,10,20		
2″	18,55,22,33,25, 5,18, 7,55,13		1,23, 0,18,58	
		1,59,15, 0,50,20,51,22		8,43
4″	18,55,24,32,40, 6, 8,28,46,35		1,23, 0,27,41	
		1,59,14,59,27,20,23,41		8,43
6″	18,55,26,31,55, 5,35,49,10,16		1,23, 0,36,24	
		1,59,14,58, 4,19,47,17		8,43
8″	18,55,28,31,10, 3,40, 8,57,33		1,23, 0,45, 7	
		1,59,14,56,41,19, 2,10		8,43
10″	18,55,30,30,25, 0,21,27,59,43		1,23, 0,53,50	
		1,59,14,55,18,18, 8,20		8,43
12″	18,55,32,29,39,55,39,46, 8, 3		1,23, 1, 2,33	
		1,59,14,53,55,17, 5,47		8,43
14″	18,55,34,28,54,49,35, 3,13,50		1,23, 1,11,16	
		1,59,14,52,32,15,54,31		8,43
16″	18,55,36,28, 9,42, 7,19, 8,21		1,23, 1,19,59	
		1,59,14,51, 9,14,34,32		8,43
18″	18,55,38,27,24,33,16,33,42,53		1,23, 1,28,42	
		1,59,14,49,46,13, 5,50		8,43
20″	18,55,40,26,39,23, 2,46,48,43		1,23, 1,37,25	
		1,59,14,48,23,11,28,25		8,43
22″	18,55,42,25,54,11,25,58,17, 8		1,23, 1,46, 8	
		1,59,14,47, 0, 9,42,17		8,43
24″	18,55,44,25, 8,58,26, 7,59,25		1,23, 1,54,51	
		1,59,14,45,37, 7,47,26		8,43
26″	18,55,46,24,23,44, 3,15,46,51		1,23, 2, 3,34	
		1,59,14,44,14, 5,43,52		8,43
28″	18,55,48,23,38,28,17,21,30,43		1,23, 2,12,17	
		1,59,14,42,51, 3,31,35		8,43
30″	18,55,50,22,53,11, 8,25, 2,18		1,23, 2,21, 0	
		1,59,14,41,28, 1,10,35		8,43
32″	18,55,52,22, 7,52,36,26,12,53		1,23, 2,29,43	
		1,59,14,40, 4,58,40,52		8,43
34″	18,55,54,21,22,32,41,24,53,45		1,23, 2,38,26	
		1,59,14,38,41,56, 2,26		8,43
36″	18,55,56,20,37,11,23,20,56,11		1,23, 2,47, 9	
		1,59,14,37,18,53,15,17		8,43
38″	18,55,58,19,51,48,42,14,11,28		1,23, 2,55,52	
		1,59,14,35,55,50,19,25		8,43
40″	18,56, 0,19, 6,24,38, 4,30,53		1,23, 3, 4,35	
		1,59,14,34,32,47,14,50		8,43
42″	18,56, 2,18,20,59,10,51,45,43		1,23, 3,13,18	
		1,59,14,33, 9,44, 1,32		8,43
44″	18,56, 4,17,35,32,20,35,47,15		1,23, 3,22, 1	
		1,59,14,31,46,40,39,31		8,43
46″	18,56, 6,16,50, 4, 7,16,26,46		1,23, 3,30,44	
		1,59,14,30,23,37, 8,47		8,43
48″	18,56, 8,16, 4,34,30,53,35,33		1,23, 3,39,27	
		1,59,14,29, 0,33,29,20		8,43
50″	18,56,10,15,19, 3,31,27, 4,53		1,23, 3,48,10	
		1,59,14,27,37,29,41,10		8,43
52″	18,56,12,14,33,31, 8,56,46, 3		1,23, 3,56,53	
		1,59,14,26,14,25,44,17		8,43
54″	18,56,14,13,47,57,23,22,30,20		1,23, 4, 5,36	
		1,59,14,24,51,21,38,41		8,43
56″	18,56,16,13, 2,22,14,44, 9, 1		1,23, 4,14,19	
		1,59,14,23,28,17,24,22		8,43
58″	18,56,18,12,16,45,43, 1,33,23		1,23, 4,23, 2	
		1,59,14,22, 5,13, 1,20		
60″	18,56,20,11,31, 7,48,14,34,43			
exact	18,56,20,11,31, 7,48,14,26,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°24′ 0″	18,56,20,11,31, 7,48,14,26,44	1,59,14,20,42, 8,28,52		
2″	18,56,22,10,45,28,30,22,55,36	1,59,14,19,19, 3,48,22	1,23, 4,40,30	8,43
4″	18,56,24, 9,59,47,49,26,43,58	1,59,14,17,55,58,59, 9	1,23, 4,49,13	8,43
6″	18,56,26, 9,14, 5,45,25,43, 7	1,59,14,16,32,54, 1,13	1,23, 4,57,56	8,43
8″	18,56,28, 8,28,22,18,19,44,20	1,59,14,15, 9,48,54,34	1,23, 5, 6,39	8,43
10″	18,56,30, 7,42,37,28, 8,38,54	1,59,14,13,46,43,39,12	1,23, 5,15,22	8,43
12″	18,56,32, 6,56,51,14,52,18, 6	1,59,14,12,23,38,15, 7	1,23, 5,24, 5	8,43
14″	18,56,34, 6,11, 3,38,30,33,13	1,59,14,11, 0,32,42,19	1,23, 5,32,48	8,43
16″	18,56,36, 5,25,14,39, 3,15,32	1,59,14, 9,37,27, 0,48	1,23, 5,41,31	8,43
18″	18,56,38, 4,39,24,16,30,16,20	1,59,14, 8,14,21,10,34	1,23, 5,50,14	8,43
20″	18,56,40, 3,53,32,30,51,26,54	1,59,14, 6,51,15,11,37	1,23, 5,58,57	8,43
22″	18,56,42, 3, 7,39,22, 6,38,31	1,59,14, 5,28, 9, 3,57	1,23, 6, 7,40	8,43
24″	18,56,44, 2,21,44,50,15,42,28	1,59,14, 4, 5, 2,47,34	1,23, 6,16,23	8,43
26″	18,56,46, 1,35,48,55,18,30, 2	1,59,14, 2,41,56,22,28	1,23, 6,25, 6	8,43
28″	18,56,48, 0,49,51,37,14,52,30	1,59,14, 1,18,49,48,39	1,23, 6,33,49	8,43
30″	18,56,50, 0, 3,52,56, 4,41, 9	1,59,13,59,55,43, 6, 7	1,23, 6,42,32	8,43
32″	18,56,51,59,17,52,51,47,47,16	1,59,13,58,32,36,14,52	1,23, 6,51,15	8,43
34″	18,56,53,58,31,51,24,24, 2, 8	1,59,13,57, 9,29,14,54	1,23, 6,59,58	8,43
36″	18,56,55,57,45,48,33,53,17, 2	1,59,13,55,46,22, 6,13	1,23, 7, 8,41	8,43
38″	18,56,57,56,59,44,20,15,23,15	1,59,13,54,23,14,48,49	1,23, 7,17,24	8,43
40″	18,56,59,56,13,38,43,30,12, 4	1,59,13,53, 0, 7,22,42	1,23, 7,26, 7	8,43
42″	18,57, 1,55,27,31,43,37,34,46	1,59,13,51,36,59,47,52	1,23, 7,34,50	8,43
44″	18,57, 3,54,41,23,20,37,22,38	1,59,13,50,13,52, 4,19	1,23, 7,43,33	8,43
46″	18,57, 5,53,55,13,34,29,26,57	1,59,13,48,50,44,12, 3	1,23, 7,52,16	8,43
48″	18,57, 7,53, 9, 2,25,13,39, 0	1,59,13,47,27,36,11, 4	1,23, 8, 0,59	8,43
50″	18,57, 9,52,22,49,52,49,50, 4	1,59,13,46, 4,28, 1,22	1,23, 8, 9,42	8,43
52″	18,57,11,51,36,35,57,17,51,26	1,59,13,44,41,19,42,57	1,23, 8,18,25	8,43
54″	18,57,13,50,50,20,38,37,34,23	1,59,13,43,18,11,15,49	1,23, 8,27, 8	8,43
56″	18,57,15,50, 4, 3,56,48,50,12	1,59,13,41,55, 2,39,58	1,23, 8,35,51	8,43
58″	18,57,17,49,17,45,51,51,30,10	1,59,13,40,31,53,55,24	1,23, 8,44,34	
60″	18,57,19,48,31,26,23,45,25,34			
exact	18,57,19,48,31,26,23,45,21,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°25′ 0″	18,57,19,48,31,26,23,45,21,20			
		1,59,13,39, 8,45, 1,47		
2″	18,57,21,47,45, 5,32,30,23, 7		1,23, 9, 2, 1	
		1,59,13,37,45,35,59,46		8,43
4″	18,57,23,46,58,43,18, 6,22,53		1,23, 9,10,44	
		1,59,13,36,22,26,49, 2		8,43
6″	18,57,25,46,12,19,40,33,11,55		1,23, 9,19,27	
		1,59,13,34,59,17,29,35		8,43
8″	18,57,27,45,25,54,39,50,41,30		1,23, 9,28,10	
		1,59,13,33,36, 8, 1,25		8,43
10″	18,57,29,44,39,28,15,58,42,55		1,23, 9,36,53	
		1,59,13,32,12,58,24,32		8,43
12″	18,57,31,43,53, 0,28,57, 7,27		1,23, 9,45,36	
		1,59,13,30,49,48,38,56		8,43
14″	18,57,33,43, 6,31,18,45,46,23		1,23, 9,54,19	
		1,59,13,29,26,38,44,37		8,43
16″	18,57,35,42,20, 0,45,24,31, 0		1,23,10, 3, 2	
		1,59,13,28, 3,28,41,35		8,43
18″	18,57,37,41,33,28,48,53,12,35		1,23,10,11,45	
		1,59,13,26,40,18,29,50		8,43
20″	18,57,39,40,46,55,29,11,42,25		1,23,10,20,28	
		1,59,13,25,17, 8, 9,22		8,43
22″	18,57,41,40, 0,20,46,19,51,47		1,23,10,29,11	
		1,59,13,23,53,57,40,11		8,43
24″	18,57,43,39,13,44,40,17,31,58		1,23,10,37,54	
		1,59,13,22,30,47, 2,17		8,43
26″	18,57,45,38,27, 7,11, 4,34,15		1,23,10,46,37	
		1,59,13,21, 7,36,15,40		8,43
28″	18,57,47,37,40,28,18,40,49,55		1,23,10,55,20	
		1,59,13,19,44,25,20,20		8,43
30″	18,57,49,36,53,48, 3, 6,10,15		1,23,11, 4, 3	
		1,59,13,18,21,14,16,17		8,43
32″	18,57,51,36, 7, 6,24,20,26,32		1,23,11,12,46	
		1,59,13,16,58, 3, 3,31		8,43
34″	18,57,53,35,20,23,22,23,30, 3		1,23,11,21,29	
		1,59,13,15,34,51,42, 2		8,43
36″	18,57,55,34,33,38,57,15,12, 5		1,23,11,30,12	
		1,59,13,14,11,40,11,50		8,43
38″	18,57,57,33,46,53, 8,55,23,55		1,23,11,38,55	
		1,59,13,12,48,28,32,55		8,43
40″	18,57,59,33, 0, 5,57,23,56,50		1,23,11,47,38	
		1,59,13,11,25,16,45,17		8,43
42″	18,58, 1,32,13,17,22,40,42, 7		1,23,11,56,21	
		1,59,13,10, 2, 4,48,56		8,43
44″	18,58, 3,31,26,27,24,45,31, 3		1,23,12, 5, 4	
		1,59,13, 8,38,52,43,52		8,43
46″	18,58, 5,30,39,36, 3,38,14,55		1,23,12,13,47	
		1,59,13, 7,15,40,30, 5		8,43
48″	18,58, 7,29,52,43,19,18,45, 0		1,23,12,22,30	
		1,59,13, 5,52,28, 7,35		8,43
50″	18,58, 9,29, 5,49,11,46,52,35		1,23,12,31,13	
		1,59,13, 4,29,15,36,22		8,43
52″	18,58,11,28,18,53,41, 2,28,57		1,23,12,39,56	
		1,59,13, 3, 6, 2,56,26		8,43
54″	18,58,13,27,31,56,47, 5,25,23		1,23,12,48,39	
		1,59,13, 1,42,50, 7,47		8,43
56″	18,58,15,26,44,58,29,55,33,10		1,23,12,57,22	
		1,59,13, 0,19,37,10,25		8,43
58″	18,58,17,25,57,58,49,32,43,35		1,23,13, 6, 5	
		1,59,12,58,56,24, 4,20		
60″	18,58,19,25,10,57,45,56,47,55			
exact	18,58,19,25,10,57,45,56,51,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°26′ 0″	18,58,19,25,10,57,45,56,51,11			
		1,59,12,57,33,10,49,51		
2″	18,58,21,24,23,55,19, 7,41, 2		1,23,13,23,30	
		1,59,12,56, 9,57,26,21		8,43
4″	18,58,23,23,36,51,29, 5, 7,23		1,23,13,32,13	
		1,59,12,54,46,43,54, 8		8,43
6″	18,58,25,22,49,46,15,49, 1,31		1,23,13,40,56	
		1,59,12,53,23,30,13,12		8,43
8″	18,58,27,22, 2,39,39,19,14,43		1,23,13,49,39	
		1,59,12,52, 0,16,23,33		8,43
10″	18,58,29,21,15,31,39,35,38,16		1,23,13,58,22	
		1,59,12,50,37, 2,25,11		8,43
12″	18,58,31,20,28,22,16,38, 3,27		1,23,14, 7, 5	
		1,59,12,49,13,48,18, 6		8,43
14″	18,58,33,19,41,11,30,26,21,33		1,23,14,15,48	
		1,59,12,47,50,34, 2,18		8,43
16″	18,58,35,18,53,59,21, 0,23,51		1,23,14,24,31	
		1,59,12,46,27,19,37,47		8,43
18″	18,58,37,18, 6,45,48,20, 1,38		1,23,14,33,14	
		1,59,12,45, 4, 5, 4,33		8,43
20″	18,58,39,17,19,30,52,25, 6,11		1,23,14,41,57	
		1,59,12,43,40,50,22,36		8,43
22″	18,58,41,16,32,14,33,15,28,47		1,23,14,50,40	
		1,59,12,42,17,35,31,56		8,43
24″	18,58,43,15,44,56,50,51, 0,43		1,23,14,59,23	
		1,59,12,40,54,20,32,33		8,43
26″	18,58,45,14,57,37,45,11,33,16		1,23,15, 8, 6	
		1,59,12,39,31, 5,24,27		8,43
28″	18,58,47,14,10,17,16,16,57,43		1,23,15,16,49	
		1,59,12,38, 7,50, 7,38		8,43
30″	18,58,49,13,22,55,24, 7, 5,21		1,23,15,25,32	
		1,59,12,36,44,34,42, 6		8,43
32″	18,58,51,12,35,32, 8,41,47,27		1,23,15,34,15	
		1,59,12,35,21,19, 7,51		8,43
34″	18,58,53,11,48, 7,30, 0,55,18		1,23,15,42,58	
		1,59,12,33,58, 3,24,53		8,43
36″	18,58,55,11, 0,41,28, 4,20,11		1,23,15,51,41	
		1,59,12,32,34,47,33,12		8,43
38″	18,58,57,10,13,14, 2,51,53,23		1,23,16, 0,24	
		1,59,12,31,11,31,32,48		8,43
40″	18,58,59, 9,25,45,14,23,26,11		1,23,16, 9, 7	
		1,59,12,29,48,15,23,41		8,43
42″	18,59, 1, 8,38,15, 2,38,49,52		1,23,16,17,50	
		1,59,12,28,24,59, 5,51		8,43
44″	18,59, 3, 7,50,43,27,37,55,43		1,23,16,26,33	
		1,59,12,27, 1,42,39,18		8,43
46″	18,59, 5, 7, 3,10,29,20,35, 1		1,23,16,35,16	
		1,59,12,25,38,26, 4, 2		8,43
48″	18,59, 7, 6,15,36, 7,46,39, 3		1,23,16,43,59	
		1,59,12,24,15, 9,20, 3		8,43
50″	18,59, 9, 5,28, 0,22,55,59, 6		1,23,16,52,42	
		1,59,12,22,51,52,27,21		8,43
52″	18,59,11, 4,40,23,14,48,26,27		1,23,17, 1,25	
		1,59,12,21,28,35,25,56		8,43
54″	18,59,13, 3,52,44,43,23,52,23		1,23,17,10, 8	
		1,59,12,20, 5,18,15,48		8,43
56″	18,59,15, 3, 5, 4,48,42, 8,11		1,23,17,18,51	
		1,59,12,18,42, 0,56,57		8,43
58″	18,59,17, 2,17,23,30,43, 5, 8		1,23,17,27,34	
		1,59,12,17,18,43,29,23		
60″	18,59,19, 1,29,40,49,26,34,31			
exact	18,59,19, 1,29,40,49,26,41,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°27′ 0″	18,59,19, 1,29,40,49,26,41,36			
		1,59,12,15,55,25,53,49		
2″	18,59,21, 0,41,56,44,52,35,25		1,23,17,44,57	
		1,59,12,14,32, 8, 8,52		8,43
4″	18,59,22,59,54,11,17, 0,44,17		1,23,17,53,40	
		1,59,12,13, 8,50,15,12		8,43
6″	18,59,24,59, 6,24,25,50,59,29		1,23,18, 2,23	
		1,59,12,11,45,32,12,49		8,43
8″	18,59,26,58,18,36,11,23,12,18		1,23,18,11, 6	
		1,59,12,10,22,14, 1,43		8,43
10″	18,59,28,57,30,46,33,37,14, 1		1,23,18,19,49	
		1,59,12, 8,58,55,41,54		8,43
12″	18,59,30,56,42,55,32,32,55,55		1,23,18,28,32	
		1,59,12, 7,35,37,13,22		8,43
14″	18,59,32,55,55, 3, 8,10, 9,17		1,23,18,37,15	
		1,59,12, 6,12,18,36, 7		8,43
16″	18,59,34,55, 7, 9,20,28,45,24		1,23,18,45,58	
		1,59,12, 4,48,59,50, 9		8,43
18″	18,59,36,54,19,14, 9,28,35,33		1,23,18,54,41	
		1,59,12, 3,25,40,55,28		8,43
20″	18,59,38,53,31,17,35, 9,31, 1		1,23,19, 3,24	
		1,59,12, 2, 2,21,52, 4		8,43
22″	18,59,40,52,43,19,37,31,23, 5		1,23,19,12, 7	
		1,59,12, 0,39, 2,39,57		8,43
24″	18,59,42,51,55,20,16,34, 3, 2		1,23,19,20,50	
		1,59,11,59,15,43,19, 7		8,43
26″	18,59,44,51, 7,19,32,17,22, 9		1,23,19,29,33	
		1,59,11,57,52,23,49,34		8,43
28″	18,59,46,50,19,17,24,41,11,43		1,23,19,38,16	
		1,59,11,56,29, 4,11,18		8,43
30″	18,59,48,49,31,13,53,45,23, 1		1,23,19,46,59	
		1,59,11,55, 5,44,24,19		8,43
32″	18,59,50,48,43, 8,59,29,47,20		1,23,19,55,42	
		1,59,11,53,42,24,28,37		8,43
34″	18,59,52,47,55, 2,41,54,15,57		1,23,20, 4,25	
		1,59,11,52,19, 4,24,12		8,43
36″	18,59,54,47, 6,55, 0,58,40, 9		1,23,20,13, 8	
		1,59,11,50,55,44,11, 4		8,43
38″	18,59,56,46,18,45,56,42,51,13		1,23,20,21,51	
		1,59,11,49,32,23,49,13		8,43
40″	18,59,58,45,30,35,29, 6,40,26		1,23,20,30,34	
		1,59,11,48, 9, 3,18,39		8,43
42″	19, 0, 0,44,42,23,38, 9,59, 5		1,23,20,39,17	
		1,59,11,46,45,42,39,22		8,43
44″	19, 0, 2,43,54,10,23,52,38,27		1,23,20,48, 0	
		1,59,11,45,22,21,51,22		8,43
46″	19, 0, 4,43, 5,55,46,14,29,49		1,23,20,56,43	
		1,59,11,43,59, 0,54,39		8,43
48″	19, 0, 6,42,17,39,45,15,24,28		1,23,21, 5,26	
		1,59,11,42,35,39,49,13		8,43
50″	19, 0, 8,41,29,22,20,55,13,41		1,23,21,14, 9	
		1,59,11,41,12,18,35, 4		8,43
52″	19, 0,10,40,41, 3,33,13,48,45		1,23,21,22,52	
		1,59,11,39,48,57,12,12		8,43
54″	19, 0,12,39,52,43,22,11, 0,57		1,23,21,31,35	
		1,59,11,38,25,35,40,37		8,43
56″	19, 0,14,39, 4,21,47,46,41,34		1,23,21,40,18	
		1,59,11,37, 2,14, 0,19		8,43
58″	19, 0,16,38,15,58,50, 0,41,53		1,23,21,49, 1	
		1,59,11,35,38,52,11,18		
60″	19, 0,18,37,27,34,28,52,53,11			
exact	19, 0,18,37,27,34,28,53, 0,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°28′ 0″	19, 0,18,37,27,34,28,53, 0,40			
		1,59,11,34,15,30,14,26		
2″	19, 0,20,36,39, 8,44,23,15, 6		1,23,22, 6,23	
		1,59,11,32,52, 8, 8, 3		8,43
4″	19, 0,22,35,50,41,36,31,23, 9		1,23,22,15, 6	
		1,59,11,31,28,45,52,57		8,43
6″	19, 0,24,35, 2,13, 5,17,16, 6		1,23,22,23,49	
		1,59,11,30, 5,23,29, 8		8,43
8″	19, 0,26,34,13,43,10,40,45,14		1,23,22,32,32	
		1,59,11,28,42, 0,56,36		8,43
10″	19, 0,28,33,25,11,52,41,41,50		1,23,22,41,15	
		1,59,11,27,18,38,15,21		8,43
12″	19, 0,30,32,36,39,11,19,57,11		1,23,22,49,58	
		1,59,11,25,55,15,25,23		8,43
14″	19, 0,32,31,48, 5, 6,35,22,34		1,23,22,58,41	
		1,59,11,24,31,52,26,42		8,43
16″	19, 0,34,30,59,29,38,27,49,16		1,23,23, 7,24	
		1,59,11,23, 8,29,19,18		8,43
18″	19, 0,36,30,10,52,46,57, 8,34		1,23,23,16, 7	
		1,59,11,21,45, 6, 3,11		8,43
20″	19, 0,38,29,22,14,32, 3,11,45		1,23,23,24,50	
		1,59,11,20,21,42,38,21		8,43
22″	19, 0,40,28,33,34,53,45,50, 6		1,23,23,33,33	
		1,59,11,18,58,19, 4,48		8,43
24″	19, 0,42,27,44,53,52, 4,54,54		1,23,23,42,16	
		1,59,11,17,34,55,22,32		8,43
26″	19, 0,44,26,56,11,27, 0,17,26		1,23,23,50,59	
		1,59,11,16,11,31,31,33		8,43
28″	19, 0,46,26, 7,27,38,31,48,59		1,23,23,59,42	
		1,59,11,14,48, 7,31,51		8,43
30″	19, 0,48,25,18,42,26,39,20,50		1,23,24, 8,25	
		1,59,11,13,24,43,23,26		8,43
32″	19, 0,50,24,29,55,51,22,44,16		1,23,24,17, 8	
		1,59,11,12, 1,19, 6,18		8,43
34″	19, 0,52,23,41, 7,52,41,50,34		1,23,24,25,51	
		1,59,11,10,37,54,40,27		8,43
36″	19, 0,54,22,52,18,30,36,31, 1		1,23,24,34,34	
		1,59,11, 9,14,30, 5,53		8,43
38″	19, 0,56,22, 3,27,45, 6,36,54		1,23,24,43,17	
		1,59,11, 7,51, 5,22,36		8,43
40″	19, 0,58,21,14,35,36,11,59,30		1,23,24,52, 0	
		1,59,11, 6,27,40,30,36		8,43
42″	19, 1, 0,20,25,42, 3,52,30, 6		1,23,25, 0,43	
		1,59,11, 5, 4,15,29,53		8,43
44″	19, 1, 2,19,36,47, 8, 7,59,59		1,23,25, 9,26	
		1,59,11, 3,40,50,20,27		8,43
46″	19, 1, 4,18,47,50,48,58,20,26		1,23,25,18, 9	
		1,59,11, 2,17,25, 2,18		8,43
48″	19, 1, 6,17,58,53, 6,23,22,44		1,23,25,26,52	
		1,59,11, 0,53,59,35,26		8,43
50″	19, 1, 8,17, 9,54, 0,22,58,10		1,23,25,35,35	
		1,59,10,59,30,33,59,51		8,43
52″	19, 1,10,16,20,53,30,56,58, 1		1,23,25,44,18	
		1,59,10,58, 7, 8,15,33		8,43
54″	19, 1,12,15,31,51,38, 5,13,34		1,23,25,53, 1	
		1,59,10,56,43,42,22,32		8,43
56″	19, 1,14,14,42,48,21,47,36, 6		1,23,26, 1,44	
		1,59,10,55,20,16,20,48		8,43
58″	19, 1,16,13,53,43,42, 3,56,54		1,23,26,10,27	
		1,59,10,53,56,50,10,21		
60″	19, 1,18,13, 4,37,38,54, 7,15			
exact	19, 1,18,13, 4,37,38,54,19,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°29′ 0″	19, 1,18,13, 4,37,38,54,19,19			
		1,59,10,52,33,23,52,30		
2″	19, 1,20,12,15,30,12,18,11,49		1,23,26,27,47	
		1,59,10,51, 9,57,24,43		8,43
4″	19, 1,22,11,26,21,22,15,36,32		1,23,26,36,30	
		1,59,10,49,46,30,48,13		8,43
6″	19, 1,24,10,37,11, 8,46,24,45		1,23,26,45,13	
		1,59,10,48,23, 4, 3, 0		8,43
8″	19, 1,26, 9,47,59,31,50,27,45		1,23,26,53,56	
		1,59,10,46,59,37, 9, 4		8,43
10″	19, 1,28, 8,58,46,31,27,36,49		1,23,27, 2,39	
		1,59,10,45,36,10, 6,25		8,43
12″	19, 1,30, 8, 9,32, 7,37,43,14		1,23,27,11,22	
		1,59,10,44,12,42,55, 3		8,43
14″	19, 1,32, 7,20,16,20,20,38,17		1,23,27,20, 5	
		1,59,10,42,49,15,34,58		8,43
16″	19, 1,34, 6,30,59, 9,36,13,15		1,23,27,28,48	
		1,59,10,41,25,48, 6,10		8,43
18″	19, 1,36, 5,41,40,35,24,19,25		1,23,27,37,31	
		1,59,10,40, 2,20,28,39		8,43
20″	19, 1,38, 4,52,20,37,44,48, 4		1,23,27,46,14	
		1,59,10,38,38,52,42,25		8,43
22″	19, 1,40, 4, 2,59,16,37,30,29		1,23,27,54,57	
		1,59,10,37,15,24,47,28		8,43
24″	19, 1,42, 3,13,36,32, 2,17,57		1,23,28, 3,40	
		1,59,10,35,51,56,43,48		8,43
26″	19, 1,44, 2,24,12,23,59, 1,45		1,23,28,12,23	
		1,59,10,34,28,28,31,25		8,43
28″	19, 1,46, 1,34,46,52,27,33,10		1,23,28,21, 6	
		1,59,10,33, 5, 0,10,19		8,43
30″	19, 1,48, 0,45,19,57,27,43,29		1,23,28,29,49	
		1,59,10,31,41,31,40,30		8,43
32″	19, 1,49,59,55,51,38,59,23,59		1,23,28,38,32	
		1,59,10,30,18, 3, 1,58		8,43
34″	19, 1,51,59, 6,21,57, 2,25,57		1,23,28,47,15	
		1,59,10,28,54,34,14,43		8,43
36″	19, 1,53,58,16,50,51,36,40,40		1,23,28,55,58	
		1,59,10,27,31, 5,18,45		8,43
38″	19, 1,55,57,27,18,22,41,59,25		1,23,29, 4,41	
		1,59,10,26, 7,36,14, 4		8,43
40″	19, 1,57,56,37,44,30,18,13,29		1,23,29,13,24	
		1,59,10,24,44, 7, 0,40		8,43
42″	19, 1,59,55,48, 9,14,25,14, 9		1,23,29,22, 7	
		1,59,10,23,20,37,38,33		8,43
44″	19, 2, 1,54,58,32,35, 2,52,42		1,23,29,30,50	
		1,59,10,21,57, 8, 7,43		8,43
46″	19, 2, 3,54, 8,54,32,11, 0,25		1,23,29,39,33	
		1,59,10,20,33,38,28,10		8,43
48″	19, 2, 5,53,19,15, 5,49,28,35		1,23,29,48,16	
		1,59,10,19,10, 8,39,54		8,43
50″	19, 2, 7,52,29,34,15,58, 8,29		1,23,29,56,59	
		1,59,10,17,46,38,42,55		8,43
52″	19, 2, 9,51,39,52, 2,36,51,24		1,23,30, 5,42	
		1,59,10,16,23, 8,37,13		8,43
54″	19, 2,11,50,50, 8,25,45,28,37		1,23,30,14,25	
		1,59,10,14,59,38,22,48		8,43
56″	19, 2,13,50, 0,23,25,23,51,25		1,23,30,23, 8	
		1,59,10,13,36, 7,59,40		8,43
58″	19, 2,15,49,10,37, 1,31,51, 5		1,23,30,31,51	
		1,59,10,12,12,37,27,49		
60″	19, 2,17,48,20,49,14, 9,18,54			
exact	19, 2,17,48,20,49,14, 9,31,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°30′ 0″	19, 2,17,48,20,49,14, 9,31,23			
		1,59,10,10,49, 6,48,44		
2″	19, 2,19,47,31, 0, 3,16,20, 7		1,23,30,49,10	
		1,59,10, 9,25,35,59,34		8,43
4″	19, 2,21,46,41, 9,28,52,19,41		1,23,30,57,53	
		1,59,10, 8, 2, 5, 1,41		8,43
6″	19, 2,23,45,51,17,30,57,21,22		1,23,31, 6,36	
		1,59,10, 6,38,33,55, 5		8,43
8″	19, 2,25,45, 1,24, 9,31,16,27		1,23,31,15,19	
		1,59,10, 5,15, 2,39,46		8,43
10″	19, 2,27,44,11,29,24,33,56,13		1,23,31,24, 2	
		1,59,10, 3,51,31,15,44		8,43
12″	19, 2,29,43,21,33,16, 5,11,57		1,23,31,32,45	
		1,59,10, 2,27,59,42,59		8,43
14″	19, 2,31,42,31,35,44, 4,54,56		1,23,31,41,28	
		1,59,10, 1, 4,28, 1,31		8,43
16″	19, 2,33,41,41,36,48,32,56,27		1,23,31,50,11	
		1,59, 9,59,40,56,11,20		8,43
18″	19, 2,35,40,51,36,29,29, 7,47		1,23,31,58,54	
		1,59, 9,58,17,24,12,26		8,43
20″	19, 2,37,40, 1,34,46,53,20,13		1,23,32, 7,37	
		1,59, 9,56,53,52, 4,49		8,43
22″	19, 2,39,39,11,31,40,45,25, 2		1,23,32,16,20	
		1,59, 9,55,30,19,48,29		8,43
24″	19, 2,41,38,21,27,11, 5,13,31		1,23,32,25, 3	
		1,59, 9,54, 6,47,23,26		8,43
26″	19, 2,43,37,31,21,17,52,36,57		1,23,32,33,46	
		1,59, 9,52,43,14,49,40		8,43
28″	19, 2,45,36,41,14, 1, 7,26,37		1,23,32,42,29	
		1,59, 9,51,19,42, 7,11		8,43
30″	19, 2,47,35,51, 5,20,49,33,48		1,23,32,51,12	
		1,59, 9,49,56, 9,15,59		8,43
32″	19, 2,49,35, 0,55,16,58,49,47		1,23,32,59,55	
		1,59, 9,48,32,36,16, 4		8,43
34″	19, 2,51,34,10,43,49,35, 5,51		1,23,33, 8,38	
		1,59, 9,47, 9, 3, 7,26		8,43
36″	19, 2,53,33,20,30,58,38,13,17		1,23,33,17,21	
		1,59, 9,45,45,29,50, 5		8,43
38″	19, 2,55,32,30,16,44, 8, 3,22		1,23,33,26, 4	
		1,59, 9,44,21,56,24, 1		8,43
40″	19, 2,57,31,40, 1, 6, 4,27,23		1,23,33,34,47	
		1,59, 9,42,58,22,49,14		8,43
42″	19, 2,59,30,49,44, 4,27,16,37		1,23,33,43,30	
		1,59, 9,41,34,49, 5,44		8,43
44″	19, 3, 1,29,59,25,39,16,22,21		1,23,33,52,13	
		1,59, 9,40,11,15,13,31		8,43
46″	19, 3, 3,29, 9, 5,50,31,35,52		1,23,34, 0,56	
		1,59, 9,38,47,41,12,35		8,43
48″	19, 3, 5,28,18,44,38,12,48,27		1,23,34, 9,39	
		1,59, 9,37,24, 7, 2,56		8,43
50″	19, 3, 7,27,28,22, 2,19,51,23		1,23,34,18,22	
		1,59, 9,36, 0,32,44,34		8,43
52″	19, 3, 9,26,37,58, 2,52,35,57		1,23,34,27, 5	
		1,59, 9,34,36,58,17,29		8,43
54″	19, 3,11,25,47,32,39,50,53,26		1,23,34,35,48	
		1,59, 9,33,13,23,41,41		8,43
56″	19, 3,13,24,57, 5,53,14,35, 7		1,23,34,44,31	
		1,59, 9,31,49,48,57,10		8,43
58″	19, 3,15,24, 6,37,43, 3,32,17		1,23,34,53,14	
		1,59, 9,30,26,14, 3,56		
60″	19, 3,17,23,16, 8, 9,17,36,13			
exact	19, 3,17,23,16, 8, 9,17,53,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°31′ 0″	19, 3,17,23,16, 8, 9,17,53,30			
		1,59, 9,29, 2,39, 3,55		
2″	19, 3,19,22,25,37,11,56,57,25		1,23,35,10,32	
		1,59, 9,27,39, 3,53,23		8,43
4″	19, 3,21,21,35, 4,51, 0,50,48		1,23,35,19,15	
		1,59, 9,26,15,28,34, 8		8,43
6″	19, 3,23,20,44,31, 6,29,24,56		1,23,35,27,58	
		1,59, 9,24,51,53, 6,10		8,43
8″	19, 3,25,19,53,55,58,22,31, 6		1,23,35,36,41	
		1,59, 9,23,28,17,29,29		8,43
10″	19, 3,27,19, 3,19,26,40, 0,35		1,23,35,45,24	
		1,59, 9,22, 4,41,44, 5		8,43
12″	19, 3,29,18,12,41,31,21,44,40		1,23,35,54, 7	
		1,59, 9,20,41, 5,49,58		8,43
14″	19, 3,31,17,22, 2,12,27,34,38		1,23,36, 2,50	
		1,59, 9,19,17,29,47, 8		8,43
16″	19, 3,33,16,31,21,29,57,21,46		1,23,36,11,33	
		1,59, 9,17,53,53,35,35		8,43
18″	19, 3,35,15,40,39,23,50,57,21		1,23,36,20,16	
		1,59, 9,16,30,17,15,19		8,43
20″	19, 3,37,14,49,55,54, 8,12,40		1,23,36,28,59	
		1,59, 9,15, 6,40,46,20		8,43
22″	19, 3,39,13,59,11, 0,48,59, 0		1,23,36,37,42	
		1,59, 9,13,43, 4, 8,38		8,43
24″	19, 3,41,13, 8,24,43,53, 7,38		1,23,36,46,25	
		1,59, 9,12,19,27,22,13		8,43
26″	19, 3,43,12,17,37, 3,20,29,51		1,23,36,55, 8	
		1,59, 9,10,55,50,27, 5		8,43
28″	19, 3,45,11,26,47,59,10,56,56		1,23,37, 3,51	
		1,59, 9, 9,32,13,23,14		8,43
30″	19, 3,47,10,35,57,31,24,20,10		1,23,37,12,34	
		1,59, 9, 8, 8,36,10,40		8,43
32″	19, 3,49, 9,45, 5,40, 0,30,50		1,23,37,21,17	
		1,59, 9, 6,44,58,49,23		8,43
34″	19, 3,51, 8,54,12,24,59,20,13		1,23,37,30, 0	
		1,59, 9, 5,21,21,19,23		8,43
36″	19, 3,53, 8, 3,17,46,20,39,36		1,23,37,38,43	
		1,59, 9, 3,57,43,40,40		8,43
38″	19, 3,55, 7,12,21,44, 4,20,16		1,23,37,47,26	
		1,59, 9, 2,34, 5,53,14		8,43
40″	19, 3,57, 6,21,24,18,10,13,30		1,23,37,56, 9	
		1,59, 9, 1,10,27,57, 5		8,43
42″	19, 3,59, 5,30,25,28,38,10,35		1,23,38, 4,52	
		1,59, 8,59,46,49,52,13		8,43
44″	19, 4, 1, 4,39,25,15,28, 2,48		1,23,38,13,35	
		1,59, 8,58,23,11,38,38		8,43
46″	19, 4, 3, 3,48,23,38,39,41,26		1,23,38,22,18	
		1,59, 8,56,59,33,16,20		8,43
48″	19, 4, 5, 2,57,20,38,12,57,46		1,23,38,31, 1	
		1,59, 8,55,35,54,45,19		8,43
50″	19, 4, 7, 2, 6,16,14, 7,43, 5		1,23,38,39,44	
		1,59, 8,54,12,16, 5,35		8,43
52″	19, 4, 9, 1,15,10,26,23,48,40		1,23,38,48,27	
		1,59, 8,52,48,37,17, 8		8,43
54″	19, 4,11, 0,24, 3,15, 1, 5,48		1,23,38,57,10	
		1,59, 8,51,24,58,19,58		8,43
56″	19, 4,12,59,32,54,39,59,25,46		1,23,39, 5,53	
		1,59, 8,50, 1,19,14, 5		8,43
58″	19, 4,14,58,41,44,41,18,39,51		1,23,39,14,36	
		1,59, 8,48,37,39,59,29		
60″	19, 4,16,57,50,33,18,58,39,20			
exact	19, 4,16,57,50,33,18,59, 5,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°32′ 0″	19, 4,16,57,50,33,18,59, 5,16			
		1,59, 8,47,14, 0,38,50		
2″	19, 4,18,56,59,20,32,59,44, 6		1,23,39,31,51	
		1,59, 8,45,50,21, 6,59		8,43
4″	19, 4,20,56, 8, 6,23,20,51, 5		1,23,39,40,34	
		1,59, 8,44,26,41,26,25		8,43
6″	19, 4,22,55,16,50,50, 2,17,30		1,23,39,49,17	
		1,59, 8,43, 3, 1,37, 8		8,43
8″	19, 4,24,54,25,33,53, 3,54,38		1,23,39,58, 0	
		1,59, 8,41,39,21,39, 8		8,43
10″	19, 4,26,53,34,15,32,25,33,46		1,23,40, 6,43	
		1,59, 8,40,15,41,32,25		8,43
12″	19, 4,28,52,42,55,48, 7, 6,11		1,23,40,15,26	
		1,59, 8,38,52, 1,16,59		8,43
14″	19, 4,30,51,51,34,40, 8,23,10		1,23,40,24, 9	
		1,59, 8,37,28,20,52,50		8,43
16″	19, 4,32,51, 0,12, 8,29,16, 0		1,23,40,32,52	
		1,59, 8,36, 4,40,19,58		8,43
18″	19, 4,34,50, 8,48,13, 9,35,58		1,23,40,41,35	
		1,59, 8,34,40,59,38,23		8,43
20″	19, 4,36,49,17,22,54, 9,14,21		1,23,40,50,18	
		1,59, 8,33,17,18,48, 5		8,43
22″	19, 4,38,48,25,56,11,28, 2,26		1,23,40,59, 1	
		1,59, 8,31,53,37,49, 4		8,43
24″	19, 4,40,47,34,28, 5, 5,51,30		1,23,41, 7,44	
		1,59, 8,30,29,56,41,20		8,43
26″	19, 4,42,46,42,58,35, 2,32,50		1,23,41,16,27	
		1,59, 8,29, 6,15,24,53		8,43
28″	19, 4,44,45,51,27,41,17,57,43		1,23,41,25,10	
		1,59, 8,27,42,33,59,43		8,43
30″	19, 4,46,44,59,55,23,51,57,26		1,23,41,33,53	
		1,59, 8,26,18,52,25,50		8,43
32″	19, 4,48,44, 8,21,42,44,23,16		1,23,41,42,36	
		1,59, 8,24,55,10,43,14		8,43
34″	19, 4,50,43,16,46,37,55, 6,30		1,23,41,51,19	
		1,59, 8,23,31,28,51,55		8,43
36″	19, 4,52,42,25,10, 9,23,58,25		1,23,42, 0, 2	
		1,59, 8,22, 7,46,51,53		8,43
38″	19, 4,54,41,33,32,17,10,50,18		1,23,42, 8,45	
		1,59, 8,20,44, 4,43, 8		8,43
40″	19, 4,56,40,41,53, 1,15,33,26		1,23,42,17,28	
		1,59, 8,19,20,22,25,40		8,43
42″	19, 4,58,39,50,12,21,37,59, 6		1,23,42,26,11	
		1,59, 8,17,56,39,59,29		8,43
44″	19, 5, 0,38,58,30,18,17,58,35		1,23,42,34,54	
		1,59, 8,16,32,57,24,35		8,43
46″	19, 5, 2,38, 6,46,51,15,23,10		1,23,42,43,37	
		1,59, 8,15, 9,14,40,58		8,43
48″	19, 5, 4,37,15, 2, 0,30, 4, 8		1,23,42,52,20	
		1,59, 8,13,45,31,48,38		8,43
50″	19, 5, 6,36,23,15,46, 1,52,46		1,23,43, 1, 3	
		1,59, 8,12,21,48,47,35		8,43
52″	19, 5, 8,35,31,28, 7,50,40,21		1,23,43, 9,46	
		1,59, 8,10,58, 5,37,49		8,43
54″	19, 5,10,34,39,39, 5,56,18,10		1,23,43,18,29	
		1,59, 8, 9,34,22,19,20		8,43
56″	19, 5,12,33,47,48,40,18,37,30		1,23,43,27,12	
		1,59, 8, 8,10,38,52, 8		8,43
58″	19, 5,14,32,55,56,50,57,29,38		1,23,43,35,55	
		1,59, 8, 6,46,55,16,13		
60″	19, 5,16,32, 4, 3,37,52,45,51			
exact	19, 5,16,32, 4, 3,37,53, 9, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°33′ 0″	19, 5,16,32, 4, 3,37,53, 9, 9			
		1,59, 8, 5,23,11,34,12		
2″	19, 5,18,31,12, 9, 1, 4,43,21		1,23,43,53,10	
		1,59, 8, 3,59,27,41, 2		8,43
4″	19, 5,20,30,20,13, 0,32,24,23		1,23,44, 1,53	
		1,59, 8, 2,35,43,39, 9		8,43
6″	19, 5,22,29,28,15,36,16, 3,32		1,23,44,10,36	
		1,59, 8, 1,11,59,28,33		8,43
8″	19, 5,24,28,36,16,48,15,32, 5		1,23,44,19,19	
		1,59, 7,59,48,15, 9,14		8,43
10″	19, 5,26,27,44,16,36,30,41,19		1,23,44,28, 2	
		1,59, 7,58,24,30,41,12		8,43
12″	19, 5,28,26,52,15, 1, 1,22,31		1,23,44,36,45	
		1,59, 7,57, 0,46, 4,27		8,43
14″	19, 5,30,26, 0,12, 1,47,26,58		1,23,44,45,28	
		1,59, 7,55,37, 1,18,59		8,43
16″	19, 5,32,25, 8, 7,38,48,45,57		1,23,44,54,11	
		1,59, 7,54,13,16,24,48		8,43
18″	19, 5,34,24,16, 1,52, 5,10,45		1,23,45, 2,54	
		1,59, 7,52,49,31,21,54		8,43
20″	19, 5,36,23,23,54,41,36,32,39		1,23,45,11,37	
		1,59, 7,51,25,46,10,17		8,43
22″	19, 5,38,22,31,46, 7,22,42,56		1,23,45,20,20	
		1,59, 7,50, 2, 0,49,57		8,43
24″	19, 5,40,21,39,36, 9,23,32,53		1,23,45,29, 3	
		1,59, 7,48,38,15,20,54		8,43
26″	19, 5,42,20,47,24,47,38,53,47		1,23,45,37,46	
		1,59, 7,47,14,29,43, 8		8,43
28″	19, 5,44,19,55,12, 2, 8,36,55		1,23,45,46,29	
		1,59, 7,45,50,43,56,39		8,43
30″	19, 5,46,19, 2,57,52,52,33,34		1,23,45,55,12	
		1,59, 7,44,26,58, 1,27		8,43
32″	19, 5,48,18,10,42,19,50,35, 1		1,23,46, 3,55	
		1,59, 7,43, 3,11,57,32		8,43
34″	19, 5,50,17,18,25,23, 2,32,33		1,23,46,12,38	
		1,59, 7,41,39,25,44,54		8,43
36″	19, 5,52,16,26, 7, 2,28,17,27		1,23,46,21,21	
		1,59, 7,40,15,39,23,33		8,43
38″	19, 5,54,15,33,47,18, 7,41, 0		1,23,46,30, 4	
		1,59, 7,38,51,52,53,29		8,43
40″	19, 5,56,14,41,26,10, 0,34,29		1,23,46,38,47	
		1,59, 7,37,28, 6,14,42		8,43
42″	19, 5,58,13,49, 3,38, 6,49,11		1,23,46,47,30	
		1,59, 7,36, 4,19,27,12		8,43
44″	19, 6, 0,12,56,39,42,26,16,23		1,23,46,56,13	
		1,59, 7,34,40,32,30,59		8,43
46″	19, 6, 2,12, 4,14,22,58,47,22		1,23,47, 4,56	
		1,59, 7,33,16,45,26, 3		8,43
48″	19, 6, 4,11,11,47,39,44,13,25		1,23,47,13,39	
		1,59, 7,31,52,58,12,24		8,43
50″	19, 6, 6,10,19,19,32,42,25,49		1,23,47,22,22	
		1,59, 7,30,29,10,50, 2		8,43
52″	19, 6, 8, 9,26,50, 1,53,15,51		1,23,47,31, 5	
		1,59, 7,29, 5,23,18,57		8,43
54″	19, 6,10, 8,34,19, 7,16,34,48		1,23,47,39,48	
		1,59, 7,27,41,35,39, 9		8,43
56″	19, 6,12, 7,41,46,48,52,13,57		1,23,47,48,31	
		1,59, 7,26,17,47,50,38		8,43
58″	19, 6,14, 6,49,13, 6,40, 4,35		1,23,47,57,14	
		1,59, 7,24,53,59,53,24		
60″	19, 6,16, 5,56,38, 0,39,57,59			
exact	19, 6,16, 5,56,38, 0,40,30,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°34′ 0″	19, 6,16, 5,56,38, 0,40,30,33	1,59, 7,23,30,11,50,50		
2″	19, 6,18, 5, 4, 1,30,52,21,23	1,59, 7,22, 6,23,36,24	1,23,48,14,26	8,43
4″	19, 6,20, 4,11,23,37,15,57,47	1,59, 7,20,42,35,13,15	1,23,48,23, 9	8,43
6″	19, 6,22, 3,18,44,19,51,11, 2	1,59, 7,19,18,46,41,23	1,23,48,31,52	8,43
8″	19, 6,24, 2,26, 3,38,37,52,25	1,59, 7,17,54,58, 0,48	1,23,48,40,35	8,43
10″	19, 6,26, 1,33,21,33,35,53,13	1,59, 7,16,31, 9,11,30	1,23,48,49,18	8,43
12″	19, 6,28, 0,40,38, 4,45, 4,43	1,59, 7,15, 7,20,13,29	1,23,48,58, 1	8,43
14″	19, 6,29,59,47,53,12, 5,18,12	1,59, 7,13,43,31, 6,45	1,23,49, 6,44	8,43
16″	19, 6,31,58,55, 6,55,36,24,57	1,59, 7,12,19,41,51,18	1,23,49,15,27	8,43
18″	19, 6,33,58, 2,19,15,18,16,15	1,59, 7,10,55,52,27, 8	1,23,49,24,10	8,43
20″	19, 6,35,57, 9,30,11,10,43,23	1,59, 7, 9,32, 2,54,15	1,23,49,32,53	8,43
22″	19, 6,37,56,16,39,43,13,37,38	1,59, 7, 8, 8,13,12,39	1,23,49,41,36	8,43
24″	19, 6,39,55,23,47,51,26,50,17	1,59, 7, 6,44,23,22,20	1,23,49,50,19	8,43
26″	19, 6,41,54,30,54,35,50,12,37	1,59, 7, 5,20,33,23,18	1,23,49,59, 2	8,43
28″	19, 6,43,53,37,59,56,23,35,55	1,59, 7, 3,56,43,15,33	1,23,50, 7,45	8,43
30″	19, 6,45,52,45, 3,53, 6,51,28	1,59, 7, 2,32,52,59, 5	1,23,50,16,28	8,43
32″	19, 6,47,51,52, 6,25,59,50,33	1,59, 7, 1, 9, 2,33,54	1,23,50,25,11	8,43
34″	19, 6,49,50,59, 7,35, 2,24,27	1,59, 6,59,45,12, 0, 0	1,23,50,33,54	8,43
36″	19, 6,51,50, 6, 7,20,14,24,27	1,59, 6,58,21,21,17,23	1,23,50,42,37	8,43
38″	19, 6,53,49,13, 5,41,35,41,50	1,59, 6,56,57,30,26, 3	1,23,50,51,20	8,43
40″	19, 6,55,48,20, 2,39, 6, 7,53	1,59, 6,55,33,39,26, 0	1,23,51, 0, 3	8,43
42″	19, 6,57,47,26,58,12,45,33,53	1,59, 6,54, 9,48,17,14	1,23,51, 8,46	8,43
44″	19, 6,59,46,33,52,22,33,51, 7	1,59, 6,52,45,56,59,45	1,23,51,17,29	8,43
46″	19, 7, 1,45,40,45, 8,30,50,52	1,59, 6,51,22, 5,33,33	1,23,51,26,12	8,43
48″	19, 7, 3,44,47,36,30,36,24,25	1,59, 6,49,58,13,58,38	1,23,51,34,55	8,43
50″	19, 7, 5,43,54,26,28,50,23, 3	1,59, 6,48,34,22,15, 0	1,23,51,43,38	8,43
52″	19, 7, 7,43, 1,15, 3,12,38, 3	1,59, 6,47,10,30,22,39	1,23,51,52,21	8,43
54″	19, 7, 9,42, 8, 2,13,43, 0,42	1,59, 6,45,46,38,21,35	1,23,52, 1, 4	8,43
56″	19, 7,11,41,14,48, 0,21,22,17	1,59, 6,44,22,46,11,48	1,23,52, 9,47	8,43
58″	19, 7,13,40,21,32,23, 7,34, 5	1,59, 6,42,58,53,53,18	1,23,52,18,30	
60″	19, 7,15,39,28,15,22, 1,27,23			
exact	19, 7,15,39,28,15,22, 1,57,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°35′ 0″	19, 7,15,39,28,15,22, 1,57,52			
		1,59, 6,41,35, 1,29,28		
2″	19, 7,17,38,34,56,57, 3,27,20		1,23,52,35,41	
		1,59, 6,40,11, 8,53,47		8,42
4″	19, 7,19,37,41,37, 8,12,21, 7		1,23,52,44,23	
		1,59, 6,38,47,16, 9,24		8,42
6″	19, 7,21,36,48,15,55,28,30,31		1,23,52,53, 5	
		1,59, 6,37,23,23,16,19		8,42
8″	19, 7,23,35,54,53,18,51,46,50		1,23,53, 1,47	
		1,59, 6,35,59,30,14,32		8,42
10″	19, 7,25,35, 1,29,18,22, 1,22		1,23,53,10,29	
		1,59, 6,34,35,37, 4, 3		8,42
12″	19, 7,27,34, 8, 3,53,59, 5,25		1,23,53,19,11	
		1,59, 6,33,11,43,44,52		8,42
14″	19, 7,29,33,14,37, 5,42,50,17		1,23,53,27,53	
		1,59, 6,31,47,50,16,59		8,42
16″	19, 7,31,32,21, 8,53,33, 7,16		1,23,53,36,35	
		1,59, 6,30,23,56,40,24		8,42
18″	19, 7,33,31,27,39,17,29,47,40		1,23,53,45,17	
		1,59, 6,29, 0, 2,55, 7		8,42
20″	19, 7,35,30,34, 8,17,32,42,47		1,23,53,53,59	
		1,59, 6,27,36, 9, 1, 8		8,42
22″	19, 7,37,29,40,35,53,41,43,55		1,23,54, 2,41	
		1,59, 6,26,12,14,58,27		8,42
24″	19, 7,39,28,47, 2, 5,56,42,22		1,23,54,11,23	
		1,59, 6,24,48,20,47, 4		8,42
26″	19, 7,41,27,53,26,54,17,29,26		1,23,54,20, 5	
		1,59, 6,23,24,26,26,59		8,42
28″	19, 7,43,26,59,50,18,43,56,25		1,23,54,28,47	
		1,59, 6,22, 0,31,58,12		8,42
30″	19, 7,45,26, 6,12,19,15,54,37		1,23,54,37,29	
		1,59, 6,20,36,37,20,43		8,42
32″	19, 7,47,25,12,32,55,53,15,20		1,23,54,46,11	
		1,59, 6,19,12,42,34,32		8,42
34″	19, 7,49,24,18,52, 8,35,49,52		1,23,54,54,53	
		1,59, 6,17,48,47,39,39		8,42
36″	19, 7,51,23,25, 9,57,23,29,31		1,23,55, 3,35	
		1,59, 6,16,24,52,36, 4		8,42
38″	19, 7,53,22,31,26,22,16, 5,35		1,23,55,12,17	
		1,59, 6,15, 0,57,23,47		8,42
40″	19, 7,55,21,37,41,23,13,29,22		1,23,55,20,59	
		1,59, 6,13,37, 2, 2,48		8,42
42″	19, 7,57,20,43,55, 0,15,32,10		1,23,55,29,41	
		1,59, 6,12,13, 6,33, 7		8,42
44″	19, 7,59,19,50, 7,13,22, 5,17		1,23,55,38,23	
		1,59, 6,10,49,10,54,44		8,42
46″	19, 8, 1,18,56,18, 2,33, 0, 1		1,23,55,47, 5	
		1,59, 6, 9,25,15, 7,39		8,42
48″	19, 8, 3,18, 2,27,27,48, 7,40		1,23,55,55,47	
		1,59, 6, 8, 1,19,11,52		8,42
50″	19, 8, 5,17, 8,35,29, 7,19,32		1,23,56, 4,29	
		1,59, 6, 6,37,23, 7,23		8,42
52″	19, 8, 7,16,14,42, 6,30,26,55		1,23,56,13,11	
		1,59, 6, 5,13,26,54,12		8,42
54″	19, 8, 9,15,20,47,19,57,21, 7		1,23,56,21,53	
		1,59, 6, 3,49,30,32,19		8,42
56″	19, 8,11,14,26,51, 9,27,53,26		1,23,56,30,35	
		1,59, 6, 2,25,34, 1,44		8,42
58″	19, 8,13,13,32,53,35, 1,55,10		1,23,56,39,17	
		1,59, 6, 1, 1,37,22,27		
60″	19, 8,15,12,38,54,36,39,17,37			
exact	19, 8,15,12,38,54,36,38,42,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°36′ 0″	19, 8,15,12,38,54,36,38,42,26			
		1,59, 5,59,37,40,30,52		
2″	19, 8,17,11,44,54,14,19,13,18		1,23,56,56,55	
		1,59, 5,58,13,43,33,57		8,42
4″	19, 8,19,10,50,52,28, 2,47,15		1,23,57, 5,37	
		1,59, 5,56,49,46,28,20		8,42
6″	19, 8,21, 9,56,49,17,49,15,35		1,23,57,14,19	
		1,59, 5,55,25,49,14, 1		8,42
8″	19, 8,23, 9, 2,44,43,38,29,36		1,23,57,23, 1	
		1,59, 5,54, 1,51,51, 0		8,42
10″	19, 8,25, 8, 8,38,45,30,20,36		1,23,57,31,43	
		1,59, 5,52,37,54,19,17		8,42
12″	19, 8,27, 7,14,31,23,24,39,53		1,23,57,40,25	
		1,59, 5,51,13,56,38,52		8,42
14″	19, 8,29, 6,20,22,37,21,18,45		1,23,57,49, 7	
		1,59, 5,49,49,58,49,45		8,42
16″	19, 8,31, 5,26,12,27,20, 8,30		1,23,57,57,49	
		1,59, 5,48,26, 0,51,56		8,42
18″	19, 8,33, 4,32, 0,53,21, 0,26		1,23,58, 6,31	
		1,59, 5,47, 2, 2,45,25		8,42
20″	19, 8,35, 3,37,47,55,23,45,51		1,23,58,15,13	
		1,59, 5,45,38, 4,30,12		8,42
22″	19, 8,37, 2,43,33,33,28,16, 3		1,23,58,23,55	
		1,59, 5,44,14, 6, 6,17		8,42
24″	19, 8,39, 1,49,17,47,34,22,20		1,23,58,32,37	
		1,59, 5,42,50, 7,33,40		8,42
26″	19, 8,41, 0,55, 0,37,41,56, 0		1,23,58,41,19	
		1,59, 5,41,26, 8,52,21		8,42
28″	19, 8,43, 0, 0,42, 3,50,48,21		1,23,58,50, 1	
		1,59, 5,40, 2,10, 2,20		8,42
30″	19, 8,44,59, 6,22, 6, 0,50,41		1,23,58,58,43	
		1,59, 5,38,38,11, 3,37		8,42
32″	19, 8,46,58,12, 0,44,11,54,18		1,23,59, 7,25	
		1,59, 5,37,14,11,56,12		8,42
34″	19, 8,48,57,17,37,58,23,50,30		1,23,59,16, 7	
		1,59, 5,35,50,12,40, 5		8,42
36″	19, 8,50,56,23,13,48,36,30,35		1,23,59,24,49	
		1,59, 5,34,26,13,15,16		8,42
38″	19, 8,52,55,28,48,14,49,45,51		1,23,59,33,31	
		1,59, 5,33, 2,13,41,45		8,42
40″	19, 8,54,54,34,21,17, 3,27,36		1,23,59,42,13	
		1,59, 5,31,38,13,59,32		8,42
42″	19, 8,56,53,39,52,55,17,27, 8		1,23,59,50,55	
		1,59, 5,30,14,14, 8,37		8,42
44″	19, 8,58,52,45,23, 9,31,35,45		1,23,59,59,37	
		1,59, 5,28,50,14, 9, 0		8,42
46″	19, 9, 0,51,50,51,59,45,44,45		1,24, 0, 8,19	
		1,59, 5,27,26,14, 0,41		8,42
48″	19, 9, 2,50,56,19,25,59,45,26		1,24, 0,17, 1	
		1,59, 5,26, 2,13,43,40		8,42
50″	19, 9, 4,50, 1,45,28,13,29, 6		1,24, 0,25,43	
		1,59, 5,24,38,13,17,57		8,42
52″	19, 9, 6,49, 7,10, 6,26,47, 3		1,24, 0,34,25	
		1,59, 5,23,14,12,43,32		8,42
54″	19, 9, 8,48,12,33,20,39,30,35		1,24, 0,43, 7	
		1,59, 5,21,50,12, 0,25		8,42
56″	19, 9,10,47,17,55,10,51,31, 0		1,24, 0,51,49	
		1,59, 5,20,26,11, 8,36		8,42
58″	19, 9,12,46,23,15,37, 2,39,36		1,24, 1, 0,31	
		1,59, 5,19, 2,10, 8, 5		
60″	19, 9,14,45,28,34,39,12,47,41			
exact	19, 9,14,45,28,34,39,12,18,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°37′ 0″	19, 9,14,45,28,34,39,12,18,36	1,59, 5,17,38, 8,55,49		
2″	19, 9,16,44,33,52,17,21,14,25	1,59, 5,16,14, 7,37,42	1,24, 1,18, 7	8,42
4″	19, 9,18,43,39, 8,31,28,52, 7	1,59, 5,14,50, 6,10,53	1,24, 1,26,49	8,42
6″	19, 9,20,42,44,23,21,35, 3, 0	1,59, 5,13,26, 4,35,22	1,24, 1,35,31	8,42
8″	19, 9,22,41,49,36,47,39,38,22	1,59, 5,12, 2, 2,51, 9	1,24, 1,44,13	8,42
10″	19, 9,24,40,54,48,49,42,29,31	1,59, 5,10,38, 0,58,14	1,24, 1,52,55	8,42
12″	19, 9,26,39,59,59,27,43,27,45	1,59, 5, 9,13,58,56,37	1,24, 2, 1,37	8,42
14″	19, 9,28,39, 5, 8,41,42,24,22	1,59, 5, 7,49,56,46,18	1,24, 2,10,19	8,42
16″	19, 9,30,38,10,16,31,39,10,40	1,59, 5, 6,25,54,27,17	1,24, 2,19, 1	8,42
18″	19, 9,32,37,15,22,57,33,37,57	1,59, 5, 5, 1,51,59,34	1,24, 2,27,43	8,42
20″	19, 9,34,36,20,27,59,25,37,31	1,59, 5, 3,37,49,23, 9	1,24, 2,36,25	8,42
22″	19, 9,36,35,25,31,37,15, 0,40	1,59, 5, 2,13,46,38, 2	1,24, 2,45, 7	8,42
24″	19, 9,38,34,30,33,51, 1,38,42	1,59, 5, 0,49,43,44,13	1,24, 2,53,49	8,42
26″	19, 9,40,33,35,34,40,45,22,55	1,59, 4,59,25,40,41,42	1,24, 3, 2,31	8,42
28″	19, 9,42,32,40,34, 6,26, 4,37	1,59, 4,58, 1,37,30,29	1,24, 3,11,13	8,42
30″	19, 9,44,31,45,32, 8, 3,35, 6	1,59, 4,56,37,34,10,34	1,24, 3,19,55	8,42
32″	19, 9,46,30,50,28,45,37,45,40	1,59, 4,55,13,30,41,57	1,24, 3,28,37	8,42
34″	19, 9,48,29,55,23,59, 8,27,37	1,59, 4,53,49,27, 4,38	1,24, 3,37,19	8,42
36″	19, 9,50,29, 0,17,48,35,32,15	1,59, 4,52,25,23,18,37	1,24, 3,46, 1	8,42
38″	19, 9,52,28, 5,10,13,58,50,52	1,59, 4,51, 1,19,23,54	1,24, 3,54,43	8,42
40″	19, 9,54,27,10, 1,15,18,14,46	1,59, 4,49,37,15,20,29	1,24, 4, 3,25	8,42
42″	19, 9,56,26,14,50,52,33,35,15	1,59, 4,48,13,11, 8,22	1,24, 4,12, 7	8,42
44″	19, 9,58,25,19,39, 5,44,43,37	1,59, 4,46,49, 6,47,33	1,24, 4,20,49	8,42
46″	19,10, 0,24,24,25,54,51,31,10	1,59, 4,45,25, 2,18, 2	1,24, 4,29,31	8,42
48″	19,10, 2,23,29,11,19,53,49,12	1,59, 4,44, 0,57,39,49	1,24, 4,38,13	8,42
50″	19,10, 4,22,33,55,20,51,29, 1	1,59, 4,42,36,52,52,54	1,24, 4,46,55	8,42
52″	19,10, 6,21,38,37,57,44,21,55	1,59, 4,41,12,47,57,17	1,24, 4,55,37	8,42
54″	19,10, 8,20,43,19,10,32,19,12	1,59, 4,39,48,42,52,58	1,24, 5, 4,19	8,42
56″	19,10,10,19,47,58,59,15,12,10	1,59, 4,38,24,37,39,57	1,24, 5,13, 1	8,42
58″	19,10,12,18,52,37,23,52,52, 7	1,59, 4,37, 0,32,18,14	1,24, 5,21,43	
60″	19,10,14,17,57,14,24,25,10,21			
exact	19,10,14,17,57,14,24,24,43,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°38′ 0″	19,10,14,17,57,14,24,24,43,43			
		1,59, 4,35,36,26,45, 4		
2″	19,10,16,17, 1,50, 0,51,28,47		1,24, 5,39,18	
		1,59, 4,34,12,21, 5,46		8,42
4″	19,10,18,16, 6,24,13,12,34,33		1,24, 5,48, 0	
		1,59, 4,32,48,15,17,46		8,42
6″	19,10,20,15,10,57, 1,27,52,19		1,24, 5,56,42	
		1,59, 4,31,24, 9,21, 4		8,42
8″	19,10,22,14,15,28,25,37,13,23		1,24, 6, 5,24	
		1,59, 4,30, 0, 3,15,40		8,42
10″	19,10,24,13,19,58,25,40,29, 3		1,24, 6,14, 6	
		1,59, 4,28,35,57, 1,34		8,42
12″	19,10,26,12,24,27, 1,37,30,37		1,24, 6,22,48	
		1,59, 4,27,11,50,38,46		8,42
14″	19,10,28,11,28,54,13,28, 9,23		1,24, 6,31,30	
		1,59, 4,25,47,44, 7,16		8,42
16″	19,10,30,10,33,20, 1,12,16,39		1,24, 6,40,12	
		1,59, 4,24,23,37,27, 4		8,42
18″	19,10,32, 9,37,44,24,49,43,43		1,24, 6,48,54	
		1,59, 4,22,59,30,38,10		8,42
20″	19,10,34, 8,42, 7,24,20,21,53		1,24, 6,57,36	
		1,59, 4,21,35,23,40,34		8,42
22″	19,10,36, 7,46,28,59,44, 2,27		1,24, 7, 6,18	
		1,59, 4,20,11,16,34,16		8,42
24″	19,10,38, 6,50,49,11, 0,36,43		1,24, 7,15, 0	
		1,59, 4,18,47, 9,19,16		8,42
26″	19,10,40, 5,55, 7,58, 9,55,59		1,24, 7,23,42	
		1,59, 4,17,23, 1,55,34		8,42
28″	19,10,42, 4,59,25,21,11,51,33		1,24, 7,32,24	
		1,59, 4,15,58,54,23,10		8,42
30″	19,10,44, 4, 3,41,20, 6,14,43		1,24, 7,41, 6	
		1,59, 4,14,34,46,42, 4		8,42
32″	19,10,46, 3, 7,55,54,52,56,47		1,24, 7,49,48	
		1,59, 4,13,10,38,52,16		8,42
34″	19,10,48, 2,12, 9, 5,31,49, 3		1,24, 7,58,30	
		1,59, 4,11,46,30,53,46		8,42
36″	19,10,50, 1,16,20,52, 2,42,49		1,24, 8, 7,12	
		1,59, 4,10,22,22,46,34		8,42
38″	19,10,52, 0,20,31,14,25,29,23		1,24, 8,15,54	
		1,59, 4, 8,58,14,30,40		8,42
40″	19,10,53,59,24,40,12,40, 0, 3		1,24, 8,24,36	
		1,59, 4, 7,34, 6, 6, 4		8,42
42″	19,10,55,58,28,47,46,46, 6, 7		1,24, 8,33,18	
		1,59, 4, 6, 9,57,32,46		8,42
44″	19,10,57,57,32,53,56,43,38,53		1,24, 8,42, 0	
		1,59, 4, 4,45,48,50,46		8,42
46″	19,10,59,56,36,58,42,32,29,39		1,24, 8,50,42	
		1,59, 4, 3,21,40, 0, 4		8,42
48″	19,11, 1,55,41, 2, 4,12,29,43		1,24, 8,59,24	
		1,59, 4, 1,57,31, 0,40		8,42
50″	19,11, 3,54,45, 4, 1,43,30,23		1,24, 9, 8, 6	
		1,59, 4, 0,33,21,52,34		8,42
52″	19,11, 5,53,49, 4,35, 5,22,57		1,24, 9,16,48	
		1,59, 3,59, 9,12,35,46		8,42
54″	19,11, 7,52,53, 3,44,17,58,43		1,24, 9,25,30	
		1,59, 3,57,45, 3,10,16		8,42
56″	19,11, 9,51,57, 1,29,21, 8,59		1,24, 9,34,12	
		1,59, 3,56,20,53,36, 4		8,42
58″	19,11,11,51, 0,57,50,14,45, 3		1,24, 9,42,54	
		1,59, 3,54,56,43,53,10		
60″	19,11,13,50, 4,52,46,58,38,13			
exact	19,11,13,50, 4,52,46,58,18,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°39′ 0″	19,11,13,50, 4,52,46,58,18,10			
		1,59, 3,53,32,33,59,24		
2″	19,11,15,49, 8,46,19,32,17,34		1,24,10, 0,27	
		1,59, 3,52, 8,23,58,57		8,42
4″	19,11,17,48,12,38,27,56,16,31		1,24,10, 9, 9	
		1,59, 3,50,44,13,49,48		8,42
6″	19,11,19,47,16,29,12,10, 6,19		1,24,10,17,51	
		1,59, 3,49,20, 3,31,57		8,42
8″	19,11,21,46,20,18,32,13,38,16		1,24,10,26,33	
		1,59, 3,47,55,53, 5,24		8,42
10″	19,11,23,45,24, 6,28, 6,43,40		1,24,10,35,15	
		1,59, 3,46,31,42,30, 9		8,42
12″	19,11,25,44,27,52,59,49,13,49		1,24,10,43,57	
		1,59, 3,45, 7,31,46,12		8,42
14″	19,11,27,43,31,38, 7,21, 0, 1		1,24,10,52,39	
		1,59, 3,43,43,20,53,33		8,42
16″	19,11,29,42,35,21,50,41,53,34		1,24,11, 1,21	
		1,59, 3,42,19, 9,52,12		8,42
18″	19,11,31,41,39, 4, 9,51,45,46		1,24,11,10, 3	
		1,59, 3,40,54,58,42, 9		8,42
20″	19,11,33,40,42,45, 4,50,27,55		1,24,11,18,45	
		1,59, 3,39,30,47,23,24		8,42
22″	19,11,35,39,46,24,35,37,51,19		1,24,11,27,27	
		1,59, 3,38, 6,35,55,57		8,42
24″	19,11,37,38,50, 2,42,13,47,16		1,24,11,36, 9	
		1,59, 3,36,42,24,19,48		8,42
26″	19,11,39,37,53,39,24,38, 7, 4		1,24,11,44,51	
		1,59, 3,35,18,12,34,57		8,42
28″	19,11,41,36,57,14,42,50,42, 1		1,24,11,53,33	
		1,59, 3,33,54, 0,41,24		8,42
30″	19,11,43,36, 0,48,36,51,23,25		1,24,12, 2,15	
		1,59, 3,32,29,48,39, 9		8,42
32″	19,11,45,35, 4,21, 6,40, 2,34		1,24,12,10,57	
		1,59, 3,31, 5,36,28,12		8,42
34″	19,11,47,34, 7,52,12,16,30,46		1,24,12,19,39	
		1,59, 3,29,41,24, 8,33		8,42
36″	19,11,49,33,11,21,53,40,39,19		1,24,12,28,21	
		1,59, 3,28,17,11,40,12		8,42
38″	19,11,51,32,14,50,10,52,19,31		1,24,12,37, 3	
		1,59, 3,26,52,59, 3, 9		8,42
40″	19,11,53,31,18,17, 3,51,22,40		1,24,12,45,45	
		1,59, 3,25,28,46,17,24		8,42
42″	19,11,55,30,21,42,32,37,40, 4		1,24,12,54,27	
		1,59, 3,24, 4,33,22,57		8,42
44″	19,11,57,29,25, 6,37,11, 3, 1		1,24,13, 3, 9	
		1,59, 3,22,40,20,19,48		8,42
46″	19,11,59,28,28,29,17,31,22,49		1,24,13,11,51	
		1,59, 3,21,16, 7, 7,57		8,42
48″	19,12, 1,27,31,50,33,38,30,46		1,24,13,20,33	
		1,59, 3,19,51,53,47,24		8,42
50″	19,12, 3,26,35,10,25,32,18,10		1,24,13,29,15	
		1,59, 3,18,27,40,18, 9		8,42
52″	19,12, 5,25,38,28,53,12,36,19		1,24,13,37,57	
		1,59, 3,17, 3,26,40,12		8,42
54″	19,12, 7,24,41,45,56,39,16,31		1,24,13,46,39	
		1,59, 3,15,39,12,53,33		8,42
56″	19,12, 9,23,45, 1,35,52,10, 4		1,24,13,55,21	
		1,59, 3,14,14,58,58,12		8,42
58″	19,12,11,22,48,15,50,51, 8,16		1,24,14, 4, 3	
		1,59, 3,12,50,44,54, 9		
60″	19,12,13,21,51,28,41,36, 2,25			
exact	19,12,13,21,51,28,41,35,45,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°40′ 0″	19,12,13,21,51,28,41,35,45,25			
		1,59, 3,11,26,30,39,35		
2″	19,12,15,20,54,40, 8, 6,25, 0		1,24,14,21,34	
		1,59, 3,10, 2,16,18, 1		8,42
4″	19,12,17,19,57,50,10,22,43, 1		1,24,14,30,16	
		1,59, 3, 8,38, 1,47,45		8,42
6″	19,12,19,19, 0,58,48,24,30,46		1,24,14,38,58	
		1,59, 3, 7,13,47, 8,47		8,42
8″	19,12,21,18, 4, 6, 2,11,39,33		1,24,14,47,40	
		1,59, 3, 5,49,32,21, 7		8,42
10″	19,12,23,17, 7,11,51,44, 0,40		1,24,14,56,22	
		1,59, 3, 4,25,17,24,45		8,42
12″	19,12,25,16,10,16,17, 1,25,25		1,24,15, 5, 4	
		1,59, 3, 3, 1, 2,19,41		8,42
14″	19,12,27,15,13,19,18, 3,45, 6		1,24,15,13,46	
		1,59, 3, 1,36,47, 5,55		8,42
16″	19,12,29,14,16,20,54,50,51, 1		1,24,15,22,28	
		1,59, 3, 0,12,31,43,27		8,42
18″	19,12,31,13,19,21, 7,22,34,28		1,24,15,31,10	
		1,59, 2,58,48,16,12,17		8,42
20″	19,12,33,12,22,19,55,38,46,45		1,24,15,39,52	
		1,59, 2,57,24, 0,32,25		8,42
22″	19,12,35,11,25,17,19,39,19,10		1,24,15,48,34	
		1,59, 2,55,59,44,43,51		8,42
24″	19,12,37,10,28,13,19,24, 3, 1		1,24,15,57,16	
		1,59, 2,54,35,28,46,35		8,42
26″	19,12,39, 9,31, 7,54,52,49,36		1,24,16, 5,58	
		1,59, 2,53,11,12,40,37		8,42
28″	19,12,41, 8,34, 1, 6, 5,30,13		1,24,16,14,40	
		1,59, 2,51,46,56,25,57		8,42
30″	19,12,43, 7,36,52,53, 1,56,10		1,24,16,23,22	
		1,59, 2,50,22,40, 2,35		8,42
32″	19,12,45, 6,39,43,15,41,58,45		1,24,16,32, 4	
		1,59, 2,48,58,23,30,31		8,42
34″	19,12,47, 5,42,32,14, 5,29,16		1,24,16,40,46	
		1,59, 2,47,34, 6,49,45		8,42
36″	19,12,49, 4,45,19,48,12,19, 1		1,24,16,49,28	
		1,59, 2,46, 9,50, 0,17		8,42
38″	19,12,51, 3,48, 5,58, 2,19,18		1,24,16,58,10	
		1,59, 2,44,45,33, 2, 7		8,42
40″	19,12,53, 2,50,50,43,35,21,25		1,24,17, 6,52	
		1,59, 2,43,21,15,55,15		8,42
42″	19,12,55, 1,53,34, 4,51,16,40		1,24,17,15,34	
		1,59, 2,41,56,58,39,41		8,42
44″	19,12,57, 0,56,16, 1,49,56,21		1,24,17,24,16	
		1,59, 2,40,32,41,15,25		8,42
46″	19,12,58,59,58,56,34,31,11,46		1,24,17,32,58	
		1,59, 2,39, 8,23,42,27		8,42
48″	19,13, 0,59, 1,35,42,54,54,13		1,24,17,41,40	
		1,59, 2,37,44, 6, 0,47		8,42
50″	19,13, 2,58, 4,13,27, 0,55, 0		1,24,17,50,22	
		1,59, 2,36,19,48,10,25		8,42
52″	19,13, 4,57, 6,49,46,49, 5,25		1,24,17,59, 4	
		1,59, 2,34,55,30,11,21		8,42
54″	19,13, 6,56, 9,24,42,19,16,46		1,24,18, 7,46	
		1,59, 2,33,31,12, 3,35		8,42
56″	19,13, 8,55,11,58,13,31,20,21		1,24,18,16,28	
		1,59, 2,32, 6,53,47, 7		8,42
58″	19,13,10,54,14,30,20,25, 7,28		1,24,18,25,10	
		1,59, 2,30,42,35,21,57		
60″	19,13,12,53,17, 1, 3, 0,29,25			
exact	19,13,12,53,17, 1, 3, 0,11,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°41′ 0″	19,13,12,53,17, 1, 3, 0,11,58			
		1,59, 2,29,18,16,46,22		
2″	19,13,14,52,19,30,21,16,58,20		1,24,18,42,40	
		1,59, 2,27,53,58, 3,42		8,42
4″	19,13,16,51,21,58,15,15, 2, 2		1,24,18,51,22	
		1,59, 2,26,29,39,12,20		8,42
6″	19,13,18,50,24,24,44,54,14,22		1,24,19, 0, 4	
		1,59, 2,25, 5,20,12,16		8,42
8″	19,13,20,49,26,49,50,14,26,38		1,24,19, 8,46	
		1,59, 2,23,41, 1, 3,30		8,42
10″	19,13,22,48,29,13,31,15,30, 8		1,24,19,17,28	
		1,59, 2,22,16,41,46, 2		8,42
12″	19,13,24,47,31,35,47,57,16,10		1,24,19,26,10	
		1,59, 2,20,52,22,19,52		8,42
14″	19,13,26,46,33,56,40,19,36, 2		1,24,19,34,52	
		1,59, 2,19,28, 2,45, 0		8,42
16″	19,13,28,45,36,16, 8,22,21, 2		1,24,19,43,34	
		1,59, 2,18, 3,43, 1,26		8,42
18″	19,13,30,44,38,34,12, 5,22,28		1,24,19,52,16	
		1,59, 2,16,39,23, 9,10		8,42
20″	19,13,32,43,40,50,51,28,31,38		1,24,20, 0,58	
		1,59, 2,15,15, 3, 8,12		8,42
22″	19,13,34,42,43, 6, 6,31,39,50		1,24,20, 9,40	
		1,59, 2,13,50,42,58,32		8,42
24″	19,13,36,41,45,19,57,14,38,22		1,24,20,18,22	
		1,59, 2,12,26,22,40,10		8,42
26″	19,13,38,40,47,32,23,37,18,32		1,24,20,27, 4	
		1,59, 2,11, 2, 2,13, 6		8,42
28″	19,13,40,39,49,43,25,39,31,38		1,24,20,35,46	
		1,59, 2, 9,37,41,37,20		8,42
30″	19,13,42,38,51,53, 3,21, 8,58		1,24,20,44,28	
		1,59, 2, 8,13,20,52,52		8,42
32″	19,13,44,37,54, 1,16,42, 1,50		1,24,20,53,10	
		1,59, 2, 6,48,59,59,42		8,42
34″	19,13,46,36,56, 8, 5,42, 1,32		1,24,21, 1,52	
		1,59, 2, 5,24,38,57,50		8,42
36″	19,13,48,35,58,13,30,20,59,22		1,24,21,10,34	
		1,59, 2, 4, 0,17,47,16		8,42
38″	19,13,50,35, 0,17,30,38,46,38		1,24,21,19,16	
		1,59, 2, 2,35,56,28, 0		8,42
40″	19,13,52,34, 2,20, 6,35,14,38		1,24,21,27,58	
		1,59, 2, 1,11,35, 0, 2		8,42
42″	19,13,54,33, 4,21,18,10,14,40		1,24,21,36,40	
		1,59, 1,59,47,13,23,22		8,42
44″	19,13,56,32, 6,21, 5,23,38, 2		1,24,21,45,22	
		1,59, 1,58,22,51,38, 0		8,42
46″	19,13,58,31, 8,19,28,15,16, 2		1,24,21,54, 4	
		1,59, 1,56,58,29,43,56		8,42
48″	19,14, 0,30,10,16,26,44,59,58		1,24,22, 2,46	
		1,59, 1,55,34, 7,41,10		8,42
50″	19,14, 2,29,12,12, 0,52,41, 8		1,24,22,11,28	
		1,59, 1,54, 9,45,29,42		8,42
52″	19,14, 4,28,14, 6,10,38,10,50		1,24,22,20,10	
		1,59, 1,52,45,23, 9,32		8,42
54″	19,14, 6,27,15,58,56, 1,20,22		1,24,22,28,52	
		1,59, 1,51,21, 0,40,40		8,42
56″	19,14, 8,26,17,50,17, 2, 1, 2		1,24,22,37,34	
		1,59, 1,49,56,38, 3, 6		8,42
58″	19,14,10,25,19,40,13,40, 4, 8		1,24,22,46,16	
		1,59, 1,48,32,15,16,50		
60″	19,14,12,24,21,28,45,55,20,58			
exact	19,14,12,24,21,28,45,55, 7,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°42′ 0″	19,14,12,24,21,28,45,55, 7,25			
		1,59, 1,47, 7,52,20,33		
2″	19,14,14,23,23,15,53,47,27,58		1,24,23, 3,45	
		1,59, 1,45,43,29,16,48		8,42
4″	19,14,16,22,25, 1,37,16,44,46		1,24,23,12,27	
		1,59, 1,44,19, 6, 4,21		8,42
6″	19,14,18,21,26,45,56,22,49, 7		1,24,23,21, 9	
		1,59, 1,42,54,42,43,12		8,42
8″	19,14,20,20,28,28,51, 5,32,19		1,24,23,29,51	
		1,59, 1,41,30,19,13,21		8,42
10″	19,14,22,19,30,10,21,24,45,40		1,24,23,38,33	
		1,59, 1,40, 5,55,34,48		8,42
12″	19,14,24,18,31,50,27,20,20,28		1,24,23,47,15	
		1,59, 1,38,41,31,47,33		8,42
14″	19,14,26,17,33,29, 8,52, 8, 1		1,24,23,55,57	
		1,59, 1,37,17, 7,51,36		8,42
16″	19,14,28,16,35, 6,25,59,59,37		1,24,24, 4,39	
		1,59, 1,35,52,43,46,57		8,42
18″	19,14,30,15,36,42,18,43,46,34		1,24,24,13,21	
		1,59, 1,34,28,19,33,36		8,42
20″	19,14,32,14,38,16,47, 3,20,10		1,24,24,22, 3	
		1,59, 1,33, 3,55,11,33		8,42
22″	19,14,34,13,39,49,50,58,31,43		1,24,24,30,45	
		1,59, 1,31,39,30,40,48		8,42
24″	19,14,36,12,41,21,30,29,12,31		1,24,24,39,27	
		1,59, 1,30,15, 6, 1,21		8,42
26″	19,14,38,11,42,51,45,35,13,52		1,24,24,48, 9	
		1,59, 1,28,50,41,13,12		8,42
28″	19,14,40,10,44,20,36,16,27, 4		1,24,24,56,51	
		1,59, 1,27,26,16,16,21		8,42
30″	19,14,42, 9,45,48, 2,32,43,25		1,24,25, 5,33	
		1,59, 1,26, 1,51,10,48		8,42
32″	19,14,44, 8,47,14, 4,23,54,13		1,24,25,14,15	
		1,59, 1,24,37,25,56,33		8,42
34″	19,14,46, 7,48,38,41,49,50,46		1,24,25,22,57	
		1,59, 1,23,13, 0,33,36		8,42
36″	19,14,48, 6,50, 1,54,50,24,22		1,24,25,31,39	
		1,59, 1,21,48,35, 1,57		8,42
38″	19,14,50, 5,51,23,43,25,26,19		1,24,25,40,21	
		1,59, 1,20,24, 9,21,36		8,42
40″	19,14,52, 4,52,44, 7,34,47,55		1,24,25,49, 3	
		1,59, 1,18,59,43,32,33		8,42
42″	19,14,54, 3,54, 3, 7,18,20,28		1,24,25,57,45	
		1,59, 1,17,35,17,34,48		8,42
44″	19,14,56, 2,55,20,42,35,55,16		1,24,26, 6,27	
		1,59, 1,16,10,51,28,21		8,42
46″	19,14,58, 1,56,36,53,27,23,37		1,24,26,15, 9	
		1,59, 1,14,46,25,13,12		8,42
48″	19,15, 0, 0,57,51,39,52,36,49		1,24,26,23,51	
		1,59, 1,13,21,58,49,21		8,42
50″	19,15, 1,59,59, 5, 1,51,26,10		1,24,26,32,33	
		1,59, 1,11,57,32,16,48		8,42
52″	19,15, 3,59, 0,16,59,23,42,58		1,24,26,41,15	
		1,59, 1,10,33, 5,35,33		8,42
54″	19,15, 5,58, 1,27,32,29,18,31		1,24,26,49,57	
		1,59, 1, 9, 8,38,45,36		8,42
56″	19,15, 7,57, 2,36,41, 8, 4, 7		1,24,26,58,39	
		1,59, 1, 7,44,11,46,57		8,42
58″	19,15, 9,56, 3,44,25,19,51, 4		1,24,27, 7,21	
		1,59, 1, 6,19,44,39,36		
60″	19,15,11,55, 4,50,45, 4,30,40			
exact	19,15,11,55, 4,50,45, 4,24,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°43′ 0″	19,15,11,55, 4,50,45, 4,24,31			
		1,59, 1, 4,55,17,22,53		
2″	19,15,13,54, 5,55,40,21,47,24		1,24,27,24,48	
		1,59, 1, 3,30,49,58, 5		8,42
4″	19,15,15,53, 6,59,11,11,45,29		1,24,27,33,30	
		1,59, 1, 2, 6,22,24,35		8,42
6″	19,15,17,52, 8, 1,17,34,10, 4		1,24,27,42,12	
		1,59, 1, 0,41,54,42,23		8,42
8″	19,15,19,51, 9, 1,59,28,52,27		1,24,27,50,54	
		1,59, 0,59,17,26,51,29		8,42
10″	19,15,21,50,10, 1,16,55,43,56		1,24,27,59,36	
		1,59, 0,57,52,58,51,53		8,42
12″	19,15,23,49,10,59, 9,54,35,49		1,24,28, 8,18	
		1,59, 0,56,28,30,43,35		8,42
14″	19,15,25,48,11,55,38,25,19,24		1,24,28,17, 0	
		1,59, 0,55, 4, 2,26,35		8,42
16″	19,15,27,47,12,50,42,27,45,59		1,24,28,25,42	
		1,59, 0,53,39,34, 0,53		8,42
18″	19,15,29,46,13,44,22, 1,46,52		1,24,28,34,24	
		1,59, 0,52,15, 5,26,29		8,42
20″	19,15,31,45,14,36,37, 7,13,21		1,24,28,43, 6	
		1,59, 0,50,50,36,43,23		8,42
22″	19,15,33,44,15,27,27,43,56,44		1,24,28,51,48	
		1,59, 0,49,26, 7,51,35		8,42
24″	19,15,35,43,16,16,53,51,48,19		1,24,29, 0,30	
		1,59, 0,48, 1,38,51, 5		8,42
26″	19,15,37,42,17, 4,55,30,39,24		1,24,29, 9,12	
		1,59, 0,46,37, 9,41,53		8,42
28″	19,15,39,41,17,51,32,40,21,17		1,24,29,17,54	
		1,59, 0,45,12,40,23,59		8,42
30″	19,15,41,40,18,36,45,20,45,16		1,24,29,26,36	
		1,59, 0,43,48,10,57,23		8,42
32″	19,15,43,39,19,20,33,31,42,39		1,24,29,35,18	
		1,59, 0,42,23,41,22, 5		8,42
34″	19,15,45,38,20, 2,57,13, 4,44		1,24,29,44, 0	
		1,59, 0,40,59,11,38, 5		8,42
36″	19,15,47,37,20,43,56,24,42,49		1,24,29,52,42	
		1,59, 0,39,34,41,45,23		8,42
38″	19,15,49,36,21,23,31, 6,28,12		1,24,30, 1,24	
		1,59, 0,38,10,11,43,59		8,42
40″	19,15,51,35,22, 1,41,18,12,11		1,24,30,10, 6	
		1,59, 0,36,45,41,33,53		8,42
42″	19,15,53,34,22,38,26,59,46, 4		1,24,30,18,48	
		1,59, 0,35,21,11,15, 5		8,42
44″	19,15,55,33,23,13,48,11, 1, 9		1,24,30,27,30	
		1,59, 0,33,56,40,47,35		8,42
46″	19,15,57,32,23,47,44,51,48,44		1,24,30,36,12	
		1,59, 0,32,32,10,11,23		8,42
48″	19,15,59,31,24,20,17, 2, 0, 7		1,24,30,44,54	
		1,59, 0,31, 7,39,26,29		8,42
50″	19,16, 1,30,24,51,24,41,26,36		1,24,30,53,36	
		1,59, 0,29,43, 8,32,53		8,42
52″	19,16, 3,29,25,21, 7,49,59,29		1,24,31, 2,18	
		1,59, 0,28,18,37,30,35		8,42
54″	19,16, 5,28,25,49,26,27,30, 4		1,24,31,11, 0	
		1,59, 0,26,54, 6,19,35		8,42
56″	19,16, 7,27,26,16,20,33,49,39		1,24,31,19,42	
		1,59, 0,25,29,34,59,53		8,42
58″	19,16, 9,26,26,41,50, 8,49,32		1,24,31,28,24	
		1,59, 0,24, 5, 3,31,29		
60″	19,16,11,25,27, 5,55,12,21, 1			
exact	19,16,11,25,27, 5,55,12,19, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°44′ 0″	19,16,11,25,27, 5,55,12,19, 8			
		1,59, 0,22,40,31,54, 8		
2″	19,16,13,24,27,28,35,44,13,16		1,24,31,45,49	
		1,59, 0,21,16, 0, 8,19		8,42
4″	19,16,15,23,27,49,51,44,21,35		1,24,31,54,31	
		1,59, 0,19,51,28,13,48		8,42
6″	19,16,17,22,28, 9,43,12,35,23		1,24,32, 3,13	
		1,59, 0,18,26,56,10,35		8,42
8″	19,16,19,21,28,28,10, 8,45,58		1,24,32,11,55	
		1,59, 0,17, 2,23,58,40		8,42
10″	19,16,21,20,28,45,12,32,44,38		1,24,32,20,37	
		1,59, 0,15,37,51,38, 3		8,42
12″	19,16,23,19,29, 0,50,24,22,41		1,24,32,29,19	
		1,59, 0,14,13,19, 8,44		8,42
14″	19,16,25,18,29,15, 3,43,31,25		1,24,32,38, 1	
		1,59, 0,12,48,46,30,43		8,42
16″	19,16,27,17,29,27,52,30, 2, 8		1,24,32,46,43	
		1,59, 0,11,24,13,44, 0		8,42
18″	19,16,29,16,29,39,16,43,46, 8		1,24,32,55,25	
		1,59, 0, 9,59,40,48,35		8,42
20″	19,16,31,15,29,49,16,24,34,43		1,24,33, 4, 7	
		1,59, 0, 8,35, 7,44,28		8,42
22″	19,16,33,14,29,57,51,32,19,11		1,24,33,12,49	
		1,59, 0, 7,10,34,31,39		8,42
24″	19,16,35,13,30, 5, 2, 6,50,50		1,24,33,21,31	
		1,59, 0, 5,46, 1,10, 8		8,42
26″	19,16,37,12,30,10,48, 8, 0,58		1,24,33,30,13	
		1,59, 0, 4,21,27,39,55		8,42
28″	19,16,39,11,30,15, 9,35,40,53		1,24,33,38,55	
		1,59, 0, 2,56,54, 1, 0		8,42
30″	19,16,41,10,30,18, 6,29,41,53		1,24,33,47,37	
		1,59, 0, 1,32,20,13,23		8,42
32″	19,16,43, 9,30,19,38,49,55,16		1,24,33,56,19	
		1,59, 0, 0, 7,46,17, 4		8,42
34″	19,16,45, 8,30,19,46,36,12,20		1,24,34, 5, 1	
		1,58,59,58,43,12,12, 3		8,42
36″	19,16,47, 7,30,18,29,48,24,23		1,24,34,13,43	
		1,58,59,57,18,37,58,20		8,42
38″	19,16,49, 6,30,15,48,26,22,43		1,24,34,22,25	
		1,58,59,55,54, 3,35,55		8,42
40″	19,16,51, 5,30,11,42,29,58,38		1,24,34,31, 7	
		1,58,59,54,29,29, 4,48		8,42
42″	19,16,53, 4,30, 6,11,59, 3,26		1,24,34,39,49	
		1,58,59,53, 4,54,24,59		8,42
44″	19,16,55, 3,29,59,16,53,28,25		1,24,34,48,31	
		1,58,59,51,40,19,36,28		8,42
46″	19,16,57, 2,29,50,57,13, 4,53		1,24,34,57,13	
		1,58,59,50,15,44,39,15		8,42
48″	19,16,59, 1,29,41,12,57,44, 8		1,24,35, 5,55	
		1,58,59,48,51, 9,33,20		8,42
50″	19,17, 1, 0,29,30, 4, 7,17,28		1,24,35,14,37	
		1,58,59,47,26,34,18,43		8,42
52″	19,17, 2,59,29,17,30,41,36,11		1,24,35,23,19	
		1,58,59,46, 1,58,55,24		8,42
54″	19,17, 4,58,29, 3,32,40,31,35		1,24,35,32, 1	
		1,58,59,44,37,23,23,23		8,42
56″	19,17, 6,57,28,48,10, 3,54,58		1,24,35,40,43	
		1,58,59,43,12,47,42,40		8,42
58″	19,17, 8,56,28,31,22,51,37,38		1,24,35,49,25	
		1,58,59,41,48,11,53,15		
60″	19,17,10,55,28,13,11, 3,30,53			
exact	19,17,10,55,28,13,11, 3,30,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°45′ 0″	19,17,10,55,28,13,11, 3,30,15			
		1,58,59,40,23,35,55, 6		
2″	19,17,12,54,27,53,34,39,25,21		1,24,36, 6,49	
		1,58,59,38,58,59,48,17		8,42
4″	19,17,14,53,27,32,33,39,13,38		1,24,36,15,31	
		1,58,59,37,34,23,32,46		8,42
6″	19,17,16,52,27,10, 8, 2,46,24		1,24,36,24,13	
		1,58,59,36, 9,47, 8,33		8,42
8″	19,17,18,51,26,46,17,49,54,57		1,24,36,32,55	
		1,58,59,34,45,10,35,38		8,42
10″	19,17,20,50,26,21, 3, 0,30,35		1,24,36,41,37	
		1,58,59,33,20,33,54, 1		8,42
12″	19,17,22,49,25,54,23,34,24,36		1,24,36,50,19	
		1,58,59,31,55,57, 3,42		8,42
14″	19,17,24,48,25,26,19,31,28,18		1,24,36,59, 1	
		1,58,59,30,31,20, 4,41		8,42
16″	19,17,26,47,24,56,50,51,32,59		1,24,37, 7,43	
		1,58,59,29, 6,42,56,58		8,42
18″	19,17,28,46,24,25,57,34,29,57		1,24,37,16,25	
		1,58,59,27,42, 5,40,33		8,42
20″	19,17,30,45,23,53,39,40,10,30		1,24,37,25, 7	
		1,58,59,26,17,28,15,26		8,42
22″	19,17,32,44,23,19,57, 8,25,56		1,24,37,33,49	
		1,58,59,24,52,50,41,37		8,42
24″	19,17,34,43,22,44,49,59, 7,33		1,24,37,42,31	
		1,58,59,23,28,12,59, 6		8,42
26″	19,17,36,42,22, 8,18,12, 6,39		1,24,37,51,13	
		1,58,59,22, 3,35, 7,53		8,42
28″	19,17,38,41,21,30,21,47,14,32		1,24,37,59,55	
		1,58,59,20,38,57, 7,58		8,42
30″	19,17,40,40,20,51, 0,44,22,30		1,24,38, 8,37	
		1,58,59,19,14,18,59,21		8,42
32″	19,17,42,39,20,10,15, 3,21,51		1,24,38,17,19	
		1,58,59,17,49,40,42, 2		8,42
34″	19,17,44,38,19,28, 4,44, 3,53		1,24,38,26, 1	
		1,58,59,16,25, 2,16, 1		8,42
36″	19,17,46,37,18,44,29,46,19,54		1,24,38,34,43	
		1,58,59,15, 0,23,41,18		8,42
38″	19,17,48,36,17,59,30,10, 1,12		1,24,38,43,25	
		1,58,59,13,35,44,57,53		8,42
40″	19,17,50,35,17,13, 5,54,59, 5		1,24,38,52, 7	
		1,58,59,12,11, 6, 5,46		8,42
42″	19,17,52,34,16,25,17, 1, 4,51		1,24,39, 0,49	
		1,58,59,10,46,27, 4,57		8,42
44″	19,17,54,33,15,36, 3,28, 9,48		1,24,39, 9,31	
		1,58,59, 9,21,47,55,26		8,42
46″	19,17,56,32,14,45,25,16, 5,14		1,24,39,18,13	
		1,58,59, 7,57, 8,37,13		8,42
48″	19,17,58,31,13,53,22,24,42,27		1,24,39,26,55	
		1,58,59, 6,32,29,10,18		8,42
50″	19,18, 0,30,12,59,54,53,52,45		1,24,39,35,37	
		1,58,59, 5, 7,49,34,41		8,42
52″	19,18, 2,29,12, 5, 2,43,27,26		1,24,39,44,19	
		1,58,59, 3,43, 9,50,22		8,42
54″	19,18, 4,28,11, 8,45,53,17,48		1,24,39,53, 1	
		1,58,59, 2,18,29,57,21		8,42
56″	19,18, 6,27,10,11, 4,23,15, 9		1,24,40, 1,43	
		1,58,59, 0,53,49,55,38		8,42
58″	19,18, 8,26, 9,11,58,13,10,47		1,24,40,10,25	
		1,58,58,59,29, 9,45,13		
60″	19,18,10,25, 8,11,27,22,56, 0			
exact	19,18,10,25, 8,11,27,23, 0, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°46′ 0″	19,18,10,25, 8,11,27,23, 0, 5			
		1,58,58,58, 4,29,26,32		
2″	19,18,12,24, 7, 9,31,52,26,37		1,24,40,27,47	
		1,58,58,56,39,48,58,45		8,42
4″	19,18,14,23, 6, 6,11,41,25,22		1,24,40,36,29	
		1,58,58,55,15, 8,22,16		8,42
6″	19,18,16,22, 5, 1,26,49,47,38		1,24,40,45,11	
		1,58,58,53,50,27,37, 5		8,42
8″	19,18,18,21, 3,55,17,17,24,43		1,24,40,53,53	
		1,58,58,52,25,46,43,12		8,42
10″	19,18,20,20, 2,47,43, 4, 7,55		1,24,41, 2,35	
		1,58,58,51, 1, 5,40,37		8,42
12″	19,18,22,19, 1,38,44, 9,48,32		1,24,41,11,17	
		1,58,58,49,36,24,29,20		8,42
14″	19,18,24,18, 0,28,20,34,17,52		1,24,41,19,59	
		1,58,58,48,11,43, 9,21		8,42
16″	19,18,26,16,59,16,32,17,27,13		1,24,41,28,41	
		1,58,58,46,47, 1,40,40		8,42
18″	19,18,28,15,58, 3,19,19, 7,53		1,24,41,37,23	
		1,58,58,45,22,20, 3,17		8,42
20″	19,18,30,14,56,48,41,39,11,10		1,24,41,46, 5	
		1,58,58,43,57,38,17,12		8,42
22″	19,18,32,13,55,32,39,17,28,22		1,24,41,54,47	
		1,58,58,42,32,56,22,25		8,42
24″	19,18,34,12,54,15,12,13,50,47		1,24,42, 3,29	
		1,58,58,41, 8,14,18,56		8,42
26″	19,18,36,11,52,56,20,28, 9,43		1,24,42,12,11	
		1,58,58,39,43,32, 6,45		8,42
28″	19,18,38,10,51,36, 4, 0,16,28		1,24,42,20,53	
		1,58,58,38,18,49,45,52		8,42
30″	19,18,40, 9,50,14,22,50, 2,20		1,24,42,29,35	
		1,58,58,36,54, 7,16,17		8,42
32″	19,18,42, 8,48,51,16,57,18,37		1,24,42,38,17	
		1,58,58,35,29,24,38, 0		8,42
34″	19,18,44, 7,47,26,46,21,56,37		1,24,42,46,59	
		1,58,58,34, 4,41,51, 1		8,42
36″	19,18,46, 6,46, 0,51, 3,47,38		1,24,42,55,41	
		1,58,58,32,39,58,55,20		8,42
38″	19,18,48, 5,44,33,31, 2,42,58		1,24,43, 4,23	
		1,58,58,31,15,15,50,57		8,42
40″	19,18,50, 4,43, 4,46,18,33,55		1,24,43,13, 5	
		1,58,58,29,50,32,37,52		8,42
42″	19,18,52, 3,41,34,36,51,11,47		1,24,43,21,47	
		1,58,58,28,25,49,16, 5		8,42
44″	19,18,54, 2,40, 3, 2,40,27,52		1,24,43,30,29	
		1,58,58,27, 1, 5,45,36		8,42
46″	19,18,56, 1,38,30, 3,46,13,28		1,24,43,39,11	
		1,58,58,25,36,22, 6,25		8,42
48″	19,18,58, 0,36,55,40, 8,19,53		1,24,43,47,53	
		1,58,58,24,11,38,18,32		8,42
50″	19,18,59,59,35,19,51,46,38,25		1,24,43,56,35	
		1,58,58,22,46,54,21,57		8,42
52″	19,19, 1,58,33,42,38,41, 0,22		1,24,44, 5,17	
		1,58,58,21,22,10,16,40		8,42
54″	19,19, 3,57,32, 4, 0,51,17, 2		1,24,44,13,59	
		1,58,58,19,57,26, 2,41		8,42
56″	19,19, 5,56,30,23,58,17,19,43		1,24,44,22,41	
		1,58,58,18,32,41,40, 0		8,42
58″	19,19, 7,55,28,42,30,58,59,43		1,24,44,31,23	
		1,58,58,17, 7,57, 8,37		
60″	19,19, 9,54,26,59,38,56, 8,20			
exact	19,19, 9,54,26,59,38,56,13,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°47′ 0″	19,19, 9,54,26,59,38,56,13,59			
		1,58,58,15,43,12,29,12		
2″	19,19,11,53,25,15,22, 8,43,11		1,24,44,48,44	
		1,58,58,14,18,27,40,28		8,42
4″	19,19,13,52,23,29,40,36,23,39		1,24,44,57,26	
		1,58,58,12,53,42,43, 2		8,42
6″	19,19,15,51,21,42,34,19, 6,41		1,24,45, 6, 8	
		1,58,58,11,28,57,36,54		8,42
8″	19,19,17,50,19,54, 3,16,43,35		1,24,45,14,50	
		1,58,58,10, 4,12,22, 4		8,42
10″	19,19,19,49,18, 4, 7,29, 5,39		1,24,45,23,32	
		1,58,58, 8,39,26,58,32		8,42
12″	19,19,21,48,16,12,46,56, 4,11		1,24,45,32,14	
		1,58,58, 7,14,41,26,18		8,42
14″	19,19,23,47,14,20, 1,37,30,29		1,24,45,40,56	
		1,58,58, 5,49,55,45,22		8,42
16″	19,19,25,46,12,25,51,33,15,51		1,24,45,49,38	
		1,58,58, 4,25, 9,55,44		8,42
18″	19,19,27,45,10,30,16,43,11,35		1,24,45,58,20	
		1,58,58, 3, 0,23,57,24		8,42
20″	19,19,29,44, 8,33,17, 7, 8,59		1,24,46, 7, 2	
		1,58,58, 1,35,37,50,22		8,42
22″	19,19,31,43, 6,34,52,44,59,21		1,24,46,15,44	
		1,58,58, 0,10,51,34,38		8,42
24″	19,19,33,42, 4,35, 3,36,33,59		1,24,46,24,26	
		1,58,57,58,46, 5,10,12		8,42
26″	19,19,35,41, 2,33,49,41,44,11		1,24,46,33, 8	
		1,58,57,57,21,18,37, 4		8,42
28″	19,19,37,40, 0,31,11, 0,21,15		1,24,46,41,50	
		1,58,57,55,56,31,55,14		8,42
30″	19,19,39,38,58,27, 7,32,16,29		1,24,46,50,32	
		1,58,57,54,31,45, 4,42		8,42
32″	19,19,41,37,56,21,39,17,21,11		1,24,46,59,14	
		1,58,57,53, 6,58, 5,28		8,42
34″	19,19,43,36,54,14,46,15,26,39		1,24,47, 7,56	
		1,58,57,51,42,10,57,32		8,42
36″	19,19,45,35,52, 6,28,26,24,11		1,24,47,16,38	
		1,58,57,50,17,23,40,54		8,42
38″	19,19,47,34,49,56,45,50, 5, 5		1,24,47,25,20	
		1,58,57,48,52,36,15,34		8,42
40″	19,19,49,33,47,45,38,26,20,39		1,24,47,34, 2	
		1,58,57,47,27,48,41,32		8,42
42″	19,19,51,32,45,33, 6,15, 2,11		1,24,47,42,44	
		1,58,57,46, 3, 0,58,48		8,42
44″	19,19,53,31,43,19, 9,16, 0,59		1,24,47,51,26	
		1,58,57,44,38,13, 7,22		8,42
46″	19,19,55,30,41, 3,47,29, 8,21		1,24,48, 0, 8	
		1,58,57,43,13,25, 7,14		8,42
48″	19,19,57,29,38,47, 0,54,15,35		1,24,48, 8,50	
		1,58,57,41,48,36,58,24		8,42
50″	19,19,59,28,36,28,49,31,13,59		1,24,48,17,32	
		1,58,57,40,23,48,40,52		8,42
52″	19,20, 1,27,34, 9,13,19,54,51		1,24,48,26,14	
		1,58,57,38,59, 0,14,38		8,42
54″	19,20, 3,26,31,48,12,20, 9,29		1,24,48,34,56	
		1,58,57,37,34,11,39,42		8,42
56″	19,20, 5,25,29,25,46,31,49,11		1,24,48,43,38	
		1,58,57,36, 9,22,56, 4		8,42
58″	19,20, 7,24,27, 1,55,54,45,15		1,24,48,52,20	
		1,58,57,34,44,34, 3,44		
60″	19,20, 9,23,24,36,40,28,48,59			
exact	19,20, 9,23,24,36,40,29, 0,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°48′ 0″	19,20, 9,23,24,36,40,29, 0,35	1,58,57,33,19,45, 3,54		
2″	19,20,11,22,22,10, 0,14, 4,29	1,58,57,31,54,55,54,15	1,24,49, 9,39	8,42
4″	19,20,13,21,19,41,55, 9,58,44	1,58,57,30,30, 6,35,54	1,24,49,18,21	8,42
6″	19,20,15,20,17,12,25,16,34,38	1,58,57,29, 5,17, 8,51	1,24,49,27, 3	8,42
8″	19,20,17,19,14,41,30,33,43,29	1,58,57,27,40,27,33, 6	1,24,49,35,45	8,42
10″	19,20,19,18,12, 9,11, 1,16,35	1,58,57,26,15,37,48,39	1,24,49,44,27	8,42
12″	19,20,21,17, 9,35,26,39, 5,14	1,58,57,24,50,47,55,30	1,24,49,53, 9	8,42
14″	19,20,23,16, 7, 0,17,27, 0,44	1,58,57,23,25,57,53,39	1,24,50, 1,51	8,42
16″	19,20,25,15, 4,23,43,24,54,23	1,58,57,22, 1, 7,43, 6	1,24,50,10,33	8,42
18″	19,20,27,14, 1,45,44,32,37,29	1,58,57,20,36,17,23,51	1,24,50,19,15	8,42
20″	19,20,29,12,59, 6,20,50, 1,20	1,58,57,19,11,26,55,54	1,24,50,27,57	8,42
22″	19,20,31,11,56,25,32,16,57,14	1,58,57,17,46,36,19,15	1,24,50,36,39	8,42
24″	19,20,33,10,53,43,18,53,16,29	1,58,57,16,21,45,33,54	1,24,50,45,21	8,42
26″	19,20,35, 9,50,59,40,38,50,23	1,58,57,14,56,54,39,51	1,24,50,54, 3	8,42
28″	19,20,37, 8,48,14,37,33,30,14	1,58,57,13,32, 3,37, 6	1,24,51, 2,45	8,42
30″	19,20,39, 7,45,28, 9,37, 7,20	1,58,57,12, 7,12,25,39	1,24,51,11,27	8,42
32″	19,20,41, 6,42,40,16,49,32,59	1,58,57,10,42,21, 5,30	1,24,51,20, 9	8,42
34″	19,20,43, 5,39,50,59,10,38,29	1,58,57, 9,17,29,36,39	1,24,51,28,51	8,42
36″	19,20,45, 4,37, 0,16,40,15, 8	1,58,57, 7,52,37,59, 6	1,24,51,37,33	8,42
38″	19,20,47, 3,34, 8, 9,18,14,14	1,58,57, 6,27,46,12,51	1,24,51,46,15	8,42
40″	19,20,49, 2,31,14,37, 4,27, 5	1,58,57, 5, 2,54,17,54	1,24,51,54,57	8,42
42″	19,20,51, 1,28,19,39,58,44,59	1,58,57, 3,38, 2,14,15	1,24,52, 3,39	8,42
44″	19,20,53, 0,25,23,18, 0,59,14	1,58,57, 2,13,10, 1,54	1,24,52,12,21	8,42
46″	19,20,54,59,22,25,31,11, 1, 8	1,58,57, 0,48,17,40,51	1,24,52,21, 3	8,42
48″	19,20,56,58,19,26,19,28,41,59	1,58,56,59,23,25,11, 6	1,24,52,29,45	8,42
50″	19,20,58,57,16,25,42,53,53, 5	1,58,56,57,58,32,32,39	1,24,52,38,27	8,42
52″	19,21, 0,56,13,23,41,26,25,44	1,58,56,56,33,39,45,30	1,24,52,47, 9	8,42
54″	19,21, 2,55,10,20,15, 6,11,14	1,58,56,55, 8,46,49,39	1,24,52,55,51	8,42
56″	19,21, 4,54, 7,15,23,53, 0,53	1,58,56,53,43,53,45, 6	1,24,53, 4,33	8,42
58″	19,21, 6,53, 4, 9, 7,46,45,59	1,58,56,52,19, 0,31,51	1,24,53,13,15	
60″	19,21, 8,52, 1, 1,26,47,17,50			
exact	19,21, 8,52, 1, 1,26,47,31,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°49′ 0″	19,21, 8,52, 1, 1,26,47,31,41	1,58,56,50,54, 7,11,24		
2″	19,21,10,50,57,52,20,54,43, 5	1,58,56,49,29,13,40,51	1,24,53,30,33	8,42
4″	19,21,12,49,54,41,50, 8,23,56	1,58,56,48, 4,20, 1,36	1,24,53,39,15	8,42
6″	19,21,14,48,51,29,54,28,25,32	1,58,56,46,39,26,13,39	1,24,53,47,57	8,42
8″	19,21,16,47,48,16,33,54,39,11	1,58,56,45,14,32,17, 0	1,24,53,56,39	8,42
10″	19,21,18,46,45, 1,48,26,56,11	1,58,56,43,49,38,11,39	1,24,54, 5,21	8,42
12″	19,21,20,45,41,45,38, 5, 7,50	1,58,56,42,24,43,57,36	1,24,54,14, 3	8,42
14″	19,21,22,44,38,28, 2,49, 5,26	1,58,56,40,59,49,34,51	1,24,54,22,45	8,42
16″	19,21,24,43,35, 9, 2,38,40,17	1,58,56,39,34,55, 3,24	1,24,54,31,27	8,42
18″	19,21,26,42,31,48,37,33,43,41	1,58,56,38,10, 0,23,15	1,24,54,40, 9	8,42
20″	19,21,28,41,28,26,47,34, 6,56	1,58,56,36,45, 5,34,24	1,24,54,48,51	8,42
22″	19,21,30,40,25, 3,32,39,41,20	1,58,56,35,20,10,36,51	1,24,54,57,33	8,42
24″	19,21,32,39,21,38,52,50,18,11	1,58,56,33,55,15,30,36	1,24,55, 6,15	8,42
26″	19,21,34,38,18,12,48, 5,48,47	1,58,56,32,30,20,15,39	1,24,55,14,57	8,42
28″	19,21,36,37,14,45,18,26, 4,26	1,58,56,31, 5,24,52, 0	1,24,55,23,39	8,42
30″	19,21,38,36,11,16,23,50,56,26	1,58,56,29,40,29,19,39	1,24,55,32,21	8,42
32″	19,21,40,35, 7,46, 4,20,16, 5	1,58,56,28,15,33,38,36	1,24,55,41, 3	8,42
34″	19,21,42,34, 4,14,19,53,54,41	1,58,56,26,50,37,48,51	1,24,55,49,45	8,42
36″	19,21,44,33, 0,41,10,31,43,32	1,58,56,25,25,41,50,24	1,24,55,58,27	8,42
38″	19,21,46,31,57, 6,36,13,33,56	1,58,56,24, 0,45,43,15	1,24,56, 7, 9	8,42
40″	19,21,48,30,53,30,36,59,17,11	1,58,56,22,35,49,27,24	1,24,56,15,51	8,42
42″	19,21,50,29,49,53,12,48,44,35	1,58,56,21,10,53, 2,51	1,24,56,24,33	8,42
44″	19,21,52,28,46,14,23,41,47,26	1,58,56,19,45,56,29,36	1,24,56,33,15	8,42
46″	19,21,54,27,42,34, 9,38,17, 2	1,58,56,18,20,59,47,39	1,24,56,41,57	8,42
48″	19,21,56,26,38,52,30,38, 4,41	1,58,56,16,56, 2,57, 0	1,24,56,50,39	8,42
50″	19,21,58,25,35, 9,26,41, 1,41	1,58,56,15,31, 5,57,39	1,24,56,59,21	8,42
52″	19,22, 0,24,31,24,57,46,59,20	1,58,56,14, 6, 8,49,36	1,24,57, 8, 3	8,42
54″	19,22, 2,23,27,39, 3,55,48,56	1,58,56,12,41,11,32,51	1,24,57,16,45	8,42
56″	19,22, 4,22,23,51,45, 7,21,47	1,58,56,11,16,14, 7,24	1,24,57,25,27	8,42
58″	19,22, 6,21,20, 3, 1,21,29,11	1,58,56, 9,51,16,33,15	1,24,57,34, 9	
60″	19,22, 8,20,16,12,52,38, 2,26			
exact	19,22, 8,20,16,12,52,38,22,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°50′ 0″	19,22, 8,20,16,12,52,38,22,22			
		1,58,56, 8,26,18,52,28		
2″	19,22,10,19,12,21,18,57,14,50		1,24,57,51,25	
		1,58,56, 7, 1,21, 1, 3		8,42
4″	19,22,12,18, 8,28,20,18,15,53		1,24,58, 0, 7	
		1,58,56, 5,36,23, 0,56		8,42
6″	19,22,14,17, 4,33,56,41,16,49		1,24,58, 8,49	
		1,58,56, 4,11,24,52, 7		8,42
8″	19,22,16,16, 0,38, 8, 6, 8,56		1,24,58,17,31	
		1,58,56, 2,46,26,34,36		8,42
10″	19,22,18,14,56,40,54,32,43,32		1,24,58,26,13	
		1,58,56, 1,21,28, 8,23		8,42
12″	19,22,20,13,52,42,16, 0,51,55		1,24,58,34,55	
		1,58,55,59,56,29,33,28		8,42
14″	19,22,22,12,48,42,12,30,25,23		1,24,58,43,37	
		1,58,55,58,31,30,49,51		8,42
16″	19,22,24,11,44,40,44, 1,15,14		1,24,58,52,19	
		1,58,55,57, 6,31,57,32		8,42
18″	19,22,26,10,40,37,50,33,12,46		1,24,59, 1, 1	
		1,58,55,55,41,32,56,31		8,42
20″	19,22,28, 9,36,33,32, 6, 9,17		1,24,59, 9,43	
		1,58,55,54,16,33,46,48		8,42
22″	19,22,30, 8,32,27,48,39,56, 5		1,24,59,18,25	
		1,58,55,52,51,34,28,23		8,42
24″	19,22,32, 7,28,20,40,14,24,28		1,24,59,27, 7	
		1,58,55,51,26,35, 1,16		8,42
26″	19,22,34, 6,24,12, 6,49,25,44		1,24,59,35,49	
		1,58,55,50, 1,35,25,27		8,42
28″	19,22,36, 5,20, 2, 8,24,51,11		1,24,59,44,31	
		1,58,55,48,36,35,40,56		8,42
30″	19,22,38, 4,15,50,45, 0,32, 7		1,24,59,53,13	
		1,58,55,47,11,35,47,43		8,42
32″	19,22,40, 3,11,37,56,36,19,50		1,25, 0, 1,55	
		1,58,55,45,46,35,45,48		8,42
34″	19,22,42, 2, 7,23,43,12, 5,38		1,25, 0,10,37	
		1,58,55,44,21,35,35,11		8,42
36″	19,22,44, 1, 3, 8, 4,47,40,49		1,25, 0,19,19	
		1,58,55,42,56,35,15,52		8,42
38″	19,22,45,59,58,51, 1,22,56,41		1,25, 0,28, 1	
		1,58,55,41,31,34,47,51		8,42
40″	19,22,47,58,54,32,32,57,44,32		1,25, 0,36,43	
		1,58,55,40, 6,34,11, 8		8,42
42″	19,22,49,57,50,12,39,31,55,40		1,25, 0,45,25	
		1,58,55,38,41,33,25,43		8,42
44″	19,22,51,56,45,51,21, 5,21,23		1,25, 0,54, 7	
		1,58,55,37,16,32,31,36		8,42
46″	19,22,53,55,41,28,37,37,52,59		1,25, 1, 2,49	
		1,58,55,35,51,31,28,47		8,42
48″	19,22,55,54,37, 4,29, 9,21,46		1,25, 1,11,31	
		1,58,55,34,26,30,17,16		8,42
50″	19,22,57,53,32,38,55,39,39, 2		1,25, 1,20,13	
		1,58,55,33, 1,28,57, 3		8,42
52″	19,22,59,52,28,11,57, 8,36, 5		1,25, 1,28,55	
		1,58,55,31,36,27,28, 8		8,42
54″	19,23, 1,51,23,43,33,36, 4,13		1,25, 1,37,37	
		1,58,55,30,11,25,50,31		8,42
56″	19,23, 3,50,19,13,45, 1,54,44		1,25, 1,46,19	
		1,58,55,28,46,24, 4,12		8,42
58″	19,23, 5,49,14,42,31,25,58,56		1,25, 1,55, 1	
		1,58,55,27,21,22, 9,11		
60″	19,23, 7,48,10, 9,52,48, 8, 7			
exact	19,23, 7,48,10, 9,52,48,30,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°51′ 0″	19,23, 7,48,10, 9,52,48,30,59			
		1,58,55,25,56,20, 7,52		
2″	19,23, 9,47, 5,35,49, 8,38,51		1,25, 2,12,15	
		1,58,55,24,31,17,55,37		8,42
4″	19,23,11,46, 1, 0,20,26,34,28		1,25, 2,20,57	
		1,58,55,23, 6,15,34,40		8,42
6″	19,23,13,44,56,23,26,42, 9, 8		1,25, 2,29,39	
		1,58,55,21,41,13, 5, 1		8,42
8″	19,23,15,43,51,45, 7,55,14, 9		1,25, 2,38,21	
		1,58,55,20,16,10,26,40		8,42
10″	19,23,17,42,47, 5,24, 5,40,49		1,25, 2,47, 3	
		1,58,55,18,51, 7,39,37		8,42
12″	19,23,19,41,42,24,15,13,20,26		1,25, 2,55,45	
		1,58,55,17,26, 4,43,52		8,42
14″	19,23,21,40,37,41,41,18, 4,18		1,25, 3, 4,27	
		1,58,55,16, 1, 1,39,25		8,42
16″	19,23,23,39,32,57,42,19,43,43		1,25, 3,13, 9	
		1,58,55,14,35,58,26,16		8,42
18″	19,23,25,38,28,12,18,18, 9,59		1,25, 3,21,51	
		1,58,55,13,10,55, 4,25		8,42
20″	19,23,27,37,23,25,29,13,14,24		1,25, 3,30,33	
		1,58,55,11,45,51,33,52		8,42
22″	19,23,29,36,18,37,15, 4,48,16		1,25, 3,39,15	
		1,58,55,10,20,47,54,37		8,42
24″	19,23,31,35,13,47,35,52,42,53		1,25, 3,47,57	
		1,58,55, 8,55,44, 6,40		8,42
26″	19,23,33,34, 8,56,31,36,49,33		1,25, 3,56,39	
		1,58,55, 7,30,40,10, 1		8,42
28″	19,23,35,33, 4, 4, 2,16,59,34		1,25, 4, 5,21	
		1,58,55, 6, 5,36, 4,40		8,42
30″	19,23,37,31,59,10, 7,53, 4,14		1,25, 4,14, 3	
		1,58,55, 4,40,31,50,37		8,42
32″	19,23,39,30,54,14,48,24,54,51		1,25, 4,22,45	
		1,58,55, 3,15,27,27,52		8,42
34″	19,23,41,29,49,18, 3,52,22,43		1,25, 4,31,27	
		1,58,55, 1,50,22,56,25		8,42
36″	19,23,43,28,44,19,54,15,19, 8		1,25, 4,40, 9	
		1,58,55, 0,25,18,16,16		8,42
38″	19,23,45,27,39,20,19,33,35,24		1,25, 4,48,51	
		1,58,54,59, 0,13,27,25		8,42
40″	19,23,47,26,34,19,19,47, 2,49		1,25, 4,57,33	
		1,58,54,57,35, 8,29,52		8,42
42″	19,23,49,25,29,16,54,55,32,41		1,25, 5, 6,15	
		1,58,54,56,10, 3,23,37		8,42
44″	19,23,51,24,24,13, 4,58,56,18		1,25, 5,14,57	
		1,58,54,54,44,58, 8,40		8,42
46″	19,23,53,23,19, 7,49,57, 4,58		1,25, 5,23,39	
		1,58,54,53,19,52,45, 1		8,42
48″	19,23,55,22,14, 1, 9,49,49,59		1,25, 5,32,21	
		1,58,54,51,54,47,12,40		8,42
50″	19,23,57,21, 8,53, 4,37, 2,39		1,25, 5,41, 3	
		1,58,54,50,29,41,31,37		8,42
52″	19,23,59,20, 3,43,34,18,34,16		1,25, 5,49,45	
		1,58,54,49, 4,35,41,52		8,42
54″	19,24, 1,18,58,32,38,54,16, 8		1,25, 5,58,27	
		1,58,54,47,39,29,43,25		8,42
56″	19,24, 3,17,53,20,18,23,59,33		1,25, 6, 7, 9	
		1,58,54,46,14,23,36,16		8,42
58″	19,24, 5,16,48, 6,32,47,35,49		1,25, 6,15,51	
		1,58,54,44,49,17,20,25		
60″	19,24, 7,15,42,51,22, 4,56,14			
exact	19,24, 7,15,42,51,22, 5,19,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°52′ 0″	19,24, 7,15,42,51,22, 5,19,12			
		1,58,54,43,24,10,58,24		
2″	19,24, 9,14,37,34,46,16,17,36		1,25, 6,33, 4	
		1,58,54,41,59, 4,25,20		8,42
4″	19,24,11,13,32,16,45,20,42,56		1,25, 6,41,46	
		1,58,54,40,33,57,43,34		8,42
6″	19,24,13,12,26,57,19,18,26,30		1,25, 6,50,28	
		1,58,54,39, 8,50,53, 6		8,42
8″	19,24,15,11,21,36,28, 9,19,36		1,25, 6,59,10	
		1,58,54,37,43,43,53,56		8,42
10″	19,24,17,10,16,14,11,53,13,32		1,25, 7, 7,52	
		1,58,54,36,18,36,46, 4		8,42
12″	19,24,19, 9,10,50,30,29,59,36		1,25, 7,16,34	
		1,58,54,34,53,29,29,30		8,42
14″	19,24,21, 8, 5,25,23,59,29, 6		1,25, 7,25,16	
		1,58,54,33,28,22, 4,14		8,42
16″	19,24,23, 6,59,58,52,21,33,20		1,25, 7,33,58	
		1,58,54,32, 3,14,30,16		8,42
18″	19,24,25, 5,54,30,55,36, 3,36		1,25, 7,42,40	
		1,58,54,30,38, 6,47,36		8,42
20″	19,24,27, 4,49, 1,33,42,51,12		1,25, 7,51,22	
		1,58,54,29,12,58,56,14		8,42
22″	19,24,29, 3,43,30,46,41,47,26		1,25, 8, 0, 4	
		1,58,54,27,47,50,56,10		8,42
24″	19,24,31, 2,37,58,34,32,43,36		1,25, 8, 8,46	
		1,58,54,26,22,42,47,24		8,42
26″	19,24,33, 1,32,24,57,15,31, 0		1,25, 8,17,28	
		1,58,54,24,57,34,29,56		8,42
28″	19,24,35, 0,26,49,54,50, 0,56		1,25, 8,26,10	
		1,58,54,23,32,26, 3,46		8,42
30″	19,24,36,59,21,13,27,16, 4,42		1,25, 8,34,52	
		1,58,54,22, 7,17,28,54		8,42
32″	19,24,38,58,15,35,34,33,33,36		1,25, 8,43,34	
		1,58,54,20,42, 8,45,20		8,42
34″	19,24,40,57, 9,56,16,42,18,56		1,25, 8,52,16	
		1,58,54,19,16,59,53, 4		8,42
36″	19,24,42,56, 4,15,33,42,12, 0		1,25, 9, 0,58	
		1,58,54,17,51,50,52, 6		8,42
38″	19,24,44,54,58,33,25,33, 4, 6		1,25, 9, 9,40	
		1,58,54,16,26,41,42,26		8,42
40″	19,24,46,53,52,49,52,14,46,32		1,25, 9,18,22	
		1,58,54,15, 1,32,24, 4		8,42
42″	19,24,48,52,47, 4,53,47,10,36		1,25, 9,27, 4	
		1,58,54,13,36,22,57, 0		8,42
44″	19,24,50,51,41,18,30,10, 7,36		1,25, 9,35,46	
		1,58,54,12,11,13,21,14		8,42
46″	19,24,52,50,35,30,41,23,28,50		1,25, 9,44,28	
		1,58,54,10,46, 3,36,46		8,42
48″	19,24,54,49,29,41,27,27, 5,36		1,25, 9,53,10	
		1,58,54, 9,20,53,43,36		8,42
50″	19,24,56,48,23,50,48,20,49,12		1,25,10, 1,52	
		1,58,54, 7,55,43,41,44		8,42
52″	19,24,58,47,17,58,44, 4,30,56		1,25,10,10,34	
		1,58,54, 6,30,33,31,10		8,42
54″	19,25, 0,46,12, 5,14,38, 2, 6		1,25,10,19,16	
		1,58,54, 5, 5,23,11,54		8,42
56″	19,25, 2,45, 6,10,20, 1,14, 0		1,25,10,27,58	
		1,58,54, 3,40,12,43,56		8,42
58″	19,25, 4,44, 0,14, 0,13,57,56		1,25,10,36,40	
		1,58,54, 2,15, 2, 7,16		
60″	19,25, 6,42,54,16,15,16, 5,12			
exact	19,25, 6,42,54,16,15,16,31,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°53′ 0″	19,25, 6,42,54,16,15,16,31,58			
		1,58,54, 0,49,51,24,50		
2″	19,25, 8,41,48,17, 5, 7,56,48		1,25,10,53,51	
		1,58,53,59,24,40,30,59		8,42
4″	19,25,10,40,42,16,29,48,27,47		1,25,11, 2,33	
		1,58,53,57,59,29,28,26		8,42
6″	19,25,12,39,36,14,29,17,56,13		1,25,11,11,15	
		1,58,53,56,34,18,17,11		8,42
8″	19,25,14,38,30,11, 3,36,13,24		1,25,11,19,57	
		1,58,53,55, 9, 6,57,14		8,42
10″	19,25,16,37,24, 6,12,43,10,38		1,25,11,28,39	
		1,58,53,53,43,55,28,35		8,42
12″	19,25,18,36,17,59,56,38,39,13		1,25,11,37,21	
		1,58,53,52,18,43,51,14		8,42
14″	19,25,20,35,11,52,15,22,30,27		1,25,11,46, 3	
		1,58,53,50,53,32, 5,11		8,42
16″	19,25,22,34, 5,43, 8,54,35,38		1,25,11,54,45	
		1,58,53,49,28,20,10,26		8,42
18″	19,25,24,32,59,32,37,14,46, 4		1,25,12, 3,27	
		1,58,53,48, 3, 8, 6,59		8,42
20″	19,25,26,31,53,20,40,22,53, 3		1,25,12,12, 9	
		1,58,53,46,37,55,54,50		8,42
22″	19,25,28,30,47, 7,18,18,47,53		1,25,12,20,51	
		1,58,53,45,12,43,33,59		8,42
24″	19,25,30,29,40,52,31, 2,21,52		1,25,12,29,33	
		1,58,53,43,47,31, 4,26		8,42
26″	19,25,32,28,34,36,18,33,26,18		1,25,12,38,15	
		1,58,53,42,22,18,26,11		8,42
28″	19,25,34,27,28,18,40,51,52,29		1,25,12,46,57	
		1,58,53,40,57, 5,39,14		8,42
30″	19,25,36,26,21,59,37,57,31,43		1,25,12,55,39	
		1,58,53,39,31,52,43,35		8,42
32″	19,25,38,25,15,39, 9,50,15,18		1,25,13, 4,21	
		1,58,53,38, 6,39,39,14		8,42
34″	19,25,40,24, 9,17,16,29,54,32		1,25,13,13, 3	
		1,58,53,36,41,26,26,11		8,42
36″	19,25,42,23, 2,53,57,56,20,43		1,25,13,21,45	
		1,58,53,35,16,13, 4,26		8,42
38″	19,25,44,21,56,29,14, 9,25, 9		1,25,13,30,27	
		1,58,53,33,50,59,33,59		8,42
40″	19,25,46,20,50, 3, 5, 8,59, 8		1,25,13,39, 9	
		1,58,53,32,25,45,54,50		8,42
42″	19,25,48,19,43,35,30,54,53,58		1,25,13,47,51	
		1,58,53,31, 0,32, 6,59		8,42
44″	19,25,50,18,37, 6,31,27, 0,57		1,25,13,56,33	
		1,58,53,29,35,18,10,26		8,42
46″	19,25,52,17,30,36, 6,45,11,23		1,25,14, 5,15	
		1,58,53,28,10, 4, 5,11		8,42
48″	19,25,54,16,24, 4,16,49,16,34		1,25,14,13,57	
		1,58,53,26,44,49,51,14		8,42
50″	19,25,56,15,17,31, 1,39, 7,48		1,25,14,22,39	
		1,58,53,25,19,35,28,35		8,42
52″	19,25,58,14,10,56,21,14,36,23		1,25,14,31,21	
		1,58,53,23,54,20,57,14		8,42
54″	19,26, 0,13, 4,20,15,35,33,37		1,25,14,40, 3	
		1,58,53,22,29, 6,17,11		8,42
56″	19,26, 2,11,57,42,44,41,50,48		1,25,14,48,45	
		1,58,53,21, 3,51,28,26		8,42
58″	19,26, 4,10,51, 3,48,33,19,14		1,25,14,57,27	
		1,58,53,19,38,36,30,59		
60″	19,26, 6, 9,44,23,27, 9,50,13			
exact	19,26, 6, 9,44,23,27,10,17,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°54′ 0″	19,26, 6, 9,44,23,27,10,17,34			
		1,58,53,18,13,21,27,56		
2″	19,26, 8, 8,37,41,40,31,45,30		1,25,15,14,37	
		1,58,53,16,48, 6,13,19		8,42
4″	19,26,10, 7,30,58,28,37,58,49		1,25,15,23,19	
		1,58,53,15,22,50,50, 0		8,42
6″	19,26,12, 6,24,13,51,28,48,49		1,25,15,32, 1	
		1,58,53,13,57,35,17,59		8,42
8″	19,26,14, 5,17,27,49, 4, 6,48		1,25,15,40,43	
		1,58,53,12,32,19,37,16		8,42
10″	19,26,16, 4,10,40,21,23,44, 4		1,25,15,49,25	
		1,58,53,11, 7, 3,47,51		8,42
12″	19,26,18, 3, 3,51,28,27,31,55		1,25,15,58, 7	
		1,58,53, 9,41,47,49,44		8,42
14″	19,26,20, 1,57, 1,10,15,21,39		1,25,16, 6,49	
		1,58,53, 8,16,31,42,55		8,42
16″	19,26,22, 0,50, 9,26,47, 4,34		1,25,16,15,31	
		1,58,53, 6,51,15,27,24		8,42
18″	19,26,23,59,43,16,18, 2,31,58		1,25,16,24,13	
		1,58,53, 5,25,59, 3,11		8,42
20″	19,26,25,58,36,21,44, 1,35, 9		1,25,16,32,55	
		1,58,53, 4, 0,42,30,16		8,42
22″	19,26,27,57,29,25,44,44, 5,25		1,25,16,41,37	
		1,58,53, 2,35,25,48,39		8,42
24″	19,26,29,56,22,28,20, 9,54, 4		1,25,16,50,19	
		1,58,53, 1,10, 8,58,20		8,42
26″	19,26,31,55,15,29,30,18,52,24		1,25,16,59, 1	
		1,58,52,59,44,51,59,19		8,42
28″	19,26,33,54, 8,29,15,10,51,43		1,25,17, 7,43	
		1,58,52,58,19,34,51,36		8,42
30″	19,26,35,53, 1,27,34,45,43,19		1,25,17,16,25	
		1,58,52,56,54,17,35,11		8,42
32″	19,26,37,51,54,24,29, 3,18,30		1,25,17,25, 7	
		1,58,52,55,29, 0,10, 4		8,42
34″	19,26,39,50,47,19,58, 3,28,34		1,25,17,33,49	
		1,58,52,54, 3,42,36,15		8,42
36″	19,26,41,49,40,14, 1,46, 4,49		1,25,17,42,31	
		1,58,52,52,38,24,53,44		8,42
38″	19,26,43,48,33, 6,40,10,58,33		1,25,17,51,13	
		1,58,52,51,13, 7, 2,31		8,42
40″	19,26,45,47,25,57,53,18, 1, 4		1,25,17,59,55	
		1,58,52,49,47,49, 2,36		8,42
42″	19,26,47,46,18,47,41, 7, 3,40		1,25,18, 8,37	
		1,58,52,48,22,30,53,59		8,42
44″	19,26,49,45,11,36, 3,37,57,39		1,25,18,17,19	
		1,58,52,46,57,12,36,40		8,42
46″	19,26,51,44, 4,23, 0,50,34,19		1,25,18,26, 1	
		1,58,52,45,31,54,10,39		8,42
48″	19,26,53,42,57, 8,32,44,44,58		1,25,18,34,43	
		1,58,52,44, 6,35,35,56		8,42
50″	19,26,55,41,49,52,39,20,20,54		1,25,18,43,25	
		1,58,52,42,41,16,52,31		8,42
52″	19,26,57,40,42,35,20,37,13,25		1,25,18,52, 7	
		1,58,52,41,15,58, 0,24		8,42
54″	19,26,59,39,35,16,36,35,13,49		1,25,19, 0,49	
		1,58,52,39,50,38,59,35		8,42
56″	19,27, 1,38,27,56,27,14,13,24		1,25,19, 9,31	
		1,58,52,38,25,19,50, 4		8,42
58″	19,27, 3,37,20,34,52,34, 3,28		1,25,19,18,13	
		1,58,52,37, 0, 0,31,51		
60″	19,27, 5,36,13,11,52,34,35,19			
exact	19,27, 5,36,13,11,52,35, 7,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°55′ 0″	19,27, 5,36,13,11,52,35, 7,38			
		1,58,52,35,34,41, 8,30		
2″	19,27, 7,35, 5,47,27,16,16, 8		1,25,19,35,22	
		1,58,52,34, 9,21,33, 8		8,41
4″	19,27, 9,33,58,21,36,37,49,16		1,25,19,44, 3	
		1,58,52,32,44, 1,49, 5		8,41
6″	19,27,11,32,50,54,20,39,38,21		1,25,19,52,44	
		1,58,52,31,18,41,56,21		8,41
8″	19,27,13,31,43,25,39,21,34,42		1,25,20, 1,25	
		1,58,52,29,53,21,54,56		8,41
10″	19,27,15,30,35,55,32,43,29,38		1,25,20,10, 6	
		1,58,52,28,28, 1,44,50		8,41
12″	19,27,17,29,28,24, 0,45,14,28		1,25,20,18,47	
		1,58,52,27, 2,41,26, 3		8,41
14″	19,27,19,28,20,51, 3,26,40,31		1,25,20,27,28	
		1,58,52,25,37,20,58,35		8,41
16″	19,27,21,27,13,16,40,47,39, 6		1,25,20,36, 9	
		1,58,52,24,12, 0,22,26		8,41
18″	19,27,23,26, 5,40,52,48, 1,32		1,25,20,44,50	
		1,58,52,22,46,39,37,36		8,41
20″	19,27,25,24,58, 3,39,27,39, 8		1,25,20,53,31	
		1,58,52,21,21,18,44, 5		8,41
22″	19,27,27,23,50,25, 0,46,23,13		1,25,21, 2,12	
		1,58,52,19,55,57,41,53		8,41
24″	19,27,29,22,42,44,56,44, 5, 6		1,25,21,10,53	
		1,58,52,18,30,36,31, 0		8,41
26″	19,27,31,21,35, 3,27,20,36, 6		1,25,21,19,34	
		1,58,52,17, 5,15,11,26		8,41
28″	19,27,33,20,27,20,32,35,47,32		1,25,21,28,15	
		1,58,52,15,39,53,43,11		8,41
30″	19,27,35,19,19,36,12,29,30,43		1,25,21,36,56	
		1,58,52,14,14,32, 6,15		8,41
32″	19,27,37,18,11,50,27, 1,36,58		1,25,21,45,37	
		1,58,52,12,49,10,20,38		8,41
34″	19,27,39,17, 4, 3,16,11,57,36		1,25,21,54,18	
		1,58,52,11,23,48,26,20		8,41
36″	19,27,41,15,56,14,40, 0,23,56		1,25,22, 2,59	
		1,58,52, 9,58,26,23,21		8,41
38″	19,27,43,14,48,24,38,26,47,17		1,25,22,11,40	
		1,58,52, 8,33, 4,11,41		8,41
40″	19,27,45,13,40,33,11,30,58,58		1,25,22,20,21	
		1,58,52, 7, 7,41,51,20		8,41
42″	19,27,47,12,32,40,19,12,50,18		1,25,22,29, 2	
		1,58,52, 5,42,19,22,18		8,41
44″	19,27,49,11,24,46, 1,32,12,36		1,25,22,37,43	
		1,58,52, 4,16,56,44,35		8,41
46″	19,27,51,10,16,50,18,28,57,11		1,25,22,46,24	
		1,58,52, 2,51,33,58,11		8,41
48″	19,27,53, 9, 8,53,10, 2,55,22		1,25,22,55, 5	
		1,58,52, 1,26,11, 3, 6		8,41
50″	19,27,55, 8, 0,54,36,13,58,28		1,25,23, 3,46	
		1,58,52, 0, 0,47,59,20		8,41
52″	19,27,57, 6,52,54,37, 1,57,48		1,25,23,12,27	
		1,58,51,58,35,24,46,53		8,41
54″	19,27,59, 5,44,53,12,26,44,41		1,25,23,21, 8	
		1,58,51,57,10, 1,25,45		8,41
56″	19,28, 1, 4,36,50,22,28,10,26		1,25,23,29,49	
		1,58,51,55,44,37,55,56		8,41
58″	19,28, 3, 3,28,46, 7, 6, 6,22		1,25,23,38,30	
		1,58,51,54,19,14,17,26		
60″	19,28, 5, 2,20,40,26,20,23,48			
exact	19,28, 5, 2,20,40,26,19,57,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°56′ 0″	19,28, 5, 2,20,40,26,19,57,13			
		1,58,51,52,53,50,27,19		
2″	19,28, 7, 1,12,33,20,10,24,32		1,25,23,56, 4	
		1,58,51,51,28,26,31,15		8,41
4″	19,28, 9, 0, 4,24,48,36,55,47		1,25,24, 4,45	
		1,58,51,50, 3, 2,26,30		8,41
6″	19,28,10,58,56,14,51,39,22,17		1,25,24,13,26	
		1,58,51,48,37,38,13, 4		8,41
8″	19,28,12,57,48, 3,29,17,35,21		1,25,24,22, 7	
		1,58,51,47,12,13,50,57		8,41
10″	19,28,14,56,39,50,41,31,26,18		1,25,24,30,48	
		1,58,51,45,46,49,20, 9		8,41
12″	19,28,16,55,31,36,28,20,46,27		1,25,24,39,29	
		1,58,51,44,21,24,40,40		8,41
14″	19,28,18,54,23,20,49,45,27, 7		1,25,24,48,10	
		1,58,51,42,55,59,52,30		8,41
16″	19,28,20,53,15, 3,45,45,19,37		1,25,24,56,51	
		1,58,51,41,30,34,55,39		8,41
18″	19,28,22,52, 6,45,16,20,15,16		1,25,25, 5,32	
		1,58,51,40, 5, 9,50, 7		8,41
20″	19,28,24,50,58,25,21,30, 5,23		1,25,25,14,13	
		1,58,51,38,39,44,35,54		8,41
22″	19,28,26,49,50, 4, 1,14,41,17		1,25,25,22,54	
		1,58,51,37,14,19,13, 0		8,41
24″	19,28,28,48,41,41,15,33,54,17		1,25,25,31,35	
		1,58,51,35,48,53,41,25		8,41
26″	19,28,30,47,33,17, 4,27,35,42		1,25,25,40,16	
		1,58,51,34,23,28, 1, 9		8,41
28″	19,28,32,46,24,51,27,55,36,51		1,25,25,48,57	
		1,58,51,32,58, 2,12,12		8,41
30″	19,28,34,45,16,24,25,57,49, 3		1,25,25,57,38	
		1,58,51,31,32,36,14,34		8,41
32″	19,28,36,44, 7,55,58,34, 3,37		1,25,26, 6,19	
		1,58,51,30, 7,10, 8,15		8,41
34″	19,28,38,42,59,26, 5,44,11,52		1,25,26,15, 0	
		1,58,51,28,41,43,53,15		8,41
36″	19,28,40,41,50,54,47,28, 5, 7		1,25,26,23,41	
		1,58,51,27,16,17,29,34		8,41
38″	19,28,42,40,42,22, 3,45,34,41		1,25,26,32,22	
		1,58,51,25,50,50,57,12		8,41
40″	19,28,44,39,33,47,54,36,31,53		1,25,26,41, 3	
		1,58,51,24,25,24,16, 9		8,41
42″	19,28,46,38,25,12,20, 0,48, 2		1,25,26,49,44	
		1,58,51,22,59,57,26,25		8,41
44″	19,28,48,37,16,35,19,58,14,27		1,25,26,58,25	
		1,58,51,21,34,30,28, 0		8,41
46″	19,28,50,36, 7,56,54,28,42,27		1,25,27, 7, 6	
		1,58,51,20, 9, 3,20,54		8,41
48″	19,28,52,34,59,17, 3,32, 3,21		1,25,27,15,47	
		1,58,51,18,43,36, 5, 7		8,41
50″	19,28,54,33,50,35,47, 8, 8,28		1,25,27,24,28	
		1,58,51,17,18, 8,40,39		8,41
52″	19,28,56,32,41,53, 5,16,49, 7		1,25,27,33, 9	
		1,58,51,15,52,41, 7,30		8,41
54″	19,28,58,31,33, 8,57,57,56,37		1,25,27,41,50	
		1,58,51,14,27,13,25,40		8,41
56″	19,29, 0,30,24,23,25,11,22,17		1,25,27,50,31	
		1,58,51,13, 1,45,35, 9		8,41
58″	19,29, 2,29,15,36,26,56,57,26		1,25,27,59,12	
		1,58,51,11,36,17,35,57		
60″	19,29, 4,28, 6,48, 3,14,33,23			
exact	19,29, 4,28, 6,48, 3,14, 4,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°57′ 0″	19,29, 4,28, 6,48, 3,14, 4,41			
		1,58,51,10,10,49,25, 8		
2″	19,29, 6,26,57,58,14, 3,29,49		1,25,28,16,45	
		1,58,51, 8,45,21, 8,23		8,41
4″	19,29, 8,25,49, 6,59,24,38,12		1,25,28,25,26	
		1,58,51, 7,19,52,42,57		8,41
6″	19,29,10,24,40,14,19,17,21, 9		1,25,28,34, 7	
		1,58,51, 5,54,24, 8,50		8,41
8″	19,29,12,23,31,20,13,41,29,59		1,25,28,42,48	
		1,58,51, 4,28,55,26, 2		8,41
10″	19,29,14,22,22,24,42,36,56, 1		1,25,28,51,29	
		1,58,51, 3, 3,26,34,33		8,41
12″	19,29,16,21,13,27,46, 3,30,34		1,25,29, 0,10	
		1,58,51, 1,37,57,34,23		8,41
14″	19,29,18,20, 4,29,24, 1, 4,57		1,25,29, 8,51	
		1,58,51, 0,12,28,25,32		8,41
16″	19,29,20,18,55,29,36,29,30,29		1,25,29,17,32	
		1,58,50,58,46,59, 8, 0		8,41
18″	19,29,22,17,46,28,23,28,38,29		1,25,29,26,13	
		1,58,50,57,21,29,41,47		8,41
20″	19,29,24,16,37,25,44,58,20,16		1,25,29,34,54	
		1,58,50,55,56, 0, 6,53		8,41
22″	19,29,26,15,28,21,40,58,27, 9		1,25,29,43,35	
		1,58,50,54,30,30,23,18		8,41
24″	19,29,28,14,19,16,11,28,50,27		1,25,29,52,16	
		1,58,50,53, 5, 0,31, 2		8,41
26″	19,29,30,13,10, 9,16,29,21,29		1,25,30, 0,57	
		1,58,50,51,39,30,30, 5		8,41
28″	19,29,32,12, 1, 0,55,59,51,34		1,25,30, 9,38	
		1,58,50,50,14, 0,20,27		8,41
30″	19,29,34,10,51,51,10, 0,12, 1		1,25,30,18,19	
		1,58,50,48,48,30, 2, 8		8,41
32″	19,29,36, 9,42,39,58,30,14, 9		1,25,30,27, 0	
		1,58,50,47,22,59,35, 8		8,41
34″	19,29,38, 8,33,27,21,29,49,17		1,25,30,35,41	
		1,58,50,45,57,28,59,27		8,41
36″	19,29,40, 7,24,13,18,58,48,44		1,25,30,44,22	
		1,58,50,44,31,58,15, 5		8,41
38″	19,29,42, 6,14,57,50,57, 3,49		1,25,30,53, 3	
		1,58,50,43, 6,27,22, 2		8,41
40″	19,29,44, 5, 5,40,57,24,25,51		1,25,31, 1,44	
		1,58,50,41,40,56,20,18		8,41
42″	19,29,46, 3,56,22,38,20,46, 9		1,25,31,10,25	
		1,58,50,40,15,25, 9,53		8,41
44″	19,29,48, 2,47, 2,53,45,56, 2		1,25,31,19, 6	
		1,58,50,38,49,53,50,47		8,41
46″	19,29,50, 1,37,41,43,39,46,49		1,25,31,27,47	
		1,58,50,37,24,22,23, 0		8,41
48″	19,29,52, 0,28,19, 8, 2, 9,49		1,25,31,36,28	
		1,58,50,35,58,50,46,32		8,41
50″	19,29,53,59,18,55, 6,52,56,21		1,25,31,45, 9	
		1,58,50,34,33,19, 1,23		8,41
52″	19,29,55,58, 9,29,40,11,57,44		1,25,31,53,50	
		1,58,50,33, 7,47, 7,33		8,41
54″	19,29,57,57, 0, 2,47,59, 5,17		1,25,32, 2,31	
		1,58,50,31,42,15, 5, 2		8,41
56″	19,29,59,55,50,34,30,14,10,19		1,25,32,11,12	
		1,58,50,30,16,42,53,50		8,41
58″	19,30, 1,54,41, 4,46,57, 4, 9		1,25,32,19,53	
		1,58,50,28,51,10,33,57		
60″	19,30, 3,53,31,33,38, 7,38, 6			
exact	19,30, 3,53,31,33,38, 7,11,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°58′ 0″	19,30, 3,53,31,33,38, 7,11,54			
		1,58,50,27,25,38, 2,45		
2″	19,30, 5,52,22, 1, 3,45,14,39		1,25,32,37,25	
		1,58,50,26, 0, 5,25,20		8,41
4″	19,30, 7,51,12,27, 3,50,39,59		1,25,32,46, 6	
		1,58,50,24,34,32,39,14		8,41
6″	19,30, 9,50, 2,51,38,23,19,13		1,25,32,54,47	
		1,58,50,23, 8,59,44,27		8,41
8″	19,30,11,48,53,14,47,23, 3,40		1,25,33, 3,28	
		1,58,50,21,43,26,40,59		8,41
10″	19,30,13,47,43,36,30,49,44,39		1,25,33,12, 9	
		1,58,50,20,17,53,28,50		8,41
12″	19,30,15,46,33,56,48,43,13,29		1,25,33,20,50	
		1,58,50,18,52,20, 8, 0		8,41
14″	19,30,17,45,24,15,41, 3,21,29		1,25,33,29,31	
		1,58,50,17,26,46,38,29		8,41
16″	19,30,19,44,14,33, 7,49,59,58		1,25,33,38,12	
		1,58,50,16, 1,13, 0,17		8,41
18″	19,30,21,43, 4,49, 9, 3, 0,15		1,25,33,46,53	
		1,58,50,14,35,39,13,24		8,41
20″	19,30,23,41,55, 3,44,42,13,39		1,25,33,55,34	
		1,58,50,13,10, 5,17,50		8,41
22″	19,30,25,40,45,16,54,47,31,29		1,25,34, 4,15	
		1,58,50,11,44,31,13,35		8,41
24″	19,30,27,39,35,28,39,18,45, 4		1,25,34,12,56	
		1,58,50,10,18,57, 0,39		8,41
26″	19,30,29,38,25,38,58,15,45,43		1,25,34,21,37	
		1,58,50, 8,53,22,39, 2		8,41
28″	19,30,31,37,15,47,51,38,24,45		1,25,34,30,18	
		1,58,50, 7,27,48, 8,44		8,41
30″	19,30,33,36, 5,55,19,26,33,29		1,25,34,38,59	
		1,58,50, 6, 2,13,29,45		8,41
32″	19,30,35,34,56, 1,21,40, 3,14		1,25,34,47,40	
		1,58,50, 4,36,38,42, 5		8,41
34″	19,30,37,33,46, 5,58,18,45,19		1,25,34,56,21	
		1,58,50, 3,11, 3,45,44		8,41
36″	19,30,39,32,36, 9, 9,22,31, 3		1,25,35, 5, 2	
		1,58,50, 1,45,28,40,42		8,41
38″	19,30,41,31,26,10,54,51,11,45		1,25,35,13,43	
		1,58,50, 0,19,53,26,59		8,41
40″	19,30,43,30,16,11,14,44,38,44		1,25,35,22,24	
		1,58,49,58,54,18, 4,35		8,41
42″	19,30,45,29, 6,10, 9, 2,43,19		1,25,35,31, 5	
		1,58,49,57,28,42,33,30		8,41
44″	19,30,47,27,56, 7,37,45,16,49		1,25,35,39,46	
		1,58,49,56, 3, 6,53,44		8,41
46″	19,30,49,26,46, 3,40,52,10,33		1,25,35,48,27	
		1,58,49,54,37,31, 5,17		8,41
48″	19,30,51,25,35,58,18,23,15,50		1,25,35,57, 8	
		1,58,49,53,11,55, 8, 9		8,41
50″	19,30,53,24,25,51,30,18,23,59		1,25,36, 5,49	
		1,58,49,51,46,19, 2,20		8,41
52″	19,30,55,23,15,43,16,37,26,19		1,25,36,14,30	
		1,58,49,50,20,42,47,50		8,41
54″	19,30,57,22, 5,33,37,20,14, 9		1,25,36,23,11	
		1,58,49,48,55, 6,24,39		8,41
56″	19,30,59,20,55,22,32,26,38,48		1,25,36,31,52	
		1,58,49,47,29,29,52,47		8,41
58″	19,31, 1,19,45,10, 1,56,31,35		1,25,36,40,33	
		1,58,49,46, 3,53,12,14		
60″	19,31, 3,18,34,56, 5,49,43,49			
exact	19,31, 3,18,34,56, 5,49,24, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
18°59′ 0″	19,31, 3,18,34,56, 5,49,24, 4			
		1,58,49,44,38,16,20,57		
2″	19,31, 5,17,24,40,44, 5,45, 1		1,25,36,58, 3	
		1,58,49,43,12,39,22,54		8,41
4″	19,31, 7,16,14,23,56,45, 7,55		1,25,37, 6,44	
		1,58,49,41,47, 2,16,10		8,41
6″	19,31, 9,15, 4, 5,43,47,24, 5		1,25,37,15,25	
		1,58,49,40,21,25, 0,45		8,41
8″	19,31,11,13,53,46, 5,12,24,50		1,25,37,24, 6	
		1,58,49,38,55,47,36,39		8,41
10″	19,31,13,12,43,25, 1, 0, 1,29		1,25,37,32,47	
		1,58,49,37,30,10, 3,52		8,41
12″	19,31,15,11,33, 2,31,10, 5,21		1,25,37,41,28	
		1,58,49,36, 4,32,22,24		8,41
14″	19,31,17,10,22,38,35,42,27,45		1,25,37,50, 9	
		1,58,49,34,38,54,32,15		8,41
16″	19,31,19, 9,12,13,14,37, 0, 0		1,25,37,58,50	
		1,58,49,33,13,16,33,25		8,41
18″	19,31,21, 8, 1,46,27,53,33,25		1,25,38, 7,31	
		1,58,49,31,47,38,25,54		8,41
20″	19,31,23, 6,51,18,15,31,59,19		1,25,38,16,12	
		1,58,49,30,22, 0, 9,42		8,41
22″	19,31,25, 5,40,48,37,32, 9, 1		1,25,38,24,53	
		1,58,49,28,56,21,44,49		8,41
24″	19,31,27, 4,30,17,33,53,53,50		1,25,38,33,34	
		1,58,49,27,30,43,11,15		8,41
26″	19,31,29, 3,19,45, 4,37, 5, 5		1,25,38,42,15	
		1,58,49,26, 5, 4,29, 0		8,41
28″	19,31,31, 2, 9,11, 9,41,34, 5		1,25,38,50,56	
		1,58,49,24,39,25,38, 4		8,41
30″	19,31,33, 0,58,35,49, 7,12, 9		1,25,38,59,37	
		1,58,49,23,13,46,38,27		8,41
32″	19,31,34,59,47,59, 2,53,50,36		1,25,39, 8,18	
		1,58,49,21,48, 7,30, 9		8,41
34″	19,31,36,58,37,20,51, 1,20,45		1,25,39,16,59	
		1,58,49,20,22,28,13,10		8,41
36″	19,31,38,57,26,41,13,29,33,55		1,25,39,25,40	
		1,58,49,18,56,48,47,30		8,41
38″	19,31,40,56,16, 0,10,18,21,25		1,25,39,34,21	
		1,58,49,17,31, 9,13, 9		8,41
40″	19,31,42,55, 5,17,41,27,34,34		1,25,39,43, 2	
		1,58,49,16, 5,29,30, 7		8,41
42″	19,31,44,53,54,33,46,57, 4,41		1,25,39,51,43	
		1,58,49,14,39,49,38,24		8,41
44″	19,31,46,52,43,48,26,46,43, 5		1,25,40, 0,24	
		1,58,49,13,14, 9,38, 0		8,41
46″	19,31,48,51,33, 1,40,56,21, 5		1,25,40, 9, 5	
		1,58,49,11,48,29,28,55		8,41
48″	19,31,50,50,22,13,29,25,50, 0		1,25,40,17,46	
		1,58,49,10,22,49,11, 9		8,41
50″	19,31,52,49,11,23,52,15, 1, 9		1,25,40,26,27	
		1,58,49, 8,57, 8,44,42		8,41
52″	19,31,54,48, 0,32,49,23,45,51		1,25,40,35, 8	
		1,58,49, 7,31,28, 9,34		8,41
54″	19,31,56,46,49,40,20,51,55,25		1,25,40,43,49	
		1,58,49, 6, 5,47,25,45		8,41
56″	19,31,58,45,38,46,26,39,21,10		1,25,40,52,30	
		1,58,49, 4,40, 6,33,15		8,41
58″	19,32, 0,44,27,51, 6,45,54,25		1,25,41, 1,11	
		1,58,49, 3,14,25,32, 4		
60″	19,32, 2,43,16,54,21,11,26,29			
exact	19,32, 2,43,16,54,21,11, 9,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19° 0′ 0″	19,32, 2,43,16,54,21,11, 9,56			
		1,58,49, 1,48,44,20,30		
2″	19,32, 4,42, 5,56, 9,55,30,26		1,25,41,18,40	
		1,58,49, 0,23, 3, 1,50		8,41
4″	19,32, 6,40,54,56,32,58,32,16		1,25,41,27,21	
		1,58,48,58,57,21,34,29		8,41
6″	19,32, 8,39,43,55,30,20, 6,45		1,25,41,36, 2	
		1,58,48,57,31,39,58,27		8,41
8″	19,32,10,38,32,53, 2, 0, 5,12		1,25,41,44,43	
		1,58,48,56, 5,58,13,44		8,41
10″	19,32,12,37,21,49, 7,58,18,56		1,25,41,53,24	
		1,58,48,54,40,16,20,20		8,41
12″	19,32,14,36,10,43,48,14,39,16		1,25,42, 2, 5	
		1,58,48,53,14,34,18,15		8,41
14″	19,32,16,34,59,37, 2,48,57,31		1,25,42,10,46	
		1,58,48,51,48,52, 7,29		8,41
16″	19,32,18,33,48,28,51,41, 5, 0		1,25,42,19,27	
		1,58,48,50,23, 9,48, 2		8,41
18″	19,32,20,32,37,19,14,50,53, 2		1,25,42,28, 8	
		1,58,48,48,57,27,19,54		8,41
20″	19,32,22,31,26, 8,12,18,12,56		1,25,42,36,49	
		1,58,48,47,31,44,43, 5		8,41
22″	19,32,24,30,14,55,44, 2,56, 1		1,25,42,45,30	
		1,58,48,46, 6, 1,57,35		8,41
24″	19,32,26,29, 3,41,50, 4,53,36		1,25,42,54,11	
		1,58,48,44,40,19, 3,24		8,41
26″	19,32,28,27,52,26,30,23,57, 0		1,25,43, 2,52	
		1,58,48,43,14,36, 0,32		8,41
28″	19,32,30,26,41, 9,44,59,57,32		1,25,43,11,33	
		1,58,48,41,48,52,48,59		8,41
30″	19,32,32,25,29,51,33,52,46,31		1,25,43,20,14	
		1,58,48,40,23, 9,28,45		8,41
32″	19,32,34,24,18,31,57, 2,15,16		1,25,43,28,55	
		1,58,48,38,57,25,59,50		8,41
34″	19,32,36,23, 7,10,54,28,15, 6		1,25,43,37,36	
		1,58,48,37,31,42,22,14		8,41
36″	19,32,38,21,55,48,26,10,37,20		1,25,43,46,17	
		1,58,48,36, 5,58,35,57		8,41
38″	19,32,40,20,44,24,32, 9,13,17		1,25,43,54,58	
		1,58,48,34,40,14,40,59		8,41
40″	19,32,42,19,32,59,12,23,54,16		1,25,44, 3,39	
		1,58,48,33,14,30,37,20		8,41
42″	19,32,44,18,21,32,26,54,31,36		1,25,44,12,20	
		1,58,48,31,48,46,25, 0		8,41
44″	19,32,46,17,10, 4,15,40,56,36		1,25,44,21, 1	
		1,58,48,30,23, 2, 3,59		8,41
46″	19,32,48,15,58,34,38,43, 0,35		1,25,44,29,42	
		1,58,48,28,57,17,34,17		8,41
48″	19,32,50,14,47, 3,36, 0,34,52		1,25,44,38,23	
		1,58,48,27,31,32,55,54		8,41
50″	19,32,52,13,35,31, 7,33,30,46		1,25,44,47, 4	
		1,58,48,26, 5,48, 8,50		8,41
52″	19,32,54,12,23,57,13,21,39,36		1,25,44,55,45	
		1,58,48,24,40, 3,13, 5		8,41
54″	19,32,56,11,12,21,53,24,52,41		1,25,45, 4,26	
		1,58,48,23,14,18, 8,39		8,41
56″	19,32,58,10, 0,45, 7,43, 1,20		1,25,45,13, 7	
		1,58,48,21,48,32,55,32		8,41
58″	19,33, 0, 8,49, 6,56,15,56,52		1,25,45,21,48	
		1,58,48,20,22,47,33,44		
60″	19,33, 2, 7,37,27,19, 3,30,36			
exact	19,33, 2, 7,37,27,19, 3,21,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19° 1′ 0″	19,33, 2, 7,37,27,19, 3,21,39			
		1,58,48,18,57, 2, 2,12		
2″	19,33, 4, 6,25,46,16, 5,23,51		1,25,45,39,15	
		1,58,48,17,31,16,22,57		8,41
4″	19,33, 6, 5,14, 3,47,21,46,48		1,25,45,47,56	
		1,58,48,16, 5,30,35, 1		8,41
6″	19,33, 8, 4, 2,19,52,52,21,49		1,25,45,56,37	
		1,58,48,14,39,44,38,24		8,41
8″	19,33,10, 2,50,34,32,37, 0,13		1,25,46, 5,18	
		1,58,48,13,13,58,33, 6		8,41
10″	19,33,12, 1,38,47,46,35,33,19		1,25,46,13,59	
		1,58,48,11,48,12,19, 7		8,41
12″	19,33,14, 0,26,59,34,47,52,26		1,25,46,22,40	
		1,58,48,10,22,25,56,27		8,41
14″	19,33,15,59,15, 9,57,13,48,53		1,25,46,31,21	
		1,58,48, 8,56,39,25, 6		8,41
16″	19,33,17,58, 3,18,53,53,13,59		1,25,46,40, 2	
		1,58,48, 7,30,52,45, 4		8,41
18″	19,33,19,56,51,26,24,45,59, 3		1,25,46,48,43	
		1,58,48, 6, 5, 5,56,21		8,41
20″	19,33,21,55,39,32,29,51,55,24		1,25,46,57,24	
		1,58,48, 4,39,18,58,57		8,41
22″	19,33,23,54,27,37, 9,10,54,21		1,25,47, 6, 5	
		1,58,48, 3,13,31,52,52		8,41
24″	19,33,25,53,15,40,22,42,47,13		1,25,47,14,46	
		1,58,48, 1,47,44,38, 6		8,41
26″	19,33,27,52, 3,42,10,27,25,19		1,25,47,23,27	
		1,58,48, 0,21,57,14,39		8,41
28″	19,33,29,50,51,42,32,24,39,58		1,25,47,32, 8	
		1,58,47,58,56, 9,42,31		8,41
30″	19,33,31,49,39,41,28,34,22,29		1,25,47,40,49	
		1,58,47,57,30,22, 1,42		8,41
32″	19,33,33,48,27,38,58,56,24,11		1,25,47,49,30	
		1,58,47,56, 4,34,12,12		8,41
34″	19,33,35,47,15,35, 3,30,36,23		1,25,47,58,11	
		1,58,47,54,38,46,14, 1		8,41
36″	19,33,37,46, 3,29,42,16,50,24		1,25,48, 6,52	
		1,58,47,53,12,58, 7, 9		8,41
38″	19,33,39,44,51,22,55,14,57,33		1,25,48,15,33	
		1,58,47,51,47, 9,51,36		8,41
40″	19,33,41,43,39,14,42,24,49, 9		1,25,48,24,14	
		1,58,47,50,21,21,27,22		8,41
42″	19,33,43,42,27, 5, 3,46,16,31		1,25,48,32,55	
		1,58,47,48,55,32,54,27		8,41
44″	19,33,45,41,14,53,59,19,10,58		1,25,48,41,36	
		1,58,47,47,29,44,12,51		8,41
46″	19,33,47,40, 2,41,29, 3,23,49		1,25,48,50,17	
		1,58,47,46, 3,55,22,34		8,41
48″	19,33,49,38,50,27,32,58,46,23		1,25,48,58,58	
		1,58,47,44,38, 6,23,36		8,41
50″	19,33,51,37,38,12,11, 5, 9,59		1,25,49, 7,39	
		1,58,47,43,12,17,15,57		8,41
52″	19,33,53,36,25,55,23,22,25,56		1,25,49,16,20	
		1,58,47,41,46,27,59,37		8,41
54″	19,33,55,35,13,37, 9,50,25,33		1,25,49,25, 1	
		1,58,47,40,20,38,34,36		8,41
56″	19,33,57,34, 1,17,30,29, 0, 9		1,25,49,33,42	
		1,58,47,38,54,49, 0,54		8,41
58″	19,33,59,32,48,56,25,18, 1, 3		1,25,49,42,23	
		1,58,47,37,28,59,18,31		
60″	19,34, 1,31,36,33,54,17,19,34			
exact	19,34, 1,31,36,33,54,17,14,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19° 2′ 0″	19,34, 1,31,36,33,54,17,14,53			
		1,58,47,36, 3, 9,26,50		
2″	19,34, 3,30,24, 9,57,26,41,43		1,25,49,59,48	
		1,58,47,34,37,19,27, 2		8,41
4″	19,34, 5,29,11,44,34,46, 8,45		1,25,50, 8,29	
		1,58,47,33,11,29,18,33		8,41
6″	19,34, 7,27,59,17,46,15,27,18		1,25,50,17,10	
		1,58,47,31,45,39, 1,23		8,41
8″	19,34, 9,26,46,49,31,54,28,41		1,25,50,25,51	
		1,58,47,30,19,48,35,32		8,41
10″	19,34,11,25,34,19,51,43, 4,13		1,25,50,34,32	
		1,58,47,28,53,58, 1, 0		8,41
12″	19,34,13,24,21,48,45,41, 5,13		1,25,50,43,13	
		1,58,47,27,28, 7,17,47		8,41
14″	19,34,15,23, 9,16,13,48,23, 0		1,25,50,51,54	
		1,58,47,26, 2,16,25,53		8,41
16″	19,34,17,21,56,42,16, 4,48,53		1,25,51, 0,35	
		1,58,47,24,36,25,25,18		8,41
18″	19,34,19,20,44, 6,52,30,14,11		1,25,51, 9,16	
		1,58,47,23,10,34,16, 2		8,41
20″	19,34,21,19,31,30, 3, 4,30,13		1,25,51,17,57	
		1,58,47,21,44,42,58, 5		8,41
22″	19,34,23,18,18,51,47,47,28,18		1,25,51,26,38	
		1,58,47,20,18,51,31,27		8,41
24″	19,34,25,17, 6,12, 6,38,59,45		1,25,51,35,19	
		1,58,47,18,52,59,56, 8		8,41
26″	19,34,27,15,53,30,59,38,55,53		1,25,51,44, 0	
		1,58,47,17,27, 8,12, 8		8,41
28″	19,34,29,14,40,48,26,47, 8, 1		1,25,51,52,41	
		1,58,47,16, 1,16,19,27		8,41
30″	19,34,31,13,28, 4,28, 3,27,28		1,25,52, 1,22	
		1,58,47,14,35,24,18, 5		8,41
32″	19,34,33,12,15,19, 3,27,45,33		1,25,52,10, 3	
		1,58,47,13, 9,32, 8, 2		8,41
34″	19,34,35,11, 2,32,12,59,53,35		1,25,52,18,44	
		1,58,47,11,43,39,49,18		8,41
36″	19,34,37, 9,49,43,56,39,42,53		1,25,52,27,25	
		1,58,47,10,17,47,21,53		8,41
38″	19,34,39, 8,36,54,14,27, 4,46		1,25,52,36, 6	
		1,58,47, 8,51,54,45,47		8,41
40″	19,34,41, 7,24, 3, 6,21,50,33		1,25,52,44,47	
		1,58,47, 7,26, 2, 1, 0		8,41
42″	19,34,43, 6,11,10,32,23,51,33		1,25,52,53,28	
		1,58,47, 6, 0, 9, 7,32		8,41
44″	19,34,45, 4,58,16,32,32,59, 5		1,25,53, 2, 9	
		1,58,47, 4,34,16, 5,23		8,41
46″	19,34,47, 3,45,21, 6,49, 4,28		1,25,53,10,50	
		1,58,47, 3, 8,22,54,33		8,41
48″	19,34,49, 2,32,24,15,11,59, 1		1,25,53,19,31	
		1,58,47, 1,42,29,35, 2		8,41
50″	19,34,51, 1,19,25,57,41,34, 3		1,25,53,28,12	
		1,58,47, 0,16,36, 6,50		8,41
52″	19,34,53, 0, 6,26,14,17,40,53		1,25,53,36,53	
		1,58,46,58,50,42,29,57		8,41
54″	19,34,54,58,53,25, 5, 0,10,50		1,25,53,45,34	
		1,58,46,57,24,48,44,23		8,41
56″	19,34,56,57,40,22,29,48,55,13		1,25,53,54,15	
		1,58,46,55,58,54,50, 8		8,41
58″	19,34,58,56,27,18,28,43,45,21		1,25,54, 2,56	
		1,58,46,54,33, 0,47,12		
60″	19,35, 0,55,14,13, 1,44,32,33			
exact	19,35, 0,55,14,13, 1,44,28,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19° 3′ 0″	19,35, 0,55,14,13, 1,44,28,49			
		1,58,46,53, 7, 6,35,10		
2″	19,35, 2,54, 1, 6, 8,51, 3,59		1,25,54,20,20	
		1,58,46,51,41,12,14,50		8,41
4″	19,35, 4,52,47,57,50, 3,18,49		1,25,54,29, 1	
		1,58,46,50,15,17,45,49		8,41
6″	19,35, 6,51,34,48, 5,21, 4,38		1,25,54,37,42	
		1,58,46,48,49,23, 8, 7		8,41
8″	19,35, 8,50,21,36,54,44,12,45		1,25,54,46,23	
		1,58,46,47,23,28,21,44		8,41
10″	19,35,10,49, 8,24,18,12,34,29		1,25,54,55, 4	
		1,58,46,45,57,33,26,40		8,41
12″	19,35,12,47,55,10,15,46, 1, 9		1,25,55, 3,45	
		1,58,46,44,31,38,22,55		8,41
14″	19,35,14,46,41,54,47,24,24, 4		1,25,55,12,26	
		1,58,46,43, 5,43,10,29		8,41
16″	19,35,16,45,28,37,53, 7,34,33		1,25,55,21, 7	
		1,58,46,41,39,47,49,22		8,41
18″	19,35,18,44,15,19,32,55,23,55		1,25,55,29,48	
		1,58,46,40,13,52,19,34		8,41
20″	19,35,20,43, 1,59,46,47,43,29		1,25,55,38,29	
		1,58,46,38,47,56,41, 5		8,41
22″	19,35,22,41,48,38,34,44,24,34		1,25,55,47,10	
		1,58,46,37,22, 0,53,55		8,41
24″	19,35,24,40,35,15,56,45,18,29		1,25,55,55,51	
		1,58,46,35,56, 4,58, 4		8,41
26″	19,35,26,39,21,51,52,50,16,33		1,25,56, 4,32	
		1,58,46,34,30, 8,53,32		8,41
28″	19,35,28,38, 8,26,22,59,10, 5		1,25,56,13,13	
		1,58,46,33, 4,12,40,19		8,41
30″	19,35,30,36,54,59,27,11,50,24		1,25,56,21,54	
		1,58,46,31,38,16,18,25		8,41
32″	19,35,32,35,41,31, 5,28, 8,49		1,25,56,30,35	
		1,58,46,30,12,19,47,50		8,41
34″	19,35,34,34,28, 1,17,47,56,39		1,25,56,39,16	
		1,58,46,28,46,23, 8,34		8,41
36″	19,35,36,33,14,30, 4,11, 5,13		1,25,56,47,57	
		1,58,46,27,20,26,20,37		8,41
38″	19,35,38,32, 0,57,24,37,25,50		1,25,56,56,38	
		1,58,46,25,54,29,23,59		8,41
40″	19,35,40,30,47,23,19, 6,49,49		1,25,57, 5,19	
		1,58,46,24,28,32,18,40		8,41
42″	19,35,42,29,33,47,47,39, 8,29		1,25,57,14, 0	
		1,58,46,23, 2,35, 4,40		8,41
44″	19,35,44,28,20,10,50,14,13, 9		1,25,57,22,41	
		1,58,46,21,36,37,41,59		8,41
46″	19,35,46,27, 6,32,26,51,55, 8		1,25,57,31,22	
		1,58,46,20,10,40,10,37		8,41
48″	19,35,48,25,52,52,37,32, 5,45		1,25,57,40, 3	
		1,58,46,18,44,42,30,34		8,41
50″	19,35,50,24,39,11,22,14,36,19		1,25,57,48,44	
		1,58,46,17,18,44,41,50		8,41
52″	19,35,52,23,25,28,40,59,18, 9		1,25,57,57,25	
		1,58,46,15,52,46,44,25		8,41
54″	19,35,54,22,11,44,33,46, 2,34		1,25,58, 6, 6	
		1,58,46,14,26,48,38,19		8,41
56″	19,35,56,20,57,59, 0,34,40,53		1,25,58,14,47	
		1,58,46,13, 0,50,23,32		8,41
58″	19,35,58,19,44,12, 1,25, 4,25		1,25,58,23,28	
		1,58,46,11,34,52, 0, 4		
60″	19,36, 0,18,30,23,36,17, 4,29			
exact	19,36, 0,18,30,23,36,17, 6, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19° 4′ 0″	19,36, 0,18,30,23,36,17, 6, 9			
		1,58,46,10, 8,53,28, 0		
2″	19,36, 2,17,16,33,45,10,34, 9		1,25,58,40,50	
		1,58,46, 8,42,54,47,10		8,41
4″	19,36, 4,16, 2,42,28, 5,21,19		1,25,58,49,31	
		1,58,46, 7,16,55,57,39		8,41
6″	19,36, 6,14,48,49,45, 1,18,58		1,25,58,58,12	
		1,58,46, 5,50,56,59,27		8,41
8″	19,36, 8,13,34,55,35,58,18,25		1,25,59, 6,53	
		1,58,46, 4,24,57,52,34		8,41
10″	19,36,10,12,21, 0, 0,56,10,59		1,25,59,15,34	
		1,58,46, 2,58,58,37, 0		8,41
12″	19,36,12,11, 7, 2,59,54,47,59		1,25,59,24,15	
		1,58,46, 1,32,59,12,45		8,41
14″	19,36,14, 9,53, 4,32,54, 0,44		1,25,59,32,56	
		1,58,46, 0, 6,59,39,49		8,41
16″	19,36,16, 8,39, 4,39,53,40,33		1,25,59,41,37	
		1,58,45,58,40,59,58,12		8,41
18″	19,36,18, 7,25, 3,20,53,38,45		1,25,59,50,18	
		1,58,45,57,15, 0, 7,54		8,41
20″	19,36,20, 6,11, 0,35,53,46,39		1,25,59,58,59	
		1,58,45,55,49, 0, 8,55		8,41
22″	19,36,22, 4,56,56,24,53,55,34		1,26, 0, 7,40	
		1,58,45,54,23, 0, 1,15		8,41
24″	19,36,24, 3,42,50,47,53,56,49		1,26, 0,16,21	
		1,58,45,52,56,59,44,54		8,41
26″	19,36,26, 2,28,43,44,53,41,43		1,26, 0,25, 2	
		1,58,45,51,30,59,19,52		8,41
28″	19,36,28, 1,14,35,15,53, 1,35		1,26, 0,33,43	
		1,58,45,50, 4,58,46, 9		8,41
30″	19,36,30, 0, 0,25,20,51,47,44		1,26, 0,42,24	
		1,58,45,48,38,58, 3,45		8,41
32″	19,36,31,58,46,13,59,49,51,29		1,26, 0,51, 5	
		1,58,45,47,12,57,12,40		8,41
34″	19,36,33,57,32, 1,12,47, 4, 9		1,26, 0,59,46	
		1,58,45,45,46,56,12,54		8,41
36″	19,36,35,56,17,46,59,43,17, 3		1,26, 1, 8,27	
		1,58,45,44,20,55, 4,27		8,41
38″	19,36,37,55, 3,31,20,38,21,30		1,26, 1,17, 8	
		1,58,45,42,54,53,47,19		8,41
40″	19,36,39,53,49,14,15,32, 8,49		1,26, 1,25,49	
		1,58,45,41,28,52,21,30		8,41
42″	19,36,41,52,34,55,44,24,30,19		1,26, 1,34,30	
		1,58,45,40, 2,50,47, 0		8,41
44″	19,36,43,51,20,35,47,15,17,19		1,26, 1,43,11	
		1,58,45,38,36,49, 3,49		8,41
46″	19,36,45,50, 6,14,24, 4,21, 8		1,26, 1,51,52	
		1,58,45,37,10,47,11,57		8,41
48″	19,36,47,48,51,51,34,51,33, 5		1,26, 2, 0,33	
		1,58,45,35,44,45,11,24		8,41
50″	19,36,49,47,37,27,19,36,44,29		1,26, 2, 9,14	
		1,58,45,34,18,43, 2,10		8,41
52″	19,36,51,46,23, 1,38,19,46,39		1,26, 2,17,55	
		1,58,45,32,52,40,44,15		8,41
54″	19,36,53,45, 8,34,31, 0,30,54		1,26, 2,26,36	
		1,58,45,31,26,38,17,39		8,41
56″	19,36,55,43,54, 5,57,38,48,33		1,26, 2,35,17	
		1,58,45,30, 0,35,42,22		8,41
58″	19,36,57,42,39,35,58,14,30,55		1,26, 2,43,58	
		1,58,45,28,34,32,58,24		
60″	19,36,59,41,25, 4,32,47,29,19			
exact	19,36,59,41,25, 4,32,47,33, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19° 5′ 0″	19,36,59,41,25, 4,32,47,33, 9			
		1,58,45,27, 8,30, 6, 7		
2″	19,37, 1,40,10,31,41,17,39,16		1,26, 3, 1,18	
		1,58,45,25,42,27, 4,49		8,41
4″	19,37, 3,38,55,57,23,44,44, 5		1,26, 3, 9,59	
		1,58,45,24,16,23,54,50		8,41
6″	19,37, 5,37,41,21,40, 8,38,55		1,26, 3,18,40	
		1,58,45,22,50,20,36,10		8,41
8″	19,37, 7,36,26,44,30,29,15, 5		1,26, 3,27,21	
		1,58,45,21,24,17, 8,49		8,41
10″	19,37, 9,35,12, 5,54,46,23,54		1,26, 3,36, 2	
		1,58,45,19,58,13,32,47		8,41
12″	19,37,11,33,57,25,52,59,56,41		1,26, 3,44,43	
		1,58,45,18,32, 9,48, 4		8,41
14″	19,37,13,32,42,44,25, 9,44,45		1,26, 3,53,24	
		1,58,45,17, 6, 5,54,40		8,41
16″	19,37,15,31,28, 1,31,15,39,25		1,26, 4, 2, 5	
		1,58,45,15,40, 1,52,35		8,41
18″	19,37,17,30,13,17,11,17,32, 0		1,26, 4,10,46	
		1,58,45,14,13,57,41,49		8,41
20″	19,37,19,28,58,31,25,15,13,49		1,26, 4,19,27	
		1,58,45,12,47,53,22,22		8,41
22″	19,37,21,27,43,44,13, 8,36,11		1,26, 4,28, 8	
		1,58,45,11,21,48,54,14		8,41
24″	19,37,23,26,28,55,34,57,30,25		1,26, 4,36,49	
		1,58,45, 9,55,44,17,25		8,41
26″	19,37,25,25,14, 5,30,41,47,50		1,26, 4,45,30	
		1,58,45, 8,29,39,31,55		8,41
28″	19,37,27,23,59,14, 0,21,19,45		1,26, 4,54,11	
		1,58,45, 7, 3,34,37,44		8,41
30″	19,37,29,22,44,21, 3,55,57,29		1,26, 5, 2,52	
		1,58,45, 5,37,29,34,52		8,41
32″	19,37,31,21,29,26,41,25,32,21		1,26, 5,11,33	
		1,58,45, 4,11,24,23,19		8,41
34″	19,37,33,20,14,30,52,49,55,40		1,26, 5,20,14	
		1,58,45, 2,45,19, 3, 5		8,41
36″	19,37,35,18,59,33,38, 8,58,45		1,26, 5,28,55	
		1,58,45, 1,19,13,34,10		8,41
38″	19,37,37,17,44,34,57,22,32,55		1,26, 5,37,36	
		1,58,44,59,53, 7,56,34		8,41
40″	19,37,39,16,29,34,50,30,29,29		1,26, 5,46,17	
		1,58,44,58,27, 2,10,17		8,41
42″	19,37,41,15,14,33,17,32,39,46		1,26, 5,54,58	
		1,58,44,57, 0,56,15,19		8,41
44″	19,37,43,13,59,30,18,28,55, 5		1,26, 6, 3,39	
		1,58,44,55,34,50,11,40		8,41
46″	19,37,45,12,44,25,53,19, 6,45		1,26, 6,12,20	
		1,58,44,54, 8,43,59,20		8,41
48″	19,37,47,11,29,20, 2, 3, 6, 5		1,26, 6,21, 1	
		1,58,44,52,42,37,38,19		8,41
50″	19,37,49,10,14,12,44,40,44,24		1,26, 6,29,42	
		1,58,44,51,16,31, 8,37		8,41
52″	19,37,51, 8,59, 4, 1,11,53, 1		1,26, 6,38,23	
		1,58,44,49,50,24,30,14		8,41
54″	19,37,53, 7,43,53,51,36,23,15		1,26, 6,47, 4	
		1,58,44,48,24,17,43,10		8,41
56″	19,37,55, 6,28,42,15,54, 6,25		1,26, 6,55,45	
		1,58,44,46,58,10,47,25		8,41
58″	19,37,57, 5,13,29,14, 4,53,50		1,26, 7, 4,26	
		1,58,44,45,32, 3,42,59		
60″	19,37,59, 3,58,14,46, 8,36,49			
exact	19,37,59, 3,58,14,46, 8,39,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19° 6′ 0″	19,37,59, 3,58,14,46, 8,39,39	1,58,44,44, 5,56,30,18		
2″	19,38, 1, 2,42,58,52, 5, 9,57	1,58,44,42,39,49, 8,33	1,26, 7,21,45	8,41
4″	19,38, 3, 1,27,41,31,54,18,30	1,58,44,41,13,41,38, 7	1,26, 7,30,26	8,41
6″	19,38, 5, 0,12,22,45,35,56,37	1,58,44,39,47,33,59, 0	1,26, 7,39, 7	8,41
8″	19,38, 6,58,57, 2,33, 9,55,37	1,58,44,38,21,26,11,12	1,26, 7,47,48	8,41
10″	19,38, 8,57,41,40,54,36, 6,49	1,58,44,36,55,18,14,43	1,26, 7,56,29	8,41
12″	19,38,10,56,26,17,49,54,21,32	1,58,44,35,29,10, 9,33	1,26, 8, 5,10	8,41
14″	19,38,12,55,10,53,19, 4,31, 5	1,58,44,34, 3, 1,55,42	1,26, 8,13,51	8,41
16″	19,38,14,53,55,27,22, 6,26,47	1,58,44,32,36,53,33,10	1,26, 8,22,32	8,41
18″	19,38,16,52,39,59,58,59,59,57	1,58,44,31,10,45, 1,57	1,26, 8,31,13	8,41
20″	19,38,18,51,24,31, 9,45, 1,54	1,58,44,29,44,36,22, 3	1,26, 8,39,54	8,41
22″	19,38,20,50, 9, 0,54,21,23,57	1,58,44,28,18,27,33,28	1,26, 8,48,35	8,41
24″	19,38,22,48,53,29,12,48,57,25	1,58,44,26,52,18,36,12	1,26, 8,57,16	8,41
26″	19,38,24,47,37,56, 5, 7,33,37	1,58,44,25,26, 9,30,15	1,26, 9, 5,57	8,41
28″	19,38,26,46,22,21,31,17, 3,52	1,58,44,24, 0, 0,15,37	1,26, 9,14,38	8,41
30″	19,38,28,45, 6,45,31,17,19,29	1,58,44,22,33,50,52,18	1,26, 9,23,19	8,41
32″	19,38,30,43,51, 8, 5, 8,11,47	1,58,44,21, 7,41,20,18	1,26, 9,32, 0	8,41
34″	19,38,32,42,35,29,12,49,32, 5	1,58,44,19,41,31,39,37	1,26, 9,40,41	8,41
36″	19,38,34,41,19,48,54,21,11,42	1,58,44,18,15,21,50,15	1,26, 9,49,22	8,41
38″	19,38,36,40, 4, 7, 9,43, 1,57	1,58,44,16,49,11,52,12	1,26, 9,58, 3	8,41
40″	19,38,38,38,48,23,58,54,54, 9	1,58,44,15,23, 1,45,28	1,26,10, 6,44	8,41
42″	19,38,40,37,32,39,21,56,39,37	1,58,44,13,56,51,30, 3	1,26,10,15,25	8,41
44″	19,38,42,36,16,53,18,48, 9,40	1,58,44,12,30,41, 5,57	1,26,10,24, 6	8,41
46″	19,38,44,35, 1, 5,49,29,15,37	1,58,44,11, 4,30,33,10	1,26,10,32,47	8,41
48″	19,38,46,33,45,16,53,59,48,47	1,58,44, 9,38,19,51,42	1,26,10,41,28	8,41
50″	19,38,48,32,29,26,32,19,40,29	1,58,44, 8,12, 9, 1,33	1,26,10,50, 9	8,41
52″	19,38,50,31,13,34,44,28,42, 2	1,58,44, 6,45,58, 2,43	1,26,10,58,50	8,41
54″	19,38,52,29,57,41,30,26,44,45	1,58,44, 5,19,46,55,12	1,26,11, 7,31	8,41
56″	19,38,54,28,41,46,50,13,39,57	1,58,44, 3,53,35,39, 0	1,26,11,16,12	8,41
58″	19,38,56,27,25,50,43,49,18,57	1,58,44, 2,27,24,14, 7	1,26,11,24,53	
60″	19,38,58,26, 9,53,11,13,33, 4			
exact	19,38,58,26, 9,53,11,13,39, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19° 7′ 0″	19,38,58,26, 9,53,11,13,39, 4			
		1,58,44, 1, 1,12,41,21		
2″	19,39, 0,24,53,54,12,26,20,25		1,26,11,42,11	
		1,58,43,59,35, 0,59,10		8,41
4″	19,39, 2,23,37,53,47,27,19,35		1,26,11,50,52	
		1,58,43,58, 8,49, 8,18		8,41
6″	19,39, 4,22,21,51,56,16,27,53		1,26,11,59,33	
		1,58,43,56,42,37, 8,45		8,41
8″	19,39, 6,21, 5,48,38,53,36,38		1,26,12, 8,14	
		1,58,43,55,16,25, 0,31		8,41
10″	19,39, 8,19,49,43,55,18,37, 9		1,26,12,16,55	
		1,58,43,53,50,12,43,36		8,41
12″	19,39,10,18,33,37,45,31,20,45		1,26,12,25,36	
		1,58,43,52,24, 0,18, 0		8,41
14″	19,39,12,17,17,30, 9,31,38,45		1,26,12,34,17	
		1,58,43,50,57,47,43,43		8,41
16″	19,39,14,16, 1,21, 7,19,22,28		1,26,12,42,58	
		1,58,43,49,31,35, 0,45		8,41
18″	19,39,16,14,45,10,38,54,23,13		1,26,12,51,39	
		1,58,43,48, 5,22, 9, 6		8,41
20″	19,39,18,13,28,58,44,16,32,19		1,26,13, 0,20	
		1,58,43,46,39, 9, 8,46		8,41
22″	19,39,20,12,12,45,23,25,41, 5		1,26,13, 9, 1	
		1,58,43,45,12,55,59,45		8,41
24″	19,39,22,10,56,30,36,21,40,50		1,26,13,17,42	
		1,58,43,43,46,42,42, 3		8,41
26″	19,39,24, 9,40,14,23, 4,22,53		1,26,13,26,23	
		1,58,43,42,20,29,15,40		8,41
28″	19,39,26, 8,23,56,43,33,38,33		1,26,13,35, 4	
		1,58,43,40,54,15,40,36		8,41
30″	19,39,28, 7, 7,37,37,49,19, 9		1,26,13,43,45	
		1,58,43,39,28, 1,56,51		8,41
32″	19,39,30, 5,51,17, 5,51,16, 0		1,26,13,52,26	
		1,58,43,38, 1,48, 4,25		8,41
34″	19,39,32, 4,34,55, 7,39,20,25		1,26,14, 1, 7	
		1,58,43,36,35,34, 3,18		8,41
36″	19,39,34, 3,18,31,43,13,23,43		1,26,14, 9,48	
		1,58,43,35, 9,19,53,30		8,41
38″	19,39,36, 2, 2, 6,52,33,17,13		1,26,14,18,29	
		1,58,43,33,43, 5,35, 1		8,41
40″	19,39,38, 0,45,40,35,38,52,14		1,26,14,27,10	
		1,58,43,32,16,51, 7,51		8,41
42″	19,39,39,59,29,12,52,30, 0, 5		1,26,14,35,51	
		1,58,43,30,50,36,32, 0		8,41
44″	19,39,41,58,12,43,43, 6,32, 5		1,26,14,44,32	
		1,58,43,29,24,21,47,28		8,41
46″	19,39,43,56,56,13, 7,28,19,33		1,26,14,53,13	
		1,58,43,27,58, 6,54,15		8,41
48″	19,39,45,55,39,41, 5,35,13,48		1,26,15, 1,54	
		1,58,43,26,31,51,52,21		8,41
50″	19,39,47,54,23, 7,37,27, 6, 9		1,26,15,10,35	
		1,58,43,25, 5,36,41,46		8,41
52″	19,39,49,53, 6,32,43, 3,47,55		1,26,15,19,16	
		1,58,43,23,39,21,22,30		8,41
54″	19,39,51,51,49,56,22,25,10,25		1,26,15,27,57	
		1,58,43,22,13, 5,54,33		8,41
56″	19,39,53,50,33,18,35,31, 4,58		1,26,15,36,38	
		1,58,43,20,46,50,17,55		8,41
58″	19,39,55,49,16,39,22,21,22,53		1,26,15,45,19	
		1,58,43,19,20,34,32,36		
60″	19,39,57,47,59,58,42,55,55,29			
exact	19,39,57,47,59,58,42,56, 8,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19° 8′ 0″	19,39,57,47,59,58,42,56, 8,25			
		1,58,43,17,54,18,40, 1		
2″	19,39,59,46,43,16,37,14,48,26		1,26,16, 2,35	
		1,58,43,16,28, 2,37,26		8,41
4″	19,40, 1,45,26,33, 5,17,25,52		1,26,16,11,16	
		1,58,43,15, 1,46,26,10		8,41
6″	19,40, 3,44, 9,48, 7, 3,52, 2		1,26,16,19,57	
		1,58,43,13,35,30, 6,13		8,41
8″	19,40, 5,42,53, 1,42,33,58,15		1,26,16,28,38	
		1,58,43,12, 9,13,37,35		8,41
10″	19,40, 7,41,36,13,51,47,35,50		1,26,16,37,19	
		1,58,43,10,42,57, 0,16		8,41
12″	19,40, 9,40,19,24,34,44,36, 6		1,26,16,46, 0	
		1,58,43, 9,16,40,14,16		8,41
14″	19,40,11,39, 2,33,51,24,50,22		1,26,16,54,41	
		1,58,43, 7,50,23,19,35		8,41
16″	19,40,13,37,45,41,41,48, 9,57		1,26,17, 3,22	
		1,58,43, 6,24, 6,16,13		8,41
18″	19,40,15,36,28,48, 5,54,26,10		1,26,17,12, 3	
		1,58,43, 4,57,49, 4,10		8,41
20″	19,40,17,35,11,53, 3,43,30,20		1,26,17,20,44	
		1,58,43, 3,31,31,43,26		8,41
22″	19,40,19,33,54,56,35,15,13,46		1,26,17,29,25	
		1,58,43, 2, 5,14,14, 1		8,41
24″	19,40,21,32,37,58,40,29,27,47		1,26,17,38, 6	
		1,58,43, 0,38,56,35,55		8,41
26″	19,40,23,31,20,59,19,26, 3,42		1,26,17,46,47	
		1,58,42,59,12,38,49, 8		8,41
28″	19,40,25,30, 3,58,32, 4,52,50		1,26,17,55,28	
		1,58,42,57,46,20,53,40		8,41
30″	19,40,27,28,46,56,18,25,46,30		1,26,18, 4, 9	
		1,58,42,56,20, 2,49,31		8,41
32″	19,40,29,27,29,52,38,28,36, 1		1,26,18,12,50	
		1,58,42,54,53,44,36,41		8,41
34″	19,40,31,26,12,47,32,13,12,42		1,26,18,21,31	
		1,58,42,53,27,26,15,10		8,41
36″	19,40,33,24,55,40,59,39,27,52		1,26,18,30,12	
		1,58,42,52, 1, 7,44,58		8,41
38″	19,40,35,23,38,33, 0,47,12,50		1,26,18,38,53	
		1,58,42,50,34,49, 6, 5		8,41
40″	19,40,37,22,21,23,35,36,18,55		1,26,18,47,34	
		1,58,42,49, 8,30,18,31		8,41
42″	19,40,39,21, 4,12,44, 6,37,26		1,26,18,56,15	
		1,58,42,47,42,11,22,16		8,41
44″	19,40,41,19,47, 0,26,17,59,42		1,26,19, 4,56	
		1,58,42,46,15,52,17,20		8,41
46″	19,40,43,18,29,46,42,10,17, 2		1,26,19,13,37	
		1,58,42,44,49,33, 3,43		8,41
48″	19,40,45,17,12,31,31,43,20,45		1,26,19,22,18	
		1,58,42,43,23,13,41,25		8,41
50″	19,40,47,15,55,14,54,57, 2,10		1,26,19,30,59	
		1,58,42,41,56,54,10,26		8,41
52″	19,40,49,14,37,56,51,51,12,36		1,26,19,39,40	
		1,58,42,40,30,34,30,46		8,41
54″	19,40,51,13,20,37,22,25,43,22		1,26,19,48,21	
		1,58,42,39, 4,14,42,25		8,41
56″	19,40,53,12, 3,16,26,40,25,47		1,26,19,57, 2	
		1,58,42,37,37,54,45,23		8,41
58″	19,40,55,10,45,54, 4,35,11,10		1,26,20, 5,43	
		1,58,42,36,11,34,39,40		
60″	19,40,57, 9,28,30,16, 9,50,50			
exact	19,40,57, 9,28,30,16,10, 8,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19° 9′ 0″	19,40,57, 9,28,30,16,10, 8,23	1,58,42,34,45,14,27, 8		
2″	19,40,59, 8,11, 5, 1,24,35,31	1,58,42,33,18,54, 4,11	1,26,20,22,57	8,41
4″	19,41, 1, 6,53,38,20,18,39,42	1,58,42,31,52,33,32,33	1,26,20,31,38	8,41
6″	19,41, 3, 5,36,10,12,52,12,15	1,58,42,30,26,12,52,14	1,26,20,40,19	8,41
8″	19,41, 5, 4,18,40,39, 5, 4,29	1,58,42,28,59,52, 3,14	1,26,20,49, 0	8,41
10″	19,41, 7, 3, 1, 9,38,57, 7,43	1,58,42,27,33,31, 5,33	1,26,20,57,41	8,41
12″	19,41, 9, 1,43,37,12,28,13,16	1,58,42,26, 7, 9,59,11	1,26,21, 6,22	8,41
14″	19,41,11, 0,26, 3,19,38,12,27	1,58,42,24,40,48,44, 8	1,26,21,15, 3	8,41
16″	19,41,12,59, 8,28, 0,26,56,35	1,58,42,23,14,27,20,24	1,26,21,23,44	8,41
18″	19,41,14,57,50,51,14,54,16,59	1,58,42,21,48, 5,47,59	1,26,21,32,25	8,41
20″	19,41,16,56,33,13, 3, 0, 4,58	1,58,42,20,21,44, 6,53	1,26,21,41, 6	8,41
22″	19,41,18,55,15,33,24,44,11,51	1,58,42,18,55,22,17, 6	1,26,21,49,47	8,41
24″	19,41,20,53,57,52,20, 6,28,57	1,58,42,17,29, 0,18,38	1,26,21,58,28	8,41
26″	19,41,22,52,40, 9,49, 6,47,35	1,58,42,16, 2,38,11,29	1,26,22, 7, 9	8,41
28″	19,41,24,51,22,25,51,44,59, 4	1,58,42,14,36,15,55,39	1,26,22,15,50	8,41
30″	19,41,26,50, 4,40,28, 0,54,43	1,58,42,13, 9,53,31, 8	1,26,22,24,31	8,41
32″	19,41,28,48,46,53,37,54,25,51	1,58,42,11,43,30,57,56	1,26,22,33,12	8,41
34″	19,41,30,47,29, 5,21,25,23,47	1,58,42,10,17, 8,16, 3	1,26,22,41,53	8,41
36″	19,41,32,46,11,15,38,33,39,50	1,58,42, 8,50,45,25,29	1,26,22,50,34	8,41
38″	19,41,34,44,53,24,29,19, 5,19	1,58,42, 7,24,22,26,14	1,26,22,59,15	8,41
40″	19,41,36,43,35,31,53,41,31,33	1,58,42, 5,57,59,18,18	1,26,23, 7,56	8,41
42″	19,41,38,42,17,37,51,40,49,51	1,58,42, 4,31,36, 1,41	1,26,23,16,37	8,41
44″	19,41,40,40,59,42,23,16,51,32	1,58,42, 3, 5,12,36,23	1,26,23,25,18	8,41
46″	19,41,42,39,41,45,28,29,27,55	1,58,42, 1,38,49, 2,24	1,26,23,33,59	8,41
48″	19,41,44,38,23,47, 7,18,30,19	1,58,42, 0,12,25,19,44	1,26,23,42,40	8,41
50″	19,41,46,37, 5,47,19,43,50, 3	1,58,41,58,46, 1,28,23	1,26,23,51,21	8,41
52″	19,41,48,35,47,46, 5,45,18,26	1,58,41,57,19,37,28,21	1,26,24, 0, 2	8,41
54″	19,41,50,34,29,43,25,22,46,47	1,58,41,55,53,13,19,38	1,26,24, 8,43	8,41
56″	19,41,52,33,11,39,18,36, 6,25	1,58,41,54,26,49, 2,14	1,26,24,17,24	8,41
58″	19,41,54,31,53,33,45,25, 8,39	1,58,41,53, 0,24,36, 9	1,26,24,26, 5	
60″	19,41,56,30,35,26,45,49,44,48			
exact	19,41,56,30,35,26,45,50, 3,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°10′ 0″	19,41,56,30,35,26,45,50, 3,16			
		1,58,41,51,34, 0, 3,27		
2″	19,41,58,29,17,18,19,50, 6,43		1,26,24,43,18	
		1,58,41,50, 7,35,20, 9		8,41
4″	19,42, 0,27,59, 8,27,25,26,52		1,26,24,51,59	
		1,58,41,48,41,10,28,10		8,41
6″	19,42, 2,26,40,57, 8,35,55, 2		1,26,25, 0,40	
		1,58,41,47,14,45,27,30		8,41
8″	19,42, 4,25,22,44,23,21,22,32		1,26,25, 9,21	
		1,58,41,45,48,20,18, 9		8,41
10″	19,42, 6,24, 4,30,11,41,40,41		1,26,25,18, 2	
		1,58,41,44,21,55, 0, 7		8,41
12″	19,42, 8,22,46,14,33,36,40,48		1,26,25,26,43	
		1,58,41,42,55,29,33,24		8,41
14″	19,42,10,21,27,57,29, 6,14,12		1,26,25,35,24	
		1,58,41,41,29, 3,58, 0		8,41
16″	19,42,12,20, 9,38,58,10,12,12		1,26,25,44, 5	
		1,58,41,40, 2,38,13,55		8,41
18″	19,42,14,18,51,19, 0,48,26, 7		1,26,25,52,46	
		1,58,41,38,36,12,21, 9		8,41
20″	19,42,16,17,32,57,37, 0,47,16		1,26,26, 1,27	
		1,58,41,37, 9,46,19,42		8,41
22″	19,42,18,16,14,34,46,47, 6,58		1,26,26,10, 8	
		1,58,41,35,43,20, 9,34		8,41
24″	19,42,20,14,56,10,30, 7,16,32		1,26,26,18,49	
		1,58,41,34,16,53,50,45		8,41
26″	19,42,22,13,37,44,47, 1, 7,17		1,26,26,27,30	
		1,58,41,32,50,27,23,15		8,41
28″	19,42,24,12,19,17,37,28,30,32		1,26,26,36,11	
		1,58,41,31,24, 0,47, 4		8,41
30″	19,42,26,11, 0,49, 1,29,17,36		1,26,26,44,52	
		1,58,41,29,57,34, 2,12		8,41
32″	19,42,28, 9,42,18,59, 3,19,48		1,26,26,53,33	
		1,58,41,28,31, 7, 8,39		8,41
34″	19,42,30, 8,23,47,30,10,28,27		1,26,27, 2,14	
		1,58,41,27, 4,40, 6,25		8,41
36″	19,42,32, 7, 5,14,34,50,34,52		1,26,27,10,55	
		1,58,41,25,38,12,55,30		8,41
38″	19,42,34, 5,46,40,13, 3,30,22		1,26,27,19,36	
		1,58,41,24,11,45,35,54		8,41
40″	19,42,36, 4,28, 4,24,49, 6,16		1,26,27,28,17	
		1,58,41,22,45,18, 7,37		8,41
42″	19,42,38, 3, 9,27,10, 7,13,53		1,26,27,36,58	
		1,58,41,21,18,50,30,39		8,41
44″	19,42,40, 1,50,48,28,57,44,32		1,26,27,45,39	
		1,58,41,19,52,22,45, 0		8,41
46″	19,42,42, 0,32, 8,21,20,29,32		1,26,27,54,20	
		1,58,41,18,25,54,50,40		8,41
48″	19,42,43,59,13,26,47,15,20,12		1,26,28, 3, 1	
		1,58,41,16,59,26,47,39		8,41
50″	19,42,45,57,54,43,46,42, 7,51		1,26,28,11,42	
		1,58,41,15,32,58,35,57		8,41
52″	19,42,47,56,35,59,19,40,43,48		1,26,28,20,23	
		1,58,41,14, 6,30,15,34		8,41
54″	19,42,49,55,17,13,26,10,59,22		1,26,28,29, 4	
		1,58,41,12,40, 1,46,30		8,41
56″	19,42,51,53,58,26, 6,12,45,52		1,26,28,37,45	
		1,58,41,11,13,33, 8,45		8,41
58″	19,42,53,52,39,37,19,45,54,37		1,26,28,46,26	
		1,58,41, 9,47, 4,22,19		
60″	19,42,55,51,20,47, 6,50,16,56			
exact	19,42,55,51,20,47, 6,50,41, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°11′ 0″	19,42,55,51,20,47, 6,50,41, 3			
		1,58,41, 8,20,35,29,47		
2″	19,42,57,50, 1,55,27,26,10,50		1,26,29, 3,37	
		1,58,41, 6,54, 6,26,10		8,41
4″	19,42,59,48,43, 2,21,32,37, 0		1,26,29,12,18	
		1,58,41, 5,27,37,13,52		8,41
6″	19,43, 1,47,24, 7,49, 9,50,52		1,26,29,20,59	
		1,58,41, 4, 1, 7,52,53		8,41
8″	19,43, 3,46, 5,11,50,17,43,45		1,26,29,29,40	
		1,58,41, 2,34,38,23,13		8,41
10″	19,43, 5,44,46,14,24,56, 6,58		1,26,29,38,21	
		1,58,41, 1, 8, 8,44,52		8,41
12″	19,43, 7,43,27,15,33, 4,51,50		1,26,29,47, 2	
		1,58,40,59,41,38,57,50		8,41
14″	19,43, 9,42, 8,15,14,43,49,40		1,26,29,55,43	
		1,58,40,58,15, 9, 2, 7		8,41
16″	19,43,11,40,49,13,29,52,51,47		1,26,30, 4,24	
		1,58,40,56,48,38,57,43		8,41
18″	19,43,13,39,30,10,18,31,49,30		1,26,30,13, 5	
		1,58,40,55,22, 8,44,38		8,41
20″	19,43,15,38,11, 5,40,40,34, 8		1,26,30,21,46	
		1,58,40,53,55,38,22,52		8,41
22″	19,43,17,36,51,59,36,18,57, 0		1,26,30,30,27	
		1,58,40,52,29, 7,52,25		8,41
24″	19,43,19,35,32,52, 5,26,49,25		1,26,30,39, 8	
		1,58,40,51, 2,37,13,17		8,41
26″	19,43,21,34,13,43, 8, 4, 2,42		1,26,30,47,49	
		1,58,40,49,36, 6,25,28		8,41
28″	19,43,23,32,54,32,44,10,28,10		1,26,30,56,30	
		1,58,40,48, 9,35,28,58		8,41
30″	19,43,25,31,35,20,53,45,57, 8		1,26,31, 5,11	
		1,58,40,46,43, 4,23,47		8,41
32″	19,43,27,30,16, 7,36,50,20,55		1,26,31,13,52	
		1,58,40,45,16,33, 9,55		8,41
34″	19,43,29,28,56,52,53,23,30,50		1,26,31,22,33	
		1,58,40,43,50, 1,47,22		8,41
36″	19,43,31,27,37,36,43,25,18,12		1,26,31,31,14	
		1,58,40,42,23,30,16, 8		8,41
38″	19,43,33,26,18,19, 6,55,34,20		1,26,31,39,55	
		1,58,40,40,56,58,36,13		8,41
40″	19,43,35,24,59, 0, 3,54,10,33		1,26,31,48,36	
		1,58,40,39,30,26,47,37		8,41
42″	19,43,37,23,39,39,34,20,58,10		1,26,31,57,17	
		1,58,40,38, 3,54,50,20		8,41
44″	19,43,39,22,20,17,38,15,48,30		1,26,32, 5,58	
		1,58,40,36,37,22,44,22		8,41
46″	19,43,41,21, 0,54,15,38,32,52		1,26,32,14,39	
		1,58,40,35,10,50,29,43		8,41
48″	19,43,43,19,41,29,26,29, 2,35		1,26,32,23,20	
		1,58,40,33,44,18, 6,23		8,41
50″	19,43,45,18,22, 3,10,47, 8,58		1,26,32,32, 1	
		1,58,40,32,17,45,34,22		8,41
52″	19,43,47,17, 2,35,28,32,43,20		1,26,32,40,42	
		1,58,40,30,51,12,53,40		8,41
54″	19,43,49,15,43, 6,19,45,37, 0		1,26,32,49,23	
		1,58,40,29,24,40, 4,17		8,41
56″	19,43,51,14,23,35,44,25,41,17		1,26,32,58, 4	
		1,58,40,27,58, 7, 6,13		8,41
58″	19,43,53,13, 4, 3,42,32,47,30		1,26,33, 6,45	
		1,58,40,26,31,33,59,28		
60″	19,43,55,11,44,30,14, 6,46,58			
exact	19,43,55,11,44,30,14, 7,13,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°12′ 0″	19,43,55,11,44,30,14, 7,13,25			
		1,58,40,25, 5, 0,46,55		
2″	19,43,57,10,24,55,19, 8, 0,20		1,26,33,23,55	
		1,58,40,23,38,27,23, 0		8,41
4″	19,43,59, 9, 5,18,57,35,23,20		1,26,33,32,36	
		1,58,40,22,11,53,50,24		8,41
6″	19,44, 1, 7,45,41, 9,29,13,44		1,26,33,41,17	
		1,58,40,20,45,20, 9, 7		8,41
8″	19,44, 3, 6,26, 1,54,49,22,51		1,26,33,49,58	
		1,58,40,19,18,46,19, 9		8,41
10″	19,44, 5, 5, 6,21,13,35,42, 0		1,26,33,58,39	
		1,58,40,17,52,12,20,30		8,41
12″	19,44, 7, 3,46,39, 5,48, 2,30		1,26,34, 7,20	
		1,58,40,16,25,38,13,10		8,41
14″	19,44, 9, 2,26,55,31,26,15,40		1,26,34,16, 1	
		1,58,40,14,59, 3,57, 9		8,41
16″	19,44,11, 1, 7,10,30,30,12,49		1,26,34,24,42	
		1,58,40,13,32,29,32,27		8,41
18″	19,44,12,59,47,24, 2,59,45,16		1,26,34,33,23	
		1,58,40,12, 5,54,59, 4		8,41
20″	19,44,14,58,27,36, 8,54,44,20		1,26,34,42, 4	
		1,58,40,10,39,20,17, 0		8,41
22″	19,44,16,57, 7,46,48,15, 1,20		1,26,34,50,45	
		1,58,40, 9,12,45,26,15		8,41
24″	19,44,18,55,47,56, 1, 0,27,35		1,26,34,59,26	
		1,58,40, 7,46,10,26,49		8,41
26″	19,44,20,54,28, 3,47,10,54,24		1,26,35, 8, 7	
		1,58,40, 6,19,35,18,42		8,41
28″	19,44,22,53, 8,10, 6,46,13, 6		1,26,35,16,48	
		1,58,40, 4,53, 0, 1,54		8,41
30″	19,44,24,51,48,14,59,46,15, 0		1,26,35,25,29	
		1,58,40, 3,26,24,36,25		8,41
32″	19,44,26,50,28,18,26,10,51,25		1,26,35,34,10	
		1,58,40, 1,59,49, 2,15		8,41
34″	19,44,28,49, 8,20,25,59,53,40		1,26,35,42,51	
		1,58,40, 0,33,13,19,24		8,41
36″	19,44,30,47,48,20,59,13,13, 4		1,26,35,51,32	
		1,58,39,59, 6,37,27,52		8,41
38″	19,44,32,46,28,20, 5,50,40,56		1,26,36, 0,13	
		1,58,39,57,40, 1,27,39		8,41
40″	19,44,34,45, 8,17,45,52, 8,35		1,26,36, 8,54	
		1,58,39,56,13,25,18,45		8,41
42″	19,44,36,43,48,13,59,17,27,20		1,26,36,17,35	
		1,58,39,54,46,49, 1,10		8,41
44″	19,44,38,42,28, 8,46, 6,28,30		1,26,36,26,16	
		1,58,39,53,20,12,34,54		8,41
46″	19,44,40,41, 8, 2, 6,19, 3,24		1,26,36,34,57	
		1,58,39,51,53,35,59,57		8,41
48″	19,44,42,39,47,53,59,55, 3,21		1,26,36,43,38	
		1,58,39,50,26,59,16,19		8,41
50″	19,44,44,38,27,44,26,54,19,40		1,26,36,52,19	
		1,58,39,49, 0,22,24, 0		8,41
52″	19,44,46,37, 7,33,27,16,43,40		1,26,37, 1, 0	
		1,58,39,47,33,45,23, 0		8,41
54″	19,44,48,35,47,21, 1, 2, 6,40		1,26,37, 9,41	
		1,58,39,46, 7, 8,13,19		8,41
56″	19,44,50,34,27, 7, 8,10,19,59		1,26,37,18,22	
		1,58,39,44,40,30,54,57		8,41
58″	19,44,52,33, 6,51,48,41,14,56		1,26,37,27, 3	
		1,58,39,43,13,53,27,54		
60″	19,44,54,31,46,35, 2,34,42,50			
exact	19,44,54,31,46,35, 2,35,15,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°13′ 0″	19,44,54,31,46,35, 2,35,15,43			
		1,58,39,41,47,15,55,38		
2″	19,44,56,30,26,16,49,51,11,21		1,26,37,44,11	
		1,58,39,40,20,38,11,27		8,41
4″	19,44,58,29, 5,57,10,29,22,48		1,26,37,52,52	
		1,58,39,38,54, 0,18,35		8,41
6″	19,45, 0,27,45,36, 4,29,41,23		1,26,38, 1,33	
		1,58,39,37,27,22,17, 2		8,41
8″	19,45, 2,26,25,13,31,51,58,25		1,26,38,10,14	
		1,58,39,36, 0,44, 6,48		8,41
10″	19,45, 4,25, 4,49,32,36, 5,13		1,26,38,18,55	
		1,58,39,34,34, 5,47,53		8,41
12″	19,45, 6,23,44,24, 6,41,53, 6		1,26,38,27,36	
		1,58,39,33, 7,27,20,17		8,41
14″	19,45, 8,22,23,57,14, 9,13,23		1,26,38,36,17	
		1,58,39,31,40,48,44, 0		8,41
16″	19,45,10,21, 3,28,54,57,57,23		1,26,38,44,58	
		1,58,39,30,14, 9,59, 2		8,41
18″	19,45,12,19,42,59, 9, 7,56,25		1,26,38,53,39	
		1,58,39,28,47,31, 5,23		8,41
20″	19,45,14,18,22,27,56,39, 1,48		1,26,39, 2,20	
		1,58,39,27,20,52, 3, 3		8,41
22″	19,45,16,17, 1,55,17,31, 4,51		1,26,39,11, 1	
		1,58,39,25,54,12,52, 2		8,41
24″	19,45,18,15,41,21,11,43,56,53		1,26,39,19,42	
		1,58,39,24,27,33,32,20		8,41
26″	19,45,20,14,20,45,39,17,29,13		1,26,39,28,23	
		1,58,39,23, 0,54, 3,57		8,41
28″	19,45,22,13, 0, 8,40,11,33,10		1,26,39,37, 4	
		1,58,39,21,34,14,26,53		8,41
30″	19,45,24,11,39,30,14,26, 0, 3		1,26,39,45,45	
		1,58,39,20, 7,34,41, 8		8,41
32″	19,45,26,10,18,50,22, 0,41,11		1,26,39,54,26	
		1,58,39,18,40,54,46,42		8,41
34″	19,45,28, 8,58, 9, 2,55,27,53		1,26,40, 3, 7	
		1,58,39,17,14,14,43,35		8,41
36″	19,45,30, 7,37,26,17,10,11,28		1,26,40,11,48	
		1,58,39,15,47,34,31,47		8,41
38″	19,45,32, 6,16,42, 4,44,43,15		1,26,40,20,29	
		1,58,39,14,20,54,11,18		8,41
40″	19,45,34, 4,55,56,25,38,54,33		1,26,40,29,10	
		1,58,39,12,54,13,42, 8		8,41
42″	19,45,36, 3,35, 9,19,52,36,41		1,26,40,37,51	
		1,58,39,11,27,33, 4,17		8,41
44″	19,45,38, 2,14,20,47,25,40,58		1,26,40,46,32	
		1,58,39,10, 0,52,17,45		8,41
46″	19,45,40, 0,53,30,48,17,58,43		1,26,40,55,13	
		1,58,39, 8,34,11,22,32		8,41
48″	19,45,41,59,32,39,22,29,21,15		1,26,41, 3,54	
		1,58,39, 7, 7,30,18,38		8,41
50″	19,45,43,58,11,46,29,59,39,53		1,26,41,12,35	
		1,58,39, 5,40,49, 6, 3		8,41
52″	19,45,45,56,50,52,10,48,45,56		1,26,41,21,16	
		1,58,39, 4,14, 7,44,47		8,41
54″	19,45,47,55,29,56,24,56,30,43		1,26,41,29,57	
		1,58,39, 2,47,26,14,50		8,41
56″	19,45,49,54, 8,59,12,22,45,33		1,26,41,38,38	
		1,58,39, 1,20,44,36,12		8,41
58″	19,45,51,52,48, 0,33, 7,21,45		1,26,41,47,19	
		1,58,38,59,54, 2,48,53		
60″	19,45,53,51,27, 0,27,10,10,38			
exact	19,45,53,51,27, 0,27,10,47, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°14′ 0″	19,45,53,51,27, 0,27,10,47, 5			
		1,58,38,58,27,20,56,44		
2″	19,45,55,50, 5,58,54,31,43,49		1,26,42, 4,25	
		1,58,38,57, 0,38,52,19		8,40
4″	19,45,57,48,44,55,55,10,36, 8		1,26,42,13, 5	
		1,58,38,55,33,56,39,14		8,40
6″	19,45,59,47,23,51,29, 7,15,22		1,26,42,21,45	
		1,58,38,54, 7,14,17,29		8,40
8″	19,46, 1,46, 2,45,36,21,32,51		1,26,42,30,25	
		1,58,38,52,40,31,47, 4		8,40
10″	19,46, 3,44,41,38,16,53,19,55		1,26,42,39, 5	
		1,58,38,51,13,49, 7,59		8,40
12″	19,46, 5,43,20,29,30,42,27,54		1,26,42,47,45	
		1,58,38,49,47, 6,20,14		8,40
14″	19,46, 7,41,59,19,17,48,48, 8		1,26,42,56,25	
		1,58,38,48,20,23,23,49		8,40
16″	19,46, 9,40,38, 7,38,12,11,57		1,26,43, 5, 5	
		1,58,38,46,53,40,18,44		8,40
18″	19,46,11,39,16,54,31,52,30,41		1,26,43,13,45	
		1,58,38,45,26,57, 4,59		8,40
20″	19,46,13,37,55,39,58,49,35,40		1,26,43,22,25	
		1,58,38,44, 0,13,42,34		8,40
22″	19,46,15,36,34,23,59, 3,18,14		1,26,43,31, 5	
		1,58,38,42,33,30,11,29		8,40
24″	19,46,17,35,13, 6,32,33,29,43		1,26,43,39,45	
		1,58,38,41, 6,46,31,44		8,40
26″	19,46,19,33,51,47,39,20, 1,27		1,26,43,48,25	
		1,58,38,39,40, 2,43,19		8,40
28″	19,46,21,32,30,27,19,22,44,46		1,26,43,57, 5	
		1,58,38,38,13,18,46,14		8,40
30″	19,46,23,31, 9, 5,32,41,31, 0		1,26,44, 5,45	
		1,58,38,36,46,34,40,29		8,40
32″	19,46,25,29,47,42,19,16,11,29		1,26,44,14,25	
		1,58,38,35,19,50,26, 4		8,40
34″	19,46,27,28,26,17,39, 6,37,33		1,26,44,23, 5	
		1,58,38,33,53, 6, 2,59		8,40
36″	19,46,29,27, 4,51,32,12,40,32		1,26,44,31,45	
		1,58,38,32,26,21,31,14		8,40
38″	19,46,31,25,43,23,58,34,11,46		1,26,44,40,25	
		1,58,38,30,59,36,50,49		8,40
40″	19,46,33,24,21,54,58,11, 2,35		1,26,44,49, 5	
		1,58,38,29,32,52, 1,44		8,40
42″	19,46,35,23, 0,24,31, 3, 4,19		1,26,44,57,45	
		1,58,38,28, 6, 7, 3,59		8,40
44″	19,46,37,21,38,52,37,10, 8,18		1,26,45, 6,25	
		1,58,38,26,39,21,57,34		8,40
46″	19,46,39,20,17,19,16,32, 5,52		1,26,45,15, 5	
		1,58,38,25,12,36,42,29		8,40
48″	19,46,41,18,55,44,29, 8,48,21		1,26,45,23,45	
		1,58,38,23,45,51,18,44		8,40
50″	19,46,43,17,34, 8,15, 0, 7, 5		1,26,45,32,25	
		1,58,38,22,19, 5,46,19		8,40
52″	19,46,45,16,12,30,34, 5,53,24		1,26,45,41, 5	
		1,58,38,20,52,20, 5,14		8,40
54″	19,46,47,14,50,51,26,25,58,38		1,26,45,49,45	
		1,58,38,19,25,34,15,29		8,40
56″	19,46,49,13,29,10,52, 0,14, 7		1,26,45,58,25	
		1,58,38,17,58,48,17, 4		8,40
58″	19,46,51,12, 7,28,50,48,31,11		1,26,46, 7, 5	
		1,58,38,16,32, 2, 9,59		
60″	19,46,53,10,45,45,22,50,41,10			
exact	19,46,53,10,45,45,22,50,10,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°15′ 0″	19,46,53,10,45,45,22,50,10,21			
		1,58,38,15, 5,15,51, 0		
2″	19,46,55, 9,24, 0,28, 6, 1,21		1,26,46,24,38	
		1,58,38,13,38,29,26,22		8,40
4″	19,46,57, 8, 2,14, 6,35,27,43		1,26,46,33,18	
		1,58,38,12,11,42,53, 4		8,40
6″	19,46,59, 6,40,26,18,18,20,47		1,26,46,41,58	
		1,58,38,10,44,56,11, 6		8,40
8″	19,47, 1, 5,18,37, 3,14,31,53		1,26,46,50,38	
		1,58,38, 9,18, 9,20,28		8,40
10″	19,47, 3, 3,56,46,21,23,52,21		1,26,46,59,18	
		1,58,38, 7,51,22,21,10		8,40
12″	19,47, 5, 2,34,54,12,46,13,31		1,26,47, 7,58	
		1,58,38, 6,24,35,13,12		8,40
14″	19,47, 7, 1,13, 0,37,21,26,43		1,26,47,16,38	
		1,58,38, 4,57,47,56,34		8,40
16″	19,47, 8,59,51, 5,35, 9,23,17		1,26,47,25,18	
		1,58,38, 3,31, 0,31,16		8,40
18″	19,47,10,58,29, 9, 6, 9,54,33		1,26,47,33,58	
		1,58,38, 2, 4,12,57,18		8,40
20″	19,47,12,57, 7,11,10,22,51,51		1,26,47,42,38	
		1,58,38, 0,37,25,14,40		8,40
22″	19,47,14,55,45,11,47,48, 6,31		1,26,47,51,18	
		1,58,37,59,10,37,23,22		8,40
24″	19,47,16,54,23,10,58,25,29,53		1,26,47,59,58	
		1,58,37,57,43,49,23,24		8,40
26″	19,47,18,53, 1, 8,42,14,53,17		1,26,48, 8,38	
		1,58,37,56,17, 1,14,46		8,40
28″	19,47,20,51,39, 4,59,16, 8, 3		1,26,48,17,18	
		1,58,37,54,50,12,57,28		8,40
30″	19,47,22,50,16,59,49,29, 5,31		1,26,48,25,58	
		1,58,37,53,23,24,31,30		8,40
32″	19,47,24,48,54,53,12,53,37, 1		1,26,48,34,38	
		1,58,37,51,56,35,56,52		8,40
34″	19,47,26,47,32,45, 9,29,33,53		1,26,48,43,18	
		1,58,37,50,29,47,13,34		8,40
36″	19,47,28,46,10,35,39,16,47,27		1,26,48,51,58	
		1,58,37,49, 2,58,21,36		8,40
38″	19,47,30,44,48,24,42,15, 9, 3		1,26,49, 0,38	
		1,58,37,47,36, 9,20,58		8,40
40″	19,47,32,43,26,12,18,24,30, 1		1,26,49, 9,18	
		1,58,37,46, 9,20,11,40		8,40
42″	19,47,34,42, 3,58,27,44,41,41		1,26,49,17,58	
		1,58,37,44,42,30,53,42		8,40
44″	19,47,36,40,41,43,10,15,35,23		1,26,49,26,38	
		1,58,37,43,15,41,27, 4		8,40
46″	19,47,38,39,19,26,25,57, 2,27		1,26,49,35,18	
		1,58,37,41,48,51,51,46		8,40
48″	19,47,40,37,57, 8,14,48,54,13		1,26,49,43,58	
		1,58,37,40,22, 2, 7,48		8,40
50″	19,47,42,36,34,48,36,51, 2, 1		1,26,49,52,38	
		1,58,37,38,55,12,15,10		8,40
52″	19,47,44,35,12,27,32, 3,17,11		1,26,50, 1,18	
		1,58,37,37,28,22,13,52		8,40
54″	19,47,46,33,50, 5, 0,25,31, 3		1,26,50, 9,58	
		1,58,37,36, 1,32, 3,54		8,40
56″	19,47,48,32,27,41, 1,57,34,57		1,26,50,18,38	
		1,58,37,34,34,41,45,16		8,40
58″	19,47,50,31, 5,15,36,39,20,13		1,26,50,27,18	
		1,58,37,33, 7,51,17,58		
60″	19,47,52,29,42,48,44,30,38,11			
exact	19,47,52,29,42,48,44,30,12,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°16′ 0″	19,47,52,29,42,48,44,30,12,11			
		1,58,37,31,41, 0,39,14		
2″	19,47,54,28,20,20,25,30,51,25		1,26,50,44,49	
		1,58,37,30,14, 9,54,25		8,40
4″	19,47,56,26,57,50,39,40,45,50		1,26,50,53,29	
		1,58,37,28,47,19, 0,56		8,40
6″	19,47,58,25,35,19,26,59,46,46		1,26,51, 2, 9	
		1,58,37,27,20,27,58,47		8,40
8″	19,48, 0,24,12,46,47,27,45,33		1,26,51,10,49	
		1,58,37,25,53,36,47,58		8,40
10″	19,48, 2,22,50,12,41, 4,33,31		1,26,51,19,29	
		1,58,37,24,26,45,28,29		8,40
12″	19,48, 4,21,27,37, 7,50, 2, 0		1,26,51,28, 9	
		1,58,37,22,59,54, 0,20		8,40
14″	19,48, 6,20, 5, 0, 7,44, 2,20		1,26,51,36,49	
		1,58,37,21,33, 2,23,31		8,40
16″	19,48, 8,18,42,21,40,46,25,51		1,26,51,45,29	
		1,58,37,20, 6,10,38, 2		8,40
18″	19,48,10,17,19,41,46,57, 3,53		1,26,51,54, 9	
		1,58,37,18,39,18,43,53		8,40
20″	19,48,12,15,57, 0,26,15,47,46		1,26,52, 2,49	
		1,58,37,17,12,26,41, 4		8,40
22″	19,48,14,14,34,17,38,42,28,50		1,26,52,11,29	
		1,58,37,15,45,34,29,35		8,40
24″	19,48,16,13,11,33,24,16,58,25		1,26,52,20, 9	
		1,58,37,14,18,42, 9,26		8,40
26″	19,48,18,11,48,47,42,59, 7,51		1,26,52,28,49	
		1,58,37,12,51,49,40,37		8,40
28″	19,48,20,10,26, 0,34,48,48,28		1,26,52,37,29	
		1,58,37,11,24,57, 3, 8		8,40
30″	19,48,22, 9, 3,11,59,45,51,36		1,26,52,46, 9	
		1,58,37, 9,58, 4,16,59		8,40
32″	19,48,24, 7,40,21,57,50, 8,35		1,26,52,54,49	
		1,58,37, 8,31,11,22,10		8,40
34″	19,48,26, 6,17,30,29, 1,30,45		1,26,53, 3,29	
		1,58,37, 7, 4,18,18,41		8,40
36″	19,48,28, 4,54,37,33,19,49,26		1,26,53,12, 9	
		1,58,37, 5,37,25, 6,32		8,40
38″	19,48,30, 3,31,43,10,44,55,58		1,26,53,20,49	
		1,58,37, 4,10,31,45,43		8,40
40″	19,48,32, 2, 8,47,21,16,41,41		1,26,53,29,29	
		1,58,37, 2,43,38,16,14		8,40
42″	19,48,34, 0,45,50, 4,54,57,55		1,26,53,38, 9	
		1,58,37, 1,16,44,38, 5		8,40
44″	19,48,35,59,22,51,21,39,36, 0		1,26,53,46,49	
		1,58,36,59,49,50,51,16		8,40
46″	19,48,37,57,59,51,11,30,27,16		1,26,53,55,29	
		1,58,36,58,22,56,55,47		8,40
48″	19,48,39,56,36,49,34,27,23, 3		1,26,54, 4, 9	
		1,58,36,56,56, 2,51,38		8,40
50″	19,48,41,55,13,46,30,30,14,41		1,26,54,12,49	
		1,58,36,55,29, 8,38,49		8,40
52″	19,48,43,53,50,41,59,38,53,30		1,26,54,21,29	
		1,58,36,54, 2,14,17,20		8,40
54″	19,48,45,52,27,36, 1,53,10,50		1,26,54,30, 9	
		1,58,36,52,35,19,47,11		8,40
56″	19,48,47,51, 4,28,37,12,58, 1		1,26,54,38,49	
		1,58,36,51, 8,25, 8,22		8,40
58″	19,48,49,49,41,19,45,38, 6,23		1,26,54,47,29	
		1,58,36,49,41,30,20,53		
60″	19,48,51,48,18, 9,27, 8,27,16			
exact	19,48,51,48,18, 9,27, 8, 2,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°17′ 0″	19,48,51,48,18, 9,27, 8, 2,58			
		1,58,36,48,14,35,22,13		
2″	19,48,53,46,54,57,41,43,25,11		1,26,55, 4,59	
		1,58,36,46,47,40,17,14		8,40
4″	19,48,55,45,31,44,29,23,42,25		1,26,55,13,39	
		1,58,36,45,20,45, 3,35		8,40
6″	19,48,57,44, 8,29,50, 8,46, 0		1,26,55,22,19	
		1,58,36,43,53,49,41,16		8,40
8″	19,48,59,42,45,13,43,58,27,16		1,26,55,30,59	
		1,58,36,42,26,54,10,17		8,40
10″	19,49, 1,41,21,56,10,52,37,33		1,26,55,39,39	
		1,58,36,40,59,58,30,38		8,40
12″	19,49, 3,39,58,37,10,51, 8,11		1,26,55,48,19	
		1,58,36,39,33, 2,42,19		8,40
14″	19,49, 5,38,35,16,43,53,50,30		1,26,55,56,59	
		1,58,36,38, 6, 6,45,20		8,40
16″	19,49, 7,37,11,54,50, 0,35,50		1,26,56, 5,39	
		1,58,36,36,39,10,39,41		8,40
18″	19,49, 9,35,48,31,29,11,15,31		1,26,56,14,19	
		1,58,36,35,12,14,25,22		8,40
20″	19,49,11,34,25, 6,41,25,40,53		1,26,56,22,59	
		1,58,36,33,45,18, 2,23		8,40
22″	19,49,13,33, 1,40,26,43,43,16		1,26,56,31,39	
		1,58,36,32,18,21,30,44		8,40
24″	19,49,15,31,38,12,45, 5,14, 0		1,26,56,40,19	
		1,58,36,30,51,24,50,25		8,40
26″	19,49,17,30,14,43,36,30, 4,25		1,26,56,48,59	
		1,58,36,29,24,28, 1,26		8,40
28″	19,49,19,28,51,13, 0,58, 5,51		1,26,56,57,39	
		1,58,36,27,57,31, 3,47		8,40
30″	19,49,21,27,27,40,58,29, 9,38		1,26,57, 6,19	
		1,58,36,26,30,33,57,28		8,40
32″	19,49,23,26, 4, 7,29, 3, 7, 6		1,26,57,14,59	
		1,58,36,25, 3,36,42,29		8,40
34″	19,49,25,24,40,32,32,39,49,35		1,26,57,23,39	
		1,58,36,23,36,39,18,50		8,40
36″	19,49,27,23,16,56, 9,19, 8,25		1,26,57,32,19	
		1,58,36,22, 9,41,46,31		8,40
38″	19,49,29,21,53,18,19, 0,54,56		1,26,57,40,59	
		1,58,36,20,42,44, 5,32		8,40
40″	19,49,31,20,29,39, 1,45, 0,28		1,26,57,49,39	
		1,58,36,19,15,46,15,53		8,40
42″	19,49,33,19, 5,58,17,31,16,21		1,26,57,58,19	
		1,58,36,17,48,48,17,34		8,40
44″	19,49,35,17,42,16, 6,19,33,55		1,26,58, 6,59	
		1,58,36,16,21,50,10,35		8,40
46″	19,49,37,16,18,32,28, 9,44,30		1,26,58,15,39	
		1,58,36,14,54,51,54,56		8,40
48″	19,49,39,14,54,47,23, 1,39,26		1,26,58,24,19	
		1,58,36,13,27,53,30,37		8,40
50″	19,49,41,13,31, 0,50,55,10, 3		1,26,58,32,59	
		1,58,36,12, 0,54,57,38		8,40
52″	19,49,43,12, 7,12,51,50, 7,41		1,26,58,41,39	
		1,58,36,10,33,56,15,59		8,40
54″	19,49,45,10,43,23,25,46,23,40		1,26,58,50,19	
		1,58,36, 9, 6,57,25,40		8,40
56″	19,49,47, 9,19,32,32,43,49,20		1,26,58,58,59	
		1,58,36, 7,39,58,26,41		8,40
58″	19,49,49, 7,55,40,12,42,16, 1		1,26,59, 7,39	
		1,58,36, 6,12,59,19, 2		
60″	19,49,51, 6,31,46,25,41,35, 3			
exact	19,49,51, 6,31,46,25,41,16,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°18′ 0″	19,49,51, 6,31,46,25,41,16,57			
		1,58,36, 4,46, 0, 0,46		
2″	19,49,53, 5, 7,51,11,41,17,43		1,26,59,25, 7	
		1,58,36, 3,19, 0,35,39		8,40
4″	19,49,55, 3,43,54,30,41,53,22		1,26,59,33,47	
		1,58,36, 1,52, 1, 1,52		8,40
6″	19,49,57, 2,19,56,22,42,55,14		1,26,59,42,27	
		1,58,36, 0,25, 1,19,25		8,40
8″	19,49,59, 0,55,56,47,44,14,39		1,26,59,51, 7	
		1,58,35,58,58, 1,28,18		8,40
10″	19,50, 0,59,31,55,45,45,42,57		1,26,59,59,47	
		1,58,35,57,31, 1,28,31		8,40
12″	19,50, 2,58, 7,53,16,47,11,28		1,27, 0, 8,27	
		1,58,35,56, 4, 1,20, 4		8,40
14″	19,50, 4,56,43,49,20,48,31,32		1,27, 0,17, 7	
		1,58,35,54,37, 1, 2,57		8,40
16″	19,50, 6,55,19,43,57,49,34,29		1,27, 0,25,47	
		1,58,35,53,10, 0,37,10		8,40
18″	19,50, 8,53,55,37, 7,50,11,39		1,27, 0,34,27	
		1,58,35,51,43, 0, 2,43		8,40
20″	19,50,10,52,31,28,50,50,14,22		1,27, 0,43, 7	
		1,58,35,50,15,59,19,36		8,40
22″	19,50,12,51, 7,19, 6,49,33,58		1,27, 0,51,47	
		1,58,35,48,48,58,27,49		8,40
24″	19,50,14,49,43, 7,55,48, 1,47		1,27, 1, 0,27	
		1,58,35,47,21,57,27,22		8,40
26″	19,50,16,48,18,55,17,45,29, 9		1,27, 1, 9, 7	
		1,58,35,45,54,56,18,15		8,40
28″	19,50,18,46,54,41,12,41,47,24		1,27, 1,17,47	
		1,58,35,44,27,55, 0,28		8,40
30″	19,50,20,45,30,25,40,36,47,52		1,27, 1,26,27	
		1,58,35,43, 0,53,34, 1		8,40
32″	19,50,22,44, 6, 8,41,30,21,53		1,27, 1,35, 7	
		1,58,35,41,33,51,58,54		8,40
34″	19,50,24,42,41,50,15,22,20,47		1,27, 1,43,47	
		1,58,35,40, 6,50,15, 7		8,40
36″	19,50,26,41,17,30,22,12,35,54		1,27, 1,52,27	
		1,58,35,38,39,48,22,40		8,40
38″	19,50,28,39,53, 9, 2, 0,58,34		1,27, 2, 1, 7	
		1,58,35,37,12,46,21,33		8,40
40″	19,50,30,38,28,46,14,47,20, 7		1,27, 2, 9,47	
		1,58,35,35,45,44,11,46		8,40
42″	19,50,32,37, 4,22, 0,31,31,53		1,27, 2,18,27	
		1,58,35,34,18,41,53,19		8,40
44″	19,50,34,35,39,56,19,13,25,12		1,27, 2,27, 7	
		1,58,35,32,51,39,26,12		8,40
46″	19,50,36,34,15,29,10,52,51,24		1,27, 2,35,47	
		1,58,35,31,24,36,50,25		8,40
48″	19,50,38,32,51, 0,35,29,41,49		1,27, 2,44,27	
		1,58,35,29,57,34, 5,58		8,40
50″	19,50,40,31,26,30,33, 3,47,47		1,27, 2,53, 7	
		1,58,35,28,30,31,12,51		8,40
52″	19,50,42,30, 1,59, 3,35, 0,38		1,27, 3, 1,47	
		1,58,35,27, 3,28,11, 4		8,40
54″	19,50,44,28,37,26, 7, 3,11,42		1,27, 3,10,27	
		1,58,35,25,36,25, 0,37		8,40
56″	19,50,46,27,12,51,43,28,12,19		1,27, 3,19, 7	
		1,58,35,24, 9,21,41,30		8,40
58″	19,50,48,25,48,15,52,49,53,49		1,27, 3,27,47	
		1,58,35,22,42,18,13,43		
60″	19,50,50,24,23,38,35, 8, 7,32			
exact	19,50,50,24,23,38,35, 7,52,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°19′ 0″	19,50,50,24,23,38,35, 7,52,10			
		1,58,35,21,15,14,35,39		
2″	19,50,52,22,58,59,50,22,27,49		1,27, 3,45,13	
		1,58,35,19,48,10,50,26		8,40
4″	19,50,54,21,34,19,38,33,18,15		1,27, 3,53,53	
		1,58,35,18,21, 6,56,33		8,40
6″	19,50,56,20, 9,37,59,40,14,48		1,27, 4, 2,33	
		1,58,35,16,54, 2,54, 0		8,40
8″	19,50,58,18,44,54,53,43, 8,48		1,27, 4,11,13	
		1,58,35,15,26,58,42,47		8,40
10″	19,51, 0,17,20,10,20,41,51,35		1,27, 4,19,53	
		1,58,35,13,59,54,22,54		8,40
12″	19,51, 2,15,55,24,20,36,14,29		1,27, 4,28,33	
		1,58,35,12,32,49,54,21		8,40
14″	19,51, 4,14,30,36,53,26, 8,50		1,27, 4,37,13	
		1,58,35,11, 5,45,17, 8		8,40
16″	19,51, 6,13, 5,47,59,11,25,58		1,27, 4,45,53	
		1,58,35, 9,38,40,31,15		8,40
18″	19,51, 8,11,40,57,37,51,57,13		1,27, 4,54,33	
		1,58,35, 8,11,35,36,42		8,40
20″	19,51,10,10,16, 5,49,27,33,55		1,27, 5, 3,13	
		1,58,35, 6,44,30,33,29		8,40
22″	19,51,12, 8,51,12,33,58, 7,24		1,27, 5,11,53	
		1,58,35, 5,17,25,21,36		8,40
24″	19,51,14, 7,26,17,51,23,29, 0		1,27, 5,20,33	
		1,58,35, 3,50,20, 1, 3		8,40
26″	19,51,16, 6, 1,21,41,43,30, 3		1,27, 5,29,13	
		1,58,35, 2,23,14,31,50		8,40
28″	19,51,18, 4,36,24, 4,58, 1,53		1,27, 5,37,53	
		1,58,35, 0,56, 8,53,57		8,40
30″	19,51,20, 3,11,25, 1, 6,55,50		1,27, 5,46,33	
		1,58,34,59,29, 3, 7,24		8,40
32″	19,51,22, 1,46,24,30,10, 3,14		1,27, 5,55,13	
		1,58,34,58, 1,57,12,11		8,40
34″	19,51,24, 0,21,22,32, 7,15,25		1,27, 6, 3,53	
		1,58,34,56,34,51, 8,18		8,40
36″	19,51,25,58,56,19, 6,58,23,43		1,27, 6,12,33	
		1,58,34,55, 7,44,55,45		8,40
38″	19,51,27,57,31,14,14,43,19,28		1,27, 6,21,13	
		1,58,34,53,40,38,34,32		8,40
40″	19,51,29,56, 6, 7,55,21,54, 0		1,27, 6,29,53	
		1,58,34,52,13,32, 4,39		8,40
42″	19,51,31,54,41, 0, 8,53,58,39		1,27, 6,38,33	
		1,58,34,50,46,25,26, 6		8,40
44″	19,51,33,53,15,50,55,19,24,45		1,27, 6,47,13	
		1,58,34,49,19,18,38,53		8,40
46″	19,51,35,51,50,40,14,38, 3,38		1,27, 6,55,53	
		1,58,34,47,52,11,43, 0		8,40
48″	19,51,37,50,25,28, 6,49,46,38		1,27, 7, 4,33	
		1,58,34,46,25, 4,38,27		8,40
50″	19,51,39,49, 0,14,31,54,25, 5		1,27, 7,13,13	
		1,58,34,44,57,57,25,14		8,40
52″	19,51,41,47,34,59,29,51,50,19		1,27, 7,21,53	
		1,58,34,43,30,50, 3,21		8,40
54″	19,51,43,46, 9,43, 0,41,53,40		1,27, 7,30,33	
		1,58,34,42, 3,42,32,48		8,40
56″	19,51,45,44,44,25, 4,24,26,28		1,27, 7,39,13	
		1,58,34,40,36,34,53,35		8,40
58″	19,51,47,43,19, 5,40,59,20, 3		1,27, 7,47,53	
		1,58,34,39, 9,27, 5,42		
60″	19,51,49,41,53,44,50,26,25,45			
exact	19,51,49,41,53,44,50,26,10,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°20′ 0″	19,51,49,41,53,44,50,26,10,31			
		1,58,34,37,42,19, 7,41		
2″	19,51,51,40,28,22,32,45,18,12		1,27, 8, 5,18	
		1,58,34,36,15,11, 2,23		8,40
4″	19,51,53,39, 2,58,47,56,20,35		1,27, 8,13,58	
		1,58,34,34,48, 2,48,25		8,40
6″	19,51,55,37,37,33,35,59, 9, 0		1,27, 8,22,38	
		1,58,34,33,20,54,25,47		8,40
8″	19,51,57,36,12, 6,56,53,34,47		1,27, 8,31,18	
		1,58,34,31,53,45,54,29		8,40
10″	19,51,59,34,46,38,50,39,29,16		1,27, 8,39,58	
		1,58,34,30,26,37,14,31		8,40
12″	19,52, 1,33,21, 9,17,16,43,47		1,27, 8,48,38	
		1,58,34,28,59,28,25,53		8,40
14″	19,52, 3,31,55,38,16,45, 9,40		1,27, 8,57,18	
		1,58,34,27,32,19,28,35		8,40
16″	19,52, 5,30,30, 5,49, 4,38,15		1,27, 9, 5,58	
		1,58,34,26, 5,10,22,37		8,40
18″	19,52, 7,29, 4,31,54,15, 0,52		1,27, 9,14,38	
		1,58,34,24,38, 1, 7,59		8,40
20″	19,52, 9,27,38,56,32,16, 8,51		1,27, 9,23,18	
		1,58,34,23,10,51,44,41		8,40
22″	19,52,11,26,13,19,43, 7,53,32		1,27, 9,31,58	
		1,58,34,21,43,42,12,43		8,40
24″	19,52,13,24,47,41,26,50, 6,15		1,27, 9,40,38	
		1,58,34,20,16,32,32, 5		8,40
26″	19,52,15,23,22, 1,43,22,38,20		1,27, 9,49,18	
		1,58,34,18,49,22,42,47		8,40
28″	19,52,17,21,56,20,32,45,21, 7		1,27, 9,57,58	
		1,58,34,17,22,12,44,49		8,40
30″	19,52,19,20,30,37,54,58, 5,56		1,27,10, 6,38	
		1,58,34,15,55, 2,38,11		8,40
32″	19,52,21,19, 4,53,50, 0,44, 7		1,27,10,15,18	
		1,58,34,14,27,52,22,53		8,40
34″	19,52,23,17,39, 8,17,53, 7, 0		1,27,10,23,58	
		1,58,34,13, 0,41,58,55		8,40
36″	19,52,25,16,13,21,18,35, 5,55		1,27,10,32,38	
		1,58,34,11,33,31,26,17		8,40
38″	19,52,27,14,47,32,52, 6,32,12		1,27,10,41,18	
		1,58,34,10, 6,20,44,59		8,40
40″	19,52,29,13,21,42,58,27,17,11		1,27,10,49,58	
		1,58,34, 8,39, 9,55, 1		8,40
42″	19,52,31,11,55,51,37,37,12,12		1,27,10,58,38	
		1,58,34, 7,11,58,56,23		8,40
44″	19,52,33,10,29,58,49,36, 8,35		1,27,11, 7,18	
		1,58,34, 5,44,47,49, 5		8,40
46″	19,52,35, 9, 4, 4,34,23,57,40		1,27,11,15,58	
		1,58,34, 4,17,36,33, 7		8,40
48″	19,52,37, 7,38, 8,52, 0,30,47		1,27,11,24,38	
		1,58,34, 2,50,25, 8,29		8,40
50″	19,52,39, 6,12,11,42,25,39,16		1,27,11,33,18	
		1,58,34, 1,23,13,35,11		8,40
52″	19,52,41, 4,46,13, 5,39,14,27		1,27,11,41,58	
		1,58,33,59,56, 1,53,13		8,40
54″	19,52,43, 3,20,13, 1,41, 7,40		1,27,11,50,38	
		1,58,33,58,28,50, 2,35		8,40
56″	19,52,45, 1,54,11,30,31,10,15		1,27,11,59,18	
		1,58,33,57, 1,38, 3,17		8,40
58″	19,52,47, 0,28, 8,32, 9,13,32		1,27,12, 7,58	
		1,58,33,55,34,25,55,19		
60″	19,52,48,59, 2, 4, 6,35, 8,51			
exact	19,52,48,59, 2, 4, 6,34,57,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°21′ 0″	19,52,48,59, 2, 4, 6,34,57,47			
		1,58,33,54, 7,13,37,38		
2″	19,52,50,57,35,58,13,48,35,25		1,27,12,25,22	
		1,58,33,52,40, 1,12,16		8,40
4″	19,52,52,56, 9,50,53,49,47,41		1,27,12,34, 2	
		1,58,33,51,12,48,38,14		8,40
6″	19,52,54,54,43,42, 6,38,25,55		1,27,12,42,42	
		1,58,33,49,45,35,55,32		8,40
8″	19,52,56,53,17,31,52,14,21,27		1,27,12,51,22	
		1,58,33,48,18,23, 4,10		8,40
10″	19,52,58,51,51,20,10,37,25,37		1,27,13, 0, 2	
		1,58,33,46,51,10, 4, 8		8,40
12″	19,53, 0,50,25, 7, 1,47,29,45		1,27,13, 8,42	
		1,58,33,45,23,56,55,26		8,40
14″	19,53, 2,48,58,52,25,44,25,11		1,27,13,17,22	
		1,58,33,43,56,43,38, 4		8,40
16″	19,53, 4,47,32,36,22,28, 3,15		1,27,13,26, 2	
		1,58,33,42,29,30,12, 2		8,40
18″	19,53, 6,46, 6,18,51,58,15,17		1,27,13,34,42	
		1,58,33,41, 2,16,37,20		8,40
20″	19,53, 8,44,39,59,54,14,52,37		1,27,13,43,22	
		1,58,33,39,35, 2,53,58		8,40
22″	19,53,10,43,13,39,29,17,46,35		1,27,13,52, 2	
		1,58,33,38, 7,49, 1,56		8,40
24″	19,53,12,41,47,17,37, 6,48,31		1,27,14, 0,42	
		1,58,33,36,40,35, 1,14		8,40
26″	19,53,14,40,20,54,17,41,49,45		1,27,14, 9,22	
		1,58,33,35,13,20,51,52		8,40
28″	19,53,16,38,54,29,31, 2,41,37		1,27,14,18, 2	
		1,58,33,33,46, 6,33,50		8,40
30″	19,53,18,37,28, 3,17, 9,15,27		1,27,14,26,42	
		1,58,33,32,18,52, 7, 8		8,40
32″	19,53,20,36, 1,35,36, 1,22,35		1,27,14,35,22	
		1,58,33,30,51,37,31,46		8,40
34″	19,53,22,34,35, 6,27,38,54,21		1,27,14,44, 2	
		1,58,33,29,24,22,47,44		8,40
36″	19,53,24,33, 8,35,52, 1,42, 5		1,27,14,52,42	
		1,58,33,27,57, 7,55, 2		8,40
38″	19,53,26,31,42, 3,49, 9,37, 7		1,27,15, 1,22	
		1,58,33,26,29,52,53,40		8,40
40″	19,53,28,30,15,30,19, 2,30,47		1,27,15,10, 2	
		1,58,33,25, 2,37,43,38		8,40
42″	19,53,30,28,48,55,21,40,14,25		1,27,15,18,42	
		1,58,33,23,35,22,24,56		8,40
44″	19,53,32,27,22,18,57, 2,39,21		1,27,15,27,22	
		1,58,33,22, 8, 6,57,34		8,40
46″	19,53,34,25,55,41, 5, 9,36,55		1,27,15,36, 2	
		1,58,33,20,40,51,21,32		8,40
48″	19,53,36,24,29, 1,46, 0,58,27		1,27,15,44,42	
		1,58,33,19,13,35,36,50		8,40
50″	19,53,38,23, 2,20,59,36,35,17		1,27,15,53,22	
		1,58,33,17,46,19,43,28		8,40
52″	19,53,40,21,35,38,45,56,18,45		1,27,16, 2, 2	
		1,58,33,16,19, 3,41,26		8,40
54″	19,53,42,20, 8,55, 5, 0, 0,11		1,27,16,10,42	
		1,58,33,14,51,47,30,44		8,40
56″	19,53,44,18,42, 9,56,47,30,55		1,27,16,19,22	
		1,58,33,13,24,31,11,22		8,40
58″	19,53,46,17,15,23,21,18,42,17		1,27,16,28, 2	
		1,58,33,11,57,14,43,20		
60″	19,53,48,15,48,35,18,33,25,37			
exact	19,53,48,15,48,35,18,33,23,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°22′ 0″	19,53,48,15,48,35,18,33,23,37			
		1,58,33,10,29,58, 6,20		
2″	19,53,50,14,21,45,48,31,29,57		1,27,16,45,23	
		1,58,33, 9, 2,41,20,57		8,40
4″	19,53,52,12,54,54,51,12,50,54		1,27,16,54, 3	
		1,58,33, 7,35,24,26,54		8,40
6″	19,53,54,11,28, 2,26,37,17,48		1,27,17, 2,43	
		1,58,33, 6, 8, 7,24,11		8,40
8″	19,53,56,10, 1, 8,34,44,41,59		1,27,17,11,23	
		1,58,33, 4,40,50,12,48		8,40
10″	19,53,58, 8,34,13,15,34,54,47		1,27,17,20, 3	
		1,58,33, 3,13,32,52,45		8,40
12″	19,54, 0, 7, 7,16,29, 7,47,32		1,27,17,28,43	
		1,58,33, 1,46,15,24, 2		8,40
14″	19,54, 2, 5,40,18,15,23,11,34		1,27,17,37,23	
		1,58,33, 0,18,57,46,39		8,40
16″	19,54, 4, 4,13,18,34,20,58,13		1,27,17,46, 3	
		1,58,32,58,51,40, 0,36		8,40
18″	19,54, 6, 2,46,17,26, 0,58,49		1,27,17,54,43	
		1,58,32,57,24,22, 5,53		8,40
20″	19,54, 8, 1,19,14,50,23, 4,42		1,27,18, 3,23	
		1,58,32,55,57, 4, 2,30		8,40
22″	19,54, 9,59,52,10,47,27, 7,12		1,27,18,12, 3	
		1,58,32,54,29,45,50,27		8,40
24″	19,54,11,58,25, 5,17,12,57,39		1,27,18,20,43	
		1,58,32,53, 2,27,29,44		8,40
26″	19,54,13,56,57,58,19,40,27,23		1,27,18,29,23	
		1,58,32,51,35, 9, 0,21		8,40
28″	19,54,15,55,30,49,54,49,27,44		1,27,18,38, 3	
		1,58,32,50, 7,50,22,18		8,40
30″	19,54,17,54, 3,40, 2,39,50, 2		1,27,18,46,43	
		1,58,32,48,40,31,35,35		8,40
32″	19,54,19,52,36,28,43,11,25,37		1,27,18,55,23	
		1,58,32,47,13,12,40,12		8,40
34″	19,54,21,51, 9,15,56,24, 5,49		1,27,19, 4, 3	
		1,58,32,45,45,53,36, 9		8,40
36″	19,54,23,49,42, 1,42,17,41,58		1,27,19,12,43	
		1,58,32,44,18,34,23,26		8,40
38″	19,54,25,48,14,46, 0,52, 5,24		1,27,19,21,23	
		1,58,32,42,51,15, 2, 3		8,40
40″	19,54,27,46,47,28,52, 7, 7,27		1,27,19,30, 3	
		1,58,32,41,23,55,32, 0		8,40
42″	19,54,29,45,20,10,16, 2,39,27		1,27,19,38,43	
		1,58,32,39,56,35,53,17		8,40
44″	19,54,31,43,52,50,12,38,32,44		1,27,19,47,23	
		1,58,32,38,29,16, 5,54		8,40
46″	19,54,33,42,25,28,41,54,38,38		1,27,19,56, 3	
		1,58,32,37, 1,56, 9,51		8,40
48″	19,54,35,40,58, 5,43,50,48,29		1,27,20, 4,43	
		1,58,32,35,34,36, 5, 8		8,40
50″	19,54,37,39,30,41,18,26,53,37		1,27,20,13,23	
		1,58,32,34, 7,15,51,45		8,40
52″	19,54,39,38, 3,15,25,42,45,22		1,27,20,22, 3	
		1,58,32,32,39,55,29,42		8,40
54″	19,54,41,36,35,48, 5,38,15, 4		1,27,20,30,43	
		1,58,32,31,12,34,58,59		8,40
56″	19,54,43,35, 8,19,18,13,14, 3		1,27,20,39,23	
		1,58,32,29,45,14,19,36		8,40
58″	19,54,45,33,40,49, 3,27,33,39		1,27,20,48, 3	
		1,58,32,28,17,53,31,33		
60″	19,54,47,32,13,17,21,21, 5,12			
exact	19,54,47,32,13,17,21,21, 1,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°23′ 0″	19,54,47,32,13,17,21,21, 1,36			
		1,58,32,26,50,32,34,34		
2″	19,54,49,30,45,44,11,53,36,10		1,27,21, 5,23	
		1,58,32,25,23,11,29,11		8,40
4″	19,54,51,29,18, 9,35, 5, 5,21		1,27,21,14, 3	
		1,58,32,23,55,50,15, 8		8,40
6″	19,54,53,27,50,33,30,55,20,29		1,27,21,22,43	
		1,58,32,22,28,28,52,25		8,40
8″	19,54,55,26,22,55,59,24,12,54		1,27,21,31,23	
		1,58,32,21, 1, 7,21, 2		8,40
10″	19,54,57,24,55,17, 0,31,33,56		1,27,21,40, 3	
		1,58,32,19,33,45,40,59		8,40
12″	19,54,59,23,27,36,34,17,14,55		1,27,21,48,43	
		1,58,32,18, 6,23,52,16		8,40
14″	19,55, 1,21,59,54,40,41, 7,11		1,27,21,57,23	
		1,58,32,16,39, 1,54,53		8,40
16″	19,55, 3,20,32,11,19,43, 2, 4		1,27,22, 6, 3	
		1,58,32,15,11,39,48,50		8,40
18″	19,55, 5,19, 4,26,31,22,50,54		1,27,22,14,43	
		1,58,32,13,44,17,34, 7		8,40
20″	19,55, 7,17,36,40,15,40,25, 1		1,27,22,23,23	
		1,58,32,12,16,55,10,44		8,40
22″	19,55, 9,16, 8,52,32,35,35,45		1,27,22,32, 3	
		1,58,32,10,49,32,38,41		8,40
24″	19,55,11,14,41, 3,22, 8,14,26		1,27,22,40,43	
		1,58,32, 9,22, 9,57,58		8,40
26″	19,55,13,13,13,12,44,18,12,24		1,27,22,49,23	
		1,58,32, 7,54,47, 8,35		8,40
28″	19,55,15,11,45,20,39, 5,20,59		1,27,22,58, 3	
		1,58,32, 6,27,24,10,32		8,40
30″	19,55,17,10,17,27, 6,29,31,31		1,27,23, 6,43	
		1,58,32, 5, 0, 1, 3,49		8,40
32″	19,55,19, 8,49,32, 6,30,35,20		1,27,23,15,23	
		1,58,32, 3,32,37,48,26		8,40
34″	19,55,21, 7,21,35,39, 8,23,46		1,27,23,24, 3	
		1,58,32, 2, 5,14,24,23		8,40
36″	19,55,23, 5,53,37,44,22,48, 9		1,27,23,32,43	
		1,58,32, 0,37,50,51,40		8,40
38″	19,55,25, 4,25,38,22,13,39,49		1,27,23,41,23	
		1,58,31,59,10,27,10,17		8,40
40″	19,55,27, 2,57,37,32,40,50, 6		1,27,23,50, 3	
		1,58,31,57,43, 3,20,14		8,40
42″	19,55,29, 1,29,35,15,44,10,20		1,27,23,58,43	
		1,58,31,56,15,39,21,31		8,40
44″	19,55,31, 0, 1,31,31,23,31,51		1,27,24, 7,23	
		1,58,31,54,48,15,14, 8		8,40
46″	19,55,32,58,33,26,19,38,45,59		1,27,24,16, 3	
		1,58,31,53,20,50,58, 5		8,40
48″	19,55,34,57, 5,19,40,29,44, 4		1,27,24,24,43	
		1,58,31,51,53,26,33,22		8,40
50″	19,55,36,55,37,11,33,56,17,26		1,27,24,33,23	
		1,58,31,50,26, 1,59,59		8,40
52″	19,55,38,54, 9, 1,59,58,17,25		1,27,24,42, 3	
		1,58,31,48,58,37,17,56		8,40
54″	19,55,40,52,40,50,58,35,35,21		1,27,24,50,43	
		1,58,31,47,31,12,27,13		8,40
56″	19,55,42,51,12,38,29,48, 2,34		1,27,24,59,23	
		1,58,31,46, 3,47,27,50		8,40
58″	19,55,44,49,44,24,33,35,30,24		1,27,25, 8, 3	
		1,58,31,44,36,22,19,47		
60″	19,55,46,48,16, 9, 9,57,50,11			
exact	19,55,46,48,16, 9, 9,57,49,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°24′ 0″	19,55,46,48,16, 9, 9,57,49,11			
		1,58,31,43, 8,57, 3, 7		
2″	19,55,48,46,47,52,18,54,52,18		1,27,25,25,22	
		1,58,31,41,41,31,37,45		8,40
4″	19,55,50,45,19,34, 0,26,30, 3		1,27,25,34, 2	
		1,58,31,40,14, 6, 3,43		8,40
6″	19,55,52,43,51,14,14,32,33,46		1,27,25,42,42	
		1,58,31,38,46,40,21, 1		8,40
8″	19,55,54,42,22,53, 1,12,54,47		1,27,25,51,22	
		1,58,31,37,19,14,29,39		8,40
10″	19,55,56,40,54,30,20,27,24,26		1,27,26, 0, 2	
		1,58,31,35,51,48,29,37		8,40
12″	19,55,58,39,26, 6,12,15,54, 3		1,27,26, 8,42	
		1,58,31,34,24,22,20,55		8,40
14″	19,56, 0,37,57,40,36,38,14,58		1,27,26,17,22	
		1,58,31,32,56,56, 3,33		8,40
16″	19,56, 2,36,29,13,33,34,18,31		1,27,26,26, 2	
		1,58,31,31,29,29,37,31		8,40
18″	19,56, 4,35, 0,45, 3, 3,56, 2		1,27,26,34,42	
		1,58,31,30, 2, 3, 2,49		8,40
20″	19,56, 6,33,32,15, 5, 6,58,51		1,27,26,43,22	
		1,58,31,28,34,36,19,27		8,40
22″	19,56, 8,32, 3,43,39,43,18,18		1,27,26,52, 2	
		1,58,31,27, 7, 9,27,25		8,40
24″	19,56,10,30,35,10,46,52,45,43		1,27,27, 0,42	
		1,58,31,25,39,42,26,43		8,40
26″	19,56,12,29, 6,36,26,35,12,26		1,27,27, 9,22	
		1,58,31,24,12,15,17,21		8,40
28″	19,56,14,27,38, 0,38,50,29,47		1,27,27,18, 2	
		1,58,31,22,44,47,59,19		8,40
30″	19,56,16,26, 9,23,23,38,29, 6		1,27,27,26,42	
		1,58,31,21,17,20,32,37		8,40
32″	19,56,18,24,40,44,40,59, 1,43		1,27,27,35,22	
		1,58,31,19,49,52,57,15		8,40
34″	19,56,20,23,12, 4,30,51,58,58		1,27,27,44, 2	
		1,58,31,18,22,25,13,13		8,40
36″	19,56,22,21,43,22,53,17,12,11		1,27,27,52,42	
		1,58,31,16,54,57,20,31		8,40
38″	19,56,24,20,14,39,48,14,32,42		1,27,28, 1,22	
		1,58,31,15,27,29,19, 9		8,40
40″	19,56,26,18,45,55,15,43,51,51		1,27,28,10, 2	
		1,58,31,14, 0, 1, 9, 7		8,40
42″	19,56,28,17,17, 9,15,45, 0,58		1,27,28,18,42	
		1,58,31,12,32,32,50,25		8,40
44″	19,56,30,15,48,21,48,17,51,23		1,27,28,27,22	
		1,58,31,11, 5, 4,23, 3		8,40
46″	19,56,32,14,19,32,53,22,14,26		1,27,28,36, 2	
		1,58,31, 9,37,35,47, 1		8,40
48″	19,56,34,12,50,42,30,58, 1,27		1,27,28,44,42	
		1,58,31, 8,10, 7, 2,19		8,40
50″	19,56,36,11,21,50,41, 5, 3,46		1,27,28,53,22	
		1,58,31, 6,42,38, 8,57		8,40
52″	19,56,38, 9,52,57,23,43,12,43		1,27,29, 2, 2	
		1,58,31, 5,15, 9, 6,55		8,40
54″	19,56,40, 8,24, 2,38,52,19,38		1,27,29,10,42	
		1,58,31, 3,47,39,56,13		8,40
56″	19,56,42, 6,55, 6,26,32,15,51		1,27,29,19,22	
		1,58,31, 2,20,10,36,51		8,40
58″	19,56,44, 5,26, 8,46,42,52,42		1,27,29,28, 2	
		1,58,31, 0,52,41, 8,49		
60″	19,56,46, 3,57, 9,39,24, 1,31			
exact	19,56,46, 3,57, 9,39,24, 7,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°25′ 0″	19,56,46, 3,57, 9,39,24, 7,51			
		1,58,30,59,25,11,32,49		
2″	19,56,48, 2,28, 9, 4,35,40,40		1,27,29,45,19	
		1,58,30,57,57,41,47,30		8,40
4″	19,56,50, 0,59, 7, 2,17,28,10		1,27,29,53,59	
		1,58,30,56,30,11,53,31		8,40
6″	19,56,51,59,30, 3,32,29,21,41		1,27,30, 2,39	
		1,58,30,55, 2,41,50,52		8,40
8″	19,56,53,58, 0,58,35,11,12,33		1,27,30,11,19	
		1,58,30,53,35,11,39,33		8,40
10″	19,56,55,56,31,52,10,22,52, 6		1,27,30,19,59	
		1,58,30,52, 7,41,19,34		8,40
12″	19,56,57,55, 2,44,18, 4,11,40		1,27,30,28,39	
		1,58,30,50,40,10,50,55		8,40
14″	19,56,59,53,33,34,58,15, 2,35		1,27,30,37,19	
		1,58,30,49,12,40,13,36		8,40
16″	19,57, 1,52, 4,24,10,55,16,11		1,27,30,45,59	
		1,58,30,47,45, 9,27,37		8,40
18″	19,57, 3,50,35,11,56, 4,43,48		1,27,30,54,39	
		1,58,30,46,17,38,32,58		8,40
20″	19,57, 5,49, 5,58,13,43,16,46		1,27,31, 3,19	
		1,58,30,44,50, 7,29,39		8,40
22″	19,57, 7,47,36,43, 3,50,46,25		1,27,31,11,59	
		1,58,30,43,22,36,17,40		8,40
24″	19,57, 9,46, 7,26,26,27, 4, 5		1,27,31,20,39	
		1,58,30,41,55, 4,57, 1		8,40
26″	19,57,11,44,38, 8,21,32, 1, 6		1,27,31,29,19	
		1,58,30,40,27,33,27,42		8,40
28″	19,57,13,43, 8,48,49, 5,28,48		1,27,31,37,59	
		1,58,30,39, 0, 1,49,43		8,40
30″	19,57,15,41,39,27,49, 7,18,31		1,27,31,46,39	
		1,58,30,37,32,30, 3, 4		8,40
32″	19,57,17,40,10, 5,21,37,21,35		1,27,31,55,19	
		1,58,30,36, 4,58, 7,45		8,40
34″	19,57,19,38,40,41,26,35,29,20		1,27,32, 3,59	
		1,58,30,34,37,26, 3,46		8,40
36″	19,57,21,37,11,16, 4, 1,33, 6		1,27,32,12,39	
		1,58,30,33, 9,53,51, 7		8,40
38″	19,57,23,35,41,49,13,55,24,13		1,27,32,21,19	
		1,58,30,31,42,21,29,48		8,40
40″	19,57,25,34,12,20,56,16,54, 1		1,27,32,29,59	
		1,58,30,30,14,48,59,49		8,40
42″	19,57,27,32,42,51,11, 5,53,50		1,27,32,38,39	
		1,58,30,28,47,16,21,10		8,40
44″	19,57,29,31,13,19,58,22,15, 0		1,27,32,47,19	
		1,58,30,27,19,43,33,51		8,40
46″	19,57,31,29,43,47,18, 5,48,51		1,27,32,55,59	
		1,58,30,25,52,10,37,52		8,40
48″	19,57,33,28,14,13,10,16,26,43		1,27,33, 4,39	
		1,58,30,24,24,37,33,13		8,40
50″	19,57,35,26,44,37,34,53,59,56		1,27,33,13,19	
		1,58,30,22,57, 4,19,54		8,40
52″	19,57,37,25,15, 0,31,58,19,50		1,27,33,21,59	
		1,58,30,21,29,30,57,55		8,40
54″	19,57,39,23,45,22, 1,29,17,45		1,27,33,30,39	
		1,58,30,20, 1,57,27,16		8,40
56″	19,57,41,22,15,42, 3,26,45, 1		1,27,33,39,19	
		1,58,30,18,34,23,47,57		8,40
58″	19,57,43,20,46, 0,37,50,32,58		1,27,33,47,59	
		1,58,30,17, 6,49,59,58		
60″	19,57,45,19,16,17,44,40,32,56			
exact	19,57,45,19,16,17,44,40,42,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°26′ 0″	19,57,45,19,16,17,44,40,42,59	1,58,30,15,39,16, 4,25		
2″	19,57,47,17,46,33,23,56,47,24	1,58,30,14,11,41,59,11	1,27,34, 5,14	8,40
4″	19,57,49,16,16,47,35,38,46,35	1,58,30,12,44, 7,45,17	1,27,34,13,54	8,40
6″	19,57,51,14,47, 0,19,46,31,52	1,58,30,11,16,33,22,43	1,27,34,22,34	8,40
8″	19,57,53,13,17,11,36,19,54,35	1,58,30, 9,48,58,51,29	1,27,34,31,14	8,40
10″	19,57,55,11,47,21,25,18,46, 4	1,58,30, 8,21,24,11,35	1,27,34,39,54	8,40
12″	19,57,57,10,17,29,46,42,57,39	1,58,30, 6,53,49,23, 1	1,27,34,48,34	8,40
14″	19,57,59, 8,47,36,40,32,20,40	1,58,30, 5,26,14,25,47	1,27,34,57,14	8,40
16″	19,58, 1, 7,17,42, 6,46,46,27	1,58,30, 3,58,39,19,53	1,27,35, 5,54	8,40
18″	19,58, 3, 5,47,46, 5,26, 6,20	1,58,30, 2,31, 4, 5,19	1,27,35,14,34	8,40
20″	19,58, 5, 4,17,48,36,30,11,39	1,58,30, 1, 3,28,42, 5	1,27,35,23,14	8,40
22″	19,58, 7, 2,47,49,39,58,53,44	1,58,29,59,35,53,10,11	1,27,35,31,54	8,40
24″	19,58, 9, 1,17,49,15,52, 3,55	1,58,29,58, 8,17,29,37	1,27,35,40,34	8,40
26″	19,58,10,59,47,47,24, 9,33,32	1,58,29,56,40,41,40,23	1,27,35,49,14	8,40
28″	19,58,12,58,17,44, 4,51,13,55	1,58,29,55,13, 5,42,29	1,27,35,57,54	8,40
30″	19,58,14,56,47,39,17,56,56,24	1,58,29,53,45,29,35,55	1,27,36, 6,34	8,40
32″	19,58,16,55,17,33, 3,26,32,19	1,58,29,52,17,53,20,41	1,27,36,15,14	8,40
34″	19,58,18,53,47,25,21,19,53, 0	1,58,29,50,50,16,56,47	1,27,36,23,54	8,40
36″	19,58,20,52,17,16,11,36,49,47	1,58,29,49,22,40,24,13	1,27,36,32,34	8,40
38″	19,58,22,50,47, 5,34,17,14, 0	1,58,29,47,55, 3,42,59	1,27,36,41,14	8,40
40″	19,58,24,49,16,53,29,20,56,59	1,58,29,46,27,26,53, 5	1,27,36,49,54	8,40
42″	19,58,26,47,46,39,56,47,50, 4	1,58,29,44,59,49,54,31	1,27,36,58,34	8,40
44″	19,58,28,46,16,24,56,37,44,35	1,58,29,43,32,12,47,17	1,27,37, 7,14	8,40
46″	19,58,30,44,46, 8,28,50,31,52	1,58,29,42, 4,35,31,23	1,27,37,15,54	8,40
48″	19,58,32,43,15,50,33,26, 3,15	1,58,29,40,36,58, 6,49	1,27,37,24,34	8,40
50″	19,58,34,41,45,31,10,24,10, 4	1,58,29,39, 9,20,33,35	1,27,37,33,14	8,40
52″	19,58,36,40,15,10,19,44,43,39	1,58,29,37,41,42,51,41	1,27,37,41,54	8,40
54″	19,58,38,38,44,48, 1,27,35,20	1,58,29,36,14, 5, 1, 7	1,27,37,50,34	8,40
56″	19,58,40,37,14,24,15,32,36,27	1,58,29,34,46,27, 1,53	1,27,37,59,14	8,40
58″	19,58,42,35,43,59, 1,59,38,20	1,58,29,33,18,48,53,59	1,27,38, 7,54	
60″	19,58,44,34,13,32,20,48,32,19			
exact	19,58,44,34,13,32,20,48,44, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°27′ 0″	19,58,44,34,13,32,20,48,44, 0			
		1,58,29,31,51,10,38,45		
2″	19,58,46,32,43, 4,11,59,22,45		1,27,38,25, 8	
		1,58,29,30,23,32,13,37		8,40
4″	19,58,48,31,12,34,35,31,36,22		1,27,38,33,48	
		1,58,29,28,55,53,39,49		8,40
6″	19,58,50,29,42, 3,31,25,16,11		1,27,38,42,28	
		1,58,29,27,28,14,57,21		8,40
8″	19,58,52,28,11,30,59,40,13,32		1,27,38,51, 8	
		1,58,29,26, 0,36, 6,13		8,40
10″	19,58,54,26,40,57, 0,16,19,45		1,27,38,59,48	
		1,58,29,24,32,57, 6,25		8,40
12″	19,58,56,25,10,21,33,13,26,10		1,27,39, 8,28	
		1,58,29,23, 5,17,57,57		8,40
14″	19,58,58,23,39,44,38,31,24, 7		1,27,39,17, 8	
		1,58,29,21,37,38,40,49		8,40
16″	19,59, 0,22, 9, 6,16,10, 4,56		1,27,39,25,48	
		1,58,29,20, 9,59,15, 1		8,40
18″	19,59, 2,20,38,26,26, 9,19,57		1,27,39,34,28	
		1,58,29,18,42,19,40,33		8,40
20″	19,59, 4,19, 7,45, 8,29, 0,30		1,27,39,43, 8	
		1,58,29,17,14,39,57,25		8,40
22″	19,59, 6,17,37, 2,23, 8,57,55		1,27,39,51,48	
		1,58,29,15,47, 0, 5,37		8,40
24″	19,59, 8,16, 6,18,10, 9, 3,32		1,27,40, 0,28	
		1,58,29,14,19,20, 5, 9		8,40
26″	19,59,10,14,35,32,29,29, 8,41		1,27,40, 9, 8	
		1,58,29,12,51,39,56, 1		8,40
28″	19,59,12,13, 4,45,21, 9, 4,42		1,27,40,17,48	
		1,58,29,11,23,59,38,13		8,40
30″	19,59,14,11,33,56,45, 8,42,55		1,27,40,26,28	
		1,58,29, 9,56,19,11,45		8,40
32″	19,59,16,10, 3, 6,41,27,54,40		1,27,40,35, 8	
		1,58,29, 8,28,38,36,37		8,40
34″	19,59,18, 8,32,15,10, 6,31,17		1,27,40,43,48	
		1,58,29, 7, 0,57,52,49		8,40
36″	19,59,20, 7, 1,22,11, 4,24, 6		1,27,40,52,28	
		1,58,29, 5,33,17, 0,21		8,40
38″	19,59,22, 5,30,27,44,21,24,27		1,27,41, 1, 8	
		1,58,29, 4, 5,35,59,13		8,40
40″	19,59,24, 3,59,31,49,57,23,40		1,27,41, 9,48	
		1,58,29, 2,37,54,49,25		8,40
42″	19,59,26, 2,28,34,27,52,13, 5		1,27,41,18,28	
		1,58,29, 1,10,13,30,57		8,40
44″	19,59,28, 0,57,35,38, 5,44, 2		1,27,41,27, 8	
		1,58,28,59,42,32, 3,49		8,40
46″	19,59,29,59,26,35,20,37,47,51		1,27,41,35,48	
		1,58,28,58,14,50,28, 1		8,40
48″	19,59,31,57,55,33,35,28,15,52		1,27,41,44,28	
		1,58,28,56,47, 8,43,33		8,40
50″	19,59,33,56,24,30,22,36,59,25		1,27,41,53, 8	
		1,58,28,55,19,26,50,25		8,40
52″	19,59,35,54,53,25,42, 3,49,50		1,27,42, 1,48	
		1,58,28,53,51,44,48,37		8,40
54″	19,59,37,53,22,19,33,48,38,27		1,27,42,10,28	
		1,58,28,52,24, 2,38, 9		8,40
56″	19,59,39,51,51,11,57,51,16,36		1,27,42,19, 8	
		1,58,28,50,56,20,19, 1		8,40
58″	19,59,41,50,20, 2,54,11,35,37		1,27,42,27,48	
		1,58,28,49,28,37,51,13		
60″	19,59,43,48,48,52,22,49,26,50			
exact	19,59,43,48,48,52,22,49,44,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°28′ 0″	19,59,43,48,48,52,22,49,44,16			
		1,58,28,48, 0,55,16,37		
2″	19,59,45,47,17,40,23,45, 0,53		1,27,42,45, 0	
		1,58,28,46,33,12,31,37		8,40
4″	19,59,47,45,46,26,56,57,32,30		1,27,42,53,40	
		1,58,28,45, 5,29,37,57		8,40
6″	19,59,49,44,15,12, 2,27,10,27		1,27,43, 2,20	
		1,58,28,43,37,46,35,37		8,40
8″	19,59,51,42,43,55,40,13,46, 4		1,27,43,11, 0	
		1,58,28,42,10, 3,24,37		8,40
10″	19,59,53,41,12,37,50,17,10,41		1,27,43,19,40	
		1,58,28,40,42,20, 4,57		8,40
12″	19,59,55,39,41,18,32,37,15,38		1,27,43,28,20	
		1,58,28,39,14,36,36,37		8,40
14″	19,59,57,38, 9,57,47,13,52,15		1,27,43,37, 0	
		1,58,28,37,46,52,59,37		8,40
16″	19,59,59,36,38,35,34, 6,51,52		1,27,43,45,40	
		1,58,28,36,19, 9,13,57		8,40
18″	20, 0, 1,35, 7,11,53,16, 5,49		1,27,43,54,20	
		1,58,28,34,51,25,19,37		8,40
20″	20, 0, 3,33,35,46,44,41,25,26		1,27,44, 3, 0	
		1,58,28,33,23,41,16,37		8,40
22″	20, 0, 5,32, 4,20, 8,22,42, 3		1,27,44,11,40	
		1,58,28,31,55,57, 4,57		8,40
24″	20, 0, 7,30,32,52, 4,19,47, 0		1,27,44,20,20	
		1,58,28,30,28,12,44,37		8,40
26″	20, 0, 9,29, 1,22,32,32,31,37		1,27,44,29, 0	
		1,58,28,29, 0,28,15,37		8,40
28″	20, 0,11,27,29,51,33, 0,47,14		1,27,44,37,40	
		1,58,28,27,32,43,37,57		8,40
30″	20, 0,13,25,58,19, 5,44,25,11		1,27,44,46,20	
		1,58,28,26, 4,58,51,37		8,40
32″	20, 0,15,24,26,45,10,43,16,48		1,27,44,55, 0	
		1,58,28,24,37,13,56,37		8,40
34″	20, 0,17,22,55, 9,47,57,13,25		1,27,45, 3,40	
		1,58,28,23, 9,28,52,57		8,40
36″	20, 0,19,21,23,32,57,26, 6,22		1,27,45,12,20	
		1,58,28,21,41,43,40,37		8,40
38″	20, 0,21,19,51,54,39, 9,46,59		1,27,45,21, 0	
		1,58,28,20,13,58,19,37		8,40
40″	20, 0,23,18,20,14,53, 8, 6,36		1,27,45,29,40	
		1,58,28,18,46,12,49,57		8,40
42″	20, 0,25,16,48,33,39,20,56,33		1,27,45,38,20	
		1,58,28,17,18,27,11,37		8,40
44″	20, 0,27,15,16,50,57,48, 8,10		1,27,45,47, 0	
		1,58,28,15,50,41,24,37		8,40
46″	20, 0,29,13,45, 6,48,29,32,47		1,27,45,55,40	
		1,58,28,14,22,55,28,57		8,40
48″	20, 0,31,12,13,21,11,25, 1,44		1,27,46, 4,20	
		1,58,28,12,55, 9,24,37		8,40
50″	20, 0,33,10,41,34, 6,34,26,21		1,27,46,13, 0	
		1,58,28,11,27,23,11,37		8,40
52″	20, 0,35, 9, 9,45,33,57,37,58		1,27,46,21,40	
		1,58,28, 9,59,36,49,57		8,40
54″	20, 0,37, 7,37,55,33,34,27,55		1,27,46,30,20	
		1,58,28, 8,31,50,19,37		8,40
56″	20, 0,39, 6, 6, 4, 5,24,47,32		1,27,46,39, 0	
		1,58,28, 7, 4, 3,40,37		8,40
58″	20, 0,41, 4,34,11, 9,28,28, 9		1,27,46,47,40	
		1,58,28, 5,36,16,52,57		
60″	20, 0,43, 3, 2,16,45,45,21, 6			
exact	20, 0,43, 3, 2,16,45,45,41,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°29′ 0″	20, 0,43, 3, 2,16,45,45,41,13			
		1,58,28, 4, 8,29,58,49		
2″	20, 0,45, 1,30,20,54,15,40, 2		1,27,47, 4,51	
		1,58,28, 2,40,42,53,58		8,40
4″	20, 0,46,59,58,23,34,58,34, 0		1,27,47,13,31	
		1,58,28, 1,12,55,40,27		8,40
6″	20, 0,48,58,26,24,47,54,14,27		1,27,47,22,11	
		1,58,27,59,45, 8,18,16		8,40
8″	20, 0,50,56,54,24,33, 2,32,43		1,27,47,30,51	
		1,58,27,58,17,20,47,25		8,40
10″	20, 0,52,55,22,22,50,23,20, 8		1,27,47,39,31	
		1,58,27,56,49,33, 7,54		8,40
12″	20, 0,54,53,50,19,39,56,28, 2		1,27,47,48,11	
		1,58,27,55,21,45,19,43		8,40
14″	20, 0,56,52,18,15, 1,41,47,45		1,27,47,56,51	
		1,58,27,53,53,57,22,52		8,40
16″	20, 0,58,50,46, 8,55,39,10,37		1,27,48, 5,31	
		1,58,27,52,26, 9,17,21		8,40
18″	20, 1, 0,49,14, 1,21,48,27,58		1,27,48,14,11	
		1,58,27,50,58,21, 3,10		8,40
20″	20, 1, 2,47,41,52,20, 9,31, 8		1,27,48,22,51	
		1,58,27,49,30,32,40,19		8,40
22″	20, 1, 4,46, 9,41,50,42,11,27		1,27,48,31,31	
		1,58,27,48, 2,44, 8,48		8,40
24″	20, 1, 6,44,37,29,53,26,20,15		1,27,48,40,11	
		1,58,27,46,34,55,28,37		8,40
26″	20, 1, 8,43, 5,16,28,21,48,52		1,27,48,48,51	
		1,58,27,45, 7, 6,39,46		8,40
28″	20, 1,10,41,33, 1,35,28,28,38		1,27,48,57,31	
		1,58,27,43,39,17,42,15		8,40
30″	20, 1,12,40, 0,45,14,46,10,53		1,27,49, 6,11	
		1,58,27,42,11,28,36, 4		8,40
32″	20, 1,14,38,28,27,26,14,46,57		1,27,49,14,51	
		1,58,27,40,43,39,21,13		8,40
34″	20, 1,16,36,56, 8, 9,54, 8,10		1,27,49,23,31	
		1,58,27,39,15,49,57,42		8,40
36″	20, 1,18,35,23,47,25,44, 5,52		1,27,49,32,11	
		1,58,27,37,48, 0,25,31		8,40
38″	20, 1,20,33,51,25,13,44,31,23		1,27,49,40,51	
		1,58,27,36,20,10,44,40		8,40
40″	20, 1,22,32,19, 1,33,55,16, 3		1,27,49,49,31	
		1,58,27,34,52,20,55, 9		8,40
42″	20, 1,24,30,46,36,26,16,11,12		1,27,49,58,11	
		1,58,27,33,24,30,56,58		8,40
44″	20, 1,26,29,14, 9,50,47, 8,10		1,27,50, 6,51	
		1,58,27,31,56,40,50, 7		8,40
46″	20, 1,28,27,41,41,47,27,58,17		1,27,50,15,31	
		1,58,27,30,28,50,34,36		8,40
48″	20, 1,30,26, 9,12,16,18,32,53		1,27,50,24,11	
		1,58,27,29, 1, 0,10,25		8,40
50″	20, 1,32,24,36,41,17,18,43,18		1,27,50,32,51	
		1,58,27,27,33, 9,37,34		8,40
52″	20, 1,34,23, 4, 8,50,28,20,52		1,27,50,41,31	
		1,58,27,26, 5,18,56, 3		8,40
54″	20, 1,36,21,31,34,55,47,16,55		1,27,50,50,11	
		1,58,27,24,37,28, 5,52		8,40
56″	20, 1,38,19,58,59,33,15,22,47		1,27,50,58,51	
		1,58,27,23, 9,37, 7, 1		8,40
58″	20, 1,40,18,26,22,42,52,29,48		1,27,51, 7,31	
		1,58,27,21,41,45,59,30		
60″	20, 1,42,16,53,44,24,38,29,18			
exact	20, 1,42,16,53,44,24,38,56,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°30′ 0″	20, 1,42,16,53,44,24,38,56,21	1,58,27,20,13,54,46, 8		
2″	20, 1,44,15,21, 4,38,33,42,29	1,58,27,18,46, 3,21,29	1,27,51,24,39	8,40
4″	20, 1,46,13,48,23,24,37, 3,58	1,58,27,17,18,11,48,10	1,27,51,33,19	8,40
6″	20, 1,48,12,15,40,42,48,52, 8	1,58,27,15,50,20, 6,11	1,27,51,41,59	8,40
8″	20, 1,50,10,42,56,33, 8,58,19	1,58,27,14,22,28,15,32	1,27,51,50,39	8,40
10″	20, 1,52, 9,10,10,55,37,13,51	1,58,27,12,54,36,16,13	1,27,51,59,19	8,40
12″	20, 1,54, 7,37,23,50,13,30, 4	1,58,27,11,26,44, 8,14	1,27,52, 7,59	8,40
14″	20, 1,56, 6, 4,35,16,57,38,18	1,58,27, 9,58,51,51,35	1,27,52,16,39	8,40
16″	20, 1,58, 4,31,45,15,49,29,53	1,58,27, 8,30,59,26,16	1,27,52,25,19	8,40
18″	20, 2, 0, 2,58,53,46,48,56, 9	1,58,27, 7, 3, 6,52,17	1,27,52,33,59	8,40
20″	20, 2, 2, 1,26, 0,49,55,48,26	1,58,27, 5,35,14, 9,38	1,27,52,42,39	8,40
22″	20, 2, 3,59,53, 6,25, 9,58, 4	1,58,27, 4, 7,21,18,19	1,27,52,51,19	8,40
24″	20, 2, 5,58,20,10,32,31,16,23	1,58,27, 2,39,28,18,20	1,27,52,59,59	8,40
26″	20, 2, 7,56,47,13,11,59,34,43	1,58,27, 1,11,35, 9,41	1,27,53, 8,39	8,40
28″	20, 2, 9,55,14,14,23,34,44,24	1,58,26,59,43,41,52,22	1,27,53,17,19	8,40
30″	20, 2,11,53,41,14, 7,16,36,46	1,58,26,58,15,48,26,23	1,27,53,25,59	8,40
32″	20, 2,13,52, 8,12,23, 5, 3, 9	1,58,26,56,47,54,51,44	1,27,53,34,39	8,40
34″	20, 2,15,50,35, 9,10,59,54,53	1,58,26,55,20, 1, 8,25	1,27,53,43,19	8,40
36″	20, 2,17,49, 2, 4,31, 1, 3,18	1,58,26,53,52, 7,16,26	1,27,53,51,59	8,40
38″	20, 2,19,47,28,58,23, 8,19,44	1,58,26,52,24,13,15,47	1,27,54, 0,39	8,40
40″	20, 2,21,45,55,50,47,21,35,31	1,58,26,50,56,19, 6,28	1,27,54, 9,19	8,40
42″	20, 2,23,44,22,41,43,40,41,59	1,58,26,49,28,24,48,29	1,27,54,17,59	8,40
44″	20, 2,25,42,49,31,12, 5,30,28	1,58,26,48, 0,30,21,50	1,27,54,26,39	8,40
46″	20, 2,27,41,16,19,12,35,52,18	1,58,26,46,32,35,46,31	1,27,54,35,19	8,40
48″	20, 2,29,39,43, 5,45,11,38,49	1,58,26,45, 4,41, 2,32	1,27,54,43,59	8,40
50″	20, 2,31,38, 9,50,49,52,41,21	1,58,26,43,36,46, 9,53	1,27,54,52,39	8,40
52″	20, 2,33,36,36,34,26,38,51,14	1,58,26,42, 8,51, 8,34	1,27,55, 1,19	8,40
54″	20, 2,35,35, 3,16,35,29,59,48	1,58,26,40,40,55,58,35	1,27,55, 9,59	8,40
56″	20, 2,37,33,29,57,16,25,58,23	1,58,26,39,13, 0,39,56	1,27,55,18,39	8,40
58″	20, 2,39,31,56,36,29,26,38,19	1,58,26,37,45, 5,12,37	1,27,55,27,19	
60″	20, 2,41,30,23,14,14,31,50,56			
exact	20, 2,41,30,23,14,14,32,15,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°31′ 0″	20, 2,41,30,23,14,14,32,15,11			
		1,58,26,36,17, 9,39,24		
2″	20, 2,43,28,49,50,31,41,54,35		1,27,55,44,27	
		1,58,26,34,49,13,54,57		8,40
4″	20, 2,45,27,16,25,20,55,49,32		1,27,55,53, 7	
		1,58,26,33,21,18, 1,50		8,40
6″	20, 2,47,25,42,58,42,13,51,22		1,27,56, 1,47	
		1,58,26,31,53,22, 0, 3		8,40
8″	20, 2,49,24, 9,30,35,35,51,25		1,27,56,10,27	
		1,58,26,30,25,25,49,36		8,40
10″	20, 2,51,22,36, 1, 1, 1,41, 1		1,27,56,19, 7	
		1,58,26,28,57,29,30,29		8,40
12″	20, 2,53,21, 2,29,58,31,11,30		1,27,56,27,47	
		1,58,26,27,29,33, 2,42		8,40
14″	20, 2,55,19,28,57,28, 4,14,12		1,27,56,36,27	
		1,58,26,26, 1,36,26,15		8,40
16″	20, 2,57,17,55,23,29,40,40,27		1,27,56,45, 7	
		1,58,26,24,33,39,41, 8		8,40
18″	20, 2,59,16,21,48, 3,20,21,35		1,27,56,53,47	
		1,58,26,23, 5,42,47,21		8,40
20″	20, 3, 1,14,48,11, 9, 3, 8,56		1,27,57, 2,27	
		1,58,26,21,37,45,44,54		8,40
22″	20, 3, 3,13,14,32,46,48,53,50		1,27,57,11, 7	
		1,58,26,20, 9,48,33,47		8,40
24″	20, 3, 5,11,40,52,56,37,27,37		1,27,57,19,47	
		1,58,26,18,41,51,14, 0		8,40
26″	20, 3, 7,10, 7,11,38,28,41,37		1,27,57,28,27	
		1,58,26,17,13,53,45,33		8,40
28″	20, 3, 9, 8,33,28,52,22,27,10		1,27,57,37, 7	
		1,58,26,15,45,56, 8,26		8,40
30″	20, 3,11, 6,59,44,38,18,35,36		1,27,57,45,47	
		1,58,26,14,17,58,22,39		8,40
32″	20, 3,13, 5,25,58,56,16,58,15		1,27,57,54,27	
		1,58,26,12,50, 0,28,12		8,40
34″	20, 3,15, 3,52,11,46,17,26,27		1,27,58, 3, 7	
		1,58,26,11,22, 2,25, 5		8,40
36″	20, 3,17, 2,18,23, 8,19,51,32		1,27,58,11,47	
		1,58,26, 9,54, 4,13,18		8,40
38″	20, 3,19, 0,44,33, 2,24, 4,50		1,27,58,20,27	
		1,58,26, 8,26, 5,52,51		8,40
40″	20, 3,20,59,10,41,28,29,57,41		1,27,58,29, 7	
		1,58,26, 6,58, 7,23,44		8,40
42″	20, 3,22,57,36,48,26,37,21,25		1,27,58,37,47	
		1,58,26, 5,30, 8,45,57		8,40
44″	20, 3,24,56, 2,53,56,46, 7,22		1,27,58,46,27	
		1,58,26, 4, 2, 9,59,30		8,40
46″	20, 3,26,54,28,57,58,56, 6,52		1,27,58,55, 7	
		1,58,26, 2,34,11, 4,23		8,40
48″	20, 3,28,52,55, 0,33, 7,11,15		1,27,59, 3,47	
		1,58,26, 1, 6,12, 0,36		8,40
50″	20, 3,30,51,21, 1,39,19,11,51		1,27,59,12,27	
		1,58,25,59,38,12,48, 9		8,40
52″	20, 3,32,49,47, 1,17,32, 0, 0		1,27,59,21, 7	
		1,58,25,58,10,13,27, 2		8,40
54″	20, 3,34,48,12,59,27,45,27, 2		1,27,59,29,47	
		1,58,25,56,42,13,57,15		8,40
56″	20, 3,36,46,38,56, 9,59,24,17		1,27,59,38,27	
		1,58,25,55,14,14,18,48		8,40
58″	20, 3,38,45, 4,51,24,13,43, 5		1,27,59,47, 7	
		1,58,25,53,46,14,31,41		
60″	20, 3,40,43,30,45,10,28,14,46			
exact	20, 3,40,43,30,45,10,28,47,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°32′ 0″	20, 3,40,43,30,45,10,28,47,21			
		1,58,25,52,18,14,39,23		
2″	20, 3,42,41,56,37,28,43,26,44		1,28, 0, 4,12	
		1,58,25,50,50,14,35,11		8,39
4″	20, 3,44,40,22,28,18,58, 1,55		1,28, 0,12,51	
		1,58,25,49,22,14,22,20		8,39
6″	20, 3,46,38,48,17,41,12,24,15		1,28, 0,21,30	
		1,58,25,47,54,14, 0,50		8,39
8″	20, 3,48,37,14, 5,35,26,25, 5		1,28, 0,30, 9	
		1,58,25,46,26,13,30,41		8,39
10″	20, 3,50,35,39,52, 1,39,55,46		1,28, 0,38,48	
		1,58,25,44,58,12,51,53		8,39
12″	20, 3,52,34, 5,36,59,52,47,39		1,28, 0,47,27	
		1,58,25,43,30,12, 4,26		8,39
14″	20, 3,54,32,31,20,30, 4,52, 5		1,28, 0,56, 6	
		1,58,25,42, 2,11, 8,20		8,39
16″	20, 3,56,30,57, 2,32,16, 0,25		1,28, 1, 4,45	
		1,58,25,40,34,10, 3,35		8,39
18″	20, 3,58,29,22,43, 6,26, 4, 0		1,28, 1,13,24	
		1,58,25,39, 6, 8,50,11		8,39
20″	20, 4, 0,27,48,22,12,34,54,11		1,28, 1,22, 3	
		1,58,25,37,38, 7,28, 8		8,39
22″	20, 4, 2,26,13,59,50,42,22,19		1,28, 1,30,42	
		1,58,25,36,10, 5,57,26		8,39
24″	20, 4, 4,24,39,36, 0,48,19,45		1,28, 1,39,21	
		1,58,25,34,42, 4,18, 5		8,39
26″	20, 4, 6,23, 5,10,42,52,37,50		1,28, 1,48, 0	
		1,58,25,33,14, 2,30, 5		8,39
28″	20, 4, 8,21,30,43,56,55, 7,55		1,28, 1,56,39	
		1,58,25,31,46, 0,33,26		8,39
30″	20, 4,10,19,56,15,42,55,41,21		1,28, 2, 5,18	
		1,58,25,30,17,58,28, 8		8,39
32″	20, 4,12,18,21,46, 0,54, 9,29		1,28, 2,13,57	
		1,58,25,28,49,56,14,11		8,39
34″	20, 4,14,16,47,14,50,50,23,40		1,28, 2,22,36	
		1,58,25,27,21,53,51,35		8,39
36″	20, 4,16,15,12,42,12,44,15,15		1,28, 2,31,15	
		1,58,25,25,53,51,20,20		8,39
38″	20, 4,18,13,38, 8, 6,35,35,35		1,28, 2,39,54	
		1,58,25,24,25,48,40,26		8,39
40″	20, 4,20,12, 3,32,32,24,16, 1		1,28, 2,48,33	
		1,58,25,22,57,45,51,53		8,39
42″	20, 4,22,10,28,55,30,10, 7,54		1,28, 2,57,12	
		1,58,25,21,29,42,54,41		8,39
44″	20, 4,24, 8,54,16,59,53, 2,35		1,28, 3, 5,51	
		1,58,25,20, 1,39,48,50		8,39
46″	20, 4,26, 7,19,37, 1,32,51,25		1,28, 3,14,30	
		1,58,25,18,33,36,34,20		8,39
48″	20, 4,28, 5,44,55,35, 9,25,45		1,28, 3,23, 9	
		1,58,25,17, 5,33,11,11		8,39
50″	20, 4,30, 4,10,12,40,42,36,56		1,28, 3,31,48	
		1,58,25,15,37,29,39,23		8,39
52″	20, 4,32, 2,35,28,18,12,16,19		1,28, 3,40,27	
		1,58,25,14, 9,25,58,56		8,39
54″	20, 4,34, 1, 0,42,27,38,15,15		1,28, 3,49, 6	
		1,58,25,12,41,22, 9,50		8,39
56″	20, 4,35,59,25,55, 9, 0,25, 5		1,28, 3,57,45	
		1,58,25,11,13,18,12, 5		8,39
58″	20, 4,37,57,51, 6,22,18,37,10		1,28, 4, 6,24	
		1,58,25, 9,45,14, 5,41		
60″	20, 4,39,56,16,16, 7,32,42,51			
exact	20, 4,39,56,16,16, 7,32, 6,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°33′ 0″	20, 4,39,56,16,16, 7,32, 6,35			
		1,58,25, 8,17, 9,46,55		
2″	20, 4,41,54,41,24,24,41,53,30		1,28, 4,23,57	
		1,58,25, 6,49, 5,22,58		8,39
4″	20, 4,43,53, 6,31,13,47,16,28		1,28, 4,32,36	
		1,58,25, 5,21, 0,50,22		8,39
6″	20, 4,45,51,31,36,34,48, 6,50		1,28, 4,41,15	
		1,58,25, 3,52,56, 9, 7		8,39
8″	20, 4,47,49,56,40,27,44,15,57		1,28, 4,49,54	
		1,58,25, 2,24,51,19,13		8,39
10″	20, 4,49,48,21,42,52,35,35,10		1,28, 4,58,33	
		1,58,25, 0,56,46,20,40		8,39
12″	20, 4,51,46,46,43,49,21,55,50		1,28, 5, 7,12	
		1,58,24,59,28,41,13,28		8,39
14″	20, 4,53,45,11,43,18, 3, 9,18		1,28, 5,15,51	
		1,58,24,58, 0,35,57,37		8,39
16″	20, 4,55,43,36,41,18,39, 6,55		1,28, 5,24,30	
		1,58,24,56,32,30,33, 7		8,39
18″	20, 4,57,42, 1,37,51, 9,40, 2		1,28, 5,33, 9	
		1,58,24,55, 4,24,59,58		8,39
20″	20, 4,59,40,26,32,55,34,40, 0		1,28, 5,41,48	
		1,58,24,53,36,19,18,10		8,39
22″	20, 5, 1,38,51,26,31,53,58,10		1,28, 5,50,27	
		1,58,24,52, 8,13,27,43		8,39
24″	20, 5, 3,37,16,18,40, 7,25,53		1,28, 5,59, 6	
		1,58,24,50,40, 7,28,37		8,39
26″	20, 5, 5,35,41, 9,20,14,54,30		1,28, 6, 7,45	
		1,58,24,49,12, 1,20,52		8,39
28″	20, 5, 7,34, 5,58,32,16,15,22		1,28, 6,16,24	
		1,58,24,47,43,55, 4,28		8,39
30″	20, 5, 9,32,30,46,16,11,19,50		1,28, 6,25, 3	
		1,58,24,46,15,48,39,25		8,39
32″	20, 5,11,30,55,32,31,59,59,15		1,28, 6,33,42	
		1,58,24,44,47,42, 5,43		8,39
34″	20, 5,13,29,20,17,19,42, 4,58		1,28, 6,42,21	
		1,58,24,43,19,35,23,22		8,39
36″	20, 5,15,27,45, 0,39,17,28,20		1,28, 6,51, 0	
		1,58,24,41,51,28,32,22		8,39
38″	20, 5,17,26, 9,42,30,46, 0,42		1,28, 6,59,39	
		1,58,24,40,23,21,32,43		8,39
40″	20, 5,19,24,34,22,54, 7,33,25		1,28, 7, 8,18	
		1,58,24,38,55,14,24,25		8,39
42″	20, 5,21,22,59, 1,49,21,57,50		1,28, 7,16,57	
		1,58,24,37,27, 7, 7,28		8,39
44″	20, 5,23,21,23,39,16,29, 5,18		1,28, 7,25,36	
		1,58,24,35,58,59,41,52		8,39
46″	20, 5,25,19,48,15,15,28,47,10		1,28, 7,34,15	
		1,58,24,34,30,52, 7,37		8,39
48″	20, 5,27,18,12,49,46,20,54,47		1,28, 7,42,54	
		1,58,24,33, 2,44,24,43		8,39
50″	20, 5,29,16,37,22,49, 5,19,30		1,28, 7,51,33	
		1,58,24,31,34,36,33,10		8,39
52″	20, 5,31,15, 1,54,23,41,52,40		1,28, 8, 0,12	
		1,58,24,30, 6,28,32,58		8,39
54″	20, 5,33,13,26,24,30,10,25,38		1,28, 8, 8,51	
		1,58,24,28,38,20,24, 7		8,39
56″	20, 5,35,11,50,53, 8,30,49,45		1,28, 8,17,30	
		1,58,24,27,10,12, 6,37		8,39
58″	20, 5,37,10,15,20,18,42,56,22		1,28, 8,26, 9	
		1,58,24,25,42, 3,40,28		
60″	20, 5,39, 8,39,46, 0,46,36,50			
exact	20, 5,39, 8,39,46, 0,46,10,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°34′ 0″	20, 5,39, 8,39,46, 0,46,10,44			
		1,58,24,24,13,55, 2,47		
2″	20, 5,41, 7, 4,10,14,41,13,31		1,28, 8,43,39	
		1,58,24,22,45,46,19, 8		8,39
4″	20, 5,43, 5,28,33, 0,27,32,39		1,28, 8,52,18	
		1,58,24,21,17,37,26,50		8,39
6″	20, 5,45, 3,52,54,18, 4,59,29		1,28, 9, 0,57	
		1,58,24,19,49,28,25,53		8,39
8″	20, 5,47, 2,17,14, 7,33,25,22		1,28, 9, 9,36	
		1,58,24,18,21,19,16,17		8,39
10″	20, 5,49, 0,41,32,28,52,41,39		1,28, 9,18,15	
		1,58,24,16,53, 9,58, 2		8,39
12″	20, 5,50,59, 5,49,22, 2,39,41		1,28, 9,26,54	
		1,58,24,15,25, 0,31, 8		8,39
14″	20, 5,52,57,30, 4,47, 3,10,49		1,28, 9,35,33	
		1,58,24,13,56,50,55,35		8,39
16″	20, 5,54,55,54,18,43,54, 6,24		1,28, 9,44,12	
		1,58,24,12,28,41,11,23		8,39
18″	20, 5,56,54,18,31,12,35,17,47		1,28, 9,52,51	
		1,58,24,11, 0,31,18,32		8,39
20″	20, 5,58,52,42,42,13, 6,36,19		1,28,10, 1,30	
		1,58,24, 9,32,21,17, 2		8,39
22″	20, 6, 0,51, 6,51,45,27,53,21		1,28,10,10, 9	
		1,58,24, 8, 4,11, 6,53		8,39
24″	20, 6, 2,49,30,59,49,39, 0,14		1,28,10,18,48	
		1,58,24, 6,36, 0,48, 5		8,39
26″	20, 6, 4,47,55, 6,25,39,48,19		1,28,10,27,27	
		1,58,24, 5, 7,50,20,38		8,39
28″	20, 6, 6,46,19,11,33,30, 8,57		1,28,10,36, 6	
		1,58,24, 3,39,39,44,32		8,39
30″	20, 6, 8,44,43,15,13, 9,53,29		1,28,10,44,45	
		1,58,24, 2,11,28,59,47		8,39
32″	20, 6,10,43, 7,17,24,38,53,16		1,28,10,53,24	
		1,58,24, 0,43,18, 6,23		8,39
34″	20, 6,12,41,31,18, 7,56,59,39		1,28,11, 2, 3	
		1,58,23,59,15, 7, 4,20		8,39
36″	20, 6,14,39,55,17,23, 4, 3,59		1,28,11,10,42	
		1,58,23,57,46,55,53,38		8,39
38″	20, 6,16,38,19,15, 9,59,57,37		1,28,11,19,21	
		1,58,23,56,18,44,34,17		8,39
40″	20, 6,18,36,43,11,28,44,31,54		1,28,11,28, 0	
		1,58,23,54,50,33, 6,17		8,39
42″	20, 6,20,35, 7, 6,19,17,38,11		1,28,11,36,39	
		1,58,23,53,22,21,29,38		8,39
44″	20, 6,22,33,30,59,41,39, 7,49		1,28,11,45,18	
		1,58,23,51,54, 9,44,20		8,39
46″	20, 6,24,31,54,51,35,48,52, 9		1,28,11,53,57	
		1,58,23,50,25,57,50,23		8,39
48″	20, 6,26,30,18,42, 1,46,42,32		1,28,12, 2,36	
		1,58,23,48,57,45,47,47		8,39
50″	20, 6,28,28,42,30,59,32,30,19		1,28,12,11,15	
		1,58,23,47,29,33,36,32		8,39
52″	20, 6,30,27, 6,18,29, 6, 6,51		1,28,12,19,54	
		1,58,23,46, 1,21,16,38		8,39
54″	20, 6,32,25,30, 4,30,27,23,29		1,28,12,28,33	
		1,58,23,44,33, 8,48, 5		8,39
56″	20, 6,34,23,53,49, 3,36,11,34		1,28,12,37,12	
		1,58,23,43, 4,56,10,53		8,39
58″	20, 6,36,22,17,32, 8,32,22,27		1,28,12,45,51	
		1,58,23,41,36,43,25, 2		
60″	20, 6,38,20,41,13,45,15,47,29			
exact	20, 6,38,20,41,13,45,15,21,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°35′ 0″	20, 6,38,20,41,13,45,15,21,47			
		1,58,23,40, 8,30,27,49		
2″	20, 6,40,19, 4,53,53,45,49,36		1,28,13, 3,20	
		1,58,23,38,40,17,24,29		8,39
4″	20, 6,42,17,28,32,34, 3,14, 5		1,28,13,11,59	
		1,58,23,37,12, 4,12,30		8,39
6″	20, 6,44,15,52, 9,46, 7,26,35		1,28,13,20,38	
		1,58,23,35,43,50,51,52		8,39
8″	20, 6,46,14,15,45,29,58,18,27		1,28,13,29,17	
		1,58,23,34,15,37,22,35		8,39
10″	20, 6,48,12,39,19,45,35,41, 2		1,28,13,37,56	
		1,58,23,32,47,23,44,39		8,39
12″	20, 6,50,11, 2,52,32,59,25,41		1,28,13,46,35	
		1,58,23,31,19, 9,58, 4		8,39
14″	20, 6,52, 9,26,23,52, 9,23,45		1,28,13,55,14	
		1,58,23,29,50,56, 2,50		8,39
16″	20, 6,54, 7,49,53,43, 5,26,35		1,28,14, 3,53	
		1,58,23,28,22,41,58,57		8,39
18″	20, 6,56, 6,13,22, 5,47,25,32		1,28,14,12,32	
		1,58,23,26,54,27,46,25		8,39
20″	20, 6,58, 4,36,49, 0,15,11,57		1,28,14,21,11	
		1,58,23,25,26,13,25,14		8,39
22″	20, 7, 0, 3, 0,14,26,28,37,11		1,28,14,29,50	
		1,58,23,23,57,58,55,24		8,39
24″	20, 7, 2, 1,23,38,24,27,32,35		1,28,14,38,29	
		1,58,23,22,29,44,16,55		8,39
26″	20, 7, 3,59,47, 0,54,11,49,30		1,28,14,47, 8	
		1,58,23,21, 1,29,29,47		8,39
28″	20, 7, 5,58,10,21,55,41,19,17		1,28,14,55,47	
		1,58,23,19,33,14,34, 0		8,39
30″	20, 7, 7,56,33,41,28,55,53,17		1,28,15, 4,26	
		1,58,23,18, 4,59,29,34		8,39
32″	20, 7, 9,54,56,59,33,55,22,51		1,28,15,13, 5	
		1,58,23,16,36,44,16,29		8,39
34″	20, 7,11,53,20,16,10,39,39,20		1,28,15,21,44	
		1,58,23,15, 8,28,54,45		8,39
36″	20, 7,13,51,43,31,19, 8,34, 5		1,28,15,30,23	
		1,58,23,13,40,13,24,22		8,39
38″	20, 7,15,50, 6,44,59,21,58,27		1,28,15,39, 2	
		1,58,23,12,11,57,45,20		8,39
40″	20, 7,17,48,29,57,11,19,43,47		1,28,15,47,41	
		1,58,23,10,43,41,57,39		8,39
42″	20, 7,19,46,53, 7,55, 1,41,26		1,28,15,56,20	
		1,58,23, 9,15,26, 1,19		8,39
44″	20, 7,21,45,16,17,10,27,42,45		1,28,16, 4,59	
		1,58,23, 7,47, 9,56,20		8,39
46″	20, 7,23,43,39,24,57,37,39, 5		1,28,16,13,38	
		1,58,23, 6,18,53,42,42		8,39
48″	20, 7,25,42, 2,31,16,31,21,47		1,28,16,22,17	
		1,58,23, 4,50,37,20,25		8,39
50″	20, 7,27,40,25,36, 7, 8,42,12		1,28,16,30,56	
		1,58,23, 3,22,20,49,29		8,39
52″	20, 7,29,38,48,39,29,29,31,41		1,28,16,39,35	
		1,58,23, 1,54, 4, 9,54		8,39
54″	20, 7,31,37,11,41,23,33,41,35		1,28,16,48,14	
		1,58,23, 0,25,47,21,40		8,39
56″	20, 7,33,35,34,41,49,21, 3,15		1,28,16,56,53	
		1,58,22,58,57,30,24,47		8,39
58″	20, 7,35,33,57,40,46,51,28, 2		1,28,17, 5,32	
		1,58,22,57,29,13,19,15		
60″	20, 7,37,32,20,38,16, 4,47,17			
exact	20, 7,37,32,20,38,16, 4,25,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°36′ 0″	20, 7,37,32,20,38,16, 4,25,56			
		1,58,22,56, 0,56, 2,48		
2″	20, 7,39,30,43,34,17, 0,28,44		1,28,17,22,59	
		1,58,22,54,32,38,39,49		8,39
4″	20, 7,41,29, 6,28,49,39, 8,33		1,28,17,31,38	
		1,58,22,53, 4,21, 8,11		8,39
6″	20, 7,43,27,29,21,54, 0,16,44		1,28,17,40,17	
		1,58,22,51,36, 3,27,54		8,39
8″	20, 7,45,25,52,13,30, 3,44,38		1,28,17,48,56	
		1,58,22,50, 7,45,38,58		8,39
10″	20, 7,47,24,15, 3,37,49,23,36		1,28,17,57,35	
		1,58,22,48,39,27,41,23		8,39
12″	20, 7,49,22,37,52,17,17, 4,59		1,28,18, 6,14	
		1,58,22,47,11, 9,35, 9		8,39
14″	20, 7,51,21, 0,39,28,26,40, 8		1,28,18,14,53	
		1,58,22,45,42,51,20,16		8,39
16″	20, 7,53,19,23,25,11,18, 0,24		1,28,18,23,32	
		1,58,22,44,14,32,56,44		8,39
18″	20, 7,55,17,46, 9,25,50,57, 8		1,28,18,32,11	
		1,58,22,42,46,14,24,33		8,39
20″	20, 7,57,16, 8,52,12, 5,21,41		1,28,18,40,50	
		1,58,22,41,17,55,43,43		8,39
22″	20, 7,59,14,31,33,30, 1, 5,24		1,28,18,49,29	
		1,58,22,39,49,36,54,14		8,39
24″	20, 8, 1,12,54,13,19,37,59,38		1,28,18,58, 8	
		1,58,22,38,21,17,56, 6		8,39
26″	20, 8, 3,11,16,51,40,55,55,44		1,28,19, 6,47	
		1,58,22,36,52,58,49,19		8,39
28″	20, 8, 5, 9,39,28,33,54,45, 3		1,28,19,15,26	
		1,58,22,35,24,39,33,53		8,39
30″	20, 8, 7, 8, 2, 3,58,34,18,56		1,28,19,24, 5	
		1,58,22,33,56,20, 9,48		8,39
32″	20, 8, 9, 6,24,37,54,54,28,44		1,28,19,32,44	
		1,58,22,32,28, 0,37, 4		8,39
34″	20, 8,11, 4,47,10,22,55, 5,48		1,28,19,41,23	
		1,58,22,30,59,40,55,41		8,39
36″	20, 8,13, 3, 9,41,22,36, 1,29		1,28,19,50, 2	
		1,58,22,29,31,21, 5,39		8,39
38″	20, 8,15, 1,32,10,53,57, 7, 8		1,28,19,58,41	
		1,58,22,28, 3, 1, 6,58		8,39
40″	20, 8,16,59,54,38,56,58,14, 6		1,28,20, 7,20	
		1,58,22,26,34,40,59,38		8,39
42″	20, 8,18,58,17, 5,31,39,13,44		1,28,20,15,59	
		1,58,22,25, 6,20,43,39		8,39
44″	20, 8,20,56,39,30,37,59,57,23		1,28,20,24,38	
		1,58,22,23,38, 0,19, 1		8,39
46″	20, 8,22,55, 1,54,16, 0,16,24		1,28,20,33,17	
		1,58,22,22, 9,39,45,44		8,39
48″	20, 8,24,53,24,16,25,40, 2, 8		1,28,20,41,56	
		1,58,22,20,41,19, 3,48		8,39
50″	20, 8,26,51,46,37, 6,59, 5,56		1,28,20,50,35	
		1,58,22,19,12,58,13,13		8,39
52″	20, 8,28,50, 8,56,19,57,19, 9		1,28,20,59,14	
		1,58,22,17,44,37,13,59		8,39
54″	20, 8,30,48,31,14, 4,34,33, 8		1,28,21, 7,53	
		1,58,22,16,16,16, 6, 6		8,39
56″	20, 8,32,46,53,30,20,50,39,14		1,28,21,16,32	
		1,58,22,14,47,54,49,34		8,39
58″	20, 8,34,45,15,45, 8,45,28,48		1,28,21,25,11	
		1,58,22,13,19,33,24,23		
60″	20, 8,36,43,37,58,28,18,53,11			
exact	20, 8,36,43,37,58,28,18,33,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°37′ 0″	20, 8,36,43,37,58,28,18,33,31	1,58,22,11,51,11,48,32		
2″	20, 8,38,42, 0,10,19,30,22, 3	1,58,22,10,22,50, 5,55	1,28,21,42,37	8,39
4″	20, 8,40,40,22,20,42,20,27,58	1,58,22, 8,54,28,14,39	1,28,21,51,16	8,39
6″	20, 8,42,38,44,29,36,48,42,37	1,58,22, 7,26, 6,14,44	1,28,21,59,55	8,39
8″	20, 8,44,37, 6,37, 2,54,57,21	1,58,22, 5,57,44, 6,10	1,28,22, 8,34	8,39
10″	20, 8,46,35,28,43, 0,39, 3,31	1,58,22, 4,29,21,48,57	1,28,22,17,13	8,39
12″	20, 8,48,33,50,47,30, 0,52,28	1,58,22, 3, 0,59,23, 5	1,28,22,25,52	8,39
14″	20, 8,50,32,12,50,31, 0,15,33	1,58,22, 1,32,36,48,34	1,28,22,34,31	8,39
16″	20, 8,52,30,34,52, 3,37, 4, 7	1,58,22, 0, 4,14, 5,24	1,28,22,43,10	8,39
18″	20, 8,54,28,56,52, 7,51, 9,31	1,58,21,58,35,51,13,35	1,28,22,51,49	8,39
20″	20, 8,56,27,18,50,43,42,23, 6	1,58,21,57, 7,28,13, 7	1,28,23, 0,28	8,39
22″	20, 8,58,25,40,47,51,10,36,13	1,58,21,55,39, 5, 4, 0	1,28,23, 9, 7	8,39
24″	20, 9, 0,24, 2,43,30,15,40,13	1,58,21,54,10,41,46,14	1,28,23,17,46	8,39
26″	20, 9, 2,22,24,37,40,57,26,27	1,58,21,52,42,18,19,49	1,28,23,26,25	8,39
28″	20, 9, 4,20,46,30,23,15,46,16	1,58,21,51,13,54,44,45	1,28,23,35, 4	8,39
30″	20, 9, 6,19, 8,21,37,10,31, 1	1,58,21,49,45,31, 1, 2	1,28,23,43,43	8,39
32″	20, 9, 8,17,30,11,22,41,32, 3	1,58,21,48,17, 7, 8,40	1,28,23,52,22	8,39
34″	20, 9,10,15,51,59,39,48,40,43	1,58,21,46,48,43, 7,39	1,28,24, 1, 1	8,39
36″	20, 9,12,14,13,46,28,31,48,22	1,58,21,45,20,18,57,59	1,28,24, 9,40	8,39
38″	20, 9,14,12,35,31,48,50,46,21	1,58,21,43,51,54,39,40	1,28,24,18,19	8,39
40″	20, 9,16,10,57,15,40,45,26, 1	1,58,21,42,23,30,12,42	1,28,24,26,58	8,39
42″	20, 9,18, 9,18,58, 4,15,38,43	1,58,21,40,55, 5,37, 5	1,28,24,35,37	8,39
44″	20, 9,20, 7,40,38,59,21,15,48	1,58,21,39,26,40,52,49	1,28,24,44,16	8,39
46″	20, 9,22, 6, 2,18,26, 2, 8,37	1,58,21,37,58,15,59,54	1,28,24,52,55	8,39
48″	20, 9,24, 4,23,56,24,18, 8,31	1,58,21,36,29,50,58,20	1,28,25, 1,34	8,39
50″	20, 9,26, 2,45,32,54, 9, 6,51	1,58,21,35, 1,25,48, 7	1,28,25,10,13	8,39
52″	20, 9,28, 1, 7, 7,55,34,54,58	1,58,21,33,33, 0,29,15	1,28,25,18,52	8,39
54″	20, 9,29,59,28,41,28,35,24,13	1,58,21,32, 4,35, 1,44	1,28,25,27,31	8,39
56″	20, 9,31,57,50,13,33,10,25,57	1,58,21,30,36, 9,25,34	1,28,25,36,10	8,39
58″	20, 9,33,56,11,44, 9,19,51,31	1,58,21,29, 7,43,40,45	1,28,25,44,49	
60″	20, 9,35,54,33,13,17, 3,32,16			
exact	20, 9,35,54,33,13,17, 3,19, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°38′ 0″	20, 9,35,54,33,13,17, 3,19, 5			
		1,58,21,27,39,17,45,51		
2″	20, 9,37,52,54,40,56,21, 4,56		1,28,26, 2,13	
		1,58,21,26,10,51,43,38		8,39
4″	20, 9,39,51,16, 7, 7,12,48,34		1,28,26,10,52	
		1,58,21,24,42,25,32,46		8,39
6″	20, 9,41,49,37,31,49,38,21,20		1,28,26,19,31	
		1,58,21,23,13,59,13,15		8,39
8″	20, 9,43,47,58,55, 3,37,34,35		1,28,26,28,10	
		1,58,21,21,45,32,45, 5		8,39
10″	20, 9,45,46,20,16,49,10,19,40		1,28,26,36,49	
		1,58,21,20,17, 6, 8,16		8,39
12″	20, 9,47,44,41,37, 6,16,27,56		1,28,26,45,28	
		1,58,21,18,48,39,22,48		8,39
14″	20, 9,49,43, 2,55,54,55,50,44		1,28,26,54, 7	
		1,58,21,17,20,12,28,41		8,39
16″	20, 9,51,41,24,13,15, 8,19,25		1,28,27, 2,46	
		1,58,21,15,51,45,25,55		8,39
18″	20, 9,53,39,45,29, 6,53,45,20		1,28,27,11,25	
		1,58,21,14,23,18,14,30		8,39
20″	20, 9,55,38, 6,43,30,11,59,50		1,28,27,20, 4	
		1,58,21,12,54,50,54,26		8,39
22″	20, 9,57,36,27,56,25, 2,54,16		1,28,27,28,43	
		1,58,21,11,26,23,25,43		8,39
24″	20, 9,59,34,49, 7,51,26,19,59		1,28,27,37,22	
		1,58,21, 9,57,55,48,21		8,39
26″	20,10, 1,33,10,17,49,22, 8,20		1,28,27,46, 1	
		1,58,21, 8,29,28, 2,20		8,39
28″	20,10, 3,31,31,26,18,50,10,40		1,28,27,54,40	
		1,58,21, 7, 1, 0, 7,40		8,39
30″	20,10, 5,29,52,33,19,50,18,20		1,28,28, 3,19	
		1,58,21, 5,32,32, 4,21		8,39
32″	20,10, 7,28,13,38,52,22,22,41		1,28,28,11,58	
		1,58,21, 4, 4, 3,52,23		8,39
34″	20,10, 9,26,34,42,56,26,15, 4		1,28,28,20,37	
		1,58,21, 2,35,35,31,46		8,39
36″	20,10,11,24,55,45,32, 1,46,50		1,28,28,29,16	
		1,58,21, 1, 7, 7, 2,30		8,39
38″	20,10,13,23,16,46,39, 8,49,20		1,28,28,37,55	
		1,58,20,59,38,38,24,35		8,39
40″	20,10,15,21,37,46,17,47,13,55		1,28,28,46,34	
		1,58,20,58,10, 9,38, 1		8,39
42″	20,10,17,19,58,44,27,56,51,56		1,28,28,55,13	
		1,58,20,56,41,40,42,48		8,39
44″	20,10,19,18,19,41, 9,37,34,44		1,28,29, 3,52	
		1,58,20,55,13,11,38,56		8,39
46″	20,10,21,16,40,36,22,49,13,40		1,28,29,12,31	
		1,58,20,53,44,42,26,25		8,39
48″	20,10,23,15, 1,30, 7,31,40, 5		1,28,29,21,10	
		1,58,20,52,16,13, 5,15		8,39
50″	20,10,25,13,22,22,23,44,45,20		1,28,29,29,49	
		1,58,20,50,47,43,35,26		8,39
52″	20,10,27,11,43,13,11,28,20,46		1,28,29,38,28	
		1,58,20,49,19,13,56,58		8,39
54″	20,10,29,10, 4, 2,30,42,17,44		1,28,29,47, 7	
		1,58,20,47,50,44, 9,51		8,39
56″	20,10,31, 8,24,50,21,26,27,35		1,28,29,55,46	
		1,58,20,46,22,14,14, 5		8,39
58″	20,10,33, 6,45,36,43,40,41,40		1,28,30, 4,25	
		1,58,20,44,53,44, 9,40		
60″	20,10,35, 5, 6,21,37,24,51,20			
exact	20,10,35, 5, 6,21,37,24,41,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°39′ 0″	20,10,35, 5, 6,21,37,24,41,25			
		1,58,20,43,25,13,55,32		
2″	20,10,37, 3,27, 5, 2,38,36,57		1,28,30,21,47	
		1,58,20,41,56,43,33,45		8,39
4″	20,10,39, 1,47,46,59,22,10,42		1,28,30,30,26	
		1,58,20,40,28,13, 3,19		8,39
6″	20,10,41, 0, 8,27,27,35,14, 1		1,28,30,39, 5	
		1,58,20,38,59,42,24,14		8,39
8″	20,10,42,58,29, 6,27,17,38,15		1,28,30,47,44	
		1,58,20,37,31,11,36,30		8,39
10″	20,10,44,56,49,43,58,29,14,45		1,28,30,56,23	
		1,58,20,36, 2,40,40, 7		8,39
12″	20,10,46,55,10,20, 1, 9,54,52		1,28,31, 5, 2	
		1,58,20,34,34, 9,35, 5		8,39
14″	20,10,48,53,30,54,35,19,29,57		1,28,31,13,41	
		1,58,20,33, 5,38,21,24		8,39
16″	20,10,50,51,51,27,40,57,51,21		1,28,31,22,20	
		1,58,20,31,37, 6,59, 4		8,39
18″	20,10,52,50,11,59,18, 4,50,25		1,28,31,30,59	
		1,58,20,30, 8,35,28, 5		8,39
20″	20,10,54,48,32,29,26,40,18,30		1,28,31,39,38	
		1,58,20,28,40, 3,48,27		8,39
22″	20,10,56,46,52,58, 6,44, 6,57		1,28,31,48,17	
		1,58,20,27,11,32, 0,10		8,39
24″	20,10,58,45,13,25,18,16, 7, 7		1,28,31,56,56	
		1,58,20,25,43, 0, 3,14		8,39
26″	20,11, 0,43,33,51, 1,16,10,21		1,28,32, 5,35	
		1,58,20,24,14,27,57,39		8,39
28″	20,11, 2,41,54,15,15,44, 8, 0		1,28,32,14,14	
		1,58,20,22,45,55,43,25		8,39
30″	20,11, 4,40,14,38, 1,39,51,25		1,28,32,22,53	
		1,58,20,21,17,23,20,32		8,39
32″	20,11, 6,38,34,59,19, 3,11,57		1,28,32,31,32	
		1,58,20,19,48,50,49, 0		8,39
34″	20,11, 8,36,55,19, 7,54, 0,57		1,28,32,40,11	
		1,58,20,18,20,18, 8,49		8,39
36″	20,11,10,35,15,37,28,12, 9,46		1,28,32,48,50	
		1,58,20,16,51,45,19,59		8,39
38″	20,11,12,33,35,54,19,57,29,45		1,28,32,57,29	
		1,58,20,15,23,12,22,30		8,39
40″	20,11,14,31,56, 9,43, 9,52,15		1,28,33, 6, 8	
		1,58,20,13,54,39,16,22		8,39
42″	20,11,16,30,16,23,37,49, 8,37		1,28,33,14,47	
		1,58,20,12,26, 6, 1,35		8,39
44″	20,11,18,28,36,36, 3,55,10,12		1,28,33,23,26	
		1,58,20,10,57,32,38, 9		8,39
46″	20,11,20,26,56,47, 1,27,48,21		1,28,33,32, 5	
		1,58,20, 9,28,59, 6, 4		8,39
48″	20,11,22,25,16,56,30,26,54,25		1,28,33,40,44	
		1,58,20, 8, 0,25,25,20		8,39
50″	20,11,24,23,37, 4,30,52,19,45		1,28,33,49,23	
		1,58,20, 6,31,51,35,57		8,39
52″	20,11,26,21,57,11, 2,43,55,42		1,28,33,58, 2	
		1,58,20, 5, 3,17,37,55		8,39
54″	20,11,28,20,17,16, 6, 1,33,37		1,28,34, 6,41	
		1,58,20, 3,34,43,31,14		8,39
56″	20,11,30,18,37,19,40,45, 4,51		1,28,34,15,20	
		1,58,20, 2, 6, 9,15,54		8,39
58″	20,11,32,16,57,21,46,54,20,45		1,28,34,23,59	
		1,58,20, 0,37,34,51,55		
60″	20,11,34,15,17,22,24,29,12,40			
exact	20,11,34,15,17,22,24,29, 3,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°40′ 0″	20,11,34,15,17,22,24,29, 3,32			
		1,58,19,59, 9, 0,18,25		
2″	20,11,36,13,37,21,33,29,21,57		1,28,34,41,20	
		1,58,19,57,40,25,37, 5		8,39
4″	20,11,38,11,57,19,13,54,59, 2		1,28,34,49,59	
		1,58,19,56,11,50,47, 6		8,39
6″	20,11,40,10,17,15,25,45,46, 8		1,28,34,58,38	
		1,58,19,54,43,15,48,28		8,39
8″	20,11,42, 8,37,10, 9, 1,34,36		1,28,35, 7,17	
		1,58,19,53,14,40,41,11		8,39
10″	20,11,44, 6,57, 3,23,42,15,47		1,28,35,15,56	
		1,58,19,51,46, 5,25,15		8,39
12″	20,11,46, 5,16,55, 9,47,41, 2		1,28,35,24,35	
		1,58,19,50,17,30, 0,40		8,39
14″	20,11,48, 3,36,45,27,17,41,42		1,28,35,33,14	
		1,58,19,48,48,54,27,26		8,39
16″	20,11,50, 1,56,34,16,12, 9, 8		1,28,35,41,53	
		1,58,19,47,20,18,45,33		8,39
18″	20,11,52, 0,16,21,36,30,54,41		1,28,35,50,32	
		1,58,19,45,51,42,55, 1		8,39
20″	20,11,53,58,36, 7,28,13,49,42		1,28,35,59,11	
		1,58,19,44,23, 6,55,50		8,39
22″	20,11,55,56,55,51,51,20,45,32		1,28,36, 7,50	
		1,58,19,42,54,30,48, 0		8,39
24″	20,11,57,55,15,34,45,51,33,32		1,28,36,16,29	
		1,58,19,41,25,54,31,31		8,39
26″	20,11,59,53,35,16,11,46, 5, 3		1,28,36,25, 8	
		1,58,19,39,57,18, 6,23		8,39
28″	20,12, 1,51,54,56, 9, 4,11,26		1,28,36,33,47	
		1,58,19,38,28,41,32,36		8,39
30″	20,12, 3,50,14,34,37,45,44, 2		1,28,36,42,26	
		1,58,19,37, 0, 4,50,10		8,39
32″	20,12, 5,48,34,11,37,50,34,12		1,28,36,51, 5	
		1,58,19,35,31,27,59, 5		8,39
34″	20,12, 7,46,53,47, 9,18,33,17		1,28,36,59,44	
		1,58,19,34, 2,50,59,21		8,39
36″	20,12, 9,45,13,21,12, 9,32,38		1,28,37, 8,23	
		1,58,19,32,34,13,50,58		8,39
38″	20,12,11,43,32,53,46,23,23,36		1,28,37,17, 2	
		1,58,19,31, 5,36,33,56		8,39
40″	20,12,13,41,52,24,51,59,57,32		1,28,37,25,41	
		1,58,19,29,36,59, 8,15		8,39
42″	20,12,15,40,11,54,28,59, 5,47		1,28,37,34,20	
		1,58,19,28, 8,21,33,55		8,39
44″	20,12,17,38,31,22,37,20,39,42		1,28,37,42,59	
		1,58,19,26,39,43,50,56		8,39
46″	20,12,19,36,50,49,17, 4,30,38		1,28,37,51,38	
		1,58,19,25,11, 5,59,18		8,39
48″	20,12,21,35,10,14,28,10,29,56		1,28,38, 0,17	
		1,58,19,23,42,27,59, 1		8,39
50″	20,12,23,33,29,38,10,38,28,57		1,28,38, 8,56	
		1,58,19,22,13,49,50, 5		8,39
52″	20,12,25,31,49, 0,24,28,19, 2		1,28,38,17,35	
		1,58,19,20,45,11,32,30		8,39
54″	20,12,27,30, 8,21, 9,39,51,32		1,28,38,26,14	
		1,58,19,19,16,33, 6,16		8,39
56″	20,12,29,28,27,40,26,12,57,48		1,28,38,34,53	
		1,58,19,17,47,54,31,23		8,39
58″	20,12,31,26,46,58,14, 7,29,11		1,28,38,43,32	
		1,58,19,16,19,15,47,51		
60″	20,12,33,25, 6,14,33,23,17, 2			
exact	20,12,33,25, 6,14,33,23,12,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°41′ 0″	20,12,33,25, 6,14,33,23,12,44			
		1,58,19,14,50,36,55,17		
2″	20,12,35,23,25,29,24, 0, 8, 1		1,28,39, 0,51	
		1,58,19,13,21,57,54,26		8,39
4″	20,12,37,21,44,42,45,58, 2,27		1,28,39, 9,30	
		1,58,19,11,53,18,44,56		8,39
6″	20,12,39,20, 3,54,39,16,47,23		1,28,39,18, 9	
		1,58,19,10,24,39,26,47		8,39
8″	20,12,41,18,23, 5, 3,56,14,10		1,28,39,26,48	
		1,58,19, 8,55,59,59,59		8,39
10″	20,12,43,16,42,13,59,56,14, 9		1,28,39,35,27	
		1,58,19, 7,27,20,24,32		8,39
12″	20,12,45,15, 1,21,27,16,38,41		1,28,39,44, 6	
		1,58,19, 5,58,40,40,26		8,39
14″	20,12,47,13,20,27,25,57,19, 7		1,28,39,52,45	
		1,58,19, 4,30, 0,47,41		8,39
16″	20,12,49,11,39,31,55,58, 6,48		1,28,40, 1,24	
		1,58,19, 3, 1,20,46,17		8,39
18″	20,12,51, 9,58,34,57,18,53, 5		1,28,40,10, 3	
		1,58,19, 1,32,40,36,14		8,39
20″	20,12,53, 8,17,36,29,59,29,19		1,28,40,18,42	
		1,58,19, 0, 4, 0,17,32		8,39
22″	20,12,55, 6,36,36,33,59,46,51		1,28,40,27,21	
		1,58,18,58,35,19,50,11		8,39
24″	20,12,57, 4,55,35, 9,19,37, 2		1,28,40,36, 0	
		1,58,18,57, 6,39,14,11		8,39
26″	20,12,59, 3,14,32,15,58,51,13		1,28,40,44,39	
		1,58,18,55,37,58,29,32		8,39
28″	20,13, 1, 1,33,27,53,57,20,45		1,28,40,53,18	
		1,58,18,54, 9,17,36,14		8,39
30″	20,13, 2,59,52,22, 3,14,56,59		1,28,41, 1,57	
		1,58,18,52,40,36,34,17		8,39
32″	20,13, 4,58,11,14,43,51,31,16		1,28,41,10,36	
		1,58,18,51,11,55,23,41		8,39
34″	20,13, 6,56,30, 5,55,46,54,57		1,28,41,19,15	
		1,58,18,49,43,14, 4,26		8,39
36″	20,13, 8,54,48,55,39, 0,59,23		1,28,41,27,54	
		1,58,18,48,14,32,36,32		8,39
38″	20,13,10,53, 7,43,53,33,35,55		1,28,41,36,33	
		1,58,18,46,45,50,59,59		8,39
40″	20,13,12,51,26,30,39,24,35,54		1,28,41,45,12	
		1,58,18,45,17, 9,14,47		8,39
42″	20,13,14,49,45,15,56,33,50,41		1,28,41,53,51	
		1,58,18,43,48,27,20,56		8,39
44″	20,13,16,48, 3,59,45, 1,11,37		1,28,42, 2,30	
		1,58,18,42,19,45,18,26		8,39
46″	20,13,18,46,22,42, 4,46,30, 3		1,28,42,11, 9	
		1,58,18,40,51, 3, 7,17		8,39
48″	20,13,20,44,41,22,55,49,37,20		1,28,42,19,48	
		1,58,18,39,22,20,47,29		8,39
50″	20,13,22,43, 0, 2,18,10,24,49		1,28,42,28,27	
		1,58,18,37,53,38,19, 2		8,39
52″	20,13,24,41,18,40,11,48,43,51		1,28,42,37, 6	
		1,58,18,36,24,55,41,56		8,39
54″	20,13,26,39,37,16,36,44,25,47		1,28,42,45,45	
		1,58,18,34,56,12,56,11		8,39
56″	20,13,28,37,55,51,32,57,21,58		1,28,42,54,24	
		1,58,18,33,27,30, 1,47		8,39
58″	20,13,30,36,14,25, 0,27,23,45		1,28,43, 3, 3	
		1,58,18,31,58,46,58,44		
60″	20,13,32,34,32,56,59,14,22,29			
exact	20,13,32,34,32,56,59,14,20,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°42′ 0″	20,13,32,34,32,56,59,14,20,35			
		1,58,18,30,30, 3,46,57		
2″	20,13,34,32,51,27,29,18, 7,32		1,28,43,20,21	
		1,58,18,29, 1,20,26,36		8,39
4″	20,13,36,31, 9,56,30,38,34, 8		1,28,43,29, 0	
		1,58,18,27,32,36,57,36		8,39
6″	20,13,38,29,28,24, 3,15,31,44		1,28,43,37,39	
		1,58,18,26, 3,53,19,57		8,39
8″	20,13,40,27,46,50, 7, 8,51,41		1,28,43,46,18	
		1,58,18,24,35, 9,33,39		8,39
10″	20,13,42,26, 5,14,42,18,25,20		1,28,43,54,57	
		1,58,18,23, 6,25,38,42		8,39
12″	20,13,44,24,23,37,48,44, 4, 2		1,28,44, 3,36	
		1,58,18,21,37,41,35, 6		8,39
14″	20,13,46,22,41,59,26,25,39, 8		1,28,44,12,15	
		1,58,18,20, 8,57,22,51		8,39
16″	20,13,48,21, 0,19,35,23, 1,59		1,28,44,20,54	
		1,58,18,18,40,13, 1,57		8,39
18″	20,13,50,19,18,38,15,36, 3,56		1,28,44,29,33	
		1,58,18,17,11,28,32,24		8,39
20″	20,13,52,17,36,55,27, 4,36,20		1,28,44,38,12	
		1,58,18,15,42,43,54,12		8,39
22″	20,13,54,15,55,11, 9,48,30,32		1,28,44,46,51	
		1,58,18,14,13,59, 7,21		8,39
24″	20,13,56,14,13,25,23,47,37,53		1,28,44,55,30	
		1,58,18,12,45,14,11,51		8,39
26″	20,13,58,12,31,38, 9, 1,49,44		1,28,45, 4, 9	
		1,58,18,11,16,29, 7,42		8,39
28″	20,14, 0,10,49,49,25,30,57,26		1,28,45,12,48	
		1,58,18, 9,47,43,54,54		8,39
30″	20,14, 2, 9, 7,59,13,14,52,20		1,28,45,21,27	
		1,58,18, 8,18,58,33,27		8,39
32″	20,14, 4, 7,26, 7,32,13,25,47		1,28,45,30, 6	
		1,58,18, 6,50,13, 3,21		8,39
34″	20,14, 6, 5,44,14,22,26,29, 8		1,28,45,38,45	
		1,58,18, 5,21,27,24,36		8,39
36″	20,14, 8, 4, 2,19,43,53,53,44		1,28,45,47,24	
		1,58,18, 3,52,41,37,12		8,39
38″	20,14,10, 2,20,23,36,35,30,56		1,28,45,56, 3	
		1,58,18, 2,23,55,41, 9		8,39
40″	20,14,12, 0,38,26, 0,31,12, 5		1,28,46, 4,42	
		1,58,18, 0,55, 9,36,27		8,39
42″	20,14,13,58,56,26,55,40,48,32		1,28,46,13,21	
		1,58,17,59,26,23,23, 6		8,39
44″	20,14,15,57,14,26,22, 4,11,38		1,28,46,22, 0	
		1,58,17,57,57,37, 1, 6		8,39
46″	20,14,17,55,32,24,19,41,12,44		1,28,46,30,39	
		1,58,17,56,28,50,30,27		8,39
48″	20,14,19,53,50,20,48,31,43,11		1,28,46,39,18	
		1,58,17,55, 0, 3,51, 9		8,39
50″	20,14,21,52, 8,15,48,35,34,20		1,28,46,47,57	
		1,58,17,53,31,17, 3,12		8,39
52″	20,14,23,50,26, 9,19,52,37,32		1,28,46,56,36	
		1,58,17,52, 2,30, 6,36		8,39
54″	20,14,25,48,44, 1,22,22,44, 8		1,28,47, 5,15	
		1,58,17,50,33,43, 1,21		8,39
56″	20,14,27,47, 1,51,56, 5,45,29		1,28,47,13,54	
		1,58,17,49, 4,55,47,27		8,39
58″	20,14,29,45,19,41, 1, 1,32,56		1,28,47,22,33	
		1,58,17,47,36, 8,24,54		
60″	20,14,31,43,37,28,37, 9,57,50			
exact	20,14,31,43,37,28,37,10, 2,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°43′ 0″	20,14,31,43,37,28,37,10, 2,58			
		1,58,17,46, 7,20,54,14		
2″	20,14,33,41,55,14,44,30,57,12		1,28,47,39,49	
		1,58,17,44,38,33,14,25		8,39
4″	20,14,35,40,12,59,23, 4,11,37		1,28,47,48,28	
		1,58,17,43, 9,45,25,57		8,39
6″	20,14,37,38,30,42,32,49,37,34		1,28,47,57, 7	
		1,58,17,41,40,57,28,50		8,39
8″	20,14,39,36,48,24,13,47, 6,24		1,28,48, 5,46	
		1,58,17,40,12, 9,23, 4		8,39
10″	20,14,41,35, 6, 4,25,56,29,28		1,28,48,14,25	
		1,58,17,38,43,21, 8,39		8,39
12″	20,14,43,33,23,43, 9,17,38, 7		1,28,48,23, 4	
		1,58,17,37,14,32,45,35		8,39
14″	20,14,45,31,41,20,23,50,23,42		1,28,48,31,43	
		1,58,17,35,45,44,13,52		8,39
16″	20,14,47,29,58,56, 9,34,37,34		1,28,48,40,22	
		1,58,17,34,16,55,33,30		8,39
18″	20,14,49,28,16,30,26,30,11, 4		1,28,48,49, 1	
		1,58,17,32,48, 6,44,29		8,39
20″	20,14,51,26,34, 3,14,36,55,33		1,28,48,57,40	
		1,58,17,31,19,17,46,49		8,39
22″	20,14,53,24,51,34,33,54,42,22		1,28,49, 6,19	
		1,58,17,29,50,28,40,30		8,39
24″	20,14,55,23, 9, 4,24,23,22,52		1,28,49,14,58	
		1,58,17,28,21,39,25,32		8,39
26″	20,14,57,21,26,32,46, 2,48,24		1,28,49,23,37	
		1,58,17,26,52,50, 1,55		8,39
28″	20,14,59,19,43,59,38,52,50,19		1,28,49,32,16	
		1,58,17,25,24, 0,29,39		8,39
30″	20,15, 1,18, 1,25, 2,53,19,58		1,28,49,40,55	
		1,58,17,23,55,10,48,44		8,39
32″	20,15, 3,16,18,48,58, 4, 8,42		1,28,49,49,34	
		1,58,17,22,26,20,59,10		8,39
34″	20,15, 5,14,36,11,24,25, 7,52		1,28,49,58,13	
		1,58,17,20,57,31, 0,57		8,39
36″	20,15, 7,12,53,32,21,56, 8,49		1,28,50, 6,52	
		1,58,17,19,28,40,54, 5		8,39
38″	20,15, 9,11,10,51,50,37, 2,54		1,28,50,15,31	
		1,58,17,17,59,50,38,34		8,39
40″	20,15,11, 9,28, 9,50,27,41,28		1,28,50,24,10	
		1,58,17,16,31, 0,14,24		8,39
42″	20,15,13, 7,45,26,21,27,55,52		1,28,50,32,49	
		1,58,17,15, 2, 9,41,35		8,39
44″	20,15,15, 6, 2,41,23,37,37,27		1,28,50,41,28	
		1,58,17,13,33,19, 0, 7		8,39
46″	20,15,17, 4,19,54,56,56,37,34		1,28,50,50, 7	
		1,58,17,12, 4,28,10, 0		8,39
48″	20,15,19, 2,37, 7, 1,24,47,34		1,28,50,58,46	
		1,58,17,10,35,37,11,14		8,39
50″	20,15,21, 0,54,17,37, 1,58,48		1,28,51, 7,25	
		1,58,17, 9, 6,46, 3,49		8,39
52″	20,15,22,59,11,26,43,48, 2,37		1,28,51,16, 4	
		1,58,17, 7,37,54,47,45		8,39
54″	20,15,24,57,28,34,21,42,50,22		1,28,51,24,43	
		1,58,17, 6, 9, 3,23, 2		8,39
56″	20,15,26,55,45,40,30,46,13,24		1,28,51,33,22	
		1,58,17, 4,40,11,49,40		8,39
58″	20,15,28,54, 2,45,10,58, 3, 4		1,28,51,42, 1	
		1,58,17, 3,11,20, 7,39		
60″	20,15,30,52,19,48,22,18,10,43			
exact	20,15,30,52,19,48,22,18,20, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°44′ 0″	20,15,30,52,19,48,22,18,20, 3			
		1,58,17, 1,42,28,17,57		
2″	20,15,32,50,36,50, 4,46,38, 0		1,28,51,59,15	
		1,58,17, 0,13,36,18,42		8,39
4″	20,15,34,48,53,50,18,22,56,42		1,28,52, 7,54	
		1,58,16,58,44,44,10,48		8,39
6″	20,15,36,47,10,49, 3, 7, 7,30		1,28,52,16,33	
		1,58,16,57,15,51,54,15		8,39
8″	20,15,38,45,27,46,18,59, 1,45		1,28,52,25,12	
		1,58,16,55,46,59,29, 3		8,39
10″	20,15,40,43,44,42, 5,58,30,48		1,28,52,33,51	
		1,58,16,54,18, 6,55,12		8,39
12″	20,15,42,42, 1,36,24, 5,26, 0		1,28,52,42,30	
		1,58,16,52,49,14,12,42		8,39
14″	20,15,44,40,18,29,13,19,38,42		1,28,52,51, 9	
		1,58,16,51,20,21,21,33		8,39
16″	20,15,46,38,35,20,33,41, 0,15		1,28,52,59,48	
		1,58,16,49,51,28,21,45		8,39
18″	20,15,48,36,52,10,25, 9,22, 0		1,28,53, 8,27	
		1,58,16,48,22,35,13,18		8,39
20″	20,15,50,35, 8,58,47,44,35,18		1,28,53,17, 6	
		1,58,16,46,53,41,56,12		8,39
22″	20,15,52,33,25,45,41,26,31,30		1,28,53,25,45	
		1,58,16,45,24,48,30,27		8,39
24″	20,15,54,31,42,31, 6,15, 1,57		1,28,53,34,24	
		1,58,16,43,55,54,56, 3		8,39
26″	20,15,56,29,59,15, 2, 9,58, 0		1,28,53,43, 3	
		1,58,16,42,27, 1,13, 0		8,39
28″	20,15,58,28,15,57,29,11,11, 0		1,28,53,51,42	
		1,58,16,40,58, 7,21,18		8,39
30″	20,16, 0,26,32,38,27,18,32,18		1,28,54, 0,21	
		1,58,16,39,29,13,20,57		8,39
32″	20,16, 2,24,49,17,56,31,53,15		1,28,54, 9, 0	
		1,58,16,38, 0,19,11,57		8,39
34″	20,16, 4,23, 5,55,56,51, 5,12		1,28,54,17,39	
		1,58,16,36,31,24,54,18		8,39
36″	20,16, 6,21,22,32,28,15,59,30		1,28,54,26,18	
		1,58,16,35, 2,30,28, 0		8,39
38″	20,16, 8,19,39, 7,30,46,27,30		1,28,54,34,57	
		1,58,16,33,33,35,53, 3		8,39
40″	20,16,10,17,55,41, 4,22,20,33		1,28,54,43,36	
		1,58,16,32, 4,41, 9,27		8,39
42″	20,16,12,16,12,13, 9, 3,30, 0		1,28,54,52,15	
		1,58,16,30,35,46,17,12		8,39
44″	20,16,14,14,28,43,44,49,47,12		1,28,55, 0,54	
		1,58,16,29, 6,51,16,18		8,39
46″	20,16,16,12,45,12,51,41, 3,30		1,28,55, 9,33	
		1,58,16,27,37,56, 6,45		8,39
48″	20,16,18,11, 1,40,29,37,10,15		1,28,55,18,12	
		1,58,16,26, 9, 0,48,33		8,39
50″	20,16,20, 9,18, 6,38,37,58,48		1,28,55,26,51	
		1,58,16,24,40, 5,21,42		8,39
52″	20,16,22, 7,34,31,18,43,20,30		1,28,55,35,30	
		1,58,16,23,11, 9,46,12		8,39
54″	20,16,24, 5,50,54,29,53, 6,42		1,28,55,44, 9	
		1,58,16,21,42,14, 2, 3		8,39
56″	20,16,26, 4, 7,16,12, 7, 8,45		1,28,55,52,48	
		1,58,16,20,13,18, 9,15		8,39
58″	20,16,28, 2,23,36,25,25,18, 0		1,28,56, 1,27	
		1,58,16,18,44,22, 7,48		
60″	20,16,30, 0,39,55, 9,47,25,48			
exact	20,16,30, 0,39,55, 9,47,36,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°45′ 0″	20,16,30, 0,39,55, 9,47,36,25			
		1,58,16,17,15,25,58,54		
2″	20,16,31,58,56,12,25,13,35,19		1,28,56,18,40	
		1,58,16,15,46,29,40,14		8,39
4″	20,16,33,57,12,28,11,43,15,33		1,28,56,27,19	
		1,58,16,14,17,33,12,55		8,39
6″	20,16,35,55,28,42,29,16,28,28		1,28,56,35,58	
		1,58,16,12,48,36,36,57		8,39
8″	20,16,37,53,44,55,17,53, 5,25		1,28,56,44,37	
		1,58,16,11,19,39,52,20		8,39
10″	20,16,39,52, 1, 6,37,32,57,45		1,28,56,53,16	
		1,58,16, 9,50,42,59, 4		8,39
12″	20,16,41,50,17,16,28,15,56,49		1,28,57, 1,55	
		1,58,16, 8,21,45,57, 9		8,39
14″	20,16,43,48,33,24,50, 1,53,58		1,28,57,10,34	
		1,58,16, 6,52,48,46,35		8,39
16″	20,16,45,46,49,31,42,50,40,33		1,28,57,19,13	
		1,58,16, 5,23,51,27,22		8,39
18″	20,16,47,45, 5,37, 6,42, 7,55		1,28,57,27,52	
		1,58,16, 3,54,53,59,30		8,39
20″	20,16,49,43,21,41, 1,36, 7,25		1,28,57,36,31	
		1,58,16, 2,25,56,22,59		8,39
22″	20,16,51,41,37,43,27,32,30,24		1,28,57,45,10	
		1,58,16, 0,56,58,37,49		8,39
24″	20,16,53,39,53,44,24,31, 8,13		1,28,57,53,49	
		1,58,15,59,28, 0,44, 0		8,39
26″	20,16,55,38, 9,43,52,31,52,13		1,28,58, 2,28	
		1,58,15,57,59, 2,41,32		8,39
28″	20,16,57,36,25,41,51,34,33,45		1,28,58,11, 7	
		1,58,15,56,30, 4,30,25		8,39
30″	20,16,59,34,41,38,21,39, 4,10		1,28,58,19,46	
		1,58,15,55, 1, 6,10,39		8,39
32″	20,17, 1,32,57,33,22,45,14,49		1,28,58,28,25	
		1,58,15,53,32, 7,42,14		8,39
34″	20,17, 3,31,13,26,54,52,57, 3		1,28,58,37, 4	
		1,58,15,52, 3, 9, 5,10		8,39
36″	20,17, 5,29,29,18,58, 2, 2,13		1,28,58,45,43	
		1,58,15,50,34,10,19,27		8,39
38″	20,17, 7,27,45, 9,32,12,21,40		1,28,58,54,22	
		1,58,15,49, 5,11,25, 5		8,39
40″	20,17, 9,26, 0,58,37,23,46,45		1,28,59, 3, 1	
		1,58,15,47,36,12,22, 4		8,39
42″	20,17,11,24,16,46,13,36, 8,49		1,28,59,11,40	
		1,58,15,46, 7,13,10,24		8,39
44″	20,17,13,22,32,32,20,49,19,13		1,28,59,20,19	
		1,58,15,44,38,13,50, 5		8,39
46″	20,17,15,20,48,16,59, 3, 9,18		1,28,59,28,58	
		1,58,15,43, 9,14,21, 7		8,39
48″	20,17,17,19, 4, 0, 8,17,30,25		1,28,59,37,37	
		1,58,15,41,40,14,43,30		8,39
50″	20,17,19,17,19,41,48,32,13,55		1,28,59,46,16	
		1,58,15,40,11,14,57,14		8,39
52″	20,17,21,15,35,21,59,47,11, 9		1,28,59,54,55	
		1,58,15,38,42,15, 2,19		8,39
54″	20,17,23,13,51, 0,42, 2,13,28		1,29, 0, 3,34	
		1,58,15,37,13,14,58,45		8,39
56″	20,17,25,12, 6,37,55,17,12,13		1,29, 0,12,13	
		1,58,15,35,44,14,46,32		8,39
58″	20,17,27,10,22,13,39,31,58,45		1,29, 0,20,52	
		1,58,15,34,15,14,25,40		
60″	20,17,29, 8,37,47,54,46,24,25			
exact	20,17,29, 8,37,47,54,46,40,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°46′ 0″	20,17,29, 8,37,47,54,46,40,55			
		1,58,15,32,46,13,57,54		
2″	20,17,31, 6,53,20,41, 0,38,49		1,29, 0,38, 3	
		1,58,15,31,17,13,19,51		8,39
4″	20,17,33, 5, 8,51,58,13,58,40		1,29, 0,46,42	
		1,58,15,29,48,12,33, 9		8,39
6″	20,17,35, 3,24,21,46,26,31,49		1,29, 0,55,21	
		1,58,15,28,19,11,37,48		8,39
8″	20,17,37, 1,39,50, 5,38, 9,37		1,29, 1, 4, 0	
		1,58,15,26,50,10,33,48		8,39
10″	20,17,38,59,55,16,55,48,43,25		1,29, 1,12,39	
		1,58,15,25,21, 9,21, 9		8,39
12″	20,17,40,58,10,42,16,58, 4,34		1,29, 1,21,18	
		1,58,15,23,52, 7,59,51		8,39
14″	20,17,42,56,26, 6, 9, 6, 4,25		1,29, 1,29,57	
		1,58,15,22,23, 6,29,54		8,39
16″	20,17,44,54,41,28,32,12,34,19		1,29, 1,38,36	
		1,58,15,20,54, 4,51,18		8,39
18″	20,17,46,52,56,49,26,17,25,37		1,29, 1,47,15	
		1,58,15,19,25, 3, 4, 3		8,39
20″	20,17,48,51,12, 8,51,20,29,40		1,29, 1,55,54	
		1,58,15,17,56, 1, 8, 9		8,39
22″	20,17,50,49,27,26,47,21,37,49		1,29, 2, 4,33	
		1,58,15,16,26,59, 3,36		8,39
24″	20,17,52,47,42,43,14,20,41,25		1,29, 2,13,12	
		1,58,15,14,57,56,50,24		8,39
26″	20,17,54,45,57,58,12,17,31,49		1,29, 2,21,51	
		1,58,15,13,28,54,28,33		8,39
28″	20,17,56,44,13,11,41,12, 0,22		1,29, 2,30,30	
		1,58,15,11,59,51,58, 3		8,39
30″	20,17,58,42,28,23,41, 3,58,25		1,29, 2,39, 9	
		1,58,15,10,30,49,18,54		8,39
32″	20,18, 0,40,43,34,11,53,17,19		1,29, 2,47,48	
		1,58,15, 9, 1,46,31, 6		8,39
34″	20,18, 2,38,58,43,13,39,48,25		1,29, 2,56,27	
		1,58,15, 7,32,43,34,39		8,39
36″	20,18, 4,37,13,50,46,23,23, 4		1,29, 3, 5, 6	
		1,58,15, 6, 3,40,29,33		8,39
38″	20,18, 6,35,28,56,50, 3,52,37		1,29, 3,13,45	
		1,58,15, 4,34,37,15,48		8,39
40″	20,18, 8,33,44, 1,24,41, 8,25		1,29, 3,22,24	
		1,58,15, 3, 5,33,53,24		8,39
42″	20,18,10,31,59, 4,30,15, 1,49		1,29, 3,31, 3	
		1,58,15, 1,36,30,22,21		8,39
44″	20,18,12,30,14, 6, 6,45,24,10		1,29, 3,39,42	
		1,58,15, 0, 7,26,42,39		8,39
46″	20,18,14,28,29, 6,14,12, 6,49		1,29, 3,48,21	
		1,58,14,58,38,22,54,18		8,39
48″	20,18,16,26,44, 4,52,35, 1, 7		1,29, 3,57, 0	
		1,58,14,57, 9,18,57,18		8,39
50″	20,18,18,24,59, 2, 1,53,58,25		1,29, 4, 5,39	
		1,58,14,55,40,14,51,39		8,39
52″	20,18,20,23,13,57,42, 8,50, 4		1,29, 4,14,18	
		1,58,14,54,11,10,37,21		8,39
54″	20,18,22,21,28,51,53,19,27,25		1,29, 4,22,57	
		1,58,14,52,42, 6,14,24		8,39
56″	20,18,24,19,43,44,35,25,41,49		1,29, 4,31,36	
		1,58,14,51,13, 1,42,48		8,39
58″	20,18,26,17,58,35,48,27,24,37		1,29, 4,40,15	
		1,58,14,49,43,57, 2,33		
60″	20,18,28,16,13,25,32,24,27,10			
exact	20,18,28,16,13,25,32,24,46,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°47′ 0″	20,18,28,16,13,25,32,24,46,53			
		1,58,14,48,14,52,15,45		
2″	20,18,30,14,28,13,47,17, 2,38		1,29, 4,57,24	
		1,58,14,46,45,47,18,21		8,39
4″	20,18,32,12,43, 0,33, 4,20,59		1,29, 5, 6, 3	
		1,58,14,45,16,42,12,18		8,39
6″	20,18,34,10,57,45,49,46,33,17		1,29, 5,14,42	
		1,58,14,43,47,36,57,36		8,39
8″	20,18,36, 9,12,29,37,23,30,53		1,29, 5,23,21	
		1,58,14,42,18,31,34,15		8,39
10″	20,18,38, 7,27,11,55,55, 5, 8		1,29, 5,32, 0	
		1,58,14,40,49,26, 2,15		8,39
12″	20,18,40, 5,41,52,45,21, 7,23		1,29, 5,40,39	
		1,58,14,39,20,20,21,36		8,39
14″	20,18,42, 3,56,32, 5,41,28,59		1,29, 5,49,18	
		1,58,14,37,51,14,32,18		8,39
16″	20,18,44, 2,11, 9,56,56, 1,17		1,29, 5,57,57	
		1,58,14,36,22, 8,34,21		8,39
18″	20,18,46, 0,25,46,19, 4,35,38		1,29, 6, 6,36	
		1,58,14,34,53, 2,27,45		8,39
20″	20,18,47,58,40,21,12, 7, 3,23		1,29, 6,15,15	
		1,58,14,33,23,56,12,30		8,39
22″	20,18,49,56,54,54,36, 3,15,53		1,29, 6,23,54	
		1,58,14,31,54,49,48,36		8,39
24″	20,18,51,55, 9,26,30,53, 4,29		1,29, 6,32,33	
		1,58,14,30,25,43,16, 3		8,39
26″	20,18,53,53,23,56,56,36,20,32		1,29, 6,41,12	
		1,58,14,28,56,36,34,51		8,39
28″	20,18,55,51,38,25,53,12,55,23		1,29, 6,49,51	
		1,58,14,27,27,29,45, 0		8,39
30″	20,18,57,49,52,53,20,42,40,23		1,29, 6,58,30	
		1,58,14,25,58,22,46,30		8,39
32″	20,18,59,48, 7,19,19, 5,26,53		1,29, 7, 7, 9	
		1,58,14,24,29,15,39,21		8,39
34″	20,19, 1,46,21,43,48,21, 6,14		1,29, 7,15,48	
		1,58,14,23, 0, 8,23,33		8,39
36″	20,19, 3,44,36, 6,48,29,29,47		1,29, 7,24,27	
		1,58,14,21,31, 0,59, 6		8,39
38″	20,19, 5,42,50,28,19,30,28,53		1,29, 7,33, 6	
		1,58,14,20, 1,53,26, 0		8,39
40″	20,19, 7,41, 4,48,21,23,54,53		1,29, 7,41,45	
		1,58,14,18,32,45,44,15		8,39
42″	20,19, 9,39,19, 6,54, 9,39, 8		1,29, 7,50,24	
		1,58,14,17, 3,37,53,51		8,39
44″	20,19,11,37,33,23,57,47,32,59		1,29, 7,59, 3	
		1,58,14,15,34,29,54,48		8,39
46″	20,19,13,35,47,39,32,17,27,47		1,29, 8, 7,42	
		1,58,14,14, 5,21,47, 6		8,39
48″	20,19,15,34, 1,53,37,39,14,53		1,29, 8,16,21	
		1,58,14,12,36,13,30,45		8,39
50″	20,19,17,32,16, 6,13,52,45,38		1,29, 8,25, 0	
		1,58,14,11, 7, 5, 5,45		8,39
52″	20,19,19,30,30,17,20,57,51,23		1,29, 8,33,39	
		1,58,14, 9,37,56,32, 6		8,39
54″	20,19,21,28,44,26,58,54,23,29		1,29, 8,42,18	
		1,58,14, 8, 8,47,49,48		8,39
56″	20,19,23,26,58,35, 7,42,13,17		1,29, 8,50,57	
		1,58,14, 6,39,38,58,51		8,39
58″	20,19,25,25,12,41,47,21,12, 8		1,29, 8,59,36	
		1,58,14, 5,10,29,59,15		
60″	20,19,27,23,26,46,57,51,11,23			
exact	20,19,27,23,26,46,57,51,31,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°48′ 0″	20,19,27,23,26,46,57,51,31,58			
		1,58,14, 3,41,20,53,18		
2″	20,19,29,21,40,50,39,12,25,16		1,29, 9,16,44	
		1,58,14, 2,12,11,36,34		8,39
4″	20,19,31,19,54,52,51,24, 1,50		1,29, 9,25,23	
		1,58,14, 0,43, 2,11,11		8,39
6″	20,19,33,18, 8,53,34,26,13, 1		1,29, 9,34, 2	
		1,58,13,59,13,52,37, 9		8,39
8″	20,19,35,16,22,52,48,18,50,10		1,29, 9,42,41	
		1,58,13,57,44,42,54,28		8,39
10″	20,19,37,14,36,50,33, 1,44,38		1,29, 9,51,20	
		1,58,13,56,15,33, 3, 8		8,39
12″	20,19,39,12,50,46,48,34,47,46		1,29, 9,59,59	
		1,58,13,54,46,23, 3, 9		8,39
14″	20,19,41,11, 4,41,34,57,50,55		1,29,10, 8,38	
		1,58,13,53,17,12,54,31		8,39
16″	20,19,43, 9,18,34,52,10,45,26		1,29,10,17,17	
		1,58,13,51,48, 2,37,14		8,39
18″	20,19,45, 7,32,26,40,13,22,40		1,29,10,25,56	
		1,58,13,50,18,52,11,18		8,39
20″	20,19,47, 5,46,16,59, 5,33,58		1,29,10,34,35	
		1,58,13,48,49,41,36,43		8,39
22″	20,19,49, 4, 0, 5,48,47,10,41		1,29,10,43,14	
		1,58,13,47,20,30,53,29		8,39
24″	20,19,51, 2,13,53, 9,18, 4,10		1,29,10,51,53	
		1,58,13,45,51,20, 1,36		8,39
26″	20,19,53, 0,27,39, 0,38, 5,46		1,29,11, 0,32	
		1,58,13,44,22, 9, 1, 4		8,39
28″	20,19,54,58,41,23,22,47, 6,50		1,29,11, 9,11	
		1,58,13,42,52,57,51,53		8,39
30″	20,19,56,56,55, 6,15,44,58,43		1,29,11,17,50	
		1,58,13,41,23,46,34, 3		8,39
32″	20,19,58,55, 8,47,39,31,32,46		1,29,11,26,29	
		1,58,13,39,54,35, 7,34		8,39
34″	20,20, 0,53,22,27,34, 6,40,20		1,29,11,35, 8	
		1,58,13,38,25,23,32,26		8,39
36″	20,20, 2,51,36, 5,59,30,12,46		1,29,11,43,47	
		1,58,13,36,56,11,48,39		8,39
38″	20,20, 4,49,49,42,55,42, 1,25		1,29,11,52,26	
		1,58,13,35,26,59,56,13		8,39
40″	20,20, 6,48, 3,18,22,41,57,38		1,29,12, 1, 5	
		1,58,13,33,57,47,55, 8		8,39
42″	20,20, 8,46,16,52,20,29,52,46		1,29,12, 9,44	
		1,58,13,32,28,35,45,24		8,39
44″	20,20,10,44,30,24,49, 5,38,10		1,29,12,18,23	
		1,58,13,30,59,23,27, 1		8,39
46″	20,20,12,42,43,55,48,29, 5,11		1,29,12,27, 2	
		1,58,13,29,30,10,59,59		8,39
48″	20,20,14,40,57,25,18,40, 5,10		1,29,12,35,41	
		1,58,13,28, 0,58,24,18		8,39
50″	20,20,16,39,10,53,19,38,29,28		1,29,12,44,20	
		1,58,13,26,31,45,39,58		8,39
52″	20,20,18,37,24,19,51,24, 9,26		1,29,12,52,59	
		1,58,13,25, 2,32,46,59		8,39
54″	20,20,20,35,37,44,53,56,56,25		1,29,13, 1,38	
		1,58,13,23,33,19,45,21		8,39
56″	20,20,22,33,51, 8,27,16,41,46		1,29,13,10,17	
		1,58,13,22, 4, 6,35, 4		8,39
58″	20,20,24,32, 4,30,31,23,16,50		1,29,13,18,56	
		1,58,13,20,34,53,16, 8		
60″	20,20,26,30,17,51, 6,16,32,58			
exact	20,20,26,30,17,51, 6,16,58,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°49′ 0″	20,20,26,30,17,51, 6,16,58,18			
		1,58,13,19, 5,39,51,19		
2″	20,20,28,28,31,10,11,56,49,37		1,29,13,36, 2	
		1,58,13,17,36,26,15,17		8,39
4″	20,20,30,26,44,27,48,23, 4,54		1,29,13,44,41	
		1,58,13,16, 7,12,30,36		8,39
6″	20,20,32,24,57,43,55,35,35,30		1,29,13,53,20	
		1,58,13,14,37,58,37,16		8,39
8″	20,20,34,23,10,58,33,34,12,46		1,29,14, 1,59	
		1,58,13,13, 8,44,35,17		8,39
10″	20,20,36,21,24,11,42,18,48, 3		1,29,14,10,38	
		1,58,13,11,39,30,24,39		8,39
12″	20,20,38,19,37,23,21,49,12,42		1,29,14,19,17	
		1,58,13,10,10,16, 5,22		8,39
14″	20,20,40,17,50,33,32, 5,18, 4		1,29,14,27,56	
		1,58,13, 8,41, 1,37,26		8,39
16″	20,20,42,16, 3,42,13, 6,55,30		1,29,14,36,35	
		1,58,13, 7,11,47, 0,51		8,39
18″	20,20,44,14,16,49,24,53,56,21		1,29,14,45,14	
		1,58,13, 5,42,32,15,37		8,39
20″	20,20,46,12,29,55, 7,26,11,58		1,29,14,53,53	
		1,58,13, 4,13,17,21,44		8,39
22″	20,20,48,10,42,59,20,43,33,42		1,29,15, 2,32	
		1,58,13, 2,44, 2,19,12		8,39
24″	20,20,50, 8,56, 2, 4,45,52,54		1,29,15,11,11	
		1,58,13, 1,14,47, 8, 1		8,39
26″	20,20,52, 7, 9, 3,19,33, 0,55		1,29,15,19,50	
		1,58,12,59,45,31,48,11		8,39
28″	20,20,54, 5,22, 3, 5, 4,49, 6		1,29,15,28,29	
		1,58,12,58,16,16,19,42		8,39
30″	20,20,56, 3,35, 1,21,21, 8,48		1,29,15,37, 8	
		1,58,12,56,47, 0,42,34		8,39
32″	20,20,58, 1,47,58, 8,21,51,22		1,29,15,45,47	
		1,58,12,55,17,44,56,47		8,39
34″	20,21, 0, 0, 0,53,26, 6,48, 9		1,29,15,54,26	
		1,58,12,53,48,29, 2,21		8,39
36″	20,21, 1,58,13,47,14,35,50,30		1,29,16, 3, 5	
		1,58,12,52,19,12,59,16		8,39
38″	20,21, 3,56,26,39,33,48,49,46		1,29,16,11,44	
		1,58,12,50,49,56,47,32		8,39
40″	20,21, 5,54,39,30,23,45,37,18		1,29,16,20,23	
		1,58,12,49,20,40,27, 9		8,39
42″	20,21, 7,52,52,19,44,26, 4,27		1,29,16,29, 2	
		1,58,12,47,51,23,58, 7		8,39
44″	20,21, 9,51, 5, 7,35,50, 2,34		1,29,16,37,41	
		1,58,12,46,22, 7,20,26		8,39
46″	20,21,11,49,17,53,57,57,23, 0		1,29,16,46,20	
		1,58,12,44,52,50,34, 6		8,39
48″	20,21,13,47,30,38,50,47,57, 6		1,29,16,54,59	
		1,58,12,43,23,33,39, 7		8,39
50″	20,21,15,45,43,22,14,21,36,13		1,29,17, 3,38	
		1,58,12,41,54,16,35,29		8,39
52″	20,21,17,43,56, 4, 8,38,11,42		1,29,17,12,17	
		1,58,12,40,24,59,23,12		8,39
54″	20,21,19,42, 8,44,33,37,34,54		1,29,17,20,56	
		1,58,12,38,55,42, 2,16		8,39
56″	20,21,21,40,21,23,29,19,37,10		1,29,17,29,35	
		1,58,12,37,26,24,32,41		8,39
58″	20,21,23,38,34, 0,55,44, 9,51		1,29,17,38,14	
		1,58,12,35,57, 6,54,27		
60″	20,21,25,36,46,36,52,51, 4,18			
exact	20,21,25,36,46,36,52,51,32,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°50′ 0″	20,21,25,36,46,36,52,51,32,26			
		1,58,12,34,27,49,10,39		
2″	20,21,27,34,59,11,20,40,43, 5		1,29,17,55,19	
		1,58,12,32,58,31,15,20		8,39
4″	20,21,29,33,11,44,19,11,58,25		1,29,18, 3,58	
		1,58,12,31,29,13,11,22		8,39
6″	20,21,31,31,24,15,48,25, 9,47		1,29,18,12,37	
		1,58,12,29,59,54,58,45		8,39
8″	20,21,33,29,36,45,48,20, 8,32		1,29,18,21,16	
		1,58,12,28,30,36,37,29		8,39
10″	20,21,35,27,49,14,18,56,46, 1		1,29,18,29,55	
		1,58,12,27, 1,18, 7,34		8,39
12″	20,21,37,26, 1,41,20,14,53,35		1,29,18,38,34	
		1,58,12,25,31,59,29, 0		8,39
14″	20,21,39,24,14, 6,52,14,22,35		1,29,18,47,13	
		1,58,12,24, 2,40,41,47		8,39
16″	20,21,41,22,26,30,54,55, 4,22		1,29,18,55,52	
		1,58,12,22,33,21,45,55		8,39
18″	20,21,43,20,38,53,28,16,50,17		1,29,19, 4,31	
		1,58,12,21, 4, 2,41,24		8,39
20″	20,21,45,18,51,14,32,19,31,41		1,29,19,13,10	
		1,58,12,19,34,43,28,14		8,39
22″	20,21,47,17, 3,34, 7, 2,59,55		1,29,19,21,49	
		1,58,12,18, 5,24, 6,25		8,39
24″	20,21,49,15,15,52,12,27, 6,20		1,29,19,30,28	
		1,58,12,16,36, 4,35,57		8,39
26″	20,21,51,13,28, 8,48,31,42,17		1,29,19,39, 7	
		1,58,12,15, 6,44,56,50		8,39
28″	20,21,53,11,40,23,55,16,39, 7		1,29,19,47,46	
		1,58,12,13,37,25, 9, 4		8,39
30″	20,21,55, 9,52,37,32,41,48,11		1,29,19,56,25	
		1,58,12,12, 8, 5,12,39		8,39
32″	20,21,57, 8, 4,49,40,47, 0,50		1,29,20, 5, 4	
		1,58,12,10,38,45, 7,35		8,39
34″	20,21,59, 6,17, 0,19,32, 8,25		1,29,20,13,43	
		1,58,12, 9, 9,24,53,52		8,39
36″	20,22, 1, 4,29, 9,28,57, 2,17		1,29,20,22,22	
		1,58,12, 7,40, 4,31,30		8,39
38″	20,22, 3, 2,41,17, 9, 1,33,47		1,29,20,31, 1	
		1,58,12, 6,10,44, 0,29		8,39
40″	20,22, 5, 0,53,23,19,45,34,16		1,29,20,39,40	
		1,58,12, 4,41,23,20,49		8,39
42″	20,22, 6,59, 5,28, 1, 8,55, 5		1,29,20,48,19	
		1,58,12, 3,12, 2,32,30		8,39
44″	20,22, 8,57,17,31,13,11,27,35		1,29,20,56,58	
		1,58,12, 1,42,41,35,32		8,39
46″	20,22,10,55,29,32,55,53, 3, 7		1,29,21, 5,37	
		1,58,12, 0,13,20,29,55		8,39
48″	20,22,12,53,41,33, 9,13,33, 2		1,29,21,14,16	
		1,58,11,58,43,59,15,39		8,39
50″	20,22,14,51,53,31,53,12,48,41		1,29,21,22,55	
		1,58,11,57,14,37,52,44		8,39
52″	20,22,16,50, 5,29, 7,50,41,25		1,29,21,31,34	
		1,58,11,55,45,16,21,10		8,39
54″	20,22,18,48,17,24,53, 7, 2,35		1,29,21,40,13	
		1,58,11,54,15,54,40,57		8,39
56″	20,22,20,46,29,19, 9, 1,43,32		1,29,21,48,52	
		1,58,11,52,46,32,52, 5		8,39
58″	20,22,22,44,41,11,55,34,35,37		1,29,21,57,31	
		1,58,11,51,17,10,54,34		
60″	20,22,24,42,53, 3,12,45,30,11			
exact	20,22,24,42,53, 3,12,46, 5,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°51′ 0″	20,22,24,42,53, 3,12,46, 5,21			
		1,58,11,49,47,48,52, 7		
2″	20,22,26,41, 4,53, 0,34,57,28		1,29,22,14,34	
		1,58,11,48,18,26,37,33		8,38
4″	20,22,28,39,16,41,19, 1,35, 1		1,29,22,23,12	
		1,58,11,46,49, 4,14,21		8,38
6″	20,22,30,37,28,28, 8, 5,49,22		1,29,22,31,50	
		1,58,11,45,19,41,42,31		8,38
8″	20,22,32,35,40,13,27,47,31,53		1,29,22,40,28	
		1,58,11,43,50,19, 2, 3		8,38
10″	20,22,34,33,51,57,18, 6,33,56		1,29,22,49, 6	
		1,58,11,42,20,56,12,57		8,38
12″	20,22,36,32, 3,39,39, 2,46,53		1,29,22,57,44	
		1,58,11,40,51,33,15,13		8,38
14″	20,22,38,30,15,20,30,36, 2, 6		1,29,23, 6,22	
		1,58,11,39,22,10, 8,51		8,38
16″	20,22,40,28,26,59,52,46,10,57		1,29,23,15, 0	
		1,58,11,37,52,46,53,51		8,38
18″	20,22,42,26,38,37,45,33, 4,48		1,29,23,23,38	
		1,58,11,36,23,23,30,13		8,38
20″	20,22,44,24,50,14, 8,56,35, 1		1,29,23,32,16	
		1,58,11,34,53,59,57,57		8,38
22″	20,22,46,23, 1,49, 2,56,32,58		1,29,23,40,54	
		1,58,11,33,24,36,17, 3		8,38
24″	20,22,48,21,13,22,27,32,50, 1		1,29,23,49,32	
		1,58,11,31,55,12,27,31		8,38
26″	20,22,50,19,24,54,22,45,17,32		1,29,23,58,10	
		1,58,11,30,25,48,29,21		8,38
28″	20,22,52,17,36,24,48,33,46,53		1,29,24, 6,48	
		1,58,11,28,56,24,22,33		8,38
30″	20,22,54,15,47,53,44,58, 9,26		1,29,24,15,26	
		1,58,11,27,27, 0, 7, 7		8,38
32″	20,22,56,13,59,21,11,58,16,33		1,29,24,24, 4	
		1,58,11,25,57,35,43, 3		8,38
34″	20,22,58,12,10,47, 9,33,59,36		1,29,24,32,42	
		1,58,11,24,28,11,10,21		8,38
36″	20,23, 0,10,22,11,37,45, 9,57		1,29,24,41,20	
		1,58,11,22,58,46,29, 1		8,38
38″	20,23, 2, 8,33,34,36,31,38,58		1,29,24,49,58	
		1,58,11,21,29,21,39, 3		8,38
40″	20,23, 4, 6,44,56, 5,53,18, 1		1,29,24,58,36	
		1,58,11,19,59,56,40,27		8,38
42″	20,23, 6, 4,56,16, 5,49,58,28		1,29,25, 7,14	
		1,58,11,18,30,31,33,13		8,38
44″	20,23, 8, 3, 7,34,36,21,31,41		1,29,25,15,52	
		1,58,11,17, 1, 6,17,21		8,38
46″	20,23,10, 1,18,51,37,27,49, 2		1,29,25,24,30	
		1,58,11,15,31,40,52,51		8,38
48″	20,23,11,59,30, 7, 9, 8,41,53		1,29,25,33, 8	
		1,58,11,14, 2,15,19,43		8,38
50″	20,23,13,57,41,21,11,24, 1,36		1,29,25,41,46	
		1,58,11,12,32,49,37,57		8,38
52″	20,23,15,55,52,33,44,13,39,33		1,29,25,50,24	
		1,58,11,11, 3,23,47,33		8,38
54″	20,23,17,54, 3,44,47,37,27, 6		1,29,25,59, 2	
		1,58,11, 9,33,57,48,31		8,38
56″	20,23,19,52,14,54,21,35,15,37		1,29,26, 7,40	
		1,58,11, 8, 4,31,40,51		8,38
58″	20,23,21,50,26, 2,26, 6,56,28		1,29,26,16,18	
		1,58,11, 6,35, 5,24,33		
60″	20,23,23,48,37, 9, 1,12,21, 1			
exact	20,23,23,48,37, 9, 1,11,52,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°52′ 0″	20,23,23,48,37, 9, 1,11,52,35			
		1,58,11, 5, 5,38,56,31		
2″	20,23,25,46,48,14, 6,50,49, 6		1,29,26,33,47	
		1,58,11, 3,36,12,22,44		8,38
4″	20,23,27,44,59,17,43, 3,11,50		1,29,26,42,25	
		1,58,11, 2, 6,45,40,19		8,38
6″	20,23,29,43,10,19,49,48,52, 9		1,29,26,51, 3	
		1,58,11, 0,37,18,49,16		8,38
8″	20,23,31,41,21,20,27, 7,41,25		1,29,26,59,41	
		1,58,10,59, 7,51,49,35		8,38
10″	20,23,33,39,32,19,34,59,31, 0		1,29,27, 8,19	
		1,58,10,57,38,24,41,16		8,38
12″	20,23,35,37,43,17,13,24,12,16		1,29,27,16,57	
		1,58,10,56, 8,57,24,19		8,38
14″	20,23,37,35,54,13,22,21,36,35		1,29,27,25,35	
		1,58,10,54,39,29,58,44		8,38
16″	20,23,39,34, 5, 8, 1,51,35,19		1,29,27,34,13	
		1,58,10,53,10, 2,24,31		8,38
18″	20,23,41,32,16, 1,11,53,59,50		1,29,27,42,51	
		1,58,10,51,40,34,41,40		8,38
20″	20,23,43,30,26,52,52,28,41,30		1,29,27,51,29	
		1,58,10,50,11, 6,50,11		8,38
22″	20,23,45,28,37,43, 3,35,31,41		1,29,28, 0, 7	
		1,58,10,48,41,38,50, 4		8,38
24″	20,23,47,26,48,31,45,14,21,45		1,29,28, 8,45	
		1,58,10,47,12,10,41,19		8,38
26″	20,23,49,24,59,18,57,25, 3, 4		1,29,28,17,23	
		1,58,10,45,42,42,23,56		8,38
28″	20,23,51,23,10, 4,40, 7,27, 0		1,29,28,26, 1	
		1,58,10,44,13,13,57,55		8,38
30″	20,23,53,21,20,48,53,21,24,55		1,29,28,34,39	
		1,58,10,42,43,45,23,16		8,38
32″	20,23,55,19,31,31,37, 6,48,11		1,29,28,43,17	
		1,58,10,41,14,16,39,59		8,38
34″	20,23,57,17,42,12,51,23,28,10		1,29,28,51,55	
		1,58,10,39,44,47,48, 4		8,38
36″	20,23,59,15,52,52,36,11,16,14		1,29,29, 0,33	
		1,58,10,38,15,18,47,31		8,38
38″	20,24, 1,14, 3,30,51,30, 3,45		1,29,29, 9,11	
		1,58,10,36,45,49,38,20		8,38
40″	20,24, 3,12,14, 7,37,19,42, 5		1,29,29,17,49	
		1,58,10,35,16,20,20,31		8,38
42″	20,24, 5,10,24,42,53,40, 2,36		1,29,29,26,27	
		1,58,10,33,46,50,54, 4		8,38
44″	20,24, 7, 8,35,16,40,30,56,40		1,29,29,35, 5	
		1,58,10,32,17,21,18,59		8,38
46″	20,24, 9, 6,45,48,57,52,15,39		1,29,29,43,43	
		1,58,10,30,47,51,35,16		8,38
48″	20,24,11, 4,56,19,45,43,50,55		1,29,29,52,21	
		1,58,10,29,18,21,42,55		8,38
50″	20,24,13, 3, 6,49, 4, 5,33,50		1,29,30, 0,59	
		1,58,10,27,48,51,41,56		8,38
52″	20,24,15, 1,17,16,52,57,15,46		1,29,30, 9,37	
		1,58,10,26,19,21,32,19		8,38
54″	20,24,16,59,27,43,12,18,48, 5		1,29,30,18,15	
		1,58,10,24,49,51,14, 4		8,38
56″	20,24,18,57,38, 8, 2,10, 2, 9		1,29,30,26,53	
		1,58,10,23,20,20,47,11		8,38
58″	20,24,20,55,48,31,22,30,49,20		1,29,30,35,31	
		1,58,10,21,50,50,11,40		
60″	20,24,22,53,58,53,13,21, 1, 0			
exact	20,24,22,53,58,53,13,20,34, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°53′ 0″	20,24,22,53,58,53,13,20,34, 5			
		1,58,10,20,21,19,24,40		
2″	20,24,24,52, 9,13,34,39,58,45		1,29,30,52,59	
		1,58,10,18,51,48,31,41		8,38
4″	20,24,26,50,19,32,26,28,30,26		1,29,31, 1,37	
		1,58,10,17,22,17,30, 4		8,38
6″	20,24,28,48,29,49,48,46, 0,30		1,29,31,10,15	
		1,58,10,15,52,46,19,49		8,38
8″	20,24,30,46,40, 5,41,32,20,19		1,29,31,18,53	
		1,58,10,14,23,15, 0,56		8,38
10″	20,24,32,44,50,20, 4,47,21,15		1,29,31,27,31	
		1,58,10,12,53,43,33,25		8,38
12″	20,24,34,43, 0,32,58,30,54,40		1,29,31,36, 9	
		1,58,10,11,24,11,57,16		8,38
14″	20,24,36,41,10,44,22,42,51,56		1,29,31,44,47	
		1,58,10, 9,54,40,12,29		8,38
16″	20,24,38,39,20,54,17,23, 4,25		1,29,31,53,25	
		1,58,10, 8,25, 8,19, 4		8,38
18″	20,24,40,37,31, 2,42,31,23,29		1,29,32, 2, 3	
		1,58,10, 6,55,36,17, 1		8,38
20″	20,24,42,35,41, 9,38, 7,40,30		1,29,32,10,41	
		1,58,10, 5,26, 4, 6,20		8,38
22″	20,24,44,33,51,15, 4,11,46,50		1,29,32,19,19	
		1,58,10, 3,56,31,47, 1		8,38
24″	20,24,46,32, 1,19, 0,43,33,51		1,29,32,27,57	
		1,58,10, 2,26,59,19, 4		8,38
26″	20,24,48,30,11,21,27,42,52,55		1,29,32,36,35	
		1,58,10, 0,57,26,42,29		8,38
28″	20,24,50,28,21,22,25, 9,35,24		1,29,32,45,13	
		1,58, 9,59,27,53,57,16		8,38
30″	20,24,52,26,31,21,53, 3,32,40		1,29,32,53,51	
		1,58, 9,57,58,21, 3,25		8,38
32″	20,24,54,24,41,19,51,24,36, 5		1,29,33, 2,29	
		1,58, 9,56,28,48, 0,56		8,38
34″	20,24,56,22,51,16,20,12,37, 1		1,29,33,11, 7	
		1,58, 9,54,59,14,49,49		8,38
36″	20,24,58,21, 1,11,19,27,26,50		1,29,33,19,45	
		1,58, 9,53,29,41,30, 4		8,38
38″	20,25, 0,19,11, 4,49, 8,56,54		1,29,33,28,23	
		1,58, 9,52, 0, 8, 1,41		8,38
40″	20,25, 2,17,20,56,49,16,58,35		1,29,33,37, 1	
		1,58, 9,50,30,34,24,40		8,38
42″	20,25, 4,15,30,47,19,51,23,15		1,29,33,45,39	
		1,58, 9,49, 1, 0,39, 1		8,38
44″	20,25, 6,13,40,36,20,52, 2,16		1,29,33,54,17	
		1,58, 9,47,31,26,44,44		8,38
46″	20,25, 8,11,50,23,52,18,47, 0		1,29,34, 2,55	
		1,58, 9,46, 1,52,41,49		8,38
48″	20,25,10,10, 0, 9,54,11,28,49		1,29,34,11,33	
		1,58, 9,44,32,18,30,16		8,38
50″	20,25,12, 8, 9,54,26,29,59, 5		1,29,34,20,11	
		1,58, 9,43, 2,44,10, 5		8,38
52″	20,25,14, 6,19,37,29,14, 9,10		1,29,34,28,49	
		1,58, 9,41,33, 9,41,16		8,38
54″	20,25,16, 4,29,19, 2,23,50,26		1,29,34,37,27	
		1,58, 9,40, 3,35, 3,49		8,38
56″	20,25,18, 2,38,59, 5,58,54,15		1,29,34,46, 5	
		1,58, 9,38,34, 0,17,44		8,38
58″	20,25,20, 0,48,37,39,59,11,59		1,29,34,54,43	
		1,58, 9,37, 4,25,23, 1		
60″	20,25,21,58,58,14,44,24,35, 0			
exact	20,25,21,58,58,14,44,24,14,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°54′ 0″	20,25,21,58,58,14,44,24,14,24			
		1,58, 9,35,34,50,17,23		
2″	20,25,23,57, 7,50,19,14,31,47		1,29,35,12, 9	
		1,58, 9,34, 5,15, 5,14		8,38
4″	20,25,25,55,17,24,24,29,37, 1		1,29,35,20,47	
		1,58, 9,32,35,39,44,27		8,38
6″	20,25,27,53,26,57, 0, 9,21,28		1,29,35,29,25	
		1,58, 9,31, 6, 4,15, 2		8,38
8″	20,25,29,51,36,28, 6,13,36,30		1,29,35,38, 3	
		1,58, 9,29,36,28,36,59		8,38
10″	20,25,31,49,45,57,42,42,13,29		1,29,35,46,41	
		1,58, 9,28, 6,52,50,18		8,38
12″	20,25,33,47,55,25,49,35, 3,47		1,29,35,55,19	
		1,58, 9,26,37,16,54,59		8,38
14″	20,25,35,46, 4,52,26,51,58,46		1,29,36, 3,57	
		1,58, 9,25, 7,40,51, 2		8,38
16″	20,25,37,44,14,17,34,32,49,48		1,29,36,12,35	
		1,58, 9,23,38, 4,38,27		8,38
18″	20,25,39,42,23,41,12,37,28,15		1,29,36,21,13	
		1,58, 9,22, 8,28,17,14		8,38
20″	20,25,41,40,33, 3,21, 5,45,29		1,29,36,29,51	
		1,58, 9,20,38,51,47,23		8,38
22″	20,25,43,38,42,23,59,57,32,52		1,29,36,38,29	
		1,58, 9,19, 9,15, 8,54		8,38
24″	20,25,45,36,51,43, 9,12,41,46		1,29,36,47, 7	
		1,58, 9,17,39,38,21,47		8,38
26″	20,25,47,35, 1, 0,48,51, 3,33		1,29,36,55,45	
		1,58, 9,16,10, 1,26, 2		8,38
28″	20,25,49,33,10,16,58,52,29,35		1,29,37, 4,23	
		1,58, 9,14,40,24,21,39		8,38
30″	20,25,51,31,19,31,39,16,51,14		1,29,37,13, 1	
		1,58, 9,13,10,47, 8,38		8,38
32″	20,25,53,29,28,44,50, 3,59,52		1,29,37,21,39	
		1,58, 9,11,41, 9,46,59		8,38
34″	20,25,55,27,37,56,31,13,46,51		1,29,37,30,17	
		1,58, 9,10,11,32,16,42		8,38
36″	20,25,57,25,47, 6,42,46, 3,33		1,29,37,38,55	
		1,58, 9, 8,41,54,37,47		8,38
38″	20,25,59,23,56,15,24,40,41,20		1,29,37,47,33	
		1,58, 9, 7,12,16,50,14		8,38
40″	20,26, 1,22, 5,22,36,57,31,34		1,29,37,56,11	
		1,58, 9, 5,42,38,54, 3		8,38
42″	20,26, 3,20,14,28,19,36,25,37		1,29,38, 4,49	
		1,58, 9, 4,13, 0,49,14		8,38
44″	20,26, 5,18,23,32,32,37,14,51		1,29,38,13,27	
		1,58, 9, 2,43,22,35,47		8,38
46″	20,26, 7,16,32,35,15,59,50,38		1,29,38,22, 5	
		1,58, 9, 1,13,44,13,42		8,38
48″	20,26, 9,14,41,36,29,44, 4,20		1,29,38,30,43	
		1,58, 8,59,44, 5,42,59		8,38
50″	20,26,11,12,50,36,13,49,47,19		1,29,38,39,21	
		1,58, 8,58,14,27, 3,38		8,38
52″	20,26,13,10,59,34,28,16,50,57		1,29,38,47,59	
		1,58, 8,56,44,48,15,39		8,38
54″	20,26,15, 9, 8,31,13, 5, 6,36		1,29,38,56,37	
		1,58, 8,55,15, 9,19, 2		8,38
56″	20,26,17, 7,17,26,28,14,25,38		1,29,39, 5,15	
		1,58, 8,53,45,30,13,47		8,38
58″	20,26,19, 5,26,20,13,44,39,25		1,29,39,13,53	
		1,58, 8,52,15,50,59,54		
60″	20,26,21, 3,35,12,29,35,39,19			
exact	20,26,21, 3,35,12,29,35,22,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°55′ 0″	20,26,21, 3,35,12,29,35,22,34			
		1,58, 8,50,46,11,35,30		
2″	20,26,23, 1,44, 3,15,46,58, 4		1,29,39,31,17	
		1,58, 8,49,16,32, 4,13		8,38
4″	20,26,24,59,52,52,32,19, 2,17		1,29,39,39,55	
		1,58, 8,47,46,52,24,18		8,38
6″	20,26,26,58, 1,40,19,11,26,35		1,29,39,48,33	
		1,58, 8,46,17,12,35,45		8,38
8″	20,26,28,56,10,26,36,24, 2,20		1,29,39,57,11	
		1,58, 8,44,47,32,38,34		8,38
10″	20,26,30,54,19,11,23,56,40,54		1,29,40, 5,49	
		1,58, 8,43,17,52,32,45		8,38
12″	20,26,32,52,27,54,41,49,13,39		1,29,40,14,27	
		1,58, 8,41,48,12,18,18		8,38
14″	20,26,34,50,36,36,30, 1,31,57		1,29,40,23, 5	
		1,58, 8,40,18,31,55,13		8,38
16″	20,26,36,48,45,16,48,33,27,10		1,29,40,31,43	
		1,58, 8,38,48,51,23,30		8,38
18″	20,26,38,46,53,55,37,24,50,40		1,29,40,40,21	
		1,58, 8,37,19,10,43, 9		8,38
20″	20,26,40,45, 2,32,56,35,33,49		1,29,40,48,59	
		1,58, 8,35,49,29,54,10		8,38
22″	20,26,42,43,11, 8,46, 5,27,59		1,29,40,57,37	
		1,58, 8,34,19,48,56,33		8,38
24″	20,26,44,41,19,43, 5,54,24,32		1,29,41, 6,15	
		1,58, 8,32,50, 7,50,18		8,38
26″	20,26,46,39,28,15,56, 2,14,50		1,29,41,14,53	
		1,58, 8,31,20,26,35,25		8,38
28″	20,26,48,37,36,47,16,28,50,15		1,29,41,23,31	
		1,58, 8,29,50,45,11,54		8,38
30″	20,26,50,35,45,17, 7,14, 2, 9		1,29,41,32, 9	
		1,58, 8,28,21, 3,39,45		8,38
32″	20,26,52,33,53,45,28,17,41,54		1,29,41,40,47	
		1,58, 8,26,51,21,58,58		8,38
34″	20,26,54,32, 2,12,19,39,40,52		1,29,41,49,25	
		1,58, 8,25,21,40, 9,33		8,38
36″	20,26,56,30,10,37,41,19,50,25		1,29,41,58, 3	
		1,58, 8,23,51,58,11,30		8,38
38″	20,26,58,28,19, 1,33,18, 1,55		1,29,42, 6,41	
		1,58, 8,22,22,16, 4,49		8,38
40″	20,27, 0,26,27,23,55,34, 6,44		1,29,42,15,19	
		1,58, 8,20,52,33,49,30		8,38
42″	20,27, 2,24,35,44,48, 7,56,14		1,29,42,23,57	
		1,58, 8,19,22,51,25,33		8,38
44″	20,27, 4,22,44, 4,10,59,21,47		1,29,42,32,35	
		1,58, 8,17,53, 8,52,58		8,38
46″	20,27, 6,20,52,22, 4, 8,14,45		1,29,42,41,13	
		1,58, 8,16,23,26,11,45		8,38
48″	20,27, 8,19, 0,38,27,34,26,30		1,29,42,49,51	
		1,58, 8,14,53,43,21,54		8,38
50″	20,27,10,17, 8,53,21,17,48,24		1,29,42,58,29	
		1,58, 8,13,24, 0,23,25		8,38
52″	20,27,12,15,17, 6,45,18,11,49		1,29,43, 7, 7	
		1,58, 8,11,54,17,16,18		8,38
54″	20,27,14,13,25,18,39,35,28, 7		1,29,43,15,45	
		1,58, 8,10,24,34, 0,33		8,38
56″	20,27,16,11,33,29, 4, 9,28,40		1,29,43,24,23	
		1,58, 8, 8,54,50,36,10		8,38
58″	20,27,18, 9,41,37,59, 0, 4,50		1,29,43,33, 1	
		1,58, 8, 7,25, 7, 3, 9		
60″	20,27,20, 7,49,45,24, 7, 7,59			
exact	20,27,20, 7,49,45,24, 6,52,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°56′ 0″	20,27,20, 7,49,45,24, 6,52,13			
		1,58, 8, 5,55,23,19,50		
2″	20,27,22, 5,57,51,19,30,12, 3		1,29,43,50,24	
		1,58, 8, 4,25,39,29,26		8,38
4″	20,27,24, 4, 5,55,45, 9,41,29		1,29,43,59, 2	
		1,58, 8, 2,55,55,30,24		8,38
6″	20,27,26, 2,13,58,41, 5,11,53		1,29,44, 7,40	
		1,58, 8, 1,26,11,22,44		8,38
8″	20,27,28, 0,22, 0, 7,16,34,37		1,29,44,16,18	
		1,58, 7,59,56,27, 6,26		8,38
10″	20,27,29,58,30, 0, 3,43,41, 3		1,29,44,24,56	
		1,58, 7,58,26,42,41,30		8,38
12″	20,27,31,56,37,58,30,26,22,33		1,29,44,33,34	
		1,58, 7,56,56,58, 7,56		8,38
14″	20,27,33,54,45,55,27,24,30,29		1,29,44,42,12	
		1,58, 7,55,27,13,25,44		8,38
16″	20,27,35,52,53,50,54,37,56,13		1,29,44,50,50	
		1,58, 7,53,57,28,34,54		8,38
18″	20,27,37,51, 1,44,52, 6,31, 7		1,29,44,59,28	
		1,58, 7,52,27,43,35,26		8,38
20″	20,27,39,49, 9,37,19,50, 6,33		1,29,45, 8, 6	
		1,58, 7,50,57,58,27,20		8,38
22″	20,27,41,47,17,28,17,48,33,53		1,29,45,16,44	
		1,58, 7,49,28,13,10,36		8,38
24″	20,27,43,45,25,17,46, 1,44,29		1,29,45,25,22	
		1,58, 7,47,58,27,45,14		8,38
26″	20,27,45,43,33, 5,44,29,29,43		1,29,45,34, 0	
		1,58, 7,46,28,42,11,14		8,38
28″	20,27,47,41,40,52,13,11,40,57		1,29,45,42,38	
		1,58, 7,44,58,56,28,36		8,38
30″	20,27,49,39,48,37,12, 8, 9,33		1,29,45,51,16	
		1,58, 7,43,29,10,37,20		8,38
32″	20,27,51,37,56,20,41,18,46,53		1,29,45,59,54	
		1,58, 7,41,59,24,37,26		8,38
34″	20,27,53,36, 4, 2,40,43,24,19		1,29,46, 8,32	
		1,58, 7,40,29,38,28,54		8,38
36″	20,27,55,34,11,43,10,21,53,13		1,29,46,17,10	
		1,58, 7,38,59,52,11,44		8,38
38″	20,27,57,32,19,22,10,14, 4,57		1,29,46,25,48	
		1,58, 7,37,30, 5,45,56		8,38
40″	20,27,59,30,26,59,40,19,50,53		1,29,46,34,26	
		1,58, 7,36, 0,19,11,30		8,38
42″	20,28, 1,28,34,35,40,39, 2,23		1,29,46,43, 4	
		1,58, 7,34,30,32,28,26		8,38
44″	20,28, 3,26,42,10,11,11,30,49		1,29,46,51,42	
		1,58, 7,33, 0,45,36,44		8,38
46″	20,28, 5,24,49,43,11,57, 7,33		1,29,47, 0,20	
		1,58, 7,31,30,58,36,24		8,38
48″	20,28, 7,22,57,14,42,55,43,57		1,29,47, 8,58	
		1,58, 7,30, 1,11,27,26		8,38
50″	20,28, 9,21, 4,44,44, 7,11,23		1,29,47,17,36	
		1,58, 7,28,31,24, 9,50		8,38
52″	20,28,11,19,12,13,15,31,21,13		1,29,47,26,14	
		1,58, 7,27, 1,36,43,36		8,38
54″	20,28,13,17,19,40,17, 8, 4,49		1,29,47,34,52	
		1,58, 7,25,31,49, 8,44		8,38
56″	20,28,15,15,27, 5,48,57,13,33		1,29,47,43,30	
		1,58, 7,24, 2, 1,25,14		8,38
58″	20,28,17,13,34,29,50,58,38,47		1,29,47,52, 8	
		1,58, 7,22,32,13,33, 6		
60″	20,28,19,11,41,52,23,12,11,53			
exact	20,28,19,11,41,52,23,12, 1,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°57′ 0″	20,28,19,11,41,52,23,12, 1,31			
		1,58, 7,21, 2,25,31,11		
2″	20,28,21, 9,49,13,25,37,32,42		1,29,48, 9,29	
		1,58, 7,19,32,37,21,42		8,38
4″	20,28,23, 7,56,32,58,14,54,24		1,29,48,18, 7	
		1,58, 7,18, 2,49, 3,35		8,38
6″	20,28,25, 6, 3,51, 1, 3,57,59		1,29,48,26,45	
		1,58, 7,16,33, 0,36,50		8,38
8″	20,28,27, 4,11, 7,34, 4,34,49		1,29,48,35,23	
		1,58, 7,15, 3,12, 1,27		8,38
10″	20,28,29, 2,18,22,37,16,36,16		1,29,48,44, 1	
		1,58, 7,13,33,23,17,26		8,38
12″	20,28,31, 0,25,36,10,39,53,42		1,29,48,52,39	
		1,58, 7,12, 3,34,24,47		8,38
14″	20,28,32,58,32,48,14,14,18,29		1,29,49, 1,17	
		1,58, 7,10,33,45,23,30		8,38
16″	20,28,34,56,39,58,47,59,41,59		1,29,49, 9,55	
		1,58, 7, 9, 3,56,13,35		8,38
18″	20,28,36,54,47, 7,51,55,55,34		1,29,49,18,33	
		1,58, 7, 7,34, 6,55, 2		8,38
20″	20,28,38,52,54,15,26, 2,50,36		1,29,49,27,11	
		1,58, 7, 6, 4,17,27,51		8,38
22″	20,28,40,51, 1,21,30,20,18,27		1,29,49,35,49	
		1,58, 7, 4,34,27,52, 2		8,38
24″	20,28,42,49, 8,26, 4,48,10,29		1,29,49,44,27	
		1,58, 7, 3, 4,38, 7,35		8,38
26″	20,28,44,47,15,29, 9,26,18, 4		1,29,49,53, 5	
		1,58, 7, 1,34,48,14,30		8,38
28″	20,28,46,45,22,30,44,14,32,34		1,29,50, 1,43	
		1,58, 7, 0, 4,58,12,47		8,38
30″	20,28,48,43,29,30,49,12,45,21		1,29,50,10,21	
		1,58, 6,58,35, 8, 2,26		8,38
32″	20,28,50,41,36,29,24,20,47,47		1,29,50,18,59	
		1,58, 6,57, 5,17,43,27		8,38
34″	20,28,52,39,43,26,29,38,31,14		1,29,50,27,37	
		1,58, 6,55,35,27,15,50		8,38
36″	20,28,54,37,50,22, 5, 5,47, 4		1,29,50,36,15	
		1,58, 6,54, 5,36,39,35		8,38
38″	20,28,56,35,57,16,10,42,26,39		1,29,50,44,53	
		1,58, 6,52,35,45,54,42		8,38
40″	20,28,58,34, 4, 8,46,28,21,21		1,29,50,53,31	
		1,58, 6,51, 5,55, 1,11		8,38
42″	20,29, 0,32,10,59,52,23,22,32		1,29,51, 2, 9	
		1,58, 6,49,36, 3,59, 2		8,38
44″	20,29, 2,30,17,49,28,27,21,34		1,29,51,10,47	
		1,58, 6,48, 6,12,48,15		8,38
46″	20,29, 4,28,24,37,34,40, 9,49		1,29,51,19,25	
		1,58, 6,46,36,21,28,50		8,38
48″	20,29, 6,26,31,24,11, 1,38,39		1,29,51,28, 3	
		1,58, 6,45, 6,30, 0,47		8,38
50″	20,29, 8,24,38, 9,17,31,39,26		1,29,51,36,41	
		1,58, 6,43,36,38,24, 6		8,38
52″	20,29,10,22,44,52,54,10, 3,32		1,29,51,45,19	
		1,58, 6,42, 6,46,38,47		8,38
54″	20,29,12,20,51,35, 0,56,42,19		1,29,51,53,57	
		1,58, 6,40,36,54,44,50		8,38
56″	20,29,14,18,58,15,37,51,27, 9		1,29,52, 2,35	
		1,58, 6,39, 7, 2,42,15		8,38
58″	20,29,16,17, 4,54,44,54, 9,24		1,29,52,11,13	
		1,58, 6,37,37,10,31, 2		
60″	20,29,18,15,11,32,22, 4,40,26			
exact	20,29,18,15,11,32,22, 4,33,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°58′ 0″	20,29,18,15,11,32,22, 4,33,17			
		1,58, 6,36, 7,18,10,23		
2″	20,29,20,13,18, 8,29,22,43,40		1,29,52,28,32	
		1,58, 6,34,37,25,41,51		8,38
4″	20,29,22,11,24,43, 6,48,25,31		1,29,52,37,10	
		1,58, 6,33, 7,33, 4,41		8,38
6″	20,29,24, 9,31,16,14,21,30,12		1,29,52,45,48	
		1,58, 6,31,37,40,18,53		8,38
8″	20,29,26, 7,37,47,52, 1,49, 5		1,29,52,54,26	
		1,58, 6,30, 7,47,24,27		8,38
10″	20,29,28, 5,44,17,59,49,13,32		1,29,53, 3, 4	
		1,58, 6,28,37,54,21,23		8,38
12″	20,29,30, 3,50,46,37,43,34,55		1,29,53,11,42	
		1,58, 6,27, 8, 1, 9,41		8,38
14″	20,29,32, 1,57,13,45,44,44,36		1,29,53,20,20	
		1,58, 6,25,38, 7,49,21		8,38
16″	20,29,34, 0, 3,39,23,52,33,57		1,29,53,28,58	
		1,58, 6,24, 8,14,20,23		8,38
18″	20,29,35,58,10, 3,32, 6,54,20		1,29,53,37,36	
		1,58, 6,22,38,20,42,47		8,38
20″	20,29,37,56,16,26,10,27,37, 7		1,29,53,46,14	
		1,58, 6,21, 8,26,56,33		8,38
22″	20,29,39,54,22,47,18,54,33,40		1,29,53,54,52	
		1,58, 6,19,38,33, 1,41		8,38
24″	20,29,41,52,29, 6,57,27,35,21		1,29,54, 3,30	
		1,58, 6,18, 8,38,58,11		8,38
26″	20,29,43,50,35,25, 6, 6,33,32		1,29,54,12, 8	
		1,58, 6,16,38,44,46, 3		8,38
28″	20,29,45,48,41,41,44,51,19,35		1,29,54,20,46	
		1,58, 6,15, 8,50,25,17		8,38
30″	20,29,47,46,47,56,53,41,44,52		1,29,54,29,24	
		1,58, 6,13,38,55,55,53		8,38
32″	20,29,49,44,54,10,32,37,40,45		1,29,54,38, 2	
		1,58, 6,12, 9, 1,17,51		8,38
34″	20,29,51,43, 0,22,41,38,58,36		1,29,54,46,40	
		1,58, 6,10,39, 6,31,11		8,38
36″	20,29,53,41, 6,33,20,45,29,47		1,29,54,55,18	
		1,58, 6, 9, 9,11,35,53		8,38
38″	20,29,55,39,12,42,29,57, 5,40		1,29,55, 3,56	
		1,58, 6, 7,39,16,31,57		8,38
40″	20,29,57,37,18,50, 9,13,37,37		1,29,55,12,34	
		1,58, 6, 6, 9,21,19,23		8,38
42″	20,29,59,35,24,56,18,34,57, 0		1,29,55,21,12	
		1,58, 6, 4,39,25,58,11		8,38
44″	20,30, 1,33,31, 0,58, 0,55,11		1,29,55,29,50	
		1,58, 6, 3, 9,30,28,21		8,38
46″	20,30, 3,31,37, 4, 7,31,23,32		1,29,55,38,28	
		1,58, 6, 1,39,34,49,53		8,38
48″	20,30, 5,29,43, 5,47, 6,13,25		1,29,55,47, 6	
		1,58, 6, 0, 9,39, 2,47		8,38
50″	20,30, 7,27,49, 5,56,45,16,12		1,29,55,55,44	
		1,58, 5,58,39,43, 7, 3		8,38
52″	20,30, 9,25,55, 4,36,28,23,15		1,29,56, 4,22	
		1,58, 5,57, 9,47, 2,41		8,38
54″	20,30,11,24, 1, 1,46,15,25,56		1,29,56,13, 0	
		1,58, 5,55,39,50,49,41		8,38
56″	20,30,13,22, 6,57,26, 6,15,37		1,29,56,21,38	
		1,58, 5,54, 9,54,28, 3		8,38
58″	20,30,15,20,12,51,36, 0,43,40		1,29,56,30,16	
		1,58, 5,52,39,57,57,47		
60″	20,30,17,18,18,44,15,58,41,27			
exact	20,30,17,18,18,44,15,58,34,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
19°59′ 0″	20,30,17,18,18,44,15,58,34,56			
		1,58, 5,51,10, 1,18,16		
2″	20,30,19,16,24,35,25,59,53,12		1,29,56,47,34	
		1,58, 5,49,40, 4,30,42		8,38
4″	20,30,21,14,30,25, 6, 4,23,54		1,29,56,56,12	
		1,58, 5,48,10, 7,34,30		8,38
6″	20,30,23,12,36,13,16,11,58,24		1,29,57, 4,50	
		1,58, 5,46,40,10,29,40		8,38
8″	20,30,25,10,41,59,56,22,28, 4		1,29,57,13,28	
		1,58, 5,45,10,13,16,12		8,38
10″	20,30,27, 8,47,45, 6,35,44,16		1,29,57,22, 6	
		1,58, 5,43,40,15,54, 6		8,38
12″	20,30,29, 6,53,28,46,51,38,22		1,29,57,30,44	
		1,58, 5,42,10,18,23,22		8,38
14″	20,30,31, 4,59,10,57,10, 1,44		1,29,57,39,22	
		1,58, 5,40,40,20,44, 0		8,38
16″	20,30,33, 3, 4,51,37,30,45,44		1,29,57,48, 0	
		1,58, 5,39,10,22,56, 0		8,38
18″	20,30,35, 1,10,30,47,53,41,44		1,29,57,56,38	
		1,58, 5,37,40,24,59,22		8,38
20″	20,30,36,59,16, 8,28,18,41, 6		1,29,58, 5,16	
		1,58, 5,36,10,26,54, 6		8,38
22″	20,30,38,57,21,44,38,45,35,12		1,29,58,13,54	
		1,58, 5,34,40,28,40,12		8,38
24″	20,30,40,55,27,19,19,14,15,24		1,29,58,22,32	
		1,58, 5,33,10,30,17,40		8,38
26″	20,30,42,53,32,52,29,44,33, 4		1,29,58,31,10	
		1,58, 5,31,40,31,46,30		8,38
28″	20,30,44,51,38,24,10,16,19,34		1,29,58,39,48	
		1,58, 5,30,10,33, 6,42		8,38
30″	20,30,46,49,43,54,20,49,26,16		1,29,58,48,26	
		1,58, 5,28,40,34,18,16		8,38
32″	20,30,48,47,49,23, 1,23,44,32		1,29,58,57, 4	
		1,58, 5,27,10,35,21,12		8,38
34″	20,30,50,45,54,50,11,59, 5,44		1,29,59, 5,42	
		1,58, 5,25,40,36,15,30		8,38
36″	20,30,52,44, 0,15,52,35,21,14		1,29,59,14,20	
		1,58, 5,24,10,37, 1,10		8,38
38″	20,30,54,42, 5,40, 3,12,22,24		1,29,59,22,58	
		1,58, 5,22,40,37,38,12		8,38
40″	20,30,56,40,11, 2,43,50, 0,36		1,29,59,31,36	
		1,58, 5,21,10,38, 6,36		8,38
42″	20,30,58,38,16,23,54,28, 7,12		1,29,59,40,14	
		1,58, 5,19,40,38,26,22		8,38
44″	20,31, 0,36,21,43,35, 6,33,34		1,29,59,48,52	
		1,58, 5,18,10,38,37,30		8,38
46″	20,31, 2,34,27, 1,45,45,11, 4		1,29,59,57,30	
		1,58, 5,16,40,38,40, 0		8,38
48″	20,31, 4,32,32,18,26,23,51, 4		1,30, 0, 6, 8	
		1,58, 5,15,10,38,33,52		8,38
50″	20,31, 6,30,37,33,37, 2,24,56		1,30, 0,14,46	
		1,58, 5,13,40,38,19, 6		8,38
52″	20,31, 8,28,42,47,17,40,44, 2		1,30, 0,23,24	
		1,58, 5,12,10,37,55,42		8,38
54″	20,31,10,26,47,59,28,18,39,44		1,30, 0,32, 2	
		1,58, 5,10,40,37,23,40		8,38
56″	20,31,12,24,53,10, 8,56, 3,24		1,30, 0,40,40	
		1,58, 5, 9,10,36,43, 0		8,38
58″	20,31,14,22,58,19,19,32,46,24		1,30, 0,49,18	
		1,58, 5, 7,40,35,53,42		
60″	20,31,16,21, 3,27, 0, 8,40, 6			
exact	20,31,16,21, 3,27, 0, 8,38,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20° 0′ 0″	20,31,16,21, 3,27, 0, 8,38,29			
		1,58, 5, 6,10,34,55,38		
2″	20,31,18,19, 8,33,10,43,34, 7		1,30, 1, 6,34	
		1,58, 5, 4,40,33,49, 4		8,38
4″	20,31,20,17,13,37,51,17,23,11		1,30, 1,15,12	
		1,58, 5, 3,10,32,33,52		8,38
6″	20,31,22,15,18,41, 1,49,57, 3		1,30, 1,23,50	
		1,58, 5, 1,40,31,10, 2		8,38
8″	20,31,24,13,23,42,42,21, 7, 5		1,30, 1,32,28	
		1,58, 5, 0,10,29,37,34		8,38
10″	20,31,26,11,28,42,52,50,44,39		1,30, 1,41, 6	
		1,58, 4,58,40,27,56,28		8,38
12″	20,31,28, 9,33,41,33,18,41, 7		1,30, 1,49,44	
		1,58, 4,57,10,26, 6,44		8,38
14″	20,31,30, 7,38,38,43,44,47,51		1,30, 1,58,22	
		1,58, 4,55,40,24, 8,22		8,38
16″	20,31,32, 5,43,34,24, 8,56,13		1,30, 2, 7, 0	
		1,58, 4,54,10,22, 1,22		8,38
18″	20,31,34, 3,48,28,34,30,57,35		1,30, 2,15,38	
		1,58, 4,52,40,19,45,44		8,38
20″	20,31,36, 1,53,21,14,50,43,19		1,30, 2,24,16	
		1,58, 4,51,10,17,21,28		8,38
22″	20,31,37,59,58,12,25, 8, 4,47		1,30, 2,32,54	
		1,58, 4,49,40,14,48,34		8,38
24″	20,31,39,58, 3, 2, 5,22,53,21		1,30, 2,41,32	
		1,58, 4,48,10,12, 7, 2		8,38
26″	20,31,41,56, 7,50,15,35, 0,23		1,30, 2,50,10	
		1,58, 4,46,40, 9,16,52		8,38
28″	20,31,43,54,12,36,55,44,17,15		1,30, 2,58,48	
		1,58, 4,45,10, 6,18, 4		8,38
30″	20,31,45,52,17,22, 5,50,35,19		1,30, 3, 7,26	
		1,58, 4,43,40, 3,10,38		8,38
32″	20,31,47,50,22, 5,45,53,45,57		1,30, 3,16, 4	
		1,58, 4,42, 9,59,54,34		8,38
34″	20,31,49,48,26,47,55,53,40,31		1,30, 3,24,42	
		1,58, 4,40,39,56,29,52		8,38
36″	20,31,51,46,31,28,35,50,10,23		1,30, 3,33,20	
		1,58, 4,39, 9,52,56,32		8,38
38″	20,31,53,44,36, 7,45,43, 6,55		1,30, 3,41,58	
		1,58, 4,37,39,49,14,34		8,38
40″	20,31,55,42,40,45,25,32,21,29		1,30, 3,50,36	
		1,58, 4,36, 9,45,23,58		8,38
42″	20,31,57,40,45,21,35,17,45,27		1,30, 3,59,14	
		1,58, 4,34,39,41,24,44		8,38
44″	20,31,59,38,49,56,14,59,10,11		1,30, 4, 7,52	
		1,58, 4,33, 9,37,16,52		8,38
46″	20,32, 1,36,54,29,24,36,27, 3		1,30, 4,16,30	
		1,58, 4,31,39,33, 0,22		8,38
48″	20,32, 3,34,59, 1, 4, 9,27,25		1,30, 4,25, 8	
		1,58, 4,30, 9,28,35,14		8,38
50″	20,32, 5,33, 3,31,13,38, 2,39		1,30, 4,33,46	
		1,58, 4,28,39,24, 1,28		8,38
52″	20,32, 7,31, 7,59,53, 2, 4, 7		1,30, 4,42,24	
		1,58, 4,27, 9,19,19, 4		8,38
54″	20,32, 9,29,12,27, 2,21,23,11		1,30, 4,51, 2	
		1,58, 4,25,39,14,28, 2		8,38
56″	20,32,11,27,16,52,41,35,51,13		1,30, 4,59,40	
		1,58, 4,24, 9, 9,28,22		8,38
58″	20,32,13,25,21,16,50,45,19,35		1,30, 5, 8,18	
		1,58, 4,22,39, 4,20, 4		
60″	20,32,15,23,25,39,29,49,39,39			
exact	20,32,15,23,25,39,29,49,40,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20° 1′ 0″	20,32,15,23,25,39,29,49,40,41	1,58, 4,21, 8,59, 3,19		
2″	20,32,17,21,30, 0,38,48,44, 0	1,58, 4,19,38,53,37,46	1,30, 5,25,33	8,38
4″	20,32,19,19,34,20,17,42,21,46	1,58, 4,18, 8,48, 3,35	1,30, 5,34,11	8,38
6″	20,32,21,17,38,38,26,30,25,21	1,58, 4,16,38,42,20,46	1,30, 5,42,49	8,38
8″	20,32,23,15,42,55, 5,12,46, 7	1,58, 4,15, 8,36,29,19	1,30, 5,51,27	8,38
10″	20,32,25,13,47,10,13,49,15,26	1,58, 4,13,38,30,29,14	1,30, 6, 0, 5	8,38
12″	20,32,27,11,51,23,52,19,44,40	1,58, 4,12, 8,24,20,31	1,30, 6, 8,43	8,38
14″	20,32,29, 9,55,36, 0,44, 5,11	1,58, 4,10,38,18, 3,10	1,30, 6,17,21	8,38
16″	20,32,31, 7,59,46,39, 2, 8,21	1,58, 4, 9, 8,11,37,11	1,30, 6,25,59	8,38
18″	20,32,33, 6, 3,55,47,13,45,32	1,58, 4, 7,38, 5, 2,34	1,30, 6,34,37	8,38
20″	20,32,35, 4, 8, 3,25,18,48, 6	1,58, 4, 6, 7,58,19,19	1,30, 6,43,15	8,38
22″	20,32,37, 2,12, 9,33,17, 7,25	1,58, 4, 4,37,51,27,26	1,30, 6,51,53	8,38
24″	20,32,39, 0,16,14,11, 8,34,51	1,58, 4, 3, 7,44,26,55	1,30, 7, 0,31	8,38
26″	20,32,40,58,20,17,18,53, 1,46	1,58, 4, 1,37,37,17,46	1,30, 7, 9, 9	8,38
28″	20,32,42,56,24,18,56,30,19,32	1,58, 4, 0, 7,29,59,59	1,30, 7,17,47	8,38
30″	20,32,44,54,28,19, 4, 0,19,31	1,58, 3,58,37,22,33,34	1,30, 7,26,25	8,38
32″	20,32,46,52,32,17,41,22,53, 5	1,58, 3,57, 7,14,58,31	1,30, 7,35, 3	8,38
34″	20,32,48,50,36,14,48,37,51,36	1,58, 3,55,37, 7,14,50	1,30, 7,43,41	8,38
36″	20,32,50,48,40,10,25,45, 6,26	1,58, 3,54, 6,59,22,31	1,30, 7,52,19	8,38
38″	20,32,52,46,44, 4,32,44,28,57	1,58, 3,52,36,51,21,34	1,30, 8, 0,57	8,38
40″	20,32,54,44,47,57, 9,35,50,31	1,58, 3,51, 6,43,11,59	1,30, 8, 9,35	8,38
42″	20,32,56,42,51,48,16,19, 2,30	1,58, 3,49,36,34,53,46	1,30, 8,18,13	8,38
44″	20,32,58,40,55,37,52,53,56,16	1,58, 3,48, 6,26,26,55	1,30, 8,26,51	8,38
46″	20,33, 0,38,59,25,59,20,23,11	1,58, 3,46,36,17,51,26	1,30, 8,35,29	8,38
48″	20,33, 2,37, 3,12,35,38,14,37	1,58, 3,45, 6, 9, 7,19	1,30, 8,44, 7	8,38
50″	20,33, 4,35, 6,57,41,47,21,56	1,58, 3,43,36, 0,14,34	1,30, 8,52,45	8,38
52″	20,33, 6,33,10,41,17,47,36,30	1,58, 3,42, 5,51,13,11	1,30, 9, 1,23	8,38
54″	20,33, 8,31,14,23,23,38,49,41	1,58, 3,40,35,42, 3,10	1,30, 9,10, 1	8,38
56″	20,33,10,29,18, 3,59,20,52,51	1,58, 3,39, 5,32,44,31	1,30, 9,18,39	8,38
58″	20,33,12,27,21,43, 4,53,37,22	1,58, 3,37,35,23,17,14	1,30, 9,27,17	
60″	20,33,14,25,25,20,40,16,54,36			
exact	20,33,14,25,25,20,40,17, 2,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20° 2′ 0″	20,33,14,25,25,20,40,17, 2,54			
		1,58, 3,36, 5,13,42, 9		
2″	20,33,16,23,28,56,45,30,45, 3		1,30, 9,44,30	
		1,58, 3,34,35, 3,57,39		8,38
4″	20,33,18,21,32,31,20,34,42,42		1,30, 9,53, 8	
		1,58, 3,33, 4,54, 4,31		8,38
6″	20,33,20,19,36, 4,25,28,47,13		1,30,10, 1,46	
		1,58, 3,31,34,44, 2,45		8,38
8″	20,33,22,17,39,36, 0,12,49,58		1,30,10,10,24	
		1,58, 3,30, 4,33,52,21		8,38
10″	20,33,24,15,43, 6, 4,46,42,19		1,30,10,19, 2	
		1,58, 3,28,34,23,33,19		8,38
12″	20,33,26,13,46,34,39,10,15,38		1,30,10,27,40	
		1,58, 3,27, 4,13, 5,39		8,38
14″	20,33,28,11,50, 1,43,23,21,17		1,30,10,36,18	
		1,58, 3,25,34, 2,29,21		8,38
16″	20,33,30, 9,53,27,17,25,50,38		1,30,10,44,56	
		1,58, 3,24, 3,51,44,25		8,38
18″	20,33,32, 7,56,51,21,17,35, 3		1,30,10,53,34	
		1,58, 3,22,33,40,50,51		8,38
20″	20,33,34, 6, 0,13,54,58,25,54		1,30,11, 2,12	
		1,58, 3,21, 3,29,48,39		8,38
22″	20,33,36, 4, 3,34,58,28,14,33		1,30,11,10,50	
		1,58, 3,19,33,18,37,49		8,38
24″	20,33,38, 2, 6,54,31,46,52,22		1,30,11,19,28	
		1,58, 3,18, 3, 7,18,21		8,38
26″	20,33,40, 0,10,12,34,54,10,43		1,30,11,28, 6	
		1,58, 3,16,32,55,50,15		8,38
28″	20,33,41,58,13,29, 7,50, 0,58		1,30,11,36,44	
		1,58, 3,15, 2,44,13,31		8,38
30″	20,33,43,56,16,44,10,34,14,29		1,30,11,45,22	
		1,58, 3,13,32,32,28, 9		8,38
32″	20,33,45,54,19,57,43, 6,42,38		1,30,11,54, 0	
		1,58, 3,12, 2,20,34, 9		8,38
34″	20,33,47,52,23, 9,45,27,16,47		1,30,12, 2,38	
		1,58, 3,10,32, 8,31,31		8,38
36″	20,33,49,50,26,20,17,35,48,18		1,30,12,11,16	
		1,58, 3, 9, 1,56,20,15		8,38
38″	20,33,51,48,29,29,19,32, 8,33		1,30,12,19,54	
		1,58, 3, 7,31,44, 0,21		8,38
40″	20,33,53,46,32,36,51,16, 8,54		1,30,12,28,32	
		1,58, 3, 6, 1,31,31,49		8,38
42″	20,33,55,44,35,42,52,47,40,43		1,30,12,37,10	
		1,58, 3, 4,31,18,54,39		8,38
44″	20,33,57,42,38,47,24, 6,35,22		1,30,12,45,48	
		1,58, 3, 3, 1, 6, 8,51		8,38
46″	20,33,59,40,41,50,25,12,44,13		1,30,12,54,26	
		1,58, 3, 1,30,53,14,25		8,38
48″	20,34, 1,38,44,51,56, 5,58,38		1,30,13, 3, 4	
		1,58, 3, 0, 0,40,11,21		8,38
50″	20,34, 3,36,47,51,56,46, 9,59		1,30,13,11,42	
		1,58, 2,58,30,26,59,39		8,38
52″	20,34, 5,34,50,50,27,13, 9,38		1,30,13,20,20	
		1,58, 2,57, 0,13,39,19		8,38
54″	20,34, 7,32,53,47,27,26,48,57		1,30,13,28,58	
		1,58, 2,55,30, 0,10,21		8,38
56″	20,34, 9,30,56,42,57,26,59,18		1,30,13,37,36	
		1,58, 2,53,59,46,32,45		8,38
58″	20,34,11,28,59,36,57,13,32, 3		1,30,13,46,14	
		1,58, 2,52,29,32,46,31		
60″	20,34,13,27, 2,29,26,46,18,34			
exact	20,34,13,27, 2,29,26,46,31,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20° 3′ 0″	20,34,13,27, 2,29,26,46,31,14			
		1,58, 2,50,59,18,52,56		
2″	20,34,15,25, 5,20,26, 5,24,10		1,30,14, 3,25	
		1,58, 2,49,29, 4,49,31		8,38
4″	20,34,17,23, 8, 9,55,10,13,41		1,30,14,12, 3	
		1,58, 2,47,58,50,37,28		8,38
6″	20,34,19,21,10,57,54, 0,51, 9		1,30,14,20,41	
		1,58, 2,46,28,36,16,47		8,38
8″	20,34,21,19,13,44,22,37, 7,56		1,30,14,29,19	
		1,58, 2,44,58,21,47,28		8,38
10″	20,34,23,17,16,29,20,58,55,24		1,30,14,37,57	
		1,58, 2,43,28, 7, 9,31		8,38
12″	20,34,25,15,19,12,49, 6, 4,55		1,30,14,46,35	
		1,58, 2,41,57,52,22,56		8,38
14″	20,34,27,13,21,54,46,58,27,51		1,30,14,55,13	
		1,58, 2,40,27,37,27,43		8,38
16″	20,34,29,11,24,35,14,35,55,34		1,30,15, 3,51	
		1,58, 2,38,57,22,23,52		8,38
18″	20,34,31, 9,27,14,11,58,19,26		1,30,15,12,29	
		1,58, 2,37,27, 7,11,23		8,38
20″	20,34,33, 7,29,51,39, 5,30,49		1,30,15,21, 7	
		1,58, 2,35,56,51,50,16		8,38
22″	20,34,35, 5,32,27,35,57,21, 5		1,30,15,29,45	
		1,58, 2,34,26,36,20,31		8,38
24″	20,34,37, 3,35, 2, 2,33,41,36		1,30,15,38,23	
		1,58, 2,32,56,20,42, 8		8,38
26″	20,34,39, 1,37,34,58,54,23,44		1,30,15,47, 1	
		1,58, 2,31,26, 4,55, 7		8,38
28″	20,34,40,59,40, 6,24,59,18,51		1,30,15,55,39	
		1,58, 2,29,55,48,59,28		8,38
30″	20,34,42,57,42,36,20,48,18,19		1,30,16, 4,17	
		1,58, 2,28,25,32,55,11		8,38
32″	20,34,44,55,45, 4,46,21,13,30		1,30,16,12,55	
		1,58, 2,26,55,16,42,16		8,38
34″	20,34,46,53,47,31,41,37,55,46		1,30,16,21,33	
		1,58, 2,25,25, 0,20,43		8,38
36″	20,34,48,51,49,57, 6,38,16,29		1,30,16,30,11	
		1,58, 2,23,54,43,50,32		8,38
38″	20,34,50,49,52,21, 1,22, 7, 1		1,30,16,38,49	
		1,58, 2,22,24,27,11,43		8,38
40″	20,34,52,47,54,43,25,49,18,44		1,30,16,47,27	
		1,58, 2,20,54,10,24,16		8,38
42″	20,34,54,45,57, 4,19,59,43, 0		1,30,16,56, 5	
		1,58, 2,19,23,53,28,11		8,38
44″	20,34,56,43,59,23,43,53,11,11		1,30,17, 4,43	
		1,58, 2,17,53,36,23,28		8,38
46″	20,34,58,42, 1,41,37,29,34,39		1,30,17,13,21	
		1,58, 2,16,23,19,10, 7		8,38
48″	20,35, 0,40, 3,58, 0,48,44,46		1,30,17,21,59	
		1,58, 2,14,53, 1,48, 8		8,38
50″	20,35, 2,38, 6,12,53,50,32,54		1,30,17,30,37	
		1,58, 2,13,22,44,17,31		8,38
52″	20,35, 4,36, 8,26,16,34,50,25		1,30,17,39,15	
		1,58, 2,11,52,26,38,16		8,38
54″	20,35, 6,34,10,38, 9, 1,28,41		1,30,17,47,53	
		1,58, 2,10,22, 8,50,23		8,38
56″	20,35, 8,32,12,48,31,10,19, 4		1,30,17,56,31	
		1,58, 2, 8,51,50,53,52		8,38
58″	20,35,10,30,14,57,23, 1,12,56		1,30,18, 5, 9	
		1,58, 2, 7,21,32,48,43		
60″	20,35,12,28,17, 4,44,34, 1,39			
exact	20,35,12,28,17, 4,44,34,16,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20° 4′ 0″	20,35,12,28,17, 4,44,34,16,29			
		1,58, 2, 5,51,14,36,30		
2″	20,35,14,26,19,10,35,48,52,59		1,30,18,22,18	
		1,58, 2, 4,20,56,14,12		8,38
4″	20,35,16,24,21,14,56,45, 7,11		1,30,18,30,56	
		1,58, 2, 2,50,37,43,16		8,38
6″	20,35,18,22,23,17,47,22,50,27		1,30,18,39,34	
		1,58, 2, 1,20,19, 3,42		8,38
8″	20,35,20,20,25,19, 7,41,54, 9		1,30,18,48,12	
		1,58, 1,59,50, 0,15,30		8,38
10″	20,35,22,18,27,18,57,42, 9,39		1,30,18,56,50	
		1,58, 1,58,19,41,18,40		8,38
12″	20,35,24,16,29,17,17,23,28,19		1,30,19, 5,28	
		1,58, 1,56,49,22,13,12		8,38
14″	20,35,26,14,31,14, 6,45,41,31		1,30,19,14, 6	
		1,58, 1,55,19, 2,59, 6		8,38
16″	20,35,28,12,33, 9,25,48,40,37		1,30,19,22,44	
		1,58, 1,53,48,43,36,22		8,38
18″	20,35,30,10,35, 3,14,32,16,59		1,30,19,31,22	
		1,58, 1,52,18,24, 5, 0		8,38
20″	20,35,32, 8,36,55,32,56,21,59		1,30,19,40, 0	
		1,58, 1,50,48, 4,25, 0		8,38
22″	20,35,34, 6,38,46,21, 0,46,59		1,30,19,48,38	
		1,58, 1,49,17,44,36,22		8,38
24″	20,35,36, 4,40,35,38,45,23,21		1,30,19,57,16	
		1,58, 1,47,47,24,39, 6		8,38
26″	20,35,38, 2,42,23,26,10, 2,27		1,30,20, 5,54	
		1,58, 1,46,17, 4,33,12		8,38
28″	20,35,40, 0,44, 9,43,14,35,39		1,30,20,14,32	
		1,58, 1,44,46,44,18,40		8,38
30″	20,35,41,58,45,54,29,58,54,19		1,30,20,23,10	
		1,58, 1,43,16,23,55,30		8,38
32″	20,35,43,56,47,37,46,22,49,49		1,30,20,31,48	
		1,58, 1,41,46, 3,23,42		8,38
34″	20,35,45,54,49,19,32,26,13,31		1,30,20,40,26	
		1,58, 1,40,15,42,43,16		8,38
36″	20,35,47,52,50,59,48, 8,56,47		1,30,20,49, 4	
		1,58, 1,38,45,21,54,12		8,38
38″	20,35,49,50,52,38,33,30,50,59		1,30,20,57,42	
		1,58, 1,37,15, 0,56,30		8,38
40″	20,35,51,48,54,15,48,31,47,29		1,30,21, 6,20	
		1,58, 1,35,44,39,50,10		8,38
42″	20,35,53,46,55,51,33,11,37,39		1,30,21,14,58	
		1,58, 1,34,14,18,35,12		8,38
44″	20,35,55,44,57,25,47,30,12,51		1,30,21,23,36	
		1,58, 1,32,43,57,11,36		8,38
46″	20,35,57,42,58,58,31,27,24,27		1,30,21,32,14	
		1,58, 1,31,13,35,39,22		8,38
48″	20,35,59,41, 0,29,45, 3, 3,49		1,30,21,40,52	
		1,58, 1,29,43,13,58,30		8,38
50″	20,36, 1,39, 1,59,28,17, 2,19		1,30,21,49,30	
		1,58, 1,28,12,52, 9, 0		8,38
52″	20,36, 3,37, 3,27,41, 9,11,19		1,30,21,58, 8	
		1,58, 1,26,42,30,10,52		8,38
54″	20,36, 5,35, 4,54,23,39,22,11		1,30,22, 6,46	
		1,58, 1,25,12, 8, 4, 6		8,38
56″	20,36, 7,33, 6,19,35,47,26,17		1,30,22,15,24	
		1,58, 1,23,41,45,48,42		8,38
58″	20,36, 9,31, 7,43,17,33,14,59		1,30,22,24, 2	
		1,58, 1,22,11,23,24,40		
60″	20,36,11,29, 9, 5,28,56,39,39			
exact	20,36,11,29, 9, 5,28,56,54,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20° 5′ 0″	20,36,11,29, 9, 5,28,56,54,12			
		1,58, 1,20,41, 0,53,41		
2″	20,36,13,27,10,26, 9,57,47,53		1,30,22,41,10	
		1,58, 1,19,10,38,12,31		8,38
4″	20,36,15,25,11,45,20,36, 0,24		1,30,22,49,48	
		1,58, 1,17,40,15,22,43		8,38
6″	20,36,17,23,13, 3, 0,51,23, 7		1,30,22,58,26	
		1,58, 1,16, 9,52,24,17		8,38
8″	20,36,19,21,14,19,10,43,47,24		1,30,23, 7, 4	
		1,58, 1,14,39,29,17,13		8,38
10″	20,36,21,19,15,33,50,13, 4,37		1,30,23,15,42	
		1,58, 1,13, 9, 6, 1,31		8,38
12″	20,36,23,17,16,46,59,19, 6, 8		1,30,23,24,20	
		1,58, 1,11,38,42,37,11		8,38
14″	20,36,25,15,17,58,38, 1,43,19		1,30,23,32,58	
		1,58, 1,10, 8,19, 4,13		8,38
16″	20,36,27,13,19, 8,46,20,47,32		1,30,23,41,36	
		1,58, 1, 8,37,55,22,37		8,38
18″	20,36,29,11,20,17,24,16,10, 9		1,30,23,50,14	
		1,58, 1, 7, 7,31,32,23		8,38
20″	20,36,31, 9,21,24,31,47,42,32		1,30,23,58,52	
		1,58, 1, 5,37, 7,33,31		8,38
22″	20,36,33, 7,22,30, 8,55,16, 3		1,30,24, 7,30	
		1,58, 1, 4, 6,43,26, 1		8,38
24″	20,36,35, 5,23,34,15,38,42, 4		1,30,24,16, 8	
		1,58, 1, 2,36,19, 9,53		8,38
26″	20,36,37, 3,24,36,51,57,51,57		1,30,24,24,46	
		1,58, 1, 1, 5,54,45, 7		8,38
28″	20,36,39, 1,25,37,57,52,37, 4		1,30,24,33,24	
		1,58, 0,59,35,30,11,43		8,38
30″	20,36,40,59,26,37,33,22,48,47		1,30,24,42, 2	
		1,58, 0,58, 5, 5,29,41		8,38
32″	20,36,42,57,27,35,38,28,18,28		1,30,24,50,40	
		1,58, 0,56,34,40,39, 1		8,38
34″	20,36,44,55,28,32,13, 8,57,29		1,30,24,59,18	
		1,58, 0,55, 4,15,39,43		8,38
36″	20,36,46,53,29,27,17,24,37,12		1,30,25, 7,56	
		1,58, 0,53,33,50,31,47		8,38
38″	20,36,48,51,30,20,51,15, 8,59		1,30,25,16,34	
		1,58, 0,52, 3,25,15,13		8,38
40″	20,36,50,49,31,12,54,40,24,12		1,30,25,25,12	
		1,58, 0,50,32,59,50, 1		8,38
42″	20,36,52,47,32, 3,27,40,14,13		1,30,25,33,50	
		1,58, 0,49, 2,34,16,11		8,38
44″	20,36,54,45,32,52,30,14,30,24		1,30,25,42,28	
		1,58, 0,47,32, 8,33,43		8,38
46″	20,36,56,43,33,40, 2,23, 4, 7		1,30,25,51, 6	
		1,58, 0,46, 1,42,42,37		8,38
48″	20,36,58,41,34,26, 4, 5,46,44		1,30,25,59,44	
		1,58, 0,44,31,16,42,53		8,38
50″	20,37, 0,39,35,10,35,22,29,37		1,30,26, 8,22	
		1,58, 0,43, 0,50,34,31		8,38
52″	20,37, 2,37,35,53,36,13, 4, 8		1,30,26,17, 0	
		1,58, 0,41,30,24,17,31		8,38
54″	20,37, 4,35,36,35, 6,37,21,39		1,30,26,25,38	
		1,58, 0,39,59,57,51,53		8,38
56″	20,37, 6,33,37,15, 6,35,13,32		1,30,26,34,16	
		1,58, 0,38,29,31,17,37		8,38
58″	20,37, 8,31,37,53,36, 6,31, 9		1,30,26,42,54	
		1,58, 0,36,59, 4,34,43		
60″	20,37,10,29,38,30,35,11, 5,52			
exact	20,37,10,29,38,30,35,11,24,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20° 6′ 0″	20,37,10,29,38,30,35,11,24,39			
		1,58, 0,35,28,37,45,19		
2″	20,37,12,27,39, 6, 3,49, 9,58		1,30,27, 0, 1	
		1,58, 0,33,58,10,45,18		8,38
4″	20,37,14,25,39,40, 1,59,55,16		1,30,27, 8,39	
		1,58, 0,32,27,43,36,39		8,38
6″	20,37,16,23,40,12,29,43,31,55		1,30,27,17,17	
		1,58, 0,30,57,16,19,22		8,38
8″	20,37,18,21,40,43,26,59,51,17		1,30,27,25,55	
		1,58, 0,29,26,48,53,27		8,38
10″	20,37,20,19,41,12,53,48,44,44		1,30,27,34,33	
		1,58, 0,27,56,21,18,54		8,38
12″	20,37,22,17,41,40,50,10, 3,38		1,30,27,43,11	
		1,58, 0,26,25,53,35,43		8,38
14″	20,37,24,15,42, 7,16, 3,39,21		1,30,27,51,49	
		1,58, 0,24,55,25,43,54		8,38
16″	20,37,26,13,42,32,11,29,23,15		1,30,28, 0,27	
		1,58, 0,23,24,57,43,27		8,38
18″	20,37,28,11,42,55,36,27, 6,42		1,30,28, 9, 5	
		1,58, 0,21,54,29,34,22		8,38
20″	20,37,30, 9,43,17,30,56,41, 4		1,30,28,17,43	
		1,58, 0,20,24, 1,16,39		8,38
22″	20,37,32, 7,43,37,54,57,57,43		1,30,28,26,21	
		1,58, 0,18,53,32,50,18		8,38
24″	20,37,34, 5,43,56,48,30,48, 1		1,30,28,34,59	
		1,58, 0,17,23, 4,15,19		8,38
26″	20,37,36, 3,44,14,11,35, 3,20		1,30,28,43,37	
		1,58, 0,15,52,35,31,42		8,38
28″	20,37,38, 1,44,30, 4,10,35, 2		1,30,28,52,15	
		1,58, 0,14,22, 6,39,27		8,38
30″	20,37,39,59,44,44,26,17,14,29		1,30,29, 0,53	
		1,58, 0,12,51,37,38,34		8,38
32″	20,37,41,57,44,57,17,54,53, 3		1,30,29, 9,31	
		1,58, 0,11,21, 8,29, 3		8,38
34″	20,37,43,55,45, 8,39, 3,22, 6		1,30,29,18, 9	
		1,58, 0, 9,50,39,10,54		8,38
36″	20,37,45,53,45,18,29,42,33, 0		1,30,29,26,47	
		1,58, 0, 8,20, 9,44, 7		8,38
38″	20,37,47,51,45,26,49,52,17, 7		1,30,29,35,25	
		1,58, 0, 6,49,40, 8,42		8,38
40″	20,37,49,49,45,33,39,32,25,49		1,30,29,44, 3	
		1,58, 0, 5,19,10,24,39		8,38
42″	20,37,51,47,45,38,58,42,50,28		1,30,29,52,41	
		1,58, 0, 3,48,40,31,58		8,38
44″	20,37,53,45,45,42,47,23,22,26		1,30,30, 1,19	
		1,58, 0, 2,18,10,30,39		8,38
46″	20,37,55,43,45,45, 5,33,53, 5		1,30,30, 9,57	
		1,58, 0, 0,47,40,20,42		8,38
48″	20,37,57,41,45,45,53,14,13,47		1,30,30,18,35	
		1,57,59,59,17,10, 2, 7		8,38
50″	20,37,59,39,45,45,10,24,15,54		1,30,30,27,13	
		1,57,59,57,46,39,34,54		8,38
52″	20,38, 1,37,45,42,57, 3,50,48		1,30,30,35,51	
		1,57,59,56,16, 8,59, 3		8,38
54″	20,38, 3,35,45,39,13,12,49,51		1,30,30,44,29	
		1,57,59,54,45,38,14,34		8,38
56″	20,38, 5,33,45,33,58,51, 4,25		1,30,30,53, 7	
		1,57,59,53,15, 7,21,27		8,38
58″	20,38, 7,31,45,27,13,58,25,52		1,30,31, 1,45	
		1,57,59,51,44,36,19,42		
60″	20,38, 9,29,45,18,58,34,45,34			
exact	20,38, 9,29,45,18,58,35,12,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20° 7′ 0″	20,38, 9,29,45,18,58,35,12,57			
		1,57,59,50,14, 5,12,11		
2″	20,38,11,27,45, 9,12,40,25, 8		1,30,31,18,49	
		1,57,59,48,43,33,53,22		8,38
4″	20,38,13,25,44,57,56,14,18,30		1,30,31,27,27	
		1,57,59,47,13, 2,25,55		8,38
6″	20,38,15,23,44,45, 9,16,44,25		1,30,31,36, 5	
		1,57,59,45,42,30,49,50		8,38
8″	20,38,17,21,44,30,51,47,34,15		1,30,31,44,43	
		1,57,59,44,11,59, 5, 7		8,38
10″	20,38,19,19,44,15, 3,46,39,22		1,30,31,53,21	
		1,57,59,42,41,27,11,46		8,38
12″	20,38,21,17,43,57,45,13,51, 8		1,30,32, 1,59	
		1,57,59,41,10,55, 9,47		8,38
14″	20,38,23,15,43,38,56, 9, 0,55		1,30,32,10,37	
		1,57,59,39,40,22,59,10		8,38
16″	20,38,25,13,43,18,36,32, 0, 5		1,30,32,19,15	
		1,57,59,38, 9,50,39,55		8,38
18″	20,38,27,11,42,56,46,22,40, 0		1,30,32,27,53	
		1,57,59,36,39,18,12, 2		8,38
20″	20,38,29, 9,42,33,25,40,52, 2		1,30,32,36,31	
		1,57,59,35, 8,45,35,31		8,38
22″	20,38,31, 7,42, 8,34,26,27,33		1,30,32,45, 9	
		1,57,59,33,38,12,50,22		8,38
24″	20,38,33, 5,41,42,12,39,17,55		1,30,32,53,47	
		1,57,59,32, 7,39,56,35		8,38
26″	20,38,35, 3,41,14,20,19,14,30		1,30,33, 2,25	
		1,57,59,30,37, 6,54,10		8,38
28″	20,38,37, 1,40,44,57,26, 8,40		1,30,33,11, 3	
		1,57,59,29, 6,33,43, 7		8,38
30″	20,38,38,59,40,14, 3,59,51,47		1,30,33,19,41	
		1,57,59,27,36, 0,23,26		8,38
32″	20,38,40,57,39,41,40, 0,15,13		1,30,33,28,19	
		1,57,59,26, 5,26,55, 7		8,38
34″	20,38,42,55,39, 7,45,27,10,20		1,30,33,36,57	
		1,57,59,24,34,53,18,10		8,38
36″	20,38,44,53,38,32,20,20,28,30		1,30,33,45,35	
		1,57,59,23, 4,19,32,35		8,38
38″	20,38,46,51,37,55,24,40, 1, 5		1,30,33,54,13	
		1,57,59,21,33,45,38,22		8,38
40″	20,38,48,49,37,16,58,25,39,27		1,30,34, 2,51	
		1,57,59,20, 3,11,35,31		8,38
42″	20,38,50,47,36,37, 1,37,14,58		1,30,34,11,29	
		1,57,59,18,32,37,24, 2		8,38
44″	20,38,52,45,35,55,34,14,39, 0		1,30,34,20, 7	
		1,57,59,17, 2, 3, 3,55		8,38
46″	20,38,54,43,35,12,36,17,42,55		1,30,34,28,45	
		1,57,59,15,31,28,35,10		8,38
48″	20,38,56,41,34,28, 7,46,18, 5		1,30,34,37,23	
		1,57,59,14, 0,53,57,47		8,38
50″	20,38,58,39,33,42, 8,40,15,52		1,30,34,46, 1	
		1,57,59,12,30,19,11,46		8,38
52″	20,39, 0,37,32,54,38,59,27,38		1,30,34,54,39	
		1,57,59,10,59,44,17, 7		8,38
54″	20,39, 2,35,32, 5,38,43,44,45		1,30,35, 3,17	
		1,57,59, 9,29, 9,13,50		8,38
56″	20,39, 4,33,31,15, 7,52,58,35		1,30,35,11,55	
		1,57,59, 7,58,34, 1,55		8,38
58″	20,39, 6,31,30,23, 6,27, 0,30		1,30,35,20,33	
		1,57,59, 6,27,58,41,22		
60″	20,39, 8,29,29,29,34,25,41,52			
exact	20,39, 8,29,29,29,34,26, 8,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20° 8′ 0″	20,39, 8,29,29,29,34,26, 8,58			
		1,57,59, 4,57,23,15,10		
2″	20,39,10,27,28,34,31,49,24, 8		1,30,35,37,36	
		1,57,59, 3,26,47,37,34		8,38
4″	20,39,12,25,27,37,58,37, 1,42		1,30,35,46,14	
		1,57,59, 1,56,11,51,20		8,38
6″	20,39,14,23,26,39,54,48,53, 2		1,30,35,54,52	
		1,57,59, 0,25,35,56,28		8,38
8″	20,39,16,21,25,40,20,24,49,30		1,30,36, 3,30	
		1,57,58,58,54,59,52,58		8,38
10″	20,39,18,19,24,39,15,24,42,28		1,30,36,12, 8	
		1,57,58,57,24,23,40,50		8,38
12″	20,39,20,17,23,36,39,48,23,18		1,30,36,20,46	
		1,57,58,55,53,47,20, 4		8,38
14″	20,39,22,15,22,32,33,35,43,22		1,30,36,29,24	
		1,57,58,54,23,10,50,40		8,38
16″	20,39,24,13,21,26,56,46,34, 2		1,30,36,38, 2	
		1,57,58,52,52,34,12,38		8,38
18″	20,39,26,11,20,19,49,20,46,40		1,30,36,46,40	
		1,57,58,51,21,57,25,58		8,38
20″	20,39,28, 9,19,11,11,18,12,38		1,30,36,55,18	
		1,57,58,49,51,20,30,40		8,38
22″	20,39,30, 7,18, 1, 2,38,43,18		1,30,37, 3,56	
		1,57,58,48,20,43,26,44		8,38
24″	20,39,32, 5,16,49,23,22,10, 2		1,30,37,12,34	
		1,57,58,46,50, 6,14,10		8,38
26″	20,39,34, 3,15,36,13,28,24,12		1,30,37,21,12	
		1,57,58,45,19,28,52,58		8,38
28″	20,39,36, 1,14,21,32,57,17,10		1,30,37,29,50	
		1,57,58,43,48,51,23, 8		8,38
30″	20,39,37,59,13, 5,21,48,40,18		1,30,37,38,28	
		1,57,58,42,18,13,44,40		8,38
32″	20,39,39,57,11,47,40, 2,24,58		1,30,37,47, 6	
		1,57,58,40,47,35,57,34		8,38
34″	20,39,41,55,10,28,27,38,22,32		1,30,37,55,44	
		1,57,58,39,16,58, 1,50		8,38
36″	20,39,43,53, 9, 7,44,36,24,22		1,30,38, 4,22	
		1,57,58,37,46,19,57,28		8,38
38″	20,39,45,51, 7,45,30,56,21,50		1,30,38,13, 0	
		1,57,58,36,15,41,44,28		8,38
40″	20,39,47,49, 6,21,46,38, 6,18		1,30,38,21,38	
		1,57,58,34,45, 3,22,50		8,38
42″	20,39,49,47, 4,56,31,41,29, 8		1,30,38,30,16	
		1,57,58,33,14,24,52,34		8,38
44″	20,39,51,45, 3,29,46, 6,21,42		1,30,38,38,54	
		1,57,58,31,43,46,13,40		8,38
46″	20,39,53,43, 2, 1,29,52,35,22		1,30,38,47,32	
		1,57,58,30,13, 7,26, 8		8,38
48″	20,39,55,41, 0,31,43, 0, 1,30		1,30,38,56,10	
		1,57,58,28,42,28,29,58		8,38
50″	20,39,57,38,59, 0,25,28,31,28		1,30,39, 4,48	
		1,57,58,27,11,49,25,10		8,38
52″	20,39,59,36,57,27,37,17,56,38		1,30,39,13,26	
		1,57,58,25,41,10,11,44		8,38
54″	20,40, 1,34,55,53,18,28, 8,22		1,30,39,22, 4	
		1,57,58,24,10,30,49,40		8,38
56″	20,40, 3,32,54,17,28,58,58, 2		1,30,39,30,42	
		1,57,58,22,39,51,18,58		8,38
58″	20,40, 5,30,52,40, 8,50,17, 0		1,30,39,39,20	
		1,57,58,21, 9,11,39,38		
60″	20,40, 7,28,51, 1,18, 1,56,38			
exact	20,40, 7,28,51, 1,18, 2,27,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20° 9′ 0″	20,40, 7,28,51, 1,18, 2,27,22			
		1,57,58,19,38,31,55, 3		
2″	20,40, 9,26,49,20,56,34,22,25		1,30,39,56,21	
		1,57,58,18, 7,51,58,42		8,37
4″	20,40,11,24,47,39, 4,26,21, 7		1,30,40, 4,58	
		1,57,58,16,37,11,53,44		8,37
6″	20,40,13,22,45,55,41,38,14,51		1,30,40,13,35	
		1,57,58,15, 6,31,40, 9		8,37
8″	20,40,15,20,44,10,48, 9,55, 0		1,30,40,22,12	
		1,57,58,13,35,51,17,57		8,37
10″	20,40,17,18,42,24,24, 1,12,57		1,30,40,30,49	
		1,57,58,12, 5,10,47, 8		8,37
12″	20,40,19,16,40,36,29,12, 0, 5		1,30,40,39,26	
		1,57,58,10,34,30, 7,42		8,37
14″	20,40,21,14,38,47, 3,42, 7,47		1,30,40,48, 3	
		1,57,58, 9, 3,49,19,39		8,37
16″	20,40,23,12,36,56, 7,31,27,26		1,30,40,56,40	
		1,57,58, 7,33, 8,22,59		8,37
18″	20,40,25,10,35, 3,40,39,50,25		1,30,41, 5,17	
		1,57,58, 6, 2,27,17,42		8,37
20″	20,40,27, 8,33, 9,43, 7, 8, 7		1,30,41,13,54	
		1,57,58, 4,31,46, 3,48		8,37
22″	20,40,29, 6,31,14,14,53,11,55		1,30,41,22,31	
		1,57,58, 3, 1, 4,41,17		8,37
24″	20,40,31, 4,29,17,15,57,53,12		1,30,41,31, 8	
		1,57,58, 1,30,23,10, 9		8,37
26″	20,40,33, 2,27,18,46,21, 3,21		1,30,41,39,45	
		1,57,57,59,59,41,30,24		8,37
28″	20,40,35, 0,25,18,46, 2,33,45		1,30,41,48,22	
		1,57,57,58,28,59,42, 2		8,37
30″	20,40,36,58,23,17,15, 2,15,47		1,30,41,56,59	
		1,57,57,56,58,17,45, 3		8,37
32″	20,40,38,56,21,14,13,20, 0,50		1,30,42, 5,36	
		1,57,57,55,27,35,39,27		8,37
34″	20,40,40,54,19, 9,40,55,40,17		1,30,42,14,13	
		1,57,57,53,56,53,25,14		8,37
36″	20,40,42,52,17, 3,37,49, 5,31		1,30,42,22,50	
		1,57,57,52,26,11, 2,24		8,37
38″	20,40,44,50,14,56, 4, 0, 7,55		1,30,42,31,27	
		1,57,57,50,55,28,30,57		8,37
40″	20,40,46,48,12,46,59,28,38,52		1,30,42,40, 4	
		1,57,57,49,24,45,50,53		8,37
42″	20,40,48,46,10,36,24,14,29,45		1,30,42,48,41	
		1,57,57,47,54, 3, 2,12		8,37
44″	20,40,50,44, 8,24,18,17,31,57		1,30,42,57,18	
		1,57,57,46,23,20, 4,54		8,37
46″	20,40,52,42, 6,10,41,37,36,51		1,30,43, 5,55	
		1,57,57,44,52,36,58,59		8,37
48″	20,40,54,40, 3,55,34,14,35,50		1,30,43,14,32	
		1,57,57,43,21,53,44,27		8,37
50″	20,40,56,38, 1,38,56, 8,20,17		1,30,43,23, 9	
		1,57,57,41,51,10,21,18		8,37
52″	20,40,58,35,59,20,47,18,41,35		1,30,43,31,46	
		1,57,57,40,20,26,49,32		8,37
54″	20,41, 0,33,57, 1, 7,45,31, 7		1,30,43,40,23	
		1,57,57,38,49,43, 9, 9		8,37
56″	20,41, 2,31,54,39,57,28,40,16		1,30,43,49, 0	
		1,57,57,37,18,59,20, 9		8,37
58″	20,41, 4,29,52,17,16,28, 0,25		1,30,43,57,37	
		1,57,57,35,48,15,22,32		
60″	20,41, 6,27,49,53, 4,43,22,57			
exact	20,41, 6,27,49,53, 4,42,47,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°10′ 0″	20,41, 6,27,49,53, 4,42,47,42			
		1,57,57,34,17,31,12,41		
2″	20,41, 8,25,47,27,22,14, 0,23		1,30,44,15, 5	
		1,57,57,32,46,46,57,36		8,37
4″	20,41,10,23,45, 0, 9, 0,57,59		1,30,44,23,42	
		1,57,57,31,16, 2,33,54		8,37
6″	20,41,12,21,42,31,25, 3,31,53		1,30,44,32,19	
		1,57,57,29,45,18, 1,35		8,37
8″	20,41,14,19,40, 1,10,21,33,28		1,30,44,40,56	
		1,57,57,28,14,33,20,39		8,37
10″	20,41,16,17,37,29,24,54,54, 7		1,30,44,49,33	
		1,57,57,26,43,48,31, 6		8,37
12″	20,41,18,15,34,56, 8,43,25,13		1,30,44,58,10	
		1,57,57,25,13, 3,32,56		8,37
14″	20,41,20,13,32,21,21,46,58, 9		1,30,45, 6,47	
		1,57,57,23,42,18,26, 9		8,37
16″	20,41,22,11,29,45, 4, 5,24,18		1,30,45,15,24	
		1,57,57,22,11,33,10,45		8,37
18″	20,41,24, 9,27, 7,15,38,35, 3		1,30,45,24, 1	
		1,57,57,20,40,47,46,44		8,37
20″	20,41,26, 7,24,27,56,26,21,47		1,30,45,32,38	
		1,57,57,19,10, 2,14, 6		8,37
22″	20,41,28, 5,21,47, 6,28,35,53		1,30,45,41,15	
		1,57,57,17,39,16,32,51		8,37
24″	20,41,30, 3,19, 4,45,45, 8,44		1,30,45,49,52	
		1,57,57,16, 8,30,42,59		8,37
26″	20,41,32, 1,16,20,54,15,51,43		1,30,45,58,29	
		1,57,57,14,37,44,44,30		8,37
28″	20,41,33,59,13,35,32, 0,36,13		1,30,46, 7, 6	
		1,57,57,13, 6,58,37,24		8,37
30″	20,41,35,57,10,48,38,59,13,37		1,30,46,15,43	
		1,57,57,11,36,12,21,41		8,37
32″	20,41,37,55, 8, 0,15,11,35,18		1,30,46,24,20	
		1,57,57,10, 5,25,57,21		8,37
34″	20,41,39,53, 5,10,20,37,32,39		1,30,46,32,57	
		1,57,57, 8,34,39,24,24		8,37
36″	20,41,41,51, 2,18,55,16,57, 3		1,30,46,41,34	
		1,57,57, 7, 3,52,42,50		8,37
38″	20,41,43,48,59,25,59, 9,39,53		1,30,46,50,11	
		1,57,57, 5,33, 5,52,39		8,37
40″	20,41,45,46,56,31,32,15,32,32		1,30,46,58,48	
		1,57,57, 4, 2,18,53,51		8,37
42″	20,41,47,44,53,35,34,34,26,23		1,30,47, 7,25	
		1,57,57, 2,31,31,46,26		8,37
44″	20,41,49,42,50,38, 6, 6,12,49		1,30,47,16, 2	
		1,57,57, 1, 0,44,30,24		8,37
46″	20,41,51,40,47,39, 6,50,43,13		1,30,47,24,39	
		1,57,56,59,29,57, 5,45		8,37
48″	20,41,53,38,44,38,36,47,48,58		1,30,47,33,16	
		1,57,56,57,59, 9,32,29		8,37
50″	20,41,55,36,41,36,35,57,21,27		1,30,47,41,53	
		1,57,56,56,28,21,50,36		8,37
52″	20,41,57,34,38,33, 4,19,12, 3		1,30,47,50,30	
		1,57,56,54,57,34, 0, 6		8,37
54″	20,41,59,32,35,28, 1,53,12, 9		1,30,47,59, 7	
		1,57,56,53,26,46, 0,59		8,37
56″	20,42, 1,30,32,21,28,39,13, 8		1,30,48, 7,44	
		1,57,56,51,55,57,53,15		8,37
58″	20,42, 3,28,29,13,24,37, 6,23		1,30,48,16,21	
		1,57,56,50,25, 9,36,54		
60″	20,42, 5,26,26, 3,49,46,43,17			
exact	20,42, 5,26,26, 3,49,46,14,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°11′ 0″	20,42, 5,26,26, 3,49,46,14,20			
		1,57,56,48,54,21, 8,54		
2″	20,42, 7,24,22,52,44, 7,23,14		1,30,48,33,47	
		1,57,56,47,23,32,35, 7		8,37
4″	20,42, 9,22,19,40, 7,39,58,21		1,30,48,42,24	
		1,57,56,45,52,43,52,43		8,37
6″	20,42,11,20,16,26, 0,23,51, 4		1,30,48,51, 1	
		1,57,56,44,21,55, 1,42		8,37
8″	20,42,13,18,13,10,22,18,52,46		1,30,48,59,38	
		1,57,56,42,51, 6, 2, 4		8,37
10″	20,42,15,16, 9,53,13,24,54,50		1,30,49, 8,15	
		1,57,56,41,20,16,53,49		8,37
12″	20,42,17,14, 6,34,33,41,48,39		1,30,49,16,52	
		1,57,56,39,49,27,36,57		8,37
14″	20,42,19,12, 3,14,23, 9,25,36		1,30,49,25,29	
		1,57,56,38,18,38,11,28		8,37
16″	20,42,21, 9,59,52,41,47,37, 4		1,30,49,34, 6	
		1,57,56,36,47,48,37,22		8,37
18″	20,42,23, 7,56,29,29,36,14,26		1,30,49,42,43	
		1,57,56,35,16,58,54,39		8,37
20″	20,42,25, 5,53, 4,46,35, 9, 5		1,30,49,51,20	
		1,57,56,33,46, 9, 3,19		8,37
22″	20,42,27, 3,49,38,32,44,12,24		1,30,49,59,57	
		1,57,56,32,15,19, 3,22		8,37
24″	20,42,29, 1,46,10,48, 3,15,46		1,30,50, 8,34	
		1,57,56,30,44,28,54,48		8,37
26″	20,42,30,59,42,41,32,32,10,34		1,30,50,17,11	
		1,57,56,29,13,38,37,37		8,37
28″	20,42,32,57,39,10,46,10,48,11		1,30,50,25,48	
		1,57,56,27,42,48,11,49		8,37
30″	20,42,34,55,35,38,28,59, 0, 0		1,30,50,34,25	
		1,57,56,26,11,57,37,24		8,37
32″	20,42,36,53,32, 4,40,56,37,24		1,30,50,43, 2	
		1,57,56,24,41, 6,54,22		8,37
34″	20,42,38,51,28,29,22, 3,31,46		1,30,50,51,39	
		1,57,56,23,10,16, 2,43		8,37
36″	20,42,40,49,24,52,32,19,34,29		1,30,51, 0,16	
		1,57,56,21,39,25, 2,27		8,37
38″	20,42,42,47,21,14,11,44,36,56		1,30,51, 8,53	
		1,57,56,20, 8,33,53,34		8,37
40″	20,42,44,45,17,34,20,18,30,30		1,30,51,17,30	
		1,57,56,18,37,42,36, 4		8,37
42″	20,42,46,43,13,52,58, 1, 6,34		1,30,51,26, 7	
		1,57,56,17, 6,51, 9,57		8,37
44″	20,42,48,41,10,10, 4,52,16,31		1,30,51,34,44	
		1,57,56,15,35,59,35,13		8,37
46″	20,42,50,39, 6,25,40,51,51,44		1,30,51,43,21	
		1,57,56,14, 5, 7,51,52		8,37
48″	20,42,52,37, 2,39,45,59,43,36		1,30,51,51,58	
		1,57,56,12,34,15,59,54		8,37
50″	20,42,54,34,58,52,20,15,43,30		1,30,52, 0,35	
		1,57,56,11, 3,23,59,19		8,37
52″	20,42,56,32,55, 3,23,39,42,49		1,30,52, 9,12	
		1,57,56, 9,32,31,50, 7		8,37
54″	20,42,58,30,51,12,56,11,32,56		1,30,52,17,49	
		1,57,56, 8, 1,39,32,18		8,37
56″	20,43, 0,28,47,20,57,51, 5,14		1,30,52,26,26	
		1,57,56, 6,30,47, 5,52		8,37
58″	20,43, 2,26,43,27,28,38,11, 6		1,30,52,35, 3	
		1,57,56, 4,59,54,30,49		
60″	20,43, 4,24,39,32,28,32,41,55			
exact	20,43, 4,24,39,32,28,32,16,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°12′ 0″	20,43, 4,24,39,32,28,32,16,32			
		1,57,56, 3,29, 1,44,31		
2″	20,43, 6,22,35,35,57,34, 1, 3		1,30,52,52,27	
		1,57,56, 1,58, 8,52, 4		8,37
4″	20,43, 8,20,31,37,55,42,53, 7		1,30,53, 1, 4	
		1,57,56, 0,27,15,51, 0		8,37
6″	20,43,10,18,27,38,22,58,44, 7		1,30,53, 9,41	
		1,57,55,58,56,22,41,19		8,37
8″	20,43,12,16,23,37,19,21,25,26		1,30,53,18,18	
		1,57,55,57,25,29,23, 1		8,37
10″	20,43,14,14,19,34,44,50,48,27		1,30,53,26,55	
		1,57,55,55,54,35,56, 6		8,37
12″	20,43,16,12,15,30,39,26,44,33		1,30,53,35,32	
		1,57,55,54,23,42,20,34		8,37
14″	20,43,18,10,11,25, 3, 9, 5, 7		1,30,53,44, 9	
		1,57,55,52,52,48,36,25		8,37
16″	20,43,20, 8, 7,17,55,57,41,32		1,30,53,52,46	
		1,57,55,51,21,54,43,39		8,37
18″	20,43,22, 6, 3, 9,17,52,25,11		1,30,54, 1,23	
		1,57,55,49,51, 0,42,16		8,37
20″	20,43,24, 3,58,59, 8,53, 7,27		1,30,54,10, 0	
		1,57,55,48,20, 6,32,16		8,37
22″	20,43,26, 1,54,47,28,59,39,43		1,30,54,18,37	
		1,57,55,46,49,12,13,39		8,37
24″	20,43,27,59,50,34,18,11,53,22		1,30,54,27,14	
		1,57,55,45,18,17,46,25		8,37
26″	20,43,29,57,46,19,36,29,39,47		1,30,54,35,51	
		1,57,55,43,47,23,10,34		8,37
28″	20,43,31,55,42, 3,23,52,50,21		1,30,54,44,28	
		1,57,55,42,16,28,26, 6		8,37
30″	20,43,33,53,37,45,40,21,16,27		1,30,54,53, 5	
		1,57,55,40,45,33,33, 1		8,37
32″	20,43,35,51,33,26,25,54,49,28		1,30,55, 1,42	
		1,57,55,39,14,38,31,19		8,37
34″	20,43,37,49,29, 5,40,33,20,47		1,30,55,10,19	
		1,57,55,37,43,43,21, 0		8,37
36″	20,43,39,47,24,43,24,16,41,47		1,30,55,18,56	
		1,57,55,36,12,48, 2, 4		8,37
38″	20,43,41,45,20,19,37, 4,43,51		1,30,55,27,33	
		1,57,55,34,41,52,34,31		8,37
40″	20,43,43,43,15,54,18,57,18,22		1,30,55,36,10	
		1,57,55,33,10,56,58,21		8,37
42″	20,43,45,41,11,27,29,54,16,43		1,30,55,44,47	
		1,57,55,31,40, 1,13,34		8,37
44″	20,43,47,39, 6,59, 9,55,30,17		1,30,55,53,24	
		1,57,55,30, 9, 5,20,10		8,37
46″	20,43,49,37, 2,29,19, 0,50,27		1,30,56, 2, 1	
		1,57,55,28,38, 9,18, 9		8,37
48″	20,43,51,34,57,57,57,10, 8,36		1,30,56,10,38	
		1,57,55,27, 7,13, 7,31		8,37
50″	20,43,53,32,53,25, 4,23,16, 7		1,30,56,19,15	
		1,57,55,25,36,16,48,16		8,37
52″	20,43,55,30,48,50,40,40, 4,23		1,30,56,27,52	
		1,57,55,24, 5,20,20,24		8,37
54″	20,43,57,28,44,14,46, 0,24,47		1,30,56,36,29	
		1,57,55,22,34,23,43,55		8,37
56″	20,43,59,26,39,37,20,24, 8,42		1,30,56,45, 6	
		1,57,55,21, 3,26,58,49		8,37
58″	20,44, 1,24,34,58,23,51, 7,31		1,30,56,53,43	
		1,57,55,19,32,30, 5, 6		
60″	20,44, 3,22,30,17,56,21,12,37			
exact	20,44, 3,22,30,17,56,20,48,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°13′ 0″	20,44, 3,22,30,17,56,20,48,28			
		1,57,55,18, 1,33, 0,21		
2″	20,44, 5,20,25,35,57,53,48,49		1,30,57,11, 6	
		1,57,55,16,30,35,49,15		8,37
4″	20,44, 7,18,20,52,28,29,38, 4		1,30,57,19,43	
		1,57,55,14,59,38,29,32		8,37
6″	20,44, 9,16,16, 7,28, 8, 7,36		1,30,57,28,20	
		1,57,55,13,28,41, 1,12		8,37
8″	20,44,11,14,11,20,56,49, 8,48		1,30,57,36,57	
		1,57,55,11,57,43,24,15		8,37
10″	20,44,13,12, 6,32,54,32,33, 3		1,30,57,45,34	
		1,57,55,10,26,45,38,41		8,37
12″	20,44,15,10, 1,43,21,18,11,44		1,30,57,54,11	
		1,57,55, 8,55,47,44,30		8,37
14″	20,44,17, 7,56,52,17, 5,56,14		1,30,58, 2,48	
		1,57,55, 7,24,49,41,42		8,37
16″	20,44,19, 5,51,59,41,55,37,56		1,30,58,11,25	
		1,57,55, 5,53,51,30,17		8,37
18″	20,44,21, 3,47, 5,35,47, 8,13		1,30,58,20, 2	
		1,57,55, 4,22,53,10,15		8,37
20″	20,44,23, 1,42, 9,58,40,18,28		1,30,58,28,39	
		1,57,55, 2,51,54,41,36		8,37
22″	20,44,24,59,37,12,50,35, 0, 4		1,30,58,37,16	
		1,57,55, 1,20,56, 4,20		8,37
24″	20,44,26,57,32,14,11,31, 4,24		1,30,58,45,53	
		1,57,54,59,49,57,18,27		8,37
26″	20,44,28,55,27,14, 1,28,22,51		1,30,58,54,30	
		1,57,54,58,18,58,23,57		8,37
28″	20,44,30,53,22,12,20,26,46,48		1,30,59, 3, 7	
		1,57,54,56,47,59,20,50		8,37
30″	20,44,32,51,17, 9, 8,26, 7,38		1,30,59,11,44	
		1,57,54,55,17, 0, 9, 6		8,37
32″	20,44,34,49,12, 4,25,26,16,44		1,30,59,20,21	
		1,57,54,53,46, 0,48,45		8,37
34″	20,44,36,47, 6,58,11,27, 5,29		1,30,59,28,58	
		1,57,54,52,15, 1,19,47		8,37
36″	20,44,38,45, 1,50,26,28,25,16		1,30,59,37,35	
		1,57,54,50,44, 1,42,12		8,37
38″	20,44,40,42,56,41,10,30, 7,28		1,30,59,46,12	
		1,57,54,49,13, 1,56, 0		8,37
40″	20,44,42,40,51,30,23,32, 3,28		1,30,59,54,49	
		1,57,54,47,42, 2, 1,11		8,37
42″	20,44,44,38,46,18, 5,34, 4,39		1,31, 0, 3,26	
		1,57,54,46,11, 1,57,45		8,37
44″	20,44,46,36,41, 4,16,36, 2,24		1,31, 0,12, 3	
		1,57,54,44,40, 1,45,42		8,37
46″	20,44,48,34,35,48,56,37,48, 6		1,31, 0,20,40	
		1,57,54,43, 9, 1,25, 2		8,37
48″	20,44,50,32,30,32, 5,39,13, 8		1,31, 0,29,17	
		1,57,54,41,38, 0,55,45		8,37
50″	20,44,52,30,25,13,43,40, 8,53		1,31, 0,37,54	
		1,57,54,40, 7, 0,17,51		8,37
52″	20,44,54,28,19,53,50,40,26,44		1,31, 0,46,31	
		1,57,54,38,35,59,31,20		8,37
54″	20,44,56,26,14,32,26,39,58, 4		1,31, 0,55, 8	
		1,57,54,37, 4,58,36,12		8,37
56″	20,44,58,24, 9, 9,31,38,34,16		1,31, 1, 3,45	
		1,57,54,35,33,57,32,27		8,37
58″	20,45, 0,22, 3,45, 5,36, 6,43		1,31, 1,12,22	
		1,57,54,34, 2,56,20, 5		
60″	20,45, 2,19,58,19, 8,32,26,48			
exact	20,45, 2,19,58,19, 8,32, 9,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°14′ 0″	20,45, 2,19,58,19, 8,32, 9,10			
		1,57,54,32,31,54,57,16		
2″	20,45, 4,17,52,51,40,27, 6,26		1,31, 1,29,43	
		1,57,54,31, 0,53,27,33		8,37
4″	20,45, 6,15,47,22,41,20,33,59		1,31, 1,38,20	
		1,57,54,29,29,51,49,13		8,37
6″	20,45, 8,13,41,52,11,12,23,12		1,31, 1,46,57	
		1,57,54,27,58,50, 2,16		8,37
8″	20,45,10,11,36,20,10, 2,25,28		1,31, 1,55,34	
		1,57,54,26,27,48, 6,42		8,37
10″	20,45,12, 9,30,46,37,50,32,10		1,31, 2, 4,11	
		1,57,54,24,56,46, 2,31		8,37
12″	20,45,14, 7,25,11,34,36,34,41		1,31, 2,12,48	
		1,57,54,23,25,43,49,43		8,37
14″	20,45,16, 5,19,35, 0,20,24,24		1,31, 2,21,25	
		1,57,54,21,54,41,28,18		8,37
16″	20,45,18, 3,13,56,55, 1,52,42		1,31, 2,30, 2	
		1,57,54,20,23,38,58,16		8,37
18″	20,45,20, 1, 8,17,18,40,50,58		1,31, 2,38,39	
		1,57,54,18,52,36,19,37		8,37
20″	20,45,21,59, 2,36,11,17,10,35		1,31, 2,47,16	
		1,57,54,17,21,33,32,21		8,37
22″	20,45,23,56,56,53,32,50,42,56		1,31, 2,55,53	
		1,57,54,15,50,30,36,28		8,37
24″	20,45,25,54,51, 9,23,21,19,24		1,31, 3, 4,30	
		1,57,54,14,19,27,31,58		8,37
26″	20,45,27,52,45,23,42,48,51,22		1,31, 3,13, 7	
		1,57,54,12,48,24,18,51		8,37
28″	20,45,29,50,39,36,31,13,10,13		1,31, 3,21,44	
		1,57,54,11,17,20,57, 7		8,37
30″	20,45,31,48,33,47,48,34, 7,20		1,31, 3,30,21	
		1,57,54, 9,46,17,26,46		8,37
32″	20,45,33,46,27,57,34,51,34, 6		1,31, 3,38,58	
		1,57,54, 8,15,13,47,48		8,37
34″	20,45,35,44,22, 5,50, 5,21,54		1,31, 3,47,35	
		1,57,54, 6,44,10, 0,13		8,37
36″	20,45,37,42,16,12,34,15,22, 7		1,31, 3,56,12	
		1,57,54, 5,13, 6, 4, 1		8,37
38″	20,45,39,40,10,17,47,21,26, 8		1,31, 4, 4,49	
		1,57,54, 3,42, 1,59,12		8,37
40″	20,45,41,38, 4,21,29,23,25,20		1,31, 4,13,26	
		1,57,54, 2,10,57,45,46		8,37
42″	20,45,43,35,58,23,40,21,11, 6		1,31, 4,22, 3	
		1,57,54, 0,39,53,23,43		8,37
44″	20,45,45,33,52,24,20,14,34,49		1,31, 4,30,40	
		1,57,53,59, 8,48,53, 3		8,37
46″	20,45,47,31,46,23,29, 3,27,52		1,31, 4,39,17	
		1,57,53,57,37,44,13,46		8,37
48″	20,45,49,29,40,21, 6,47,41,38		1,31, 4,47,54	
		1,57,53,56, 6,39,25,52		8,37
50″	20,45,51,27,34,17,13,27, 7,30		1,31, 4,56,31	
		1,57,53,54,35,34,29,21		8,37
52″	20,45,53,25,28,11,49, 1,36,51		1,31, 5, 5, 8	
		1,57,53,53, 4,29,24,13		8,37
54″	20,45,55,23,22, 4,53,31, 1, 4		1,31, 5,13,45	
		1,57,53,51,33,24,10,28		8,37
56″	20,45,57,21,15,56,26,55,11,32		1,31, 5,22,22	
		1,57,53,50, 2,18,48, 6		8,37
58″	20,45,59,19, 9,46,29,13,59,38		1,31, 5,30,59	
		1,57,53,48,31,13,17, 7		
60″	20,46, 1,17, 3,35, 0,27,16,45			
exact	20,46, 1,17, 3,35, 0,27, 2,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°15′ 0″	20,46, 1,17, 3,35, 0,27, 2,40			
		1,57,53,47, 0, 7,36, 5		
2″	20,46, 3,14,57,22, 0,34,38,45		1,31, 5,48,19	
		1,57,53,45,29, 1,47,46		8,37
4″	20,46, 5,12,51, 7,29,36,26,31		1,31, 5,56,56	
		1,57,53,43,57,55,50,50		8,37
6″	20,46, 7,10,44,51,27,32,17,21		1,31, 6, 5,33	
		1,57,53,42,26,49,45,17		8,37
8″	20,46, 9, 8,38,33,54,22, 2,38		1,31, 6,14,10	
		1,57,53,40,55,43,31, 7		8,37
10″	20,46,11, 6,32,14,50, 5,33,45		1,31, 6,22,47	
		1,57,53,39,24,37, 8,20		8,37
12″	20,46,13, 4,25,54,14,42,42, 5		1,31, 6,31,24	
		1,57,53,37,53,30,36,56		8,37
14″	20,46,15, 2,19,32, 8,13,19, 1		1,31, 6,40, 1	
		1,57,53,36,22,23,56,55		8,37
16″	20,46,17, 0,13, 8,30,37,15,56		1,31, 6,48,38	
		1,57,53,34,51,17, 8,17		8,37
18″	20,46,18,58, 6,43,21,54,24,13		1,31, 6,57,15	
		1,57,53,33,20,10,11, 2		8,37
20″	20,46,20,56, 0,16,42, 4,35,15		1,31, 7, 5,52	
		1,57,53,31,49, 3, 5,10		8,37
22″	20,46,22,53,53,48,31, 7,40,25		1,31, 7,14,29	
		1,57,53,30,17,55,50,41		8,37
24″	20,46,24,51,47,18,49, 3,31, 6		1,31, 7,23, 6	
		1,57,53,28,46,48,27,35		8,37
26″	20,46,26,49,40,47,35,51,58,41		1,31, 7,31,43	
		1,57,53,27,15,40,55,52		8,37
28″	20,46,28,47,34,14,51,32,54,33		1,31, 7,40,20	
		1,57,53,25,44,33,15,32		8,37
30″	20,46,30,45,27,40,36, 6,10, 5		1,31, 7,48,57	
		1,57,53,24,13,25,26,35		8,37
32″	20,46,32,43,21, 4,49,31,36,40		1,31, 7,57,34	
		1,57,53,22,42,17,29, 1		8,37
34″	20,46,34,41,14,27,31,49, 5,41		1,31, 8, 6,11	
		1,57,53,21,11, 9,22,50		8,37
36″	20,46,36,39, 7,48,42,58,28,31		1,31, 8,14,48	
		1,57,53,19,40, 1, 8, 2		8,37
38″	20,46,38,37, 1, 8,22,59,36,33		1,31, 8,23,25	
		1,57,53,18, 8,52,44,37		8,37
40″	20,46,40,34,54,26,31,52,21,10		1,31, 8,32, 2	
		1,57,53,16,37,44,12,35		8,37
42″	20,46,42,32,47,43, 9,36,33,45		1,31, 8,40,39	
		1,57,53,15, 6,35,31,56		8,37
44″	20,46,44,30,40,58,16,12, 5,41		1,31, 8,49,16	
		1,57,53,13,35,26,42,40		8,37
46″	20,46,46,28,34,11,51,38,48,21		1,31, 8,57,53	
		1,57,53,12, 4,17,44,47		8,37
48″	20,46,48,26,27,23,55,56,33, 8		1,31, 9, 6,30	
		1,57,53,10,33, 8,38,17		8,37
50″	20,46,50,24,20,34,29, 5,11,25		1,31, 9,15, 7	
		1,57,53, 9, 1,59,23,10		8,37
52″	20,46,52,22,13,43,31, 4,34,35		1,31, 9,23,44	
		1,57,53, 7,30,49,59,26		8,37
54″	20,46,54,20, 6,51, 1,54,34, 1		1,31, 9,32,21	
		1,57,53, 5,59,40,27, 5		8,37
56″	20,46,56,17,59,57, 1,35, 1, 6		1,31, 9,40,58	
		1,57,53, 4,28,30,46, 7		8,37
58″	20,46,58,15,53, 1,30, 5,47,13		1,31, 9,49,35	
		1,57,53, 2,57,20,56,32		
60″	20,47, 0,13,46, 4,27,26,43,45			
exact	20,47, 0,13,46, 4,27,26,37,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°16′ 0″	20,47, 0,13,46, 4,27,26,37,54			
		1,57,53, 1,26,10,57,37		
2″	20,47, 2,11,39, 5,53,37,35,31		1,31,10, 6,52	
		1,57,52,59,55, 0,50,45		8,37
4″	20,47, 4, 9,32, 5,48,38,26,16		1,31,10,15,29	
		1,57,52,58,23,50,35,16		8,37
6″	20,47, 6, 7,25, 4,12,29, 1,32		1,31,10,24, 6	
		1,57,52,56,52,40,11,10		8,37
8″	20,47, 8, 5,18, 1, 5, 9,12,42		1,31,10,32,43	
		1,57,52,55,21,29,38,27		8,37
10″	20,47,10, 3,10,56,26,38,51, 9		1,31,10,41,20	
		1,57,52,53,50,18,57, 7		8,37
12″	20,47,12, 1, 3,50,16,57,48,16		1,31,10,49,57	
		1,57,52,52,19, 8, 7,10		8,37
14″	20,47,13,58,56,42,36, 5,55,26		1,31,10,58,34	
		1,57,52,50,47,57, 8,36		8,37
16″	20,47,15,56,49,33,24, 3, 4, 2		1,31,11, 7,11	
		1,57,52,49,16,46, 1,25		8,37
18″	20,47,17,54,42,22,40,49, 5,27		1,31,11,15,48	
		1,57,52,47,45,34,45,37		8,37
20″	20,47,19,52,35,10,26,23,51, 4		1,31,11,24,25	
		1,57,52,46,14,23,21,12		8,37
22″	20,47,21,50,27,56,40,47,12,16		1,31,11,33, 2	
		1,57,52,44,43,11,48,10		8,37
24″	20,47,23,48,20,41,23,59, 0,26		1,31,11,41,39	
		1,57,52,43,12, 0, 6,31		8,37
26″	20,47,25,46,13,24,35,59, 6,57		1,31,11,50,16	
		1,57,52,41,40,48,16,15		8,37
28″	20,47,27,44, 6, 6,16,47,23,12		1,31,11,58,53	
		1,57,52,40, 9,36,17,22		8,37
30″	20,47,29,41,58,46,26,23,40,34		1,31,12, 7,30	
		1,57,52,38,38,24, 9,52		8,37
32″	20,47,31,39,51,25, 4,47,50,26		1,31,12,16, 7	
		1,57,52,37, 7,11,53,45		8,37
34″	20,47,33,37,44, 2,11,59,44,11		1,31,12,24,44	
		1,57,52,35,35,59,29, 1		8,37
36″	20,47,35,35,36,37,47,59,13,12		1,31,12,33,21	
		1,57,52,34, 4,46,55,40		8,37
38″	20,47,37,33,29,11,52,46, 8,52		1,31,12,41,58	
		1,57,52,32,33,34,13,42		8,37
40″	20,47,39,31,21,44,26,20,22,34		1,31,12,50,35	
		1,57,52,31, 2,21,23, 7		8,37
42″	20,47,41,29,14,15,28,41,45,41		1,31,12,59,12	
		1,57,52,29,31, 8,23,55		8,37
44″	20,47,43,27, 6,44,59,50, 9,36		1,31,13, 7,49	
		1,57,52,27,59,55,16, 6		8,37
46″	20,47,45,24,59,12,59,45,25,42		1,31,13,16,26	
		1,57,52,26,28,41,59,40		8,37
48″	20,47,47,22,51,39,28,27,25,22		1,31,13,25, 3	
		1,57,52,24,57,28,34,37		8,37
50″	20,47,49,20,44, 4,25,55,59,59		1,31,13,33,40	
		1,57,52,23,26,15, 0,57		8,37
52″	20,47,51,18,36,27,52,11, 0,56		1,31,13,42,17	
		1,57,52,21,55, 1,18,40		8,37
54″	20,47,53,16,28,49,47,12,19,36		1,31,13,50,54	
		1,57,52,20,23,47,27,46		8,37
56″	20,47,55,14,21,10,10,59,47,22		1,31,13,59,31	
		1,57,52,18,52,33,28,15		8,37
58″	20,47,57,12,13,29, 3,33,15,37		1,31,14, 8, 8	
		1,57,52,17,21,19,20, 7		
60″	20,47,59,10, 5,46,24,52,35,44			
exact	20,47,59,10, 5,46,24,52,28,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°17′ 0″	20,47,59,10, 5,46,24,52,28,49			
		1,57,52,15,50, 5, 2,43		
2″	20,48, 1, 7,58, 2,14,57,31,32		1,31,14,25,24	
		1,57,52,14,18,50,37,19		8,37
4″	20,48, 3, 5,50,16,33,48, 8,51		1,31,14,34, 1	
		1,57,52,12,47,36, 3,18		8,37
6″	20,48, 5, 3,42,29,21,24,12, 9		1,31,14,42,38	
		1,57,52,11,16,21,20,40		8,37
8″	20,48, 7, 1,34,40,37,45,32,49		1,31,14,51,15	
		1,57,52, 9,45, 6,29,25		8,37
10″	20,48, 8,59,26,50,22,52, 2,14		1,31,14,59,52	
		1,57,52, 8,13,51,29,33		8,37
12″	20,48,10,57,18,58,36,43,31,47		1,31,15, 8,29	
		1,57,52, 6,42,36,21, 4		8,37
14″	20,48,12,55,11, 5,19,19,52,51		1,31,15,17, 6	
		1,57,52, 5,11,21, 3,58		8,37
16″	20,48,14,53, 3,10,30,40,56,49		1,31,15,25,43	
		1,57,52, 3,40, 5,38,15		8,37
18″	20,48,16,50,55,14,10,46,35, 4		1,31,15,34,20	
		1,57,52, 2, 8,50, 3,55		8,37
20″	20,48,18,48,47,16,19,36,38,59		1,31,15,42,57	
		1,57,52, 0,37,34,20,58		8,37
22″	20,48,20,46,39,16,57,10,59,57		1,31,15,51,34	
		1,57,51,59, 6,18,29,24		8,37
24″	20,48,22,44,31,16, 3,29,29,21		1,31,16, 0,11	
		1,57,51,57,35, 2,29,13		8,37
26″	20,48,24,42,23,13,38,31,58,34		1,31,16, 8,48	
		1,57,51,56, 3,46,20,25		8,37
28″	20,48,26,40,15, 9,42,18,18,59		1,31,16,17,25	
		1,57,51,54,32,30, 3, 0		8,37
30″	20,48,28,38, 7, 4,14,48,21,59		1,31,16,26, 2	
		1,57,51,53, 1,13,36,58		8,37
32″	20,48,30,35,58,57,16, 1,58,57		1,31,16,34,39	
		1,57,51,51,29,57, 2,19		8,37
34″	20,48,32,33,50,48,45,59, 1,16		1,31,16,43,16	
		1,57,51,49,58,40,19, 3		8,37
36″	20,48,34,31,42,38,44,39,20,19		1,31,16,51,53	
		1,57,51,48,27,23,27,10		8,37
38″	20,48,36,29,34,27,12, 2,47,29		1,31,17, 0,30	
		1,57,51,46,56, 6,26,40		8,37
40″	20,48,38,27,26,14, 8, 9,14, 9		1,31,17, 9, 7	
		1,57,51,45,24,49,17,33		8,37
42″	20,48,40,25,17,59,32,58,31,42		1,31,17,17,44	
		1,57,51,43,53,31,59,49		8,37
44″	20,48,42,23, 9,43,26,30,31,31		1,31,17,26,21	
		1,57,51,42,22,14,33,28		8,37
46″	20,48,44,21, 1,25,48,45, 4,59		1,31,17,34,58	
		1,57,51,40,50,56,58,30		8,37
48″	20,48,46,18,53, 6,39,42, 3,29		1,31,17,43,35	
		1,57,51,39,19,39,14,55		8,37
50″	20,48,48,16,44,45,59,21,18,24		1,31,17,52,12	
		1,57,51,37,48,21,22,43		8,37
52″	20,48,50,14,36,23,47,42,41, 7		1,31,18, 0,49	
		1,57,51,36,17, 3,21,54		8,37
54″	20,48,52,12,28, 0, 4,46, 3, 1		1,31,18, 9,26	
		1,57,51,34,45,45,12,28		8,37
56″	20,48,54,10,19,34,50,31,15,29		1,31,18,18, 3	
		1,57,51,33,14,26,54,25		8,37
58″	20,48,56, 8,11, 8, 4,58, 9,54		1,31,18,26,40	
		1,57,51,31,43, 8,27,45		
60″	20,48,58, 6, 2,39,48, 6,37,39			
exact	20,48,58, 6, 2,39,48, 6,34,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°18′ 0″	20,48,58, 6, 2,39,48, 6,34,19			
		1,57,51,30,11,49,52,12		
2″	20,49, 0, 3,54, 9,59,56,26,31		1,31,18,43,55	
		1,57,51,28,40,31, 8,17		8,37
4″	20,49, 2, 1,45,38,40,27,34,48		1,31,18,52,32	
		1,57,51,27, 9,12,15,45		8,37
6″	20,49, 3,59,37, 5,49,39,50,33		1,31,19, 1, 9	
		1,57,51,25,37,53,14,36		8,37
8″	20,49, 5,57,28,31,27,33, 5, 9		1,31,19, 9,46	
		1,57,51,24, 6,34, 4,50		8,37
10″	20,49, 7,55,19,55,34, 7, 9,59		1,31,19,18,23	
		1,57,51,22,35,14,46,27		8,37
12″	20,49, 9,53,11,18, 9,21,56,26		1,31,19,27, 0	
		1,57,51,21, 3,55,19,27		8,37
14″	20,49,11,51, 2,39,13,17,15,53		1,31,19,35,37	
		1,57,51,19,32,35,43,50		8,37
16″	20,49,13,48,53,58,45,52,59,43		1,31,19,44,14	
		1,57,51,18, 1,15,59,36		8,37
18″	20,49,15,46,45,16,47, 8,59,19		1,31,19,52,51	
		1,57,51,16,29,56, 6,45		8,37
20″	20,49,17,44,36,33,17, 5, 6, 4		1,31,20, 1,28	
		1,57,51,14,58,36, 5,17		8,37
22″	20,49,19,42,27,48,15,41,11,21		1,31,20,10, 5	
		1,57,51,13,27,15,55,12		8,37
24″	20,49,21,40,19, 1,42,57, 6,33		1,31,20,18,42	
		1,57,51,11,55,55,36,30		8,37
26″	20,49,23,38,10,13,38,52,43, 3		1,31,20,27,19	
		1,57,51,10,24,35, 9,11		8,37
28″	20,49,25,36, 1,24, 3,27,52,14		1,31,20,35,56	
		1,57,51, 8,53,14,33,15		8,37
30″	20,49,27,33,52,32,56,42,25,29		1,31,20,44,33	
		1,57,51, 7,21,53,48,42		8,37
32″	20,49,29,31,43,40,18,36,14,11		1,31,20,53,10	
		1,57,51, 5,50,32,55,32		8,37
34″	20,49,31,29,34,46, 9, 9, 9,43		1,31,21, 1,47	
		1,57,51, 4,19,11,53,45		8,37
36″	20,49,33,27,25,50,28,21, 3,28		1,31,21,10,24	
		1,57,51, 2,47,50,43,21		8,37
38″	20,49,35,25,16,53,16,11,46,49		1,31,21,19, 1	
		1,57,51, 1,16,29,24,20		8,37
40″	20,49,37,23, 7,54,32,41,11, 9		1,31,21,27,38	
		1,57,50,59,45, 7,56,42		8,37
42″	20,49,39,20,58,54,17,49, 7,51		1,31,21,36,15	
		1,57,50,58,13,46,20,27		8,37
44″	20,49,41,18,49,52,31,35,28,18		1,31,21,44,52	
		1,57,50,56,42,24,35,35		8,37
46″	20,49,43,16,40,49,14, 0, 3,53		1,31,21,53,29	
		1,57,50,55,11, 2,42, 6		8,37
48″	20,49,45,14,31,44,25, 2,45,59		1,31,22, 2, 6	
		1,57,50,53,39,40,40, 0		8,37
50″	20,49,47,12,22,38, 4,43,25,59		1,31,22,10,43	
		1,57,50,52, 8,18,29,17		8,37
52″	20,49,49,10,13,30,13, 1,55,16		1,31,22,19,20	
		1,57,50,50,36,56, 9,57		8,37
54″	20,49,51, 8, 4,20,49,58, 5,13		1,31,22,27,57	
		1,57,50,49, 5,33,42, 0		8,37
56″	20,49,53, 5,55, 9,55,31,47,13		1,31,22,36,34	
		1,57,50,47,34,11, 5,26		8,37
58″	20,49,55, 3,45,57,29,42,52,39		1,31,22,45,11	
		1,57,50,46, 2,48,20,15		
60″	20,49,57, 1,36,43,32,31,12,54			
exact	20,49,57, 1,36,43,32,31,18,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°19′ 0″	20,49,57, 1,36,43,32,31,18,22			
		1,57,50,44,31,25,26,56		
2″	20,49,58,59,27,28, 3,56,45,18		1,31,23, 2,23	
		1,57,50,43, 0, 2,24,33		8,37
4″	20,50, 0,57,18,11, 3,59, 9,51		1,31,23,11, 0	
		1,57,50,41,28,39,13,33		8,37
6″	20,50, 2,55, 8,52,32,38,23,24		1,31,23,19,37	
		1,57,50,39,57,15,53,56		8,37
8″	20,50, 4,52,59,32,29,54,17,20		1,31,23,28,14	
		1,57,50,38,25,52,25,42		8,37
10″	20,50, 6,50,50,10,55,46,43, 2		1,31,23,36,51	
		1,57,50,36,54,28,48,51		8,37
12″	20,50, 8,48,40,47,50,15,31,53		1,31,23,45,28	
		1,57,50,35,23, 5, 3,23		8,37
14″	20,50,10,46,31,23,13,20,35,16		1,31,23,54, 5	
		1,57,50,33,51,41, 9,18		8,37
16″	20,50,12,44,21,57, 5, 1,44,34		1,31,24, 2,42	
		1,57,50,32,20,17, 6,36		8,37
18″	20,50,14,42,12,29,25,18,51,10		1,31,24,11,19	
		1,57,50,30,48,52,55,17		8,37
20″	20,50,16,40, 3, 0,14,11,46,27		1,31,24,19,56	
		1,57,50,29,17,28,35,21		8,37
22″	20,50,18,37,53,29,31,40,21,48		1,31,24,28,33	
		1,57,50,27,46, 4, 6,48		8,37
24″	20,50,20,35,43,57,17,44,28,36		1,31,24,37,10	
		1,57,50,26,14,39,29,38		8,37
26″	20,50,22,33,34,23,32,23,58,14		1,31,24,45,47	
		1,57,50,24,43,14,43,51		8,37
28″	20,50,24,31,24,48,15,38,42, 5		1,31,24,54,24	
		1,57,50,23,11,49,49,27		8,37
30″	20,50,26,29,15,11,27,28,31,32		1,31,25, 3, 1	
		1,57,50,21,40,24,46,26		8,37
32″	20,50,28,27, 5,33, 7,53,17,58		1,31,25,11,38	
		1,57,50,20, 8,59,34,48		8,37
34″	20,50,30,24,55,53,16,52,52,46		1,31,25,20,15	
		1,57,50,18,37,34,14,33		8,37
36″	20,50,32,22,46,11,54,27, 7,19		1,31,25,28,52	
		1,57,50,17, 6, 8,45,41		8,37
38″	20,50,34,20,36,29, 0,35,53, 0		1,31,25,37,29	
		1,57,50,15,34,43, 8,12		8,37
40″	20,50,36,18,26,44,35,19, 1,12		1,31,25,46, 6	
		1,57,50,14, 3,17,22, 6		8,37
42″	20,50,38,16,16,58,38,36,23,18		1,31,25,54,43	
		1,57,50,12,31,51,27,23		8,37
44″	20,50,40,14, 7,11,10,27,50,41		1,31,26, 3,20	
		1,57,50,11, 0,25,24, 3		8,37
46″	20,50,42,11,57,22,10,53,14,44		1,31,26,11,57	
		1,57,50, 9,28,59,12, 6		8,37
48″	20,50,44, 9,47,31,39,52,26,50		1,31,26,20,34	
		1,57,50, 7,57,32,51,32		8,37
50″	20,50,46, 7,37,39,37,25,18,22		1,31,26,29,11	
		1,57,50, 6,26, 6,22,21		8,37
52″	20,50,48, 5,27,46, 3,31,40,43		1,31,26,37,48	
		1,57,50, 4,54,39,44,33		8,37
54″	20,50,50, 3,17,50,58,11,25,16		1,31,26,46,25	
		1,57,50, 3,23,12,58, 8		8,37
56″	20,50,52, 1, 7,54,21,24,23,24		1,31,26,55, 2	
		1,57,50, 1,51,46, 3, 6		8,37
58″	20,50,53,58,57,56,13,10,26,30		1,31,27, 3,39	
		1,57,50, 0,20,18,59,27		
60″	20,50,55,56,47,56,33,29,25,57			
exact	20,50,55,56,47,56,33,29,29,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°20′ 0″	20,50,55,56,47,56,33,29,29,56			
		1,57,49,58,48,51,47,43		
2″	20,50,57,54,37,55,22,21,17,39		1,31,27,20,50	
		1,57,49,57,17,24,26,53		8,37
4″	20,50,59,52,27,52,39,45,44,32		1,31,27,29,27	
		1,57,49,55,45,56,57,26		8,37
6″	20,51, 1,50,17,48,25,42,41,58		1,31,27,38, 4	
		1,57,49,54,14,29,19,22		8,37
8″	20,51, 3,48, 7,42,40,12, 1,20		1,31,27,46,41	
		1,57,49,52,43, 1,32,41		8,37
10″	20,51, 5,45,57,35,23,13,34, 1		1,31,27,55,18	
		1,57,49,51,11,33,37,23		8,37
12″	20,51, 7,43,47,26,34,47,11,24		1,31,28, 3,55	
		1,57,49,49,40, 5,33,28		8,37
14″	20,51, 9,41,37,16,14,52,44,52		1,31,28,12,32	
		1,57,49,48, 8,37,20,56		8,37
16″	20,51,11,39,27, 4,23,30, 5,48		1,31,28,21, 9	
		1,57,49,46,37, 8,59,47		8,37
18″	20,51,13,37,16,51, 0,39, 5,35		1,31,28,29,46	
		1,57,49,45, 5,40,30, 1		8,37
20″	20,51,15,35, 6,36, 6,19,35,36		1,31,28,38,23	
		1,57,49,43,34,11,51,38		8,37
22″	20,51,17,32,56,19,40,31,27,14		1,31,28,47, 0	
		1,57,49,42, 2,43, 4,38		8,37
24″	20,51,19,30,46, 1,43,14,31,52		1,31,28,55,37	
		1,57,49,40,31,14, 9, 1		8,37
26″	20,51,21,28,35,42,14,28,40,53		1,31,29, 4,14	
		1,57,49,38,59,45, 4,47		8,37
28″	20,51,23,26,25,21,14,13,45,40		1,31,29,12,51	
		1,57,49,37,28,15,51,56		8,37
30″	20,51,25,24,14,58,42,29,37,36		1,31,29,21,28	
		1,57,49,35,56,46,30,28		8,37
32″	20,51,27,22, 4,34,39,16, 8, 4		1,31,29,30, 5	
		1,57,49,34,25,17, 0,23		8,37
34″	20,51,29,19,54, 9, 4,33, 8,27		1,31,29,38,42	
		1,57,49,32,53,47,21,41		8,37
36″	20,51,31,17,43,41,58,20,30, 8		1,31,29,47,19	
		1,57,49,31,22,17,34,22		8,37
38″	20,51,33,15,33,13,20,38, 4,30		1,31,29,55,56	
		1,57,49,29,50,47,38,26		8,37
40″	20,51,35,13,22,43,11,25,42,56		1,31,30, 4,33	
		1,57,49,28,19,17,33,53		8,37
42″	20,51,37,11,12,11,30,43,16,49		1,31,30,13,10	
		1,57,49,26,47,47,20,43		8,37
44″	20,51,39, 9, 1,38,18,30,37,32		1,31,30,21,47	
		1,57,49,25,16,16,58,56		8,37
46″	20,51,41, 6,51, 3,34,47,36,28		1,31,30,30,24	
		1,57,49,23,44,46,28,32		8,37
48″	20,51,43, 4,40,27,19,34, 5, 0		1,31,30,39, 1	
		1,57,49,22,13,15,49,31		8,37
50″	20,51,45, 2,29,49,32,49,54,31		1,31,30,47,38	
		1,57,49,20,41,45, 1,53		8,37
52″	20,51,47, 0,19,10,14,34,56,24		1,31,30,56,15	
		1,57,49,19,10,14, 5,38		8,37
54″	20,51,48,58, 8,29,24,49, 2, 2		1,31,31, 4,52	
		1,57,49,17,38,43, 0,46		8,37
56″	20,51,50,55,57,47, 3,32, 2,48		1,31,31,13,29	
		1,57,49,16, 7,11,47,17		8,37
58″	20,51,52,53,47, 3,10,43,50, 5		1,31,31,22, 6	
		1,57,49,14,35,40,25,11		
60″	20,51,54,51,36,17,46,24,15,16			
exact	20,51,54,51,36,17,46,24,23, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°21′ 0″	20,51,54,51,36,17,46,24,23, 1			
		1,57,49,13, 4, 8,55,24		
2″	20,51,56,49,25,30,50,33,18,25		1,31,31,39,16	
		1,57,49,11,32,37,16, 8		8,37
4″	20,51,58,47,14,42,23,10,34,33		1,31,31,47,53	
		1,57,49,10, 1, 5,28,15		8,37
6″	20,52, 0,45, 3,52,24,16, 2,48		1,31,31,56,30	
		1,57,49, 8,29,33,31,45		8,37
8″	20,52, 2,42,53, 0,53,49,34,33		1,31,32, 5, 7	
		1,57,49, 6,58, 1,26,38		8,37
10″	20,52, 4,40,42, 7,51,51, 1,11		1,31,32,13,44	
		1,57,49, 5,26,29,12,54		8,37
12″	20,52, 6,38,31,13,18,20,14, 5		1,31,32,22,21	
		1,57,49, 3,54,56,50,33		8,37
14″	20,52, 8,36,20,17,13,17, 4,38		1,31,32,30,58	
		1,57,49, 2,23,24,19,35		8,37
16″	20,52,10,34, 9,19,36,41,24,13		1,31,32,39,35	
		1,57,49, 0,51,51,40, 0		8,37
18″	20,52,12,31,58,20,28,33, 4,13		1,31,32,48,12	
		1,57,48,59,20,18,51,48		8,37
20″	20,52,14,29,47,19,48,51,56, 1		1,31,32,56,49	
		1,57,48,57,48,45,54,59		8,37
22″	20,52,16,27,36,17,37,37,51, 0		1,31,33, 5,26	
		1,57,48,56,17,12,49,33		8,37
24″	20,52,18,25,25,13,54,50,40,33		1,31,33,14, 3	
		1,57,48,54,45,39,35,30		8,37
26″	20,52,20,23,14, 8,40,30,16, 3		1,31,33,22,40	
		1,57,48,53,14, 6,12,50		8,37
28″	20,52,22,21, 3, 1,54,36,28,53		1,31,33,31,17	
		1,57,48,51,42,32,41,33		8,37
30″	20,52,24,18,51,53,37, 9,10,26		1,31,33,39,54	
		1,57,48,50,10,59, 1,39		8,37
32″	20,52,26,16,40,43,48, 8,12, 5		1,31,33,48,31	
		1,57,48,48,39,25,13, 8		8,37
34″	20,52,28,14,29,32,27,33,25,13		1,31,33,57, 8	
		1,57,48,47, 7,51,16, 0		8,37
36″	20,52,30,12,18,19,35,24,41,13		1,31,34, 5,45	
		1,57,48,45,36,17,10,15		8,37
38″	20,52,32,10, 7, 5,11,41,51,28		1,31,34,14,22	
		1,57,48,44, 4,42,55,53		8,37
40″	20,52,34, 7,55,49,16,24,47,21		1,31,34,22,59	
		1,57,48,42,33, 8,32,54		8,37
42″	20,52,36, 5,44,31,49,33,20,15		1,31,34,31,36	
		1,57,48,41, 1,34, 1,18		8,37
44″	20,52,38, 3,33,12,51, 7,21,33		1,31,34,40,13	
		1,57,48,39,29,59,21, 5		8,37
46″	20,52,40, 1,21,52,21, 6,42,38		1,31,34,48,50	
		1,57,48,37,58,24,32,15		8,37
48″	20,52,41,59,10,30,19,31,14,53		1,31,34,57,27	
		1,57,48,36,26,49,34,48		8,37
50″	20,52,43,56,59, 6,46,20,49,41		1,31,35, 6, 4	
		1,57,48,34,55,14,28,44		8,37
52″	20,52,45,54,47,41,41,35,18,25		1,31,35,14,41	
		1,57,48,33,23,39,14, 3		8,37
54″	20,52,47,52,36,15, 5,14,32,28		1,31,35,23,18	
		1,57,48,31,52, 3,50,45		8,37
56″	20,52,49,50,24,46,57,18,23,13		1,31,35,31,55	
		1,57,48,30,20,28,18,50		8,37
58″	20,52,51,48,13,17,17,46,42, 3		1,31,35,40,32	
		1,57,48,28,48,52,38,18		
60″	20,52,53,46, 1,46, 6,39,20,21			
exact	20,52,53,46, 1,46, 6,39,36,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°22′ 0″	20,52,53,46, 1,46, 6,39,36,44			
		1,57,48,27,17,16,50,49		
2″	20,52,55,43,50,13,23,56,27,33		1,31,35,57,39	
		1,57,48,25,45,40,53,10		8,37
4″	20,52,57,41,38,39, 9,37,20,43		1,31,36, 6,16	
		1,57,48,24,14, 4,46,54		8,37
6″	20,52,59,39,27, 3,23,42, 7,37		1,31,36,14,53	
		1,57,48,22,42,28,32, 1		8,37
8″	20,53, 1,37,15,26, 6,10,39,38		1,31,36,23,30	
		1,57,48,21,10,52, 8,31		8,37
10″	20,53, 3,35, 3,47,17, 2,48, 9		1,31,36,32, 7	
		1,57,48,19,39,15,36,24		8,37
12″	20,53, 5,32,52, 6,56,18,24,33		1,31,36,40,44	
		1,57,48,18, 7,38,55,40		8,37
14″	20,53, 7,30,40,25, 3,57,20,13		1,31,36,49,21	
		1,57,48,16,36, 2, 6,19		8,37
16″	20,53, 9,28,28,41,39,59,26,32		1,31,36,57,58	
		1,57,48,15, 4,25, 8,21		8,37
18″	20,53,11,26,16,56,44,24,34,53		1,31,37, 6,35	
		1,57,48,13,32,48, 1,46		8,37
20″	20,53,13,24, 5,10,17,12,36,39		1,31,37,15,12	
		1,57,48,12, 1,10,46,34		8,37
22″	20,53,15,21,53,22,18,23,23,13		1,31,37,23,49	
		1,57,48,10,29,33,22,45		8,37
24″	20,53,17,19,41,32,47,56,45,58		1,31,37,32,26	
		1,57,48, 8,57,55,50,19		8,37
26″	20,53,19,17,29,41,45,52,36,17		1,31,37,41, 3	
		1,57,48, 7,26,18, 9,16		8,37
28″	20,53,21,15,17,49,12,10,45,33		1,31,37,49,40	
		1,57,48, 5,54,40,19,36		8,37
30″	20,53,23,13, 5,55, 6,51, 5, 9		1,31,37,58,17	
		1,57,48, 4,23, 2,21,19		8,37
32″	20,53,25,10,53,59,29,53,26,28		1,31,38, 6,54	
		1,57,48, 2,51,24,14,25		8,37
34″	20,53,27, 8,42, 2,21,17,40,53		1,31,38,15,31	
		1,57,48, 1,19,45,58,54		8,37
36″	20,53,29, 6,30, 3,41, 3,39,47		1,31,38,24, 8	
		1,57,47,59,48, 7,34,46		8,37
38″	20,53,31, 4,18, 3,29,11,14,33		1,31,38,32,45	
		1,57,47,58,16,29, 2, 1		8,37
40″	20,53,33, 2, 6, 1,45,40,16,34		1,31,38,41,22	
		1,57,47,56,44,50,20,39		8,37
42″	20,53,34,59,53,58,30,30,37,13		1,31,38,49,59	
		1,57,47,55,13,11,30,40		8,37
44″	20,53,36,57,41,53,43,42, 7,53		1,31,38,58,36	
		1,57,47,53,41,32,32, 4		8,37
46″	20,53,38,55,29,47,25,14,39,57		1,31,39, 7,13	
		1,57,47,52, 9,53,24,51		8,37
48″	20,53,40,53,17,39,35, 8, 4,48		1,31,39,15,50	
		1,57,47,50,38,14, 9, 1		8,37
50″	20,53,42,51, 5,30,13,22,13,49		1,31,39,24,27	
		1,57,47,49, 6,34,44,34		8,37
52″	20,53,44,48,53,19,19,56,58,23		1,31,39,33, 4	
		1,57,47,47,34,55,11,30		8,37
54″	20,53,46,46,41, 6,54,52, 9,53		1,31,39,41,41	
		1,57,47,46, 3,15,29,49		8,37
56″	20,53,48,44,28,52,58, 7,39,42		1,31,39,50,18	
		1,57,47,44,31,35,39,31		8,37
58″	20,53,50,42,16,37,29,43,19,13		1,31,39,58,55	
		1,57,47,42,59,55,40,36		
60″	20,53,52,40, 4,20,29,38,59,49			
exact	20,53,52,40, 4,20,29,39,15,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°23′ 0″	20,53,52,40, 4,20,29,39,15,17			
		1,57,47,41,28,15,34,49		
2″	20,53,54,37,52, 1,57,54,50, 6		1,31,40,16, 1	
		1,57,47,39,56,35,18,48		8,37
4″	20,53,56,35,39,41,54,30, 8,54		1,31,40,24,38	
		1,57,47,38,24,54,54,10		8,37
6″	20,53,58,33,27,20,19,25, 3, 4		1,31,40,33,15	
		1,57,47,36,53,14,20,55		8,37
8″	20,54, 0,31,14,57,12,39,23,59		1,31,40,41,52	
		1,57,47,35,21,33,39, 3		8,37
10″	20,54, 2,29, 2,32,34,13, 3, 2		1,31,40,50,29	
		1,57,47,33,49,52,48,34		8,37
12″	20,54, 4,26,50, 6,24, 5,51,36		1,31,40,59, 6	
		1,57,47,32,18,11,49,28		8,37
14″	20,54, 6,24,37,38,42,17,41, 4		1,31,41, 7,43	
		1,57,47,30,46,30,41,45		8,37
16″	20,54, 8,22,25, 9,28,48,22,49		1,31,41,16,20	
		1,57,47,29,14,49,25,25		8,37
18″	20,54,10,20,12,38,43,37,48,14		1,31,41,24,57	
		1,57,47,27,43, 8, 0,28		8,37
20″	20,54,12,18, 0, 6,26,45,48,42		1,31,41,33,34	
		1,57,47,26,11,26,26,54		8,37
22″	20,54,14,15,47,32,38,12,15,36		1,31,41,42,11	
		1,57,47,24,39,44,44,43		8,37
24″	20,54,16,13,34,57,17,57, 0,19		1,31,41,50,48	
		1,57,47,23, 8, 2,53,55		8,37
26″	20,54,18,11,22,20,25,59,54,14		1,31,41,59,25	
		1,57,47,21,36,20,54,30		8,37
28″	20,54,20, 9, 9,42, 2,20,48,44		1,31,42, 8, 2	
		1,57,47,20, 4,38,46,28		8,37
30″	20,54,22, 6,57, 2, 6,59,35,12		1,31,42,16,39	
		1,57,47,18,32,56,29,49		8,37
32″	20,54,24, 4,44,20,39,56, 5, 1		1,31,42,25,16	
		1,57,47,17, 1,14, 4,33		8,37
34″	20,54,26, 2,31,37,41,10, 9,34		1,31,42,33,53	
		1,57,47,15,29,31,30,40		8,37
36″	20,54,28, 0,18,53,10,41,40,14		1,31,42,42,30	
		1,57,47,13,57,48,48,10		8,37
38″	20,54,29,58, 6, 7, 8,30,28,24		1,31,42,51, 7	
		1,57,47,12,26, 5,57, 3		8,37
40″	20,54,31,55,53,19,34,36,25,27		1,31,42,59,44	
		1,57,47,10,54,22,57,19		8,37
42″	20,54,33,53,40,30,28,59,22,46		1,31,43, 8,21	
		1,57,47, 9,22,39,48,58		8,37
44″	20,54,35,51,27,39,51,39,11,44		1,31,43,16,58	
		1,57,47, 7,50,56,32, 0		8,37
46″	20,54,37,49,14,47,42,35,43,44		1,31,43,25,35	
		1,57,47, 6,19,13, 6,25		8,37
48″	20,54,39,47, 1,54, 1,48,50, 9		1,31,43,34,12	
		1,57,47, 4,47,29,32,13		8,37
50″	20,54,41,44,48,58,49,18,22,22		1,31,43,42,49	
		1,57,47, 3,15,45,49,24		8,37
52″	20,54,43,42,36, 2, 5, 4,11,46		1,31,43,51,26	
		1,57,47, 1,44, 1,57,58		8,37
54″	20,54,45,40,23, 3,49, 6, 9,44		1,31,44, 0, 3	
		1,57,47, 0,12,17,57,55		8,37
56″	20,54,47,38,10, 4, 1,24, 7,39		1,31,44, 8,40	
		1,57,46,58,40,33,49,15		8,37
58″	20,54,49,35,57, 2,41,57,56,54		1,31,44,17,17	
		1,57,46,57, 8,49,31,58		
60″	20,54,51,33,43,59,50,47,28,52			
exact	20,54,51,33,43,59,50,47,47,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°24′ 0″	20,54,51,33,43,59,50,47,47,56			
		1,57,46,55,37, 5, 8,13		
2″	20,54,53,31,30,55,27,52,56, 9		1,31,44,34,22	
		1,57,46,54, 5,20,33,51		8,37
4″	20,54,55,29,17,49,33,13,30, 0		1,31,44,42,59	
		1,57,46,52,33,35,50,52		8,37
6″	20,54,57,27, 4,42, 6,49,20,52		1,31,44,51,36	
		1,57,46,51, 1,50,59,16		8,37
8″	20,54,59,24,51,33, 8,40,20, 8		1,31,45, 0,13	
		1,57,46,49,30, 5,59, 3		8,37
10″	20,55, 1,22,38,22,38,46,19,11		1,31,45, 8,50	
		1,57,46,47,58,20,50,13		8,37
12″	20,55, 3,20,25,10,37, 7, 9,24		1,31,45,17,27	
		1,57,46,46,26,35,32,46		8,37
14″	20,55, 5,18,11,57, 3,42,42,10		1,31,45,26, 4	
		1,57,46,44,54,50, 6,42		8,37
16″	20,55, 7,15,58,41,58,32,48,52		1,31,45,34,41	
		1,57,46,43,23, 4,32, 1		8,37
18″	20,55, 9,13,45,25,21,37,20,53		1,31,45,43,18	
		1,57,46,41,51,18,48,43		8,37
20″	20,55,11,11,32, 7,12,56, 9,36		1,31,45,51,55	
		1,57,46,40,19,32,56,48		8,37
22″	20,55,13, 9,18,47,32,29, 6,24		1,31,46, 0,32	
		1,57,46,38,47,46,56,16		8,37
24″	20,55,15, 7, 5,26,20,16, 2,40		1,31,46, 9, 9	
		1,57,46,37,16, 0,47, 7		8,37
26″	20,55,17, 4,52, 3,36,16,49,47		1,31,46,17,46	
		1,57,46,35,44,14,29,21		8,37
28″	20,55,19, 2,38,39,20,31,19, 8		1,31,46,26,23	
		1,57,46,34,12,28, 2,58		8,37
30″	20,55,21, 0,25,13,32,59,22, 6		1,31,46,35, 0	
		1,57,46,32,40,41,27,58		8,37
32″	20,55,22,58,11,46,13,40,50, 4		1,31,46,43,37	
		1,57,46,31, 8,54,44,21		8,37
34″	20,55,24,55,58,17,22,35,34,25		1,31,46,52,14	
		1,57,46,29,37, 7,52, 7		8,37
36″	20,55,26,53,44,46,59,43,26,32		1,31,47, 0,51	
		1,57,46,28, 5,20,51,16		8,37
38″	20,55,28,51,31,15, 5, 4,17,48		1,31,47, 9,28	
		1,57,46,26,33,33,41,48		8,37
40″	20,55,30,49,17,41,38,37,59,36		1,31,47,18, 5	
		1,57,46,25, 1,46,23,43		8,37
42″	20,55,32,47, 4, 6,40,24,23,19		1,31,47,26,42	
		1,57,46,23,29,58,57, 1		8,37
44″	20,55,34,44,50,30,10,23,20,20		1,31,47,35,19	
		1,57,46,21,58,11,21,42		8,37
46″	20,55,36,42,36,52, 8,34,42, 2		1,31,47,43,56	
		1,57,46,20,26,23,37,46		8,37
48″	20,55,38,40,23,12,34,58,19,48		1,31,47,52,33	
		1,57,46,18,54,35,45,13		8,37
50″	20,55,40,38, 9,31,29,34, 5, 1		1,31,48, 1,10	
		1,57,46,17,22,47,44, 3		8,37
52″	20,55,42,35,55,48,52,21,49, 4		1,31,48, 9,47	
		1,57,46,15,50,59,34,16		8,37
54″	20,55,44,33,42, 4,43,21,23,20		1,31,48,18,24	
		1,57,46,14,19,11,15,52		8,37
56″	20,55,46,31,28,19, 2,32,39,12		1,31,48,27, 1	
		1,57,46,12,47,22,48,51		8,37
58″	20,55,48,29,14,31,49,55,28, 3		1,31,48,35,38	
		1,57,46,11,15,34,13,13		
60″	20,55,50,27, 0,43, 5,29,41,16			
exact	20,55,50,27, 0,43, 5,30, 9, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°25′ 0″	20,55,50,27, 0,43, 5,30, 9, 8			
		1,57,46, 9,43,45,31,52		
2″	20,55,52,24,46,52,49,15,41, 0		1,31,48,52,40	
		1,57,46, 8,11,56,39,12		8,37
4″	20,55,54,22,33, 1, 1,12,20,12		1,31,49, 1,17	
		1,57,46, 6,40, 7,37,55		8,37
6″	20,55,56,20,19, 7,41,19,58, 7		1,31,49, 9,54	
		1,57,46, 5, 8,18,28, 1		8,37
8″	20,55,58,18, 5,12,49,38,26, 8		1,31,49,18,31	
		1,57,46, 3,36,29, 9,30		8,37
10″	20,56, 0,15,51,16,26, 7,35,38		1,31,49,27, 8	
		1,57,46, 2, 4,39,42,22		8,37
12″	20,56, 2,13,37,18,30,47,18, 0		1,31,49,35,45	
		1,57,46, 0,32,50, 6,37		8,37
14″	20,56, 4,11,23,19, 3,37,24,37		1,31,49,44,22	
		1,57,45,59, 1, 0,22,15		8,37
16″	20,56, 6, 9, 9,18, 4,37,46,52		1,31,49,52,59	
		1,57,45,57,29,10,29,16		8,37
18″	20,56, 8, 6,55,15,33,48,16, 8		1,31,50, 1,36	
		1,57,45,55,57,20,27,40		8,37
20″	20,56,10, 4,41,11,31, 8,43,48		1,31,50,10,13	
		1,57,45,54,25,30,17,27		8,37
22″	20,56,12, 2,27, 5,56,39, 1,15		1,31,50,18,50	
		1,57,45,52,53,39,58,37		8,37
24″	20,56,14, 0,12,58,50,18,59,52		1,31,50,27,27	
		1,57,45,51,21,49,31,10		8,37
26″	20,56,15,57,58,50,12, 8,31, 2		1,31,50,36, 4	
		1,57,45,49,49,58,55, 6		8,37
28″	20,56,17,55,44,40, 2, 7,26, 8		1,31,50,44,41	
		1,57,45,48,18, 8,10,25		8,37
30″	20,56,19,53,30,28,20,15,36,33		1,31,50,53,18	
		1,57,45,46,46,17,17, 7		8,37
32″	20,56,21,51,16,15, 6,32,53,40		1,31,51, 1,55	
		1,57,45,45,14,26,15,12		8,37
34″	20,56,23,49, 2, 0,20,59, 8,52		1,31,51,10,32	
		1,57,45,43,42,35, 4,40		8,37
36″	20,56,25,46,47,44, 3,34,13,32		1,31,51,19, 9	
		1,57,45,42,10,43,45,31		8,37
38″	20,56,27,44,33,26,14,17,59, 3		1,31,51,27,46	
		1,57,45,40,38,52,17,45		8,37
40″	20,56,29,42,19, 6,53,10,16,48		1,31,51,36,23	
		1,57,45,39, 7, 0,41,22		8,37
42″	20,56,31,40, 4,46, 0,10,58,10		1,31,51,45, 0	
		1,57,45,37,35, 8,56,22		8,37
44″	20,56,33,37,50,23,35,19,54,32		1,31,51,53,37	
		1,57,45,36, 3,17, 2,45		8,37
46″	20,56,35,35,35,59,38,36,57,17		1,31,52, 2,14	
		1,57,45,34,31,25, 0,31		8,37
48″	20,56,37,33,21,34,10, 1,57,48		1,31,52,10,51	
		1,57,45,32,59,32,49,40		8,37
50″	20,56,39,31, 7, 7, 9,34,47,28		1,31,52,19,28	
		1,57,45,31,27,40,30,12		8,37
52″	20,56,41,28,52,38,37,15,17,40		1,31,52,28, 5	
		1,57,45,29,55,48, 2, 7		8,37
54″	20,56,43,26,38, 8,33, 3,19,47		1,31,52,36,42	
		1,57,45,28,23,55,25,25		8,37
56″	20,56,45,24,23,36,56,58,45,12		1,31,52,45,19	
		1,57,45,26,52, 2,40, 6		8,37
58″	20,56,47,22, 9, 3,49, 1,25,18		1,31,52,53,56	
		1,57,45,25,20, 9,46,10		
60″	20,56,49,19,54,29, 9,11,11,28			
exact	20,56,49,19,54,29, 9,11,38,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°26′ 0″	20,56,49,19,54,29, 9,11,38,28			
		1,57,45,23,48,16,46,36		
2″	20,56,51,17,39,52,57,28,25, 4		1,31,53,10,57	
		1,57,45,22,16,23,35,39		8,37
4″	20,56,53,15,25,15,13,52, 0,43		1,31,53,19,34	
		1,57,45,20,44,30,16, 5		8,37
6″	20,56,55,13,10,35,58,22,16,48		1,31,53,28,11	
		1,57,45,19,12,36,47,54		8,37
8″	20,56,57,10,55,55,10,59, 4,42		1,31,53,36,48	
		1,57,45,17,40,43,11, 6		8,37
10″	20,56,59, 8,41,12,51,42,15,48		1,31,53,45,25	
		1,57,45,16, 8,49,25,41		8,37
12″	20,57, 1, 6,26,29, 0,31,41,29		1,31,53,54, 2	
		1,57,45,14,36,55,31,39		8,37
14″	20,57, 3, 4,11,43,37,27,13, 8		1,31,54, 2,39	
		1,57,45,13, 5, 1,29, 0		8,37
16″	20,57, 5, 1,56,56,42,28,42, 8		1,31,54,11,16	
		1,57,45,11,33, 7,17,44		8,37
18″	20,57, 6,59,42, 8,15,35,59,52		1,31,54,19,53	
		1,57,45,10, 1,12,57,51		8,37
20″	20,57, 8,57,27,18,16,48,57,43		1,31,54,28,30	
		1,57,45, 8,29,18,29,21		8,37
22″	20,57,10,55,12,26,46, 7,27, 4		1,31,54,37, 7	
		1,57,45, 6,57,23,52,14		8,37
24″	20,57,12,52,57,33,43,31,19,18		1,31,54,45,44	
		1,57,45, 5,25,29, 6,30		8,37
26″	20,57,14,50,42,39, 9, 0,25,48		1,31,54,54,21	
		1,57,45, 3,53,34,12, 9		8,37
28″	20,57,16,48,27,43, 2,34,37,57		1,31,55, 2,58	
		1,57,45, 2,21,39, 9,11		8,37
30″	20,57,18,46,12,45,24,13,47, 8		1,31,55,11,35	
		1,57,45, 0,49,43,57,36		8,37
32″	20,57,20,43,57,46,13,57,44,44		1,31,55,20,12	
		1,57,44,59,17,48,37,24		8,37
34″	20,57,22,41,42,45,31,46,22, 8		1,31,55,28,49	
		1,57,44,57,45,53, 8,35		8,37
36″	20,57,24,39,27,43,17,39,30,43		1,31,55,37,26	
		1,57,44,56,13,57,31, 9		8,37
38″	20,57,26,37,12,39,31,37, 1,52		1,31,55,46, 3	
		1,57,44,54,42, 1,45, 6		8,37
40″	20,57,28,34,57,34,13,38,46,58		1,31,55,54,40	
		1,57,44,53,10, 5,50,26		8,37
42″	20,57,30,32,42,27,23,44,37,24		1,31,56, 3,17	
		1,57,44,51,38, 9,47, 9		8,37
44″	20,57,32,30,27,19, 1,54,24,33		1,31,56,11,54	
		1,57,44,50, 6,13,35,15		8,37
46″	20,57,34,28,12, 9, 8, 7,59,48		1,31,56,20,31	
		1,57,44,48,34,17,14,44		8,37
48″	20,57,36,25,56,57,42,25,14,32		1,31,56,29, 8	
		1,57,44,47, 2,20,45,36		8,37
50″	20,57,38,23,41,44,44,46, 0, 8		1,31,56,37,45	
		1,57,44,45,30,24, 7,51		8,37
52″	20,57,40,21,26,30,15,10, 7,59		1,31,56,46,22	
		1,57,44,43,58,27,21,29		8,37
54″	20,57,42,19,11,14,13,37,29,28		1,31,56,54,59	
		1,57,44,42,26,30,26,30		8,37
56″	20,57,44,16,55,56,40, 7,55,58		1,31,57, 3,36	
		1,57,44,40,54,33,22,54		8,37
58″	20,57,46,14,40,37,34,41,18,52		1,31,57,12,13	
		1,57,44,39,22,36,10,41		
60″	20,57,48,12,25,16,57,17,29,33			
exact	20,57,48,12,25,16,57,18, 0,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°27′ 0″	20,57,48,12,25,16,57,18, 0,42			
		1,57,44,37,50,38,53,16		
2″	20,57,50,10, 9,54,47,56,53,58		1,31,57,29,12	
		1,57,44,36,18,41,24, 4		8,36
4″	20,57,52, 7,54,31, 6,38,18, 2		1,31,57,37,48	
		1,57,44,34,46,43,46,16		8,36
6″	20,57,54, 5,39, 5,53,22, 4,18		1,31,57,46,24	
		1,57,44,33,14,45,59,52		8,36
8″	20,57,56, 3,23,39, 8, 8, 4,10		1,31,57,55, 0	
		1,57,44,31,42,48, 4,52		8,36
10″	20,57,58, 1, 8,10,50,56, 9, 2		1,31,58, 3,36	
		1,57,44,30,10,50, 1,16		8,36
12″	20,57,59,58,52,41, 1,46,10,18		1,31,58,12,12	
		1,57,44,28,38,51,49, 4		8,36
14″	20,58, 1,56,37, 9,40,37,59,22		1,31,58,20,48	
		1,57,44,27, 6,53,28,16		8,36
16″	20,58, 3,54,21,36,47,31,27,38		1,31,58,29,24	
		1,57,44,25,34,54,58,52		8,36
18″	20,58, 5,52, 6, 2,22,26,26,30		1,31,58,38, 0	
		1,57,44,24, 2,56,20,52		8,36
20″	20,58, 7,49,50,26,25,22,47,22		1,31,58,46,36	
		1,57,44,22,30,57,34,16		8,36
22″	20,58, 9,47,34,48,56,20,21,38		1,31,58,55,12	
		1,57,44,20,58,58,39, 4		8,36
24″	20,58,11,45,19, 9,55,19, 0,42		1,31,59, 3,48	
		1,57,44,19,26,59,35,16		8,36
26″	20,58,13,43, 3,29,22,18,35,58		1,31,59,12,24	
		1,57,44,17,55, 0,22,52		8,36
28″	20,58,15,40,47,47,17,18,58,50		1,31,59,21, 0	
		1,57,44,16,23, 1, 1,52		8,36
30″	20,58,17,38,32, 3,40,20, 0,42		1,31,59,29,36	
		1,57,44,14,51, 1,32,16		8,36
32″	20,58,19,36,16,18,31,21,32,58		1,31,59,38,12	
		1,57,44,13,19, 1,54, 4		8,36
34″	20,58,21,34, 0,31,50,23,27, 2		1,31,59,46,48	
		1,57,44,11,47, 2, 7,16		8,36
36″	20,58,23,31,44,43,37,25,34,18		1,31,59,55,24	
		1,57,44,10,15, 2,11,52		8,36
38″	20,58,25,29,28,53,52,27,46,10		1,32, 0, 4, 0	
		1,57,44, 8,43, 2, 7,52		8,36
40″	20,58,27,27,13, 2,35,29,54, 2		1,32, 0,12,36	
		1,57,44, 7,11, 1,55,16		8,36
42″	20,58,29,24,57, 9,46,31,49,18		1,32, 0,21,12	
		1,57,44, 5,39, 1,34, 4		8,36
44″	20,58,31,22,41,15,25,33,23,22		1,32, 0,29,48	
		1,57,44, 4, 7, 1, 4,16		8,36
46″	20,58,33,20,25,19,32,34,27,38		1,32, 0,38,24	
		1,57,44, 2,35, 0,25,52		8,36
48″	20,58,35,18, 9,22, 7,34,53,30		1,32, 0,47, 0	
		1,57,44, 1, 2,59,38,52		8,36
50″	20,58,37,15,53,23,10,34,32,22		1,32, 0,55,36	
		1,57,43,59,30,58,43,16		8,36
52″	20,58,39,13,37,22,41,33,15,38		1,32, 1, 4,12	
		1,57,43,57,58,57,39, 4		8,36
54″	20,58,41,11,21,20,40,30,54,42		1,32, 1,12,48	
		1,57,43,56,26,56,26,16		8,36
56″	20,58,43, 9, 5,17, 7,27,20,58		1,32, 1,21,24	
		1,57,43,54,54,55, 4,52		8,36
58″	20,58,45, 6,49,12, 2,22,25,50		1,32, 1,30, 0	
		1,57,43,53,22,53,34,52		
60″	20,58,47, 4,33, 5,25,16, 0,42			
exact	20,58,47, 4,33, 5,25,15,25,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°28′ 0″	20,58,47, 4,33, 5,25,15,25,45			
		1,57,43,51,50,51,52,41		
2″	20,58,49, 2,16,57,16, 7,18,26		1,32, 1,47,26	
		1,57,43,50,18,50, 5,15		8,36
4″	20,58,51, 0, 0,47,34,57,23,41		1,32, 1,56, 2	
		1,57,43,48,46,48, 9,13		8,36
6″	20,58,52,57,44,36,21,45,32,54		1,32, 2, 4,38	
		1,57,43,47,14,46, 4,35		8,36
8″	20,58,54,55,28,23,36,31,37,29		1,32, 2,13,14	
		1,57,43,45,42,43,51,21		8,36
10″	20,58,56,53,12, 9,19,15,28,50		1,32, 2,21,50	
		1,57,43,44,10,41,29,31		8,36
12″	20,58,58,50,55,53,29,56,58,21		1,32, 2,30,26	
		1,57,43,42,38,38,59, 5		8,36
14″	20,59, 0,48,39,36, 8,35,57,26		1,32, 2,39, 2	
		1,57,43,41, 6,36,20, 3		8,36
16″	20,59, 2,46,23,17,15,12,17,29		1,32, 2,47,38	
		1,57,43,39,34,33,32,25		8,36
18″	20,59, 4,44, 6,56,49,45,49,54		1,32, 2,56,14	
		1,57,43,38, 2,30,36,11		8,36
20″	20,59, 6,41,50,34,52,16,26, 5		1,32, 3, 4,50	
		1,57,43,36,30,27,31,21		8,36
22″	20,59, 8,39,34,11,22,43,57,26		1,32, 3,13,26	
		1,57,43,34,58,24,17,55		8,36
24″	20,59,10,37,17,46,21, 8,15,21		1,32, 3,22, 2	
		1,57,43,33,26,20,55,53		8,36
26″	20,59,12,35, 1,19,47,29,11,14		1,32, 3,30,38	
		1,57,43,31,54,17,25,15		8,36
28″	20,59,14,32,44,51,41,46,36,29		1,32, 3,39,14	
		1,57,43,30,22,13,46, 1		8,36
30″	20,59,16,30,28,22, 4, 0,22,30		1,32, 3,47,50	
		1,57,43,28,50, 9,58,11		8,36
32″	20,59,18,28,11,50,54,10,20,41		1,32, 3,56,26	
		1,57,43,27,18, 6, 1,45		8,36
34″	20,59,20,25,55,18,12,16,22,26		1,32, 4, 5, 2	
		1,57,43,25,46, 1,56,43		8,36
36″	20,59,22,23,38,43,58,18,19, 9		1,32, 4,13,38	
		1,57,43,24,13,57,43, 5		8,36
38″	20,59,24,21,22, 8,12,16, 2,14		1,32, 4,22,14	
		1,57,43,22,41,53,20,51		8,36
40″	20,59,26,19, 5,30,54, 9,23, 5		1,32, 4,30,50	
		1,57,43,21, 9,48,50, 1		8,36
42″	20,59,28,16,48,52, 3,58,13, 6		1,32, 4,39,26	
		1,57,43,19,37,44,10,35		8,36
44″	20,59,30,14,32,11,41,42,23,41		1,32, 4,48, 2	
		1,57,43,18, 5,39,22,33		8,36
46″	20,59,32,12,15,29,47,21,46,14		1,32, 4,56,38	
		1,57,43,16,33,34,25,55		8,36
48″	20,59,34, 9,58,46,20,56,12, 9		1,32, 5, 5,14	
		1,57,43,15, 1,29,20,41		8,36
50″	20,59,36, 7,42, 1,22,25,32,50		1,32, 5,13,50	
		1,57,43,13,29,24, 6,51		8,36
52″	20,59,38, 5,25,14,51,49,39,41		1,32, 5,22,26	
		1,57,43,11,57,18,44,25		8,36
54″	20,59,40, 3, 8,26,49, 8,24, 6		1,32, 5,31, 2	
		1,57,43,10,25,13,13,23		8,36
56″	20,59,42, 0,51,37,14,21,37,29		1,32, 5,39,38	
		1,57,43, 8,53, 7,33,45		8,36
58″	20,59,43,58,34,46, 7,29,11,14		1,32, 5,48,14	
		1,57,43, 7,21, 1,45,31		
60″	20,59,45,56,17,53,28,30,56,45			
exact	20,59,45,56,17,53,28,30,28,47			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
20°29′	0″	20,59,45,56,17,53,28,30,28,47			
	2″	20,59,47,54, 0,59,17,26,14,30	1,57,43, 5,48,55,45,43		
	4″	20,59,49,51,44, 3,34,15,54,35	1,57,43, 4,16,49,40, 5	1,32, 6, 5,38	
	6″	20,59,51,49,27, 6,18,59,20,26	1,57,43, 2,44,43,25,51	1,32, 6,14,14	8,36
	8″	20,59,53,47,10, 7,31,36,23,27	1,57,43, 1,12,37, 3, 1	1,32, 6,22,50	8,36
	10″	20,59,55,44,53, 7,12, 6,55, 2	1,57,42,59,40,30,31,35	1,32, 6,31,26	8,36
	12″	20,59,57,42,36, 5,20,30,46,35	1,57,42,58, 8,23,51,33	1,32, 6,40, 2	8,36
	14″	20,59,59,40,19, 1,56,47,49,30	1,57,42,56,36,17, 2,55	1,32, 6,48,38	8,36
	16″	21, 0, 1,38, 1,57, 0,57,55,11	1,57,42,55, 4,10, 5,41	1,32, 6,57,14	8,36
	18″	21, 0, 3,35,44,50,33, 0,55, 2	1,57,42,53,32, 2,59,51	1,32, 7, 5,50	8,36
	20″	21, 0, 5,33,27,42,32,56,40,27	1,57,42,51,59,55,45,25	1,32, 7,14,26	8,36
	22″	21, 0, 7,31,10,33, 0,45, 2,50	1,57,42,50,27,48,22,23	1,32, 7,23, 2	8,36
	24″	21, 0, 9,28,53,21,56,25,53,35	1,57,42,48,55,40,50,45	1,32, 7,31,38	8,36
	26″	21, 0,11,26,36, 9,19,59, 4, 6	1,57,42,47,23,33,10,31	1,32, 7,40,14	8,36
	28″	21, 0,13,24,18,55,11,24,25,47	1,57,42,45,51,25,21,41	1,32, 7,48,50	8,36
	30″	21, 0,15,22, 1,39,30,41,50, 2	1,57,42,44,19,17,24,15	1,32, 7,57,26	8,36
	32″	21, 0,17,19,44,22,17,51, 8,15	1,57,42,42,47, 9,18,13	1,32, 8, 6, 2	8,36
	34″	21, 0,19,17,27, 3,32,52,11,50	1,57,42,41,15, 1, 3,35	1,32, 8,14,38	8,36
	36″	21, 0,21,15, 9,43,15,44,52,11	1,57,42,39,42,52,40,21	1,32, 8,23,14	8,36
	38″	21, 0,23,12,52,21,26,29, 0,42	1,57,42,38,10,44, 8,31	1,32, 8,31,50	8,36
	40″	21, 0,25,10,34,58, 5, 4,28,47	1,57,42,36,38,35,28, 5	1,32, 8,40,26	8,36
	42″	21, 0,27, 8,17,33,11,31, 7,50	1,57,42,35, 6,26,39, 3	1,32, 8,49, 2	8,36
	44″	21, 0,29, 6, 0, 6,45,48,49,15	1,57,42,33,34,17,41,25	1,32, 8,57,38	8,36
	46″	21, 0,31, 3,42,38,47,57,24,26	1,57,42,32, 2, 8,35,11	1,32, 9, 6,14	8,36
	48″	21, 0,33, 1,25, 9,17,56,44,47	1,57,42,30,29,59,20,21	1,32, 9,14,50	8,36
	50″	21, 0,34,59, 7,38,15,46,41,42	1,57,42,28,57,49,56,55	1,32, 9,23,26	8,36
	52″	21, 0,36,56,50, 5,41,27, 6,35	1,57,42,27,25,40,24,53	1,32, 9,32, 2	8,36
	54″	21, 0,38,54,32,31,34,57,50,50	1,57,42,25,53,30,44,15	1,32, 9,40,38	8,36
	56″	21, 0,40,52,14,55,56,18,45,51	1,57,42,24,21,20,55, 1	1,32, 9,49,14	8,36
	58″	21, 0,42,49,57,18,45,29,43, 2	1,57,42,22,49,10,57,11	1,32, 9,57,50	8,36
	60″	21, 0,44,47,39,40, 2,30,33,47	1,57,42,21,17, 0,50,45	1,32,10, 6,26	
	exact	21, 0,44,47,39,40, 2,30,10,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°30′ 0″	21, 0,44,47,39,40, 2,30,10,12	1,57,42,19,44,50,33,12		
2″	21, 0,46,45,21,59,47,20,43,24	1,57,42,18,12,40, 9,24	1,32,10,23,48	8,36
4″	21, 0,48,43, 4,18, 0, 0,52,48	1,57,42,16,40,29,37, 0	1,32,10,32,24	8,36
6″	21, 0,50,40,46,34,40,30,29,48	1,57,42,15, 8,18,56, 0	1,32,10,41, 0	8,36
8″	21, 0,52,38,28,49,48,49,25,48	1,57,42,13,36, 8, 6,24	1,32,10,49,36	8,36
10″	21, 0,54,36,11, 3,24,57,32,12	1,57,42,12, 3,57, 8,12	1,32,10,58,12	8,36
12″	21, 0,56,33,53,15,28,54,40,24	1,57,42,10,31,46, 1,24	1,32,11, 6,48	8,36
14″	21, 0,58,31,35,26, 0,40,41,48	1,57,42, 8,59,34,46, 0	1,32,11,15,24	8,36
16″	21, 1, 0,29,17,35, 0,15,27,48	1,57,42, 7,27,23,22, 0	1,32,11,24, 0	8,36
18″	21, 1, 2,26,59,42,27,38,49,48	1,57,42, 5,55,11,49,24	1,32,11,32,36	8,36
20″	21, 1, 4,24,41,48,22,50,39,12	1,57,42, 4,23, 0, 8,12	1,32,11,41,12	8,36
22″	21, 1, 6,22,23,52,45,50,47,24	1,57,42, 2,50,48,18,24	1,32,11,49,48	8,36
24″	21, 1, 8,20, 5,55,36,39, 5,48	1,57,42, 1,18,36,20, 0	1,32,11,58,24	8,36
26″	21, 1,10,17,47,56,55,15,25,48	1,57,41,59,46,24,13, 0	1,32,12, 7, 0	8,36
28″	21, 1,12,15,29,56,41,39,38,48	1,57,41,58,14,11,57,24	1,32,12,15,36	8,36
30″	21, 1,14,13,11,54,55,51,36,12	1,57,41,56,41,59,33,12	1,32,12,24,12	8,36
32″	21, 1,16,10,53,51,37,51, 9,24	1,57,41,55, 9,47, 0,24	1,32,12,32,48	8,36
34″	21, 1,18, 8,35,46,47,38, 9,48	1,57,41,53,37,34,19, 0	1,32,12,41,24	8,36
36″	21, 1,20, 6,17,40,25,12,28,48	1,57,41,52, 5,21,29, 0	1,32,12,50, 0	8,36
38″	21, 1,22, 3,59,32,30,33,57,48	1,57,41,50,33, 8,30,24	1,32,12,58,36	8,36
40″	21, 1,24, 1,41,23, 3,42,28,12	1,57,41,49, 0,55,23,12	1,32,13, 7,12	8,36
42″	21, 1,25,59,23,12, 4,37,51,24	1,57,41,47,28,42, 7,24	1,32,13,15,48	8,36
44″	21, 1,27,57, 4,59,33,19,58,48	1,57,41,45,56,28,43, 0	1,32,13,24,24	8,36
46″	21, 1,29,54,46,45,29,48,41,48	1,57,41,44,24,15,10, 0	1,32,13,33, 0	8,36
48″	21, 1,31,52,28,29,54, 3,51,48	1,57,41,42,52, 1,28,24	1,32,13,41,36	8,36
50″	21, 1,33,50,10,12,46, 5,20,12	1,57,41,41,19,47,38,12	1,32,13,50,12	8,36
52″	21, 1,35,47,51,54, 5,52,58,24	1,57,41,39,47,33,39,24	1,32,13,58,48	8,36
54″	21, 1,37,45,33,33,53,26,37,48	1,57,41,38,15,19,32, 0	1,32,14, 7,24	8,36
56″	21, 1,39,43,15,12, 8,46, 9,48	1,57,41,36,43, 5,16, 0	1,32,14,16, 0	8,36
58″	21, 1,41,40,56,48,51,51,25,48	1,57,41,35,10,50,51,24	1,32,14,24,36	
60″	21, 1,43,38,38,24, 2,42,17,12			
exact	21, 1,43,38,38,24, 2,41,55,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°31′ 0″	21, 1,43,38,38,24, 2,41,55,36			
		1,57,41,33,38,36,15,58		
2″	21, 1,45,36,19,57,41,18,11,34		1,32,14,41,57	
		1,57,41,32, 6,21,34, 1		8,36
4″	21, 1,47,34, 1,29,47,39,45,35		1,32,14,50,33	
		1,57,41,30,34, 6,43,28		8,36
6″	21, 1,49,31,43, 0,21,46,29, 3		1,32,14,59, 9	
		1,57,41,29, 1,51,44,19		8,36
8″	21, 1,51,29,24,29,23,38,13,22		1,32,15, 7,45	
		1,57,41,27,29,36,36,34		8,36
10″	21, 1,53,27, 5,56,53,14,49,56		1,32,15,16,21	
		1,57,41,25,57,21,20,13		8,36
12″	21, 1,55,24,47,22,50,36,10, 9		1,32,15,24,57	
		1,57,41,24,25, 5,55,16		8,36
14″	21, 1,57,22,28,47,15,42, 5,25		1,32,15,33,33	
		1,57,41,22,52,50,21,43		8,36
16″	21, 1,59,20,10,10, 8,32,27, 8		1,32,15,42, 9	
		1,57,41,21,20,34,39,34		8,36
18″	21, 2, 1,17,51,31,29, 7, 6,42		1,32,15,50,45	
		1,57,41,19,48,18,48,49		8,36
20″	21, 2, 3,15,32,51,17,25,55,31		1,32,15,59,21	
		1,57,41,18,16, 2,49,28		8,36
22″	21, 2, 5,13,14, 9,33,28,44,59		1,32,16, 7,57	
		1,57,41,16,43,46,41,31		8,36
24″	21, 2, 7,10,55,26,17,15,26,30		1,32,16,16,33	
		1,57,41,15,11,30,24,58		8,36
26″	21, 2, 9, 8,36,41,28,45,51,28		1,32,16,25, 9	
		1,57,41,13,39,13,59,49		8,36
28″	21, 2,11, 6,17,55, 7,59,51,17		1,32,16,33,45	
		1,57,41,12, 6,57,26, 4		8,36
30″	21, 2,13, 3,59, 7,14,57,17,21		1,32,16,42,21	
		1,57,41,10,34,40,43,43		8,36
32″	21, 2,15, 1,40,17,49,38, 1, 4		1,32,16,50,57	
		1,57,41, 9, 2,23,52,46		8,36
34″	21, 2,16,59,21,26,52, 1,53,50		1,32,16,59,33	
		1,57,41, 7,30, 6,53,13		8,36
36″	21, 2,18,57, 2,34,22, 8,47, 3		1,32,17, 8, 9	
		1,57,41, 5,57,49,45, 4		8,36
38″	21, 2,20,54,43,40,19,58,32, 7		1,32,17,16,45	
		1,57,41, 4,25,32,28,19		8,36
40″	21, 2,22,52,24,44,45,31, 0,26		1,32,17,25,21	
		1,57,41, 2,53,15, 2,58		8,36
42″	21, 2,24,50, 5,47,38,46, 3,24		1,32,17,33,57	
		1,57,41, 1,20,57,29, 1		8,36
44″	21, 2,26,47,46,48,59,43,32,25		1,32,17,42,33	
		1,57,40,59,48,39,46,28		8,36
46″	21, 2,28,45,27,48,48,23,18,53		1,32,17,51, 9	
		1,57,40,58,16,21,55,19		8,36
48″	21, 2,30,43, 8,47, 4,45,14,12		1,32,17,59,45	
		1,57,40,56,44, 3,55,34		8,36
50″	21, 2,32,40,49,43,48,49, 9,46		1,32,18, 8,21	
		1,57,40,55,11,45,47,13		8,36
52″	21, 2,34,38,30,39, 0,34,56,59		1,32,18,16,57	
		1,57,40,53,39,27,30,16		8,36
54″	21, 2,36,36,11,32,40, 2,27,15		1,32,18,25,33	
		1,57,40,52, 7, 9, 4,43		8,36
56″	21, 2,38,33,52,24,47,11,31,58		1,32,18,34, 9	
		1,57,40,50,34,50,30,34		8,36
58″	21, 2,40,31,33,15,22, 2, 2,32		1,32,18,42,45	
		1,57,40,49, 2,31,47,49		
60″	21, 2,42,29,14, 4,24,33,50,21			
exact	21, 2,42,29,14, 4,24,33,35,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°32′ 0″	21, 2,42,29,14, 4,24,33,35,55			
		1,57,40,47,30,12,54,52		
2″	21, 2,44,26,54,51,54,46,30,47		1,32,19, 0, 4	
		1,57,40,45,57,53,54,48		8,36
4″	21, 2,46,24,35,37,52,40,25,35		1,32,19, 8,40	
		1,57,40,44,25,34,46, 8		8,36
6″	21, 2,48,22,16,22,18,15,11,43		1,32,19,17,16	
		1,57,40,42,53,15,28,52		8,36
8″	21, 2,50,19,57, 5,11,30,40,35		1,32,19,25,52	
		1,57,40,41,20,56, 3, 0		8,36
10″	21, 2,52,17,37,46,32,26,43,35		1,32,19,34,28	
		1,57,40,39,48,36,28,32		8,36
12″	21, 2,54,15,18,26,21, 3,12, 7		1,32,19,43, 4	
		1,57,40,38,16,16,45,28		8,36
14″	21, 2,56,12,59, 4,37,19,57,35		1,32,19,51,40	
		1,57,40,36,43,56,53,48		8,36
16″	21, 2,58,10,39,41,21,16,51,23		1,32,20, 0,16	
		1,57,40,35,11,36,53,32		8,36
18″	21, 3, 0, 8,20,16,32,53,44,55		1,32,20, 8,52	
		1,57,40,33,39,16,44,40		8,36
20″	21, 3, 2, 6, 0,50,12,10,29,35		1,32,20,17,28	
		1,57,40,32, 6,56,27,12		8,36
22″	21, 3, 4, 3,41,22,19, 6,56,47		1,32,20,26, 4	
		1,57,40,30,34,36, 1, 8		8,36
24″	21, 3, 6, 1,21,52,53,42,57,55		1,32,20,34,40	
		1,57,40,29, 2,15,26,28		8,36
26″	21, 3, 7,59, 2,21,55,58,24,23		1,32,20,43,16	
		1,57,40,27,29,54,43,12		8,36
28″	21, 3, 9,56,42,49,25,53, 7,35		1,32,20,51,52	
		1,57,40,25,57,33,51,20		8,36
30″	21, 3,11,54,23,15,23,26,58,55		1,32,21, 0,28	
		1,57,40,24,25,12,50,52		8,36
32″	21, 3,13,52, 3,39,48,39,49,47		1,32,21, 9, 4	
		1,57,40,22,52,51,41,48		8,36
34″	21, 3,15,49,44, 2,41,31,31,35		1,32,21,17,40	
		1,57,40,21,20,30,24, 8		8,36
36″	21, 3,17,47,24,24, 2, 1,55,43		1,32,21,26,16	
		1,57,40,19,48, 8,57,52		8,36
38″	21, 3,19,45, 4,43,50,10,53,35		1,32,21,34,52	
		1,57,40,18,15,47,23, 0		8,36
40″	21, 3,21,42,45, 2, 5,58,16,35		1,32,21,43,28	
		1,57,40,16,43,25,39,32		8,36
42″	21, 3,23,40,25,18,49,23,56, 7		1,32,21,52, 4	
		1,57,40,15,11, 3,47,28		8,36
44″	21, 3,25,38, 5,34, 0,27,43,35		1,32,22, 0,40	
		1,57,40,13,38,41,46,48		8,36
46″	21, 3,27,35,45,47,39, 9,30,23		1,32,22, 9,16	
		1,57,40,12, 6,19,37,32		8,36
48″	21, 3,29,33,25,59,45,29, 7,55		1,32,22,17,52	
		1,57,40,10,33,57,19,40		8,36
50″	21, 3,31,31, 6,10,19,26,27,35		1,32,22,26,28	
		1,57,40, 9, 1,34,53,12		8,36
52″	21, 3,33,28,46,19,21, 1,20,47		1,32,22,35, 4	
		1,57,40, 7,29,12,18, 8		8,36
54″	21, 3,35,26,26,26,50,13,38,55		1,32,22,43,40	
		1,57,40, 5,56,49,34,28		8,36
56″	21, 3,37,24, 6,32,47, 3,13,23		1,32,22,52,16	
		1,57,40, 4,24,26,42,12		8,36
58″	21, 3,39,21,46,37,11,29,55,35		1,32,23, 0,52	
		1,57,40, 2,52, 3,41,20		
60″	21, 3,41,19,26,40, 3,33,36,55			
exact	21, 3,41,19,26,40, 3,33,27,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°33′ 0″	21, 3,41,19,26,40, 3,33,27,20			
		1,57,40, 1,19,40,30,45		
2″	21, 3,43,17, 6,41,23,13,58, 5		1,32,23,18, 9	
		1,57,39,59,47,17,12,36		8,36
4″	21, 3,45,14,46,41,10,31,10,41		1,32,23,26,45	
		1,57,39,58,14,53,45,51		8,36
6″	21, 3,47,12,26,39,25,24,56,32		1,32,23,35,21	
		1,57,39,56,42,30,10,30		8,36
8″	21, 3,49,10, 6,36, 7,55, 7, 2		1,32,23,43,57	
		1,57,39,55,10, 6,26,33		8,36
10″	21, 3,51, 7,46,31,18, 1,33,35		1,32,23,52,33	
		1,57,39,53,37,42,34, 0		8,36
12″	21, 3,53, 5,26,24,55,44, 7,35		1,32,24, 1, 9	
		1,57,39,52, 5,18,32,51		8,36
14″	21, 3,55, 3, 6,17, 1, 2,40,26		1,32,24, 9,45	
		1,57,39,50,32,54,23, 6		8,36
16″	21, 3,57, 0,46, 7,33,57, 3,32		1,32,24,18,21	
		1,57,39,49, 0,30, 4,45		8,36
18″	21, 3,58,58,25,56,34,27, 8,17		1,32,24,26,57	
		1,57,39,47,28, 5,37,48		8,36
20″	21, 4, 0,56, 5,44, 2,32,46, 5		1,32,24,35,33	
		1,57,39,45,55,41, 2,15		8,36
22″	21, 4, 2,53,45,29,58,13,48,20		1,32,24,44, 9	
		1,57,39,44,23,16,18, 6		8,36
24″	21, 4, 4,51,25,14,21,30, 6,26		1,32,24,52,45	
		1,57,39,42,50,51,25,21		8,36
26″	21, 4, 6,49, 4,57,12,21,31,47		1,32,25, 1,21	
		1,57,39,41,18,26,24, 0		8,36
28″	21, 4, 8,46,44,38,30,47,55,47		1,32,25, 9,57	
		1,57,39,39,46, 1,14, 3		8,36
30″	21, 4,10,44,24,18,16,49, 9,50		1,32,25,18,33	
		1,57,39,38,13,35,55,30		8,36
32″	21, 4,12,42, 3,56,30,25, 5,20		1,32,25,27, 9	
		1,57,39,36,41,10,28,21		8,36
34″	21, 4,14,39,43,33,11,35,33,41		1,32,25,35,45	
		1,57,39,35, 8,44,52,36		8,36
36″	21, 4,16,37,23, 8,20,20,26,17		1,32,25,44,21	
		1,57,39,33,36,19, 8,15		8,36
38″	21, 4,18,35, 2,41,56,39,34,32		1,32,25,52,57	
		1,57,39,32, 3,53,15,18		8,36
40″	21, 4,20,32,42,14, 0,32,49,50		1,32,26, 1,33	
		1,57,39,30,31,27,13,45		8,36
42″	21, 4,22,30,21,44,32, 0, 3,35		1,32,26,10, 9	
		1,57,39,28,59, 1, 3,36		8,36
44″	21, 4,24,28, 1,13,31, 1, 7,11		1,32,26,18,45	
		1,57,39,27,26,34,44,51		8,36
46″	21, 4,26,25,40,40,57,35,52, 2		1,32,26,27,21	
		1,57,39,25,54, 8,17,30		8,36
48″	21, 4,28,23,20, 6,51,44, 9,32		1,32,26,35,57	
		1,57,39,24,21,41,41,33		8,36
50″	21, 4,30,20,59,31,13,25,51, 5		1,32,26,44,33	
		1,57,39,22,49,14,57, 0		8,36
52″	21, 4,32,18,38,54, 2,40,48, 5		1,32,26,53, 9	
		1,57,39,21,16,48, 3,51		8,36
54″	21, 4,34,16,18,15,19,28,51,56		1,32,27, 1,45	
		1,57,39,19,44,21, 2, 6		8,36
56″	21, 4,36,13,57,35, 3,49,54, 2		1,32,27,10,21	
		1,57,39,18,11,53,51,45		8,36
58″	21, 4,38,11,36,53,15,43,45,47		1,32,27,18,57	
		1,57,39,16,39,26,32,48		
60″	21, 4,40, 9,16, 9,55,10,18,35			
exact	21, 4,40, 9,16, 9,55,10,11,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°34′ 0″	21, 4,40, 9,16, 9,55,10,11,21	1,57,39,15, 6,59, 4,27		
2″	21, 4,42, 6,55,25, 2, 9,15,48	1,57,39,13,34,31,28,15	1,32,27,36,12	8,36
4″	21, 4,44, 4,34,38,36,40,44, 3	1,57,39,12, 2, 3,43,27	1,32,27,44,48	8,36
6″	21, 4,46, 2,13,50,38,44,27,30	1,57,39,10,29,35,50, 3	1,32,27,53,24	8,36
8″	21, 4,47,59,53, 1, 8,20,17,33	1,57,39, 8,57, 7,48, 3	1,32,28, 2, 0	8,36
10″	21, 4,49,57,32,10, 5,28, 5,36	1,57,39, 7,24,39,37,27	1,32,28,10,36	8,36
12″	21, 4,51,55,11,17,30, 7,43, 3	1,57,39, 5,52,11,18,15	1,32,28,19,12	8,36
14″	21, 4,53,52,50,23,22,19, 1,18	1,57,39, 4,19,42,50,27	1,32,28,27,48	8,36
16″	21, 4,55,50,29,27,42, 1,51,45	1,57,39, 2,47,14,14, 3	1,32,28,36,24	8,36
18″	21, 4,57,48, 8,30,29,16, 5,48	1,57,39, 1,14,45,29, 3	1,32,28,45, 0	8,36
20″	21, 4,59,45,47,31,44, 1,34,51	1,57,38,59,42,16,35,27	1,32,28,53,36	8,36
22″	21, 5, 1,43,26,31,26,18,10,18	1,57,38,58, 9,47,33,15	1,32,29, 2,12	8,36
24″	21, 5, 3,41, 5,29,36, 5,43,33	1,57,38,56,37,18,22,27	1,32,29,10,48	8,36
26″	21, 5, 5,38,44,26,13,24, 6, 0	1,57,38,55, 4,49, 3, 3	1,32,29,19,24	8,36
28″	21, 5, 7,36,23,21,18,13, 9, 3	1,57,38,53,32,19,35, 3	1,32,29,28, 0	8,36
30″	21, 5, 9,34, 2,14,50,32,44, 6	1,57,38,51,59,49,58,27	1,32,29,36,36	8,36
32″	21, 5,11,31,41, 6,50,22,42,33	1,57,38,50,27,20,13,15	1,32,29,45,12	8,36
34″	21, 5,13,29,19,57,17,42,55,48	1,57,38,48,54,50,19,27	1,32,29,53,48	8,36
36″	21, 5,15,26,58,46,12,33,15,15	1,57,38,47,22,20,17, 3	1,32,30, 2,24	8,36
38″	21, 5,17,24,37,33,34,53,32,18	1,57,38,45,49,50, 6, 3	1,32,30,11, 0	8,36
40″	21, 5,19,22,16,19,24,43,38,21	1,57,38,44,17,19,46,27	1,32,30,19,36	8,36
42″	21, 5,21,19,55, 3,42, 3,24,48	1,57,38,42,44,49,18,15	1,32,30,28,12	8,36
44″	21, 5,23,17,33,46,26,52,43, 3	1,57,38,41,12,18,41,27	1,32,30,36,48	8,36
46″	21, 5,25,15,12,27,39,11,24,30	1,57,38,39,39,47,56, 3	1,32,30,45,24	8,36
48″	21, 5,27,12,51, 7,18,59,20,33	1,57,38,38, 7,17, 2, 3	1,32,30,54, 0	8,36
50″	21, 5,29,10,29,45,26,16,22,36	1,57,38,36,34,45,59,27	1,32,31, 2,36	8,36
52″	21, 5,31, 8, 8,22, 1, 2,22, 3	1,57,38,35, 2,14,48,15	1,32,31,11,12	8,36
54″	21, 5,33, 5,46,57, 3,17,10,18	1,57,38,33,29,43,28,27	1,32,31,19,48	8,36
56″	21, 5,35, 3,25,30,33, 0,38,45	1,57,38,31,57,12, 0, 3	1,32,31,28,24	8,36
58″	21, 5,37, 1, 4, 2,30,12,38,48	1,57,38,30,24,40,23, 3	1,32,31,37, 0	
60″	21, 5,38,58,42,32,54,53, 1,51			
exact	21, 5,38,58,42,32,54,52,54,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°35′ 0″	21, 5,38,58,42,32,54,52,54,47			
		1,57,38,28,52, 8,36,49		
2″	21, 5,40,56,21, 1,47, 1,31,36		1,32,31,54,14	
		1,57,38,27,19,36,42,35		8,36
4″	21, 5,42,53,59,29, 6,38,14,11		1,32,32, 2,50	
		1,57,38,25,47, 4,39,45		8,36
6″	21, 5,44,51,37,54,53,42,53,56		1,32,32,11,26	
		1,57,38,24,14,32,28,19		8,36
8″	21, 5,46,49,16,19, 8,15,22,15		1,32,32,20, 2	
		1,57,38,22,42, 0, 8,17		8,36
10″	21, 5,48,46,54,41,50,15,30,32		1,32,32,28,38	
		1,57,38,21, 9,27,39,39		8,36
12″	21, 5,50,44,33, 2,59,43,10,11		1,32,32,37,14	
		1,57,38,19,36,55, 2,25		8,36
14″	21, 5,52,42,11,22,36,38,12,36		1,32,32,45,50	
		1,57,38,18, 4,22,16,35		8,36
16″	21, 5,54,39,49,40,41, 0,29,11		1,32,32,54,26	
		1,57,38,16,31,49,22, 9		8,36
18″	21, 5,56,37,27,57,12,49,51,20		1,32,33, 3, 2	
		1,57,38,14,59,16,19, 7		8,36
20″	21, 5,58,35, 6,12,12, 6,10,27		1,32,33,11,38	
		1,57,38,13,26,43, 7,29		8,36
22″	21, 6, 0,32,44,25,38,49,17,56		1,32,33,20,14	
		1,57,38,11,54, 9,47,15		8,36
24″	21, 6, 2,30,22,37,32,59, 5,11		1,32,33,28,50	
		1,57,38,10,21,36,18,25		8,36
26″	21, 6, 4,28, 0,47,54,35,23,36		1,32,33,37,26	
		1,57,38, 8,49, 2,40,59		8,36
28″	21, 6, 6,25,38,56,43,38, 4,35		1,32,33,46, 2	
		1,57,38, 7,16,28,54,57		8,36
30″	21, 6, 8,23,17, 4, 0, 6,59,32		1,32,33,54,38	
		1,57,38, 5,43,55, 0,19		8,36
32″	21, 6,10,20,55, 9,44, 1,59,51		1,32,34, 3,14	
		1,57,38, 4,11,20,57, 5		8,36
34″	21, 6,12,18,33,13,55,22,56,56		1,32,34,11,50	
		1,57,38, 2,38,46,45,15		8,36
36″	21, 6,14,16,11,16,34, 9,42,11		1,32,34,20,26	
		1,57,38, 1, 6,12,24,49		8,36
38″	21, 6,16,13,49,17,40,22, 7, 0		1,32,34,29, 2	
		1,57,37,59,33,37,55,47		8,36
40″	21, 6,18,11,27,17,14, 0, 2,47		1,32,34,37,38	
		1,57,37,58, 1, 3,18, 9		8,36
42″	21, 6,20, 9, 5,15,15, 3,20,56		1,32,34,46,14	
		1,57,37,56,28,28,31,55		8,36
44″	21, 6,22, 6,43,11,43,31,52,51		1,32,34,54,50	
		1,57,37,54,55,53,37, 5		8,36
46″	21, 6,24, 4,21, 6,39,25,29,56		1,32,35, 3,26	
		1,57,37,53,23,18,33,39		8,36
48″	21, 6,26, 1,59, 0, 2,44, 3,35		1,32,35,12, 2	
		1,57,37,51,50,43,21,37		8,36
50″	21, 6,27,59,36,51,53,27,25,12		1,32,35,20,38	
		1,57,37,50,18, 8, 0,59		8,36
52″	21, 6,29,57,14,42,11,35,26,11		1,32,35,29,14	
		1,57,37,48,45,32,31,45		8,36
54″	21, 6,31,54,52,30,57, 7,57,56		1,32,35,37,50	
		1,57,37,47,12,56,53,55		8,36
56″	21, 6,33,52,30,18,10, 4,51,51		1,32,35,46,26	
		1,57,37,45,40,21, 7,29		8,36
58″	21, 6,35,50, 8, 3,50,25,59,20		1,32,35,55, 2	
		1,57,37,44, 7,45,12,27		
60″	21, 6,37,47,45,47,58,11,11,47			
exact	21, 6,37,47,45,47,58,11, 9,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°36′ 0″	21, 6,37,47,45,47,58,11, 9,50			
		1,57,37,42,35, 9, 8,41		
2″	21, 6,39,45,23,30,33,20,18,31		1,32,36,12,14	
		1,57,37,41, 2,32,56,27		8,36
4″	21, 6,41,43, 1,11,35,53,14,58		1,32,36,20,50	
		1,57,37,39,29,56,35,37		8,36
6″	21, 6,43,40,38,51, 5,49,50,35		1,32,36,29,26	
		1,57,37,37,57,20, 6,11		8,36
8″	21, 6,45,38,16,29, 3, 9,56,46		1,32,36,38, 2	
		1,57,37,36,24,43,28, 9		8,36
10″	21, 6,47,35,54, 5,27,53,24,55		1,32,36,46,38	
		1,57,37,34,52, 6,41,31		8,36
12″	21, 6,49,33,31,40,20, 0, 6,26		1,32,36,55,14	
		1,57,37,33,19,29,46,17		8,36
14″	21, 6,51,31, 9,13,39,29,52,43		1,32,37, 3,50	
		1,57,37,31,46,52,42,27		8,36
16″	21, 6,53,28,46,45,26,22,35,10		1,32,37,12,26	
		1,57,37,30,14,15,30, 1		8,36
18″	21, 6,55,26,24,15,40,38, 5,11		1,32,37,21, 2	
		1,57,37,28,41,38, 8,59		8,36
20″	21, 6,57,24, 1,44,22,16,14,10		1,32,37,29,38	
		1,57,37,27, 9, 0,39,21		8,36
22″	21, 6,59,21,39,11,31,16,53,31		1,32,37,38,14	
		1,57,37,25,36,23, 1, 7		8,36
24″	21, 7, 1,19,16,37, 7,39,54,38		1,32,37,46,50	
		1,57,37,24, 3,45,14,17		8,36
26″	21, 7, 3,16,54, 1,11,25, 8,55		1,32,37,55,26	
		1,57,37,22,31, 7,18,51		8,36
28″	21, 7, 5,14,31,23,42,32,27,46		1,32,38, 4, 2	
		1,57,37,20,58,29,14,49		8,36
30″	21, 7, 7,12, 8,44,41, 1,42,35		1,32,38,12,38	
		1,57,37,19,25,51, 2,11		8,36
32″	21, 7, 9, 9,46, 4, 6,52,44,46		1,32,38,21,14	
		1,57,37,17,53,12,40,57		8,36
34″	21, 7,11, 7,23,22, 0, 5,25,43		1,32,38,29,50	
		1,57,37,16,20,34,11, 7		8,36
36″	21, 7,13, 5, 0,38,20,39,36,50		1,32,38,38,26	
		1,57,37,14,47,55,32,41		8,36
38″	21, 7,15, 2,37,53, 8,35, 9,31		1,32,38,47, 2	
		1,57,37,13,15,16,45,39		8,36
40″	21, 7,17, 0,15, 6,23,51,55,10		1,32,38,55,38	
		1,57,37,11,42,37,50, 1		8,36
42″	21, 7,18,57,52,18, 6,29,45,11		1,32,39, 4,14	
		1,57,37,10, 9,58,45,47		8,36
44″	21, 7,20,55,29,28,16,28,30,58		1,32,39,12,50	
		1,57,37, 8,37,19,32,57		8,36
46″	21, 7,22,53, 6,36,53,48, 3,55		1,32,39,21,26	
		1,57,37, 7, 4,40,11,31		8,36
48″	21, 7,24,50,43,43,58,28,15,26		1,32,39,30, 2	
		1,57,37, 5,32, 0,41,29		8,36
50″	21, 7,26,48,20,49,30,28,56,55		1,32,39,38,38	
		1,57,37, 3,59,21, 2,51		8,36
52″	21, 7,28,45,57,53,29,49,59,46		1,32,39,47,14	
		1,57,37, 2,26,41,15,37		8,36
54″	21, 7,30,43,34,55,56,31,15,23		1,32,39,55,50	
		1,57,37, 0,54, 1,19,47		8,36
56″	21, 7,32,41,11,56,50,32,35,10		1,32,40, 4,26	
		1,57,36,59,21,21,15,21		8,36
58″	21, 7,34,38,48,56,11,53,50,31		1,32,40,13, 2	
		1,57,36,57,48,41, 2,19		
60″	21, 7,36,36,25,54, 0,34,52,50			
exact	21, 7,36,36,25,54, 0,34,54, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°37′ 0″	21, 7,36,36,25,54, 0,34,54, 1			
		1,57,36,56,16, 0,40,54		
2″	21, 7,38,34, 2,50,16,35,34,55		1,32,40,30,13	
		1,57,36,54,43,20,10,41		8,36
4″	21, 7,40,31,39,44,59,55,45,36		1,32,40,38,49	
		1,57,36,53,10,39,31,52		8,36
6″	21, 7,42,29,16,38,10,35,17,28		1,32,40,47,25	
		1,57,36,51,37,58,44,27		8,36
8″	21, 7,44,26,53,29,48,34, 1,55		1,32,40,56, 1	
		1,57,36,50, 5,17,48,26		8,36
10″	21, 7,46,24,30,19,53,51,50,21		1,32,41, 4,37	
		1,57,36,48,32,36,43,49		8,36
12″	21, 7,48,22, 7, 8,26,28,34,10		1,32,41,13,13	
		1,57,36,46,59,55,30,36		8,36
14″	21, 7,50,19,43,55,26,24, 4,46		1,32,41,21,49	
		1,57,36,45,27,14, 8,47		8,36
16″	21, 7,52,17,20,40,53,38,13,33		1,32,41,30,25	
		1,57,36,43,54,32,38,22		8,36
18″	21, 7,54,14,57,24,48,10,51,55		1,32,41,39, 1	
		1,57,36,42,21,50,59,21		8,36
20″	21, 7,56,12,34, 7,10, 1,51,16		1,32,41,47,37	
		1,57,36,40,49, 9,11,44		8,36
22″	21, 7,58,10,10,47,59,11, 3, 0		1,32,41,56,13	
		1,57,36,39,16,27,15,31		8,36
24″	21, 8, 0, 7,47,27,15,38,18,31		1,32,42, 4,49	
		1,57,36,37,43,45,10,42		8,36
26″	21, 8, 2, 5,24, 4,59,23,29,13		1,32,42,13,25	
		1,57,36,36,11, 2,57,17		8,36
28″	21, 8, 4, 3, 0,41,10,26,26,30		1,32,42,22, 1	
		1,57,36,34,38,20,35,16		8,36
30″	21, 8, 6, 0,37,15,48,47, 1,46		1,32,42,30,37	
		1,57,36,33, 5,38, 4,39		8,36
32″	21, 8, 7,58,13,48,54,25, 6,25		1,32,42,39,13	
		1,57,36,31,32,55,25,26		8,36
34″	21, 8, 9,55,50,20,27,20,31,51		1,32,42,47,49	
		1,57,36,30, 0,12,37,37		8,36
36″	21, 8,11,53,26,50,27,33, 9,28		1,32,42,56,25	
		1,57,36,28,27,29,41,12		8,36
38″	21, 8,13,51, 3,18,55, 2,50,40		1,32,43, 5, 1	
		1,57,36,26,54,46,36,11		8,36
40″	21, 8,15,48,39,45,49,49,26,51		1,32,43,13,37	
		1,57,36,25,22, 3,22,34		8,36
42″	21, 8,17,46,16,11,11,52,49,25		1,32,43,22,13	
		1,57,36,23,49,20, 0,21		8,36
44″	21, 8,19,43,52,35, 1,12,49,46		1,32,43,30,49	
		1,57,36,22,16,36,29,32		8,36
46″	21, 8,21,41,28,57,17,49,19,18		1,32,43,39,25	
		1,57,36,20,43,52,50, 7		8,36
48″	21, 8,23,39, 5,18, 1,42, 9,25		1,32,43,48, 1	
		1,57,36,19,11, 9, 2, 6		8,36
50″	21, 8,25,36,41,37,12,51,11,31		1,32,43,56,37	
		1,57,36,17,38,25, 5,29		8,36
52″	21, 8,27,34,17,54,51,16,17, 0		1,32,44, 5,13	
		1,57,36,16, 5,41, 0,16		8,36
54″	21, 8,29,31,54,10,56,57,17,16		1,32,44,13,49	
		1,57,36,14,32,56,46,27		8,36
56″	21, 8,31,29,30,25,29,54, 3,43		1,32,44,22,25	
		1,57,36,13, 0,12,24, 2		8,36
58″	21, 8,33,27, 6,38,30, 6,27,45		1,32,44,31, 1	
		1,57,36,11,27,27,53, 1		
60″	21, 8,35,24,42,49,57,34,20,46			
exact	21, 8,35,24,42,49,57,34,30,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°38′ 0″	21, 8,35,24,42,49,57,34,30,18			
		1,57,36, 9,54,43,14,20		
2″	21, 8,37,22,18,59,52,17,44,38		1,32,44,48, 9	
		1,57,36, 8,21,58,26,11		8,36
4″	21, 8,39,19,55, 8,14,16,10,49		1,32,44,56,45	
		1,57,36, 6,49,13,29,26		8,36
6″	21, 8,41,17,31,15, 3,29,40,15		1,32,45, 5,21	
		1,57,36, 5,16,28,24, 5		8,36
8″	21, 8,43,15, 7,20,19,58, 4,20		1,32,45,13,57	
		1,57,36, 3,43,43,10, 8		8,36
10″	21, 8,45,12,43,24, 3,41,14,28		1,32,45,22,33	
		1,57,36, 2,10,57,47,35		8,36
12″	21, 8,47,10,19,26,14,39, 2, 3		1,32,45,31, 9	
		1,57,36, 0,38,12,16,26		8,36
14″	21, 8,49, 7,55,26,52,51,18,29		1,32,45,39,45	
		1,57,35,59, 5,26,36,41		8,36
16″	21, 8,51, 5,31,25,58,17,55,10		1,32,45,48,21	
		1,57,35,57,32,40,48,20		8,36
18″	21, 8,53, 3, 7,23,30,58,43,30		1,32,45,56,57	
		1,57,35,55,59,54,51,23		8,36
20″	21, 8,55, 0,43,19,30,53,34,53		1,32,46, 5,33	
		1,57,35,54,27, 8,45,50		8,36
22″	21, 8,56,58,19,13,58, 2,20,43		1,32,46,14, 9	
		1,57,35,52,54,22,31,41		8,36
24″	21, 8,58,55,55, 6,52,24,52,24		1,32,46,22,45	
		1,57,35,51,21,36, 8,56		8,36
26″	21, 9, 0,53,30,58,14, 1, 1,20		1,32,46,31,21	
		1,57,35,49,48,49,37,35		8,36
28″	21, 9, 2,51, 6,48, 2,50,38,55		1,32,46,39,57	
		1,57,35,48,16, 2,57,38		8,36
30″	21, 9, 4,48,42,36,18,53,36,33		1,32,46,48,33	
		1,57,35,46,43,16, 9, 5		8,36
32″	21, 9, 6,46,18,23, 2, 9,45,38		1,32,46,57, 9	
		1,57,35,45,10,29,11,56		8,36
34″	21, 9, 8,43,54, 8,12,38,57,34		1,32,47, 5,45	
		1,57,35,43,37,42, 6,11		8,36
36″	21, 9,10,41,29,51,50,21, 3,45		1,32,47,14,21	
		1,57,35,42, 4,54,51,50		8,36
38″	21, 9,12,39, 5,33,55,15,55,35		1,32,47,22,57	
		1,57,35,40,32, 7,28,53		8,36
40″	21, 9,14,36,41,14,27,23,24,28		1,32,47,31,33	
		1,57,35,38,59,19,57,20		8,36
42″	21, 9,16,34,16,53,26,43,21,48		1,32,47,40, 9	
		1,57,35,37,26,32,17,11		8,36
44″	21, 9,18,31,52,30,53,15,38,59		1,32,47,48,45	
		1,57,35,35,53,44,28,26		8,36
46″	21, 9,20,29,28, 6,47, 0, 7,25		1,32,47,57,21	
		1,57,35,34,20,56,31, 5		8,36
48″	21, 9,22,27, 3,41, 7,56,38,30		1,32,48, 5,57	
		1,57,35,32,48, 8,25, 8		8,36
50″	21, 9,24,24,39,13,56, 5, 3,38		1,32,48,14,33	
		1,57,35,31,15,20,10,35		8,36
52″	21, 9,26,22,14,45,11,25,14,13		1,32,48,23, 9	
		1,57,35,29,42,31,47,26		8,36
54″	21, 9,28,19,50,14,53,57, 1,39		1,32,48,31,45	
		1,57,35,28, 9,43,15,41		8,36
56″	21, 9,30,17,25,43, 3,40,17,20		1,32,48,40,21	
		1,57,35,26,36,54,35,20		8,36
58″	21, 9,32,15, 1, 9,40,34,52,40		1,32,48,48,57	
		1,57,35,25, 4, 5,46,23		
60″	21, 9,34,12,36,34,44,40,39, 3			
exact	21, 9,34,12,36,34,44,40,46,59			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
20°39′	0″	21, 9,34,12,36,34,44,40,46,59			
			1,57,35,23,31,16,49,48		
	2″	21, 9,36,10,11,58,15,57,36,47		1,32,49, 6, 4	
			1,57,35,21,58,27,43,44		8,36
	4″	21, 9,38, 7,47,20,14,25,20,31		1,32,49,14,40	
			1,57,35,20,25,38,29, 4		8,36
	6″	21, 9,40, 5,22,40,40, 3,49,35		1,32,49,23,16	
			1,57,35,18,52,49, 5,48		8,36
	8″	21, 9,42, 2,57,59,32,52,55,23		1,32,49,31,52	
			1,57,35,17,19,59,33,56		8,36
	10″	21, 9,44, 0,33,16,52,52,29,19		1,32,49,40,28	
			1,57,35,15,47, 9,53,28		8,36
	12″	21, 9,45,58, 8,32,40, 2,22,47		1,32,49,49, 4	
			1,57,35,14,14,20, 4,24		8,36
	14″	21, 9,47,55,43,46,54,22,27,11		1,32,49,57,40	
			1,57,35,12,41,30, 6,44		8,36
	16″	21, 9,49,53,18,59,35,52,33,55		1,32,50, 6,16	
			1,57,35,11, 8,40, 0,28		8,36
	18″	21, 9,51,50,54,10,44,32,34,23		1,32,50,14,52	
			1,57,35, 9,35,49,45,36		8,36
	20″	21, 9,53,48,29,20,20,22,19,59		1,32,50,23,28	
			1,57,35, 8, 2,59,22, 8		8,36
	22″	21, 9,55,46, 4,28,23,21,42, 7		1,32,50,32, 4	
			1,57,35, 6,30, 8,50, 4		8,36
	24″	21, 9,57,43,39,34,53,30,32,11		1,32,50,40,40	
			1,57,35, 4,57,18, 9,24		8,36
	26″	21, 9,59,41,14,39,50,48,41,35		1,32,50,49,16	
			1,57,35, 3,24,27,20, 8		8,36
	28″	21,10, 1,38,49,43,15,16, 1,43		1,32,50,57,52	
			1,57,35, 1,51,36,22,16		8,36
	30″	21,10, 3,36,24,45, 6,52,23,59		1,32,51, 6,28	
			1,57,35, 0,18,45,15,48		8,36
	32″	21,10, 5,33,59,45,25,37,39,47		1,32,51,15, 4	
			1,57,34,58,45,54, 0,44		8,36
	34″	21,10, 7,31,34,44,11,31,40,31		1,32,51,23,40	
			1,57,34,57,13, 2,37, 4		8,36
	36″	21,10, 9,29, 9,41,24,34,17,35		1,32,51,32,16	
			1,57,34,55,40,11, 4,48		8,36
	38″	21,10,11,26,44,37, 4,45,22,23		1,32,51,40,52	
			1,57,34,54, 7,19,23,56		8,36
	40″	21,10,13,24,19,31,12, 4,46,19		1,32,51,49,28	
			1,57,34,52,34,27,34,28		8,36
	42″	21,10,15,21,54,23,46,32,20,47		1,32,51,58, 4	
			1,57,34,51, 1,35,36,24		8,36
	44″	21,10,17,19,29,14,48, 7,57,11		1,32,52, 6,40	
			1,57,34,49,28,43,29,44		8,36
	46″	21,10,19,17, 4, 4,16,51,26,55		1,32,52,15,16	
			1,57,34,47,55,51,14,28		8,36
	48″	21,10,21,14,38,52,12,42,41,23		1,32,52,23,52	
			1,57,34,46,22,58,50,36		8,36
	50″	21,10,23,12,13,38,35,41,31,59		1,32,52,32,28	
			1,57,34,44,50, 6,18, 8		8,36
	52″	21,10,25, 9,48,23,25,47,50, 7		1,32,52,41, 4	
			1,57,34,43,17,13,37, 4		8,36
	54″	21,10,27, 7,23, 6,43, 1,27,11		1,32,52,49,40	
			1,57,34,41,44,20,47,24		8,36
	56″	21,10,29, 4,57,48,27,22,14,35		1,32,52,58,16	
			1,57,34,40,11,27,49, 8		8,36
	58″	21,10,31, 2,32,28,38,50, 3,43		1,32,53, 6,52	
			1,57,34,38,38,34,42,16		
	60″	21,10,33, 0, 7, 7,17,24,45,59			
exact		21,10,33, 0, 7, 7,17,24,57,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°40′ 0″	21,10,33, 0, 7, 7,17,24,57,50	1,57,34,37, 5,41,28,11		
2″	21,10,34,57,41,44,23, 6,26, 1	1,57,34,35,32,48, 4,13	1,32,53,23,58	8,36
4″	21,10,36,55,16,19,55,54,30,14	1,57,34,33,59,54,31,39	1,32,53,32,34	8,36
6″	21,10,38,52,50,53,55,49, 1,53	1,57,34,32,27, 0,50,29	1,32,53,41,10	8,36
8″	21,10,40,50,25,26,22,49,52,22	1,57,34,30,54, 7, 0,43	1,32,53,49,46	8,36
10″	21,10,42,47,59,57,16,56,53, 5	1,57,34,29,21,13, 2,21	1,32,53,58,22	8,36
12″	21,10,44,45,34,26,38, 9,55,26	1,57,34,27,48,18,55,23	1,32,54, 6,58	8,36
14″	21,10,46,43, 8,54,26,28,50,49	1,57,34,26,15,24,39,49	1,32,54,15,34	8,36
16″	21,10,48,40,43,20,41,53,30,38	1,57,34,24,42,30,15,39	1,32,54,24,10	8,36
18″	21,10,50,38,17,45,24,23,46,17	1,57,34,23, 9,35,42,53	1,32,54,32,46	8,36
20″	21,10,52,35,52, 8,33,59,29,10	1,57,34,21,36,41, 1,31	1,32,54,41,22	8,36
22″	21,10,54,33,26,30,10,40,30,41	1,57,34,20, 3,46,11,33	1,32,54,49,58	8,36
24″	21,10,56,31, 0,50,14,26,42,14	1,57,34,18,30,51,12,59	1,32,54,58,34	8,36
26″	21,10,58,28,35, 8,45,17,55,13	1,57,34,16,57,56, 5,49	1,32,55, 7,10	8,36
28″	21,11, 0,26, 9,25,43,14, 1, 2	1,57,34,15,25, 0,50, 3	1,32,55,15,46	8,36
30″	21,11, 2,23,43,41, 8,14,51, 5	1,57,34,13,52, 5,25,41	1,32,55,24,22	8,36
32″	21,11, 4,21,17,55, 0,20,16,46	1,57,34,12,19, 9,52,43	1,32,55,32,58	8,36
34″	21,11, 6,18,52, 7,19,30, 9,29	1,57,34,10,46,14,11, 9	1,32,55,41,34	8,36
36″	21,11, 8,16,26,18, 5,44,20,38	1,57,34, 9,13,18,20,59	1,32,55,50,10	8,36
38″	21,11,10,14, 0,27,19, 2,41,37	1,57,34, 7,40,22,22,13	1,32,55,58,46	8,36
40″	21,11,12,11,34,34,59,25, 3,50	1,57,34, 6, 7,26,14,51	1,32,56, 7,22	8,36
42″	21,11,14, 9, 8,41, 6,51,18,41	1,57,34, 4,34,29,58,53	1,32,56,15,58	8,36
44″	21,11,16, 6,42,45,41,21,17,34	1,57,34, 3, 1,33,34,19	1,32,56,24,34	8,36
46″	21,11,18, 4,16,48,42,54,51,53	1,57,34, 1,28,37, 1, 9	1,32,56,33,10	8,36
48″	21,11,20, 1,50,50,11,31,53, 2	1,57,33,59,55,40,19,23	1,32,56,41,46	8,36
50″	21,11,21,59,24,50, 7,12,12,25	1,57,33,58,22,43,29, 1	1,32,56,50,22	8,36
52″	21,11,23,56,58,48,29,55,41,26	1,57,33,56,49,46,30, 3	1,32,56,58,58	8,36
54″	21,11,25,54,32,45,19,42,11,29	1,57,33,55,16,49,22,29	1,32,57, 7,34	8,36
56″	21,11,27,52, 6,40,36,31,33,58	1,57,33,53,43,52, 6,19	1,32,57,16,10	8,36
58″	21,11,29,49,40,34,20,23,40,17	1,57,33,52,10,54,41,33	1,32,57,24,46	
60″	21,11,31,47,14,26,31,18,21,50			
exact	21,11,31,47,14,26,31,18,42, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°41′ 0″	21,11,31,47,14,26,31,18,42, 6			
		1,57,33,50,37,57,10,18		
2″	21,11,33,44,48,17, 9,15,52,24		1,32,57,41,49	
		1,57,33,49, 4,59,28,29		8,36
4″	21,11,35,42,22, 6,14,15,20,53		1,32,57,50,25	
		1,57,33,47,32, 1,38, 4		8,36
6″	21,11,37,39,55,53,46,16,58,57		1,32,57,59, 1	
		1,57,33,45,59, 3,39, 3		8,36
8″	21,11,39,37,29,39,45,20,38, 0		1,32,58, 7,37	
		1,57,33,44,26, 5,31,26		8,36
10″	21,11,41,35, 3,24,11,26, 9,26		1,32,58,16,13	
		1,57,33,42,53, 7,15,13		8,36
12″	21,11,43,32,37, 7, 4,33,24,39		1,32,58,24,49	
		1,57,33,41,20, 8,50,24		8,36
14″	21,11,45,30,10,48,24,42,15, 3		1,32,58,33,25	
		1,57,33,39,47,10,16,59		8,36
16″	21,11,47,27,44,28,11,52,32, 2		1,32,58,42, 1	
		1,57,33,38,14,11,34,58		8,36
18″	21,11,49,25,18, 6,26, 4, 7, 0		1,32,58,50,37	
		1,57,33,36,41,12,44,21		8,36
20″	21,11,51,22,51,43, 7,16,51,21		1,32,58,59,13	
		1,57,33,35, 8,13,45, 8		8,36
22″	21,11,53,20,25,18,15,30,36,29		1,32,59, 7,49	
		1,57,33,33,35,14,37,19		8,36
24″	21,11,55,17,58,51,50,45,13,48		1,32,59,16,25	
		1,57,33,32, 2,15,20,54		8,36
26″	21,11,57,15,32,23,53, 0,34,42		1,32,59,25, 1	
		1,57,33,30,29,15,55,53		8,36
28″	21,11,59,13, 5,54,22,16,30,35		1,32,59,33,37	
		1,57,33,28,56,16,22,16		8,36
30″	21,12, 1,10,39,23,18,32,52,51		1,32,59,42,13	
		1,57,33,27,23,16,40, 3		8,36
32″	21,12, 3, 8,12,50,41,49,32,54		1,32,59,50,49	
		1,57,33,25,50,16,49,14		8,36
34″	21,12, 5, 5,46,16,32, 6,22, 8		1,32,59,59,25	
		1,57,33,24,17,16,49,49		8,36
36″	21,12, 7, 3,19,40,49,23,11,57		1,33, 0, 8, 1	
		1,57,33,22,44,16,41,48		8,36
38″	21,12, 9, 0,53, 3,33,39,53,45		1,33, 0,16,37	
		1,57,33,21,11,16,25,11		8,36
40″	21,12,10,58,26,24,44,56,18,56		1,33, 0,25,13	
		1,57,33,19,38,15,59,58		8,36
42″	21,12,12,55,59,44,23,12,18,54		1,33, 0,33,49	
		1,57,33,18, 5,15,26, 9		8,36
44″	21,12,14,53,33, 2,28,27,45, 3		1,33, 0,42,25	
		1,57,33,16,32,14,43,44		8,36
46″	21,12,16,51, 6,19, 0,42,28,47		1,33, 0,51, 1	
		1,57,33,14,59,13,52,43		8,36
48″	21,12,18,48,39,33,59,56,21,30		1,33, 0,59,37	
		1,57,33,13,26,12,53, 6		8,36
50″	21,12,20,46,12,47,26, 9,14,36		1,33, 1, 8,13	
		1,57,33,11,53,11,44,53		8,36
52″	21,12,22,43,45,59,19,20,59,29		1,33, 1,16,49	
		1,57,33,10,20,10,28, 4		8,36
54″	21,12,24,41,19, 9,39,31,27,33		1,33, 1,25,25	
		1,57,33, 8,47, 9, 2,39		8,36
56″	21,12,26,38,52,18,26,40,30,12		1,33, 1,34, 1	
		1,57,33, 7,14, 7,28,38		8,36
58″	21,12,28,36,25,25,40,47,58,50		1,33, 1,42,37	
		1,57,33, 5,41, 5,46, 1		
60″	21,12,30,33,58,31,21,53,44,51			
exact	21,12,30,33,58,31,21,54, 4,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°42′ 0″	21,12,30,33,58,31,21,54, 4,25			
		1,57,33, 4, 8, 3,57, 1		
2″	21,12,32,31,31,35,29,58, 1,26		1,33, 1,59,39	
		1,57,33, 2,35, 1,57,22		8,36
4″	21,12,34,29, 4,38, 4,59,58,48		1,33, 2, 8,15	
		1,57,33, 1, 1,59,49, 7		8,36
6″	21,12,36,26,37,39, 6,59,47,55		1,33, 2,16,51	
		1,57,32,59,28,57,32,16		8,36
8″	21,12,38,24,10,38,35,57,20,11		1,33, 2,25,27	
		1,57,32,57,55,55, 6,49		8,36
10″	21,12,40,21,43,36,31,52,27, 0		1,33, 2,34, 3	
		1,57,32,56,22,52,32,46		8,36
12″	21,12,42,19,16,32,54,44,59,46		1,33, 2,42,39	
		1,57,32,54,49,49,50, 7		8,36
14″	21,12,44,16,49,27,44,34,49,53		1,33, 2,51,15	
		1,57,32,53,16,46,58,52		8,36
16″	21,12,46,14,22,21, 1,21,48,45		1,33, 2,59,51	
		1,57,32,51,43,43,59, 1		8,36
18″	21,12,48,11,55,12,45, 5,47,46		1,33, 3, 8,27	
		1,57,32,50,10,40,50,34		8,36
20″	21,12,50, 9,28, 2,55,46,38,20		1,33, 3,17, 3	
		1,57,32,48,37,37,33,31		8,36
22″	21,12,52, 7, 0,51,33,24,11,51		1,33, 3,25,39	
		1,57,32,47, 4,34, 7,52		8,36
24″	21,12,54, 4,33,38,37,58,19,43		1,33, 3,34,15	
		1,57,32,45,31,30,33,37		8,36
26″	21,12,56, 2, 6,24, 9,28,53,20		1,33, 3,42,51	
		1,57,32,43,58,26,50,46		8,36
28″	21,12,57,59,39, 8, 7,55,44, 6		1,33, 3,51,27	
		1,57,32,42,25,22,59,19		8,36
30″	21,12,59,57,11,50,33,18,43,25		1,33, 4, 0, 3	
		1,57,32,40,52,18,59,16		8,36
32″	21,13, 1,54,44,31,25,37,42,41		1,33, 4, 8,39	
		1,57,32,39,19,14,50,37		8,36
34″	21,13, 3,52,17,10,44,52,33,18		1,33, 4,17,15	
		1,57,32,37,46,10,33,22		8,36
36″	21,13, 5,49,49,48,31, 3, 6,40		1,33, 4,25,51	
		1,57,32,36,13, 6, 7,31		8,36
38″	21,13, 7,47,22,24,44, 9,14,11		1,33, 4,34,27	
		1,57,32,34,40, 1,33, 4		8,36
40″	21,13, 9,44,54,59,24,10,47,15		1,33, 4,43, 3	
		1,57,32,33, 6,56,50, 1		8,36
42″	21,13,11,42,27,32,31, 7,37,16		1,33, 4,51,39	
		1,57,32,31,33,51,58,22		8,36
44″	21,13,13,40, 0, 4, 4,59,35,38		1,33, 5, 0,15	
		1,57,32,30, 0,46,58, 7		8,36
46″	21,13,15,37,32,34, 5,46,33,45		1,33, 5, 8,51	
		1,57,32,28,27,41,49,16		8,36
48″	21,13,17,35, 5, 2,33,28,23, 1		1,33, 5,17,27	
		1,57,32,26,54,36,31,49		8,36
50″	21,13,19,32,37,29,28, 4,54,50		1,33, 5,26, 3	
		1,57,32,25,21,31, 5,46		8,36
52″	21,13,21,30, 9,54,49,36, 0,36		1,33, 5,34,39	
		1,57,32,23,48,25,31, 7		8,36
54″	21,13,23,27,42,18,38, 1,31,43		1,33, 5,43,15	
		1,57,32,22,15,19,47,52		8,36
56″	21,13,25,25,14,40,53,21,19,35		1,33, 5,51,51	
		1,57,32,20,42,13,56, 1		8,36
58″	21,13,27,22,47, 1,35,35,15,36		1,33, 6, 0,27	
		1,57,32,19, 9, 7,55,34		
60″	21,13,29,20,19,20,44,43,11,10			
exact	21,13,29,20,19,20,44,43,34,57			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
20°43′	0″	21,13,29,20,19,20,44,43,34,57	1,57,32,17,36, 1,49,10		
	2″	21,13,31,17,51,38,20,45,24, 7	1,57,32,16, 2,55,31,43	1,33, 6,17,27	8,36
	4″	21,13,33,15,23,54,23,40,55,50	1,57,32,14,29,49, 5,40	1,33, 6,26, 3	8,36
	6″	21,13,35,12,56, 8,53,30, 1,30	1,57,32,12,56,42,31, 1	1,33, 6,34,39	8,36
	8″	21,13,37,10,28,21,50,12,32,31	1,57,32,11,23,35,47,46	1,33, 6,43,15	8,36
	10″	21,13,39, 8, 0,33,13,48,20,17	1,57,32, 9,50,28,55,55	1,33, 6,51,51	8,36
	12″	21,13,41, 5,32,43, 4,17,16,12	1,57,32, 8,17,21,55,28	1,33, 7, 0,27	8,36
	14″	21,13,43, 3, 4,51,21,39,11,40	1,57,32, 6,44,14,46,25	1,33, 7, 9, 3	8,36
	16″	21,13,45, 0,36,58, 5,53,58, 5	1,57,32, 5,11, 7,28,46	1,33, 7,17,39	8,36
	18″	21,13,46,58, 9, 3,17, 1,26,51	1,57,32, 3,38, 0, 2,31	1,33, 7,26,15	8,36
	20″	21,13,48,55,41, 6,55, 1,29,22	1,57,32, 2, 4,52,27,40	1,33, 7,34,51	8,36
	22″	21,13,50,53,13, 8,59,53,57, 2	1,57,32, 0,31,44,44,13	1,33, 7,43,27	8,36
	24″	21,13,52,50,45, 9,31,38,41,15	1,57,31,58,58,36,52,10	1,33, 7,52, 3	8,36
	26″	21,13,54,48,17, 8,30,15,33,25	1,57,31,57,25,28,51,31	1,33, 8, 0,39	8,36
	28″	21,13,56,45,49, 5,55,44,24,56	1,57,31,55,52,20,42,16	1,33, 8, 9,15	8,36
	30″	21,13,58,43,21, 1,48, 5, 7,12	1,57,31,54,19,12,24,25	1,33, 8,17,51	8,36
	32″	21,14, 0,40,52,56, 7,17,31,37	1,57,31,52,46, 3,57,58	1,33, 8,26,27	8,36
	34″	21,14, 2,38,24,48,53,21,29,35	1,57,31,51,12,55,22,55	1,33, 8,35, 3	8,36
	36″	21,14, 4,35,56,40, 6,16,52,30	1,57,31,49,39,46,39,16	1,33, 8,43,39	8,36
	38″	21,14, 6,33,28,29,46, 3,31,46	1,57,31,48, 6,37,47, 1	1,33, 8,52,15	8,36
	40″	21,14, 8,31, 0,17,52,41,18,47	1,57,31,46,33,28,46,10	1,33, 9, 0,51	8,36
	42″	21,14,10,28,32, 4,26,10, 4,57	1,57,31,45, 0,19,36,43	1,33, 9, 9,27	8,36
	44″	21,14,12,26, 3,49,26,29,41,40	1,57,31,43,27,10,18,40	1,33, 9,18, 3	8,36
	46″	21,14,14,23,35,32,53,40, 0,20	1,57,31,41,54, 0,52, 1	1,33, 9,26,39	8,36
	48″	21,14,16,21, 7,14,47,40,52,21	1,57,31,40,20,51,16,46	1,33, 9,35,15	8,36
	50″	21,14,18,18,38,55, 8,32, 9, 7	1,57,31,38,47,41,32,55	1,33, 9,43,51	8,36
	52″	21,14,20,16,10,33,56,13,42, 2	1,57,31,37,14,31,40,28	1,33, 9,52,27	8,36
	54″	21,14,22,13,42,11,10,45,22,30	1,57,31,35,41,21,39,25	1,33,10, 1, 3	8,36
	56″	21,14,24,11,13,46,52, 7, 1,55	1,57,31,34, 8,11,29,46	1,33,10, 9,39	8,36
	58″	21,14,26, 8,45,21, 0,18,31,41	1,57,31,32,35, 1,11,31	1,33,10,18,15	
	60″	21,14,28, 6,16,53,35,19,43,12			
exact		21,14,28, 6,16,53,35,20, 9,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°44′ 0″	21,14,28, 6,16,53,35,20, 9,23			
		1,57,31,31, 1,50,47,37		
2″	21,14,30, 3,48,24,37,10,57, 0		1,33,10,35,14	
		1,57,31,29,28,40,12,23		8,36
4″	21,14,32, 1,19,54, 5,51, 9,23		1,33,10,43,50	
		1,57,31,27,55,29,28,33		8,36
6″	21,14,33,58,51,22, 1,20,37,56		1,33,10,52,26	
		1,57,31,26,22,18,36, 7		8,36
8″	21,14,35,56,22,48,23,39,14, 3		1,33,11, 1, 2	
		1,57,31,24,49, 7,35, 5		8,36
10″	21,14,37,53,54,13,12,46,49, 8		1,33,11, 9,38	
		1,57,31,23,15,56,25,27		8,36
12″	21,14,39,51,25,36,28,43,14,35		1,33,11,18,14	
		1,57,31,21,42,45, 7,13		8,36
14″	21,14,41,48,56,58,11,28,21,48		1,33,11,26,50	
		1,57,31,20, 9,33,40,23		8,36
16″	21,14,43,46,28,18,21, 2, 2,11		1,33,11,35,26	
		1,57,31,18,36,22, 4,57		8,36
18″	21,14,45,43,59,36,57,24, 7, 8		1,33,11,44, 2	
		1,57,31,17, 3,10,20,55		8,36
20″	21,14,47,41,30,54, 0,34,28, 3		1,33,11,52,38	
		1,57,31,15,29,58,28,17		8,36
22″	21,14,49,39, 2, 9,30,32,56,20		1,33,12, 1,14	
		1,57,31,13,56,46,27, 3		8,36
24″	21,14,51,36,33,23,27,19,23,23		1,33,12, 9,50	
		1,57,31,12,23,34,17,13		8,36
26″	21,14,53,34, 4,35,50,53,40,36		1,33,12,18,26	
		1,57,31,10,50,21,58,47		8,36
28″	21,14,55,31,35,46,41,15,39,23		1,33,12,27, 2	
		1,57,31, 9,17, 9,31,45		8,36
30″	21,14,57,29, 6,55,58,25,11, 8		1,33,12,35,38	
		1,57,31, 7,43,56,56, 7		8,36
32″	21,14,59,26,38, 3,42,22, 7,15		1,33,12,44,14	
		1,57,31, 6,10,44,11,53		8,36
34″	21,15, 1,24, 9, 9,53, 6,19, 8		1,33,12,52,50	
		1,57,31, 4,37,31,19, 3		8,36
36″	21,15, 3,21,40,14,30,37,38,11		1,33,13, 1,26	
		1,57,31, 3, 4,18,17,37		8,36
38″	21,15, 5,19,11,17,34,55,55,48		1,33,13,10, 2	
		1,57,31, 1,31, 5, 7,35		8,36
40″	21,15, 7,16,42,19, 6, 1, 3,23		1,33,13,18,38	
		1,57,30,59,57,51,48,57		8,36
42″	21,15, 9,14,13,19, 3,52,52,20		1,33,13,27,14	
		1,57,30,58,24,38,21,43		8,36
44″	21,15,11,11,44,17,28,31,14, 3		1,33,13,35,50	
		1,57,30,56,51,24,45,53		8,36
46″	21,15,13, 9,15,14,19,55,59,56		1,33,13,44,26	
		1,57,30,55,18,11, 1,27		8,36
48″	21,15,15, 6,46, 9,38, 7, 1,23		1,33,13,53, 2	
		1,57,30,53,44,57, 8,25		8,36
50″	21,15,17, 4,17, 3,23, 4, 9,48		1,33,14, 1,38	
		1,57,30,52,11,43, 6,47		8,36
52″	21,15,19, 1,47,55,34,47,16,35		1,33,14,10,14	
		1,57,30,50,38,28,56,33		8,36
54″	21,15,20,59,18,46,13,16,13, 8		1,33,14,18,50	
		1,57,30,49, 5,14,37,43		8,36
56″	21,15,22,56,49,35,18,30,50,51		1,33,14,27,26	
		1,57,30,47,32, 0,10,17		8,36
58″	21,15,24,54,20,22,50,31, 1, 8		1,33,14,36, 2	
		1,57,30,45,58,45,34,15		
60″	21,15,26,51,51, 8,49,16,35,23			
exact	21,15,26,51,51, 8,49,17, 8,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°45′ 0″	21,15,26,51,51, 8,49,17, 8,54			
		1,57,30,44,25,30,53,13		
2″	21,15,28,49,21,53,14,48, 2, 7		1,33,14,52,59	
		1,57,30,42,52,16, 0,14		8,35
4″	21,15,30,46,52,36, 7, 4, 2,21		1,33,15, 1,34	
		1,57,30,41,19, 0,58,40		8,35
6″	21,15,32,44,23,17,26, 5, 1, 1		1,33,15,10, 9	
		1,57,30,39,45,45,48,31		8,35
8″	21,15,34,41,53,57,11,50,49,32		1,33,15,18,44	
		1,57,30,38,12,30,29,47		8,35
10″	21,15,36,39,24,35,24,21,19,19		1,33,15,27,19	
		1,57,30,36,39,15, 2,28		8,35
12″	21,15,38,36,55,12, 3,36,21,47		1,33,15,35,54	
		1,57,30,35, 5,59,26,34		8,35
14″	21,15,40,34,25,47, 9,35,48,21		1,33,15,44,29	
		1,57,30,33,32,43,42, 5		8,35
16″	21,15,42,31,56,20,42,19,30,26		1,33,15,53, 4	
		1,57,30,31,59,27,49, 1		8,35
18″	21,15,44,29,26,52,41,47,19,27		1,33,16, 1,39	
		1,57,30,30,26,11,47,22		8,35
20″	21,15,46,26,57,23, 7,59, 6,49		1,33,16,10,14	
		1,57,30,28,52,55,37, 8		8,35
22″	21,15,48,24,27,52, 0,54,43,57		1,33,16,18,49	
		1,57,30,27,19,39,18,19		8,35
24″	21,15,50,21,58,19,20,34, 2,16		1,33,16,27,24	
		1,57,30,25,46,22,50,55		8,35
26″	21,15,52,19,28,45, 6,56,53,11		1,33,16,35,59	
		1,57,30,24,13, 6,14,56		8,35
28″	21,15,54,16,59, 9,20, 3, 8, 7		1,33,16,44,34	
		1,57,30,22,39,49,30,22		8,35
30″	21,15,56,14,29,31,59,52,38,29		1,33,16,53, 9	
		1,57,30,21, 6,32,37,13		8,35
32″	21,15,58,11,59,53, 6,25,15,42		1,33,17, 1,44	
		1,57,30,19,33,15,35,29		8,35
34″	21,16, 0, 9,30,12,39,40,51,11		1,33,17,10,19	
		1,57,30,17,59,58,25,10		8,35
36″	21,16, 2, 7, 0,30,39,39,16,21		1,33,17,18,54	
		1,57,30,16,26,41, 6,16		8,35
38″	21,16, 4, 4,30,47, 6,20,22,37		1,33,17,27,29	
		1,57,30,14,53,23,38,47		8,35
40″	21,16, 6, 2, 1, 1,59,44, 1,24		1,33,17,36, 4	
		1,57,30,13,20, 6, 2,43		8,35
42″	21,16, 7,59,31,15,19,50, 4, 7		1,33,17,44,39	
		1,57,30,11,46,48,18, 4		8,35
44″	21,16, 9,57, 1,27, 6,38,22,11		1,33,17,53,14	
		1,57,30,10,13,30,24,50		8,35
46″	21,16,11,54,31,37,20, 8,47, 1		1,33,18, 1,49	
		1,57,30, 8,40,12,23, 1		8,35
48″	21,16,13,52, 1,46, 0,21,10, 2		1,33,18,10,24	
		1,57,30, 7, 6,54,12,37		8,35
50″	21,16,15,49,31,53, 7,15,22,39		1,33,18,18,59	
		1,57,30, 5,33,35,53,38		8,35
52″	21,16,17,47, 1,58,40,51,16,17		1,33,18,27,34	
		1,57,30, 4, 0,17,26, 4		8,35
54″	21,16,19,44,32, 2,41, 8,42,21		1,33,18,36, 9	
		1,57,30, 2,26,58,49,55		8,35
56″	21,16,21,42, 2, 5, 8, 7,32,16		1,33,18,44,44	
		1,57,30, 0,53,40, 5,11		8,35
58″	21,16,23,39,32, 6, 1,47,37,27		1,33,18,53,19	
		1,57,29,59,20,21,11,52		
60″	21,16,25,37, 2, 5,22, 8,49,19			
exact	21,16,25,37, 2, 5,22, 8,20,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°46′ 0″	21,16,25,37, 2, 5,22, 8,20,14			
		1,57,29,57,47, 2, 6,49		
2″	21,16,27,34,32, 3, 9,10,27, 3		1,33,19,10,42	
		1,57,29,56,13,42,56, 7		8,35
4″	21,16,29,32, 1,59,22,53,23,10		1,33,19,19,17	
		1,57,29,54,40,23,36,50		8,35
6″	21,16,31,29,31,54, 3,17, 0, 0		1,33,19,27,52	
		1,57,29,53, 7, 4, 8,58		8,35
8″	21,16,33,27, 1,47,10,21, 8,58		1,33,19,36,27	
		1,57,29,51,33,44,32,31		8,35
10″	21,16,35,24,31,38,44, 5,41,29		1,33,19,45, 2	
		1,57,29,50, 0,24,47,29		8,35
12″	21,16,37,22, 1,28,44,30,28,58		1,33,19,53,37	
		1,57,29,48,27, 4,53,52		8,35
14″	21,16,39,19,31,17,11,35,22,50		1,33,20, 2,12	
		1,57,29,46,53,44,51,40		8,35
16″	21,16,41,17, 1, 4, 5,20,14,30		1,33,20,10,47	
		1,57,29,45,20,24,40,53		8,35
18″	21,16,43,14,30,49,25,44,55,23		1,33,20,19,22	
		1,57,29,43,47, 4,21,31		8,35
20″	21,16,45,12, 0,33,12,49,16,54		1,33,20,27,57	
		1,57,29,42,13,43,53,34		8,35
22″	21,16,47, 9,30,15,26,33,10,28		1,33,20,36,32	
		1,57,29,40,40,23,17, 2		8,35
24″	21,16,49, 6,59,56, 6,56,27,30		1,33,20,45, 7	
		1,57,29,39, 7, 2,31,55		8,35
26″	21,16,51, 4,29,35,13,58,59,25		1,33,20,53,42	
		1,57,29,37,33,41,38,13		8,35
28″	21,16,53, 1,59,12,47,40,37,38		1,33,21, 2,17	
		1,57,29,36, 0,20,35,56		8,35
30″	21,16,54,59,28,48,48, 1,13,34		1,33,21,10,52	
		1,57,29,34,26,59,25, 4		8,35
32″	21,16,56,56,58,23,15, 0,38,38		1,33,21,19,27	
		1,57,29,32,53,38, 5,37		8,35
34″	21,16,58,54,27,56, 8,38,44,15		1,33,21,28, 2	
		1,57,29,31,20,16,37,35		8,35
36″	21,17, 0,51,57,27,28,55,21,50		1,33,21,36,37	
		1,57,29,29,46,55, 0,58		8,35
38″	21,17, 2,49,26,57,15,50,22,48		1,33,21,45,12	
		1,57,29,28,13,33,15,46		8,35
40″	21,17, 4,46,56,25,29,23,38,34		1,33,21,53,47	
		1,57,29,26,40,11,21,59		8,35
42″	21,17, 6,44,25,52, 9,35, 0,33		1,33,22, 2,22	
		1,57,29,25, 6,49,19,37		8,35
44″	21,17, 8,41,55,17,16,24,20,10		1,33,22,10,57	
		1,57,29,23,33,27, 8,40		8,35
46″	21,17,10,39,24,40,49,51,28,50		1,33,22,19,32	
		1,57,29,22, 0, 4,49, 8		8,35
48″	21,17,12,36,54, 2,49,56,17,58		1,33,22,28, 7	
		1,57,29,20,26,42,21, 1		8,35
50″	21,17,14,34,23,23,16,38,38,59		1,33,22,36,42	
		1,57,29,18,53,19,44,19		8,35
52″	21,17,16,31,52,42, 9,58,23,18		1,33,22,45,17	
		1,57,29,17,19,56,59, 2		8,35
54″	21,17,18,29,21,59,29,55,22,20		1,33,22,53,52	
		1,57,29,15,46,34, 5,10		8,35
56″	21,17,20,26,51,15,16,29,27,30		1,33,23, 2,27	
		1,57,29,14,13,11, 2,43		8,35
58″	21,17,22,24,20,29,29,40,30,13		1,33,23,11, 2	
		1,57,29,12,39,47,51,41		
60″	21,17,24,21,49,42, 9,28,21,54			
exact	21,17,24,21,49,42, 9,27,55,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°47′ 0″	21,17,24,21,49,42, 9,27,55,41			
		1,57,29,11, 6,24,29,16		
2″	21,17,26,19,18,53,15,52,24,57		1,33,23,28,23	
		1,57,29, 9,33, 1, 0,53		8,35
4″	21,17,28,16,48, 2,48,53,25,50		1,33,23,36,58	
		1,57,29, 7,59,37,23,55		8,35
6″	21,17,30,14,17,10,48,30,49,45		1,33,23,45,33	
		1,57,29, 6,26,13,38,22		8,35
8″	21,17,32,11,46,17,14,44,28, 7		1,33,23,54, 8	
		1,57,29, 4,52,49,44,14		8,35
10″	21,17,34, 9,15,22, 7,34,12,21		1,33,24, 2,43	
		1,57,29, 3,19,25,41,31		8,35
12″	21,17,36, 6,44,25,26,59,53,52		1,33,24,11,18	
		1,57,29, 1,46, 1,30,13		8,35
14″	21,17,38, 4,13,27,13, 1,24, 5		1,33,24,19,53	
		1,57,29, 0,12,37,10,20		8,35
16″	21,17,40, 1,42,27,25,38,34,25		1,33,24,28,28	
		1,57,28,58,39,12,41,52		8,35
18″	21,17,41,59,11,26, 4,51,16,17		1,33,24,37, 3	
		1,57,28,57, 5,48, 4,49		8,35
20″	21,17,43,56,40,23,10,39,21, 6		1,33,24,45,38	
		1,57,28,55,32,23,19,11		8,35
22″	21,17,45,54, 9,18,43, 2,40,17		1,33,24,54,13	
		1,57,28,53,58,58,24,58		8,35
24″	21,17,47,51,38,12,42, 1, 5,15		1,33,25, 2,48	
		1,57,28,52,25,33,22,10		8,35
26″	21,17,49,49, 7, 5, 7,34,27,25		1,33,25,11,23	
		1,57,28,50,52, 8,10,47		8,35
28″	21,17,51,46,35,55,59,42,38,12		1,33,25,19,58	
		1,57,28,49,18,42,50,49		8,35
30″	21,17,53,44, 4,45,18,25,29, 1		1,33,25,28,33	
		1,57,28,47,45,17,22,16		8,35
32″	21,17,55,41,33,33, 3,42,51,17		1,33,25,37, 8	
		1,57,28,46,11,51,45, 8		8,35
34″	21,17,57,39, 2,19,15,34,36,25		1,33,25,45,43	
		1,57,28,44,38,25,59,25		8,35
36″	21,17,59,36,31, 3,54, 0,35,50		1,33,25,54,18	
		1,57,28,43, 5, 0, 5, 7		8,35
38″	21,18, 1,33,59,46,59, 0,40,57		1,33,26, 2,53	
		1,57,28,41,31,34, 2,14		8,35
40″	21,18, 3,31,28,28,30,34,43,11		1,33,26,11,28	
		1,57,28,39,58, 7,50,46		8,35
42″	21,18, 5,28,57, 8,28,42,33,57		1,33,26,20, 3	
		1,57,28,38,24,41,30,43		8,35
44″	21,18, 7,26,25,46,53,24, 4,40		1,33,26,28,38	
		1,57,28,36,51,15, 2, 5		8,35
46″	21,18, 9,23,54,23,44,39, 6,45		1,33,26,37,13	
		1,57,28,35,17,48,24,52		8,35
48″	21,18,11,21,22,59, 2,27,31,37		1,33,26,45,48	
		1,57,28,33,44,21,39, 4		8,35
50″	21,18,13,18,51,32,46,49,10,41		1,33,26,54,23	
		1,57,28,32,10,54,44,41		8,35
52″	21,18,15,16,20, 4,57,43,55,22		1,33,27, 2,58	
		1,57,28,30,37,27,41,43		8,35
54″	21,18,17,13,48,35,35,11,37, 5		1,33,27,11,33	
		1,57,28,29, 4, 0,30,10		8,35
56″	21,18,19,11,17, 4,39,12, 7,15		1,33,27,20, 8	
		1,57,28,27,30,33,10, 2		8,35
58″	21,18,21, 8,45,32, 9,45,17,17		1,33,27,28,43	
		1,57,28,25,57, 5,41,19		
60″	21,18,23, 6,13,58, 6,50,58,36			
exact	21,18,23, 6,13,58, 6,50,33, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°48′ 0″	21,18,23, 6,13,58, 6,50,33, 8			
		1,57,28,24,23,38, 1,25		
2″	21,18,25, 3,42,22,30,28,34,33		1,33,27,46, 3	
		1,57,28,22,50,10,15,22		8,35
4″	21,18,27, 1,10,45,20,38,49,55		1,33,27,54,38	
		1,57,28,21,16,42,20,44		8,35
6″	21,18,28,58,39, 6,37,21,10,39		1,33,28, 3,13	
		1,57,28,19,43,14,17,31		8,35
8″	21,18,30,56, 7,26,20,35,28,10		1,33,28,11,48	
		1,57,28,18, 9,46, 5,43		8,35
10″	21,18,32,53,35,44,30,21,33,53		1,33,28,20,23	
		1,57,28,16,36,17,45,20		8,35
12″	21,18,34,51, 4, 1, 6,39,19,13		1,33,28,28,58	
		1,57,28,15, 2,49,16,22		8,35
14″	21,18,36,48,32,16, 9,28,35,35		1,33,28,37,33	
		1,57,28,13,29,20,38,49		8,35
16″	21,18,38,46, 0,29,38,49,14,24		1,33,28,46, 8	
		1,57,28,11,55,51,52,41		8,35
18″	21,18,40,43,28,41,34,41, 7, 5		1,33,28,54,43	
		1,57,28,10,22,22,57,58		8,35
20″	21,18,42,40,56,51,57, 4, 5, 3		1,33,29, 3,18	
		1,57,28, 8,48,53,54,40		8,35
22″	21,18,44,38,25, 0,45,57,59,43		1,33,29,11,53	
		1,57,28, 7,15,24,42,47		8,35
24″	21,18,46,35,53, 8, 1,22,42,30		1,33,29,20,28	
		1,57,28, 5,41,55,22,19		8,35
26″	21,18,48,33,21,13,43,18, 4,49		1,33,29,29, 3	
		1,57,28, 4, 8,25,53,16		8,35
28″	21,18,50,30,49,17,51,43,58, 5		1,33,29,37,38	
		1,57,28, 2,34,56,15,38		8,35
30″	21,18,52,28,17,20,26,40,13,43		1,33,29,46,13	
		1,57,28, 1, 1,26,29,25		8,35
32″	21,18,54,25,45,21,28, 6,43, 8		1,33,29,54,48	
		1,57,27,59,27,56,34,37		8,35
34″	21,18,56,23,13,20,56, 3,17,45		1,33,30, 3,23	
		1,57,27,57,54,26,31,14		8,35
36″	21,18,58,20,41,18,50,29,48,59		1,33,30,11,58	
		1,57,27,56,20,56,19,16		8,35
38″	21,19, 0,18, 9,15,11,26, 8,15		1,33,30,20,33	
		1,57,27,54,47,25,58,43		8,35
40″	21,19, 2,15,37, 9,58,52, 6,58		1,33,30,29, 8	
		1,57,27,53,13,55,29,35		8,35
42″	21,19, 4,13, 5, 3,12,47,36,33		1,33,30,37,43	
		1,57,27,51,40,24,51,52		8,35
44″	21,19, 6,10,32,54,53,12,28,25		1,33,30,46,18	
		1,57,27,50, 6,54, 5,34		8,35
46″	21,19, 8, 8, 0,45, 0, 6,33,59		1,33,30,54,53	
		1,57,27,48,33,23,10,41		8,35
48″	21,19,10, 5,28,33,33,29,44,40		1,33,31, 3,28	
		1,57,27,46,59,52, 7,13		8,35
50″	21,19,12, 2,56,20,33,21,51,53		1,33,31,12, 3	
		1,57,27,45,26,20,55,10		8,35
52″	21,19,14, 0,24, 5,59,42,47, 3		1,33,31,20,38	
		1,57,27,43,52,49,34,32		8,35
54″	21,19,15,57,51,49,52,32,21,35		1,33,31,29,13	
		1,57,27,42,19,18, 5,19		8,35
56″	21,19,17,55,19,32,11,50,26,54		1,33,31,37,48	
		1,57,27,40,45,46,27,31		8,35
58″	21,19,19,52,47,12,57,36,54,25		1,33,31,46,23	
		1,57,27,39,12,14,41, 8		
60″	21,19,21,50,14,52, 9,51,35,33			
exact	21,19,21,50,14,52, 9,51,16, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°49′ 0″	21,19,21,50,14,52, 9,51,16, 3			
		1,57,27,37,38,42,44, 8		
2″	21,19,23,47,42,29,48,34, 0,11		1,33,32, 3,41	
		1,57,27,36, 5,10,40,27		8,35
4″	21,19,25,45,10, 5,53,44,40,38		1,33,32,12,16	
		1,57,27,34,31,38,28,11		8,35
6″	21,19,27,42,37,40,25,23, 8,49		1,33,32,20,51	
		1,57,27,32,58, 6, 7,20		8,35
8″	21,19,29,40, 5,13,23,29,16, 9		1,33,32,29,26	
		1,57,27,31,24,33,37,54		8,35
10″	21,19,31,37,32,44,48, 2,54, 3		1,33,32,38, 1	
		1,57,27,29,51, 0,59,53		8,35
12″	21,19,33,35, 0,14,39, 3,53,56		1,33,32,46,36	
		1,57,27,28,17,28,13,17		8,35
14″	21,19,35,32,27,42,56,32, 7,13		1,33,32,55,11	
		1,57,27,26,43,55,18, 6		8,35
16″	21,19,37,29,55, 9,40,27,25,19		1,33,33, 3,46	
		1,57,27,25,10,22,14,20		8,35
18″	21,19,39,27,22,34,50,49,39,39		1,33,33,12,21	
		1,57,27,23,36,49, 1,59		8,35
20″	21,19,41,24,49,58,27,38,41,38		1,33,33,20,56	
		1,57,27,22, 3,15,41, 3		8,35
22″	21,19,43,22,17,20,30,54,22,41		1,33,33,29,31	
		1,57,27,20,29,42,11,32		8,35
24″	21,19,45,19,44,41, 0,36,34,13		1,33,33,38, 6	
		1,57,27,18,56, 8,33,26		8,35
26″	21,19,47,17,11,59,56,45, 7,39		1,33,33,46,41	
		1,57,27,17,22,34,46,45		8,35
28″	21,19,49,14,39,17,19,19,54,24		1,33,33,55,16	
		1,57,27,15,49, 0,51,29		8,35
30″	21,19,51,12, 6,33, 8,20,45,53		1,33,34, 3,51	
		1,57,27,14,15,26,47,38		8,35
32″	21,19,53, 9,33,47,23,47,33,31		1,33,34,12,26	
		1,57,27,12,41,52,35,12		8,35
34″	21,19,55, 7, 1, 0, 5,40, 8,43		1,33,34,21, 1	
		1,57,27,11, 8,18,14,11		8,35
36″	21,19,57, 4,28,11,13,58,22,54		1,33,34,29,36	
		1,57,27, 9,34,43,44,35		8,35
38″	21,19,59, 1,55,20,48,42, 7,29		1,33,34,38,11	
		1,57,27, 8, 1, 9, 6,24		8,35
40″	21,20, 0,59,22,28,49,51,13,53		1,33,34,46,46	
		1,57,27, 6,27,34,19,38		8,35
42″	21,20, 2,56,49,35,17,25,33,31		1,33,34,55,21	
		1,57,27, 4,53,59,24,17		8,35
44″	21,20, 4,54,16,40,11,24,57,48		1,33,35, 3,56	
		1,57,27, 3,20,24,20,21		8,35
46″	21,20, 6,51,43,43,31,49,18, 9		1,33,35,12,31	
		1,57,27, 1,46,49, 7,50		8,35
48″	21,20, 8,49,10,45,18,38,25,59		1,33,35,21, 6	
		1,57,27, 0,13,13,46,44		8,35
50″	21,20,10,46,37,45,31,52,12,43		1,33,35,29,41	
		1,57,26,58,39,38,17, 3		8,35
52″	21,20,12,44, 4,44,11,30,29,46		1,33,35,38,16	
		1,57,26,57, 6, 2,38,47		8,35
54″	21,20,14,41,31,41,17,33, 8,33		1,33,35,46,51	
		1,57,26,55,32,26,51,56		8,35
56″	21,20,16,38,58,36,50, 0, 0,29		1,33,35,55,26	
		1,57,26,53,58,50,56,30		8,35
58″	21,20,18,36,25,30,48,50,56,59		1,33,36, 4, 1	
		1,57,26,52,25,14,52,29		
60″	21,20,20,33,52,23,14, 5,49,28			
exact	21,20,20,33,52,23,14, 5,33,35			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
20°50′	0″	21,20,20,33,52,23,14, 5,33,35			
	2″	21,20,22,31,19,14, 5,44,11,50	1,57,26,50,51,38,38,15	1,33,36,21,17	
	4″	21,20,24,28,46, 3,23,46,28,48	1,57,26,49,18, 2,16,58	1,33,36,29,52	8,35
	6″	21,20,26,26,12,51, 8,12,15,54	1,57,26,47,44,25,47, 6	1,33,36,38,27	8,35
	8″	21,20,28,23,39,37,19, 1,24,33	1,57,26,46,10,49, 8,39	1,33,36,47, 2	8,35
	10″	21,20,30,21, 6,21,56,13,46,10	1,57,26,44,37,12,21,37	1,33,36,55,37	8,35
	12″	21,20,32,18,33, 4,59,49,12,10	1,57,26,43, 3,35,26, 0	1,33,37, 4,12	8,35
	14″	21,20,34,15,59,46,29,47,33,58	1,57,26,41,29,58,21,48	1,33,37,12,47	8,35
	16″	21,20,36,13,26,26,26, 8,42,59	1,57,26,39,56,21, 9, 1	1,33,37,21,22	8,35
	18″	21,20,38,10,53, 4,48,52,30,38	1,57,26,38,22,43,47,39	1,33,37,29,57	8,35
	20″	21,20,40, 8,19,41,37,58,48,20	1,57,26,36,49, 6,17,42	1,33,37,38,32	8,35
	22″	21,20,42, 5,46,16,53,27,27,30	1,57,26,35,15,28,39,10	1,33,37,47, 7	8,35
	24″	21,20,44, 3,12,50,35,18,19,33	1,57,26,33,41,50,52, 3	1,33,37,55,42	8,35
	26″	21,20,46, 0,39,22,43,31,15,54	1,57,26,32, 8,12,56,21	1,33,38, 4,17	8,35
	28″	21,20,47,58, 5,53,18, 6, 7,58	1,57,26,30,34,34,52, 4	1,33,38,12,52	8,35
	30″	21,20,49,55,32,22,19, 2,47,10	1,57,26,29, 0,56,39,12	1,33,38,21,27	8,35
	32″	21,20,51,52,58,49,46,21, 4,55	1,57,26,27,27,18,17,45	1,33,38,30, 2	8,35
	34″	21,20,53,50,25,15,40, 0,52,38	1,57,26,25,53,39,47,43	1,33,38,38,37	8,35
	36″	21,20,55,47,51,40, 0, 2, 1,44	1,57,26,24,20, 1, 9, 6	1,33,38,47,12	8,35
	38″	21,20,57,45,18, 2,46,24,23,38	1,57,26,22,46,22,21,54	1,33,38,55,47	8,35
	40″	21,20,59,42,44,23,59, 7,49,45	1,57,26,21,12,43,26, 7	1,33,39, 4,22	8,35
	42″	21,21, 1,40,10,43,38,12,11,30	1,57,26,19,39, 4,21,45	1,33,39,12,57	8,35
	44″	21,21, 3,37,37, 1,43,37,20,18	1,57,26,18, 5,25, 8,48	1,33,39,21,32	8,35
	46″	21,21, 5,35, 3,18,15,23, 7,34	1,57,26,16,31,45,47,16	1,33,39,30, 7	8,35
	48″	21,21, 7,32,29,33,13,29,24,43	1,57,26,14,58, 6,17, 9	1,33,39,38,42	8,35
	50″	21,21, 9,29,55,46,37,56, 3,10	1,57,26,13,24,26,38,27	1,33,39,47,17	8,35
	52″	21,21,11,27,21,58,28,42,54,20	1,57,26,11,50,46,51,10	1,33,39,55,52	8,35
	54″	21,21,13,24,48, 8,45,49,49,38	1,57,26,10,17, 6,55,18	1,33,40, 4,27	8,35
	56″	21,21,15,22,14,17,29,16,40,29	1,57,26, 8,43,26,50,51	1,33,40,13, 2	8,35
	58″	21,21,17,19,40,24,39, 3,18,18	1,57,26, 7, 9,46,37,49	1,33,40,21,37	
	60″	21,21,19,17, 6,30,15, 9,34,30	1,57,26, 5,36, 6,16,12		
exact		21,21,19,17, 6,30,15, 9,20,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°51′ 0″	21,21,19,17, 6,30,15, 9,20,26			
		1,57,26, 4, 2,25,44,38		
2″	21,21,21,14,32,34,17,35, 5, 4		1,33,40,38,52	
		1,57,26, 2,28,45, 5,46		8,35
4″	21,21,23,11,58,36,46,20,10,50		1,33,40,47,27	
		1,57,26, 0,55, 4,18,19		8,35
6″	21,21,25, 9,24,37,41,24,29, 9		1,33,40,56, 2	
		1,57,25,59,21,23,22,17		8,35
8″	21,21,27, 6,50,37, 2,47,51,26		1,33,41, 4,37	
		1,57,25,57,47,42,17,40		8,35
10″	21,21,29, 4,16,34,50,30, 9, 6		1,33,41,13,12	
		1,57,25,56,14, 1, 4,28		8,35
12″	21,21,31, 1,42,31, 4,31,13,34		1,33,41,21,47	
		1,57,25,54,40,19,42,41		8,35
14″	21,21,32,59, 8,25,44,50,56,15		1,33,41,30,22	
		1,57,25,53, 6,38,12,19		8,35
16″	21,21,34,56,34,18,51,29, 8,34		1,33,41,38,57	
		1,57,25,51,32,56,33,22		8,35
18″	21,21,36,54, 0,10,24,25,41,56		1,33,41,47,32	
		1,57,25,49,59,14,45,50		8,35
20″	21,21,38,51,26, 0,23,40,27,46		1,33,41,56, 7	
		1,57,25,48,25,32,49,43		8,35
22″	21,21,40,48,51,48,49,13,17,29		1,33,42, 4,42	
		1,57,25,46,51,50,45, 1		8,35
24″	21,21,42,46,17,35,41, 4, 2,30		1,33,42,13,17	
		1,57,25,45,18, 8,31,44		8,35
26″	21,21,44,43,43,20,59,12,34,14		1,33,42,21,52	
		1,57,25,43,44,26, 9,52		8,35
28″	21,21,46,41, 9, 4,43,38,44, 6		1,33,42,30,27	
		1,57,25,42,10,43,39,25		8,35
30″	21,21,48,38,34,46,54,22,23,31		1,33,42,39, 2	
		1,57,25,40,37, 1, 0,23		8,35
32″	21,21,50,36, 0,27,31,23,23,54		1,33,42,47,37	
		1,57,25,39, 3,18,12,46		8,35
34″	21,21,52,33,26, 6,34,41,36,40		1,33,42,56,12	
		1,57,25,37,29,35,16,34		8,35
36″	21,21,54,30,51,44, 4,16,53,14		1,33,43, 4,47	
		1,57,25,35,55,52,11,47		8,35
38″	21,21,56,28,17,20, 0, 9, 5, 1		1,33,43,13,22	
		1,57,25,34,22, 8,58,25		8,35
40″	21,21,58,25,42,54,22,18, 3,26		1,33,43,21,57	
		1,57,25,32,48,25,36,28		8,35
42″	21,22, 0,23, 8,27,10,43,39,54		1,33,43,30,32	
		1,57,25,31,14,42, 5,56		8,35
44″	21,22, 2,20,33,58,25,25,45,50		1,33,43,39, 7	
		1,57,25,29,40,58,26,49		8,35
46″	21,22, 4,17,59,28, 6,24,12,39		1,33,43,47,42	
		1,57,25,28, 7,14,39, 7		8,35
48″	21,22, 6,15,24,56,13,38,51,46		1,33,43,56,17	
		1,57,25,26,33,30,42,50		8,35
50″	21,22, 8,12,50,22,47, 9,34,36		1,33,44, 4,52	
		1,57,25,24,59,46,37,58		8,35
52″	21,22,10,10,15,47,46,56,12,34		1,33,44,13,27	
		1,57,25,23,26, 2,24,31		8,35
54″	21,22,12, 7,41,11,12,58,37, 5		1,33,44,22, 2	
		1,57,25,21,52,18, 2,29		8,35
56″	21,22,14, 5, 6,33, 5,16,39,34		1,33,44,30,37	
		1,57,25,20,18,33,31,52		8,35
58″	21,22,16, 2,31,53,23,50,11,26		1,33,44,39,12	
		1,57,25,18,44,48,52,40		
60″	21,22,17,59,57,12, 8,39, 4, 6			
exact	21,22,17,59,57,12, 8,38,57, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°52′ 0″	21,22,17,59,57,12, 8,38,57, 2			
		1,57,25,17,11, 4, 4, 9		
2″	21,22,19,57,22,29,19,43, 1,11		1,33,44,56,25	
		1,57,25,15,37,19, 7,44		8,35
4″	21,22,21,54,47,44,57, 2, 8,55		1,33,45, 5, 0	
		1,57,25,14, 3,34, 2,44		8,35
6″	21,22,23,52,12,59, 0,36,11,39		1,33,45,13,35	
		1,57,25,12,29,48,49, 9		8,35
8″	21,22,25,49,38,11,30,25, 0,48		1,33,45,22,10	
		1,57,25,10,56, 3,26,59		8,35
10″	21,22,27,47, 3,22,26,28,27,47		1,33,45,30,45	
		1,57,25, 9,22,17,56,14		8,35
12″	21,22,29,44,28,31,48,46,24, 1		1,33,45,39,20	
		1,57,25, 7,48,32,16,54		8,35
14″	21,22,31,41,53,39,37,18,40,55		1,33,45,47,55	
		1,57,25, 6,14,46,28,59		8,35
16″	21,22,33,39,18,45,52, 5, 9,54		1,33,45,56,30	
		1,57,25, 4,41, 0,32,29		8,35
18″	21,22,35,36,43,50,33, 5,42,23		1,33,46, 5, 5	
		1,57,25, 3, 7,14,27,24		8,35
20″	21,22,37,34, 8,53,40,20, 9,47		1,33,46,13,40	
		1,57,25, 1,33,28,13,44		8,35
22″	21,22,39,31,33,55,13,48,23,31		1,33,46,22,15	
		1,57,24,59,59,41,51,29		8,35
24″	21,22,41,28,58,55,13,30,15, 0		1,33,46,30,50	
		1,57,24,58,25,55,20,39		8,35
26″	21,22,43,26,23,53,39,25,35,39		1,33,46,39,25	
		1,57,24,56,52, 8,41,14		8,35
28″	21,22,45,23,48,50,31,34,16,53		1,33,46,48, 0	
		1,57,24,55,18,21,53,14		8,35
30″	21,22,47,21,13,45,49,56,10, 7		1,33,46,56,35	
		1,57,24,53,44,34,56,39		8,35
32″	21,22,49,18,38,39,34,31, 6,46		1,33,47, 5,10	
		1,57,24,52,10,47,51,29		8,35
34″	21,22,51,16, 3,31,45,18,58,15		1,33,47,13,45	
		1,57,24,50,37, 0,37,44		8,35
36″	21,22,53,13,28,22,22,19,35,59		1,33,47,22,20	
		1,57,24,49, 3,13,15,24		8,35
38″	21,22,55,10,53,11,25,32,51,23		1,33,47,30,55	
		1,57,24,47,29,25,44,29		8,35
40″	21,22,57, 8,17,58,54,58,35,52		1,33,47,39,30	
		1,57,24,45,55,38, 4,59		8,35
42″	21,22,59, 5,42,44,50,36,40,51		1,33,47,48, 5	
		1,57,24,44,21,50,16,54		8,35
44″	21,23, 1, 3, 7,29,12,26,57,45		1,33,47,56,40	
		1,57,24,42,48, 2,20,14		8,35
46″	21,23, 3, 0,32,12, 0,29,17,59		1,33,48, 5,15	
		1,57,24,41,14,14,14,59		8,35
48″	21,23, 4,57,56,53,14,43,32,58		1,33,48,13,50	
		1,57,24,39,40,26, 1, 9		8,35
50″	21,23, 6,55,21,32,55, 9,34, 7		1,33,48,22,25	
		1,57,24,38, 6,37,38,44		8,35
52″	21,23, 8,52,46,11, 1,47,12,51		1,33,48,31, 0	
		1,57,24,36,32,49, 7,44		8,35
54″	21,23,10,50,10,47,34,36,20,35		1,33,48,39,35	
		1,57,24,34,59, 0,28, 9		8,35
56″	21,23,12,47,35,22,33,36,48,44		1,33,48,48,10	
		1,57,24,33,25,11,39,59		8,35
58″	21,23,14,44,59,55,58,48,28,43		1,33,48,56,45	
		1,57,24,31,51,22,43,14		
60″	21,23,16,42,24,27,50,11,11,57			
exact	21,23,16,42,24,27,50,11, 9,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°53′ 0″	21,23,16,42,24,27,50,11, 9,30			
		1,57,24,30,17,33,37,38		
2″	21,23,18,39,48,58, 7,44,47, 8		1,33,49,13,56	
		1,57,24,28,43,44,23,42		8,35
4″	21,23,20,37,13,26,51,29,10,50		1,33,49,22,31	
		1,57,24,27, 9,55, 1,11		8,35
6″	21,23,22,34,37,54, 1,24,12, 1		1,33,49,31, 6	
		1,57,24,25,36, 5,30, 5		8,35
8″	21,23,24,32, 2,19,37,29,42, 6		1,33,49,39,41	
		1,57,24,24, 2,15,50,24		8,35
10″	21,23,26,29,26,43,39,45,32,30		1,33,49,48,16	
		1,57,24,22,28,26, 2, 8		8,35
12″	21,23,28,26,51, 6, 8,11,34,38		1,33,49,56,51	
		1,57,24,20,54,36, 5,17		8,35
14″	21,23,30,24,15,27, 2,47,39,55		1,33,50, 5,26	
		1,57,24,19,20,45,59,51		8,35
16″	21,23,32,21,39,46,23,33,39,46		1,33,50,14, 1	
		1,57,24,17,46,55,45,50		8,35
18″	21,23,34,19, 4, 4,10,29,25,36		1,33,50,22,36	
		1,57,24,16,13, 5,23,14		8,35
20″	21,23,36,16,28,20,23,34,48,50		1,33,50,31,11	
		1,57,24,14,39,14,52, 3		8,35
22″	21,23,38,13,52,35, 2,49,40,53		1,33,50,39,46	
		1,57,24,13, 5,24,12,17		8,35
24″	21,23,40,11,16,48, 8,13,53,10		1,33,50,48,21	
		1,57,24,11,31,33,23,56		8,35
26″	21,23,42, 8,40,59,39,47,17, 6		1,33,50,56,56	
		1,57,24, 9,57,42,27, 0		8,35
28″	21,23,44, 6, 5, 9,37,29,44, 6		1,33,51, 5,31	
		1,57,24, 8,23,51,21,29		8,35
30″	21,23,46, 3,29,18, 1,21, 5,35		1,33,51,14, 6	
		1,57,24, 6,50, 0, 7,23		8,35
32″	21,23,48, 0,53,24,51,21,12,58		1,33,51,22,41	
		1,57,24, 5,16, 8,44,42		8,35
34″	21,23,49,58,17,30, 7,29,57,40		1,33,51,31,16	
		1,57,24, 3,42,17,13,26		8,35
36″	21,23,51,55,41,33,49,47,11, 6		1,33,51,39,51	
		1,57,24, 2, 8,25,33,35		8,35
38″	21,23,53,53, 5,35,58,12,44,41		1,33,51,48,26	
		1,57,24, 0,34,33,45, 9		8,35
40″	21,23,55,50,29,36,32,46,29,50		1,33,51,57, 1	
		1,57,23,59, 0,41,48, 8		8,35
42″	21,23,57,47,53,35,33,28,17,58		1,33,52, 5,36	
		1,57,23,57,26,49,42,32		8,35
44″	21,23,59,45,17,33, 0,18, 0,30		1,33,52,14,11	
		1,57,23,55,52,57,28,21		8,35
46″	21,24, 1,42,41,28,53,15,28,51		1,33,52,22,46	
		1,57,23,54,19, 5, 5,35		8,35
48″	21,24, 3,40, 5,23,12,20,34,26		1,33,52,31,21	
		1,57,23,52,45,12,34,14		8,35
50″	21,24, 5,37,29,15,57,33, 8,40		1,33,52,39,56	
		1,57,23,51,11,19,54,18		8,35
52″	21,24, 7,34,53, 7, 8,53, 2,58		1,33,52,48,31	
		1,57,23,49,37,27, 5,47		8,35
54″	21,24, 9,32,16,56,46,20, 8,45		1,33,52,57, 6	
		1,57,23,48, 3,34, 8,41		8,35
56″	21,24,11,29,40,44,49,54,17,26		1,33,53, 5,41	
		1,57,23,46,29,41, 3, 0		8,35
58″	21,24,13,27, 4,31,19,35,20,26		1,33,53,14,16	
		1,57,23,44,55,47,48,44		
60″	21,24,15,24,28,16,15,23, 9,10			
exact	21,24,15,24,28,16,15,23, 9,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°54′ 0″	21,24,15,24,28,16,15,23, 9,35			
		1,57,23,43,21,54,25,57		
2″	21,24,17,21,51,59,37,17,35,32		1,33,53,31,25	
		1,57,23,41,48, 0,54,32		8,35
4″	21,24,19,19,15,41,25,18,30, 4		1,33,53,40, 0	
		1,57,23,40,14, 7,14,32		8,35
6″	21,24,21,16,39,21,39,25,44,36		1,33,53,48,35	
		1,57,23,38,40,13,25,57		8,35
8″	21,24,23,14, 3, 0,19,39,10,33		1,33,53,57,10	
		1,57,23,37, 6,19,28,47		8,35
10″	21,24,25,11,26,37,25,58,39,20		1,33,54, 5,45	
		1,57,23,35,32,25,23, 2		8,35
12″	21,24,27, 8,50,12,58,24, 2,22		1,33,54,14,20	
		1,57,23,33,58,31, 8,42		8,35
14″	21,24,29, 6,13,46,56,55,11, 4		1,33,54,22,55	
		1,57,23,32,24,36,45,47		8,35
16″	21,24,31, 3,37,19,21,31,56,51		1,33,54,31,30	
		1,57,23,30,50,42,14,17		8,35
18″	21,24,33, 1, 0,50,12,14,11, 8		1,33,54,40, 5	
		1,57,23,29,16,47,34,12		8,35
20″	21,24,34,58,24,19,29, 1,45,20		1,33,54,48,40	
		1,57,23,27,42,52,45,32		8,35
22″	21,24,36,55,47,47,11,54,30,52		1,33,54,57,15	
		1,57,23,26, 8,57,48,17		8,35
24″	21,24,38,53,11,13,20,52,19, 9		1,33,55, 5,50	
		1,57,23,24,35, 2,42,27		8,35
26″	21,24,40,50,34,37,55,55, 1,36		1,33,55,14,25	
		1,57,23,23, 1, 7,28, 2		8,35
28″	21,24,42,47,58, 0,57, 2,29,38		1,33,55,23, 0	
		1,57,23,21,27,12, 5, 2		8,35
30″	21,24,44,45,21,22,24,14,34,40		1,33,55,31,35	
		1,57,23,19,53,16,33,27		8,35
32″	21,24,46,42,44,42,17,31, 8, 7		1,33,55,40,10	
		1,57,23,18,19,20,53,17		8,35
34″	21,24,48,40, 8, 0,36,52, 1,24		1,33,55,48,45	
		1,57,23,16,45,25, 4,32		8,35
36″	21,24,50,37,31,17,22,17, 5,56		1,33,55,57,20	
		1,57,23,15,11,29, 7,12		8,35
38″	21,24,52,34,54,32,33,46,13, 8		1,33,56, 5,55	
		1,57,23,13,37,33, 1,17		8,35
40″	21,24,54,32,17,46,11,19,14,25		1,33,56,14,30	
		1,57,23,12, 3,36,46,47		8,35
42″	21,24,56,29,40,58,14,56, 1,12		1,33,56,23, 5	
		1,57,23,10,29,40,23,42		8,35
44″	21,24,58,27, 4, 8,44,36,24,54		1,33,56,31,40	
		1,57,23, 8,55,43,52, 2		8,35
46″	21,25, 0,24,27,17,40,20,16,56		1,33,56,40,15	
		1,57,23, 7,21,47,11,47		8,35
48″	21,25, 2,21,50,25, 2, 7,28,43		1,33,56,48,50	
		1,57,23, 5,47,50,22,57		8,35
50″	21,25, 4,19,13,30,49,57,51,40		1,33,56,57,25	
		1,57,23, 4,13,53,25,32		8,35
52″	21,25, 6,16,36,35, 3,51,17,12		1,33,57, 6, 0	
		1,57,23, 2,39,56,19,32		8,35
54″	21,25, 8,13,59,37,43,47,36,44		1,33,57,14,35	
		1,57,23, 1, 5,59, 4,57		8,35
56″	21,25,10,11,22,38,49,46,41,41		1,33,57,23,10	
		1,57,22,59,32, 1,41,47		8,35
58″	21,25,12, 8,45,38,21,48,23,28		1,33,57,31,45	
		1,57,22,57,58, 4,10, 2		
60″	21,25,14, 6, 8,36,19,52,33,30			
exact	21,25,14, 6, 8,36,19,52,34,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°55′ 0″	21,25,14, 6, 8,36,19,52,34,50			
		1,57,22,56,24, 6,29,59		
2″	21,25,16, 3,31,32,43,59, 4,49		1,33,57,48,53	
		1,57,22,54,50, 8,41, 6		8,35
4″	21,25,18, 0,54,27,34, 7,45,55		1,33,57,57,28	
		1,57,22,53,16,10,43,38		8,35
6″	21,25,19,58,17,20,50,18,29,33		1,33,58, 6, 3	
		1,57,22,51,42,12,37,35		8,35
8″	21,25,21,55,40,12,32,31, 7, 8		1,33,58,14,38	
		1,57,22,50, 8,14,22,57		8,35
10″	21,25,23,53, 3, 2,40,45,30, 5		1,33,58,23,13	
		1,57,22,48,34,15,59,44		8,35
12″	21,25,25,50,25,51,15, 1,29,49		1,33,58,31,48	
		1,57,22,47, 0,17,27,56		8,35
14″	21,25,27,47,48,38,15,18,57,45		1,33,58,40,23	
		1,57,22,45,26,18,47,33		8,35
16″	21,25,29,45,11,23,41,37,45,18		1,33,58,48,58	
		1,57,22,43,52,19,58,35		8,35
18″	21,25,31,42,34, 7,33,57,43,53		1,33,58,57,33	
		1,57,22,42,18,21, 1, 2		8,35
20″	21,25,33,39,56,49,52,18,44,55		1,33,59, 6, 8	
		1,57,22,40,44,21,54,54		8,35
22″	21,25,35,37,19,30,36,40,39,49		1,33,59,14,43	
		1,57,22,39,10,22,40,11		8,35
24″	21,25,37,34,42, 9,47, 3,20, 0		1,33,59,23,18	
		1,57,22,37,36,23,16,53		8,35
26″	21,25,39,32, 4,47,23,26,36,53		1,33,59,31,53	
		1,57,22,36, 2,23,45, 0		8,35
28″	21,25,41,29,27,23,25,50,21,53		1,33,59,40,28	
		1,57,22,34,28,24, 4,32		8,35
30″	21,25,43,26,49,57,54,14,26,25		1,33,59,49, 3	
		1,57,22,32,54,24,15,29		8,35
32″	21,25,45,24,12,30,48,38,41,54		1,33,59,57,38	
		1,57,22,31,20,24,17,51		8,35
34″	21,25,47,21,35, 2, 9, 2,59,45		1,34, 0, 6,13	
		1,57,22,29,46,24,11,38		8,35
36″	21,25,49,18,57,31,55,27,11,23		1,34, 0,14,48	
		1,57,22,28,12,23,56,50		8,35
38″	21,25,51,16,20, 0, 7,51, 8,13		1,34, 0,23,23	
		1,57,22,26,38,23,33,27		8,35
40″	21,25,53,13,42,26,46,14,41,40		1,34, 0,31,58	
		1,57,22,25, 4,23, 1,29		8,35
42″	21,25,55,11, 4,51,50,37,43, 9		1,34, 0,40,33	
		1,57,22,23,30,22,20,56		8,35
44″	21,25,57, 8,27,15,21, 0, 4, 5		1,34, 0,49, 8	
		1,57,22,21,56,21,31,48		8,35
46″	21,25,59, 5,49,37,17,21,35,53		1,34, 0,57,43	
		1,57,22,20,22,20,34, 5		8,35
48″	21,26, 1, 3,11,57,39,42, 9,58		1,34, 1, 6,18	
		1,57,22,18,48,19,27,47		8,35
50″	21,26, 3, 0,34,16,28, 1,37,45		1,34, 1,14,53	
		1,57,22,17,14,18,12,54		8,35
52″	21,26, 4,57,56,33,42,19,50,39		1,34, 1,23,28	
		1,57,22,15,40,16,49,26		8,35
54″	21,26, 6,55,18,49,22,36,40, 5		1,34, 1,32, 3	
		1,57,22,14, 6,15,17,23		8,35
56″	21,26, 8,52,41, 3,28,51,57,28		1,34, 1,40,38	
		1,57,22,12,32,13,36,45		8,35
58″	21,26,10,50, 3,16, 1, 5,34,13		1,34, 1,49,13	
		1,57,22,10,58,11,47,32		
60″	21,26,12,47,25,26,59,17,21,45			
exact	21,26,12,47,25,26,59,17,28,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°56′ 0″	21,26,12,47,25,26,59,17,28,30			
		1,57,22, 9,24, 9,50,33		
2″	21,26,14,44,47,36,23,27,19, 3		1,34, 2, 6,19	
		1,57,22, 7,50, 7,44,14		8,35
4″	21,26,16,42, 9,44,13,35, 3,17		1,34, 2,14,54	
		1,57,22, 6,16, 5,29,20		8,35
6″	21,26,18,39,31,50,29,40,32,37		1,34, 2,23,29	
		1,57,22, 4,42, 3, 5,51		8,35
8″	21,26,20,36,53,55,11,43,38,28		1,34, 2,32, 4	
		1,57,22, 3, 8, 0,33,47		8,35
10″	21,26,22,34,15,58,19,44,12,15		1,34, 2,40,39	
		1,57,22, 1,33,57,53, 8		8,35
12″	21,26,24,31,37,59,53,42, 5,23		1,34, 2,49,14	
		1,57,21,59,59,55, 3,54		8,35
14″	21,26,26,28,59,59,53,37, 9,17		1,34, 2,57,49	
		1,57,21,58,25,52, 6, 5		8,35
16″	21,26,28,26,21,58,19,29,15,22		1,34, 3, 6,24	
		1,57,21,56,51,48,59,41		8,35
18″	21,26,30,23,43,55,11,18,15, 3		1,34, 3,14,59	
		1,57,21,55,17,45,44,42		8,35
20″	21,26,32,21, 5,50,29, 3,59,45		1,34, 3,23,34	
		1,57,21,53,43,42,21, 8		8,35
22″	21,26,34,18,27,44,12,46,20,53		1,34, 3,32, 9	
		1,57,21,52, 9,38,48,59		8,35
24″	21,26,36,15,49,36,22,25, 9,52		1,34, 3,40,44	
		1,57,21,50,35,35, 8,15		8,35
26″	21,26,38,13,11,26,58, 0,18, 7		1,34, 3,49,19	
		1,57,21,49, 1,31,18,56		8,35
28″	21,26,40,10,33,15,59,31,37, 3		1,34, 3,57,54	
		1,57,21,47,27,27,21, 2		8,35
30″	21,26,42, 7,55, 3,26,58,58, 5		1,34, 4, 6,29	
		1,57,21,45,53,23,14,33		8,35
32″	21,26,44, 5,16,49,20,22,12,38		1,34, 4,15, 4	
		1,57,21,44,19,18,59,29		8,35
34″	21,26,46, 2,38,33,39,41,12, 7		1,34, 4,23,39	
		1,57,21,42,45,14,35,50		8,35
36″	21,26,48, 0, 0,16,24,55,47,57		1,34, 4,32,14	
		1,57,21,41,11,10, 3,36		8,35
38″	21,26,49,57,21,57,36, 5,51,33		1,34, 4,40,49	
		1,57,21,39,37, 5,22,47		8,35
40″	21,26,51,54,43,37,13,11,14,20		1,34, 4,49,24	
		1,57,21,38, 3, 0,33,23		8,35
42″	21,26,53,52, 5,15,16,11,47,43		1,34, 4,57,59	
		1,57,21,36,28,55,35,24		8,35
44″	21,26,55,49,26,51,45, 7,23, 7		1,34, 5, 6,34	
		1,57,21,34,54,50,28,50		8,35
46″	21,26,57,46,48,26,39,57,51,57		1,34, 5,15, 9	
		1,57,21,33,20,45,13,41		8,35
48″	21,26,59,44,10, 0, 0,43, 5,38		1,34, 5,23,44	
		1,57,21,31,46,39,49,57		8,35
50″	21,27, 1,41,31,31,47,22,55,35		1,34, 5,32,19	
		1,57,21,30,12,34,17,38		8,35
52″	21,27, 3,38,53, 1,59,57,13,13		1,34, 5,40,54	
		1,57,21,28,38,28,36,44		8,35
54″	21,27, 5,36,14,30,38,25,49,57		1,34, 5,49,29	
		1,57,21,27, 4,22,47,15		8,35
56″	21,27, 7,33,35,57,42,48,37,12		1,34, 5,58, 4	
		1,57,21,25,30,16,49,11		8,35
58″	21,27, 9,30,57,23,13, 5,26,23		1,34, 6, 6,39	
		1,57,21,23,56,10,42,32		
60″	21,27,11,28,18,47, 9,16, 8,55			
exact	21,27,11,28,18,47, 9,16,19,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°57′ 0″	21,27,11,28,18,47, 9,16,19,35			
		1,57,21,22,22, 4,28,32		
2″	21,27,13,25,40, 9,31,20,48, 7		1,34, 6,23,43	
		1,57,21,20,47,58, 4,49		8,35
4″	21,27,15,23, 1,30,19,18,52,56		1,34, 6,32,18	
		1,57,21,19,13,51,32,31		8,35
6″	21,27,17,20,22,49,33,10,25,27		1,34, 6,40,53	
		1,57,21,17,39,44,51,38		8,35
8″	21,27,19,17,44, 7,12,55,17, 5		1,34, 6,49,28	
		1,57,21,16, 5,38, 2,10		8,35
10″	21,27,21,15, 5,23,18,33,19,15		1,34, 6,58, 3	
		1,57,21,14,31,31, 4, 7		8,35
12″	21,27,23,12,26,37,50, 4,23,22		1,34, 7, 6,38	
		1,57,21,12,57,23,57,29		8,35
14″	21,27,25, 9,47,50,47,28,20,51		1,34, 7,15,13	
		1,57,21,11,23,16,42,16		8,35
16″	21,27,27, 7, 9, 2,10,45, 3, 7		1,34, 7,23,48	
		1,57,21, 9,49, 9,18,28		8,35
18″	21,27,29, 4,30,11,59,54,21,35		1,34, 7,32,23	
		1,57,21, 8,15, 1,46, 5		8,35
20″	21,27,31, 1,51,20,14,56, 7,40		1,34, 7,40,58	
		1,57,21, 6,40,54, 5, 7		8,35
22″	21,27,32,59,12,26,55,50,12,47		1,34, 7,49,33	
		1,57,21, 5, 6,46,15,34		8,35
24″	21,27,34,56,33,32, 2,36,28,21		1,34, 7,58, 8	
		1,57,21, 3,32,38,17,26		8,35
26″	21,27,36,53,54,35,35,14,45,47		1,34, 8, 6,43	
		1,57,21, 1,58,30,10,43		8,35
28″	21,27,38,51,15,37,33,44,56,30		1,34, 8,15,18	
		1,57,21, 0,24,21,55,25		8,35
30″	21,27,40,48,36,37,58, 6,51,55		1,34, 8,23,53	
		1,57,20,58,50,13,31,32		8,35
32″	21,27,42,45,57,36,48,20,23,27		1,34, 8,32,28	
		1,57,20,57,16, 4,59, 4		8,35
34″	21,27,44,43,18,34, 4,25,22,31		1,34, 8,41, 3	
		1,57,20,55,41,56,18, 1		8,35
36″	21,27,46,40,39,29,46,21,40,32		1,34, 8,49,38	
		1,57,20,54, 7,47,28,23		8,35
38″	21,27,48,38, 0,23,54, 9, 8,55		1,34, 8,58,13	
		1,57,20,52,33,38,30,10		8,35
40″	21,27,50,35,21,16,27,47,39, 5		1,34, 9, 6,48	
		1,57,20,50,59,29,23,22		8,35
42″	21,27,52,32,42, 7,27,17, 2,27		1,34, 9,15,23	
		1,57,20,49,25,20, 7,59		8,35
44″	21,27,54,30, 2,56,52,37,10,26		1,34, 9,23,58	
		1,57,20,47,51,10,44, 1		8,35
46″	21,27,56,27,23,44,43,47,54,27		1,34, 9,32,33	
		1,57,20,46,17, 1,11,28		8,35
48″	21,27,58,24,44,31, 0,49, 5,55		1,34, 9,41, 8	
		1,57,20,44,42,51,30,20		8,35
50″	21,28, 0,22, 5,15,43,40,36,15		1,34, 9,49,43	
		1,57,20,43, 8,41,40,37		8,35
52″	21,28, 2,19,25,58,52,22,16,52		1,34, 9,58,18	
		1,57,20,41,34,31,42,19		8,35
54″	21,28, 4,16,46,40,26,53,59,11		1,34,10, 6,53	
		1,57,20,40, 0,21,35,26		8,35
56″	21,28, 6,14, 7,20,27,15,34,37		1,34,10,15,28	
		1,57,20,38,26,11,19,58		8,35
58″	21,28, 8,11,27,58,53,26,54,35		1,34,10,24, 3	
		1,57,20,36,52, 0,55,55		
60″	21,28,10, 8,48,35,45,27,50,30			
exact	21,28,10, 8,48,35,45,28, 2,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°58′ 0″	21,28,10, 8,48,35,45,28, 2,54			
		1,57,20,35,17,50,24,47		
2″	21,28,12, 6, 9,11, 3,18,27,41		1,34,10,41, 6	
		1,57,20,33,43,39,43,41		8,35
4″	21,28,14, 3,29,44,46,58,11,22		1,34,10,49,41	
		1,57,20,32, 9,28,54, 0		8,35
6″	21,28,16, 0,50,16,56,27, 5,22		1,34,10,58,16	
		1,57,20,30,35,17,55,44		8,35
8″	21,28,17,58,10,47,31,45, 1, 6		1,34,11, 6,51	
		1,57,20,29, 1, 6,48,53		8,35
10″	21,28,19,55,31,16,32,51,49,59		1,34,11,15,26	
		1,57,20,27,26,55,33,27		8,35
12″	21,28,21,52,51,43,59,47,23,26		1,34,11,24, 1	
		1,57,20,25,52,44, 9,26		8,35
14″	21,28,23,50,12, 9,52,31,32,52		1,34,11,32,36	
		1,57,20,24,18,32,36,50		8,35
16″	21,28,25,47,32,34,11, 4, 9,42		1,34,11,41,11	
		1,57,20,22,44,20,55,39		8,35
18″	21,28,27,44,52,56,55,25, 5,21		1,34,11,49,46	
		1,57,20,21,10, 9, 5,53		8,35
20″	21,28,29,42,13,18, 5,34,11,14		1,34,11,58,21	
		1,57,20,19,35,57, 7,32		8,35
22″	21,28,31,39,33,37,41,31,18,46		1,34,12, 6,56	
		1,57,20,18, 1,45, 0,36		8,35
24″	21,28,33,36,53,55,43,16,19,22		1,34,12,15,31	
		1,57,20,16,27,32,45, 5		8,35
26″	21,28,35,34,14,12,10,49, 4,27		1,34,12,24, 6	
		1,57,20,14,53,20,20,59		8,35
28″	21,28,37,31,34,27, 4, 9,25,26		1,34,12,32,41	
		1,57,20,13,19, 7,48,18		8,35
30″	21,28,39,28,54,40,23,17,13,44		1,34,12,41,16	
		1,57,20,11,44,55, 7, 2		8,35
32″	21,28,41,26,14,52, 8,12,20,46		1,34,12,49,51	
		1,57,20,10,10,42,17,11		8,35
34″	21,28,43,23,35, 2,18,54,37,57		1,34,12,58,26	
		1,57,20, 8,36,29,18,45		8,35
36″	21,28,45,20,55,10,55,23,56,42		1,34,13, 7, 1	
		1,57,20, 7, 2,16,11,44		8,35
38″	21,28,47,18,15,17,57,40, 8,26		1,34,13,15,36	
		1,57,20, 5,28, 2,56, 8		8,35
40″	21,28,49,15,35,23,25,43, 4,34		1,34,13,24,11	
		1,57,20, 3,53,49,31,57		8,35
42″	21,28,51,12,55,27,19,32,36,31		1,34,13,32,46	
		1,57,20, 2,19,35,59,11		8,35
44″	21,28,53,10,15,29,39, 8,35,42		1,34,13,41,21	
		1,57,20, 0,45,22,17,50		8,35
46″	21,28,55, 7,35,30,24,30,53,32		1,34,13,49,56	
		1,57,19,59,11, 8,27,54		8,35
48″	21,28,57, 4,55,29,35,39,21,26		1,34,13,58,31	
		1,57,19,57,36,54,29,23		8,35
50″	21,28,59, 2,15,27,12,33,50,49		1,34,14, 7, 6	
		1,57,19,56, 2,40,22,17		8,35
52″	21,29, 0,59,35,23,15,14,13, 6		1,34,14,15,41	
		1,57,19,54,28,26, 6,36		8,35
54″	21,29, 2,56,55,17,43,40,19,42		1,34,14,24,16	
		1,57,19,52,54,11,42,20		8,35
56″	21,29, 4,54,15,10,37,52, 2, 2		1,34,14,32,51	
		1,57,19,51,19,57, 9,29		8,35
58″	21,29, 6,51,35, 1,57,49,11,31		1,34,14,41,26	
		1,57,19,49,45,42,28, 3		
60″	21,29, 8,48,54,51,43,31,39,34			
exact	21,29, 8,48,54,51,43,31,59, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
20°59′ 0″	21,29, 8,48,54,51,43,31,59, 2			
		1,57,19,48,11,27,40,10		
2″	21,29,10,46,14,39,54,59,39,12		1,34,14,58,27	
		1,57,19,46,37,12,41,43		8,35
4″	21,29,12,43,34,26,32,12,20,55		1,34,15, 7, 2	
		1,57,19,45, 2,57,34,41		8,35
6″	21,29,14,40,54,11,35, 9,55,36		1,34,15,15,37	
		1,57,19,43,28,42,19, 4		8,35
8″	21,29,16,38,13,55, 3,52,14,40		1,34,15,24,12	
		1,57,19,41,54,26,54,52		8,35
10″	21,29,18,35,33,36,58,19, 9,32		1,34,15,32,47	
		1,57,19,40,20,11,22, 5		8,35
12″	21,29,20,32,53,17,18,30,31,37		1,34,15,41,22	
		1,57,19,38,45,55,40,43		8,35
14″	21,29,22,30,12,56, 4,26,12,20		1,34,15,49,57	
		1,57,19,37,11,39,50,46		8,35
16″	21,29,24,27,32,33,16, 6, 3, 6		1,34,15,58,32	
		1,57,19,35,37,23,52,14		8,35
18″	21,29,26,24,52, 8,53,29,55,20		1,34,16, 7, 7	
		1,57,19,34, 3, 7,45, 7		8,35
20″	21,29,28,22,11,42,56,37,40,27		1,34,16,15,42	
		1,57,19,32,28,51,29,25		8,35
22″	21,29,30,19,31,15,25,29, 9,52		1,34,16,24,17	
		1,57,19,30,54,35, 5, 8		8,35
24″	21,29,32,16,50,46,20, 4,15, 0		1,34,16,32,52	
		1,57,19,29,20,18,32,16		8,35
26″	21,29,34,14,10,15,40,22,47,16		1,34,16,41,27	
		1,57,19,27,46, 1,50,49		8,35
28″	21,29,36,11,29,43,26,24,38, 5		1,34,16,50, 2	
		1,57,19,26,11,45, 0,47		8,35
30″	21,29,38, 8,49, 9,38, 9,38,52		1,34,16,58,37	
		1,57,19,24,37,28, 2,10		8,35
32″	21,29,40, 6, 8,34,15,37,41, 2		1,34,17, 7,12	
		1,57,19,23, 3,10,54,58		8,35
34″	21,29,42, 3,27,57,18,48,36, 0		1,34,17,15,47	
		1,57,19,21,28,53,39,11		8,35
36″	21,29,44, 0,47,18,47,42,15,11		1,34,17,24,22	
		1,57,19,19,54,36,14,49		8,35
38″	21,29,45,58, 6,38,42,18,30, 0		1,34,17,32,57	
		1,57,19,18,20,18,41,52		8,35
40″	21,29,47,55,25,57, 2,37,11,52		1,34,17,41,32	
		1,57,19,16,46, 1, 0,20		8,35
42″	21,29,49,52,45,13,48,38,12,12		1,34,17,50, 7	
		1,57,19,15,11,43,10,13		8,35
44″	21,29,51,50, 4,29, 0,21,22,25		1,34,17,58,42	
		1,57,19,13,37,25,11,31		8,35
46″	21,29,53,47,23,42,37,46,33,56		1,34,18, 7,17	
		1,57,19,12, 3, 7, 4,14		8,35
48″	21,29,55,44,42,54,40,53,38,10		1,34,18,15,52	
		1,57,19,10,28,48,48,22		8,35
50″	21,29,57,42, 2, 5, 9,42,26,32		1,34,18,24,27	
		1,57,19, 8,54,30,23,55		8,35
52″	21,29,59,39,21,14, 4,12,50,27		1,34,18,33, 2	
		1,57,19, 7,20,11,50,53		8,35
54″	21,30, 1,36,40,21,24,24,41,20		1,34,18,41,37	
		1,57,19, 5,45,53, 9,16		8,35
56″	21,30, 3,33,59,27,10,17,50,36		1,34,18,50,12	
		1,57,19, 4,11,34,19, 4		8,35
58″	21,30, 5,31,18,31,21,52, 9,40		1,34,18,58,47	
		1,57,19, 2,37,15,20,17		
60″	21,30, 7,28,37,33,59, 7,29,57			
exact	21,30, 7,28,37,33,59, 7,54,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21° 0′ 0″	21,30, 7,28,37,33,59, 7,54,23			
		1,57,19, 1, 2,56,15,32		
2″	21,30, 9,25,56,35, 2, 4, 9,55		1,34,19,15,46	
		1,57,18,59,28,36,59,46		8,35
4″	21,30,11,23,15,34,30,41, 9,41		1,34,19,24,21	
		1,57,18,57,54,17,35,25		8,35
6″	21,30,13,20,34,32,24,58,45, 6		1,34,19,32,56	
		1,57,18,56,19,58, 2,29		8,35
8″	21,30,15,17,53,28,44,56,47,35		1,34,19,41,31	
		1,57,18,54,45,38,20,58		8,35
10″	21,30,17,15,12,23,30,35, 8,33		1,34,19,50, 6	
		1,57,18,53,11,18,30,52		8,35
12″	21,30,19,12,31,16,41,53,39,25		1,34,19,58,41	
		1,57,18,51,36,58,32,11		8,35
14″	21,30,21, 9,50, 8,18,52,11,36		1,34,20, 7,16	
		1,57,18,50, 2,38,24,55		8,35
16″	21,30,23, 7, 8,58,21,30,36,31		1,34,20,15,51	
		1,57,18,48,28,18, 9, 4		8,35
18″	21,30,25, 4,27,46,49,48,45,35		1,34,20,24,26	
		1,57,18,46,53,57,44,38		8,35
20″	21,30,27, 1,46,33,43,46,30,13		1,34,20,33, 1	
		1,57,18,45,19,37,11,37		8,35
22″	21,30,28,59, 5,19, 3,23,41,50		1,34,20,41,36	
		1,57,18,43,45,16,30, 1		8,35
24″	21,30,30,56,24, 2,48,40,11,51		1,34,20,50,11	
		1,57,18,42,10,55,39,50		8,35
26″	21,30,32,53,42,44,59,35,51,41		1,34,20,58,46	
		1,57,18,40,36,34,41, 4		8,35
28″	21,30,34,51, 1,25,36,10,32,45		1,34,21, 7,21	
		1,57,18,39, 2,13,33,43		8,35
30″	21,30,36,48,20, 4,38,24, 6,28		1,34,21,15,56	
		1,57,18,37,27,52,17,47		8,35
32″	21,30,38,45,38,42, 6,16,24,15		1,34,21,24,31	
		1,57,18,35,53,30,53,16		8,35
34″	21,30,40,42,57,17,59,47,17,31		1,34,21,33, 6	
		1,57,18,34,19, 9,20,10		8,35
36″	21,30,42,40,15,52,18,56,37,41		1,34,21,41,41	
		1,57,18,32,44,47,38,29		8,35
38″	21,30,44,37,34,25, 3,44,16,10		1,34,21,50,16	
		1,57,18,31,10,25,48,13		8,35
40″	21,30,46,34,52,56,14,10, 4,23		1,34,21,58,51	
		1,57,18,29,36, 3,49,22		8,35
42″	21,30,48,32,11,25,50,13,53,45		1,34,22, 7,26	
		1,57,18,28, 1,41,41,56		8,35
44″	21,30,50,29,29,53,51,55,35,41		1,34,22,16, 1	
		1,57,18,26,27,19,25,55		8,35
46″	21,30,52,26,48,20,19,15, 1,36		1,34,22,24,36	
		1,57,18,24,52,57, 1,19		8,35
48″	21,30,54,24, 6,45,12,12, 2,55		1,34,22,33,11	
		1,57,18,23,18,34,28, 8		8,35
50″	21,30,56,21,25, 8,30,46,31, 3		1,34,22,41,46	
		1,57,18,21,44,11,46,22		8,35
52″	21,30,58,18,43,30,14,58,17,25		1,34,22,50,21	
		1,57,18,20, 9,48,56, 1		8,35
54″	21,31, 0,16, 1,50,24,47,13,26		1,34,22,58,56	
		1,57,18,18,35,25,57, 5		8,35
56″	21,31, 2,13,20, 9, 0,13,10,31		1,34,23, 7,31	
		1,57,18,17, 1, 2,49,34		8,35
58″	21,31, 4,10,38,26, 1,16, 0, 5		1,34,23,16, 6	
		1,57,18,15,26,39,33,28		
60″	21,31, 6, 7,56,41,27,55,33,33			
exact	21,31, 6, 7,56,41,27,56, 1,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21° 1′ 0″	21,31, 6, 7,56,41,27,56, 1,14			
		1,57,18,13,52,16,11,46		
2″	21,31, 8, 5,14,55,20,12,13, 0		1,34,23,33, 3	
		1,57,18,12,17,52,38,43		8,35
4″	21,31,10, 2,33, 7,38, 4,51,43		1,34,23,41,38	
		1,57,18,10,43,28,57, 5		8,35
6″	21,31,11,59,51,18,21,33,48,48		1,34,23,50,13	
		1,57,18, 9, 9, 5, 6,52		8,35
8″	21,31,13,57, 9,27,30,38,55,40		1,34,23,58,48	
		1,57,18, 7,34,41, 8, 4		8,35
10″	21,31,15,54,27,35, 5,20, 3,44		1,34,24, 7,23	
		1,57,18, 6, 0,17, 0,41		8,35
12″	21,31,17,51,45,41, 5,37, 4,25		1,34,24,15,58	
		1,57,18, 4,25,52,44,43		8,35
14″	21,31,19,49, 3,45,31,29,49, 8		1,34,24,24,33	
		1,57,18, 2,51,28,20,10		8,35
16″	21,31,21,46,21,48,22,58, 9,18		1,34,24,33, 8	
		1,57,18, 1,17, 3,47, 2		8,35
18″	21,31,23,43,39,49,40, 1,56,20		1,34,24,41,43	
		1,57,17,59,42,39, 5,19		8,35
20″	21,31,25,40,57,49,22,41, 1,39		1,34,24,50,18	
		1,57,17,58, 8,14,15, 1		8,35
22″	21,31,27,38,15,47,30,55,16,40		1,34,24,58,53	
		1,57,17,56,33,49,16, 8		8,35
24″	21,31,29,35,33,44, 4,44,32,48		1,34,25, 7,28	
		1,57,17,54,59,24, 8,40		8,35
26″	21,31,31,32,51,39, 4, 8,41,28		1,34,25,16, 3	
		1,57,17,53,24,58,52,37		8,35
28″	21,31,33,30, 9,32,29, 7,34, 5		1,34,25,24,38	
		1,57,17,51,50,33,27,59		8,35
30″	21,31,35,27,27,24,19,41, 2, 4		1,34,25,33,13	
		1,57,17,50,16, 7,54,46		8,35
32″	21,31,37,24,45,14,35,48,56,50		1,34,25,41,48	
		1,57,17,48,41,42,12,58		8,35
34″	21,31,39,22, 3, 3,17,31, 9,48		1,34,25,50,23	
		1,57,17,47, 7,16,22,35		8,35
36″	21,31,41,19,20,50,24,47,32,23		1,34,25,58,58	
		1,57,17,45,32,50,23,37		8,35
38″	21,31,43,16,38,35,57,37,56, 0		1,34,26, 7,33	
		1,57,17,43,58,24,16, 4		8,35
40″	21,31,45,13,56,19,56, 2,12, 4		1,34,26,16, 8	
		1,57,17,42,23,57,59,56		8,35
42″	21,31,47,11,14, 2,20, 0,12, 0		1,34,26,24,43	
		1,57,17,40,49,31,35,13		8,35
44″	21,31,49, 8,31,43, 9,31,47,13		1,34,26,33,18	
		1,57,17,39,15, 5, 1,55		8,35
46″	21,31,51, 5,49,22,24,36,49, 8		1,34,26,41,53	
		1,57,17,37,40,38,20, 2		8,35
48″	21,31,53, 3, 7, 0, 5,15, 9,10		1,34,26,50,28	
		1,57,17,36, 6,11,29,34		8,35
50″	21,31,55, 0,24,36,11,26,38,44		1,34,26,59, 3	
		1,57,17,34,31,44,30,31		8,35
52″	21,31,56,57,42,10,43,11, 9,15		1,34,27, 7,38	
		1,57,17,32,57,17,22,53		8,35
54″	21,31,58,54,59,43,40,28,32, 8		1,34,27,16,13	
		1,57,17,31,22,50, 6,40		8,35
56″	21,32, 0,52,17,15, 3,18,38,48		1,34,27,24,48	
		1,57,17,29,48,22,41,52		8,35
58″	21,32, 2,49,34,44,51,41,20,40		1,34,27,33,23	
		1,57,17,28,13,55, 8,29		
60″	21,32, 4,46,52,13, 5,36,29, 9			
exact	21,32, 4,46,52,13, 5,36,57,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21° 2′ 0″	21,32, 4,46,52,13, 5,36,57,40			
		1,57,17,26,39,27,29,43		
2″	21,32, 6,44, 9,39,45, 4,27,23		1,34,27,50,19	
		1,57,17,25, 4,59,39,24		8,34
4″	21,32, 8,41,27, 4,50, 4, 6,47		1,34,27,58,53	
		1,57,17,23,30,31,40,31		8,34
6″	21,32,10,38,44,28,20,35,47,18		1,34,28, 7,27	
		1,57,17,21,56, 3,33, 4		8,34
8″	21,32,12,36, 1,50,16,39,20,22		1,34,28,16, 1	
		1,57,17,20,21,35,17, 3		8,34
10″	21,32,14,33,19,10,38,14,37,25		1,34,28,24,35	
		1,57,17,18,47, 6,52,28		8,34
12″	21,32,16,30,36,29,25,21,29,53		1,34,28,33, 9	
		1,57,17,17,12,38,19,19		8,34
14″	21,32,18,27,53,46,37,59,49,12		1,34,28,41,43	
		1,57,17,15,38, 9,37,36		8,34
16″	21,32,20,25,11, 2,16, 9,26,48		1,34,28,50,17	
		1,57,17,14, 3,40,47,19		8,34
18″	21,32,22,22,28,16,19,50,14, 7		1,34,28,58,51	
		1,57,17,12,29,11,48,28		8,34
20″	21,32,24,19,45,28,49, 2, 2,35		1,34,29, 7,25	
		1,57,17,10,54,42,41, 3		8,34
22″	21,32,26,17, 2,39,43,44,43,38		1,34,29,15,59	
		1,57,17, 9,20,13,25, 4		8,34
24″	21,32,28,14,19,49, 3,58, 8,42		1,34,29,24,33	
		1,57,17, 7,45,44, 0,31		8,34
26″	21,32,30,11,36,56,49,42, 9,13		1,34,29,33, 7	
		1,57,17, 6,11,14,27,24		8,34
28″	21,32,32, 8,54, 3, 0,56,36,37		1,34,29,41,41	
		1,57,17, 4,36,44,45,43		8,34
30″	21,32,34, 6,11, 7,37,41,22,20		1,34,29,50,15	
		1,57,17, 3, 2,14,55,28		8,34
32″	21,32,36, 3,28,10,39,56,17,48		1,34,29,58,49	
		1,57,17, 1,27,44,56,39		8,34
34″	21,32,38, 0,45,12, 7,41,14,27		1,34,30, 7,23	
		1,57,16,59,53,14,49,16		8,34
36″	21,32,39,58, 2,12, 0,56, 3,43		1,34,30,15,57	
		1,57,16,58,18,44,33,19		8,34
38″	21,32,41,55,19,10,19,40,37, 2		1,34,30,24,31	
		1,57,16,56,44,14, 8,48		8,34
40″	21,32,43,52,36, 7, 3,54,45,50		1,34,30,33, 5	
		1,57,16,55, 9,43,35,43		8,34
42″	21,32,45,49,53, 2,13,38,21,33		1,34,30,41,39	
		1,57,16,53,35,12,54, 4		8,34
44″	21,32,47,47, 9,55,48,51,15,37		1,34,30,50,13	
		1,57,16,52, 0,42, 3,51		8,34
46″	21,32,49,44,26,47,49,33,19,28		1,34,30,58,47	
		1,57,16,50,26,11, 5, 4		8,34
48″	21,32,51,41,43,38,15,44,24,32		1,34,31, 7,21	
		1,57,16,48,51,39,57,43		8,34
50″	21,32,53,39, 0,27, 7,24,22,15		1,34,31,15,55	
		1,57,16,47,17, 8,41,48		8,34
52″	21,32,55,36,17,14,24,33, 4, 3		1,34,31,24,29	
		1,57,16,45,42,37,17,19		8,34
54″	21,32,57,33,34, 0, 7,10,21,22		1,34,31,33, 3	
		1,57,16,44, 8, 5,44,16		8,34
56″	21,32,59,30,50,44,15,16, 5,38		1,34,31,41,37	
		1,57,16,42,33,34, 2,39		8,34
58″	21,33, 1,28, 7,26,48,50, 8,17		1,34,31,50,11	
		1,57,16,40,59, 2,12,28		
60″	21,33, 3,25,24, 7,47,52,20,45			
exact	21,33, 3,25,24, 7,47,51,47,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21° 3′ 0″	21,33, 3,25,24, 7,47,51,47,40			
		1,57,16,39,24,30,10,14		
2″	21,33, 5,22,40,47,12,21,57,54		1,34,32, 7,33	
		1,57,16,37,49,58, 2,41		8,34
4″	21,33, 7,19,57,25, 2,20, 0,35		1,34,32,16, 7	
		1,57,16,36,15,25,46,34		8,34
6″	21,33, 9,17,14, 1,17,45,47, 9		1,34,32,24,41	
		1,57,16,34,40,53,21,53		8,34
8″	21,33,11,14,30,35,58,39, 9, 2		1,34,32,33,15	
		1,57,16,33, 6,20,48,38		8,34
10″	21,33,13,11,47, 9, 4,59,57,40		1,34,32,41,49	
		1,57,16,31,31,48, 6,49		8,34
12″	21,33,15, 9, 3,40,36,48, 4,29		1,34,32,50,23	
		1,57,16,29,57,15,16,26		8,34
14″	21,33,17, 6,20,10,34, 3,20,55		1,34,32,58,57	
		1,57,16,28,22,42,17,29		8,34
16″	21,33,19, 3,36,38,56,45,38,24		1,34,33, 7,31	
		1,57,16,26,48, 9, 9,58		8,34
18″	21,33,21, 0,53, 5,44,54,48,22		1,34,33,16, 5	
		1,57,16,25,13,35,53,53		8,34
20″	21,33,22,58, 9,30,58,30,42,15		1,34,33,24,39	
		1,57,16,23,39, 2,29,14		8,34
22″	21,33,24,55,25,54,37,33,11,29		1,34,33,33,13	
		1,57,16,22, 4,28,56, 1		8,34
24″	21,33,26,52,42,16,42, 2, 7,30		1,34,33,41,47	
		1,57,16,20,29,55,14,14		8,34
26″	21,33,28,49,58,37,11,57,21,44		1,34,33,50,21	
		1,57,16,18,55,21,23,53		8,34
28″	21,33,30,47,14,56, 7,18,45,37		1,34,33,58,55	
		1,57,16,17,20,47,24,58		8,34
30″	21,33,32,44,31,13,28, 6,10,35		1,34,34, 7,29	
		1,57,16,15,46,13,17,29		8,34
32″	21,33,34,41,47,29,14,19,28, 4		1,34,34,16, 3	
		1,57,16,14,11,39, 1,26		8,34
34″	21,33,36,39, 3,43,25,58,29,30		1,34,34,24,37	
		1,57,16,12,37, 4,36,49		8,34
36″	21,33,38,36,19,56, 3, 3, 6,19		1,34,34,33,11	
		1,57,16,11, 2,30, 3,38		8,34
38″	21,33,40,33,36, 7, 5,33, 9,57		1,34,34,41,45	
		1,57,16, 9,27,55,21,53		8,34
40″	21,33,42,30,52,16,33,28,31,50		1,34,34,50,19	
		1,57,16, 7,53,20,31,34		8,34
42″	21,33,44,28, 8,24,26,49, 3,24		1,34,34,58,53	
		1,57,16, 6,18,45,32,41		8,34
44″	21,33,46,25,24,30,45,34,36, 5		1,34,35, 7,27	
		1,57,16, 4,44,10,25,14		8,34
46″	21,33,48,22,40,35,29,45, 1,19		1,34,35,16, 1	
		1,57,16, 3, 9,35, 9,13		8,34
48″	21,33,50,19,56,38,39,20,10,32		1,34,35,24,35	
		1,57,16, 1,34,59,44,38		8,34
50″	21,33,52,17,12,40,14,19,55,10		1,34,35,33, 9	
		1,57,16, 0, 0,24,11,29		8,34
52″	21,33,54,14,28,40,14,44, 6,39		1,34,35,41,43	
		1,57,15,58,25,48,29,46		8,34
54″	21,33,56,11,44,38,40,32,36,25		1,34,35,50,17	
		1,57,15,56,51,12,39,29		8,34
56″	21,33,58, 9, 0,35,31,45,15,54		1,34,35,58,51	
		1,57,15,55,16,36,40,38		8,34
58″	21,34, 0, 6,16,30,48,21,56,32		1,34,36, 7,25	
		1,57,15,53,42, 0,33,13		
60″	21,34, 2, 3,32,24,30,22,29,45			
exact	21,34, 2, 3,32,24,30,22, 1, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21° 4′ 0″	21,34, 2, 3,32,24,30,22, 1, 9			
		1,57,15,52, 7,24,14,12		
2″	21,34, 4, 0,48,16,37,46,15,21		1,34,36,24,45	
		1,57,15,50,32,47,49,27		8,34
4″	21,34, 5,58, 4, 7,10,34, 4,48		1,34,36,33,19	
		1,57,15,48,58,11,16, 8		8,34
6″	21,34, 7,55,19,56, 8,45,20,56		1,34,36,41,53	
		1,57,15,47,23,34,34,15		8,34
8″	21,34, 9,52,35,43,32,19,55,11		1,34,36,50,27	
		1,57,15,45,48,57,43,48		8,34
10″	21,34,11,49,51,29,21,17,38,59		1,34,36,59, 1	
		1,57,15,44,14,20,44,47		8,34
12″	21,34,13,47, 7,13,35,38,23,46		1,34,37, 7,35	
		1,57,15,42,39,43,37,12		8,34
14″	21,34,15,44,22,56,15,22, 0,58		1,34,37,16, 9	
		1,57,15,41, 5, 6,21, 3		8,34
16″	21,34,17,41,38,37,20,28,22, 1		1,34,37,24,43	
		1,57,15,39,30,28,56,20		8,34
18″	21,34,19,38,54,16,50,57,18,21		1,34,37,33,17	
		1,57,15,37,55,51,23, 3		8,34
20″	21,34,21,36, 9,54,46,48,41,24		1,34,37,41,51	
		1,57,15,36,21,13,41,12		8,34
22″	21,34,23,33,25,31, 8, 2,22,36		1,34,37,50,25	
		1,57,15,34,46,35,50,47		8,34
24″	21,34,25,30,41, 5,54,38,13,23		1,34,37,58,59	
		1,57,15,33,11,57,51,48		8,34
26″	21,34,27,27,56,39, 6,36, 5,11		1,34,38, 7,33	
		1,57,15,31,37,19,44,15		8,34
28″	21,34,29,25,12,10,43,55,49,26		1,34,38,16, 7	
		1,57,15,30, 2,41,28, 8		8,34
30″	21,34,31,22,27,40,46,37,17,34		1,34,38,24,41	
		1,57,15,28,28, 3, 3,27		8,34
32″	21,34,33,19,43, 9,14,40,21, 1		1,34,38,33,15	
		1,57,15,26,53,24,30,12		8,34
34″	21,34,35,16,58,36, 8, 4,51,13		1,34,38,41,49	
		1,57,15,25,18,45,48,23		8,34
36″	21,34,37,14,14, 1,26,50,39,36		1,34,38,50,23	
		1,57,15,23,44, 6,58, 0		8,34
38″	21,34,39,11,29,25,10,57,37,36		1,34,38,58,57	
		1,57,15,22, 9,27,59, 3		8,34
40″	21,34,41, 8,44,47,20,25,36,39		1,34,39, 7,31	
		1,57,15,20,34,48,51,32		8,34
42″	21,34,43, 6, 0, 7,55,14,28,11		1,34,39,16, 5	
		1,57,15,19, 0, 9,35,27		8,34
44″	21,34,45, 3,15,26,55,24, 3,38		1,34,39,24,39	
		1,57,15,17,25,30,10,48		8,34
46″	21,34,47, 0,30,44,20,54,14,26		1,34,39,33,13	
		1,57,15,15,50,50,37,35		8,34
48″	21,34,48,57,46, 0,11,44,52, 1		1,34,39,41,47	
		1,57,15,14,16,10,55,48		8,34
50″	21,34,50,55, 1,14,27,55,47,49		1,34,39,50,21	
		1,57,15,12,41,31, 5,27		8,34
52″	21,34,52,52,16,27, 9,26,53,16		1,34,39,58,55	
		1,57,15,11, 6,51, 6,32		8,34
54″	21,34,54,49,31,38,16,17,59,48		1,34,40, 7,29	
		1,57,15, 9,32,10,59, 3		8,34
56″	21,34,56,46,46,47,48,28,58,51		1,34,40,16, 3	
		1,57,15, 7,57,30,43, 0		8,34
58″	21,34,58,44, 1,55,45,59,41,51		1,34,40,24,37	
		1,57,15, 6,22,50,18,23		
60″	21,35, 0,41,17, 2, 8,50, 0,14			
exact	21,35, 0,41,17, 2, 8,49,33,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21° 5′ 0″	21,35, 0,41,17, 2, 8,49,33,53	1,57,15, 4,48, 9,42,28		
2″	21,35, 2,38,32, 6,56,59,16,21	1,57,15, 3,13,29, 0,32	1,34,40,41,56	8,34
4″	21,35, 4,35,47,10,10,28,16,53	1,57,15, 1,38,48,10, 2	1,34,40,50,30	8,34
6″	21,35, 6,33, 2,11,49,16,26,55	1,57,15, 0, 4, 7,10,58	1,34,40,59, 4	8,34
8″	21,35, 8,30,17,11,53,23,37,53	1,57,14,58,29,26, 3,20	1,34,41, 7,38	8,34
10″	21,35,10,27,32,10,22,49,41,13	1,57,14,56,54,44,47, 8	1,34,41,16,12	8,34
12″	21,35,12,24,47, 7,17,34,28,21	1,57,14,55,20, 3,22,22	1,34,41,24,46	8,34
14″	21,35,14,22, 2, 2,37,37,50,43	1,57,14,53,45,21,49, 2	1,34,41,33,20	8,34
16″	21,35,16,19,16,56,22,59,39,45	1,57,14,52,10,40, 7, 8	1,34,41,41,54	8,34
18″	21,35,18,16,31,48,33,39,46,53	1,57,14,50,35,58,16,40	1,34,41,50,28	8,34
20″	21,35,20,13,46,39, 9,38, 3,33	1,57,14,49, 1,16,17,38	1,34,41,59, 2	8,34
22″	21,35,22,11, 1,28,10,54,21,11	1,57,14,47,26,34,10, 2	1,34,42, 7,36	8,34
24″	21,35,24, 8,16,15,37,28,31,13	1,57,14,45,51,51,53,52	1,34,42,16,10	8,34
26″	21,35,26, 5,31, 1,29,20,25, 5	1,57,14,44,17, 9,29, 8	1,34,42,24,44	8,34
28″	21,35,28, 2,45,45,46,29,54,13	1,57,14,42,42,26,55,50	1,34,42,33,18	8,34
30″	21,35,30, 0, 0,28,28,56,50, 3	1,57,14,41, 7,44,13,58	1,34,42,41,52	8,34
32″	21,35,31,57,15, 9,36,41, 4, 1	1,57,14,39,33, 1,23,32	1,34,42,50,26	8,34
34″	21,35,33,54,29,49, 9,42,27,33	1,57,14,37,58,18,24,32	1,34,42,59, 0	8,34
36″	21,35,35,51,44,27, 8, 0,52, 5	1,57,14,36,23,35,16,58	1,34,43, 7,34	8,34
38″	21,35,37,48,59, 3,31,36, 9, 3	1,57,14,34,48,52, 0,50	1,34,43,16, 8	8,34
40″	21,35,39,46,13,38,20,28, 9,53	1,57,14,33,14, 8,36, 8	1,34,43,24,42	8,34
42″	21,35,41,43,28,11,34,36,46, 1	1,57,14,31,39,25, 2,52	1,34,43,33,16	8,34
44″	21,35,43,40,42,43,14, 1,48,53	1,57,14,30, 4,41,21, 2	1,34,43,41,50	8,34
46″	21,35,45,37,57,13,18,43, 9,55	1,57,14,28,29,57,30,38	1,34,43,50,24	8,34
48″	21,35,47,35,11,41,48,40,40,33	1,57,14,26,55,13,31,40	1,34,43,58,58	8,34
50″	21,35,49,32,26, 8,43,54,12,13	1,57,14,25,20,29,24, 8	1,34,44, 7,32	8,34
52″	21,35,51,29,40,34, 4,23,36,21	1,57,14,23,45,45, 8, 2	1,34,44,16, 6	8,34
54″	21,35,53,26,54,57,50, 8,44,23	1,57,14,22,11, 0,43,22	1,34,44,24,40	8,34
56″	21,35,55,24, 9,20, 1, 9,27,45	1,57,14,20,36,16,10, 8	1,34,44,33,14	8,34
58″	21,35,57,21,23,40,37,25,37,53	1,57,14,19, 1,31,28,20	1,34,44,41,48	
60″	21,35,59,18,37,59,38,57, 6,13			
exact	21,35,59,18,37,59,38,56,47,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21° 6′ 0″	21,35,59,18,37,59,38,56,47,38			
		1,57,14,17,26,46,35,55		
2″	21,36, 1,15,52,17, 5,43,23,33		1,34,44,59, 4	
		1,57,14,15,52, 1,36,51		8,34
4″	21,36, 3,13, 6,32,57,45, 0,24		1,34,45, 7,38	
		1,57,14,14,17,16,29,13		8,34
6″	21,36, 5,10,20,47,15, 1,29,37		1,34,45,16,12	
		1,57,14,12,42,31,13, 1		8,34
8″	21,36, 7, 7,34,59,57,32,42,38		1,34,45,24,46	
		1,57,14,11, 7,45,48,15		8,34
10″	21,36, 9, 4,49,11, 5,18,30,53		1,34,45,33,20	
		1,57,14, 9,33, 0,14,55		8,34
12″	21,36,11, 2, 3,20,38,18,45,48		1,34,45,41,54	
		1,57,14, 7,58,14,33, 1		8,34
14″	21,36,12,59,17,28,36,33,18,49		1,34,45,50,28	
		1,57,14, 6,23,28,42,33		8,34
16″	21,36,14,56,31,35, 0, 2, 1,22		1,34,45,59, 2	
		1,57,14, 4,48,42,43,31		8,34
18″	21,36,16,53,45,39,48,44,44,53		1,34,46, 7,36	
		1,57,14, 3,13,56,35,55		8,34
20″	21,36,18,50,59,43, 2,41,20,48		1,34,46,16,10	
		1,57,14, 1,39,10,19,45		8,34
22″	21,36,20,48,13,44,41,51,40,33		1,34,46,24,44	
		1,57,14, 0, 4,23,55, 1		8,34
24″	21,36,22,45,27,44,46,15,35,34		1,34,46,33,18	
		1,57,13,58,29,37,21,43		8,34
26″	21,36,24,42,41,43,15,52,57,17		1,34,46,41,52	
		1,57,13,56,54,50,39,51		8,34
28″	21,36,26,39,55,40,10,43,37, 8		1,34,46,50,26	
		1,57,13,55,20, 3,49,25		8,34
30″	21,36,28,37, 9,35,30,47,26,33		1,34,46,59, 0	
		1,57,13,53,45,16,50,25		8,34
32″	21,36,30,34,23,29,16, 4,16,58		1,34,47, 7,34	
		1,57,13,52,10,29,42,51		8,34
34″	21,36,32,31,37,21,26,33,59,49		1,34,47,16, 8	
		1,57,13,50,35,42,26,43		8,34
36″	21,36,34,28,51,12, 2,16,26,32		1,34,47,24,42	
		1,57,13,49, 0,55, 2, 1		8,34
38″	21,36,36,26, 5, 1, 3,11,28,33		1,34,47,33,16	
		1,57,13,47,26, 7,28,45		8,34
40″	21,36,38,23,18,48,29,18,57,18		1,34,47,41,50	
		1,57,13,45,51,19,46,55		8,34
42″	21,36,40,20,32,34,20,38,44,13		1,34,47,50,24	
		1,57,13,44,16,31,56,31		8,34
44″	21,36,42,17,46,18,37,10,40,44		1,34,47,58,58	
		1,57,13,42,41,43,57,33		8,34
46″	21,36,44,15, 0, 1,18,54,38,17		1,34,48, 7,32	
		1,57,13,41, 6,55,50, 1		8,34
48″	21,36,46,12,13,42,25,50,28,18		1,34,48,16, 6	
		1,57,13,39,32, 7,33,55		8,34
50″	21,36,48, 9,27,21,57,58, 2,13		1,34,48,24,40	
		1,57,13,37,57,19, 9,15		8,34
52″	21,36,50, 6,40,59,55,17,11,28		1,34,48,33,14	
		1,57,13,36,22,30,36, 1		8,34
54″	21,36,52, 3,54,36,17,47,47,29		1,34,48,41,48	
		1,57,13,34,47,41,54,13		8,34
56″	21,36,54, 1, 8,11, 5,29,41,42		1,34,48,50,22	
		1,57,13,33,12,53, 3,51		8,34
58″	21,36,55,58,21,44,18,22,45,33		1,34,48,58,56	
		1,57,13,31,38, 4, 4,55		
60″	21,36,57,55,35,15,56,26,50,28			
exact	21,36,57,55,35,15,56,26,30, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21° 7′ 0″	21,36,57,55,35,15,56,26,30, 5			
		1,57,13,30, 3,14,55,24		
2″	21,36,59,52,48,45,59,41,25,29		1,34,49,16,12	
		1,57,13,28,28,25,39,12		8,34
4″	21,37, 1,50, 2,14,28, 7, 4,41		1,34,49,24,46	
		1,57,13,26,53,36,14,26		8,34
6″	21,37, 3,47,15,41,21,43,19, 7		1,34,49,33,20	
		1,57,13,25,18,46,41, 6		8,34
8″	21,37, 5,44,29, 6,40,30, 0,13		1,34,49,41,54	
		1,57,13,23,43,56,59,12		8,34
10″	21,37, 7,41,42,30,24,26,59,25		1,34,49,50,28	
		1,57,13,22, 9, 7, 8,44		8,34
12″	21,37, 9,38,55,52,33,34, 8, 9		1,34,49,59, 2	
		1,57,13,20,34,17, 9,42		8,34
14″	21,37,11,36, 9,13, 7,51,17,51		1,34,50, 7,36	
		1,57,13,18,59,27, 2, 6		8,34
16″	21,37,13,33,22,32, 7,18,19,57		1,34,50,16,10	
		1,57,13,17,24,36,45,56		8,34
18″	21,37,15,30,35,49,31,55, 5,53		1,34,50,24,44	
		1,57,13,15,49,46,21,12		8,34
20″	21,37,17,27,49, 5,21,41,27, 5		1,34,50,33,18	
		1,57,13,14,14,55,47,54		8,34
22″	21,37,19,25, 2,19,36,37,14,59		1,34,50,41,52	
		1,57,13,12,40, 5, 6, 2		8,34
24″	21,37,21,22,15,32,16,42,21, 1		1,34,50,50,26	
		1,57,13,11, 5,14,15,36		8,34
26″	21,37,23,19,28,43,21,56,36,37		1,34,50,59, 0	
		1,57,13, 9,30,23,16,36		8,34
28″	21,37,25,16,41,52,52,19,53,13		1,34,51, 7,34	
		1,57,13, 7,55,32, 9, 2		8,34
30″	21,37,27,13,55, 0,47,52, 2,15		1,34,51,16, 8	
		1,57,13, 6,20,40,52,54		8,34
32″	21,37,29,11, 8, 7, 8,32,55, 9		1,34,51,24,42	
		1,57,13, 4,45,49,28,12		8,34
34″	21,37,31, 8,21,11,54,22,23,21		1,34,51,33,16	
		1,57,13, 3,10,57,54,56		8,34
36″	21,37,33, 5,34,15, 5,20,18,17		1,34,51,41,50	
		1,57,13, 1,36, 6,13, 6		8,34
38″	21,37,35, 2,47,16,41,26,31,23		1,34,51,50,24	
		1,57,13, 0, 1,14,22,42		8,34
40″	21,37,37, 0, 0,16,42,40,54, 5		1,34,51,58,58	
		1,57,12,58,26,22,23,44		8,34
42″	21,37,38,57,13,15, 9, 3,17,49		1,34,52, 7,32	
		1,57,12,56,51,30,16,12		8,34
44″	21,37,40,54,26,12, 0,33,34, 1		1,34,52,16, 6	
		1,57,12,55,16,38, 0, 6		8,34
46″	21,37,42,51,39, 7,17,11,34, 7		1,34,52,24,40	
		1,57,12,53,41,45,35,26		8,34
48″	21,37,44,48,52, 0,58,57, 9,33		1,34,52,33,14	
		1,57,12,52, 6,53, 2,12		8,34
50″	21,37,46,46, 4,53, 5,50,11,45		1,34,52,41,48	
		1,57,12,50,32, 0,20,24		8,34
52″	21,37,48,43,17,43,37,50,32, 9		1,34,52,50,22	
		1,57,12,48,57, 7,30, 2		8,34
54″	21,37,50,40,30,32,34,58, 2,11		1,34,52,58,56	
		1,57,12,47,22,14,31, 6		8,34
56″	21,37,52,37,43,19,57,12,33,17		1,34,53, 7,30	
		1,57,12,45,47,21,23,36		8,34
58″	21,37,54,34,56, 5,44,33,56,53		1,34,53,16, 4	
		1,57,12,44,12,28, 7,32		
60″	21,37,56,32, 8,49,57, 2, 4,25			
exact	21,37,56,32, 8,49,57, 1,54,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21° 8′ 0″	21,37,56,32, 8,49,57, 1,54,53			
		1,57,12,42,37,34,41,47		
2″	21,37,58,29,21,32,34,36,36,40		1,34,53,33,17	
		1,57,12,41, 2,41, 8,30		8,34
4″	21,38, 0,26,34,13,37,17,45,10		1,34,53,41,51	
		1,57,12,39,27,47,26,39		8,34
6″	21,38, 2,23,46,53, 5, 5,11,49		1,34,53,50,25	
		1,57,12,37,52,53,36,14		8,34
8″	21,38, 4,20,59,30,57,58,48, 3		1,34,53,58,59	
		1,57,12,36,17,59,37,15		8,34
10″	21,38, 6,18,12, 7,15,58,25,18		1,34,54, 7,33	
		1,57,12,34,43, 5,29,42		8,34
12″	21,38, 8,15,24,41,59, 3,55, 0		1,34,54,16, 7	
		1,57,12,33, 8,11,13,35		8,34
14″	21,38,10,12,37,15, 7,15, 8,35		1,34,54,24,41	
		1,57,12,31,33,16,48,54		8,34
16″	21,38,12, 9,49,46,40,31,57,29		1,34,54,33,15	
		1,57,12,29,58,22,15,39		8,34
18″	21,38,14, 7, 2,16,38,54,13, 8		1,34,54,41,49	
		1,57,12,28,23,27,33,50		8,34
20″	21,38,16, 4,14,45, 2,21,46,58		1,34,54,50,23	
		1,57,12,26,48,32,43,27		8,34
22″	21,38,18, 1,27,11,50,54,30,25		1,34,54,58,57	
		1,57,12,25,13,37,44,30		8,34
24″	21,38,19,58,39,37, 4,32,14,55		1,34,55, 7,31	
		1,57,12,23,38,42,36,59		8,34
26″	21,38,21,55,52, 0,43,14,51,54		1,34,55,16, 5	
		1,57,12,22, 3,47,20,54		8,34
28″	21,38,23,53, 4,22,47, 2,12,48		1,34,55,24,39	
		1,57,12,20,28,51,56,15		8,34
30″	21,38,25,50,16,43,15,54, 9, 3		1,34,55,33,13	
		1,57,12,18,53,56,23, 2		8,34
32″	21,38,27,47,29, 2, 9,50,32, 5		1,34,55,41,47	
		1,57,12,17,19, 0,41,15		8,34
34″	21,38,29,44,41,19,28,51,13,20		1,34,55,50,21	
		1,57,12,15,44, 4,50,54		8,34
36″	21,38,31,41,53,35,12,56, 4,14		1,34,55,58,55	
		1,57,12,14, 9, 8,51,59		8,34
38″	21,38,33,39, 5,49,22, 4,56,13		1,34,56, 7,29	
		1,57,12,12,34,12,44,30		8,34
40″	21,38,35,36,18, 1,56,17,40,43		1,34,56,16, 3	
		1,57,12,10,59,16,28,27		8,34
42″	21,38,37,33,30,12,55,34, 9,10		1,34,56,24,37	
		1,57,12, 9,24,20, 3,50		8,34
44″	21,38,39,30,42,22,19,54,13, 0		1,34,56,33,11	
		1,57,12, 7,49,23,30,39		8,34
46″	21,38,41,27,54,30, 9,17,43,39		1,34,56,41,45	
		1,57,12, 6,14,26,48,54		8,34
48″	21,38,43,25, 6,36,23,44,32,33		1,34,56,50,19	
		1,57,12, 4,39,29,58,35		8,34
50″	21,38,45,22,18,41, 3,14,31, 8		1,34,56,58,53	
		1,57,12, 3, 4,32,59,42		8,34
52″	21,38,47,19,30,44, 7,47,30,50		1,34,57, 7,27	
		1,57,12, 1,29,35,52,15		8,34
54″	21,38,49,16,42,45,37,23,23, 5		1,34,57,16, 1	
		1,57,11,59,54,38,36,14		8,34
56″	21,38,51,13,54,45,32, 1,59,19		1,34,57,24,35	
		1,57,11,58,19,41,11,39		8,34
58″	21,38,53,11, 6,43,51,43,10,58		1,34,57,33, 9	
		1,57,11,56,44,43,38,30		
60″	21,38,55, 8,18,40,36,26,49,28			
exact	21,38,55, 8,18,40,36,26,41,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21° 9′ 0″	21,38,55, 8,18,40,36,26,41,44			
		1,57,11,55, 9,45,55,56		
2″	21,38,57, 5,30,35,46,12,37,40		1,34,57,50,20	
		1,57,11,53,34,48, 5,36		8,34
4″	21,38,59, 2,42,29,21, 0,43,16		1,34,57,58,54	
		1,57,11,51,59,50, 6,42		8,34
6″	21,39, 0,59,54,21,20,50,49,58		1,34,58, 7,28	
		1,57,11,50,24,51,59,14		8,34
8″	21,39, 2,57, 6,11,45,42,49,12		1,34,58,16, 2	
		1,57,11,48,49,53,43,12		8,34
10″	21,39, 4,54,18, 0,35,36,32,24		1,34,58,24,36	
		1,57,11,47,14,55,18,36		8,34
12″	21,39, 6,51,29,47,50,31,51, 0		1,34,58,33,10	
		1,57,11,45,39,56,45,26		8,34
14″	21,39, 8,48,41,33,30,28,36,26		1,34,58,41,44	
		1,57,11,44, 4,58, 3,42		8,34
16″	21,39,10,45,53,17,35,26,40, 8		1,34,58,50,18	
		1,57,11,42,29,59,13,24		8,34
18″	21,39,12,43, 5, 0, 5,25,53,32		1,34,58,58,52	
		1,57,11,40,55, 0,14,32		8,34
20″	21,39,14,40,16,41, 0,26, 8, 4		1,34,59, 7,26	
		1,57,11,39,20, 1, 7, 6		8,34
22″	21,39,16,37,28,20,20,27,15,10		1,34,59,16, 0	
		1,57,11,37,45, 1,51, 6		8,34
24″	21,39,18,34,39,58, 5,29, 6,16		1,34,59,24,34	
		1,57,11,36,10, 2,26,32		8,34
26″	21,39,20,31,51,34,15,31,32,48		1,34,59,33, 8	
		1,57,11,34,35, 2,53,24		8,34
28″	21,39,22,29, 3, 8,50,34,26,12		1,34,59,41,42	
		1,57,11,33, 0, 3,11,42		8,34
30″	21,39,24,26,14,41,50,37,37,54		1,34,59,50,16	
		1,57,11,31,25, 3,21,26		8,34
32″	21,39,26,23,26,13,15,40,59,20		1,34,59,58,50	
		1,57,11,29,50, 3,22,36		8,34
34″	21,39,28,20,37,43, 5,44,21,56		1,35, 0, 7,24	
		1,57,11,28,15, 3,15,12		8,34
36″	21,39,30,17,49,11,20,47,37, 8		1,35, 0,15,58	
		1,57,11,26,40, 2,59,14		8,34
38″	21,39,32,15, 0,38, 0,50,36,22		1,35, 0,24,32	
		1,57,11,25, 5, 2,34,42		8,34
40″	21,39,34,12,12, 3, 5,53,11, 4		1,35, 0,33, 6	
		1,57,11,23,30, 2, 1,36		8,34
42″	21,39,36, 9,23,26,35,55,12,40		1,35, 0,41,40	
		1,57,11,21,55, 1,19,56		8,34
44″	21,39,38, 6,34,48,30,56,32,36		1,35, 0,50,14	
		1,57,11,20,20, 0,29,42		8,34
46″	21,39,40, 3,46, 8,50,57, 2,18		1,35, 0,58,48	
		1,57,11,18,44,59,30,54		8,34
48″	21,39,42, 0,57,27,35,56,33,12		1,35, 1, 7,22	
		1,57,11,17, 9,58,23,32		8,34
50″	21,39,43,58, 8,44,45,54,56,44		1,35, 1,15,56	
		1,57,11,15,34,57, 7,36		8,34
52″	21,39,45,55,20, 0,20,52, 4,20		1,35, 1,24,30	
		1,57,11,13,59,55,43, 6		8,34
54″	21,39,47,52,31,14,20,47,47,26		1,35, 1,33, 4	
		1,57,11,12,24,54,10, 2		8,34
56″	21,39,49,49,42,26,45,41,57,28		1,35, 1,41,38	
		1,57,11,10,49,52,28,24		8,34
58″	21,39,51,46,53,37,35,34,25,52		1,35, 1,50,12	
		1,57,11, 9,14,50,38,12		
60″	21,39,53,44, 4,46,50,25, 4, 4			
exact	21,39,53,44, 4,46,50,24,56,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°10′ 0″	21,39,53,44, 4,46,50,24,56,17			
		1,57,11, 7,39,48,38,44		
2″	21,39,55,41,15,54,30,13,35, 1		1,35, 2, 7,22	
		1,57,11, 6, 4,46,31,22		8,34
4″	21,39,57,38,27, 0,35, 0, 6,23		1,35, 2,15,56	
		1,57,11, 4,29,44,15,26		8,34
6″	21,39,59,35,38, 5, 4,44,21,49		1,35, 2,24,30	
		1,57,11, 2,54,41,50,56		8,34
8″	21,40, 1,32,49, 7,59,26,12,45		1,35, 2,33, 4	
		1,57,11, 1,19,39,17,52		8,34
10″	21,40, 3,30, 0, 9,19, 5,30,37		1,35, 2,41,38	
		1,57,10,59,44,36,36,14		8,34
12″	21,40, 5,27,11, 9, 3,42, 6,51		1,35, 2,50,12	
		1,57,10,58, 9,33,46, 2		8,34
14″	21,40, 7,24,22, 7,13,15,52,53		1,35, 2,58,46	
		1,57,10,56,34,30,47,16		8,34
16″	21,40, 9,21,33, 3,47,46,40, 9		1,35, 3, 7,20	
		1,57,10,54,59,27,39,56		8,34
18″	21,40,11,18,43,58,47,14,20, 5		1,35, 3,15,54	
		1,57,10,53,24,24,24, 2		8,34
20″	21,40,13,15,54,52,11,38,44, 7		1,35, 3,24,28	
		1,57,10,51,49,20,59,34		8,34
22″	21,40,15,13, 5,44, 0,59,43,41		1,35, 3,33, 2	
		1,57,10,50,14,17,26,32		8,34
24″	21,40,17,10,16,34,15,17,10,13		1,35, 3,41,36	
		1,57,10,48,39,13,44,56		8,34
26″	21,40,19, 7,27,22,54,30,55, 9		1,35, 3,50,10	
		1,57,10,47, 4, 9,54,46		8,34
28″	21,40,21, 4,38, 9,58,40,49,55		1,35, 3,58,44	
		1,57,10,45,29, 5,56, 2		8,34
30″	21,40,23, 1,48,55,27,46,45,57		1,35, 4, 7,18	
		1,57,10,43,54, 1,48,44		8,34
32″	21,40,24,58,59,39,21,48,34,41		1,35, 4,15,52	
		1,57,10,42,18,57,32,52		8,34
34″	21,40,26,56,10,21,40,46, 7,33		1,35, 4,24,26	
		1,57,10,40,43,53, 8,26		8,34
36″	21,40,28,53,21, 2,24,39,15,59		1,35, 4,33, 0	
		1,57,10,39, 8,48,35,26		8,34
38″	21,40,30,50,31,41,33,27,51,25		1,35, 4,41,34	
		1,57,10,37,33,43,53,52		8,34
40″	21,40,32,47,42,19, 7,11,45,17		1,35, 4,50, 8	
		1,57,10,35,58,39, 3,44		8,34
42″	21,40,34,44,52,55, 5,50,49, 1		1,35, 4,58,42	
		1,57,10,34,23,34, 5, 2		8,34
44″	21,40,36,42, 3,29,29,24,54, 3		1,35, 5, 7,16	
		1,57,10,32,48,28,57,46		8,34
46″	21,40,38,39,14, 2,17,53,51,49		1,35, 5,15,50	
		1,57,10,31,13,23,41,56		8,34
48″	21,40,40,36,24,33,31,17,33,45		1,35, 5,24,24	
		1,57,10,29,38,18,17,32		8,34
50″	21,40,42,33,35, 3, 9,35,51,17		1,35, 5,32,58	
		1,57,10,28, 3,12,44,34		8,34
52″	21,40,44,30,45,31,12,48,35,51		1,35, 5,41,32	
		1,57,10,26,28, 7, 3, 2		8,34
54″	21,40,46,27,55,57,40,55,38,53		1,35, 5,50, 6	
		1,57,10,24,53, 1,12,56		8,34
56″	21,40,48,25, 6,22,33,56,51,49		1,35, 5,58,40	
		1,57,10,23,17,55,14,16		8,34
58″	21,40,50,22,16,45,51,52, 6, 5		1,35, 6, 7,14	
		1,57,10,21,42,49, 7, 2		
60″	21,40,52,19,27, 7,34,41,13, 7			
exact	21,40,52,19,27, 7,34,41,10,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°11′ 0″	21,40,52,19,27, 7,34,41,10,15			
		1,57,10,20, 7,42,51, 2		
2″	21,40,54,16,37,27,42,24, 1,17		1,35, 6,24,22	
		1,57,10,18,32,36,26,40		8,34
4″	21,40,56,13,47,46,15, 0,27,57		1,35, 6,32,56	
		1,57,10,16,57,29,53,44		8,34
6″	21,40,58,10,58, 3,12,30,21,41		1,35, 6,41,30	
		1,57,10,15,22,23,12,14		8,34
8″	21,41, 0, 8, 8,18,34,53,33,55		1,35, 6,50, 4	
		1,57,10,13,47,16,22,10		8,34
10″	21,41, 2, 5,18,32,22, 9,56, 5		1,35, 6,58,38	
		1,57,10,12,12, 9,23,32		8,34
12″	21,41, 4, 2,28,44,34,19,19,37		1,35, 7, 7,12	
		1,57,10,10,37, 2,16,20		8,34
14″	21,41, 5,59,38,55,11,21,35,57		1,35, 7,15,46	
		1,57,10, 9, 1,55, 0,34		8,34
16″	21,41, 7,56,49, 4,13,16,36,31		1,35, 7,24,20	
		1,57,10, 7,26,47,36,14		8,34
18″	21,41, 9,53,59,11,40, 4,12,45		1,35, 7,32,54	
		1,57,10, 5,51,40, 3,20		8,34
20″	21,41,11,51, 9,17,31,44,16, 5		1,35, 7,41,28	
		1,57,10, 4,16,32,21,52		8,34
22″	21,41,13,48,19,21,48,16,37,57		1,35, 7,50, 2	
		1,57,10, 2,41,24,31,50		8,34
24″	21,41,15,45,29,24,29,41, 9,47		1,35, 7,58,36	
		1,57,10, 1, 6,16,33,14		8,34
26″	21,41,17,42,39,25,35,57,43, 1		1,35, 8, 7,10	
		1,57, 9,59,31, 8,26, 4		8,34
28″	21,41,19,39,49,25, 7, 6, 9, 5		1,35, 8,15,44	
		1,57, 9,57,56, 0,10,20		8,34
30″	21,41,21,36,59,23, 3, 6,19,25		1,35, 8,24,18	
		1,57, 9,56,20,51,46, 2		8,34
32″	21,41,23,34, 9,19,23,58, 5,27		1,35, 8,32,52	
		1,57, 9,54,45,43,13,10		8,34
34″	21,41,25,31,19,14, 9,41,18,37		1,35, 8,41,26	
		1,57, 9,53,10,34,31,44		8,34
36″	21,41,27,28,29, 7,20,15,50,21		1,35, 8,50, 0	
		1,57, 9,51,35,25,41,44		8,34
38″	21,41,29,25,38,58,55,41,32, 5		1,35, 8,58,34	
		1,57, 9,50, 0,16,43,10		8,34
40″	21,41,31,22,48,48,55,58,15,15		1,35, 9, 7, 8	
		1,57, 9,48,25, 7,36, 2		8,34
42″	21,41,33,19,58,37,21, 5,51,17		1,35, 9,15,42	
		1,57, 9,46,49,58,20,20		8,34
44″	21,41,35,17, 8,24,11, 4,11,37		1,35, 9,24,16	
		1,57, 9,45,14,48,56, 4		8,34
46″	21,41,37,14,18, 9,25,53, 7,41		1,35, 9,32,50	
		1,57, 9,43,39,39,23,14		8,34
48″	21,41,39,11,27,53, 5,32,30,55		1,35, 9,41,24	
		1,57, 9,42, 4,29,41,50		8,34
50″	21,41,41, 8,37,35,10, 2,12,45		1,35, 9,49,58	
		1,57, 9,40,29,19,51,52		8,34
52″	21,41,43, 5,47,15,39,22, 4,37		1,35, 9,58,32	
		1,57, 9,38,54, 9,53,20		8,34
54″	21,41,45, 2,56,54,33,31,57,57		1,35,10, 7, 6	
		1,57, 9,37,18,59,46,14		8,34
56″	21,41,47, 0, 6,31,52,31,44,11		1,35,10,15,40	
		1,57, 9,35,43,49,30,34		8,34
58″	21,41,48,57,16, 7,36,21,14,45		1,35,10,24,14	
		1,57, 9,34, 8,39, 6,20		
60″	21,41,50,54,25,41,45, 0,21, 5			
exact	21,41,50,54,25,41,45, 0,21,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°12′ 0″	21,41,50,54,25,41,45, 0,21,25			
		1,57, 9,32,33,28,33,42		
2″	21,41,52,51,35,14,18,28,55, 7		1,35,10,41,21	
		1,57, 9,30,58,17,52,21		8,34
4″	21,41,54,48,44,45,16,46,47,28		1,35,10,49,55	
		1,57, 9,29,23, 7, 2,26		8,34
6″	21,41,56,45,54,14,39,53,49,54		1,35,10,58,29	
		1,57, 9,27,47,56, 3,57		8,34
8″	21,41,58,43, 3,42,27,49,53,51		1,35,11, 7, 3	
		1,57, 9,26,12,44,56,54		8,34
10″	21,42, 0,40,13, 8,40,34,50,45		1,35,11,15,37	
		1,57, 9,24,37,33,41,17		8,34
12″	21,42, 2,37,22,33,18, 8,32, 2		1,35,11,24,11	
		1,57, 9,23, 2,22,17, 6		8,34
14″	21,42, 4,34,31,56,20,30,49, 8		1,35,11,32,45	
		1,57, 9,21,27,10,44,21		8,34
16″	21,42, 6,31,41,17,47,41,33,29		1,35,11,41,19	
		1,57, 9,19,51,59, 3, 2		8,34
18″	21,42, 8,28,50,37,39,40,36,31		1,35,11,49,53	
		1,57, 9,18,16,47,13, 9		8,34
20″	21,42,10,25,59,55,56,27,49,40		1,35,11,58,27	
		1,57, 9,16,41,35,14,42		8,34
22″	21,42,12,23, 9,12,38, 3, 4,22		1,35,12, 7, 1	
		1,57, 9,15, 6,23, 7,41		8,34
24″	21,42,14,20,18,27,44,26,12, 3		1,35,12,15,35	
		1,57, 9,13,31,10,52, 6		8,34
26″	21,42,16,17,27,41,15,37, 4, 9		1,35,12,24, 9	
		1,57, 9,11,55,58,27,57		8,34
28″	21,42,18,14,36,53,11,35,32, 6		1,35,12,32,43	
		1,57, 9,10,20,45,55,14		8,34
30″	21,42,20,11,46, 3,32,21,27,20		1,35,12,41,17	
		1,57, 9, 8,45,33,13,57		8,34
32″	21,42,22, 8,55,12,17,54,41,17		1,35,12,49,51	
		1,57, 9, 7,10,20,24, 6		8,34
34″	21,42,24, 6, 4,19,28,15, 5,23		1,35,12,58,25	
		1,57, 9, 5,35, 7,25,41		8,34
36″	21,42,26, 3,13,25, 3,22,31, 4		1,35,13, 6,59	
		1,57, 9, 3,59,54,18,42		8,34
38″	21,42,28, 0,22,29, 3,16,49,46		1,35,13,15,33	
		1,57, 9, 2,24,41, 3, 9		8,34
40″	21,42,29,57,31,31,27,57,52,55		1,35,13,24, 7	
		1,57, 9, 0,49,27,39, 2		8,34
42″	21,42,31,54,40,32,17,25,31,57		1,35,13,32,41	
		1,57, 8,59,14,14, 6,21		8,34
44″	21,42,33,51,49,31,31,39,38,18		1,35,13,41,15	
		1,57, 8,57,39, 0,25, 6		8,34
46″	21,42,35,48,58,29,10,40, 3,24		1,35,13,49,49	
		1,57, 8,56, 3,46,35,17		8,34
48″	21,42,37,46, 7,25,14,26,38,41		1,35,13,58,23	
		1,57, 8,54,28,32,36,54		8,34
50″	21,42,39,43,16,19,42,59,15,35		1,35,14, 6,57	
		1,57, 8,52,53,18,29,57		8,34
52″	21,42,41,40,25,12,36,17,45,32		1,35,14,15,31	
		1,57, 8,51,18, 4,14,26		8,34
54″	21,42,43,37,34, 3,54,21,59,58		1,35,14,24, 5	
		1,57, 8,49,42,49,50,21		8,34
56″	21,42,45,34,42,53,37,11,50,19		1,35,14,32,39	
		1,57, 8,48, 7,35,17,42		8,34
58″	21,42,47,31,51,41,44,47, 8, 1		1,35,14,41,13	
		1,57, 8,46,32,20,36,29		
60″	21,42,49,29, 0,28,17, 7,44,30			
exact	21,42,49,29, 0,28,17, 7,53,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°13′ 0″	21,42,49,29, 0,28,17, 7,53,37			
		1,57, 8,44,57, 5,47,37		
2″	21,42,51,26, 9,13,14,13,41,14		1,35,14,58,17	
		1,57, 8,43,21,50,49,20		8,34
4″	21,42,53,23,17,56,36, 4,30,34		1,35,15, 6,51	
		1,57, 8,41,46,35,42,29		8,34
6″	21,42,55,20,26,38,22,40,13, 3		1,35,15,15,25	
		1,57, 8,40,11,20,27, 4		8,34
8″	21,42,57,17,35,18,34, 0,40, 7		1,35,15,23,59	
		1,57, 8,38,36, 5, 3, 5		8,34
10″	21,42,59,14,43,57,10, 5,43,12		1,35,15,32,33	
		1,57, 8,37, 0,49,30,32		8,34
12″	21,43, 1,11,52,34,10,55,13,44		1,35,15,41, 7	
		1,57, 8,35,25,33,49,25		8,34
14″	21,43, 3, 9, 1, 9,36,29, 3, 9		1,35,15,49,41	
		1,57, 8,33,50,17,59,44		8,34
16″	21,43, 5, 6, 9,43,26,47, 2,53		1,35,15,58,15	
		1,57, 8,32,15, 2, 1,29		8,34
18″	21,43, 7, 3,18,15,41,49, 4,22		1,35,16, 6,49	
		1,57, 8,30,39,45,54,40		8,34
20″	21,43, 9, 0,26,46,21,34,59, 2		1,35,16,15,23	
		1,57, 8,29, 4,29,39,17		8,34
22″	21,43,10,57,35,15,26, 4,38,19		1,35,16,23,57	
		1,57, 8,27,29,13,15,20		8,34
24″	21,43,12,54,43,42,55,17,53,39		1,35,16,32,31	
		1,57, 8,25,53,56,42,49		8,34
26″	21,43,14,51,52, 8,49,14,36,28		1,35,16,41, 5	
		1,57, 8,24,18,40, 1,44		8,34
28″	21,43,16,49, 0,33, 7,54,38,12		1,35,16,49,39	
		1,57, 8,22,43,23,12, 5		8,34
30″	21,43,18,46, 8,55,51,17,50,17		1,35,16,58,13	
		1,57, 8,21, 8, 6,13,52		8,34
32″	21,43,20,43,17,16,59,24, 4, 9		1,35,17, 6,47	
		1,57, 8,19,32,49, 7, 5		8,34
34″	21,43,22,40,25,36,32,13,11,14		1,35,17,15,21	
		1,57, 8,17,57,31,51,44		8,34
36″	21,43,24,37,33,54,29,45, 2,58		1,35,17,23,55	
		1,57, 8,16,22,14,27,49		8,34
38″	21,43,26,34,42,10,51,59,30,47		1,35,17,32,29	
		1,57, 8,14,46,56,55,20		8,34
40″	21,43,28,31,50,25,38,56,26, 7		1,35,17,41, 3	
		1,57, 8,13,11,39,14,17		8,34
42″	21,43,30,28,58,38,50,35,40,24		1,35,17,49,37	
		1,57, 8,11,36,21,24,40		8,34
44″	21,43,32,26, 6,50,26,57, 5, 4		1,35,17,58,11	
		1,57, 8,10, 1, 3,26,29		8,34
46″	21,43,34,23,15, 0,28, 0,31,33		1,35,18, 6,45	
		1,57, 8, 8,25,45,19,44		8,34
48″	21,43,36,20,23, 8,53,45,51,17		1,35,18,15,19	
		1,57, 8, 6,50,27, 4,25		8,34
50″	21,43,38,17,31,15,44,12,55,42		1,35,18,23,53	
		1,57, 8, 5,15, 8,40,32		8,34
52″	21,43,40,14,39,20,59,21,36,14		1,35,18,32,27	
		1,57, 8, 3,39,50, 8, 5		8,34
54″	21,43,42,11,47,24,39,11,44,19		1,35,18,41, 1	
		1,57, 8, 2, 4,31,27, 4		8,34
56″	21,43,44, 8,55,26,43,43,11,23		1,35,18,49,35	
		1,57, 8, 0,29,12,37,29		8,34
58″	21,43,46, 6, 3,27,12,55,48,52		1,35,18,58, 9	
		1,57, 7,58,53,53,39,20		
60″	21,43,48, 3,11,26, 6,49,28,12			
exact	21,43,48, 3,11,26, 6,49,36,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°14′ 0″	21,43,48, 3,11,26, 6,49,36,46			
		1,57, 7,57,18,34,33,39		
2″	21,43,50, 0,19,23,25,24,10,25		1,35,19,15,12	
		1,57, 7,55,43,15,18,27		8,34
4″	21,43,51,57,27,19, 8,39,28,52		1,35,19,23,46	
		1,57, 7,54, 7,55,54,41		8,34
6″	21,43,53,54,35,13,16,35,23,33		1,35,19,32,20	
		1,57, 7,52,32,36,22,21		8,34
8″	21,43,55,51,43, 5,49,11,45,54		1,35,19,40,54	
		1,57, 7,50,57,16,41,27		8,34
10″	21,43,57,48,50,56,46,28,27,21		1,35,19,49,28	
		1,57, 7,49,21,56,51,59		8,34
12″	21,43,59,45,58,46, 8,25,19,20		1,35,19,58, 2	
		1,57, 7,47,46,36,53,57		8,34
14″	21,44, 1,43, 6,33,55, 2,13,17		1,35,20, 6,36	
		1,57, 7,46,11,16,47,21		8,34
16″	21,44, 3,40,14,20, 6,19, 0,38		1,35,20,15,10	
		1,57, 7,44,35,56,32,11		8,34
18″	21,44, 5,37,22, 4,42,15,32,49		1,35,20,23,44	
		1,57, 7,43, 0,36, 8,27		8,34
20″	21,44, 7,34,29,47,42,51,41,16		1,35,20,32,18	
		1,57, 7,41,25,15,36, 9		8,34
22″	21,44, 9,31,37,29, 8, 7,17,25		1,35,20,40,52	
		1,57, 7,39,49,54,55,17		8,34
24″	21,44,11,28,45, 8,58, 2,12,42		1,35,20,49,26	
		1,57, 7,38,14,34, 5,51		8,34
26″	21,44,13,25,52,47,12,36,18,33		1,35,20,58, 0	
		1,57, 7,36,39,13, 7,51		8,34
28″	21,44,15,23, 0,23,51,49,26,24		1,35,21, 6,34	
		1,57, 7,35, 3,52, 1,17		8,34
30″	21,44,17,20, 7,58,55,41,27,41		1,35,21,15, 8	
		1,57, 7,33,28,30,46, 9		8,34
32″	21,44,19,17,15,32,24,12,13,50		1,35,21,23,42	
		1,57, 7,31,53, 9,22,27		8,34
34″	21,44,21,14,23, 4,17,21,36,17		1,35,21,32,16	
		1,57, 7,30,17,47,50,11		8,34
36″	21,44,23,11,30,34,35, 9,26,28		1,35,21,40,50	
		1,57, 7,28,42,26, 9,21		8,34
38″	21,44,25, 8,38, 3,17,35,35,49		1,35,21,49,24	
		1,57, 7,27, 7, 4,19,57		8,34
40″	21,44,27, 5,45,30,24,39,55,46		1,35,21,57,58	
		1,57, 7,25,31,42,21,59		8,34
42″	21,44,29, 2,52,55,56,22,17,45		1,35,22, 6,32	
		1,57, 7,23,56,20,15,27		8,34
44″	21,44,31, 0, 0,19,52,42,33,12		1,35,22,15, 6	
		1,57, 7,22,20,58, 0,21		8,34
46″	21,44,32,57, 7,42,13,40,33,33		1,35,22,23,40	
		1,57, 7,20,45,35,36,41		8,34
48″	21,44,34,54,15, 2,59,16,10,14		1,35,22,32,14	
		1,57, 7,19,10,13, 4,27		8,34
50″	21,44,36,51,22,22, 9,29,14,41		1,35,22,40,48	
		1,57, 7,17,34,50,23,39		8,34
52″	21,44,38,48,29,39,44,19,38,20		1,35,22,49,22	
		1,57, 7,15,59,27,34,17		8,34
54″	21,44,40,45,36,55,43,47,12,37		1,35,22,57,56	
		1,57, 7,14,24, 4,36,21		8,34
56″	21,44,42,42,44,10, 7,51,48,58		1,35,23, 6,30	
		1,57, 7,12,48,41,29,51		8,34
58″	21,44,44,39,51,22,56,33,18,49		1,35,23,15, 4	
		1,57, 7,11,13,18,14,47		
60″	21,44,46,36,58,34, 9,51,33,36			
exact	21,44,46,36,58,34, 9,51,46,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°15′ 0″	21,44,46,36,58,34, 9,51,46,56			
		1,57, 7, 9,37,54,52,40		
2″	21,44,48,34, 5,43,47,46,39,36		1,35,23,32, 5	
		1,57, 7, 8, 2,31,20,35		8,34
4″	21,44,50,31,12,51,50,18, 0,11		1,35,23,40,39	
		1,57, 7, 6,27, 7,39,56		8,34
6″	21,44,52,28,19,58,17,25,40, 7		1,35,23,49,13	
		1,57, 7, 4,51,43,50,43		8,34
8″	21,44,54,25,27, 3, 9, 9,30,50		1,35,23,57,47	
		1,57, 7, 3,16,19,52,56		8,34
10″	21,44,56,22,34, 6,25,29,23,46		1,35,24, 6,21	
		1,57, 7, 1,40,55,46,35		8,34
12″	21,44,58,19,41, 8, 6,25,10,21		1,35,24,14,55	
		1,57, 7, 0, 5,31,31,40		8,34
14″	21,45, 0,16,48, 8,11,56,42, 1		1,35,24,23,29	
		1,57, 6,58,30, 7, 8,11		8,34
16″	21,45, 2,13,55, 6,42, 3,50,12		1,35,24,32, 3	
		1,57, 6,56,54,42,36, 8		8,34
18″	21,45, 4,11, 2, 3,36,46,26,20		1,35,24,40,37	
		1,57, 6,55,19,17,55,31		8,34
20″	21,45, 6, 8, 8,58,56, 4,21,51		1,35,24,49,11	
		1,57, 6,53,43,53, 6,20		8,34
22″	21,45, 8, 5,15,52,39,57,28,11		1,35,24,57,45	
		1,57, 6,52, 8,28, 8,35		8,34
24″	21,45,10, 2,22,44,48,25,36,46		1,35,25, 6,19	
		1,57, 6,50,33, 3, 2,16		8,34
26″	21,45,11,59,29,35,21,28,39, 2		1,35,25,14,53	
		1,57, 6,48,57,37,47,23		8,34
28″	21,45,13,56,36,24,19, 6,26,25		1,35,25,23,27	
		1,57, 6,47,22,12,23,56		8,34
30″	21,45,15,53,43,11,41,18,50,21		1,35,25,32, 1	
		1,57, 6,45,46,46,51,55		8,34
32″	21,45,17,50,49,57,28, 5,42,16		1,35,25,40,35	
		1,57, 6,44,11,21,11,20		8,34
34″	21,45,19,47,56,41,39,26,53,36		1,35,25,49, 9	
		1,57, 6,42,35,55,22,11		8,34
36″	21,45,21,45, 3,24,15,22,15,47		1,35,25,57,43	
		1,57, 6,41, 0,29,24,28		8,34
38″	21,45,23,42,10, 5,15,51,40,15		1,35,26, 6,17	
		1,57, 6,39,25, 3,18,11		8,34
40″	21,45,25,39,16,44,40,54,58,26		1,35,26,14,51	
		1,57, 6,37,49,37, 3,20		8,34
42″	21,45,27,36,23,22,30,32, 1,46		1,35,26,23,25	
		1,57, 6,36,14,10,39,55		8,34
44″	21,45,29,33,29,58,44,42,41,41		1,35,26,31,59	
		1,57, 6,34,38,44, 7,56		8,34
46″	21,45,31,30,36,33,23,26,49,37		1,35,26,40,33	
		1,57, 6,33, 3,17,27,23		8,34
48″	21,45,33,27,43, 6,26,44,17, 0		1,35,26,49, 7	
		1,57, 6,31,27,50,38,16		8,34
50″	21,45,35,24,49,37,54,34,55,16		1,35,26,57,41	
		1,57, 6,29,52,23,40,35		8,34
52″	21,45,37,21,56, 7,46,58,35,51		1,35,27, 6,15	
		1,57, 6,28,16,56,34,20		8,34
54″	21,45,39,19, 2,36, 3,55,10,11		1,35,27,14,49	
		1,57, 6,26,41,29,19,31		8,34
56″	21,45,41,16, 9, 2,45,24,29,42		1,35,27,23,23	
		1,57, 6,25, 6, 1,56, 8		8,34
58″	21,45,43,13,15,27,51,26,25,50		1,35,27,31,57	
		1,57, 6,23,30,34,24,11		
60″	21,45,45,10,21,51,22, 0,50, 1			
exact	21,45,45,10,21,51,22, 1, 6,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°16′ 0″	21,45,45,10,21,51,22, 1, 6,17			
		1,57, 6,21,55, 6,45,32		
2″	21,45,47, 7,28,13,17, 7,51,49		1,35,27,48,57	
		1,57, 6,20,19,38,56,35		8,34
4″	21,45,49, 4,34,33,36,46,48,24		1,35,27,57,31	
		1,57, 6,18,44,10,59, 4		8,34
6″	21,45,51, 1,40,52,20,57,47,28		1,35,28, 6, 5	
		1,57, 6,17, 8,42,52,59		8,34
8″	21,45,52,58,47, 9,29,40,40,27		1,35,28,14,39	
		1,57, 6,15,33,14,38,20		8,34
10″	21,45,54,55,53,25, 2,55,18,47		1,35,28,23,13	
		1,57, 6,13,57,46,15, 7		8,34
12″	21,45,56,52,59,39, 0,41,33,54		1,35,28,31,47	
		1,57, 6,12,22,17,43,20		8,34
14″	21,45,58,50, 5,51,22,59,17,14		1,35,28,40,21	
		1,57, 6,10,46,49, 2,59		8,34
16″	21,46, 0,47,12, 2, 9,48,20,13		1,35,28,48,55	
		1,57, 6, 9,11,20,14, 4		8,34
18″	21,46, 2,44,18,11,21, 8,34,17		1,35,28,57,29	
		1,57, 6, 7,35,51,16,35		8,34
20″	21,46, 4,41,24,18,56,59,50,52		1,35,29, 6, 3	
		1,57, 6, 6, 0,22,10,32		8,34
22″	21,46, 6,38,30,24,57,22, 1,24		1,35,29,14,37	
		1,57, 6, 4,24,52,55,55		8,34
24″	21,46, 8,35,36,29,22,14,57,19		1,35,29,23,11	
		1,57, 6, 2,49,23,32,44		8,34
26″	21,46,10,32,42,32,11,38,30, 3		1,35,29,31,45	
		1,57, 6, 1,13,54, 0,59		8,34
28″	21,46,12,29,48,33,25,32,31, 2		1,35,29,40,19	
		1,57, 5,59,38,24,20,40		8,34
30″	21,46,14,26,54,33, 3,56,51,42		1,35,29,48,53	
		1,57, 5,58, 2,54,31,47		8,34
32″	21,46,16,24, 0,31, 6,51,23,29		1,35,29,57,27	
		1,57, 5,56,27,24,34,20		8,34
34″	21,46,18,21, 6,27,34,15,57,49		1,35,30, 6, 1	
		1,57, 5,54,51,54,28,19		8,34
36″	21,46,20,18,12,22,26,10,26, 8		1,35,30,14,35	
		1,57, 5,53,16,24,13,44		8,34
38″	21,46,22,15,18,15,42,34,39,52		1,35,30,23, 9	
		1,57, 5,51,40,53,50,35		8,34
40″	21,46,24,12,24, 7,23,28,30,27		1,35,30,31,43	
		1,57, 5,50, 5,23,18,52		8,34
42″	21,46,26, 9,29,57,28,51,49,19		1,35,30,40,17	
		1,57, 5,48,29,52,38,35		8,34
44″	21,46,28, 6,35,45,58,44,27,54		1,35,30,48,51	
		1,57, 5,46,54,21,49,44		8,34
46″	21,46,30, 3,41,32,53, 6,17,38		1,35,30,57,25	
		1,57, 5,45,18,50,52,19		8,34
48″	21,46,32, 0,47,18,11,57, 9,57		1,35,31, 5,59	
		1,57, 5,43,43,19,46,20		8,34
50″	21,46,33,57,53, 1,55,16,56,17		1,35,31,14,33	
		1,57, 5,42, 7,48,31,47		8,34
52″	21,46,35,54,58,44, 3, 5,28, 4		1,35,31,23, 7	
		1,57, 5,40,32,17, 8,40		8,34
54″	21,46,37,52, 4,24,35,22,36,44		1,35,31,31,41	
		1,57, 5,38,56,45,36,59		8,34
56″	21,46,39,49,10, 3,32, 8,13,43		1,35,31,40,15	
		1,57, 5,37,21,13,56,44		8,34
58″	21,46,41,46,15,40,53,22,10,27		1,35,31,48,49	
		1,57, 5,35,45,42, 7,55		
60″	21,46,43,43,21,16,39, 4,18,22			
exact	21,46,43,43,21,16,39, 4,43,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°17′ 0″	21,46,43,43,21,16,39, 4,43,10			
		1,57, 5,34,10,10,13, 8		
2″	21,46,45,40,26,50,49,14,56,18		1,35,32, 5,46	
		1,57, 5,32,34,38, 7,22		8,34
4″	21,46,47,37,32,23,23,53, 3,40		1,35,32,14,20	
		1,57, 5,30,59, 5,53, 2		8,34
6″	21,46,49,34,37,54,22,58,56,42		1,35,32,22,54	
		1,57, 5,29,23,33,30, 8		8,34
8″	21,46,51,31,43,23,46,32,26,50		1,35,32,31,28	
		1,57, 5,27,48, 0,58,40		8,34
10″	21,46,53,28,48,51,34,33,25,30		1,35,32,40, 2	
		1,57, 5,26,12,28,18,38		8,34
12″	21,46,55,25,54,17,47, 1,44, 8		1,35,32,48,36	
		1,57, 5,24,36,55,30, 2		8,34
14″	21,46,57,22,59,42,23,57,14,10		1,35,32,57,10	
		1,57, 5,23, 1,22,32,52		8,34
16″	21,46,59,20, 5, 5,25,19,47, 2		1,35,33, 5,44	
		1,57, 5,21,25,49,27, 8		8,34
18″	21,47, 1,17,10,26,51, 9,14,10		1,35,33,14,18	
		1,57, 5,19,50,16,12,50		8,34
20″	21,47, 3,14,15,46,41,25,27, 0		1,35,33,22,52	
		1,57, 5,18,14,42,49,58		8,34
22″	21,47, 5,11,21, 4,56, 8,16,58		1,35,33,31,26	
		1,57, 5,16,39, 9,18,32		8,34
24″	21,47, 7, 8,26,21,35,17,35,30		1,35,33,40, 0	
		1,57, 5,15, 3,35,38,32		8,34
26″	21,47, 9, 5,31,36,38,53,14, 2		1,35,33,48,34	
		1,57, 5,13,28, 1,49,58		8,34
28″	21,47,11, 2,36,50, 6,55, 4, 0		1,35,33,57, 8	
		1,57, 5,11,52,27,52,50		8,34
30″	21,47,12,59,42, 1,59,22,56,50		1,35,34, 5,42	
		1,57, 5,10,16,53,47, 8		8,34
32″	21,47,14,56,47,12,16,16,43,58		1,35,34,14,16	
		1,57, 5, 8,41,19,32,52		8,34
34″	21,47,16,53,52,20,57,36,16,50		1,35,34,22,50	
		1,57, 5, 7, 5,45,10, 2		8,34
36″	21,47,18,50,57,28, 3,21,26,52		1,35,34,31,24	
		1,57, 5, 5,30,10,38,38		8,34
38″	21,47,20,48, 2,33,33,32, 5,30		1,35,34,39,58	
		1,57, 5, 3,54,35,58,40		8,34
40″	21,47,22,45, 7,37,28, 8, 4,10		1,35,34,48,32	
		1,57, 5, 2,19, 1,10, 8		8,34
42″	21,47,24,42,12,39,47, 9,14,18		1,35,34,57, 6	
		1,57, 5, 0,43,26,13, 2		8,34
44″	21,47,26,39,17,40,30,35,27,20		1,35,35, 5,40	
		1,57, 4,59, 7,51, 7,22		8,34
46″	21,47,28,36,22,39,38,26,34,42		1,35,35,14,14	
		1,57, 4,57,32,15,53, 8		8,34
48″	21,47,30,33,27,37,10,42,27,50		1,35,35,22,48	
		1,57, 4,55,56,40,30,20		8,34
50″	21,47,32,30,32,33, 7,22,58,10		1,35,35,31,22	
		1,57, 4,54,21, 4,58,58		8,34
52″	21,47,34,27,37,27,28,27,57, 8		1,35,35,39,56	
		1,57, 4,52,45,29,19, 2		8,34
54″	21,47,36,24,42,20,13,57,16,10		1,35,35,48,30	
		1,57, 4,51, 9,53,30,32		8,34
56″	21,47,38,21,47,11,23,50,46,42		1,35,35,57, 4	
		1,57, 4,49,34,17,33,28		8,34
58″	21,47,40,18,52, 0,58, 8,20,10		1,35,36, 5,38	
		1,57, 4,47,58,41,27,50		
60″	21,47,42,15,56,48,56,49,48, 0			
exact	21,47,42,15,56,48,56,50,12, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°18′ 0″	21,47,42,15,56,48,56,50,12, 3			
		1,57, 4,46,23, 5,16,20		
2″	21,47,44,13, 1,35,19,55,28,23		1,35,36,22,34	
		1,57, 4,44,47,28,53,46		8,34
4″	21,47,46,10, 6,20, 7,24,22, 9		1,35,36,31, 8	
		1,57, 4,43,11,52,22,38		8,34
6″	21,47,48, 7,11, 3,19,16,44,47		1,35,36,39,42	
		1,57, 4,41,36,15,42,56		8,34
8″	21,47,50, 4,15,44,55,32,27,43		1,35,36,48,16	
		1,57, 4,40, 0,38,54,40		8,34
10″	21,47,52, 1,20,24,56,11,22,23		1,35,36,56,50	
		1,57, 4,38,25, 1,57,50		8,34
12″	21,47,53,58,25, 3,21,13,20,13		1,35,37, 5,24	
		1,57, 4,36,49,24,52,26		8,34
14″	21,47,55,55,29,40,10,38,12,39		1,35,37,13,58	
		1,57, 4,35,13,47,38,28		8,34
16″	21,47,57,52,34,15,24,25,51, 7		1,35,37,22,32	
		1,57, 4,33,38,10,15,56		8,34
18″	21,47,59,49,38,49, 2,36, 7, 3		1,35,37,31, 6	
		1,57, 4,32, 2,32,44,50		8,34
20″	21,48, 1,46,43,21, 5, 8,51,53		1,35,37,39,40	
		1,57, 4,30,26,55, 5,10		8,34
22″	21,48, 3,43,47,51,32, 3,57, 3		1,35,37,48,14	
		1,57, 4,28,51,17,16,56		8,34
24″	21,48, 5,40,52,20,23,21,13,59		1,35,37,56,48	
		1,57, 4,27,15,39,20, 8		8,34
26″	21,48, 7,37,56,47,39, 0,34, 7		1,35,38, 5,22	
		1,57, 4,25,40, 1,14,46		8,34
28″	21,48, 9,35, 1,13,19, 1,48,53		1,35,38,13,56	
		1,57, 4,24, 4,23, 0,50		8,34
30″	21,48,11,32, 5,37,23,24,49,43		1,35,38,22,30	
		1,57, 4,22,28,44,38,20		8,34
32″	21,48,13,29, 9,59,52, 9,28, 3		1,35,38,31, 4	
		1,57, 4,20,53, 6, 7,16		8,34
34″	21,48,15,26,14,20,45,15,35,19		1,35,38,39,38	
		1,57, 4,19,17,27,27,38		8,34
36″	21,48,17,23,18,40, 2,43, 2,57		1,35,38,48,12	
		1,57, 4,17,41,48,39,26		8,34
38″	21,48,19,20,22,57,44,31,42,23		1,35,38,56,46	
		1,57, 4,16, 6, 9,42,40		8,34
40″	21,48,21,17,27,13,50,41,25, 3		1,35,39, 5,20	
		1,57, 4,14,30,30,37,20		8,34
42″	21,48,23,14,31,28,21,12, 2,23		1,35,39,13,54	
		1,57, 4,12,54,51,23,26		8,34
44″	21,48,25,11,35,41,16, 3,25,49		1,35,39,22,28	
		1,57, 4,11,19,12, 0,58		8,34
46″	21,48,27, 8,39,52,35,15,26,47		1,35,39,31, 2	
		1,57, 4, 9,43,32,29,56		8,34
48″	21,48,29, 5,44, 2,18,47,56,43		1,35,39,39,36	
		1,57, 4, 8, 7,52,50,20		8,34
50″	21,48,31, 2,48,10,26,40,47, 3		1,35,39,48,10	
		1,57, 4, 6,32,13, 2,10		8,34
52″	21,48,32,59,52,16,58,53,49,13		1,35,39,56,44	
		1,57, 4, 4,56,33, 5,26		8,34
54″	21,48,34,56,56,21,55,26,54,39		1,35,40, 5,18	
		1,57, 4, 3,20,53, 0, 8		8,34
56″	21,48,36,54, 0,25,16,19,54,47		1,35,40,13,52	
		1,57, 4, 1,45,12,46,16		8,34
58″	21,48,38,51, 4,27, 1,32,41, 3		1,35,40,22,26	
		1,57, 4, 0, 9,32,23,50		
60″	21,48,40,48, 8,27,11, 5, 4,53			
exact	21,48,40,48, 8,27,11, 5,33,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°19′ 0″	21,48,40,48, 8,27,11, 5,33,40			
		1,57, 3,58,33,51,56, 0		
2″	21,48,42,45,12,25,44,57,29,40		1,35,40,39,20	
		1,57, 3,56,58,11,16,40		8,34
4″	21,48,44,42,16,22,43, 8,46,20		1,35,40,47,54	
		1,57, 3,55,22,30,28,46		8,34
6″	21,48,46,39,20,18, 5,39,15, 6		1,35,40,56,28	
		1,57, 3,53,46,49,32,18		8,34
8″	21,48,48,36,24,11,52,28,47,24		1,35,41, 5, 2	
		1,57, 3,52,11, 8,27,16		8,34
10″	21,48,50,33,28, 4, 3,37,14,40		1,35,41,13,36	
		1,57, 3,50,35,27,13,40		8,34
12″	21,48,52,30,31,54,39, 4,28,20		1,35,41,22,10	
		1,57, 3,48,59,45,51,30		8,34
14″	21,48,54,27,35,43,38,50,19,50		1,35,41,30,44	
		1,57, 3,47,24, 4,20,46		8,34
16″	21,48,56,24,39,31, 2,54,40,36		1,35,41,39,18	
		1,57, 3,45,48,22,41,28		8,34
18″	21,48,58,21,43,16,51,17,22, 4		1,35,41,47,52	
		1,57, 3,44,12,40,53,36		8,34
20″	21,49, 0,18,47, 1, 3,58,15,40		1,35,41,56,26	
		1,57, 3,42,36,58,57,10		8,34
22″	21,49, 2,15,50,43,40,57,12,50		1,35,42, 5, 0	
		1,57, 3,41, 1,16,52,10		8,34
24″	21,49, 4,12,54,24,42,14, 5, 0		1,35,42,13,34	
		1,57, 3,39,25,34,38,36		8,34
26″	21,49, 6, 9,58, 4, 7,48,43,36		1,35,42,22, 8	
		1,57, 3,37,49,52,16,28		8,34
28″	21,49, 8, 7, 1,41,57,41, 0, 4		1,35,42,30,42	
		1,57, 3,36,14, 9,45,46		8,34
30″	21,49,10, 4, 5,18,11,50,45,50		1,35,42,39,16	
		1,57, 3,34,38,27, 6,30		8,34
32″	21,49,12, 1, 8,52,50,17,52,20		1,35,42,47,50	
		1,57, 3,33, 2,44,18,40		8,34
34″	21,49,13,58,12,25,53, 2,11, 0		1,35,42,56,24	
		1,57, 3,31,27, 1,22,16		8,34
36″	21,49,15,55,15,57,20, 3,33,16		1,35,43, 4,58	
		1,57, 3,29,51,18,17,18		8,34
38″	21,49,17,52,19,27,11,21,50,34		1,35,43,13,32	
		1,57, 3,28,15,35, 3,46		8,34
40″	21,49,19,49,22,55,26,56,54,20		1,35,43,22, 6	
		1,57, 3,26,39,51,41,40		8,34
42″	21,49,21,46,26,22, 6,48,36, 0		1,35,43,30,40	
		1,57, 3,25, 4, 8,11, 0		8,34
44″	21,49,23,43,29,47,10,56,47, 0		1,35,43,39,14	
		1,57, 3,23,28,24,31,46		8,34
46″	21,49,25,40,33,10,39,21,18,46		1,35,43,47,48	
		1,57, 3,21,52,40,43,58		8,34
48″	21,49,27,37,36,32,32, 2, 2,44		1,35,43,56,22	
		1,57, 3,20,16,56,47,36		8,34
50″	21,49,29,34,39,52,48,58,50,20		1,35,44, 4,56	
		1,57, 3,18,41,12,42,40		8,34
52″	21,49,31,31,43,11,30,11,33, 0		1,35,44,13,30	
		1,57, 3,17, 5,28,29,10		8,34
54″	21,49,33,28,46,28,35,40, 2,10		1,35,44,22, 4	
		1,57, 3,15,29,44, 7, 6		8,34
56″	21,49,35,25,49,44, 5,24, 9,16		1,35,44,30,38	
		1,57, 3,13,53,59,36,28		8,34
58″	21,49,37,22,52,57,59,23,45,44		1,35,44,39,12	
		1,57, 3,12,18,14,57,16		
60″	21,49,39,19,56,10,17,38,43, 0			
exact	21,49,39,19,56,10,17,39,14,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°20′ 0″	21,49,39,19,56,10,17,39,14,53			
		1,57, 3,10,42,30,13, 2		
2″	21,49,41,16,59,21, 0, 9,27,55		1,35,44,56, 5	
		1,57, 3, 9, 6,45,16,57		8,33
4″	21,49,43,14, 2,30, 6,54,44,52		1,35,45, 4,38	
		1,57, 3, 7,31, 0,12,19		8,33
6″	21,49,45,11, 5,37,37,54,57,11		1,35,45,13,11	
		1,57, 3, 5,55,14,59, 8		8,33
8″	21,49,47, 8, 8,43,33, 9,56,19		1,35,45,21,44	
		1,57, 3, 4,19,29,37,24		8,33
10″	21,49,49, 5,11,47,52,39,33,43		1,35,45,30,17	
		1,57, 3, 2,43,44, 7, 7		8,33
12″	21,49,51, 2,14,50,36,23,40,50		1,35,45,38,50	
		1,57, 3, 1, 7,58,28,17		8,33
14″	21,49,52,59,17,51,44,22, 9, 7		1,35,45,47,23	
		1,57, 2,59,32,12,40,54		8,33
16″	21,49,54,56,20,51,16,34,50, 1		1,35,45,55,56	
		1,57, 2,57,56,26,44,58		8,33
18″	21,49,56,53,23,49,13, 1,34,59		1,35,46, 4,29	
		1,57, 2,56,20,40,40,29		8,33
20″	21,49,58,50,26,45,33,42,15,28		1,35,46,13, 2	
		1,57, 2,54,44,54,27,27		8,33
22″	21,50, 0,47,29,40,18,36,42,55		1,35,46,21,35	
		1,57, 2,53, 9, 8, 5,52		8,33
24″	21,50, 2,44,32,33,27,44,48,47		1,35,46,30, 8	
		1,57, 2,51,33,21,35,44		8,33
26″	21,50, 4,41,35,25, 1, 6,24,31		1,35,46,38,41	
		1,57, 2,49,57,34,57, 3		8,33
28″	21,50, 6,38,38,14,58,41,21,34		1,35,46,47,14	
		1,57, 2,48,21,48, 9,49		8,33
30″	21,50, 8,35,41, 3,20,29,31,23		1,35,46,55,47	
		1,57, 2,46,46, 1,14, 2		8,33
32″	21,50,10,32,43,50, 6,30,45,25		1,35,47, 4,20	
		1,57, 2,45,10,14, 9,42		8,33
34″	21,50,12,29,46,35,16,44,55, 7		1,35,47,12,53	
		1,57, 2,43,34,26,56,49		8,33
36″	21,50,14,26,49,18,51,11,51,56		1,35,47,21,26	
		1,57, 2,41,58,39,35,23		8,33
38″	21,50,16,23,52, 0,49,51,27,19		1,35,47,29,59	
		1,57, 2,40,22,52, 5,24		8,33
40″	21,50,18,20,54,41,12,43,32,43		1,35,47,38,32	
		1,57, 2,38,47, 4,26,52		8,33
42″	21,50,20,17,57,19,59,47,59,35		1,35,47,47, 5	
		1,57, 2,37,11,16,39,47		8,33
44″	21,50,22,14,59,57,11, 4,39,22		1,35,47,55,38	
		1,57, 2,35,35,28,44, 9		8,33
46″	21,50,24,12, 2,32,46,33,23,31		1,35,48, 4,11	
		1,57, 2,33,59,40,39,58		8,33
48″	21,50,26, 9, 5, 6,46,14, 3,29		1,35,48,12,44	
		1,57, 2,32,23,52,27,14		8,33
50″	21,50,28, 6, 7,39,10, 6,30,43		1,35,48,21,17	
		1,57, 2,30,48, 4, 5,57		8,33
52″	21,50,30, 3,10, 9,58,10,36,40		1,35,48,29,50	
		1,57, 2,29,12,15,36, 7		8,33
54″	21,50,32, 0,12,39,10,26,12,47		1,35,48,38,23	
		1,57, 2,27,36,26,57,44		8,33
56″	21,50,33,57,15, 6,46,53,10,31		1,35,48,46,56	
		1,57, 2,26, 0,38,10,48		8,33
58″	21,50,35,54,17,32,47,31,21,19		1,35,48,55,29	
		1,57, 2,24,24,49,15,19		
60″	21,50,37,51,19,57,12,20,36,38			
exact	21,50,37,51,19,57,12,20, 8,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°21′ 0″	21,50,37,51,19,57,12,20, 8,50			
		1,57, 2,22,49, 0, 8,17		
2″	21,50,39,48,22,20, 1,20,17, 7		1,35,49,12,47	
		1,57, 2,21,13,10,55,30		8,33
4″	21,50,41,45,24,41,14,31,12,37		1,35,49,21,20	
		1,57, 2,19,37,21,34,10		8,33
6″	21,50,43,42,27, 0,51,52,46,47		1,35,49,29,53	
		1,57, 2,18, 1,32, 4,17		8,33
8″	21,50,45,39,29,18,53,24,51, 4		1,35,49,38,26	
		1,57, 2,16,25,42,25,51		8,33
10″	21,50,47,36,31,35,19, 7,16,55		1,35,49,46,59	
		1,57, 2,14,49,52,38,52		8,33
12″	21,50,49,33,33,50, 8,59,55,47		1,35,49,55,32	
		1,57, 2,13,14, 2,43,20		8,33
14″	21,50,51,30,36, 3,23, 2,39, 7		1,35,50, 4, 5	
		1,57, 2,11,38,12,39,15		8,33
16″	21,50,53,27,38,15, 1,15,18,22		1,35,50,12,38	
		1,57, 2,10, 2,22,26,37		8,33
18″	21,50,55,24,40,25, 3,37,44,59		1,35,50,21,11	
		1,57, 2, 8,26,32, 5,26		8,33
20″	21,50,57,21,42,33,30, 9,50,25		1,35,50,29,44	
		1,57, 2, 6,50,41,35,42		8,33
22″	21,50,59,18,44,40,20,51,26, 7		1,35,50,38,17	
		1,57, 2, 5,14,50,57,25		8,33
24″	21,51, 1,15,46,45,35,42,23,32		1,35,50,46,50	
		1,57, 2, 3,39, 0,10,35		8,33
26″	21,51, 3,12,48,49,14,42,34, 7		1,35,50,55,23	
		1,57, 2, 2, 3, 9,15,12		8,33
28″	21,51, 5, 9,50,51,17,51,49,19		1,35,51, 3,56	
		1,57, 2, 0,27,18,11,16		8,33
30″	21,51, 7, 6,52,51,45,10, 0,35		1,35,51,12,29	
		1,57, 1,58,51,26,58,47		8,33
32″	21,51, 9, 3,54,50,36,36,59,22		1,35,51,21, 2	
		1,57, 1,57,15,35,37,45		8,33
34″	21,51,11, 0,56,47,52,12,37, 7		1,35,51,29,35	
		1,57, 1,55,39,44, 8,10		8,33
36″	21,51,12,57,58,43,31,56,45,17		1,35,51,38, 8	
		1,57, 1,54, 3,52,30, 2		8,33
38″	21,51,14,55, 0,37,35,49,15,19		1,35,51,46,41	
		1,57, 1,52,28, 0,43,21		8,33
40″	21,51,16,52, 2,30, 3,49,58,40		1,35,51,55,14	
		1,57, 1,50,52, 8,48, 7		8,33
42″	21,51,18,49, 4,20,55,58,46,47		1,35,52, 3,47	
		1,57, 1,49,16,16,44,20		8,33
44″	21,51,20,46, 6,10,12,15,31, 7		1,35,52,12,20	
		1,57, 1,47,40,24,32, 0		8,33
46″	21,51,22,43, 7,57,52,40, 3, 7		1,35,52,20,53	
		1,57, 1,46, 4,32,11, 7		8,33
48″	21,51,24,40, 9,43,57,12,14,14		1,35,52,29,26	
		1,57, 1,44,28,39,41,41		8,33
50″	21,51,26,37,11,28,25,51,55,55		1,35,52,37,59	
		1,57, 1,42,52,47, 3,42		8,33
52″	21,51,28,34,13,11,18,38,59,37		1,35,52,46,32	
		1,57, 1,41,16,54,17,10		8,33
54″	21,51,30,31,14,52,35,33,16,47		1,35,52,55, 5	
		1,57, 1,39,41, 1,22, 5		8,33
56″	21,51,32,28,16,32,16,34,38,52		1,35,53, 3,38	
		1,57, 1,38, 5, 8,18,27		8,33
58″	21,51,34,25,18,10,21,42,57,19		1,35,53,12,11	
		1,57, 1,36,29,15, 6,16		
60″	21,51,36,22,19,46,50,58, 3,35			
exact	21,51,36,22,19,46,50,57,34,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°22′ 0″	21,51,36,22,19,46,50,57,34,56			
		1,57, 1,34,53,21,42,37		
2″	21,51,38,19,21,21,44,19,17,33		1,35,53,29,28	
		1,57, 1,33,17,28,13, 9		8,33
4″	21,51,40,16,22,55, 1,47,30,42		1,35,53,38, 1	
		1,57, 1,31,41,34,35, 8		8,33
6″	21,51,42,13,24,26,43,22, 5,50		1,35,53,46,34	
		1,57, 1,30, 5,40,48,34		8,33
8″	21,51,44,10,25,56,49, 2,54,24		1,35,53,55, 7	
		1,57, 1,28,29,46,53,27		8,33
10″	21,51,46, 7,27,25,18,49,47,51		1,35,54, 3,40	
		1,57, 1,26,53,52,49,47		8,33
12″	21,51,48, 4,28,52,12,42,37,38		1,35,54,12,13	
		1,57, 1,25,17,58,37,34		8,33
14″	21,51,50, 1,30,17,30,41,15,12		1,35,54,20,46	
		1,57, 1,23,42, 4,16,48		8,33
16″	21,51,51,58,31,41,12,45,32, 0		1,35,54,29,19	
		1,57, 1,22, 6, 9,47,29		8,33
18″	21,51,53,55,33, 3,18,55,19,29		1,35,54,37,52	
		1,57, 1,20,30,15, 9,37		8,33
20″	21,51,55,52,34,23,49,10,29, 6		1,35,54,46,25	
		1,57, 1,18,54,20,23,12		8,33
22″	21,51,57,49,35,42,43,30,52,18		1,35,54,54,58	
		1,57, 1,17,18,25,28,14		8,33
24″	21,51,59,46,37, 0, 1,56,20,32		1,35,55, 3,31	
		1,57, 1,15,42,30,24,43		8,33
26″	21,52, 1,43,38,15,44,26,45,15		1,35,55,12, 4	
		1,57, 1,14, 6,35,12,39		8,33
28″	21,52, 3,40,39,29,51, 1,57,54		1,35,55,20,37	
		1,57, 1,12,30,39,52, 2		8,33
30″	21,52, 5,37,40,42,21,41,49,56		1,35,55,29,10	
		1,57, 1,10,54,44,22,52		8,33
32″	21,52, 7,34,41,53,16,26,12,48		1,35,55,37,43	
		1,57, 1, 9,18,48,45, 9		8,33
34″	21,52, 9,31,43, 2,35,14,57,57		1,35,55,46,16	
		1,57, 1, 7,42,52,58,53		8,33
36″	21,52,11,28,44,10,18, 7,56,50		1,35,55,54,49	
		1,57, 1, 6, 6,57, 4, 4		8,33
38″	21,52,13,25,45,16,25, 5, 0,54		1,35,56, 3,22	
		1,57, 1, 4,31, 1, 0,42		8,33
40″	21,52,15,22,46,20,56, 6, 1,36		1,35,56,11,55	
		1,57, 1, 2,55, 4,48,47		8,33
42″	21,52,17,19,47,23,51,10,50,23		1,35,56,20,28	
		1,57, 1, 1,19, 8,28,19		8,33
44″	21,52,19,16,48,25,10,19,18,42		1,35,56,29, 1	
		1,57, 0,59,43,11,59,18		8,33
46″	21,52,21,13,49,24,53,31,18, 0		1,35,56,37,34	
		1,57, 0,58, 7,15,21,44		8,33
48″	21,52,23,10,50,23, 0,46,39,44		1,35,56,46, 7	
		1,57, 0,56,31,18,35,37		8,33
50″	21,52,25, 7,51,19,32, 5,15,21		1,35,56,54,40	
		1,57, 0,54,55,21,40,57		8,33
52″	21,52,27, 4,52,14,27,26,56,18		1,35,57, 3,13	
		1,57, 0,53,19,24,37,44		8,33
54″	21,52,29, 1,53, 7,46,51,34, 2		1,35,57,11,46	
		1,57, 0,51,43,27,25,58		8,33
56″	21,52,30,58,53,59,30,19, 0, 0		1,35,57,20,19	
		1,57, 0,50, 7,30, 5,39		8,33
58″	21,52,32,55,54,49,37,49, 5,39		1,35,57,28,52	
		1,57, 0,48,31,32,36,47		
60″	21,52,34,52,55,38, 9,21,42,26			
exact	21,52,34,52,55,38, 9,21,18,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°23′ 0″	21,52,34,52,55,38, 9,21,18,48			
		1,57, 0,46,55,34,56,56		
2″	21,52,36,49,56,25, 4,56,15,44		1,35,57,46, 7	
		1,57, 0,45,19,37,10,49		8,33
4″	21,52,38,46,57,10,24,33,26,33		1,35,57,54,40	
		1,57, 0,43,43,39,16, 9		8,33
6″	21,52,40,43,57,54, 8,12,42,42		1,35,58, 3,13	
		1,57, 0,42, 7,41,12,56		8,33
8″	21,52,42,40,58,36,15,53,55,38		1,35,58,11,46	
		1,57, 0,40,31,43, 1,10		8,33
10″	21,52,44,37,59,16,47,36,56,48		1,35,58,20,19	
		1,57, 0,38,55,44,40,51		8,33
12″	21,52,46,34,59,55,43,21,37,39		1,35,58,28,52	
		1,57, 0,37,19,46,11,59		8,33
14″	21,52,48,32, 0,33, 3, 7,49,38		1,35,58,37,25	
		1,57, 0,35,43,47,34,34		8,33
16″	21,52,50,29, 1, 8,46,55,24,12		1,35,58,45,58	
		1,57, 0,34, 7,48,48,36		8,33
18″	21,52,52,26, 1,42,54,44,12,48		1,35,58,54,31	
		1,57, 0,32,31,49,54, 5		8,33
20″	21,52,54,23, 2,15,26,34, 6,53		1,35,59, 3, 4	
		1,57, 0,30,55,50,51, 1		8,33
22″	21,52,56,20, 2,46,22,24,57,54		1,35,59,11,37	
		1,57, 0,29,19,51,39,24		8,33
24″	21,52,58,17, 3,15,42,16,37,18		1,35,59,20,10	
		1,57, 0,27,43,52,19,14		8,33
26″	21,53, 0,14, 3,43,26, 8,56,32		1,35,59,28,43	
		1,57, 0,26, 7,52,50,31		8,33
28″	21,53, 2,11, 4, 9,34, 1,47, 3		1,35,59,37,16	
		1,57, 0,24,31,53,13,15		8,33
30″	21,53, 4, 8, 4,34, 5,55, 0,18		1,35,59,45,49	
		1,57, 0,22,55,53,27,26		8,33
32″	21,53, 6, 5, 4,57, 1,48,27,44		1,35,59,54,22	
		1,57, 0,21,19,53,33, 4		8,33
34″	21,53, 8, 2, 5,18,21,42, 0,48		1,36, 0, 2,55	
		1,57, 0,19,43,53,30, 9		8,33
36″	21,53, 9,59, 5,38, 5,35,30,57		1,36, 0,11,28	
		1,57, 0,18, 7,53,18,41		8,33
38″	21,53,11,56, 5,56,13,28,49,38		1,36, 0,20, 1	
		1,57, 0,16,31,52,58,40		8,33
40″	21,53,13,53, 6,12,45,21,48,18		1,36, 0,28,34	
		1,57, 0,14,55,52,30, 6		8,33
42″	21,53,15,50, 6,27,41,14,18,24		1,36, 0,37, 7	
		1,57, 0,13,19,51,52,59		8,33
44″	21,53,17,47, 6,41, 1, 6,11,23		1,36, 0,45,40	
		1,57, 0,11,43,51, 7,19		8,33
46″	21,53,19,44, 6,52,44,57,18,42		1,36, 0,54,13	
		1,57, 0,10, 7,50,13, 6		8,33
48″	21,53,21,41, 7, 2,52,47,31,48		1,36, 1, 2,46	
		1,57, 0, 8,31,49,10,20		8,33
50″	21,53,23,38, 7,11,24,36,42, 8		1,36, 1,11,19	
		1,57, 0, 6,55,47,59, 1		8,33
52″	21,53,25,35, 7,18,20,24,41, 9		1,36, 1,19,52	
		1,57, 0, 5,19,46,39, 9		8,33
54″	21,53,27,32, 7,23,40,11,20,18		1,36, 1,28,25	
		1,57, 0, 3,43,45,10,44		8,33
56″	21,53,29,29, 7,27,23,56,31, 2		1,36, 1,36,58	
		1,57, 0, 2, 7,43,33,46		8,33
58″	21,53,31,26, 7,29,31,40, 4,48		1,36, 1,45,31	
		1,57, 0, 0,31,41,48,15		
60″	21,53,33,23, 7,30, 3,21,53, 3			
exact	21,53,33,23, 7,30, 3,21,32,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°24′ 0″	21,53,33,23, 7,30, 3,21,32,23			
		1,56,59,58,55,39,52, 7		
2″	21,53,35,20, 7,28,59, 1,24,30		1,36, 2, 2,45	
		1,56,59,57,19,37,49,22		8,33
4″	21,53,37,17, 7,26,18,39,13,52		1,36, 2,11,18	
		1,56,59,55,43,35,38, 4		8,33
6″	21,53,39,14, 7,22, 2,14,51,56		1,36, 2,19,51	
		1,56,59,54, 7,33,18,13		8,33
8″	21,53,41,11, 7,16, 9,48,10, 9		1,36, 2,28,24	
		1,56,59,52,31,30,49,49		8,33
10″	21,53,43, 8, 7, 8,41,18,59,58		1,36, 2,36,57	
		1,56,59,50,55,28,12,52		8,33
12″	21,53,45, 5, 6,59,36,47,12,50		1,36, 2,45,30	
		1,56,59,49,19,25,27,22		8,33
14″	21,53,47, 2, 6,48,56,12,40,12		1,36, 2,54, 3	
		1,56,59,47,43,22,33,19		8,33
16″	21,53,48,59, 6,36,39,35,13,31		1,36, 3, 2,36	
		1,56,59,46, 7,19,30,43		8,33
18″	21,53,50,56, 6,22,46,54,44,14		1,36, 3,11, 9	
		1,56,59,44,31,16,19,34		8,33
20″	21,53,52,53, 6, 7,18,11, 3,48		1,36, 3,19,42	
		1,56,59,42,55,12,59,52		8,33
22″	21,53,54,50, 5,50,13,24, 3,40		1,36, 3,28,15	
		1,56,59,41,19, 9,31,37		8,33
24″	21,53,56,47, 5,31,32,33,35,17		1,36, 3,36,48	
		1,56,59,39,43, 5,54,49		8,33
26″	21,53,58,44, 5,11,15,39,30, 6		1,36, 3,45,21	
		1,56,59,38, 7, 2, 9,28		8,33
28″	21,54, 0,41, 4,49,22,41,39,34		1,36, 3,53,54	
		1,56,59,36,30,58,15,34		8,33
30″	21,54, 2,38, 4,25,53,39,55, 8		1,36, 4, 2,27	
		1,56,59,34,54,54,13, 7		8,33
32″	21,54, 4,35, 4, 0,48,34, 8,15		1,36, 4,11, 0	
		1,56,59,33,18,50, 2, 7		8,33
34″	21,54, 6,32, 3,34, 7,24,10,22		1,36, 4,19,33	
		1,56,59,31,42,45,42,34		8,33
36″	21,54, 8,29, 3, 5,50, 9,52,56		1,36, 4,28, 6	
		1,56,59,30, 6,41,14,28		8,33
38″	21,54,10,26, 2,35,56,51, 7,24		1,36, 4,36,39	
		1,56,59,28,30,36,37,49		8,33
40″	21,54,12,23, 2, 4,27,27,45,13		1,36, 4,45,12	
		1,56,59,26,54,31,52,37		8,33
42″	21,54,14,20, 1,31,21,59,37,50		1,36, 4,53,45	
		1,56,59,25,18,26,58,52		8,33
44″	21,54,16,17, 0,56,40,26,36,42		1,36, 5, 2,18	
		1,56,59,23,42,21,56,34		8,33
46″	21,54,18,14, 0,20,22,48,33,16		1,36, 5,10,51	
		1,56,59,22, 6,16,45,43		8,33
48″	21,54,20,10,59,42,29, 5,18,59		1,36, 5,19,24	
		1,56,59,20,30,11,26,19		8,33
50″	21,54,22, 7,59, 2,59,16,45,18		1,36, 5,27,57	
		1,56,59,18,54, 5,58,22		8,33
52″	21,54,24, 4,58,21,53,22,43,40		1,36, 5,36,30	
		1,56,59,17,18, 0,21,52		8,33
54″	21,54,26, 1,57,39,11,23, 5,32		1,36, 5,45, 3	
		1,56,59,15,41,54,36,49		8,33
56″	21,54,27,58,56,54,53,17,42,21		1,36, 5,53,36	
		1,56,59,14, 5,48,43,13		8,33
58″	21,54,29,55,56, 8,59, 6,25,34		1,36, 6, 2, 9	
		1,56,59,12,29,42,41, 4		
60″	21,54,31,52,55,21,28,49, 6,38			
exact	21,54,31,52,55,21,28,48,53,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°25′ 0″	21,54,31,52,55,21,28,48,53,56			
		1,56,59,10,53,36,29, 1		
2″	21,54,33,49,54,32,22,25,22,57		1,36, 6,19,20	
		1,56,59, 9,17,30, 9,41		8,33
4″	21,54,35,46,53,41,39,55,32,38		1,36, 6,27,53	
		1,56,59, 7,41,23,41,48		8,33
6″	21,54,37,43,52,49,21,19,14,26		1,36, 6,36,26	
		1,56,59, 6, 5,17, 5,22		8,33
8″	21,54,39,40,51,55,26,36,19,48		1,36, 6,44,59	
		1,56,59, 4,29,10,20,23		8,33
10″	21,54,41,37,50,59,55,46,40,11		1,36, 6,53,32	
		1,56,59, 2,53, 3,26,51		8,33
12″	21,54,43,34,50, 2,48,50, 7, 2		1,36, 7, 2, 5	
		1,56,59, 1,16,56,24,46		8,33
14″	21,54,45,31,49, 4, 5,46,31,48		1,36, 7,10,38	
		1,56,58,59,40,49,14, 8		8,33
16″	21,54,47,28,48, 3,46,35,45,56		1,36, 7,19,11	
		1,56,58,58, 4,41,54,57		8,33
18″	21,54,49,25,47, 1,51,17,40,53		1,36, 7,27,44	
		1,56,58,56,28,34,27,13		8,33
20″	21,54,51,22,45,58,19,52, 8, 6		1,36, 7,36,17	
		1,56,58,54,52,26,50,56		8,33
22″	21,54,53,19,44,53,12,18,59, 2		1,36, 7,44,50	
		1,56,58,53,16,19, 6, 6		8,33
24″	21,54,55,16,43,46,28,38, 5, 8		1,36, 7,53,23	
		1,56,58,51,40,11,12,43		8,33
26″	21,54,57,13,42,38, 8,49,17,51		1,36, 8, 1,56	
		1,56,58,50, 4, 3,10,47		8,33
28″	21,54,59,10,41,28,12,52,28,38		1,36, 8,10,29	
		1,56,58,48,27,55, 0,18		8,33
30″	21,55, 1, 7,40,16,40,47,28,56		1,36, 8,19, 2	
		1,56,58,46,51,46,41,16		8,33
32″	21,55, 3, 4,39, 3,32,34,10,12		1,36, 8,27,35	
		1,56,58,45,15,38,13,41		8,33
34″	21,55, 5, 1,37,48,48,12,23,53		1,36, 8,36, 8	
		1,56,58,43,39,29,37,33		8,33
36″	21,55, 6,58,36,32,27,42, 1,26		1,36, 8,44,41	
		1,56,58,42, 3,20,52,52		8,33
38″	21,55, 8,55,35,14,31, 2,54,18		1,36, 8,53,14	
		1,56,58,40,27,11,59,38		8,33
40″	21,55,10,52,33,54,58,14,53,56		1,36, 9, 1,47	
		1,56,58,38,51, 2,57,51		8,33
42″	21,55,12,49,32,33,49,17,51,47		1,36, 9,10,20	
		1,56,58,37,14,53,47,31		8,33
44″	21,55,14,46,31,11, 4,11,39,18		1,36, 9,18,53	
		1,56,58,35,38,44,28,38		8,33
46″	21,55,16,43,29,46,42,56, 7,56		1,36, 9,27,26	
		1,56,58,34, 2,35, 1,12		8,33
48″	21,55,18,40,28,20,45,31, 9, 8		1,36, 9,35,59	
		1,56,58,32,26,25,25,13		8,33
50″	21,55,20,37,26,53,11,56,34,21		1,36, 9,44,32	
		1,56,58,30,50,15,40,41		8,33
52″	21,55,22,34,25,24, 2,12,15, 2		1,36, 9,53, 5	
		1,56,58,29,14, 5,47,36		8,33
54″	21,55,24,31,23,53,16,18, 2,38		1,36,10, 1,38	
		1,56,58,27,37,55,45,58		8,33
56″	21,55,26,28,22,20,54,13,48,36		1,36,10,10,11	
		1,56,58,26, 1,45,35,47		8,33
58″	21,55,28,25,20,46,55,59,24,23		1,36,10,18,44	
		1,56,58,24,25,35,17, 3		
60″	21,55,30,22,19,11,21,34,41,26			
exact	21,55,30,22,19,11,21,34,28, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°26′ 0″	21,55,30,22,19,11,21,34,28, 1			
		1,56,58,22,49,24,48,31		
2″	21,55,32,19,17,34,10,59,16,32		1,36,10,35,54	
		1,56,58,21,13,14,12,37		8,33
4″	21,55,34,16,15,55,24,13,29, 9		1,36,10,44,27	
		1,56,58,19,37, 3,28,10		8,33
6″	21,55,36,13,14,15, 1,16,57,19		1,36,10,53, 0	
		1,56,58,18, 0,52,35,10		8,33
8″	21,55,38,10,12,33, 2, 9,32,29		1,36,11, 1,33	
		1,56,58,16,24,41,33,37		8,33
10″	21,55,40, 7,10,49,26,51, 6, 6		1,36,11,10, 6	
		1,56,58,14,48,30,23,31		8,33
12″	21,55,42, 4, 9, 4,15,21,29,37		1,36,11,18,39	
		1,56,58,13,12,19, 4,52		8,33
14″	21,55,44, 1, 7,17,27,40,34,29		1,36,11,27,12	
		1,56,58,11,36, 7,37,40		8,33
16″	21,55,45,58, 5,29, 3,48,12, 9		1,36,11,35,45	
		1,56,58, 9,59,56, 1,55		8,33
18″	21,55,47,55, 3,39, 3,44,14, 4		1,36,11,44,18	
		1,56,58, 8,23,44,17,37		8,33
20″	21,55,49,52, 1,47,27,28,31,41		1,36,11,52,51	
		1,56,58, 6,47,32,24,46		8,33
22″	21,55,51,48,59,54,15, 0,56,27		1,36,12, 1,24	
		1,56,58, 5,11,20,23,22		8,33
24″	21,55,53,45,57,59,26,21,19,49		1,36,12, 9,57	
		1,56,58, 3,35, 8,13,25		8,33
26″	21,55,55,42,56, 3, 1,29,33,14		1,36,12,18,30	
		1,56,58, 1,58,55,54,55		8,33
28″	21,55,57,39,54, 5, 0,25,28, 9		1,36,12,27, 3	
		1,56,58, 0,22,43,27,52		8,33
30″	21,55,59,36,52, 5,23, 8,56, 1		1,36,12,35,36	
		1,56,57,58,46,30,52,16		8,33
32″	21,56, 1,33,50, 4, 9,39,48,17		1,36,12,44, 9	
		1,56,57,57,10,18, 8, 7		8,33
34″	21,56, 3,30,48, 1,19,57,56,24		1,36,12,52,42	
		1,56,57,55,34, 5,15,25		8,33
36″	21,56, 5,27,45,56,54, 3,11,49		1,36,13, 1,15	
		1,56,57,53,57,52,14,10		8,33
38″	21,56, 7,24,43,50,51,55,25,59		1,36,13, 9,48	
		1,56,57,52,21,39, 4,22		8,33
40″	21,56, 9,21,41,43,13,34,30,21		1,36,13,18,21	
		1,56,57,50,45,25,46, 1		8,33
42″	21,56,11,18,39,33,59, 0,16,22		1,36,13,26,54	
		1,56,57,49, 9,12,19, 7		8,33
44″	21,56,13,15,37,23, 8,12,35,29		1,36,13,35,27	
		1,56,57,47,32,58,43,40		8,33
46″	21,56,15,12,35,10,41,11,19, 9		1,36,13,44, 0	
		1,56,57,45,56,44,59,40		8,33
48″	21,56,17, 9,32,56,37,56,18,49		1,36,13,52,33	
		1,56,57,44,20,31, 7, 7		8,33
50″	21,56,19, 6,30,40,58,27,25,56		1,36,14, 1, 6	
		1,56,57,42,44,17, 6, 1		8,33
52″	21,56,21, 3,28,23,42,44,31,57		1,36,14, 9,39	
		1,56,57,41, 8, 2,56,22		8,33
54″	21,56,23, 0,26, 4,50,47,28,19		1,36,14,18,12	
		1,56,57,39,31,48,38,10		8,33
56″	21,56,24,57,23,44,22,36, 6,29		1,36,14,26,45	
		1,56,57,37,55,34,11,25		8,33
58″	21,56,26,54,21,22,18,10,17,54		1,36,14,35,18	
		1,56,57,36,19,19,36, 7		
60″	21,56,28,51,18,58,37,29,54, 1			
exact	21,56,28,51,18,58,37,29,45,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°27′ 0″	21,56,28,51,18,58,37,29,45,33			
		1,56,57,34,43, 4,51,30		
2″	21,56,30,48,16,33,20,34,37, 3		1,36,14,52,26	
		1,56,57,33, 6,49,59, 4		8,33
4″	21,56,32,45,14, 6,27,24,36, 7		1,36,15, 0,59	
		1,56,57,31,30,34,58, 5		8,33
6″	21,56,34,42,11,37,57,59,34,12		1,36,15, 9,32	
		1,56,57,29,54,19,48,33		8,33
8″	21,56,36,39, 9, 7,52,19,22,45		1,36,15,18, 5	
		1,56,57,28,18, 4,30,28		8,33
10″	21,56,38,36, 6,36,10,23,53,13		1,36,15,26,38	
		1,56,57,26,41,49, 3,50		8,33
12″	21,56,40,33, 4, 2,52,12,57, 3		1,36,15,35,11	
		1,56,57,25, 5,33,28,39		8,33
14″	21,56,42,30, 1,27,57,46,25,42		1,36,15,43,44	
		1,56,57,23,29,17,44,55		8,33
16″	21,56,44,26,58,51,27, 4,10,37		1,36,15,52,17	
		1,56,57,21,53, 1,52,38		8,33
18″	21,56,46,23,56,13,20, 6, 3,15		1,36,16, 0,50	
		1,56,57,20,16,45,51,48		8,33
20″	21,56,48,20,53,33,36,51,55, 3		1,36,16, 9,23	
		1,56,57,18,40,29,42,25		8,33
22″	21,56,50,17,50,52,17,21,37,28		1,36,16,17,56	
		1,56,57,17, 4,13,24,29		8,33
24″	21,56,52,14,48, 9,21,35, 1,57		1,36,16,26,29	
		1,56,57,15,27,56,58, 0		8,33
26″	21,56,54,11,45,24,49,31,59,57		1,36,16,35, 2	
		1,56,57,13,51,40,22,58		8,33
28″	21,56,56, 8,42,38,41,12,22,55		1,36,16,43,35	
		1,56,57,12,15,23,39,23		8,33
30″	21,56,58, 5,39,50,56,36, 2,18		1,36,16,52, 8	
		1,56,57,10,39, 6,47,15		8,33
32″	21,57, 0, 2,37, 1,35,42,49,33		1,36,17, 0,41	
		1,56,57, 9, 2,49,46,34		8,33
34″	21,57, 1,59,34,10,38,32,36, 7		1,36,17, 9,14	
		1,56,57, 7,26,32,37,20		8,33
36″	21,57, 3,56,31,18, 5, 5,13,27		1,36,17,17,47	
		1,56,57, 5,50,15,19,33		8,33
38″	21,57, 5,53,28,23,55,20,33, 0		1,36,17,26,20	
		1,56,57, 4,13,57,53,13		8,33
40″	21,57, 7,50,25,28, 9,18,26,13		1,36,17,34,53	
		1,56,57, 2,37,40,18,20		8,33
42″	21,57, 9,47,22,30,46,58,44,33		1,36,17,43,26	
		1,56,57, 1, 1,22,34,54		8,33
44″	21,57,11,44,19,31,48,21,19,27		1,36,17,51,59	
		1,56,56,59,25, 4,42,55		8,33
46″	21,57,13,41,16,31,13,26, 2,22		1,36,18, 0,32	
		1,56,56,57,48,46,42,23		8,33
48″	21,57,15,38,13,29, 2,12,44,45		1,36,18, 9, 5	
		1,56,56,56,12,28,33,18		8,33
50″	21,57,17,35,10,25,14,41,18, 3		1,36,18,17,38	
		1,56,56,54,36,10,15,40		8,33
52″	21,57,19,32, 7,19,50,51,33,43		1,36,18,26,11	
		1,56,56,52,59,51,49,29		8,33
54″	21,57,21,29, 4,12,50,43,23,12		1,36,18,34,44	
		1,56,56,51,23,33,14,45		8,33
56″	21,57,23,26, 1, 4,14,16,37,57		1,36,18,43,17	
		1,56,56,49,47,14,31,28		8,33
58″	21,57,25,22,57,54, 1,31, 9,25		1,36,18,51,50	
		1,56,56,48,10,55,39,38		
60″	21,57,27,19,54,42,12,26,49, 3			
exact	21,57,27,19,54,42,12,26,43,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°28′ 0″	21,57,27,19,54,42,12,26,43,51			
		1,56,56,46,34,36,38,51		
2″	21,57,29,16,51,28,47, 3,22,42		1,36,19, 8,57	
		1,56,56,44,58,17,29,54		8,33
4″	21,57,31,13,48,13,45,20,52,36		1,36,19,17,30	
		1,56,56,43,21,58,12,24		8,33
6″	21,57,33,10,44,57, 7,19, 5, 0		1,36,19,26, 3	
		1,56,56,41,45,38,46,21		8,33
8″	21,57,35, 7,41,38,52,57,51,21		1,36,19,34,36	
		1,56,56,40, 9,19,11,45		8,33
10″	21,57,37, 4,38,19, 2,17, 3, 6		1,36,19,43, 9	
		1,56,56,38,32,59,28,36		8,33
12″	21,57,39, 1,34,57,35,16,31,42		1,36,19,51,42	
		1,56,56,36,56,39,36,54		8,33
14″	21,57,40,58,31,34,31,56, 8,36		1,36,20, 0,15	
		1,56,56,35,20,19,36,39		8,33
16″	21,57,42,55,28, 9,52,15,45,15		1,36,20, 8,48	
		1,56,56,33,43,59,27,51		8,33
18″	21,57,44,52,24,43,36,15,13, 6		1,36,20,17,21	
		1,56,56,32, 7,39,10,30		8,33
20″	21,57,46,49,21,15,43,54,23,36		1,36,20,25,54	
		1,56,56,30,31,18,44,36		8,33
22″	21,57,48,46,17,46,15,13, 8,12		1,36,20,34,27	
		1,56,56,28,54,58,10, 9		8,33
24″	21,57,50,43,14,15,10,11,18,21		1,36,20,43, 0	
		1,56,56,27,18,37,27, 9		8,33
26″	21,57,52,40,10,42,28,48,45,30		1,36,20,51,33	
		1,56,56,25,42,16,35,36		8,33
28″	21,57,54,37, 7, 8,11, 5,21, 6		1,36,21, 0, 6	
		1,56,56,24, 5,55,35,30		8,33
30″	21,57,56,34, 3,32,17, 0,56,36		1,36,21, 8,39	
		1,56,56,22,29,34,26,51		8,33
32″	21,57,58,30,59,54,46,35,23,27		1,36,21,17,12	
		1,56,56,20,53,13, 9,39		8,33
34″	21,58, 0,27,56,15,39,48,33, 6		1,36,21,25,45	
		1,56,56,19,16,51,43,54		8,33
36″	21,58, 2,24,52,34,56,40,17, 0		1,36,21,34,18	
		1,56,56,17,40,30, 9,36		8,33
38″	21,58, 4,21,48,52,37,10,26,36		1,36,21,42,51	
		1,56,56,16, 4, 8,26,45		8,33
40″	21,58, 6,18,45, 8,41,18,53,21		1,36,21,51,24	
		1,56,56,14,27,46,35,21		8,33
42″	21,58, 8,15,41,23, 9, 5,28,42		1,36,21,59,57	
		1,56,56,12,51,24,35,24		8,33
44″	21,58,10,12,37,36, 0,30, 4, 6		1,36,22, 8,30	
		1,56,56,11,15, 2,26,54		8,33
46″	21,58,12, 9,33,47,15,32,31, 0		1,36,22,17, 3	
		1,56,56, 9,38,40, 9,51		8,33
48″	21,58,14, 6,29,56,54,12,40,51		1,36,22,25,36	
		1,56,56, 8, 2,17,44,15		8,33
50″	21,58,16, 3,26, 4,56,30,25, 6		1,36,22,34, 9	
		1,56,56, 6,25,55,10, 6		8,33
52″	21,58,18, 0,22,11,22,25,35,12		1,36,22,42,42	
		1,56,56, 4,49,32,27,24		8,33
54″	21,58,19,57,18,16,11,58, 2,36		1,36,22,51,15	
		1,56,56, 3,13, 9,36, 9		8,33
56″	21,58,21,54,14,19,25, 7,38,45		1,36,22,59,48	
		1,56,56, 1,36,46,36,21		8,33
58″	21,58,23,51,10,21, 1,54,15, 6		1,36,23, 8,21	
		1,56,56, 0, 0,23,28, 0		
60″	21,58,25,48, 6,21, 2,17,43, 6			
exact	21,58,25,48, 6,21, 2,17,46,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°29′ 0″	21,58,25,48, 6,21, 2,17,46,34			
		1,56,55,58,24, 0,11,27		
2″	21,58,27,45, 2,19,26,17,58, 1		1,36,23,25,25	
		1,56,55,56,47,36,46, 2		8,33
4″	21,58,29,41,58,16,13,54,44, 3		1,36,23,33,58	
		1,56,55,55,11,13,12, 4		8,33
6″	21,58,31,38,54,11,25, 7,56, 7		1,36,23,42,31	
		1,56,55,53,34,49,29,33		8,33
8″	21,58,33,35,50, 4,59,57,25,40		1,36,23,51, 4	
		1,56,55,51,58,25,38,29		8,33
10″	21,58,35,32,45,56,58,23, 4, 9		1,36,23,59,37	
		1,56,55,50,22, 1,38,52		8,33
12″	21,58,37,29,41,47,20,24,43, 1		1,36,24, 8,10	
		1,56,55,48,45,37,30,42		8,33
14″	21,58,39,26,37,36, 6, 2,13,43		1,36,24,16,43	
		1,56,55,47, 9,13,13,59		8,33
16″	21,58,41,23,33,23,15,15,27,42		1,36,24,25,16	
		1,56,55,45,32,48,48,43		8,33
18″	21,58,43,20,29, 8,48, 4,16,25		1,36,24,33,49	
		1,56,55,43,56,24,14,54		8,33
20″	21,58,45,17,24,52,44,28,31,19		1,36,24,42,22	
		1,56,55,42,19,59,32,32		8,33
22″	21,58,47,14,20,35, 4,28, 3,51		1,36,24,50,55	
		1,56,55,40,43,34,41,37		8,33
24″	21,58,49,11,16,15,48, 2,45,28		1,36,24,59,28	
		1,56,55,39, 7, 9,42, 9		8,33
26″	21,58,51, 8,11,54,55,12,27,37		1,36,25, 8, 1	
		1,56,55,37,30,44,34, 8		8,33
28″	21,58,53, 5, 7,32,25,57, 1,45		1,36,25,16,34	
		1,56,55,35,54,19,17,34		8,33
30″	21,58,55, 2, 3, 8,20,16,19,19		1,36,25,25, 7	
		1,56,55,34,17,53,52,27		8,33
32″	21,58,56,58,58,42,38,10,11,46		1,36,25,33,40	
		1,56,55,32,41,28,18,47		8,33
34″	21,58,58,55,54,15,19,38,30,33		1,36,25,42,13	
		1,56,55,31, 5, 2,36,34		8,33
36″	21,59, 0,52,49,46,24,41, 7, 7		1,36,25,50,46	
		1,56,55,29,28,36,45,48		8,33
38″	21,59, 2,49,45,15,53,17,52,55		1,36,25,59,19	
		1,56,55,27,52,10,46,29		8,33
40″	21,59, 4,46,40,43,45,28,39,24		1,36,26, 7,52	
		1,56,55,26,15,44,38,37		8,33
42″	21,59, 6,43,36,10, 1,13,18, 1		1,36,26,16,25	
		1,56,55,24,39,18,22,12		8,33
44″	21,59, 8,40,31,34,40,31,40,13		1,36,26,24,58	
		1,56,55,23, 2,51,57,14		8,33
46″	21,59,10,37,26,57,43,23,37,27		1,36,26,33,31	
		1,56,55,21,26,25,23,43		8,33
48″	21,59,12,34,22,19, 9,49, 1,10		1,36,26,42, 4	
		1,56,55,19,49,58,41,39		8,33
50″	21,59,14,31,17,38,59,47,42,49		1,36,26,50,37	
		1,56,55,18,13,31,51, 2		8,33
52″	21,59,16,28,12,57,13,19,33,51		1,36,26,59,10	
		1,56,55,16,37, 4,51,52		8,33
54″	21,59,18,25, 8,13,50,24,25,43		1,36,27, 7,43	
		1,56,55,15, 0,37,44, 9		8,33
56″	21,59,20,22, 3,28,51, 2, 9,52		1,36,27,16,16	
		1,56,55,13,24,10,27,53		8,33
58″	21,59,22,18,58,42,15,12,37,45		1,36,27,24,49	
		1,56,55,11,47,43, 3, 4		
60″	21,59,24,15,53,54, 2,55,40,49			
exact	21,59,24,15,53,54, 2,55,43,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°30′ 0″	21,59,24,15,53,54, 2,55,43,48			
		1,56,55,10,11,15,30,10		
2″	21,59,26,12,49, 4,14,11,13,58		1,36,27,41,52	
		1,56,55, 8,34,47,48,18		8,33
4″	21,59,28, 9,44,12,48,59, 2,16		1,36,27,50,25	
		1,56,55, 6,58,19,57,53		8,33
6″	21,59,30, 6,39,19,47,19, 0, 9		1,36,27,58,58	
		1,56,55, 5,21,51,58,55		8,33
8″	21,59,32, 3,34,25, 9,10,59, 4		1,36,28, 7,31	
		1,56,55, 3,45,23,51,24		8,33
10″	21,59,34, 0,29,28,54,34,50,28		1,36,28,16, 4	
		1,56,55, 2, 8,55,35,20		8,33
12″	21,59,35,57,24,31, 3,30,25,48		1,36,28,24,37	
		1,56,55, 0,32,27,10,43		8,33
14″	21,59,37,54,19,31,35,57,36,31		1,36,28,33,10	
		1,56,54,58,55,58,37,33		8,33
16″	21,59,39,51,14,30,31,56,14, 4		1,36,28,41,43	
		1,56,54,57,19,29,55,50		8,33
18″	21,59,41,48, 9,27,51,26, 9,54		1,36,28,50,16	
		1,56,54,55,43, 1, 5,34		8,33
20″	21,59,43,45, 4,23,34,27,15,28		1,36,28,58,49	
		1,56,54,54, 6,32, 6,45		8,33
22″	21,59,45,41,59,17,40,59,22,13		1,36,29, 7,22	
		1,56,54,52,30, 2,59,23		8,33
24″	21,59,47,38,54,10,11, 2,21,36		1,36,29,15,55	
		1,56,54,50,53,33,43,28		8,33
26″	21,59,49,35,49, 1, 4,36, 5, 4		1,36,29,24,28	
		1,56,54,49,17, 4,19, 0		8,33
28″	21,59,51,32,43,50,21,40,24, 4		1,36,29,33, 1	
		1,56,54,47,40,34,45,59		8,33
30″	21,59,53,29,38,38, 2,15,10, 3		1,36,29,41,34	
		1,56,54,46, 4, 5, 4,25		8,33
32″	21,59,55,26,33,24, 6,20,14,28		1,36,29,50, 7	
		1,56,54,44,27,35,14,18		8,33
34″	21,59,57,23,28, 8,33,55,28,46		1,36,29,58,40	
		1,56,54,42,51, 5,15,38		8,33
36″	21,59,59,20,22,51,25, 0,44,24		1,36,30, 7,13	
		1,56,54,41,14,35, 8,25		8,33
38″	22, 0, 1,17,17,32,39,35,52,49		1,36,30,15,46	
		1,56,54,39,38, 4,52,39		8,33
40″	22, 0, 3,14,12,12,17,40,45,28		1,36,30,24,19	
		1,56,54,38, 1,34,28,20		8,33
42″	22, 0, 5,11, 6,50,19,15,13,48		1,36,30,32,52	
		1,56,54,36,25, 3,55,28		8,33
44″	22, 0, 7, 8, 1,26,44,19, 9,16		1,36,30,41,25	
		1,56,54,34,48,33,14, 3		8,33
46″	22, 0, 9, 4,56, 1,32,52,23,19		1,36,30,49,58	
		1,56,54,33,12, 2,24, 5		8,33
48″	22, 0,11, 1,50,34,44,54,47,24		1,36,30,58,31	
		1,56,54,31,35,31,25,34		8,33
50″	22, 0,12,58,45, 6,20,26,12,58		1,36,31, 7, 4	
		1,56,54,29,59, 0,18,30		8,33
52″	22, 0,14,55,39,36,19,26,31,28		1,36,31,15,37	
		1,56,54,28,22,29, 2,53		8,33
54″	22, 0,16,52,34, 4,41,55,34,21		1,36,31,24,10	
		1,56,54,26,45,57,38,43		8,33
56″	22, 0,18,49,28,31,27,53,13, 4		1,36,31,32,43	
		1,56,54,25, 9,26, 6, 0		8,33
58″	22, 0,20,46,22,56,37,19,19, 4		1,36,31,41,16	
		1,56,54,23,32,54,24,44		
60″	22, 0,22,43,17,20,10,13,43,48			
exact	22, 0,22,43,17,20,10,13,52, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°31′ 0″	22, 0,22,43,17,20,10,13,52, 2			
		1,56,54,21,56,22,35,54		
2″	22, 0,24,40,11,42, 6,36,27,56		1,36,31,58,17	
		1,56,54,20,19,50,37,37		8,33
4″	22, 0,26,37, 6, 2,26,27, 5,33		1,36,32, 6,50	
		1,56,54,18,43,18,30,47		8,33
6″	22, 0,28,34, 0,21, 9,45,36,20		1,36,32,15,23	
		1,56,54,17, 6,46,15,24		8,33
8″	22, 0,30,30,54,38,16,31,51,44		1,36,32,23,56	
		1,56,54,15,30,13,51,28		8,33
10″	22, 0,32,27,48,53,46,45,43,12		1,36,32,32,29	
		1,56,54,13,53,41,18,59		8,33
12″	22, 0,34,24,43, 7,40,27, 2,11		1,36,32,41, 2	
		1,56,54,12,17, 8,37,57		8,33
14″	22, 0,36,21,37,19,57,35,40, 8		1,36,32,49,35	
		1,56,54,10,40,35,48,22		8,33
16″	22, 0,38,18,31,30,38,11,28,30		1,36,32,58, 8	
		1,56,54, 9, 4, 2,50,14		8,33
18″	22, 0,40,15,25,39,42,14,18,44		1,36,33, 6,41	
		1,56,54, 7,27,29,43,33		8,33
20″	22, 0,42,12,19,47, 9,44, 2,17		1,36,33,15,14	
		1,56,54, 5,50,56,28,19		8,33
22″	22, 0,44, 9,13,53, 0,40,30,36		1,36,33,23,47	
		1,56,54, 4,14,23, 4,32		8,33
24″	22, 0,46, 6, 7,57,15, 3,35, 8		1,36,33,32,20	
		1,56,54, 2,37,49,32,12		8,33
26″	22, 0,48, 3, 1,59,52,53, 7,20		1,36,33,40,53	
		1,56,54, 1, 1,15,51,19		8,33
28″	22, 0,49,59,56, 0,54, 8,58,39		1,36,33,49,26	
		1,56,53,59,24,42, 1,53		8,33
30″	22, 0,51,56,50, 0,18,51, 0,32		1,36,33,57,59	
		1,56,53,57,48, 8, 3,54		8,33
32″	22, 0,53,53,43,58, 6,59, 4,26		1,36,34, 6,32	
		1,56,53,56,11,33,57,22		8,33
34″	22, 0,55,50,37,54,18,33, 1,48		1,36,34,15, 5	
		1,56,53,54,34,59,42,17		8,33
36″	22, 0,57,47,31,48,53,32,44, 5		1,36,34,23,38	
		1,56,53,52,58,25,18,39		8,33
38″	22, 0,59,44,25,41,51,58, 2,44		1,36,34,32,11	
		1,56,53,51,21,50,46,28		8,33
40″	22, 1, 1,41,19,33,13,48,49,12		1,36,34,40,44	
		1,56,53,49,45,16, 5,44		8,33
42″	22, 1, 3,38,13,22,59, 4,54,56		1,36,34,49,17	
		1,56,53,48, 8,41,16,27		8,33
44″	22, 1, 5,35, 7,11, 7,46,11,23		1,36,34,57,50	
		1,56,53,46,32, 6,18,37		8,33
46″	22, 1, 7,32, 0,57,39,52,30, 0		1,36,35, 6,23	
		1,56,53,44,55,31,12,14		8,33
48″	22, 1, 9,28,54,42,35,23,42,14		1,36,35,14,56	
		1,56,53,43,18,55,57,18		8,33
50″	22, 1,11,25,48,25,54,19,39,32		1,36,35,23,29	
		1,56,53,41,42,20,33,49		8,33
52″	22, 1,13,22,42, 7,36,40,13,21		1,36,35,32, 2	
		1,56,53,40, 5,45, 1,47		8,33
54″	22, 1,15,19,35,47,42,25,15, 8		1,36,35,40,35	
		1,56,53,38,29, 9,21,12		8,33
56″	22, 1,17,16,29,26,11,34,36,20		1,36,35,49, 8	
		1,56,53,36,52,33,32, 4		8,33
58″	22, 1,19,13,23, 3, 4, 8, 8,24		1,36,35,57,41	
		1,56,53,35,15,57,34,23		
60″	22, 1,21,10,16,38,20, 5,42,47			
exact	22, 1,21,10,16,38,20, 5,54,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°32′ 0″	22, 1,21,10,16,38,20, 5,54,14			
		1,56,53,33,39,21,29,31		
2″	22, 1,23, 7,10,11,59,27,23,45		1,36,36,14,41	
		1,56,53,32, 2,45,14,50		8,33
4″	22, 1,25, 4, 3,44, 2,12,38,35		1,36,36,23,14	
		1,56,53,30,26, 8,51,36		8,33
6″	22, 1,27, 0,57,14,28,21,30,11		1,36,36,31,47	
		1,56,53,28,49,32,19,49		8,33
8″	22, 1,28,57,50,43,17,53,50, 0		1,36,36,40,20	
		1,56,53,27,12,55,39,29		8,33
10″	22, 1,30,54,44,10,30,49,29,29		1,36,36,48,53	
		1,56,53,25,36,18,50,36		8,33
12″	22, 1,32,51,37,36, 7, 8,20, 5		1,36,36,57,26	
		1,56,53,23,59,41,53,10		8,33
14″	22, 1,34,48,31, 0, 6,50,13,15		1,36,37, 5,59	
		1,56,53,22,23, 4,47,11		8,33
16″	22, 1,36,45,24,22,29,55, 0,26		1,36,37,14,32	
		1,56,53,20,46,27,32,39		8,33
18″	22, 1,38,42,17,43,16,22,33, 5		1,36,37,23, 5	
		1,56,53,19, 9,50, 9,34		8,33
20″	22, 1,40,39,11, 2,26,12,42,39		1,36,37,31,38	
		1,56,53,17,33,12,37,56		8,33
22″	22, 1,42,36, 4,19,59,25,20,35		1,36,37,40,11	
		1,56,53,15,56,34,57,45		8,33
24″	22, 1,44,32,57,35,56, 0,18,20		1,36,37,48,44	
		1,56,53,14,19,57, 9, 1		8,33
26″	22, 1,46,29,50,50,15,57,27,21		1,36,37,57,17	
		1,56,53,12,43,19,11,44		8,33
28″	22, 1,48,26,44, 2,59,16,39, 5		1,36,38, 5,50	
		1,56,53,11, 6,41, 5,54		8,33
30″	22, 1,50,23,37,14, 5,57,44,59		1,36,38,14,23	
		1,56,53, 9,30, 2,51,31		8,33
32″	22, 1,52,20,30,23,36, 0,36,30		1,36,38,22,56	
		1,56,53, 7,53,24,28,35		8,33
34″	22, 1,54,17,23,31,29,25, 5, 5		1,36,38,31,29	
		1,56,53, 6,16,45,57, 6		8,33
36″	22, 1,56,14,16,37,46,11, 2,11		1,36,38,40, 2	
		1,56,53, 4,40, 7,17, 4		8,33
38″	22, 1,58,11, 9,42,26,18,19,15		1,36,38,48,35	
		1,56,53, 3, 3,28,28,29		8,33
40″	22, 2, 0, 8, 2,45,29,46,47,44		1,36,38,57, 8	
		1,56,53, 1,26,49,31,21		8,33
42″	22, 2, 2, 4,55,46,56,36,19, 5		1,36,39, 5,41	
		1,56,52,59,50,10,25,40		8,33
44″	22, 2, 4, 1,48,46,46,46,44,45		1,36,39,14,14	
		1,56,52,58,13,31,11,26		8,33
46″	22, 2, 5,58,41,45, 0,17,56,11		1,36,39,22,47	
		1,56,52,56,36,51,48,39		8,33
48″	22, 2, 7,55,34,41,37, 9,44,50		1,36,39,31,20	
		1,56,52,55, 0,12,17,19		8,33
50″	22, 2, 9,52,27,36,37,22, 2, 9		1,36,39,39,53	
		1,56,52,53,23,32,37,26		8,33
52″	22, 2,11,49,20,30, 0,54,39,35		1,36,39,48,26	
		1,56,52,51,46,52,49, 0		8,33
54″	22, 2,13,46,13,21,47,47,28,35		1,36,39,56,59	
		1,56,52,50,10,12,52, 1		8,33
56″	22, 2,15,43, 6,11,58, 0,20,36		1,36,40, 5,32	
		1,56,52,48,33,32,46,29		8,33
58″	22, 2,17,39,59, 0,31,33, 7, 5		1,36,40,14, 5	
		1,56,52,46,56,52,32,24		
60″	22, 2,19,36,51,47,28,25,39,29			
exact	22, 2,19,36,51,47,28,25,59,48			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
21°33′	0″	22, 2,19,36,51,47,28,25,59,48	1,56,52,45,20,12,11,54		
	2″	22, 2,21,33,44,32,48,38,11,42	1,56,52,43,43,31,40,52	1,36,40,31, 2	8,33
	4″	22, 2,23,30,37,16,32, 9,52,34	1,56,52,42, 6,51, 1,17	1,36,40,39,35	8,33
	6″	22, 2,25,27,29,58,39, 0,53,51	1,56,52,40,30,10,13, 9	1,36,40,48, 8	8,33
	8″	22, 2,27,24,22,39, 9,11, 7, 0	1,56,52,38,53,29,16,28	1,36,40,56,41	8,33
	10″	22, 2,29,21,15,18, 2,40,23,28	1,56,52,37,16,48,11,14	1,36,41, 5,14	8,33
	12″	22, 2,31,18, 7,55,19,28,34,42	1,56,52,35,40, 6,57,27	1,36,41,13,47	8,33
	14″	22, 2,33,15, 0,30,59,35,32, 9	1,56,52,34, 3,25,35, 7	1,36,41,22,20	8,33
	16″	22, 2,35,11,53, 5, 3, 1, 7,16	1,56,52,32,26,44, 4,14	1,36,41,30,53	8,33
	18″	22, 2,37, 8,45,37,29,45,11,30	1,56,52,30,50, 2,24,48	1,36,41,39,26	8,33
	20″	22, 2,39, 5,38, 8,19,47,36,18	1,56,52,29,13,20,36,49	1,36,41,47,59	8,33
	22″	22, 2,41, 2,30,37,33, 8,13, 7	1,56,52,27,36,38,40,17	1,36,41,56,32	8,33
	24″	22, 2,42,59,23, 5, 9,46,53,24	1,56,52,25,59,56,35,12	1,36,42, 5, 5	8,33
	26″	22, 2,44,56,15,31, 9,43,28,36	1,56,52,24,23,14,21,34	1,36,42,13,38	8,33
	28″	22, 2,46,53, 7,55,32,57,50,10	1,56,52,22,46,31,59,23	1,36,42,22,11	8,33
	30″	22, 2,48,50, 0,18,19,29,49,33	1,56,52,21, 9,49,28,39	1,36,42,30,44	8,33
	32″	22, 2,50,46,52,39,29,19,18,12	1,56,52,19,33, 6,49,22	1,36,42,39,17	8,33
	34″	22, 2,52,43,44,59, 2,26, 7,34	1,56,52,17,56,24, 1,32	1,36,42,47,50	8,33
	36″	22, 2,54,40,37,16,58,50, 9, 6	1,56,52,16,19,41, 5, 9	1,36,42,56,23	8,33
	38″	22, 2,56,37,29,33,18,31,14,15	1,56,52,14,42,58, 0,13	1,36,43, 4,56	8,33
	40″	22, 2,58,34,21,48, 1,29,14,28	1,56,52,13, 6,14,46,44	1,36,43,13,29	8,33
	42″	22, 3, 0,31,14, 1, 7,44, 1,12	1,56,52,11,29,31,24,42	1,36,43,22, 2	8,33
	44″	22, 3, 2,28, 6,12,37,15,25,54	1,56,52, 9,52,47,54, 7	1,36,43,30,35	8,33
	46″	22, 3, 4,24,58,22,30, 3,20, 1	1,56,52, 8,16, 4,14,59	1,36,43,39, 8	8,33
	48″	22, 3, 6,21,50,30,46, 7,35, 0	1,56,52, 6,39,20,27,18	1,36,43,47,41	8,33
	50″	22, 3, 8,18,42,37,25,28, 2,18	1,56,52, 5, 2,36,31, 4	1,36,43,56,14	8,33
	52″	22, 3,10,15,34,42,28, 4,33,22	1,56,52, 3,25,52,26,17	1,36,44, 4,47	8,33
	54″	22, 3,12,12,26,45,53,56,59,39	1,56,52, 1,49, 8,12,57	1,36,44,13,20	8,33
	56″	22, 3,14, 9,18,47,43, 5,12,36	1,56,52, 0,12,23,51, 4	1,36,44,21,53	8,33
	58″	22, 3,16, 6,10,47,55,29, 3,40	1,56,51,58,35,39,20,38	1,36,44,30,26	
	60″	22, 3,18, 3, 2,46,31, 8,24,18			
exact		22, 3,18, 3, 2,46,31, 8,44,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°34′ 0″	22, 3,18, 3, 2,46,31, 8,44,40			
		1,56,51,56,58,54,43,56		
2″	22, 3,19,59,54,43,30, 3,28,36		1,36,44,47,22	
		1,56,51,55,22, 9,56,34		8,33
4″	22, 3,21,56,46,38,52,13,25,10		1,36,44,55,55	
		1,56,51,53,45,25, 0,39		8,33
6″	22, 3,23,53,38,32,37,38,25,49		1,36,45, 4,28	
		1,56,51,52, 8,39,56,11		8,33
8″	22, 3,25,50,30,24,46,18,22, 0		1,36,45,13, 1	
		1,56,51,50,31,54,43,10		8,33
10″	22, 3,27,47,22,15,18,13, 5,10		1,36,45,21,34	
		1,56,51,48,55, 9,21,36		8,33
12″	22, 3,29,44,14, 4,13,22,26,46		1,36,45,30, 7	
		1,56,51,47,18,23,51,29		8,33
14″	22, 3,31,41, 5,51,31,46,18,15		1,36,45,38,40	
		1,56,51,45,41,38,12,49		8,33
16″	22, 3,33,37,57,37,13,24,31, 4		1,36,45,47,13	
		1,56,51,44, 4,52,25,36		8,33
18″	22, 3,35,34,49,21,18,16,56,40		1,36,45,55,46	
		1,56,51,42,28, 6,29,50		8,33
20″	22, 3,37,31,41, 3,46,23,26,30		1,36,46, 4,19	
		1,56,51,40,51,20,25,31		8,33
22″	22, 3,39,28,32,44,37,43,52, 1		1,36,46,12,52	
		1,56,51,39,14,34,12,39		8,33
24″	22, 3,41,25,24,23,52,18, 4,40		1,36,46,21,25	
		1,56,51,37,37,47,51,14		8,33
26″	22, 3,43,22,16, 1,30, 5,55,54		1,36,46,29,58	
		1,56,51,36, 1, 1,21,16		8,33
28″	22, 3,45,19, 7,37,31, 7,17,10		1,36,46,38,31	
		1,56,51,34,24,14,42,45		8,33
30″	22, 3,47,15,59,11,55,21,59,55		1,36,46,47, 4	
		1,56,51,32,47,27,55,41		8,33
32″	22, 3,49,12,50,44,42,49,55,36		1,36,46,55,37	
		1,56,51,31,10,41, 0, 4		8,33
34″	22, 3,51, 9,42,15,53,30,55,40		1,36,47, 4,10	
		1,56,51,29,33,53,55,54		8,33
36″	22, 3,53, 6,33,45,27,24,51,34		1,36,47,12,43	
		1,56,51,27,57, 6,43,11		8,33
38″	22, 3,55, 3,25,13,24,31,34,45		1,36,47,21,16	
		1,56,51,26,20,19,21,55		8,33
40″	22, 3,57, 0,16,39,44,50,56,40		1,36,47,29,49	
		1,56,51,24,43,31,52, 6		8,33
42″	22, 3,58,57, 8, 4,28,22,48,46		1,36,47,38,22	
		1,56,51,23, 6,44,13,44		8,33
44″	22, 4, 0,53,59,27,35, 7, 2,30		1,36,47,46,55	
		1,56,51,21,29,56,26,49		8,33
46″	22, 4, 2,50,50,49, 5, 3,29,19		1,36,47,55,28	
		1,56,51,19,53, 8,31,21		8,33
48″	22, 4, 4,47,42, 8,58,12, 0,40		1,36,48, 4, 1	
		1,56,51,18,16,20,27,20		8,33
50″	22, 4, 6,44,33,27,14,32,28, 0		1,36,48,12,34	
		1,56,51,16,39,32,14,46		8,33
52″	22, 4, 8,41,24,43,54, 4,42,46		1,36,48,21, 7	
		1,56,51,15, 2,43,53,39		8,33
54″	22, 4,10,38,15,58,56,48,36,25		1,36,48,29,40	
		1,56,51,13,25,55,23,59		8,33
56″	22, 4,12,35, 7,12,22,44, 0,24		1,36,48,38,13	
		1,56,51,11,49, 6,45,46		8,33
58″	22, 4,14,31,58,24,11,50,46,10		1,36,48,46,46	
		1,56,51,10,12,17,59, 0		
60″	22, 4,16,28,49,34,24, 8,45,10			
exact	22, 4,16,28,49,34,24, 9,11,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°35′ 0″	22, 4,16,28,49,34,24, 9,11,12			
		1,56,51, 8,35,29, 6,30		
2″	22, 4,18,25,40,42,59,38,17,42		1,36,49, 3,40	
		1,56,51, 6,58,40, 2,50		8,33
4″	22, 4,20,22,31,49,58,18,20,32		1,36,49,12,13	
		1,56,51, 5,21,50,50,37		8,33
6″	22, 4,22,19,22,55,20, 9,11, 9		1,36,49,20,46	
		1,56,51, 3,45, 1,29,51		8,33
8″	22, 4,24,16,13,59, 5,10,41, 0		1,36,49,29,19	
		1,56,51, 2, 8,12, 0,32		8,33
10″	22, 4,26,13, 5, 1,13,22,41,32		1,36,49,37,52	
		1,56,51, 0,31,22,22,40		8,33
12″	22, 4,28, 9,56, 1,44,45, 4,12		1,36,49,46,25	
		1,56,50,58,54,32,36,15		8,33
14″	22, 4,30, 6,47, 0,39,17,40,27		1,36,49,54,58	
		1,56,50,57,17,42,41,17		8,33
16″	22, 4,32, 3,37,57,57, 0,21,44		1,36,50, 3,31	
		1,56,50,55,40,52,37,46		8,33
18″	22, 4,34, 0,28,53,37,52,59,30		1,36,50,12, 4	
		1,56,50,54, 4, 2,25,42		8,33
20″	22, 4,35,57,19,47,41,55,25,12		1,36,50,20,37	
		1,56,50,52,27,12, 5, 5		8,33
22″	22, 4,37,54,10,40, 9, 7,30,17		1,36,50,29,10	
		1,56,50,50,50,21,35,55		8,33
24″	22, 4,39,51, 1,30,59,29, 6,12		1,36,50,37,43	
		1,56,50,49,13,30,58,12		8,33
26″	22, 4,41,47,52,20,13, 0, 4,24		1,36,50,46,16	
		1,56,50,47,36,40,11,56		8,33
28″	22, 4,43,44,43, 7,49,40,16,20		1,36,50,54,49	
		1,56,50,45,59,49,17, 7		8,33
30″	22, 4,45,41,33,53,49,29,33,27		1,36,51, 3,22	
		1,56,50,44,22,58,13,45		8,33
32″	22, 4,47,38,24,38,12,27,47,12		1,36,51,11,55	
		1,56,50,42,46, 7, 1,50		8,33
34″	22, 4,49,35,15,20,58,34,49, 2		1,36,51,20,28	
		1,56,50,41, 9,15,41,22		8,33
36″	22, 4,51,32, 6, 2, 7,50,30,24		1,36,51,29, 1	
		1,56,50,39,32,24,12,21		8,33
38″	22, 4,53,28,56,41,40,14,42,45		1,36,51,37,34	
		1,56,50,37,55,32,34,47		8,33
40″	22, 4,55,25,47,19,35,47,17,32		1,36,51,46, 7	
		1,56,50,36,18,40,48,40		8,33
42″	22, 4,57,22,37,55,54,28, 6,12		1,36,51,54,40	
		1,56,50,34,41,48,54, 0		8,33
44″	22, 4,59,19,28,30,36,17, 0,12		1,36,52, 3,13	
		1,56,50,33, 4,56,50,47		8,33
46″	22, 5, 1,16,19, 3,41,13,50,59		1,36,52,11,46	
		1,56,50,31,28, 4,39, 1		8,33
48″	22, 5, 3,13, 9,35, 9,18,30, 0		1,36,52,20,19	
		1,56,50,29,51,12,18,42		8,33
50″	22, 5, 5,10, 0, 5, 0,30,48,42		1,36,52,28,52	
		1,56,50,28,14,19,49,50		8,33
52″	22, 5, 7, 6,50,33,14,50,38,32		1,36,52,37,25	
		1,56,50,26,37,27,12,25		8,33
54″	22, 5, 9, 3,40,59,52,17,50,57		1,36,52,45,58	
		1,56,50,25, 0,34,26,27		8,33
56″	22, 5,11, 0,31,24,52,52,17,24		1,36,52,54,31	
		1,56,50,23,23,41,31,56		8,33
58″	22, 5,12,57,21,48,16,33,49,20		1,36,53, 3, 4	
		1,56,50,21,46,48,28,52		
60″	22, 5,14,54,12,10, 3,22,18,12			
exact	22, 5,14,54,12,10, 3,22,48,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°36′ 0″	22, 5,14,54,12,10, 3,22,48,20			
		1,56,50,20, 9,55,20,30		
2″	22, 5,16,51, 2,30,13,18, 8,50		1,36,53,19,56	
		1,56,50,18,33, 2, 0,34		8,33
4″	22, 5,18,47,52,48,46,20, 9,24		1,36,53,28,29	
		1,56,50,16,56, 8,32, 5		8,33
6″	22, 5,20,44,43, 5,42,28,41,29		1,36,53,37, 2	
		1,56,50,15,19,14,55, 3		8,33
8″	22, 5,22,41,33,21, 1,43,36,32		1,36,53,45,35	
		1,56,50,13,42,21, 9,28		8,33
10″	22, 5,24,38,23,34,44, 4,46, 0		1,36,53,54, 8	
		1,56,50,12, 5,27,15,20		8,33
12″	22, 5,26,35,13,46,49,32, 1,20		1,36,54, 2,41	
		1,56,50,10,28,33,12,39		8,33
14″	22, 5,28,32, 3,57,18, 5,13,59		1,36,54,11,14	
		1,56,50, 8,51,39, 1,25		8,33
16″	22, 5,30,28,54, 6, 9,44,15,24		1,36,54,19,47	
		1,56,50, 7,14,44,41,38		8,33
18″	22, 5,32,25,44,13,24,28,57, 2		1,36,54,28,20	
		1,56,50, 5,37,50,13,18		8,33
20″	22, 5,34,22,34,19, 2,19,10,20		1,36,54,36,53	
		1,56,50, 4, 0,55,36,25		8,33
22″	22, 5,36,19,24,23, 3,14,46,45		1,36,54,45,26	
		1,56,50, 2,24, 0,50,59		8,33
24″	22, 5,38,16,14,25,27,15,37,44		1,36,54,53,59	
		1,56,50, 0,47, 5,57, 0		8,33
26″	22, 5,40,13, 4,26,14,21,34,44		1,36,55, 2,32	
		1,56,49,59,10,10,54,28		8,33
28″	22, 5,42, 9,54,25,24,32,29,12		1,36,55,11, 5	
		1,56,49,57,33,15,43,23		8,33
30″	22, 5,44, 6,44,22,57,48,12,35		1,36,55,19,38	
		1,56,49,55,56,20,23,45		8,33
32″	22, 5,46, 3,34,18,54, 8,36,20		1,36,55,28,11	
		1,56,49,54,19,24,55,34		8,33
34″	22, 5,48, 0,24,13,13,33,31,54		1,36,55,36,44	
		1,56,49,52,42,29,18,50		8,33
36″	22, 5,49,57,14, 5,56, 2,50,44		1,36,55,45,17	
		1,56,49,51, 5,33,33,33		8,33
38″	22, 5,51,54, 3,57, 1,36,24,17		1,36,55,53,50	
		1,56,49,49,28,37,39,43		8,33
40″	22, 5,53,50,53,46,30,14, 4, 0		1,36,56, 2,23	
		1,56,49,47,51,41,37,20		8,33
42″	22, 5,55,47,43,34,21,55,41,20		1,36,56,10,56	
		1,56,49,46,14,45,26,24		8,33
44″	22, 5,57,44,33,20,36,41, 7,44		1,36,56,19,29	
		1,56,49,44,37,49, 6,55		8,33
46″	22, 5,59,41,23, 5,14,30,14,39		1,36,56,28, 2	
		1,56,49,43, 0,52,38,53		8,33
48″	22, 6, 1,38,12,48,15,22,53,32		1,36,56,36,35	
		1,56,49,41,23,56, 2,18		8,33
50″	22, 6, 3,35, 2,29,39,18,55,50		1,36,56,45, 8	
		1,56,49,39,46,59,17,10		8,33
52″	22, 6, 5,31,52, 9,26,18,13, 0		1,36,56,53,41	
		1,56,49,38,10, 2,23,29		8,33
54″	22, 6, 7,28,41,47,36,20,36,29		1,36,57, 2,14	
		1,56,49,36,33, 5,21,15		8,33
56″	22, 6, 9,25,31,24, 9,25,57,44		1,36,57,10,47	
		1,56,49,34,56, 8,10,28		8,33
58″	22, 6,11,22,20,59, 5,34, 8,12		1,36,57,19,20	
		1,56,49,33,19,10,51, 8		
60″	22, 6,13,19,10,32,24,44,59,20			
exact	22, 6,13,19,10,32,24,45,31,32			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
21°37′	0″	22, 6,13,19,10,32,24,45,31,32			
			1,56,49,31,42,13,26,48		
	2″	22, 6,15,16, 0, 4, 6,58,58,20		1,36,57,36,11	
			1,56,49,30, 5,15,50,37		8,32
	4″	22, 6,17,12,49,34,12,14,48,57		1,36,57,44,43	
			1,56,49,28,28,18, 5,54		8,32
	6″	22, 6,19, 9,39, 2,40,32,54,51		1,36,57,53,15	
			1,56,49,26,51,20,12,39		8,32
	8″	22, 6,21, 6,28,29,31,53, 7,30		1,36,58, 1,47	
			1,56,49,25,14,22,10,52		8,32
	10″	22, 6,23, 3,17,54,46,15,18,22		1,36,58,10,19	
			1,56,49,23,37,24, 0,33		8,32
	12″	22, 6,25, 0, 7,18,23,39,18,55		1,36,58,18,51	
			1,56,49,22, 0,25,41,42		8,32
	14″	22, 6,26,56,56,40,24, 5, 0,37		1,36,58,27,23	
			1,56,49,20,23,27,14,19		8,32
	16″	22, 6,28,53,46, 0,47,32,14,56		1,36,58,35,55	
			1,56,49,18,46,28,38,24		8,32
	18″	22, 6,30,50,35,19,34, 0,53,20		1,36,58,44,27	
			1,56,49,17, 9,29,53,57		8,32
	20″	22, 6,32,47,24,36,43,30,47,17		1,36,58,52,59	
			1,56,49,15,32,31, 0,58		8,32
	22″	22, 6,34,44,13,52,16, 1,48,15		1,36,59, 1,31	
			1,56,49,13,55,31,59,27		8,32
	24″	22, 6,36,41, 3, 6,11,33,47,42		1,36,59,10, 3	
			1,56,49,12,18,32,49,24		8,32
	26″	22, 6,38,37,52,18,30, 6,37, 6		1,36,59,18,35	
			1,56,49,10,41,33,30,49		8,32
	28″	22, 6,40,34,41,29,11,40, 7,55		1,36,59,27, 7	
			1,56,49, 9, 4,34, 3,42		8,32
	30″	22, 6,42,31,30,38,16,14,11,37		1,36,59,35,39	
			1,56,49, 7,27,34,28, 3		8,32
	32″	22, 6,44,28,19,45,43,48,39,40		1,36,59,44,11	
			1,56,49, 5,50,34,43,52		8,32
	34″	22, 6,46,25, 8,51,34,23,23,32		1,36,59,52,43	
			1,56,49, 4,13,34,51, 9		8,32
	36″	22, 6,48,21,57,55,47,58,14,41		1,37, 0, 1,15	
			1,56,49, 2,36,34,49,54		8,32
	38″	22, 6,50,18,46,58,24,33, 4,35		1,37, 0, 9,47	
			1,56,49, 0,59,34,40, 7		8,32
	40″	22, 6,52,15,35,59,24, 7,44,42		1,37, 0,18,19	
			1,56,48,59,22,34,21,48		8,32
	42″	22, 6,54,12,24,58,46,42, 6,30		1,37, 0,26,51	
			1,56,48,57,45,33,54,57		8,32
	44″	22, 6,56, 9,13,56,32,16, 1,27		1,37, 0,35,23	
			1,56,48,56, 8,33,19,34		8,32
	46″	22, 6,58, 6, 2,52,40,49,21, 1		1,37, 0,43,55	
			1,56,48,54,31,32,35,39		8,32
	48″	22, 7, 0, 2,51,47,12,21,56,40		1,37, 0,52,27	
			1,56,48,52,54,31,43,12		8,32
	50″	22, 7, 1,59,40,40, 6,53,39,52		1,37, 1, 0,59	
			1,56,48,51,17,30,42,13		8,32
	52″	22, 7, 3,56,29,31,24,24,22, 5		1,37, 1, 9,31	
			1,56,48,49,40,29,32,42		8,32
	54″	22, 7, 5,53,18,21, 4,53,54,47		1,37, 1,18, 3	
			1,56,48,48, 3,28,14,39		8,32
	56″	22, 7, 7,50, 7, 9, 8,22, 9,26		1,37, 1,26,35	
			1,56,48,46,26,26,48, 4		8,32
	58″	22, 7, 9,46,55,55,34,48,57,30		1,37, 1,35, 7	
			1,56,48,44,49,25,12,57		
	60″	22, 7,11,43,44,40,24,14,10,27			
exact		22, 7,11,43,44,40,24,13,42,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°38′ 0″	22, 7,11,43,44,40,24,13,42,51			
		1,56,48,43,12,23,26,18		
2″	22, 7,13,40,33,23,36,37, 9, 9		1,37, 1,52,23	
		1,56,48,41,35,21,33,55		8,32
4″	22, 7,15,37,22, 5,11,58,43, 4		1,37, 2, 0,55	
		1,56,48,39,58,19,33, 0		8,32
6″	22, 7,17,34,10,45,10,18,16, 4		1,37, 2, 9,27	
		1,56,48,38,21,17,23,33		8,32
8″	22, 7,19,30,59,23,31,35,39,37		1,37, 2,17,59	
		1,56,48,36,44,15, 5,34		8,32
10″	22, 7,21,27,48, 0,15,50,45,11		1,37, 2,26,31	
		1,56,48,35, 7,12,39, 3		8,32
12″	22, 7,23,24,36,35,23, 3,24,14		1,37, 2,35, 3	
		1,56,48,33,30,10, 4, 0		8,32
14″	22, 7,25,21,25, 8,53,13,28,14		1,37, 2,43,35	
		1,56,48,31,53, 7,20,25		8,32
16″	22, 7,27,18,13,40,46,20,48,39		1,37, 2,52, 7	
		1,56,48,30,16, 4,28,18		8,32
18″	22, 7,29,15, 2,11, 2,25,16,57		1,37, 3, 0,39	
		1,56,48,28,39, 1,27,39		8,32
20″	22, 7,31,11,50,39,41,26,44,36		1,37, 3, 9,11	
		1,56,48,27, 1,58,18,28		8,32
22″	22, 7,33, 8,39, 6,43,25, 3, 4		1,37, 3,17,43	
		1,56,48,25,24,55, 0,45		8,32
24″	22, 7,35, 5,27,32, 8,20, 3,49		1,37, 3,26,15	
		1,56,48,23,47,51,34,30		8,32
26″	22, 7,37, 2,15,55,56,11,38,19		1,37, 3,34,47	
		1,56,48,22,10,47,59,43		8,32
28″	22, 7,38,59, 4,18, 6,59,38, 2		1,37, 3,43,19	
		1,56,48,20,33,44,16,24		8,32
30″	22, 7,40,55,52,38,40,43,54,26		1,37, 3,51,51	
		1,56,48,18,56,40,24,33		8,32
32″	22, 7,42,52,40,57,37,24,18,59		1,37, 4, 0,23	
		1,56,48,17,19,36,24,10		8,32
34″	22, 7,44,49,29,14,57, 0,43, 9		1,37, 4, 8,55	
		1,56,48,15,42,32,15,15		8,32
36″	22, 7,46,46,17,30,39,32,58,24		1,37, 4,17,27	
		1,56,48,14, 5,27,57,48		8,32
38″	22, 7,48,43, 5,44,45, 0,56,12		1,37, 4,25,59	
		1,56,48,12,28,23,31,49		8,32
40″	22, 7,50,39,53,57,13,24,28, 1		1,37, 4,34,31	
		1,56,48,10,51,18,57,18		8,32
42″	22, 7,52,36,42, 8, 4,43,25,19		1,37, 4,43, 3	
		1,56,48, 9,14,14,14,15		8,32
44″	22, 7,54,33,30,17,18,57,39,34		1,37, 4,51,35	
		1,56,48, 7,37, 9,22,40		8,32
46″	22, 7,56,30,18,24,56, 7, 2,14		1,37, 5, 0, 7	
		1,56,48, 6, 0, 4,22,33		8,32
48″	22, 7,58,27, 6,30,56,11,24,47		1,37, 5, 8,39	
		1,56,48, 4,22,59,13,54		8,32
50″	22, 8, 0,23,54,35,19,10,38,41		1,37, 5,17,11	
		1,56,48, 2,45,53,56,43		8,32
52″	22, 8, 2,20,42,38, 5, 4,35,24		1,37, 5,25,43	
		1,56,48, 1, 8,48,31, 0		8,32
54″	22, 8, 4,17,30,39,13,53, 6,24		1,37, 5,34,15	
		1,56,47,59,31,42,56,45		8,32
56″	22, 8, 6,14,18,38,45,36, 3, 9		1,37, 5,42,47	
		1,56,47,57,54,37,13,58		8,32
58″	22, 8, 8,11, 6,36,40,13,17, 7		1,37, 5,51,19	
		1,56,47,56,17,31,22,39		
60″	22, 8,10, 7,54,32,57,44,39,46			
exact	22, 8,10, 7,54,32,57,44,10,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°39′ 0″	22, 8,10, 7,54,32,57,44,10,53			
		1,56,47,54,40,25,19,52		
2″	22, 8,12, 4,42,27,38, 9,30,45		1,37, 6, 8,34	
		1,56,47,53, 3,19,11,18		8,32
4″	22, 8,14, 1,30,20,41,28,42, 3		1,37, 6,17, 6	
		1,56,47,51,26,12,54,12		8,32
6″	22, 8,15,58,18,12, 7,41,36,15		1,37, 6,25,38	
		1,56,47,49,49, 6,28,34		8,32
8″	22, 8,17,55, 6, 1,56,48, 4,49		1,37, 6,34,10	
		1,56,47,48,11,59,54,24		8,32
10″	22, 8,19,51,53,50, 8,47,59,13		1,37, 6,42,42	
		1,56,47,46,34,53,11,42		8,32
12″	22, 8,21,48,41,36,43,41,10,55		1,37, 6,51,14	
		1,56,47,44,57,46,20,28		8,32
14″	22, 8,23,45,29,21,41,27,31,23		1,37, 6,59,46	
		1,56,47,43,20,39,20,42		8,32
16″	22, 8,25,42,17, 5, 2, 6,52, 5		1,37, 7, 8,18	
		1,56,47,41,43,32,12,24		8,32
18″	22, 8,27,39, 4,46,45,39, 4,29		1,37, 7,16,50	
		1,56,47,40, 6,24,55,34		8,32
20″	22, 8,29,35,52,26,52, 4, 0, 3		1,37, 7,25,22	
		1,56,47,38,29,17,30,12		8,32
22″	22, 8,31,32,40, 5,21,21,30,15		1,37, 7,33,54	
		1,56,47,36,52, 9,56,18		8,32
24″	22, 8,33,29,27,42,13,31,26,33		1,37, 7,42,26	
		1,56,47,35,15, 2,13,52		8,32
26″	22, 8,35,26,15,17,28,33,40,25		1,37, 7,50,58	
		1,56,47,33,37,54,22,54		8,32
28″	22, 8,37,23, 2,51, 6,28, 3,19		1,37, 7,59,30	
		1,56,47,32, 0,46,23,24		8,32
30″	22, 8,39,19,50,23, 7,14,26,43		1,37, 8, 8, 2	
		1,56,47,30,23,38,15,22		8,32
32″	22, 8,41,16,37,53,30,52,42, 5		1,37, 8,16,34	
		1,56,47,28,46,29,58,48		8,32
34″	22, 8,43,13,25,22,17,22,40,53		1,37, 8,25, 6	
		1,56,47,27, 9,21,33,42		8,32
36″	22, 8,45,10,12,49,26,44,14,35		1,37, 8,33,38	
		1,56,47,25,32,13, 0, 4		8,32
38″	22, 8,47, 7, 0,14,58,57,14,39		1,37, 8,42,10	
		1,56,47,23,55, 4,17,54		8,32
40″	22, 8,49, 3,47,38,54, 1,32,33		1,37, 8,50,42	
		1,56,47,22,17,55,27,12		8,32
42″	22, 8,51, 0,35, 1,11,56,59,45		1,37, 8,59,14	
		1,56,47,20,40,46,27,58		8,32
44″	22, 8,52,57,22,21,52,43,27,43		1,37, 9, 7,46	
		1,56,47,19, 3,37,20,12		8,32
46″	22, 8,54,54, 9,40,56,20,47,55		1,37, 9,16,18	
		1,56,47,17,26,28, 3,54		8,32
48″	22, 8,56,50,56,58,22,48,51,49		1,37, 9,24,50	
		1,56,47,15,49,18,39, 4		8,32
50″	22, 8,58,47,44,14,12, 7,30,53		1,37, 9,33,22	
		1,56,47,14,12, 9, 5,42		8,32
52″	22, 9, 0,44,31,28,24,16,36,35		1,37, 9,41,54	
		1,56,47,12,34,59,23,48		8,32
54″	22, 9, 2,41,18,40,59,16, 0,23		1,37, 9,50,26	
		1,56,47,10,57,49,33,22		8,32
56″	22, 9, 4,38, 5,51,57, 5,33,45		1,37, 9,58,58	
		1,56,47, 9,20,39,34,24		8,32
58″	22, 9, 6,34,53, 1,17,45, 8, 9		1,37,10, 7,30	
		1,56,47, 7,43,29,26,54		
60″	22, 9, 8,31,40, 9, 1,14,35, 3			
exact	22, 9, 8,31,40, 9, 1,14,10,51			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
21°40′	0″	22, 9, 8,31,40, 9, 1,14,10,51	1,56,47, 6, 6,19, 8,24		
	2″	22, 9,10,28,27,15, 7,33,19,15	1,56,47, 4,29, 8,43,40	1,37,10,24,44	
	4″	22, 9,12,25,14,19,36,42, 2,55	1,56,47, 2,51,58,10,24	1,37,10,33,16	8,32
	6″	22, 9,14,22, 1,22,28,40,13,19	1,56,47, 1,14,47,28,36	1,37,10,41,48	8,32
	8″	22, 9,16,18,48,23,43,27,41,55	1,56,46,59,37,36,38,16	1,37,10,50,20	8,32
	10″	22, 9,18,15,35,23,21, 4,20,11	1,56,46,58, 0,25,39,24	1,37,10,58,52	8,32
	12″	22, 9,20,12,22,21,21,29,59,35	1,56,46,56,23,14,32, 0	1,37,11, 7,24	8,32
	14″	22, 9,22, 9, 9,17,44,44,31,35	1,56,46,54,46, 3,16, 4	1,37,11,15,56	8,32
	16″	22, 9,24, 5,56,12,30,47,47,39	1,56,46,53, 8,51,51,36	1,37,11,24,28	8,32
	18″	22, 9,26, 2,43, 5,39,39,39,15	1,56,46,51,31,40,18,36	1,37,11,33, 0	8,32
	20″	22, 9,27,59,29,57,11,19,57,51	1,56,46,49,54,28,37, 4	1,37,11,41,32	8,32
	22″	22, 9,29,56,16,47, 5,48,34,55	1,56,46,48,17,16,47, 0	1,37,11,50, 4	8,32
	24″	22, 9,31,53, 3,35,23, 5,21,55	1,56,46,46,40, 4,48,24	1,37,11,58,36	8,32
	26″	22, 9,33,49,50,22, 3,10,10,19	1,56,46,45, 2,52,41,16	1,37,12, 7, 8	8,32
	28″	22, 9,35,46,37, 7, 6, 2,51,35	1,56,46,43,25,40,25,36	1,37,12,15,40	8,32
	30″	22, 9,37,43,23,50,31,43,17,11	1,56,46,41,48,28, 1,24	1,37,12,24,12	8,32
	32″	22, 9,39,40,10,32,20,11,18,35	1,56,46,40,11,15,28,40	1,37,12,32,44	8,32
	34″	22, 9,41,36,57,12,31,26,47,15	1,56,46,38,34, 2,47,24	1,37,12,41,16	8,32
	36″	22, 9,43,33,43,51, 5,29,34,39	1,56,46,36,56,49,57,36	1,37,12,49,48	8,32
	38″	22, 9,45,30,30,28, 2,19,32,15	1,56,46,35,19,36,59,16	1,37,12,58,20	8,32
	40″	22, 9,47,27,17, 3,21,56,31,31	1,56,46,33,42,23,52,24	1,37,13, 6,52	8,32
	42″	22, 9,49,24, 3,37, 4,20,23,55	1,56,46,32, 5,10,37, 0	1,37,13,15,24	8,32
	44″	22, 9,51,20,50, 9, 9,31, 0,55	1,56,46,30,27,57,13, 4	1,37,13,23,56	8,32
	46″	22, 9,53,17,36,39,37,28,13,59	1,56,46,28,50,43,40,36	1,37,13,32,28	8,32
	48″	22, 9,55,14,23, 8,28,11,54,35	1,56,46,27,13,29,59,36	1,37,13,41, 0	8,32
	50″	22, 9,57,11, 9,35,41,41,54,11	1,56,46,25,36,16,10, 4	1,37,13,49,32	8,32
	52″	22, 9,59, 7,56, 1,17,58, 4,15	1,56,46,23,59, 2,12, 0	1,37,13,58, 4	8,32
	54″	22,10, 1, 4,42,25,17, 0,16,15	1,56,46,22,21,48, 5,24	1,37,14, 6,36	8,32
	56″	22,10, 3, 1,28,47,38,48,21,39	1,56,46,20,44,33,50,16	1,37,14,15, 8	8,32
	58″	22,10, 4,58,15, 8,23,22,11,55	1,56,46,19, 7,19,26,36	1,37,14,23,40	
	60″	22,10, 6,55, 1,27,30,41,38,31			
exact		22,10, 6,55, 1,27,30,41,24,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°41′ 0″	22,10, 6,55, 1,27,30,41,24,34			
		1,56,46,17,30, 4,52,48		
2″	22,10, 8,51,47,45, 0,46,17,22		1,37,14,40,51	
		1,56,46,15,52,50,11,57		8,32
4″	22,10,10,48,34, 0,53,36,29,19		1,37,14,49,23	
		1,56,46,14,15,35,22,34		8,32
6″	22,10,12,45,20,15, 9,11,51,53		1,37,14,57,55	
		1,56,46,12,38,20,24,39		8,32
8″	22,10,14,42, 6,27,47,32,16,32		1,37,15, 6,27	
		1,56,46,11, 1, 5,18,12		8,32
10″	22,10,16,38,52,38,48,37,34,44		1,37,15,14,59	
		1,56,46, 9,23,50, 3,13		8,32
12″	22,10,18,35,38,48,12,27,37,57		1,37,15,23,31	
		1,56,46, 7,46,34,39,42		8,32
14″	22,10,20,32,24,55,59, 2,17,39		1,37,15,32, 3	
		1,56,46, 6, 9,19, 7,39		8,32
16″	22,10,22,29,11, 2, 8,21,25,18		1,37,15,40,35	
		1,56,46, 4,32, 3,27, 4		8,32
18″	22,10,24,25,57, 6,40,24,52,22		1,37,15,49, 7	
		1,56,46, 2,54,47,37,57		8,32
20″	22,10,26,22,43, 9,35,12,30,19		1,37,15,57,39	
		1,56,46, 1,17,31,40,18		8,32
22″	22,10,28,19,29,10,52,44,10,37		1,37,16, 6,11	
		1,56,45,59,40,15,34, 7		8,32
24″	22,10,30,16,15,10,32,59,44,44		1,37,16,14,43	
		1,56,45,58, 2,59,19,24		8,32
26″	22,10,32,13, 1, 8,35,59, 4, 8		1,37,16,23,15	
		1,56,45,56,25,42,56, 9		8,32
28″	22,10,34, 9,47, 5, 1,42, 0,17		1,37,16,31,47	
		1,56,45,54,48,26,24,22		8,32
30″	22,10,36, 6,32,59,50, 8,24,39		1,37,16,40,19	
		1,56,45,53,11, 9,44, 3		8,32
32″	22,10,38, 3,18,53, 1,18, 8,42		1,37,16,48,51	
		1,56,45,51,33,52,55,12		8,32
34″	22,10,40, 0, 4,44,35,11, 3,54		1,37,16,57,23	
		1,56,45,49,56,35,57,49		8,32
36″	22,10,41,56,50,34,31,47, 1,43		1,37,17, 5,55	
		1,56,45,48,19,18,51,54		8,32
38″	22,10,43,53,36,22,51, 5,53,37		1,37,17,14,27	
		1,56,45,46,42, 1,37,27		8,32
40″	22,10,45,50,22, 9,33, 7,31, 4		1,37,17,22,59	
		1,56,45,45, 4,44,14,28		8,32
42″	22,10,47,47, 7,54,37,51,45,32		1,37,17,31,31	
		1,56,45,43,27,26,42,57		8,32
44″	22,10,49,43,53,38, 5,18,28,29		1,37,17,40, 3	
		1,56,45,41,50, 9, 2,54		8,32
46″	22,10,51,40,39,19,55,27,31,23		1,37,17,48,35	
		1,56,45,40,12,51,14,19		8,32
48″	22,10,53,37,25, 0, 8,18,45,42		1,37,17,57, 7	
		1,56,45,38,35,33,17,12		8,32
50″	22,10,55,34,10,38,43,52, 2,54		1,37,18, 5,39	
		1,56,45,36,58,15,11,33		8,32
52″	22,10,57,30,56,15,42, 7,14,27		1,37,18,14,11	
		1,56,45,35,20,56,57,22		8,32
54″	22,10,59,27,41,51, 3, 4,11,49		1,37,18,22,43	
		1,56,45,33,43,38,34,39		8,32
56″	22,11, 1,24,27,24,46,42,46,28		1,37,18,31,15	
		1,56,45,32, 6,20, 3,24		8,32
58″	22,11, 3,21,12,56,53, 2,49,52		1,37,18,39,47	
		1,56,45,30,29, 1,23,37		
60″	22,11, 5,17,58,27,22, 4,13,29			
exact	22,11, 5,17,58,27,22, 4, 0,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°42′ 0″	22,11, 5,17,58,27,22, 4, 0,31			
		1,56,45,28,51,42,33,56		
2″	22,11, 7,14,43,56,13,46,34,27		1,37,18,56,56	
		1,56,45,27,14,23,37, 0		8,32
4″	22,11, 9,11,29,23,28,10,11,27		1,37,19, 5,28	
		1,56,45,25,37, 4,31,32		8,32
6″	22,11,11, 8,14,49, 5,14,42,59		1,37,19,14, 0	
		1,56,45,23,59,45,17,32		8,32
8″	22,11,13, 5, 0,13, 5, 0, 0,31		1,37,19,22,32	
		1,56,45,22,22,25,55, 0		8,32
10″	22,11,15, 1,45,35,27,25,55,31		1,37,19,31, 4	
		1,56,45,20,45, 6,23,56		8,32
12″	22,11,16,58,30,56,12,32,19,27		1,37,19,39,36	
		1,56,45,19, 7,46,44,20		8,32
14″	22,11,18,55,16,15,20,19, 3,47		1,37,19,48, 8	
		1,56,45,17,30,26,56,12		8,32
16″	22,11,20,52, 1,32,50,45,59,59		1,37,19,56,40	
		1,56,45,15,53, 6,59,32		8,32
18″	22,11,22,48,46,48,43,52,59,31		1,37,20, 5,12	
		1,56,45,14,15,46,54,20		8,32
20″	22,11,24,45,32, 2,59,39,53,51		1,37,20,13,44	
		1,56,45,12,38,26,40,36		8,32
22″	22,11,26,42,17,15,38, 6,34,27		1,37,20,22,16	
		1,56,45,11, 1, 6,18,20		8,32
24″	22,11,28,39, 2,26,39,12,52,47		1,37,20,30,48	
		1,56,45, 9,23,45,47,32		8,32
26″	22,11,30,35,47,36, 2,58,40,19		1,37,20,39,20	
		1,56,45, 7,46,25, 8,12		8,32
28″	22,11,32,32,32,43,49,23,48,31		1,37,20,47,52	
		1,56,45, 6, 9, 4,20,20		8,32
30″	22,11,34,29,17,49,58,28, 8,51		1,37,20,56,24	
		1,56,45, 4,31,43,23,56		8,32
32″	22,11,36,26, 2,54,30,11,32,47		1,37,21, 4,56	
		1,56,45, 2,54,22,19, 0		8,32
34″	22,11,38,22,47,57,24,33,51,47		1,37,21,13,28	
		1,56,45, 1,17, 1, 5,32		8,32
36″	22,11,40,19,32,58,41,34,57,19		1,37,21,22, 0	
		1,56,44,59,39,39,43,32		8,32
38″	22,11,42,16,17,58,21,14,40,51		1,37,21,30,32	
		1,56,44,58, 2,18,13, 0		8,32
40″	22,11,44,13, 2,56,23,32,53,51		1,37,21,39, 4	
		1,56,44,56,24,56,33,56		8,32
42″	22,11,46, 9,47,52,48,29,27,47		1,37,21,47,36	
		1,56,44,54,47,34,46,20		8,32
44″	22,11,48, 6,32,47,36, 4,14, 7		1,37,21,56, 8	
		1,56,44,53,10,12,50,12		8,32
46″	22,11,50, 3,17,40,46,17, 4,19		1,37,22, 4,40	
		1,56,44,51,32,50,45,32		8,32
48″	22,11,52, 0, 2,32,19, 7,49,51		1,37,22,13,12	
		1,56,44,49,55,28,32,20		8,32
50″	22,11,53,56,47,22,14,36,22,11		1,37,22,21,44	
		1,56,44,48,18, 6,10,36		8,32
52″	22,11,55,53,32,10,32,42,32,47		1,37,22,30,16	
		1,56,44,46,40,43,40,20		8,32
54″	22,11,57,50,16,57,13,26,13, 7		1,37,22,38,48	
		1,56,44,45, 3,21, 1,32		8,32
56″	22,11,59,47, 1,42,16,47,14,39		1,37,22,47,20	
		1,56,44,43,25,58,14,12		8,32
58″	22,12, 1,43,46,25,42,45,28,51		1,37,22,55,52	
		1,56,44,41,48,35,18,20		
60″	22,12, 3,40,31, 7,31,20,47,11			
exact	22,12, 3,40,31, 7,31,20,33,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°43′ 0″	22,12, 3,40,31, 7,31,20,33,50			
		1,56,44,40,11,12,12,41		
2″	22,12, 5,37,15,47,42,32,46,31		1,37,23,13, 0	
		1,56,44,38,33,48,59,41		8,32
4″	22,12, 7,34, 0,26,16,21,46,12		1,37,23,21,32	
		1,56,44,36,56,25,38, 9		8,32
6″	22,12, 9,30,45, 3,12,47,24,21		1,37,23,30, 4	
		1,56,44,35,19, 2, 8, 5		8,32
8″	22,12,11,27,29,38,31,49,32,26		1,37,23,38,36	
		1,56,44,33,41,38,29,29		8,32
10″	22,12,13,24,14,12,13,28, 1,55		1,37,23,47, 8	
		1,56,44,32, 4,14,42,21		8,32
12″	22,12,15,20,58,44,17,42,44,16		1,37,23,55,40	
		1,56,44,30,26,50,46,41		8,32
14″	22,12,17,17,43,14,44,33,30,57		1,37,24, 4,12	
		1,56,44,28,49,26,42,29		8,32
16″	22,12,19,14,27,43,34, 0,13,26		1,37,24,12,44	
		1,56,44,27,12, 2,29,45		8,32
18″	22,12,21,11,12,10,46, 2,43,11		1,37,24,21,16	
		1,56,44,25,34,38, 8,29		8,32
20″	22,12,23, 7,56,36,20,40,51,40		1,37,24,29,48	
		1,56,44,23,57,13,38,41		8,32
22″	22,12,25, 4,41, 0,17,54,30,21		1,37,24,38,20	
		1,56,44,22,19,49, 0,21		8,32
24″	22,12,27, 1,25,22,37,43,30,42		1,37,24,46,52	
		1,56,44,20,42,24,13,29		8,32
26″	22,12,28,58, 9,43,20, 7,44,11		1,37,24,55,24	
		1,56,44,19, 4,59,18, 5		8,32
28″	22,12,30,54,54, 2,25, 7, 2,16		1,37,25, 3,56	
		1,56,44,17,27,34,14, 9		8,32
30″	22,12,32,51,38,19,52,41,16,25		1,37,25,12,28	
		1,56,44,15,50, 9, 1,41		8,32
32″	22,12,34,48,22,35,42,50,18, 6		1,37,25,21, 0	
		1,56,44,14,12,43,40,41		8,32
34″	22,12,36,45, 6,49,55,33,58,47		1,37,25,29,32	
		1,56,44,12,35,18,11, 9		8,32
36″	22,12,38,41,51, 2,30,52, 9,56		1,37,25,38, 4	
		1,56,44,10,57,52,33, 5		8,32
38″	22,12,40,38,35,13,28,44,43, 1		1,37,25,46,36	
		1,56,44, 9,20,26,46,29		8,32
40″	22,12,42,35,19,22,49,11,29,30		1,37,25,55, 8	
		1,56,44, 7,43, 0,51,21		8,32
42″	22,12,44,32, 3,30,32,12,20,51		1,37,26, 3,40	
		1,56,44, 6, 5,34,47,41		8,32
44″	22,12,46,28,47,36,37,47, 8,32		1,37,26,12,12	
		1,56,44, 4,28, 8,35,29		8,32
46″	22,12,48,25,31,41, 5,55,44, 1		1,37,26,20,44	
		1,56,44, 2,50,42,14,45		8,32
48″	22,12,50,22,15,43,56,37,58,46		1,37,26,29,16	
		1,56,44, 1,13,15,45,29		8,32
50″	22,12,52,18,59,45, 9,53,44,15		1,37,26,37,48	
		1,56,43,59,35,49, 7,41		8,32
52″	22,12,54,15,43,44,45,42,51,56		1,37,26,46,20	
		1,56,43,57,58,22,21,21		8,32
54″	22,12,56,12,27,42,44, 5,13,17		1,37,26,54,52	
		1,56,43,56,20,55,26,29		8,32
56″	22,12,58, 9,11,39, 5, 0,39,46		1,37,27, 3,24	
		1,56,43,54,43,28,23, 5		8,32
58″	22,13, 0, 5,55,33,48,29, 2,51		1,37,27,11,56	
		1,56,43,53, 6, 1,11, 9		
60″	22,13, 2, 2,39,26,54,30,14, 0			
exact	22,13, 2, 2,39,26,54,30, 6,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°44′ 0″	22,13, 2, 2,39,26,54,30, 6,20			
		1,56,43,51,28,33,49,58		
2″	22,13, 3,59,23,18,23, 3,56,18		1,37,27,29, 2	
		1,56,43,49,51, 6,20,56		8,32
4″	22,13, 5,56, 7, 8,14,10,17,14		1,37,27,37,34	
		1,56,43,48,13,38,43,22		8,32
6″	22,13, 7,52,50,56,27,49, 0,36		1,37,27,46, 6	
		1,56,43,46,36,10,57,16		8,32
8″	22,13, 9,49,34,43, 3,59,57,52		1,37,27,54,38	
		1,56,43,44,58,43, 2,38		8,32
10″	22,13,11,46,18,28, 2,43, 0,30		1,37,28, 3,10	
		1,56,43,43,21,14,59,28		8,32
12″	22,13,13,43, 2,11,23,57,59,58		1,37,28,11,42	
		1,56,43,41,43,46,47,46		8,32
14″	22,13,15,39,45,53, 7,44,47,44		1,37,28,20,14	
		1,56,43,40, 6,18,27,32		8,32
16″	22,13,17,36,29,33,14, 3,15,16		1,37,28,28,46	
		1,56,43,38,28,49,58,46		8,32
18″	22,13,19,33,13,11,42,53,14, 2		1,37,28,37,18	
		1,56,43,36,51,21,21,28		8,32
20″	22,13,21,29,56,48,34,14,35,30		1,37,28,45,50	
		1,56,43,35,13,52,35,38		8,32
22″	22,13,23,26,40,23,48, 7,11, 8		1,37,28,54,22	
		1,56,43,33,36,23,41,16		8,32
24″	22,13,25,23,23,57,24,30,52,24		1,37,29, 2,54	
		1,56,43,31,58,54,38,22		8,32
26″	22,13,27,20, 7,29,23,25,30,46		1,37,29,11,26	
		1,56,43,30,21,25,26,56		8,32
28″	22,13,29,16,50,59,44,50,57,42		1,37,29,19,58	
		1,56,43,28,43,56, 6,58		8,32
30″	22,13,31,13,34,28,28,47, 4,40		1,37,29,28,30	
		1,56,43,27, 6,26,38,28		8,32
32″	22,13,33,10,17,55,35,13,43, 8		1,37,29,37, 2	
		1,56,43,25,28,57, 1,26		8,32
34″	22,13,35, 7, 1,21, 4,10,44,34		1,37,29,45,34	
		1,56,43,23,51,27,15,52		8,32
36″	22,13,37, 3,44,44,55,38, 0,26		1,37,29,54, 6	
		1,56,43,22,13,57,21,46		8,32
38″	22,13,39, 0,28, 7, 9,35,22,12		1,37,30, 2,38	
		1,56,43,20,36,27,19, 8		8,32
40″	22,13,40,57,11,27,46, 2,41,20		1,37,30,11,10	
		1,56,43,18,58,57, 7,58		8,32
42″	22,13,42,53,54,46,44,59,49,18		1,37,30,19,42	
		1,56,43,17,21,26,48,16		8,32
44″	22,13,44,50,38, 4, 6,26,37,34		1,37,30,28,14	
		1,56,43,15,43,56,20, 2		8,32
46″	22,13,46,47,21,19,50,22,57,36		1,37,30,36,46	
		1,56,43,14, 6,25,43,16		8,32
48″	22,13,48,44, 4,33,56,48,40,52		1,37,30,45,18	
		1,56,43,12,28,54,57,58		8,32
50″	22,13,50,40,47,46,25,43,38,50		1,37,30,53,50	
		1,56,43,10,51,24, 4, 8		8,32
52″	22,13,52,37,30,57,17, 7,42,58		1,37,31, 2,22	
		1,56,43, 9,13,53, 1,46		8,32
54″	22,13,54,34,14, 6,31, 0,44,44		1,37,31,10,54	
		1,56,43, 7,36,21,50,52		8,32
56″	22,13,56,30,57,14, 7,22,35,36		1,37,31,19,26	
		1,56,43, 5,58,50,31,26		8,32
58″	22,13,58,27,40,20, 6,13, 7, 2		1,37,31,27,58	
		1,56,43, 4,21,19, 3,28		
60″	22,14, 0,24,23,24,27,32,10,30			
exact	22,14, 0,24,23,24,27,32, 6,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°45′ 0″	22,14, 0,24,23,24,27,32, 6,31			
		1,56,43, 2,43,47,26,40		
2″	22,14, 2,21, 6,27,11,19,33,11		1,37,31,45, 3	
		1,56,43, 1, 6,15,41,37		8,32
4″	22,14, 4,17,49,28,17,35,14,48		1,37,31,53,35	
		1,56,42,59,28,43,48, 2		8,32
6″	22,14, 6,14,32,27,46,19, 2,50		1,37,32, 2, 7	
		1,56,42,57,51,11,45,55		8,32
8″	22,14, 8,11,15,25,37,30,48,45		1,37,32,10,39	
		1,56,42,56,13,39,35,16		8,32
10″	22,14,10, 7,58,21,51,10,24, 1		1,37,32,19,11	
		1,56,42,54,36, 7,16, 5		8,32
12″	22,14,12, 4,41,16,27,17,40, 6		1,37,32,27,43	
		1,56,42,52,58,34,48,22		8,32
14″	22,14,14, 1,24, 9,25,52,28,28		1,37,32,36,15	
		1,56,42,51,21, 2,12, 7		8,32
16″	22,14,15,58, 7, 0,46,54,40,35		1,37,32,44,47	
		1,56,42,49,43,29,27,20		8,32
18″	22,14,17,54,49,50,30,24, 7,55		1,37,32,53,19	
		1,56,42,48, 5,56,34, 1		8,32
20″	22,14,19,51,32,38,36,20,41,56		1,37,33, 1,51	
		1,56,42,46,28,23,32,10		8,32
22″	22,14,21,48,15,25, 4,44,14, 6		1,37,33,10,23	
		1,56,42,44,50,50,21,47		8,32
24″	22,14,23,44,58, 9,55,34,35,53		1,37,33,18,55	
		1,56,42,43,13,17, 2,52		8,32
26″	22,14,25,41,40,53, 8,51,38,45		1,37,33,27,27	
		1,56,42,41,35,43,35,25		8,32
28″	22,14,27,38,23,34,44,35,14,10		1,37,33,35,59	
		1,56,42,39,58, 9,59,26		8,32
30″	22,14,29,35, 6,14,42,45,13,36		1,37,33,44,31	
		1,56,42,38,20,36,14,55		8,32
32″	22,14,31,31,48,53, 3,21,28,31		1,37,33,53, 3	
		1,56,42,36,43, 2,21,52		8,32
34″	22,14,33,28,31,29,46,23,50,23		1,37,34, 1,35	
		1,56,42,35, 5,28,20,17		8,32
36″	22,14,35,25,14, 4,51,52,10,40		1,37,34,10, 7	
		1,56,42,33,27,54,10,10		8,32
38″	22,14,37,21,56,38,19,46,20,50		1,37,34,18,39	
		1,56,42,31,50,19,51,31		8,32
40″	22,14,39,18,39,10,10, 6,12,21		1,37,34,27,11	
		1,56,42,30,12,45,24,20		8,32
42″	22,14,41,15,21,40,22,51,36,41		1,37,34,35,43	
		1,56,42,28,35,10,48,37		8,32
44″	22,14,43,12, 4, 8,58, 2,25,18		1,37,34,44,15	
		1,56,42,26,57,36, 4,22		8,32
46″	22,14,45, 8,46,35,55,38,29,40		1,37,34,52,47	
		1,56,42,25,20, 1,11,35		8,32
48″	22,14,47, 5,29, 1,15,39,41,15		1,37,35, 1,19	
		1,56,42,23,42,26,10,16		8,32
50″	22,14,49, 2,11,24,58, 5,51,31		1,37,35, 9,51	
		1,56,42,22, 4,51, 0,25		8,32
52″	22,14,50,58,53,47, 2,56,51,56		1,37,35,18,23	
		1,56,42,20,27,15,42, 2		8,32
54″	22,14,52,55,36, 7,30,12,33,58		1,37,35,26,55	
		1,56,42,18,49,40,15, 7		8,32
56″	22,14,54,52,18,26,19,52,49, 5		1,37,35,35,27	
		1,56,42,17,12, 4,39,40		8,32
58″	22,14,56,49, 0,43,31,57,28,45		1,37,35,43,59	
		1,56,42,15,34,28,55,41		
60″	22,14,58,45,42,59, 6,26,24,26			
exact	22,14,58,45,42,59, 6,26,29,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°46′ 0″	22,14,58,45,42,59, 6,26,29,37			
		1,56,42,13,56,53, 3,39		
2″	22,15, 0,42,25,13, 3,19,33,16		1,37,36, 1, 1	
		1,56,42,12,19,17, 2,38		8,32
4″	22,15, 2,39, 7,25,22,36,35,54		1,37,36, 9,33	
		1,56,42,10,41,40,53, 5		8,32
6″	22,15, 4,35,49,36, 4,17,28,59		1,37,36,18, 5	
		1,56,42, 9, 4, 4,35, 0		8,32
8″	22,15, 6,32,31,45, 8,22, 3,59		1,37,36,26,37	
		1,56,42, 7,26,28, 8,23		8,32
10″	22,15, 8,29,13,52,34,50,12,22		1,37,36,35, 9	
		1,56,42, 5,48,51,33,14		8,32
12″	22,15,10,25,55,58,23,41,45,36		1,37,36,43,41	
		1,56,42, 4,11,14,49,33		8,32
14″	22,15,12,22,38, 2,34,56,35, 9		1,37,36,52,13	
		1,56,42, 2,33,37,57,20		8,32
16″	22,15,14,19,20, 5, 8,34,32,29		1,37,37, 0,45	
		1,56,42, 0,56, 0,56,35		8,32
18″	22,15,16,16, 2, 6, 4,35,29, 4		1,37,37, 9,17	
		1,56,41,59,18,23,47,18		8,32
20″	22,15,18,12,44, 5,22,59,16,22		1,37,37,17,49	
		1,56,41,57,40,46,29,29		8,32
22″	22,15,20, 9,26, 3, 3,45,45,51		1,37,37,26,21	
		1,56,41,56, 3, 9, 3, 8		8,32
24″	22,15,22, 6, 7,59, 6,54,48,59		1,37,37,34,53	
		1,56,41,54,25,31,28,15		8,32
26″	22,15,24, 2,49,53,32,26,17,14		1,37,37,43,25	
		1,56,41,52,47,53,44,50		8,32
28″	22,15,25,59,31,46,20,20, 2, 4		1,37,37,51,57	
		1,56,41,51,10,15,52,53		8,32
30″	22,15,27,56,13,37,30,35,54,57		1,37,38, 0,29	
		1,56,41,49,32,37,52,24		8,32
32″	22,15,29,52,55,27, 3,13,47,21		1,37,38, 9, 1	
		1,56,41,47,54,59,43,23		8,32
34″	22,15,31,49,37,14,58,13,30,44		1,37,38,17,33	
		1,56,41,46,17,21,25,50		8,32
36″	22,15,33,46,19, 1,15,34,56,34		1,37,38,26, 5	
		1,56,41,44,39,42,59,45		8,32
38″	22,15,35,43, 0,45,55,17,56,19		1,37,38,34,37	
		1,56,41,43, 2, 4,25, 8		8,32
40″	22,15,37,39,42,28,57,22,21,27		1,37,38,43, 9	
		1,56,41,41,24,25,41,59		8,32
42″	22,15,39,36,24,10,21,48, 3,26		1,37,38,51,41	
		1,56,41,39,46,46,50,18		8,32
44″	22,15,41,33, 5,50, 8,34,53,44		1,37,39, 0,13	
		1,56,41,38, 9, 7,50, 5		8,32
46″	22,15,43,29,47,28,17,42,43,49		1,37,39, 8,45	
		1,56,41,36,31,28,41,20		8,32
48″	22,15,45,26,29, 4,49,11,25, 9		1,37,39,17,17	
		1,56,41,34,53,49,24, 3		8,32
50″	22,15,47,23,10,39,43, 0,49,12		1,37,39,25,49	
		1,56,41,33,16, 9,58,14		8,32
52″	22,15,49,19,52,12,59,10,47,26		1,37,39,34,21	
		1,56,41,31,38,30,23,53		8,32
54″	22,15,51,16,33,44,37,41,11,19		1,37,39,42,53	
		1,56,41,30, 0,50,41, 0		8,32
56″	22,15,53,13,15,14,38,31,52,19		1,37,39,51,25	
		1,56,41,28,23,10,49,35		8,32
58″	22,15,55, 9,56,43, 1,42,41,54		1,37,39,59,57	
		1,56,41,26,45,30,49,38		
60″	22,15,57, 6,38, 9,47,13,31,32			
exact	22,15,57, 6,38, 9,47,13,37,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°47′ 0″	22,15,57, 6,38, 9,47,13,37,36			
		1,56,41,25, 7,50,41,51		
2″	22,15,59, 3,19,34,55, 4,19,27		1,37,40,16,58	
		1,56,41,23,30,10,24,53		8,32
4″	22,16, 1, 0, 0,58,25,14,44,20		1,37,40,25,30	
		1,56,41,21,52,29,59,23		8,32
6″	22,16, 2,56,42,20,17,44,43,43		1,37,40,34, 2	
		1,56,41,20,14,49,25,21		8,32
8″	22,16, 4,53,23,40,32,34, 9, 4		1,37,40,42,34	
		1,56,41,18,37, 8,42,47		8,32
10″	22,16, 6,50, 4,59, 9,42,51,51		1,37,40,51, 6	
		1,56,41,16,59,27,51,41		8,32
12″	22,16, 8,46,46,16, 9,10,43,32		1,37,40,59,38	
		1,56,41,15,21,46,52, 3		8,32
14″	22,16,10,43,27,31,30,57,35,35		1,37,41, 8,10	
		1,56,41,13,44, 5,43,53		8,32
16″	22,16,12,40, 8,45,15, 3,19,28		1,37,41,16,42	
		1,56,41,12, 6,24,27,11		8,32
18″	22,16,14,36,49,57,21,27,46,39		1,37,41,25,14	
		1,56,41,10,28,43, 1,57		8,32
20″	22,16,16,33,31, 7,50,10,48,36		1,37,41,33,46	
		1,56,41, 8,51, 1,28,11		8,32
22″	22,16,18,30,12,16,41,12,16,47		1,37,41,42,18	
		1,56,41, 7,13,19,45,53		8,32
24″	22,16,20,26,53,23,54,32, 2,40		1,37,41,50,50	
		1,56,41, 5,35,37,55, 3		8,32
26″	22,16,22,23,34,29,30, 9,57,43		1,37,41,59,22	
		1,56,41, 3,57,55,55,41		8,32
28″	22,16,24,20,15,33,28, 5,53,24		1,37,42, 7,54	
		1,56,41, 2,20,13,47,47		8,32
30″	22,16,26,16,56,35,48,19,41,11		1,37,42,16,26	
		1,56,41, 0,42,31,31,21		8,32
32″	22,16,28,13,37,36,30,51,12,32		1,37,42,24,58	
		1,56,40,59, 4,49, 6,23		8,32
34″	22,16,30,10,18,35,35,40,18,55		1,37,42,33,30	
		1,56,40,57,27, 6,32,53		8,32
36″	22,16,32, 6,59,33, 2,46,51,48		1,37,42,42, 2	
		1,56,40,55,49,23,50,51		8,32
38″	22,16,34, 3,40,28,52,10,42,39		1,37,42,50,34	
		1,56,40,54,11,41, 0,17		8,32
40″	22,16,36, 0,21,23, 3,51,42,56		1,37,42,59, 6	
		1,56,40,52,33,58, 1,11		8,32
42″	22,16,37,57, 2,15,37,49,44, 7		1,37,43, 7,38	
		1,56,40,50,56,14,53,33		8,32
44″	22,16,39,53,43, 6,34, 4,37,40		1,37,43,16,10	
		1,56,40,49,18,31,37,23		8,32
46″	22,16,41,50,23,55,52,36,15, 3		1,37,43,24,42	
		1,56,40,47,40,48,12,41		8,32
48″	22,16,43,47, 4,43,33,24,27,44		1,37,43,33,14	
		1,56,40,46, 3, 4,39,27		8,32
50″	22,16,45,43,45,29,36,29, 7,11		1,37,43,41,46	
		1,56,40,44,25,20,57,41		8,32
52″	22,16,47,40,26,14, 1,50, 4,52		1,37,43,50,18	
		1,56,40,42,47,37, 7,23		8,32
54″	22,16,49,37, 6,56,49,27,12,15		1,37,43,58,50	
		1,56,40,41, 9,53, 8,33		8,32
56″	22,16,51,33,47,37,59,20,20,48		1,37,44, 7,22	
		1,56,40,39,32, 9, 1,11		8,32
58″	22,16,53,30,28,17,31,29,21,59		1,37,44,15,54	
		1,56,40,37,54,24,45,17		
60″	22,16,55,27, 8,55,25,54, 7,16			
exact	22,16,55,27, 8,55,25,54,19,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°48′ 0″	22,16,55,27, 8,55,25,54,19,11			
		1,56,40,36,16,40,22, 7		
2″	22,16,57,23,49,31,42,34,41,18		1,37,44,32,53	
		1,56,40,34,38,55,49,14		8,32
4″	22,16,59,20,30, 6,21,30,30,32		1,37,44,41,25	
		1,56,40,33, 1,11, 7,49		8,32
6″	22,17, 1,17,10,39,22,41,38,21		1,37,44,49,57	
		1,56,40,31,23,26,17,52		8,32
8″	22,17, 3,13,51,10,46, 7,56,13		1,37,44,58,29	
		1,56,40,29,45,41,19,23		8,32
10″	22,17, 5,10,31,40,31,49,15,36		1,37,45, 7, 1	
		1,56,40,28, 7,56,12,22		8,32
12″	22,17, 7, 7,12, 8,39,45,27,58		1,37,45,15,33	
		1,56,40,26,30,10,56,49		8,32
14″	22,17, 9, 3,52,35, 9,56,24,47		1,37,45,24, 5	
		1,56,40,24,52,25,32,44		8,32
16″	22,17,11, 0,33, 0, 2,21,57,31		1,37,45,32,37	
		1,56,40,23,14,40, 0, 7		8,32
18″	22,17,12,57,13,23,17, 1,57,38		1,37,45,41, 9	
		1,56,40,21,36,54,18,58		8,32
20″	22,17,14,53,53,44,53,56,16,36		1,37,45,49,41	
		1,56,40,19,59, 8,29,17		8,32
22″	22,17,16,50,34, 4,53, 4,45,53		1,37,45,58,13	
		1,56,40,18,21,22,31, 4		8,32
24″	22,17,18,47,14,23,14,27,16,57		1,37,46, 6,45	
		1,56,40,16,43,36,24,19		8,32
26″	22,17,20,43,54,39,58, 3,41,16		1,37,46,15,17	
		1,56,40,15, 5,50, 9, 2		8,32
28″	22,17,22,40,34,55, 3,53,50,18		1,37,46,23,49	
		1,56,40,13,28, 3,45,13		8,32
30″	22,17,24,37,15, 8,31,57,35,31		1,37,46,32,21	
		1,56,40,11,50,17,12,52		8,32
32″	22,17,26,33,55,20,22,14,48,23		1,37,46,40,53	
		1,56,40,10,12,30,31,59		8,32
34″	22,17,28,30,35,30,34,45,20,22		1,37,46,49,25	
		1,56,40, 8,34,43,42,34		8,32
36″	22,17,30,27,15,39, 9,29, 2,56		1,37,46,57,57	
		1,56,40, 6,56,56,44,37		8,32
38″	22,17,32,23,55,46, 6,25,47,33		1,37,47, 6,29	
		1,56,40, 5,19, 9,38, 8		8,32
40″	22,17,34,20,35,51,25,35,25,41		1,37,47,15, 1	
		1,56,40, 3,41,22,23, 7		8,32
42″	22,17,36,17,15,55, 6,57,48,48		1,37,47,23,33	
		1,56,40, 2, 3,34,59,34		8,32
44″	22,17,38,13,55,57,10,32,48,22		1,37,47,32, 5	
		1,56,40, 0,25,47,27,29		8,32
46″	22,17,40,10,35,57,36,20,15,51		1,37,47,40,37	
		1,56,39,58,47,59,46,52		8,32
48″	22,17,42, 7,15,56,24,20, 2,43		1,37,47,49, 9	
		1,56,39,57,10,11,57,43		8,32
50″	22,17,44, 3,55,53,34,32, 0,26		1,37,47,57,41	
		1,56,39,55,32,24, 0, 2		8,32
52″	22,17,46, 0,35,49, 6,56, 0,28		1,37,48, 6,13	
		1,56,39,53,54,35,53,49		8,32
54″	22,17,47,57,15,43, 1,31,54,17		1,37,48,14,45	
		1,56,39,52,16,47,39, 4		8,32
56″	22,17,49,53,55,35,18,19,33,21		1,37,48,23,17	
		1,56,39,50,38,59,15,47		8,32
58″	22,17,51,50,35,25,57,18,49, 8		1,37,48,31,49	
		1,56,39,49, 1,10,43,58		
60″	22,17,53,47,15,14,58,29,33, 6			
exact	22,17,53,47,15,14,58,29,49,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°49′ 0″	22,17,53,47,15,14,58,29,49,53			
		1,56,39,47,23,22, 5,22		
2″	22,17,55,43,55, 2,21,51,55,15		1,37,48,48,46	
		1,56,39,45,45,33,16,36		8,32
4″	22,17,57,40,34,48, 7,25,11,51		1,37,48,57,18	
		1,56,39,44, 7,44,19,18		8,32
6″	22,17,59,37,14,32,15, 9,31, 9		1,37,49, 5,50	
		1,56,39,42,29,55,13,28		8,32
8″	22,18, 1,33,54,14,45, 4,44,37		1,37,49,14,22	
		1,56,39,40,52, 5,59, 6		8,32
10″	22,18, 3,30,33,55,37,10,43,43		1,37,49,22,54	
		1,56,39,39,14,16,36,12		8,32
12″	22,18, 5,27,13,34,51,27,19,55		1,37,49,31,26	
		1,56,39,37,36,27, 4,46		8,32
14″	22,18, 7,23,53,12,27,54,24,41		1,37,49,39,58	
		1,56,39,35,58,37,24,48		8,32
16″	22,18, 9,20,32,48,26,31,49,29		1,37,49,48,30	
		1,56,39,34,20,47,36,18		8,32
18″	22,18,11,17,12,22,47,19,25,47		1,37,49,57, 2	
		1,56,39,32,42,57,39,16		8,32
20″	22,18,13,13,51,55,30,17, 5, 3		1,37,50, 5,34	
		1,56,39,31, 5, 7,33,42		8,32
22″	22,18,15,10,31,26,35,24,38,45		1,37,50,14, 6	
		1,56,39,29,27,17,19,36		8,32
24″	22,18,17, 7,10,56, 2,41,58,21		1,37,50,22,38	
		1,56,39,27,49,26,56,58		8,32
26″	22,18,19, 3,50,23,52, 8,55,19		1,37,50,31,10	
		1,56,39,26,11,36,25,48		8,32
28″	22,18,21, 0,29,50, 3,45,21, 7		1,37,50,39,42	
		1,56,39,24,33,45,46, 6		8,32
30″	22,18,22,57, 9,14,37,31, 7,13		1,37,50,48,14	
		1,56,39,22,55,54,57,52		8,32
32″	22,18,24,53,48,37,33,26, 5, 5		1,37,50,56,46	
		1,56,39,21,18, 4, 1, 6		8,32
34″	22,18,26,50,27,58,51,30, 6,11		1,37,51, 5,18	
		1,56,39,19,40,12,55,48		8,32
36″	22,18,28,47, 7,18,31,43, 1,59		1,37,51,13,50	
		1,56,39,18, 2,21,41,58		8,32
38″	22,18,30,43,46,36,34, 4,43,57		1,37,51,22,22	
		1,56,39,16,24,30,19,36		8,32
40″	22,18,32,40,25,52,58,35, 3,33		1,37,51,30,54	
		1,56,39,14,46,38,48,42		8,32
42″	22,18,34,37, 5, 7,45,13,52,15		1,37,51,39,26	
		1,56,39,13, 8,47, 9,16		8,32
44″	22,18,36,33,44,20,54, 1, 1,31		1,37,51,47,58	
		1,56,39,11,30,55,21,18		8,32
46″	22,18,38,30,23,32,24,56,22,49		1,37,51,56,30	
		1,56,39, 9,53, 3,24,48		8,32
48″	22,18,40,27, 2,42,17,59,47,37		1,37,52, 5, 2	
		1,56,39, 8,15,11,19,46		8,32
50″	22,18,42,23,41,50,33,11, 7,23		1,37,52,13,34	
		1,56,39, 6,37,19, 6,12		8,32
52″	22,18,44,20,20,57,10,30,13,35		1,37,52,22, 6	
		1,56,39, 4,59,26,44, 6		8,32
54″	22,18,46,17, 0, 2, 9,56,57,41		1,37,52,30,38	
		1,56,39, 3,21,34,13,28		8,32
56″	22,18,48,13,39, 5,31,31,11, 9		1,37,52,39,10	
		1,56,39, 1,43,41,34,18		8,32
58″	22,18,50,10,18, 7,15,12,45,27		1,37,52,47,42	
		1,56,39, 0, 5,48,46,36		
60″	22,18,52, 6,57, 7,21, 1,32, 3			
exact	22,18,52, 6,57, 7,21, 1,51,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°50′ 0″	22,18,52, 6,57, 7,21, 1,51,59			
		1,56,38,58,27,55,52,29		
2″	22,18,54, 3,36, 5,48,57,44,28		1,37,53, 4,37	
		1,56,38,56,50, 2,47,52		8,32
4″	22,18,56, 0,15, 2,39, 0,32,20		1,37,53,13, 9	
		1,56,38,55,12, 9,34,43		8,32
6″	22,18,57,56,53,57,51,10, 7, 3		1,37,53,21,41	
		1,56,38,53,34,16,13, 2		8,32
8″	22,18,59,53,32,51,25,26,20, 5		1,37,53,30,13	
		1,56,38,51,56,22,42,49		8,32
10″	22,19, 1,50,11,43,21,49, 2,54		1,37,53,38,45	
		1,56,38,50,18,29, 4, 4		8,32
12″	22,19, 3,46,50,33,40,18, 6,58		1,37,53,47,17	
		1,56,38,48,40,35,16,47		8,32
14″	22,19, 5,43,29,22,20,53,23,45		1,37,53,55,49	
		1,56,38,47, 2,41,20,58		8,32
16″	22,19, 7,40, 8, 9,23,34,44,43		1,37,54, 4,21	
		1,56,38,45,24,47,16,37		8,32
18″	22,19, 9,36,46,54,48,22, 1,20		1,37,54,12,53	
		1,56,38,43,46,53, 3,44		8,32
20″	22,19,11,33,25,38,35,15, 5, 4		1,37,54,21,25	
		1,56,38,42, 8,58,42,19		8,32
22″	22,19,13,30, 4,20,44,13,47,23		1,37,54,29,57	
		1,56,38,40,31, 4,12,22		8,32
24″	22,19,15,26,43, 1,15,17,59,45		1,37,54,38,29	
		1,56,38,38,53, 9,33,53		8,32
26″	22,19,17,23,21,40, 8,27,33,38		1,37,54,47, 1	
		1,56,38,37,15,14,46,52		8,32
28″	22,19,19,20, 0,17,23,42,20,30		1,37,54,55,33	
		1,56,38,35,37,19,51,19		8,32
30″	22,19,21,16,38,53, 1, 2,11,49		1,37,55, 4, 5	
		1,56,38,33,59,24,47,14		8,32
32″	22,19,23,13,17,27, 0,26,59, 3		1,37,55,12,37	
		1,56,38,32,21,29,34,37		8,32
34″	22,19,25, 9,55,59,21,56,33,40		1,37,55,21, 9	
		1,56,38,30,43,34,13,28		8,32
36″	22,19,27, 6,34,30, 5,30,47, 8		1,37,55,29,41	
		1,56,38,29, 5,38,43,47		8,32
38″	22,19,29, 3,12,59,11, 9,30,55		1,37,55,38,13	
		1,56,38,27,27,43, 5,34		8,32
40″	22,19,30,59,51,26,38,52,36,29		1,37,55,46,45	
		1,56,38,25,49,47,18,49		8,32
42″	22,19,32,56,29,52,28,39,55,18		1,37,55,55,17	
		1,56,38,24,11,51,23,32		8,32
44″	22,19,34,53, 8,16,40,31,18,50		1,37,56, 3,49	
		1,56,38,22,33,55,19,43		8,32
46″	22,19,36,49,46,39,14,26,38,33		1,37,56,12,21	
		1,56,38,20,55,59, 7,22		8,32
48″	22,19,38,46,25, 0,10,25,45,55		1,37,56,20,53	
		1,56,38,19,18, 2,46,29		8,32
50″	22,19,40,43, 3,19,28,28,32,24		1,37,56,29,25	
		1,56,38,17,40, 6,17, 4		8,32
52″	22,19,42,39,41,37, 8,34,49,28		1,37,56,37,57	
		1,56,38,16, 2, 9,39, 7		8,32
54″	22,19,44,36,19,53,10,44,28,35		1,37,56,46,29	
		1,56,38,14,24,12,52,38		8,32
56″	22,19,46,32,58, 7,34,57,21,13		1,37,56,55, 1	
		1,56,38,12,46,15,57,37		8,32
58″	22,19,48,29,36,20,21,13,18,50		1,37,57, 3,33	
		1,56,38,11, 8,18,54, 4		
60″	22,19,50,26,14,31,29,32,12,54			
exact	22,19,50,26,14,31,29,32,34,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°51′ 0″	22,19,50,26,14,31,29,32,34,35			
		1,56,38, 9,30,21,44,22		
2″	22,19,52,22,52,40,59,54,18,57		1,37,57,20,27	
		1,56,38, 7,52,24,23,55		8,32
4″	22,19,54,19,30,48,52,18,42,52		1,37,57,28,59	
		1,56,38, 6,14,26,54,56		8,32
6″	22,19,56,16, 8,55, 6,45,37,48		1,37,57,37,31	
		1,56,38, 4,36,29,17,25		8,32
8″	22,19,58,12,46,59,43,14,55,13		1,37,57,46, 3	
		1,56,38, 2,58,31,31,22		8,32
10″	22,20, 0, 9,25, 2,41,46,26,35		1,37,57,54,35	
		1,56,38, 1,20,33,36,47		8,32
12″	22,20, 2, 6, 3, 4, 2,20, 3,22		1,37,58, 3, 7	
		1,56,37,59,42,35,33,40		8,32
14″	22,20, 4, 2,41, 3,44,55,37, 2		1,37,58,11,39	
		1,56,37,58, 4,37,22, 1		8,32
16″	22,20, 5,59,19, 1,49,32,59, 3		1,37,58,20,11	
		1,56,37,56,26,39, 1,50		8,32
18″	22,20, 7,55,56,58,16,12, 0,53		1,37,58,28,43	
		1,56,37,54,48,40,33, 7		8,32
20″	22,20, 9,52,34,53, 4,52,34, 0		1,37,58,37,15	
		1,56,37,53,10,41,55,52		8,32
22″	22,20,11,49,12,46,15,34,29,52		1,37,58,45,47	
		1,56,37,51,32,43,10, 5		8,32
24″	22,20,13,45,50,37,48,17,39,57		1,37,58,54,19	
		1,56,37,49,54,44,15,46		8,32
26″	22,20,15,42,28,27,43, 1,55,43		1,37,59, 2,51	
		1,56,37,48,16,45,12,55		8,32
28″	22,20,17,39, 6,15,59,47, 8,38		1,37,59,11,23	
		1,56,37,46,38,46, 1,32		8,32
30″	22,20,19,35,44, 2,38,33,10,10		1,37,59,19,55	
		1,56,37,45, 0,46,41,37		8,32
32″	22,20,21,32,21,47,39,19,51,47		1,37,59,28,27	
		1,56,37,43,22,47,13,10		8,32
34″	22,20,23,28,59,31, 2, 7, 4,57		1,37,59,36,59	
		1,56,37,41,44,47,36,11		8,32
36″	22,20,25,25,37,12,46,54,41, 8		1,37,59,45,31	
		1,56,37,40, 6,47,50,40		8,32
38″	22,20,27,22,14,52,53,42,31,48		1,37,59,54, 3	
		1,56,37,38,28,47,56,37		8,32
40″	22,20,29,18,52,31,22,30,28,25		1,38, 0, 2,35	
		1,56,37,36,50,47,54, 2		8,32
42″	22,20,31,15,30, 8,13,18,22,27		1,38, 0,11, 7	
		1,56,37,35,12,47,42,55		8,32
44″	22,20,33,12, 7,43,26, 6, 5,22		1,38, 0,19,39	
		1,56,37,33,34,47,23,16		8,32
46″	22,20,35, 8,45,17, 0,53,28,38		1,38, 0,28,11	
		1,56,37,31,56,46,55, 5		8,32
48″	22,20,37, 5,22,48,57,40,23,43		1,38, 0,36,43	
		1,56,37,30,18,46,18,22		8,32
50″	22,20,39, 2, 0,19,16,26,42, 5		1,38, 0,45,15	
		1,56,37,28,40,45,33, 7		8,32
52″	22,20,40,58,37,47,57,12,15,12		1,38, 0,53,47	
		1,56,37,27, 2,44,39,20		8,32
54″	22,20,42,55,15,14,59,56,54,32		1,38, 1, 2,19	
		1,56,37,25,24,43,37, 1		8,32
56″	22,20,44,51,52,40,24,40,31,33		1,38, 1,10,51	
		1,56,37,23,46,42,26,10		8,32
58″	22,20,46,48,30, 4,11,22,57,43		1,38, 1,19,23	
		1,56,37,22, 8,41, 6,47		
60″	22,20,48,45, 7,26,20, 4, 4,30			
exact	22,20,48,45, 7,26,20, 4,33,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°52′ 0″	22,20,48,45, 7,26,20, 4,33,39			
		1,56,37,20,30,39,41,55		
2″	22,20,50,41,44,46,50,44,15,34		1,38, 1,36,14	
		1,56,37,18,52,38, 5,41		8,32
4″	22,20,52,38,22, 5,43,22,21,15		1,38, 1,44,46	
		1,56,37,17,14,36,20,55		8,32
6″	22,20,54,34,59,22,57,58,42,10		1,38, 1,53,18	
		1,56,37,15,36,34,27,37		8,32
8″	22,20,56,31,36,38,34,33, 9,47		1,38, 2, 1,50	
		1,56,37,13,58,32,25,47		8,32
10″	22,20,58,28,13,52,33, 5,35,34		1,38, 2,10,22	
		1,56,37,12,20,30,15,25		8,32
12″	22,21, 0,24,51, 4,53,35,50,59		1,38, 2,18,54	
		1,56,37,10,42,27,56,31		8,32
14″	22,21, 2,21,28,15,36, 3,47,30		1,38, 2,27,26	
		1,56,37, 9, 4,25,29, 5		8,32
16″	22,21, 4,18, 5,24,40,29,16,35		1,38, 2,35,58	
		1,56,37, 7,26,22,53, 7		8,32
18″	22,21, 6,14,42,32, 6,52, 9,42		1,38, 2,44,30	
		1,56,37, 5,48,20, 8,37		8,32
20″	22,21, 8,11,19,37,55,12,18,19		1,38, 2,53, 2	
		1,56,37, 4,10,17,15,35		8,32
22″	22,21,10, 7,56,42, 5,29,33,54		1,38, 3, 1,34	
		1,56,37, 2,32,14,14, 1		8,32
24″	22,21,12, 4,33,44,37,43,47,55		1,38, 3,10, 6	
		1,56,37, 0,54,11, 3,55		8,32
26″	22,21,14, 1,10,45,31,54,51,50		1,38, 3,18,38	
		1,56,36,59,16, 7,45,17		8,32
28″	22,21,15,57,47,44,48, 2,37, 7		1,38, 3,27,10	
		1,56,36,57,38, 4,18, 7		8,32
30″	22,21,17,54,24,42,26, 6,55,14		1,38, 3,35,42	
		1,56,36,56, 0, 0,42,25		8,32
32″	22,21,19,51, 1,38,26, 7,37,39		1,38, 3,44,14	
		1,56,36,54,21,56,58,11		8,32
34″	22,21,21,47,38,32,48, 4,35,50		1,38, 3,52,46	
		1,56,36,52,43,53, 5,25		8,32
36″	22,21,23,44,15,25,31,57,41,15		1,38, 4, 1,18	
		1,56,36,51, 5,49, 4, 7		8,32
38″	22,21,25,40,52,16,37,46,45,22		1,38, 4, 9,50	
		1,56,36,49,27,44,54,17		8,32
40″	22,21,27,37,29, 6, 5,31,39,39		1,38, 4,18,22	
		1,56,36,47,49,40,35,55		8,32
42″	22,21,29,34, 5,53,55,12,15,34		1,38, 4,26,54	
		1,56,36,46,11,36, 9, 1		8,32
44″	22,21,31,30,42,40, 6,48,24,35		1,38, 4,35,26	
		1,56,36,44,33,31,33,35		8,32
46″	22,21,33,27,19,24,40,19,58,10		1,38, 4,43,58	
		1,56,36,42,55,26,49,37		8,32
48″	22,21,35,23,56, 7,35,46,47,47		1,38, 4,52,30	
		1,56,36,41,17,21,57, 7		8,32
50″	22,21,37,20,32,48,53, 8,44,54		1,38, 5, 1, 2	
		1,56,36,39,39,16,56, 5		8,32
52″	22,21,39,17, 9,28,32,25,40,59		1,38, 5, 9,34	
		1,56,36,38, 1,11,46,31		8,32
54″	22,21,41,13,46, 6,33,37,27,30		1,38, 5,18, 6	
		1,56,36,36,23, 6,28,25		8,32
56″	22,21,43,10,22,42,56,43,55,55		1,38, 5,26,38	
		1,56,36,34,45, 1, 1,47		8,32
58″	22,21,45, 6,59,17,41,44,57,42		1,38, 5,35,10	
		1,56,36,33, 6,55,26,37		
60″	22,21,47, 3,35,50,48,40,24,19			
exact	22,21,47, 3,35,50,48,40,51,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°53′ 0″	22,21,47, 3,35,50,48,40,51,58			
		1,56,36,31,28,49,46, 2		
2″	22,21,49, 0,12,22,17,30,38, 0		1,38, 5,52, 0	
		1,56,36,29,50,43,54, 2		8,32
4″	22,21,50,56,48,52, 8,14,32, 2		1,38, 6, 0,32	
		1,56,36,28,12,37,53,30		8,32
6″	22,21,52,53,25,20,20,52,25,32		1,38, 6, 9, 4	
		1,56,36,26,34,31,44,26		8,32
8″	22,21,54,50, 1,46,55,24, 9,58		1,38, 6,17,36	
		1,56,36,24,56,25,26,50		8,32
10″	22,21,56,46,38,11,51,49,36,48		1,38, 6,26, 8	
		1,56,36,23,18,19, 0,42		8,32
12″	22,21,58,43,14,35,10, 8,37,30		1,38, 6,34,40	
		1,56,36,21,40,12,26, 2		8,32
14″	22,22, 0,39,50,56,50,21, 3,32		1,38, 6,43,12	
		1,56,36,20, 2, 5,42,50		8,32
16″	22,22, 2,36,27,16,52,26,46,22		1,38, 6,51,44	
		1,56,36,18,23,58,51, 6		8,32
18″	22,22, 4,33, 3,35,16,25,37,28		1,38, 7, 0,16	
		1,56,36,16,45,51,50,50		8,32
20″	22,22, 6,29,39,52, 2,17,28,18		1,38, 7, 8,48	
		1,56,36,15, 7,44,42, 2		8,32
22″	22,22, 8,26,16, 7,10, 2,10,20		1,38, 7,17,20	
		1,56,36,13,29,37,24,42		8,32
24″	22,22,10,22,52,20,39,39,35, 2		1,38, 7,25,52	
		1,56,36,11,51,29,58,50		8,32
26″	22,22,12,19,28,32,31, 9,33,52		1,38, 7,34,24	
		1,56,36,10,13,22,24,26		8,32
28″	22,22,14,16, 4,42,44,31,58,18		1,38, 7,42,56	
		1,56,36, 8,35,14,41,30		8,32
30″	22,22,16,12,40,51,19,46,39,48		1,38, 7,51,28	
		1,56,36, 6,57, 6,50, 2		8,32
32″	22,22,18, 9,16,58,16,53,29,50		1,38, 8, 0, 0	
		1,56,36, 5,18,58,50, 2		8,32
34″	22,22,20, 5,53, 3,35,52,19,52		1,38, 8, 8,32	
		1,56,36, 3,40,50,41,30		8,32
36″	22,22,22, 2,29, 7,16,43, 1,22		1,38, 8,17, 4	
		1,56,36, 2, 2,42,24,26		8,32
38″	22,22,23,59, 5, 9,19,25,25,48		1,38, 8,25,36	
		1,56,36, 0,24,33,58,50		8,32
40″	22,22,25,55,41, 9,43,59,24,38		1,38, 8,34, 8	
		1,56,35,58,46,25,24,42		8,32
42″	22,22,27,52,17, 8,30,24,49,20		1,38, 8,42,40	
		1,56,35,57, 8,16,42, 2		8,32
44″	22,22,29,48,53, 5,38,41,31,22		1,38, 8,51,12	
		1,56,35,55,30, 7,50,50		8,32
46″	22,22,31,45,29, 1, 8,49,22,12		1,38, 8,59,44	
		1,56,35,53,51,58,51, 6		8,32
48″	22,22,33,42, 4,55, 0,48,13,18		1,38, 9, 8,16	
		1,56,35,52,13,49,42,50		8,32
50″	22,22,35,38,40,47,14,37,56, 8		1,38, 9,16,48	
		1,56,35,50,35,40,26, 2		8,32
52″	22,22,37,35,16,37,50,18,22,10		1,38, 9,25,20	
		1,56,35,48,57,31, 0,42		8,32
54″	22,22,39,31,52,26,47,49,22,52		1,38, 9,33,52	
		1,56,35,47,19,21,26,50		8,32
56″	22,22,41,28,28,14, 7,10,49,42		1,38, 9,42,24	
		1,56,35,45,41,11,44,26		8,32
58″	22,22,43,25, 3,59,48,22,34, 8		1,38, 9,50,56	
		1,56,35,44, 3, 1,53,30		
60″	22,22,45,21,39,43,51,24,27,38			
exact	22,22,45,21,39,43,51,24,59,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°54′ 0″	22,22,45,21,39,43,51,24,59,13			
		1,56,35,42,24,51,57,35		
2″	22,22,47,18,15,26,16,16,56,48		1,38,10, 7,45	
		1,56,35,40,46,41,49,50		8,31
4″	22,22,49,14,51, 7, 2,58,46,38		1,38,10,16,16	
		1,56,35,39, 8,31,33,34		8,31
6″	22,22,51,11,26,46,11,30,20,12		1,38,10,24,47	
		1,56,35,37,30,21, 8,47		8,31
8″	22,22,53, 8, 2,23,41,51,28,59		1,38,10,33,18	
		1,56,35,35,52,10,35,29		8,31
10″	22,22,55, 4,37,59,34, 2, 4,28		1,38,10,41,49	
		1,56,35,34,13,59,53,40		8,31
12″	22,22,57, 1,13,33,48, 1,58, 8		1,38,10,50,20	
		1,56,35,32,35,49, 3,20		8,31
14″	22,22,58,57,49, 6,23,51, 1,28		1,38,10,58,51	
		1,56,35,30,57,38, 4,29		8,31
16″	22,23, 0,54,24,37,21,29, 5,57		1,38,11, 7,22	
		1,56,35,29,19,26,57, 7		8,31
18″	22,23, 2,51, 0, 6,40,56, 3, 4		1,38,11,15,53	
		1,56,35,27,41,15,41,14		8,31
20″	22,23, 4,47,35,34,22,11,44,18		1,38,11,24,24	
		1,56,35,26, 3, 4,16,50		8,31
22″	22,23, 6,44,11, 0,25,16, 1, 8		1,38,11,32,55	
		1,56,35,24,24,52,43,55		8,31
24″	22,23, 8,40,46,24,50, 8,45, 3		1,38,11,41,26	
		1,56,35,22,46,41, 2,29		8,31
26″	22,23,10,37,21,47,36,49,47,32		1,38,11,49,57	
		1,56,35,21, 8,29,12,32		8,31
28″	22,23,12,33,57, 8,45,19, 0, 4		1,38,11,58,28	
		1,56,35,19,30,17,14, 4		8,31
30″	22,23,14,30,32,28,15,36,14, 8		1,38,12, 6,59	
		1,56,35,17,52, 5, 7, 5		8,31
32″	22,23,16,27, 7,46, 7,41,21,13		1,38,12,15,30	
		1,56,35,16,13,52,51,35		8,31
34″	22,23,18,23,43, 2,21,34,12,48		1,38,12,24, 1	
		1,56,35,14,35,40,27,34		8,31
36″	22,23,20,20,18,16,57,14,40,22		1,38,12,32,32	
		1,56,35,12,57,27,55, 2		8,31
38″	22,23,22,16,53,29,54,42,35,24		1,38,12,41, 3	
		1,56,35,11,19,15,13,59		8,31
40″	22,23,24,13,28,41,13,57,49,23		1,38,12,49,34	
		1,56,35, 9,41, 2,24,25		8,31
42″	22,23,26,10, 3,50,55, 0,13,48		1,38,12,58, 5	
		1,56,35, 8, 2,49,26,20		8,31
44″	22,23,28, 6,38,58,57,49,40, 8		1,38,13, 6,36	
		1,56,35, 6,24,36,19,44		8,31
46″	22,23,30, 3,14, 5,22,25,59,52		1,38,13,15, 7	
		1,56,35, 4,46,23, 4,37		8,31
48″	22,23,31,59,49,10, 8,49, 4,29		1,38,13,23,38	
		1,56,35, 3, 8, 9,40,59		8,31
50″	22,23,33,56,24,13,16,58,45,28		1,38,13,32, 9	
		1,56,35, 1,29,56, 8,50		8,31
52″	22,23,35,52,59,14,46,54,54,18		1,38,13,40,40	
		1,56,34,59,51,42,28,10		8,31
54″	22,23,37,49,34,14,38,37,22,28		1,38,13,49,11	
		1,56,34,58,13,28,38,59		8,31
56″	22,23,39,46, 9,12,52, 6, 1,27		1,38,13,57,42	
		1,56,34,56,35,14,41,17		8,31
58″	22,23,41,42,44, 9,27,20,42,44		1,38,14, 6,13	
		1,56,34,54,57, 0,35, 4		
60″	22,23,43,39,19, 4,24,21,17,48			
exact	22,23,43,39,19, 4,24,20,51,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°55′ 0″	22,23,43,39,19, 4,24,20,51,58			
		1,56,34,53,18,46,17,29		
2″	22,23,45,35,53,57,43, 7, 9,27		1,38,14,23,27	
		1,56,34,51,40,31,54, 2		8,31
4″	22,23,47,32,28,49,23,39, 3,29		1,38,14,31,58	
		1,56,34,50, 2,17,22, 4		8,31
6″	22,23,49,29, 3,39,25,56,25,33		1,38,14,40,29	
		1,56,34,48,24, 2,41,35		8,31
8″	22,23,51,25,38,27,49,59, 7, 8		1,38,14,49, 0	
		1,56,34,46,45,47,52,35		8,31
10″	22,23,53,22,13,14,35,46,59,43		1,38,14,57,31	
		1,56,34,45, 7,32,55, 4		8,31
12″	22,23,55,18,47,59,43,19,54,47		1,38,15, 6, 2	
		1,56,34,43,29,17,49, 2		8,31
14″	22,23,57,15,22,43,12,37,43,49		1,38,15,14,33	
		1,56,34,41,51, 2,34,29		8,31
16″	22,23,59,11,57,25, 3,40,18,18		1,38,15,23, 4	
		1,56,34,40,12,47,11,25		8,31
18″	22,24, 1, 8,32, 5,16,27,29,43		1,38,15,31,35	
		1,56,34,38,34,31,39,50		8,31
20″	22,24, 3, 5, 6,43,50,59, 9,33		1,38,15,40, 6	
		1,56,34,36,56,15,59,44		8,31
22″	22,24, 5, 1,41,20,47,15, 9,17		1,38,15,48,37	
		1,56,34,35,18, 0,11, 7		8,31
24″	22,24, 6,58,15,56, 5,15,20,24		1,38,15,57, 8	
		1,56,34,33,39,44,13,59		8,31
26″	22,24, 8,54,50,29,44,59,34,23		1,38,16, 5,39	
		1,56,34,32, 1,28, 8,20		8,31
28″	22,24,10,51,25, 1,46,27,42,43		1,38,16,14,10	
		1,56,34,30,23,11,54,10		8,31
30″	22,24,12,47,59,32, 9,39,36,53		1,38,16,22,41	
		1,56,34,28,44,55,31,29		8,31
32″	22,24,14,44,34, 0,54,35, 8,22		1,38,16,31,12	
		1,56,34,27, 6,39, 0,17		8,31
34″	22,24,16,41, 8,28, 1,14, 8,39		1,38,16,39,43	
		1,56,34,25,28,22,20,34		8,31
36″	22,24,18,37,42,53,29,36,29,13		1,38,16,48,14	
		1,56,34,23,50, 5,32,20		8,31
38″	22,24,20,34,17,17,19,42, 1,33		1,38,16,56,45	
		1,56,34,22,11,48,35,35		8,31
40″	22,24,22,30,51,39,31,30,37, 8		1,38,17, 5,16	
		1,56,34,20,33,31,30,19		8,31
42″	22,24,24,27,26, 0, 5, 2, 7,27		1,38,17,13,47	
		1,56,34,18,55,14,16,32		8,31
44″	22,24,26,24, 0,19, 0,16,23,59		1,38,17,22,18	
		1,56,34,17,16,56,54,14		8,31
46″	22,24,28,20,34,36,17,13,18,13		1,38,17,30,49	
		1,56,34,15,38,39,23,25		8,31
48″	22,24,30,17, 8,51,55,52,41,38		1,38,17,39,20	
		1,56,34,14, 0,21,44, 5		8,31
50″	22,24,32,13,43, 5,56,14,25,43		1,38,17,47,51	
		1,56,34,12,22, 3,56,14		8,31
52″	22,24,34,10,17,18,18,18,21,57		1,38,17,56,22	
		1,56,34,10,43,45,59,52		8,31
54″	22,24,36, 6,51,29, 2, 4,21,49		1,38,18, 4,53	
		1,56,34, 9, 5,27,54,59		8,31
56″	22,24,38, 3,25,38, 7,32,16,48		1,38,18,13,24	
		1,56,34, 7,27, 9,41,35		8,31
58″	22,24,39,59,59,45,34,41,58,23		1,38,18,21,55	
		1,56,34, 5,48,51,19,40		
60″	22,24,41,56,33,51,23,33,18, 3			
exact	22,24,41,56,33,51,23,32,53,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°56′ 0″	22,24,41,56,33,51,23,32,53,42			
		1,56,34, 4,10,32,46,38		
2″	22,24,43,53, 7,55,34, 5,40,20		1,38,18,39, 8	
		1,56,34, 2,32,14, 7,30		8,31
4″	22,24,45,49,41,58, 6,19,47,50		1,38,18,47,39	
		1,56,34, 0,53,55,19,51		8,31
6″	22,24,47,46,15,59, 0,15, 7,41		1,38,18,56,10	
		1,56,33,59,15,36,23,41		8,31
8″	22,24,49,42,49,58,15,51,31,22		1,38,19, 4,41	
		1,56,33,57,37,17,19, 0		8,31
10″	22,24,51,39,23,55,53, 8,50,22		1,38,19,13,12	
		1,56,33,55,58,58, 5,48		8,31
12″	22,24,53,35,57,51,52, 6,56,10		1,38,19,21,43	
		1,56,33,54,20,38,44, 5		8,31
14″	22,24,55,32,31,46,12,45,40,15		1,38,19,30,14	
		1,56,33,52,42,19,13,51		8,31
16″	22,24,57,29, 5,38,55, 4,54, 6		1,38,19,38,45	
		1,56,33,51, 3,59,35, 6		8,31
18″	22,24,59,25,39,29,59, 4,29,12		1,38,19,47,16	
		1,56,33,49,25,39,47,50		8,31
20″	22,25, 1,22,13,19,24,44,17, 2		1,38,19,55,47	
		1,56,33,47,47,19,52, 3		8,31
22″	22,25, 3,18,47, 7,12, 4, 9, 5		1,38,20, 4,18	
		1,56,33,46, 8,59,47,45		8,31
24″	22,25, 5,15,20,53,21, 3,56,50		1,38,20,12,49	
		1,56,33,44,30,39,34,56		8,31
26″	22,25, 7,11,54,37,51,43,31,46		1,38,20,21,20	
		1,56,33,42,52,19,13,36		8,31
28″	22,25, 9, 8,28,20,44, 2,45,22		1,38,20,29,51	
		1,56,33,41,13,58,43,45		8,31
30″	22,25,11, 5, 2, 1,58, 1,29, 7		1,38,20,38,22	
		1,56,33,39,35,38, 5,23		8,31
32″	22,25,13, 1,35,41,33,39,34,30		1,38,20,46,53	
		1,56,33,37,57,17,18,30		8,31
34″	22,25,14,58, 9,19,30,56,53, 0		1,38,20,55,24	
		1,56,33,36,18,56,23, 6		8,31
36″	22,25,16,54,42,55,49,53,16, 6		1,38,21, 3,55	
		1,56,33,34,40,35,19,11		8,31
38″	22,25,18,51,16,30,30,28,35,17		1,38,21,12,26	
		1,56,33,33, 2,14, 6,45		8,31
40″	22,25,20,47,50, 3,32,42,42, 2		1,38,21,20,57	
		1,56,33,31,23,52,45,48		8,31
42″	22,25,22,44,23,34,56,35,27,50		1,38,21,29,28	
		1,56,33,29,45,31,16,20		8,31
44″	22,25,24,40,57, 4,42, 6,44,10		1,38,21,37,59	
		1,56,33,28, 7, 9,38,21		8,31
46″	22,25,26,37,30,32,49,16,22,31		1,38,21,46,30	
		1,56,33,26,28,47,51,51		8,31
48″	22,25,28,34, 3,59,18, 4,14,22		1,38,21,55, 1	
		1,56,33,24,50,25,56,50		8,31
50″	22,25,30,30,37,24, 8,30,11,12		1,38,22, 3,32	
		1,56,33,23,12, 3,53,18		8,31
52″	22,25,32,27,10,47,20,34, 4,30		1,38,22,12, 3	
		1,56,33,21,33,41,41,15		8,31
54″	22,25,34,23,44, 8,54,15,45,45		1,38,22,20,34	
		1,56,33,19,55,19,20,41		8,31
56″	22,25,36,20,17,28,49,35, 6,26		1,38,22,29, 5	
		1,56,33,18,16,56,51,36		8,31
58″	22,25,38,16,50,47, 6,31,58, 2		1,38,22,37,36	
		1,56,33,16,38,34,14, 0		
60″	22,25,40,13,24, 3,45, 6,12, 2			
exact	22,25,40,13,24, 3,45, 5,54,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°57′ 0″	22,25,40,13,24, 3,45, 5,54,49			
		1,56,33,15, 0,11,25,56		
2″	22,25,42, 9,57,18,45,17,20,45		1,38,22,54,46	
		1,56,33,13,21,48,31,10		8,31
4″	22,25,44, 6,30,32, 7, 5,51,55		1,38,23, 3,17	
		1,56,33,11,43,25,27,53		8,31
6″	22,25,46, 3, 3,43,50,31,19,48		1,38,23,11,48	
		1,56,33,10, 5, 2,16, 5		8,31
8″	22,25,47,59,36,53,55,33,35,53		1,38,23,20,19	
		1,56,33, 8,26,38,55,46		8,31
10″	22,25,49,56,10, 2,22,12,31,39		1,38,23,28,50	
		1,56,33, 6,48,15,26,56		8,31
12″	22,25,51,52,43, 9,10,27,58,35		1,38,23,37,21	
		1,56,33, 5, 9,51,49,35		8,31
14″	22,25,53,49,16,14,20,19,48,10		1,38,23,45,52	
		1,56,33, 3,31,28, 3,43		8,31
16″	22,25,55,45,49,17,51,47,51,53		1,38,23,54,23	
		1,56,33, 1,53, 4, 9,20		8,31
18″	22,25,57,42,22,19,44,52, 1,13		1,38,24, 2,54	
		1,56,33, 0,14,40, 6,26		8,31
20″	22,25,59,38,55,19,59,32, 7,39		1,38,24,11,25	
		1,56,32,58,36,15,55, 1		8,31
22″	22,26, 1,35,28,18,35,48, 2,40		1,38,24,19,56	
		1,56,32,56,57,51,35, 5		8,31
24″	22,26, 3,32, 1,15,33,39,37,45		1,38,24,28,27	
		1,56,32,55,19,27, 6,38		8,31
26″	22,26, 5,28,34,10,53, 6,44,23		1,38,24,36,58	
		1,56,32,53,41, 2,29,40		8,31
28″	22,26, 7,25, 7, 4,34, 9,14, 3		1,38,24,45,29	
		1,56,32,52, 2,37,44,11		8,31
30″	22,26, 9,21,39,56,36,46,58,14		1,38,24,54, 0	
		1,56,32,50,24,12,50,11		8,31
32″	22,26,11,18,12,47, 0,59,48,25		1,38,25, 2,31	
		1,56,32,48,45,47,47,40		8,31
34″	22,26,13,14,45,35,46,47,36, 5		1,38,25,11, 2	
		1,56,32,47, 7,22,36,38		8,31
36″	22,26,15,11,18,22,54,10,12,43		1,38,25,19,33	
		1,56,32,45,28,57,17, 5		8,31
38″	22,26,17, 7,51, 8,23, 7,29,48		1,38,25,28, 4	
		1,56,32,43,50,31,49, 1		8,31
40″	22,26,19, 4,23,52,13,39,18,49		1,38,25,36,35	
		1,56,32,42,12, 6,12,26		8,31
42″	22,26,21, 0,56,34,25,45,31,15		1,38,25,45, 6	
		1,56,32,40,33,40,27,20		8,31
44″	22,26,22,57,29,14,59,25,58,35		1,38,25,53,37	
		1,56,32,38,55,14,33,43		8,31
46″	22,26,24,54, 1,53,54,40,32,18		1,38,26, 2, 8	
		1,56,32,37,16,48,31,35		8,31
48″	22,26,26,50,34,31,11,29, 3,53		1,38,26,10,39	
		1,56,32,35,38,22,20,56		8,31
50″	22,26,28,47, 7, 6,49,51,24,49		1,38,26,19,10	
		1,56,32,33,59,56, 1,46		8,31
52″	22,26,30,43,39,40,49,47,26,35		1,38,26,27,41	
		1,56,32,32,21,29,34, 5		8,31
54″	22,26,32,40,12,13,11,17, 0,40		1,38,26,36,12	
		1,56,32,30,43, 2,57,53		8,31
56″	22,26,34,36,44,43,54,19,58,33		1,38,26,44,43	
		1,56,32,29, 4,36,13,10		8,31
58″	22,26,36,33,17,12,58,56,11,43		1,38,26,53,14	
		1,56,32,27,26, 9,19,56		
60″	22,26,38,29,49,40,25, 5,31,39			
exact	22,26,38,29,49,40,25, 5,12,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°58′ 0″	22,26,38,29,49,40,25, 5,12,42			
		1,56,32,25,47,42,16,16		
2″	22,26,40,26,22, 6,12,47,28,58		1,38,27,10,23	
		1,56,32,24, 9,15, 5,53		8,31
4″	22,26,42,22,54,30,22, 2,34,51		1,38,27,18,54	
		1,56,32,22,30,47,46,59		8,31
6″	22,26,44,19,26,52,52,50,21,50		1,38,27,27,25	
		1,56,32,20,52,20,19,34		8,31
8″	22,26,46,15,59,13,45,10,41,24		1,38,27,35,56	
		1,56,32,19,13,52,43,38		8,31
10″	22,26,48,12,31,32,59, 3,25, 2		1,38,27,44,27	
		1,56,32,17,35,24,59,11		8,31
12″	22,26,50, 9, 3,50,34,28,24,13		1,38,27,52,58	
		1,56,32,15,56,57, 6,13		8,31
14″	22,26,52, 5,36, 6,31,25,30,26		1,38,28, 1,29	
		1,56,32,14,18,29, 4,44		8,31
16″	22,26,54, 2, 8,20,49,54,35,10		1,38,28,10, 0	
		1,56,32,12,40, 0,54,44		8,31
18″	22,26,55,58,40,33,29,55,29,54		1,38,28,18,31	
		1,56,32,11, 1,32,36,13		8,31
20″	22,26,57,55,12,44,31,28, 6, 7		1,38,28,27, 2	
		1,56,32, 9,23, 4, 9,11		8,31
22″	22,26,59,51,44,53,54,32,15,18		1,38,28,35,33	
		1,56,32, 7,44,35,33,38		8,31
24″	22,27, 1,48,17, 1,39, 7,48,56		1,38,28,44, 4	
		1,56,32, 6, 6, 6,49,34		8,31
26″	22,27, 3,44,49, 7,45,14,38,30		1,38,28,52,35	
		1,56,32, 4,27,37,56,59		8,31
28″	22,27, 5,41,21,12,12,52,35,29		1,38,29, 1, 6	
		1,56,32, 2,49, 8,55,53		8,31
30″	22,27, 7,37,53,15, 2, 1,31,22		1,38,29, 9,37	
		1,56,32, 1,10,39,46,16		8,31
32″	22,27, 9,34,25,16,12,41,17,38		1,38,29,18, 8	
		1,56,31,59,32,10,28, 8		8,31
34″	22,27,11,30,57,15,44,51,45,46		1,38,29,26,39	
		1,56,31,57,53,41, 1,29		8,31
36″	22,27,13,27,29,13,38,32,47,15		1,38,29,35,10	
		1,56,31,56,15,11,26,19		8,31
38″	22,27,15,24, 1, 9,53,44,13,34		1,38,29,43,41	
		1,56,31,54,36,41,42,38		8,31
40″	22,27,17,20,33, 4,30,25,56,12		1,38,29,52,12	
		1,56,31,52,58,11,50,26		8,31
42″	22,27,19,17, 4,57,28,37,46,38		1,38,30, 0,43	
		1,56,31,51,19,41,49,43		8,31
44″	22,27,21,13,36,48,48,19,36,21		1,38,30, 9,14	
		1,56,31,49,41,11,40,29		8,31
46″	22,27,23,10, 8,38,29,31,16,50		1,38,30,17,45	
		1,56,31,48, 2,41,22,44		8,31
48″	22,27,25, 6,40,26,32,12,39,34		1,38,30,26,16	
		1,56,31,46,24,10,56,28		8,31
50″	22,27,27, 3,12,12,56,23,36, 2		1,38,30,34,47	
		1,56,31,44,45,40,21,41		8,31
52″	22,27,28,59,43,57,42, 3,57,43		1,38,30,43,18	
		1,56,31,43, 7, 9,38,23		8,31
54″	22,27,30,56,15,40,49,13,36, 6		1,38,30,51,49	
		1,56,31,41,28,38,46,34		8,31
56″	22,27,32,52,47,22,17,52,22,40		1,38,31, 0,20	
		1,56,31,39,50, 7,46,14		8,31
58″	22,27,34,49,19, 2, 8, 0, 8,54		1,38,31, 8,51	
		1,56,31,38,11,36,37,23		
60″	22,27,36,45,50,40,19,36,46,17			
exact	22,27,36,45,50,40,19,36,31,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
21°59′ 0″	22,27,36,45,50,40,19,36,31,40			
		1,56,31,36,33, 5,18,33		
2″	22,27,38,42,22,16,52,41,50,13		1,38,31,25,58	
		1,56,31,34,54,33,52,35		8,31
4″	22,27,40,38,53,51,47,15,42,48		1,38,31,34,29	
		1,56,31,33,16, 2,18, 6		8,31
6″	22,27,42,35,25,25, 3,18, 0,54		1,38,31,43, 0	
		1,56,31,31,37,30,35, 6		8,31
8″	22,27,44,31,56,56,40,48,36, 0		1,38,31,51,31	
		1,56,31,29,58,58,43,35		8,31
10″	22,27,46,28,28,26,39,47,19,35		1,38,32, 0, 2	
		1,56,31,28,20,26,43,33		8,31
12″	22,27,48,24,59,55, 0,14, 3, 8		1,38,32, 8,33	
		1,56,31,26,41,54,35, 0		8,31
14″	22,27,50,21,31,21,42, 8,38, 8		1,38,32,17, 4	
		1,56,31,25, 3,22,17,56		8,31
16″	22,27,52,18, 2,46,45,30,56, 4		1,38,32,25,35	
		1,56,31,23,24,49,52,21		8,31
18″	22,27,54,14,34,10,10,20,48,25		1,38,32,34, 6	
		1,56,31,21,46,17,18,15		8,31
20″	22,27,56,11, 5,31,56,38, 6,40		1,38,32,42,37	
		1,56,31,20, 7,44,35,38		8,31
22″	22,27,58, 7,36,52, 4,22,42,18		1,38,32,51, 8	
		1,56,31,18,29,11,44,30		8,31
24″	22,28, 0, 4, 8,10,33,34,26,48		1,38,32,59,39	
		1,56,31,16,50,38,44,51		8,31
26″	22,28, 2, 0,39,27,24,13,11,39		1,38,33, 8,10	
		1,56,31,15,12, 5,36,41		8,31
28″	22,28, 3,57,10,42,36,18,48,20		1,38,33,16,41	
		1,56,31,13,33,32,20, 0		8,31
30″	22,28, 5,53,41,56, 9,51, 8,20		1,38,33,25,12	
		1,56,31,11,54,58,54,48		8,31
32″	22,28, 7,50,13, 8, 4,50, 3, 8		1,38,33,33,43	
		1,56,31,10,16,25,21, 5		8,31
34″	22,28, 9,46,44,18,21,15,24,13		1,38,33,42,14	
		1,56,31, 8,37,51,38,51		8,31
36″	22,28,11,43,15,26,59, 7, 3, 4		1,38,33,50,45	
		1,56,31, 6,59,17,48, 6		8,31
38″	22,28,13,39,46,33,58,24,51,10		1,38,33,59,16	
		1,56,31, 5,20,43,48,50		8,31
40″	22,28,15,36,17,39,19, 8,40, 0		1,38,34, 7,47	
		1,56,31, 3,42, 9,41, 3		8,31
42″	22,28,17,32,48,43, 1,18,21, 3		1,38,34,16,18	
		1,56,31, 2, 3,35,24,45		8,31
44″	22,28,19,29,19,45, 4,53,45,48		1,38,34,24,49	
		1,56,31, 0,25, 0,59,56		8,31
46″	22,28,21,25,50,45,29,54,45,44		1,38,34,33,20	
		1,56,30,58,46,26,26,36		8,31
48″	22,28,23,22,21,44,16,21,12,20		1,38,34,41,51	
		1,56,30,57, 7,51,44,45		8,31
50″	22,28,25,18,52,41,24,12,57, 5		1,38,34,50,22	
		1,56,30,55,29,16,54,23		8,31
52″	22,28,27,15,23,36,53,29,51,28		1,38,34,58,53	
		1,56,30,53,50,41,55,30		8,31
54″	22,28,29,11,54,30,44,11,46,58		1,38,35, 7,24	
		1,56,30,52,12, 6,48, 6		8,31
56″	22,28,31, 8,25,22,56,18,35, 4		1,38,35,15,55	
		1,56,30,50,33,31,32,11		8,31
58″	22,28,33, 4,56,13,29,50, 7,15		1,38,35,24,26	
		1,56,30,48,54,56, 7,45		
60″	22,28,35, 1,27, 2,24,46,15, 0			
exact	22,28,35, 1,27, 2,24,46, 3, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22° 0′ 0″	22,28,35, 1,27, 2,24,46, 3, 3			
		1,56,30,47,16,20,33,41		
2″	22,28,36,57,57,49,41, 6,36,44		1,38,35,41,32	
		1,56,30,45,37,44,52, 9		8,31
4″	22,28,38,54,28,35,18,51,28,53		1,38,35,50, 3	
		1,56,30,43,59, 9, 2, 6		8,31
6″	22,28,40,50,59,19,18, 0,30,59		1,38,35,58,34	
		1,56,30,42,20,33, 3,32		8,31
8″	22,28,42,47,30, 1,38,33,34,31		1,38,36, 7, 5	
		1,56,30,40,41,56,56,27		8,31
10″	22,28,44,44, 0,42,20,30,30,58		1,38,36,15,36	
		1,56,30,39, 3,20,40,51		8,31
12″	22,28,46,40,31,21,23,51,11,49		1,38,36,24, 7	
		1,56,30,37,24,44,16,44		8,31
14″	22,28,48,37, 1,58,48,35,28,33		1,38,36,32,38	
		1,56,30,35,46, 7,44, 6		8,31
16″	22,28,50,33,32,34,34,43,12,39		1,38,36,41, 9	
		1,56,30,34, 7,31, 2,57		8,31
18″	22,28,52,30, 3, 8,42,14,15,36		1,38,36,49,40	
		1,56,30,32,28,54,13,17		8,31
20″	22,28,54,26,33,41,11, 8,28,53		1,38,36,58,11	
		1,56,30,30,50,17,15, 6		8,31
22″	22,28,56,23, 4,12, 1,25,43,59		1,38,37, 6,42	
		1,56,30,29,11,40, 8,24		8,31
24″	22,28,58,19,34,41,13, 5,52,23		1,38,37,15,13	
		1,56,30,27,33, 2,53,11		8,31
26″	22,29, 0,16, 5, 8,46, 8,45,34		1,38,37,23,44	
		1,56,30,25,54,25,29,27		8,31
28″	22,29, 2,12,35,34,40,34,15, 1		1,38,37,32,15	
		1,56,30,24,15,47,57,12		8,31
30″	22,29, 4, 9, 5,58,56,22,12,13		1,38,37,40,46	
		1,56,30,22,37,10,16,26		8,31
32″	22,29, 6, 5,36,21,33,32,28,39		1,38,37,49,17	
		1,56,30,20,58,32,27, 9		8,31
34″	22,29, 8, 2, 6,42,32, 4,55,48		1,38,37,57,48	
		1,56,30,19,19,54,29,21		8,31
36″	22,29, 9,58,37, 1,51,59,25, 9		1,38,38, 6,19	
		1,56,30,17,41,16,23, 2		8,31
38″	22,29,11,55, 7,19,33,15,48,11		1,38,38,14,50	
		1,56,30,16, 2,38, 8,12		8,31
40″	22,29,13,51,37,35,35,53,56,23		1,38,38,23,21	
		1,56,30,14,23,59,44,51		8,31
42″	22,29,15,48, 7,49,59,53,41,14		1,38,38,31,52	
		1,56,30,12,45,21,12,59		8,31
44″	22,29,17,44,38, 2,45,14,54,13		1,38,38,40,23	
		1,56,30,11, 6,42,32,36		8,31
46″	22,29,19,41, 8,13,51,57,26,49		1,38,38,48,54	
		1,56,30, 9,28, 3,43,42		8,31
48″	22,29,21,37,38,23,20, 1,10,31		1,38,38,57,25	
		1,56,30, 7,49,24,46,17		8,31
50″	22,29,23,34, 8,31, 9,25,56,48		1,38,39, 5,56	
		1,56,30, 6,10,45,40,21		8,31
52″	22,29,25,30,38,37,20,11,37, 9		1,38,39,14,27	
		1,56,30, 4,32, 6,25,54		8,31
54″	22,29,27,27, 8,41,52,18, 3, 3		1,38,39,22,58	
		1,56,30, 2,53,27, 2,56		8,31
56″	22,29,29,23,38,44,45,45, 5,59		1,38,39,31,29	
		1,56,30, 1,14,47,31,27		8,31
58″	22,29,31,20, 8,46, 0,32,37,26		1,38,39,40, 0	
		1,56,29,59,36, 7,51,27		
60″	22,29,33,16,38,45,36,40,28,53			
exact	22,29,33,16,38,45,36,40,25,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22° 1′ 0″	22,29,33,16,38,45,36,40,25,12			
		1,56,29,57,57,28, 2,33		
2″	22,29,35,13, 8,43,34, 8,27,45		1,38,39,57, 3	
		1,56,29,56,18,48, 5,30		8,31
4″	22,29,37, 9,38,39,52,56,33,15		1,38,40, 5,34	
		1,56,29,54,40, 7,59,56		8,31
6″	22,29,39, 6, 8,34,33, 4,33,11		1,38,40,14, 5	
		1,56,29,53, 1,27,45,51		8,31
8″	22,29,41, 2,38,27,34,32,19, 2		1,38,40,22,36	
		1,56,29,51,22,47,23,15		8,31
10″	22,29,42,59, 8,18,57,19,42,17		1,38,40,31, 7	
		1,56,29,49,44, 6,52, 8		8,31
12″	22,29,44,55,38, 8,41,26,34,25		1,38,40,39,38	
		1,56,29,48, 5,26,12,30		8,31
14″	22,29,46,52, 7,56,46,52,46,55		1,38,40,48, 9	
		1,56,29,46,26,45,24,21		8,31
16″	22,29,48,48,37,43,13,38,11,16		1,38,40,56,40	
		1,56,29,44,48, 4,27,41		8,31
18″	22,29,50,45, 7,28, 1,42,38,57		1,38,41, 5,11	
		1,56,29,43, 9,23,22,30		8,31
20″	22,29,52,41,37,11,11, 6, 1,27		1,38,41,13,42	
		1,56,29,41,30,42, 8,48		8,31
22″	22,29,54,38, 6,52,41,48,10,15		1,38,41,22,13	
		1,56,29,39,52, 0,46,35		8,31
24″	22,29,56,34,36,32,33,48,56,50		1,38,41,30,44	
		1,56,29,38,13,19,15,51		8,31
26″	22,29,58,31, 6,10,47, 8,12,41		1,38,41,39,15	
		1,56,29,36,34,37,36,36		8,31
28″	22,30, 0,27,35,47,21,45,49,17		1,38,41,47,46	
		1,56,29,34,55,55,48,50		8,31
30″	22,30, 2,24, 5,22,17,41,38, 7		1,38,41,56,17	
		1,56,29,33,17,13,52,33		8,31
32″	22,30, 4,20,34,55,34,55,30,40		1,38,42, 4,48	
		1,56,29,31,38,31,47,45		8,31
34″	22,30, 6,17, 4,27,13,27,18,25		1,38,42,13,19	
		1,56,29,29,59,49,34,26		8,31
36″	22,30, 8,13,33,57,13,16,52,51		1,38,42,21,50	
		1,56,29,28,21, 7,12,36		8,31
38″	22,30,10,10, 3,25,34,24, 5,27		1,38,42,30,21	
		1,56,29,26,42,24,42,15		8,31
40″	22,30,12, 6,32,52,16,48,47,42		1,38,42,38,52	
		1,56,29,25, 3,42, 3,23		8,31
42″	22,30,14, 3, 2,17,20,30,51, 5		1,38,42,47,23	
		1,56,29,23,24,59,16, 0		8,31
44″	22,30,15,59,31,40,45,30, 7, 5		1,38,42,55,54	
		1,56,29,21,46,16,20, 6		8,31
46″	22,30,17,56, 1, 2,31,46,27,11		1,38,43, 4,25	
		1,56,29,20, 7,33,15,41		8,31
48″	22,30,19,52,30,22,39,19,42,52		1,38,43,12,56	
		1,56,29,18,28,50, 2,45		8,31
50″	22,30,21,48,59,41, 8, 9,45,37		1,38,43,21,27	
		1,56,29,16,50, 6,41,18		8,31
52″	22,30,23,45,28,57,58,16,26,55		1,38,43,29,58	
		1,56,29,15,11,23,11,20		8,31
54″	22,30,25,41,58,13, 9,39,38,15		1,38,43,38,29	
		1,56,29,13,32,39,32,51		8,31
56″	22,30,27,38,27,26,42,19,11, 6		1,38,43,47, 0	
		1,56,29,11,53,55,45,51		8,31
58″	22,30,29,34,56,38,36,14,56,57		1,38,43,55,31	
		1,56,29,10,15,11,50,20		
60″	22,30,31,31,25,48,51,26,47,17			
exact	22,30,31,31,25,48,51,26,43,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22° 2′ 0″	22,30,31,31,25,48,51,26,43,28			
		1,56,29, 8,36,27,46, 3		
2″	22,30,33,27,54,57,27,54,29,31		1,38,44,12,33	
		1,56,29, 6,57,43,33,30		8,31
4″	22,30,35,24,24, 4,25,38, 3, 1		1,38,44,21, 4	
		1,56,29, 5,18,59,12,26		8,31
6″	22,30,37,20,53, 9,44,37,15,27		1,38,44,29,35	
		1,56,29, 3,40,14,42,51		8,31
8″	22,30,39,17,22,13,24,51,58,18		1,38,44,38, 6	
		1,56,29, 2, 1,30, 4,45		8,31
10″	22,30,41,13,51,15,26,22, 3, 3		1,38,44,46,37	
		1,56,29, 0,22,45,18, 8		8,31
12″	22,30,43,10,20,15,49, 7,21,11		1,38,44,55, 8	
		1,56,28,58,44, 0,23, 0		8,31
14″	22,30,45, 6,49,14,33, 7,44,11		1,38,45, 3,39	
		1,56,28,57, 5,15,19,21		8,31
16″	22,30,47, 3,18,11,38,23, 3,32		1,38,45,12,10	
		1,56,28,55,26,30, 7,11		8,31
18″	22,30,48,59,47, 7, 4,53,10,43		1,38,45,20,41	
		1,56,28,53,47,44,46,30		8,31
20″	22,30,50,56,16, 0,52,37,57,13		1,38,45,29,12	
		1,56,28,52, 8,59,17,18		8,31
22″	22,30,52,52,44,53, 1,37,14,31		1,38,45,37,43	
		1,56,28,50,30,13,39,35		8,31
24″	22,30,54,49,13,43,31,50,54, 6		1,38,45,46,14	
		1,56,28,48,51,27,53,21		8,31
26″	22,30,56,45,42,32,23,18,47,27		1,38,45,54,45	
		1,56,28,47,12,41,58,36		8,31
28″	22,30,58,42,11,19,36, 0,46, 3		1,38,46, 3,16	
		1,56,28,45,33,55,55,20		8,31
30″	22,31, 0,38,40, 5, 9,56,41,23		1,38,46,11,47	
		1,56,28,43,55, 9,43,33		8,31
32″	22,31, 2,35, 8,49, 5, 6,24,56		1,38,46,20,18	
		1,56,28,42,16,23,23,15		8,31
34″	22,31, 4,31,37,31,21,29,48,11		1,38,46,28,49	
		1,56,28,40,37,36,54,26		8,31
36″	22,31, 6,28, 6,11,59, 6,42,37		1,38,46,37,20	
		1,56,28,38,58,50,17, 6		8,31
38″	22,31, 8,24,34,50,57,56,59,43		1,38,46,45,51	
		1,56,28,37,20, 3,31,15		8,31
40″	22,31,10,21, 3,28,18, 0,30,58		1,38,46,54,22	
		1,56,28,35,41,16,36,53		8,31
42″	22,31,12,17,32, 3,59,17, 7,51		1,38,47, 2,53	
		1,56,28,34, 2,29,34, 0		8,31
44″	22,31,14,14, 0,38, 1,46,41,51		1,38,47,11,24	
		1,56,28,32,23,42,22,36		8,31
46″	22,31,16,10,29,10,25,29, 4,27		1,38,47,19,55	
		1,56,28,30,44,55, 2,41		8,31
48″	22,31,18, 6,57,41,10,24, 7, 8		1,38,47,28,26	
		1,56,28,29, 6, 7,34,15		8,31
50″	22,31,20, 3,26,10,16,31,41,23		1,38,47,36,57	
		1,56,28,27,27,19,57,18		8,31
52″	22,31,21,59,54,37,43,51,38,41		1,38,47,45,28	
		1,56,28,25,48,32,11,50		8,31
54″	22,31,23,56,23, 3,32,23,50,31		1,38,47,53,59	
		1,56,28,24, 9,44,17,51		8,31
56″	22,31,25,52,51,27,42, 8, 8,22		1,38,48, 2,30	
		1,56,28,22,30,56,15,21		8,31
58″	22,31,27,49,19,50,13, 4,23,43		1,38,48,11, 1	
		1,56,28,20,52, 8, 4,20		
60″	22,31,29,45,48,11, 5,12,28, 3			
exact	22,31,29,45,48,11, 5,12,30,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22° 3′ 0″	22,31,29,45,48,11, 5,12,30,17			
		1,56,28,19,13,19,45, 7		
2″	22,31,31,42,16,30,18,32,15,24		1,38,48,28, 1	
		1,56,28,17,34,31,17, 6		8,31
4″	22,31,33,38,44,47,53, 3,32,30		1,38,48,36,32	
		1,56,28,15,55,42,40,34		8,31
6″	22,31,35,35,13, 3,48,46,13, 4		1,38,48,45, 3	
		1,56,28,14,16,53,55,31		8,31
8″	22,31,37,31,41,18, 5,40, 8,35		1,38,48,53,34	
		1,56,28,12,38, 5, 1,57		8,31
10″	22,31,39,28, 9,30,43,45,10,32		1,38,49, 2, 5	
		1,56,28,10,59,15,59,52		8,31
12″	22,31,41,24,37,41,43, 1,10,24		1,38,49,10,36	
		1,56,28, 9,20,26,49,16		8,31
14″	22,31,43,21, 5,51, 3,27,59,40		1,38,49,19, 7	
		1,56,28, 7,41,37,30, 9		8,31
16″	22,31,45,17,33,58,45, 5,29,49		1,38,49,27,38	
		1,56,28, 6, 2,48, 2,31		8,31
18″	22,31,47,14, 2, 4,47,53,32,20		1,38,49,36, 9	
		1,56,28, 4,23,58,26,22		8,31
20″	22,31,49,10,30, 9,11,51,58,42		1,38,49,44,40	
		1,56,28, 2,45, 8,41,42		8,31
22″	22,31,51, 6,58,11,57, 0,40,24		1,38,49,53,11	
		1,56,28, 1, 6,18,48,31		8,31
24″	22,31,53, 3,26,13, 3,19,28,55		1,38,50, 1,42	
		1,56,27,59,27,28,46,49		8,31
26″	22,31,54,59,54,12,30,48,15,44		1,38,50,10,13	
		1,56,27,57,48,38,36,36		8,31
28″	22,31,56,56,22,10,19,26,52,20		1,38,50,18,44	
		1,56,27,56, 9,48,17,52		8,31
30″	22,31,58,52,50, 6,29,15,10,12		1,38,50,27,15	
		1,56,27,54,30,57,50,37		8,31
32″	22,32, 0,49,18, 1, 0,13, 0,49		1,38,50,35,46	
		1,56,27,52,52, 7,14,51		8,31
34″	22,32, 2,45,45,53,52,20,15,40		1,38,50,44,17	
		1,56,27,51,13,16,30,34		8,31
36″	22,32, 4,42,13,45, 5,36,46,14		1,38,50,52,48	
		1,56,27,49,34,25,37,46		8,31
38″	22,32, 6,38,41,34,40, 2,24, 0		1,38,51, 1,19	
		1,56,27,47,55,34,36,27		8,31
40″	22,32, 8,35, 9,22,35,37, 0,27		1,38,51, 9,50	
		1,56,27,46,16,43,26,37		8,31
42″	22,32,10,31,37, 8,52,20,27, 4		1,38,51,18,21	
		1,56,27,44,37,52, 8,16		8,31
44″	22,32,12,28, 4,53,30,12,35,20		1,38,51,26,52	
		1,56,27,42,59, 0,41,24		8,31
46″	22,32,14,24,32,36,29,13,16,44		1,38,51,35,23	
		1,56,27,41,20, 9, 6, 1		8,31
48″	22,32,16,21, 0,17,49,22,22,45		1,38,51,43,54	
		1,56,27,39,41,17,22, 7		8,31
50″	22,32,18,17,27,57,30,39,44,52		1,38,51,52,25	
		1,56,27,38, 2,25,29,42		8,31
52″	22,32,20,13,55,35,33, 5,14,34		1,38,52, 0,56	
		1,56,27,36,23,33,28,46		8,31
54″	22,32,22,10,23,11,56,38,43,20		1,38,52, 9,27	
		1,56,27,34,44,41,19,19		8,31
56″	22,32,24, 6,50,46,41,20, 2,39		1,38,52,17,58	
		1,56,27,33, 5,49, 1,21		8,31
58″	22,32,26, 3,18,19,47, 9, 4, 0		1,38,52,26,29	
		1,56,27,31,26,56,34,52		
60″	22,32,27,59,45,51,14, 5,38,52			
exact	22,32,27,59,45,51,14, 5,45, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22° 4′ 0″	22,32,27,59,45,51,14, 5,45, 7			
		1,56,27,29,48, 4, 0,37		
2″	22,32,29,56,13,21, 2, 9,45,44		1,38,52,43,27	
		1,56,27,28, 9,11,17,10		8,31
4″	22,32,31,52,40,49,11,21, 2,54		1,38,52,51,58	
		1,56,27,26,30,18,25,12		8,31
6″	22,32,33,49, 8,15,41,39,28, 6		1,38,53, 0,29	
		1,56,27,24,51,25,24,43		8,31
8″	22,32,35,45,35,40,33, 4,52,49		1,38,53, 9, 0	
		1,56,27,23,12,32,15,43		8,31
10″	22,32,37,42, 3, 3,45,37, 8,32		1,38,53,17,31	
		1,56,27,21,33,38,58,12		8,31
12″	22,32,39,38,30,25,19,16, 6,44		1,38,53,26, 2	
		1,56,27,19,54,45,32,10		8,31
14″	22,32,41,34,57,45,14, 1,38,54		1,38,53,34,33	
		1,56,27,18,15,51,57,37		8,31
16″	22,32,43,31,25, 3,29,53,36,31		1,38,53,43, 4	
		1,56,27,16,36,58,14,33		8,31
18″	22,32,45,27,52,20, 6,51,51, 4		1,38,53,51,35	
		1,56,27,14,58, 4,22,58		8,31
20″	22,32,47,24,19,35, 4,56,14, 2		1,38,54, 0, 6	
		1,56,27,13,19,10,22,52		8,31
22″	22,32,49,20,46,48,24, 6,36,54		1,38,54, 8,37	
		1,56,27,11,40,16,14,15		8,31
24″	22,32,51,17,14, 0, 4,22,51, 9		1,38,54,17, 8	
		1,56,27,10, 1,21,57, 7		8,31
26″	22,32,53,13,41,10, 5,44,48,16		1,38,54,25,39	
		1,56,27, 8,22,27,31,28		8,31
28″	22,32,55,10, 8,18,28,12,19,44		1,38,54,34,10	
		1,56,27, 6,43,32,57,18		8,31
30″	22,32,57, 6,35,25,11,45,17, 2		1,38,54,42,41	
		1,56,27, 5, 4,38,14,37		8,31
32″	22,32,59, 3, 2,30,16,23,31,39		1,38,54,51,12	
		1,56,27, 3,25,43,23,25		8,31
34″	22,33, 0,59,29,33,42, 6,55, 4		1,38,54,59,43	
		1,56,27, 1,46,48,23,42		8,31
36″	22,33, 2,55,56,35,28,55,18,46		1,38,55, 8,14	
		1,56,27, 0, 7,53,15,28		8,31
38″	22,33, 4,52,23,35,36,48,34,14		1,38,55,16,45	
		1,56,26,58,28,57,58,43		8,31
40″	22,33, 6,48,50,34, 5,46,32,57		1,38,55,25,16	
		1,56,26,56,50, 2,33,27		8,31
42″	22,33, 8,45,17,30,55,49, 6,24		1,38,55,33,47	
		1,56,26,55,11, 6,59,40		8,31
44″	22,33,10,41,44,26, 6,56, 6, 4		1,38,55,42,18	
		1,56,26,53,32,11,17,22		8,31
46″	22,33,12,38,11,19,39, 7,23,26		1,38,55,50,49	
		1,56,26,51,53,15,26,33		8,31
48″	22,33,14,34,38,11,32,22,49,59		1,38,55,59,20	
		1,56,26,50,14,19,27,13		8,31
50″	22,33,16,31, 5, 1,46,42,17,12		1,38,56, 7,51	
		1,56,26,48,35,23,19,22		8,31
52″	22,33,18,27,31,50,22, 5,36,34		1,38,56,16,22	
		1,56,26,46,56,27, 3, 0		8,31
54″	22,33,20,23,58,37,18,32,39,34		1,38,56,24,53	
		1,56,26,45,17,30,38, 7		8,31
56″	22,33,22,20,25,22,36, 3,17,41		1,38,56,33,24	
		1,56,26,43,38,34, 4,43		8,31
58″	22,33,24,16,52, 6,14,37,22,24		1,38,56,41,55	
		1,56,26,41,59,37,22,48		
60″	22,33,26,13,18,48,14,14,45,12			
exact	22,33,26,13,18,48,14,14,54,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22° 5′ 0″	22,33,26,13,18,48,14,14,54,32			
		1,56,26,40,20,40,33,29		
2″	22,33,28, 9,45,28,34,55,28, 1		1,38,56,58,52	
		1,56,26,38,41,43,34,37		8,31
4″	22,33,30, 6,12, 7,16,39, 2,38		1,38,57, 7,23	
		1,56,26,37, 2,46,27,14		8,31
6″	22,33,32, 2,38,44,19,25,29,52		1,38,57,15,54	
		1,56,26,35,23,49,11,20		8,31
8″	22,33,33,59, 5,19,43,14,41,12		1,38,57,24,25	
		1,56,26,33,44,51,46,55		8,31
10″	22,33,35,55,31,53,28, 6,28, 7		1,38,57,32,56	
		1,56,26,32, 5,54,13,59		8,31
12″	22,33,37,51,58,25,34, 0,42, 6		1,38,57,41,27	
		1,56,26,30,26,56,32,32		8,31
14″	22,33,39,48,24,56, 0,57,14,38		1,38,57,49,58	
		1,56,26,28,47,58,42,34		8,31
16″	22,33,41,44,51,24,48,55,57,12		1,38,57,58,29	
		1,56,26,27, 9, 0,44, 5		8,31
18″	22,33,43,41,17,51,57,56,41,17		1,38,58, 7, 0	
		1,56,26,25,30, 2,37, 5		8,31
20″	22,33,45,37,44,17,27,59,18,22		1,38,58,15,31	
		1,56,26,23,51, 4,21,34		8,31
22″	22,33,47,34,10,41,19, 3,39,56		1,38,58,24, 2	
		1,56,26,22,12, 5,57,32		8,31
24″	22,33,49,30,37, 3,31, 9,37,28		1,38,58,32,33	
		1,56,26,20,33, 7,24,59		8,31
26″	22,33,51,27, 3,24, 4,17, 2,27		1,38,58,41, 4	
		1,56,26,18,54, 8,43,55		8,31
28″	22,33,53,23,29,42,58,25,46,22		1,38,58,49,35	
		1,56,26,17,15, 9,54,20		8,31
30″	22,33,55,19,56, 0,13,35,40,42		1,38,58,58, 6	
		1,56,26,15,36,10,56,14		8,31
32″	22,33,57,16,22,15,49,46,36,56		1,38,59, 6,37	
		1,56,26,13,57,11,49,37		8,31
34″	22,33,59,12,48,29,46,58,26,33		1,38,59,15, 8	
		1,56,26,12,18,12,34,29		8,31
36″	22,34, 1, 9,14,42, 5,11, 1, 2		1,38,59,23,39	
		1,56,26,10,39,13,10,50		8,31
38″	22,34, 3, 5,40,52,44,24,11,52		1,38,59,32,10	
		1,56,26, 9, 0,13,38,40		8,31
40″	22,34, 5, 2, 7, 1,44,37,50,32		1,38,59,40,41	
		1,56,26, 7,21,13,57,59		8,31
42″	22,34, 6,58,33, 9, 5,51,48,31		1,38,59,49,12	
		1,56,26, 5,42,14, 8,47		8,31
44″	22,34, 8,54,59,14,48, 5,57,18		1,38,59,57,43	
		1,56,26, 4, 3,14,11, 4		8,31
46″	22,34,10,51,25,18,51,20, 8,22		1,39, 0, 6,14	
		1,56,26, 2,24,14, 4,50		8,31
48″	22,34,12,47,51,21,15,34,13,12		1,39, 0,14,45	
		1,56,26, 0,45,13,50, 5		8,31
50″	22,34,14,44,17,22, 0,48, 3,17		1,39, 0,23,16	
		1,56,25,59, 6,13,26,49		8,31
52″	22,34,16,40,43,21, 7, 1,30, 6		1,39, 0,31,47	
		1,56,25,57,27,12,55, 2		8,31
54″	22,34,18,37, 9,18,34,14,25, 8		1,39, 0,40,18	
		1,56,25,55,48,12,14,44		8,31
56″	22,34,20,33,35,14,22,26,39,52		1,39, 0,48,49	
		1,56,25,54, 9,11,25,55		8,31
58″	22,34,22,30, 1, 8,31,38, 5,47		1,39, 0,57,20	
		1,56,25,52,30,10,28,35		
60″	22,34,24,26,27, 1, 1,48,34,22			
exact	22,34,24,26,27, 1, 1,48,52,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22° 6′ 0″	22,34,24,26,27, 1, 1,48,52,15	1,56,25,50,51, 9,24,36		
2″	22,34,26,22,52,51,52,58,16,51	1,56,25,49,12, 8,10,22	1,39, 1,14,14	8,31
4″	22,34,28,19,18,41, 5, 6,27,13	1,56,25,47,33, 6,47,37	1,39, 1,22,45	8,31
6″	22,34,30,15,44,28,38,13,14,50	1,56,25,45,54, 5,16,21	1,39, 1,31,16	8,31
8″	22,34,32,12,10,14,32,18,31,11	1,56,25,44,15, 3,36,34	1,39, 1,39,47	8,31
10″	22,34,34, 8,35,58,47,22, 7,45	1,56,25,42,36, 1,48,16	1,39, 1,48,18	8,31
12″	22,34,36, 5, 1,41,23,23,56, 1	1,56,25,40,56,59,51,27	1,39, 1,56,49	8,31
14″	22,34,38, 1,27,22,20,23,47,28	1,56,25,39,17,57,46, 7	1,39, 2, 5,20	8,31
16″	22,34,39,57,53, 1,38,21,33,35	1,56,25,37,38,55,32,16	1,39, 2,13,51	8,31
18″	22,34,41,54,18,39,17,17, 5,51	1,56,25,35,59,53, 9,54	1,39, 2,22,22	8,31
20″	22,34,43,50,44,15,17,10,15,45	1,56,25,34,20,50,39, 1	1,39, 2,30,53	8,31
22″	22,34,45,47, 9,49,38, 0,54,46	1,56,25,32,41,47,59,37	1,39, 2,39,24	8,31
24″	22,34,47,43,35,22,19,48,54,23	1,56,25,31, 2,45,11,42	1,39, 2,47,55	8,31
26″	22,34,49,40, 0,53,22,34, 6, 5	1,56,25,29,23,42,15,16	1,39, 2,56,26	8,31
28″	22,34,51,36,26,22,46,16,21,21	1,56,25,27,44,39,10,19	1,39, 3, 4,57	8,31
30″	22,34,53,32,51,50,30,55,31,40	1,56,25,26, 5,35,56,51	1,39, 3,13,28	8,31
32″	22,34,55,29,17,16,36,31,28,31	1,56,25,24,26,32,34,52	1,39, 3,21,59	8,31
34″	22,34,57,25,42,41, 3, 4, 3,23	1,56,25,22,47,29, 4,22	1,39, 3,30,30	8,31
36″	22,34,59,22, 8, 3,50,33, 7,45	1,56,25,21, 8,25,25,21	1,39, 3,39, 1	8,31
38″	22,35, 1,18,33,24,58,58,33, 6	1,56,25,19,29,21,37,49	1,39, 3,47,32	8,31
40″	22,35, 3,14,58,44,28,20,10,55	1,56,25,17,50,17,41,46	1,39, 3,56, 3	8,31
42″	22,35, 5,11,24, 2,18,37,52,41	1,56,25,16,11,13,37,12	1,39, 4, 4,34	8,31
44″	22,35, 7, 7,49,18,29,51,29,53	1,56,25,14,32, 9,24, 7	1,39, 4,13, 5	8,31
46″	22,35, 9, 4,14,33, 2, 0,54, 0	1,56,25,12,53, 5, 2,31	1,39, 4,21,36	8,31
48″	22,35,11, 0,39,45,55, 5,56,31	1,56,25,11,14, 0,32,24	1,39, 4,30, 7	8,31
50″	22,35,12,57, 4,57, 9, 6,28,55	1,56,25, 9,34,55,53,46	1,39, 4,38,38	8,31
52″	22,35,14,53,30, 6,44, 2,22,41	1,56,25, 7,55,51, 6,37	1,39, 4,47, 9	8,31
54″	22,35,16,49,55,14,39,53,29,18	1,56,25, 6,16,46,10,57	1,39, 4,55,40	8,31
56″	22,35,18,46,20,20,56,39,40,15	1,56,25, 4,37,41, 6,46	1,39, 5, 4,11	8,31
58″	22,35,20,42,45,25,34,20,47, 1	1,56,25, 2,58,35,54, 4	1,39, 5,12,42	
60″	22,35,22,39,10,28,32,56,41, 5			
exact	22,35,22,39,10,28,32,56,59, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22° 7′ 0″	22,35,22,39,10,28,32,56,59, 2			
		1,56,25, 1,19,30,34,53		
2″	22,35,24,35,35,29,52,27,33,55		1,39, 5,29,35	
		1,56,24,59,40,25, 5,18		8,31
4″	22,35,26,32, 0,29,32,52,39,13		1,39, 5,38, 6	
		1,56,24,58, 1,19,27,12		8,31
6″	22,35,28,28,25,27,34,12, 6,25		1,39, 5,46,37	
		1,56,24,56,22,13,40,35		8,31
8″	22,35,30,24,50,23,56,25,47, 0		1,39, 5,55, 8	
		1,56,24,54,43, 7,45,27		8,31
10″	22,35,32,21,15,18,39,33,32,27		1,39, 6, 3,39	
		1,56,24,53, 4, 1,41,48		8,31
12″	22,35,34,17,40,11,43,35,14,15		1,39, 6,12,10	
		1,56,24,51,24,55,29,38		8,31
14″	22,35,36,14, 5, 3, 8,30,43,53		1,39, 6,20,41	
		1,56,24,49,45,49, 8,57		8,31
16″	22,35,38,10,29,52,54,19,52,50		1,39, 6,29,12	
		1,56,24,48, 6,42,39,45		8,31
18″	22,35,40, 6,54,41, 1, 2,32,35		1,39, 6,37,43	
		1,56,24,46,27,36, 2, 2		8,31
20″	22,35,42, 3,19,27,28,38,34,37		1,39, 6,46,14	
		1,56,24,44,48,29,15,48		8,31
22″	22,35,43,59,44,12,17, 7,50,25		1,39, 6,54,45	
		1,56,24,43, 9,22,21, 3		8,31
24″	22,35,45,56, 8,55,26,30,11,28		1,39, 7, 3,16	
		1,56,24,41,30,15,17,47		8,31
26″	22,35,47,52,33,36,56,45,29,15		1,39, 7,11,47	
		1,56,24,39,51, 8, 6, 0		8,31
28″	22,35,49,48,58,16,47,53,35,15		1,39, 7,20,18	
		1,56,24,38,12, 0,45,42		8,31
30″	22,35,51,45,22,54,59,54,20,57		1,39, 7,28,49	
		1,56,24,36,32,53,16,53		8,31
32″	22,35,53,41,47,31,32,47,37,50		1,39, 7,37,20	
		1,56,24,34,53,45,39,33		8,31
34″	22,35,55,38,12, 6,26,33,17,23		1,39, 7,45,51	
		1,56,24,33,14,37,53,42		8,31
36″	22,35,57,34,36,39,41,11,11, 5		1,39, 7,54,22	
		1,56,24,31,35,29,59,20		8,31
38″	22,35,59,31, 1,11,16,41,10,25		1,39, 8, 2,53	
		1,56,24,29,56,21,56,27		8,31
40″	22,36, 1,27,25,41,13, 3, 6,52		1,39, 8,11,24	
		1,56,24,28,17,13,45, 3		8,31
42″	22,36, 3,23,50, 9,30,16,51,55		1,39, 8,19,55	
		1,56,24,26,38, 5,25, 8		8,31
44″	22,36, 5,20,14,36, 8,22,17, 3		1,39, 8,28,26	
		1,56,24,24,58,56,56,42		8,31
46″	22,36, 7,16,39, 1, 7,19,13,45		1,39, 8,36,57	
		1,56,24,23,19,48,19,45		8,31
48″	22,36, 9,13, 3,24,27, 7,33,30		1,39, 8,45,28	
		1,56,24,21,40,39,34,17		8,31
50″	22,36,11, 9,27,46, 7,47, 7,47		1,39, 8,53,59	
		1,56,24,20, 1,30,40,18		8,31
52″	22,36,13, 5,52, 6, 9,17,48, 5		1,39, 9, 2,30	
		1,56,24,18,22,21,37,48		8,31
54″	22,36,15, 2,16,24,31,39,25,53		1,39, 9,11, 1	
		1,56,24,16,43,12,26,47		8,31
56″	22,36,16,58,40,41,14,51,52,40		1,39, 9,19,32	
		1,56,24,15, 4, 3, 7,15		8,31
58″	22,36,18,55, 4,56,18,54,59,55		1,39, 9,28, 3	
		1,56,24,13,24,53,39,12		
60″	22,36,20,51,29, 9,43,48,39, 7			
exact	22,36,20,51,29, 9,43,49, 2,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22° 8′ 0″	22,36,20,51,29, 9,43,49, 2,51	1,56,24,11,45,44, 5,13		
2″	22,36,22,47,53,21,29,33, 8, 4	1,56,24,10, 6,34,20,19	1,39, 9,44,54	8,31
4″	22,36,24,44,17,31,36, 7,28,23	1,56,24, 8,27,24,26,54	1,39, 9,53,25	8,31
6″	22,36,26,40,41,40, 3,31,55,17	1,56,24, 6,48,14,24,58	1,39,10, 1,56	8,31
8″	22,36,28,37, 5,46,51,46,20,15	1,56,24, 5, 9, 4,14,31	1,39,10,10,27	8,31
10″	22,36,30,33,29,52, 0,50,34,46	1,56,24, 3,29,53,55,33	1,39,10,18,58	8,31
12″	22,36,32,29,53,55,30,44,30,19	1,56,24, 1,50,43,28, 4	1,39,10,27,29	8,31
14″	22,36,34,26,17,57,21,27,58,23	1,56,24, 0,11,32,52, 4	1,39,10,36, 0	8,31
16″	22,36,36,22,41,57,33, 0,50,27	1,56,23,58,32,22, 7,33	1,39,10,44,31	8,31
18″	22,36,38,19, 5,56, 5,22,58, 0	1,56,23,56,53,11,14,31	1,39,10,53, 2	8,31
20″	22,36,40,15,29,52,58,34,12,31	1,56,23,55,14, 0,12,58	1,39,11, 1,33	8,31
22″	22,36,42,11,53,48,12,34,25,29	1,56,23,53,34,49, 2,54	1,39,11,10, 4	8,31
24″	22,36,44, 8,17,41,47,23,28,23	1,56,23,51,55,37,44,19	1,39,11,18,35	8,31
26″	22,36,46, 4,41,33,43, 1,12,42	1,56,23,50,16,26,17,13	1,39,11,27, 6	8,31
28″	22,36,48, 1, 5,23,59,27,29,55	1,56,23,48,37,14,41,36	1,39,11,35,37	8,31
30″	22,36,49,57,29,12,36,42,11,31	1,56,23,46,58, 2,57,28	1,39,11,44, 8	8,31
32″	22,36,51,53,52,59,34,45, 8,59	1,56,23,45,18,51, 4,49	1,39,11,52,39	8,31
34″	22,36,53,50,16,44,53,36,13,48	1,56,23,43,39,39, 3,39	1,39,12, 1,10	8,31
36″	22,36,55,46,40,28,33,15,17,27	1,56,23,42, 0,26,53,58	1,39,12, 9,41	8,31
38″	22,36,57,43, 4,10,33,42,11,25	1,56,23,40,21,14,35,46	1,39,12,18,12	8,31
40″	22,36,59,39,27,50,54,56,47,11	1,56,23,38,42, 2, 9, 3	1,39,12,26,43	8,31
42″	22,37, 1,35,51,29,36,58,56,14	1,56,23,37, 2,49,33,49	1,39,12,35,14	8,31
44″	22,37, 3,32,15, 6,39,48,30, 3	1,56,23,35,23,36,50, 4	1,39,12,43,45	8,31
46″	22,37, 5,28,38,42, 3,25,20, 7	1,56,23,33,44,23,57,48	1,39,12,52,16	8,31
48″	22,37, 7,25, 2,15,47,49,17,55	1,56,23,32, 5,10,57, 1	1,39,13, 0,47	8,31
50″	22,37, 9,21,25,47,53, 0,14,56	1,56,23,30,25,57,47,43	1,39,13, 9,18	8,31
52″	22,37,11,17,49,18,18,58, 2,39	1,56,23,28,46,44,29,54	1,39,13,17,49	8,31
54″	22,37,13,14,12,47, 5,42,32,33	1,56,23,27, 7,31, 3,34	1,39,13,26,20	8,31
56″	22,37,15,10,36,14,13,13,36, 7	1,56,23,25,28,17,28,43	1,39,13,34,51	8,31
58″	22,37,17, 6,59,39,41,31, 4,50	1,56,23,23,49, 3,45,21	1,39,13,43,22	
60″	22,37,19, 3,23, 3,30,34,50,11			
exact	22,37,19, 3,23, 3,30,35,18,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22° 9′ 0″	22,37,19, 3,23, 3,30,35,18,50			
		1,56,23,22, 9,49,56,32		
2″	22,37,20,59,46,25,40,25,15,22		1,39,14, 0,11	
		1,56,23,20,30,35,56,21		8,31
4″	22,37,22,56, 9,46,11, 1,11,43		1,39,14, 8,42	
		1,56,23,18,51,21,47,39		8,31
6″	22,37,24,52,33, 5, 2,22,59,22		1,39,14,17,13	
		1,56,23,17,12, 7,30,26		8,31
8″	22,37,26,48,56,22,14,30,29,48		1,39,14,25,44	
		1,56,23,15,32,53, 4,42		8,31
10″	22,37,28,45,19,37,47,23,34,30		1,39,14,34,15	
		1,56,23,13,53,38,30,27		8,31
12″	22,37,30,41,42,51,41, 2, 4,57		1,39,14,42,46	
		1,56,23,12,14,23,47,41		8,31
14″	22,37,32,38, 6, 3,55,25,52,38		1,39,14,51,17	
		1,56,23,10,35, 8,56,24		8,31
16″	22,37,34,34,29,14,30,34,49, 2		1,39,14,59,48	
		1,56,23, 8,55,53,56,36		8,31
18″	22,37,36,30,52,23,26,28,45,38		1,39,15, 8,19	
		1,56,23, 7,16,38,48,17		8,31
20″	22,37,38,27,15,30,43, 7,33,55		1,39,15,16,50	
		1,56,23, 5,37,23,31,27		8,31
22″	22,37,40,23,38,36,20,31, 5,22		1,39,15,25,21	
		1,56,23, 3,58, 8, 6, 6		8,31
24″	22,37,42,20, 1,40,18,39,11,28		1,39,15,33,52	
		1,56,23, 2,18,52,32,14		8,31
26″	22,37,44,16,24,42,37,31,43,42		1,39,15,42,23	
		1,56,23, 0,39,36,49,51		8,31
28″	22,37,46,12,47,43,17, 8,33,33		1,39,15,50,54	
		1,56,22,59, 0,20,58,57		8,31
30″	22,37,48, 9,10,42,17,29,32,30		1,39,15,59,25	
		1,56,22,57,21, 4,59,32		8,31
32″	22,37,50, 5,33,39,38,34,32, 2		1,39,16, 7,56	
		1,56,22,55,41,48,51,36		8,31
34″	22,37,52, 1,56,35,20,23,23,38		1,39,16,16,27	
		1,56,22,54, 2,32,35, 9		8,31
36″	22,37,53,58,19,29,22,55,58,47		1,39,16,24,58	
		1,56,22,52,23,16,10,11		8,31
38″	22,37,55,54,42,21,46,12, 8,58		1,39,16,33,29	
		1,56,22,50,43,59,36,42		8,31
40″	22,37,57,51, 5,12,30,11,45,40		1,39,16,42, 0	
		1,56,22,49, 4,42,54,42		8,31
42″	22,37,59,47,28, 1,34,54,40,22		1,39,16,50,31	
		1,56,22,47,25,26, 4,11		8,31
44″	22,38, 1,43,50,49, 0,20,44,33		1,39,16,59, 2	
		1,56,22,45,46, 9, 5, 9		8,31
46″	22,38, 3,40,13,34,46,29,49,42		1,39,17, 7,33	
		1,56,22,44, 6,51,57,36		8,31
48″	22,38, 5,36,36,18,53,21,47,18		1,39,17,16, 4	
		1,56,22,42,27,34,41,32		8,31
50″	22,38, 7,32,59, 1,20,56,28,50		1,39,17,24,35	
		1,56,22,40,48,17,16,57		8,31
52″	22,38, 9,29,21,42, 9,13,45,47		1,39,17,33, 6	
		1,56,22,39, 8,59,43,51		8,31
54″	22,38,11,25,44,21,18,13,29,38		1,39,17,41,37	
		1,56,22,37,29,42, 2,14		8,31
56″	22,38,13,22, 6,58,47,55,31,52		1,39,17,50, 8	
		1,56,22,35,50,24,12, 6		8,31
58″	22,38,15,18,29,34,38,19,43,58		1,39,17,58,39	
		1,56,22,34,11, 6,13,27		
60″	22,38,17,14,52, 8,49,25,57,25			
exact	22,38,17,14,52, 8,49,26,29,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°10′ 0″	22,38,17,14,52, 8,49,26,29,17			
		1,56,22,32,31,48, 9,44		
2″	22,38,19,11,14,41,21,14,39, 1		1,39,18,15,26	
		1,56,22,30,52,29,54,18		8,30
4″	22,38,21, 7,37,12,13,44,33,19		1,39,18,23,56	
		1,56,22,29,13,11,30,22		8,30
6″	22,38,23, 3,59,41,26,56, 3,41		1,39,18,32,26	
		1,56,22,27,33,52,57,56		8,30
8″	22,38,25, 0,22, 9, 0,49, 1,37		1,39,18,40,56	
		1,56,22,25,54,34,17, 0		8,30
10″	22,38,26,56,44,34,55,23,18,37		1,39,18,49,26	
		1,56,22,24,15,15,27,34		8,30
12″	22,38,28,53, 6,59,10,38,46,11		1,39,18,57,56	
		1,56,22,22,35,56,29,38		8,30
14″	22,38,30,49,29,21,46,35,15,49		1,39,19, 6,26	
		1,56,22,20,56,37,23,12		8,30
16″	22,38,32,45,51,42,43,12,39, 1		1,39,19,14,56	
		1,56,22,19,17,18, 8,16		8,30
18″	22,38,34,42,14, 2, 0,30,47,17		1,39,19,23,26	
		1,56,22,17,37,58,44,50		8,30
20″	22,38,36,38,36,19,38,29,32, 7		1,39,19,31,56	
		1,56,22,15,58,39,12,54		8,30
22″	22,38,38,34,58,35,37, 8,45, 1		1,39,19,40,26	
		1,56,22,14,19,19,32,28		8,30
24″	22,38,40,31,20,49,56,28,17,29		1,39,19,48,56	
		1,56,22,12,39,59,43,32		8,30
26″	22,38,42,27,43, 2,36,28, 1, 1		1,39,19,57,26	
		1,56,22,11, 0,39,46, 6		8,30
28″	22,38,44,24, 5,13,37, 7,47, 7		1,39,20, 5,56	
		1,56,22, 9,21,19,40,10		8,30
30″	22,38,46,20,27,22,58,27,27,17		1,39,20,14,26	
		1,56,22, 7,41,59,25,44		8,30
32″	22,38,48,16,49,30,40,26,53, 1		1,39,20,22,56	
		1,56,22, 6, 2,39, 2,48		8,30
34″	22,38,50,13,11,36,43, 5,55,49		1,39,20,31,26	
		1,56,22, 4,23,18,31,22		8,30
36″	22,38,52, 9,33,41, 6,24,27,11		1,39,20,39,56	
		1,56,22, 2,43,57,51,26		8,30
38″	22,38,54, 5,55,43,50,22,18,37		1,39,20,48,26	
		1,56,22, 1, 4,37, 3, 0		8,30
40″	22,38,56, 2,17,44,54,59,21,37		1,39,20,56,56	
		1,56,21,59,25,16, 6, 4		8,30
42″	22,38,57,58,39,44,20,15,27,41		1,39,21, 5,26	
		1,56,21,57,45,55, 0,38		8,30
44″	22,38,59,55, 1,42, 6,10,28,19		1,39,21,13,56	
		1,56,21,56, 6,33,46,42		8,30
46″	22,39, 1,51,23,38,12,44,15, 1		1,39,21,22,26	
		1,56,21,54,27,12,24,16		8,30
48″	22,39, 3,47,45,32,39,56,39,17		1,39,21,30,56	
		1,56,21,52,47,50,53,20		8,30
50″	22,39, 5,44, 7,25,27,47,32,37		1,39,21,39,26	
		1,56,21,51, 8,29,13,54		8,30
52″	22,39, 7,40,29,16,36,16,46,31		1,39,21,47,56	
		1,56,21,49,29, 7,25,58		8,30
54″	22,39, 9,36,51, 6, 5,24,12,29		1,39,21,56,26	
		1,56,21,47,49,45,29,32		8,30
56″	22,39,11,33,12,53,55, 9,42, 1		1,39,22, 4,56	
		1,56,21,46,10,23,24,36		8,30
58″	22,39,13,29,34,40, 5,33, 6,37		1,39,22,13,26	
		1,56,21,44,31, 1,11,10		
60″	22,39,15,25,56,24,36,34,17,47			
exact	22,39,15,25,56,24,36,33,43,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°11′ 0″	22,39,15,25,56,24,36,33,43,41			
		1,56,21,42,51,38,45,43		
2″	22,39,17,22,18, 7,28,12,29,24		1,39,22,30,40	
		1,56,21,41,12,16,15, 3		8,30
4″	22,39,19,18,39,48,40,28,44,27		1,39,22,39,10	
		1,56,21,39,32,53,35,53		8,30
6″	22,39,21,15, 1,28,13,22,20,20		1,39,22,47,40	
		1,56,21,37,53,30,48,13		8,30
8″	22,39,23,11,23, 6, 6,53, 8,33		1,39,22,56,10	
		1,56,21,36,14, 7,52, 3		8,30
10″	22,39,25, 7,44,42,21, 1, 0,36		1,39,23, 4,40	
		1,56,21,34,34,44,47,23		8,30
12″	22,39,27, 4, 6,16,55,45,47,59		1,39,23,13,10	
		1,56,21,32,55,21,34,13		8,30
14″	22,39,29, 0,27,49,51, 7,22,12		1,39,23,21,40	
		1,56,21,31,15,58,12,33		8,30
16″	22,39,30,56,49,21, 7, 5,34,45		1,39,23,30,10	
		1,56,21,29,36,34,42,23		8,30
18″	22,39,32,53,10,50,43,40,17, 8		1,39,23,38,40	
		1,56,21,27,57,11, 3,43		8,30
20″	22,39,34,49,32,18,40,51,20,51		1,39,23,47,10	
		1,56,21,26,17,47,16,33		8,30
22″	22,39,36,45,53,44,58,38,37,24		1,39,23,55,40	
		1,56,21,24,38,23,20,53		8,30
24″	22,39,38,42,15, 9,37, 1,58,17		1,39,24, 4,10	
		1,56,21,22,58,59,16,43		8,30
26″	22,39,40,38,36,32,36, 1,15, 0		1,39,24,12,40	
		1,56,21,21,19,35, 4, 3		8,30
28″	22,39,42,34,57,53,55,36,19, 3		1,39,24,21,10	
		1,56,21,19,40,10,42,53		8,30
30″	22,39,44,31,19,13,35,47, 1,56		1,39,24,29,40	
		1,56,21,18, 0,46,13,13		8,30
32″	22,39,46,27,40,31,36,33,15, 9		1,39,24,38,10	
		1,56,21,16,21,21,35, 3		8,30
34″	22,39,48,24, 1,47,57,54,50,12		1,39,24,46,40	
		1,56,21,14,41,56,48,23		8,30
36″	22,39,50,20,23, 2,39,51,38,35		1,39,24,55,10	
		1,56,21,13, 2,31,53,13		8,30
38″	22,39,52,16,44,15,42,23,31,48		1,39,25, 3,40	
		1,56,21,11,23, 6,49,33		8,30
40″	22,39,54,13, 5,27, 5,30,21,21		1,39,25,12,10	
		1,56,21, 9,43,41,37,23		8,30
42″	22,39,56, 9,26,36,49,11,58,44		1,39,25,20,40	
		1,56,21, 8, 4,16,16,43		8,30
44″	22,39,58, 5,47,44,53,28,15,27		1,39,25,29,10	
		1,56,21, 6,24,50,47,33		8,30
46″	22,40, 0, 2, 8,51,18,19, 3, 0		1,39,25,37,40	
		1,56,21, 4,45,25, 9,53		8,30
48″	22,40, 1,58,29,56, 3,44,12,53		1,39,25,46,10	
		1,56,21, 3, 5,59,23,43		8,30
50″	22,40, 3,54,50,59, 9,43,36,36		1,39,25,54,40	
		1,56,21, 1,26,33,29, 3		8,30
52″	22,40, 5,51,12, 0,36,17, 5,39		1,39,26, 3,10	
		1,56,20,59,47, 7,25,53		8,30
54″	22,40, 7,47,33, 0,23,24,31,32		1,39,26,11,40	
		1,56,20,58, 7,41,14,13		8,30
56″	22,40, 9,43,53,58,31, 5,45,45		1,39,26,20,10	
		1,56,20,56,28,14,54, 3		8,30
58″	22,40,11,40,14,54,59,20,39,48		1,39,26,28,40	
		1,56,20,54,48,48,25,23		
60″	22,40,13,36,35,49,48, 9, 5,11			
exact	22,40,13,36,35,49,48, 8,38,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°12′ 0″	22,40,13,36,35,49,48, 8,38,48			
		1,56,20,53, 9,21,45,23		
2″	22,40,15,32,56,42,57,30,24,11		1,39,26,45,52	
		1,56,20,51,29,54,59,31		8,30
4″	22,40,17,29,17,34,27,25,23,42		1,39,26,54,22	
		1,56,20,49,50,28, 5, 9		8,30
6″	22,40,19,25,38,24,17,53,28,51		1,39,27, 2,52	
		1,56,20,48,11, 1, 2,17		8,30
8″	22,40,21,21,59,12,28,54,31, 8		1,39,27,11,22	
		1,56,20,46,31,33,50,55		8,30
10″	22,40,23,18,19,59, 0,28,22, 3		1,39,27,19,52	
		1,56,20,44,52, 6,31, 3		8,30
12″	22,40,25,14,40,43,52,34,53, 6		1,39,27,28,22	
		1,56,20,43,12,39, 2,41		8,30
14″	22,40,27,11, 1,27, 5,13,55,47		1,39,27,36,52	
		1,56,20,41,33,11,25,49		8,30
16″	22,40,29, 7,22, 8,38,25,21,36		1,39,27,45,22	
		1,56,20,39,53,43,40,27		8,30
18″	22,40,31, 3,42,48,32, 9, 2, 3		1,39,27,53,52	
		1,56,20,38,14,15,46,35		8,30
20″	22,40,33, 0, 3,26,46,24,48,38		1,39,28, 2,22	
		1,56,20,36,34,47,44,13		8,30
22″	22,40,34,56,24, 3,21,12,32,51		1,39,28,10,52	
		1,56,20,34,55,19,33,21		8,30
24″	22,40,36,52,44,38,16,32, 6,12		1,39,28,19,22	
		1,56,20,33,15,51,13,59		8,30
26″	22,40,38,49, 5,11,32,23,20,11		1,39,28,27,52	
		1,56,20,31,36,22,46, 7		8,30
28″	22,40,40,45,25,43, 8,46, 6,18		1,39,28,36,22	
		1,56,20,29,56,54, 9,45		8,30
30″	22,40,42,41,46,13, 5,40,16, 3		1,39,28,44,52	
		1,56,20,28,17,25,24,53		8,30
32″	22,40,44,38, 6,41,23, 5,40,56		1,39,28,53,22	
		1,56,20,26,37,56,31,31		8,30
34″	22,40,46,34,27, 8, 1, 2,12,27		1,39,29, 1,52	
		1,56,20,24,58,27,29,39		8,30
36″	22,40,48,30,47,32,59,29,42, 6		1,39,29,10,22	
		1,56,20,23,18,58,19,17		8,30
38″	22,40,50,27, 7,56,18,28, 1,23		1,39,29,18,52	
		1,56,20,21,39,29, 0,25		8,30
40″	22,40,52,23,28,17,57,57, 1,48		1,39,29,27,22	
		1,56,20,19,59,59,33, 3		8,30
42″	22,40,54,19,48,37,57,56,34,51		1,39,29,35,52	
		1,56,20,18,20,29,57,11		8,30
44″	22,40,56,16, 8,56,18,26,32, 2		1,39,29,44,22	
		1,56,20,16,41, 0,12,49		8,30
46″	22,40,58,12,29,12,59,26,44,51		1,39,29,52,52	
		1,56,20,15, 1,30,19,57		8,30
48″	22,41, 0, 8,49,28, 0,57, 4,48		1,39,30, 1,22	
		1,56,20,13,22, 0,18,35		8,30
50″	22,41, 2, 5, 9,41,22,57,23,23		1,39,30, 9,52	
		1,56,20,11,42,30, 8,43		8,30
52″	22,41, 4, 1,29,53, 5,27,32, 6		1,39,30,18,22	
		1,56,20,10, 2,59,50,21		8,30
54″	22,41, 5,57,50, 3, 8,27,22,27		1,39,30,26,52	
		1,56,20, 8,23,29,23,29		8,30
56″	22,41, 7,54,10,11,31,56,45,56		1,39,30,35,22	
		1,56,20, 6,43,58,48, 7		8,30
58″	22,41, 9,50,30,18,15,55,34, 3		1,39,30,43,52	
		1,56,20, 5, 4,28, 4,15		
60″	22,41,11,46,50,23,20,23,38,18			
exact	22,41,11,46,50,23,20,23,18,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°13′ 0″	22,41,11,46,50,23,20,23,18,36			
		1,56,20, 3,24,57, 9,40		
2″	22,41,13,43,10,26,45,20,28,16		1,39,31, 1, 1	
		1,56,20, 1,45,26, 8,39		8,30
4″	22,41,15,39,30,28,30,46,36,55		1,39,31, 9,31	
		1,56,20, 0, 5,54,59, 8		8,30
6″	22,41,17,35,50,28,36,41,36, 3		1,39,31,18, 1	
		1,56,19,58,26,23,41, 7		8,30
8″	22,41,19,32,10,27, 3, 5,17,10		1,39,31,26,31	
		1,56,19,56,46,52,14,36		8,30
10″	22,41,21,28,30,23,49,57,31,46		1,39,31,35, 1	
		1,56,19,55, 7,20,39,35		8,30
12″	22,41,23,24,50,18,57,18,11,21		1,39,31,43,31	
		1,56,19,53,27,48,56, 4		8,30
14″	22,41,25,21,10,12,25, 7, 7,25		1,39,31,52, 1	
		1,56,19,51,48,17, 4, 3		8,30
16″	22,41,27,17,30, 4,13,24,11,28		1,39,32, 0,31	
		1,56,19,50, 8,45, 3,32		8,30
18″	22,41,29,13,49,54,22, 9,15, 0		1,39,32, 9, 1	
		1,56,19,48,29,12,54,31		8,30
20″	22,41,31,10, 9,42,51,22, 9,31		1,39,32,17,31	
		1,56,19,46,49,40,37, 0		8,30
22″	22,41,33, 6,29,29,41, 2,46,31		1,39,32,26, 1	
		1,56,19,45,10, 8,10,59		8,30
24″	22,41,35, 2,49,14,51,10,57,30		1,39,32,34,31	
		1,56,19,43,30,35,36,28		8,30
26″	22,41,36,59, 8,58,21,46,33,58		1,39,32,43, 1	
		1,56,19,41,51, 2,53,27		8,30
28″	22,41,38,55,28,40,12,49,27,25		1,39,32,51,31	
		1,56,19,40,11,30, 1,56		8,30
30″	22,41,40,51,48,20,24,19,29,21		1,39,33, 0, 1	
		1,56,19,38,31,57, 1,55		8,30
32″	22,41,42,48, 7,58,56,16,31,16		1,39,33, 8,31	
		1,56,19,36,52,23,53,24		8,30
34″	22,41,44,44,27,35,48,40,24,40		1,39,33,17, 1	
		1,56,19,35,12,50,36,23		8,30
36″	22,41,46,40,47,11, 1,31, 1, 3		1,39,33,25,31	
		1,56,19,33,33,17,10,52		8,30
38″	22,41,48,37, 6,44,34,48,11,55		1,39,33,34, 1	
		1,56,19,31,53,43,36,51		8,30
40″	22,41,50,33,26,16,28,31,48,46		1,39,33,42,31	
		1,56,19,30,14, 9,54,20		8,30
42″	22,41,52,29,45,46,42,41,43, 6		1,39,33,51, 1	
		1,56,19,28,34,36, 3,19		8,30
44″	22,41,54,26, 5,15,17,17,46,25		1,39,33,59,31	
		1,56,19,26,55, 2, 3,48		8,30
46″	22,41,56,22,24,42,12,19,50,13		1,39,34, 8, 1	
		1,56,19,25,15,27,55,47		8,30
48″	22,41,58,18,44, 7,27,47,46, 0		1,39,34,16,31	
		1,56,19,23,35,53,39,16		8,30
50″	22,42, 0,15, 3,31, 3,41,25,16		1,39,34,25, 1	
		1,56,19,21,56,19,14,15		8,30
52″	22,42, 2,11,22,53, 0, 0,39,31		1,39,34,33,31	
		1,56,19,20,16,44,40,44		8,30
54″	22,42, 4, 7,42,13,16,45,20,15		1,39,34,42, 1	
		1,56,19,18,37, 9,58,43		8,30
56″	22,42, 6, 4, 1,31,53,55,18,58		1,39,34,50,31	
		1,56,19,16,57,35, 8,12		8,30
58″	22,42, 8, 0,20,48,51,30,27,10		1,39,34,59, 1	
		1,56,19,15,18, 0, 9,11		
60″	22,42, 9,56,40, 4, 9,30,36,21			
exact	22,42, 9,56,40, 4, 9,30,14,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°14′ 0″	22,42, 9,56,40, 4, 9,30,14,18			
		1,56,19,13,38,24,59,27		
2″	22,42,11,52,59,17,47,55,13,45		1,39,35,16, 9	
		1,56,19,11,58,49,43,18		8,30
4″	22,42,13,49,18,29,46,44,57, 3		1,39,35,24,39	
		1,56,19,10,19,14,18,39		8,30
6″	22,42,15,45,37,40, 5,59,15,42		1,39,35,33, 9	
		1,56,19, 8,39,38,45,30		8,30
8″	22,42,17,41,56,48,45,38, 1,12		1,39,35,41,39	
		1,56,19, 7, 0, 3, 3,51		8,30
10″	22,42,19,38,15,55,45,41, 5, 3		1,39,35,50, 9	
		1,56,19, 5,20,27,13,42		8,30
12″	22,42,21,34,35, 1, 6, 8,18,45		1,39,35,58,39	
		1,56,19, 3,40,51,15, 3		8,30
14″	22,42,23,30,54, 4,46,59,33,48		1,39,36, 7, 9	
		1,56,19, 2, 1,15, 7,54		8,30
16″	22,42,25,27,13, 6,48,14,41,42		1,39,36,15,39	
		1,56,19, 0,21,38,52,15		8,30
18″	22,42,27,23,32, 7, 9,53,33,57		1,39,36,24, 9	
		1,56,18,58,42, 2,28, 6		8,30
20″	22,42,29,19,51, 5,51,56, 2, 3		1,39,36,32,39	
		1,56,18,57, 2,25,55,27		8,30
22″	22,42,31,16,10, 2,54,21,57,30		1,39,36,41, 9	
		1,56,18,55,22,49,14,18		8,30
24″	22,42,33,12,28,58,17,11,11,48		1,39,36,49,39	
		1,56,18,53,43,12,24,39		8,30
26″	22,42,35, 8,47,52, 0,23,36,27		1,39,36,58, 9	
		1,56,18,52, 3,35,26,30		8,30
28″	22,42,37, 5, 6,44, 3,59, 2,57		1,39,37, 6,39	
		1,56,18,50,23,58,19,51		8,30
30″	22,42,39, 1,25,34,27,57,22,48		1,39,37,15, 9	
		1,56,18,48,44,21, 4,42		8,30
32″	22,42,40,57,44,23,12,18,27,30		1,39,37,23,39	
		1,56,18,47, 4,43,41, 3		8,30
34″	22,42,42,54, 3,10,17, 2, 8,33		1,39,37,32, 9	
		1,56,18,45,25, 6, 8,54		8,30
36″	22,42,44,50,21,55,42, 8,17,27		1,39,37,40,39	
		1,56,18,43,45,28,28,15		8,30
38″	22,42,46,46,40,39,27,36,45,42		1,39,37,49, 9	
		1,56,18,42, 5,50,39, 6		8,30
40″	22,42,48,42,59,21,33,27,24,48		1,39,37,57,39	
		1,56,18,40,26,12,41,27		8,30
42″	22,42,50,39,18, 1,59,40, 6,15		1,39,38, 6, 9	
		1,56,18,38,46,34,35,18		8,30
44″	22,42,52,35,36,40,46,14,41,33		1,39,38,14,39	
		1,56,18,37, 6,56,20,39		8,30
46″	22,42,54,31,55,17,53,11, 2,12		1,39,38,23, 9	
		1,56,18,35,27,17,57,30		8,30
48″	22,42,56,28,13,53,20,28,59,42		1,39,38,31,39	
		1,56,18,33,47,39,25,51		8,30
50″	22,42,58,24,32,27, 8, 8,25,33		1,39,38,40, 9	
		1,56,18,32, 8, 0,45,42		8,30
52″	22,43, 0,20,50,59,16, 9,11,15		1,39,38,48,39	
		1,56,18,30,28,21,57, 3		8,30
54″	22,43, 2,17, 9,29,44,31, 8,18		1,39,38,57, 9	
		1,56,18,28,48,42,59,54		8,30
56″	22,43, 4,13,27,58,33,14, 8,12		1,39,39, 5,39	
		1,56,18,27, 9, 3,54,15		8,30
58″	22,43, 6, 9,46,25,42,18, 2,27		1,39,39,14, 9	
		1,56,18,25,29,24,40, 6		
60″	22,43, 8, 6, 4,51,11,42,42,33			
exact	22,43, 8, 6, 4,51,11,42,24,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°15′ 0″	22,43, 8, 6, 4,51,11,42,24,28			
		1,56,18,23,49,45,15,40		
2″	22,43,10, 2,23,15, 1,27,40, 8		1,39,39,31,16	
		1,56,18,22,10, 5,44,24		8,30
4″	22,43,11,58,41,37,11,33,24,32		1,39,39,39,46	
		1,56,18,20,30,26, 4,38		8,30
6″	22,43,13,54,59,57,41,59,29,10		1,39,39,48,16	
		1,56,18,18,50,46,16,22		8,30
8″	22,43,15,51,18,16,32,45,45,32		1,39,39,56,46	
		1,56,18,17,11, 6,19,36		8,30
10″	22,43,17,47,36,33,43,52, 5, 8		1,39,40, 5,16	
		1,56,18,15,31,26,14,20		8,30
12″	22,43,19,43,54,49,15,18,19,28		1,39,40,13,46	
		1,56,18,13,51,46, 0,34		8,30
14″	22,43,21,40,13, 3, 7, 4,20, 2		1,39,40,22,16	
		1,56,18,12,12, 5,38,18		8,30
16″	22,43,23,36,31,15,19, 9,58,20		1,39,40,30,46	
		1,56,18,10,32,25, 7,32		8,30
18″	22,43,25,32,49,25,51,35, 5,52		1,39,40,39,16	
		1,56,18, 8,52,44,28,16		8,30
20″	22,43,27,29, 7,34,44,19,34, 8		1,39,40,47,46	
		1,56,18, 7,13, 3,40,30		8,30
22″	22,43,29,25,25,41,57,23,14,38		1,39,40,56,16	
		1,56,18, 5,33,22,44,14		8,30
24″	22,43,31,21,43,47,30,45,58,52		1,39,41, 4,46	
		1,56,18, 3,53,41,39,28		8,30
26″	22,43,33,18, 1,51,24,27,38,20		1,39,41,13,16	
		1,56,18, 2,14, 0,26,12		8,30
28″	22,43,35,14,19,53,38,28, 4,32		1,39,41,21,46	
		1,56,18, 0,34,19, 4,26		8,30
30″	22,43,37,10,37,54,12,47, 8,58		1,39,41,30,16	
		1,56,17,58,54,37,34,10		8,30
32″	22,43,39, 6,55,53, 7,24,43, 8		1,39,41,38,46	
		1,56,17,57,14,55,55,24		8,30
34″	22,43,41, 3,13,50,22,20,38,32		1,39,41,47,16	
		1,56,17,55,35,14, 8, 8		8,30
36″	22,43,42,59,31,45,57,34,46,40		1,39,41,55,46	
		1,56,17,53,55,32,12,22		8,30
38″	22,43,44,55,49,39,53, 6,59, 2		1,39,42, 4,16	
		1,56,17,52,15,50, 8, 6		8,30
40″	22,43,46,52, 7,32, 8,57, 7, 8		1,39,42,12,46	
		1,56,17,50,36, 7,55,20		8,30
42″	22,43,48,48,25,22,45, 5, 2,28		1,39,42,21,16	
		1,56,17,48,56,25,34, 4		8,30
44″	22,43,50,44,43,11,41,30,36,32		1,39,42,29,46	
		1,56,17,47,16,43, 4,18		8,30
46″	22,43,52,41, 0,58,58,13,40,50		1,39,42,38,16	
		1,56,17,45,37, 0,26, 2		8,30
48″	22,43,54,37,18,44,35,14, 6,52		1,39,42,46,46	
		1,56,17,43,57,17,39,16		8,30
50″	22,43,56,33,36,28,32,31,46, 8		1,39,42,55,16	
		1,56,17,42,17,34,44, 0		8,30
52″	22,43,58,29,54,10,50, 6,30, 8		1,39,43, 3,46	
		1,56,17,40,37,51,40,14		8,30
54″	22,44, 0,26,11,51,27,58,10,22		1,39,43,12,16	
		1,56,17,38,58, 8,27,58		8,30
56″	22,44, 2,22,29,30,26, 6,38,20		1,39,43,20,46	
		1,56,17,37,18,25, 7,12		8,30
58″	22,44, 4,18,47, 7,44,31,45,32		1,39,43,29,16	
		1,56,17,35,38,41,37,56		
60″	22,44, 6,15, 4,43,23,13,23,28			
exact	22,44, 6,15, 4,43,23,13,14,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°16′ 0″	22,44, 6,15, 4,43,23,13,14,53			
		1,56,17,33,58,57,59,12		
2″	22,44, 8,11,22,17,22,11,14, 5		1,39,43,46,20	
		1,56,17,32,19,14,12,52		8,30
4″	22,44,10, 7,39,49,41,25,26,57		1,39,43,54,50	
		1,56,17,30,39,30,18, 2		8,30
6″	22,44,12, 3,57,20,20,55,44,59		1,39,44, 3,20	
		1,56,17,28,59,46,14,42		8,30
8″	22,44,14, 0,14,49,20,41,59,41		1,39,44,11,50	
		1,56,17,27,20, 2, 2,52		8,30
10″	22,44,15,56,32,16,40,44, 2,33		1,39,44,20,20	
		1,56,17,25,40,17,42,32		8,30
12″	22,44,17,52,49,42,21, 1,45, 5		1,39,44,28,50	
		1,56,17,24, 0,33,13,42		8,30
14″	22,44,19,49, 7, 6,21,34,58,47		1,39,44,37,20	
		1,56,17,22,20,48,36,22		8,30
16″	22,44,21,45,24,28,42,23,35, 9		1,39,44,45,50	
		1,56,17,20,41, 3,50,32		8,30
18″	22,44,23,41,41,49,23,27,25,41		1,39,44,54,20	
		1,56,17,19, 1,18,56,12		8,30
20″	22,44,25,37,59, 8,24,46,21,53		1,39,45, 2,50	
		1,56,17,17,21,33,53,22		8,30
22″	22,44,27,34,16,25,46,20,15,15		1,39,45,11,20	
		1,56,17,15,41,48,42, 2		8,30
24″	22,44,29,30,33,41,28, 8,57,17		1,39,45,19,50	
		1,56,17,14, 2, 3,22,12		8,30
26″	22,44,31,26,50,55,30,12,19,29		1,39,45,28,20	
		1,56,17,12,22,17,53,52		8,30
28″	22,44,33,23, 8, 7,52,30,13,21		1,39,45,36,50	
		1,56,17,10,42,32,17, 2		8,30
30″	22,44,35,19,25,18,35, 2,30,23		1,39,45,45,20	
		1,56,17, 9, 2,46,31,42		8,30
32″	22,44,37,15,42,27,37,49, 2, 5		1,39,45,53,50	
		1,56,17, 7,23, 0,37,52		8,30
34″	22,44,39,11,59,35, 0,49,39,57		1,39,46, 2,20	
		1,56,17, 5,43,14,35,32		8,30
36″	22,44,41, 8,16,40,44, 4,15,29		1,39,46,10,50	
		1,56,17, 4, 3,28,24,42		8,30
38″	22,44,43, 4,33,44,47,32,40,11		1,39,46,19,20	
		1,56,17, 2,23,42, 5,22		8,30
40″	22,44,45, 0,50,47,11,14,45,33		1,39,46,27,50	
		1,56,17, 0,43,55,37,32		8,30
42″	22,44,46,57, 7,47,55,10,23, 5		1,39,46,36,20	
		1,56,16,59, 4, 9, 1,12		8,30
44″	22,44,48,53,24,46,59,19,24,17		1,39,46,44,50	
		1,56,16,57,24,22,16,22		8,30
46″	22,44,50,49,41,44,23,41,40,39		1,39,46,53,20	
		1,56,16,55,44,35,23, 2		8,30
48″	22,44,52,45,58,40, 8,17, 3,41		1,39,47, 1,50	
		1,56,16,54, 4,48,21,12		8,30
50″	22,44,54,42,15,34,13, 5,24,53		1,39,47,10,20	
		1,56,16,52,25, 1,10,52		8,30
52″	22,44,56,38,32,26,38, 6,35,45		1,39,47,18,50	
		1,56,16,50,45,13,52, 2		8,30
54″	22,44,58,34,49,17,23,20,27,47		1,39,47,27,20	
		1,56,16,49, 5,26,24,42		8,30
56″	22,45, 0,31, 6, 6,28,46,52,29		1,39,47,35,50	
		1,56,16,47,25,38,48,52		8,30
58″	22,45, 2,27,22,53,54,25,41,21		1,39,47,44,20	
		1,56,16,45,45,51, 4,32		
60″	22,45, 4,23,39,39,40,16,45,53			
exact	22,45, 4,23,39,39,40,16,38,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°17′ 0″	22,45, 4,23,39,39,40,16,38,44			
		1,56,16,44, 6, 3,10,59		
2″	22,45, 6,19,56,23,46,19,49,43		1,39,48, 1,23	
		1,56,16,42,26,15, 9,36		8,30
4″	22,45, 8,16,13, 6,12,34,59,19		1,39,48, 9,53	
		1,56,16,40,46,26,59,43		8,30
6″	22,45,10,12,29,46,59, 1,59, 2		1,39,48,18,23	
		1,56,16,39, 6,38,41,20		8,30
8″	22,45,12, 8,46,26, 5,40,40,22		1,39,48,26,53	
		1,56,16,37,26,50,14,27		8,30
10″	22,45,14, 5, 3, 3,32,30,54,49		1,39,48,35,23	
		1,56,16,35,47, 1,39, 4		8,30
12″	22,45,16, 1,19,39,19,32,33,53		1,39,48,43,53	
		1,56,16,34, 7,12,55,11		8,30
14″	22,45,17,57,36,13,26,45,29, 4		1,39,48,52,23	
		1,56,16,32,27,24, 2,48		8,30
16″	22,45,19,53,52,45,54, 9,31,52		1,39,49, 0,53	
		1,56,16,30,47,35, 1,55		8,30
18″	22,45,21,50, 9,16,41,44,33,47		1,39,49, 9,23	
		1,56,16,29, 7,45,52,32		8,30
20″	22,45,23,46,25,45,49,30,26,19		1,39,49,17,53	
		1,56,16,27,27,56,34,39		8,30
22″	22,45,25,42,42,13,17,27, 0,58		1,39,49,26,23	
		1,56,16,25,48, 7, 8,16		8,30
24″	22,45,27,38,58,39, 5,34, 9,14		1,39,49,34,53	
		1,56,16,24, 8,17,33,23		8,30
26″	22,45,29,35,15, 3,13,51,42,37		1,39,49,43,23	
		1,56,16,22,28,27,50, 0		8,30
28″	22,45,31,31,31,25,42,19,32,37		1,39,49,51,53	
		1,56,16,20,48,37,58, 7		8,30
30″	22,45,33,27,47,46,30,57,30,44		1,39,50, 0,23	
		1,56,16,19, 8,47,57,44		8,30
32″	22,45,35,24, 4, 5,39,45,28,28		1,39,50, 8,53	
		1,56,16,17,28,57,48,51		8,30
34″	22,45,37,20,20,23, 8,43,17,19		1,39,50,17,23	
		1,56,16,15,49, 7,31,28		8,30
36″	22,45,39,16,36,38,57,50,48,47		1,39,50,25,53	
		1,56,16,14, 9,17, 5,35		8,30
38″	22,45,41,12,52,53, 7, 7,54,22		1,39,50,34,23	
		1,56,16,12,29,26,31,12		8,30
40″	22,45,43, 9, 9, 5,36,34,25,34		1,39,50,42,53	
		1,56,16,10,49,35,48,19		8,30
42″	22,45,45, 5,25,16,26,10,13,53		1,39,50,51,23	
		1,56,16, 9, 9,44,56,56		8,30
44″	22,45,47, 1,41,25,35,55,10,49		1,39,50,59,53	
		1,56,16, 7,29,53,57, 3		8,30
46″	22,45,48,57,57,33, 5,49, 7,52		1,39,51, 8,23	
		1,56,16, 5,50, 2,48,40		8,30
48″	22,45,50,54,13,38,55,51,56,32		1,39,51,16,53	
		1,56,16, 4,10,11,31,47		8,30
50″	22,45,52,50,29,43, 6, 3,28,19		1,39,51,25,23	
		1,56,16, 2,30,20, 6,24		8,30
52″	22,45,54,46,45,45,36,23,34,43		1,39,51,33,53	
		1,56,16, 0,50,28,32,31		8,30
54″	22,45,56,43, 1,46,26,52, 7,14		1,39,51,42,23	
		1,56,15,59,10,36,50, 8		8,30
56″	22,45,58,39,17,45,37,28,57,22		1,39,51,50,53	
		1,56,15,57,30,44,59,15		8,30
58″	22,46, 0,35,33,43, 8,13,56,37		1,39,51,59,23	
		1,56,15,55,50,52,59,52		
60″	22,46, 2,31,49,38,59, 6,56,29			
exact	22,46, 2,31,49,38,59, 6,56,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°18′ 0″	22,46, 2,31,49,38,59, 6,56,28			
		1,56,15,54,11, 0,51,55		
2″	22,46, 4,28, 5,33,10, 7,48,23		1,39,52,16,23	
		1,56,15,52,31, 8,35,32		8,30
4″	22,46, 6,24,21,25,41,16,23,55		1,39,52,24,53	
		1,56,15,50,51,16,10,39		8,30
6″	22,46, 8,20,37,16,32,32,34,34		1,39,52,33,23	
		1,56,15,49,11,23,37,16		8,30
8″	22,46,10,16,53, 5,43,56,11,50		1,39,52,41,53	
		1,56,15,47,31,30,55,23		8,30
10″	22,46,12,13, 8,53,15,27, 7,13		1,39,52,50,23	
		1,56,15,45,51,38, 5, 0		8,30
12″	22,46,14, 9,24,39, 7, 5,12,13		1,39,52,58,53	
		1,56,15,44,11,45, 6, 7		8,30
14″	22,46,16, 5,40,23,18,50,18,20		1,39,53, 7,23	
		1,56,15,42,31,51,58,44		8,30
16″	22,46,18, 1,56, 5,50,42,17, 4		1,39,53,15,53	
		1,56,15,40,51,58,42,51		8,30
18″	22,46,19,58,11,46,42,40,59,55		1,39,53,24,23	
		1,56,15,39,12, 5,18,28		8,30
20″	22,46,21,54,27,25,54,46,18,23		1,39,53,32,53	
		1,56,15,37,32,11,45,35		8,30
22″	22,46,23,50,43, 3,26,58, 3,58		1,39,53,41,23	
		1,56,15,35,52,18, 4,12		8,30
24″	22,46,25,46,58,39,19,16, 8,10		1,39,53,49,53	
		1,56,15,34,12,24,14,19		8,30
26″	22,46,27,43,14,13,31,40,22,29		1,39,53,58,23	
		1,56,15,32,32,30,15,56		8,30
28″	22,46,29,39,29,46, 4,10,38,25		1,39,54, 6,53	
		1,56,15,30,52,36, 9, 3		8,30
30″	22,46,31,35,45,16,56,46,47,28		1,39,54,15,23	
		1,56,15,29,12,41,53,40		8,30
32″	22,46,33,32, 0,46, 9,28,41, 8		1,39,54,23,53	
		1,56,15,27,32,47,29,47		8,30
34″	22,46,35,28,16,13,42,16,10,55		1,39,54,32,23	
		1,56,15,25,52,52,57,24		8,30
36″	22,46,37,24,31,39,35, 9, 8,19		1,39,54,40,53	
		1,56,15,24,12,58,16,31		8,30
38″	22,46,39,20,47, 3,48, 7,24,50		1,39,54,49,23	
		1,56,15,22,33, 3,27, 8		8,30
40″	22,46,41,17, 2,26,21,10,51,58		1,39,54,57,53	
		1,56,15,20,53, 8,29,15		8,30
42″	22,46,43,13,17,47,14,19,21,13		1,39,55, 6,23	
		1,56,15,19,13,13,22,52		8,30
44″	22,46,45, 9,33, 6,27,32,44, 5		1,39,55,14,53	
		1,56,15,17,33,18, 7,59		8,30
46″	22,46,47, 5,48,24, 0,50,52, 4		1,39,55,23,23	
		1,56,15,15,53,22,44,36		8,30
48″	22,46,49, 2, 3,39,54,13,36,40		1,39,55,31,53	
		1,56,15,14,13,27,12,43		8,30
50″	22,46,50,58,18,54, 7,40,49,23		1,39,55,40,23	
		1,56,15,12,33,31,32,20		8,30
52″	22,46,52,54,34, 6,41,12,21,43		1,39,55,48,53	
		1,56,15,10,53,35,43,27		8,30
54″	22,46,54,50,49,17,34,48, 5,10		1,39,55,57,23	
		1,56,15, 9,13,39,46, 4		8,30
56″	22,46,56,47, 4,26,48,27,51,14		1,39,56, 5,53	
		1,56,15, 7,33,43,40,11		8,30
58″	22,46,58,43,19,34,22,11,31,25		1,39,56,14,23	
		1,56,15, 5,53,47,25,48		
60″	22,47, 0,39,34,40,15,58,57,13			
exact	22,47, 0,39,34,40,15,58,55,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°19′ 0″	22,47, 0,39,34,40,15,58,55,57	1,56,15, 4,13,51, 2,55		
2″	22,47, 2,35,49,44,29,49,58,52	1,56,15, 2,33,54,31,33	1,39,56,31,22	8,30
4″	22,47, 4,32, 4,47, 3,44,30,25	1,56,15, 0,53,57,51,41	1,39,56,39,52	8,30
6″	22,47, 6,28,19,47,57,42,22, 6	1,56,14,59,14, 1, 3,19	1,39,56,48,22	8,30
8″	22,47, 8,24,34,47,11,43,25,25	1,56,14,57,34, 4, 6,27	1,39,56,56,52	8,30
10″	22,47,10,20,49,44,45,47,31,52	1,56,14,55,54, 7, 1, 5	1,39,57, 5,22	8,30
12″	22,47,12,17, 4,40,39,54,32,57	1,56,14,54,14, 9,47,13	1,39,57,13,52	8,30
14″	22,47,14,13,19,34,54, 4,20,10	1,56,14,52,34,12,24,51	1,39,57,22,22	8,30
16″	22,47,16, 9,34,27,28,16,45, 1	1,56,14,50,54,14,53,59	1,39,57,30,52	8,30
18″	22,47,18, 5,49,18,22,31,39, 0	1,56,14,49,14,17,14,37	1,39,57,39,22	8,30
20″	22,47,20, 2, 4, 7,36,48,53,37	1,56,14,47,34,19,26,45	1,39,57,47,52	8,30
22″	22,47,21,58,18,55,11, 8,20,22	1,56,14,45,54,21,30,23	1,39,57,56,22	8,30
24″	22,47,23,54,33,41, 5,29,50,45	1,56,14,44,14,23,25,31	1,39,58, 4,52	8,30
26″	22,47,25,50,48,25,19,53,16,16	1,56,14,42,34,25,12, 9	1,39,58,13,22	8,30
28″	22,47,27,47, 3, 7,54,18,28,25	1,56,14,40,54,26,50,17	1,39,58,21,52	8,30
30″	22,47,29,43,17,48,48,45,18,42	1,56,14,39,14,28,19,55	1,39,58,30,22	8,30
32″	22,47,31,39,32,28, 3,13,38,37	1,56,14,37,34,29,41, 3	1,39,58,38,52	8,30
34″	22,47,33,35,47, 5,37,43,19,40	1,56,14,35,54,30,53,41	1,39,58,47,22	8,30
36″	22,47,35,32, 1,41,32,14,13,21	1,56,14,34,14,31,57,49	1,39,58,55,52	8,30
38″	22,47,37,28,16,15,46,46,11,10	1,56,14,32,34,32,53,27	1,39,59, 4,22	8,30
40″	22,47,39,24,30,48,21,19, 4,37	1,56,14,30,54,33,40,35	1,39,59,12,52	8,30
42″	22,47,41,20,45,19,15,52,45,12	1,56,14,29,14,34,19,13	1,39,59,21,22	8,30
44″	22,47,43,16,59,48,30,27, 4,25	1,56,14,27,34,34,49,21	1,39,59,29,52	8,30
46″	22,47,45,13,14,16, 5, 1,53,46	1,56,14,25,54,35,10,59	1,39,59,38,22	8,30
48″	22,47,47, 9,28,41,59,37, 4,45	1,56,14,24,14,35,24, 7	1,39,59,46,52	8,30
50″	22,47,49, 5,43, 6,14,12,28,52	1,56,14,22,34,35,28,45	1,39,59,55,22	8,30
52″	22,47,51, 1,57,28,48,47,57,37	1,56,14,20,54,35,24,53	1,40, 0, 3,52	8,30
54″	22,47,52,58,11,49,43,23,22,30	1,56,14,19,14,35,12,31	1,40, 0,12,22	8,30
56″	22,47,54,54,26, 8,57,58,35, 1	1,56,14,17,34,34,51,39	1,40, 0,20,52	8,30
58″	22,47,56,50,40,26,32,33,26,40	1,56,14,15,54,34,22,17	1,40, 0,29,22	
60″	22,47,58,46,54,42,27, 7,48,57			
exact	22,47,58,46,54,42,27, 7,52,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°20′ 0″	22,47,58,46,54,42,27, 7,52,25			
		1,56,14,14,14,33,44,54		
2″	22,48, 0,43, 8,56,41,41,37,19		1,40, 0,46,19	
		1,56,14,12,34,32,58,35		8,30
4″	22,48, 2,39,23, 9,16,14,35,54		1,40, 0,54,49	
		1,56,14,10,54,32, 3,46		8,30
6″	22,48, 4,35,37,20,10,46,39,40		1,40, 1, 3,19	
		1,56,14, 9,14,31, 0,27		8,30
8″	22,48, 6,31,51,29,25,17,40, 7		1,40, 1,11,49	
		1,56,14, 7,34,29,48,38		8,30
10″	22,48, 8,28, 5,36,59,47,28,45		1,40, 1,20,19	
		1,56,14, 5,54,28,28,19		8,30
12″	22,48,10,24,19,42,54,15,57, 4		1,40, 1,28,49	
		1,56,14, 4,14,26,59,30		8,30
14″	22,48,12,20,33,47, 8,42,56,34		1,40, 1,37,19	
		1,56,14, 2,34,25,22,11		8,30
16″	22,48,14,16,47,49,43, 8,18,45		1,40, 1,45,49	
		1,56,14, 0,54,23,36,22		8,30
18″	22,48,16,13, 1,50,37,31,55, 7		1,40, 1,54,19	
		1,56,13,59,14,21,42, 3		8,30
20″	22,48,18, 9,15,49,51,53,37,10		1,40, 2, 2,49	
		1,56,13,57,34,19,39,14		8,30
22″	22,48,20, 5,29,47,26,13,16,24		1,40, 2,11,19	
		1,56,13,55,54,17,27,55		8,30
24″	22,48,22, 1,43,43,20,30,44,19		1,40, 2,19,49	
		1,56,13,54,14,15, 8, 6		8,30
26″	22,48,23,57,57,37,34,45,52,25		1,40, 2,28,19	
		1,56,13,52,34,12,39,47		8,30
28″	22,48,25,54,11,30, 8,58,32,12		1,40, 2,36,49	
		1,56,13,50,54,10, 2,58		8,30
30″	22,48,27,50,25,21, 3, 8,35,10		1,40, 2,45,19	
		1,56,13,49,14, 7,17,39		8,30
32″	22,48,29,46,39,10,17,15,52,49		1,40, 2,53,49	
		1,56,13,47,34, 4,23,50		8,30
34″	22,48,31,42,52,57,51,20,16,39		1,40, 3, 2,19	
		1,56,13,45,54, 1,21,31		8,30
36″	22,48,33,39, 6,43,45,21,38,10		1,40, 3,10,49	
		1,56,13,44,13,58,10,42		8,30
38″	22,48,35,35,20,27,59,19,48,52		1,40, 3,19,19	
		1,56,13,42,33,54,51,23		8,30
40″	22,48,37,31,34,10,33,14,40,15		1,40, 3,27,49	
		1,56,13,40,53,51,23,34		8,30
42″	22,48,39,27,47,51,27, 6, 3,49		1,40, 3,36,19	
		1,56,13,39,13,47,47,15		8,30
44″	22,48,41,24, 1,30,40,53,51, 4		1,40, 3,44,49	
		1,56,13,37,33,44, 2,26		8,30
46″	22,48,43,20,15, 8,14,37,53,30		1,40, 3,53,19	
		1,56,13,35,53,40, 9, 7		8,30
48″	22,48,45,16,28,44, 8,18, 2,37		1,40, 4, 1,49	
		1,56,13,34,13,36, 7,18		8,30
50″	22,48,47,12,42,18,21,54, 9,55		1,40, 4,10,19	
		1,56,13,32,33,31,56,59		8,30
52″	22,48,49, 8,55,50,55,26, 6,54		1,40, 4,18,49	
		1,56,13,30,53,27,38,10		8,30
54″	22,48,51, 5, 9,21,48,53,45, 4		1,40, 4,27,19	
		1,56,13,29,13,23,10,51		8,30
56″	22,48,53, 1,22,51, 2,16,55,55		1,40, 4,35,49	
		1,56,13,27,33,18,35, 2		8,30
58″	22,48,54,57,36,18,35,35,30,57		1,40, 4,44,19	
		1,56,13,25,53,13,50,43		
60″	22,48,56,53,49,44,28,49,21,40			
exact	22,48,56,53,49,44,28,49,28,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°21′ 0″	22,48,56,53,49,44,28,49,28,29			
		1,56,13,24,13, 8,58,46		
2″	22,48,58,50, 3, 8,41,58,27,15		1,40, 5, 1,15	
		1,56,13,22,33, 3,57,31		8,30
4″	22,49, 0,46,16,31,15, 2,24,46		1,40, 5, 9,45	
		1,56,13,20,52,58,47,46		8,30
6″	22,49, 2,42,29,52, 8, 1,12,32		1,40, 5,18,15	
		1,56,13,19,12,53,29,31		8,30
8″	22,49, 4,38,43,11,20,54,42, 3		1,40, 5,26,45	
		1,56,13,17,32,48, 2,46		8,30
10″	22,49, 6,34,56,28,53,42,44,49		1,40, 5,35,15	
		1,56,13,15,52,42,27,31		8,30
12″	22,49, 8,31, 9,44,46,25,12,20		1,40, 5,43,45	
		1,56,13,14,12,36,43,46		8,30
14″	22,49,10,27,22,58,59, 1,56, 6		1,40, 5,52,15	
		1,56,13,12,32,30,51,31		8,30
16″	22,49,12,23,36,11,31,32,47,37		1,40, 6, 0,45	
		1,56,13,10,52,24,50,46		8,30
18″	22,49,14,19,49,22,23,57,38,23		1,40, 6, 9,15	
		1,56,13, 9,12,18,41,31		8,30
20″	22,49,16,16, 2,31,36,16,19,54		1,40, 6,17,45	
		1,56,13, 7,32,12,23,46		8,30
22″	22,49,18,12,15,39, 8,28,43,40		1,40, 6,26,15	
		1,56,13, 5,52, 5,57,31		8,30
24″	22,49,20, 8,28,45, 0,34,41,11		1,40, 6,34,45	
		1,56,13, 4,11,59,22,46		8,30
26″	22,49,22, 4,41,49,12,34, 3,57		1,40, 6,43,15	
		1,56,13, 2,31,52,39,31		8,30
28″	22,49,24, 0,54,51,44,26,43,28		1,40, 6,51,45	
		1,56,13, 0,51,45,47,46		8,30
30″	22,49,25,57, 7,52,36,12,31,14		1,40, 7, 0,15	
		1,56,12,59,11,38,47,31		8,30
32″	22,49,27,53,20,51,47,51,18,45		1,40, 7, 8,45	
		1,56,12,57,31,31,38,46		8,30
34″	22,49,29,49,33,49,19,22,57,31		1,40, 7,17,15	
		1,56,12,55,51,24,21,31		8,30
36″	22,49,31,45,46,45,10,47,19, 2		1,40, 7,25,45	
		1,56,12,54,11,16,55,46		8,30
38″	22,49,33,41,59,39,22, 4,14,48		1,40, 7,34,15	
		1,56,12,52,31, 9,21,31		8,30
40″	22,49,35,38,12,31,53,13,36,19		1,40, 7,42,45	
		1,56,12,50,51, 1,38,46		8,30
42″	22,49,37,34,25,22,44,15,15, 5		1,40, 7,51,15	
		1,56,12,49,10,53,47,31		8,30
44″	22,49,39,30,38,11,55, 9, 2,36		1,40, 7,59,45	
		1,56,12,47,30,45,47,46		8,30
46″	22,49,41,26,50,59,25,54,50,22		1,40, 8, 8,15	
		1,56,12,45,50,37,39,31		8,30
48″	22,49,43,23, 3,45,16,32,29,53		1,40, 8,16,45	
		1,56,12,44,10,29,22,46		8,30
50″	22,49,45,19,16,29,27, 1,52,39		1,40, 8,25,15	
		1,56,12,42,30,20,57,31		8,30
52″	22,49,47,15,29,11,57,22,50,10		1,40, 8,33,45	
		1,56,12,40,50,12,23,46		8,30
54″	22,49,49,11,41,52,47,35,13,56		1,40, 8,42,15	
		1,56,12,39,10, 3,41,31		8,30
56″	22,49,51, 7,54,31,57,38,55,27		1,40, 8,50,45	
		1,56,12,37,29,54,50,46		8,30
58″	22,49,53, 4, 7, 9,27,33,46,13		1,40, 8,59,15	
		1,56,12,35,49,45,51,31		
60″	22,49,55, 0,19,45,17,19,37,44			
exact	22,49,55, 0,19,45,17,19,54,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°22′ 0″	22,49,55, 0,19,45,17,19,54,11			
		1,56,12,34, 9,36,45,27		
2″	22,49,56,56,32,19,26,56,39,38		1,40, 9,16, 8	
		1,56,12,32,29,27,29,19		8,30
4″	22,49,58,52,44,51,56,24, 8,57		1,40, 9,24,38	
		1,56,12,30,49,18, 4,41		8,30
6″	22,50, 0,48,57,22,45,42,13,38		1,40, 9,33, 8	
		1,56,12,29, 9, 8,31,33		8,30
8″	22,50, 2,45, 9,51,54,50,45,11		1,40, 9,41,38	
		1,56,12,27,28,58,49,55		8,30
10″	22,50, 4,41,22,19,23,49,35, 6		1,40, 9,50, 8	
		1,56,12,25,48,48,59,47		8,30
12″	22,50, 6,37,34,45,12,38,34,53		1,40, 9,58,38	
		1,56,12,24, 8,39, 1, 9		8,30
14″	22,50, 8,33,47, 9,21,17,36, 2		1,40,10, 7, 8	
		1,56,12,22,28,28,54, 1		8,30
16″	22,50,10,29,59,31,49,46,30, 3		1,40,10,15,38	
		1,56,12,20,48,18,38,23		8,30
18″	22,50,12,26,11,52,38, 5, 8,26		1,40,10,24, 8	
		1,56,12,19, 8, 8,14,15		8,30
20″	22,50,14,22,24,11,46,13,22,41		1,40,10,32,38	
		1,56,12,17,27,57,41,37		8,30
22″	22,50,16,18,36,29,14,11, 4,18		1,40,10,41, 8	
		1,56,12,15,47,47, 0,29		8,30
24″	22,50,18,14,48,45, 1,58, 4,47		1,40,10,49,38	
		1,56,12,14, 7,36,10,51		8,30
26″	22,50,20,11, 0,59, 9,34,15,38		1,40,10,58, 8	
		1,56,12,12,27,25,12,43		8,30
28″	22,50,22, 7,13,11,36,59,28,21		1,40,11, 6,38	
		1,56,12,10,47,14, 6, 5		8,30
30″	22,50,24, 3,25,22,24,13,34,26		1,40,11,15, 8	
		1,56,12, 9, 7, 2,50,57		8,30
32″	22,50,25,59,37,31,31,16,25,23		1,40,11,23,38	
		1,56,12, 7,26,51,27,19		8,30
34″	22,50,27,55,49,38,58, 7,52,42		1,40,11,32, 8	
		1,56,12, 5,46,39,55,11		8,30
36″	22,50,29,52, 1,44,44,47,47,53		1,40,11,40,38	
		1,56,12, 4, 6,28,14,33		8,30
38″	22,50,31,48,13,48,51,16, 2,26		1,40,11,49, 8	
		1,56,12, 2,26,16,25,25		8,30
40″	22,50,33,44,25,51,17,32,27,51		1,40,11,57,38	
		1,56,12, 0,46, 4,27,47		8,30
42″	22,50,35,40,37,52, 3,36,55,38		1,40,12, 6, 8	
		1,56,11,59, 5,52,21,39		8,30
44″	22,50,37,36,49,51, 9,29,17,17		1,40,12,14,38	
		1,56,11,57,25,40, 7, 1		8,30
46″	22,50,39,33, 1,48,35, 9,24,18		1,40,12,23, 8	
		1,56,11,55,45,27,43,53		8,30
48″	22,50,41,29,13,44,20,37, 8,11		1,40,12,31,38	
		1,56,11,54, 5,15,12,15		8,30
50″	22,50,43,25,25,38,25,52,20,26		1,40,12,40, 8	
		1,56,11,52,25, 2,32, 7		8,30
52″	22,50,45,21,37,30,50,54,52,33		1,40,12,48,38	
		1,56,11,50,44,49,43,29		8,30
54″	22,50,47,17,49,21,35,44,36, 2		1,40,12,57, 8	
		1,56,11,49, 4,36,46,21		8,30
56″	22,50,49,14, 1,10,40,21,22,23		1,40,13, 5,38	
		1,56,11,47,24,23,40,43		8,30
58″	22,50,51,10,12,58, 4,45, 3, 6		1,40,13,14, 8	
		1,56,11,45,44,10,26,35		
60″	22,50,53, 6,24,43,48,55,29,41			
exact	22,50,53, 6,24,43,48,55,47, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°23′ 0″	22,50,53, 6,24,43,48,55,47, 1			
		1,56,11,44, 3,57, 5,52		
2″	22,50,55, 2,36,27,52,52,52,53		1,40,13,31, 0	
		1,56,11,42,23,43,34,52		8,30
4″	22,50,56,58,48,10,16,36,27,45		1,40,13,39,30	
		1,56,11,40,43,29,55,22		8,30
6″	22,50,58,54,59,51, 0, 6,23, 7		1,40,13,48, 0	
		1,56,11,39, 3,16, 7,22		8,30
8″	22,51, 0,51,11,30, 3,22,30,29		1,40,13,56,30	
		1,56,11,37,23, 2,10,52		8,30
10″	22,51, 2,47,23, 7,26,24,41,21		1,40,14, 5, 0	
		1,56,11,35,42,48, 5,52		8,30
12″	22,51, 4,43,34,43, 9,12,47,13		1,40,14,13,30	
		1,56,11,34, 2,33,52,22		8,30
14″	22,51, 6,39,46,17,11,46,39,35		1,40,14,22, 0	
		1,56,11,32,22,19,30,22		8,30
16″	22,51, 8,35,57,49,34, 6, 9,57		1,40,14,30,30	
		1,56,11,30,42, 4,59,52		8,30
18″	22,51,10,32, 9,20,16,11, 9,49		1,40,14,39, 0	
		1,56,11,29, 1,50,20,52		8,30
20″	22,51,12,28,20,49,18, 1,30,41		1,40,14,47,30	
		1,56,11,27,21,35,33,22		8,30
22″	22,51,14,24,32,16,39,37, 4, 3		1,40,14,56, 0	
		1,56,11,25,41,20,37,22		8,30
24″	22,51,16,20,43,42,20,57,41,25		1,40,15, 4,30	
		1,56,11,24, 1, 5,32,52		8,30
26″	22,51,18,16,55, 6,22, 3,14,17		1,40,15,13, 0	
		1,56,11,22,20,50,19,52		8,30
28″	22,51,20,13, 6,28,42,53,34, 9		1,40,15,21,30	
		1,56,11,20,40,34,58,22		8,30
30″	22,51,22, 9,17,49,23,28,32,31		1,40,15,30, 0	
		1,56,11,19, 0,19,28,22		8,30
32″	22,51,24, 5,29, 8,23,48, 0,53		1,40,15,38,30	
		1,56,11,17,20, 3,49,52		8,30
34″	22,51,26, 1,40,25,43,51,50,45		1,40,15,47, 0	
		1,56,11,15,39,48, 2,52		8,30
36″	22,51,27,57,51,41,23,39,53,37		1,40,15,55,30	
		1,56,11,13,59,32, 7,22		8,30
38″	22,51,29,54, 2,55,23,12, 0,59		1,40,16, 4, 0	
		1,56,11,12,19,16, 3,22		8,30
40″	22,51,31,50,14, 7,42,28, 4,21		1,40,16,12,30	
		1,56,11,10,38,59,50,52		8,30
42″	22,51,33,46,25,18,21,27,55,13		1,40,16,21, 0	
		1,56,11, 8,58,43,29,52		8,30
44″	22,51,35,42,36,27,20,11,25, 5		1,40,16,29,30	
		1,56,11, 7,18,27, 0,22		8,30
46″	22,51,37,38,47,34,38,38,25,27		1,40,16,38, 0	
		1,56,11, 5,38,10,22,22		8,30
48″	22,51,39,34,58,40,16,48,47,49		1,40,16,46,30	
		1,56,11, 3,57,53,35,52		8,30
50″	22,51,41,31, 9,44,14,42,23,41		1,40,16,55, 0	
		1,56,11, 2,17,36,40,52		8,30
52″	22,51,43,27,20,46,32,19, 4,33		1,40,17, 3,30	
		1,56,11, 0,37,19,37,22		8,30
54″	22,51,45,23,31,47, 9,38,41,55		1,40,17,12, 0	
		1,56,10,58,57, 2,25,22		8,30
56″	22,51,47,19,42,46, 6,41, 7,17		1,40,17,20,30	
		1,56,10,57,16,45, 4,52		8,30
58″	22,51,49,15,53,43,23,26,12, 9		1,40,17,29, 0	
		1,56,10,55,36,27,35,52		
60″	22,51,51,12, 4,38,59,53,48, 1			
exact	22,51,51,12, 4,38,59,54,11,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°24′ 0″	22,51,51,12, 4,38,59,54,11,54			
		1,56,10,53,56,10, 0,54		
2″	22,51,53, 8,15,32,56, 4,12,48		1,40,17,45,49	
		1,56,10,52,15,52,15, 5		8,30
4″	22,51,55, 4,26,25,11,56,27,53		1,40,17,54,19	
		1,56,10,50,35,34,20,46		8,30
6″	22,51,57, 0,37,15,47,30,48,39		1,40,18, 2,49	
		1,56,10,48,55,16,17,57		8,30
8″	22,51,58,56,48, 4,42,47, 6,36		1,40,18,11,19	
		1,56,10,47,14,58, 6,38		8,30
10″	22,52, 0,52,58,51,57,45,13,14		1,40,18,19,49	
		1,56,10,45,34,39,46,49		8,30
12″	22,52, 2,49, 9,37,32,25, 0, 3		1,40,18,28,19	
		1,56,10,43,54,21,18,30		8,30
14″	22,52, 4,45,20,21,26,46,18,33		1,40,18,36,49	
		1,56,10,42,14, 2,41,41		8,30
16″	22,52, 6,41,31, 3,40,49, 0,14		1,40,18,45,19	
		1,56,10,40,33,43,56,22		8,30
18″	22,52, 8,37,41,44,14,32,56,36		1,40,18,53,49	
		1,56,10,38,53,25, 2,33		8,30
20″	22,52,10,33,52,23, 7,57,59, 9		1,40,19, 2,19	
		1,56,10,37,13, 6, 0,14		8,30
22″	22,52,12,30, 3, 0,21, 3,59,23		1,40,19,10,49	
		1,56,10,35,32,46,49,25		8,30
24″	22,52,14,26,13,35,53,50,48,48		1,40,19,19,19	
		1,56,10,33,52,27,30, 6		8,30
26″	22,52,16,22,24, 9,46,18,18,54		1,40,19,27,49	
		1,56,10,32,12, 8, 2,17		8,30
28″	22,52,18,18,34,41,58,26,21,11		1,40,19,36,19	
		1,56,10,30,31,48,25,58		8,30
30″	22,52,20,14,45,12,30,14,47, 9		1,40,19,44,49	
		1,56,10,28,51,28,41, 9		8,30
32″	22,52,22,10,55,41,21,43,28,18		1,40,19,53,19	
		1,56,10,27,11, 8,47,50		8,30
34″	22,52,24, 7, 6, 8,32,52,16, 8		1,40,20, 1,49	
		1,56,10,25,30,48,46, 1		8,30
36″	22,52,26, 3,16,34, 3,41, 2, 9		1,40,20,10,19	
		1,56,10,23,50,28,35,42		8,30
38″	22,52,27,59,26,57,54, 9,37,51		1,40,20,18,49	
		1,56,10,22,10, 8,16,53		8,30
40″	22,52,29,55,37,20, 4,17,54,44		1,40,20,27,19	
		1,56,10,20,29,47,49,34		8,30
42″	22,52,31,51,47,40,34, 5,44,18		1,40,20,35,49	
		1,56,10,18,49,27,13,45		8,30
44″	22,52,33,47,57,59,23,32,58, 3		1,40,20,44,19	
		1,56,10,17, 9, 6,29,26		8,30
46″	22,52,35,44, 8,16,32,39,27,29		1,40,20,52,49	
		1,56,10,15,28,45,36,37		8,30
48″	22,52,37,40,18,32, 1,25, 4, 6		1,40,21, 1,19	
		1,56,10,13,48,24,35,18		8,30
50″	22,52,39,36,28,45,49,49,39,24		1,40,21, 9,49	
		1,56,10,12, 8, 3,25,29		8,30
52″	22,52,41,32,38,57,57,53, 4,53		1,40,21,18,19	
		1,56,10,10,27,42, 7,10		8,30
54″	22,52,43,28,49, 8,25,35,12, 3		1,40,21,26,49	
		1,56,10, 8,47,20,40,21		8,30
56″	22,52,45,24,59,17,12,55,52,24		1,40,21,35,19	
		1,56,10, 7, 6,59, 5, 2		8,30
58″	22,52,47,21, 9,24,19,54,57,26		1,40,21,43,49	
		1,56,10, 5,26,37,21,13		
60″	22,52,49,17,19,29,46,32,18,39			
exact	22,52,49,17,19,29,46,32,41,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°25′ 0″	22,52,49,17,19,29,46,32,41,17	1,56,10, 3,46,15,31,30		
2″	22,52,51,13,29,33,32,48,12,47	1,56,10, 2, 5,53,30,53	1,40,22, 0,37	8,30
4″	22,52,53, 9,39,35,38,41,43,40	1,56,10, 0,25,31,21,46	1,40,22, 9, 7	8,30
6″	22,52,55, 5,49,36, 4,13, 5,26	1,56, 9,58,45, 9, 4, 9	1,40,22,17,37	8,30
8″	22,52,57, 1,59,34,49,22, 9,35	1,56, 9,57, 4,46,38, 2	1,40,22,26, 7	8,30
10″	22,52,58,58, 9,31,54, 8,47,37	1,56, 9,55,24,24, 3,25	1,40,22,34,37	8,30
12″	22,53, 0,54,19,27,18,32,51, 2	1,56, 9,53,44, 1,20,18	1,40,22,43, 7	8,30
14″	22,53, 2,50,29,21, 2,34,11,20	1,56, 9,52, 3,38,28,41	1,40,22,51,37	8,30
16″	22,53, 4,46,39,13, 6,12,40, 1	1,56, 9,50,23,15,28,34	1,40,23, 0, 7	8,30
18″	22,53, 6,42,49, 3,29,28, 8,35	1,56, 9,48,42,52,19,57	1,40,23, 8,37	8,30
20″	22,53, 8,38,58,52,12,20,28,32	1,56, 9,47, 2,29, 2,50	1,40,23,17, 7	8,30
22″	22,53,10,35, 8,39,14,49,31,22	1,56, 9,45,22, 5,37,13	1,40,23,25,37	8,30
24″	22,53,12,31,18,24,36,55, 8,35	1,56, 9,43,41,42, 3, 6	1,40,23,34, 7	8,30
26″	22,53,14,27,28, 8,18,37,11,41	1,56, 9,42, 1,18,20,29	1,40,23,42,37	8,30
28″	22,53,16,23,37,50,19,55,32,10	1,56, 9,40,20,54,29,22	1,40,23,51, 7	8,30
30″	22,53,18,19,47,30,40,50, 1,32	1,56, 9,38,40,30,29,45	1,40,23,59,37	8,30
32″	22,53,20,15,57, 9,21,20,31,17	1,56, 9,37, 0, 6,21,38	1,40,24, 8, 7	8,30
34″	22,53,22,12, 6,46,21,26,52,55	1,56, 9,35,19,42, 5, 1	1,40,24,16,37	8,30
36″	22,53,24, 8,16,21,41, 8,57,56	1,56, 9,33,39,17,39,54	1,40,24,25, 7	8,30
38″	22,53,26, 4,25,55,20,26,37,50	1,56, 9,31,58,53, 6,17	1,40,24,33,37	8,30
40″	22,53,28, 0,35,27,19,19,44, 7	1,56, 9,30,18,28,24,10	1,40,24,42, 7	8,30
42″	22,53,29,56,44,57,37,48, 8,17	1,56, 9,28,38, 3,33,33	1,40,24,50,37	8,30
44″	22,53,31,52,54,26,15,51,41,50	1,56, 9,26,57,38,34,26	1,40,24,59, 7	8,30
46″	22,53,33,49, 3,53,13,30,16,16	1,56, 9,25,17,13,26,49	1,40,25, 7,37	8,30
48″	22,53,35,45,13,18,30,43,43, 5	1,56, 9,23,36,48,10,42	1,40,25,16, 7	8,30
50″	22,53,37,41,22,42, 7,31,53,47	1,56, 9,21,56,22,46, 5	1,40,25,24,37	8,30
52″	22,53,39,37,32, 4, 3,54,39,52	1,56, 9,20,15,57,12,58	1,40,25,33, 7	8,30
54″	22,53,41,33,41,24,19,51,52,50	1,56, 9,18,35,31,31,21	1,40,25,41,37	8,30
56″	22,53,43,29,50,42,55,23,24,11	1,56, 9,16,55, 5,41,14	1,40,25,50, 7	8,30
58″	22,53,45,25,59,59,50,29, 5,25	1,56, 9,15,14,39,42,37	1,40,25,58,37	
60″	22,53,47,22, 9,15, 5, 8,48, 2			
exact	22,53,47,22, 9,15, 5, 9,15, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°26′ 0″	22,53,47,22, 9,15, 5, 9,15, 3			
		1,56, 9,13,34,13,38,34		
2″	22,53,49,18,18,28,39,22,53,37		1,40,26,15,24	
		1,56, 9,11,53,47,23,10		8,30
4″	22,53,51,14,27,40,33,10,16,47		1,40,26,23,54	
		1,56, 9,10,13,20,59,16		8,30
6″	22,53,53,10,36,50,46,31,16, 3		1,40,26,32,24	
		1,56, 9, 8,32,54,26,52		8,30
8″	22,53,55, 6,45,59,19,25,42,55		1,40,26,40,54	
		1,56, 9, 6,52,27,45,58		8,30
10″	22,53,57, 2,55, 6,11,53,28,53		1,40,26,49,24	
		1,56, 9, 5,12, 0,56,34		8,30
12″	22,53,58,59, 4,11,23,54,25,27		1,40,26,57,54	
		1,56, 9, 3,31,33,58,40		8,30
14″	22,54, 0,55,13,14,55,28,24, 7		1,40,27, 6,24	
		1,56, 9, 1,51, 6,52,16		8,30
16″	22,54, 2,51,22,16,46,35,16,23		1,40,27,14,54	
		1,56, 9, 0,10,39,37,22		8,30
18″	22,54, 4,47,31,16,57,14,53,45		1,40,27,23,24	
		1,56, 8,58,30,12,13,58		8,30
20″	22,54, 6,43,40,15,27,27, 7,43		1,40,27,31,54	
		1,56, 8,56,49,44,42, 4		8,30
22″	22,54, 8,39,49,12,17,11,49,47		1,40,27,40,24	
		1,56, 8,55, 9,17, 1,40		8,30
24″	22,54,10,35,58, 7,26,28,51,27		1,40,27,48,54	
		1,56, 8,53,28,49,12,46		8,30
26″	22,54,12,32, 7, 0,55,18, 4,13		1,40,27,57,24	
		1,56, 8,51,48,21,15,22		8,30
28″	22,54,14,28,15,52,43,39,19,35		1,40,28, 5,54	
		1,56, 8,50, 7,53, 9,28		8,30
30″	22,54,16,24,24,42,51,32,29, 3		1,40,28,14,24	
		1,56, 8,48,27,24,55, 4		8,30
32″	22,54,18,20,33,31,18,57,24, 7		1,40,28,22,54	
		1,56, 8,46,46,56,32,10		8,30
34″	22,54,20,16,42,18, 5,53,56,17		1,40,28,31,24	
		1,56, 8,45, 6,28, 0,46		8,30
36″	22,54,22,12,51, 3,12,21,57, 3		1,40,28,39,54	
		1,56, 8,43,25,59,20,52		8,30
38″	22,54,24, 8,59,46,38,21,17,55		1,40,28,48,24	
		1,56, 8,41,45,30,32,28		8,30
40″	22,54,26, 5, 8,28,23,51,50,23		1,40,28,56,54	
		1,56, 8,40, 5, 1,35,34		8,30
42″	22,54,28, 1,17, 8,28,53,25,57		1,40,29, 5,24	
		1,56, 8,38,24,32,30,10		8,30
44″	22,54,29,57,25,46,53,25,56, 7		1,40,29,13,54	
		1,56, 8,36,44, 3,16,16		8,30
46″	22,54,31,53,34,23,37,29,12,23		1,40,29,22,24	
		1,56, 8,35, 3,33,53,52		8,30
48″	22,54,33,49,42,58,41, 3, 6,15		1,40,29,30,54	
		1,56, 8,33,23, 4,22,58		8,30
50″	22,54,35,45,51,32, 4, 7,29,13		1,40,29,39,24	
		1,56, 8,31,42,34,43,34		8,30
52″	22,54,37,42, 0, 3,46,42,12,47		1,40,29,47,54	
		1,56, 8,30, 2, 4,55,40		8,30
54″	22,54,39,38, 8,33,48,47, 8,27		1,40,29,56,24	
		1,56, 8,28,21,34,59,16		8,30
56″	22,54,41,34,17, 2,10,22, 7,43		1,40,30, 4,54	
		1,56, 8,26,41, 4,54,22		8,30
58″	22,54,43,30,25,28,51,27, 2, 5		1,40,30,13,24	
		1,56, 8,25, 0,34,40,58		
60″	22,54,45,26,33,53,52, 1,43, 3			
exact	22,54,45,26,33,53,52, 2,20,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°27′ 0″	22,54,45,26,33,53,52, 2,20,38			
		1,56, 8,23,20, 4,23, 1		
2″	22,54,47,22,42,17,12, 6,43,39		1,40,30,30, 8	
		1,56, 8,21,39,33,52,53		8,29
4″	22,54,49,18,50,38,51,40,36,32		1,40,30,38,37	
		1,56, 8,19,59, 3,14,16		8,29
6″	22,54,51,14,58,58,50,43,50,48		1,40,30,47, 6	
		1,56, 8,18,18,32,27,10		8,29
8″	22,54,53,11, 7,17, 9,16,17,58		1,40,30,55,35	
		1,56, 8,16,38, 1,31,35		8,29
10″	22,54,55, 7,15,33,47,17,49,33		1,40,31, 4, 4	
		1,56, 8,14,57,30,27,31		8,29
12″	22,54,57, 3,23,48,44,48,17, 4		1,40,31,12,33	
		1,56, 8,13,16,59,14,58		8,29
14″	22,54,58,59,32, 2, 1,47,32, 2		1,40,31,21, 2	
		1,56, 8,11,36,27,53,56		8,29
16″	22,55, 0,55,40,13,38,15,25,58		1,40,31,29,31	
		1,56, 8, 9,55,56,24,25		8,29
18″	22,55, 2,51,48,23,34,11,50,23		1,40,31,38, 0	
		1,56, 8, 8,15,24,46,25		8,29
20″	22,55, 4,47,56,31,49,36,36,48		1,40,31,46,29	
		1,56, 8, 6,34,52,59,56		8,29
22″	22,55, 6,44, 4,38,24,29,36,44		1,40,31,54,58	
		1,56, 8, 4,54,21, 4,58		8,29
24″	22,55, 8,40,12,43,18,50,41,42		1,40,32, 3,27	
		1,56, 8, 3,13,49, 1,31		8,29
26″	22,55,10,36,20,46,32,39,43,13		1,40,32,11,56	
		1,56, 8, 1,33,16,49,35		8,29
28″	22,55,12,32,28,48, 5,56,32,48		1,40,32,20,25	
		1,56, 7,59,52,44,29,10		8,29
30″	22,55,14,28,36,47,58,41, 1,58		1,40,32,28,54	
		1,56, 7,58,12,12, 0,16		8,29
32″	22,55,16,24,44,46,10,53, 2,14		1,40,32,37,23	
		1,56, 7,56,31,39,22,53		8,29
34″	22,55,18,20,52,42,42,32,25, 7		1,40,32,45,52	
		1,56, 7,54,51, 6,37, 1		8,29
36″	22,55,20,17, 0,37,33,39, 2, 8		1,40,32,54,21	
		1,56, 7,53,10,33,42,40		8,29
38″	22,55,22,13, 8,30,44,12,44,48		1,40,33, 2,50	
		1,56, 7,51,30, 0,39,50		8,29
40″	22,55,24, 9,16,22,14,13,24,38		1,40,33,11,19	
		1,56, 7,49,49,27,28,31		8,29
42″	22,55,26, 5,24,12, 3,40,53, 9		1,40,33,19,48	
		1,56, 7,48, 8,54, 8,43		8,29
44″	22,55,28, 1,32, 0,12,35, 1,52		1,40,33,28,17	
		1,56, 7,46,28,20,40,26		8,29
46″	22,55,29,57,39,46,40,55,42,18		1,40,33,36,46	
		1,56, 7,44,47,47, 3,40		8,29
48″	22,55,31,53,47,31,28,42,45,58		1,40,33,45,15	
		1,56, 7,43, 7,13,18,25		8,29
50″	22,55,33,49,55,14,35,56, 4,23		1,40,33,53,44	
		1,56, 7,41,26,39,24,41		8,29
52″	22,55,35,46, 2,56, 2,35,29, 4		1,40,34, 2,13	
		1,56, 7,39,46, 5,22,28		8,29
54″	22,55,37,42,10,35,48,40,51,32		1,40,34,10,42	
		1,56, 7,38, 5,31,11,46		8,29
56″	22,55,39,38,18,13,54,12, 3,18		1,40,34,19,11	
		1,56, 7,36,24,56,52,35		8,29
58″	22,55,41,34,25,50,19, 8,55,53		1,40,34,27,40	
		1,56, 7,34,44,22,24,55		
60″	22,55,43,30,33,25, 3,31,20,48			
exact	22,55,43,30,33,25, 3,30,53, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°28′ 0″	22,55,43,30,33,25, 3,30,53, 0			
		1,56, 7,33, 3,47,45,47		
2″	22,55,45,26,40,58, 7,18,38,47		1,40,34,44,50	
		1,56, 7,31,23,13, 0,57		8,29
4″	22,55,47,22,48,29,30,31,39,44		1,40,34,53,19	
		1,56, 7,29,42,38, 7,38		8,29
6″	22,55,49,18,55,59,13, 9,47,22		1,40,35, 1,48	
		1,56, 7,28, 2, 3, 5,50		8,29
8″	22,55,51,15, 3,27,15,12,53,12		1,40,35,10,17	
		1,56, 7,26,21,27,55,33		8,29
10″	22,55,53,11,10,53,36,40,48,45		1,40,35,18,46	
		1,56, 7,24,40,52,36,47		8,29
12″	22,55,55, 7,18,18,17,33,25,32		1,40,35,27,15	
		1,56, 7,23, 0,17, 9,32		8,29
14″	22,55,57, 3,25,41,17,50,35, 4		1,40,35,35,44	
		1,56, 7,21,19,41,33,48		8,29
16″	22,55,58,59,33, 2,37,32, 8,52		1,40,35,44,13	
		1,56, 7,19,39, 5,49,35		8,29
18″	22,56, 0,55,40,22,16,37,58,27		1,40,35,52,42	
		1,56, 7,17,58,29,56,53		8,29
20″	22,56, 2,51,47,40,15, 7,55,20		1,40,36, 1,11	
		1,56, 7,16,17,53,55,42		8,29
22″	22,56, 4,47,54,56,33, 1,51, 2		1,40,36, 9,40	
		1,56, 7,14,37,17,46, 2		8,29
24″	22,56, 6,44, 2,11,10,19,37, 4		1,40,36,18, 9	
		1,56, 7,12,56,41,27,53		8,29
26″	22,56, 8,40, 9,24, 7, 1, 4,57		1,40,36,26,38	
		1,56, 7,11,16, 5, 1,15		8,29
28″	22,56,10,36,16,35,23, 6, 6,12		1,40,36,35, 7	
		1,56, 7, 9,35,28,26, 8		8,29
30″	22,56,12,32,23,44,58,34,32,20		1,40,36,43,36	
		1,56, 7, 7,54,51,42,32		8,29
32″	22,56,14,28,30,52,53,26,14,52		1,40,36,52, 5	
		1,56, 7, 6,14,14,50,27		8,29
34″	22,56,16,24,37,59, 7,41, 5,19		1,40,37, 0,34	
		1,56, 7, 4,33,37,49,53		8,29
36″	22,56,18,20,45, 3,41,18,55,12		1,40,37, 9, 3	
		1,56, 7, 2,53, 0,40,50		8,29
38″	22,56,20,16,52, 6,34,19,36, 2		1,40,37,17,32	
		1,56, 7, 1,12,23,23,18		8,29
40″	22,56,22,12,59, 7,46,42,59,20		1,40,37,26, 1	
		1,56, 6,59,31,45,57,17		8,29
42″	22,56,24, 9, 6, 7,18,28,56,37		1,40,37,34,30	
		1,56, 6,57,51, 8,22,47		8,29
44″	22,56,26, 5,13, 5, 9,37,19,24		1,40,37,42,59	
		1,56, 6,56,10,30,39,48		8,29
46″	22,56,28, 1,20, 1,20, 7,59,12		1,40,37,51,28	
		1,56, 6,54,29,52,48,20		8,29
48″	22,56,29,57,26,55,50, 0,47,32		1,40,37,59,57	
		1,56, 6,52,49,14,48,23		8,29
50″	22,56,31,53,33,48,39,15,35,55		1,40,38, 8,26	
		1,56, 6,51, 8,36,39,57		8,29
52″	22,56,33,49,40,39,47,52,15,52		1,40,38,16,55	
		1,56, 6,49,27,58,23, 2		8,29
54″	22,56,35,45,47,29,15,50,38,54		1,40,38,25,24	
		1,56, 6,47,47,19,57,38		8,29
56″	22,56,37,41,54,17, 3,10,36,32		1,40,38,33,53	
		1,56, 6,46, 6,41,23,45		8,29
58″	22,56,39,38, 1, 3, 9,52, 0,17		1,40,38,42,22	
		1,56, 6,44,26, 2,41,23		
60″	22,56,41,34, 7,47,35,54,41,40			
exact	22,56,41,34, 7,47,35,54,14,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°29′ 0″	22,56,41,34, 7,47,35,54,14,40			
		1,56, 6,42,45,23,47,46		
2″	22,56,43,30,14,30,21,18, 2,26		1,40,38,59,31	
		1,56, 6,41, 4,44,48,15		8,29
4″	22,56,45,26,21,11,26, 2,50,41		1,40,39, 8, 0	
		1,56, 6,39,24, 5,40,15		8,29
6″	22,56,47,22,27,50,50, 8,30,56		1,40,39,16,29	
		1,56, 6,37,43,26,23,46		8,29
8″	22,56,49,18,34,28,33,34,54,42		1,40,39,24,58	
		1,56, 6,36, 2,46,58,48		8,29
10″	22,56,51,14,41, 4,36,21,53,30		1,40,39,33,27	
		1,56, 6,34,22, 7,25,21		8,29
12″	22,56,53,10,47,38,58,29,18,51		1,40,39,41,56	
		1,56, 6,32,41,27,43,25		8,29
14″	22,56,55, 6,54,11,39,57, 2,16		1,40,39,50,25	
		1,56, 6,31, 0,47,53, 0		8,29
16″	22,56,57, 3, 0,42,40,44,55,16		1,40,39,58,54	
		1,56, 6,29,20, 7,54, 6		8,29
18″	22,56,58,59, 7,12, 0,52,49,22		1,40,40, 7,23	
		1,56, 6,27,39,27,46,43		8,29
20″	22,57, 0,55,13,39,40,20,36, 5		1,40,40,15,52	
		1,56, 6,25,58,47,30,51		8,29
22″	22,57, 2,51,20, 5,39, 8, 6,56		1,40,40,24,21	
		1,56, 6,24,18, 7, 6,30		8,29
24″	22,57, 4,47,26,29,57,15,13,26		1,40,40,32,50	
		1,56, 6,22,37,26,33,40		8,29
26″	22,57, 6,43,32,52,34,41,47, 6		1,40,40,41,19	
		1,56, 6,20,56,45,52,21		8,29
28″	22,57, 8,39,39,13,31,27,39,27		1,40,40,49,48	
		1,56, 6,19,16, 5, 2,33		8,29
30″	22,57,10,35,45,32,47,32,42, 0		1,40,40,58,17	
		1,56, 6,17,35,24, 4,16		8,29
32″	22,57,12,31,51,50,22,56,46,16		1,40,41, 6,46	
		1,56, 6,15,54,42,57,30		8,29
34″	22,57,14,27,58, 6,17,39,43,46		1,40,41,15,15	
		1,56, 6,14,14, 1,42,15		8,29
36″	22,57,16,24, 4,20,31,41,26, 1		1,40,41,23,44	
		1,56, 6,12,33,20,18,31		8,29
38″	22,57,18,20,10,33, 5, 1,44,32		1,40,41,32,13	
		1,56, 6,10,52,38,46,18		8,29
40″	22,57,20,16,16,43,57,40,30,50		1,40,41,40,42	
		1,56, 6, 9,11,57, 5,36		8,29
42″	22,57,22,12,22,53, 9,37,36,26		1,40,41,49,11	
		1,56, 6, 7,31,15,16,25		8,29
44″	22,57,24, 8,29, 0,40,52,52,51		1,40,41,57,40	
		1,56, 6, 5,50,33,18,45		8,29
46″	22,57,26, 4,35, 6,31,26,11,36		1,40,42, 6, 9	
		1,56, 6, 4, 9,51,12,36		8,29
48″	22,57,28, 0,41,10,41,17,24,12		1,40,42,14,38	
		1,56, 6, 2,29, 8,57,58		8,29
50″	22,57,29,56,47,13,10,26,22,10		1,40,42,23, 7	
		1,56, 6, 0,48,26,34,51		8,29
52″	22,57,31,52,53,13,58,52,57, 1		1,40,42,31,36	
		1,56, 5,59, 7,44, 3,15		8,29
54″	22,57,33,48,59,13, 6,37, 0,16		1,40,42,40, 5	
		1,56, 5,57,27, 1,23,10		8,29
56″	22,57,35,45, 5,10,33,38,23,26		1,40,42,48,34	
		1,56, 5,55,46,18,34,36		8,29
58″	22,57,37,41,11, 6,19,56,58, 2		1,40,42,57, 3	
		1,56, 5,54, 5,35,37,33		
60″	22,57,39,37,17, 0,25,32,35,35			
exact	22,57,39,37,17, 0,25,32,15,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°30′ 0″	22,57,39,37,17, 0,25,32,15,44			
		1,56, 5,52,24,52,29,54		
2″	22,57,41,33,22,52,50,24,45,38		1,40,43,14,10	
		1,56, 5,50,44, 9,15,44		8,29
4″	22,57,43,29,28,43,34,34, 1,22		1,40,43,22,39	
		1,56, 5,49, 3,25,53, 5		8,29
6″	22,57,45,25,34,32,37,59,54,27		1,40,43,31, 8	
		1,56, 5,47,22,42,21,57		8,29
8″	22,57,47,21,40,20, 0,42,16,24		1,40,43,39,37	
		1,56, 5,45,41,58,42,20		8,29
10″	22,57,49,17,46, 5,42,40,58,44		1,40,43,48, 6	
		1,56, 5,44, 1,14,54,14		8,29
12″	22,57,51,13,51,49,43,55,52,58		1,40,43,56,35	
		1,56, 5,42,20,30,57,39		8,29
14″	22,57,53, 9,57,32, 4,26,50,37		1,40,44, 5, 4	
		1,56, 5,40,39,46,52,35		8,29
16″	22,57,55, 6, 3,12,44,13,43,12		1,40,44,13,33	
		1,56, 5,38,59, 2,39, 2		8,29
18″	22,57,57, 2, 8,51,43,16,22,14		1,40,44,22, 2	
		1,56, 5,37,18,18,17, 0		8,29
20″	22,57,58,58,14,29, 1,34,39,14		1,40,44,30,31	
		1,56, 5,35,37,33,46,29		8,29
22″	22,58, 0,54,20, 4,39, 8,25,43		1,40,44,39, 0	
		1,56, 5,33,56,49, 7,29		8,29
24″	22,58, 2,50,25,38,35,57,33,12		1,40,44,47,29	
		1,56, 5,32,16, 4,20, 0		8,29
26″	22,58, 4,46,31,10,52, 1,53,12		1,40,44,55,58	
		1,56, 5,30,35,19,24, 2		8,29
28″	22,58, 6,42,36,41,27,21,17,14		1,40,45, 4,27	
		1,56, 5,28,54,34,19,35		8,29
30″	22,58, 8,38,42,10,21,55,36,49		1,40,45,12,56	
		1,56, 5,27,13,49, 6,39		8,29
32″	22,58,10,34,47,37,35,44,43,28		1,40,45,21,25	
		1,56, 5,25,33, 3,45,14		8,29
34″	22,58,12,30,53, 3, 8,48,28,42		1,40,45,29,54	
		1,56, 5,23,52,18,15,20		8,29
36″	22,58,14,26,58,27, 1, 6,44, 2		1,40,45,38,23	
		1,56, 5,22,11,32,36,57		8,29
38″	22,58,16,23, 3,49,12,39,20,59		1,40,45,46,52	
		1,56, 5,20,30,46,50, 5		8,29
40″	22,58,18,19, 9, 9,43,26,11, 4		1,40,45,55,21	
		1,56, 5,18,50, 0,54,44		8,29
42″	22,58,20,15,14,28,33,27, 5,48		1,40,46, 3,50	
		1,56, 5,17, 9,14,50,54		8,29
44″	22,58,22,11,19,45,42,41,56,42		1,40,46,12,19	
		1,56, 5,15,28,28,38,35		8,29
46″	22,58,24, 7,25, 1,11,10,35,17		1,40,46,20,48	
		1,56, 5,13,47,42,17,47		8,29
48″	22,58,26, 3,30,14,58,52,53, 4		1,40,46,29,17	
		1,56, 5,12, 6,55,48,30		8,29
50″	22,58,27,59,35,27, 5,48,41,34		1,40,46,37,46	
		1,56, 5,10,26, 9,10,44		8,29
52″	22,58,29,55,40,37,31,57,52,18		1,40,46,46,15	
		1,56, 5, 8,45,22,24,29		8,29
54″	22,58,31,51,45,46,17,20,16,47		1,40,46,54,44	
		1,56, 5, 7, 4,35,29,45		8,29
56″	22,58,33,47,50,53,21,55,46,32		1,40,47, 3,13	
		1,56, 5, 5,23,48,26,32		8,29
58″	22,58,35,43,55,58,45,44,13, 4		1,40,47,11,42	
		1,56, 5, 3,43, 1,14,50		
60″	22,58,37,40, 1, 2,28,45,27,54			
exact	22,58,37,40, 1, 2,28,45,13,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°31′ 0″	22,58,37,40, 1, 2,28,45,13,52			
		1,56, 5, 2, 2,13,53, 5		
2″	22,58,39,36, 6, 4,30,59, 6,57		1,40,47,28,47	
		1,56, 5, 0,21,26,24,18		8,29
4″	22,58,41,32,11, 4,52,25,31,15		1,40,47,37,16	
		1,56, 4,58,40,38,47, 2		8,29
6″	22,58,43,28,16, 3,33, 4,18,17		1,40,47,45,45	
		1,56, 4,56,59,51, 1,17		8,29
8″	22,58,45,24,21, 0,32,55,19,34		1,40,47,54,14	
		1,56, 4,55,19, 3, 7, 3		8,29
10″	22,58,47,20,25,55,51,58,26,37		1,40,48, 2,43	
		1,56, 4,53,38,15, 4,20		8,29
12″	22,58,49,16,30,49,30,13,30,57		1,40,48,11,12	
		1,56, 4,51,57,26,53, 8		8,29
14″	22,58,51,12,35,41,27,40,24, 5		1,40,48,19,41	
		1,56, 4,50,16,38,33,27		8,29
16″	22,58,53, 8,40,31,44,18,57,32		1,40,48,28,10	
		1,56, 4,48,35,50, 5,17		8,29
18″	22,58,55, 4,45,20,20, 9, 2,49		1,40,48,36,39	
		1,56, 4,46,55, 1,28,38		8,29
20″	22,58,57, 0,50, 7,15,10,31,27		1,40,48,45, 8	
		1,56, 4,45,14,12,43,30		8,29
22″	22,58,58,56,54,52,29,23,14,57		1,40,48,53,37	
		1,56, 4,43,33,23,49,53		8,29
24″	22,59, 0,52,59,36, 2,47, 4,50		1,40,49, 2, 6	
		1,56, 4,41,52,34,47,47		8,29
26″	22,59, 2,49, 4,17,55,21,52,37		1,40,49,10,35	
		1,56, 4,40,11,45,37,12		8,29
28″	22,59, 4,45, 8,58, 7, 7,29,49		1,40,49,19, 4	
		1,56, 4,38,30,56,18, 8		8,29
30″	22,59, 6,41,13,36,38, 3,47,57		1,40,49,27,33	
		1,56, 4,36,50, 6,50,35		8,29
32″	22,59, 8,37,18,13,28,10,38,32		1,40,49,36, 2	
		1,56, 4,35, 9,17,14,33		8,29
34″	22,59,10,33,22,48,37,27,53, 5		1,40,49,44,31	
		1,56, 4,33,28,27,30, 2		8,29
36″	22,59,12,29,27,22, 5,55,23, 7		1,40,49,53, 0	
		1,56, 4,31,47,37,37, 2		8,29
38″	22,59,14,25,31,53,53,33, 0, 9		1,40,50, 1,29	
		1,56, 4,30, 6,47,35,33		8,29
40″	22,59,16,21,36,24, 0,20,35,42		1,40,50, 9,58	
		1,56, 4,28,25,57,25,35		8,29
42″	22,59,18,17,40,52,26,18, 1,17		1,40,50,18,27	
		1,56, 4,26,45, 7, 7, 8		8,29
44″	22,59,20,13,45,19,11,25, 8,25		1,40,50,26,56	
		1,56, 4,25, 4,16,40,12		8,29
46″	22,59,22, 9,49,44,15,41,48,37		1,40,50,35,25	
		1,56, 4,23,23,26, 4,47		8,29
48″	22,59,24, 5,54, 7,39, 7,53,24		1,40,50,43,54	
		1,56, 4,21,42,35,20,53		8,29
50″	22,59,26, 1,58,29,21,43,14,17		1,40,50,52,23	
		1,56, 4,20, 1,44,28,30		8,29
52″	22,59,27,58, 2,49,23,27,42,47		1,40,51, 0,52	
		1,56, 4,18,20,53,27,38		8,29
54″	22,59,29,54, 7, 7,44,21,10,25		1,40,51, 9,21	
		1,56, 4,16,40, 2,18,17		8,29
56″	22,59,31,50,11,24,24,23,28,42		1,40,51,17,50	
		1,56, 4,14,59,11, 0,27		8,29
58″	22,59,33,46,15,39,23,34,29, 9		1,40,51,26,19	
		1,56, 4,13,18,19,34, 8		
60″	22,59,35,42,19,52,41,54, 3,17			
exact	22,59,35,42,19,52,41,53,54,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°32′ 0″	22,59,35,42,19,52,41,53,54,22			
		1,56, 4,11,37,27,58,16		
2″	22,59,37,38,24, 4,19,21,52,38		1,40,51,43,22	
		1,56, 4, 9,56,36,14,54		8,29
4″	22,59,39,34,28,14,15,58, 7,32		1,40,51,51,51	
		1,56, 4, 8,15,44,23, 3		8,29
6″	22,59,41,30,32,22,31,42,30,35		1,40,52, 0,20	
		1,56, 4, 6,34,52,22,43		8,29
8″	22,59,43,26,36,29, 6,34,53,18		1,40,52, 8,49	
		1,56, 4, 4,54, 0,13,54		8,29
10″	22,59,45,22,40,34, 0,35, 7,12		1,40,52,17,18	
		1,56, 4, 3,13, 7,56,36		8,29
12″	22,59,47,18,44,37,13,43, 3,48		1,40,52,25,47	
		1,56, 4, 1,32,15,30,49		8,29
14″	22,59,49,14,48,38,45,58,34,37		1,40,52,34,16	
		1,56, 3,59,51,22,56,33		8,29
16″	22,59,51,10,52,38,37,21,31,10		1,40,52,42,45	
		1,56, 3,58,10,30,13,48		8,29
18″	22,59,53, 6,56,36,47,51,44,58		1,40,52,51,14	
		1,56, 3,56,29,37,22,34		8,29
20″	22,59,55, 3, 0,33,17,29, 7,32		1,40,52,59,43	
		1,56, 3,54,48,44,22,51		8,29
22″	22,59,56,59, 4,28, 6,13,30,23		1,40,53, 8,12	
		1,56, 3,53, 7,51,14,39		8,29
24″	22,59,58,55, 8,21,14, 4,45, 2		1,40,53,16,41	
		1,56, 3,51,26,57,57,58		8,29
26″	23, 0, 0,51,12,12,41, 2,43, 0		1,40,53,25,10	
		1,56, 3,49,46, 4,32,48		8,29
28″	23, 0, 2,47,16, 2,27, 7,15,48		1,40,53,33,39	
		1,56, 3,48, 5,10,59, 9		8,29
30″	23, 0, 4,43,19,50,32,18,14,57		1,40,53,42, 8	
		1,56, 3,46,24,17,17, 1		8,29
32″	23, 0, 6,39,23,36,56,35,31,58		1,40,53,50,37	
		1,56, 3,44,43,23,26,24		8,29
34″	23, 0, 8,35,27,21,39,58,58,22		1,40,53,59, 6	
		1,56, 3,43, 2,29,27,18		8,29
36″	23, 0,10,31,31, 4,42,28,25,40		1,40,54, 7,35	
		1,56, 3,41,21,35,19,43		8,29
38″	23, 0,12,27,34,46, 4, 3,45,23		1,40,54,16, 4	
		1,56, 3,39,40,41, 3,39		8,29
40″	23, 0,14,23,38,25,44,44,49, 2		1,40,54,24,33	
		1,56, 3,37,59,46,39, 6		8,29
42″	23, 0,16,19,42, 3,44,31,28, 8		1,40,54,33, 2	
		1,56, 3,36,18,52, 6, 4		8,29
44″	23, 0,18,15,45,40, 3,23,34,12		1,40,54,41,31	
		1,56, 3,34,37,57,24,33		8,29
46″	23, 0,20,11,49,14,41,20,58,45		1,40,54,50, 0	
		1,56, 3,32,57, 2,34,33		8,29
48″	23, 0,22, 7,52,47,38,23,33,18		1,40,54,58,29	
		1,56, 3,31,16, 7,36, 4		8,29
50″	23, 0,24, 3,56,18,54,31, 9,22		1,40,55, 6,58	
		1,56, 3,29,35,12,29, 6		8,29
52″	23, 0,25,59,59,48,29,43,38,28		1,40,55,15,27	
		1,56, 3,27,54,17,13,39		8,29
54″	23, 0,27,56, 3,16,24, 0,52, 7		1,40,55,23,56	
		1,56, 3,26,13,21,49,43		8,29
56″	23, 0,29,52, 6,42,37,22,41,50		1,40,55,32,25	
		1,56, 3,24,32,26,17,18		8,29
58″	23, 0,31,48,10, 7, 9,48,59, 8		1,40,55,40,54	
		1,56, 3,22,51,30,36,24		
60″	23, 0,33,44,13,30, 1,19,35,32			
exact	23, 0,33,44,13,30, 1,19,30, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°33′ 0″	23, 0,33,44,13,30, 1,19,30, 9			
		1,56, 3,21,10,34,46,22		
2″	23, 0,35,40,16,51,11,54,16,31		1,40,55,57,55	
		1,56, 3,19,29,38,48,27		8,29
4″	23, 0,37,36,20,10,41,33, 4,58		1,40,56, 6,24	
		1,56, 3,17,48,42,42, 3		8,29
6″	23, 0,39,32,23,28,30,15,47, 1		1,40,56,14,53	
		1,56, 3,16, 7,46,27,10		8,29
8″	23, 0,41,28,26,44,38, 2,14,11		1,40,56,23,22	
		1,56, 3,14,26,50, 3,48		8,29
10″	23, 0,43,24,29,59, 4,52,17,59		1,40,56,31,51	
		1,56, 3,12,45,53,31,57		8,29
12″	23, 0,45,20,33,11,50,45,49,56		1,40,56,40,20	
		1,56, 3,11, 4,56,51,37		8,29
14″	23, 0,47,16,36,22,55,42,41,33		1,40,56,48,49	
		1,56, 3, 9,24, 0, 2,48		8,29
16″	23, 0,49,12,39,32,19,42,44,21		1,40,56,57,18	
		1,56, 3, 7,43, 3, 5,30		8,29
18″	23, 0,51, 8,42,40, 2,45,49,51		1,40,57, 5,47	
		1,56, 3, 6, 2, 5,59,43		8,29
20″	23, 0,53, 4,45,46, 4,51,49,34		1,40,57,14,16	
		1,56, 3, 4,21, 8,45,27		8,29
22″	23, 0,55, 0,48,50,26, 0,35, 1		1,40,57,22,45	
		1,56, 3, 2,40,11,22,42		8,29
24″	23, 0,56,56,51,53, 6,11,57,43		1,40,57,31,14	
		1,56, 3, 0,59,13,51,28		8,29
26″	23, 0,58,52,54,54, 5,25,49,11		1,40,57,39,43	
		1,56, 2,59,18,16,11,45		8,29
28″	23, 1, 0,48,57,53,23,42, 0,56		1,40,57,48,12	
		1,56, 2,57,37,18,23,33		8,29
30″	23, 1, 2,45, 0,51, 1, 0,24,29		1,40,57,56,41	
		1,56, 2,55,56,20,26,52		8,29
32″	23, 1, 4,41, 3,46,57,20,51,21		1,40,58, 5,10	
		1,56, 2,54,15,22,21,42		8,29
34″	23, 1, 6,37, 6,41,12,43,13, 3		1,40,58,13,39	
		1,56, 2,52,34,24, 8, 3		8,29
36″	23, 1, 8,33, 9,33,47, 7,21, 6		1,40,58,22, 8	
		1,56, 2,50,53,25,45,55		8,29
38″	23, 1,10,29,12,24,40,33, 7, 1		1,40,58,30,37	
		1,56, 2,49,12,27,15,18		8,29
40″	23, 1,12,25,15,13,53, 0,22,19		1,40,58,39, 6	
		1,56, 2,47,31,28,36,12		8,29
42″	23, 1,14,21,18, 1,24,28,58,31		1,40,58,47,35	
		1,56, 2,45,50,29,48,37		8,29
44″	23, 1,16,17,20,47,14,58,47, 8		1,40,58,56, 4	
		1,56, 2,44, 9,30,52,33		8,29
46″	23, 1,18,13,23,31,24,29,39,41		1,40,59, 4,33	
		1,56, 2,42,28,31,48, 0		8,29
48″	23, 1,20, 9,26,13,53, 1,27,41		1,40,59,13, 2	
		1,56, 2,40,47,32,34,58		8,29
50″	23, 1,22, 5,28,54,40,34, 2,39		1,40,59,21,31	
		1,56, 2,39, 6,33,13,27		8,29
52″	23, 1,24, 1,31,33,47, 7,16, 6		1,40,59,30, 0	
		1,56, 2,37,25,33,43,27		8,29
54″	23, 1,25,57,34,11,12,40,59,33		1,40,59,38,29	
		1,56, 2,35,44,34, 4,58		8,29
56″	23, 1,27,53,36,46,57,15, 4,31		1,40,59,46,58	
		1,56, 2,34, 3,34,18, 0		8,29
58″	23, 1,29,49,39,21, 0,49,22,31		1,40,59,55,27	
		1,56, 2,32,22,34,22,33		
60″	23, 1,31,45,41,53,23,23,45, 4			
exact	23, 1,31,45,41,53,23,23,41,49			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
22°34′	0″	23, 1,31,45,41,53,23,23,41,49			
			1,56, 2,30,41,34,18,17		
	2″	23, 1,33,41,44,24, 4,58, 0, 6		1,41, 0,12,26	
			1,56, 2,29, 0,34, 5,51		8,29
	4″	23, 1,35,37,46,53, 5,32, 5,57		1,41, 0,20,55	
			1,56, 2,27,19,33,44,56		8,29
	6″	23, 1,37,33,49,20,25, 5,50,53		1,41, 0,29,24	
			1,56, 2,25,38,33,15,32		8,29
	8″	23, 1,39,29,51,46, 3,39, 6,25		1,41, 0,37,53	
			1,56, 2,23,57,32,37,39		8,29
	10″	23, 1,41,25,54,10, 1,11,44, 4		1,41, 0,46,22	
			1,56, 2,22,16,31,51,17		8,29
	12″	23, 1,43,21,56,32,17,43,35,21		1,41, 0,54,51	
			1,56, 2,20,35,30,56,26		8,29
	14″	23, 1,45,17,58,52,53,14,31,47		1,41, 1, 3,20	
			1,56, 2,18,54,29,53, 6		8,29
	16″	23, 1,47,14, 1,11,47,44,24,53		1,41, 1,11,49	
			1,56, 2,17,13,28,41,17		8,29
	18″	23, 1,49,10, 3,29, 1,13, 6,10		1,41, 1,20,18	
			1,56, 2,15,32,27,20,59		8,29
	20″	23, 1,51, 6, 5,44,33,40,27, 9		1,41, 1,28,47	
			1,56, 2,13,51,25,52,12		8,29
	22″	23, 1,53, 2, 7,58,25, 6,19,21		1,41, 1,37,16	
			1,56, 2,12,10,24,14,56		8,29
	24″	23, 1,54,58,10,10,35,30,34,17		1,41, 1,45,45	
			1,56, 2,10,29,22,29,11		8,29
	26″	23, 1,56,54,12,21, 4,53, 3,28		1,41, 1,54,14	
			1,56, 2, 8,48,20,34,57		8,29
	28″	23, 1,58,50,14,29,53,13,38,25		1,41, 2, 2,43	
			1,56, 2, 7, 7,18,32,14		8,29
	30″	23, 2, 0,46,16,37, 0,32,10,39		1,41, 2,11,12	
			1,56, 2, 5,26,16,21, 2		8,29
	32″	23, 2, 2,42,18,42,26,48,31,41		1,41, 2,19,41	
			1,56, 2, 3,45,14, 1,21		8,29
	34″	23, 2, 4,38,20,46,12, 2,33, 2		1,41, 2,28,10	
			1,56, 2, 2, 4,11,33,11		8,29
	36″	23, 2, 6,34,22,48,16,14, 6,13		1,41, 2,36,39	
			1,56, 2, 0,23, 8,56,32		8,29
	38″	23, 2, 8,30,24,48,39,23, 2,45		1,41, 2,45, 8	
			1,56, 1,58,42, 6,11,24		8,29
	40″	23, 2,10,26,26,47,21,29,14, 9		1,41, 2,53,37	
			1,56, 1,57, 1, 3,17,47		8,29
	42″	23, 2,12,22,28,44,22,32,31,56		1,41, 3, 2, 6	
			1,56, 1,55,20, 0,15,41		8,29
	44″	23, 2,14,18,30,39,42,32,47,37		1,41, 3,10,35	
			1,56, 1,53,38,57, 5, 6		8,29
	46″	23, 2,16,14,32,33,21,29,52,43		1,41, 3,19, 4	
			1,56, 1,51,57,53,46, 2		8,29
	48″	23, 2,18,10,34,25,19,23,38,45		1,41, 3,27,33	
			1,56, 1,50,16,50,18,29		8,29
	50″	23, 2,20, 6,36,15,36,13,57,14		1,41, 3,36, 2	
			1,56, 1,48,35,46,42,27		8,29
	52″	23, 2,22, 2,38, 4,12, 0,39,41		1,41, 3,44,31	
			1,56, 1,46,54,42,57,56		8,29
	54″	23, 2,23,58,39,51, 6,43,37,37		1,41, 3,53, 0	
			1,56, 1,45,13,39, 4,56		8,29
	56″	23, 2,25,54,41,36,20,22,42,33		1,41, 4, 1,29	
			1,56, 1,43,32,35, 3,27		8,29
	58″	23, 2,27,50,43,19,52,57,46, 0		1,41, 4, 9,58	
			1,56, 1,41,51,30,53,29		
	60″	23, 2,29,46,45, 1,44,28,39,29			
exact		23, 2,29,46,45, 1,44,28,37,37			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
22°35′	0″	23, 2,29,46,45, 1,44,28,37,37	1,56, 1,40,10,26,34,57		
	2″	23, 2,31,42,46,41,54,55,12,34	1,56, 1,38,29,22, 8, 1	1,41, 4,26,56	8,29
	4″	23, 2,33,38,48,20,24,17,20,35	1,56, 1,36,48,17,32,36	1,41, 4,35,25	8,29
	6″	23, 2,35,34,49,57,12,34,53,11	1,56, 1,35, 7,12,48,42	1,41, 4,43,54	8,29
	8″	23, 2,37,30,51,32,19,47,41,53	1,56, 1,33,26, 7,56,19	1,41, 4,52,23	8,29
	10″	23, 2,39,26,53, 5,45,55,38,12	1,56, 1,31,45, 2,55,27	1,41, 5, 0,52	8,29
	12″	23, 2,41,22,54,37,30,58,33,39	1,56, 1,30, 3,57,46, 6	1,41, 5, 9,21	8,29
	14″	23, 2,43,18,56, 7,34,56,19,45	1,56, 1,28,22,52,28,16	1,41, 5,17,50	8,29
	16″	23, 2,45,14,57,35,57,48,48, 1	1,56, 1,26,41,47, 1,57	1,41, 5,26,19	8,29
	18″	23, 2,47,10,59, 2,39,35,49,58	1,56, 1,25, 0,41,27, 9	1,41, 5,34,48	8,29
	20″	23, 2,49, 7, 0,27,40,17,17, 7	1,56, 1,23,19,35,43,52	1,41, 5,43,17	8,29
	22″	23, 2,51, 3, 1,50,59,53, 0,59	1,56, 1,21,38,29,52, 6	1,41, 5,51,46	8,29
	24″	23, 2,52,59, 3,12,38,22,53, 5	1,56, 1,19,57,23,51,51	1,41, 6, 0,15	8,29
	26″	23, 2,54,55, 4,32,35,46,44,56	1,56, 1,18,16,17,43, 7	1,41, 6, 8,44	8,29
	28″	23, 2,56,51, 5,50,52, 4,28, 3	1,56, 1,16,35,11,25,54	1,41, 6,17,13	8,29
	30″	23, 2,58,47, 7, 7,27,15,53,57	1,56, 1,14,54, 5, 0,12	1,41, 6,25,42	8,29
	32″	23, 3, 0,43, 8,22,21,20,54, 9	1,56, 1,13,12,58,26, 1	1,41, 6,34,11	8,29
	34″	23, 3, 2,39, 9,35,34,19,20,10	1,56, 1,11,31,51,43,21	1,41, 6,42,40	8,29
	36″	23, 3, 4,35,10,47, 6,11, 3,31	1,56, 1, 9,50,44,52,12	1,41, 6,51, 9	8,29
	38″	23, 3, 6,31,11,56,56,55,55,43	1,56, 1, 8, 9,37,52,34	1,41, 6,59,38	8,29
	40″	23, 3, 8,27,13, 5, 6,33,48,17	1,56, 1, 6,28,30,44,27	1,41, 7, 8, 7	8,29
	42″	23, 3,10,23,14,11,35, 4,32,44	1,56, 1, 4,47,23,27,51	1,41, 7,16,36	8,29
	44″	23, 3,12,19,15,16,22,28, 0,35	1,56, 1, 3, 6,16, 2,46	1,41, 7,25, 5	8,29
	46″	23, 3,14,15,16,19,28,44, 3,21	1,56, 1, 1,25, 8,29,12	1,41, 7,33,34	8,29
	48″	23, 3,16,11,17,20,53,52,32,33	1,56, 0,59,44, 0,47, 9	1,41, 7,42, 3	8,29
	50″	23, 3,18, 7,18,20,37,53,19,42	1,56, 0,58, 2,52,56,37	1,41, 7,50,32	8,29
	52″	23, 3,20, 3,19,18,40,46,16,19	1,56, 0,56,21,44,57,36	1,41, 7,59, 1	8,29
	54″	23, 3,21,59,20,15, 2,31,13,55	1,56, 0,54,40,36,50, 6	1,41, 8, 7,30	8,29
	56″	23, 3,23,55,21, 9,43, 8, 4, 1	1,56, 0,52,59,28,34, 7	1,41, 8,15,59	8,29
	58″	23, 3,25,51,22, 2,42,36,38, 8	1,56, 0,51,18,20, 9,39	1,41, 8,24,28	
	60″	23, 3,27,47,22,54, 0,56,47,47			
exact		23, 3,27,47,22,54, 0,56,53,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°36′ 0″	23, 3,27,47,22,54, 0,56,53,28			
		1,56, 0,49,37,11,37,17		
2″	23, 3,29,43,23,43,38, 8,30,45		1,41, 8,41,23	
		1,56, 0,47,56, 2,55,54		8,29
4″	23, 3,31,39,24,31,34,11,26,39		1,41, 8,49,52	
		1,56, 0,46,14,54, 6, 2		8,29
6″	23, 3,33,35,25,17,49, 5,32,41		1,41, 8,58,21	
		1,56, 0,44,33,45, 7,41		8,29
8″	23, 3,35,31,26, 2,22,50,40,22		1,41, 9, 6,50	
		1,56, 0,42,52,36, 0,51		8,29
10″	23, 3,37,27,26,45,15,26,41,13		1,41, 9,15,19	
		1,56, 0,41,11,26,45,32		8,29
12″	23, 3,39,23,27,26,26,53,26,45		1,41, 9,23,48	
		1,56, 0,39,30,17,21,44		8,29
14″	23, 3,41,19,28, 5,57,10,48,29		1,41, 9,32,17	
		1,56, 0,37,49, 7,49,27		8,29
16″	23, 3,43,15,28,43,46,18,37,56		1,41, 9,40,46	
		1,56, 0,36, 7,58, 8,41		8,29
18″	23, 3,45,11,29,19,54,16,46,37		1,41, 9,49,15	
		1,56, 0,34,26,48,19,26		8,29
20″	23, 3,47, 7,29,54,21, 5, 6, 3		1,41, 9,57,44	
		1,56, 0,32,45,38,21,42		8,29
22″	23, 3,49, 3,30,27, 6,43,27,45		1,41,10, 6,13	
		1,56, 0,31, 4,28,15,29		8,29
24″	23, 3,50,59,30,58,11,11,43,14		1,41,10,14,42	
		1,56, 0,29,23,18, 0,47		8,29
26″	23, 3,52,55,31,27,34,29,44, 1		1,41,10,23,11	
		1,56, 0,27,42, 7,37,36		8,29
28″	23, 3,54,51,31,55,16,37,21,37		1,41,10,31,40	
		1,56, 0,26, 0,57, 5,56		8,29
30″	23, 3,56,47,32,21,17,34,27,33		1,41,10,40, 9	
		1,56, 0,24,19,46,25,47		8,29
32″	23, 3,58,43,32,45,37,20,53,20		1,41,10,48,38	
		1,56, 0,22,38,35,37, 9		8,29
34″	23, 4, 0,39,33, 8,15,56,30,29		1,41,10,57, 7	
		1,56, 0,20,57,24,40, 2		8,29
36″	23, 4, 2,35,33,29,13,21,10,31		1,41,11, 5,36	
		1,56, 0,19,16,13,34,26		8,29
38″	23, 4, 4,31,33,48,29,34,44,57		1,41,11,14, 5	
		1,56, 0,17,35, 2,20,21		8,29
40″	23, 4, 6,27,34, 6, 4,37, 5,18		1,41,11,22,34	
		1,56, 0,15,53,50,57,47		8,29
42″	23, 4, 8,23,34,21,58,28, 3, 5		1,41,11,31, 3	
		1,56, 0,14,12,39,26,44		8,29
44″	23, 4,10,19,34,36,11, 7,29,49		1,41,11,39,32	
		1,56, 0,12,31,27,47,12		8,29
46″	23, 4,12,15,34,48,42,35,17, 1		1,41,11,48, 1	
		1,56, 0,10,50,15,59,11		8,29
48″	23, 4,14,11,34,59,32,51,16,12		1,41,11,56,30	
		1,56, 0, 9, 9, 4, 2,41		8,29
50″	23, 4,16, 7,35, 8,41,55,18,53		1,41,12, 4,59	
		1,56, 0, 7,27,51,57,42		8,29
52″	23, 4,18, 3,35,16, 9,47,16,35		1,41,12,13,28	
		1,56, 0, 5,46,39,44,14		8,29
54″	23, 4,19,59,35,21,56,27, 0,49		1,41,12,21,57	
		1,56, 0, 4, 5,27,22,17		8,29
56″	23, 4,21,55,35,26, 1,54,23, 6		1,41,12,30,26	
		1,56, 0, 2,24,14,51,51		8,29
58″	23, 4,23,51,35,28,26, 9,14,57		1,41,12,38,55	
		1,56, 0, 0,43, 2,12,56		
60″	23, 4,25,47,35,29, 9,11,27,53			
exact	23, 4,25,47,35,29, 9,11,33, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°37′ 0″	23, 4,25,47,35,29, 9,11,33, 3			
		1,55,59,59, 1,49,26,14		
2″	23, 4,27,43,35,28,11, 0,59,17		1,41,12,55,49	
		1,55,59,57,20,36,30,25		8,29
4″	23, 4,29,39,35,25,31,37,29,42		1,41,13, 4,18	
		1,55,59,55,39,23,26, 7		8,29
6″	23, 4,31,35,35,21,11, 0,55,49		1,41,13,12,47	
		1,55,59,53,58,10,13,20		8,29
8″	23, 4,33,31,35,15, 9,11, 9, 9		1,41,13,21,16	
		1,55,59,52,16,56,52, 4		8,29
10″	23, 4,35,27,35, 7,26, 8, 1,13		1,41,13,29,45	
		1,55,59,50,35,43,22,19		8,29
12″	23, 4,37,23,34,58, 1,51,23,32		1,41,13,38,14	
		1,55,59,48,54,29,44, 5		8,29
14″	23, 4,39,19,34,46,56,21, 7,37		1,41,13,46,43	
		1,55,59,47,13,15,57,22		8,29
16″	23, 4,41,15,34,34, 9,37, 4,59		1,41,13,55,12	
		1,55,59,45,32, 2, 2,10		8,29
18″	23, 4,43,11,34,19,41,39, 7, 9		1,41,14, 3,41	
		1,55,59,43,50,47,58,29		8,29
20″	23, 4,45, 7,34, 3,32,27, 5,38		1,41,14,12,10	
		1,55,59,42, 9,33,46,19		8,29
22″	23, 4,47, 3,33,45,42, 0,51,57		1,41,14,20,39	
		1,55,59,40,28,19,25,40		8,29
24″	23, 4,48,59,33,26,10,20,17,37		1,41,14,29, 8	
		1,55,59,38,47, 4,56,32		8,29
26″	23, 4,50,55,33, 4,57,25,14, 9		1,41,14,37,37	
		1,55,59,37, 5,50,18,55		8,29
28″	23, 4,52,51,32,42, 3,15,33, 4		1,41,14,46, 6	
		1,55,59,35,24,35,32,49		8,29
30″	23, 4,54,47,32,17,27,51, 5,53		1,41,14,54,35	
		1,55,59,33,43,20,38,14		8,29
32″	23, 4,56,43,31,51,11,11,44, 7		1,41,15, 3, 4	
		1,55,59,32, 2, 5,35,10		8,29
34″	23, 4,58,39,31,23,13,17,19,17		1,41,15,11,33	
		1,55,59,30,20,50,23,37		8,29
36″	23, 5, 0,35,30,53,34, 7,42,54		1,41,15,20, 2	
		1,55,59,28,39,35, 3,35		8,29
38″	23, 5, 2,31,30,22,13,42,46,29		1,41,15,28,31	
		1,55,59,26,58,19,35, 4		8,29
40″	23, 5, 4,27,29,49,12, 2,21,33		1,41,15,37, 0	
		1,55,59,25,17, 3,58, 4		8,29
42″	23, 5, 6,23,29,14,29, 6,19,37		1,41,15,45,29	
		1,55,59,23,35,48,12,35		8,29
44″	23, 5, 8,19,28,38, 4,54,32,12		1,41,15,53,58	
		1,55,59,21,54,32,18,37		8,29
46″	23, 5,10,15,27,59,59,26,50,49		1,41,16, 2,27	
		1,55,59,20,13,16,16,10		8,29
48″	23, 5,12,11,27,20,12,43, 6,59		1,41,16,10,56	
		1,55,59,18,32, 0, 5,14		8,29
50″	23, 5,14, 7,26,38,44,43,12,13		1,41,16,19,25	
		1,55,59,16,50,43,45,49		8,29
52″	23, 5,16, 3,25,55,35,26,58, 2		1,41,16,27,54	
		1,55,59,15, 9,27,17,55		8,29
54″	23, 5,17,59,25,10,44,54,15,57		1,41,16,36,23	
		1,55,59,13,28,10,41,32		8,29
56″	23, 5,19,55,24,24,13, 4,57,29		1,41,16,44,52	
		1,55,59,11,46,53,56,40		8,29
58″	23, 5,21,51,23,35,59,58,54, 9		1,41,16,53,21	
		1,55,59,10, 5,37, 3,19		
60″	23, 5,23,47,22,46, 5,35,57,28			
exact	23, 5,23,47,22,46, 5,36, 7,42			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
22°38′	0″	23, 5,23,47,22,46, 5,36, 7,42	1,55,59, 8,24,20, 2,42		
	2″	23, 5,25,43,21,54,29,56,10,24	1,55,59, 6,43, 2,52,29	1,41,17,10,13	8,29
	4″	23, 5,27,39,21, 1,12,59, 2,53	1,55,59, 5, 1,45,33,47	1,41,17,18,42	8,29
	6″	23, 5,29,35,20, 6,14,44,36,40	1,55,59, 3,20,28, 6,36	1,41,17,27,11	8,29
	8″	23, 5,31,31,19, 9,35,12,43,16	1,55,59, 1,39,10,30,56	1,41,17,35,40	8,29
	10″	23, 5,33,27,18,11,14,23,14,12	1,55,58,59,57,52,46,47	1,41,17,44, 9	8,29
	12″	23, 5,35,23,17,11,12,16, 0,59	1,55,58,58,16,34,54, 9	1,41,17,52,38	8,29
	14″	23, 5,37,19,16, 9,28,50,55, 8	1,55,58,56,35,16,53, 2	1,41,18, 1, 7	8,29
	16″	23, 5,39,15,15, 6, 4, 7,48,10	1,55,58,54,53,58,43,26	1,41,18, 9,36	8,29
	18″	23, 5,41,11,14, 0,58, 6,31,36	1,55,58,53,12,40,25,21	1,41,18,18, 5	8,29
	20″	23, 5,43, 7,12,54,10,46,56,57	1,55,58,51,31,21,58,47	1,41,18,26,34	8,29
	22″	23, 5,45, 3,11,45,42, 8,55,44	1,55,58,49,50, 3,23,44	1,41,18,35, 3	8,29
	24″	23, 5,46,59,10,35,32,12,19,28	1,55,58,48, 8,44,40,12	1,41,18,43,32	8,29
	26″	23, 5,48,55, 9,23,40,56,59,40	1,55,58,46,27,25,48,11	1,41,18,52, 1	8,29
	28″	23, 5,50,51, 8,10, 8,22,47,51	1,55,58,44,46, 6,47,41	1,41,19, 0,30	8,29
	30″	23, 5,52,47, 6,54,54,29,35,32	1,55,58,43, 4,47,38,42	1,41,19, 8,59	8,29
	32″	23, 5,54,43, 5,37,59,17,14,14	1,55,58,41,23,28,21,14	1,41,19,17,28	8,29
	34″	23, 5,56,39, 4,19,22,45,35,28	1,55,58,39,42, 8,55,17	1,41,19,25,57	8,29
	36″	23, 5,58,35, 2,59, 4,54,30,45	1,55,58,38, 0,49,20,51	1,41,19,34,26	8,29
	38″	23, 6, 0,31, 1,37, 5,43,51,36	1,55,58,36,19,29,37,56	1,41,19,42,55	8,29
	40″	23, 6, 2,27, 0,13,25,13,29,32	1,55,58,34,38, 9,46,32	1,41,19,51,24	8,29
	42″	23, 6, 4,22,58,48, 3,23,16, 4	1,55,58,32,56,49,46,39	1,41,19,59,53	8,29
	44″	23, 6, 6,18,57,21, 0,13, 2,43	1,55,58,31,15,29,38,17	1,41,20, 8,22	8,29
	46″	23, 6, 8,14,55,52,15,42,41, 0	1,55,58,29,34, 9,21,26	1,41,20,16,51	8,29
	48″	23, 6,10,10,54,21,49,52, 2,26	1,55,58,27,52,48,56, 6	1,41,20,25,20	8,29
	50″	23, 6,12, 6,52,49,42,40,58,32	1,55,58,26,11,28,22,17	1,41,20,33,49	8,29
	52″	23, 6,14, 2,51,15,54, 9,20,49	1,55,58,24,30, 7,39,59	1,41,20,42,18	8,29
	54″	23, 6,15,58,49,40,24,17, 0,48	1,55,58,22,48,46,49,12	1,41,20,50,47	8,29
	56″	23, 6,17,54,48, 3,13, 3,50, 0	1,55,58,21, 7,25,49,56	1,41,20,59,16	8,29
	58″	23, 6,19,50,46,24,20,29,39,56	1,55,58,19,26, 4,42,11	1,41,21, 7,45	
	60″	23, 6,21,46,44,43,46,34,22, 7			
exact		23, 6,21,46,44,43,46,34,36,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°39′ 0″	23, 6,21,46,44,43,46,34,36,35			
		1,55,58,17,44,43,27,37		
2″	23, 6,23,42,43, 1,31,18, 4,12		1,41,21,24,35	
		1,55,58,16, 3,22, 3, 2		8,29
4″	23, 6,25,38,41,17,34,40, 7,14		1,41,21,33, 4	
		1,55,58,14,22, 0,29,58		8,29
6″	23, 6,27,34,39,31,56,40,37,12		1,41,21,41,33	
		1,55,58,12,40,38,48,25		8,29
8″	23, 6,29,30,37,44,37,19,25,37		1,41,21,50, 2	
		1,55,58,10,59,16,58,23		8,29
10″	23, 6,31,26,35,55,36,36,24, 0		1,41,21,58,31	
		1,55,58, 9,17,54,59,52		8,29
12″	23, 6,33,22,34, 4,54,31,23,52		1,41,22, 7, 0	
		1,55,58, 7,36,32,52,52		8,29
14″	23, 6,35,18,32,12,31, 4,16,44		1,41,22,15,29	
		1,55,58, 5,55,10,37,23		8,29
16″	23, 6,37,14,30,18,26,14,54, 7		1,41,22,23,58	
		1,55,58, 4,13,48,13,25		8,29
18″	23, 6,39,10,28,22,40, 3, 7,32		1,41,22,32,27	
		1,55,58, 2,32,25,40,58		8,29
20″	23, 6,41, 6,26,25,12,28,48,30		1,41,22,40,56	
		1,55,58, 0,51, 3, 0, 2		8,29
22″	23, 6,43, 2,24,26, 3,31,48,32		1,41,22,49,25	
		1,55,57,59, 9,40,10,37		8,29
24″	23, 6,44,58,22,25,13,11,59, 9		1,41,22,57,54	
		1,55,57,57,28,17,12,43		8,29
26″	23, 6,46,54,20,22,41,29,11,52		1,41,23, 6,23	
		1,55,57,55,46,54, 6,20		8,29
28″	23, 6,48,50,18,18,28,23,18,12		1,41,23,14,52	
		1,55,57,54, 5,30,51,28		8,29
30″	23, 6,50,46,16,12,33,54, 9,40		1,41,23,23,21	
		1,55,57,52,24, 7,28, 7		8,29
32″	23, 6,52,42,14, 4,58, 1,37,47		1,41,23,31,50	
		1,55,57,50,42,43,56,17		8,29
34″	23, 6,54,38,11,55,40,45,34, 4		1,41,23,40,19	
		1,55,57,49, 1,20,15,58		8,29
36″	23, 6,56,34, 9,44,42, 5,50, 2		1,41,23,48,48	
		1,55,57,47,19,56,27,10		8,29
38″	23, 6,58,30, 7,32, 2, 2,17,12		1,41,23,57,17	
		1,55,57,45,38,32,29,53		8,29
40″	23, 7, 0,26, 5,17,40,34,47, 5		1,41,24, 5,46	
		1,55,57,43,57, 8,24, 7		8,29
42″	23, 7, 2,22, 3, 1,37,43,11,12		1,41,24,14,15	
		1,55,57,42,15,44, 9,52		8,29
44″	23, 7, 4,18, 0,43,53,27,21, 4		1,41,24,22,44	
		1,55,57,40,34,19,47, 8		8,29
46″	23, 7, 6,13,58,24,27,47, 8,12		1,41,24,31,13	
		1,55,57,38,52,55,15,55		8,29
48″	23, 7, 8, 9,56, 3,20,42,24, 7		1,41,24,39,42	
		1,55,57,37,11,30,36,13		8,29
50″	23, 7,10, 5,53,40,32,13, 0,20		1,41,24,48,11	
		1,55,57,35,30, 5,48, 2		8,29
52″	23, 7,12, 1,51,16, 2,18,48,22		1,41,24,56,40	
		1,55,57,33,48,40,51,22		8,29
54″	23, 7,13,57,48,49,50,59,39,44		1,41,25, 5, 9	
		1,55,57,32, 7,15,46,13		8,29
56″	23, 7,15,53,46,21,58,15,25,57		1,41,25,13,38	
		1,55,57,30,25,50,32,35		8,29
58″	23, 7,17,49,43,52,24, 5,58,32		1,41,25,22, 7	
		1,55,57,28,44,25,10,28		
60″	23, 7,19,45,41,21, 8,31, 9, 0			
exact	23, 7,19,45,41,21, 8,31,26,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°40′ 0″	23, 7,19,45,41,21, 8,31,26,35	1,55,57,27, 2,59,41,55		
2″	23, 7,21,41,38,48,11,31, 8,30	1,55,57,25,21,34, 2,59	1,41,25,38,56	8,29
4″	23, 7,23,37,36,13,33, 5,11,29	1,55,57,23,40, 8,15,34	1,41,25,47,25	8,29
6″	23, 7,25,33,33,37,13,13,27, 3	1,55,57,21,58,42,19,40	1,41,25,55,54	8,29
8″	23, 7,27,29,30,59,11,55,46,43	1,55,57,20,17,16,15,17	1,41,26, 4,23	8,29
10″	23, 7,29,25,28,19,29,12, 2, 0	1,55,57,18,35,50, 2,25	1,41,26,12,52	8,29
12″	23, 7,31,21,25,38, 5, 2, 4,25	1,55,57,16,54,23,41, 4	1,41,26,21,21	8,29
14″	23, 7,33,17,22,54,59,25,45,29	1,55,57,15,12,57,11,14	1,41,26,29,50	8,29
16″	23, 7,35,13,20,10,12,22,56,43	1,55,57,13,31,30,32,55	1,41,26,38,19	8,29
18″	23, 7,37, 9,17,23,43,53,29,38	1,55,57,11,50, 3,46, 7	1,41,26,46,48	8,29
20″	23, 7,39, 5,14,35,33,57,15,45	1,55,57,10, 8,36,50,50	1,41,26,55,17	8,29
22″	23, 7,41, 1,11,45,42,34, 6,35	1,55,57, 8,27, 9,47, 4	1,41,27, 3,46	8,29
24″	23, 7,42,57, 8,54, 9,43,53,39	1,55,57, 6,45,42,34,49	1,41,27,12,15	8,29
26″	23, 7,44,53, 6, 0,55,26,28,28	1,55,57, 5, 4,15,14, 5	1,41,27,20,44	8,29
28″	23, 7,46,49, 3, 5,59,41,42,33	1,55,57, 3,22,47,44,52	1,41,27,29,13	8,29
30″	23, 7,48,45, 0, 9,22,29,27,25	1,55,57, 1,41,20, 7,10	1,41,27,37,42	8,29
32″	23, 7,50,40,57,11, 3,49,34,35	1,55,56,59,59,52,20,59	1,41,27,46,11	8,29
34″	23, 7,52,36,54,11, 3,41,55,34	1,55,56,58,18,24,26,19	1,41,27,54,40	8,29
36″	23, 7,54,32,51, 9,22, 6,21,53	1,55,56,56,36,56,23,10	1,41,28, 3, 9	8,29
38″	23, 7,56,28,48, 5,59, 2,45, 3	1,55,56,54,55,28,11,32	1,41,28,11,38	8,29
40″	23, 7,58,24,45, 0,54,30,56,35	1,55,56,53,13,59,51,25	1,41,28,20, 7	8,29
42″	23, 8, 0,20,41,54, 8,30,48, 0	1,55,56,51,32,31,22,49	1,41,28,28,36	8,29
44″	23, 8, 2,16,38,45,41, 2,10,49	1,55,56,49,51, 2,45,44	1,41,28,37, 5	8,29
46″	23, 8, 4,12,35,35,32, 4,56,33	1,55,56,48, 9,34, 0,10	1,41,28,45,34	8,29
48″	23, 8, 6, 8,32,23,41,38,56,43	1,55,56,46,28, 5, 6, 7	1,41,28,54, 3	8,29
50″	23, 8, 8, 4,29,10, 9,44, 2,50	1,55,56,44,46,36, 3,35	1,41,29, 2,32	8,29
52″	23, 8,10, 0,25,54,56,20, 6,25	1,55,56,43, 5, 6,52,34	1,41,29,11, 1	8,29
54″	23, 8,11,56,22,38, 1,26,58,59	1,55,56,41,23,37,33, 4	1,41,29,19,30	8,29
56″	23, 8,13,52,19,19,25, 4,32, 3	1,55,56,39,42, 8, 5, 5	1,41,29,27,59	8,29
58″	23, 8,15,48,15,59, 7,12,37, 8	1,55,56,38, 0,38,28,37	1,41,29,36,28	
60″	23, 8,17,44,12,37, 7,51, 5,45			
exact	23, 8,17,44,12,37, 7,51,32,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°41′ 0″	23, 8,17,44,12,37, 7,51,32,21			
		1,55,56,36,19, 8,46,30		
2″	23, 8,19,40, 9,13,27, 0,18,51		1,41,29,53,14	
		1,55,56,34,37,38,53,16		8,29
4″	23, 8,21,36, 5,48, 4,39,12, 7		1,41,30, 1,43	
		1,55,56,32,56, 8,51,33		8,29
6″	23, 8,23,32, 2,21, 0,48, 3,40		1,41,30,10,12	
		1,55,56,31,14,38,41,21		8,29
8″	23, 8,25,27,58,52,15,26,45, 1		1,41,30,18,41	
		1,55,56,29,33, 8,22,40		8,29
10″	23, 8,27,23,55,21,48,35, 7,41		1,41,30,27,10	
		1,55,56,27,51,37,55,30		8,29
12″	23, 8,29,19,51,49,40,13, 3,11		1,41,30,35,39	
		1,55,56,26,10, 7,19,51		8,29
14″	23, 8,31,15,48,15,50,20,23, 2		1,41,30,44, 8	
		1,55,56,24,28,36,35,43		8,29
16″	23, 8,33,11,44,40,18,56,58,45		1,41,30,52,37	
		1,55,56,22,47, 5,43, 6		8,29
18″	23, 8,35, 7,41, 3, 6, 2,41,51		1,41,31, 1, 6	
		1,55,56,21, 5,34,42, 0		8,29
20″	23, 8,37, 3,37,24,11,37,23,51		1,41,31, 9,35	
		1,55,56,19,24, 3,32,25		8,29
22″	23, 8,38,59,33,43,35,40,56,16		1,41,31,18, 4	
		1,55,56,17,42,32,14,21		8,29
24″	23, 8,40,55,30, 1,18,13,10,37		1,41,31,26,33	
		1,55,56,16, 1, 0,47,48		8,29
26″	23, 8,42,51,26,17,19,13,58,25		1,41,31,35, 2	
		1,55,56,14,19,29,12,46		8,29
28″	23, 8,44,47,22,31,38,43,11,11		1,41,31,43,31	
		1,55,56,12,37,57,29,15		8,29
30″	23, 8,46,43,18,44,16,40,40,26		1,41,31,52, 0	
		1,55,56,10,56,25,37,15		8,29
32″	23, 8,48,39,14,55,13, 6,17,41		1,41,32, 0,29	
		1,55,56, 9,14,53,36,46		8,29
34″	23, 8,50,35,11, 4,27,59,54,27		1,41,32, 8,58	
		1,55,56, 7,33,21,27,48		8,29
36″	23, 8,52,31, 7,12, 1,21,22,15		1,41,32,17,27	
		1,55,56, 5,51,49,10,21		8,29
38″	23, 8,54,27, 3,17,53,10,32,36		1,41,32,25,56	
		1,55,56, 4,10,16,44,25		8,29
40″	23, 8,56,22,59,22, 3,27,17, 1		1,41,32,34,25	
		1,55,56, 2,28,44,10, 0		8,29
42″	23, 8,58,18,55,24,32,11,27, 1		1,41,32,42,54	
		1,55,56, 0,47,11,27, 6		8,29
44″	23, 9, 0,14,51,25,19,22,54, 7		1,41,32,51,23	
		1,55,55,59, 5,38,35,43		8,29
46″	23, 9, 2,10,47,24,25, 1,29,50		1,41,32,59,52	
		1,55,55,57,24, 5,35,51		8,29
48″	23, 9, 4, 6,43,21,49, 7, 5,41		1,41,33, 8,21	
		1,55,55,55,42,32,27,30		8,29
50″	23, 9, 6, 2,39,17,31,39,33,11		1,41,33,16,50	
		1,55,55,54, 0,59,10,40		8,29
52″	23, 9, 7,58,35,11,32,38,43,51		1,41,33,25,19	
		1,55,55,52,19,25,45,21		8,29
54″	23, 9, 9,54,31, 3,52, 4,29,12		1,41,33,33,48	
		1,55,55,50,37,52,11,33		8,29
56″	23, 9,11,50,26,54,29,56,40,45		1,41,33,42,17	
		1,55,55,48,56,18,29,16		8,29
58″	23, 9,13,46,22,43,26,15,10, 1		1,41,33,50,46	
		1,55,55,47,14,44,38,30		
60″	23, 9,15,42,18,30,40,59,48,31			
exact	23, 9,15,42,18,30,41, 0,16,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°42′ 0″	23, 9,15,42,18,30,41, 0,16,25			
		1,55,55,45,33,10,42,19		
2″	23, 9,17,38,14,16,14,10,58,44		1,41,34, 7,31	
		1,55,55,43,51,36,34,48		8,29
4″	23, 9,19,34,10, 0, 5,47,33,32		1,41,34,16, 0	
		1,55,55,42,10, 2,18,48		8,29
6″	23, 9,21,30, 5,42,15,49,52,20		1,41,34,24,29	
		1,55,55,40,28,27,54,19		8,29
8″	23, 9,23,26, 1,22,44,17,46,39		1,41,34,32,58	
		1,55,55,38,46,53,21,21		8,29
10″	23, 9,25,21,57, 1,31,11, 8, 0		1,41,34,41,27	
		1,55,55,37, 5,18,39,54		8,29
12″	23, 9,27,17,52,38,36,29,47,54		1,41,34,49,56	
		1,55,55,35,23,43,49,58		8,29
14″	23, 9,29,13,48,14, 0,13,37,52		1,41,34,58,25	
		1,55,55,33,42, 8,51,33		8,29
16″	23, 9,31, 9,43,47,42,22,29,25		1,41,35, 6,54	
		1,55,55,32, 0,33,44,39		8,29
18″	23, 9,33, 5,39,19,42,56,14, 4		1,41,35,15,23	
		1,55,55,30,18,58,29,16		8,29
20″	23, 9,35, 1,34,50, 1,54,43,20		1,41,35,23,52	
		1,55,55,28,37,23, 5,24		8,29
22″	23, 9,36,57,30,18,39,17,48,44		1,41,35,32,21	
		1,55,55,26,55,47,33, 3		8,29
24″	23, 9,38,53,25,45,35, 5,21,47		1,41,35,40,50	
		1,55,55,25,14,11,52,13		8,29
26″	23, 9,40,49,21,10,49,17,14, 0		1,41,35,49,19	
		1,55,55,23,32,36, 2,54		8,29
28″	23, 9,42,45,16,34,21,53,16,54		1,41,35,57,48	
		1,55,55,21,51, 0, 5, 6		8,29
30″	23, 9,44,41,11,56,12,53,22, 0		1,41,36, 6,17	
		1,55,55,20, 9,23,58,49		8,29
32″	23, 9,46,37, 7,16,22,17,20,49		1,41,36,14,46	
		1,55,55,18,27,47,44, 3		8,29
34″	23, 9,48,33, 2,34,50, 5, 4,52		1,41,36,23,15	
		1,55,55,16,46,11,20,48		8,29
36″	23, 9,50,28,57,51,36,16,25,40		1,41,36,31,44	
		1,55,55,15, 4,34,49, 4		8,29
38″	23, 9,52,24,53, 6,40,51,14,44		1,41,36,40,13	
		1,55,55,13,22,58, 8,51		8,29
40″	23, 9,54,20,48,20, 3,49,23,35		1,41,36,48,42	
		1,55,55,11,41,21,20, 9		8,29
42″	23, 9,56,16,43,31,45,10,43,44		1,41,36,57,11	
		1,55,55, 9,59,44,22,58		8,29
44″	23, 9,58,12,38,41,44,55, 6,42		1,41,37, 5,40	
		1,55,55, 8,18, 7,17,18		8,29
46″	23,10, 0, 8,33,50, 3, 2,24, 0		1,41,37,14, 9	
		1,55,55, 6,36,30, 3, 9		8,29
48″	23,10, 2, 4,28,56,39,32,27, 9		1,41,37,22,38	
		1,55,55, 4,54,52,40,31		8,29
50″	23,10, 4, 0,24, 1,34,25, 7,40		1,41,37,31, 7	
		1,55,55, 3,13,15, 9,24		8,29
52″	23,10, 5,56,19, 4,47,40,17, 4		1,41,37,39,36	
		1,55,55, 1,31,37,29,48		8,29
54″	23,10, 7,52,14, 6,19,17,46,52		1,41,37,48, 5	
		1,55,54,59,49,59,41,43		8,29
56″	23,10, 9,48, 9, 6, 9,17,28,35		1,41,37,56,34	
		1,55,54,58, 8,21,45, 9		8,29
58″	23,10,11,44, 4, 4,17,39,13,44		1,41,38, 5, 3	
		1,55,54,56,26,43,40, 6		
60″	23,10,13,39,59, 0,44,22,53,50			
exact	23,10,13,39,59, 0,44,23,29, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°43′ 0″	23,10,13,39,59, 0,44,23,29, 4			
		1,55,54,54,45, 5,30,18		
2″	23,10,15,35,53,55,29,28,59,22		1,41,38,21,45	
		1,55,54,53, 3,27, 8,33		8,28
4″	23,10,17,31,48,48,32,56, 7,55		1,41,38,30,13	
		1,55,54,51,21,48,38,20		8,28
6″	23,10,19,27,43,39,54,44,46,15		1,41,38,38,41	
		1,55,54,49,40, 9,59,39		8,28
8″	23,10,21,23,38,29,34,54,45,54		1,41,38,47, 9	
		1,55,54,47,58,31,12,30		8,28
10″	23,10,23,19,33,17,33,25,58,24		1,41,38,55,37	
		1,55,54,46,16,52,16,53		8,28
12″	23,10,25,15,28, 3,50,18,15,17		1,41,39, 4, 5	
		1,55,54,44,35,13,12,48		8,28
14″	23,10,27,11,22,48,25,31,28, 5		1,41,39,12,33	
		1,55,54,42,53,34, 0,15		8,28
16″	23,10,29, 7,17,31,19, 5,28,20		1,41,39,21, 1	
		1,55,54,41,11,54,39,14		8,28
18″	23,10,31, 3,12,12,31, 0, 7,34		1,41,39,29,29	
		1,55,54,39,30,15, 9,45		8,28
20″	23,10,32,59, 6,52, 1,15,17,19		1,41,39,37,57	
		1,55,54,37,48,35,31,48		8,28
22″	23,10,34,55, 1,29,49,50,49, 7		1,41,39,46,25	
		1,55,54,36, 6,55,45,23		8,28
24″	23,10,36,50,56, 5,56,46,34,30		1,41,39,54,53	
		1,55,54,34,25,15,50,30		8,28
26″	23,10,38,46,50,40,22, 2,25, 0		1,41,40, 3,21	
		1,55,54,32,43,35,47, 9		8,28
28″	23,10,40,42,45,13, 5,38,12, 9		1,41,40,11,49	
		1,55,54,31, 1,55,35,20		8,28
30″	23,10,42,38,39,44, 7,33,47,29		1,41,40,20,17	
		1,55,54,29,20,15,15, 3		8,28
32″	23,10,44,34,34,13,27,49, 2,32		1,41,40,28,45	
		1,55,54,27,38,34,46,18		8,28
34″	23,10,46,30,28,41, 6,23,48,50		1,41,40,37,13	
		1,55,54,25,56,54, 9, 5		8,28
36″	23,10,48,26,23, 7, 3,17,57,55		1,41,40,45,41	
		1,55,54,24,15,13,23,24		8,28
38″	23,10,50,22,17,31,18,31,21,19		1,41,40,54, 9	
		1,55,54,22,33,32,29,15		8,28
40″	23,10,52,18,11,53,52, 3,50,34		1,41,41, 2,37	
		1,55,54,20,51,51,26,38		8,28
42″	23,10,54,14, 6,14,43,55,17,12		1,41,41,11, 5	
		1,55,54,19,10,10,15,33		8,28
44″	23,10,56,10, 0,33,54, 5,32,45		1,41,41,19,33	
		1,55,54,17,28,28,56, 0		8,28
46″	23,10,58, 5,54,51,22,34,28,45		1,41,41,28, 1	
		1,55,54,15,46,47,27,59		8,28
48″	23,11, 0, 1,49, 7, 9,21,56,44		1,41,41,36,29	
		1,55,54,14, 5, 5,51,30		8,28
50″	23,11, 1,57,43,21,14,27,48,14		1,41,41,44,57	
		1,55,54,12,23,24, 6,33		8,28
52″	23,11, 3,53,37,33,37,51,54,47		1,41,41,53,25	
		1,55,54,10,41,42,13, 8		8,28
54″	23,11, 5,49,31,44,19,34, 7,55		1,41,42, 1,53	
		1,55,54, 9, 0, 0,11,15		8,28
56″	23,11, 7,45,25,53,19,34,19,10		1,41,42,10,21	
		1,55,54, 7,18,18, 0,54		8,28
58″	23,11, 9,41,20, 0,37,52,20, 4		1,41,42,18,49	
		1,55,54, 5,36,35,42, 5		
60″	23,11,11,37,14, 6,14,28, 2, 9			
exact	23,11,11,37,14, 6,14,27,28,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°44′ 0″	23,11,11,37,14, 6,14,27,28,27			
		1,55,54, 3,54,53,11,22		
2″	23,11,13,33, 8,10, 9,20,39,49		1,41,42,35,58	
		1,55,54, 2,13,10,35,24		8,28
4″	23,11,15,29, 2,12,22,31,15,13		1,41,42,44,26	
		1,55,54, 0,31,27,50,58		8,28
6″	23,11,17,24,56,12,53,59, 6,11		1,41,42,52,54	
		1,55,53,58,49,44,58, 4		8,28
8″	23,11,19,20,50,11,43,44, 4,15		1,41,43, 1,22	
		1,55,53,57, 8, 1,56,42		8,28
10″	23,11,21,16,44, 8,51,46, 0,57		1,41,43, 9,50	
		1,55,53,55,26,18,46,52		8,28
12″	23,11,23,12,38, 4,18, 4,47,49		1,41,43,18,18	
		1,55,53,53,44,35,28,34		8,28
14″	23,11,25, 8,31,58, 2,40,16,23		1,41,43,26,46	
		1,55,53,52, 2,52, 1,48		8,28
16″	23,11,27, 4,25,50, 5,32,18,11		1,41,43,35,14	
		1,55,53,50,21, 8,26,34		8,28
18″	23,11,29, 0,19,40,26,40,44,45		1,41,43,43,42	
		1,55,53,48,39,24,42,52		8,28
20″	23,11,30,56,13,29, 6, 5,27,37		1,41,43,52,10	
		1,55,53,46,57,40,50,42		8,28
22″	23,11,32,52, 7,16, 3,46,18,19		1,41,44, 0,38	
		1,55,53,45,15,56,50, 4		8,28
24″	23,11,34,48, 1, 1,19,43, 8,23		1,41,44, 9, 6	
		1,55,53,43,34,12,40,58		8,28
26″	23,11,36,43,54,44,53,55,49,21		1,41,44,17,34	
		1,55,53,41,52,28,23,24		8,28
28″	23,11,38,39,48,26,46,24,12,45		1,41,44,26, 2	
		1,55,53,40,10,43,57,22		8,28
30″	23,11,40,35,42, 6,57, 8,10, 7		1,41,44,34,30	
		1,55,53,38,28,59,22,52		8,28
32″	23,11,42,31,35,45,26, 7,32,59		1,41,44,42,58	
		1,55,53,36,47,14,39,54		8,28
34″	23,11,44,27,29,22,13,22,12,53		1,41,44,51,26	
		1,55,53,35, 5,29,48,28		8,28
36″	23,11,46,23,22,57,18,52, 1,21		1,41,44,59,54	
		1,55,53,33,23,44,48,34		8,28
38″	23,11,48,19,16,30,42,36,49,55		1,41,45, 8,22	
		1,55,53,31,41,59,40,12		8,28
40″	23,11,50,15,10, 2,24,36,30, 7		1,41,45,16,50	
		1,55,53,30, 0,14,23,22		8,28
42″	23,11,52,11, 3,32,24,50,53,29		1,41,45,25,18	
		1,55,53,28,18,28,58, 4		8,28
44″	23,11,54, 6,57, 0,43,19,51,33		1,41,45,33,46	
		1,55,53,26,36,43,24,18		8,28
46″	23,11,56, 2,50,27,20, 3,15,51		1,41,45,42,14	
		1,55,53,24,54,57,42, 4		8,28
48″	23,11,57,58,43,52,15, 0,57,55		1,41,45,50,42	
		1,55,53,23,13,11,51,22		8,28
50″	23,11,59,54,37,15,28,12,49,17		1,41,45,59,10	
		1,55,53,21,31,25,52,12		8,28
52″	23,12, 1,50,30,36,59,38,41,29		1,41,46, 7,38	
		1,55,53,19,49,39,44,34		8,28
54″	23,12, 3,46,23,56,49,18,26, 3		1,41,46,16, 6	
		1,55,53,18, 7,53,28,28		8,28
56″	23,12, 5,42,17,14,57,11,54,31		1,41,46,24,34	
		1,55,53,16,26, 7, 3,54		8,28
58″	23,12, 7,38,10,31,23,18,58,25		1,41,46,33, 2	
		1,55,53,14,44,20,30,52		
60″	23,12, 9,34, 3,46, 7,39,29,17			
exact	23,12, 9,34, 3,46, 7,39, 0,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°45′ 0″	23,12, 9,34, 3,46, 7,39, 0,37			
		1,55,53,13, 2,33,46,26		
2″	23,12,11,29,56,59,10,12,47, 3		1,41,46,50, 9	
		1,55,53,11,20,46,56,17		8,28
4″	23,12,13,25,50,10,30,59,43,20		1,41,46,58,37	
		1,55,53, 9,38,59,57,40		8,28
6″	23,12,15,21,43,20, 9,59,41, 0		1,41,47, 7, 5	
		1,55,53, 7,57,12,50,35		8,28
8″	23,12,17,17,36,28, 7,12,31,35		1,41,47,15,33	
		1,55,53, 6,15,25,35, 2		8,28
10″	23,12,19,13,29,34,22,38, 6,37		1,41,47,24, 1	
		1,55,53, 4,33,38,11, 1		8,28
12″	23,12,21, 9,22,38,56,16,17,38		1,41,47,32,29	
		1,55,53, 2,51,50,38,32		8,28
14″	23,12,23, 5,15,41,48, 6,56,10		1,41,47,40,57	
		1,55,53, 1,10, 2,57,35		8,28
16″	23,12,25, 1, 8,42,58, 9,53,45		1,41,47,49,25	
		1,55,52,59,28,15, 8,10		8,28
18″	23,12,26,57, 1,42,26,25, 1,55		1,41,47,57,53	
		1,55,52,57,46,27,10,17		8,28
20″	23,12,28,52,54,40,12,52,12,12		1,41,48, 6,21	
		1,55,52,56, 4,39, 3,56		8,28
22″	23,12,30,48,47,36,17,31,16, 8		1,41,48,14,49	
		1,55,52,54,22,50,49, 7		8,28
24″	23,12,32,44,40,30,40,22, 5,15		1,41,48,23,17	
		1,55,52,52,41, 2,25,50		8,28
26″	23,12,34,40,33,23,21,24,31, 5		1,41,48,31,45	
		1,55,52,50,59,13,54, 5		8,28
28″	23,12,36,36,26,14,20,38,25,10		1,41,48,40,13	
		1,55,52,49,17,25,13,52		8,28
30″	23,12,38,32,19, 3,38, 3,39, 2		1,41,48,48,41	
		1,55,52,47,35,36,25,11		8,28
32″	23,12,40,28,11,51,13,40, 4,13		1,41,48,57, 9	
		1,55,52,45,53,47,28, 2		8,28
34″	23,12,42,24, 4,37, 7,27,32,15		1,41,49, 5,37	
		1,55,52,44,11,58,22,25		8,28
36″	23,12,44,19,57,21,19,25,54,40		1,41,49,14, 5	
		1,55,52,42,30, 9, 8,20		8,28
38″	23,12,46,15,50, 3,49,35, 3, 0		1,41,49,22,33	
		1,55,52,40,48,19,45,47		8,28
40″	23,12,48,11,42,44,37,54,48,47		1,41,49,31, 1	
		1,55,52,39, 6,30,14,46		8,28
42″	23,12,50, 7,35,23,44,25, 3,33		1,41,49,39,29	
		1,55,52,37,24,40,35,17		8,28
44″	23,12,52, 3,28, 1, 9, 5,38,50		1,41,49,47,57	
		1,55,52,35,42,50,47,20		8,28
46″	23,12,53,59,20,36,51,56,26,10		1,41,49,56,25	
		1,55,52,34, 1, 0,50,55		8,28
48″	23,12,55,55,13,10,52,57,17, 5		1,41,50, 4,53	
		1,55,52,32,19,10,46, 2		8,28
50″	23,12,57,51, 5,43,12, 8, 3, 7		1,41,50,13,21	
		1,55,52,30,37,20,32,41		8,28
52″	23,12,59,46,58,13,49,28,35,48		1,41,50,21,49	
		1,55,52,28,55,30,10,52		8,28
54″	23,13, 1,42,50,42,44,58,46,40		1,41,50,30,17	
		1,55,52,27,13,39,40,35		8,28
56″	23,13, 3,38,43, 9,58,38,27,15		1,41,50,38,45	
		1,55,52,25,31,49, 1,50		8,28
58″	23,13, 5,34,35,35,30,27,29, 5		1,41,50,47,13	
		1,55,52,23,49,58,14,37		
60″	23,13, 7,30,27,59,20,25,43,42			
exact	23,13, 7,30,27,59,20,25,19,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°46′ 0″	23,13, 7,30,27,59,20,25,19,28			
		1,55,52,22, 8, 7,16,28		
2″	23,13, 9,26,20,21,28,32,35,56		1,41,51, 4,19	
		1,55,52,20,26,16,12, 9		8,28
4″	23,13,11,22,12,41,54,48,48, 5		1,41,51,12,47	
		1,55,52,18,44,24,59,22		8,28
6″	23,13,13,18, 5, 0,39,13,47,27		1,41,51,21,15	
		1,55,52,17, 2,33,38, 7		8,28
8″	23,13,15,13,57,17,41,47,25,34		1,41,51,29,43	
		1,55,52,15,20,42, 8,24		8,28
10″	23,13,17, 9,49,33, 2,29,33,58		1,41,51,38,11	
		1,55,52,13,38,50,30,13		8,28
12″	23,13,19, 5,41,46,41,20, 4,11		1,41,51,46,39	
		1,55,52,11,56,58,43,34		8,28
14″	23,13,21, 1,33,58,38,18,47,45		1,41,51,55, 7	
		1,55,52,10,15, 6,48,27		8,28
16″	23,13,22,57,26, 8,53,25,36,12		1,41,52, 3,35	
		1,55,52, 8,33,14,44,52		8,28
18″	23,13,24,53,18,17,26,40,21, 4		1,41,52,12, 3	
		1,55,52, 6,51,22,32,49		8,28
20″	23,13,26,49,10,24,18, 2,53,53		1,41,52,20,31	
		1,55,52, 5, 9,30,12,18		8,28
22″	23,13,28,45, 2,29,27,33, 6,11		1,41,52,28,59	
		1,55,52, 3,27,37,43,19		8,28
24″	23,13,30,40,54,32,55,10,49,30		1,41,52,37,27	
		1,55,52, 1,45,45, 5,52		8,28
26″	23,13,32,36,46,34,40,55,55,22		1,41,52,45,55	
		1,55,52, 0, 3,52,19,57		8,28
28″	23,13,34,32,38,34,44,48,15,19		1,41,52,54,23	
		1,55,51,58,21,59,25,34		8,28
30″	23,13,36,28,30,33, 6,47,40,53		1,41,53, 2,51	
		1,55,51,56,40, 6,22,43		8,28
32″	23,13,38,24,22,29,46,54, 3,36		1,41,53,11,19	
		1,55,51,54,58,13,11,24		8,28
34″	23,13,40,20,14,24,45, 7,15, 0		1,41,53,19,47	
		1,55,51,53,16,19,51,37		8,28
36″	23,13,42,16, 6,18, 1,27, 6,37		1,41,53,28,15	
		1,55,51,51,34,26,23,22		8,28
38″	23,13,44,11,58, 9,35,53,29,59		1,41,53,36,43	
		1,55,51,49,52,32,46,39		8,28
40″	23,13,46, 7,49,59,28,26,16,38		1,41,53,45,11	
		1,55,51,48,10,39, 1,28		8,28
42″	23,13,48, 3,41,47,39, 5,18, 6		1,41,53,53,39	
		1,55,51,46,28,45, 7,49		8,28
44″	23,13,49,59,33,34, 7,50,25,55		1,41,54, 2, 7	
		1,55,51,44,46,51, 5,42		8,28
46″	23,13,51,55,25,18,54,41,31,37		1,41,54,10,35	
		1,55,51,43, 4,56,55, 7		8,28
48″	23,13,53,51,17, 1,59,38,26,44		1,41,54,19, 3	
		1,55,51,41,23, 2,36, 4		8,28
50″	23,13,55,47, 8,43,22,41, 2,48		1,41,54,27,31	
		1,55,51,39,41, 8, 8,33		8,28
52″	23,13,57,43, 0,23, 3,49,11,21		1,41,54,35,59	
		1,55,51,37,59,13,32,34		8,28
54″	23,13,59,38,52, 1, 3, 2,43,55		1,41,54,44,27	
		1,55,51,36,17,18,48, 7		8,28
56″	23,14, 1,34,43,37,20,21,32, 2		1,41,54,52,55	
		1,55,51,34,35,23,55,12		8,28
58″	23,14, 3,30,35,11,55,45,27,14		1,41,55, 1,23	
		1,55,51,32,53,28,53,49		
60″	23,14, 5,26,26,44,49,14,21, 3			
exact	23,14, 5,26,26,44,49,14, 6,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°47′ 0″	23,14, 5,26,26,44,49,14, 6,47			
		1,55,51,31,11,33,42,21		
2″	23,14, 7,22,18,16, 0,47,49, 8		1,41,55,18,26	
		1,55,51,29,29,38,23,55		8,28
4″	23,14, 9,18, 9,45,30,26,13, 3		1,41,55,26,54	
		1,55,51,27,47,42,57, 1		8,28
6″	23,14,11,14, 1,13,18, 9,10, 4		1,41,55,35,22	
		1,55,51,26, 5,47,21,39		8,28
8″	23,14,13, 9,52,39,23,56,31,43		1,41,55,43,50	
		1,55,51,24,23,51,37,49		8,28
10″	23,14,15, 5,44, 3,47,48, 9,32		1,41,55,52,18	
		1,55,51,22,41,55,45,31		8,28
12″	23,14,17, 1,35,26,29,43,55, 3		1,41,56, 0,46	
		1,55,51,20,59,59,44,45		8,28
14″	23,14,18,57,26,47,29,43,39,48		1,41,56, 9,14	
		1,55,51,19,18, 3,35,31		8,28
16″	23,14,20,53,18, 6,47,47,15,19		1,41,56,17,42	
		1,55,51,17,36, 7,17,49		8,28
18″	23,14,22,49, 9,24,23,54,33, 8		1,41,56,26,10	
		1,55,51,15,54,10,51,39		8,28
20″	23,14,24,45, 0,40,18, 5,24,47		1,41,56,34,38	
		1,55,51,14,12,14,17, 1		8,28
22″	23,14,26,40,51,54,30,19,41,48		1,41,56,43, 6	
		1,55,51,12,30,17,33,55		8,28
24″	23,14,28,36,43, 7, 0,37,15,43		1,41,56,51,34	
		1,55,51,10,48,20,42,21		8,28
26″	23,14,30,32,34,17,48,57,58, 4		1,41,57, 0, 2	
		1,55,51, 9, 6,23,42,19		8,28
28″	23,14,32,28,25,26,55,21,40,23		1,41,57, 8,30	
		1,55,51, 7,24,26,33,49		8,28
30″	23,14,34,24,16,34,19,48,14,12		1,41,57,16,58	
		1,55,51, 5,42,29,16,51		8,28
32″	23,14,36,20, 7,40, 2,17,31, 3		1,41,57,25,26	
		1,55,51, 4, 0,31,51,25		8,28
34″	23,14,38,15,58,44, 2,49,22,28		1,41,57,33,54	
		1,55,51, 2,18,34,17,31		8,28
36″	23,14,40,11,49,46,21,23,39,59		1,41,57,42,22	
		1,55,51, 0,36,36,35, 9		8,28
38″	23,14,42, 7,40,46,58, 0,15, 8		1,41,57,50,50	
		1,55,50,58,54,38,44,19		8,28
40″	23,14,44, 3,31,45,52,38,59,27		1,41,57,59,18	
		1,55,50,57,12,40,45, 1		8,28
42″	23,14,45,59,22,43, 5,19,44,28		1,41,58, 7,46	
		1,55,50,55,30,42,37,15		8,28
44″	23,14,47,55,13,38,36, 2,21,43		1,41,58,16,14	
		1,55,50,53,48,44,21, 1		8,28
46″	23,14,49,51, 4,32,24,46,42,44		1,41,58,24,42	
		1,55,50,52, 6,45,56,19		8,28
48″	23,14,51,46,55,24,31,32,39, 3		1,41,58,33,10	
		1,55,50,50,24,47,23, 9		8,28
50″	23,14,53,42,46,14,56,20, 2,12		1,41,58,41,38	
		1,55,50,48,42,48,41,31		8,28
52″	23,14,55,38,37, 3,39, 8,43,43		1,41,58,50, 6	
		1,55,50,47, 0,49,51,25		8,28
54″	23,14,57,34,27,50,39,58,35, 8		1,41,58,58,34	
		1,55,50,45,18,50,52,51		8,28
56″	23,14,59,30,18,35,58,49,27,59		1,41,59, 7, 2	
		1,55,50,43,36,51,45,49		8,28
58″	23,15, 1,26, 9,19,35,41,13,48		1,41,59,15,30	
		1,55,50,41,54,52,30,19		
60″	23,15, 3,22, 0, 1,30,33,44, 7			
exact	23,15, 3,22, 0, 1,30,33,32,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°48′ 0″	23,15, 3,22, 0, 1,30,33,32,19			
		1,55,50,40,12,53, 5, 4		
2″	23,15, 5,17,50,41,43,26,37,23		1,41,59,32,31	
		1,55,50,38,30,53,32,33		8,28
4″	23,15, 7,13,41,20,14,20, 9,56		1,41,59,40,59	
		1,55,50,36,48,53,51,34		8,28
6″	23,15, 9, 9,31,57, 3,14, 1,30		1,41,59,49,27	
		1,55,50,35, 6,54, 2, 7		8,28
8″	23,15,11, 5,22,32,10, 8, 3,37		1,41,59,57,55	
		1,55,50,33,24,54, 4,12		8,28
10″	23,15,13, 1,13, 5,35, 2, 7,49		1,42, 0, 6,23	
		1,55,50,31,42,53,57,49		8,28
12″	23,15,14,57, 3,37,17,56, 5,38		1,42, 0,14,51	
		1,55,50,30, 0,53,42,58		8,28
14″	23,15,16,52,54, 7,18,49,48,36		1,42, 0,23,19	
		1,55,50,28,18,53,19,39		8,28
16″	23,15,18,48,44,35,37,43, 8,15		1,42, 0,31,47	
		1,55,50,26,36,52,47,52		8,28
18″	23,15,20,44,35, 2,14,35,56, 7		1,42, 0,40,15	
		1,55,50,24,54,52, 7,37		8,28
20″	23,15,22,40,25,27, 9,28, 3,44		1,42, 0,48,43	
		1,55,50,23,12,51,18,54		8,28
22″	23,15,24,36,15,50,22,19,22,38		1,42, 0,57,11	
		1,55,50,21,30,50,21,43		8,28
24″	23,15,26,32, 6,11,53, 9,44,21		1,42, 1, 5,39	
		1,55,50,19,48,49,16, 4		8,28
26″	23,15,28,27,56,31,41,59, 0,25		1,42, 1,14, 7	
		1,55,50,18, 6,48, 1,57		8,28
28″	23,15,30,23,46,49,48,47, 2,22		1,42, 1,22,35	
		1,55,50,16,24,46,39,22		8,28
30″	23,15,32,19,37, 6,13,33,41,44		1,42, 1,31, 3	
		1,55,50,14,42,45, 8,19		8,28
32″	23,15,34,15,27,20,56,18,50, 3		1,42, 1,39,31	
		1,55,50,13, 0,43,28,48		8,28
34″	23,15,36,11,17,33,57, 2,18,51		1,42, 1,47,59	
		1,55,50,11,18,41,40,49		8,28
36″	23,15,38, 7, 7,45,15,43,59,40		1,42, 1,56,27	
		1,55,50, 9,36,39,44,22		8,28
38″	23,15,40, 2,57,54,52,23,44, 2		1,42, 2, 4,55	
		1,55,50, 7,54,37,39,27		8,28
40″	23,15,41,58,48, 2,47, 1,23,29		1,42, 2,13,23	
		1,55,50, 6,12,35,26, 4		8,28
42″	23,15,43,54,38, 8,59,36,49,33		1,42, 2,21,51	
		1,55,50, 4,30,33, 4,13		8,28
44″	23,15,45,50,28,13,30, 9,53,46		1,42, 2,30,19	
		1,55,50, 2,48,30,33,54		8,28
46″	23,15,47,46,18,16,18,40,27,40		1,42, 2,38,47	
		1,55,50, 1, 6,27,55, 7		8,28
48″	23,15,49,42, 8,17,25, 8,22,47		1,42, 2,47,15	
		1,55,49,59,24,25, 7,52		8,28
50″	23,15,51,37,58,16,49,33,30,39		1,42, 2,55,43	
		1,55,49,57,42,22,12, 9		8,28
52″	23,15,53,33,48,14,31,55,42,48		1,42, 3, 4,11	
		1,55,49,56, 0,19, 7,58		8,28
54″	23,15,55,29,38,10,32,14,50,46		1,42, 3,12,39	
		1,55,49,54,18,15,55,19		8,28
56″	23,15,57,25,28, 4,50,30,46, 5		1,42, 3,21, 7	
		1,55,49,52,36,12,34,12		8,28
58″	23,15,59,21,17,57,26,43,20,17		1,42, 3,29,35	
		1,55,49,50,54, 9, 4,37		
60″	23,16, 1,17, 7,48,20,52,24,54			
exact	23,16, 1,17, 7,48,20,52,13,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°49′ 0″	23,16, 1,17, 7,48,20,52,13,45			
		1,55,49,49,12, 5,25,30		
2″	23,16, 3,12,57,37,32,57,39,15		1,42, 3,46,35	
		1,55,49,47,30, 1,38,55		8,28
4″	23,16, 5, 8,47,25, 2,59,18,10		1,42, 3,55, 3	
		1,55,49,45,47,57,43,52		8,28
6″	23,16, 7, 4,37,10,50,57, 2, 2		1,42, 4, 3,31	
		1,55,49,44, 5,53,40,21		8,28
8″	23,16, 9, 0,26,54,56,50,42,23		1,42, 4,11,59	
		1,55,49,42,23,49,28,22		8,28
10″	23,16,10,56,16,37,20,40,10,45		1,42, 4,20,27	
		1,55,49,40,41,45, 7,55		8,28
12″	23,16,12,52, 6,18, 2,25,18,40		1,42, 4,28,55	
		1,55,49,38,59,40,39, 0		8,28
14″	23,16,14,47,55,57, 2, 5,57,40		1,42, 4,37,23	
		1,55,49,37,17,36, 1,37		8,28
16″	23,16,16,43,45,34,19,41,59,17		1,42, 4,45,51	
		1,55,49,35,35,31,15,46		8,28
18″	23,16,18,39,35, 9,55,13,15, 3		1,42, 4,54,19	
		1,55,49,33,53,26,21,27		8,28
20″	23,16,20,35,24,43,48,39,36,30		1,42, 5, 2,47	
		1,55,49,32,11,21,18,40		8,28
22″	23,16,22,31,14,16, 0, 0,55,10		1,42, 5,11,15	
		1,55,49,30,29,16, 7,25		8,28
24″	23,16,24,27, 3,46,29,17, 2,35		1,42, 5,19,43	
		1,55,49,28,47,10,47,42		8,28
26″	23,16,26,22,53,15,16,27,50,17		1,42, 5,28,11	
		1,55,49,27, 5, 5,19,31		8,28
28″	23,16,28,18,42,42,21,33, 9,48		1,42, 5,36,39	
		1,55,49,25,22,59,42,52		8,28
30″	23,16,30,14,32, 7,44,32,52,40		1,42, 5,45, 7	
		1,55,49,23,40,53,57,45		8,28
32″	23,16,32,10,21,31,25,26,50,25		1,42, 5,53,35	
		1,55,49,21,58,48, 4,10		8,28
34″	23,16,34, 6,10,53,24,14,54,35		1,42, 6, 2, 3	
		1,55,49,20,16,42, 2, 7		8,28
36″	23,16,36, 2, 0,13,40,56,56,42		1,42, 6,10,31	
		1,55,49,18,34,35,51,36		8,28
38″	23,16,37,57,49,32,15,32,48,18		1,42, 6,18,59	
		1,55,49,16,52,29,32,37		8,28
40″	23,16,39,53,38,49, 8, 2,20,55		1,42, 6,27,27	
		1,55,49,15,10,23, 5,10		8,28
42″	23,16,41,49,28, 4,18,25,26, 5		1,42, 6,35,55	
		1,55,49,13,28,16,29,15		8,28
44″	23,16,43,45,17,17,46,41,55,20		1,42, 6,44,23	
		1,55,49,11,46, 9,44,52		8,28
46″	23,16,45,41, 6,29,32,51,40,12		1,42, 6,52,51	
		1,55,49,10, 4, 2,52, 1		8,28
48″	23,16,47,36,55,39,36,54,32,13		1,42, 7, 1,19	
		1,55,49, 8,21,55,50,42		8,28
50″	23,16,49,32,44,47,58,50,22,55		1,42, 7, 9,47	
		1,55,49, 6,39,48,40,55		8,28
52″	23,16,51,28,33,54,38,39, 3,50		1,42, 7,18,15	
		1,55,49, 4,57,41,22,40		8,28
54″	23,16,53,24,22,59,36,20,26,30		1,42, 7,26,43	
		1,55,49, 3,15,33,55,57		8,28
56″	23,16,55,20,12, 2,51,54,22,27		1,42, 7,35,11	
		1,55,49, 1,33,26,20,46		8,28
58″	23,16,57,16, 1, 4,25,20,43,13		1,42, 7,43,39	
		1,55,48,59,51,18,37, 7		
60″	23,16,59,11,50, 4,16,39,20,20			
exact	23,16,59,11,50, 4,16,39,16,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°50′ 0″	23,16,59,11,50, 4,16,39,16,41			
		1,55,48,58, 9,10,44,36		
2″	23,17, 1, 7,39, 2,25,50, 1,17		1,42, 8, 0,37	
		1,55,48,56,27, 2,43,59		8,28
4″	23,17, 3, 3,27,58,52,52,45,16		1,42, 8, 9, 5	
		1,55,48,54,44,54,34,54		8,28
6″	23,17, 4,59,16,53,37,47,20,10		1,42, 8,17,33	
		1,55,48,53, 2,46,17,21		8,28
8″	23,17, 6,55, 5,46,40,33,37,31		1,42, 8,26, 1	
		1,55,48,51,20,37,51,20		8,28
10″	23,17, 8,50,54,38, 1,11,28,51		1,42, 8,34,29	
		1,55,48,49,38,29,16,51		8,28
12″	23,17,10,46,43,27,39,40,45,42		1,42, 8,42,57	
		1,55,48,47,56,20,33,54		8,28
14″	23,17,12,42,32,15,36, 1,19,36		1,42, 8,51,25	
		1,55,48,46,14,11,42,29		8,28
16″	23,17,14,38,21, 1,50,13, 2, 5		1,42, 8,59,53	
		1,55,48,44,32, 2,42,36		8,28
18″	23,17,16,34, 9,46,22,15,44,41		1,42, 9, 8,21	
		1,55,48,42,49,53,34,15		8,28
20″	23,17,18,29,58,29,12, 9,18,56		1,42, 9,16,49	
		1,55,48,41, 7,44,17,26		8,28
22″	23,17,20,25,47,10,19,53,36,22		1,42, 9,25,17	
		1,55,48,39,25,34,52, 9		8,28
24″	23,17,22,21,35,49,45,28,28,31		1,42, 9,33,45	
		1,55,48,37,43,25,18,24		8,28
26″	23,17,24,17,24,27,28,53,46,55		1,42, 9,42,13	
		1,55,48,36, 1,15,36,11		8,28
28″	23,17,26,13,13, 3,30, 9,23, 6		1,42, 9,50,41	
		1,55,48,34,19, 5,45,30		8,28
30″	23,17,28, 9, 1,37,49,15, 8,36		1,42, 9,59, 9	
		1,55,48,32,36,55,46,21		8,28
32″	23,17,30, 4,50,10,26,10,54,57		1,42,10, 7,37	
		1,55,48,30,54,45,38,44		8,28
34″	23,17,32, 0,38,41,20,56,33,41		1,42,10,16, 5	
		1,55,48,29,12,35,22,39		8,28
36″	23,17,33,56,27,10,33,31,56,20		1,42,10,24,33	
		1,55,48,27,30,24,58, 6		8,28
38″	23,17,35,52,15,38, 3,56,54,26		1,42,10,33, 1	
		1,55,48,25,48,14,25, 5		8,28
40″	23,17,37,48, 4, 3,52,11,19,31		1,42,10,41,29	
		1,55,48,24, 6, 3,43,36		8,28
42″	23,17,39,43,52,27,58,15, 3, 7		1,42,10,49,57	
		1,55,48,22,23,52,53,39		8,28
44″	23,17,41,39,40,50,22, 7,56,46		1,42,10,58,25	
		1,55,48,20,41,41,55,14		8,28
46″	23,17,43,35,29,11, 3,49,52, 0		1,42,11, 6,53	
		1,55,48,18,59,30,48,21		8,28
48″	23,17,45,31,17,30, 3,20,40,21		1,42,11,15,21	
		1,55,48,17,17,19,33, 0		8,28
50″	23,17,47,27, 5,47,20,40,13,21		1,42,11,23,49	
		1,55,48,15,35, 8, 9,11		8,28
52″	23,17,49,22,54, 2,55,48,22,32		1,42,11,32,17	
		1,55,48,13,52,56,36,54		8,28
54″	23,17,51,18,42,16,48,44,59,26		1,42,11,40,45	
		1,55,48,12,10,44,56, 9		8,28
56″	23,17,53,14,30,28,59,29,55,35		1,42,11,49,13	
		1,55,48,10,28,33, 6,56		8,28
58″	23,17,55,10,18,39,28, 3, 2,31		1,42,11,57,41	
		1,55,48, 8,46,21, 9,15		
60″	23,17,57, 6, 6,48,14,24,11,46			
exact	23,17,57, 6, 6,48,14,24,14,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°51′ 0″	23,17,57, 6, 6,48,14,24,14,46			
		1,55,48, 7, 4, 9, 3,19		
2″	23,17,59, 1,54,55,18,33,18, 5		1,42,12,14,36	
		1,55,48, 5,21,56,48,43		8,28
4″	23,18, 0,57,43, 0,40,30, 6,48		1,42,12,23, 4	
		1,55,48, 3,39,44,25,39		8,28
6″	23,18, 2,53,31, 4,20,14,32,27		1,42,12,31,32	
		1,55,48, 1,57,31,54, 7		8,28
8″	23,18, 4,49,19, 6,17,46,26,34		1,42,12,40, 0	
		1,55,48, 0,15,19,14, 7		8,28
10″	23,18, 6,45, 7, 6,33, 5,40,41		1,42,12,48,28	
		1,55,47,58,33, 6,25,39		8,28
12″	23,18, 8,40,55, 5, 6,12, 6,20		1,42,12,56,56	
		1,55,47,56,50,53,28,43		8,28
14″	23,18,10,36,43, 1,57, 5,35, 3		1,42,13, 5,24	
		1,55,47,55, 8,40,23,19		8,28
16″	23,18,12,32,30,57, 5,45,58,22		1,42,13,13,52	
		1,55,47,53,26,27, 9,27		8,28
18″	23,18,14,28,18,50,32,13, 7,49		1,42,13,22,20	
		1,55,47,51,44,13,47, 7		8,28
20″	23,18,16,24, 6,42,16,26,54,56		1,42,13,30,48	
		1,55,47,50, 2, 0,16,19		8,28
22″	23,18,18,19,54,32,18,27,11,15		1,42,13,39,16	
		1,55,47,48,19,46,37, 3		8,28
24″	23,18,20,15,42,20,38,13,48,18		1,42,13,47,44	
		1,55,47,46,37,32,49,19		8,28
26″	23,18,22,11,30, 7,15,46,37,37		1,42,13,56,12	
		1,55,47,44,55,18,53, 7		8,28
28″	23,18,24, 7,17,52,11, 5,30,44		1,42,14, 4,40	
		1,55,47,43,13, 4,48,27		8,28
30″	23,18,26, 3, 5,35,24,10,19,11		1,42,14,13, 8	
		1,55,47,41,30,50,35,19		8,28
32″	23,18,27,58,53,16,55, 0,54,30		1,42,14,21,36	
		1,55,47,39,48,36,13,43		8,28
34″	23,18,29,54,40,56,43,37, 8,13		1,42,14,30, 4	
		1,55,47,38, 6,21,43,39		8,28
36″	23,18,31,50,28,34,49,58,51,52		1,42,14,38,32	
		1,55,47,36,24, 7, 5, 7		8,28
38″	23,18,33,46,16,11,14, 5,56,59		1,42,14,47, 0	
		1,55,47,34,41,52,18, 7		8,28
40″	23,18,35,42, 3,45,55,58,15, 6		1,42,14,55,28	
		1,55,47,32,59,37,22,39		8,28
42″	23,18,37,37,51,18,55,35,37,45		1,42,15, 3,56	
		1,55,47,31,17,22,18,43		8,28
44″	23,18,39,33,38,50,12,57,56,28		1,42,15,12,24	
		1,55,47,29,35, 7, 6,19		8,28
46″	23,18,41,29,26,19,48, 5, 2,47		1,42,15,20,52	
		1,55,47,27,52,51,45,27		8,28
48″	23,18,43,25,13,47,40,56,48,14		1,42,15,29,20	
		1,55,47,26,10,36,16, 7		8,28
50″	23,18,45,21, 1,13,51,33, 4,21		1,42,15,37,48	
		1,55,47,24,28,20,38,19		8,28
52″	23,18,47,16,48,38,19,53,42,40		1,42,15,46,16	
		1,55,47,22,46, 4,52, 3		8,28
54″	23,18,49,12,36, 1, 5,58,34,43		1,42,15,54,44	
		1,55,47,21, 3,48,57,19		8,28
56″	23,18,51, 8,23,22, 9,47,32, 2		1,42,16, 3,12	
		1,55,47,19,21,32,54, 7		8,28
58″	23,18,53, 4,10,41,31,20,26, 9		1,42,16,11,40	
		1,55,47,17,39,16,42,27		
60″	23,18,54,59,57,59,10,37, 8,36			
exact	23,18,54,59,57,59,10,37, 9,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°52′ 0″	23,18,54,59,57,59,10,37, 9,36			
		1,55,47,15,57, 0,22,34		
2″	23,18,56,55,45,15, 7,37,32,10		1,42,16,28,34	
		1,55,47,14,14,43,54, 0		8,28
4″	23,18,58,51,32,29,22,21,26,10		1,42,16,37, 2	
		1,55,47,12,32,27,16,58		8,28
6″	23,19, 0,47,19,41,54,48,43, 8		1,42,16,45,30	
		1,55,47,10,50,10,31,28		8,28
8″	23,19, 2,43, 6,52,44,59,14,36		1,42,16,53,58	
		1,55,47, 9, 7,53,37,30		8,28
10″	23,19, 4,38,54, 1,52,52,52, 6		1,42,17, 2,26	
		1,55,47, 7,25,36,35, 4		8,28
12″	23,19, 6,34,41, 9,18,29,27,10		1,42,17,10,54	
		1,55,47, 5,43,19,24,10		8,28
14″	23,19, 8,30,28,15, 1,48,51,20		1,42,17,19,22	
		1,55,47, 4, 1, 2, 4,48		8,28
16″	23,19,10,26,15,19, 2,50,56, 8		1,42,17,27,50	
		1,55,47, 2,18,44,36,58		8,28
18″	23,19,12,22, 2,21,21,35,33, 6		1,42,17,36,18	
		1,55,47, 0,36,27, 0,40		8,28
20″	23,19,14,17,49,21,58, 2,33,46		1,42,17,44,46	
		1,55,46,58,54, 9,15,54		8,28
22″	23,19,16,13,36,20,52,11,49,40		1,42,17,53,14	
		1,55,46,57,11,51,22,40		8,28
24″	23,19,18, 9,23,18, 4, 3,12,20		1,42,18, 1,42	
		1,55,46,55,29,33,20,58		8,28
26″	23,19,20, 5,10,13,33,36,33,18		1,42,18,10,10	
		1,55,46,53,47,15,10,48		8,28
28″	23,19,22, 0,57, 7,20,51,44, 6		1,42,18,18,38	
		1,55,46,52, 4,56,52,10		8,28
30″	23,19,23,56,43,59,25,48,36,16		1,42,18,27, 6	
		1,55,46,50,22,38,25, 4		8,28
32″	23,19,25,52,30,49,48,27, 1,20		1,42,18,35,34	
		1,55,46,48,40,19,49,30		8,28
34″	23,19,27,48,17,38,28,46,50,50		1,42,18,44, 2	
		1,55,46,46,58, 1, 5,28		8,28
36″	23,19,29,44, 4,25,26,47,56,18		1,42,18,52,30	
		1,55,46,45,15,42,12,58		8,28
38″	23,19,31,39,51,10,42,30, 9,16		1,42,19, 0,58	
		1,55,46,43,33,23,12, 0		8,28
40″	23,19,33,35,37,54,15,53,21,16		1,42,19, 9,26	
		1,55,46,41,51, 4, 2,34		8,28
42″	23,19,35,31,24,36, 6,57,23,50		1,42,19,17,54	
		1,55,46,40, 8,44,44,40		8,28
44″	23,19,37,27,11,16,15,42, 8,30		1,42,19,26,22	
		1,55,46,38,26,25,18,18		8,28
46″	23,19,39,22,57,54,42, 7,26,48		1,42,19,34,50	
		1,55,46,36,44, 5,43,28		8,28
48″	23,19,41,18,44,31,26,13,10,16		1,42,19,43,18	
		1,55,46,35, 1,46, 0,10		8,28
50″	23,19,43,14,31, 6,27,59,10,26		1,42,19,51,46	
		1,55,46,33,19,26, 8,24		8,28
52″	23,19,45,10,17,39,47,25,18,50		1,42,20, 0,14	
		1,55,46,31,37, 6, 8,10		8,28
54″	23,19,47, 6, 4,11,24,31,27, 0		1,42,20, 8,42	
		1,55,46,29,54,45,59,28		8,28
56″	23,19,49, 1,50,41,19,17,26,28		1,42,20,17,10	
		1,55,46,28,12,25,42,18		8,28
58″	23,19,50,57,37, 9,31,43, 8,46		1,42,20,25,38	
		1,55,46,26,30, 5,16,40		
60″	23,19,52,53,23,36, 1,48,25,26			
exact	23,19,52,53,23,36, 1,48,30,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°53′ 0″	23,19,52,53,23,36, 1,48,30,48			
		1,55,46,24,47,44,43,17		
2″	23,19,54,49,10, 0,49,33,14, 5		1,42,20,42,30	
		1,55,46,23, 5,24, 0,47		8,28
4″	23,19,56,44,56,23,54,57,14,52		1,42,20,50,58	
		1,55,46,21,23, 3, 9,49		8,28
6″	23,19,58,40,42,45,18, 0,24,41		1,42,20,59,26	
		1,55,46,19,40,42,10,23		8,28
8″	23,20, 0,36,29, 4,58,42,35, 4		1,42,21, 7,54	
		1,55,46,17,58,21, 2,29		8,28
10″	23,20, 2,32,15,22,57, 3,37,33		1,42,21,16,22	
		1,55,46,16,15,59,46, 7		8,28
12″	23,20, 4,28, 1,39,13, 3,23,40		1,42,21,24,50	
		1,55,46,14,33,38,21,17		8,28
14″	23,20, 6,23,47,53,46,41,44,57		1,42,21,33,18	
		1,55,46,12,51,16,47,59		8,28
16″	23,20, 8,19,34, 6,37,58,32,56		1,42,21,41,46	
		1,55,46,11, 8,55, 6,13		8,28
18″	23,20,10,15,20,17,46,53,39, 9		1,42,21,50,14	
		1,55,46, 9,26,33,15,59		8,28
20″	23,20,12,11, 6,27,13,26,55, 8		1,42,21,58,42	
		1,55,46, 7,44,11,17,17		8,28
22″	23,20,14, 6,52,34,57,38,12,25		1,42,22, 7,10	
		1,55,46, 6, 1,49,10, 7		8,28
24″	23,20,16, 2,38,40,59,27,22,32		1,42,22,15,38	
		1,55,46, 4,19,26,54,29		8,28
26″	23,20,17,58,24,45,18,54,17, 1		1,42,22,24, 6	
		1,55,46, 2,37, 4,30,23		8,28
28″	23,20,19,54,10,47,55,58,47,24		1,42,22,32,34	
		1,55,46, 0,54,41,57,49		8,28
30″	23,20,21,49,56,48,50,40,45,13		1,42,22,41, 2	
		1,55,45,59,12,19,16,47		8,28
32″	23,20,23,45,42,48, 3, 0, 2, 0		1,42,22,49,30	
		1,55,45,57,29,56,27,17		8,28
34″	23,20,25,41,28,45,32,56,29,17		1,42,22,57,58	
		1,55,45,55,47,33,29,19		8,28
36″	23,20,27,37,14,41,20,29,58,36		1,42,23, 6,26	
		1,55,45,54, 5,10,22,53		8,28
38″	23,20,29,33, 0,35,25,40,21,29		1,42,23,14,54	
		1,55,45,52,22,47, 7,59		8,28
40″	23,20,31,28,46,27,48,27,29,28		1,42,23,23,22	
		1,55,45,50,40,23,44,37		8,28
42″	23,20,33,24,32,18,28,51,14, 5		1,42,23,31,50	
		1,55,45,48,58, 0,12,47		8,28
44″	23,20,35,20,18, 7,26,51,26,52		1,42,23,40,18	
		1,55,45,47,15,36,32,29		8,28
46″	23,20,37,16, 3,54,42,27,59,21		1,42,23,48,46	
		1,55,45,45,33,12,43,43		8,28
48″	23,20,39,11,49,40,15,40,43, 4		1,42,23,57,14	
		1,55,45,43,50,48,46,29		8,28
50″	23,20,41, 7,35,24, 6,29,29,33		1,42,24, 5,42	
		1,55,45,42, 8,24,40,47		8,28
52″	23,20,43, 3,21, 6,14,54,10,20		1,42,24,14,10	
		1,55,45,40,26, 0,26,37		8,28
54″	23,20,44,59, 6,46,40,54,36,57		1,42,24,22,38	
		1,55,45,38,43,36, 3,59		8,28
56″	23,20,46,54,52,25,24,30,40,56		1,42,24,31, 6	
		1,55,45,37, 1,11,32,53		8,28
58″	23,20,48,50,38, 2,25,42,13,49		1,42,24,39,34	
		1,55,45,35,18,46,53,19		
60″	23,20,50,46,23,37,44,29, 7, 8			
exact	23,20,50,46,23,37,44,29,16, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°54′ 0″	23,20,50,46,23,37,44,29,16, 4			
		1,55,45,33,36,22, 6,24		
2″	23,20,52,42, 9,11,20,51,22,28		1,42,24,56,25	
		1,55,45,31,53,57, 9,59		8,28
4″	23,20,54,37,54,43,14,48,32,27		1,42,25, 4,53	
		1,55,45,30,11,32, 5, 6		8,28
6″	23,20,56,33,40,13,26,20,37,33		1,42,25,13,21	
		1,55,45,28,29, 6,51,45		8,28
8″	23,20,58,29,25,41,55,27,29,18		1,42,25,21,49	
		1,55,45,26,46,41,29,56		8,28
10″	23,21, 0,25,11, 8,42, 8,59,14		1,42,25,30,17	
		1,55,45,25, 4,15,59,39		8,28
12″	23,21, 2,20,56,33,46,24,58,53		1,42,25,38,45	
		1,55,45,23,21,50,20,54		8,28
14″	23,21, 4,16,41,57, 8,15,19,47		1,42,25,47,13	
		1,55,45,21,39,24,33,41		8,28
16″	23,21, 6,12,27,18,47,39,53,28		1,42,25,55,41	
		1,55,45,19,56,58,38, 0		8,28
18″	23,21, 8, 8,12,38,44,38,31,28		1,42,26, 4, 9	
		1,55,45,18,14,32,33,51		8,28
20″	23,21,10, 3,57,56,59,11, 5,19		1,42,26,12,37	
		1,55,45,16,32, 6,21,14		8,28
22″	23,21,11,59,43,13,31,17,26,33		1,42,26,21, 5	
		1,55,45,14,49,40, 0, 9		8,28
24″	23,21,13,55,28,28,20,57,26,42		1,42,26,29,33	
		1,55,45,13, 7,13,30,36		8,28
26″	23,21,15,51,13,41,28,10,57,18		1,42,26,38, 1	
		1,55,45,11,24,46,52,35		8,28
28″	23,21,17,46,58,52,52,57,49,53		1,42,26,46,29	
		1,55,45, 9,42,20, 6, 6		8,28
30″	23,21,19,42,44, 2,35,17,55,59		1,42,26,54,57	
		1,55,45, 7,59,53,11, 9		8,28
32″	23,21,21,38,29,10,35,11, 7, 8		1,42,27, 3,25	
		1,55,45, 6,17,26, 7,44		8,28
34″	23,21,23,34,14,16,52,37,14,52		1,42,27,11,53	
		1,55,45, 4,34,58,55,51		8,28
36″	23,21,25,29,59,21,27,36,10,43		1,42,27,20,21	
		1,55,45, 2,52,31,35,30		8,28
38″	23,21,27,25,44,24,20, 7,46,13		1,42,27,28,49	
		1,55,45, 1,10, 4, 6,41		8,28
40″	23,21,29,21,29,25,30,11,52,54		1,42,27,37,17	
		1,55,44,59,27,36,29,24		8,28
42″	23,21,31,17,14,24,57,48,22,18		1,42,27,45,45	
		1,55,44,57,45, 8,43,39		8,28
44″	23,21,33,12,59,22,42,57, 5,57		1,42,27,54,13	
		1,55,44,56, 2,40,49,26		8,28
46″	23,21,35, 8,44,18,45,37,55,23		1,42,28, 2,41	
		1,55,44,54,20,12,46,45		8,28
48″	23,21,37, 4,29,13, 5,50,42, 8		1,42,28,11, 9	
		1,55,44,52,37,44,35,36		8,28
50″	23,21,39, 0,14, 5,43,35,17,44		1,42,28,19,37	
		1,55,44,50,55,16,15,59		8,28
52″	23,21,40,55,58,56,38,51,33,43		1,42,28,28, 5	
		1,55,44,49,12,47,47,54		8,28
54″	23,21,42,51,43,45,51,39,21,37		1,42,28,36,33	
		1,55,44,47,30,19,11,21		8,28
56″	23,21,44,47,28,33,21,58,32,58		1,42,28,45, 1	
		1,55,44,45,47,50,26,20		8,28
58″	23,21,46,43,13,19, 9,48,59,18		1,42,28,53,29	
		1,55,44,44, 5,21,32,51		
60″	23,21,48,38,58, 3,15,10,32, 9			
exact	23,21,48,38,58, 3,15,10,51, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°55′ 0″	23,21,48,38,58, 3,15,10,51, 7			
		1,55,44,42,22,52,32,52		
2″	23,21,50,34,42,45,38, 3,23,59		1,42,29,10,17	
		1,55,44,40,40,23,22,35		8,28
4″	23,21,52,30,27,26,18,26,46,34		1,42,29,18,45	
		1,55,44,38,57,54, 3,50		8,28
6″	23,21,54,26,12, 5,16,20,50,24		1,42,29,27,13	
		1,55,44,37,15,24,36,37		8,28
8″	23,21,56,21,56,42,31,45,27, 1		1,42,29,35,41	
		1,55,44,35,32,55, 0,56		8,28
10″	23,21,58,17,41,18, 4,40,27,57		1,42,29,44, 9	
		1,55,44,33,50,25,16,47		8,28
12″	23,22, 0,13,25,51,55, 5,44,44		1,42,29,52,37	
		1,55,44,32, 7,55,24,10		8,28
14″	23,22, 2, 9,10,24, 3, 1, 8,54		1,42,30, 1, 5	
		1,55,44,30,25,25,23, 5		8,28
16″	23,22, 4, 4,54,54,28,26,31,59		1,42,30, 9,33	
		1,55,44,28,42,55,13,32		8,28
18″	23,22, 6, 0,39,23,11,21,45,31		1,42,30,18, 1	
		1,55,44,27, 0,24,55,31		8,28
20″	23,22, 7,56,23,50,11,46,41, 2		1,42,30,26,29	
		1,55,44,25,17,54,29, 2		8,28
22″	23,22, 9,52, 8,15,29,41,10, 4		1,42,30,34,57	
		1,55,44,23,35,23,54, 5		8,28
24″	23,22,11,47,52,39, 5, 5, 4, 9		1,42,30,43,25	
		1,55,44,21,52,53,10,40		8,28
26″	23,22,13,43,37, 0,57,58,14,49		1,42,30,51,53	
		1,55,44,20,10,22,18,47		8,28
28″	23,22,15,39,21,21, 8,20,33,36		1,42,31, 0,21	
		1,55,44,18,27,51,18,26		8,28
30″	23,22,17,35, 5,39,36,11,52, 2		1,42,31, 8,49	
		1,55,44,16,45,20, 9,37		8,28
32″	23,22,19,30,49,56,21,32, 1,39		1,42,31,17,17	
		1,55,44,15, 2,48,52,20		8,28
34″	23,22,21,26,34,11,24,20,53,59		1,42,31,25,45	
		1,55,44,13,20,17,26,35		8,28
36″	23,22,23,22,18,24,44,38,20,34		1,42,31,34,13	
		1,55,44,11,37,45,52,22		8,28
38″	23,22,25,18, 2,36,22,24,12,56		1,42,31,42,41	
		1,55,44, 9,55,14, 9,41		8,28
40″	23,22,27,13,46,46,17,38,22,37		1,42,31,51, 9	
		1,55,44, 8,12,42,18,32		8,28
42″	23,22,29, 9,30,54,30,20,41, 9		1,42,31,59,37	
		1,55,44, 6,30,10,18,55		8,28
44″	23,22,31, 5,15, 1, 0,31, 0, 4		1,42,32, 8, 5	
		1,55,44, 4,47,38,10,50		8,28
46″	23,22,33, 0,59, 5,48, 9,10,54		1,42,32,16,33	
		1,55,44, 3, 5, 5,54,17		8,28
48″	23,22,34,56,43, 8,53,15, 5,11		1,42,32,25, 1	
		1,55,44, 1,22,33,29,16		8,28
50″	23,22,36,52,27,10,15,48,34,27		1,42,32,33,29	
		1,55,43,59,40, 0,55,47		8,28
52″	23,22,38,48,11, 9,55,49,30,14		1,42,32,41,57	
		1,55,43,57,57,28,13,50		8,28
54″	23,22,40,43,55, 7,53,17,44, 4		1,42,32,50,25	
		1,55,43,56,14,55,23,25		8,28
56″	23,22,42,39,39, 4, 8,13, 7,29		1,42,32,58,53	
		1,55,43,54,32,22,24,32		8,28
58″	23,22,44,35,22,58,40,35,32, 1		1,42,33, 7,21	
		1,55,43,52,49,49,17,11		
60″	23,22,46,31, 6,51,30,24,49,12			
exact	23,22,46,31, 6,51,30,25, 9,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°56′ 0″	23,22,46,31, 6,51,30,25, 9,46			
		1,55,43,51, 7,16, 3,36		
2″	23,22,48,26,50,42,37,41,13,22		1,42,33,24, 7	
		1,55,43,49,24,42,39,29		8,28
4″	23,22,50,22,34,32, 2,23,52,51		1,42,33,32,35	
		1,55,43,47,42, 9, 6,54		8,28
6″	23,22,52,18,18,19,44,32,59,45		1,42,33,41, 3	
		1,55,43,45,59,35,25,51		8,28
8″	23,22,54,14, 2, 5,44, 8,25,36		1,42,33,49,31	
		1,55,43,44,17, 1,36,20		8,28
10″	23,22,56, 9,45,50, 1,10, 1,56		1,42,33,57,59	
		1,55,43,42,34,27,38,21		8,28
12″	23,22,58, 5,29,32,35,37,40,17		1,42,34, 6,27	
		1,55,43,40,51,53,31,54		8,28
14″	23,23, 0, 1,13,13,27,31,12,11		1,42,34,14,55	
		1,55,43,39, 9,19,16,59		8,28
16″	23,23, 1,56,56,52,36,50,29,10		1,42,34,23,23	
		1,55,43,37,26,44,53,36		8,28
18″	23,23, 3,52,40,30, 3,35,22,46		1,42,34,31,51	
		1,55,43,35,44,10,21,45		8,28
20″	23,23, 5,48,24, 5,47,45,44,31		1,42,34,40,19	
		1,55,43,34, 1,35,41,26		8,28
22″	23,23, 7,44, 7,39,49,21,25,57		1,42,34,48,47	
		1,55,43,32,19, 0,52,39		8,28
24″	23,23, 9,39,51,12, 8,22,18,36		1,42,34,57,15	
		1,55,43,30,36,25,55,24		8,28
26″	23,23,11,35,34,42,44,48,14, 0		1,42,35, 5,43	
		1,55,43,28,53,50,49,41		8,28
28″	23,23,13,31,18,11,38,39, 3,41		1,42,35,14,11	
		1,55,43,27,11,15,35,30		8,28
30″	23,23,15,27, 1,38,49,54,39,11		1,42,35,22,39	
		1,55,43,25,28,40,12,51		8,28
32″	23,23,17,22,45, 4,18,34,52, 2		1,42,35,31, 7	
		1,55,43,23,46, 4,41,44		8,28
34″	23,23,19,18,28,28, 4,39,33,46		1,42,35,39,35	
		1,55,43,22, 3,29, 2, 9		8,28
36″	23,23,21,14,11,50, 8, 8,35,55		1,42,35,48, 3	
		1,55,43,20,20,53,14, 6		8,28
38″	23,23,23, 9,55,10,29, 1,50, 1		1,42,35,56,31	
		1,55,43,18,38,17,17,35		8,28
40″	23,23,25, 5,38,29, 7,19, 7,36		1,42,36, 4,59	
		1,55,43,16,55,41,12,36		8,28
42″	23,23,27, 1,21,46, 3, 0,20,12		1,42,36,13,27	
		1,55,43,15,13, 4,59, 9		8,28
44″	23,23,28,57, 5, 1,16, 5,19,21		1,42,36,21,55	
		1,55,43,13,30,28,37,14		8,28
46″	23,23,30,52,48,14,46,33,56,35		1,42,36,30,23	
		1,55,43,11,47,52, 6,51		8,28
48″	23,23,32,48,31,26,34,26, 3,26		1,42,36,38,51	
		1,55,43,10, 5,15,28, 0		8,28
50″	23,23,34,44,14,36,39,41,31,26		1,42,36,47,19	
		1,55,43, 8,22,38,40,41		8,28
52″	23,23,36,39,57,45, 2,20,12, 7		1,42,36,55,47	
		1,55,43, 6,40, 1,44,54		8,28
54″	23,23,38,35,40,51,42,21,57, 1		1,42,37, 4,15	
		1,55,43, 4,57,24,40,39		8,28
56″	23,23,40,31,23,56,39,46,37,40		1,42,37,12,43	
		1,55,43, 3,14,47,27,56		8,28
58″	23,23,42,27, 6,59,54,34, 5,36		1,42,37,21,11	
		1,55,43, 1,32,10, 6,45		
60″	23,23,44,22,50, 1,26,44,12,21			
exact	23,23,44,22,50, 1,26,44,33,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°57′ 0″	23,23,44,22,50, 1,26,44,33,54			
		1,55,42,59,49,32,39,34		
2″	23,23,46,18,33, 1,16,17,13,28		1,42,37,37,56	
		1,55,42,58, 6,55, 1,38		8,28
4″	23,23,48,14,15,59,23,12,15, 6		1,42,37,46,24	
		1,55,42,56,24,17,15,14		8,28
6″	23,23,50, 9,58,55,47,29,30,20		1,42,37,54,52	
		1,55,42,54,41,39,20,22		8,28
8″	23,23,52, 5,41,50,29, 8,50,42		1,42,38, 3,20	
		1,55,42,52,59, 1,17, 2		8,28
10″	23,23,54, 1,24,43,28,10, 7,44		1,42,38,11,48	
		1,55,42,51,16,23, 5,14		8,28
12″	23,23,55,57, 7,34,44,33,12,58		1,42,38,20,16	
		1,55,42,49,33,44,44,58		8,28
14″	23,23,57,52,50,24,18,17,57,56		1,42,38,28,44	
		1,55,42,47,51, 6,16,14		8,28
16″	23,23,59,48,33,12, 9,24,14,10		1,42,38,37,12	
		1,55,42,46, 8,27,39, 2		8,28
18″	23,24, 1,44,15,58,17,51,53,12		1,42,38,45,40	
		1,55,42,44,25,48,53,22		8,28
20″	23,24, 3,39,58,42,43,40,46,34		1,42,38,54, 8	
		1,55,42,42,43, 9,59,14		8,28
22″	23,24, 5,35,41,25,26,50,45,48		1,42,39, 2,36	
		1,55,42,41, 0,30,56,38		8,28
24″	23,24, 7,31,24, 6,27,21,42,26		1,42,39,11, 4	
		1,55,42,39,17,51,45,34		8,28
26″	23,24, 9,27, 6,45,45,13,28, 0		1,42,39,19,32	
		1,55,42,37,35,12,26, 2		8,28
28″	23,24,11,22,49,23,20,25,54, 2		1,42,39,28, 0	
		1,55,42,35,52,32,58, 2		8,28
30″	23,24,13,18,31,59,12,58,52, 4		1,42,39,36,28	
		1,55,42,34, 9,53,21,34		8,28
32″	23,24,15,14,14,33,22,52,13,38		1,42,39,44,56	
		1,55,42,32,27,13,36,38		8,28
34″	23,24,17, 9,57, 5,50, 5,50,16		1,42,39,53,24	
		1,55,42,30,44,33,43,14		8,28
36″	23,24,19, 5,39,36,34,39,33,30		1,42,40, 1,52	
		1,55,42,29, 1,53,41,22		8,28
38″	23,24,21, 1,22, 5,36,33,14,52		1,42,40,10,20	
		1,55,42,27,19,13,31, 2		8,28
40″	23,24,22,57, 4,32,55,46,45,54		1,42,40,18,48	
		1,55,42,25,36,33,12,14		8,28
42″	23,24,24,52,46,58,32,19,58, 8		1,42,40,27,16	
		1,55,42,23,53,52,44,58		8,28
44″	23,24,26,48,29,22,26,12,43, 6		1,42,40,35,44	
		1,55,42,22,11,12, 9,14		8,28
46″	23,24,28,44,11,44,37,24,52,20		1,42,40,44,12	
		1,55,42,20,28,31,25, 2		8,28
48″	23,24,30,39,54, 5, 5,56,17,22		1,42,40,52,40	
		1,55,42,18,45,50,32,22		8,28
50″	23,24,32,35,36,23,51,46,49,44		1,42,41, 1, 8	
		1,55,42,17, 3, 9,31,14		8,28
52″	23,24,34,31,18,40,54,56,20,58		1,42,41, 9,36	
		1,55,42,15,20,28,21,38		8,28
54″	23,24,36,27, 0,56,15,24,42,36		1,42,41,18, 4	
		1,55,42,13,37,47, 3,34		8,28
56″	23,24,38,22,43, 9,53,11,46,10		1,42,41,26,32	
		1,55,42,11,55, 5,37, 2		8,28
58″	23,24,40,18,25,21,48,17,23,12		1,42,41,35, 0	
		1,55,42,10,12,24, 2, 2		
60″	23,24,42,14, 7,32, 0,41,25,14			
exact	23,24,42,14, 7,32, 0,41,53,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°58′ 0″	23,24,42,14, 7,32, 0,41,53,33			
		1,55,42, 8,29,42,21,40		
2″	23,24,44, 9,49,40,30,24,15,13		1,42,41,51,43	
		1,55,42, 6,47, 0,29,57		8,28
4″	23,24,46, 5,31,47,17,24,45,10		1,42,42, 0,11	
		1,55,42, 5, 4,18,29,46		8,28
6″	23,24,48, 1,13,52,21,43,14,56		1,42,42, 8,39	
		1,55,42, 3,21,36,21, 7		8,28
8″	23,24,49,56,55,55,43,19,36, 3		1,42,42,17, 7	
		1,55,42, 1,38,54, 4, 0		8,28
10″	23,24,51,52,37,57,22,13,40, 3		1,42,42,25,35	
		1,55,41,59,56,11,38,25		8,28
12″	23,24,53,48,19,57,18,25,18,28		1,42,42,34, 3	
		1,55,41,58,13,29, 4,22		8,28
14″	23,24,55,44, 1,55,31,54,22,50		1,42,42,42,31	
		1,55,41,56,30,46,21,51		8,28
16″	23,24,57,39,43,52, 2,40,44,41		1,42,42,50,59	
		1,55,41,54,48, 3,30,52		8,28
18″	23,24,59,35,25,46,50,44,15,33		1,42,42,59,27	
		1,55,41,53, 5,20,31,25		8,28
20″	23,25, 1,31, 7,39,56, 4,46,58		1,42,43, 7,55	
		1,55,41,51,22,37,23,30		8,28
22″	23,25, 3,26,49,31,18,42,10,28		1,42,43,16,23	
		1,55,41,49,39,54, 7, 7		8,28
24″	23,25, 5,22,31,20,58,36,17,35		1,42,43,24,51	
		1,55,41,47,57,10,42,16		8,28
26″	23,25, 7,18,13, 8,55,46,59,51		1,42,43,33,19	
		1,55,41,46,14,27, 8,57		8,28
28″	23,25, 9,13,54,55,10,14, 8,48		1,42,43,41,47	
		1,55,41,44,31,43,27,10		8,28
30″	23,25,11, 9,36,39,41,57,35,58		1,42,43,50,15	
		1,55,41,42,48,59,36,55		8,28
32″	23,25,13, 5,18,22,30,57,12,53		1,42,43,58,43	
		1,55,41,41, 6,15,38,12		8,28
34″	23,25,15, 1, 0, 3,37,12,51, 5		1,42,44, 7,11	
		1,55,41,39,23,31,31, 1		8,28
36″	23,25,16,56,41,43, 0,44,22, 6		1,42,44,15,39	
		1,55,41,37,40,47,15,22		8,28
38″	23,25,18,52,23,20,41,31,37,28		1,42,44,24, 7	
		1,55,41,35,58, 2,51,15		8,28
40″	23,25,20,48, 4,56,39,34,28,43		1,42,44,32,35	
		1,55,41,34,15,18,18,40		8,28
42″	23,25,22,43,46,30,54,52,47,23		1,42,44,41, 3	
		1,55,41,32,32,33,37,37		8,28
44″	23,25,24,39,28, 3,27,26,25, 0		1,42,44,49,31	
		1,55,41,30,49,48,48, 6		8,28
46″	23,25,26,35, 9,34,17,15,13, 6		1,42,44,57,59	
		1,55,41,29, 7, 3,50, 7		8,28
48″	23,25,28,30,51, 3,24,19, 3,13		1,42,45, 6,27	
		1,55,41,27,24,18,43,40		8,28
50″	23,25,30,26,32,30,48,37,46,53		1,42,45,14,55	
		1,55,41,25,41,33,28,45		8,28
52″	23,25,32,22,13,56,30,11,15,38		1,42,45,23,23	
		1,55,41,23,58,48, 5,22		8,28
54″	23,25,34,17,55,20,28,59,21, 0		1,42,45,31,51	
		1,55,41,22,16, 2,33,31		8,28
56″	23,25,36,13,36,42,45, 1,54,31		1,42,45,40,19	
		1,55,41,20,33,16,53,12		8,28
58″	23,25,38, 9,18, 3,18,18,47,43		1,42,45,48,47	
		1,55,41,18,50,31, 4,25		
60″	23,25,40, 4,59,22, 8,49,52, 8			
exact	23,25,40, 4,59,22, 8,50,26,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
22°59′ 0″	23,25,40, 4,59,22, 8,50,26,52			
		1,55,41,17, 7,45,10,52		
2″	23,25,42, 0,40,39,16,35,37,44		1,42,46, 5,28	
		1,55,41,15,24,59, 5,24		8,27
4″	23,25,43,56,21,54,41,34,43, 8		1,42,46,13,55	
		1,55,41,13,42,12,51,29		8,27
6″	23,25,45,52, 3, 8,23,47,34,37		1,42,46,22,22	
		1,55,41,11,59,26,29, 7		8,27
8″	23,25,47,47,44,20,23,14, 3,44		1,42,46,30,49	
		1,55,41,10,16,39,58,18		8,27
10″	23,25,49,43,25,30,39,54, 2, 2		1,42,46,39,16	
		1,55,41, 8,33,53,19, 2		8,27
12″	23,25,51,39, 6,39,13,47,21, 4		1,42,46,47,43	
		1,55,41, 6,51, 6,31,19		8,27
14″	23,25,53,34,47,46, 4,53,52,23		1,42,46,56,10	
		1,55,41, 5, 8,19,35, 9		8,27
16″	23,25,55,30,28,51,13,13,27,32		1,42,47, 4,37	
		1,55,41, 3,25,32,30,32		8,27
18″	23,25,57,26, 9,54,38,45,58, 4		1,42,47,13, 4	
		1,55,41, 1,42,45,17,28		8,27
20″	23,25,59,21,50,56,21,31,15,32		1,42,47,21,31	
		1,55,40,59,59,57,55,57		8,27
22″	23,26, 1,17,31,56,21,29,11,29		1,42,47,29,58	
		1,55,40,58,17,10,25,59		8,27
24″	23,26, 3,13,12,54,38,39,37,28		1,42,47,38,25	
		1,55,40,56,34,22,47,34		8,27
26″	23,26, 5, 8,53,51,13, 2,25, 2		1,42,47,46,52	
		1,55,40,54,51,35, 0,42		8,27
28″	23,26, 7, 4,34,46, 4,37,25,44		1,42,47,55,19	
		1,55,40,53, 8,47, 5,23		8,27
30″	23,26, 9, 0,15,39,13,24,31, 7		1,42,48, 3,46	
		1,55,40,51,25,59, 1,37		8,27
32″	23,26,10,55,56,30,39,23,32,44		1,42,48,12,13	
		1,55,40,49,43,10,49,24		8,27
34″	23,26,12,51,37,20,22,34,22, 8		1,42,48,20,40	
		1,55,40,48, 0,22,28,44		8,27
36″	23,26,14,47,18, 8,22,56,50,52		1,42,48,29, 7	
		1,55,40,46,17,33,59,37		8,27
38″	23,26,16,42,58,54,40,30,50,29		1,42,48,37,34	
		1,55,40,44,34,45,22, 3		8,27
40″	23,26,18,38,39,39,15,16,12,32		1,42,48,46, 1	
		1,55,40,42,51,56,36, 2		8,27
42″	23,26,20,34,20,22, 7,12,48,34		1,42,48,54,28	
		1,55,40,41, 9, 7,41,34		8,27
44″	23,26,22,30, 1, 3,16,20,30, 8		1,42,49, 2,55	
		1,55,40,39,26,18,38,39		8,27
46″	23,26,24,25,41,42,42,39, 8,47		1,42,49,11,22	
		1,55,40,37,43,29,27,17		8,27
48″	23,26,26,21,22,20,26, 8,36, 4		1,42,49,19,49	
		1,55,40,36, 0,40, 7,28		8,27
50″	23,26,28,17, 2,56,26,48,43,32		1,42,49,28,16	
		1,55,40,34,17,50,39,12		8,27
52″	23,26,30,12,43,30,44,39,22,44		1,42,49,36,43	
		1,55,40,32,35, 1, 2,29		8,27
54″	23,26,32, 8,24, 3,19,40,25,13		1,42,49,45,10	
		1,55,40,30,52,11,17,19		8,27
56″	23,26,34, 4, 4,34,11,51,42,32		1,42,49,53,37	
		1,55,40,29, 9,21,23,42		8,27
58″	23,26,35,59,45, 3,21,13, 6,14		1,42,50, 2, 4	
		1,55,40,27,26,31,21,38		
60″	23,26,37,55,25,30,47,44,27,52			
exact	23,26,37,55,25,30,47,44, 0,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23° 0′ 0″	23,26,37,55,25,30,47,44, 0,10			
		1,55,40,25,43,41, 8, 5		
2″	23,26,39,51, 5,56,31,25, 8,15		1,42,50,19,11	
		1,55,40,24, 0,50,48,54		8,27
4″	23,26,41,46,46,20,32,15,57, 9		1,42,50,27,38	
		1,55,40,22,18, 0,21,16		8,27
6″	23,26,43,42,26,42,50,16,18,25		1,42,50,36, 5	
		1,55,40,20,35, 9,45,11		8,27
8″	23,26,45,38, 7, 3,25,26, 3,36		1,42,50,44,32	
		1,55,40,18,52,19, 0,39		8,27
10″	23,26,47,33,47,22,17,45, 4,15		1,42,50,52,59	
		1,55,40,17, 9,28, 7,40		8,27
12″	23,26,49,29,27,39,27,13,11,55		1,42,51, 1,26	
		1,55,40,15,26,37, 6,14		8,27
14″	23,26,51,25, 7,54,53,50,18, 9		1,42,51, 9,53	
		1,55,40,13,43,45,56,21		8,27
16″	23,26,53,20,48, 8,37,36,14,30		1,42,51,18,20	
		1,55,40,12, 0,54,38, 1		8,27
18″	23,26,55,16,28,20,38,30,52,31		1,42,51,26,47	
		1,55,40,10,18, 3,11,14		8,27
20″	23,26,57,12, 8,30,56,34, 3,45		1,42,51,35,14	
		1,55,40, 8,35,11,36, 0		8,27
22″	23,26,59, 7,48,39,31,45,39,45		1,42,51,43,41	
		1,55,40, 6,52,19,52,19		8,27
24″	23,27, 1, 3,28,46,24, 5,32, 4		1,42,51,52, 8	
		1,55,40, 5, 9,28, 0,11		8,27
26″	23,27, 2,59, 8,51,33,33,32,15		1,42,52, 0,35	
		1,55,40, 3,26,35,59,36		8,27
28″	23,27, 4,54,48,55, 0, 9,31,51		1,42,52, 9, 2	
		1,55,40, 1,43,43,50,34		8,27
30″	23,27, 6,50,28,56,43,53,22,25		1,42,52,17,29	
		1,55,40, 0, 0,51,33, 5		8,27
32″	23,27, 8,46, 8,56,44,44,55,30		1,42,52,25,56	
		1,55,39,58,17,59, 7, 9		8,27
34″	23,27,10,41,48,55, 2,44, 2,39		1,42,52,34,23	
		1,55,39,56,35, 6,32,46		8,27
36″	23,27,12,37,28,51,37,50,35,25		1,42,52,42,50	
		1,55,39,54,52,13,49,56		8,27
38″	23,27,14,33, 8,46,30, 4,25,21		1,42,52,51,17	
		1,55,39,53, 9,20,58,39		8,27
40″	23,27,16,28,48,39,39,25,24, 0		1,42,52,59,44	
		1,55,39,51,26,27,58,55		8,27
42″	23,27,18,24,28,31, 5,53,22,55		1,42,53, 8,11	
		1,55,39,49,43,34,50,44		8,27
44″	23,27,20,20, 8,20,49,28,13,39		1,42,53,16,38	
		1,55,39,48, 0,41,34, 6		8,27
46″	23,27,22,15,48, 8,50, 9,47,45		1,42,53,25, 5	
		1,55,39,46,17,48, 9, 1		8,27
48″	23,27,24,11,27,55, 7,57,56,46		1,42,53,33,32	
		1,55,39,44,34,54,35,29		8,27
50″	23,27,26, 7, 7,39,42,52,32,15		1,42,53,41,59	
		1,55,39,42,52, 0,53,30		8,27
52″	23,27,28, 2,47,22,34,53,25,45		1,42,53,50,26	
		1,55,39,41, 9, 7, 3, 4		8,27
54″	23,27,29,58,27, 3,44, 0,28,49		1,42,53,58,53	
		1,55,39,39,26,13, 4,11		8,27
56″	23,27,31,54, 6,43,10,13,33, 0		1,42,54, 7,20	
		1,55,39,37,43,18,56,51		8,27
58″	23,27,33,49,46,20,53,32,29,51		1,42,54,15,47	
		1,55,39,36, 0,24,41, 4		
60″	23,27,35,45,25,56,53,57,10,55			
exact	23,27,35,45,25,56,53,56,47,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23° 1′ 0″	23,27,35,45,25,56,53,56,47,55			
		1,55,39,34,17,30,14,17		
2″	23,27,37,41, 5,31,11,27, 2,12		1,42,54,32,52	
		1,55,39,32,34,35,41,25		8,27
4″	23,27,39,36,45, 3,46, 2,43,37		1,42,54,41,19	
		1,55,39,30,51,41, 0, 6		8,27
6″	23,27,41,32,24,34,37,43,43,43		1,42,54,49,46	
		1,55,39,29, 8,46,10,20		8,27
8″	23,27,43,28, 4, 3,46,29,54, 3		1,42,54,58,13	
		1,55,39,27,25,51,12, 7		8,27
10″	23,27,45,23,43,31,12,21, 6,10		1,42,55, 6,40	
		1,55,39,25,42,56, 5,27		8,27
12″	23,27,47,19,22,56,55,17,11,37		1,42,55,15, 7	
		1,55,39,24, 0, 0,50,20		8,27
14″	23,27,49,15, 2,20,55,18, 1,57		1,42,55,23,34	
		1,55,39,22,17, 5,26,46		8,27
16″	23,27,51,10,41,43,12,23,28,43		1,42,55,32, 1	
		1,55,39,20,34, 9,54,45		8,27
18″	23,27,53, 6,21, 3,46,33,23,28		1,42,55,40,28	
		1,55,39,18,51,14,14,17		8,27
20″	23,27,55, 2, 0,22,37,47,37,45		1,42,55,48,55	
		1,55,39,17, 8,18,25,22		8,27
22″	23,27,56,57,39,39,46, 6, 3, 7		1,42,55,57,22	
		1,55,39,15,25,22,28, 0		8,27
24″	23,27,58,53,18,55,11,28,31, 7		1,42,56, 5,49	
		1,55,39,13,42,26,22,11		8,27
26″	23,28, 0,48,58, 8,53,54,53,18		1,42,56,14,16	
		1,55,39,11,59,30, 7,55		8,27
28″	23,28, 2,44,37,20,53,25, 1,13		1,42,56,22,43	
		1,55,39,10,16,33,45,12		8,27
30″	23,28, 4,40,16,31, 9,58,46,25		1,42,56,31,10	
		1,55,39, 8,33,37,14, 2		8,27
32″	23,28, 6,35,55,39,43,36, 0,27		1,42,56,39,37	
		1,55,39, 6,50,40,34,25		8,27
34″	23,28, 8,31,34,46,34,16,34,52		1,42,56,48, 4	
		1,55,39, 5, 7,43,46,21		8,27
36″	23,28,10,27,13,51,42, 0,21,13		1,42,56,56,31	
		1,55,39, 3,24,46,49,50		8,27
38″	23,28,12,22,52,55, 6,47,11, 3		1,42,57, 4,58	
		1,55,39, 1,41,49,44,52		8,27
40″	23,28,14,18,31,56,48,36,55,55		1,42,57,13,25	
		1,55,38,59,58,52,31,27		8,27
42″	23,28,16,14,10,56,47,29,27,22		1,42,57,21,52	
		1,55,38,58,15,55, 9,35		8,27
44″	23,28,18, 9,49,55, 3,24,36,57		1,42,57,30,19	
		1,55,38,56,32,57,39,16		8,27
46″	23,28,20, 5,28,51,36,22,16,13		1,42,57,38,46	
		1,55,38,54,50, 0, 0,30		8,27
48″	23,28,22, 1, 7,46,26,22,16,43		1,42,57,47,13	
		1,55,38,53, 7, 2,13,17		8,27
50″	23,28,23,56,46,39,33,24,30, 0		1,42,57,55,40	
		1,55,38,51,24, 4,17,37		8,27
52″	23,28,25,52,25,30,57,28,47,37		1,42,58, 4, 7	
		1,55,38,49,41, 6,13,30		8,27
54″	23,28,27,48, 4,20,38,35, 1, 7		1,42,58,12,34	
		1,55,38,47,58, 8, 0,56		8,27
56″	23,28,29,43,43, 8,36,43, 2, 3		1,42,58,21, 1	
		1,55,38,46,15, 9,39,55		8,27
58″	23,28,31,39,21,54,51,52,41,58		1,42,58,29,28	
		1,55,38,44,32,11,10,27		
60″	23,28,33,35, 0,39,24, 3,52,25			
exact	23,28,33,35, 0,39,24, 3,32,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23° 2′ 0″	23,28,33,35, 0,39,24, 3,32,49			
		1,55,38,42,49,12,30,23		
2″	23,28,35,30,39,22,13,16, 3,12		1,42,58,46,31	
		1,55,38,41, 6,13,43,52		8,27
4″	23,28,37,26,18, 3,19,29,47, 4		1,42,58,54,58	
		1,55,38,39,23,14,48,54		8,27
6″	23,28,39,21,56,42,42,44,35,58		1,42,59, 3,25	
		1,55,38,37,40,15,45,29		8,27
8″	23,28,41,17,35,20,23, 0,21,27		1,42,59,11,52	
		1,55,38,35,57,16,33,37		8,27
10″	23,28,43,13,13,56,20,16,55, 4		1,42,59,20,19	
		1,55,38,34,14,17,13,18		8,27
12″	23,28,45, 8,52,30,34,34, 8,22		1,42,59,28,46	
		1,55,38,32,31,17,44,32		8,27
14″	23,28,47, 4,31, 3, 5,51,52,54		1,42,59,37,13	
		1,55,38,30,48,18, 7,19		8,27
16″	23,28,49, 0, 9,33,54,10, 0,13		1,42,59,45,40	
		1,55,38,29, 5,18,21,39		8,27
18″	23,28,50,55,48, 2,59,28,21,52		1,42,59,54, 7	
		1,55,38,27,22,18,27,32		8,27
20″	23,28,52,51,26,30,21,46,49,24		1,43, 0, 2,34	
		1,55,38,25,39,18,24,58		8,27
22″	23,28,54,47, 4,56, 1, 5,14,22		1,43, 0,11, 1	
		1,55,38,23,56,18,13,57		8,27
24″	23,28,56,42,43,19,57,23,28,19		1,43, 0,19,28	
		1,55,38,22,13,17,54,29		8,27
26″	23,28,58,38,21,42,10,41,22,48		1,43, 0,27,55	
		1,55,38,20,30,17,26,34		8,27
28″	23,29, 0,34, 0, 2,40,58,49,22		1,43, 0,36,22	
		1,55,38,18,47,16,50,12		8,27
30″	23,29, 2,29,38,21,28,15,39,34		1,43, 0,44,49	
		1,55,38,17, 4,16, 5,23		8,27
32″	23,29, 4,25,16,38,32,31,44,57		1,43, 0,53,16	
		1,55,38,15,21,15,12, 7		8,27
34″	23,29, 6,20,54,53,53,46,57, 4		1,43, 1, 1,43	
		1,55,38,13,38,14,10,24		8,27
36″	23,29, 8,16,33, 7,32, 1, 7,28		1,43, 1,10,10	
		1,55,38,11,55,13, 0,14		8,27
38″	23,29,10,12,11,19,27,14, 7,42		1,43, 1,18,37	
		1,55,38,10,12,11,41,37		8,27
40″	23,29,12, 7,49,29,39,25,49,19		1,43, 1,27, 4	
		1,55,38, 8,29,10,14,33		8,27
42″	23,29,14, 3,27,38, 8,36, 3,52		1,43, 1,35,31	
		1,55,38, 6,46, 8,39, 2		8,27
44″	23,29,15,59, 5,44,54,44,42,54		1,43, 1,43,58	
		1,55,38, 5, 3, 6,55, 4		8,27
46″	23,29,17,54,43,49,57,51,37,58		1,43, 1,52,25	
		1,55,38, 3,20, 5, 2,39		8,27
48″	23,29,19,50,21,53,17,56,40,37		1,43, 2, 0,52	
		1,55,38, 1,37, 3, 1,47		8,27
50″	23,29,21,45,59,54,54,59,42,24		1,43, 2, 9,19	
		1,55,37,59,54, 0,52,28		8,27
52″	23,29,23,41,37,54,49, 0,34,52		1,43, 2,17,46	
		1,55,37,58,10,58,34,42		8,27
54″	23,29,25,37,15,52,59,59, 9,34		1,43, 2,26,13	
		1,55,37,56,27,56, 8,29		8,27
56″	23,29,27,32,53,49,27,55,18, 3		1,43, 2,34,40	
		1,55,37,54,44,53,33,49		8,27
58″	23,29,29,28,31,44,12,48,51,52		1,43, 2,43, 7	
		1,55,37,53, 1,50,50,42		
60″	23,29,31,24, 9,37,14,39,42,34			
exact	23,29,31,24, 9,37,14,39,25,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23° 3′ 0″	23,29,31,24, 9,37,14,39,25,44			
		1,55,37,51,18,47,57,20		
2″	23,29,33,19,47,28,33,27,23, 4		1,43, 3, 0, 8	
		1,55,37,49,35,44,57,12		8,27
4″	23,29,35,15,25,18, 9,12,20,16		1,43, 3, 8,35	
		1,55,37,47,52,41,48,37		8,27
6″	23,29,37,11, 3, 6, 1,54, 8,53		1,43, 3,17, 2	
		1,55,37,46, 9,38,31,35		8,27
8″	23,29,39, 6,40,52,11,32,40,28		1,43, 3,25,29	
		1,55,37,44,26,35, 6, 6		8,27
10″	23,29,41, 2,18,36,38, 7,46,34		1,43, 3,33,56	
		1,55,37,42,43,31,32,10		8,27
12″	23,29,42,57,56,19,21,39,18,44		1,43, 3,42,23	
		1,55,37,41, 0,27,49,47		8,27
14″	23,29,44,53,34, 0,22, 7, 8,31		1,43, 3,50,50	
		1,55,37,39,17,23,58,57		8,27
16″	23,29,46,49,11,39,39,31, 7,28		1,43, 3,59,17	
		1,55,37,37,34,19,59,40		8,27
18″	23,29,48,44,49,17,13,51, 7, 8		1,43, 4, 7,44	
		1,55,37,35,51,15,51,56		8,27
20″	23,29,50,40,26,53, 5, 6,59, 4		1,43, 4,16,11	
		1,55,37,34, 8,11,35,45		8,27
22″	23,29,52,36, 4,27,13,18,34,49		1,43, 4,24,38	
		1,55,37,32,25, 7,11, 7		8,27
24″	23,29,54,31,41,59,38,25,45,56		1,43, 4,33, 5	
		1,55,37,30,42, 2,38, 2		8,27
26″	23,29,56,27,19,30,20,28,23,58		1,43, 4,41,32	
		1,55,37,28,58,57,56,30		8,27
28″	23,29,58,22,56,59,19,26,20,28		1,43, 4,49,59	
		1,55,37,27,15,53, 6,31		8,27
30″	23,30, 0,18,34,26,35,19,26,59		1,43, 4,58,26	
		1,55,37,25,32,48, 8, 5		8,27
32″	23,30, 2,14,11,52, 8, 7,35, 4		1,43, 5, 6,53	
		1,55,37,23,49,43, 1,12		8,27
34″	23,30, 4, 9,49,15,57,50,36,16		1,43, 5,15,20	
		1,55,37,22, 6,37,45,52		8,27
36″	23,30, 6, 5,26,38, 4,28,22, 8		1,43, 5,23,47	
		1,55,37,20,23,32,22, 5		8,27
38″	23,30, 8, 1, 3,58,28, 0,44,13		1,43, 5,32,14	
		1,55,37,18,40,26,49,51		8,27
40″	23,30, 9,56,41,17, 8,27,34, 4		1,43, 5,40,41	
		1,55,37,16,57,21, 9,10		8,27
42″	23,30,11,52,18,34, 5,48,43,14		1,43, 5,49, 8	
		1,55,37,15,14,15,20, 2		8,27
44″	23,30,13,47,55,49,20, 4, 3,16		1,43, 5,57,35	
		1,55,37,13,31, 9,22,27		8,27
46″	23,30,15,43,33, 2,51,13,25,43		1,43, 6, 6, 2	
		1,55,37,11,48, 3,16,25		8,27
48″	23,30,17,39,10,14,39,16,42, 8		1,43, 6,14,29	
		1,55,37,10, 4,57, 1,56		8,27
50″	23,30,19,34,47,24,44,13,44, 4		1,43, 6,22,56	
		1,55,37, 8,21,50,39, 0		8,27
52″	23,30,21,30,24,33, 6, 4,23, 4		1,43, 6,31,23	
		1,55,37, 6,38,44, 7,37		8,27
54″	23,30,23,26, 1,39,44,48,30,41		1,43, 6,39,50	
		1,55,37, 4,55,37,27,47		8,27
56″	23,30,25,21,38,44,40,25,58,28		1,43, 6,48,17	
		1,55,37, 3,12,30,39,30		8,27
58″	23,30,27,17,15,47,52,56,37,58		1,43, 6,56,44	
		1,55,37, 1,29,23,42,46		
60″	23,30,29,12,52,49,22,20,20,44			
exact	23,30,29,12,52,49,22,20, 5,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23° 4′ 0″	23,30,29,12,52,49,22,20, 5,48			
		1,55,36,59,46,16,36, 5		
2″	23,30,31, 8,29,49, 8,36,41,53		1,43, 7,13,44	
		1,55,36,58, 3, 9,22,21		8,27
4″	23,30,33, 4, 6,47,11,46, 4,14		1,43, 7,22,11	
		1,55,36,56,20, 2, 0,10		8,27
6″	23,30,34,59,43,43,31,48, 4,24		1,43, 7,30,38	
		1,55,36,54,36,54,29,32		8,27
8″	23,30,36,55,20,38, 8,42,33,56		1,43, 7,39, 5	
		1,55,36,52,53,46,50,27		8,27
10″	23,30,38,50,57,31, 2,29,24,23		1,43, 7,47,32	
		1,55,36,51,10,39, 2,55		8,27
12″	23,30,40,46,34,22,13, 8,27,18		1,43, 7,55,59	
		1,55,36,49,27,31, 6,56		8,27
14″	23,30,42,42,11,11,40,39,34,14		1,43, 8, 4,26	
		1,55,36,47,44,23, 2,30		8,27
16″	23,30,44,37,47,59,25, 2,36,44		1,43, 8,12,53	
		1,55,36,46, 1,14,49,37		8,27
18″	23,30,46,33,24,45,26,17,26,21		1,43, 8,21,20	
		1,55,36,44,18, 6,28,17		8,27
20″	23,30,48,29, 1,29,44,23,54,38		1,43, 8,29,47	
		1,55,36,42,34,57,58,30		8,27
22″	23,30,50,24,38,12,19,21,53, 8		1,43, 8,38,14	
		1,55,36,40,51,49,20,16		8,27
24″	23,30,52,20,14,53,11,11,13,24		1,43, 8,46,41	
		1,55,36,39, 8,40,33,35		8,27
26″	23,30,54,15,51,32,19,51,46,59		1,43, 8,55, 8	
		1,55,36,37,25,31,38,27		8,27
28″	23,30,56,11,28, 9,45,23,25,26		1,43, 9, 3,35	
		1,55,36,35,42,22,34,52		8,27
30″	23,30,58, 7, 4,45,27,46, 0,18		1,43, 9,12, 2	
		1,55,36,33,59,13,22,50		8,27
32″	23,31, 0, 2,41,19,26,59,23, 8		1,43, 9,20,29	
		1,55,36,32,16, 4, 2,21		8,27
34″	23,31, 1,58,17,51,43, 3,25,29		1,43, 9,28,56	
		1,55,36,30,32,54,33,25		8,27
36″	23,31, 3,53,54,22,15,57,58,54		1,43, 9,37,23	
		1,55,36,28,49,44,56, 2		8,27
38″	23,31, 5,49,30,51, 5,42,54,56		1,43, 9,45,50	
		1,55,36,27, 6,35,10,12		8,27
40″	23,31, 7,45, 7,18,12,18, 5, 8		1,43, 9,54,17	
		1,55,36,25,23,25,15,55		8,27
42″	23,31, 9,40,43,43,35,43,21, 3		1,43,10, 2,44	
		1,55,36,23,40,15,13,11		8,27
44″	23,31,11,36,20, 7,15,58,34,14		1,43,10,11,11	
		1,55,36,21,57, 5, 2, 0		8,27
46″	23,31,13,31,56,29,13, 3,36,14		1,43,10,19,38	
		1,55,36,20,13,54,42,22		8,27
48″	23,31,15,27,32,49,26,58,18,36		1,43,10,28, 5	
		1,55,36,18,30,44,14,17		8,27
50″	23,31,17,23, 9, 7,57,42,32,53		1,43,10,36,32	
		1,55,36,16,47,33,37,45		8,27
52″	23,31,19,18,45,24,45,16,10,38		1,43,10,44,59	
		1,55,36,15, 4,22,52,46		8,27
54″	23,31,21,14,21,39,49,39, 3,24		1,43,10,53,26	
		1,55,36,13,21,11,59,20		8,27
56″	23,31,23, 9,57,53,10,51, 2,44		1,43,11, 1,53	
		1,55,36,11,38, 0,57,27		8,27
58″	23,31,25, 5,34, 4,48,52, 0,11		1,43,11,10,20	
		1,55,36, 9,54,49,47, 7		
60″	23,31,27, 1,10,14,43,41,47,18			
exact	23,31,27, 1,10,14,43,41,40,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23° 5′ 0″	23,31,27, 1,10,14,43,41,40,23			
		1,55,36, 8,11,38,27,33		
2″	23,31,28,56,46,22,55,20, 7,56		1,43,11,27,17	
		1,55,36, 6,28,27, 0,16		8,27
4″	23,31,30,52,22,29,23,47, 8,12		1,43,11,35,44	
		1,55,36, 4,45,15,24,32		8,27
6″	23,31,32,47,58,34, 9, 2,32,44		1,43,11,44,11	
		1,55,36, 3, 2, 3,40,21		8,27
8″	23,31,34,43,34,37,11, 6,13, 5		1,43,11,52,38	
		1,55,36, 1,18,51,47,43		8,27
10″	23,31,36,39,10,38,29,58, 0,48		1,43,12, 1, 5	
		1,55,35,59,35,39,46,38		8,27
12″	23,31,38,34,46,38, 5,37,47,26		1,43,12, 9,32	
		1,55,35,57,52,27,37, 6		8,27
14″	23,31,40,30,22,35,58, 5,24,32		1,43,12,17,59	
		1,55,35,56, 9,15,19, 7		8,27
16″	23,31,42,25,58,32, 7,20,43,39		1,43,12,26,26	
		1,55,35,54,26, 2,52,41		8,27
18″	23,31,44,21,34,26,33,23,36,20		1,43,12,34,53	
		1,55,35,52,42,50,17,48		8,27
20″	23,31,46,17,10,19,16,13,54, 8		1,43,12,43,20	
		1,55,35,50,59,37,34,28		8,27
22″	23,31,48,12,46,10,15,51,28,36		1,43,12,51,47	
		1,55,35,49,16,24,42,41		8,27
24″	23,31,50, 8,21,59,32,16,11,17		1,43,13, 0,14	
		1,55,35,47,33,11,42,27		8,27
26″	23,31,52, 3,57,47, 5,27,53,44		1,43,13, 8,41	
		1,55,35,45,49,58,33,46		8,27
28″	23,31,53,59,33,32,55,26,27,30		1,43,13,17, 8	
		1,55,35,44, 6,45,16,38		8,27
30″	23,31,55,55, 9,17, 2,11,44, 8		1,43,13,25,35	
		1,55,35,42,23,31,51, 3		8,27
32″	23,31,57,50,44,59,25,43,35,11		1,43,13,34, 2	
		1,55,35,40,40,18,17, 1		8,27
34″	23,31,59,46,20,40, 6, 1,52,12		1,43,13,42,29	
		1,55,35,38,57, 4,34,32		8,27
36″	23,32, 1,41,56,19, 3, 6,26,44		1,43,13,50,56	
		1,55,35,37,13,50,43,36		8,27
38″	23,32, 3,37,31,56,16,57,10,20		1,43,13,59,23	
		1,55,35,35,30,36,44,13		8,27
40″	23,32, 5,33, 7,31,47,33,54,33		1,43,14, 7,50	
		1,55,35,33,47,22,36,23		8,27
42″	23,32, 7,28,43, 5,34,56,30,56		1,43,14,16,17	
		1,55,35,32, 4, 8,20, 6		8,27
44″	23,32, 9,24,18,37,39, 4,51, 2		1,43,14,24,44	
		1,55,35,30,20,53,55,22		8,27
46″	23,32,11,19,54, 7,59,58,46,24		1,43,14,33,11	
		1,55,35,28,37,39,22,11		8,27
48″	23,32,13,15,29,36,37,38, 8,35		1,43,14,41,38	
		1,55,35,26,54,24,40,33		8,27
50″	23,32,15,11, 5, 3,32, 2,49, 8		1,43,14,50, 5	
		1,55,35,25,11, 9,50,28		8,27
52″	23,32,17, 6,40,28,43,12,39,36		1,43,14,58,32	
		1,55,35,23,27,54,51,56		8,27
54″	23,32,19, 2,15,52,11, 7,31,32		1,43,15, 6,59	
		1,55,35,21,44,39,44,57		8,27
56″	23,32,20,57,51,13,55,47,16,29		1,43,15,15,26	
		1,55,35,20, 1,24,29,31		8,27
58″	23,32,22,53,26,33,57,11,46, 0		1,43,15,23,53	
		1,55,35,18,18, 9, 5,38		
60″	23,32,24,49, 1,52,15,20,51,38			
exact	23,32,24,49, 1,52,15,20,45, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23° 6′ 0″	23,32,24,49, 1,52,15,20,45, 7			
		1,55,35,16,34,53,32,42		
2″	23,32,26,44,37, 8,50,14,17,49		1,43,15,40,49	
		1,55,35,14,51,37,51,53		8,27
4″	23,32,28,40,12,23,41,52, 9,42		1,43,15,49,16	
		1,55,35,13, 8,22, 2,37		8,27
6″	23,32,30,35,47,36,50,14,12,19		1,43,15,57,43	
		1,55,35,11,25, 6, 4,54		8,27
8″	23,32,32,31,22,48,15,20,17,13		1,43,16, 6,10	
		1,55,35, 9,41,49,58,44		8,27
10″	23,32,34,26,57,57,57,10,15,57		1,43,16,14,37	
		1,55,35, 7,58,33,44, 7		8,27
12″	23,32,36,22,33, 5,55,44, 0, 4		1,43,16,23, 4	
		1,55,35, 6,15,17,21, 3		8,27
14″	23,32,38,18, 8,12,11, 1,21, 7		1,43,16,31,31	
		1,55,35, 4,32, 0,49,32		8,27
16″	23,32,40,13,43,16,43, 2,10,39		1,43,16,39,58	
		1,55,35, 2,48,44, 9,34		8,27
18″	23,32,42, 9,18,19,31,46,20,13		1,43,16,48,25	
		1,55,35, 1, 5,27,21, 9		8,27
20″	23,32,44, 4,53,20,37,13,41,22		1,43,16,56,52	
		1,55,34,59,22,10,24,17		8,27
22″	23,32,46, 0,28,19,59,24, 5,39		1,43,17, 5,19	
		1,55,34,57,38,53,18,58		8,27
24″	23,32,47,56, 3,17,38,17,24,37		1,43,17,13,46	
		1,55,34,55,55,36, 5,12		8,27
26″	23,32,49,51,38,13,33,53,29,49		1,43,17,22,13	
		1,55,34,54,12,18,42,59		8,27
28″	23,32,51,47,13, 7,46,12,12,48		1,43,17,30,40	
		1,55,34,52,29, 1,12,19		8,27
30″	23,32,53,42,48, 0,15,13,25, 7		1,43,17,39, 7	
		1,55,34,50,45,43,33,12		8,27
32″	23,32,55,38,22,51, 0,56,58,19		1,43,17,47,34	
		1,55,34,49, 2,25,45,38		8,27
34″	23,32,57,33,57,40, 3,22,43,57		1,43,17,56, 1	
		1,55,34,47,19, 7,49,37		8,27
36″	23,32,59,29,32,27,22,30,33,34		1,43,18, 4,28	
		1,55,34,45,35,49,45, 9		8,27
38″	23,33, 1,25, 7,12,58,20,18,43		1,43,18,12,55	
		1,55,34,43,52,31,32,14		8,27
40″	23,33, 3,20,41,56,50,51,50,57		1,43,18,21,22	
		1,55,34,42, 9,13,10,52		8,27
42″	23,33, 5,16,16,39, 0, 5, 1,49		1,43,18,29,49	
		1,55,34,40,25,54,41, 3		8,27
44″	23,33, 7,11,51,19,25,59,42,52		1,43,18,38,16	
		1,55,34,38,42,36, 2,47		8,27
46″	23,33, 9, 7,25,58, 8,35,45,39		1,43,18,46,43	
		1,55,34,36,59,17,16, 4		8,27
48″	23,33,11, 3, 0,35, 7,53, 1,43		1,43,18,55,10	
		1,55,34,35,15,58,20,54		8,27
50″	23,33,12,58,35,10,23,51,22,37		1,43,19, 3,37	
		1,55,34,33,32,39,17,17		8,27
52″	23,33,14,54, 9,43,56,30,39,54		1,43,19,12, 4	
		1,55,34,31,49,20, 5,13		8,27
54″	23,33,16,49,44,15,45,50,45, 7		1,43,19,20,31	
		1,55,34,30, 6, 0,44,42		8,27
56″	23,33,18,45,18,45,51,51,29,49		1,43,19,28,58	
		1,55,34,28,22,41,15,44		8,27
58″	23,33,20,40,53,14,14,32,45,33		1,43,19,37,25	
		1,55,34,26,39,21,38,19		
60″	23,33,22,36,27,40,53,54,23,52			
exact	23,33,22,36,27,40,53,54,23,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23° 7′ 0″	23,33,22,36,27,40,53,54,23,57			
		1,55,34,24,56, 1,52,28		
2″	23,33,24,32, 2, 5,49,56,16,25		1,43,19,54,19	
		1,55,34,23,12,41,58, 9		8,27
4″	23,33,26,27,36,29, 2,38,14,34		1,43,20, 2,46	
		1,55,34,21,29,21,55,23		8,27
6″	23,33,28,23,10,50,32, 0, 9,57		1,43,20,11,13	
		1,55,34,19,46, 1,44,10		8,27
8″	23,33,30,18,45,10,18, 1,54, 7		1,43,20,19,40	
		1,55,34,18, 2,41,24,30		8,27
10″	23,33,32,14,19,28,20,43,18,37		1,43,20,28, 7	
		1,55,34,16,19,20,56,23		8,27
12″	23,33,34, 9,53,44,40, 4,15, 0		1,43,20,36,34	
		1,55,34,14,36, 0,19,49		8,27
14″	23,33,36, 5,27,59,16, 4,34,49		1,43,20,45, 1	
		1,55,34,12,52,39,34,48		8,27
16″	23,33,38, 1, 2,12, 8,44, 9,37		1,43,20,53,28	
		1,55,34,11, 9,18,41,20		8,27
18″	23,33,39,56,36,23,18, 2,50,57		1,43,21, 1,55	
		1,55,34, 9,25,57,39,25		8,27
20″	23,33,41,52,10,32,44, 0,30,22		1,43,21,10,22	
		1,55,34, 7,42,36,29, 3		8,27
22″	23,33,43,47,44,40,26,36,59,25		1,43,21,18,49	
		1,55,34, 5,59,15,10,14		8,27
24″	23,33,45,43,18,46,25,52, 9,39		1,43,21,27,16	
		1,55,34, 4,15,53,42,58		8,27
26″	23,33,47,38,52,50,41,45,52,37		1,43,21,35,43	
		1,55,34, 2,32,32, 7,15		8,27
28″	23,33,49,34,26,53,14,17,59,52		1,43,21,44,10	
		1,55,34, 0,49,10,23, 5		8,27
30″	23,33,51,30, 0,54, 3,28,22,57		1,43,21,52,37	
		1,55,33,59, 5,48,30,28		8,27
32″	23,33,53,25,34,53, 9,16,53,25		1,43,22, 1, 4	
		1,55,33,57,22,26,29,24		8,27
34″	23,33,55,21, 8,50,31,43,22,49		1,43,22, 9,31	
		1,55,33,55,39, 4,19,53		8,27
36″	23,33,57,16,42,46,10,47,42,42		1,43,22,17,58	
		1,55,33,53,55,42, 1,55		8,27
38″	23,33,59,12,16,40, 6,29,44,37		1,43,22,26,25	
		1,55,33,52,12,19,35,30		8,27
40″	23,34, 1, 7,50,32,18,49,20, 7		1,43,22,34,52	
		1,55,33,50,28,57, 0,38		8,27
42″	23,34, 3, 3,24,22,47,46,20,45		1,43,22,43,19	
		1,55,33,48,45,34,17,19		8,27
44″	23,34, 4,58,58,11,33,20,38, 4		1,43,22,51,46	
		1,55,33,47, 2,11,25,33		8,27
46″	23,34, 6,54,31,58,35,32, 3,37		1,43,23, 0,13	
		1,55,33,45,18,48,25,20		8,27
48″	23,34, 8,50, 5,43,54,20,28,57		1,43,23, 8,40	
		1,55,33,43,35,25,16,40		8,27
50″	23,34,10,45,39,27,29,45,45,37		1,43,23,17, 7	
		1,55,33,41,52, 1,59,33		8,27
52″	23,34,12,41,13, 9,21,47,45,10		1,43,23,25,34	
		1,55,33,40, 8,38,33,59		8,27
54″	23,34,14,36,46,49,30,26,19, 9		1,43,23,34, 1	
		1,55,33,38,25,14,59,58		8,27
56″	23,34,16,32,20,27,55,41,19, 7		1,43,23,42,28	
		1,55,33,36,41,51,17,30		8,27
58″	23,34,18,27,54, 4,37,32,36,37		1,43,23,50,55	
		1,55,33,34,58,27,26,35		
60″	23,34,20,23,27,39,36, 0, 3,12			
exact	23,34,20,23,27,39,36, 0, 9, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23° 8′ 0″	23,34,20,23,27,39,36, 0, 9, 7			
		1,55,33,33,15, 3,27,48		
2″	23,34,22,19, 1,12,51, 3,36,55		1,43,24, 7,47	
		1,55,33,31,31,39,20, 1		8,27
4″	23,34,24,14,34,44,22,42,56,56		1,43,24,16,14	
		1,55,33,29,48,15, 3,47		8,27
6″	23,34,26,10, 8,14,10,58, 0,43		1,43,24,24,41	
		1,55,33,28, 4,50,39, 6		8,27
8″	23,34,28, 5,41,42,15,48,39,49		1,43,24,33, 8	
		1,55,33,26,21,26, 5,58		8,27
10″	23,34,30, 1,15, 8,37,14,45,47		1,43,24,41,35	
		1,55,33,24,38, 1,24,23		8,27
12″	23,34,31,56,48,33,15,16,10,10		1,43,24,50, 2	
		1,55,33,22,54,36,34,21		8,27
14″	23,34,33,52,21,56, 9,52,44,31		1,43,24,58,29	
		1,55,33,21,11,11,35,52		8,27
16″	23,34,35,47,55,17,21, 4,20,23		1,43,25, 6,56	
		1,55,33,19,27,46,28,56		8,27
18″	23,34,37,43,28,36,48,50,49,19		1,43,25,15,23	
		1,55,33,17,44,21,13,33		8,27
20″	23,34,39,39, 1,54,33,12, 2,52		1,43,25,23,50	
		1,55,33,16, 0,55,49,43		8,27
22″	23,34,41,34,35,10,34, 7,52,35		1,43,25,32,17	
		1,55,33,14,17,30,17,26		8,27
24″	23,34,43,30, 8,24,51,38,10, 1		1,43,25,40,44	
		1,55,33,12,34, 4,36,42		8,27
26″	23,34,45,25,41,37,25,42,46,43		1,43,25,49,11	
		1,55,33,10,50,38,47,31		8,27
28″	23,34,47,21,14,48,16,21,34,14		1,43,25,57,38	
		1,55,33, 9, 7,12,49,53		8,27
30″	23,34,49,16,47,57,23,34,24, 7		1,43,26, 6, 5	
		1,55,33, 7,23,46,43,48		8,27
32″	23,34,51,12,21, 4,47,21, 7,55		1,43,26,14,32	
		1,55,33, 5,40,20,29,16		8,27
34″	23,34,53, 7,54,10,27,41,37,11		1,43,26,22,59	
		1,55,33, 3,56,54, 6,17		8,27
36″	23,34,55, 3,27,14,24,35,43,28		1,43,26,31,26	
		1,55,33, 2,13,27,34,51		8,27
38″	23,34,56,59, 0,16,38, 3,18,19		1,43,26,39,53	
		1,55,33, 0,30, 0,54,58		8,27
40″	23,34,58,54,33,17, 8, 4,13,17		1,43,26,48,20	
		1,55,32,58,46,34, 6,38		8,27
42″	23,35, 0,50, 6,15,54,38,19,55		1,43,26,56,47	
		1,55,32,57, 3, 7, 9,51		8,27
44″	23,35, 2,45,39,12,57,45,29,46		1,43,27, 5,14	
		1,55,32,55,19,40, 4,37		8,27
46″	23,35, 4,41,12, 8,17,25,34,23		1,43,27,13,41	
		1,55,32,53,36,12,50,56		8,27
48″	23,35, 6,36,45, 1,53,38,25,19		1,43,27,22, 8	
		1,55,32,51,52,45,28,48		8,27
50″	23,35, 8,32,17,53,46,23,54, 7		1,43,27,30,35	
		1,55,32,50, 9,17,58,13		8,27
52″	23,35,10,27,50,43,55,41,52,20		1,43,27,39, 2	
		1,55,32,48,25,50,19,11		8,27
54″	23,35,12,23,23,32,21,32,11,31		1,43,27,47,29	
		1,55,32,46,42,22,31,42		8,27
56″	23,35,14,18,56,19, 3,54,43,13		1,43,27,55,56	
		1,55,32,44,58,54,35,46		8,27
58″	23,35,16,14,29, 4, 2,49,18,59		1,43,28, 4,23	
		1,55,32,43,15,26,31,23		
60″	23,35,18,10, 1,47,18,15,50,22			
exact	23,35,18,10, 1,47,18,16, 1,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23° 9′ 0″	23,35,18,10, 1,47,18,16, 1,10			
		1,55,32,41,31,58,19,38		
2″	23,35,20, 5,34,28,50,14,20,48		1,43,28,21,13	
		1,55,32,39,48,29,58,25		8,27
4″	23,35,22, 1, 7, 8,38,44,19,13		1,43,28,29,40	
		1,55,32,38, 5, 1,28,45		8,27
6″	23,35,23,56,39,46,43,45,47,58		1,43,28,38, 7	
		1,55,32,36,21,32,50,38		8,27
8″	23,35,25,52,12,23, 5,18,38,36		1,43,28,46,34	
		1,55,32,34,38, 4, 4, 4		8,27
10″	23,35,27,47,44,57,43,22,42,40		1,43,28,55, 1	
		1,55,32,32,54,35, 9, 3		8,27
12″	23,35,29,43,17,30,37,57,51,43		1,43,29, 3,28	
		1,55,32,31,11, 6, 5,35		8,27
14″	23,35,31,38,50, 1,49, 3,57,18		1,43,29,11,55	
		1,55,32,29,27,36,53,40		8,27
16″	23,35,33,34,22,31,16,40,50,58		1,43,29,20,22	
		1,55,32,27,44, 7,33,18		8,27
18″	23,35,35,29,54,59, 0,48,24,16		1,43,29,28,49	
		1,55,32,26, 0,38, 4,29		8,27
20″	23,35,37,25,27,25, 1,26,28,45		1,43,29,37,16	
		1,55,32,24,17, 8,27,13		8,27
22″	23,35,39,20,59,49,18,34,55,58		1,43,29,45,43	
		1,55,32,22,33,38,41,30		8,27
24″	23,35,41,16,32,11,52,13,37,28		1,43,29,54,10	
		1,55,32,20,50, 8,47,20		8,27
26″	23,35,43,12, 4,32,42,22,24,48		1,43,30, 2,37	
		1,55,32,19, 6,38,44,43		8,27
28″	23,35,45, 7,36,51,49, 1, 9,31		1,43,30,11, 4	
		1,55,32,17,23, 8,33,39		8,27
30″	23,35,47, 3, 9, 9,12, 9,43,10		1,43,30,19,31	
		1,55,32,15,39,38,14, 8		8,27
32″	23,35,48,58,41,24,51,47,57,18		1,43,30,27,58	
		1,55,32,13,56, 7,46,10		8,27
34″	23,35,50,54,13,38,47,55,43,28		1,43,30,36,25	
		1,55,32,12,12,37, 9,45		8,27
36″	23,35,52,49,45,51, 0,32,53,13		1,43,30,44,52	
		1,55,32,10,29, 6,24,53		8,27
38″	23,35,54,45,18, 1,29,39,18, 6		1,43,30,53,19	
		1,55,32, 8,45,35,31,34		8,27
40″	23,35,56,40,50,10,15,14,49,40		1,43,31, 1,46	
		1,55,32, 7, 2, 4,29,48		8,27
42″	23,35,58,36,22,17,17,19,19,28		1,43,31,10,13	
		1,55,32, 5,18,33,19,35		8,27
44″	23,36, 0,31,54,22,35,52,39, 3		1,43,31,18,40	
		1,55,32, 3,35, 2, 0,55		8,27
46″	23,36, 2,27,26,26,10,54,39,58		1,43,31,27, 7	
		1,55,32, 1,51,30,33,48		8,27
48″	23,36, 4,22,58,28, 2,25,13,46		1,43,31,35,34	
		1,55,32, 0, 7,58,58,14		8,27
50″	23,36, 6,18,30,28,10,24,12, 0		1,43,31,44, 1	
		1,55,31,58,24,27,14,13		8,27
52″	23,36, 8,14, 2,26,34,51,26,13		1,43,31,52,28	
		1,55,31,56,40,55,21,45		8,27
54″	23,36,10, 9,34,23,15,46,47,58		1,43,32, 0,55	
		1,55,31,54,57,23,20,50		8,27
56″	23,36,12, 5, 6,18,13,10, 8,48		1,43,32, 9,22	
		1,55,31,53,13,51,11,28		8,27
58″	23,36,14, 0,38,11,27, 1,20,16		1,43,32,17,49	
		1,55,31,51,30,18,53,39		
60″	23,36,15,56,10, 2,57,20,13,55			
exact	23,36,15,56,10, 2,57,20,29, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°10′ 0″	23,36,15,56,10, 2,57,20,29, 3			
		1,55,31,49,46,46,28,56		
2″	23,36,17,51,41,52,44, 6,57,59		1,43,32,34,37	
		1,55,31,48, 3,13,54,19		8,27
4″	23,36,19,47,13,40,47,20,52,18		1,43,32,43, 4	
		1,55,31,46,19,41,11,15		8,27
6″	23,36,21,42,45,27, 7, 2, 3,33		1,43,32,51,31	
		1,55,31,44,36, 8,19,44		8,27
8″	23,36,23,38,17,11,43,10,23,17		1,43,32,59,58	
		1,55,31,42,52,35,19,46		8,27
10″	23,36,25,33,48,54,35,45,43, 3		1,43,33, 8,25	
		1,55,31,41, 9, 2,11,21		8,27
12″	23,36,27,29,20,35,44,47,54,24		1,43,33,16,52	
		1,55,31,39,25,28,54,29		8,27
14″	23,36,29,24,52,15,10,16,48,53		1,43,33,25,19	
		1,55,31,37,41,55,29,10		8,27
16″	23,36,31,20,23,52,52,12,18, 3		1,43,33,33,46	
		1,55,31,35,58,21,55,24		8,27
18″	23,36,33,15,55,28,50,34,13,27		1,43,33,42,13	
		1,55,31,34,14,48,13,11		8,27
20″	23,36,35,11,27, 3, 5,22,26,38		1,43,33,50,40	
		1,55,31,32,31,14,22,31		8,27
22″	23,36,37, 6,58,35,36,36,49, 9		1,43,33,59, 7	
		1,55,31,30,47,40,23,24		8,27
24″	23,36,39, 2,30, 6,24,17,12,33		1,43,34, 7,34	
		1,55,31,29, 4, 6,15,50		8,27
26″	23,36,40,58, 1,35,28,23,28,23		1,43,34,16, 1	
		1,55,31,27,20,31,59,49		8,27
28″	23,36,42,53,33, 2,48,55,28,12		1,43,34,24,28	
		1,55,31,25,36,57,35,21		8,27
30″	23,36,44,49, 4,28,25,53, 3,33		1,43,34,32,55	
		1,55,31,23,53,23, 2,26		8,27
32″	23,36,46,44,35,52,19,16, 5,59		1,43,34,41,22	
		1,55,31,22, 9,48,21, 4		8,27
34″	23,36,48,40, 7,14,29, 4,27, 3		1,43,34,49,49	
		1,55,31,20,26,13,31,15		8,27
36″	23,36,50,35,38,34,55,17,58,18		1,43,34,58,16	
		1,55,31,18,42,38,32,59		8,27
38″	23,36,52,31, 9,53,37,56,31,17		1,43,35, 6,43	
		1,55,31,16,59, 3,26,16		8,27
40″	23,36,54,26,41,10,36,59,57,33		1,43,35,15,10	
		1,55,31,15,15,28,11, 6		8,27
42″	23,36,56,22,12,25,52,28, 8,39		1,43,35,23,37	
		1,55,31,13,31,52,47,29		8,27
44″	23,36,58,17,43,39,24,20,56, 8		1,43,35,32, 4	
		1,55,31,11,48,17,15,25		8,27
46″	23,37, 0,13,14,51,12,38,11,33		1,43,35,40,31	
		1,55,31,10, 4,41,34,54		8,27
48″	23,37, 2, 8,46, 1,17,19,46,27		1,43,35,48,58	
		1,55,31, 8,21, 5,45,56		8,27
50″	23,37, 4, 4,17, 9,38,25,32,23		1,43,35,57,25	
		1,55,31, 6,37,29,48,31		8,27
52″	23,37, 5,59,48,16,15,55,20,54		1,43,36, 5,52	
		1,55,31, 4,53,53,42,39		8,27
54″	23,37, 7,55,19,21, 9,49, 3,33		1,43,36,14,19	
		1,55,31, 3,10,17,28,20		8,27
56″	23,37, 9,50,50,24,20, 6,31,53		1,43,36,22,46	
		1,55,31, 1,26,41, 5,34		8,27
58″	23,37,11,46,21,25,46,47,37,27		1,43,36,31,13	
		1,55,30,59,43, 4,34,21		
60″	23,37,13,41,52,25,29,52,11,48			
exact	23,37,13,41,52,25,29,52,30, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°11′ 0″	23,37,13,41,52,25,29,52,30, 1	1,55,30,57,59,27,56,37		
2″	23,37,15,37,23,23,29,20,26,38	1,55,30,56,15,51, 8,38	1,43,36,47,59	8,27
4″	23,37,17,32,54,19,45,11,35,16	1,55,30,54,32,14,12,12	1,43,36,56,26	8,27
6″	23,37,19,28,25,14,17,25,47,28	1,55,30,52,48,37, 7,19	1,43,37, 4,53	8,27
8″	23,37,21,23,56, 7, 6, 2,54,47	1,55,30,51, 4,59,53,59	1,43,37,13,20	8,27
10″	23,37,23,19,26,58,11, 2,48,46	1,55,30,49,21,22,32,12	1,43,37,21,47	8,27
12″	23,37,25,14,57,47,32,25,20,58	1,55,30,47,37,45, 1,58	1,43,37,30,14	8,27
14″	23,37,27,10,28,35,10,10,22,56	1,55,30,45,54, 7,23,17	1,43,37,38,41	8,27
16″	23,37,29, 5,59,21, 4,17,46,13	1,55,30,44,10,29,36, 9	1,43,37,47, 8	8,27
18″	23,37,31, 1,30, 5,14,47,22,22	1,55,30,42,26,51,40,34	1,43,37,55,35	8,27
20″	23,37,32,57, 0,47,41,39, 2,56	1,55,30,40,43,13,36,32	1,43,38, 4, 2	8,27
22″	23,37,34,52,31,28,24,52,39,28	1,55,30,38,59,35,24, 3	1,43,38,12,29	8,27
24″	23,37,36,48, 2, 7,24,28, 3,31	1,55,30,37,15,57, 3, 7	1,43,38,20,56	8,27
26″	23,37,38,43,32,44,40,25, 6,38	1,55,30,35,32,18,33,44	1,43,38,29,23	8,27
28″	23,37,40,39, 3,20,12,43,40,22	1,55,30,33,48,39,55,54	1,43,38,37,50	8,27
30″	23,37,42,34,33,54, 1,23,36,16	1,55,30,32, 5, 1, 9,37	1,43,38,46,17	8,27
32″	23,37,44,30, 4,26, 6,24,45,53	1,55,30,30,21,22,14,53	1,43,38,54,44	8,27
34″	23,37,46,25,34,56,27,47, 0,46	1,55,30,28,37,43,11,42	1,43,39, 3,11	8,27
36″	23,37,48,21, 5,25, 5,30,12,28	1,55,30,26,54, 4, 0, 4	1,43,39,11,38	8,27
38″	23,37,50,16,35,51,59,34,12,32	1,55,30,25,10,24,39,59	1,43,39,20, 5	8,27
40″	23,37,52,12, 6,17, 9,58,52,31	1,55,30,23,26,45,11,27	1,43,39,28,32	8,27
42″	23,37,54, 7,36,40,36,44, 3,58	1,55,30,21,43, 5,34,28	1,43,39,36,59	8,27
44″	23,37,56, 3, 7, 2,19,49,38,26	1,55,30,19,59,25,49, 2	1,43,39,45,26	8,27
46″	23,37,57,58,37,22,19,15,27,28	1,55,30,18,15,45,55, 9	1,43,39,53,53	8,27
48″	23,37,59,54, 7,40,35, 1,22,37	1,55,30,16,32, 5,52,49	1,43,40, 2,20	8,27
50″	23,38, 1,49,37,57, 7, 7,15,26	1,55,30,14,48,25,42, 2	1,43,40,10,47	8,27
52″	23,38, 3,45, 8,11,55,32,57,28	1,55,30,13, 4,45,22,48	1,43,40,19,14	8,27
54″	23,38, 5,40,38,25, 0,18,20,16	1,55,30,11,21, 4,55, 7	1,43,40,27,41	8,27
56″	23,38, 7,36, 8,36,21,23,15,23	1,55,30, 9,37,24,18,59	1,43,40,36, 8	8,27
58″	23,38, 9,31,38,45,58,47,34,22	1,55,30, 7,53,43,34,24	1,43,40,44,35	
60″	23,38,11,27, 8,53,52,31, 8,46			
exact	23,38,11,27, 8,53,52,31,29,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°12′ 0″	23,38,11,27, 8,53,52,31,29,46			
		1,55,30, 6,10, 2,43,39		
2″	23,38,13,22,39, 0, 2,34,13,25		1,43,41, 1,19	
		1,55,30, 4,26,21,42,20		8,27
4″	23,38,15,18, 9, 4,28,55,55,45		1,43,41, 9,46	
		1,55,30, 2,42,40,32,34		8,27
6″	23,38,17,13,39, 7,11,36,28,19		1,43,41,18,13	
		1,55,30, 0,58,59,14,21		8,27
8″	23,38,19, 9, 9, 8,10,35,42,40		1,43,41,26,40	
		1,55,29,59,15,17,47,41		8,27
10″	23,38,21, 4,39, 7,25,53,30,21		1,43,41,35, 7	
		1,55,29,57,31,36,12,34		8,27
12″	23,38,23, 0, 9, 4,57,29,42,55		1,43,41,43,34	
		1,55,29,55,47,54,29, 0		8,27
14″	23,38,24,55,39, 0,45,24,11,55		1,43,41,52, 1	
		1,55,29,54, 4,12,36,59		8,27
16″	23,38,26,51, 8,54,49,36,48,54		1,43,42, 0,28	
		1,55,29,52,20,30,36,31		8,27
18″	23,38,28,46,38,47,10, 7,25,25		1,43,42, 8,55	
		1,55,29,50,36,48,27,36		8,27
20″	23,38,30,42, 8,37,46,55,53, 1		1,43,42,17,22	
		1,55,29,48,53, 6,10,14		8,27
22″	23,38,32,37,38,26,40, 2, 3,15		1,43,42,25,49	
		1,55,29,47, 9,23,44,25		8,27
24″	23,38,34,33, 8,13,49,25,47,40		1,43,42,34,16	
		1,55,29,45,25,41,10, 9		8,27
26″	23,38,36,28,37,59,15, 6,57,49		1,43,42,42,43	
		1,55,29,43,41,58,27,26		8,27
28″	23,38,38,24, 7,42,57, 5,25,15		1,43,42,51,10	
		1,55,29,41,58,15,36,16		8,27
30″	23,38,40,19,37,24,55,21, 1,31		1,43,42,59,37	
		1,55,29,40,14,32,36,39		8,27
32″	23,38,42,15, 7, 5, 9,53,38,10		1,43,43, 8, 4	
		1,55,29,38,30,49,28,35		8,27
34″	23,38,44,10,36,43,40,43, 6,45		1,43,43,16,31	
		1,55,29,36,47, 6,12, 4		8,27
36″	23,38,46, 6, 6,20,27,49,18,49		1,43,43,24,58	
		1,55,29,35, 3,22,47, 6		8,27
38″	23,38,48, 1,35,55,31,12, 5,55		1,43,43,33,25	
		1,55,29,33,19,39,13,41		8,27
40″	23,38,49,57, 5,28,50,51,19,36		1,43,43,41,52	
		1,55,29,31,35,55,31,49		8,27
42″	23,38,51,52,35, 0,26,46,51,25		1,43,43,50,19	
		1,55,29,29,52,11,41,30		8,27
44″	23,38,53,48, 4,30,18,58,32,55		1,43,43,58,46	
		1,55,29,28, 8,27,42,44		8,27
46″	23,38,55,43,33,58,27,26,15,39		1,43,44, 7,13	
		1,55,29,26,24,43,35,31		8,27
48″	23,38,57,39, 3,24,52, 9,51,10		1,43,44,15,40	
		1,55,29,24,40,59,19,51		8,27
50″	23,38,59,34,32,49,33, 9,11, 1		1,43,44,24, 7	
		1,55,29,22,57,14,55,44		8,27
52″	23,39, 1,30, 2,12,30,24, 6,45		1,43,44,32,34	
		1,55,29,21,13,30,23,10		8,27
54″	23,39, 3,25,31,33,43,54,29,55		1,43,44,41, 1	
		1,55,29,19,29,45,42, 9		8,27
56″	23,39, 5,21, 0,53,13,40,12, 4		1,43,44,49,28	
		1,55,29,17,46, 0,52,41		8,27
58″	23,39, 7,16,30,10,59,41, 4,45		1,43,44,57,55	
		1,55,29,16, 2,15,54,46		
60″	23,39, 9,11,59,27, 1,56,59,31			
exact	23,39, 9,11,59,27, 1,57,22,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°13′ 0″	23,39, 9,11,59,27, 1,57,22,22			
		1,55,29,14,18,30,50,58		
2″	23,39,11, 7,28,41,20,28,13,20		1,43,45,14,38	
		1,55,29,12,34,45,36,20		8,27
4″	23,39,13, 2,57,53,55,13,49,40		1,43,45,23, 5	
		1,55,29,10,51, 0,13,15		8,27
6″	23,39,14,58,27, 4,46,14, 2,55		1,43,45,31,32	
		1,55,29, 9, 7,14,41,43		8,27
8″	23,39,16,53,56,13,53,28,44,38		1,43,45,39,59	
		1,55,29, 7,23,29, 1,44		8,27
10″	23,39,18,49,25,21,16,57,46,22		1,43,45,48,26	
		1,55,29, 5,39,43,13,18		8,27
12″	23,39,20,44,54,26,56,40,59,40		1,43,45,56,53	
		1,55,29, 3,55,57,16,25		8,27
14″	23,39,22,40,23,30,52,38,16, 5		1,43,46, 5,20	
		1,55,29, 2,12,11,11, 5		8,27
16″	23,39,24,35,52,33, 4,49,27,10		1,43,46,13,47	
		1,55,29, 0,28,24,57,18		8,27
18″	23,39,26,31,21,33,33,14,24,28		1,43,46,22,14	
		1,55,28,58,44,38,35, 4		8,27
20″	23,39,28,26,50,32,17,52,59,32		1,43,46,30,41	
		1,55,28,57, 0,52, 4,23		8,27
22″	23,39,30,22,19,29,18,45, 3,55		1,43,46,39, 8	
		1,55,28,55,17, 5,25,15		8,27
24″	23,39,32,17,48,24,35,50,29,10		1,43,46,47,35	
		1,55,28,53,33,18,37,40		8,27
26″	23,39,34,13,17,18, 9, 9, 6,50		1,43,46,56, 2	
		1,55,28,51,49,31,41,38		8,27
28″	23,39,36, 8,46, 9,58,40,48,28		1,43,47, 4,29	
		1,55,28,50, 5,44,37, 9		8,27
30″	23,39,38, 4,15, 0, 4,25,25,37		1,43,47,12,56	
		1,55,28,48,21,57,24,13		8,27
32″	23,39,39,59,43,48,26,22,49,50		1,43,47,21,23	
		1,55,28,46,38,10, 2,50		8,27
34″	23,39,41,55,12,35, 4,32,52,40		1,43,47,29,50	
		1,55,28,44,54,22,33, 0		8,27
36″	23,39,43,50,41,19,58,55,25,40		1,43,47,38,17	
		1,55,28,43,10,34,54,43		8,27
38″	23,39,45,46,10, 3, 9,30,20,23		1,43,47,46,44	
		1,55,28,41,26,47, 7,59		8,27
40″	23,39,47,41,38,44,36,17,28,22		1,43,47,55,11	
		1,55,28,39,42,59,12,48		8,27
42″	23,39,49,37, 7,24,19,16,41,10		1,43,48, 3,38	
		1,55,28,37,59,11, 9,10		8,27
44″	23,39,51,32,36, 2,18,27,50,20		1,43,48,12, 5	
		1,55,28,36,15,22,57, 5		8,27
46″	23,39,53,28, 4,38,33,50,47,25		1,43,48,20,32	
		1,55,28,34,31,34,36,33		8,27
48″	23,39,55,23,33,13, 5,25,23,58		1,43,48,28,59	
		1,55,28,32,47,46, 7,34		8,27
50″	23,39,57,19, 1,45,53,11,31,32		1,43,48,37,26	
		1,55,28,31, 3,57,30, 8		8,27
52″	23,39,59,14,30,16,57, 9, 1,40		1,43,48,45,53	
		1,55,28,29,20, 8,44,15		8,27
54″	23,40, 1, 9,58,46,17,17,45,55		1,43,48,54,20	
		1,55,28,27,36,19,49,55		8,27
56″	23,40, 3, 5,27,13,53,37,35,50		1,43,49, 2,47	
		1,55,28,25,52,30,47, 8		8,27
58″	23,40, 5, 0,55,39,46, 8,22,58		1,43,49,11,14	
		1,55,28,24, 8,41,35,54		
60″	23,40, 6,56,24, 3,54,49,58,52			
exact	23,40, 6,56,24, 3,54,50,30,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°14′ 0″	23,40, 6,56,24, 3,54,50,30,18			
		1,55,28,22,24,52,19,32		
2″	23,40, 8,51,52,26,19,42,49,50		1,43,49,27,54	
		1,55,28,20,41, 2,51,38		8,27
4″	23,40,10,47,20,47, 0,45,41,28		1,43,49,36,21	
		1,55,28,18,57,13,15,17		8,27
6″	23,40,12,42,49, 5,57,58,56,45		1,43,49,44,48	
		1,55,28,17,13,23,30,29		8,27
8″	23,40,14,38,17,23,11,22,27,14		1,43,49,53,15	
		1,55,28,15,29,33,37,14		8,27
10″	23,40,16,33,45,38,40,56, 4,28		1,43,50, 1,42	
		1,55,28,13,45,43,35,32		8,27
12″	23,40,18,29,13,52,26,39,40, 0		1,43,50,10, 9	
		1,55,28,12, 1,53,25,23		8,27
14″	23,40,20,24,42, 4,28,33, 5,23		1,43,50,18,36	
		1,55,28,10,18, 3, 6,47		8,27
16″	23,40,22,20,10,14,46,36,12,10		1,43,50,27, 3	
		1,55,28, 8,34,12,39,44		8,27
18″	23,40,24,15,38,23,20,48,51,54		1,43,50,35,30	
		1,55,28, 6,50,22, 4,14		8,27
20″	23,40,26,11, 6,30,11,10,56, 8		1,43,50,43,57	
		1,55,28, 5, 6,31,20,17		8,27
22″	23,40,28, 6,34,35,17,42,16,25		1,43,50,52,24	
		1,55,28, 3,22,40,27,53		8,27
24″	23,40,30, 2, 2,38,40,22,44,18		1,43,51, 0,51	
		1,55,28, 1,38,49,27, 2		8,27
26″	23,40,31,57,30,40,19,12,11,20		1,43,51, 9,18	
		1,55,27,59,54,58,17,44		8,27
28″	23,40,33,52,58,40,14,10,29, 4		1,43,51,17,45	
		1,55,27,58,11, 6,59,59		8,27
30″	23,40,35,48,26,38,25,17,29, 3		1,43,51,26,12	
		1,55,27,56,27,15,33,47		8,27
32″	23,40,37,43,54,34,52,33, 2,50		1,43,51,34,39	
		1,55,27,54,43,23,59, 8		8,27
34″	23,40,39,39,22,29,35,57, 1,58		1,43,51,43, 6	
		1,55,27,52,59,32,16, 2		8,27
36″	23,40,41,34,50,22,35,29,18, 0		1,43,51,51,33	
		1,55,27,51,15,40,24,29		8,27
38″	23,40,43,30,18,13,51, 9,42,29		1,43,52, 0, 0	
		1,55,27,49,31,48,24,29		8,27
40″	23,40,45,25,46, 3,22,58, 6,58		1,43,52, 8,27	
		1,55,27,47,47,56,16, 2		8,27
42″	23,40,47,21,13,51,10,54,23, 0		1,43,52,16,54	
		1,55,27,46, 4, 3,59, 8		8,27
44″	23,40,49,16,41,37,14,58,22, 8		1,43,52,25,21	
		1,55,27,44,20,11,33,47		8,27
46″	23,40,51,12, 9,21,35, 9,55,55		1,43,52,33,48	
		1,55,27,42,36,18,59,59		8,27
48″	23,40,53, 7,37, 4,11,28,55,54		1,43,52,42,15	
		1,55,27,40,52,26,17,44		8,27
50″	23,40,55, 3, 4,45, 3,55,13,38		1,43,52,50,42	
		1,55,27,39, 8,33,27, 2		8,27
52″	23,40,56,58,32,24,12,28,40,40		1,43,52,59, 9	
		1,55,27,37,24,40,27,53		8,27
54″	23,40,58,54, 0, 1,37, 9, 8,33		1,43,53, 7,36	
		1,55,27,35,40,47,20,17		8,27
56″	23,41, 0,49,27,37,17,56,28,50		1,43,53,16, 3	
		1,55,27,33,56,54, 4,14		8,27
58″	23,41, 2,44,55,11,14,50,33, 4		1,43,53,24,30	
		1,55,27,32,13, 0,39,44		
60″	23,41, 4,40,22,43,27,51,12,48			
exact	23,41, 4,40,22,43,27,51,44,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°15′ 0″	23,41, 4,40,22,43,27,51,44,31	1,55,27,30,29, 7,10,17		
2″	23,41, 6,35,50,13,56,58,54,48	1,55,27,28,45,13,29, 8	1,43,53,41, 9	8,26
4″	23,41, 8,31,17,42,42,12,23,56	1,55,27,27, 1,19,39,33	1,43,53,49,35	8,26
6″	23,41,10,26,45, 9,43,32, 3,29	1,55,27,25,17,25,41,32	1,43,53,58, 1	8,26
8″	23,41,12,22,12,35, 0,57,45, 1	1,55,27,23,33,31,35, 5	1,43,54, 6,27	8,26
10″	23,41,14,17,39,58,34,29,20, 6	1,55,27,21,49,37,20,12	1,43,54,14,53	8,26
12″	23,41,16,13, 7,20,24, 6,40,18	1,55,27,20, 5,42,56,53	1,43,54,23,19	8,26
14″	23,41,18, 8,34,40,29,49,37,11	1,55,27,18,21,48,25, 8	1,43,54,31,45	8,26
16″	23,41,20, 4, 1,58,51,38, 2,19	1,55,27,16,37,53,44,57	1,43,54,40,11	8,26
18″	23,41,21,59,29,15,29,31,47,16	1,55,27,14,53,58,56,20	1,43,54,48,37	8,26
20″	23,41,23,54,56,30,23,30,43,36	1,55,27,13,10, 3,59,17	1,43,54,57, 3	8,26
22″	23,41,25,50,23,43,33,34,42,53	1,55,27,11,26, 8,53,48	1,43,55, 5,29	8,26
24″	23,41,27,45,50,54,59,43,36,41	1,55,27, 9,42,13,39,53	1,43,55,13,55	8,26
26″	23,41,29,41,18, 4,41,57,16,34	1,55,27, 7,58,18,17,32	1,43,55,22,21	8,26
28″	23,41,31,36,45,12,40,15,34, 6	1,55,27, 6,14,22,46,45	1,43,55,30,47	8,26
30″	23,41,33,32,12,18,54,38,20,51	1,55,27, 4,30,27, 7,32	1,43,55,39,13	8,26
32″	23,41,35,27,39,23,25, 5,28,23	1,55,27, 2,46,31,19,53	1,43,55,47,39	8,26
34″	23,41,37,23, 6,26,11,36,48,16	1,55,27, 1, 2,35,23,48	1,43,55,56, 5	8,26
36″	23,41,39,18,33,27,14,12,12, 4	1,55,26,59,18,39,19,17	1,43,56, 4,31	8,26
38″	23,41,41,14, 0,26,32,51,31,21	1,55,26,57,34,43, 6,20	1,43,56,12,57	8,26
40″	23,41,43, 9,27,24, 7,34,37,41	1,55,26,55,50,46,44,57	1,43,56,21,23	8,26
42″	23,41,45, 4,54,19,58,21,22,38	1,55,26,54, 6,50,15, 8	1,43,56,29,49	8,26
44″	23,41,47, 0,21,14, 5,11,37,46	1,55,26,52,22,53,36,53	1,43,56,38,15	8,26
46″	23,41,48,55,48, 6,28, 5,14,39	1,55,26,50,38,56,50,12	1,43,56,46,41	8,26
48″	23,41,50,51,14,57, 7, 2, 4,51	1,55,26,48,54,59,55, 5	1,43,56,55, 7	8,26
50″	23,41,52,46,41,46, 2, 1,59,56	1,55,26,47,11, 2,51,32	1,43,57, 3,33	8,26
52″	23,41,54,42, 8,33,13, 4,51,28	1,55,26,45,27, 5,39,33	1,43,57,11,59	8,26
54″	23,41,56,37,35,18,40,10,31, 1	1,55,26,43,43, 8,19, 8	1,43,57,20,25	8,26
56″	23,41,58,33, 2, 2,23,18,50, 9	1,55,26,41,59,10,50,17	1,43,57,28,51	8,26
58″	23,42, 0,28,28,44,22,29,40,26	1,55,26,40,15,13,13, 0	1,43,57,37,17	
60″	23,42, 2,23,55,24,37,42,53,26			
exact	23,42, 2,23,55,24,37,42,24,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°16′ 0″	23,42, 2,23,55,24,37,42,24,27			
		1,55,26,38,31,15,24,11		
2″	23,42, 4,19,22, 3, 8,57,48,38		1,43,57,54,22	
		1,55,26,36,47,17,29,49		8,26
4″	23,42, 6,14,48,39,56,15,18,27		1,43,58, 2,48	
		1,55,26,35, 3,19,27, 1		8,26
6″	23,42, 8,10,15,14,59,34,45,28		1,43,58,11,14	
		1,55,26,33,19,21,15,47		8,26
8″	23,42,10, 5,41,48,18,56, 1,15		1,43,58,19,40	
		1,55,26,31,35,22,56, 7		8,26
10″	23,42,12, 1, 8,19,54,18,57,22		1,43,58,28, 6	
		1,55,26,29,51,24,28, 1		8,26
12″	23,42,13,56,34,49,45,43,25,23		1,43,58,36,32	
		1,55,26,28, 7,25,51,29		8,26
14″	23,42,15,52, 1,17,53, 9,16,52		1,43,58,44,58	
		1,55,26,26,23,27, 6,31		8,26
16″	23,42,17,47,27,44,16,36,23,23		1,43,58,53,24	
		1,55,26,24,39,28,13, 7		8,26
18″	23,42,19,42,54, 8,56, 4,36,30		1,43,59, 1,50	
		1,55,26,22,55,29,11,17		8,26
20″	23,42,21,38,20,31,51,33,47,47		1,43,59,10,16	
		1,55,26,21,11,30, 1, 1		8,26
22″	23,42,23,33,46,53, 3, 3,48,48		1,43,59,18,42	
		1,55,26,19,27,30,42,19		8,26
24″	23,42,25,29,13,12,30,34,31, 7		1,43,59,27, 8	
		1,55,26,17,43,31,15,11		8,26
26″	23,42,27,24,39,30,14, 5,46,18		1,43,59,35,34	
		1,55,26,15,59,31,39,37		8,26
28″	23,42,29,20, 5,46,13,37,25,55		1,43,59,44, 0	
		1,55,26,14,15,31,55,37		8,26
30″	23,42,31,15,32, 0,29, 9,21,32		1,43,59,52,26	
		1,55,26,12,31,32, 3,11		8,26
32″	23,42,33,10,58,13, 0,41,24,43		1,44, 0, 0,52	
		1,55,26,10,47,32, 2,19		8,26
34″	23,42,35, 6,24,23,48,13,27, 2		1,44, 0, 9,18	
		1,55,26, 9, 3,31,53, 1		8,26
36″	23,42,37, 1,50,32,51,45,20, 3		1,44, 0,17,44	
		1,55,26, 7,19,31,35,17		8,26
38″	23,42,38,57,16,40,11,16,55,20		1,44, 0,26,10	
		1,55,26, 5,35,31, 9, 7		8,26
40″	23,42,40,52,42,45,46,48, 4,27		1,44, 0,34,36	
		1,55,26, 3,51,30,34,31		8,26
42″	23,42,42,48, 8,49,38,18,38,58		1,44, 0,43, 2	
		1,55,26, 2, 7,29,51,29		8,26
44″	23,42,44,43,34,51,45,48,30,27		1,44, 0,51,28	
		1,55,26, 0,23,29, 0, 1		8,26
46″	23,42,46,39, 0,52, 9,17,30,28		1,44, 0,59,54	
		1,55,25,58,39,28, 0, 7		8,26
48″	23,42,48,34,26,50,48,45,30,35		1,44, 1, 8,20	
		1,55,25,56,55,26,51,47		8,26
50″	23,42,50,29,52,47,44,12,22,22		1,44, 1,16,46	
		1,55,25,55,11,25,35, 1		8,26
52″	23,42,52,25,18,42,55,37,57,23		1,44, 1,25,12	
		1,55,25,53,27,24, 9,49		8,26
54″	23,42,54,20,44,36,23, 2, 7,12		1,44, 1,33,38	
		1,55,25,51,43,22,36,11		8,26
56″	23,42,56,16,10,28, 6,24,43,23		1,44, 1,42, 4	
		1,55,25,49,59,20,54, 7		8,26
58″	23,42,58,11,36,18, 5,45,37,30		1,44, 1,50,30	
		1,55,25,48,15,19, 3,37		
60″	23,43, 0, 7, 2, 6,21, 4,41, 7			
exact	23,43, 0, 7, 2, 6,21, 4,17,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°17′ 0″	23,43, 0, 7, 2, 6,21, 4,17,57			
		1,55,25,46,31,17, 2, 9		
2″	23,43, 2, 2,27,52,52,21,20, 6		1,44, 2, 7,32	
		1,55,25,44,47,14,54,37		8,26
4″	23,43, 3,57,53,37,39,36,14,43		1,44, 2,15,58	
		1,55,25,43, 3,12,38,39		8,26
6″	23,43, 5,53,19,20,42,48,53,22		1,44, 2,24,24	
		1,55,25,41,19,10,14,15		8,26
8″	23,43, 7,48,45, 2, 1,59, 7,37		1,44, 2,32,50	
		1,55,25,39,35, 7,41,25		8,26
10″	23,43, 9,44,10,41,37, 6,49, 2		1,44, 2,41,16	
		1,55,25,37,51, 5, 0, 9		8,26
12″	23,43,11,39,36,19,28,11,49,11		1,44, 2,49,42	
		1,55,25,36, 7, 2,10,27		8,26
14″	23,43,13,35, 1,55,35,13,59,38		1,44, 2,58, 8	
		1,55,25,34,22,59,12,19		8,26
16″	23,43,15,30,27,29,58,13,11,57		1,44, 3, 6,34	
		1,55,25,32,38,56, 5,45		8,26
18″	23,43,17,25,53, 2,37, 9,17,42		1,44, 3,15, 0	
		1,55,25,30,54,52,50,45		8,26
20″	23,43,19,21,18,33,32, 2, 8,27		1,44, 3,23,26	
		1,55,25,29,10,49,27,19		8,26
22″	23,43,21,16,44, 2,42,51,35,46		1,44, 3,31,52	
		1,55,25,27,26,45,55,27		8,26
24″	23,43,23,12, 9,30, 9,37,31,13		1,44, 3,40,18	
		1,55,25,25,42,42,15, 9		8,26
26″	23,43,25, 7,34,55,52,19,46,22		1,44, 3,48,44	
		1,55,25,23,58,38,26,25		8,26
28″	23,43,27, 3, 0,19,50,58,12,47		1,44, 3,57,10	
		1,55,25,22,14,34,29,15		8,26
30″	23,43,28,58,25,42, 5,32,42, 2		1,44, 4, 5,36	
		1,55,25,20,30,30,23,39		8,26
32″	23,43,30,53,51, 2,36, 3, 5,41		1,44, 4,14, 2	
		1,55,25,18,46,26, 9,37		8,26
34″	23,43,32,49,16,21,22,29,15,18		1,44, 4,22,28	
		1,55,25,17, 2,21,47, 9		8,26
36″	23,43,34,44,41,38,24,51, 2,27		1,44, 4,30,54	
		1,55,25,15,18,17,16,15		8,26
38″	23,43,36,40, 6,53,43, 8,18,42		1,44, 4,39,20	
		1,55,25,13,34,12,36,55		8,26
40″	23,43,38,35,32, 7,17,20,55,37		1,44, 4,47,46	
		1,55,25,11,50, 7,49, 9		8,26
42″	23,43,40,30,57,19, 7,28,44,46		1,44, 4,56,12	
		1,55,25,10, 6, 2,52,57		8,26
44″	23,43,42,26,22,29,13,31,37,43		1,44, 5, 4,38	
		1,55,25, 8,21,57,48,19		8,26
46″	23,43,44,21,47,37,35,29,26, 2		1,44, 5,13, 4	
		1,55,25, 6,37,52,35,15		8,26
48″	23,43,46,17,12,44,13,22, 1,17		1,44, 5,21,30	
		1,55,25, 4,53,47,13,45		8,26
50″	23,43,48,12,37,49, 7, 9,15, 2		1,44, 5,29,56	
		1,55,25, 3, 9,41,43,49		8,26
52″	23,43,50, 8, 2,52,16,50,58,51		1,44, 5,38,22	
		1,55,25, 1,25,36, 5,27		8,26
54″	23,43,52, 3,27,53,42,27, 4,18		1,44, 5,46,48	
		1,55,24,59,41,30,18,39		8,26
56″	23,43,53,58,52,53,23,57,22,57		1,44, 5,55,14	
		1,55,24,57,57,24,23,25		8,26
58″	23,43,55,54,17,51,21,21,46,22		1,44, 6, 3,40	
		1,55,24,56,13,18,19,45		
60″	23,43,57,49,42,47,34,40, 6, 7			
exact	23,43,57,49,42,47,34,39,41,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°18′ 0″	23,43,57,49,42,47,34,39,41,27			
		1,55,24,54,29,12, 5,10		
2″	23,43,59,45, 7,42, 3,51,46,37		1,44, 6,20,41	
		1,55,24,52,45, 5,44,29		8,26
4″	23,44, 1,40,32,34,48,57,31, 6		1,44, 6,29, 7	
		1,55,24,51, 0,59,15,22		8,26
6″	23,44, 3,35,57,25,49,56,46,28		1,44, 6,37,33	
		1,55,24,49,16,52,37,49		8,26
8″	23,44, 5,31,22,15, 6,49,24,17		1,44, 6,45,59	
		1,55,24,47,32,45,51,50		8,26
10″	23,44, 7,26,47, 2,39,35,16, 7		1,44, 6,54,25	
		1,55,24,45,48,38,57,25		8,26
12″	23,44, 9,22,11,48,28,14,13,32		1,44, 7, 2,51	
		1,55,24,44, 4,31,54,34		8,26
14″	23,44,11,17,36,32,32,46, 8, 6		1,44, 7,11,17	
		1,55,24,42,20,24,43,17		8,26
16″	23,44,13,13, 1,14,53,10,51,23		1,44, 7,19,43	
		1,55,24,40,36,17,23,34		8,26
18″	23,44,15, 8,25,55,29,28,14,57		1,44, 7,28, 9	
		1,55,24,38,52, 9,55,25		8,26
20″	23,44,17, 3,50,34,21,38,10,22		1,44, 7,36,35	
		1,55,24,37, 8, 2,18,50		8,26
22″	23,44,18,59,15,11,29,40,29,12		1,44, 7,45, 1	
		1,55,24,35,23,54,33,49		8,26
24″	23,44,20,54,39,46,53,35, 3, 1		1,44, 7,53,27	
		1,55,24,33,39,46,40,22		8,26
26″	23,44,22,50, 4,20,33,21,43,23		1,44, 8, 1,53	
		1,55,24,31,55,38,38,29		8,26
28″	23,44,24,45,28,52,29, 0,21,52		1,44, 8,10,19	
		1,55,24,30,11,30,28,10		8,26
30″	23,44,26,40,53,22,40,30,50, 2		1,44, 8,18,45	
		1,55,24,28,27,22, 9,25		8,26
32″	23,44,28,36,17,51, 7,52,59,27		1,44, 8,27,11	
		1,55,24,26,43,13,42,14		8,26
34″	23,44,30,31,42,17,51, 6,41,41		1,44, 8,35,37	
		1,55,24,24,59, 5, 6,37		8,26
36″	23,44,32,27, 6,42,50,11,48,18		1,44, 8,44, 3	
		1,55,24,23,14,56,22,34		8,26
38″	23,44,34,22,31, 6, 5, 8,10,52		1,44, 8,52,29	
		1,55,24,21,30,47,30, 5		8,26
40″	23,44,36,17,55,27,35,55,40,57		1,44, 9, 0,55	
		1,55,24,19,46,38,29,10		8,26
42″	23,44,38,13,19,47,22,34,10, 7		1,44, 9, 9,21	
		1,55,24,18, 2,29,19,49		8,26
44″	23,44,40, 8,44, 5,25, 3,29,56		1,44, 9,17,47	
		1,55,24,16,18,20, 2, 2		8,26
46″	23,44,42, 4, 8,21,43,23,31,58		1,44, 9,26,13	
		1,55,24,14,34,10,35,49		8,26
48″	23,44,43,59,32,36,17,34, 7,47		1,44, 9,34,39	
		1,55,24,12,50, 1, 1,10		8,26
50″	23,44,45,54,56,49, 7,35, 8,57		1,44, 9,43, 5	
		1,55,24,11, 5,51,18, 5		8,26
52″	23,44,47,50,21, 0,13,26,27, 2		1,44, 9,51,31	
		1,55,24, 9,21,41,26,34		8,26
54″	23,44,49,45,45, 9,35, 7,53,36		1,44, 9,59,57	
		1,55,24, 7,37,31,26,37		8,26
56″	23,44,51,41, 9,17,12,39,20,13		1,44,10, 8,23	
		1,55,24, 5,53,21,18,14		8,26
58″	23,44,53,36,33,23, 6, 0,38,27		1,44,10,16,49	
		1,55,24, 4, 9,11, 1,25		
60″	23,44,55,31,57,27,15,11,39,52			
exact	23,44,55,31,57,27,15,11,19,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°19′ 0″	23,44,55,31,57,27,15,11,19,50			
		1,55,24, 2,25, 0,34,10		
2″	23,44,57,27,21,29,40,11,54, 0		1,44,10,33,48	
		1,55,24, 0,40,50, 0,22		8,26
4″	23,44,59,22,45,30,21, 1,54,22		1,44,10,42,14	
		1,55,23,58,56,39,18, 8		8,26
6″	23,45, 1,18, 9,29,17,41,12,30		1,44,10,50,40	
		1,55,23,57,12,28,27,28		8,26
8″	23,45, 3,13,33,26,30, 9,39,58		1,44,10,59, 6	
		1,55,23,55,28,17,28,22		8,26
10″	23,45, 5, 8,57,21,58,27, 8,20		1,44,11, 7,32	
		1,55,23,53,44, 6,20,50		8,26
12″	23,45, 7, 4,21,15,42,33,29,10		1,44,11,15,58	
		1,55,23,51,59,55, 4,52		8,26
14″	23,45, 8,59,45, 7,42,28,34, 2		1,44,11,24,24	
		1,55,23,50,15,43,40,28		8,26
16″	23,45,10,55, 8,57,58,12,14,30		1,44,11,32,50	
		1,55,23,48,31,32, 7,38		8,26
18″	23,45,12,50,32,46,29,44,22, 8		1,44,11,41,16	
		1,55,23,46,47,20,26,22		8,26
20″	23,45,14,45,56,33,17, 4,48,30		1,44,11,49,42	
		1,55,23,45, 3, 8,36,40		8,26
22″	23,45,16,41,20,18,20,13,25,10		1,44,11,58, 8	
		1,55,23,43,18,56,38,32		8,26
24″	23,45,18,36,44, 1,39,10, 3,42		1,44,12, 6,34	
		1,55,23,41,34,44,31,58		8,26
26″	23,45,20,32, 7,43,13,54,35,40		1,44,12,15, 0	
		1,55,23,39,50,32,16,58		8,26
28″	23,45,22,27,31,23, 4,26,52,38		1,44,12,23,26	
		1,55,23,38, 6,19,53,32		8,26
30″	23,45,24,22,55, 1,10,46,46,10		1,44,12,31,52	
		1,55,23,36,22, 7,21,40		8,26
32″	23,45,26,18,18,37,32,54, 7,50		1,44,12,40,18	
		1,55,23,34,37,54,41,22		8,26
34″	23,45,28,13,42,12,10,48,49,12		1,44,12,48,44	
		1,55,23,32,53,41,52,38		8,26
36″	23,45,30, 9, 5,45, 4,30,41,50		1,44,12,57,10	
		1,55,23,31, 9,28,55,28		8,26
38″	23,45,32, 4,29,16,13,59,37,18		1,44,13, 5,36	
		1,55,23,29,25,15,49,52		8,26
40″	23,45,33,59,52,45,39,15,27,10		1,44,13,14, 2	
		1,55,23,27,41, 2,35,50		8,26
42″	23,45,35,55,16,13,20,18, 3, 0		1,44,13,22,28	
		1,55,23,25,56,49,13,22		8,26
44″	23,45,37,50,39,39,17, 7,16,22		1,44,13,30,54	
		1,55,23,24,12,35,42,28		8,26
46″	23,45,39,46, 3, 3,29,42,58,50		1,44,13,39,20	
		1,55,23,22,28,22, 3, 8		8,26
48″	23,45,41,41,26,25,58, 5, 1,58		1,44,13,47,46	
		1,55,23,20,44, 8,15,22		8,26
50″	23,45,43,36,49,46,42,13,17,20		1,44,13,56,12	
		1,55,23,18,59,54,19,10		8,26
52″	23,45,45,32,13, 5,42, 7,36,30		1,44,14, 4,38	
		1,55,23,17,15,40,14,32		8,26
54″	23,45,47,27,36,22,57,47,51, 2		1,44,14,13, 4	
		1,55,23,15,31,26, 1,28		8,26
56″	23,45,49,22,59,38,29,13,52,30		1,44,14,21,30	
		1,55,23,13,47,11,39,58		8,26
58″	23,45,51,18,22,52,16,25,32,28		1,44,14,29,56	
		1,55,23,12, 2,57,10, 2		
60″	23,45,53,13,46, 4,19,22,42,30			
exact	23,45,53,13,46, 4,19,22,26,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°20′ 0″	23,45,53,13,46, 4,19,22,26,34			
		1,55,23,10,18,42,30, 7		
2″	23,45,55, 9, 9,14,38, 4,56,41		1,44,14,46,54	
		1,55,23, 8,34,27,43,13		8,26
4″	23,45,57, 4,32,23,12,32,39,54		1,44,14,55,20	
		1,55,23, 6,50,12,47,53		8,26
6″	23,45,58,59,55,30, 2,45,27,47		1,44,15, 3,46	
		1,55,23, 5, 5,57,44, 7		8,26
8″	23,46, 0,55,18,35, 8,43,11,54		1,44,15,12,12	
		1,55,23, 3,21,42,31,55		8,26
10″	23,46, 2,50,41,38,30,25,43,49		1,44,15,20,38	
		1,55,23, 1,37,27,11,17		8,26
12″	23,46, 4,46, 4,40, 7,52,55, 6		1,44,15,29, 4	
		1,55,22,59,53,11,42,13		8,26
14″	23,46, 6,41,27,40, 1, 4,37,19		1,44,15,37,30	
		1,55,22,58, 8,56, 4,43		8,26
16″	23,46, 8,36,50,38,10, 0,42, 2		1,44,15,45,56	
		1,55,22,56,24,40,18,47		8,26
18″	23,46,10,32,13,34,34,41, 0,49		1,44,15,54,22	
		1,55,22,54,40,24,24,25		8,26
20″	23,46,12,27,36,29,15, 5,25,14		1,44,16, 2,48	
		1,55,22,52,56, 8,21,37		8,26
22″	23,46,14,22,59,22,11,13,46,51		1,44,16,11,14	
		1,55,22,51,11,52,10,23		8,26
24″	23,46,16,18,22,13,23, 5,57,14		1,44,16,19,40	
		1,55,22,49,27,35,50,43		8,26
26″	23,46,18,13,45, 2,50,41,47,57		1,44,16,28, 6	
		1,55,22,47,43,19,22,37		8,26
28″	23,46,20, 9, 7,50,34, 1,10,34		1,44,16,36,32	
		1,55,22,45,59, 2,46, 5		8,26
30″	23,46,22, 4,30,36,33, 3,56,39		1,44,16,44,58	
		1,55,22,44,14,46, 1, 7		8,26
32″	23,46,23,59,53,20,47,49,57,46		1,44,16,53,24	
		1,55,22,42,30,29, 7,43		8,26
34″	23,46,25,55,16, 3,18,19, 5,29		1,44,17, 1,50	
		1,55,22,40,46,12, 5,53		8,26
36″	23,46,27,50,38,44, 4,31,11,22		1,44,17,10,16	
		1,55,22,39, 1,54,55,37		8,26
38″	23,46,29,46, 1,23, 6,26, 6,59		1,44,17,18,42	
		1,55,22,37,17,37,36,55		8,26
40″	23,46,31,41,24, 0,24, 3,43,54		1,44,17,27, 8	
		1,55,22,35,33,20, 9,47		8,26
42″	23,46,33,36,46,35,57,23,53,41		1,44,17,35,34	
		1,55,22,33,49, 2,34,13		8,26
44″	23,46,35,32, 9, 9,46,26,27,54		1,44,17,44, 0	
		1,55,22,32, 4,44,50,13		8,26
46″	23,46,37,27,31,41,51,11,18, 7		1,44,17,52,26	
		1,55,22,30,20,26,57,47		8,26
48″	23,46,39,22,54,12,11,38,15,54		1,44,18, 0,52	
		1,55,22,28,36, 8,56,55		8,26
50″	23,46,41,18,16,40,47,47,12,49		1,44,18, 9,18	
		1,55,22,26,51,50,47,37		8,26
52″	23,46,43,13,39, 7,39,38, 0,26		1,44,18,17,44	
		1,55,22,25, 7,32,29,53		8,26
54″	23,46,45, 9, 1,32,47,10,30,19		1,44,18,26,10	
		1,55,22,23,23,14, 3,43		8,26
56″	23,46,47, 4,23,56,10,24,34, 2		1,44,18,34,36	
		1,55,22,21,38,55,29, 7		8,26
58″	23,46,48,59,46,17,49,20, 3, 9		1,44,18,43, 2	
		1,55,22,19,54,36,46, 5		
60″	23,46,50,55, 8,37,43,56,49,14			
exact	23,46,50,55, 8,37,43,56,43,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°21′ 0″	23,46,50,55, 8,37,43,56,43,40			
		1,55,22,18,10,17,53,57		
2″	23,46,52,50,30,55,54,14,37,37		1,44,18,59,57	
		1,55,22,16,25,58,54, 0		8,26
4″	23,46,54,45,53,12,20,13,31,37		1,44,19, 8,23	
		1,55,22,14,41,39,45,37		8,26
6″	23,46,56,41,15,27, 1,53,17,14		1,44,19,16,49	
		1,55,22,12,57,20,28,48		8,26
8″	23,46,58,36,37,39,59,13,46, 2		1,44,19,25,15	
		1,55,22,11,13, 1, 3,33		8,26
10″	23,47, 0,31,59,51,12,14,49,35		1,44,19,33,41	
		1,55,22, 9,28,41,29,52		8,26
12″	23,47, 2,27,22, 0,40,56,19,27		1,44,19,42, 7	
		1,55,22, 7,44,21,47,45		8,26
14″	23,47, 4,22,44, 8,25,18, 7,12		1,44,19,50,33	
		1,55,22, 6, 0, 1,57,12		8,26
16″	23,47, 6,18, 6,14,25,20, 4,24		1,44,19,58,59	
		1,55,22, 4,15,41,58,13		8,26
18″	23,47, 8,13,28,18,41, 2, 2,37		1,44,20, 7,25	
		1,55,22, 2,31,21,50,48		8,26
20″	23,47,10, 8,50,21,12,23,53,25		1,44,20,15,51	
		1,55,22, 0,47, 1,34,57		8,26
22″	23,47,12, 4,12,21,59,25,28,22		1,44,20,24,17	
		1,55,21,59, 2,41,10,40		8,26
24″	23,47,13,59,34,21, 2, 6,39, 2		1,44,20,32,43	
		1,55,21,57,18,20,37,57		8,26
26″	23,47,15,54,56,18,20,27,16,59		1,44,20,41, 9	
		1,55,21,55,33,59,56,48		8,26
28″	23,47,17,50,18,13,54,27,13,47		1,44,20,49,35	
		1,55,21,53,49,39, 7,13		8,26
30″	23,47,19,45,40, 7,44, 6,21, 0		1,44,20,58, 1	
		1,55,21,52, 5,18, 9,12		8,26
32″	23,47,21,41, 1,59,49,24,30,12		1,44,21, 6,27	
		1,55,21,50,20,57, 2,45		8,26
34″	23,47,23,36,23,50,10,21,32,57		1,44,21,14,53	
		1,55,21,48,36,35,47,52		8,26
36″	23,47,25,31,45,38,46,57,20,49		1,44,21,23,19	
		1,55,21,46,52,14,24,33		8,26
38″	23,47,27,27, 7,25,39,11,45,22		1,44,21,31,45	
		1,55,21,45, 7,52,52,48		8,26
40″	23,47,29,22,29,10,47, 4,38,10		1,44,21,40,11	
		1,55,21,43,23,31,12,37		8,26
42″	23,47,31,17,50,54,10,35,50,47		1,44,21,48,37	
		1,55,21,41,39, 9,24, 0		8,26
44″	23,47,33,13,12,35,49,45,14,47		1,44,21,57, 3	
		1,55,21,39,54,47,26,57		8,26
46″	23,47,35, 8,34,15,44,32,41,44		1,44,22, 5,29	
		1,55,21,38,10,25,21,28		8,26
48″	23,47,37, 3,55,53,54,58, 3,12		1,44,22,13,55	
		1,55,21,36,26, 3, 7,33		8,26
50″	23,47,38,59,17,30,21, 1,10,45		1,44,22,22,21	
		1,55,21,34,41,40,45,12		8,26
52″	23,47,40,54,39, 5, 2,41,55,57		1,44,22,30,47	
		1,55,21,32,57,18,14,25		8,26
54″	23,47,42,50, 0,38, 0, 0,10,22		1,44,22,39,13	
		1,55,21,31,12,55,35,12		8,26
56″	23,47,44,45,22, 9,12,55,45,34		1,44,22,47,39	
		1,55,21,29,28,32,47,33		8,26
58″	23,47,46,40,43,38,41,28,33, 7		1,44,22,56, 5	
		1,55,21,27,44, 9,51,28		
60″	23,47,48,36, 5, 6,25,38,24,35			
exact	23,47,48,36, 5, 6,25,38,21,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°22′ 0″	23,47,48,36, 5, 6,25,38,21,42			
		1,55,21,25,59,46,46,38		
2″	23,47,50,31,26,32,25,25, 8,20		1,44,23,12,58	
		1,55,21,24,15,23,33,40		8,26
4″	23,47,52,26,47,56,40,48,42, 0		1,44,23,21,24	
		1,55,21,22,31, 0,12,16		8,26
6″	23,47,54,22, 9,19,11,48,54,16		1,44,23,29,50	
		1,55,21,20,46,36,42,26		8,26
8″	23,47,56,17,30,39,58,25,36,42		1,44,23,38,16	
		1,55,21,19, 2,13, 4,10		8,26
10″	23,47,58,12,51,59, 0,38,40,52		1,44,23,46,42	
		1,55,21,17,17,49,17,28		8,26
12″	23,48, 0, 8,13,16,18,27,58,20		1,44,23,55, 8	
		1,55,21,15,33,25,22,20		8,26
14″	23,48, 2, 3,34,31,51,53,20,40		1,44,24, 3,34	
		1,55,21,13,49, 1,18,46		8,26
16″	23,48, 3,58,55,45,40,54,39,26		1,44,24,12, 0	
		1,55,21,12, 4,37, 6,46		8,26
18″	23,48, 5,54,16,57,45,31,46,12		1,44,24,20,26	
		1,55,21,10,20,12,46,20		8,26
20″	23,48, 7,49,38, 8, 5,44,32,32		1,44,24,28,52	
		1,55,21, 8,35,48,17,28		8,26
22″	23,48, 9,44,59,16,41,32,50, 0		1,44,24,37,18	
		1,55,21, 6,51,23,40,10		8,26
24″	23,48,11,40,20,23,32,56,30,10		1,44,24,45,44	
		1,55,21, 5, 6,58,54,26		8,26
26″	23,48,13,35,41,28,39,55,24,36		1,44,24,54,10	
		1,55,21, 3,22,34, 0,16		8,26
28″	23,48,15,31, 2,32, 2,29,24,52		1,44,25, 2,36	
		1,55,21, 1,38, 8,57,40		8,26
30″	23,48,17,26,23,33,40,38,22,32		1,44,25,11, 2	
		1,55,20,59,53,43,46,38		8,26
32″	23,48,19,21,44,33,34,22, 9,10		1,44,25,19,28	
		1,55,20,58, 9,18,27,10		8,26
34″	23,48,21,17, 5,31,43,40,36,20		1,44,25,27,54	
		1,55,20,56,24,52,59,16		8,26
36″	23,48,23,12,26,28, 8,33,35,36		1,44,25,36,20	
		1,55,20,54,40,27,22,56		8,26
38″	23,48,25, 7,47,22,49, 0,58,32		1,44,25,44,46	
		1,55,20,52,56, 1,38,10		8,26
40″	23,48,27, 3, 8,15,45, 2,36,42		1,44,25,53,12	
		1,55,20,51,11,35,44,58		8,26
42″	23,48,28,58,29, 6,56,38,21,40		1,44,26, 1,38	
		1,55,20,49,27, 9,43,20		8,26
44″	23,48,30,53,49,56,23,48, 5, 0		1,44,26,10, 4	
		1,55,20,47,42,43,33,16		8,26
46″	23,48,32,49,10,44, 6,31,38,16		1,44,26,18,30	
		1,55,20,45,58,17,14,46		8,26
48″	23,48,34,44,31,30, 4,48,53, 2		1,44,26,26,56	
		1,55,20,44,13,50,47,50		8,26
50″	23,48,36,39,52,14,18,39,40,52		1,44,26,35,22	
		1,55,20,42,29,24,12,28		8,26
52″	23,48,38,35,12,56,48, 3,53,20		1,44,26,43,48	
		1,55,20,40,44,57,28,40		8,26
54″	23,48,40,30,33,37,33, 1,22, 0		1,44,26,52,14	
		1,55,20,39, 0,30,36,26		8,26
56″	23,48,42,25,54,16,33,31,58,26		1,44,27, 0,40	
		1,55,20,37,16, 3,35,46		8,26
58″	23,48,44,21,14,53,49,35,34,12		1,44,27, 9, 6	
		1,55,20,35,31,36,26,40		
60″	23,48,46,16,35,29,21,12, 0,52			
exact	23,48,46,16,35,29,21,11,59,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°23′ 0″	23,48,46,16,35,29,21,11,59,54	1,55,20,33,47, 9, 9, 7		
2″	23,48,48,11,56, 3, 8,21, 9, 1	1,55,20,32, 2,41,43, 9	1,44,27,25,58	8,26
4″	23,48,50, 7,16,35,11, 2,52,10	1,55,20,30,18,14, 8,45	1,44,27,34,24	8,26
6″	23,48,52, 2,37, 5,29,17, 0,55	1,55,20,28,33,46,25,55	1,44,27,42,50	8,26
8″	23,48,53,57,57,34, 3, 3,26,50	1,55,20,26,49,18,34,39	1,44,27,51,16	8,26
10″	23,48,55,53,18, 0,52,22, 1,29	1,55,20,25, 4,50,34,57	1,44,27,59,42	8,26
12″	23,48,57,48,38,25,57,12,36,26	1,55,20,23,20,22,26,49	1,44,28, 8, 8	8,26
14″	23,48,59,43,58,49,17,35, 3,15	1,55,20,21,35,54,10,15	1,44,28,16,34	8,26
16″	23,49, 1,39,19,10,53,29,13,30	1,55,20,19,51,25,45,15	1,44,28,25, 0	8,26
18″	23,49, 3,34,39,30,44,54,58,45	1,55,20,18, 6,57,11,49	1,44,28,33,26	8,26
20″	23,49, 5,29,59,48,51,52,10,34	1,55,20,16,22,28,29,57	1,44,28,41,52	8,26
22″	23,49, 7,25,20, 5,14,20,40,31	1,55,20,14,37,59,39,39	1,44,28,50,18	8,26
24″	23,49, 9,20,40,19,52,20,20,10	1,55,20,12,53,30,40,55	1,44,28,58,44	8,26
26″	23,49,11,16, 0,32,45,51, 1, 5	1,55,20,11, 9, 1,33,45	1,44,29, 7,10	8,26
28″	23,49,13,11,20,43,54,52,34,50	1,55,20, 9,24,32,18, 9	1,44,29,15,36	8,26
30″	23,49,15, 6,40,53,19,24,52,59	1,55,20, 7,40, 2,54, 7	1,44,29,24, 2	8,26
32″	23,49,17, 2, 1, 0,59,27,47, 6	1,55,20, 5,55,33,21,39	1,44,29,32,28	8,26
34″	23,49,18,57,21, 6,55, 1, 8,45	1,55,20, 4,11, 3,40,45	1,44,29,40,54	8,26
36″	23,49,20,52,41,11, 6, 4,49,30	1,55,20, 2,26,33,51,25	1,44,29,49,20	8,26
38″	23,49,22,48, 1,13,32,38,40,55	1,55,20, 0,42, 3,53,39	1,44,29,57,46	8,26
40″	23,49,24,43,21,14,14,42,34,34	1,55,19,58,57,33,47,27	1,44,30, 6,12	8,26
42″	23,49,26,38,41,13,12,16,22, 1	1,55,19,57,13, 3,32,49	1,44,30,14,38	8,26
44″	23,49,28,34, 1,10,25,19,54,50	1,55,19,55,28,33, 9,45	1,44,30,23, 4	8,26
46″	23,49,30,29,21, 5,53,53, 4,35	1,55,19,53,44, 2,38,15	1,44,30,31,30	8,26
48″	23,49,32,24,40,59,37,55,42,50	1,55,19,51,59,31,58,19	1,44,30,39,56	8,26
50″	23,49,34,20, 0,51,37,27,41, 9	1,55,19,50,15, 1, 9,57	1,44,30,48,22	8,26
52″	23,49,36,15,20,41,52,28,51, 6	1,55,19,48,30,30,13, 9	1,44,30,56,48	8,26
54″	23,49,38,10,40,30,22,59, 4,15	1,55,19,46,45,59, 7,55	1,44,31, 5,14	8,26
56″	23,49,40, 6, 0,17, 8,58,12,10	1,55,19,45, 1,27,54,15	1,44,31,13,40	8,26
58″	23,49,42, 1,20, 2,10,26, 6,25	1,55,19,43,16,56,32, 9	1,44,31,22, 6	
60″	23,49,43,56,39,45,27,22,38,34			
exact	23,49,43,56,39,45,27,22,46, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°24′ 0″	23,49,43,56,39,45,27,22,46, 3	1,55,19,41,32,25, 2,21		
2″	23,49,45,51,59,26,59,47,48,24	1,55,19,39,47,53,23,26	1,44,31,38,55	8,26
4″	23,49,47,47,19, 6,47,41,11,50	1,55,19,38, 3,21,36, 5	1,44,31,47,21	8,26
6″	23,49,49,42,38,44,51, 2,47,55	1,55,19,36,18,49,40,18	1,44,31,55,47	8,26
8″	23,49,51,37,58,21, 9,52,28,13	1,55,19,34,34,17,36, 5	1,44,32, 4,13	8,26
10″	23,49,53,33,17,55,44,10, 4,18	1,55,19,32,49,45,23,26	1,44,32,12,39	8,26
12″	23,49,55,28,37,28,33,55,27,44	1,55,19,31, 5,13, 2,21	1,44,32,21, 5	8,26
14″	23,49,57,23,56,59,39, 8,30, 5	1,55,19,29,20,40,32,50	1,44,32,29,31	8,26
16″	23,49,59,19,16,28,59,49, 2,55	1,55,19,27,36, 7,54,53	1,44,32,37,57	8,26
18″	23,50, 1,14,35,56,35,56,57,48	1,55,19,25,51,35, 8,30	1,44,32,46,23	8,26
20″	23,50, 3, 9,55,22,27,32, 6,18	1,55,19,24, 7, 2,13,41	1,44,32,54,49	8,26
22″	23,50, 5, 5,14,46,34,34,19,59	1,55,19,22,22,29,10,26	1,44,33, 3,15	8,26
24″	23,50, 7, 0,34, 8,57, 3,30,25	1,55,19,20,37,55,58,45	1,44,33,11,41	8,26
26″	23,50, 8,55,53,29,34,59,29,10	1,55,19,18,53,22,38,38	1,44,33,20, 7	8,26
28″	23,50,10,51,12,48,28,22, 7,48	1,55,19,17, 8,49,10, 5	1,44,33,28,33	8,26
30″	23,50,12,46,32, 5,37,11,17,53	1,55,19,15,24,15,33, 6	1,44,33,36,59	8,26
32″	23,50,14,41,51,21, 1,26,50,59	1,55,19,13,39,41,47,41	1,44,33,45,25	8,26
34″	23,50,16,37,10,34,41, 8,38,40	1,55,19,11,55, 7,53,50	1,44,33,53,51	8,26
36″	23,50,18,32,29,46,36,16,32,30	1,55,19,10,10,33,51,33	1,44,34, 2,17	8,26
38″	23,50,20,27,48,56,46,50,24, 3	1,55,19, 8,25,59,40,50	1,44,34,10,43	8,26
40″	23,50,22,23, 8, 5,12,50, 4,53	1,55,19, 6,41,25,21,41	1,44,34,19, 9	8,26
42″	23,50,24,18,27,11,54,15,26,34	1,55,19, 4,56,50,54, 6	1,44,34,27,35	8,26
44″	23,50,26,13,46,16,51, 6,20,40	1,55,19, 3,12,16,18, 5	1,44,34,36, 1	8,26
46″	23,50,28, 9, 5,20, 3,22,38,45	1,55,19, 1,27,41,33,38	1,44,34,44,27	8,26
48″	23,50,30, 4,24,21,31, 4,12,23	1,55,18,59,43, 6,40,45	1,44,34,52,53	8,26
50″	23,50,31,59,43,21,14,10,53, 8	1,55,18,57,58,31,39,26	1,44,35, 1,19	8,26
52″	23,50,33,55, 2,19,12,42,32,34	1,55,18,56,13,56,29,41	1,44,35, 9,45	8,26
54″	23,50,35,50,21,15,26,39, 2,15	1,55,18,54,29,21,11,30	1,44,35,18,11	8,26
56″	23,50,37,45,40, 9,56, 0,13,45	1,55,18,52,44,45,44,53	1,44,35,26,37	8,26
58″	23,50,39,40,59, 2,40,45,58,38	1,55,18,51, 0,10, 9,50	1,44,35,35, 3	
60″	23,50,41,36,17,53,40,56, 8,28			
exact	23,50,41,36,17,53,40,56,16,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°25′ 0″	23,50,41,36,17,53,40,56,16,36			
		1,55,18,49,15,34,27,17		
2″	23,50,43,31,36,42,56,30,43,53		1,44,35,51,51	
		1,55,18,47,30,58,35,26		8,26
4″	23,50,45,26,55,30,27,29,19,19		1,44,36, 0,17	
		1,55,18,45,46,22,35, 9		8,26
6″	23,50,47,22,14,16,13,51,54,28		1,44,36, 8,43	
		1,55,18,44, 1,46,26,26		8,26
8″	23,50,49,17,33, 0,15,38,20,54		1,44,36,17, 9	
		1,55,18,42,17,10, 9,17		8,26
10″	23,50,51,12,51,42,32,48,30,11		1,44,36,25,35	
		1,55,18,40,32,33,43,42		8,26
12″	23,50,53, 8,10,23, 5,22,13,53		1,44,36,34, 1	
		1,55,18,38,47,57, 9,41		8,26
14″	23,50,55, 3,29, 1,53,19,23,34		1,44,36,42,27	
		1,55,18,37, 3,20,27,14		8,26
16″	23,50,56,58,47,38,56,39,50,48		1,44,36,50,53	
		1,55,18,35,18,43,36,21		8,26
18″	23,50,58,54, 6,14,15,23,27, 9		1,44,36,59,19	
		1,55,18,33,34, 6,37, 2		8,26
20″	23,51, 0,49,24,47,49,30, 4,11		1,44,37, 7,45	
		1,55,18,31,49,29,29,17		8,26
22″	23,51, 2,44,43,19,38,59,33,28		1,44,37,16,11	
		1,55,18,30, 4,52,13, 6		8,26
24″	23,51, 4,40, 1,49,43,51,46,34		1,44,37,24,37	
		1,55,18,28,20,14,48,29		8,26
26″	23,51, 6,35,20,18, 4, 6,35, 3		1,44,37,33, 3	
		1,55,18,26,35,37,15,26		8,26
28″	23,51, 8,30,38,44,39,43,50,29		1,44,37,41,29	
		1,55,18,24,50,59,33,57		8,26
30″	23,51,10,25,57, 9,30,43,24,26		1,44,37,49,55	
		1,55,18,23, 6,21,44, 2		8,26
32″	23,51,12,21,15,32,37, 5, 8,28		1,44,37,58,21	
		1,55,18,21,21,43,45,41		8,26
34″	23,51,14,16,33,53,58,48,54, 9		1,44,38, 6,47	
		1,55,18,19,37, 5,38,54		8,26
36″	23,51,16,11,52,13,35,54,33, 3		1,44,38,15,13	
		1,55,18,17,52,27,23,41		8,26
38″	23,51,18, 7,10,31,28,21,56,44		1,44,38,23,39	
		1,55,18,16, 7,49, 0, 2		8,26
40″	23,51,20, 2,28,47,36,10,56,46		1,44,38,32, 5	
		1,55,18,14,23,10,27,57		8,26
42″	23,51,21,57,47, 1,59,21,24,43		1,44,38,40,31	
		1,55,18,12,38,31,47,26		8,26
44″	23,51,23,53, 5,14,37,53,12, 9		1,44,38,48,57	
		1,55,18,10,53,52,58,29		8,26
46″	23,51,25,48,23,25,31,46,10,38		1,44,38,57,23	
		1,55,18, 9, 9,14, 1, 6		8,26
48″	23,51,27,43,41,34,41, 0,11,44		1,44,39, 5,49	
		1,55,18, 7,24,34,55,17		8,26
50″	23,51,29,38,59,42, 5,35, 7, 1		1,44,39,14,15	
		1,55,18, 5,39,55,41, 2		8,26
52″	23,51,31,34,17,47,45,30,48, 3		1,44,39,22,41	
		1,55,18, 3,55,16,18,21		8,26
54″	23,51,33,29,35,51,40,47, 6,24		1,44,39,31, 7	
		1,55,18, 2,10,36,47,14		8,26
56″	23,51,35,24,53,53,51,23,53,38		1,44,39,39,33	
		1,55,18, 0,25,57, 7,41		8,26
58″	23,51,37,20,11,54,17,21, 1,19		1,44,39,47,59	
		1,55,17,58,41,17,19,42		
60″	23,51,39,15,29,52,58,38,21, 1			
exact	23,51,39,15,29,52,58,38,36,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°26′ 0″	23,51,39,15,29,52,58,38,36,39			
		1,55,17,56,56,37,24,54		
2″	23,51,41,10,47,49,55,16, 1,33		1,44,40, 4,44	
		1,55,17,55,11,57,20,10		8,26
4″	23,51,43, 6, 5,45, 7,13,21,43		1,44,40,13,10	
		1,55,17,53,27,17, 7, 0		8,26
6″	23,51,45, 1,23,38,34,30,28,43		1,44,40,21,36	
		1,55,17,51,42,36,45,24		8,26
8″	23,51,46,56,41,30,17, 7,14, 7		1,44,40,30, 2	
		1,55,17,49,57,56,15,22		8,26
10″	23,51,48,51,59,20,15, 3,29,29		1,44,40,38,28	
		1,55,17,48,13,15,36,54		8,26
12″	23,51,50,47,17, 8,28,19, 6,23		1,44,40,46,54	
		1,55,17,46,28,34,50, 0		8,26
14″	23,51,52,42,34,54,56,53,56,23		1,44,40,55,20	
		1,55,17,44,43,53,54,40		8,26
16″	23,51,54,37,52,39,40,47,51, 3		1,44,41, 3,46	
		1,55,17,42,59,12,50,54		8,26
18″	23,51,56,33,10,22,40, 0,41,57		1,44,41,12,12	
		1,55,17,41,14,31,38,42		8,26
20″	23,51,58,28,28, 3,54,32,20,39		1,44,41,20,38	
		1,55,17,39,29,50,18, 4		8,26
22″	23,52, 0,23,45,43,24,22,38,43		1,44,41,29, 4	
		1,55,17,37,45, 8,49, 0		8,26
24″	23,52, 2,19, 3,21, 9,31,27,43		1,44,41,37,30	
		1,55,17,36, 0,27,11,30		8,26
26″	23,52, 4,14,20,57, 9,58,39,13		1,44,41,45,56	
		1,55,17,34,15,45,25,34		8,26
28″	23,52, 6, 9,38,31,25,44, 4,47		1,44,41,54,22	
		1,55,17,32,31, 3,31,12		8,26
30″	23,52, 8, 4,56, 3,56,47,35,59		1,44,42, 2,48	
		1,55,17,30,46,21,28,24		8,26
32″	23,52,10, 0,13,34,43, 9, 4,23		1,44,42,11,14	
		1,55,17,29, 1,39,17,10		8,26
34″	23,52,11,55,31, 3,44,48,21,33		1,44,42,19,40	
		1,55,17,27,16,56,57,30		8,26
36″	23,52,13,50,48,31, 1,45,19, 3		1,44,42,28, 6	
		1,55,17,25,32,14,29,24		8,26
38″	23,52,15,46, 5,56,33,59,48,27		1,44,42,36,32	
		1,55,17,23,47,31,52,52		8,26
40″	23,52,17,41,23,20,21,31,41,19		1,44,42,44,58	
		1,55,17,22, 2,49, 7,54		8,26
42″	23,52,19,36,40,42,24,20,49,13		1,44,42,53,24	
		1,55,17,20,18, 6,14,30		8,26
44″	23,52,21,31,58, 2,42,27, 3,43		1,44,43, 1,50	
		1,55,17,18,33,23,12,40		8,26
46″	23,52,23,27,15,21,15,50,16,23		1,44,43,10,16	
		1,55,17,16,48,40, 2,24		8,26
48″	23,52,25,22,32,38, 4,30,18,47		1,44,43,18,42	
		1,55,17,15, 3,56,43,42		8,26
50″	23,52,27,17,49,53, 8,27, 2,29		1,44,43,27, 8	
		1,55,17,13,19,13,16,34		8,26
52″	23,52,29,13, 7, 6,27,40,19, 3		1,44,43,35,34	
		1,55,17,11,34,29,41, 0		8,26
54″	23,52,31, 8,24,18, 2,10, 0, 3		1,44,43,44, 0	
		1,55,17, 9,49,45,57, 0		8,26
56″	23,52,33, 3,41,27,51,55,57, 3		1,44,43,52,26	
		1,55,17, 8, 5, 2, 4,34		8,26
58″	23,52,34,58,58,35,56,58, 1,37		1,44,44, 0,52	
		1,55,17, 6,20,18, 3,42		
60″	23,52,36,54,15,42,17,16, 5,19			
exact	23,52,36,54,15,42,17,16,20, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°27′ 0″	23,52,36,54,15,42,17,16,20, 0			
		1,55,17, 4,35,33,56, 7		
2″	23,52,38,49,32,46,52,50,16, 7		1,44,44,17,36	
		1,55,17, 2,50,49,38,31		8,26
4″	23,52,40,44,49,49,43,39,54,38		1,44,44,26, 2	
		1,55,17, 1, 6, 5,12,29		8,26
6″	23,52,42,40, 6,50,49,45, 7, 7		1,44,44,34,28	
		1,55,16,59,21,20,38, 1		8,26
8″	23,52,44,35,23,50,11, 5,45, 8		1,44,44,42,54	
		1,55,16,57,36,35,55, 7		8,26
10″	23,52,46,30,40,47,47,41,40,15		1,44,44,51,20	
		1,55,16,55,51,51, 3,47		8,26
12″	23,52,48,25,57,43,39,32,44, 2		1,44,44,59,46	
		1,55,16,54, 7, 6, 4, 1		8,26
14″	23,52,50,21,14,37,46,38,48, 3		1,44,45, 8,12	
		1,55,16,52,22,20,55,49		8,26
16″	23,52,52,16,31,30, 8,59,43,52		1,44,45,16,38	
		1,55,16,50,37,35,39,11		8,26
18″	23,52,54,11,48,20,46,35,23, 3		1,44,45,25, 4	
		1,55,16,48,52,50,14, 7		8,26
20″	23,52,56, 7, 5, 9,39,25,37,10		1,44,45,33,30	
		1,55,16,47, 8, 4,40,37		8,26
22″	23,52,58, 2,21,56,47,30,17,47		1,44,45,41,56	
		1,55,16,45,23,18,58,41		8,26
24″	23,52,59,57,38,42,10,49,16,28		1,44,45,50,22	
		1,55,16,43,38,33, 8,19		8,26
26″	23,53, 1,52,55,25,49,22,24,47		1,44,45,58,48	
		1,55,16,41,53,47, 9,31		8,26
28″	23,53, 3,48,12, 7,43, 9,34,18		1,44,46, 7,14	
		1,55,16,40, 9, 1, 2,17		8,26
30″	23,53, 5,43,28,47,52,10,36,35		1,44,46,15,40	
		1,55,16,38,24,14,46,37		8,26
32″	23,53, 7,38,45,26,16,25,23,12		1,44,46,24, 6	
		1,55,16,36,39,28,22,31		8,26
34″	23,53, 9,34, 2, 2,55,53,45,43		1,44,46,32,32	
		1,55,16,34,54,41,49,59		8,26
36″	23,53,11,29,18,37,50,35,35,42		1,44,46,40,58	
		1,55,16,33, 9,55, 9, 1		8,26
38″	23,53,13,24,35,11, 0,30,44,43		1,44,46,49,24	
		1,55,16,31,25, 8,19,37		8,26
40″	23,53,15,19,51,42,25,39, 4,20		1,44,46,57,50	
		1,55,16,29,40,21,21,47		8,26
42″	23,53,17,15, 8,12, 6, 0,26, 7		1,44,47, 6,16	
		1,55,16,27,55,34,15,31		8,26
44″	23,53,19,10,24,40, 1,34,41,38		1,44,47,14,42	
		1,55,16,26,10,47, 0,49		8,26
46″	23,53,21, 5,41, 6,12,21,42,27		1,44,47,23, 8	
		1,55,16,24,25,59,37,41		8,26
48″	23,53,23, 0,57,30,38,21,20, 8		1,44,47,31,34	
		1,55,16,22,41,12, 6, 7		8,26
50″	23,53,24,56,13,53,19,33,26,15		1,44,47,40, 0	
		1,55,16,20,56,24,26, 7		8,26
52″	23,53,26,51,30,14,15,57,52,22		1,44,47,48,26	
		1,55,16,19,11,36,37,41		8,26
54″	23,53,28,46,46,33,27,34,30, 3		1,44,47,56,52	
		1,55,16,17,26,48,40,49		8,26
56″	23,53,30,42, 2,50,54,23,10,52		1,44,48, 5,18	
		1,55,16,15,42, 0,35,31		8,26
58″	23,53,32,37,19, 6,36,23,46,23		1,44,48,13,44	
		1,55,16,13,57,12,21,47		
60″	23,53,34,32,35,20,33,36, 8,10			
exact	23,53,34,32,35,20,33,36,29, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°28′ 0″	23,53,34,32,35,20,33,36,29, 5			
		1,55,16,12,12,24, 1,55		
2″	23,53,36,27,51,32,46, 0,31, 0		1,44,48,30,26	
		1,55,16,10,27,35,31,29		8,26
4″	23,53,38,23, 7,43,13,36, 2,29		1,44,48,38,52	
		1,55,16, 8,42,46,52,37		8,26
6″	23,53,40,18,23,51,56,22,55, 6		1,44,48,47,18	
		1,55,16, 6,57,58, 5,19		8,26
8″	23,53,42,13,39,58,54,21, 0,25		1,44,48,55,44	
		1,55,16, 5,13, 9, 9,35		8,26
10″	23,53,44, 8,56, 4, 7,30,10, 0		1,44,49, 4,10	
		1,55,16, 3,28,20, 5,25		8,26
12″	23,53,46, 4,12, 7,35,50,15,25		1,44,49,12,36	
		1,55,16, 1,43,30,52,49		8,26
14″	23,53,47,59,28, 9,19,21, 8,14		1,44,49,21, 2	
		1,55,15,59,58,41,31,47		8,26
16″	23,53,49,54,44, 9,18, 2,40, 1		1,44,49,29,28	
		1,55,15,58,13,52, 2,19		8,26
18″	23,53,51,50, 0, 7,31,54,42,20		1,44,49,37,54	
		1,55,15,56,29, 2,24,25		8,26
20″	23,53,53,45,16, 4, 0,57, 6,45		1,44,49,46,20	
		1,55,15,54,44,12,38, 5		8,26
22″	23,53,55,40,31,58,45, 9,44,50		1,44,49,54,46	
		1,55,15,52,59,22,43,19		8,26
24″	23,53,57,35,47,51,44,32,28, 9		1,44,50, 3,12	
		1,55,15,51,14,32,40, 7		8,26
26″	23,53,59,31, 3,42,59, 5, 8,16		1,44,50,11,38	
		1,55,15,49,29,42,28,29		8,26
28″	23,54, 1,26,19,32,28,47,36,45		1,44,50,20, 4	
		1,55,15,47,44,52, 8,25		8,26
30″	23,54, 3,21,35,20,13,39,45,10		1,44,50,28,30	
		1,55,15,46, 0, 1,39,55		8,26
32″	23,54, 5,16,51, 6,13,41,25, 5		1,44,50,36,56	
		1,55,15,44,15,11, 2,59		8,26
34″	23,54, 7,12, 6,50,28,52,28, 4		1,44,50,45,22	
		1,55,15,42,30,20,17,37		8,26
36″	23,54, 9, 7,22,32,59,12,45,41		1,44,50,53,48	
		1,55,15,40,45,29,23,49		8,26
38″	23,54,11, 2,38,13,44,42, 9,30		1,44,51, 2,14	
		1,55,15,39, 0,38,21,35		8,26
40″	23,54,12,57,53,52,45,20,31, 5		1,44,51,10,40	
		1,55,15,37,15,47,10,55		8,26
42″	23,54,14,53, 9,30, 1, 7,42, 0		1,44,51,19, 6	
		1,55,15,35,30,55,51,49		8,26
44″	23,54,16,48,25, 5,32, 3,33,49		1,44,51,27,32	
		1,55,15,33,46, 4,24,17		8,26
46″	23,54,18,43,40,39,18, 7,58, 6		1,44,51,35,58	
		1,55,15,32, 1,12,48,19		8,26
48″	23,54,20,38,56,11,19,20,46,25		1,44,51,44,24	
		1,55,15,30,16,21, 3,55		8,26
50″	23,54,22,34,11,41,35,41,50,20		1,44,51,52,50	
		1,55,15,28,31,29,11, 5		8,26
52″	23,54,24,29,27,10, 7,11, 1,25		1,44,52, 1,16	
		1,55,15,26,46,37, 9,49		8,26
54″	23,54,26,24,42,36,53,48,11,14		1,44,52, 9,42	
		1,55,15,25, 1,45, 0, 7		8,26
56″	23,54,28,19,58, 1,55,33,11,21		1,44,52,18, 8	
		1,55,15,23,16,52,41,59		8,26
58″	23,54,30,15,13,25,12,25,53,20		1,44,52,26,34	
		1,55,15,21,32, 0,15,25		
60″	23,54,32,10,28,46,44,26, 8,45			
exact	23,54,32,10,28,46,44,26,35, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°29′ 0″	23,54,32,10,28,46,44,26,35, 6			
		1,55,15,19,47, 7,43,16		
2″	23,54,34, 5,44, 6,31,34,18,22		1,44,52,43,14	
		1,55,15,18, 2,15, 0, 2		8,26
4″	23,54,36, 0,59,24,33,49,18,24		1,44,52,51,40	
		1,55,15,16,17,22, 8,22		8,26
6″	23,54,37,56,14,40,51,11,26,46		1,44,53, 0, 6	
		1,55,15,14,32,29, 8,16		8,26
8″	23,54,39,51,29,55,23,40,35, 2		1,44,53, 8,32	
		1,55,15,12,47,35,59,44		8,26
10″	23,54,41,46,45, 8,11,16,34,46		1,44,53,16,58	
		1,55,15,11, 2,42,42,46		8,26
12″	23,54,43,42, 0,19,13,59,17,32		1,44,53,25,24	
		1,55,15, 9,17,49,17,22		8,26
14″	23,54,45,37,15,28,31,48,34,54		1,44,53,33,50	
		1,55,15, 7,32,55,43,32		8,26
16″	23,54,47,32,30,36, 4,44,18,26		1,44,53,42,16	
		1,55,15, 5,48, 2, 1,16		8,26
18″	23,54,49,27,45,41,52,46,19,42		1,44,53,50,42	
		1,55,15, 4, 3, 8,10,34		8,26
20″	23,54,51,23, 0,45,55,54,30,16		1,44,53,59, 8	
		1,55,15, 2,18,14,11,26		8,26
22″	23,54,53,18,15,48,14, 8,41,42		1,44,54, 7,34	
		1,55,15, 0,33,20, 3,52		8,26
24″	23,54,55,13,30,48,47,28,45,34		1,44,54,16, 0	
		1,55,14,58,48,25,47,52		8,26
26″	23,54,57, 8,45,47,35,54,33,26		1,44,54,24,26	
		1,55,14,57, 3,31,23,26		8,26
28″	23,54,59, 4, 0,44,39,25,56,52		1,44,54,32,52	
		1,55,14,55,18,36,50,34		8,26
30″	23,55, 0,59,15,39,58, 2,47,26		1,44,54,41,18	
		1,55,14,53,33,42, 9,16		8,26
32″	23,55, 2,54,30,33,31,44,56,42		1,44,54,49,44	
		1,55,14,51,48,47,19,32		8,26
34″	23,55, 4,49,45,25,20,32,16,14		1,44,54,58,10	
		1,55,14,50, 3,52,21,22		8,26
36″	23,55, 6,45, 0,15,24,24,37,36		1,44,55, 6,36	
		1,55,14,48,18,57,14,46		8,26
38″	23,55, 8,40,15, 3,43,21,52,22		1,44,55,15, 2	
		1,55,14,46,34, 1,59,44		8,26
40″	23,55,10,35,29,50,17,23,52, 6		1,44,55,23,28	
		1,55,14,44,49, 6,36,16		8,26
42″	23,55,12,30,44,35, 6,30,28,22		1,44,55,31,54	
		1,55,14,43, 4,11, 4,22		8,26
44″	23,55,14,25,59,18,10,41,32,44		1,44,55,40,20	
		1,55,14,41,19,15,24, 2		8,26
46″	23,55,16,21,13,59,29,56,56,46		1,44,55,48,46	
		1,55,14,39,34,19,35,16		8,26
48″	23,55,18,16,28,39, 4,16,32, 2		1,44,55,57,12	
		1,55,14,37,49,23,38, 4		8,26
50″	23,55,20,11,43,16,53,40,10, 6		1,44,56, 5,38	
		1,55,14,36, 4,27,32,26		8,26
52″	23,55,22, 6,57,52,58, 7,42,32		1,44,56,14, 4	
		1,55,14,34,19,31,18,22		8,26
54″	23,55,24, 2,12,27,17,39, 0,54		1,44,56,22,30	
		1,55,14,32,34,34,55,52		8,26
56″	23,55,25,57,26,59,52,13,56,46		1,44,56,30,56	
		1,55,14,30,49,38,24,56		8,26
58″	23,55,27,52,41,30,41,52,21,42		1,44,56,39,22	
		1,55,14,29, 4,41,45,34		
60″	23,55,29,47,55,59,46,34, 7,16			
exact	23,55,29,47,55,59,46,34,38, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°30′ 0″	23,55,29,47,55,59,46,34,38, 0	1,55,14,27,19,45, 1, 5		
2″	23,55,31,43,10,27, 6,19,39, 5	1,55,14,25,34,48, 5, 5	1,44,56,56, 0	8,26
4″	23,55,33,38,24,52,41, 7,44,10	1,55,14,23,49,51, 0,39	1,44,57, 4,26	8,26
6″	23,55,35,33,39,16,30,58,44,49	1,55,14,22, 4,53,47,47	1,44,57,12,52	8,26
8″	23,55,37,28,53,38,35,52,32,36	1,55,14,20,19,56,26,29	1,44,57,21,18	8,26
10″	23,55,39,24, 7,58,55,48,59, 5	1,55,14,18,34,58,56,45	1,44,57,29,44	8,26
12″	23,55,41,19,22,17,30,47,55,50	1,55,14,16,50, 1,18,35	1,44,57,38,10	8,26
14″	23,55,43,14,36,34,20,49,14,25	1,55,14,15, 5, 3,31,59	1,44,57,46,36	8,26
16″	23,55,45, 9,50,49,25,52,46,24	1,55,14,13,20, 5,36,57	1,44,57,55, 2	8,26
18″	23,55,47, 5, 5, 2,45,58,23,21	1,55,14,11,35, 7,33,29	1,44,58, 3,28	8,26
20″	23,55,49, 0,19,14,21, 5,56,50	1,55,14, 9,50, 9,21,35	1,44,58,11,54	8,26
22″	23,55,50,55,33,24,11,15,18,25	1,55,14, 8, 5,11, 1,15	1,44,58,20,20	8,26
24″	23,55,52,50,47,32,16,26,19,40	1,55,14, 6,20,12,32,29	1,44,58,28,46	8,26
26″	23,55,54,46, 1,38,36,38,52, 9	1,55,14, 4,35,13,55,17	1,44,58,37,12	8,26
28″	23,55,56,41,15,43,11,52,47,26	1,55,14, 2,50,15, 9,39	1,44,58,45,38	8,26
30″	23,55,58,36,29,46, 2, 7,57, 5	1,55,14, 1, 5,16,15,35	1,44,58,54, 4	8,26
32″	23,56, 0,31,43,47, 7,24,12,40	1,55,13,59,20,17,13, 5	1,44,59, 2,30	8,26
34″	23,56, 2,26,57,46,27,41,25,45	1,55,13,57,35,18, 2, 9	1,44,59,10,56	8,26
36″	23,56, 4,22,11,44, 2,59,27,54	1,55,13,55,50,18,42,47	1,44,59,19,22	8,26
38″	23,56, 6,17,25,39,53,18,10,41	1,55,13,54, 5,19,14,59	1,44,59,27,48	8,26
40″	23,56, 8,12,39,33,58,37,25,40	1,55,13,52,20,19,38,45	1,44,59,36,14	8,26
42″	23,56,10, 7,53,26,18,57, 4,25	1,55,13,50,35,19,54, 5	1,44,59,44,40	8,26
44″	23,56,12, 3, 7,16,54,16,58,30	1,55,13,48,50,20, 0,59	1,44,59,53, 6	8,26
46″	23,56,13,58,21, 5,44,36,59,29	1,55,13,47, 5,19,59,27	1,45, 0, 1,32	8,26
48″	23,56,15,53,34,52,49,56,58,56	1,55,13,45,20,19,49,29	1,45, 0, 9,58	8,26
50″	23,56,17,48,48,38,10,16,48,25	1,55,13,43,35,19,31, 5	1,45, 0,18,24	8,26
52″	23,56,19,44, 2,21,45,36,19,30	1,55,13,41,50,19, 4,15	1,45, 0,26,50	8,26
54″	23,56,21,39,16, 3,35,55,23,45	1,55,13,40, 5,18,28,59	1,45, 0,35,16	8,26
56″	23,56,23,34,29,43,41,13,52,44	1,55,13,38,20,17,45,17	1,45, 0,43,42	8,26
58″	23,56,25,29,43,22, 1,31,38, 1	1,55,13,36,35,16,53, 9	1,45, 0,52, 8	
60″	23,56,27,24,56,58,36,48,31,10			
exact	23,56,27,24,56,58,36,49, 6,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°31′ 0″	23,56,27,24,56,58,36,49, 6,25			
		1,55,13,34,50,15,56,22		
2″	23,56,29,20,10,33,27, 5, 2,47		1,45, 1, 8,44	
		1,55,13,33, 5,14,47,38		8,25
4″	23,56,31,15,24, 6,32,19,50,25		1,45, 1,17, 9	
		1,55,13,31,20,13,30,29		8,25
6″	23,56,33,10,37,37,52,33,20,54		1,45, 1,25,34	
		1,55,13,29,35,12, 4,55		8,25
8″	23,56,35, 5,51, 7,27,45,25,49		1,45, 1,33,59	
		1,55,13,27,50,10,30,56		8,25
10″	23,56,37, 1, 4,35,17,55,56,45		1,45, 1,42,24	
		1,55,13,26, 5, 8,48,32		8,25
12″	23,56,38,56,18, 1,23, 4,45,17		1,45, 1,50,49	
		1,55,13,24,20, 6,57,43		8,25
14″	23,56,40,51,31,25,43,11,43, 0		1,45, 1,59,14	
		1,55,13,22,35, 4,58,29		8,25
16″	23,56,42,46,44,48,18,16,41,29		1,45, 2, 7,39	
		1,55,13,20,50, 2,50,50		8,25
18″	23,56,44,41,58, 9, 8,19,32,19		1,45, 2,16, 4	
		1,55,13,19, 5, 0,34,46		8,25
20″	23,56,46,37,11,28,13,20, 7, 5		1,45, 2,24,29	
		1,55,13,17,19,58,10,17		8,25
22″	23,56,48,32,24,45,33,18,17,22		1,45, 2,32,54	
		1,55,13,15,34,55,37,23		8,25
24″	23,56,50,27,38, 1, 8,13,54,45		1,45, 2,41,19	
		1,55,13,13,49,52,56, 4		8,25
26″	23,56,52,22,51,14,58, 6,50,49		1,45, 2,49,44	
		1,55,13,12, 4,50, 6,20		8,25
28″	23,56,54,18, 4,27, 2,56,57, 9		1,45, 2,58, 9	
		1,55,13,10,19,47, 8,11		8,25
30″	23,56,56,13,17,37,22,44, 5,20		1,45, 3, 6,34	
		1,55,13, 8,34,44, 1,37		8,25
32″	23,56,58, 8,30,45,57,28, 6,57		1,45, 3,14,59	
		1,55,13, 6,49,40,46,38		8,25
34″	23,57, 0, 3,43,52,47, 8,53,35		1,45, 3,23,24	
		1,55,13, 5, 4,37,23,14		8,25
36″	23,57, 1,58,56,57,51,46,16,49		1,45, 3,31,49	
		1,55,13, 3,19,33,51,25		8,25
38″	23,57, 3,54,10, 1,11,20, 8,14		1,45, 3,40,14	
		1,55,13, 1,34,30,11,11		8,25
40″	23,57, 5,49,23, 2,45,50,19,25		1,45, 3,48,39	
		1,55,12,59,49,26,22,32		8,25
42″	23,57, 7,44,36, 2,35,16,41,57		1,45, 3,57, 4	
		1,55,12,58, 4,22,25,28		8,25
44″	23,57, 9,39,49, 0,39,39, 7,25		1,45, 4, 5,29	
		1,55,12,56,19,18,19,59		8,25
46″	23,57,11,35, 1,56,58,57,27,24		1,45, 4,13,54	
		1,55,12,54,34,14, 6, 5		8,25
48″	23,57,13,30,14,51,33,11,33,29		1,45, 4,22,19	
		1,55,12,52,49, 9,43,46		8,25
50″	23,57,15,25,27,44,22,21,17,15		1,45, 4,30,44	
		1,55,12,51, 4, 5,13, 2		8,25
52″	23,57,17,20,40,35,26,26,30,17		1,45, 4,39, 9	
		1,55,12,49,19, 0,33,53		8,25
54″	23,57,19,15,53,24,45,27, 4,10		1,45, 4,47,34	
		1,55,12,47,33,55,46,19		8,25
56″	23,57,21,11, 6,12,19,22,50,29		1,45, 4,55,59	
		1,55,12,45,48,50,50,20		8,25
58″	23,57,23, 6,18,58, 8,13,40,49		1,45, 5, 4,24	
		1,55,12,44, 3,45,45,56		
60″	23,57,25, 1,31,42,11,59,26,45			
exact	23,57,25, 1,31,42,11,58,57,48			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
23°32′	0″	23,57,25, 1,31,42,11,58,57,48	1,55,12,42,18,40,30, 4		
	2″	23,57,26,56,44,24,30,39,27,52	1,55,12,40,33,35, 8,38	1,45, 5,21,26	8,25
	4″	23,57,28,51,57, 5, 4,14,36,30	1,55,12,38,48,29,38,47	1,45, 5,29,51	8,25
	6″	23,57,30,47, 9,43,52,44,15,17	1,55,12,37, 3,24, 0,31	1,45, 5,38,16	8,25
	8″	23,57,32,42,22,20,56, 8,15,48	1,55,12,35,18,18,13,50	1,45, 5,46,41	8,25
	10″	23,57,34,37,34,56,14,26,29,38	1,55,12,33,33,12,18,44	1,45, 5,55, 6	8,25
	12″	23,57,36,32,47,29,47,38,48,22	1,55,12,31,48, 6,15,13	1,45, 6, 3,31	8,25
	14″	23,57,38,28, 0, 1,35,45, 3,35	1,55,12,30, 3, 0, 3,17	1,45, 6,11,56	8,25
	16″	23,57,40,23,12,31,38,45, 6,52	1,55,12,28,17,53,42,56	1,45, 6,20,21	8,25
	18″	23,57,42,18,24,59,56,38,49,48	1,55,12,26,32,47,14,10	1,45, 6,28,46	8,25
	20″	23,57,44,13,37,26,29,26, 3,58	1,55,12,24,47,40,36,59	1,45, 6,37,11	8,25
	22″	23,57,46, 8,49,51,17, 6,40,57	1,55,12,23, 2,33,51,23	1,45, 6,45,36	8,25
	24″	23,57,48, 4, 2,14,19,40,32,20	1,55,12,21,17,26,57,22	1,45, 6,54, 1	8,25
	26″	23,57,49,59,14,35,37, 7,29,42	1,55,12,19,32,19,54,56	1,45, 7, 2,26	8,25
	28″	23,57,51,54,26,55, 9,27,24,38	1,55,12,17,47,12,44, 5	1,45, 7,10,51	8,25
	30″	23,57,53,49,39,12,56,40, 8,43	1,55,12,16, 2, 5,24,49	1,45, 7,19,16	8,25
	32″	23,57,55,44,51,28,58,45,33,32	1,55,12,14,16,57,57, 8	1,45, 7,27,41	8,25
	34″	23,57,57,40, 3,43,15,43,30,40	1,55,12,12,31,50,21, 2	1,45, 7,36, 6	8,25
	36″	23,57,59,35,15,55,47,33,51,42	1,55,12,10,46,42,36,31	1,45, 7,44,31	8,25
	38″	23,58, 1,30,28, 6,34,16,28,13	1,55,12, 9, 1,34,43,35	1,45, 7,52,56	8,25
	40″	23,58, 3,25,40,15,35,51,11,48	1,55,12, 7,16,26,42,14	1,45, 8, 1,21	8,25
	42″	23,58, 5,20,52,22,52,17,54, 2	1,55,12, 5,31,18,32,28	1,45, 8, 9,46	8,25
	44″	23,58, 7,16, 4,28,23,36,26,30	1,55,12, 3,46,10,14,17	1,45, 8,18,11	8,25
	46″	23,58, 9,11,16,32, 9,46,40,47	1,55,12, 2, 1, 1,47,41	1,45, 8,26,36	8,25
	48″	23,58,11, 6,28,34,10,48,28,28	1,55,12, 0,15,53,12,40	1,45, 8,35, 1	8,25
	50″	23,58,13, 1,40,34,26,41,41, 8	1,55,11,58,30,44,29,14	1,45, 8,43,26	8,25
	52″	23,58,14,56,52,32,57,26,10,22	1,55,11,56,45,35,37,23	1,45, 8,51,51	8,25
	54″	23,58,16,52, 4,29,43, 1,47,45	1,55,11,55, 0,26,37, 7	1,45, 9, 0,16	8,25
	56″	23,58,18,47,16,24,43,28,24,52	1,55,11,53,15,17,28,26	1,45, 9, 8,41	8,25
	58″	23,58,20,42,28,17,58,45,53,18	1,55,11,51,30, 8,11,20	1,45, 9,17, 6	
	60″	23,58,22,37,40, 9,28,54, 4,38			
exact		23,58,22,37,40, 9,28,53,38,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°33′ 0″	23,58,22,37,40, 9,28,53,38,24			
		1,55,11,49,44,58,43, 7		
2″	23,58,24,32,51,59,13,52,21,31		1,45, 9,34, 7	
		1,55,11,47,59,49, 9, 0		8,25
4″	23,58,26,28, 3,47,13,41,30,31		1,45, 9,42,32	
		1,55,11,46,14,39,26,28		8,25
6″	23,58,28,23,15,33,28,20,56,59		1,45, 9,50,57	
		1,55,11,44,29,29,35,31		8,25
8″	23,58,30,18,27,17,57,50,32,30		1,45, 9,59,22	
		1,55,11,42,44,19,36, 9		8,25
10″	23,58,32,13,39, 0,42,10, 8,39		1,45,10, 7,47	
		1,55,11,40,59, 9,28,22		8,25
12″	23,58,34, 8,50,41,41,19,37, 1		1,45,10,16,12	
		1,55,11,39,13,59,12,10		8,25
14″	23,58,36, 4, 2,20,55,18,49,11		1,45,10,24,37	
		1,55,11,37,28,48,47,33		8,25
16″	23,58,37,59,13,58,24, 7,36,44		1,45,10,33, 2	
		1,55,11,35,43,38,14,31		8,25
18″	23,58,39,54,25,34, 7,45,51,15		1,45,10,41,27	
		1,55,11,33,58,27,33, 4		8,25
20″	23,58,41,49,37, 8, 6,13,24,19		1,45,10,49,52	
		1,55,11,32,13,16,43,12		8,25
22″	23,58,43,44,48,40,19,30, 7,31		1,45,10,58,17	
		1,55,11,30,28, 5,44,55		8,25
24″	23,58,45,40, 0,10,47,35,52,26		1,45,11, 6,42	
		1,55,11,28,42,54,38,13		8,25
26″	23,58,47,35,11,39,30,30,30,39		1,45,11,15, 7	
		1,55,11,26,57,43,23, 6		8,25
28″	23,58,49,30,23, 6,28,13,53,45		1,45,11,23,32	
		1,55,11,25,12,31,59,34		8,25
30″	23,58,51,25,34,31,40,45,53,19		1,45,11,31,57	
		1,55,11,23,27,20,27,37		8,25
32″	23,58,53,20,45,55, 8, 6,20,56		1,45,11,40,22	
		1,55,11,21,42, 8,47,15		8,25
34″	23,58,55,15,57,16,50,15, 8,11		1,45,11,48,47	
		1,55,11,19,56,56,58,28		8,25
36″	23,58,57,11, 8,36,47,12, 6,39		1,45,11,57,12	
		1,55,11,18,11,45, 1,16		8,25
38″	23,58,59, 6,19,54,58,57, 7,55		1,45,12, 5,37	
		1,55,11,16,26,32,55,39		8,25
40″	23,59, 1, 1,31,11,25,30, 3,34		1,45,12,14, 2	
		1,55,11,14,41,20,41,37		8,25
42″	23,59, 2,56,42,26, 6,50,45,11		1,45,12,22,27	
		1,55,11,12,56, 8,19,10		8,25
44″	23,59, 4,51,53,39, 2,59, 4,21		1,45,12,30,52	
		1,55,11,11,10,55,48,18		8,25
46″	23,59, 6,47, 4,50,13,54,52,39		1,45,12,39,17	
		1,55,11, 9,25,43, 9, 1		8,25
48″	23,59, 8,42,15,59,39,38, 1,40		1,45,12,47,42	
		1,55,11, 7,40,30,21,19		8,25
50″	23,59,10,37,27, 7,20, 8,22,59		1,45,12,56, 7	
		1,55,11, 5,55,17,25,12		8,25
52″	23,59,12,32,38,13,15,25,48,11		1,45,13, 4,32	
		1,55,11, 4,10, 4,20,40		8,25
54″	23,59,14,27,49,17,25,30, 8,51		1,45,13,12,57	
		1,55,11, 2,24,51, 7,43		8,25
56″	23,59,16,23, 0,19,50,21,16,34		1,45,13,21,22	
		1,55,11, 0,39,37,46,21		8,25
58″	23,59,18,18,11,20,29,59, 2,55		1,45,13,29,47	
		1,55,10,58,54,24,16,34		
60″	23,59,20,13,22,19,24,23,19,29			
exact	23,59,20,13,22,19,24,23, 3,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°34′ 0″	23,59,20,13,22,19,24,23, 3,15	1,55,10,57, 9,10,36,31		
2″	23,59,22, 8,33,16,33,33,39,46	1,55,10,55,23,56,49,46	1,45,13,46,45	8,25
4″	23,59,24, 3,44,11,57,30,29,32	1,55,10,53,38,42,54,36	1,45,13,55,10	8,25
6″	23,59,25,58,55, 5,36,13,24, 8	1,55,10,51,53,28,51, 1	1,45,14, 3,35	8,25
8″	23,59,27,54, 5,57,29,42,15, 9	1,55,10,50, 8,14,39, 1	1,45,14,12, 0	8,25
10″	23,59,29,49,16,47,37,56,54,10	1,55,10,48,23, 0,18,36	1,45,14,20,25	8,25
12″	23,59,31,44,27,36, 0,57,12,46	1,55,10,46,37,45,49,46	1,45,14,28,50	8,25
14″	23,59,33,39,38,22,38,43, 2,32	1,55,10,44,52,31,12,31	1,45,14,37,15	8,25
16″	23,59,35,34,49, 7,31,14,15, 3	1,55,10,43, 7,16,26,51	1,45,14,45,40	8,25
18″	23,59,37,29,59,50,38,30,41,54	1,55,10,41,22, 1,32,46	1,45,14,54, 5	8,25
20″	23,59,39,25,10,32, 0,32,14,40	1,55,10,39,36,46,30,16	1,45,15, 2,30	8,25
22″	23,59,41,20,21,11,37,18,44,56	1,55,10,37,51,31,19,21	1,45,15,10,55	8,25
24″	23,59,43,15,31,49,28,50, 4,17	1,55,10,36, 6,16, 0, 1	1,45,15,19,20	8,25
26″	23,59,45,10,42,25,35, 6, 4,18	1,55,10,34,21, 0,32,16	1,45,15,27,45	8,25
28″	23,59,47, 5,52,59,56, 6,36,34	1,55,10,32,35,44,56, 6	1,45,15,36,10	8,25
30″	23,59,49, 1, 3,32,31,51,32,40	1,55,10,30,50,29,11,31	1,45,15,44,35	8,25
32″	23,59,50,56,14, 3,22,20,44,11	1,55,10,29, 5,13,18,31	1,45,15,53, 0	8,25
34″	23,59,52,51,24,32,27,34, 2,42	1,55,10,27,19,57,17, 6	1,45,16, 1,25	8,25
36″	23,59,54,46,34,59,47,31,19,48	1,55,10,25,34,41, 7,16	1,45,16, 9,50	8,25
38″	23,59,56,41,45,25,22,12,27, 4	1,55,10,23,49,24,49, 1	1,45,16,18,15	8,25
40″	23,59,58,36,55,49,11,37,16, 5	1,55,10,22, 4, 8,22,21	1,45,16,26,40	8,25
42″	24, 0, 0,32, 6,11,15,45,38,26	1,55,10,20,18,51,47,16	1,45,16,35, 5	8,25
44″	24, 0, 2,27,16,31,34,37,25,42	1,55,10,18,33,35, 3,46	1,45,16,43,30	8,25
46″	24, 0, 4,22,26,50, 8,12,29,28	1,55,10,16,48,18,11,51	1,45,16,51,55	8,25
48″	24, 0, 6,17,37, 6,56,30,41,19	1,55,10,15, 3, 1,11,31	1,45,17, 0,20	8,25
50″	24, 0, 8,12,47,21,59,31,52,50	1,55,10,13,17,44, 2,46	1,45,17, 8,45	8,25
52″	24, 0,10, 7,57,35,17,15,55,36	1,55,10,11,32,26,45,36	1,45,17,17,10	8,25
54″	24, 0,12, 3, 7,46,49,42,41,12	1,55,10, 9,47, 9,20, 1	1,45,17,25,35	8,25
56″	24, 0,13,58,17,56,36,52, 1,13	1,55,10, 8, 1,51,46, 1	1,45,17,34, 0	8,25
58″	24, 0,15,53,28, 4,38,43,47,14	1,55,10, 6,16,34, 3,36	1,45,17,42,25	
60″	24, 0,17,48,38,10,55,17,50,50			
exact	24, 0,17,48,38,10,55,17,36,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°35′ 0″	24, 0,17,48,38,10,55,17,36,13			
		1,55,10, 4,31,16,11,12		
2″	24, 0,19,43,48,15,26,33,47,25		1,45,17,59,21	
		1,55,10, 2,45,58,11,51		8,25
4″	24, 0,21,38,58,18,12,31,59,16		1,45,18, 7,46	
		1,55,10, 1, 0,40, 4, 5		8,25
6″	24, 0,23,34, 8,19,13,12, 3,21		1,45,18,16,11	
		1,55, 9,59,15,21,47,54		8,25
8″	24, 0,25,29,18,18,28,33,51,15		1,45,18,24,36	
		1,55, 9,57,30, 3,23,18		8,25
10″	24, 0,27,24,28,15,58,37,14,33		1,45,18,33, 1	
		1,55, 9,55,44,44,50,17		8,25
12″	24, 0,29,19,38,11,43,22, 4,50		1,45,18,41,26	
		1,55, 9,53,59,26, 8,51		8,25
14″	24, 0,31,14,48, 5,42,48,13,41		1,45,18,49,51	
		1,55, 9,52,14, 7,19, 0		8,25
16″	24, 0,33, 9,57,57,56,55,32,41		1,45,18,58,16	
		1,55, 9,50,28,48,20,44		8,25
18″	24, 0,35, 5, 7,48,25,43,53,25		1,45,19, 6,41	
		1,55, 9,48,43,29,14, 3		8,25
20″	24, 0,37, 0,17,37, 9,13, 7,28		1,45,19,15, 6	
		1,55, 9,46,58, 9,58,57		8,25
22″	24, 0,38,55,27,24, 7,23, 6,25		1,45,19,23,31	
		1,55, 9,45,12,50,35,26		8,25
24″	24, 0,40,50,37, 9,20,13,41,51		1,45,19,31,56	
		1,55, 9,43,27,31, 3,30		8,25
26″	24, 0,42,45,46,52,47,44,45,21		1,45,19,40,21	
		1,55, 9,41,42,11,23, 9		8,25
28″	24, 0,44,40,56,34,29,56, 8,30		1,45,19,48,46	
		1,55, 9,39,56,51,34,23		8,25
30″	24, 0,46,36, 6,14,26,47,42,53		1,45,19,57,11	
		1,55, 9,38,11,31,37,12		8,25
32″	24, 0,48,31,15,52,38,19,20, 5		1,45,20, 5,36	
		1,55, 9,36,26,11,31,36		8,25
34″	24, 0,50,26,25,29, 4,30,51,41		1,45,20,14, 1	
		1,55, 9,34,40,51,17,35		8,25
36″	24, 0,52,21,35, 3,45,22, 9,16		1,45,20,22,26	
		1,55, 9,32,55,30,55, 9		8,25
38″	24, 0,54,16,44,36,40,53, 4,25		1,45,20,30,51	
		1,55, 9,31,10,10,24,18		8,25
40″	24, 0,56,11,54, 7,51, 3,28,43		1,45,20,39,16	
		1,55, 9,29,24,49,45, 2		8,25
42″	24, 0,58, 7, 3,37,15,53,13,45		1,45,20,47,41	
		1,55, 9,27,39,28,57,21		8,25
44″	24, 1, 0, 2,13, 4,55,22,11, 6		1,45,20,56, 6	
		1,55, 9,25,54, 8, 1,15		8,25
46″	24, 1, 1,57,22,30,49,30,12,21		1,45,21, 4,31	
		1,55, 9,24, 8,46,56,44		8,25
48″	24, 1, 3,52,31,54,58,17, 9, 5		1,45,21,12,56	
		1,55, 9,22,23,25,43,48		8,25
50″	24, 1, 5,47,41,17,21,42,52,53		1,45,21,21,21	
		1,55, 9,20,38, 4,22,27		8,25
52″	24, 1, 7,42,50,37,59,47,15,20		1,45,21,29,46	
		1,55, 9,18,52,42,52,41		8,25
54″	24, 1, 9,37,59,56,52,30, 8, 1		1,45,21,38,11	
		1,55, 9,17, 7,21,14,30		8,25
56″	24, 1,11,33, 9,13,59,51,22,31		1,45,21,46,36	
		1,55, 9,15,21,59,27,54		8,25
58″	24, 1,13,28,18,29,21,50,50,25		1,45,21,55, 1	
		1,55, 9,13,36,37,32,53		
60″	24, 1,15,23,27,42,58,28,23,18			
exact	24, 1,15,23,27,42,58,28,10, 3			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
23°36′	0″	24, 1,15,23,27,42,58,28,10, 3			
			1,55, 9,11,51,15,28, 9		
	2″	24, 1,17,18,36,54,49,43,38,12		1,45,22,11,56	
			1,55, 9,10, 5,53,16,13		8,25
	4″	24, 1,19,13,46, 4,55,36,54,25		1,45,22,20,21	
			1,55, 9, 8,20,30,55,52		8,25
	6″	24, 1,21, 8,55,13,16, 7,50,17		1,45,22,28,46	
			1,55, 9, 6,35, 8,27, 6		8,25
	8″	24, 1,23, 4, 4,19,51,16,17,23		1,45,22,37,11	
			1,55, 9, 4,49,45,49,55		8,25
	10″	24, 1,24,59,13,24,41, 2, 7,18		1,45,22,45,36	
			1,55, 9, 3, 4,23, 4,19		8,25
	12″	24, 1,26,54,22,27,45,25,11,37		1,45,22,54, 1	
			1,55, 9, 1,19, 0,10,18		8,25
	14″	24, 1,28,49,31,29, 4,25,21,55		1,45,23, 2,26	
			1,55, 8,59,33,37, 7,52		8,25
	16″	24, 1,30,44,40,28,38, 2,29,47		1,45,23,10,51	
			1,55, 8,57,48,13,57, 1		8,25
	18″	24, 1,32,39,49,26,26,16,26,48		1,45,23,19,16	
			1,55, 8,56, 2,50,37,45		8,25
	20″	24, 1,34,34,58,22,29, 7, 4,33		1,45,23,27,41	
			1,55, 8,54,17,27,10, 4		8,25
	22″	24, 1,36,30, 7,16,46,34,14,37		1,45,23,36, 6	
			1,55, 8,52,32, 3,33,58		8,25
	24″	24, 1,38,25,16, 9,18,37,48,35		1,45,23,44,31	
			1,55, 8,50,46,39,49,27		8,25
	26″	24, 1,40,20,25, 0, 5,17,38, 2		1,45,23,52,56	
			1,55, 8,49, 1,15,56,31		8,25
	28″	24, 1,42,15,33,49, 6,33,34,33		1,45,24, 1,21	
			1,55, 8,47,15,51,55,10		8,25
	30″	24, 1,44,10,42,36,22,25,29,43		1,45,24, 9,46	
			1,55, 8,45,30,27,45,24		8,25
	32″	24, 1,46, 5,51,21,52,53,15, 7		1,45,24,18,11	
			1,55, 8,43,45, 3,27,13		8,25
	34″	24, 1,48, 1, 0, 5,37,56,42,20		1,45,24,26,36	
			1,55, 8,41,59,39, 0,37		8,25
	36″	24, 1,49,56, 8,47,37,35,42,57		1,45,24,35, 1	
			1,55, 8,40,14,14,25,36		8,25
	38″	24, 1,51,51,17,27,51,50, 8,33		1,45,24,43,26	
			1,55, 8,38,28,49,42,10		8,25
	40″	24, 1,53,46,26, 6,20,39,50,43		1,45,24,51,51	
			1,55, 8,36,43,24,50,19		8,25
	42″	24, 1,55,41,34,43, 4, 4,41, 2		1,45,25, 0,16	
			1,55, 8,34,57,59,50, 3		8,25
	44″	24, 1,57,36,43,18, 2, 4,31, 5		1,45,25, 8,41	
			1,55, 8,33,12,34,41,22		8,25
	46″	24, 1,59,31,51,51,14,39,12,27		1,45,25,17, 6	
			1,55, 8,31,27, 9,24,16		8,25
	48″	24, 2, 1,27, 0,22,41,48,36,43		1,45,25,25,31	
			1,55, 8,29,41,43,58,45		8,25
	50″	24, 2, 3,22, 8,52,23,32,35,28		1,45,25,33,56	
			1,55, 8,27,56,18,24,49		8,25
	52″	24, 2, 5,17,17,20,19,51, 0,17		1,45,25,42,21	
			1,55, 8,26,10,52,42,28		8,25
	54″	24, 2, 7,12,25,46,30,43,42,45		1,45,25,50,46	
			1,55, 8,24,25,26,51,42		8,25
	56″	24, 2, 9, 7,34,10,56,10,34,27		1,45,25,59,11	
			1,55, 8,22,40, 0,52,31		8,25
	58″	24, 2,11, 2,42,33,36,11,26,58		1,45,26, 7,36	
			1,55, 8,20,54,34,44,55		
	60″	24, 2,12,57,50,54,30,46,11,53			
exact		24, 2,12,57,50,54,30,46, 6,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°37′ 0″	24, 2,12,57,50,54,30,46, 6,19			
		1,55, 8,19, 9, 8,28,18		
2″	24, 2,14,52,59,13,39,54,34,37		1,45,26,24,28	
		1,55, 8,17,23,42, 3,50		8,25
4″	24, 2,16,48, 7,31, 3,36,38,27		1,45,26,32,53	
		1,55, 8,15,38,15,30,57		8,25
6″	24, 2,18,43,15,46,41,52, 9,24		1,45,26,41,18	
		1,55, 8,13,52,48,49,39		8,25
8″	24, 2,20,38,24, 0,34,40,59, 3		1,45,26,49,43	
		1,55, 8,12, 7,21,59,56		8,25
10″	24, 2,22,33,32,12,42, 2,58,59		1,45,26,58, 8	
		1,55, 8,10,21,55, 1,48		8,25
12″	24, 2,24,28,40,23, 3,58, 0,47		1,45,27, 6,33	
		1,55, 8, 8,36,27,55,15		8,25
14″	24, 2,26,23,48,31,40,25,56, 2		1,45,27,14,58	
		1,55, 8, 6,51, 0,40,17		8,25
16″	24, 2,28,18,56,38,31,26,36,19		1,45,27,23,23	
		1,55, 8, 5, 5,33,16,54		8,25
18″	24, 2,30,14, 4,43,36,59,53,13		1,45,27,31,48	
		1,55, 8, 3,20, 5,45, 6		8,25
20″	24, 2,32, 9,12,46,57, 5,38,19		1,45,27,40,13	
		1,55, 8, 1,34,38, 4,53		8,25
22″	24, 2,34, 4,20,48,31,43,43,12		1,45,27,48,38	
		1,55, 7,59,49,10,16,15		8,25
24″	24, 2,35,59,28,48,20,53,59,27		1,45,27,57, 3	
		1,55, 7,58, 3,42,19,12		8,25
26″	24, 2,37,54,36,46,24,36,18,39		1,45,28, 5,28	
		1,55, 7,56,18,14,13,44		8,25
28″	24, 2,39,49,44,42,42,50,32,23		1,45,28,13,53	
		1,55, 7,54,32,45,59,51		8,25
30″	24, 2,41,44,52,37,15,36,32,14		1,45,28,22,18	
		1,55, 7,52,47,17,37,33		8,25
32″	24, 2,43,40, 0,30, 2,54, 9,47		1,45,28,30,43	
		1,55, 7,51, 1,49, 6,50		8,25
34″	24, 2,45,35, 8,21, 4,43,16,37		1,45,28,39, 8	
		1,55, 7,49,16,20,27,42		8,25
36″	24, 2,47,30,16,10,21, 3,44,19		1,45,28,47,33	
		1,55, 7,47,30,51,40, 9		8,25
38″	24, 2,49,25,23,57,51,55,24,28		1,45,28,55,58	
		1,55, 7,45,45,22,44,11		8,25
40″	24, 2,51,20,31,43,37,18, 8,39		1,45,29, 4,23	
		1,55, 7,43,59,53,39,48		8,25
42″	24, 2,53,15,39,27,37,11,48,27		1,45,29,12,48	
		1,55, 7,42,14,24,27, 0		8,25
44″	24, 2,55,10,47, 9,51,36,15,27		1,45,29,21,13	
		1,55, 7,40,28,55, 5,47		8,25
46″	24, 2,57, 5,54,50,20,31,21,14		1,45,29,29,38	
		1,55, 7,38,43,25,36, 9		8,25
48″	24, 2,59, 1, 2,29, 3,56,57,23		1,45,29,38, 3	
		1,55, 7,36,57,55,58, 6		8,25
50″	24, 3, 0,56,10, 6, 1,52,55,29		1,45,29,46,28	
		1,55, 7,35,12,26,11,38		8,25
52″	24, 3, 2,51,17,41,14,19, 7, 7		1,45,29,54,53	
		1,55, 7,33,26,56,16,45		8,25
54″	24, 3, 4,46,25,14,41,15,23,52		1,45,30, 3,18	
		1,55, 7,31,41,26,13,27		8,25
56″	24, 3, 6,41,32,46,22,41,37,19		1,45,30,11,43	
		1,55, 7,29,55,56, 1,44		8,25
58″	24, 3, 8,36,40,16,18,37,39, 3		1,45,30,20, 8	
		1,55, 7,28,10,25,41,36		
60″	24, 3,10,31,47,44,29, 3,20,39			
exact	24, 3,10,31,47,44,29, 3,15,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°38′ 0″	24, 3,10,31,47,44,29, 3,15,30			
		1,55, 7,26,24,55,12,38		
2″	24, 3,12,26,55,10,53,58,28, 8		1,45,30,36,59	
		1,55, 7,24,39,24,35,39		8,25
4″	24, 3,14,22, 2,35,33,23, 3,47		1,45,30,45,24	
		1,55, 7,22,53,53,50,15		8,25
6″	24, 3,16,17, 9,58,27,16,54, 2		1,45,30,53,49	
		1,55, 7,21, 8,22,56,26		8,25
8″	24, 3,18,12,17,19,35,39,50,28		1,45,31, 2,14	
		1,55, 7,19,22,51,54,12		8,25
10″	24, 3,20, 7,24,38,58,31,44,40		1,45,31,10,39	
		1,55, 7,17,37,20,43,33		8,25
12″	24, 3,22, 2,31,56,35,52,28,13		1,45,31,19, 4	
		1,55, 7,15,51,49,24,29		8,25
14″	24, 3,23,57,39,12,27,41,52,42		1,45,31,27,29	
		1,55, 7,14, 6,17,57, 0		8,25
16″	24, 3,25,52,46,26,33,59,49,42		1,45,31,35,54	
		1,55, 7,12,20,46,21, 6		8,25
18″	24, 3,27,47,53,38,54,46,10,48		1,45,31,44,19	
		1,55, 7,10,35,14,36,47		8,25
20″	24, 3,29,43, 0,49,30, 0,47,35		1,45,31,52,44	
		1,55, 7, 8,49,42,44, 3		8,25
22″	24, 3,31,38, 7,58,19,43,31,38		1,45,32, 1, 9	
		1,55, 7, 7, 4,10,42,54		8,25
24″	24, 3,33,33,15, 5,23,54,14,32		1,45,32, 9,34	
		1,55, 7, 5,18,38,33,20		8,25
26″	24, 3,35,28,22,10,42,32,47,52		1,45,32,17,59	
		1,55, 7, 3,33, 6,15,21		8,25
28″	24, 3,37,23,29,14,15,39, 3,13		1,45,32,26,24	
		1,55, 7, 1,47,33,48,57		8,25
30″	24, 3,39,18,36,16, 3,12,52,10		1,45,32,34,49	
		1,55, 7, 0, 2, 1,14, 8		8,25
32″	24, 3,41,13,43,16, 5,14, 6,18		1,45,32,43,14	
		1,55, 6,58,16,28,30,54		8,25
34″	24, 3,43, 8,50,14,21,42,37,12		1,45,32,51,39	
		1,55, 6,56,30,55,39,15		8,25
36″	24, 3,45, 3,57,10,52,38,16,27		1,45,33, 0, 4	
		1,55, 6,54,45,22,39,11		8,25
38″	24, 3,46,59, 4, 5,38, 0,55,38		1,45,33, 8,29	
		1,55, 6,52,59,49,30,42		8,25
40″	24, 3,48,54,10,58,37,50,26,20		1,45,33,16,54	
		1,55, 6,51,14,16,13,48		8,25
42″	24, 3,50,49,17,49,52, 6,40, 8		1,45,33,25,19	
		1,55, 6,49,28,42,48,29		8,25
44″	24, 3,52,44,24,39,20,49,28,37		1,45,33,33,44	
		1,55, 6,47,43, 9,14,45		8,25
46″	24, 3,54,39,31,27, 3,58,43,22		1,45,33,42, 9	
		1,55, 6,45,57,35,32,36		8,25
48″	24, 3,56,34,38,13, 1,34,15,58		1,45,33,50,34	
		1,55, 6,44,12, 1,42, 2		8,25
50″	24, 3,58,29,44,57,13,35,58, 0		1,45,33,58,59	
		1,55, 6,42,26,27,43, 3		8,25
52″	24, 4, 0,24,51,39,40, 3,41, 3		1,45,34, 7,24	
		1,55, 6,40,40,53,35,39		8,25
54″	24, 4, 2,19,58,20,20,57,16,42		1,45,34,15,49	
		1,55, 6,38,55,19,19,50		8,25
56″	24, 4, 4,15, 4,59,16,16,36,32		1,45,34,24,14	
		1,55, 6,37, 9,44,55,36		8,25
58″	24, 4, 6,10,11,36,26, 1,32, 8		1,45,34,32,39	
		1,55, 6,35,24,10,22,57		
60″	24, 4, 8, 5,18,11,50,11,55, 5			
exact	24, 4, 8, 5,18,11,50,11,56,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°39′ 0″	24, 4, 8, 5,18,11,50,11,56,59			
		1,55, 6,33,38,35,42, 7		
2″	24, 4,10, 0,24,45,28,47,39, 6		1,45,34,49,28	
		1,55, 6,31,53, 0,52,39		8,25
4″	24, 4,11,55,31,17,21,48,31,45		1,45,34,57,53	
		1,55, 6,30, 7,25,54,46		8,25
6″	24, 4,13,50,37,47,29,14,26,31		1,45,35, 6,18	
		1,55, 6,28,21,50,48,28		8,25
8″	24, 4,15,45,44,15,51, 5,14,59		1,45,35,14,43	
		1,55, 6,26,36,15,33,45		8,25
10″	24, 4,17,40,50,42,27,20,48,44		1,45,35,23, 8	
		1,55, 6,24,50,40,10,37		8,25
12″	24, 4,19,35,57, 7,18, 0,59,21		1,45,35,31,33	
		1,55, 6,23, 5, 4,39, 4		8,25
14″	24, 4,21,31, 3,30,23, 5,38,25		1,45,35,39,58	
		1,55, 6,21,19,28,59, 6		8,25
16″	24, 4,23,26, 9,51,42,34,37,31		1,45,35,48,23	
		1,55, 6,19,33,53,10,43		8,25
18″	24, 4,25,21,16,11,16,27,48,14		1,45,35,56,48	
		1,55, 6,17,48,17,13,55		8,25
20″	24, 4,27,16,22,29, 4,45, 2, 9		1,45,36, 5,13	
		1,55, 6,16, 2,41, 8,42		8,25
22″	24, 4,29,11,28,45, 7,26,10,51		1,45,36,13,38	
		1,55, 6,14,17, 4,55, 4		8,25
24″	24, 4,31, 6,34,59,24,31, 5,55		1,45,36,22, 3	
		1,55, 6,12,31,28,33, 1		8,25
26″	24, 4,33, 1,41,11,55,59,38,56		1,45,36,30,28	
		1,55, 6,10,45,52, 2,33		8,25
28″	24, 4,34,56,47,22,41,51,41,29		1,45,36,38,53	
		1,55, 6, 9, 0,15,23,40		8,25
30″	24, 4,36,51,53,31,42, 7, 5, 9		1,45,36,47,18	
		1,55, 6, 7,14,38,36,22		8,25
32″	24, 4,38,46,59,38,56,45,41,31		1,45,36,55,43	
		1,55, 6, 5,29, 1,40,39		8,25
34″	24, 4,40,42, 5,44,25,47,22,10		1,45,37, 4, 8	
		1,55, 6, 3,43,24,36,31		8,25
36″	24, 4,42,37,11,48, 9,11,58,41		1,45,37,12,33	
		1,55, 6, 1,57,47,23,58		8,25
38″	24, 4,44,32,17,50, 6,59,22,39		1,45,37,20,58	
		1,55, 6, 0,12,10, 3, 0		8,25
40″	24, 4,46,27,23,50,19, 9,25,39		1,45,37,29,23	
		1,55, 5,58,26,32,33,37		8,25
42″	24, 4,48,22,29,48,45,41,59,16		1,45,37,37,48	
		1,55, 5,56,40,54,55,49		8,25
44″	24, 4,50,17,35,45,26,36,55, 5		1,45,37,46,13	
		1,55, 5,54,55,17, 9,36		8,25
46″	24, 4,52,12,41,40,21,54, 4,41		1,45,37,54,38	
		1,55, 5,53, 9,39,14,58		8,25
48″	24, 4,54, 7,47,33,31,33,19,39		1,45,38, 3, 3	
		1,55, 5,51,24, 1,11,55		8,25
50″	24, 4,56, 2,53,24,55,34,31,34		1,45,38,11,28	
		1,55, 5,49,38,23, 0,27		8,25
52″	24, 4,57,57,59,14,33,57,32, 1		1,45,38,19,53	
		1,55, 5,47,52,44,40,34		8,25
54″	24, 4,59,53, 5, 2,26,42,12,35		1,45,38,28,18	
		1,55, 5,46, 7, 6,12,16		8,25
56″	24, 5, 1,48,10,48,33,48,24,51		1,45,38,36,43	
		1,55, 5,44,21,27,35,33		8,25
58″	24, 5, 3,43,16,32,55,16, 0,24		1,45,38,45, 8	
		1,55, 5,42,35,48,50,25		
60″	24, 5, 5,38,22,15,31, 4,50,49			
exact	24, 5, 5,38,22,15,31, 4,59, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°40′ 0″	24, 5, 5,38,22,15,31, 4,59, 5			
		1,55, 5,40,50, 9,57,43		
2″	24, 5, 7,33,27,56,21,14,56,48		1,45,39, 1,54	
		1,55, 5,39, 4,30,55,49		8,25
4″	24, 5, 9,28,33,35,25,45,52,37		1,45,39,10,19	
		1,55, 5,37,18,51,45,30		8,25
6″	24, 5,11,23,39,12,44,37,38, 7		1,45,39,18,44	
		1,55, 5,35,33,12,26,46		8,25
8″	24, 5,13,18,44,48,17,50, 4,53		1,45,39,27, 9	
		1,55, 5,33,47,32,59,37		8,25
10″	24, 5,15,13,50,22, 5,23, 4,30		1,45,39,35,34	
		1,55, 5,32, 1,53,24, 3		8,25
12″	24, 5,17, 8,55,54, 7,16,28,33		1,45,39,43,59	
		1,55, 5,30,16,13,40, 4		8,25
14″	24, 5,19, 4, 1,24,23,30, 8,37		1,45,39,52,24	
		1,55, 5,28,30,33,47,40		8,25
16″	24, 5,20,59, 6,52,54, 3,56,17		1,45,40, 0,49	
		1,55, 5,26,44,53,46,51		8,25
18″	24, 5,22,54,12,19,38,57,43, 8		1,45,40, 9,14	
		1,55, 5,24,59,13,37,37		8,25
20″	24, 5,24,49,17,44,38,11,20,45		1,45,40,17,39	
		1,55, 5,23,13,33,19,58		8,25
22″	24, 5,26,44,23, 7,51,44,40,43		1,45,40,26, 4	
		1,55, 5,21,27,52,53,54		8,25
24″	24, 5,28,39,28,29,19,37,34,37		1,45,40,34,29	
		1,55, 5,19,42,12,19,25		8,25
26″	24, 5,30,34,33,49, 1,49,54, 2		1,45,40,42,54	
		1,55, 5,17,56,31,36,31		8,25
28″	24, 5,32,29,39, 6,58,21,30,33		1,45,40,51,19	
		1,55, 5,16,10,50,45,12		8,25
30″	24, 5,34,24,44,23, 9,12,15,45		1,45,40,59,44	
		1,55, 5,14,25, 9,45,28		8,25
32″	24, 5,36,19,49,37,34,22, 1,13		1,45,41, 8, 9	
		1,55, 5,12,39,28,37,19		8,25
34″	24, 5,38,14,54,50,13,50,38,32		1,45,41,16,34	
		1,55, 5,10,53,47,20,45		8,25
36″	24, 5,40,10, 0, 1, 7,37,59,17		1,45,41,24,59	
		1,55, 5, 9, 8, 5,55,46		8,25
38″	24, 5,42, 5, 5,10,15,43,55, 3		1,45,41,33,24	
		1,55, 5, 7,22,24,22,22		8,25
40″	24, 5,44, 0,10,17,38, 8,17,25		1,45,41,41,49	
		1,55, 5, 5,36,42,40,33		8,25
42″	24, 5,45,55,15,23,14,50,57,58		1,45,41,50,14	
		1,55, 5, 3,51, 0,50,19		8,25
44″	24, 5,47,50,20,27, 5,51,48,17		1,45,41,58,39	
		1,55, 5, 2, 5,18,51,40		8,25
46″	24, 5,49,45,25,29,11,10,39,57		1,45,42, 7, 4	
		1,55, 5, 0,19,36,44,36		8,25
48″	24, 5,51,40,30,29,30,47,24,33		1,45,42,15,29	
		1,55, 4,58,33,54,29, 7		8,25
50″	24, 5,53,35,35,28, 4,41,53,40		1,45,42,23,54	
		1,55, 4,56,48,12, 5,13		8,25
52″	24, 5,55,30,40,24,52,53,58,53		1,45,42,32,19	
		1,55, 4,55, 2,29,32,54		8,25
54″	24, 5,57,25,45,19,55,23,31,47		1,45,42,40,44	
		1,55, 4,53,16,46,52,10		8,25
56″	24, 5,59,20,50,13,12,10,23,57		1,45,42,49, 9	
		1,55, 4,51,31, 4, 3, 1		8,25
58″	24, 6, 1,15,55, 4,43,14,26,58		1,45,42,57,34	
		1,55, 4,49,45,21, 5,27		
60″	24, 6, 3,10,59,54,28,35,32,25			
exact	24, 6, 3,10,59,54,28,35,39, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°41′ 0″	24, 6, 3,10,59,54,28,35,39, 3			
		1,55, 4,47,59,38, 0,22		
2″	24, 6, 5, 6, 4,42,28,13,39,25		1,45,43,14,19	
		1,55, 4,46,13,54,46, 3		8,25
4″	24, 6, 7, 1, 9,28,42, 8,25,28		1,45,43,22,44	
		1,55, 4,44,28,11,23,19		8,25
6″	24, 6, 8,56,14,13,10,19,48,47		1,45,43,31, 9	
		1,55, 4,42,42,27,52,10		8,25
8″	24, 6,10,51,18,55,52,47,40,57		1,45,43,39,34	
		1,55, 4,40,56,44,12,36		8,25
10″	24, 6,12,46,23,36,49,31,53,33		1,45,43,47,59	
		1,55, 4,39,11, 0,24,37		8,25
12″	24, 6,14,41,28,16, 0,32,18,10		1,45,43,56,24	
		1,55, 4,37,25,16,28,13		8,25
14″	24, 6,16,36,32,53,25,48,46,23		1,45,44, 4,49	
		1,55, 4,35,39,32,23,24		8,25
16″	24, 6,18,31,37,29, 5,21, 9,47		1,45,44,13,14	
		1,55, 4,33,53,48,10,10		8,25
18″	24, 6,20,26,42, 2,59, 9,19,57		1,45,44,21,39	
		1,55, 4,32, 8, 3,48,31		8,25
20″	24, 6,22,21,46,35, 7,13, 8,28		1,45,44,30, 4	
		1,55, 4,30,22,19,18,27		8,25
22″	24, 6,24,16,51, 5,29,32,26,55		1,45,44,38,29	
		1,55, 4,28,36,34,39,58		8,25
24″	24, 6,26,11,55,34, 6, 7, 6,53		1,45,44,46,54	
		1,55, 4,26,50,49,53, 4		8,25
26″	24, 6,28, 7, 0, 0,56,56,59,57		1,45,44,55,19	
		1,55, 4,25, 5, 4,57,45		8,25
28″	24, 6,30, 2, 4,26, 2, 1,57,42		1,45,45, 3,44	
		1,55, 4,23,19,19,54, 1		8,25
30″	24, 6,31,57, 8,49,21,21,51,43		1,45,45,12, 9	
		1,55, 4,21,33,34,41,52		8,25
32″	24, 6,33,52,13,10,54,56,33,35		1,45,45,20,34	
		1,55, 4,19,47,49,21,18		8,25
34″	24, 6,35,47,17,30,42,45,54,53		1,45,45,28,59	
		1,55, 4,18, 2, 3,52,19		8,25
36″	24, 6,37,42,21,48,44,49,47,12		1,45,45,37,24	
		1,55, 4,16,16,18,14,55		8,25
38″	24, 6,39,37,26, 5, 1, 8, 2, 7		1,45,45,45,49	
		1,55, 4,14,30,32,29, 6		8,25
40″	24, 6,41,32,30,19,31,40,31,13		1,45,45,54,14	
		1,55, 4,12,44,46,34,52		8,25
42″	24, 6,43,27,34,32,16,27, 6, 5		1,45,46, 2,39	
		1,55, 4,10,59, 0,32,13		8,25
44″	24, 6,45,22,38,43,15,27,38,18		1,45,46,11, 4	
		1,55, 4, 9,13,14,21, 9		8,25
46″	24, 6,47,17,42,52,28,41,59,27		1,45,46,19,29	
		1,55, 4, 7,27,28, 1,40		8,25
48″	24, 6,49,12,46,59,56,10, 1, 7		1,45,46,27,54	
		1,55, 4, 5,41,41,33,46		8,25
50″	24, 6,51, 7,51, 5,37,51,34,53		1,45,46,36,19	
		1,55, 4, 3,55,54,57,27		8,25
52″	24, 6,53, 2,55, 9,33,46,32,20		1,45,46,44,44	
		1,55, 4, 2,10, 8,12,43		8,25
54″	24, 6,54,57,59,11,43,54,45, 3		1,45,46,53, 9	
		1,55, 4, 0,24,21,19,34		8,25
56″	24, 6,56,53, 3,12, 8,16, 4,37		1,45,47, 1,34	
		1,55, 3,58,38,34,18, 0		8,25
58″	24, 6,58,48, 7,10,46,50,22,37		1,45,47, 9,59	
		1,55, 3,56,52,47, 8, 1		
60″	24, 7, 0,43,11, 7,39,37,30,38			
exact	24, 7, 0,43,11, 7,39,37,43, 6			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
23°42′	0″	24, 7, 0,43,11, 7,39,37,43, 6	1,55, 3,55, 6,59,51, 5		
	2″	24, 7, 2,38,15, 2,46,37,34,11	1,55, 3,53,21,12,24,23	1,45,47,26,42	8,25
	4″	24, 7, 4,33,18,56, 7,49,58,34	1,55, 3,51,35,24,49,16	1,45,47,35, 7	8,25
	6″	24, 7, 6,28,22,47,43,14,47,50	1,55, 3,49,49,37, 5,44	1,45,47,43,32	8,25
	8″	24, 7, 8,23,26,37,32,51,53,34	1,55, 3,48, 3,49,13,47	1,45,47,51,57	8,25
	10″	24, 7,10,18,30,25,36,41, 7,21	1,55, 3,46,18, 1,13,25	1,45,48, 0,22	8,25
	12″	24, 7,12,13,34,11,54,42,20,46	1,55, 3,44,32,13, 4,38	1,45,48, 8,47	8,25
	14″	24, 7,14, 8,37,56,26,55,25,24	1,55, 3,42,46,24,47,26	1,45,48,17,12	8,25
	16″	24, 7,16, 3,41,39,13,20,12,50	1,55, 3,41, 0,36,21,49	1,45,48,25,37	8,25
	18″	24, 7,17,58,45,20,13,56,34,39	1,55, 3,39,14,47,47,47	1,45,48,34, 2	8,25
	20″	24, 7,19,53,48,59,28,44,22,26	1,55, 3,37,28,59, 5,20	1,45,48,42,27	8,25
	22″	24, 7,21,48,52,36,57,43,27,46	1,55, 3,35,43,10,14,28	1,45,48,50,52	8,25
	24″	24, 7,23,43,56,12,40,53,42,14	1,55, 3,33,57,21,15,11	1,45,48,59,17	8,25
	26″	24, 7,25,38,59,46,38,14,57,25	1,55, 3,32,11,32, 7,29	1,45,49, 7,42	8,25
	28″	24, 7,27,34, 3,18,49,47, 4,54	1,55, 3,30,25,42,51,22	1,45,49,16, 7	8,25
	30″	24, 7,29,29, 6,49,15,29,56,16	1,55, 3,28,39,53,26,50	1,45,49,24,32	8,25
	32″	24, 7,31,24,10,17,55,23,23, 6	1,55, 3,26,54, 3,53,53	1,45,49,32,57	8,25
	34″	24, 7,33,19,13,44,49,27,16,59	1,55, 3,25, 8,14,12,31	1,45,49,41,22	8,25
	36″	24, 7,35,14,17, 9,57,41,29,30	1,55, 3,23,22,24,22,44	1,45,49,49,47	8,25
	38″	24, 7,37, 9,20,33,20, 5,52,14	1,55, 3,21,36,34,24,32	1,45,49,58,12	8,25
	40″	24, 7,39, 4,23,54,56,40,16,46	1,55, 3,19,50,44,17,55	1,45,50, 6,37	8,25
	42″	24, 7,40,59,27,14,47,24,34,41	1,55, 3,18, 4,54, 2,53	1,45,50,15, 2	8,25
	44″	24, 7,42,54,30,32,52,18,37,34	1,55, 3,16,19, 3,39,26	1,45,50,23,27	8,25
	46″	24, 7,44,49,33,49,11,22,17, 0	1,55, 3,14,33,13, 7,34	1,45,50,31,52	8,25
	48″	24, 7,46,44,37, 3,44,35,24,34	1,55, 3,12,47,22,27,17	1,45,50,40,17	8,25
	50″	24, 7,48,39,40,16,31,57,51,51	1,55, 3,11, 1,31,38,35	1,45,50,48,42	8,25
	52″	24, 7,50,34,43,27,33,29,30,26	1,55, 3, 9,15,40,41,28	1,45,50,57, 7	8,25
	54″	24, 7,52,29,46,36,49,10,11,54	1,55, 3, 7,29,49,35,56	1,45,51, 5,32	8,25
	56″	24, 7,54,24,49,44,18,59,47,50	1,55, 3, 5,43,58,21,59	1,45,51,13,57	8,25
	58″	24, 7,56,19,52,50, 2,58, 9,49	1,55, 3, 3,58, 6,59,37	1,45,51,22,22	
	60″	24, 7,58,14,55,54, 1, 5, 9,26			
	exact	24, 7,58,14,55,54, 1, 5,26,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°43′ 0″	24, 7,58,14,55,54, 1, 5,26,26			
		1,55, 3, 2,12,15,30,47		
2″	24, 8, 0, 9,58,56,13,20,57,13		1,45,51,39, 3	
		1,55, 3, 0,26,23,51,44		8,25
4″	24, 8, 2, 5, 1,56,39,44,48,57		1,45,51,47,28	
		1,55, 2,58,40,32, 4,16		8,25
6″	24, 8, 4, 0, 4,55,20,16,53,13		1,45,51,55,53	
		1,55, 2,56,54,40, 8,23		8,25
8″	24, 8, 5,55, 7,52,14,57, 1,36		1,45,52, 4,18	
		1,55, 2,55, 8,48, 4, 5		8,25
10″	24, 8, 7,50,10,47,23,45, 5,41		1,45,52,12,43	
		1,55, 2,53,22,55,51,22		8,25
12″	24, 8, 9,45,13,40,46,40,57, 3		1,45,52,21, 8	
		1,55, 2,51,37, 3,30,14		8,25
14″	24, 8,11,40,16,32,23,44,27,17		1,45,52,29,33	
		1,55, 2,49,51,11, 0,41		8,25
16″	24, 8,13,35,19,22,14,55,27,58		1,45,52,37,58	
		1,55, 2,48, 5,18,22,43		8,25
18″	24, 8,15,30,22,10,20,13,50,41		1,45,52,46,23	
		1,55, 2,46,19,25,36,20		8,25
20″	24, 8,17,25,24,56,39,39,27, 1		1,45,52,54,48	
		1,55, 2,44,33,32,41,32		8,25
22″	24, 8,19,20,27,41,13,12, 8,33		1,45,53, 3,13	
		1,55, 2,42,47,39,38,19		8,25
24″	24, 8,21,15,30,24, 0,51,46,52		1,45,53,11,38	
		1,55, 2,41, 1,46,26,41		8,25
26″	24, 8,23,10,33, 5, 2,38,13,33		1,45,53,20, 3	
		1,55, 2,39,15,53, 6,38		8,25
28″	24, 8,25, 5,35,44,18,31,20,11		1,45,53,28,28	
		1,55, 2,37,29,59,38,10		8,25
30″	24, 8,27, 0,38,21,48,30,58,21		1,45,53,36,53	
		1,55, 2,35,44, 6, 1,17		8,25
32″	24, 8,28,55,40,57,32,36,59,38		1,45,53,45,18	
		1,55, 2,33,58,12,15,59		8,25
34″	24, 8,30,50,43,31,30,49,15,37		1,45,53,53,43	
		1,55, 2,32,12,18,22,16		8,25
36″	24, 8,32,45,46, 3,43, 7,37,53		1,45,54, 2, 8	
		1,55, 2,30,26,24,20, 8		8,25
38″	24, 8,34,40,48,34, 9,31,58, 1		1,45,54,10,33	
		1,55, 2,28,40,30, 9,35		8,25
40″	24, 8,36,35,51, 2,50, 2, 7,36		1,45,54,18,58	
		1,55, 2,26,54,35,50,37		8,25
42″	24, 8,38,30,53,29,44,37,58,13		1,45,54,27,23	
		1,55, 2,25, 8,41,23,14		8,25
44″	24, 8,40,25,55,54,53,19,21,27		1,45,54,35,48	
		1,55, 2,23,22,46,47,26		8,25
46″	24, 8,42,20,58,18,16, 6, 8,53		1,45,54,44,13	
		1,55, 2,21,36,52, 3,13		8,25
48″	24, 8,44,16, 0,39,52,58,12, 6		1,45,54,52,38	
		1,55, 2,19,50,57,10,35		8,25
50″	24, 8,46,11, 2,59,43,55,22,41		1,45,55, 1, 3	
		1,55, 2,18, 5, 2, 9,32		8,25
52″	24, 8,48, 6, 5,17,48,57,32,13		1,45,55, 9,28	
		1,55, 2,16,19, 7, 0, 4		8,25
54″	24, 8,50, 1, 7,34, 8, 4,32,17		1,45,55,17,53	
		1,55, 2,14,33,11,42,11		8,25
56″	24, 8,51,56, 9,48,41,16,14,28		1,45,55,26,18	
		1,55, 2,12,47,16,15,53		8,25
58″	24, 8,53,51,12, 1,28,32,30,21		1,45,55,34,43	
		1,55, 2,11, 1,20,41,10		
60″	24, 8,55,46,14,12,29,53,11,31			
exact	24, 8,55,46,14,12,29,53,33,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°44′ 0″	24, 8,55,46,14,12,29,53,33,15	1,55, 2, 9,15,25, 0,28		
2″	24, 8,57,41,16,21,45,18,33,43	1,55, 2, 7,29,29, 9, 6	1,45,55,51,22	8,25
4″	24, 8,59,36,18,29,14,47,42,49	1,55, 2, 5,43,33, 9,19	1,45,55,59,47	8,25
6″	24, 9, 1,31,20,34,58,20,52, 8	1,55, 2, 3,57,37, 1, 7	1,45,56, 8,12	8,25
8″	24, 9, 3,26,22,38,55,57,53,15	1,55, 2, 2,11,40,44,30	1,45,56,16,37	8,25
10″	24, 9, 5,21,24,41, 7,38,37,45	1,55, 2, 0,25,44,19,28	1,45,56,25, 2	8,25
12″	24, 9, 7,16,26,41,33,22,57,13	1,55, 1,58,39,47,46, 1	1,45,56,33,27	8,25
14″	24, 9, 9,11,28,40,13,10,43,14	1,55, 1,56,53,51, 4, 9	1,45,56,41,52	8,25
16″	24, 9,11, 6,30,37, 7, 1,47,23	1,55, 1,55, 7,54,13,52	1,45,56,50,17	8,25
18″	24, 9,13, 1,32,32,14,56, 1,15	1,55, 1,53,21,57,15,10	1,45,56,58,42	8,25
20″	24, 9,14,56,34,25,36,53,16,25	1,55, 1,51,36, 0, 8, 3	1,45,57, 7, 7	8,25
22″	24, 9,16,51,36,17,12,53,24,28	1,55, 1,49,50, 2,52,31	1,45,57,15,32	8,25
24″	24, 9,18,46,38, 7, 2,56,16,59	1,55, 1,48, 4, 5,28,34	1,45,57,23,57	8,25
26″	24, 9,20,41,39,55, 7, 1,45,33	1,55, 1,46,18, 7,56,12	1,45,57,32,22	8,25
28″	24, 9,22,36,41,41,25, 9,41,45	1,55, 1,44,32,10,15,25	1,45,57,40,47	8,25
30″	24, 9,24,31,43,25,57,19,57,10	1,55, 1,42,46,12,26,13	1,45,57,49,12	8,25
32″	24, 9,26,26,45, 8,43,32,23,23	1,55, 1,41, 0,14,28,36	1,45,57,57,37	8,25
34″	24, 9,28,21,46,49,43,46,51,59	1,55, 1,39,14,16,22,34	1,45,58, 6, 2	8,25
36″	24, 9,30,16,48,28,58, 3,14,33	1,55, 1,37,28,18, 8, 7	1,45,58,14,27	8,25
38″	24, 9,32,11,50, 6,26,21,22,40	1,55, 1,35,42,19,45,15	1,45,58,22,52	8,25
40″	24, 9,34, 6,51,42, 8,41, 7,55	1,55, 1,33,56,21,13,58	1,45,58,31,17	8,25
42″	24, 9,36, 1,53,16, 5, 2,21,53	1,55, 1,32,10,22,34,16	1,45,58,39,42	8,25
44″	24, 9,37,56,54,48,15,24,56, 9	1,55, 1,30,24,23,46, 9	1,45,58,48, 7	8,25
46″	24, 9,39,51,56,18,39,48,42,18	1,55, 1,28,38,24,49,37	1,45,58,56,32	8,25
48″	24, 9,41,46,57,47,18,13,31,55	1,55, 1,26,52,25,44,40	1,45,59, 4,57	8,25
50″	24, 9,43,41,59,14,10,39,16,35	1,55, 1,25, 6,26,31,18	1,45,59,13,22	8,25
52″	24, 9,45,37, 0,39,17, 5,47,53	1,55, 1,23,20,27, 9,31	1,45,59,21,47	8,25
54″	24, 9,47,32, 2, 2,37,32,57,24	1,55, 1,21,34,27,39,19	1,45,59,30,12	8,25
56″	24, 9,49,27, 3,24,12, 0,36,43	1,55, 1,19,48,28, 0,42	1,45,59,38,37	8,25
58″	24, 9,51,22, 4,44, 0,28,37,25	1,55, 1,18, 2,28,13,40	1,45,59,47, 2	
60″	24, 9,53,17, 6, 2, 2,56,51, 5			
exact	24, 9,53,17, 6, 2, 2,57,16,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°45′ 0″	24, 9,53,17, 6, 2, 2,57,16,48			
		1,55, 1,16,16,28,21, 6		
2″	24, 9,55,12, 7,18,19,25,37,54		1,46, 0, 3,39	
		1,55, 1,14,30,28,17,27		8,25
4″	24, 9,57, 7, 8,32,49,53,55,21		1,46, 0,12, 4	
		1,55, 1,12,44,28, 5,23		8,25
6″	24, 9,59, 2, 9,45,34,22, 0,44		1,46, 0,20,29	
		1,55, 1,10,58,27,44,54		8,25
8″	24,10, 0,57,10,56,32,49,45,38		1,46, 0,28,54	
		1,55, 1, 9,12,27,16, 0		8,25
10″	24,10, 2,52,12, 5,45,17, 1,38		1,46, 0,37,19	
		1,55, 1, 7,26,26,38,41		8,25
12″	24,10, 4,47,13,13,11,43,40,19		1,46, 0,45,44	
		1,55, 1, 5,40,25,52,57		8,25
14″	24,10, 6,42,14,18,52, 9,33,16		1,46, 0,54, 9	
		1,55, 1, 3,54,24,58,48		8,25
16″	24,10, 8,37,15,22,46,34,32, 4		1,46, 1, 2,34	
		1,55, 1, 2, 8,23,56,14		8,25
18″	24,10,10,32,16,24,54,58,28,18		1,46, 1,10,59	
		1,55, 1, 0,22,22,45,15		8,25
20″	24,10,12,27,17,25,17,21,13,33		1,46, 1,19,24	
		1,55, 0,58,36,21,25,51		8,25
22″	24,10,14,22,18,23,53,42,39,24		1,46, 1,27,49	
		1,55, 0,56,50,19,58, 2		8,25
24″	24,10,16,17,19,20,44, 2,37,26		1,46, 1,36,14	
		1,55, 0,55, 4,18,21,48		8,25
26″	24,10,18,12,20,15,48,20,59,14		1,46, 1,44,39	
		1,55, 0,53,18,16,37, 9		8,25
28″	24,10,20, 7,21, 9, 6,37,36,23		1,46, 1,53, 4	
		1,55, 0,51,32,14,44, 5		8,25
30″	24,10,22, 2,22, 0,38,52,20,28		1,46, 2, 1,29	
		1,55, 0,49,46,12,42,36		8,25
32″	24,10,23,57,22,50,25, 5, 3, 4		1,46, 2, 9,54	
		1,55, 0,48, 0,10,32,42		8,25
34″	24,10,25,52,23,38,25,15,35,46		1,46, 2,18,19	
		1,55, 0,46,14, 8,14,23		8,25
36″	24,10,27,47,24,24,39,23,50, 9		1,46, 2,26,44	
		1,55, 0,44,28, 5,47,39		8,25
38″	24,10,29,42,25, 9, 7,29,37,48		1,46, 2,35, 9	
		1,55, 0,42,42, 3,12,30		8,25
40″	24,10,31,37,25,51,49,32,50,18		1,46, 2,43,34	
		1,55, 0,40,56, 0,28,56		8,25
42″	24,10,33,32,26,32,45,33,19,14		1,46, 2,51,59	
		1,55, 0,39, 9,57,36,57		8,25
44″	24,10,35,27,27,11,55,30,56,11		1,46, 3, 0,24	
		1,55, 0,37,23,54,36,33		8,25
46″	24,10,37,22,27,49,19,25,32,44		1,46, 3, 8,49	
		1,55, 0,35,37,51,27,44		8,25
48″	24,10,39,17,28,24,57,17, 0,28		1,46, 3,17,14	
		1,55, 0,33,51,48,10,30		8,25
50″	24,10,41,12,28,58,49, 5,10,58		1,46, 3,25,39	
		1,55, 0,32, 5,44,44,51		8,25
52″	24,10,43, 7,29,30,54,49,55,49		1,46, 3,34, 4	
		1,55, 0,30,19,41,10,47		8,25
54″	24,10,45, 2,30, 1,14,31, 6,36		1,46, 3,42,29	
		1,55, 0,28,33,37,28,18		8,25
56″	24,10,46,57,30,29,48, 8,34,54		1,46, 3,50,54	
		1,55, 0,26,47,33,37,24		8,25
58″	24,10,48,52,30,56,35,42,12,18		1,46, 3,59,19	
		1,55, 0,25, 1,29,38, 5		
60″	24,10,50,47,31,21,37,11,50,23			
exact	24,10,50,47,31,21,37,12,19,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°46′ 0″	24,10,50,47,31,21,37,12,19,19	1,55, 0,23,15,25,33,38		
2″	24,10,52,42,31,44,52,37,52,57	1,55, 0,21,29,21,17,43	1,46, 4,15,55	8,24
4″	24,10,54,37,32, 6,21,59,10,40	1,55, 0,19,43,16,53,24	1,46, 4,24,19	8,24
6″	24,10,56,32,32,26, 5,16, 4, 4	1,55, 0,17,57,12,20,41	1,46, 4,32,43	8,24
8″	24,10,58,27,32,44, 2,28,24,45	1,55, 0,16,11, 7,39,34	1,46, 4,41, 7	8,24
10″	24,11, 0,22,33, 0,13,36, 4,19	1,55, 0,14,25, 2,50, 3	1,46, 4,49,31	8,24
12″	24,11, 2,17,33,14,38,38,54,22	1,55, 0,12,38,57,52, 8	1,46, 4,57,55	8,24
14″	24,11, 4,12,33,27,17,36,46,30	1,55, 0,10,52,52,45,49	1,46, 5, 6,19	8,24
16″	24,11, 6, 7,33,38,10,29,32,19	1,55, 0, 9, 6,47,31, 6	1,46, 5,14,43	8,24
18″	24,11, 8, 2,33,47,17,17, 3,25	1,55, 0, 7,20,42, 7,59	1,46, 5,23, 7	8,24
20″	24,11, 9,57,33,54,37,59,11,24	1,55, 0, 5,34,36,36,28	1,46, 5,31,31	8,24
22″	24,11,11,52,34, 0,12,35,47,52	1,55, 0, 3,48,30,56,33	1,46, 5,39,55	8,24
24″	24,11,13,47,34, 4, 1, 6,44,25	1,55, 0, 2, 2,25, 8,14	1,46, 5,48,19	8,24
26″	24,11,15,42,34, 6, 3,31,52,39	1,55, 0, 0,16,19,11,31	1,46, 5,56,43	8,24
28″	24,11,17,37,34, 6,19,51, 4,10	1,54,59,58,30,13, 6,24	1,46, 6, 5, 7	8,24
30″	24,11,19,32,34, 4,50, 4,10,34	1,54,59,56,44, 6,52,53	1,46, 6,13,31	8,24
32″	24,11,21,27,34, 1,34,11, 3,27	1,54,59,54,58, 0,30,58	1,46, 6,21,55	8,24
34″	24,11,23,22,33,56,32,11,34,25	1,54,59,53,11,54, 0,39	1,46, 6,30,19	8,24
36″	24,11,25,17,33,49,44, 5,35, 4	1,54,59,51,25,47,21,56	1,46, 6,38,43	8,24
38″	24,11,27,12,33,41, 9,52,57, 0	1,54,59,49,39,40,34,49	1,46, 6,47, 7	8,24
40″	24,11,29, 7,33,30,49,33,31,49	1,54,59,47,53,33,39,18	1,46, 6,55,31	8,24
42″	24,11,31, 2,33,18,43, 7,11, 7	1,54,59,46, 7,26,35,23	1,46, 7, 3,55	8,24
44″	24,11,32,57,33, 4,50,33,46,30	1,54,59,44,21,19,23, 4	1,46, 7,12,19	8,24
46″	24,11,34,52,32,49,11,53, 9,34	1,54,59,42,35,12, 2,21	1,46, 7,20,43	8,24
48″	24,11,36,47,32,31,47, 5,11,55	1,54,59,40,49, 4,33,14	1,46, 7,29, 7	8,24
50″	24,11,38,42,32,12,36, 9,45, 9	1,54,59,39, 2,56,55,43	1,46, 7,37,31	8,24
52″	24,11,40,37,31,51,39, 6,40,52	1,54,59,37,16,49, 9,48	1,46, 7,45,55	8,24
54″	24,11,42,32,31,28,55,55,50,40	1,54,59,35,30,41,15,29	1,46, 7,54,19	8,24
56″	24,11,44,27,31, 4,26,37, 6, 9	1,54,59,33,44,33,12,46	1,46, 8, 2,43	8,24
58″	24,11,46,22,30,38,11,10,18,55	1,54,59,31,58,25, 1,39	1,46, 8,11, 7	
60″	24,11,48,17,30,10, 9,35,20,34			
exact	24,11,48,17,30,10, 9,34,52, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°47′ 0″	24,11,48,17,30,10, 9,34,52, 9			
		1,54,59,30,12,16,39, 2		
2″	24,11,50,12,29,40,21,51,31,11		1,46, 8,28, 8	
		1,54,59,28,26, 8,10,54		8,24
4″	24,11,52, 7,29, 8,47,59,42, 5		1,46, 8,36,32	
		1,54,59,26,39,59,34,22		8,24
6″	24,11,54, 2,28,35,27,59,16,27		1,46, 8,44,56	
		1,54,59,24,53,50,49,26		8,24
8″	24,11,55,57,28, 0,21,50, 5,53		1,46, 8,53,20	
		1,54,59,23, 7,41,56, 6		8,24
10″	24,11,57,52,27,23,29,32, 1,59		1,46, 9, 1,44	
		1,54,59,21,21,32,54,22		8,24
12″	24,11,59,47,26,44,51, 4,56,21		1,46, 9,10, 8	
		1,54,59,19,35,23,44,14		8,24
14″	24,12, 1,42,26, 4,26,28,40,35		1,46, 9,18,32	
		1,54,59,17,49,14,25,42		8,24
16″	24,12, 3,37,25,22,15,43, 6,17		1,46, 9,26,56	
		1,54,59,16, 3, 4,58,46		8,24
18″	24,12, 5,32,24,38,18,48, 5, 3		1,46, 9,35,20	
		1,54,59,14,16,55,23,26		8,24
20″	24,12, 7,27,23,52,35,43,28,29		1,46, 9,43,44	
		1,54,59,12,30,45,39,42		8,24
22″	24,12, 9,22,23, 5, 6,29, 8,11		1,46, 9,52, 8	
		1,54,59,10,44,35,47,34		8,24
24″	24,12,11,17,22,15,51, 4,55,45		1,46,10, 0,32	
		1,54,59, 8,58,25,47, 2		8,24
26″	24,12,13,12,21,24,49,30,42,47		1,46,10, 8,56	
		1,54,59, 7,12,15,38, 6		8,24
28″	24,12,15, 7,20,32, 1,46,20,53		1,46,10,17,20	
		1,54,59, 5,26, 5,20,46		8,24
30″	24,12,17, 2,19,37,27,51,41,39		1,46,10,25,44	
		1,54,59, 3,39,54,55, 2		8,24
32″	24,12,18,57,18,41, 7,46,36,41		1,46,10,34, 8	
		1,54,59, 1,53,44,20,54		8,24
34″	24,12,20,52,17,43, 1,30,57,35		1,46,10,42,32	
		1,54,59, 0, 7,33,38,22		8,24
36″	24,12,22,47,16,43, 9, 4,35,57		1,46,10,50,56	
		1,54,58,58,21,22,47,26		8,24
38″	24,12,24,42,15,41,30,27,23,23		1,46,10,59,20	
		1,54,58,56,35,11,48, 6		8,24
40″	24,12,26,37,14,38, 5,39,11,29		1,46,11, 7,44	
		1,54,58,54,49, 0,40,22		8,24
42″	24,12,28,32,13,32,54,39,51,51		1,46,11,16, 8	
		1,54,58,53, 2,49,24,14		8,24
44″	24,12,30,27,12,25,57,29,16, 5		1,46,11,24,32	
		1,54,58,51,16,37,59,42		8,24
46″	24,12,32,22,11,17,14, 7,15,47		1,46,11,32,56	
		1,54,58,49,30,26,26,46		8,24
48″	24,12,34,17,10, 6,44,33,42,33		1,46,11,41,20	
		1,54,58,47,44,14,45,26		8,24
50″	24,12,36,12, 8,54,28,48,27,59		1,46,11,49,44	
		1,54,58,45,58, 2,55,42		8,24
52″	24,12,38, 7, 7,40,26,51,23,41		1,46,11,58, 8	
		1,54,58,44,11,50,57,34		8,24
54″	24,12,40, 2, 6,24,38,42,21,15		1,46,12, 6,32	
		1,54,58,42,25,38,51, 2		8,24
56″	24,12,41,57, 5, 7, 4,21,12,17		1,46,12,14,56	
		1,54,58,40,39,26,36, 6		8,24
58″	24,12,43,52, 3,47,43,47,48,23		1,46,12,23,20	
		1,54,58,38,53,14,12,46		
60″	24,12,45,47, 2,26,37, 2, 1, 9			
exact	24,12,45,47, 2,26,37, 1,35,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°48′ 0″	24,12,45,47, 2,26,37, 1,35,43			
		1,54,58,37, 7, 1,38,18		
2″	24,12,47,42, 1, 3,44, 3,14, 1		1,46,12,40,19	
		1,54,58,35,20,48,57,59		8,24
4″	24,12,49,36,59,39, 4,52,12, 0		1,46,12,48,43	
		1,54,58,33,34,36, 9,16		8,24
6″	24,12,51,31,58,12,39,28,21,16		1,46,12,57, 7	
		1,54,58,31,48,23,12, 9		8,24
8″	24,12,53,26,56,44,27,51,33,25		1,46,13, 5,31	
		1,54,58,30, 2,10, 6,38		8,24
10″	24,12,55,21,55,14,30, 1,40, 3		1,46,13,13,55	
		1,54,58,28,15,56,52,43		8,24
12″	24,12,57,16,53,42,45,58,32,46		1,46,13,22,19	
		1,54,58,26,29,43,30,24		8,24
14″	24,12,59,11,52, 9,15,42, 3,10		1,46,13,30,43	
		1,54,58,24,43,29,59,41		8,24
16″	24,13, 1, 6,50,33,59,12, 2,51		1,46,13,39, 7	
		1,54,58,22,57,16,20,34		8,24
18″	24,13, 3, 1,48,56,56,28,23,25		1,46,13,47,31	
		1,54,58,21,11, 2,33, 3		8,24
20″	24,13, 4,56,47,18, 7,30,56,28		1,46,13,55,55	
		1,54,58,19,24,48,37, 8		8,24
22″	24,13, 6,51,45,37,32,19,33,36		1,46,14, 4,19	
		1,54,58,17,38,34,32,49		8,24
24″	24,13, 8,46,43,55,10,54, 6,25		1,46,14,12,43	
		1,54,58,15,52,20,20, 6		8,24
26″	24,13,10,41,42,11, 3,14,26,31		1,46,14,21, 7	
		1,54,58,14, 6, 5,58,59		8,24
28″	24,13,12,36,40,25, 9,20,25,30		1,46,14,29,31	
		1,54,58,12,19,51,29,28		8,24
30″	24,13,14,31,38,37,29,11,54,58		1,46,14,37,55	
		1,54,58,10,33,36,51,33		8,24
32″	24,13,16,26,36,48, 2,48,46,31		1,46,14,46,19	
		1,54,58, 8,47,22, 5,14		8,24
34″	24,13,18,21,34,56,50,10,51,45		1,46,14,54,43	
		1,54,58, 7, 1, 7,10,31		8,24
36″	24,13,20,16,33, 3,51,18, 2,16		1,46,15, 3, 7	
		1,54,58, 5,14,52, 7,24		8,24
38″	24,13,22,11,31, 9, 6,10, 9,40		1,46,15,11,31	
		1,54,58, 3,28,36,55,53		8,24
40″	24,13,24, 6,29,12,34,47, 5,33		1,46,15,19,55	
		1,54,58, 1,42,21,35,58		8,24
42″	24,13,26, 1,27,14,17, 8,41,31		1,46,15,28,19	
		1,54,57,59,56, 6, 7,39		8,24
44″	24,13,27,56,25,14,13,14,49,10		1,46,15,36,43	
		1,54,57,58, 9,50,30,56		8,24
46″	24,13,29,51,23,12,23, 5,20, 6		1,46,15,45, 7	
		1,54,57,56,23,34,45,49		8,24
48″	24,13,31,46,21, 8,46,40, 5,55		1,46,15,53,31	
		1,54,57,54,37,18,52,18		8,24
50″	24,13,33,41,19, 3,23,58,58,13		1,46,16, 1,55	
		1,54,57,52,51, 2,50,23		8,24
52″	24,13,35,36,16,56,15, 1,48,36		1,46,16,10,19	
		1,54,57,51, 4,46,40, 4		8,24
54″	24,13,37,31,14,47,19,48,28,40		1,46,16,18,43	
		1,54,57,49,18,30,21,21		8,24
56″	24,13,39,26,12,36,38,18,50, 1		1,46,16,27, 7	
		1,54,57,47,32,13,54,14		8,24
58″	24,13,41,21,10,24,10,32,44,15		1,46,16,35,31	
		1,54,57,45,45,57,18,43		
60″	24,13,43,16, 8, 9,56,30, 2,58			
exact	24,13,43,16, 8, 9,56,29,39,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°49′ 0″	24,13,43,16, 8, 9,56,29,39,29			
		1,54,57,43,59,40,32,23		
2″	24,13,45,11, 5,53,56,10,11,52		1,46,16,52,29	
		1,54,57,42,13,23,39,54		8,24
4″	24,13,47, 6, 3,36, 9,33,51,46		1,46,17, 0,53	
		1,54,57,40,27, 6,39, 1		8,24
6″	24,13,49, 1, 1,16,36,40,30,47		1,46,17, 9,17	
		1,54,57,38,40,49,29,44		8,24
8″	24,13,50,55,58,55,17,30, 0,31		1,46,17,17,41	
		1,54,57,36,54,32,12, 3		8,24
10″	24,13,52,50,56,32,12, 2,12,34		1,46,17,26, 5	
		1,54,57,35, 8,14,45,58		8,24
12″	24,13,54,45,54, 7,20,16,58,32		1,46,17,34,29	
		1,54,57,33,21,57,11,29		8,24
14″	24,13,56,40,51,40,42,14,10, 1		1,46,17,42,53	
		1,54,57,31,35,39,28,36		8,24
16″	24,13,58,35,49,12,17,53,38,37		1,46,17,51,17	
		1,54,57,29,49,21,37,19		8,24
18″	24,14, 0,30,46,42, 7,15,15,56		1,46,17,59,41	
		1,54,57,28, 3, 3,37,38		8,24
20″	24,14, 2,25,44,10,10,18,53,34		1,46,18, 8, 5	
		1,54,57,26,16,45,29,33		8,24
22″	24,14, 4,20,41,36,27, 4,23, 7		1,46,18,16,29	
		1,54,57,24,30,27,13, 4		8,24
24″	24,14, 6,15,39, 0,57,31,36,11		1,46,18,24,53	
		1,54,57,22,44, 8,48,11		8,24
26″	24,14, 8,10,36,23,41,40,24,22		1,46,18,33,17	
		1,54,57,20,57,50,14,54		8,24
28″	24,14,10, 5,33,44,39,30,39,16		1,46,18,41,41	
		1,54,57,19,11,31,33,13		8,24
30″	24,14,12, 0,31, 3,51, 2,12,29		1,46,18,50, 5	
		1,54,57,17,25,12,43, 8		8,24
32″	24,14,13,55,28,21,16,14,55,37		1,46,18,58,29	
		1,54,57,15,38,53,44,39		8,24
34″	24,14,15,50,25,36,55, 8,40,16		1,46,19, 6,53	
		1,54,57,13,52,34,37,46		8,24
36″	24,14,17,45,22,50,47,43,18, 2		1,46,19,15,17	
		1,54,57,12, 6,15,22,29		8,24
38″	24,14,19,40,20, 2,53,58,40,31		1,46,19,23,41	
		1,54,57,10,19,55,58,48		8,24
40″	24,14,21,35,17,13,13,54,39,19		1,46,19,32, 5	
		1,54,57, 8,33,36,26,43		8,24
42″	24,14,23,30,14,21,47,31, 6, 2		1,46,19,40,29	
		1,54,57, 6,47,16,46,14		8,24
44″	24,14,25,25,11,28,34,47,52,16		1,46,19,48,53	
		1,54,57, 5, 0,56,57,21		8,24
46″	24,14,27,20, 8,33,35,44,49,37		1,46,19,57,17	
		1,54,57, 3,14,37, 0, 4		8,24
48″	24,14,29,15, 5,36,50,21,49,41		1,46,20, 5,41	
		1,54,57, 1,28,16,54,23		8,24
50″	24,14,31,10, 2,38,18,38,44, 4		1,46,20,14, 5	
		1,54,56,59,41,56,40,18		8,24
52″	24,14,33, 4,59,38, 0,35,24,22		1,46,20,22,29	
		1,54,56,57,55,36,17,49		8,24
54″	24,14,34,59,56,35,56,11,42,11		1,46,20,30,53	
		1,54,56,56, 9,15,46,56		8,24
56″	24,14,36,54,53,32, 5,27,29, 7		1,46,20,39,17	
		1,54,56,54,22,55, 7,39		8,24
58″	24,14,38,49,50,26,28,22,36,46		1,46,20,47,41	
		1,54,56,52,36,34,19,58		
60″	24,14,40,44,47,19, 4,56,56,44			
exact	24,14,40,44,47,19, 4,56,42, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°50′ 0″	24,14,40,44,47,19, 4,56,42, 7			
		1,54,56,50,50,13,22,15		
2″	24,14,42,39,44, 9,55,10, 4,22		1,46,21, 4,36	
		1,54,56,49, 3,52,17,39		8,24
4″	24,14,44,34,40,58,59, 2,22, 1		1,46,21,13, 0	
		1,54,56,47,17,31, 4,39		8,24
6″	24,14,46,29,37,46,16,33,26,40		1,46,21,21,24	
		1,54,56,45,31, 9,43,15		8,24
8″	24,14,48,24,34,31,47,43, 9,55		1,46,21,29,48	
		1,54,56,43,44,48,13,27		8,24
10″	24,14,50,19,31,15,32,31,23,22		1,46,21,38,12	
		1,54,56,41,58,26,35,15		8,24
12″	24,14,52,14,27,57,30,57,58,37		1,46,21,46,36	
		1,54,56,40,12, 4,48,39		8,24
14″	24,14,54, 9,24,37,43, 2,47,16		1,46,21,55, 0	
		1,54,56,38,25,42,53,39		8,24
16″	24,14,56, 4,21,16, 8,45,40,55		1,46,22, 3,24	
		1,54,56,36,39,20,50,15		8,24
18″	24,14,57,59,17,52,48, 6,31,10		1,46,22,11,48	
		1,54,56,34,52,58,38,27		8,24
20″	24,14,59,54,14,27,41, 5, 9,37		1,46,22,20,12	
		1,54,56,33, 6,36,18,15		8,24
22″	24,15, 1,49,11, 0,47,41,27,52		1,46,22,28,36	
		1,54,56,31,20,13,49,39		8,24
24″	24,15, 3,44, 7,32, 7,55,17,31		1,46,22,37, 0	
		1,54,56,29,33,51,12,39		8,24
26″	24,15, 5,39, 4, 1,41,46,30,10		1,46,22,45,24	
		1,54,56,27,47,28,27,15		8,24
28″	24,15, 7,34, 0,29,29,14,57,25		1,46,22,53,48	
		1,54,56,26, 1, 5,33,27		8,24
30″	24,15, 9,28,56,55,30,20,30,52		1,46,23, 2,12	
		1,54,56,24,14,42,31,15		8,24
32″	24,15,11,23,53,19,45, 3, 2, 7		1,46,23,10,36	
		1,54,56,22,28,19,20,39		8,24
34″	24,15,13,18,49,42,13,22,22,46		1,46,23,19, 0	
		1,54,56,20,41,56, 1,39		8,24
36″	24,15,15,13,46, 2,55,18,24,25		1,46,23,27,24	
		1,54,56,18,55,32,34,15		8,24
38″	24,15,17, 8,42,21,50,50,58,40		1,46,23,35,48	
		1,54,56,17, 9, 8,58,27		8,24
40″	24,15,19, 3,38,38,59,59,57, 7		1,46,23,44,12	
		1,54,56,15,22,45,14,15		8,24
42″	24,15,20,58,34,54,22,45,11,22		1,46,23,52,36	
		1,54,56,13,36,21,21,39		8,24
44″	24,15,22,53,31, 7,59, 6,33, 1		1,46,24, 1, 0	
		1,54,56,11,49,57,20,39		8,24
46″	24,15,24,48,27,19,49, 3,53,40		1,46,24, 9,24	
		1,54,56,10, 3,33,11,15		8,24
48″	24,15,26,43,23,29,52,37, 4,55		1,46,24,17,48	
		1,54,56, 8,17, 8,53,27		8,24
50″	24,15,28,38,19,38, 9,45,58,22		1,46,24,26,12	
		1,54,56, 6,30,44,27,15		8,24
52″	24,15,30,33,15,44,40,30,25,37		1,46,24,34,36	
		1,54,56, 4,44,19,52,39		8,24
54″	24,15,32,28,11,49,24,50,18,16		1,46,24,43, 0	
		1,54,56, 2,57,55, 9,39		8,24
56″	24,15,34,23, 7,52,22,45,27,55		1,46,24,51,24	
		1,54,56, 1,11,30,18,15		8,24
58″	24,15,36,18, 3,53,34,15,46,10		1,46,24,59,48	
		1,54,55,59,25, 5,18,27		
60″	24,15,38,12,59,52,59,21, 4,37			
exact	24,15,38,12,59,52,59,20,51,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°51′ 0″	24,15,38,12,59,52,59,20,51,20			
		1,54,55,57,38,40, 8,52		
2″	24,15,40, 7,55,50,38, 1, 0,12		1,46,25,16,41	
		1,54,55,55,52,14,52,11		8,24
4″	24,15,42, 2,51,46,30,15,52,23		1,46,25,25, 5	
		1,54,55,54, 5,49,27, 6		8,24
6″	24,15,43,57,47,40,36, 5,19,29		1,46,25,33,29	
		1,54,55,52,19,23,53,37		8,24
8″	24,15,45,52,43,32,55,29,13, 6		1,46,25,41,53	
		1,54,55,50,32,58,11,44		8,24
10″	24,15,47,47,39,23,28,27,24,50		1,46,25,50,17	
		1,54,55,48,46,32,21,27		8,24
12″	24,15,49,42,35,12,14,59,46,17		1,46,25,58,41	
		1,54,55,47, 0, 6,22,46		8,24
14″	24,15,51,37,30,59,15, 6, 9, 3		1,46,26, 7, 5	
		1,54,55,45,13,40,15,41		8,24
16″	24,15,53,32,26,44,28,46,24,44		1,46,26,15,29	
		1,54,55,43,27,14, 0,12		8,24
18″	24,15,55,27,22,27,56, 0,24,56		1,46,26,23,53	
		1,54,55,41,40,47,36,19		8,24
20″	24,15,57,22,18, 9,36,48, 1,15		1,46,26,32,17	
		1,54,55,39,54,21, 4, 2		8,24
22″	24,15,59,17,13,49,31, 9, 5,17		1,46,26,40,41	
		1,54,55,38, 7,54,23,21		8,24
24″	24,16, 1,12, 9,27,39, 3,28,38		1,46,26,49, 5	
		1,54,55,36,21,27,34,16		8,24
26″	24,16, 3, 7, 5, 4, 0,31, 2,54		1,46,26,57,29	
		1,54,55,34,35, 0,36,47		8,24
28″	24,16, 5, 2, 0,38,35,31,39,41		1,46,27, 5,53	
		1,54,55,32,48,33,30,54		8,24
30″	24,16, 6,56,56,11,24, 5,10,35		1,46,27,14,17	
		1,54,55,31, 2, 6,16,37		8,24
32″	24,16, 8,51,51,42,26,11,27,12		1,46,27,22,41	
		1,54,55,29,15,38,53,56		8,24
34″	24,16,10,46,47,11,41,50,21, 8		1,46,27,31, 5	
		1,54,55,27,29,11,22,51		8,24
36″	24,16,12,41,42,39,11, 1,43,59		1,46,27,39,29	
		1,54,55,25,42,43,43,22		8,24
38″	24,16,14,36,38, 4,53,45,27,21		1,46,27,47,53	
		1,54,55,23,56,15,55,29		8,24
40″	24,16,16,31,33,28,50, 1,22,50		1,46,27,56,17	
		1,54,55,22, 9,47,59,12		8,24
42″	24,16,18,26,28,50,59,49,22, 2		1,46,28, 4,41	
		1,54,55,20,23,19,54,31		8,24
44″	24,16,20,21,24,11,23, 9,16,33		1,46,28,13, 5	
		1,54,55,18,36,51,41,26		8,24
46″	24,16,22,16,19,30, 0, 0,57,59		1,46,28,21,29	
		1,54,55,16,50,23,19,57		8,24
48″	24,16,24,11,14,46,50,24,17,56		1,46,28,29,53	
		1,54,55,15, 3,54,50, 4		8,24
50″	24,16,26, 6,10, 1,54,19, 8, 0		1,46,28,38,17	
		1,54,55,13,17,26,11,47		8,24
52″	24,16,28, 1, 5,15,11,45,19,47		1,46,28,46,41	
		1,54,55,11,30,57,25, 6		8,24
54″	24,16,29,56, 0,26,42,42,44,53		1,46,28,55, 5	
		1,54,55, 9,44,28,30, 1		8,24
56″	24,16,31,50,55,36,27,11,14,54		1,46,29, 3,29	
		1,54,55, 7,57,59,26,32		8,24
58″	24,16,33,45,50,44,25,10,41,26		1,46,29,11,53	
		1,54,55, 6,11,30,14,39		
60″	24,16,35,40,45,50,36,40,56, 5			
exact	24,16,35,40,45,50,36,40,44, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°52′ 0″	24,16,35,40,45,50,36,40,44, 5			
		1,54,55, 4,25, 0,53,14		
2″	24,16,37,35,40,55, 1,41,37,19		1,46,29,28,45	
		1,54,55, 2,38,31,24,29		8,24
4″	24,16,39,30,35,57,40,13, 1,48		1,46,29,37, 9	
		1,54,55, 0,52, 1,47,20		8,24
6″	24,16,41,25,30,58,32,14,49, 8		1,46,29,45,33	
		1,54,54,59, 5,32, 1,47		8,24
8″	24,16,43,20,25,57,37,46,50,55		1,46,29,53,57	
		1,54,54,57,19, 2, 7,50		8,24
10″	24,16,45,15,20,54,56,48,58,45		1,46,30, 2,21	
		1,54,54,55,32,32, 5,29		8,24
12″	24,16,47,10,15,50,29,21, 4,14		1,46,30,10,45	
		1,54,54,53,46, 1,54,44		8,24
14″	24,16,49, 5,10,44,15,22,58,58		1,46,30,19, 9	
		1,54,54,51,59,31,35,35		8,24
16″	24,16,51, 0, 5,36,14,54,34,33		1,46,30,27,33	
		1,54,54,50,13, 1, 8, 2		8,24
18″	24,16,52,55, 0,26,27,55,42,35		1,46,30,35,57	
		1,54,54,48,26,30,32, 5		8,24
20″	24,16,54,49,55,14,54,26,14,40		1,46,30,44,21	
		1,54,54,46,39,59,47,44		8,24
22″	24,16,56,44,50, 1,34,26, 2,24		1,46,30,52,45	
		1,54,54,44,53,28,54,59		8,24
24″	24,16,58,39,44,46,27,54,57,23		1,46,31, 1, 9	
		1,54,54,43, 6,57,53,50		8,24
26″	24,17, 0,34,39,29,34,52,51,13		1,46,31, 9,33	
		1,54,54,41,20,26,44,17		8,24
28″	24,17, 2,29,34,10,55,19,35,30		1,46,31,17,57	
		1,54,54,39,33,55,26,20		8,24
30″	24,17, 4,24,28,50,29,15, 1,50		1,46,31,26,21	
		1,54,54,37,47,23,59,59		8,24
32″	24,17, 6,19,23,28,16,39, 1,49		1,46,31,34,45	
		1,54,54,36, 0,52,25,14		8,24
34″	24,17, 8,14,18, 4,17,31,27, 3		1,46,31,43, 9	
		1,54,54,34,14,20,42, 5		8,24
36″	24,17,10, 9,12,38,31,52, 9, 8		1,46,31,51,33	
		1,54,54,32,27,48,50,32		8,24
38″	24,17,12, 4, 7,10,59,40,59,40		1,46,31,59,57	
		1,54,54,30,41,16,50,35		8,24
40″	24,17,13,59, 1,41,40,57,50,15		1,46,32, 8,21	
		1,54,54,28,54,44,42,14		8,24
42″	24,17,15,53,56,10,35,42,32,29		1,46,32,16,45	
		1,54,54,27, 8,12,25,29		8,24
44″	24,17,17,48,50,37,43,54,57,58		1,46,32,25, 9	
		1,54,54,25,21,40, 0,20		8,24
46″	24,17,19,43,45, 3, 5,34,58,18		1,46,32,33,33	
		1,54,54,23,35, 7,26,47		8,24
48″	24,17,21,38,39,26,40,42,25, 5		1,46,32,41,57	
		1,54,54,21,48,34,44,50		8,24
50″	24,17,23,33,33,48,29,17, 9,55		1,46,32,50,21	
		1,54,54,20, 2, 1,54,29		8,24
52″	24,17,25,28,28, 8,31,19, 4,24		1,46,32,58,45	
		1,54,54,18,15,28,55,44		8,24
54″	24,17,27,23,22,26,46,48, 0, 8		1,46,33, 7, 9	
		1,54,54,16,28,55,48,35		8,24
56″	24,17,29,18,16,43,15,43,48,43		1,46,33,15,33	
		1,54,54,14,42,22,33, 2		8,24
58″	24,17,31,13,10,57,58, 6,21,45		1,46,33,23,57	
		1,54,54,12,55,49, 9, 5		
60″	24,17,33, 8, 5,10,53,55,30,50			
exact	24,17,33, 8, 5,10,53,55,26,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°53′ 0″	24,17,33, 8, 5,10,53,55,26,26			
		1,54,54,11, 9,15,36,18		
2″	24,17,35, 2,59,22, 3,11, 2,44		1,46,33,40,47	
		1,54,54, 9,22,41,55,31		8,24
4″	24,17,36,57,53,31,25,52,58,15		1,46,33,49,11	
		1,54,54, 7,36, 8, 6,20		8,24
6″	24,17,38,52,47,39, 2, 1, 4,35		1,46,33,57,35	
		1,54,54, 5,49,34, 8,45		8,24
8″	24,17,40,47,41,44,51,35,13,20		1,46,34, 5,59	
		1,54,54, 4, 3, 0, 2,46		8,24
10″	24,17,42,42,35,48,54,35,16, 6		1,46,34,14,23	
		1,54,54, 2,16,25,48,23		8,24
12″	24,17,44,37,29,51,11, 1, 4,29		1,46,34,22,47	
		1,54,54, 0,29,51,25,36		8,24
14″	24,17,46,32,23,51,40,52,30, 5		1,46,34,31,11	
		1,54,53,58,43,16,54,25		8,24
16″	24,17,48,27,17,50,24, 9,24,30		1,46,34,39,35	
		1,54,53,56,56,42,14,50		8,24
18″	24,17,50,22,11,47,20,51,39,20		1,46,34,47,59	
		1,54,53,55,10, 7,26,51		8,24
20″	24,17,52,17, 5,42,30,59, 6,11		1,46,34,56,23	
		1,54,53,53,23,32,30,28		8,24
22″	24,17,54,11,59,35,54,31,36,39		1,46,35, 4,47	
		1,54,53,51,36,57,25,41		8,24
24″	24,17,56, 6,53,27,31,29, 2,20		1,46,35,13,11	
		1,54,53,49,50,22,12,30		8,24
26″	24,17,58, 1,47,17,21,51,14,50		1,46,35,21,35	
		1,54,53,48, 3,46,50,55		8,24
28″	24,17,59,56,41, 5,25,38, 5,45		1,46,35,29,59	
		1,54,53,46,17,11,20,56		8,24
30″	24,18, 1,51,34,51,42,49,26,41		1,46,35,38,23	
		1,54,53,44,30,35,42,33		8,24
32″	24,18, 3,46,28,36,13,25, 9,14		1,46,35,46,47	
		1,54,53,42,43,59,55,46		8,24
34″	24,18, 5,41,22,18,57,25, 5, 0		1,46,35,55,11	
		1,54,53,40,57,24, 0,35		8,24
36″	24,18, 7,36,15,59,54,49, 5,35		1,46,36, 3,35	
		1,54,53,39,10,47,57, 0		8,24
38″	24,18, 9,31, 9,39, 5,37, 2,35		1,46,36,11,59	
		1,54,53,37,24,11,45, 1		8,24
40″	24,18,11,26, 3,16,29,48,47,36		1,46,36,20,23	
		1,54,53,35,37,35,24,38		8,24
42″	24,18,13,20,56,52, 7,24,12,14		1,46,36,28,47	
		1,54,53,33,50,58,55,51		8,24
44″	24,18,15,15,50,25,58,23, 8, 5		1,46,36,37,11	
		1,54,53,32, 4,22,18,40		8,24
46″	24,18,17,10,43,58, 2,45,26,45		1,46,36,45,35	
		1,54,53,30,17,45,33, 5		8,24
48″	24,18,19, 5,37,28,20,30,59,50		1,46,36,53,59	
		1,54,53,28,31, 8,39, 6		8,24
50″	24,18,21, 0,30,56,51,39,38,56		1,46,37, 2,23	
		1,54,53,26,44,31,36,43		8,24
52″	24,18,22,55,24,23,36,11,15,39		1,46,37,10,47	
		1,54,53,24,57,54,25,56		8,24
54″	24,18,24,50,17,48,34, 5,41,35		1,46,37,19,11	
		1,54,53,23,11,17, 6,45		8,24
56″	24,18,26,45,11,11,45,22,48,20		1,46,37,27,35	
		1,54,53,21,24,39,39,10		8,24
58″	24,18,28,40, 4,33,10, 2,27,30		1,46,37,35,59	
		1,54,53,19,38, 2, 3,11		
60″	24,18,30,34,57,52,48, 4,30,41			
exact	24,18,30,34,57,52,48, 4,33,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°54′ 0″	24,18,30,34,57,52,48, 4,33,42			
		1,54,53,17,51,24,19, 2		
2″	24,18,32,29,51,10,39,28,52,44		1,46,37,52,46	
		1,54,53,16, 4,46,26,16		8,24
4″	24,18,34,24,44,26,44,15,19, 0		1,46,38, 1,10	
		1,54,53,14,18, 8,25, 6		8,24
6″	24,18,36,19,37,41, 2,23,44, 6		1,46,38, 9,34	
		1,54,53,12,31,30,15,32		8,24
8″	24,18,38,14,30,53,33,53,59,38		1,46,38,17,58	
		1,54,53,10,44,51,57,34		8,24
10″	24,18,40, 9,24, 4,18,45,57,12		1,46,38,26,22	
		1,54,53, 8,58,13,31,12		8,24
12″	24,18,42, 4,17,13,16,59,28,24		1,46,38,34,46	
		1,54,53, 7,11,34,56,26		8,24
14″	24,18,43,59,10,20,28,34,24,50		1,46,38,43,10	
		1,54,53, 5,24,56,13,16		8,24
16″	24,18,45,54, 3,25,53,30,38, 6		1,46,38,51,34	
		1,54,53, 3,38,17,21,42		8,24
18″	24,18,47,48,56,29,31,47,59,48		1,46,38,59,58	
		1,54,53, 1,51,38,21,44		8,24
20″	24,18,49,43,49,31,23,26,21,32		1,46,39, 8,22	
		1,54,53, 0, 4,59,13,22		8,24
22″	24,18,51,38,42,31,28,25,34,54		1,46,39,16,46	
		1,54,52,58,18,19,56,36		8,24
24″	24,18,53,33,35,29,46,45,31,30		1,46,39,25,10	
		1,54,52,56,31,40,31,26		8,24
26″	24,18,55,28,28,26,18,26, 2,56		1,46,39,33,34	
		1,54,52,54,45, 0,57,52		8,24
28″	24,18,57,23,21,21, 3,27, 0,48		1,46,39,41,58	
		1,54,52,52,58,21,15,54		8,24
30″	24,18,59,18,14,14, 1,48,16,42		1,46,39,50,22	
		1,54,52,51,11,41,25,32		8,24
32″	24,19, 1,13, 7, 5,13,29,42,14		1,46,39,58,46	
		1,54,52,49,25, 1,26,46		8,24
34″	24,19, 3, 7,59,54,38,31, 9, 0		1,46,40, 7,10	
		1,54,52,47,38,21,19,36		8,24
36″	24,19, 5, 2,52,42,16,52,28,36		1,46,40,15,34	
		1,54,52,45,51,41, 4, 2		8,24
38″	24,19, 6,57,45,28, 8,33,32,38		1,46,40,23,58	
		1,54,52,44, 5, 0,40, 4		8,24
40″	24,19, 8,52,38,12,13,34,12,42		1,46,40,32,22	
		1,54,52,42,18,20, 7,42		8,24
42″	24,19,10,47,30,54,31,54,20,24		1,46,40,40,46	
		1,54,52,40,31,39,26,56		8,24
44″	24,19,12,42,23,35, 3,33,47,20		1,46,40,49,10	
		1,54,52,38,44,58,37,46		8,24
46″	24,19,14,37,16,13,48,32,25, 6		1,46,40,57,34	
		1,54,52,36,58,17,40,12		8,24
48″	24,19,16,32, 8,50,46,50, 5,18		1,46,41, 5,58	
		1,54,52,35,11,36,34,14		8,24
50″	24,19,18,27, 1,25,58,26,39,32		1,46,41,14,22	
		1,54,52,33,24,55,19,52		8,24
52″	24,19,20,21,53,59,23,21,59,24		1,46,41,22,46	
		1,54,52,31,38,13,57, 6		8,24
54″	24,19,22,16,46,31, 1,35,56,30		1,46,41,31,10	
		1,54,52,29,51,32,25,56		8,24
56″	24,19,24,11,39, 0,53, 8,22,26		1,46,41,39,34	
		1,54,52,28, 4,50,46,22		8,24
58″	24,19,26, 6,31,28,57,59, 8,48		1,46,41,47,58	
		1,54,52,26,18, 8,58,24		
60″	24,19,28, 1,23,55,16, 8, 7,12			
exact	24,19,28, 1,23,55,16, 8,10,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°55′ 0″	24,19,28, 1,23,55,16, 8,10,21	1,54,52,24,31,27, 2,26		
2″	24,19,29,56,16,19,47,35,12,47	1,54,52,22,44,44,57,42	1,46,42, 4,44	8,24
4″	24,19,31,51, 8,42,32,20,10,29	1,54,52,20,58, 2,44,34	1,46,42,13, 8	8,24
6″	24,19,33,46, 1, 3,30,22,55, 3	1,54,52,19,11,20,23, 2	1,46,42,21,32	8,24
8″	24,19,35,40,53,22,41,43,18, 5	1,54,52,17,24,37,53, 6	1,46,42,29,56	8,24
10″	24,19,37,35,45,40, 6,21,11,11	1,54,52,15,37,55,14,46	1,46,42,38,20	8,24
12″	24,19,39,30,37,55,44,16,25,57	1,54,52,13,51,12,28, 2	1,46,42,46,44	8,24
14″	24,19,41,25,30, 9,35,28,53,59	1,54,52,12, 4,29,32,54	1,46,42,55, 8	8,24
16″	24,19,43,20,22,21,39,58,26,53	1,54,52,10,17,46,29,22	1,46,43, 3,32	8,24
18″	24,19,45,15,14,31,57,44,56,15	1,54,52, 8,31, 3,17,26	1,46,43,11,56	8,24
20″	24,19,47,10, 6,40,28,48,13,41	1,54,52, 6,44,19,57, 6	1,46,43,20,20	8,24
22″	24,19,49, 4,58,47,13, 8,10,47	1,54,52, 4,57,36,28,22	1,46,43,28,44	8,24
24″	24,19,50,59,50,52,10,44,39, 9	1,54,52, 3,10,52,51,14	1,46,43,37, 8	8,24
26″	24,19,52,54,42,55,21,37,30,23	1,54,52, 1,24, 9, 5,42	1,46,43,45,32	8,24
28″	24,19,54,49,34,56,45,46,36, 5	1,54,51,59,37,25,11,46	1,46,43,53,56	8,24
30″	24,19,56,44,26,56,23,11,47,51	1,54,51,57,50,41, 9,26	1,46,44, 2,20	8,24
32″	24,19,58,39,18,54,13,52,57,17	1,54,51,56, 3,56,58,42	1,46,44,10,44	8,24
34″	24,20, 0,34,10,50,17,49,55,59	1,54,51,54,17,12,39,34	1,46,44,19, 8	8,24
36″	24,20, 2,29, 2,44,35, 2,35,33	1,54,51,52,30,28,12, 2	1,46,44,27,32	8,24
38″	24,20, 4,23,54,37, 5,30,47,35	1,54,51,50,43,43,36, 6	1,46,44,35,56	8,24
40″	24,20, 6,18,46,27,49,14,23,41	1,54,51,48,56,58,51,46	1,46,44,44,20	8,24
42″	24,20, 8,13,38,16,46,13,15,27	1,54,51,47,10,13,59, 2	1,46,44,52,44	8,24
44″	24,20,10, 8,30, 3,56,27,14,29	1,54,51,45,23,28,57,54	1,46,45, 1, 8	8,24
46″	24,20,12, 3,21,49,19,56,12,23	1,54,51,43,36,43,48,22	1,46,45, 9,32	8,24
48″	24,20,13,58,13,32,56,40, 0,45	1,54,51,41,49,58,30,26	1,46,45,17,56	8,24
50″	24,20,15,53, 5,14,46,38,31,11	1,54,51,40, 3,13, 4, 6	1,46,45,26,20	8,24
52″	24,20,17,47,56,54,49,51,35,17	1,54,51,38,16,27,29,22	1,46,45,34,44	8,24
54″	24,20,19,42,48,33, 6,19, 4,39	1,54,51,36,29,41,46,14	1,46,45,43, 8	8,24
56″	24,20,21,37,40, 9,36, 0,50,53	1,54,51,34,42,55,54,42	1,46,45,51,32	8,24
58″	24,20,23,32,31,44,18,56,45,35	1,54,51,32,56, 9,54,46	1,46,45,59,56	
60″	24,20,25,27,23,17,15, 6,40,21			
exact	24,20,25,27,23,17,15, 6,50, 8			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
23°56′	0″	24,20,25,27,23,17,15, 6,50, 8			
	2″	24,20,27,22,14,48,24,30,37,36	1,54,51,31, 9,23,47,28	1,46,46,16,40	
	4″	24,20,29,17, 6,17,47, 8, 8,24	1,54,51,29,22,37,30,48	1,46,46,25, 4	8,24
	6″	24,20,31,11,57,45,22,59,14, 8	1,54,51,27,35,51, 5,44	1,46,46,33,28	8,24
	8″	24,20,33, 6,49,11,12, 3,46,24	1,54,51,25,49, 4,32,16	1,46,46,41,52	8,24
	10″	24,20,35, 1,40,35,14,21,36,48	1,54,51,24, 2,17,50,24	1,46,46,50,16	8,24
	12″	24,20,36,56,31,57,29,52,36,56	1,54,51,22,15,31, 0, 8	1,46,46,58,40	8,24
	14″	24,20,38,51,23,17,58,36,38,24	1,54,51,20,28,44, 1,28	1,46,47, 7, 4	8,24
	16″	24,20,40,46,14,36,40,33,32,48	1,54,51,18,41,56,54,24	1,46,47,15,28	8,24
	18″	24,20,42,41, 5,53,35,43,11,44	1,54,51,16,55, 9,38,56	1,46,47,23,52	8,24
	20″	24,20,44,35,57, 8,44, 5,26,48	1,54,51,15, 8,22,15, 4	1,46,47,32,16	8,24
	22″	24,20,46,30,48,22, 5,40, 9,36	1,54,51,13,21,34,42,48	1,46,47,40,40	8,24
	24″	24,20,48,25,39,33,40,27,11,44	1,54,51,11,34,47, 2, 8	1,46,47,49, 4	8,24
	26″	24,20,50,20,30,43,28,26,24,48	1,54,51, 9,47,59,13, 4	1,46,47,57,28	8,24
	28″	24,20,52,15,21,51,29,37,40,24	1,54,51, 8, 1,11,15,36	1,46,48, 5,52	8,24
	30″	24,20,54,10,12,57,44, 0,50, 8	1,54,51, 6,14,23, 9,44	1,46,48,14,16	8,24
	32″	24,20,56, 5, 4, 2,11,35,45,36	1,54,51, 4,27,34,55,28	1,46,48,22,40	8,24
	34″	24,20,57,59,55, 4,52,22,18,24	1,54,51, 2,40,46,32,48	1,46,48,31, 4	8,24
	36″	24,20,59,54,46, 5,46,20,20, 8	1,54,51, 0,53,58, 1,44	1,46,48,39,28	8,24
	38″	24,21, 1,49,37, 4,53,29,42,24	1,54,50,59, 7, 9,22,16	1,46,48,47,52	8,24
	40″	24,21, 3,44,28, 2,13,50,16,48	1,54,50,57,20,20,34,24	1,46,48,56,16	8,24
	42″	24,21, 5,39,18,57,47,21,54,56	1,54,50,55,33,31,38, 8	1,46,49, 4,40	8,24
	44″	24,21, 7,34, 9,51,34, 4,28,24	1,54,50,53,46,42,33,28	1,46,49,13, 4	8,24
	46″	24,21, 9,29, 0,43,33,57,48,48	1,54,50,51,59,53,20,24	1,46,49,21,28	8,24
	48″	24,21,11,23,51,33,47, 1,47,44	1,54,50,50,13, 3,58,56	1,46,49,29,52	8,24
	50″	24,21,13,18,42,22,13,16,16,48	1,54,50,48,26,14,29, 4	1,46,49,38,16	8,24
	52″	24,21,15,13,33, 8,52,41, 7,36	1,54,50,46,39,24,50,48	1,46,49,46,40	8,24
	54″	24,21,17, 8,23,53,45,16,11,44	1,54,50,44,52,35, 4, 8	1,46,49,55, 4	8,24
	56″	24,21,19, 3,14,36,51, 1,20,48	1,54,50,43, 5,45, 9, 4	1,46,50, 3,28	8,24
	58″	24,21,20,58, 5,18, 9,56,26,24	1,54,50,41,18,55, 5,36	1,46,50,11,52	
	60″	24,21,22,52,55,57,42, 1,20, 8	1,54,50,39,32, 4,53,44		
exact		24,21,22,52,55,57,42, 1,36, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°57′ 0″	24,21,22,52,55,57,42, 1,36, 2			
		1,54,50,37,45,14,35, 6		
2″	24,21,24,47,46,35,27,16,11, 8		1,46,50,28,33	
		1,54,50,35,58,24, 6,33		8,24
4″	24,21,26,42,37,11,25,40,17,41		1,46,50,36,57	
		1,54,50,34,11,33,29,36		8,24
6″	24,21,28,37,27,45,37,13,47,17		1,46,50,45,21	
		1,54,50,32,24,42,44,15		8,24
8″	24,21,30,32,18,18, 1,56,31,32		1,46,50,53,45	
		1,54,50,30,37,51,50,30		8,24
10″	24,21,32,27, 8,48,39,48,22, 2		1,46,51, 2, 9	
		1,54,50,28,51, 0,48,21		8,24
12″	24,21,34,21,59,17,30,49,10,23		1,46,51,10,33	
		1,54,50,27, 4, 9,37,48		8,24
14″	24,21,36,16,49,44,34,58,48,11		1,46,51,18,57	
		1,54,50,25,17,18,18,51		8,24
16″	24,21,38,11,40, 9,52,17, 7, 2		1,46,51,27,21	
		1,54,50,23,30,26,51,30		8,24
18″	24,21,40, 6,30,33,22,43,58,32		1,46,51,35,45	
		1,54,50,21,43,35,15,45		8,24
20″	24,21,42, 1,20,55, 6,19,14,17		1,46,51,44, 9	
		1,54,50,19,56,43,31,36		8,24
22″	24,21,43,56,11,15, 3, 2,45,53		1,46,51,52,33	
		1,54,50,18, 9,51,39, 3		8,24
24″	24,21,45,51, 1,33,12,54,24,56		1,46,52, 0,57	
		1,54,50,16,22,59,38, 6		8,24
26″	24,21,47,45,51,49,35,54, 3, 2		1,46,52, 9,21	
		1,54,50,14,36, 7,28,45		8,24
28″	24,21,49,40,42, 4,12, 1,31,47		1,46,52,17,45	
		1,54,50,12,49,15,11, 0		8,24
30″	24,21,51,35,32,17, 1,16,42,47		1,46,52,26, 9	
		1,54,50,11, 2,22,44,51		8,24
32″	24,21,53,30,22,28, 3,39,27,38		1,46,52,34,33	
		1,54,50, 9,15,30,10,18		8,24
34″	24,21,55,25,12,37,19, 9,37,56		1,46,52,42,57	
		1,54,50, 7,28,37,27,21		8,24
36″	24,21,57,20, 2,44,47,47, 5,17		1,46,52,51,21	
		1,54,50, 5,41,44,36, 0		8,24
38″	24,21,59,14,52,50,29,31,41,17		1,46,52,59,45	
		1,54,50, 3,54,51,36,15		8,24
40″	24,22, 1, 9,42,54,24,23,17,32		1,46,53, 8, 9	
		1,54,50, 2, 7,58,28, 6		8,24
42″	24,22, 3, 4,32,56,32,21,45,38		1,46,53,16,33	
		1,54,50, 0,21, 5,11,33		8,24
44″	24,22, 4,59,22,56,53,26,57,11		1,46,53,24,57	
		1,54,49,58,34,11,46,36		8,24
46″	24,22, 6,54,12,55,27,38,43,47		1,46,53,33,21	
		1,54,49,56,47,18,13,15		8,24
48″	24,22, 8,49, 2,52,14,56,57, 2		1,46,53,41,45	
		1,54,49,55, 0,24,31,30		8,24
50″	24,22,10,43,52,47,15,21,28,32		1,46,53,50, 9	
		1,54,49,53,13,30,41,21		8,24
52″	24,22,12,38,42,40,28,52, 9,53		1,46,53,58,33	
		1,54,49,51,26,36,42,48		8,24
54″	24,22,14,33,32,31,55,28,52,41		1,46,54, 6,57	
		1,54,49,49,39,42,35,51		8,24
56″	24,22,16,28,22,21,35,11,28,32		1,46,54,15,21	
		1,54,49,47,52,48,20,30		8,24
58″	24,22,18,23,12, 9,27,59,49, 2		1,46,54,23,45	
		1,54,49,46, 5,53,56,45		
60″	24,22,20,18, 1,55,33,53,45,47			
exact	24,22,20,18, 1,55,33,54, 0,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°58′ 0″	24,22,20,18, 1,55,33,54, 0,18			
		1,54,49,44,18,59,26,18		
2″	24,22,22,12,51,39,52,53,26,36		1,46,54,40,25	
		1,54,49,42,32, 4,45,53		8,24
4″	24,22,24, 7,41,22,24,58,12,29		1,46,54,48,49	
		1,54,49,40,45, 9,57, 4		8,24
6″	24,22,26, 2,31, 3,10, 8, 9,33		1,46,54,57,13	
		1,54,49,38,58,14,59,51		8,24
8″	24,22,27,57,20,42, 8,23, 9,24		1,46,55, 5,37	
		1,54,49,37,11,19,54,14		8,24
10″	24,22,29,52,10,19,19,43, 3,38		1,46,55,14, 1	
		1,54,49,35,24,24,40,13		8,24
12″	24,22,31,46,59,54,44, 7,43,51		1,46,55,22,25	
		1,54,49,33,37,29,17,48		8,24
14″	24,22,33,41,49,28,21,37, 1,39		1,46,55,30,49	
		1,54,49,31,50,33,46,59		8,24
16″	24,22,35,36,39, 0,12,10,48,38		1,46,55,39,13	
		1,54,49,30, 3,38, 7,46		8,24
18″	24,22,37,31,28,30,15,48,56,24		1,46,55,47,37	
		1,54,49,28,16,42,20, 9		8,24
20″	24,22,39,26,17,58,32,31,16,33		1,46,55,56, 1	
		1,54,49,26,29,46,24, 8		8,24
22″	24,22,41,21, 7,25, 2,17,40,41		1,46,56, 4,25	
		1,54,49,24,42,50,19,43		8,24
24″	24,22,43,15,56,49,45, 8, 0,24		1,46,56,12,49	
		1,54,49,22,55,54, 6,54		8,24
26″	24,22,45,10,46,12,41, 2, 7,18		1,46,56,21,13	
		1,54,49,21, 8,57,45,41		8,24
28″	24,22,47, 5,35,33,49,59,52,59		1,46,56,29,37	
		1,54,49,19,22, 1,16, 4		8,24
30″	24,22,49, 0,24,53,12, 1, 9, 3		1,46,56,38, 1	
		1,54,49,17,35, 4,38, 3		8,24
32″	24,22,50,55,14,10,47, 5,47, 6		1,46,56,46,25	
		1,54,49,15,48, 7,51,38		8,24
34″	24,22,52,50, 3,26,35,13,38,44		1,46,56,54,49	
		1,54,49,14, 1,10,56,49		8,24
36″	24,22,54,44,52,40,36,24,35,33		1,46,57, 3,13	
		1,54,49,12,14,13,53,36		8,24
38″	24,22,56,39,41,52,50,38,29, 9		1,46,57,11,37	
		1,54,49,10,27,16,41,59		8,24
40″	24,22,58,34,31, 3,17,55,11, 8		1,46,57,20, 1	
		1,54,49, 8,40,19,21,58		8,24
42″	24,23, 0,29,20,11,58,14,33, 6		1,46,57,28,25	
		1,54,49, 6,53,21,53,33		8,24
44″	24,23, 2,24, 9,18,51,36,26,39		1,46,57,36,49	
		1,54,49, 5, 6,24,16,44		8,24
46″	24,23, 4,18,58,23,58, 0,43,23		1,46,57,45,13	
		1,54,49, 3,19,26,31,31		8,24
48″	24,23, 6,13,47,27,17,27,14,54		1,46,57,53,37	
		1,54,49, 1,32,28,37,54		8,24
50″	24,23, 8, 8,36,28,49,55,52,48		1,46,58, 2, 1	
		1,54,48,59,45,30,35,53		8,24
52″	24,23,10, 3,25,28,35,26,28,41		1,46,58,10,25	
		1,54,48,57,58,32,25,28		8,24
54″	24,23,11,58,14,26,33,58,54, 9		1,46,58,18,49	
		1,54,48,56,11,34, 6,39		8,24
56″	24,23,13,53, 3,22,45,33, 0,48		1,46,58,27,13	
		1,54,48,54,24,35,39,26		8,24
58″	24,23,15,47,52,17,10, 8,40,14		1,46,58,35,37	
		1,54,48,52,37,37, 3,49		
60″	24,23,17,42,41, 9,47,45,44, 3			
exact	24,23,17,42,41, 9,47,46, 4,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
23°59′ 0″	24,23,17,42,41, 9,47,46, 4,29			
		1,54,48,50,50,38,22, 4		
2″	24,23,19,37,30, 0,38,24,26,33		1,46,58,52,15	
		1,54,48,49, 3,39,29,49		8,24
4″	24,23,21,32,18,49,42, 3,56,22		1,46,59, 0,39	
		1,54,48,47,16,40,29,10		8,24
6″	24,23,23,27, 7,36,58,44,25,32		1,46,59, 9, 3	
		1,54,48,45,29,41,20, 7		8,24
8″	24,23,25,21,56,22,28,25,45,39		1,46,59,17,27	
		1,54,48,43,42,42, 2,40		8,24
10″	24,23,27,16,45, 6,11, 7,48,19		1,46,59,25,51	
		1,54,48,41,55,42,36,49		8,24
12″	24,23,29,11,33,48, 6,50,25, 8		1,46,59,34,15	
		1,54,48,40, 8,43, 2,34		8,24
14″	24,23,31, 6,22,28,15,33,27,42		1,46,59,42,39	
		1,54,48,38,21,43,19,55		8,24
16″	24,23,33, 1,11, 6,37,16,47,37		1,46,59,51, 3	
		1,54,48,36,34,43,28,52		8,24
18″	24,23,34,55,59,43,12, 0,16,29		1,46,59,59,27	
		1,54,48,34,47,43,29,25		8,24
20″	24,23,36,50,48,17,59,43,45,54		1,47, 0, 7,51	
		1,54,48,33, 0,43,21,34		8,24
22″	24,23,38,45,36,51, 0,27, 7,28		1,47, 0,16,15	
		1,54,48,31,13,43, 5,19		8,24
24″	24,23,40,40,25,22,14,10,12,47		1,47, 0,24,39	
		1,54,48,29,26,42,40,40		8,24
26″	24,23,42,35,13,51,40,52,53,27		1,47, 0,33, 3	
		1,54,48,27,39,42, 7,37		8,24
28″	24,23,44,30, 2,19,20,35, 1, 4		1,47, 0,41,27	
		1,54,48,25,52,41,26,10		8,24
30″	24,23,46,24,50,45,13,16,27,14		1,47, 0,49,51	
		1,54,48,24, 5,40,36,19		8,24
32″	24,23,48,19,39, 9,18,57, 3,33		1,47, 0,58,15	
		1,54,48,22,18,39,38, 4		8,24
34″	24,23,50,14,27,31,37,36,41,37		1,47, 1, 6,39	
		1,54,48,20,31,38,31,25		8,24
36″	24,23,52, 9,15,52, 9,15,13, 2		1,47, 1,15, 3	
		1,54,48,18,44,37,16,22		8,24
38″	24,23,54, 4, 4,10,53,52,29,24		1,47, 1,23,27	
		1,54,48,16,57,35,52,55		8,24
40″	24,23,55,58,52,27,51,28,22,19		1,47, 1,31,51	
		1,54,48,15,10,34,21, 4		8,24
42″	24,23,57,53,40,43, 2, 2,43,23		1,47, 1,40,15	
		1,54,48,13,23,32,40,49		8,24
44″	24,23,59,48,28,56,25,35,24,12		1,47, 1,48,39	
		1,54,48,11,36,30,52,10		8,24
46″	24,24, 1,43,17, 8, 2, 6,16,22		1,47, 1,57, 3	
		1,54,48, 9,49,28,55, 7		8,24
48″	24,24, 3,38, 5,17,51,35,11,29		1,47, 2, 5,27	
		1,54,48, 8, 2,26,49,40		8,24
50″	24,24, 5,32,53,25,54, 2, 1, 9		1,47, 2,13,51	
		1,54,48, 6,15,24,35,49		8,24
52″	24,24, 7,27,41,32, 9,26,36,58		1,47, 2,22,15	
		1,54,48, 4,28,22,13,34		8,24
54″	24,24, 9,22,29,36,37,48,50,32		1,47, 2,30,39	
		1,54,48, 2,41,19,42,55		8,24
56″	24,24,11,17,17,39,19, 8,33,27		1,47, 2,39, 3	
		1,54,48, 0,54,17, 3,52		8,24
58″	24,24,13,12, 5,40,13,25,37,19		1,47, 2,47,27	
		1,54,47,59, 7,14,16,25		
60″	24,24,15, 6,53,39,20,39,53,44			
exact	24,24,15, 6,53,39,20,40,19,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24° 0′ 0″	24,24,15, 6,53,39,20,40,19,27			
		1,54,47,57,20,11,23,22		
2″	24,24,17, 1,41,36,40,51,42,49		1,47, 3, 4, 3	
		1,54,47,55,33, 8,19,19		8,24
4″	24,24,18,56,29,32,14, 0, 2, 8		1,47, 3,12,27	
		1,54,47,53,46, 5, 6,52		8,24
6″	24,24,20,51,17,26, 0, 5, 9, 0		1,47, 3,20,51	
		1,54,47,51,59, 1,46, 1		8,24
8″	24,24,22,46, 5,17,59, 6,55, 1		1,47, 3,29,15	
		1,54,47,50,11,58,16,46		8,24
10″	24,24,24,40,53, 8,11, 5,11,47		1,47, 3,37,39	
		1,54,47,48,24,54,39, 7		8,24
12″	24,24,26,35,40,56,35,59,50,54		1,47, 3,46, 3	
		1,54,47,46,37,50,53, 4		8,24
14″	24,24,28,30,28,43,13,50,43,58		1,47, 3,54,27	
		1,54,47,44,50,46,58,37		8,24
16″	24,24,30,25,16,28, 4,37,42,35		1,47, 4, 2,51	
		1,54,47,43, 3,42,55,46		8,24
18″	24,24,32,20, 4,11, 8,20,38,21		1,47, 4,11,15	
		1,54,47,41,16,38,44,31		8,24
20″	24,24,34,14,51,52,24,59,22,52		1,47, 4,19,39	
		1,54,47,39,29,34,24,52		8,24
22″	24,24,36, 9,39,31,54,33,47,44		1,47, 4,28, 3	
		1,54,47,37,42,29,56,49		8,24
24″	24,24,38, 4,27, 9,37, 3,44,33		1,47, 4,36,27	
		1,54,47,35,55,25,20,22		8,24
26″	24,24,39,59,14,45,32,29, 4,55		1,47, 4,44,51	
		1,54,47,34, 8,20,35,31		8,24
28″	24,24,41,54, 2,19,40,49,40,26		1,47, 4,53,15	
		1,54,47,32,21,15,42,16		8,24
30″	24,24,43,48,49,52, 2, 5,22,42		1,47, 5, 1,39	
		1,54,47,30,34,10,40,37		8,24
32″	24,24,45,43,37,22,36,16, 3,19		1,47, 5,10, 3	
		1,54,47,28,47, 5,30,34		8,24
34″	24,24,47,38,24,51,23,21,33,53		1,47, 5,18,27	
		1,54,47,27, 0, 0,12, 7		8,24
36″	24,24,49,33,12,18,23,21,46, 0		1,47, 5,26,51	
		1,54,47,25,12,54,45,16		8,24
38″	24,24,51,27,59,43,36,16,31,16		1,47, 5,35,15	
		1,54,47,23,25,49,10, 1		8,24
40″	24,24,53,22,47, 7, 2, 5,41,17		1,47, 5,43,39	
		1,54,47,21,38,43,26,22		8,24
42″	24,24,55,17,34,28,40,49, 7,39		1,47, 5,52, 3	
		1,54,47,19,51,37,34,19		8,24
44″	24,24,57,12,21,48,32,26,41,58		1,47, 6, 0,27	
		1,54,47,18, 4,31,33,52		8,24
46″	24,24,59, 7, 9, 6,36,58,15,50		1,47, 6, 8,51	
		1,54,47,16,17,25,25, 1		8,24
48″	24,25, 1, 1,56,22,54,23,40,51		1,47, 6,17,15	
		1,54,47,14,30,19, 7,46		8,24
50″	24,25, 2,56,43,37,24,42,48,37		1,47, 6,25,39	
		1,54,47,12,43,12,42, 7		8,24
52″	24,25, 4,51,30,50, 7,55,30,44		1,47, 6,34, 3	
		1,54,47,10,56, 6, 8, 4		8,24
54″	24,25, 6,46,18, 1, 4, 1,38,48		1,47, 6,42,27	
		1,54,47, 9, 8,59,25,37		8,24
56″	24,25, 8,41, 5,10,13, 1, 4,25		1,47, 6,50,51	
		1,54,47, 7,21,52,34,46		8,24
58″	24,25,10,35,52,17,34,53,39,11		1,47, 6,59,15	
		1,54,47, 5,34,45,35,31		
60″	24,25,12,30,39,23, 9,39,14,42			
exact	24,25,12,30,39,23, 9,39,45,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24° 1′ 0″	24,25,12,30,39,23, 9,39,45,22			
		1,54,47, 3,47,38,31,11		
2″	24,25,14,25,26,26,57,18,16,33		1,47, 7,15,49	
		1,54,47, 2, 0,31,15,22		8,23
4″	24,25,16,20,13,28,57,49,31,55		1,47, 7,24,12	
		1,54,47, 0,13,23,51,10		8,23
6″	24,25,18,15, 0,29,11,13,23, 5		1,47, 7,32,35	
		1,54,46,58,26,16,18,35		8,23
8″	24,25,20, 9,47,27,37,29,41,40		1,47, 7,40,58	
		1,54,46,56,39, 8,37,37		8,23
10″	24,25,22, 4,34,24,16,38,19,17		1,47, 7,49,21	
		1,54,46,54,52, 0,48,16		8,23
12″	24,25,23,59,21,19, 8,39, 7,33		1,47, 7,57,44	
		1,54,46,53, 4,52,50,32		8,23
14″	24,25,25,54, 8,12,13,31,58, 5		1,47, 8, 6, 7	
		1,54,46,51,17,44,44,25		8,23
16″	24,25,27,48,55, 3,31,16,42,30		1,47, 8,14,30	
		1,54,46,49,30,36,29,55		8,23
18″	24,25,29,43,41,53, 1,53,12,25		1,47, 8,22,53	
		1,54,46,47,43,28, 7, 2		8,23
20″	24,25,31,38,28,40,45,21,19,27		1,47, 8,31,16	
		1,54,46,45,56,19,35,46		8,23
22″	24,25,33,33,15,26,41,40,55,13		1,47, 8,39,39	
		1,54,46,44, 9,10,56, 7		8,23
24″	24,25,35,28, 2,10,50,51,51,20		1,47, 8,48, 2	
		1,54,46,42,22, 2, 8, 5		8,23
26″	24,25,37,22,48,53,12,53,59,25		1,47, 8,56,25	
		1,54,46,40,34,53,11,40		8,23
28″	24,25,39,17,35,33,47,47,11, 5		1,47, 9, 4,48	
		1,54,46,38,47,44, 6,52		8,23
30″	24,25,41,12,22,12,35,31,17,57		1,47, 9,13,11	
		1,54,46,37, 0,34,53,41		8,23
32″	24,25,43, 7, 8,49,36, 6,11,38		1,47, 9,21,34	
		1,54,46,35,13,25,32, 7		8,23
34″	24,25,45, 1,55,24,49,31,43,45		1,47, 9,29,57	
		1,54,46,33,26,16, 2,10		8,23
36″	24,25,46,56,41,58,15,47,45,55		1,47, 9,38,20	
		1,54,46,31,39, 6,23,50		8,23
38″	24,25,48,51,28,29,54,54, 9,45		1,47, 9,46,43	
		1,54,46,29,51,56,37, 7		8,23
40″	24,25,50,46,14,59,46,50,46,52		1,47, 9,55, 6	
		1,54,46,28, 4,46,42, 1		8,23
42″	24,25,52,41, 1,27,51,37,28,53		1,47,10, 3,29	
		1,54,46,26,17,36,38,32		8,23
44″	24,25,54,35,47,54, 9,14, 7,25		1,47,10,11,52	
		1,54,46,24,30,26,26,40		8,23
46″	24,25,56,30,34,18,39,40,34, 5		1,47,10,20,15	
		1,54,46,22,43,16, 6,25		8,23
48″	24,25,58,25,20,41,22,56,40,30		1,47,10,28,38	
		1,54,46,20,56, 5,37,47		8,23
50″	24,26, 0,20, 7, 2,19, 2,18,17		1,47,10,37, 1	
		1,54,46,19, 8,55, 0,46		8,23
52″	24,26, 2,14,53,21,27,57,19, 3		1,47,10,45,24	
		1,54,46,17,21,44,15,22		8,23
54″	24,26, 4, 9,39,38,49,41,34,25		1,47,10,53,47	
		1,54,46,15,34,33,21,35		8,23
56″	24,26, 6, 4,25,54,24,14,56, 0		1,47,11, 2,10	
		1,54,46,13,47,22,19,25		8,23
58″	24,26, 7,59,12, 8,11,37,15,25		1,47,11,10,33	
		1,54,46,12, 0,11, 8,52		
60″	24,26, 9,53,58,20,11,48,24,17			
exact	24,26, 9,53,58,20,11,47,51,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24° 2′ 0″	24,26, 9,53,58,20,11,47,51,47			
		1,54,46,10,12,59,46,29		
2″	24,26,11,48,44,30,24,47,38,16		1,47,11,27,33	
		1,54,46, 8,25,48,18,56		8,23
4″	24,26,13,43,30,38,50,35,57,12		1,47,11,35,56	
		1,54,46, 6,38,36,43, 0		8,23
6″	24,26,15,38,16,45,29,12,40,12		1,47,11,44,19	
		1,54,46, 4,51,24,58,41		8,23
8″	24,26,17,33, 2,50,20,37,38,53		1,47,11,52,42	
		1,54,46, 3, 4,13, 5,59		8,23
10″	24,26,19,27,48,53,24,50,44,52		1,47,12, 1, 5	
		1,54,46, 1,17, 1, 4,54		8,23
12″	24,26,21,22,34,54,41,51,49,46		1,47,12, 9,28	
		1,54,45,59,29,48,55,26		8,23
14″	24,26,23,17,20,54,11,40,45,12		1,47,12,17,51	
		1,54,45,57,42,36,37,35		8,23
16″	24,26,25,12, 6,51,54,17,22,47		1,47,12,26,14	
		1,54,45,55,55,24,11,21		8,23
18″	24,26,27, 6,52,47,49,41,34, 8		1,47,12,34,37	
		1,54,45,54, 8,11,36,44		8,23
20″	24,26,29, 1,38,41,57,53,10,52		1,47,12,43, 0	
		1,54,45,52,20,58,53,44		8,23
22″	24,26,30,56,24,34,18,52, 4,36		1,47,12,51,23	
		1,54,45,50,33,46, 2,21		8,23
24″	24,26,32,51,10,24,52,38, 6,57		1,47,12,59,46	
		1,54,45,48,46,33, 2,35		8,23
26″	24,26,34,45,56,13,39,11, 9,32		1,47,13, 8, 9	
		1,54,45,46,59,19,54,26		8,23
28″	24,26,36,40,42, 0,38,31, 3,58		1,47,13,16,32	
		1,54,45,45,12, 6,37,54		8,23
30″	24,26,38,35,27,45,50,37,41,52		1,47,13,24,55	
		1,54,45,43,24,53,12,59		8,23
32″	24,26,40,30,13,29,15,30,54,51		1,47,13,33,18	
		1,54,45,41,37,39,39,41		8,23
34″	24,26,42,24,59,10,53,10,34,32		1,47,13,41,41	
		1,54,45,39,50,25,58, 0		8,23
36″	24,26,44,19,44,50,43,36,32,32		1,47,13,50, 4	
		1,54,45,38, 3,12, 7,56		8,23
38″	24,26,46,14,30,28,46,48,40,28		1,47,13,58,27	
		1,54,45,36,15,58, 9,29		8,23
40″	24,26,48, 9,16, 5, 2,46,49,57		1,47,14, 6,50	
		1,54,45,34,28,44, 2,39		8,23
42″	24,26,50, 4, 1,39,31,30,52,36		1,47,14,15,13	
		1,54,45,32,41,29,47,26		8,23
44″	24,26,51,58,47,12,13, 0,40, 2		1,47,14,23,36	
		1,54,45,30,54,15,23,50		8,23
46″	24,26,53,53,32,43, 7,16, 3,52		1,47,14,31,59	
		1,54,45,29, 7, 0,51,51		8,23
48″	24,26,55,48,18,12,14,16,55,43		1,47,14,40,22	
		1,54,45,27,19,46,11,29		8,23
50″	24,26,57,43, 3,39,34, 3, 7,12		1,47,14,48,45	
		1,54,45,25,32,31,22,44		8,23
52″	24,26,59,37,49, 5, 6,34,29,56		1,47,14,57, 8	
		1,54,45,23,45,16,25,36		8,23
54″	24,27, 1,32,34,28,51,50,55,32		1,47,15, 5,31	
		1,54,45,21,58, 1,20, 5		8,23
56″	24,27, 3,27,19,50,49,52,15,37		1,47,15,13,54	
		1,54,45,20,10,46, 6,11		8,23
58″	24,27, 5,22, 5,11, 0,38,21,48		1,47,15,22,17	
		1,54,45,18,23,30,43,54		
60″	24,27, 7,16,50,29,24, 9, 5,42			
exact	24,27, 7,16,50,29,24, 8,37,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24° 3′ 0″	24,27, 7,16,50,29,24, 8,37,35			
		1,54,45,16,36,15,10,15		
2″	24,27, 9,11,35,46, 0,23,47,50		1,47,15,39,15	
		1,54,45,14,48,59,31, 0		8,23
4″	24,27,11, 6,21, 0,49,23,18,50		1,47,15,47,38	
		1,54,45,13, 1,43,43,22		8,23
6″	24,27,13, 1, 6,13,51, 7, 2,12		1,47,15,56, 1	
		1,54,45,11,14,27,47,21		8,23
8″	24,27,14,55,51,25, 5,34,49,33		1,47,16, 4,24	
		1,54,45, 9,27,11,42,57		8,23
10″	24,27,16,50,36,34,32,46,32,30		1,47,16,12,47	
		1,54,45, 7,39,55,30,10		8,23
12″	24,27,18,45,21,42,12,42, 2,40		1,47,16,21,10	
		1,54,45, 5,52,39, 9, 0		8,23
14″	24,27,20,40, 6,48, 5,21,11,40		1,47,16,29,33	
		1,54,45, 4, 5,22,39,27		8,23
16″	24,27,22,34,51,52,10,43,51, 7		1,47,16,37,56	
		1,54,45, 2,18, 6, 1,31		8,23
18″	24,27,24,29,36,54,28,49,52,38		1,47,16,46,19	
		1,54,45, 0,30,49,15,12		8,23
20″	24,27,26,24,21,54,59,39, 7,50		1,47,16,54,42	
		1,54,44,58,43,32,20,30		8,23
22″	24,27,28,19, 6,53,43,11,28,20		1,47,17, 3, 5	
		1,54,44,56,56,15,17,25		8,23
24″	24,27,30,13,51,50,39,26,45,45		1,47,17,11,28	
		1,54,44,55, 8,58, 5,57		8,23
26″	24,27,32, 8,36,45,48,24,51,42		1,47,17,19,51	
		1,54,44,53,21,40,46, 6		8,23
28″	24,27,34, 3,21,39,10, 5,37,48		1,47,17,28,14	
		1,54,44,51,34,23,17,52		8,23
30″	24,27,35,58, 6,30,44,28,55,40		1,47,17,36,37	
		1,54,44,49,47, 5,41,15		8,23
32″	24,27,37,52,51,20,31,34,36,55		1,47,17,45, 0	
		1,54,44,47,59,47,56,15		8,23
34″	24,27,39,47,36, 8,31,22,33,10		1,47,17,53,23	
		1,54,44,46,12,30, 2,52		8,23
36″	24,27,41,42,20,54,43,52,36, 2		1,47,18, 1,46	
		1,54,44,44,25,12, 1, 6		8,23
38″	24,27,43,37, 5,39, 9, 4,37, 8		1,47,18,10, 9	
		1,54,44,42,37,53,50,57		8,23
40″	24,27,45,31,50,21,46,58,28, 5		1,47,18,18,32	
		1,54,44,40,50,35,32,25		8,23
42″	24,27,47,26,35, 2,37,34, 0,30		1,47,18,26,55	
		1,54,44,39, 3,17, 5,30		8,23
44″	24,27,49,21,19,41,40,51, 6, 0		1,47,18,35,18	
		1,54,44,37,15,58,30,12		8,23
46″	24,27,51,16, 4,18,56,49,36,12		1,47,18,43,41	
		1,54,44,35,28,39,46,31		8,23
48″	24,27,53,10,48,54,25,29,22,43		1,47,18,52, 4	
		1,54,44,33,41,20,54,27		8,23
50″	24,27,55, 5,33,28, 6,50,17,10		1,47,19, 0,27	
		1,54,44,31,54, 1,54, 0		8,23
52″	24,27,57, 0,18, 0, 0,52,11,10		1,47,19, 8,50	
		1,54,44,30, 6,42,45,10		8,23
54″	24,27,58,55, 2,30, 7,34,56,20		1,47,19,17,13	
		1,54,44,28,19,23,27,57		8,23
56″	24,28, 0,49,46,58,26,58,24,17		1,47,19,25,36	
		1,54,44,26,32, 4, 2,21		8,23
58″	24,28, 2,44,31,24,59, 2,26,38		1,47,19,33,59	
		1,54,44,24,44,44,28,22		
60″	24,28, 4,39,15,49,43,46,55, 0			
exact	24,28, 4,39,15,49,43,46,31, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24° 4′ 0″	24,28, 4,39,15,49,43,46,31, 4			
		1,54,44,22,57,24,43,28		
2″	24,28, 6,34, 0,12,41,11,14,32		1,47,19,50,55	
		1,54,44,21,10, 4,52,33		8,23
4″	24,28, 8,28,44,33,51,16, 7, 5		1,47,19,59,18	
		1,54,44,19,22,44,53,15		8,23
6″	24,28,10,23,28,53,14, 1, 0,20		1,47,20, 7,41	
		1,54,44,17,35,24,45,34		8,23
8″	24,28,12,18,13,10,49,25,45,54		1,47,20,16, 4	
		1,54,44,15,48, 4,29,30		8,23
10″	24,28,14,12,57,26,37,30,15,24		1,47,20,24,27	
		1,54,44,14, 0,44, 5, 3		8,23
12″	24,28,16, 7,41,40,38,14,20,27		1,47,20,32,50	
		1,54,44,12,13,23,32,13		8,23
14″	24,28,18, 2,25,52,51,37,52,40		1,47,20,41,13	
		1,54,44,10,26, 2,51, 0		8,23
16″	24,28,19,57,10, 3,17,40,43,40		1,47,20,49,36	
		1,54,44, 8,38,42, 1,24		8,23
18″	24,28,21,51,54,11,56,22,45, 4		1,47,20,57,59	
		1,54,44, 6,51,21, 3,25		8,23
20″	24,28,23,46,38,18,47,43,48,29		1,47,21, 6,22	
		1,54,44, 5, 3,59,57, 3		8,23
22″	24,28,25,41,22,23,51,43,45,32		1,47,21,14,45	
		1,54,44, 3,16,38,42,18		8,23
24″	24,28,27,36, 6,27, 8,22,27,50		1,47,21,23, 8	
		1,54,44, 1,29,17,19,10		8,23
26″	24,28,29,30,50,28,37,39,47, 0		1,47,21,31,31	
		1,54,43,59,41,55,47,39		8,23
28″	24,28,31,25,34,28,19,35,34,39		1,47,21,39,54	
		1,54,43,57,54,34, 7,45		8,23
30″	24,28,33,20,18,26,14, 9,42,24		1,47,21,48,17	
		1,54,43,56, 7,12,19,28		8,23
32″	24,28,35,15, 2,22,21,22, 1,52		1,47,21,56,40	
		1,54,43,54,19,50,22,48		8,23
34″	24,28,37, 9,46,16,41,12,24,40		1,47,22, 5, 3	
		1,54,43,52,32,28,17,45		8,23
36″	24,28,39, 4,30, 9,13,40,42,25		1,47,22,13,26	
		1,54,43,50,45, 6, 4,19		8,23
38″	24,28,40,59,13,59,58,46,46,44		1,47,22,21,49	
		1,54,43,48,57,43,42,30		8,23
40″	24,28,42,53,57,48,56,30,29,14		1,47,22,30,12	
		1,54,43,47,10,21,12,18		8,23
42″	24,28,44,48,41,36, 6,51,41,32		1,47,22,38,35	
		1,54,43,45,22,58,33,43		8,23
44″	24,28,46,43,25,21,29,50,15,15		1,47,22,46,58	
		1,54,43,43,35,35,46,45		8,23
46″	24,28,48,38, 9, 5, 5,26, 2, 0		1,47,22,55,21	
		1,54,43,41,48,12,51,24		8,23
48″	24,28,50,32,52,46,53,38,53,24		1,47,23, 3,44	
		1,54,43,40, 0,49,47,40		8,23
50″	24,28,52,27,36,26,54,28,41, 4		1,47,23,12, 7	
		1,54,43,38,13,26,35,33		8,23
52″	24,28,54,22,20, 5, 7,55,16,37		1,47,23,20,30	
		1,54,43,36,26, 3,15, 3		8,23
54″	24,28,56,17, 3,41,33,58,31,40		1,47,23,28,53	
		1,54,43,34,38,39,46,10		8,23
56″	24,28,58,11,47,16,12,38,17,50		1,47,23,37,16	
		1,54,43,32,51,16, 8,54		8,23
58″	24,29, 0, 6,30,49, 3,54,26,44		1,47,23,45,39	
		1,54,43,31, 3,52,23,15		
60″	24,29, 2, 1,14,20, 7,46,49,59			
exact	24,29, 2, 1,14,20, 7,46,29,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24° 5′ 0″	24,29, 2, 1,14,20, 7,46,29,55	1,54,43,29,16,28,27, 7		
2″	24,29, 3,55,57,49,24,14,57, 2	1,54,43,27,29, 4,24,34	1,47,24, 2,33	8,23
4″	24,29, 5,50,41,16,53,19,21,36	1,54,43,25,41,40,13,38	1,47,24,10,56	8,23
6″	24,29, 7,45,24,42,34,59,35,14	1,54,43,23,54,15,54,19	1,47,24,19,19	8,23
8″	24,29, 9,40, 8, 6,29,15,29,33	1,54,43,22, 6,51,26,37	1,47,24,27,42	8,23
10″	24,29,11,34,51,28,36, 6,56,10	1,54,43,20,19,26,50,32	1,47,24,36, 5	8,23
12″	24,29,13,29,34,48,55,33,46,42	1,54,43,18,32, 2, 6, 4	1,47,24,44,28	8,23
14″	24,29,15,24,18, 7,27,35,52,46	1,54,43,16,44,37,13,13	1,47,24,52,51	8,23
16″	24,29,17,19, 1,24,12,13, 5,59	1,54,43,14,57,12,11,59	1,47,25, 1,14	8,23
18″	24,29,19,13,44,39, 9,25,17,58	1,54,43,13, 9,47, 2,22	1,47,25, 9,37	8,23
20″	24,29,21, 8,27,52,19,12,20,20	1,54,43,11,22,21,44,22	1,47,25,18, 0	8,23
22″	24,29,23, 3,11, 3,41,34, 4,42	1,54,43, 9,34,56,17,59	1,47,25,26,23	8,23
24″	24,29,24,57,54,13,16,30,22,41	1,54,43, 7,47,30,43,13	1,47,25,34,46	8,23
26″	24,29,26,52,37,21, 4, 1, 5,54	1,54,43, 6, 0, 5, 0, 4	1,47,25,43, 9	8,23
28″	24,29,28,47,20,27, 4, 6, 5,58	1,54,43, 4,12,39, 8,32	1,47,25,51,32	8,23
30″	24,29,30,42, 3,31,16,45,14,30	1,54,43, 2,25,13, 8,37	1,47,25,59,55	8,23
32″	24,29,32,36,46,33,41,58,23, 7	1,54,43, 0,37,47, 0,19	1,47,26, 8,18	8,23
34″	24,29,34,31,29,34,19,45,23,26	1,54,42,58,50,20,43,38	1,47,26,16,41	8,23
36″	24,29,36,26,12,33,10, 6, 7, 4	1,54,42,57, 2,54,18,34	1,47,26,25, 4	8,23
38″	24,29,38,20,55,30,13, 0,25,38	1,54,42,55,15,27,45, 7	1,47,26,33,27	8,23
40″	24,29,40,15,38,25,28,28,10,45	1,54,42,53,28, 1, 3,17	1,47,26,41,50	8,23
42″	24,29,42,10,21,18,56,29,14, 2	1,54,42,51,40,34,13, 4	1,47,26,50,13	8,23
44″	24,29,44, 5, 4,10,37, 3,27, 6	1,54,42,49,53, 7,14,28	1,47,26,58,36	8,23
46″	24,29,45,59,47, 0,30,10,41,34	1,54,42,48, 5,40, 7,29	1,47,27, 6,59	8,23
48″	24,29,47,54,29,48,35,50,49, 3	1,54,42,46,18,12,52, 7	1,47,27,15,22	8,23
50″	24,29,49,49,12,34,54, 3,41,10	1,54,42,44,30,45,28,22	1,47,27,23,45	8,23
52″	24,29,51,43,55,19,24,49, 9,32	1,54,42,42,43,17,56,14	1,47,27,32, 8	8,23
54″	24,29,53,38,38, 2, 8, 7, 5,46	1,54,42,40,55,50,15,43	1,47,27,40,31	8,23
56″	24,29,55,33,20,43, 3,57,21,29	1,54,42,39, 8,22,26,49	1,47,27,48,54	8,23
58″	24,29,57,28, 3,22,12,19,48,18	1,54,42,37,20,54,29,32	1,47,27,57,17	
60″	24,29,59,22,45,59,33,14,17,50			
exact	24,29,59,22,45,59,33,14, 1,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24° 6′ 0″	24,29,59,22,45,59,33,14, 1,15			
		1,54,42,35,33,26,22,11		
2″	24,30, 1,17,28,35, 6,40,23,26		1,47,28,14, 9	
		1,54,42,33,45,58, 8, 2		8,23
4″	24,30, 3,12,11, 8,52,38,31,28		1,47,28,22,32	
		1,54,42,31,58,29,45,30		8,23
6″	24,30, 5, 6,53,40,51, 8,16,58		1,47,28,30,55	
		1,54,42,30,11, 1,14,35		8,23
8″	24,30, 7, 1,36,11, 2, 9,31,33		1,47,28,39,18	
		1,54,42,28,23,32,35,17		8,23
10″	24,30, 8,56,18,39,25,42, 6,50		1,47,28,47,41	
		1,54,42,26,36, 3,47,36		8,23
12″	24,30,10,51, 1, 6, 1,45,54,26		1,47,28,56, 4	
		1,54,42,24,48,34,51,32		8,23
14″	24,30,12,45,43,30,50,20,45,58		1,47,29, 4,27	
		1,54,42,23, 1, 5,47, 5		8,23
16″	24,30,14,40,25,53,51,26,33, 3		1,47,29,12,50	
		1,54,42,21,13,36,34,15		8,23
18″	24,30,16,35, 8,15, 5, 3, 7,18		1,47,29,21,13	
		1,54,42,19,26, 7,13, 2		8,23
20″	24,30,18,29,50,34,31,10,20,20		1,47,29,29,36	
		1,54,42,17,38,37,43,26		8,23
22″	24,30,20,24,32,52, 9,48, 3,46		1,47,29,37,59	
		1,54,42,15,51, 8, 5,27		8,23
24″	24,30,22,19,15, 8, 0,56, 9,13		1,47,29,46,22	
		1,54,42,14, 3,38,19, 5		8,23
26″	24,30,24,13,57,22, 4,34,28,18		1,47,29,54,45	
		1,54,42,12,16, 8,24,20		8,23
28″	24,30,26, 8,39,34,20,42,52,38		1,47,30, 3, 8	
		1,54,42,10,28,38,21,12		8,23
30″	24,30,28, 3,21,44,49,21,13,50		1,47,30,11,31	
		1,54,42, 8,41, 8, 9,41		8,23
32″	24,30,29,58, 3,53,30,29,23,31		1,47,30,19,54	
		1,54,42, 6,53,37,49,47		8,23
34″	24,30,31,52,46, 0,24, 7,13,18		1,47,30,28,17	
		1,54,42, 5, 6, 7,21,30		8,23
36″	24,30,33,47,28, 5,30,14,34,48		1,47,30,36,40	
		1,54,42, 3,18,36,44,50		8,23
38″	24,30,35,42,10, 8,48,51,19,38		1,47,30,45, 3	
		1,54,42, 1,31, 5,59,47		8,23
40″	24,30,37,36,52,10,19,57,19,25		1,47,30,53,26	
		1,54,41,59,43,35, 6,21		8,23
42″	24,30,39,31,34,10, 3,32,25,46		1,47,31, 1,49	
		1,54,41,57,56, 4, 4,32		8,23
44″	24,30,41,26,16, 7,59,36,30,18		1,47,31,10,12	
		1,54,41,56, 8,32,54,20		8,23
46″	24,30,43,20,58, 4, 8, 9,24,38		1,47,31,18,35	
		1,54,41,54,21, 1,35,45		8,23
48″	24,30,45,15,39,58,29,11, 0,23		1,47,31,26,58	
		1,54,41,52,33,30, 8,47		8,23
50″	24,30,47,10,21,51, 2,41, 9,10		1,47,31,35,21	
		1,54,41,50,45,58,33,26		8,23
52″	24,30,49, 5, 3,41,48,39,42,36		1,47,31,43,44	
		1,54,41,48,58,26,49,42		8,23
54″	24,30,50,59,45,30,47, 6,32,18		1,47,31,52, 7	
		1,54,41,47,10,54,57,35		8,23
56″	24,30,52,54,27,17,58, 1,29,53		1,47,32, 0,30	
		1,54,41,45,23,22,57, 5		8,23
58″	24,30,54,49, 9, 3,21,24,26,58		1,47,32, 8,53	
		1,54,41,43,35,50,48,12		
60″	24,30,56,43,50,46,57,15,15,10			
exact	24,30,56,43,50,46,57,15, 1,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24° 7′ 0″	24,30,56,43,50,46,57,15, 1,38			
		1,54,41,41,48,18,29,38		
2″	24,30,58,38,32,28,45,33,31,16		1,47,32,25,44	
		1,54,41,40, 0,46, 3,54		8,23
4″	24,31, 0,33,14, 8,46,19,35,10		1,47,32,34, 7	
		1,54,41,38,13,13,29,47		8,23
6″	24,31, 2,27,55,46,59,33, 4,57		1,47,32,42,30	
		1,54,41,36,25,40,47,17		8,23
8″	24,31, 4,22,37,23,25,13,52,14		1,47,32,50,53	
		1,54,41,34,38, 7,56,24		8,23
10″	24,31, 6,17,18,58, 3,21,48,38		1,47,32,59,16	
		1,54,41,32,50,34,57, 8		8,23
12″	24,31, 8,12, 0,30,53,56,45,46		1,47,33, 7,39	
		1,54,41,31, 3, 1,49,29		8,23
14″	24,31,10, 6,42, 1,56,58,35,15		1,47,33,16, 2	
		1,54,41,29,15,28,33,27		8,23
16″	24,31,12, 1,23,31,12,27, 8,42		1,47,33,24,25	
		1,54,41,27,27,55, 9, 2		8,23
18″	24,31,13,56, 4,58,40,22,17,44		1,47,33,32,48	
		1,54,41,25,40,21,36,14		8,23
20″	24,31,15,50,46,24,20,43,53,58		1,47,33,41,11	
		1,54,41,23,52,47,55, 3		8,23
22″	24,31,17,45,27,48,13,31,49, 1		1,47,33,49,34	
		1,54,41,22, 5,14, 5,29		8,23
24″	24,31,19,40, 9,10,18,45,54,30		1,47,33,57,57	
		1,54,41,20,17,40, 7,32		8,23
26″	24,31,21,34,50,30,36,26, 2, 2		1,47,34, 6,20	
		1,54,41,18,30, 6, 1,12		8,23
28″	24,31,23,29,31,49, 6,32, 3,14		1,47,34,14,43	
		1,54,41,16,42,31,46,29		8,23
30″	24,31,25,24,13, 5,49, 3,49,43		1,47,34,23, 6	
		1,54,41,14,54,57,23,23		8,23
32″	24,31,27,18,54,20,44, 1,13, 6		1,47,34,31,29	
		1,54,41,13, 7,22,51,54		8,23
34″	24,31,29,13,35,33,51,24, 5, 0		1,47,34,39,52	
		1,54,41,11,19,48,12, 2		8,23
36″	24,31,31, 8,16,45,11,12,17, 2		1,47,34,48,15	
		1,54,41, 9,32,13,23,47		8,23
38″	24,31,33, 2,57,54,43,25,40,49		1,47,34,56,38	
		1,54,41, 7,44,38,27, 9		8,23
40″	24,31,34,57,39, 2,28, 4, 7,58		1,47,35, 5, 1	
		1,54,41, 5,57, 3,22, 8		8,23
42″	24,31,36,52,20, 8,25, 7,30, 6		1,47,35,13,24	
		1,54,41, 4, 9,28, 8,44		8,23
44″	24,31,38,47, 1,12,34,35,38,50		1,47,35,21,47	
		1,54,41, 2,21,52,46,57		8,23
46″	24,31,40,41,42,14,56,28,25,47		1,47,35,30,10	
		1,54,41, 0,34,17,16,47		8,23
48″	24,31,42,36,23,15,30,45,42,34		1,47,35,38,33	
		1,54,40,58,46,41,38,14		8,23
50″	24,31,44,31, 4,14,17,27,20,48		1,47,35,46,56	
		1,54,40,56,59, 5,51,18		8,23
52″	24,31,46,25,45,11,16,33,12, 6		1,47,35,55,19	
		1,54,40,55,11,29,55,59		8,23
54″	24,31,48,20,26, 6,28, 3, 8, 5		1,47,36, 3,42	
		1,54,40,53,23,53,52,17		8,23
56″	24,31,50,15, 6,59,51,57, 0,22		1,47,36,12, 5	
		1,54,40,51,36,17,40,12		8,23
58″	24,31,52, 9,47,51,28,14,40,34		1,47,36,20,28	
		1,54,40,49,48,41,19,44		
60″	24,31,54, 4,28,41,16,56, 0,18			
exact	24,31,54, 4,28,41,16,55,57, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24° 8′ 0″	24,31,54, 4,28,41,16,55,57, 5	1,54,40,48, 1, 4,50,28		
2″	24,31,55,59, 9,29,18, 0,47,33	1,54,40,46,13,28,13,12	1,47,36,37,16	8,23
4″	24,31,57,53,50,15,31,29, 0,45	1,54,40,44,25,51,27,33	1,47,36,45,39	8,23
6″	24,31,59,48,30,59,57,20,28,18	1,54,40,42,38,14,33,31	1,47,36,54, 2	8,23
8″	24,32, 1,43,11,42,35,35, 1,49	1,54,40,40,50,37,31, 6	1,47,37, 2,25	8,23
10″	24,32, 3,37,52,23,26,12,32,55	1,54,40,39, 3, 0,20,18	1,47,37,10,48	8,23
12″	24,32, 5,32,33, 2,29,12,53,13	1,54,40,37,15,23, 1, 7	1,47,37,19,11	8,23
14″	24,32, 7,27,13,39,44,35,54,20	1,54,40,35,27,45,33,33	1,47,37,27,34	8,23
16″	24,32, 9,21,54,15,12,21,27,53	1,54,40,33,40, 7,57,36	1,47,37,35,57	8,23
18″	24,32,11,16,34,48,52,29,25,29	1,54,40,31,52,30,13,16	1,47,37,44,20	8,23
20″	24,32,13,11,15,20,44,59,38,45	1,54,40,30, 4,52,20,33	1,47,37,52,43	8,23
22″	24,32,15, 5,55,50,49,51,59,18	1,54,40,28,17,14,19,27	1,47,38, 1, 6	8,23
24″	24,32,17, 0,36,19, 7, 6,18,45	1,54,40,26,29,36, 9,58	1,47,38, 9,29	8,23
26″	24,32,18,55,16,45,36,42,28,43	1,54,40,24,41,57,52, 6	1,47,38,17,52	8,23
28″	24,32,20,49,57,10,18,40,20,49	1,54,40,22,54,19,25,51	1,47,38,26,15	8,23
30″	24,32,22,44,37,33,12,59,46,40	1,54,40,21, 6,40,51,13	1,47,38,34,38	8,23
32″	24,32,24,39,17,54,19,40,37,53	1,54,40,19,19, 2, 8,12	1,47,38,43, 1	8,23
34″	24,32,26,33,58,13,38,42,46, 5	1,54,40,17,31,23,16,48	1,47,38,51,24	8,23
36″	24,32,28,28,38,31,10, 6, 2,53	1,54,40,15,43,44,17, 1	1,47,38,59,47	8,23
38″	24,32,30,23,18,46,53,50,19,54	1,54,40,13,56, 5, 8,51	1,47,39, 8,10	8,23
40″	24,32,32,17,59, 0,49,55,28,45	1,54,40,12, 8,25,52,18	1,47,39,16,33	8,23
42″	24,32,34,12,39,12,58,21,21, 3	1,54,40,10,20,46,27,22	1,47,39,24,56	8,23
44″	24,32,36, 7,19,23,19, 7,48,25	1,54,40, 8,33, 6,54, 3	1,47,39,33,19	8,23
46″	24,32,38, 1,59,31,52,14,42,28	1,54,40, 6,45,27,12,21	1,47,39,41,42	8,23
48″	24,32,39,56,39,38,37,41,54,49	1,54,40, 4,57,47,22,16	1,47,39,50, 5	8,23
50″	24,32,41,51,19,43,35,29,17, 5	1,54,40, 3,10, 7,23,48	1,47,39,58,28	8,23
52″	24,32,43,45,59,46,45,36,40,53	1,54,40, 1,22,27,16,57	1,47,40, 6,51	8,23
54″	24,32,45,40,39,48, 8, 3,57,50	1,54,39,59,34,47, 1,43	1,47,40,15,14	8,23
56″	24,32,47,35,19,47,42,50,59,33	1,54,39,57,47, 6,38, 6	1,47,40,23,37	8,23
58″	24,32,49,29,59,45,29,57,37,39	1,54,39,55,59,26, 6, 6	1,47,40,32, 0	
60″	24,32,51,24,39,41,29,23,43,45			
exact	24,32,51,24,39,41,29,23,43, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24° 9′ 0″	24,32,51,24,39,41,29,23,43, 7	1,54,39,54,11,45,25,39		
2″	24,32,53,19,19,35,41, 9, 8,46	1,54,39,52,24, 4,36,53	1,47,40,48,46	8,23
4″	24,32,55,13,59,28, 5,13,45,39	1,54,39,50,36,23,39,44	1,47,40,57, 9	8,23
6″	24,32,57, 8,39,18,41,37,25,23	1,54,39,48,48,42,34,12	1,47,41, 5,32	8,23
8″	24,32,59, 3,19, 7,30,19,59,35	1,54,39,47, 1, 1,20,17	1,47,41,13,55	8,23
10″	24,33, 0,57,58,54,31,21,19,52	1,54,39,45,13,19,57,59	1,47,41,22,18	8,23
12″	24,33, 2,52,38,39,44,41,17,51	1,54,39,43,25,38,27,18	1,47,41,30,41	8,23
14″	24,33, 4,47,18,23,10,19,45, 9	1,54,39,41,37,56,48,14	1,47,41,39, 4	8,23
16″	24,33, 6,41,58, 4,48,16,33,23	1,54,39,39,50,15, 0,47	1,47,41,47,27	8,23
18″	24,33, 8,36,37,44,38,31,34,10	1,54,39,38, 2,33, 4,57	1,47,41,55,50	8,23
20″	24,33,10,31,17,22,41, 4,39, 7	1,54,39,36,14,51, 0,44	1,47,42, 4,13	8,23
22″	24,33,12,25,56,58,55,55,39,51	1,54,39,34,27, 8,48, 8	1,47,42,12,36	8,23
24″	24,33,14,20,36,33,23, 4,27,59	1,54,39,32,39,26,27, 9	1,47,42,20,59	8,23
26″	24,33,16,15,16, 6, 2,30,55, 8	1,54,39,30,51,43,57,47	1,47,42,29,22	8,23
28″	24,33,18, 9,55,36,54,14,52,55	1,54,39,29, 4, 1,20, 2	1,47,42,37,45	8,23
30″	24,33,20, 4,35, 5,58,16,12,57	1,54,39,27,16,18,33,54	1,47,42,46, 8	8,23
32″	24,33,21,59,14,33,14,34,46,51	1,54,39,25,28,35,39,23	1,47,42,54,31	8,23
34″	24,33,23,53,53,58,43,10,26,14	1,54,39,23,40,52,36,29	1,47,43, 2,54	8,23
36″	24,33,25,48,33,22,24, 3, 2,43	1,54,39,21,53, 9,25,12	1,47,43,11,17	8,23
38″	24,33,27,43,12,44,17,12,27,55	1,54,39,20, 5,26, 5,32	1,47,43,19,40	8,23
40″	24,33,29,37,52, 4,22,38,33,27	1,54,39,18,17,42,37,29	1,47,43,28, 3	8,23
42″	24,33,31,32,31,22,40,21,10,56	1,54,39,16,29,59, 1, 3	1,47,43,36,26	8,23
44″	24,33,33,27,10,39,10,20,11,59	1,54,39,14,42,15,16,14	1,47,43,44,49	8,23
46″	24,33,35,21,49,53,52,35,28,13	1,54,39,12,54,31,23, 2	1,47,43,53,12	8,23
48″	24,33,37,16,29, 6,47, 6,51,15	1,54,39,11, 6,47,21,27	1,47,44, 1,35	8,23
50″	24,33,39,11, 8,17,53,54,12,42	1,54,39, 9,19, 3,11,29	1,47,44, 9,58	8,23
52″	24,33,41, 5,47,27,12,57,24,11	1,54,39, 7,31,18,53, 8	1,47,44,18,21	8,23
54″	24,33,43, 0,26,34,44,16,17,19	1,54,39, 5,43,34,26,24	1,47,44,26,44	8,23
56″	24,33,44,55, 5,40,27,50,43,43	1,54,39, 3,55,49,51,17	1,47,44,35, 7	8,23
58″	24,33,46,49,44,44,23,40,35, 0	1,54,39, 2, 8, 5, 7,47	1,47,44,43,30	
60″	24,33,48,44,23,46,31,45,42,47			
exact	24,33,48,44,23,46,31,45,44,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°10′ 0″	24,33,48,44,23,46,31,45,44,45			
		1,54,39, 0,20,20,16,11		
2″	24,33,50,39, 2,46,52, 6, 0,56		1,47,45, 0,14	
		1,54,38,58,32,35,15,57		8,23
4″	24,33,52,33,41,45,24,41,16,53		1,47,45, 8,37	
		1,54,38,56,44,50, 7,20		8,23
6″	24,33,54,28,20,42, 9,31,24,13		1,47,45,17, 0	
		1,54,38,54,57, 4,50,20		8,23
8″	24,33,56,22,59,37, 6,36,14,33		1,47,45,25,23	
		1,54,38,53, 9,19,24,57		8,23
10″	24,33,58,17,38,30,15,55,39,30		1,47,45,33,46	
		1,54,38,51,21,33,51,11		8,23
12″	24,34, 0,12,17,21,37,29,30,41		1,47,45,42, 9	
		1,54,38,49,33,48, 9, 2		8,23
14″	24,34, 2, 6,56,11,11,17,39,43		1,47,45,50,32	
		1,54,38,47,46, 2,18,30		8,23
16″	24,34, 4, 1,34,58,57,19,58,13		1,47,45,58,55	
		1,54,38,45,58,16,19,35		8,23
18″	24,34, 5,56,13,44,55,36,17,48		1,47,46, 7,18	
		1,54,38,44,10,30,12,17		8,23
20″	24,34, 7,50,52,29, 6, 6,30, 5		1,47,46,15,41	
		1,54,38,42,22,43,56,36		8,23
22″	24,34, 9,45,31,11,28,50,26,41		1,47,46,24, 4	
		1,54,38,40,34,57,32,32		8,23
24″	24,34,11,40, 9,52, 3,47,59,13		1,47,46,32,27	
		1,54,38,38,47,11, 0, 5		8,23
26″	24,34,13,34,48,30,50,58,59,18		1,47,46,40,50	
		1,54,38,36,59,24,19,15		8,23
28″	24,34,15,29,27, 7,50,23,18,33		1,47,46,49,13	
		1,54,38,35,11,37,30, 2		8,23
30″	24,34,17,24, 5,43, 2, 0,48,35		1,47,46,57,36	
		1,54,38,33,23,50,32,26		8,23
32″	24,34,19,18,44,16,25,51,21, 1		1,47,47, 5,59	
		1,54,38,31,36, 3,26,27		8,23
34″	24,34,21,13,22,48, 1,54,47,28		1,47,47,14,22	
		1,54,38,29,48,16,12, 5		8,23
36″	24,34,23, 8, 1,17,50,10,59,33		1,47,47,22,45	
		1,54,38,28, 0,28,49,20		8,23
38″	24,34,25, 2,39,45,50,39,48,53		1,47,47,31, 8	
		1,54,38,26,12,41,18,12		8,23
40″	24,34,26,57,18,12, 3,21, 7, 5		1,47,47,39,31	
		1,54,38,24,24,53,38,41		8,23
42″	24,34,28,51,56,36,28,14,45,46		1,47,47,47,54	
		1,54,38,22,37, 5,50,47		8,23
44″	24,34,30,46,34,59, 5,20,36,33		1,47,47,56,17	
		1,54,38,20,49,17,54,30		8,23
46″	24,34,32,41,13,19,54,38,31, 3		1,47,48, 4,40	
		1,54,38,19, 1,29,49,50		8,23
48″	24,34,34,35,51,38,56, 8,20,53		1,47,48,13, 3	
		1,54,38,17,13,41,36,47		8,23
50″	24,34,36,30,29,56, 9,49,57,40		1,47,48,21,26	
		1,54,38,15,25,53,15,21		8,23
52″	24,34,38,25, 8,11,35,43,13, 1		1,47,48,29,49	
		1,54,38,13,38, 4,45,32		8,23
54″	24,34,40,19,46,25,13,47,58,33		1,47,48,38,12	
		1,54,38,11,50,16, 7,20		8,23
56″	24,34,42,14,24,37, 4, 4, 5,53		1,47,48,46,35	
		1,54,38,10, 2,27,20,45		8,23
58″	24,34,44, 9, 2,47, 6,31,26,38		1,47,48,54,58	
		1,54,38, 8,14,38,25,47		
60″	24,34,46, 3,40,55,21, 9,52,25			
exact	24,34,46, 3,40,55,21, 9,56,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°11′ 0″	24,34,46, 3,40,55,21, 9,56,29			
		1,54,38, 6,26,49,23, 2		
2″	24,34,47,58,19, 1,47,59,19,31		1,47,49,11,41	
		1,54,38, 4,39, 0,11,21		8,23
4″	24,34,49,52,57, 6,26,59,30,52		1,47,49,20, 4	
		1,54,38, 2,51,10,51,17		8,23
6″	24,34,51,47,35, 9,18,10,22, 9		1,47,49,28,27	
		1,54,38, 1, 3,21,22,50		8,23
8″	24,34,53,42,13,10,21,31,44,59		1,47,49,36,50	
		1,54,37,59,15,31,46, 0		8,23
10″	24,34,55,36,51, 9,37, 3,30,59		1,47,49,45,13	
		1,54,37,57,27,42, 0,47		8,23
12″	24,34,57,31,29, 7, 4,45,31,46		1,47,49,53,36	
		1,54,37,55,39,52, 7,11		8,23
14″	24,34,59,26, 7, 2,44,37,38,57		1,47,50, 1,59	
		1,54,37,53,52, 2, 5,12		8,23
16″	24,35, 1,20,44,56,36,39,44, 9		1,47,50,10,22	
		1,54,37,52, 4,11,54,50		8,23
18″	24,35, 3,15,22,48,40,51,38,59		1,47,50,18,45	
		1,54,37,50,16,21,36, 5		8,23
20″	24,35, 5,10, 0,38,57,13,15, 4		1,47,50,27, 8	
		1,54,37,48,28,31, 8,57		8,23
22″	24,35, 7, 4,38,27,25,44,24, 1		1,47,50,35,31	
		1,54,37,46,40,40,33,26		8,23
24″	24,35, 8,59,16,14, 6,24,57,27		1,47,50,43,54	
		1,54,37,44,52,49,49,32		8,23
26″	24,35,10,53,53,58,59,14,46,59		1,47,50,52,17	
		1,54,37,43, 4,58,57,15		8,23
28″	24,35,12,48,31,42, 4,13,44,14		1,47,51, 0,40	
		1,54,37,41,17, 7,56,35		8,23
30″	24,35,14,43, 9,23,21,21,40,49		1,47,51, 9, 3	
		1,54,37,39,29,16,47,32		8,23
32″	24,35,16,37,47, 2,50,38,28,21		1,47,51,17,26	
		1,54,37,37,41,25,30, 6		8,23
34″	24,35,18,32,24,40,32, 3,58,27		1,47,51,25,49	
		1,54,37,35,53,34, 4,17		8,23
36″	24,35,20,27, 2,16,25,38, 2,44		1,47,51,34,12	
		1,54,37,34, 5,42,30, 5		8,23
38″	24,35,22,21,39,50,31,20,32,49		1,47,51,42,35	
		1,54,37,32,17,50,47,30		8,23
40″	24,35,24,16,17,22,49,11,20,19		1,47,51,50,58	
		1,54,37,30,29,58,56,32		8,23
42″	24,35,26,10,54,53,19,10,16,51		1,47,51,59,21	
		1,54,37,28,42, 6,57,11		8,23
44″	24,35,28, 5,32,22, 1,17,14, 2		1,47,52, 7,44	
		1,54,37,26,54,14,49,27		8,23
46″	24,35,30, 0, 9,48,55,32, 3,29		1,47,52,16, 7	
		1,54,37,25, 6,22,33,20		8,23
48″	24,35,31,54,47,14, 1,54,36,49		1,47,52,24,30	
		1,54,37,23,18,30, 8,50		8,23
50″	24,35,33,49,24,37,20,24,45,39		1,47,52,32,53	
		1,54,37,21,30,37,35,57		8,23
52″	24,35,35,44, 1,58,51, 2,21,36		1,47,52,41,16	
		1,54,37,19,42,44,54,41		8,23
54″	24,35,37,38,39,18,33,47,16,17		1,47,52,49,39	
		1,54,37,17,54,52, 5, 2		8,23
56″	24,35,39,33,16,36,28,39,21,19		1,47,52,58, 2	
		1,54,37,16, 6,59, 7, 0		8,23
58″	24,35,41,27,53,52,35,38,28,19		1,47,53, 6,25	
		1,54,37,14,19, 6, 0,35		
60″	24,35,43,22,31, 6,54,44,28,54			
exact	24,35,43,22,31, 6,54,44,42,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°12′ 0″	24,35,43,22,31, 6,54,44,42,24			
		1,54,37,12,31,12,47,12		
2″	24,35,45,17, 8,19,25,57,29,36		1,47,53,23, 5	
		1,54,37,10,43,19,24, 7		8,23
4″	24,35,47,11,45,30, 9,16,53,43		1,47,53,31,28	
		1,54,37, 8,55,25,52,39		8,23
6″	24,35,49, 6,22,39, 4,42,46,22		1,47,53,39,51	
		1,54,37, 7, 7,32,12,48		8,23
8″	24,35,51, 0,59,46,12,14,59,10		1,47,53,48,14	
		1,54,37, 5,19,38,24,34		8,23
10″	24,35,52,55,36,51,31,53,23,44		1,47,53,56,37	
		1,54,37, 3,31,44,27,57		8,23
12″	24,35,54,50,13,55, 3,37,51,41		1,47,54, 5, 0	
		1,54,37, 1,43,50,22,57		8,23
14″	24,35,56,44,50,56,47,28,14,38		1,47,54,13,23	
		1,54,36,59,55,56, 9,34		8,23
16″	24,35,58,39,27,56,43,24,24,12		1,47,54,21,46	
		1,54,36,58, 8, 1,47,48		8,23
18″	24,36, 0,34, 4,54,51,26,12, 0		1,47,54,30, 9	
		1,54,36,56,20, 7,17,39		8,23
20″	24,36, 2,28,41,51,11,33,29,39		1,47,54,38,32	
		1,54,36,54,32,12,39, 7		8,23
22″	24,36, 4,23,18,45,43,46, 8,46		1,47,54,46,55	
		1,54,36,52,44,17,52,12		8,23
24″	24,36, 6,17,55,38,28, 4, 0,58		1,47,54,55,18	
		1,54,36,50,56,22,56,54		8,23
26″	24,36, 8,12,32,29,24,26,57,52		1,47,55, 3,41	
		1,54,36,49, 8,27,53,13		8,23
28″	24,36,10, 7, 9,18,32,54,51, 5		1,47,55,12, 4	
		1,54,36,47,20,32,41, 9		8,23
30″	24,36,12, 1,46, 5,53,27,32,14		1,47,55,20,27	
		1,54,36,45,32,37,20,42		8,23
32″	24,36,13,56,22,51,26, 4,52,56		1,47,55,28,50	
		1,54,36,43,44,41,51,52		8,23
34″	24,36,15,50,59,35,10,46,44,48		1,47,55,37,13	
		1,54,36,41,56,46,14,39		8,23
36″	24,36,17,45,36,17, 7,32,59,27		1,47,55,45,36	
		1,54,36,40, 8,50,29, 3		8,23
38″	24,36,19,40,12,57,16,23,28,30		1,47,55,53,59	
		1,54,36,38,20,54,35, 4		8,23
40″	24,36,21,34,49,35,37,18, 3,34		1,47,56, 2,22	
		1,54,36,36,32,58,32,42		8,23
42″	24,36,23,29,26,12,10,16,36,16		1,47,56,10,45	
		1,54,36,34,45, 2,21,57		8,23
44″	24,36,25,24, 2,46,55,18,58,13		1,47,56,19, 8	
		1,54,36,32,57, 6, 2,49		8,23
46″	24,36,27,18,39,19,52,25, 1, 2		1,47,56,27,31	
		1,54,36,31, 9, 9,35,18		8,23
48″	24,36,29,13,15,51, 1,34,36,20		1,47,56,35,54	
		1,54,36,29,21,12,59,24		8,23
50″	24,36,31, 7,52,20,22,47,35,44		1,47,56,44,17	
		1,54,36,27,33,16,15, 7		8,23
52″	24,36,33, 2,28,47,56, 3,50,51		1,47,56,52,40	
		1,54,36,25,45,19,22,27		8,23
54″	24,36,34,57, 5,13,41,23,13,18		1,47,57, 1, 3	
		1,54,36,23,57,22,21,24		8,23
56″	24,36,36,51,41,37,38,45,34,42		1,47,57, 9,26	
		1,54,36,22, 9,25,11,58		8,23
58″	24,36,38,46,17,59,48,10,46,40		1,47,57,17,49	
		1,54,36,20,21,27,54, 9		
60″	24,36,40,40,54,20, 9,38,40,49			
exact	24,36,40,40,54,20, 9,38,56, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°13′ 0″	24,36,40,40,54,20, 9,38,56, 7			
		1,54,36,18,33,30,29,40		
2″	24,36,42,35,30,38,43, 9,25,47		1,47,57,34,27	
		1,54,36,16,45,32,55,13		8,23
4″	24,36,44,30, 6,55,28,42,21, 0		1,47,57,42,50	
		1,54,36,14,57,35,12,23		8,23
6″	24,36,46,24,43,10,26,17,33,23		1,47,57,51,13	
		1,54,36,13, 9,37,21,10		8,23
8″	24,36,48,19,19,23,35,54,54,33		1,47,57,59,36	
		1,54,36,11,21,39,21,34		8,23
10″	24,36,50,13,55,34,57,34,16, 7		1,47,58, 7,59	
		1,54,36, 9,33,41,13,35		8,23
12″	24,36,52, 8,31,44,31,15,29,42		1,47,58,16,22	
		1,54,36, 7,45,42,57,13		8,23
14″	24,36,54, 3, 7,52,16,58,26,55		1,47,58,24,45	
		1,54,36, 5,57,44,32,28		8,23
16″	24,36,55,57,43,58,14,42,59,23		1,47,58,33, 8	
		1,54,36, 4, 9,45,59,20		8,23
18″	24,36,57,52,20, 2,24,28,58,43		1,47,58,41,31	
		1,54,36, 2,21,47,17,49		8,23
20″	24,36,59,46,56, 4,46,16,16,32		1,47,58,49,54	
		1,54,36, 0,33,48,27,55		8,23
22″	24,37, 1,41,32, 5,20, 4,44,27		1,47,58,58,17	
		1,54,35,58,45,49,29,38		8,23
24″	24,37, 3,36, 8, 4, 5,54,14, 5		1,47,59, 6,40	
		1,54,35,56,57,50,22,58		8,23
26″	24,37, 5,30,44, 1, 3,44,37, 3		1,47,59,15, 3	
		1,54,35,55, 9,51, 7,55		8,23
28″	24,37, 7,25,19,56,13,35,44,58		1,47,59,23,26	
		1,54,35,53,21,51,44,29		8,23
30″	24,37, 9,19,55,49,35,27,29,27		1,47,59,31,49	
		1,54,35,51,33,52,12,40		8,23
32″	24,37,11,14,31,41, 9,19,42, 7		1,47,59,40,12	
		1,54,35,49,45,52,32,28		8,23
34″	24,37,13, 9, 7,30,55,12,14,35		1,47,59,48,35	
		1,54,35,47,57,52,43,53		8,23
36″	24,37,15, 3,43,18,53, 4,58,28		1,47,59,56,58	
		1,54,35,46, 9,52,46,55		8,23
38″	24,37,16,58,19, 5, 2,57,45,23		1,48, 0, 5,21	
		1,54,35,44,21,52,41,34		8,23
40″	24,37,18,52,54,49,24,50,26,57		1,48, 0,13,44	
		1,54,35,42,33,52,27,50		8,23
42″	24,37,20,47,30,31,58,42,54,47		1,48, 0,22, 7	
		1,54,35,40,45,52, 5,43		8,23
44″	24,37,22,42, 6,12,44,35, 0,30		1,48, 0,30,30	
		1,54,35,38,57,51,35,13		8,23
46″	24,37,24,36,41,51,42,26,35,43		1,48, 0,38,53	
		1,54,35,37, 9,50,56,20		8,23
48″	24,37,26,31,17,28,52,17,32, 3		1,48, 0,47,16	
		1,54,35,35,21,50, 9, 4		8,23
50″	24,37,28,25,53, 4,14, 7,41, 7		1,48, 0,55,39	
		1,54,35,33,33,49,13,25		8,23
52″	24,37,30,20,28,37,47,56,54,32		1,48, 1, 4, 2	
		1,54,35,31,45,48, 9,23		8,23
54″	24,37,32,15, 4, 9,33,45, 3,55		1,48, 1,12,25	
		1,54,35,29,57,46,56,58		8,23
56″	24,37,34, 9,39,39,31,32, 0,53		1,48, 1,20,48	
		1,54,35,28, 9,45,36,10		8,23
58″	24,37,36, 4,15, 7,41,17,37, 3		1,48, 1,29,11	
		1,54,35,26,21,44, 6,59		
60″	24,37,37,58,50,34, 3, 1,44, 2			
exact	24,37,37,58,50,34, 3, 2, 0,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°14′ 0″	24,37,37,58,50,34, 3, 2, 0,51			
		1,54,35,24,33,42,31,24		
2″	24,37,39,53,25,58,36,44,32,15		1,48, 1,45,48	
		1,54,35,22,45,40,45,36		8,23
4″	24,37,41,48, 1,21,22,25,17,51		1,48, 1,54,11	
		1,54,35,20,57,38,51,25		8,23
6″	24,37,43,42,36,42,20, 4, 9,16		1,48, 2, 2,34	
		1,54,35,19, 9,36,48,51		8,23
8″	24,37,45,37,12, 1,29,40,58, 7		1,48, 2,10,57	
		1,54,35,17,21,34,37,54		8,23
10″	24,37,47,31,47,18,51,15,36, 1		1,48, 2,19,20	
		1,54,35,15,33,32,18,34		8,23
12″	24,37,49,26,22,34,24,47,54,35		1,48, 2,27,43	
		1,54,35,13,45,29,50,51		8,23
14″	24,37,51,20,57,48,10,17,45,26		1,48, 2,36, 6	
		1,54,35,11,57,27,14,45		8,23
16″	24,37,53,15,33, 0, 7,45, 0,11		1,48, 2,44,29	
		1,54,35,10, 9,24,30,16		8,23
18″	24,37,55,10, 8,10,17, 9,30,27		1,48, 2,52,52	
		1,54,35, 8,21,21,37,24		8,23
20″	24,37,57, 4,43,18,38,31, 7,51		1,48, 3, 1,15	
		1,54,35, 6,33,18,36, 9		8,23
22″	24,37,58,59,18,25,11,49,44, 0		1,48, 3, 9,38	
		1,54,35, 4,45,15,26,31		8,23
24″	24,38, 0,53,53,29,57, 5,10,31		1,48, 3,18, 1	
		1,54,35, 2,57,12, 8,30		8,23
26″	24,38, 2,48,28,32,54,17,19, 1		1,48, 3,26,24	
		1,54,35, 1, 9, 8,42, 6		8,23
28″	24,38, 4,43, 3,34, 3,26, 1, 7		1,48, 3,34,47	
		1,54,34,59,21, 5, 7,19		8,23
30″	24,38, 6,37,38,33,24,31, 8,26		1,48, 3,43,10	
		1,54,34,57,33, 1,24, 9		8,23
32″	24,38, 8,32,13,30,57,32,32,35		1,48, 3,51,33	
		1,54,34,55,44,57,32,36		8,23
34″	24,38,10,26,48,26,42,30, 5,11		1,48, 3,59,56	
		1,54,34,53,56,53,32,40		8,23
36″	24,38,12,21,23,20,39,23,37,51		1,48, 4, 8,19	
		1,54,34,52, 8,49,24,21		8,23
38″	24,38,14,15,58,12,48,13, 2,12		1,48, 4,16,42	
		1,54,34,50,20,45, 7,39		8,23
40″	24,38,16,10,33, 3, 8,58, 9,51		1,48, 4,25, 5	
		1,54,34,48,32,40,42,34		8,23
42″	24,38,18, 5, 7,51,41,38,52,25		1,48, 4,33,28	
		1,54,34,46,44,36, 9, 6		8,23
44″	24,38,19,59,42,38,26,15, 1,31		1,48, 4,41,51	
		1,54,34,44,56,31,27,15		8,23
46″	24,38,21,54,17,23,22,46,28,46		1,48, 4,50,14	
		1,54,34,43, 8,26,37, 1		8,23
48″	24,38,23,48,52, 6,31,13, 5,47		1,48, 4,58,37	
		1,54,34,41,20,21,38,24		8,23
50″	24,38,25,43,26,47,51,34,44,11		1,48, 5, 7, 0	
		1,54,34,39,32,16,31,24		8,23
52″	24,38,27,38, 1,27,23,51,15,35		1,48, 5,15,23	
		1,54,34,37,44,11,16, 1		8,23
54″	24,38,29,32,36, 5, 8, 2,31,36		1,48, 5,23,46	
		1,54,34,35,56, 5,52,15		8,23
56″	24,38,31,27,10,41, 4, 8,23,51		1,48, 5,32, 9	
		1,54,34,34, 8, 0,20, 6		8,23
58″	24,38,33,21,45,15,12, 8,43,57		1,48, 5,40,32	
		1,54,34,32,19,54,39,34		
60″	24,38,35,16,19,47,32, 3,23,31			
exact	24,38,35,16,19,47,32, 3,49,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°15′ 0″	24,38,35,16,19,47,32, 3,49,23			
		1,54,34,30,31,48,53,25		
2″	24,38,37,10,54,18, 3,52,42,48		1,48, 5,57, 6	
		1,54,34,28,43,42,56,19		8,23
4″	24,38,39, 5,28,46,47,35,39, 7		1,48, 6, 5,29	
		1,54,34,26,55,36,50,50		8,23
6″	24,38,41, 0, 3,13,43,12,29,57		1,48, 6,13,52	
		1,54,34,25, 7,30,36,58		8,23
8″	24,38,42,54,37,38,50,43, 6,55		1,48, 6,22,15	
		1,54,34,23,19,24,14,43		8,23
10″	24,38,44,49,12, 2,10, 7,21,38		1,48, 6,30,38	
		1,54,34,21,31,17,44, 5		8,23
12″	24,38,46,43,46,23,41,25, 5,43		1,48, 6,39, 1	
		1,54,34,19,43,11, 5, 4		8,23
14″	24,38,48,38,20,43,24,36,10,47		1,48, 6,47,24	
		1,54,34,17,55, 4,17,40		8,23
16″	24,38,50,32,55, 1,19,40,28,27		1,48, 6,55,47	
		1,54,34,16, 6,57,21,53		8,23
18″	24,38,52,27,29,17,26,37,50,20		1,48, 7, 4,10	
		1,54,34,14,18,50,17,43		8,23
20″	24,38,54,22, 3,31,45,28, 8, 3		1,48, 7,12,33	
		1,54,34,12,30,43, 5,10		8,23
22″	24,38,56,16,37,44,16,11,13,13		1,48, 7,20,56	
		1,54,34,10,42,35,44,14		8,23
24″	24,38,58,11,11,54,58,46,57,27		1,48, 7,29,19	
		1,54,34, 8,54,28,14,55		8,23
26″	24,39, 0, 5,46, 3,53,15,12,22		1,48, 7,37,42	
		1,54,34, 7, 6,20,37,13		8,23
28″	24,39, 2, 0,20,10,59,35,49,35		1,48, 7,46, 5	
		1,54,34, 5,18,12,51, 8		8,23
30″	24,39, 3,54,54,16,17,48,40,43		1,48, 7,54,28	
		1,54,34, 3,30, 4,56,40		8,23
32″	24,39, 5,49,28,19,47,53,37,23		1,48, 8, 2,51	
		1,54,34, 1,41,56,53,49		8,23
34″	24,39, 7,44, 2,21,29,50,31,12		1,48, 8,11,14	
		1,54,33,59,53,48,42,35		8,23
36″	24,39, 9,38,36,21,23,39,13,47		1,48, 8,19,37	
		1,54,33,58, 5,40,22,58		8,23
38″	24,39,11,33,10,19,29,19,36,45		1,48, 8,28, 0	
		1,54,33,56,17,31,54,58		8,23
40″	24,39,13,27,44,15,46,51,31,43		1,48, 8,36,23	
		1,54,33,54,29,23,18,35		8,23
42″	24,39,15,22,18,10,16,14,50,18		1,48, 8,44,46	
		1,54,33,52,41,14,33,49		8,23
44″	24,39,17,16,52, 2,57,29,24, 7		1,48, 8,53, 9	
		1,54,33,50,53, 5,40,40		8,23
46″	24,39,19,11,25,53,50,35, 4,47		1,48, 9, 1,32	
		1,54,33,49, 4,56,39, 8		8,23
48″	24,39,21, 5,59,42,55,31,43,55		1,48, 9, 9,55	
		1,54,33,47,16,47,29,13		8,23
50″	24,39,23, 0,33,30,12,19,13, 8		1,48, 9,18,18	
		1,54,33,45,28,38,10,55		8,23
52″	24,39,24,55, 7,15,40,57,24, 3		1,48, 9,26,41	
		1,54,33,43,40,28,44,14		8,23
54″	24,39,26,49,40,59,21,26, 8,17		1,48, 9,35, 4	
		1,54,33,41,52,19, 9,10		8,23
56″	24,39,28,44,14,41,13,45,17,27		1,48, 9,43,27	
		1,54,33,40, 4, 9,25,43		8,23
58″	24,39,30,38,48,21,17,54,43,10		1,48, 9,51,50	
		1,54,33,38,15,59,33,53		
60″	24,39,32,33,21,59,33,54,17, 3			
exact	24,39,32,33,21,59,33,54,44,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°16′ 0″	24,39,32,33,21,59,33,54,44,10			
		1,54,33,36,27,49,36,42		
2″	24,39,34,27,55,36, 1,44,20,52		1,48,10, 8,23	
		1,54,33,34,39,39,28,19		8,23
4″	24,39,36,22,29,10,41,23,49,11		1,48,10,16,46	
		1,54,33,32,51,29,11,33		8,23
6″	24,39,38,17, 2,43,32,53, 0,44		1,48,10,25, 9	
		1,54,33,31, 3,18,46,24		8,23
8″	24,39,40,11,36,14,36,11,47, 8		1,48,10,33,32	
		1,54,33,29,15, 8,12,52		8,23
10″	24,39,42, 6, 9,43,51,20, 0, 0		1,48,10,41,55	
		1,54,33,27,26,57,30,57		8,23
12″	24,39,44, 0,43,11,18,17,30,57		1,48,10,50,18	
		1,54,33,25,38,46,40,39		8,23
14″	24,39,45,55,16,36,57, 4,11,36		1,48,10,58,41	
		1,54,33,23,50,35,41,58		8,23
16″	24,39,47,49,50, 0,47,39,53,34		1,48,11, 7, 4	
		1,54,33,22, 2,24,34,54		8,23
18″	24,39,49,44,23,22,50, 4,28,28		1,48,11,15,27	
		1,54,33,20,14,13,19,27		8,23
20″	24,39,51,38,56,43, 4,17,47,55		1,48,11,23,50	
		1,54,33,18,26, 1,55,37		8,23
22″	24,39,53,33,30, 1,30,19,43,32		1,48,11,32,13	
		1,54,33,16,37,50,23,24		8,23
24″	24,39,55,28, 3,18, 8,10, 6,56		1,48,11,40,36	
		1,54,33,14,49,38,42,48		8,23
26″	24,39,57,22,36,32,57,48,49,44		1,48,11,48,59	
		1,54,33,13, 1,26,53,49		8,23
28″	24,39,59,17, 9,45,59,15,43,33		1,48,11,57,22	
		1,54,33,11,13,14,56,27		8,23
30″	24,40, 1,11,42,57,12,30,40, 0		1,48,12, 5,45	
		1,54,33, 9,25, 2,50,42		8,23
32″	24,40, 3, 6,16, 6,37,33,30,42		1,48,12,14, 8	
		1,54,33, 7,36,50,36,34		8,23
34″	24,40, 5, 0,49,14,14,24, 7,16		1,48,12,22,31	
		1,54,33, 5,48,38,14, 3		8,23
36″	24,40, 6,55,22,20, 3, 2,21,19		1,48,12,30,54	
		1,54,33, 4, 0,25,43, 9		8,23
38″	24,40, 8,49,55,24, 3,28, 4,28		1,48,12,39,17	
		1,54,33, 2,12,13, 3,52		8,23
40″	24,40,10,44,28,26,15,41, 8,20		1,48,12,47,40	
		1,54,33, 0,24, 0,16,12		8,23
42″	24,40,12,39, 1,26,39,41,24,32		1,48,12,56, 3	
		1,54,32,58,35,47,20, 9		8,23
44″	24,40,14,33,34,25,15,28,44,41		1,48,13, 4,26	
		1,54,32,56,47,34,15,43		8,23
46″	24,40,16,28, 7,22, 3, 3, 0,24		1,48,13,12,49	
		1,54,32,54,59,21, 2,54		8,23
48″	24,40,18,22,40,17, 2,24, 3,18		1,48,13,21,12	
		1,54,32,53,11, 7,41,42		8,23
50″	24,40,20,17,13,10,13,31,45, 0		1,48,13,29,35	
		1,54,32,51,22,54,12, 7		8,23
52″	24,40,22,11,46, 1,36,25,57, 7		1,48,13,37,58	
		1,54,32,49,34,40,34, 9		8,23
54″	24,40,24, 6,18,51,11, 6,31,16		1,48,13,46,21	
		1,54,32,47,46,26,47,48		8,23
56″	24,40,26, 0,51,38,57,33,19, 4		1,48,13,54,44	
		1,54,32,45,58,12,53, 4		8,23
58″	24,40,27,55,24,24,55,46,12, 8		1,48,14, 3, 7	
		1,54,32,44, 9,58,49,57		
60″	24,40,29,49,57, 9, 5,45, 2, 5			
exact	24,40,29,49,57, 9, 5,45,37,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°17′ 0″	24,40,29,49,57, 9, 5,45,37,13			
		1,54,32,42,21,44,42,13		
2″	24,40,31,44,29,51,27,30,19,26		1,48,14,19,37	
		1,54,32,40,33,30,22,36		8,22
4″	24,40,33,39, 2,32, 1, 0,42, 2		1,48,14,27,59	
		1,54,32,38,45,15,54,37		8,22
6″	24,40,35,33,35,10,46,16,36,39		1,48,14,36,21	
		1,54,32,36,57, 1,18,16		8,22
8″	24,40,37,28, 7,47,43,17,54,55		1,48,14,44,43	
		1,54,32,35, 8,46,33,33		8,22
10″	24,40,39,22,40,22,52, 4,28,28		1,48,14,53, 5	
		1,54,32,33,20,31,40,28		8,22
12″	24,40,41,17,12,56,12,36, 8,56		1,48,15, 1,27	
		1,54,32,31,32,16,39, 1		8,22
14″	24,40,43,11,45,27,44,52,47,57		1,48,15, 9,49	
		1,54,32,29,44, 1,29,12		8,22
16″	24,40,45, 6,17,57,28,54,17, 9		1,48,15,18,11	
		1,54,32,27,55,46,11, 1		8,22
18″	24,40,47, 0,50,25,24,40,28,10		1,48,15,26,33	
		1,54,32,26, 7,30,44,28		8,22
20″	24,40,48,55,22,51,32,11,12,38		1,48,15,34,55	
		1,54,32,24,19,15, 9,33		8,22
22″	24,40,50,49,55,15,51,26,22,11		1,48,15,43,17	
		1,54,32,22,30,59,26,16		8,22
24″	24,40,52,44,27,38,22,25,48,27		1,48,15,51,39	
		1,54,32,20,42,43,34,37		8,22
26″	24,40,54,38,59,59, 5, 9,23, 4		1,48,16, 0, 1	
		1,54,32,18,54,27,34,36		8,22
28″	24,40,56,33,32,17,59,36,57,40		1,48,16, 8,23	
		1,54,32,17, 6,11,26,13		8,22
30″	24,40,58,28, 4,35, 5,48,23,53		1,48,16,16,45	
		1,54,32,15,17,55, 9,28		8,22
32″	24,41, 0,22,36,50,23,43,33,21		1,48,16,25, 7	
		1,54,32,13,29,38,44,21		8,22
34″	24,41, 2,17, 9, 3,53,22,17,42		1,48,16,33,29	
		1,54,32,11,41,22,10,52		8,22
36″	24,41, 4,11,41,15,34,44,28,34		1,48,16,41,51	
		1,54,32, 9,53, 5,29, 1		8,22
38″	24,41, 6, 6,13,25,27,49,57,35		1,48,16,50,13	
		1,54,32, 8, 4,48,38,48		8,22
40″	24,41, 8, 0,45,33,32,38,36,23		1,48,16,58,35	
		1,54,32, 6,16,31,40,13		8,22
42″	24,41, 9,55,17,39,49,10,16,36		1,48,17, 6,57	
		1,54,32, 4,28,14,33,16		8,22
44″	24,41,11,49,49,44,17,24,49,52		1,48,17,15,19	
		1,54,32, 2,39,57,17,57		8,22
46″	24,41,13,44,21,46,57,22, 7,49		1,48,17,23,41	
		1,54,32, 0,51,39,54,16		8,22
48″	24,41,15,38,53,47,49, 2, 2, 5		1,48,17,32, 3	
		1,54,31,59, 3,22,22,13		8,22
50″	24,41,17,33,25,46,52,24,24,18		1,48,17,40,25	
		1,54,31,57,15, 4,41,48		8,22
52″	24,41,19,27,57,44, 7,29, 6, 6		1,48,17,48,47	
		1,54,31,55,26,46,53, 1		8,22
54″	24,41,21,22,29,39,34,15,59, 7		1,48,17,57, 9	
		1,54,31,53,38,28,55,52		8,22
56″	24,41,23,17, 1,33,12,44,54,59		1,48,18, 5,31	
		1,54,31,51,50,10,50,21		8,22
58″	24,41,25,11,33,25, 2,55,45,20		1,48,18,13,53	
		1,54,31,50, 1,52,36,28		
60″	24,41,27, 6, 5,15, 4,48,21,48			
exact	24,41,27, 6, 5,15, 4,47,50,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°18′ 0″	24,41,27, 6, 5,15, 4,47,50,16			
		1,54,31,48,13,34,10,58		
2″	24,41,29, 0,37, 3,18,22, 1,14		1,48,18,30,50	
		1,54,31,46,25,15,40, 8		8,22
4″	24,41,30,55, 8,49,43,37,41,22		1,48,18,39,12	
		1,54,31,44,36,57, 0,56		8,22
6″	24,41,32,49,40,34,20,34,42,18		1,48,18,47,34	
		1,54,31,42,48,38,13,22		8,22
8″	24,41,34,44,12,17, 9,12,55,40		1,48,18,55,56	
		1,54,31,41, 0,19,17,26		8,22
10″	24,41,36,38,43,58, 9,32,13, 6		1,48,19, 4,18	
		1,54,31,39,12, 0,13, 8		8,22
12″	24,41,38,33,15,37,21,32,26,14		1,48,19,12,40	
		1,54,31,37,23,41, 0,28		8,22
14″	24,41,40,27,47,14,45,13,26,42		1,48,19,21, 2	
		1,54,31,35,35,21,39,26		8,22
16″	24,41,42,22,18,50,20,35, 6, 8		1,48,19,29,24	
		1,54,31,33,47, 2,10, 2		8,22
18″	24,41,44,16,50,24, 7,37,16,10		1,48,19,37,46	
		1,54,31,31,58,42,32,16		8,22
20″	24,41,46,11,21,56, 6,19,48,26		1,48,19,46, 8	
		1,54,31,30,10,22,46, 8		8,22
22″	24,41,48, 5,53,26,16,42,34,34		1,48,19,54,30	
		1,54,31,28,22, 2,51,38		8,22
24″	24,41,50, 0,24,54,38,45,26,12		1,48,20, 2,52	
		1,54,31,26,33,42,48,46		8,22
26″	24,41,51,54,56,21,12,28,14,58		1,48,20,11,14	
		1,54,31,24,45,22,37,32		8,22
28″	24,41,53,49,27,45,57,50,52,30		1,48,20,19,36	
		1,54,31,22,57, 2,17,56		8,22
30″	24,41,55,43,59, 8,54,53,10,26		1,48,20,27,58	
		1,54,31,21, 8,41,49,58		8,22
32″	24,41,57,38,30,30, 3,35, 0,24		1,48,20,36,20	
		1,54,31,19,20,21,13,38		8,22
34″	24,41,59,33, 1,49,23,56,14, 2		1,48,20,44,42	
		1,54,31,17,32, 0,28,56		8,22
36″	24,42, 1,27,33, 6,55,56,42,58		1,48,20,53, 4	
		1,54,31,15,43,39,35,52		8,22
38″	24,42, 3,22, 4,22,39,36,18,50		1,48,21, 1,26	
		1,54,31,13,55,18,34,26		8,22
40″	24,42, 5,16,35,36,34,54,53,16		1,48,21, 9,48	
		1,54,31,12, 6,57,24,38		8,22
42″	24,42, 7,11, 6,48,41,52,17,54		1,48,21,18,10	
		1,54,31,10,18,36, 6,28		8,22
44″	24,42, 9, 5,37,59, 0,28,24,22		1,48,21,26,32	
		1,54,31, 8,30,14,39,56		8,22
46″	24,42,11, 0, 9, 7,30,43, 4,18		1,48,21,34,54	
		1,54,31, 6,41,53, 5, 2		8,22
48″	24,42,12,54,40,14,12,36, 9,20		1,48,21,43,16	
		1,54,31, 4,53,31,21,46		8,22
50″	24,42,14,49,11,19, 6, 7,31, 6		1,48,21,51,38	
		1,54,31, 3, 5, 9,30, 8		8,22
52″	24,42,16,43,42,22,11,17, 1,14		1,48,22, 0, 0	
		1,54,31, 1,16,47,30, 8		8,22
54″	24,42,18,38,13,23,28, 4,31,22		1,48,22, 8,22	
		1,54,30,59,28,25,21,46		8,22
56″	24,42,20,32,44,22,56,29,53, 8		1,48,22,16,44	
		1,54,30,57,40, 3, 5, 2		8,22
58″	24,42,22,27,15,20,36,32,58,10		1,48,22,25, 6	
		1,54,30,55,51,40,39,56		
60″	24,42,24,21,46,16,28,13,38, 6			
exact	24,42,24,21,46,16,28,13,14,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°19′ 0″	24,42,24,21,46,16,28,13,14,42			
		1,54,30,54, 3,18, 3,57		
2″	24,42,26,16,17,10,31,31,18,39		1,48,22,42, 0	
		1,54,30,52,14,55,21,57		8,22
4″	24,42,28,10,48, 2,46,26,40,36		1,48,22,50,22	
		1,54,30,50,26,32,31,35		8,22
6″	24,42,30, 5,18,53,12,59,12,11		1,48,22,58,44	
		1,54,30,48,38, 9,32,51		8,22
8″	24,42,31,59,49,41,51, 8,45, 2		1,48,23, 7, 6	
		1,54,30,46,49,46,25,45		8,22
10″	24,42,33,54,20,28,40,55,10,47		1,48,23,15,28	
		1,54,30,45, 1,23,10,17		8,22
12″	24,42,35,48,51,13,42,18,21, 4		1,48,23,23,50	
		1,54,30,43,12,59,46,27		8,22
14″	24,42,37,43,21,56,55,18, 7,31		1,48,23,32,12	
		1,54,30,41,24,36,14,15		8,22
16″	24,42,39,37,52,38,19,54,21,46		1,48,23,40,34	
		1,54,30,39,36,12,33,41		8,22
18″	24,42,41,32,23,17,56, 6,55,27		1,48,23,48,56	
		1,54,30,37,47,48,44,45		8,22
20″	24,42,43,26,53,55,43,55,40,12		1,48,23,57,18	
		1,54,30,35,59,24,47,27		8,22
22″	24,42,45,21,24,31,43,20,27,39		1,48,24, 5,40	
		1,54,30,34,11, 0,41,47		8,22
24″	24,42,47,15,55, 5,54,21, 9,26		1,48,24,14, 2	
		1,54,30,32,22,36,27,45		8,22
26″	24,42,49,10,25,38,16,57,37,11		1,48,24,22,24	
		1,54,30,30,34,12, 5,21		8,22
28″	24,42,51, 4,56, 8,51, 9,42,32		1,48,24,30,46	
		1,54,30,28,45,47,34,35		8,22
30″	24,42,52,59,26,37,36,57,17, 7		1,48,24,39, 8	
		1,54,30,26,57,22,55,27		8,22
32″	24,42,54,53,57, 4,34,20,12,34		1,48,24,47,30	
		1,54,30,25, 8,58, 7,57		8,22
34″	24,42,56,48,27,29,43,18,20,31		1,48,24,55,52	
		1,54,30,23,20,33,12, 5		8,22
36″	24,42,58,42,57,53, 3,51,32,36		1,48,25, 4,14	
		1,54,30,21,32, 8, 7,51		8,22
38″	24,43, 0,37,28,14,35,59,40,27		1,48,25,12,36	
		1,54,30,19,43,42,55,15		8,22
40″	24,43, 2,31,58,34,19,42,35,42		1,48,25,20,58	
		1,54,30,17,55,17,34,17		8,22
42″	24,43, 4,26,28,52,15, 0, 9,59		1,48,25,29,20	
		1,54,30,16, 6,52, 4,57		8,22
44″	24,43, 6,20,59, 8,21,52,14,56		1,48,25,37,42	
		1,54,30,14,18,26,27,15		8,22
46″	24,43, 8,15,29,22,40,18,42,11		1,48,25,46, 4	
		1,54,30,12,30, 0,41,11		8,22
48″	24,43,10, 9,59,35,10,19,23,22		1,48,25,54,26	
		1,54,30,10,41,34,46,45		8,22
50″	24,43,12, 4,29,45,51,54,10, 7		1,48,26, 2,48	
		1,54,30, 8,53, 8,43,57		8,22
52″	24,43,13,58,59,54,45, 2,54, 4		1,48,26,11,10	
		1,54,30, 7, 4,42,32,47		8,22
54″	24,43,15,53,30, 1,49,45,26,51		1,48,26,19,32	
		1,54,30, 5,16,16,13,15		8,22
56″	24,43,17,48, 0, 7, 6, 1,40, 6		1,48,26,27,54	
		1,54,30, 3,27,49,45,21		8,22
58″	24,43,19,42,30,10,33,51,25,27		1,48,26,36,16	
		1,54,30, 1,39,23, 9, 5		
60″	24,43,21,37, 0,12,13,14,34,32			
exact	24,43,21,37, 0,12,13,14,11,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°20′ 0″	24,43,21,37, 0,12,13,14,11,33			
		1,54,29,59,50,56,22, 8		
2″	24,43,23,31,30,12, 4,10,33,41		1,48,26,53, 9	
		1,54,29,58, 2,29,28,59		8,22
4″	24,43,25,26, 0,10, 6,40, 2,40		1,48,27, 1,31	
		1,54,29,56,14, 2,27,28		8,22
6″	24,43,27,20,30, 6,20,42,30, 8		1,48,27, 9,53	
		1,54,29,54,25,35,17,35		8,22
8″	24,43,29,15, 0, 0,46,17,47,43		1,48,27,18,15	
		1,54,29,52,37, 7,59,20		8,22
10″	24,43,31, 9,29,53,23,25,47, 3		1,48,27,26,37	
		1,54,29,50,48,40,32,43		8,22
12″	24,43,33, 3,59,44,12, 6,19,46		1,48,27,34,59	
		1,54,29,49, 0,12,57,44		8,22
14″	24,43,34,58,29,33,12,19,17,30		1,48,27,43,21	
		1,54,29,47,11,45,14,23		8,22
16″	24,43,36,52,59,20,24, 4,31,53		1,48,27,51,43	
		1,54,29,45,23,17,22,40		8,22
18″	24,43,38,47,29, 5,47,21,54,33		1,48,28, 0, 5	
		1,54,29,43,34,49,22,35		8,22
20″	24,43,40,41,58,49,22,11,17, 8		1,48,28, 8,27	
		1,54,29,41,46,21,14, 8		8,22
22″	24,43,42,36,28,31, 8,32,31,16		1,48,28,16,49	
		1,54,29,39,57,52,57,19		8,22
24″	24,43,44,30,58,11, 6,25,28,35		1,48,28,25,11	
		1,54,29,38, 9,24,32, 8		8,22
26″	24,43,46,25,27,49,15,50, 0,43		1,48,28,33,33	
		1,54,29,36,20,55,58,35		8,22
28″	24,43,48,19,57,25,36,45,59,18		1,48,28,41,55	
		1,54,29,34,32,27,16,40		8,22
30″	24,43,50,14,27, 0, 9,13,15,58		1,48,28,50,17	
		1,54,29,32,43,58,26,23		8,22
32″	24,43,52, 8,56,32,53,11,42,21		1,48,28,58,39	
		1,54,29,30,55,29,27,44		8,22
34″	24,43,54, 3,26, 3,48,41,10, 5		1,48,29, 7, 1	
		1,54,29,29, 7, 0,20,43		8,22
36″	24,43,55,57,55,32,55,41,30,48		1,48,29,15,23	
		1,54,29,27,18,31, 5,20		8,22
38″	24,43,57,52,25, 0,14,12,36, 8		1,48,29,23,45	
		1,54,29,25,30, 1,41,35		8,22
40″	24,43,59,46,54,25,44,14,17,43		1,48,29,32, 7	
		1,54,29,23,41,32, 9,28		8,22
42″	24,44, 1,41,23,49,25,46,27,11		1,48,29,40,29	
		1,54,29,21,53, 2,28,59		8,22
44″	24,44, 3,35,53,11,18,48,56,10		1,48,29,48,51	
		1,54,29,20, 4,32,40, 8		8,22
46″	24,44, 5,30,22,31,23,21,36,18		1,48,29,57,13	
		1,54,29,18,16, 2,42,55		8,22
48″	24,44, 7,24,51,49,39,24,19,13		1,48,30, 5,35	
		1,54,29,16,27,32,37,20		8,22
50″	24,44, 9,19,21, 6, 6,56,56,33		1,48,30,13,57	
		1,54,29,14,39, 2,23,23		8,22
52″	24,44,11,13,50,20,45,59,19,56		1,48,30,22,19	
		1,54,29,12,50,32, 1, 4		8,22
54″	24,44,13, 8,19,33,36,31,21, 0		1,48,30,30,41	
		1,54,29,11, 2, 1,30,23		8,22
56″	24,44,15, 2,48,44,38,32,51,23		1,48,30,39, 3	
		1,54,29, 9,13,30,51,20		8,22
58″	24,44,16,57,17,53,52, 3,42,43		1,48,30,47,25	
		1,54,29, 7,25, 0, 3,55		
60″	24,44,18,51,47, 1,17, 3,46,38			
exact	24,44,18,51,47, 1,17, 3,31,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°21′ 0″	24,44,18,51,47, 1,17, 3,31,39	1,54,29, 5,36,29, 6,32		
2″	24,44,20,46,16, 6,53,32,38,11	1,54,29, 3,47,58, 2,17	1,48,31, 4,15	8,22
4″	24,44,22,40,45,10,41,30,40,28	1,54,29, 1,59,26,49,40	1,48,31,12,37	8,22
6″	24,44,24,35,14,12,40,57,30, 8	1,54,29, 0,10,55,28,41	1,48,31,20,59	8,22
8″	24,44,26,29,43,12,51,52,58,49	1,54,28,58,22,23,59,20	1,48,31,29,21	8,22
10″	24,44,28,24,12,11,14,16,58, 9	1,54,28,56,33,52,21,37	1,48,31,37,43	8,22
12″	24,44,30,18,41, 7,48, 9,19,46	1,54,28,54,45,20,35,32	1,48,31,46, 5	8,22
14″	24,44,32,13,10, 2,33,29,55,18	1,54,28,52,56,48,41, 5	1,48,31,54,27	8,22
16″	24,44,34, 7,38,55,30,18,36,23	1,54,28,51, 8,16,38,16	1,48,32, 2,49	8,22
18″	24,44,36, 2, 7,46,38,35,14,39	1,54,28,49,19,44,27, 5	1,48,32,11,11	8,22
20″	24,44,37,56,36,35,58,19,41,44	1,54,28,47,31,12, 7,32	1,48,32,19,33	8,22
22″	24,44,39,51, 5,23,29,31,49,16	1,54,28,45,42,39,39,37	1,48,32,27,55	8,22
24″	24,44,41,45,34, 9,12,11,28,53	1,54,28,43,54, 7, 3,20	1,48,32,36,17	8,22
26″	24,44,43,40, 2,53, 6,18,32,13	1,54,28,42, 5,34,18,41	1,48,32,44,39	8,22
28″	24,44,45,34,31,35,11,52,50,54	1,54,28,40,17, 1,25,40	1,48,32,53, 1	8,22
30″	24,44,47,29, 0,15,28,54,16,34	1,54,28,38,28,28,24,17	1,48,33, 1,23	8,22
32″	24,44,49,23,28,53,57,22,40,51	1,54,28,36,39,55,14,32	1,48,33, 9,45	8,22
34″	24,44,51,17,57,30,37,17,55,23	1,54,28,34,51,21,56,25	1,48,33,18, 7	8,22
36″	24,44,53,12,26, 5,28,39,51,48	1,54,28,33, 2,48,29,56	1,48,33,26,29	8,22
38″	24,44,55, 6,54,38,31,28,21,44	1,54,28,31,14,14,55, 5	1,48,33,34,51	8,22
40″	24,44,57, 1,23, 9,45,43,16,49	1,54,28,29,25,41,11,52	1,48,33,43,13	8,22
42″	24,44,58,55,51,39,11,24,28,41	1,54,28,27,37, 7,20,17	1,48,33,51,35	8,22
44″	24,45, 0,50,20, 6,48,31,48,58	1,54,28,25,48,33,20,20	1,48,33,59,57	8,22
46″	24,45, 2,44,48,32,37, 5, 9,18	1,54,28,23,59,59,12, 1	1,48,34, 8,19	8,22
48″	24,45, 4,39,16,56,37, 4,21,19	1,54,28,22,11,24,55,20	1,48,34,16,41	8,22
50″	24,45, 6,33,45,18,48,29,16,39	1,54,28,20,22,50,30,17	1,48,34,25, 3	8,22
52″	24,45, 8,28,13,39,11,19,46,56	1,54,28,18,34,15,56,52	1,48,34,33,25	8,22
54″	24,45,10,22,41,57,45,35,43,48	1,54,28,16,45,41,15, 5	1,48,34,41,47	8,22
56″	24,45,12,17,10,14,31,16,58,53	1,54,28,14,57, 6,24,56	1,48,34,50, 9	8,22
58″	24,45,14,11,38,29,28,23,23,49	1,54,28,13, 8,31,26,25	1,48,34,58,31	
60″	24,45,16, 6, 6,42,36,54,50,14			
exact	24,45,16, 6, 6,42,36,54,35,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°22′ 0″	24,45,16, 6, 6,42,36,54,35,30			
		1,54,28,11,19,56,18, 7		
2″	24,45,18, 0,34,53,56,50,53,37		1,48,35,15,20	
		1,54,28, 9,31,21, 2,47		8,22
4″	24,45,19,55, 3, 3,28,11,56,24		1,48,35,23,42	
		1,54,28, 7,42,45,39, 5		8,22
6″	24,45,21,49,31,11,10,57,35,29		1,48,35,32, 4	
		1,54,28, 5,54,10, 7, 1		8,22
8″	24,45,23,43,59,17, 5, 7,42,30		1,48,35,40,26	
		1,54,28, 4, 5,34,26,35		8,22
10″	24,45,25,38,27,21,10,42, 9, 5		1,48,35,48,48	
		1,54,28, 2,16,58,37,47		8,22
12″	24,45,27,32,55,23,27,40,46,52		1,48,35,57,10	
		1,54,28, 0,28,22,40,37		8,22
14″	24,45,29,27,23,23,56, 3,27,29		1,48,36, 5,32	
		1,54,27,58,39,46,35, 5		8,22
16″	24,45,31,21,51,22,35,50, 2,34		1,48,36,13,54	
		1,54,27,56,51,10,21,11		8,22
18″	24,45,33,16,19,19,27, 0,23,45		1,48,36,22,16	
		1,54,27,55, 2,33,58,55		8,22
20″	24,45,35,10,47,14,29,34,22,40		1,48,36,30,38	
		1,54,27,53,13,57,28,17		8,22
22″	24,45,37, 5,15, 7,43,31,50,57		1,48,36,39, 0	
		1,54,27,51,25,20,49,17		8,22
24″	24,45,38,59,42,59, 8,52,40,14		1,48,36,47,22	
		1,54,27,49,36,44, 1,55		8,22
26″	24,45,40,54,10,48,45,36,42, 9		1,48,36,55,44	
		1,54,27,47,48, 7, 6,11		8,22
28″	24,45,42,48,38,36,33,43,48,20		1,48,37, 4, 6	
		1,54,27,45,59,30, 2, 5		8,22
30″	24,45,44,43, 6,22,33,13,50,25		1,48,37,12,28	
		1,54,27,44,10,52,49,37		8,22
32″	24,45,46,37,34, 6,44, 6,40, 2		1,48,37,20,50	
		1,54,27,42,22,15,28,47		8,22
34″	24,45,48,32, 1,49, 6,22, 8,49		1,48,37,29,12	
		1,54,27,40,33,37,59,35		8,22
36″	24,45,50,26,29,29,40, 0, 8,24		1,48,37,37,34	
		1,54,27,38,45, 0,22, 1		8,22
38″	24,45,52,20,57, 8,25, 0,30,25		1,48,37,45,56	
		1,54,27,36,56,22,36, 5		8,22
40″	24,45,54,15,24,45,21,23, 6,30		1,48,37,54,18	
		1,54,27,35, 7,44,41,47		8,22
42″	24,45,56, 9,52,20,29, 7,48,17		1,48,38, 2,40	
		1,54,27,33,19, 6,39, 7		8,22
44″	24,45,58, 4,19,53,48,14,27,24		1,48,38,11, 2	
		1,54,27,31,30,28,28, 5		8,22
46″	24,45,59,58,47,25,18,42,55,29		1,48,38,19,24	
		1,54,27,29,41,50, 8,41		8,22
48″	24,46, 1,53,14,55, 0,33, 4,10		1,48,38,27,46	
		1,54,27,27,53,11,40,55		8,22
50″	24,46, 3,47,42,22,53,44,45, 5		1,48,38,36, 8	
		1,54,27,26, 4,33, 4,47		8,22
52″	24,46, 5,42, 9,48,58,17,49,52		1,48,38,44,30	
		1,54,27,24,15,54,20,17		8,22
54″	24,46, 7,36,37,13,14,12,10, 9		1,48,38,52,52	
		1,54,27,22,27,15,27,25		8,22
56″	24,46, 9,31, 4,35,41,27,37,34		1,48,39, 1,14	
		1,54,27,20,38,36,26,11		8,22
58″	24,46,11,25,31,56,20, 4, 3,45		1,48,39, 9,36	
		1,54,27,18,49,57,16,35		
60″	24,46,13,19,59,15,10, 1,20,20			
exact	24,46,13,19,59,15,10, 1,13,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°23′ 0″	24,46,13,19,59,15,10, 1,13,22			
		1,54,27,17, 1,17,57,54		
2″	24,46,15,14,26,32,11,19,11,16		1,48,39,26,23	
		1,54,27,15,12,38,31,31		8,22
4″	24,46,17, 8,53,47,23,57,42,47		1,48,39,34,45	
		1,54,27,13,23,58,56,46		8,22
6″	24,46,19, 3,21, 0,47,56,39,33		1,48,39,43, 7	
		1,54,27,11,35,19,13,39		8,22
8″	24,46,20,57,48,12,23,15,53,12		1,48,39,51,29	
		1,54,27, 9,46,39,22,10		8,22
10″	24,46,22,52,15,22, 9,55,15,22		1,48,39,59,51	
		1,54,27, 7,57,59,22,19		8,22
12″	24,46,24,46,42,30, 7,54,37,41		1,48,40, 8,13	
		1,54,27, 6, 9,19,14, 6		8,22
14″	24,46,26,41, 9,36,17,13,51,47		1,48,40,16,35	
		1,54,27, 4,20,38,57,31		8,22
16″	24,46,28,35,36,40,37,52,49,18		1,48,40,24,57	
		1,54,27, 2,31,58,32,34		8,22
18″	24,46,30,30, 3,43, 9,51,21,52		1,48,40,33,19	
		1,54,27, 0,43,17,59,15		8,22
20″	24,46,32,24,30,43,53, 9,21, 7		1,48,40,41,41	
		1,54,26,58,54,37,17,34		8,22
22″	24,46,34,18,57,42,47,46,38,41		1,48,40,50, 3	
		1,54,26,57, 5,56,27,31		8,22
24″	24,46,36,13,24,39,53,43, 6,12		1,48,40,58,25	
		1,54,26,55,17,15,29, 6		8,22
26″	24,46,38, 7,51,35,10,58,35,18		1,48,41, 6,47	
		1,54,26,53,28,34,22,19		8,22
28″	24,46,40, 2,18,28,39,32,57,37		1,48,41,15, 9	
		1,54,26,51,39,53, 7,10		8,22
30″	24,46,41,56,45,20,19,26, 4,47		1,48,41,23,31	
		1,54,26,49,51,11,43,39		8,22
32″	24,46,43,51,12,10,10,37,48,26		1,48,41,31,53	
		1,54,26,48, 2,30,11,46		8,22
34″	24,46,45,45,38,58,13, 8, 0,12		1,48,41,40,15	
		1,54,26,46,13,48,31,31		8,22
36″	24,46,47,40, 5,44,26,56,31,43		1,48,41,48,37	
		1,54,26,44,25, 6,42,54		8,22
38″	24,46,49,34,32,28,52, 3,14,37		1,48,41,56,59	
		1,54,26,42,36,24,45,55		8,22
40″	24,46,51,28,59,11,28,28, 0,32		1,48,42, 5,21	
		1,54,26,40,47,42,40,34		8,22
42″	24,46,53,23,25,52,16,10,41, 6		1,48,42,13,43	
		1,54,26,38,59, 0,26,51		8,22
44″	24,46,55,17,52,31,15,11, 7,57		1,48,42,22, 5	
		1,54,26,37,10,18, 4,46		8,22
46″	24,46,57,12,19, 8,25,29,12,43		1,48,42,30,27	
		1,54,26,35,21,35,34,19		8,22
48″	24,46,59, 6,45,43,47, 4,47, 2		1,48,42,38,49	
		1,54,26,33,32,52,55,30		8,22
50″	24,47, 1, 1,12,17,19,57,42,32		1,48,42,47,11	
		1,54,26,31,44,10, 8,19		8,22
52″	24,47, 2,55,38,49, 4, 7,50,51		1,48,42,55,33	
		1,54,26,29,55,27,12,46		8,22
54″	24,47, 4,50, 5,18,59,35, 3,37		1,48,43, 3,55	
		1,54,26,28, 6,44, 8,51		8,22
56″	24,47, 6,44,31,47, 6,19,12,28		1,48,43,12,17	
		1,54,26,26,18, 0,56,34		8,22
58″	24,47, 8,38,58,13,24,20, 9, 2		1,48,43,20,39	
		1,54,26,24,29,17,35,55		
60″	24,47,10,33,24,37,53,37,44,57			
exact	24,47,10,33,24,37,53,37,45,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°24′ 0″	24,47,10,33,24,37,53,37,45,16			
		1,54,26,22,40,34, 6,52		
2″	24,47,12,27,51, 0,34,11,52, 8		1,48,43,37,23	
		1,54,26,20,51,50,29,29		8,22
4″	24,47,14,22,17,21,26, 2,21,37		1,48,43,45,45	
		1,54,26,19, 3, 6,43,44		8,22
6″	24,47,16,16,43,40,29, 9, 5,21		1,48,43,54, 7	
		1,54,26,17,14,22,49,37		8,22
8″	24,47,18,11, 9,57,43,31,54,58		1,48,44, 2,29	
		1,54,26,15,25,38,47, 8		8,22
10″	24,47,20, 5,36,13, 9,10,42, 6		1,48,44,10,51	
		1,54,26,13,36,54,36,17		8,22
12″	24,47,22, 0, 2,26,46, 5,18,23		1,48,44,19,13	
		1,54,26,11,48,10,17, 4		8,22
14″	24,47,23,54,28,38,34,15,35,27		1,48,44,27,35	
		1,54,26, 9,59,25,49,29		8,22
16″	24,47,25,48,54,48,33,41,24,56		1,48,44,35,57	
		1,54,26, 8,10,41,13,32		8,22
18″	24,47,27,43,20,56,44,22,38,28		1,48,44,44,19	
		1,54,26, 6,21,56,29,13		8,22
20″	24,47,29,37,47, 3, 6,19, 7,41		1,48,44,52,41	
		1,54,26, 4,33,11,36,32		8,22
22″	24,47,31,32,13, 7,39,30,44,13		1,48,45, 1, 3	
		1,54,26, 2,44,26,35,29		8,22
24″	24,47,33,26,39,10,23,57,19,42		1,48,45, 9,25	
		1,54,26, 0,55,41,26, 4		8,22
26″	24,47,35,21, 5,11,19,38,45,46		1,48,45,17,47	
		1,54,25,59, 6,56, 8,17		8,22
28″	24,47,37,15,31,10,26,34,54, 3		1,48,45,26, 9	
		1,54,25,57,18,10,42, 8		8,22
30″	24,47,39, 9,57, 7,44,45,36,11		1,48,45,34,31	
		1,54,25,55,29,25, 7,37		8,22
32″	24,47,41, 4,23, 3,14,10,43,48		1,48,45,42,53	
		1,54,25,53,40,39,24,44		8,22
34″	24,47,42,58,48,56,54,50, 8,32		1,48,45,51,15	
		1,54,25,51,51,53,33,29		8,22
36″	24,47,44,53,14,48,46,43,42, 1		1,48,45,59,37	
		1,54,25,50, 3, 7,33,52		8,22
38″	24,47,46,47,40,38,49,51,15,53		1,48,46, 7,59	
		1,54,25,48,14,21,25,53		8,22
40″	24,47,48,42, 6,27, 4,12,41,46		1,48,46,16,21	
		1,54,25,46,25,35, 9,32		8,22
42″	24,47,50,36,32,13,29,47,51,18		1,48,46,24,43	
		1,54,25,44,36,48,44,49		8,22
44″	24,47,52,30,57,58, 6,36,36, 7		1,48,46,33, 5	
		1,54,25,42,48, 2,11,44		8,22
46″	24,47,54,25,23,40,54,38,47,51		1,48,46,41,27	
		1,54,25,40,59,15,30,17		8,22
48″	24,47,56,19,49,21,53,54,18, 8		1,48,46,49,49	
		1,54,25,39,10,28,40,28		8,22
50″	24,47,58,14,15, 1, 4,22,58,36		1,48,46,58,11	
		1,54,25,37,21,41,42,17		8,22
52″	24,48, 0, 8,40,38,26, 4,40,53		1,48,47, 6,33	
		1,54,25,35,32,54,35,44		8,22
54″	24,48, 2, 3, 6,13,58,59,16,37		1,48,47,14,55	
		1,54,25,33,44, 7,20,49		8,22
56″	24,48, 3,57,31,47,43, 6,37,26		1,48,47,23,17	
		1,54,25,31,55,19,57,32		8,22
58″	24,48, 5,51,57,19,38,26,34,58		1,48,47,31,39	
		1,54,25,30, 6,32,25,53		
60″	24,48, 7,46,22,49,44,59, 0,51			
exact	24,48, 7,46,22,49,44,59, 1, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°25′ 0″	24,48, 7,46,22,49,44,59, 1, 4			
		1,54,25,28,17,44,46, 0		
2″	24,48, 9,40,48,18, 2,43,47, 4		1,48,47,48,22	
		1,54,25,26,28,56,57,38		8,22
4″	24,48,11,35,13,44,31,40,44,42		1,48,47,56,44	
		1,54,25,24,40, 9, 0,54		8,22
6″	24,48,13,29,39, 9,11,49,45,36		1,48,48, 5, 6	
		1,54,25,22,51,20,55,48		8,22
8″	24,48,15,24, 4,32, 3,10,41,24		1,48,48,13,28	
		1,54,25,21, 2,32,42,20		8,22
10″	24,48,17,18,29,53, 5,43,23,44		1,48,48,21,50	
		1,54,25,19,13,44,20,30		8,22
12″	24,48,19,12,55,12,19,27,44,14		1,48,48,30,12	
		1,54,25,17,24,55,50,18		8,22
14″	24,48,21, 7,20,29,44,23,34,32		1,48,48,38,34	
		1,54,25,15,36, 7,11,44		8,22
16″	24,48,23, 1,45,45,20,30,46,16		1,48,48,46,56	
		1,54,25,13,47,18,24,48		8,22
18″	24,48,24,56,10,59, 7,49,11, 4		1,48,48,55,18	
		1,54,25,11,58,29,29,30		8,22
20″	24,48,26,50,36,11, 6,18,40,34		1,48,49, 3,40	
		1,54,25,10, 9,40,25,50		8,22
22″	24,48,28,45, 1,21,15,59, 6,24		1,48,49,12, 2	
		1,54,25, 8,20,51,13,48		8,22
24″	24,48,30,39,26,29,36,50,20,12		1,48,49,20,24	
		1,54,25, 6,32, 1,53,24		8,22
26″	24,48,32,33,51,36, 8,52,13,36		1,48,49,28,46	
		1,54,25, 4,43,12,24,38		8,22
28″	24,48,34,28,16,40,52, 4,38,14		1,48,49,37, 8	
		1,54,25, 2,54,22,47,30		8,22
30″	24,48,36,22,41,43,46,27,25,44		1,48,49,45,30	
		1,54,25, 1, 5,33, 2, 0		8,22
32″	24,48,38,17, 6,44,52, 0,27,44		1,48,49,53,52	
		1,54,24,59,16,43, 8, 8		8,22
34″	24,48,40,11,31,44, 8,43,35,52		1,48,50, 2,14	
		1,54,24,57,27,53, 5,54		8,22
36″	24,48,42, 5,56,41,36,36,41,46		1,48,50,10,36	
		1,54,24,55,39, 2,55,18		8,22
38″	24,48,44, 0,21,37,15,39,37, 4		1,48,50,18,58	
		1,54,24,53,50,12,36,20		8,22
40″	24,48,45,54,46,31, 5,52,13,24		1,48,50,27,20	
		1,54,24,52, 1,22, 9, 0		8,22
42″	24,48,47,49,11,23, 7,14,22,24		1,48,50,35,42	
		1,54,24,50,12,31,33,18		8,22
44″	24,48,49,43,36,13,19,45,55,42		1,48,50,44, 4	
		1,54,24,48,23,40,49,14		8,22
46″	24,48,51,38, 1, 1,43,26,44,56		1,48,50,52,26	
		1,54,24,46,34,49,56,48		8,22
48″	24,48,53,32,25,48,18,16,41,44		1,48,51, 0,48	
		1,54,24,44,45,58,56, 0		8,22
50″	24,48,55,26,50,33, 4,15,37,44		1,48,51, 9,10	
		1,54,24,42,57, 7,46,50		8,22
52″	24,48,57,21,15,16, 1,23,24,34		1,48,51,17,32	
		1,54,24,41, 8,16,29,18		8,22
54″	24,48,59,15,39,57, 9,39,53,52		1,48,51,25,54	
		1,54,24,39,19,25, 3,24		8,22
56″	24,49, 1,10, 4,36,29, 4,57,16		1,48,51,34,16	
		1,54,24,37,30,33,29, 8		8,22
58″	24,49, 3, 4,29,13,59,38,26,24		1,48,51,42,38	
		1,54,24,35,41,41,46,30		
60″	24,49, 4,58,53,49,41,20,12,54			
exact	24,49, 4,58,53,49,41,20,20,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°26′ 0″	24,49, 4,58,53,49,41,20,20,21			
		1,54,24,33,52,49,56,18		
2″	24,49, 6,53,18,23,34,10,16,39		1,48,51,59,18	
		1,54,24,32, 3,57,57, 0		8,22
4″	24,49, 8,47,42,55,38, 8,13,39		1,48,52, 7,40	
		1,54,24,30,15, 5,49,20		8,22
6″	24,49,10,42, 7,25,53,14, 2,59		1,48,52,16, 2	
		1,54,24,28,26,13,33,18		8,22
8″	24,49,12,36,31,54,19,27,36,17		1,48,52,24,24	
		1,54,24,26,37,21, 8,54		8,22
10″	24,49,14,30,56,20,56,48,45,11		1,48,52,32,46	
		1,54,24,24,48,28,36, 8		8,22
12″	24,49,16,25,20,45,45,17,21,19		1,48,52,41, 8	
		1,54,24,22,59,35,55, 0		8,22
14″	24,49,18,19,45, 8,44,53,16,19		1,48,52,49,30	
		1,54,24,21,10,43, 5,30		8,22
16″	24,49,20,14, 9,29,55,36,21,49		1,48,52,57,52	
		1,54,24,19,21,50, 7,38		8,22
18″	24,49,22, 8,33,49,17,26,29,27		1,48,53, 6,14	
		1,54,24,17,32,57, 1,24		8,22
20″	24,49,24, 2,58, 6,50,23,30,51		1,48,53,14,36	
		1,54,24,15,44, 3,46,48		8,22
22″	24,49,25,57,22,22,34,27,17,39		1,48,53,22,58	
		1,54,24,13,55,10,23,50		8,22
24″	24,49,27,51,46,36,29,37,41,29		1,48,53,31,20	
		1,54,24,12, 6,16,52,30		8,22
26″	24,49,29,46,10,48,35,54,33,59		1,48,53,39,42	
		1,54,24,10,17,23,12,48		8,22
28″	24,49,31,40,34,58,53,17,46,47		1,48,53,48, 4	
		1,54,24, 8,28,29,24,44		8,22
30″	24,49,33,34,59, 7,21,47,11,31		1,48,53,56,26	
		1,54,24, 6,39,35,28,18		8,22
32″	24,49,35,29,23,14, 1,22,39,49		1,48,54, 4,48	
		1,54,24, 4,50,41,23,30		8,22
34″	24,49,37,23,47,18,52, 4, 3,19		1,48,54,13,10	
		1,54,24, 3, 1,47,10,20		8,22
36″	24,49,39,18,11,21,53,51,13,39		1,48,54,21,32	
		1,54,24, 1,12,52,48,48		8,22
38″	24,49,41,12,35,23, 6,44, 2,27		1,48,54,29,54	
		1,54,23,59,23,58,18,54		8,22
40″	24,49,43, 6,59,22,30,42,21,21		1,48,54,38,16	
		1,54,23,57,35, 3,40,38		8,22
42″	24,49,45, 1,23,20, 5,46, 1,59		1,48,54,46,38	
		1,54,23,55,46, 8,54, 0		8,22
44″	24,49,46,55,47,15,51,54,55,59		1,48,54,55, 0	
		1,54,23,53,57,13,59, 0		8,22
46″	24,49,48,50,11, 9,49, 8,54,59		1,48,55, 3,22	
		1,54,23,52, 8,18,55,38		8,22
48″	24,49,50,44,35, 1,57,27,50,37		1,48,55,11,44	
		1,54,23,50,19,23,43,54		8,22
50″	24,49,52,38,58,52,16,51,34,31		1,48,55,20, 6	
		1,54,23,48,30,28,23,48		8,22
52″	24,49,54,33,22,40,47,19,58,19		1,48,55,28,28	
		1,54,23,46,41,32,55,20		8,22
54″	24,49,56,27,46,27,28,52,53,39		1,48,55,36,50	
		1,54,23,44,52,37,18,30		8,22
56″	24,49,58,22,10,12,21,30,12, 9		1,48,55,45,12	
		1,54,23,43, 3,41,33,18		8,22
58″	24,50, 0,16,33,55,25,11,45,27		1,48,55,53,34	
		1,54,23,41,14,45,39,44		
60″	24,50, 2,10,57,36,39,57,25,11			
exact	24,50, 2,10,57,36,39,57,32,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°27′ 0″	24,50, 2,10,57,36,39,57,32,37			
		1,54,23,39,25,49,38,46		
2″	24,50, 4, 5,21,16, 5,47,11,23		1,48,56,10,13	
		1,54,23,37,36,53,28,33		8,22
4″	24,50, 5,59,44,53,42,40,39,56		1,48,56,18,35	
		1,54,23,35,47,57, 9,58		8,22
6″	24,50, 7,54, 8,29,30,37,49,54		1,48,56,26,57	
		1,54,23,33,59, 0,43, 1		8,22
8″	24,50, 9,48,32, 3,29,38,32,55		1,48,56,35,19	
		1,54,23,32,10, 4, 7,42		8,22
10″	24,50,11,42,55,35,39,42,40,37		1,48,56,43,41	
		1,54,23,30,21, 7,24, 1		8,22
12″	24,50,13,37,19, 6, 0,50, 4,38		1,48,56,52, 3	
		1,54,23,28,32,10,31,58		8,22
14″	24,50,15,31,42,34,33, 0,36,36		1,48,57, 0,25	
		1,54,23,26,43,13,31,33		8,22
16″	24,50,17,26, 6, 1,16,14, 8, 9		1,48,57, 8,47	
		1,54,23,24,54,16,22,46		8,22
18″	24,50,19,20,29,26,10,30,30,55		1,48,57,17, 9	
		1,54,23,23, 5,19, 5,37		8,22
20″	24,50,21,14,52,49,15,49,36,32		1,48,57,25,31	
		1,54,23,21,16,21,40, 6		8,22
22″	24,50,23, 9,16,10,32,11,16,38		1,48,57,33,53	
		1,54,23,19,27,24, 6,13		8,22
24″	24,50,25, 3,39,29,59,35,22,51		1,48,57,42,15	
		1,54,23,17,38,26,23,58		8,22
26″	24,50,26,58, 2,47,38, 1,46,49		1,48,57,50,37	
		1,54,23,15,49,28,33,21		8,22
28″	24,50,28,52,26, 3,27,30,20,10		1,48,57,58,59	
		1,54,23,14, 0,30,34,22		8,22
30″	24,50,30,46,49,17,28, 0,54,32		1,48,58, 7,21	
		1,54,23,12,11,32,27, 1		8,22
32″	24,50,32,41,12,29,39,33,21,33		1,48,58,15,43	
		1,54,23,10,22,34,11,18		8,22
34″	24,50,34,35,35,40, 2, 7,32,51		1,48,58,24, 5	
		1,54,23, 8,33,35,47,13		8,22
36″	24,50,36,29,58,48,35,43,20, 4		1,48,58,32,27	
		1,54,23, 6,44,37,14,46		8,22
38″	24,50,38,24,21,55,20,20,34,50		1,48,58,40,49	
		1,54,23, 4,55,38,33,57		8,22
40″	24,50,40,18,45, 0,15,59, 8,47		1,48,58,49,11	
		1,54,23, 3, 6,39,44,46		8,22
42″	24,50,42,13, 8, 3,22,38,53,33		1,48,58,57,33	
		1,54,23, 1,17,40,47,13		8,22
44″	24,50,44, 7,31, 4,40,19,40,46		1,48,59, 5,55	
		1,54,22,59,28,41,41,18		8,22
46″	24,50,46, 1,54, 4, 9, 1,22, 4		1,48,59,14,17	
		1,54,22,57,39,42,27, 1		8,22
48″	24,50,47,56,17, 1,48,43,49, 5		1,48,59,22,39	
		1,54,22,55,50,43, 4,22		8,22
50″	24,50,49,50,39,57,39,26,53,27		1,48,59,31, 1	
		1,54,22,54, 1,43,33,21		8,22
52″	24,50,51,45, 2,51,41,10,26,48		1,48,59,39,23	
		1,54,22,52,12,43,53,58		8,22
54″	24,50,53,39,25,43,53,54,20,46		1,48,59,47,45	
		1,54,22,50,23,44, 6,13		8,22
56″	24,50,55,33,48,34,17,38,26,59		1,48,59,56, 7	
		1,54,22,48,34,44,10, 6		8,22
58″	24,50,57,28,11,22,52,22,37, 5		1,49, 0, 4,29	
		1,54,22,46,45,44, 5,37		
60″	24,50,59,22,34, 9,38, 6,42,42			
exact	24,50,59,22,34, 9,38, 6,57, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°28′ 0″	24,50,59,22,34, 9,38, 6,57, 9			
		1,54,22,44,56,43,54,23		
2″	24,51, 1,16,56,54,34,50,51,32		1,49, 0,21, 6	
		1,54,22,43, 7,43,33,17		8,22
4″	24,51, 3,11,19,37,42,34,24,49		1,49, 0,29,28	
		1,54,22,41,18,43, 3,49		8,22
6″	24,51, 5, 5,42,19, 1,17,28,38		1,49, 0,37,50	
		1,54,22,39,29,42,25,59		8,22
8″	24,51, 7, 0, 4,58,30,59,54,37		1,49, 0,46,12	
		1,54,22,37,40,41,39,47		8,22
10″	24,51, 8,54,27,36,11,41,34,24		1,49, 0,54,34	
		1,54,22,35,51,40,45,13		8,22
12″	24,51,10,48,50,12, 3,22,19,37		1,49, 1, 2,56	
		1,54,22,34, 2,39,42,17		8,22
14″	24,51,12,43,12,46, 6, 2, 1,54		1,49, 1,11,18	
		1,54,22,32,13,38,30,59		8,22
16″	24,51,14,37,35,18,19,40,32,53		1,49, 1,19,40	
		1,54,22,30,24,37,11,19		8,22
18″	24,51,16,31,57,48,44,17,44,12		1,49, 1,28, 2	
		1,54,22,28,35,35,43,17		8,22
20″	24,51,18,26,20,17,19,53,27,29		1,49, 1,36,24	
		1,54,22,26,46,34, 6,53		8,22
22″	24,51,20,20,42,44, 6,27,34,22		1,49, 1,44,46	
		1,54,22,24,57,32,22, 7		8,22
24″	24,51,22,15, 5, 9, 3,59,56,29		1,49, 1,53, 8	
		1,54,22,23, 8,30,28,59		8,22
26″	24,51,24, 9,27,32,12,30,25,28		1,49, 2, 1,30	
		1,54,22,21,19,28,27,29		8,22
28″	24,51,26, 3,49,53,31,58,52,57		1,49, 2, 9,52	
		1,54,22,19,30,26,17,37		8,22
30″	24,51,27,58,12,13, 2,25,10,34		1,49, 2,18,14	
		1,54,22,17,41,23,59,23		8,22
32″	24,51,29,52,34,30,43,49, 9,57		1,49, 2,26,36	
		1,54,22,15,52,21,32,47		8,22
34″	24,51,31,46,56,46,36,10,42,44		1,49, 2,34,58	
		1,54,22,14, 3,18,57,49		8,22
36″	24,51,33,41,19, 0,39,29,40,33		1,49, 2,43,20	
		1,54,22,12,14,16,14,29		8,22
38″	24,51,35,35,41,12,53,45,55, 2		1,49, 2,51,42	
		1,54,22,10,25,13,22,47		8,22
40″	24,51,37,30, 3,23,18,59,17,49		1,49, 3, 0, 4	
		1,54,22, 8,36,10,22,43		8,22
42″	24,51,39,24,25,31,55, 9,40,32		1,49, 3, 8,26	
		1,54,22, 6,47, 7,14,17		8,22
44″	24,51,41,18,47,38,42,16,54,49		1,49, 3,16,48	
		1,54,22, 4,58, 3,57,29		8,22
46″	24,51,43,13, 9,43,40,20,52,18		1,49, 3,25,10	
		1,54,22, 3, 9, 0,32,19		8,22
48″	24,51,45, 7,31,46,49,21,24,37		1,49, 3,33,32	
		1,54,22, 1,19,56,58,47		8,22
50″	24,51,47, 1,53,48, 9,18,23,24		1,49, 3,41,54	
		1,54,21,59,30,53,16,53		8,22
52″	24,51,48,56,15,47,40,11,40,17		1,49, 3,50,16	
		1,54,21,57,41,49,26,37		8,22
54″	24,51,50,50,37,45,22, 1, 6,54		1,49, 3,58,38	
		1,54,21,55,52,45,27,59		8,22
56″	24,51,52,44,59,41,14,46,34,53		1,49, 4, 7, 0	
		1,54,21,54, 3,41,20,59		8,22
58″	24,51,54,39,21,35,18,27,55,52		1,49, 4,15,22	
		1,54,21,52,14,37, 5,37		
60″	24,51,56,33,43,27,33, 5, 1,29			
exact	24,51,56,33,43,27,33, 5,23, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°29′ 0″	24,51,56,33,43,27,33, 5,23, 7			
		1,54,21,50,25,32,44,10		
2″	24,51,58,28, 5,17,58,38, 7,17		1,49, 4,31,56	
		1,54,21,48,36,28,12,14		8,22
4″	24,52, 0,22,27, 6,35, 6,19,31		1,49, 4,40,18	
		1,54,21,46,47,23,31,56		8,22
6″	24,52, 2,16,48,53,22,29,51,27		1,49, 4,48,40	
		1,54,21,44,58,18,43,16		8,22
8″	24,52, 4,11,10,38,20,48,34,43		1,49, 4,57, 2	
		1,54,21,43, 9,13,46,14		8,22
10″	24,52, 6, 5,32,21,30, 2,20,57		1,49, 5, 5,24	
		1,54,21,41,20, 8,40,50		8,22
12″	24,52, 7,59,54, 2,50,11, 1,47		1,49, 5,13,46	
		1,54,21,39,31, 3,27, 4		8,22
14″	24,52, 9,54,15,42,21,14,28,51		1,49, 5,22, 8	
		1,54,21,37,41,58, 4,56		8,22
16″	24,52,11,48,37,20, 3,12,33,47		1,49, 5,30,30	
		1,54,21,35,52,52,34,26		8,22
18″	24,52,13,42,58,55,56, 5, 8,13		1,49, 5,38,52	
		1,54,21,34, 3,46,55,34		8,22
20″	24,52,15,37,20,29,59,52, 3,47		1,49, 5,47,14	
		1,54,21,32,14,41, 8,20		8,22
22″	24,52,17,31,42, 2,14,33,12, 7		1,49, 5,55,36	
		1,54,21,30,25,35,12,44		8,22
24″	24,52,19,26, 3,32,40, 8,24,51		1,49, 6, 3,58	
		1,54,21,28,36,29, 8,46		8,22
26″	24,52,21,20,25, 1,16,37,33,37		1,49, 6,12,20	
		1,54,21,26,47,22,56,26		8,22
28″	24,52,23,14,46,28, 4, 0,30, 3		1,49, 6,20,42	
		1,54,21,24,58,16,35,44		8,22
30″	24,52,25, 9, 7,53, 2,17, 5,47		1,49, 6,29, 4	
		1,54,21,23, 9,10, 6,40		8,22
32″	24,52,27, 3,29,16,11,27,12,27		1,49, 6,37,26	
		1,54,21,21,20, 3,29,14		8,22
34″	24,52,28,57,50,37,31,30,41,41		1,49, 6,45,48	
		1,54,21,19,30,56,43,26		8,22
36″	24,52,30,52,11,57, 2,27,25, 7		1,49, 6,54,10	
		1,54,21,17,41,49,49,16		8,22
38″	24,52,32,46,33,14,44,17,14,23		1,49, 7, 2,32	
		1,54,21,15,52,42,46,44		8,22
40″	24,52,34,40,54,30,37, 0, 1, 7		1,49, 7,10,54	
		1,54,21,14, 3,35,35,50		8,22
42″	24,52,36,35,15,44,40,35,36,57		1,49, 7,19,16	
		1,54,21,12,14,28,16,34		8,22
44″	24,52,38,29,36,56,55, 3,53,31		1,49, 7,27,38	
		1,54,21,10,25,20,48,56		8,22
46″	24,52,40,23,58, 7,20,24,42,27		1,49, 7,36, 0	
		1,54,21, 8,36,13,12,56		8,22
48″	24,52,42,18,19,15,56,37,55,23		1,49, 7,44,22	
		1,54,21, 6,47, 5,28,34		8,22
50″	24,52,44,12,40,22,43,43,23,57		1,49, 7,52,44	
		1,54,21, 4,57,57,35,50		8,22
52″	24,52,46, 7, 1,27,41,40,59,47		1,49, 8, 1, 6	
		1,54,21, 3, 8,49,34,44		8,22
54″	24,52,48, 1,22,30,50,30,34,31		1,49, 8, 9,28	
		1,54,21, 1,19,41,25,16		8,22
56″	24,52,49,55,43,32,10,11,59,47		1,49, 8,17,50	
		1,54,20,59,30,33, 7,26		8,22
58″	24,52,51,50, 4,31,40,45, 7,13		1,49, 8,26,12	
		1,54,20,57,41,24,41,14		
60″	24,52,53,44,25,29,22, 9,48,27			
exact	24,52,53,44,25,29,22,10, 9,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°30′ 0″	24,52,53,44,25,29,22,10, 9,35			
		1,54,20,55,52,16, 9, 6		
2″	24,52,55,38,46,25,14,26,18,41		1,49, 8,42,45	
		1,54,20,54, 3, 7,26,21		8,22
4″	24,52,57,33, 7,19,17,33,45, 2		1,49, 8,51, 7	
		1,54,20,52,13,58,35,14		8,22
6″	24,52,59,27,28,11,31,32,20,16		1,49, 8,59,29	
		1,54,20,50,24,49,35,45		8,22
8″	24,53, 1,21,49, 1,56,21,56, 1		1,49, 9, 7,51	
		1,54,20,48,35,40,27,54		8,22
10″	24,53, 3,16, 9,50,32, 2,23,55		1,49, 9,16,13	
		1,54,20,46,46,31,11,41		8,22
12″	24,53, 5,10,30,37,18,33,35,36		1,49, 9,24,35	
		1,54,20,44,57,21,47, 6		8,22
14″	24,53, 7, 4,51,22,15,55,22,42		1,49, 9,32,57	
		1,54,20,43, 8,12,14, 9		8,22
16″	24,53, 8,59,12, 5,24, 7,36,51		1,49, 9,41,19	
		1,54,20,41,19, 2,32,50		8,22
18″	24,53,10,53,32,46,43,10, 9,41		1,49, 9,49,41	
		1,54,20,39,29,52,43, 9		8,22
20″	24,53,12,47,53,26,13, 2,52,50		1,49, 9,58, 3	
		1,54,20,37,40,42,45, 6		8,22
22″	24,53,14,42,14, 3,53,45,37,56		1,49,10, 6,25	
		1,54,20,35,51,32,38,41		8,22
24″	24,53,16,36,34,39,45,18,16,37		1,49,10,14,47	
		1,54,20,34, 2,22,23,54		8,22
26″	24,53,18,30,55,13,47,40,40,31		1,49,10,23, 9	
		1,54,20,32,13,12, 0,45		8,22
28″	24,53,20,25,15,46, 0,52,41,16		1,49,10,31,31	
		1,54,20,30,24, 1,29,14		8,22
30″	24,53,22,19,36,16,24,54,10,30		1,49,10,39,53	
		1,54,20,28,34,50,49,21		8,22
32″	24,53,24,13,56,44,59,44,59,51		1,49,10,48,15	
		1,54,20,26,45,40, 1, 6		8,22
34″	24,53,26, 8,17,11,45,25, 0,57		1,49,10,56,37	
		1,54,20,24,56,29, 4,29		8,22
36″	24,53,28, 2,37,36,41,54, 5,26		1,49,11, 4,59	
		1,54,20,23, 7,17,59,30		8,22
38″	24,53,29,56,57,59,49,12, 4,56		1,49,11,13,21	
		1,54,20,21,18, 6,46, 9		8,22
40″	24,53,31,51,18,21, 7,18,51, 5		1,49,11,21,43	
		1,54,20,19,28,55,24,26		8,22
42″	24,53,33,45,38,40,36,14,15,31		1,49,11,30, 5	
		1,54,20,17,39,43,54,21		8,22
44″	24,53,35,39,58,58,15,58, 9,52		1,49,11,38,27	
		1,54,20,15,50,32,15,54		8,22
46″	24,53,37,34,19,14, 6,30,25,46		1,49,11,46,49	
		1,54,20,14, 1,20,29, 5		8,22
48″	24,53,39,28,39,28, 7,50,54,51		1,49,11,55,11	
		1,54,20,12,12, 8,33,54		8,22
50″	24,53,41,22,59,40,19,59,28,45		1,49,12, 3,33	
		1,54,20,10,22,56,30,21		8,22
52″	24,53,43,17,19,50,42,55,59, 6		1,49,12,11,55	
		1,54,20, 8,33,44,18,26		8,22
54″	24,53,45,11,39,59,16,40,17,32		1,49,12,20,17	
		1,54,20, 6,44,31,58, 9		8,22
56″	24,53,47, 6, 0, 6, 1,12,15,41		1,49,12,28,39	
		1,54,20, 4,55,19,29,30		8,22
58″	24,53,49, 0,20,10,56,31,45,11		1,49,12,37, 1	
		1,54,20, 3, 6, 6,52,29		
60″	24,53,50,54,40,14, 2,38,37,40			
exact	24,53,50,54,40,14, 2,39, 5,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°31′ 0″	24,53,50,54,40,14, 2,39, 5,30			
		1,54,20, 1,16,54,10,10		
2″	24,53,52,49, 0,15,19,33,15,40		1,49,12,53,32	
		1,54,19,59,27,41,16,38		8,22
4″	24,53,54,43,20,14,47,14,32,18		1,49,13, 1,54	
		1,54,19,57,38,28,14,44		8,22
6″	24,53,56,37,40,12,25,42,47, 2		1,49,13,10,16	
		1,54,19,55,49,15, 4,28		8,22
8″	24,53,58,32, 0, 8,14,57,51,30		1,49,13,18,38	
		1,54,19,54, 0, 1,45,50		8,22
10″	24,54, 0,26,20, 2,14,59,37,20		1,49,13,27, 0	
		1,54,19,52,10,48,18,50		8,22
12″	24,54, 2,20,39,54,25,47,56,10		1,49,13,35,22	
		1,54,19,50,21,34,43,28		8,22
14″	24,54, 4,14,59,44,47,22,39,38		1,49,13,43,44	
		1,54,19,48,32,20,59,44		8,22
16″	24,54, 6, 9,19,33,19,43,39,22		1,49,13,52, 6	
		1,54,19,46,43, 7, 7,38		8,22
18″	24,54, 8, 3,39,20, 2,50,47, 0		1,49,14, 0,28	
		1,54,19,44,53,53, 7,10		8,22
20″	24,54, 9,57,59, 4,56,43,54,10		1,49,14, 8,50	
		1,54,19,43, 4,38,58,20		8,22
22″	24,54,11,52,18,48, 1,22,52,30		1,49,14,17,12	
		1,54,19,41,15,24,41, 8		8,22
24″	24,54,13,46,38,29,16,47,33,38		1,49,14,25,34	
		1,54,19,39,26,10,15,34		8,22
26″	24,54,15,40,58, 8,42,57,49,12		1,49,14,33,56	
		1,54,19,37,36,55,41,38		8,22
28″	24,54,17,35,17,46,19,53,30,50		1,49,14,42,18	
		1,54,19,35,47,40,59,20		8,22
30″	24,54,19,29,37,22, 7,34,30,10		1,49,14,50,40	
		1,54,19,33,58,26, 8,40		8,22
32″	24,54,21,23,56,56, 6, 0,38,50		1,49,14,59, 2	
		1,54,19,32, 9,11, 9,38		8,22
34″	24,54,23,18,16,28,15,11,48,28		1,49,15, 7,24	
		1,54,19,30,19,56, 2,14		8,22
36″	24,54,25,12,35,58,35, 7,50,42		1,49,15,15,46	
		1,54,19,28,30,40,46,28		8,22
38″	24,54,27, 6,55,27, 5,48,37,10		1,49,15,24, 8	
		1,54,19,26,41,25,22,20		8,22
40″	24,54,29, 1,14,53,47,13,59,30		1,49,15,32,30	
		1,54,19,24,52, 9,49,50		8,22
42″	24,54,30,55,34,18,39,23,49,20		1,49,15,40,52	
		1,54,19,23, 2,54, 8,58		8,22
44″	24,54,32,49,53,41,42,17,58,18		1,49,15,49,14	
		1,54,19,21,13,38,19,44		8,22
46″	24,54,34,44,13, 2,55,56,18, 2		1,49,15,57,36	
		1,54,19,19,24,22,22, 8		8,22
48″	24,54,36,38,32,22,20,18,40,10		1,49,16, 5,58	
		1,54,19,17,35, 6,16,10		8,22
50″	24,54,38,32,51,39,55,24,56,20		1,49,16,14,20	
		1,54,19,15,45,50, 1,50		8,22
52″	24,54,40,27,10,55,41,14,58,10		1,49,16,22,42	
		1,54,19,13,56,33,39, 8		8,22
54″	24,54,42,21,30, 9,37,48,37,18		1,49,16,31, 4	
		1,54,19,12, 7,17, 8, 4		8,22
56″	24,54,44,15,49,21,45, 5,45,22		1,49,16,39,26	
		1,54,19,10,18, 0,28,38		8,22
58″	24,54,46,10, 8,32, 3, 6,14, 0		1,49,16,47,48	
		1,54,19, 8,28,43,40,50		
60″	24,54,48, 4,27,40,31,49,54,50			
exact	24,54,48, 4,27,40,31,50,29,45			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
24°32′	0″	24,54,48, 4,27,40,31,50,29,45			
	2″	24,54,49,58,46,47,11,17,18, 8	1,54,19, 6,39,26,48,23		
	4″	24,54,51,53, 5,52, 1,27, 2,15	1,54,19, 4,50, 9,44, 7	1,49,17, 4,16	
	6″	24,54,53,47,24,55, 2,19,33,45	1,54,19, 3, 0,52,31,30	1,49,17,12,37	8,21
	8″	24,54,55,41,43,56,13,54,44,17	1,54,19, 1,11,35,10,32	1,49,17,20,58	8,21
	10″	24,54,57,36, 2,55,36,12,25,30	1,54,18,59,22,17,41,13	1,49,17,29,19	8,21
	12″	24,54,59,30,21,53, 9,12,29, 3	1,54,18,57,33, 0, 3,33	1,49,17,37,40	8,21
	14″	24,55, 1,24,40,48,52,54,46,35	1,54,18,55,43,42,17,32	1,49,17,46, 1	8,21
	16″	24,55, 3,18,59,42,47,19, 9,45	1,54,18,53,54,24,23,10	1,49,17,54,22	8,21
	18″	24,55, 5,13,18,34,52,25,30,12	1,54,18,52, 5, 6,20,27	1,49,18, 2,43	8,21
	20″	24,55, 7, 7,37,25, 8,13,39,35	1,54,18,50,15,48, 9,23	1,49,18,11, 4	8,21
	22″	24,55, 9, 1,56,13,34,43,29,33	1,54,18,48,26,29,49,58	1,49,18,19,25	8,21
	24″	24,55,10,56,15, 0,11,54,51,45	1,54,18,46,37,11,22,12	1,49,18,27,46	8,21
	26″	24,55,12,50,33,44,59,47,37,50	1,54,18,44,47,52,46, 5	1,49,18,36, 7	8,21
	28″	24,55,14,44,52,27,58,21,39,27	1,54,18,42,58,34, 1,37	1,49,18,44,28	8,21
	30″	24,55,16,39,11, 9, 7,36,48,15	1,54,18,41, 9,15, 8,48	1,49,18,52,49	8,21
	32″	24,55,18,33,29,48,27,32,55,53	1,54,18,39,19,56, 7,38	1,49,19, 1,10	8,21
	34″	24,55,20,27,48,25,58, 9,54, 0	1,54,18,37,30,36,58, 7	1,49,19, 9,31	8,21
	36″	24,55,22,22, 7, 1,39,27,34,15	1,54,18,35,41,17,40,15	1,49,19,17,52	8,21
	38″	24,55,24,16,25,35,31,25,48,17	1,54,18,33,51,58,14, 2	1,49,19,26,13	8,21
	40″	24,55,26,10,44, 7,34, 4,27,45	1,54,18,32, 2,38,39,28	1,49,19,34,34	8,21
	42″	24,55,28, 5, 2,37,47,23,24,18	1,54,18,30,13,18,56,33	1,49,19,42,55	8,21
	44″	24,55,29,59,21, 6,11,22,29,35	1,54,18,28,23,59, 5,17	1,49,19,51,16	8,21
	46″	24,55,31,53,39,32,46, 1,35,15	1,54,18,26,34,39, 5,40	1,49,19,59,37	8,21
	48″	24,55,33,47,57,57,31,20,32,57	1,54,18,24,45,18,57,42	1,49,20, 7,58	8,21
	50″	24,55,35,42,16,20,27,19,14,20	1,54,18,22,55,58,41,23	1,49,20,16,19	8,21
	52″	24,55,37,36,34,41,33,57,31, 3	1,54,18,21, 6,38,16,43	1,49,20,24,40	8,21
	54″	24,55,39,30,53, 0,51,15,14,45	1,54,18,19,17,17,43,42	1,49,20,33, 1	8,21
	56″	24,55,41,25,11,18,19,12,17, 5	1,54,18,17,27,57, 2,20	1,49,20,41,22	8,21
	58″	24,55,43,19,29,33,57,48,29,42	1,54,18,15,38,36,12,37	1,49,20,49,43	8,21
	60″	24,55,45,13,47,47,47, 3,44,15	1,54,18,13,49,15,14,33	1,49,20,58, 4	
exact		24,55,45,13,47,47,47, 3,11, 8			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
24°33′	0″	24,55,45,13,47,47,47, 3,11, 8	1,54,18,11,59,54, 4,45		
	2″	24,55,47, 8, 5,59,46,57,15,53	1,54,18,10,10,32,49,46	1,49,21,14,59	8,21
	4″	24,55,49, 2,24, 9,57,30, 5,39	1,54,18, 8,21,11,26,26	1,49,21,23,20	8,21
	6″	24,55,50,56,42,18,18,41,32, 5	1,54,18, 6,31,49,54,45	1,49,21,31,41	8,21
	8″	24,55,52,51, 0,24,50,31,26,50	1,54,18, 4,42,28,14,43	1,49,21,40, 2	8,21
	10″	24,55,54,45,18,29,32,59,41,33	1,54,18, 2,53, 6,26,20	1,49,21,48,23	8,21
	12″	24,55,56,39,36,32,26, 6, 7,53	1,54,18, 1, 3,44,29,36	1,49,21,56,44	8,21
	14″	24,55,58,33,54,33,29,50,37,29	1,54,17,59,14,22,24,31	1,49,22, 5, 5	8,21
	16″	24,56, 0,28,12,32,44,13, 2, 0	1,54,17,57,25, 0,11, 5	1,49,22,13,26	8,21
	18″	24,56, 2,22,30,30, 9,13,13, 5	1,54,17,55,35,37,49,18	1,49,22,21,47	8,21
	20″	24,56, 4,16,48,25,44,51, 2,23	1,54,17,53,46,15,19,10	1,49,22,30, 8	8,21
	22″	24,56, 6,11, 6,19,31, 6,21,33	1,54,17,51,56,52,40,41	1,49,22,38,29	8,21
	24″	24,56, 8, 5,24,11,27,59, 2,14	1,54,17,50, 7,29,53,51	1,49,22,46,50	8,21
	26″	24,56, 9,59,42, 1,35,28,56, 5	1,54,17,48,18, 6,58,40	1,49,22,55,11	8,21
	28″	24,56,11,53,59,49,53,35,54,45	1,54,17,46,28,43,55, 8	1,49,23, 3,32	8,21
	30″	24,56,13,48,17,36,22,19,49,53	1,54,17,44,39,20,43,15	1,49,23,11,53	8,21
	32″	24,56,15,42,35,21, 1,40,33, 8	1,54,17,42,49,57,23, 1	1,49,23,20,14	8,21
	34″	24,56,17,36,53, 3,51,37,56, 9	1,54,17,41, 0,33,54,26	1,49,23,28,35	8,21
	36″	24,56,19,31,10,44,52,11,50,35	1,54,17,39,11,10,17,30	1,49,23,36,56	8,21
	38″	24,56,21,25,28,24, 3,22, 8, 5	1,54,17,37,21,46,32,13	1,49,23,45,17	8,21
	40″	24,56,23,19,46, 1,25, 8,40,18	1,54,17,35,32,22,38,35	1,49,23,53,38	8,21
	42″	24,56,25,14, 3,36,57,31,18,53	1,54,17,33,42,58,36,36	1,49,24, 1,59	8,21
	44″	24,56,27, 8,21,10,40,29,55,29	1,54,17,31,53,34,26,16	1,49,24,10,20	8,21
	46″	24,56,29, 2,38,42,34, 4,21,45	1,54,17,30, 4,10, 7,35	1,49,24,18,41	8,21
	48″	24,56,30,56,56,12,38,14,29,20	1,54,17,28,14,45,40,33	1,49,24,27, 2	8,21
	50″	24,56,32,51,13,40,53, 0, 9,53	1,54,17,26,25,21, 5,10	1,49,24,35,23	8,21
	52″	24,56,34,45,31, 7,18,21,15, 3	1,54,17,24,35,56,21,26	1,49,24,43,44	8,21
	54″	24,56,36,39,48,31,54,17,36,29	1,54,17,22,46,31,29,21	1,49,24,52, 5	8,21
	56″	24,56,38,34, 5,54,40,49, 5,50	1,54,17,20,57, 6,28,55	1,49,25, 0,26	8,21
	58″	24,56,40,28,23,15,37,55,34,45	1,54,17,19, 7,41,20, 8	1,49,25, 8,47	
	60″	24,56,42,22,40,34,45,36,54,53			
exact		24,56,42,22,40,34,45,36,28,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°34′ 0″	24,56,42,22,40,34,45,36,28,27			
		1,54,17,17,18,16, 0,15		
2″	24,56,44,16,57,52, 3,52,28,42		1,49,25,25,40	
		1,54,17,15,28,50,34,35		8,21
4″	24,56,46,11,15, 7,32,43, 3,17		1,49,25,34, 1	
		1,54,17,13,39,25, 0,34		8,21
6″	24,56,48, 5,32,21,12, 8, 3,51		1,49,25,42,22	
		1,54,17,11,49,59,18,12		8,21
8″	24,56,49,59,49,33, 2, 7,22, 3		1,49,25,50,43	
		1,54,17,10, 0,33,27,29		8,21
10″	24,56,51,54, 6,43, 2,40,49,32		1,49,25,59, 4	
		1,54,17, 8,11, 7,28,25		8,21
12″	24,56,53,48,23,51,13,48,17,57		1,49,26, 7,25	
		1,54,17, 6,21,41,21, 0		8,21
14″	24,56,55,42,40,57,35,29,38,57		1,49,26,15,46	
		1,54,17, 4,32,15, 5,14		8,21
16″	24,56,57,36,58, 2, 7,44,44,11		1,49,26,24, 7	
		1,54,17, 2,42,48,41, 7		8,21
18″	24,56,59,31,15, 4,50,33,25,18		1,49,26,32,28	
		1,54,17, 0,53,22, 8,39		8,21
20″	24,57, 1,25,32, 5,43,55,33,57		1,49,26,40,49	
		1,54,16,59, 3,55,27,50		8,21
22″	24,57, 3,19,49, 4,47,51, 1,47		1,49,26,49,10	
		1,54,16,57,14,28,38,40		8,21
24″	24,57, 5,14, 6, 2, 2,19,40,27		1,49,26,57,31	
		1,54,16,55,25, 1,41, 9		8,21
26″	24,57, 7, 8,22,57,27,21,21,36		1,49,27, 5,52	
		1,54,16,53,35,34,35,17		8,21
28″	24,57, 9, 2,39,51, 2,55,56,53		1,49,27,14,13	
		1,54,16,51,46, 7,21, 4		8,21
30″	24,57,10,56,56,42,49, 3,17,57		1,49,27,22,34	
		1,54,16,49,56,39,58,30		8,21
32″	24,57,12,51,13,32,45,43,16,27		1,49,27,30,55	
		1,54,16,48, 7,12,27,35		8,21
34″	24,57,14,45,30,20,52,55,44, 2		1,49,27,39,16	
		1,54,16,46,17,44,48,19		8,21
36″	24,57,16,39,47, 7,10,40,32,21		1,49,27,47,37	
		1,54,16,44,28,17, 0,42		8,21
38″	24,57,18,34, 3,51,38,57,33, 3		1,49,27,55,58	
		1,54,16,42,38,49, 4,44		8,21
40″	24,57,20,28,20,34,17,46,37,47		1,49,28, 4,19	
		1,54,16,40,49,21, 0,25		8,21
42″	24,57,22,22,37,15, 7, 7,38,12		1,49,28,12,40	
		1,54,16,38,59,52,47,45		8,21
44″	24,57,24,16,53,54, 7, 0,25,57		1,49,28,21, 1	
		1,54,16,37,10,24,26,44		8,21
46″	24,57,26,11,10,31,17,24,52,41		1,49,28,29,22	
		1,54,16,35,20,55,57,22		8,21
48″	24,57,28, 5,27, 6,38,20,50, 3		1,49,28,37,43	
		1,54,16,33,31,27,19,39		8,21
50″	24,57,29,59,43,40, 9,48, 9,42		1,49,28,46, 4	
		1,54,16,31,41,58,33,35		8,21
52″	24,57,31,54, 0,11,51,46,43,17		1,49,28,54,25	
		1,54,16,29,52,29,39,10		8,21
54″	24,57,33,48,16,41,44,16,22,27		1,49,29, 2,46	
		1,54,16,28, 3, 0,36,24		8,21
56″	24,57,35,42,33, 9,47,16,58,51		1,49,29,11, 7	
		1,54,16,26,13,31,25,17		8,21
58″	24,57,37,36,49,36, 0,48,24, 8		1,49,29,19,28	
		1,54,16,24,24, 2, 5,49		
60″	24,57,39,31, 6, 0,24,50,29,57			
exact	24,57,39,31, 6, 0,24,50,10,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°35′ 0″	24,57,39,31, 6, 0,24,50,10,28			
		1,54,16,22,34,32,35,54		
2″	24,57,41,25,22,22,59,22,46,22		1,49,29,36,19	
		1,54,16,20,45, 2,59,35		8,21
4″	24,57,43,19,38,43,44,25,45,57		1,49,29,44,40	
		1,54,16,18,55,33,14,55		8,21
6″	24,57,45,13,55, 2,39,59, 0,52		1,49,29,53, 1	
		1,54,16,17, 6, 3,21,54		8,21
8″	24,57,47, 8,11,19,46, 2,22,46		1,49,30, 1,22	
		1,54,16,15,16,33,20,32		8,21
10″	24,57,49, 2,27,35, 2,35,43,18		1,49,30, 9,43	
		1,54,16,13,27, 3,10,49		8,21
12″	24,57,50,56,43,48,29,38,54, 7		1,49,30,18, 4	
		1,54,16,11,37,32,52,45		8,21
14″	24,57,52,51, 0, 0, 7,11,46,52		1,49,30,26,25	
		1,54,16, 9,48, 2,26,20		8,21
16″	24,57,54,45,16, 9,55,14,13,12		1,49,30,34,46	
		1,54,16, 7,58,31,51,34		8,21
18″	24,57,56,39,32,17,53,46, 4,46		1,49,30,43, 7	
		1,54,16, 6, 9, 1, 8,27		8,21
20″	24,57,58,33,48,24, 2,47,13,13		1,49,30,51,28	
		1,54,16, 4,19,30,16,59		8,21
22″	24,58, 0,28, 4,28,22,17,30,12		1,49,30,59,49	
		1,54,16, 2,29,59,17,10		8,21
24″	24,58, 2,22,20,30,52,16,47,22		1,49,31, 8,10	
		1,54,16, 0,40,28, 9, 0		8,21
26″	24,58, 4,16,36,31,32,44,56,22		1,49,31,16,31	
		1,54,15,58,50,56,52,29		8,21
28″	24,58, 6,10,52,30,23,41,48,51		1,49,31,24,52	
		1,54,15,57, 1,25,27,37		8,21
30″	24,58, 8, 5, 8,27,25, 7,16,28		1,49,31,33,13	
		1,54,15,55,11,53,54,24		8,21
32″	24,58, 9,59,24,22,37, 1,10,52		1,49,31,41,34	
		1,54,15,53,22,22,12,50		8,21
34″	24,58,11,53,40,15,59,23,23,42		1,49,31,49,55	
		1,54,15,51,32,50,22,55		8,21
36″	24,58,13,47,56, 7,32,13,46,37		1,49,31,58,16	
		1,54,15,49,43,18,24,39		8,21
38″	24,58,15,42,11,57,15,32,11,16		1,49,32, 6,37	
		1,54,15,47,53,46,18, 2		8,21
40″	24,58,17,36,27,45, 9,18,29,18		1,49,32,14,58	
		1,54,15,46, 4,14, 3, 4		8,21
42″	24,58,19,30,43,31,13,32,32,22		1,49,32,23,19	
		1,54,15,44,14,41,39,45		8,21
44″	24,58,21,24,59,15,28,14,12, 7		1,49,32,31,40	
		1,54,15,42,25, 9, 8, 5		8,21
46″	24,58,23,19,14,57,53,23,20,12		1,49,32,40, 1	
		1,54,15,40,35,36,28, 4		8,21
48″	24,58,25,13,30,38,28,59,48,16		1,49,32,48,22	
		1,54,15,38,46, 3,39,42		8,21
50″	24,58,27, 7,46,17,15, 3,27,58		1,49,32,56,43	
		1,54,15,36,56,30,42,59		8,21
52″	24,58,29, 2, 1,54,11,34,10,57		1,49,33, 5, 4	
		1,54,15,35, 6,57,37,55		8,21
54″	24,58,30,56,17,29,18,31,48,52		1,49,33,13,25	
		1,54,15,33,17,24,24,30		8,21
56″	24,58,32,50,33, 2,35,56,13,22		1,49,33,21,46	
		1,54,15,31,27,51, 2,44		8,21
58″	24,58,34,44,48,34, 3,47,16, 6		1,49,33,30, 7	
		1,54,15,29,38,17,32,37		
60″	24,58,36,39, 4, 3,42, 4,48,43			
exact	24,58,36,39, 4, 3,42, 4,35,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°36′ 0″	24,58,36,39, 4, 3,42, 4,35,55			
		1,54,15,27,48,43,52,41		
2″	24,58,38,33,19,31,30,48,28,36		1,49,33,46,55	
		1,54,15,25,59,10, 5,46		8,21
4″	24,58,40,27,34,57,29,58,34,22		1,49,33,55,16	
		1,54,15,24, 9,36,10,30		8,21
6″	24,58,42,21,50,21,39,34,44,52		1,49,34, 3,37	
		1,54,15,22,20, 2, 6,53		8,21
8″	24,58,44,16, 5,43,59,36,51,45		1,49,34,11,58	
		1,54,15,20,30,27,54,55		8,21
10″	24,58,46,10,21, 4,30, 4,46,40		1,49,34,20,19	
		1,54,15,18,40,53,34,36		8,21
12″	24,58,48, 4,36,23,10,58,21,16		1,49,34,28,40	
		1,54,15,16,51,19, 5,56		8,21
14″	24,58,49,58,51,40, 2,17,27,12		1,49,34,37, 1	
		1,54,15,15, 1,44,28,55		8,21
16″	24,58,51,53, 6,55, 4, 1,56, 7		1,49,34,45,22	
		1,54,15,13,12, 9,43,33		8,21
18″	24,58,53,47,22, 8,16,11,39,40		1,49,34,53,43	
		1,54,15,11,22,34,49,50		8,21
20″	24,58,55,41,37,19,38,46,29,30		1,49,35, 2, 4	
		1,54,15, 9,32,59,47,46		8,21
22″	24,58,57,35,52,29,11,46,17,16		1,49,35,10,25	
		1,54,15, 7,43,24,37,21		8,21
24″	24,58,59,30, 7,36,55,10,54,37		1,49,35,18,46	
		1,54,15, 5,53,49,18,35		8,21
26″	24,59, 1,24,22,42,49, 0,13,12		1,49,35,27, 7	
		1,54,15, 4, 4,13,51,28		8,21
28″	24,59, 3,18,37,46,53,14, 4,40		1,49,35,35,28	
		1,54,15, 2,14,38,16, 0		8,21
30″	24,59, 5,12,52,49, 7,52,20,40		1,49,35,43,49	
		1,54,15, 0,25, 2,32,11		8,21
32″	24,59, 7, 7, 7,49,32,54,52,51		1,49,35,52,10	
		1,54,14,58,35,26,40, 1		8,21
34″	24,59, 9, 1,22,48, 8,21,32,52		1,49,36, 0,31	
		1,54,14,56,45,50,39,30		8,21
36″	24,59,10,55,37,44,54,12,12,22		1,49,36, 8,52	
		1,54,14,54,56,14,30,38		8,21
38″	24,59,12,49,52,39,50,26,43, 0		1,49,36,17,13	
		1,54,14,53, 6,38,13,25		8,21
40″	24,59,14,44, 7,32,57, 4,56,25		1,49,36,25,34	
		1,54,14,51,17, 1,47,51		8,21
42″	24,59,16,38,22,24,14, 6,44,16		1,49,36,33,55	
		1,54,14,49,27,25,13,56		8,21
44″	24,59,18,32,37,13,41,31,58,12		1,49,36,42,16	
		1,54,14,47,37,48,31,40		8,21
46″	24,59,20,26,52, 1,19,20,29,52		1,49,36,50,37	
		1,54,14,45,48,11,41, 3		8,21
48″	24,59,22,21, 6,47, 7,32,10,55		1,49,36,58,58	
		1,54,14,43,58,34,42, 5		8,21
50″	24,59,24,15,21,31, 6, 6,53, 0		1,49,37, 7,19	
		1,54,14,42, 8,57,34,46		8,21
52″	24,59,26, 9,36,13,15, 4,27,46		1,49,37,15,40	
		1,54,14,40,19,20,19, 6		8,21
54″	24,59,28, 3,50,53,34,24,46,52		1,49,37,24, 1	
		1,54,14,38,29,42,55, 5		8,21
56″	24,59,29,58, 5,32, 4, 7,41,57		1,49,37,32,22	
		1,54,14,36,40, 5,22,43		8,21
58″	24,59,31,52,20, 8,44,13, 4,40		1,49,37,40,43	
		1,54,14,34,50,27,42, 0		
60″	24,59,33,46,34,43,34,40,46,40			
exact	24,59,33,46,34,43,34,40,33,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°37′ 0″	24,59,33,46,34,43,34,40,33,35	1,54,14,33, 0,49,51,37		
2″	24,59,35,40,49,16,35,30,25,12	1,54,14,31,11,11,54, 7	1,49,37,57,30	8,21
4″	24,59,37,35, 3,47,46,42,19,19	1,54,14,29,21,33,48,16	1,49,38, 5,51	8,21
6″	24,59,39,29,18,17, 8,16, 7,35	1,54,14,27,31,55,34, 4	1,49,38,14,12	8,21
8″	24,59,41,23,32,44,40,11,41,39	1,54,14,25,42,17,11,31	1,49,38,22,33	8,21
10″	24,59,43,17,47,10,22,28,53,10	1,54,14,23,52,38,40,37	1,49,38,30,54	8,21
12″	24,59,45,12, 1,34,15, 7,33,47	1,54,14,22, 3, 0, 1,22	1,49,38,39,15	8,21
14″	24,59,47, 6,15,56,18, 7,35, 9	1,54,14,20,13,21,13,46	1,49,38,47,36	8,21
16″	24,59,49, 0,30,16,31,28,48,55	1,54,14,18,23,42,17,49	1,49,38,55,57	8,21
18″	24,59,50,54,44,34,55,11, 6,44	1,54,14,16,34, 3,13,31	1,49,39, 4,18	8,21
20″	24,59,52,48,58,51,29,14,20,15	1,54,14,14,44,24, 0,52	1,49,39,12,39	8,21
22″	24,59,54,43,13, 6,13,38,21, 7	1,54,14,12,54,44,39,52	1,49,39,21, 0	8,21
24″	24,59,56,37,27,19, 8,23, 0,59	1,54,14,11, 5, 5,10,31	1,49,39,29,21	8,21
26″	24,59,58,31,41,30,13,28,11,30	1,54,14, 9,15,25,32,49	1,49,39,37,42	8,21
28″	25, 0, 0,25,55,39,28,53,44,19	1,54,14, 7,25,45,46,46	1,49,39,46, 3	8,21
30″	25, 0, 2,20, 9,46,54,39,31, 5	1,54,14, 5,36, 5,52,22	1,49,39,54,24	8,21
32″	25, 0, 4,14,23,52,30,45,23,27	1,54,14, 3,46,25,49,37	1,49,40, 2,45	8,21
34″	25, 0, 6, 8,37,56,17,11,13, 4	1,54,14, 1,56,45,38,31	1,49,40,11, 6	8,21
36″	25, 0, 8, 2,51,58,13,56,51,35	1,54,14, 0, 7, 5,19, 4	1,49,40,19,27	8,21
38″	25, 0, 9,57, 5,58,21, 2,10,39	1,54,13,58,17,24,51,16	1,49,40,27,48	8,21
40″	25, 0,11,51,19,56,38,27, 1,55	1,54,13,56,27,44,15, 7	1,49,40,36, 9	8,21
42″	25, 0,13,45,33,53, 6,11,17, 2	1,54,13,54,38, 3,30,37	1,49,40,44,30	8,21
44″	25, 0,15,39,47,47,44,14,47,39	1,54,13,52,48,22,37,46	1,49,40,52,51	8,21
46″	25, 0,17,34, 1,40,32,37,25,25	1,54,13,50,58,41,36,34	1,49,41, 1,12	8,21
48″	25, 0,19,28,15,31,31,19, 1,59	1,54,13,49, 9, 0,27, 1	1,49,41, 9,33	8,21
50″	25, 0,21,22,29,20,40,19,29, 0	1,54,13,47,19,19, 9, 7	1,49,41,17,54	8,21
52″	25, 0,23,16,43, 7,59,38,38, 7	1,54,13,45,29,37,42,52	1,49,41,26,15	8,21
54″	25, 0,25,10,56,53,29,16,20,59	1,54,13,43,39,56, 8,16	1,49,41,34,36	8,21
56″	25, 0,27, 5,10,37, 9,12,29,15	1,54,13,41,50,14,25,19	1,49,41,42,57	8,21
58″	25, 0,28,59,24,18,59,26,54,34	1,54,13,40, 0,32,34, 1	1,49,41,51,18	
60″	25, 0,30,53,37,58,59,59,28,35			
exact	25, 0,30,53,37,58,59,59,22,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°38′ 0″	25, 0,30,53,37,58,59,59,22,17			
		1,54,13,38,10,50,33,42		
2″	25, 0,32,47,51,37,10,49,55,59		1,49,42, 8, 3	
		1,54,13,36,21, 8,25,39		8,21
4″	25, 0,34,42, 5,13,31,58,21,38		1,49,42,16,24	
		1,54,13,34,31,26, 9,15		8,21
6″	25, 0,36,36,18,48, 3,24,30,53		1,49,42,24,45	
		1,54,13,32,41,43,44,30		8,21
8″	25, 0,38,30,32,20,45, 8,15,23		1,49,42,33, 6	
		1,54,13,30,52, 1,11,24		8,21
10″	25, 0,40,24,45,51,37, 9,26,47		1,49,42,41,27	
		1,54,13,29, 2,18,29,57		8,21
12″	25, 0,42,18,59,20,39,27,56,44		1,49,42,49,48	
		1,54,13,27,12,35,40, 9		8,21
14″	25, 0,44,13,12,47,52, 3,36,53		1,49,42,58, 9	
		1,54,13,25,22,52,42, 0		8,21
16″	25, 0,46, 7,26,13,14,56,18,53		1,49,43, 6,30	
		1,54,13,23,33, 9,35,30		8,21
18″	25, 0,48, 1,39,36,48, 5,54,23		1,49,43,14,51	
		1,54,13,21,43,26,20,39		8,21
20″	25, 0,49,55,52,58,31,32,15, 2		1,49,43,23,12	
		1,54,13,19,53,42,57,27		8,21
22″	25, 0,51,50, 6,18,25,15,12,29		1,49,43,31,33	
		1,54,13,18, 3,59,25,54		8,21
24″	25, 0,53,44,19,36,29,14,38,23		1,49,43,39,54	
		1,54,13,16,14,15,46, 0		8,21
26″	25, 0,55,38,32,52,43,30,24,23		1,49,43,48,15	
		1,54,13,14,24,31,57,45		8,21
28″	25, 0,57,32,46, 7, 8, 2,22, 8		1,49,43,56,36	
		1,54,13,12,34,48, 1, 9		8,21
30″	25, 0,59,26,59,19,42,50,23,17		1,49,44, 4,57	
		1,54,13,10,45, 3,56,12		8,21
32″	25, 1, 1,21,12,30,27,54,19,29		1,49,44,13,18	
		1,54,13, 8,55,19,42,54		8,21
34″	25, 1, 3,15,25,39,23,14, 2,23		1,49,44,21,39	
		1,54,13, 7, 5,35,21,15		8,21
36″	25, 1, 5, 9,38,46,28,49,23,38		1,49,44,30, 0	
		1,54,13, 5,15,50,51,15		8,21
38″	25, 1, 7, 3,51,51,44,40,14,53		1,49,44,38,21	
		1,54,13, 3,26, 6,12,54		8,21
40″	25, 1, 8,58, 4,55,10,46,27,47		1,49,44,46,42	
		1,54,13, 1,36,21,26,12		8,21
42″	25, 1,10,52,17,56,47, 7,53,59		1,49,44,55, 3	
		1,54,12,59,46,36,31, 9		8,21
44″	25, 1,12,46,30,56,33,44,25, 8		1,49,45, 3,24	
		1,54,12,57,56,51,27,45		8,21
46″	25, 1,14,40,43,54,30,35,52,53		1,49,45,11,45	
		1,54,12,56, 7, 6,16, 0		8,21
48″	25, 1,16,34,56,50,37,42, 8,53		1,49,45,20, 6	
		1,54,12,54,17,20,55,54		8,21
50″	25, 1,18,29, 9,44,55, 3, 4,47		1,49,45,28,27	
		1,54,12,52,27,35,27,27		8,21
52″	25, 1,20,23,22,37,22,38,32,14		1,49,45,36,48	
		1,54,12,50,37,49,50,39		8,21
54″	25, 1,22,17,35,28, 0,28,22,53		1,49,45,45, 9	
		1,54,12,48,48, 4, 5,30		8,21
56″	25, 1,24,11,48,16,48,32,28,23		1,49,45,53,30	
		1,54,12,46,58,18,12, 0		8,21
58″	25, 1,26, 6, 1, 3,46,50,40,23		1,49,46, 1,51	
		1,54,12,45, 8,32,10, 9		
60″	25, 1,28, 0,13,48,55,22,50,32			
exact	25, 1,28, 0,13,48,55,22,50,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°39′ 0″	25, 1,28, 0,13,48,55,22,50,54	1,54,12,43,18,45,59,55		
2″	25, 1,29,54,26,32,14, 8,50,49	1,54,12,41,28,59,41,22	1,49,46,18,33	8,21
4″	25, 1,31,48,39,13,43, 8,32,11	1,54,12,39,39,13,14,28	1,49,46,26,54	8,21
6″	25, 1,33,42,51,53,22,21,46,39	1,54,12,37,49,26,39,13	1,49,46,35,15	8,21
8″	25, 1,35,37, 4,31,11,48,25,52	1,54,12,35,59,39,55,37	1,49,46,43,36	8,21
10″	25, 1,37,31,17, 7,11,28,21,29	1,54,12,34, 9,53, 3,40	1,49,46,51,57	8,21
12″	25, 1,39,25,29,41,21,21,25, 9	1,54,12,32,20, 6, 3,22	1,49,47, 0,18	8,21
14″	25, 1,41,19,42,13,41,27,28,31	1,54,12,30,30,18,54,43	1,49,47, 8,39	8,21
16″	25, 1,43,13,54,44,11,46,23,14	1,54,12,28,40,31,37,43	1,49,47,17, 0	8,21
18″	25, 1,45, 8, 7,12,52,18, 0,57	1,54,12,26,50,44,12,22	1,49,47,25,21	8,21
20″	25, 1,47, 2,19,39,43, 2,13,19	1,54,12,25, 0,56,38,40	1,49,47,33,42	8,21
22″	25, 1,48,56,32, 4,43,58,51,59	1,54,12,23,11, 8,56,37	1,49,47,42, 3	8,21
24″	25, 1,50,50,44,27,55, 7,48,36	1,54,12,21,21,21, 6,13	1,49,47,50,24	8,21
26″	25, 1,52,44,56,49,16,28,54,49	1,54,12,19,31,33, 7,28	1,49,47,58,45	8,21
28″	25, 1,54,39, 9, 8,48, 2, 2,17	1,54,12,17,41,45, 0,22	1,49,48, 7, 6	8,21
30″	25, 1,56,33,21,26,29,47, 2,39	1,54,12,15,51,56,44,55	1,49,48,15,27	8,21
32″	25, 1,58,27,33,42,21,43,47,34	1,54,12,14, 2, 8,21, 7	1,49,48,23,48	8,21
34″	25, 2, 0,21,45,56,23,52, 8,41	1,54,12,12,12,19,48,58	1,49,48,32, 9	8,21
36″	25, 2, 2,15,58, 8,36,11,57,39	1,54,12,10,22,31, 8,28	1,49,48,40,30	8,21
38″	25, 2, 4,10,10,18,58,43, 6, 7	1,54,12, 8,32,42,19,37	1,49,48,48,51	8,21
40″	25, 2, 6, 4,22,27,31,25,25,44	1,54,12, 6,42,53,22,25	1,49,48,57,12	8,21
42″	25, 2, 7,58,34,34,14,18,48, 9	1,54,12, 4,53, 4,16,52	1,49,49, 5,33	8,21
44″	25, 2, 9,52,46,39, 7,23, 5, 1	1,54,12, 3, 3,15, 2,58	1,49,49,13,54	8,21
46″	25, 2,11,46,58,42,10,38, 7,59	1,54,12, 1,13,25,40,43	1,49,49,22,15	8,21
48″	25, 2,13,41,10,43,24, 3,48,42	1,54,11,59,23,36,10, 7	1,49,49,30,36	8,21
50″	25, 2,15,35,22,42,47,39,58,49	1,54,11,57,33,46,31,10	1,49,49,38,57	8,21
52″	25, 2,17,29,34,40,21,26,29,59	1,54,11,55,43,56,43,52	1,49,49,47,18	8,21
54″	25, 2,19,23,46,36, 5,23,13,51	1,54,11,53,54, 6,48,13	1,49,49,55,39	8,21
56″	25, 2,21,17,58,29,59,30, 2, 4	1,54,11,52, 4,16,44,13	1,49,50, 4, 0	8,21
58″	25, 2,23,12,10,22, 3,46,46,17	1,54,11,50,14,26,31,52	1,49,50,12,21	
60″	25, 2,25, 6,22,12,18,13,18, 9			
exact	25, 2,25, 6,22,12,18,13,18,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°40′ 0″	25, 2,25, 6,22,12,18,13,18,21			
		1,54,11,48,24,36,11,17		
2″	25, 2,27, 0,34, 0,42,49,29,38		1,49,50,29, 2	
		1,54,11,46,34,45,42,15		8,21
4″	25, 2,28,54,45,47,17,35,11,53		1,49,50,37,23	
		1,54,11,44,44,55, 4,52		8,21
6″	25, 2,30,48,57,32, 2,30,16,45		1,49,50,45,44	
		1,54,11,42,55, 4,19, 8		8,21
8″	25, 2,32,43, 9,14,57,34,35,53		1,49,50,54, 5	
		1,54,11,41, 5,13,25, 3		8,21
10″	25, 2,34,37,20,56, 2,48, 0,56		1,49,51, 2,26	
		1,54,11,39,15,22,22,37		8,21
12″	25, 2,36,31,32,35,18,10,23,33		1,49,51,10,47	
		1,54,11,37,25,31,11,50		8,21
14″	25, 2,38,25,44,12,43,41,35,23		1,49,51,19, 8	
		1,54,11,35,35,39,52,42		8,21
16″	25, 2,40,19,55,48,19,21,28, 5		1,49,51,27,29	
		1,54,11,33,45,48,25,13		8,21
18″	25, 2,42,14, 7,22, 5, 9,53,18		1,49,51,35,50	
		1,54,11,31,55,56,49,23		8,21
20″	25, 2,44, 8,18,54, 1, 6,42,41		1,49,51,44,11	
		1,54,11,30, 6, 5, 5,12		8,21
22″	25, 2,46, 2,30,24, 7,11,47,53		1,49,51,52,32	
		1,54,11,28,16,13,12,40		8,21
24″	25, 2,47,56,41,52,23,25, 0,33		1,49,52, 0,53	
		1,54,11,26,26,21,11,47		8,21
26″	25, 2,49,50,53,18,49,46,12,20		1,49,52, 9,14	
		1,54,11,24,36,29, 2,33		8,21
28″	25, 2,51,45, 4,43,26,15,14,53		1,49,52,17,35	
		1,54,11,22,46,36,44,58		8,21
30″	25, 2,53,39,16, 6,12,51,59,51		1,49,52,25,56	
		1,54,11,20,56,44,19, 2		8,21
32″	25, 2,55,33,27,27, 9,36,18,53		1,49,52,34,17	
		1,54,11,19, 6,51,44,45		8,21
34″	25, 2,57,27,38,46,16,28, 3,38		1,49,52,42,38	
		1,54,11,17,16,59, 2, 7		8,21
36″	25, 2,59,21,50, 3,33,27, 5,45		1,49,52,50,59	
		1,54,11,15,27, 6,11, 8		8,21
38″	25, 3, 1,16, 1,19, 0,33,16,53		1,49,52,59,20	
		1,54,11,13,37,13,11,48		8,21
40″	25, 3, 3,10,12,32,37,46,28,41		1,49,53, 7,41	
		1,54,11,11,47,20, 4, 7		8,21
42″	25, 3, 5, 4,23,44,25, 6,32,48		1,49,53,16, 2	
		1,54,11, 9,57,26,48, 5		8,21
44″	25, 3, 6,58,34,54,22,33,20,53		1,49,53,24,23	
		1,54,11, 8, 7,33,23,42		8,21
46″	25, 3, 8,52,46, 2,30, 6,44,35		1,49,53,32,44	
		1,54,11, 6,17,39,50,58		8,21
48″	25, 3,10,46,57, 8,47,46,35,33		1,49,53,41, 5	
		1,54,11, 4,27,46, 9,53		8,21
50″	25, 3,12,41, 8,13,15,32,45,26		1,49,53,49,26	
		1,54,11, 2,37,52,20,27		8,21
52″	25, 3,14,35,19,15,53,25, 5,53		1,49,53,57,47	
		1,54,11, 0,47,58,22,40		8,21
54″	25, 3,16,29,30,16,41,23,28,33		1,49,54, 6, 8	
		1,54,10,58,58, 4,16,32		8,21
56″	25, 3,18,23,41,15,39,27,45, 5		1,49,54,14,29	
		1,54,10,57, 8,10, 2, 3		8,21
58″	25, 3,20,17,52,12,47,37,47, 8		1,49,54,22,50	
		1,54,10,55,18,15,39,13		
60″	25, 3,22,12, 3, 8, 5,53,26,21			
exact	25, 3,22,12, 3, 8, 5,53,33,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°41′ 0″	25, 3,22,12, 3, 8, 5,53,33,40	1,54,10,53,28,21, 8,49		
2″	25, 3,24, 6,14, 1,34,14,42,29	1,54,10,51,38,26,29,20	1,49,54,39,29	8,21
4″	25, 3,26, 0,24,53,12,41,11,49	1,54,10,49,48,31,41,30	1,49,54,47,50	8,21
6″	25, 3,27,54,35,43, 1,12,53,19	1,54,10,47,58,36,45,19	1,49,54,56,11	8,21
8″	25, 3,29,48,46,30,59,49,38,38	1,54,10,46, 8,41,40,47	1,49,55, 4,32	8,21
10″	25, 3,31,42,57,17, 8,31,19,25	1,54,10,44,18,46,27,54	1,49,55,12,53	8,21
12″	25, 3,33,37, 8, 1,27,17,47,19	1,54,10,42,28,51, 6,40	1,49,55,21,14	8,21
14″	25, 3,35,31,18,43,56, 8,53,59	1,54,10,40,38,55,37, 5	1,49,55,29,35	8,21
16″	25, 3,37,25,29,24,35, 4,31, 4	1,54,10,38,48,59,59, 9	1,49,55,37,56	8,21
18″	25, 3,39,19,40, 3,24, 4,30,13	1,54,10,36,59, 4,12,52	1,49,55,46,17	8,21
20″	25, 3,41,13,50,40,23, 8,43, 5	1,54,10,35, 9, 8,18,14	1,49,55,54,38	8,21
22″	25, 3,43, 8, 1,15,32,17, 1,19	1,54,10,33,19,12,15,15	1,49,56, 2,59	8,21
24″	25, 3,45, 2,11,48,51,29,16,34	1,54,10,31,29,16, 3,55	1,49,56,11,20	8,21
26″	25, 3,46,56,22,20,20,45,20,29	1,54,10,29,39,19,44,14	1,49,56,19,41	8,21
28″	25, 3,48,50,32,50, 0, 5, 4,43	1,54,10,27,49,23,16,12	1,49,56,28, 2	8,21
30″	25, 3,50,44,43,17,49,28,20,55	1,54,10,25,59,26,39,49	1,49,56,36,23	8,21
32″	25, 3,52,38,53,43,48,55, 0,44	1,54,10,24, 9,29,55, 5	1,49,56,44,44	8,21
34″	25, 3,54,33, 4, 7,58,24,55,49	1,54,10,22,19,33, 2, 0	1,49,56,53, 5	8,21
36″	25, 3,56,27,14,30,17,57,57,49	1,54,10,20,29,36, 0,34	1,49,57, 1,26	8,21
38″	25, 3,58,21,24,50,47,33,58,23	1,54,10,18,39,38,50,47	1,49,57, 9,47	8,21
40″	25, 4, 0,15,35, 9,27,12,49,10	1,54,10,16,49,41,32,39	1,49,57,18, 8	8,21
42″	25, 4, 2, 9,45,26,16,54,21,49	1,54,10,14,59,44, 6,10	1,49,57,26,29	8,21
44″	25, 4, 4, 3,55,41,16,38,27,59	1,54,10,13, 9,46,31,20	1,49,57,34,50	8,21
46″	25, 4, 5,58, 5,54,26,24,59,19	1,54,10,11,19,48,48, 9	1,49,57,43,11	8,21
48″	25, 4, 7,52,16, 5,46,13,47,28	1,54,10, 9,29,50,56,37	1,49,57,51,32	8,21
50″	25, 4, 9,46,26,15,16, 4,44, 5	1,54,10, 7,39,52,56,44	1,49,57,59,53	8,21
52″	25, 4,11,40,36,22,55,57,40,49	1,54,10, 5,49,54,48,30	1,49,58, 8,14	8,21
54″	25, 4,13,34,46,28,45,52,29,19	1,54,10, 3,59,56,31,55	1,49,58,16,35	8,21
56″	25, 4,15,28,56,32,45,49, 1,14	1,54,10, 2, 9,58, 6,59	1,49,58,24,56	8,21
58″	25, 4,17,23, 6,34,55,47, 8,13	1,54,10, 0,19,59,33,42	1,49,58,33,17	
60″	25, 4,19,17,16,35,15,46,41,55			
exact	25, 4,19,17,16,35,15,46,56, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°42′ 0″	25, 4,19,17,16,35,15,46,56, 2	1,54, 9,58,30, 0,53,30		
2″	25, 4,21,11,26,33,45,47,49,32	1,54, 9,56,40, 2, 3,37	1,49,58,49,53	8,21
4″	25, 4,23, 5,36,30,25,49,53, 9	1,54, 9,54,50, 3, 5,23	1,49,58,58,14	8,21
6″	25, 4,24,59,46,25,15,52,58,32	1,54, 9,53, 0, 3,58,48	1,49,59, 6,35	8,21
8″	25, 4,26,53,56,18,15,56,57,20	1,54, 9,51,10, 4,43,52	1,49,59,14,56	8,21
10″	25, 4,28,48, 6, 9,26, 1,41,12	1,54, 9,49,20, 5,20,35	1,49,59,23,17	8,21
12″	25, 4,30,42,15,58,46, 7, 1,47	1,54, 9,47,30, 5,48,57	1,49,59,31,38	8,21
14″	25, 4,32,36,25,46,16,12,50,44	1,54, 9,45,40, 6, 8,58	1,49,59,39,59	8,21
16″	25, 4,34,30,35,31,56,18,59,42	1,54, 9,43,50, 6,20,38	1,49,59,48,20	8,21
18″	25, 4,36,24,45,15,46,25,20,20	1,54, 9,42, 0, 6,23,57	1,49,59,56,41	8,21
20″	25, 4,38,18,54,57,46,31,44,17	1,54, 9,40,10, 6,18,55	1,50, 0, 5, 2	8,21
22″	25, 4,40,13, 4,37,56,38, 3,12	1,54, 9,38,20, 6, 5,32	1,50, 0,13,23	8,21
24″	25, 4,42, 7,14,16,16,44, 8,44	1,54, 9,36,30, 5,43,48	1,50, 0,21,44	8,21
26″	25, 4,44, 1,23,52,46,49,52,32	1,54, 9,34,40, 5,13,43	1,50, 0,30, 5	8,21
28″	25, 4,45,55,33,27,26,55, 6,15	1,54, 9,32,50, 4,35,17	1,50, 0,38,26	8,21
30″	25, 4,47,49,43, 0,16,59,41,32	1,54, 9,31, 0, 3,48,30	1,50, 0,46,47	8,21
32″	25, 4,49,43,52,31,17, 3,30, 2	1,54, 9,29,10, 2,53,22	1,50, 0,55, 8	8,21
34″	25, 4,51,38, 2, 0,27, 6,23,24	1,54, 9,27,20, 1,49,53	1,50, 1, 3,29	8,21
36″	25, 4,53,32,11,27,47, 8,13,17	1,54, 9,25,30, 0,38, 3	1,50, 1,11,50	8,21
38″	25, 4,55,26,20,53,17, 8,51,20	1,54, 9,23,39,59,17,52	1,50, 1,20,11	8,21
40″	25, 4,57,20,30,16,57, 8, 9,12	1,54, 9,21,49,57,49,20	1,50, 1,28,32	8,21
42″	25, 4,59,14,39,38,47, 5,58,32	1,54, 9,19,59,56,12,27	1,50, 1,36,53	8,21
44″	25, 5, 1, 8,48,58,47, 2,10,59	1,54, 9,18, 9,54,27,13	1,50, 1,45,14	8,21
46″	25, 5, 3, 2,58,16,56,56,38,12	1,54, 9,16,19,52,33,38	1,50, 1,53,35	8,21
48″	25, 5, 4,57, 7,33,16,49,11,50	1,54, 9,14,29,50,31,42	1,50, 2, 1,56	8,21
50″	25, 5, 6,51,16,47,46,39,43,32	1,54, 9,12,39,48,21,25	1,50, 2,10,17	8,21
52″	25, 5, 8,45,26, 0,26,28, 4,57	1,54, 9,10,49,46, 2,47	1,50, 2,18,38	8,21
54″	25, 5,10,39,35,11,16,14, 7,44	1,54, 9, 8,59,43,35,48	1,50, 2,26,59	8,21
56″	25, 5,12,33,44,20,15,57,43,32	1,54, 9, 7, 9,41, 0,28	1,50, 2,35,20	8,21
58″	25, 5,14,27,53,27,25,38,44, 0	1,54, 9, 5,19,38,16,47	1,50, 2,43,41	
60″	25, 5,16,22, 2,32,45,17, 0,47			
exact	25, 5,16,22, 2,32,45,17,14,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°43′ 0″	25, 5,16,22, 2,32,45,17,14,42	1,54, 9, 3,29,35,26,21		
2″	25, 5,18,16,11,36,14,52,41, 3	1,54, 9, 1,39,32,26, 5	1,50, 3, 0,16	8,21
4″	25, 5,20,10,20,37,54,25, 7, 8	1,54, 8,59,49,29,17,28	1,50, 3, 8,37	8,21
6″	25, 5,22, 4,29,37,43,54,24,36	1,54, 8,57,59,26, 0,30	1,50, 3,16,58	8,21
8″	25, 5,23,58,38,35,43,20,25, 6	1,54, 8,56, 9,22,35,11	1,50, 3,25,19	8,21
10″	25, 5,25,52,47,31,52,43, 0,17	1,54, 8,54,19,19, 1,31	1,50, 3,33,40	8,21
12″	25, 5,27,46,56,26,12, 2, 1,48	1,54, 8,52,29,15,19,30	1,50, 3,42, 1	8,21
14″	25, 5,29,41, 5,18,41,17,21,18	1,54, 8,50,39,11,29, 8	1,50, 3,50,22	8,21
16″	25, 5,31,35,14, 9,20,28,50,26	1,54, 8,48,49, 7,30,25	1,50, 3,58,43	8,21
18″	25, 5,33,29,22,58, 9,36,20,51	1,54, 8,46,59, 3,23,21	1,50, 4, 7, 4	8,21
20″	25, 5,35,23,31,45, 8,39,44,12	1,54, 8,45, 8,59, 7,56	1,50, 4,15,25	8,21
22″	25, 5,37,17,40,30,17,38,52, 8	1,54, 8,43,18,54,44,10	1,50, 4,23,46	8,21
24″	25, 5,39,11,49,13,36,33,36,18	1,54, 8,41,28,50,12, 3	1,50, 4,32, 7	8,21
26″	25, 5,41, 5,57,55, 5,23,48,21	1,54, 8,39,38,45,31,35	1,50, 4,40,28	8,21
28″	25, 5,43, 0, 6,34,44, 9,19,56	1,54, 8,37,48,40,42,46	1,50, 4,48,49	8,21
30″	25, 5,44,54,15,12,32,50, 2,42	1,54, 8,35,58,35,45,36	1,50, 4,57,10	8,21
32″	25, 5,46,48,23,48,31,25,48,18	1,54, 8,34, 8,30,40, 5	1,50, 5, 5,31	8,21
34″	25, 5,48,42,32,22,39,56,28,23	1,54, 8,32,18,25,26,13	1,50, 5,13,52	8,21
36″	25, 5,50,36,40,54,58,21,54,36	1,54, 8,30,28,20, 4, 0	1,50, 5,22,13	8,21
38″	25, 5,52,30,49,25,26,41,58,36	1,54, 8,28,38,14,33,26	1,50, 5,30,34	8,21
40″	25, 5,54,24,57,54, 4,56,32, 2	1,54, 8,26,48, 8,54,31	1,50, 5,38,55	8,21
42″	25, 5,56,19, 6,20,53, 5,26,33	1,54, 8,24,58, 3, 7,15	1,50, 5,47,16	8,21
44″	25, 5,58,13,14,45,51, 8,33,48	1,54, 8,23, 7,57,11,38	1,50, 5,55,37	8,21
46″	25, 6, 0, 7,23, 8,59, 5,45,26	1,54, 8,21,17,51, 7,40	1,50, 6, 3,58	8,21
48″	25, 6, 2, 1,31,30,16,56,53, 6	1,54, 8,19,27,44,55,21	1,50, 6,12,19	8,21
50″	25, 6, 3,55,39,49,44,41,48,27	1,54, 8,17,37,38,34,41	1,50, 6,20,40	8,21
52″	25, 6, 5,49,48, 7,22,20,23, 8	1,54, 8,15,47,32, 5,40	1,50, 6,29, 1	8,21
54″	25, 6, 7,43,56,23, 9,52,28,48	1,54, 8,13,57,25,28,18	1,50, 6,37,22	8,21
56″	25, 6, 9,38, 4,37, 7,17,57, 6	1,54, 8,12, 7,18,42,35	1,50, 6,45,43	8,21
58″	25, 6,11,32,12,49,14,36,39,41	1,54, 8,10,17,11,48,31	1,50, 6,54, 4	
60″	25, 6,13,26,20,59,31,48,28,12			
exact	25, 6,13,26,20,59,31,48,49, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°44′ 0″	25, 6,13,26,20,59,31,48,49, 7	1,54, 8, 8,27, 4,48,21		
2″	25, 6,15,20,29, 7,58,53,37,28	1,54, 8, 6,36,57,37,45	1,50, 7,10,36	8,21
4″	25, 6,17,14,37,14,35,51,15,13	1,54, 8, 4,46,50,18,48	1,50, 7,18,57	8,21
6″	25, 6,19, 8,45,19,22,41,34, 1	1,54, 8, 2,56,42,51,30	1,50, 7,27,18	8,21
8″	25, 6,21, 2,53,22,19,24,25,31	1,54, 8, 1, 6,35,15,51	1,50, 7,35,39	8,21
10″	25, 6,22,57, 1,23,25,59,41,22	1,54, 7,59,16,27,31,51	1,50, 7,44, 0	8,21
12″	25, 6,24,51, 9,22,42,27,13,13	1,54, 7,57,26,19,39,30	1,50, 7,52,21	8,21
14″	25, 6,26,45,17,20, 8,46,52,43	1,54, 7,55,36,11,38,48	1,50, 8, 0,42	8,21
16″	25, 6,28,39,25,15,44,58,31,31	1,54, 7,53,46, 3,29,45	1,50, 8, 9, 3	8,21
18″	25, 6,30,33,33, 9,31, 2, 1,16	1,54, 7,51,55,55,12,21	1,50, 8,17,24	8,21
20″	25, 6,32,27,41, 1,26,57,13,37	1,54, 7,50, 5,46,46,36	1,50, 8,25,45	8,21
22″	25, 6,34,21,48,51,32,44, 0,13	1,54, 7,48,15,38,12,30	1,50, 8,34, 6	8,21
24″	25, 6,36,15,56,39,48,22,12,43	1,54, 7,46,25,29,30, 3	1,50, 8,42,27	8,21
26″	25, 6,38,10, 4,26,13,51,42,46	1,54, 7,44,35,20,39,15	1,50, 8,50,48	8,21
28″	25, 6,40, 4,12,10,49,12,22, 1	1,54, 7,42,45,11,40, 6	1,50, 8,59, 9	8,21
30″	25, 6,41,58,19,53,34,24, 2, 7	1,54, 7,40,55, 2,32,36	1,50, 9, 7,30	8,21
32″	25, 6,43,52,27,34,29,26,34,43	1,54, 7,39, 4,53,16,45	1,50, 9,15,51	8,21
34″	25, 6,45,46,35,13,34,19,51,28	1,54, 7,37,14,43,52,33	1,50, 9,24,12	8,21
36″	25, 6,47,40,42,50,49, 3,44, 1	1,54, 7,35,24,34,20, 0	1,50, 9,32,33	8,21
38″	25, 6,49,34,50,26,13,38, 4, 1	1,54, 7,33,34,24,39, 6	1,50, 9,40,54	8,21
40″	25, 6,51,28,57,59,48, 2,43, 7	1,54, 7,31,44,14,49,51	1,50, 9,49,15	8,21
42″	25, 6,53,23, 5,31,32,17,32,58	1,54, 7,29,54, 4,52,15	1,50, 9,57,36	8,21
44″	25, 6,55,17,13, 1,26,22,25,13	1,54, 7,28, 3,54,46,18	1,50,10, 5,57	8,21
46″	25, 6,57,11,20,29,30,17,11,31	1,54, 7,26,13,44,32, 0	1,50,10,14,18	8,21
48″	25, 6,59, 5,27,55,44, 1,43,31	1,54, 7,24,23,34, 9,21	1,50,10,22,39	8,21
50″	25, 7, 0,59,35,20, 7,35,52,52	1,54, 7,22,33,23,38,21	1,50,10,31, 0	8,21
52″	25, 7, 2,53,42,42,40,59,31,13	1,54, 7,20,43,12,59, 0	1,50,10,39,21	8,21
54″	25, 7, 4,47,50, 3,24,12,30,13	1,54, 7,18,53, 2,11,18	1,50,10,47,42	8,21
56″	25, 7, 6,41,57,22,17,14,41,31	1,54, 7,17, 2,51,15,15	1,50,10,56, 3	8,21
58″	25, 7, 8,36, 4,39,20, 5,56,46	1,54, 7,15,12,40,10,51	1,50,11, 4,24	
60″	25, 7,10,30,11,54,32,46, 7,37			
exact	25, 7,10,30,11,54,32,46,28,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°45′ 0″	25, 7,10,30,11,54,32,46,28,53	1,54, 7,13,22,29, 0,32		
2″	25, 7,12,24,19, 7,55,15,29,25	1,54, 7,11,32,17,39,37	1,50,11,20,55	8,21
4″	25, 7,14,18,26,19,27,33, 9, 2	1,54, 7, 9,42, 6,10,21	1,50,11,29,16	8,21
6″	25, 7,16,12,33,29, 9,39,19,23	1,54, 7, 7,51,54,32,44	1,50,11,37,37	8,21
8″	25, 7,18, 6,40,37, 1,33,52, 7	1,54, 7, 6, 1,42,46,46	1,50,11,45,58	8,21
10″	25, 7,20, 0,47,43, 3,16,38,53	1,54, 7, 4,11,30,52,27	1,50,11,54,19	8,21
12″	25, 7,21,54,54,47,14,47,31,20	1,54, 7, 2,21,18,49,47	1,50,12, 2,40	8,21
14″	25, 7,23,49, 1,49,36, 6,21, 7	1,54, 7, 0,31, 6,38,46	1,50,12,11, 1	8,21
16″	25, 7,25,43, 8,50, 7,12,59,53	1,54, 6,58,40,54,19,24	1,50,12,19,22	8,21
18″	25, 7,27,37,15,48,48, 7,19,17	1,54, 6,56,50,41,51,41	1,50,12,27,43	8,21
20″	25, 7,29,31,22,45,38,49,10,58	1,54, 6,55, 0,29,15,37	1,50,12,36, 4	8,21
22″	25, 7,31,25,29,40,39,18,26,35	1,54, 6,53,10,16,31,12	1,50,12,44,25	8,21
24″	25, 7,33,19,36,33,49,34,57,47	1,54, 6,51,20, 3,38,26	1,50,12,52,46	8,21
26″	25, 7,35,13,43,25, 9,38,36,13	1,54, 6,49,29,50,37,19	1,50,13, 1, 7	8,21
28″	25, 7,37, 7,50,14,39,29,13,32	1,54, 6,47,39,37,27,51	1,50,13, 9,28	8,21
30″	25, 7,39, 1,57, 2,19, 6,41,23	1,54, 6,45,49,24,10, 2	1,50,13,17,49	8,21
32″	25, 7,40,56, 3,48, 8,30,51,25	1,54, 6,43,59,10,43,52	1,50,13,26,10	8,21
34″	25, 7,42,50,10,32, 7,41,35,17	1,54, 6,42, 8,57, 9,21	1,50,13,34,31	8,21
36″	25, 7,44,44,17,14,16,38,44,38	1,54, 6,40,18,43,26,29	1,50,13,42,52	8,21
38″	25, 7,46,38,23,54,35,22,11, 7	1,54, 6,38,28,29,35,16	1,50,13,51,13	8,21
40″	25, 7,48,32,30,33, 3,51,46,23	1,54, 6,36,38,15,35,42	1,50,13,59,34	8,21
42″	25, 7,50,26,37, 9,42, 7,22, 5	1,54, 6,34,48, 1,27,47	1,50,14, 7,55	8,21
44″	25, 7,52,20,43,44,30, 8,49,52	1,54, 6,32,57,47,11,31	1,50,14,16,16	8,21
46″	25, 7,54,14,50,17,27,56, 1,23	1,54, 6,31, 7,32,46,54	1,50,14,24,37	8,21
48″	25, 7,56, 8,56,48,35,28,48,17	1,54, 6,29,17,18,13,56	1,50,14,32,58	8,21
50″	25, 7,58, 3, 3,17,52,47, 2,13	1,54, 6,27,27, 3,32,37	1,50,14,41,19	8,21
52″	25, 7,59,57, 9,45,19,50,34,50	1,54, 6,25,36,48,42,57	1,50,14,49,40	8,21
54″	25, 8, 1,51,16,10,56,39,17,47	1,54, 6,23,46,33,44,56	1,50,14,58, 1	8,21
56″	25, 8, 3,45,22,34,43,13, 2,43	1,54, 6,21,56,18,38,34	1,50,15, 6,22	8,21
58″	25, 8, 5,39,28,56,39,31,41,17	1,54, 6,20, 6, 3,23,51	1,50,15,14,43	
60″	25, 8, 7,33,35,16,45,35, 5, 8			
exact	25, 8, 7,33,35,16,45,35,33,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°46′ 0″	25, 8, 7,33,35,16,45,35,33,47	1,54, 6,18,15,48, 3,54		
2″	25, 8, 9,27,41,35, 1,23,37,41	1,54, 6,16,25,32,32,42	1,50,15,31,12	8,21
4″	25, 8,11,21,47,51,26,56,10,23	1,54, 6,14,35,16,53, 9	1,50,15,39,33	8,21
6″	25, 8,13,15,54, 6, 2,13, 3,32	1,54, 6,12,45, 1, 5,15	1,50,15,47,54	8,21
8″	25, 8,15,10, 0,18,47,14, 8,47	1,54, 6,10,54,45, 9, 0	1,50,15,56,15	8,21
10″	25, 8,17, 4, 6,29,41,59,17,47	1,54, 6, 9, 4,29, 4,24	1,50,16, 4,36	8,21
12″	25, 8,18,58,12,38,46,28,22,11	1,54, 6, 7,14,12,51,27	1,50,16,12,57	8,21
14″	25, 8,20,52,18,46, 0,41,13,38	1,54, 6, 5,23,56,30, 9	1,50,16,21,18	8,21
16″	25, 8,22,46,24,51,24,37,43,47	1,54, 6, 3,33,40, 0,30	1,50,16,29,39	8,21
18″	25, 8,24,40,30,54,58,17,44,17	1,54, 6, 1,43,23,22,30	1,50,16,38, 0	8,21
20″	25, 8,26,34,36,56,41,41, 6,47	1,54, 5,59,53, 6,36, 9	1,50,16,46,21	8,21
22″	25, 8,28,28,42,56,34,47,42,56	1,54, 5,58, 2,49,41,27	1,50,16,54,42	8,21
24″	25, 8,30,22,48,54,37,37,24,23	1,54, 5,56,12,32,38,24	1,50,17, 3, 3	8,21
26″	25, 8,32,16,54,50,50,10, 2,47	1,54, 5,54,22,15,27, 0	1,50,17,11,24	8,21
28″	25, 8,34,11, 0,45,12,25,29,47	1,54, 5,52,31,58, 7,15	1,50,17,19,45	8,21
30″	25, 8,36, 5, 6,37,44,23,37, 2	1,54, 5,50,41,40,39, 9	1,50,17,28, 6	8,21
32″	25, 8,37,59,12,28,26, 4,16,11	1,54, 5,48,51,23, 2,42	1,50,17,36,27	8,21
34″	25, 8,39,53,18,17,17,27,18,53	1,54, 5,47, 1, 5,17,54	1,50,17,44,48	8,21
36″	25, 8,41,47,24, 4,18,32,36,47	1,54, 5,45,10,47,24,45	1,50,17,53, 9	8,21
38″	25, 8,43,41,29,49,29,20, 1,32	1,54, 5,43,20,29,23,15	1,50,18, 1,30	8,21
40″	25, 8,45,35,35,32,49,49,24,47	1,54, 5,41,30,11,13,24	1,50,18, 9,51	8,21
42″	25, 8,47,29,41,14,20, 0,38,11	1,54, 5,39,39,52,55,12	1,50,18,18,12	8,21
44″	25, 8,49,23,46,53,59,53,33,23	1,54, 5,37,49,34,28,39	1,50,18,26,33	8,21
46″	25, 8,51,17,52,31,49,28, 2, 2	1,54, 5,35,59,15,53,45	1,50,18,34,54	8,21
48″	25, 8,53,11,58, 7,48,43,55,47	1,54, 5,34, 8,57,10,30	1,50,18,43,15	8,21
50″	25, 8,55, 6, 3,41,57,41, 6,17	1,54, 5,32,18,38,18,54	1,50,18,51,36	8,21
52″	25, 8,57, 0, 9,14,16,19,25,11	1,54, 5,30,28,19,18,57	1,50,18,59,57	8,21
54″	25, 8,58,54,14,44,44,38,44, 8	1,54, 5,28,38, 0,10,39	1,50,19, 8,18	8,21
56″	25, 9, 0,48,20,13,22,38,54,47	1,54, 5,26,47,40,54, 0	1,50,19,16,39	8,21
58″	25, 9, 2,42,25,40,10,19,48,47	1,54, 5,24,57,21,29, 0	1,50,19,25, 0	
60″	25, 9, 4,36,31, 5, 7,41,17,47			
exact	25, 9, 4,36,31, 5, 7,41,53,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°47′ 0″	25, 9, 4,36,31, 5, 7,41,53,50	1,54, 5,23, 7, 1,59,27		
2″	25, 9, 6,30,36,28,14,43,53,17	1,54, 5,21,16,42,18, 1	1,50,19,41,26	8,20
4″	25, 9, 8,24,41,49,31,26,11,18	1,54, 5,19,26,22,28,15	1,50,19,49,46	8,20
6″	25, 9,10,18,47, 8,57,48,39,33	1,54, 5,17,36, 2,30, 9	1,50,19,58, 6	8,20
8″	25, 9,12,12,52,26,33,51, 9,42	1,54, 5,15,45,42,23,43	1,50,20, 6,26	8,20
10″	25, 9,14, 6,57,42,19,33,33,25	1,54, 5,13,55,22, 8,57	1,50,20,14,46	8,20
12″	25, 9,16, 1, 2,56,14,55,42,22	1,54, 5,12, 5, 1,45,51	1,50,20,23, 6	8,20
14″	25, 9,17,55, 8, 8,19,57,28,13	1,54, 5,10,14,41,14,25	1,50,20,31,26	8,20
16″	25, 9,19,49,13,18,34,38,42,38	1,54, 5, 8,24,20,34,39	1,50,20,39,46	8,20
18″	25, 9,21,43,18,26,58,59,17,17	1,54, 5, 6,33,59,46,33	1,50,20,48, 6	8,20
20″	25, 9,23,37,23,33,32,59, 3,50	1,54, 5, 4,43,38,50, 7	1,50,20,56,26	8,20
22″	25, 9,25,31,28,38,16,37,53,57	1,54, 5, 2,53,17,45,21	1,50,21, 4,46	8,20
24″	25, 9,27,25,33,41, 9,55,39,18	1,54, 5, 1, 2,56,32,15	1,50,21,13, 6	8,20
26″	25, 9,29,19,38,42,12,52,11,33	1,54, 4,59,12,35,10,49	1,50,21,21,26	8,20
28″	25, 9,31,13,43,41,25,27,22,22	1,54, 4,57,22,13,41, 3	1,50,21,29,46	8,20
30″	25, 9,33, 7,48,38,47,41, 3,25	1,54, 4,55,31,52, 2,57	1,50,21,38, 6	8,20
32″	25, 9,35, 1,53,34,19,33, 6,22	1,54, 4,53,41,30,16,31	1,50,21,46,26	8,20
34″	25, 9,36,55,58,28, 1, 3,22,53	1,54, 4,51,51, 8,21,45	1,50,21,54,46	8,20
36″	25, 9,38,50, 3,19,52,11,44,38	1,54, 4,50, 0,46,18,39	1,50,22, 3, 6	8,20
38″	25, 9,40,44, 8, 9,52,58, 3,17	1,54, 4,48,10,24, 7,13	1,50,22,11,26	8,20
40″	25, 9,42,38,12,58, 3,22,10,30	1,54, 4,46,20, 1,47,27	1,50,22,19,46	8,20
42″	25, 9,44,32,17,44,23,23,57,57	1,54, 4,44,29,39,19,21	1,50,22,28, 6	8,20
44″	25, 9,46,26,22,28,53, 3,17,18	1,54, 4,42,39,16,42,55	1,50,22,36,26	8,20
46″	25, 9,48,20,27,11,32,20, 0,13	1,54, 4,40,48,53,58, 9	1,50,22,44,46	8,20
48″	25, 9,50,14,31,52,21,13,58,22	1,54, 4,38,58,31, 5, 3	1,50,22,53, 6	8,20
50″	25, 9,52, 8,36,31,19,45, 3,25	1,54, 4,37, 8, 8, 3,37	1,50,23, 1,26	8,20
52″	25, 9,54, 2,41, 8,27,53, 7, 2	1,54, 4,35,17,44,53,51	1,50,23, 9,46	8,20
54″	25, 9,55,56,45,43,45,38, 0,53	1,54, 4,33,27,21,35,45	1,50,23,18, 6	8,20
56″	25, 9,57,50,50,17,12,59,36,38	1,54, 4,31,36,58, 9,19	1,50,23,26,26	8,20
58″	25, 9,59,44,54,48,49,57,45,57	1,54, 4,29,46,34,34,33	1,50,23,34,46	
60″	25,10, 1,38,59,18,36,32,20,30			
exact	25,10, 1,38,59,18,36,31,49,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°48′ 0″	25,10, 1,38,59,18,36,31,49,15			
		1,54, 4,27,56,10,48,12		
2″	25,10, 3,33, 3,46,32,42,37,27		1,50,23,51,39	
		1,54, 4,26, 5,46,56,33		8,20
4″	25,10, 5,27, 8,12,38,29,34, 0		1,50,23,59,59	
		1,54, 4,24,15,22,56,34		8,20
6″	25,10, 7,21,12,36,53,52,30,34		1,50,24, 8,19	
		1,54, 4,22,24,58,48,15		8,20
8″	25,10, 9,15,16,59,18,51,18,49		1,50,24,16,39	
		1,54, 4,20,34,34,31,36		8,20
10″	25,10,11, 9,21,19,53,25,50,25		1,50,24,24,59	
		1,54, 4,18,44,10, 6,37		8,20
12″	25,10,13, 3,25,38,37,35,57, 2		1,50,24,33,19	
		1,54, 4,16,53,45,33,18		8,20
14″	25,10,14,57,29,55,31,21,30,20		1,50,24,41,39	
		1,54, 4,15, 3,20,51,39		8,20
16″	25,10,16,51,34,10,34,42,21,59		1,50,24,49,59	
		1,54, 4,13,12,56, 1,40		8,20
18″	25,10,18,45,38,23,47,38,23,39		1,50,24,58,19	
		1,54, 4,11,22,31, 3,21		8,20
20″	25,10,20,39,42,35,10, 9,27, 0		1,50,25, 6,39	
		1,54, 4, 9,32, 5,56,42		8,20
22″	25,10,22,33,46,44,42,15,23,42		1,50,25,14,59	
		1,54, 4, 7,41,40,41,43		8,20
24″	25,10,24,27,50,52,23,56, 5,25		1,50,25,23,19	
		1,54, 4, 5,51,15,18,24		8,20
26″	25,10,26,21,54,58,15,11,23,49		1,50,25,31,39	
		1,54, 4, 4, 0,49,46,45		8,20
28″	25,10,28,15,59, 2,16, 1,10,34		1,50,25,39,59	
		1,54, 4, 2,10,24, 6,46		8,20
30″	25,10,30,10, 3, 4,26,25,17,20		1,50,25,48,19	
		1,54, 4, 0,19,58,18,27		8,20
32″	25,10,32, 4, 7, 4,46,23,35,47		1,50,25,56,39	
		1,54, 3,58,29,32,21,48		8,20
34″	25,10,33,58,11, 3,15,55,57,35		1,50,26, 4,59	
		1,54, 3,56,39, 6,16,49		8,20
36″	25,10,35,52,14,59,55, 2,14,24		1,50,26,13,19	
		1,54, 3,54,48,40, 3,30		8,20
38″	25,10,37,46,18,54,43,42,17,54		1,50,26,21,39	
		1,54, 3,52,58,13,41,51		8,20
40″	25,10,39,40,22,47,41,55,59,45		1,50,26,29,59	
		1,54, 3,51, 7,47,11,52		8,20
42″	25,10,41,34,26,38,49,43,11,37		1,50,26,38,19	
		1,54, 3,49,17,20,33,33		8,20
44″	25,10,43,28,30,28, 7, 3,45,10		1,50,26,46,39	
		1,54, 3,47,26,53,46,54		8,20
46″	25,10,45,22,34,15,33,57,32, 4		1,50,26,54,59	
		1,54, 3,45,36,26,51,55		8,20
48″	25,10,47,16,38, 1,10,24,23,59		1,50,27, 3,19	
		1,54, 3,43,45,59,48,36		8,20
50″	25,10,49,10,41,44,56,24,12,35		1,50,27,11,39	
		1,54, 3,41,55,32,36,57		8,20
52″	25,10,51, 4,45,26,51,56,49,32		1,50,27,19,59	
		1,54, 3,40, 5, 5,16,58		8,20
54″	25,10,52,58,49, 6,57, 2, 6,30		1,50,27,28,19	
		1,54, 3,38,14,37,48,39		8,20
56″	25,10,54,52,52,45,11,39,55, 9		1,50,27,36,39	
		1,54, 3,36,24,10,12, 0		8,20
58″	25,10,56,46,56,21,35,50, 7, 9		1,50,27,44,59	
		1,54, 3,34,33,42,27, 1		
60″	25,10,58,40,59,56, 9,32,34,10			
exact	25,10,58,40,59,56, 9,32,10,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°49′ 0″	25,10,58,40,59,56, 9,32,10,30			
		1,54, 3,32,43,14,31, 9		
2″	25,11, 0,35, 3,28,52,46,41,39		1,50,28, 1,49	
		1,54, 3,30,52,46,29,20		8,20
4″	25,11, 2,29, 6,59,45,33,10,59		1,50,28,10, 9	
		1,54, 3,29, 2,18,19,11		8,20
6″	25,11, 4,23,10,28,47,51,30,10		1,50,28,18,29	
		1,54, 3,27,11,50, 0,42		8,20
8″	25,11, 6,17,13,55,59,41,30,52		1,50,28,26,49	
		1,54, 3,25,21,21,33,53		8,20
10″	25,11, 8,11,17,21,21, 3, 4,45		1,50,28,35, 9	
		1,54, 3,23,30,52,58,44		8,20
12″	25,11,10, 5,20,44,51,56, 3,29		1,50,28,43,29	
		1,54, 3,21,40,24,15,15		8,20
14″	25,11,11,59,24, 6,32,20,18,44		1,50,28,51,49	
		1,54, 3,19,49,55,23,26		8,20
16″	25,11,13,53,27,26,22,15,42,10		1,50,29, 0, 9	
		1,54, 3,17,59,26,23,17		8,20
18″	25,11,15,47,30,44,21,42, 5,27		1,50,29, 8,29	
		1,54, 3,16, 8,57,14,48		8,20
20″	25,11,17,41,34, 0,30,39,20,15		1,50,29,16,49	
		1,54, 3,14,18,27,57,59		8,20
22″	25,11,19,35,37,14,49, 7,18,14		1,50,29,25, 9	
		1,54, 3,12,27,58,32,50		8,20
24″	25,11,21,29,40,27,17, 5,51, 4		1,50,29,33,29	
		1,54, 3,10,37,28,59,21		8,20
26″	25,11,23,23,43,37,54,34,50,25		1,50,29,41,49	
		1,54, 3, 8,46,59,17,32		8,20
28″	25,11,25,17,46,46,41,34, 7,57		1,50,29,50, 9	
		1,54, 3, 6,56,29,27,23		8,20
30″	25,11,27,11,49,53,38, 3,35,20		1,50,29,58,29	
		1,54, 3, 5, 5,59,28,54		8,20
32″	25,11,29, 5,52,58,44, 3, 4,14		1,50,30, 6,49	
		1,54, 3, 3,15,29,22, 5		8,20
34″	25,11,30,59,56, 1,59,32,26,19		1,50,30,15, 9	
		1,54, 3, 1,24,59, 6,56		8,20
36″	25,11,32,53,59, 3,24,31,33,15		1,50,30,23,29	
		1,54, 2,59,34,28,43,27		8,20
38″	25,11,34,48, 2, 2,59, 0,16,42		1,50,30,31,49	
		1,54, 2,57,43,58,11,38		8,20
40″	25,11,36,42, 5, 0,42,58,28,20		1,50,30,40, 9	
		1,54, 2,55,53,27,31,29		8,20
42″	25,11,38,36, 7,56,36,25,59,49		1,50,30,48,29	
		1,54, 2,54, 2,56,43, 0		8,20
44″	25,11,40,30,10,50,39,22,42,49		1,50,30,56,49	
		1,54, 2,52,12,25,46,11		8,20
46″	25,11,42,24,13,42,51,48,29, 0		1,50,31, 5, 9	
		1,54, 2,50,21,54,41, 2		8,20
48″	25,11,44,18,16,33,13,43,10, 2		1,50,31,13,29	
		1,54, 2,48,31,23,27,33		8,20
50″	25,11,46,12,19,21,45, 6,37,35		1,50,31,21,49	
		1,54, 2,46,40,52, 5,44		8,20
52″	25,11,48, 6,22, 8,25,58,43,19		1,50,31,30, 9	
		1,54, 2,44,50,20,35,35		8,20
54″	25,11,50, 0,24,53,16,19,18,54		1,50,31,38,29	
		1,54, 2,42,59,48,57, 6		8,20
56″	25,11,51,54,27,36,16, 8,16, 0		1,50,31,46,49	
		1,54, 2,41, 9,17,10,17		8,20
58″	25,11,53,48,30,17,25,25,26,17		1,50,31,55, 9	
		1,54, 2,39,18,45,15, 8		
60″	25,11,55,42,32,56,44,10,41,25			
exact	25,11,55,42,32,56,44,10,18,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°50′ 0″	25,11,55,42,32,56,44,10,18,21			
		1,54, 2,37,28,13, 9,19		
2″	25,11,57,36,35,34,12,23,27,40		1,50,32,11,58	
		1,54, 2,35,37,40,57,21		8,20
4″	25,11,59,30,38, 9,50, 4,25, 1		1,50,32,20,18	
		1,54, 2,33,47, 8,37, 3		8,20
6″	25,12, 1,24,40,43,37,13, 2, 4		1,50,32,28,38	
		1,54, 2,31,56,36, 8,25		8,20
8″	25,12, 3,18,43,15,33,49,10,29		1,50,32,36,58	
		1,54, 2,30, 6, 3,31,27		8,20
10″	25,12, 5,12,45,45,39,52,41,56		1,50,32,45,18	
		1,54, 2,28,15,30,46, 9		8,20
12″	25,12, 7, 6,48,13,55,23,28, 5		1,50,32,53,38	
		1,54, 2,26,24,57,52,31		8,20
14″	25,12, 9, 0,50,40,20,21,20,36		1,50,33, 1,58	
		1,54, 2,24,34,24,50,33		8,20
16″	25,12,10,54,53, 4,54,46,11, 9		1,50,33,10,18	
		1,54, 2,22,43,51,40,15		8,20
18″	25,12,12,48,55,27,38,37,51,24		1,50,33,18,38	
		1,54, 2,20,53,18,21,37		8,20
20″	25,12,14,42,57,48,31,56,13, 1		1,50,33,26,58	
		1,54, 2,19, 2,44,54,39		8,20
22″	25,12,16,37, 0, 7,34,41, 7,40		1,50,33,35,18	
		1,54, 2,17,12,11,19,21		8,20
24″	25,12,18,31, 2,24,46,52,27, 1		1,50,33,43,38	
		1,54, 2,15,21,37,35,43		8,20
26″	25,12,20,25, 4,40, 8,30, 2,44		1,50,33,51,58	
		1,54, 2,13,31, 3,43,45		8,20
28″	25,12,22,19, 6,53,39,33,46,29		1,50,34, 0,18	
		1,54, 2,11,40,29,43,27		8,20
30″	25,12,24,13, 9, 5,20, 3,29,56		1,50,34, 8,38	
		1,54, 2, 9,49,55,34,49		8,20
32″	25,12,26, 7,11,15, 9,59, 4,45		1,50,34,16,58	
		1,54, 2, 7,59,21,17,51		8,20
34″	25,12,28, 1,13,23, 9,20,22,36		1,50,34,25,18	
		1,54, 2, 6, 8,46,52,33		8,20
36″	25,12,29,55,15,29,18, 7,15, 9		1,50,34,33,38	
		1,54, 2, 4,18,12,18,55		8,20
38″	25,12,31,49,17,33,36,19,34, 4		1,50,34,41,58	
		1,54, 2, 2,27,37,36,57		8,20
40″	25,12,33,43,19,36, 3,57,11, 1		1,50,34,50,18	
		1,54, 2, 0,37, 2,46,39		8,20
42″	25,12,35,37,21,36,40,59,57,40		1,50,34,58,38	
		1,54, 1,58,46,27,48, 1		8,20
44″	25,12,37,31,23,35,27,27,45,41		1,50,35, 6,58	
		1,54, 1,56,55,52,41, 3		8,20
46″	25,12,39,25,25,32,23,20,26,44		1,50,35,15,18	
		1,54, 1,55, 5,17,25,45		8,20
48″	25,12,41,19,27,27,28,37,52,29		1,50,35,23,38	
		1,54, 1,53,14,42, 2, 7		8,20
50″	25,12,43,13,29,20,43,19,54,36		1,50,35,31,58	
		1,54, 1,51,24, 6,30, 9		8,20
52″	25,12,45, 7,31,12, 7,26,24,45		1,50,35,40,18	
		1,54, 1,49,33,30,49,51		8,20
54″	25,12,47, 1,33, 1,40,57,14,36		1,50,35,48,38	
		1,54, 1,47,42,55, 1,13		8,20
56″	25,12,48,55,34,49,23,52,15,49		1,50,35,56,58	
		1,54, 1,45,52,19, 4,15		8,20
58″	25,12,50,49,36,35,16,11,20, 4		1,50,36, 5,18	
		1,54, 1,44, 1,42,58,57		
60″	25,12,52,43,38,19,17,54,19, 1			
exact	25,12,52,43,38,19,17,54, 3,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°51′ 0″	25,12,52,43,38,19,17,54, 3,48	1,54, 1,42,11, 6,43,42		
2″	25,12,54,37,40, 1,29, 0,47,30	1,54, 1,40,20,30,21,38	1,50,36,22, 4	8,20
4″	25,12,56,31,41,41,49,31, 9, 8	1,54, 1,38,29,53,51,14	1,50,36,30,24	8,20
6″	25,12,58,25,43,20,19,25, 0,22	1,54, 1,36,39,17,12,30	1,50,36,38,44	8,20
8″	25,13, 0,19,44,56,58,42,12,52	1,54, 1,34,48,40,25,26	1,50,36,47, 4	8,20
10″	25,13, 2,13,46,31,47,22,38,18	1,54, 1,32,58, 3,30, 2	1,50,36,55,24	8,20
12″	25,13, 4, 7,48, 4,45,26, 8,20	1,54, 1,31, 7,26,26,18	1,50,37, 3,44	8,20
14″	25,13, 6, 1,49,35,52,52,34,38	1,54, 1,29,16,49,14,14	1,50,37,12, 4	8,20
16″	25,13, 7,55,51, 5, 9,41,48,52	1,54, 1,27,26,11,53,50	1,50,37,20,24	8,20
18″	25,13, 9,49,52,32,35,53,42,42	1,54, 1,25,35,34,25, 6	1,50,37,28,44	8,20
20″	25,13,11,43,53,58,11,28, 7,48	1,54, 1,23,44,56,48, 2	1,50,37,37, 4	8,20
22″	25,13,13,37,55,21,56,24,55,50	1,54, 1,21,54,19, 2,38	1,50,37,45,24	8,20
24″	25,13,15,31,56,43,50,43,58,28	1,54, 1,20, 3,41, 8,54	1,50,37,53,44	8,20
26″	25,13,17,25,58, 3,54,25, 7,22	1,54, 1,18,13, 3, 6,50	1,50,38, 2, 4	8,20
28″	25,13,19,19,59,22, 7,28,14,12	1,54, 1,16,22,24,56,26	1,50,38,10,24	8,20
30″	25,13,21,14, 0,38,29,53,10,38	1,54, 1,14,31,46,37,42	1,50,38,18,44	8,20
32″	25,13,23, 8, 1,53, 1,39,48,20	1,54, 1,12,41, 8,10,38	1,50,38,27, 4	8,20
34″	25,13,25, 2, 3, 5,42,47,58,58	1,54, 1,10,50,29,35,14	1,50,38,35,24	8,20
36″	25,13,26,56, 4,16,33,17,34,12	1,54, 1, 8,59,50,51,30	1,50,38,43,44	8,20
38″	25,13,28,50, 5,25,33, 8,25,42	1,54, 1, 7, 9,11,59,26	1,50,38,52, 4	8,20
40″	25,13,30,44, 6,32,42,20,25, 8	1,54, 1, 5,18,32,59, 2	1,50,39, 0,24	8,20
42″	25,13,32,38, 7,38, 0,53,24,10	1,54, 1, 3,27,53,50,18	1,50,39, 8,44	8,20
44″	25,13,34,32, 8,41,28,47,14,28	1,54, 1, 1,37,14,33,14	1,50,39,17, 4	8,20
46″	25,13,36,26, 9,43, 6, 1,47,42	1,54, 0,59,46,35, 7,50	1,50,39,25,24	8,20
48″	25,13,38,20,10,42,52,36,55,32	1,54, 0,57,55,55,34, 6	1,50,39,33,44	8,20
50″	25,13,40,14,11,40,48,32,29,38	1,54, 0,56, 5,15,52, 2	1,50,39,42, 4	8,20
52″	25,13,42, 8,12,36,53,48,21,40	1,54, 0,54,14,36, 1,38	1,50,39,50,24	8,20
54″	25,13,44, 2,13,31, 8,24,23,18	1,54, 0,52,23,56, 2,54	1,50,39,58,44	8,20
56″	25,13,45,56,14,23,32,20,26,12	1,54, 0,50,33,15,55,50	1,50,40, 7, 4	8,20
58″	25,13,47,50,15,14, 5,36,22, 2	1,54, 0,48,42,35,40,26	1,50,40,15,24	
60″	25,13,49,44,16, 2,48,12, 2,28			
exact	25,13,49,44,16, 2,48,11,48,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°52′ 0″	25,13,49,44,16, 2,48,11,48,11	1,54, 0,46,51,55,15,19		
2″	25,13,51,38,16,49,40, 7, 3,30	1,54, 0,45, 1,14,43,10	1,50,40,32, 9	8,20
4″	25,13,53,32,17,34,41,21,46,40	1,54, 0,43,10,34, 2,41	1,50,40,40,29	8,20
6″	25,13,55,26,18,17,51,55,49,21	1,54, 0,41,19,53,13,52	1,50,40,48,49	8,20
8″	25,13,57,20,18,59,11,49, 3,13	1,54, 0,39,29,12,16,43	1,50,40,57, 9	8,20
10″	25,13,59,14,19,38,41, 1,19,56	1,54, 0,37,38,31,11,14	1,50,41, 5,29	8,20
12″	25,14, 1, 8,20,16,19,32,31,10	1,54, 0,35,47,49,57,25	1,50,41,13,49	8,20
14″	25,14, 3, 2,20,52, 7,22,28,35	1,54, 0,33,57, 8,35,16	1,50,41,22, 9	8,20
16″	25,14, 4,56,21,26, 4,31, 3,51	1,54, 0,32, 6,27, 4,47	1,50,41,30,29	8,20
18″	25,14, 6,50,21,58,10,58, 8,38	1,54, 0,30,15,45,25,58	1,50,41,38,49	8,20
20″	25,14, 8,44,22,28,26,43,34,36	1,54, 0,28,25, 3,38,49	1,50,41,47, 9	8,20
22″	25,14,10,38,22,56,51,47,13,25	1,54, 0,26,34,21,43,20	1,50,41,55,29	8,20
24″	25,14,12,32,23,23,26, 8,56,45	1,54, 0,24,43,39,39,31	1,50,42, 3,49	8,20
26″	25,14,14,26,23,48, 9,48,36,16	1,54, 0,22,52,57,27,22	1,50,42,12, 9	8,20
28″	25,14,16,20,24,11, 2,46, 3,38	1,54, 0,21, 2,15, 6,53	1,50,42,20,29	8,20
30″	25,14,18,14,24,32, 5, 1,10,31	1,54, 0,19,11,32,38, 4	1,50,42,28,49	8,20
32″	25,14,20, 8,24,51,16,33,48,35	1,54, 0,17,20,50, 0,55	1,50,42,37, 9	8,20
34″	25,14,22, 2,25, 8,37,23,49,30	1,54, 0,15,30, 7,15,26	1,50,42,45,29	8,20
36″	25,14,23,56,25,24, 7,31, 4,56	1,54, 0,13,39,24,21,37	1,50,42,53,49	8,20
38″	25,14,25,50,25,37,46,55,26,33	1,54, 0,11,48,41,19,28	1,50,43, 2, 9	8,20
40″	25,14,27,44,25,49,35,36,46, 1	1,54, 0, 9,57,58, 8,59	1,50,43,10,29	8,20
42″	25,14,29,38,25,59,33,34,55, 0	1,54, 0, 8, 7,14,50,10	1,50,43,18,49	8,20
44″	25,14,31,32,26, 7,40,49,45,10	1,54, 0, 6,16,31,23, 1	1,50,43,27, 9	8,20
46″	25,14,33,26,26,13,57,21, 8,11	1,54, 0, 4,25,47,47,32	1,50,43,35,29	8,20
48″	25,14,35,20,26,18,23, 8,55,43	1,54, 0, 2,35, 4, 3,43	1,50,43,43,49	8,20
50″	25,14,37,14,26,20,58,12,59,26	1,54, 0, 0,44,20,11,34	1,50,43,52, 9	8,20
52″	25,14,39, 8,26,21,42,33,11, 0	1,53,59,58,53,36,11, 5	1,50,44, 0,29	8,20
54″	25,14,41, 2,26,20,36, 9,22, 5	1,53,59,57, 2,52, 2,16	1,50,44, 8,49	8,20
56″	25,14,42,56,26,17,39, 1,24,21	1,53,59,55,12, 7,45, 7	1,50,44,17, 9	8,20
58″	25,14,44,50,26,12,51, 9, 9,28	1,53,59,53,21,23,19,38	1,50,44,25,29	
60″	25,14,46,44,26, 6,12,32,29, 6			
exact	25,14,46,44,26, 6,12,32,23,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°53′ 0″	25,14,46,44,26, 6,12,32,23,10			
		1,53,59,51,30,38,45,11		
2″	25,14,48,38,25,57,43,11, 8,21		1,50,44,42,11	
		1,53,59,49,39,54, 3, 0		8,20
4″	25,14,50,32,25,47,23, 5,11,21		1,50,44,50,31	
		1,53,59,47,49, 9,12,29		8,20
6″	25,14,52,26,25,35,12,14,23,50		1,50,44,58,51	
		1,53,59,45,58,24,13,38		8,20
8″	25,14,54,20,25,21,10,38,37,28		1,50,45, 7,11	
		1,53,59,44, 7,39, 6,27		8,20
10″	25,14,56,14,25, 5,18,17,43,55		1,50,45,15,31	
		1,53,59,42,16,53,50,56		8,20
12″	25,14,58, 8,24,47,35,11,34,51		1,50,45,23,51	
		1,53,59,40,26, 8,27, 5		8,20
14″	25,15, 0, 2,24,28, 1,20, 1,56		1,50,45,32,11	
		1,53,59,38,35,22,54,54		8,20
16″	25,15, 1,56,24, 6,36,42,56,50		1,50,45,40,31	
		1,53,59,36,44,37,14,23		8,20
18″	25,15, 3,50,23,43,21,20,11,13		1,50,45,48,51	
		1,53,59,34,53,51,25,32		8,20
20″	25,15, 5,44,23,18,15,11,36,45		1,50,45,57,11	
		1,53,59,33, 3, 5,28,21		8,20
22″	25,15, 7,38,22,51,18,17, 5, 6		1,50,46, 5,31	
		1,53,59,31,12,19,22,50		8,20
24″	25,15, 9,32,22,22,30,36,27,56		1,50,46,13,51	
		1,53,59,29,21,33, 8,59		8,20
26″	25,15,11,26,21,51,52, 9,36,55		1,50,46,22,11	
		1,53,59,27,30,46,46,48		8,20
28″	25,15,13,20,21,19,22,56,23,43		1,50,46,30,31	
		1,53,59,25,40, 0,16,17		8,20
30″	25,15,15,14,20,45, 2,56,40, 0		1,50,46,38,51	
		1,53,59,23,49,13,37,26		8,20
32″	25,15,17, 8,20, 8,52,10,17,26		1,50,46,47,11	
		1,53,59,21,58,26,50,15		8,20
34″	25,15,19, 2,19,30,50,37, 7,41		1,50,46,55,31	
		1,53,59,20, 7,39,54,44		8,20
36″	25,15,20,56,18,50,58,17, 2,25		1,50,47, 3,51	
		1,53,59,18,16,52,50,53		8,20
38″	25,15,22,50,18, 9,15, 9,53,18		1,50,47,12,11	
		1,53,59,16,26, 5,38,42		8,20
40″	25,15,24,44,17,25,41,15,32, 0		1,50,47,20,31	
		1,53,59,14,35,18,18,11		8,20
42″	25,15,26,38,16,40,16,33,50,11		1,50,47,28,51	
		1,53,59,12,44,30,49,20		8,20
44″	25,15,28,32,15,53, 1, 4,39,31		1,50,47,37,11	
		1,53,59,10,53,43,12, 9		8,20
46″	25,15,30,26,15, 3,54,47,51,40		1,50,47,45,31	
		1,53,59, 9, 2,55,26,38		8,20
48″	25,15,32,20,14,12,57,43,18,18		1,50,47,53,51	
		1,53,59, 7,12, 7,32,47		8,20
50″	25,15,34,14,13,20, 9,50,51, 5		1,50,48, 2,11	
		1,53,59, 5,21,19,30,36		8,20
52″	25,15,36, 8,12,25,31,10,21,41		1,50,48,10,31	
		1,53,59, 3,30,31,20, 5		8,20
54″	25,15,38, 2,11,29, 1,41,41,46		1,50,48,18,51	
		1,53,59, 1,39,43, 1,14		8,20
56″	25,15,39,56,10,30,41,24,43, 0		1,50,48,27,11	
		1,53,58,59,48,54,34, 3		8,20
58″	25,15,41,50, 9,30,30,19,17, 3		1,50,48,35,31	
		1,53,58,57,58, 5,58,32		
60″	25,15,43,44, 8,28,28,25,15,35			
exact	25,15,43,44, 8,28,28,25,10,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°54′ 0″	25,15,43,44, 8,28,28,25,10,44			
		1,53,58,56, 7,17,14,18		
2″	25,15,45,38, 7,24,35,42,25, 2		1,50,48,52,12	
		1,53,58,54,16,28,22, 6		8,20
4″	25,15,47,32, 6,18,52,10,47, 8		1,50,49, 0,32	
		1,53,58,52,25,39,21,34		8,20
6″	25,15,49,26, 5,11,17,50, 8,42		1,50,49, 8,52	
		1,53,58,50,34,50,12,42		8,20
8″	25,15,51,20, 4, 1,52,40,21,24		1,50,49,17,12	
		1,53,58,48,44, 0,55,30		8,20
10″	25,15,53,14, 2,50,36,41,16,54		1,50,49,25,32	
		1,53,58,46,53,11,29,58		8,20
12″	25,15,55, 8, 1,37,29,52,46,52		1,50,49,33,52	
		1,53,58,45, 2,21,56, 6		8,20
14″	25,15,57, 2, 0,22,32,14,42,58		1,50,49,42,12	
		1,53,58,43,11,32,13,54		8,20
16″	25,15,58,55,59, 5,43,46,56,52		1,50,49,50,32	
		1,53,58,41,20,42,23,22		8,20
18″	25,16, 0,49,57,47, 4,29,20,14		1,50,49,58,52	
		1,53,58,39,29,52,24,30		8,20
20″	25,16, 2,43,56,26,34,21,44,44		1,50,50, 7,12	
		1,53,58,37,39, 2,17,18		8,20
22″	25,16, 4,37,55, 4,13,24, 2, 2		1,50,50,15,32	
		1,53,58,35,48,12, 1,46		8,20
24″	25,16, 6,31,53,40, 1,36, 3,48		1,50,50,23,52	
		1,53,58,33,57,21,37,54		8,20
26″	25,16, 8,25,52,13,58,57,41,42		1,50,50,32,12	
		1,53,58,32, 6,31, 5,42		8,20
28″	25,16,10,19,50,46, 5,28,47,24		1,50,50,40,32	
		1,53,58,30,15,40,25,10		8,20
30″	25,16,12,13,49,16,21, 9,12,34		1,50,50,48,52	
		1,53,58,28,24,49,36,18		8,20
32″	25,16,14, 7,47,44,45,58,48,52		1,50,50,57,12	
		1,53,58,26,33,58,39, 6		8,20
34″	25,16,16, 1,46,11,19,57,27,58		1,50,51, 5,32	
		1,53,58,24,43, 7,33,34		8,20
36″	25,16,17,55,44,36, 3, 5, 1,32		1,50,51,13,52	
		1,53,58,22,52,16,19,42		8,20
38″	25,16,19,49,42,58,55,21,21,14		1,50,51,22,12	
		1,53,58,21, 1,24,57,30		8,20
40″	25,16,21,43,41,19,56,46,18,44		1,50,51,30,32	
		1,53,58,19,10,33,26,58		8,20
42″	25,16,23,37,39,39, 7,19,45,42		1,50,51,38,52	
		1,53,58,17,19,41,48, 6		8,20
44″	25,16,25,31,37,56,27, 1,33,48		1,50,51,47,12	
		1,53,58,15,28,50, 0,54		8,20
46″	25,16,27,25,36,11,55,51,34,42		1,50,51,55,32	
		1,53,58,13,37,58, 5,22		8,20
48″	25,16,29,19,34,25,33,49,40, 4		1,50,52, 3,52	
		1,53,58,11,47, 6, 1,30		8,20
50″	25,16,31,13,32,37,20,55,41,34		1,50,52,12,12	
		1,53,58, 9,56,13,49,18		8,20
52″	25,16,33, 7,30,47,17, 9,30,52		1,50,52,20,32	
		1,53,58, 8, 5,21,28,46		8,20
54″	25,16,35, 1,28,55,22,30,59,38		1,50,52,28,52	
		1,53,58, 6,14,28,59,54		8,20
56″	25,16,36,55,27, 1,36,59,59,32		1,50,52,37,12	
		1,53,58, 4,23,36,22,42		8,20
58″	25,16,38,49,25, 6, 0,36,22,14		1,50,52,45,32	
		1,53,58, 2,32,43,37,10		
60″	25,16,40,43,23, 8,33,19,59,24			
exact	25,16,40,43,23, 8,33,20, 3,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°55′ 0″	25,16,40,43,23, 8,33,20, 3,13			
		1,53,58, 0,41,50,43,42		
2″	25,16,42,37,21, 9,15,10,46,55		1,50,53, 2,10	
		1,53,57,58,50,57,41,32		8,20
4″	25,16,44,31,19, 8, 6, 8,28,27		1,50,53,10,30	
		1,53,57,57, 0, 4,31, 2		8,20
6″	25,16,46,25,17, 5, 6,12,59,29		1,50,53,18,50	
		1,53,57,55, 9,11,12,12		8,20
8″	25,16,48,19,15, 0,15,24,11,41		1,50,53,27,10	
		1,53,57,53,18,17,45, 2		8,20
10″	25,16,50,13,12,53,33,41,56,43		1,50,53,35,30	
		1,53,57,51,27,24, 9,32		8,20
12″	25,16,52, 7,10,45, 1, 6, 6,15		1,50,53,43,50	
		1,53,57,49,36,30,25,42		8,20
14″	25,16,54, 1, 8,34,37,36,31,57		1,50,53,52,10	
		1,53,57,47,45,36,33,32		8,20
16″	25,16,55,55, 6,22,23,13, 5,29		1,50,54, 0,30	
		1,53,57,45,54,42,33, 2		8,20
18″	25,16,57,49, 4, 8,17,55,38,31		1,50,54, 8,50	
		1,53,57,44, 3,48,24,12		8,20
20″	25,16,59,43, 1,52,21,44, 2,43		1,50,54,17,10	
		1,53,57,42,12,54, 7, 2		8,20
22″	25,17, 1,36,59,34,34,38, 9,45		1,50,54,25,30	
		1,53,57,40,21,59,41,32		8,20
24″	25,17, 3,30,57,14,56,37,51,17		1,50,54,33,50	
		1,53,57,38,31, 5, 7,42		8,20
26″	25,17, 5,24,54,53,27,42,58,59		1,50,54,42,10	
		1,53,57,36,40,10,25,32		8,20
28″	25,17, 7,18,52,30, 7,53,24,31		1,50,54,50,30	
		1,53,57,34,49,15,35, 2		8,20
30″	25,17, 9,12,50, 4,57, 8,59,33		1,50,54,58,50	
		1,53,57,32,58,20,36,12		8,20
32″	25,17,11, 6,47,37,55,29,35,45		1,50,55, 7,10	
		1,53,57,31, 7,25,29, 2		8,20
34″	25,17,13, 0,45, 9, 2,55, 4,47		1,50,55,15,30	
		1,53,57,29,16,30,13,32		8,20
36″	25,17,14,54,42,38,19,25,18,19		1,50,55,23,50	
		1,53,57,27,25,34,49,42		8,20
38″	25,17,16,48,40, 5,45, 0, 8, 1		1,50,55,32,10	
		1,53,57,25,34,39,17,32		8,20
40″	25,17,18,42,37,31,19,39,25,33		1,50,55,40,30	
		1,53,57,23,43,43,37, 2		8,20
42″	25,17,20,36,34,55, 3,23, 2,35		1,50,55,48,50	
		1,53,57,21,52,47,48,12		8,20
44″	25,17,22,30,32,16,56,10,50,47		1,50,55,57,10	
		1,53,57,20, 1,51,51, 2		8,20
46″	25,17,24,24,29,36,58, 2,41,49		1,50,56, 5,30	
		1,53,57,18,10,55,45,32		8,20
48″	25,17,26,18,26,55, 8,58,27,21		1,50,56,13,50	
		1,53,57,16,19,59,31,42		8,20
50″	25,17,28,12,24,11,28,57,59, 3		1,50,56,22,10	
		1,53,57,14,29, 3, 9,32		8,20
52″	25,17,30, 6,21,25,58, 1, 8,35		1,50,56,30,30	
		1,53,57,12,38, 6,39, 2		8,20
54″	25,17,32, 0,18,38,36, 7,47,37		1,50,56,38,50	
		1,53,57,10,47,10, 0,12		8,20
56″	25,17,33,54,15,49,23,17,47,49		1,50,56,47,10	
		1,53,57, 8,56,13,13, 2		8,20
58″	25,17,35,48,12,58,19,31, 0,51		1,50,56,55,30	
		1,53,57, 7, 5,16,17,32		
60″	25,17,37,42,10, 5,24,47,18,23			
exact	25,17,37,42,10, 5,24,47,23,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°56′ 0″	25,17,37,42,10, 5,24,47,23,23			
		1,53,57, 5,14,19,14,22		
2″	25,17,39,36, 7,10,39, 6,37,45		1,50,57,12, 7	
		1,53,57, 3,23,22, 2,15		8,20
4″	25,17,41,30, 4,14, 2,28,40, 0		1,50,57,20,27	
		1,53,57, 1,32,24,41,48		8,20
6″	25,17,43,24, 1,15,34,53,21,48		1,50,57,28,47	
		1,53,56,59,41,27,13, 1		8,20
8″	25,17,45,17,58,15,16,20,34,49		1,50,57,37, 7	
		1,53,56,57,50,29,35,54		8,20
10″	25,17,47,11,55,13, 6,50,10,43		1,50,57,45,27	
		1,53,56,55,59,31,50,27		8,20
12″	25,17,49, 5,52, 9, 6,22, 1,10		1,50,57,53,47	
		1,53,56,54, 8,33,56,40		8,20
14″	25,17,50,59,49, 3,14,55,57,50		1,50,58, 2, 7	
		1,53,56,52,17,35,54,33		8,20
16″	25,17,52,53,45,55,32,31,52,23		1,50,58,10,27	
		1,53,56,50,26,37,44, 6		8,20
18″	25,17,54,47,42,45,59, 9,36,29		1,50,58,18,47	
		1,53,56,48,35,39,25,19		8,20
20″	25,17,56,41,39,34,34,49, 1,48		1,50,58,27, 7	
		1,53,56,46,44,40,58,12		8,20
22″	25,17,58,35,36,21,19,30, 0, 0		1,50,58,35,27	
		1,53,56,44,53,42,22,45		8,20
24″	25,18, 0,29,33, 6,13,12,22,45		1,50,58,43,47	
		1,53,56,43, 2,43,38,58		8,20
26″	25,18, 2,23,29,49,15,56, 1,43		1,50,58,52, 7	
		1,53,56,41,11,44,46,51		8,20
28″	25,18, 4,17,26,30,27,40,48,34		1,50,59, 0,27	
		1,53,56,39,20,45,46,24		8,20
30″	25,18, 6,11,23, 9,48,26,34,58		1,50,59, 8,47	
		1,53,56,37,29,46,37,37		8,20
32″	25,18, 8, 5,19,47,18,13,12,35		1,50,59,17, 7	
		1,53,56,35,38,47,20,30		8,20
34″	25,18, 9,59,16,22,57, 0,33, 5		1,50,59,25,27	
		1,53,56,33,47,47,55, 3		8,20
36″	25,18,11,53,12,56,44,48,28, 8		1,50,59,33,47	
		1,53,56,31,56,48,21,16		8,20
38″	25,18,13,47, 9,28,41,36,49,24		1,50,59,42, 7	
		1,53,56,30, 5,48,39, 9		8,20
40″	25,18,15,41, 5,58,47,25,28,33		1,50,59,50,27	
		1,53,56,28,14,48,48,42		8,20
42″	25,18,17,35, 2,27, 2,14,17,15		1,50,59,58,47	
		1,53,56,26,23,48,49,55		8,20
44″	25,18,19,28,58,53,26, 3, 7,10		1,51, 0, 7, 7	
		1,53,56,24,32,48,42,48		8,20
46″	25,18,21,22,55,17,58,51,49,58		1,51, 0,15,27	
		1,53,56,22,41,48,27,21		8,20
48″	25,18,23,16,51,40,40,40,17,19		1,51, 0,23,47	
		1,53,56,20,50,48, 3,34		8,20
50″	25,18,25,10,48, 1,31,28,20,53		1,51, 0,32, 7	
		1,53,56,18,59,47,31,27		8,20
52″	25,18,27, 4,44,20,31,15,52,20		1,51, 0,40,27	
		1,53,56,17, 8,46,51, 0		8,20
54″	25,18,28,58,40,37,40, 2,43,20		1,51, 0,48,47	
		1,53,56,15,17,46, 2,13		8,20
56″	25,18,30,52,36,52,57,48,45,33		1,51, 0,57, 7	
		1,53,56,13,26,45, 5, 6		8,20
58″	25,18,32,46,33, 6,24,33,50,39		1,51, 1, 5,27	
		1,53,56,11,35,43,59,39		
60″	25,18,34,40,29,18, 0,17,50,18			
exact	25,18,34,40,29,18, 0,18, 4,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°57′ 0″	25,18,34,40,29,18, 0,18, 4,21			
		1,53,56, 9,44,42,47,19		
2″	25,18,36,34,25,27,45, 0,51,40		1,51, 1,22, 1	
		1,53,56, 7,53,41,25,18		8,20
4″	25,18,38,28,21,35,38,42,16,58		1,51, 1,30,21	
		1,53,56, 6, 2,39,54,57		8,20
6″	25,18,40,22,17,41,41,22,11,55		1,51, 1,38,41	
		1,53,56, 4,11,38,16,16		8,20
8″	25,18,42,16,13,45,53, 0,28,11		1,51, 1,47, 1	
		1,53,56, 2,20,36,29,15		8,20
10″	25,18,44,10, 9,48,13,36,57,26		1,51, 1,55,21	
		1,53,56, 0,29,34,33,54		8,20
12″	25,18,46, 4, 5,48,43,11,31,20		1,51, 2, 3,41	
		1,53,55,58,38,32,30,13		8,20
14″	25,18,47,58, 1,47,21,44, 1,33		1,51, 2,12, 1	
		1,53,55,56,47,30,18,12		8,20
16″	25,18,49,51,57,44, 9,14,19,45		1,51, 2,20,21	
		1,53,55,54,56,27,57,51		8,20
18″	25,18,51,45,53,39, 5,42,17,36		1,51, 2,28,41	
		1,53,55,53, 5,25,29,10		8,20
20″	25,18,53,39,49,32,11, 7,46,46		1,51, 2,37, 1	
		1,53,55,51,14,22,52, 9		8,20
22″	25,18,55,33,45,23,25,30,38,55		1,51, 2,45,21	
		1,53,55,49,23,20, 6,48		8,20
24″	25,18,57,27,41,12,48,50,45,43		1,51, 2,53,41	
		1,53,55,47,32,17,13, 7		8,20
26″	25,18,59,21,37, 0,21, 7,58,50		1,51, 3, 2, 1	
		1,53,55,45,41,14,11, 6		8,20
28″	25,19, 1,15,32,46, 2,22, 9,56		1,51, 3,10,21	
		1,53,55,43,50,11, 0,45		8,20
30″	25,19, 3, 9,28,29,52,33,10,41		1,51, 3,18,41	
		1,53,55,41,59, 7,42, 4		8,20
32″	25,19, 5, 3,24,11,51,40,52,45		1,51, 3,27, 1	
		1,53,55,40, 8, 4,15, 3		8,20
34″	25,19, 6,57,19,51,59,45, 7,48		1,51, 3,35,21	
		1,53,55,38,17, 0,39,42		8,20
36″	25,19, 8,51,15,30,16,45,47,30		1,51, 3,43,41	
		1,53,55,36,25,56,56, 1		8,20
38″	25,19,10,45,11, 6,42,42,43,31		1,51, 3,52, 1	
		1,53,55,34,34,53, 4, 0		8,20
40″	25,19,12,39, 6,41,17,35,47,31		1,51, 4, 0,21	
		1,53,55,32,43,49, 3,39		8,20
42″	25,19,14,33, 2,14, 1,24,51,10		1,51, 4, 8,41	
		1,53,55,30,52,44,54,58		8,20
44″	25,19,16,26,57,44,54, 9,46, 8		1,51, 4,17, 1	
		1,53,55,29, 1,40,37,57		8,20
46″	25,19,18,20,53,13,55,50,24, 5		1,51, 4,25,21	
		1,53,55,27,10,36,12,36		8,20
48″	25,19,20,14,48,41, 6,26,36,41		1,51, 4,33,41	
		1,53,55,25,19,31,38,55		8,20
50″	25,19,22, 8,44, 6,25,58,15,36		1,51, 4,42, 1	
		1,53,55,23,28,26,56,54		8,20
52″	25,19,24, 2,39,29,54,25,12,30		1,51, 4,50,21	
		1,53,55,21,37,22, 6,33		8,20
54″	25,19,25,56,34,51,31,47,19, 3		1,51, 4,58,41	
		1,53,55,19,46,17, 7,52		8,20
56″	25,19,27,50,30,11,18, 4,26,55		1,51, 5, 7, 1	
		1,53,55,17,55,12, 0,51		8,20
58″	25,19,29,44,25,29,13,16,27,46		1,51, 5,15,21	
		1,53,55,16, 4, 6,45,30		
60″	25,19,31,38,20,45,17,23,13,16			
exact	25,19,31,38,20,45,17,23,29,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°58′ 0″	25,19,31,38,20,45,17,23,29,40			
		1,53,55,14,13, 1,23,36		
2″	25,19,33,32,15,59,30,24,53,16		1,51, 5,31,53	
		1,53,55,12,21,55,51,43		8,20
4″	25,19,35,26,11,11,52,20,44,59		1,51, 5,40,13	
		1,53,55,10,30,50,11,30		8,20
6″	25,19,37,20, 6,22,23,10,56,29		1,51, 5,48,33	
		1,53,55, 8,39,44,22,57		8,20
8″	25,19,39,14, 1,31, 2,55,19,26		1,51, 5,56,53	
		1,53,55, 6,48,38,26, 4		8,20
10″	25,19,41, 7,56,37,51,33,45,30		1,51, 6, 5,13	
		1,53,55, 4,57,32,20,51		8,20
12″	25,19,43, 1,51,42,49, 6, 6,21		1,51, 6,13,33	
		1,53,55, 3, 6,26, 7,18		8,20
14″	25,19,44,55,46,45,55,32,13,39		1,51, 6,21,53	
		1,53,55, 1,15,19,45,25		8,20
16″	25,19,46,49,41,47,10,51,59, 4		1,51, 6,30,13	
		1,53,54,59,24,13,15,12		8,20
18″	25,19,48,43,36,46,35, 5,14,16		1,51, 6,38,33	
		1,53,54,57,33, 6,36,39		8,20
20″	25,19,50,37,31,44, 8,11,50,55		1,51, 6,46,53	
		1,53,54,55,41,59,49,46		8,20
22″	25,19,52,31,26,39,50,11,40,41		1,51, 6,55,13	
		1,53,54,53,50,52,54,33		8,20
24″	25,19,54,25,21,33,41, 4,35,14		1,51, 7, 3,33	
		1,53,54,51,59,45,51, 0		8,20
26″	25,19,56,19,16,25,40,50,26,14		1,51, 7,11,53	
		1,53,54,50, 8,38,39, 7		8,20
28″	25,19,58,13,11,15,49,29, 5,21		1,51, 7,20,13	
		1,53,54,48,17,31,18,54		8,20
30″	25,20, 0, 7, 6, 4, 7, 0,24,15		1,51, 7,28,33	
		1,53,54,46,26,23,50,21		8,20
32″	25,20, 2, 1, 0,50,33,24,14,36		1,51, 7,36,53	
		1,53,54,44,35,16,13,28		8,20
34″	25,20, 3,54,55,35, 8,40,28, 4		1,51, 7,45,13	
		1,53,54,42,44, 8,28,15		8,20
36″	25,20, 5,48,50,17,52,48,56,19		1,51, 7,53,33	
		1,53,54,40,53, 0,34,42		8,20
38″	25,20, 7,42,44,58,45,49,31, 1		1,51, 8, 1,53	
		1,53,54,39, 1,52,32,49		8,20
40″	25,20, 9,36,39,37,47,42, 3,50		1,51, 8,10,13	
		1,53,54,37,10,44,22,36		8,20
42″	25,20,11,30,34,14,58,26,26,26		1,51, 8,18,33	
		1,53,54,35,19,36, 4, 3		8,20
44″	25,20,13,24,28,50,18, 2,30,29		1,51, 8,26,53	
		1,53,54,33,28,27,37,10		8,20
46″	25,20,15,18,23,23,46,30, 7,39		1,51, 8,35,13	
		1,53,54,31,37,19, 1,57		8,20
48″	25,20,17,12,17,55,23,49, 9,36		1,51, 8,43,33	
		1,53,54,29,46,10,18,24		8,20
50″	25,20,19, 6,12,25, 9,59,28, 0		1,51, 8,51,53	
		1,53,54,27,55, 1,26,31		8,20
52″	25,20,21, 0, 6,53, 5, 0,54,31		1,51, 9, 0,13	
		1,53,54,26, 3,52,26,18		8,20
54″	25,20,22,54, 1,19, 8,53,20,49		1,51, 9, 8,33	
		1,53,54,24,12,43,17,45		8,20
56″	25,20,24,47,55,43,21,36,38,34		1,51, 9,16,53	
		1,53,54,22,21,34, 0,52		8,20
58″	25,20,26,41,50, 5,43,10,39,26		1,51, 9,25,13	
		1,53,54,20,30,24,35,39		
60″	25,20,28,35,44,26,13,35,15, 5			
exact	25,20,28,35,44,26,13,35,33,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
24°59′ 0″	25,20,28,35,44,26,13,35,33,19			
		1,53,54,18,39,15, 4,12		
2″	25,20,30,29,38,44,52,50,37,31		1,51, 9,41,44	
		1,53,54,16,48, 5,22,28		8,20
4″	25,20,32,23,33, 1,40,55,59,59		1,51, 9,50, 4	
		1,53,54,14,56,55,32,24		8,20
6″	25,20,34,17,27,16,37,51,32,23		1,51, 9,58,24	
		1,53,54,13, 5,45,34, 0		8,20
8″	25,20,36,11,21,29,43,37, 6,23		1,51,10, 6,44	
		1,53,54,11,14,35,27,16		8,20
10″	25,20,38, 5,15,40,58,12,33,39		1,51,10,15, 4	
		1,53,54, 9,23,25,12,12		8,20
12″	25,20,39,59, 9,50,21,37,45,51		1,51,10,23,24	
		1,53,54, 7,32,14,48,48		8,20
14″	25,20,41,53, 3,57,53,52,34,39		1,51,10,31,44	
		1,53,54, 5,41, 4,17, 4		8,20
16″	25,20,43,46,58, 3,34,56,51,43		1,51,10,40, 4	
		1,53,54, 3,49,53,37, 0		8,20
18″	25,20,45,40,52, 7,24,50,28,43		1,51,10,48,24	
		1,53,54, 1,58,42,48,36		8,20
20″	25,20,47,34,46, 9,23,33,17,19		1,51,10,56,44	
		1,53,54, 0, 7,31,51,52		8,20
22″	25,20,49,28,40, 9,31, 5, 9,11		1,51,11, 5, 4	
		1,53,53,58,16,20,46,48		8,20
24″	25,20,51,22,34, 7,47,25,55,59		1,51,11,13,24	
		1,53,53,56,25, 9,33,24		8,20
26″	25,20,53,16,28, 4,12,35,29,23		1,51,11,21,44	
		1,53,53,54,33,58,11,40		8,20
28″	25,20,55,10,21,58,46,33,41, 3		1,51,11,30, 4	
		1,53,53,52,42,46,41,36		8,20
30″	25,20,57, 4,15,51,29,20,22,39		1,51,11,38,24	
		1,53,53,50,51,35, 3,12		8,20
32″	25,20,58,58, 9,42,20,55,25,51		1,51,11,46,44	
		1,53,53,49, 0,23,16,28		8,20
34″	25,21, 0,52, 3,31,21,18,42,19		1,51,11,55, 4	
		1,53,53,47, 9,11,21,24		8,20
36″	25,21, 2,45,57,18,30,30, 3,43		1,51,12, 3,24	
		1,53,53,45,17,59,18, 0		8,20
38″	25,21, 4,39,51, 3,48,29,21,43		1,51,12,11,44	
		1,53,53,43,26,47, 6,16		8,20
40″	25,21, 6,33,44,47,15,16,27,59		1,51,12,20, 4	
		1,53,53,41,35,34,46,12		8,20
42″	25,21, 8,27,38,28,50,51,14,11		1,51,12,28,24	
		1,53,53,39,44,22,17,48		8,20
44″	25,21,10,21,32, 8,35,13,31,59		1,51,12,36,44	
		1,53,53,37,53, 9,41, 4		8,20
46″	25,21,12,15,25,46,28,23,13, 3		1,51,12,45, 4	
		1,53,53,36, 1,56,56, 0		8,20
48″	25,21,14, 9,19,22,30,20, 9, 3		1,51,12,53,24	
		1,53,53,34,10,44, 2,36		8,20
50″	25,21,16, 3,12,56,41, 4,11,39		1,51,13, 1,44	
		1,53,53,32,19,31, 0,52		8,20
52″	25,21,17,57, 6,29, 0,35,12,31		1,51,13,10, 4	
		1,53,53,30,28,17,50,48		8,20
54″	25,21,19,50,59,59,28,53, 3,19		1,51,13,18,24	
		1,53,53,28,37, 4,32,24		8,20
56″	25,21,21,44,53,28, 5,57,35,43		1,51,13,26,44	
		1,53,53,26,45,51, 5,40		8,20
58″	25,21,23,38,46,54,51,48,41,23		1,51,13,35, 4	
		1,53,53,24,54,37,30,36		
60″	25,21,25,32,40,19,46,26,11,59			
exact	25,21,25,32,40,19,46,26,39,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25° 0′ 0″	25,21,25,32,40,19,46,26,39,45			
		1,53,53,23, 3,23,50, 8		
2″	25,21,27,26,33,42,49,50,29,53		1,51,13,51,32	
		1,53,53,21,12, 9,58,36		8,20
4″	25,21,29,20,27, 4, 2, 0,28,29		1,51,13,59,52	
		1,53,53,19,20,55,58,44		8,20
6″	25,21,31,14,20,23,22,56,27,13		1,51,14, 8,12	
		1,53,53,17,29,41,50,32		8,20
8″	25,21,33, 8,13,40,52,38,17,45		1,51,14,16,32	
		1,53,53,15,38,27,34, 0		8,20
10″	25,21,35, 2, 6,56,31, 5,51,45		1,51,14,24,52	
		1,53,53,13,47,13, 9, 8		8,20
12″	25,21,36,56, 0,10,18,19, 0,53		1,51,14,33,12	
		1,53,53,11,55,58,35,56		8,20
14″	25,21,38,49,53,22,14,17,36,49		1,51,14,41,32	
		1,53,53,10, 4,43,54,24		8,20
16″	25,21,40,43,46,32,19, 1,31,13		1,51,14,49,52	
		1,53,53, 8,13,29, 4,32		8,20
18″	25,21,42,37,39,40,32,30,35,45		1,51,14,58,12	
		1,53,53, 6,22,14, 6,20		8,20
20″	25,21,44,31,32,46,54,44,42, 5		1,51,15, 6,32	
		1,53,53, 4,30,58,59,48		8,20
22″	25,21,46,25,25,51,25,43,41,53		1,51,15,14,52	
		1,53,53, 2,39,43,44,56		8,20
24″	25,21,48,19,18,54, 5,27,26,49		1,51,15,23,12	
		1,53,53, 0,48,28,21,44		8,20
26″	25,21,50,13,11,54,53,55,48,33		1,51,15,31,32	
		1,53,52,58,57,12,50,12		8,20
28″	25,21,52, 7, 4,53,51, 8,38,45		1,51,15,39,52	
		1,53,52,57, 5,57,10,20		8,20
30″	25,21,54, 0,57,50,57, 5,49, 5		1,51,15,48,12	
		1,53,52,55,14,41,22, 8		8,20
32″	25,21,55,54,50,46,11,47,11,13		1,51,15,56,32	
		1,53,52,53,23,25,25,36		8,20
34″	25,21,57,48,43,39,35,12,36,49		1,51,16, 4,52	
		1,53,52,51,32, 9,20,44		8,20
36″	25,21,59,42,36,31, 7,21,57,33		1,51,16,13,12	
		1,53,52,49,40,53, 7,32		8,20
38″	25,22, 1,36,29,20,48,15, 5, 5		1,51,16,21,32	
		1,53,52,47,49,36,46, 0		8,20
40″	25,22, 3,30,22, 8,37,51,51, 5		1,51,16,29,52	
		1,53,52,45,58,20,16, 8		8,20
42″	25,22, 5,24,14,54,36,12, 7,13		1,51,16,38,12	
		1,53,52,44, 7, 3,37,56		8,20
44″	25,22, 7,18, 7,38,43,15,45, 9		1,51,16,46,32	
		1,53,52,42,15,46,51,24		8,20
46″	25,22, 9,12, 0,20,59, 2,36,33		1,51,16,54,52	
		1,53,52,40,24,29,56,32		8,20
48″	25,22,11, 5,53, 1,23,32,33, 5		1,51,17, 3,12	
		1,53,52,38,33,12,53,20		8,20
50″	25,22,12,59,45,39,56,45,26,25		1,51,17,11,32	
		1,53,52,36,41,55,41,48		8,20
52″	25,22,14,53,38,16,38,41, 8,13		1,51,17,19,52	
		1,53,52,34,50,38,21,56		8,20
54″	25,22,16,47,30,51,29,19,30, 9		1,51,17,28,12	
		1,53,52,32,59,20,53,44		8,20
56″	25,22,18,41,23,24,28,40,23,53		1,51,17,36,32	
		1,53,52,31, 8, 3,17,12		8,20
58″	25,22,20,35,15,55,36,43,41, 5		1,51,17,44,52	
		1,53,52,29,16,45,32,20		
60″	25,22,22,29, 8,24,53,29,13,25			
exact	25,22,22,29, 8,24,53,29,43,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25° 1′ 0″	25,22,22,29, 8,24,53,29,43,52			
		1,53,52,27,25,27,42,25		
2″	25,22,24,23, 0,52,18,57,26,17		1,51,18, 1,18	
		1,53,52,25,34, 9,41, 7		8,20
4″	25,22,26,16,53,17,53, 7, 7,24		1,51,18, 9,38	
		1,53,52,23,42,51,31,29		8,20
6″	25,22,28,10,45,41,35,58,38,53		1,51,18,17,58	
		1,53,52,21,51,33,13,31		8,20
8″	25,22,30, 4,38, 3,27,31,52,24		1,51,18,26,18	
		1,53,52,20, 0,14,47,13		8,20
10″	25,22,31,58,30,23,27,46,39,37		1,51,18,34,38	
		1,53,52,18, 8,56,12,35		8,20
12″	25,22,33,52,22,41,36,42,52,12		1,51,18,42,58	
		1,53,52,16,17,37,29,37		8,20
14″	25,22,35,46,14,57,54,20,21,49		1,51,18,51,18	
		1,53,52,14,26,18,38,19		8,20
16″	25,22,37,40, 7,12,20,39, 0, 8		1,51,18,59,38	
		1,53,52,12,34,59,38,41		8,20
18″	25,22,39,33,59,24,55,38,38,49		1,51,19, 7,58	
		1,53,52,10,43,40,30,43		8,20
20″	25,22,41,27,51,35,39,19, 9,32		1,51,19,16,18	
		1,53,52, 8,52,21,14,25		8,20
22″	25,22,43,21,43,44,31,40,23,57		1,51,19,24,38	
		1,53,52, 7, 1, 1,49,47		8,20
24″	25,22,45,15,35,51,32,42,13,44		1,51,19,32,58	
		1,53,52, 5, 9,42,16,49		8,20
26″	25,22,47, 9,27,56,42,24,30,33		1,51,19,41,18	
		1,53,52, 3,18,22,35,31		8,20
28″	25,22,49, 3,20, 0, 0,47, 6, 4		1,51,19,49,38	
		1,53,52, 1,27, 2,45,53		8,20
30″	25,22,50,57,12, 1,27,49,51,57		1,51,19,57,58	
		1,53,51,59,35,42,47,55		8,20
32″	25,22,52,51, 4, 1, 3,32,39,52		1,51,20, 6,18	
		1,53,51,57,44,22,41,37		8,20
34″	25,22,54,44,55,58,47,55,21,29		1,51,20,14,38	
		1,53,51,55,53, 2,26,59		8,20
36″	25,22,56,38,47,54,40,57,48,28		1,51,20,22,58	
		1,53,51,54, 1,42, 4, 1		8,20
38″	25,22,58,32,39,48,42,39,52,29		1,51,20,31,18	
		1,53,51,52,10,21,32,43		8,20
40″	25,23, 0,26,31,40,53, 1,25,12		1,51,20,39,38	
		1,53,51,50,19, 0,53, 5		8,20
42″	25,23, 2,20,23,31,12, 2,18,17		1,51,20,47,58	
		1,53,51,48,27,40, 5, 7		8,20
44″	25,23, 4,14,15,19,39,42,23,24		1,51,20,56,18	
		1,53,51,46,36,19, 8,49		8,20
46″	25,23, 6, 8, 7, 6,16, 1,32,13		1,51,21, 4,38	
		1,53,51,44,44,58, 4,11		8,20
48″	25,23, 8, 1,58,51, 0,59,36,24		1,51,21,12,58	
		1,53,51,42,53,36,51,13		8,20
50″	25,23, 9,55,50,33,54,36,27,37		1,51,21,21,18	
		1,53,51,41, 2,15,29,55		8,20
52″	25,23,11,49,42,14,56,51,57,32		1,51,21,29,38	
		1,53,51,39,10,54, 0,17		8,20
54″	25,23,13,43,33,54, 7,45,57,49		1,51,21,37,58	
		1,53,51,37,19,32,22,19		8,20
56″	25,23,15,37,25,31,27,18,20, 8		1,51,21,46,18	
		1,53,51,35,28,10,36, 1		8,20
58″	25,23,17,31,17, 6,55,28,56, 9		1,51,21,54,38	
		1,53,51,33,36,48,41,23		
60″	25,23,19,25, 8,40,32,17,37,32			
exact	25,23,19,25, 8,40,32,18,11, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25° 2′ 0″	25,23,19,25, 8,40,32,18,11, 7	1,53,51,31,45,26,42, 5		
2″	25,23,21,19, 0,12,17,44,53,12	1,53,51,29,54, 4,31, 3	1,51,22,11, 2	8,19
4″	25,23,23,12,51,42,11,49,24,15	1,53,51,28, 2,42,11,42	1,51,22,19,21	8,19
6″	25,23,25, 6,43,10,14,31,35,57	1,53,51,26,11,19,44, 2	1,51,22,27,40	8,19
8″	25,23,27, 0,34,36,25,51,19,59	1,53,51,24,19,57, 8, 3	1,51,22,35,59	8,19
10″	25,23,28,54,26, 0,45,48,28, 2	1,53,51,22,28,34,23,45	1,51,22,44,18	8,19
12″	25,23,30,48,17,23,14,22,51,47	1,53,51,20,37,11,31, 8	1,51,22,52,37	8,19
14″	25,23,32,42, 8,43,51,34,22,55	1,53,51,18,45,48,30,12	1,51,23, 0,56	8,19
16″	25,23,34,36, 0, 2,37,22,53, 7	1,53,51,16,54,25,20,57	1,51,23, 9,15	8,19
18″	25,23,36,29,51,19,31,48,14, 4	1,53,51,15, 3, 2, 3,23	1,51,23,17,34	8,19
20″	25,23,38,23,42,34,34,50,17,27	1,53,51,13,11,38,37,30	1,51,23,25,53	8,19
22″	25,23,40,17,33,47,46,28,54,57	1,53,51,11,20,15, 3,18	1,51,23,34,12	8,19
24″	25,23,42,11,24,59, 6,43,58,15	1,53,51, 9,28,51,20,47	1,51,23,42,31	8,19
26″	25,23,44, 5,16, 8,35,35,19, 2	1,53,51, 7,37,27,29,57	1,51,23,50,50	8,19
28″	25,23,45,59, 7,16,13, 2,48,59	1,53,51, 5,46, 3,30,48	1,51,23,59, 9	8,19
30″	25,23,47,52,58,21,59, 6,19,47	1,53,51, 3,54,39,23,20	1,51,24, 7,28	8,19
32″	25,23,49,46,49,25,53,45,43, 7	1,53,51, 2, 3,15, 7,33	1,51,24,15,47	8,19
34″	25,23,51,40,40,27,57, 0,50,40	1,53,51, 0,11,50,43,27	1,51,24,24, 6	8,19
36″	25,23,53,34,31,28, 8,51,34, 7	1,53,50,58,20,26,11, 2	1,51,24,32,25	8,19
38″	25,23,55,28,22,26,29,17,45, 9	1,53,50,56,29, 1,30,18	1,51,24,40,44	8,19
40″	25,23,57,22,13,22,58,19,15,27	1,53,50,54,37,36,41,15	1,51,24,49, 3	8,19
42″	25,23,59,16, 4,17,35,55,56,42	1,53,50,52,46,11,43,53	1,51,24,57,22	8,19
44″	25,24, 1, 9,55,10,22, 7,40,35	1,53,50,50,54,46,38,12	1,51,25, 5,41	8,19
46″	25,24, 3, 3,46, 1,16,54,18,47	1,53,50,49, 3,21,24,12	1,51,25,14, 0	8,19
48″	25,24, 4,57,36,50,20,15,42,59	1,53,50,47,11,56, 1,53	1,51,25,22,19	8,19
50″	25,24, 6,51,27,37,32,11,44,52	1,53,50,45,20,30,31,15	1,51,25,30,38	8,19
52″	25,24, 8,45,18,22,52,42,16, 7	1,53,50,43,29, 4,52,18	1,51,25,38,57	8,19
54″	25,24,10,39, 9, 6,21,47, 8,25	1,53,50,41,37,39, 5, 2	1,51,25,47,16	8,19
56″	25,24,12,32,59,47,59,26,13,27	1,53,50,39,46,13, 9,27	1,51,25,55,35	8,19
58″	25,24,14,26,50,27,45,39,22,54	1,53,50,37,54,47, 5,33	1,51,26, 3,54	
60″	25,24,16,20,41, 5,40,26,28,27			
exact	25,24,16,20,41, 5,40,25,57,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25° 3′ 0″	25,24,16,20,41, 5,40,25,57,23			
		1,53,50,36, 3,20,50, 8		
2″	25,24,18,14,31,41,43,46,47,31		1,51,26,20,45	
		1,53,50,34,11,54,29,23		8,19
4″	25,24,20, 8,22,15,55,41,16,54		1,51,26,29, 4	
		1,53,50,32,20,28, 0,19		8,19
6″	25,24,22, 2,12,48,16, 9,17,13		1,51,26,37,23	
		1,53,50,30,29, 1,22,56		8,19
8″	25,24,23,56, 3,18,45,10,40, 9		1,51,26,45,42	
		1,53,50,28,37,34,37,14		8,19
10″	25,24,25,49,53,47,22,45,17,23		1,51,26,54, 1	
		1,53,50,26,46, 7,43,13		8,19
12″	25,24,27,43,44,14, 8,53, 0,36		1,51,27, 2,20	
		1,53,50,24,54,40,40,53		8,19
14″	25,24,29,37,34,39, 3,33,41,29		1,51,27,10,39	
		1,53,50,23, 3,13,30,14		8,19
16″	25,24,31,31,25, 2, 6,47,11,43		1,51,27,18,58	
		1,53,50,21,11,46,11,16		8,19
18″	25,24,33,25,15,23,18,33,22,59		1,51,27,27,17	
		1,53,50,19,20,18,43,59		8,19
20″	25,24,35,19, 5,42,38,52, 6,58		1,51,27,35,36	
		1,53,50,17,28,51, 8,23		8,19
22″	25,24,37,12,56, 0, 7,43,15,21		1,51,27,43,55	
		1,53,50,15,37,23,24,28		8,19
24″	25,24,39, 6,46,15,45, 6,39,49		1,51,27,52,14	
		1,53,50,13,45,55,32,14		8,19
26″	25,24,41, 0,36,29,31, 2,12, 3		1,51,28, 0,33	
		1,53,50,11,54,27,31,41		8,19
28″	25,24,42,54,26,41,25,29,43,44		1,51,28, 8,52	
		1,53,50,10, 2,59,22,49		8,19
30″	25,24,44,48,16,51,28,29, 6,33		1,51,28,17,11	
		1,53,50, 8,11,31, 5,38		8,19
32″	25,24,46,42, 6,59,40, 0,12,11		1,51,28,25,30	
		1,53,50, 6,20, 2,40, 8		8,19
34″	25,24,48,35,57, 6, 0, 2,52,19		1,51,28,33,49	
		1,53,50, 4,28,34, 6,19		8,19
36″	25,24,50,29,47,10,28,36,58,38		1,51,28,42, 8	
		1,53,50, 2,37, 5,24,11		8,19
38″	25,24,52,23,37,13, 5,42,22,49		1,51,28,50,27	
		1,53,50, 0,45,36,33,44		8,19
40″	25,24,54,17,27,13,51,18,56,33		1,51,28,58,46	
		1,53,49,58,54, 7,34,58		8,19
42″	25,24,56,11,17,12,45,26,31,31		1,51,29, 7, 5	
		1,53,49,57, 2,38,27,53		8,19
44″	25,24,58, 5, 7, 9,48, 4,59,24		1,51,29,15,24	
		1,53,49,55,11, 9,12,29		8,19
46″	25,24,59,58,57, 4,59,14,11,53		1,51,29,23,43	
		1,53,49,53,19,39,48,46		8,19
48″	25,25, 1,52,46,58,18,54, 0,39		1,51,29,32, 2	
		1,53,49,51,28,10,16,44		8,19
50″	25,25, 3,46,36,49,47, 4,17,23		1,51,29,40,21	
		1,53,49,49,36,40,36,23		8,19
52″	25,25, 5,40,26,39,23,44,53,46		1,51,29,48,40	
		1,53,49,47,45,10,47,43		8,19
54″	25,25, 7,34,16,27, 8,55,41,29		1,51,29,56,59	
		1,53,49,45,53,40,50,44		8,19
56″	25,25, 9,28, 6,13, 2,36,32,13		1,51,30, 5,18	
		1,53,49,44, 2,10,45,26		8,19
58″	25,25,11,21,55,57, 4,47,17,39		1,51,30,13,37	
		1,53,49,42,10,40,31,49		
60″	25,25,13,15,45,39,15,27,49,28			
exact	25,25,13,15,45,39,15,27,29, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25° 4′ 0″	25,25,13,15,45,39,15,27,29, 9			
		1,53,49,40,19,10, 7,36		
2″	25,25,15, 9,35,19,34,37,36,45		1,51,30,30,25	
		1,53,49,38,27,39,37,11		8,19
4″	25,25,17, 3,24,58, 2,17,13,56		1,51,30,38,44	
		1,53,49,36,36, 8,58,27		8,19
6″	25,25,18,57,14,34,38,26,12,23		1,51,30,47, 3	
		1,53,49,34,44,38,11,24		8,19
8″	25,25,20,51, 4, 9,23, 4,23,47		1,51,30,55,22	
		1,53,49,32,53, 7,16, 2		8,19
10″	25,25,22,44,53,42,16,11,39,49		1,51,31, 3,41	
		1,53,49,31, 1,36,12,21		8,19
12″	25,25,24,38,43,13,17,47,52,10		1,51,31,12, 0	
		1,53,49,29,10, 5, 0,21		8,19
14″	25,25,26,32,32,42,27,52,52,31		1,51,31,20,19	
		1,53,49,27,18,33,40, 2		8,19
16″	25,25,28,26,22, 9,46,26,32,33		1,51,31,28,38	
		1,53,49,25,27, 2,11,24		8,19
18″	25,25,30,20,11,35,13,28,43,57		1,51,31,36,57	
		1,53,49,23,35,30,34,27		8,19
20″	25,25,32,14, 0,58,48,59,18,24		1,51,31,45,16	
		1,53,49,21,43,58,49,11		8,19
22″	25,25,34, 7,50,20,32,58, 7,35		1,51,31,53,35	
		1,53,49,19,52,26,55,36		8,19
24″	25,25,36, 1,39,40,25,25, 3,11		1,51,32, 1,54	
		1,53,49,18, 0,54,53,42		8,19
26″	25,25,37,55,28,58,26,19,56,53		1,51,32,10,13	
		1,53,49,16, 9,22,43,29		8,19
28″	25,25,39,49,18,14,35,42,40,22		1,51,32,18,32	
		1,53,49,14,17,50,24,57		8,19
30″	25,25,41,43, 7,28,53,33, 5,19		1,51,32,26,51	
		1,53,49,12,26,17,58, 6		8,19
32″	25,25,43,36,56,41,19,51, 3,25		1,51,32,35,10	
		1,53,49,10,34,45,22,56		8,19
34″	25,25,45,30,45,51,54,36,26,21		1,51,32,43,29	
		1,53,49, 8,43,12,39,27		8,19
36″	25,25,47,24,35, 0,37,49, 5,48		1,51,32,51,48	
		1,53,49, 6,51,39,47,39		8,19
38″	25,25,49,18,24, 7,29,28,53,27		1,51,33, 0, 7	
		1,53,49, 5, 0, 6,47,32		8,19
40″	25,25,51,12,13,12,29,35,40,59		1,51,33, 8,26	
		1,53,49, 3, 8,33,39, 6		8,19
42″	25,25,53, 6, 2,15,38, 9,20, 5		1,51,33,16,45	
		1,53,49, 1,17, 0,22,21		8,19
44″	25,25,54,59,51,16,55, 9,42,26		1,51,33,25, 4	
		1,53,48,59,25,26,57,17		8,19
46″	25,25,56,53,40,16,20,36,39,43		1,51,33,33,23	
		1,53,48,57,33,53,23,54		8,19
48″	25,25,58,47,29,13,54,30, 3,37		1,51,33,41,42	
		1,53,48,55,42,19,42,12		8,19
50″	25,26, 0,41,18, 9,36,49,45,49		1,51,33,50, 1	
		1,53,48,53,50,45,52,11		8,19
52″	25,26, 2,35, 7, 3,27,35,38, 0		1,51,33,58,20	
		1,53,48,51,59,11,53,51		8,19
54″	25,26, 4,28,55,55,26,47,31,51		1,51,34, 6,39	
		1,53,48,50, 7,37,47,12		8,19
56″	25,26, 6,22,44,45,34,25,19, 3		1,51,34,14,58	
		1,53,48,48,16, 3,32,14		8,19
58″	25,26, 8,16,33,33,50,28,51,17		1,51,34,23,17	
		1,53,48,46,24,29, 8,57		
60″	25,26,10,10,22,20,14,58, 0,14			
exact	25,26,10,10,22,20,14,57,43,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25° 5′ 0″	25,26,10,10,22,20,14,57,43,25			
		1,53,48,44,32,54,35,29		
2″	25,26,12, 4,11, 4,47,52,18,54		1,51,34,40, 3	
		1,53,48,42,41,19,55,26		8,19
4″	25,26,13,57,59,47,29,12,14,20		1,51,34,48,22	
		1,53,48,40,49,45, 7, 4		8,19
6″	25,26,15,51,48,28,18,57,21,24		1,51,34,56,41	
		1,53,48,38,58,10,10,23		8,19
8″	25,26,17,45,37, 7,17, 7,31,47		1,51,35, 5, 0	
		1,53,48,37, 6,35, 5,23		8,19
10″	25,26,19,39,25,44,23,42,37,10		1,51,35,13,19	
		1,53,48,35,14,59,52, 4		8,19
12″	25,26,21,33,14,19,38,42,29,14		1,51,35,21,38	
		1,53,48,33,23,24,30,26		8,19
14″	25,26,23,27, 2,53, 2, 6,59,40		1,51,35,29,57	
		1,53,48,31,31,49, 0,29		8,19
16″	25,26,25,20,51,24,33,56, 0, 9		1,51,35,38,16	
		1,53,48,29,40,13,22,13		8,19
18″	25,26,27,14,39,54,14, 9,22,22		1,51,35,46,35	
		1,53,48,27,48,37,35,38		8,19
20″	25,26,29, 8,28,22, 2,46,58, 0		1,51,35,54,54	
		1,53,48,25,57, 1,40,44		8,19
22″	25,26,31, 2,16,47,59,48,38,44		1,51,36, 3,13	
		1,53,48,24, 5,25,37,31		8,19
24″	25,26,32,56, 5,12, 5,14,16,15		1,51,36,11,32	
		1,53,48,22,13,49,25,59		8,19
26″	25,26,34,49,53,34,19, 3,42,14		1,51,36,19,51	
		1,53,48,20,22,13, 6, 8		8,19
28″	25,26,36,43,41,54,41,16,48,22		1,51,36,28,10	
		1,53,48,18,30,36,37,58		8,19
30″	25,26,38,37,30,13,11,53,26,20		1,51,36,36,29	
		1,53,48,16,39, 0, 1,29		8,19
32″	25,26,40,31,18,29,50,53,27,49		1,51,36,44,48	
		1,53,48,14,47,23,16,41		8,19
34″	25,26,42,25, 6,44,38,16,44,30		1,51,36,53, 7	
		1,53,48,12,55,46,23,34		8,19
36″	25,26,44,18,54,57,34, 3, 8, 4		1,51,37, 1,26	
		1,53,48,11, 4, 9,22, 8		8,19
38″	25,26,46,12,43, 8,38,12,30,12		1,51,37, 9,45	
		1,53,48, 9,12,32,12,23		8,19
40″	25,26,48, 6,31,17,50,44,42,35		1,51,37,18, 4	
		1,53,48, 7,20,54,54,19		8,19
42″	25,26,50, 0,19,25,11,39,36,54		1,51,37,26,23	
		1,53,48, 5,29,17,27,56		8,19
44″	25,26,51,54, 7,30,40,57, 4,50		1,51,37,34,42	
		1,53,48, 3,37,39,53,14		8,19
46″	25,26,53,47,55,34,18,36,58, 4		1,51,37,43, 1	
		1,53,48, 1,46, 2,10,13		8,19
48″	25,26,55,41,43,36, 4,39, 8,17		1,51,37,51,20	
		1,53,47,59,54,24,18,53		8,19
50″	25,26,57,35,31,35,59, 3,27,10		1,51,37,59,39	
		1,53,47,58, 2,46,19,14		8,19
52″	25,26,59,29,19,34, 1,49,46,24		1,51,38, 7,58	
		1,53,47,56,11, 8,11,16		8,19
54″	25,27, 1,23, 7,30,12,57,57,40		1,51,38,16,17	
		1,53,47,54,19,29,54,59		8,19
56″	25,27, 3,16,55,24,32,27,52,39		1,51,38,24,36	
		1,53,47,52,27,51,30,23		8,19
58″	25,27, 5,10,43,17, 0,19,23, 2		1,51,38,32,55	
		1,53,47,50,36,12,57,28		
60″	25,27, 7, 4,31, 7,36,32,20,30			
exact	25,27, 7, 4,31, 7,36,32, 7,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25° 6′ 0″	25,27, 7, 4,31, 7,36,32, 7,45			
		1,53,47,48,44,34,14,49		
2″	25,27, 8,58,18,56,21, 6,22,34		1,51,38,49,39	
		1,53,47,46,52,55,25,10		8,19
4″	25,27,10,52, 6,43,14, 1,47,44		1,51,38,57,58	
		1,53,47,45, 1,16,27,12		8,19
6″	25,27,12,45,54,28,15,18,14,56		1,51,39, 6,17	
		1,53,47,43, 9,37,20,55		8,19
8″	25,27,14,39,42,11,24,55,35,51		1,51,39,14,36	
		1,53,47,41,17,58, 6,19		8,19
10″	25,27,16,33,29,52,42,53,42,10		1,51,39,22,55	
		1,53,47,39,26,18,43,24		8,19
12″	25,27,18,27,17,32, 9,12,25,34		1,51,39,31,14	
		1,53,47,37,34,39,12,10		8,19
14″	25,27,20,21, 5, 9,43,51,37,44		1,51,39,39,33	
		1,53,47,35,42,59,32,37		8,19
16″	25,27,22,14,52,45,26,51,10,21		1,51,39,47,52	
		1,53,47,33,51,19,44,45		8,19
18″	25,27,24, 8,40,19,18,10,55, 6		1,51,39,56,11	
		1,53,47,31,59,39,48,34		8,19
20″	25,27,26, 2,27,51,17,50,43,40		1,51,40, 4,30	
		1,53,47,30, 7,59,44, 4		8,19
22″	25,27,27,56,15,21,25,50,27,44		1,51,40,12,49	
		1,53,47,28,16,19,31,15		8,19
24″	25,27,29,50, 2,49,42, 9,58,59		1,51,40,21, 8	
		1,53,47,26,24,39,10, 7		8,19
26″	25,27,31,43,50,16, 6,49, 9, 6		1,51,40,29,27	
		1,53,47,24,32,58,40,40		8,19
28″	25,27,33,37,37,40,39,47,49,46		1,51,40,37,46	
		1,53,47,22,41,18, 2,54		8,19
30″	25,27,35,31,25, 3,21, 5,52,40		1,51,40,46, 5	
		1,53,47,20,49,37,16,49		8,19
32″	25,27,37,25,12,24,10,43, 9,29		1,51,40,54,24	
		1,53,47,18,57,56,22,25		8,19
34″	25,27,39,18,59,43, 8,39,31,54		1,51,41, 2,43	
		1,53,47,17, 6,15,19,42		8,19
36″	25,27,41,12,47, 0,14,54,51,36		1,51,41,11, 2	
		1,53,47,15,14,34, 8,40		8,19
38″	25,27,43, 6,34,15,29,29, 0,16		1,51,41,19,21	
		1,53,47,13,22,52,49,19		8,19
40″	25,27,45, 0,21,28,52,21,49,35		1,51,41,27,40	
		1,53,47,11,31,11,21,39		8,19
42″	25,27,46,54, 8,40,23,33,11,14		1,51,41,35,59	
		1,53,47, 9,39,29,45,40		8,19
44″	25,27,48,47,55,50, 3, 2,56,54		1,51,41,44,18	
		1,53,47, 7,47,48, 1,22		8,19
46″	25,27,50,41,42,57,50,50,58,16		1,51,41,52,37	
		1,53,47, 5,56, 6, 8,45		8,19
48″	25,27,52,35,30, 3,46,57, 7, 1		1,51,42, 0,56	
		1,53,47, 4, 4,24, 7,49		8,19
50″	25,27,54,29,17, 7,51,21,14,50		1,51,42, 9,15	
		1,53,47, 2,12,41,58,34		8,19
52″	25,27,56,23, 4,10, 4, 3,13,24		1,51,42,17,34	
		1,53,47, 0,20,59,41, 0		8,19
54″	25,27,58,16,51,10,25, 2,54,24		1,51,42,25,53	
		1,53,46,58,29,17,15, 7		8,19
56″	25,28, 0,10,38, 8,54,20, 9,31		1,51,42,34,12	
		1,53,46,56,37,34,40,55		8,19
58″	25,28, 2, 4,25, 5,31,54,50,26		1,51,42,42,31	
		1,53,46,54,45,51,58,24		
60″	25,28, 3,58,12, 0,17,46,48,50			
exact	25,28, 3,58,12, 0,17,46,40,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25° 7′ 0″	25,28, 3,58,12, 0,17,46,40,20	1,53,46,52,54, 9, 6,37		
2″	25,28, 5,51,58,53,11,55,46,57	1,53,46,51, 2,26, 7,24	1,51,42,59,13	
4″	25,28, 7,45,45,44,14,21,54,21	1,53,46,49,10,42,59,52	1,51,43, 7,32	8,19
6″	25,28, 9,39,32,33,25, 4,54,13	1,53,46,47,18,59,44, 1	1,51,43,15,51	8,19
8″	25,28,11,33,19,20,44, 4,38,14	1,53,46,45,27,16,19,51	1,51,43,24,10	8,19
10″	25,28,13,27, 6, 6,11,20,58, 5	1,53,46,43,35,32,47,22	1,51,43,32,29	8,19
12″	25,28,15,20,52,49,46,53,45,27	1,53,46,41,43,49, 6,34	1,51,43,40,48	8,19
14″	25,28,17,14,39,31,30,42,52, 1	1,53,46,39,52, 5,17,27	1,51,43,49, 7	8,19
16″	25,28,19, 8,26,11,22,48, 9,28	1,53,46,38, 0,21,20, 1	1,51,43,57,26	8,19
18″	25,28,21, 2,12,49,23, 9,29,29	1,53,46,36, 8,37,14,16	1,51,44, 5,45	8,19
20″	25,28,22,55,59,25,31,46,43,45	1,53,46,34,16,53, 0,12	1,51,44,14, 4	8,19
22″	25,28,24,49,45,59,48,39,43,57	1,53,46,32,25, 8,37,49	1,51,44,22,23	8,19
24″	25,28,26,43,32,32,13,48,21,46	1,53,46,30,33,24, 7, 7	1,51,44,30,42	8,19
26″	25,28,28,37,19, 2,47,12,28,53	1,53,46,28,41,39,28, 6	1,51,44,39, 1	8,19
28″	25,28,30,31, 5,31,28,51,56,59	1,53,46,26,49,54,40,46	1,51,44,47,20	8,19
30″	25,28,32,24,51,58,18,46,37,45	1,53,46,24,58, 9,45, 7	1,51,44,55,39	8,19
32″	25,28,34,18,38,23,16,56,22,52	1,53,46,23, 6,24,41, 9	1,51,45, 3,58	8,19
34″	25,28,36,12,24,46,23,21, 4, 1	1,53,46,21,14,39,28,52	1,51,45,12,17	8,19
36″	25,28,38, 6,11, 7,38, 0,32,53	1,53,46,19,22,54, 8,16	1,51,45,20,36	8,19
38″	25,28,39,59,57,27, 0,54,41, 9	1,53,46,17,31, 8,39,21	1,51,45,28,55	8,19
40″	25,28,41,53,43,44,32, 3,20,30	1,53,46,15,39,23, 2, 7	1,51,45,37,14	8,19
42″	25,28,43,47,30, 0,11,26,22,37	1,53,46,13,47,37,16,34	1,51,45,45,33	8,19
44″	25,28,45,41,16,13,59, 3,39,11	1,53,46,11,55,51,22,42	1,51,45,53,52	8,19
46″	25,28,47,35, 2,25,54,55, 1,53	1,53,46,10, 4, 5,20,31	1,51,46, 2,11	8,19
48″	25,28,49,28,48,35,59, 0,22,24	1,53,46, 8,12,19,10, 1	1,51,46,10,30	8,19
50″	25,28,51,22,34,44,11,19,32,25	1,53,46, 6,20,32,51,12	1,51,46,18,49	8,19
52″	25,28,53,16,20,50,31,52,23,37	1,53,46, 4,28,46,24, 4	1,51,46,27, 8	8,19
54″	25,28,55,10, 6,55, 0,38,47,41	1,53,46, 2,36,59,48,37	1,51,46,35,27	8,19
56″	25,28,57, 3,52,57,37,38,36,18	1,53,46, 0,45,13, 4,51	1,51,46,43,46	8,19
58″	25,28,58,57,38,58,22,51,41, 9	1,53,45,58,53,26,12,46	1,51,46,52, 5	
60″	25,29, 0,51,24,57,16,17,53,55			
exact	25,29, 0,51,24,57,16,17,49,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25° 8′ 0″	25,29, 0,51,24,57,16,17,49,56	1,53,45,57, 1,39,11,55		
2″	25,29, 2,45,10,54,17,57, 1,51	1,53,45,55, 9,52, 3,10	1,51,47, 8,45	8,19
4″	25,29, 4,38,56,49,27,49, 5, 1	1,53,45,53,18, 4,46, 6	1,51,47,17, 4	8,19
6″	25,29, 6,32,42,42,45,53,51, 7	1,53,45,51,26,17,20,43	1,51,47,25,23	8,19
8″	25,29, 8,26,28,34,12,11,11,50	1,53,45,49,34,29,47, 1	1,51,47,33,42	8,19
10″	25,29,10,20,14,23,46,40,58,51	1,53,45,47,42,42, 5, 0	1,51,47,42, 1	8,19
12″	25,29,12,14, 0,11,29,23, 3,51	1,53,45,45,50,54,14,40	1,51,47,50,20	8,19
14″	25,29,14, 7,45,57,20,17,18,31	1,53,45,43,59, 6,16, 1	1,51,47,58,39	8,19
16″	25,29,16, 1,31,41,19,23,34,32	1,53,45,42, 7,18, 9, 3	1,51,48, 6,58	8,19
18″	25,29,17,55,17,23,26,41,43,35	1,53,45,40,15,29,53,46	1,51,48,15,17	8,19
20″	25,29,19,49, 3, 3,42,11,37,21	1,53,45,38,23,41,30,10	1,51,48,23,36	8,19
22″	25,29,21,42,48,42, 5,53, 7,31	1,53,45,36,31,52,58,15	1,51,48,31,55	8,19
24″	25,29,23,36,34,18,37,46, 5,46	1,53,45,34,40, 4,18, 1	1,51,48,40,14	8,19
26″	25,29,25,30,19,53,17,50,23,47	1,53,45,32,48,15,29,28	1,51,48,48,33	8,19
28″	25,29,27,24, 5,26, 6, 5,53,15	1,53,45,30,56,26,32,36	1,51,48,56,52	8,19
30″	25,29,29,17,50,57, 2,32,25,51	1,53,45,29, 4,37,27,25	1,51,49, 5,11	8,19
32″	25,29,31,11,36,26, 7, 9,53,16	1,53,45,27,12,48,13,55	1,51,49,13,30	8,19
34″	25,29,33, 5,21,53,19,58, 7,11	1,53,45,25,20,58,52, 6	1,51,49,21,49	8,19
36″	25,29,34,59, 7,18,40,56,59,17	1,53,45,23,29, 9,21,58	1,51,49,30, 8	8,19
38″	25,29,36,52,52,42,10, 6,21,15	1,53,45,21,37,19,43,31	1,51,49,38,27	8,19
40″	25,29,38,46,38, 3,47,26, 4,46	1,53,45,19,45,29,56,45	1,51,49,46,46	8,19
42″	25,29,40,40,23,23,32,56, 1,31	1,53,45,17,53,40, 1,40	1,51,49,55, 5	8,19
44″	25,29,42,34, 8,41,26,36, 3,11	1,53,45,16, 1,49,58,16	1,51,50, 3,24	8,19
46″	25,29,44,27,53,57,28,26, 1,27	1,53,45,14, 9,59,46,33	1,51,50,11,43	8,19
48″	25,29,46,21,39,11,38,25,48, 0	1,53,45,12,18, 9,26,31	1,51,50,20, 2	8,19
50″	25,29,48,15,24,23,56,35,14,31	1,53,45,10,26,18,58,10	1,51,50,28,21	8,19
52″	25,29,50, 9, 9,34,22,54,12,41	1,53,45, 8,34,28,21,30	1,51,50,36,40	8,19
54″	25,29,52, 2,54,42,57,22,34,11	1,53,45, 6,42,37,36,31	1,51,50,44,59	8,19
56″	25,29,53,56,39,49,40, 0,10,42	1,53,45, 4,50,46,43,13	1,51,50,53,18	8,19
58″	25,29,55,50,24,54,30,46,53,55	1,53,45, 2,58,55,41,36	1,51,51, 1,37	
60″	25,29,57,44, 9,57,29,42,35,31			
exact	25,29,57,44, 9,57,29,42,35,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25° 9′ 0″	25,29,57,44, 9,57,29,42,35,58			
		1,53,45, 1, 7, 4,31,42		
2″	25,29,59,37,54,58,36,47, 7,40		1,51,51,18,15	
		1,53,44,59,15,13,13,27		8,19
4″	25,30, 1,31,39,57,52, 0,21, 7		1,51,51,26,34	
		1,53,44,57,23,21,46,53		8,19
6″	25,30, 3,25,24,55,15,22, 8, 0		1,51,51,34,53	
		1,53,44,55,31,30,12, 0		8,19
8″	25,30, 5,19, 9,50,46,52,20, 0		1,51,51,43,12	
		1,53,44,53,39,38,28,48		8,19
10″	25,30, 7,12,54,44,26,30,48,48		1,51,51,51,31	
		1,53,44,51,47,46,37,17		8,19
12″	25,30, 9, 6,39,36,14,17,26, 5		1,51,51,59,50	
		1,53,44,49,55,54,37,27		8,19
14″	25,30,11, 0,24,26,10,12, 3,32		1,51,52, 8, 9	
		1,53,44,48, 4, 2,29,18		8,19
16″	25,30,12,54, 9,14,14,14,32,50		1,51,52,16,28	
		1,53,44,46,12,10,12,50		8,19
18″	25,30,14,47,54, 0,26,24,45,40		1,51,52,24,47	
		1,53,44,44,20,17,48, 3		8,19
20″	25,30,16,41,38,44,46,42,33,43		1,51,52,33, 6	
		1,53,44,42,28,25,14,57		8,19
22″	25,30,18,35,23,27,15, 7,48,40		1,51,52,41,25	
		1,53,44,40,36,32,33,32		8,19
24″	25,30,20,29, 8, 7,51,40,22,12		1,51,52,49,44	
		1,53,44,38,44,39,43,48		8,19
26″	25,30,22,22,52,46,36,20, 6, 0		1,51,52,58, 3	
		1,53,44,36,52,46,45,45		8,19
28″	25,30,24,16,37,23,29, 6,51,45		1,51,53, 6,22	
		1,53,44,35, 0,53,39,23		8,19
30″	25,30,26,10,21,58,30, 0,31, 8		1,51,53,14,41	
		1,53,44,33, 9, 0,24,42		8,19
32″	25,30,28, 4, 6,31,39, 0,55,50		1,51,53,23, 0	
		1,53,44,31,17, 7, 1,42		8,19
34″	25,30,29,57,51, 2,56, 7,57,32		1,51,53,31,19	
		1,53,44,29,25,13,30,23		8,19
36″	25,30,31,51,35,32,21,21,27,55		1,51,53,39,38	
		1,53,44,27,33,19,50,45		8,19
38″	25,30,33,45,19,59,54,41,18,40		1,51,53,47,57	
		1,53,44,25,41,26, 2,48		8,19
40″	25,30,35,39, 4,25,36, 7,21,28		1,51,53,56,16	
		1,53,44,23,49,32, 6,32		8,19
42″	25,30,37,32,48,49,25,39,28, 0		1,51,54, 4,35	
		1,53,44,21,57,38, 1,57		8,19
44″	25,30,39,26,33,11,23,17,29,57		1,51,54,12,54	
		1,53,44,20, 5,43,49, 3		8,19
46″	25,30,41,20,17,31,29, 1,19, 0		1,51,54,21,13	
		1,53,44,18,13,49,27,50		8,19
48″	25,30,43,14, 1,49,42,50,46,50		1,51,54,29,32	
		1,53,44,16,21,54,58,18		8,19
50″	25,30,45, 7,46, 6, 4,45,45, 8		1,51,54,37,51	
		1,53,44,14,30, 0,20,27		8,19
52″	25,30,47, 1,30,20,34,46, 5,35		1,51,54,46,10	
		1,53,44,12,38, 5,34,17		8,19
54″	25,30,48,55,14,33,12,51,39,52		1,51,54,54,29	
		1,53,44,10,46,10,39,48		8,19
56″	25,30,50,48,58,43,59, 2,19,40		1,51,55, 2,48	
		1,53,44, 8,54,15,37, 0		8,19
58″	25,30,52,42,42,52,53,17,56,40		1,51,55,11, 7	
		1,53,44, 7, 2,20,25,53		
60″	25,30,54,36,26,59,55,38,22,33			
exact	25,30,54,36,26,59,55,38,28,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°10′ 0″	25,30,54,36,26,59,55,38,28,27	1,53,44, 5,10,25, 7, 2		
2″	25,30,56,30,11, 5, 6, 3,35,29	1,53,44, 3,18,29,39,19	1,51,55,27,43	8,19
4″	25,30,58,23,55, 8,24,33,14,48	1,53,44, 1,26,34, 3,17	1,51,55,36, 2	8,19
6″	25,31, 0,17,39, 9,51, 7,18, 5	1,53,43,59,34,38,18,56	1,51,55,44,21	8,19
8″	25,31, 2,11,23, 9,25,45,37, 1	1,53,43,57,42,42,26,16	1,51,55,52,40	8,19
10″	25,31, 4, 5, 7, 7, 8,28, 3,17	1,53,43,55,50,46,25,17	1,51,56, 0,59	8,19
12″	25,31, 5,58,51, 2,59,14,28,34	1,53,43,53,58,50,15,59	1,51,56, 9,18	8,19
14″	25,31, 7,52,34,56,58, 4,44,33	1,53,43,52, 6,53,58,22	1,51,56,17,37	8,19
16″	25,31, 9,46,18,49, 4,58,42,55	1,53,43,50,14,57,32,26	1,51,56,25,56	8,19
18″	25,31,11,40, 2,39,19,56,15,21	1,53,43,48,23, 0,58,11	1,51,56,34,15	8,19
20″	25,31,13,33,46,27,42,57,13,32	1,53,43,46,31, 4,15,37	1,51,56,42,34	8,19
22″	25,31,15,27,30,14,14, 1,29, 9	1,53,43,44,39, 7,24,44	1,51,56,50,53	8,19
24″	25,31,17,21,13,58,53, 8,53,53	1,53,43,42,47,10,25,32	1,51,56,59,12	8,19
26″	25,31,19,14,57,41,40,19,19,25	1,53,43,40,55,13,18, 1	1,51,57, 7,31	8,19
28″	25,31,21, 8,41,22,35,32,37,26	1,53,43,39, 3,16, 2,11	1,51,57,15,50	8,19
30″	25,31,23, 2,25, 1,38,48,39,37	1,53,43,37,11,18,38, 2	1,51,57,24, 9	8,19
32″	25,31,24,56, 8,38,50, 7,17,39	1,53,43,35,19,21, 5,34	1,51,57,32,28	8,19
34″	25,31,26,49,52,14, 9,28,23,13	1,53,43,33,27,23,24,47	1,51,57,40,47	8,19
36″	25,31,28,43,35,47,36,51,48, 0	1,53,43,31,35,25,35,41	1,51,57,49, 6	8,19
38″	25,31,30,37,19,19,12,17,23,41	1,53,43,29,43,27,38,16	1,51,57,57,25	8,19
40″	25,31,32,31, 2,48,55,45, 1,57	1,53,43,27,51,29,32,32	1,51,58, 5,44	8,19
42″	25,31,34,24,46,16,47,14,34,29	1,53,43,25,59,31,18,29	1,51,58,14, 3	8,19
44″	25,31,36,18,29,42,46,45,52,58	1,53,43,24, 7,32,56, 7	1,51,58,22,22	8,19
46″	25,31,38,12,13, 6,54,18,49, 5	1,53,43,22,15,34,25,26	1,51,58,30,41	8,19
48″	25,31,40, 5,56,29, 9,53,14,31	1,53,43,20,23,35,46,26	1,51,58,39, 0	8,19
50″	25,31,41,59,39,49,33,29, 0,57	1,53,43,18,31,36,59, 7	1,51,58,47,19	8,19
52″	25,31,43,53,23, 8, 5, 6, 0, 4	1,53,43,16,39,38, 3,29	1,51,58,55,38	8,19
54″	25,31,45,47, 6,24,44,44, 3,33	1,53,43,14,47,38,59,32	1,51,59, 3,57	8,19
56″	25,31,47,40,49,39,32,23, 3, 5	1,53,43,12,55,39,47,16	1,51,59,12,16	8,19
58″	25,31,49,34,32,52,28, 2,50,21	1,53,43,11, 3,40,26,41	1,51,59,20,35	
60″	25,31,51,28,16, 3,31,43,17, 2			
exact	25,31,51,28,16, 3,31,43,28, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°11′ 0″	25,31,51,28,16, 3,31,43,28, 7			
		1,53,43, 9,11,40,58,54		
2″	25,31,53,21,59,12,43,24,27, 1		1,51,59,37, 8	
		1,53,43, 7,19,41,21,46		8,19
4″	25,31,55,15,42,20, 3, 5,48,47		1,51,59,45,27	
		1,53,43, 5,27,41,36,19		8,19
6″	25,31,57, 9,25,25,30,47,25, 6		1,51,59,53,46	
		1,53,43, 3,35,41,42,33		8,19
8″	25,31,59, 3, 8,29, 6,29, 7,39		1,52, 0, 2, 5	
		1,53,43, 1,43,41,40,28		8,19
10″	25,32, 0,56,51,30,50,10,48, 7		1,52, 0,10,24	
		1,53,42,59,51,41,30, 4		8,19
12″	25,32, 2,50,34,30,41,52,18,11		1,52, 0,18,43	
		1,53,42,57,59,41,11,21		8,19
14″	25,32, 4,44,17,28,41,33,29,32		1,52, 0,27, 2	
		1,53,42,56, 7,40,44,19		8,19
16″	25,32, 6,38, 0,24,49,14,13,51		1,52, 0,35,21	
		1,53,42,54,15,40, 8,58		8,19
18″	25,32, 8,31,43,19, 4,54,22,49		1,52, 0,43,40	
		1,53,42,52,23,39,25,18		8,19
20″	25,32,10,25,26,11,28,33,48, 7		1,52, 0,51,59	
		1,53,42,50,31,38,33,19		8,19
22″	25,32,12,19, 9, 2, 0,12,21,26		1,52, 1, 0,18	
		1,53,42,48,39,37,33, 1		8,19
24″	25,32,14,12,51,50,39,49,54,27		1,52, 1, 8,37	
		1,53,42,46,47,36,24,24		8,19
26″	25,32,16, 6,34,37,27,26,18,51		1,52, 1,16,56	
		1,53,42,44,55,35, 7,28		8,19
28″	25,32,18, 0,17,22,23, 1,26,19		1,52, 1,25,15	
		1,53,42,43, 3,33,42,13		8,19
30″	25,32,19,54, 0, 5,26,35, 8,32		1,52, 1,33,34	
		1,53,42,41,11,32, 8,39		8,19
32″	25,32,21,47,42,46,38, 7,17,11		1,52, 1,41,53	
		1,53,42,39,19,30,26,46		8,19
34″	25,32,23,41,25,25,57,37,43,57		1,52, 1,50,12	
		1,53,42,37,27,28,36,34		8,19
36″	25,32,25,35, 8, 3,25, 6,20,31		1,52, 1,58,31	
		1,53,42,35,35,26,38, 3		8,19
38″	25,32,27,28,50,39, 0,32,58,34		1,52, 2, 6,50	
		1,53,42,33,43,24,31,13		8,19
40″	25,32,29,22,33,12,43,57,29,47		1,52, 2,15, 9	
		1,53,42,31,51,22,16, 4		8,19
42″	25,32,31,16,15,44,35,19,45,51		1,52, 2,23,28	
		1,53,42,29,59,19,52,36		8,19
44″	25,32,33, 9,58,14,34,39,38,27		1,52, 2,31,47	
		1,53,42,28, 7,17,20,49		8,19
46″	25,32,35, 3,40,42,41,56,59,16		1,52, 2,40, 6	
		1,53,42,26,15,14,40,43		8,19
48″	25,32,36,57,23, 8,57,11,39,59		1,52, 2,48,25	
		1,53,42,24,23,11,52,18		8,19
50″	25,32,38,51, 5,33,20,23,32,17		1,52, 2,56,44	
		1,53,42,22,31, 8,55,34		8,19
52″	25,32,40,44,47,55,51,32,27,51		1,52, 3, 5, 3	
		1,53,42,20,39, 5,50,31		8,19
54″	25,32,42,38,30,16,30,38,18,22		1,52, 3,13,22	
		1,53,42,18,47, 2,37, 9		8,19
56″	25,32,44,32,12,35,17,40,55,31		1,52, 3,21,41	
		1,53,42,16,54,59,15,28		8,19
58″	25,32,46,25,54,52,12,40,10,59		1,52, 3,30, 0	
		1,53,42,15, 2,55,45,28		
60″	25,32,48,19,37, 7,15,35,56,27			
exact	25,32,48,19,37, 7,15,36, 6,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°12′ 0″	25,32,48,19,37, 7,15,36, 6,22			
		1,53,42,13,10,52, 8,22		
2″	25,32,50,13,19,20,26,28,14,44		1,52, 3,46,32	
		1,53,42,11,18,48,21,50		8,19
4″	25,32,52, 7, 1,31,45,16,36,34		1,52, 3,54,51	
		1,53,42, 9,26,44,26,59		8,19
6″	25,32,54, 0,43,41,12, 1, 3,33		1,52, 4, 3,10	
		1,53,42, 7,34,40,23,49		8,19
8″	25,32,55,54,25,48,46,41,27,22		1,52, 4,11,29	
		1,53,42, 5,42,36,12,20		8,19
10″	25,32,57,48, 7,54,29,17,39,42		1,52, 4,19,48	
		1,53,42, 3,50,31,52,32		8,19
12″	25,32,59,41,49,58,19,49,32,14		1,52, 4,28, 7	
		1,53,42, 1,58,27,24,25		8,19
14″	25,33, 1,35,32, 0,18,16,56,39		1,52, 4,36,26	
		1,53,42, 0, 6,22,47,59		8,19
16″	25,33, 3,29,14, 0,24,39,44,38		1,52, 4,44,45	
		1,53,41,58,14,18, 3,14		8,19
18″	25,33, 5,22,55,58,38,57,47,52		1,52, 4,53, 4	
		1,53,41,56,22,13,10,10		8,19
20″	25,33, 7,16,37,55, 1,10,58, 2		1,52, 5, 1,23	
		1,53,41,54,30, 8, 8,47		8,19
22″	25,33, 9,10,19,49,31,19, 6,49		1,52, 5, 9,42	
		1,53,41,52,38, 2,59, 5		8,19
24″	25,33,11, 4, 1,42, 9,22, 5,54		1,52, 5,18, 1	
		1,53,41,50,45,57,41, 4		8,19
26″	25,33,12,57,43,32,55,19,46,58		1,52, 5,26,20	
		1,53,41,48,53,52,14,44		8,19
28″	25,33,14,51,25,21,49,12, 1,42		1,52, 5,34,39	
		1,53,41,47, 1,46,40, 5		8,19
30″	25,33,16,45, 7, 8,50,58,41,47		1,52, 5,42,58	
		1,53,41,45, 9,40,57, 7		8,19
32″	25,33,18,38,48,54, 0,39,38,54		1,52, 5,51,17	
		1,53,41,43,17,35, 5,50		8,19
34″	25,33,20,32,30,37,18,14,44,44		1,52, 5,59,36	
		1,53,41,41,25,29, 6,14		8,19
36″	25,33,22,26,12,18,43,43,50,58		1,52, 6, 7,55	
		1,53,41,39,33,22,58,19		8,19
38″	25,33,24,19,53,58,17, 6,49,17		1,52, 6,16,14	
		1,53,41,37,41,16,42, 5		8,19
40″	25,33,26,13,35,35,58,23,31,22		1,52, 6,24,33	
		1,53,41,35,49,10,17,32		8,19
42″	25,33,28, 7,17,11,47,33,48,54		1,52, 6,32,52	
		1,53,41,33,57, 3,44,40		8,19
44″	25,33,30, 0,58,45,44,37,33,34		1,52, 6,41,11	
		1,53,41,32, 4,57, 3,29		8,19
46″	25,33,31,54,40,17,49,34,37, 3		1,52, 6,49,30	
		1,53,41,30,12,50,13,59		8,19
48″	25,33,33,48,21,48, 2,24,51, 2		1,52, 6,57,49	
		1,53,41,28,20,43,16,10		8,19
50″	25,33,35,42, 3,16,23, 8, 7,12		1,52, 7, 6, 8	
		1,53,41,26,28,36,10, 2		8,19
52″	25,33,37,35,44,42,51,44,17,14		1,52, 7,14,27	
		1,53,41,24,36,28,55,35		8,19
54″	25,33,39,29,26, 7,28,13,12,49		1,52, 7,22,46	
		1,53,41,22,44,21,32,49		8,19
56″	25,33,41,23, 7,30,12,34,45,38		1,52, 7,31, 5	
		1,53,41,20,52,14, 1,44		8,19
58″	25,33,43,16,48,51, 4,48,47,22		1,52, 7,39,24	
		1,53,41,19, 0, 6,22,20		
60″	25,33,45,10,30,10, 4,55, 9,42			
exact	25,33,45,10,30,10, 4,55,25,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°13′ 0″	25,33,45,10,30,10, 4,55,25,18			
		1,53,41,17, 7,58,36,25		
2″	25,33,47, 4,11,27,12,54, 1,43		1,52, 7,55,54	
		1,53,41,15,15,50,40,31		8,19
4″	25,33,48,57,52,42,28,44,42,14		1,52, 8, 4,13	
		1,53,41,13,23,42,36,18		8,19
6″	25,33,50,51,33,55,52,27,18,32		1,52, 8,12,32	
		1,53,41,11,31,34,23,46		8,19
8″	25,33,52,45,15, 7,24, 1,42,18		1,52, 8,20,51	
		1,53,41, 9,39,26, 2,55		8,19
10″	25,33,54,38,56,17, 3,27,45,13		1,52, 8,29,10	
		1,53,41, 7,47,17,33,45		8,19
12″	25,33,56,32,37,24,50,45,18,58		1,52, 8,37,29	
		1,53,41, 5,55, 8,56,16		8,19
14″	25,33,58,26,18,30,45,54,15,14		1,52, 8,45,48	
		1,53,41, 4, 3, 0,10,28		8,19
16″	25,34, 0,19,59,34,48,54,25,42		1,52, 8,54, 7	
		1,53,41, 2,10,51,16,21		8,19
18″	25,34, 2,13,40,36,59,45,42, 3		1,52, 9, 2,26	
		1,53,41, 0,18,42,13,55		8,19
20″	25,34, 4, 7,21,37,18,27,55,58		1,52, 9,10,45	
		1,53,40,58,26,33, 3,10		8,19
22″	25,34, 6, 1, 2,35,45, 0,59, 8		1,52, 9,19, 4	
		1,53,40,56,34,23,44, 6		8,19
24″	25,34, 7,54,43,32,19,24,43,14		1,52, 9,27,23	
		1,53,40,54,42,14,16,43		8,19
26″	25,34, 9,48,24,27, 1,38,59,57		1,52, 9,35,42	
		1,53,40,52,50, 4,41, 1		8,19
28″	25,34,11,42, 5,19,51,43,40,58		1,52, 9,44, 1	
		1,53,40,50,57,54,57, 0		8,19
30″	25,34,13,35,46,10,49,38,37,58		1,52, 9,52,20	
		1,53,40,49, 5,45, 4,40		8,19
32″	25,34,15,29,26,59,55,23,42,38		1,52,10, 0,39	
		1,53,40,47,13,35, 4, 1		8,19
34″	25,34,17,23, 7,47, 8,58,46,39		1,52,10, 8,58	
		1,53,40,45,21,24,55, 3		8,19
36″	25,34,19,16,48,32,30,23,41,42		1,52,10,17,17	
		1,53,40,43,29,14,37,46		8,19
38″	25,34,21,10,29,15,59,38,19,28		1,52,10,25,36	
		1,53,40,41,37, 4,12,10		8,19
40″	25,34,23, 4, 9,57,36,42,31,38		1,52,10,33,55	
		1,53,40,39,44,53,38,15		8,19
42″	25,34,24,57,50,37,21,36, 9,53		1,52,10,42,14	
		1,53,40,37,52,42,56, 1		8,19
44″	25,34,26,51,31,15,14,19, 5,54		1,52,10,50,33	
		1,53,40,36, 0,32, 5,28		8,19
46″	25,34,28,45,11,51,14,51,11,22		1,52,10,58,52	
		1,53,40,34, 8,21, 6,36		8,19
48″	25,34,30,38,52,25,23,12,17,58		1,52,11, 7,11	
		1,53,40,32,16, 9,59,25		8,19
50″	25,34,32,32,32,57,39,22,17,23		1,52,11,15,30	
		1,53,40,30,23,58,43,55		8,19
52″	25,34,34,26,13,28, 3,21, 1,18		1,52,11,23,49	
		1,53,40,28,31,47,20, 6		8,19
54″	25,34,36,19,53,56,35, 8,21,24		1,52,11,32, 8	
		1,53,40,26,39,35,47,58		8,19
56″	25,34,38,13,34,23,14,44, 9,22		1,52,11,40,27	
		1,53,40,24,47,24, 7,31		8,19
58″	25,34,40, 7,14,48, 2, 8,16,53		1,52,11,48,46	
		1,53,40,22,55,12,18,45		
60″	25,34,42, 0,55,10,57,20,35,38			
exact	25,34,42, 0,55,10,57,20,57,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°14′ 0″	25,34,42, 0,55,10,57,20,57,44			
		1,53,40,21, 3, 0,24, 5		
2″	25,34,43,54,35,32, 0,21,21,49		1,52,12, 5,14	
		1,53,40,19,10,48,18,51		8,19
4″	25,34,45,48,15,51,11, 9,40,40		1,52,12,13,33	
		1,53,40,17,18,36, 5,18		8,19
6″	25,34,47,41,56, 8,29,45,45,58		1,52,12,21,52	
		1,53,40,15,26,23,43,26		8,19
8″	25,34,49,35,36,23,56, 9,29,24		1,52,12,30,11	
		1,53,40,13,34,11,13,15		8,19
10″	25,34,51,29,16,37,30,20,42,39		1,52,12,38,30	
		1,53,40,11,41,58,34,45		8,19
12″	25,34,53,22,56,49,12,19,17,24		1,52,12,46,49	
		1,53,40, 9,49,45,47,56		8,19
14″	25,34,55,16,36,59, 2, 5, 5,20		1,52,12,55, 8	
		1,53,40, 7,57,32,52,48		8,19
16″	25,34,57,10,17, 6,59,37,58, 8		1,52,13, 3,27	
		1,53,40, 6, 5,19,49,21		8,19
18″	25,34,59, 3,57,13, 4,57,47,29		1,52,13,11,46	
		1,53,40, 4,13, 6,37,35		8,19
20″	25,35, 0,57,37,17,18, 4,25, 4		1,52,13,20, 5	
		1,53,40, 2,20,53,17,30		8,19
22″	25,35, 2,51,17,19,38,57,42,34		1,52,13,28,24	
		1,53,40, 0,28,39,49, 6		8,19
24″	25,35, 4,44,57,20, 7,37,31,40		1,52,13,36,43	
		1,53,39,58,36,26,12,23		8,19
26″	25,35, 6,38,37,18,44, 3,44, 3		1,52,13,45, 2	
		1,53,39,56,44,12,27,21		8,19
28″	25,35, 8,32,17,15,28,16,11,24		1,52,13,53,21	
		1,53,39,54,51,58,34, 0		8,19
30″	25,35,10,25,57,10,20,14,45,24		1,52,14, 1,40	
		1,53,39,52,59,44,32,20		8,19
32″	25,35,12,19,37, 3,19,59,17,44		1,52,14, 9,59	
		1,53,39,51, 7,30,22,21		8,19
34″	25,35,14,13,16,54,27,29,40, 5		1,52,14,18,18	
		1,53,39,49,15,16, 4, 3		8,19
36″	25,35,16, 6,56,43,42,45,44, 8		1,52,14,26,37	
		1,53,39,47,23, 1,37,26		8,19
38″	25,35,18, 0,36,31, 5,47,21,34		1,52,14,34,56	
		1,53,39,45,30,47, 2,30		8,19
40″	25,35,19,54,16,16,36,34,24, 4		1,52,14,43,15	
		1,53,39,43,38,32,19,15		8,19
42″	25,35,21,47,56, 0,15, 6,43,19		1,52,14,51,34	
		1,53,39,41,46,17,27,41		8,19
44″	25,35,23,41,35,42, 1,24,11, 0		1,52,14,59,53	
		1,53,39,39,54, 2,27,48		8,19
46″	25,35,25,35,15,21,55,26,38,48		1,52,15, 8,12	
		1,53,39,38, 1,47,19,36		8,19
48″	25,35,27,28,54,59,57,13,58,24		1,52,15,16,31	
		1,53,39,36, 9,32, 3, 5		8,19
50″	25,35,29,22,34,36, 6,46, 1,29		1,52,15,24,50	
		1,53,39,34,17,16,38,15		8,19
52″	25,35,31,16,14,10,24, 2,39,44		1,52,15,33, 9	
		1,53,39,32,25, 1, 5, 6		8,19
54″	25,35,33, 9,53,42,49, 3,44,50		1,52,15,41,28	
		1,53,39,30,32,45,23,38		8,19
56″	25,35,35, 3,33,13,21,49, 8,28		1,52,15,49,47	
		1,53,39,28,40,29,33,51		8,19
58″	25,35,36,57,12,42, 2,18,42,19		1,52,15,58, 6	
		1,53,39,26,48,13,35,45		
60″	25,35,38,50,52, 8,50,32,18, 4			
exact	25,35,38,50,52, 8,50,32,47,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°15′ 0″	25,35,38,50,52, 8,50,32,47,14			
		1,53,39,24,55,57,32,24		
2″	25,35,40,44,31,33,46,30,19,38		1,52,16,14,31	
		1,53,39,23, 3,41,17,53		8,19
4″	25,35,42,38,10,56,50,11,37,31		1,52,16,22,50	
		1,53,39,21,11,24,55, 3		8,19
6″	25,35,44,31,50,18, 1,36,32,34		1,52,16,31, 9	
		1,53,39,19,19, 8,23,54		8,19
8″	25,35,46,25,29,37,20,44,56,28		1,52,16,39,28	
		1,53,39,17,26,51,44,26		8,19
10″	25,35,48,19, 8,54,47,36,40,54		1,52,16,47,47	
		1,53,39,15,34,34,56,39		8,19
12″	25,35,50,12,48,10,22,11,37,33		1,52,16,56, 6	
		1,53,39,13,42,18, 0,33		8,19
14″	25,35,52, 6,27,24, 4,29,38, 6		1,52,17, 4,25	
		1,53,39,11,50, 0,56, 8		8,19
16″	25,35,54, 0, 6,35,54,30,34,14		1,52,17,12,44	
		1,53,39, 9,57,43,43,24		8,19
18″	25,35,55,53,45,45,52,14,17,38		1,52,17,21, 3	
		1,53,39, 8, 5,26,22,21		8,19
20″	25,35,57,47,24,53,57,40,39,59		1,52,17,29,22	
		1,53,39, 6,13, 8,52,59		8,19
22″	25,35,59,41, 4, 0,10,49,32,58		1,52,17,37,41	
		1,53,39, 4,20,51,15,18		8,19
24″	25,36, 1,34,43, 4,31,40,48,16		1,52,17,46, 0	
		1,53,39, 2,28,33,29,18		8,19
26″	25,36, 3,28,22, 7, 0,14,17,34		1,52,17,54,19	
		1,53,39, 0,36,15,34,59		8,19
28″	25,36, 5,22, 1, 7,36,29,52,33		1,52,18, 2,38	
		1,53,38,58,43,57,32,21		8,19
30″	25,36, 7,15,40, 6,20,27,24,54		1,52,18,10,57	
		1,53,38,56,51,39,21,24		8,19
32″	25,36, 9, 9,19, 3,12, 6,46,18		1,52,18,19,16	
		1,53,38,54,59,21, 2, 8		8,19
34″	25,36,11, 2,57,58,11,27,48,26		1,52,18,27,35	
		1,53,38,53, 7, 2,34,33		8,19
36″	25,36,12,56,36,51,18,30,22,59		1,52,18,35,54	
		1,53,38,51,14,43,58,39		8,19
38″	25,36,14,50,15,42,33,14,21,38		1,52,18,44,13	
		1,53,38,49,22,25,14,26		8,19
40″	25,36,16,43,54,31,55,39,36, 4		1,52,18,52,32	
		1,53,38,47,30, 6,21,54		8,19
42″	25,36,18,37,33,19,25,45,57,58		1,52,19, 0,51	
		1,53,38,45,37,47,21, 3		8,19
44″	25,36,20,31,12, 5, 3,33,19, 1		1,52,19, 9,10	
		1,53,38,43,45,28,11,53		8,19
46″	25,36,22,24,50,48,49, 1,30,54		1,52,19,17,29	
		1,53,38,41,53, 8,54,24		8,19
48″	25,36,24,18,29,30,42,10,25,18		1,52,19,25,48	
		1,53,38,40, 0,49,28,36		8,19
50″	25,36,26,12, 8,10,42,59,53,54		1,52,19,34, 7	
		1,53,38,38, 8,29,54,29		8,19
52″	25,36,28, 5,46,48,51,29,48,23		1,52,19,42,26	
		1,53,38,36,16,10,12, 3		8,19
54″	25,36,29,59,25,25, 7,40, 0,26		1,52,19,50,45	
		1,53,38,34,23,50,21,18		8,19
56″	25,36,31,53, 3,59,31,30,21,44		1,52,19,59, 4	
		1,53,38,32,31,30,22,14		8,19
58″	25,36,33,46,42,32, 3, 0,43,58		1,52,20, 7,23	
		1,53,38,30,39,10,14,51		
60″	25,36,35,40,21, 2,42,10,58,49			
exact	25,36,35,40,21, 2,42,11,28, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°16′ 0″	25,36,35,40,21, 2,42,11,28, 6			
		1,53,38,28,46,50, 2,24		
2″	25,36,37,33,59,31,29, 1,30,30		1,52,20,23,47	
		1,53,38,26,54,29,38,37		8,18
4″	25,36,39,27,37,58,23,31, 9, 7		1,52,20,32, 5	
		1,53,38,25, 2, 9, 6,32		8,18
6″	25,36,41,21,16,23,25,40,15,39		1,52,20,40,23	
		1,53,38,23, 9,48,26, 9		8,18
8″	25,36,43,14,54,46,35,28,41,48		1,52,20,48,41	
		1,53,38,21,17,27,37,28		8,18
10″	25,36,45, 8,33, 7,52,56,19,16		1,52,20,56,59	
		1,53,38,19,25, 6,40,29		8,18
12″	25,36,47, 2,11,27,18, 2,59,45		1,52,21, 5,17	
		1,53,38,17,32,45,35,12		8,18
14″	25,36,48,55,49,44,50,48,34,57		1,52,21,13,35	
		1,53,38,15,40,24,21,37		8,18
16″	25,36,50,49,28, 0,31,12,56,34		1,52,21,21,53	
		1,53,38,13,48, 2,59,44		8,18
18″	25,36,52,43, 6,14,19,15,56,18		1,52,21,30,11	
		1,53,38,11,55,41,29,33		8,18
20″	25,36,54,36,44,26,14,57,25,51		1,52,21,38,29	
		1,53,38,10, 3,19,51, 4		8,18
22″	25,36,56,30,22,36,18,17,16,55		1,52,21,46,47	
		1,53,38, 8,10,58, 4,17		8,18
24″	25,36,58,24, 0,44,29,15,21,12		1,52,21,55, 5	
		1,53,38, 6,18,36, 9,12		8,18
26″	25,37, 0,17,38,50,47,51,30,24		1,52,22, 3,23	
		1,53,38, 4,26,14, 5,49		8,18
28″	25,37, 2,11,16,55,14, 5,36,13		1,52,22,11,41	
		1,53,38, 2,33,51,54, 8		8,18
30″	25,37, 4, 4,54,57,47,57,30,21		1,52,22,19,59	
		1,53,38, 0,41,29,34, 9		8,18
32″	25,37, 5,58,32,58,29,27, 4,30		1,52,22,28,17	
		1,53,37,58,49, 7, 5,52		8,18
34″	25,37, 7,52,10,57,18,34,10,22		1,52,22,36,35	
		1,53,37,56,56,44,29,17		8,18
36″	25,37, 9,45,48,54,15,18,39,39		1,52,22,44,53	
		1,53,37,55, 4,21,44,24		8,18
38″	25,37,11,39,26,49,19,40,24, 3		1,52,22,53,11	
		1,53,37,53,11,58,51,13		8,18
40″	25,37,13,33, 4,42,31,39,15,16		1,52,23, 1,29	
		1,53,37,51,19,35,49,44		8,18
42″	25,37,15,26,42,33,51,15, 5, 0		1,52,23, 9,47	
		1,53,37,49,27,12,39,57		8,18
44″	25,37,17,20,20,23,18,27,44,57		1,52,23,18, 5	
		1,53,37,47,34,49,21,52		8,18
46″	25,37,19,13,58,10,53,17, 6,49		1,52,23,26,23	
		1,53,37,45,42,25,55,29		8,18
48″	25,37,21, 7,35,56,35,43, 2,18		1,52,23,34,41	
		1,53,37,43,50, 2,20,48		8,18
50″	25,37,23, 1,13,40,25,45,23, 6		1,52,23,42,59	
		1,53,37,41,57,38,37,49		8,18
52″	25,37,24,54,51,22,23,24, 0,55		1,52,23,51,17	
		1,53,37,40, 5,14,46,32		8,18
54″	25,37,26,48,29, 2,28,38,47,27		1,52,23,59,35	
		1,53,37,38,12,50,46,57		8,18
56″	25,37,28,42, 6,40,41,29,34,24		1,52,24, 7,53	
		1,53,37,36,20,26,39, 4		8,18
58″	25,37,30,35,44,17, 1,56,13,28		1,52,24,16,11	
		1,53,37,34,28, 2,22,53		
60″	25,37,32,29,21,51,29,58,36,21			
exact	25,37,32,29,21,51,29,58, 5,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°17′ 0″	25,37,32,29,21,51,29,58, 5,29			
		1,53,37,32,35,37,55, 6		
2″	25,37,34,22,59,24, 5,36, 0,35		1,52,24,33, 0	
		1,53,37,30,43,13,22, 6		8,18
4″	25,37,36,16,36,54,48,49,22,41		1,52,24,41,18	
		1,53,37,28,50,48,40,48		8,18
6″	25,37,38,10,14,23,39,38, 3,29		1,52,24,49,36	
		1,53,37,26,58,23,51,12		8,18
8″	25,37,40, 3,51,50,38, 1,54,41		1,52,24,57,54	
		1,53,37,25, 5,58,53,18		8,18
10″	25,37,41,57,29,15,44, 0,47,59		1,52,25, 6,12	
		1,53,37,23,13,33,47, 6		8,18
12″	25,37,43,51, 6,38,57,34,35, 5		1,52,25,14,30	
		1,53,37,21,21, 8,32,36		8,18
14″	25,37,45,44,44, 0,18,43, 7,41		1,52,25,22,48	
		1,53,37,19,28,43, 9,48		8,18
16″	25,37,47,38,21,19,47,26,17,29		1,52,25,31, 6	
		1,53,37,17,36,17,38,42		8,18
18″	25,37,49,31,58,37,23,43,56,11		1,52,25,39,24	
		1,53,37,15,43,51,59,18		8,18
20″	25,37,51,25,35,53, 7,35,55,29		1,52,25,47,42	
		1,53,37,13,51,26,11,36		8,18
22″	25,37,53,19,13, 6,59, 2, 7, 5		1,52,25,56, 0	
		1,53,37,11,59, 0,15,36		8,18
24″	25,37,55,12,50,18,58, 2,22,41		1,52,26, 4,18	
		1,53,37,10, 6,34,11,18		8,18
26″	25,37,57, 6,27,29, 4,36,33,59		1,52,26,12,36	
		1,53,37, 8,14, 7,58,42		8,18
28″	25,37,59, 0, 4,37,18,44,32,41		1,52,26,20,54	
		1,53,37, 6,21,41,37,48		8,18
30″	25,38, 0,53,41,43,40,26,10,29		1,52,26,29,12	
		1,53,37, 4,29,15, 8,36		8,18
32″	25,38, 2,47,18,48, 9,41,19, 5		1,52,26,37,30	
		1,53,37, 2,36,48,31, 6		8,18
34″	25,38, 4,40,55,50,46,29,50,11		1,52,26,45,48	
		1,53,37, 0,44,21,45,18		8,18
36″	25,38, 6,34,32,51,30,51,35,29		1,52,26,54, 6	
		1,53,36,58,51,54,51,12		8,18
38″	25,38, 8,28, 9,50,22,46,26,41		1,52,27, 2,24	
		1,53,36,56,59,27,48,48		8,18
40″	25,38,10,21,46,47,22,14,15,29		1,52,27,10,42	
		1,53,36,55, 7, 0,38, 6		8,18
42″	25,38,12,15,23,42,29,14,53,35		1,52,27,19, 0	
		1,53,36,53,14,33,19, 6		8,18
44″	25,38,14, 9, 0,35,43,48,12,41		1,52,27,27,18	
		1,53,36,51,22, 5,51,48		8,18
46″	25,38,16, 2,37,27, 5,54, 4,29		1,52,27,35,36	
		1,53,36,49,29,38,16,12		8,18
48″	25,38,17,56,14,16,35,32,20,41		1,52,27,43,54	
		1,53,36,47,37,10,32,18		8,18
50″	25,38,19,49,51, 4,12,42,52,59		1,52,27,52,12	
		1,53,36,45,44,42,40, 6		8,18
52″	25,38,21,43,27,49,57,25,33, 5		1,52,28, 0,30	
		1,53,36,43,52,14,39,36		8,18
54″	25,38,23,37, 4,33,49,40,12,41		1,52,28, 8,48	
		1,53,36,41,59,46,30,48		8,18
56″	25,38,25,30,41,15,49,26,43,29		1,52,28,17, 6	
		1,53,36,40, 7,18,13,42		8,18
58″	25,38,27,24,17,55,56,44,57,11		1,52,28,25,24	
		1,53,36,38,14,49,48,18		
60″	25,38,29,17,54,34,11,34,45,29			
exact	25,38,29,17,54,34,11,34,15,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°18′ 0″	25,38,29,17,54,34,11,34,15,15			
		1,53,36,36,22,21,11,31		
2″	25,38,31,11,31,10,33,55,26,46		1,52,28,42,12	
		1,53,36,34,29,52,29,19		8,18
4″	25,38,33, 5, 7,45, 3,47,56, 5		1,52,28,50,30	
		1,53,36,32,37,23,38,49		8,18
6″	25,38,34,58,44,17,41,11,34,54		1,52,28,58,48	
		1,53,36,30,44,54,40, 1		8,18
8″	25,38,36,52,20,48,26, 6,14,55		1,52,29, 7, 6	
		1,53,36,28,52,25,32,55		8,18
10″	25,38,38,45,57,17,18,31,47,50		1,52,29,15,24	
		1,53,36,26,59,56,17,31		8,18
12″	25,38,40,39,33,44,18,28, 5,21		1,52,29,23,42	
		1,53,36,25, 7,26,53,49		8,18
14″	25,38,42,33,10, 9,25,54,59,10		1,52,29,32, 0	
		1,53,36,23,14,57,21,49		8,18
16″	25,38,44,26,46,32,40,52,20,59		1,52,29,40,18	
		1,53,36,21,22,27,41,31		8,18
18″	25,38,46,20,22,54, 3,20, 2,30		1,52,29,48,36	
		1,53,36,19,29,57,52,55		8,18
20″	25,38,48,13,59,13,33,17,55,25		1,52,29,56,54	
		1,53,36,17,37,27,56, 1		8,18
22″	25,38,50, 7,35,31,10,45,51,26		1,52,30, 5,12	
		1,53,36,15,44,57,50,49		8,18
24″	25,38,52, 1,11,46,55,43,42,15		1,52,30,13,30	
		1,53,36,13,52,27,37,19		8,18
26″	25,38,53,54,48, 0,48,11,19,34		1,52,30,21,48	
		1,53,36,11,59,57,15,31		8,18
28″	25,38,55,48,24,12,48, 8,35, 5		1,52,30,30, 6	
		1,53,36,10, 7,26,45,25		8,18
30″	25,38,57,42, 0,22,55,35,20,30		1,52,30,38,24	
		1,53,36, 8,14,56, 7, 1		8,18
32″	25,38,59,35,36,31,10,31,27,31		1,52,30,46,42	
		1,53,36, 6,22,25,20,19		8,18
34″	25,39, 1,29,12,37,32,56,47,50		1,52,30,55, 0	
		1,53,36, 4,29,54,25,19		8,18
36″	25,39, 3,22,48,42, 2,51,13, 9		1,52,31, 3,18	
		1,53,36, 2,37,23,22, 1		8,18
38″	25,39, 5,16,24,44,40,14,35,10		1,52,31,11,36	
		1,53,36, 0,44,52,10,25		8,18
40″	25,39, 7,10, 0,45,25, 6,45,35		1,52,31,19,54	
		1,53,35,58,52,20,50,31		8,18
42″	25,39, 9, 3,36,44,17,27,36, 6		1,52,31,28,12	
		1,53,35,56,59,49,22,19		8,18
44″	25,39,10,57,12,41,17,16,58,25		1,52,31,36,30	
		1,53,35,55, 7,17,45,49		8,18
46″	25,39,12,50,48,36,24,34,44,14		1,52,31,44,48	
		1,53,35,53,14,46, 1, 1		8,18
48″	25,39,14,44,24,29,39,20,45,15		1,52,31,53, 6	
		1,53,35,51,22,14, 7,55		8,18
50″	25,39,16,38, 0,21, 1,34,53,10		1,52,32, 1,24	
		1,53,35,49,29,42, 6,31		8,18
52″	25,39,18,31,36,10,31,16,59,41		1,52,32, 9,42	
		1,53,35,47,37, 9,56,49		8,18
54″	25,39,20,25,11,58, 8,26,56,30		1,52,32,18, 0	
		1,53,35,45,44,37,38,49		8,18
56″	25,39,22,18,47,43,53, 4,35,19		1,52,32,26,18	
		1,53,35,43,52, 5,12,31		8,18
58″	25,39,24,12,23,27,45, 9,47,50		1,52,32,34,36	
		1,53,35,41,59,32,37,55		
60″	25,39,26, 5,59, 9,44,42,25,45			
exact	25,39,26, 5,59, 9,44,42, 4, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°19′ 0″	25,39,26, 5,59, 9,44,42, 4, 7			
		1,53,35,40, 6,59,52,42		
2″	25,39,27,59,34,49,51,41,56,49		1,52,32,51,21	
		1,53,35,38,14,27, 1,21		8,18
4″	25,39,29,53,10,28, 6, 8,58,10		1,52,32,59,39	
		1,53,35,36,21,54, 1,42		8,18
6″	25,39,31,46,46, 4,28, 2,59,52		1,52,33, 7,57	
		1,53,35,34,29,20,53,45		8,18
8″	25,39,33,40,21,38,57,23,53,37		1,52,33,16,15	
		1,53,35,32,36,47,37,30		8,18
10″	25,39,35,33,57,11,34,11,31, 7		1,52,33,24,33	
		1,53,35,30,44,14,12,57		8,18
12″	25,39,37,27,32,42,18,25,44, 4		1,52,33,32,51	
		1,53,35,28,51,40,40, 6		8,18
14″	25,39,39,21, 8,11,10, 6,24,10		1,52,33,41, 9	
		1,53,35,26,59, 6,58,57		8,18
16″	25,39,41,14,43,38, 9,13,23, 7		1,52,33,49,27	
		1,53,35,25, 6,33, 9,30		8,18
18″	25,39,43, 8,19, 3,15,46,32,37		1,52,33,57,45	
		1,53,35,23,13,59,11,45		8,18
20″	25,39,45, 1,54,26,29,45,44,22		1,52,34, 6, 3	
		1,53,35,21,21,25, 5,42		8,18
22″	25,39,46,55,29,47,51,10,50, 4		1,52,34,14,21	
		1,53,35,19,28,50,51,21		8,18
24″	25,39,48,49, 5, 7,20, 1,41,25		1,52,34,22,39	
		1,53,35,17,36,16,28,42		8,18
26″	25,39,50,42,40,24,56,18,10, 7		1,52,34,30,57	
		1,53,35,15,43,41,57,45		8,18
28″	25,39,52,36,15,40,40, 0, 7,52		1,52,34,39,15	
		1,53,35,13,51, 7,18,30		8,18
30″	25,39,54,29,50,54,31, 7,26,22		1,52,34,47,33	
		1,53,35,11,58,32,30,57		8,18
32″	25,39,56,23,26, 6,29,39,57,19		1,52,34,55,51	
		1,53,35,10, 5,57,35, 6		8,18
34″	25,39,58,17, 1,16,35,37,32,25		1,52,35, 4, 9	
		1,53,35, 8,13,22,30,57		8,18
36″	25,40, 0,10,36,24,49, 0, 3,22		1,52,35,12,27	
		1,53,35, 6,20,47,18,30		8,18
38″	25,40, 2, 4,11,31, 9,47,21,52		1,52,35,20,45	
		1,53,35, 4,28,11,57,45		8,18
40″	25,40, 3,57,46,35,37,59,19,37		1,52,35,29, 3	
		1,53,35, 2,35,36,28,42		8,18
42″	25,40, 5,51,21,38,13,35,48,19		1,52,35,37,21	
		1,53,35, 0,43, 0,51,21		8,18
44″	25,40, 7,44,56,38,56,36,39,40		1,52,35,45,39	
		1,53,34,58,50,25, 5,42		8,18
46″	25,40, 9,38,31,37,47, 1,45,22		1,52,35,53,57	
		1,53,34,56,57,49,11,45		8,18
48″	25,40,11,32, 6,34,44,50,57, 7		1,52,36, 2,15	
		1,53,34,55, 5,13, 9,30		8,18
50″	25,40,13,25,41,29,50, 4, 6,37		1,52,36,10,33	
		1,53,34,53,12,36,58,57		8,18
52″	25,40,15,19,16,23, 2,41, 5,34		1,52,36,18,51	
		1,53,34,51,20, 0,40, 6		8,18
54″	25,40,17,12,51,14,22,41,45,40		1,52,36,27, 9	
		1,53,34,49,27,24,12,57		8,18
56″	25,40,19, 6,26, 3,50, 5,58,37		1,52,36,35,27	
		1,53,34,47,34,47,37,30		8,18
58″	25,40,21, 0, 0,51,24,53,36, 7		1,52,36,43,45	
		1,53,34,45,42,10,53,45		
60″	25,40,22,53,35,37, 7, 4,29,52			
exact	25,40,22,53,35,37, 7, 4, 9,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°20′ 0″	25,40,22,53,35,37, 7, 4, 9,39			
		1,53,34,43,49,33,59,40		
2″	25,40,24,47,10,20,56,38, 9,19		1,52,37, 0,29	
		1,53,34,41,56,56,59,11		8,18
4″	25,40,26,40,45, 2,53,35, 8,30		1,52,37, 8,47	
		1,53,34,40, 4,19,50,24		8,18
6″	25,40,28,34,19,42,57,54,58,54		1,52,37,17, 5	
		1,53,34,38,11,42,33,19		8,18
8″	25,40,30,27,54,21, 9,37,32,13		1,52,37,25,23	
		1,53,34,36,19, 5, 7,56		8,18
10″	25,40,32,21,28,57,28,42,40, 9		1,52,37,33,41	
		1,53,34,34,26,27,34,15		8,18
12″	25,40,34,15, 3,31,55,10,14,24		1,52,37,41,59	
		1,53,34,32,33,49,52,16		8,18
14″	25,40,36, 8,38, 4,29, 0, 6,40		1,52,37,50,17	
		1,53,34,30,41,12, 1,59		8,18
16″	25,40,38, 2,12,35,10,12, 8,39		1,52,37,58,35	
		1,53,34,28,48,34, 3,24		8,18
18″	25,40,39,55,47, 3,58,46,12, 3		1,52,38, 6,53	
		1,53,34,26,55,55,56,31		8,18
20″	25,40,41,49,21,30,54,42, 8,34		1,52,38,15,11	
		1,53,34,25, 3,17,41,20		8,18
22″	25,40,43,42,55,55,57,59,49,54		1,52,38,23,29	
		1,53,34,23,10,39,17,51		8,18
24″	25,40,45,36,30,19, 8,39, 7,45		1,52,38,31,47	
		1,53,34,21,18, 0,46, 4		8,18
26″	25,40,47,30, 4,40,26,39,53,49		1,52,38,40, 5	
		1,53,34,19,25,22, 5,59		8,18
28″	25,40,49,23,38,59,52, 1,59,48		1,52,38,48,23	
		1,53,34,17,32,43,17,36		8,18
30″	25,40,51,17,13,17,24,45,17,24		1,52,38,56,41	
		1,53,34,15,40, 4,20,55		8,18
32″	25,40,53,10,47,33, 4,49,38,19		1,52,39, 4,59	
		1,53,34,13,47,25,15,56		8,18
34″	25,40,55, 4,21,46,52,14,54,15		1,52,39,13,17	
		1,53,34,11,54,46, 2,39		8,18
36″	25,40,56,57,55,58,47, 0,56,54		1,52,39,21,35	
		1,53,34,10, 2, 6,41, 4		8,18
38″	25,40,58,51,30, 8,49, 7,37,58		1,52,39,29,53	
		1,53,34, 8, 9,27,11,11		8,18
40″	25,41, 0,45, 4,16,58,34,49, 9		1,52,39,38,11	
		1,53,34, 6,16,47,33, 0		8,18
42″	25,41, 2,38,38,23,15,22,22, 9		1,52,39,46,29	
		1,53,34, 4,24, 7,46,31		8,18
44″	25,41, 4,32,12,27,39,30, 8,40		1,52,39,54,47	
		1,53,34, 2,31,27,51,44		8,18
46″	25,41, 6,25,46,30,10,58, 0,24		1,52,40, 3, 5	
		1,53,34, 0,38,47,48,39		8,18
48″	25,41, 8,19,20,30,49,45,49, 3		1,52,40,11,23	
		1,53,33,58,46, 7,37,16		8,18
50″	25,41,10,12,54,29,35,53,26,19		1,52,40,19,41	
		1,53,33,56,53,27,17,35		8,18
52″	25,41,12, 6,28,26,29,20,43,54		1,52,40,27,59	
		1,53,33,55, 0,46,49,36		8,18
54″	25,41,14, 0, 2,21,30, 7,33,30		1,52,40,36,17	
		1,53,33,53, 8, 6,13,19		8,18
56″	25,41,15,53,36,14,38,13,46,49		1,52,40,44,35	
		1,53,33,51,15,25,28,44		8,18
58″	25,41,17,47,10, 5,53,39,15,33		1,52,40,52,53	
		1,53,33,49,22,44,35,51		
60″	25,41,19,40,43,55,16,23,51,24			
exact	25,41,19,40,43,55,16,23,40,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°21′ 0″	25,41,19,40,43,55,16,23,40,15			
		1,53,33,47,30, 3,33,26		
2″	25,41,21,34,17,42,46,27,13,41		1,52,41, 9,34	
		1,53,33,45,37,22,23,52		8,18
4″	25,41,23,27,51,28,23,49,37,33		1,52,41,17,52	
		1,53,33,43,44,41, 6, 0		8,18
6″	25,41,25,21,25,12, 8,30,43,33		1,52,41,26,10	
		1,53,33,41,51,59,39,50		8,18
8″	25,41,27,14,58,54, 0,30,23,23		1,52,41,34,28	
		1,53,33,39,59,18, 5,22		8,18
10″	25,41,29, 8,32,33,59,48,28,45		1,52,41,42,46	
		1,53,33,38, 6,36,22,36		8,18
12″	25,41,31, 2, 6,12, 6,24,51,21		1,52,41,51, 4	
		1,53,33,36,13,54,31,32		8,18
14″	25,41,32,55,39,48,20,19,22,53		1,52,41,59,22	
		1,53,33,34,21,12,32,10		8,18
16″	25,41,34,49,13,22,41,31,55, 3		1,52,42, 7,40	
		1,53,33,32,28,30,24,30		8,18
18″	25,41,36,42,46,55,10, 2,19,33		1,52,42,15,58	
		1,53,33,30,35,48, 8,32		8,18
20″	25,41,38,36,20,25,45,50,28, 5		1,52,42,24,16	
		1,53,33,28,43, 5,44,16		8,18
22″	25,41,40,29,53,54,28,56,12,21		1,52,42,32,34	
		1,53,33,26,50,23,11,42		8,18
24″	25,41,42,23,27,21,19,19,24, 3		1,52,42,40,52	
		1,53,33,24,57,40,30,50		8,18
26″	25,41,44,17, 0,46,16,59,54,53		1,52,42,49,10	
		1,53,33,23, 4,57,41,40		8,18
28″	25,41,46,10,34, 9,21,57,36,33		1,52,42,57,28	
		1,53,33,21,12,14,44,12		8,18
30″	25,41,48, 4, 7,30,34,12,20,45		1,52,43, 5,46	
		1,53,33,19,19,31,38,26		8,18
32″	25,41,49,57,40,49,53,43,59,11		1,52,43,14, 4	
		1,53,33,17,26,48,24,22		8,18
34″	25,41,51,51,14, 7,20,32,23,33		1,52,43,22,22	
		1,53,33,15,34, 5, 2, 0		8,18
36″	25,41,53,44,47,22,54,37,25,33		1,52,43,30,40	
		1,53,33,13,41,21,31,20		8,18
38″	25,41,55,38,20,36,35,58,56,53		1,52,43,38,58	
		1,53,33,11,48,37,52,22		8,18
40″	25,41,57,31,53,48,24,36,49,15		1,52,43,47,16	
		1,53,33, 9,55,54, 5, 6		8,18
42″	25,41,59,25,26,58,20,30,54,21		1,52,43,55,34	
		1,53,33, 8, 3,10, 9,32		8,18
44″	25,42, 1,19, 0, 6,23,41, 3,53		1,52,44, 3,52	
		1,53,33, 6,10,26, 5,40		8,18
46″	25,42, 3,12,33,12,34, 7, 9,33		1,52,44,12,10	
		1,53,33, 4,17,41,53,30		8,18
48″	25,42, 5, 6, 6,16,51,49, 3, 3		1,52,44,20,28	
		1,53,33, 2,24,57,33, 2		8,18
50″	25,42, 6,59,39,19,16,46,36, 5		1,52,44,28,46	
		1,53,33, 0,32,13, 4,16		8,18
52″	25,42, 8,53,12,19,48,59,40,21		1,52,44,37, 4	
		1,53,32,58,39,28,27,12		8,18
54″	25,42,10,46,45,18,28,28, 7,33		1,52,44,45,22	
		1,53,32,56,46,43,41,50		8,18
56″	25,42,12,40,18,15,15,11,49,23		1,52,44,53,40	
		1,53,32,54,53,58,48,10		8,18
58″	25,42,14,33,51,10, 9,10,37,33		1,52,45, 1,58	
		1,53,32,53, 1,13,46,12		
60″	25,42,16,27,24, 3,10,24,23,45			
exact	25,42,16,27,24, 3,10,24,15,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°22′ 0″	25,42,16,27,24, 3,10,24,15,12			
		1,53,32,51, 8,28,35, 3		
2″	25,42,18,20,56,54,18,52,50,15		1,52,45,18,37	
		1,53,32,49,15,43,16,26		8,18
4″	25,42,20,14,29,43,34,36, 6,41		1,52,45,26,55	
		1,53,32,47,22,57,49,31		8,18
6″	25,42,22, 8, 2,30,57,33,56,12		1,52,45,35,13	
		1,53,32,45,30,12,14,18		8,18
8″	25,42,24, 1,35,16,27,46,10,30		1,52,45,43,31	
		1,53,32,43,37,26,30,47		8,18
10″	25,42,25,55, 8, 0, 5,12,41,17		1,52,45,51,49	
		1,53,32,41,44,40,38,58		8,18
12″	25,42,27,48,40,41,49,53,20,15		1,52,46, 0, 7	
		1,53,32,39,51,54,38,51		8,18
14″	25,42,29,42,13,21,41,47,59, 6		1,52,46, 8,25	
		1,53,32,37,59, 8,30,26		8,18
16″	25,42,31,35,45,59,40,56,29,32		1,52,46,16,43	
		1,53,32,36, 6,22,13,43		8,18
18″	25,42,33,29,18,35,47,18,43,15		1,52,46,25, 1	
		1,53,32,34,13,35,48,42		8,18
20″	25,42,35,22,51,10, 0,54,31,57		1,52,46,33,19	
		1,53,32,32,20,49,15,23		8,18
22″	25,42,37,16,23,42,21,43,47,20		1,52,46,41,37	
		1,53,32,30,28, 2,33,46		8,18
24″	25,42,39, 9,56,12,49,46,21, 6		1,52,46,49,55	
		1,53,32,28,35,15,43,51		8,18
26″	25,42,41, 3,28,41,25, 2, 4,57		1,52,46,58,13	
		1,53,32,26,42,28,45,38		8,18
28″	25,42,42,57, 1, 8, 7,30,50,35		1,52,47, 6,31	
		1,53,32,24,49,41,39, 7		8,18
30″	25,42,44,50,33,32,57,12,29,42		1,52,47,14,49	
		1,53,32,22,56,54,24,18		8,18
32″	25,42,46,44, 5,55,54, 6,54, 0		1,52,47,23, 7	
		1,53,32,21, 4, 7, 1,11		8,18
34″	25,42,48,37,38,16,58,13,55,11		1,52,47,31,25	
		1,53,32,19,11,19,29,46		8,18
36″	25,42,50,31,10,36, 9,33,24,57		1,52,47,39,43	
		1,53,32,17,18,31,50, 3		8,18
38″	25,42,52,24,42,53,28, 5,15, 0		1,52,47,48, 1	
		1,53,32,15,25,44, 2, 2		8,18
40″	25,42,54,18,15, 8,53,49,17, 2		1,52,47,56,19	
		1,53,32,13,32,56, 5,43		8,18
42″	25,42,56,11,47,22,26,45,22,45		1,52,48, 4,37	
		1,53,32,11,40, 8, 1, 6		8,18
44″	25,42,58, 5,19,34, 6,53,23,51		1,52,48,12,55	
		1,53,32, 9,47,19,48,11		8,18
46″	25,42,59,58,51,43,54,13,12, 2		1,52,48,21,13	
		1,53,32, 7,54,31,26,58		8,18
48″	25,43, 1,52,23,51,48,44,39, 0		1,52,48,29,31	
		1,53,32, 6, 1,42,57,27		8,18
50″	25,43, 3,45,55,57,50,27,36,27		1,52,48,37,49	
		1,53,32, 4, 8,54,19,38		8,18
52″	25,43, 5,39,28, 1,59,21,56, 5		1,52,48,46, 7	
		1,53,32, 2,16, 5,33,31		8,18
54″	25,43, 7,33, 0, 4,15,27,29,36		1,52,48,54,25	
		1,53,32, 0,23,16,39, 6		8,18
56″	25,43, 9,26,32, 4,38,44, 8,42		1,52,49, 2,43	
		1,53,31,58,30,27,36,23		8,18
58″	25,43,11,20, 4, 3, 9,11,45, 5		1,52,49,11, 1	
		1,53,31,56,37,38,25,22		
60″	25,43,13,13,35,59,46,50,10,27			
exact	25,43,13,13,35,59,46,50, 4,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°23′ 0″	25,43,13,13,35,59,46,50, 4,41			
		1,53,31,54,44,49, 5,32		
2″	25,43,15, 7, 7,54,31,39,10,13		1,52,49,27,38	
		1,53,31,52,51,59,37,54		8,18
4″	25,43,17, 0,39,47,23,38,48, 7		1,52,49,35,56	
		1,53,31,50,59,10, 1,58		8,18
6″	25,43,18,54,11,38,22,48,50, 5		1,52,49,44,14	
		1,53,31,49, 6,20,17,44		8,18
8″	25,43,20,47,43,27,29, 9, 7,49		1,52,49,52,32	
		1,53,31,47,13,30,25,12		8,18
10″	25,43,22,41,15,14,42,39,33, 1		1,52,50, 0,50	
		1,53,31,45,20,40,24,22		8,18
12″	25,43,24,34,47, 0, 3,19,57,23		1,52,50, 9, 8	
		1,53,31,43,27,50,15,14		8,18
14″	25,43,26,28,18,43,31,10,12,37		1,52,50,17,26	
		1,53,31,41,34,59,57,48		8,18
16″	25,43,28,21,50,25, 6,10,10,25		1,52,50,25,44	
		1,53,31,39,42, 9,32, 4		8,18
18″	25,43,30,15,22, 4,48,19,42,29		1,52,50,34, 2	
		1,53,31,37,49,18,58, 2		8,18
20″	25,43,32, 8,53,42,37,38,40,31		1,52,50,42,20	
		1,53,31,35,56,28,15,42		8,18
22″	25,43,34, 2,25,18,34, 6,56,13		1,52,50,50,38	
		1,53,31,34, 3,37,25, 4		8,18
24″	25,43,35,55,56,52,37,44,21,17		1,52,50,58,56	
		1,53,31,32,10,46,26, 8		8,18
26″	25,43,37,49,28,24,48,30,47,25		1,52,51, 7,14	
		1,53,31,30,17,55,18,54		8,18
28″	25,43,39,42,59,55, 6,26, 6,19		1,52,51,15,32	
		1,53,31,28,25, 4, 3,22		8,18
30″	25,43,41,36,31,23,31,30, 9,41		1,52,51,23,50	
		1,53,31,26,32,12,39,32		8,18
32″	25,43,43,30, 2,50, 3,42,49,13		1,52,51,32, 8	
		1,53,31,24,39,21, 7,24		8,18
34″	25,43,45,23,34,14,43, 3,56,37		1,52,51,40,26	
		1,53,31,22,46,29,26,58		8,18
36″	25,43,47,17, 5,37,29,33,23,35		1,52,51,48,44	
		1,53,31,20,53,37,38,14		8,18
38″	25,43,49,10,36,58,23,11, 1,49		1,52,51,57, 2	
		1,53,31,19, 0,45,41,12		8,18
40″	25,43,51, 4, 8,17,23,56,43, 1		1,52,52, 5,20	
		1,53,31,17, 7,53,35,52		8,18
42″	25,43,52,57,39,34,31,50,18,53		1,52,52,13,38	
		1,53,31,15,15, 1,22,14		8,18
44″	25,43,54,51,10,49,46,51,41, 7		1,52,52,21,56	
		1,53,31,13,22, 9, 0,18		8,18
46″	25,43,56,44,42, 3, 9, 0,41,25		1,52,52,30,14	
		1,53,31,11,29,16,30, 4		8,18
48″	25,43,58,38,13,14,38,17,11,29		1,52,52,38,32	
		1,53,31, 9,36,23,51,32		8,18
50″	25,44, 0,31,44,24,14,41, 3, 1		1,52,52,46,50	
		1,53,31, 7,43,31, 4,42		8,18
52″	25,44, 2,25,15,31,58,12, 7,43		1,52,52,55, 8	
		1,53,31, 5,50,38, 9,34		8,18
54″	25,44, 4,18,46,37,48,50,17,17		1,52,53, 3,26	
		1,53,31, 3,57,45, 6, 8		8,18
56″	25,44, 6,12,17,41,46,35,23,25		1,52,53,11,44	
		1,53,31, 2, 4,51,54,24		8,18
58″	25,44, 8, 5,48,43,51,27,17,49		1,52,53,20, 2	
		1,53,31, 0,11,58,34,22		
60″	25,44, 9,59,19,44, 3,25,52,11			
exact	25,44, 9,59,19,44, 3,25,49,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°24′ 0″	25,44, 9,59,19,44, 3,25,49,46			
		1,53,30,58,19, 5, 5,56		
2″	25,44,11,52,50,42,22,30,55,42		1,52,53,36,38	
		1,53,30,56,26,11,29,18		8,18
4″	25,44,13,46,21,38,48,42,25, 0		1,52,53,44,56	
		1,53,30,54,33,17,44,22		8,18
6″	25,44,15,39,52,33,22, 0, 9,22		1,52,53,53,14	
		1,53,30,52,40,23,51, 8		8,18
8″	25,44,17,33,23,26, 2,24, 0,30		1,52,54, 1,32	
		1,53,30,50,47,29,49,36		8,18
10″	25,44,19,26,54,16,49,53,50, 6		1,52,54, 9,50	
		1,53,30,48,54,35,39,46		8,18
12″	25,44,21,20,25, 5,44,29,29,52		1,52,54,18, 8	
		1,53,30,47, 1,41,21,38		8,18
14″	25,44,23,13,55,52,46,10,51,30		1,52,54,26,26	
		1,53,30,45, 8,46,55,12		8,18
16″	25,44,25, 7,26,37,54,57,46,42		1,52,54,34,44	
		1,53,30,43,15,52,20,28		8,18
18″	25,44,27, 0,57,21,10,50, 7,10		1,52,54,43, 2	
		1,53,30,41,22,57,37,26		8,18
20″	25,44,28,54,28, 2,33,47,44,36		1,52,54,51,20	
		1,53,30,39,30, 2,46, 6		8,18
22″	25,44,30,47,58,42, 3,50,30,42		1,52,54,59,38	
		1,53,30,37,37, 7,46,28		8,18
24″	25,44,32,41,29,19,40,58,17,10		1,52,55, 7,56	
		1,53,30,35,44,12,38,32		8,18
26″	25,44,34,34,59,55,25,10,55,42		1,52,55,16,14	
		1,53,30,33,51,17,22,18		8,18
28″	25,44,36,28,30,29,16,28,18, 0		1,52,55,24,32	
		1,53,30,31,58,21,57,46		8,18
30″	25,44,38,22, 1, 1,14,50,15,46		1,52,55,32,50	
		1,53,30,30, 5,26,24,56		8,18
32″	25,44,40,15,31,31,20,16,40,42		1,52,55,41, 8	
		1,53,30,28,12,30,43,48		8,18
34″	25,44,42, 9, 1,59,32,47,24,30		1,52,55,49,26	
		1,53,30,26,19,34,54,22		8,18
36″	25,44,44, 2,32,25,52,22,18,52		1,52,55,57,44	
		1,53,30,24,26,38,56,38		8,18
38″	25,44,45,56, 2,50,19, 1,15,30		1,52,56, 6, 2	
		1,53,30,22,33,42,50,36		8,18
40″	25,44,47,49,33,12,52,44, 6, 6		1,52,56,14,20	
		1,53,30,20,40,46,36,16		8,18
42″	25,44,49,43, 3,33,33,30,42,22		1,52,56,22,38	
		1,53,30,18,47,50,13,38		8,18
44″	25,44,51,36,33,52,21,20,56, 0		1,52,56,30,56	
		1,53,30,16,54,53,42,42		8,18
46″	25,44,53,30, 4, 9,16,14,38,42		1,52,56,39,14	
		1,53,30,15, 1,57, 3,28		8,18
48″	25,44,55,23,34,24,18,11,42,10		1,52,56,47,32	
		1,53,30,13, 9, 0,15,56		8,18
50″	25,44,57,17, 4,37,27,11,58, 6		1,52,56,55,50	
		1,53,30,11,16, 3,20, 6		8,18
52″	25,44,59,10,34,48,43,15,18,12		1,52,57, 4, 8	
		1,53,30, 9,23, 6,15,58		8,18
54″	25,45, 1, 4, 4,58, 6,21,34,10		1,52,57,12,26	
		1,53,30, 7,30, 9, 3,32		8,18
56″	25,45, 2,57,35, 5,36,30,37,42		1,52,57,20,44	
		1,53,30, 5,37,11,42,48		8,18
58″	25,45, 4,51, 5,11,13,42,20,30		1,52,57,29, 2	
		1,53,30, 3,44,14,13,46		
60″	25,45, 6,44,35,14,57,56,34,16			
exact	25,45, 6,44,35,14,57,56,42,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°25′ 0″	25,45, 6,44,35,14,57,56,42,30			
		1,53,30, 1,51,16,37,15		
2″	25,45, 8,38, 5,16,49,13,19,45		1,52,57,45,35	
		1,53,29,59,58,18,51,40		8,18
4″	25,45,10,31,35,16,47,32,11,25		1,52,57,53,53	
		1,53,29,58, 5,20,57,47		8,18
6″	25,45,12,25, 5,14,52,53, 9,12		1,52,58, 2,11	
		1,53,29,56,12,22,55,36		8,18
8″	25,45,14,18,35,11, 5,16, 4,48		1,52,58,10,29	
		1,53,29,54,19,24,45, 7		8,18
10″	25,45,16,12, 5, 5,24,40,49,55		1,52,58,18,47	
		1,53,29,52,26,26,26,20		8,18
12″	25,45,18, 5,34,57,51, 7,16,15		1,52,58,27, 5	
		1,53,29,50,33,27,59,15		8,18
14″	25,45,19,59, 4,48,24,35,15,30		1,52,58,35,23	
		1,53,29,48,40,29,23,52		8,18
16″	25,45,21,52,34,37, 5, 4,39,22		1,52,58,43,41	
		1,53,29,46,47,30,40,11		8,18
18″	25,45,23,46, 4,23,52,35,19,33		1,52,58,51,59	
		1,53,29,44,54,31,48,12		8,18
20″	25,45,25,39,34, 8,47, 7, 7,45		1,52,59, 0,17	
		1,53,29,43, 1,32,47,55		8,18
22″	25,45,27,33, 3,51,48,39,55,40		1,52,59, 8,35	
		1,53,29,41, 8,33,39,20		8,18
24″	25,45,29,26,33,32,57,13,35, 0		1,52,59,16,53	
		1,53,29,39,15,34,22,27		8,18
26″	25,45,31,20, 3,12,12,47,57,27		1,52,59,25,11	
		1,53,29,37,22,34,57,16		8,18
28″	25,45,33,13,32,49,35,22,54,43		1,52,59,33,29	
		1,53,29,35,29,35,23,47		8,18
30″	25,45,35, 7, 2,25, 4,58,18,30		1,52,59,41,47	
		1,53,29,33,36,35,42, 0		8,18
32″	25,45,37, 0,31,58,41,34, 0,30		1,52,59,50, 5	
		1,53,29,31,43,35,51,55		8,18
34″	25,45,38,54, 1,30,25, 9,52,25		1,52,59,58,23	
		1,53,29,29,50,35,53,32		8,18
36″	25,45,40,47,31, 0,15,45,45,57		1,53, 0, 6,41	
		1,53,29,27,57,35,46,51		8,18
38″	25,45,42,41, 0,28,13,21,32,48		1,53, 0,14,59	
		1,53,29,26, 4,35,31,52		8,18
40″	25,45,44,34,29,54,17,57, 4,40		1,53, 0,23,17	
		1,53,29,24,11,35, 8,35		8,18
42″	25,45,46,27,59,18,29,32,13,15		1,53, 0,31,35	
		1,53,29,22,18,34,37, 0		8,18
44″	25,45,48,21,28,40,48, 6,50,15		1,53, 0,39,53	
		1,53,29,20,25,33,57, 7		8,18
46″	25,45,50,14,58, 1,13,40,47,22		1,53, 0,48,11	
		1,53,29,18,32,33, 8,56		8,18
48″	25,45,52, 8,27,19,46,13,56,18		1,53, 0,56,29	
		1,53,29,16,39,32,12,27		8,18
50″	25,45,54, 1,56,36,25,46, 8,45		1,53, 1, 4,47	
		1,53,29,14,46,31, 7,40		8,18
52″	25,45,55,55,25,51,12,17,16,25		1,53, 1,13, 5	
		1,53,29,12,53,29,54,35		8,18
54″	25,45,57,48,55, 4, 5,47,11, 0		1,53, 1,21,23	
		1,53,29,11, 0,28,33,12		8,18
56″	25,45,59,42,24,15, 6,15,44,12		1,53, 1,29,41	
		1,53,29, 9, 7,27, 3,31		8,18
58″	25,46, 1,35,53,24,13,42,47,43		1,53, 1,37,59	
		1,53,29, 7,14,25,25,32		
60″	25,46, 3,29,22,31,28, 8,13,15			
exact	25,46, 3,29,22,31,28, 8,25,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°26′ 0″	25,46, 3,29,22,31,28, 8,25,49			
		1,53,29, 5,21,23,40,32		
2″	25,46, 5,22,51,36,49,32, 6,21		1,53, 1,54,30	
		1,53,29, 3,28,21,46, 2		8,18
4″	25,46, 7,16,20,40,17,53,52,23		1,53, 2, 2,48	
		1,53,29, 1,35,19,43,14		8,18
6″	25,46, 9, 9,49,41,53,13,35,37		1,53, 2,11, 6	
		1,53,28,59,42,17,32, 8		8,18
8″	25,46,11, 3,18,41,35,31, 7,45		1,53, 2,19,24	
		1,53,28,57,49,15,12,44		8,18
10″	25,46,12,56,47,39,24,46,20,29		1,53, 2,27,42	
		1,53,28,55,56,12,45, 2		8,18
12″	25,46,14,50,16,35,20,59, 5,31		1,53, 2,36, 0	
		1,53,28,54, 3,10, 9, 2		8,18
14″	25,46,16,43,45,29,24, 9,14,33		1,53, 2,44,18	
		1,53,28,52,10, 7,24,44		8,18
16″	25,46,18,37,14,21,34,16,39,17		1,53, 2,52,36	
		1,53,28,50,17, 4,32, 8		8,18
18″	25,46,20,30,43,11,51,21,11,25		1,53, 3, 0,54	
		1,53,28,48,24, 1,31,14		8,18
20″	25,46,22,24,12, 0,15,22,42,39		1,53, 3, 9,12	
		1,53,28,46,30,58,22, 2		8,18
22″	25,46,24,17,40,46,46,21, 4,41		1,53, 3,17,30	
		1,53,28,44,37,55, 4,32		8,18
24″	25,46,26,11, 9,31,24,16, 9,13		1,53, 3,25,48	
		1,53,28,42,44,51,38,44		8,18
26″	25,46,28, 4,38,14, 9, 7,47,57		1,53, 3,34, 6	
		1,53,28,40,51,48, 4,38		8,18
28″	25,46,29,58, 6,55, 0,55,52,35		1,53, 3,42,24	
		1,53,28,38,58,44,22,14		8,18
30″	25,46,31,51,35,33,59,40,14,49		1,53, 3,50,42	
		1,53,28,37, 5,40,31,32		8,18
32″	25,46,33,45, 4,11, 5,20,46,21		1,53, 3,59, 0	
		1,53,28,35,12,36,32,32		8,18
34″	25,46,35,38,32,46,17,57,18,53		1,53, 4, 7,18	
		1,53,28,33,19,32,25,14		8,18
36″	25,46,37,32, 1,19,37,29,44, 7		1,53, 4,15,36	
		1,53,28,31,26,28, 9,38		8,18
38″	25,46,39,25,29,51, 3,57,53,45		1,53, 4,23,54	
		1,53,28,29,33,23,45,44		8,18
40″	25,46,41,18,58,20,37,21,39,29		1,53, 4,32,12	
		1,53,28,27,40,19,13,32		8,18
42″	25,46,43,12,26,48,17,40,53, 1		1,53, 4,40,30	
		1,53,28,25,47,14,33, 2		8,18
44″	25,46,45, 5,55,14, 4,55,26, 3		1,53, 4,48,48	
		1,53,28,23,54, 9,44,14		8,18
46″	25,46,46,59,23,37,59, 5,10,17		1,53, 4,57, 6	
		1,53,28,22, 1, 4,47, 8		8,18
48″	25,46,48,52,52, 0, 0, 9,57,25		1,53, 5, 5,24	
		1,53,28,20, 7,59,41,44		8,18
50″	25,46,50,46,20,20, 8, 9,39, 9		1,53, 5,13,42	
		1,53,28,18,14,54,28, 2		8,18
52″	25,46,52,39,48,38,23, 4, 7,11		1,53, 5,22, 0	
		1,53,28,16,21,49, 6, 2		8,18
54″	25,46,54,33,16,54,44,53,13,13		1,53, 5,30,18	
		1,53,28,14,28,43,35,44		8,18
56″	25,46,56,26,45, 9,13,36,48,57		1,53, 5,38,36	
		1,53,28,12,35,37,57, 8		8,18
58″	25,46,58,20,13,21,49,14,46, 5		1,53, 5,46,54	
		1,53,28,10,42,32,10,14		
60″	25,47, 0,13,41,32,31,46,56,19			
exact	25,47, 0,13,41,32,31,47,13,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°27′ 0″	25,47, 0,13,41,32,31,47,13,40			
		1,53,28, 8,49,26,16,50		
2″	25,47, 2, 7, 9,41,21,13,30,30		1,53, 6, 3,23	
		1,53,28, 6,56,20,13,27		8,18
4″	25,47, 4, 0,37,48,17,33,43,57		1,53, 6,11,41	
		1,53,28, 5, 3,14, 1,46		8,18
6″	25,47, 5,54, 5,53,20,47,45,43		1,53, 6,19,59	
		1,53,28, 3,10, 7,41,47		8,18
8″	25,47, 7,47,33,56,30,55,27,30		1,53, 6,28,17	
		1,53,28, 1,17, 1,13,30		8,18
10″	25,47, 9,41, 1,57,47,56,41, 0		1,53, 6,36,35	
		1,53,27,59,23,54,36,55		8,18
12″	25,47,11,34,29,57,11,51,17,55		1,53, 6,44,53	
		1,53,27,57,30,47,52, 2		8,18
14″	25,47,13,27,57,54,42,39, 9,57		1,53, 6,53,11	
		1,53,27,55,37,40,58,51		8,18
16″	25,47,15,21,25,50,20,20, 8,48		1,53, 7, 1,29	
		1,53,27,53,44,33,57,22		8,18
18″	25,47,17,14,53,44, 4,54, 6,10		1,53, 7, 9,47	
		1,53,27,51,51,26,47,35		8,18
20″	25,47,19, 8,21,35,56,20,53,45		1,53, 7,18, 5	
		1,53,27,49,58,19,29,30		8,18
22″	25,47,21, 1,49,25,54,40,23,15		1,53, 7,26,23	
		1,53,27,48, 5,12, 3, 7		8,18
24″	25,47,22,55,17,13,59,52,26,22		1,53, 7,34,41	
		1,53,27,46,12, 4,28,26		8,18
26″	25,47,24,48,45, 0,11,56,54,48		1,53, 7,42,59	
		1,53,27,44,18,56,45,27		8,18
28″	25,47,26,42,12,44,30,53,40,15		1,53, 7,51,17	
		1,53,27,42,25,48,54,10		8,18
30″	25,47,28,35,40,26,56,42,34,25		1,53, 7,59,35	
		1,53,27,40,32,40,54,35		8,18
32″	25,47,30,29, 8, 7,29,23,29, 0		1,53, 8, 7,53	
		1,53,27,38,39,32,46,42		8,18
34″	25,47,32,22,35,46, 8,56,15,42		1,53, 8,16,11	
		1,53,27,36,46,24,30,31		8,18
36″	25,47,34,16, 3,22,55,20,46,13		1,53, 8,24,29	
		1,53,27,34,53,16, 6, 2		8,18
38″	25,47,36, 9,30,57,48,36,52,15		1,53, 8,32,47	
		1,53,27,33, 0, 7,33,15		8,18
40″	25,47,38, 2,58,30,48,44,25,30		1,53, 8,41, 5	
		1,53,27,31, 6,58,52,10		8,18
42″	25,47,39,56,26, 1,55,43,17,40		1,53, 8,49,23	
		1,53,27,29,13,50, 2,47		8,18
44″	25,47,41,49,53,31, 9,33,20,27		1,53, 8,57,41	
		1,53,27,27,20,41, 5, 6		8,18
46″	25,47,43,43,20,58,30,14,25,33		1,53, 9, 5,59	
		1,53,27,25,27,31,59, 7		8,18
48″	25,47,45,36,48,23,57,46,24,40		1,53, 9,14,17	
		1,53,27,23,34,22,44,50		8,18
50″	25,47,47,30,15,47,32, 9, 9,30		1,53, 9,22,35	
		1,53,27,21,41,13,22,15		8,18
52″	25,47,49,23,43, 9,13,22,31,45		1,53, 9,30,53	
		1,53,27,19,48, 3,51,22		8,18
54″	25,47,51,17,10,29, 1,26,23, 7		1,53, 9,39,11	
		1,53,27,17,54,54,12,11		8,18
56″	25,47,53,10,37,46,56,20,35,18		1,53, 9,47,29	
		1,53,27,16, 1,44,24,42		8,18
58″	25,47,55, 4, 5, 2,58, 5, 0, 0		1,53, 9,55,47	
		1,53,27,14, 8,34,28,55		
60″	25,47,56,57,32,17, 6,39,28,55			
exact	25,47,56,57,32,17, 6,39,50,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°28′ 0″	25,47,56,57,32,17, 6,39,50,59			
		1,53,27,12,15,24,27, 9		
2″	25,47,58,50,59,29,22, 4,18, 8		1,53,10,12,13	
		1,53,27,10,22,14,14,56		8,18
4″	25,48, 0,44,26,39,44,18,33, 4		1,53,10,20,31	
		1,53,27, 8,29, 3,54,25		8,18
6″	25,48, 2,37,53,48,13,22,27,29		1,53,10,28,49	
		1,53,27, 6,35,53,25,36		8,18
8″	25,48, 4,31,20,54,49,15,53, 5		1,53,10,37, 7	
		1,53,27, 4,42,42,48,29		8,18
10″	25,48, 6,24,47,59,31,58,41,34		1,53,10,45,25	
		1,53,27, 2,49,32, 3, 4		8,18
12″	25,48, 8,18,15, 2,21,30,44,38		1,53,10,53,43	
		1,53,27, 0,56,21, 9,21		8,18
14″	25,48,10,11,42, 3,17,51,53,59		1,53,11, 2, 1	
		1,53,26,59, 3,10, 7,20		8,18
16″	25,48,12, 5, 9, 2,21, 2, 1,19		1,53,11,10,19	
		1,53,26,57, 9,58,57, 1		8,18
18″	25,48,13,58,35,59,31, 0,58,20		1,53,11,18,37	
		1,53,26,55,16,47,38,24		8,18
20″	25,48,15,52, 2,54,47,48,36,44		1,53,11,26,55	
		1,53,26,53,23,36,11,29		8,18
22″	25,48,17,45,29,48,11,24,48,13		1,53,11,35,13	
		1,53,26,51,30,24,36,16		8,18
24″	25,48,19,38,56,39,41,49,24,29		1,53,11,43,31	
		1,53,26,49,37,12,52,45		8,18
26″	25,48,21,32,23,29,19, 2,17,14		1,53,11,51,49	
		1,53,26,47,44, 1, 0,56		8,18
28″	25,48,23,25,50,17, 3, 3,18,10		1,53,12, 0, 7	
		1,53,26,45,50,49, 0,49		8,18
30″	25,48,25,19,17, 2,53,52,18,59		1,53,12, 8,25	
		1,53,26,43,57,36,52,24		8,18
32″	25,48,27,12,43,46,51,29,11,23		1,53,12,16,43	
		1,53,26,42, 4,24,35,41		8,18
34″	25,48,29, 6,10,28,55,53,47, 4		1,53,12,25, 1	
		1,53,26,40,11,12,10,40		8,18
36″	25,48,30,59,37, 9, 7, 5,57,44		1,53,12,33,19	
		1,53,26,38,17,59,37,21		8,18
38″	25,48,32,53, 3,47,25, 5,35, 5		1,53,12,41,37	
		1,53,26,36,24,46,55,44		8,18
40″	25,48,34,46,30,23,49,52,30,49		1,53,12,49,55	
		1,53,26,34,31,34, 5,49		8,18
42″	25,48,36,39,56,58,21,26,36,38		1,53,12,58,13	
		1,53,26,32,38,21, 7,36		8,18
44″	25,48,38,33,23,30,59,47,44,14		1,53,13, 6,31	
		1,53,26,30,45, 8, 1, 5		8,18
46″	25,48,40,26,50, 1,44,55,45,19		1,53,13,14,49	
		1,53,26,28,51,54,46,16		8,18
48″	25,48,42,20,16,30,36,50,31,35		1,53,13,23, 7	
		1,53,26,26,58,41,23, 9		8,18
50″	25,48,44,13,42,57,35,31,54,44		1,53,13,31,25	
		1,53,26,25, 5,27,51,44		8,18
52″	25,48,46, 7, 9,22,40,59,46,28		1,53,13,39,43	
		1,53,26,23,12,14,12, 1		8,18
54″	25,48,48, 0,35,45,53,13,58,29		1,53,13,48, 1	
		1,53,26,21,19, 0,24, 0		8,18
56″	25,48,49,54, 2, 7,12,14,22,29		1,53,13,56,19	
		1,53,26,19,25,46,27,41		8,18
58″	25,48,51,47,28,26,38, 0,50,10		1,53,14, 4,37	
		1,53,26,17,32,32,23, 4		
60″	25,48,53,40,54,44,10,33,13,14			
exact	25,48,53,40,54,44,10,33,33,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°29′ 0″	25,48,53,40,54,44,10,33,33,42			
		1,53,26,15,39,18,12,32		
2″	25,48,55,34,20,59,49,51,46,14		1,53,14,21, 2	
		1,53,26,13,46, 3,51,30		8,18
4″	25,48,57,27,47,13,35,55,37,44		1,53,14,29,20	
		1,53,26,11,52,49,22,10		8,18
6″	25,48,59,21,13,25,28,44,59,54		1,53,14,37,38	
		1,53,26, 9,59,34,44,32		8,18
8″	25,49, 1,14,39,35,28,19,44,26		1,53,14,45,56	
		1,53,26, 8, 6,19,58,36		8,18
10″	25,49, 3, 8, 5,43,34,39,43, 2		1,53,14,54,14	
		1,53,26, 6,13, 5, 4,22		8,18
12″	25,49, 5, 1,31,49,47,44,47,24		1,53,15, 2,32	
		1,53,26, 4,19,50, 1,50		8,18
14″	25,49, 6,54,57,54, 7,34,49,14		1,53,15,10,50	
		1,53,26, 2,26,34,51, 0		8,18
16″	25,49, 8,48,23,56,34, 9,40,14		1,53,15,19, 8	
		1,53,26, 0,33,19,31,52		8,18
18″	25,49,10,41,49,57, 7,29,12, 6		1,53,15,27,26	
		1,53,25,58,40, 4, 4,26		8,18
20″	25,49,12,35,15,55,47,33,16,32		1,53,15,35,44	
		1,53,25,56,46,48,28,42		8,18
22″	25,49,14,28,41,52,34,21,45,14		1,53,15,44, 2	
		1,53,25,54,53,32,44,40		8,18
24″	25,49,16,22, 7,47,27,54,29,54		1,53,15,52,20	
		1,53,25,53, 0,16,52,20		8,18
26″	25,49,18,15,33,40,28,11,22,14		1,53,16, 0,38	
		1,53,25,51, 7, 0,51,42		8,18
28″	25,49,20, 8,59,31,35,12,13,56		1,53,16, 8,56	
		1,53,25,49,13,44,42,46		8,18
30″	25,49,22, 2,25,20,48,56,56,42		1,53,16,17,14	
		1,53,25,47,20,28,25,32		8,18
32″	25,49,23,55,51, 8, 9,25,22,14		1,53,16,25,32	
		1,53,25,45,27,12, 0, 0		8,18
34″	25,49,25,49,16,53,36,37,22,14		1,53,16,33,50	
		1,53,25,43,33,55,26,10		8,18
36″	25,49,27,42,42,37,10,32,48,24		1,53,16,42, 8	
		1,53,25,41,40,38,44, 2		8,18
38″	25,49,29,36, 8,18,51,11,32,26		1,53,16,50,26	
		1,53,25,39,47,21,53,36		8,18
40″	25,49,31,29,33,58,38,33,26, 2		1,53,16,58,44	
		1,53,25,37,54, 4,54,52		8,18
42″	25,49,33,22,59,36,32,38,20,54		1,53,17, 7, 2	
		1,53,25,36, 0,47,47,50		8,18
44″	25,49,35,16,25,12,33,26, 8,44		1,53,17,15,20	
		1,53,25,34, 7,30,32,30		8,18
46″	25,49,37, 9,50,46,40,56,41,14		1,53,17,23,38	
		1,53,25,32,14,13, 8,52		8,18
48″	25,49,39, 3,16,18,55, 9,50, 6		1,53,17,31,56	
		1,53,25,30,20,55,36,56		8,18
50″	25,49,40,56,41,49,16, 5,27, 2		1,53,17,40,14	
		1,53,25,28,27,37,56,42		8,18
52″	25,49,42,50, 7,17,43,43,23,44		1,53,17,48,32	
		1,53,25,26,34,20, 8,10		8,18
54″	25,49,44,43,32,44,18, 3,31,54		1,53,17,56,50	
		1,53,25,24,41, 2,11,20		8,18
56″	25,49,46,36,58, 8,59, 5,43,14		1,53,18, 5, 8	
		1,53,25,22,47,44, 6,12		8,18
58″	25,49,48,30,23,31,46,49,49,26		1,53,18,13,26	
		1,53,25,20,54,25,52,46		
60″	25,49,50,23,48,52,41,15,42,12			
exact	25,49,50,23,48,52,41,16, 8,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°30′ 0″	25,49,50,23,48,52,41,16, 8,45			
		1,53,25,19, 1, 7,34, 1		
2″	25,49,52,17,14,11,42,23,42,46		1,53,18,29,49	
		1,53,25,17, 7,49, 4,12		8,18
4″	25,49,54,10,39,28,50,12,46,58		1,53,18,38, 7	
		1,53,25,15,14,30,26, 5		8,18
6″	25,49,56, 4, 4,44, 4,43,13, 3		1,53,18,46,25	
		1,53,25,13,21,11,39,40		8,18
8″	25,49,57,57,29,57,25,54,52,43		1,53,18,54,43	
		1,53,25,11,27,52,44,57		8,18
10″	25,49,59,50,55, 8,53,47,37,40		1,53,19, 3, 1	
		1,53,25, 9,34,33,41,56		8,18
12″	25,50, 1,44,20,18,28,21,19,36		1,53,19,11,19	
		1,53,25, 7,41,14,30,37		8,18
14″	25,50, 3,37,45,26, 9,35,50,13		1,53,19,19,37	
		1,53,25, 5,47,55,11, 0		8,18
16″	25,50, 5,31,10,31,57,31, 1,13		1,53,19,27,55	
		1,53,25, 3,54,35,43, 5		8,18
18″	25,50, 7,24,35,35,52, 6,44,18		1,53,19,36,13	
		1,53,25, 2, 1,16, 6,52		8,18
20″	25,50, 9,18, 0,37,53,22,51,10		1,53,19,44,31	
		1,53,25, 0, 7,56,22,21		8,18
22″	25,50,11,11,25,38, 1,19,13,31		1,53,19,52,49	
		1,53,24,58,14,36,29,32		8,18
24″	25,50,13, 4,50,36,15,55,43, 3		1,53,20, 1, 7	
		1,53,24,56,21,16,28,25		8,18
26″	25,50,14,58,15,32,37,12,11,28		1,53,20, 9,25	
		1,53,24,54,27,56,19, 0		8,18
28″	25,50,16,51,40,27, 5, 8,30,28		1,53,20,17,43	
		1,53,24,52,34,36, 1,17		8,18
30″	25,50,18,45, 5,19,39,44,31,45		1,53,20,26, 1	
		1,53,24,50,41,15,35,16		8,18
32″	25,50,20,38,30,10,21, 0, 7, 1		1,53,20,34,19	
		1,53,24,48,47,55, 0,57		8,18
34″	25,50,22,31,54,59, 8,55, 7,58		1,53,20,42,37	
		1,53,24,46,54,34,18,20		8,18
36″	25,50,24,25,19,46, 3,29,26,18		1,53,20,50,55	
		1,53,24,45, 1,13,27,25		8,18
38″	25,50,26,18,44,31, 4,42,53,43		1,53,20,59,13	
		1,53,24,43, 7,52,28,12		8,18
40″	25,50,28,12, 9,14,12,35,21,55		1,53,21, 7,31	
		1,53,24,41,14,31,20,41		8,18
42″	25,50,30, 5,33,55,27, 6,42,36		1,53,21,15,49	
		1,53,24,39,21,10, 4,52		8,18
44″	25,50,31,58,58,34,48,16,47,28		1,53,21,24, 7	
		1,53,24,37,27,48,40,45		8,18
46″	25,50,33,52,23,12,16, 5,28,13		1,53,21,32,25	
		1,53,24,35,34,27, 8,20		8,18
48″	25,50,35,45,47,47,50,32,36,33		1,53,21,40,43	
		1,53,24,33,41, 5,27,37		8,18
50″	25,50,37,39,12,21,31,38, 4,10		1,53,21,49, 1	
		1,53,24,31,47,43,38,36		8,18
52″	25,50,39,32,36,53,19,21,42,46		1,53,21,57,19	
		1,53,24,29,54,21,41,17		8,18
54″	25,50,41,26, 1,23,13,43,24, 3		1,53,22, 5,37	
		1,53,24,28, 0,59,35,40		8,18
56″	25,50,43,19,25,51,14,42,59,43		1,53,22,13,55	
		1,53,24,26, 7,37,21,45		8,18
58″	25,50,45,12,50,17,22,20,21,28		1,53,22,22,13	
		1,53,24,24,14,14,59,32		
60″	25,50,47, 6,14,41,36,35,21, 0			
exact	25,50,47, 6,14,41,36,35,54, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°31′ 0″	25,50,47, 6,14,41,36,35,54, 8			
		1,53,24,22,20,52,32,38		
2″	25,50,48,59,39, 3,57,28,26,46		1,53,22,38,34	
		1,53,24,20,27,29,54, 4		8,17
4″	25,50,50,53, 3,24,24,58,20,50		1,53,22,46,51	
		1,53,24,18,34, 7, 7,13		8,17
6″	25,50,52,46,27,42,59, 5,28, 3		1,53,22,55, 8	
		1,53,24,16,40,44,12, 5		8,17
8″	25,50,54,39,51,59,39,49,40, 8		1,53,23, 3,25	
		1,53,24,14,47,21, 8,40		8,17
10″	25,50,56,33,16,14,27,10,48,48		1,53,23,11,42	
		1,53,24,12,53,57,56,58		8,17
12″	25,50,58,26,40,27,21, 8,45,46		1,53,23,19,59	
		1,53,24,11, 0,34,36,59		8,17
14″	25,51, 0,20, 4,38,21,43,22,45		1,53,23,28,16	
		1,53,24, 9, 7,11, 8,43		8,17
16″	25,51, 2,13,28,47,28,54,31,28		1,53,23,36,33	
		1,53,24, 7,13,47,32,10		8,17
18″	25,51, 4, 6,52,54,42,42, 3,38		1,53,23,44,50	
		1,53,24, 5,20,23,47,20		8,17
20″	25,51, 6, 0,17, 0, 3, 5,50,58		1,53,23,53, 7	
		1,53,24, 3,26,59,54,13		8,17
22″	25,51, 7,53,41, 3,30, 5,45,11		1,53,24, 1,24	
		1,53,24, 1,33,35,52,49		8,17
24″	25,51, 9,47, 5, 5, 3,41,38, 0		1,53,24, 9,41	
		1,53,23,59,40,11,43, 8		8,17
26″	25,51,11,40,29, 4,43,53,21, 8		1,53,24,17,58	
		1,53,23,57,46,47,25,10		8,17
28″	25,51,13,33,53, 2,30,40,46,18		1,53,24,26,15	
		1,53,23,55,53,22,58,55		8,17
30″	25,51,15,27,16,58,24, 3,45,13		1,53,24,34,32	
		1,53,23,53,59,58,24,23		8,17
32″	25,51,17,20,40,52,24, 2, 9,36		1,53,24,42,49	
		1,53,23,52, 6,33,41,34		8,17
34″	25,51,19,14, 4,44,30,35,51,10		1,53,24,51, 6	
		1,53,23,50,13, 8,50,28		8,17
36″	25,51,21, 7,28,34,43,44,41,38		1,53,24,59,23	
		1,53,23,48,19,43,51, 5		8,17
38″	25,51,23, 0,52,23, 3,28,32,43		1,53,25, 7,40	
		1,53,23,46,26,18,43,25		8,17
40″	25,51,24,54,16, 9,29,47,16, 8		1,53,25,15,57	
		1,53,23,44,32,53,27,28		8,17
42″	25,51,26,47,39,54, 2,40,43,36		1,53,25,24,14	
		1,53,23,42,39,28, 3,14		8,17
44″	25,51,28,41, 3,36,42, 8,46,50		1,53,25,32,31	
		1,53,23,40,46, 2,30,43		8,17
46″	25,51,30,34,27,17,28,11,17,33		1,53,25,40,48	
		1,53,23,38,52,36,49,55		8,17
48″	25,51,32,27,50,56,20,48, 7,28		1,53,25,49, 5	
		1,53,23,36,59,11, 0,50		8,17
50″	25,51,34,21,14,33,19,59, 8,18		1,53,25,57,22	
		1,53,23,35, 5,45, 3,28		8,17
52″	25,51,36,14,38, 8,25,44,11,46		1,53,26, 5,39	
		1,53,23,33,12,18,57,49		8,17
54″	25,51,38, 8, 1,41,38, 3, 9,35		1,53,26,13,56	
		1,53,23,31,18,52,43,53		8,17
56″	25,51,40, 1,25,12,56,55,53,28		1,53,26,22,13	
		1,53,23,29,25,26,21,40		8,17
58″	25,51,41,54,48,42,22,22,15, 8		1,53,26,30,30	
		1,53,23,27,31,59,51,10		
60″	25,51,43,48,12, 9,54,22, 6,18			
exact	25,51,43,48,12, 9,54,21,38,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°32′ 0″	25,51,43,48,12, 9,54,21,38,57			
		1,53,23,25,38,33, 9,25		
2″	25,51,45,41,35,35,32,54,48,22		1,53,26,47,16	
		1,53,23,23,45, 6,22, 9		8,17
4″	25,51,47,34,58,59,18, 1,10,31		1,53,26,55,33	
		1,53,23,21,51,39,26,36		8,17
6″	25,51,49,28,22,21, 9,40,37, 7		1,53,27, 3,50	
		1,53,23,19,58,12,22,46		8,17
8″	25,51,51,21,45,41, 7,52,59,53		1,53,27,12, 7	
		1,53,23,18, 4,45,10,39		8,17
10″	25,51,53,15, 8,59,12,38,10,32		1,53,27,20,24	
		1,53,23,16,11,17,50,15		8,17
12″	25,51,55, 8,32,15,23,56, 0,47		1,53,27,28,41	
		1,53,23,14,17,50,21,34		8,17
14″	25,51,57, 1,55,29,41,46,22,21		1,53,27,36,58	
		1,53,23,12,24,22,44,36		8,17
16″	25,51,58,55,18,42, 6, 9, 6,57		1,53,27,45,15	
		1,53,23,10,30,54,59,21		8,17
18″	25,52, 0,48,41,52,37, 4, 6,18		1,53,27,53,32	
		1,53,23, 8,37,27, 5,49		8,17
20″	25,52, 2,42, 5, 1,14,31,12, 7		1,53,28, 1,49	
		1,53,23, 6,43,59, 4, 0		8,17
22″	25,52, 4,35,28, 7,58,30,16, 7		1,53,28,10, 6	
		1,53,23, 4,50,30,53,54		8,17
24″	25,52, 6,28,51,12,49, 1,10, 1		1,53,28,18,23	
		1,53,23, 2,57, 2,35,31		8,17
26″	25,52, 8,22,14,15,46, 3,45,32		1,53,28,26,40	
		1,53,23, 1, 3,34, 8,51		8,17
28″	25,52,10,15,37,16,49,37,54,23		1,53,28,34,57	
		1,53,22,59,10, 5,33,54		8,17
30″	25,52,12, 9, 0,15,59,43,28,17		1,53,28,43,14	
		1,53,22,57,16,36,50,40		8,17
32″	25,52,14, 2,23,13,16,20,18,57		1,53,28,51,31	
		1,53,22,55,23, 7,59, 9		8,17
34″	25,52,15,55,46, 8,39,28,18, 6		1,53,28,59,48	
		1,53,22,53,29,38,59,21		8,17
36″	25,52,17,49, 9, 2, 9, 7,17,27		1,53,29, 8, 5	
		1,53,22,51,36, 9,51,16		8,17
38″	25,52,19,42,31,53,45,17, 8,43		1,53,29,16,22	
		1,53,22,49,42,40,34,54		8,17
40″	25,52,21,35,54,43,27,57,43,37		1,53,29,24,39	
		1,53,22,47,49,11,10,15		8,17
42″	25,52,23,29,17,31,17, 8,53,52		1,53,29,32,56	
		1,53,22,45,55,41,37,19		8,17
44″	25,52,25,22,40,17,12,50,31,11		1,53,29,41,13	
		1,53,22,44, 2,11,56, 6		8,17
46″	25,52,27,16, 3, 1,15, 2,27,17		1,53,29,49,30	
		1,53,22,42, 8,42, 6,36		8,17
48″	25,52,29, 9,25,43,23,44,33,53		1,53,29,57,47	
		1,53,22,40,15,12, 8,49		8,17
50″	25,52,31, 2,48,23,38,56,42,42		1,53,30, 6, 4	
		1,53,22,38,21,42, 2,45		8,17
52″	25,52,32,56,11, 2, 0,38,45,27		1,53,30,14,21	
		1,53,22,36,28,11,48,24		8,17
54″	25,52,34,49,33,38,28,50,33,51		1,53,30,22,38	
		1,53,22,34,34,41,25,46		8,17
56″	25,52,36,42,56,13, 3,31,59,37		1,53,30,30,55	
		1,53,22,32,41,10,54,51		8,17
58″	25,52,38,36,18,45,44,42,54,28		1,53,30,39,12	
		1,53,22,30,47,40,15,39		
60″	25,52,40,29,41,16,32,23,10, 7			
exact	25,52,40,29,41,16,32,22,43,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°33′ 0″	25,52,40,29,41,16,32,22,43,18			
		1,53,22,28,54, 9,25,25		
2″	25,52,42,23, 3,45,26,32, 8,43		1,53,30,55,57	
		1,53,22,27, 0,38,29,28		8,17
4″	25,52,44,16,26,12,27,10,38,11		1,53,31, 4,14	
		1,53,22,25, 7, 7,25,14		8,17
6″	25,52,46, 9,48,37,34,18, 3,25		1,53,31,12,31	
		1,53,22,23,13,36,12,43		8,17
8″	25,52,48, 3,11, 0,47,54,16, 8		1,53,31,20,48	
		1,53,22,21,20, 4,51,55		8,17
10″	25,52,49,56,33,22, 7,59, 8, 3		1,53,31,29, 5	
		1,53,22,19,26,33,22,50		8,17
12″	25,52,51,49,55,41,34,32,30,53		1,53,31,37,22	
		1,53,22,17,33, 1,45,28		8,17
14″	25,52,53,43,17,59, 7,34,16,21		1,53,31,45,39	
		1,53,22,15,39,29,59,49		8,17
16″	25,52,55,36,40,14,47, 4,16,10		1,53,31,53,56	
		1,53,22,13,45,58, 5,53		8,17
18″	25,52,57,30, 2,28,33, 2,22, 3		1,53,32, 2,13	
		1,53,22,11,52,26, 3,40		8,17
20″	25,52,59,23,24,40,25,28,25,43		1,53,32,10,30	
		1,53,22, 9,58,53,53,10		8,17
22″	25,53, 1,16,46,50,24,22,18,53		1,53,32,18,47	
		1,53,22, 8, 5,21,34,23		8,17
24″	25,53, 3,10, 8,58,29,43,53,16		1,53,32,27, 4	
		1,53,22, 6,11,49, 7,19		8,17
26″	25,53, 5, 3,31, 4,41,33, 0,35		1,53,32,35,21	
		1,53,22, 4,18,16,31,58		8,17
28″	25,53, 6,56,53, 8,59,49,32,33		1,53,32,43,38	
		1,53,22, 2,24,43,48,20		8,17
30″	25,53, 8,50,15,11,24,33,20,53		1,53,32,51,55	
		1,53,22, 0,31,10,56,25		8,17
32″	25,53,10,43,37,11,55,44,17,18		1,53,33, 0,12	
		1,53,21,58,37,37,56,13		8,17
34″	25,53,12,36,59,10,33,22,13,31		1,53,33, 8,29	
		1,53,21,56,44, 4,47,44		8,17
36″	25,53,14,30,21, 7,17,27, 1,15		1,53,33,16,46	
		1,53,21,54,50,31,30,58		8,17
38″	25,53,16,23,43, 2, 7,58,32,13		1,53,33,25, 3	
		1,53,21,52,56,58, 5,55		8,17
40″	25,53,18,17, 4,55, 4,56,38, 8		1,53,33,33,20	
		1,53,21,51, 3,24,32,35		8,17
42″	25,53,20,10,26,46, 8,21,10,43		1,53,33,41,37	
		1,53,21,49, 9,50,50,58		8,17
44″	25,53,22, 3,48,35,18,12, 1,41		1,53,33,49,54	
		1,53,21,47,16,17, 1, 4		8,17
46″	25,53,23,57,10,22,34,29, 2,45		1,53,33,58,11	
		1,53,21,45,22,43, 2,53		8,17
48″	25,53,25,50,32, 7,57,12, 5,38		1,53,34, 6,28	
		1,53,21,43,29, 8,56,25		8,17
50″	25,53,27,43,53,51,26,21, 2, 3		1,53,34,14,45	
		1,53,21,41,35,34,41,40		8,17
52″	25,53,29,37,15,33, 1,55,43,43		1,53,34,23, 2	
		1,53,21,39,42, 0,18,38		8,17
54″	25,53,31,30,37,12,43,56, 2,21		1,53,34,31,19	
		1,53,21,37,48,25,47,19		8,17
56″	25,53,33,23,58,50,32,21,49,40		1,53,34,39,36	
		1,53,21,35,54,51, 7,43		8,17
58″	25,53,35,17,20,26,27,12,57,23		1,53,34,47,53	
		1,53,21,34, 1,16,19,50		
60″	25,53,37,10,42, 0,28,29,17,13			
exact	25,53,37,10,42, 0,28,28,58,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°34′ 0″	25,53,37,10,42, 0,28,28,58,28			
		1,53,21,32, 7,41,21,39		
2″	25,53,39, 4, 3,32,36,10,20, 7		1,53,35, 4,35	
		1,53,21,30,14, 6,17, 4		8,17
4″	25,53,40,57,25, 2,50,16,37,11		1,53,35,12,52	
		1,53,21,28,20,31, 4,12		8,17
6″	25,53,42,50,46,31,10,47,41,23		1,53,35,21, 9	
		1,53,21,26,26,55,43, 3		8,17
8″	25,53,44,44, 7,57,37,43,24,26		1,53,35,29,26	
		1,53,21,24,33,20,13,37		8,17
10″	25,53,46,37,29,22,11, 3,38, 3		1,53,35,37,43	
		1,53,21,22,39,44,35,54		8,17
12″	25,53,48,30,50,44,50,48,13,57		1,53,35,46, 0	
		1,53,21,20,46, 8,49,54		8,17
14″	25,53,50,24,12, 5,36,57, 3,51		1,53,35,54,17	
		1,53,21,18,52,32,55,37		8,17
16″	25,53,52,17,33,24,29,29,59,28		1,53,36, 2,34	
		1,53,21,16,58,56,53, 3		8,17
18″	25,53,54,10,54,41,28,26,52,31		1,53,36,10,51	
		1,53,21,15, 5,20,42,12		8,17
20″	25,53,56, 4,15,56,33,47,34,43		1,53,36,19, 8	
		1,53,21,13,11,44,23, 4		8,17
22″	25,53,57,57,37, 9,45,31,57,47		1,53,36,27,25	
		1,53,21,11,18, 7,55,39		8,17
24″	25,53,59,50,58,21, 3,39,53,26		1,53,36,35,42	
		1,53,21, 9,24,31,19,57		8,17
26″	25,54, 1,44,19,30,28,11,13,23		1,53,36,43,59	
		1,53,21, 7,30,54,35,58		8,17
28″	25,54, 3,37,40,37,59, 5,49,21		1,53,36,52,16	
		1,53,21, 5,37,17,43,42		8,17
30″	25,54, 5,31, 1,43,36,23,33, 3		1,53,37, 0,33	
		1,53,21, 3,43,40,43, 9		8,17
32″	25,54, 7,24,22,47,20, 4,16,12		1,53,37, 8,50	
		1,53,21, 1,50, 3,34,19		8,17
34″	25,54, 9,17,43,49,10, 7,50,31		1,53,37,17, 7	
		1,53,20,59,56,26,17,12		8,17
36″	25,54,11,11, 4,49, 6,34, 7,43		1,53,37,25,24	
		1,53,20,58, 2,48,51,48		8,17
38″	25,54,13, 4,25,47, 9,22,59,31		1,53,37,33,41	
		1,53,20,56, 9,11,18, 7		8,17
40″	25,54,14,57,46,43,18,34,17,38		1,53,37,41,58	
		1,53,20,54,15,33,36, 9		8,17
42″	25,54,16,51, 7,37,34, 7,53,47		1,53,37,50,15	
		1,53,20,52,21,55,45,54		8,17
44″	25,54,18,44,28,29,56, 3,39,41		1,53,37,58,32	
		1,53,20,50,28,17,47,22		8,17
46″	25,54,20,37,49,20,24,21,27, 3		1,53,38, 6,49	
		1,53,20,48,34,39,40,33		8,17
48″	25,54,22,31,10, 8,59, 1, 7,36		1,53,38,15, 6	
		1,53,20,46,41, 1,25,27		8,17
50″	25,54,24,24,30,55,40, 2,33, 3		1,53,38,23,23	
		1,53,20,44,47,23, 2, 4		8,17
52″	25,54,26,17,51,40,27,25,35, 7		1,53,38,31,40	
		1,53,20,42,53,44,30,24		8,17
54″	25,54,28,11,12,23,21,10, 5,31		1,53,38,39,57	
		1,53,20,41, 0, 5,50,27		8,17
56″	25,54,30, 4,33, 4,21,15,55,58		1,53,38,48,14	
		1,53,20,39, 6,27, 2,13		8,17
58″	25,54,31,57,53,43,27,42,58,11		1,53,38,56,31	
		1,53,20,37,12,48, 5,42		
60″	25,54,33,51,14,20,40,31, 3,53			
exact	25,54,33,51,14,20,40,30,46,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°35′ 0″	25,54,33,51,14,20,40,30,46,48			
		1,53,20,35,19, 8,59,10		
2″	25,54,35,44,34,55,59,39,45,58		1,53,39,13,12	
		1,53,20,33,25,29,45,58		8,17
4″	25,54,37,37,55,29,25, 9,31,56		1,53,39,21,29	
		1,53,20,31,31,50,24,29		8,17
6″	25,54,39,31,16, 0,56,59,56,25		1,53,39,29,46	
		1,53,20,29,38,10,54,43		8,17
8″	25,54,41,24,36,30,35,10,51, 8		1,53,39,38, 3	
		1,53,20,27,44,31,16,40		8,17
10″	25,54,43,17,56,58,19,42, 7,48		1,53,39,46,20	
		1,53,20,25,50,51,30,20		8,17
12″	25,54,45,11,17,24,10,33,38, 8		1,53,39,54,37	
		1,53,20,23,57,11,35,43		8,17
14″	25,54,47, 4,37,48, 7,45,13,51		1,53,40, 2,54	
		1,53,20,22, 3,31,32,49		8,17
16″	25,54,48,57,58,10,11,16,46,40		1,53,40,11,11	
		1,53,20,20, 9,51,21,38		8,17
18″	25,54,50,51,18,30,21, 8, 8,18		1,53,40,19,28	
		1,53,20,18,16,11, 2,10		8,17
20″	25,54,52,44,38,48,37,19,10,28		1,53,40,27,45	
		1,53,20,16,22,30,34,25		8,17
22″	25,54,54,37,59, 4,59,49,44,53		1,53,40,36, 2	
		1,53,20,14,28,49,58,23		8,17
24″	25,54,56,31,19,19,28,39,43,16		1,53,40,44,19	
		1,53,20,12,35, 9,14, 4		8,17
26″	25,54,58,24,39,32, 3,48,57,20		1,53,40,52,36	
		1,53,20,10,41,28,21,28		8,17
28″	25,55, 0,17,59,42,45,17,18,48		1,53,41, 0,53	
		1,53,20, 8,47,47,20,35		8,17
30″	25,55, 2,11,19,51,33, 4,39,23		1,53,41, 9,10	
		1,53,20, 6,54, 6,11,25		8,17
32″	25,55, 4, 4,39,58,27,10,50,48		1,53,41,17,27	
		1,53,20, 5, 0,24,53,58		8,17
34″	25,55, 5,58, 0, 3,27,35,44,46		1,53,41,25,44	
		1,53,20, 3, 6,43,28,14		8,17
36″	25,55, 7,51,20, 6,34,19,13, 0		1,53,41,34, 1	
		1,53,20, 1,13, 1,54,13		8,17
38″	25,55, 9,44,40, 7,47,21, 7,13		1,53,41,42,18	
		1,53,19,59,19,20,11,55		8,17
40″	25,55,11,38, 0, 7, 6,41,19, 8		1,53,41,50,35	
		1,53,19,57,25,38,21,20		8,17
42″	25,55,13,31,20, 4,32,19,40,28		1,53,41,58,52	
		1,53,19,55,31,56,22,28		8,17
44″	25,55,15,24,40, 0, 4,16, 2,56		1,53,42, 7, 9	
		1,53,19,53,38,14,15,19		8,17
46″	25,55,17,17,59,53,42,30,18,15		1,53,42,15,26	
		1,53,19,51,44,31,59,53		8,17
48″	25,55,19,11,19,45,27, 2,18, 8		1,53,42,23,43	
		1,53,19,49,50,49,36,10		8,17
50″	25,55,21, 4,39,35,17,51,54,18		1,53,42,32, 0	
		1,53,19,47,57, 7, 4,10		8,17
52″	25,55,22,57,59,23,14,58,58,28		1,53,42,40,17	
		1,53,19,46, 3,24,23,53		8,17
54″	25,55,24,51,19, 9,18,23,22,21		1,53,42,48,34	
		1,53,19,44, 9,41,35,19		8,17
56″	25,55,26,44,38,53,28, 4,57,40		1,53,42,56,51	
		1,53,19,42,15,58,38,28		8,17
58″	25,55,28,37,58,35,44, 3,36, 8		1,53,43, 5, 8	
		1,53,19,40,22,15,33,20		
60″	25,55,30,31,18,16, 6,19, 9,28			
exact	25,55,30,31,18,16, 6,19, 1,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°36′ 0″	25,55,30,31,18,16, 6,19, 1,49			
		1,53,19,38,28,32,19, 1		
2″	25,55,32,24,37,54,34,51,20,50		1,53,43,21,46	
		1,53,19,36,34,48,57,15		8,17
4″	25,55,34,17,57,31, 9,40,18, 5		1,53,43,30, 3	
		1,53,19,34,41, 5,27,12		8,17
6″	25,55,36,11,17, 5,50,45,45,17		1,53,43,38,20	
		1,53,19,32,47,21,48,52		8,17
8″	25,55,38, 4,36,38,38, 7,34, 9		1,53,43,46,37	
		1,53,19,30,53,38, 2,15		8,17
10″	25,55,39,57,56, 9,31,45,36,24		1,53,43,54,54	
		1,53,19,28,59,54, 7,21		8,17
12″	25,55,41,51,15,38,31,39,43,45		1,53,44, 3,11	
		1,53,19,27, 6,10, 4,10		8,17
14″	25,55,43,44,35, 5,37,49,47,55		1,53,44,11,28	
		1,53,19,25,12,25,52,42		8,17
16″	25,55,45,37,54,30,50,15,40,37		1,53,44,19,45	
		1,53,19,23,18,41,32,57		8,17
18″	25,55,47,31,13,54, 8,57,13,34		1,53,44,28, 2	
		1,53,19,21,24,57, 4,55		8,17
20″	25,55,49,24,33,15,33,54,18,29		1,53,44,36,19	
		1,53,19,19,31,12,28,36		8,17
22″	25,55,51,17,52,35, 5, 6,47, 5		1,53,44,44,36	
		1,53,19,17,37,27,44, 0		8,17
24″	25,55,53,11,11,52,42,34,31, 5		1,53,44,52,53	
		1,53,19,15,43,42,51, 7		8,17
26″	25,55,55, 4,31, 8,26,17,22,12		1,53,45, 1,10	
		1,53,19,13,49,57,49,57		8,17
28″	25,55,56,57,50,22,16,15,12, 9		1,53,45, 9,27	
		1,53,19,11,56,12,40,30		8,17
30″	25,55,58,51, 9,34,12,27,52,39		1,53,45,17,44	
		1,53,19,10, 2,27,22,46		8,17
32″	25,56, 0,44,28,44,14,55,15,25		1,53,45,26, 1	
		1,53,19, 8, 8,41,56,45		8,17
34″	25,56, 2,37,47,52,23,37,12,10		1,53,45,34,18	
		1,53,19, 6,14,56,22,27		8,17
36″	25,56, 4,31, 6,58,38,33,34,37		1,53,45,42,35	
		1,53,19, 4,21,10,39,52		8,17
38″	25,56, 6,24,26, 2,59,44,14,29		1,53,45,50,52	
		1,53,19, 2,27,24,49, 0		8,17
40″	25,56, 8,17,45, 5,27, 9, 3,29		1,53,45,59, 9	
		1,53,19, 0,33,38,49,51		8,17
42″	25,56,10,11, 4, 6, 0,47,53,20		1,53,46, 7,26	
		1,53,18,58,39,52,42,25		8,17
44″	25,56,12, 4,23, 4,40,40,35,45		1,53,46,15,43	
		1,53,18,56,46, 6,26,42		8,17
46″	25,56,13,57,42, 1,26,47, 2,27		1,53,46,24, 0	
		1,53,18,54,52,20, 2,42		8,17
48″	25,56,15,51, 0,56,19, 7, 5, 9		1,53,46,32,17	
		1,53,18,52,58,33,30,25		8,17
50″	25,56,17,44,19,49,17,40,35,34		1,53,46,40,34	
		1,53,18,51, 4,46,49,51		8,17
52″	25,56,19,37,38,40,22,27,25,25		1,53,46,48,51	
		1,53,18,49,11, 0, 1, 0		8,17
54″	25,56,21,30,57,29,33,27,26,25		1,53,46,57, 8	
		1,53,18,47,17,13, 3,52		8,17
56″	25,56,23,24,16,16,50,40,30,17		1,53,47, 5,25	
		1,53,18,45,23,25,58,27		8,17
58″	25,56,25,17,35, 2,14, 6,28,44		1,53,47,13,42	
		1,53,18,43,29,38,44,45		
60″	25,56,27,10,53,45,43,45,13,29			
exact	25,56,27,10,53,45,43,45, 8,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°37′ 0″	25,56,27,10,53,45,43,45, 8,11			
		1,53,18,41,35,51,22,13		
2″	25,56,29, 4,12,27,19,36,30,24		1,53,47,30,18	
		1,53,18,39,42, 3,51,55		8,17
4″	25,56,30,57,31, 7, 1,40,22,19		1,53,47,38,35	
		1,53,18,37,48,16,13,20		8,17
6″	25,56,32,50,49,44,49,56,35,39		1,53,47,46,52	
		1,53,18,35,54,28,26,28		8,17
8″	25,56,34,44, 8,20,44,25, 2, 7		1,53,47,55, 9	
		1,53,18,34, 0,40,31,19		8,17
10″	25,56,36,37,26,54,45, 5,33,26		1,53,48, 3,26	
		1,53,18,32, 6,52,27,53		8,17
12″	25,56,38,30,45,26,51,58, 1,19		1,53,48,11,43	
		1,53,18,30,13, 4,16,10		8,17
14″	25,56,40,24, 3,57, 5, 2,17,29		1,53,48,20, 0	
		1,53,18,28,19,15,56,10		8,17
16″	25,56,42,17,22,25,24,18,13,39		1,53,48,28,17	
		1,53,18,26,25,27,27,53		8,17
18″	25,56,44,10,40,51,49,45,41,32		1,53,48,36,34	
		1,53,18,24,31,38,51,19		8,17
20″	25,56,46, 3,59,16,21,24,32,51		1,53,48,44,51	
		1,53,18,22,37,50, 6,28		8,17
22″	25,56,47,57,17,38,59,14,39,19		1,53,48,53, 8	
		1,53,18,20,44, 1,13,20		8,17
24″	25,56,49,50,35,59,43,15,52,39		1,53,49, 1,25	
		1,53,18,18,50,12,11,55		8,17
26″	25,56,51,43,54,18,33,28, 4,34		1,53,49, 9,42	
		1,53,18,16,56,23, 2,13		8,17
28″	25,56,53,37,12,35,29,51, 6,47		1,53,49,17,59	
		1,53,18,15, 2,33,44,14		8,17
30″	25,56,55,30,30,50,32,24,51, 1		1,53,49,26,16	
		1,53,18,13, 8,44,17,58		8,17
32″	25,56,57,23,49, 3,41, 9, 8,59		1,53,49,34,33	
		1,53,18,11,14,54,43,25		8,17
34″	25,56,59,17, 7,14,56, 3,52,24		1,53,49,42,50	
		1,53,18, 9,21, 5, 0,35		8,17
36″	25,57, 1,10,25,24,17, 8,52,59		1,53,49,51, 7	
		1,53,18, 7,27,15, 9,28		8,17
38″	25,57, 3, 3,43,31,44,24, 2,27		1,53,49,59,24	
		1,53,18, 5,33,25,10, 4		8,17
40″	25,57, 4,57, 1,37,17,49,12,31		1,53,50, 7,41	
		1,53,18, 3,39,35, 2,23		8,17
42″	25,57, 6,50,19,40,57,24,14,54		1,53,50,15,58	
		1,53,18, 1,45,44,46,25		8,17
44″	25,57, 8,43,37,42,43, 9, 1,19		1,53,50,24,15	
		1,53,17,59,51,54,22,10		8,17
46″	25,57,10,36,55,42,35, 3,23,29		1,53,50,32,32	
		1,53,17,57,58, 3,49,38		8,17
48″	25,57,12,30,13,40,33, 7,13, 7		1,53,50,40,49	
		1,53,17,56, 4,13, 8,49		8,17
50″	25,57,14,23,31,36,37,20,21,56		1,53,50,49, 6	
		1,53,17,54,10,22,19,43		8,17
52″	25,57,16,16,49,30,47,42,41,39		1,53,50,57,23	
		1,53,17,52,16,31,22,20		8,17
54″	25,57,18,10, 7,23, 4,14, 3,59		1,53,51, 5,40	
		1,53,17,50,22,40,16,40		8,17
56″	25,57,20, 3,25,13,26,54,20,39		1,53,51,13,57	
		1,53,17,48,28,49, 2,43		8,17
58″	25,57,21,56,43, 1,55,43,23,22		1,53,51,22,14	
		1,53,17,46,34,57,40,29		
60″	25,57,23,50, 0,48,30,41, 3,51			
exact	25,57,23,50, 0,48,30,41, 1,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°38′ 0″	25,57,23,50, 0,48,30,41, 1,44			
		1,53,17,44,41, 6, 9,49		
2″	25,57,25,43,18,33,11,47,11,33		1,53,51,38,48	
		1,53,17,42,47,14,31, 1		8,17
4″	25,57,27,36,36,15,59, 1,42,34		1,53,51,47, 5	
		1,53,17,40,53,22,43,56		8,17
6″	25,57,29,29,53,56,52,24,26,30		1,53,51,55,22	
		1,53,17,38,59,30,48,34		8,17
8″	25,57,31,23,11,35,51,55,15, 4		1,53,52, 3,39	
		1,53,17,37, 5,38,44,55		8,17
10″	25,57,33,16,29,12,57,33,59,59		1,53,52,11,56	
		1,53,17,35,11,46,32,59		8,17
12″	25,57,35, 9,46,48, 9,20,32,58		1,53,52,20,13	
		1,53,17,33,17,54,12,46		8,17
14″	25,57,37, 3, 4,21,27,14,45,44		1,53,52,28,30	
		1,53,17,31,24, 1,44,16		8,17
16″	25,57,38,56,21,52,51,16,30, 0		1,53,52,36,47	
		1,53,17,29,30, 9, 7,29		8,17
18″	25,57,40,49,39,22,21,25,37,29		1,53,52,45, 4	
		1,53,17,27,36,16,22,25		8,17
20″	25,57,42,42,56,49,57,41,59,54		1,53,52,53,21	
		1,53,17,25,42,23,29, 4		8,17
22″	25,57,44,36,14,15,40, 5,28,58		1,53,53, 1,38	
		1,53,17,23,48,30,27,26		8,17
24″	25,57,46,29,31,39,28,35,56,24		1,53,53, 9,55	
		1,53,17,21,54,37,17,31		8,17
26″	25,57,48,22,49, 1,23,13,13,55		1,53,53,18,12	
		1,53,17,20, 0,43,59,19		8,17
28″	25,57,50,16, 6,21,23,57,13,14		1,53,53,26,29	
		1,53,17,18, 6,50,32,50		8,17
30″	25,57,52, 9,23,39,30,47,46, 4		1,53,53,34,46	
		1,53,17,16,12,56,58, 4		8,17
32″	25,57,54, 2,40,55,43,44,44, 8		1,53,53,43, 3	
		1,53,17,14,19, 3,15, 1		8,17
34″	25,57,55,55,58,10, 2,47,59, 9		1,53,53,51,20	
		1,53,17,12,25, 9,23,41		8,17
36″	25,57,57,49,15,22,27,57,22,50		1,53,53,59,37	
		1,53,17,10,31,15,24, 4		8,17
38″	25,57,59,42,32,32,59,12,46,54		1,53,54, 7,54	
		1,53,17, 8,37,21,16,10		8,17
40″	25,58, 1,35,49,41,36,34, 3, 4		1,53,54,16,11	
		1,53,17, 6,43,26,59,59		8,17
42″	25,58, 3,29, 6,48,20, 1, 3, 3		1,53,54,24,28	
		1,53,17, 4,49,32,35,31		8,17
44″	25,58, 5,22,23,53, 9,33,38,34		1,53,54,32,45	
		1,53,17, 2,55,38, 2,46		8,17
46″	25,58, 7,15,40,56, 5,11,41,20		1,53,54,41, 2	
		1,53,17, 1, 1,43,21,44		8,17
48″	25,58, 9, 8,57,57, 6,55, 3, 4		1,53,54,49,19	
		1,53,16,59, 7,48,32,25		8,17
50″	25,58,11, 2,14,56,14,43,35,29		1,53,54,57,36	
		1,53,16,57,13,53,34,49		8,17
52″	25,58,12,55,31,53,28,37,10,18		1,53,55, 5,53	
		1,53,16,55,19,58,28,56		8,17
54″	25,58,14,48,48,48,48,35,39,14		1,53,55,14,10	
		1,53,16,53,26, 3,14,46		8,17
56″	25,58,16,42, 5,42,14,38,54, 0		1,53,55,22,27	
		1,53,16,51,32, 7,52,19		8,17
58″	25,58,18,35,22,33,46,46,46,19		1,53,55,30,44	
		1,53,16,49,38,12,21,35		
60″	25,58,20,28,39,23,24,59, 7,54			
exact	25,58,20,28,39,23,24,59, 9,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°39′ 0″	25,58,20,28,39,23,24,59, 9,30			
		1,53,16,47,44,16,42,51		
2″	25,58,22,21,56,11, 9,15,52,21		1,53,55,47,16	
		1,53,16,45,50,20,55,35		8,17
4″	25,58,24,15,12,56,59,36,47,56		1,53,55,55,33	
		1,53,16,43,56,25, 0, 2		8,17
6″	25,58,26, 8,29,40,56, 1,47,58		1,53,56, 3,50	
		1,53,16,42, 2,28,56,12		8,17
8″	25,58,28, 1,46,22,58,30,44,10		1,53,56,12, 7	
		1,53,16,40, 8,32,44, 5		8,17
10″	25,58,29,55, 3, 3, 7, 3,28,15		1,53,56,20,24	
		1,53,16,38,14,36,23,41		8,17
12″	25,58,31,48,19,41,21,39,51,56		1,53,56,28,41	
		1,53,16,36,20,39,55, 0		8,17
14″	25,58,33,41,36,17,42,19,46,56		1,53,56,36,58	
		1,53,16,34,26,43,18, 2		8,17
16″	25,58,35,34,52,52, 9, 3, 4,58		1,53,56,45,15	
		1,53,16,32,32,46,32,47		8,17
18″	25,58,37,28, 9,24,41,49,37,45		1,53,56,53,32	
		1,53,16,30,38,49,39,15		8,17
20″	25,58,39,21,25,55,20,39,17, 0		1,53,57, 1,49	
		1,53,16,28,44,52,37,26		8,17
22″	25,58,41,14,42,24, 5,31,54,26		1,53,57,10, 6	
		1,53,16,26,50,55,27,20		8,17
24″	25,58,43, 7,58,50,56,27,21,46		1,53,57,18,23	
		1,53,16,24,56,58, 8,57		8,17
26″	25,58,45, 1,15,15,53,25,30,43		1,53,57,26,40	
		1,53,16,23, 3, 0,42,17		8,17
28″	25,58,46,54,31,38,56,26,13, 0		1,53,57,34,57	
		1,53,16,21, 9, 3, 7,20		8,17
30″	25,58,48,47,48, 0, 5,29,20,20		1,53,57,43,14	
		1,53,16,19,15, 5,24, 6		8,17
32″	25,58,50,41, 4,19,20,34,44,26		1,53,57,51,31	
		1,53,16,17,21, 7,32,35		8,17
34″	25,58,52,34,20,36,41,42,17, 1		1,53,57,59,48	
		1,53,16,15,27, 9,32,47		8,17
36″	25,58,54,27,36,52, 8,51,49,48		1,53,58, 8, 5	
		1,53,16,13,33,11,24,42		8,17
38″	25,58,56,20,53, 5,42, 3,14,30		1,53,58,16,22	
		1,53,16,11,39,13, 8,20		8,17
40″	25,58,58,14, 9,17,21,16,22,50		1,53,58,24,39	
		1,53,16, 9,45,14,43,41		8,17
42″	25,59, 0, 7,25,27, 6,31, 6,31		1,53,58,32,56	
		1,53,16, 7,51,16,10,45		8,17
44″	25,59, 2, 0,41,34,57,47,17,16		1,53,58,41,13	
		1,53,16, 5,57,17,29,32		8,17
46″	25,59, 3,53,57,40,55, 4,46,48		1,53,58,49,30	
		1,53,16, 4, 3,18,40, 2		8,17
48″	25,59, 5,47,13,44,58,23,26,50		1,53,58,57,47	
		1,53,16, 2, 9,19,42,15		8,17
50″	25,59, 7,40,29,47, 7,43, 9, 5		1,53,59, 6, 4	
		1,53,16, 0,15,20,36,11		8,17
52″	25,59, 9,33,45,47,23, 3,45,16		1,53,59,14,21	
		1,53,15,58,21,21,21,50		8,17
54″	25,59,11,27, 1,45,44,25, 7, 6		1,53,59,22,38	
		1,53,15,56,27,21,59,12		8,17
56″	25,59,13,20,17,42,11,47, 6,18		1,53,59,30,55	
		1,53,15,54,33,22,28,17		8,17
58″	25,59,15,13,33,36,45, 9,34,35		1,53,59,39,12	
		1,53,15,52,39,22,49, 5		
60″	25,59,17, 6,49,29,24,32,23,40			
exact	25,59,17, 6,49,29,24,32,29,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°40′ 0″	25,59,17, 6,49,29,24,32,29,45			
		1,53,15,50,45,23, 2,22		
2″	25,59,19, 0, 5,20, 9,55,32, 7		1,53,59,55,42	
		1,53,15,48,51,23, 6,40		8,17
4″	25,59,20,53,21, 9, 1,18,38,47		1,54, 0, 3,59	
		1,53,15,46,57,23, 2,41		8,17
6″	25,59,22,46,36,55,58,41,41,28		1,54, 0,12,16	
		1,53,15,45, 3,22,50,25		8,17
8″	25,59,24,39,52,41, 2, 4,31,53		1,54, 0,20,33	
		1,53,15,43, 9,22,29,52		8,17
10″	25,59,26,33, 8,24,11,27, 1,45		1,54, 0,28,50	
		1,53,15,41,15,22, 1, 2		8,17
12″	25,59,28,26,24, 5,26,49, 2,47		1,54, 0,37, 7	
		1,53,15,39,21,21,23,55		8,17
14″	25,59,30,19,39,44,48,10,26,42		1,54, 0,45,24	
		1,53,15,37,27,20,38,31		8,17
16″	25,59,32,12,55,22,15,31, 5,13		1,54, 0,53,41	
		1,53,15,35,33,19,44,50		8,17
18″	25,59,34, 6,10,57,48,50,50, 3		1,54, 1, 1,58	
		1,53,15,33,39,18,42,52		8,17
20″	25,59,35,59,26,31,28, 9,32,55		1,54, 1,10,15	
		1,53,15,31,45,17,32,37		8,17
22″	25,59,37,52,42, 3,13,27, 5,32		1,54, 1,18,32	
		1,53,15,29,51,16,14, 5		8,17
24″	25,59,39,45,57,33, 4,43,19,37		1,54, 1,26,49	
		1,53,15,27,57,14,47,16		8,17
26″	25,59,41,39,13, 1, 1,58, 6,53		1,54, 1,35, 6	
		1,53,15,26, 3,13,12,10		8,17
28″	25,59,43,32,28,27, 5,11,19, 3		1,54, 1,43,23	
		1,53,15,24, 9,11,28,47		8,17
30″	25,59,45,25,43,51,14,22,47,50		1,54, 1,51,40	
		1,53,15,22,15, 9,37, 7		8,17
32″	25,59,47,18,59,13,29,32,24,57		1,54, 1,59,57	
		1,53,15,20,21, 7,37,10		8,17
34″	25,59,49,12,14,33,50,40, 2, 7		1,54, 2, 8,14	
		1,53,15,18,27, 5,28,56		8,17
36″	25,59,51, 5,29,52,17,45,31, 3		1,54, 2,16,31	
		1,53,15,16,33, 3,12,25		8,17
38″	25,59,52,58,45, 8,50,48,43,28		1,54, 2,24,48	
		1,53,15,14,39, 0,47,37		8,17
40″	25,59,54,52, 0,23,29,49,31, 5		1,54, 2,33, 5	
		1,53,15,12,44,58,14,32		8,17
42″	25,59,56,45,15,36,14,47,45,37		1,54, 2,41,22	
		1,53,15,10,50,55,33,10		8,17
44″	25,59,58,38,30,47, 5,43,18,47		1,54, 2,49,39	
		1,53,15, 8,56,52,43,31		8,17
46″	26, 0, 0,31,45,56, 2,36, 2,18		1,54, 2,57,56	
		1,53,15, 7, 2,49,45,35		8,17
48″	26, 0, 2,25, 1, 3, 5,25,47,53		1,54, 3, 6,13	
		1,53,15, 5, 8,46,39,22		8,17
50″	26, 0, 4,18,16, 8,14,12,27,15		1,54, 3,14,30	
		1,53,15, 3,14,43,24,52		8,17
52″	26, 0, 6,11,31,11,28,55,52, 7		1,54, 3,22,47	
		1,53,15, 1,20,40, 2, 5		8,17
54″	26, 0, 8, 4,46,12,49,35,54,12		1,54, 3,31, 4	
		1,53,14,59,26,36,31, 1		8,17
56″	26, 0, 9,58, 1,12,16,12,25,13		1,54, 3,39,21	
		1,53,14,57,32,32,51,40		8,17
58″	26, 0,11,51,16, 9,48,45,16,53		1,54, 3,47,38	
		1,53,14,55,38,29, 4, 2		
60″	26, 0,13,44,31, 5,27,14,20,55			
exact	26, 0,13,44,31, 5,27,14,31,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°41′ 0″	26, 0,13,44,31, 5,27,14,31,58			
		1,53,14,53,44,25, 9,24		
2″	26, 0,15,37,45,59,11,39,41,22		1,54, 4, 4, 6	
		1,53,14,51,50,21, 5,18		8,17
4″	26, 0,17,31, 0,51, 2, 0,46,40		1,54, 4,12,23	
		1,53,14,49,56,16,52,55		8,17
6″	26, 0,19,24,15,40,58,17,39,35		1,54, 4,20,40	
		1,53,14,48, 2,12,32,15		8,17
8″	26, 0,21,17,30,29, 0,30,11,50		1,54, 4,28,57	
		1,53,14,46, 8, 8, 3,18		8,17
10″	26, 0,23,10,45,15, 8,38,15, 8		1,54, 4,37,14	
		1,53,14,44,14, 3,26, 4		8,17
12″	26, 0,25, 3,59,59,22,41,41,12		1,54, 4,45,31	
		1,53,14,42,19,58,40,33		8,17
14″	26, 0,26,57,14,41,42,40,21,45		1,54, 4,53,48	
		1,53,14,40,25,53,46,45		8,17
16″	26, 0,28,50,29,22, 8,34, 8,30		1,54, 5, 2, 5	
		1,53,14,38,31,48,44,40		8,17
18″	26, 0,30,43,44, 0,40,22,53,10		1,54, 5,10,22	
		1,53,14,36,37,43,34,18		8,17
20″	26, 0,32,36,58,37,18, 6,27,28		1,54, 5,18,39	
		1,53,14,34,43,38,15,39		8,17
22″	26, 0,34,30,13,12, 1,44,43, 7		1,54, 5,26,56	
		1,53,14,32,49,32,48,43		8,17
24″	26, 0,36,23,27,44,51,17,31,50		1,54, 5,35,13	
		1,53,14,30,55,27,13,30		8,17
26″	26, 0,38,16,42,15,46,44,45,20		1,54, 5,43,30	
		1,53,14,29, 1,21,30, 0		8,17
28″	26, 0,40, 9,56,44,48, 6,15,20		1,54, 5,51,47	
		1,53,14,27, 7,15,38,13		8,17
30″	26, 0,42, 3,11,11,55,21,53,33		1,54, 6, 0, 4	
		1,53,14,25,13, 9,38, 9		8,17
32″	26, 0,43,56,25,37, 8,31,31,42		1,54, 6, 8,21	
		1,53,14,23,19, 3,29,48		8,17
34″	26, 0,45,49,40, 0,27,35, 1,30		1,54, 6,16,38	
		1,53,14,21,24,57,13,10		8,17
36″	26, 0,47,42,54,21,52,32,14,40		1,54, 6,24,55	
		1,53,14,19,30,50,48,15		8,17
38″	26, 0,49,36, 8,41,23,23, 2,55		1,54, 6,33,12	
		1,53,14,17,36,44,15, 3		8,17
40″	26, 0,51,29,22,59, 0, 7,17,58		1,54, 6,41,29	
		1,53,14,15,42,37,33,34		8,17
42″	26, 0,53,22,37,14,42,44,51,32		1,54, 6,49,46	
		1,53,14,13,48,30,43,48		8,17
44″	26, 0,55,15,51,28,31,15,35,20		1,54, 6,58, 3	
		1,53,14,11,54,23,45,45		8,17
46″	26, 0,57, 9, 5,40,25,39,21, 5		1,54, 7, 6,20	
		1,53,14,10, 0,16,39,25		8,17
48″	26, 0,59, 2,19,50,25,56, 0,30		1,54, 7,14,37	
		1,53,14, 8, 6, 9,24,48		8,17
50″	26, 1, 0,55,33,58,32, 5,25,18		1,54, 7,22,54	
		1,53,14, 6,12, 2, 1,54		8,17
52″	26, 1, 2,48,48, 4,44, 7,27,12		1,54, 7,31,11	
		1,53,14, 4,17,54,30,43		8,17
54″	26, 1, 4,42, 2, 9, 2, 1,57,55		1,54, 7,39,28	
		1,53,14, 2,23,46,51,15		8,17
56″	26, 1, 6,35,16,11,25,48,49,10		1,54, 7,47,45	
		1,53,14, 0,29,39, 3,30		8,17
58″	26, 1, 8,28,30,11,55,27,52,40		1,54, 7,56, 2	
		1,53,13,58,35,31, 7,28		
60″	26, 1,10,21,44,10,30,59, 0, 8			
exact	26, 1,10,21,44,10,30,59,16,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°42′ 0″	26, 1,10,21,44,10,30,59,16,54			
		1,53,13,56,41,23, 5, 0		
2″	26, 1,12,14,58, 7,12,22,21,54		1,54, 8,12,28	
		1,53,13,54,47,14,52,32		8,17
4″	26, 1,14, 8,12, 1,59,37,14,26		1,54, 8,20,45	
		1,53,13,52,53, 6,31,47		8,17
6″	26, 1,16, 1,25,54,52,43,46,13		1,54, 8,29, 2	
		1,53,13,50,58,58, 2,45		8,17
8″	26, 1,17,54,39,45,51,41,48,58		1,54, 8,37,19	
		1,53,13,49, 4,49,25,26		8,17
10″	26, 1,19,47,53,34,56,31,14,24		1,54, 8,45,36	
		1,53,13,47,10,40,39,50		8,17
12″	26, 1,21,41, 7,22, 7,11,54,14		1,54, 8,53,53	
		1,53,13,45,16,31,45,57		8,17
14″	26, 1,23,34,21, 7,23,43,40,11		1,54, 9, 2,10	
		1,53,13,43,22,22,43,47		8,17
16″	26, 1,25,27,34,50,46, 6,23,58		1,54, 9,10,27	
		1,53,13,41,28,13,33,20		8,17
18″	26, 1,27,20,48,32,14,19,57,18		1,54, 9,18,44	
		1,53,13,39,34, 4,14,36		8,17
20″	26, 1,29,14, 2,11,48,24,11,54		1,54, 9,27, 1	
		1,53,13,37,39,54,47,35		8,17
22″	26, 1,31, 7,15,49,28,18,59,29		1,54, 9,35,18	
		1,53,13,35,45,45,12,17		8,17
24″	26, 1,33, 0,29,25,14, 4,11,46		1,54, 9,43,35	
		1,53,13,33,51,35,28,42		8,17
26″	26, 1,34,53,42,59, 5,39,40,28		1,54, 9,51,52	
		1,53,13,31,57,25,36,50		8,17
28″	26, 1,36,46,56,31, 3, 5,17,18		1,54,10, 0, 9	
		1,53,13,30, 3,15,36,41		8,17
30″	26, 1,38,40,10, 1, 6,20,53,59		1,54,10, 8,26	
		1,53,13,28, 9, 5,28,15		8,17
32″	26, 1,40,33,23,29,15,26,22,14		1,54,10,16,43	
		1,53,13,26,14,55,11,32		8,17
34″	26, 1,42,26,36,55,30,21,33,46		1,54,10,25, 0	
		1,53,13,24,20,44,46,32		8,17
36″	26, 1,44,19,50,19,51, 6,20,18		1,54,10,33,17	
		1,53,13,22,26,34,13,15		8,17
38″	26, 1,46,13, 3,42,17,40,33,33		1,54,10,41,34	
		1,53,13,20,32,23,31,41		8,17
40″	26, 1,48, 6,17, 2,50, 4, 5,14		1,54,10,49,51	
		1,53,13,18,38,12,41,50		8,17
42″	26, 1,49,59,30,21,28,16,47, 4		1,54,10,58, 8	
		1,53,13,16,44, 1,43,42		8,17
44″	26, 1,51,52,43,38,12,18,30,46		1,54,11, 6,25	
		1,53,13,14,49,50,37,17		8,17
46″	26, 1,53,45,56,53, 2, 9, 8, 3		1,54,11,14,42	
		1,53,13,12,55,39,22,35		8,17
48″	26, 1,55,39,10, 5,57,48,30,38		1,54,11,22,59	
		1,53,13,11, 1,27,59,36		8,17
50″	26, 1,57,32,23,16,59,16,30,14		1,54,11,31,16	
		1,53,13, 9, 7,16,28,20		8,17
52″	26, 1,59,25,36,26, 6,32,58,34		1,54,11,39,33	
		1,53,13, 7,13, 4,48,47		8,17
54″	26, 2, 1,18,49,33,19,37,47,21		1,54,11,47,50	
		1,53,13, 5,18,53, 0,57		8,17
56″	26, 2, 3,12, 2,38,38,30,48,18		1,54,11,56, 7	
		1,53,13, 3,24,41, 4,50		8,17
58″	26, 2, 5, 5,15,42, 3,11,53, 8		1,54,12, 4,24	
		1,53,13, 1,30,29, 0,26		
60″	26, 2, 6,58,28,43,33,40,53,34			
exact	26, 2, 6,58,28,43,33,41,16,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°43′ 0″	26, 2, 6,58,28,43,33,41,16,33	1,53,12,59,36,16,50,13		
2″	26, 2, 8,51,41,43, 9,58, 6,46	1,53,12,57,42, 4,29,25	1,54,12,20,48	8,17
4″	26, 2,10,44,54,40,52, 2,36,11	1,53,12,55,47,52, 0,20	1,54,12,29, 5	8,17
6″	26, 2,12,38, 7,36,39,54,36,31	1,53,12,53,53,39,22,58	1,54,12,37,22	8,17
8″	26, 2,14,31,20,30,33,33,59,29	1,53,12,51,59,26,37,19	1,54,12,45,39	8,17
10″	26, 2,16,24,33,22,33, 0,36,48	1,53,12,50, 5,13,43,23	1,54,12,53,56	8,17
12″	26, 2,18,17,46,12,38,14,20,11	1,53,12,48,11, 0,41,10	1,54,13, 2,13	8,17
14″	26, 2,20,10,59, 0,49,15, 1,21	1,53,12,46,16,47,30,40	1,54,13,10,30	8,17
16″	26, 2,22, 4,11,47, 6, 2,32, 1	1,53,12,44,22,34,11,53	1,54,13,18,47	8,17
18″	26, 2,23,57,24,31,28,36,43,54	1,53,12,42,28,20,44,49	1,54,13,27, 4	8,17
20″	26, 2,25,50,37,13,56,57,28,43	1,53,12,40,34, 7, 9,28	1,54,13,35,21	8,17
22″	26, 2,27,43,49,54,31, 4,38,11	1,53,12,38,39,53,25,50	1,54,13,43,38	8,17
24″	26, 2,29,37, 2,33,10,58, 4, 1	1,53,12,36,45,39,33,55	1,54,13,51,55	8,17
26″	26, 2,31,30,15, 9,56,37,37,56	1,53,12,34,51,25,33,43	1,54,14, 0,12	8,17
28″	26, 2,33,23,27,44,48, 3,11,39	1,53,12,32,57,11,25,14	1,54,14, 8,29	8,17
30″	26, 2,35,16,40,17,45,14,36,53	1,53,12,31, 2,57, 8,28	1,54,14,16,46	8,17
32″	26, 2,37, 9,52,48,48,11,45,21	1,53,12,29, 8,42,43,25	1,54,14,25, 3	8,17
34″	26, 2,39, 3, 5,17,56,54,28,46	1,53,12,27,14,28,10, 5	1,54,14,33,20	8,17
36″	26, 2,40,56,17,45,11,22,38,51	1,53,12,25,20,13,28,28	1,54,14,41,37	8,17
38″	26, 2,42,49,30,10,31,36, 7,19	1,53,12,23,25,58,38,34	1,54,14,49,54	8,17
40″	26, 2,44,42,42,33,57,34,45,53	1,53,12,21,31,43,40,23	1,54,14,58,11	8,17
42″	26, 2,46,35,54,55,29,18,26,16	1,53,12,19,37,28,33,55	1,54,15, 6,28	8,17
44″	26, 2,48,29, 7,15, 6,47, 0,11	1,53,12,17,43,13,19,10	1,54,15,14,45	8,17
46″	26, 2,50,22,19,32,50, 0,19,21	1,53,12,15,48,57,56, 8	1,54,15,23, 2	8,17
48″	26, 2,52,15,31,48,38,58,15,29	1,53,12,13,54,42,24,49	1,54,15,31,19	8,17
50″	26, 2,54, 8,44, 2,33,40,40,18	1,53,12,12, 0,26,45,13	1,54,15,39,36	8,17
52″	26, 2,56, 1,56,14,34, 7,25,31	1,53,12,10, 6,10,57,20	1,54,15,47,53	8,17
54″	26, 2,57,55, 8,24,40,18,22,51	1,53,12, 8,11,55, 1,10	1,54,15,56,10	8,17
56″	26, 2,59,48,20,32,52,13,24, 1	1,53,12, 6,17,38,56,43	1,54,16, 4,27	8,17
58″	26, 3, 1,41,32,39, 9,52,20,44	1,53,12, 4,23,22,43,59	1,54,16,12,44	
60″	26, 3, 3,34,44,43,33,15, 4,43			
exact	26, 3, 3,34,44,43,33,15,34,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°44′ 0″	26, 3, 3,34,44,43,33,15,34,13	1,53,12, 2,29, 6,26, 4		
2″	26, 3, 5,27,56,46, 2,22, 0,17	1,53,12, 0,34,49,56,59	1,54,16,29, 5	8,17
4″	26, 3, 7,21, 8,46,37,11,57,16	1,53,11,58,40,33,19,37	1,54,16,37,22	8,17
6″	26, 3, 9,14,20,45,17,45,16,53	1,53,11,56,46,16,33,58	1,54,16,45,39	8,17
8″	26, 3,11, 7,32,42, 4, 1,50,51	1,53,11,54,51,59,40, 2	1,54,16,53,56	8,17
10″	26, 3,13, 0,44,36,56, 1,30,53	1,53,11,52,57,42,37,49	1,54,17, 2,13	8,17
12″	26, 3,14,53,56,29,53,44, 8,42	1,53,11,51, 3,25,27,19	1,54,17,10,30	8,17
14″	26, 3,16,47, 8,20,57, 9,36, 1	1,53,11,49, 9, 8, 8,32	1,54,17,18,47	8,17
16″	26, 3,18,40,20,10, 6,17,44,33	1,53,11,47,14,50,41,28	1,54,17,27, 4	8,17
18″	26, 3,20,33,31,57,21, 8,26, 1	1,53,11,45,20,33, 6, 7	1,54,17,35,21	8,17
20″	26, 3,22,26,43,42,41,41,32, 8	1,53,11,43,26,15,22,29	1,54,17,43,38	8,17
22″	26, 3,24,19,55,26, 7,56,54,37	1,53,11,41,31,57,30,34	1,54,17,51,55	8,17
24″	26, 3,26,13, 7, 7,39,54,25,11	1,53,11,39,37,39,30,22	1,54,18, 0,12	8,17
26″	26, 3,28, 6,18,47,17,33,55,33	1,53,11,37,43,21,21,53	1,54,18, 8,29	8,17
28″	26, 3,29,59,30,25, 0,55,17,26	1,53,11,35,49, 3, 5, 7	1,54,18,16,46	8,17
30″	26, 3,31,52,42, 0,49,58,22,33	1,53,11,33,54,44,40, 4	1,54,18,25, 3	8,17
32″	26, 3,33,45,53,34,44,43, 2,37	1,53,11,32, 0,26, 6,44	1,54,18,33,20	8,17
34″	26, 3,35,39, 5, 6,45, 9, 9,21	1,53,11,30, 6, 7,25, 7	1,54,18,41,37	8,17
36″	26, 3,37,32,16,36,51,16,34,28	1,53,11,28,11,48,35,13	1,54,18,49,54	8,17
38″	26, 3,39,25,28, 5, 3, 5, 9,41	1,53,11,26,17,29,37, 2	1,54,18,58,11	8,17
40″	26, 3,41,18,39,31,20,34,46,43	1,53,11,24,23,10,30,34	1,54,19, 6,28	8,17
42″	26, 3,43,11,50,55,43,45,17,17	1,53,11,22,28,51,15,49	1,54,19,14,45	8,17
44″	26, 3,45, 5, 2,18,12,36,33, 6	1,53,11,20,34,31,52,47	1,54,19,23, 2	8,17
46″	26, 3,46,58,13,38,47, 8,25,53	1,53,11,18,40,12,21,28	1,54,19,31,19	8,17
48″	26, 3,48,51,24,57,27,20,47,21	1,53,11,16,45,52,41,52	1,54,19,39,36	8,17
50″	26, 3,50,44,36,14,13,13,29,13	1,53,11,14,51,32,53,59	1,54,19,47,53	8,17
52″	26, 3,52,37,47,29, 4,46,23,12	1,53,11,12,57,12,57,49	1,54,19,56,10	8,17
54″	26, 3,54,30,58,42, 1,59,21, 1	1,53,11,11, 2,52,53,22	1,54,20, 4,27	8,17
56″	26, 3,56,24, 9,53, 4,52,14,23	1,53,11, 9, 8,32,40,38	1,54,20,12,44	8,17
58″	26, 3,58,17,21, 2,13,24,55, 1	1,53,11, 7,14,12,19,37	1,54,20,21, 1	
60″	26, 4, 0,10,32, 9,27,37,14,38			
exact	26, 4, 0,10,32, 9,27,37,44,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°45′ 0″	26, 4, 0,10,32, 9,27,37,44,31	1,53,11, 5,19,51,53,37		
2″	26, 4, 2, 3,43,14,47,29,38, 8	1,53,11, 3,25,31,16,16	1,54,20,37,21	8,16
4″	26, 4, 3,56,54,18,13, 0,54,24	1,53,11, 1,31,10,30,39	1,54,20,45,37	8,16
6″	26, 4, 5,50, 5,19,44,11,25, 3	1,53,10,59,36,49,36,46	1,54,20,53,53	8,16
8″	26, 4, 7,43,16,19,21, 1, 1,49	1,53,10,57,42,28,34,37	1,54,21, 2, 9	8,16
10″	26, 4, 9,36,27,17, 3,29,36,26	1,53,10,55,48, 7,24,12	1,54,21,10,25	8,16
12″	26, 4,11,29,38,12,51,37, 0,38	1,53,10,53,53,46, 5,31	1,54,21,18,41	8,16
14″	26, 4,13,22,49, 6,45,23, 6, 9	1,53,10,51,59,24,38,34	1,54,21,26,57	8,16
16″	26, 4,15,15,59,58,44,47,44,43	1,53,10,50, 5, 3, 3,21	1,54,21,35,13	8,16
18″	26, 4,17, 9,10,48,49,50,48, 4	1,53,10,48,10,41,19,52	1,54,21,43,29	8,16
20″	26, 4,19, 2,21,37, 0,32, 7,56	1,53,10,46,16,19,28, 7	1,54,21,51,45	8,16
22″	26, 4,20,55,32,23,16,51,36, 3	1,53,10,44,21,57,28, 6	1,54,22, 0, 1	8,16
24″	26, 4,22,48,43, 7,38,49, 4, 9	1,53,10,42,27,35,19,49	1,54,22, 8,17	8,16
26″	26, 4,24,41,53,50, 6,24,23,58	1,53,10,40,33,13, 3,16	1,54,22,16,33	8,16
28″	26, 4,26,35, 4,30,39,37,27,14	1,53,10,38,38,50,38,27	1,54,22,24,49	8,16
30″	26, 4,28,28,15, 9,18,28, 5,41	1,53,10,36,44,28, 5,22	1,54,22,33, 5	8,16
32″	26, 4,30,21,25,46, 2,56,11, 3	1,53,10,34,50, 5,24, 1	1,54,22,41,21	8,16
34″	26, 4,32,14,36,20,53, 1,35, 4	1,53,10,32,55,42,34,24	1,54,22,49,37	8,16
36″	26, 4,34, 7,46,53,48,44, 9,28	1,53,10,31, 1,19,36,31	1,54,22,57,53	8,16
38″	26, 4,36, 0,57,24,50, 3,45,59	1,53,10,29, 6,56,30,22	1,54,23, 6, 9	8,16
40″	26, 4,37,54, 7,53,57, 0,16,21	1,53,10,27,12,33,15,57	1,54,23,14,25	8,16
42″	26, 4,39,47,18,21, 9,33,32,18	1,53,10,25,18, 9,53,16	1,54,23,22,41	8,16
44″	26, 4,41,40,28,46,27,43,25,34	1,53,10,23,23,46,22,19	1,54,23,30,57	8,16
46″	26, 4,43,33,39, 9,51,29,47,53	1,53,10,21,29,22,43, 6	1,54,23,39,13	8,16
48″	26, 4,45,26,49,31,20,52,30,59	1,53,10,19,34,58,55,37	1,54,23,47,29	8,16
50″	26, 4,47,19,59,50,55,51,26,36	1,53,10,17,40,34,59,52	1,54,23,55,45	8,16
52″	26, 4,49,13,10, 8,36,26,26,28	1,53,10,15,46,10,55,51	1,54,24, 4, 1	8,16
54″	26, 4,51, 6,20,24,22,37,22,19	1,53,10,13,51,46,43,34	1,54,24,12,17	8,16
56″	26, 4,52,59,30,38,14,24, 5,53	1,53,10,11,57,22,23, 1	1,54,24,20,33	8,16
58″	26, 4,54,52,40,50,11,46,28,54	1,53,10,10, 2,57,54,12	1,54,24,28,49	
60″	26, 4,56,45,51, 0,14,44,23, 6			
exact	26, 4,56,45,51, 0,14,43,53,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°46′ 0″	26, 4,56,45,51, 0,14,43,53,24	1,53,10, 8, 8,33,13,54		
2″	26, 4,58,39, 1, 8,23,17, 7,18	1,53,10, 6,14, 8,28,20	1,54,24,45,34	8,16
4″	26, 5, 0,32,11,14,37,25,35,38	1,53,10, 4,19,43,34,30	1,54,24,53,50	8,16
6″	26, 5, 2,25,21,18,57, 9,10, 8	1,53,10, 2,25,18,32,24	1,54,25, 2, 6	8,16
8″	26, 5, 4,18,31,21,22,27,42,32	1,53,10, 0,30,53,22, 2	1,54,25,10,22	8,16
10″	26, 5, 6,11,41,21,53,21, 4,34	1,53, 9,58,36,28, 3,24	1,54,25,18,38	8,16
12″	26, 5, 8, 4,51,20,29,49, 7,58	1,53, 9,56,42, 2,36,30	1,54,25,26,54	8,16
14″	26, 5, 9,58, 1,17,11,51,44,28	1,53, 9,54,47,37, 1,20	1,54,25,35,10	8,16
16″	26, 5,11,51,11,11,59,28,45,48	1,53, 9,52,53,11,17,54	1,54,25,43,26	8,16
18″	26, 5,13,44,21, 4,52,40, 3,42	1,53, 9,50,58,45,26,12	1,54,25,51,42	8,16
20″	26, 5,15,37,30,55,51,25,29,54	1,53, 9,49, 4,19,26,14	1,54,25,59,58	8,16
22″	26, 5,17,30,40,44,55,44,56, 8	1,53, 9,47, 9,53,18, 0	1,54,26, 8,14	8,16
24″	26, 5,19,23,50,32, 5,38,14, 8	1,53, 9,45,15,27, 1,30	1,54,26,16,30	8,16
26″	26, 5,21,17, 0,17,21, 5,15,38	1,53, 9,43,21, 0,36,44	1,54,26,24,46	8,16
28″	26, 5,23,10,10, 0,42, 5,52,22	1,53, 9,41,26,34, 3,42	1,54,26,33, 2	8,16
30″	26, 5,25, 3,19,42, 8,39,56, 4	1,53, 9,39,32, 7,22,24	1,54,26,41,18	8,16
32″	26, 5,26,56,29,21,40,47,18,28	1,53, 9,37,37,40,32,50	1,54,26,49,34	8,16
34″	26, 5,28,49,38,59,18,27,51,18	1,53, 9,35,43,13,35, 0	1,54,26,57,50	8,16
36″	26, 5,30,42,48,35, 1,41,26,18	1,53, 9,33,48,46,28,54	1,54,27, 6, 6	8,16
38″	26, 5,32,35,58, 8,50,27,55,12	1,53, 9,31,54,19,14,32	1,54,27,14,22	8,16
40″	26, 5,34,29, 7,40,44,47, 9,44	1,53, 9,29,59,51,51,54	1,54,27,22,38	8,16
42″	26, 5,36,22,17,10,44,39, 1,38	1,53, 9,28, 5,24,21, 0	1,54,27,30,54	8,16
44″	26, 5,38,15,26,38,50, 3,22,38	1,53, 9,26,10,56,41,50	1,54,27,39,10	8,16
46″	26, 5,40, 8,36, 5, 1, 0, 4,28	1,53, 9,24,16,28,54,24	1,54,27,47,26	8,16
48″	26, 5,42, 1,45,29,17,28,58,52	1,53, 9,22,22, 0,58,42	1,54,27,55,42	8,16
50″	26, 5,43,54,54,51,39,29,57,34	1,53, 9,20,27,32,54,44	1,54,28, 3,58	8,16
52″	26, 5,45,48, 4,12, 7, 2,52,18	1,53, 9,18,33, 4,42,30	1,54,28,12,14	8,16
54″	26, 5,47,41,13,30,40, 7,34,48	1,53, 9,16,38,36,22, 0	1,54,28,20,30	8,16
56″	26, 5,49,34,22,47,18,43,56,48	1,53, 9,14,44, 7,53,14	1,54,28,28,46	8,16
58″	26, 5,51,27,32, 2, 2,51,50, 2	1,53, 9,12,49,39,16,12	1,54,28,37, 2	
60″	26, 5,53,20,41,14,52,31, 6,14			
exact	26, 5,53,20,41,14,52,30,38, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°47′ 0″	26, 5,53,20,41,14,52,30,38, 8			
		1,53, 9,10,55,10,27,59		
2″	26, 5,55,13,50,25,47,41, 6, 7		1,54,28,53,46	
		1,53, 9, 9, 0,41,34,13		8,16
4″	26, 5,57, 6,59,34,48,22,40,20		1,54,29, 2, 2	
		1,53, 9, 7, 6,12,32,11		8,16
6″	26, 5,59, 0, 8,41,54,35,12,31		1,54,29,10,18	
		1,53, 9, 5,11,43,21,53		8,16
8″	26, 6, 0,53,17,47, 6,18,34,24		1,54,29,18,34	
		1,53, 9, 3,17,14, 3,19		8,16
10″	26, 6, 2,46,26,50,23,32,37,43		1,54,29,26,50	
		1,53, 9, 1,22,44,36,29		8,16
12″	26, 6, 4,39,35,51,46,17,14,12		1,54,29,35, 6	
		1,53, 8,59,28,15, 1,23		8,16
14″	26, 6, 6,32,44,51,14,32,15,35		1,54,29,43,22	
		1,53, 8,57,33,45,18, 1		8,16
16″	26, 6, 8,25,53,48,48,17,33,36		1,54,29,51,38	
		1,53, 8,55,39,15,26,23		8,16
18″	26, 6,10,19, 2,44,27,32,59,59		1,54,29,59,54	
		1,53, 8,53,44,45,26,29		8,16
20″	26, 6,12,12,11,38,12,18,26,28		1,54,30, 8,10	
		1,53, 8,51,50,15,18,19		8,16
22″	26, 6,14, 5,20,30, 2,33,44,47		1,54,30,16,26	
		1,53, 8,49,55,45, 1,53		8,16
24″	26, 6,15,58,29,19,58,18,46,40		1,54,30,24,42	
		1,53, 8,48, 1,14,37,11		8,16
26″	26, 6,17,51,38, 7,59,33,23,51		1,54,30,32,58	
		1,53, 8,46, 6,44, 4,13		8,16
28″	26, 6,19,44,46,54, 6,17,28, 4		1,54,30,41,14	
		1,53, 8,44,12,13,22,59		8,16
30″	26, 6,21,37,55,38,18,30,51, 3		1,54,30,49,30	
		1,53, 8,42,17,42,33,29		8,16
32″	26, 6,23,31, 4,20,36,13,24,32		1,54,30,57,46	
		1,53, 8,40,23,11,35,43		8,16
34″	26, 6,25,24,13, 0,59,25, 0,15		1,54,31, 6, 2	
		1,53, 8,38,28,40,29,41		8,16
36″	26, 6,27,17,21,39,28, 5,29,56		1,54,31,14,18	
		1,53, 8,36,34, 9,15,23		8,16
38″	26, 6,29,10,30,16, 2,14,45,19		1,54,31,22,34	
		1,53, 8,34,39,37,52,49		8,16
40″	26, 6,31, 3,38,50,41,52,38, 8		1,54,31,30,50	
		1,53, 8,32,45, 6,21,59		8,16
42″	26, 6,32,56,47,23,26,59, 0, 7		1,54,31,39, 6	
		1,53, 8,30,50,34,42,53		8,16
44″	26, 6,34,49,55,54,17,33,43, 0		1,54,31,47,22	
		1,53, 8,28,56, 2,55,31		8,16
46″	26, 6,36,43, 4,23,13,36,38,31		1,54,31,55,38	
		1,53, 8,27, 1,30,59,53		8,16
48″	26, 6,38,36,12,50,15, 7,38,24		1,54,32, 3,54	
		1,53, 8,25, 6,58,55,59		8,16
50″	26, 6,40,29,21,15,22, 6,34,23		1,54,32,12,10	
		1,53, 8,23,12,26,43,49		8,16
52″	26, 6,42,22,29,38,34,33,18,12		1,54,32,20,26	
		1,53, 8,21,17,54,23,23		8,16
54″	26, 6,44,15,37,59,52,27,41,35		1,54,32,28,42	
		1,53, 8,19,23,21,54,41		8,16
56″	26, 6,46, 8,46,19,15,49,36,16		1,54,32,36,58	
		1,53, 8,17,28,49,17,43		8,16
58″	26, 6,48, 1,54,36,44,38,53,59		1,54,32,45,14	
		1,53, 8,15,34,16,32,29		
60″	26, 6,49,55, 2,52,18,55,26,28			
exact	26, 6,49,55, 2,52,18,55, 7,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°48′ 0″	26, 6,49,55, 2,52,18,55, 7,24			
		1,53, 8,13,39,43,36,53		
2″	26, 6,51,48,11, 5,58,38,44,17		1,54,33, 1,55	
		1,53, 8,11,45,10,34,58		8,16
4″	26, 6,53,41,19,17,43,49,19,15		1,54,33,10,11	
		1,53, 8, 9,50,37,24,47		8,16
6″	26, 6,55,34,27,27,34,26,44, 2		1,54,33,18,27	
		1,53, 8, 7,56, 4, 6,20		8,16
8″	26, 6,57,27,35,35,30,30,50,22		1,54,33,26,43	
		1,53, 8, 6, 1,30,39,37		8,16
10″	26, 6,59,20,43,41,32, 1,29,59		1,54,33,34,59	
		1,53, 8, 4, 6,57, 4,38		8,16
12″	26, 7, 1,13,51,45,38,58,34,37		1,54,33,43,15	
		1,53, 8, 2,12,23,21,23		8,16
14″	26, 7, 3, 6,59,47,51,21,56, 0		1,54,33,51,31	
		1,53, 8, 0,17,49,29,52		8,16
16″	26, 7, 5, 0, 7,48, 9,11,25,52		1,54,33,59,47	
		1,53, 7,58,23,15,30, 5		8,16
18″	26, 7, 6,53,15,46,32,26,55,57		1,54,34, 8, 3	
		1,53, 7,56,28,41,22, 2		8,16
20″	26, 7, 8,46,23,43, 1, 8,17,59		1,54,34,16,19	
		1,53, 7,54,34, 7, 5,43		8,16
22″	26, 7,10,39,31,37,35,15,23,42		1,54,34,24,35	
		1,53, 7,52,39,32,41, 8		8,16
24″	26, 7,12,32,39,30,14,48, 4,50		1,54,34,32,51	
		1,53, 7,50,44,58, 8,17		8,16
26″	26, 7,14,25,47,20,59,46,13, 7		1,54,34,41, 7	
		1,53, 7,48,50,23,27,10		8,16
28″	26, 7,16,18,55, 9,50, 9,40,17		1,54,34,49,23	
		1,53, 7,46,55,48,37,47		8,16
30″	26, 7,18,12, 2,56,45,58,18, 4		1,54,34,57,39	
		1,53, 7,45, 1,13,40, 8		8,16
32″	26, 7,20, 5,10,41,47,11,58,12		1,54,35, 5,55	
		1,53, 7,43, 6,38,34,13		8,16
34″	26, 7,21,58,18,24,53,50,32,25		1,54,35,14,11	
		1,53, 7,41,12, 3,20, 2		8,16
36″	26, 7,23,51,26, 6, 5,53,52,27		1,54,35,22,27	
		1,53, 7,39,17,27,57,35		8,16
38″	26, 7,25,44,33,45,23,21,50, 2		1,54,35,30,43	
		1,53, 7,37,22,52,26,52		8,16
40″	26, 7,27,37,41,22,46,14,16,54		1,54,35,38,59	
		1,53, 7,35,28,16,47,53		8,16
42″	26, 7,29,30,48,58,14,31, 4,47		1,54,35,47,15	
		1,53, 7,33,33,41, 0,38		8,16
44″	26, 7,31,23,56,31,48,12, 5,25		1,54,35,55,31	
		1,53, 7,31,39, 5, 5, 7		8,16
46″	26, 7,33,17, 4, 3,27,17,10,32		1,54,36, 3,47	
		1,53, 7,29,44,29, 1,20		8,16
48″	26, 7,35,10,11,33,11,46,11,52		1,54,36,12, 3	
		1,53, 7,27,49,52,49,17		8,16
50″	26, 7,37, 3,19, 1, 1,39, 1, 9		1,54,36,20,19	
		1,53, 7,25,55,16,28,58		8,16
52″	26, 7,38,56,26,26,56,55,30, 7		1,54,36,28,35	
		1,53, 7,24, 0,40, 0,23		8,16
54″	26, 7,40,49,33,50,57,35,30,30		1,54,36,36,51	
		1,53, 7,22, 6, 3,23,32		8,16
56″	26, 7,42,42,41,13, 3,38,54, 2		1,54,36,45, 7	
		1,53, 7,20,11,26,38,25		8,16
58″	26, 7,44,35,48,33,15, 5,32,27		1,54,36,53,23	
		1,53, 7,18,16,49,45, 2		
60″	26, 7,46,28,55,51,31,55,17,29			
exact	26, 7,46,28,55,51,31,55, 1,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°49′ 0″	26, 7,46,28,55,51,31,55, 1,12			
		1,53, 7,16,22,12,41,39		
2″	26, 7,48,22, 3, 7,54, 7,42,51		1,54,37,10, 2	
		1,53, 7,14,27,35,31,37		8,16
4″	26, 7,50,15,10,22,21,43,14,28		1,54,37,18,18	
		1,53, 7,12,32,58,13,19		8,16
6″	26, 7,52, 8,17,34,54,41,27,47		1,54,37,26,34	
		1,53, 7,10,38,20,46,45		8,16
8″	26, 7,54, 1,24,45,33, 2,14,32		1,54,37,34,50	
		1,53, 7, 8,43,43,11,55		8,16
10″	26, 7,55,54,31,54,16,45,26,27		1,54,37,43, 6	
		1,53, 7, 6,49, 5,28,49		8,16
12″	26, 7,57,47,39, 1, 5,50,55,16		1,54,37,51,22	
		1,53, 7, 4,54,27,37,27		8,16
14″	26, 7,59,40,46, 6, 0,18,32,43		1,54,37,59,38	
		1,53, 7, 2,59,49,37,49		8,16
16″	26, 8, 1,33,53, 9, 0, 8,10,32		1,54,38, 7,54	
		1,53, 7, 1, 5,11,29,55		8,16
18″	26, 8, 3,27, 0,10, 5,19,40,27		1,54,38,16,10	
		1,53, 6,59,10,33,13,45		8,16
20″	26, 8, 5,20, 7, 9,15,52,54,12		1,54,38,24,26	
		1,53, 6,57,15,54,49,19		8,16
22″	26, 8, 7,13,14, 6,31,47,43,31		1,54,38,32,42	
		1,53, 6,55,21,16,16,37		8,16
24″	26, 8, 9, 6,21, 1,53, 4, 0, 8		1,54,38,40,58	
		1,53, 6,53,26,37,35,39		8,16
26″	26, 8,10,59,27,55,19,41,35,47		1,54,38,49,14	
		1,53, 6,51,31,58,46,25		8,16
28″	26, 8,12,52,34,46,51,40,22,12		1,54,38,57,30	
		1,53, 6,49,37,19,48,55		8,16
30″	26, 8,14,45,41,36,29, 0,11, 7		1,54,39, 5,46	
		1,53, 6,47,42,40,43, 9		8,16
32″	26, 8,16,38,48,24,11,40,54,16		1,54,39,14, 2	
		1,53, 6,45,48, 1,29, 7		8,16
34″	26, 8,18,31,55, 9,59,42,23,23		1,54,39,22,18	
		1,53, 6,43,53,22, 6,49		8,16
36″	26, 8,20,25, 1,53,53, 4,30,12		1,54,39,30,34	
		1,53, 6,41,58,42,36,15		8,16
38″	26, 8,22,18, 8,35,51,47, 6,27		1,54,39,38,50	
		1,53, 6,40, 4, 2,57,25		8,16
40″	26, 8,24,11,15,15,55,50, 3,52		1,54,39,47, 6	
		1,53, 6,38, 9,23,10,19		8,16
42″	26, 8,26, 4,21,54, 5,13,14,11		1,54,39,55,22	
		1,53, 6,36,14,43,14,57		8,16
44″	26, 8,27,57,28,30,19,56,29, 8		1,54,40, 3,38	
		1,53, 6,34,20, 3,11,19		8,16
46″	26, 8,29,50,35, 4,39,59,40,27		1,54,40,11,54	
		1,53, 6,32,25,22,59,25		8,16
48″	26, 8,31,43,41,37, 5,22,39,52		1,54,40,20,10	
		1,53, 6,30,30,42,39,15		8,16
50″	26, 8,33,36,48, 7,36, 5,19, 7		1,54,40,28,26	
		1,53, 6,28,36, 2,10,49		8,16
52″	26, 8,35,29,54,36,12, 7,29,56		1,54,40,36,42	
		1,53, 6,26,41,21,34, 7		8,16
54″	26, 8,37,23, 1, 2,53,29, 4, 3		1,54,40,44,58	
		1,53, 6,24,46,40,49, 9		8,16
56″	26, 8,39,16, 7,27,40, 9,53,12		1,54,40,53,14	
		1,53, 6,22,51,59,55,55		8,16
58″	26, 8,41, 9,13,50,32, 9,49, 7		1,54,41, 1,30	
		1,53, 6,20,57,18,54,25		
60″	26, 8,43, 2,20,11,29,28,43,32			
exact	26, 8,43, 2,20,11,29,28,31, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°50′ 0″	26, 8,43, 2,20,11,29,28,31, 1	1,53, 6,19, 2,37,43,21		
2″	26, 8,44,55,26,30,32, 6,14,22	1,53, 6,17, 7,56,25,14	1,54,41,18, 7	8,16
4″	26, 8,46,48,32,47,40, 2,39,36	1,53, 6,15,13,14,58,51	1,54,41,26,23	8,16
6″	26, 8,48,41,39, 2,53,17,38,27	1,53, 6,13,18,33,24,12	1,54,41,34,39	8,16
8″	26, 8,50,34,45,16,11,51, 2,39	1,53, 6,11,23,51,41,17	1,54,41,42,55	8,16
10″	26, 8,52,27,51,27,35,42,43,56	1,53, 6, 9,29, 9,50, 6	1,54,41,51,11	8,16
12″	26, 8,54,20,57,37, 4,52,34, 2	1,53, 6, 7,34,27,50,39	1,54,41,59,27	8,16
14″	26, 8,56,14, 3,44,39,20,24,41	1,53, 6, 5,39,45,42,56	1,54,42, 7,43	8,16
16″	26, 8,58, 7, 9,50,19, 6, 7,37	1,53, 6, 3,45, 3,26,57	1,54,42,15,59	8,16
18″	26, 9, 0, 0,15,54, 4, 9,34,34	1,53, 6, 1,50,21, 2,42	1,54,42,24,15	8,16
20″	26, 9, 1,53,21,55,54,30,37,16	1,53, 5,59,55,38,30,11	1,54,42,32,31	8,16
22″	26, 9, 3,46,27,55,50, 9, 7,27	1,53, 5,58, 0,55,49,24	1,54,42,40,47	8,16
24″	26, 9, 5,39,33,53,51, 4,56,51	1,53, 5,56, 6,13, 0,21	1,54,42,49, 3	8,16
26″	26, 9, 7,32,39,49,57,17,57,12	1,53, 5,54,11,30, 3, 2	1,54,42,57,19	8,16
28″	26, 9, 9,25,45,44, 8,48, 0,14	1,53, 5,52,16,46,57,27	1,54,43, 5,35	8,16
30″	26, 9,11,18,51,36,25,34,57,41	1,53, 5,50,22, 3,43,36	1,54,43,13,51	8,16
32″	26, 9,13,11,57,26,47,38,41,17	1,53, 5,48,27,20,21,29	1,54,43,22, 7	8,16
34″	26, 9,15, 5, 3,15,14,59, 2,46	1,53, 5,46,32,36,51, 6	1,54,43,30,23	8,16
36″	26, 9,16,58, 9, 1,47,35,53,52	1,53, 5,44,37,53,12,27	1,54,43,38,39	8,16
38″	26, 9,18,51,14,46,25,29, 6,19	1,53, 5,42,43, 9,25,32	1,54,43,46,55	8,16
40″	26, 9,20,44,20,29, 8,38,31,51	1,53, 5,40,48,25,30,21	1,54,43,55,11	8,16
42″	26, 9,22,37,26, 9,57, 4, 2,12	1,53, 5,38,53,41,26,54	1,54,44, 3,27	8,16
44″	26, 9,24,30,31,48,50,45,29, 6	1,53, 5,36,58,57,15,11	1,54,44,11,43	8,16
46″	26, 9,26,23,37,25,49,42,44,17	1,53, 5,35, 4,12,55,12	1,54,44,19,59	8,16
48″	26, 9,28,16,43, 0,53,55,39,29	1,53, 5,33, 9,28,26,57	1,54,44,28,15	8,16
50″	26, 9,30, 9,48,34, 3,24, 6,26	1,53, 5,31,14,43,50,26	1,54,44,36,31	8,16
52″	26, 9,32, 2,54, 5,18, 7,56,52	1,53, 5,29,19,59, 5,39	1,54,44,44,47	8,16
54″	26, 9,33,55,59,34,38, 7, 2,31	1,53, 5,27,25,14,12,36	1,54,44,53, 3	8,16
56″	26, 9,35,49, 5, 2, 3,21,15, 7	1,53, 5,25,30,29,11,17	1,54,45, 1,19	8,16
58″	26, 9,37,42,10,27,33,50,26,24	1,53, 5,23,35,44, 1,42	1,54,45, 9,35	
60″	26, 9,39,35,15,51, 9,34,28, 6			
exact	26, 9,39,35,15,51, 9,34,19,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°51′ 0″	26, 9,39,35,15,51, 9,34,19,42			
		1,53, 5,21,40,58,43, 1		
2″	26, 9,41,28,21,12,50,33, 2,43		1,54,45,26,10	
		1,53, 5,19,46,13,16,51		8,16
4″	26, 9,43,21,26,32,36,46,19,34		1,54,45,34,26	
		1,53, 5,17,51,27,42,25		8,16
6″	26, 9,45,14,31,50,28,14, 1,59		1,54,45,42,42	
		1,53, 5,15,56,41,59,43		8,16
8″	26, 9,47, 7,37, 6,24,56, 1,42		1,54,45,50,58	
		1,53, 5,14, 1,56, 8,45		8,16
10″	26, 9,49, 0,42,20,26,52,10,27		1,54,45,59,14	
		1,53, 5,12, 7,10, 9,31		8,16
12″	26, 9,50,53,47,32,34, 2,19,58		1,54,46, 7,30	
		1,53, 5,10,12,24, 2, 1		8,16
14″	26, 9,52,46,52,42,46,26,21,59		1,54,46,15,46	
		1,53, 5, 8,17,37,46,15		8,16
16″	26, 9,54,39,57,51, 4, 4, 8,14		1,54,46,24, 2	
		1,53, 5, 6,22,51,22,13		8,16
18″	26, 9,56,33, 2,57,26,55,30,27		1,54,46,32,18	
		1,53, 5, 4,28, 4,49,55		8,16
20″	26, 9,58,26, 8, 1,55, 0,20,22		1,54,46,40,34	
		1,53, 5, 2,33,18, 9,21		8,16
22″	26,10, 0,19,13, 4,28,18,29,43		1,54,46,48,50	
		1,53, 5, 0,38,31,20,31		8,16
24″	26,10, 2,12,18, 5, 6,49,50,14		1,54,46,57, 6	
		1,53, 4,58,43,44,23,25		8,16
26″	26,10, 4, 5,23, 3,50,34,13,39		1,54,47, 5,22	
		1,53, 4,56,48,57,18, 3		8,16
28″	26,10, 5,58,28, 0,39,31,31,42		1,54,47,13,38	
		1,53, 4,54,54,10, 4,25		8,16
30″	26,10, 7,51,32,55,33,41,36, 7		1,54,47,21,54	
		1,53, 4,52,59,22,42,31		8,16
32″	26,10, 9,44,37,48,33, 4,18,38		1,54,47,30,10	
		1,53, 4,51, 4,35,12,21		8,16
34″	26,10,11,37,42,39,37,39,30,59		1,54,47,38,26	
		1,53, 4,49, 9,47,33,55		8,16
36″	26,10,13,30,47,28,47,27, 4,54		1,54,47,46,42	
		1,53, 4,47,14,59,47,13		8,16
38″	26,10,15,23,52,16, 2,26,52, 7		1,54,47,54,58	
		1,53, 4,45,20,11,52,15		8,16
40″	26,10,17,16,57, 1,22,38,44,22		1,54,48, 3,14	
		1,53, 4,43,25,23,49, 1		8,16
42″	26,10,19,10, 1,44,48, 2,33,23		1,54,48,11,30	
		1,53, 4,41,30,35,37,31		8,16
44″	26,10,21, 3, 6,26,18,38,10,54		1,54,48,19,46	
		1,53, 4,39,35,47,17,45		8,16
46″	26,10,22,56,11, 5,54,25,28,39		1,54,48,28, 2	
		1,53, 4,37,40,58,49,43		8,16
48″	26,10,24,49,15,43,35,24,18,22		1,54,48,36,18	
		1,53, 4,35,46,10,13,25		8,16
50″	26,10,26,42,20,19,21,34,31,47		1,54,48,44,34	
		1,53, 4,33,51,21,28,51		8,16
52″	26,10,28,35,24,53,12,56, 0,38		1,54,48,52,50	
		1,53, 4,31,56,32,36, 1		8,16
54″	26,10,30,28,29,25, 9,28,36,39		1,54,49, 1, 6	
		1,53, 4,30, 1,43,34,55		8,16
56″	26,10,32,21,33,55,11,12,11,34		1,54,49, 9,22	
		1,53, 4,28, 6,54,25,33		8,16
58″	26,10,34,14,38,23,18, 6,37, 7		1,54,49,17,38	
		1,53, 4,26,12, 5, 7,55		
60″	26,10,36, 7,42,49,30,11,45, 2			
exact	26,10,36, 7,42,49,30,11,41,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°52′ 0″	26,10,36, 7,42,49,30,11,41,33			
		1,53, 4,24,17,15,41,42		
2″	26,10,38, 0,47,13,47,27,23,15		1,54,49,34,11	
		1,53, 4,22,22,26, 7,31		8,16
4″	26,10,39,53,51,36, 9,53,30,46		1,54,49,42,27	
		1,53, 4,20,27,36,25, 4		8,16
6″	26,10,41,46,55,56,37,29,55,50		1,54,49,50,43	
		1,53, 4,18,32,46,34,21		8,16
8″	26,10,43,40, 0,15,10,16,30,11		1,54,49,58,59	
		1,53, 4,16,37,56,35,22		8,16
10″	26,10,45,33, 4,31,48,13, 5,33		1,54,50, 7,15	
		1,53, 4,14,43, 6,28, 7		8,16
12″	26,10,47,26, 8,46,31,19,33,40		1,54,50,15,31	
		1,53, 4,12,48,16,12,36		8,16
14″	26,10,49,19,12,59,19,35,46,16		1,54,50,23,47	
		1,53, 4,10,53,25,48,49		8,16
16″	26,10,51,12,17,10,13, 1,35, 5		1,54,50,32, 3	
		1,53, 4, 8,58,35,16,46		8,16
18″	26,10,53, 5,21,19,11,36,51,51		1,54,50,40,19	
		1,53, 4, 7, 3,44,36,27		8,16
20″	26,10,54,58,25,26,15,21,28,18		1,54,50,48,35	
		1,53, 4, 5, 8,53,47,52		8,16
22″	26,10,56,51,29,31,24,15,16,10		1,54,50,56,51	
		1,53, 4, 3,14, 2,51, 1		8,16
24″	26,10,58,44,33,34,38,18, 7,11		1,54,51, 5, 7	
		1,53, 4, 1,19,11,45,54		8,16
26″	26,11, 0,37,37,35,57,29,53, 5		1,54,51,13,23	
		1,53, 3,59,24,20,32,31		8,16
28″	26,11, 2,30,41,35,21,50,25,36		1,54,51,21,39	
		1,53, 3,57,29,29,10,52		8,16
30″	26,11, 4,23,45,32,51,19,36,28		1,54,51,29,55	
		1,53, 3,55,34,37,40,57		8,16
32″	26,11, 6,16,49,28,25,57,17,25		1,54,51,38,11	
		1,53, 3,53,39,46, 2,46		8,16
34″	26,11, 8, 9,53,22, 5,43,20,11		1,54,51,46,27	
		1,53, 3,51,44,54,16,19		8,16
36″	26,11,10, 2,57,13,50,37,36,30		1,54,51,54,43	
		1,53, 3,49,50, 2,21,36		8,16
38″	26,11,11,56, 1, 3,40,39,58, 6		1,54,52, 2,59	
		1,53, 3,47,55,10,18,37		8,16
40″	26,11,13,49, 4,51,35,50,16,43		1,54,52,11,15	
		1,53, 3,46, 0,18, 7,22		8,16
42″	26,11,15,42, 8,37,36, 8,24, 5		1,54,52,19,31	
		1,53, 3,44, 5,25,47,51		8,16
44″	26,11,17,35,12,21,41,34,11,56		1,54,52,27,47	
		1,53, 3,42,10,33,20, 4		8,16
46″	26,11,19,28,16, 3,52, 7,32, 0		1,54,52,36, 3	
		1,53, 3,40,15,40,44, 1		8,16
48″	26,11,21,21,19,44, 7,48,16, 1		1,54,52,44,19	
		1,53, 3,38,20,47,59,42		8,16
50″	26,11,23,14,23,22,28,36,15,43		1,54,52,52,35	
		1,53, 3,36,25,55, 7, 7		8,16
52″	26,11,25, 7,26,58,54,31,22,50		1,54,53, 0,51	
		1,53, 3,34,31, 2, 6,16		8,16
54″	26,11,27, 0,30,33,25,33,29, 6		1,54,53, 9, 7	
		1,53, 3,32,36, 8,57, 9		8,16
56″	26,11,28,53,34, 6, 1,42,26,15		1,54,53,17,23	
		1,53, 3,30,41,15,39,46		8,16
58″	26,11,30,46,37,36,42,58, 6, 1		1,54,53,25,39	
		1,53, 3,28,46,22,14, 7		
60″	26,11,32,39,41, 5,29,20,20, 8			
exact	26,11,32,39,41, 5,29,20,22,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°53′ 0″	26,11,32,39,41, 5,29,20,22,20			
		1,53, 3,26,51,28,40,27		
2″	26,11,34,32,44,32,20,49, 2,47		1,54,53,42,10	
		1,53, 3,24,56,34,58,17		8,16
4″	26,11,36,25,47,57,17,24, 1, 4		1,54,53,50,26	
		1,53, 3,23, 1,41, 7,51		8,16
6″	26,11,38,18,51,20,19, 5, 8,55		1,54,53,58,42	
		1,53, 3,21, 6,47, 9, 9		8,16
8″	26,11,40,11,54,41,25,52,18, 4		1,54,54, 6,58	
		1,53, 3,19,11,53, 2,11		8,16
10″	26,11,42, 4,58, 0,37,45,20,15		1,54,54,15,14	
		1,53, 3,17,16,58,46,57		8,16
12″	26,11,43,58, 1,17,54,44, 7,12		1,54,54,23,30	
		1,53, 3,15,22, 4,23,27		8,16
14″	26,11,45,51, 4,33,16,48,30,39		1,54,54,31,46	
		1,53, 3,13,27, 9,51,41		8,16
16″	26,11,47,44, 7,46,43,58,22,20		1,54,54,40, 2	
		1,53, 3,11,32,15,11,39		8,16
18″	26,11,49,37,10,58,16,13,33,59		1,54,54,48,18	
		1,53, 3, 9,37,20,23,21		8,16
20″	26,11,51,30,14, 7,53,33,57,20		1,54,54,56,34	
		1,53, 3, 7,42,25,26,47		8,16
22″	26,11,53,23,17,15,35,59,24, 7		1,54,55, 4,50	
		1,53, 3, 5,47,30,21,57		8,16
24″	26,11,55,16,20,21,23,29,46, 4		1,54,55,13, 6	
		1,53, 3, 3,52,35, 8,51		8,16
26″	26,11,57, 9,23,25,16, 4,54,55		1,54,55,21,22	
		1,53, 3, 1,57,39,47,29		8,16
28″	26,11,59, 2,26,27,13,44,42,24		1,54,55,29,38	
		1,53, 3, 0, 2,44,17,51		8,16
30″	26,12, 0,55,29,27,16,29, 0,15		1,54,55,37,54	
		1,53, 2,58, 7,48,39,57		8,16
32″	26,12, 2,48,32,25,24,17,40,12		1,54,55,46,10	
		1,53, 2,56,12,52,53,47		8,16
34″	26,12, 4,41,35,21,37,10,33,59		1,54,55,54,26	
		1,53, 2,54,17,56,59,21		8,16
36″	26,12, 6,34,38,15,55, 7,33,20		1,54,56, 2,42	
		1,53, 2,52,23, 0,56,39		8,16
38″	26,12, 8,27,41, 8,18, 8,29,59		1,54,56,10,58	
		1,53, 2,50,28, 4,45,41		8,16
40″	26,12,10,20,43,58,46,13,15,40		1,54,56,19,14	
		1,53, 2,48,33, 8,26,27		8,16
42″	26,12,12,13,46,47,19,21,42, 7		1,54,56,27,30	
		1,53, 2,46,38,11,58,57		8,16
44″	26,12,14, 6,49,33,57,33,41, 4		1,54,56,35,46	
		1,53, 2,44,43,15,23,11		8,16
46″	26,12,15,59,52,18,40,49, 4,15		1,54,56,44, 2	
		1,53, 2,42,48,18,39, 9		8,16
48″	26,12,17,52,55, 1,29, 7,43,24		1,54,56,52,18	
		1,53, 2,40,53,21,46,51		8,16
50″	26,12,19,45,57,42,22,29,30,15		1,54,57, 0,34	
		1,53, 2,38,58,24,46,17		8,16
52″	26,12,21,39, 0,21,20,54,16,32		1,54,57, 8,50	
		1,53, 2,37, 3,27,37,27		8,16
54″	26,12,23,32, 2,58,24,21,53,59		1,54,57,17, 6	
		1,53, 2,35, 8,30,20,21		8,16
56″	26,12,25,25, 5,33,32,52,14,20		1,54,57,25,22	
		1,53, 2,33,13,32,54,59		8,16
58″	26,12,27,18, 8, 6,46,25, 9,19		1,54,57,33,38	
		1,53, 2,31,18,35,21,21		
60″	26,12,29,11,10,38, 5, 0,30,40			
exact	26,12,29,11,10,38, 5, 0,39,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°54′ 0″	26,12,29,11,10,38, 5, 0,39,19			
		1,53, 2,29,23,37,40,20		
2″	26,12,31, 4,13, 7,28,38,19,39		1,54,57,50, 6	
		1,53, 2,27,28,39,50,14		8,16
4″	26,12,32,57,15,34,57,18, 9,53		1,54,57,58,22	
		1,53, 2,25,33,41,51,52		8,16
6″	26,12,34,50,18, 0,31, 0, 1,45		1,54,58, 6,38	
		1,53, 2,23,38,43,45,14		8,16
8″	26,12,36,43,20,24, 9,43,46,59		1,54,58,14,54	
		1,53, 2,21,43,45,30,20		8,16
10″	26,12,38,36,22,45,53,29,17,19		1,54,58,23,10	
		1,53, 2,19,48,47, 7,10		8,16
12″	26,12,40,29,25, 5,42,16,24,29		1,54,58,31,26	
		1,53, 2,17,53,48,35,44		8,16
14″	26,12,42,22,27,23,36, 5, 0,13		1,54,58,39,42	
		1,53, 2,15,58,49,56, 2		8,16
16″	26,12,44,15,29,39,34,54,56,15		1,54,58,47,58	
		1,53, 2,14, 3,51, 8, 4		8,16
18″	26,12,46, 8,31,53,38,46, 4,19		1,54,58,56,14	
		1,53, 2,12, 8,52,11,50		8,16
20″	26,12,48, 1,34, 5,47,38,16, 9		1,54,59, 4,30	
		1,53, 2,10,13,53, 7,20		8,16
22″	26,12,49,54,36,16, 1,31,23,29		1,54,59,12,46	
		1,53, 2, 8,18,53,54,34		8,16
24″	26,12,51,47,38,24,20,25,18, 3		1,54,59,21, 2	
		1,53, 2, 6,23,54,33,32		8,16
26″	26,12,53,40,40,30,44,19,51,35		1,54,59,29,18	
		1,53, 2, 4,28,55, 4,14		8,16
28″	26,12,55,33,42,35,13,14,55,49		1,54,59,37,34	
		1,53, 2, 2,33,55,26,40		8,16
30″	26,12,57,26,44,37,47,10,22,29		1,54,59,45,50	
		1,53, 2, 0,38,55,40,50		8,16
32″	26,12,59,19,46,38,26, 6, 3,19		1,54,59,54, 6	
		1,53, 1,58,43,55,46,44		8,16
34″	26,13, 1,12,48,37,10, 1,50, 3		1,55, 0, 2,22	
		1,53, 1,56,48,55,44,22		8,16
36″	26,13, 3, 5,50,33,58,57,34,25		1,55, 0,10,38	
		1,53, 1,54,53,55,33,44		8,16
38″	26,13, 4,58,52,28,52,53, 8, 9		1,55, 0,18,54	
		1,53, 1,52,58,55,14,50		8,16
40″	26,13, 6,51,54,21,51,48,22,59		1,55, 0,27,10	
		1,53, 1,51, 3,54,47,40		8,16
42″	26,13, 8,44,56,12,55,43,10,39		1,55, 0,35,26	
		1,53, 1,49, 8,54,12,14		8,16
44″	26,13,10,37,58, 2, 4,37,22,53		1,55, 0,43,42	
		1,53, 1,47,13,53,28,32		8,16
46″	26,13,12,30,59,49,18,30,51,25		1,55, 0,51,58	
		1,53, 1,45,18,52,36,34		8,16
48″	26,13,14,24, 1,34,37,23,27,59		1,55, 1, 0,14	
		1,53, 1,43,23,51,36,20		8,16
50″	26,13,16,17, 3,18, 1,15, 4,19		1,55, 1, 8,30	
		1,53, 1,41,28,50,27,50		8,16
52″	26,13,18,10, 4,59,30, 5,32, 9		1,55, 1,16,46	
		1,53, 1,39,33,49,11, 4		8,16
54″	26,13,20, 3, 6,39, 3,54,43,13		1,55, 1,25, 2	
		1,53, 1,37,38,47,46, 2		8,16
56″	26,13,21,56, 8,16,42,42,29,15		1,55, 1,33,18	
		1,53, 1,35,43,46,12,44		8,16
58″	26,13,23,49, 9,52,26,28,41,59		1,55, 1,41,34	
		1,53, 1,33,48,44,31,10		
60″	26,13,25,42,11,26,15,13,13, 9			
exact	26,13,25,42,11,26,15,13,21,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°55′ 0″	26,13,25,42,11,26,15,13,21,14			
		1,53, 1,31,53,42,42,22		
2″	26,13,27,35,12,58, 8,56, 3,36		1,55, 1,58, 1	
		1,53, 1,29,58,40,44,21		8,16
4″	26,13,29,28,14,28, 7,36,47,57		1,55, 2, 6,17	
		1,53, 1,28, 3,38,38, 4		8,16
6″	26,13,31,21,15,56,11,15,26, 1		1,55, 2,14,33	
		1,53, 1,26, 8,36,23,31		8,16
8″	26,13,33,14,17,22,19,51,49,32		1,55, 2,22,49	
		1,53, 1,24,13,34, 0,42		8,16
10″	26,13,35, 7,18,46,33,25,50,14		1,55, 2,31, 5	
		1,53, 1,22,18,31,29,37		8,16
12″	26,13,37, 0,20, 8,51,57,19,51		1,55, 2,39,21	
		1,53, 1,20,23,28,50,16		8,16
14″	26,13,38,53,21,29,15,26,10, 7		1,55, 2,47,37	
		1,53, 1,18,28,26, 2,39		8,16
16″	26,13,40,46,22,47,43,52,12,46		1,55, 2,55,53	
		1,53, 1,16,33,23, 6,46		8,16
18″	26,13,42,39,24, 4,17,15,19,32		1,55, 3, 4, 9	
		1,53, 1,14,38,20, 2,37		8,16
20″	26,13,44,32,25,18,55,35,22, 9		1,55, 3,12,25	
		1,53, 1,12,43,16,50,12		8,16
22″	26,13,46,25,26,31,38,52,12,21		1,55, 3,20,41	
		1,53, 1,10,48,13,29,31		8,16
24″	26,13,48,18,27,42,27, 5,41,52		1,55, 3,28,57	
		1,53, 1, 8,53,10, 0,34		8,16
26″	26,13,50,11,28,51,20,15,42,26		1,55, 3,37,13	
		1,53, 1, 6,58, 6,23,21		8,16
28″	26,13,52, 4,29,58,18,22, 5,47		1,55, 3,45,29	
		1,53, 1, 5, 3, 2,37,52		8,16
30″	26,13,53,57,31, 3,21,24,43,39		1,55, 3,53,45	
		1,53, 1, 3, 7,58,44, 7		8,16
32″	26,13,55,50,32, 6,29,23,27,46		1,55, 4, 2, 1	
		1,53, 1, 1,12,54,42, 6		8,16
34″	26,13,57,43,33, 7,42,18, 9,52		1,55, 4,10,17	
		1,53, 0,59,17,50,31,49		8,16
36″	26,13,59,36,34, 7, 0, 8,41,41		1,55, 4,18,33	
		1,53, 0,57,22,46,13,16		8,16
38″	26,14, 1,29,35, 4,22,54,54,57		1,55, 4,26,49	
		1,53, 0,55,27,41,46,27		8,16
40″	26,14, 3,22,35,59,50,36,41,24		1,55, 4,35, 5	
		1,53, 0,53,32,37,11,22		8,16
42″	26,14, 5,15,36,53,23,13,52,46		1,55, 4,43,21	
		1,53, 0,51,37,32,28, 1		8,16
44″	26,14, 7, 8,37,45, 0,46,20,47		1,55, 4,51,37	
		1,53, 0,49,42,27,36,24		8,16
46″	26,14, 9, 1,38,34,43,13,57,11		1,55, 4,59,53	
		1,53, 0,47,47,22,36,31		8,16
48″	26,14,10,54,39,22,30,36,33,42		1,55, 5, 8, 9	
		1,53, 0,45,52,17,28,22		8,16
50″	26,14,12,47,40, 8,22,54, 2, 4		1,55, 5,16,25	
		1,53, 0,43,57,12,11,57		8,16
52″	26,14,14,40,40,52,20, 6,14, 1		1,55, 5,24,41	
		1,53, 0,42, 2, 6,47,16		8,16
54″	26,14,16,33,41,34,22,13, 1,17		1,55, 5,32,57	
		1,53, 0,40, 7, 1,14,19		8,16
56″	26,14,18,26,42,14,29,14,15,36		1,55, 5,41,13	
		1,53, 0,38,11,55,33, 6		8,16
58″	26,14,20,19,42,52,41, 9,48,42		1,55, 5,49,29	
		1,53, 0,36,16,49,43,37		
60″	26,14,22,12,43,28,57,59,32,19			
exact	26,14,22,12,43,28,57,59,48,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°56′ 0″	26,14,22,12,43,28,57,59,48,22			
		1,53, 0,34,21,43,47,37		
2″	26,14,24, 5,44, 3,19,43,35,59		1,55, 6, 5,53	
		1,53, 0,32,26,37,41,44		8,16
4″	26,14,25,58,44,35,46,21,17,43		1,55, 6,14, 9	
		1,53, 0,30,31,31,27,35		8,16
6″	26,14,27,51,45, 6,17,52,45,18		1,55, 6,22,25	
		1,53, 0,28,36,25, 5,10		8,16
8″	26,14,29,44,45,34,54,17,50,28		1,55, 6,30,41	
		1,53, 0,26,41,18,34,29		8,16
10″	26,14,31,37,46, 1,35,36,24,57		1,55, 6,38,57	
		1,53, 0,24,46,11,55,32		8,16
12″	26,14,33,30,46,26,21,48,20,29		1,55, 6,47,13	
		1,53, 0,22,51, 5, 8,19		8,16
14″	26,14,35,23,46,49,12,53,28,48		1,55, 6,55,29	
		1,53, 0,20,55,58,12,50		8,16
16″	26,14,37,16,47,10, 8,51,41,38		1,55, 7, 3,45	
		1,53, 0,19, 0,51, 9, 5		8,16
18″	26,14,39, 9,47,29, 9,42,50,43		1,55, 7,12, 1	
		1,53, 0,17, 5,43,57, 4		8,16
20″	26,14,41, 2,47,46,15,26,47,47		1,55, 7,20,17	
		1,53, 0,15,10,36,36,47		8,16
22″	26,14,42,55,48, 1,26, 3,24,34		1,55, 7,28,33	
		1,53, 0,13,15,29, 8,14		8,16
24″	26,14,44,48,48,14,41,32,32,48		1,55, 7,36,49	
		1,53, 0,11,20,21,31,25		8,16
26″	26,14,46,41,48,26, 1,54, 4,13		1,55, 7,45, 5	
		1,53, 0, 9,25,13,46,20		8,16
28″	26,14,48,34,48,35,27, 7,50,33		1,55, 7,53,21	
		1,53, 0, 7,30, 5,52,59		8,16
30″	26,14,50,27,48,42,57,13,43,32		1,55, 8, 1,37	
		1,53, 0, 5,34,57,51,22		8,16
32″	26,14,52,20,48,48,32,11,34,54		1,55, 8, 9,53	
		1,53, 0, 3,39,49,41,29		8,16
34″	26,14,54,13,48,52,12, 1,16,23		1,55, 8,18, 9	
		1,53, 0, 1,44,41,23,20		8,16
36″	26,14,56, 6,48,53,56,42,39,43		1,55, 8,26,25	
		1,52,59,59,49,32,56,55		8,16
38″	26,14,57,59,48,53,46,15,36,38		1,55, 8,34,41	
		1,52,59,57,54,24,22,14		8,16
40″	26,14,59,52,48,51,40,39,58,52		1,55, 8,42,57	
		1,52,59,55,59,15,39,17		8,16
42″	26,15, 1,45,48,47,39,55,38, 9		1,55, 8,51,13	
		1,52,59,54, 4, 6,48, 4		8,16
44″	26,15, 3,38,48,41,44, 2,26,13		1,55, 8,59,29	
		1,52,59,52, 8,57,48,35		8,16
46″	26,15, 5,31,48,33,53, 0,14,48		1,55, 9, 7,45	
		1,52,59,50,13,48,40,50		8,16
48″	26,15, 7,24,48,24, 6,48,55,38		1,55, 9,16, 1	
		1,52,59,48,18,39,24,49		8,16
50″	26,15, 9,17,48,12,25,28,20,27		1,55, 9,24,17	
		1,52,59,46,23,30, 0,32		8,16
52″	26,15,11,10,47,58,48,58,20,59		1,55, 9,32,33	
		1,52,59,44,28,20,27,59		8,16
54″	26,15,13, 3,47,43,17,18,48,58		1,55, 9,40,49	
		1,52,59,42,33,10,47,10		8,16
56″	26,15,14,56,47,25,50,29,36, 8		1,55, 9,49, 5	
		1,52,59,40,38, 0,58, 5		8,16
58″	26,15,16,49,47, 6,28,30,34,13		1,55, 9,57,21	
		1,52,59,38,42,51, 0,44		
60″	26,15,18,42,46,45,11,21,34,57			
exact	26,15,18,42,46,45,11,21,52,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°57′ 0″	26,15,18,42,46,45,11,21,52,29			
		1,52,59,36,47,40,57, 9		
2″	26,15,20,35,46,21,59, 2,49,38		1,55,10,13,44	
		1,52,59,34,52,30,43,25		8,16
4″	26,15,22,28,45,56,51,33,33, 3		1,55,10,22, 0	
		1,52,59,32,57,20,21,25		8,16
6″	26,15,24,21,45,29,48,53,54,28		1,55,10,30,16	
		1,52,59,31, 2, 9,51, 9		8,16
8″	26,15,26,14,45, 0,51, 3,45,37		1,55,10,38,32	
		1,52,59,29, 6,59,12,37		8,16
10″	26,15,28, 7,44,29,58, 2,58,14		1,55,10,46,48	
		1,52,59,27,11,48,25,49		8,16
12″	26,15,30, 0,43,57, 9,51,24, 3		1,55,10,55, 4	
		1,52,59,25,16,37,30,45		8,16
14″	26,15,31,53,43,22,26,28,54,48		1,55,11, 3,20	
		1,52,59,23,21,26,27,25		8,16
16″	26,15,33,46,42,45,47,55,22,13		1,55,11,11,36	
		1,52,59,21,26,15,15,49		8,16
18″	26,15,35,39,42, 7,14,10,38, 2		1,55,11,19,52	
		1,52,59,19,31, 3,55,57		8,16
20″	26,15,37,32,41,26,45,14,33,59		1,55,11,28, 8	
		1,52,59,17,35,52,27,49		8,16
22″	26,15,39,25,40,44,21, 7, 1,48		1,55,11,36,24	
		1,52,59,15,40,40,51,25		8,16
24″	26,15,41,18,40, 0, 1,47,53,13		1,55,11,44,40	
		1,52,59,13,45,29, 6,45		8,16
26″	26,15,43,11,39,13,47,16,59,58		1,55,11,52,56	
		1,52,59,11,50,17,13,49		8,16
28″	26,15,45, 4,38,25,37,34,13,47		1,55,12, 1,12	
		1,52,59, 9,55, 5,12,37		8,16
30″	26,15,46,57,37,35,32,39,26,24		1,55,12, 9,28	
		1,52,59, 7,59,53, 3, 9		8,16
32″	26,15,48,50,36,43,32,32,29,33		1,55,12,17,44	
		1,52,59, 6, 4,40,45,25		8,16
34″	26,15,50,43,35,49,37,13,14,58		1,55,12,26, 0	
		1,52,59, 4, 9,28,19,25		8,16
36″	26,15,52,36,34,53,46,41,34,23		1,55,12,34,16	
		1,52,59, 2,14,15,45, 9		8,16
38″	26,15,54,29,33,56, 0,57,19,32		1,55,12,42,32	
		1,52,59, 0,19, 3, 2,37		8,16
40″	26,15,56,22,32,56,20, 0,22, 9		1,55,12,50,48	
		1,52,58,58,23,50,11,49		8,16
42″	26,15,58,15,31,54,43,50,33,58		1,55,12,59, 4	
		1,52,58,56,28,37,12,45		8,16
44″	26,16, 0, 8,30,51,12,27,46,43		1,55,13, 7,20	
		1,52,58,54,33,24, 5,25		8,16
46″	26,16, 2, 1,29,45,45,51,52, 8		1,55,13,15,36	
		1,52,58,52,38,10,49,49		8,16
48″	26,16, 3,54,28,38,24, 2,41,57		1,55,13,23,52	
		1,52,58,50,42,57,25,57		8,16
50″	26,16, 5,47,27,29, 7, 0, 7,54		1,55,13,32, 8	
		1,52,58,48,47,43,53,49		8,16
52″	26,16, 7,40,26,17,54,44, 1,43		1,55,13,40,24	
		1,52,58,46,52,30,13,25		8,16
54″	26,16, 9,33,25, 4,47,14,15, 8		1,55,13,48,40	
		1,52,58,44,57,16,24,45		8,16
56″	26,16,11,26,23,49,44,30,39,53		1,55,13,56,56	
		1,52,58,43, 2, 2,27,49		8,16
58″	26,16,13,19,22,32,46,33, 7,42		1,55,14, 5,12	
		1,52,58,41, 6,48,22,37		
60″	26,16,15,12,21,13,53,21,30,19			
exact	26,16,15,12,21,13,53,21,56,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°58′ 0″	26,16,15,12,21,13,53,21,56,59			
		1,52,58,39,11,34,12, 0		
2″	26,16,17, 5,19,53, 4,56, 8,59		1,55,14,21,32	
		1,52,58,37,16,19,50,28		8,16
4″	26,16,18,58,18,30,21,15,59,27		1,55,14,29,48	
		1,52,58,35,21, 5,20,40		8,16
6″	26,16,20,51,17, 5,42,21,20, 7		1,55,14,38, 4	
		1,52,58,33,25,50,42,36		8,16
8″	26,16,22,44,15,39, 8,12, 2,43		1,55,14,46,20	
		1,52,58,31,30,35,56,16		8,16
10″	26,16,24,37,14,10,38,47,58,59		1,55,14,54,36	
		1,52,58,29,35,21, 1,40		8,16
12″	26,16,26,30,12,40,14, 9, 0,39		1,55,15, 2,52	
		1,52,58,27,40, 5,58,48		8,16
14″	26,16,28,23,11, 7,54,14,59,27		1,55,15,11, 8	
		1,52,58,25,44,50,47,40		8,16
16″	26,16,30,16, 9,33,39, 5,47, 7		1,55,15,19,24	
		1,52,58,23,49,35,28,16		8,16
18″	26,16,32, 9, 7,57,28,41,15,23		1,55,15,27,40	
		1,52,58,21,54,20, 0,36		8,16
20″	26,16,34, 2, 6,19,23, 1,15,59		1,55,15,35,56	
		1,52,58,19,59, 4,24,40		8,16
22″	26,16,35,55, 4,39,22, 5,40,39		1,55,15,44,12	
		1,52,58,18, 3,48,40,28		8,16
24″	26,16,37,48, 2,57,25,54,21, 7		1,55,15,52,28	
		1,52,58,16, 8,32,48, 0		8,16
26″	26,16,39,41, 1,13,34,27, 9, 7		1,55,16, 0,44	
		1,52,58,14,13,16,47,16		8,16
28″	26,16,41,33,59,27,47,43,56,23		1,55,16, 9, 0	
		1,52,58,12,18, 0,38,16		8,16
30″	26,16,43,26,57,40, 5,44,34,39		1,55,16,17,16	
		1,52,58,10,22,44,21, 0		8,16
32″	26,16,45,19,55,50,28,28,55,39		1,55,16,25,32	
		1,52,58, 8,27,27,55,28		8,16
34″	26,16,47,12,53,58,55,56,51, 7		1,55,16,33,48	
		1,52,58, 6,32,11,21,40		8,16
36″	26,16,49, 5,52, 5,28, 8,12,47		1,55,16,42, 4	
		1,52,58, 4,36,54,39,36		8,16
38″	26,16,50,58,50,10, 5, 2,52,23		1,55,16,50,20	
		1,52,58, 2,41,37,49,16		8,16
40″	26,16,52,51,48,12,46,40,41,39		1,55,16,58,36	
		1,52,58, 0,46,20,50,40		8,16
42″	26,16,54,44,46,13,33, 1,32,19		1,55,17, 6,52	
		1,52,57,58,51, 3,43,48		8,16
44″	26,16,56,37,44,12,24, 5,16, 7		1,55,17,15, 8	
		1,52,57,56,55,46,28,40		8,16
46″	26,16,58,30,42, 9,19,51,44,47		1,55,17,23,24	
		1,52,57,55, 0,29, 5,16		8,16
48″	26,17, 0,23,40, 4,20,20,50, 3		1,55,17,31,40	
		1,52,57,53, 5,11,33,36		8,16
50″	26,17, 2,16,37,57,25,32,23,39		1,55,17,39,56	
		1,52,57,51, 9,53,53,40		8,16
52″	26,17, 4, 9,35,48,35,26,17,19		1,55,17,48,12	
		1,52,57,49,14,36, 5,28		8,16
54″	26,17, 6, 2,33,37,50, 2,22,47		1,55,17,56,28	
		1,52,57,47,19,18, 9, 0		8,16
56″	26,17, 7,55,31,25, 9,20,31,47		1,55,18, 4,44	
		1,52,57,45,24, 0, 4,16		8,16
58″	26,17, 9,48,29,10,33,20,36, 3		1,55,18,13, 0	
		1,52,57,43,28,41,51,16		
60″	26,17,11,41,26,54, 2, 2,27,19			
exact	26,17,11,41,26,54, 2, 2,56,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
25°59′ 0″	26,17,11,41,26,54, 2, 2,56,45			
		1,52,57,41,33,23,33,13		
2″	26,17,13,34,24,35,35,26,29,58		1,55,18,29,18	
		1,52,57,39,38, 5, 3,55		8,16
4″	26,17,15,27,22,15,13,31,33,53		1,55,18,37,34	
		1,52,57,37,42,46,26,21		8,16
6″	26,17,17,20,19,52,56,18, 0,14		1,55,18,45,50	
		1,52,57,35,47,27,40,31		8,16
8″	26,17,19,13,17,28,43,45,40,45		1,55,18,54, 6	
		1,52,57,33,52, 8,46,25		8,16
10″	26,17,21, 6,15, 2,35,54,27,10		1,55,19, 2,22	
		1,52,57,31,56,49,44, 3		8,16
12″	26,17,22,59,12,34,32,44,11,13		1,55,19,10,38	
		1,52,57,30, 1,30,33,25		8,16
14″	26,17,24,52,10, 4,34,14,44,38		1,55,19,18,54	
		1,52,57,28, 6,11,14,31		8,16
16″	26,17,26,45, 7,32,40,25,59, 9		1,55,19,27,10	
		1,52,57,26,10,51,47,21		8,16
18″	26,17,28,38, 4,58,51,17,46,30		1,55,19,35,26	
		1,52,57,24,15,32,11,55		8,16
20″	26,17,30,31, 2,23, 6,49,58,25		1,55,19,43,42	
		1,52,57,22,20,12,28,13		8,16
22″	26,17,32,23,59,45,27, 2,26,38		1,55,19,51,58	
		1,52,57,20,24,52,36,15		8,16
24″	26,17,34,16,57, 5,51,55, 2,53		1,55,20, 0,14	
		1,52,57,18,29,32,36, 1		8,16
26″	26,17,36, 9,54,24,21,27,38,54		1,55,20, 8,30	
		1,52,57,16,34,12,27,31		8,16
28″	26,17,38, 2,51,40,55,40, 6,25		1,55,20,16,46	
		1,52,57,14,38,52,10,45		8,16
30″	26,17,39,55,48,55,34,32,17,10		1,55,20,25, 2	
		1,52,57,12,43,31,45,43		8,16
32″	26,17,41,48,46, 8,18, 4, 2,53		1,55,20,33,18	
		1,52,57,10,48,11,12,25		8,16
34″	26,17,43,41,43,19, 6,15,15,18		1,55,20,41,34	
		1,52,57, 8,52,50,30,51		8,16
36″	26,17,45,34,40,27,59, 5,46, 9		1,55,20,49,50	
		1,52,57, 6,57,29,41, 1		8,16
38″	26,17,47,27,37,34,56,35,27,10		1,55,20,58, 6	
		1,52,57, 5, 2, 8,42,55		8,16
40″	26,17,49,20,34,39,58,44,10, 5		1,55,21, 6,22	
		1,52,57, 3, 6,47,36,33		8,16
42″	26,17,51,13,31,43, 5,31,46,38		1,55,21,14,38	
		1,52,57, 1,11,26,21,55		8,16
44″	26,17,53, 6,28,44,16,58, 8,33		1,55,21,22,54	
		1,52,56,59,16, 4,59, 1		8,16
46″	26,17,54,59,25,43,33, 3, 7,34		1,55,21,31,10	
		1,52,56,57,20,43,27,51		8,16
48″	26,17,56,52,22,40,53,46,35,25		1,55,21,39,26	
		1,52,56,55,25,21,48,25		8,16
50″	26,17,58,45,19,36,19, 8,23,50		1,55,21,47,42	
		1,52,56,53,30, 0, 0,43		8,16
52″	26,18, 0,38,16,29,49, 8,24,33		1,55,21,55,58	
		1,52,56,51,34,38, 4,45		8,16
54″	26,18, 2,31,13,21,23,46,29,18		1,55,22, 4,14	
		1,52,56,49,39,16, 0,31		8,16
56″	26,18, 4,24,10,11, 3, 2,29,49		1,55,22,12,30	
		1,52,56,47,43,53,48, 1		8,16
58″	26,18, 6,17, 6,58,46,56,17,50		1,55,22,20,46	
		1,52,56,45,48,31,27,15		
60″	26,18, 8,10, 3,44,35,27,45, 5			
exact	26,18, 8,10, 3,44,35,28,18,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26° 0′ 0″	26,18, 8,10, 3,44,35,28,18,20	1,52,56,43,53, 9, 1,52		
2″	26,18,10, 3, 0,28,28,37,20,12	1,52,56,41,57,46,24,50	1,55,22,37, 2	
4″	26,18,11,55,57,10,26,23,45, 2	1,52,56,40, 2,23,39,33	1,55,22,45,17	8,15
6″	26,18,13,48,53,50,28,47,24,35	1,52,56,38, 7, 0,46, 1	1,55,22,53,32	8,15
8″	26,18,15,41,50,28,35,48,10,36	1,52,56,36,11,37,44,14	1,55,23, 1,47	8,15
10″	26,18,17,34,47, 4,47,25,54,50	1,52,56,34,16,14,34,12	1,55,23,10, 2	8,15
12″	26,18,19,27,43,39, 3,40,29, 2	1,52,56,32,20,51,15,55	1,55,23,18,17	8,15
14″	26,18,21,20,40,11,24,31,44,57	1,52,56,30,25,27,49,23	1,55,23,26,32	8,15
16″	26,18,23,13,36,41,49,59,34,20	1,52,56,28,30, 4,14,36	1,55,23,34,47	8,15
18″	26,18,25, 6,33,10,20, 3,48,56	1,52,56,26,34,40,31,34	1,55,23,43, 2	8,15
20″	26,18,26,59,29,36,54,44,20,30	1,52,56,24,39,16,40,17	1,55,23,51,17	8,15
22″	26,18,28,52,26, 1,34, 1, 0,47	1,52,56,22,43,52,40,45	1,55,23,59,32	8,15
24″	26,18,30,45,22,24,17,53,41,32	1,52,56,20,48,28,32,58	1,55,24, 7,47	8,15
26″	26,18,32,38,18,45, 6,22,14,30	1,52,56,18,53, 4,16,56	1,55,24,16, 2	8,15
28″	26,18,34,31,15, 3,59,26,31,26	1,52,56,16,57,39,52,39	1,55,24,24,17	8,15
30″	26,18,36,24,11,20,57, 6,24, 5	1,52,56,15, 2,15,20, 7	1,55,24,32,32	8,15
32″	26,18,38,17, 7,35,59,21,44,12	1,52,56,13, 6,50,39,20	1,55,24,40,47	8,15
34″	26,18,40,10, 3,49, 6,12,23,32	1,52,56,11,11,25,50,18	1,55,24,49, 2	8,15
36″	26,18,42, 3, 0, 0,17,38,13,50	1,52,56, 9,16, 0,53, 1	1,55,24,57,17	8,15
38″	26,18,43,55,56, 9,33,39, 6,51	1,52,56, 7,20,35,47,29	1,55,25, 5,32	8,15
40″	26,18,45,48,52,16,54,14,54,20	1,52,56, 5,25,10,33,42	1,55,25,13,47	8,15
42″	26,18,47,41,48,22,19,25,28, 2	1,52,56, 3,29,45,11,40	1,55,25,22, 2	8,15
44″	26,18,49,34,44,25,49,10,39,42	1,52,56, 1,34,19,41,23	1,55,25,30,17	8,15
46″	26,18,51,27,40,27,23,30,21, 5	1,52,55,59,38,54, 2,51	1,55,25,38,32	8,15
48″	26,18,53,20,36,27, 2,24,23,56	1,52,55,57,43,28,16, 4	1,55,25,46,47	8,15
50″	26,18,55,13,32,24,45,52,40, 0	1,52,55,55,48, 2,21, 2	1,55,25,55, 2	8,15
52″	26,18,57, 6,28,20,33,55, 1, 2	1,52,55,53,52,36,17,45	1,55,26, 3,17	8,15
54″	26,18,58,59,24,14,26,31,18,47	1,52,55,51,57,10, 6,13	1,55,26,11,32	8,15
56″	26,19, 0,52,20, 6,23,41,25, 0	1,52,55,50, 1,43,46,26	1,55,26,19,47	8,15
58″	26,19, 2,45,15,56,25,25,11,26	1,52,55,48, 6,17,18,24	1,55,26,28, 2	
60″	26,19, 4,38,11,44,31,42,29,50			
exact	26,19, 4,38,11,44,31,41,59,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26° 1′ 0″	26,19, 4,38,11,44,31,41,59,52			
		1,52,55,46,10,50,39, 1		
2″	26,19, 6,31, 7,30,42,32,38,53		1,55,26,44,44	
		1,52,55,44,15,23,54,17		8,15
4″	26,19, 8,24, 3,14,57,56,33,10		1,55,26,52,59	
		1,52,55,42,19,57, 1,18		8,15
6″	26,19,10,16,58,57,17,53,34,28		1,55,27, 1,14	
		1,52,55,40,24,30, 0, 4		8,15
8″	26,19,12, 9,54,37,42,23,34,32		1,55,27, 9,29	
		1,52,55,38,29, 2,50,35		8,15
10″	26,19,14, 2,50,16,11,26,25, 7		1,55,27,17,44	
		1,52,55,36,33,35,32,51		8,15
12″	26,19,15,55,45,52,45, 1,57,58		1,55,27,25,59	
		1,52,55,34,38, 8, 6,52		8,15
14″	26,19,17,48,41,27,23,10, 4,50		1,55,27,34,14	
		1,52,55,32,42,40,32,38		8,15
16″	26,19,19,41,37, 0, 5,50,37,28		1,55,27,42,29	
		1,52,55,30,47,12,50, 9		8,15
18″	26,19,21,34,32,30,53, 3,27,37		1,55,27,50,44	
		1,52,55,28,51,44,59,25		8,15
20″	26,19,23,27,27,59,44,48,27, 2		1,55,27,58,59	
		1,52,55,26,56,17, 0,26		8,15
22″	26,19,25,20,23,26,41, 5,27,28		1,55,28, 7,14	
		1,52,55,25, 0,48,53,12		8,15
24″	26,19,27,13,18,51,41,54,20,40		1,55,28,15,29	
		1,52,55,23, 5,20,37,43		8,15
26″	26,19,29, 6,14,14,47,14,58,23		1,55,28,23,44	
		1,52,55,21, 9,52,13,59		8,15
28″	26,19,30,59, 9,35,57, 7,12,22		1,55,28,31,59	
		1,52,55,19,14,23,42, 0		8,15
30″	26,19,32,52, 4,55,11,30,54,22		1,55,28,40,14	
		1,52,55,17,18,55, 1,46		8,15
32″	26,19,34,45, 0,12,30,25,56, 8		1,55,28,48,29	
		1,52,55,15,23,26,13,17		8,15
34″	26,19,36,37,55,27,53,52, 9,25		1,55,28,56,44	
		1,52,55,13,27,57,16,33		8,15
36″	26,19,38,30,50,41,21,49,25,58		1,55,29, 4,59	
		1,52,55,11,32,28,11,34		8,15
38″	26,19,40,23,45,52,54,17,37,32		1,55,29,13,14	
		1,52,55, 9,36,58,58,20		8,15
40″	26,19,42,16,41, 2,31,16,35,52		1,55,29,21,29	
		1,52,55, 7,41,29,36,51		8,15
42″	26,19,44, 9,36,10,12,46,12,43		1,55,29,29,44	
		1,52,55, 5,46, 0, 7, 7		8,15
44″	26,19,46, 2,31,15,58,46,19,50		1,55,29,37,59	
		1,52,55, 3,50,30,29, 8		8,15
46″	26,19,47,55,26,19,49,16,48,58		1,55,29,46,14	
		1,52,55, 1,55, 0,42,54		8,15
48″	26,19,49,48,21,21,44,17,31,52		1,55,29,54,29	
		1,52,54,59,59,30,48,25		8,15
50″	26,19,51,41,16,21,43,48,20,17		1,55,30, 2,44	
		1,52,54,58, 4, 0,45,41		8,15
52″	26,19,53,34,11,19,47,49, 5,58		1,55,30,10,59	
		1,52,54,56, 8,30,34,42		8,15
54″	26,19,55,27, 6,15,56,19,40,40		1,55,30,19,14	
		1,52,54,54,13, 0,15,28		8,15
56″	26,19,57,20, 1,10, 9,19,56, 8		1,55,30,27,29	
		1,52,54,52,17,29,47,59		8,15
58″	26,19,59,12,56, 2,26,49,44, 7		1,55,30,35,44	
		1,52,54,50,21,59,12,15		
60″	26,20, 1, 5,50,52,48,48,56,22			
exact	26,20, 1, 5,50,52,48,48,31, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26° 2′ 0″	26,20, 1, 5,50,52,48,48,31, 6			
		1,52,54,48,26,28,25,41		
2″	26,20, 2,58,45,41,15,16,56,47		1,55,30,52,24	
		1,52,54,46,30,57,33,17		8,15
4″	26,20, 4,51,40,27,46,14,30, 4		1,55,31, 0,39	
		1,52,54,44,35,26,32,38		8,15
6″	26,20, 6,44,35,12,21,41, 2,42		1,55,31, 8,54	
		1,52,54,42,39,55,23,44		8,15
8″	26,20, 8,37,29,55, 1,36,26,26		1,55,31,17, 9	
		1,52,54,40,44,24, 6,35		8,15
10″	26,20,10,30,24,35,46, 0,33, 1		1,55,31,25,24	
		1,52,54,38,48,52,41,11		8,15
12″	26,20,12,23,19,14,34,53,14,12		1,55,31,33,39	
		1,52,54,36,53,21, 7,32		8,15
14″	26,20,14,16,13,51,28,14,21,44		1,55,31,41,54	
		1,52,54,34,57,49,25,38		8,15
16″	26,20,16, 9, 8,26,26, 3,47,22		1,55,31,50, 9	
		1,52,54,33, 2,17,35,29		8,15
18″	26,20,18, 2, 2,59,28,21,22,51		1,55,31,58,24	
		1,52,54,31, 6,45,37, 5		8,15
20″	26,20,19,54,57,30,35, 6,59,56		1,55,32, 6,39	
		1,52,54,29,11,13,30,26		8,15
22″	26,20,21,47,51,59,46,20,30,22		1,55,32,14,54	
		1,52,54,27,15,41,15,32		8,15
24″	26,20,23,40,46,27, 2, 1,45,54		1,55,32,23, 9	
		1,52,54,25,20, 8,52,23		8,15
26″	26,20,25,33,40,52,22,10,38,17		1,55,32,31,24	
		1,52,54,23,24,36,20,59		8,15
28″	26,20,27,26,35,15,46,46,59,16		1,55,32,39,39	
		1,52,54,21,29, 3,41,20		8,15
30″	26,20,29,19,29,37,15,50,40,36		1,55,32,47,54	
		1,52,54,19,33,30,53,26		8,15
32″	26,20,31,12,23,56,49,21,34, 2		1,55,32,56, 9	
		1,52,54,17,37,57,57,17		8,15
34″	26,20,33, 5,18,14,27,19,31,19		1,55,33, 4,24	
		1,52,54,15,42,24,52,53		8,15
36″	26,20,34,58,12,30, 9,44,24,12		1,55,33,12,39	
		1,52,54,13,46,51,40,14		8,15
38″	26,20,36,51, 6,43,56,36, 4,26		1,55,33,20,54	
		1,52,54,11,51,18,19,20		8,15
40″	26,20,38,44, 0,55,47,54,23,46		1,55,33,29, 9	
		1,52,54, 9,55,44,50,11		8,15
42″	26,20,40,36,55, 5,43,39,13,57		1,55,33,37,24	
		1,52,54, 8, 0,11,12,47		8,15
44″	26,20,42,29,49,13,43,50,26,44		1,55,33,45,39	
		1,52,54, 6, 4,37,27, 8		8,15
46″	26,20,44,22,43,19,48,27,53,52		1,55,33,53,54	
		1,52,54, 4, 9, 3,33,14		8,15
48″	26,20,46,15,37,23,57,31,27, 6		1,55,34, 2, 9	
		1,52,54, 2,13,29,31, 5		8,15
50″	26,20,48, 8,31,26,11, 0,58,11		1,55,34,10,24	
		1,52,54, 0,17,55,20,41		8,15
52″	26,20,50, 1,25,26,28,56,18,52		1,55,34,18,39	
		1,52,53,58,22,21, 2, 2		8,15
54″	26,20,51,54,19,24,51,17,20,54		1,55,34,26,54	
		1,52,53,56,26,46,35, 8		8,15
56″	26,20,53,47,13,21,18, 3,56, 2		1,55,34,35, 9	
		1,52,53,54,31,11,59,59		8,15
58″	26,20,55,40, 7,15,49,15,56, 1		1,55,34,43,24	
		1,52,53,52,35,37,16,35		
60″	26,20,57,33, 1, 8,24,53,12,36			
exact	26,20,57,33, 1, 8,24,52,53,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26° 3′ 0″	26,20,57,33, 1, 8,24,52,53,28	1,52,53,50,40, 2,22,57		
2″	26,20,59,25,54,59, 4,55,16,25	1,52,53,48,44,27,22,55	1,55,35, 0, 2	8,15
4″	26,21, 1,18,48,47,49,22,39,20	1,52,53,46,48,52,14,38	1,55,35, 8,17	8,15
6″	26,21, 3,11,42,34,38,14,53,58	1,52,53,44,53,16,58, 6	1,55,35,16,32	8,15
8″	26,21, 5, 4,36,19,31,31,52, 4	1,52,53,42,57,41,33,19	1,55,35,24,47	8,15
10″	26,21, 6,57,30, 2,29,13,25,23	1,52,53,41, 2, 6, 0,17	1,55,35,33, 2	8,15
12″	26,21, 8,50,23,43,31,19,25,40	1,52,53,39, 6,30,19, 0	1,55,35,41,17	8,15
14″	26,21,10,43,17,22,37,49,44,40	1,52,53,37,10,54,29,28	1,55,35,49,32	8,15
16″	26,21,12,36,10,59,48,44,14, 8	1,52,53,35,15,18,31,41	1,55,35,57,47	8,15
18″	26,21,14,29, 4,35, 4, 2,45,49	1,52,53,33,19,42,25,39	1,55,36, 6, 2	8,15
20″	26,21,16,21,58, 8,23,45,11,28	1,52,53,31,24, 6,11,22	1,55,36,14,17	8,15
22″	26,21,18,14,51,39,47,51,22,50	1,52,53,29,28,29,48,50	1,55,36,22,32	8,15
24″	26,21,20, 7,45, 9,16,21,11,40	1,52,53,27,32,53,18, 3	1,55,36,30,47	8,15
26″	26,21,22, 0,38,36,49,14,29,43	1,52,53,25,37,16,39, 1	1,55,36,39, 2	8,15
28″	26,21,23,53,32, 2,26,31, 8,44	1,52,53,23,41,39,51,44	1,55,36,47,17	8,15
30″	26,21,25,46,25,26, 8,11, 0,28	1,52,53,21,46, 2,56,12	1,55,36,55,32	8,15
32″	26,21,27,39,18,47,54,13,56,40	1,52,53,19,50,25,52,25	1,55,37, 3,47	8,15
34″	26,21,29,32,12, 7,44,39,49, 5	1,52,53,17,54,48,40,23	1,55,37,12, 2	8,15
36″	26,21,31,25, 5,25,39,28,29,28	1,52,53,15,59,11,20, 6	1,55,37,20,17	8,15
38″	26,21,33,17,58,41,38,39,49,34	1,52,53,14, 3,33,51,34	1,55,37,28,32	8,15
40″	26,21,35,10,51,55,42,13,41, 8	1,52,53,12, 7,56,14,47	1,55,37,36,47	8,15
42″	26,21,37, 3,45, 7,50, 9,55,55	1,52,53,10,12,18,29,45	1,55,37,45, 2	8,15
44″	26,21,38,56,38,18, 2,28,25,40	1,52,53, 8,16,40,36,28	1,55,37,53,17	8,15
46″	26,21,40,49,31,26,19, 9, 2, 8	1,52,53, 6,21, 2,34,56	1,55,38, 1,32	8,15
48″	26,21,42,42,24,32,40,11,37, 4	1,52,53, 4,25,24,25, 9	1,55,38, 9,47	8,15
50″	26,21,44,35,17,37, 5,36, 2,13	1,52,53, 2,29,46, 7, 7	1,55,38,18, 2	8,15
52″	26,21,46,28,10,39,35,22, 9,20	1,52,53, 0,34, 7,40,50	1,55,38,26,17	8,15
54″	26,21,48,21, 3,40, 9,29,50,10	1,52,52,58,38,29, 6,18	1,55,38,34,32	8,15
56″	26,21,50,13,56,38,47,58,56,28	1,52,52,56,42,50,23,31	1,55,38,42,47	8,15
58″	26,21,52, 6,49,35,30,49,19,59	1,52,52,54,47,11,32,29	1,55,38,51, 2	
60″	26,21,53,59,42,30,18, 0,52,28			
exact	26,21,53,59,42,30,18, 0,40, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26° 4′ 0″	26,21,53,59,42,30,18, 0,40, 2			
		1,52,52,52,51,32,31,52		
2″	26,21,55,52,35,23, 9,33,11,54		1,55,39, 7,37	
		1,52,52,50,55,53,24,15		8,15
4″	26,21,57,45,28,14, 5,26,36, 9		1,55,39,15,52	
		1,52,52,49, 0,14, 8,23		8,15
6″	26,21,59,38,21, 3, 5,40,44,32		1,55,39,24, 7	
		1,52,52,47, 4,34,44,16		8,15
8″	26,22, 1,31,13,50,10,15,28,48		1,55,39,32,22	
		1,52,52,45, 8,55,11,54		8,15
10″	26,22, 3,24, 6,35,19,10,40,42		1,55,39,40,37	
		1,52,52,43,13,15,31,17		8,15
12″	26,22, 5,16,59,18,32,26,11,59		1,55,39,48,52	
		1,52,52,41,17,35,42,25		8,15
14″	26,22, 7, 9,51,59,50, 1,54,24		1,55,39,57, 7	
		1,52,52,39,21,55,45,18		8,15
16″	26,22, 9, 2,44,39,11,57,39,42		1,55,40, 5,22	
		1,52,52,37,26,15,39,56		8,15
18″	26,22,10,55,37,16,38,13,19,38		1,55,40,13,37	
		1,52,52,35,30,35,26,19		8,15
20″	26,22,12,48,29,52, 8,48,45,57		1,55,40,21,52	
		1,52,52,33,34,55, 4,27		8,15
22″	26,22,14,41,22,25,43,43,50,24		1,55,40,30, 7	
		1,52,52,31,39,14,34,20		8,15
24″	26,22,16,34,14,57,22,58,24,44		1,55,40,38,22	
		1,52,52,29,43,33,55,58		8,15
26″	26,22,18,27, 7,27, 6,32,20,42		1,55,40,46,37	
		1,52,52,27,47,53, 9,21		8,15
28″	26,22,20,19,59,54,54,25,30, 3		1,55,40,54,52	
		1,52,52,25,52,12,14,29		8,15
30″	26,22,22,12,52,20,46,37,44,32		1,55,41, 3, 7	
		1,52,52,23,56,31,11,22		8,15
32″	26,22,24, 5,44,44,43, 8,55,54		1,55,41,11,22	
		1,52,52,22, 0,50, 0, 0		8,15
34″	26,22,25,58,37, 6,43,58,55,54		1,55,41,19,37	
		1,52,52,20, 5, 8,40,23		8,15
36″	26,22,27,51,29,26,49, 7,36,17		1,55,41,27,52	
		1,52,52,18, 9,27,12,31		8,15
38″	26,22,29,44,21,44,58,34,48,48		1,55,41,36, 7	
		1,52,52,16,13,45,36,24		8,15
40″	26,22,31,37,14, 1,12,20,25,12		1,55,41,44,22	
		1,52,52,14,18, 3,52, 2		8,15
42″	26,22,33,30, 6,15,30,24,17,14		1,55,41,52,37	
		1,52,52,12,22,21,59,25		8,15
44″	26,22,35,22,58,27,52,46,16,39		1,55,42, 0,52	
		1,52,52,10,26,39,58,33		8,15
46″	26,22,37,15,50,38,19,26,15,12		1,55,42, 9, 7	
		1,52,52, 8,30,57,49,26		8,15
48″	26,22,39, 8,42,46,50,24, 4,38		1,55,42,17,22	
		1,52,52, 6,35,15,32, 4		8,15
50″	26,22,41, 1,34,53,25,39,36,42		1,55,42,25,37	
		1,52,52, 4,39,33, 6,27		8,15
52″	26,22,42,54,26,58, 5,12,43, 9		1,55,42,33,52	
		1,52,52, 2,43,50,32,35		8,15
54″	26,22,44,47,19, 0,49, 3,15,44		1,55,42,42, 7	
		1,52,52, 0,48, 7,50,28		8,15
56″	26,22,46,40,11, 1,37,11, 6,12		1,55,42,50,22	
		1,52,51,58,52,25, 0, 6		8,15
58″	26,22,48,33, 3, 0,29,36, 6,18		1,55,42,58,37	
		1,52,51,56,56,42, 1,29		
60″	26,22,50,25,54,57,26,18, 7,47			
exact	26,22,50,25,54,57,26,17,55,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26° 5′ 0″	26,22,50,25,54,57,26,17,55,35	1,52,51,55, 0,58,53,29		
2″	26,22,52,18,46,52,27,16,49, 4	1,52,51,53, 5,15,38,18	1,55,43,15,11	8,15
4″	26,22,54,11,38,45,32,32,27,22	1,52,51,51, 9,32,14,52	1,55,43,23,26	8,15
6″	26,22,56, 4,30,36,42, 4,42,14	1,52,51,49,13,48,43,11	1,55,43,31,41	8,15
8″	26,22,57,57,22,25,55,53,25,25	1,52,51,47,18, 5, 3,15	1,55,43,39,56	8,15
10″	26,22,59,50,14,13,13,58,28,40	1,52,51,45,22,21,15, 4	1,55,43,48,11	8,15
12″	26,23, 1,43, 5,58,36,19,43,44	1,52,51,43,26,37,18,38	1,55,43,56,26	8,15
14″	26,23, 3,35,57,42, 2,57, 2,22	1,52,51,41,30,53,13,57	1,55,44, 4,41	8,15
16″	26,23, 5,28,49,23,33,50,16,19	1,52,51,39,35, 9, 1, 1	1,55,44,12,56	8,15
18″	26,23, 7,21,41, 3, 8,59,17,20	1,52,51,37,39,24,39,50	1,55,44,21,11	8,15
20″	26,23, 9,14,32,40,48,23,57,10	1,52,51,35,43,40,10,24	1,55,44,29,26	8,15
22″	26,23,11, 7,24,16,32, 4, 7,34	1,52,51,33,47,55,32,43	1,55,44,37,41	8,15
24″	26,23,13, 0,15,50,19,59,40,17	1,52,51,31,52,10,46,47	1,55,44,45,56	8,15
26″	26,23,14,53, 7,22,12,10,27, 4	1,52,51,29,56,25,52,36	1,55,44,54,11	8,15
28″	26,23,16,45,58,52, 8,36,19,40	1,52,51,28, 0,40,50,10	1,55,45, 2,26	8,15
30″	26,23,18,38,50,20, 9,17, 9,50	1,52,51,26, 4,55,39,29	1,55,45,10,41	8,15
32″	26,23,20,31,41,46,14,12,49,19	1,52,51,24, 9,10,20,33	1,55,45,18,56	8,15
34″	26,23,22,24,33,10,23,23, 9,52	1,52,51,22,13,24,53,22	1,55,45,27,11	8,15
36″	26,23,24,17,24,32,36,48, 3,14	1,52,51,20,17,39,17,56	1,55,45,35,26	8,15
38″	26,23,26,10,15,52,54,27,21,10	1,52,51,18,21,53,34,15	1,55,45,43,41	8,15
40″	26,23,28, 3, 7,11,16,20,55,25	1,52,51,16,26, 7,42,19	1,55,45,51,56	8,15
42″	26,23,29,55,58,27,42,28,37,44	1,52,51,14,30,21,42, 8	1,55,46, 0,11	8,15
44″	26,23,31,48,49,42,12,50,19,52	1,52,51,12,34,35,33,42	1,55,46, 8,26	8,15
46″	26,23,33,41,40,54,47,25,53,34	1,52,51,10,38,49,17, 1	1,55,46,16,41	8,15
48″	26,23,35,34,32, 5,26,15,10,35	1,52,51, 8,43, 2,52, 5	1,55,46,24,56	8,15
50″	26,23,37,27,23,14, 9,18, 2,40	1,52,51, 6,47,16,18,54	1,55,46,33,11	8,15
52″	26,23,39,20,14,20,56,34,21,34	1,52,51, 4,51,29,37,28	1,55,46,41,26	8,15
54″	26,23,41,13, 5,25,48, 3,59, 2	1,52,51, 2,55,42,47,47	1,55,46,49,41	8,15
56″	26,23,43, 5,56,28,43,46,46,49	1,52,51, 0,59,55,49,51	1,55,46,57,56	8,15
58″	26,23,44,58,47,29,43,42,36,40	1,52,50,59, 4, 8,43,40	1,55,47, 6,11	
60″	26,23,46,51,38,28,47,51,20,20			
exact	26,23,46,51,38,28,47,51,16,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26° 6′ 0″	26,23,46,51,38,28,47,51,16,35	1,52,50,57, 8,21,28,52		
2″	26,23,48,44,29,25,56,12,45,27	1,52,50,55,12,34, 6,10	1,55,47,22,42	8,15
4″	26,23,50,37,20,21, 8,46,51,37	1,52,50,53,16,46,35,13	1,55,47,30,57	8,15
6″	26,23,52,30,11,14,25,33,26,50	1,52,50,51,20,58,56, 1	1,55,47,39,12	8,15
8″	26,23,54,23, 2, 5,46,32,22,51	1,52,50,49,25,11, 8,34	1,55,47,47,27	8,15
10″	26,23,56,15,52,55,11,43,31,25	1,52,50,47,29,23,12,52	1,55,47,55,42	8,15
12″	26,23,58, 8,43,42,41, 6,44,17	1,52,50,45,33,35, 8,55	1,55,48, 3,57	8,15
14″	26,24, 0, 1,34,28,14,41,53,12	1,52,50,43,37,46,56,43	1,55,48,12,12	8,15
16″	26,24, 1,54,25,11,52,28,49,55	1,52,50,41,41,58,36,16	1,55,48,20,27	8,15
18″	26,24, 3,47,15,53,34,27,26,11	1,52,50,39,46,10, 7,34	1,55,48,28,42	8,15
20″	26,24, 5,40, 6,33,20,37,33,45	1,52,50,37,50,21,30,37	1,55,48,36,57	8,15
22″	26,24, 7,32,57,11,10,59, 4,22	1,52,50,35,54,32,45,25	1,55,48,45,12	8,15
24″	26,24, 9,25,47,47, 5,31,49,47	1,52,50,33,58,43,51,58	1,55,48,53,27	8,15
26″	26,24,11,18,38,21, 4,15,41,45	1,52,50,32, 2,54,50,16	1,55,49, 1,42	8,15
28″	26,24,13,11,28,53, 7,10,32, 1	1,52,50,30, 7, 5,40,19	1,55,49, 9,57	8,15
30″	26,24,15, 4,19,23,14,16,12,20	1,52,50,28,11,16,22, 7	1,55,49,18,12	8,15
32″	26,24,16,57, 9,51,25,32,34,27	1,52,50,26,15,26,55,40	1,55,49,26,27	8,15
34″	26,24,18,50, 0,17,40,59,30, 7	1,52,50,24,19,37,20,58	1,55,49,34,42	8,15
36″	26,24,20,42,50,42, 0,36,51, 5	1,52,50,22,23,47,38, 1	1,55,49,42,57	8,15
38″	26,24,22,35,41, 4,24,24,29, 6	1,52,50,20,27,57,46,49	1,55,49,51,12	8,15
40″	26,24,24,28,31,24,52,22,15,55	1,52,50,18,32, 7,47,22	1,55,49,59,27	8,15
42″	26,24,26,21,21,43,24,30, 3,17	1,52,50,16,36,17,39,40	1,55,50, 7,42	8,15
44″	26,24,28,14,12, 0, 0,47,42,57	1,52,50,14,40,27,23,43	1,55,50,15,57	8,15
46″	26,24,30, 7, 2,14,41,15, 6,40	1,52,50,12,44,36,59,31	1,55,50,24,12	8,15
48″	26,24,31,59,52,27,25,52, 6,11	1,52,50,10,48,46,27, 4	1,55,50,32,27	8,15
50″	26,24,33,52,42,38,14,38,33,15	1,52,50, 8,52,55,46,22	1,55,50,40,42	8,15
52″	26,24,35,45,32,47, 7,34,19,37	1,52,50, 6,57, 4,57,25	1,55,50,48,57	8,15
54″	26,24,37,38,22,54, 4,39,17, 2	1,52,50, 5, 1,14, 0,13	1,55,50,57,12	8,15
56″	26,24,39,31,12,59, 5,53,17,15	1,52,50, 3, 5,22,54,46	1,55,51, 5,27	8,15
58″	26,24,41,24, 3, 2,11,16,12, 1	1,52,50, 1, 9,31,41, 4	1,55,51,13,42	
60″	26,24,43,16,53, 3,20,47,53, 5			
exact	26,24,43,16,53, 3,20,47,51,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26° 7′ 0″	26,24,43,16,53, 3,20,47,51,15			
		1,52,49,59,13,40,19, 4		
2″	26,24,45, 9,43, 2,34,28,10,19		1,55,51,30,12	
		1,52,49,57,17,48,48,52		8,15
4″	26,24,47, 2,32,59,52,16,59,11		1,55,51,38,27	
		1,52,49,55,21,57,10,25		8,15
6″	26,24,48,55,22,55,14,14, 9,36		1,55,51,46,42	
		1,52,49,53,26, 5,23,43		8,15
8″	26,24,50,48,12,48,40,19,33,19		1,55,51,54,57	
		1,52,49,51,30,13,28,46		8,15
10″	26,24,52,41, 2,40,10,33, 2, 5		1,55,52, 3,12	
		1,52,49,49,34,21,25,34		8,15
12″	26,24,54,33,52,29,44,54,27,39		1,55,52,11,27	
		1,52,49,47,38,29,14, 7		8,15
14″	26,24,56,26,42,17,23,23,41,46		1,55,52,19,42	
		1,52,49,45,42,36,54,25		8,15
16″	26,24,58,19,32, 3, 6, 0,36,11		1,55,52,27,57	
		1,52,49,43,46,44,26,28		8,15
18″	26,25, 0,12,21,46,52,45, 2,39		1,55,52,36,12	
		1,52,49,41,50,51,50,16		8,15
20″	26,25, 2, 5,11,28,43,36,52,55		1,55,52,44,27	
		1,52,49,39,54,59, 5,49		8,15
22″	26,25, 3,58, 1, 8,38,35,58,44		1,55,52,52,42	
		1,52,49,37,59, 6,13, 7		8,15
24″	26,25, 5,50,50,46,37,42,11,51		1,55,53, 0,57	
		1,52,49,36, 3,13,12,10		8,15
26″	26,25, 7,43,40,22,40,55,24, 1		1,55,53, 9,12	
		1,52,49,34, 7,20, 2,58		8,15
28″	26,25, 9,36,29,56,48,15,26,59		1,55,53,17,27	
		1,52,49,32,11,26,45,31		8,15
30″	26,25,11,29,19,28,59,42,12,30		1,55,53,25,42	
		1,52,49,30,15,33,19,49		8,15
32″	26,25,13,22, 8,59,15,15,32,19		1,55,53,33,57	
		1,52,49,28,19,39,45,52		8,15
34″	26,25,15,14,58,27,34,55,18,11		1,55,53,42,12	
		1,52,49,26,23,46, 3,40		8,15
36″	26,25,17, 7,47,53,58,41,21,51		1,55,53,50,27	
		1,52,49,24,27,52,13,13		8,15
38″	26,25,19, 0,37,18,26,33,35, 4		1,55,53,58,42	
		1,52,49,22,31,58,14,31		8,15
40″	26,25,20,53,26,40,58,31,49,35		1,55,54, 6,57	
		1,52,49,20,36, 4, 7,34		8,15
42″	26,25,22,46,16, 1,34,35,57, 9		1,55,54,15,12	
		1,52,49,18,40, 9,52,22		8,15
44″	26,25,24,39, 5,20,14,45,49,31		1,55,54,23,27	
		1,52,49,16,44,15,28,55		8,15
46″	26,25,26,31,54,36,59, 1,18,26		1,55,54,31,42	
		1,52,49,14,48,20,57,13		8,15
48″	26,25,28,24,43,51,47,22,15,39		1,55,54,39,57	
		1,52,49,12,52,26,17,16		8,15
50″	26,25,30,17,33, 4,39,48,32,55		1,55,54,48,12	
		1,52,49,10,56,31,29, 4		8,15
52″	26,25,32,10,22,15,36,20, 1,59		1,55,54,56,27	
		1,52,49, 9, 0,36,32,37		8,15
54″	26,25,34, 3,11,24,36,56,34,36		1,55,55, 4,42	
		1,52,49, 7, 4,41,27,55		8,15
56″	26,25,35,56, 0,31,41,38, 2,31		1,55,55,12,57	
		1,52,49, 5, 8,46,14,58		8,15
58″	26,25,37,48,49,36,50,24,17,29		1,55,55,21,12	
		1,52,49, 3,12,50,53,46		
60″	26,25,39,41,38,40, 3,15,11,15			
exact	26,25,39,41,38,40, 3,15,19,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26° 8′ 0″	26,25,39,41,38,40, 3,15,19,30	1,52,49, 1,16,55,25, 8		
2″	26,25,41,34,27,41,20,10,44,38	1,52,48,59,20,59,47,29	1,55,55,37,39	8,15
4″	26,25,43,27,16,40,41,10,32, 7	1,52,48,57,25, 4, 1,35	1,55,55,45,54	8,15
6″	26,25,45,20, 5,38, 6,14,33,42	1,52,48,55,29, 8, 7,26	1,55,55,54, 9	8,15
8″	26,25,47,12,54,33,35,22,41, 8	1,52,48,53,33,12, 5, 2	1,55,56, 2,24	8,15
10″	26,25,49, 5,43,27, 8,34,46,10	1,52,48,51,37,15,54,23	1,55,56,10,39	8,15
12″	26,25,50,58,32,18,45,50,40,33	1,52,48,49,41,19,35,29	1,55,56,18,54	8,15
14″	26,25,52,51,21, 8,27,10,16, 2	1,52,48,47,45,23, 8,20	1,55,56,27, 9	8,15
16″	26,25,54,44, 9,56,12,33,24,22	1,52,48,45,49,26,32,56	1,55,56,35,24	8,15
18″	26,25,56,36,58,42, 1,59,57,18	1,52,48,43,53,29,49,17	1,55,56,43,39	8,15
20″	26,25,58,29,47,25,55,29,46,35	1,52,48,41,57,32,57,23	1,55,56,51,54	8,15
22″	26,26, 0,22,36, 7,53, 2,43,58	1,52,48,40, 1,35,57,14	1,55,57, 0, 9	8,15
24″	26,26, 2,15,24,47,54,38,41,12	1,52,48,38, 5,38,48,50	1,55,57, 8,24	8,15
26″	26,26, 4, 8,13,26, 0,17,30, 2	1,52,48,36, 9,41,32,11	1,55,57,16,39	8,15
28″	26,26, 6, 1, 2, 2, 9,59, 2,13	1,52,48,34,13,44, 7,17	1,55,57,24,54	8,15
30″	26,26, 7,53,50,36,23,43, 9,30	1,52,48,32,17,46,34, 8	1,55,57,33, 9	8,15
32″	26,26, 9,46,39, 8,41,29,43,38	1,52,48,30,21,48,52,44	1,55,57,41,24	8,15
34″	26,26,11,39,27,39, 3,18,36,22	1,52,48,28,25,51, 3, 5	1,55,57,49,39	8,15
36″	26,26,13,32,16, 7,29, 9,39,27	1,52,48,26,29,53, 5,11	1,55,57,57,54	8,15
38″	26,26,15,25, 4,33,59, 2,44,38	1,52,48,24,33,54,59, 2	1,55,58, 6, 9	8,15
40″	26,26,17,17,52,58,32,57,43,40	1,52,48,22,37,56,44,38	1,55,58,14,24	8,15
42″	26,26,19,10,41,21,10,54,28,18	1,52,48,20,41,58,21,59	1,55,58,22,39	8,15
44″	26,26,21, 3,29,41,52,52,50,17	1,52,48,18,45,59,51, 5	1,55,58,30,54	8,15
46″	26,26,22,56,18, 0,38,52,41,22	1,52,48,16,50, 1,11,56	1,55,58,39, 9	8,15
48″	26,26,24,49, 6,17,28,53,53,18	1,52,48,14,54, 2,24,32	1,55,58,47,24	8,15
50″	26,26,26,41,54,32,22,56,17,50	1,52,48,12,58, 3,28,53	1,55,58,55,39	8,15
52″	26,26,28,34,42,45,20,59,46,43	1,52,48,11, 2, 4,24,59	1,55,59, 3,54	8,15
54″	26,26,30,27,30,56,23, 4,11,42	1,52,48, 9, 6, 5,12,50	1,55,59,12, 9	8,15
56″	26,26,32,20,19, 5,29, 9,24,32	1,52,48, 7,10, 5,52,26	1,55,59,20,24	8,15
58″	26,26,34,13, 7,12,39,15,16,58	1,52,48, 5,14, 6,23,47	1,55,59,28,39	
60″	26,26,36, 5,55,17,53,21,40,45			
exact	26,26,36, 5,55,17,53,21,53, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26° 9′ 0″	26,26,36, 5,55,17,53,21,53, 4			
		1,52,48, 3,18, 6,48, 9		
2″	26,26,37,58,43,21,11,28,41,13		1,55,59,45, 4	
		1,52,48, 1,22, 7, 3, 5		8,15
4″	26,26,39,51,31,22,33,35,44,18		1,55,59,53,19	
		1,52,47,59,26, 7, 9,46		8,15
6″	26,26,41,44,19,21,59,42,54, 4		1,56, 0, 1,34	
		1,52,47,57,30, 7, 8,12		8,15
8″	26,26,43,37, 7,19,29,50, 2,16		1,56, 0, 9,49	
		1,52,47,55,34, 6,58,23		8,15
10″	26,26,45,29,55,15, 3,57, 0,39		1,56, 0,18, 4	
		1,52,47,53,38, 6,40,19		8,15
12″	26,26,47,22,43, 8,42, 3,40,58		1,56, 0,26,19	
		1,52,47,51,42, 6,14, 0		8,15
14″	26,26,49,15,31, 0,24, 9,54,58		1,56, 0,34,34	
		1,52,47,49,46, 5,39,26		8,15
16″	26,26,51, 8,18,50,10,15,34,24		1,56, 0,42,49	
		1,52,47,47,50, 4,56,37		8,15
18″	26,26,53, 1, 6,38, 0,20,31, 1		1,56, 0,51, 4	
		1,52,47,45,54, 4, 5,33		8,15
20″	26,26,54,53,54,23,54,24,36,34		1,56, 0,59,19	
		1,52,47,43,58, 3, 6,14		8,15
22″	26,26,56,46,42, 7,52,27,42,48		1,56, 1, 7,34	
		1,52,47,42, 2, 1,58,40		8,15
24″	26,26,58,39,29,49,54,29,41,28		1,56, 1,15,49	
		1,52,47,40, 6, 0,42,51		8,15
26″	26,27, 0,32,17,30, 0,30,24,19		1,56, 1,24, 4	
		1,52,47,38, 9,59,18,47		8,15
28″	26,27, 2,25, 5, 8,10,29,43, 6		1,56, 1,32,19	
		1,52,47,36,13,57,46,28		8,15
30″	26,27, 4,17,52,44,24,27,29,34		1,56, 1,40,34	
		1,52,47,34,17,56, 5,54		8,15
32″	26,27, 6,10,40,18,42,23,35,28		1,56, 1,48,49	
		1,52,47,32,21,54,17, 5		8,15
34″	26,27, 8, 3,27,51, 4,17,52,33		1,56, 1,57, 4	
		1,52,47,30,25,52,20, 1		8,15
36″	26,27, 9,56,15,21,30,10,12,34		1,56, 2, 5,19	
		1,52,47,28,29,50,14,42		8,15
38″	26,27,11,49, 2,50, 0, 0,27,16		1,56, 2,13,34	
		1,52,47,26,33,48, 1, 8		8,15
40″	26,27,13,41,50,16,33,48,28,24		1,56, 2,21,49	
		1,52,47,24,37,45,39,19		8,15
42″	26,27,15,34,37,41,11,34, 7,43		1,56, 2,30, 4	
		1,52,47,22,41,43, 9,15		8,15
44″	26,27,17,27,25, 3,53,17,16,58		1,56, 2,38,19	
		1,52,47,20,45,40,30,56		8,15
46″	26,27,19,20,12,24,38,57,47,54		1,56, 2,46,34	
		1,52,47,18,49,37,44,22		8,15
48″	26,27,21,12,59,43,28,35,32,16		1,56, 2,54,49	
		1,52,47,16,53,34,49,33		8,15
50″	26,27,23, 5,47, 0,22,10,21,49		1,56, 3, 3, 4	
		1,52,47,14,57,31,46,29		8,15
52″	26,27,24,58,34,15,19,42, 8,18		1,56, 3,11,19	
		1,52,47,13, 1,28,35,10		8,15
54″	26,27,26,51,21,28,21,10,43,28		1,56, 3,19,34	
		1,52,47,11, 5,25,15,36		8,15
56″	26,27,28,44, 8,39,26,35,59, 4		1,56, 3,27,49	
		1,52,47, 9, 9,21,47,47		8,15
58″	26,27,30,36,55,48,35,57,46,51		1,56, 3,36, 4	
		1,52,47, 7,13,18,11,43		
60″	26,27,32,29,42,55,49,15,58,34			
exact	26,27,32,29,42,55,49,16,15,26			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
26°10′	0″	26,27,32,29,42,55,49,16,15,26			
	2″	26,27,34,22,30, 1, 6,30,44,36	1,52,47, 5,17,14,29,10	1,56, 3,52,27	
	4″	26,27,36,15,17, 4,27,41,21,19	1,52,47, 3,21,10,36,43	1,56, 4, 0,42	8,15
	6″	26,27,38, 8, 4, 5,52,47,57,20	1,52,47, 1,25, 6,36, 1	1,56, 4, 8,57	8,15
	8″	26,27,40, 0,51, 5,21,50,24,24	1,52,46,59,29, 2,27, 4	1,56, 4,17,12	8,15
	10″	26,27,41,53,38, 2,54,48,34,16	1,52,46,57,32,58, 9,52	1,56, 4,25,27	8,15
	12″	26,27,43,46,24,58,31,42,18,41	1,52,46,55,36,53,44,25	1,56, 4,33,42	8,15
	14″	26,27,45,39,11,52,12,31,29,24	1,52,46,53,40,49,10,43	1,56, 4,41,57	8,15
	16″	26,27,47,31,58,43,57,15,58,10	1,52,46,51,44,44,28,46	1,56, 4,50,12	8,15
	18″	26,27,49,24,45,33,45,55,36,44	1,52,46,49,48,39,38,34	1,56, 4,58,27	8,15
	20″	26,27,51,17,32,21,38,30,16,51	1,52,46,47,52,34,40, 7	1,56, 5, 6,42	8,15
	22″	26,27,53,10,19, 7,34,59,50,16	1,52,46,45,56,29,33,25	1,56, 5,14,57	8,15
	24″	26,27,55, 3, 5,51,35,24, 8,44	1,52,46,44, 0,24,18,28	1,56, 5,23,12	8,15
	26″	26,27,56,55,52,33,39,43, 4, 0	1,52,46,42, 4,18,55,16	1,56, 5,31,27	8,15
	28″	26,27,58,48,39,13,47,56,27,49	1,52,46,40, 8,13,23,49	1,56, 5,39,42	8,15
	30″	26,28, 0,41,25,52, 0, 4,11,56	1,52,46,38,12, 7,44, 7	1,56, 5,47,57	8,15
	32″	26,28, 2,34,12,28,16, 6, 8, 6	1,52,46,36,16, 1,56,10	1,56, 5,56,12	8,15
	34″	26,28, 4,26,59, 2,36, 2, 8, 4	1,52,46,34,19,55,59,58	1,56, 6, 4,27	8,15
	36″	26,28, 6,19,45,34,59,52, 3,35	1,52,46,32,23,49,55,31	1,56, 6,12,42	8,15
	38″	26,28, 8,12,32, 5,27,35,46,24	1,52,46,30,27,43,42,49	1,56, 6,20,57	8,15
	40″	26,28,10, 5,18,33,59,13, 8,16	1,52,46,28,31,37,21,52	1,56, 6,29,12	8,15
	42″	26,28,11,58, 5, 0,34,44, 0,56	1,52,46,26,35,30,52,40	1,56, 6,37,27	8,15
	44″	26,28,13,50,51,25,14, 8,16, 9	1,52,46,24,39,24,15,13	1,56, 6,45,42	8,15
	46″	26,28,15,43,37,47,57,25,45,40	1,52,46,22,43,17,29,31	1,56, 6,53,57	8,15
	48″	26,28,17,36,24, 8,44,36,21,14	1,52,46,20,47,10,35,34	1,56, 7, 2,12	8,15
	50″	26,28,19,29,10,27,35,39,54,36	1,52,46,18,51, 3,33,22	1,56, 7,10,27	8,15
	52″	26,28,21,21,56,44,30,36,17,31	1,52,46,16,54,56,22,55	1,56, 7,18,42	8,15
	54″	26,28,23,14,42,59,29,25,21,44	1,52,46,14,58,49, 4,13	1,56, 7,26,57	8,15
	56″	26,28,25, 7,29,12,32, 6,59, 0	1,52,46,13, 2,41,37,16	1,56, 7,35,12	8,15
	58″	26,28,27, 0,15,23,38,41, 1, 4	1,52,46,11, 6,34, 2, 4	1,56, 7,43,27	
	60″	26,28,28,53, 1,32,49, 7,19,41	1,52,46, 9,10,26,18,37		
exact		26,28,28,53, 1,32,49, 7,41,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°11′ 0″	26,28,28,53, 1,32,49, 7,41,52			
		1,52,46, 7,14,18,29,14		
2″	26,28,30,45,47,40, 3,26,11, 6		1,56, 7,59,47	
		1,52,46, 5,18,10,29,27		8,15
4″	26,28,32,38,33,45,21,36,40,33		1,56, 8, 8, 2	
		1,52,46, 3,22, 2,21,25		8,15
6″	26,28,34,31,19,48,43,39, 1,58		1,56, 8,16,17	
		1,52,46, 1,25,54, 5, 8		8,15
8″	26,28,36,24, 5,50, 9,33, 7, 6		1,56, 8,24,32	
		1,52,45,59,29,45,40,36		8,15
10″	26,28,38,16,51,49,39,18,47,42		1,56, 8,32,47	
		1,52,45,57,33,37, 7,49		8,15
12″	26,28,40, 9,37,47,12,55,55,31		1,56, 8,41, 2	
		1,52,45,55,37,28,26,47		8,15
14″	26,28,42, 2,23,42,50,24,22,18		1,56, 8,49,17	
		1,52,45,53,41,19,37,30		8,15
16″	26,28,43,55, 9,36,31,43,59,48		1,56, 8,57,32	
		1,52,45,51,45,10,39,58		8,15
18″	26,28,45,47,55,28,16,54,39,46		1,56, 9, 5,47	
		1,52,45,49,49, 1,34,11		8,15
20″	26,28,47,40,41,18, 5,56,13,57		1,56, 9,14, 2	
		1,52,45,47,52,52,20, 9		8,15
22″	26,28,49,33,27, 5,58,48,34, 6		1,56, 9,22,17	
		1,52,45,45,56,42,57,52		8,15
24″	26,28,51,26,12,51,55,31,31,58		1,56, 9,30,32	
		1,52,45,44, 0,33,27,20		8,15
26″	26,28,53,18,58,35,56, 4,59,18		1,56, 9,38,47	
		1,52,45,42, 4,23,48,33		8,15
28″	26,28,55,11,44,18, 0,28,47,51		1,56, 9,47, 2	
		1,52,45,40, 8,14, 1,31		8,15
30″	26,28,57, 4,29,58, 8,42,49,22		1,56, 9,55,17	
		1,52,45,38,12, 4, 6,14		8,15
32″	26,28,58,57,15,36,20,46,55,36		1,56,10, 3,32	
		1,52,45,36,15,54, 2,42		8,15
34″	26,29, 0,50, 1,12,36,40,58,18		1,56,10,11,47	
		1,52,45,34,19,43,50,55		8,15
36″	26,29, 2,42,46,46,56,24,49,13		1,56,10,20, 2	
		1,52,45,32,23,33,30,53		8,15
38″	26,29, 4,35,32,19,19,58,20, 6		1,56,10,28,17	
		1,52,45,30,27,23, 2,36		8,15
40″	26,29, 6,28,17,49,47,21,22,42		1,56,10,36,32	
		1,52,45,28,31,12,26, 4		8,15
42″	26,29, 8,21, 3,18,18,33,48,46		1,56,10,44,47	
		1,52,45,26,35, 1,41,17		8,15
44″	26,29,10,13,48,44,53,35,30, 3		1,56,10,53, 2	
		1,52,45,24,38,50,48,15		8,15
46″	26,29,12, 6,34, 9,32,26,18,18		1,56,11, 1,17	
		1,52,45,22,42,39,46,58		8,15
48″	26,29,13,59,19,32,15, 6, 5,16		1,56,11, 9,32	
		1,52,45,20,46,28,37,26		8,15
50″	26,29,15,52, 4,53, 1,34,42,42		1,56,11,17,47	
		1,52,45,18,50,17,19,39		8,15
52″	26,29,17,44,50,11,51,52, 2,21		1,56,11,26, 2	
		1,52,45,16,54, 5,53,37		8,15
54″	26,29,19,37,35,28,45,57,55,58		1,56,11,34,17	
		1,52,45,14,57,54,19,20		8,15
56″	26,29,21,30,20,43,43,52,15,18		1,56,11,42,32	
		1,52,45,13, 1,42,36,48		8,15
58″	26,29,23,23, 5,56,45,34,52, 6		1,56,11,50,47	
		1,52,45,11, 5,30,46, 1		
60″	26,29,25,15,51, 7,51, 5,38, 7			
exact	26,29,25,15,51, 7,51, 5,59,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°12′ 0″	26,29,25,15,51, 7,51, 5,59,31			
		1,52,45, 9, 9,18,49,26		
2″	26,29,27, 8,36,17, 0,24,48,57		1,56,12, 7, 6	
		1,52,45, 7,13, 6,42,20		8,15
4″	26,29,29, 1,21,24,13,31,31,17		1,56,12,15,21	
		1,52,45, 5,16,54,26,59		8,15
6″	26,29,30,54, 6,29,30,25,58,16		1,56,12,23,36	
		1,52,45, 3,20,42, 3,23		8,15
8″	26,29,32,46,51,32,51, 8, 1,39		1,56,12,31,51	
		1,52,45, 1,24,29,31,32		8,15
10″	26,29,34,39,36,34,15,37,33,11		1,56,12,40, 6	
		1,52,44,59,28,16,51,26		8,15
12″	26,29,36,32,21,33,43,54,24,37		1,56,12,48,21	
		1,52,44,57,32, 4, 3, 5		8,15
14″	26,29,38,25, 6,31,15,58,27,42		1,56,12,56,36	
		1,52,44,55,35,51, 6,29		8,15
16″	26,29,40,17,51,26,51,49,34,11		1,56,13, 4,51	
		1,52,44,53,39,38, 1,38		8,15
18″	26,29,42,10,36,20,31,27,35,49		1,56,13,13, 6	
		1,52,44,51,43,24,48,32		8,15
20″	26,29,44, 3,21,12,14,52,24,21		1,56,13,21,21	
		1,52,44,49,47,11,27,11		8,15
22″	26,29,45,56, 6, 2, 2, 3,51,32		1,56,13,29,36	
		1,52,44,47,50,57,57,35		8,15
24″	26,29,47,48,50,49,53, 1,49, 7		1,56,13,37,51	
		1,52,44,45,54,44,19,44		8,15
26″	26,29,49,41,35,35,47,46, 8,51		1,56,13,46, 6	
		1,52,44,43,58,30,33,38		8,15
28″	26,29,51,34,20,19,46,16,42,29		1,56,13,54,21	
		1,52,44,42, 2,16,39,17		8,15
30″	26,29,53,27, 5, 1,48,33,21,46		1,56,14, 2,36	
		1,52,44,40, 6, 2,36,41		8,15
32″	26,29,55,19,49,41,54,35,58,27		1,56,14,10,51	
		1,52,44,38, 9,48,25,50		8,15
34″	26,29,57,12,34,20, 4,24,24,17		1,56,14,19, 6	
		1,52,44,36,13,34, 6,44		8,15
36″	26,29,59, 5,18,56,17,58,31, 1		1,56,14,27,21	
		1,52,44,34,17,19,39,23		8,15
38″	26,30, 0,58, 3,30,35,18,10,24		1,56,14,35,36	
		1,52,44,32,21, 5, 3,47		8,15
40″	26,30, 2,50,48, 2,56,23,14,11		1,56,14,43,51	
		1,52,44,30,24,50,19,56		8,15
42″	26,30, 4,43,32,33,21,13,34, 7		1,56,14,52, 6	
		1,52,44,28,28,35,27,50		8,15
44″	26,30, 6,36,17, 1,49,49, 1,57		1,56,15, 0,21	
		1,52,44,26,32,20,27,29		8,15
46″	26,30, 8,29, 1,28,22, 9,29,26		1,56,15, 8,36	
		1,52,44,24,36, 5,18,53		8,15
48″	26,30,10,21,45,52,58,14,48,19		1,56,15,16,51	
		1,52,44,22,39,50, 2, 2		8,15
50″	26,30,12,14,30,15,38, 4,50,21		1,56,15,25, 6	
		1,52,44,20,43,34,36,56		8,15
52″	26,30,14, 7,14,36,21,39,27,17		1,56,15,33,21	
		1,52,44,18,47,19, 3,35		8,15
54″	26,30,15,59,58,55, 8,58,30,52		1,56,15,41,36	
		1,52,44,16,51, 3,21,59		8,15
56″	26,30,17,52,43,12, 0, 1,52,51		1,56,15,49,51	
		1,52,44,14,54,47,32, 8		8,15
58″	26,30,19,45,27,26,54,49,24,59		1,56,15,58, 6	
		1,52,44,12,58,31,34, 2		
60″	26,30,21,38,11,39,53,20,59, 1			
exact	26,30,21,38,11,39,53,21,27,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°13′ 0″	26,30,21,38,11,39,53,21,27,17			
		1,52,44,11, 2,15,30,48		
2″	26,30,23,30,55,50,55,36,58, 5		1,56,16,14,23	
		1,52,44, 9, 5,59,16,25		8,15
4″	26,30,25,23,40, 0, 1,36,14,30		1,56,16,22,38	
		1,52,44, 7, 9,42,53,47		8,15
6″	26,30,27,16,24, 7,11,19, 8,17		1,56,16,30,53	
		1,52,44, 5,13,26,22,54		8,15
8″	26,30,29, 9, 8,12,24,45,31,11		1,56,16,39, 8	
		1,52,44, 3,17, 9,43,46		8,15
10″	26,30,31, 1,52,15,41,55,14,57		1,56,16,47,23	
		1,52,44, 1,20,52,56,23		8,15
12″	26,30,32,54,36,17, 2,48,11,20		1,56,16,55,38	
		1,52,43,59,24,36, 0,45		8,15
14″	26,30,34,47,20,16,27,24,12, 5		1,56,17, 3,53	
		1,52,43,57,28,18,56,52		8,15
16″	26,30,36,40, 4,13,55,43, 8,57		1,56,17,12, 8	
		1,52,43,55,32, 1,44,44		8,15
18″	26,30,38,32,48, 9,27,44,53,41		1,56,17,20,23	
		1,52,43,53,35,44,24,21		8,15
20″	26,30,40,25,32, 3, 3,29,18, 2		1,56,17,28,38	
		1,52,43,51,39,26,55,43		8,15
22″	26,30,42,18,15,54,42,56,13,45		1,56,17,36,53	
		1,52,43,49,43, 9,18,50		8,15
24″	26,30,44,10,59,44,26, 5,32,35		1,56,17,45, 8	
		1,52,43,47,46,51,33,42		8,15
26″	26,30,46, 3,43,32,12,57, 6,17		1,56,17,53,23	
		1,52,43,45,50,33,40,19		8,15
28″	26,30,47,56,27,18, 3,30,46,36		1,56,18, 1,38	
		1,52,43,43,54,15,38,41		8,15
30″	26,30,49,49,11, 1,57,46,25,17		1,56,18, 9,53	
		1,52,43,41,57,57,28,48		8,15
32″	26,30,51,41,54,43,55,43,54, 5		1,56,18,18, 8	
		1,52,43,40, 1,39,10,40		8,15
34″	26,30,53,34,38,23,57,23, 4,45		1,56,18,26,23	
		1,52,43,38, 5,20,44,17		8,15
36″	26,30,55,27,22, 2, 2,43,49, 2		1,56,18,34,38	
		1,52,43,36, 9, 2, 9,39		8,15
38″	26,30,57,20, 5,38,11,45,58,41		1,56,18,42,53	
		1,52,43,34,12,43,26,46		8,15
40″	26,30,59,12,49,12,24,29,25,27		1,56,18,51, 8	
		1,52,43,32,16,24,35,38		8,15
42″	26,31, 1, 5,32,44,40,54, 1, 5		1,56,18,59,23	
		1,52,43,30,20, 5,36,15		8,15
44″	26,31, 2,58,16,15, 0,59,37,20		1,56,19, 7,38	
		1,52,43,28,23,46,28,37		8,15
46″	26,31, 4,50,59,43,24,46, 5,57		1,56,19,15,53	
		1,52,43,26,27,27,12,44		8,15
48″	26,31, 6,43,43, 9,52,13,18,41		1,56,19,24, 8	
		1,52,43,24,31, 7,48,36		8,15
50″	26,31, 8,36,26,34,23,21, 7,17		1,56,19,32,23	
		1,52,43,22,34,48,16,13		8,15
52″	26,31,10,29, 9,56,58, 9,23,30		1,56,19,40,38	
		1,52,43,20,38,28,35,35		8,15
54″	26,31,12,21,53,17,36,37,59, 5		1,56,19,48,53	
		1,52,43,18,42, 8,46,42		8,15
56″	26,31,14,14,36,36,18,46,45,47		1,56,19,57, 8	
		1,52,43,16,45,48,49,34		8,15
58″	26,31,16, 7,19,53, 4,35,35,21		1,56,20, 5,23	
		1,52,43,14,49,28,44,11		
60″	26,31,18, 0, 3, 7,54, 4,19,32			
exact	26,31,18, 0, 3, 7,54, 4,56, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°14′ 0″	26,31,18, 0, 3, 7,54, 4,56, 0			
		1,52,43,12,53, 8,34,24		
2″	26,31,19,52,46,20,47,13,30,24		1,56,20,21,37	
		1,52,43,10,56,48,12,47		8,14
4″	26,31,21,45,29,31,44, 1,43,11		1,56,20,29,51	
		1,52,43, 9, 0,27,42,56		8,14
6″	26,31,23,38,12,40,44,29,26, 7		1,56,20,38, 5	
		1,52,43, 7, 4, 7, 4,51		8,14
8″	26,31,25,30,55,47,48,36,30,58		1,56,20,46,19	
		1,52,43, 5, 7,46,18,32		8,14
10″	26,31,27,23,38,52,56,22,49,30		1,56,20,54,33	
		1,52,43, 3,11,25,23,59		8,14
12″	26,31,29,16,21,56, 7,48,13,29		1,56,21, 2,47	
		1,52,43, 1,15, 4,21,12		8,14
14″	26,31,31, 9, 4,57,22,52,34,41		1,56,21,11, 1	
		1,52,42,59,18,43,10,11		8,14
16″	26,31,33, 1,47,56,41,35,44,52		1,56,21,19,15	
		1,52,42,57,22,21,50,56		8,14
18″	26,31,34,54,30,54, 3,57,35,48		1,56,21,27,29	
		1,52,42,55,26, 0,23,27		8,14
20″	26,31,36,47,13,49,29,57,59,15		1,56,21,35,43	
		1,52,42,53,29,38,47,44		8,14
22″	26,31,38,39,56,42,59,36,46,59		1,56,21,43,57	
		1,52,42,51,33,17, 3,47		8,14
24″	26,31,40,32,39,34,32,53,50,46		1,56,21,52,11	
		1,52,42,49,36,55,11,36		8,14
26″	26,31,42,25,22,24, 9,49, 2,22		1,56,22, 0,25	
		1,52,42,47,40,33,11,11		8,14
28″	26,31,44,18, 5,11,50,22,13,33		1,56,22, 8,39	
		1,52,42,45,44,11, 2,32		8,14
30″	26,31,46,10,47,57,34,33,16, 5		1,56,22,16,53	
		1,52,42,43,47,48,45,39		8,14
32″	26,31,48, 3,30,41,22,22, 1,44		1,56,22,25, 7	
		1,52,42,41,51,26,20,32		8,14
34″	26,31,49,56,13,23,13,48,22,16		1,56,22,33,21	
		1,52,42,39,55, 3,47,11		8,14
36″	26,31,51,48,56, 3, 8,52, 9,27		1,56,22,41,35	
		1,52,42,37,58,41, 5,36		8,14
38″	26,31,53,41,38,41, 7,33,15, 3		1,56,22,49,49	
		1,52,42,36, 2,18,15,47		8,14
40″	26,31,55,34,21,17, 9,51,30,50		1,56,22,58, 3	
		1,52,42,34, 5,55,17,44		8,14
42″	26,31,57,27, 3,51,15,46,48,34		1,56,23, 6,17	
		1,52,42,32, 9,32,11,27		8,14
44″	26,31,59,19,46,23,25,19, 0, 1		1,56,23,14,31	
		1,52,42,30,13, 8,56,56		8,14
46″	26,32, 1,12,28,53,38,27,56,57		1,56,23,22,45	
		1,52,42,28,16,45,34,11		8,14
48″	26,32, 3, 5,11,21,55,13,31, 8		1,56,23,30,59	
		1,52,42,26,20,22, 3,12		8,14
50″	26,32, 4,57,53,48,15,35,34,20		1,56,23,39,13	
		1,52,42,24,23,58,23,59		8,14
52″	26,32, 6,50,36,12,39,33,58,19		1,56,23,47,27	
		1,52,42,22,27,34,36,32		8,14
54″	26,32, 8,43,18,35, 7, 8,34,51		1,56,23,55,41	
		1,52,42,20,31,10,40,51		8,14
56″	26,32,10,36, 0,55,38,19,15,42		1,56,24, 3,55	
		1,52,42,18,34,46,36,56		8,14
58″	26,32,12,28,43,14,13, 5,52,38		1,56,24,12, 9	
		1,52,42,16,38,22,24,47		
60″	26,32,14,21,25,30,51,28,17,25			
exact	26,32,14,21,25,30,51,27,48,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°15′ 0″	26,32,14,21,25,30,51,27,48,21			
		1,52,42,14,41,58, 1,19		
2″	26,32,16,14, 7,45,33,25,49,40		1,56,24,28,49	
		1,52,42,12,45,33,32,30		8,14
4″	26,32,18, 6,49,58,18,59,22,10		1,56,24,37, 3	
		1,52,42,10,49, 8,55,27		8,14
6″	26,32,19,59,32, 9, 8, 8,17,37		1,56,24,45,17	
		1,52,42, 8,52,44,10,10		8,14
8″	26,32,21,52,14,18, 0,52,27,47		1,56,24,53,31	
		1,52,42, 6,56,19,16,39		8,14
10″	26,32,23,44,56,24,57,11,44,26		1,56,25, 1,45	
		1,52,42, 4,59,54,14,54		8,14
12″	26,32,25,37,38,29,57, 5,59,20		1,56,25, 9,59	
		1,52,42, 3, 3,29, 4,55		8,14
14″	26,32,27,30,20,33, 0,35, 4,15		1,56,25,18,13	
		1,52,42, 1, 7, 3,46,42		8,14
16″	26,32,29,23, 2,34, 7,38,50,57		1,56,25,26,27	
		1,52,41,59,10,38,20,15		8,14
18″	26,32,31,15,44,33,18,17,11,12		1,56,25,34,41	
		1,52,41,57,14,12,45,34		8,14
20″	26,32,33, 8,26,30,32,29,56,46		1,56,25,42,55	
		1,52,41,55,17,47, 2,39		8,14
22″	26,32,35, 1, 8,25,50,16,59,25		1,56,25,51, 9	
		1,52,41,53,21,21,11,30		8,14
24″	26,32,36,53,50,19,11,38,10,55		1,56,25,59,23	
		1,52,41,51,24,55,12, 7		8,14
26″	26,32,38,46,32,10,36,33,23, 2		1,56,26, 7,37	
		1,52,41,49,28,29, 4,30		8,14
28″	26,32,40,39,14, 0, 5, 2,27,32		1,56,26,15,51	
		1,52,41,47,32, 2,48,39		8,14
30″	26,32,42,31,55,47,37, 5,16,11		1,56,26,24, 5	
		1,52,41,45,35,36,24,34		8,14
32″	26,32,44,24,37,33,12,41,40,45		1,56,26,32,19	
		1,52,41,43,39, 9,52,15		8,14
34″	26,32,46,17,19,16,51,51,33, 0		1,56,26,40,33	
		1,52,41,41,42,43,11,42		8,14
36″	26,32,48,10, 0,58,34,34,44,42		1,56,26,48,47	
		1,52,41,39,46,16,22,55		8,14
38″	26,32,50, 2,42,38,20,51, 7,37		1,56,26,57, 1	
		1,52,41,37,49,49,25,54		8,14
40″	26,32,51,55,24,16,10,40,33,31		1,56,27, 5,15	
		1,52,41,35,53,22,20,39		8,14
42″	26,32,53,48, 5,52, 4, 2,54,10		1,56,27,13,29	
		1,52,41,33,56,55, 7,10		8,14
44″	26,32,55,40,47,26, 0,58, 1,20		1,56,27,21,43	
		1,52,41,32, 0,27,45,27		8,14
46″	26,32,57,33,28,58, 1,25,46,47		1,56,27,29,57	
		1,52,41,30, 4, 0,15,30		8,14
48″	26,32,59,26,10,28, 5,26, 2,17		1,56,27,38,11	
		1,52,41,28, 7,32,37,19		8,14
50″	26,33, 1,18,51,56,12,58,39,36		1,56,27,46,25	
		1,52,41,26,11, 4,50,54		8,14
52″	26,33, 3,11,33,22,24, 3,30,30		1,56,27,54,39	
		1,52,41,24,14,36,56,15		8,14
54″	26,33, 5, 4,14,46,38,40,26,45		1,56,28, 2,53	
		1,52,41,22,18, 8,53,22		8,14
56″	26,33, 6,56,56, 8,56,49,20, 7		1,56,28,11, 7	
		1,52,41,20,21,40,42,15		8,14
58″	26,33, 8,49,37,29,18,30, 2,22		1,56,28,19,21	
		1,52,41,18,25,12,22,54		
60″	26,33,10,42,18,47,43,42,25,16			
exact	26,33,10,42,18,47,43,41,58,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°16′ 0″	26,33,10,42,18,47,43,41,58,53			
		1,52,41,16,28,43,52,37		
2″	26,33,12,35, 0, 4,12,25,51,30		1,56,28,36, 0	
		1,52,41,14,32,15,16,37		8,14
4″	26,33,14,27,41,18,44,41, 8, 7		1,56,28,44,14	
		1,52,41,12,35,46,32,23		8,14
6″	26,33,16,20,22,31,20,27,40,30		1,56,28,52,28	
		1,52,41,10,39,17,39,55		8,14
8″	26,33,18,13, 3,41,59,45,20,25		1,56,29, 0,42	
		1,52,41, 8,42,48,39,13		8,14
10″	26,33,20, 5,44,50,42,33,59,38		1,56,29, 8,56	
		1,52,41, 6,46,19,30,17		8,14
12″	26,33,21,58,25,57,28,53,29,55		1,56,29,17,10	
		1,52,41, 4,49,50,13, 7		8,14
14″	26,33,23,51, 7, 2,18,43,43, 2		1,56,29,25,24	
		1,52,41, 2,53,20,47,43		8,14
16″	26,33,25,43,48, 5,12, 4,30,45		1,56,29,33,38	
		1,52,41, 0,56,51,14, 5		8,14
18″	26,33,27,36,29, 6, 8,55,44,50		1,56,29,41,52	
		1,52,40,59, 0,21,32,13		8,14
20″	26,33,29,29,10, 5, 9,17,17, 3		1,56,29,50, 6	
		1,52,40,57, 3,51,42, 7		8,14
22″	26,33,31,21,51, 2,13, 8,59,10		1,56,29,58,20	
		1,52,40,55, 7,21,43,47		8,14
24″	26,33,33,14,31,57,20,30,42,57		1,56,30, 6,34	
		1,52,40,53,10,51,37,13		8,14
26″	26,33,35, 7,12,50,31,22,20,10		1,56,30,14,48	
		1,52,40,51,14,21,22,25		8,14
28″	26,33,36,59,53,41,45,43,42,35		1,56,30,23, 2	
		1,52,40,49,17,50,59,23		8,14
30″	26,33,38,52,34,31, 3,34,41,58		1,56,30,31,16	
		1,52,40,47,21,20,28, 7		8,14
32″	26,33,40,45,15,18,24,55,10, 5		1,56,30,39,30	
		1,52,40,45,24,49,48,37		8,14
34″	26,33,42,37,56, 3,49,44,58,42		1,56,30,47,44	
		1,52,40,43,28,19, 0,53		8,14
36″	26,33,44,30,36,47,18, 3,59,35		1,56,30,55,58	
		1,52,40,41,31,48, 4,55		8,14
38″	26,33,46,23,17,28,49,52, 4,30		1,56,31, 4,12	
		1,52,40,39,35,17, 0,43		8,14
40″	26,33,48,15,58, 8,25, 9, 5,13		1,56,31,12,26	
		1,52,40,37,38,45,48,17		8,14
42″	26,33,50, 8,38,46, 3,54,53,30		1,56,31,20,40	
		1,52,40,35,42,14,27,37		8,14
44″	26,33,52, 1,19,21,46, 9,21, 7		1,56,31,28,54	
		1,52,40,33,45,42,58,43		8,14
46″	26,33,53,53,59,55,31,52,19,50		1,56,31,37, 8	
		1,52,40,31,49,11,21,35		8,14
48″	26,33,55,46,40,27,21, 3,41,25		1,56,31,45,22	
		1,52,40,29,52,39,36,13		8,14
50″	26,33,57,39,20,57,13,43,17,38		1,56,31,53,36	
		1,52,40,27,56, 7,42,37		8,14
52″	26,33,59,32, 1,25, 9,51, 0,15		1,56,32, 1,50	
		1,52,40,25,59,35,40,47		8,14
54″	26,34, 1,24,41,51, 9,26,41, 2		1,56,32,10, 4	
		1,52,40,24, 3, 3,30,43		8,14
56″	26,34, 3,17,22,15,12,30,11,45		1,56,32,18,18	
		1,52,40,22, 6,31,12,25		8,14
58″	26,34, 5,10, 2,37,19, 1,24,10		1,56,32,26,32	
		1,52,40,20, 9,58,45,53		
60″	26,34, 7, 2,42,57,29, 0,10, 3			
exact	26,34, 7, 2,42,57,28,59,54, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°17′ 0″	26,34, 7, 2,42,57,28,59,54, 5			
		1,52,40,18,13,26, 9,20		
2″	26,34, 8,55,23,15,42,26, 3,25		1,56,32,43, 8	
		1,52,40,16,16,53,26,12		8,14
4″	26,34,10,48, 3,31,59,19,29,37		1,56,32,51,22	
		1,52,40,14,20,20,34,50		8,14
6″	26,34,12,40,43,46,19,40, 4,27		1,56,32,59,36	
		1,52,40,12,23,47,35,14		8,14
8″	26,34,14,33,23,58,43,27,39,41		1,56,33, 7,50	
		1,52,40,10,27,14,27,24		8,14
10″	26,34,16,26, 4, 9,10,42, 7, 5		1,56,33,16, 4	
		1,52,40, 8,30,41,11,20		8,14
12″	26,34,18,18,44,17,41,23,18,25		1,56,33,24,18	
		1,52,40, 6,34, 7,47, 2		8,14
14″	26,34,20,11,24,24,15,31, 5,27		1,56,33,32,32	
		1,52,40, 4,37,34,14,30		8,14
16″	26,34,22, 4, 4,28,53, 5,19,57		1,56,33,40,46	
		1,52,40, 2,41, 0,33,44		8,14
18″	26,34,23,56,44,31,34, 5,53,41		1,56,33,49, 0	
		1,52,40, 0,44,26,44,44		8,14
20″	26,34,25,49,24,32,18,32,38,25		1,56,33,57,14	
		1,52,39,58,47,52,47,30		8,14
22″	26,34,27,42, 4,31, 6,25,25,55		1,56,34, 5,28	
		1,52,39,56,51,18,42, 2		8,14
24″	26,34,29,34,44,27,57,44, 7,57		1,56,34,13,42	
		1,52,39,54,54,44,28,20		8,14
26″	26,34,31,27,24,22,52,28,36,17		1,56,34,21,56	
		1,52,39,52,58,10, 6,24		8,14
28″	26,34,33,20, 4,15,50,38,42,41		1,56,34,30,10	
		1,52,39,51, 1,35,36,14		8,14
30″	26,34,35,12,44, 6,52,14,18,55		1,56,34,38,24	
		1,52,39,49, 5, 0,57,50		8,14
32″	26,34,37, 5,23,55,57,15,16,45		1,56,34,46,38	
		1,52,39,47, 8,26,11,12		8,14
34″	26,34,38,58, 3,43, 5,41,27,57		1,56,34,54,52	
		1,52,39,45,11,51,16,20		8,14
36″	26,34,40,50,43,28,17,32,44,17		1,56,35, 3, 6	
		1,52,39,43,15,16,13,14		8,14
38″	26,34,42,43,23,11,32,48,57,31		1,56,35,11,20	
		1,52,39,41,18,41, 1,54		8,14
40″	26,34,44,36, 2,52,51,29,59,25		1,56,35,19,34	
		1,52,39,39,22, 5,42,20		8,14
42″	26,34,46,28,42,32,13,35,41,45		1,56,35,27,48	
		1,52,39,37,25,30,14,32		8,14
44″	26,34,48,21,22, 9,39, 5,56,17		1,56,35,36, 2	
		1,52,39,35,28,54,38,30		8,14
46″	26,34,50,14, 1,45, 8, 0,34,47		1,56,35,44,16	
		1,52,39,33,32,18,54,14		8,14
48″	26,34,52, 6,41,18,40,19,29, 1		1,56,35,52,30	
		1,52,39,31,35,43, 1,44		8,14
50″	26,34,53,59,20,50,16, 2,30,45		1,56,36, 0,44	
		1,52,39,29,39, 7, 1, 0		8,14
52″	26,34,55,52, 0,19,55, 9,31,45		1,56,36, 8,58	
		1,52,39,27,42,30,52, 2		8,14
54″	26,34,57,44,39,47,37,40,23,47		1,56,36,17,12	
		1,52,39,25,45,54,34,50		8,14
56″	26,34,59,37,19,13,23,34,58,37		1,56,36,25,26	
		1,52,39,23,49,18, 9,24		8,14
58″	26,35, 1,29,58,37,12,53, 8, 1		1,56,36,33,40	
		1,52,39,21,52,41,35,44		
60″	26,35, 3,22,37,59, 5,34,43,45			
exact	26,35, 3,22,37,59, 5,34,32,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°18′ 0″	26,35, 3,22,37,59, 5,34,32,24			
		1,52,39,19,56, 4,52,33		
2″	26,35, 5,15,17,19, 1,39,24,57		1,56,36,50,13	
		1,52,39,17,59,28, 2,20		8,14
4″	26,35, 7, 7,56,37, 1, 7,27,17		1,56,36,58,27	
		1,52,39,16, 2,51, 3,53		8,14
6″	26,35, 9, 0,35,53, 3,58,31,10		1,56,37, 6,41	
		1,52,39,14, 6,13,57,12		8,14
8″	26,35,10,53,15, 7,10,12,28,22		1,56,37,14,55	
		1,52,39,12, 9,36,42,17		8,14
10″	26,35,12,45,54,19,19,49,10,39		1,56,37,23, 9	
		1,52,39,10,12,59,19, 8		8,14
12″	26,35,14,38,33,29,32,48,29,47		1,56,37,31,23	
		1,52,39, 8,16,21,47,45		8,14
14″	26,35,16,31,12,37,49,10,17,32		1,56,37,39,37	
		1,52,39, 6,19,44, 8, 8		8,14
16″	26,35,18,23,51,44, 8,54,25,40		1,56,37,47,51	
		1,52,39, 4,23, 6,20,17		8,14
18″	26,35,20,16,30,48,32, 0,45,57		1,56,37,56, 5	
		1,52,39, 2,26,28,24,12		8,14
20″	26,35,22, 9, 9,50,58,29,10, 9		1,56,38, 4,19	
		1,52,39, 0,29,50,19,53		8,14
22″	26,35,24, 1,48,51,28,19,30, 2		1,56,38,12,33	
		1,52,38,58,33,12, 7,20		8,14
24″	26,35,25,54,27,50, 1,31,37,22		1,56,38,20,47	
		1,52,38,56,36,33,46,33		8,14
26″	26,35,27,47, 6,46,38, 5,23,55		1,56,38,29, 1	
		1,52,38,54,39,55,17,32		8,14
28″	26,35,29,39,45,41,18, 0,41,27		1,56,38,37,15	
		1,52,38,52,43,16,40,17		8,14
30″	26,35,31,32,24,34, 1,17,21,44		1,56,38,45,29	
		1,52,38,50,46,37,54,48		8,14
32″	26,35,33,25, 3,24,47,55,16,32		1,56,38,53,43	
		1,52,38,48,49,59, 1, 5		8,14
34″	26,35,35,17,42,13,37,54,17,37		1,56,39, 1,57	
		1,52,38,46,53,19,59, 8		8,14
36″	26,35,37,10,21, 0,31,14,16,45		1,56,39,10,11	
		1,52,38,44,56,40,48,57		8,14
38″	26,35,39, 2,59,45,27,55, 5,42		1,56,39,18,25	
		1,52,38,43, 0, 1,30,32		8,14
40″	26,35,40,55,38,28,27,56,36,14		1,56,39,26,39	
		1,52,38,41, 3,22, 3,53		8,14
42″	26,35,42,48,17, 9,31,18,40, 7		1,56,39,34,53	
		1,52,38,39, 6,42,29, 0		8,14
44″	26,35,44,40,55,48,38, 1, 9, 7		1,56,39,43, 7	
		1,52,38,37,10, 2,45,53		8,14
46″	26,35,46,33,34,25,48, 3,55, 0		1,56,39,51,21	
		1,52,38,35,13,22,54,32		8,14
48″	26,35,48,26,13, 1, 1,26,49,32		1,56,39,59,35	
		1,52,38,33,16,42,54,57		8,14
50″	26,35,50,18,51,34,18, 9,44,29		1,56,40, 7,49	
		1,52,38,31,20, 2,47, 8		8,14
52″	26,35,52,11,30, 5,38,12,31,37		1,56,40,16, 3	
		1,52,38,29,23,22,31, 5		8,14
54″	26,35,54, 4, 8,35, 1,35, 2,42		1,56,40,24,17	
		1,52,38,27,26,42, 6,48		8,14
56″	26,35,55,56,47, 2,28,17, 9,30		1,56,40,32,31	
		1,52,38,25,30, 1,34,17		8,14
58″	26,35,57,49,25,27,58,18,43,47		1,56,40,40,45	
		1,52,38,23,33,20,53,32		
60″	26,35,59,42, 3,51,31,39,37,19			
exact	26,35,59,42, 3,51,31,39,24,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°19′ 0″	26,35,59,42, 3,51,31,39,24,11	1,52,38,21,36,40, 3,19		
2″	26,36, 1,34,42,13, 8,19,27,30	1,52,38,19,39,59, 6, 2	1,56,40,57,17	
4″	26,36, 3,27,20,32,48,18,33,32	1,52,38,17,43,18, 0,31	1,56,41, 5,31	8,14
6″	26,36, 5,19,58,50,31,36,34, 3	1,52,38,15,46,36,46,46	1,56,41,13,45	8,14
8″	26,36, 7,12,37, 6,18,13,20,49	1,52,38,13,49,55,24,47	1,56,41,21,59	8,14
10″	26,36, 9, 5,15,20, 8, 8,45,36	1,52,38,11,53,13,54,34	1,56,41,30,13	8,14
12″	26,36,10,57,53,32, 1,22,40,10	1,52,38, 9,56,32,16, 7	1,56,41,38,27	8,14
14″	26,36,12,50,31,41,57,54,56,17	1,52,38, 7,59,50,29,26	1,56,41,46,41	8,14
16″	26,36,14,43, 9,49,57,45,25,43	1,52,38, 6, 3, 8,34,31	1,56,41,54,55	8,14
18″	26,36,16,35,47,56, 0,54, 0,14	1,52,38, 4, 6,26,31,22	1,56,42, 3, 9	8,14
20″	26,36,18,28,26, 0, 7,20,31,36	1,52,38, 2, 9,44,19,59	1,56,42,11,23	8,14
22″	26,36,20,21, 4, 2,17, 4,51,35	1,52,38, 0,13, 2, 0,22	1,56,42,19,37	8,14
24″	26,36,22,13,42, 2,30, 6,51,57	1,52,37,58,16,19,32,31	1,56,42,27,51	8,14
26″	26,36,24, 6,20, 0,46,26,24,28	1,52,37,56,19,36,56,26	1,56,42,36, 5	8,14
28″	26,36,25,58,57,57, 6, 3,20,54	1,52,37,54,22,54,12, 7	1,56,42,44,19	8,14
30″	26,36,27,51,35,51,28,57,33, 1	1,52,37,52,26,11,19,34	1,56,42,52,33	8,14
32″	26,36,29,44,13,43,55, 8,52,35	1,52,37,50,29,28,18,47	1,56,43, 0,47	8,14
34″	26,36,31,36,51,34,24,37,11,22	1,52,37,48,32,45, 9,46	1,56,43, 9, 1	8,14
36″	26,36,33,29,29,22,57,22,21, 8	1,52,37,46,36, 1,52,31	1,56,43,17,15	8,14
38″	26,36,35,22, 7, 9,33,24,13,39	1,52,37,44,39,18,27, 2	1,56,43,25,29	8,14
40″	26,36,37,14,44,54,12,42,40,41	1,52,37,42,42,34,53,19	1,56,43,33,43	8,14
42″	26,36,39, 7,22,36,55,17,34, 0	1,52,37,40,45,51,11,22	1,56,43,41,57	8,14
44″	26,36,41, 0, 0,17,41, 8,45,22	1,52,37,38,49, 7,21,11	1,56,43,50,11	8,14
46″	26,36,42,52,37,56,30,16, 6,33	1,52,37,36,52,23,22,46	1,56,43,58,25	8,14
48″	26,36,44,45,15,33,22,39,29,19	1,52,37,34,55,39,16, 7	1,56,44, 6,39	8,14
50″	26,36,46,37,53, 8,18,18,45,26	1,52,37,32,58,55, 1,14	1,56,44,14,53	8,14
52″	26,36,48,30,30,41,17,13,46,40	1,52,37,31, 2,10,38, 7	1,56,44,23, 7	8,14
54″	26,36,50,23, 8,12,19,24,24,47	1,52,37,29, 5,26, 6,46	1,56,44,31,21	8,14
56″	26,36,52,15,45,41,24,50,31,33	1,52,37,27, 8,41,27,11	1,56,44,39,35	8,14
58″	26,36,54, 8,23, 8,33,31,58,44	1,52,37,25,11,56,39,22	1,56,44,47,49	
60″	26,36,56, 1, 0,33,45,28,38, 6			
exact	26,36,56, 1, 0,33,45,28,31,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°20′ 0″	26,36,56, 1, 0,33,45,28,31,46			
		1,52,37,23,15,11,42,44		
2″	26,36,57,53,37,57, 0,40,14,30		1,56,45, 4,19	
		1,52,37,21,18,26,38,25		8,14
4″	26,36,59,46,15,18,19, 6,52,55		1,56,45,12,33	
		1,52,37,19,21,41,25,52		8,14
6″	26,37, 1,38,52,37,40,48,18,47		1,56,45,20,47	
		1,52,37,17,24,56, 5, 5		8,14
8″	26,37, 3,31,29,55, 5,44,23,52		1,56,45,29, 1	
		1,52,37,15,28,10,36, 4		8,14
10″	26,37, 5,24, 7,10,33,54,59,56		1,56,45,37,15	
		1,52,37,13,31,24,58,49		8,14
12″	26,37, 7,16,44,24, 5,19,58,45		1,56,45,45,29	
		1,52,37,11,34,39,13,20		8,14
14″	26,37, 9, 9,21,35,39,59,12, 5		1,56,45,53,43	
		1,52,37, 9,37,53,19,37		8,14
16″	26,37,11, 1,58,45,17,52,31,42		1,56,46, 1,57	
		1,52,37, 7,41, 7,17,40		8,14
18″	26,37,12,54,35,52,58,59,49,22		1,56,46,10,11	
		1,52,37, 5,44,21, 7,29		8,14
20″	26,37,14,47,12,58,43,20,56,51		1,56,46,18,25	
		1,52,37, 3,47,34,49, 4		8,14
22″	26,37,16,39,50, 2,30,55,45,55		1,56,46,26,39	
		1,52,37, 1,50,48,22,25		8,14
24″	26,37,18,32,27, 4,21,44, 8,20		1,56,46,34,53	
		1,52,36,59,54, 1,47,32		8,14
26″	26,37,20,25, 4, 4,15,45,55,52		1,56,46,43, 7	
		1,52,36,57,57,15, 4,25		8,14
28″	26,37,22,17,41, 2,13, 1, 0,17		1,56,46,51,21	
		1,52,36,56, 0,28,13, 4		8,14
30″	26,37,24,10,17,58,13,29,13,21		1,56,46,59,35	
		1,52,36,54, 3,41,13,29		8,14
32″	26,37,26, 2,54,52,17,10,26,50		1,56,47, 7,49	
		1,52,36,52, 6,54, 5,40		8,14
34″	26,37,27,55,31,44,24, 4,32,30		1,56,47,16, 3	
		1,52,36,50,10, 6,49,37		8,14
36″	26,37,29,48, 8,34,34,11,22, 7		1,56,47,24,17	
		1,52,36,48,13,19,25,20		8,14
38″	26,37,31,40,45,22,47,30,47,27		1,56,47,32,31	
		1,52,36,46,16,31,52,49		8,14
40″	26,37,33,33,22, 9, 4, 2,40,16		1,56,47,40,45	
		1,52,36,44,19,44,12, 4		8,14
42″	26,37,35,25,58,53,23,46,52,20		1,56,47,48,59	
		1,52,36,42,22,56,23, 5		8,14
44″	26,37,37,18,35,35,46,43,15,25		1,56,47,57,13	
		1,52,36,40,26, 8,25,52		8,14
46″	26,37,39,11,12,16,12,51,41,17		1,56,48, 5,27	
		1,52,36,38,29,20,20,25		8,14
48″	26,37,41, 3,48,54,42,12, 1,42		1,56,48,13,41	
		1,52,36,36,32,32, 6,44		8,14
50″	26,37,42,56,25,31,14,44, 8,26		1,56,48,21,55	
		1,52,36,34,35,43,44,49		8,14
52″	26,37,44,49, 2, 5,50,27,53,15		1,56,48,30, 9	
		1,52,36,32,38,55,14,40		8,14
54″	26,37,46,41,38,38,29,23, 7,55		1,56,48,38,23	
		1,52,36,30,42, 6,36,17		8,14
56″	26,37,48,34,15, 9,11,29,44,12		1,56,48,46,37	
		1,52,36,28,45,17,49,40		8,14
58″	26,37,50,26,51,37,56,47,33,52		1,56,48,54,51	
		1,52,36,26,48,28,54,49		
60″	26,37,52,19,28, 4,45,16,28,41			
exact	26,37,52,19,28, 4,45,16,29,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°21′ 0″	26,37,52,19,28, 4,45,16,29,29			
		1,52,36,24,51,39,51,50		
2″	26,37,54,12, 4,29,36,56,21,19		1,56,49,11,18	
		1,52,36,22,54,50,40,32		8,14
4″	26,37,56, 4,40,52,31,47, 1,51		1,56,49,19,32	
		1,52,36,20,58, 1,21, 0		8,14
6″	26,37,57,57,17,13,29,48,22,51		1,56,49,27,46	
		1,52,36,19, 1,11,53,14		8,14
8″	26,37,59,49,53,32,31, 0,16, 5		1,56,49,36, 0	
		1,52,36,17, 4,22,17,14		8,14
10″	26,38, 1,42,29,49,35,22,33,19		1,56,49,44,14	
		1,52,36,15, 7,32,33, 0		8,14
12″	26,38, 3,35, 6, 4,42,55, 6,19		1,56,49,52,28	
		1,52,36,13,10,42,40,32		8,14
14″	26,38, 5,27,42,17,53,37,46,51		1,56,50, 0,42	
		1,52,36,11,13,52,39,50		8,14
16″	26,38, 7,20,18,29, 7,30,26,41		1,56,50, 8,56	
		1,52,36, 9,17, 2,30,54		8,14
18″	26,38, 9,12,54,38,24,32,57,35		1,56,50,17,10	
		1,52,36, 7,20,12,13,44		8,14
20″	26,38,11, 5,30,45,44,45,11,19		1,56,50,25,24	
		1,52,36, 5,23,21,48,20		8,14
22″	26,38,12,58, 6,51, 8, 6,59,39		1,56,50,33,38	
		1,52,36, 3,26,31,14,42		8,14
24″	26,38,14,50,42,54,34,38,14,21		1,56,50,41,52	
		1,52,36, 1,29,40,32,50		8,14
26″	26,38,16,43,18,56, 4,18,47,11		1,56,50,50, 6	
		1,52,35,59,32,49,42,44		8,14
28″	26,38,18,35,54,55,37, 8,29,55		1,56,50,58,20	
		1,52,35,57,35,58,44,24		8,14
30″	26,38,20,28,30,53,13, 7,14,19		1,56,51, 6,34	
		1,52,35,55,39, 7,37,50		8,14
32″	26,38,22,21, 6,48,52,14,52, 9		1,56,51,14,48	
		1,52,35,53,42,16,23, 2		8,14
34″	26,38,24,13,42,42,34,31,15,11		1,56,51,23, 2	
		1,52,35,51,45,25, 0, 0		8,14
36″	26,38,26, 6,18,34,19,56,15,11		1,56,51,31,16	
		1,52,35,49,48,33,28,44		8,14
38″	26,38,27,58,54,24, 8,29,43,55		1,56,51,39,30	
		1,52,35,47,51,41,49,14		8,14
40″	26,38,29,51,30,12, 0,11,33, 9		1,56,51,47,44	
		1,52,35,45,54,50, 1,30		8,14
42″	26,38,31,44, 5,57,55, 1,34,39		1,56,51,55,58	
		1,52,35,43,57,58, 5,32		8,14
44″	26,38,33,36,41,41,52,59,40,11		1,56,52, 4,12	
		1,52,35,42, 1, 6, 1,20		8,14
46″	26,38,35,29,17,23,54, 5,41,31		1,56,52,12,26	
		1,52,35,40, 4,13,48,54		8,14
48″	26,38,37,21,53, 3,58,19,30,25		1,56,52,20,40	
		1,52,35,38, 7,21,28,14		8,14
50″	26,38,39,14,28,42, 5,40,58,39		1,56,52,28,54	
		1,52,35,36,10,28,59,20		8,14
52″	26,38,41, 7, 4,18,16, 9,57,59		1,56,52,37, 8	
		1,52,35,34,13,36,22,12		8,14
54″	26,38,42,59,39,52,29,46,20,11		1,56,52,45,22	
		1,52,35,32,16,43,36,50		8,14
56″	26,38,44,52,15,24,46,29,57, 1		1,56,52,53,36	
		1,52,35,30,19,50,43,14		8,14
58″	26,38,46,44,50,55, 6,20,40,15		1,56,53, 1,50	
		1,52,35,28,22,57,41,24		
60″	26,38,48,37,26,23,29,18,21,39			
exact	26,38,48,37,26,23,29,18,23,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°22′ 0″	26,38,48,37,26,23,29,18,23,41			
		1,52,35,26,26, 4,31,42		
2″	26,38,50,30, 1,49,55,22,55,23		1,56,53,18,16	
		1,52,35,24,29,11,13,26		8,14
4″	26,38,52,22,37,14,24,34, 8,49		1,56,53,26,30	
		1,52,35,22,32,17,46,56		8,14
6″	26,38,54,15,12,36,56,51,55,45		1,56,53,34,44	
		1,52,35,20,35,24,12,12		8,14
8″	26,38,56, 7,47,57,32,16, 7,57		1,56,53,42,58	
		1,52,35,18,38,30,29,14		8,14
10″	26,38,58, 0,23,16,10,46,37,11		1,56,53,51,12	
		1,52,35,16,41,36,38, 2		8,14
12″	26,38,59,52,58,32,52,23,15,13		1,56,53,59,26	
		1,52,35,14,44,42,38,36		8,14
14″	26,39, 1,45,33,47,37, 5,53,49		1,56,54, 7,40	
		1,52,35,12,47,48,30,56		8,14
16″	26,39, 3,38, 9, 0,24,54,24,45		1,56,54,15,54	
		1,52,35,10,50,54,15, 2		8,14
18″	26,39, 5,30,44,11,15,48,39,47		1,56,54,24, 8	
		1,52,35, 8,53,59,50,54		8,14
20″	26,39, 7,23,19,20, 9,48,30,41		1,56,54,32,22	
		1,52,35, 6,57, 5,18,32		8,14
22″	26,39, 9,15,54,27, 6,53,49,13		1,56,54,40,36	
		1,52,35, 5, 0,10,37,56		8,14
24″	26,39,11, 8,29,32, 7, 4,27, 9		1,56,54,48,50	
		1,52,35, 3, 3,15,49, 6		8,14
26″	26,39,13, 1, 4,35,10,20,16,15		1,56,54,57, 4	
		1,52,35, 1, 6,20,52, 2		8,14
28″	26,39,14,53,39,36,16,41, 8,17		1,56,55, 5,18	
		1,52,34,59, 9,25,46,44		8,14
30″	26,39,16,46,14,35,26, 6,55, 1		1,56,55,13,32	
		1,52,34,57,12,30,33,12		8,14
32″	26,39,18,38,49,32,38,37,28,13		1,56,55,21,46	
		1,52,34,55,15,35,11,26		8,14
34″	26,39,20,31,24,27,54,12,39,39		1,56,55,30, 0	
		1,52,34,53,18,39,41,26		8,14
36″	26,39,22,23,59,21,12,52,21, 5		1,56,55,38,14	
		1,52,34,51,21,44, 3,12		8,14
38″	26,39,24,16,34,12,34,36,24,17		1,56,55,46,28	
		1,52,34,49,24,48,16,44		8,14
40″	26,39,26, 9, 9, 1,59,24,41, 1		1,56,55,54,42	
		1,52,34,47,27,52,22, 2		8,14
42″	26,39,28, 1,43,49,27,17, 3, 3		1,56,56, 2,56	
		1,52,34,45,30,56,19, 6		8,14
44″	26,39,29,54,18,34,58,13,22, 9		1,56,56,11,10	
		1,52,34,43,34, 0, 7,56		8,14
46″	26,39,31,46,53,18,32,13,30, 5		1,56,56,19,24	
		1,52,34,41,37, 3,48,32		8,14
48″	26,39,33,39,28, 0, 9,17,18,37		1,56,56,27,38	
		1,52,34,39,40, 7,20,54		8,14
50″	26,39,35,32, 2,39,49,24,39,31		1,56,56,35,52	
		1,52,34,37,43,10,45, 2		8,14
52″	26,39,37,24,37,17,32,35,24,33		1,56,56,44, 6	
		1,52,34,35,46,14, 0,56		8,14
54″	26,39,39,17,11,53,18,49,25,29		1,56,56,52,20	
		1,52,34,33,49,17, 8,36		8,14
56″	26,39,41, 9,46,27, 8, 6,34, 5		1,56,57, 0,34	
		1,52,34,31,52,20, 8, 2		8,14
58″	26,39,43, 2,20,59, 0,26,42, 7		1,56,57, 8,48	
		1,52,34,29,55,22,59,14		
60″	26,39,44,54,55,28,55,49,41,21			
exact	26,39,44,54,55,28,55,49,52,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°23′ 0″	26,39,44,54,55,28,55,49,52,42			
		1,52,34,27,58,25,43,24		
2″	26,39,46,47,29,56,54,15,36, 6		1,56,57,25,11	
		1,52,34,26, 1,28,18,13		8,14
4″	26,39,48,40, 4,22,55,43,54,19		1,56,57,33,25	
		1,52,34,24, 4,30,44,48		8,14
6″	26,39,50,32,38,47, 0,14,39, 7		1,56,57,41,39	
		1,52,34,22, 7,33, 3, 9		8,14
8″	26,39,52,25,13, 9, 7,47,42,16		1,56,57,49,53	
		1,52,34,20,10,35,13,16		8,14
10″	26,39,54,17,47,29,18,22,55,32		1,56,57,58, 7	
		1,52,34,18,13,37,15, 9		8,14
12″	26,39,56,10,21,47,32, 0,10,41		1,56,58, 6,21	
		1,52,34,16,16,39, 8,48		8,14
14″	26,39,58, 2,56, 3,48,39,19,29		1,56,58,14,35	
		1,52,34,14,19,40,54,13		8,14
16″	26,39,59,55,30,18, 8,20,13,42		1,56,58,22,49	
		1,52,34,12,22,42,31,24		8,14
18″	26,40, 1,48, 4,30,31, 2,45, 6		1,56,58,31, 3	
		1,52,34,10,25,44, 0,21		8,14
20″	26,40, 3,40,38,40,56,46,45,27		1,56,58,39,17	
		1,52,34, 8,28,45,21, 4		8,14
22″	26,40, 5,33,12,49,25,32, 6,31		1,56,58,47,31	
		1,52,34, 6,31,46,33,33		8,14
24″	26,40, 7,25,46,55,57,18,40, 4		1,56,58,55,45	
		1,52,34, 4,34,47,37,48		8,14
26″	26,40, 9,18,21, 0,32, 6,17,52		1,56,59, 3,59	
		1,52,34, 2,37,48,33,49		8,14
28″	26,40,11,10,55, 3, 9,54,51,41		1,56,59,12,13	
		1,52,34, 0,40,49,21,36		8,14
30″	26,40,13, 3,29, 3,50,44,13,17		1,56,59,20,27	
		1,52,33,58,43,50, 1, 9		8,14
32″	26,40,14,56, 3, 2,34,34,14,26		1,56,59,28,41	
		1,52,33,56,46,50,32,28		8,14
34″	26,40,16,48,36,59,21,24,46,54		1,56,59,36,55	
		1,52,33,54,49,50,55,33		8,14
36″	26,40,18,41,10,54,11,15,42,27		1,56,59,45, 9	
		1,52,33,52,52,51,10,24		8,14
38″	26,40,20,33,44,47, 4, 6,52,51		1,56,59,53,23	
		1,52,33,50,55,51,17, 1		8,14
40″	26,40,22,26,18,37,59,58, 9,52		1,57, 0, 1,37	
		1,52,33,48,58,51,15,24		8,14
42″	26,40,24,18,52,26,58,49,25,16		1,57, 0, 9,51	
		1,52,33,47, 1,51, 5,33		8,14
44″	26,40,26,11,26,14, 0,40,30,49		1,57, 0,18, 5	
		1,52,33,45, 4,50,47,28		8,14
46″	26,40,28, 3,59,59, 5,31,18,17		1,57, 0,26,19	
		1,52,33,43, 7,50,21, 9		8,14
48″	26,40,29,56,33,42,13,21,39,26		1,57, 0,34,33	
		1,52,33,41,10,49,46,36		8,14
50″	26,40,31,49, 7,23,24,11,26, 2		1,57, 0,42,47	
		1,52,33,39,13,49, 3,49		8,14
52″	26,40,33,41,41, 2,38, 0,29,51		1,57, 0,51, 1	
		1,52,33,37,16,48,12,48		8,14
54″	26,40,35,34,14,39,54,48,42,39		1,57, 0,59,15	
		1,52,33,35,19,47,13,33		8,14
56″	26,40,37,26,48,15,14,35,56,12		1,57, 1, 7,29	
		1,52,33,33,22,46, 6, 4		8,14
58″	26,40,39,19,21,48,37,22, 2,16		1,57, 1,15,43	
		1,52,33,31,25,44,50,21		
60″	26,40,41,11,55,20, 3, 6,52,37			
exact	26,40,41,11,55,20, 3, 7, 6,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°24′ 0″	26,40,41,11,55,20, 3, 7, 6,58			
		1,52,33,29,28,43,27,59		
2″	26,40,43, 4,28,49,31,50,34,57		1,57, 1,32, 4	
		1,52,33,27,31,41,55,55		8,14
4″	26,40,44,57, 2,17, 3,32,30,52		1,57, 1,40,18	
		1,52,33,25,34,40,15,37		8,14
6″	26,40,46,49,35,42,38,12,46,29		1,57, 1,48,32	
		1,52,33,23,37,38,27, 5		8,14
8″	26,40,48,42, 9, 6,15,51,13,34		1,57, 1,56,46	
		1,52,33,21,40,36,30,19		8,14
10″	26,40,50,34,42,27,56,27,43,53		1,57, 2, 5, 0	
		1,52,33,19,43,34,25,19		8,14
12″	26,40,52,27,15,47,40, 2, 9,12		1,57, 2,13,14	
		1,52,33,17,46,32,12, 5		8,14
14″	26,40,54,19,49, 5,26,34,21,17		1,57, 2,21,28	
		1,52,33,15,49,29,50,37		8,14
16″	26,40,56,12,22,21,16, 4,11,54		1,57, 2,29,42	
		1,52,33,13,52,27,20,55		8,14
18″	26,40,58, 4,55,35, 8,31,32,49		1,57, 2,37,56	
		1,52,33,11,55,24,42,59		8,14
20″	26,40,59,57,28,47, 3,56,15,48		1,57, 2,46,10	
		1,52,33, 9,58,21,56,49		8,14
22″	26,41, 1,50, 1,57, 2,18,12,37		1,57, 2,54,24	
		1,52,33, 8, 1,19, 2,25		8,14
24″	26,41, 3,42,35, 5, 3,37,15, 2		1,57, 3, 2,38	
		1,52,33, 6, 4,15,59,47		8,14
26″	26,41, 5,35, 8,11, 7,53,14,49		1,57, 3,10,52	
		1,52,33, 4, 7,12,48,55		8,14
28″	26,41, 7,27,41,15,15, 6, 3,44		1,57, 3,19, 6	
		1,52,33, 2,10, 9,29,49		8,14
30″	26,41, 9,20,14,17,25,15,33,33		1,57, 3,27,20	
		1,52,33, 0,13, 6, 2,29		8,14
32″	26,41,11,12,47,17,38,21,36, 2		1,57, 3,35,34	
		1,52,32,58,16, 2,26,55		8,14
34″	26,41,13, 5,20,15,54,24, 2,57		1,57, 3,43,48	
		1,52,32,56,18,58,43, 7		8,14
36″	26,41,14,57,53,12,13,22,46, 4		1,57, 3,52, 2	
		1,52,32,54,21,54,51, 5		8,14
38″	26,41,16,50,26, 6,35,17,37, 9		1,57, 4, 0,16	
		1,52,32,52,24,50,50,49		8,14
40″	26,41,18,42,58,59, 0, 8,27,58		1,57, 4, 8,30	
		1,52,32,50,27,46,42,19		8,14
42″	26,41,20,35,31,49,27,55,10,17		1,57, 4,16,44	
		1,52,32,48,30,42,25,35		8,14
44″	26,41,22,28, 4,37,58,37,35,52		1,57, 4,24,58	
		1,52,32,46,33,38, 0,37		8,14
46″	26,41,24,20,37,24,32,15,36,29		1,57, 4,33,12	
		1,52,32,44,36,33,27,25		8,14
48″	26,41,26,13,10, 9, 8,49, 3,54		1,57, 4,41,26	
		1,52,32,42,39,28,45,59		8,14
50″	26,41,28, 5,42,51,48,17,49,53		1,57, 4,49,40	
		1,52,32,40,42,23,56,19		8,14
52″	26,41,29,58,15,32,30,41,46,12		1,57, 4,57,54	
		1,52,32,38,45,18,58,25		8,14
54″	26,41,31,50,48,11,16, 0,44,37		1,57, 5, 6, 8	
		1,52,32,36,48,13,52,17		8,14
56″	26,41,33,43,20,48, 4,14,36,54		1,57, 5,14,22	
		1,52,32,34,51, 8,37,55		8,14
58″	26,41,35,35,53,22,55,23,14,49		1,57, 5,22,36	
		1,52,32,32,54, 3,15,19		
60″	26,41,37,28,25,55,49,26,30, 8			
exact	26,41,37,28,25,55,49,26,48,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°25′ 0″	26,41,37,28,25,55,49,26,48,56			
		1,52,32,30,56,57,46,33		
2″	26,41,39,20,58,26,46,24,35,29		1,57, 5,38,55	
		1,52,32,28,59,52, 7,38		8,14
4″	26,41,41,13,30,55,46,16,43, 7		1,57, 5,47, 9	
		1,52,32,27, 2,46,20,29		8,14
6″	26,41,43, 6, 3,22,49, 3, 3,36		1,57, 5,55,23	
		1,52,32,25, 5,40,25, 6		8,14
8″	26,41,44,58,35,47,54,43,28,42		1,57, 6, 3,37	
		1,52,32,23, 8,34,21,29		8,14
10″	26,41,46,51, 8,11, 3,17,50,11		1,57, 6,11,51	
		1,52,32,21,11,28, 9,38		8,14
12″	26,41,48,43,40,32,14,45,59,49		1,57, 6,20, 5	
		1,52,32,19,14,21,49,33		8,14
14″	26,41,50,36,12,51,29, 7,49,22		1,57, 6,28,19	
		1,52,32,17,17,15,21,14		8,14
16″	26,41,52,28,45, 8,46,23,10,36		1,57, 6,36,33	
		1,52,32,15,20, 8,44,41		8,14
18″	26,41,54,21,17,24, 6,31,55,17		1,57, 6,44,47	
		1,52,32,13,23, 1,59,54		8,14
20″	26,41,56,13,49,37,29,33,55,11		1,57, 6,53, 1	
		1,52,32,11,25,55, 6,53		8,14
22″	26,41,58, 6,21,48,55,29, 2, 4		1,57, 7, 1,15	
		1,52,32, 9,28,48, 5,38		8,14
24″	26,41,59,58,53,58,24,17, 7,42		1,57, 7, 9,29	
		1,52,32, 7,31,40,56, 9		8,14
26″	26,42, 1,51,26, 5,55,58, 3,51		1,57, 7,17,43	
		1,52,32, 5,34,33,38,26		8,14
28″	26,42, 3,43,58,11,30,31,42,17		1,57, 7,25,57	
		1,52,32, 3,37,26,12,29		8,14
30″	26,42, 5,36,30,15, 7,57,54,46		1,57, 7,34,11	
		1,52,32, 1,40,18,38,18		8,14
32″	26,42, 7,29, 2,16,48,16,33, 4		1,57, 7,42,25	
		1,52,31,59,43,10,55,53		8,14
34″	26,42, 9,21,34,16,31,27,28,57		1,57, 7,50,39	
		1,52,31,57,46, 3, 5,14		8,14
36″	26,42,11,14, 6,14,17,30,34,11		1,57, 7,58,53	
		1,52,31,55,48,55, 6,21		8,14
38″	26,42,13, 6,38,10, 6,25,40,32		1,57, 8, 7, 7	
		1,52,31,53,51,46,59,14		8,14
40″	26,42,14,59,10, 3,58,12,39,46		1,57, 8,15,21	
		1,52,31,51,54,38,43,53		8,14
42″	26,42,16,51,41,55,52,51,23,39		1,57, 8,23,35	
		1,52,31,49,57,30,20,18		8,14
44″	26,42,18,44,13,45,50,21,43,57		1,57, 8,31,49	
		1,52,31,48, 0,21,48,29		8,14
46″	26,42,20,36,45,33,50,43,32,26		1,57, 8,40, 3	
		1,52,31,46, 3,13, 8,26		8,14
48″	26,42,22,29,17,19,53,56,40,52		1,57, 8,48,17	
		1,52,31,44, 6, 4,20, 9		8,14
50″	26,42,24,21,49, 4, 0, 1, 1, 1		1,57, 8,56,31	
		1,52,31,42, 8,55,23,38		8,14
52″	26,42,26,14,20,46, 8,56,24,39		1,57, 9, 4,45	
		1,52,31,40,11,46,18,53		8,14
54″	26,42,28, 6,52,26,20,42,43,32		1,57, 9,12,59	
		1,52,31,38,14,37, 5,54		8,14
56″	26,42,29,59,24, 4,35,19,49,26		1,57, 9,21,13	
		1,52,31,36,17,27,44,41		8,14
58″	26,42,31,51,55,40,52,47,34, 7		1,57, 9,29,27	
		1,52,31,34,20,18,15,14		
60″	26,42,33,44,27,15,13, 5,49,21			
exact	26,42,33,44,27,15,13, 6,13,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°26′ 0″	26,42,33,44,27,15,13, 6,13,10			
		1,52,31,32,23, 8,40, 9		
2″	26,42,35,36,58,47,36,14,53,19		1,57, 9,45,44	
		1,52,31,30,25,58,54,25		8,14
4″	26,42,37,29,30,18, 2,13,47,44		1,57, 9,53,58	
		1,52,31,28,28,49, 0,27		8,14
6″	26,42,39,22, 1,46,31, 2,48,11		1,57,10, 2,12	
		1,52,31,26,31,38,58,15		8,14
8″	26,42,41,14,33,13, 2,41,46,26		1,57,10,10,26	
		1,52,31,24,34,28,47,49		8,14
10″	26,42,43, 7, 4,37,37,10,34,15		1,57,10,18,40	
		1,52,31,22,37,18,29, 9		8,14
12″	26,42,44,59,36, 0,14,29, 3,24		1,57,10,26,54	
		1,52,31,20,40, 8, 2,15		8,14
14″	26,42,46,52, 7,20,54,37, 5,39		1,57,10,35, 8	
		1,52,31,18,42,57,27, 7		8,14
16″	26,42,48,44,38,39,37,34,32,46		1,57,10,43,22	
		1,52,31,16,45,46,43,45		8,14
18″	26,42,50,37, 9,56,23,21,16,31		1,57,10,51,36	
		1,52,31,14,48,35,52, 9		8,14
20″	26,42,52,29,41,11,11,57, 8,40		1,57,10,59,50	
		1,52,31,12,51,24,52,19		8,14
22″	26,42,54,22,12,24, 3,22, 0,59		1,57,11, 8, 4	
		1,52,31,10,54,13,44,15		8,14
24″	26,42,56,14,43,34,57,35,45,14		1,57,11,16,18	
		1,52,31, 8,57, 2,27,57		8,14
26″	26,42,58, 7,14,43,54,38,13,11		1,57,11,24,32	
		1,52,31, 6,59,51, 3,25		8,14
28″	26,42,59,59,45,50,54,29,16,36		1,57,11,32,46	
		1,52,31, 5, 2,39,30,39		8,14
30″	26,43, 1,52,16,55,57, 8,47,15		1,57,11,41, 0	
		1,52,31, 3, 5,27,49,39		8,14
32″	26,43, 3,44,47,59, 2,36,36,54		1,57,11,49,14	
		1,52,31, 1, 8,16, 0,25		8,14
34″	26,43, 5,37,19, 0,10,52,37,19		1,57,11,57,28	
		1,52,30,59,11, 4, 2,57		8,14
36″	26,43, 7,29,49,59,21,56,40,16		1,57,12, 5,42	
		1,52,30,57,13,51,57,15		8,14
38″	26,43, 9,22,20,56,35,48,37,31		1,57,12,13,56	
		1,52,30,55,16,39,43,19		8,14
40″	26,43,11,14,51,51,52,28,20,50		1,57,12,22,10	
		1,52,30,53,19,27,21, 9		8,14
42″	26,43,13, 7,22,45,11,55,41,59		1,57,12,30,24	
		1,52,30,51,22,14,50,45		8,14
44″	26,43,14,59,53,36,34,10,32,44		1,57,12,38,38	
		1,52,30,49,25, 2,12, 7		8,14
46″	26,43,16,52,24,25,59,12,44,51		1,57,12,46,52	
		1,52,30,47,27,49,25,15		8,14
48″	26,43,18,44,55,13,27, 2,10, 6		1,57,12,55, 6	
		1,52,30,45,30,36,30, 9		8,14
50″	26,43,20,37,25,58,57,38,40,15		1,57,13, 3,20	
		1,52,30,43,33,23,26,49		8,14
52″	26,43,22,29,56,42,31, 2, 7, 4		1,57,13,11,34	
		1,52,30,41,36,10,15,15		8,14
54″	26,43,24,22,27,24, 7,12,22,19		1,57,13,19,48	
		1,52,30,39,38,56,55,27		8,14
56″	26,43,26,14,58, 3,46, 9,17,46		1,57,13,28, 2	
		1,52,30,37,41,43,27,25		8,14
58″	26,43,28, 7,28,41,27,52,45,11		1,57,13,36,16	
		1,52,30,35,44,29,51, 9		
60″	26,43,29,59,59,17,12,22,36,20			
exact	26,43,29,59,59,17,12,23, 6,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°27′ 0″	26,43,29,59,59,17,12,23, 6,18			
		1,52,30,33,47,16, 9,52		
2″	26,43,31,52,29,50,59,39,16,10		1,57,13,52,31	
		1,52,30,31,50, 2,17,21		8,14
4″	26,43,33,45, 0,22,49,41,33,31		1,57,14, 0,45	
		1,52,30,29,52,48,16,36		8,14
6″	26,43,35,37,30,52,42,29,50, 7		1,57,14, 8,59	
		1,52,30,27,55,34, 7,37		8,14
8″	26,43,37,30, 1,20,38, 3,57,44		1,57,14,17,13	
		1,52,30,25,58,19,50,24		8,14
10″	26,43,39,22,31,46,36,23,48, 8		1,57,14,25,27	
		1,52,30,24, 1, 5,24,57		8,14
12″	26,43,41,15, 2,10,37,29,13, 5		1,57,14,33,41	
		1,52,30,22, 3,50,51,16		8,14
14″	26,43,43, 7,32,32,41,20, 4,21		1,57,14,41,55	
		1,52,30,20, 6,36, 9,21		8,14
16″	26,43,45, 0, 2,52,47,56,13,42		1,57,14,50, 9	
		1,52,30,18, 9,21,19,12		8,14
18″	26,43,46,52,33,10,57,17,32,54		1,57,14,58,23	
		1,52,30,16,12, 6,20,49		8,14
20″	26,43,48,45, 3,27, 9,23,53,43		1,57,15, 6,37	
		1,52,30,14,14,51,14,12		8,14
22″	26,43,50,37,33,41,24,15, 7,55		1,57,15,14,51	
		1,52,30,12,17,35,59,21		8,14
24″	26,43,52,30, 3,53,41,51, 7,16		1,57,15,23, 5	
		1,52,30,10,20,20,36,16		8,14
26″	26,43,54,22,34, 4, 2,11,43,32		1,57,15,31,19	
		1,52,30, 8,23, 5, 4,57		8,14
28″	26,43,56,15, 4,12,25,16,48,29		1,57,15,39,33	
		1,52,30, 6,25,49,25,24		8,14
30″	26,43,58, 7,34,18,51, 6,13,53		1,57,15,47,47	
		1,52,30, 4,28,33,37,37		8,14
32″	26,44, 0, 0, 4,23,19,39,51,30		1,57,15,56, 1	
		1,52,30, 2,31,17,41,36		8,14
34″	26,44, 1,52,34,25,50,57,33, 6		1,57,16, 4,15	
		1,52,30, 0,34, 1,37,21		8,14
36″	26,44, 3,45, 4,26,24,59,10,27		1,57,16,12,29	
		1,52,29,58,36,45,24,52		8,14
38″	26,44, 5,37,34,25, 1,44,35,19		1,57,16,20,43	
		1,52,29,56,39,29, 4, 9		8,14
40″	26,44, 7,30, 4,21,41,13,39,28		1,57,16,28,57	
		1,52,29,54,42,12,35,12		8,14
42″	26,44, 9,22,34,16,23,26,14,40		1,57,16,37,11	
		1,52,29,52,44,55,58, 1		8,14
44″	26,44,11,15, 4, 9, 8,22,12,41		1,57,16,45,25	
		1,52,29,50,47,39,12,36		8,14
46″	26,44,13, 7,33,59,56, 1,25,17		1,57,16,53,39	
		1,52,29,48,50,22,18,57		8,14
48″	26,44,15, 0, 3,48,46,23,44,14		1,57,17, 1,53	
		1,52,29,46,53, 5,17, 4		8,14
50″	26,44,16,52,33,35,39,29, 1,18		1,57,17,10, 7	
		1,52,29,44,55,48, 6,57		8,14
52″	26,44,18,45, 3,20,35,17, 8,15		1,57,17,18,21	
		1,52,29,42,58,30,48,36		8,14
54″	26,44,20,37,33, 3,33,47,56,51		1,57,17,26,35	
		1,52,29,41, 1,13,22, 1		8,14
56″	26,44,22,30, 2,44,35, 1,18,52		1,57,17,34,49	
		1,52,29,39, 3,55,47,12		8,14
58″	26,44,24,22,32,23,38,57, 6, 4		1,57,17,43, 3	
		1,52,29,37, 6,38, 4, 9		
60″	26,44,26,15, 2, 0,45,35,10,13			
exact	26,44,26,15, 2, 0,45,35,47, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°28′ 0″	26,44,26,15, 2, 0,45,35,47, 8	1,52,29,35, 9,20,16,45		
2″	26,44,28, 7,31,35,54,56, 3,53	1,52,29,33,12, 2,17,30	1,57,17,59,15	
4″	26,44,30, 0, 1, 9, 6,58,21,23	1,52,29,31,14,44,10, 2	1,57,18, 7,28	8,13
6″	26,44,31,52,30,40,21,42,31,25	1,52,29,29,17,25,54,21	1,57,18,15,41	8,13
8″	26,44,33,45, 0, 9,39, 8,25,46	1,52,29,27,20, 7,30,27	1,57,18,23,54	8,13
10″	26,44,35,37,29,36,59,15,56,13	1,52,29,25,22,48,58,20	1,57,18,32, 7	8,13
12″	26,44,37,29,59, 2,22, 4,54,33	1,52,29,23,25,30,18, 0	1,57,18,40,20	8,13
14″	26,44,39,22,28,25,47,35,12,33	1,52,29,21,28,11,29,27	1,57,18,48,33	8,13
16″	26,44,41,14,57,47,15,46,42, 0	1,52,29,19,30,52,32,41	1,57,18,56,46	8,13
18″	26,44,43, 7,27, 6,46,39,14,41	1,52,29,17,33,33,27,42	1,57,19, 4,59	8,13
20″	26,44,44,59,56,24,20,12,42,23	1,52,29,15,36,14,14,30	1,57,19,13,12	8,13
22″	26,44,46,52,25,39,56,26,56,53	1,52,29,13,38,54,53, 5	1,57,19,21,25	8,13
24″	26,44,48,44,54,53,35,21,49,58	1,52,29,11,41,35,23,27	1,57,19,29,38	8,13
26″	26,44,50,37,24, 5,16,57,13,25	1,52,29, 9,44,15,45,36	1,57,19,37,51	8,13
28″	26,44,52,29,53,15, 1,12,59, 1	1,52,29, 7,46,55,59,32	1,57,19,46, 4	8,13
30″	26,44,54,22,22,22,48, 8,58,33	1,52,29, 5,49,36, 5,15	1,57,19,54,17	8,13
32″	26,44,56,14,51,28,37,45, 3,48	1,52,29, 3,52,16, 2,45	1,57,20, 2,30	8,13
34″	26,44,58, 7,20,32,30, 1, 6,33	1,52,29, 1,54,55,52, 2	1,57,20,10,43	8,13
36″	26,44,59,59,49,34,24,56,58,35	1,52,28,59,57,35,33, 6	1,57,20,18,56	8,13
38″	26,45, 1,52,18,34,22,32,31,41	1,52,28,58, 0,15, 5,57	1,57,20,27, 9	8,13
40″	26,45, 3,44,47,32,22,47,37,38	1,52,28,56, 2,54,30,35	1,57,20,35,22	8,13
42″	26,45, 5,37,16,28,25,42, 8,13	1,52,28,54, 5,33,47, 0	1,57,20,43,35	8,13
44″	26,45, 7,29,45,22,31,15,55,13	1,52,28,52, 8,12,55,12	1,57,20,51,48	8,13
46″	26,45, 9,22,14,14,39,28,50,25	1,52,28,50,10,51,55,11	1,57,21, 0, 1	8,13
48″	26,45,11,14,43, 4,50,20,45,36	1,52,28,48,13,30,46,57	1,57,21, 8,14	8,13
50″	26,45,13, 7,11,53, 3,51,32,33	1,52,28,46,16, 9,30,30	1,57,21,16,27	8,13
52″	26,45,14,59,40,39,20, 1, 3, 3	1,52,28,44,18,48, 5,50	1,57,21,24,40	8,13
54″	26,45,16,52, 9,23,38,49, 8,53	1,52,28,42,21,26,32,57	1,57,21,32,53	8,13
56″	26,45,18,44,38, 6, 0,15,41,50	1,52,28,40,24, 4,51,51	1,57,21,41, 6	8,13
58″	26,45,20,37, 6,46,24,20,33,41	1,52,28,38,26,43, 2,32	1,57,21,49,19	
60″	26,45,22,29,35,24,51, 3,36,13			
exact	26,45,22,29,35,24,51, 3, 6,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°29′ 0″	26,45,22,29,35,24,51, 3, 6,35			
		1,52,28,36,29,21, 1,53		
2″	26,45,24,22, 4, 1,20,24, 8,28		1,57,22, 5,57	
		1,52,28,34,31,58,55,56		8,13
4″	26,45,26,14,32,35,52,23, 4,24		1,57,22,14,10	
		1,52,28,32,34,36,41,46		8,13
6″	26,45,28, 7, 1, 8,26,59,46,10		1,57,22,22,23	
		1,52,28,30,37,14,19,23		8,13
8″	26,45,29,59,29,39, 4,14, 5,33		1,57,22,30,36	
		1,52,28,28,39,51,48,47		8,13
10″	26,45,31,51,58, 7,44, 5,54,20		1,57,22,38,49	
		1,52,28,26,42,29, 9,58		8,13
12″	26,45,33,44,26,34,26,35, 4,18		1,57,22,47, 2	
		1,52,28,24,45, 6,22,56		8,13
14″	26,45,35,36,54,59,11,41,27,14		1,57,22,55,15	
		1,52,28,22,47,43,27,41		8,13
16″	26,45,37,29,23,21,59,24,54,55		1,57,23, 3,28	
		1,52,28,20,50,20,24,13		8,13
18″	26,45,39,21,51,42,49,45,19, 8		1,57,23,11,41	
		1,52,28,18,52,57,12,32		8,13
20″	26,45,41,14,20, 1,42,42,31,40		1,57,23,19,54	
		1,52,28,16,55,33,52,38		8,13
22″	26,45,43, 6,48,18,38,16,24,18		1,57,23,28, 7	
		1,52,28,14,58,10,24,31		8,13
24″	26,45,44,59,16,33,36,26,48,49		1,57,23,36,20	
		1,52,28,13, 0,46,48,11		8,13
26″	26,45,46,51,44,46,37,13,37, 0		1,57,23,44,33	
		1,52,28,11, 3,23, 3,38		8,13
28″	26,45,48,44,12,57,40,36,40,38		1,57,23,52,46	
		1,52,28, 9, 5,59,10,52		8,13
30″	26,45,50,36,41, 6,46,35,51,30		1,57,24, 0,59	
		1,52,28, 7, 8,35, 9,53		8,13
32″	26,45,52,29, 9,13,55,11, 1,23		1,57,24, 9,12	
		1,52,28, 5,11,11, 0,41		8,13
34″	26,45,54,21,37,19, 6,22, 2, 4		1,57,24,17,25	
		1,52,28, 3,13,46,43,16		8,13
36″	26,45,56,14, 5,22,20, 8,45,20		1,57,24,25,38	
		1,52,28, 1,16,22,17,38		8,13
38″	26,45,58, 6,33,23,36,31, 2,58		1,57,24,33,51	
		1,52,27,59,18,57,43,47		8,13
40″	26,45,59,59, 1,22,55,28,46,45		1,57,24,42, 4	
		1,52,27,57,21,33, 1,43		8,13
42″	26,46, 1,51,29,20,17, 1,48,28		1,57,24,50,17	
		1,52,27,55,24, 8,11,26		8,13
44″	26,46, 3,43,57,15,41, 9,59,54		1,57,24,58,30	
		1,52,27,53,26,43,12,56		8,13
46″	26,46, 5,36,25, 9, 7,53,12,50		1,57,25, 6,43	
		1,52,27,51,29,18, 6,13		8,13
48″	26,46, 7,28,53, 0,37,11,19, 3		1,57,25,14,56	
		1,52,27,49,31,52,51,17		8,13
50″	26,46, 9,21,20,50, 9, 4,10,20		1,57,25,23, 9	
		1,52,27,47,34,27,28, 8		8,13
52″	26,46,11,13,48,37,43,31,38,28		1,57,25,31,22	
		1,52,27,45,37, 1,56,46		8,13
54″	26,46,13, 6,16,23,20,33,35,14		1,57,25,39,35	
		1,52,27,43,39,36,17,11		8,13
56″	26,46,14,58,44, 7, 0, 9,52,25		1,57,25,47,48	
		1,52,27,41,42,10,29,23		8,13
58″	26,46,16,51,11,48,42,20,21,48		1,57,25,56, 1	
		1,52,27,39,44,44,33,22		
60″	26,46,18,43,39,28,27, 4,55,10			
exact	26,46,18,43,39,28,27, 4,27,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°30′ 0″	26,46,18,43,39,28,27, 4,27,41	1,52,27,37,47,18,26,21		
2″	26,46,20,36, 7, 6,14,22,54, 2	1,52,27,35,49,52,13,43	1,57,26,12,38	8,13
4″	26,46,22,28,34,42, 4,15, 7,45	1,52,27,33,52,25,52,52	1,57,26,20,51	8,13
6″	26,46,24,21, 2,15,56,41, 0,37	1,52,27,31,54,59,23,48	1,57,26,29, 4	8,13
8″	26,46,26,13,29,47,51,40,24,25	1,52,27,29,57,32,46,31	1,57,26,37,17	8,13
10″	26,46,28, 5,57,17,49,13,10,56	1,52,27,28, 0, 6, 1, 1	1,57,26,45,30	8,13
12″	26,46,29,58,24,45,49,19,11,57	1,52,27,26, 2,39, 7,18	1,57,26,53,43	8,13
14″	26,46,31,50,52,11,51,58,19,15	1,52,27,24, 5,12, 5,22	1,57,27, 1,56	8,13
16″	26,46,33,43,19,35,57,10,24,37	1,52,27,22, 7,44,55,13	1,57,27,10, 9	8,13
18″	26,46,35,35,46,58, 4,55,19,50	1,52,27,20,10,17,36,51	1,57,27,18,22	8,13
20″	26,46,37,28,14,18,15,12,56,41	1,52,27,18,12,50,10,16	1,57,27,26,35	8,13
22″	26,46,39,20,41,36,28, 3, 6,57	1,52,27,16,15,22,35,28	1,57,27,34,48	8,13
24″	26,46,41,13, 8,52,43,25,42,25	1,52,27,14,17,54,52,27	1,57,27,43, 1	8,13
26″	26,46,43, 5,36, 7, 1,20,34,52	1,52,27,12,20,27, 1,13	1,57,27,51,14	8,13
28″	26,46,44,58, 3,19,21,47,36, 5	1,52,27,10,22,59, 1,46	1,57,27,59,27	8,13
30″	26,46,46,50,30,29,44,46,37,51	1,52,27, 8,25,30,54, 6	1,57,28, 7,40	8,13
32″	26,46,48,42,57,38,10,17,31,57	1,52,27, 6,28, 2,38,13	1,57,28,15,53	8,13
34″	26,46,50,35,24,44,38,20,10,10	1,52,27, 4,30,34,14, 7	1,57,28,24, 6	8,13
36″	26,46,52,27,51,49, 8,54,24,17	1,52,27, 2,33, 5,41,48	1,57,28,32,19	8,13
38″	26,46,54,20,18,51,42, 0, 6, 5	1,52,27, 0,35,37, 1,16	1,57,28,40,32	8,13
40″	26,46,56,12,45,52,17,37, 7,21	1,52,26,58,38, 8,12,31	1,57,28,48,45	8,13
42″	26,46,58, 5,12,50,55,45,19,52	1,52,26,56,40,39,15,33	1,57,28,56,58	8,13
44″	26,46,59,57,39,47,36,24,35,25	1,52,26,54,43,10,10,22	1,57,29, 5,11	8,13
46″	26,47, 1,50, 6,42,19,34,45,47	1,52,26,52,45,40,56,58	1,57,29,13,24	8,13
48″	26,47, 3,42,33,35, 5,15,42,45	1,52,26,50,48,11,35,21	1,57,29,21,37	8,13
50″	26,47, 5,35, 0,25,53,27,18, 6	1,52,26,48,50,42, 5,31	1,57,29,29,50	8,13
52″	26,47, 7,27,27,14,44, 9,23,37	1,52,26,46,53,12,27,28	1,57,29,38, 3	8,13
54″	26,47, 9,19,54, 1,37,21,51, 5	1,52,26,44,55,42,41,12	1,57,29,46,16	8,13
56″	26,47,11,12,20,46,33, 4,32,17	1,52,26,42,58,12,46,43	1,57,29,54,29	8,13
58″	26,47,13, 4,47,29,31,17,19, 0	1,52,26,41, 0,42,44, 1	1,57,30, 2,42	
60″	26,47,14,57,14,10,32, 0, 3, 1			
exact	26,47,14,57,14,10,31,59,45,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°31′ 0″	26,47,14,57,14,10,31,59,45,43			
		1,52,26,39, 3,12,31,12		
2″	26,47,16,49,40,49,35,12,16,55		1,57,30,19,16	
		1,52,26,37, 5,42,11,56		8,13
4″	26,47,18,42, 7,26,40,54,28,51		1,57,30,27,29	
		1,52,26,35, 8,11,44,27		8,13
6″	26,47,20,34,34, 1,49, 6,13,18		1,57,30,35,42	
		1,52,26,33,10,41, 8,45		8,13
8″	26,47,22,27, 0,34,59,47,22, 3		1,57,30,43,55	
		1,52,26,31,13,10,24,50		8,13
10″	26,47,24,19,27, 6,12,57,46,53		1,57,30,52, 8	
		1,52,26,29,15,39,32,42		8,13
12″	26,47,26,11,53,35,28,37,19,35		1,57,31, 0,21	
		1,52,26,27,18, 8,32,21		8,13
14″	26,47,28, 4,20, 2,46,45,51,56		1,57,31, 8,34	
		1,52,26,25,20,37,23,47		8,13
16″	26,47,29,56,46,28, 7,23,15,43		1,57,31,16,47	
		1,52,26,23,23, 6, 7, 0		8,13
18″	26,47,31,49,12,51,30,29,22,43		1,57,31,25, 0	
		1,52,26,21,25,34,42, 0		8,13
20″	26,47,33,41,39,12,56, 4, 4,43		1,57,31,33,13	
		1,52,26,19,28, 3, 8,47		8,13
22″	26,47,35,34, 5,32,24, 7,13,30		1,57,31,41,26	
		1,52,26,17,30,31,27,21		8,13
24″	26,47,37,26,31,49,54,38,40,51		1,57,31,49,39	
		1,52,26,15,32,59,37,42		8,13
26″	26,47,39,18,58, 5,27,38,18,33		1,57,31,57,52	
		1,52,26,13,35,27,39,50		8,13
28″	26,47,41,11,24,19, 3, 5,58,23		1,57,32, 6, 5	
		1,52,26,11,37,55,33,45		8,13
30″	26,47,43, 3,50,30,41, 1,32, 8		1,57,32,14,18	
		1,52,26, 9,40,23,19,27		8,13
32″	26,47,44,56,16,40,21,24,51,35		1,57,32,22,31	
		1,52,26, 7,42,50,56,56		8,13
34″	26,47,46,48,42,48, 4,15,48,31		1,57,32,30,44	
		1,52,26, 5,45,18,26,12		8,13
36″	26,47,48,41, 8,53,49,34,14,43		1,57,32,38,57	
		1,52,26, 3,47,45,47,15		8,13
38″	26,47,50,33,34,57,37,20, 1,58		1,57,32,47,10	
		1,52,26, 1,50,13, 0, 5		8,13
40″	26,47,52,26, 0,59,27,33, 2, 3		1,57,32,55,23	
		1,52,25,59,52,40, 4,42		8,13
42″	26,47,54,18,26,59,20,13, 6,45		1,57,33, 3,36	
		1,52,25,57,55, 7, 1, 6		8,13
44″	26,47,56,10,52,57,15,20, 7,51		1,57,33,11,49	
		1,52,25,55,57,33,49,17		8,13
46″	26,47,58, 3,18,53,12,53,57, 8		1,57,33,20, 2	
		1,52,25,54, 0, 0,29,15		8,13
48″	26,47,59,55,44,47,12,54,26,23		1,57,33,28,15	
		1,52,25,52, 2,27, 1, 0		8,13
50″	26,48, 1,48,10,39,15,21,27,23		1,57,33,36,28	
		1,52,25,50, 4,53,24,32		8,13
52″	26,48, 3,40,36,29,20,14,51,55		1,57,33,44,41	
		1,52,25,48, 7,19,39,51		8,13
54″	26,48, 5,33, 2,17,27,34,31,46		1,57,33,52,54	
		1,52,25,46, 9,45,46,57		8,13
56″	26,48, 7,25,28, 3,37,20,18,43		1,57,34, 1, 7	
		1,52,25,44,12,11,45,50		8,13
58″	26,48, 9,17,53,47,49,32, 4,33		1,57,34, 9,20	
		1,52,25,42,14,37,36,30		
60″	26,48,11,10,19,30, 4, 9,41, 3			
exact	26,48,11,10,19,30, 4, 9,28, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°32′ 0″	26,48,11,10,19,30, 4, 9,28, 6			
		1,52,25,40,17, 3,17,32		
2″	26,48,13, 2,45,10,21,12,45,38		1,57,34,25,52	
		1,52,25,38,19,28,51,40		8,13
4″	26,48,14,55,10,48,40,41,37,18		1,57,34,34, 5	
		1,52,25,36,21,54,17,35		8,13
6″	26,48,16,47,36,25, 2,35,54,53		1,57,34,42,18	
		1,52,25,34,24,19,35,17		8,13
8″	26,48,18,40, 1,59,26,55,30,10		1,57,34,50,31	
		1,52,25,32,26,44,44,46		8,13
10″	26,48,20,32,27,31,53,40,14,56		1,57,34,58,44	
		1,52,25,30,29, 9,46, 2		8,13
12″	26,48,22,24,53, 2,22,50, 0,58		1,57,35, 6,57	
		1,52,25,28,31,34,39, 5		8,13
14″	26,48,24,17,18,30,54,24,40, 3		1,57,35,15,10	
		1,52,25,26,33,59,23,55		8,13
16″	26,48,26, 9,43,57,28,24, 3,58		1,57,35,23,23	
		1,52,25,24,36,24, 0,32		8,13
18″	26,48,28, 2, 9,22, 4,48, 4,30		1,57,35,31,36	
		1,52,25,22,38,48,28,56		8,13
20″	26,48,29,54,34,44,43,36,33,26		1,57,35,39,49	
		1,52,25,20,41,12,49, 7		8,13
22″	26,48,31,47, 0, 5,24,49,22,33		1,57,35,48, 2	
		1,52,25,18,43,37, 1, 5		8,13
24″	26,48,33,39,25,24, 8,26,23,38		1,57,35,56,15	
		1,52,25,16,46, 1, 4,50		8,13
26″	26,48,35,31,50,40,54,27,28,28		1,57,36, 4,28	
		1,52,25,14,48,25, 0,22		8,13
28″	26,48,37,24,15,55,42,52,28,50		1,57,36,12,41	
		1,52,25,12,50,48,47,41		8,13
30″	26,48,39,16,41, 8,33,41,16,31		1,57,36,20,54	
		1,52,25,10,53,12,26,47		8,13
32″	26,48,41, 9, 6,19,26,53,43,18		1,57,36,29, 7	
		1,52,25, 8,55,35,57,40		8,13
34″	26,48,43, 1,31,28,22,29,40,58		1,57,36,37,20	
		1,52,25, 6,57,59,20,20		8,13
36″	26,48,44,53,56,35,20,29, 1,18		1,57,36,45,33	
		1,52,25, 5, 0,22,34,47		8,13
38″	26,48,46,46,21,40,20,51,36, 5		1,57,36,53,46	
		1,52,25, 3, 2,45,41, 1		8,13
40″	26,48,48,38,46,43,23,37,17, 6		1,57,37, 1,59	
		1,52,25, 1, 5, 8,39, 2		8,13
42″	26,48,50,31,11,44,28,45,56, 8		1,57,37,10,12	
		1,52,24,59, 7,31,28,50		8,13
44″	26,48,52,23,36,43,36,17,24,58		1,57,37,18,25	
		1,52,24,57, 9,54,10,25		8,13
46″	26,48,54,16, 1,40,46,11,35,23		1,57,37,26,38	
		1,52,24,55,12,16,43,47		8,13
48″	26,48,56, 8,26,35,58,28,19,10		1,57,37,34,51	
		1,52,24,53,14,39, 8,56		8,13
50″	26,48,58, 0,51,29,13, 7,28, 6		1,57,37,43, 4	
		1,52,24,51,17, 1,25,52		8,13
52″	26,48,59,53,16,20,30, 8,53,58		1,57,37,51,17	
		1,52,24,49,19,23,34,35		8,13
54″	26,49, 1,45,41, 9,49,32,28,33		1,57,37,59,30	
		1,52,24,47,21,45,35, 5		8,13
56″	26,49, 3,38, 5,57,11,18, 3,38		1,57,38, 7,43	
		1,52,24,45,24, 7,27,22		8,13
58″	26,49, 5,30,30,42,35,25,31, 0		1,57,38,15,56	
		1,52,24,43,26,29,11,26		
60″	26,49, 7,22,55,26, 1,54,42,26			
exact	26,49, 7,22,55,26, 1,54,34,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°33′ 0″	26,49, 7,22,55,26, 1,54,34,31			
		1,52,24,41,28,50,46,24		
2″	26,49, 9,15,20, 7,30,45,20,55		1,57,38,32,26	
		1,52,24,39,31,12,13,58		8,13
4″	26,49,11, 7,44,47, 1,57,34,53		1,57,38,40,39	
		1,52,24,37,33,33,33,19		8,13
6″	26,49,13, 0, 9,24,35,31, 8,12		1,57,38,48,52	
		1,52,24,35,35,54,44,27		8,13
8″	26,49,14,52,34, 0,11,25,52,39		1,57,38,57, 5	
		1,52,24,33,38,15,47,22		8,13
10″	26,49,16,44,58,33,49,41,40, 1		1,57,39, 5,18	
		1,52,24,31,40,36,42, 4		8,13
12″	26,49,18,37,23, 5,30,18,22, 5		1,57,39,13,31	
		1,52,24,29,42,57,28,33		8,13
14″	26,49,20,29,47,35,13,15,50,38		1,57,39,21,44	
		1,52,24,27,45,18, 6,49		8,13
16″	26,49,22,22,12, 2,58,33,57,27		1,57,39,29,57	
		1,52,24,25,47,38,36,52		8,13
18″	26,49,24,14,36,28,46,12,34,19		1,57,39,38,10	
		1,52,24,23,49,58,58,42		8,13
20″	26,49,26, 7, 0,52,36,11,33, 1		1,57,39,46,23	
		1,52,24,21,52,19,12,19		8,13
22″	26,49,27,59,25,14,28,30,45,20		1,57,39,54,36	
		1,52,24,19,54,39,17,43		8,13
24″	26,49,29,51,49,34,23,10, 3, 3		1,57,40, 2,49	
		1,52,24,17,56,59,14,54		8,13
26″	26,49,31,44,13,52,20, 9,17,57		1,57,40,11, 2	
		1,52,24,15,59,19, 3,52		8,13
28″	26,49,33,36,38, 8,19,28,21,49		1,57,40,19,15	
		1,52,24,14, 1,38,44,37		8,13
30″	26,49,35,29, 2,22,21, 7, 6,26		1,57,40,27,28	
		1,52,24,12, 3,58,17, 9		8,13
32″	26,49,37,21,26,34,25, 5,23,35		1,57,40,35,41	
		1,52,24,10, 6,17,41,28		8,13
34″	26,49,39,13,50,44,31,23, 5, 3		1,57,40,43,54	
		1,52,24, 8, 8,36,57,34		8,13
36″	26,49,41, 6,14,52,40, 0, 2,37		1,57,40,52, 7	
		1,52,24, 6,10,56, 5,27		8,13
38″	26,49,42,58,38,58,50,56, 8, 4		1,57,41, 0,20	
		1,52,24, 4,13,15, 5, 7		8,13
40″	26,49,44,51, 3, 3, 4,11,13,11		1,57,41, 8,33	
		1,52,24, 2,15,33,56,34		8,13
42″	26,49,46,43,27, 5,19,45, 9,45		1,57,41,16,46	
		1,52,24, 0,17,52,39,48		8,13
44″	26,49,48,35,51, 5,37,37,49,33		1,57,41,24,59	
		1,52,23,58,20,11,14,49		8,13
46″	26,49,50,28,15, 3,57,49, 4,22		1,57,41,33,12	
		1,52,23,56,22,29,41,37		8,13
48″	26,49,52,20,39, 0,20,18,45,59		1,57,41,41,25	
		1,52,23,54,24,48, 0,12		8,13
50″	26,49,54,13, 2,54,45, 6,46,11		1,57,41,49,38	
		1,52,23,52,27, 6,10,34		8,13
52″	26,49,56, 5,26,47,12,12,56,45		1,57,41,57,51	
		1,52,23,50,29,24,12,43		8,13
54″	26,49,57,57,50,37,41,37, 9,28		1,57,42, 6, 4	
		1,52,23,48,31,42, 6,39		8,13
56″	26,49,59,50,14,26,13,19,16, 7		1,57,42,14,17	
		1,52,23,46,33,59,52,22		8,13
58″	26,50, 1,42,38,12,47,19, 8,29		1,57,42,22,30	
		1,52,23,44,36,17,29,52		
60″	26,50, 3,35, 1,57,23,36,38,21			
exact	26,50, 3,35, 1,57,23,36,36,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°34′ 0″	26,50, 3,35, 1,57,23,36,36,51			
		1,52,23,42,38,34,58,54		
2″	26,50, 5,27,25,40, 2,11,35,45		1,57,42,38,57	
		1,52,23,40,40,52,19,57		8,13
4″	26,50, 7,19,49,20,43, 3,55,42		1,57,42,47,10	
		1,52,23,38,43, 9,32,47		8,13
6″	26,50, 9,12,12,59,26,13,28,29		1,57,42,55,23	
		1,52,23,36,45,26,37,24		8,13
8″	26,50,11, 4,36,36,11,40, 5,53		1,57,43, 3,36	
		1,52,23,34,47,43,33,48		8,13
10″	26,50,12,57, 0,10,59,23,39,41		1,57,43,11,49	
		1,52,23,32,50, 0,21,59		8,13
12″	26,50,14,49,23,43,49,24, 1,40		1,57,43,20, 2	
		1,52,23,30,52,17, 1,57		8,13
14″	26,50,16,41,47,14,41,41, 3,37		1,57,43,28,15	
		1,52,23,28,54,33,33,42		8,13
16″	26,50,18,34,10,43,36,14,37,19		1,57,43,36,28	
		1,52,23,26,56,49,57,14		8,13
18″	26,50,20,26,34,10,33, 4,34,33		1,57,43,44,41	
		1,52,23,24,59, 6,12,33		8,13
20″	26,50,22,18,57,35,32,10,47, 6		1,57,43,52,54	
		1,52,23,23, 1,22,19,39		8,13
22″	26,50,24,11,20,58,33,33, 6,45		1,57,44, 1, 7	
		1,52,23,21, 3,38,18,32		8,13
24″	26,50,26, 3,44,19,37,11,25,17		1,57,44, 9,20	
		1,52,23,19, 5,54, 9,12		8,13
26″	26,50,27,56, 7,38,43, 5,34,29		1,57,44,17,33	
		1,52,23,17, 8, 9,51,39		8,13
28″	26,50,29,48,30,55,51,15,26, 8		1,57,44,25,46	
		1,52,23,15,10,25,25,53		8,13
30″	26,50,31,40,54,11, 1,40,52, 1		1,57,44,33,59	
		1,52,23,13,12,40,51,54		8,13
32″	26,50,33,33,17,24,14,21,43,55		1,57,44,42,12	
		1,52,23,11,14,56, 9,42		8,13
34″	26,50,35,25,40,35,29,17,53,37		1,57,44,50,25	
		1,52,23, 9,17,11,19,17		8,13
36″	26,50,37,18, 3,44,46,29,12,54		1,57,44,58,38	
		1,52,23, 7,19,26,20,39		8,13
38″	26,50,39,10,26,52, 5,55,33,33		1,57,45, 6,51	
		1,52,23, 5,21,41,13,48		8,13
40″	26,50,41, 2,49,57,27,36,47,21		1,57,45,15, 4	
		1,52,23, 3,23,55,58,44		8,13
42″	26,50,42,55,13, 0,51,32,46, 5		1,57,45,23,17	
		1,52,23, 1,26,10,35,27		8,13
44″	26,50,44,47,36, 2,17,43,21,32		1,57,45,31,30	
		1,52,22,59,28,25, 3,57		8,13
46″	26,50,46,39,59, 1,46, 8,25,29		1,57,45,39,43	
		1,52,22,57,30,39,24,14		8,13
48″	26,50,48,32,21,59,16,47,49,43		1,57,45,47,56	
		1,52,22,55,32,53,36,18		8,13
50″	26,50,50,24,44,54,49,41,26, 1		1,57,45,56, 9	
		1,52,22,53,35, 7,40, 9		8,13
52″	26,50,52,17, 7,48,24,49, 6,10		1,57,46, 4,22	
		1,52,22,51,37,21,35,47		8,13
54″	26,50,54, 9,30,40, 2,10,41,57		1,57,46,12,35	
		1,52,22,49,39,35,23,12		8,13
56″	26,50,56, 1,53,29,41,46, 5, 9		1,57,46,20,48	
		1,52,22,47,41,49, 2,24		8,13
58″	26,50,57,54,16,17,23,35, 7,33		1,57,46,29, 1	
		1,52,22,45,44, 2,33,23		
60″	26,50,59,46,39, 3, 7,37,40,56			
exact	26,50,59,46,39, 3, 7,37,39,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°35′ 0″	26,50,59,46,39, 3, 7,37,39,13			
		1,52,22,43,46,15,56, 5		
2″	26,51, 1,39, 1,46,53,53,35,18		1,57,46,45,27	
		1,52,22,41,48,29,10,38		8,13
4″	26,51, 3,31,24,28,42,22,45,56		1,57,46,53,40	
		1,52,22,39,50,42,16,58		8,13
6″	26,51, 5,23,47, 8,33, 5, 2,54		1,57,47, 1,53	
		1,52,22,37,52,55,15, 5		8,13
8″	26,51, 7,16, 9,46,26, 0,17,59		1,57,47,10, 6	
		1,52,22,35,55, 8, 4,59		8,13
10″	26,51, 9, 8,32,22,21, 8,22,58		1,57,47,18,19	
		1,52,22,33,57,20,46,40		8,13
12″	26,51,11, 0,54,56,18,29, 9,38		1,57,47,26,32	
		1,52,22,31,59,33,20, 8		8,13
14″	26,51,12,53,17,28,18, 2,29,46		1,57,47,34,45	
		1,52,22,30, 1,45,45,23		8,13
16″	26,51,14,45,39,58,19,48,15, 9		1,57,47,42,58	
		1,52,22,28, 3,58, 2,25		8,13
18″	26,51,16,38, 2,26,23,46,17,34		1,57,47,51,11	
		1,52,22,26, 6,10,11,14		8,13
20″	26,51,18,30,24,52,29,56,28,48		1,57,47,59,24	
		1,52,22,24, 8,22,11,50		8,13
22″	26,51,20,22,47,16,38,18,40,38		1,57,48, 7,37	
		1,52,22,22,10,34, 4,13		8,13
24″	26,51,22,15, 9,38,48,52,44,51		1,57,48,15,50	
		1,52,22,20,12,45,48,23		8,13
26″	26,51,24, 7,31,59, 1,38,33,14		1,57,48,24, 3	
		1,52,22,18,14,57,24,20		8,13
28″	26,51,25,59,54,17,16,35,57,34		1,57,48,32,16	
		1,52,22,16,17, 8,52, 4		8,13
30″	26,51,27,52,16,33,33,44,49,38		1,57,48,40,29	
		1,52,22,14,19,20,11,35		8,13
32″	26,51,29,44,38,47,53, 5, 1,13		1,57,48,48,42	
		1,52,22,12,21,31,22,53		8,13
34″	26,51,31,37, 1, 0,14,36,24, 6		1,57,48,56,55	
		1,52,22,10,23,42,25,58		8,13
36″	26,51,33,29,23,10,38,18,50, 4		1,57,49, 5, 8	
		1,52,22, 8,25,53,20,50		8,13
38″	26,51,35,21,45,19, 4,12,10,54		1,57,49,13,21	
		1,52,22, 6,28, 4, 7,29		8,13
40″	26,51,37,14, 7,25,32,16,18,23		1,57,49,21,34	
		1,52,22, 4,30,14,45,55		8,13
42″	26,51,39, 6,29,30, 2,31, 4,18		1,57,49,29,47	
		1,52,22, 2,32,25,16, 8		8,13
44″	26,51,40,58,51,32,34,56,20,26		1,57,49,38, 0	
		1,52,22, 0,34,35,38, 8		8,13
46″	26,51,42,51,13,33, 9,31,58,34		1,57,49,46,13	
		1,52,21,58,36,45,51,55		8,13
48″	26,51,44,43,35,31,46,17,50,29		1,57,49,54,26	
		1,52,21,56,38,55,57,29		8,13
50″	26,51,46,35,57,28,25,13,47,58		1,57,50, 2,39	
		1,52,21,54,41, 5,54,50		8,13
52″	26,51,48,28,19,23, 6,19,42,48		1,57,50,10,52	
		1,52,21,52,43,15,43,58		8,13
54″	26,51,50,20,41,15,49,35,26,46		1,57,50,19, 5	
		1,52,21,50,45,25,24,53		8,13
56″	26,51,52,13, 3, 6,35, 0,51,39		1,57,50,27,18	
		1,52,21,48,47,34,57,35		8,13
58″	26,51,54, 5,24,55,22,35,49,14		1,57,50,35,31	
		1,52,21,46,49,44,22, 4		
60″	26,51,55,57,46,42,12,20,11,18			
exact	26,51,55,57,46,42,12,20,18, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°36′ 0″	26,51,55,57,46,42,12,20,18, 4			
		1,52,21,44,51,53,39, 2		
2″	26,51,57,50, 8,27, 4,13,57, 6		1,57,50,51,54	
		1,52,21,42,54, 2,47, 8		8,13
4″	26,51,59,42,30, 9,58,16,44,14		1,57,51, 0, 7	
		1,52,21,40,56,11,47, 1		8,13
6″	26,52, 1,34,51,50,54,28,31,15		1,57,51, 8,20	
		1,52,21,38,58,20,38,41		8,13
8″	26,52, 3,27,13,29,52,49, 9,56		1,57,51,16,33	
		1,52,21,37, 0,29,22, 8		8,13
10″	26,52, 5,19,35, 6,53,18,32, 4		1,57,51,24,46	
		1,52,21,35, 2,37,57,22		8,13
12″	26,52, 7,11,56,41,55,56,29,26		1,57,51,32,59	
		1,52,21,33, 4,46,24,23		8,13
14″	26,52, 9, 4,18,15, 0,42,53,49		1,57,51,41,12	
		1,52,21,31, 6,54,43,11		8,13
16″	26,52,10,56,39,46, 7,37,37, 0		1,57,51,49,25	
		1,52,21,29, 9, 2,53,46		8,13
18″	26,52,12,49, 1,15,16,40,30,46		1,57,51,57,38	
		1,52,21,27,11,10,56, 8		8,13
20″	26,52,14,41,22,42,27,51,26,54		1,57,52, 5,51	
		1,52,21,25,13,18,50,17		8,13
22″	26,52,16,33,44, 7,41,10,17,11		1,57,52,14, 4	
		1,52,21,23,15,26,36,13		8,13
24″	26,52,18,26, 5,30,56,36,53,24		1,57,52,22,17	
		1,52,21,21,17,34,13,56		8,13
26″	26,52,20,18,26,52,14,11, 7,20		1,57,52,30,30	
		1,52,21,19,19,41,43,26		8,13
28″	26,52,22,10,48,11,33,52,50,46		1,57,52,38,43	
		1,52,21,17,21,49, 4,43		8,13
30″	26,52,24, 3, 9,28,55,41,55,29		1,57,52,46,56	
		1,52,21,15,23,56,17,47		8,13
32″	26,52,25,55,30,44,19,38,13,16		1,57,52,55, 9	
		1,52,21,13,26, 3,22,38		8,13
34″	26,52,27,47,51,57,45,41,35,54		1,57,53, 3,22	
		1,52,21,11,28,10,19,16		8,13
36″	26,52,29,40,13, 9,13,51,55,10		1,57,53,11,35	
		1,52,21, 9,30,17, 7,41		8,13
38″	26,52,31,32,34,18,44, 9, 2,51		1,57,53,19,48	
		1,52,21, 7,32,23,47,53		8,13
40″	26,52,33,24,55,26,16,32,50,44		1,57,53,28, 1	
		1,52,21, 5,34,30,19,52		8,13
42″	26,52,35,17,16,31,51, 3,10,36		1,57,53,36,14	
		1,52,21, 3,36,36,43,38		8,13
44″	26,52,37, 9,37,35,27,39,54,14		1,57,53,44,27	
		1,52,21, 1,38,42,59,11		8,13
46″	26,52,39, 1,58,37, 6,22,53,25		1,57,53,52,40	
		1,52,20,59,40,49, 6,31		8,13
48″	26,52,40,54,19,36,47,11,59,56		1,57,54, 0,53	
		1,52,20,57,42,55, 5,38		8,13
50″	26,52,42,46,40,34,30, 7, 5,34		1,57,54, 9, 6	
		1,52,20,55,45, 0,56,32		8,13
52″	26,52,44,39, 1,30,15, 8, 2, 6		1,57,54,17,19	
		1,52,20,53,47, 6,39,13		8,13
54″	26,52,46,31,22,24, 2,14,41,19		1,57,54,25,32	
		1,52,20,51,49,12,13,41		8,13
56″	26,52,48,23,43,15,51,26,55, 0		1,57,54,33,45	
		1,52,20,49,51,17,39,56		8,13
58″	26,52,50,16, 4, 5,42,44,34,56		1,57,54,41,58	
		1,52,20,47,53,22,57,58		
60″	26,52,52, 8,24,53,36, 7,32,54			
exact	26,52,52, 8,24,53,36, 7,42, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°37′ 0″	26,52,52, 8,24,53,36, 7,42, 4			
		1,52,20,45,55,28, 8,50		
2″	26,52,54, 0,45,39,31,35,50,54		1,57,54,58,19	
		1,52,20,43,57,33,10,31		8,13
4″	26,52,55,53, 6,23,29, 9, 1,25		1,57,55, 6,32	
		1,52,20,41,59,38, 3,59		8,13
6″	26,52,57,45,27, 5,28,47, 5,24		1,57,55,14,45	
		1,52,20,40, 1,42,49,14		8,13
8″	26,52,59,37,47,45,30,29,54,38		1,57,55,22,58	
		1,52,20,38, 3,47,26,16		8,13
10″	26,53, 1,30, 8,23,34,17,20,54		1,57,55,31,11	
		1,52,20,36, 5,51,55, 5		8,13
12″	26,53, 3,22,28,59,40, 9,15,59		1,57,55,39,24	
		1,52,20,34, 7,56,15,41		8,13
14″	26,53, 5,14,49,33,48, 5,31,40		1,57,55,47,37	
		1,52,20,32,10, 0,28, 4		8,13
16″	26,53, 7, 7,10, 5,58, 5,59,44		1,57,55,55,50	
		1,52,20,30,12, 4,32,14		8,13
18″	26,53, 8,59,30,36,10,10,31,58		1,57,56, 4, 3	
		1,52,20,28,14, 8,28,11		8,13
20″	26,53,10,51,51, 4,24,19, 0, 9		1,57,56,12,16	
		1,52,20,26,16,12,15,55		8,13
22″	26,53,12,44,11,30,40,31,16, 4		1,57,56,20,29	
		1,52,20,24,18,15,55,26		8,13
24″	26,53,14,36,31,54,58,47,11,30		1,57,56,28,42	
		1,52,20,22,20,19,26,44		8,13
26″	26,53,16,28,52,17,19, 6,38,14		1,57,56,36,55	
		1,52,20,20,22,22,49,49		8,13
28″	26,53,18,21,12,37,41,29,28, 3		1,57,56,45, 8	
		1,52,20,18,24,26, 4,41		8,13
30″	26,53,20,13,32,56, 5,55,32,44		1,57,56,53,21	
		1,52,20,16,26,29,11,20		8,13
32″	26,53,22, 5,53,12,32,24,44, 4		1,57,57, 1,34	
		1,52,20,14,28,32, 9,46		8,13
34″	26,53,23,58,13,27, 0,56,53,50		1,57,57, 9,47	
		1,52,20,12,30,34,59,59		8,13
36″	26,53,25,50,33,39,31,31,53,49		1,57,57,18, 0	
		1,52,20,10,32,37,41,59		8,13
38″	26,53,27,42,53,50, 4, 9,35,48		1,57,57,26,13	
		1,52,20, 8,34,40,15,46		8,13
40″	26,53,29,35,13,58,38,49,51,34		1,57,57,34,26	
		1,52,20, 6,36,42,41,20		8,13
42″	26,53,31,27,34, 5,15,32,32,54		1,57,57,42,39	
		1,52,20, 4,38,44,58,41		8,13
44″	26,53,33,19,54, 9,54,17,31,35		1,57,57,50,52	
		1,52,20, 2,40,47, 7,49		8,13
46″	26,53,35,12,14,12,35, 4,39,24		1,57,57,59, 5	
		1,52,20, 0,42,49, 8,44		8,13
48″	26,53,37, 4,34,13,17,53,48, 8		1,57,58, 7,18	
		1,52,19,58,44,51, 1,26		8,13
50″	26,53,38,56,54,12, 2,44,49,34		1,57,58,15,31	
		1,52,19,56,46,52,45,55		8,13
52″	26,53,40,49,14, 8,49,37,35,29		1,57,58,23,44	
		1,52,19,54,48,54,22,11		8,13
54″	26,53,42,41,34, 3,38,31,57,40		1,57,58,31,57	
		1,52,19,52,50,55,50,14		8,13
56″	26,53,44,33,53,56,29,27,47,54		1,57,58,40,10	
		1,52,19,50,52,57,10, 4		8,13
58″	26,53,46,26,13,47,22,24,57,58		1,57,58,48,23	
		1,52,19,48,54,58,21,41		
60″	26,53,48,18,33,36,17,23,19,39			
exact	26,53,48,18,33,36,17,23,32,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°38′ 0″	26,53,48,18,33,36,17,23,32,15			
		1,52,19,46,56,59,26,33		
2″	26,53,50,10,53,23,14,22,58,48		1,57,59, 4,42	
		1,52,19,44,59, 0,21,51		8,13
4″	26,53,52, 3,13, 8,13,23,20,39		1,57,59,12,55	
		1,52,19,43, 1, 1, 8,56		8,13
6″	26,53,53,55,32,51,14,24,29,35		1,57,59,21, 8	
		1,52,19,41, 3, 1,47,48		8,13
8″	26,53,55,47,52,32,17,26,17,23		1,57,59,29,21	
		1,52,19,39, 5, 2,18,27		8,13
10″	26,53,57,40,12,11,22,28,35,50		1,57,59,37,34	
		1,52,19,37, 7, 2,40,53		8,13
12″	26,53,59,32,31,48,29,31,16,43		1,57,59,45,47	
		1,52,19,35, 9, 2,55, 6		8,13
14″	26,54, 1,24,51,23,38,34,11,49		1,57,59,54, 0	
		1,52,19,33,11, 3, 1, 6		8,13
16″	26,54, 3,17,10,56,49,37,12,55		1,58, 0, 2,13	
		1,52,19,31,13, 2,58,53		8,13
18″	26,54, 5, 9,30,28, 2,40,11,48		1,58, 0,10,26	
		1,52,19,29,15, 2,48,27		8,13
20″	26,54, 7, 1,49,57,17,43, 0,15		1,58, 0,18,39	
		1,52,19,27,17, 2,29,48		8,13
22″	26,54, 8,54, 9,24,34,45,30, 3		1,58, 0,26,52	
		1,52,19,25,19, 2, 2,56		8,13
24″	26,54,10,46,28,49,53,47,32,59		1,58, 0,35, 5	
		1,52,19,23,21, 1,27,51		8,13
26″	26,54,12,38,48,13,14,49, 0,50		1,58, 0,43,18	
		1,52,19,21,23, 0,44,33		8,13
28″	26,54,14,31, 7,34,37,49,45,23		1,58, 0,51,31	
		1,52,19,19,24,59,53, 2		8,13
30″	26,54,16,23,26,54, 2,49,38,25		1,58, 0,59,44	
		1,52,19,17,26,58,53,18		8,13
32″	26,54,18,15,46,11,29,48,31,43		1,58, 1, 7,57	
		1,52,19,15,28,57,45,21		8,13
34″	26,54,20, 8, 5,26,58,46,17, 4		1,58, 1,16,10	
		1,52,19,13,30,56,29,11		8,13
36″	26,54,22, 0,24,40,29,42,46,15		1,58, 1,24,23	
		1,52,19,11,32,55, 4,48		8,13
38″	26,54,23,52,43,52, 2,37,51, 3		1,58, 1,32,36	
		1,52,19, 9,34,53,32,12		8,13
40″	26,54,25,45, 3, 1,37,31,23,15		1,58, 1,40,49	
		1,52,19, 7,36,51,51,23		8,13
42″	26,54,27,37,22, 9,14,23,14,38		1,58, 1,49, 2	
		1,52,19, 5,38,50, 2,21		8,13
44″	26,54,29,29,41,14,53,13,16,59		1,58, 1,57,15	
		1,52,19, 3,40,48, 5, 6		8,13
46″	26,54,31,22, 0,18,34, 1,22, 5		1,58, 2, 5,28	
		1,52,19, 1,42,45,59,38		8,13
48″	26,54,33,14,19,20,16,47,21,43		1,58, 2,13,41	
		1,52,18,59,44,43,45,57		8,13
50″	26,54,35, 6,38,20, 1,31, 7,40		1,58, 2,21,54	
		1,52,18,57,46,41,24, 3		8,13
52″	26,54,36,58,57,17,48,12,31,43		1,58, 2,30, 7	
		1,52,18,55,48,38,53,56		8,13
54″	26,54,38,51,16,13,36,51,25,39		1,58, 2,38,20	
		1,52,18,53,50,36,15,36		8,13
56″	26,54,40,43,35, 7,27,27,41,15		1,58, 2,46,33	
		1,52,18,51,52,33,29, 3		8,13
58″	26,54,42,35,53,59,20, 1,10,18		1,58, 2,54,46	
		1,52,18,49,54,30,34,17		
60″	26,54,44,28,12,49,14,31,44,35			
exact	26,54,44,28,12,49,14,32, 1,57			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
26°39′	0″	26,54,44,28,12,49,14,32, 1,57			
	2″	26,54,46,20,31,37,10,59,35,14	1,52,18,47,56,27,33,17	1,58, 3,11, 3	
	4″	26,54,48,12,50,23, 9,23,57,28	1,52,18,45,58,24,22,14	1,58, 3,19,16	8,13
	6″	26,54,50, 5, 9, 7, 9,45, 0,26	1,52,18,44, 0,21, 2,58	1,58, 3,27,29	8,13
	8″	26,54,51,57,27,49,12, 2,35,55	1,52,18,42, 2,17,35,29	1,58, 3,35,42	8,13
	10″	26,54,53,49,46,29,16,16,35,42	1,52,18,40, 4,13,59,47	1,58, 3,43,55	8,13
	12″	26,54,55,42, 5, 7,22,26,51,34	1,52,18,38, 6,10,15,52	1,58, 3,52, 8	8,13
	14″	26,54,57,34,23,43,30,33,15,18	1,52,18,36, 8, 6,23,44	1,58, 4, 0,21	8,13
	16″	26,54,59,26,42,17,40,35,38,41	1,52,18,34,10, 2,23,23	1,58, 4, 8,34	8,13
	18″	26,55, 1,19, 0,49,52,33,53,30	1,52,18,32,11,58,14,49	1,58, 4,16,47	8,13
	20″	26,55, 3,11,19,20, 6,27,51,32	1,52,18,30,13,53,58, 2	1,58, 4,25, 0	8,13
	22″	26,55, 5, 3,37,48,22,17,24,34	1,52,18,28,15,49,33, 2	1,58, 4,33,13	8,13
	24″	26,55, 6,55,56,14,40, 2,24,23	1,52,18,26,17,44,59,49	1,58, 4,41,26	8,13
	26″	26,55, 8,48,14,38,59,42,42,46	1,52,18,24,19,40,18,23	1,58, 4,49,39	8,13
	28″	26,55,10,40,33, 1,21,18,11,30	1,52,18,22,21,35,28,44	1,58, 4,57,52	8,13
	30″	26,55,12,32,51,21,44,48,42,22	1,52,18,20,23,30,30,52	1,58, 5, 6, 5	8,13
	32″	26,55,14,25, 9,40,10,14, 7, 9	1,52,18,18,25,25,24,47	1,58, 5,14,18	8,13
	34″	26,55,16,17,27,56,37,34,17,38	1,52,18,16,27,20,10,29	1,58, 5,22,31	8,13
	36″	26,55,18, 9,46,11, 6,49, 5,36	1,52,18,14,29,14,47,58	1,58, 5,30,44	8,13
	38″	26,55,20, 2, 4,23,37,58,22,50	1,52,18,12,31, 9,17,14	1,58, 5,38,57	8,13
	40″	26,55,21,54,22,34,11, 2, 1, 7	1,52,18,10,33, 3,38,17	1,58, 5,47,10	8,13
	42″	26,55,23,46,40,42,45,59,52,14	1,52,18, 8,34,57,51, 7	1,58, 5,55,23	8,13
	44″	26,55,25,38,58,49,22,51,47,58	1,52,18, 6,36,51,55,44	1,58, 6, 3,36	8,13
	46″	26,55,27,31,16,54, 1,37,40, 6	1,52,18, 4,38,45,52, 8	1,58, 6,11,49	8,13
	48″	26,55,29,23,34,56,42,17,20,25	1,52,18, 2,40,39,40,19	1,58, 6,20, 2	8,13
	50″	26,55,31,15,52,57,24,50,40,42	1,52,18, 0,42,33,20,17	1,58, 6,28,15	8,13
	52″	26,55,33, 8,10,56, 9,17,32,44	1,52,17,58,44,26,52, 2	1,58, 6,36,28	8,13
	54″	26,55,35, 0,28,52,55,37,48,18	1,52,17,56,46,20,15,34	1,58, 6,44,41	8,13
	56″	26,55,36,52,46,47,43,51,19,11	1,52,17,54,48,13,30,53	1,58, 6,52,54	8,13
	58″	26,55,38,45, 4,40,33,57,57,10	1,52,17,52,50, 6,37,59	1,58, 7, 1, 7	
	60″	26,55,40,37,22,31,25,57,34, 2	1,52,17,50,51,59,36,52		
exact		26,55,40,37,22,31,25,57,56,50			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
26°40′	0″	26,55,40,37,22,31,25,57,56,50			
	2″	26,55,42,29,40,20,19,50,26,55	1,52,17,48,53,52,30, 5	1,58, 7,17,22	
	4″	26,55,44,21,58, 7,15,35,39,38	1,52,17,46,55,45,12,43	1,58, 7,25,35	8,13
	6″	26,55,46,14,15,52,13,13,26,46	1,52,17,44,57,37,47, 8	1,58, 7,33,48	8,13
	8″	26,55,48, 6,33,35,12,43,40, 6	1,52,17,42,59,30,13,20	1,58, 7,42, 1	8,13
	10″	26,55,49,58,51,16,14, 6,11,25	1,52,17,41, 1,22,31,19	1,58, 7,50,14	8,13
	12″	26,55,51,51, 8,55,17,20,52,30	1,52,17,39, 3,14,41, 5	1,58, 7,58,27	8,13
	14″	26,55,53,43,26,32,22,27,35, 8	1,52,17,37, 5, 6,42,38	1,58, 8, 6,40	8,13
	16″	26,55,55,35,44, 7,29,26,11, 6	1,52,17,35, 6,58,35,58	1,58, 8,14,53	8,13
	18″	26,55,57,28, 1,40,38,16,32,11	1,52,17,33, 8,50,21, 5	1,58, 8,23, 6	8,13
	20″	26,55,59,20,19,11,48,58,30,10	1,52,17,31,10,41,57,59	1,58, 8,31,19	8,13
	22″	26,56, 1,12,36,41, 1,31,56,50	1,52,17,29,12,33,26,40	1,58, 8,39,32	8,13
	24″	26,56, 3, 4,54, 8,15,56,43,58	1,52,17,27,14,24,47, 8	1,58, 8,47,45	8,13
	26″	26,56, 4,57,11,33,32,12,43,21	1,52,17,25,16,15,59,23	1,58, 8,55,58	8,13
	28″	26,56, 6,49,28,56,50,19,46,46	1,52,17,23,18, 7, 3,25	1,58, 9, 4,11	8,13
	30″	26,56, 8,41,46,18,10,17,46, 0	1,52,17,21,19,57,59,14	1,58, 9,12,24	8,13
	32″	26,56,10,34, 3,37,32, 6,32,50	1,52,17,19,21,48,46,50	1,58, 9,20,37	8,13
	34″	26,56,12,26,20,54,55,45,59, 3	1,52,17,17,23,39,26,13	1,58, 9,28,50	8,13
	36″	26,56,14,18,38,10,21,15,56,26	1,52,17,15,25,29,57,23	1,58, 9,37, 3	8,13
	38″	26,56,16,10,55,23,48,36,16,46	1,52,17,13,27,20,20,20	1,58, 9,45,16	8,13
	40″	26,56,18, 3,12,35,17,46,51,50	1,52,17,11,29,10,35, 4	1,58, 9,53,29	8,13
	42″	26,56,19,55,29,44,48,47,33,25	1,52,17, 9,31, 0,41,35	1,58,10, 1,42	8,13
	44″	26,56,21,47,46,52,21,38,13,18	1,52,17, 7,32,50,39,53	1,58,10, 9,55	8,13
	46″	26,56,23,40, 3,57,56,18,43,16	1,52,17, 5,34,40,29,58	1,58,10,18, 8	8,13
	48″	26,56,25,32,21, 1,32,48,55, 6	1,52,17, 3,36,30,11,50	1,58,10,26,21	8,13
	50″	26,56,27,24,38, 3,11, 8,40,35	1,52,17, 1,38,19,45,29	1,58,10,34,34	8,13
	52″	26,56,29,16,55, 2,51,17,51,30	1,52,16,59,40, 9,10,55	1,58,10,42,47	8,13
	54″	26,56,31, 9,12, 0,33,16,19,38	1,52,16,57,41,58,28, 8	1,58,10,51, 0	8,13
	56″	26,56,33, 1,28,56,17, 3,56,46	1,52,16,55,43,47,37, 8	1,58,10,59,13	8,13
	58″	26,56,34,53,45,50, 2,40,34,41	1,52,16,53,45,36,37,55	1,58,11, 7,26	
	60″	26,56,36,46, 2,41,50, 6, 5,10	1,52,16,51,47,25,30,29		
exact		26,56,36,46, 2,41,50, 6,34,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°41′ 0″	26,56,36,46, 2,41,50, 6,34,58			
		1,52,16,49,49,14,18, 3		
2″	26,56,38,38,19,31,39,20,53, 1		1,58,11,23,38	
		1,52,16,47,51, 2,54,25		8,13
4″	26,56,40,30,36,19,30,23,47,26		1,58,11,31,51	
		1,52,16,45,52,51,22,34		8,13
6″	26,56,42,22,53, 5,23,15,10, 0		1,58,11,40, 4	
		1,52,16,43,54,39,42,30		8,13
8″	26,56,44,15, 9,49,17,54,52,30		1,58,11,48,17	
		1,52,16,41,56,27,54,13		8,13
10″	26,56,46, 7,26,31,14,22,46,43		1,58,11,56,30	
		1,52,16,39,58,15,57,43		8,13
12″	26,56,47,59,43,11,12,38,44,26		1,58,12, 4,43	
		1,52,16,38, 0, 3,53, 0		8,13
14″	26,56,49,51,59,49,12,42,37,26		1,58,12,12,56	
		1,52,16,36, 1,51,40, 4		8,13
16″	26,56,51,44,16,25,14,34,17,30		1,58,12,21, 9	
		1,52,16,34, 3,39,18,55		8,13
18″	26,56,53,36,32,59,18,13,36,25		1,58,12,29,22	
		1,52,16,32, 5,26,49,33		8,13
20″	26,56,55,28,49,31,23,40,25,58		1,58,12,37,35	
		1,52,16,30, 7,14,11,58		8,13
22″	26,56,57,21, 6, 1,30,54,37,56		1,58,12,45,48	
		1,52,16,28, 9, 1,26,10		8,13
24″	26,56,59,13,22,29,39,56, 4, 6		1,58,12,54, 1	
		1,52,16,26,10,48,32, 9		8,13
26″	26,57, 1, 5,38,55,50,44,36,15		1,58,13, 2,14	
		1,52,16,24,12,35,29,55		8,13
28″	26,57, 2,57,55,20, 3,20, 6,10		1,58,13,10,27	
		1,52,16,22,14,22,19,28		8,13
30″	26,57, 4,50,11,42,17,42,25,38		1,58,13,18,40	
		1,52,16,20,16, 9, 0,48		8,13
32″	26,57, 6,42,28, 2,33,51,26,26		1,58,13,26,53	
		1,52,16,18,17,55,33,55		8,13
34″	26,57, 8,34,44,20,51,47, 0,21		1,58,13,35, 6	
		1,52,16,16,19,41,58,49		8,13
36″	26,57,10,27, 0,37,11,28,59,10		1,58,13,43,19	
		1,52,16,14,21,28,15,30		8,13
38″	26,57,12,19,16,51,32,57,14,40		1,58,13,51,32	
		1,52,16,12,23,14,23,58		8,13
40″	26,57,14,11,33, 3,56,11,38,38		1,58,13,59,45	
		1,52,16,10,25, 0,24,13		8,13
42″	26,57,16, 3,49,14,21,12, 2,51		1,58,14, 7,58	
		1,52,16, 8,26,46,16,15		8,13
44″	26,57,17,56, 5,22,47,58,19, 6		1,58,14,16,11	
		1,52,16, 6,28,32, 0, 4		8,13
46″	26,57,19,48,21,29,16,30,19,10		1,58,14,24,24	
		1,52,16, 4,30,17,35,40		8,13
48″	26,57,21,40,37,33,46,47,54,50		1,58,14,32,37	
		1,52,16, 2,32, 3, 3, 3		8,13
50″	26,57,23,32,53,36,18,50,57,53		1,58,14,40,50	
		1,52,16, 0,33,48,22,13		8,13
52″	26,57,25,25, 9,36,52,39,20, 6		1,58,14,49, 3	
		1,52,15,58,35,33,33,10		8,13
54″	26,57,27,17,25,35,28,12,53,16		1,58,14,57,16	
		1,52,15,56,37,18,35,54		8,13
56″	26,57,29, 9,41,32, 5,31,29,10		1,58,15, 5,29	
		1,52,15,54,39, 3,30,25		8,13
58″	26,57,31, 1,57,26,44,34,59,35		1,58,15,13,42	
		1,52,15,52,40,48,16,43		
60″	26,57,32,54,13,19,25,23,16,18			
exact	26,57,32,54,13,19,25,23,46,46			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
26°42′	0″	26,57,32,54,13,19,25,23,46,46	1,52,15,50,42,32,58,15		
	2″	26,57,34,46,29,10, 7,56,45, 1	1,52,15,48,44,17,28,22	1,58,15,29,53	
	4″	26,57,36,38,44,58,52,14,13,23	1,52,15,46,46, 1,50,17	1,58,15,38, 5	8,12
	6″	26,57,38,31, 0,45,38,16, 3,40	1,52,15,44,47,46, 4, 0	1,58,15,46,17	8,12
	8″	26,57,40,23,16,30,26, 2, 7,40	1,52,15,42,49,30, 9,31	1,58,15,54,29	8,12
	10″	26,57,42,15,32,13,15,32,17,11	1,52,15,40,51,14, 6,50	1,58,16, 2,41	8,12
	12″	26,57,44, 7,47,54, 6,46,24, 1	1,52,15,38,52,57,55,57	1,58,16,10,53	8,12
	14″	26,57,46, 0, 3,32,59,44,19,58	1,52,15,36,54,41,36,52	1,58,16,19, 5	8,12
	16″	26,57,47,52,19, 9,54,25,56,50	1,52,15,34,56,25, 9,35	1,58,16,27,17	8,12
	18″	26,57,49,44,34,44,50,51, 6,25	1,52,15,32,58, 8,34, 6	1,58,16,35,29	8,12
	20″	26,57,51,36,50,17,48,59,40,31	1,52,15,30,59,51,50,25	1,58,16,43,41	8,12
	22″	26,57,53,29, 5,48,48,51,30,56	1,52,15,29, 1,34,58,32	1,58,16,51,53	8,12
	24″	26,57,55,21,21,17,50,26,29,28	1,52,15,27, 3,17,58,27	1,58,17, 0, 5	8,12
	26″	26,57,57,13,36,44,53,44,27,55	1,52,15,25, 5, 0,50,10	1,58,17, 8,17	8,12
	28″	26,57,59, 5,52, 9,58,45,18, 5	1,52,15,23, 6,43,33,41	1,58,17,16,29	8,12
	30″	26,58, 0,58, 7,33, 5,28,51,46	1,52,15,21, 8,26, 9, 0	1,58,17,24,41	8,12
	32″	26,58, 2,50,22,54,13,55, 0,46	1,52,15,19,10, 8,36, 7	1,58,17,32,53	8,12
	34″	26,58, 4,42,38,13,24, 3,36,53	1,52,15,17,11,50,55, 2	1,58,17,41, 5	8,12
	36″	26,58, 6,34,53,30,35,54,31,55	1,52,15,15,13,33, 5,45	1,58,17,49,17	8,12
	38″	26,58, 8,27, 8,45,49,27,37,40	1,52,15,13,15,15, 8,16	1,58,17,57,29	8,12
	40″	26,58,10,19,23,59, 4,42,45,56	1,52,15,11,16,57, 2,35	1,58,18, 5,41	8,12
	42″	26,58,12,11,39,10,21,39,48,31	1,52,15, 9,18,38,48,42	1,58,18,13,53	8,12
	44″	26,58,14, 3,54,19,40,18,37,13	1,52,15, 7,20,20,26,37	1,58,18,22, 5	8,12
	46″	26,58,15,56, 9,27, 0,39, 3,50	1,52,15, 5,22, 1,56,20	1,58,18,30,17	8,12
	48″	26,58,17,48,24,32,22,41, 0,10	1,52,15, 3,23,43,17,51	1,58,18,38,29	8,12
	50″	26,58,19,40,39,35,46,24,18, 1	1,52,15, 1,25,24,31,10	1,58,18,46,41	8,12
	52″	26,58,21,32,54,37,11,48,49,11	1,52,14,59,27, 5,36,17	1,58,18,54,53	8,12
	54″	26,58,23,25, 9,36,38,54,25,28	1,52,14,57,28,46,33,12	1,58,19, 3, 5	8,12
	56″	26,58,25,17,24,34, 7,40,58,40	1,52,14,55,30,27,21,55	1,58,19,11,17	8,12
	58″	26,58,27, 9,39,29,38, 8,20,35	1,52,14,53,32, 8, 2,26	1,58,19,19,29	
	60″	26,58,29, 1,54,23,10,16,23, 1			
exact		26,58,29, 1,54,23,10,15,55, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°43′ 0″	26,58,29, 1,54,23,10,15,55, 3			
		1,52,14,51,33,48,31,46		
2″	26,58,30,54, 9,14,44, 4,26,49		1,58,19,36, 5	
		1,52,14,49,35,28,55,41		8,12
4″	26,58,32,46,24, 4,19,33,22,30		1,58,19,44,17	
		1,52,14,47,37, 9,11,24		8,12
6″	26,58,34,38,38,51,56,42,33,54		1,58,19,52,29	
		1,52,14,45,38,49,18,55		8,12
8″	26,58,36,30,53,37,35,31,52,49		1,58,20, 0,41	
		1,52,14,43,40,29,18,14		8,12
10″	26,58,38,23, 8,21,16, 1,11, 3		1,58,20, 8,53	
		1,52,14,41,42, 9, 9,21		8,12
12″	26,58,40,15,23, 2,58,10,20,24		1,58,20,17, 5	
		1,52,14,39,43,48,52,16		8,12
14″	26,58,42, 7,37,42,41,59,12,40		1,58,20,25,17	
		1,52,14,37,45,28,26,59		8,12
16″	26,58,43,59,52,20,27,27,39,39		1,58,20,33,29	
		1,52,14,35,47, 7,53,30		8,12
18″	26,58,45,52, 6,56,14,35,33, 9		1,58,20,41,41	
		1,52,14,33,48,47,11,49		8,12
20″	26,58,47,44,21,30, 3,22,44,58		1,58,20,49,53	
		1,52,14,31,50,26,21,56		8,12
22″	26,58,49,36,36, 1,53,49, 6,54		1,58,20,58, 5	
		1,52,14,29,52, 5,23,51		8,12
24″	26,58,51,28,50,31,45,54,30,45		1,58,21, 6,17	
		1,52,14,27,53,44,17,34		8,12
26″	26,58,53,21, 4,59,39,38,48,19		1,58,21,14,29	
		1,52,14,25,55,23, 3, 5		8,12
28″	26,58,55,13,19,25,35, 1,51,24		1,58,21,22,41	
		1,52,14,23,57, 1,40,24		8,12
30″	26,58,57, 5,33,49,32, 3,31,48		1,58,21,30,53	
		1,52,14,21,58,40, 9,31		8,12
32″	26,58,58,57,48,11,30,43,41,19		1,58,21,39, 5	
		1,52,14,20, 0,18,30,26		8,12
34″	26,59, 0,50, 2,31,31, 2,11,45		1,58,21,47,17	
		1,52,14,18, 1,56,43, 9		8,12
36″	26,59, 2,42,16,49,32,58,54,54		1,58,21,55,29	
		1,52,14,16, 3,34,47,40		8,12
38″	26,59, 4,34,31, 5,36,33,42,34		1,58,22, 3,41	
		1,52,14,14, 5,12,43,59		8,12
40″	26,59, 6,26,45,19,41,46,26,33		1,58,22,11,53	
		1,52,14,12, 6,50,32, 6		8,12
42″	26,59, 8,18,59,31,48,36,58,39		1,58,22,20, 5	
		1,52,14,10, 8,28,12, 1		8,12
44″	26,59,10,11,13,41,57, 5,10,40		1,58,22,28,17	
		1,52,14, 8,10, 5,43,44		8,12
46″	26,59,12, 3,27,50, 7,10,54,24		1,58,22,36,29	
		1,52,14, 6,11,43, 7,15		8,12
48″	26,59,13,55,41,56,18,54, 1,39		1,58,22,44,41	
		1,52,14, 4,13,20,22,34		8,12
50″	26,59,15,47,56, 0,32,14,24,13		1,58,22,52,53	
		1,52,14, 2,14,57,29,41		8,12
52″	26,59,17,40,10, 2,47,11,53,54		1,58,23, 1, 5	
		1,52,14, 0,16,34,28,36		8,12
54″	26,59,19,32,24, 3, 3,46,22,30		1,58,23, 9,17	
		1,52,13,58,18,11,19,19		8,12
56″	26,59,21,24,38, 1,21,57,41,49		1,58,23,17,29	
		1,52,13,56,19,48, 1,50		8,12
58″	26,59,23,16,51,57,41,45,43,39		1,58,23,25,41	
		1,52,13,54,21,24,36, 9		
60″	26,59,25, 9, 5,52, 3,10,19,48			
exact	26,59,25, 9, 5,52, 3, 9,55, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°44′ 0″	26,59,25, 9, 5,52, 3, 9,55, 6	1,52,13,52,23, 0,59,41		
2″	26,59,27, 1,19,44,26,10,54,47	1,52,13,50,24,37,17,26	1,58,23,42,15	8,12
4″	26,59,28,53,33,34,50,48,12,13	1,52,13,48,26,13,26,59	1,58,23,50,27	8,12
6″	26,59,30,45,47,23,17, 1,39,12	1,52,13,46,27,49,28,20	1,58,23,58,39	8,12
8″	26,59,32,38, 1, 9,44,51, 7,32	1,52,13,44,29,25,21,29	1,58,24, 6,51	8,12
10″	26,59,34,30,14,54,14,16,29, 1	1,52,13,42,31, 1, 6,26	1,58,24,15, 3	8,12
12″	26,59,36,22,28,36,45,17,35,27	1,52,13,40,32,36,43,11	1,58,24,23,15	8,12
14″	26,59,38,14,42,17,17,54,18,38	1,52,13,38,34,12,11,44	1,58,24,31,27	8,12
16″	26,59,40, 6,55,55,52, 6,30,22	1,52,13,36,35,47,32, 5	1,58,24,39,39	8,12
18″	26,59,41,59, 9,32,27,54, 2,27	1,52,13,34,37,22,44,14	1,58,24,47,51	8,12
20″	26,59,43,51,23, 7, 5,16,46,41	1,52,13,32,38,57,48,11	1,58,24,56, 3	8,12
22″	26,59,45,43,36,39,44,14,34,52	1,52,13,30,40,32,43,56	1,58,25, 4,15	8,12
24″	26,59,47,35,50,10,24,47,18,48	1,52,13,28,42, 7,31,29	1,58,25,12,27	8,12
26″	26,59,49,28, 3,39, 6,54,50,17	1,52,13,26,43,42,10,50	1,58,25,20,39	8,12
28″	26,59,51,20,17, 5,50,37, 1, 7	1,52,13,24,45,16,41,59	1,58,25,28,51	8,12
30″	26,59,53,12,30,30,35,53,43, 6	1,52,13,22,46,51, 4,56	1,58,25,37, 3	8,12
32″	26,59,55, 4,43,53,22,44,48, 2	1,52,13,20,48,25,19,41	1,58,25,45,15	8,12
34″	26,59,56,56,57,14,11,10, 7,43	1,52,13,18,49,59,26,14	1,58,25,53,27	8,12
36″	26,59,58,49,10,33, 1, 9,33,57	1,52,13,16,51,33,24,35	1,58,26, 1,39	8,12
38″	27, 0, 0,41,23,49,52,42,58,32	1,52,13,14,53, 7,14,44	1,58,26, 9,51	8,12
40″	27, 0, 2,33,37, 4,45,50,13,16	1,52,13,12,54,40,56,41	1,58,26,18, 3	8,12
42″	27, 0, 4,25,50,17,40,31, 9,57	1,52,13,10,56,14,30,26	1,58,26,26,15	8,12
44″	27, 0, 6,18, 3,28,36,45,40,23	1,52,13, 8,57,47,55,59	1,58,26,34,27	8,12
46″	27, 0, 8,10,16,37,34,33,36,22	1,52,13, 6,59,21,13,20	1,58,26,42,39	8,12
48″	27, 0,10, 2,29,44,33,54,49,42	1,52,13, 5, 0,54,22,29	1,58,26,50,51	8,12
50″	27, 0,11,54,42,49,34,49,12,11	1,52,13, 3, 2,27,23,26	1,58,26,59, 3	8,12
52″	27, 0,13,46,55,52,37,16,35,37	1,52,13, 1, 4, 0,16,11	1,58,27, 7,15	8,12
54″	27, 0,15,39, 8,53,41,16,51,48	1,52,12,59, 5,33, 0,44	1,58,27,15,27	8,12
56″	27, 0,17,31,21,52,46,49,52,32	1,52,12,57, 7, 5,37, 5	1,58,27,23,39	8,12
58″	27, 0,19,23,34,49,53,55,29,37	1,52,12,55, 8,38, 5,14	1,58,27,31,51	
60″	27, 0,21,15,47,45, 2,33,34,51			
exact	27, 0,21,15,47,45, 2,33,14,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°45′ 0″	27, 0,21,15,47,45, 2,33,14,35			
		1,52,12,53,10,10,23, 6		
2″	27, 0,23, 8, 0,38,12,43,37,41		1,58,27,48,23	
		1,52,12,51,11,42,34,43		8,12
4″	27, 0,25, 0,13,29,24,26,12,24		1,58,27,56,35	
		1,52,12,49,13,14,38, 8		8,12
6″	27, 0,26,52,26,18,37,40,50,32		1,58,28, 4,47	
		1,52,12,47,14,46,33,21		8,12
8″	27, 0,28,44,39, 5,52,27,23,53		1,58,28,12,59	
		1,52,12,45,16,18,20,22		8,12
10″	27, 0,30,36,51,51, 8,45,44,15		1,58,28,21,11	
		1,52,12,43,17,49,59,11		8,12
12″	27, 0,32,29, 4,34,26,35,43,26		1,58,28,29,23	
		1,52,12,41,19,21,29,48		8,12
14″	27, 0,34,21,17,15,45,57,13,14		1,58,28,37,35	
		1,52,12,39,20,52,52,13		8,12
16″	27, 0,36,13,29,55, 6,50, 5,27		1,58,28,45,47	
		1,52,12,37,22,24, 6,26		8,12
18″	27, 0,38, 5,42,32,29,14,11,53		1,58,28,53,59	
		1,52,12,35,23,55,12,27		8,12
20″	27, 0,39,57,55, 7,53, 9,24,20		1,58,29, 2,11	
		1,52,12,33,25,26,10,16		8,12
22″	27, 0,41,50, 7,41,18,35,34,36		1,58,29,10,23	
		1,52,12,31,26,56,59,53		8,12
24″	27, 0,43,42,20,12,45,32,34,29		1,58,29,18,35	
		1,52,12,29,28,27,41,18		8,12
26″	27, 0,45,34,32,42,14, 0,15,47		1,58,29,26,47	
		1,52,12,27,29,58,14,31		8,12
28″	27, 0,47,26,45, 9,43,58,30,18		1,58,29,34,59	
		1,52,12,25,31,28,39,32		8,12
30″	27, 0,49,18,57,35,15,27, 9,50		1,58,29,43,11	
		1,52,12,23,32,58,56,21		8,12
32″	27, 0,51,11, 9,58,48,26, 6,11		1,58,29,51,23	
		1,52,12,21,34,29, 4,58		8,12
34″	27, 0,53, 3,22,20,22,55,11, 9		1,58,29,59,35	
		1,52,12,19,35,59, 5,23		8,12
36″	27, 0,54,55,34,39,58,54,16,32		1,58,30, 7,47	
		1,52,12,17,37,28,57,36		8,12
38″	27, 0,56,47,46,57,36,23,14, 8		1,58,30,15,59	
		1,52,12,15,38,58,41,37		8,12
40″	27, 0,58,39,59,13,15,21,55,45		1,58,30,24,11	
		1,52,12,13,40,28,17,26		8,12
42″	27, 1, 0,32,11,26,55,50,13,11		1,58,30,32,23	
		1,52,12,11,41,57,45, 3		8,12
44″	27, 1, 2,24,23,38,37,47,58,14		1,58,30,40,35	
		1,52,12, 9,43,27, 4,28		8,12
46″	27, 1, 4,16,35,48,21,15, 2,42		1,58,30,48,47	
		1,52,12, 7,44,56,15,41		8,12
48″	27, 1, 6, 8,47,56, 6,11,18,23		1,58,30,56,59	
		1,52,12, 5,46,25,18,42		8,12
50″	27, 1, 8, 1, 0, 1,52,36,37, 5		1,58,31, 5,11	
		1,52,12, 3,47,54,13,31		8,12
52″	27, 1, 9,53,12, 5,40,30,50,36		1,58,31,13,23	
		1,52,12, 1,49,23, 0, 8		8,12
54″	27, 1,11,45,24, 7,29,53,50,44		1,58,31,21,35	
		1,52,11,59,50,51,38,33		8,12
56″	27, 1,13,37,36, 7,20,45,29,17		1,58,31,29,47	
		1,52,11,57,52,20, 8,46		8,12
58″	27, 1,15,29,48, 5,13, 5,38, 3		1,58,31,37,59	
		1,52,11,55,53,48,30,47		
60″	27, 1,17,22, 0, 1, 6,54, 8,50			
exact	27, 1,17,22, 0, 1, 6,53,53,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°46′ 0″	27, 1,17,22, 0, 1, 6,53,53,40	1,52,11,53,55,16,43, 4		
2″	27, 1,19,14,11,55, 2,10,36,44	1,52,11,51,56,44,48,35	1,58,31,54,29	8,12
4″	27, 1,21, 6,23,46,58,55,25,19	1,52,11,49,58,12,45,54	1,58,32, 2,41	8,12
6″	27, 1,22,58,35,36,57, 8,11,13	1,52,11,47,59,40,35, 1	1,58,32,10,53	8,12
8″	27, 1,24,50,47,24,56,48,46,14	1,52,11,46, 1, 8,15,56	1,58,32,19, 5	8,12
10″	27, 1,26,42,59,10,57,57, 2,10	1,52,11,44, 2,35,48,39	1,58,32,27,17	8,12
12″	27, 1,28,35,10,55, 0,32,50,49	1,52,11,42, 4, 3,13,10	1,58,32,35,29	8,12
14″	27, 1,30,27,22,37, 4,36, 3,59	1,52,11,40, 5,30,29,29	1,58,32,43,41	8,12
16″	27, 1,32,19,34,17,10, 6,33,28	1,52,11,38, 6,57,37,36	1,58,32,51,53	8,12
18″	27, 1,34,11,45,55,17, 4,11, 4	1,52,11,36, 8,24,37,31	1,58,33, 0, 5	8,12
20″	27, 1,36, 3,57,31,25,28,48,35	1,52,11,34, 9,51,29,14	1,58,33, 8,17	8,12
22″	27, 1,37,56, 9, 5,35,20,17,49	1,52,11,32,11,18,12,45	1,58,33,16,29	8,12
24″	27, 1,39,48,20,37,46,38,30,34	1,52,11,30,12,44,48, 4	1,58,33,24,41	8,12
26″	27, 1,41,40,32, 7,59,23,18,38	1,52,11,28,14,11,15,11	1,58,33,32,53	8,12
28″	27, 1,43,32,43,36,13,34,33,49	1,52,11,26,15,37,34, 6	1,58,33,41, 5	8,12
30″	27, 1,45,24,55, 2,29,12, 7,55	1,52,11,24,17, 3,44,49	1,58,33,49,17	8,12
32″	27, 1,47,17, 6,26,46,15,52,44	1,52,11,22,18,29,47,20	1,58,33,57,29	8,12
34″	27, 1,49, 9,17,49, 4,45,40, 4	1,52,11,20,19,55,41,39	1,58,34, 5,41	8,12
36″	27, 1,51, 1,29, 9,24,41,21,43	1,52,11,18,21,21,27,46	1,58,34,13,53	8,12
38″	27, 1,52,53,40,27,46, 2,49,29	1,52,11,16,22,47, 5,41	1,58,34,22, 5	8,12
40″	27, 1,54,45,51,44, 8,49,55,10	1,52,11,14,24,12,35,24	1,58,34,30,17	8,12
42″	27, 1,56,38, 2,58,33, 2,30,34	1,52,11,12,25,37,56,55	1,58,34,38,29	8,12
44″	27, 1,58,30,14,10,58,40,27,29	1,52,11,10,27, 3,10,14	1,58,34,46,41	8,12
46″	27, 2, 0,22,25,21,25,43,37,43	1,52,11, 8,28,28,15,21	1,58,34,54,53	8,12
48″	27, 2, 2,14,36,29,54,11,53, 4	1,52,11, 6,29,53,12,16	1,58,35, 3, 5	8,12
50″	27, 2, 4, 6,47,36,24, 5, 5,20	1,52,11, 4,31,18, 0,59	1,58,35,11,17	8,12
52″	27, 2, 5,58,58,40,55,23, 6,19	1,52,11, 2,32,42,41,30	1,58,35,19,29	8,12
54″	27, 2, 7,51, 9,43,28, 5,47,49	1,52,11, 0,34, 7,13,49	1,58,35,27,41	8,12
56″	27, 2, 9,43,20,44, 2,13, 1,38	1,52,10,58,35,31,37,56	1,58,35,35,53	8,12
58″	27, 2,11,35,31,42,37,44,39,34	1,52,10,56,36,55,53,51	1,58,35,44, 5	
60″	27, 2,13,27,42,39,14,40,33,25			
exact	27, 2,13,27,42,39,14,40,24,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°47′ 0″	27, 2,13,27,42,39,14,40,24,58			
		1,52,10,54,38,20, 0,41		
2″	27, 2,15,19,53,33,53, 0,25,39		1,58,36, 0,32	
		1,52,10,52,39,44, 0, 9		8,12
4″	27, 2,17,12, 4,26,32,44,25,48		1,58,36, 8,44	
		1,52,10,50,41, 7,51,25		8,12
6″	27, 2,19, 4,15,17,13,52,17,13		1,58,36,16,56	
		1,52,10,48,42,31,34,29		8,12
8″	27, 2,20,56,26, 5,56,23,51,42		1,58,36,25, 8	
		1,52,10,46,43,55, 9,21		8,12
10″	27, 2,22,48,36,52,40,19, 1, 3		1,58,36,33,20	
		1,52,10,44,45,18,36, 1		8,12
12″	27, 2,24,40,47,37,25,37,37, 4		1,58,36,41,32	
		1,52,10,42,46,41,54,29		8,12
14″	27, 2,26,32,58,20,12,19,31,33		1,58,36,49,44	
		1,52,10,40,48, 5, 4,45		8,12
16″	27, 2,28,25, 9, 1, 0,24,36,18		1,58,36,57,56	
		1,52,10,38,49,28, 6,49		8,12
18″	27, 2,30,17,19,39,49,52,43, 7		1,58,37, 6, 8	
		1,52,10,36,50,51, 0,41		8,12
20″	27, 2,32, 9,30,16,40,43,43,48		1,58,37,14,20	
		1,52,10,34,52,13,46,21		8,12
22″	27, 2,34, 1,40,51,32,57,30, 9		1,58,37,22,32	
		1,52,10,32,53,36,23,49		8,12
24″	27, 2,35,53,51,24,26,33,53,58		1,58,37,30,44	
		1,52,10,30,54,58,53, 5		8,12
26″	27, 2,37,46, 1,55,21,32,47, 3		1,58,37,38,56	
		1,52,10,28,56,21,14, 9		8,12
28″	27, 2,39,38,12,24,17,54, 1,12		1,58,37,47, 8	
		1,52,10,26,57,43,27, 1		8,12
30″	27, 2,41,30,22,51,15,37,28,13		1,58,37,55,20	
		1,52,10,24,59, 5,31,41		8,12
32″	27, 2,43,22,33,16,14,42,59,54		1,58,38, 3,32	
		1,52,10,23, 0,27,28, 9		8,12
34″	27, 2,45,14,43,39,15,10,28, 3		1,58,38,11,44	
		1,52,10,21, 1,49,16,25		8,12
36″	27, 2,47, 6,54, 0,16,59,44,28		1,58,38,19,56	
		1,52,10,19, 3,10,56,29		8,12
38″	27, 2,48,59, 4,19,20,10,40,57		1,58,38,28, 8	
		1,52,10,17, 4,32,28,21		8,12
40″	27, 2,50,51,14,36,24,43, 9,18		1,58,38,36,20	
		1,52,10,15, 5,53,52, 1		8,12
42″	27, 2,52,43,24,51,30,37, 1,19		1,58,38,44,32	
		1,52,10,13, 7,15, 7,29		8,12
44″	27, 2,54,35,35, 4,37,52, 8,48		1,58,38,52,44	
		1,52,10,11, 8,36,14,45		8,12
46″	27, 2,56,27,45,15,46,28,23,33		1,58,39, 0,56	
		1,52,10, 9, 9,57,13,49		8,12
48″	27, 2,58,19,55,24,56,25,37,22		1,58,39, 9, 8	
		1,52,10, 7,11,18, 4,41		8,12
50″	27, 3, 0,12, 5,32, 7,43,42, 3		1,58,39,17,20	
		1,52,10, 5,12,38,47,21		8,12
52″	27, 3, 2, 4,15,37,20,22,29,24		1,58,39,25,32	
		1,52,10, 3,13,59,21,49		8,12
54″	27, 3, 3,56,25,40,34,21,51,13		1,58,39,33,44	
		1,52,10, 1,15,19,48, 5		8,12
56″	27, 3, 5,48,35,41,49,41,39,18		1,58,39,41,56	
		1,52, 9,59,16,40, 6, 9		8,12
58″	27, 3, 7,40,45,41, 6,21,45,27		1,58,39,50, 8	
		1,52, 9,57,18, 0,16, 1		
60″	27, 3, 9,32,55,38,24,22, 1,28			
exact	27, 3, 9,32,55,38,24,21,53,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°48′ 0″	27, 3, 9,32,55,38,24,21,53,35	1,52, 9,55,19,20,17, 1		
2″	27, 3,11,25, 5,33,43,42,10,36	1,52, 9,53,20,40,10,27	1,58,40, 6,34	8,12
4″	27, 3,13,17,15,27, 4,22,21, 3	1,52, 9,51,21,59,55,41	1,58,40,14,46	8,12
6″	27, 3,15, 9,25,18,26,22,16,44	1,52, 9,49,23,19,32,43	1,58,40,22,58	8,12
8″	27, 3,17, 1,35, 7,49,41,49,27	1,52, 9,47,24,39, 1,33	1,58,40,31,10	8,12
10″	27, 3,18,53,44,55,14,20,51, 0	1,52, 9,45,25,58,22,11	1,58,40,39,22	8,12
12″	27, 3,20,45,54,40,40,19,13,11	1,52, 9,43,27,17,34,37	1,58,40,47,34	8,12
14″	27, 3,22,38, 4,24, 7,36,47,48	1,52, 9,41,28,36,38,51	1,58,40,55,46	8,12
16″	27, 3,24,30,14, 5,36,13,26,39	1,52, 9,39,29,55,34,53	1,58,41, 3,58	8,12
18″	27, 3,26,22,23,45, 6, 9, 1,32	1,52, 9,37,31,14,22,43	1,58,41,12,10	8,12
20″	27, 3,28,14,33,22,37,23,24,15	1,52, 9,35,32,33, 2,21	1,58,41,20,22	8,12
22″	27, 3,30, 6,42,58, 9,56,26,36	1,52, 9,33,33,51,33,47	1,58,41,28,34	8,12
24″	27, 3,31,58,52,31,43,48, 0,23	1,52, 9,31,35, 9,57, 1	1,58,41,36,46	8,12
26″	27, 3,33,51, 2, 3,18,57,57,24	1,52, 9,29,36,28,12, 3	1,58,41,44,58	8,12
28″	27, 3,35,43,11,32,55,26, 9,27	1,52, 9,27,37,46,18,53	1,58,41,53,10	8,12
30″	27, 3,37,35,21, 0,33,12,28,20	1,52, 9,25,39, 4,17,31	1,58,42, 1,22	8,12
32″	27, 3,39,27,30,26,12,16,45,51	1,52, 9,23,40,22, 7,57	1,58,42, 9,34	8,12
34″	27, 3,41,19,39,49,52,38,53,48	1,52, 9,21,41,39,50,11	1,58,42,17,46	8,12
36″	27, 3,43,11,49,11,34,18,43,59	1,52, 9,19,42,57,24,13	1,58,42,25,58	8,12
38″	27, 3,45, 3,58,31,17,16, 8,12	1,52, 9,17,44,14,50, 3	1,58,42,34,10	8,12
40″	27, 3,46,56, 7,49, 1,30,58,15	1,52, 9,15,45,32, 7,41	1,58,42,42,22	8,12
42″	27, 3,48,48,17, 4,47, 3, 5,56	1,52, 9,13,46,49,17, 7	1,58,42,50,34	8,12
44″	27, 3,50,40,26,18,33,52,23, 3	1,52, 9,11,48, 6,18,21	1,58,42,58,46	8,12
46″	27, 3,52,32,35,30,21,58,41,24	1,52, 9, 9,49,23,11,23	1,58,43, 6,58	8,12
48″	27, 3,54,24,44,40,11,21,52,47	1,52, 9, 7,50,39,56,13	1,58,43,15,10	8,12
50″	27, 3,56,16,53,48, 2, 1,49, 0	1,52, 9, 5,51,56,32,51	1,58,43,23,22	8,12
52″	27, 3,58, 9, 2,53,53,58,21,51	1,52, 9, 3,53,13, 1,17	1,58,43,31,34	8,12
54″	27, 4, 0, 1,11,57,47,11,23, 8	1,52, 9, 1,54,29,21,31	1,58,43,39,46	8,12
56″	27, 4, 1,53,20,59,41,40,44,39	1,52, 8,59,55,45,33,33	1,58,43,47,58	8,12
58″	27, 4, 3,45,29,59,37,26,18,12	1,52, 8,57,57, 1,37,23	1,58,43,56,10	
60″	27, 4, 5,37,38,57,34,27,55,35			
exact	27, 4, 5,37,38,57,34,27,57,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°49′ 0″	27, 4, 5,37,38,57,34,27,57,11	1,52, 8,55,58,17,33,11		
2″	27, 4, 7,29,47,53,32,45,30,22	1,52, 8,53,59,33,20,38	1,58,44,12,33	8,12
4″	27, 4, 9,21,56,47,32,18,51, 0	1,52, 8,52, 0,48,59,53	1,58,44,20,45	8,12
6″	27, 4,11,14, 5,39,33, 7,50,53	1,52, 8,50, 2, 4,30,56	1,58,44,28,57	8,12
8″	27, 4,13, 6,14,29,35,12,21,49	1,52, 8,48, 3,19,53,47	1,58,44,37, 9	8,12
10″	27, 4,14,58,23,17,38,32,15,36	1,52, 8,46, 4,35, 8,26	1,58,44,45,21	8,12
12″	27, 4,16,50,32, 3,43, 7,24, 2	1,52, 8,44, 5,50,14,53	1,58,44,53,33	8,12
14″	27, 4,18,42,40,47,48,57,38,55	1,52, 8,42, 7, 5,13, 8	1,58,45, 1,45	8,12
16″	27, 4,20,34,49,29,56, 2,52, 3	1,52, 8,40, 8,20, 3,11	1,58,45, 9,57	8,12
18″	27, 4,22,26,58,10, 4,22,55,14	1,52, 8,38, 9,34,45, 2	1,58,45,18, 9	8,12
20″	27, 4,24,19, 6,48,13,57,40,16	1,52, 8,36,10,49,18,41	1,58,45,26,21	8,12
22″	27, 4,26,11,15,24,24,46,58,57	1,52, 8,34,12, 3,44, 8	1,58,45,34,33	8,12
24″	27, 4,28, 3,23,58,36,50,43, 5	1,52, 8,32,13,18, 1,23	1,58,45,42,45	8,12
26″	27, 4,29,55,32,30,50, 8,44,28	1,52, 8,30,14,32,10,26	1,58,45,50,57	8,12
28″	27, 4,31,47,41, 1, 4,40,54,54	1,52, 8,28,15,46,11,17	1,58,45,59, 9	8,12
30″	27, 4,33,39,49,29,20,27, 6,11	1,52, 8,26,17, 0, 3,56	1,58,46, 7,21	8,12
32″	27, 4,35,31,57,55,37,27,10, 7	1,52, 8,24,18,13,48,23	1,58,46,15,33	8,12
34″	27, 4,37,24, 6,19,55,40,58,30	1,52, 8,22,19,27,24,38	1,58,46,23,45	8,12
36″	27, 4,39,16,14,42,15, 8,23, 8	1,52, 8,20,20,40,52,41	1,58,46,31,57	8,12
38″	27, 4,41, 8,23, 2,35,49,15,49	1,52, 8,18,21,54,12,32	1,58,46,40, 9	8,12
40″	27, 4,43, 0,31,20,57,43,28,21	1,52, 8,16,23, 7,24,11	1,58,46,48,21	8,12
42″	27, 4,44,52,39,37,20,50,52,32	1,52, 8,14,24,20,27,38	1,58,46,56,33	8,12
44″	27, 4,46,44,47,51,45,11,20,10	1,52, 8,12,25,33,22,53	1,58,47, 4,45	8,12
46″	27, 4,48,36,56, 4,10,44,43, 3	1,52, 8,10,26,46, 9,56	1,58,47,12,57	8,12
48″	27, 4,50,29, 4,14,37,30,52,59	1,52, 8, 8,27,58,48,47	1,58,47,21, 9	8,12
50″	27, 4,52,21,12,23, 5,29,41,46	1,52, 8, 6,29,11,19,26	1,58,47,29,21	8,12
52″	27, 4,54,13,20,29,34,41, 1,12	1,52, 8, 4,30,23,41,53	1,58,47,37,33	8,12
54″	27, 4,56, 5,28,34, 5, 4,43, 5	1,52, 8, 2,31,35,56, 8	1,58,47,45,45	8,12
56″	27, 4,57,57,36,36,36,40,39,13	1,52, 8, 0,32,48, 2,11	1,58,47,53,57	8,12
58″	27, 4,59,49,44,37, 9,28,41,24	1,52, 7,58,34, 0, 0, 2	1,58,48, 2, 9	
60″	27, 5, 1,41,52,35,43,28,41,26			
exact	27, 5, 1,41,52,35,43,28,45,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°50′ 0″	27, 5, 1,41,52,35,43,28,45,56			
		1,52, 7,56,35,11,50,15		
2″	27, 5, 3,34, 0,32,18,40,36,11		1,58,48,18,30	
		1,52, 7,54,36,23,31,45		8,12
4″	27, 5, 5,26, 8,26,55, 4, 7,56		1,58,48,26,42	
		1,52, 7,52,37,35, 5, 3		8,12
6″	27, 5, 7,18,16,19,32,39,12,59		1,58,48,34,54	
		1,52, 7,50,38,46,30, 9		8,12
8″	27, 5, 9,10,24,10,11,25,43, 8		1,58,48,43, 6	
		1,52, 7,48,39,57,47, 3		8,12
10″	27, 5,11, 2,31,58,51,23,30,11		1,58,48,51,18	
		1,52, 7,46,41, 8,55,45		8,12
12″	27, 5,12,54,39,45,32,32,25,56		1,58,48,59,30	
		1,52, 7,44,42,19,56,15		8,12
14″	27, 5,14,46,47,30,14,52,22,11		1,58,49, 7,42	
		1,52, 7,42,43,30,48,33		8,12
16″	27, 5,16,38,55,12,58,23,10,44		1,58,49,15,54	
		1,52, 7,40,44,41,32,39		8,12
18″	27, 5,18,31, 2,53,43, 4,43,23		1,58,49,24, 6	
		1,52, 7,38,45,52, 8,33		8,12
20″	27, 5,20,23,10,32,28,56,51,56		1,58,49,32,18	
		1,52, 7,36,47, 2,36,15		8,12
22″	27, 5,22,15,18, 9,15,59,28,11		1,58,49,40,30	
		1,52, 7,34,48,12,55,45		8,12
24″	27, 5,24, 7,25,44, 4,12,23,56		1,58,49,48,42	
		1,52, 7,32,49,23, 7, 3		8,12
26″	27, 5,25,59,33,16,53,35,30,59		1,58,49,56,54	
		1,52, 7,30,50,33,10, 9		8,12
28″	27, 5,27,51,40,47,44, 8,41, 8		1,58,50, 5, 6	
		1,52, 7,28,51,43, 5, 3		8,12
30″	27, 5,29,43,48,16,35,51,46,11		1,58,50,13,18	
		1,52, 7,26,52,52,51,45		8,12
32″	27, 5,31,35,55,43,28,44,37,56		1,58,50,21,30	
		1,52, 7,24,54, 2,30,15		8,12
34″	27, 5,33,28, 3, 8,22,47, 8,11		1,58,50,29,42	
		1,52, 7,22,55,12, 0,33		8,12
36″	27, 5,35,20,10,31,17,59, 8,44		1,58,50,37,54	
		1,52, 7,20,56,21,22,39		8,12
38″	27, 5,37,12,17,52,14,20,31,23		1,58,50,46, 6	
		1,52, 7,18,57,30,36,33		8,12
40″	27, 5,39, 4,25,11,11,51, 7,56		1,58,50,54,18	
		1,52, 7,16,58,39,42,15		8,12
42″	27, 5,40,56,32,28,10,30,50,11		1,58,51, 2,30	
		1,52, 7,14,59,48,39,45		8,12
44″	27, 5,42,48,39,43,10,19,29,56		1,58,51,10,42	
		1,52, 7,13, 0,57,29, 3		8,12
46″	27, 5,44,40,46,56,11,16,58,59		1,58,51,18,54	
		1,52, 7,11, 2, 6,10, 9		8,12
48″	27, 5,46,32,54, 7,13,23, 9, 8		1,58,51,27, 6	
		1,52, 7, 9, 3,14,43, 3		8,12
50″	27, 5,48,25, 1,16,16,37,52,11		1,58,51,35,18	
		1,52, 7, 7, 4,23, 7,45		8,12
52″	27, 5,50,17, 8,23,21, 0,59,56		1,58,51,43,30	
		1,52, 7, 5, 5,31,24,15		8,12
54″	27, 5,52, 9,15,28,26,32,24,11		1,58,51,51,42	
		1,52, 7, 3, 6,39,32,33		8,12
56″	27, 5,54, 1,22,31,33,11,56,44		1,58,51,59,54	
		1,52, 7, 1, 7,47,32,39		8,12
58″	27, 5,55,53,29,32,40,59,29,23		1,58,52, 8, 6	
		1,52, 6,59, 8,55,24,33		
60″	27, 5,57,45,36,31,49,54,53,56			
exact	27, 5,57,45,36,31,49,55, 2,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°51′ 0″	27, 5,57,45,36,31,49,55, 2,32			
		1,52, 6,57,10, 3, 9,17		
2″	27, 5,59,37,43,28,59,58,11,49		1,58,52,24,25	
		1,52, 6,55,11,10,44,52		8,12
4″	27, 6, 1,29,50,24,11, 8,56,41		1,58,52,32,37	
		1,52, 6,53,12,18,12,15		8,12
6″	27, 6, 3,21,57,17,23,27, 8,56		1,58,52,40,49	
		1,52, 6,51,13,25,31,26		8,12
8″	27, 6, 5,14, 4, 8,36,52,40,22		1,58,52,49, 1	
		1,52, 6,49,14,32,42,25		8,12
10″	27, 6, 7, 6,10,57,51,25,22,47		1,58,52,57,13	
		1,52, 6,47,15,39,45,12		8,12
12″	27, 6, 8,58,17,45, 7, 5, 7,59		1,58,53, 5,25	
		1,52, 6,45,16,46,39,47		8,12
14″	27, 6,10,50,24,30,23,51,47,46		1,58,53,13,37	
		1,52, 6,43,17,53,26,10		8,12
16″	27, 6,12,42,31,13,41,45,13,56		1,58,53,21,49	
		1,52, 6,41,19, 0, 4,21		8,12
18″	27, 6,14,34,37,55, 0,45,18,17		1,58,53,30, 1	
		1,52, 6,39,20, 6,34,20		8,12
20″	27, 6,16,26,44,34,20,51,52,37		1,58,53,38,13	
		1,52, 6,37,21,12,56, 7		8,12
22″	27, 6,18,18,51,11,42, 4,48,44		1,58,53,46,25	
		1,52, 6,35,22,19, 9,42		8,12
24″	27, 6,20,10,57,47, 4,23,58,26		1,58,53,54,37	
		1,52, 6,33,23,25,15, 5		8,12
26″	27, 6,22, 3, 4,20,27,49,13,31		1,58,54, 2,49	
		1,52, 6,31,24,31,12,16		8,12
28″	27, 6,23,55,10,51,52,20,25,47		1,58,54,11, 1	
		1,52, 6,29,25,37, 1,15		8,12
30″	27, 6,25,47,17,21,17,57,27, 2		1,58,54,19,13	
		1,52, 6,27,26,42,42, 2		8,12
32″	27, 6,27,39,23,48,44,40, 9, 4		1,58,54,27,25	
		1,52, 6,25,27,48,14,37		8,12
34″	27, 6,29,31,30,14,12,28,23,41		1,58,54,35,37	
		1,52, 6,23,28,53,39, 0		8,12
36″	27, 6,31,23,36,37,41,22, 2,41		1,58,54,43,49	
		1,52, 6,21,29,58,55,11		8,12
38″	27, 6,33,15,42,59,11,20,57,52		1,58,54,52, 1	
		1,52, 6,19,31, 4, 3,10		8,12
40″	27, 6,35, 7,49,18,42,25, 1, 2		1,58,55, 0,13	
		1,52, 6,17,32, 9, 2,57		8,12
42″	27, 6,36,59,55,36,14,34, 3,59		1,58,55, 8,25	
		1,52, 6,15,33,13,54,32		8,12
44″	27, 6,38,52, 1,51,47,47,58,31		1,58,55,16,37	
		1,52, 6,13,34,18,37,55		8,12
46″	27, 6,40,44, 8, 5,22, 6,36,26		1,58,55,24,49	
		1,52, 6,11,35,23,13, 6		8,12
48″	27, 6,42,36,14,16,57,29,49,32		1,58,55,33, 1	
		1,52, 6, 9,36,27,40, 5		8,12
50″	27, 6,44,28,20,26,33,57,29,37		1,58,55,41,13	
		1,52, 6, 7,37,31,58,52		8,12
52″	27, 6,46,20,26,34,11,29,28,29		1,58,55,49,25	
		1,52, 6, 5,38,36, 9,27		8,12
54″	27, 6,48,12,32,39,50, 5,37,56		1,58,55,57,37	
		1,52, 6, 3,39,40,11,50		8,12
56″	27, 6,50, 4,38,43,29,45,49,46		1,58,56, 5,49	
		1,52, 6, 1,40,44, 6, 1		8,12
58″	27, 6,51,56,44,45,10,29,55,47		1,58,56,14, 1	
		1,52, 5,59,41,47,52, 0		
60″	27, 6,53,48,50,44,52,17,47,47			
exact	27, 6,53,48,50,44,52,18, 2,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°52′ 0″	27, 6,53,48,50,44,52,18, 2,17			
		1,52, 5,57,42,51,31,24		
2″	27, 6,55,40,56,42,35, 9,33,41		1,58,56,30,18	
		1,52, 5,55,43,55, 1, 6		8,12
4″	27, 6,57,33, 2,38,19, 4,34,47		1,58,56,38,30	
		1,52, 5,53,44,58,22,36		8,12
6″	27, 6,59,25, 8,32, 4, 2,57,23		1,58,56,46,42	
		1,52, 5,51,46, 1,35,54		8,12
8″	27, 7, 1,17,14,23,50, 4,33,17		1,58,56,54,54	
		1,52, 5,49,47, 4,41, 0		8,12
10″	27, 7, 3, 9,20,13,37, 9,14,17		1,58,57, 3, 6	
		1,52, 5,47,48, 7,37,54		8,12
12″	27, 7, 5, 1,26, 1,25,16,52,11		1,58,57,11,18	
		1,52, 5,45,49,10,26,36		8,12
14″	27, 7, 6,53,31,47,14,27,18,47		1,58,57,19,30	
		1,52, 5,43,50,13, 7, 6		8,12
16″	27, 7, 8,45,37,31, 4,40,25,53		1,58,57,27,42	
		1,52, 5,41,51,15,39,24		8,12
18″	27, 7,10,37,43,12,55,56, 5,17		1,58,57,35,54	
		1,52, 5,39,52,18, 3,30		8,12
20″	27, 7,12,29,48,52,48,14, 8,47		1,58,57,44, 6	
		1,52, 5,37,53,20,19,24		8,12
22″	27, 7,14,21,54,30,41,34,28,11		1,58,57,52,18	
		1,52, 5,35,54,22,27, 6		8,12
24″	27, 7,16,14, 0, 6,35,56,55,17		1,58,58, 0,30	
		1,52, 5,33,55,24,26,36		8,12
26″	27, 7,18, 6, 5,40,31,21,21,53		1,58,58, 8,42	
		1,52, 5,31,56,26,17,54		8,12
28″	27, 7,19,58,11,12,27,47,39,47		1,58,58,16,54	
		1,52, 5,29,57,28, 1, 0		8,12
30″	27, 7,21,50,16,42,25,15,40,47		1,58,58,25, 6	
		1,52, 5,27,58,29,35,54		8,12
32″	27, 7,23,42,22,10,23,45,16,41		1,58,58,33,18	
		1,52, 5,25,59,31, 2,36		8,12
34″	27, 7,25,34,27,36,23,16,19,17		1,58,58,41,30	
		1,52, 5,24, 0,32,21, 6		8,12
36″	27, 7,27,26,33, 0,23,48,40,23		1,58,58,49,42	
		1,52, 5,22, 1,33,31,24		8,12
38″	27, 7,29,18,38,22,25,22,11,47		1,58,58,57,54	
		1,52, 5,20, 2,34,33,30		8,12
40″	27, 7,31,10,43,42,27,56,45,17		1,58,59, 6, 6	
		1,52, 5,18, 3,35,27,24		8,12
42″	27, 7,33, 2,49, 0,31,32,12,41		1,58,59,14,18	
		1,52, 5,16, 4,36,13, 6		8,12
44″	27, 7,34,54,54,16,36, 8,25,47		1,58,59,22,30	
		1,52, 5,14, 5,36,50,36		8,12
46″	27, 7,36,46,59,30,41,45,16,23		1,58,59,30,42	
		1,52, 5,12, 6,37,19,54		8,12
48″	27, 7,38,39, 4,42,48,22,36,17		1,58,59,38,54	
		1,52, 5,10, 7,37,41, 0		8,12
50″	27, 7,40,31, 9,52,56, 0,17,17		1,58,59,47, 6	
		1,52, 5, 8, 8,37,53,54		8,12
52″	27, 7,42,23,15, 1, 4,38,11,11		1,58,59,55,18	
		1,52, 5, 6, 9,37,58,36		8,12
54″	27, 7,44,15,20, 7,14,16, 9,47		1,59, 0, 3,30	
		1,52, 5, 4,10,37,55, 6		8,12
56″	27, 7,46, 7,25,11,24,54, 4,53		1,59, 0,11,42	
		1,52, 5, 2,11,37,43,24		8,12
58″	27, 7,47,59,30,13,36,31,48,17		1,59, 0,19,54	
		1,52, 5, 0,12,37,23,30		
60″	27, 7,49,51,35,13,49, 9,11,47			
exact	27, 7,49,51,35,13,49, 9,33, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°53′ 0″	27, 7,49,51,35,13,49, 9,33, 5			
		1,52, 4,58,13,36,57,41		
2″	27, 7,51,43,40,12, 2,46,30,46		1,59, 0,36, 8	
		1,52, 4,56,14,36,21,33		8,12
4″	27, 7,53,35,45, 8,17,22,52,19		1,59, 0,44,20	
		1,52, 4,54,15,35,37,13		8,12
6″	27, 7,55,27,50, 2,32,58,29,32		1,59, 0,52,32	
		1,52, 4,52,16,34,44,41		8,12
8″	27, 7,57,19,54,54,49,33,14,13		1,59, 1, 0,44	
		1,52, 4,50,17,33,43,57		8,12
10″	27, 7,59,11,59,45, 7, 6,58,10		1,59, 1, 8,56	
		1,52, 4,48,18,32,35, 1		8,12
12″	27, 8, 1, 4, 4,33,25,39,33,11		1,59, 1,17, 8	
		1,52, 4,46,19,31,17,53		8,12
14″	27, 8, 2,56, 9,19,45,10,51, 4		1,59, 1,25,20	
		1,52, 4,44,20,29,52,33		8,12
16″	27, 8, 4,48,14, 4, 5,40,43,37		1,59, 1,33,32	
		1,52, 4,42,21,28,19, 1		8,12
18″	27, 8, 6,40,18,46,27, 9, 2,38		1,59, 1,41,44	
		1,52, 4,40,22,26,37,17		8,12
20″	27, 8, 8,32,23,26,49,35,39,55		1,59, 1,49,56	
		1,52, 4,38,23,24,47,21		8,12
22″	27, 8,10,24,28, 5,13, 0,27,16		1,59, 1,58, 8	
		1,52, 4,36,24,22,49,13		8,12
24″	27, 8,12,16,32,41,37,23,16,29		1,59, 2, 6,20	
		1,52, 4,34,25,20,42,53		8,12
26″	27, 8,14, 8,37,16, 2,43,59,22		1,59, 2,14,32	
		1,52, 4,32,26,18,28,21		8,12
28″	27, 8,16, 0,41,48,29, 2,27,43		1,59, 2,22,44	
		1,52, 4,30,27,16, 5,37		8,12
30″	27, 8,17,52,46,18,56,18,33,20		1,59, 2,30,56	
		1,52, 4,28,28,13,34,41		8,12
32″	27, 8,19,44,50,47,24,32, 8, 1		1,59, 2,39, 8	
		1,52, 4,26,29,10,55,33		8,12
34″	27, 8,21,36,55,13,53,43, 3,34		1,59, 2,47,20	
		1,52, 4,24,30, 8, 8,13		8,12
36″	27, 8,23,28,59,38,23,51,11,47		1,59, 2,55,32	
		1,52, 4,22,31, 5,12,41		8,12
38″	27, 8,25,21, 4, 0,54,56,24,28		1,59, 3, 3,44	
		1,52, 4,20,32, 2, 8,57		8,12
40″	27, 8,27,13, 8,21,26,58,33,25		1,59, 3,11,56	
		1,52, 4,18,32,58,57, 1		8,12
42″	27, 8,29, 5,12,39,59,57,30,26		1,59, 3,20, 8	
		1,52, 4,16,33,55,36,53		8,12
44″	27, 8,30,57,16,56,33,53, 7,19		1,59, 3,28,20	
		1,52, 4,14,34,52, 8,33		8,12
46″	27, 8,32,49,21,11, 8,45,15,52		1,59, 3,36,32	
		1,52, 4,12,35,48,32, 1		8,12
48″	27, 8,34,41,25,23,44,33,47,53		1,59, 3,44,44	
		1,52, 4,10,36,44,47,17		8,12
50″	27, 8,36,33,29,34,21,18,35,10		1,59, 3,52,56	
		1,52, 4, 8,37,40,54,21		8,12
52″	27, 8,38,25,33,42,58,59,29,31		1,59, 4, 1, 8	
		1,52, 4, 6,38,36,53,13		8,12
54″	27, 8,40,17,37,49,37,36,22,44		1,59, 4, 9,20	
		1,52, 4, 4,39,32,43,53		8,12
56″	27, 8,42, 9,41,54,17, 9, 6,37		1,59, 4,17,32	
		1,52, 4, 2,40,28,26,21		8,12
58″	27, 8,44, 1,45,56,57,37,32,58		1,59, 4,25,44	
		1,52, 4, 0,41,24, 0,37		
60″	27, 8,45,53,49,57,39, 1,33,35			
exact	27, 8,45,53,49,57,39, 1,55,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°54′ 0″	27, 8,45,53,49,57,39, 1,55,23			
		1,52, 3,58,42,19,29,12		
2″	27, 8,47,45,53,56,21,21,24,35		1,59, 4,41,57	
		1,52, 3,56,43,14,47,15		8,12
4″	27, 8,49,37,57,53, 4,36,11,50		1,59, 4,50, 9	
		1,52, 3,54,44, 9,57, 6		8,12
6″	27, 8,51,30, 1,47,48,46, 8,56		1,59, 4,58,21	
		1,52, 3,52,45, 4,58,45		8,12
8″	27, 8,53,22, 5,40,33,51, 7,41		1,59, 5, 6,33	
		1,52, 3,50,45,59,52,12		8,12
10″	27, 8,55,14, 9,31,19,50,59,53		1,59, 5,14,45	
		1,52, 3,48,46,54,37,27		8,12
12″	27, 8,57, 6,13,20, 6,45,37,20		1,59, 5,22,57	
		1,52, 3,46,47,49,14,30		8,12
14″	27, 8,58,58,17, 6,54,34,51,50		1,59, 5,31, 9	
		1,52, 3,44,48,43,43,21		8,12
16″	27, 9, 0,50,20,51,43,18,35,11		1,59, 5,39,21	
		1,52, 3,42,49,38, 4, 0		8,12
18″	27, 9, 2,42,24,34,32,56,39,11		1,59, 5,47,33	
		1,52, 3,40,50,32,16,27		8,12
20″	27, 9, 4,34,28,15,23,28,55,38		1,59, 5,55,45	
		1,52, 3,38,51,26,20,42		8,12
22″	27, 9, 6,26,31,54,14,55,16,20		1,59, 6, 3,57	
		1,52, 3,36,52,20,16,45		8,12
24″	27, 9, 8,18,35,31, 7,15,33, 5		1,59, 6,12, 9	
		1,52, 3,34,53,14, 4,36		8,12
26″	27, 9,10,10,39, 6, 0,29,37,41		1,59, 6,20,21	
		1,52, 3,32,54, 7,44,15		8,12
28″	27, 9,12, 2,42,38,54,37,21,56		1,59, 6,28,33	
		1,52, 3,30,55, 1,15,42		8,12
30″	27, 9,13,54,46, 9,49,38,37,38		1,59, 6,36,45	
		1,52, 3,28,55,54,38,57		8,12
32″	27, 9,15,46,49,38,45,33,16,35		1,59, 6,44,57	
		1,52, 3,26,56,47,54, 0		8,12
34″	27, 9,17,38,53, 5,42,21,10,35		1,59, 6,53, 9	
		1,52, 3,24,57,41, 0,51		8,12
36″	27, 9,19,30,56,30,40, 2,11,26		1,59, 7, 1,21	
		1,52, 3,22,58,33,59,30		8,12
38″	27, 9,21,22,59,53,38,36,10,56		1,59, 7, 9,33	
		1,52, 3,20,59,26,49,57		8,12
40″	27, 9,23,15, 3,14,38, 3, 0,53		1,59, 7,17,45	
		1,52, 3,19, 0,19,32,12		8,12
42″	27, 9,25, 7, 6,33,38,22,33, 5		1,59, 7,25,57	
		1,52, 3,17, 1,12, 6,15		8,12
44″	27, 9,26,59, 9,50,39,34,39,20		1,59, 7,34, 9	
		1,52, 3,15, 2, 4,32, 6		8,12
46″	27, 9,28,51,13, 5,41,39,11,26		1,59, 7,42,21	
		1,52, 3,13, 2,56,49,45		8,12
48″	27, 9,30,43,16,18,44,36, 1,11		1,59, 7,50,33	
		1,52, 3,11, 3,48,59,12		8,12
50″	27, 9,32,35,19,29,48,25, 0,23		1,59, 7,58,45	
		1,52, 3, 9, 4,41, 0,27		8,12
52″	27, 9,34,27,22,38,53, 6, 0,50		1,59, 8, 6,57	
		1,52, 3, 7, 5,32,53,30		8,12
54″	27, 9,36,19,25,45,58,38,54,20		1,59, 8,15, 9	
		1,52, 3, 5, 6,24,38,21		8,12
56″	27, 9,38,11,28,51, 5, 3,32,41		1,59, 8,23,21	
		1,52, 3, 3, 7,16,15, 0		8,12
58″	27, 9,40, 3,31,54,12,19,47,41		1,59, 8,31,33	
		1,52, 3, 1, 8, 7,43,27		
60″	27, 9,41,55,34,55,20,27,31, 8			
exact	27, 9,41,55,34,55,20,28, 2,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°55′ 0″	27, 9,41,55,34,55,20,28, 2,19	1,52, 2,59, 8,59, 7, 3		
2″	27, 9,43,47,37,54,29,27, 9,22	1,52, 2,57, 9,50,19,20	1,59, 8,47,43	
4″	27, 9,45,39,40,51,39,17,28,42	1,52, 2,55,10,41,23,25	1,59, 8,55,55	8,12
6″	27, 9,47,31,43,46,49,58,52, 7	1,52, 2,53,11,32,19,18	1,59, 9, 4, 7	8,12
8″	27, 9,49,23,46,40, 1,31,11,25	1,52, 2,51,12,23, 6,59	1,59, 9,12,19	8,12
10″	27, 9,51,15,49,31,13,54,18,24	1,52, 2,49,13,13,46,28	1,59, 9,20,31	8,12
12″	27, 9,53, 7,52,20,27, 8, 4,52	1,52, 2,47,14, 4,17,45	1,59, 9,28,43	8,12
14″	27, 9,54,59,55, 7,41,12,22,37	1,52, 2,45,14,54,40,50	1,59, 9,36,55	8,12
16″	27, 9,56,51,57,52,56, 7, 3,27	1,52, 2,43,15,44,55,43	1,59, 9,45, 7	8,12
18″	27, 9,58,44, 0,36,11,51,59,10	1,52, 2,41,16,35, 2,24	1,59, 9,53,19	8,12
20″	27,10, 0,36, 3,17,28,27, 1,34	1,52, 2,39,17,25, 0,53	1,59,10, 1,31	8,12
22″	27,10, 2,28, 5,56,45,52, 2,27	1,52, 2,37,18,14,51,10	1,59,10, 9,43	8,12
24″	27,10, 4,20, 8,34, 4, 6,53,37	1,52, 2,35,19, 4,33,15	1,59,10,17,55	8,12
26″	27,10, 6,12,11, 9,23,11,26,52	1,52, 2,33,19,54, 7, 8	1,59,10,26, 7	8,12
28″	27,10, 8, 4,13,42,43, 5,34, 0	1,52, 2,31,20,43,32,49	1,59,10,34,19	8,12
30″	27,10, 9,56,16,14, 3,49, 6,49	1,52, 2,29,21,32,50,18	1,59,10,42,31	8,12
32″	27,10,11,48,18,43,25,21,57, 7	1,52, 2,27,22,21,59,35	1,59,10,50,43	8,12
34″	27,10,13,40,21,10,47,43,56,42	1,52, 2,25,23,11, 0,40	1,59,10,58,55	8,12
36″	27,10,15,32,23,36,10,54,57,22	1,52, 2,23,23,59,53,33	1,59,11, 7, 7	8,12
38″	27,10,17,24,25,59,34,54,50,55	1,52, 2,21,24,48,38,14	1,59,11,15,19	8,12
40″	27,10,19,16,28,20,59,43,29, 9	1,52, 2,19,25,37,14,43	1,59,11,23,31	8,12
42″	27,10,21, 8,30,40,25,20,43,52	1,52, 2,17,26,25,43, 0	1,59,11,31,43	8,12
44″	27,10,23, 0,32,57,51,46,26,52	1,52, 2,15,27,14, 3, 5	1,59,11,39,55	8,12
46″	27,10,24,52,35,13,19, 0,29,57	1,52, 2,13,28, 2,14,58	1,59,11,48, 7	8,12
48″	27,10,26,44,37,26,47, 2,44,55	1,52, 2,11,28,50,18,39	1,59,11,56,19	8,12
50″	27,10,28,36,39,38,15,53, 3,34	1,52, 2, 9,29,38,14, 8	1,59,12, 4,31	8,12
52″	27,10,30,28,41,47,45,31,17,42	1,52, 2, 7,30,26, 1,25	1,59,12,12,43	8,12
54″	27,10,32,20,43,55,15,57,19, 7	1,52, 2, 5,31,13,40,30	1,59,12,20,55	8,12
56″	27,10,34,12,46, 0,47,10,59,37	1,52, 2, 3,32, 1,11,23	1,59,12,29, 7	8,12
58″	27,10,36, 4,48, 4,19,12,11, 0	1,52, 2, 1,32,48,34, 4	1,59,12,37,19	
60″	27,10,37,56,50, 5,52, 0,45, 4			
exact	27,10,37,56,50, 5,52, 1,19,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°56′ 0″	27,10,37,56,50, 5,52, 1,19,39			
		1,52, 1,59,33,35,52,19		
2″	27,10,39,48,52, 5,25,37,11,58		1,59,12,53,27	
		1,52, 1,57,34,22,58,52		8,11
4″	27,10,41,40,54, 3, 0, 0,10,50		1,59,13, 1,38	
		1,52, 1,55,35, 9,57,14		8,11
6″	27,10,43,32,55,58,35,10, 8, 4		1,59,13, 9,49	
		1,52, 1,53,35,56,47,25		8,11
8″	27,10,45,24,57,52,11, 6,55,29		1,59,13,18, 0	
		1,52, 1,51,36,43,29,25		8,11
10″	27,10,47,16,59,43,47,50,24,54		1,59,13,26,11	
		1,52, 1,49,37,30, 3,14		8,11
12″	27,10,49, 9, 1,33,25,20,28, 8		1,59,13,34,22	
		1,52, 1,47,38,16,28,52		8,11
14″	27,10,51, 1, 3,21, 3,36,57, 0		1,59,13,42,33	
		1,52, 1,45,39, 2,46,19		8,11
16″	27,10,52,53, 5, 6,42,39,43,19		1,59,13,50,44	
		1,52, 1,43,39,48,55,35		8,11
18″	27,10,54,45, 6,50,22,28,38,54		1,59,13,58,55	
		1,52, 1,41,40,34,56,40		8,11
20″	27,10,56,37, 8,32, 3, 3,35,34		1,59,14, 7, 6	
		1,52, 1,39,41,20,49,34		8,11
22″	27,10,58,29,10,11,44,24,25, 8		1,59,14,15,17	
		1,52, 1,37,42, 6,34,17		8,11
24″	27,11, 0,21,11,49,26,30,59,25		1,59,14,23,28	
		1,52, 1,35,42,52,10,49		8,11
26″	27,11, 2,13,13,25, 9,23,10,14		1,59,14,31,39	
		1,52, 1,33,43,37,39,10		8,11
28″	27,11, 4, 5,14,58,53, 0,49,24		1,59,14,39,50	
		1,52, 1,31,44,22,59,20		8,11
30″	27,11, 5,57,16,30,37,23,48,44		1,59,14,48, 1	
		1,52, 1,29,45, 8,11,19		8,11
32″	27,11, 7,49,18, 0,22,32, 0, 3		1,59,14,56,12	
		1,52, 1,27,45,53,15, 7		8,11
34″	27,11, 9,41,19,28, 8,25,15,10		1,59,15, 4,23	
		1,52, 1,25,46,38,10,44		8,11
36″	27,11,11,33,20,53,55, 3,25,54		1,59,15,12,34	
		1,52, 1,23,47,22,58,10		8,11
38″	27,11,13,25,22,17,42,26,24, 4		1,59,15,20,45	
		1,52, 1,21,48, 7,37,25		8,11
40″	27,11,15,17,23,39,30,34, 1,29		1,59,15,28,56	
		1,52, 1,19,48,52, 8,29		8,11
42″	27,11,17, 9,24,59,19,26, 9,58		1,59,15,37, 7	
		1,52, 1,17,49,36,31,22		8,11
44″	27,11,19, 1,26,17, 9, 2,41,20		1,59,15,45,18	
		1,52, 1,15,50,20,46, 4		8,11
46″	27,11,20,53,27,32,59,23,27,24		1,59,15,53,29	
		1,52, 1,13,51, 4,52,35		8,11
48″	27,11,22,45,28,46,50,28,19,59		1,59,16, 1,40	
		1,52, 1,11,51,48,50,55		8,11
50″	27,11,24,37,29,58,42,17,10,54		1,59,16, 9,51	
		1,52, 1, 9,52,32,41, 4		8,11
52″	27,11,26,29,31, 8,34,49,51,58		1,59,16,18, 2	
		1,52, 1, 7,53,16,23, 2		8,11
54″	27,11,28,21,32,16,28, 6,15, 0		1,59,16,26,13	
		1,52, 1, 5,53,59,56,49		8,11
56″	27,11,30,13,33,22,22, 6,11,49		1,59,16,34,24	
		1,52, 1, 3,54,43,22,25		8,11
58″	27,11,32, 5,34,26,16,49,34,14		1,59,16,42,35	
		1,52, 1, 1,55,26,39,50		
60″	27,11,33,57,35,28,12,16,14, 4			
exact	27,11,33,57,35,28,12,15,45,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°57′ 0″	27,11,33,57,35,28,12,15,45,48			
		1,52, 0,59,56, 9,46, 6		
2″	27,11,35,49,36,28, 8,25,31,54		1,59,16,59, 9	
		1,52, 0,57,56,52,46,57		8,11
4″	27,11,37,41,37,26, 5,18,18,51		1,59,17, 7,20	
		1,52, 0,55,57,35,39,37		8,11
6″	27,11,39,33,38,22, 2,53,58,28		1,59,17,15,31	
		1,52, 0,53,58,18,24, 6		8,11
8″	27,11,41,25,39,16, 1,12,22,34		1,59,17,23,42	
		1,52, 0,51,59, 1, 0,24		8,11
10″	27,11,43,17,40, 8, 0,13,22,58		1,59,17,31,53	
		1,52, 0,49,59,43,28,31		8,11
12″	27,11,45, 9,40,57,59,56,51,29		1,59,17,40, 4	
		1,52, 0,48, 0,25,48,27		8,11
14″	27,11,47, 1,41,46, 0,22,39,56		1,59,17,48,15	
		1,52, 0,46, 1, 8, 0,12		8,11
16″	27,11,48,53,42,32, 1,30,40, 8		1,59,17,56,26	
		1,52, 0,44, 1,50, 3,46		8,11
18″	27,11,50,45,43,16, 3,20,43,54		1,59,18, 4,37	
		1,52, 0,42, 2,31,59, 9		8,11
20″	27,11,52,37,43,58, 5,52,43, 3		1,59,18,12,48	
		1,52, 0,40, 3,13,46,21		8,11
22″	27,11,54,29,44,38, 9, 6,29,24		1,59,18,20,59	
		1,52, 0,38, 3,55,25,22		8,11
24″	27,11,56,21,45,16,13, 1,54,46		1,59,18,29,10	
		1,52, 0,36, 4,36,56,12		8,11
26″	27,11,58,13,45,52,17,38,50,58		1,59,18,37,21	
		1,52, 0,34, 5,18,18,51		8,11
28″	27,12, 0, 5,46,26,22,57, 9,49		1,59,18,45,32	
		1,52, 0,32, 5,59,33,19		8,11
30″	27,12, 1,57,46,58,28,56,43, 8		1,59,18,53,43	
		1,52, 0,30, 6,40,39,36		8,11
32″	27,12, 3,49,47,28,35,37,22,44		1,59,19, 1,54	
		1,52, 0,28, 7,21,37,42		8,11
34″	27,12, 5,41,47,56,42,59, 0,26		1,59,19,10, 5	
		1,52, 0,26, 8, 2,27,37		8,11
36″	27,12, 7,33,48,22,51, 1,28, 3		1,59,19,18,16	
		1,52, 0,24, 8,43, 9,21		8,11
38″	27,12, 9,25,48,46,59,44,37,24		1,59,19,26,27	
		1,52, 0,22, 9,23,42,54		8,11
40″	27,12,11,17,49, 9, 9, 8,20,18		1,59,19,34,38	
		1,52, 0,20,10, 4, 8,16		8,11
42″	27,12,13, 9,49,29,19,12,28,34		1,59,19,42,49	
		1,52, 0,18,10,44,25,27		8,11
44″	27,12,15, 1,49,47,29,56,54, 1		1,59,19,51, 0	
		1,52, 0,16,11,24,34,27		8,11
46″	27,12,16,53,50, 3,41,21,28,28		1,59,19,59,11	
		1,52, 0,14,12, 4,35,16		8,11
48″	27,12,18,45,50,17,53,26, 3,44		1,59,20, 7,22	
		1,52, 0,12,12,44,27,54		8,11
50″	27,12,20,37,50,30, 6,10,31,38		1,59,20,15,33	
		1,52, 0,10,13,24,12,21		8,11
52″	27,12,22,29,50,40,19,34,43,59		1,59,20,23,44	
		1,52, 0, 8,14, 3,48,37		8,11
54″	27,12,24,21,50,48,33,38,32,36		1,59,20,31,55	
		1,52, 0, 6,14,43,16,42		8,11
56″	27,12,26,13,50,54,48,21,49,18		1,59,20,40, 6	
		1,52, 0, 4,15,22,36,36		8,11
58″	27,12,28, 5,50,59, 3,44,25,54		1,59,20,48,17	
		1,52, 0, 2,16, 1,48,19		
60″	27,12,29,57,51, 1,19,46,14,13			
exact	27,12,29,57,51, 1,19,45,51,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°58′ 0″	27,12,29,57,51, 1,19,45,51,52			
		1,52, 0, 0,16,40,49,29		
2″	27,12,31,49,51, 1,36,26,41,21		1,59,21, 4,49	
		1,51,59,58,17,19,44,40		8,11
4″	27,12,33,41,50,59,53,46,26, 1		1,59,21,13, 0	
		1,51,59,56,17,58,31,40		8,11
6″	27,12,35,33,50,56,11,44,57,41		1,59,21,21,11	
		1,51,59,54,18,37,10,29		8,11
8″	27,12,37,25,50,50,30,22, 8,10		1,59,21,29,22	
		1,51,59,52,19,15,41, 7		8,11
10″	27,12,39,17,50,42,49,37,49,17		1,59,21,37,33	
		1,51,59,50,19,54, 3,34		8,11
12″	27,12,41, 9,50,33, 9,31,52,51		1,59,21,45,44	
		1,51,59,48,20,32,17,50		8,11
14″	27,12,43, 1,50,21,30, 4,10,41		1,59,21,53,55	
		1,51,59,46,21,10,23,55		8,11
16″	27,12,44,53,50, 7,51,14,34,36		1,59,22, 2, 6	
		1,51,59,44,21,48,21,49		8,11
18″	27,12,46,45,49,52,13, 2,56,25		1,59,22,10,17	
		1,51,59,42,22,26,11,32		8,11
20″	27,12,48,37,49,34,35,29, 7,57		1,59,22,18,28	
		1,51,59,40,23, 3,53, 4		8,11
22″	27,12,50,29,49,14,58,33, 1, 1		1,59,22,26,39	
		1,51,59,38,23,41,26,25		8,11
24″	27,12,52,21,48,53,22,14,27,26		1,59,22,34,50	
		1,51,59,36,24,18,51,35		8,11
26″	27,12,54,13,48,29,46,33,19, 1		1,59,22,43, 1	
		1,51,59,34,24,56, 8,34		8,11
28″	27,12,56, 5,48, 4,11,29,27,35		1,59,22,51,12	
		1,51,59,32,25,33,17,22		8,11
30″	27,12,57,57,47,36,37, 2,44,57		1,59,22,59,23	
		1,51,59,30,26,10,17,59		8,11
32″	27,12,59,49,47, 7, 3,13, 2,56		1,59,23, 7,34	
		1,51,59,28,26,47,10,25		8,11
34″	27,13, 1,41,46,35,30, 0,13,21		1,59,23,15,45	
		1,51,59,26,27,23,54,40		8,11
36″	27,13, 3,33,46, 1,57,24, 8, 1		1,59,23,23,56	
		1,51,59,24,28, 0,30,44		8,11
38″	27,13, 5,25,45,26,25,24,38,45		1,59,23,32, 7	
		1,51,59,22,28,36,58,37		8,11
40″	27,13, 7,17,44,48,54, 1,37,22		1,59,23,40,18	
		1,51,59,20,29,13,18,19		8,11
42″	27,13, 9, 9,44, 9,23,14,55,41		1,59,23,48,29	
		1,51,59,18,29,49,29,50		8,11
44″	27,13,11, 1,43,27,53, 4,25,31		1,59,23,56,40	
		1,51,59,16,30,25,33,10		8,11
46″	27,13,12,53,42,44,23,29,58,41		1,59,24, 4,51	
		1,51,59,14,31, 1,28,19		8,11
48″	27,13,14,45,41,58,54,31,27, 0		1,59,24,13, 2	
		1,51,59,12,31,37,15,17		8,11
50″	27,13,16,37,41,11,26, 8,42,17		1,59,24,21,13	
		1,51,59,10,32,12,54, 4		8,11
52″	27,13,18,29,40,21,58,21,36,21		1,59,24,29,24	
		1,51,59, 8,32,48,24,40		8,11
54″	27,13,20,21,39,30,31,10, 1, 1		1,59,24,37,35	
		1,51,59, 6,33,23,47, 5		8,11
56″	27,13,22,13,38,37, 4,33,48, 6		1,59,24,45,46	
		1,51,59, 4,33,59, 1,19		8,11
58″	27,13,24, 5,37,41,38,32,49,25		1,59,24,53,57	
		1,51,59, 2,34,34, 7,22		
60″	27,13,25,57,36,44,13, 6,56,47			
exact	27,13,25,57,36,44,13, 6,41,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
26°59′ 0″	27,13,25,57,36,44,13, 6,41,41			
		1,51,59, 0,35, 9, 3,33		
2″	27,13,27,49,35,44,48,15,45,14		1,59,25,10,26	
		1,51,58,58,35,43,53, 7		8,11
4″	27,13,29,41,34,43,23,59,38,21		1,59,25,18,37	
		1,51,58,56,36,18,34,30		8,11
6″	27,13,31,33,33,40, 0,18,12,51		1,59,25,26,48	
		1,51,58,54,36,53, 7,42		8,11
8″	27,13,33,25,32,34,37,11,20,33		1,59,25,34,59	
		1,51,58,52,37,27,32,43		8,11
10″	27,13,35,17,31,27,14,38,53,16		1,59,25,43,10	
		1,51,58,50,38, 1,49,33		8,11
12″	27,13,37, 9,30,17,52,40,42,49		1,59,25,51,21	
		1,51,58,48,38,35,58,12		8,11
14″	27,13,39, 1,29, 6,31,16,41, 1		1,59,25,59,32	
		1,51,58,46,39, 9,58,40		8,11
16″	27,13,40,53,27,53,10,26,39,41		1,59,26, 7,43	
		1,51,58,44,39,43,50,57		8,11
18″	27,13,42,45,26,37,50,10,30,38		1,59,26,15,54	
		1,51,58,42,40,17,35, 3		8,11
20″	27,13,44,37,25,20,30,28, 5,41		1,59,26,24, 5	
		1,51,58,40,40,51,10,58		8,11
22″	27,13,46,29,24, 1,11,19,16,39		1,59,26,32,16	
		1,51,58,38,41,24,38,42		8,11
24″	27,13,48,21,22,39,52,43,55,21		1,59,26,40,27	
		1,51,58,36,41,57,58,15		8,11
26″	27,13,50,13,21,16,34,41,53,36		1,59,26,48,38	
		1,51,58,34,42,31, 9,37		8,11
28″	27,13,52, 5,19,51,17,13, 3,13		1,59,26,56,49	
		1,51,58,32,43, 4,12,48		8,11
30″	27,13,53,57,18,24, 0,17,16, 1		1,59,27, 5, 0	
		1,51,58,30,43,37, 7,48		8,11
32″	27,13,55,49,16,54,43,54,23,49		1,59,27,13,11	
		1,51,58,28,44, 9,54,37		8,11
34″	27,13,57,41,15,23,28, 4,18,26		1,59,27,21,22	
		1,51,58,26,44,42,33,15		8,11
36″	27,13,59,33,13,50,12,46,51,41		1,59,27,29,33	
		1,51,58,24,45,15, 3,42		8,11
38″	27,14, 1,25,12,14,58, 1,55,23		1,59,27,37,44	
		1,51,58,22,45,47,25,58		8,11
40″	27,14, 3,17,10,37,43,49,21,21		1,59,27,45,55	
		1,51,58,20,46,19,40, 3		8,11
42″	27,14, 5, 9, 8,58,30, 9, 1,24		1,59,27,54, 6	
		1,51,58,18,46,51,45,57		8,11
44″	27,14, 7, 1, 7,17,17, 0,47,21		1,59,28, 2,17	
		1,51,58,16,47,23,43,40		8,11
46″	27,14, 8,53, 5,34, 4,24,31, 1		1,59,28,10,28	
		1,51,58,14,47,55,33,12		8,11
48″	27,14,10,45, 3,48,52,20, 4,13		1,59,28,18,39	
		1,51,58,12,48,27,14,33		8,11
50″	27,14,12,37, 2, 1,40,47,18,46		1,59,28,26,50	
		1,51,58,10,48,58,47,43		8,11
52″	27,14,14,29, 0,12,29,46, 6,29		1,59,28,35, 1	
		1,51,58, 8,49,30,12,42		8,11
54″	27,14,16,20,58,21,19,16,19,11		1,59,28,43,12	
		1,51,58, 6,50, 1,29,30		8,11
56″	27,14,18,12,56,28, 9,17,48,41		1,59,28,51,23	
		1,51,58, 4,50,32,38, 7		8,11
58″	27,14,20, 4,54,32,59,50,26,48		1,59,28,59,34	
		1,51,58, 2,51, 3,38,33		
60″	27,14,21,56,52,35,50,54, 5,21			
exact	27,14,21,56,52,35,50,53,51,45			

x			$\sin(x)$	Δ^1	Δ^2	Δ^3
27°	0′	0″	27,14,21,56,52,35,50,53,51,45	1,51,58, 0,51,34,29,24		
		2″	27,14,23,48,50,36,42,28,21, 9	1,51,57,58,52, 5,13,23	1,59,29,16, 1	8,11
		4″	27,14,25,40,48,35,34,33,34,32	1,51,57,56,52,35,49,11	1,59,29,24,12	8,11
		6″	27,14,27,32,46,32,27, 9,23,43	1,51,57,54,53, 6,16,48	1,59,29,32,23	8,11
		8″	27,14,29,24,44,27,20,15,40,31	1,51,57,52,53,36,36,14	1,59,29,40,34	8,11
		10″	27,14,31,16,42,20,13,52,16,45	1,51,57,50,54, 6,47,29	1,59,29,48,45	8,11
		12″	27,14,33, 8,40,11, 7,59, 4,14	1,51,57,48,54,36,50,33	1,59,29,56,56	8,11
		14″	27,14,35, 0,38, 0, 2,35,54,47	1,51,57,46,55, 6,45,26	1,59,30, 5, 7	8,11
		16″	27,14,36,52,35,46,57,42,40,13	1,51,57,44,55,36,32, 8	1,59,30,13,18	8,11
		18″	27,14,38,44,33,31,53,19,12,21	1,51,57,42,56, 6,10,39	1,59,30,21,29	8,11
		20″	27,14,40,36,31,14,49,25,23, 0	1,51,57,40,56,35,40,59	1,59,30,29,40	8,11
		22″	27,14,42,28,28,55,46, 1, 3,59	1,51,57,38,57, 5, 3, 8	1,59,30,37,51	8,11
		24″	27,14,44,20,26,34,43, 6, 7, 7	1,51,57,36,57,34,17, 6	1,59,30,46, 2	8,11
		26″	27,14,46,12,24,11,40,40,24,13	1,51,57,34,58, 3,22,53	1,59,30,54,13	8,11
		28″	27,14,48, 4,21,46,38,43,47, 6	1,51,57,32,58,32,20,29	1,59,31, 2,24	8,11
		30″	27,14,49,56,19,19,37,16, 7,35	1,51,57,30,59, 1, 9,54	1,59,31,10,35	8,11
		32″	27,14,51,48,16,50,36,17,17,29	1,51,57,28,59,29,51, 8	1,59,31,18,46	8,11
		34″	27,14,53,40,14,19,35,47, 8,37	1,51,57,26,59,58,24,11	1,59,31,26,57	8,11
		36″	27,14,55,32,11,46,35,45,32,48	1,51,57,25, 0,26,49, 3	1,59,31,35, 8	8,11
		38″	27,14,57,24, 9,11,36,12,21,51	1,51,57,23, 0,55, 5,44	1,59,31,43,19	8,11
		40″	27,14,59,16, 6,34,37, 7,27,35	1,51,57,21, 1,23,14,14	1,59,31,51,30	8,11
		42″	27,15, 1, 8, 3,55,38,30,41,49	1,51,57,19, 1,51,14,33	1,59,31,59,41	8,11
		44″	27,15, 3, 0, 1,14,40,21,56,22	1,51,57,17, 2,19, 6,41	1,59,32, 7,52	8,11
		46″	27,15, 4,51,58,31,42,41, 3, 3	1,51,57,15, 2,46,50,38	1,59,32,16, 3	8,11
		48″	27,15, 6,43,55,46,45,27,53,41	1,51,57,13, 3,14,26,24	1,59,32,24,14	8,11
		50″	27,15, 8,35,52,59,48,42,20, 5	1,51,57,11, 3,41,53,59	1,59,32,32,25	8,11
		52″	27,15,10,27,50,10,52,24,14, 4	1,51,57, 9, 4, 9,13,23	1,59,32,40,36	8,11
		54″	27,15,12,19,47,19,56,33,27,27	1,51,57, 7, 4,36,24,36	1,59,32,48,47	8,11
		56″	27,15,14,11,44,27, 1, 9,52, 3	1,51,57, 5, 5, 3,27,38	1,59,32,56,58	8,11
		58″	27,15,16, 3,41,32, 6,13,19,41	1,51,57, 3, 5,30,22,29	1,59,33, 5, 9	
		60″	27,15,17,55,38,35,11,43,42,10			
	exact		27,15,17,55,38,35,11,43,31,20			

x			$\sin(x)$	Δ^1	Δ^2	Δ^3
27°	1′	0″	27,15,17,55,38,35,11,43,31,20			
		2″	27,15,19,47,35,36,17,40,39,28	1,51,57, 1, 5,57, 8, 8	1,59,33,21,34	
		4″	27,15,21,39,32,35,24, 4,26, 2	1,51,56,59, 6,23,46,34	1,59,33,29,45	8,11
		6″	27,15,23,31,29,32,30,54,42,51	1,51,56,57, 6,50,16,49	1,59,33,37,56	8,11
		8″	27,15,25,23,26,27,38,11,21,44	1,51,56,55, 7,16,38,53	1,59,33,46, 7	8,11
		10″	27,15,27,15,23,20,45,54,14,30	1,51,56,53, 7,42,52,46	1,59,33,54,18	8,11
		12″	27,15,29, 7,20,11,54, 3,12,58	1,51,56,51, 8, 8,58,28	1,59,34, 2,29	8,11
		14″	27,15,30,59,17, 1, 2,38, 8,57	1,51,56,49, 8,34,55,59	1,59,34,10,40	8,11
		16″	27,15,32,51,13,48,11,38,54,16	1,51,56,47, 9, 0,45,19	1,59,34,18,51	8,11
		18″	27,15,34,43,10,33,21, 5,20,44	1,51,56,45, 9,26,26,28	1,59,34,27, 2	8,11
		20″	27,15,36,35, 7,16,30,57,20,10	1,51,56,43, 9,51,59,26	1,59,34,35,13	8,11
		22″	27,15,38,27, 3,57,41,14,44,23	1,51,56,41,10,17,24,13	1,59,34,43,24	8,11
		24″	27,15,40,19, 0,36,51,57,25,12	1,51,56,39,10,42,40,49	1,59,34,51,35	8,11
		26″	27,15,42,10,57,14, 3, 5,14,26	1,51,56,37,11, 7,49,14	1,59,34,59,46	8,11
		28″	27,15,44, 2,53,49,14,38, 3,54	1,51,56,35,11,32,49,28	1,59,35, 7,57	8,11
		30″	27,15,45,54,50,22,26,35,45,25	1,51,56,33,11,57,41,31	1,59,35,16, 8	8,11
		32″	27,15,47,46,46,53,38,58,10,48	1,51,56,31,12,22,25,23	1,59,35,24,19	8,11
		34″	27,15,49,38,43,22,51,45,11,52	1,51,56,29,12,47, 1, 4	1,59,35,32,30	8,11
		36″	27,15,51,30,39,50, 4,56,40,26	1,51,56,27,13,11,28,34	1,59,35,40,41	8,11
		38″	27,15,53,22,36,15,18,32,28,19	1,51,56,25,13,35,47,53	1,59,35,48,52	8,11
		40″	27,15,55,14,32,38,32,32,27,20	1,51,56,23,13,59,59, 1	1,59,35,57, 3	8,11
		42″	27,15,57, 6,28,59,46,56,29,18	1,51,56,21,14,24, 1,58	1,59,36, 5,14	8,11
		44″	27,15,58,58,25,19, 1,44,26, 2	1,51,56,19,14,47,56,44	1,59,36,13,25	8,11
		46″	27,16, 0,50,21,36,16,56, 9,21	1,51,56,17,15,11,43,19	1,59,36,21,36	8,11
		48″	27,16, 2,42,17,51,32,31,31, 4	1,51,56,15,15,35,21,43	1,59,36,29,47	8,11
		50″	27,16, 4,34,14, 4,48,30,23, 0	1,51,56,13,15,58,51,56	1,59,36,37,58	8,11
		52″	27,16, 6,26,10,16, 4,52,36,58	1,51,56,11,16,22,13,58	1,59,36,46, 9	8,11
		54″	27,16, 8,18, 6,25,21,38, 4,47	1,51,56, 9,16,45,27,49	1,59,36,54,20	8,11
		56″	27,16,10,10, 2,32,38,46,38,16	1,51,56, 7,17, 8,33,29	1,59,37, 2,31	8,11
		58″	27,16,12, 1,58,37,56,18, 9,14	1,51,56, 5,17,31,30,58	1,59,37,10,42	
		60″	27,16,13,53,54,41,14,12,29,30	1,51,56, 3,17,54,20,16		
	exact		27,16,13,53,54,41,14,12,22,29			

x			$\sin(x)$	Δ^1	Δ^2	Δ^3
27°	2′	0″	27,16,13,53,54,41,14,12,22,29			
		2″	27,16,15,45,50,42,32,29,23,18	1,51,56, 1,18,17, 0,49	1,59,37,27, 5	
		4″	27,16,17,37,46,41,51, 8,57, 2	1,51,55,59,18,39,33,44	1,59,37,35,16	8,11
		6″	27,16,19,29,42,39,10,10,55,30	1,51,55,57,19, 1,58,28	1,59,37,43,27	8,11
		8″	27,16,21,21,38,34,29,35,10,31	1,51,55,55,19,24,15, 1	1,59,37,51,38	8,11
		10″	27,16,23,13,34,27,49,21,33,54	1,51,55,53,19,46,23,23	1,59,37,59,49	8,11
		12″	27,16,25, 5,30,19, 9,29,57,28	1,51,55,51,20, 8,23,34	1,59,38, 8, 0	8,11
		14″	27,16,26,57,26, 8,30, 0,13, 2	1,51,55,49,20,30,15,34	1,59,38,16,11	8,11
		16″	27,16,28,49,21,55,50,52,12,25	1,51,55,47,20,51,59,23	1,59,38,24,22	8,11
		18″	27,16,30,41,17,41,12, 5,47,26	1,51,55,45,21,13,35, 1	1,59,38,32,33	8,11
		20″	27,16,32,33,13,24,33,40,49,54	1,51,55,43,21,35, 2,28	1,59,38,40,44	8,11
		22″	27,16,34,25, 9, 5,55,37,11,38	1,51,55,41,21,56,21,44	1,59,38,48,55	8,11
		24″	27,16,36,17, 4,45,17,54,44,27	1,51,55,39,22,17,32,49	1,59,38,57, 6	8,11
		26″	27,16,38, 9, 0,22,40,33,20,10	1,51,55,37,22,38,35,43	1,59,39, 5,17	8,11
		28″	27,16,40, 0,55,58, 3,32,50,36	1,51,55,35,22,59,30,26	1,59,39,13,28	8,11
		30″	27,16,41,52,51,31,26,53, 7,34	1,51,55,33,23,20,16,58	1,59,39,21,39	8,11
		32″	27,16,43,44,47, 2,50,34, 2,53	1,51,55,31,23,40,55,19	1,59,39,29,50	8,11
		34″	27,16,45,36,42,32,14,35,28,22	1,51,55,29,24, 1,25,29	1,59,39,38, 1	8,11
		36″	27,16,47,28,37,59,38,57,15,50	1,51,55,27,24,21,47,28	1,59,39,46,12	8,11
		38″	27,16,49,20,33,25, 3,39,17, 6	1,51,55,25,24,42, 1,16	1,59,39,54,23	8,11
		40″	27,16,51,12,28,48,28,41,23,59	1,51,55,23,25, 2, 6,53	1,59,40, 2,34	8,11
		42″	27,16,53, 4,24, 9,54, 3,28,18	1,51,55,21,25,22, 4,19	1,59,40,10,45	8,11
		44″	27,16,54,56,19,29,19,45,21,52	1,51,55,19,25,41,53,34	1,59,40,18,56	8,11
		46″	27,16,56,48,14,46,45,46,56,30	1,51,55,17,26, 1,34,38	1,59,40,27, 7	8,11
		48″	27,16,58,40,10, 2,12, 8, 4, 1	1,51,55,15,26,21, 7,31	1,59,40,35,18	8,11
		50″	27,17, 0,32, 5,15,38,48,36,14	1,51,55,13,26,40,32,13	1,59,40,43,29	8,11
		52″	27,17, 2,24, 0,27, 5,48,24,58	1,51,55,11,26,59,48,44	1,59,40,51,40	8,11
		54″	27,17, 4,15,55,36,33, 7,22, 2	1,51,55, 9,27,18,57, 4	1,59,40,59,51	8,11
		56″	27,17, 6, 7,50,44, 0,45,19,15	1,51,55, 7,27,37,57,13	1,59,41, 8, 2	8,11
		58″	27,17, 7,59,45,49,28,42, 8,26	1,51,55, 5,27,56,49,11	1,59,41,16,13	
		60″	27,17, 9,51,40,52,56,57,41,24	1,51,55, 3,28,15,32,58		
	exact		27,17, 9,51,40,52,56,57,39,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27° 3′ 0″	27,17, 9,51,40,52,56,57,39,59	1,51,55, 1,28,34, 8,34		
2″	27,17,11,43,35,54,25,31,48,33	1,51,54,59,28,52,36, 0	1,59,41,32,34	8,11
4″	27,17,13,35,30,53,54,24,24,33	1,51,54,57,29,10,55,15	1,59,41,40,45	8,11
6″	27,17,15,27,25,51,23,35,19,48	1,51,54,55,29,29, 6,19	1,59,41,48,56	8,11
8″	27,17,17,19,20,46,53, 4,26, 7	1,51,54,53,29,47, 9,12	1,59,41,57, 7	8,11
10″	27,17,19,11,15,40,22,51,35,19	1,51,54,51,30, 5, 3,54	1,59,42, 5,18	8,11
12″	27,17,21, 3,10,31,52,56,39,13	1,51,54,49,30,22,50,25	1,59,42,13,29	8,11
14″	27,17,22,55, 5,21,23,19,29,38	1,51,54,47,30,40,28,45	1,59,42,21,40	8,11
16″	27,17,24,47, 0, 8,53,59,58,23	1,51,54,45,30,57,58,54	1,59,42,29,51	8,11
18″	27,17,26,38,54,54,24,57,57,17	1,51,54,43,31,15,20,52	1,59,42,38, 2	8,11
20″	27,17,28,30,49,37,56,13,18, 9	1,51,54,41,31,32,34,39	1,59,42,46,13	8,11
22″	27,17,30,22,44,19,27,45,52,48	1,51,54,39,31,49,40,15	1,59,42,54,24	8,11
24″	27,17,32,14,38,58,59,35,33, 3	1,51,54,37,32, 6,37,40	1,59,43, 2,35	8,11
26″	27,17,34, 6,33,36,31,42,10,43	1,51,54,35,32,23,26,54	1,59,43,10,46	8,11
28″	27,17,35,58,28,12, 4, 5,37,37	1,51,54,33,32,40, 7,57	1,59,43,18,57	8,11
30″	27,17,37,50,22,45,36,45,45,34	1,51,54,31,32,56,40,49	1,59,43,27, 8	8,11
32″	27,17,39,42,17,17, 9,42,26,23	1,51,54,29,33,13, 5,30	1,59,43,35,19	8,11
34″	27,17,41,34,11,46,42,55,31,53	1,51,54,27,33,29,22, 0	1,59,43,43,30	8,11
36″	27,17,43,26, 6,14,16,24,53,53	1,51,54,25,33,45,30,19	1,59,43,51,41	8,11
38″	27,17,45,18, 0,39,50,10,24,12	1,51,54,23,34, 1,30,27	1,59,43,59,52	8,11
40″	27,17,47, 9,55, 3,24,11,54,39	1,51,54,21,34,17,22,24	1,59,44, 8, 3	8,11
42″	27,17,49, 1,49,24,58,29,17, 3	1,51,54,19,34,33, 6,10	1,59,44,16,14	8,11
44″	27,17,50,53,43,44,33, 2,23,13	1,51,54,17,34,48,41,45	1,59,44,24,25	8,11
46″	27,17,52,45,38, 2, 7,51, 4,58	1,51,54,15,35, 4, 9, 9	1,59,44,32,36	8,11
48″	27,17,54,37,32,17,42,55,14, 7	1,51,54,13,35,19,28,22	1,59,44,40,47	8,11
50″	27,17,56,29,26,31,18,14,42,29	1,51,54,11,35,34,39,24	1,59,44,48,58	8,11
52″	27,17,58,21,20,42,53,49,21,53	1,51,54, 9,35,49,42,15	1,59,44,57, 9	8,11
54″	27,18, 0,13,14,52,29,39, 4, 8	1,51,54, 7,36, 4,36,55	1,59,45, 5,20	8,11
56″	27,18, 2, 5, 9, 0, 5,43,41, 3	1,51,54, 5,36,19,23,24	1,59,45,13,31	8,11
58″	27,18, 3,57, 3, 5,42, 3, 4,27	1,51,54, 3,36,34, 1,42	1,59,45,21,42	
60″	27,18, 5,48,57, 9,18,37, 6, 9			
exact	27,18, 5,48,57, 9,18,37,11,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27° 4′ 0″	27,18, 5,48,57, 9,18,37,11,26			
		1,51,54, 1,36,48,32,28		
2″	27,18, 7,40,51,10,55,25,43,54		1,59,45,38, 1	
		1,51,53,59,37, 2,54,27		8,11
4″	27,18, 9,32,45,10,32,28,38,21		1,59,45,46,12	
		1,51,53,57,37,17, 8,15		8,11
6″	27,18,11,24,39, 8, 9,45,46,36		1,59,45,54,23	
		1,51,53,55,37,31,13,52		8,11
8″	27,18,13,16,33, 3,47,17, 0,28		1,59,46, 2,34	
		1,51,53,53,37,45,11,18		8,11
10″	27,18,15, 8,26,57,25, 2,11,46		1,59,46,10,45	
		1,51,53,51,37,59, 0,33		8,11
12″	27,18,17, 0,20,49, 3, 1,12,19		1,59,46,18,56	
		1,51,53,49,38,12,41,37		8,11
14″	27,18,18,52,14,38,41,13,53,56		1,59,46,27, 7	
		1,51,53,47,38,26,14,30		8,11
16″	27,18,20,44, 8,26,19,40, 8,26		1,59,46,35,18	
		1,51,53,45,38,39,39,12		8,11
18″	27,18,22,36, 2,11,58,19,47,38		1,59,46,43,29	
		1,51,53,43,38,52,55,43		8,11
20″	27,18,24,27,55,55,37,12,43,21		1,59,46,51,40	
		1,51,53,41,39, 6, 4, 3		8,11
22″	27,18,26,19,49,37,16,18,47,24		1,59,46,59,51	
		1,51,53,39,39,19, 4,12		8,11
24″	27,18,28,11,43,16,55,37,51,36		1,59,47, 8, 2	
		1,51,53,37,39,31,56,10		8,11
26″	27,18,30, 3,36,54,35, 9,47,46		1,59,47,16,13	
		1,51,53,35,39,44,39,57		8,11
28″	27,18,31,55,30,30,14,54,27,43		1,59,47,24,24	
		1,51,53,33,39,57,15,33		8,11
30″	27,18,33,47,24, 3,54,51,43,16		1,59,47,32,35	
		1,51,53,31,40, 9,42,58		8,11
32″	27,18,35,39,17,35,35, 1,26,14		1,59,47,40,46	
		1,51,53,29,40,22, 2,12		8,11
34″	27,18,37,31,11, 5,15,23,28,26		1,59,47,48,57	
		1,51,53,27,40,34,13,15		8,11
36″	27,18,39,23, 4,32,55,57,41,41		1,59,47,57, 8	
		1,51,53,25,40,46,16, 7		8,11
38″	27,18,41,14,57,58,36,43,57,48		1,59,48, 5,19	
		1,51,53,23,40,58,10,48		8,11
40″	27,18,43, 6,51,22,17,42, 8,36		1,59,48,13,30	
		1,51,53,21,41, 9,57,18		8,11
42″	27,18,44,58,44,43,58,52, 5,54		1,59,48,21,41	
		1,51,53,19,41,21,35,37		8,11
44″	27,18,46,50,38, 3,40,13,41,31		1,59,48,29,52	
		1,51,53,17,41,33, 5,45		8,11
46″	27,18,48,42,31,21,21,46,47,16		1,59,48,38, 3	
		1,51,53,15,41,44,27,42		8,11
48″	27,18,50,34,24,37, 3,31,14,58		1,59,48,46,14	
		1,51,53,13,41,55,41,28		8,11
50″	27,18,52,26,17,50,45,26,56,26		1,59,48,54,25	
		1,51,53,11,42, 6,47, 3		8,11
52″	27,18,54,18,11, 2,27,33,43,29		1,59,49, 2,36	
		1,51,53, 9,42,17,44,27		8,11
54″	27,18,56,10, 4,12, 9,51,27,56		1,59,49,10,47	
		1,51,53, 7,42,28,33,40		8,11
56″	27,18,58, 1,57,19,52,20, 1,36		1,59,49,18,58	
		1,51,53, 5,42,39,14,42		8,11
58″	27,18,59,53,50,25,34,59,16,18		1,59,49,27, 9	
		1,51,53, 3,42,49,47,33		
60″	27,19, 1,45,43,29,17,49, 3,51			
exact	27,19, 1,45,43,29,17,49,17,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27° 5′ 0″	27,19, 1,45,43,29,17,49,17,15			
		1,51,53, 1,43, 0,13,37		
2″	27,19, 3,37,36,31, 0,49,30,52		1,59,49,43,25	
		1,51,52,59,43,10,30,12		8,11
4″	27,19, 5,29,29,30,44, 0, 1, 4		1,59,49,51,36	
		1,51,52,57,43,20,38,36		8,11
6″	27,19, 7,21,22,28,27,20,39,40		1,59,49,59,47	
		1,51,52,55,43,30,38,49		8,11
8″	27,19, 9,13,15,24,10,51,18,29		1,59,50, 7,58	
		1,51,52,53,43,40,30,51		8,11
10″	27,19,11, 5, 8,17,54,31,49,20		1,59,50,16, 9	
		1,51,52,51,43,50,14,42		8,11
12″	27,19,12,57, 1, 9,38,22, 4, 2		1,59,50,24,20	
		1,51,52,49,43,59,50,22		8,11
14″	27,19,14,48,53,59,22,21,54,24		1,59,50,32,31	
		1,51,52,47,44, 9,17,51		8,11
16″	27,19,16,40,46,47, 6,31,12,15		1,59,50,40,42	
		1,51,52,45,44,18,37, 9		8,11
18″	27,19,18,32,39,32,50,49,49,24		1,59,50,48,53	
		1,51,52,43,44,27,48,16		8,11
20″	27,19,20,24,32,16,35,17,37,40		1,59,50,57, 4	
		1,51,52,41,44,36,51,12		8,11
22″	27,19,22,16,24,58,19,54,28,52		1,59,51, 5,15	
		1,51,52,39,44,45,45,57		8,11
24″	27,19,24, 8,17,38, 4,40,14,49		1,59,51,13,26	
		1,51,52,37,44,54,32,31		8,11
26″	27,19,26, 0,10,15,49,34,47,20		1,59,51,21,37	
		1,51,52,35,45, 3,10,54		8,11
28″	27,19,27,52, 2,51,34,37,58,14		1,59,51,29,48	
		1,51,52,33,45,11,41, 6		8,11
30″	27,19,29,43,55,25,19,49,39,20		1,59,51,37,59	
		1,51,52,31,45,20, 3, 7		8,11
32″	27,19,31,35,47,57, 5, 9,42,27		1,59,51,46,10	
		1,51,52,29,45,28,16,57		8,11
34″	27,19,33,27,40,26,50,37,59,24		1,59,51,54,21	
		1,51,52,27,45,36,22,36		8,11
36″	27,19,35,19,32,54,36,14,22, 0		1,59,52, 2,32	
		1,51,52,25,45,44,20, 4		8,11
38″	27,19,37,11,25,20,21,58,42, 4		1,59,52,10,43	
		1,51,52,23,45,52, 9,21		8,11
40″	27,19,39, 3,17,44, 7,50,51,25		1,59,52,18,54	
		1,51,52,21,45,59,50,27		8,11
42″	27,19,40,55,10, 5,53,50,41,52		1,59,52,27, 5	
		1,51,52,19,46, 7,23,22		8,11
44″	27,19,42,47, 2,25,39,58, 5,14		1,59,52,35,16	
		1,51,52,17,46,14,48, 6		8,11
46″	27,19,44,38,54,43,26,12,53,20		1,59,52,43,27	
		1,51,52,15,46,22, 4,39		8,11
48″	27,19,46,30,46,59,12,34,57,59		1,59,52,51,38	
		1,51,52,13,46,29,13, 1		8,11
50″	27,19,48,22,39,12,59, 4,11, 0		1,59,52,59,49	
		1,51,52,11,46,36,13,12		8,11
52″	27,19,50,14,31,24,45,40,24,12		1,59,53, 8, 0	
		1,51,52, 9,46,43, 5,12		8,11
54″	27,19,52, 6,23,34,32,23,29,24		1,59,53,16,11	
		1,51,52, 7,46,49,49, 1		8,11
56″	27,19,53,58,15,42,19,13,18,25		1,59,53,24,22	
		1,51,52, 5,46,56,24,39		8,11
58″	27,19,55,50, 7,48, 6, 9,43, 4		1,59,53,32,33	
		1,51,52, 3,47, 2,52, 6		
60″	27,19,57,41,59,51,53,12,35,10			
exact	27,19,57,41,59,51,53,12,50,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27° 6′ 0″	27,19,57,41,59,51,53,12,50,39	1,51,52, 1,47, 9,13, 6		
2″	27,19,59,33,51,53,40,22, 3,45	1,51,51,59,47,15,24,19	1,59,53,48,47	8,11
4″	27,20, 1,25,43,53,27,37,28, 4	1,51,51,57,47,21,27,21	1,59,53,56,58	8,11
6″	27,20, 3,17,35,51,14,58,55,25	1,51,51,55,47,27,22,12	1,59,54, 5, 9	8,11
8″	27,20, 5, 9,27,47, 2,26,17,37	1,51,51,53,47,33, 8,52	1,59,54,13,20	8,11
10″	27,20, 7, 1,19,40,49,59,26,29	1,51,51,51,47,38,47,21	1,59,54,21,31	8,11
12″	27,20, 8,53,11,32,37,38,13,50	1,51,51,49,47,44,17,39	1,59,54,29,42	8,11
14″	27,20,10,45, 3,22,25,22,31,29	1,51,51,47,47,49,39,46	1,59,54,37,53	8,11
16″	27,20,12,36,55,10,13,12,11,15	1,51,51,45,47,54,53,42	1,59,54,46, 4	8,11
18″	27,20,14,28,46,56, 1, 7, 4,57	1,51,51,43,47,59,59,27	1,59,54,54,15	8,11
20″	27,20,16,20,38,39,49, 7, 4,24	1,51,51,41,48, 4,57, 1	1,59,55, 2,26	8,11
22″	27,20,18,12,30,21,37,12, 1,25	1,51,51,39,48, 9,46,24	1,59,55,10,37	8,11
24″	27,20,20, 4,22, 1,25,21,47,49	1,51,51,37,48,14,27,36	1,59,55,18,48	8,11
26″	27,20,21,56,13,39,13,36,15,25	1,51,51,35,48,19, 0,37	1,59,55,26,59	8,11
28″	27,20,23,48, 5,15, 1,55,16, 2	1,51,51,33,48,23,25,27	1,59,55,35,10	8,11
30″	27,20,25,39,56,48,50,18,41,29	1,51,51,31,48,27,42, 6	1,59,55,43,21	8,11
32″	27,20,27,31,48,20,38,46,23,35	1,51,51,29,48,31,50,34	1,59,55,51,32	8,11
34″	27,20,29,23,39,50,27,18,14, 9	1,51,51,27,48,35,50,51	1,59,55,59,43	8,11
36″	27,20,31,15,31,18,15,54, 5, 0	1,51,51,25,48,39,42,57	1,59,56, 7,54	8,11
38″	27,20,33, 7,22,44, 4,33,47,57	1,51,51,23,48,43,26,52	1,59,56,16, 5	8,11
40″	27,20,34,59,14, 7,53,17,14,49	1,51,51,21,48,47, 2,36	1,59,56,24,16	8,11
42″	27,20,36,51, 5,29,42, 4,17,25	1,51,51,19,48,50,30, 9	1,59,56,32,27	8,11
44″	27,20,38,42,56,49,30,54,47,34	1,51,51,17,48,53,49,31	1,59,56,40,38	8,11
46″	27,20,40,34,48, 7,19,48,37, 5	1,51,51,15,48,57, 0,42	1,59,56,48,49	8,11
48″	27,20,42,26,39,23, 8,45,37,47	1,51,51,13,49, 0, 3,42	1,59,56,57, 0	8,11
50″	27,20,44,18,30,36,57,45,41,29	1,51,51,11,49, 2,58,31	1,59,57, 5,11	8,11
52″	27,20,46,10,21,48,46,48,40, 0	1,51,51, 9,49, 5,45, 9	1,59,57,13,22	8,11
54″	27,20,48, 2,12,58,35,54,25, 9	1,51,51, 7,49, 8,23,36	1,59,57,21,33	8,11
56″	27,20,49,54, 4, 6,25, 2,48,45	1,51,51, 5,49,10,53,52	1,59,57,29,44	8,11
58″	27,20,51,45,55,12,14,13,42,37	1,51,51, 3,49,13,15,57	1,59,57,37,55	
60″	27,20,53,37,46,16, 3,26,58,34			
exact	27,20,53,37,46,16, 3,27,17,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27° 7′ 0″	27,20,53,37,46,16, 3,27,17,46	1,51,51, 1,49,15,32, 2		
2″	27,20,55,29,37,17,52,42,49,48	1,51,50,59,49,17,37,55	1,59,57,54, 7	8,11
4″	27,20,57,21,28,17,42, 0,27,43	1,51,50,57,49,19,35,37	1,59,58, 2,18	8,11
6″	27,20,59,13,19,15,31,20, 3,20	1,51,50,55,49,21,25, 8	1,59,58,10,29	8,11
8″	27,21, 1, 5,10,11,20,41,28,28	1,51,50,53,49,23, 6,28	1,59,58,18,40	8,11
10″	27,21, 2,57, 1, 5,10, 4,34,56	1,51,50,51,49,24,39,37	1,59,58,26,51	8,11
12″	27,21, 4,48,51,56,59,29,14,33	1,51,50,49,49,26, 4,35	1,59,58,35, 2	8,11
14″	27,21, 6,40,42,46,48,55,19, 8	1,51,50,47,49,27,21,22	1,59,58,43,13	8,11
16″	27,21, 8,32,33,34,38,22,40,30	1,51,50,45,49,28,29,58	1,59,58,51,24	8,11
18″	27,21,10,24,24,20,27,51,10,28	1,51,50,43,49,29,30,23	1,59,58,59,35	8,11
20″	27,21,12,16,15, 4,17,20,40,51	1,51,50,41,49,30,22,37	1,59,59, 7,46	8,11
22″	27,21,14, 8, 5,46, 6,51, 3,28	1,51,50,39,49,31, 6,40	1,59,59,15,57	8,11
24″	27,21,15,59,56,25,56,22,10, 8	1,51,50,37,49,31,42,32	1,59,59,24, 8	8,11
26″	27,21,17,51,47, 3,45,53,52,40	1,51,50,35,49,32,10,13	1,59,59,32,19	8,11
28″	27,21,19,43,37,39,35,26, 2,53	1,51,50,33,49,32,29,43	1,59,59,40,30	8,11
30″	27,21,21,35,28,13,24,58,32,36	1,51,50,31,49,32,41, 2	1,59,59,48,41	8,11
32″	27,21,23,27,18,45,14,31,13,38	1,51,50,29,49,32,44,10	1,59,59,56,52	8,11
34″	27,21,25,19, 9,15, 4, 3,57,48	1,51,50,27,49,32,39, 7	2, 0, 0, 5, 3	8,11
36″	27,21,27,10,59,42,53,36,36,55	1,51,50,25,49,32,25,53	2, 0, 0,13,14	8,11
38″	27,21,29, 2,50, 8,43, 9, 2,48	1,51,50,23,49,32, 4,28	2, 0, 0,21,25	8,11
40″	27,21,30,54,40,32,32,41, 7,16	1,51,50,21,49,31,34,52	2, 0, 0,29,36	8,11
42″	27,21,32,46,30,54,22,12,42, 8	1,51,50,19,49,30,57, 5	2, 0, 0,37,47	8,11
44″	27,21,34,38,21,14,11,43,39,13	1,51,50,17,49,30,11, 7	2, 0, 0,45,58	8,11
46″	27,21,36,30,11,32, 1,13,50,20	1,51,50,15,49,29,16,58	2, 0, 0,54, 9	8,11
48″	27,21,38,22, 1,47,50,43, 7,18	1,51,50,13,49,28,14,38	2, 0, 1, 2,20	8,11
50″	27,21,40,13,52, 1,40,11,21,56	1,51,50,11,49,27, 4, 7	2, 0, 1,10,31	8,11
52″	27,21,42, 5,42,13,29,38,26, 3	1,51,50, 9,49,25,45,25	2, 0, 1,18,42	8,11
54″	27,21,43,57,32,23,19, 4,11,28	1,51,50, 7,49,24,18,32	2, 0, 1,26,53	8,11
56″	27,21,45,49,22,31, 8,28,30, 0	1,51,50, 5,49,22,43,28	2, 0, 1,35, 4	8,11
58″	27,21,47,41,12,36,57,51,13,28	1,51,50, 3,49,21, 0,13	2, 0, 1,43,15	
60″	27,21,49,33, 2,40,47,12,13,41			
exact	27,21,49,33, 2,40,47,12,37,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27° 8′ 0″	27,21,49,33, 2,40,47,12,37,32			
		1,51,50, 1,49,19,11,29		
2″	27,21,51,24,52,42,36,31,49, 1		2, 0, 1,59,25	
		1,51,49,59,49,17,12, 4		8,11
4″	27,21,53,16,42,42,25,49, 1, 5		2, 0, 2, 7,36	
		1,51,49,57,49,15, 4,28		8,11
6″	27,21,55, 8,32,40,15, 4, 5,33		2, 0, 2,15,47	
		1,51,49,55,49,12,48,41		8,11
8″	27,21,57, 0,22,36, 4,16,54,14		2, 0, 2,23,58	
		1,51,49,53,49,10,24,43		8,11
10″	27,21,58,52,12,29,53,27,18,57		2, 0, 2,32, 9	
		1,51,49,51,49, 7,52,34		8,11
12″	27,22, 0,44, 2,21,42,35,11,31		2, 0, 2,40,20	
		1,51,49,49,49, 5,12,14		8,11
14″	27,22, 2,35,52,11,31,40,23,45		2, 0, 2,48,31	
		1,51,49,47,49, 2,23,43		8,11
16″	27,22, 4,27,41,59,20,42,47,28		2, 0, 2,56,42	
		1,51,49,45,48,59,27, 1		8,11
18″	27,22, 6,19,31,45, 9,42,14,29		2, 0, 3, 4,53	
		1,51,49,43,48,56,22, 8		8,11
20″	27,22, 8,11,21,28,58,38,36,37		2, 0, 3,13, 4	
		1,51,49,41,48,53, 9, 4		8,11
22″	27,22,10, 3,11,10,47,31,45,41		2, 0, 3,21,15	
		1,51,49,39,48,49,47,49		8,11
24″	27,22,11,55, 0,50,36,21,33,30		2, 0, 3,29,26	
		1,51,49,37,48,46,18,23		8,11
26″	27,22,13,46,50,28,25, 7,51,53		2, 0, 3,37,37	
		1,51,49,35,48,42,40,46		8,11
28″	27,22,15,38,40, 4,13,50,32,39		2, 0, 3,45,48	
		1,51,49,33,48,38,54,58		8,11
30″	27,22,17,30,29,38, 2,29,27,37		2, 0, 3,53,59	
		1,51,49,31,48,35, 0,59		8,11
32″	27,22,19,22,19, 9,51, 4,28,36		2, 0, 4, 2,10	
		1,51,49,29,48,30,58,49		8,11
34″	27,22,21,14, 8,39,39,35,27,25		2, 0, 4,10,21	
		1,51,49,27,48,26,48,28		8,11
36″	27,22,23, 5,58, 7,28, 2,15,53		2, 0, 4,18,32	
		1,51,49,25,48,22,29,56		8,11
38″	27,22,24,57,47,33,16,24,45,49		2, 0, 4,26,43	
		1,51,49,23,48,18, 3,13		8,11
40″	27,22,26,49,36,57, 4,42,49, 2		2, 0, 4,34,54	
		1,51,49,21,48,13,28,19		8,11
42″	27,22,28,41,26,18,52,56,17,21		2, 0, 4,43, 5	
		1,51,49,19,48, 8,45,14		8,11
44″	27,22,30,33,15,38,41, 5, 2,35		2, 0, 4,51,16	
		1,51,49,17,48, 3,53,58		8,11
46″	27,22,32,25, 4,56,29, 8,56,33		2, 0, 4,59,27	
		1,51,49,15,47,58,54,31		8,11
48″	27,22,34,16,54,12,17, 7,51, 4		2, 0, 5, 7,38	
		1,51,49,13,47,53,46,53		8,11
50″	27,22,36, 8,43,26, 5, 1,37,57		2, 0, 5,15,49	
		1,51,49,11,47,48,31, 4		8,11
52″	27,22,38, 0,32,37,52,50, 9, 1		2, 0, 5,24, 0	
		1,51,49, 9,47,43, 7, 4		8,11
54″	27,22,39,52,21,47,40,33,16, 5		2, 0, 5,32,11	
		1,51,49, 7,47,37,34,53		8,11
56″	27,22,41,44,10,55,28,10,50,58		2, 0, 5,40,22	
		1,51,49, 5,47,31,54,31		8,11
58″	27,22,43,36, 0, 1,15,42,45,29		2, 0, 5,48,33	
		1,51,49, 3,47,26, 5,58		
60″	27,22,45,27,49, 5, 3, 8,51,27			
exact	27,22,45,27,49, 5, 3, 9,21,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27° 9′ 0″	27,22,45,27,49, 5, 3, 9,21,49			
		1,51,49, 1,47,20,12,34		
2″	27,22,47,19,38, 6,50,29,34,23		2, 0, 6, 4,41	
		1,51,48,59,47,14, 7,53		8,10
4″	27,22,49,11,27, 6,37,43,42,16		2, 0, 6,12,51	
		1,51,48,57,47, 7,55, 2		8,10
6″	27,22,51, 3,16, 4,24,51,37,18		2, 0, 6,21, 1	
		1,51,48,55,47, 1,34, 1		8,10
8″	27,22,52,55, 5, 0,11,53,11,19		2, 0, 6,29,11	
		1,51,48,53,46,55, 4,50		8,10
10″	27,22,54,46,53,53,58,48,16, 9		2, 0, 6,37,21	
		1,51,48,51,46,48,27,29		8,10
12″	27,22,56,38,42,45,45,36,43,38		2, 0, 6,45,31	
		1,51,48,49,46,41,41,58		8,10
14″	27,22,58,30,31,35,32,18,25,36		2, 0, 6,53,41	
		1,51,48,47,46,34,48,17		8,10
16″	27,23, 0,22,20,23,18,53,13,53		2, 0, 7, 1,51	
		1,51,48,45,46,27,46,26		8,10
18″	27,23, 2,14, 9, 9, 5,21, 0,19		2, 0, 7,10, 1	
		1,51,48,43,46,20,36,25		8,10
20″	27,23, 4, 5,57,52,51,41,36,44		2, 0, 7,18,11	
		1,51,48,41,46,13,18,14		8,10
22″	27,23, 5,57,46,34,37,54,54,58		2, 0, 7,26,21	
		1,51,48,39,46, 5,51,53		8,10
24″	27,23, 7,49,35,14,24, 0,46,51		2, 0, 7,34,31	
		1,51,48,37,45,58,17,22		8,10
26″	27,23, 9,41,23,52, 9,59, 4,13		2, 0, 7,42,41	
		1,51,48,35,45,50,34,41		8,10
28″	27,23,11,33,12,27,55,49,38,54		2, 0, 7,50,51	
		1,51,48,33,45,42,43,50		8,10
30″	27,23,13,25, 1, 1,41,32,22,44		2, 0, 7,59, 1	
		1,51,48,31,45,34,44,49		8,10
32″	27,23,15,16,49,33,27, 7, 7,33		2, 0, 8, 7,11	
		1,51,48,29,45,26,37,38		8,10
34″	27,23,17, 8,38, 3,12,33,45,11		2, 0, 8,15,21	
		1,51,48,27,45,18,22,17		8,10
36″	27,23,19, 0,26,30,57,52, 7,28		2, 0, 8,23,31	
		1,51,48,25,45, 9,58,46		8,10
38″	27,23,20,52,14,56,43, 2, 6,14		2, 0, 8,31,41	
		1,51,48,23,45, 1,27, 5		8,10
40″	27,23,22,44, 3,20,28, 3,33,19		2, 0, 8,39,51	
		1,51,48,21,44,52,47,14		8,10
42″	27,23,24,35,51,42,12,56,20,33		2, 0, 8,48, 1	
		1,51,48,19,44,43,59,13		8,10
44″	27,23,26,27,40, 1,57,40,19,46		2, 0, 8,56,11	
		1,51,48,17,44,35, 3, 2		8,10
46″	27,23,28,19,28,19,42,15,22,48		2, 0, 9, 4,21	
		1,51,48,15,44,25,58,41		8,10
48″	27,23,30,11,16,35,26,41,21,29		2, 0, 9,12,31	
		1,51,48,13,44,16,46,10		8,10
50″	27,23,32, 3, 4,49,10,58, 7,39		2, 0, 9,20,41	
		1,51,48,11,44, 7,25,29		8,10
52″	27,23,33,54,53, 0,55, 5,33, 8		2, 0, 9,28,51	
		1,51,48, 9,43,57,56,38		8,10
54″	27,23,35,46,41,10,39, 3,29,46		2, 0, 9,37, 1	
		1,51,48, 7,43,48,19,37		8,10
56″	27,23,37,38,29,18,22,51,49,23		2, 0, 9,45,11	
		1,51,48, 5,43,38,34,26		8,10
58″	27,23,39,30,17,24, 6,30,23,49		2, 0, 9,53,21	
		1,51,48, 3,43,28,41, 5		
60″	27,23,41,22, 5,27,49,59, 4,54			
exact	27,23,41,22, 5,27,49,58,35,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°10′ 0″	27,23,41,22, 5,27,49,58,35,22			
		1,51,48, 1,43,18,36,22		
2″	27,23,43,13,53,29,33,17,11,44		2, 0,10, 9,54	
		1,51,47,59,43, 8,26,28		8,10
4″	27,23,45, 5,41,29,16,25,38,12		2, 0,10,18, 4	
		1,51,47,57,42,58, 8,24		8,10
6″	27,23,46,57,29,26,59,23,46,36		2, 0,10,26,14	
		1,51,47,55,42,47,42,10		8,10
8″	27,23,48,49,17,22,42,11,28,46		2, 0,10,34,24	
		1,51,47,53,42,37, 7,46		8,10
10″	27,23,50,41, 5,16,24,48,36,32		2, 0,10,42,34	
		1,51,47,51,42,26,25,12		8,10
12″	27,23,52,32,53, 8, 7,15, 1,44		2, 0,10,50,44	
		1,51,47,49,42,15,34,28		8,10
14″	27,23,54,24,40,57,49,30,36,12		2, 0,10,58,54	
		1,51,47,47,42, 4,35,34		8,10
16″	27,23,56,16,28,45,31,35,11,46		2, 0,11, 7, 4	
		1,51,47,45,41,53,28,30		8,10
18″	27,23,58, 8,16,31,13,28,40,16		2, 0,11,15,14	
		1,51,47,43,41,42,13,16		8,10
20″	27,24, 0, 0, 4,14,55,10,53,32		2, 0,11,23,24	
		1,51,47,41,41,30,49,52		8,10
22″	27,24, 1,51,51,56,36,41,43,24		2, 0,11,31,34	
		1,51,47,39,41,19,18,18		8,10
24″	27,24, 3,43,39,36,18, 1, 1,42		2, 0,11,39,44	
		1,51,47,37,41, 7,38,34		8,10
26″	27,24, 5,35,27,13,59, 8,40,16		2, 0,11,47,54	
		1,51,47,35,40,55,50,40		8,10
28″	27,24, 7,27,14,49,40, 4,30,56		2, 0,11,56, 4	
		1,51,47,33,40,43,54,36		8,10
30″	27,24, 9,19, 2,23,20,48,25,32		2, 0,12, 4,14	
		1,51,47,31,40,31,50,22		8,10
32″	27,24,11,10,49,55, 1,20,15,54		2, 0,12,12,24	
		1,51,47,29,40,19,37,58		8,10
34″	27,24,13, 2,37,24,41,39,53,52		2, 0,12,20,34	
		1,51,47,27,40, 7,17,24		8,10
36″	27,24,14,54,24,52,21,47,11,16		2, 0,12,28,44	
		1,51,47,25,39,54,48,40		8,10
38″	27,24,16,46,12,18, 1,41,59,56		2, 0,12,36,54	
		1,51,47,23,39,42,11,46		8,10
40″	27,24,18,37,59,41,41,24,11,42		2, 0,12,45, 4	
		1,51,47,21,39,29,26,42		8,10
42″	27,24,20,29,47, 3,20,53,38,24		2, 0,12,53,14	
		1,51,47,19,39,16,33,28		8,10
44″	27,24,22,21,34,23, 0,10,11,52		2, 0,13, 1,24	
		1,51,47,17,39, 3,32, 4		8,10
46″	27,24,24,13,21,40,39,13,43,56		2, 0,13, 9,34	
		1,51,47,15,38,50,22,30		8,10
48″	27,24,26, 5, 8,56,18, 4, 6,26		2, 0,13,17,44	
		1,51,47,13,38,37, 4,46		8,10
50″	27,24,27,56,56, 9,56,41,11,12		2, 0,13,25,54	
		1,51,47,11,38,23,38,52		8,10
52″	27,24,29,48,43,21,35, 4,50, 4		2, 0,13,34, 4	
		1,51,47, 9,38,10, 4,48		8,10
54″	27,24,31,40,30,31,13,14,54,52		2, 0,13,42,14	
		1,51,47, 7,37,56,22,34		8,10
56″	27,24,33,32,17,38,51,11,17,26		2, 0,13,50,24	
		1,51,47, 5,37,42,32,10		8,10
58″	27,24,35,24, 4,44,28,53,49,36		2, 0,13,58,34	
		1,51,47, 3,37,28,33,36		
60″	27,24,37,15,51,48, 6,22,23,12			
exact	27,24,37,15,51,48, 6,21,55,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°11′ 0″	27,24,37,15,51,48, 6,21,55,53			
		1,51,47, 1,37,14,24, 0		
2″	27,24,39, 7,38,49,43,36,19,53		2, 0,14,15, 5	
		1,51,46,59,37, 0, 8,55		8,10
4″	27,24,40,59,25,49,20,36,28,48		2, 0,14,23,15	
		1,51,46,57,36,45,45,40		8,10
6″	27,24,42,51,12,46,57,22,14,28		2, 0,14,31,25	
		1,51,46,55,36,31,14,15		8,10
8″	27,24,44,42,59,42,33,53,28,43		2, 0,14,39,35	
		1,51,46,53,36,16,34,40		8,10
10″	27,24,46,34,46,36,10,10, 3,23		2, 0,14,47,45	
		1,51,46,51,36, 1,46,55		8,10
12″	27,24,48,26,33,27,46,11,50,18		2, 0,14,55,55	
		1,51,46,49,35,46,51, 0		8,10
14″	27,24,50,18,20,17,21,58,41,18		2, 0,15, 4, 5	
		1,51,46,47,35,31,46,55		8,10
16″	27,24,52,10, 7, 4,57,30,28,13		2, 0,15,12,15	
		1,51,46,45,35,16,34,40		8,10
18″	27,24,54, 1,53,50,32,47, 2,53		2, 0,15,20,25	
		1,51,46,43,35, 1,14,15		8,10
20″	27,24,55,53,40,34, 7,48,17, 8		2, 0,15,28,35	
		1,51,46,41,34,45,45,40		8,10
22″	27,24,57,45,27,15,42,34, 2,48		2, 0,15,36,45	
		1,51,46,39,34,30, 8,55		8,10
24″	27,24,59,37,13,55,17, 4,11,43		2, 0,15,44,55	
		1,51,46,37,34,14,24, 0		8,10
26″	27,25, 1,29, 0,32,51,18,35,43		2, 0,15,53, 5	
		1,51,46,35,33,58,30,55		8,10
28″	27,25, 3,20,47, 8,25,17, 6,38		2, 0,16, 1,15	
		1,51,46,33,33,42,29,40		8,10
30″	27,25, 5,12,33,41,58,59,36,18		2, 0,16, 9,25	
		1,51,46,31,33,26,20,15		8,10
32″	27,25, 7, 4,20,13,32,25,56,33		2, 0,16,17,35	
		1,51,46,29,33,10, 2,40		8,10
34″	27,25, 8,56, 6,43, 5,35,59,13		2, 0,16,25,45	
		1,51,46,27,32,53,36,55		8,10
36″	27,25,10,47,53,10,38,29,36, 8		2, 0,16,33,55	
		1,51,46,25,32,37, 3, 0		8,10
38″	27,25,12,39,39,36,11, 6,39, 8		2, 0,16,42, 5	
		1,51,46,23,32,20,20,55		8,10
40″	27,25,14,31,25,59,43,27, 0, 3		2, 0,16,50,15	
		1,51,46,21,32, 3,30,40		8,10
42″	27,25,16,23,12,21,15,30,30,43		2, 0,16,58,25	
		1,51,46,19,31,46,32,15		8,10
44″	27,25,18,14,58,40,47,17, 2,58		2, 0,17, 6,35	
		1,51,46,17,31,29,25,40		8,10
46″	27,25,20, 6,44,58,18,46,28,38		2, 0,17,14,45	
		1,51,46,15,31,12,10,55		8,10
48″	27,25,21,58,31,13,49,58,39,33		2, 0,17,22,55	
		1,51,46,13,30,54,48, 0		8,10
50″	27,25,23,50,17,27,20,53,27,33		2, 0,17,31, 5	
		1,51,46,11,30,37,16,55		8,10
52″	27,25,25,42, 3,38,51,30,44,28		2, 0,17,39,15	
		1,51,46, 9,30,19,37,40		8,10
54″	27,25,27,33,49,48,21,50,22, 8		2, 0,17,47,25	
		1,51,46, 7,30, 1,50,15		8,10
56″	27,25,29,25,35,55,51,52,12,23		2, 0,17,55,35	
		1,51,46, 5,29,43,54,40		8,10
58″	27,25,31,17,22, 1,21,36, 7, 3		2, 0,18, 3,45	
		1,51,46, 3,29,25,50,55		
60″	27,25,33, 9, 8, 4,51, 1,57,58			
exact	27,25,33, 9, 8, 4,51, 1,33,59			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
27°12′	0″	27,25,33, 9, 8, 4,51, 1,33,59	1,51,46, 1,29, 7,36,34		
	2″	27,25,35, 0,54, 6,20, 9,10,33	1,51,45,59,28,49,16,20	2, 0,18,20,14	8,10
	4″	27,25,36,52,40, 5,48,58,26,53	1,51,45,57,28,30,47,56	2, 0,18,28,24	8,10
	6″	27,25,38,44,26, 3,17,29,14,49	1,51,45,55,28,12,11,22	2, 0,18,36,34	8,10
	8″	27,25,40,36,11,58,45,41,26,11	1,51,45,53,27,53,26,38	2, 0,18,44,44	8,10
	10″	27,25,42,27,57,52,13,34,52,49	1,51,45,51,27,34,33,44	2, 0,18,52,54	8,10
	12″	27,25,44,19,43,43,41, 9,26,33	1,51,45,49,27,15,32,40	2, 0,19, 1, 4	8,10
	14″	27,25,46,11,29,33, 8,24,59,13	1,51,45,47,26,56,23,26	2, 0,19, 9,14	8,10
	16″	27,25,48, 3,15,20,35,21,22,39	1,51,45,45,26,37, 6, 2	2, 0,19,17,24	8,10
	18″	27,25,49,55, 1, 6, 1,58,28,41	1,51,45,43,26,17,40,28	2, 0,19,25,34	8,10
	20″	27,25,51,46,46,49,28,16, 9, 9	1,51,45,41,25,58, 6,44	2, 0,19,33,44	8,10
	22″	27,25,53,38,32,30,54,14,15,53	1,51,45,39,25,38,24,50	2, 0,19,41,54	8,10
	24″	27,25,55,30,18,10,19,52,40,43	1,51,45,37,25,18,34,46	2, 0,19,50, 4	8,10
	26″	27,25,57,22, 3,47,45,11,15,29	1,51,45,35,24,58,36,32	2, 0,19,58,14	8,10
	28″	27,25,59,13,49,23,10, 9,52, 1	1,51,45,33,24,38,30, 8	2, 0,20, 6,24	8,10
	30″	27,26, 1, 5,34,56,34,48,22, 9	1,51,45,31,24,18,15,34	2, 0,20,14,34	8,10
	32″	27,26, 2,57,20,27,59, 6,37,43	1,51,45,29,23,57,52,50	2, 0,20,22,44	8,10
	34″	27,26, 4,49, 5,57,23, 4,30,33	1,51,45,27,23,37,21,56	2, 0,20,30,54	8,10
	36″	27,26, 6,40,51,24,46,41,52,29	1,51,45,25,23,16,42,52	2, 0,20,39, 4	8,10
	38″	27,26, 8,32,36,50, 9,58,35,21	1,51,45,23,22,55,55,38	2, 0,20,47,14	8,10
	40″	27,26,10,24,22,13,32,54,30,59	1,51,45,21,22,35, 0,14	2, 0,20,55,24	8,10
	42″	27,26,12,16, 7,34,55,29,31,13	1,51,45,19,22,13,56,40	2, 0,21, 3,34	8,10
	44″	27,26,14, 7,52,54,17,43,27,53	1,51,45,17,21,52,44,56	2, 0,21,11,44	8,10
	46″	27,26,15,59,38,11,39,36,12,49	1,51,45,15,21,31,25, 2	2, 0,21,19,54	8,10
	48″	27,26,17,51,23,27, 1, 7,37,51	1,51,45,13,21, 9,56,58	2, 0,21,28, 4	8,10
	50″	27,26,19,43, 8,40,22,17,34,49	1,51,45,11,20,48,20,44	2, 0,21,36,14	8,10
	52″	27,26,21,34,53,51,43, 5,55,33	1,51,45, 9,20,26,36,20	2, 0,21,44,24	8,10
	54″	27,26,23,26,39, 1, 3,32,31,53	1,51,45, 7,20, 4,43,46	2, 0,21,52,34	8,10
	56″	27,26,25,18,24, 8,23,37,15,39	1,51,45, 5,19,42,43, 2	2, 0,22, 0,44	8,10
	58″	27,26,27,10, 9,13,43,19,58,41	1,51,45, 3,19,20,34, 8	2, 0,22, 8,54	
	60″	27,26,29, 1,54,17, 2,40,32,49			
exact		27,26,29, 1,54,17, 2,40,13,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°13′ 0″	27,26,29, 1,54,17, 2,40,13,15			
		1,51,45, 1,18,58,15, 8		
2″	27,26,30,53,39,18,21,38,28,23		2, 0,22,25,21	
		1,51,44,59,18,35,49,47		8,10
4″	27,26,32,45,24,17,40,14,18,10		2, 0,22,33,31	
		1,51,44,57,18,13,16,16		8,10
6″	27,26,34,37, 9,14,58,27,34,26		2, 0,22,41,41	
		1,51,44,55,17,50,34,35		8,10
8″	27,26,36,28,54,10,16,18, 9, 1		2, 0,22,49,51	
		1,51,44,53,17,27,44,44		8,10
10″	27,26,38,20,39, 3,33,45,53,45		2, 0,22,58, 1	
		1,51,44,51,17, 4,46,43		8,10
12″	27,26,40,12,23,54,50,50,40,28		2, 0,23, 6,11	
		1,51,44,49,16,41,40,32		8,10
14″	27,26,42, 4, 8,44, 7,32,21, 0		2, 0,23,14,21	
		1,51,44,47,16,18,26,11		8,10
16″	27,26,43,55,53,31,23,50,47,11		2, 0,23,22,31	
		1,51,44,45,15,55, 3,40		8,10
18″	27,26,45,47,38,16,39,45,50,51		2, 0,23,30,41	
		1,51,44,43,15,31,32,59		8,10
20″	27,26,47,39,22,59,55,17,23,50		2, 0,23,38,51	
		1,51,44,41,15, 7,54, 8		8,10
22″	27,26,49,31, 7,41,10,25,17,58		2, 0,23,47, 1	
		1,51,44,39,14,44, 7, 7		8,10
24″	27,26,51,22,52,20,25, 9,25, 5		2, 0,23,55,11	
		1,51,44,37,14,20,11,56		8,10
26″	27,26,53,14,36,57,39,29,37, 1		2, 0,24, 3,21	
		1,51,44,35,13,56, 8,35		8,10
28″	27,26,55, 6,21,32,53,25,45,36		2, 0,24,11,31	
		1,51,44,33,13,31,57, 4		8,10
30″	27,26,56,58, 6, 6, 6,57,42,40		2, 0,24,19,41	
		1,51,44,31,13, 7,37,23		8,10
32″	27,26,58,49,50,37,20, 5,20, 3		2, 0,24,27,51	
		1,51,44,29,12,43, 9,32		8,10
34″	27,27, 0,41,35, 6,32,48,29,35		2, 0,24,36, 1	
		1,51,44,27,12,18,33,31		8,10
36″	27,27, 2,33,19,33,45, 7, 3, 6		2, 0,24,44,11	
		1,51,44,25,11,53,49,20		8,10
38″	27,27, 4,25, 3,58,57, 0,52,26		2, 0,24,52,21	
		1,51,44,23,11,28,56,59		8,10
40″	27,27, 6,16,48,22, 8,29,49,25		2, 0,25, 0,31	
		1,51,44,21,11, 3,56,28		8,10
42″	27,27, 8, 8,32,43,19,33,45,53		2, 0,25, 8,41	
		1,51,44,19,10,38,47,47		8,10
44″	27,27,10, 0,17, 2,30,12,33,40		2, 0,25,16,51	
		1,51,44,17,10,13,30,56		8,10
46″	27,27,11,52, 1,19,40,26, 4,36		2, 0,25,25, 1	
		1,51,44,15, 9,48, 5,55		8,10
48″	27,27,13,43,45,34,50,14,10,31		2, 0,25,33,11	
		1,51,44,13, 9,22,32,44		8,10
50″	27,27,15,35,29,47,59,36,43,15		2, 0,25,41,21	
		1,51,44,11, 8,56,51,23		8,10
52″	27,27,17,27,13,59, 8,33,34,38		2, 0,25,49,31	
		1,51,44, 9, 8,31, 1,52		8,10
54″	27,27,19,18,58, 8,17, 4,36,30		2, 0,25,57,41	
		1,51,44, 7, 8, 5, 4,11		8,10
56″	27,27,21,10,42,15,25, 9,40,41		2, 0,26, 5,51	
		1,51,44, 5, 7,38,58,20		8,10
58″	27,27,23, 2,26,20,32,48,39, 1		2, 0,26,14, 1	
		1,51,44, 3, 7,12,44,19		
60″	27,27,24,54,10,23,40, 1,23,20			
exact	27,27,24,54,10,23,40, 1,10,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°14′ 0″	27,27,24,54,10,23,40, 1,10,16			
		1,51,44, 1, 6,46,20,50		
2″	27,27,26,45,54,24,46,47,31, 6		2, 0,26,30,26	
		1,51,43,59, 6,19,50,24		8,10
4″	27,27,28,37,38,23,53, 7,21,30		2, 0,26,38,36	
		1,51,43,57, 5,53,11,48		8,10
6″	27,27,30,29,22,20,59, 0,33,18		2, 0,26,46,46	
		1,51,43,55, 5,26,25, 2		8,10
8″	27,27,32,21, 6,16, 4,26,58,20		2, 0,26,54,56	
		1,51,43,53, 4,59,30, 6		8,10
10″	27,27,34,12,50, 9, 9,26,28,26		2, 0,27, 3, 6	
		1,51,43,51, 4,32,27, 0		8,10
12″	27,27,36, 4,34, 0,13,58,55,26		2, 0,27,11,16	
		1,51,43,49, 4, 5,15,44		8,10
14″	27,27,37,56,17,49,18, 4,11,10		2, 0,27,19,26	
		1,51,43,47, 3,37,56,18		8,10
16″	27,27,39,48, 1,36,21,42, 7,28		2, 0,27,27,36	
		1,51,43,45, 3,10,28,42		8,10
18″	27,27,41,39,45,21,24,52,36,10		2, 0,27,35,46	
		1,51,43,43, 2,42,52,56		8,10
20″	27,27,43,31,29, 4,27,35,29, 6		2, 0,27,43,56	
		1,51,43,41, 2,15, 9, 0		8,10
22″	27,27,45,23,12,45,29,50,38, 6		2, 0,27,52, 6	
		1,51,43,39, 1,47,16,54		8,10
24″	27,27,47,14,56,24,31,37,55, 0		2, 0,28, 0,16	
		1,51,43,37, 1,19,16,38		8,10
26″	27,27,49, 6,40, 1,32,57,11,38		2, 0,28, 8,26	
		1,51,43,35, 0,51, 8,12		8,10
28″	27,27,50,58,23,36,33,48,19,50		2, 0,28,16,36	
		1,51,43,33, 0,22,51,36		8,10
30″	27,27,52,50, 7, 9,34,11,11,26		2, 0,28,24,46	
		1,51,43,30,59,54,26,50		8,10
32″	27,27,54,41,50,40,34, 5,38,16		2, 0,28,32,56	
		1,51,43,28,59,25,53,54		8,10
34″	27,27,56,33,34, 9,33,31,32,10		2, 0,28,41, 6	
		1,51,43,26,58,57,12,48		8,10
36″	27,27,58,25,17,36,32,28,44,58		2, 0,28,49,16	
		1,51,43,24,58,28,23,32		8,10
38″	27,28, 0,17, 1, 1,30,57, 8,30		2, 0,28,57,26	
		1,51,43,22,57,59,26, 6		8,10
40″	27,28, 2, 8,44,24,28,56,34,36		2, 0,29, 5,36	
		1,51,43,20,57,30,20,30		8,10
42″	27,28, 4, 0,27,45,26,26,55, 6		2, 0,29,13,46	
		1,51,43,18,57, 1, 6,44		8,10
44″	27,28, 5,52,11, 4,23,28, 1,50		2, 0,29,21,56	
		1,51,43,16,56,31,44,48		8,10
46″	27,28, 7,43,54,21,19,59,46,38		2, 0,29,30, 6	
		1,51,43,14,56, 2,14,42		8,10
48″	27,28, 9,35,37,36,16, 2, 1,20		2, 0,29,38,16	
		1,51,43,12,55,32,36,26		8,10
50″	27,28,11,27,20,49,11,34,37,46		2, 0,29,46,26	
		1,51,43,10,55, 2,50, 0		8,10
52″	27,28,13,19, 4, 0, 6,37,27,46		2, 0,29,54,36	
		1,51,43, 8,54,32,55,24		8,10
54″	27,28,15,10,47, 9, 1,10,23,10		2, 0,30, 2,46	
		1,51,43, 6,54, 2,52,38		8,10
56″	27,28,17, 2,30,15,55,13,15,48		2, 0,30,10,56	
		1,51,43, 4,53,32,41,42		8,10
58″	27,28,18,54,13,20,48,45,57,30		2, 0,30,19, 6	
		1,51,43, 2,53, 2,22,36		
60″	27,28,20,45,56,23,41,48,20, 6			
exact	27,28,20,45,56,23,41,48,14,37			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
27°15′	0″	27,28,20,45,56,23,41,48,14,37			
			1,51,43, 0,52,31,54,45		
	2″	27,28,22,37,39,24,34,20, 9,22		2, 0,30,35,28	
			1,51,42,58,52, 1,19,17		8,10
	4″	27,28,24,29,22,23,26,21,28,39		2, 0,30,43,38	
			1,51,42,56,51,30,35,39		8,10
	6″	27,28,26,21, 5,20,17,52, 4,18		2, 0,30,51,48	
			1,51,42,54,50,59,43,51		8,10
	8″	27,28,28,12,48,15, 8,51,48, 9		2, 0,30,59,58	
			1,51,42,52,50,28,43,53		8,10
	10″	27,28,30, 4,31, 7,59,20,32, 2		2, 0,31, 8, 8	
			1,51,42,50,49,57,35,45		8,10
	12″	27,28,31,56,13,58,49,18, 7,47		2, 0,31,16,18	
			1,51,42,48,49,26,19,27		8,10
	14″	27,28,33,47,56,47,38,44,27,14		2, 0,31,24,28	
			1,51,42,46,48,54,54,59		8,10
	16″	27,28,35,39,39,34,27,39,22,13		2, 0,31,32,38	
			1,51,42,44,48,23,22,21		8,10
	18″	27,28,37,31,22,19,16, 2,44,34		2, 0,31,40,48	
			1,51,42,42,47,51,41,33		8,10
	20″	27,28,39,23, 5, 2, 3,54,26, 7		2, 0,31,48,58	
			1,51,42,40,47,19,52,35		8,10
	22″	27,28,41,14,47,42,51,14,18,42		2, 0,31,57, 8	
			1,51,42,38,46,47,55,27		8,10
	24″	27,28,43, 6,30,21,38, 2,14, 9		2, 0,32, 5,18	
			1,51,42,36,46,15,50, 9		8,10
	26″	27,28,44,58,12,58,24,18, 4,18		2, 0,32,13,28	
			1,51,42,34,45,43,36,41		8,10
	28″	27,28,46,49,55,33,10, 1,40,59		2, 0,32,21,38	
			1,51,42,32,45,11,15, 3		8,10
	30″	27,28,48,41,38, 5,55,12,56, 2		2, 0,32,29,48	
			1,51,42,30,44,38,45,15		8,10
	32″	27,28,50,33,20,36,39,51,41,17		2, 0,32,37,58	
			1,51,42,28,44, 6, 7,17		8,10
	34″	27,28,52,25, 3, 5,23,57,48,34		2, 0,32,46, 8	
			1,51,42,26,43,33,21, 9		8,10
	36″	27,28,54,16,45,32, 7,31, 9,43		2, 0,32,54,18	
			1,51,42,24,43, 0,26,51		8,10
	38″	27,28,56, 8,27,56,50,31,36,34		2, 0,33, 2,28	
			1,51,42,22,42,27,24,23		8,10
	40″	27,28,58, 0,10,19,32,59, 0,57		2, 0,33,10,38	
			1,51,42,20,41,54,13,45		8,10
	42″	27,28,59,51,52,40,14,53,14,42		2, 0,33,18,48	
			1,51,42,18,41,20,54,57		8,10
	44″	27,29, 1,43,34,58,56,14, 9,39		2, 0,33,26,58	
			1,51,42,16,40,47,27,59		8,10
	46″	27,29, 3,35,17,15,37, 1,37,38		2, 0,33,35, 8	
			1,51,42,14,40,13,52,51		8,10
	48″	27,29, 5,26,59,30,17,15,30,29		2, 0,33,43,18	
			1,51,42,12,39,40, 9,33		8,10
	50″	27,29, 7,18,41,42,56,55,40, 2		2, 0,33,51,28	
			1,51,42,10,39, 6,18, 5		8,10
	52″	27,29, 9,10,23,53,36, 1,58, 7		2, 0,33,59,38	
			1,51,42, 8,38,32,18,27		8,10
	54″	27,29,11, 2, 6, 2,14,34,16,34		2, 0,34, 7,48	
			1,51,42, 6,37,58,10,39		8,10
	56″	27,29,12,53,48, 8,52,32,27,13		2, 0,34,15,58	
			1,51,42, 4,37,23,54,41		8,10
	58″	27,29,14,45,30,13,29,56,21,54		2, 0,34,24, 8	
			1,51,42, 2,36,49,30,33		
	60″	27,29,16,37,12,16, 6,45,52,27			
exact		27,29,16,37,12,16, 6,45,48,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°16′ 0″	27,29,16,37,12,16, 6,45,48,53			
		1,51,42, 0,36,14,57,59		
2″	27,29,18,28,54,16,43, 0,46,52		2, 0,34,40,28	
		1,51,41,58,35,40,17,31		8,10
4″	27,29,20,20,36,15,18,41, 4,23		2, 0,34,48,38	
		1,51,41,56,35, 5,28,53		8,10
6″	27,29,22,12,18,11,53,46,33,16		2, 0,34,56,48	
		1,51,41,54,34,30,32, 5		8,10
8″	27,29,24, 4, 0, 6,28,17, 5,21		2, 0,35, 4,58	
		1,51,41,52,33,55,27, 7		8,10
10″	27,29,25,55,41,59, 2,12,32,28		2, 0,35,13, 8	
		1,51,41,50,33,20,13,59		8,10
12″	27,29,27,47,23,49,35,32,46,27		2, 0,35,21,18	
		1,51,41,48,32,44,52,41		8,10
14″	27,29,29,39, 5,38, 8,17,39, 8		2, 0,35,29,28	
		1,51,41,46,32, 9,23,13		8,10
16″	27,29,31,30,47,24,40,27, 2,21		2, 0,35,37,38	
		1,51,41,44,31,33,45,35		8,10
18″	27,29,33,22,29, 9,12, 0,47,56		2, 0,35,45,48	
		1,51,41,42,30,57,59,47		8,10
20″	27,29,35,14,10,51,42,58,47,43		2, 0,35,53,58	
		1,51,41,40,30,22, 5,49		8,10
22″	27,29,37, 5,52,32,13,20,53,32		2, 0,36, 2, 8	
		1,51,41,38,29,46, 3,41		8,10
24″	27,29,38,57,34,10,43, 6,57,13		2, 0,36,10,18	
		1,51,41,36,29, 9,53,23		8,10
26″	27,29,40,49,15,47,12,16,50,36		2, 0,36,18,28	
		1,51,41,34,28,33,34,55		8,10
28″	27,29,42,40,57,21,40,50,25,31		2, 0,36,26,38	
		1,51,41,32,27,57, 8,17		8,10
30″	27,29,44,32,38,54, 8,47,33,48		2, 0,36,34,48	
		1,51,41,30,27,20,33,29		8,10
32″	27,29,46,24,20,24,36, 8, 7,17		2, 0,36,42,58	
		1,51,41,28,26,43,50,31		8,10
34″	27,29,48,16, 1,53, 2,51,57,48		2, 0,36,51, 8	
		1,51,41,26,26, 6,59,23		8,10
36″	27,29,50, 7,43,19,28,58,57,11		2, 0,36,59,18	
		1,51,41,24,25,30, 0, 5		8,10
38″	27,29,51,59,24,43,54,28,57,16		2, 0,37, 7,28	
		1,51,41,22,24,52,52,37		8,10
40″	27,29,53,51, 6, 6,19,21,49,53		2, 0,37,15,38	
		1,51,41,20,24,15,36,59		8,10
42″	27,29,55,42,47,26,43,37,26,52		2, 0,37,23,48	
		1,51,41,18,23,38,13,11		8,10
44″	27,29,57,34,28,45, 7,15,40, 3		2, 0,37,31,58	
		1,51,41,16,23, 0,41,13		8,10
46″	27,29,59,26,10, 1,30,16,21,16		2, 0,37,40, 8	
		1,51,41,14,22,23, 1, 5		8,10
48″	27,30, 1,17,51,15,52,39,22,21		2, 0,37,48,18	
		1,51,41,12,21,45,12,47		8,10
50″	27,30, 3, 9,32,28,14,24,35, 8		2, 0,37,56,28	
		1,51,41,10,21, 7,16,19		8,10
52″	27,30, 5, 1,13,38,35,31,51,27		2, 0,38, 4,38	
		1,51,41, 8,20,29,11,41		8,10
54″	27,30, 6,52,54,46,56, 1, 3, 8		2, 0,38,12,48	
		1,51,41, 6,19,50,58,53		8,10
56″	27,30, 8,44,35,53,15,52, 2, 1		2, 0,38,20,58	
		1,51,41, 4,19,12,37,55		8,10
58″	27,30,10,36,16,57,35, 4,39,56		2, 0,38,29, 8	
		1,51,41, 2,18,34, 8,47		
60″	27,30,12,27,57,59,53,38,48,43			
exact	27,30,12,27,57,59,53,38,48,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°17′ 0″	27,30,12,27,57,59,53,38,48,43			
		1,51,41, 0,17,55,31,39		
2″	27,30,14,19,39, 0,11,34,20,22		2, 0,38,45,26	
		1,51,40,58,17,16,46,13		8,10
4″	27,30,16,11,19,58,28,51, 6,35		2, 0,38,53,36	
		1,51,40,56,16,37,52,37		8,10
6″	27,30,18, 3, 0,54,45,28,59,12		2, 0,39, 1,46	
		1,51,40,54,15,58,50,51		8,10
8″	27,30,19,54,41,49, 1,27,50, 3		2, 0,39, 9,56	
		1,51,40,52,15,19,40,55		8,10
10″	27,30,21,46,22,41,16,47,30,58		2, 0,39,18, 6	
		1,51,40,50,14,40,22,49		8,10
12″	27,30,23,38, 3,31,31,27,53,47		2, 0,39,26,16	
		1,51,40,48,14, 0,56,33		8,10
14″	27,30,25,29,44,19,45,28,50,20		2, 0,39,34,26	
		1,51,40,46,13,21,22, 7		8,10
16″	27,30,27,21,25, 5,58,50,12,27		2, 0,39,42,36	
		1,51,40,44,12,41,39,31		8,10
18″	27,30,29,13, 5,50,11,31,51,58		2, 0,39,50,46	
		1,51,40,42,12, 1,48,45		8,10
20″	27,30,31, 4,46,32,23,33,40,43		2, 0,39,58,56	
		1,51,40,40,11,21,49,49		8,10
22″	27,30,32,56,27,12,34,55,30,32		2, 0,40, 7, 6	
		1,51,40,38,10,41,42,43		8,10
24″	27,30,34,48, 7,50,45,37,13,15		2, 0,40,15,16	
		1,51,40,36,10, 1,27,27		8,10
26″	27,30,36,39,48,26,55,38,40,42		2, 0,40,23,26	
		1,51,40,34, 9,21, 4, 1		8,10
28″	27,30,38,31,29, 1, 4,59,44,43		2, 0,40,31,36	
		1,51,40,32, 8,40,32,25		8,10
30″	27,30,40,23, 9,33,13,40,17, 8		2, 0,40,39,46	
		1,51,40,30, 7,59,52,39		8,10
32″	27,30,42,14,50, 3,21,40, 9,47		2, 0,40,47,56	
		1,51,40,28, 7,19, 4,43		8,10
34″	27,30,44, 6,30,31,28,59,14,30		2, 0,40,56, 6	
		1,51,40,26, 6,38, 8,37		8,10
36″	27,30,45,58,10,57,35,37,23, 7		2, 0,41, 4,16	
		1,51,40,24, 5,57, 4,21		8,10
38″	27,30,47,49,51,21,41,34,27,28		2, 0,41,12,26	
		1,51,40,22, 5,15,51,55		8,10
40″	27,30,49,41,31,43,46,50,19,23		2, 0,41,20,36	
		1,51,40,20, 4,34,31,19		8,10
42″	27,30,51,33,12, 3,51,24,50,42		2, 0,41,28,46	
		1,51,40,18, 3,53, 2,33		8,10
44″	27,30,53,24,52,21,55,17,53,15		2, 0,41,36,56	
		1,51,40,16, 3,11,25,37		8,10
46″	27,30,55,16,32,37,58,29,18,52		2, 0,41,45, 6	
		1,51,40,14, 2,29,40,31		8,10
48″	27,30,57, 8,12,52, 0,58,59,23		2, 0,41,53,16	
		1,51,40,12, 1,47,47,15		8,10
50″	27,30,58,59,53, 4, 2,46,46,38		2, 0,42, 1,26	
		1,51,40,10, 1, 5,45,49		8,10
52″	27,31, 0,51,33,14, 3,52,32,27		2, 0,42, 9,36	
		1,51,40, 8, 0,23,36,13		8,10
54″	27,31, 2,43,13,22, 4,16, 8,40		2, 0,42,17,46	
		1,51,40, 5,59,41,18,27		8,10
56″	27,31, 4,34,53,28, 3,57,27, 7		2, 0,42,25,56	
		1,51,40, 3,58,58,52,31		8,10
58″	27,31, 6,26,33,32, 2,56,19,38		2, 0,42,34, 6	
		1,51,40, 1,58,16,18,25		
60″	27,31, 8,18,13,34, 1,12,38, 3			
exact	27,31, 8,18,13,34, 1,12,42,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°18′ 0″	27,31, 8,18,13,34, 1,12,42,47			
		1,51,39,59,57,33,36,50		
2″	27,31,10, 9,53,33,58,46,19,37		2, 0,42,50,22	
		1,51,39,57,56,50,46,28		8,10
4″	27,31,12, 1,33,31,55,37, 6, 5		2, 0,42,58,32	
		1,51,39,55,56, 7,47,56		8,10
6″	27,31,13,53,13,27,51,44,54, 1		2, 0,43, 6,42	
		1,51,39,53,55,24,41,14		8,10
8″	27,31,15,44,53,21,47, 9,35,15		2, 0,43,14,52	
		1,51,39,51,54,41,26,22		8,10
10″	27,31,17,36,33,13,41,51, 1,37		2, 0,43,23, 2	
		1,51,39,49,53,58, 3,20		8,10
12″	27,31,19,28,13, 3,35,49, 4,57		2, 0,43,31,12	
		1,51,39,47,53,14,32, 8		8,10
14″	27,31,21,19,52,51,29, 3,37, 5		2, 0,43,39,22	
		1,51,39,45,52,30,52,46		8,10
16″	27,31,23,11,32,37,21,34,29,51		2, 0,43,47,32	
		1,51,39,43,51,47, 5,14		8,10
18″	27,31,25, 3,12,21,13,21,35, 5		2, 0,43,55,42	
		1,51,39,41,51, 3, 9,32		8,10
20″	27,31,26,54,52, 3, 4,24,44,37		2, 0,44, 3,52	
		1,51,39,39,50,19, 5,40		8,10
22″	27,31,28,46,31,42,54,43,50,17		2, 0,44,12, 2	
		1,51,39,37,49,34,53,38		8,10
24″	27,31,30,38,11,20,44,18,43,55		2, 0,44,20,12	
		1,51,39,35,48,50,33,26		8,10
26″	27,31,32,29,50,56,33, 9,17,21		2, 0,44,28,22	
		1,51,39,33,48, 6, 5, 4		8,10
28″	27,31,34,21,30,30,21,15,22,25		2, 0,44,36,32	
		1,51,39,31,47,21,28,32		8,10
30″	27,31,36,13,10, 2, 8,36,50,57		2, 0,44,44,42	
		1,51,39,29,46,36,43,50		8,10
32″	27,31,38, 4,49,31,55,13,34,47		2, 0,44,52,52	
		1,51,39,27,45,51,50,58		8,10
34″	27,31,39,56,28,59,41, 5,25,45		2, 0,45, 1, 2	
		1,51,39,25,45, 6,49,56		8,10
36″	27,31,41,48, 8,25,26,12,15,41		2, 0,45, 9,12	
		1,51,39,23,44,21,40,44		8,10
38″	27,31,43,39,47,49,10,33,56,25		2, 0,45,17,22	
		1,51,39,21,43,36,23,22		8,10
40″	27,31,45,31,27,10,54,10,19,47		2, 0,45,25,32	
		1,51,39,19,42,50,57,50		8,10
42″	27,31,47,23, 6,30,37, 1,17,37		2, 0,45,33,42	
		1,51,39,17,42, 5,24, 8		8,10
44″	27,31,49,14,45,48,19, 6,41,45		2, 0,45,41,52	
		1,51,39,15,41,19,42,16		8,10
46″	27,31,51, 6,25, 4, 0,26,24, 1		2, 0,45,50, 2	
		1,51,39,13,40,33,52,14		8,10
48″	27,31,52,58, 4,17,41, 0,16,15		2, 0,45,58,12	
		1,51,39,11,39,47,54, 2		8,10
50″	27,31,54,49,43,29,20,48,10,17		2, 0,46, 6,22	
		1,51,39, 9,39, 1,47,40		8,10
52″	27,31,56,41,22,38,59,49,57,57		2, 0,46,14,32	
		1,51,39, 7,38,15,33, 8		8,10
54″	27,31,58,33, 1,46,38, 5,31, 5		2, 0,46,22,42	
		1,51,39, 5,37,29,10,26		8,10
56″	27,32, 0,24,40,52,15,34,41,31		2, 0,46,30,52	
		1,51,39, 3,36,42,39,34		8,10
58″	27,32, 2,16,19,55,52,17,21, 5		2, 0,46,39, 2	
		1,51,39, 1,35,56, 0,32		
60″	27,32, 4, 7,58,57,28,13,21,37			
exact	27,32, 4, 7,58,57,28,13,32,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°19′ 0″	27,32, 4, 7,58,57,28,13,32,51			
		1,51,38,59,35, 9,14,39		
2″	27,32, 5,59,37,57, 3,22,47,30		2, 0,46,55,16	
		1,51,38,57,34,22,19,23		8,10
4″	27,32, 7,51,16,54,37,45, 6,53		2, 0,47, 3,26	
		1,51,38,55,33,35,15,57		8,10
6″	27,32, 9,42,55,50,11,20,22,50		2, 0,47,11,36	
		1,51,38,53,32,48, 4,21		8,10
8″	27,32,11,34,34,43,44, 8,27,11		2, 0,47,19,46	
		1,51,38,51,32, 0,44,35		8,10
10″	27,32,13,26,13,35,16, 9,11,46		2, 0,47,27,56	
		1,51,38,49,31,13,16,39		8,10
12″	27,32,15,17,52,24,47,22,28,25		2, 0,47,36, 6	
		1,51,38,47,30,25,40,33		8,10
14″	27,32,17, 9,31,12,17,48, 8,58		2, 0,47,44,16	
		1,51,38,45,29,37,56,17		8,10
16″	27,32,19, 1, 9,57,47,26, 5,15		2, 0,47,52,26	
		1,51,38,43,28,50, 3,51		8,10
18″	27,32,20,52,48,41,16,16, 9, 6		2, 0,48, 0,36	
		1,51,38,41,28, 2, 3,15		8,10
20″	27,32,22,44,27,22,44,18,12,21		2, 0,48, 8,46	
		1,51,38,39,27,13,54,29		8,10
22″	27,32,24,36, 6, 2,11,32, 6,50		2, 0,48,16,56	
		1,51,38,37,26,25,37,33		8,10
24″	27,32,26,27,44,39,37,57,44,23		2, 0,48,25, 6	
		1,51,38,35,25,37,12,27		8,10
26″	27,32,28,19,23,15, 3,34,56,50		2, 0,48,33,16	
		1,51,38,33,24,48,39,11		8,10
28″	27,32,30,11, 1,48,28,23,36, 1		2, 0,48,41,26	
		1,51,38,31,23,59,57,45		8,10
30″	27,32,32, 2,40,19,52,23,33,46		2, 0,48,49,36	
		1,51,38,29,23,11, 8, 9		8,10
32″	27,32,33,54,18,49,15,34,41,55		2, 0,48,57,46	
		1,51,38,27,22,22,10,23		8,10
34″	27,32,35,45,57,16,37,56,52,18		2, 0,49, 5,56	
		1,51,38,25,21,33, 4,27		8,10
36″	27,32,37,37,35,41,59,29,56,45		2, 0,49,14, 6	
		1,51,38,23,20,43,50,21		8,10
38″	27,32,39,29,14, 5,20,13,47, 6		2, 0,49,22,16	
		1,51,38,21,19,54,28, 5		8,10
40″	27,32,41,20,52,26,40, 8,15,11		2, 0,49,30,26	
		1,51,38,19,19, 4,57,39		8,10
42″	27,32,43,12,30,45,59,13,12,50		2, 0,49,38,36	
		1,51,38,17,18,15,19, 3		8,10
44″	27,32,45, 4, 9, 3,17,28,31,53		2, 0,49,46,46	
		1,51,38,15,17,25,32,17		8,10
46″	27,32,46,55,47,18,34,54, 4,10		2, 0,49,54,56	
		1,51,38,13,16,35,37,21		8,10
48″	27,32,48,47,25,31,51,29,41,31		2, 0,50, 3, 6	
		1,51,38,11,15,45,34,15		8,10
50″	27,32,50,39, 3,43, 7,15,15,46		2, 0,50,11,16	
		1,51,38, 9,14,55,22,59		8,10
52″	27,32,52,30,41,52,22,10,38,45		2, 0,50,19,26	
		1,51,38, 7,14, 5, 3,33		8,10
54″	27,32,54,22,19,59,36,15,42,18		2, 0,50,27,36	
		1,51,38, 5,13,14,35,57		8,10
56″	27,32,56,13,58, 4,49,30,18,15		2, 0,50,35,46	
		1,51,38, 3,12,24, 0,11		8,10
58″	27,32,58, 5,36, 8, 1,54,18,26		2, 0,50,43,56	
		1,51,38, 1,11,33,16,15		
60″	27,32,59,57,14, 9,13,27,34,41			
exact	27,32,59,57,14, 9,13,27,53,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°20′ 0″	27,32,59,57,14, 9,13,27,53,47	1,51,37,59,10,42,26,12		
2″	27,33, 1,48,52, 8,24,10,19,59	1,51,37,57, 9,51,26, 5	2, 0,51, 0, 7	8,10
4″	27,33, 3,40,30, 5,34, 1,46, 4	1,51,37,55, 9, 0,17,48	2, 0,51, 8,17	8,10
6″	27,33, 5,32, 8, 0,43, 2, 3,52	1,51,37,53, 8, 9, 1,21	2, 0,51,16,27	8,10
8″	27,33, 7,23,45,53,51,11, 5,13	1,51,37,51, 7,17,36,44	2, 0,51,24,37	8,10
10″	27,33, 9,15,23,44,58,28,41,57	1,51,37,49, 6,26, 3,57	2, 0,51,32,47	8,10
12″	27,33,11, 7, 1,34, 4,54,45,54	1,51,37,47, 5,34,23, 0	2, 0,51,40,57	8,10
14″	27,33,12,58,39,21,10,29, 8,54	1,51,37,45, 4,42,33,53	2, 0,51,49, 7	8,10
16″	27,33,14,50,17, 6,15,11,42,47	1,51,37,43, 3,50,36,36	2, 0,51,57,17	8,10
18″	27,33,16,41,54,49,19, 2,19,23	1,51,37,41, 2,58,31, 9	2, 0,52, 5,27	8,10
20″	27,33,18,33,32,30,22, 0,50,32	1,51,37,39, 2, 6,17,32	2, 0,52,13,37	8,10
22″	27,33,20,25,10, 9,24, 7, 8, 4	1,51,37,37, 1,13,55,45	2, 0,52,21,47	8,10
24″	27,33,22,16,47,46,25,21, 3,49	1,51,37,35, 0,21,25,48	2, 0,52,29,57	8,10
26″	27,33,24, 8,25,21,25,42,29,37	1,51,37,32,59,28,47,41	2, 0,52,38, 7	8,10
28″	27,33,26, 0, 2,54,25,11,17,18	1,51,37,30,58,36, 1,24	2, 0,52,46,17	8,10
30″	27,33,27,51,40,25,23,47,18,42	1,51,37,28,57,43, 6,57	2, 0,52,54,27	8,10
32″	27,33,29,43,17,54,21,30,25,39	1,51,37,26,56,50, 4,20	2, 0,53, 2,37	8,10
34″	27,33,31,34,55,21,18,20,29,59	1,51,37,24,55,56,53,33	2, 0,53,10,47	8,10
36″	27,33,33,26,32,46,14,17,23,32	1,51,37,22,55, 3,34,36	2, 0,53,18,57	8,10
38″	27,33,35,18,10, 9, 9,20,58, 8	1,51,37,20,54,10, 7,29	2, 0,53,27, 7	8,10
40″	27,33,37, 9,47,30, 3,31, 5,37	1,51,37,18,53,16,32,12	2, 0,53,35,17	8,10
42″	27,33,39, 1,24,48,56,47,37,49	1,51,37,16,52,22,48,45	2, 0,53,43,27	8,10
44″	27,33,40,53, 2, 5,49,10,26,34	1,51,37,14,51,28,57, 8	2, 0,53,51,37	8,10
46″	27,33,42,44,39,20,40,39,23,42	1,51,37,12,50,34,57,21	2, 0,53,59,47	8,10
48″	27,33,44,36,16,33,31,14,21, 3	1,51,37,10,49,40,49,24	2, 0,54, 7,57	8,10
50″	27,33,46,27,53,44,20,55,10,27	1,51,37, 8,48,46,33,17	2, 0,54,16, 7	8,10
52″	27,33,48,19,30,53, 9,41,43,44	1,51,37, 6,47,52, 9, 0	2, 0,54,24,17	8,10
54″	27,33,50,11, 7,59,57,33,52,44	1,51,37, 4,46,57,36,33	2, 0,54,32,27	8,10
56″	27,33,52, 2,45, 4,44,31,29,17	1,51,37, 2,46, 2,55,56	2, 0,54,40,37	8,10
58″	27,33,53,54,22, 7,30,34,25,13	1,51,37, 0,45, 8, 7, 9	2, 0,54,48,47	
60″	27,33,55,45,59, 8,15,42,32,22			
exact	27,33,55,45,59, 8,15,42,53,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°21′ 0″	27,33,55,45,59, 8,15,42,53,32			
		1,51,36,58,44,13,12,35		
2″	27,33,57,37,36, 6,59,56, 6, 7		2, 0,55, 4,56	
		1,51,36,56,43,18, 7,39		8,10
4″	27,33,59,29,13, 3,43,14,13,46		2, 0,55,13, 6	
		1,51,36,54,42,22,54,33		8,10
6″	27,34, 1,20,49,58,25,37, 8,19		2, 0,55,21,16	
		1,51,36,52,41,27,33,17		8,10
8″	27,34, 3,12,26,51, 7, 4,41,36		2, 0,55,29,26	
		1,51,36,50,40,32, 3,51		8,10
10″	27,34, 5, 4, 3,41,47,36,45,27		2, 0,55,37,36	
		1,51,36,48,39,36,26,15		8,10
12″	27,34, 6,55,40,30,27,13,11,42		2, 0,55,45,46	
		1,51,36,46,38,40,40,29		8,10
14″	27,34, 8,47,17,17, 5,53,52,11		2, 0,55,53,56	
		1,51,36,44,37,44,46,33		8,10
16″	27,34,10,38,54, 1,43,38,38,44		2, 0,56, 2, 6	
		1,51,36,42,36,48,44,27		8,10
18″	27,34,12,30,30,44,20,27,23,11		2, 0,56,10,16	
		1,51,36,40,35,52,34,11		8,10
20″	27,34,14,22, 7,24,56,19,57,22		2, 0,56,18,26	
		1,51,36,38,34,56,15,45		8,10
22″	27,34,16,13,44, 3,31,16,13, 7		2, 0,56,26,36	
		1,51,36,36,33,59,49, 9		8,10
24″	27,34,18, 5,20,40, 5,16, 2,16		2, 0,56,34,46	
		1,51,36,34,33, 3,14,23		8,10
26″	27,34,19,56,57,14,38,19,16,39		2, 0,56,42,56	
		1,51,36,32,32, 6,31,27		8,10
28″	27,34,21,48,33,47,10,25,48, 6		2, 0,56,51, 6	
		1,51,36,30,31, 9,40,21		8,10
30″	27,34,23,40,10,17,41,35,28,27		2, 0,56,59,16	
		1,51,36,28,30,12,41, 5		8,10
32″	27,34,25,31,46,46,11,48, 9,32		2, 0,57, 7,26	
		1,51,36,26,29,15,33,39		8,10
34″	27,34,27,23,23,12,41, 3,43,11		2, 0,57,15,36	
		1,51,36,24,28,18,18, 3		8,10
36″	27,34,29,14,59,37, 9,22, 1,14		2, 0,57,23,46	
		1,51,36,22,27,20,54,17		8,10
38″	27,34,31, 6,35,59,36,42,55,31		2, 0,57,31,56	
		1,51,36,20,26,23,22,21		8,10
40″	27,34,32,58,12,20, 3, 6,17,52		2, 0,57,40, 6	
		1,51,36,18,25,25,42,15		8,10
42″	27,34,34,49,48,38,28,32, 0, 7		2, 0,57,48,16	
		1,51,36,16,24,27,53,59		8,10
44″	27,34,36,41,24,54,52,59,54, 6		2, 0,57,56,26	
		1,51,36,14,23,29,57,33		8,10
46″	27,34,38,33, 1, 9,16,29,51,39		2, 0,58, 4,36	
		1,51,36,12,22,31,52,57		8,10
48″	27,34,40,24,37,21,39, 1,44,36		2, 0,58,12,46	
		1,51,36,10,21,33,40,11		8,10
50″	27,34,42,16,13,32, 0,35,24,47		2, 0,58,20,56	
		1,51,36, 8,20,35,19,15		8,10
52″	27,34,44, 7,49,40,21,10,44, 2		2, 0,58,29, 6	
		1,51,36, 6,19,36,50, 9		8,10
54″	27,34,45,59,25,46,40,47,34,11		2, 0,58,37,16	
		1,51,36, 4,18,38,12,53		8,10
56″	27,34,47,51, 1,50,59,25,47, 4		2, 0,58,45,26	
		1,51,36, 2,17,39,27,27		8,10
58″	27,34,49,42,37,53,17, 5,14,31		2, 0,58,53,36	
		1,51,36, 0,16,40,33,51		
60″	27,34,51,34,13,53,33,45,48,22			
exact	27,34,51,34,13,53,33,46,13,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°22′ 0″	27,34,51,34,13,53,33,46,13,14			
		1,51,35,58,15,41,34,55		
2″	27,34,53,25,49,51,49,27,48, 9		2, 0,59, 9,43	
		1,51,35,56,14,42,25,12		8,10
4″	27,34,55,17,25,48, 4,10,13,21		2, 0,59,17,53	
		1,51,35,54,13,43, 7,19		8,10
6″	27,34,57, 9, 1,42,17,53,20,40		2, 0,59,26, 3	
		1,51,35,52,12,43,41,16		8,10
8″	27,34,59, 0,37,34,30,37, 1,56		2, 0,59,34,13	
		1,51,35,50,11,44, 7, 3		8,10
10″	27,35, 0,52,13,24,42,21, 8,59		2, 0,59,42,23	
		1,51,35,48,10,44,24,40		8,10
12″	27,35, 2,43,49,12,53, 5,33,39		2, 0,59,50,33	
		1,51,35,46, 9,44,34, 7		8,10
14″	27,35, 4,35,24,59, 2,50, 7,46		2, 0,59,58,43	
		1,51,35,44, 8,44,35,24		8,10
16″	27,35, 6,27, 0,43,11,34,43,10		2, 1, 0, 6,53	
		1,51,35,42, 7,44,28,31		8,10
18″	27,35, 8,18,36,25,19,19,11,41		2, 1, 0,15, 3	
		1,51,35,40, 6,44,13,28		8,10
20″	27,35,10,10,12, 5,26, 3,25, 9		2, 1, 0,23,13	
		1,51,35,38, 5,43,50,15		8,10
22″	27,35,12, 1,47,43,31,47,15,24		2, 1, 0,31,23	
		1,51,35,36, 4,43,18,52		8,10
24″	27,35,13,53,23,19,36,30,34,16		2, 1, 0,39,33	
		1,51,35,34, 3,42,39,19		8,10
26″	27,35,15,44,58,53,40,13,13,35		2, 1, 0,47,43	
		1,51,35,32, 2,41,51,36		8,10
28″	27,35,17,36,34,25,42,55, 5,11		2, 1, 0,55,53	
		1,51,35,30, 1,40,55,43		8,10
30″	27,35,19,28, 9,55,44,36, 0,54		2, 1, 1, 4, 3	
		1,51,35,28, 0,39,51,40		8,10
32″	27,35,21,19,45,23,45,15,52,34		2, 1, 1,12,13	
		1,51,35,25,59,38,39,27		8,10
34″	27,35,23,11,20,49,44,54,32, 1		2, 1, 1,20,23	
		1,51,35,23,58,37,19, 4		8,10
36″	27,35,25, 2,56,13,43,31,51, 5		2, 1, 1,28,33	
		1,51,35,21,57,35,50,31		8,10
38″	27,35,26,54,31,35,41, 7,41,36		2, 1, 1,36,43	
		1,51,35,19,56,34,13,48		8,10
40″	27,35,28,46, 6,55,37,41,55,24		2, 1, 1,44,53	
		1,51,35,17,55,32,28,55		8,10
42″	27,35,30,37,42,13,33,14,24,19		2, 1, 1,53, 3	
		1,51,35,15,54,30,35,52		8,10
44″	27,35,32,29,17,29,27,45, 0,11		2, 1, 2, 1,13	
		1,51,35,13,53,28,34,39		8,10
46″	27,35,34,20,52,43,21,13,34,50		2, 1, 2, 9,23	
		1,51,35,11,52,26,25,16		8,10
48″	27,35,36,12,27,55,13,40, 0, 6		2, 1, 2,17,33	
		1,51,35, 9,51,24, 7,43		8,10
50″	27,35,38, 4, 3, 5, 5, 4, 7,49		2, 1, 2,25,43	
		1,51,35, 7,50,21,42, 0		8,10
52″	27,35,39,55,38,12,55,25,49,49		2, 1, 2,33,53	
		1,51,35, 5,49,19, 8, 7		8,10
54″	27,35,41,47,13,18,44,44,57,56		2, 1, 2,42, 3	
		1,51,35, 3,48,16,26, 4		8,10
56″	27,35,43,38,48,22,33, 1,24, 0		2, 1, 2,50,13	
		1,51,35, 1,47,13,35,51		8,10
58″	27,35,45,30,23,24,20,14,59,51		2, 1, 2,58,23	
		1,51,34,59,46,10,37,28		
60″	27,35,47,21,58,24, 6,25,37,19			
exact	27,35,47,21,58,24, 6,26, 7, 7			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
27°23′	0″	27,35,47,21,58,24, 6,26, 7, 7	1,51,34,57,45, 7,34,17		
	2″	27,35,49,13,33,21,51,33,41,24	1,51,34,55,44, 4,19,49	2, 1, 3,14,28	8, 9
	4″	27,35,51, 5, 8,17,35,38, 1,13	1,51,34,53,43, 0,57,12	2, 1, 3,22,37	8, 9
	6″	27,35,52,56,43,11,18,38,58,25	1,51,34,51,41,57,26,26	2, 1, 3,30,46	8, 9
	8″	27,35,54,48,18, 3, 0,36,24,51	1,51,34,49,40,53,47,31	2, 1, 3,38,55	8, 9
	10″	27,35,56,39,52,52,41,30,12,22	1,51,34,47,39,50, 0,27	2, 1, 3,47, 4	8, 9
	12″	27,35,58,31,27,40,21,20,12,49	1,51,34,45,38,46, 5,14	2, 1, 3,55,13	8, 9
	14″	27,36, 0,23, 2,26, 0, 6,18, 3	1,51,34,43,37,42, 1,52	2, 1, 4, 3,22	8, 9
	16″	27,36, 2,14,37, 9,37,48,19,55	1,51,34,41,36,37,50,21	2, 1, 4,11,31	8, 9
	18″	27,36, 4, 6,11,51,14,26,10,16	1,51,34,39,35,33,30,41	2, 1, 4,19,40	8, 9
	20″	27,36, 5,57,46,30,49,59,40,57	1,51,34,37,34,29, 2,52	2, 1, 4,27,49	8, 9
	22″	27,36, 7,49,21, 8,24,28,43,49	1,51,34,35,33,24,26,54	2, 1, 4,35,58	8, 9
	24″	27,36, 9,40,55,43,57,53,10,43	1,51,34,33,32,19,42,47	2, 1, 4,44, 7	8, 9
	26″	27,36,11,32,30,17,30,12,53,30	1,51,34,31,31,14,50,31	2, 1, 4,52,16	8, 9
	28″	27,36,13,24, 4,49, 1,27,44, 1	1,51,34,29,30, 9,50, 6	2, 1, 5, 0,25	8, 9
	30″	27,36,15,15,39,18,31,37,34, 7	1,51,34,27,29, 4,41,32	2, 1, 5, 8,34	8, 9
	32″	27,36,17, 7,13,46, 0,42,15,39	1,51,34,25,27,59,24,49	2, 1, 5,16,43	8, 9
	34″	27,36,18,58,48,11,28,41,40,28	1,51,34,23,26,53,59,57	2, 1, 5,24,52	8, 9
	36″	27,36,20,50,22,34,55,35,40,25	1,51,34,21,25,48,26,56	2, 1, 5,33, 1	8, 9
	38″	27,36,22,41,56,56,21,24, 7,21	1,51,34,19,24,42,45,46	2, 1, 5,41,10	8, 9
	40″	27,36,24,33,31,15,46, 6,53, 7	1,51,34,17,23,36,56,27	2, 1, 5,49,19	8, 9
	42″	27,36,26,25, 5,33, 9,43,49,34	1,51,34,15,22,30,58,59	2, 1, 5,57,28	8, 9
	44″	27,36,28,16,39,48,32,14,48,33	1,51,34,13,21,24,53,22	2, 1, 6, 5,37	8, 9
	46″	27,36,30, 8,14, 1,53,39,41,55	1,51,34,11,20,18,39,36	2, 1, 6,13,46	8, 9
	48″	27,36,31,59,48,13,13,58,21,31	1,51,34, 9,19,12,17,41	2, 1, 6,21,55	8, 9
	50″	27,36,33,51,22,22,33,10,39,12	1,51,34, 7,18, 5,47,37	2, 1, 6,30, 4	8, 9
	52″	27,36,35,42,56,29,51,16,26,49	1,51,34, 5,16,59, 9,24	2, 1, 6,38,13	8, 9
	54″	27,36,37,34,30,35, 8,15,36,13	1,51,34, 3,15,52,23, 2	2, 1, 6,46,22	8, 9
	56″	27,36,39,26, 4,38,24, 7,59,15	1,51,34, 1,14,45,28,31	2, 1, 6,54,31	8, 9
	58″	27,36,41,17,38,39,38,53,27,46	1,51,33,59,13,38,25,51	2, 1, 7, 2,40	
	60″	27,36,43, 9,12,38,52,31,53,37			
exact		27,36,43, 9,12,38,52,31,22,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°24′ 0″	27,36,43, 9,12,38,52,31,22,36			
		1,51,33,57,12,31,11,49		
2″	27,36,45, 0,46,36, 5, 2,34,25		2, 1, 7,19,11	
		1,51,33,55,11,23,52,38		8, 9
4″	27,36,46,52,20,31,16,26,27, 3		2, 1, 7,27,20	
		1,51,33,53,10,16,25,18		8, 9
6″	27,36,48,43,54,24,26,42,52,21		2, 1, 7,35,29	
		1,51,33,51, 9, 8,49,49		8, 9
8″	27,36,50,35,28,15,35,51,42,10		2, 1, 7,43,38	
		1,51,33,49, 8, 1, 6,11		8, 9
10″	27,36,52,27, 2, 4,43,52,48,21		2, 1, 7,51,47	
		1,51,33,47, 6,53,14,24		8, 9
12″	27,36,54,18,35,51,50,46, 2,45		2, 1, 7,59,56	
		1,51,33,45, 5,45,14,28		8, 9
14″	27,36,56,10, 9,36,56,31,17,13		2, 1, 8, 8, 5	
		1,51,33,43, 4,37, 6,23		8, 9
16″	27,36,58, 1,43,20, 1, 8,23,36		2, 1, 8,16,14	
		1,51,33,41, 3,28,50, 9		8, 9
18″	27,36,59,53,17, 1, 4,37,13,45		2, 1, 8,24,23	
		1,51,33,39, 2,20,25,46		8, 9
20″	27,37, 1,44,50,40, 6,57,39,31		2, 1, 8,32,32	
		1,51,33,37, 1,11,53,14		8, 9
22″	27,37, 3,36,24,17, 8, 9,32,45		2, 1, 8,40,41	
		1,51,33,35, 0, 3,12,33		8, 9
24″	27,37, 5,27,57,52, 8,12,45,18		2, 1, 8,48,50	
		1,51,33,32,58,54,23,43		8, 9
26″	27,37, 7,19,31,25, 7, 7, 9, 1		2, 1, 8,56,59	
		1,51,33,30,57,45,26,44		8, 9
28″	27,37, 9,11, 4,56, 4,52,35,45		2, 1, 9, 5, 8	
		1,51,33,28,56,36,21,36		8, 9
30″	27,37,11, 2,38,25, 1,28,57,21		2, 1, 9,13,17	
		1,51,33,26,55,27, 8,19		8, 9
32″	27,37,12,54,11,51,56,56, 5,40		2, 1, 9,21,26	
		1,51,33,24,54,17,46,53		8, 9
34″	27,37,14,45,45,16,51,13,52,33		2, 1, 9,29,35	
		1,51,33,22,53, 8,17,18		8, 9
36″	27,37,16,37,18,39,44,22, 9,51		2, 1, 9,37,44	
		1,51,33,20,51,58,39,34		8, 9
38″	27,37,18,28,52, 0,36,20,49,25		2, 1, 9,45,53	
		1,51,33,18,50,48,53,41		8, 9
40″	27,37,20,20,25,19,27, 9,43, 6		2, 1, 9,54, 2	
		1,51,33,16,49,38,59,39		8, 9
42″	27,37,22,11,58,36,16,48,42,45		2, 1,10, 2,11	
		1,51,33,14,48,28,57,28		8, 9
44″	27,37,24, 3,31,51, 5,17,40,13		2, 1,10,10,20	
		1,51,33,12,47,18,47, 8		8, 9
46″	27,37,25,55, 5, 3,52,36,27,21		2, 1,10,18,29	
		1,51,33,10,46, 8,28,39		8, 9
48″	27,37,27,46,38,14,38,44,56, 0		2, 1,10,26,38	
		1,51,33, 8,44,58, 2, 1		8, 9
50″	27,37,29,38,11,23,23,42,58, 1		2, 1,10,34,47	
		1,51,33, 6,43,47,27,14		8, 9
52″	27,37,31,29,44,30, 7,30,25,15		2, 1,10,42,56	
		1,51,33, 4,42,36,44,18		8, 9
54″	27,37,33,21,17,34,50, 7, 9,33		2, 1,10,51, 5	
		1,51,33, 2,41,25,53,13		8, 9
56″	27,37,35,12,50,37,31,33, 2,46		2, 1,10,59,14	
		1,51,33, 0,40,14,53,59		8, 9
58″	27,37,37, 4,23,38,11,47,56,45		2, 1,11, 7,23	
		1,51,32,58,39, 3,46,36		
60″	27,37,38,55,56,36,50,51,43,21			
exact	27,37,38,55,56,36,50,51,20,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°25′ 0″	27,37,38,55,56,36,50,51,20,17			
		1,51,32,56,37,52,28,35		
2″	27,37,40,47,29,33,28,43,48,52		2, 1,11,23,51	
		1,51,32,54,36,41, 4,44		8, 9
4″	27,37,42,39, 2,28, 5,24,53,36		2, 1,11,32, 0	
		1,51,32,52,35,29,32,44		8, 9
6″	27,37,44,30,35,20,40,54,26,20		2, 1,11,40, 9	
		1,51,32,50,34,17,52,35		8, 9
8″	27,37,46,22, 8,11,15,12,18,55		2, 1,11,48,18	
		1,51,32,48,33, 6, 4,17		8, 9
10″	27,37,48,13,40,59,48,18,23,12		2, 1,11,56,27	
		1,51,32,46,31,54, 7,50		8, 9
12″	27,37,50, 5,13,46,20,12,31, 2		2, 1,12, 4,36	
		1,51,32,44,30,42, 3,14		8, 9
14″	27,37,51,56,46,30,50,54,34,16		2, 1,12,12,45	
		1,51,32,42,29,29,50,29		8, 9
16″	27,37,53,48,19,13,20,24,24,45		2, 1,12,20,54	
		1,51,32,40,28,17,29,35		8, 9
18″	27,37,55,39,51,53,48,41,54,20		2, 1,12,29, 3	
		1,51,32,38,27, 5, 0,32		8, 9
20″	27,37,57,31,24,32,15,46,54,52		2, 1,12,37,12	
		1,51,32,36,25,52,23,20		8, 9
22″	27,37,59,22,57, 8,41,39,18,12		2, 1,12,45,21	
		1,51,32,34,24,39,37,59		8, 9
24″	27,38, 1,14,29,43, 6,18,56,11		2, 1,12,53,30	
		1,51,32,32,23,26,44,29		8, 9
26″	27,38, 3, 6, 2,15,29,45,40,40		2, 1,13, 1,39	
		1,51,32,30,22,13,42,50		8, 9
28″	27,38, 4,57,34,45,51,59,23,30		2, 1,13, 9,48	
		1,51,32,28,21, 0,33, 2		8, 9
30″	27,38, 6,49, 7,14,12,59,56,32		2, 1,13,17,57	
		1,51,32,26,19,47,15, 5		8, 9
32″	27,38, 8,40,39,40,32,47,11,37		2, 1,13,26, 6	
		1,51,32,24,18,33,48,59		8, 9
34″	27,38,10,32,12, 4,51,21, 0,36		2, 1,13,34,15	
		1,51,32,22,17,20,14,44		8, 9
36″	27,38,12,23,44,27, 8,41,15,20		2, 1,13,42,24	
		1,51,32,20,16, 6,32,20		8, 9
38″	27,38,14,15,16,47,24,47,47,40		2, 1,13,50,33	
		1,51,32,18,14,52,41,47		8, 9
40″	27,38,16, 6,49, 5,39,40,29,27		2, 1,13,58,42	
		1,51,32,16,13,38,43, 5		8, 9
42″	27,38,17,58,21,21,53,19,12,32		2, 1,14, 6,51	
		1,51,32,14,12,24,36,14		8, 9
44″	27,38,19,49,53,36, 5,43,48,46		2, 1,14,15, 0	
		1,51,32,12,11,10,21,14		8, 9
46″	27,38,21,41,25,48,16,54,10, 0		2, 1,14,23, 9	
		1,51,32,10, 9,55,58, 5		8, 9
48″	27,38,23,32,57,58,26,50, 8, 5		2, 1,14,31,18	
		1,51,32, 8, 8,41,26,47		8, 9
50″	27,38,25,24,30, 6,35,31,34,52		2, 1,14,39,27	
		1,51,32, 6, 7,26,47,20		8, 9
52″	27,38,27,16, 2,12,42,58,22,12		2, 1,14,47,36	
		1,51,32, 4, 6,11,59,44		8, 9
54″	27,38,29, 7,34,16,49,10,21,56		2, 1,14,55,45	
		1,51,32, 2, 4,57, 3,59		8, 9
56″	27,38,30,59, 6,18,54, 7,25,55		2, 1,15, 3,54	
		1,51,32, 0, 3,42, 0, 5		8, 9
58″	27,38,32,50,38,18,57,49,26, 0		2, 1,15,12, 3	
		1,51,31,58, 2,26,48, 2		
60″	27,38,34,42,10,17, 0,16,14, 2			
exact	27,38,34,42,10,17, 0,15,53,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°26′ 0″	27,38,34,42,10,17, 0,15,53,59			
		1,51,31,56, 1,11,25,44		
2″	27,38,36,33,42,13, 1,27,19,43		2, 1,15,28,29	
		1,51,31,53,59,55,57,15		8, 9
4″	27,38,38,25,14, 7, 1,23,16,58		2, 1,15,36,38	
		1,51,31,51,58,40,20,37		8, 9
6″	27,38,40,16,45,59, 0, 3,37,35		2, 1,15,44,47	
		1,51,31,49,57,24,35,50		8, 9
8″	27,38,42, 8,17,48,57,28,13,25		2, 1,15,52,56	
		1,51,31,47,56, 8,42,54		8, 9
10″	27,38,43,59,49,36,53,36,56,19		2, 1,16, 1, 5	
		1,51,31,45,54,52,41,49		8, 9
12″	27,38,45,51,21,22,48,29,38, 8		2, 1,16, 9,14	
		1,51,31,43,53,36,32,35		8, 9
14″	27,38,47,42,53, 6,42, 6,10,43		2, 1,16,17,23	
		1,51,31,41,52,20,15,12		8, 9
16″	27,38,49,34,24,48,34,26,25,55		2, 1,16,25,32	
		1,51,31,39,51, 3,49,40		8, 9
18″	27,38,51,25,56,28,25,30,15,35		2, 1,16,33,41	
		1,51,31,37,49,47,15,59		8, 9
20″	27,38,53,17,28, 6,15,17,31,34		2, 1,16,41,50	
		1,51,31,35,48,30,34, 9		8, 9
22″	27,38,55, 8,59,42, 3,48, 5,43		2, 1,16,49,59	
		1,51,31,33,47,13,44,10		8, 9
24″	27,38,57, 0,31,15,51, 1,49,53		2, 1,16,58, 8	
		1,51,31,31,45,56,46, 2		8, 9
26″	27,38,58,52, 2,47,36,58,35,55		2, 1,17, 6,17	
		1,51,31,29,44,39,39,45		8, 9
28″	27,39, 0,43,34,17,21,38,15,40		2, 1,17,14,26	
		1,51,31,27,43,22,25,19		8, 9
30″	27,39, 2,35, 5,45, 5, 0,40,59		2, 1,17,22,35	
		1,51,31,25,42, 5, 2,44		8, 9
32″	27,39, 4,26,37,10,47, 5,43,43		2, 1,17,30,44	
		1,51,31,23,40,47,32, 0		8, 9
34″	27,39, 6,18, 8,34,27,53,15,43		2, 1,17,38,53	
		1,51,31,21,39,29,53, 7		8, 9
36″	27,39, 8, 9,39,56, 7,23, 8,50		2, 1,17,47, 2	
		1,51,31,19,38,12, 6, 5		8, 9
38″	27,39,10, 1,11,15,45,35,14,55		2, 1,17,55,11	
		1,51,31,17,36,54,10,54		8, 9
40″	27,39,11,52,42,33,22,29,25,49		2, 1,18, 3,20	
		1,51,31,15,35,36, 7,34		8, 9
42″	27,39,13,44,13,48,58, 5,33,23		2, 1,18,11,29	
		1,51,31,13,34,17,56, 5		8, 9
44″	27,39,15,35,45, 2,32,23,29,28		2, 1,18,19,38	
		1,51,31,11,32,59,36,27		8, 9
46″	27,39,17,27,16,14, 5,23, 5,55		2, 1,18,27,47	
		1,51,31, 9,31,41, 8,40		8, 9
48″	27,39,19,18,47,23,37, 4,14,35		2, 1,18,35,56	
		1,51,31, 7,30,22,32,44		8, 9
50″	27,39,21,10,18,31, 7,26,47,19		2, 1,18,44, 5	
		1,51,31, 5,29, 3,48,39		8, 9
52″	27,39,23, 1,49,36,36,30,35,58		2, 1,18,52,14	
		1,51,31, 3,27,44,56,25		8, 9
54″	27,39,24,53,20,40, 4,15,32,23		2, 1,19, 0,23	
		1,51,31, 1,26,25,56, 2		8, 9
56″	27,39,26,44,51,41,30,41,28,25		2, 1,19, 8,32	
		1,51,30,59,25, 6,47,30		8, 9
58″	27,39,28,36,22,40,55,48,15,55		2, 1,19,16,41	
		1,51,30,57,23,47,30,49		
60″	27,39,30,27,53,38,19,35,46,44			
exact	27,39,30,27,53,38,19,35,30,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°27′ 0″	27,39,30,27,53,38,19,35,30,45			
		1,51,30,55,22,28, 4,22		
2″	27,39,32,19,24,33,42, 3,35, 7		2, 1,19,33, 5	
		1,51,30,53,21, 8,31,17		8, 9
4″	27,39,34,10,55,27, 3,12, 6,24		2, 1,19,41,14	
		1,51,30,51,19,48,50, 3		8, 9
6″	27,39,36, 2,26,18,23, 0,56,27		2, 1,19,49,23	
		1,51,30,49,18,29, 0,40		8, 9
8″	27,39,37,53,57, 7,41,29,57, 7		2, 1,19,57,32	
		1,51,30,47,17, 9, 3, 8		8, 9
10″	27,39,39,45,27,54,58,39, 0,15		2, 1,20, 5,41	
		1,51,30,45,15,48,57,27		8, 9
12″	27,39,41,36,58,40,14,27,57,42		2, 1,20,13,50	
		1,51,30,43,14,28,43,37		8, 9
14″	27,39,43,28,29,23,28,56,41,19		2, 1,20,21,59	
		1,51,30,41,13, 8,21,38		8, 9
16″	27,39,45,20, 0, 4,42, 5, 2,57		2, 1,20,30, 8	
		1,51,30,39,11,47,51,30		8, 9
18″	27,39,47,11,30,43,53,52,54,27		2, 1,20,38,17	
		1,51,30,37,10,27,13,13		8, 9
20″	27,39,49, 3, 1,21, 4,20, 7,40		2, 1,20,46,26	
		1,51,30,35, 9, 6,26,47		8, 9
22″	27,39,50,54,31,56,13,26,34,27		2, 1,20,54,35	
		1,51,30,33, 7,45,32,12		8, 9
24″	27,39,52,46, 2,29,21,12, 6,39		2, 1,21, 2,44	
		1,51,30,31, 6,24,29,28		8, 9
26″	27,39,54,37,33, 0,27,36,36, 7		2, 1,21,10,53	
		1,51,30,29, 5, 3,18,35		8, 9
28″	27,39,56,29, 3,29,32,39,54,42		2, 1,21,19, 2	
		1,51,30,27, 3,41,59,33		8, 9
30″	27,39,58,20,33,56,36,21,54,15		2, 1,21,27,11	
		1,51,30,25, 2,20,32,22		8, 9
32″	27,40, 0,12, 4,21,38,42,26,37		2, 1,21,35,20	
		1,51,30,23, 0,58,57, 2		8, 9
34″	27,40, 2, 3,34,44,39,41,23,39		2, 1,21,43,29	
		1,51,30,20,59,37,13,33		8, 9
36″	27,40, 3,55, 5, 5,39,18,37,12		2, 1,21,51,38	
		1,51,30,18,58,15,21,55		8, 9
38″	27,40, 5,46,35,24,37,33,59, 7		2, 1,21,59,47	
		1,51,30,16,56,53,22, 8		8, 9
40″	27,40, 7,38, 5,41,34,27,21,15		2, 1,22, 7,56	
		1,51,30,14,55,31,14,12		8, 9
42″	27,40, 9,29,35,56,29,58,35,27		2, 1,22,16, 5	
		1,51,30,12,54, 8,58, 7		8, 9
44″	27,40,11,21, 6, 9,24, 7,33,34		2, 1,22,24,14	
		1,51,30,10,52,46,33,53		8, 9
46″	27,40,13,12,36,20,16,54, 7,27		2, 1,22,32,23	
		1,51,30, 8,51,24, 1,30		8, 9
48″	27,40,15, 4, 6,29, 8,18, 8,57		2, 1,22,40,32	
		1,51,30, 6,50, 1,20,58		8, 9
50″	27,40,16,55,36,35,58,19,29,55		2, 1,22,48,41	
		1,51,30, 4,48,38,32,17		8, 9
52″	27,40,18,47, 6,40,46,58, 2,12		2, 1,22,56,50	
		1,51,30, 2,47,15,35,27		8, 9
54″	27,40,20,38,36,43,34,13,37,39		2, 1,23, 4,59	
		1,51,30, 0,45,52,30,28		8, 9
56″	27,40,22,30, 6,44,20, 6, 8, 7		2, 1,23,13, 8	
		1,51,29,58,44,29,17,20		8, 9
58″	27,40,24,21,36,43, 4,35,25,27		2, 1,23,21,17	
		1,51,29,56,43, 5,56, 3		
60″	27,40,26,13, 6,39,47,41,21,30			
exact	27,40,26,13, 6,39,47,41,10,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°28′ 0″	27,40,26,13, 6,39,47,41,10,51			
		1,51,29,54,41,42,25,34		
2″	27,40,28, 4,36,34,29,23,36,25		2, 1,23,37,39	
		1,51,29,52,40,18,47,55		8, 9
4″	27,40,29,56, 6,27, 9,42,24,20		2, 1,23,45,48	
		1,51,29,50,38,55, 2, 7		8, 9
6″	27,40,31,47,36,17,48,37,26,27		2, 1,23,53,57	
		1,51,29,48,37,31, 8,10		8, 9
8″	27,40,33,39, 6, 6,26, 8,34,37		2, 1,24, 2, 6	
		1,51,29,46,36, 7, 6, 4		8, 9
10″	27,40,35,30,35,53, 2,15,40,41		2, 1,24,10,15	
		1,51,29,44,34,42,55,49		8, 9
12″	27,40,37,22, 5,37,36,58,36,30		2, 1,24,18,24	
		1,51,29,42,33,18,37,25		8, 9
14″	27,40,39,13,35,20,10,17,13,55		2, 1,24,26,33	
		1,51,29,40,31,54,10,52		8, 9
16″	27,40,41, 5, 5, 0,42,11,24,47		2, 1,24,34,42	
		1,51,29,38,30,29,36,10		8, 9
18″	27,40,42,56,34,39,12,41, 0,57		2, 1,24,42,51	
		1,51,29,36,29, 4,53,19		8, 9
20″	27,40,44,48, 4,15,41,45,54,16		2, 1,24,51, 0	
		1,51,29,34,27,40, 2,19		8, 9
22″	27,40,46,39,33,50, 9,25,56,35		2, 1,24,59, 9	
		1,51,29,32,26,15, 3,10		8, 9
24″	27,40,48,31, 3,22,35,40,59,45		2, 1,25, 7,18	
		1,51,29,30,24,49,55,52		8, 9
26″	27,40,50,22,32,53, 0,30,55,37		2, 1,25,15,27	
		1,51,29,28,23,24,40,25		8, 9
28″	27,40,52,14, 2,21,23,55,36, 2		2, 1,25,23,36	
		1,51,29,26,21,59,16,49		8, 9
30″	27,40,54, 5,31,47,45,54,52,51		2, 1,25,31,45	
		1,51,29,24,20,33,45, 4		8, 9
32″	27,40,55,57, 1,12, 6,28,37,55		2, 1,25,39,54	
		1,51,29,22,19, 8, 5,10		8, 9
34″	27,40,57,48,30,34,25,36,43, 5		2, 1,25,48, 3	
		1,51,29,20,17,42,17, 7		8, 9
36″	27,40,59,39,59,54,43,19, 0,12		2, 1,25,56,12	
		1,51,29,18,16,16,20,55		8, 9
38″	27,41, 1,31,29,12,59,35,21, 7		2, 1,26, 4,21	
		1,51,29,16,14,50,16,34		8, 9
40″	27,41, 3,22,58,29,14,25,37,41		2, 1,26,12,30	
		1,51,29,14,13,24, 4, 4		8, 9
42″	27,41, 5,14,27,43,27,49,41,45		2, 1,26,20,39	
		1,51,29,12,11,57,43,25		8, 9
44″	27,41, 7, 5,56,55,39,47,25,10		2, 1,26,28,48	
		1,51,29,10,10,31,14,37		8, 9
46″	27,41, 8,57,26, 5,50,18,39,47		2, 1,26,36,57	
		1,51,29, 8, 9, 4,37,40		8, 9
48″	27,41,10,48,55,13,59,23,17,27		2, 1,26,45, 6	
		1,51,29, 6, 7,37,52,34		8, 9
50″	27,41,12,40,24,20, 7, 1,10, 1		2, 1,26,53,15	
		1,51,29, 4, 6,10,59,19		8, 9
52″	27,41,14,31,53,24,13,12, 9,20		2, 1,27, 1,24	
		1,51,29, 2, 4,43,57,55		8, 9
54″	27,41,16,23,22,26,17,56, 7,15		2, 1,27, 9,33	
		1,51,29, 0, 3,16,48,22		8, 9
56″	27,41,18,14,51,26,21,12,55,37		2, 1,27,17,42	
		1,51,28,58, 1,49,30,40		8, 9
58″	27,41,20, 6,20,24,23, 2,26,17		2, 1,27,25,51	
		1,51,28,56, 0,22, 4,49		
60″	27,41,21,57,49,20,23,24,31, 6			
exact	27,41,21,57,49,20,23,24,27,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°29′ 0″	27,41,21,57,49,20,23,24,27,50			
		1,51,28,53,58,54,30,28		
2″	27,41,23,49,18,14,22,18,58,18		2, 1,27,42,10	
		1,51,28,51,57,26,48,18		8, 9
4″	27,41,25,40,47, 6,19,45,46,36		2, 1,27,50,19	
		1,51,28,49,55,58,57,59		8, 9
6″	27,41,27,32,15,56,15,44,44,35		2, 1,27,58,28	
		1,51,28,47,54,30,59,31		8, 9
8″	27,41,29,23,44,44,10,15,44, 6		2, 1,28, 6,37	
		1,51,28,45,53, 2,52,54		8, 9
10″	27,41,31,15,13,30, 3,18,37, 0		2, 1,28,14,46	
		1,51,28,43,51,34,38, 8		8, 9
12″	27,41,33, 6,42,13,54,53,15, 8		2, 1,28,22,55	
		1,51,28,41,50, 6,15,13		8, 9
14″	27,41,34,58,10,55,44,59,30,21		2, 1,28,31, 4	
		1,51,28,39,48,37,44, 9		8, 9
16″	27,41,36,49,39,35,33,37,14,30		2, 1,28,39,13	
		1,51,28,37,47, 9, 4,56		8, 9
18″	27,41,38,41, 8,13,20,46,19,26		2, 1,28,47,22	
		1,51,28,35,45,40,17,34		8, 9
20″	27,41,40,32,36,49, 6,26,37, 0		2, 1,28,55,31	
		1,51,28,33,44,11,22, 3		8, 9
22″	27,41,42,24, 5,22,50,37,59, 3		2, 1,29, 3,40	
		1,51,28,31,42,42,18,23		8, 9
24″	27,41,44,15,33,54,33,20,17,26		2, 1,29,11,49	
		1,51,28,29,41,13, 6,34		8, 9
26″	27,41,46, 7, 2,24,14,33,24, 0		2, 1,29,19,58	
		1,51,28,27,39,43,46,36		8, 9
28″	27,41,47,58,30,51,54,17,10,36		2, 1,29,28, 7	
		1,51,28,25,38,14,18,29		8, 9
30″	27,41,49,49,59,17,32,31,29, 5		2, 1,29,36,16	
		1,51,28,23,36,44,42,13		8, 9
32″	27,41,51,41,27,41, 9,16,11,18		2, 1,29,44,25	
		1,51,28,21,35,14,57,48		8, 9
34″	27,41,53,32,56, 2,44,31, 9, 6		2, 1,29,52,34	
		1,51,28,19,33,45, 5,14		8, 9
36″	27,41,55,24,24,22,18,16,14,20		2, 1,30, 0,43	
		1,51,28,17,32,15, 4,31		8, 9
38″	27,41,57,15,52,39,50,31,18,51		2, 1,30, 8,52	
		1,51,28,15,30,44,55,39		8, 9
40″	27,41,59, 7,20,55,21,16,14,30		2, 1,30,17, 1	
		1,51,28,13,29,14,38,38		8, 9
42″	27,42, 0,58,49, 8,50,30,53, 8		2, 1,30,25,10	
		1,51,28,11,27,44,13,28		8, 9
44″	27,42, 2,50,17,20,18,15, 6,36		2, 1,30,33,19	
		1,51,28, 9,26,13,40, 9		8, 9
46″	27,42, 4,41,45,29,44,28,46,45		2, 1,30,41,28	
		1,51,28, 7,24,42,58,41		8, 9
48″	27,42, 6,33,13,37, 9,11,45,26		2, 1,30,49,37	
		1,51,28, 5,23,12, 9, 4		8, 9
50″	27,42, 8,24,41,42,32,23,54,30		2, 1,30,57,46	
		1,51,28, 3,21,41,11,18		8, 9
52″	27,42,10,16, 9,45,54, 5, 5,48		2, 1,31, 5,55	
		1,51,28, 1,20,10, 5,23		8, 9
54″	27,42,12, 7,37,47,14,15,11,11		2, 1,31,14, 4	
		1,51,27,59,18,38,51,19		8, 9
56″	27,42,13,59, 5,46,32,54, 2,30		2, 1,31,22,13	
		1,51,27,57,17, 7,29, 6		8, 9
58″	27,42,15,50,33,43,50, 1,31,36		2, 1,31,30,22	
		1,51,27,55,15,35,58,44		
60″	27,42,17,42, 1,39, 5,37,30,20			
exact	27,42,17,42, 1,39, 5,37,28,30			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
27°30′	0″	27,42,17,42, 1,39, 5,37,28,30	1,51,27,53,14, 4,20, 9		
	2″	27,42,19,33,29,32,19,41,48,39	1,51,27,51,12,32,33,29	2, 1,31,46,40	
	4″	27,42,21,24,57,23,32,14,22, 8	1,51,27,49,11, 0,38,40	2, 1,31,54,49	8, 9
	6″	27,42,23,16,25,12,43,15, 0,48	1,51,27,47, 9,28,35,42	2, 1,32, 2,58	8, 9
	8″	27,42,25, 7,52,59,52,43,36,30	1,51,27,45, 7,56,24,35	2, 1,32,11, 7	8, 9
	10″	27,42,26,59,20,45, 0,40, 1, 5	1,51,27,43, 6,24, 5,19	2, 1,32,19,16	8, 9
	12″	27,42,28,50,48,28, 7, 4, 6,24	1,51,27,41, 4,51,37,54	2, 1,32,27,25	8, 9
	14″	27,42,30,42,16, 9,11,55,44,18	1,51,27,39, 3,19, 2,20	2, 1,32,35,34	8, 9
	16″	27,42,32,33,43,48,15,14,46,38	1,51,27,37, 1,46,18,37	2, 1,32,43,43	8, 9
	18″	27,42,34,25,11,25,17, 1, 5,15	1,51,27,35, 0,13,26,45	2, 1,32,51,52	8, 9
	20″	27,42,36,16,39, 0,17,14,32, 0	1,51,27,32,58,40,26,44	2, 1,33, 0, 1	8, 9
	22″	27,42,38, 8, 6,33,15,54,58,44	1,51,27,30,57, 7,18,34	2, 1,33, 8,10	8, 9
	24″	27,42,39,59,34, 4,13, 2,17,18	1,51,27,28,55,34, 2,15	2, 1,33,16,19	8, 9
	26″	27,42,41,51, 1,33, 8,36,19,33	1,51,27,26,54, 0,37,47	2, 1,33,24,28	8, 9
	28″	27,42,43,42,29, 0, 2,36,57,20	1,51,27,24,52,27, 5,10	2, 1,33,32,37	8, 9
	30″	27,42,45,33,56,24,55, 4, 2,30	1,51,27,22,50,53,24,24	2, 1,33,40,46	8, 9
	32″	27,42,47,25,23,47,45,57,26,54	1,51,27,20,49,19,35,29	2, 1,33,48,55	8, 9
	34″	27,42,49,16,51, 8,35,17, 2,23	1,51,27,18,47,45,38,25	2, 1,33,57, 4	8, 9
	36″	27,42,51, 8,18,27,23, 2,40,48	1,51,27,16,46,11,33,12	2, 1,34, 5,13	8, 9
	38″	27,42,52,59,45,44, 9,14,14, 0	1,51,27,14,44,37,19,50	2, 1,34,13,22	8, 9
	40″	27,42,54,51,12,58,53,51,33,50	1,51,27,12,43, 2,58,19	2, 1,34,21,31	8, 9
	42″	27,42,56,42,40,11,36,54,32, 9	1,51,27,10,41,28,28,39	2, 1,34,29,40	8, 9
	44″	27,42,58,34, 7,22,18,23, 0,48	1,51,27, 8,39,53,50,50	2, 1,34,37,49	8, 9
	46″	27,43, 0,25,34,30,58,16,51,38	1,51,27, 6,38,19, 4,52	2, 1,34,45,58	8, 9
	48″	27,43, 2,17, 1,37,36,35,56,30	1,51,27, 4,36,44,10,45	2, 1,34,54, 7	8, 9
	50″	27,43, 4, 8,28,42,13,20, 7,15	1,51,27, 2,35, 9, 8,29	2, 1,35, 2,16	8, 9
	52″	27,43, 5,59,55,44,48,29,15,44	1,51,27, 0,33,33,58, 4	2, 1,35,10,25	8, 9
	54″	27,43, 7,51,22,45,22, 3,13,48	1,51,26,58,31,58,39,30	2, 1,35,18,34	8, 9
	56″	27,43, 9,42,49,43,54, 1,53,18	1,51,26,56,30,23,12,47	2, 1,35,26,43	8, 9
	58″	27,43,11,34,16,40,24,25, 6, 5	1,51,26,54,28,47,37,55	2, 1,35,34,52	
	60″	27,43,13,25,43,34,53,12,44, 0			
	exact	27,43,13,25,43,34,53,12,52,59			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
27°31′	0″	27,43,13,25,43,34,53,12,52,59	1,51,26,52,27,11,55,46		
	2″	27,43,15,17,10,27,20,24,48,45	1,51,26,50,25,36, 4,39	2, 1,35,51, 7	8, 9
	4″	27,43,17, 8,37,17,46, 0,53,24	1,51,26,48,24, 0, 5,23	2, 1,35,59,16	8, 9
	6″	27,43,19, 0, 4, 6,10, 0,58,47	1,51,26,46,22,23,57,58	2, 1,36, 7,25	8, 9
	8″	27,43,20,51,30,52,32,24,56,45	1,51,26,44,20,47,42,24	2, 1,36,15,34	8, 9
	10″	27,43,22,42,57,36,53,12,39, 9	1,51,26,42,19,11,18,41	2, 1,36,23,43	8, 9
	12″	27,43,24,34,24,19,12,23,57,50	1,51,26,40,17,34,46,49	2, 1,36,31,52	8, 9
	14″	27,43,26,25,50,59,29,58,44,39	1,51,26,38,15,58, 6,48	2, 1,36,40, 1	8, 9
	16″	27,43,28,17,17,37,45,56,51,27	1,51,26,36,14,21,18,38	2, 1,36,48,10	8, 9
	18″	27,43,30, 8,44,14, 0,18,10, 5	1,51,26,34,12,44,22,19	2, 1,36,56,19	8, 9
	20″	27,43,32, 0,10,48,13, 2,32,24	1,51,26,32,11, 7,17,51	2, 1,37, 4,28	8, 9
	22″	27,43,33,51,37,20,24, 9,50,15	1,51,26,30, 9,30, 5,14	2, 1,37,12,37	8, 9
	24″	27,43,35,43, 3,50,33,39,55,29	1,51,26,28, 7,52,44,28	2, 1,37,20,46	8, 9
	26″	27,43,37,34,30,18,41,32,39,57	1,51,26,26, 6,15,15,33	2, 1,37,28,55	8, 9
	28″	27,43,39,25,56,44,47,47,55,30	1,51,26,24, 4,37,38,29	2, 1,37,37, 4	8, 9
	30″	27,43,41,17,23, 8,52,25,33,59	1,51,26,22, 2,59,53,16	2, 1,37,45,13	8, 9
	32″	27,43,43, 8,49,30,55,25,27,15	1,51,26,20, 1,21,59,54	2, 1,37,53,22	8, 9
	34″	27,43,45, 0,15,50,56,47,27, 9	1,51,26,17,59,43,58,23	2, 1,38, 1,31	8, 9
	36″	27,43,46,51,42, 8,56,31,25,32	1,51,26,15,58, 5,48,43	2, 1,38, 9,40	8, 9
	38″	27,43,48,43, 8,24,54,37,14,15	1,51,26,13,56,27,30,54	2, 1,38,17,49	8, 9
	40″	27,43,50,34,34,38,51, 4,45, 9	1,51,26,11,54,49, 4,56	2, 1,38,25,58	8, 9
	42″	27,43,52,26, 0,50,45,53,50, 5	1,51,26, 9,53,10,30,49	2, 1,38,34, 7	8, 9
	44″	27,43,54,17,27, 0,39, 4,20,54	1,51,26, 7,51,31,48,33	2, 1,38,42,16	8, 9
	46″	27,43,56, 8,53, 8,30,36, 9,27	1,51,26, 5,49,52,58, 8	2, 1,38,50,25	8, 9
	48″	27,43,58, 0,19,14,20,29, 7,35	1,51,26, 3,48,13,59,34	2, 1,38,58,34	8, 9
	50″	27,43,59,51,45,18, 8,43, 7, 9	1,51,26, 1,46,34,52,51	2, 1,39, 6,43	8, 9
	52″	27,44, 1,43,11,19,55,18, 0, 0	1,51,25,59,44,55,37,59	2, 1,39,14,52	8, 9
	54″	27,44, 3,34,37,19,40,13,37,59	1,51,25,57,43,16,14,58	2, 1,39,23, 1	8, 9
	56″	27,44, 5,26, 3,17,23,29,52,57	1,51,25,55,41,36,43,48	2, 1,39,31,10	8, 9
	58″	27,44, 7,17,29,13, 5, 6,36,45	1,51,25,53,39,57, 4,29	2, 1,39,39,19	
	60″	27,44, 9, 8,55, 6,45, 3,41,14			
	exact	27,44, 9, 8,55, 6,45, 3,54,44			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
27°32′	0″	27,44, 9, 8,55, 6,45, 3,54,44	1,51,25,51,38,17,18,24		
	2″	27,44,11, 0,20,58,23,21,13, 8	1,51,25,49,36,37,22,53	2, 1,39,55,31	
	4″	27,44,12,51,46,47,59,58,36, 1	1,51,25,47,34,57,19,13	2, 1,40, 3,40	8, 9
	6″	27,44,14,43,12,35,34,55,55,14	1,51,25,45,33,17, 7,24	2, 1,40,11,49	8, 9
	8″	27,44,16,34,38,21, 8,13, 2,38	1,51,25,43,31,36,47,26	2, 1,40,19,58	8, 9
	10″	27,44,18,26, 4, 4,39,49,50, 4	1,51,25,41,29,56,19,19	2, 1,40,28, 7	8, 9
	12″	27,44,20,17,29,46, 9,46, 9,23	1,51,25,39,28,15,43, 3	2, 1,40,36,16	8, 9
	14″	27,44,22, 8,55,25,38, 1,52,26	1,51,25,37,26,34,58,38	2, 1,40,44,25	8, 9
	16″	27,44,24, 0,21, 3, 4,36,51, 4	1,51,25,35,24,54, 6, 4	2, 1,40,52,34	8, 9
	18″	27,44,25,51,46,38,29,30,57, 8	1,51,25,33,23,13, 5,21	2, 1,41, 0,43	8, 9
	20″	27,44,27,43,12,11,52,44, 2,29	1,51,25,31,21,31,56,29	2, 1,41, 8,52	8, 9
	22″	27,44,29,34,37,43,14,15,58,58	1,51,25,29,19,50,39,28	2, 1,41,17, 1	8, 9
	24″	27,44,31,26, 3,12,34, 6,38,26	1,51,25,27,18, 9,14,18	2, 1,41,25,10	8, 9
	26″	27,44,33,17,28,39,52,15,52,44	1,51,25,25,16,27,40,59	2, 1,41,33,19	8, 9
	28″	27,44,35, 8,54, 5, 8,43,33,43	1,51,25,23,14,45,59,31	2, 1,41,41,28	8, 9
	30″	27,44,37, 0,19,28,23,29,33,14	1,51,25,21,13, 4, 9,54	2, 1,41,49,37	8, 9
	32″	27,44,38,51,44,49,36,33,43, 8	1,51,25,19,11,22,12, 8	2, 1,41,57,46	8, 9
	34″	27,44,40,43,10, 8,47,55,55,16	1,51,25,17, 9,40, 6,13	2, 1,42, 5,55	8, 9
	36″	27,44,42,34,35,25,57,36, 1,29	1,51,25,15, 7,57,52, 9	2, 1,42,14, 4	8, 9
	38″	27,44,44,26, 0,41, 5,33,53,38	1,51,25,13, 6,15,29,56	2, 1,42,22,13	8, 9
	40″	27,44,46,17,25,54,11,49,23,34	1,51,25,11, 4,32,59,34	2, 1,42,30,22	8, 9
	42″	27,44,48, 8,51, 5,16,22,23, 8	1,51,25, 9, 2,50,21, 3	2, 1,42,38,31	8, 9
	44″	27,44,50, 0,16,14,19,12,44,11	1,51,25, 7, 1, 7,34,23	2, 1,42,46,40	8, 9
	46″	27,44,51,51,41,21,20,20,18,34	1,51,25, 4,59,24,39,34	2, 1,42,54,49	8, 9
	48″	27,44,53,43, 6,26,19,44,58, 8	1,51,25, 2,57,41,36,36	2, 1,43, 2,58	8, 9
	50″	27,44,55,34,31,29,17,26,34,44	1,51,25, 0,55,58,25,29	2, 1,43,11, 7	8, 9
	52″	27,44,57,25,56,30,13,25, 0,13	1,51,24,58,54,15, 6,13	2, 1,43,19,16	8, 9
	54″	27,44,59,17,21,29, 7,40, 6,26	1,51,24,56,52,31,38,48	2, 1,43,27,25	8, 9
	56″	27,45, 1, 8,46,26, 0,11,45,14	1,51,24,54,50,48, 3,14	2, 1,43,35,34	8, 9
	58″	27,45, 3, 0,11,20,50,59,48,28	1,51,24,52,49, 4,19,31	2, 1,43,43,43	
	60″	27,45, 4,51,36,13,40, 4, 7,59			
exact		27,45, 4,51,36,13,40, 4,20,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°33′ 0″	27,45, 4,51,36,13,40, 4,20,29	1,51,24,50,47,20,29, 9		
2″	27,45, 6,43, 1, 4,27,24,49,38	1,51,24,48,45,36,29,15	2, 1,43,59,54	8, 9
4″	27,45, 8,34,25,53,13, 1,18,53	1,51,24,46,43,52,21,12	2, 1,44, 8, 3	8, 9
6″	27,45,10,25,50,39,56,53,40, 5	1,51,24,44,42, 8, 5, 0	2, 1,44,16,12	8, 9
8″	27,45,12,17,15,24,39, 1,45, 5	1,51,24,42,40,23,40,39	2, 1,44,24,21	8, 9
10″	27,45,14, 8,40, 7,19,25,25,44	1,51,24,40,38,39, 8, 9	2, 1,44,32,30	8, 9
12″	27,45,16, 0, 4,47,58, 4,33,53	1,51,24,38,36,54,27,30	2, 1,44,40,39	8, 9
14″	27,45,17,51,29,26,34,59, 1,23	1,51,24,36,35, 9,38,42	2, 1,44,48,48	8, 9
16″	27,45,19,42,54, 3,10, 8,40, 5	1,51,24,34,33,24,41,45	2, 1,44,56,57	8, 9
18″	27,45,21,34,18,37,43,33,21,50	1,51,24,32,31,39,36,39	2, 1,45, 5, 6	8, 9
20″	27,45,23,25,43,10,15,12,58,29	1,51,24,30,29,54,23,24	2, 1,45,13,15	8, 9
22″	27,45,25,17, 7,40,45, 7,21,53	1,51,24,28,28, 9, 2, 0	2, 1,45,21,24	8, 9
24″	27,45,27, 8,32, 9,13,16,23,53	1,51,24,26,26,23,32,27	2, 1,45,29,33	8, 9
26″	27,45,28,59,56,35,39,39,56,20	1,51,24,24,24,37,54,45	2, 1,45,37,42	8, 9
28″	27,45,30,51,21, 0, 4,17,51, 5	1,51,24,22,22,52, 8,54	2, 1,45,45,51	8, 9
30″	27,45,32,42,45,22,27, 9,59,59	1,51,24,20,21, 6,14,54	2, 1,45,54, 0	8, 9
32″	27,45,34,34, 9,42,48,16,14,53	1,51,24,18,19,20,12,45	2, 1,46, 2, 9	8, 9
34″	27,45,36,25,34, 1, 7,36,27,38	1,51,24,16,17,34, 2,27	2, 1,46,10,18	8, 9
36″	27,45,38,16,58,17,25,10,30, 5	1,51,24,14,15,47,44, 0	2, 1,46,18,27	8, 9
38″	27,45,40, 8,22,31,40,58,14, 5	1,51,24,12,14, 1,17,24	2, 1,46,26,36	8, 9
40″	27,45,41,59,46,43,54,59,31,29	1,51,24,10,12,14,42,39	2, 1,46,34,45	8, 9
42″	27,45,43,51,10,54, 7,14,14, 8	1,51,24, 8,10,27,59,45	2, 1,46,42,54	8, 9
44″	27,45,45,42,35, 2,17,42,13,53	1,51,24, 6, 8,41, 8,42	2, 1,46,51, 3	8, 9
46″	27,45,47,33,59, 8,26,23,22,35	1,51,24, 4, 6,54, 9,30	2, 1,46,59,12	8, 9
48″	27,45,49,25,23,12,33,17,32, 5	1,51,24, 2, 5, 7, 2, 9	2, 1,47, 7,21	8, 9
50″	27,45,51,16,47,14,38,24,34,14	1,51,24, 0, 3,19,46,39	2, 1,47,15,30	8, 9
52″	27,45,53, 8,11,14,41,44,20,53	1,51,23,58, 1,32,23, 0	2, 1,47,23,39	8, 9
54″	27,45,54,59,35,12,43,16,43,53	1,51,23,55,59,44,51,12	2, 1,47,31,48	8, 9
56″	27,45,56,50,59, 8,43, 1,35, 5	1,51,23,53,57,57,11,15	2, 1,47,39,57	8, 9
58″	27,45,58,42,23, 2,40,58,46,20	1,51,23,51,56, 9,23, 9	2, 1,47,48, 6	
60″	27,46, 0,33,46,54,37, 8, 9,29			
exact	27,46, 0,33,46,54,37, 8,30,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°34′ 0″	27,46, 0,33,46,54,37, 8,30,25			
		1,51,23,49,54,21,29,10		
2″	27,46, 2,25,10,44,31,29,59,35		2, 1,48, 4,14	
		1,51,23,47,52,33,24,56		8, 9
4″	27,46, 4,16,34,32,24, 3,24,31		2, 1,48,12,23	
		1,51,23,45,50,45,12,33		8, 9
6″	27,46, 6, 7,58,18,14,48,37, 4		2, 1,48,20,32	
		1,51,23,43,48,56,52, 1		8, 9
8″	27,46, 7,59,22, 2, 3,45,29, 5		2, 1,48,28,41	
		1,51,23,41,47, 8,23,20		8, 9
10″	27,46, 9,50,45,43,50,53,52,25		2, 1,48,36,50	
		1,51,23,39,45,19,46,30		8, 9
12″	27,46,11,42, 9,23,36,13,38,55		2, 1,48,44,59	
		1,51,23,37,43,31, 1,31		8, 9
14″	27,46,13,33,33, 1,19,44,40,26		2, 1,48,53, 8	
		1,51,23,35,41,42, 8,23		8, 9
16″	27,46,15,24,56,37, 1,26,48,49		2, 1,49, 1,17	
		1,51,23,33,39,53, 7, 6		8, 9
18″	27,46,17,16,20,10,41,19,55,55		2, 1,49, 9,26	
		1,51,23,31,38, 3,57,40		8, 9
20″	27,46,19, 7,43,42,19,23,53,35		2, 1,49,17,35	
		1,51,23,29,36,14,40, 5		8, 9
22″	27,46,20,59, 7,11,55,38,33,40		2, 1,49,25,44	
		1,51,23,27,34,25,14,21		8, 9
24″	27,46,22,50,30,39,30, 3,48, 1		2, 1,49,33,53	
		1,51,23,25,32,35,40,28		8, 9
26″	27,46,24,41,54, 5, 2,39,28,29		2, 1,49,42, 2	
		1,51,23,23,30,45,58,26		8, 9
28″	27,46,26,33,17,28,33,25,26,55		2, 1,49,50,11	
		1,51,23,21,28,56, 8,15		8, 9
30″	27,46,28,24,40,50, 2,21,35,10		2, 1,49,58,20	
		1,51,23,19,27, 6, 9,55		8, 9
32″	27,46,30,16, 4, 9,29,27,45, 5		2, 1,50, 6,29	
		1,51,23,17,25,16, 3,26		8, 9
34″	27,46,32, 7,27,26,54,43,48,31		2, 1,50,14,38	
		1,51,23,15,23,25,48,48		8, 9
36″	27,46,33,58,50,42,18, 9,37,19		2, 1,50,22,47	
		1,51,23,13,21,35,26, 1		8, 9
38″	27,46,35,50,13,55,39,45, 3,20		2, 1,50,30,56	
		1,51,23,11,19,44,55, 5		8, 9
40″	27,46,37,41,37, 6,59,29,58,25		2, 1,50,39, 5	
		1,51,23, 9,17,54,16, 0		8, 9
42″	27,46,39,33, 0,16,17,24,14,25		2, 1,50,47,14	
		1,51,23, 7,16, 3,28,46		8, 9
44″	27,46,41,24,23,23,33,27,43,11		2, 1,50,55,23	
		1,51,23, 5,14,12,33,23		8, 9
46″	27,46,43,15,46,28,47,40,16,34		2, 1,51, 3,32	
		1,51,23, 3,12,21,29,51		8, 9
48″	27,46,45, 7, 9,32, 0, 1,46,25		2, 1,51,11,41	
		1,51,23, 1,10,30,18,10		8, 9
50″	27,46,46,58,32,33,10,32, 4,35		2, 1,51,19,50	
		1,51,22,59, 8,38,58,20		8, 9
52″	27,46,48,49,55,32,19,11, 2,55		2, 1,51,27,59	
		1,51,22,57, 6,47,30,21		8, 9
54″	27,46,50,41,18,29,25,58,33,16		2, 1,51,36, 8	
		1,51,22,55, 4,55,54,13		8, 9
56″	27,46,52,32,41,24,30,54,27,29		2, 1,51,44,17	
		1,51,22,53, 3, 4, 9,56		8, 9
58″	27,46,54,24, 4,17,33,58,37,25		2, 1,51,52,26	
		1,51,22,51, 1,12,17,30		
60″	27,46,56,15,27, 8,35,10,54,55			
exact	27,46,56,15,27, 8,35,11,17,59			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
27°35′	0″	27,46,56,15,27, 8,35,11,17,59	1,51,22,48,59,20,19,32		
	2″	27,46,58, 6,49,57,34,31,37,31	1,51,22,46,57,28,11, 0	2, 1,52, 8,32	8, 9
	4″	27,46,59,58,12,44,31,59,48,31	1,51,22,44,55,35,54,19	2, 1,52,16,41	8, 9
	6″	27,47, 1,49,35,29,27,35,42,50	1,51,22,42,53,43,29,29	2, 1,52,24,50	8, 9
	8″	27,47, 3,40,58,12,21,19,12,19	1,51,22,40,51,50,56,30	2, 1,52,32,59	8, 9
	10″	27,47, 5,32,20,53,13,10, 8,49	1,51,22,38,49,58,15,22	2, 1,52,41, 8	8, 9
	12″	27,47, 7,23,43,32, 3, 8,24,11	1,51,22,36,48, 5,26, 5	2, 1,52,49,17	8, 9
	14″	27,47, 9,15, 6, 8,51,13,50,16	1,51,22,34,46,12,28,39	2, 1,52,57,26	8, 9
	16″	27,47,11, 6,28,43,37,26,18,55	1,51,22,32,44,19,23, 4	2, 1,53, 5,35	8, 9
	18″	27,47,12,57,51,16,21,45,41,59	1,51,22,30,42,26, 9,20	2, 1,53,13,44	8, 9
	20″	27,47,14,49,13,47, 4,11,51,19	1,51,22,28,40,32,47,27	2, 1,53,21,53	8, 9
	22″	27,47,16,40,36,15,44,44,38,46	1,51,22,26,38,39,17,25	2, 1,53,30, 2	8, 9
	24″	27,47,18,31,58,42,23,23,56,11	1,51,22,24,36,45,39,14	2, 1,53,38,11	8, 9
	26″	27,47,20,23,21, 7, 0, 9,35,25	1,51,22,22,34,51,52,54	2, 1,53,46,20	8, 9
	28″	27,47,22,14,43,29,35, 1,28,19	1,51,22,20,32,57,58,25	2, 1,53,54,29	8, 9
	30″	27,47,24, 6, 5,50, 7,59,26,44	1,51,22,18,31, 3,55,47	2, 1,54, 2,38	8, 9
	32″	27,47,25,57,28, 8,39, 3,22,31	1,51,22,16,29, 9,45, 0	2, 1,54,10,47	8, 9
	34″	27,47,27,48,50,25, 8,13, 7,31	1,51,22,14,27,15,26, 4	2, 1,54,18,56	8, 9
	36″	27,47,29,40,12,39,35,28,33,35	1,51,22,12,25,20,58,59	2, 1,54,27, 5	8, 9
	38″	27,47,31,31,34,52, 0,49,32,34	1,51,22,10,23,26,23,45	2, 1,54,35,14	8, 9
	40″	27,47,33,22,57, 2,24,15,56,19	1,51,22, 8,21,31,40,22	2, 1,54,43,23	8, 9
	42″	27,47,35,14,19,10,45,47,36,41	1,51,22, 6,19,36,48,50	2, 1,54,51,32	8, 9
	44″	27,47,37, 5,41,17, 5,24,25,31	1,51,22, 4,17,41,49, 9	2, 1,54,59,41	8, 9
	46″	27,47,38,57, 3,21,23, 6,14,40	1,51,22, 2,15,46,41,19	2, 1,55, 7,50	8, 9
	48″	27,47,40,48,25,23,38,52,55,59	1,51,22, 0,13,51,25,20	2, 1,55,15,59	8, 9
	50″	27,47,42,39,47,23,52,44,21,19	1,51,21,58,11,56, 1,12	2, 1,55,24, 8	8, 9
	52″	27,47,44,31, 9,22, 4,40,22,31	1,51,21,56,10, 0,28,55	2, 1,55,32,17	8, 9
	54″	27,47,46,22,31,18,14,40,51,26	1,51,21,54, 8, 4,48,29	2, 1,55,40,26	8, 9
	56″	27,47,48,13,53,12,22,45,39,55	1,51,21,52, 6, 8,59,54	2, 1,55,48,35	8, 9
	58″	27,47,50, 5,15, 4,28,54,39,49	1,51,21,50, 4,13, 3,10	2, 1,55,56,44	
	60″	27,47,51,56,36,54,33, 7,42,59			
exact		27,47,51,56,36,54,33, 8,10, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°36′ 0″	27,47,51,56,36,54,33, 8,10, 6			
		1,51,21,48, 2,17, 1,22		
2″	27,47,53,47,58,42,35,25,11,28		2, 1,56,12,48	
		1,51,21,46, 0,20,48,34		8, 8
4″	27,47,55,39,20,28,35,46, 0, 2		2, 1,56,20,56	
		1,51,21,43,58,24,27,38		8, 8
6″	27,47,57,30,42,12,34,10,27,40		2, 1,56,29, 4	
		1,51,21,41,56,27,58,34		8, 8
8″	27,47,59,22, 3,54,30,38,26,14		2, 1,56,37,12	
		1,51,21,39,54,31,21,22		8, 8
10″	27,48, 1,13,25,34,25, 9,47,36		2, 1,56,45,20	
		1,51,21,37,52,34,36, 2		8, 8
12″	27,48, 3, 4,47,12,17,44,23,38		2, 1,56,53,28	
		1,51,21,35,50,37,42,34		8, 8
14″	27,48, 4,56, 8,48, 8,22, 6,12		2, 1,57, 1,36	
		1,51,21,33,48,40,40,58		8, 8
16″	27,48, 6,47,30,21,57, 2,47,10		2, 1,57, 9,44	
		1,51,21,31,46,43,31,14		8, 8
18″	27,48, 8,38,51,53,43,46,18,24		2, 1,57,17,52	
		1,51,21,29,44,46,13,22		8, 8
20″	27,48,10,30,13,23,28,32,31,46		2, 1,57,26, 0	
		1,51,21,27,42,48,47,22		8, 8
22″	27,48,12,21,34,51,11,21,19, 8		2, 1,57,34, 8	
		1,51,21,25,40,51,13,14		8, 8
24″	27,48,14,12,56,16,52,12,32,22		2, 1,57,42,16	
		1,51,21,23,38,53,30,58		8, 8
26″	27,48,16, 4,17,40,31, 6, 3,20		2, 1,57,50,24	
		1,51,21,21,36,55,40,34		8, 8
28″	27,48,17,55,39, 2, 8, 1,43,54		2, 1,57,58,32	
		1,51,21,19,34,57,42, 2		8, 8
30″	27,48,19,47, 0,21,42,59,25,56		2, 1,58, 6,40	
		1,51,21,17,32,59,35,22		8, 8
32″	27,48,21,38,21,39,15,59, 1,18		2, 1,58,14,48	
		1,51,21,15,31, 1,20,34		8, 8
34″	27,48,23,29,42,54,47, 0,21,52		2, 1,58,22,56	
		1,51,21,13,29, 2,57,38		8, 8
36″	27,48,25,21, 4, 8,16, 3,19,30		2, 1,58,31, 4	
		1,51,21,11,27, 4,26,34		8, 8
38″	27,48,27,12,25,19,43, 7,46, 4		2, 1,58,39,12	
		1,51,21, 9,25, 5,47,22		8, 8
40″	27,48,29, 3,46,29, 8,13,33,26		2, 1,58,47,20	
		1,51,21, 7,23, 7, 0, 2		8, 8
42″	27,48,30,55, 7,36,31,20,33,28		2, 1,58,55,28	
		1,51,21, 5,21, 8, 4,34		8, 8
44″	27,48,32,46,28,41,52,28,38, 2		2, 1,59, 3,36	
		1,51,21, 3,19, 9, 0,58		8, 8
46″	27,48,34,37,49,45,11,37,39, 0		2, 1,59,11,44	
		1,51,21, 1,17, 9,49,14		8, 8
48″	27,48,36,29,10,46,28,47,28,14		2, 1,59,19,52	
		1,51,20,59,15,10,29,22		8, 8
50″	27,48,38,20,31,45,43,57,57,36		2, 1,59,28, 0	
		1,51,20,57,13,11, 1,22		8, 8
52″	27,48,40,11,52,42,57, 8,58,58		2, 1,59,36, 8	
		1,51,20,55,11,11,25,14		8, 8
54″	27,48,42, 3,13,38, 8,20,24,12		2, 1,59,44,16	
		1,51,20,53, 9,11,40,58		8, 8
56″	27,48,43,54,34,31,17,32, 5,10		2, 1,59,52,24	
		1,51,20,51, 7,11,48,34		8, 8
58″	27,48,45,45,55,22,24,43,53,44		2, 2, 0, 0,32	
		1,51,20,49, 5,11,48, 2		
60″	27,48,47,37,16,11,29,55,41,46			
exact	27,48,47,37,16,11,29,55, 7, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°37′ 0″	27,48,47,37,16,11,29,55, 7, 4			
		1,51,20,47, 3,11,35,47		
2″	27,48,49,28,36,58,33, 6,42,51		2, 2, 0,17, 2	
		1,51,20,45, 1,11,18,45		8, 8
4″	27,48,51,19,57,43,34,18, 1,36		2, 2, 0,25,10	
		1,51,20,42,59,10,53,35		8, 8
6″	27,48,53,11,18,26,33,28,55,11		2, 2, 0,33,18	
		1,51,20,40,57,10,20,17		8, 8
8″	27,48,55, 2,39, 7,30,39,15,28		2, 2, 0,41,26	
		1,51,20,38,55, 9,38,51		8, 8
10″	27,48,56,53,59,46,25,48,54,19		2, 2, 0,49,34	
		1,51,20,36,53, 8,49,17		8, 8
12″	27,48,58,45,20,23,18,57,43,36		2, 2, 0,57,42	
		1,51,20,34,51, 7,51,35		8, 8
14″	27,49, 0,36,40,58,10, 5,35,11		2, 2, 1, 5,50	
		1,51,20,32,49, 6,45,45		8, 8
16″	27,49, 2,28, 1,30,59,12,20,56		2, 2, 1,13,58	
		1,51,20,30,47, 5,31,47		8, 8
18″	27,49, 4,19,22, 1,46,17,52,43		2, 2, 1,22, 6	
		1,51,20,28,45, 4, 9,41		8, 8
20″	27,49, 6,10,42,30,31,22, 2,24		2, 2, 1,30,14	
		1,51,20,26,43, 2,39,27		8, 8
22″	27,49, 8, 2, 2,57,14,24,41,51		2, 2, 1,38,22	
		1,51,20,24,41, 1, 1, 5		8, 8
24″	27,49, 9,53,23,21,55,25,42,56		2, 2, 1,46,30	
		1,51,20,22,38,59,14,35		8, 8
26″	27,49,11,44,43,44,34,24,57,31		2, 2, 1,54,38	
		1,51,20,20,36,57,19,57		8, 8
28″	27,49,13,36, 4, 5,11,22,17,28		2, 2, 2, 2,46	
		1,51,20,18,34,55,17,11		8, 8
30″	27,49,15,27,24,23,46,17,34,39		2, 2, 2,10,54	
		1,51,20,16,32,53, 6,17		8, 8
32″	27,49,17,18,44,40,19,10,40,56		2, 2, 2,19, 2	
		1,51,20,14,30,50,47,15		8, 8
34″	27,49,19,10, 4,54,50, 1,28,11		2, 2, 2,27,10	
		1,51,20,12,28,48,20, 5		8, 8
36″	27,49,21, 1,25, 7,18,49,48,16		2, 2, 2,35,18	
		1,51,20,10,26,45,44,47		8, 8
38″	27,49,22,52,45,17,45,35,33, 3		2, 2, 2,43,26	
		1,51,20, 8,24,43, 1,21		8, 8
40″	27,49,24,44, 5,26,10,18,34,24		2, 2, 2,51,34	
		1,51,20, 6,22,40, 9,47		8, 8
42″	27,49,26,35,25,32,32,58,44,11		2, 2, 2,59,42	
		1,51,20, 4,20,37,10, 5		8, 8
44″	27,49,28,26,45,36,53,35,54,16		2, 2, 3, 7,50	
		1,51,20, 2,18,34, 2,15		8, 8
46″	27,49,30,18, 5,39,12, 9,56,31		2, 2, 3,15,58	
		1,51,20, 0,16,30,46,17		8, 8
48″	27,49,32, 9,25,39,28,40,42,48		2, 2, 3,24, 6	
		1,51,19,58,14,27,22,11		8, 8
50″	27,49,34, 0,45,37,43, 8, 4,59		2, 2, 3,32,14	
		1,51,19,56,12,23,49,57		8, 8
52″	27,49,35,52, 5,33,55,31,54,56		2, 2, 3,40,22	
		1,51,19,54,10,20, 9,35		8, 8
54″	27,49,37,43,25,28, 5,52, 4,31		2, 2, 3,48,30	
		1,51,19,52, 8,16,21, 5		8, 8
56″	27,49,39,34,45,20,14, 8,25,36		2, 2, 3,56,38	
		1,51,19,50, 6,12,24,27		8, 8
58″	27,49,41,26, 5,10,20,20,50, 3		2, 2, 4, 4,46	
		1,51,19,48, 4, 8,19,41		
60″	27,49,43,17,24,58,24,29, 9,44			
exact	27,49,43,17,24,58,24,28,42,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°38′ 0″	27,49,43,17,24,58,24,28,42,37			
		1,51,19,46, 2, 4, 3,55		
2″	27,49,45, 8,44,44,26,32,46,32		2, 2, 4,21,13	
		1,51,19,43,59,59,42,42		8, 8
4″	27,49,47, 0, 4,28,26,32,29,14		2, 2, 4,29,21	
		1,51,19,41,57,55,13,21		8, 8
6″	27,49,48,51,24,10,24,27,42,35		2, 2, 4,37,29	
		1,51,19,39,55,50,35,52		8, 8
8″	27,49,50,42,43,50,20,18,18,27		2, 2, 4,45,37	
		1,51,19,37,53,45,50,15		8, 8
10″	27,49,52,34, 3,28,14, 4, 8,42		2, 2, 4,53,45	
		1,51,19,35,51,40,56,30		8, 8
12″	27,49,54,25,23, 4, 5,45, 5,12		2, 2, 5, 1,53	
		1,51,19,33,49,35,54,37		8, 8
14″	27,49,56,16,42,37,55,20,59,49		2, 2, 5,10, 1	
		1,51,19,31,47,30,44,36		8, 8
16″	27,49,58, 8, 2, 9,42,51,44,25		2, 2, 5,18, 9	
		1,51,19,29,45,25,26,27		8, 8
18″	27,49,59,59,21,39,28,17,10,52		2, 2, 5,26,17	
		1,51,19,27,43,20, 0,10		8, 8
20″	27,50, 1,50,41, 7,11,37,11, 2		2, 2, 5,34,25	
		1,51,19,25,41,14,25,45		8, 8
22″	27,50, 3,42, 0,32,52,51,36,47		2, 2, 5,42,33	
		1,51,19,23,39, 8,43,12		8, 8
24″	27,50, 5,33,19,56,32, 0,19,59		2, 2, 5,50,41	
		1,51,19,21,37, 2,52,31		8, 8
26″	27,50, 7,24,39,18, 9, 3,12,30		2, 2, 5,58,49	
		1,51,19,19,34,56,53,42		8, 8
28″	27,50, 9,15,58,37,44, 0, 6,12		2, 2, 6, 6,57	
		1,51,19,17,32,50,46,45		8, 8
30″	27,50,11, 7,17,55,16,50,52,57		2, 2, 6,15, 5	
		1,51,19,15,30,44,31,40		8, 8
32″	27,50,12,58,37,10,47,35,24,37		2, 2, 6,23,13	
		1,51,19,13,28,38, 8,27		8, 8
34″	27,50,14,49,56,24,16,13,33, 4		2, 2, 6,31,21	
		1,51,19,11,26,31,37, 6		8, 8
36″	27,50,16,41,15,35,42,45,10,10		2, 2, 6,39,29	
		1,51,19, 9,24,24,57,37		8, 8
38″	27,50,18,32,34,45, 7,10, 7,47		2, 2, 6,47,37	
		1,51,19, 7,22,18,10, 0		8, 8
40″	27,50,20,23,53,52,29,28,17,47		2, 2, 6,55,45	
		1,51,19, 5,20,11,14,15		8, 8
42″	27,50,22,15,12,57,49,39,32, 2		2, 2, 7, 3,53	
		1,51,19, 3,18, 4,10,22		8, 8
44″	27,50,24, 6,32, 1, 7,43,42,24		2, 2, 7,12, 1	
		1,51,19, 1,15,56,58,21		8, 8
46″	27,50,25,57,51, 2,23,40,40,45		2, 2, 7,20, 9	
		1,51,18,59,13,49,38,12		8, 8
48″	27,50,27,49,10, 1,37,30,18,57		2, 2, 7,28,17	
		1,51,18,57,11,42, 9,55		8, 8
50″	27,50,29,40,28,58,49,12,28,52		2, 2, 7,36,25	
		1,51,18,55, 9,34,33,30		8, 8
52″	27,50,31,31,47,53,58,47, 2,22		2, 2, 7,44,33	
		1,51,18,53, 7,26,48,57		8, 8
54″	27,50,33,23, 6,47, 6,13,51,19		2, 2, 7,52,41	
		1,51,18,51, 5,18,56,16		8, 8
56″	27,50,35,14,25,38,11,32,47,35		2, 2, 8, 0,49	
		1,51,18,49, 3,10,55,27		8, 8
58″	27,50,37, 5,44,27,14,43,43, 2		2, 2, 8, 8,57	
		1,51,18,47, 1, 2,46,30		
60″	27,50,38,57, 3,14,15,46,29,32			
exact	27,50,38,57, 3,14,15,46, 3,55			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
27°39′	0″	27,50,38,57, 3,14,15,46, 3,55	1,51,18,44,58,54,26,51		
	2″	27,50,40,48,21,59,14,40,30,46	1,51,18,42,56,46, 1,28	2, 2, 8,25,23	
	4″	27,50,42,39,40,42,11,26,32,14	1,51,18,40,54,37,27,57	2, 2, 8,33,31	8, 8
	6″	27,50,44,30,59,23, 6, 4, 0,11	1,51,18,38,52,28,46,18	2, 2, 8,41,39	8, 8
	8″	27,50,46,22,18, 1,58,32,46,29	1,51,18,36,50,19,56,31	2, 2, 8,49,47	8, 8
	10″	27,50,48,13,36,38,48,52,43, 0	1,51,18,34,48,10,58,36	2, 2, 8,57,55	8, 8
	12″	27,50,50, 4,55,13,37, 3,41,36	1,51,18,32,46, 1,52,33	2, 2, 9, 6, 3	8, 8
	14″	27,50,51,56,13,46,23, 5,34, 9	1,51,18,30,43,52,38,22	2, 2, 9,14,11	8, 8
	16″	27,50,53,47,32,17, 6,58,12,31	1,51,18,28,41,43,16, 3	2, 2, 9,22,19	8, 8
	18″	27,50,55,38,50,45,48,41,28,34	1,51,18,26,39,33,45,36	2, 2, 9,30,27	8, 8
	20″	27,50,57,30, 9,12,28,15,14,10	1,51,18,24,37,24, 7, 1	2, 2, 9,38,35	8, 8
	22″	27,50,59,21,27,37, 5,39,21,11	1,51,18,22,35,14,20,18	2, 2, 9,46,43	8, 8
	24″	27,51, 1,12,45,59,40,53,41,29	1,51,18,20,33, 4,25,27	2, 2, 9,54,51	8, 8
	26″	27,51, 3, 4, 4,20,13,58, 6,56	1,51,18,18,30,54,22,28	2, 2,10, 2,59	8, 8
	28″	27,51, 4,55,22,38,44,52,29,24	1,51,18,16,28,44,11,21	2, 2,10,11, 7	8, 8
	30″	27,51, 6,46,40,55,13,36,40,45	1,51,18,14,26,33,52, 6	2, 2,10,19,15	8, 8
	32″	27,51, 8,37,59, 9,40,10,32,51	1,51,18,12,24,23,24,43	2, 2,10,27,23	8, 8
	34″	27,51,10,29,17,22, 4,33,57,34	1,51,18,10,22,12,49,12	2, 2,10,35,31	8, 8
	36″	27,51,12,20,35,32,26,46,46,46	1,51,18, 8,20, 2, 5,33	2, 2,10,43,39	8, 8
	38″	27,51,14,11,53,40,46,48,52,19	1,51,18, 6,17,51,13,46	2, 2,10,51,47	8, 8
	40″	27,51,16, 3,11,47, 4,40, 6, 5	1,51,18, 4,15,40,13,51	2, 2,10,59,55	8, 8
	42″	27,51,17,54,29,51,20,20,19,56	1,51,18, 2,13,29, 5,48	2, 2,11, 8, 3	8, 8
	44″	27,51,19,45,47,53,33,49,25,44	1,51,18, 0,11,17,49,37	2, 2,11,16,11	8, 8
	46″	27,51,21,37, 5,53,45, 7,15,21	1,51,17,58, 9, 6,25,18	2, 2,11,24,19	8, 8
	48″	27,51,23,28,23,51,54,13,40,39	1,51,17,56, 6,54,52,51	2, 2,11,32,27	8, 8
	50″	27,51,25,19,41,48, 1, 8,33,30	1,51,17,54, 4,43,12,16	2, 2,11,40,35	8, 8
	52″	27,51,27,10,59,42, 5,51,45,46	1,51,17,52, 2,31,23,33	2, 2,11,48,43	8, 8
	54″	27,51,29, 2,17,34, 8,23, 9,19	1,51,17,50, 0,19,26,42	2, 2,11,56,51	8, 8
	56″	27,51,30,53,35,24, 8,42,36, 1	1,51,17,47,58, 7,21,43	2, 2,12, 4,59	8, 8
	58″	27,51,32,44,53,12, 6,49,57,44	1,51,17,45,55,55, 8,36	2, 2,12,13, 7	
	60″	27,51,34,36,10,58, 2,45, 6,20			
exact		27,51,34,36,10,58, 2,44,51,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°40′ 0″	27,51,34,36,10,58, 2,44,51,38			
		1,51,17,43,53,42,45,44		
2″	27,51,36,27,28,41,56,27,37,22		2, 2,12,29,30	
		1,51,17,41,51,30,16,14		8, 8
4″	27,51,38,18,46,23,47,57,53,36		2, 2,12,37,38	
		1,51,17,39,49,17,38,36		8, 8
6″	27,51,40,10, 4, 3,37,15,32,12		2, 2,12,45,46	
		1,51,17,37,47, 4,52,50		8, 8
8″	27,51,42, 1,21,41,24,20,25, 2		2, 2,12,53,54	
		1,51,17,35,44,51,58,56		8, 8
10″	27,51,43,52,39,17, 9,12,23,58		2, 2,13, 2, 2	
		1,51,17,33,42,38,56,54		8, 8
12″	27,51,45,43,56,50,51,51,20,52		2, 2,13,10,10	
		1,51,17,31,40,25,46,44		8, 8
14″	27,51,47,35,14,22,32,17, 7,36		2, 2,13,18,18	
		1,51,17,29,38,12,28,26		8, 8
16″	27,51,49,26,31,52,10,29,36, 2		2, 2,13,26,26	
		1,51,17,27,35,59, 2, 0		8, 8
18″	27,51,51,17,49,19,46,28,38, 2		2, 2,13,34,34	
		1,51,17,25,33,45,27,26		8, 8
20″	27,51,53, 9, 6,45,20,14, 5,28		2, 2,13,42,42	
		1,51,17,23,31,31,44,44		8, 8
22″	27,51,55, 0,24, 8,51,45,50,12		2, 2,13,50,50	
		1,51,17,21,29,17,53,54		8, 8
24″	27,51,56,51,41,30,21, 3,44, 6		2, 2,13,58,58	
		1,51,17,19,27, 3,54,56		8, 8
26″	27,51,58,42,58,49,48, 7,39, 2		2, 2,14, 7, 6	
		1,51,17,17,24,49,47,50		8, 8
28″	27,52, 0,34,16, 7,12,57,26,52		2, 2,14,15,14	
		1,51,17,15,22,35,32,36		8, 8
30″	27,52, 2,25,33,22,35,32,59,28		2, 2,14,23,22	
		1,51,17,13,20,21, 9,14		8, 8
32″	27,52, 4,16,50,35,55,54, 8,42		2, 2,14,31,30	
		1,51,17,11,18, 6,37,44		8, 8
34″	27,52, 6, 8, 7,47,14, 0,46,26		2, 2,14,39,38	
		1,51,17, 9,15,51,58, 6		8, 8
36″	27,52, 7,59,24,56,29,52,44,32		2, 2,14,47,46	
		1,51,17, 7,13,37,10,20		8, 8
38″	27,52, 9,50,42, 3,43,29,54,52		2, 2,14,55,54	
		1,51,17, 5,11,22,14,26		8, 8
40″	27,52,11,41,59, 8,54,52, 9,18		2, 2,15, 4, 2	
		1,51,17, 3, 9, 7,10,24		8, 8
42″	27,52,13,33,16,12, 3,59,19,42		2, 2,15,12,10	
		1,51,17, 1, 6,51,58,14		8, 8
44″	27,52,15,24,33,13,10,51,17,56		2, 2,15,20,18	
		1,51,16,59, 4,36,37,56		8, 8
46″	27,52,17,15,50,12,15,27,55,52		2, 2,15,28,26	
		1,51,16,57, 2,21, 9,30		8, 8
48″	27,52,19, 7, 7, 9,17,49, 5,22		2, 2,15,36,34	
		1,51,16,55, 0, 5,32,56		8, 8
50″	27,52,20,58,24, 4,17,54,38,18		2, 2,15,44,42	
		1,51,16,52,57,49,48,14		8, 8
52″	27,52,22,49,40,57,15,44,26,32		2, 2,15,52,50	
		1,51,16,50,55,33,55,24		8, 8
54″	27,52,24,40,57,48,11,18,21,56		2, 2,16, 0,58	
		1,51,16,48,53,17,54,26		8, 8
56″	27,52,26,32,14,37, 4,36,16,22		2, 2,16, 9, 6	
		1,51,16,46,51, 1,45,20		8, 8
58″	27,52,28,23,31,23,55,38, 1,42		2, 2,16,17,14	
		1,51,16,44,48,45,28, 6		
60″	27,52,30,14,48, 8,44,23,29,48			
exact	27,52,30,14,48, 8,44,23,19,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°41′ 0″	27,52,30,14,48, 8,44,23,19,54			
		1,51,16,42,46,29, 1,39		
2″	27,52,32, 6, 4,51,30,52,21,33		2, 2,16,33,34	
		1,51,16,40,44,12,28, 5		8, 8
4″	27,52,33,57,21,32,15, 4,49,38		2, 2,16,41,42	
		1,51,16,38,41,55,46,23		8, 8
6″	27,52,35,48,38,10,57, 0,36, 1		2, 2,16,49,50	
		1,51,16,36,39,38,56,33		8, 8
8″	27,52,37,39,54,47,36,39,32,34		2, 2,16,57,58	
		1,51,16,34,37,21,58,35		8, 8
10″	27,52,39,31,11,22,14, 1,31, 9		2, 2,17, 6, 6	
		1,51,16,32,35, 4,52,29		8, 8
12″	27,52,41,22,27,54,49, 6,23,38		2, 2,17,14,14	
		1,51,16,30,32,47,38,15		8, 8
14″	27,52,43,13,44,25,21,54, 1,53		2, 2,17,22,22	
		1,51,16,28,30,30,15,53		8, 8
16″	27,52,45, 5, 0,53,52,24,17,46		2, 2,17,30,30	
		1,51,16,26,28,12,45,23		8, 8
18″	27,52,46,56,17,20,20,37, 3, 9		2, 2,17,38,38	
		1,51,16,24,25,55, 6,45		8, 8
20″	27,52,48,47,33,44,46,32, 9,54		2, 2,17,46,46	
		1,51,16,22,23,37,19,59		8, 8
22″	27,52,50,38,50, 7,10, 9,29,53		2, 2,17,54,54	
		1,51,16,20,21,19,25, 5		8, 8
24″	27,52,52,30, 6,27,31,28,54,58		2, 2,18, 3, 2	
		1,51,16,18,19, 1,22, 3		8, 8
26″	27,52,54,21,22,45,50,30,17, 1		2, 2,18,11,10	
		1,51,16,16,16,43,10,53		8, 8
28″	27,52,56,12,39, 2, 7,13,27,54		2, 2,18,19,18	
		1,51,16,14,14,24,51,35		8, 8
30″	27,52,58, 3,55,16,21,38,19,29		2, 2,18,27,26	
		1,51,16,12,12, 6,24, 9		8, 8
32″	27,52,59,55,11,28,33,44,43,38		2, 2,18,35,34	
		1,51,16,10, 9,47,48,35		8, 8
34″	27,53, 1,46,27,38,43,32,32,13		2, 2,18,43,42	
		1,51,16, 8, 7,29, 4,53		8, 8
36″	27,53, 3,37,43,46,51, 1,37, 6		2, 2,18,51,50	
		1,51,16, 6, 5,10,13, 3		8, 8
38″	27,53, 5,28,59,52,56,11,50, 9		2, 2,18,59,58	
		1,51,16, 4, 2,51,13, 5		8, 8
40″	27,53, 7,20,15,56,59, 3, 3,14		2, 2,19, 8, 6	
		1,51,16, 2, 0,32, 4,59		8, 8
42″	27,53, 9,11,31,58,59,35, 8,13		2, 2,19,16,14	
		1,51,15,59,58,12,48,45		8, 8
44″	27,53,11, 2,47,58,57,47,56,58		2, 2,19,24,22	
		1,51,15,57,55,53,24,23		8, 8
46″	27,53,12,54, 3,56,53,41,21,21		2, 2,19,32,30	
		1,51,15,55,53,33,51,53		8, 8
48″	27,53,14,45,19,52,47,15,13,14		2, 2,19,40,38	
		1,51,15,53,51,14,11,15		8, 8
50″	27,53,16,36,35,46,38,29,24,29		2, 2,19,48,46	
		1,51,15,51,48,54,22,29		8, 8
52″	27,53,18,27,51,38,27,23,46,58		2, 2,19,56,54	
		1,51,15,49,46,34,25,35		8, 8
54″	27,53,20,19, 7,28,13,58,12,33		2, 2,20, 5, 2	
		1,51,15,47,44,14,20,33		8, 8
56″	27,53,22,10,23,15,58,12,33, 6		2, 2,20,13,10	
		1,51,15,45,41,54, 7,23		8, 8
58″	27,53,24, 1,39, 1,40, 6,40,29		2, 2,20,21,18	
		1,51,15,43,39,33,46, 5		
60″	27,53,25,52,54,45,19,40,26,34			
exact	27,53,25,52,54,45,19,40,16,19			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
27°42′	0″	27,53,25,52,54,45,19,40,16,19			
	2″	27,53,27,44,10,26,56,53,32, 3	1,51,15,41,37,13,15,44	2, 2,20,37,37	
	4″	27,53,29,35,26, 6,31,46,10,10	1,51,15,39,34,52,38, 7	2, 2,20,45,45	8, 8
	6″	27,53,31,26,41,44, 4,18, 2,32	1,51,15,37,32,31,52,22	2, 2,20,53,53	8, 8
	8″	27,53,33,17,57,19,34,29, 1, 1	1,51,15,35,30,10,58,29	2, 2,21, 2, 1	8, 8
	10″	27,53,35, 9,12,53, 2,18,57,29	1,51,15,33,27,49,56,28	2, 2,21,10, 9	8, 8
	12″	27,53,37, 0,28,24,27,47,43,48	1,51,15,31,25,28,46,19	2, 2,21,18,17	8, 8
	14″	27,53,38,51,43,53,50,55,11,50	1,51,15,29,23, 7,28, 2	2, 2,21,26,25	8, 8
	16″	27,53,40,42,59,21,11,41,13,27	1,51,15,27,20,46, 1,37	2, 2,21,34,33	8, 8
	18″	27,53,42,34,14,46,30, 5,40,31	1,51,15,25,18,24,27, 4	2, 2,21,42,41	8, 8
	20″	27,53,44,25,30, 9,46, 8,24,54	1,51,15,23,16, 2,44,23	2, 2,21,50,49	8, 8
	22″	27,53,46,16,45,30,59,49,18,28	1,51,15,21,13,40,53,34	2, 2,21,58,57	8, 8
	24″	27,53,48, 8, 0,50,11, 8,13, 5	1,51,15,19,11,18,54,37	2, 2,22, 7, 5	8, 8
	26″	27,53,49,59,16, 7,20, 5, 0,37	1,51,15,17, 8,56,47,32	2, 2,22,15,13	8, 8
	28″	27,53,51,50,31,22,26,39,32,56	1,51,15,15, 6,34,32,19	2, 2,22,23,21	8, 8
	30″	27,53,53,41,46,35,30,51,41,54	1,51,15,13, 4,12, 8,58	2, 2,22,31,29	8, 8
	32″	27,53,55,33, 1,46,32,41,19,23	1,51,15,11, 1,49,37,29	2, 2,22,39,37	8, 8
	34″	27,53,57,24,16,55,32, 8,17,15	1,51,15, 8,59,26,57,52	2, 2,22,47,45	8, 8
	36″	27,53,59,15,32, 2,29,12,27,22	1,51,15, 6,57, 4,10, 7	2, 2,22,55,53	8, 8
	38″	27,54, 1, 6,47, 7,23,53,41,36	1,51,15, 4,54,41,14,14	2, 2,23, 4, 1	8, 8
	40″	27,54, 2,58, 2,10,16,11,51,49	1,51,15, 2,52,18,10,13	2, 2,23,12, 9	8, 8
	42″	27,54, 4,49,17,11, 6, 6,49,53	1,51,15, 0,49,54,58, 4	2, 2,23,20,17	8, 8
	44″	27,54, 6,40,32, 9,53,38,27,40	1,51,14,58,47,31,37,47	2, 2,23,28,25	8, 8
	46″	27,54, 8,31,47, 6,38,46,37, 2	1,51,14,56,45, 8, 9,22	2, 2,23,36,33	8, 8
	48″	27,54,10,23, 2, 1,21,31, 9,51	1,51,14,54,42,44,32,49	2, 2,23,44,41	8, 8
	50″	27,54,12,14,16,54, 1,51,57,59	1,51,14,52,40,20,48, 8	2, 2,23,52,49	8, 8
	52″	27,54,14, 5,31,44,39,48,53,18	1,51,14,50,37,56,55,19	2, 2,24, 0,57	8, 8
	54″	27,54,15,56,46,33,15,21,47,40	1,51,14,48,35,32,54,22	2, 2,24, 9, 5	8, 8
	56″	27,54,17,48, 1,19,48,30,32,57	1,51,14,46,33, 8,45,17	2, 2,24,17,13	8, 8
	58″	27,54,19,39,16, 4,19,15, 1, 1	1,51,14,44,30,44,28, 4	2, 2,24,25,21	
	60″	27,54,21,30,30,46,47,35, 3,44	1,51,14,42,28,20, 2,43		
exact		27,54,21,30,30,46,47,35, 2, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°43′ 0″	27,54,21,30,30,46,47,35, 2, 5			
		1,51,14,40,25,55,29, 6		
2″	27,54,23,21,45,27,13,30,31,11		2, 2,24,41,37	
		1,51,14,38,23,30,47,29		8, 8
4″	27,54,25,13, 0, 5,37, 1,18,40		2, 2,24,49,45	
		1,51,14,36,21, 5,57,44		8, 8
6″	27,54,27, 4,14,41,58, 7,16,24		2, 2,24,57,53	
		1,51,14,34,18,40,59,51		8, 8
8″	27,54,28,55,29,16,16,48,16,15		2, 2,25, 6, 1	
		1,51,14,32,16,15,53,50		8, 8
10″	27,54,30,46,43,48,33, 4,10, 5		2, 2,25,14, 9	
		1,51,14,30,13,50,39,41		8, 8
12″	27,54,32,37,58,18,46,54,49,46		2, 2,25,22,17	
		1,51,14,28,11,25,17,24		8, 8
14″	27,54,34,29,12,46,58,20, 7,10		2, 2,25,30,25	
		1,51,14,26, 8,59,46,59		8, 8
16″	27,54,36,20,27,13, 7,19,54, 9		2, 2,25,38,33	
		1,51,14,24, 6,34, 8,26		8, 8
18″	27,54,38,11,41,37,13,54, 2,35		2, 2,25,46,41	
		1,51,14,22, 4, 8,21,45		8, 8
20″	27,54,40, 2,55,59,18, 2,24,20		2, 2,25,54,49	
		1,51,14,20, 1,42,26,56		8, 8
22″	27,54,41,54,10,19,19,44,51,16		2, 2,26, 2,57	
		1,51,14,17,59,16,23,59		8, 8
24″	27,54,43,45,24,37,19, 1,15,15		2, 2,26,11, 5	
		1,51,14,15,56,50,12,54		8, 8
26″	27,54,45,36,38,53,15,51,28, 9		2, 2,26,19,13	
		1,51,14,13,54,23,53,41		8, 8
28″	27,54,47,27,53, 7,10,15,21,50		2, 2,26,27,21	
		1,51,14,11,51,57,26,20		8, 8
30″	27,54,49,19, 7,19, 2,12,48,10		2, 2,26,35,29	
		1,51,14, 9,49,30,50,51		8, 8
32″	27,54,51,10,21,28,51,43,39, 1		2, 2,26,43,37	
		1,51,14, 7,47, 4, 7,14		8, 8
34″	27,54,53, 1,35,36,38,47,46,15		2, 2,26,51,45	
		1,51,14, 5,44,37,15,29		8, 8
36″	27,54,54,52,49,42,23,25, 1,44		2, 2,26,59,53	
		1,51,14, 3,42,10,15,36		8, 8
38″	27,54,56,44, 3,46, 5,35,17,20		2, 2,27, 8, 1	
		1,51,14, 1,39,43, 7,35		8, 8
40″	27,54,58,35,17,47,45,18,24,55		2, 2,27,16, 9	
		1,51,13,59,37,15,51,26		8, 8
42″	27,55, 0,26,31,47,22,34,16,21		2, 2,27,24,17	
		1,51,13,57,34,48,27, 9		8, 8
44″	27,55, 2,17,45,44,57,22,43,30		2, 2,27,32,25	
		1,51,13,55,32,20,54,44		8, 8
46″	27,55, 4, 8,59,40,29,43,38,14		2, 2,27,40,33	
		1,51,13,53,29,53,14,11		8, 8
48″	27,55, 6, 0,13,33,59,36,52,25		2, 2,27,48,41	
		1,51,13,51,27,25,25,30		8, 8
50″	27,55, 7,51,27,25,27, 2,17,55		2, 2,27,56,49	
		1,51,13,49,24,57,28,41		8, 8
52″	27,55, 9,42,41,14,51,59,46,36		2, 2,28, 4,57	
		1,51,13,47,22,29,23,44		8, 8
54″	27,55,11,33,55, 2,14,29,10,20		2, 2,28,13, 5	
		1,51,13,45,20, 1,10,39		8, 8
56″	27,55,13,25, 8,47,34,30,20,59		2, 2,28,21,13	
		1,51,13,43,17,32,49,26		8, 8
58″	27,55,15,16,22,30,52, 3,10,25		2, 2,28,29,21	
		1,51,13,41,15, 4,20, 5		
60″	27,55,17, 7,36,12, 7, 7,30,30			
exact	27,55,17, 7,36,12, 7, 7,31,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°44′ 0″	27,55,17, 7,36,12, 7, 7,31,52			
		1,51,13,39,12,35,42,52		
2″	27,55,18,58,49,51,19,43,14,44		2, 2,28,45,35	
		1,51,13,37,10, 6,57,17		8, 8
4″	27,55,20,50, 3,28,29,50,12, 1		2, 2,28,53,43	
		1,51,13,35, 7,38, 3,34		8, 8
6″	27,55,22,41,17, 3,37,28,15,35		2, 2,29, 1,51	
		1,51,13,33, 5, 9, 1,43		8, 8
8″	27,55,24,32,30,36,42,37,17,18		2, 2,29, 9,59	
		1,51,13,31, 2,39,51,44		8, 8
10″	27,55,26,23,44, 7,45,17, 9, 2		2, 2,29,18, 7	
		1,51,13,29, 0,10,33,37		8, 8
12″	27,55,28,14,57,36,45,27,42,39		2, 2,29,26,15	
		1,51,13,26,57,41, 7,22		8, 8
14″	27,55,30, 6,11, 3,43, 8,50, 1		2, 2,29,34,23	
		1,51,13,24,55,11,32,59		8, 8
16″	27,55,31,57,24,28,38,20,23, 0		2, 2,29,42,31	
		1,51,13,22,52,41,50,28		8, 8
18″	27,55,33,48,37,51,31, 2,13,28		2, 2,29,50,39	
		1,51,13,20,50,11,59,49		8, 8
20″	27,55,35,39,51,12,21,14,13,17		2, 2,29,58,47	
		1,51,13,18,47,42, 1, 2		8, 8
22″	27,55,37,31, 4,31, 8,56,14,19		2, 2,30, 6,55	
		1,51,13,16,45,11,54, 7		8, 8
24″	27,55,39,22,17,47,54, 8, 8,26		2, 2,30,15, 3	
		1,51,13,14,42,41,39, 4		8, 8
26″	27,55,41,13,31, 2,36,49,47,30		2, 2,30,23,11	
		1,51,13,12,40,11,15,53		8, 8
28″	27,55,43, 4,44,15,17, 1, 3,23		2, 2,30,31,19	
		1,51,13,10,37,40,44,34		8, 8
30″	27,55,44,55,57,25,54,41,47,57		2, 2,30,39,27	
		1,51,13, 8,35,10, 5, 7		8, 8
32″	27,55,46,47,10,34,29,51,53, 4		2, 2,30,47,35	
		1,51,13, 6,32,39,17,32		8, 8
34″	27,55,48,38,23,41, 2,31,10,36		2, 2,30,55,43	
		1,51,13, 4,30, 8,21,49		8, 8
36″	27,55,50,29,36,45,32,39,32,25		2, 2,31, 3,51	
		1,51,13, 2,27,37,17,58		8, 8
38″	27,55,52,20,49,48, 0,16,50,23		2, 2,31,11,59	
		1,51,13, 0,25, 6, 5,59		8, 8
40″	27,55,54,12, 2,48,25,22,56,22		2, 2,31,20, 7	
		1,51,12,58,22,34,45,52		8, 8
42″	27,55,56, 3,15,46,47,57,42,14		2, 2,31,28,15	
		1,51,12,56,20, 3,17,37		8, 8
44″	27,55,57,54,28,43, 8, 0,59,51		2, 2,31,36,23	
		1,51,12,54,17,31,41,14		8, 8
46″	27,55,59,45,41,37,25,32,41, 5		2, 2,31,44,31	
		1,51,12,52,14,59,56,43		8, 8
48″	27,56, 1,36,54,29,40,32,37,48		2, 2,31,52,39	
		1,51,12,50,12,28, 4, 4		8, 8
50″	27,56, 3,28, 7,19,53, 0,41,52		2, 2,32, 0,47	
		1,51,12,48, 9,56, 3,17		8, 8
52″	27,56, 5,19,20, 8, 2,56,45, 9		2, 2,32, 8,55	
		1,51,12,46, 7,23,54,22		8, 8
54″	27,56, 7,10,32,54,10,20,39,31		2, 2,32,17, 3	
		1,51,12,44, 4,51,37,19		8, 8
56″	27,56, 9, 1,45,38,15,12,16,50		2, 2,32,25,11	
		1,51,12,42, 2,19,12, 8		8, 8
58″	27,56,10,52,58,20,17,31,28,58		2, 2,32,33,19	
		1,51,12,39,59,46,38,49		
60″	27,56,12,44,11, 0,17,18, 7,47			
exact	27,56,12,44,11, 0,17,18,13,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°45′ 0″	27,56,12,44,11, 0,17,18,13,56			
		1,51,12,37,57,13,58, 9		
2″	27,56,14,35,23,38,14,32,12, 5		2, 2,32,49,31	
		1,51,12,35,54,41, 8,38		8, 8
4″	27,56,16,26,36,14, 9,13,20,43		2, 2,32,57,39	
		1,51,12,33,52, 8,10,59		8, 8
6″	27,56,18,17,48,48, 1,21,31,42		2, 2,33, 5,47	
		1,51,12,31,49,35, 5,12		8, 8
8″	27,56,20, 9, 1,19,50,56,36,54		2, 2,33,13,55	
		1,51,12,29,47, 1,51,17		8, 8
10″	27,56,22, 0,13,49,37,58,28,11		2, 2,33,22, 3	
		1,51,12,27,44,28,29,14		8, 8
12″	27,56,23,51,26,17,22,26,57,25		2, 2,33,30,11	
		1,51,12,25,41,54,59, 3		8, 8
14″	27,56,25,42,38,43, 4,21,56,28		2, 2,33,38,19	
		1,51,12,23,39,21,20,44		8, 8
16″	27,56,27,33,51, 6,43,43,17,12		2, 2,33,46,27	
		1,51,12,21,36,47,34,17		8, 8
18″	27,56,29,25, 3,28,20,30,51,29		2, 2,33,54,35	
		1,51,12,19,34,13,39,42		8, 8
20″	27,56,31,16,15,47,54,44,31,11		2, 2,34, 2,43	
		1,51,12,17,31,39,36,59		8, 8
22″	27,56,33, 7,28, 5,26,24, 8,10		2, 2,34,10,51	
		1,51,12,15,29, 5,26, 8		8, 8
24″	27,56,34,58,40,20,55,29,34,18		2, 2,34,18,59	
		1,51,12,13,26,31, 7, 9		8, 8
26″	27,56,36,49,52,34,22, 0,41,27		2, 2,34,27, 7	
		1,51,12,11,23,56,40, 2		8, 8
28″	27,56,38,41, 4,45,45,57,21,29		2, 2,34,35,15	
		1,51,12, 9,21,22, 4,47		8, 8
30″	27,56,40,32,16,55, 7,19,26,16		2, 2,34,43,23	
		1,51,12, 7,18,47,21,24		8, 8
32″	27,56,42,23,29, 2,26, 6,47,40		2, 2,34,51,31	
		1,51,12, 5,16,12,29,53		8, 8
34″	27,56,44,14,41, 7,42,19,17,33		2, 2,34,59,39	
		1,51,12, 3,13,37,30,14		8, 8
36″	27,56,46, 5,53,10,55,56,47,47		2, 2,35, 7,47	
		1,51,12, 1,11, 2,22,27		8, 8
38″	27,56,47,57, 5,12, 6,59,10,14		2, 2,35,15,55	
		1,51,11,59, 8,27, 6,32		8, 8
40″	27,56,49,48,17,11,15,26,16,46		2, 2,35,24, 3	
		1,51,11,57, 5,51,42,29		8, 8
42″	27,56,51,39,29, 8,21,17,59,15		2, 2,35,32,11	
		1,51,11,55, 3,16,10,18		8, 8
44″	27,56,53,30,41, 3,24,34, 9,33		2, 2,35,40,19	
		1,51,11,53, 0,40,29,59		8, 8
46″	27,56,55,21,52,56,25,14,39,32		2, 2,35,48,27	
		1,51,11,50,58, 4,41,32		8, 8
48″	27,56,57,13, 4,47,23,19,21, 4		2, 2,35,56,35	
		1,51,11,48,55,28,44,57		8, 8
50″	27,56,59, 4,16,36,18,48, 6, 1		2, 2,36, 4,43	
		1,51,11,46,52,52,40,14		8, 8
52″	27,57, 0,55,28,23,11,40,46,15		2, 2,36,12,51	
		1,51,11,44,50,16,27,23		8, 8
54″	27,57, 2,46,40, 8, 1,57,13,38		2, 2,36,20,59	
		1,51,11,42,47,40, 6,24		8, 8
56″	27,57, 4,37,51,50,49,37,20, 2		2, 2,36,29, 7	
		1,51,11,40,45, 3,37,17		8, 8
58″	27,57, 6,29, 3,31,34,40,57,19		2, 2,36,37,15	
		1,51,11,38,42,27, 0, 2		
60″	27,57, 8,20,15,10,17, 7,57,21			
exact	27,57, 8,20,15,10,17, 8,10, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°46′ 0″	27,57, 8,20,15,10,17, 8,10, 7			
		1,51,11,36,39,50,16, 5		
2″	27,57,10,11,26,46,56,58,26,12		2, 2,36,53,25	
		1,51,11,34,37,13,22,40		8, 8
4″	27,57,12, 2,38,21,34,11,48,52		2, 2,37, 1,33	
		1,51,11,32,34,36,21, 7		8, 8
6″	27,57,13,53,49,54, 8,48, 9,59		2, 2,37, 9,41	
		1,51,11,30,31,59,11,26		8, 8
8″	27,57,15,45, 1,24,40,47,21,25		2, 2,37,17,49	
		1,51,11,28,29,21,53,37		8, 8
10″	27,57,17,36,12,53,10, 9,15, 2		2, 2,37,25,57	
		1,51,11,26,26,44,27,40		8, 8
12″	27,57,19,27,24,19,36,53,42,42		2, 2,37,34, 5	
		1,51,11,24,24, 6,53,35		8, 8
14″	27,57,21,18,35,44, 1, 0,36,17		2, 2,37,42,13	
		1,51,11,22,21,29,11,22		8, 8
16″	27,57,23, 9,47, 6,22,29,47,39		2, 2,37,50,21	
		1,51,11,20,18,51,21, 1		8, 8
18″	27,57,25, 0,58,26,41,21, 8,40		2, 2,37,58,29	
		1,51,11,18,16,13,22,32		8, 8
20″	27,57,26,52, 9,44,57,34,31,12		2, 2,38, 6,37	
		1,51,11,16,13,35,15,55		8, 8
22″	27,57,28,43,21, 1,11, 9,47, 7		2, 2,38,14,45	
		1,51,11,14,10,57, 1,10		8, 8
24″	27,57,30,34,32,15,22, 6,48,17		2, 2,38,22,53	
		1,51,11,12, 8,18,38,17		8, 8
26″	27,57,32,25,43,27,30,25,26,34		2, 2,38,31, 1	
		1,51,11,10, 5,40, 7,16		8, 8
28″	27,57,34,16,54,37,36, 5,33,50		2, 2,38,39, 9	
		1,51,11, 8, 3, 1,28, 7		8, 8
30″	27,57,36, 8, 5,45,39, 7, 1,57		2, 2,38,47,17	
		1,51,11, 6, 0,22,40,50		8, 8
32″	27,57,37,59,16,51,39,29,42,47		2, 2,38,55,25	
		1,51,11, 3,57,43,45,25		8, 8
34″	27,57,39,50,27,55,37,13,28,12		2, 2,39, 3,33	
		1,51,11, 1,55, 4,41,52		8, 8
36″	27,57,41,41,38,57,32,18,10, 4		2, 2,39,11,41	
		1,51,10,59,52,25,30,11		8, 8
38″	27,57,43,32,49,57,24,43,40,15		2, 2,39,19,49	
		1,51,10,57,49,46,10,22		8, 8
40″	27,57,45,24, 0,55,14,29,50,37		2, 2,39,27,57	
		1,51,10,55,47, 6,42,25		8, 8
42″	27,57,47,15,11,51, 1,36,33, 2		2, 2,39,36, 5	
		1,51,10,53,44,27, 6,20		8, 8
44″	27,57,49, 6,22,44,46, 3,39,22		2, 2,39,44,13	
		1,51,10,51,41,47,22, 7		8, 8
46″	27,57,50,57,33,36,27,51, 1,29		2, 2,39,52,21	
		1,51,10,49,39, 7,29,46		8, 8
48″	27,57,52,48,44,26, 6,58,31,15		2, 2,40, 0,29	
		1,51,10,47,36,27,29,17		8, 8
50″	27,57,54,39,55,13,43,26, 0,32		2, 2,40, 8,37	
		1,51,10,45,33,47,20,40		8, 8
52″	27,57,56,31, 5,59,17,13,21,12		2, 2,40,16,45	
		1,51,10,43,31, 7, 3,55		8, 8
54″	27,57,58,22,16,42,48,20,25, 7		2, 2,40,24,53	
		1,51,10,41,28,26,39, 2		8, 8
56″	27,58, 0,13,27,24,16,47, 4, 9		2, 2,40,33, 1	
		1,51,10,39,25,46, 6, 1		8, 8
58″	27,58, 2, 4,38, 3,42,33,10,10		2, 2,40,41, 9	
		1,51,10,37,23, 5,24,52		
60″	27,58, 3,55,48,41, 5,38,35, 2			
exact	27,58, 3,55,48,41, 5,38,55,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°47′ 0″	27,58, 3,55,48,41, 5,38,55,51			
		1,51,10,35,20,24,37,46		
2″	27,58, 5,46,59,16,26, 3,33,37		2, 2,40,57,16	
		1,51,10,33,17,43,40,30		8, 8
4″	27,58, 7,38, 9,49,43,47,14, 7		2, 2,41, 5,24	
		1,51,10,31,15, 2,35, 6		8, 8
6″	27,58, 9,29,20,20,58,49,49,13		2, 2,41,13,32	
		1,51,10,29,12,21,21,34		8, 8
8″	27,58,11,20,30,50,11,11,10,47		2, 2,41,21,40	
		1,51,10,27, 9,39,59,54		8, 8
10″	27,58,13,11,41,17,20,51,10,41		2, 2,41,29,48	
		1,51,10,25, 6,58,30, 6		8, 8
12″	27,58,15, 2,51,42,27,49,40,47		2, 2,41,37,56	
		1,51,10,23, 4,16,52,10		8, 8
14″	27,58,16,54, 2, 5,32, 6,32,57		2, 2,41,46, 4	
		1,51,10,21, 1,35, 6, 6		8, 8
16″	27,58,18,45,12,26,33,41,39, 3		2, 2,41,54,12	
		1,51,10,18,58,53,11,54		8, 8
18″	27,58,20,36,22,45,32,34,50,57		2, 2,42, 2,20	
		1,51,10,16,56,11, 9,34		8, 8
20″	27,58,22,27,33, 2,28,46, 0,31		2, 2,42,10,28	
		1,51,10,14,53,28,59, 6		8, 8
22″	27,58,24,18,43,17,22,14,59,37		2, 2,42,18,36	
		1,51,10,12,50,46,40,30		8, 8
24″	27,58,26, 9,53,30,13, 1,40, 7		2, 2,42,26,44	
		1,51,10,10,48, 4,13,46		8, 8
26″	27,58,28, 1, 3,41, 1, 5,53,53		2, 2,42,34,52	
		1,51,10, 8,45,21,38,54		8, 8
28″	27,58,29,52,13,49,46,27,32,47		2, 2,42,43, 0	
		1,51,10, 6,42,38,55,54		8, 8
30″	27,58,31,43,23,56,29, 6,28,41		2, 2,42,51, 8	
		1,51,10, 4,39,56, 4,46		8, 8
32″	27,58,33,34,34, 1, 9, 2,33,27		2, 2,42,59,16	
		1,51,10, 2,37,13, 5,30		8, 8
34″	27,58,35,25,44, 3,46,15,38,57		2, 2,43, 7,24	
		1,51,10, 0,34,29,58, 6		8, 8
36″	27,58,37,16,54, 4,20,45,37, 3		2, 2,43,15,32	
		1,51, 9,58,31,46,42,34		8, 8
38″	27,58,39, 8, 4, 2,52,32,19,37		2, 2,43,23,40	
		1,51, 9,56,29, 3,18,54		8, 8
40″	27,58,40,59,13,59,21,35,38,31		2, 2,43,31,48	
		1,51, 9,54,26,19,47, 6		8, 8
42″	27,58,42,50,23,53,47,55,25,37		2, 2,43,39,56	
		1,51, 9,52,23,36, 7,10		8, 8
44″	27,58,44,41,33,46,11,31,32,47		2, 2,43,48, 4	
		1,51, 9,50,20,52,19, 6		8, 8
46″	27,58,46,32,43,36,32,23,51,53		2, 2,43,56,12	
		1,51, 9,48,18, 8,22,54		8, 8
48″	27,58,48,23,53,24,50,32,14,47		2, 2,44, 4,20	
		1,51, 9,46,15,24,18,34		8, 8
50″	27,58,50,15, 3,11, 5,56,33,21		2, 2,44,12,28	
		1,51, 9,44,12,40, 6, 6		8, 8
52″	27,58,52, 6,12,55,18,36,39,27		2, 2,44,20,36	
		1,51, 9,42, 9,55,45,30		8, 8
54″	27,58,53,57,22,37,28,32,24,57		2, 2,44,28,44	
		1,51, 9,40, 7,11,16,46		8, 8
56″	27,58,55,48,32,17,35,43,41,43		2, 2,44,36,52	
		1,51, 9,38, 4,26,39,54		8, 8
58″	27,58,57,39,41,55,40,10,21,37		2, 2,44,45, 0	
		1,51, 9,36, 1,41,54,54		
60″	27,58,59,30,51,31,41,52,16,31			
exact	27,58,59,30,51,31,41,52,40,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°48′ 0″	27,58,59,30,51,31,41,52,40,10			
		1,51, 9,33,58,57, 4,20		
2″	27,59, 1,22, 1, 5,40,49,44,30		2, 2,45, 1, 5	
		1,51, 9,31,56,12, 3,15		8, 8
4″	27,59, 3,13,10,37,37, 1,47,45		2, 2,45, 9,13	
		1,51, 9,29,53,26,54, 2		8, 8
6″	27,59, 5, 4,20, 7,30,28,41,47		2, 2,45,17,21	
		1,51, 9,27,50,41,36,41		8, 8
8″	27,59, 6,55,29,35,21,10,18,28		2, 2,45,25,29	
		1,51, 9,25,47,56,11,12		8, 8
10″	27,59, 8,46,39, 1, 9, 6,29,40		2, 2,45,33,37	
		1,51, 9,23,45,10,37,35		8, 8
12″	27,59,10,37,48,24,54,17, 7,15		2, 2,45,41,45	
		1,51, 9,21,42,24,55,50		8, 8
14″	27,59,12,28,57,46,36,42, 3, 5		2, 2,45,49,53	
		1,51, 9,19,39,39, 5,57		8, 8
16″	27,59,14,20, 7, 6,16,21, 9, 2		2, 2,45,58, 1	
		1,51, 9,17,36,53, 7,56		8, 8
18″	27,59,16,11,16,23,53,14,16,58		2, 2,46, 6, 9	
		1,51, 9,15,34, 7, 1,47		8, 8
20″	27,59,18, 2,25,39,27,21,18,45		2, 2,46,14,17	
		1,51, 9,13,31,20,47,30		8, 8
22″	27,59,19,53,34,52,58,42, 6,15		2, 2,46,22,25	
		1,51, 9,11,28,34,25, 5		8, 8
24″	27,59,21,44,44, 4,27,16,31,20		2, 2,46,30,33	
		1,51, 9, 9,25,47,54,32		8, 8
26″	27,59,23,35,53,13,53, 4,25,52		2, 2,46,38,41	
		1,51, 9, 7,23, 1,15,51		8, 8
28″	27,59,25,27, 2,21,16, 5,41,43		2, 2,46,46,49	
		1,51, 9, 5,20,14,29, 2		8, 8
30″	27,59,27,18,11,26,36,20,10,45		2, 2,46,54,57	
		1,51, 9, 3,17,27,34, 5		8, 8
32″	27,59,29, 9,20,29,53,47,44,50		2, 2,47, 3, 5	
		1,51, 9, 1,14,40,31, 0		8, 8
34″	27,59,31, 0,29,31, 8,28,15,50		2, 2,47,11,13	
		1,51, 8,59,11,53,19,47		8, 8
36″	27,59,32,51,38,30,20,21,35,37		2, 2,47,19,21	
		1,51, 8,57, 9, 6, 0,26		8, 8
38″	27,59,34,42,47,27,29,27,36, 3		2, 2,47,27,29	
		1,51, 8,55, 6,18,32,57		8, 8
40″	27,59,36,33,56,22,35,46, 9, 0		2, 2,47,35,37	
		1,51, 8,53, 3,30,57,20		8, 8
42″	27,59,38,25, 5,15,39,17, 6,20		2, 2,47,43,45	
		1,51, 8,51, 0,43,13,35		8, 8
44″	27,59,40,16,14, 6,40, 0,19,55		2, 2,47,51,53	
		1,51, 8,48,57,55,21,42		8, 8
46″	27,59,42, 7,22,55,37,55,41,37		2, 2,48, 0, 1	
		1,51, 8,46,55, 7,21,41		8, 8
48″	27,59,43,58,31,42,33, 3, 3,18		2, 2,48, 8, 9	
		1,51, 8,44,52,19,13,32		8, 8
50″	27,59,45,49,40,27,25,22,16,50		2, 2,48,16,17	
		1,51, 8,42,49,30,57,15		8, 8
52″	27,59,47,40,49,10,14,53,14, 5		2, 2,48,24,25	
		1,51, 8,40,46,42,32,50		8, 8
54″	27,59,49,31,57,51, 1,35,46,55		2, 2,48,32,33	
		1,51, 8,38,43,54, 0,17		8, 8
56″	27,59,51,23, 6,29,45,29,47,12		2, 2,48,40,41	
		1,51, 8,36,41, 5,19,36		8, 8
58″	27,59,53,14,15, 6,26,35, 6,48		2, 2,48,48,49	
		1,51, 8,34,38,16,30,47		
60″	27,59,55, 5,23,41, 4,51,37,35			
exact	27,59,55, 5,23,41, 4,52, 5,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°49′ 0″	27,59,55, 5,23,41, 4,52, 5,46			
		1,51, 8,32,35,27,36,54		
2″	27,59,56,56,32,13,40,19,42,40		2, 2,49, 4,52	
		1,51, 8,30,32,38,32, 2		8, 8
4″	27,59,58,47,40,44,12,58,14,42		2, 2,49,13, 0	
		1,51, 8,28,29,49,19, 2		8, 8
6″	28, 0, 0,38,49,12,42,47,33,44		2, 2,49,21, 8	
		1,51, 8,26,26,59,57,54		8, 8
8″	28, 0, 2,29,57,39, 9,47,31,38		2, 2,49,29,16	
		1,51, 8,24,24,10,28,38		8, 8
10″	28, 0, 4,21, 6, 3,33,58, 0,16		2, 2,49,37,24	
		1,51, 8,22,21,20,51,14		8, 8
12″	28, 0, 6,12,14,25,55,18,51,30		2, 2,49,45,32	
		1,51, 8,20,18,31, 5,42		8, 8
14″	28, 0, 8, 3,22,46,13,49,57,12		2, 2,49,53,40	
		1,51, 8,18,15,41,12, 2		8, 8
16″	28, 0, 9,54,31, 4,29,31, 9,14		2, 2,50, 1,48	
		1,51, 8,16,12,51,10,14		8, 8
18″	28, 0,11,45,39,20,42,22,19,28		2, 2,50, 9,56	
		1,51, 8,14,10, 1, 0,18		8, 8
20″	28, 0,13,36,47,34,52,23,19,46		2, 2,50,18, 4	
		1,51, 8,12, 7,10,42,14		8, 8
22″	28, 0,15,27,55,46,59,34, 2, 0		2, 2,50,26,12	
		1,51, 8,10, 4,20,16, 2		8, 8
24″	28, 0,17,19, 3,57, 3,54,18, 2		2, 2,50,34,20	
		1,51, 8, 8, 1,29,41,42		8, 8
26″	28, 0,19,10,12, 5, 5,23,59,44		2, 2,50,42,28	
		1,51, 8, 5,58,38,59,14		8, 8
28″	28, 0,21, 1,20,11, 4, 2,58,58		2, 2,50,50,36	
		1,51, 8, 3,55,48, 8,38		8, 8
30″	28, 0,22,52,28,14,59,51, 7,36		2, 2,50,58,44	
		1,51, 8, 1,52,57, 9,54		8, 8
32″	28, 0,24,43,36,16,52,48,17,30		2, 2,51, 6,52	
		1,51, 7,59,50, 6, 3, 2		8, 8
34″	28, 0,26,34,44,16,42,54,20,32		2, 2,51,15, 0	
		1,51, 7,57,47,14,48, 2		8, 8
36″	28, 0,28,25,52,14,30, 9, 8,34		2, 2,51,23, 8	
		1,51, 7,55,44,23,24,54		8, 8
38″	28, 0,30,17, 0,10,14,32,33,28		2, 2,51,31,16	
		1,51, 7,53,41,31,53,38		8, 8
40″	28, 0,32, 8, 8, 3,56, 4,27, 6		2, 2,51,39,24	
		1,51, 7,51,38,40,14,14		8, 8
42″	28, 0,33,59,15,55,34,44,41,20		2, 2,51,47,32	
		1,51, 7,49,35,48,26,42		8, 8
44″	28, 0,35,50,23,45,10,33, 8, 2		2, 2,51,55,40	
		1,51, 7,47,32,56,31, 2		8, 8
46″	28, 0,37,41,31,32,43,29,39, 4		2, 2,52, 3,48	
		1,51, 7,45,30, 4,27,14		8, 8
48″	28, 0,39,32,39,18,13,34, 6,18		2, 2,52,11,56	
		1,51, 7,43,27,12,15,18		8, 8
50″	28, 0,41,23,47, 1,40,46,21,36		2, 2,52,20, 4	
		1,51, 7,41,24,19,55,14		8, 8
52″	28, 0,43,14,54,43, 5, 6,16,50		2, 2,52,28,12	
		1,51, 7,39,21,27,27, 2		8, 8
54″	28, 0,45, 6, 2,22,26,33,43,52		2, 2,52,36,20	
		1,51, 7,37,18,34,50,42		8, 8
56″	28, 0,46,57, 9,59,45, 8,34,34		2, 2,52,44,28	
		1,51, 7,35,15,42, 6,14		8, 8
58″	28, 0,48,48,17,35, 0,50,40,48		2, 2,52,52,36	
		1,51, 7,33,12,49,13,38		
60″	28, 0,50,39,25, 8,13,39,54,26			
exact	28, 0,50,39,25, 8,13,40,28,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°50′ 0″	28, 0,50,39,25, 8,13,40,28,58			
		1,51, 7,31, 9,56,16,36		
2″	28, 0,52,30,32,39,23,36,45,34		2, 2,53, 8,36	
		1,51, 7,29, 7, 3, 8, 0		8, 7
4″	28, 0,54,21,40, 8,30,39,53,34		2, 2,53,16,43	
		1,51, 7,27, 4, 9,51,17		8, 7
6″	28, 0,56,12,47,35,34,49,44,51		2, 2,53,24,50	
		1,51, 7,25, 1,16,26,27		8, 7
8″	28, 0,58, 3,55, 0,36, 6,11,18		2, 2,53,32,57	
		1,51, 7,22,58,22,53,30		8, 7
10″	28, 0,59,55, 2,23,34,29, 4,48		2, 2,53,41, 4	
		1,51, 7,20,55,29,12,26		8, 7
12″	28, 1, 1,46, 9,44,29,58,17,14		2, 2,53,49,11	
		1,51, 7,18,52,35,23,15		8, 7
14″	28, 1, 3,37,17, 3,22,33,40,29		2, 2,53,57,18	
		1,51, 7,16,49,41,25,57		8, 7
16″	28, 1, 5,28,24,20,12,15, 6,26		2, 2,54, 5,25	
		1,51, 7,14,46,47,20,32		8, 7
18″	28, 1, 7,19,31,34,59, 2,26,58		2, 2,54,13,32	
		1,51, 7,12,43,53, 7, 0		8, 7
20″	28, 1, 9,10,38,47,42,55,33,58		2, 2,54,21,39	
		1,51, 7,10,40,58,45,21		8, 7
22″	28, 1,11, 1,45,58,23,54,19,19		2, 2,54,29,46	
		1,51, 7, 8,38, 4,15,35		8, 7
24″	28, 1,12,52,53, 7, 1,58,34,54		2, 2,54,37,53	
		1,51, 7, 6,35, 9,37,42		8, 7
26″	28, 1,14,44, 0,13,37, 8,12,36		2, 2,54,46, 0	
		1,51, 7, 4,32,14,51,42		8, 7
28″	28, 1,16,35, 7,18, 9,23, 4,18		2, 2,54,54, 7	
		1,51, 7, 2,29,19,57,35		8, 7
30″	28, 1,18,26,14,20,38,43, 1,53		2, 2,55, 2,14	
		1,51, 7, 0,26,24,55,21		8, 7
32″	28, 1,20,17,21,21, 5, 7,57,14		2, 2,55,10,21	
		1,51, 6,58,23,29,45, 0		8, 7
34″	28, 1,22, 8,28,19,28,37,42,14		2, 2,55,18,28	
		1,51, 6,56,20,34,26,32		8, 7
36″	28, 1,23,59,35,15,49,12, 8,46		2, 2,55,26,35	
		1,51, 6,54,17,38,59,57		8, 7
38″	28, 1,25,50,42,10, 6,51, 8,43		2, 2,55,34,42	
		1,51, 6,52,14,43,25,15		8, 7
40″	28, 1,27,41,49, 2,21,34,33,58		2, 2,55,42,49	
		1,51, 6,50,11,47,42,26		8, 7
42″	28, 1,29,32,55,52,33,22,16,24		2, 2,55,50,56	
		1,51, 6,48, 8,51,51,30		8, 7
44″	28, 1,31,24, 2,40,42,14, 7,54		2, 2,55,59, 3	
		1,51, 6,46, 5,55,52,27		8, 7
46″	28, 1,33,15, 9,26,48,10, 0,21		2, 2,56, 7,10	
		1,51, 6,44, 2,59,45,17		8, 7
48″	28, 1,35, 6,16,10,51, 9,45,38		2, 2,56,15,17	
		1,51, 6,42, 0, 3,30, 0		8, 7
50″	28, 1,36,57,22,52,51,13,15,38		2, 2,56,23,24	
		1,51, 6,39,57, 7, 6,36		8, 7
52″	28, 1,38,48,29,32,48,20,22,14		2, 2,56,31,31	
		1,51, 6,37,54,10,35, 5		8, 7
54″	28, 1,40,39,36,10,42,30,57,19		2, 2,56,39,38	
		1,51, 6,35,51,13,55,27		8, 7
56″	28, 1,42,30,42,46,33,44,52,46		2, 2,56,47,45	
		1,51, 6,33,48,17, 7,42		8, 7
58″	28, 1,44,21,49,20,22, 2, 0,28		2, 2,56,55,52	
		1,51, 6,31,45,20,11,50		
60″	28, 1,46,12,55,52, 7,22,12,18			
exact	28, 1,46,12,55,52, 7,21,39,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°51′ 0″	28, 1,46,12,55,52, 7,21,39,47	1,51, 6,29,42,23, 4,32		
2″	28, 1,48, 4, 2,21,49,44,44,19	1,51, 6,27,39,25,52,13	2, 2,57,12,19	
4″	28, 1,49,55, 8,49,29,10,36,32	1,51, 6,25,36,28,31,47	2, 2,57,20,26	8, 7
6″	28, 1,51,46,15,15, 5,39, 8,19	1,51, 6,23,33,31, 3,14	2, 2,57,28,33	8, 7
8″	28, 1,53,37,21,38,39,10,11,33	1,51, 6,21,30,33,26,34	2, 2,57,36,40	8, 7
10″	28, 1,55,28,28, 0, 9,43,38, 7	1,51, 6,19,27,35,41,47	2, 2,57,44,47	8, 7
12″	28, 1,57,19,34,19,37,19,19,54	1,51, 6,17,24,37,48,53	2, 2,57,52,54	8, 7
14″	28, 1,59,10,40,37, 1,57, 8,47	1,51, 6,15,21,39,47,52	2, 2,58, 1, 1	8, 7
16″	28, 2, 1, 1,46,52,23,36,56,39	1,51, 6,13,18,41,38,44	2, 2,58, 9, 8	8, 7
18″	28, 2, 2,52,53, 5,42,18,35,23	1,51, 6,11,15,43,21,29	2, 2,58,17,15	8, 7
20″	28, 2, 4,43,59,16,58, 1,56,52	1,51, 6, 9,12,44,56, 7	2, 2,58,25,22	8, 7
22″	28, 2, 6,35, 5,26,10,46,52,59	1,51, 6, 7, 9,46,22,38	2, 2,58,33,29	8, 7
24″	28, 2, 8,26,11,33,20,33,15,37	1,51, 6, 5, 6,47,41, 2	2, 2,58,41,36	8, 7
26″	28, 2,10,17,17,38,27,20,56,39	1,51, 6, 3, 3,48,51,19	2, 2,58,49,43	8, 7
28″	28, 2,12, 8,23,41,31, 9,47,58	1,51, 6, 1, 0,49,53,29	2, 2,58,57,50	8, 7
30″	28, 2,13,59,29,42,31,59,41,27	1,51, 5,58,57,50,47,32	2, 2,59, 5,57	8, 7
32″	28, 2,15,50,35,41,29,50,28,59	1,51, 5,56,54,51,33,28	2, 2,59,14, 4	8, 7
34″	28, 2,17,41,41,38,24,42, 2,27	1,51, 5,54,51,52,11,17	2, 2,59,22,11	8, 7
36″	28, 2,19,32,47,33,16,34,13,44	1,51, 5,52,48,52,40,59	2, 2,59,30,18	8, 7
38″	28, 2,21,23,53,26, 5,26,54,43	1,51, 5,50,45,53, 2,34	2, 2,59,38,25	8, 7
40″	28, 2,23,14,59,16,51,19,57,17	1,51, 5,48,42,53,16, 2	2, 2,59,46,32	8, 7
42″	28, 2,25, 6, 5, 5,34,13,13,19	1,51, 5,46,39,53,21,23	2, 2,59,54,39	8, 7
44″	28, 2,26,57,10,52,14, 6,34,42	1,51, 5,44,36,53,18,37	2, 3, 0, 2,46	8, 7
46″	28, 2,28,48,16,36,50,59,53,19	1,51, 5,42,33,53, 7,44	2, 3, 0,10,53	8, 7
48″	28, 2,30,39,22,19,24,53, 1, 3	1,51, 5,40,30,52,48,44	2, 3, 0,19, 0	8, 7
50″	28, 2,32,30,27,59,55,45,49,47	1,51, 5,38,27,52,21,37	2, 3, 0,27, 7	8, 7
52″	28, 2,34,21,33,38,23,38,11,24	1,51, 5,36,24,51,46,23	2, 3, 0,35,14	8, 7
54″	28, 2,36,12,39,14,48,29,57,47	1,51, 5,34,21,51, 3, 2	2, 3, 0,43,21	8, 7
56″	28, 2,38, 3,44,49,10,21, 0,49	1,51, 5,32,18,50,11,34	2, 3, 0,51,28	8, 7
58″	28, 2,39,54,50,21,29,11,12,23	1,51, 5,30,15,49,11,59	2, 3, 0,59,35	
60″	28, 2,41,45,55,51,45, 0,24,22			
exact	28, 2,41,45,55,51,45, 0, 1,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°52′ 0″	28, 2,41,45,55,51,45, 0, 1,53			
		1,51, 5,28,12,48, 1,51		
2″	28, 2,43,37, 1,19,57,48, 3,44		2, 3, 1,15,59	
		1,51, 5,26, 9,46,45,52		8, 7
4″	28, 2,45,28, 6,46, 7,34,49,36		2, 3, 1,24, 6	
		1,51, 5,24, 6,45,21,46		8, 7
6″	28, 2,47,19,12,10,14,20,11,22		2, 3, 1,32,13	
		1,51, 5,22, 3,43,49,33		8, 7
8″	28, 2,49,10,17,32,18, 4, 0,55		2, 3, 1,40,20	
		1,51, 5,20, 0,42, 9,13		8, 7
10″	28, 2,51, 1,22,52,18,46,10, 8		2, 3, 1,48,27	
		1,51, 5,17,57,40,20,46		8, 7
12″	28, 2,52,52,28,10,16,26,30,54		2, 3, 1,56,34	
		1,51, 5,15,54,38,24,12		8, 7
14″	28, 2,54,43,33,26,11, 4,55, 6		2, 3, 2, 4,41	
		1,51, 5,13,51,36,19,31		8, 7
16″	28, 2,56,34,38,40, 2,41,14,37		2, 3, 2,12,48	
		1,51, 5,11,48,34, 6,43		8, 7
18″	28, 2,58,25,43,51,51,15,21,20		2, 3, 2,20,55	
		1,51, 5, 9,45,31,45,48		8, 7
20″	28, 3, 0,16,49, 1,36,47, 7, 8		2, 3, 2,29, 2	
		1,51, 5, 7,42,29,16,46		8, 7
22″	28, 3, 2, 7,54, 9,19,16,23,54		2, 3, 2,37, 9	
		1,51, 5, 5,39,26,39,37		8, 7
24″	28, 3, 3,58,59,14,58,43, 3,31		2, 3, 2,45,16	
		1,51, 5, 3,36,23,54,21		8, 7
26″	28, 3, 5,50, 4,18,35, 6,57,52		2, 3, 2,53,23	
		1,51, 5, 1,33,21, 0,58		8, 7
28″	28, 3, 7,41, 9,20, 8,27,58,50		2, 3, 3, 1,30	
		1,51, 4,59,30,17,59,28		8, 7
30″	28, 3, 9,32,14,19,38,45,58,18		2, 3, 3, 9,37	
		1,51, 4,57,27,14,49,51		8, 7
32″	28, 3,11,23,19,17, 6, 0,48, 9		2, 3, 3,17,44	
		1,51, 4,55,24,11,32, 7		8, 7
34″	28, 3,13,14,24,12,30,12,20,16		2, 3, 3,25,51	
		1,51, 4,53,21, 8, 6,16		8, 7
36″	28, 3,15, 5,29, 5,51,20,26,32		2, 3, 3,33,58	
		1,51, 4,51,18, 4,32,18		8, 7
38″	28, 3,16,56,33,57, 9,24,58,50		2, 3, 3,42, 5	
		1,51, 4,49,15, 0,50,13		8, 7
40″	28, 3,18,47,38,46,24,25,49, 3		2, 3, 3,50,12	
		1,51, 4,47,11,57, 0, 1		8, 7
42″	28, 3,20,38,43,33,36,22,49, 4		2, 3, 3,58,19	
		1,51, 4,45, 8,53, 1,42		8, 7
44″	28, 3,22,29,48,18,45,15,50,46		2, 3, 4, 6,26	
		1,51, 4,43, 5,48,55,16		8, 7
46″	28, 3,24,20,53, 1,51, 4,46, 2		2, 3, 4,14,33	
		1,51, 4,41, 2,44,40,43		8, 7
48″	28, 3,26,11,57,42,53,49,26,45		2, 3, 4,22,40	
		1,51, 4,38,59,40,18, 3		8, 7
50″	28, 3,28, 3, 2,21,53,29,44,48		2, 3, 4,30,47	
		1,51, 4,36,56,35,47,16		8, 7
52″	28, 3,29,54, 6,58,50, 5,32, 4		2, 3, 4,38,54	
		1,51, 4,34,53,31, 8,22		8, 7
54″	28, 3,31,45,11,33,43,36,40,26		2, 3, 4,47, 1	
		1,51, 4,32,50,26,21,21		8, 7
56″	28, 3,33,36,16, 6,34, 3, 1,47		2, 3, 4,55, 8	
		1,51, 4,30,47,21,26,13		8, 7
58″	28, 3,35,27,20,37,21,24,28, 0		2, 3, 5, 3,15	
		1,51, 4,28,44,16,22,58		
60″	28, 3,37,18,25, 6, 5,40,50,58			
exact	28, 3,37,18,25, 6, 5,40,32,40			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
27°53′	0″	28, 3,37,18,25, 6, 5,40,32,40	1,51, 4,26,41,11, 9,39		
	2″	28, 3,39, 9,29,32,46,51,42,19	1,51, 4,24,38, 5,50, 2	2, 3, 5,19,37	
	4″	28, 3,41, 0,33,57,24,57,32,21	1,51, 4,22,35, 0,22,18	2, 3, 5,27,44	8, 7
	6″	28, 3,42,51,38,19,59,57,54,39	1,51, 4,20,31,54,46,27	2, 3, 5,35,51	8, 7
	8″	28, 3,44,42,42,40,31,52,41, 6	1,51, 4,18,28,49, 2,29	2, 3, 5,43,58	8, 7
	10″	28, 3,46,33,46,59, 0,41,43,35	1,51, 4,16,25,43,10,24	2, 3, 5,52, 5	8, 7
	12″	28, 3,48,24,51,15,26,24,53,59	1,51, 4,14,22,37,10,12	2, 3, 6, 0,12	8, 7
	14″	28, 3,50,15,55,29,49, 2, 4,11	1,51, 4,12,19,31, 1,53	2, 3, 6, 8,19	8, 7
	16″	28, 3,52, 6,59,42, 8,33, 6, 4	1,51, 4,10,16,24,45,27	2, 3, 6,16,26	8, 7
	18″	28, 3,53,58, 3,52,24,57,51,31	1,51, 4, 8,13,18,20,54	2, 3, 6,24,33	8, 7
	20″	28, 3,55,49, 8, 0,38,16,12,25	1,51, 4, 6,10,11,48,14	2, 3, 6,32,40	8, 7
	22″	28, 3,57,40,12, 6,48,28, 0,39	1,51, 4, 4, 7, 5, 7,27	2, 3, 6,40,47	8, 7
	24″	28, 3,59,31,16,10,55,33, 8, 6	1,51, 4, 2, 3,58,18,33	2, 3, 6,48,54	8, 7
	26″	28, 4, 1,22,20,12,59,31,26,39	1,51, 4, 0, 0,51,21,32	2, 3, 6,57, 1	8, 7
	28″	28, 4, 3,13,24,13, 0,22,48,11	1,51, 3,57,57,44,16,24	2, 3, 7, 5, 8	8, 7
	30″	28, 4, 5, 4,28,10,58, 7, 4,35	1,51, 3,55,54,37, 3, 9	2, 3, 7,13,15	8, 7
	32″	28, 4, 6,55,32, 6,52,44, 7,44	1,51, 3,53,51,29,41,47	2, 3, 7,21,22	8, 7
	34″	28, 4, 8,46,36, 0,44,13,49,31	1,51, 3,51,48,22,12,18	2, 3, 7,29,29	8, 7
	36″	28, 4,10,37,39,52,32,36, 1,49	1,51, 3,49,45,14,34,42	2, 3, 7,37,36	8, 7
	38″	28, 4,12,28,43,42,17,50,36,31	1,51, 3,47,42, 6,48,59	2, 3, 7,45,43	8, 7
	40″	28, 4,14,19,47,29,59,57,25,30	1,51, 3,45,38,58,55, 9	2, 3, 7,53,50	8, 7
	42″	28, 4,16,10,51,15,38,56,20,39	1,51, 3,43,35,50,53,12	2, 3, 8, 1,57	8, 7
	44″	28, 4,18, 1,54,59,14,47,13,51	1,51, 3,41,32,42,43, 8	2, 3, 8,10, 4	8, 7
	46″	28, 4,19,52,58,40,47,29,56,59	1,51, 3,39,29,34,24,57	2, 3, 8,18,11	8, 7
	48″	28, 4,21,44, 2,20,17, 4,21,56	1,51, 3,37,26,25,58,39	2, 3, 8,26,18	8, 7
	50″	28, 4,23,35, 5,57,43,30,20,35	1,51, 3,35,23,17,24,14	2, 3, 8,34,25	8, 7
	52″	28, 4,25,26, 9,33, 6,47,44,49	1,51, 3,33,20, 8,41,42	2, 3, 8,42,32	8, 7
	54″	28, 4,27,17,13, 6,26,56,26,31	1,51, 3,31,16,59,51, 3	2, 3, 8,50,39	8, 7
	56″	28, 4,29, 8,16,37,43,56,17,34	1,51, 3,29,13,50,52,17	2, 3, 8,58,46	8, 7
	58″	28, 4,30,59,20, 6,57,47, 9,51	1,51, 3,27,10,41,45,24	2, 3, 9, 6,53	
	60″	28, 4,32,50,23,34, 8,28,55,15			
exact		28, 4,32,50,23,34, 8,28,43,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°54′ 0″	28, 4,32,50,23,34, 8,28,43,17			
		1,51, 3,25, 7,32,29, 5		
2″	28, 4,34,41,26,59,16, 1,12,22		2, 3, 9,23,12	
		1,51, 3,23, 4,23, 5,53		8, 7
4″	28, 4,36,32,30,22,20,24,18,15		2, 3, 9,31,19	
		1,51, 3,21, 1,13,34,34		8, 7
6″	28, 4,38,23,33,43,21,37,52,49		2, 3, 9,39,26	
		1,51, 3,18,58, 3,55, 8		8, 7
8″	28, 4,40,14,37, 2,19,41,47,57		2, 3, 9,47,33	
		1,51, 3,16,54,54, 7,35		8, 7
10″	28, 4,42, 5,40,19,14,35,55,32		2, 3, 9,55,40	
		1,51, 3,14,51,44,11,55		8, 7
12″	28, 4,43,56,43,34, 6,20, 7,27		2, 3,10, 3,47	
		1,51, 3,12,48,34, 8, 8		8, 7
14″	28, 4,45,47,46,46,54,54,15,35		2, 3,10,11,54	
		1,51, 3,10,45,23,56,14		8, 7
16″	28, 4,47,38,49,57,40,18,11,49		2, 3,10,20, 1	
		1,51, 3, 8,42,13,36,13		8, 7
18″	28, 4,49,29,53, 6,22,31,48, 2		2, 3,10,28, 8	
		1,51, 3, 6,39, 3, 8, 5		8, 7
20″	28, 4,51,20,56,13, 1,34,56, 7		2, 3,10,36,15	
		1,51, 3, 4,35,52,31,50		8, 7
22″	28, 4,53,11,59,17,37,27,27,57		2, 3,10,44,22	
		1,51, 3, 2,32,41,47,28		8, 7
24″	28, 4,55, 3, 2,20,10, 9,15,25		2, 3,10,52,29	
		1,51, 3, 0,29,30,54,59		8, 7
26″	28, 4,56,54, 5,20,39,40,10,24		2, 3,11, 0,36	
		1,51, 2,58,26,19,54,23		8, 7
28″	28, 4,58,45, 8,19, 6, 0, 4,47		2, 3,11, 8,43	
		1,51, 2,56,23, 8,45,40		8, 7
30″	28, 5, 0,36,11,15,29, 8,50,27		2, 3,11,16,50	
		1,51, 2,54,19,57,28,50		8, 7
32″	28, 5, 2,27,14, 9,49, 6,19,17		2, 3,11,24,57	
		1,51, 2,52,16,46, 3,53		8, 7
34″	28, 5, 4,18,17, 2, 5,52,23,10		2, 3,11,33, 4	
		1,51, 2,50,13,34,30,49		8, 7
36″	28, 5, 6, 9,19,52,19,26,53,59		2, 3,11,41,11	
		1,51, 2,48,10,22,49,38		8, 7
38″	28, 5, 8, 0,22,40,29,49,43,37		2, 3,11,49,18	
		1,51, 2,46, 7,11, 0,20		8, 7
40″	28, 5, 9,51,25,26,37, 0,43,57		2, 3,11,57,25	
		1,51, 2,44, 3,59, 2,55		8, 7
42″	28, 5,11,42,28,10,40,59,46,52		2, 3,12, 5,32	
		1,51, 2,42, 0,46,57,23		8, 7
44″	28, 5,13,33,30,52,41,46,44,15		2, 3,12,13,39	
		1,51, 2,39,57,34,43,44		8, 7
46″	28, 5,15,24,33,32,39,21,27,59		2, 3,12,21,46	
		1,51, 2,37,54,22,21,58		8, 7
48″	28, 5,17,15,36,10,33,43,49,57		2, 3,12,29,53	
		1,51, 2,35,51, 9,52, 5		8, 7
50″	28, 5,19, 6,38,46,24,53,42, 2		2, 3,12,38, 0	
		1,51, 2,33,47,57,14, 5		8, 7
52″	28, 5,20,57,41,20,12,50,56, 7		2, 3,12,46, 7	
		1,51, 2,31,44,44,27,58		8, 7
54″	28, 5,22,48,43,51,57,35,24, 5		2, 3,12,54,14	
		1,51, 2,29,41,31,33,44		8, 7
56″	28, 5,24,39,46,21,39, 6,57,49		2, 3,13, 2,21	
		1,51, 2,27,38,18,31,23		8, 7
58″	28, 5,26,30,48,49,17,25,29,12		2, 3,13,10,28	
		1,51, 2,25,35, 5,20,55		
60″	28, 5,28,21,51,14,52,30,50, 7			
exact	28, 5,28,21,51,14,52,30,38,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°55′ 0″	28, 5,28,21,51,14,52,30,38,35			
		1,51, 2,23,31,52, 1,15		
2″	28, 5,30,12,53,38,24,22,39,50		2, 3,13,26,46	
		1,51, 2,21,28,38,34,29		8, 7
4″	28, 5,32, 3,55,59,53, 1,14,19		2, 3,13,34,53	
		1,51, 2,19,25,24,59,36		8, 7
6″	28, 5,33,54,58,19,18,26,13,55		2, 3,13,43, 0	
		1,51, 2,17,22,11,16,36		8, 7
8″	28, 5,35,46, 0,36,40,37,30,31		2, 3,13,51, 7	
		1,51, 2,15,18,57,25,29		8, 7
10″	28, 5,37,37, 2,51,59,34,56, 0		2, 3,13,59,14	
		1,51, 2,13,15,43,26,15		8, 7
12″	28, 5,39,28, 5, 5,15,18,22,15		2, 3,14, 7,21	
		1,51, 2,11,12,29,18,54		8, 7
14″	28, 5,41,19, 7,16,27,47,41, 9		2, 3,14,15,28	
		1,51, 2, 9, 9,15, 3,26		8, 7
16″	28, 5,43,10, 9,25,37, 2,44,35		2, 3,14,23,35	
		1,51, 2, 7, 6, 0,39,51		8, 7
18″	28, 5,45, 1,11,32,43, 3,24,26		2, 3,14,31,42	
		1,51, 2, 5, 2,46, 8, 9		8, 7
20″	28, 5,46,52,13,37,45,49,32,35		2, 3,14,39,49	
		1,51, 2, 2,59,31,28,20		8, 7
22″	28, 5,48,43,15,40,45,21, 0,55		2, 3,14,47,56	
		1,51, 2, 0,56,16,40,24		8, 7
24″	28, 5,50,34,17,41,41,37,41,19		2, 3,14,56, 3	
		1,51, 1,58,53, 1,44,21		8, 7
26″	28, 5,52,25,19,40,34,39,25,40		2, 3,15, 4,10	
		1,51, 1,56,49,46,40,11		8, 7
28″	28, 5,54,16,21,37,24,26, 5,51		2, 3,15,12,17	
		1,51, 1,54,46,31,27,54		8, 7
30″	28, 5,56, 7,23,32,10,57,33,45		2, 3,15,20,24	
		1,51, 1,52,43,16, 7,30		8, 7
32″	28, 5,57,58,25,24,54,13,41,15		2, 3,15,28,31	
		1,51, 1,50,40, 0,38,59		8, 7
34″	28, 5,59,49,27,15,34,14,20,14		2, 3,15,36,38	
		1,51, 1,48,36,45, 2,21		8, 7
36″	28, 6, 1,40,29, 4,10,59,22,35		2, 3,15,44,45	
		1,51, 1,46,33,29,17,36		8, 7
38″	28, 6, 3,31,30,50,44,28,40,11		2, 3,15,52,52	
		1,51, 1,44,30,13,24,44		8, 7
40″	28, 6, 5,22,32,35,14,42, 4,55		2, 3,16, 0,59	
		1,51, 1,42,26,57,23,45		8, 7
42″	28, 6, 7,13,34,17,41,39,28,40		2, 3,16, 9, 6	
		1,51, 1,40,23,41,14,39		8, 7
44″	28, 6, 9, 4,35,58, 5,20,43,19		2, 3,16,17,13	
		1,51, 1,38,20,24,57,26		8, 7
46″	28, 6,10,55,37,36,25,45,40,45		2, 3,16,25,20	
		1,51, 1,36,17, 8,32, 6		8, 7
48″	28, 6,12,46,39,12,42,54,12,51		2, 3,16,33,27	
		1,51, 1,34,13,51,58,39		8, 7
50″	28, 6,14,37,40,46,56,46,11,30		2, 3,16,41,34	
		1,51, 1,32,10,35,17, 5		8, 7
52″	28, 6,16,28,42,19, 7,21,28,35		2, 3,16,49,41	
		1,51, 1,30, 7,18,27,24		8, 7
54″	28, 6,18,19,43,49,14,39,55,59		2, 3,16,57,48	
		1,51, 1,28, 4, 1,29,36		8, 7
56″	28, 6,20,10,45,17,18,41,25,35		2, 3,17, 5,55	
		1,51, 1,26, 0,44,23,41		8, 7
58″	28, 6,22, 1,46,43,19,25,49,16		2, 3,17,14, 2	
		1,51, 1,23,57,27, 9,39		
60″	28, 6,23,52,48, 7,16,52,58,55			
exact	28, 6,23,52,48, 7,16,52,57,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°56′ 0″	28, 6,23,52,48, 7,16,52,57,12			
		1,51, 1,21,54, 9,47,17		
2″	28, 6,25,43,49,29,11, 2,44,29		2, 3,17,30,17	
		1,51, 1,19,50,52,17, 0		8, 7
4″	28, 6,27,34,50,49, 1,55, 1,29		2, 3,17,38,24	
		1,51, 1,17,47,34,38,36		8, 7
6″	28, 6,29,25,52, 6,49,29,40, 5		2, 3,17,46,31	
		1,51, 1,15,44,16,52, 5		8, 7
8″	28, 6,31,16,53,22,33,46,32,10		2, 3,17,54,38	
		1,51, 1,13,40,58,57,27		8, 7
10″	28, 6,33, 7,54,36,14,45,29,37		2, 3,18, 2,45	
		1,51, 1,11,37,40,54,42		8, 7
12″	28, 6,34,58,55,47,52,26,24,19		2, 3,18,10,52	
		1,51, 1, 9,34,22,43,50		8, 7
14″	28, 6,36,49,56,57,26,49, 8, 9		2, 3,18,18,59	
		1,51, 1, 7,31, 4,24,51		8, 7
16″	28, 6,38,40,58, 4,57,53,33, 0		2, 3,18,27, 6	
		1,51, 1, 5,27,45,57,45		8, 7
18″	28, 6,40,31,59,10,25,39,30,45		2, 3,18,35,13	
		1,51, 1, 3,24,27,22,32		8, 7
20″	28, 6,42,23, 0,13,50, 6,53,17		2, 3,18,43,20	
		1,51, 1, 1,21, 8,39,12		8, 7
22″	28, 6,44,14, 1,15,11,15,32,29		2, 3,18,51,27	
		1,51, 0,59,17,49,47,45		8, 7
24″	28, 6,46, 5, 2,14,29, 5,20,14		2, 3,18,59,34	
		1,51, 0,57,14,30,48,11		8, 7
26″	28, 6,47,56, 3,11,43,36, 8,25		2, 3,19, 7,41	
		1,51, 0,55,11,11,40,30		8, 7
28″	28, 6,49,47, 4, 6,54,47,48,55		2, 3,19,15,48	
		1,51, 0,53, 7,52,24,42		8, 7
30″	28, 6,51,38, 5, 0, 2,40,13,37		2, 3,19,23,55	
		1,51, 0,51, 4,33, 0,47		8, 7
32″	28, 6,53,29, 5,51, 7,13,14,24		2, 3,19,32, 2	
		1,51, 0,49, 1,13,28,45		8, 7
34″	28, 6,55,20, 6,40, 8,26,43, 9		2, 3,19,40, 9	
		1,51, 0,46,57,53,48,36		8, 7
36″	28, 6,57,11, 7,27, 6,20,31,45		2, 3,19,48,16	
		1,51, 0,44,54,34, 0,20		8, 7
38″	28, 6,59, 2, 8,12, 0,54,32, 5		2, 3,19,56,23	
		1,51, 0,42,51,14, 3,57		8, 7
40″	28, 7, 0,53, 8,54,52, 8,36, 2		2, 3,20, 4,30	
		1,51, 0,40,47,53,59,27		8, 7
42″	28, 7, 2,44, 9,35,40, 2,35,29		2, 3,20,12,37	
		1,51, 0,38,44,33,46,50		8, 7
44″	28, 7, 4,35,10,14,24,36,22,19		2, 3,20,20,44	
		1,51, 0,36,41,13,26, 6		8, 7
46″	28, 7, 6,26,10,51, 5,49,48,25		2, 3,20,28,51	
		1,51, 0,34,37,52,57,15		8, 7
48″	28, 7, 8,17,11,25,43,42,45,40		2, 3,20,36,58	
		1,51, 0,32,34,32,20,17		8, 7
50″	28, 7,10, 8,11,58,18,15, 5,57		2, 3,20,45, 5	
		1,51, 0,30,31,11,35,12		8, 7
52″	28, 7,11,59,12,28,49,26,41, 9		2, 3,20,53,12	
		1,51, 0,28,27,50,42, 0		8, 7
54″	28, 7,13,50,12,57,17,17,23, 9		2, 3,21, 1,19	
		1,51, 0,26,24,29,40,41		8, 7
56″	28, 7,15,41,13,23,41,47, 3,50		2, 3,21, 9,26	
		1,51, 0,24,21, 8,31,15		8, 7
58″	28, 7,17,32,13,48, 2,55,35, 5		2, 3,21,17,33	
		1,51, 0,22,17,47,13,42		
60″	28, 7,19,23,14,10,20,42,48,47			
exact	28, 7,19,23,14,10,20,42,51,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°57′ 0″	28, 7,19,23,14,10,20,42,51,34			
		1,51, 0,20,14,25,48,19		
2″	28, 7,21,14,14,30,35, 8,39,53		2, 3,21,33,46	
		1,51, 0,18,11, 4,14,33		8, 7
4″	28, 7,23, 5,14,48,46,12,54,26		2, 3,21,41,53	
		1,51, 0,16, 7,42,32,40		8, 7
6″	28, 7,24,56,15, 4,53,55,27, 6		2, 3,21,50, 0	
		1,51, 0,14, 4,20,42,40		8, 7
8″	28, 7,26,47,15,18,58,16, 9,46		2, 3,21,58, 7	
		1,51, 0,12, 0,58,44,33		8, 7
10″	28, 7,28,38,15,30,59,14,54,19		2, 3,22, 6,14	
		1,51, 0, 9,57,36,38,19		8, 7
12″	28, 7,30,29,15,40,56,51,32,38		2, 3,22,14,21	
		1,51, 0, 7,54,14,23,58		8, 7
14″	28, 7,32,20,15,48,51, 5,56,36		2, 3,22,22,28	
		1,51, 0, 5,50,52, 1,30		8, 7
16″	28, 7,34,11,15,54,41,57,58, 6		2, 3,22,30,35	
		1,51, 0, 3,47,29,30,55		8, 7
18″	28, 7,36, 2,15,58,29,27,29, 1		2, 3,22,38,42	
		1,51, 0, 1,44, 6,52,13		8, 7
20″	28, 7,37,53,16, 0,13,34,21,14		2, 3,22,46,49	
		1,50,59,59,40,44, 5,24		8, 7
22″	28, 7,39,44,15,59,54,18,26,38		2, 3,22,54,56	
		1,50,59,57,37,21,10,28		8, 7
24″	28, 7,41,35,15,57,31,39,37, 6		2, 3,23, 3, 3	
		1,50,59,55,33,58, 7,25		8, 7
26″	28, 7,43,26,15,53, 5,37,44,31		2, 3,23,11,10	
		1,50,59,53,30,34,56,15		8, 7
28″	28, 7,45,17,15,46,36,12,40,46		2, 3,23,19,17	
		1,50,59,51,27,11,36,58		8, 7
30″	28, 7,47, 8,15,38, 3,24,17,44		2, 3,23,27,24	
		1,50,59,49,23,48, 9,34		8, 7
32″	28, 7,48,59,15,27,27,12,27,18		2, 3,23,35,31	
		1,50,59,47,20,24,34, 3		8, 7
34″	28, 7,50,50,15,14,47,37, 1,21		2, 3,23,43,38	
		1,50,59,45,17, 0,50,25		8, 7
36″	28, 7,52,41,15, 0, 4,37,51,46		2, 3,23,51,45	
		1,50,59,43,13,36,58,40		8, 7
38″	28, 7,54,32,14,43,18,14,50,26		2, 3,23,59,52	
		1,50,59,41,10,12,58,48		8, 7
40″	28, 7,56,23,14,24,28,27,49,14		2, 3,24, 7,59	
		1,50,59,39, 6,48,50,49		8, 7
42″	28, 7,58,14,14, 3,35,16,40, 3		2, 3,24,16, 6	
		1,50,59,37, 3,24,34,43		8, 7
44″	28, 8, 0, 5,13,40,38,41,14,46		2, 3,24,24,13	
		1,50,59,35, 0, 0,10,30		8, 7
46″	28, 8, 1,56,13,15,38,41,25,16		2, 3,24,32,20	
		1,50,59,32,56,35,38,10		8, 7
48″	28, 8, 3,47,12,48,35,17, 3,26		2, 3,24,40,27	
		1,50,59,30,53,10,57,43		8, 7
50″	28, 8, 5,38,12,19,28,28, 1, 9		2, 3,24,48,34	
		1,50,59,28,49,46, 9, 9		8, 7
52″	28, 8, 7,29,11,48,18,14,10,18		2, 3,24,56,41	
		1,50,59,26,46,21,12,28		8, 7
54″	28, 8, 9,20,11,15, 4,35,22,46		2, 3,25, 4,48	
		1,50,59,24,42,56, 7,40		8, 7
56″	28, 8,11,11,10,39,47,31,30,26		2, 3,25,12,55	
		1,50,59,22,39,30,54,45		8, 7
58″	28, 8,13, 2,10, 2,27, 2,25,11		2, 3,25,21, 2	
		1,50,59,20,36, 5,33,43		
60″	28, 8,14,53, 9,23, 3, 7,58,54			
exact	28, 8,14,53, 9,23, 3, 8, 7,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°58′ 0″	28, 8,14,53, 9,23, 3, 8, 7,52			
		1,50,59,18,32,40, 5,28		
2″	28, 8,16,44, 8,41,35,48,13,20		2, 3,25,37,12	
		1,50,59,16,29,14,28,16		8, 7
4″	28, 8,18,35, 7,58, 5, 2,41,36		2, 3,25,45,19	
		1,50,59,14,25,48,42,57		8, 7
6″	28, 8,20,26, 7,12,30,51,24,33		2, 3,25,53,26	
		1,50,59,12,22,22,49,31		8, 7
8″	28, 8,22,17, 6,24,53,14,14, 4		2, 3,26, 1,33	
		1,50,59,10,18,56,47,58		8, 7
10″	28, 8,24, 8, 5,35,12,11, 2, 2		2, 3,26, 9,40	
		1,50,59, 8,15,30,38,18		8, 7
12″	28, 8,25,59, 4,43,27,41,40,20		2, 3,26,17,47	
		1,50,59, 6,12, 4,20,31		8, 7
14″	28, 8,27,50, 3,49,39,46, 0,51		2, 3,26,25,54	
		1,50,59, 4, 8,37,54,37		8, 7
16″	28, 8,29,41, 2,53,48,23,55,28		2, 3,26,34, 1	
		1,50,59, 2, 5,11,20,36		8, 7
18″	28, 8,31,32, 1,55,53,35,16, 4		2, 3,26,42, 8	
		1,50,59, 0, 1,44,38,28		8, 7
20″	28, 8,33,23, 0,55,55,19,54,32		2, 3,26,50,15	
		1,50,58,57,58,17,48,13		8, 7
22″	28, 8,35,13,59,53,53,37,42,45		2, 3,26,58,22	
		1,50,58,55,54,50,49,51		8, 7
24″	28, 8,37, 4,58,49,48,28,32,36		2, 3,27, 6,29	
		1,50,58,53,51,23,43,22		8, 7
26″	28, 8,38,55,57,43,39,52,15,58		2, 3,27,14,36	
		1,50,58,51,47,56,28,46		8, 7
28″	28, 8,40,46,56,35,27,48,44,44		2, 3,27,22,43	
		1,50,58,49,44,29, 6, 3		8, 7
30″	28, 8,42,37,55,25,12,17,50,47		2, 3,27,30,50	
		1,50,58,47,41, 1,35,13		8, 7
32″	28, 8,44,28,54,12,53,19,26, 0		2, 3,27,38,57	
		1,50,58,45,37,33,56,16		8, 7
34″	28, 8,46,19,52,58,30,53,22,16		2, 3,27,47, 4	
		1,50,58,43,34, 6, 9,12		8, 7
36″	28, 8,48,10,51,42, 4,59,31,28		2, 3,27,55,11	
		1,50,58,41,30,38,14, 1		8, 7
38″	28, 8,50, 1,50,23,35,37,45,29		2, 3,28, 3,18	
		1,50,58,39,27,10,10,43		8, 7
40″	28, 8,51,52,49, 3, 2,47,56,12		2, 3,28,11,25	
		1,50,58,37,23,41,59,18		8, 7
42″	28, 8,53,43,47,40,26,29,55,30		2, 3,28,19,32	
		1,50,58,35,20,13,39,46		8, 7
44″	28, 8,55,34,46,15,46,43,35,16		2, 3,28,27,39	
		1,50,58,33,16,45,12, 7		8, 7
46″	28, 8,57,25,44,49, 3,28,47,23		2, 3,28,35,46	
		1,50,58,31,13,16,36,21		8, 7
48″	28, 8,59,16,43,20,16,45,23,44		2, 3,28,43,53	
		1,50,58,29, 9,47,52,28		8, 7
50″	28, 9, 1, 7,41,49,26,33,16,12		2, 3,28,52, 0	
		1,50,58,27, 6,19, 0,28		8, 7
52″	28, 9, 2,58,40,16,32,52,16,40		2, 3,29, 0, 7	
		1,50,58,25, 2,50, 0,21		8, 7
54″	28, 9, 4,49,38,41,35,42,17, 1		2, 3,29, 8,14	
		1,50,58,22,59,20,52, 7		8, 7
56″	28, 9, 6,40,37, 4,35, 3, 9, 8		2, 3,29,16,21	
		1,50,58,20,55,51,35,46		8, 7
58″	28, 9, 8,31,35,25,30,54,44,54		2, 3,29,24,28	
		1,50,58,18,52,22,11,18		
60″	28, 9,10,22,33,44,23,16,56,12			
exact	28, 9,10,22,33,44,23,17, 6,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
27°59′ 0″	28, 9,10,22,33,44,23,17, 6,10			
		1,50,58,16,48,52,39,53		
2″	28, 9,12,13,32, 1,12, 9,46, 3		2, 3,29,40,37	
		1,50,58,14,45,22,59,16		8, 7
4″	28, 9,14, 4,30,15,57,32,45,19		2, 3,29,48,44	
		1,50,58,12,41,53,10,32		8, 7
6″	28, 9,15,55,28,28,39,25,55,51		2, 3,29,56,51	
		1,50,58,10,38,23,13,41		8, 7
8″	28, 9,17,46,26,39,17,49, 9,32		2, 3,30, 4,58	
		1,50,58, 8,34,53, 8,43		8, 7
10″	28, 9,19,37,24,47,52,42,18,15		2, 3,30,13, 5	
		1,50,58, 6,31,22,55,38		8, 7
12″	28, 9,21,28,22,54,24, 5,13,53		2, 3,30,21,12	
		1,50,58, 4,27,52,34,26		8, 7
14″	28, 9,23,19,20,58,51,57,48,19		2, 3,30,29,19	
		1,50,58, 2,24,22, 5, 7		8, 7
16″	28, 9,25,10,19, 1,16,19,53,26		2, 3,30,37,26	
		1,50,58, 0,20,51,27,41		8, 7
18″	28, 9,27, 1,17, 1,37,11,21, 7		2, 3,30,45,33	
		1,50,57,58,17,20,42, 8		8, 7
20″	28, 9,28,52,14,59,54,32, 3,15		2, 3,30,53,40	
		1,50,57,56,13,49,48,28		8, 7
22″	28, 9,30,43,12,56, 8,21,51,43		2, 3,31, 1,47	
		1,50,57,54,10,18,46,41		8, 7
24″	28, 9,32,34,10,50,18,40,38,24		2, 3,31, 9,54	
		1,50,57,52, 6,47,36,47		8, 7
26″	28, 9,34,25, 8,42,25,28,15,11		2, 3,31,18, 1	
		1,50,57,50, 3,16,18,46		8, 7
28″	28, 9,36,16, 6,32,28,44,33,57		2, 3,31,26, 8	
		1,50,57,47,59,44,52,38		8, 7
30″	28, 9,38, 7, 4,20,28,29,26,35		2, 3,31,34,15	
		1,50,57,45,56,13,18,23		8, 7
32″	28, 9,39,58, 2, 6,24,42,44,58		2, 3,31,42,22	
		1,50,57,43,52,41,36, 1		8, 7
34″	28, 9,41,48,59,50,17,24,20,59		2, 3,31,50,29	
		1,50,57,41,49, 9,45,32		8, 7
36″	28, 9,43,39,57,32, 6,34, 6,31		2, 3,31,58,36	
		1,50,57,39,45,37,46,56		8, 7
38″	28, 9,45,30,55,11,52,11,53,27		2, 3,32, 6,43	
		1,50,57,37,42, 5,40,13		8, 7
40″	28, 9,47,21,52,49,34,17,33,40		2, 3,32,14,50	
		1,50,57,35,38,33,25,23		8, 7
42″	28, 9,49,12,50,25,12,50,59, 3		2, 3,32,22,57	
		1,50,57,33,35, 1, 2,26		8, 7
44″	28, 9,51, 3,47,58,47,52, 1,29		2, 3,32,31, 4	
		1,50,57,31,31,28,31,22		8, 7
46″	28, 9,52,54,45,30,19,20,32,51		2, 3,32,39,11	
		1,50,57,29,27,55,52,11		8, 7
48″	28, 9,54,45,42,59,47,16,25, 2		2, 3,32,47,18	
		1,50,57,27,24,23, 4,53		8, 7
50″	28, 9,56,36,40,27,11,39,29,55		2, 3,32,55,25	
		1,50,57,25,20,50, 9,28		8, 7
52″	28, 9,58,27,37,52,32,29,39,23		2, 3,33, 3,32	
		1,50,57,23,17,17, 5,56		8, 7
54″	28,10, 0,18,35,15,49,46,45,19		2, 3,33,11,39	
		1,50,57,21,13,43,54,17		8, 7
56″	28,10, 2, 9,32,37, 3,30,39,36		2, 3,33,19,46	
		1,50,57,19,10,10,34,31		8, 7
58″	28,10, 4, 0,29,56,13,41,14, 7		2, 3,33,27,53	
		1,50,57,17, 6,37, 6,38		
60″	28,10, 5,51,27,13,20,18,20,45			
exact	28,10, 5,51,27,13,20,18,40,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28° 0′ 0″	28,10, 5,51,27,13,20,18,40,20	1,50,57,15, 3, 3,32,40		
2″	28,10, 7,42,24,28,23,22,13, 0	1,50,57,12,59,29,48,41	2, 3,33,43,59	8, 7
4″	28,10, 9,33,21,41,22,52, 1,41	1,50,57,10,55,55,56,35	2, 3,33,52, 6	8, 7
6″	28,10,11,24,18,52,18,47,58,16	1,50,57, 8,52,21,56,22	2, 3,34, 0,13	8, 7
8″	28,10,13,15,16, 1,11, 9,54,38	1,50,57, 6,48,47,48, 2	2, 3,34, 8,20	8, 7
10″	28,10,15, 6,13, 7,59,57,42,40	1,50,57, 4,45,13,31,35	2, 3,34,16,27	8, 7
12″	28,10,16,57,10,12,45,11,14,15	1,50,57, 2,41,39, 7, 1	2, 3,34,24,34	8, 7
14″	28,10,18,48, 7,15,26,50,21,16	1,50,57, 0,38, 4,34,20	2, 3,34,32,41	8, 7
16″	28,10,20,39, 4,16, 4,54,55,36	1,50,56,58,34,29,53,32	2, 3,34,40,48	8, 7
18″	28,10,22,30, 1,14,39,24,49, 8	1,50,56,56,30,55, 4,37	2, 3,34,48,55	8, 7
20″	28,10,24,20,58,11,10,19,53,45	1,50,56,54,27,20, 7,35	2, 3,34,57, 2	8, 7
22″	28,10,26,11,55, 5,37,40, 1,20	1,50,56,52,23,45, 2,26	2, 3,35, 5, 9	8, 7
24″	28,10,28, 2,51,58, 1,25, 3,46	1,50,56,50,20, 9,49,10	2, 3,35,13,16	8, 7
26″	28,10,29,53,48,48,21,34,52,56	1,50,56,48,16,34,27,47	2, 3,35,21,23	8, 7
28″	28,10,31,44,45,36,38, 9,20,43	1,50,56,46,12,58,58,17	2, 3,35,29,30	8, 7
30″	28,10,33,35,42,22,51, 8,19, 0	1,50,56,44, 9,23,20,40	2, 3,35,37,37	8, 7
32″	28,10,35,26,39, 7, 0,31,39,40	1,50,56,42, 5,47,34,56	2, 3,35,45,44	8, 7
34″	28,10,37,17,35,49, 6,19,14,36	1,50,56,40, 2,11,41, 5	2, 3,35,53,51	8, 7
36″	28,10,39, 8,32,29, 8,30,55,41	1,50,56,37,58,35,39, 7	2, 3,36, 1,58	8, 7
38″	28,10,40,59,29, 7, 7, 6,34,48	1,50,56,35,54,59,29, 2	2, 3,36,10, 5	8, 7
40″	28,10,42,50,25,43, 2, 6, 3,50	1,50,56,33,51,23,10,50	2, 3,36,18,12	8, 7
42″	28,10,44,41,22,16,53,29,14,40	1,50,56,31,47,46,44,31	2, 3,36,26,19	8, 7
44″	28,10,46,32,18,48,41,15,59,11	1,50,56,29,44,10,10, 5	2, 3,36,34,26	8, 7
46″	28,10,48,23,15,18,25,26, 9,16	1,50,56,27,40,33,27,32	2, 3,36,42,33	8, 7
48″	28,10,50,14,11,46, 5,59,36,48	1,50,56,25,36,56,36,52	2, 3,36,50,40	8, 7
50″	28,10,52, 5, 8,11,42,56,13,40	1,50,56,23,33,19,38, 5	2, 3,36,58,47	8, 7
52″	28,10,53,56, 4,35,16,15,51,45	1,50,56,21,29,42,31,11	2, 3,37, 6,54	8, 7
54″	28,10,55,47, 0,56,45,58,22,56	1,50,56,19,26, 5,16,10	2, 3,37,15, 1	8, 7
56″	28,10,57,37,57,16,12, 3,39, 6	1,50,56,17,22,27,53, 2	2, 3,37,23, 8	8, 7
58″	28,10,59,28,53,33,34,31,32, 8	1,50,56,15,18,50,21,47	2, 3,37,31,15	
60″	28,11, 1,19,49,48,53,21,53,55			
exact	28,11, 1,19,49,48,53,22,18, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28° 1′ 0″	28,11, 1,19,49,48,53,22,18, 4			
		1,50,56,13,15,12,44,57		
2″	28,11, 3,10,46, 2, 8,35, 3, 1		2, 3,37,47,18	
		1,50,56,11,11,34,57,39		8, 7
4″	28,11, 5, 1,42,13,20,10, 0,40		2, 3,37,55,25	
		1,50,56, 9, 7,57, 2,14		8, 7
6″	28,11, 6,52,38,22,28, 7, 2,54		2, 3,38, 3,32	
		1,50,56, 7, 4,18,58,42		8, 7
8″	28,11, 8,43,34,29,32,26, 1,36		2, 3,38,11,39	
		1,50,56, 5, 0,40,47, 3		8, 7
10″	28,11,10,34,30,34,33, 6,48,39		2, 3,38,19,46	
		1,50,56, 2,57, 2,27,17		8, 7
12″	28,11,12,25,26,37,30, 9,15,56		2, 3,38,27,53	
		1,50,56, 0,53,23,59,24		8, 7
14″	28,11,14,16,22,38,23,33,15,20		2, 3,38,36, 0	
		1,50,55,58,49,45,23,24		8, 7
16″	28,11,16, 7,18,37,13,18,38,44		2, 3,38,44, 7	
		1,50,55,56,46, 6,39,17		8, 7
18″	28,11,17,58,14,33,59,25,18, 1		2, 3,38,52,14	
		1,50,55,54,42,27,47, 3		8, 7
20″	28,11,19,49,10,28,41,53, 5, 4		2, 3,39, 0,21	
		1,50,55,52,38,48,46,42		8, 7
22″	28,11,21,40, 6,21,20,41,51,46		2, 3,39, 8,28	
		1,50,55,50,35, 9,38,14		8, 7
24″	28,11,23,31, 2,11,55,51,30, 0		2, 3,39,16,35	
		1,50,55,48,31,30,21,39		8, 7
26″	28,11,25,21,58, 0,27,21,51,39		2, 3,39,24,42	
		1,50,55,46,27,50,56,57		8, 7
28″	28,11,27,12,53,46,55,12,48,36		2, 3,39,32,49	
		1,50,55,44,24,11,24, 8		8, 7
30″	28,11,29, 3,49,31,19,24,12,44		2, 3,39,40,56	
		1,50,55,42,20,31,43,12		8, 7
32″	28,11,30,54,45,13,39,55,55,56		2, 3,39,49, 3	
		1,50,55,40,16,51,54, 9		8, 7
34″	28,11,32,45,40,53,56,47,50, 5		2, 3,39,57,10	
		1,50,55,38,13,11,56,59		8, 7
36″	28,11,34,36,36,32, 9,59,47, 4		2, 3,40, 5,17	
		1,50,55,36, 9,31,51,42		8, 7
38″	28,11,36,27,32, 8,19,31,38,46		2, 3,40,13,24	
		1,50,55,34, 5,51,38,18		8, 7
40″	28,11,38,18,27,42,25,23,17, 4		2, 3,40,21,31	
		1,50,55,32, 2,11,16,47		8, 7
42″	28,11,40, 9,23,14,27,34,33,51		2, 3,40,29,38	
		1,50,55,29,58,30,47, 9		8, 7
44″	28,11,42, 0,18,44,26, 5,21, 0		2, 3,40,37,45	
		1,50,55,27,54,50, 9,24		8, 7
46″	28,11,43,51,14,12,20,55,30,24		2, 3,40,45,52	
		1,50,55,25,51, 9,23,32		8, 7
48″	28,11,45,42, 9,38,12, 4,53,56		2, 3,40,53,59	
		1,50,55,23,47,28,29,33		8, 7
50″	28,11,47,33, 5, 1,59,33,23,29		2, 3,41, 2, 6	
		1,50,55,21,43,47,27,27		8, 7
52″	28,11,49,24, 0,23,43,20,50,56		2, 3,41,10,13	
		1,50,55,19,40, 6,17,14		8, 7
54″	28,11,51,14,55,43,23,27, 8,10		2, 3,41,18,20	
		1,50,55,17,36,24,58,54		8, 7
56″	28,11,53, 5,51, 0,59,52, 7, 4		2, 3,41,26,27	
		1,50,55,15,32,43,32,27		8, 7
58″	28,11,54,56,46,16,32,35,39,31		2, 3,41,34,34	
		1,50,55,13,29, 1,57,53		
60″	28,11,56,47,41,30, 1,37,37,24			
exact	28,11,56,47,41,30, 1,38, 1, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28° 2′ 0″	28,11,56,47,41,30, 1,38, 1, 1			
		1,50,55,11,25,20,17,53		
2″	28,11,58,38,36,41,26,58,18,54		2, 3,41,50,36	
		1,50,55, 9,21,38,27,17		8, 7
4″	28,12, 0,29,31,50,48,36,46,11		2, 3,41,58,43	
		1,50,55, 7,17,56,28,34		8, 7
6″	28,12, 2,20,26,58, 6,33,14,45		2, 3,42, 6,50	
		1,50,55, 5,14,14,21,44		8, 7
8″	28,12, 4,11,22, 3,20,47,36,29		2, 3,42,14,57	
		1,50,55, 3,10,32, 6,47		8, 7
10″	28,12, 6, 2,17, 6,31,19,43,16		2, 3,42,23, 4	
		1,50,55, 1, 6,49,43,43		8, 7
12″	28,12, 7,53,12, 7,38, 9,26,59		2, 3,42,31,11	
		1,50,54,59, 3, 7,12,32		8, 7
14″	28,12, 9,44, 7, 6,41,16,39,31		2, 3,42,39,18	
		1,50,54,56,59,24,33,14		8, 7
16″	28,12,11,35, 2, 3,40,41,12,45		2, 3,42,47,25	
		1,50,54,54,55,41,45,49		8, 7
18″	28,12,13,25,56,58,36,22,58,34		2, 3,42,55,32	
		1,50,54,52,51,58,50,17		8, 7
20″	28,12,15,16,51,51,28,21,48,51		2, 3,43, 3,39	
		1,50,54,50,48,15,46,38		8, 7
22″	28,12,17, 7,46,42,16,37,35,29		2, 3,43,11,46	
		1,50,54,48,44,32,34,52		8, 7
24″	28,12,18,58,41,31, 1,10,10,21		2, 3,43,19,53	
		1,50,54,46,40,49,14,59		8, 7
26″	28,12,20,49,36,17,41,59,25,20		2, 3,43,28, 0	
		1,50,54,44,37, 5,46,59		8, 7
28″	28,12,22,40,31, 2,19, 5,12,19		2, 3,43,36, 7	
		1,50,54,42,33,22,10,52		8, 7
30″	28,12,24,31,25,44,52,27,23,11		2, 3,43,44,14	
		1,50,54,40,29,38,26,38		8, 7
32″	28,12,26,22,20,25,22, 5,49,49		2, 3,43,52,21	
		1,50,54,38,25,54,34,17		8, 7
34″	28,12,28,13,15, 3,48, 0,24, 6		2, 3,44, 0,28	
		1,50,54,36,22,10,33,49		8, 7
36″	28,12,30, 4, 9,40,10,10,57,55		2, 3,44, 8,35	
		1,50,54,34,18,26,25,14		8, 7
38″	28,12,31,55, 4,14,28,37,23, 9		2, 3,44,16,42	
		1,50,54,32,14,42, 8,32		8, 7
40″	28,12,33,45,58,46,43,19,31,41		2, 3,44,24,49	
		1,50,54,30,10,57,43,43		8, 7
42″	28,12,35,36,53,16,54,17,15,24		2, 3,44,32,56	
		1,50,54,28, 7,13,10,47		8, 7
44″	28,12,37,27,47,45, 1,30,26,11		2, 3,44,41, 3	
		1,50,54,26, 3,28,29,44		8, 7
46″	28,12,39,18,42,11, 4,58,55,55		2, 3,44,49,10	
		1,50,54,23,59,43,40,34		8, 7
48″	28,12,41, 9,36,35, 4,42,36,29		2, 3,44,57,17	
		1,50,54,21,55,58,43,17		8, 7
50″	28,12,43, 0,30,57, 0,41,19,46		2, 3,45, 5,24	
		1,50,54,19,52,13,37,53		8, 7
52″	28,12,44,51,25,16,52,54,57,39		2, 3,45,13,31	
		1,50,54,17,48,28,24,22		8, 7
54″	28,12,46,42,19,34,41,23,22, 1		2, 3,45,21,38	
		1,50,54,15,44,43, 2,44		8, 7
56″	28,12,48,33,13,50,26, 6,24,45		2, 3,45,29,45	
		1,50,54,13,40,57,32,59		8, 7
58″	28,12,50,24, 8, 4, 7, 3,57,44		2, 3,45,37,52	
		1,50,54,11,37,11,55, 7		
60″	28,12,52,15, 2,15,44,15,52,51			
exact	28,12,52,15, 2,15,44,16,24,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28° 3′ 0″	28,12,52,15, 2,15,44,16,24,38			
		1,50,54, 9,33,26,12,35		
2″	28,12,54, 5,56,25,17,42,37,13		2, 3,45,53,51	
		1,50,54, 7,29,40,18,44		8, 6
4″	28,12,55,56,50,32,47,22,55,57		2, 3,46, 1,57	
		1,50,54, 5,25,54,16,47		8, 6
6″	28,12,57,47,44,38,13,17,12,44		2, 3,46,10, 3	
		1,50,54, 3,22, 8, 6,44		8, 6
8″	28,12,59,38,38,41,35,25,19,28		2, 3,46,18, 9	
		1,50,54, 1,18,21,48,35		8, 6
10″	28,13, 1,29,32,42,53,47, 8, 3		2, 3,46,26,15	
		1,50,53,59,14,35,22,20		8, 6
12″	28,13, 3,20,26,42, 8,22,30,23		2, 3,46,34,21	
		1,50,53,57,10,48,47,59		8, 6
14″	28,13, 5,11,20,39,19,11,18,22		2, 3,46,42,27	
		1,50,53,55, 7, 2, 5,32		8, 6
16″	28,13, 7, 2,14,34,26,13,23,54		2, 3,46,50,33	
		1,50,53,53, 3,15,14,59		8, 6
18″	28,13, 8,53, 8,27,29,28,38,53		2, 3,46,58,39	
		1,50,53,50,59,28,16,20		8, 6
20″	28,13,10,44, 2,18,28,56,55,13		2, 3,47, 6,45	
		1,50,53,48,55,41, 9,35		8, 6
22″	28,13,12,34,56, 7,24,38, 4,48		2, 3,47,14,51	
		1,50,53,46,51,53,54,44		8, 6
24″	28,13,14,25,49,54,16,31,59,32		2, 3,47,22,57	
		1,50,53,44,48, 6,31,47		8, 6
26″	28,13,16,16,43,39, 4,38,31,19		2, 3,47,31, 3	
		1,50,53,42,44,19, 0,44		8, 6
28″	28,13,18, 7,37,21,48,57,32, 3		2, 3,47,39, 9	
		1,50,53,40,40,31,21,35		8, 6
30″	28,13,19,58,31, 2,29,28,53,38		2, 3,47,47,15	
		1,50,53,38,36,43,34,20		8, 6
32″	28,13,21,49,24,41, 6,12,27,58		2, 3,47,55,21	
		1,50,53,36,32,55,38,59		8, 6
34″	28,13,23,40,18,17,39, 8, 6,57		2, 3,48, 3,27	
		1,50,53,34,29, 7,35,32		8, 6
36″	28,13,25,31,11,52, 8,15,42,29		2, 3,48,11,33	
		1,50,53,32,25,19,23,59		8, 6
38″	28,13,27,22, 5,24,33,35, 6,28		2, 3,48,19,39	
		1,50,53,30,21,31, 4,20		8, 6
40″	28,13,29,12,58,54,55, 6,10,48		2, 3,48,27,45	
		1,50,53,28,17,42,36,35		8, 6
42″	28,13,31, 3,52,23,12,48,47,23		2, 3,48,35,51	
		1,50,53,26,13,54, 0,44		8, 6
44″	28,13,32,54,45,49,26,42,48, 7		2, 3,48,43,57	
		1,50,53,24,10, 5,16,47		8, 6
46″	28,13,34,45,39,13,36,48, 4,54		2, 3,48,52, 3	
		1,50,53,22, 6,16,24,44		8, 6
48″	28,13,36,36,32,35,43, 4,29,38		2, 3,49, 0, 9	
		1,50,53,20, 2,27,24,35		8, 6
50″	28,13,38,27,25,55,45,31,54,13		2, 3,49, 8,15	
		1,50,53,17,58,38,16,20		8, 6
52″	28,13,40,18,19,13,44,10,10,33		2, 3,49,16,21	
		1,50,53,15,54,48,59,59		8, 6
54″	28,13,42, 9,12,29,38,59,10,32		2, 3,49,24,27	
		1,50,53,13,50,59,35,32		8, 6
56″	28,13,44, 0, 5,43,29,58,46, 4		2, 3,49,32,33	
		1,50,53,11,47,10, 2,59		8, 6
58″	28,13,45,50,58,55,17, 8,49, 3		2, 3,49,40,39	
		1,50,53, 9,43,20,22,20		
60″	28,13,47,41,52, 5, 0,29,11,23			
exact	28,13,47,41,52, 5, 0,28,38,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28° 4′ 0″	28,13,47,41,52, 5, 0,28,38,21			
		1,50,53, 7,39,30,30,11		
2″	28,13,49,32,45,12,39,59, 8,32		2, 3,49,57, 4	
		1,50,53, 5,35,40,33, 7		8, 6
4″	28,13,51,23,38,18,15,39,41,39		2, 3,50, 5,10	
		1,50,53, 3,31,50,27,57		8, 6
6″	28,13,53,14,31,21,47,30, 9,36		2, 3,50,13,16	
		1,50,53, 1,28, 0,14,41		8, 6
8″	28,13,55, 5,24,23,15,30,24,17		2, 3,50,21,22	
		1,50,52,59,24, 9,53,19		8, 6
10″	28,13,56,56,17,22,39,40,17,36		2, 3,50,29,28	
		1,50,52,57,20,19,23,51		8, 6
12″	28,13,58,47,10,19,59,59,41,27		2, 3,50,37,34	
		1,50,52,55,16,28,46,17		8, 6
14″	28,14, 0,38, 3,15,16,28,27,44		2, 3,50,45,40	
		1,50,52,53,12,38, 0,37		8, 6
16″	28,14, 2,28,56, 8,29, 6,28,21		2, 3,50,53,46	
		1,50,52,51, 8,47, 6,51		8, 6
18″	28,14, 4,19,48,59,37,53,35,12		2, 3,51, 1,52	
		1,50,52,49, 4,56, 4,59		8, 6
20″	28,14, 6,10,41,48,42,49,40,11		2, 3,51, 9,58	
		1,50,52,47, 1, 4,55, 1		8, 6
22″	28,14, 8, 1,34,35,43,54,35,12		2, 3,51,18, 4	
		1,50,52,44,57,13,36,57		8, 6
24″	28,14, 9,52,27,20,41, 8,12, 9		2, 3,51,26,10	
		1,50,52,42,53,22,10,47		8, 6
26″	28,14,11,43,20, 3,34,30,22,56		2, 3,51,34,16	
		1,50,52,40,49,30,36,31		8, 6
28″	28,14,13,34,12,44,24, 0,59,27		2, 3,51,42,22	
		1,50,52,38,45,38,54, 9		8, 6
30″	28,14,15,25, 5,23, 9,39,53,36		2, 3,51,50,28	
		1,50,52,36,41,47, 3,41		8, 6
32″	28,14,17,15,57,59,51,26,57,17		2, 3,51,58,34	
		1,50,52,34,37,55, 5, 7		8, 6
34″	28,14,19, 6,50,34,29,22, 2,24		2, 3,52, 6,40	
		1,50,52,32,34, 2,58,27		8, 6
36″	28,14,20,57,43, 7, 3,25, 0,51		2, 3,52,14,46	
		1,50,52,30,30,10,43,41		8, 6
38″	28,14,22,48,35,37,33,35,44,32		2, 3,52,22,52	
		1,50,52,28,26,18,20,49		8, 6
40″	28,14,24,39,28, 5,59,54, 5,21		2, 3,52,30,58	
		1,50,52,26,22,25,49,51		8, 6
42″	28,14,26,30,20,32,22,19,55,12		2, 3,52,39, 4	
		1,50,52,24,18,33,10,47		8, 6
44″	28,14,28,21,12,56,40,53, 5,59		2, 3,52,47,10	
		1,50,52,22,14,40,23,37		8, 6
46″	28,14,30,12, 5,18,55,33,29,36		2, 3,52,55,16	
		1,50,52,20,10,47,28,21		8, 6
48″	28,14,32, 2,57,39, 6,20,57,57		2, 3,53, 3,22	
		1,50,52,18, 6,54,24,59		8, 6
50″	28,14,33,53,49,57,13,15,22,56		2, 3,53,11,28	
		1,50,52,16, 3, 1,13,31		8, 6
52″	28,14,35,44,42,13,16,16,36,27		2, 3,53,19,34	
		1,50,52,13,59, 7,53,57		8, 6
54″	28,14,37,35,34,27,15,24,30,24		2, 3,53,27,40	
		1,50,52,11,55,14,26,17		8, 6
56″	28,14,39,26,26,39,10,38,56,41		2, 3,53,35,46	
		1,50,52, 9,51,20,50,31		8, 6
58″	28,14,41,17,18,49, 1,59,47,12		2, 3,53,43,52	
		1,50,52, 7,47,27, 6,39		
60″	28,14,43, 8,10,56,49,26,53,51			
exact	28,14,43, 8,10,56,49,26,25,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28° 5′ 0″	28,14,43, 8,10,56,49,26,25,30			
		1,50,52, 5,43,33,11,48		
2″	28,14,44,59, 3, 2,32,59,37,18		2, 3,54, 0,15	
		1,50,52, 3,39,39,11,33		8, 6
4″	28,14,46,49,55, 6,12,38,48,51		2, 3,54, 8,21	
		1,50,52, 1,35,45, 3,12		8, 6
6″	28,14,48,40,47, 7,48,23,52, 3		2, 3,54,16,27	
		1,50,51,59,31,50,46,45		8, 6
8″	28,14,50,31,39, 7,20,14,38,48		2, 3,54,24,33	
		1,50,51,57,27,56,22,12		8, 6
10″	28,14,52,22,31, 4,48,11, 1, 0		2, 3,54,32,39	
		1,50,51,55,24, 1,49,33		8, 6
12″	28,14,54,13,23, 0,12,12,50,33		2, 3,54,40,45	
		1,50,51,53,20, 7, 8,48		8, 6
14″	28,14,56, 4,14,53,32,19,59,21		2, 3,54,48,51	
		1,50,51,51,16,12,19,57		8, 6
16″	28,14,57,55, 6,44,48,32,19,18		2, 3,54,56,57	
		1,50,51,49,12,17,23, 0		8, 6
18″	28,14,59,45,58,34, 0,49,42,18		2, 3,55, 5, 3	
		1,50,51,47, 8,22,17,57		8, 6
20″	28,15, 1,36,50,21, 9,12, 0,15		2, 3,55,13, 9	
		1,50,51,45, 4,27, 4,48		8, 6
22″	28,15, 3,27,42, 6,13,39, 5, 3		2, 3,55,21,15	
		1,50,51,43, 0,31,43,33		8, 6
24″	28,15, 5,18,33,49,14,10,48,36		2, 3,55,29,21	
		1,50,51,40,56,36,14,12		8, 6
26″	28,15, 7, 9,25,30,10,47, 2,48		2, 3,55,37,27	
		1,50,51,38,52,40,36,45		8, 6
28″	28,15, 9, 0,17, 9, 3,27,39,33		2, 3,55,45,33	
		1,50,51,36,48,44,51,12		8, 6
30″	28,15,10,51, 8,45,52,12,30,45		2, 3,55,53,39	
		1,50,51,34,44,48,57,33		8, 6
32″	28,15,12,42, 0,20,37, 1,28,18		2, 3,56, 1,45	
		1,50,51,32,40,52,55,48		8, 6
34″	28,15,14,32,51,53,17,54,24, 6		2, 3,56, 9,51	
		1,50,51,30,36,56,45,57		8, 6
36″	28,15,16,23,43,23,54,51,10, 3		2, 3,56,17,57	
		1,50,51,28,33, 0,28, 0		8, 6
38″	28,15,18,14,34,52,27,51,38, 3		2, 3,56,26, 3	
		1,50,51,26,29, 4, 1,57		8, 6
40″	28,15,20, 5,26,18,56,55,40, 0		2, 3,56,34, 9	
		1,50,51,24,25, 7,27,48		8, 6
42″	28,15,21,56,17,43,22, 3, 7,48		2, 3,56,42,15	
		1,50,51,22,21,10,45,33		8, 6
44″	28,15,23,47, 9, 5,43,13,53,21		2, 3,56,50,21	
		1,50,51,20,17,13,55,12		8, 6
46″	28,15,25,38, 0,26, 0,27,48,33		2, 3,56,58,27	
		1,50,51,18,13,16,56,45		8, 6
48″	28,15,27,28,51,44,13,44,45,18		2, 3,57, 6,33	
		1,50,51,16, 9,19,50,12		8, 6
50″	28,15,29,19,43, 0,23, 4,35,30		2, 3,57,14,39	
		1,50,51,14, 5,22,35,33		8, 6
52″	28,15,31,10,34,14,28,27,11, 3		2, 3,57,22,45	
		1,50,51,12, 1,25,12,48		8, 6
54″	28,15,33, 1,25,26,29,52,23,51		2, 3,57,30,51	
		1,50,51, 9,57,27,41,57		8, 6
56″	28,15,34,52,16,36,27,20, 5,48		2, 3,57,38,57	
		1,50,51, 7,53,30, 3, 0		8, 6
58″	28,15,36,43, 7,44,20,50, 8,48		2, 3,57,47, 3	
		1,50,51, 5,49,32,15,57		
60″	28,15,38,33,58,50,10,22,24,45			
exact	28,15,38,33,58,50,10,22, 3,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28° 6′ 0″	28,15,38,33,58,50,10,22, 3,23			
		1,50,51, 3,45,34,18,35		
2″	28,15,40,24,49,53,55,56,21,58		2, 3,58, 3,24	
		1,50,51, 1,41,36,15,11		8, 6
4″	28,15,42,15,40,55,37,32,37, 9		2, 3,58,11,30	
		1,50,50,59,37,38, 3,41		8, 6
6″	28,15,44, 6,31,55,15,10,40,50		2, 3,58,19,36	
		1,50,50,57,33,39,44, 5		8, 6
8″	28,15,45,57,22,52,48,50,24,55		2, 3,58,27,42	
		1,50,50,55,29,41,16,23		8, 6
10″	28,15,47,48,13,48,18,31,41,18		2, 3,58,35,48	
		1,50,50,53,25,42,40,35		8, 6
12″	28,15,49,39, 4,41,44,14,21,53		2, 3,58,43,54	
		1,50,50,51,21,43,56,41		8, 6
14″	28,15,51,29,55,33, 5,58,18,34		2, 3,58,52, 0	
		1,50,50,49,17,45, 4,41		8, 6
16″	28,15,53,20,46,22,23,43,23,15		2, 3,59, 0, 6	
		1,50,50,47,13,46, 4,35		8, 6
18″	28,15,55,11,37, 9,37,29,27,50		2, 3,59, 8,12	
		1,50,50,45, 9,46,56,23		8, 6
20″	28,15,57, 2,27,54,47,16,24,13		2, 3,59,16,18	
		1,50,50,43, 5,47,40, 5		8, 6
22″	28,15,58,53,18,37,53, 4, 4,18		2, 3,59,24,24	
		1,50,50,41, 1,48,15,41		8, 6
24″	28,16, 0,44, 9,18,54,52,19,59		2, 3,59,32,30	
		1,50,50,38,57,48,43,11		8, 6
26″	28,16, 2,34,59,57,52,41, 3,10		2, 3,59,40,36	
		1,50,50,36,53,49, 2,35		8, 6
28″	28,16, 4,25,50,34,46,30, 5,45		2, 3,59,48,42	
		1,50,50,34,49,49,13,53		8, 6
30″	28,16, 6,16,41, 9,36,19,19,38		2, 3,59,56,48	
		1,50,50,32,45,49,17, 5		8, 6
32″	28,16, 8, 7,31,42,22, 8,36,43		2, 4, 0, 4,54	
		1,50,50,30,41,49,12,11		8, 6
34″	28,16, 9,58,22,13, 3,57,48,54		2, 4, 0,13, 0	
		1,50,50,28,37,48,59,11		8, 6
36″	28,16,11,49,12,41,41,46,48, 5		2, 4, 0,21, 6	
		1,50,50,26,33,48,38, 5		8, 6
38″	28,16,13,40, 3, 8,15,35,26,10		2, 4, 0,29,12	
		1,50,50,24,29,48, 8,53		8, 6
40″	28,16,15,30,53,32,45,23,35, 3		2, 4, 0,37,18	
		1,50,50,22,25,47,31,35		8, 6
42″	28,16,17,21,43,55,11,11, 6,38		2, 4, 0,45,24	
		1,50,50,20,21,46,46,11		8, 6
44″	28,16,19,12,34,15,32,57,52,49		2, 4, 0,53,30	
		1,50,50,18,17,45,52,41		8, 6
46″	28,16,21, 3,24,33,50,43,45,30		2, 4, 1, 1,36	
		1,50,50,16,13,44,51, 5		8, 6
48″	28,16,22,54,14,50, 4,28,36,35		2, 4, 1, 9,42	
		1,50,50,14, 9,43,41,23		8, 6
50″	28,16,24,45, 5, 4,14,12,17,58		2, 4, 1,17,48	
		1,50,50,12, 5,42,23,35		8, 6
52″	28,16,26,35,55,16,19,54,41,33		2, 4, 1,25,54	
		1,50,50,10, 1,40,57,41		8, 6
54″	28,16,28,26,45,26,21,35,39,14		2, 4, 1,34, 0	
		1,50,50, 7,57,39,23,41		8, 6
56″	28,16,30,17,35,34,19,15, 2,55		2, 4, 1,42, 6	
		1,50,50, 5,53,37,41,35		8, 6
58″	28,16,32, 8,25,40,12,52,44,30		2, 4, 1,50,12	
		1,50,50, 3,49,35,51,23		
60″	28,16,33,59,15,44, 2,28,35,53			
exact	28,16,33,59,15,44, 2,28,23,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28° 7′ 0″	28,16,33,59,15,44, 2,28,23,14			
		1,50,50, 1,45,33,51,40		
2″	28,16,35,50, 5,45,48, 2,14,54		2, 4, 2, 6,30	
		1,50,49,59,41,31,45,10		8, 6
4″	28,16,37,40,55,45,29,34, 0, 4		2, 4, 2,14,36	
		1,50,49,57,37,29,30,34		8, 6
6″	28,16,39,31,45,43, 7, 3,30,38		2, 4, 2,22,42	
		1,50,49,55,33,27, 7,52		8, 6
8″	28,16,41,22,35,38,40,30,38,30		2, 4, 2,30,48	
		1,50,49,53,29,24,37, 4		8, 6
10″	28,16,43,13,25,32, 9,55,15,34		2, 4, 2,38,54	
		1,50,49,51,25,21,58,10		8, 6
12″	28,16,45, 4,15,23,35,17,13,44		2, 4, 2,47, 0	
		1,50,49,49,21,19,11,10		8, 6
14″	28,16,46,55, 5,12,56,36,24,54		2, 4, 2,55, 6	
		1,50,49,47,17,16,16, 4		8, 6
16″	28,16,48,45,55, 0,13,52,40,58		2, 4, 3, 3,12	
		1,50,49,45,13,13,12,52		8, 6
18″	28,16,50,36,44,45,27, 5,53,50		2, 4, 3,11,18	
		1,50,49,43, 9,10, 1,34		8, 6
20″	28,16,52,27,34,28,36,15,55,24		2, 4, 3,19,24	
		1,50,49,41, 5, 6,42,10		8, 6
22″	28,16,54,18,24, 9,41,22,37,34		2, 4, 3,27,30	
		1,50,49,39, 1, 3,14,40		8, 6
24″	28,16,56, 9,13,48,42,25,52,14		2, 4, 3,35,36	
		1,50,49,36,56,59,39, 4		8, 6
26″	28,16,58, 0, 3,25,39,25,31,18		2, 4, 3,43,42	
		1,50,49,34,52,55,55,22		8, 6
28″	28,16,59,50,53, 0,32,21,26,40		2, 4, 3,51,48	
		1,50,49,32,48,52, 3,34		8, 6
30″	28,17, 1,41,42,33,21,13,30,14		2, 4, 3,59,54	
		1,50,49,30,44,48, 3,40		8, 6
32″	28,17, 3,32,32, 4, 6, 1,33,54		2, 4, 4, 8, 0	
		1,50,49,28,40,43,55,40		8, 6
34″	28,17, 5,23,21,32,46,45,29,34		2, 4, 4,16, 6	
		1,50,49,26,36,39,39,34		8, 6
36″	28,17, 7,14,10,59,23,25, 9, 8		2, 4, 4,24,12	
		1,50,49,24,32,35,15,22		8, 6
38″	28,17, 9, 5, 0,23,56, 0,24,30		2, 4, 4,32,18	
		1,50,49,22,28,30,43, 4		8, 6
40″	28,17,10,55,49,46,24,31, 7,34		2, 4, 4,40,24	
		1,50,49,20,24,26, 2,40		8, 6
42″	28,17,12,46,39, 6,48,57,10,14		2, 4, 4,48,30	
		1,50,49,18,20,21,14,10		8, 6
44″	28,17,14,37,28,25, 9,18,24,24		2, 4, 4,56,36	
		1,50,49,16,16,16,17,34		8, 6
46″	28,17,16,28,17,41,25,34,41,58		2, 4, 5, 4,42	
		1,50,49,14,12,11,12,52		8, 6
48″	28,17,18,19, 6,55,37,45,54,50		2, 4, 5,12,48	
		1,50,49,12, 8, 6, 0, 4		8, 6
50″	28,17,20, 9,56, 7,45,51,54,54		2, 4, 5,20,54	
		1,50,49,10, 4, 0,39,10		8, 6
52″	28,17,22, 0,45,17,49,52,34, 4		2, 4, 5,29, 0	
		1,50,49, 7,59,55,10,10		8, 6
54″	28,17,23,51,34,25,49,47,44,14		2, 4, 5,37, 6	
		1,50,49, 5,55,49,33, 4		8, 6
56″	28,17,25,42,23,31,45,37,17,18		2, 4, 5,45,12	
		1,50,49, 3,51,43,47,52		8, 6
58″	28,17,27,33,12,35,37,21, 5,10		2, 4, 5,53,18	
		1,50,49, 1,47,37,54,34		
60″	28,17,29,24, 1,37,24,58,59,44			
exact	28,17,29,24, 1,37,24,58,50,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28° 8′ 0″	28,17,29,24, 1,37,24,58,50,17			
		1,50,48,59,43,31,52,10		
2″	28,17,31,14,50,37, 8,30,42,27		2, 4, 6, 9,34	
		1,50,48,57,39,25,42,36		8, 6
4″	28,17,33, 5,39,34,47,56,25, 3		2, 4, 6,17,40	
		1,50,48,55,35,19,24,56		8, 6
6″	28,17,34,56,28,30,23,15,49,59		2, 4, 6,25,46	
		1,50,48,53,31,12,59,10		8, 6
8″	28,17,36,47,17,23,54,28,49, 9		2, 4, 6,33,52	
		1,50,48,51,27, 6,25,18		8, 6
10″	28,17,38,38, 6,15,21,35,14,27		2, 4, 6,41,58	
		1,50,48,49,22,59,43,20		8, 6
12″	28,17,40,28,55, 4,44,34,57,47		2, 4, 6,50, 4	
		1,50,48,47,18,52,53,16		8, 6
14″	28,17,42,19,43,52, 3,27,51, 3		2, 4, 6,58,10	
		1,50,48,45,14,45,55, 6		8, 6
16″	28,17,44,10,32,37,18,13,46, 9		2, 4, 7, 6,16	
		1,50,48,43,10,38,48,50		8, 6
18″	28,17,46, 1,21,20,28,52,34,59		2, 4, 7,14,22	
		1,50,48,41, 6,31,34,28		8, 6
20″	28,17,47,52,10, 1,35,24, 9,27		2, 4, 7,22,28	
		1,50,48,39, 2,24,12, 0		8, 6
22″	28,17,49,42,58,40,37,48,21,27		2, 4, 7,30,34	
		1,50,48,36,58,16,41,26		8, 6
24″	28,17,51,33,47,17,36, 5, 2,53		2, 4, 7,38,40	
		1,50,48,34,54, 9, 2,46		8, 6
26″	28,17,53,24,35,52,30,14, 5,39		2, 4, 7,46,46	
		1,50,48,32,50, 1,16, 0		8, 6
28″	28,17,55,15,24,25,20,15,21,39		2, 4, 7,54,52	
		1,50,48,30,45,53,21, 8		8, 6
30″	28,17,57, 6,12,56, 6, 8,42,47		2, 4, 8, 2,58	
		1,50,48,28,41,45,18,10		8, 6
32″	28,17,58,57, 1,24,47,54, 0,57		2, 4, 8,11, 4	
		1,50,48,26,37,37, 7, 6		8, 6
34″	28,18, 0,47,49,51,25,31, 8, 3		2, 4, 8,19,10	
		1,50,48,24,33,28,47,56		8, 6
36″	28,18, 2,38,38,15,58,59,55,59		2, 4, 8,27,16	
		1,50,48,22,29,20,20,40		8, 6
38″	28,18, 4,29,26,38,28,20,16,39		2, 4, 8,35,22	
		1,50,48,20,25,11,45,18		8, 6
40″	28,18, 6,20,14,58,53,32, 1,57		2, 4, 8,43,28	
		1,50,48,18,21, 3, 1,50		8, 6
42″	28,18, 8,11, 3,17,14,35, 3,47		2, 4, 8,51,34	
		1,50,48,16,16,54,10,16		8, 6
44″	28,18,10, 1,51,33,31,29,14, 3		2, 4, 8,59,40	
		1,50,48,14,12,45,10,36		8, 6
46″	28,18,11,52,39,47,44,14,24,39		2, 4, 9, 7,46	
		1,50,48,12, 8,36, 2,50		8, 6
48″	28,18,13,43,27,59,52,50,27,29		2, 4, 9,15,52	
		1,50,48,10, 4,26,46,58		8, 6
50″	28,18,15,34,16, 9,57,17,14,27		2, 4, 9,23,58	
		1,50,48, 8, 0,17,23, 0		8, 6
52″	28,18,17,25, 4,17,57,34,37,27		2, 4, 9,32, 4	
		1,50,48, 5,56, 7,50,56		8, 6
54″	28,18,19,15,52,23,53,42,28,23		2, 4, 9,40,10	
		1,50,48, 3,51,58,10,46		8, 6
56″	28,18,21, 6,40,27,45,40,39, 9		2, 4, 9,48,16	
		1,50,48, 1,47,48,22,30		8, 6
58″	28,18,22,57,28,29,33,29, 1,39		2, 4, 9,56,22	
		1,50,47,59,43,38,26, 8		
60″	28,18,24,48,16,29,17, 7,27,47			
exact	28,18,24,48,16,29,17, 7,23,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28° 9′ 0″	28,18,24,48,16,29,17, 7,23,49			
		1,50,47,57,39,28,21,14		
2″	28,18,26,39, 4,26,56,35,45, 3		2, 4,10,12,36	
		1,50,47,55,35,18, 8,38		8, 6
4″	28,18,28,29,52,22,31,53,53,41		2, 4,10,20,42	
		1,50,47,53,31, 7,47,56		8, 6
6″	28,18,30,20,40,16, 3, 1,41,37		2, 4,10,28,48	
		1,50,47,51,26,57,19, 8		8, 6
8″	28,18,32,11,28, 7,29,59, 0,45		2, 4,10,36,54	
		1,50,47,49,22,46,42,14		8, 6
10″	28,18,34, 2,15,56,52,45,42,59		2, 4,10,45, 0	
		1,50,47,47,18,35,57,14		8, 6
12″	28,18,35,53, 3,44,11,21,40,13		2, 4,10,53, 6	
		1,50,47,45,14,25, 4, 8		8, 6
14″	28,18,37,43,51,29,25,46,44,21		2, 4,11, 1,12	
		1,50,47,43,10,14, 2,56		8, 6
16″	28,18,39,34,39,12,36, 0,47,17		2, 4,11, 9,18	
		1,50,47,41, 6, 2,53,38		8, 6
18″	28,18,41,25,26,53,42, 3,40,55		2, 4,11,17,24	
		1,50,47,39, 1,51,36,14		8, 6
20″	28,18,43,16,14,32,43,55,17, 9		2, 4,11,25,30	
		1,50,47,36,57,40,10,44		8, 6
22″	28,18,45, 7, 2, 9,41,35,27,53		2, 4,11,33,36	
		1,50,47,34,53,28,37, 8		8, 6
24″	28,18,46,57,49,44,35, 4, 5, 1		2, 4,11,41,42	
		1,50,47,32,49,16,55,26		8, 6
26″	28,18,48,48,37,17,24,21, 0,27		2, 4,11,49,48	
		1,50,47,30,45, 5, 5,38		8, 6
28″	28,18,50,39,24,48, 9,26, 6, 5		2, 4,11,57,54	
		1,50,47,28,40,53, 7,44		8, 6
30″	28,18,52,30,12,16,50,19,13,49		2, 4,12, 6, 0	
		1,50,47,26,36,41, 1,44		8, 6
32″	28,18,54,20,59,43,27, 0,15,33		2, 4,12,14, 6	
		1,50,47,24,32,28,47,38		8, 6
34″	28,18,56,11,47, 7,59,29, 3,11		2, 4,12,22,12	
		1,50,47,22,28,16,25,26		8, 6
36″	28,18,58, 2,34,30,27,45,28,37		2, 4,12,30,18	
		1,50,47,20,24, 3,55, 8		8, 6
38″	28,18,59,53,21,50,51,49,23,45		2, 4,12,38,24	
		1,50,47,18,19,51,16,44		8, 6
40″	28,19, 1,44, 9, 9,11,40,40,29		2, 4,12,46,30	
		1,50,47,16,15,38,30,14		8, 6
42″	28,19, 3,34,56,25,27,19,10,43		2, 4,12,54,36	
		1,50,47,14,11,25,35,38		8, 6
44″	28,19, 5,25,43,39,38,44,46,21		2, 4,13, 2,42	
		1,50,47,12, 7,12,32,56		8, 6
46″	28,19, 7,16,30,51,45,57,19,17		2, 4,13,10,48	
		1,50,47,10, 2,59,22, 8		8, 6
48″	28,19, 9, 7,18, 1,48,56,41,25		2, 4,13,18,54	
		1,50,47, 7,58,46, 3,14		8, 6
50″	28,19,10,58, 5, 9,47,42,44,39		2, 4,13,27, 0	
		1,50,47, 5,54,32,36,14		8, 6
52″	28,19,12,48,52,15,42,15,20,53		2, 4,13,35, 6	
		1,50,47, 3,50,19, 1, 8		8, 6
54″	28,19,14,39,39,19,32,34,22, 1		2, 4,13,43,12	
		1,50,47, 1,46, 5,17,56		8, 6
56″	28,19,16,30,26,21,18,39,39,57		2, 4,13,51,18	
		1,50,46,59,41,51,26,38		8, 6
58″	28,19,18,21,13,21, 0,31, 6,35		2, 4,13,59,24	
		1,50,46,57,37,37,27,14		
60″	28,19,20,12, 0,18,38, 8,33,49			
exact	28,19,20,12, 0,18,38, 8,37, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°10′ 0″	28,19,20,12, 0,18,38, 8,37, 3			
		1,50,46,55,33,23,20, 0		
2″	28,19,22, 2,47,14,11,31,57, 3		2, 4,14,15,35	
		1,50,46,53,29, 9, 4,25		8, 6
4″	28,19,23,53,34, 7,40,41, 1,28		2, 4,14,23,41	
		1,50,46,51,24,54,40,44		8, 6
6″	28,19,25,44,20,59, 5,35,42,12		2, 4,14,31,47	
		1,50,46,49,20,40, 8,57		8, 6
8″	28,19,27,35, 7,48,26,15,51, 9		2, 4,14,39,53	
		1,50,46,47,16,25,29, 4		8, 6
10″	28,19,29,25,54,35,42,41,20,13		2, 4,14,47,59	
		1,50,46,45,12,10,41, 5		8, 6
12″	28,19,31,16,41,20,54,52, 1,18		2, 4,14,56, 5	
		1,50,46,43, 7,55,45, 0		8, 6
14″	28,19,33, 7,28, 4, 2,47,46,18		2, 4,15, 4,11	
		1,50,46,41, 3,40,40,49		8, 6
16″	28,19,34,58,14,45, 6,28,27, 7		2, 4,15,12,17	
		1,50,46,38,59,25,28,32		8, 6
18″	28,19,36,49, 1,24, 5,53,55,39		2, 4,15,20,23	
		1,50,46,36,55,10, 8, 9		8, 6
20″	28,19,38,39,48, 1, 1, 4, 3,48		2, 4,15,28,29	
		1,50,46,34,50,54,39,40		8, 6
22″	28,19,40,30,34,35,51,58,43,28		2, 4,15,36,35	
		1,50,46,32,46,39, 3, 5		8, 6
24″	28,19,42,21,21, 8,38,37,46,33		2, 4,15,44,41	
		1,50,46,30,42,23,18,24		8, 6
26″	28,19,44,12, 7,39,21, 1, 4,57		2, 4,15,52,47	
		1,50,46,28,38, 7,25,37		8, 6
28″	28,19,46, 2,54, 7,59, 8,30,34		2, 4,16, 0,53	
		1,50,46,26,33,51,24,44		8, 6
30″	28,19,47,53,40,34,32,59,55,18		2, 4,16, 8,59	
		1,50,46,24,29,35,15,45		8, 6
32″	28,19,49,44,26,59, 2,35,11, 3		2, 4,16,17, 5	
		1,50,46,22,25,18,58,40		8, 6
34″	28,19,51,35,13,21,27,54, 9,43		2, 4,16,25,11	
		1,50,46,20,21, 2,33,29		8, 6
36″	28,19,53,25,59,41,48,56,43,12		2, 4,16,33,17	
		1,50,46,18,16,46, 0,12		8, 6
38″	28,19,55,16,46, 0, 5,42,43,24		2, 4,16,41,23	
		1,50,46,16,12,29,18,49		8, 6
40″	28,19,57, 7,32,16,18,12, 2,13		2, 4,16,49,29	
		1,50,46,14, 8,12,29,20		8, 6
42″	28,19,58,58,18,30,26,24,31,33		2, 4,16,57,35	
		1,50,46,12, 3,55,31,45		8, 6
44″	28,20, 0,49, 4,42,30,20, 3,18		2, 4,17, 5,41	
		1,50,46, 9,59,38,26, 4		8, 6
46″	28,20, 2,39,50,52,29,58,29,22		2, 4,17,13,47	
		1,50,46, 7,55,21,12,17		8, 6
48″	28,20, 4,30,37, 0,25,19,41,39		2, 4,17,21,53	
		1,50,46, 5,51, 3,50,24		8, 6
50″	28,20, 6,21,23, 6,16,23,32, 3		2, 4,17,29,59	
		1,50,46, 3,46,46,20,25		8, 6
52″	28,20, 8,12, 9,10, 3, 9,52,28		2, 4,17,38, 5	
		1,50,46, 1,42,28,42,20		8, 6
54″	28,20,10, 2,55,11,45,38,34,48		2, 4,17,46,11	
		1,50,45,59,38,10,56, 9		8, 6
56″	28,20,11,53,41,11,23,49,30,57		2, 4,17,54,17	
		1,50,45,57,33,53, 1,52		8, 6
58″	28,20,13,44,27, 8,57,42,32,49		2, 4,18, 2,23	
		1,50,45,55,29,34,59,29		
60″	28,20,15,35,13, 4,27,17,32,18			
exact	28,20,15,35,13, 4,27,17,37,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°11′ 0″	28,20,15,35,13, 4,27,17,37,21			
		1,50,45,53,25,16,49,35		
2″	28,20,17,25,58,57,52,34,26,56		2, 4,18,18,32	
		1,50,45,51,20,58,31, 3		8, 6
4″	28,20,19,16,44,49,13,32,57,59		2, 4,18,26,38	
		1,50,45,49,16,40, 4,25		8, 6
6″	28,20,21, 7,30,38,30,13, 2,24		2, 4,18,34,44	
		1,50,45,47,12,21,29,41		8, 6
8″	28,20,22,58,16,25,42,34,32, 5		2, 4,18,42,50	
		1,50,45,45, 8, 2,46,51		8, 6
10″	28,20,24,49, 2,10,50,37,18,56		2, 4,18,50,56	
		1,50,45,43, 3,43,55,55		8, 6
12″	28,20,26,39,47,53,54,21,14,51		2, 4,18,59, 2	
		1,50,45,40,59,24,56,53		8, 6
14″	28,20,28,30,33,34,53,46,11,44		2, 4,19, 7, 8	
		1,50,45,38,55, 5,49,45		8, 6
16″	28,20,30,21,19,13,48,52, 1,29		2, 4,19,15,14	
		1,50,45,36,50,46,34,31		8, 6
18″	28,20,32,12, 4,50,39,38,36, 0		2, 4,19,23,20	
		1,50,45,34,46,27,11,11		8, 6
20″	28,20,34, 2,50,25,26, 5,47,11		2, 4,19,31,26	
		1,50,45,32,42, 7,39,45		8, 6
22″	28,20,35,53,35,58, 8,13,26,56		2, 4,19,39,32	
		1,50,45,30,37,48, 0,13		8, 6
24″	28,20,37,44,21,28,46, 1,27, 9		2, 4,19,47,38	
		1,50,45,28,33,28,12,35		8, 6
26″	28,20,39,35, 6,57,19,29,39,44		2, 4,19,55,44	
		1,50,45,26,29, 8,16,51		8, 6
28″	28,20,41,25,52,23,48,37,56,35		2, 4,20, 3,50	
		1,50,45,24,24,48,13, 1		8, 6
30″	28,20,43,16,37,48,13,26, 9,36		2, 4,20,11,56	
		1,50,45,22,20,28, 1, 5		8, 6
32″	28,20,45, 7,23,10,33,54,10,41		2, 4,20,20, 2	
		1,50,45,20,16, 7,41, 3		8, 6
34″	28,20,46,58, 8,30,50, 1,51,44		2, 4,20,28, 8	
		1,50,45,18,11,47,12,55		8, 6
36″	28,20,48,48,53,49, 1,49, 4,39		2, 4,20,36,14	
		1,50,45,16, 7,26,36,41		8, 6
38″	28,20,50,39,39, 5, 9,15,41,20		2, 4,20,44,20	
		1,50,45,14, 3, 5,52,21		8, 6
40″	28,20,52,30,24,19,12,21,33,41		2, 4,20,52,26	
		1,50,45,11,58,44,59,55		8, 6
42″	28,20,54,21, 9,31,11, 6,33,36		2, 4,21, 0,32	
		1,50,45, 9,54,23,59,23		8, 6
44″	28,20,56,11,54,41, 5,30,32,59		2, 4,21, 8,38	
		1,50,45, 7,50, 2,50,45		8, 6
46″	28,20,58, 2,39,48,55,33,23,44		2, 4,21,16,44	
		1,50,45, 5,45,41,34, 1		8, 6
48″	28,20,59,53,24,54,41,14,57,45		2, 4,21,24,50	
		1,50,45, 3,41,20, 9,11		8, 6
50″	28,21, 1,44, 9,58,22,35, 6,56		2, 4,21,32,56	
		1,50,45, 1,36,58,36,15		8, 6
52″	28,21, 3,34,54,59,59,33,43,11		2, 4,21,41, 2	
		1,50,44,59,32,36,55,13		8, 6
54″	28,21, 5,25,39,59,32,10,38,24		2, 4,21,49, 8	
		1,50,44,57,28,15, 6, 5		8, 6
56″	28,21, 7,16,24,57, 0,25,44,29		2, 4,21,57,14	
		1,50,44,55,23,53, 8,51		8, 6
58″	28,21, 9, 7, 9,52,24,18,53,20		2, 4,22, 5,20	
		1,50,44,53,19,31, 3,31		
60″	28,21,10,57,54,45,43,49,56,51			
exact	28,21,10,57,54,45,43,50, 6, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°12′ 0″	28,21,10,57,54,45,43,50, 6, 2			
		1,50,44,51,15, 8,51, 9		
2″	28,21,12,48,39,36,58,58,57,11		2, 4,22,21,27	
		1,50,44,49,10,46,29,42		8, 6
4″	28,21,14,39,24,26, 9,45,26,53		2, 4,22,29,33	
		1,50,44,47, 6,24, 0, 9		8, 6
6″	28,21,16,30, 9,13,16, 9,27, 2		2, 4,22,37,39	
		1,50,44,45, 2, 1,22,30		8, 6
8″	28,21,18,20,53,58,18,10,49,32		2, 4,22,45,45	
		1,50,44,42,57,38,36,45		8, 6
10″	28,21,20,11,38,41,15,49,26,17		2, 4,22,53,51	
		1,50,44,40,53,15,42,54		8, 6
12″	28,21,22, 2,23,22, 9, 5, 9,11		2, 4,23, 1,57	
		1,50,44,38,48,52,40,57		8, 6
14″	28,21,23,53, 8, 0,57,57,50, 8		2, 4,23,10, 3	
		1,50,44,36,44,29,30,54		8, 6
16″	28,21,25,43,52,37,42,27,21, 2		2, 4,23,18, 9	
		1,50,44,34,40, 6,12,45		8, 6
18″	28,21,27,34,37,12,22,33,33,47		2, 4,23,26,15	
		1,50,44,32,35,42,46,30		8, 6
20″	28,21,29,25,21,44,58,16,20,17		2, 4,23,34,21	
		1,50,44,30,31,19,12, 9		8, 6
22″	28,21,31,16, 6,15,29,35,32,26		2, 4,23,42,27	
		1,50,44,28,26,55,29,42		8, 6
24″	28,21,33, 6,50,43,56,31, 2, 8		2, 4,23,50,33	
		1,50,44,26,22,31,39, 9		8, 6
26″	28,21,34,57,35,10,19, 2,41,17		2, 4,23,58,39	
		1,50,44,24,18, 7,40,30		8, 6
28″	28,21,36,48,19,34,37,10,21,47		2, 4,24, 6,45	
		1,50,44,22,13,43,33,45		8, 6
30″	28,21,38,39, 3,56,50,53,55,32		2, 4,24,14,51	
		1,50,44,20, 9,19,18,54		8, 6
32″	28,21,40,29,48,17, 0,13,14,26		2, 4,24,22,57	
		1,50,44,18, 4,54,55,57		8, 6
34″	28,21,42,20,32,35, 5, 8,10,23		2, 4,24,31, 3	
		1,50,44,16, 0,30,24,54		8, 6
36″	28,21,44,11,16,51, 5,38,35,17		2, 4,24,39, 9	
		1,50,44,13,56, 5,45,45		8, 6
38″	28,21,46, 2, 1, 5, 1,44,21, 2		2, 4,24,47,15	
		1,50,44,11,51,40,58,30		8, 6
40″	28,21,47,52,45,16,53,25,19,32		2, 4,24,55,21	
		1,50,44, 9,47,16, 3, 9		8, 6
42″	28,21,49,43,29,26,40,41,22,41		2, 4,25, 3,27	
		1,50,44, 7,42,50,59,42		8, 6
44″	28,21,51,34,13,34,23,32,22,23		2, 4,25,11,33	
		1,50,44, 5,38,25,48, 9		8, 6
46″	28,21,53,24,57,40, 1,58,10,32		2, 4,25,19,39	
		1,50,44, 3,34, 0,28,30		8, 6
48″	28,21,55,15,41,43,35,58,39, 2		2, 4,25,27,45	
		1,50,44, 1,29,35, 0,45		8, 6
50″	28,21,57, 6,25,45, 5,33,39,47		2, 4,25,35,51	
		1,50,43,59,25, 9,24,54		8, 6
52″	28,21,58,57, 9,44,30,43, 4,41		2, 4,25,43,57	
		1,50,43,57,20,43,40,57		8, 6
54″	28,22, 0,47,53,41,51,26,45,38		2, 4,25,52, 3	
		1,50,43,55,16,17,48,54		8, 6
56″	28,22, 2,38,37,37, 7,44,34,32		2, 4,26, 0, 9	
		1,50,43,53,11,51,48,45		8, 6
58″	28,22, 4,29,21,30,19,36,23,17		2, 4,26, 8,15	
		1,50,43,51, 7,25,40,30		
60″	28,22, 6,20, 5,21,27, 2, 3,47			
exact	28,22, 6,20, 5,21,27, 2,18,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°13′ 0″	28,22, 6,20, 5,21,27, 2,18,34			
		1,50,43,49, 2,59,25,48		
2″	28,22, 8,10,49,10,30, 1,44,22		2, 4,26,24,20	
		1,50,43,46,58,33, 1,28		8, 6
4″	28,22,10, 1,32,57,28,34,45,50		2, 4,26,32,26	
		1,50,43,44,54, 6,29, 2		8, 6
6″	28,22,11,52,16,42,22,41,14,52		2, 4,26,40,32	
		1,50,43,42,49,39,48,30		8, 6
8″	28,22,13,43, 0,25,12,21, 3,22		2, 4,26,48,38	
		1,50,43,40,45,12,59,52		8, 6
10″	28,22,15,33,44, 5,57,34, 3,14		2, 4,26,56,44	
		1,50,43,38,40,46, 3, 8		8, 6
12″	28,22,17,24,27,44,38,20, 6,22		2, 4,27, 4,50	
		1,50,43,36,36,18,58,18		8, 6
14″	28,22,19,15,11,21,14,39, 4,40		2, 4,27,12,56	
		1,50,43,34,31,51,45,22		8, 6
16″	28,22,21, 5,54,55,46,30,50, 2		2, 4,27,21, 2	
		1,50,43,32,27,24,24,20		8, 6
18″	28,22,22,56,38,28,13,55,14,22		2, 4,27,29, 8	
		1,50,43,30,22,56,55,12		8, 6
20″	28,22,24,47,21,58,36,52, 9,34		2, 4,27,37,14	
		1,50,43,28,18,29,17,58		8, 6
22″	28,22,26,38, 5,26,55,21,27,32		2, 4,27,45,20	
		1,50,43,26,14, 1,32,38		8, 6
24″	28,22,28,28,48,53, 9,23, 0,10		2, 4,27,53,26	
		1,50,43,24, 9,33,39,12		8, 6
26″	28,22,30,19,32,17,18,56,39,22		2, 4,28, 1,32	
		1,50,43,22, 5, 5,37,40		8, 6
28″	28,22,32,10,15,39,24, 2,17, 2		2, 4,28, 9,38	
		1,50,43,20, 0,37,28, 2		8, 6
30″	28,22,34, 0,58,59,24,39,45, 4		2, 4,28,17,44	
		1,50,43,17,56, 9,10,18		8, 6
32″	28,22,35,51,42,17,20,48,55,22		2, 4,28,25,50	
		1,50,43,15,51,40,44,28		8, 6
34″	28,22,37,42,25,33,12,29,39,50		2, 4,28,33,56	
		1,50,43,13,47,12,10,32		8, 6
36″	28,22,39,33, 8,46,59,41,50,22		2, 4,28,42, 2	
		1,50,43,11,42,43,28,30		8, 6
38″	28,22,41,23,51,58,42,25,18,52		2, 4,28,50, 8	
		1,50,43, 9,38,14,38,22		8, 6
40″	28,22,43,14,35, 8,20,39,57,14		2, 4,28,58,14	
		1,50,43, 7,33,45,40, 8		8, 6
42″	28,22,45, 5,18,15,54,25,37,22		2, 4,29, 6,20	
		1,50,43, 5,29,16,33,48		8, 6
44″	28,22,46,56, 1,21,23,42,11,10		2, 4,29,14,26	
		1,50,43, 3,24,47,19,22		8, 6
46″	28,22,48,46,44,24,48,29,30,32		2, 4,29,22,32	
		1,50,43, 1,20,17,56,50		8, 6
48″	28,22,50,37,27,26, 8,47,27,22		2, 4,29,30,38	
		1,50,42,59,15,48,26,12		8, 6
50″	28,22,52,28,10,25,24,35,53,34		2, 4,29,38,44	
		1,50,42,57,11,18,47,28		8, 6
52″	28,22,54,18,53,22,35,54,41, 2		2, 4,29,46,50	
		1,50,42,55, 6,49, 0,38		8, 6
54″	28,22,56, 9,36,17,42,43,41,40		2, 4,29,54,56	
		1,50,42,53, 2,19, 5,42		8, 6
56″	28,22,58, 0,19,10,45, 2,47,22		2, 4,30, 3, 2	
		1,50,42,50,57,49, 2,40		8, 6
58″	28,22,59,51, 2, 1,42,51,50, 2		2, 4,30,11, 8	
		1,50,42,48,53,18,51,32		
60″	28,23, 1,41,44,50,36,10,41,34			
exact	28,23, 1,41,44,50,36,11, 4,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°14′ 0″	28,23, 1,41,44,50,36,11, 4,30			
		1,50,42,46,48,48,34,42		
2″	28,23, 3,32,27,37,24,59,39,12		2, 4,30,27,10	
		1,50,42,44,44,18, 7,32		8, 6
4″	28,23, 5,23,10,22, 9,17,46,44		2, 4,30,35,16	
		1,50,42,42,39,47,32,16		8, 6
6″	28,23, 7,13,53, 4,49, 5,19, 0		2, 4,30,43,22	
		1,50,42,40,35,16,48,54		8, 6
8″	28,23, 9, 4,35,45,24,22, 7,54		2, 4,30,51,28	
		1,50,42,38,30,45,57,26		8, 6
10″	28,23,10,55,18,23,55, 8, 5,20		2, 4,30,59,34	
		1,50,42,36,26,14,57,52		8, 6
12″	28,23,12,46, 1, 0,21,23, 3,12		2, 4,31, 7,40	
		1,50,42,34,21,43,50,12		8, 6
14″	28,23,14,36,43,34,43, 6,53,24		2, 4,31,15,46	
		1,50,42,32,17,12,34,26		8, 6
16″	28,23,16,27,26, 7, 0,19,27,50		2, 4,31,23,52	
		1,50,42,30,12,41,10,34		8, 6
18″	28,23,18,18, 8,37,13, 0,38,24		2, 4,31,31,58	
		1,50,42,28, 8, 9,38,36		8, 6
20″	28,23,20, 8,51, 5,21,10,17, 0		2, 4,31,40, 4	
		1,50,42,26, 3,37,58,32		8, 6
22″	28,23,21,59,33,31,24,48,15,32		2, 4,31,48,10	
		1,50,42,23,59, 6,10,22		8, 6
24″	28,23,23,50,15,55,23,54,25,54		2, 4,31,56,16	
		1,50,42,21,54,34,14, 6		8, 6
26″	28,23,25,40,58,17,18,28,40, 0		2, 4,32, 4,22	
		1,50,42,19,50, 2, 9,44		8, 6
28″	28,23,27,31,40,37, 8,30,49,44		2, 4,32,12,28	
		1,50,42,17,45,29,57,16		8, 6
30″	28,23,29,22,22,54,54, 0,47, 0		2, 4,32,20,34	
		1,50,42,15,40,57,36,42		8, 6
32″	28,23,31,13, 5,10,34,58,23,42		2, 4,32,28,40	
		1,50,42,13,36,25, 8, 2		8, 6
34″	28,23,33, 3,47,24,11,23,31,44		2, 4,32,36,46	
		1,50,42,11,31,52,31,16		8, 6
36″	28,23,34,54,29,35,43,16, 3, 0		2, 4,32,44,52	
		1,50,42, 9,27,19,46,24		8, 6
38″	28,23,36,45,11,45,10,35,49,24		2, 4,32,52,58	
		1,50,42, 7,22,46,53,26		8, 6
40″	28,23,38,35,53,52,33,22,42,50		2, 4,33, 1, 4	
		1,50,42, 5,18,13,52,22		8, 6
42″	28,23,40,26,35,57,51,36,35,12		2, 4,33, 9,10	
		1,50,42, 3,13,40,43,12		8, 6
44″	28,23,42,17,18, 1, 5,17,18,24		2, 4,33,17,16	
		1,50,42, 1, 9, 7,25,56		8, 6
46″	28,23,44, 8, 0, 2,14,24,44,20		2, 4,33,25,22	
		1,50,41,59, 4,34, 0,34		8, 6
48″	28,23,45,58,42, 1,18,58,44,54		2, 4,33,33,28	
		1,50,41,57, 0, 0,27, 6		8, 6
50″	28,23,47,49,23,58,18,59,12, 0		2, 4,33,41,34	
		1,50,41,54,55,26,45,32		8, 6
52″	28,23,49,40, 5,53,14,25,57,32		2, 4,33,49,40	
		1,50,41,52,50,52,55,52		8, 6
54″	28,23,51,30,47,46, 5,18,53,24		2, 4,33,57,46	
		1,50,41,50,46,18,58, 6		8, 6
56″	28,23,53,21,29,36,51,37,51,30		2, 4,34, 5,52	
		1,50,41,48,41,44,52,14		8, 6
58″	28,23,55,12,11,25,33,22,43,44		2, 4,34,13,58	
		1,50,41,46,37,10,38,16		
60″	28,23,57, 2,53,12,10,33,22, 0			
exact	28,23,57, 2,53,12,10,33,47,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°15′ 0″	28,23,57, 2,53,12,10,33,47,29			
		1,50,41,44,32,36,18,59		
2″	28,23,58,53,34,56,43,10, 6,28		2, 4,34,29,58	
		1,50,41,42,28, 1,49, 1		8, 6
4″	28,24, 0,44,16,39,11,11,55,29		2, 4,34,38, 4	
		1,50,41,40,23,27,10,57		8, 6
6″	28,24, 2,34,58,19,34,39, 6,26		2, 4,34,46,10	
		1,50,41,38,18,52,24,47		8, 6
8″	28,24, 4,25,39,57,53,31,31,13		2, 4,34,54,16	
		1,50,41,36,14,17,30,31		8, 6
10″	28,24, 6,16,21,34, 7,49, 1,44		2, 4,35, 2,22	
		1,50,41,34, 9,42,28, 9		8, 6
12″	28,24, 8, 7, 3, 8,17,31,29,53		2, 4,35,10,28	
		1,50,41,32, 5, 7,17,41		8, 6
14″	28,24, 9,57,44,40,22,38,47,34		2, 4,35,18,34	
		1,50,41,30, 0,31,59, 7		8, 6
16″	28,24,11,48,26,10,23,10,46,41		2, 4,35,26,40	
		1,50,41,27,55,56,32,27		8, 6
18″	28,24,13,39, 7,38,19, 7,19, 8		2, 4,35,34,46	
		1,50,41,25,51,20,57,41		8, 6
20″	28,24,15,29,49, 4,10,28,16,49		2, 4,35,42,52	
		1,50,41,23,46,45,14,49		8, 6
22″	28,24,17,20,30,27,57,13,31,38		2, 4,35,50,58	
		1,50,41,21,42, 9,23,51		8, 6
24″	28,24,19,11,11,49,39,22,55,29		2, 4,35,59, 4	
		1,50,41,19,37,33,24,47		8, 6
26″	28,24,21, 1,53, 9,16,56,20,16		2, 4,36, 7,10	
		1,50,41,17,32,57,17,37		8, 6
28″	28,24,22,52,34,26,49,53,37,53		2, 4,36,15,16	
		1,50,41,15,28,21, 2,21		8, 6
30″	28,24,24,43,15,42,18,14,40,14		2, 4,36,23,22	
		1,50,41,13,23,44,38,59		8, 6
32″	28,24,26,33,56,55,41,59,19,13		2, 4,36,31,28	
		1,50,41,11,19, 8, 7,31		8, 6
34″	28,24,28,24,38, 7, 1, 7,26,44		2, 4,36,39,34	
		1,50,41, 9,14,31,27,57		8, 6
36″	28,24,30,15,19,16,15,38,54,41		2, 4,36,47,40	
		1,50,41, 7, 9,54,40,17		8, 6
38″	28,24,32, 6, 0,23,25,33,34,58		2, 4,36,55,46	
		1,50,41, 5, 5,17,44,31		8, 6
40″	28,24,33,56,41,28,30,51,19,29		2, 4,37, 3,52	
		1,50,41, 3, 0,40,40,39		8, 6
42″	28,24,35,47,22,31,31,32, 0, 8		2, 4,37,11,58	
		1,50,41, 0,56, 3,28,41		8, 6
44″	28,24,37,38, 3,32,27,35,28,49		2, 4,37,20, 4	
		1,50,40,58,51,26, 8,37		8, 6
46″	28,24,39,28,44,31,19, 1,37,26		2, 4,37,28,10	
		1,50,40,56,46,48,40,27		8, 6
48″	28,24,41,19,25,28, 5,50,17,53		2, 4,37,36,16	
		1,50,40,54,42,11, 4,11		8, 6
50″	28,24,43,10, 6,22,48, 1,22, 4		2, 4,37,44,22	
		1,50,40,52,37,33,19,49		8, 6
52″	28,24,45, 0,47,15,25,34,41,53		2, 4,37,52,28	
		1,50,40,50,32,55,27,21		8, 6
54″	28,24,46,51,28, 5,58,30, 9,14		2, 4,38, 0,34	
		1,50,40,48,28,17,26,47		8, 6
56″	28,24,48,42, 8,54,26,47,36, 1		2, 4,38, 8,40	
		1,50,40,46,23,39,18, 7		8, 6
58″	28,24,50,32,49,40,50,26,54, 8		2, 4,38,16,46	
		1,50,40,44,19, 1, 1,21		
60″	28,24,52,23,30,25, 9,27,55,29			
exact	28,24,52,23,30,25, 9,28,25,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°16′ 0″	28,24,52,23,30,25, 9,28,25,19			
		1,50,40,42,14,22,39,46		
2″	28,24,54,14,11, 7,23,51, 5, 5		2, 4,38,32,44	
		1,50,40,40, 9,44, 7, 2		8, 5
4″	28,24,56, 4,51,47,33,35,12, 7		2, 4,38,40,49	
		1,50,40,38, 5, 5,26,13		8, 5
6″	28,24,57,55,32,25,38,40,38,20		2, 4,38,48,54	
		1,50,40,36, 0,26,37,19		8, 5
8″	28,24,59,46,13, 1,39, 7,15,39		2, 4,38,56,59	
		1,50,40,33,55,47,40,20		8, 5
10″	28,25, 1,36,53,35,34,54,55,59		2, 4,39, 5, 4	
		1,50,40,31,51, 8,35,16		8, 5
12″	28,25, 3,27,34, 7,26, 3,31,15		2, 4,39,13, 9	
		1,50,40,29,46,29,22, 7		8, 5
14″	28,25, 5,18,14,37,12,32,53,22		2, 4,39,21,14	
		1,50,40,27,41,50, 0,53		8, 5
16″	28,25, 7, 8,55, 4,54,22,54,15		2, 4,39,29,19	
		1,50,40,25,37,10,31,34		8, 5
18″	28,25, 8,59,35,30,31,33,25,49		2, 4,39,37,24	
		1,50,40,23,32,30,54,10		8, 5
20″	28,25,10,50,15,54, 4, 4,19,59		2, 4,39,45,29	
		1,50,40,21,27,51, 8,41		8, 5
22″	28,25,12,40,56,15,31,55,28,40		2, 4,39,53,34	
		1,50,40,19,23,11,15, 7		8, 5
24″	28,25,14,31,36,34,55, 6,43,47		2, 4,40, 1,39	
		1,50,40,17,18,31,13,28		8, 5
26″	28,25,16,22,16,52,13,37,57,15		2, 4,40, 9,44	
		1,50,40,15,13,51, 3,44		8, 5
28″	28,25,18,12,57, 7,27,29, 0,59		2, 4,40,17,49	
		1,50,40,13, 9,10,45,55		8, 5
30″	28,25,20, 3,37,20,36,39,46,54		2, 4,40,25,54	
		1,50,40,11, 4,30,20, 1		8, 5
32″	28,25,21,54,17,31,41,10, 6,55		2, 4,40,33,59	
		1,50,40, 8,59,49,46, 2		8, 5
34″	28,25,23,44,57,40,40,59,52,57		2, 4,40,42, 4	
		1,50,40, 6,55, 9, 3,58		8, 5
36″	28,25,25,35,37,47,36, 8,56,55		2, 4,40,50, 9	
		1,50,40, 4,50,28,13,49		8, 5
38″	28,25,27,26,17,52,26,37,10,44		2, 4,40,58,14	
		1,50,40, 2,45,47,15,35		8, 5
40″	28,25,29,16,57,55,12,24,26,19		2, 4,41, 6,19	
		1,50,40, 0,41, 6, 9,16		8, 5
42″	28,25,31, 7,37,55,53,30,35,35		2, 4,41,14,24	
		1,50,39,58,36,24,54,52		8, 5
44″	28,25,32,58,17,54,29,55,30,27		2, 4,41,22,29	
		1,50,39,56,31,43,32,23		8, 5
46″	28,25,34,48,57,51, 1,39, 2,50		2, 4,41,30,34	
		1,50,39,54,27, 2, 1,49		8, 5
48″	28,25,36,39,37,45,28,41, 4,39		2, 4,41,38,39	
		1,50,39,52,22,20,23,10		8, 5
50″	28,25,38,30,17,37,51, 1,27,49		2, 4,41,46,44	
		1,50,39,50,17,38,36,26		8, 5
52″	28,25,40,20,57,28, 8,40, 4,15		2, 4,41,54,49	
		1,50,39,48,12,56,41,37		8, 5
54″	28,25,42,11,37,16,21,36,45,52		2, 4,42, 2,54	
		1,50,39,46, 8,14,38,43		8, 5
56″	28,25,44, 2,17, 2,29,51,24,35		2, 4,42,10,59	
		1,50,39,44, 3,32,27,44		8, 5
58″	28,25,45,52,56,46,33,23,52,19		2, 4,42,19, 4	
		1,50,39,41,58,50, 8,40		
60″	28,25,47,43,36,28,32,14, 0,59			
exact	28,25,47,43,36,28,32,13,29,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°17′ 0″	28,25,47,43,36,28,32,13,29,56			
		1,50,39,39,54, 7,38,13		
2″	28,25,49,34,16, 8,26,21, 8, 9		2, 4,42,35,27	
		1,50,39,37,49,25, 2,46		8, 5
4″	28,25,51,24,55,46,15,46,10,55		2, 4,42,43,32	
		1,50,39,35,44,42,19,14		8, 5
6″	28,25,53,15,35,22, 0,28,30, 9		2, 4,42,51,37	
		1,50,39,33,39,59,27,37		8, 5
8″	28,25,55, 6,14,55,40,27,57,46		2, 4,42,59,42	
		1,50,39,31,35,16,27,55		8, 5
10″	28,25,56,56,54,27,15,44,25,41		2, 4,43, 7,47	
		1,50,39,29,30,33,20, 8		8, 5
12″	28,25,58,47,33,56,46,17,45,49		2, 4,43,15,52	
		1,50,39,27,25,50, 4,16		8, 5
14″	28,26, 0,38,13,24,12, 7,50, 5		2, 4,43,23,57	
		1,50,39,25,21, 6,40,19		8, 5
16″	28,26, 2,28,52,49,33,14,30,24		2, 4,43,32, 2	
		1,50,39,23,16,23, 8,17		8, 5
18″	28,26, 4,19,32,12,49,37,38,41		2, 4,43,40, 7	
		1,50,39,21,11,39,28,10		8, 5
20″	28,26, 6,10,11,34, 1,17, 6,51		2, 4,43,48,12	
		1,50,39,19, 6,55,39,58		8, 5
22″	28,26, 8, 0,50,53, 8,12,46,49		2, 4,43,56,17	
		1,50,39,17, 2,11,43,41		8, 5
24″	28,26, 9,51,30,10,10,24,30,30		2, 4,44, 4,22	
		1,50,39,14,57,27,39,19		8, 5
26″	28,26,11,42, 9,25, 7,52, 9,49		2, 4,44,12,27	
		1,50,39,12,52,43,26,52		8, 5
28″	28,26,13,32,48,38, 0,35,36,41		2, 4,44,20,32	
		1,50,39,10,47,59, 6,20		8, 5
30″	28,26,15,23,27,48,48,34,43, 1		2, 4,44,28,37	
		1,50,39, 8,43,14,37,43		8, 5
32″	28,26,17,14, 6,57,31,49,20,44		2, 4,44,36,42	
		1,50,39, 6,38,30, 1, 1		8, 5
34″	28,26,19, 4,46, 4,10,19,21,45		2, 4,44,44,47	
		1,50,39, 4,33,45,16,14		8, 5
36″	28,26,20,55,25, 8,44, 4,37,59		2, 4,44,52,52	
		1,50,39, 2,29, 0,23,22		8, 5
38″	28,26,22,46, 4,11,13, 5, 1,21		2, 4,45, 0,57	
		1,50,39, 0,24,15,22,25		8, 5
40″	28,26,24,36,43,11,37,20,23,46		2, 4,45, 9, 2	
		1,50,38,58,19,30,13,23		8, 5
42″	28,26,26,27,22, 9,56,50,37, 9		2, 4,45,17, 7	
		1,50,38,56,14,44,56,16		8, 5
44″	28,26,28,18, 1, 6,11,35,33,25		2, 4,45,25,12	
		1,50,38,54, 9,59,31, 4		8, 5
46″	28,26,30, 8,40, 0,21,35, 4,29		2, 4,45,33,17	
		1,50,38,52, 5,13,57,47		8, 5
48″	28,26,31,59,18,52,26,49, 2,16		2, 4,45,41,22	
		1,50,38,50, 0,28,16,25		8, 5
50″	28,26,33,49,57,42,27,17,18,41		2, 4,45,49,27	
		1,50,38,47,55,42,26,58		8, 5
52″	28,26,35,40,36,30,22,59,45,39		2, 4,45,57,32	
		1,50,38,45,50,56,29,26		8, 5
54″	28,26,37,31,15,16,13,56,15, 5		2, 4,46, 5,37	
		1,50,38,43,46,10,23,49		8, 5
56″	28,26,39,21,54, 0, 0, 6,38,54		2, 4,46,13,42	
		1,50,38,41,41,24,10, 7		8, 5
58″	28,26,41,12,32,41,41,30,49, 1		2, 4,46,21,47	
		1,50,38,39,36,37,48,20		
60″	28,26,43, 3,11,21,18, 8,37,21			
exact	28,26,43, 3,11,21,18, 8, 7,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°18′ 0″	28,26,43, 3,11,21,18, 8, 7,28			
		1,50,38,37,31,51,15,27		
2″	28,26,44,53,49,58,49,59,22,55		2, 4,46,38, 9	
		1,50,38,35,27, 4,37,18		8, 5
4″	28,26,46,44,28,34,17, 4, 0,13		2, 4,46,46,14	
		1,50,38,33,22,17,51, 4		8, 5
6″	28,26,48,35, 7, 7,39,21,51,17		2, 4,46,54,19	
		1,50,38,31,17,30,56,45		8, 5
8″	28,26,50,25,45,38,56,52,48, 2		2, 4,47, 2,24	
		1,50,38,29,12,43,54,21		8, 5
10″	28,26,52,16,24, 8, 9,36,42,23		2, 4,47,10,29	
		1,50,38,27, 7,56,43,52		8, 5
12″	28,26,54, 7, 2,35,17,33,26,15		2, 4,47,18,34	
		1,50,38,25, 3, 9,25,18		8, 5
14″	28,26,55,57,41, 0,20,42,51,33		2, 4,47,26,39	
		1,50,38,22,58,21,58,39		8, 5
16″	28,26,57,48,19,23,19, 4,50,12		2, 4,47,34,44	
		1,50,38,20,53,34,23,55		8, 5
18″	28,26,59,38,57,44,12,39,14, 7		2, 4,47,42,49	
		1,50,38,18,48,46,41, 6		8, 5
20″	28,27, 1,29,36, 3, 1,25,55,13		2, 4,47,50,54	
		1,50,38,16,43,58,50,12		8, 5
22″	28,27, 3,20,14,19,45,24,45,25		2, 4,47,58,59	
		1,50,38,14,39,10,51,13		8, 5
24″	28,27, 5,10,52,34,24,35,36,38		2, 4,48, 7, 4	
		1,50,38,12,34,22,44, 9		8, 5
26″	28,27, 7, 1,30,46,58,58,20,47		2, 4,48,15, 9	
		1,50,38,10,29,34,29, 0		8, 5
28″	28,27, 8,52, 8,57,28,32,49,47		2, 4,48,23,14	
		1,50,38, 8,24,46, 5,46		8, 5
30″	28,27,10,42,47, 5,53,18,55,33		2, 4,48,31,19	
		1,50,38, 6,19,57,34,27		8, 5
32″	28,27,12,33,25,12,13,16,30, 0		2, 4,48,39,24	
		1,50,38, 4,15, 8,55, 3		8, 5
34″	28,27,14,24, 3,16,28,25,25, 3		2, 4,48,47,29	
		1,50,38, 2,10,20, 7,34		8, 5
36″	28,27,16,14,41,18,38,45,32,37		2, 4,48,55,34	
		1,50,38, 0, 5,31,12, 0		8, 5
38″	28,27,18, 5,19,18,44,16,44,37		2, 4,49, 3,39	
		1,50,37,58, 0,42, 8,21		8, 5
40″	28,27,19,55,57,16,44,58,52,58		2, 4,49,11,44	
		1,50,37,55,55,52,56,37		8, 5
42″	28,27,21,46,35,12,40,51,49,35		2, 4,49,19,49	
		1,50,37,53,51, 3,36,48		8, 5
44″	28,27,23,37,13, 6,31,55,26,23		2, 4,49,27,54	
		1,50,37,51,46,14, 8,54		8, 5
46″	28,27,25,27,50,58,18, 9,35,17		2, 4,49,35,59	
		1,50,37,49,41,24,32,55		8, 5
48″	28,27,27,18,28,47,59,34, 8,12		2, 4,49,44, 4	
		1,50,37,47,36,34,48,51		8, 5
50″	28,27,29, 9, 6,35,36, 8,57, 3		2, 4,49,52, 9	
		1,50,37,45,31,44,56,42		8, 5
52″	28,27,30,59,44,21, 7,53,53,45		2, 4,50, 0,14	
		1,50,37,43,26,54,56,28		8, 5
54″	28,27,32,50,22, 4,34,48,50,13		2, 4,50, 8,19	
		1,50,37,41,22, 4,48, 9		8, 5
56″	28,27,34,40,59,45,56,53,38,22		2, 4,50,16,24	
		1,50,37,39,17,14,31,45		8, 5
58″	28,27,36,31,37,25,14, 8,10, 7		2, 4,50,24,29	
		1,50,37,37,12,24, 7,16		
60″	28,27,38,22,15, 2,26,32,17,23			
exact	28,27,38,22,15, 2,26,31,58,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°19′ 0″	28,27,38,22,15, 2,26,31,58,13			
		1,50,37,35, 7,33,32,37		
2″	28,27,40,12,52,37,34, 5,30,50		2, 4,50,40,48	
		1,50,37,33, 2,42,51,49		8, 5
4″	28,27,42, 3,30,10,36,48,22,39		2, 4,50,48,53	
		1,50,37,30,57,52, 2,56		8, 5
6″	28,27,43,54, 7,41,34,40,25,35		2, 4,50,56,58	
		1,50,37,28,53, 1, 5,58		8, 5
8″	28,27,45,44,45,10,27,41,31,33		2, 4,51, 5, 3	
		1,50,37,26,48,10, 0,55		8, 5
10″	28,27,47,35,22,37,15,51,32,28		2, 4,51,13, 8	
		1,50,37,24,43,18,47,47		8, 5
12″	28,27,49,26, 0, 1,59,10,20,15		2, 4,51,21,13	
		1,50,37,22,38,27,26,34		8, 5
14″	28,27,51,16,37,24,37,37,46,49		2, 4,51,29,18	
		1,50,37,20,33,35,57,16		8, 5
16″	28,27,53, 7,14,45,11,13,44, 5		2, 4,51,37,23	
		1,50,37,18,28,44,19,53		8, 5
18″	28,27,54,57,52, 3,39,58, 3,58		2, 4,51,45,28	
		1,50,37,16,23,52,34,25		8, 5
20″	28,27,56,48,29,20, 3,50,38,23		2, 4,51,53,33	
		1,50,37,14,19, 0,40,52		8, 5
22″	28,27,58,39, 6,34,22,51,19,15		2, 4,52, 1,38	
		1,50,37,12,14, 8,39,14		8, 5
24″	28,28, 0,29,43,46,36,59,58,29		2, 4,52, 9,43	
		1,50,37,10, 9,16,29,31		8, 5
26″	28,28, 2,20,20,56,46,16,28, 0		2, 4,52,17,48	
		1,50,37, 8, 4,24,11,43		8, 5
28″	28,28, 4,10,58, 4,50,40,39,43		2, 4,52,25,53	
		1,50,37, 5,59,31,45,50		8, 5
30″	28,28, 6, 1,35,10,50,12,25,33		2, 4,52,33,58	
		1,50,37, 3,54,39,11,52		8, 5
32″	28,28, 7,52,12,14,44,51,37,25		2, 4,52,42, 3	
		1,50,37, 1,49,46,29,49		8, 5
34″	28,28, 9,42,49,16,34,38, 7,14		2, 4,52,50, 8	
		1,50,36,59,44,53,39,41		8, 5
36″	28,28,11,33,26,16,19,31,46,55		2, 4,52,58,13	
		1,50,36,57,40, 0,41,28		8, 5
38″	28,28,13,24, 3,13,59,32,28,23		2, 4,53, 6,18	
		1,50,36,55,35, 7,35,10		8, 5
40″	28,28,15,14,40, 9,34,40, 3,33		2, 4,53,14,23	
		1,50,36,53,30,14,20,47		8, 5
42″	28,28,17, 5,17, 3, 4,54,24,20		2, 4,53,22,28	
		1,50,36,51,25,20,58,19		8, 5
44″	28,28,18,55,53,54,30,15,22,39		2, 4,53,30,33	
		1,50,36,49,20,27,27,46		8, 5
46″	28,28,20,46,30,43,50,42,50,25		2, 4,53,38,38	
		1,50,36,47,15,33,49, 8		8, 5
48″	28,28,22,37, 7,31, 6,16,39,33		2, 4,53,46,43	
		1,50,36,45,10,40, 2,25		8, 5
50″	28,28,24,27,44,16,16,56,41,58		2, 4,53,54,48	
		1,50,36,43, 5,46, 7,37		8, 5
52″	28,28,26,18,20,59,22,42,49,35		2, 4,54, 2,53	
		1,50,36,41, 0,52, 4,44		8, 5
54″	28,28,28, 8,57,40,23,34,54,19		2, 4,54,10,58	
		1,50,36,38,55,57,53,46		8, 5
56″	28,28,29,59,34,19,19,32,48, 5		2, 4,54,19, 3	
		1,50,36,36,51, 3,34,43		8, 5
58″	28,28,31,50,10,56,10,36,22,48		2, 4,54,27, 8	
		1,50,36,34,46, 9, 7,35		
60″	28,28,33,40,47,30,56,45,30,23			
exact	28,28,33,40,47,30,56,45,16,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°20′ 0″	28,28,33,40,47,30,56,45,16,41			
		1,50,36,32,41,14,30,51		
2″	28,28,35,31,24, 3,37,59,47,32		2, 4,54,43,24	
		1,50,36,30,36,19,47,27		8, 5
4″	28,28,37,22, 0,34,14,19,34,59		2, 4,54,51,29	
		1,50,36,28,31,24,55,58		8, 5
6″	28,28,39,12,37, 2,45,44,30,57		2, 4,54,59,34	
		1,50,36,26,26,29,56,24		8, 5
8″	28,28,41, 3,13,29,12,14,27,21		2, 4,55, 7,39	
		1,50,36,24,21,34,48,45		8, 5
10″	28,28,42,53,49,53,33,49,16, 6		2, 4,55,15,44	
		1,50,36,22,16,39,33, 1		8, 5
12″	28,28,44,44,26,15,50,28,49, 7		2, 4,55,23,49	
		1,50,36,20,11,44, 9,12		8, 5
14″	28,28,46,35, 2,36, 2,12,58,19		2, 4,55,31,54	
		1,50,36,18, 6,48,37,18		8, 5
16″	28,28,48,25,38,54, 9, 1,35,37		2, 4,55,39,59	
		1,50,36,16, 1,52,57,19		8, 5
18″	28,28,50,16,15,10,10,54,32,56		2, 4,55,48, 4	
		1,50,36,13,56,57, 9,15		8, 5
20″	28,28,52, 6,51,24, 7,51,42,11		2, 4,55,56, 9	
		1,50,36,11,52, 1,13, 6		8, 5
22″	28,28,53,57,27,35,59,52,55,17		2, 4,56, 4,14	
		1,50,36, 9,47, 5, 8,52		8, 5
24″	28,28,55,48, 3,45,46,58, 4, 9		2, 4,56,12,19	
		1,50,36, 7,42, 8,56,33		8, 5
26″	28,28,57,38,39,53,29, 7, 0,42		2, 4,56,20,24	
		1,50,36, 5,37,12,36, 9		8, 5
28″	28,28,59,29,15,59, 6,19,36,51		2, 4,56,28,29	
		1,50,36, 3,32,16, 7,40		8, 5
30″	28,29, 1,19,52, 2,38,35,44,31		2, 4,56,36,34	
		1,50,36, 1,27,19,31, 6		8, 5
32″	28,29, 3,10,28, 4, 5,55,15,37		2, 4,56,44,39	
		1,50,35,59,22,22,46,27		8, 5
34″	28,29, 5, 1, 4, 3,28,18, 2, 4		2, 4,56,52,44	
		1,50,35,57,17,25,53,43		8, 5
36″	28,29, 6,51,40, 0,45,43,55,47		2, 4,57, 0,49	
		1,50,35,55,12,28,52,54		8, 5
38″	28,29, 8,42,15,55,58,12,48,41		2, 4,57, 8,54	
		1,50,35,53, 7,31,44, 0		8, 5
40″	28,29,10,32,51,49, 5,44,32,41		2, 4,57,16,59	
		1,50,35,51, 2,34,27, 1		8, 5
42″	28,29,12,23,27,40, 8,18,59,42		2, 4,57,25, 4	
		1,50,35,48,57,37, 1,57		8, 5
44″	28,29,14,14, 3,29, 5,56, 1,39		2, 4,57,33, 9	
		1,50,35,46,52,39,28,48		8, 5
46″	28,29,16, 4,39,15,58,35,30,27		2, 4,57,41,14	
		1,50,35,44,47,41,47,34		8, 5
48″	28,29,17,55,15, 0,46,17,18, 1		2, 4,57,49,19	
		1,50,35,42,42,43,58,15		8, 5
50″	28,29,19,45,50,43,29, 1,16,16		2, 4,57,57,24	
		1,50,35,40,37,46, 0,51		8, 5
52″	28,29,21,36,26,24, 6,47,17, 7		2, 4,58, 5,29	
		1,50,35,38,32,47,55,22		8, 5
54″	28,29,23,27, 2, 2,39,35,12,29		2, 4,58,13,34	
		1,50,35,36,27,49,41,48		8, 5
56″	28,29,25,17,37,39, 7,24,54,17		2, 4,58,21,39	
		1,50,35,34,22,51,20, 9		8, 5
58″	28,29,27, 8,13,13,30,16,14,26		2, 4,58,29,44	
		1,50,35,32,17,52,50,25		
60″	28,29,28,58,48,45,48, 9, 4,51			
exact	28,29,28,58,48,45,48, 8,51,37			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
28°21′	0″	28,29,28,58,48,45,48, 8,51,37	1,50,35,30,12,54,11,18		
	2″	28,29,30,49,24,16, 1, 3, 2,55	1,50,35,28, 7,55,25,19	2, 4,58,45,59	
	4″	28,29,32,39,59,44, 8,58,28,14	1,50,35,26, 2,56,31,15	2, 4,58,54, 4	8, 5
	6″	28,29,34,30,35,10,11,54,59,29	1,50,35,23,57,57,29, 6	2, 4,59, 2, 9	8, 5
	8″	28,29,36,21,10,34, 9,52,28,35	1,50,35,21,52,58,18,52	2, 4,59,10,14	8, 5
	10″	28,29,38,11,45,56, 2,50,47,27	1,50,35,19,47,59, 0,33	2, 4,59,18,19	8, 5
	12″	28,29,40, 2,21,15,50,49,48, 0	1,50,35,17,42,59,34, 9	2, 4,59,26,24	8, 5
	14″	28,29,41,52,56,33,33,49,22, 9	1,50,35,15,37,59,59,40	2, 4,59,34,29	8, 5
	16″	28,29,43,43,31,49,11,49,21,49	1,50,35,13,33, 0,17, 6	2, 4,59,42,34	8, 5
	18″	28,29,45,34, 7, 2,44,49,38,55	1,50,35,11,28, 0,26,27	2, 4,59,50,39	8, 5
	20″	28,29,47,24,42,14,12,50, 5,22	1,50,35, 9,23, 0,27,43	2, 4,59,58,44	8, 5
	22″	28,29,49,15,17,23,35,50,33, 5	1,50,35, 7,18, 0,20,54	2, 5, 0, 6,49	8, 5
	24″	28,29,51, 5,52,30,53,50,53,59	1,50,35, 5,13, 0, 6, 0	2, 5, 0,14,54	8, 5
	26″	28,29,52,56,27,36, 6,50,59,59	1,50,35, 3, 7,59,43, 1	2, 5, 0,22,59	8, 5
	28″	28,29,54,47, 2,39,14,50,43, 0	1,50,35, 1, 2,59,11,57	2, 5, 0,31, 4	8, 5
	30″	28,29,56,37,37,40,17,49,54,57	1,50,34,58,57,58,32,48	2, 5, 0,39, 9	8, 5
	32″	28,29,58,28,12,39,15,48,27,45	1,50,34,56,52,57,45,34	2, 5, 0,47,14	8, 5
	34″	28,30, 0,18,47,36, 8,46,13,19	1,50,34,54,47,56,50,15	2, 5, 0,55,19	8, 5
	36″	28,30, 2, 9,22,30,56,43, 3,34	1,50,34,52,42,55,46,51	2, 5, 1, 3,24	8, 5
	38″	28,30, 3,59,57,23,39,38,50,25	1,50,34,50,37,54,35,22	2, 5, 1,11,29	8, 5
	40″	28,30, 5,50,32,14,17,33,25,47	1,50,34,48,32,53,15,48	2, 5, 1,19,34	8, 5
	42″	28,30, 7,41, 7, 2,50,26,41,35	1,50,34,46,27,51,48, 9	2, 5, 1,27,39	8, 5
	44″	28,30, 9,31,41,49,18,18,29,44	1,50,34,44,22,50,12,25	2, 5, 1,35,44	8, 5
	46″	28,30,11,22,16,33,41, 8,42, 9	1,50,34,42,17,48,28,36	2, 5, 1,43,49	8, 5
	48″	28,30,13,12,51,15,58,57,10,45	1,50,34,40,12,46,36,42	2, 5, 1,51,54	8, 5
	50″	28,30,15, 3,25,56,11,43,47,27	1,50,34,38, 7,44,36,43	2, 5, 1,59,59	8, 5
	52″	28,30,16,54, 0,34,19,28,24,10	1,50,34,36, 2,42,28,39	2, 5, 2, 8, 4	8, 5
	54″	28,30,18,44,35,10,22,10,52,49	1,50,34,33,57,40,12,30	2, 5, 2,16, 9	8, 5
	56″	28,30,20,35, 9,44,19,51, 5,19	1,50,34,31,52,37,48,16	2, 5, 2,24,14	8, 5
	58″	28,30,22,25,44,16,12,28,53,35	1,50,34,29,47,35,15,57	2, 5, 2,32,19	
	60″	28,30,24,16,18,46, 0, 4, 9,32			
exact		28,30,24,16,18,46, 0, 4, 6, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°22′ 0″	28,30,24,16,18,46, 0, 4, 6, 0			
		1,50,34,27,42,32,35, 7		
2″	28,30,26, 6,53,13,42,36,41, 7		2, 5, 2,48,31	
		1,50,34,25,37,29,46,36		8, 5
4″	28,30,27,57,27,39,20, 6,27,43		2, 5, 2,56,36	
		1,50,34,23,32,26,50, 0		8, 5
6″	28,30,29,48, 2, 2,52,33,17,43		2, 5, 3, 4,41	
		1,50,34,21,27,23,45,19		8, 5
8″	28,30,31,38,36,24,19,57, 3, 2		2, 5, 3,12,46	
		1,50,34,19,22,20,32,33		8, 5
10″	28,30,33,29,10,43,42,17,35,35		2, 5, 3,20,51	
		1,50,34,17,17,17,11,42		8, 5
12″	28,30,35,19,45, 0,59,34,47,17		2, 5, 3,28,56	
		1,50,34,15,12,13,42,46		8, 5
14″	28,30,37,10,19,16,11,48,30, 3		2, 5, 3,37, 1	
		1,50,34,13, 7,10, 5,45		8, 5
16″	28,30,39, 0,53,29,18,58,35,48		2, 5, 3,45, 6	
		1,50,34,11, 2, 6,20,39		8, 5
18″	28,30,40,51,27,40,21, 4,56,27		2, 5, 3,53,11	
		1,50,34, 8,57, 2,27,28		8, 5
20″	28,30,42,42, 1,49,18, 7,23,55		2, 5, 4, 1,16	
		1,50,34, 6,51,58,26,12		8, 5
22″	28,30,44,32,35,56,10, 5,50, 7		2, 5, 4, 9,21	
		1,50,34, 4,46,54,16,51		8, 5
24″	28,30,46,23,10, 0,57, 0, 6,58		2, 5, 4,17,26	
		1,50,34, 2,41,49,59,25		8, 5
26″	28,30,48,13,44, 3,38,50, 6,23		2, 5, 4,25,31	
		1,50,34, 0,36,45,33,54		8, 5
28″	28,30,50, 4,18, 4,15,35,40,17		2, 5, 4,33,36	
		1,50,33,58,31,41, 0,18		8, 5
30″	28,30,51,54,52, 2,47,16,40,35		2, 5, 4,41,41	
		1,50,33,56,26,36,18,37		8, 5
32″	28,30,53,45,25,59,13,52,59,12		2, 5, 4,49,46	
		1,50,33,54,21,31,28,51		8, 5
34″	28,30,55,35,59,53,35,24,28, 3		2, 5, 4,57,51	
		1,50,33,52,16,26,31, 0		8, 5
36″	28,30,57,26,33,45,51,50,59, 3		2, 5, 5, 5,56	
		1,50,33,50,11,21,25, 4		8, 5
38″	28,30,59,17, 7,36, 3,12,24, 7		2, 5, 5,14, 1	
		1,50,33,48, 6,16,11, 3		8, 5
40″	28,31, 1, 7,41,24, 9,28,35,10		2, 5, 5,22, 6	
		1,50,33,46, 1,10,48,57		8, 5
42″	28,31, 2,58,15,10,10,39,24, 7		2, 5, 5,30,11	
		1,50,33,43,56, 5,18,46		8, 5
44″	28,31, 4,48,48,54, 6,44,42,53		2, 5, 5,38,16	
		1,50,33,41,50,59,40,30		8, 5
46″	28,31, 6,39,22,35,57,44,23,23		2, 5, 5,46,21	
		1,50,33,39,45,53,54, 9		8, 5
48″	28,31, 8,29,56,15,43,38,17,32		2, 5, 5,54,26	
		1,50,33,37,40,47,59,43		8, 5
50″	28,31,10,20,29,53,24,26,17,15		2, 5, 6, 2,31	
		1,50,33,35,35,41,57,12		8, 5
52″	28,31,12,11, 3,29, 0, 8,14,27		2, 5, 6,10,36	
		1,50,33,33,30,35,46,36		8, 5
54″	28,31,14, 1,37, 2,30,44, 1, 3		2, 5, 6,18,41	
		1,50,33,31,25,29,27,55		8, 5
56″	28,31,15,52,10,33,56,13,28,58		2, 5, 6,26,46	
		1,50,33,29,20,23, 1, 9		8, 5
58″	28,31,17,42,44, 3,16,36,30, 7		2, 5, 6,34,51	
		1,50,33,27,15,16,26,18		
60″	28,31,19,33,17,30,31,52,56,25			
exact	28,31,19,33,17,30,31,52,57, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°23′ 0″	28,31,19,33,17,30,31,52,57, 5			
		1,50,33,25,10, 9,43,26		
2″	28,31,21,23,50,55,42, 2,40,31		2, 5, 6,51, 1	
		1,50,33,23, 5, 2,52,25		8, 5
4″	28,31,23,14,24,18,47, 5,32,56		2, 5, 6,59, 6	
		1,50,33,20,59,55,53,19		8, 5
6″	28,31,25, 4,57,39,47, 1,26,15		2, 5, 7, 7,11	
		1,50,33,18,54,48,46, 8		8, 5
8″	28,31,26,55,30,58,41,50,12,23		2, 5, 7,15,16	
		1,50,33,16,49,41,30,52		8, 5
10″	28,31,28,46, 4,15,31,31,43,15		2, 5, 7,23,21	
		1,50,33,14,44,34, 7,31		8, 5
12″	28,31,30,36,37,30,16, 5,50,46		2, 5, 7,31,26	
		1,50,33,12,39,26,36, 5		8, 5
14″	28,31,32,27,10,42,55,32,26,51		2, 5, 7,39,31	
		1,50,33,10,34,18,56,34		8, 5
16″	28,31,34,17,43,53,29,51,23,25		2, 5, 7,47,36	
		1,50,33, 8,29,11, 8,58		8, 5
18″	28,31,36, 8,17, 1,59, 2,32,23		2, 5, 7,55,41	
		1,50,33, 6,24, 3,13,17		8, 5
20″	28,31,37,58,50, 8,23, 5,45,40		2, 5, 8, 3,46	
		1,50,33, 4,18,55, 9,31		8, 5
22″	28,31,39,49,23,12,42, 0,55,11		2, 5, 8,11,51	
		1,50,33, 2,13,46,57,40		8, 5
24″	28,31,41,39,56,14,55,47,52,51		2, 5, 8,19,56	
		1,50,33, 0, 8,38,37,44		8, 5
26″	28,31,43,30,29,15, 4,26,30,35		2, 5, 8,28, 1	
		1,50,32,58, 3,30, 9,43		8, 5
28″	28,31,45,21, 2,13, 7,56,40,18		2, 5, 8,36, 6	
		1,50,32,55,58,21,33,37		8, 5
30″	28,31,47,11,35, 9, 6,18,13,55		2, 5, 8,44,11	
		1,50,32,53,53,12,49,26		8, 5
32″	28,31,49, 2, 8, 2,59,31, 3,21		2, 5, 8,52,16	
		1,50,32,51,48, 3,57,10		8, 5
34″	28,31,50,52,40,54,47,35, 0,31		2, 5, 9, 0,21	
		1,50,32,49,42,54,56,49		8, 5
36″	28,31,52,43,13,44,30,29,57,20		2, 5, 9, 8,26	
		1,50,32,47,37,45,48,23		8, 5
38″	28,31,54,33,46,32, 8,15,45,43		2, 5, 9,16,31	
		1,50,32,45,32,36,31,52		8, 5
40″	28,31,56,24,19,17,40,52,17,35		2, 5, 9,24,36	
		1,50,32,43,27,27, 7,16		8, 5
42″	28,31,58,14,52, 1, 8,19,24,51		2, 5, 9,32,41	
		1,50,32,41,22,17,34,35		8, 5
44″	28,32, 0, 5,24,42,30,36,59,26		2, 5, 9,40,46	
		1,50,32,39,17, 7,53,49		8, 5
46″	28,32, 1,55,57,21,47,44,53,15		2, 5, 9,48,51	
		1,50,32,37,11,58, 4,58		8, 5
48″	28,32, 3,46,29,58,59,42,58,13		2, 5, 9,56,56	
		1,50,32,35, 6,48, 8, 2		8, 5
50″	28,32, 5,37, 2,34, 6,31, 6,15		2, 5,10, 5, 1	
		1,50,32,33, 1,38, 3, 1		8, 5
52″	28,32, 7,27,35, 7, 8, 9, 9,16		2, 5,10,13, 6	
		1,50,32,30,56,27,49,55		8, 5
54″	28,32, 9,18, 7,38, 4,36,59,11		2, 5,10,21,11	
		1,50,32,28,51,17,28,44		8, 5
56″	28,32,11, 8,40, 6,55,54,27,55		2, 5,10,29,16	
		1,50,32,26,46, 6,59,28		8, 5
58″	28,32,12,59,12,33,42, 1,27,23		2, 5,10,37,21	
		1,50,32,24,40,56,22, 7		
60″	28,32,14,49,44,58,22,57,49,30			
exact	28,32,14,49,44,58,22,57,56,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°24′ 0″	28,32,14,49,44,58,22,57,56,23			
		1,50,32,22,35,45,37,23		
2″	28,32,16,40,17,20,58,43,33,46		2, 5,10,53,28	
		1,50,32,20,30,34,43,55		8, 5
4″	28,32,18,30,49,41,29,18,17,41		2, 5,11, 1,33	
		1,50,32,18,25,23,42,22		8, 5
6″	28,32,20,21,21,59,54,42, 0, 3		2, 5,11, 9,38	
		1,50,32,16,20,12,32,44		8, 5
8″	28,32,22,11,54,16,14,54,32,47		2, 5,11,17,43	
		1,50,32,14,15, 1,15, 1		8, 5
10″	28,32,24, 2,26,30,29,55,47,48		2, 5,11,25,48	
		1,50,32,12, 9,49,49,13		8, 5
12″	28,32,25,52,58,42,39,45,37, 1		2, 5,11,33,53	
		1,50,32,10, 4,38,15,20		8, 5
14″	28,32,27,43,30,52,44,23,52,21		2, 5,11,41,58	
		1,50,32, 7,59,26,33,22		8, 5
16″	28,32,29,34, 3, 0,43,50,25,43		2, 5,11,50, 3	
		1,50,32, 5,54,14,43,19		8, 5
18″	28,32,31,24,35, 6,38, 5, 9, 2		2, 5,11,58, 8	
		1,50,32, 3,49, 2,45,11		8, 5
20″	28,32,33,15, 7,10,27, 7,54,13		2, 5,12, 6,13	
		1,50,32, 1,43,50,38,58		8, 5
22″	28,32,35, 5,39,12,10,58,33,11		2, 5,12,14,18	
		1,50,31,59,38,38,24,40		8, 5
24″	28,32,36,56,11,11,49,36,57,51		2, 5,12,22,23	
		1,50,31,57,33,26, 2,17		8, 5
26″	28,32,38,46,43, 9,23, 3, 0, 8		2, 5,12,30,28	
		1,50,31,55,28,13,31,49		8, 5
28″	28,32,40,37,15, 4,51,16,31,57		2, 5,12,38,33	
		1,50,31,53,23, 0,53,16		8, 5
30″	28,32,42,27,46,58,14,17,25,13		2, 5,12,46,38	
		1,50,31,51,17,48, 6,38		8, 5
32″	28,32,44,18,18,49,32, 5,31,51		2, 5,12,54,43	
		1,50,31,49,12,35,11,55		8, 5
34″	28,32,46, 8,50,38,44,40,43,46		2, 5,13, 2,48	
		1,50,31,47, 7,22, 9, 7		8, 5
36″	28,32,47,59,22,25,52, 2,52,53		2, 5,13,10,53	
		1,50,31,45, 2, 8,58,14		8, 5
38″	28,32,49,49,54,10,54,11,51, 7		2, 5,13,18,58	
		1,50,31,42,56,55,39,16		8, 5
40″	28,32,51,40,25,53,51, 7,30,23		2, 5,13,27, 3	
		1,50,31,40,51,42,12,13		8, 5
42″	28,32,53,30,57,34,42,49,42,36		2, 5,13,35, 8	
		1,50,31,38,46,28,37, 5		8, 5
44″	28,32,55,21,29,13,29,18,19,41		2, 5,13,43,13	
		1,50,31,36,41,14,53,52		8, 5
46″	28,32,57,12, 0,50,10,33,13,33		2, 5,13,51,18	
		1,50,31,34,36, 1, 2,34		8, 5
48″	28,32,59, 2,32,24,46,34,16, 7		2, 5,13,59,23	
		1,50,31,32,30,47, 3,11		8, 5
50″	28,33, 0,53, 3,57,17,21,19,18		2, 5,14, 7,28	
		1,50,31,30,25,32,55,43		8, 5
52″	28,33, 2,43,35,27,42,54,15, 1		2, 5,14,15,33	
		1,50,31,28,20,18,40,10		8, 5
54″	28,33, 4,34, 6,56, 3,12,55,11		2, 5,14,23,38	
		1,50,31,26,15, 4,16,32		8, 5
56″	28,33, 6,24,38,22,18,17,11,43		2, 5,14,31,43	
		1,50,31,24, 9,49,44,49		8, 5
58″	28,33, 8,15, 9,46,28, 6,56,32		2, 5,14,39,48	
		1,50,31,22, 4,35, 5, 1		
60″	28,33,10, 5,41, 8,32,42, 1,33			
exact	28,33,10, 5,41, 8,32,42, 9,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°25′ 0″	28,33,10, 5,41, 8,32,42, 9,44			
		1,50,31,19,59,20,18, 7		
2″	28,33,11,56,12,28,32, 2,27,51		2, 5,14,55,53	
		1,50,31,17,54, 5,22,14		8, 5
4″	28,33,13,46,43,46,26, 7,50, 5		2, 5,15, 3,58	
		1,50,31,15,48,50,18,16		8, 5
6″	28,33,15,37,15, 2,14,58, 8,21		2, 5,15,12, 3	
		1,50,31,13,43,35, 6,13		8, 5
8″	28,33,17,27,46,15,58,33,14,34		2, 5,15,20, 8	
		1,50,31,11,38,19,46, 5		8, 5
10″	28,33,19,18,17,27,36,53, 0,39		2, 5,15,28,13	
		1,50,31, 9,33, 4,17,52		8, 5
12″	28,33,21, 8,48,37, 9,57,18,31		2, 5,15,36,18	
		1,50,31, 7,27,48,41,34		8, 5
14″	28,33,22,59,19,44,37,46, 0, 5		2, 5,15,44,23	
		1,50,31, 5,22,32,57,11		8, 5
16″	28,33,24,49,50,50, 0,18,57,16		2, 5,15,52,28	
		1,50,31, 3,17,17, 4,43		8, 5
18″	28,33,26,40,21,53,17,36, 1,59		2, 5,16, 0,33	
		1,50,31, 1,12, 1, 4,10		8, 5
20″	28,33,28,30,52,54,29,37, 6, 9		2, 5,16, 8,38	
		1,50,30,59, 6,44,55,32		8, 5
22″	28,33,30,21,23,53,36,22, 1,41		2, 5,16,16,43	
		1,50,30,57, 1,28,38,49		8, 5
24″	28,33,32,11,54,50,37,50,40,30		2, 5,16,24,48	
		1,50,30,54,56,12,14, 1		8, 5
26″	28,33,34, 2,25,45,34, 2,54,31		2, 5,16,32,53	
		1,50,30,52,50,55,41, 8		8, 5
28″	28,33,35,52,56,38,24,58,35,39		2, 5,16,40,58	
		1,50,30,50,45,39, 0,10		8, 5
30″	28,33,37,43,27,29,10,37,35,49		2, 5,16,49, 3	
		1,50,30,48,40,22,11, 7		8, 5
32″	28,33,39,33,58,17,50,59,46,56		2, 5,16,57, 8	
		1,50,30,46,35, 5,13,59		8, 5
34″	28,33,41,24,29, 4,26, 5, 0,55		2, 5,17, 5,13	
		1,50,30,44,29,48, 8,46		8, 5
36″	28,33,43,14,59,48,55,53, 9,41		2, 5,17,13,18	
		1,50,30,42,24,30,55,28		8, 5
38″	28,33,45, 5,30,31,20,24, 5, 9		2, 5,17,21,23	
		1,50,30,40,19,13,34, 5		8, 5
40″	28,33,46,56, 1,11,39,37,39,14		2, 5,17,29,28	
		1,50,30,38,13,56, 4,37		8, 5
42″	28,33,48,46,31,49,53,33,43,51		2, 5,17,37,33	
		1,50,30,36, 8,38,27, 4		8, 5
44″	28,33,50,37, 2,26, 2,12,10,55		2, 5,17,45,38	
		1,50,30,34, 3,20,41,26		8, 5
46″	28,33,52,27,33, 0, 5,32,52,21		2, 5,17,53,43	
		1,50,30,31,58, 2,47,43		8, 5
48″	28,33,54,18, 3,32, 3,35,40, 4		2, 5,18, 1,48	
		1,50,30,29,52,44,45,55		8, 5
50″	28,33,56, 8,34, 1,56,20,25,59		2, 5,18, 9,53	
		1,50,30,27,47,26,36, 2		8, 5
52″	28,33,57,59, 4,29,43,47, 2, 1		2, 5,18,17,58	
		1,50,30,25,42, 8,18, 4		8, 5
54″	28,33,59,49,34,55,25,55,20, 5		2, 5,18,26, 3	
		1,50,30,23,36,49,52, 1		8, 5
56″	28,34, 1,40, 5,19, 2,45,12, 6		2, 5,18,34, 8	
		1,50,30,21,31,31,17,53		8, 5
58″	28,34, 3,30,35,40,34,16,29,59		2, 5,18,42,13	
		1,50,30,19,26,12,35,40		
60″	28,34, 5,21, 6, 0, 0,29, 5,39			
exact	28,34, 5,21, 6, 0, 0,29,17,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°26′ 0″	28,34, 5,21, 6, 0, 0,29,17,18			
		1,50,30,17,20,53,46,47		
2″	28,34, 7,11,36,17,21,23, 4, 5		2, 5,18,58,16	
		1,50,30,15,15,34,48,31		8, 5
4″	28,34, 9, 2, 6,32,36,57,52,36		2, 5,19, 6,21	
		1,50,30,13,10,15,42,10		8, 5
6″	28,34,10,52,36,45,47,13,34,46		2, 5,19,14,26	
		1,50,30,11, 4,56,27,44		8, 5
8″	28,34,12,43, 6,56,52,10, 2,30		2, 5,19,22,31	
		1,50,30, 8,59,37, 5,13		8, 5
10″	28,34,14,33,37, 5,51,47, 7,43		2, 5,19,30,36	
		1,50,30, 6,54,17,34,37		8, 5
12″	28,34,16,24, 7,12,46, 4,42,20		2, 5,19,38,41	
		1,50,30, 4,48,57,55,56		8, 5
14″	28,34,18,14,37,17,35, 2,38,16		2, 5,19,46,46	
		1,50,30, 2,43,38, 9,10		8, 5
16″	28,34,20, 5, 7,20,18,40,47,26		2, 5,19,54,51	
		1,50,30, 0,38,18,14,19		8, 5
18″	28,34,21,55,37,20,56,59, 1,45		2, 5,20, 2,56	
		1,50,29,58,32,58,11,23		8, 5
20″	28,34,23,46, 7,19,29,57,13, 8		2, 5,20,11, 1	
		1,50,29,56,27,38, 0,22		8, 5
22″	28,34,25,36,37,15,57,35,13,30		2, 5,20,19, 6	
		1,50,29,54,22,17,41,16		8, 5
24″	28,34,27,27, 7,10,19,52,54,46		2, 5,20,27,11	
		1,50,29,52,16,57,14, 5		8, 5
26″	28,34,29,17,37, 2,36,50, 8,51		2, 5,20,35,16	
		1,50,29,50,11,36,38,49		8, 5
28″	28,34,31, 8, 6,52,48,26,47,40		2, 5,20,43,21	
		1,50,29,48, 6,15,55,28		8, 5
30″	28,34,32,58,36,40,54,42,43, 8		2, 5,20,51,26	
		1,50,29,46, 0,55, 4, 2		8, 5
32″	28,34,34,49, 6,26,55,37,47,10		2, 5,20,59,31	
		1,50,29,43,55,34, 4,31		8, 5
34″	28,34,36,39,36,10,51,11,51,41		2, 5,21, 7,36	
		1,50,29,41,50,12,56,55		8, 5
36″	28,34,38,30, 5,52,41,24,48,36		2, 5,21,15,41	
		1,50,29,39,44,51,41,14		8, 5
38″	28,34,40,20,35,32,26,16,29,50		2, 5,21,23,46	
		1,50,29,37,39,30,17,28		8, 5
40″	28,34,42,11, 5,10, 5,46,47,18		2, 5,21,31,51	
		1,50,29,35,34, 8,45,37		8, 5
42″	28,34,44, 1,34,45,39,55,32,55		2, 5,21,39,56	
		1,50,29,33,28,47, 5,41		8, 5
44″	28,34,45,52, 4,19, 8,42,38,36		2, 5,21,48, 1	
		1,50,29,31,23,25,17,40		8, 5
46″	28,34,47,42,33,50,32, 7,56,16		2, 5,21,56, 6	
		1,50,29,29,18, 3,21,34		8, 5
48″	28,34,49,33, 3,19,50,11,17,50		2, 5,22, 4,11	
		1,50,29,27,12,41,17,23		8, 5
50″	28,34,51,23,32,47, 2,52,35,13		2, 5,22,12,16	
		1,50,29,25, 7,19, 5, 7		8, 5
52″	28,34,53,14, 2,12,10,11,40,20		2, 5,22,20,21	
		1,50,29,23, 1,56,44,46		8, 5
54″	28,34,55, 4,31,35,12, 8,25, 6		2, 5,22,28,26	
		1,50,29,20,56,34,16,20		8, 5
56″	28,34,56,55, 0,56, 8,42,41,26		2, 5,22,36,31	
		1,50,29,18,51,11,39,49		8, 5
58″	28,34,58,45,30,14,59,54,21,15		2, 5,22,44,36	
		1,50,29,16,45,48,55,13		
60″	28,35, 0,35,59,31,45,43,16,28			
exact	28,35, 0,35,59,31,45,43,33,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°27′ 0″	28,35, 0,35,59,31,45,43,33,32	1,50,29,14,40,26, 4,31		
2″	28,35, 2,26,28,46,26, 9,38, 3	1,50,29,12,35, 3, 3,54	2, 5,23, 0,37	8, 5
4″	28,35, 4,16,57,59, 1,12,41,57	1,50,29,10,29,39,55,12	2, 5,23, 8,42	8, 5
6″	28,35, 6, 7,27, 9,30,52,37, 9	1,50,29, 8,24,16,38,25	2, 5,23,16,47	8, 5
8″	28,35, 7,57,56,17,55, 9,15,34	1,50,29, 6,18,53,13,33	2, 5,23,24,52	8, 5
10″	28,35, 9,48,25,24,14, 2,29, 7	1,50,29, 4,13,29,40,36	2, 5,23,32,57	8, 5
12″	28,35,11,38,54,28,27,32, 9,43	1,50,29, 2, 8, 5,59,34	2, 5,23,41, 2	8, 5
14″	28,35,13,29,23,30,35,38, 9,17	1,50,29, 0, 2,42,10,27	2, 5,23,49, 7	8, 5
16″	28,35,15,19,52,30,38,20,19,44	1,50,28,57,57,18,13,15	2, 5,23,57,12	8, 5
18″	28,35,17,10,21,28,35,38,32,59	1,50,28,55,51,54, 7,58	2, 5,24, 5,17	8, 5
20″	28,35,19, 0,50,24,27,32,40,57	1,50,28,53,46,29,54,36	2, 5,24,13,22	8, 5
22″	28,35,20,51,19,18,14, 2,35,33	1,50,28,51,41, 5,33, 9	2, 5,24,21,27	8, 5
24″	28,35,22,41,48, 9,55, 8, 8,42	1,50,28,49,35,41, 3,37	2, 5,24,29,32	8, 5
26″	28,35,24,32,16,59,30,49,12,19	1,50,28,47,30,16,26, 0	2, 5,24,37,37	8, 5
28″	28,35,26,22,45,47, 1, 5,38,19	1,50,28,45,24,51,40,18	2, 5,24,45,42	8, 5
30″	28,35,28,13,14,32,25,57,18,37	1,50,28,43,19,26,46,31	2, 5,24,53,47	8, 5
32″	28,35,30, 3,43,15,45,24, 5, 8	1,50,28,41,14, 1,44,39	2, 5,25, 1,52	8, 5
34″	28,35,31,54,11,56,59,25,49,47	1,50,28,39, 8,36,34,42	2, 5,25, 9,57	8, 5
36″	28,35,33,44,40,36, 8, 2,24,29	1,50,28,37, 3,11,16,40	2, 5,25,18, 2	8, 5
38″	28,35,35,35, 9,13,11,13,41, 9	1,50,28,34,57,45,50,33	2, 5,25,26, 7	8, 5
40″	28,35,37,25,37,48, 8,59,31,42	1,50,28,32,52,20,16,21	2, 5,25,34,12	8, 5
42″	28,35,39,16, 6,21, 1,19,48, 3	1,50,28,30,46,54,34, 4	2, 5,25,42,17	8, 5
44″	28,35,41, 6,34,51,48,14,22, 7	1,50,28,28,41,28,43,42	2, 5,25,50,22	8, 5
46″	28,35,42,57, 3,20,29,43, 5,49	1,50,28,26,36, 2,45,15	2, 5,25,58,27	8, 5
48″	28,35,44,47,31,47, 5,45,51, 4	1,50,28,24,30,36,38,43	2, 5,26, 6,32	8, 5
50″	28,35,46,38, 0,11,36,22,29,47	1,50,28,22,25,10,24, 6	2, 5,26,14,37	8, 5
52″	28,35,48,28,28,34, 1,32,53,53	1,50,28,20,19,44, 1,24	2, 5,26,22,42	8, 5
54″	28,35,50,18,56,54,21,16,55,17	1,50,28,18,14,17,30,37	2, 5,26,30,47	8, 5
56″	28,35,52, 9,25,12,35,34,25,54	1,50,28,16, 8,50,51,45	2, 5,26,38,52	8, 5
58″	28,35,53,59,53,28,44,25,17,39	1,50,28,14, 3,24, 4,48	2, 5,26,46,57	
60″	28,35,55,50,21,42,47,49,22,27			
exact	28,35,55,50,21,42,47,49,47,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°28′ 0″	28,35,55,50,21,42,47,49,47,19			
		1,50,28,11,57,57,12,29		
2″	28,35,57,40,49,54,45,46,59,48		2, 5,27, 2,55	
		1,50,28, 9,52,30, 9,34		8, 5
4″	28,35,59,31,18, 4,38,17, 9,22		2, 5,27,11, 0	
		1,50,28, 7,47, 2,58,34		8, 5
6″	28,36, 1,21,46,12,25,20, 7,56		2, 5,27,19, 5	
		1,50,28, 5,41,35,39,29		8, 5
8″	28,36, 3,12,14,18, 6,55,47,25		2, 5,27,27,10	
		1,50,28, 3,36, 8,12,19		8, 5
10″	28,36, 5, 2,42,21,43, 3,59,44		2, 5,27,35,15	
		1,50,28, 1,30,40,37, 4		8, 5
12″	28,36, 6,53,10,23,13,44,36,48		2, 5,27,43,20	
		1,50,27,59,25,12,53,44		8, 5
14″	28,36, 8,43,38,22,38,57,30,32		2, 5,27,51,25	
		1,50,27,57,19,45, 2,19		8, 5
16″	28,36,10,34, 6,19,58,42,32,51		2, 5,27,59,30	
		1,50,27,55,14,17, 2,49		8, 5
18″	28,36,12,24,34,15,12,59,35,40		2, 5,28, 7,35	
		1,50,27,53, 8,48,55,14		8, 5
20″	28,36,14,15, 2, 8,21,48,30,54		2, 5,28,15,40	
		1,50,27,51, 3,20,39,34		8, 5
22″	28,36,16, 5,29,59,25, 9,10,28		2, 5,28,23,45	
		1,50,27,48,57,52,15,49		8, 5
24″	28,36,17,55,57,48,23, 1,26,17		2, 5,28,31,50	
		1,50,27,46,52,23,43,59		8, 5
26″	28,36,19,46,25,35,15,25,10,16		2, 5,28,39,55	
		1,50,27,44,46,55, 4, 4		8, 5
28″	28,36,21,36,53,20, 2,20,14,20		2, 5,28,48, 0	
		1,50,27,42,41,26,16, 4		8, 5
30″	28,36,23,27,21, 2,43,46,30,24		2, 5,28,56, 5	
		1,50,27,40,35,57,19,59		8, 5
32″	28,36,25,17,48,43,19,43,50,23		2, 5,29, 4,10	
		1,50,27,38,30,28,15,49		8, 5
34″	28,36,27, 8,16,21,50,12, 6,12		2, 5,29,12,15	
		1,50,27,36,24,59, 3,34		8, 5
36″	28,36,28,58,43,58,15,11, 9,46		2, 5,29,20,20	
		1,50,27,34,19,29,43,14		8, 5
38″	28,36,30,49,11,32,34,40,53, 0		2, 5,29,28,25	
		1,50,27,32,14, 0,14,49		8, 5
40″	28,36,32,39,39, 4,48,41, 7,49		2, 5,29,36,30	
		1,50,27,30, 8,30,38,19		8, 5
42″	28,36,34,30, 6,34,57,11,46, 8		2, 5,29,44,35	
		1,50,27,28, 3, 0,53,44		8, 5
44″	28,36,36,20,34, 3, 0,12,39,52		2, 5,29,52,40	
		1,50,27,25,57,31, 1, 4		8, 5
46″	28,36,38,11, 1,28,57,43,40,56		2, 5,30, 0,45	
		1,50,27,23,52, 1, 0,19		8, 5
48″	28,36,40, 1,28,52,49,44,41,15		2, 5,30, 8,50	
		1,50,27,21,46,30,51,29		8, 5
50″	28,36,41,51,56,14,36,15,32,44		2, 5,30,16,55	
		1,50,27,19,41, 0,34,34		8, 5
52″	28,36,43,42,23,34,17,16, 7,18		2, 5,30,25, 0	
		1,50,27,17,35,30, 9,34		8, 5
54″	28,36,45,32,50,51,52,46,16,52		2, 5,30,33, 5	
		1,50,27,15,29,59,36,29		8, 5
56″	28,36,47,23,18, 7,22,45,53,21		2, 5,30,41,10	
		1,50,27,13,24,28,55,19		8, 5
58″	28,36,49,13,45,20,47,14,48,40		2, 5,30,49,15	
		1,50,27,11,18,58, 6, 4		
60″	28,36,51, 4,12,32, 6,12,54,44			
exact	28,36,51, 4,12,32, 6,13,21,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°29′ 0″	28,36,51, 4,12,32, 6,13,21,50			
		1,50,27, 9,13,27,11,48		
2″	28,36,52,54,39,41,19,40,33,38		2, 5,31, 5,11	
		1,50,27, 7, 7,56, 6,37		8, 4
4″	28,36,54,45, 6,48,27,36,40,15		2, 5,31,13,15	
		1,50,27, 5, 2,24,53,22		8, 4
6″	28,36,56,35,33,53,30, 1,33,37		2, 5,31,21,19	
		1,50,27, 2,56,53,32, 3		8, 4
8″	28,36,58,26, 0,56,26,55, 5,40		2, 5,31,29,23	
		1,50,27, 0,51,22, 2,40		8, 4
10″	28,37, 0,16,27,57,18,17, 8,20		2, 5,31,37,27	
		1,50,26,58,45,50,25,13		8, 4
12″	28,37, 2, 6,54,56, 4, 7,33,33		2, 5,31,45,31	
		1,50,26,56,40,18,39,42		8, 4
14″	28,37, 3,57,21,52,44,26,13,15		2, 5,31,53,35	
		1,50,26,54,34,46,46, 7		8, 4
16″	28,37, 5,47,48,47,19,12,59,22		2, 5,32, 1,39	
		1,50,26,52,29,14,44,28		8, 4
18″	28,37, 7,38,15,39,48,27,43,50		2, 5,32, 9,43	
		1,50,26,50,23,42,34,45		8, 4
20″	28,37, 9,28,42,30,12,10,18,35		2, 5,32,17,47	
		1,50,26,48,18,10,16,58		8, 4
22″	28,37,11,19, 9,18,30,20,35,33		2, 5,32,25,51	
		1,50,26,46,12,37,51, 7		8, 4
24″	28,37,13, 9,36, 4,42,58,26,40		2, 5,32,33,55	
		1,50,26,44, 7, 5,17,12		8, 4
26″	28,37,15, 0, 2,48,50, 3,43,52		2, 5,32,41,59	
		1,50,26,42, 1,32,35,13		8, 4
28″	28,37,16,50,29,30,51,36,19, 5		2, 5,32,50, 3	
		1,50,26,39,55,59,45,10		8, 4
30″	28,37,18,40,56,10,47,36, 4,15		2, 5,32,58, 7	
		1,50,26,37,50,26,47, 3		8, 4
32″	28,37,20,31,22,48,38, 2,51,18		2, 5,33, 6,11	
		1,50,26,35,44,53,40,52		8, 4
34″	28,37,22,21,49,24,22,56,32,10		2, 5,33,14,15	
		1,50,26,33,39,20,26,37		8, 4
36″	28,37,24,12,15,58, 2,16,58,47		2, 5,33,22,19	
		1,50,26,31,33,47, 4,18		8, 4
38″	28,37,26, 2,42,29,36, 4, 3, 5		2, 5,33,30,23	
		1,50,26,29,28,13,33,55		8, 4
40″	28,37,27,53, 8,59, 4,17,37, 0		2, 5,33,38,27	
		1,50,26,27,22,39,55,28		8, 4
42″	28,37,29,43,35,26,26,57,32,28		2, 5,33,46,31	
		1,50,26,25,17, 6, 8,57		8, 4
44″	28,37,31,34, 1,51,44, 3,41,25		2, 5,33,54,35	
		1,50,26,23,11,32,14,22		8, 4
46″	28,37,33,24,28,14,55,35,55,47		2, 5,34, 2,39	
		1,50,26,21, 5,58,11,43		8, 4
48″	28,37,35,14,54,36, 1,34, 7,30		2, 5,34,10,43	
		1,50,26,19, 0,24, 1, 0		8, 4
50″	28,37,37, 5,20,55, 1,58, 8,30		2, 5,34,18,47	
		1,50,26,16,54,49,42,13		8, 4
52″	28,37,38,55,47,11,56,47,50,43		2, 5,34,26,51	
		1,50,26,14,49,15,15,22		8, 4
54″	28,37,40,46,13,26,46, 3, 6, 5		2, 5,34,34,55	
		1,50,26,12,43,40,40,27		8, 4
56″	28,37,42,36,39,39,29,43,46,32		2, 5,34,42,59	
		1,50,26,10,38, 5,57,28		8, 4
58″	28,37,44,27, 5,50, 7,49,44, 0		2, 5,34,51, 3	
		1,50,26, 8,32,31, 6,25		
60″	28,37,46,17,31,58,40,20,50,25			
exact	28,37,46,17,31,58,40,20,14,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°30′ 0″	28,37,46,17,31,58,40,20,14,41			
		1,50,26, 6,26,56, 3,39		
2″	28,37,48, 7,58, 5, 7,16,18,20		2, 5,35, 7,25	
		1,50,26, 4,21,20,56,14		8, 4
4″	28,37,49,58,24, 9,28,37,14,34		2, 5,35,15,29	
		1,50,26, 2,15,45,40,45		8, 4
6″	28,37,51,48,50,11,44,22,55,19		2, 5,35,23,33	
		1,50,26, 0,10,10,17,12		8, 4
8″	28,37,53,39,16,11,54,33,12,31		2, 5,35,31,37	
		1,50,25,58, 4,34,45,35		8, 4
10″	28,37,55,29,42, 9,59, 7,58, 6		2, 5,35,39,41	
		1,50,25,55,58,59, 5,54		8, 4
12″	28,37,57,20, 8, 5,58, 7, 4, 0		2, 5,35,47,45	
		1,50,25,53,53,23,18, 9		8, 4
14″	28,37,59,10,33,59,51,30,22, 9		2, 5,35,55,49	
		1,50,25,51,47,47,22,20		8, 4
16″	28,38, 1, 0,59,51,39,17,44,29		2, 5,36, 3,53	
		1,50,25,49,42,11,18,27		8, 4
18″	28,38, 2,51,25,41,21,29, 2,56		2, 5,36,11,57	
		1,50,25,47,36,35, 6,30		8, 4
20″	28,38, 4,41,51,28,58, 4, 9,26		2, 5,36,20, 1	
		1,50,25,45,30,58,46,29		8, 4
22″	28,38, 6,32,17,14,29, 2,55,55		2, 5,36,28, 5	
		1,50,25,43,25,22,18,24		8, 4
24″	28,38, 8,22,42,57,54,25,14,19		2, 5,36,36, 9	
		1,50,25,41,19,45,42,15		8, 4
26″	28,38,10,13, 8,39,14,10,56,34		2, 5,36,44,13	
		1,50,25,39,14, 8,58, 2		8, 4
28″	28,38,12, 3,34,18,28,19,54,36		2, 5,36,52,17	
		1,50,25,37, 8,32, 5,45		8, 4
30″	28,38,13,53,59,55,36,52, 0,21		2, 5,37, 0,21	
		1,50,25,35, 2,55, 5,24		8, 4
32″	28,38,15,44,25,30,39,47, 5,45		2, 5,37, 8,25	
		1,50,25,32,57,17,56,59		8, 4
34″	28,38,17,34,51, 3,37, 5, 2,44		2, 5,37,16,29	
		1,50,25,30,51,40,40,30		8, 4
36″	28,38,19,25,16,34,28,45,43,14		2, 5,37,24,33	
		1,50,25,28,46, 3,15,57		8, 4
38″	28,38,21,15,42, 3,14,48,59,11		2, 5,37,32,37	
		1,50,25,26,40,25,43,20		8, 4
40″	28,38,23, 6, 7,29,55,14,42,31		2, 5,37,40,41	
		1,50,25,24,34,48, 2,39		8, 4
42″	28,38,24,56,32,54,30, 2,45,10		2, 5,37,48,45	
		1,50,25,22,29,10,13,54		8, 4
44″	28,38,26,46,58,16,59,12,59, 4		2, 5,37,56,49	
		1,50,25,20,23,32,17, 5		8, 4
46″	28,38,28,37,23,37,22,45,16, 9		2, 5,38, 4,53	
		1,50,25,18,17,54,12,12		8, 4
48″	28,38,30,27,48,55,40,39,28,21		2, 5,38,12,57	
		1,50,25,16,12,15,59,15		8, 4
50″	28,38,32,18,14,11,52,55,27,36		2, 5,38,21, 1	
		1,50,25,14, 6,37,38,14		8, 4
52″	28,38,34, 8,39,25,59,33, 5,50		2, 5,38,29, 5	
		1,50,25,12, 0,59, 9, 9		8, 4
54″	28,38,35,59, 4,38, 0,32,14,59		2, 5,38,37, 9	
		1,50,25, 9,55,20,32, 0		8, 4
56″	28,38,37,49,29,47,55,52,46,59		2, 5,38,45,13	
		1,50,25, 7,49,41,46,47		8, 4
58″	28,38,39,39,54,55,45,34,33,46		2, 5,38,53,17	
		1,50,25, 5,44, 2,53,30		
60″	28,38,41,30,20, 1,29,37,27,16			
exact	28,38,41,30,20, 1,29,36,57,55			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
28°31′	0″	28,38,41,30,20, 1,29,36,57,55	1,50,25, 3,38,23,49, 8		
	2″	28,38,43,20,45, 5, 8, 0,47, 3	1,50,25, 1,32,44,39,31	2, 5,39, 9,37	
	4″	28,38,45,11,10, 6,40,45,26,34	1,50,24,59,27, 5,21,50	2, 5,39,17,41	8, 4
	6″	28,38,47, 1,35, 6, 7,50,48,24	1,50,24,57,21,25,56, 5	2, 5,39,25,45	8, 4
	8″	28,38,48,52, 0, 3,29,16,44,29	1,50,24,55,15,46,22,16	2, 5,39,33,49	8, 4
	10″	28,38,50,42,24,58,45, 3, 6,45	1,50,24,53,10, 6,40,23	2, 5,39,41,53	8, 4
	12″	28,38,52,32,49,51,55, 9,47, 8	1,50,24,51, 4,26,50,26	2, 5,39,49,57	8, 4
	14″	28,38,54,23,14,42,59,36,37,34	1,50,24,48,58,46,52,25	2, 5,39,58, 1	8, 4
	16″	28,38,56,13,39,31,58,23,29,59	1,50,24,46,53, 6,46,20	2, 5,40, 6, 5	8, 4
	18″	28,38,58, 4, 4,18,51,30,16,19	1,50,24,44,47,26,32,11	2, 5,40,14, 9	8, 4
	20″	28,38,59,54,29, 3,38,56,48,30	1,50,24,42,41,46, 9,58	2, 5,40,22,13	8, 4
	22″	28,39, 1,44,53,46,20,42,58,28	1,50,24,40,36, 5,39,41	2, 5,40,30,17	8, 4
	24″	28,39, 3,35,18,26,56,48,38, 9	1,50,24,38,30,25, 1,20	2, 5,40,38,21	8, 4
	26″	28,39, 5,25,43, 5,27,13,39,29	1,50,24,36,24,44,14,55	2, 5,40,46,25	8, 4
	28″	28,39, 7,16, 7,41,51,57,54,24	1,50,24,34,19, 3,20,26	2, 5,40,54,29	8, 4
	30″	28,39, 9, 6,32,16,11, 1,14,50	1,50,24,32,13,22,17,53	2, 5,41, 2,33	8, 4
	32″	28,39,10,56,56,48,24,23,32,43	1,50,24,30, 7,41, 7,16	2, 5,41,10,37	8, 4
	34″	28,39,12,47,21,18,32, 4,39,59	1,50,24,28, 1,59,48,35	2, 5,41,18,41	8, 4
	36″	28,39,14,37,45,46,34, 4,28,34	1,50,24,25,56,18,21,50	2, 5,41,26,45	8, 4
	38″	28,39,16,28,10,12,30,22,50,24	1,50,24,23,50,36,47, 1	2, 5,41,34,49	8, 4
	40″	28,39,18,18,34,36,20,59,37,25	1,50,24,21,44,55, 4, 8	2, 5,41,42,53	8, 4
	42″	28,39,20, 8,58,58, 5,54,41,33	1,50,24,19,39,13,13,11	2, 5,41,50,57	8, 4
	44″	28,39,21,59,23,17,45, 7,54,44	1,50,24,17,33,31,14,10	2, 5,41,59, 1	8, 4
	46″	28,39,23,49,47,35,18,39, 8,54	1,50,24,15,27,49, 7, 5	2, 5,42, 7, 5	8, 4
	48″	28,39,25,40,11,50,46,28,15,59	1,50,24,13,22, 6,51,56	2, 5,42,15, 9	8, 4
	50″	28,39,27,30,36, 4, 8,35, 7,55	1,50,24,11,16,24,28,43	2, 5,42,23,13	8, 4
	52″	28,39,29,21, 0,15,24,59,36,38	1,50,24, 9,10,41,57,26	2, 5,42,31,17	8, 4
	54″	28,39,31,11,24,24,35,41,34, 4	1,50,24, 7, 4,59,18, 5	2, 5,42,39,21	8, 4
	56″	28,39,33, 1,48,31,40,40,52, 9	1,50,24, 4,59,16,30,40	2, 5,42,47,25	8, 4
	58″	28,39,34,52,12,36,39,57,22,49	1,50,24, 2,53,33,35,11	2, 5,42,55,29	
	60″	28,39,36,42,36,39,33,30,58, 0			
exact		28,39,36,42,36,39,33,30,37,57			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
28°32′	0″	28,39,36,42,36,39,33,30,37,57	1,50,24, 0,47,50,29,27		
	2″	28,39,38,33, 0,40,21,21, 7,24	1,50,23,58,42, 7,17,41	2, 5,43,11,46	
	4″	28,39,40,23,24,39, 3,28,25, 5	1,50,23,56,36,23,57,51	2, 5,43,19,50	8, 4
	6″	28,39,42,13,48,35,39,52,22,56	1,50,23,54,30,40,29,57	2, 5,43,27,54	8, 4
	8″	28,39,44, 4,12,30,10,32,52,53	1,50,23,52,24,56,53,59	2, 5,43,35,58	8, 4
	10″	28,39,45,54,36,22,35,29,46,52	1,50,23,50,19,13, 9,57	2, 5,43,44, 2	8, 4
	12″	28,39,47,45, 0,12,54,42,56,49	1,50,23,48,13,29,17,51	2, 5,43,52, 6	8, 4
	14″	28,39,49,35,24, 1, 8,12,14,40	1,50,23,46, 7,45,17,41	2, 5,44, 0,10	8, 4
	16″	28,39,51,25,47,47,15,57,32,21	1,50,23,44, 2, 1, 9,27	2, 5,44, 8,14	8, 4
	18″	28,39,53,16,11,31,17,58,41,48	1,50,23,41,56,16,53, 9	2, 5,44,16,18	8, 4
	20″	28,39,55, 6,35,13,14,15,34,57	1,50,23,39,50,32,28,47	2, 5,44,24,22	8, 4
	22″	28,39,56,56,58,53, 4,48, 3,44	1,50,23,37,44,47,56,21	2, 5,44,32,26	8, 4
	24″	28,39,58,47,22,30,49,36, 0, 5	1,50,23,35,39, 3,15,51	2, 5,44,40,30	8, 4
	26″	28,40, 0,37,46, 6,28,39,15,56	1,50,23,33,33,18,27,17	2, 5,44,48,34	8, 4
	28″	28,40, 2,28, 9,40, 1,57,43,13	1,50,23,31,27,33,30,39	2, 5,44,56,38	8, 4
	30″	28,40, 4,18,33,11,29,31,13,52	1,50,23,29,21,48,25,57	2, 5,45, 4,42	8, 4
	32″	28,40, 6, 8,56,40,51,19,39,49	1,50,23,27,16, 3,13,11	2, 5,45,12,46	8, 4
	34″	28,40, 7,59,20, 8, 7,22,53, 0	1,50,23,25,10,17,52,21	2, 5,45,20,50	8, 4
	36″	28,40, 9,49,43,33,17,40,45,21	1,50,23,23, 4,32,23,27	2, 5,45,28,54	8, 4
	38″	28,40,11,40, 6,56,22,13, 8,48	1,50,23,20,58,46,46,29	2, 5,45,36,58	8, 4
	40″	28,40,13,30,30,17,20,59,55,17	1,50,23,18,53, 1, 1,27	2, 5,45,45, 2	8, 4
	42″	28,40,15,20,53,36,14, 0,56,44	1,50,23,16,47,15, 8,21	2, 5,45,53, 6	8, 4
	44″	28,40,17,11,16,53, 1,16, 5, 5	1,50,23,14,41,29, 7,11	2, 5,46, 1,10	8, 4
	46″	28,40,19, 1,40, 7,42,45,12,16	1,50,23,12,35,42,57,57	2, 5,46, 9,14	8, 4
	48″	28,40,20,52, 3,20,18,28,10,13	1,50,23,10,29,56,40,39	2, 5,46,17,18	8, 4
	50″	28,40,22,42,26,30,48,24,50,52	1,50,23, 8,24,10,15,17	2, 5,46,25,22	8, 4
	52″	28,40,24,32,49,39,12,35, 6, 9	1,50,23, 6,18,23,41,51	2, 5,46,33,26	8, 4
	54″	28,40,26,23,12,45,30,58,48, 0	1,50,23, 4,12,37, 0,21	2, 5,46,41,30	8, 4
	56″	28,40,28,13,35,49,43,35,48,21	1,50,23, 2, 6,50,10,47	2, 5,46,49,34	8, 4
	58″	28,40,30, 3,58,51,50,25,59, 8	1,50,23, 0, 1, 3,13, 9	2, 5,46,57,38	
	60″	28,40,31,54,21,51,51,29,12,17			
exact		28,40,31,54,21,51,51,28,55,42			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
28°33′	0″	28,40,31,54,21,51,51,28,55,42			
			1,50,22,57,55,16, 5,43		
	2″	28,40,33,44,44,49,46,45, 1,25		2, 5,47,13,53	
			1,50,22,55,49,28,51,50		8, 4
	4″	28,40,35,35, 7,45,36,13,53,15		2, 5,47,21,57	
			1,50,22,53,43,41,29,53		8, 4
	6″	28,40,37,25,30,39,19,55,23, 8		2, 5,47,30, 1	
			1,50,22,51,37,53,59,52		8, 4
	8″	28,40,39,15,53,30,57,49,23, 0		2, 5,47,38, 5	
			1,50,22,49,32, 6,21,47		8, 4
	10″	28,40,41, 6,16,20,29,55,44,47		2, 5,47,46, 9	
			1,50,22,47,26,18,35,38		8, 4
	12″	28,40,42,56,39, 7,56,14,20,25		2, 5,47,54,13	
			1,50,22,45,20,30,41,25		8, 4
	14″	28,40,44,47, 1,53,16,45, 1,50		2, 5,48, 2,17	
			1,50,22,43,14,42,39, 8		8, 4
	16″	28,40,46,37,24,36,31,27,40,58		2, 5,48,10,21	
			1,50,22,41, 8,54,28,47		8, 4
	18″	28,40,48,27,47,17,40,22, 9,45		2, 5,48,18,25	
			1,50,22,39, 3, 6,10,22		8, 4
	20″	28,40,50,18, 9,56,43,28,20, 7		2, 5,48,26,29	
			1,50,22,36,57,17,43,53		8, 4
	22″	28,40,52, 8,32,33,40,46, 4, 0		2, 5,48,34,33	
			1,50,22,34,51,29, 9,20		8, 4
	24″	28,40,53,58,55, 8,32,15,13,20		2, 5,48,42,37	
			1,50,22,32,45,40,26,43		8, 4
	26″	28,40,55,49,17,41,17,55,40, 3		2, 5,48,50,41	
			1,50,22,30,39,51,36, 2		8, 4
	28″	28,40,57,39,40,11,57,47,16, 5		2, 5,48,58,45	
			1,50,22,28,34, 2,37,17		8, 4
	30″	28,40,59,30, 2,40,31,49,53,22		2, 5,49, 6,49	
			1,50,22,26,28,13,30,28		8, 4
	32″	28,41, 1,20,25, 7, 0, 3,23,50		2, 5,49,14,53	
			1,50,22,24,22,24,15,35		8, 4
	34″	28,41, 3,10,47,31,22,27,39,25		2, 5,49,22,57	
			1,50,22,22,16,34,52,38		8, 4
	36″	28,41, 5, 1, 9,53,39, 2,32, 3		2, 5,49,31, 1	
			1,50,22,20,10,45,21,37		8, 4
	38″	28,41, 6,51,32,13,49,47,53,40		2, 5,49,39, 5	
			1,50,22,18, 4,55,42,32		8, 4
	40″	28,41, 8,41,54,31,54,43,36,12		2, 5,49,47, 9	
			1,50,22,15,59, 5,55,23		8, 4
	42″	28,41,10,32,16,47,53,49,31,35		2, 5,49,55,13	
			1,50,22,13,53,16, 0,10		8, 4
	44″	28,41,12,22,39, 1,47, 5,31,45		2, 5,50, 3,17	
			1,50,22,11,47,25,56,53		8, 4
	46″	28,41,14,13, 1,13,34,31,28,38		2, 5,50,11,21	
			1,50,22, 9,41,35,45,32		8, 4
	48″	28,41,16, 3,23,23,16, 7,14,10		2, 5,50,19,25	
			1,50,22, 7,35,45,26, 7		8, 4
	50″	28,41,17,53,45,30,51,52,40,17		2, 5,50,27,29	
			1,50,22, 5,29,54,58,38		8, 4
	52″	28,41,19,44, 7,36,21,47,38,55		2, 5,50,35,33	
			1,50,22, 3,24, 4,23, 5		8, 4
	54″	28,41,21,34,29,39,45,52, 2, 0		2, 5,50,43,37	
			1,50,22, 1,18,13,39,28		8, 4
	56″	28,41,23,24,51,41, 4, 5,41,28		2, 5,50,51,41	
			1,50,21,59,12,22,47,47		8, 4
	58″	28,41,25,15,13,40,16,28,29,15		2, 5,50,59,45	
			1,50,21,57, 6,31,48, 2		
	60″	28,41,27, 5,35,37,23, 0,17,17			
exact		28,41,27, 5,35,37,23, 0, 6,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°34′ 0″	28,41,27, 5,35,37,23, 0, 6,30			
		1,50,21,55, 0,40,39, 5		
2″	28,41,28,55,57,32,23,40,45,35		2, 5,51,15,57	
		1,50,21,52,54,49,23, 8		8, 4
4″	28,41,30,46,19,25,18,30, 8,43		2, 5,51,24, 1	
		1,50,21,50,48,57,59, 7		8, 4
6″	28,41,32,36,41,16, 7,28, 7,50		2, 5,51,32, 5	
		1,50,21,48,43, 6,27, 2		8, 4
8″	28,41,34,27, 3, 4,50,34,34,52		2, 5,51,40, 9	
		1,50,21,46,37,14,46,53		8, 4
10″	28,41,36,17,24,51,27,49,21,45		2, 5,51,48,13	
		1,50,21,44,31,22,58,40		8, 4
12″	28,41,38, 7,46,35,59,12,20,25		2, 5,51,56,17	
		1,50,21,42,25,31, 2,23		8, 4
14″	28,41,39,58, 8,18,24,43,22,48		2, 5,52, 4,21	
		1,50,21,40,19,38,58, 2		8, 4
16″	28,41,41,48,29,58,44,22,20,50		2, 5,52,12,25	
		1,50,21,38,13,46,45,37		8, 4
18″	28,41,43,38,51,36,58, 9, 6,27		2, 5,52,20,29	
		1,50,21,36, 7,54,25, 8		8, 4
20″	28,41,45,29,13,13, 6, 3,31,35		2, 5,52,28,33	
		1,50,21,34, 2, 1,56,35		8, 4
22″	28,41,47,19,34,47, 8, 5,28,10		2, 5,52,36,37	
		1,50,21,31,56, 9,19,58		8, 4
24″	28,41,49, 9,56,19, 4,14,48, 8		2, 5,52,44,41	
		1,50,21,29,50,16,35,17		8, 4
26″	28,41,51, 0,17,48,54,31,23,25		2, 5,52,52,45	
		1,50,21,27,44,23,42,32		8, 4
28″	28,41,52,50,39,16,38,55, 5,57		2, 5,53, 0,49	
		1,50,21,25,38,30,41,43		8, 4
30″	28,41,54,41, 0,42,17,25,47,40		2, 5,53, 8,53	
		1,50,21,23,32,37,32,50		8, 4
32″	28,41,56,31,22, 5,50, 3,20,30		2, 5,53,16,57	
		1,50,21,21,26,44,15,53		8, 4
34″	28,41,58,21,43,27,16,47,36,23		2, 5,53,25, 1	
		1,50,21,19,20,50,50,52		8, 4
36″	28,42, 0,12, 4,46,37,38,27,15		2, 5,53,33, 5	
		1,50,21,17,14,57,17,47		8, 4
38″	28,42, 2, 2,26, 3,52,35,45, 2		2, 5,53,41, 9	
		1,50,21,15, 9, 3,36,38		8, 4
40″	28,42, 3,52,47,19, 1,39,21,40		2, 5,53,49,13	
		1,50,21,13, 3, 9,47,25		8, 4
42″	28,42, 5,43, 8,32, 4,49, 9, 5		2, 5,53,57,17	
		1,50,21,10,57,15,50, 8		8, 4
44″	28,42, 7,33,29,43, 2, 4,59,13		2, 5,54, 5,21	
		1,50,21, 8,51,21,44,47		8, 4
46″	28,42, 9,23,50,51,53,26,44, 0		2, 5,54,13,25	
		1,50,21, 6,45,27,31,22		8, 4
48″	28,42,11,14,11,58,38,54,15,22		2, 5,54,21,29	
		1,50,21, 4,39,33, 9,53		8, 4
50″	28,42,13, 4,33, 3,18,27,25,15		2, 5,54,29,33	
		1,50,21, 2,33,38,40,20		8, 4
52″	28,42,14,54,54, 5,52, 6, 5,35		2, 5,54,37,37	
		1,50,21, 0,27,44, 2,43		8, 4
54″	28,42,16,45,15, 6,19,50, 8,18		2, 5,54,45,41	
		1,50,20,58,21,49,17, 2		8, 4
56″	28,42,18,35,36, 4,41,39,25,20		2, 5,54,53,45	
		1,50,20,56,15,54,23,17		8, 4
58″	28,42,20,25,57, 0,57,33,48,37		2, 5,55, 1,49	
		1,50,20,54, 9,59,21,28		
60″	28,42,22,16,17,55, 7,33,10, 5			
exact	28,42,22,16,17,55, 7,33, 0,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°35′ 0″	28,42,22,16,17,55, 7,33, 0,14			
		1,50,20,52, 4, 4,10,42		
2″	28,42,24, 6,38,47,11,37,10,56		2, 5,55,18, 0	
		1,50,20,49,58, 8,52,42		8, 4
4″	28,42,25,56,59,37, 9,46, 3,38		2, 5,55,26, 4	
		1,50,20,47,52,13,26,38		8, 4
6″	28,42,27,47,20,25, 1,59,30,16		2, 5,55,34, 8	
		1,50,20,45,46,17,52,30		8, 4
8″	28,42,29,37,41,10,48,17,22,46		2, 5,55,42,12	
		1,50,20,43,40,22,10,18		8, 4
10″	28,42,31,28, 1,54,28,39,33, 4		2, 5,55,50,16	
		1,50,20,41,34,26,20, 2		8, 4
12″	28,42,33,18,22,36, 3, 5,53, 6		2, 5,55,58,20	
		1,50,20,39,28,30,21,42		8, 4
14″	28,42,35, 8,43,15,31,36,14,48		2, 5,56, 6,24	
		1,50,20,37,22,34,15,18		8, 4
16″	28,42,36,59, 3,52,54,10,30, 6		2, 5,56,14,28	
		1,50,20,35,16,38, 0,50		8, 4
18″	28,42,38,49,24,28,10,48,30,56		2, 5,56,22,32	
		1,50,20,33,10,41,38,18		8, 4
20″	28,42,40,39,45, 1,21,30, 9,14		2, 5,56,30,36	
		1,50,20,31, 4,45, 7,42		8, 4
22″	28,42,42,30, 5,32,26,15,16,56		2, 5,56,38,40	
		1,50,20,28,58,48,29, 2		8, 4
24″	28,42,44,20,26, 1,25, 3,45,58		2, 5,56,46,44	
		1,50,20,26,52,51,42,18		8, 4
26″	28,42,46,10,46,28,17,55,28,16		2, 5,56,54,48	
		1,50,20,24,46,54,47,30		8, 4
28″	28,42,48, 1, 6,53, 4,50,15,46		2, 5,57, 2,52	
		1,50,20,22,40,57,44,38		8, 4
30″	28,42,49,51,27,15,45,48, 0,24		2, 5,57,10,56	
		1,50,20,20,35, 0,33,42		8, 4
32″	28,42,51,41,47,36,20,48,34, 6		2, 5,57,19, 0	
		1,50,20,18,29, 3,14,42		8, 4
34″	28,42,53,32, 7,54,49,51,48,48		2, 5,57,27, 4	
		1,50,20,16,23, 5,47,38		8, 4
36″	28,42,55,22,28,11,12,57,36,26		2, 5,57,35, 8	
		1,50,20,14,17, 8,12,30		8, 4
38″	28,42,57,12,48,25,30, 5,48,56		2, 5,57,43,12	
		1,50,20,12,11,10,29,18		8, 4
40″	28,42,59, 3, 8,37,41,16,18,14		2, 5,57,51,16	
		1,50,20,10, 5,12,38, 2		8, 4
42″	28,43, 0,53,28,47,46,28,56,16		2, 5,57,59,20	
		1,50,20, 7,59,14,38,42		8, 4
44″	28,43, 2,43,48,55,45,43,34,58		2, 5,58, 7,24	
		1,50,20, 5,53,16,31,18		8, 4
46″	28,43, 4,34, 9, 1,39, 0, 6,16		2, 5,58,15,28	
		1,50,20, 3,47,18,15,50		8, 4
48″	28,43, 6,24,29, 5,26,18,22, 6		2, 5,58,23,32	
		1,50,20, 1,41,19,52,18		8, 4
50″	28,43, 8,14,49, 7, 7,38,14,24		2, 5,58,31,36	
		1,50,19,59,35,21,20,42		8, 4
52″	28,43,10, 5, 9, 6,42,59,35, 6		2, 5,58,39,40	
		1,50,19,57,29,22,41, 2		8, 4
54″	28,43,11,55,29, 4,12,22,16, 8		2, 5,58,47,44	
		1,50,19,55,23,23,53,18		8, 4
56″	28,43,13,45,48,59,35,46, 9,26		2, 5,58,55,48	
		1,50,19,53,17,24,57,30		8, 4
58″	28,43,15,36, 8,52,53,11, 6,56		2, 5,59, 3,52	
		1,50,19,51,11,25,53,38		
60″	28,43,17,26,28,44, 4,37, 0,34			
exact	28,43,17,26,28,44, 4,37, 1,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°36′ 0″	28,43,17,26,28,44, 4,37, 1,13			
		1,50,19,49, 5,26,41,44		
2″	28,43,19,16,48,33,10, 3,42,57		2, 5,59,20, 0	
		1,50,19,46,59,27,21,44		8, 4
4″	28,43,21, 7, 8,20, 9,31, 4,41		2, 5,59,28, 4	
		1,50,19,44,53,27,53,40		8, 4
6″	28,43,22,57,28, 5, 2,58,58,21		2, 5,59,36, 8	
		1,50,19,42,47,28,17,32		8, 4
8″	28,43,24,47,47,47,50,27,15,53		2, 5,59,44,12	
		1,50,19,40,41,28,33,20		8, 4
10″	28,43,26,38, 7,28,31,55,49,13		2, 5,59,52,16	
		1,50,19,38,35,28,41, 4		8, 4
12″	28,43,28,28,27, 7, 7,24,30,17		2, 6, 0, 0,20	
		1,50,19,36,29,28,40,44		8, 4
14″	28,43,30,18,46,43,36,53,11, 1		2, 6, 0, 8,24	
		1,50,19,34,23,28,32,20		8, 4
16″	28,43,32, 9, 6,18, 0,21,43,21		2, 6, 0,16,28	
		1,50,19,32,17,28,15,52		8, 4
18″	28,43,33,59,25,50,17,49,59,13		2, 6, 0,24,32	
		1,50,19,30,11,27,51,20		8, 4
20″	28,43,35,49,45,20,29,17,50,33		2, 6, 0,32,36	
		1,50,19,28, 5,27,18,44		8, 4
22″	28,43,37,40, 4,48,34,45, 9,17		2, 6, 0,40,40	
		1,50,19,25,59,26,38, 4		8, 4
24″	28,43,39,30,24,14,34,11,47,21		2, 6, 0,48,44	
		1,50,19,23,53,25,49,20		8, 4
26″	28,43,41,20,43,38,27,37,36,41		2, 6, 0,56,48	
		1,50,19,21,47,24,52,32		8, 4
28″	28,43,43,11, 3, 0,15, 2,29,13		2, 6, 1, 4,52	
		1,50,19,19,41,23,47,40		8, 4
30″	28,43,45, 1,22,19,56,26,16,53		2, 6, 1,12,56	
		1,50,19,17,35,22,34,44		8, 4
32″	28,43,46,51,41,37,31,48,51,37		2, 6, 1,21, 0	
		1,50,19,15,29,21,13,44		8, 4
34″	28,43,48,42, 0,53, 1,10, 5,21		2, 6, 1,29, 4	
		1,50,19,13,23,19,44,40		8, 4
36″	28,43,50,32,20, 6,24,29,50, 1		2, 6, 1,37, 8	
		1,50,19,11,17,18, 7,32		8, 4
38″	28,43,52,22,39,17,41,47,57,33		2, 6, 1,45,12	
		1,50,19, 9,11,16,22,20		8, 4
40″	28,43,54,12,58,26,53, 4,19,53		2, 6, 1,53,16	
		1,50,19, 7, 5,14,29, 4		8, 4
42″	28,43,56, 3,17,33,58,18,48,57		2, 6, 2, 1,20	
		1,50,19, 4,59,12,27,44		8, 4
44″	28,43,57,53,36,38,57,31,16,41		2, 6, 2, 9,24	
		1,50,19, 2,53,10,18,20		8, 4
46″	28,43,59,43,55,41,50,41,35, 1		2, 6, 2,17,28	
		1,50,19, 0,47, 8, 0,52		8, 4
48″	28,44, 1,34,14,42,37,49,35,53		2, 6, 2,25,32	
		1,50,18,58,41, 5,35,20		8, 4
50″	28,44, 3,24,33,41,18,55,11,13		2, 6, 2,33,36	
		1,50,18,56,35, 3, 1,44		8, 4
52″	28,44, 5,14,52,37,53,58,12,57		2, 6, 2,41,40	
		1,50,18,54,29, 0,20, 4		8, 4
54″	28,44, 7, 5,11,32,22,58,33, 1		2, 6, 2,49,44	
		1,50,18,52,22,57,30,20		8, 4
56″	28,44, 8,55,30,24,45,56, 3,21		2, 6, 2,57,48	
		1,50,18,50,16,54,32,32		8, 4
58″	28,44,10,45,49,15, 2,50,35,53		2, 6, 3, 5,52	
		1,50,18,48,10,51,26,40		
60″	28,44,12,36, 8, 3,13,42, 2,33			
exact	28,44,12,36, 8, 3,13,42, 8,20			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
28°37′	0″	28,44,12,36, 8, 3,13,42, 8,20			
	2″	28,44,14,26,26,49,18,30,21,39	1,50,18,46, 4,48,13,19	2, 6, 3,21,57	
	4″	28,44,16,16,45,33,17,15,13, 1	1,50,18,43,58,44,51,22	2, 6, 3,30, 1	8, 4
	6″	28,44,18, 7, 4,15, 9,56,34,22	1,50,18,41,52,41,21,21	2, 6, 3,38, 5	8, 4
	8″	28,44,19,57,22,54,56,34,17,38	1,50,18,39,46,37,43,16	2, 6, 3,46, 9	8, 4
	10″	28,44,21,47,41,32,37, 8,14,45	1,50,18,37,40,33,57, 7	2, 6, 3,54,13	8, 4
	12″	28,44,23,38, 0, 8,11,38,17,39	1,50,18,35,34,30, 2,54	2, 6, 4, 2,17	8, 4
	14″	28,44,25,28,18,41,40, 4,18,16	1,50,18,33,28,26, 0,37	2, 6, 4,10,21	8, 4
	16″	28,44,27,18,37,13, 2,26, 8,32	1,50,18,31,22,21,50,16	2, 6, 4,18,25	8, 4
	18″	28,44,29, 8,55,42,18,43,40,23	1,50,18,29,16,17,31,51	2, 6, 4,26,29	8, 4
	20″	28,44,30,59,14, 9,28,56,45,45	1,50,18,27,10,13, 5,22	2, 6, 4,34,33	8, 4
	22″	28,44,32,49,32,34,33, 5,16,34	1,50,18,25, 4, 8,30,49	2, 6, 4,42,37	8, 4
	24″	28,44,34,39,50,57,31, 9, 4,46	1,50,18,22,58, 3,48,12	2, 6, 4,50,41	8, 4
	26″	28,44,36,30, 9,18,23, 8, 2,17	1,50,18,20,51,58,57,31	2, 6, 4,58,45	8, 4
	28″	28,44,38,20,27,37, 9, 2, 1, 3	1,50,18,18,45,53,58,46	2, 6, 5, 6,49	8, 4
	30″	28,44,40,10,45,53,48,50,53, 0	1,50,18,16,39,48,51,57	2, 6, 5,14,53	8, 4
	32″	28,44,42, 1, 4, 8,22,34,30, 4	1,50,18,14,33,43,37, 4	2, 6, 5,22,57	8, 4
	34″	28,44,43,51,22,20,50,12,44,11	1,50,18,12,27,38,14, 7	2, 6, 5,31, 1	8, 4
	36″	28,44,45,41,40,31,11,45,27,17	1,50,18,10,21,32,43, 6	2, 6, 5,39, 5	8, 4
	38″	28,44,47,31,58,39,27,12,31,18	1,50,18, 8,15,27, 4, 1	2, 6, 5,47, 9	8, 4
	40″	28,44,49,22,16,45,36,33,48,10	1,50,18, 6, 9,21,16,52	2, 6, 5,55,13	8, 4
	42″	28,44,51,12,34,49,39,49, 9,49	1,50,18, 4, 3,15,21,39	2, 6, 6, 3,17	8, 4
	44″	28,44,53, 2,52,51,36,58,28,11	1,50,18, 1,57, 9,18,22	2, 6, 6,11,21	8, 4
	46″	28,44,54,53,10,51,28, 1,35,12	1,50,17,59,51, 3, 7, 1	2, 6, 6,19,25	8, 4
	48″	28,44,56,43,28,49,12,58,22,48	1,50,17,57,44,56,47,36	2, 6, 6,27,29	8, 4
	50″	28,44,58,33,46,44,51,48,42,55	1,50,17,55,38,50,20, 7	2, 6, 6,35,33	8, 4
	52″	28,45, 0,24, 4,38,24,32,27,29	1,50,17,53,32,43,44,34	2, 6, 6,43,37	8, 4
	54″	28,45, 2,14,22,29,51, 9,28,26	1,50,17,51,26,37, 0,57	2, 6, 6,51,41	8, 4
	56″	28,45, 4, 4,40,19,11,39,37,42	1,50,17,49,20,30, 9,16	2, 6, 6,59,45	8, 4
	58″	28,45, 5,54,58, 6,26, 2,47,13	1,50,17,47,14,23, 9,31	2, 6, 7, 7,49	
	60″	28,45, 7,45,15,51,34,18,48,55	1,50,17,45, 8,16, 1,42		
exact		28,45, 7,45,15,51,34,18,55, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°38′ 0″	28,45, 7,45,15,51,34,18,55, 0			
		1,50,17,43, 2, 8,46,37		
2″	28,45, 9,35,33,34,36,27,41,37		2, 6, 7,23,53	
		1,50,17,40,56, 1,22,44		8, 4
4″	28,45,11,25,51,15,32,29, 4,21		2, 6, 7,31,57	
		1,50,17,38,49,53,50,47		8, 4
6″	28,45,13,16, 8,54,22,22,55, 8		2, 6, 7,40, 1	
		1,50,17,36,43,46,10,46		8, 4
8″	28,45,15, 6,26,31, 6, 9, 5,54		2, 6, 7,48, 5	
		1,50,17,34,37,38,22,41		8, 4
10″	28,45,16,56,44, 5,43,47,28,35		2, 6, 7,56, 9	
		1,50,17,32,31,30,26,32		8, 4
12″	28,45,18,47, 1,38,15,17,55, 7		2, 6, 8, 4,13	
		1,50,17,30,25,22,22,19		8, 4
14″	28,45,20,37,19, 8,40,40,17,26		2, 6, 8,12,17	
		1,50,17,28,19,14,10, 2		8, 4
16″	28,45,22,27,36,36,59,54,27,28		2, 6, 8,20,21	
		1,50,17,26,13, 5,49,41		8, 4
18″	28,45,24,17,54, 3,13, 0,17, 9		2, 6, 8,28,25	
		1,50,17,24, 6,57,21,16		8, 4
20″	28,45,26, 8,11,27,19,57,38,25		2, 6, 8,36,29	
		1,50,17,22, 0,48,44,47		8, 4
22″	28,45,27,58,28,49,20,46,23,12		2, 6, 8,44,33	
		1,50,17,19,54,40, 0,14		8, 4
24″	28,45,29,48,46, 9,15,26,23,26		2, 6, 8,52,37	
		1,50,17,17,48,31, 7,37		8, 4
26″	28,45,31,39, 3,27, 3,57,31, 3		2, 6, 9, 0,41	
		1,50,17,15,42,22, 6,56		8, 4
28″	28,45,33,29,20,42,46,19,37,59		2, 6, 9, 8,45	
		1,50,17,13,36,12,58,11		8, 4
30″	28,45,35,19,37,56,22,32,36,10		2, 6, 9,16,49	
		1,50,17,11,30, 3,41,22		8, 4
32″	28,45,37, 9,55, 7,52,36,17,32		2, 6, 9,24,53	
		1,50,17, 9,23,54,16,29		8, 4
34″	28,45,39, 0,12,17,16,30,34, 1		2, 6, 9,32,57	
		1,50,17, 7,17,44,43,32		8, 4
36″	28,45,40,50,29,24,34,15,17,33		2, 6, 9,41, 1	
		1,50,17, 5,11,35, 2,31		8, 4
38″	28,45,42,40,46,29,45,50,20, 4		2, 6, 9,49, 5	
		1,50,17, 3, 5,25,13,26		8, 4
40″	28,45,44,31, 3,32,51,15,33,30		2, 6, 9,57, 9	
		1,50,17, 0,59,15,16,17		8, 4
42″	28,45,46,21,20,33,50,30,49,47		2, 6,10, 5,13	
		1,50,16,58,53, 5,11, 4		8, 4
44″	28,45,48,11,37,32,43,36, 0,51		2, 6,10,13,17	
		1,50,16,56,46,54,57,47		8, 4
46″	28,45,50, 1,54,29,30,30,58,38		2, 6,10,21,21	
		1,50,16,54,40,44,36,26		8, 4
48″	28,45,51,52,11,24,11,15,35, 4		2, 6,10,29,25	
		1,50,16,52,34,34, 7, 1		8, 4
50″	28,45,53,42,28,16,45,49,42, 5		2, 6,10,37,29	
		1,50,16,50,28,23,29,32		8, 4
52″	28,45,55,32,45, 7,14,13,11,37		2, 6,10,45,33	
		1,50,16,48,22,12,43,59		8, 4
54″	28,45,57,23, 1,55,36,25,55,36		2, 6,10,53,37	
		1,50,16,46,16, 1,50,22		8, 4
56″	28,45,59,13,18,41,52,27,45,58		2, 6,11, 1,41	
		1,50,16,44, 9,50,48,41		8, 4
58″	28,46, 1, 3,35,26, 2,18,34,39		2, 6,11, 9,45	
		1,50,16,42, 3,39,38,56		
60″	28,46, 2,53,52, 8, 5,58,13,35			
exact	28,46, 2,53,52, 8, 5,58,29,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°39′ 0″	28,46, 2,53,52, 8, 5,58,29,10			
		1,50,16,39,57,28,22,47		
2″	28,46, 4,44, 8,48, 3,26,51,57		2, 6,11,25,46	
		1,50,16,37,51,16,57, 1		8, 4
4″	28,46, 6,34,25,25,54,43,48,58		2, 6,11,33,50	
		1,50,16,35,45, 5,23,11		8, 4
6″	28,46, 8,24,42, 1,39,49,12, 9		2, 6,11,41,54	
		1,50,16,33,38,53,41,17		8, 4
8″	28,46,10,14,58,35,18,42,53,26		2, 6,11,49,58	
		1,50,16,31,32,41,51,19		8, 4
10″	28,46,12, 5,15, 6,51,24,44,45		2, 6,11,58, 2	
		1,50,16,29,26,29,53,17		8, 4
12″	28,46,13,55,31,36,17,54,38, 2		2, 6,12, 6, 6	
		1,50,16,27,20,17,47,11		8, 4
14″	28,46,15,45,48, 3,38,12,25,13		2, 6,12,14,10	
		1,50,16,25,14, 5,33, 1		8, 4
16″	28,46,17,36, 4,28,52,17,58,14		2, 6,12,22,14	
		1,50,16,23, 7,53,10,47		8, 4
18″	28,46,19,26,20,52, 0,11, 9, 1		2, 6,12,30,18	
		1,50,16,21, 1,40,40,29		8, 4
20″	28,46,21,16,37,13, 1,51,49,30		2, 6,12,38,22	
		1,50,16,18,55,28, 2, 7		8, 4
22″	28,46,23, 6,53,31,57,19,51,37		2, 6,12,46,26	
		1,50,16,16,49,15,15,41		8, 4
24″	28,46,24,57, 9,48,46,35, 7,18		2, 6,12,54,30	
		1,50,16,14,43, 2,21,11		8, 4
26″	28,46,26,47,26, 3,29,37,28,29		2, 6,13, 2,34	
		1,50,16,12,36,49,18,37		8, 4
28″	28,46,28,37,42,16, 6,26,47, 6		2, 6,13,10,38	
		1,50,16,10,30,36, 7,59		8, 4
30″	28,46,30,27,58,26,37, 2,55, 5		2, 6,13,18,42	
		1,50,16, 8,24,22,49,17		8, 4
32″	28,46,32,18,14,35, 1,25,44,22		2, 6,13,26,46	
		1,50,16, 6,18, 9,22,31		8, 4
34″	28,46,34, 8,30,41,19,35, 6,53		2, 6,13,34,50	
		1,50,16, 4,11,55,47,41		8, 4
36″	28,46,35,58,46,45,31,30,54,34		2, 6,13,42,54	
		1,50,16, 2, 5,42, 4,47		8, 4
38″	28,46,37,49, 2,47,37,12,59,21		2, 6,13,50,58	
		1,50,15,59,59,28,13,49		8, 4
40″	28,46,39,39,18,47,36,41,13,10		2, 6,13,59, 2	
		1,50,15,57,53,14,14,47		8, 4
42″	28,46,41,29,34,45,29,55,27,57		2, 6,14, 7, 6	
		1,50,15,55,47, 0, 7,41		8, 4
44″	28,46,43,19,50,41,16,55,35,38		2, 6,14,15,10	
		1,50,15,53,40,45,52,31		8, 4
46″	28,46,45,10, 6,34,57,41,28, 9		2, 6,14,23,14	
		1,50,15,51,34,31,29,17		8, 4
48″	28,46,47, 0,22,26,32,12,57,26		2, 6,14,31,18	
		1,50,15,49,28,16,57,59		8, 4
50″	28,46,48,50,38,16, 0,29,55,25		2, 6,14,39,22	
		1,50,15,47,22, 2,18,37		8, 4
52″	28,46,50,40,54, 3,22,32,14, 2		2, 6,14,47,26	
		1,50,15,45,15,47,31,11		8, 4
54″	28,46,52,31, 9,48,38,19,45,13		2, 6,14,55,30	
		1,50,15,43, 9,32,35,41		8, 4
56″	28,46,54,21,25,31,47,52,20,54		2, 6,15, 3,34	
		1,50,15,41, 3,17,32, 7		8, 4
58″	28,46,56,11,41,12,51, 9,53, 1		2, 6,15,11,38	
		1,50,15,38,57, 2,20,29		
60″	28,46,58, 1,56,51,48,12,13,30			
exact	28,46,58, 1,56,51,48,12,33,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°40′ 0″	28,46,58, 1,56,51,48,12,33,24			
		1,50,15,36,50,47, 2,57		
2″	28,46,59,52,12,28,38,59,36,21		2, 6,15,27,37	
		1,50,15,34,44,31,35,20		8, 4
4″	28,47, 1,42,28, 3,23,31,11,41		2, 6,15,35,41	
		1,50,15,32,38,15,59,39		8, 4
6″	28,47, 3,32,43,36, 1,47,11,20		2, 6,15,43,45	
		1,50,15,30,32, 0,15,54		8, 4
8″	28,47, 5,22,59, 6,33,47,27,14		2, 6,15,51,49	
		1,50,15,28,25,44,24, 5		8, 4
10″	28,47, 7,13,14,34,59,31,51,19		2, 6,15,59,53	
		1,50,15,26,19,28,24,12		8, 4
12″	28,47, 9, 3,30, 1,19, 0,15,31		2, 6,16, 7,57	
		1,50,15,24,13,12,16,15		8, 4
14″	28,47,10,53,45,25,32,12,31,46		2, 6,16,16, 1	
		1,50,15,22, 6,56, 0,14		8, 4
16″	28,47,12,44, 0,47,39, 8,32, 0		2, 6,16,24, 5	
		1,50,15,20, 0,39,36, 9		8, 4
18″	28,47,14,34,16, 7,39,48, 8, 9		2, 6,16,32, 9	
		1,50,15,17,54,23, 4, 0		8, 4
20″	28,47,16,24,31,25,34,11,12, 9		2, 6,16,40,13	
		1,50,15,15,48, 6,23,47		8, 4
22″	28,47,18,14,46,41,22,17,35,56		2, 6,16,48,17	
		1,50,15,13,41,49,35,30		8, 4
24″	28,47,20, 5, 1,55, 4, 7,11,26		2, 6,16,56,21	
		1,50,15,11,35,32,39, 9		8, 4
26″	28,47,21,55,17, 6,39,39,50,35		2, 6,17, 4,25	
		1,50,15, 9,29,15,34,44		8, 4
28″	28,47,23,45,32,16, 8,55,25,19		2, 6,17,12,29	
		1,50,15, 7,22,58,22,15		8, 4
30″	28,47,25,35,47,23,31,53,47,34		2, 6,17,20,33	
		1,50,15, 5,16,41, 1,42		8, 4
32″	28,47,27,26, 2,28,48,34,49,16		2, 6,17,28,37	
		1,50,15, 3,10,23,33, 5		8, 4
34″	28,47,29,16,17,31,58,58,22,21		2, 6,17,36,41	
		1,50,15, 1, 4, 5,56,24		8, 4
36″	28,47,31, 6,32,33, 3, 4,18,45		2, 6,17,44,45	
		1,50,14,58,57,48,11,39		8, 4
38″	28,47,32,56,47,32, 0,52,30,24		2, 6,17,52,49	
		1,50,14,56,51,30,18,50		8, 4
40″	28,47,34,47, 2,28,52,22,49,14		2, 6,18, 0,53	
		1,50,14,54,45,12,17,57		8, 4
42″	28,47,36,37,17,23,37,35, 7,11		2, 6,18, 8,57	
		1,50,14,52,38,54, 9, 0		8, 4
44″	28,47,38,27,32,16,16,29,16,11		2, 6,18,17, 1	
		1,50,14,50,32,35,51,59		8, 4
46″	28,47,40,17,47, 6,49, 5, 8,10		2, 6,18,25, 5	
		1,50,14,48,26,17,26,54		8, 4
48″	28,47,42, 8, 1,55,15,22,35, 4		2, 6,18,33, 9	
		1,50,14,46,19,58,53,45		8, 4
50″	28,47,43,58,16,41,35,21,28,49		2, 6,18,41,13	
		1,50,14,44,13,40,12,32		8, 4
52″	28,47,45,48,31,25,49, 1,41,21		2, 6,18,49,17	
		1,50,14,42, 7,21,23,15		8, 4
54″	28,47,47,38,46, 7,56,23, 4,36		2, 6,18,57,21	
		1,50,14,40, 1, 2,25,54		8, 4
56″	28,47,49,29, 0,47,57,25,30,30		2, 6,19, 5,25	
		1,50,14,37,54,43,20,29		8, 4
58″	28,47,51,19,15,25,52, 8,50,59		2, 6,19,13,29	
		1,50,14,35,48,24, 7, 0		
60″	28,47,53, 9,30, 1,40,32,57,59			
exact	28,47,53, 9,30, 1,40,33,24,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°41′ 0″	28,47,53, 9,30, 1,40,33,24,50			
		1,50,14,33,42, 4,48,17		
2″	28,47,54,59,44,35,22,38,13, 7		2, 6,19,29,25	
		1,50,14,31,35,45,18,52		8, 4
4″	28,47,56,49,59, 6,58,23,31,59		2, 6,19,37,29	
		1,50,14,29,29,25,41,23		8, 4
6″	28,47,58,40,13,36,27,49,13,22		2, 6,19,45,33	
		1,50,14,27,23, 5,55,50		8, 4
8″	28,48, 0,30,28, 3,50,55, 9,12		2, 6,19,53,37	
		1,50,14,25,16,46, 2,13		8, 4
10″	28,48, 2,20,42,29, 7,41,11,25		2, 6,20, 1,41	
		1,50,14,23,10,26, 0,32		8, 4
12″	28,48, 4,10,56,52,18, 7,11,57		2, 6,20, 9,45	
		1,50,14,21, 4, 5,50,47		8, 4
14″	28,48, 6, 1,11,13,22,13, 2,44		2, 6,20,17,49	
		1,50,14,18,57,45,32,58		8, 4
16″	28,48, 7,51,25,32,19,58,35,42		2, 6,20,25,53	
		1,50,14,16,51,25, 7, 5		8, 4
18″	28,48, 9,41,39,49,11,23,42,47		2, 6,20,33,57	
		1,50,14,14,45, 4,33, 8		8, 4
20″	28,48,11,31,54, 3,56,28,15,55		2, 6,20,42, 1	
		1,50,14,12,38,43,51, 7		8, 4
22″	28,48,13,22, 8,16,35,12, 7, 2		2, 6,20,50, 5	
		1,50,14,10,32,23, 1, 2		8, 4
24″	28,48,15,12,22,27, 7,35, 8, 4		2, 6,20,58, 9	
		1,50,14, 8,26, 2, 2,53		8, 4
26″	28,48,17, 2,36,35,33,37,10,57		2, 6,21, 6,13	
		1,50,14, 6,19,40,56,40		8, 4
28″	28,48,18,52,50,41,53,18, 7,37		2, 6,21,14,17	
		1,50,14, 4,13,19,42,23		8, 4
30″	28,48,20,43, 4,46, 6,37,50, 0		2, 6,21,22,21	
		1,50,14, 2, 6,58,20, 2		8, 4
32″	28,48,22,33,18,48,13,36,10, 2		2, 6,21,30,25	
		1,50,14, 0, 0,36,49,37		8, 4
34″	28,48,24,23,32,48,14,12,59,39		2, 6,21,38,29	
		1,50,13,57,54,15,11, 8		8, 4
36″	28,48,26,13,46,46, 8,28,10,47		2, 6,21,46,33	
		1,50,13,55,47,53,24,35		8, 4
38″	28,48,28, 4, 0,41,56,21,35,22		2, 6,21,54,37	
		1,50,13,53,41,31,29,58		8, 4
40″	28,48,29,54,14,35,37,53, 5,20		2, 6,22, 2,41	
		1,50,13,51,35, 9,27,17		8, 4
42″	28,48,31,44,28,27,13, 2,32,37		2, 6,22,10,45	
		1,50,13,49,28,47,16,32		8, 4
44″	28,48,33,34,42,16,41,49,49, 9		2, 6,22,18,49	
		1,50,13,47,22,24,57,43		8, 4
46″	28,48,35,24,56, 4, 4,14,46,52		2, 6,22,26,53	
		1,50,13,45,16, 2,30,50		8, 4
48″	28,48,37,15, 9,49,20,17,17,42		2, 6,22,34,57	
		1,50,13,43, 9,39,55,53		8, 4
50″	28,48,39, 5,23,32,29,57,13,35		2, 6,22,43, 1	
		1,50,13,41, 3,17,12,52		8, 4
52″	28,48,40,55,37,13,33,14,26,27		2, 6,22,51, 5	
		1,50,13,38,56,54,21,47		8, 4
54″	28,48,42,45,50,52,30, 8,48,14		2, 6,22,59, 9	
		1,50,13,36,50,31,22,38		8, 4
56″	28,48,44,36, 4,29,20,40,10,52		2, 6,23, 7,13	
		1,50,13,34,44, 8,15,25		8, 4
58″	28,48,46,26,18, 4, 4,48,26,17		2, 6,23,15,17	
		1,50,13,32,37,45, 0, 8		
60″	28,48,48,16,31,36,42,33,26,25			
exact	28,48,48,16,31,36,42,33,55,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°42′ 0″	28,48,48,16,31,36,42,33,55,12			
		1,50,13,30,31,21,39,57		
2″	28,48,50, 6,45, 7,13,55,35, 9		2, 6,23,31,11	
		1,50,13,28,24,58, 8,46		8, 3
4″	28,48,51,56,58,35,38,53,43,55		2, 6,23,39,14	
		1,50,13,26,18,34,29,32		8, 3
6″	28,48,53,47,12, 1,57,28,13,27		2, 6,23,47,17	
		1,50,13,24,12,10,42,15		8, 3
8″	28,48,55,37,25,26, 9,38,55,42		2, 6,23,55,20	
		1,50,13,22, 5,46,46,55		8, 3
10″	28,48,57,27,38,48,15,25,42,37		2, 6,24, 3,23	
		1,50,13,19,59,22,43,32		8, 3
12″	28,48,59,17,52, 8,14,48,26, 9		2, 6,24,11,26	
		1,50,13,17,52,58,32, 6		8, 3
14″	28,49, 1, 8, 5,26, 7,46,58,15		2, 6,24,19,29	
		1,50,13,15,46,34,12,37		8, 3
16″	28,49, 2,58,18,41,54,21,10,52		2, 6,24,27,32	
		1,50,13,13,40, 9,45, 5		8, 3
18″	28,49, 4,48,31,55,34,30,55,57		2, 6,24,35,35	
		1,50,13,11,33,45, 9,30		8, 3
20″	28,49, 6,38,45, 7, 8,16, 5,27		2, 6,24,43,38	
		1,50,13, 9,27,20,25,52		8, 3
22″	28,49, 8,28,58,16,35,36,31,19		2, 6,24,51,41	
		1,50,13, 7,20,55,34,11		8, 3
24″	28,49,10,19,11,23,56,32, 5,30		2, 6,24,59,44	
		1,50,13, 5,14,30,34,27		8, 3
26″	28,49,12, 9,24,29,11, 2,39,57		2, 6,25, 7,47	
		1,50,13, 3, 8, 5,26,40		8, 3
28″	28,49,13,59,37,32,19, 8, 6,37		2, 6,25,15,50	
		1,50,13, 1, 1,40,10,50		8, 3
30″	28,49,15,49,50,33,20,48,17,27		2, 6,25,23,53	
		1,50,12,58,55,14,46,57		8, 3
32″	28,49,17,40, 3,32,16, 3, 4,24		2, 6,25,31,56	
		1,50,12,56,48,49,15, 1		8, 3
34″	28,49,19,30,16,29, 4,52,19,25		2, 6,25,39,59	
		1,50,12,54,42,23,35, 2		8, 3
36″	28,49,21,20,29,23,47,15,54,27		2, 6,25,48, 2	
		1,50,12,52,35,57,47, 0		8, 3
38″	28,49,23,10,42,16,23,13,41,27		2, 6,25,56, 5	
		1,50,12,50,29,31,50,55		8, 3
40″	28,49,25, 0,55, 6,52,45,32,22		2, 6,26, 4, 8	
		1,50,12,48,23, 5,46,47		8, 3
42″	28,49,26,51, 7,55,15,51,19, 9		2, 6,26,12,11	
		1,50,12,46,16,39,34,36		8, 3
44″	28,49,28,41,20,41,32,30,53,45		2, 6,26,20,14	
		1,50,12,44,10,13,14,22		8, 3
46″	28,49,30,31,33,25,42,44, 8, 7		2, 6,26,28,17	
		1,50,12,42, 3,46,46, 5		8, 3
48″	28,49,32,21,46, 7,46,30,54,12		2, 6,26,36,20	
		1,50,12,39,57,20, 9,45		8, 3
50″	28,49,34,11,58,47,43,51, 3,57		2, 6,26,44,23	
		1,50,12,37,50,53,25,22		8, 3
52″	28,49,36, 2,11,25,34,44,29,19		2, 6,26,52,26	
		1,50,12,35,44,26,32,56		8, 3
54″	28,49,37,52,24, 1,19,11, 2,15		2, 6,27, 0,29	
		1,50,12,33,37,59,32,27		8, 3
56″	28,49,39,42,36,34,57,10,34,42		2, 6,27, 8,32	
		1,50,12,31,31,32,23,55		8, 3
58″	28,49,41,32,49, 6,28,42,58,37		2, 6,27,16,35	
		1,50,12,29,25, 5, 7,20		
60″	28,49,43,23, 1,35,53,48, 5,57			
exact	28,49,43,23, 1,35,53,47,30,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°43′ 0″	28,49,43,23, 1,35,53,47,30,55			
		1,50,12,27,18,37,39, 5		
2″	28,49,45,13,14, 3,12,25,10, 0		2, 6,27,32,55	
		1,50,12,25,12,10, 6,10		8, 3
4″	28,49,47, 3,26,28,24,35,16,10		2, 6,27,40,58	
		1,50,12,23, 5,42,25,12		8, 3
6″	28,49,48,53,38,51,30,17,41,22		2, 6,27,49, 1	
		1,50,12,20,59,14,36,11		8, 3
8″	28,49,50,43,51,12,29,32,17,33		2, 6,27,57, 4	
		1,50,12,18,52,46,39, 7		8, 3
10″	28,49,52,34, 3,31,22,18,56,40		2, 6,28, 5, 7	
		1,50,12,16,46,18,34, 0		8, 3
12″	28,49,54,24,15,48, 8,37,30,40		2, 6,28,13,10	
		1,50,12,14,39,50,20,50		8, 3
14″	28,49,56,14,28, 2,48,27,51,30		2, 6,28,21,13	
		1,50,12,12,33,21,59,37		8, 3
16″	28,49,58, 4,40,15,21,49,51, 7		2, 6,28,29,16	
		1,50,12,10,26,53,30,21		8, 3
18″	28,49,59,54,52,25,48,43,21,28		2, 6,28,37,19	
		1,50,12, 8,20,24,53, 2		8, 3
20″	28,50, 1,45, 4,34, 9, 8,14,30		2, 6,28,45,22	
		1,50,12, 6,13,56, 7,40		8, 3
22″	28,50, 3,35,16,40,23, 4,22,10		2, 6,28,53,25	
		1,50,12, 4, 7,27,14,15		8, 3
24″	28,50, 5,25,28,44,30,31,36,25		2, 6,29, 1,28	
		1,50,12, 2, 0,58,12,47		8, 3
26″	28,50, 7,15,40,46,31,29,49,12		2, 6,29, 9,31	
		1,50,11,59,54,29, 3,16		8, 3
28″	28,50, 9, 5,52,46,25,58,52,28		2, 6,29,17,34	
		1,50,11,57,47,59,45,42		8, 3
30″	28,50,10,56, 4,44,13,58,38,10		2, 6,29,25,37	
		1,50,11,55,41,30,20, 5		8, 3
32″	28,50,12,46,16,39,55,28,58,15		2, 6,29,33,40	
		1,50,11,53,35, 0,46,25		8, 3
34″	28,50,14,36,28,33,30,29,44,40		2, 6,29,41,43	
		1,50,11,51,28,31, 4,42		8, 3
36″	28,50,16,26,40,24,59, 0,49,22		2, 6,29,49,46	
		1,50,11,49,22, 1,14,56		8, 3
38″	28,50,18,16,52,14,21, 2, 4,18		2, 6,29,57,49	
		1,50,11,47,15,31,17, 7		8, 3
40″	28,50,20, 7, 4, 1,36,33,21,25		2, 6,30, 5,52	
		1,50,11,45, 9, 1,11,15		8, 3
42″	28,50,21,57,15,46,45,34,32,40		2, 6,30,13,55	
		1,50,11,43, 2,30,57,20		8, 3
44″	28,50,23,47,27,29,48, 5,30, 0		2, 6,30,21,58	
		1,50,11,40,56, 0,35,22		8, 3
46″	28,50,25,37,39,10,44, 6, 5,22		2, 6,30,30, 1	
		1,50,11,38,49,30, 5,21		8, 3
48″	28,50,27,27,50,49,33,36,10,43		2, 6,30,38, 4	
		1,50,11,36,42,59,27,17		8, 3
50″	28,50,29,18, 2,26,16,35,38, 0		2, 6,30,46, 7	
		1,50,11,34,36,28,41,10		8, 3
52″	28,50,31, 8,14, 0,53, 4,19,10		2, 6,30,54,10	
		1,50,11,32,29,57,47, 0		8, 3
54″	28,50,32,58,25,33,23, 2, 6,10		2, 6,31, 2,13	
		1,50,11,30,23,26,44,47		8, 3
56″	28,50,34,48,37, 3,46,28,50,57		2, 6,31,10,16	
		1,50,11,28,16,55,34,31		8, 3
58″	28,50,36,38,48,32, 3,24,25,28		2, 6,31,18,19	
		1,50,11,26,10,24,16,12		
60″	28,50,38,28,59,58,13,48,41,40			
exact	28,50,38,28,59,58,13,48,13, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°44′ 0″	28,50,38,28,59,58,13,48,13, 0			
		1,50,11,24, 3,52,46,51		
2″	28,50,40,19,11,22,17,40,59,51		2, 6,31,34,37	
		1,50,11,21,57,21,12,14		8, 3
4″	28,50,42, 9,22,44,15, 2,12, 5		2, 6,31,42,40	
		1,50,11,19,50,49,29,34		8, 3
6″	28,50,43,59,34, 4, 5,51,41,39		2, 6,31,50,43	
		1,50,11,17,44,17,38,51		8, 3
8″	28,50,45,49,45,21,50, 9,20,30		2, 6,31,58,46	
		1,50,11,15,37,45,40, 5		8, 3
10″	28,50,47,39,56,37,27,55, 0,35		2, 6,32, 6,49	
		1,50,11,13,31,13,33,16		8, 3
12″	28,50,49,30, 7,50,59, 8,33,51		2, 6,32,14,52	
		1,50,11,11,24,41,18,24		8, 3
14″	28,50,51,20,19, 2,23,49,52,15		2, 6,32,22,55	
		1,50,11, 9,18, 8,55,29		8, 3
16″	28,50,53,10,30,11,41,58,47,44		2, 6,32,30,58	
		1,50,11, 7,11,36,24,31		8, 3
18″	28,50,55, 0,41,18,53,35,12,15		2, 6,32,39, 1	
		1,50,11, 5, 5, 3,45,30		8, 3
20″	28,50,56,50,52,23,58,38,57,45		2, 6,32,47, 4	
		1,50,11, 2,58,30,58,26		8, 3
22″	28,50,58,41, 3,26,57, 9,56,11		2, 6,32,55, 7	
		1,50,11, 0,51,58, 3,19		8, 3
24″	28,51, 0,31,14,27,49, 7,59,30		2, 6,33, 3,10	
		1,50,10,58,45,25, 0, 9		8, 3
26″	28,51, 2,21,25,26,34,32,59,39		2, 6,33,11,13	
		1,50,10,56,38,51,48,56		8, 3
28″	28,51, 4,11,36,23,13,24,48,35		2, 6,33,19,16	
		1,50,10,54,32,18,29,40		8, 3
30″	28,51, 6, 1,47,17,45,43,18,15		2, 6,33,27,19	
		1,50,10,52,25,45, 2,21		8, 3
32″	28,51, 7,51,58,10,11,28,20,36		2, 6,33,35,22	
		1,50,10,50,19,11,26,59		8, 3
34″	28,51, 9,42, 9, 0,30,39,47,35		2, 6,33,43,25	
		1,50,10,48,12,37,43,34		8, 3
36″	28,51,11,32,19,48,43,17,31, 9		2, 6,33,51,28	
		1,50,10,46, 6, 3,52, 6		8, 3
38″	28,51,13,22,30,34,49,21,23,15		2, 6,33,59,31	
		1,50,10,43,59,29,52,35		8, 3
40″	28,51,15,12,41,18,48,51,15,50		2, 6,34, 7,34	
		1,50,10,41,52,55,45, 1		8, 3
42″	28,51,17, 2,52, 0,41,47, 0,51		2, 6,34,15,37	
		1,50,10,39,46,21,29,24		8, 3
44″	28,51,18,53, 2,40,28, 8,30,15		2, 6,34,23,40	
		1,50,10,37,39,47, 5,44		8, 3
46″	28,51,20,43,13,18, 7,55,35,59		2, 6,34,31,43	
		1,50,10,35,33,12,34, 1		8, 3
48″	28,51,22,33,23,53,41, 8,10, 0		2, 6,34,39,46	
		1,50,10,33,26,37,54,15		8, 3
50″	28,51,24,23,34,27, 7,46, 4,15		2, 6,34,47,49	
		1,50,10,31,20, 3, 6,26		8, 3
52″	28,51,26,13,44,58,27,49,10,41		2, 6,34,55,52	
		1,50,10,29,13,28,10,34		8, 3
54″	28,51,28, 3,55,27,41,17,21,15		2, 6,35, 3,55	
		1,50,10,27, 6,53, 6,39		8, 3
56″	28,51,29,54, 5,54,48,10,27,54		2, 6,35,11,58	
		1,50,10,25, 0,17,54,41		8, 3
58″	28,51,31,44,16,19,48,28,22,35		2, 6,35,20, 1	
		1,50,10,22,53,42,34,40		
60″	28,51,33,34,26,42,42,10,57,15			
exact	28,51,33,34,26,42,42,10,37,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°45′ 0″	28,51,33,34,26,42,42,10,37,10			
		1,50,10,20,47, 7, 4,25		
2″	28,51,35,24,37, 3,29,17,41,35		2, 6,35,36,16	
		1,50,10,18,40,31,28, 9		8, 3
4″	28,51,37,14,47,22, 9,49, 9,44		2, 6,35,44,19	
		1,50,10,16,33,55,43,50		8, 3
6″	28,51,39, 4,57,38,43,44,53,34		2, 6,35,52,22	
		1,50,10,14,27,19,51,28		8, 3
8″	28,51,40,55, 7,53,11, 4,45, 2		2, 6,36, 0,25	
		1,50,10,12,20,43,51, 3		8, 3
10″	28,51,42,45,18, 5,31,48,36, 5		2, 6,36, 8,28	
		1,50,10,10,14, 7,42,35		8, 3
12″	28,51,44,35,28,15,45,56,18,40		2, 6,36,16,31	
		1,50,10, 8, 7,31,26, 4		8, 3
14″	28,51,46,25,38,23,53,27,44,44		2, 6,36,24,34	
		1,50,10, 6, 0,55, 1,30		8, 3
16″	28,51,48,15,48,29,54,22,46,14		2, 6,36,32,37	
		1,50,10, 3,54,18,28,53		8, 3
18″	28,51,50, 5,58,33,48,41,15, 7		2, 6,36,40,40	
		1,50,10, 1,47,41,48,13		8, 3
20″	28,51,51,56, 8,35,36,23, 3,20		2, 6,36,48,43	
		1,50, 9,59,41, 4,59,30		8, 3
22″	28,51,53,46,18,35,17,28, 2,50		2, 6,36,56,46	
		1,50, 9,57,34,28, 2,44		8, 3
24″	28,51,55,36,28,32,51,56, 5,34		2, 6,37, 4,49	
		1,50, 9,55,27,50,57,55		8, 3
26″	28,51,57,26,38,28,19,47, 3,29		2, 6,37,12,52	
		1,50, 9,53,21,13,45, 3		8, 3
28″	28,51,59,16,48,21,41, 0,48,32		2, 6,37,20,55	
		1,50, 9,51,14,36,24, 8		8, 3
30″	28,52, 1, 6,58,12,55,37,12,40		2, 6,37,28,58	
		1,50, 9,49, 7,58,55,10		8, 3
32″	28,52, 2,57, 8, 2, 3,36, 7,50		2, 6,37,37, 1	
		1,50, 9,47, 1,21,18, 9		8, 3
34″	28,52, 4,47,17,49, 4,57,25,59		2, 6,37,45, 4	
		1,50, 9,44,54,43,33, 5		8, 3
36″	28,52, 6,37,27,33,59,40,59, 4		2, 6,37,53, 7	
		1,50, 9,42,48, 5,39,58		8, 3
38″	28,52, 8,27,37,16,47,46,39, 2		2, 6,38, 1,10	
		1,50, 9,40,41,27,38,48		8, 3
40″	28,52,10,17,46,57,29,14,17,50		2, 6,38, 9,13	
		1,50, 9,38,34,49,29,35		8, 3
42″	28,52,12, 7,56,36, 4, 3,47,25		2, 6,38,17,16	
		1,50, 9,36,28,11,12,19		8, 3
44″	28,52,13,58, 6,12,32,14,59,44		2, 6,38,25,19	
		1,50, 9,34,21,32,47, 0		8, 3
46″	28,52,15,48,15,46,53,47,46,44		2, 6,38,33,22	
		1,50, 9,32,14,54,13,38		8, 3
48″	28,52,17,38,25,19, 8,42, 0,22		2, 6,38,41,25	
		1,50, 9,30, 8,15,32,13		8, 3
50″	28,52,19,28,34,49,16,57,32,35		2, 6,38,49,28	
		1,50, 9,28, 1,36,42,45		8, 3
52″	28,52,21,18,44,17,18,34,15,20		2, 6,38,57,31	
		1,50, 9,25,54,57,45,14		8, 3
54″	28,52,23, 8,53,43,13,32, 0,34		2, 6,39, 5,34	
		1,50, 9,23,48,18,39,40		8, 3
56″	28,52,24,59, 3, 7, 1,50,40,14		2, 6,39,13,37	
		1,50, 9,21,41,39,26, 3		8, 3
58″	28,52,26,49,12,28,43,30, 6,17		2, 6,39,21,40	
		1,50, 9,19,35, 0, 4,23		
60″	28,52,28,39,21,48,18,30,10,40			
exact	28,52,28,39,21,48,18,29,53,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°46′ 0″	28,52,28,39,21,48,18,29,53,49			
		1,50, 9,17,28,20,32,55		
2″	28,52,30,29,31, 5,46,50,26,44		2, 6,39,37,53	
		1,50, 9,15,21,40,55, 2		8, 3
4″	28,52,32,19,40,21, 8,31,21,46		2, 6,39,45,56	
		1,50, 9,13,15, 1, 9, 6		8, 3
6″	28,52,34, 9,49,34,23,32,30,52		2, 6,39,53,59	
		1,50, 9,11, 8,21,15, 7		8, 3
8″	28,52,35,59,58,45,31,53,45,59		2, 6,40, 2, 2	
		1,50, 9, 9, 1,41,13, 5		8, 3
10″	28,52,37,50, 7,54,33,34,59, 4		2, 6,40,10, 5	
		1,50, 9, 6,55, 1, 3, 0		8, 3
12″	28,52,39,40,17, 1,28,36, 2, 4		2, 6,40,18, 8	
		1,50, 9, 4,48,20,44,52		8, 3
14″	28,52,41,30,26, 6,16,56,46,56		2, 6,40,26,11	
		1,50, 9, 2,41,40,18,41		8, 3
16″	28,52,43,20,35, 8,58,37, 5,37		2, 6,40,34,14	
		1,50, 9, 0,34,59,44,27		8, 3
18″	28,52,45,10,44, 9,33,36,50, 4		2, 6,40,42,17	
		1,50, 8,58,28,19, 2,10		8, 3
20″	28,52,47, 0,53, 8, 1,55,52,14		2, 6,40,50,20	
		1,50, 8,56,21,38,11,50		8, 3
22″	28,52,48,51, 2, 4,23,34, 4, 4		2, 6,40,58,23	
		1,50, 8,54,14,57,13,27		8, 3
24″	28,52,50,41,10,58,38,31,17,31		2, 6,41, 6,26	
		1,50, 8,52, 8,16, 7, 1		8, 3
26″	28,52,52,31,19,50,46,47,24,32		2, 6,41,14,29	
		1,50, 8,50, 1,34,52,32		8, 3
28″	28,52,54,21,28,40,48,22,17, 4		2, 6,41,22,32	
		1,50, 8,47,54,53,30, 0		8, 3
30″	28,52,56,11,37,28,43,15,47, 4		2, 6,41,30,35	
		1,50, 8,45,48,11,59,25		8, 3
32″	28,52,58, 1,46,14,31,27,46,29		2, 6,41,38,38	
		1,50, 8,43,41,30,20,47		8, 3
34″	28,52,59,51,54,58,12,58, 7,16		2, 6,41,46,41	
		1,50, 8,41,34,48,34, 6		8, 3
36″	28,53, 1,42, 3,39,47,46,41,22		2, 6,41,54,44	
		1,50, 8,39,28, 6,39,22		8, 3
38″	28,53, 3,32,12,19,15,53,20,44		2, 6,42, 2,47	
		1,50, 8,37,21,24,36,35		8, 3
40″	28,53, 5,22,20,56,37,17,57,19		2, 6,42,10,50	
		1,50, 8,35,14,42,25,45		8, 3
42″	28,53, 7,12,29,31,52, 0,23, 4		2, 6,42,18,53	
		1,50, 8,33, 8, 0, 6,52		8, 3
44″	28,53, 9, 2,38, 5, 0, 0,29,56		2, 6,42,26,56	
		1,50, 8,31, 1,17,39,56		8, 3
46″	28,53,10,52,46,36, 1,18, 9,52		2, 6,42,34,59	
		1,50, 8,28,54,35, 4,57		8, 3
48″	28,53,12,42,55, 4,55,53,14,49		2, 6,42,43, 2	
		1,50, 8,26,47,52,21,55		8, 3
50″	28,53,14,33, 3,31,43,45,36,44		2, 6,42,51, 5	
		1,50, 8,24,41, 9,30,50		8, 3
52″	28,53,16,23,11,56,24,55, 7,34		2, 6,42,59, 8	
		1,50, 8,22,34,26,31,42		8, 3
54″	28,53,18,13,20,18,59,21,39,16		2, 6,43, 7,11	
		1,50, 8,20,27,43,24,31		8, 3
56″	28,53,20, 3,28,39,27, 5, 3,47		2, 6,43,15,14	
		1,50, 8,18,21, 0, 9,17		8, 3
58″	28,53,21,53,36,57,48, 5,13, 4		2, 6,43,23,17	
		1,50, 8,16,14,16,46, 0		
60″	28,53,23,43,45,14, 2,21,59, 4			
exact	28,53,23,43,45,14, 2,21,48, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°47′ 0″	28,53,23,43,45,14, 2,21,48, 1			
		1,50, 8,14, 7,33,13,31		
2″	28,53,25,33,53,28, 9,55, 1,32		2, 6,43,39,27	
		1,50, 8,12, 0,49,34, 4		8, 3
4″	28,53,27,24, 1,40,10,44,35,36		2, 6,43,47,30	
		1,50, 8, 9,54, 5,46,34		8, 3
6″	28,53,29,14, 9,50, 4,50,22,10		2, 6,43,55,33	
		1,50, 8, 7,47,21,51, 1		8, 3
8″	28,53,31, 4,17,57,52,12,13,11		2, 6,44, 3,36	
		1,50, 8, 5,40,37,47,25		8, 3
10″	28,53,32,54,26, 3,32,50, 0,36		2, 6,44,11,39	
		1,50, 8, 3,33,53,35,46		8, 3
12″	28,53,34,44,34, 7, 6,43,36,22		2, 6,44,19,42	
		1,50, 8, 1,27, 9,16, 4		8, 3
14″	28,53,36,34,42, 8,33,52,52,26		2, 6,44,27,45	
		1,50, 7,59,20,24,48,19		8, 3
16″	28,53,38,24,50, 7,54,17,40,45		2, 6,44,35,48	
		1,50, 7,57,13,40,12,31		8, 3
18″	28,53,40,14,58, 5, 7,57,53,16		2, 6,44,43,51	
		1,50, 7,55, 6,55,28,40		8, 3
20″	28,53,42, 5, 6, 0,14,53,21,56		2, 6,44,51,54	
		1,50, 7,53, 0,10,36,46		8, 3
22″	28,53,43,55,13,53,15, 3,58,42		2, 6,44,59,57	
		1,50, 7,50,53,25,36,49		8, 3
24″	28,53,45,45,21,44, 8,29,35,31		2, 6,45, 8, 0	
		1,50, 7,48,46,40,28,49		8, 3
26″	28,53,47,35,29,32,55,10, 4,20		2, 6,45,16, 3	
		1,50, 7,46,39,55,12,46		8, 3
28″	28,53,49,25,37,19,35, 5,17, 6		2, 6,45,24, 6	
		1,50, 7,44,33, 9,48,40		8, 3
30″	28,53,51,15,45, 4, 8,15, 5,46		2, 6,45,32, 9	
		1,50, 7,42,26,24,16,31		8, 3
32″	28,53,53, 5,52,46,34,39,22,17		2, 6,45,40,12	
		1,50, 7,40,19,38,36,19		8, 3
34″	28,53,54,56, 0,26,54,17,58,36		2, 6,45,48,15	
		1,50, 7,38,12,52,48, 4		8, 3
36″	28,53,56,46, 8, 5, 7,10,46,40		2, 6,45,56,18	
		1,50, 7,36, 6, 6,51,46		8, 3
38″	28,53,58,36,15,41,13,17,38,26		2, 6,46, 4,21	
		1,50, 7,33,59,20,47,25		8, 3
40″	28,54, 0,26,23,15,12,38,25,51		2, 6,46,12,24	
		1,50, 7,31,52,34,35, 1		8, 3
42″	28,54, 2,16,30,47, 5,13, 0,52		2, 6,46,20,27	
		1,50, 7,29,45,48,14,34		8, 3
44″	28,54, 4, 6,38,16,51, 1,15,26		2, 6,46,28,30	
		1,50, 7,27,39, 1,46, 4		8, 3
46″	28,54, 5,56,45,44,30, 3, 1,30		2, 6,46,36,33	
		1,50, 7,25,32,15, 9,31		8, 3
48″	28,54, 7,46,53,10, 2,18,11, 1		2, 6,46,44,36	
		1,50, 7,23,25,28,24,55		8, 3
50″	28,54, 9,37, 0,33,27,46,35,56		2, 6,46,52,39	
		1,50, 7,21,18,41,32,16		8, 3
52″	28,54,11,27, 7,54,46,28, 8,12		2, 6,47, 0,42	
		1,50, 7,19,11,54,31,34		8, 3
54″	28,54,13,17,15,13,58,22,39,46		2, 6,47, 8,45	
		1,50, 7,17, 5, 7,22,49		8, 3
56″	28,54,15, 7,22,31, 3,30, 2,35		2, 6,47,16,48	
		1,50, 7,14,58,20, 6, 1		8, 3
58″	28,54,16,57,29,46, 1,50, 8,36		2, 6,47,24,51	
		1,50, 7,12,51,32,41,10		
60″	28,54,18,47,36,58,53,22,49,46			
exact	28,54,18,47,36,58,53,22,39,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°48′ 0″	28,54,18,47,36,58,53,22,39,37			
		1,50, 7,10,44,45, 7,22		
2″	28,54,20,37,44, 9,38, 7,46,59		2, 6,47,41, 0	
		1,50, 7, 8,37,57,26,22		8, 3
4″	28,54,22,27,51,18,16, 5,13,21		2, 6,47,49, 3	
		1,50, 7, 6,31, 9,37,19		8, 3
6″	28,54,24,17,58,24,47,14,50,40		2, 6,47,57, 6	
		1,50, 7, 4,24,21,40,13		8, 3
8″	28,54,26, 8, 5,29,11,36,30,53		2, 6,48, 5, 9	
		1,50, 7, 2,17,33,35, 4		8, 3
10″	28,54,27,58,12,31,29,10, 5,57		2, 6,48,13,12	
		1,50, 7, 0,10,45,21,52		8, 3
12″	28,54,29,48,19,31,39,55,27,49		2, 6,48,21,15	
		1,50, 6,58, 3,57, 0,37		8, 3
14″	28,54,31,38,26,29,43,52,28,26		2, 6,48,29,18	
		1,50, 6,55,57, 8,31,19		8, 3
16″	28,54,33,28,33,25,41, 0,59,45		2, 6,48,37,21	
		1,50, 6,53,50,19,53,58		8, 3
18″	28,54,35,18,40,19,31,20,53,43		2, 6,48,45,24	
		1,50, 6,51,43,31, 8,34		8, 3
20″	28,54,37, 8,47,11,14,52, 2,17		2, 6,48,53,27	
		1,50, 6,49,36,42,15, 7		8, 3
22″	28,54,38,58,54, 0,51,34,17,24		2, 6,49, 1,30	
		1,50, 6,47,29,53,13,37		8, 3
24″	28,54,40,49, 0,48,21,27,31, 1		2, 6,49, 9,33	
		1,50, 6,45,23, 4, 4, 4		8, 3
26″	28,54,42,39, 7,33,44,31,35, 5		2, 6,49,17,36	
		1,50, 6,43,16,14,46,28		8, 3
28″	28,54,44,29,14,17, 0,46,21,33		2, 6,49,25,39	
		1,50, 6,41, 9,25,20,49		8, 3
30″	28,54,46,19,20,58,10,11,42,22		2, 6,49,33,42	
		1,50, 6,39, 2,35,47, 7		8, 3
32″	28,54,48, 9,27,37,12,47,29,29		2, 6,49,41,45	
		1,50, 6,36,55,46, 5,22		8, 3
34″	28,54,49,59,34,14, 8,33,34,51		2, 6,49,49,48	
		1,50, 6,34,48,56,15,34		8, 3
36″	28,54,51,49,40,48,57,29,50,25		2, 6,49,57,51	
		1,50, 6,32,42, 6,17,43		8, 3
38″	28,54,53,39,47,21,39,36, 8, 8		2, 6,50, 5,54	
		1,50, 6,30,35,16,11,49		8, 3
40″	28,54,55,29,53,52,14,52,19,57		2, 6,50,13,57	
		1,50, 6,28,28,25,57,52		8, 3
42″	28,54,57,20, 0,20,43,18,17,49		2, 6,50,22, 0	
		1,50, 6,26,21,35,35,52		8, 3
44″	28,54,59,10, 6,47, 4,53,53,41		2, 6,50,30, 3	
		1,50, 6,24,14,45, 5,49		8, 3
46″	28,55, 1, 0,13,11,19,38,59,30		2, 6,50,38, 6	
		1,50, 6,22, 7,54,27,43		8, 3
48″	28,55, 2,50,19,33,27,33,27,13		2, 6,50,46, 9	
		1,50, 6,20, 1, 3,41,34		8, 3
50″	28,55, 4,40,25,53,28,37, 8,47		2, 6,50,54,12	
		1,50, 6,17,54,12,47,22		8, 3
52″	28,55, 6,30,32,11,22,49,56, 9		2, 6,51, 2,15	
		1,50, 6,15,47,21,45, 7		8, 3
54″	28,55, 8,20,38,27,10,11,41,16		2, 6,51,10,18	
		1,50, 6,13,40,30,34,49		8, 3
56″	28,55,10,10,44,40,50,42,16, 5		2, 6,51,18,21	
		1,50, 6,11,33,39,16,28		8, 3
58″	28,55,12, 0,50,52,24,21,32,33		2, 6,51,26,24	
		1,50, 6, 9,26,47,50, 4		
60″	28,55,13,50,57, 1,51, 9,22,37			
exact	28,55,13,50,57, 1,51, 9,23,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°49′ 0″	28,55,13,50,57, 1,51, 9,23,11			
		1,50, 6, 7,19,56,15,39		
2″	28,55,15,41, 3, 9,11, 5,38,50		2, 6,51,42,30	
		1,50, 6, 5,13, 4,33, 9		8, 3
4″	28,55,17,31, 9,14,24,10,11,59		2, 6,51,50,33	
		1,50, 6, 3, 6,12,42,36		8, 3
6″	28,55,19,21,15,17,30,22,54,35		2, 6,51,58,36	
		1,50, 6, 0,59,20,44, 0		8, 3
8″	28,55,21,11,21,18,29,43,38,35		2, 6,52, 6,39	
		1,50, 5,58,52,28,37,21		8, 3
10″	28,55,23, 1,27,17,22,12,15,56		2, 6,52,14,42	
		1,50, 5,56,45,36,22,39		8, 3
12″	28,55,24,51,33,14, 7,48,38,35		2, 6,52,22,45	
		1,50, 5,54,38,43,59,54		8, 3
14″	28,55,26,41,39, 8,46,32,38,29		2, 6,52,30,48	
		1,50, 5,52,31,51,29, 6		8, 3
16″	28,55,28,31,45, 1,18,24, 7,35		2, 6,52,38,51	
		1,50, 5,50,24,58,50,15		8, 3
18″	28,55,30,21,50,51,43,22,57,50		2, 6,52,46,54	
		1,50, 5,48,18, 6, 3,21		8, 3
20″	28,55,32,11,56,40, 1,29, 1,11		2, 6,52,54,57	
		1,50, 5,46,11,13, 8,24		8, 3
22″	28,55,34, 2, 2,26,12,42, 9,35		2, 6,53, 3, 0	
		1,50, 5,44, 4,20, 5,24		8, 3
24″	28,55,35,52, 8,10,17, 2,14,59		2, 6,53,11, 3	
		1,50, 5,41,57,26,54,21		8, 3
26″	28,55,37,42,13,52,14,29, 9,20		2, 6,53,19, 6	
		1,50, 5,39,50,33,35,15		8, 3
28″	28,55,39,32,19,32, 5, 2,44,35		2, 6,53,27, 9	
		1,50, 5,37,43,40, 8, 6		8, 3
30″	28,55,41,22,25, 9,48,42,52,41		2, 6,53,35,12	
		1,50, 5,35,36,46,32,54		8, 3
32″	28,55,43,12,30,45,25,29,25,35		2, 6,53,43,15	
		1,50, 5,33,29,52,49,39		8, 3
34″	28,55,45, 2,36,18,55,22,15,14		2, 6,53,51,18	
		1,50, 5,31,22,58,58,21		8, 3
36″	28,55,46,52,41,50,18,21,13,35		2, 6,53,59,21	
		1,50, 5,29,16, 4,59, 0		8, 3
38″	28,55,48,42,47,19,34,26,12,35		2, 6,54, 7,24	
		1,50, 5,27, 9,10,51,36		8, 3
40″	28,55,50,32,52,46,43,37, 4,11		2, 6,54,15,27	
		1,50, 5,25, 2,16,36, 9		8, 3
42″	28,55,52,22,58,11,45,53,40,20		2, 6,54,23,30	
		1,50, 5,22,55,22,12,39		8, 3
44″	28,55,54,13, 3,34,41,15,52,59		2, 6,54,31,33	
		1,50, 5,20,48,27,41, 6		8, 3
46″	28,55,56, 3, 8,55,29,43,34, 5		2, 6,54,39,36	
		1,50, 5,18,41,33, 1,30		8, 3
48″	28,55,57,53,14,14,11,16,35,35		2, 6,54,47,39	
		1,50, 5,16,34,38,13,51		8, 3
50″	28,55,59,43,19,30,45,54,49,26		2, 6,54,55,42	
		1,50, 5,14,27,43,18, 9		8, 3
52″	28,56, 1,33,24,45,13,38, 7,35		2, 6,55, 3,45	
		1,50, 5,12,20,48,14,24		8, 3
54″	28,56, 3,23,29,57,34,26,21,59		2, 6,55,11,48	
		1,50, 5,10,13,53, 2,36		8, 3
56″	28,56, 5,13,35, 7,48,19,24,35		2, 6,55,19,51	
		1,50, 5, 8, 6,57,42,45		8, 3
58″	28,56, 7, 3,40,15,55,17, 7,20		2, 6,55,27,54	
		1,50, 5, 6, 0, 2,14,51		
60″	28,56, 8,53,45,21,55,19,22,11			
exact	28,56, 8,53,45,21,55,19,28, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°50′ 0″	28,56, 8,53,45,21,55,19,28, 2			
		1,50, 5, 3,53, 6,39,30		
2″	28,56,10,43,50,25,48,26, 7,32		2, 6,55,43,57	
		1,50, 5, 1,46,10,55,33		8, 3
4″	28,56,12,33,55,27,34,37, 3, 5		2, 6,55,52, 0	
		1,50, 4,59,39,15, 3,33		8, 3
6″	28,56,14,24, 0,27,13,52, 6,38		2, 6,56, 0, 3	
		1,50, 4,57,32,19, 3,30		8, 3
8″	28,56,16,14, 5,24,46,11,10, 8		2, 6,56, 8, 6	
		1,50, 4,55,25,22,55,24		8, 3
10″	28,56,18, 4,10,20,11,34, 5,32		2, 6,56,16, 9	
		1,50, 4,53,18,26,39,15		8, 3
12″	28,56,19,54,15,13,30, 0,44,47		2, 6,56,24,12	
		1,50, 4,51,11,30,15, 3		8, 3
14″	28,56,21,44,20, 4,41,30,59,50		2, 6,56,32,15	
		1,50, 4,49, 4,33,42,48		8, 3
16″	28,56,23,34,24,53,46, 4,42,38		2, 6,56,40,18	
		1,50, 4,46,57,37, 2,30		8, 3
18″	28,56,25,24,29,40,43,41,45, 8		2, 6,56,48,21	
		1,50, 4,44,50,40,14, 9		8, 3
20″	28,56,27,14,34,25,34,21,59,17		2, 6,56,56,24	
		1,50, 4,42,43,43,17,45		8, 3
22″	28,56,29, 4,39, 8,18, 5,17, 2		2, 6,57, 4,27	
		1,50, 4,40,36,46,13,18		8, 3
24″	28,56,30,54,43,48,54,51,30,20		2, 6,57,12,30	
		1,50, 4,38,29,49, 0,48		8, 3
26″	28,56,32,44,48,27,24,40,31, 8		2, 6,57,20,33	
		1,50, 4,36,22,51,40,15		8, 3
28″	28,56,34,34,53, 3,47,32,11,23		2, 6,57,28,36	
		1,50, 4,34,15,54,11,39		8, 3
30″	28,56,36,24,57,38, 3,26,23, 2		2, 6,57,36,39	
		1,50, 4,32, 8,56,35, 0		8, 3
32″	28,56,38,15, 2,10,12,22,58, 2		2, 6,57,44,42	
		1,50, 4,30, 1,58,50,18		8, 3
34″	28,56,40, 5, 6,40,14,21,48,20		2, 6,57,52,45	
		1,50, 4,27,55, 0,57,33		8, 3
36″	28,56,41,55,11, 8, 9,22,45,53		2, 6,58, 0,48	
		1,50, 4,25,48, 2,56,45		8, 3
38″	28,56,43,45,15,33,57,25,42,38		2, 6,58, 8,51	
		1,50, 4,23,41, 4,47,54		8, 3
40″	28,56,45,35,19,57,38,30,30,32		2, 6,58,16,54	
		1,50, 4,21,34, 6,31, 0		8, 3
42″	28,56,47,25,24,19,12,37, 1,32		2, 6,58,24,57	
		1,50, 4,19,27, 8, 6, 3		8, 3
44″	28,56,49,15,28,38,39,45, 7,35		2, 6,58,33, 0	
		1,50, 4,17,20, 9,33, 3		8, 3
46″	28,56,51, 5,32,55,59,54,40,38		2, 6,58,41, 3	
		1,50, 4,15,13,10,52, 0		8, 3
48″	28,56,52,55,37,11,13, 5,32,38		2, 6,58,49, 6	
		1,50, 4,13, 6,12, 2,54		8, 3
50″	28,56,54,45,41,24,19,17,35,32		2, 6,58,57, 9	
		1,50, 4,10,59,13, 5,45		8, 3
52″	28,56,56,35,45,35,18,30,41,17		2, 6,59, 5,12	
		1,50, 4, 8,52,14, 0,33		8, 3
54″	28,56,58,25,49,44,10,44,41,50		2, 6,59,13,15	
		1,50, 4, 6,45,14,47,18		8, 3
56″	28,57, 0,15,53,50,55,59,29, 8		2, 6,59,21,18	
		1,50, 4, 4,38,15,26, 0		8, 3
58″	28,57, 2, 5,57,55,34,14,55, 8		2, 6,59,29,21	
		1,50, 4, 2,31,15,56,39		
60″	28,57, 3,56, 1,58, 5,30,51,47			
exact	28,57, 3,56, 1,58, 5,30,58,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°51′ 0″	28,57, 3,56, 1,58, 5,30,58,16			
		1,50, 4, 0,24,16,20, 6		
2″	28,57, 5,46, 5,58,29,47,18,22		2, 6,59,45,23	
		1,50, 3,58,17,16,34,43		8, 3
4″	28,57, 7,36, 9,56,47, 3,53, 5		2, 6,59,53,26	
		1,50, 3,56,10,16,41,17		8, 3
6″	28,57, 9,26,13,52,57,20,34,22		2, 7, 0, 1,29	
		1,50, 3,54, 3,16,39,48		8, 3
8″	28,57,11,16,17,47, 0,37,14,10		2, 7, 0, 9,32	
		1,50, 3,51,56,16,30,16		8, 3
10″	28,57,13, 6,21,38,56,53,44,26		2, 7, 0,17,35	
		1,50, 3,49,49,16,12,41		8, 3
12″	28,57,14,56,25,28,46, 9,57, 7		2, 7, 0,25,38	
		1,50, 3,47,42,15,47, 3		8, 3
14″	28,57,16,46,29,16,28,25,44,10		2, 7, 0,33,41	
		1,50, 3,45,35,15,13,22		8, 3
16″	28,57,18,36,33, 2, 3,40,57,32		2, 7, 0,41,44	
		1,50, 3,43,28,14,31,38		8, 3
18″	28,57,20,26,36,45,31,55,29,10		2, 7, 0,49,47	
		1,50, 3,41,21,13,41,51		8, 3
20″	28,57,22,16,40,26,53, 9,11, 1		2, 7, 0,57,50	
		1,50, 3,39,14,12,44, 1		8, 3
22″	28,57,24, 6,44, 6, 7,21,55, 2		2, 7, 1, 5,53	
		1,50, 3,37, 7,11,38, 8		8, 3
24″	28,57,25,56,47,43,14,33,33,10		2, 7, 1,13,56	
		1,50, 3,35, 0,10,24,12		8, 3
26″	28,57,27,46,51,18,14,43,57,22		2, 7, 1,21,59	
		1,50, 3,32,53, 9, 2,13		8, 3
28″	28,57,29,36,54,51, 7,52,59,35		2, 7, 1,30, 2	
		1,50, 3,30,46, 7,32,11		8, 3
30″	28,57,31,26,58,21,54, 0,31,46		2, 7, 1,38, 5	
		1,50, 3,28,39, 5,54, 6		8, 3
32″	28,57,33,17, 1,50,33, 6,25,52		2, 7, 1,46, 8	
		1,50, 3,26,32, 4, 7,58		8, 3
34″	28,57,35, 7, 5,17, 5,10,33,50		2, 7, 1,54,11	
		1,50, 3,24,25, 2,13,47		8, 3
36″	28,57,36,57, 8,41,30,12,47,37		2, 7, 2, 2,14	
		1,50, 3,22,18, 0,11,33		8, 3
38″	28,57,38,47,12, 3,48,12,59,10		2, 7, 2,10,17	
		1,50, 3,20,10,58, 1,16		8, 3
40″	28,57,40,37,15,23,59,11, 0,26		2, 7, 2,18,20	
		1,50, 3,18, 3,55,42,56		8, 3
42″	28,57,42,27,18,42, 3, 6,43,22		2, 7, 2,26,23	
		1,50, 3,15,56,53,16,33		8, 3
44″	28,57,44,17,21,57,59,59,59,55		2, 7, 2,34,26	
		1,50, 3,13,49,50,42, 7		8, 3
46″	28,57,46, 7,25,11,49,50,42, 2		2, 7, 2,42,29	
		1,50, 3,11,42,47,59,38		8, 3
48″	28,57,47,57,28,23,32,38,41,40		2, 7, 2,50,32	
		1,50, 3, 9,35,45, 9, 6		8, 3
50″	28,57,49,47,31,33, 8,23,50,46		2, 7, 2,58,35	
		1,50, 3, 7,28,42,10,31		8, 3
52″	28,57,51,37,34,40,37, 6, 1,17		2, 7, 3, 6,38	
		1,50, 3, 5,21,39, 3,53		8, 3
54″	28,57,53,27,37,45,58,45, 5,10		2, 7, 3,14,41	
		1,50, 3, 3,14,35,49,12		8, 3
56″	28,57,55,17,40,49,13,20,54,22		2, 7, 3,22,44	
		1,50, 3, 1, 7,32,26,28		8, 3
58″	28,57,57, 7,43,50,20,53,20,50		2, 7, 3,30,47	
		1,50, 2,59, 0,28,55,41		
60″	28,57,58,57,46,49,21,22,16,31			
exact	28,57,58,57,46,49,21,22,32,47			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
28°52′	0″	28,57,58,57,46,49,21,22,32,47			
			1,50, 2,56,53,25,18,35		
	2″	28,58, 0,47,49,46,14,47,51,22		2, 7, 3,46,46	
			1,50, 2,54,46,21,31,49		8, 3
	4″	28,58, 2,37,52,41, 1, 9,23,11		2, 7, 3,54,49	
			1,50, 2,52,39,17,37, 0		8, 3
	6″	28,58, 4,27,55,33,40,27, 0,11		2, 7, 4, 2,52	
			1,50, 2,50,32,13,34, 8		8, 3
	8″	28,58, 6,17,58,24,12,40,34,19		2, 7, 4,10,55	
			1,50, 2,48,25, 9,23,13		8, 3
	10″	28,58, 8, 8, 1,12,37,49,57,32		2, 7, 4,18,58	
			1,50, 2,46,18, 5, 4,15		8, 3
	12″	28,58, 9,58, 3,58,55,55, 1,47		2, 7, 4,27, 1	
			1,50, 2,44,11, 0,37,14		8, 3
	14″	28,58,11,48, 6,43, 6,55,39, 1		2, 7, 4,35, 4	
			1,50, 2,42, 3,56, 2,10		8, 3
	16″	28,58,13,38, 9,25,10,51,41,11		2, 7, 4,43, 7	
			1,50, 2,39,56,51,19, 3		8, 3
	18″	28,58,15,28,12, 5, 7,43, 0,14		2, 7, 4,51,10	
			1,50, 2,37,49,46,27,53		8, 3
	20″	28,58,17,18,14,42,57,29,28, 7		2, 7, 4,59,13	
			1,50, 2,35,42,41,28,40		8, 3
	22″	28,58,19, 8,17,18,40,10,56,47		2, 7, 5, 7,16	
			1,50, 2,33,35,36,21,24		8, 3
	24″	28,58,20,58,19,52,15,47,18,11		2, 7, 5,15,19	
			1,50, 2,31,28,31, 6, 5		8, 3
	26″	28,58,22,48,22,23,44,18,24,16		2, 7, 5,23,22	
			1,50, 2,29,21,25,42,43		8, 3
	28″	28,58,24,38,24,53, 5,44, 6,59		2, 7, 5,31,25	
			1,50, 2,27,14,20,11,18		8, 3
	30″	28,58,26,28,27,20,20, 4,18,17		2, 7, 5,39,28	
			1,50, 2,25, 7,14,31,50		8, 3
	32″	28,58,28,18,29,45,27,18,50, 7		2, 7, 5,47,31	
			1,50, 2,23, 0, 8,44,19		8, 3
	34″	28,58,30, 8,32, 8,27,27,34,26		2, 7, 5,55,34	
			1,50, 2,20,53, 2,48,45		8, 3
	36″	28,58,31,58,34,29,20,30,23,11		2, 7, 6, 3,37	
			1,50, 2,18,45,56,45, 8		8, 3
	38″	28,58,33,48,36,48, 6,27, 8,19		2, 7, 6,11,40	
			1,50, 2,16,38,50,33,28		8, 3
	40″	28,58,35,38,39, 4,45,17,41,47		2, 7, 6,19,43	
			1,50, 2,14,31,44,13,45		8, 3
	42″	28,58,37,28,41,19,17, 1,55,32		2, 7, 6,27,46	
			1,50, 2,12,24,37,45,59		8, 3
	44″	28,58,39,18,43,31,41,39,41,31		2, 7, 6,35,49	
			1,50, 2,10,17,31,10,10		8, 3
	46″	28,58,41, 8,45,41,59,10,51,41		2, 7, 6,43,52	
			1,50, 2, 8,10,24,26,18		8, 3
	48″	28,58,42,58,47,50, 9,35,17,59		2, 7, 6,51,55	
			1,50, 2, 6, 3,17,34,23		8, 3
	50″	28,58,44,48,49,56,12,52,52,22		2, 7, 6,59,58	
			1,50, 2, 3,56,10,34,25		8, 3
	52″	28,58,46,38,52, 0, 9, 3,26,47		2, 7, 7, 8, 1	
			1,50, 2, 1,49, 3,26,24		8, 3
	54″	28,58,48,28,54, 1,58, 6,53,11		2, 7, 7,16, 4	
			1,50, 1,59,41,56,10,20		8, 3
	56″	28,58,50,18,56, 1,40, 3, 3,31		2, 7, 7,24, 7	
			1,50, 1,57,34,48,46,13		8, 3
	58″	28,58,52, 8,57,59,14,51,49,44		2, 7, 7,32,10	
			1,50, 1,55,27,41,14, 3		
	60″	28,58,53,58,59,54,42,33, 3,47			
exact		28,58,53,58,59,54,42,33,25,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°53′ 0″	28,58,53,58,59,54,42,33,25,20			
		1,50, 1,53,20,33,36, 7		
2″	28,58,55,49, 1,48, 3, 7, 1,27		2, 7, 7,48, 6	
		1,50, 1,51,13,25,48, 1		8, 3
4″	28,58,57,39, 3,39,16,32,49,28		2, 7, 7,56, 9	
		1,50, 1,49, 6,17,51,52		8, 3
6″	28,58,59,29, 5,28,22,50,41,20		2, 7, 8, 4,12	
		1,50, 1,46,59, 9,47,40		8, 3
8″	28,59, 1,19, 7,15,22, 0,29, 0		2, 7, 8,12,15	
		1,50, 1,44,52, 1,35,25		8, 3
10″	28,59, 3, 9, 9, 0,14, 2, 4,25		2, 7, 8,20,18	
		1,50, 1,42,44,53,15, 7		8, 3
12″	28,59, 4,59,10,42,58,55,19,32		2, 7, 8,28,21	
		1,50, 1,40,37,44,46,46		8, 3
14″	28,59, 6,49,12,23,36,40, 6,18		2, 7, 8,36,24	
		1,50, 1,38,30,36,10,22		8, 3
16″	28,59, 8,39,14, 2, 7,16,16,40		2, 7, 8,44,27	
		1,50, 1,36,23,27,25,55		8, 3
18″	28,59,10,29,15,38,30,43,42,35		2, 7, 8,52,30	
		1,50, 1,34,16,18,33,25		8, 3
20″	28,59,12,19,17,12,47, 2,16, 0		2, 7, 9, 0,33	
		1,50, 1,32, 9, 9,32,52		8, 3
22″	28,59,14, 9,18,44,56,11,48,52		2, 7, 9, 8,36	
		1,50, 1,30, 2, 0,24,16		8, 3
24″	28,59,15,59,20,14,58,12,13, 8		2, 7, 9,16,39	
		1,50, 1,27,54,51, 7,37		8, 3
26″	28,59,17,49,21,42,53, 3,20,45		2, 7, 9,24,42	
		1,50, 1,25,47,41,42,55		8, 3
28″	28,59,19,39,23, 8,40,45, 3,40		2, 7, 9,32,45	
		1,50, 1,23,40,32,10,10		8, 3
30″	28,59,21,29,24,32,21,17,13,50		2, 7, 9,40,48	
		1,50, 1,21,33,22,29,22		8, 3
32″	28,59,23,19,25,53,54,39,43,12		2, 7, 9,48,51	
		1,50, 1,19,26,12,40,31		8, 3
34″	28,59,25, 9,27,13,20,52,23,43		2, 7, 9,56,54	
		1,50, 1,17,19, 2,43,37		8, 3
36″	28,59,26,59,28,30,39,55, 7,20		2, 7,10, 4,57	
		1,50, 1,15,11,52,38,40		8, 3
38″	28,59,28,49,29,45,51,47,46, 0		2, 7,10,13, 0	
		1,50, 1,13, 4,42,25,40		8, 3
40″	28,59,30,39,30,58,56,30,11,40		2, 7,10,21, 3	
		1,50, 1,10,57,32, 4,37		8, 3
42″	28,59,32,29,32, 9,54, 2,16,17		2, 7,10,29, 6	
		1,50, 1, 8,50,21,35,31		8, 3
44″	28,59,34,19,33,18,44,23,51,48		2, 7,10,37, 9	
		1,50, 1, 6,43,10,58,22		8, 3
46″	28,59,36, 9,34,25,27,34,50,10		2, 7,10,45,12	
		1,50, 1, 4,36, 0,13,10		8, 3
48″	28,59,37,59,35,30, 3,35, 3,20		2, 7,10,53,15	
		1,50, 1, 2,28,49,19,55		8, 3
50″	28,59,39,49,36,32,32,24,23,15		2, 7,11, 1,18	
		1,50, 1, 0,21,38,18,37		8, 3
52″	28,59,41,39,37,32,54, 2,41,52		2, 7,11, 9,21	
		1,50, 0,58,14,27, 9,16		8, 3
54″	28,59,43,29,38,31, 8,29,51, 8		2, 7,11,17,24	
		1,50, 0,56, 7,15,51,52		8, 3
56″	28,59,45,19,39,27,15,45,43, 0		2, 7,11,25,27	
		1,50, 0,54, 0, 4,26,25		8, 3
58″	28,59,47, 9,40,21,15,50, 9,25		2, 7,11,33,30	
		1,50, 0,51,52,52,52,55		
60″	28,59,48,59,41,13, 8,43, 2,20			
exact	28,59,48,59,41,13, 8,43,24,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°54′ 0″	28,59,48,59,41,13, 8,43,24,26			
		1,50, 0,49,45,41,13,53		
2″	28,59,50,49,42, 2,54,24,38,19		2, 7,11,49,25	
		1,50, 0,47,38,29,24,28		8, 3
4″	28,59,52,39,42,50,32,54, 2,47		2, 7,11,57,28	
		1,50, 0,45,31,17,27, 0		8, 3
6″	28,59,54,29,43,36, 4,11,29,47		2, 7,12, 5,31	
		1,50, 0,43,24, 5,21,29		8, 3
8″	28,59,56,19,44,19,28,16,51,16		2, 7,12,13,34	
		1,50, 0,41,16,53, 7,55		8, 3
10″	28,59,58, 9,45, 0,45, 9,59,11		2, 7,12,21,37	
		1,50, 0,39, 9,40,46,18		8, 3
12″	28,59,59,59,45,39,54,50,45,29		2, 7,12,29,40	
		1,50, 0,37, 2,28,16,38		8, 3
14″	29, 0, 1,49,46,16,57,19, 2, 7		2, 7,12,37,43	
		1,50, 0,34,55,15,38,55		8, 3
16″	29, 0, 3,39,46,51,52,34,41, 2		2, 7,12,45,46	
		1,50, 0,32,48, 2,53, 9		8, 3
18″	29, 0, 5,29,47,24,40,37,34,11		2, 7,12,53,49	
		1,50, 0,30,40,49,59,20		8, 3
20″	29, 0, 7,19,47,55,21,27,33,31		2, 7,13, 1,52	
		1,50, 0,28,33,36,57,28		8, 3
22″	29, 0, 9, 9,48,23,55, 4,30,59		2, 7,13, 9,55	
		1,50, 0,26,26,23,47,33		8, 3
24″	29, 0,10,59,48,50,21,28,18,32		2, 7,13,17,58	
		1,50, 0,24,19,10,29,35		8, 3
26″	29, 0,12,49,49,14,40,38,48, 7		2, 7,13,26, 1	
		1,50, 0,22,11,57, 3,34		8, 3
28″	29, 0,14,39,49,36,52,35,51,41		2, 7,13,34, 4	
		1,50, 0,20, 4,43,29,30		8, 3
30″	29, 0,16,29,49,56,57,19,21,11		2, 7,13,42, 7	
		1,50, 0,17,57,29,47,23		8, 3
32″	29, 0,18,19,50,14,54,49, 8,34		2, 7,13,50,10	
		1,50, 0,15,50,15,57,13		8, 3
34″	29, 0,20, 9,50,30,45, 5, 5,47		2, 7,13,58,13	
		1,50, 0,13,43, 1,59, 0		8, 3
36″	29, 0,21,59,50,44,28, 7, 4,47		2, 7,14, 6,16	
		1,50, 0,11,35,47,52,44		8, 3
38″	29, 0,23,49,50,56, 3,54,57,31		2, 7,14,14,19	
		1,50, 0, 9,28,33,38,25		8, 3
40″	29, 0,25,39,51, 5,32,28,35,56		2, 7,14,22,22	
		1,50, 0, 7,21,19,16, 3		8, 3
42″	29, 0,27,29,51,12,53,47,51,59		2, 7,14,30,25	
		1,50, 0, 5,14, 4,45,38		8, 3
44″	29, 0,29,19,51,18, 7,52,37,37		2, 7,14,38,28	
		1,50, 0, 3, 6,50, 7,10		8, 3
46″	29, 0,31, 9,51,21,14,42,44,47		2, 7,14,46,31	
		1,50, 0, 0,59,35,20,39		8, 3
48″	29, 0,32,59,51,22,14,18, 5,26		2, 7,14,54,34	
		1,49,59,58,52,20,26, 5		8, 3
50″	29, 0,34,49,51,21, 6,38,31,31		2, 7,15, 2,37	
		1,49,59,56,45, 5,23,28		8, 3
52″	29, 0,36,39,51,17,51,43,54,59		2, 7,15,10,40	
		1,49,59,54,37,50,12,48		8, 3
54″	29, 0,38,29,51,12,29,34, 7,47		2, 7,15,18,43	
		1,49,59,52,30,34,54, 5		8, 3
56″	29, 0,40,19,51, 5, 0, 9, 1,52		2, 7,15,26,46	
		1,49,59,50,23,19,27,19		8, 3
58″	29, 0,42, 9,50,55,23,28,29,11		2, 7,15,34,49	
		1,49,59,48,16, 3,52,30		
60″	29, 0,43,59,50,43,39,32,21,41			
exact	29, 0,43,59,50,43,39,32,53,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°55′ 0″	29, 0,43,59,50,43,39,32,53,31	1,49,59,46, 8,48,13, 2		
2″	29, 0,45,49,50,29,48,21, 6,33	1,49,59,44, 1,32,22,21	2, 7,15,50,41	8, 2
4″	29, 0,47,39,50,13,49,53,28,54	1,49,59,41,54,16,23,38	2, 7,15,58,43	8, 2
6″	29, 0,49,29,49,55,44, 9,52,32	1,49,59,39,47, 0,16,53	2, 7,16, 6,45	8, 2
8″	29, 0,51,19,49,35,31,10, 9,25	1,49,59,37,39,44, 2, 6	2, 7,16,14,47	8, 2
10″	29, 0,53, 9,49,13,10,54,11,31	1,49,59,35,32,27,39,17	2, 7,16,22,49	8, 2
12″	29, 0,54,59,48,48,43,21,50,48	1,49,59,33,25,11, 8,26	2, 7,16,30,51	8, 2
14″	29, 0,56,49,48,22, 8,32,59,14	1,49,59,31,17,54,29,33	2, 7,16,38,53	8, 2
16″	29, 0,58,39,47,53,26,27,28,47	1,49,59,29,10,37,42,38	2, 7,16,46,55	8, 2
18″	29, 1, 0,29,47,22,37, 5,11,25	1,49,59,27, 3,20,47,41	2, 7,16,54,57	8, 2
20″	29, 1, 2,19,46,49,40,25,59, 6	1,49,59,24,56, 3,44,42	2, 7,17, 2,59	8, 2
22″	29, 1, 4, 9,46,14,36,29,43,48	1,49,59,22,48,46,33,41	2, 7,17,11, 1	8, 2
24″	29, 1, 5,59,45,37,25,16,17,29	1,49,59,20,41,29,14,38	2, 7,17,19, 3	8, 2
26″	29, 1, 7,49,44,58, 6,45,32, 7	1,49,59,18,34,11,47,33	2, 7,17,27, 5	8, 2
28″	29, 1, 9,39,44,16,40,57,19,40	1,49,59,16,26,54,12,26	2, 7,17,35, 7	8, 2
30″	29, 1,11,29,43,33, 7,51,32, 6	1,49,59,14,19,36,29,17	2, 7,17,43, 9	8, 2
32″	29, 1,13,19,42,47,27,28, 1,23	1,49,59,12,12,18,38, 6	2, 7,17,51,11	8, 2
34″	29, 1,15, 9,41,59,39,46,39,29	1,49,59,10, 5, 0,38,53	2, 7,17,59,13	8, 2
36″	29, 1,16,59,41, 9,44,47,18,22	1,49,59, 7,57,42,31,38	2, 7,18, 7,15	8, 2
38″	29, 1,18,49,40,17,42,29,50, 0	1,49,59, 5,50,24,16,21	2, 7,18,15,17	8, 2
40″	29, 1,20,39,39,23,32,54, 6,21	1,49,59, 3,43, 5,53, 2	2, 7,18,23,19	8, 2
42″	29, 1,22,29,38,27,15,59,59,23	1,49,59, 1,35,47,21,41	2, 7,18,31,21	8, 2
44″	29, 1,24,19,37,28,51,47,21, 4	1,49,58,59,28,28,42,18	2, 7,18,39,23	8, 2
46″	29, 1,26, 9,36,28,20,16, 3,22	1,49,58,57,21, 9,54,53	2, 7,18,47,25	8, 2
48″	29, 1,27,59,35,25,41,25,58,15	1,49,58,55,13,50,59,26	2, 7,18,55,27	8, 2
50″	29, 1,29,49,34,20,55,16,57,41	1,49,58,53, 6,31,55,57	2, 7,19, 3,29	8, 2
52″	29, 1,31,39,33,14, 1,48,53,38	1,49,58,50,59,12,44,26	2, 7,19,11,31	8, 2
54″	29, 1,33,29,32, 5, 1, 1,38, 4	1,49,58,48,51,53,24,53	2, 7,19,19,33	8, 2
56″	29, 1,35,19,30,53,52,55, 2,57	1,49,58,46,44,33,57,18	2, 7,19,27,35	8, 2
58″	29, 1,37, 9,29,40,37,29, 0,15	1,49,58,44,37,14,21,41	2, 7,19,35,37	
60″	29, 1,38,59,28,25,14,43,21,56			
exact	29, 1,38,59,28,25,14,42,50,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°56′ 0″	29, 1,38,59,28,25,14,42,50,50	1,49,58,42,29,54,34,43		
2″	29, 1,40,49,27, 7,44,37,25,33	1,49,58,40,22,34,42,48	2, 7,19,51,55	8, 2
4″	29, 1,42,39,25,48, 7,12, 8,21	1,49,58,38,15,14,42,51	2, 7,19,59,57	8, 2
6″	29, 1,44,29,24,26,22,26,51,12	1,49,58,36, 7,54,34,52	2, 7,20, 7,59	8, 2
8″	29, 1,46,19,23, 2,30,21,26, 4	1,49,58,34, 0,34,18,51	2, 7,20,16, 1	8, 2
10″	29, 1,48, 9,21,36,30,55,44,55	1,49,58,31,53,13,54,48	2, 7,20,24, 3	8, 2
12″	29, 1,49,59,20, 8,24, 9,39,43	1,49,58,29,45,53,22,43	2, 7,20,32, 5	8, 2
14″	29, 1,51,49,18,38,10, 3, 2,26	1,49,58,27,38,32,42,36	2, 7,20,40, 7	8, 2
16″	29, 1,53,39,17, 5,48,35,45, 2	1,49,58,25,31,11,54,27	2, 7,20,48, 9	8, 2
18″	29, 1,55,29,15,31,19,47,39,29	1,49,58,23,23,50,58,16	2, 7,20,56,11	8, 2
20″	29, 1,57,19,13,54,43,38,37,45	1,49,58,21,16,29,54, 3	2, 7,21, 4,13	8, 2
22″	29, 1,59, 9,12,16, 0, 8,31,48	1,49,58,19, 9, 8,41,48	2, 7,21,12,15	8, 2
24″	29, 2, 0,59,10,35, 9,17,13,36	1,49,58,17, 1,47,21,31	2, 7,21,20,17	8, 2
26″	29, 2, 2,49, 8,52,11, 4,35, 7	1,49,58,14,54,25,53,12	2, 7,21,28,19	8, 2
28″	29, 2, 4,39, 7, 7, 5,30,28,19	1,49,58,12,47, 4,16,51	2, 7,21,36,21	8, 2
30″	29, 2, 6,29, 5,19,52,34,45,10	1,49,58,10,39,42,32,28	2, 7,21,44,23	8, 2
32″	29, 2, 8,19, 3,30,32,17,17,38	1,49,58, 8,32,20,40, 3	2, 7,21,52,25	8, 2
34″	29, 2,10, 9, 1,39, 4,37,57,41	1,49,58, 6,24,58,39,36	2, 7,22, 0,27	8, 2
36″	29, 2,11,58,59,45,29,36,37,17	1,49,58, 4,17,36,31, 7	2, 7,22, 8,29	8, 2
38″	29, 2,13,48,57,49,47,13, 8,24	1,49,58, 2,10,14,14,36	2, 7,22,16,31	8, 2
40″	29, 2,15,38,55,51,57,27,23, 0	1,49,58, 0, 2,51,50, 3	2, 7,22,24,33	8, 2
42″	29, 2,17,28,53,52, 0,19,13, 3	1,49,57,57,55,29,17,28	2, 7,22,32,35	8, 2
44″	29, 2,19,18,51,49,55,48,30,31	1,49,57,55,48, 6,36,51	2, 7,22,40,37	8, 2
46″	29, 2,21, 8,49,45,43,55, 7,22	1,49,57,53,40,43,48,12	2, 7,22,48,39	8, 2
48″	29, 2,22,58,47,39,24,38,55,34	1,49,57,51,33,20,51,31	2, 7,22,56,41	8, 2
50″	29, 2,24,48,45,30,57,59,47, 5	1,49,57,49,25,57,46,48	2, 7,23, 4,43	8, 2
52″	29, 2,26,38,43,20,23,57,33,53	1,49,57,47,18,34,34, 3	2, 7,23,12,45	8, 2
54″	29, 2,28,28,41, 7,42,32, 7,56	1,49,57,45,11,11,13,16	2, 7,23,20,47	8, 2
56″	29, 2,30,18,38,52,53,43,21,12	1,49,57,43, 3,47,44,27	2, 7,23,28,49	8, 2
58″	29, 2,32, 8,36,35,57,31, 5,39	1,49,57,40,56,24, 7,36	2, 7,23,36,51	
60″	29, 2,33,58,34,16,53,55,13,15			
exact	29, 2,33,58,34,16,53,54,49,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°57′ 0″	29, 2,33,58,34,16,53,54,49,35			
		1,49,57,38,49, 0,20, 6		
2″	29, 2,35,48,31,55,42,55, 9,41		2, 7,23,53, 6	
		1,49,57,36,41,36,27, 0		8, 2
4″	29, 2,37,38,29,32,24,31,36,41		2, 7,24, 1, 8	
		1,49,57,34,34,12,25,52		8, 2
6″	29, 2,39,28,27, 6,58,44, 2,33		2, 7,24, 9,10	
		1,49,57,32,26,48,16,42		8, 2
8″	29, 2,41,18,24,39,25,32,19,15		2, 7,24,17,12	
		1,49,57,30,19,23,59,30		8, 2
10″	29, 2,43, 8,22, 9,44,56,18,45		2, 7,24,25,14	
		1,49,57,28,11,59,34,16		8, 2
12″	29, 2,44,58,19,37,56,55,53, 1		2, 7,24,33,16	
		1,49,57,26, 4,35, 1, 0		8, 2
14″	29, 2,46,48,17, 4, 1,30,54, 1		2, 7,24,41,18	
		1,49,57,23,57,10,19,42		8, 2
16″	29, 2,48,38,14,27,58,41,13,43		2, 7,24,49,20	
		1,49,57,21,49,45,30,22		8, 2
18″	29, 2,50,28,11,49,48,26,44, 5		2, 7,24,57,22	
		1,49,57,19,42,20,33, 0		8, 2
20″	29, 2,52,18, 9, 9,30,47,17, 5		2, 7,25, 5,24	
		1,49,57,17,34,55,27,36		8, 2
22″	29, 2,54, 8, 6,27, 5,42,44,41		2, 7,25,13,26	
		1,49,57,15,27,30,14,10		8, 2
24″	29, 2,55,58, 3,42,33,12,58,51		2, 7,25,21,28	
		1,49,57,13,20, 4,52,42		8, 2
26″	29, 2,57,48, 0,55,53,17,51,33		2, 7,25,29,30	
		1,49,57,11,12,39,23,12		8, 2
28″	29, 2,59,37,58, 7, 5,57,14,45		2, 7,25,37,32	
		1,49,57, 9, 5,13,45,40		8, 2
30″	29, 3, 1,27,55,16,11,11, 0,25		2, 7,25,45,34	
		1,49,57, 6,57,48, 0, 6		8, 2
32″	29, 3, 3,17,52,23, 8,59, 0,31		2, 7,25,53,36	
		1,49,57, 4,50,22, 6,30		8, 2
34″	29, 3, 5, 7,49,27,59,21, 7, 1		2, 7,26, 1,38	
		1,49,57, 2,42,56, 4,52		8, 2
36″	29, 3, 6,57,46,30,42,17,11,53		2, 7,26, 9,40	
		1,49,57, 0,35,29,55,12		8, 2
38″	29, 3, 8,47,43,31,17,47, 7, 5		2, 7,26,17,42	
		1,49,56,58,28, 3,37,30		8, 2
40″	29, 3,10,37,40,29,45,50,44,35		2, 7,26,25,44	
		1,49,56,56,20,37,11,46		8, 2
42″	29, 3,12,27,37,26, 6,27,56,21		2, 7,26,33,46	
		1,49,56,54,13,10,38, 0		8, 2
44″	29, 3,14,17,34,20,19,38,34,21		2, 7,26,41,48	
		1,49,56,52, 5,43,56,12		8, 2
46″	29, 3,16, 7,31,12,25,22,30,33		2, 7,26,49,50	
		1,49,56,49,58,17, 6,22		8, 2
48″	29, 3,17,57,28, 2,23,39,36,55		2, 7,26,57,52	
		1,49,56,47,50,50, 8,30		8, 2
50″	29, 3,19,47,24,50,14,29,45,25		2, 7,27, 5,54	
		1,49,56,45,43,23, 2,36		8, 2
52″	29, 3,21,37,21,35,57,52,48, 1		2, 7,27,13,56	
		1,49,56,43,35,55,48,40		8, 2
54″	29, 3,23,27,18,19,33,48,36,41		2, 7,27,21,58	
		1,49,56,41,28,28,26,42		8, 2
56″	29, 3,25,17,15, 1, 2,17, 3,23		2, 7,27,30, 0	
		1,49,56,39,21, 0,56,42		8, 2
58″	29, 3,27, 7,11,40,23,18, 0, 5		2, 7,27,38, 2	
		1,49,56,37,13,33,18,40		
60″	29, 3,28,57, 8,17,36,51,18,45			
exact	29, 3,28,57, 8,17,36,50,57,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°58′ 0″	29, 3,28,57, 8,17,36,50,57,48			
		1,49,56,35, 6, 5,30,22		
2″	29, 3,30,47, 4,52,42,56,28,10		2, 7,27,54,15	
		1,49,56,32,58,37,36, 7		8, 2
4″	29, 3,32,37, 1,25,41,34, 4,17		2, 7,28, 2,17	
		1,49,56,30,51, 9,33,50		8, 2
6″	29, 3,34,26,57,56,32,43,38, 7		2, 7,28,10,19	
		1,49,56,28,43,41,23,31		8, 2
8″	29, 3,36,16,54,25,16,25, 1,38		2, 7,28,18,21	
		1,49,56,26,36,13, 5,10		8, 2
10″	29, 3,38, 6,50,51,52,38, 6,48		2, 7,28,26,23	
		1,49,56,24,28,44,38,47		8, 2
12″	29, 3,39,56,47,16,21,22,45,35		2, 7,28,34,25	
		1,49,56,22,21,16, 4,22		8, 2
14″	29, 3,41,46,43,38,42,38,49,57		2, 7,28,42,27	
		1,49,56,20,13,47,21,55		8, 2
16″	29, 3,43,36,39,58,56,26,11,52		2, 7,28,50,29	
		1,49,56,18, 6,18,31,26		8, 2
18″	29, 3,45,26,36,17, 2,44,43,18		2, 7,28,58,31	
		1,49,56,15,58,49,32,55		8, 2
20″	29, 3,47,16,32,33, 1,34,16,13		2, 7,29, 6,33	
		1,49,56,13,51,20,26,22		8, 2
22″	29, 3,49, 6,28,46,52,54,42,35		2, 7,29,14,35	
		1,49,56,11,43,51,11,47		8, 2
24″	29, 3,50,56,24,58,36,45,54,22		2, 7,29,22,37	
		1,49,56, 9,36,21,49,10		8, 2
26″	29, 3,52,46,21, 8,13, 7,43,32		2, 7,29,30,39	
		1,49,56, 7,28,52,18,31		8, 2
28″	29, 3,54,36,17,15,42, 0, 2, 3		2, 7,29,38,41	
		1,49,56, 5,21,22,39,50		8, 2
30″	29, 3,56,26,13,21, 3,22,41,53		2, 7,29,46,43	
		1,49,56, 3,13,52,53, 7		8, 2
32″	29, 3,58,16, 9,24,17,15,35, 0		2, 7,29,54,45	
		1,49,56, 1, 6,22,58,22		8, 2
34″	29, 4, 0, 6, 5,25,23,38,33,22		2, 7,30, 2,47	
		1,49,55,58,58,52,55,35		8, 2
36″	29, 4, 1,56, 1,24,22,31,28,57		2, 7,30,10,49	
		1,49,55,56,51,22,44,46		8, 2
38″	29, 4, 3,45,57,21,13,54,13,43		2, 7,30,18,51	
		1,49,55,54,43,52,25,55		8, 2
40″	29, 4, 5,35,53,15,57,46,39,38		2, 7,30,26,53	
		1,49,55,52,36,21,59, 2		8, 2
42″	29, 4, 7,25,49, 8,34, 8,38,40		2, 7,30,34,55	
		1,49,55,50,28,51,24, 7		8, 2
44″	29, 4, 9,15,44,59, 3, 0, 2,47		2, 7,30,42,57	
		1,49,55,48,21,20,41,10		8, 2
46″	29, 4,11, 5,40,47,24,20,43,57		2, 7,30,50,59	
		1,49,55,46,13,49,50,11		8, 2
48″	29, 4,12,55,36,33,38,10,34, 8		2, 7,30,59, 1	
		1,49,55,44, 6,18,51,10		8, 2
50″	29, 4,14,45,32,17,44,29,25,18		2, 7,31, 7, 3	
		1,49,55,41,58,47,44, 7		8, 2
52″	29, 4,16,35,27,59,43,17, 9,25		2, 7,31,15, 5	
		1,49,55,39,51,16,29, 2		8, 2
54″	29, 4,18,25,23,39,34,33,38,27		2, 7,31,23, 7	
		1,49,55,37,43,45, 5,55		8, 2
56″	29, 4,20,15,19,17,18,18,44,22		2, 7,31,31, 9	
		1,49,55,35,36,13,34,46		8, 2
58″	29, 4,22, 5,14,52,54,32,19, 8		2, 7,31,39,11	
		1,49,55,33,28,41,55,35		
60″	29, 4,23,55,10,26,23,14,14,43			
exact	29, 4,23,55,10,26,23,13,58,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
28°59′ 0″	29, 4,23,55,10,26,23,13,58,32	1,49,55,31,21,10, 6,40		
2″	29, 4,25,45, 5,57,44,24, 5,12	1,49,55,29,13,38,11,18	2, 7,31,55,22	
4″	29, 4,27,35, 1,26,58, 2,16,30	1,49,55,27, 6, 6, 7,54	2, 7,32, 3,24	8, 2
6″	29, 4,29,24,56,54, 4, 8,24,24	1,49,55,24,58,33,56,28	2, 7,32,11,26	8, 2
8″	29, 4,31,14,52,19, 2,42,20,52	1,49,55,22,51, 1,37, 0	2, 7,32,19,28	8, 2
10″	29, 4,33, 4,47,41,53,43,57,52	1,49,55,20,43,29, 9,30	2, 7,32,27,30	8, 2
12″	29, 4,34,54,43, 2,37,13, 7,22	1,49,55,18,35,56,33,58	2, 7,32,35,32	8, 2
14″	29, 4,36,44,38,21,13, 9,41,20	1,49,55,16,28,23,50,24	2, 7,32,43,34	8, 2
16″	29, 4,38,34,33,37,41,33,31,44	1,49,55,14,20,50,58,48	2, 7,32,51,36	8, 2
18″	29, 4,40,24,28,52, 2,24,30,32	1,49,55,12,13,17,59,10	2, 7,32,59,38	8, 2
20″	29, 4,42,14,24, 4,15,42,29,42	1,49,55,10, 5,44,51,30	2, 7,33, 7,40	8, 2
22″	29, 4,44, 4,19,14,21,27,21,12	1,49,55, 7,58,11,35,48	2, 7,33,15,42	8, 2
24″	29, 4,45,54,14,22,19,38,57, 0	1,49,55, 5,50,38,12, 4	2, 7,33,23,44	8, 2
26″	29, 4,47,44, 9,28,10,17, 9, 4	1,49,55, 3,43, 4,40,18	2, 7,33,31,46	8, 2
28″	29, 4,49,34, 4,31,53,21,49,22	1,49,55, 1,35,31, 0,30	2, 7,33,39,48	8, 2
30″	29, 4,51,23,59,33,28,52,49,52	1,49,54,59,27,57,12,40	2, 7,33,47,50	8, 2
32″	29, 4,53,13,54,32,56,50, 2,32	1,49,54,57,20,23,16,48	2, 7,33,55,52	8, 2
34″	29, 4,55, 3,49,30,17,13,19,20	1,49,54,55,12,49,12,54	2, 7,34, 3,54	8, 2
36″	29, 4,56,53,44,25,30, 2,32,14	1,49,54,53, 5,15, 0,58	2, 7,34,11,56	8, 2
38″	29, 4,58,43,39,18,35,17,33,12	1,49,54,50,57,40,41, 0	2, 7,34,19,58	8, 2
40″	29, 5, 0,33,34, 9,32,58,14,12	1,49,54,48,50, 6,13, 0	2, 7,34,28, 0	8, 2
42″	29, 5, 2,23,28,58,23, 4,27,12	1,49,54,46,42,31,36,58	2, 7,34,36, 2	8, 2
44″	29, 5, 4,13,23,45, 5,36, 4,10	1,49,54,44,34,56,52,54	2, 7,34,44, 4	8, 2
46″	29, 5, 6, 3,18,29,40,32,57, 4	1,49,54,42,27,22, 0,48	2, 7,34,52, 6	8, 2
48″	29, 5, 7,53,13,12, 7,54,57,52	1,49,54,40,19,47, 0,40	2, 7,35, 0, 8	8, 2
50″	29, 5, 9,43, 7,52,27,41,58,32	1,49,54,38,12,11,52,30	2, 7,35, 8,10	8, 2
52″	29, 5,11,33, 2,30,39,53,51, 2	1,49,54,36, 4,36,36,18	2, 7,35,16,12	8, 2
54″	29, 5,13,22,57, 6,44,30,27,20	1,49,54,33,57, 1,12, 4	2, 7,35,24,14	8, 2
56″	29, 5,15,12,51,40,41,31,39,24	1,49,54,31,49,25,39,48	2, 7,35,32,16	8, 2
58″	29, 5,17, 2,46,12,30,57,19,12	1,49,54,29,41,49,59,30	2, 7,35,40,18	
60″	29, 5,18,52,40,42,12,47,18,42			
exact	29, 5,18,52,40,42,12,47, 9,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29° 0′ 0″	29, 5,18,52,40,42,12,47, 9,42			
		1,49,54,27,34,14,10,10		
2″	29, 5,20,42,35, 9,47, 1,19,52		2, 7,35,56,26	
		1,49,54,25,26,38,13,44		8, 2
4″	29, 5,22,32,29,35,13,39,33,36		2, 7,36, 4,28	
		1,49,54,23,19, 2, 9,16		8, 2
6″	29, 5,24,22,23,58,32,41,42,52		2, 7,36,12,30	
		1,49,54,21,11,25,56,46		8, 2
8″	29, 5,26,12,18,19,44, 7,39,38		2, 7,36,20,32	
		1,49,54,19, 3,49,36,14		8, 2
10″	29, 5,28, 2,12,38,47,57,15,52		2, 7,36,28,34	
		1,49,54,16,56,13, 7,40		8, 2
12″	29, 5,29,52, 6,55,44,10,23,32		2, 7,36,36,36	
		1,49,54,14,48,36,31, 4		8, 2
14″	29, 5,31,42, 1,10,32,46,54,36		2, 7,36,44,38	
		1,49,54,12,40,59,46,26		8, 2
16″	29, 5,33,31,55,23,13,46,41, 2		2, 7,36,52,40	
		1,49,54,10,33,22,53,46		8, 2
18″	29, 5,35,21,49,33,47, 9,34,48		2, 7,37, 0,42	
		1,49,54, 8,25,45,53, 4		8, 2
20″	29, 5,37,11,43,42,12,55,27,52		2, 7,37, 8,44	
		1,49,54, 6,18, 8,44,20		8, 2
22″	29, 5,39, 1,37,48,31, 4,12,12		2, 7,37,16,46	
		1,49,54, 4,10,31,27,34		8, 2
24″	29, 5,40,51,31,52,41,35,39,46		2, 7,37,24,48	
		1,49,54, 2, 2,54, 2,46		8, 2
26″	29, 5,42,41,25,54,44,29,42,32		2, 7,37,32,50	
		1,49,53,59,55,16,29,56		8, 2
28″	29, 5,44,31,19,54,39,46,12,28		2, 7,37,40,52	
		1,49,53,57,47,38,49, 4		8, 2
30″	29, 5,46,21,13,52,27,25, 1,32		2, 7,37,48,54	
		1,49,53,55,40, 1, 0,10		8, 2
32″	29, 5,48,11, 7,48, 7,26, 1,42		2, 7,37,56,56	
		1,49,53,53,32,23, 3,14		8, 2
34″	29, 5,50, 1, 1,41,39,49, 4,56		2, 7,38, 4,58	
		1,49,53,51,24,44,58,16		8, 2
36″	29, 5,51,50,55,33, 4,34, 3,12		2, 7,38,13, 0	
		1,49,53,49,17, 6,45,16		8, 2
38″	29, 5,53,40,49,22,21,40,48,28		2, 7,38,21, 2	
		1,49,53,47, 9,28,24,14		8, 2
40″	29, 5,55,30,43, 9,31, 9,12,42		2, 7,38,29, 4	
		1,49,53,45, 1,49,55,10		8, 2
42″	29, 5,57,20,36,54,32,59, 7,52		2, 7,38,37, 6	
		1,49,53,42,54,11,18, 4		8, 2
44″	29, 5,59,10,30,37,27,10,25,56		2, 7,38,45, 8	
		1,49,53,40,46,32,32,56		8, 2
46″	29, 6, 1, 0,24,18,13,42,58,52		2, 7,38,53,10	
		1,49,53,38,38,53,39,46		8, 2
48″	29, 6, 2,50,17,56,52,36,38,38		2, 7,39, 1,12	
		1,49,53,36,31,14,38,34		8, 2
50″	29, 6, 4,40,11,33,23,51,17,12		2, 7,39, 9,14	
		1,49,53,34,23,35,29,20		8, 2
52″	29, 6, 6,30, 5, 7,47,26,46,32		2, 7,39,17,16	
		1,49,53,32,15,56,12, 4		8, 2
54″	29, 6, 8,19,58,40, 3,22,58,36		2, 7,39,25,18	
		1,49,53,30, 8,16,46,46		8, 2
56″	29, 6,10, 9,52,10,11,39,45,22		2, 7,39,33,20	
		1,49,53,28, 0,37,13,26		8, 2
58″	29, 6,11,59,45,38,12,16,58,48		2, 7,39,41,22	
		1,49,53,25,52,57,32, 4		
60″	29, 6,13,49,39, 4, 5,14,30,52			
exact	29, 6,13,49,39, 4, 5,14,24,12			

x			$\sin(x)$	Δ^1	Δ^2	Δ^3
29°	1′	0″	29, 6,13,49,39, 4, 5,14,24,12			
		2″	29, 6,15,39,32,27,50,32, 6,14	1,49,53,23,45,17,42, 2	2, 7,39,57,28	
		4″	29, 6,17,29,25,49,28, 9,50,48	1,49,53,21,37,37,44,34	2, 7,40, 5,30	8, 2
		6″	29, 6,19,19,19, 8,58, 7,29,52	1,49,53,19,29,57,39, 4	2, 7,40,13,32	8, 2
		8″	29, 6,21, 9,12,26,20,24,55,24	1,49,53,17,22,17,25,32	2, 7,40,21,34	8, 2
		10″	29, 6,22,59, 5,41,35, 1,59,22	1,49,53,15,14,37, 3,58	2, 7,40,29,36	8, 2
		12″	29, 6,24,48,58,54,41,58,33,44	1,49,53,13, 6,56,34,22	2, 7,40,37,38	8, 2
		14″	29, 6,26,38,52, 5,41,14,30,28	1,49,53,10,59,15,56,44	2, 7,40,45,40	8, 2
		16″	29, 6,28,28,45,14,32,49,41,32	1,49,53, 8,51,35,11, 4	2, 7,40,53,42	8, 2
		18″	29, 6,30,18,38,21,16,43,58,54	1,49,53, 6,43,54,17,22	2, 7,41, 1,44	8, 2
		20″	29, 6,32, 8,31,25,52,57,14,32	1,49,53, 4,36,13,15,38	2, 7,41, 9,46	8, 2
		22″	29, 6,33,58,24,28,21,29,20,24	1,49,53, 2,28,32, 5,52	2, 7,41,17,48	8, 2
		24″	29, 6,35,48,17,28,42,20, 8,28	1,49,53, 0,20,50,48, 4	2, 7,41,25,50	8, 2
		26″	29, 6,37,38,10,26,55,29,30,42	1,49,52,58,13, 9,22,14	2, 7,41,33,52	8, 2
		28″	29, 6,39,28, 3,23, 0,57,19, 4	1,49,52,56, 5,27,48,22	2, 7,41,41,54	8, 2
		30″	29, 6,41,17,56,16,58,43,25,32	1,49,52,53,57,46, 6,28	2, 7,41,49,56	8, 2
		32″	29, 6,43, 7,49, 8,48,47,42, 4	1,49,52,51,50, 4,16,32	2, 7,41,57,58	8, 2
		34″	29, 6,44,57,41,58,31,10, 0,38	1,49,52,49,42,22,18,34	2, 7,42, 6, 0	8, 2
		36″	29, 6,46,47,34,46, 5,50,13,12	1,49,52,47,34,40,12,34	2, 7,42,14, 2	8, 2
		38″	29, 6,48,37,27,31,32,48,11,44	1,49,52,45,26,57,58,32	2, 7,42,22, 4	8, 2
		40″	29, 6,50,27,20,14,52, 3,48,12	1,49,52,43,19,15,36,28	2, 7,42,30, 6	8, 2
		42″	29, 6,52,17,12,56, 3,36,54,34	1,49,52,41,11,33, 6,22	2, 7,42,38, 8	8, 2
		44″	29, 6,54, 7, 5,35, 7,27,22,48	1,49,52,39, 3,50,28,14	2, 7,42,46,10	8, 2
		46″	29, 6,55,56,58,12, 3,35, 4,52	1,49,52,36,56, 7,42, 4	2, 7,42,54,12	8, 2
		48″	29, 6,57,46,50,46,51,59,52,44	1,49,52,34,48,24,47,52	2, 7,43, 2,14	8, 2
		50″	29, 6,59,36,43,19,32,41,38,22	1,49,52,32,40,41,45,38	2, 7,43,10,16	8, 2
		52″	29, 7, 1,26,35,50, 5,40,13,44	1,49,52,30,32,58,35,22	2, 7,43,18,18	8, 2
		54″	29, 7, 3,16,28,18,30,55,30,48	1,49,52,28,25,15,17, 4	2, 7,43,26,20	8, 2
		56″	29, 7, 5, 6,20,44,48,27,21,32	1,49,52,26,17,31,50,44	2, 7,43,34,22	8, 2
		58″	29, 7, 6,56,13, 8,58,15,37,54	1,49,52,24, 9,48,16,22	2, 7,43,42,24	
		60″	29, 7, 8,46, 5,31, 0,20,11,52	1,49,52,22, 2, 4,33,58		
	exact		29, 7, 8,46, 5,31, 0,20, 9,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29° 2′ 0″	29, 7, 8,46, 5,31, 0,20, 9,57			
		1,49,52,19,54,20,43,26		
2″	29, 7,10,35,57,50,54,40,53,23		2, 7,43,58,28	
		1,49,52,17,46,36,44,58		8, 2
4″	29, 7,12,25,50, 8,41,17,38,21		2, 7,44, 6,30	
		1,49,52,15,38,52,38,28		8, 2
6″	29, 7,14,15,42,24,20,10,16,49		2, 7,44,14,32	
		1,49,52,13,31, 8,23,56		8, 2
8″	29, 7,16, 5,34,37,51,18,40,45		2, 7,44,22,34	
		1,49,52,11,23,24, 1,22		8, 2
10″	29, 7,17,55,26,49,14,42,42, 7		2, 7,44,30,36	
		1,49,52, 9,15,39,30,46		8, 2
12″	29, 7,19,45,18,58,30,22,12,53		2, 7,44,38,38	
		1,49,52, 7, 7,54,52, 8		8, 2
14″	29, 7,21,35,11, 5,38,17, 5, 1		2, 7,44,46,40	
		1,49,52, 5, 0,10, 5,28		8, 2
16″	29, 7,23,25, 3,10,38,27,10,29		2, 7,44,54,42	
		1,49,52, 2,52,25,10,46		8, 2
18″	29, 7,25,14,55,13,30,52,21,15		2, 7,45, 2,44	
		1,49,52, 0,44,40, 8, 2		8, 2
20″	29, 7,27, 4,47,14,15,32,29,17		2, 7,45,10,46	
		1,49,51,58,36,54,57,16		8, 2
22″	29, 7,28,54,39,12,52,27,26,33		2, 7,45,18,48	
		1,49,51,56,29, 9,38,28		8, 2
24″	29, 7,30,44,31, 9,21,37, 5, 1		2, 7,45,26,50	
		1,49,51,54,21,24,11,38		8, 2
26″	29, 7,32,34,23, 3,43, 1,16,39		2, 7,45,34,52	
		1,49,51,52,13,38,36,46		8, 2
28″	29, 7,34,24,14,55,56,39,53,25		2, 7,45,42,54	
		1,49,51,50, 5,52,53,52		8, 2
30″	29, 7,36,14, 6,46, 2,32,47,17		2, 7,45,50,56	
		1,49,51,47,58, 7, 2,56		8, 2
32″	29, 7,38, 3,58,34, 0,39,50,13		2, 7,45,58,58	
		1,49,51,45,50,21, 3,58		8, 2
34″	29, 7,39,53,50,19,51, 0,54,11		2, 7,46, 7, 0	
		1,49,51,43,42,34,56,58		8, 2
36″	29, 7,41,43,42, 3,33,35,51, 9		2, 7,46,15, 2	
		1,49,51,41,34,48,41,56		8, 2
38″	29, 7,43,33,33,45, 8,24,33, 5		2, 7,46,23, 4	
		1,49,51,39,27, 2,18,52		8, 2
40″	29, 7,45,23,25,24,35,26,51,57		2, 7,46,31, 6	
		1,49,51,37,19,15,47,46		8, 2
42″	29, 7,47,13,17, 1,54,42,39,43		2, 7,46,39, 8	
		1,49,51,35,11,29, 8,38		8, 2
44″	29, 7,49, 3, 8,37, 6,11,48,21		2, 7,46,47,10	
		1,49,51,33, 3,42,21,28		8, 2
46″	29, 7,50,53, 0,10, 9,54, 9,49		2, 7,46,55,12	
		1,49,51,30,55,55,26,16		8, 2
48″	29, 7,52,42,51,41, 5,49,36, 5		2, 7,47, 3,14	
		1,49,51,28,48, 8,23, 2		8, 2
50″	29, 7,54,32,43, 9,53,57,59, 7		2, 7,47,11,16	
		1,49,51,26,40,21,11,46		8, 2
52″	29, 7,56,22,34,36,34,19,10,53		2, 7,47,19,18	
		1,49,51,24,32,33,52,28		8, 2
54″	29, 7,58,12,26, 1, 6,53, 3,21		2, 7,47,27,20	
		1,49,51,22,24,46,25, 8		8, 2
56″	29, 8, 0, 2,17,23,31,39,28,29		2, 7,47,35,22	
		1,49,51,20,16,58,49,46		8, 2
58″	29, 8, 1,52, 8,43,48,38,18,15		2, 7,47,43,24	
		1,49,51,18, 9,11, 6,22		
60″	29, 8, 3,42, 0, 1,57,49,24,37			
exact	29, 8, 3,42, 0, 1,57,49,29,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29° 3′ 0″	29, 8, 3,42, 0, 1,57,49,29,49			
		1,49,51,16, 1,23,15,31		
2″	29, 8, 5,31,51,17,59,12,45,20		2, 7,47,59,25	
		1,49,51,13,53,35,16, 6		8, 2
4″	29, 8, 7,21,42,31,52,48, 1,26		2, 7,48, 7,27	
		1,49,51,11,45,47, 8,39		8, 2
6″	29, 8, 9,11,33,43,38,35,10, 5		2, 7,48,15,29	
		1,49,51, 9,37,58,53,10		8, 2
8″	29, 8,11, 1,24,53,16,34, 3,15		2, 7,48,23,31	
		1,49,51, 7,30,10,29,39		8, 2
10″	29, 8,12,51,16, 0,46,44,32,54		2, 7,48,31,33	
		1,49,51, 5,22,21,58, 6		8, 2
12″	29, 8,14,41, 7, 6, 9, 6,31, 0		2, 7,48,39,35	
		1,49,51, 3,14,33,18,31		8, 2
14″	29, 8,16,30,58, 9,23,39,49,31		2, 7,48,47,37	
		1,49,51, 1, 6,44,30,54		8, 2
16″	29, 8,18,20,49,10,30,24,20,25		2, 7,48,55,39	
		1,49,50,58,58,55,35,15		8, 2
18″	29, 8,20,10,40, 9,29,19,55,40		2, 7,49, 3,41	
		1,49,50,56,51, 6,31,34		8, 2
20″	29, 8,22, 0,31, 6,20,26,27,14		2, 7,49,11,43	
		1,49,50,54,43,17,19,51		8, 2
22″	29, 8,23,50,22, 1, 3,43,47, 5		2, 7,49,19,45	
		1,49,50,52,35,28, 0, 6		8, 2
24″	29, 8,25,40,12,53,39,11,47,11		2, 7,49,27,47	
		1,49,50,50,27,38,32,19		8, 2
26″	29, 8,27,30, 3,44, 6,50,19,30		2, 7,49,35,49	
		1,49,50,48,19,48,56,30		8, 2
28″	29, 8,29,19,54,32,26,39,16, 0		2, 7,49,43,51	
		1,49,50,46,11,59,12,39		8, 2
30″	29, 8,31, 9,45,18,38,38,28,39		2, 7,49,51,53	
		1,49,50,44, 4, 9,20,46		8, 2
32″	29, 8,32,59,36, 2,42,47,49,25		2, 7,49,59,55	
		1,49,50,41,56,19,20,51		8, 2
34″	29, 8,34,49,26,44,39, 7,10,16		2, 7,50, 7,57	
		1,49,50,39,48,29,12,54		8, 2
36″	29, 8,36,39,17,24,27,36,23,10		2, 7,50,15,59	
		1,49,50,37,40,38,56,55		8, 2
38″	29, 8,38,29, 8, 2, 8,15,20, 5		2, 7,50,24, 1	
		1,49,50,35,32,48,32,54		8, 2
40″	29, 8,40,18,58,37,41, 3,52,59		2, 7,50,32, 3	
		1,49,50,33,24,58, 0,51		8, 2
42″	29, 8,42, 8,49,11, 6, 1,53,50		2, 7,50,40, 5	
		1,49,50,31,17, 7,20,46		8, 2
44″	29, 8,43,58,39,42,23, 9,14,36		2, 7,50,48, 7	
		1,49,50,29, 9,16,32,39		8, 2
46″	29, 8,45,48,30,11,32,25,47,15		2, 7,50,56, 9	
		1,49,50,27, 1,25,36,30		8, 2
48″	29, 8,47,38,20,38,33,51,23,45		2, 7,51, 4,11	
		1,49,50,24,53,34,32,19		8, 2
50″	29, 8,49,28,11, 3,27,25,56, 4		2, 7,51,12,13	
		1,49,50,22,45,43,20, 6		8, 2
52″	29, 8,51,18, 1,26,13, 9,16,10		2, 7,51,20,15	
		1,49,50,20,37,51,59,51		8, 2
54″	29, 8,53, 7,51,46,51, 1,16, 1		2, 7,51,28,17	
		1,49,50,18,30, 0,31,34		8, 2
56″	29, 8,54,57,42, 5,21, 1,47,35		2, 7,51,36,19	
		1,49,50,16,22, 8,55,15		8, 2
58″	29, 8,56,47,32,21,43,10,42,50		2, 7,51,44,21	
		1,49,50,14,14,17,10,54		
60″	29, 8,58,37,22,35,57,27,53,44			
exact	29, 8,58,37,22,35,57,28, 1,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29° 4′ 0″	29, 8,58,37,22,35,57,28, 1,43			
		1,49,50,12, 6,25,19,29		
2″	29, 9, 0,27,12,48, 3,53,21,12		2, 7,52, 0,20	
		1,49,50, 9,58,33,19, 9		8, 2
4″	29, 9, 2,17, 2,58, 2,26,40,21		2, 7,52, 8,22	
		1,49,50, 7,50,41,10,47		8, 2
6″	29, 9, 4, 6,53, 5,53, 7,51, 8		2, 7,52,16,24	
		1,49,50, 5,42,48,54,23		8, 2
8″	29, 9, 5,56,43,11,35,56,45,31		2, 7,52,24,26	
		1,49,50, 3,34,56,29,57		8, 2
10″	29, 9, 7,46,33,15,10,53,15,28		2, 7,52,32,28	
		1,49,50, 1,27, 3,57,29		8, 2
12″	29, 9, 9,36,23,16,37,57,12,57		2, 7,52,40,30	
		1,49,49,59,19,11,16,59		8, 2
14″	29, 9,11,26,13,15,57, 8,29,56		2, 7,52,48,32	
		1,49,49,57,11,18,28,27		8, 2
16″	29, 9,13,16, 3,13, 8,26,58,23		2, 7,52,56,34	
		1,49,49,55, 3,25,31,53		8, 2
18″	29, 9,15, 5,53, 8,11,52,30,16		2, 7,53, 4,36	
		1,49,49,52,55,32,27,17		8, 2
20″	29, 9,16,55,43, 1, 7,24,57,33		2, 7,53,12,38	
		1,49,49,50,47,39,14,39		8, 2
22″	29, 9,18,45,32,51,55, 4,12,12		2, 7,53,20,40	
		1,49,49,48,39,45,53,59		8, 2
24″	29, 9,20,35,22,40,34,50, 6,11		2, 7,53,28,42	
		1,49,49,46,31,52,25,17		8, 2
26″	29, 9,22,25,12,27, 6,42,31,28		2, 7,53,36,44	
		1,49,49,44,23,58,48,33		8, 2
28″	29, 9,24,15, 2,11,30,41,20, 1		2, 7,53,44,46	
		1,49,49,42,16, 5, 3,47		8, 2
30″	29, 9,26, 4,51,53,46,46,23,48		2, 7,53,52,48	
		1,49,49,40, 8,11,10,59		8, 2
32″	29, 9,27,54,41,33,54,57,34,47		2, 7,54, 0,50	
		1,49,49,38, 0,17,10, 9		8, 2
34″	29, 9,29,44,31,11,55,14,44,56		2, 7,54, 8,52	
		1,49,49,35,52,23, 1,17		8, 2
36″	29, 9,31,34,20,47,47,37,46,13		2, 7,54,16,54	
		1,49,49,33,44,28,44,23		8, 2
38″	29, 9,33,24,10,21,32, 6,30,36		2, 7,54,24,56	
		1,49,49,31,36,34,19,27		8, 2
40″	29, 9,35,13,59,53, 8,40,50, 3		2, 7,54,32,58	
		1,49,49,29,28,39,46,29		8, 2
42″	29, 9,37, 3,49,22,37,20,36,32		2, 7,54,41, 0	
		1,49,49,27,20,45, 5,29		8, 2
44″	29, 9,38,53,38,49,58, 5,42, 1		2, 7,54,49, 2	
		1,49,49,25,12,50,16,27		8, 2
46″	29, 9,40,43,28,15,10,55,58,28		2, 7,54,57, 4	
		1,49,49,23, 4,55,19,23		8, 2
48″	29, 9,42,33,17,38,15,51,17,51		2, 7,55, 5, 6	
		1,49,49,20,57, 0,14,17		8, 2
50″	29, 9,44,23, 6,59,12,51,32, 8		2, 7,55,13, 8	
		1,49,49,18,49, 5, 1, 9		8, 2
52″	29, 9,46,12,56,18, 1,56,33,17		2, 7,55,21,10	
		1,49,49,16,41, 9,39,59		8, 2
54″	29, 9,48, 2,45,34,43, 6,13,16		2, 7,55,29,12	
		1,49,49,14,33,14,10,47		8, 2
56″	29, 9,49,52,34,49,16,20,24, 3		2, 7,55,37,14	
		1,49,49,12,25,18,33,33		8, 2
58″	29, 9,51,42,24, 1,41,38,57,36		2, 7,55,45,16	
		1,49,49,10,17,22,48,17		
60″	29, 9,53,32,13,11,59, 1,45,53			
exact	29, 9,53,32,13,11,59, 1,58,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29° 5′ 0″	29, 9,53,32,13,11,59, 1,58,36	1,49,49, 8, 9,26,56,29		
2″	29, 9,55,22, 2,20, 8,28,55, 5	1,49,49, 6, 1,30,55,16	2, 7,56, 1,13	
4″	29, 9,57,11,51,26, 9,59,50,21	1,49,49, 3,53,34,46, 1	2, 7,56, 9,15	8, 2
6″	29, 9,59, 1,40,30, 3,34,36,22	1,49,49, 1,45,38,28,44	2, 7,56,17,17	8, 2
8″	29,10, 0,51,29,31,49,13, 5, 6	1,49,48,59,37,42, 3,25	2, 7,56,25,19	8, 2
10″	29,10, 2,41,18,31,26,55, 8,31	1,49,48,57,29,45,30, 4	2, 7,56,33,21	8, 2
12″	29,10, 4,31, 7,28,56,40,38,35	1,49,48,55,21,48,48,41	2, 7,56,41,23	8, 2
14″	29,10, 6,20,56,24,18,29,27,16	1,49,48,53,13,51,59,16	2, 7,56,49,25	8, 2
16″	29,10, 8,10,45,17,32,21,26,32	1,49,48,51, 5,55, 1,49	2, 7,56,57,27	8, 2
18″	29,10,10, 0,34, 8,38,16,28,21	1,49,48,48,57,57,56,20	2, 7,57, 5,29	8, 2
20″	29,10,11,50,22,57,36,14,24,41	1,49,48,46,50, 0,42,49	2, 7,57,13,31	8, 2
22″	29,10,13,40,11,44,26,15, 7,30	1,49,48,44,42, 3,21,16	2, 7,57,21,33	8, 2
24″	29,10,15,30, 0,29, 8,18,28,46	1,49,48,42,34, 5,51,41	2, 7,57,29,35	8, 2
26″	29,10,17,19,49,11,42,24,20,27	1,49,48,40,26, 8,14, 4	2, 7,57,37,37	8, 2
28″	29,10,19, 9,37,52, 8,32,34,31	1,49,48,38,18,10,28,25	2, 7,57,45,39	8, 2
30″	29,10,20,59,26,30,26,43, 2,56	1,49,48,36,10,12,34,44	2, 7,57,53,41	8, 2
32″	29,10,22,49,15, 6,36,55,37,40	1,49,48,34, 2,14,33, 1	2, 7,58, 1,43	8, 2
34″	29,10,24,39, 3,40,39,10,10,41	1,49,48,31,54,16,23,16	2, 7,58, 9,45	8, 2
36″	29,10,26,28,52,12,33,26,33,57	1,49,48,29,46,18, 5,29	2, 7,58,17,47	8, 2
38″	29,10,28,18,40,42,19,44,39,26	1,49,48,27,38,19,39,40	2, 7,58,25,49	8, 2
40″	29,10,30, 8,29, 9,58, 4,19, 6	1,49,48,25,30,21, 5,49	2, 7,58,33,51	8, 2
42″	29,10,31,58,17,35,28,25,24,55	1,49,48,23,22,22,23,56	2, 7,58,41,53	8, 2
44″	29,10,33,48, 5,58,50,47,48,51	1,49,48,21,14,23,34, 1	2, 7,58,49,55	8, 2
46″	29,10,35,37,54,20, 5,11,22,52	1,49,48,19, 6,24,36, 4	2, 7,58,57,57	8, 2
48″	29,10,37,27,42,39,11,35,58,56	1,49,48,16,58,25,30, 5	2, 7,59, 5,59	8, 2
50″	29,10,39,17,30,56,10, 1,29, 1	1,49,48,14,50,26,16, 4	2, 7,59,14, 1	8, 2
52″	29,10,41, 7,19,11, 0,27,45, 5	1,49,48,12,42,26,54, 1	2, 7,59,22, 3	8, 2
54″	29,10,42,57, 7,23,42,54,39, 6	1,49,48,10,34,27,23,56	2, 7,59,30, 5	8, 2
56″	29,10,44,46,55,34,17,22, 3, 2	1,49,48, 8,26,27,45,49	2, 7,59,38, 7	8, 2
58″	29,10,46,36,43,42,43,49,48,51	1,49,48, 6,18,27,59,40	2, 7,59,46, 9	
60″	29,10,48,26,31,49, 2,17,48,31			
exact	29,10,48,26,31,49, 2,18, 8,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29° 6′ 0″	29,10,48,26,31,49, 2,18, 8,28			
		1,49,48, 4,10,28, 7,41		
2″	29,10,50,16,19,53,12,46,16, 9		2, 8, 0, 2, 3	
		1,49,48, 2, 2,28, 5,38		8, 2
4″	29,10,52, 6, 7,55,15,14,21,47		2, 8, 0,10, 5	
		1,49,47,59,54,27,55,33		8, 2
6″	29,10,53,55,55,55, 9,42,17,20		2, 8, 0,18, 7	
		1,49,47,57,46,27,37,26		8, 2
8″	29,10,55,45,43,52,56, 9,54,46		2, 8, 0,26, 9	
		1,49,47,55,38,27,11,17		8, 2
10″	29,10,57,35,31,48,34,37, 6, 3		2, 8, 0,34,11	
		1,49,47,53,30,26,37, 6		8, 2
12″	29,10,59,25,19,42, 5, 3,43, 9		2, 8, 0,42,13	
		1,49,47,51,22,25,54,53		8, 2
14″	29,11, 1,15, 7,33,27,29,38, 2		2, 8, 0,50,15	
		1,49,47,49,14,25, 4,38		8, 2
16″	29,11, 3, 4,55,22,41,54,42,40		2, 8, 0,58,17	
		1,49,47,47, 6,24, 6,21		8, 2
18″	29,11, 4,54,43, 9,48,18,49, 1		2, 8, 1, 6,19	
		1,49,47,44,58,23, 0, 2		8, 2
20″	29,11, 6,44,30,54,46,41,49, 3		2, 8, 1,14,21	
		1,49,47,42,50,21,45,41		8, 2
22″	29,11, 8,34,18,37,37, 3,34,44		2, 8, 1,22,23	
		1,49,47,40,42,20,23,18		8, 2
24″	29,11,10,24, 6,18,19,23,58, 2		2, 8, 1,30,25	
		1,49,47,38,34,18,52,53		8, 2
26″	29,11,12,13,53,56,53,42,50,55		2, 8, 1,38,27	
		1,49,47,36,26,17,14,26		8, 2
28″	29,11,14, 3,41,33,20, 0, 5,21		2, 8, 1,46,29	
		1,49,47,34,18,15,27,57		8, 2
30″	29,11,15,53,29, 7,38,15,33,18		2, 8, 1,54,31	
		1,49,47,32,10,13,33,26		8, 2
32″	29,11,17,43,16,39,48,29, 6,44		2, 8, 2, 2,33	
		1,49,47,30, 2,11,30,53		8, 2
34″	29,11,19,33, 4, 9,50,40,37,37		2, 8, 2,10,35	
		1,49,47,27,54, 9,20,18		8, 2
36″	29,11,21,22,51,37,44,49,57,55		2, 8, 2,18,37	
		1,49,47,25,46, 7, 1,41		8, 2
38″	29,11,23,12,39, 3,30,56,59,36		2, 8, 2,26,39	
		1,49,47,23,38, 4,35, 2		8, 2
40″	29,11,25, 2,26,27, 9, 1,34,38		2, 8, 2,34,41	
		1,49,47,21,30, 2, 0,21		8, 2
42″	29,11,26,52,13,48,39, 3,34,59		2, 8, 2,42,43	
		1,49,47,19,21,59,17,38		8, 2
44″	29,11,28,42, 1, 8, 1, 2,52,37		2, 8, 2,50,45	
		1,49,47,17,13,56,26,53		8, 2
46″	29,11,30,31,48,25,14,59,19,30		2, 8, 2,58,47	
		1,49,47,15, 5,53,28, 6		8, 2
48″	29,11,32,21,35,40,20,52,47,36		2, 8, 3, 6,49	
		1,49,47,12,57,50,21,17		8, 2
50″	29,11,34,11,22,53,18,43, 8,53		2, 8, 3,14,51	
		1,49,47,10,49,47, 6,26		8, 2
52″	29,11,36, 1,10, 4, 8,30,15,19		2, 8, 3,22,53	
		1,49,47, 8,41,43,43,33		8, 2
54″	29,11,37,50,57,12,50,13,58,52		2, 8, 3,30,55	
		1,49,47, 6,33,40,12,38		8, 2
56″	29,11,39,40,44,19,23,54,11,30		2, 8, 3,38,57	
		1,49,47, 4,25,36,33,41		8, 2
58″	29,11,41,30,31,23,49,30,45,11		2, 8, 3,46,59	
		1,49,47, 2,17,32,46,42		
60″	29,11,43,20,18,26, 7, 3,31,53			
exact	29,11,43,20,18,26, 7, 3,54,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29° 7′ 0″	29,11,43,20,18,26, 7, 3,54,23			
		1,49,47, 0, 9,28,54,16		
2″	29,11,45,10, 5,26,16,32,48,39		2, 8, 4, 2,51	
		1,49,46,58, 1,24,51,25		8, 2
4″	29,11,46,59,52,24,17,57,40, 4		2, 8, 4,10,53	
		1,49,46,55,53,20,40,32		8, 2
6″	29,11,48,49,39,20,11,18,20,36		2, 8, 4,18,55	
		1,49,46,53,45,16,21,37		8, 2
8″	29,11,50,39,26,13,56,34,42,13		2, 8, 4,26,57	
		1,49,46,51,37,11,54,40		8, 2
10″	29,11,52,29,13, 5,33,46,36,53		2, 8, 4,34,59	
		1,49,46,49,29, 7,19,41		8, 2
12″	29,11,54,18,59,55, 2,53,56,34		2, 8, 4,43, 1	
		1,49,46,47,21, 2,36,40		8, 2
14″	29,11,56, 8,46,42,23,56,33,14		2, 8, 4,51, 3	
		1,49,46,45,12,57,45,37		8, 2
16″	29,11,57,58,33,27,36,54,18,51		2, 8, 4,59, 5	
		1,49,46,43, 4,52,46,32		8, 2
18″	29,11,59,48,20,10,41,47, 5,23		2, 8, 5, 7, 7	
		1,49,46,40,56,47,39,25		8, 2
20″	29,12, 1,38, 6,51,38,34,44,48		2, 8, 5,15, 9	
		1,49,46,38,48,42,24,16		8, 2
22″	29,12, 3,27,53,30,27,17, 9, 4		2, 8, 5,23,11	
		1,49,46,36,40,37, 1, 5		8, 2
24″	29,12, 5,17,40, 7, 7,54,10, 9		2, 8, 5,31,13	
		1,49,46,34,32,31,29,52		8, 2
26″	29,12, 7, 7,26,41,40,25,40, 1		2, 8, 5,39,15	
		1,49,46,32,24,25,50,37		8, 2
28″	29,12, 8,57,13,14, 4,51,30,38		2, 8, 5,47,17	
		1,49,46,30,16,20, 3,20		8, 2
30″	29,12,10,46,59,44,21,11,33,58		2, 8, 5,55,19	
		1,49,46,28, 8,14, 8, 1		8, 2
32″	29,12,12,36,46,12,29,25,41,59		2, 8, 6, 3,21	
		1,49,46,26, 0, 8, 4,40		8, 2
34″	29,12,14,26,32,38,29,33,46,39		2, 8, 6,11,23	
		1,49,46,23,52, 1,53,17		8, 2
36″	29,12,16,16,19, 2,21,35,39,56		2, 8, 6,19,25	
		1,49,46,21,43,55,33,52		8, 2
38″	29,12,18, 6, 5,24, 5,31,13,48		2, 8, 6,27,27	
		1,49,46,19,35,49, 6,25		8, 2
40″	29,12,19,55,51,43,41,20,20,13		2, 8, 6,35,29	
		1,49,46,17,27,42,30,56		8, 2
42″	29,12,21,45,38, 1, 9, 2,51, 9		2, 8, 6,43,31	
		1,49,46,15,19,35,47,25		8, 2
44″	29,12,23,35,24,16,28,38,38,34		2, 8, 6,51,33	
		1,49,46,13,11,28,55,52		8, 2
46″	29,12,25,25,10,29,40, 7,34,26		2, 8, 6,59,35	
		1,49,46,11, 3,21,56,17		8, 2
48″	29,12,27,14,56,40,43,29,30,43		2, 8, 7, 7,37	
		1,49,46, 8,55,14,48,40		8, 2
50″	29,12,29, 4,42,49,38,44,19,23		2, 8, 7,15,39	
		1,49,46, 6,47, 7,33, 1		8, 2
52″	29,12,30,54,28,56,25,51,52,24		2, 8, 7,23,41	
		1,49,46, 4,39, 0, 9,20		8, 2
54″	29,12,32,44,15, 1, 4,52, 1,44		2, 8, 7,31,43	
		1,49,46, 2,30,52,37,37		8, 2
56″	29,12,34,34, 1, 3,35,44,39,21		2, 8, 7,39,45	
		1,49,46, 0,22,44,57,52		8, 2
58″	29,12,36,23,47, 3,58,29,37,13		2, 8, 7,47,47	
		1,49,45,58,14,37,10, 5		
60″	29,12,38,13,33, 2,13, 6,47,18			
exact	29,12,38,13,33, 2,13, 7,14,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29° 8′ 0″	29,12,38,13,33, 2,13, 7,14,31	1,49,45,56, 6,29,17,23		
2″	29,12,40, 3,18,58,19,36,31,54	1,49,45,53,58,21,13,46	2, 8, 8, 3,37	8, 1
4″	29,12,41,53, 4,52,17,57,45,40	1,49,45,51,50,13, 2, 8	2, 8, 8,11,38	8, 1
6″	29,12,43,42,50,44, 8,10,47,48	1,49,45,49,42, 4,42,29	2, 8, 8,19,39	8, 1
8″	29,12,45,32,36,33,50,15,30,17	1,49,45,47,33,56,14,49	2, 8, 8,27,40	8, 1
10″	29,12,47,22,22,21,24,11,45, 6	1,49,45,45,25,47,39, 8	2, 8, 8,35,41	8, 1
12″	29,12,49,12, 8, 6,49,59,24,14	1,49,45,43,17,38,55,26	2, 8, 8,43,42	8, 1
14″	29,12,51, 1,53,50, 7,38,19,40	1,49,45,41, 9,30, 3,43	2, 8, 8,51,43	8, 1
16″	29,12,52,51,39,31,17, 8,23,23	1,49,45,39, 1,21, 3,59	2, 8, 8,59,44	8, 1
18″	29,12,54,41,25,10,18,29,27,22	1,49,45,36,53,11,56,14	2, 8, 9, 7,45	8, 1
20″	29,12,56,31,10,47,11,41,23,36	1,49,45,34,45, 2,40,28	2, 8, 9,15,46	8, 1
22″	29,12,58,20,56,21,56,44, 4, 4	1,49,45,32,36,53,16,41	2, 8, 9,23,47	8, 1
24″	29,13, 0,10,41,54,33,37,20,45	1,49,45,30,28,43,44,53	2, 8, 9,31,48	8, 1
26″	29,13, 2, 0,27,25, 2,21, 5,38	1,49,45,28,20,34, 5, 4	2, 8, 9,39,49	8, 1
28″	29,13, 3,50,12,53,22,55,10,42	1,49,45,26,12,24,17,14	2, 8, 9,47,50	8, 1
30″	29,13, 5,39,58,19,35,19,27,56	1,49,45,24, 4,14,21,23	2, 8, 9,55,51	8, 1
32″	29,13, 7,29,43,43,39,33,49,19	1,49,45,21,56, 4,17,31	2, 8,10, 3,52	8, 1
34″	29,13, 9,19,29, 5,35,38, 6,50	1,49,45,19,47,54, 5,38	2, 8,10,11,53	8, 1
36″	29,13,11, 9,14,25,23,32,12,28	1,49,45,17,39,43,45,44	2, 8,10,19,54	8, 1
38″	29,13,12,58,59,43, 3,15,58,12	1,49,45,15,31,33,17,49	2, 8,10,27,55	8, 1
40″	29,13,14,48,44,58,34,49,16, 1	1,49,45,13,23,22,41,53	2, 8,10,35,56	8, 1
42″	29,13,16,38,30,11,58,11,57,54	1,49,45,11,15,11,57,56	2, 8,10,43,57	8, 1
44″	29,13,18,28,15,23,13,23,55,50	1,49,45, 9, 7, 1, 5,58	2, 8,10,51,58	8, 1
46″	29,13,20,18, 0,32,20,25, 1,48	1,49,45, 6,58,50, 5,59	2, 8,10,59,59	8, 1
48″	29,13,22, 7,45,39,19,15, 7,47	1,49,45, 4,50,38,57,59	2, 8,11, 8, 0	8, 1
50″	29,13,23,57,30,44, 9,54, 5,46	1,49,45, 2,42,27,41,58	2, 8,11,16, 1	8, 1
52″	29,13,25,47,15,46,52,21,47,44	1,49,45, 0,34,16,17,56	2, 8,11,24, 2	8, 1
54″	29,13,27,37, 0,47,26,38, 5,40	1,49,44,58,26, 4,45,53	2, 8,11,32, 3	8, 1
56″	29,13,29,26,45,45,52,42,51,33	1,49,44,56,17,53, 5,49	2, 8,11,40, 4	8, 1
58″	29,13,31,16,30,42,10,35,57,22	1,49,44,54, 9,41,17,44	2, 8,11,48, 5	
60″	29,13,33, 6,15,36,20,17,15, 6			
exact	29,13,33, 6,15,36,20,16,42, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29° 9′ 0″	29,13,33, 6,15,36,20,16,42, 8			
		1,49,44,52, 1,29,18,13		
2″	29,13,34,56, 0,28,21,46, 0,21		2, 8,12, 4,21	
		1,49,44,49,53,17,13,52		8, 1
4″	29,13,36,45,45,18,15, 3,14,13		2, 8,12,12,22	
		1,49,44,47,45, 5, 1,30		8, 1
6″	29,13,38,35,30, 6, 0, 8,15,43		2, 8,12,20,23	
		1,49,44,45,36,52,41, 7		8, 1
8″	29,13,40,25,14,51,37, 0,56,50		2, 8,12,28,24	
		1,49,44,43,28,40,12,43		8, 1
10″	29,13,42,14,59,35, 5,41, 9,33		2, 8,12,36,25	
		1,49,44,41,20,27,36,18		8, 1
12″	29,13,44, 4,44,16,26, 8,45,51		2, 8,12,44,26	
		1,49,44,39,12,14,51,52		8, 1
14″	29,13,45,54,28,55,38,23,37,43		2, 8,12,52,27	
		1,49,44,37, 4, 1,59,25		8, 1
16″	29,13,47,44,13,32,42,25,37, 8		2, 8,13, 0,28	
		1,49,44,34,55,48,58,57		8, 1
18″	29,13,49,33,58, 7,38,14,36, 5		2, 8,13, 8,29	
		1,49,44,32,47,35,50,28		8, 1
20″	29,13,51,23,42,40,25,50,26,33		2, 8,13,16,30	
		1,49,44,30,39,22,33,58		8, 1
22″	29,13,53,13,27,11, 5,13, 0,31		2, 8,13,24,31	
		1,49,44,28,31, 9, 9,27		8, 1
24″	29,13,55, 3,11,39,36,22, 9,58		2, 8,13,32,32	
		1,49,44,26,22,55,36,55		8, 1
26″	29,13,56,52,56, 5,59,17,46,53		2, 8,13,40,33	
		1,49,44,24,14,41,56,22		8, 1
28″	29,13,58,42,40,30,13,59,43,15		2, 8,13,48,34	
		1,49,44,22, 6,28, 7,48		8, 1
30″	29,14, 0,32,24,52,20,27,51, 3		2, 8,13,56,35	
		1,49,44,19,58,14,11,13		8, 1
32″	29,14, 2,22, 9,12,18,42, 2,16		2, 8,14, 4,36	
		1,49,44,17,50, 0, 6,37		8, 1
34″	29,14, 4,11,53,30, 8,42, 8,53		2, 8,14,12,37	
		1,49,44,15,41,45,54, 0		8, 1
36″	29,14, 6, 1,37,45,50,28, 2,53		2, 8,14,20,38	
		1,49,44,13,33,31,33,22		8, 1
38″	29,14, 7,51,21,59,23,59,36,15		2, 8,14,28,39	
		1,49,44,11,25,17, 4,43		8, 1
40″	29,14, 9,41, 6,10,49,16,40,58		2, 8,14,36,40	
		1,49,44, 9,17, 2,28, 3		8, 1
42″	29,14,11,30,50,20, 6,19, 9, 1		2, 8,14,44,41	
		1,49,44, 7, 8,47,43,22		8, 1
44″	29,14,13,20,34,27,15, 6,52,23		2, 8,14,52,42	
		1,49,44, 5, 0,32,50,40		8, 1
46″	29,14,15,10,18,32,15,39,43, 3		2, 8,15, 0,43	
		1,49,44, 2,52,17,49,57		8, 1
48″	29,14,17, 0, 2,35, 7,57,33, 0		2, 8,15, 8,44	
		1,49,44, 0,44, 2,41,13		8, 1
50″	29,14,18,49,46,35,52, 0,14,13		2, 8,15,16,45	
		1,49,43,58,35,47,24,28		8, 1
52″	29,14,20,39,30,34,27,47,38,41		2, 8,15,24,46	
		1,49,43,56,27,31,59,42		8, 1
54″	29,14,22,29,14,30,55,19,38,23		2, 8,15,32,47	
		1,49,43,54,19,16,26,55		8, 1
56″	29,14,24,18,58,25,14,36, 5,18		2, 8,15,40,48	
		1,49,43,52,11, 0,46, 7		8, 1
58″	29,14,26, 8,42,17,25,36,51,25		2, 8,15,48,49	
		1,49,43,50, 2,44,57,18		
60″	29,14,27,58,26, 7,28,21,48,43			
exact	29,14,27,58,26, 7,28,21,25,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°10′ 0″	29,14,27,58,26, 7,28,21,25,38			
		1,49,43,47,54,28,57,56		
2″	29,14,29,48, 9,55,22,50,23,34		2, 8,16, 5, 2	
		1,49,43,45,46,12,52,54		8, 1
4″	29,14,31,37,53,41, 9, 3,16,28		2, 8,16,13, 3	
		1,49,43,43,37,56,39,51		8, 1
6″	29,14,33,27,37,24,46,59,56,19		2, 8,16,21, 4	
		1,49,43,41,29,40,18,47		8, 1
8″	29,14,35,17,21, 6,16,40,15, 6		2, 8,16,29, 5	
		1,49,43,39,21,23,49,42		8, 1
10″	29,14,37, 7, 4,45,38, 4, 4,48		2, 8,16,37, 6	
		1,49,43,37,13, 7,12,36		8, 1
12″	29,14,38,56,48,22,51,11,17,24		2, 8,16,45, 7	
		1,49,43,35, 4,50,27,29		8, 1
14″	29,14,40,46,31,57,56, 1,44,53		2, 8,16,53, 8	
		1,49,43,32,56,33,34,21		8, 1
16″	29,14,42,36,15,30,52,35,19,14		2, 8,17, 1, 9	
		1,49,43,30,48,16,33,12		8, 1
18″	29,14,44,25,59, 1,40,51,52,26		2, 8,17, 9,10	
		1,49,43,28,39,59,24, 2		8, 1
20″	29,14,46,15,42,30,20,51,16,28		2, 8,17,17,11	
		1,49,43,26,31,42, 6,51		8, 1
22″	29,14,48, 5,25,56,52,33,23,19		2, 8,17,25,12	
		1,49,43,24,23,24,41,39		8, 1
24″	29,14,49,55, 9,21,15,58, 4,58		2, 8,17,33,13	
		1,49,43,22,15, 7, 8,26		8, 1
26″	29,14,51,44,52,43,31, 5,13,24		2, 8,17,41,14	
		1,49,43,20, 6,49,27,12		8, 1
28″	29,14,53,34,36, 3,37,54,40,36		2, 8,17,49,15	
		1,49,43,17,58,31,37,57		8, 1
30″	29,14,55,24,19,21,36,26,18,33		2, 8,17,57,16	
		1,49,43,15,50,13,40,41		8, 1
32″	29,14,57,14, 2,37,26,39,59,14		2, 8,18, 5,17	
		1,49,43,13,41,55,35,24		8, 1
34″	29,14,59, 3,45,51, 8,35,34,38		2, 8,18,13,18	
		1,49,43,11,33,37,22, 6		8, 1
36″	29,15, 0,53,29, 2,42,12,56,44		2, 8,18,21,19	
		1,49,43, 9,25,19, 0,47		8, 1
38″	29,15, 2,43,12,12, 7,31,57,31		2, 8,18,29,20	
		1,49,43, 7,17, 0,31,27		8, 1
40″	29,15, 4,32,55,19,24,32,28,58		2, 8,18,37,21	
		1,49,43, 5, 8,41,54, 6		8, 1
42″	29,15, 6,22,38,24,33,14,23, 4		2, 8,18,45,22	
		1,49,43, 3, 0,23, 8,44		8, 1
44″	29,15, 8,12,21,27,33,37,31,48		2, 8,18,53,23	
		1,49,43, 0,52, 4,15,21		8, 1
46″	29,15,10, 2, 4,28,25,41,47, 9		2, 8,19, 1,24	
		1,49,42,58,43,45,13,57		8, 1
48″	29,15,11,51,47,27, 9,27, 1, 6		2, 8,19, 9,25	
		1,49,42,56,35,26, 4,32		8, 1
50″	29,15,13,41,30,23,44,53, 5,38		2, 8,19,17,26	
		1,49,42,54,27, 6,47, 6		8, 1
52″	29,15,15,31,13,18,11,59,52,44		2, 8,19,25,27	
		1,49,42,52,18,47,21,39		8, 1
54″	29,15,17,20,56,10,30,47,14,23		2, 8,19,33,28	
		1,49,42,50,10,27,48,11		8, 1
56″	29,15,19,10,39, 0,41,15, 2,34		2, 8,19,41,29	
		1,49,42,48, 2, 8, 6,42		8, 1
58″	29,15,21, 0,21,48,43,23, 9,16		2, 8,19,49,30	
		1,49,42,45,53,48,17,12		
60″	29,15,22,50, 4,34,37,11,26,28			
exact	29,15,22,50, 4,34,37,11, 8,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°11′ 0″	29,15,22,50, 4,34,37,11, 8,35			
		1,49,42,43,45,28,17,42		
2″	29,15,24,39,47,18,22,39,26,17		2, 8,20, 5,40	
		1,49,42,41,37, 8,12, 2		8, 1
4″	29,15,26,29,29,59,59,47,38,19		2, 8,20,13,41	
		1,49,42,39,28,47,58,21		8, 1
6″	29,15,28,19,12,39,28,35,36,40		2, 8,20,21,42	
		1,49,42,37,20,27,36,39		8, 1
8″	29,15,30, 8,55,16,49, 3,13,19		2, 8,20,29,43	
		1,49,42,35,12, 7, 6,56		8, 1
10″	29,15,31,58,37,52, 1,10,20,15		2, 8,20,37,44	
		1,49,42,33, 3,46,29,12		8, 1
12″	29,15,33,48,20,25, 4,56,49,27		2, 8,20,45,45	
		1,49,42,30,55,25,43,27		8, 1
14″	29,15,35,38, 2,56, 0,22,32,54		2, 8,20,53,46	
		1,49,42,28,47, 4,49,41		8, 1
16″	29,15,37,27,45,24,47,27,22,35		2, 8,21, 1,47	
		1,49,42,26,38,43,47,54		8, 1
18″	29,15,39,17,27,51,26,11,10,29		2, 8,21, 9,48	
		1,49,42,24,30,22,38, 6		8, 1
20″	29,15,41, 7,10,15,56,33,48,35		2, 8,21,17,49	
		1,49,42,22,22, 1,20,17		8, 1
22″	29,15,42,56,52,38,18,35, 8,52		2, 8,21,25,50	
		1,49,42,20,13,39,54,27		8, 1
24″	29,15,44,46,34,58,32,15, 3,19		2, 8,21,33,51	
		1,49,42,18, 5,18,20,36		8, 1
26″	29,15,46,36,17,16,37,33,23,55		2, 8,21,41,52	
		1,49,42,15,56,56,38,44		8, 1
28″	29,15,48,25,59,32,34,30, 2,39		2, 8,21,49,53	
		1,49,42,13,48,34,48,51		8, 1
30″	29,15,50,15,41,46,23, 4,51,30		2, 8,21,57,54	
		1,49,42,11,40,12,50,57		8, 1
32″	29,15,52, 5,23,58, 3,17,42,27		2, 8,22, 5,55	
		1,49,42, 9,31,50,45, 2		8, 1
34″	29,15,53,55, 6, 7,35, 8,27,29		2, 8,22,13,56	
		1,49,42, 7,23,28,31, 6		8, 1
36″	29,15,55,44,48,14,58,36,58,35		2, 8,22,21,57	
		1,49,42, 5,15, 6, 9, 9		8, 1
38″	29,15,57,34,30,20,13,43, 7,44		2, 8,22,29,58	
		1,49,42, 3, 6,43,39,11		8, 1
40″	29,15,59,24,12,23,20,26,46,55		2, 8,22,37,59	
		1,49,42, 0,58,21, 1,12		8, 1
42″	29,16, 1,13,54,24,18,47,48, 7		2, 8,22,46, 0	
		1,49,41,58,49,58,15,12		8, 1
44″	29,16, 3, 3,36,23, 8,46, 3,19		2, 8,22,54, 1	
		1,49,41,56,41,35,21,11		8, 1
46″	29,16, 4,53,18,19,50,21,24,30		2, 8,23, 2, 2	
		1,49,41,54,33,12,19, 9		8, 1
48″	29,16, 6,43, 0,14,23,33,43,39		2, 8,23,10, 3	
		1,49,41,52,24,49, 9, 6		8, 1
50″	29,16, 8,32,42, 6,48,22,52,45		2, 8,23,18, 4	
		1,49,41,50,16,25,51, 2		8, 1
52″	29,16,10,22,23,57, 4,48,43,47		2, 8,23,26, 5	
		1,49,41,48, 8, 2,24,57		8, 1
54″	29,16,12,12, 5,45,12,51, 8,44		2, 8,23,34, 6	
		1,49,41,45,59,38,50,51		8, 1
56″	29,16,14, 1,47,31,12,29,59,35		2, 8,23,42, 7	
		1,49,41,43,51,15, 8,44		8, 1
58″	29,16,15,51,29,15, 3,45, 8,19		2, 8,23,50, 8	
		1,49,41,41,42,51,18,36		
60″	29,16,17,41,10,56,46,36,26,55			
exact	29,16,17,41,10,56,46,36, 9,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°12′ 0″	29,16,17,41,10,56,46,36, 9,41			
		1,49,41,39,34,27,18,43		
2″	29,16,19,30,52,36,21, 3,28,24		2, 8,24, 6,17	
		1,49,41,37,26, 3,12,26		8, 1
4″	29,16,21,20,34,13,47, 6,40,50		2, 8,24,14,18	
		1,49,41,35,17,38,58, 8		8, 1
6″	29,16,23,10,15,49, 4,45,38,58		2, 8,24,22,19	
		1,49,41,33, 9,14,35,49		8, 1
8″	29,16,24,59,57,22,14, 0,14,47		2, 8,24,30,20	
		1,49,41,31, 0,50, 5,29		8, 1
10″	29,16,26,49,38,53,14,50,20,16		2, 8,24,38,21	
		1,49,41,28,52,25,27, 8		8, 1
12″	29,16,28,39,20,22, 7,15,47,24		2, 8,24,46,22	
		1,49,41,26,44, 0,40,46		8, 1
14″	29,16,30,29, 1,48,51,16,28,10		2, 8,24,54,23	
		1,49,41,24,35,35,46,23		8, 1
16″	29,16,32,18,43,13,26,52,14,33		2, 8,25, 2,24	
		1,49,41,22,27,10,43,59		8, 1
18″	29,16,34, 8,24,35,54, 2,58,32		2, 8,25,10,25	
		1,49,41,20,18,45,33,34		8, 1
20″	29,16,35,58, 5,56,12,48,32, 6		2, 8,25,18,26	
		1,49,41,18,10,20,15, 8		8, 1
22″	29,16,37,47,47,14,23, 8,47,14		2, 8,25,26,27	
		1,49,41,16, 1,54,48,41		8, 1
24″	29,16,39,37,28,30,25, 3,35,55		2, 8,25,34,28	
		1,49,41,13,53,29,14,13		8, 1
26″	29,16,41,27, 9,44,18,32,50, 8		2, 8,25,42,29	
		1,49,41,11,45, 3,31,44		8, 1
28″	29,16,43,16,50,56, 3,36,21,52		2, 8,25,50,30	
		1,49,41, 9,36,37,41,14		8, 1
30″	29,16,45, 6,32, 5,40,14, 3, 6		2, 8,25,58,31	
		1,49,41, 7,28,11,42,43		8, 1
32″	29,16,46,56,13,13, 8,25,45,49		2, 8,26, 6,32	
		1,49,41, 5,19,45,36,11		8, 1
34″	29,16,48,45,54,18,28,11,22, 0		2, 8,26,14,33	
		1,49,41, 3,11,19,21,38		8, 1
36″	29,16,50,35,35,21,39,30,43,38		2, 8,26,22,34	
		1,49,41, 1, 2,52,59, 4		8, 1
38″	29,16,52,25,16,22,42,23,42,42		2, 8,26,30,35	
		1,49,40,58,54,26,28,29		8, 1
40″	29,16,54,14,57,21,36,50,11,11		2, 8,26,38,36	
		1,49,40,56,45,59,49,53		8, 1
42″	29,16,56, 4,38,18,22,50, 1, 4		2, 8,26,46,37	
		1,49,40,54,37,33, 3,16		8, 1
44″	29,16,57,54,19,13, 0,23, 4,20		2, 8,26,54,38	
		1,49,40,52,29, 6, 8,38		8, 1
46″	29,16,59,44, 0, 5,29,29,12,58		2, 8,27, 2,39	
		1,49,40,50,20,39, 5,59		8, 1
48″	29,17, 1,33,40,55,50, 8,18,57		2, 8,27,10,40	
		1,49,40,48,12,11,55,19		8, 1
50″	29,17, 3,23,21,44, 2,20,14,16		2, 8,27,18,41	
		1,49,40,46, 3,44,36,38		8, 1
52″	29,17, 5,13, 2,30, 6, 4,50,54		2, 8,27,26,42	
		1,49,40,43,55,17, 9,56		8, 1
54″	29,17, 7, 2,43,14, 1,22, 0,50		2, 8,27,34,43	
		1,49,40,41,46,49,35,13		8, 1
56″	29,17, 8,52,23,55,48,11,36, 3		2, 8,27,42,44	
		1,49,40,39,38,21,52,29		8, 1
58″	29,17,10,42, 4,35,26,33,28,32		2, 8,27,50,45	
		1,49,40,37,29,54, 1,44		
60″	29,17,12,31,45,12,56,27,30,16			
exact	29,17,12,31,45,12,56,27,22,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°13′ 0″	29,17,12,31,45,12,56,27,22,50			
		1,49,40,35,21,26, 2, 7		
2″	29,17,14,21,25,48,17,53,24,57		2, 8,28, 6,51	
		1,49,40,33,12,57,55,16		8, 1
4″	29,17,16,11, 6,21,30,51,20,13		2, 8,28,14,52	
		1,49,40,31, 4,29,40,24		8, 1
6″	29,17,18, 0,46,52,35,21, 0,37		2, 8,28,22,53	
		1,49,40,28,56, 1,17,31		8, 1
8″	29,17,19,50,27,21,31,22,18, 8		2, 8,28,30,54	
		1,49,40,26,47,32,46,37		8, 1
10″	29,17,21,40, 7,48,18,55, 4,45		2, 8,28,38,55	
		1,49,40,24,39, 4, 7,42		8, 1
12″	29,17,23,29,48,12,57,59,12,27		2, 8,28,46,56	
		1,49,40,22,30,35,20,46		8, 1
14″	29,17,25,19,28,35,28,34,33,13		2, 8,28,54,57	
		1,49,40,20,22, 6,25,49		8, 1
16″	29,17,27, 9, 8,55,50,40,59, 2		2, 8,29, 2,58	
		1,49,40,18,13,37,22,51		8, 1
18″	29,17,28,58,49,14, 4,18,21,53		2, 8,29,10,59	
		1,49,40,16, 5, 8,11,52		8, 1
20″	29,17,30,48,29,30, 9,26,33,45		2, 8,29,19, 0	
		1,49,40,13,56,38,52,52		8, 1
22″	29,17,32,38, 9,44, 6, 5,26,37		2, 8,29,27, 1	
		1,49,40,11,48, 9,25,51		8, 1
24″	29,17,34,27,49,55,54,14,52,28		2, 8,29,35, 2	
		1,49,40, 9,39,39,50,49		8, 1
26″	29,17,36,17,30, 5,33,54,43,17		2, 8,29,43, 3	
		1,49,40, 7,31,10, 7,46		8, 1
28″	29,17,38, 7,10,13, 5, 4,51, 3		2, 8,29,51, 4	
		1,49,40, 5,22,40,16,42		8, 1
30″	29,17,39,56,50,18,27,45, 7,45		2, 8,29,59, 5	
		1,49,40, 3,14,10,17,37		8, 1
32″	29,17,41,46,30,21,41,55,25,22		2, 8,30, 7, 6	
		1,49,40, 1, 5,40,10,31		8, 1
34″	29,17,43,36,10,22,47,35,35,53		2, 8,30,15, 7	
		1,49,39,58,57, 9,55,24		8, 1
36″	29,17,45,25,50,21,44,45,31,17		2, 8,30,23, 8	
		1,49,39,56,48,39,32,16		8, 1
38″	29,17,47,15,30,18,33,25, 3,33		2, 8,30,31, 9	
		1,49,39,54,40, 9, 1, 7		8, 1
40″	29,17,49, 5,10,13,13,34, 4,40		2, 8,30,39,10	
		1,49,39,52,31,38,21,57		8, 1
42″	29,17,50,54,50, 5,45,12,26,37		2, 8,30,47,11	
		1,49,39,50,23, 7,34,46		8, 1
44″	29,17,52,44,29,56, 8,20, 1,23		2, 8,30,55,12	
		1,49,39,48,14,36,39,34		8, 1
46″	29,17,54,34, 9,44,22,56,40,57		2, 8,31, 3,13	
		1,49,39,46, 6, 5,36,21		8, 1
48″	29,17,56,23,49,30,29, 2,17,18		2, 8,31,11,14	
		1,49,39,43,57,34,25, 7		8, 1
50″	29,17,58,13,29,14,26,36,42,25		2, 8,31,19,15	
		1,49,39,41,49, 3, 5,52		8, 1
52″	29,18, 0, 3, 8,56,15,39,48,17		2, 8,31,27,16	
		1,49,39,39,40,31,38,36		8, 1
54″	29,18, 1,52,48,35,56,11,26,53		2, 8,31,35,17	
		1,49,39,37,32, 0, 3,19		8, 1
56″	29,18, 3,42,28,13,28,11,30,12		2, 8,31,43,18	
		1,49,39,35,23,28,20, 1		8, 1
58″	29,18, 5,32, 7,48,51,39,50,13		2, 8,31,51,19	
		1,49,39,33,14,56,28,42		
60″	29,18, 7,21,47,22, 6,36,18,55			
exact	29,18, 7,21,47,22, 6,36,17, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°14′ 0″	29,18, 7,21,47,22, 6,36,17, 8			
		1,49,39,31, 6,24,29, 6		
2″	29,18, 9,11,26,53,13, 0,46,14		2, 8,32, 7,22	
		1,49,39,28,57,52,21,44		8, 1
4″	29,18,11, 1, 6,22,10,53, 7,58		2, 8,32,15,23	
		1,49,39,26,49,20, 6,21		8, 1
6″	29,18,12,50,45,49, 0,13,14,19		2, 8,32,23,24	
		1,49,39,24,40,47,42,57		8, 1
8″	29,18,14,40,25,13,41, 0,57,16		2, 8,32,31,25	
		1,49,39,22,32,15,11,32		8, 1
10″	29,18,16,30, 4,36,13,16, 8,48		2, 8,32,39,26	
		1,49,39,20,23,42,32, 6		8, 1
12″	29,18,18,19,43,56,36,58,40,54		2, 8,32,47,27	
		1,49,39,18,15, 9,44,39		8, 1
14″	29,18,20, 9,23,14,52, 8,25,33		2, 8,32,55,28	
		1,49,39,16, 6,36,49,11		8, 1
16″	29,18,21,59, 2,30,58,45,14,44		2, 8,33, 3,29	
		1,49,39,13,58, 3,45,42		8, 1
18″	29,18,23,48,41,44,56,49, 0,26		2, 8,33,11,30	
		1,49,39,11,49,30,34,12		8, 1
20″	29,18,25,38,20,56,46,19,34,38		2, 8,33,19,31	
		1,49,39, 9,40,57,14,41		8, 1
22″	29,18,27,28, 0, 6,27,16,49,19		2, 8,33,27,32	
		1,49,39, 7,32,23,47, 9		8, 1
24″	29,18,29,17,39,13,59,40,36,28		2, 8,33,35,33	
		1,49,39, 5,23,50,11,36		8, 1
26″	29,18,31, 7,18,19,23,30,48, 4		2, 8,33,43,34	
		1,49,39, 3,15,16,28, 2		8, 1
28″	29,18,32,56,57,22,38,47,16, 6		2, 8,33,51,35	
		1,49,39, 1, 6,42,36,27		8, 1
30″	29,18,34,46,36,23,45,29,52,33		2, 8,33,59,36	
		1,49,38,58,58, 8,36,51		8, 1
32″	29,18,36,36,15,22,43,38,29,24		2, 8,34, 7,37	
		1,49,38,56,49,34,29,14		8, 1
34″	29,18,38,25,54,19,33,12,58,38		2, 8,34,15,38	
		1,49,38,54,41, 0,13,36		8, 1
36″	29,18,40,15,33,14,14,13,12,14		2, 8,34,23,39	
		1,49,38,52,32,25,49,57		8, 1
38″	29,18,42, 5,12, 6,46,39, 2,11		2, 8,34,31,40	
		1,49,38,50,23,51,18,17		8, 1
40″	29,18,43,54,50,57,10,30,20,28		2, 8,34,39,41	
		1,49,38,48,15,16,38,36		8, 1
42″	29,18,45,44,29,45,25,46,59, 4		2, 8,34,47,42	
		1,49,38,46, 6,41,50,54		8, 1
44″	29,18,47,34, 8,31,32,28,49,58		2, 8,34,55,43	
		1,49,38,43,58, 6,55,11		8, 1
46″	29,18,49,23,47,15,30,35,45, 9		2, 8,35, 3,44	
		1,49,38,41,49,31,51,27		8, 1
48″	29,18,51,13,25,57,20, 7,36,36		2, 8,35,11,45	
		1,49,38,39,40,56,39,42		8, 1
50″	29,18,53, 3, 4,37, 1, 4,16,18		2, 8,35,19,46	
		1,49,38,37,32,21,19,56		8, 1
52″	29,18,54,52,43,14,33,25,36,14		2, 8,35,27,47	
		1,49,38,35,23,45,52, 9		8, 1
54″	29,18,56,42,21,49,57,11,28,23		2, 8,35,35,48	
		1,49,38,33,15,10,16,21		8, 1
56″	29,18,58,32, 0,23,12,21,44,44		2, 8,35,43,49	
		1,49,38,31, 6,34,32,32		8, 1
58″	29,19, 0,21,38,54,18,56,17,16		2, 8,35,51,50	
		1,49,38,28,57,58,40,42		
60″	29,19, 2,11,17,23,16,54,57,58			
exact	29,19, 2,11,17,23,16,54,56,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°15′ 0″	29,19, 2,11,17,23,16,54,56,53			
		1,49,38,26,49,22,40,50		
2″	29,19, 4, 0,55,50, 6,17,37,43		2, 8,36, 7,51	
		1,49,38,24,40,46,32,59		8, 1
4″	29,19, 5,50,34,14,47, 4,10,42		2, 8,36,15,52	
		1,49,38,22,32,10,17, 7		8, 1
6″	29,19, 7,40,12,37,19,14,27,49		2, 8,36,23,53	
		1,49,38,20,23,33,53,14		8, 1
8″	29,19, 9,29,50,57,42,48,21, 3		2, 8,36,31,54	
		1,49,38,18,14,57,21,20		8, 1
10″	29,19,11,19,29,15,57,45,42,23		2, 8,36,39,55	
		1,49,38,16, 6,20,41,25		8, 1
12″	29,19,13, 9, 7,32, 4, 6,23,48		2, 8,36,47,56	
		1,49,38,13,57,43,53,29		8, 1
14″	29,19,14,58,45,46, 1,50,17,17		2, 8,36,55,57	
		1,49,38,11,49, 6,57,32		8, 1
16″	29,19,16,48,23,57,50,57,14,49		2, 8,37, 3,58	
		1,49,38, 9,40,29,53,34		8, 1
18″	29,19,18,38, 2, 7,31,27, 8,23		2, 8,37,11,59	
		1,49,38, 7,31,52,41,35		8, 1
20″	29,19,20,27,40,15, 3,19,49,58		2, 8,37,20, 0	
		1,49,38, 5,23,15,21,35		8, 1
22″	29,19,22,17,18,20,26,35,11,33		2, 8,37,28, 1	
		1,49,38, 3,14,37,53,34		8, 1
24″	29,19,24, 6,56,23,41,13, 5, 7		2, 8,37,36, 2	
		1,49,38, 1, 6, 0,17,32		8, 1
26″	29,19,25,56,34,24,47,13,22,39		2, 8,37,44, 3	
		1,49,37,58,57,22,33,29		8, 1
28″	29,19,27,46,12,23,44,35,56, 8		2, 8,37,52, 4	
		1,49,37,56,48,44,41,25		8, 1
30″	29,19,29,35,50,20,33,20,37,33		2, 8,38, 0, 5	
		1,49,37,54,40, 6,41,20		8, 1
32″	29,19,31,25,28,15,13,27,18,53		2, 8,38, 8, 6	
		1,49,37,52,31,28,33,14		8, 1
34″	29,19,33,15, 6, 7,44,55,52, 7		2, 8,38,16, 7	
		1,49,37,50,22,50,17, 7		8, 1
36″	29,19,35, 4,43,58, 7,46, 9,14		2, 8,38,24, 8	
		1,49,37,48,14,11,52,59		8, 1
38″	29,19,36,54,21,46,21,58, 2,13		2, 8,38,32, 9	
		1,49,37,46, 5,33,20,50		8, 1
40″	29,19,38,43,59,32,27,31,23, 3		2, 8,38,40,10	
		1,49,37,43,56,54,40,40		8, 1
42″	29,19,40,33,37,16,24,26, 3,43		2, 8,38,48,11	
		1,49,37,41,48,15,52,29		8, 1
44″	29,19,42,23,14,58,12,41,56,12		2, 8,38,56,12	
		1,49,37,39,39,36,56,17		8, 1
46″	29,19,44,12,52,37,52,18,52,29		2, 8,39, 4,13	
		1,49,37,37,30,57,52, 4		8, 1
48″	29,19,46, 2,30,15,23,16,44,33		2, 8,39,12,14	
		1,49,37,35,22,18,39,50		8, 1
50″	29,19,47,52, 7,50,45,35,24,23		2, 8,39,20,15	
		1,49,37,33,13,39,19,35		8, 1
52″	29,19,49,41,45,23,59,14,43,58		2, 8,39,28,16	
		1,49,37,31, 4,59,51,19		8, 1
54″	29,19,51,31,22,55, 4,14,35,17		2, 8,39,36,17	
		1,49,37,28,56,20,15, 2		8, 1
56″	29,19,53,21, 0,24, 0,34,50,19		2, 8,39,44,18	
		1,49,37,26,47,40,30,44		8, 1
58″	29,19,55,10,37,50,48,15,21, 3		2, 8,39,52,19	
		1,49,37,24,39, 0,38,25		
60″	29,19,57, 0,15,15,27,15,59,28			
exact	29,19,57, 0,15,15,27,16, 1,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°16′ 0″	29,19,57, 0,15,15,27,16, 1,40			
		1,49,37,22,30,20,38,30		
2″	29,19,58,49,52,37,57,36,40,10		2, 8,40, 8,18	
		1,49,37,20,21,40,30,12		8, 1
4″	29,20, 0,39,29,58,19,17,10,22		2, 8,40,16,19	
		1,49,37,18,13, 0,13,53		8, 1
6″	29,20, 2,29, 7,16,32,17,24,15		2, 8,40,24,20	
		1,49,37,16, 4,19,49,33		8, 1
8″	29,20, 4,18,44,32,36,37,13,48		2, 8,40,32,21	
		1,49,37,13,55,39,17,12		8, 1
10″	29,20, 6, 8,21,46,32,16,31, 0		2, 8,40,40,22	
		1,49,37,11,46,58,36,50		8, 1
12″	29,20, 7,57,58,58,19,15, 7,50		2, 8,40,48,23	
		1,49,37, 9,38,17,48,27		8, 1
14″	29,20, 9,47,36, 7,57,32,56,17		2, 8,40,56,24	
		1,49,37, 7,29,36,52, 3		8, 1
16″	29,20,11,37,13,15,27, 9,48,20		2, 8,41, 4,25	
		1,49,37, 5,20,55,47,38		8, 1
18″	29,20,13,26,50,20,48, 5,35,58		2, 8,41,12,26	
		1,49,37, 3,12,14,35,12		8, 1
20″	29,20,15,16,27,24, 0,20,11,10		2, 8,41,20,27	
		1,49,37, 1, 3,33,14,45		8, 1
22″	29,20,17, 6, 4,25, 3,53,25,55		2, 8,41,28,28	
		1,49,36,58,54,51,46,17		8, 1
24″	29,20,18,55,41,23,58,45,12,12		2, 8,41,36,29	
		1,49,36,56,46,10, 9,48		8, 1
26″	29,20,20,45,18,20,44,55,22, 0		2, 8,41,44,30	
		1,49,36,54,37,28,25,18		8, 1
28″	29,20,22,34,55,15,22,23,47,18		2, 8,41,52,31	
		1,49,36,52,28,46,32,47		8, 1
30″	29,20,24,24,32, 7,51,10,20, 5		2, 8,42, 0,32	
		1,49,36,50,20, 4,32,15		8, 1
32″	29,20,26,14, 8,58,11,14,52,20		2, 8,42, 8,33	
		1,49,36,48,11,22,23,42		8, 1
34″	29,20,28, 3,45,46,22,37,16, 2		2, 8,42,16,34	
		1,49,36,46, 2,40, 7, 8		8, 1
36″	29,20,29,53,22,32,25,17,23,10		2, 8,42,24,35	
		1,49,36,43,53,57,42,33		8, 1
38″	29,20,31,42,59,16,19,15, 5,43		2, 8,42,32,36	
		1,49,36,41,45,15, 9,57		8, 1
40″	29,20,33,32,35,58, 4,30,15,40		2, 8,42,40,37	
		1,49,36,39,36,32,29,20		8, 1
42″	29,20,35,22,12,37,41, 2,45, 0		2, 8,42,48,38	
		1,49,36,37,27,49,40,42		8, 1
44″	29,20,37,11,49,15, 8,52,25,42		2, 8,42,56,39	
		1,49,36,35,19, 6,44, 3		8, 1
46″	29,20,39, 1,25,50,27,59, 9,45		2, 8,43, 4,40	
		1,49,36,33,10,23,39,23		8, 1
48″	29,20,40,51, 2,23,38,22,49, 8		2, 8,43,12,41	
		1,49,36,31, 1,40,26,42		8, 1
50″	29,20,42,40,38,54,40, 3,15,50		2, 8,43,20,42	
		1,49,36,28,52,57, 6, 0		8, 1
52″	29,20,44,30,15,23,33, 0,21,50		2, 8,43,28,43	
		1,49,36,26,44,13,37,17		8, 1
54″	29,20,46,19,51,50,17,13,59, 7		2, 8,43,36,44	
		1,49,36,24,35,30, 0,33		8, 1
56″	29,20,48, 9,28,14,52,43,59,40		2, 8,43,44,45	
		1,49,36,22,26,46,15,48		8, 1
58″	29,20,49,59, 4,37,19,30,15,28		2, 8,43,52,46	
		1,49,36,20,18, 2,23, 2		
60″	29,20,51,48,40,57,37,32,38,30			
exact	29,20,51,48,40,57,37,32,46,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°17′ 0″	29,20,51,48,40,57,37,32,46,16			
		1,49,36,18, 9,18,23,15		
2″	29,20,53,38,17,15,46,51, 9,31		2, 8,44, 8,43	
		1,49,36,16, 0,34,14,32		8, 1
4″	29,20,55,27,53,31,47,25,24, 3		2, 8,44,16,44	
		1,49,36,13,51,49,57,48		8, 1
6″	29,20,57,17,29,45,39,15,21,51		2, 8,44,24,45	
		1,49,36,11,43, 5,33, 3		8, 1
8″	29,20,59, 7, 5,57,22,20,54,54		2, 8,44,32,46	
		1,49,36, 9,34,21, 0,17		8, 1
10″	29,21, 0,56,42, 6,56,41,55,11		2, 8,44,40,47	
		1,49,36, 7,25,36,19,30		8, 1
12″	29,21, 2,46,18,14,22,18,14,41		2, 8,44,48,48	
		1,49,36, 5,16,51,30,42		8, 1
14″	29,21, 4,35,54,19,39, 9,45,23		2, 8,44,56,49	
		1,49,36, 3, 8, 6,33,53		8, 1
16″	29,21, 6,25,30,22,47,16,19,16		2, 8,45, 4,50	
		1,49,36, 0,59,21,29, 3		8, 1
18″	29,21, 8,15, 6,23,46,37,48,19		2, 8,45,12,51	
		1,49,35,58,50,36,16,12		8, 1
20″	29,21,10, 4,42,22,37,14, 4,31		2, 8,45,20,52	
		1,49,35,56,41,50,55,20		8, 1
22″	29,21,11,54,18,19,19, 4,59,51		2, 8,45,28,53	
		1,49,35,54,33, 5,26,27		8, 1
24″	29,21,13,43,54,13,52,10,26,18		2, 8,45,36,54	
		1,49,35,52,24,19,49,33		8, 1
26″	29,21,15,33,30, 6,16,30,15,51		2, 8,45,44,55	
		1,49,35,50,15,34, 4,38		8, 1
28″	29,21,17,23, 5,56,32, 4,20,29		2, 8,45,52,56	
		1,49,35,48, 6,48,11,42		8, 1
30″	29,21,19,12,41,44,38,52,32,11		2, 8,46, 0,57	
		1,49,35,45,58, 2,10,45		8, 1
32″	29,21,21, 2,17,30,36,54,42,56		2, 8,46, 8,58	
		1,49,35,43,49,16, 1,47		8, 1
34″	29,21,22,51,53,14,26,10,44,43		2, 8,46,16,59	
		1,49,35,41,40,29,44,48		8, 1
36″	29,21,24,41,28,56, 6,40,29,31		2, 8,46,25, 0	
		1,49,35,39,31,43,19,48		8, 1
38″	29,21,26,31, 4,35,38,23,49,19		2, 8,46,33, 1	
		1,49,35,37,22,56,46,47		8, 1
40″	29,21,28,20,40,13, 1,20,36, 6		2, 8,46,41, 2	
		1,49,35,35,14,10, 5,45		8, 1
42″	29,21,30,10,15,48,15,30,41,51		2, 8,46,49, 3	
		1,49,35,33, 5,23,16,42		8, 1
44″	29,21,31,59,51,21,20,53,58,33		2, 8,46,57, 4	
		1,49,35,30,56,36,19,38		8, 1
46″	29,21,33,49,26,52,17,30,18,11		2, 8,47, 5, 5	
		1,49,35,28,47,49,14,33		8, 1
48″	29,21,35,39, 2,21, 5,19,32,44		2, 8,47,13, 6	
		1,49,35,26,39, 2, 1,27		8, 1
50″	29,21,37,28,37,47,44,21,34,11		2, 8,47,21, 7	
		1,49,35,24,30,14,40,20		8, 1
52″	29,21,39,18,13,12,14,36,14,31		2, 8,47,29, 8	
		1,49,35,22,21,27,11,12		8, 1
54″	29,21,41, 7,48,34,36, 3,25,43		2, 8,47,37, 9	
		1,49,35,20,12,39,34, 3		8, 1
56″	29,21,42,57,23,54,48,42,59,46		2, 8,47,45,10	
		1,49,35,18, 3,51,48,53		8, 1
58″	29,21,44,46,59,12,52,34,48,39		2, 8,47,53,11	
		1,49,35,15,55, 3,55,42		
60″	29,21,46,36,34,28,47,38,44,21			
exact	29,21,46,36,34,28,47,39, 0,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°18′ 0″	29,21,46,36,34,28,47,39, 0,48			
		1,49,35,13,46,15,56,18		
2″	29,21,48,26, 9,42,33,54,57, 6		2, 8,48, 9, 5	
		1,49,35,11,37,27,47,13		8, 1
4″	29,21,50,15,44,54,11,22,44,19		2, 8,48,17, 6	
		1,49,35, 9,28,39,30, 7		8, 1
6″	29,21,52, 5,20, 3,40, 2,14,26		2, 8,48,25, 7	
		1,49,35, 7,19,51, 5, 0		8, 1
8″	29,21,53,54,55,10,59,53,19,26		2, 8,48,33, 8	
		1,49,35, 5,11, 2,31,52		8, 1
10″	29,21,55,44,30,16,10,55,51,18		2, 8,48,41, 9	
		1,49,35, 3, 2,13,50,43		8, 1
12″	29,21,57,34, 5,19,13, 9,42, 1		2, 8,48,49,10	
		1,49,35, 0,53,25, 1,33		8, 1
14″	29,21,59,23,40,20, 6,34,43,34		2, 8,48,57,11	
		1,49,34,58,44,36, 4,22		8, 1
16″	29,22, 1,13,15,18,51,10,47,56		2, 8,49, 5,12	
		1,49,34,56,35,46,59,10		8, 1
18″	29,22, 3, 2,50,15,26,57,47, 6		2, 8,49,13,13	
		1,49,34,54,26,57,45,57		8, 1
20″	29,22, 4,52,25, 9,53,55,33, 3		2, 8,49,21,14	
		1,49,34,52,18, 8,24,43		8, 1
22″	29,22, 6,42, 0, 2,12, 3,57,46		2, 8,49,29,15	
		1,49,34,50, 9,18,55,28		8, 1
24″	29,22, 8,31,34,52,21,22,53,14		2, 8,49,37,16	
		1,49,34,48, 0,29,18,12		8, 1
26″	29,22,10,21, 9,40,21,52,11,26		2, 8,49,45,17	
		1,49,34,45,51,39,32,55		8, 1
28″	29,22,12,10,44,26,13,31,44,21		2, 8,49,53,18	
		1,49,34,43,42,49,39,37		8, 1
30″	29,22,14, 0,19, 9,56,21,23,58		2, 8,50, 1,19	
		1,49,34,41,33,59,38,18		8, 1
32″	29,22,15,49,53,51,30,21, 2,16		2, 8,50, 9,20	
		1,49,34,39,25, 9,28,58		8, 1
34″	29,22,17,39,28,30,55,30,31,14		2, 8,50,17,21	
		1,49,34,37,16,19,11,37		8, 1
36″	29,22,19,29, 3, 8,11,49,42,51		2, 8,50,25,22	
		1,49,34,35, 7,28,46,15		8, 1
38″	29,22,21,18,37,43,19,18,29, 6		2, 8,50,33,23	
		1,49,34,32,58,38,12,52		8, 1
40″	29,22,23, 8,12,16,17,56,41,58		2, 8,50,41,24	
		1,49,34,30,49,47,31,28		8, 1
42″	29,22,24,57,46,47, 7,44,13,26		2, 8,50,49,25	
		1,49,34,28,40,56,42, 3		8, 1
44″	29,22,26,47,21,15,48,40,55,29		2, 8,50,57,26	
		1,49,34,26,32, 5,44,37		8, 1
46″	29,22,28,36,55,42,20,46,40, 6		2, 8,51, 5,27	
		1,49,34,24,23,14,39,10		8, 1
48″	29,22,30,26,30, 6,44, 1,19,16		2, 8,51,13,28	
		1,49,34,22,14,23,25,42		8, 1
50″	29,22,32,16, 4,28,58,24,44,58		2, 8,51,21,29	
		1,49,34,20, 5,32, 4,13		8, 1
52″	29,22,34, 5,38,49, 3,56,49,11		2, 8,51,29,30	
		1,49,34,17,56,40,34,43		8, 1
54″	29,22,35,55,13, 7, 0,37,23,54		2, 8,51,37,31	
		1,49,34,15,47,48,57,12		8, 1
56″	29,22,37,44,47,22,48,26,21, 6		2, 8,51,45,32	
		1,49,34,13,38,57,11,40		8, 1
58″	29,22,39,34,21,36,27,23,32,46		2, 8,51,53,33	
		1,49,34,11,30, 5,18, 7		
60″	29,22,41,23,55,47,57,28,50,53			
exact	29,22,41,23,55,47,57,29,10,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°19′ 0″	29,22,41,23,55,47,57,29,10,37			
		1,49,34, 9,21,13,18,47		
2″	29,22,43,13,29,57,18,42,29,24		2, 8,52, 9,25	
		1,49,34, 7,12,21, 9,22		8, 1
4″	29,22,45, 3, 4, 4,31, 3,38,46		2, 8,52,17,26	
		1,49,34, 5, 3,28,51,56		8, 1
6″	29,22,46,52,38, 9,34,32,30,42		2, 8,52,25,27	
		1,49,34, 2,54,36,26,29		8, 1
8″	29,22,48,42,12,12,29, 8,57,11		2, 8,52,33,28	
		1,49,34, 0,45,43,53, 1		8, 1
10″	29,22,50,31,46,13,14,52,50,12		2, 8,52,41,29	
		1,49,33,58,36,51,11,32		8, 1
12″	29,22,52,21,20,11,51,44, 1,44		2, 8,52,49,30	
		1,49,33,56,27,58,22, 2		8, 1
14″	29,22,54,10,54, 8,19,42,23,46		2, 8,52,57,31	
		1,49,33,54,19, 5,24,31		8, 1
16″	29,22,56, 0,28, 2,38,47,48,17		2, 8,53, 5,32	
		1,49,33,52,10,12,18,59		8, 1
18″	29,22,57,50, 1,54,49, 0, 7,16		2, 8,53,13,33	
		1,49,33,50, 1,19, 5,26		8, 1
20″	29,22,59,39,35,44,50,19,12,42		2, 8,53,21,34	
		1,49,33,47,52,25,43,52		8, 1
22″	29,23, 1,29, 9,32,42,44,56,34		2, 8,53,29,35	
		1,49,33,45,43,32,14,17		8, 1
24″	29,23, 3,18,43,18,26,17,10,51		2, 8,53,37,36	
		1,49,33,43,34,38,36,41		8, 1
26″	29,23, 5, 8,17, 2, 0,55,47,32		2, 8,53,45,37	
		1,49,33,41,25,44,51, 4		8, 1
28″	29,23, 6,57,50,43,26,40,38,36		2, 8,53,53,38	
		1,49,33,39,16,50,57,26		8, 1
30″	29,23, 8,47,24,22,43,31,36, 2		2, 8,54, 1,39	
		1,49,33,37, 7,56,55,47		8, 1
32″	29,23,10,36,57,59,51,28,31,49		2, 8,54, 9,40	
		1,49,33,34,59, 2,46, 7		8, 1
34″	29,23,12,26,31,34,50,31,17,56		2, 8,54,17,41	
		1,49,33,32,50, 8,28,26		8, 1
36″	29,23,14,16, 5, 7,40,39,46,22		2, 8,54,25,42	
		1,49,33,30,41,14, 2,44		8, 1
38″	29,23,16, 5,38,38,21,53,49, 6		2, 8,54,33,43	
		1,49,33,28,32,19,29, 1		8, 1
40″	29,23,17,55,12, 6,54,13,18, 7		2, 8,54,41,44	
		1,49,33,26,23,24,47,17		8, 1
42″	29,23,19,44,45,33,17,38, 5,24		2, 8,54,49,45	
		1,49,33,24,14,29,57,32		8, 1
44″	29,23,21,34,18,57,32, 8, 2,56		2, 8,54,57,46	
		1,49,33,22, 5,34,59,46		8, 1
46″	29,23,23,23,52,19,37,43, 2,42		2, 8,55, 5,47	
		1,49,33,19,56,39,53,59		8, 1
48″	29,23,25,13,25,39,34,22,56,41		2, 8,55,13,48	
		1,49,33,17,47,44,40,11		8, 1
50″	29,23,27, 2,58,57,22, 7,36,52		2, 8,55,21,49	
		1,49,33,15,38,49,18,22		8, 1
52″	29,23,28,52,32,13, 0,56,55,14		2, 8,55,29,50	
		1,49,33,13,29,53,48,32		8, 1
54″	29,23,30,42, 5,26,30,50,43,46		2, 8,55,37,51	
		1,49,33,11,20,58,10,41		8, 1
56″	29,23,32,31,38,37,51,48,54,27		2, 8,55,45,52	
		1,49,33, 9,12, 2,24,49		8, 1
58″	29,23,34,21,11,47, 3,51,19,16		2, 8,55,53,53	
		1,49,33, 7, 3, 6,30,56		
60″	29,23,36,10,44,54, 6,57,50,12			
exact	29,23,36,10,44,54, 6,58,16,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°20′ 0″	29,23,36,10,44,54, 6,58,16,26			
		1,49,33, 4,54,10,31,55		
2″	29,23,38, 0,17,59, 1, 8,48,21		2, 8,56, 9,43	
		1,49,33, 2,45,14,22,12		8, 1
4″	29,23,39,49,51, 1,46,23,10,33		2, 8,56,17,44	
		1,49,33, 0,36,18, 4,28		8, 1
6″	29,23,41,39,24, 2,22,41,15, 1		2, 8,56,25,45	
		1,49,32,58,27,21,38,43		8, 1
8″	29,23,43,28,57, 0,50, 2,53,44		2, 8,56,33,46	
		1,49,32,56,18,25, 4,57		8, 1
10″	29,23,45,18,29,57, 8,27,58,41		2, 8,56,41,47	
		1,49,32,54, 9,28,23,10		8, 1
12″	29,23,47, 8, 2,51,17,56,21,51		2, 8,56,49,48	
		1,49,32,52, 0,31,33,22		8, 1
14″	29,23,48,57,35,43,18,27,55,13		2, 8,56,57,49	
		1,49,32,49,51,34,35,33		8, 1
16″	29,23,50,47, 8,33,10, 2,30,46		2, 8,57, 5,50	
		1,49,32,47,42,37,29,43		8, 1
18″	29,23,52,36,41,20,52,40, 0,29		2, 8,57,13,51	
		1,49,32,45,33,40,15,52		8, 1
20″	29,23,54,26,14, 6,26,20,16,21		2, 8,57,21,52	
		1,49,32,43,24,42,54, 0		8, 1
22″	29,23,56,15,46,49,51, 3,10,21		2, 8,57,29,53	
		1,49,32,41,15,45,24, 7		8, 1
24″	29,23,58, 5,19,31, 6,48,34,28		2, 8,57,37,54	
		1,49,32,39, 6,47,46,13		8, 1
26″	29,23,59,54,52,10,13,36,20,41		2, 8,57,45,55	
		1,49,32,36,57,50, 0,18		8, 1
28″	29,24, 1,44,24,47,11,26,20,59		2, 8,57,53,56	
		1,49,32,34,48,52, 6,22		8, 1
30″	29,24, 3,33,57,22, 0,18,27,21		2, 8,58, 1,57	
		1,49,32,32,39,54, 4,25		8, 1
32″	29,24, 5,23,29,54,40,12,31,46		2, 8,58, 9,58	
		1,49,32,30,30,55,54,27		8, 1
34″	29,24, 7,13, 2,25,11, 8,26,13		2, 8,58,17,59	
		1,49,32,28,21,57,36,28		8, 1
36″	29,24, 9, 2,34,53,33, 6, 2,41		2, 8,58,26, 0	
		1,49,32,26,12,59,10,28		8, 1
38″	29,24,10,52, 7,19,46, 5,13, 9		2, 8,58,34, 1	
		1,49,32,24, 4, 0,36,27		8, 1
40″	29,24,12,41,39,43,50, 5,49,36		2, 8,58,42, 2	
		1,49,32,21,55, 1,54,25		8, 1
42″	29,24,14,31,12, 5,45, 7,44, 1		2, 8,58,50, 3	
		1,49,32,19,46, 3, 4,22		8, 1
44″	29,24,16,20,44,25,31,10,48,23		2, 8,58,58, 4	
		1,49,32,17,37, 4, 6,18		8, 1
46″	29,24,18,10,16,43, 8,14,54,41		2, 8,59, 6, 5	
		1,49,32,15,28, 5, 0,13		8, 1
48″	29,24,19,59,48,58,36,19,54,54		2, 8,59,14, 6	
		1,49,32,13,19, 5,46, 7		8, 1
50″	29,24,21,49,21,11,55,25,41, 1		2, 8,59,22, 7	
		1,49,32,11,10, 6,24, 0		8, 1
52″	29,24,23,38,53,23, 5,32, 5, 1		2, 8,59,30, 8	
		1,49,32, 9, 1, 6,53,52		8, 1
54″	29,24,25,28,25,32, 6,38,58,53		2, 8,59,38, 9	
		1,49,32, 6,52, 7,15,43		8, 1
56″	29,24,27,17,57,38,58,46,14,36		2, 8,59,46,10	
		1,49,32, 4,43, 7,29,33		8, 1
58″	29,24,29, 7,29,43,41,53,44, 9		2, 8,59,54,11	
		1,49,32, 2,34, 7,35,22		
60″	29,24,30,57, 1,46,16, 1,19,31			
exact	29,24,30,57, 1,46,16, 1,54,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°21′ 0″	29,24,30,57, 1,46,16, 1,54,15			
		1,49,32, 0,25, 7,36,51		
2″	29,24,32,46,33,46,41, 9,31, 6		2, 9, 0, 9,58	
		1,49,31,58,16, 7,26,53		8, 0
4″	29,24,34,36, 5,44,57,16,57,59		2, 9, 0,17,58	
		1,49,31,56, 7, 7, 8,55		8, 0
6″	29,24,36,25,37,41, 4,24, 6,54		2, 9, 0,25,58	
		1,49,31,53,58, 6,42,57		8, 0
8″	29,24,38,15, 9,35, 2,30,49,51		2, 9, 0,33,58	
		1,49,31,51,49, 6, 8,59		8, 0
10″	29,24,40, 4,41,26,51,36,58,50		2, 9, 0,41,58	
		1,49,31,49,40, 5,27, 1		8, 0
12″	29,24,41,54,13,16,31,42,25,51		2, 9, 0,49,58	
		1,49,31,47,31, 4,37, 3		8, 0
14″	29,24,43,43,45, 4, 2,47, 2,54		2, 9, 0,57,58	
		1,49,31,45,22, 3,39, 5		8, 0
16″	29,24,45,33,16,49,24,50,41,59		2, 9, 1, 5,58	
		1,49,31,43,13, 2,33, 7		8, 0
18″	29,24,47,22,48,32,37,53,15, 6		2, 9, 1,13,58	
		1,49,31,41, 4, 1,19, 9		8, 0
20″	29,24,49,12,20,13,41,54,34,15		2, 9, 1,21,58	
		1,49,31,38,54,59,57,11		8, 0
22″	29,24,51, 1,51,52,36,54,31,26		2, 9, 1,29,58	
		1,49,31,36,45,58,27,13		8, 0
24″	29,24,52,51,23,29,22,52,58,39		2, 9, 1,37,58	
		1,49,31,34,36,56,49,15		8, 0
26″	29,24,54,40,55, 3,59,49,47,54		2, 9, 1,45,58	
		1,49,31,32,27,55, 3,17		8, 0
28″	29,24,56,30,26,36,27,44,51,11		2, 9, 1,53,58	
		1,49,31,30,18,53, 9,19		8, 0
30″	29,24,58,19,58, 6,46,38, 0,30		2, 9, 2, 1,58	
		1,49,31,28, 9,51, 7,21		8, 0
32″	29,25, 0, 9,29,34,56,29, 7,51		2, 9, 2, 9,58	
		1,49,31,26, 0,48,57,23		8, 0
34″	29,25, 1,59, 1, 0,57,18, 5,14		2, 9, 2,17,58	
		1,49,31,23,51,46,39,25		8, 0
36″	29,25, 3,48,32,24,49, 4,44,39		2, 9, 2,25,58	
		1,49,31,21,42,44,13,27		8, 0
38″	29,25, 5,38, 3,46,31,48,58, 6		2, 9, 2,33,58	
		1,49,31,19,33,41,39,29		8, 0
40″	29,25, 7,27,35, 6, 5,30,37,35		2, 9, 2,41,58	
		1,49,31,17,24,38,57,31		8, 0
42″	29,25, 9,17, 6,23,30, 9,35, 6		2, 9, 2,49,58	
		1,49,31,15,15,36, 7,33		8, 0
44″	29,25,11, 6,37,38,45,45,42,39		2, 9, 2,57,58	
		1,49,31,13, 6,33, 9,35		8, 0
46″	29,25,12,56, 8,51,52,18,52,14		2, 9, 3, 5,58	
		1,49,31,10,57,30, 3,37		8, 0
48″	29,25,14,45,40, 2,49,48,55,51		2, 9, 3,13,58	
		1,49,31, 8,48,26,49,39		8, 0
50″	29,25,16,35,11,11,38,15,45,30		2, 9, 3,21,58	
		1,49,31, 6,39,23,27,41		8, 0
52″	29,25,18,24,42,18,17,39,13,11		2, 9, 3,29,58	
		1,49,31, 4,30,19,57,43		8, 0
54″	29,25,20,14,13,22,47,59,10,54		2, 9, 3,37,58	
		1,49,31, 2,21,16,19,45		8, 0
56″	29,25,22, 3,44,25, 9,15,30,39		2, 9, 3,45,58	
		1,49,31, 0,12,12,33,47		8, 0
58″	29,25,23,53,15,25,21,28, 4,26		2, 9, 3,53,58	
		1,49,30,58, 3, 8,39,49		
60″	29,25,25,42,46,23,24,36,44,15			
exact	29,25,25,42,46,23,24,36,15,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°22′ 0″	29,25,25,42,46,23,24,36,15,27			
		1,49,30,55,54, 4,34,46		
2″	29,25,27,32,17,19,18,40,50,13		2, 9, 4,10,11	
		1,49,30,53,45, 0,24,35		8, 0
4″	29,25,29,21,48,13, 3,41,14,48		2, 9, 4,18,11	
		1,49,30,51,35,56, 6,24		8, 0
6″	29,25,31,11,19, 4,39,37,21,12		2, 9, 4,26,11	
		1,49,30,49,26,51,40,13		8, 0
8″	29,25,33, 0,49,54, 6,29, 1,25		2, 9, 4,34,11	
		1,49,30,47,17,47, 6, 2		8, 0
10″	29,25,34,50,20,41,24,16, 7,27		2, 9, 4,42,11	
		1,49,30,45, 8,42,23,51		8, 0
12″	29,25,36,39,51,26,32,58,31,18		2, 9, 4,50,11	
		1,49,30,42,59,37,33,40		8, 0
14″	29,25,38,29,22, 9,32,36, 4,58		2, 9, 4,58,11	
		1,49,30,40,50,32,35,29		8, 0
16″	29,25,40,18,52,50,23, 8,40,27		2, 9, 5, 6,11	
		1,49,30,38,41,27,29,18		8, 0
18″	29,25,42, 8,23,29, 4,36, 9,45		2, 9, 5,14,11	
		1,49,30,36,32,22,15, 7		8, 0
20″	29,25,43,57,54, 5,36,58,24,52		2, 9, 5,22,11	
		1,49,30,34,23,16,52,56		8, 0
22″	29,25,45,47,24,40, 0,15,17,48		2, 9, 5,30,11	
		1,49,30,32,14,11,22,45		8, 0
24″	29,25,47,36,55,12,14,26,40,33		2, 9, 5,38,11	
		1,49,30,30, 5, 5,44,34		8, 0
26″	29,25,49,26,25,42,19,32,25, 7		2, 9, 5,46,11	
		1,49,30,27,55,59,58,23		8, 0
28″	29,25,51,15,56,10,15,32,23,30		2, 9, 5,54,11	
		1,49,30,25,46,54, 4,12		8, 0
30″	29,25,53, 5,26,36, 2,26,27,42		2, 9, 6, 2,11	
		1,49,30,23,37,48, 2, 1		8, 0
32″	29,25,54,54,56,59,40,14,29,43		2, 9, 6,10,11	
		1,49,30,21,28,41,51,50		8, 0
34″	29,25,56,44,27,21, 8,56,21,33		2, 9, 6,18,11	
		1,49,30,19,19,35,33,39		8, 0
36″	29,25,58,33,57,40,28,31,55,12		2, 9, 6,26,11	
		1,49,30,17,10,29, 7,28		8, 0
38″	29,26, 0,23,27,57,39, 1, 2,40		2, 9, 6,34,11	
		1,49,30,15, 1,22,33,17		8, 0
40″	29,26, 2,12,58,12,40,23,35,57		2, 9, 6,42,11	
		1,49,30,12,52,15,51, 6		8, 0
42″	29,26, 4, 2,28,25,32,39,27, 3		2, 9, 6,50,11	
		1,49,30,10,43, 9, 0,55		8, 0
44″	29,26, 5,51,58,36,15,48,27,58		2, 9, 6,58,11	
		1,49,30, 8,34, 2, 2,44		8, 0
46″	29,26, 7,41,28,44,49,50,30,42		2, 9, 7, 6,11	
		1,49,30, 6,24,54,56,33		8, 0
48″	29,26, 9,30,58,51,14,45,27,15		2, 9, 7,14,11	
		1,49,30, 4,15,47,42,22		8, 0
50″	29,26,11,20,28,55,30,33, 9,37		2, 9, 7,22,11	
		1,49,30, 2, 6,40,20,11		8, 0
52″	29,26,13, 9,58,57,37,13,29,48		2, 9, 7,30,11	
		1,49,29,59,57,32,50, 0		8, 0
54″	29,26,14,59,28,57,34,46,19,48		2, 9, 7,38,11	
		1,49,29,57,48,25,11,49		8, 0
56″	29,26,16,48,58,55,23,11,31,37		2, 9, 7,46,11	
		1,49,29,55,39,17,25,38		8, 0
58″	29,26,18,38,28,51, 2,28,57,15		2, 9, 7,54,11	
		1,49,29,53,30, 9,31,27		
60″	29,26,20,27,58,44,32,38,28,42			
exact	29,26,20,27,58,44,32,38, 6,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°23′ 0″	29,26,20,27,58,44,32,38, 6,45			
		1,49,29,51,21, 1,26,51		
2″	29,26,22,17,28,35,53,39,33,36		2, 9, 8,10,21	
		1,49,29,49,11,53,16,30		8, 0
4″	29,26,24, 6,58,25, 5,32,50, 6		2, 9, 8,18,21	
		1,49,29,47, 2,44,58, 9		8, 0
6″	29,26,25,56,28,12, 8,17,48,15		2, 9, 8,26,21	
		1,49,29,44,53,36,31,48		8, 0
8″	29,26,27,45,57,57, 1,54,20, 3		2, 9, 8,34,21	
		1,49,29,42,44,27,57,27		8, 0
10″	29,26,29,35,27,39,46,22,17,30		2, 9, 8,42,21	
		1,49,29,40,35,19,15, 6		8, 0
12″	29,26,31,24,57,20,21,41,32,36		2, 9, 8,50,21	
		1,49,29,38,26,10,24,45		8, 0
14″	29,26,33,14,26,58,47,51,57,21		2, 9, 8,58,21	
		1,49,29,36,17, 1,26,24		8, 0
16″	29,26,35, 3,56,35, 4,53,23,45		2, 9, 9, 6,21	
		1,49,29,34, 7,52,20, 3		8, 0
18″	29,26,36,53,26, 9,12,45,43,48		2, 9, 9,14,21	
		1,49,29,31,58,43, 5,42		8, 0
20″	29,26,38,42,55,41,11,28,49,30		2, 9, 9,22,21	
		1,49,29,29,49,33,43,21		8, 0
22″	29,26,40,32,25,11, 1, 2,32,51		2, 9, 9,30,21	
		1,49,29,27,40,24,13, 0		8, 0
24″	29,26,42,21,54,38,41,26,45,51		2, 9, 9,38,21	
		1,49,29,25,31,14,34,39		8, 0
26″	29,26,44,11,24, 4,12,41,20,30		2, 9, 9,46,21	
		1,49,29,23,22, 4,48,18		8, 0
28″	29,26,46, 0,53,27,34,46, 8,48		2, 9, 9,54,21	
		1,49,29,21,12,54,53,57		8, 0
30″	29,26,47,50,22,48,47,41, 2,45		2, 9,10, 2,21	
		1,49,29,19, 3,44,51,36		8, 0
32″	29,26,49,39,52, 7,51,25,54,21		2, 9,10,10,21	
		1,49,29,16,54,34,41,15		8, 0
34″	29,26,51,29,21,24,46, 0,35,36		2, 9,10,18,21	
		1,49,29,14,45,24,22,54		8, 0
36″	29,26,53,18,50,39,31,24,58,30		2, 9,10,26,21	
		1,49,29,12,36,13,56,33		8, 0
38″	29,26,55, 8,19,52, 7,38,55, 3		2, 9,10,34,21	
		1,49,29,10,27, 3,22,12		8, 0
40″	29,26,56,57,49, 2,34,42,17,15		2, 9,10,42,21	
		1,49,29, 8,17,52,39,51		8, 0
42″	29,26,58,47,18,10,52,34,57, 6		2, 9,10,50,21	
		1,49,29, 6, 8,41,49,30		8, 0
44″	29,27, 0,36,47,17, 1,16,46,36		2, 9,10,58,21	
		1,49,29, 3,59,30,51, 9		8, 0
46″	29,27, 2,26,16,21, 0,47,37,45		2, 9,11, 6,21	
		1,49,29, 1,50,19,44,48		8, 0
48″	29,27, 4,15,45,22,51, 7,22,33		2, 9,11,14,21	
		1,49,28,59,41, 8,30,27		8, 0
50″	29,27, 6, 5,14,22,32,15,53, 0		2, 9,11,22,21	
		1,49,28,57,31,57, 8, 6		8, 0
52″	29,27, 7,54,43,20, 4,13, 1, 6		2, 9,11,30,21	
		1,49,28,55,22,45,37,45		8, 0
54″	29,27, 9,44,12,15,26,58,38,51		2, 9,11,38,21	
		1,49,28,53,13,33,59,24		8, 0
56″	29,27,11,33,41, 8,40,32,38,15		2, 9,11,46,21	
		1,49,28,51, 4,22,13, 3		8, 0
58″	29,27,13,23, 9,59,44,54,51,18		2, 9,11,54,21	
		1,49,28,48,55,10,18,42		
60″	29,27,15,12,38,48,40, 5,10, 0			
exact	29,27,15,12,38,48,40, 4,50,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°24′ 0″	29,27,15,12,38,48,40, 4,50,18			
		1,49,28,46,45,58,14,17		
2″	29,27,17, 2, 7,35,26, 3, 4,35		2, 9,12,10,29	
		1,49,28,44,36,46, 3,48		8, 0
4″	29,27,18,51,36,20, 2,49, 8,23		2, 9,12,18,29	
		1,49,28,42,27,33,45,19		8, 0
6″	29,27,20,41, 5, 2,30,22,53,42		2, 9,12,26,29	
		1,49,28,40,18,21,18,50		8, 0
8″	29,27,22,30,33,42,48,44,12,32		2, 9,12,34,29	
		1,49,28,38, 9, 8,44,21		8, 0
10″	29,27,24,20, 2,20,57,52,56,53		2, 9,12,42,29	
		1,49,28,35,59,56, 1,52		8, 0
12″	29,27,26, 9,30,56,57,48,58,45		2, 9,12,50,29	
		1,49,28,33,50,43,11,23		8, 0
14″	29,27,27,58,59,30,48,32,10, 8		2, 9,12,58,29	
		1,49,28,31,41,30,12,54		8, 0
16″	29,27,29,48,28, 2,30, 2,23, 2		2, 9,13, 6,29	
		1,49,28,29,32,17, 6,25		8, 0
18″	29,27,31,37,56,32, 2,19,29,27		2, 9,13,14,29	
		1,49,28,27,23, 3,51,56		8, 0
20″	29,27,33,27,24,59,25,23,21,23		2, 9,13,22,29	
		1,49,28,25,13,50,29,27		8, 0
22″	29,27,35,16,53,24,39,13,50,50		2, 9,13,30,29	
		1,49,28,23, 4,36,58,58		8, 0
24″	29,27,37, 6,21,47,43,50,49,48		2, 9,13,38,29	
		1,49,28,20,55,23,20,29		8, 0
26″	29,27,38,55,50, 8,39,14,10,17		2, 9,13,46,29	
		1,49,28,18,46, 9,34, 0		8, 0
28″	29,27,40,45,18,27,25,23,44,17		2, 9,13,54,29	
		1,49,28,16,36,55,39,31		8, 0
30″	29,27,42,34,46,44, 2,19,23,48		2, 9,14, 2,29	
		1,49,28,14,27,41,37, 2		8, 0
32″	29,27,44,24,14,58,30, 1, 0,50		2, 9,14,10,29	
		1,49,28,12,18,27,26,33		8, 0
34″	29,27,46,13,43,10,48,28,27,23		2, 9,14,18,29	
		1,49,28,10, 9,13, 8, 4		8, 0
36″	29,27,48, 3,11,20,57,41,35,27		2, 9,14,26,29	
		1,49,28, 7,59,58,41,35		8, 0
38″	29,27,49,52,39,28,57,40,17, 2		2, 9,14,34,29	
		1,49,28, 5,50,44, 7, 6		8, 0
40″	29,27,51,42, 7,34,48,24,24, 8		2, 9,14,42,29	
		1,49,28, 3,41,29,24,37		8, 0
42″	29,27,53,31,35,38,29,53,48,45		2, 9,14,50,29	
		1,49,28, 1,32,14,34, 8		8, 0
44″	29,27,55,21, 3,40, 2, 8,22,53		2, 9,14,58,29	
		1,49,27,59,22,59,35,39		8, 0
46″	29,27,57,10,31,39,25, 7,58,32		2, 9,15, 6,29	
		1,49,27,57,13,44,29,10		8, 0
48″	29,27,58,59,59,36,38,52,27,42		2, 9,15,14,29	
		1,49,27,55, 4,29,14,41		8, 0
50″	29,28, 0,49,27,31,43,21,42,23		2, 9,15,22,29	
		1,49,27,52,55,13,52,12		8, 0
52″	29,28, 2,38,55,24,38,35,34,35		2, 9,15,30,29	
		1,49,27,50,45,58,21,43		8, 0
54″	29,28, 4,28,23,15,24,33,56,18		2, 9,15,38,29	
		1,49,27,48,36,42,43,14		8, 0
56″	29,28, 6,17,51, 4, 1,16,39,32		2, 9,15,46,29	
		1,49,27,46,27,26,56,45		8, 0
58″	29,28, 8, 7,18,50,28,43,36,17		2, 9,15,54,29	
		1,49,27,44,18,11, 2,16		
60″	29,28, 9,56,46,34,46,54,38,33			
exact	29,28, 9,56,46,34,46,54,23,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°25′ 0″	29,28, 9,56,46,34,46,54,23,36			
		1,49,27,42, 8,54,58,15		
2″	29,28,11,46,14,16,55,49,21,51		2, 9,16,10,35	
		1,49,27,39,59,38,47,40		8, 0
4″	29,28,13,35,41,56,55,28, 9,31		2, 9,16,18,35	
		1,49,27,37,50,22,29, 5		8, 0
6″	29,28,15,25, 9,34,45,50,38,36		2, 9,16,26,35	
		1,49,27,35,41, 6, 2,30		8, 0
8″	29,28,17,14,37,10,26,56,41, 6		2, 9,16,34,35	
		1,49,27,33,31,49,27,55		8, 0
10″	29,28,19, 4, 4,43,58,46, 9, 1		2, 9,16,42,35	
		1,49,27,31,22,32,45,20		8, 0
12″	29,28,20,53,32,15,21,18,54,21		2, 9,16,50,35	
		1,49,27,29,13,15,54,45		8, 0
14″	29,28,22,42,59,44,34,34,49, 6		2, 9,16,58,35	
		1,49,27,27, 3,58,56,10		8, 0
16″	29,28,24,32,27,11,38,33,45,16		2, 9,17, 6,35	
		1,49,27,24,54,41,49,35		8, 0
18″	29,28,26,21,54,36,33,15,34,51		2, 9,17,14,35	
		1,49,27,22,45,24,35, 0		8, 0
20″	29,28,28,11,21,59,18,40, 9,51		2, 9,17,22,35	
		1,49,27,20,36, 7,12,25		8, 0
22″	29,28,30, 0,49,19,54,47,22,16		2, 9,17,30,35	
		1,49,27,18,26,49,41,50		8, 0
24″	29,28,31,50,16,38,21,37, 4, 6		2, 9,17,38,35	
		1,49,27,16,17,32, 3,15		8, 0
26″	29,28,33,39,43,54,39, 9, 7,21		2, 9,17,46,35	
		1,49,27,14, 8,14,16,40		8, 0
28″	29,28,35,29,11, 8,47,23,24, 1		2, 9,17,54,35	
		1,49,27,11,58,56,22, 5		8, 0
30″	29,28,37,18,38,20,46,19,46, 6		2, 9,18, 2,35	
		1,49,27, 9,49,38,19,30		8, 0
32″	29,28,39, 8, 5,30,35,58, 5,36		2, 9,18,10,35	
		1,49,27, 7,40,20, 8,55		8, 0
34″	29,28,40,57,32,38,16,18,14,31		2, 9,18,18,35	
		1,49,27, 5,31, 1,50,20		8, 0
36″	29,28,42,46,59,43,47,20, 4,51		2, 9,18,26,35	
		1,49,27, 3,21,43,23,45		8, 0
38″	29,28,44,36,26,47, 9, 3,28,36		2, 9,18,34,35	
		1,49,27, 1,12,24,49,10		8, 0
40″	29,28,46,25,53,48,21,28,17,46		2, 9,18,42,35	
		1,49,26,59, 3, 6, 6,35		8, 0
42″	29,28,48,15,20,47,24,34,24,21		2, 9,18,50,35	
		1,49,26,56,53,47,16, 0		8, 0
44″	29,28,50, 4,47,44,18,21,40,21		2, 9,18,58,35	
		1,49,26,54,44,28,17,25		8, 0
46″	29,28,51,54,14,39, 2,49,57,46		2, 9,19, 6,35	
		1,49,26,52,35, 9,10,50		8, 0
48″	29,28,53,43,41,31,37,59, 8,36		2, 9,19,14,35	
		1,49,26,50,25,49,56,15		8, 0
50″	29,28,55,33, 8,22, 3,49, 4,51		2, 9,19,22,35	
		1,49,26,48,16,30,33,40		8, 0
52″	29,28,57,22,35,10,20,19,38,31		2, 9,19,30,35	
		1,49,26,46, 7,11, 3, 5		8, 0
54″	29,28,59,12, 1,56,27,30,41,36		2, 9,19,38,35	
		1,49,26,43,57,51,24,30		8, 0
56″	29,29, 1, 1,28,40,25,22, 6, 6		2, 9,19,46,35	
		1,49,26,41,48,31,37,55		8, 0
58″	29,29, 2,50,55,22,13,53,44, 1		2, 9,19,54,35	
		1,49,26,39,39,11,43,20		
60″	29,29, 4,40,22, 1,53, 5,27,21			
exact	29,29, 4,40,22, 1,53, 5,19,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°26′ 0″	29,29, 4,40,22, 1,53, 5,19,36			
		1,49,26,37,29,51,39,55		
2″	29,29, 6,29,48,39,22,56,59,31		2, 9,20,10,38	
		1,49,26,35,20,31,29,17		8, 0
4″	29,29, 8,19,15,14,43,28,28,48		2, 9,20,18,38	
		1,49,26,33,11,11,10,39		8, 0
6″	29,29,10, 8,41,47,54,39,39,27		2, 9,20,26,38	
		1,49,26,31, 1,50,44, 1		8, 0
8″	29,29,11,58, 8,18,56,30,23,28		2, 9,20,34,38	
		1,49,26,28,52,30, 9,23		8, 0
10″	29,29,13,47,34,47,49, 0,32,51		2, 9,20,42,38	
		1,49,26,26,43, 9,26,45		8, 0
12″	29,29,15,37, 1,14,32, 9,59,36		2, 9,20,50,38	
		1,49,26,24,33,48,36, 7		8, 0
14″	29,29,17,26,27,39, 5,58,35,43		2, 9,20,58,38	
		1,49,26,22,24,27,37,29		8, 0
16″	29,29,19,15,54, 1,30,26,13,12		2, 9,21, 6,38	
		1,49,26,20,15, 6,30,51		8, 0
18″	29,29,21, 5,20,21,45,32,44, 3		2, 9,21,14,38	
		1,49,26,18, 5,45,16,13		8, 0
20″	29,29,22,54,46,39,51,18, 0,16		2, 9,21,22,38	
		1,49,26,15,56,23,53,35		8, 0
22″	29,29,24,44,12,55,47,41,53,51		2, 9,21,30,38	
		1,49,26,13,47, 2,22,57		8, 0
24″	29,29,26,33,39, 9,34,44,16,48		2, 9,21,38,38	
		1,49,26,11,37,40,44,19		8, 0
26″	29,29,28,23, 5,21,12,25, 1, 7		2, 9,21,46,38	
		1,49,26, 9,28,18,57,41		8, 0
28″	29,29,30,12,31,30,40,43,58,48		2, 9,21,54,38	
		1,49,26, 7,18,57, 3, 3		8, 0
30″	29,29,32, 1,57,37,59,41, 1,51		2, 9,22, 2,38	
		1,49,26, 5, 9,35, 0,25		8, 0
32″	29,29,33,51,23,43, 9,16, 2,16		2, 9,22,10,38	
		1,49,26, 3, 0,12,49,47		8, 0
34″	29,29,35,40,49,46, 9,28,52, 3		2, 9,22,18,38	
		1,49,26, 0,50,50,31, 9		8, 0
36″	29,29,37,30,15,47, 0,19,23,12		2, 9,22,26,38	
		1,49,25,58,41,28, 4,31		8, 0
38″	29,29,39,19,41,45,41,47,27,43		2, 9,22,34,38	
		1,49,25,56,32, 5,29,53		8, 0
40″	29,29,41, 9, 7,42,13,52,57,36		2, 9,22,42,38	
		1,49,25,54,22,42,47,15		8, 0
42″	29,29,42,58,33,36,36,35,44,51		2, 9,22,50,38	
		1,49,25,52,13,19,56,37		8, 0
44″	29,29,44,47,59,28,49,55,41,28		2, 9,22,58,38	
		1,49,25,50, 3,56,57,59		8, 0
46″	29,29,46,37,25,18,53,52,39,27		2, 9,23, 6,38	
		1,49,25,47,54,33,51,21		8, 0
48″	29,29,48,26,51, 6,48,26,30,48		2, 9,23,14,38	
		1,49,25,45,45,10,36,43		8, 0
50″	29,29,50,16,16,52,33,37, 7,31		2, 9,23,22,38	
		1,49,25,43,35,47,14, 5		8, 0
52″	29,29,52, 5,42,36, 9,24,21,36		2, 9,23,30,38	
		1,49,25,41,26,23,43,27		8, 0
54″	29,29,53,55, 8,17,35,48, 5, 3		2, 9,23,38,38	
		1,49,25,39,17, 0, 4,49		8, 0
56″	29,29,55,44,33,56,52,48, 9,52		2, 9,23,46,38	
		1,49,25,37, 7,36,18,11		8, 0
58″	29,29,57,33,59,34, 0,24,28, 3		2, 9,23,54,38	
		1,49,25,34,58,12,23,33		
60″	29,29,59,23,25, 8,58,36,51,36			
exact	29,29,59,23,25, 8,58,36,46,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°27′ 0″	29,29,59,23,25, 8,58,36,46,40			
		1,49,25,32,48,48,20,29		
2″	29,30, 1,12,50,41,47,25, 7, 9		2, 9,24,10,39	
		1,49,25,30,39,24, 9,50		8, 0
4″	29,30, 3, 2,16,12,26,49,16,59		2, 9,24,18,39	
		1,49,25,28,29,59,51,11		8, 0
6″	29,30, 4,51,41,40,56,49, 8,10		2, 9,24,26,39	
		1,49,25,26,20,35,24,32		8, 0
8″	29,30, 6,41, 7, 7,17,24,32,42		2, 9,24,34,39	
		1,49,25,24,11,10,49,53		8, 0
10″	29,30, 8,30,32,31,28,35,22,35		2, 9,24,42,39	
		1,49,25,22, 1,46, 7,14		8, 0
12″	29,30,10,19,57,53,30,21,29,49		2, 9,24,50,39	
		1,49,25,19,52,21,16,35		8, 0
14″	29,30,12, 9,23,13,22,42,46,24		2, 9,24,58,39	
		1,49,25,17,42,56,17,56		8, 0
16″	29,30,13,58,48,31, 5,39, 4,20		2, 9,25, 6,39	
		1,49,25,15,33,31,11,17		8, 0
18″	29,30,15,48,13,46,39,10,15,37		2, 9,25,14,39	
		1,49,25,13,24, 5,56,38		8, 0
20″	29,30,17,37,39, 0, 3,16,12,15		2, 9,25,22,39	
		1,49,25,11,14,40,33,59		8, 0
22″	29,30,19,27, 4,11,17,56,46,14		2, 9,25,30,39	
		1,49,25, 9, 5,15, 3,20		8, 0
24″	29,30,21,16,29,20,23,11,49,34		2, 9,25,38,39	
		1,49,25, 6,55,49,24,41		8, 0
26″	29,30,23, 5,54,27,19, 1,14,15		2, 9,25,46,39	
		1,49,25, 4,46,23,38, 2		8, 0
28″	29,30,24,55,19,32, 5,24,52,17		2, 9,25,54,39	
		1,49,25, 2,36,57,43,23		8, 0
30″	29,30,26,44,44,34,42,22,35,40		2, 9,26, 2,39	
		1,49,25, 0,27,31,40,44		8, 0
32″	29,30,28,34, 9,35, 9,54,16,24		2, 9,26,10,39	
		1,49,24,58,18, 5,30, 5		8, 0
34″	29,30,30,23,34,33,27,59,46,29		2, 9,26,18,39	
		1,49,24,56, 8,39,11,26		8, 0
36″	29,30,32,12,59,29,36,38,57,55		2, 9,26,26,39	
		1,49,24,53,59,12,44,47		8, 0
38″	29,30,34, 2,24,23,35,51,42,42		2, 9,26,34,39	
		1,49,24,51,49,46,10, 8		8, 0
40″	29,30,35,51,49,15,25,37,52,50		2, 9,26,42,39	
		1,49,24,49,40,19,27,29		8, 0
42″	29,30,37,41,14, 5, 5,57,20,19		2, 9,26,50,39	
		1,49,24,47,30,52,36,50		8, 0
44″	29,30,39,30,38,52,36,49,57, 9		2, 9,26,58,39	
		1,49,24,45,21,25,38,11		8, 0
46″	29,30,41,20, 3,37,58,15,35,20		2, 9,27, 6,39	
		1,49,24,43,11,58,31,32		8, 0
48″	29,30,43, 9,28,21,10,14, 6,52		2, 9,27,14,39	
		1,49,24,41, 2,31,16,53		8, 0
50″	29,30,44,58,53, 2,12,45,23,45		2, 9,27,22,39	
		1,49,24,38,53, 3,54,14		8, 0
52″	29,30,46,48,17,41, 5,49,17,59		2, 9,27,30,39	
		1,49,24,36,43,36,23,35		8, 0
54″	29,30,48,37,42,17,49,25,41,34		2, 9,27,38,39	
		1,49,24,34,34, 8,44,56		8, 0
56″	29,30,50,27, 6,52,23,34,26,30		2, 9,27,46,39	
		1,49,24,32,24,40,58,17		8, 0
58″	29,30,52,16,31,24,48,15,24,47		2, 9,27,54,39	
		1,49,24,30,15,13, 3,38		
60″	29,30,54, 5,55,55, 3,28,28,25			
exact	29,30,54, 5,55,55, 3,28,28,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°28′ 0″	29,30,54, 5,55,55, 3,28,28,40			
		1,49,24,28, 5,45, 1, 7		
2″	29,30,55,55,20,23, 9,13,29,47		2, 9,28,10,38	
		1,49,24,25,56,16,50,29		8, 0
4″	29,30,57,44,44,49, 5,30,20,16		2, 9,28,18,38	
		1,49,24,23,46,48,31,51		8, 0
6″	29,30,59,34, 9,12,52,18,52, 7		2, 9,28,26,38	
		1,49,24,21,37,20, 5,13		8, 0
8″	29,31, 1,23,33,34,29,38,57,20		2, 9,28,34,38	
		1,49,24,19,27,51,30,35		8, 0
10″	29,31, 3,12,57,53,57,30,27,55		2, 9,28,42,38	
		1,49,24,17,18,22,47,57		8, 0
12″	29,31, 5, 2,22,11,15,53,15,52		2, 9,28,50,38	
		1,49,24,15, 8,53,57,19		8, 0
14″	29,31, 6,51,46,26,24,47,13,11		2, 9,28,58,38	
		1,49,24,12,59,24,58,41		8, 0
16″	29,31, 8,41,10,39,24,12,11,52		2, 9,29, 6,38	
		1,49,24,10,49,55,52, 3		8, 0
18″	29,31,10,30,34,50,14, 8, 3,55		2, 9,29,14,38	
		1,49,24, 8,40,26,37,25		8, 0
20″	29,31,12,19,58,58,54,34,41,20		2, 9,29,22,38	
		1,49,24, 6,30,57,14,47		8, 0
22″	29,31,14, 9,23, 5,25,31,56, 7		2, 9,29,30,38	
		1,49,24, 4,21,27,44, 9		8, 0
24″	29,31,15,58,47, 9,46,59,40,16		2, 9,29,38,38	
		1,49,24, 2,11,58, 5,31		8, 0
26″	29,31,17,48,11,11,58,57,45,47		2, 9,29,46,38	
		1,49,24, 0, 2,28,18,53		8, 0
28″	29,31,19,37,35,12, 1,26, 4,40		2, 9,29,54,38	
		1,49,23,57,52,58,24,15		8, 0
30″	29,31,21,26,59, 9,54,24,28,55		2, 9,30, 2,38	
		1,49,23,55,43,28,21,37		8, 0
32″	29,31,23,16,23, 5,37,52,50,32		2, 9,30,10,38	
		1,49,23,53,33,58,10,59		8, 0
34″	29,31,25, 5,46,59,11,51, 1,31		2, 9,30,18,38	
		1,49,23,51,24,27,52,21		8, 0
36″	29,31,26,55,10,50,36,18,53,52		2, 9,30,26,38	
		1,49,23,49,14,57,25,43		8, 0
38″	29,31,28,44,34,39,51,16,19,35		2, 9,30,34,38	
		1,49,23,47, 5,26,51, 5		8, 0
40″	29,31,30,33,58,26,56,43,10,40		2, 9,30,42,38	
		1,49,23,44,55,56, 8,27		8, 0
42″	29,31,32,23,22,11,52,39,19, 7		2, 9,30,50,38	
		1,49,23,42,46,25,17,49		8, 0
44″	29,31,34,12,45,54,39, 4,36,56		2, 9,30,58,38	
		1,49,23,40,36,54,19,11		8, 0
46″	29,31,36, 2, 9,35,15,58,56, 7		2, 9,31, 6,38	
		1,49,23,38,27,23,12,33		8, 0
48″	29,31,37,51,33,13,43,22, 8,40		2, 9,31,14,38	
		1,49,23,36,17,51,57,55		8, 0
50″	29,31,39,40,56,50, 1,14, 6,35		2, 9,31,22,38	
		1,49,23,34, 8,20,35,17		8, 0
52″	29,31,41,30,20,24, 9,34,41,52		2, 9,31,30,38	
		1,49,23,31,58,49, 4,39		8, 0
54″	29,31,43,19,43,56, 8,23,46,31		2, 9,31,38,38	
		1,49,23,29,49,17,26, 1		8, 0
56″	29,31,45, 9, 7,25,57,41,12,32		2, 9,31,46,38	
		1,49,23,27,39,45,39,23		8, 0
58″	29,31,46,58,30,53,37,26,51,55		2, 9,31,54,38	
		1,49,23,25,30,13,44,45		
60″	29,31,48,47,54,19, 7,40,36,40			
exact	29,31,48,47,54,19, 7,40,44,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°29′ 0″	29,31,48,47,54,19, 7,40,44,54			
		1,49,23,23,20,41,43, 0		
2″	29,31,50,37,17,42,28,22,27,54		2, 9,32,10,34	
		1,49,23,21,11, 9,32,26		8, 0
4″	29,31,52,26,41, 3,39,32, 0,20		2, 9,32,18,34	
		1,49,23,19, 1,37,13,52		8, 0
6″	29,31,54,16, 4,22,41, 9,14,12		2, 9,32,26,34	
		1,49,23,16,52, 4,47,18		8, 0
8″	29,31,56, 5,27,39,33,14, 1,30		2, 9,32,34,34	
		1,49,23,14,42,32,12,44		8, 0
10″	29,31,57,54,50,54,15,46,14,14		2, 9,32,42,34	
		1,49,23,12,32,59,30,10		8, 0
12″	29,31,59,44,14, 6,48,45,44,24		2, 9,32,50,34	
		1,49,23,10,23,26,39,36		8, 0
14″	29,32, 1,33,37,17,12,12,24, 0		2, 9,32,58,34	
		1,49,23, 8,13,53,41, 2		8, 0
16″	29,32, 3,23, 0,25,26, 6, 5, 2		2, 9,33, 6,34	
		1,49,23, 6, 4,20,34,28		8, 0
18″	29,32, 5,12,23,31,30,26,39,30		2, 9,33,14,34	
		1,49,23, 3,54,47,19,54		8, 0
20″	29,32, 7, 1,46,35,25,13,59,24		2, 9,33,22,34	
		1,49,23, 1,45,13,57,20		8, 0
22″	29,32, 8,51, 9,37,10,27,56,44		2, 9,33,30,34	
		1,49,22,59,35,40,26,46		8, 0
24″	29,32,10,40,32,36,46, 8,23,30		2, 9,33,38,34	
		1,49,22,57,26, 6,48,12		8, 0
26″	29,32,12,29,55,34,12,15,11,42		2, 9,33,46,34	
		1,49,22,55,16,33, 1,38		8, 0
28″	29,32,14,19,18,29,28,48,13,20		2, 9,33,54,34	
		1,49,22,53, 6,59, 7, 4		8, 0
30″	29,32,16, 8,41,22,35,47,20,24		2, 9,34, 2,34	
		1,49,22,50,57,25, 4,30		8, 0
32″	29,32,17,58, 4,13,33,12,24,54		2, 9,34,10,34	
		1,49,22,48,47,50,53,56		8, 0
34″	29,32,19,47,27, 2,21, 3,18,50		2, 9,34,18,34	
		1,49,22,46,38,16,35,22		8, 0
36″	29,32,21,36,49,48,59,19,54,12		2, 9,34,26,34	
		1,49,22,44,28,42, 8,48		8, 0
38″	29,32,23,26,12,33,28, 2, 3, 0		2, 9,34,34,34	
		1,49,22,42,19, 7,34,14		8, 0
40″	29,32,25,15,35,15,47, 9,37,14		2, 9,34,42,34	
		1,49,22,40, 9,32,51,40		8, 0
42″	29,32,27, 4,57,55,56,42,28,54		2, 9,34,50,34	
		1,49,22,37,59,58, 1, 6		8, 0
44″	29,32,28,54,20,33,56,40,30, 0		2, 9,34,58,34	
		1,49,22,35,50,23, 2,32		8, 0
46″	29,32,30,43,43, 9,47, 3,32,32		2, 9,35, 6,34	
		1,49,22,33,40,47,55,58		8, 0
48″	29,32,32,33, 5,43,27,51,28,30		2, 9,35,14,34	
		1,49,22,31,31,12,41,24		8, 0
50″	29,32,34,22,28,14,59, 4, 9,54		2, 9,35,22,34	
		1,49,22,29,21,37,18,50		8, 0
52″	29,32,36,11,50,44,20,41,28,44		2, 9,35,30,34	
		1,49,22,27,12, 1,48,16		8, 0
54″	29,32,38, 1,13,11,32,43,17, 0		2, 9,35,38,34	
		1,49,22,25, 2,26, 9,42		8, 0
56″	29,32,39,50,35,36,35, 9,26,42		2, 9,35,46,34	
		1,49,22,22,52,50,23, 8		8, 0
58″	29,32,41,39,57,59,27,59,49,50		2, 9,35,54,34	
		1,49,22,20,43,14,28,34		
60″	29,32,43,29,20,20,11,14,18,24			
exact	29,32,43,29,20,20,11,14,30,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°30′ 0″	29,32,43,29,20,20,11,14,30,11			
		1,49,22,18,33,38,27,20		
2″	29,32,45,18,42,38,44,52,57,31		2, 9,36,10,28	
		1,49,22,16,24, 2,16,52		8, 0
4″	29,32,47, 8, 4,55, 8,55,14,23		2, 9,36,18,28	
		1,49,22,14,14,25,58,24		8, 0
6″	29,32,48,57,27, 9,23,21,12,47		2, 9,36,26,28	
		1,49,22,12, 4,49,31,56		8, 0
8″	29,32,50,46,49,21,28,10,44,43		2, 9,36,34,28	
		1,49,22, 9,55,12,57,28		8, 0
10″	29,32,52,36,11,31,23,23,42,11		2, 9,36,42,28	
		1,49,22, 7,45,36,15, 0		8, 0
12″	29,32,54,25,33,39, 8,59,57,11		2, 9,36,50,28	
		1,49,22, 5,35,59,24,32		8, 0
14″	29,32,56,14,55,44,44,59,21,43		2, 9,36,58,28	
		1,49,22, 3,26,22,26, 4		8, 0
16″	29,32,58, 4,17,48,11,21,47,47		2, 9,37, 6,28	
		1,49,22, 1,16,45,19,36		8, 0
18″	29,32,59,53,39,49,28, 7, 7,23		2, 9,37,14,28	
		1,49,21,59, 7, 8, 5, 8		8, 0
20″	29,33, 1,43, 1,48,35,15,12,31		2, 9,37,22,28	
		1,49,21,56,57,30,42,40		8, 0
22″	29,33, 3,32,23,45,32,45,55,11		2, 9,37,30,28	
		1,49,21,54,47,53,12,12		8, 0
24″	29,33, 5,21,45,40,20,39, 7,23		2, 9,37,38,28	
		1,49,21,52,38,15,33,44		8, 0
26″	29,33, 7,11, 7,32,58,54,41, 7		2, 9,37,46,28	
		1,49,21,50,28,37,47,16		8, 0
28″	29,33, 9, 0,29,23,27,32,28,23		2, 9,37,54,28	
		1,49,21,48,18,59,52,48		8, 0
30″	29,33,10,49,51,11,46,32,21,11		2, 9,38, 2,28	
		1,49,21,46, 9,21,50,20		8, 0
32″	29,33,12,39,12,57,55,54,11,31		2, 9,38,10,28	
		1,49,21,43,59,43,39,52		8, 0
34″	29,33,14,28,34,41,55,37,51,23		2, 9,38,18,28	
		1,49,21,41,50, 5,21,24		8, 0
36″	29,33,16,17,56,23,45,43,12,47		2, 9,38,26,28	
		1,49,21,39,40,26,54,56		8, 0
38″	29,33,18, 7,18, 3,26,10, 7,43		2, 9,38,34,28	
		1,49,21,37,30,48,20,28		8, 0
40″	29,33,19,56,39,40,56,58,28,11		2, 9,38,42,28	
		1,49,21,35,21, 9,38, 0		8, 0
42″	29,33,21,46, 1,16,18, 8, 6,11		2, 9,38,50,28	
		1,49,21,33,11,30,47,32		8, 0
44″	29,33,23,35,22,49,29,38,53,43		2, 9,38,58,28	
		1,49,21,31, 1,51,49, 4		8, 0
46″	29,33,25,24,44,20,31,30,42,47		2, 9,39, 6,28	
		1,49,21,28,52,12,42,36		8, 0
48″	29,33,27,14, 5,49,23,43,25,23		2, 9,39,14,28	
		1,49,21,26,42,33,28, 8		8, 0
50″	29,33,29, 3,27,16, 6,16,53,31		2, 9,39,22,28	
		1,49,21,24,32,54, 5,40		8, 0
52″	29,33,30,52,48,40,39,10,59,11		2, 9,39,30,28	
		1,49,21,22,23,14,35,12		8, 0
54″	29,33,32,42,10, 3, 2,25,34,23		2, 9,39,38,28	
		1,49,21,20,13,34,56,44		8, 0
56″	29,33,34,31,31,23,16, 0,31, 7		2, 9,39,46,28	
		1,49,21,18, 3,55,10,16		8, 0
58″	29,33,36,20,52,41,19,55,41,23		2, 9,39,54,28	
		1,49,21,15,54,15,15,48		
60″	29,33,38,10,13,57,14,10,57,11			
exact	29,33,38,10,13,57,14,11,14,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°31′ 0″	29,33,38,10,13,57,14,11,14,50			
		1,49,21,13,44,35,15,17		
2″	29,33,39,59,35,10,58,46,30, 7		2, 9,40,10,20	
		1,49,21,11,34,55, 4,57		8, 0
4″	29,33,41,48,56,22,33,41,35, 4		2, 9,40,18,20	
		1,49,21, 9,25,14,46,37		8, 0
6″	29,33,43,38,17,31,58,56,21,41		2, 9,40,26,20	
		1,49,21, 7,15,34,20,17		8, 0
8″	29,33,45,27,38,39,14,30,41,58		2, 9,40,34,20	
		1,49,21, 5, 5,53,45,57		8, 0
10″	29,33,47,16,59,44,20,24,27,55		2, 9,40,42,20	
		1,49,21, 2,56,13, 3,37		8, 0
12″	29,33,49, 6,20,47,16,37,31,32		2, 9,40,50,20	
		1,49,21, 0,46,32,13,17		8, 0
14″	29,33,50,55,41,48, 3, 9,44,49		2, 9,40,58,20	
		1,49,20,58,36,51,14,57		8, 0
16″	29,33,52,45, 2,46,40, 0,59,46		2, 9,41, 6,20	
		1,49,20,56,27,10, 8,37		8, 0
18″	29,33,54,34,23,43, 7,11, 8,23		2, 9,41,14,20	
		1,49,20,54,17,28,54,17		8, 0
20″	29,33,56,23,44,37,24,40, 2,40		2, 9,41,22,20	
		1,49,20,52, 7,47,31,57		8, 0
22″	29,33,58,13, 5,29,32,27,34,37		2, 9,41,30,20	
		1,49,20,49,58, 6, 1,37		8, 0
24″	29,34, 0, 2,26,19,30,33,36,14		2, 9,41,38,20	
		1,49,20,47,48,24,23,17		8, 0
26″	29,34, 1,51,47, 7,18,57,59,31		2, 9,41,46,20	
		1,49,20,45,38,42,36,57		8, 0
28″	29,34, 3,41, 7,52,57,40,36,28		2, 9,41,54,20	
		1,49,20,43,29, 0,42,37		8, 0
30″	29,34, 5,30,28,36,26,41,19, 5		2, 9,42, 2,20	
		1,49,20,41,19,18,40,17		8, 0
32″	29,34, 7,19,49,17,45,59,59,22		2, 9,42,10,20	
		1,49,20,39, 9,36,29,57		8, 0
34″	29,34, 9, 9, 9,56,55,36,29,19		2, 9,42,18,20	
		1,49,20,36,59,54,11,37		8, 0
36″	29,34,10,58,30,33,55,30,40,56		2, 9,42,26,20	
		1,49,20,34,50,11,45,17		8, 0
38″	29,34,12,47,51, 8,45,42,26,13		2, 9,42,34,20	
		1,49,20,32,40,29,10,57		8, 0
40″	29,34,14,37,11,41,26,11,37,10		2, 9,42,42,20	
		1,49,20,30,30,46,28,37		8, 0
42″	29,34,16,26,32,11,56,58, 5,47		2, 9,42,50,20	
		1,49,20,28,21, 3,38,17		8, 0
44″	29,34,18,15,52,40,18, 1,44, 4		2, 9,42,58,20	
		1,49,20,26,11,20,39,57		8, 0
46″	29,34,20, 5,13, 6,29,22,24, 1		2, 9,43, 6,20	
		1,49,20,24, 1,37,33,37		8, 0
48″	29,34,21,54,33,30,30,59,57,38		2, 9,43,14,20	
		1,49,20,21,51,54,19,17		8, 0
50″	29,34,23,43,53,52,22,54,16,55		2, 9,43,22,20	
		1,49,20,19,42,10,56,57		8, 0
52″	29,34,25,33,14,12, 5, 5,13,52		2, 9,43,30,20	
		1,49,20,17,32,27,26,37		8, 0
54″	29,34,27,22,34,29,37,32,40,29		2, 9,43,38,20	
		1,49,20,15,22,43,48,17		8, 0
56″	29,34,29,11,54,45, 0,16,28,46		2, 9,43,46,20	
		1,49,20,13,13, 0, 1,57		8, 0
58″	29,34,31, 1,14,58,13,16,30,43		2, 9,43,54,20	
		1,49,20,11, 3,16, 7,37		
60″	29,34,32,50,35, 9,16,32,38,20			
exact	29,34,32,50,35, 9,16,33, 4,42			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
29°32′	0″	29,34,32,50,35, 9,16,33, 4,42			
			1,49,20, 8,53,32, 8, 2		
	2″	29,34,34,39,55,18,10, 5,12,44		2, 9,44,10, 9	
			1,49,20, 6,43,47,57,53		8, 0
	4″	29,34,36,29,15,24,53,53,10,37		2, 9,44,18, 9	
			1,49,20, 4,34, 3,39,44		8, 0
	6″	29,34,38,18,35,29,27,56,50,21		2, 9,44,26, 9	
			1,49,20, 2,24,19,13,35		8, 0
	8″	29,34,40, 7,55,31,52,16, 3,56		2, 9,44,34, 9	
			1,49,20, 0,14,34,39,26		8, 0
	10″	29,34,41,57,15,32, 6,50,43,22		2, 9,44,42, 9	
			1,49,19,58, 4,49,57,17		8, 0
	12″	29,34,43,46,35,30,11,40,40,39		2, 9,44,50, 9	
			1,49,19,55,55, 5, 7, 8		8, 0
	14″	29,34,45,35,55,26, 6,45,47,47		2, 9,44,58, 9	
			1,49,19,53,45,20, 8,59		8, 0
	16″	29,34,47,25,15,19,52, 5,56,46		2, 9,45, 6, 9	
			1,49,19,51,35,35, 2,50		8, 0
	18″	29,34,49,14,35,11,27,40,59,36		2, 9,45,14, 9	
			1,49,19,49,25,49,48,41		8, 0
	20″	29,34,51, 3,55, 0,53,30,48,17		2, 9,45,22, 9	
			1,49,19,47,16, 4,26,32		8, 0
	22″	29,34,52,53,14,48, 9,35,14,49		2, 9,45,30, 9	
			1,49,19,45, 6,18,56,23		8, 0
	24″	29,34,54,42,34,33,15,54,11,12		2, 9,45,38, 9	
			1,49,19,42,56,33,18,14		8, 0
	26″	29,34,56,31,54,16,12,27,29,26		2, 9,45,46, 9	
			1,49,19,40,46,47,32, 5		8, 0
	28″	29,34,58,21,13,56,59,15, 1,31		2, 9,45,54, 9	
			1,49,19,38,37, 1,37,56		8, 0
	30″	29,35, 0,10,33,35,36,16,39,27		2, 9,46, 2, 9	
			1,49,19,36,27,15,35,47		8, 0
	32″	29,35, 1,59,53,12, 3,32,15,14		2, 9,46,10, 9	
			1,49,19,34,17,29,25,38		8, 0
	34″	29,35, 3,49,12,46,21, 1,40,52		2, 9,46,18, 9	
			1,49,19,32, 7,43, 7,29		8, 0
	36″	29,35, 5,38,32,18,28,44,48,21		2, 9,46,26, 9	
			1,49,19,29,57,56,41,20		8, 0
	38″	29,35, 7,27,51,48,26,41,29,41		2, 9,46,34, 9	
			1,49,19,27,48,10, 7,11		8, 0
	40″	29,35, 9,17,11,16,14,51,36,52		2, 9,46,42, 9	
			1,49,19,25,38,23,25, 2		8, 0
	42″	29,35,11, 6,30,41,53,15, 1,54		2, 9,46,50, 9	
			1,49,19,23,28,36,34,53		8, 0
	44″	29,35,12,55,50, 5,21,51,36,47		2, 9,46,58, 9	
			1,49,19,21,18,49,36,44		8, 0
	46″	29,35,14,45, 9,26,40,41,13,31		2, 9,47, 6, 9	
			1,49,19,19, 9, 2,30,35		8, 0
	48″	29,35,16,34,28,45,49,43,44, 6		2, 9,47,14, 9	
			1,49,19,16,59,15,16,26		8, 0
	50″	29,35,18,23,48, 2,48,59, 0,32		2, 9,47,22, 9	
			1,49,19,14,49,27,54,17		8, 0
	52″	29,35,20,13, 7,17,38,26,54,49		2, 9,47,30, 9	
			1,49,19,12,39,40,24, 8		8, 0
	54″	29,35,22, 2,26,30,18, 7,18,57		2, 9,47,38, 9	
			1,49,19,10,29,52,45,59		8, 0
	56″	29,35,23,51,45,40,48, 0, 4,56		2, 9,47,46, 9	
			1,49,19, 8,20, 4,59,50		8, 0
	58″	29,35,25,41, 4,49, 8, 5, 4,46		2, 9,47,54, 9	
			1,49,19, 6,10,17, 5,41		
	60″	29,35,27,30,23,55,18,22,10,27			
exact		29,35,27,30,23,55,18,22,41,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°33′ 0″	29,35,27,30,23,55,18,22,41,13			
		1,49,19, 4, 0,29, 6,47		
2″	29,35,29,19,42,59,18,51,48, 0		2, 9,48, 9,55	
		1,49,19, 1,50,40,56,52		8, 0
4″	29,35,31, 9, 2, 1, 9,32,44,52		2, 9,48,17,55	
		1,49,18,59,40,52,38,57		8, 0
6″	29,35,32,58,21, 0,50,25,23,49		2, 9,48,25,55	
		1,49,18,57,31, 4,13, 2		8, 0
8″	29,35,34,47,39,58,21,29,36,51		2, 9,48,33,55	
		1,49,18,55,21,15,39, 7		8, 0
10″	29,35,36,36,58,53,42,45,15,58		2, 9,48,41,55	
		1,49,18,53,11,26,57,12		8, 0
12″	29,35,38,26,17,46,54,12,13,10		2, 9,48,49,55	
		1,49,18,51, 1,38, 7,17		8, 0
14″	29,35,40,15,36,37,55,50,20,27		2, 9,48,57,55	
		1,49,18,48,51,49, 9,22		8, 0
16″	29,35,42, 4,55,26,47,39,29,49		2, 9,49, 5,55	
		1,49,18,46,42, 0, 3,27		8, 0
18″	29,35,43,54,14,13,29,39,33,16		2, 9,49,13,55	
		1,49,18,44,32,10,49,32		8, 0
20″	29,35,45,43,32,58, 1,50,22,48		2, 9,49,21,55	
		1,49,18,42,22,21,27,37		8, 0
22″	29,35,47,32,51,40,24,11,50,25		2, 9,49,29,55	
		1,49,18,40,12,31,57,42		8, 0
24″	29,35,49,22,10,20,36,43,48, 7		2, 9,49,37,55	
		1,49,18,38, 2,42,19,47		8, 0
26″	29,35,51,11,28,58,39,26, 7,54		2, 9,49,45,55	
		1,49,18,35,52,52,33,52		8, 0
28″	29,35,53, 0,47,34,32,18,41,46		2, 9,49,53,55	
		1,49,18,33,43, 2,39,57		8, 0
30″	29,35,54,50, 6, 8,15,21,21,43		2, 9,50, 1,55	
		1,49,18,31,33,12,38, 2		8, 0
32″	29,35,56,39,24,39,48,33,59,45		2, 9,50, 9,55	
		1,49,18,29,23,22,28, 7		8, 0
34″	29,35,58,28,43, 9,11,56,27,52		2, 9,50,17,55	
		1,49,18,27,13,32,10,12		8, 0
36″	29,36, 0,18, 1,36,25,28,38, 4		2, 9,50,25,55	
		1,49,18,25, 3,41,44,17		8, 0
38″	29,36, 2, 7,20, 1,29,10,22,21		2, 9,50,33,55	
		1,49,18,22,53,51,10,22		8, 0
40″	29,36, 3,56,38,24,23, 1,32,43		2, 9,50,41,55	
		1,49,18,20,44, 0,28,27		8, 0
42″	29,36, 5,45,56,45, 7, 2, 1,10		2, 9,50,49,55	
		1,49,18,18,34, 9,38,32		8, 0
44″	29,36, 7,35,15, 3,41,11,39,42		2, 9,50,57,55	
		1,49,18,16,24,18,40,37		8, 0
46″	29,36, 9,24,33,20, 5,30,20,19		2, 9,51, 5,55	
		1,49,18,14,14,27,34,42		8, 0
48″	29,36,11,13,51,34,19,57,55, 1		2, 9,51,13,55	
		1,49,18,12, 4,36,20,47		8, 0
50″	29,36,13, 3, 9,46,24,34,15,48		2, 9,51,21,55	
		1,49,18, 9,54,44,58,52		8, 0
52″	29,36,14,52,27,56,19,19,14,40		2, 9,51,29,55	
		1,49,18, 7,44,53,28,57		8, 0
54″	29,36,16,41,46, 4, 4,12,43,37		2, 9,51,37,55	
		1,49,18, 5,35, 1,51, 2		8, 0
56″	29,36,18,31, 4, 9,39,14,34,39		2, 9,51,45,55	
		1,49,18, 3,25,10, 5, 7		8, 0
58″	29,36,20,20,22,13, 4,24,39,46		2, 9,51,53,55	
		1,49,18, 1,15,18,11,12		
60″	29,36,22, 9,40,14,19,42,50,58			
exact	29,36,22, 9,40,14,19,43,21,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°34′ 0″	29,36,22, 9,40,14,19,43,21,19			
		1,49,17,59, 5,26,12,43		
2″	29,36,23,58,58,13,25, 9,34, 2		2, 9,52, 9,40	
		1,49,17,56,55,34, 3, 3		7,59
4″	29,36,25,48,16,10,20,43,37, 5		2, 9,52,17,39	
		1,49,17,54,45,41,45,24		7,59
6″	29,36,27,37,34, 5, 6,25,22,29		2, 9,52,25,38	
		1,49,17,52,35,49,19,46		7,59
8″	29,36,29,26,51,57,42,14,42,15		2, 9,52,33,37	
		1,49,17,50,25,56,46, 9		7,59
10″	29,36,31,16, 9,48, 8,11,28,24		2, 9,52,41,36	
		1,49,17,48,16, 4, 4,33		7,59
12″	29,36,33, 5,27,36,24,15,32,57		2, 9,52,49,35	
		1,49,17,46, 6,11,14,58		7,59
14″	29,36,34,54,45,22,30,26,47,55		2, 9,52,57,34	
		1,49,17,43,56,18,17,24		7,59
16″	29,36,36,44, 3, 6,26,45, 5,19		2, 9,53, 5,33	
		1,49,17,41,46,25,11,51		7,59
18″	29,36,38,33,20,48,13,10,17,10		2, 9,53,13,32	
		1,49,17,39,36,31,58,19		7,59
20″	29,36,40,22,38,27,49,42,15,29		2, 9,53,21,31	
		1,49,17,37,26,38,36,48		7,59
22″	29,36,42,11,56, 5,16,20,52,17		2, 9,53,29,30	
		1,49,17,35,16,45, 7,18		7,59
24″	29,36,44, 1,13,40,33, 5,59,35		2, 9,53,37,29	
		1,49,17,33, 6,51,29,49		7,59
26″	29,36,45,50,31,13,39,57,29,24		2, 9,53,45,28	
		1,49,17,30,56,57,44,21		7,59
28″	29,36,47,39,48,44,36,55,13,45		2, 9,53,53,27	
		1,49,17,28,47, 3,50,54		7,59
30″	29,36,49,29, 6,13,23,59, 4,39		2, 9,54, 1,26	
		1,49,17,26,37, 9,49,28		7,59
32″	29,36,51,18,23,40, 1, 8,54, 7		2, 9,54, 9,25	
		1,49,17,24,27,15,40, 3		7,59
34″	29,36,53, 7,41, 4,28,24,34,10		2, 9,54,17,24	
		1,49,17,22,17,21,22,39		7,59
36″	29,36,54,56,58,26,45,45,56,49		2, 9,54,25,23	
		1,49,17,20, 7,26,57,16		7,59
38″	29,36,56,46,15,46,53,12,54, 5		2, 9,54,33,22	
		1,49,17,17,57,32,23,54		7,59
40″	29,36,58,35,33, 4,50,45,17,59		2, 9,54,41,21	
		1,49,17,15,47,37,42,33		7,59
42″	29,37, 0,24,50,20,38,23, 0,32		2, 9,54,49,20	
		1,49,17,13,37,42,53,13		7,59
44″	29,37, 2,14, 7,34,16, 5,53,45		2, 9,54,57,19	
		1,49,17,11,27,47,55,54		7,59
46″	29,37, 4, 3,24,45,43,53,49,39		2, 9,55, 5,18	
		1,49,17, 9,17,52,50,36		7,59
48″	29,37, 5,52,41,55, 1,46,40,15		2, 9,55,13,17	
		1,49,17, 7, 7,57,37,19		7,59
50″	29,37, 7,41,59, 2, 9,44,17,34		2, 9,55,21,16	
		1,49,17, 4,58, 2,16, 3		7,59
52″	29,37, 9,31,16, 7, 7,46,33,37		2, 9,55,29,15	
		1,49,17, 2,48, 6,46,48		7,59
54″	29,37,11,20,33, 9,55,53,20,25		2, 9,55,37,14	
		1,49,17, 0,38,11, 9,34		7,59
56″	29,37,13, 9,50,10,34, 4,29,59		2, 9,55,45,13	
		1,49,16,58,28,15,24,21		7,59
58″	29,37,14,59, 7, 9, 2,19,54,20		2, 9,55,53,12	
		1,49,16,56,18,19,31, 9		
60″	29,37,16,48,24, 5,20,39,25,29			
exact	29,37,16,48,24, 5,20,38,57,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°35′ 0″	29,37,16,48,24, 5,20,38,57,34			
		1,49,16,54, 8,23,27, 0		
2″	29,37,18,37,40,59,29, 2,24,34		2, 9,56, 9,22	
		1,49,16,51,58,27,17,38		7,59
4″	29,37,20,26,57,51,27,29,42,12		2, 9,56,17,21	
		1,49,16,49,48,31, 0,17		7,59
6″	29,37,22,16,14,41,16, 0,42,29		2, 9,56,25,20	
		1,49,16,47,38,34,34,57		7,59
8″	29,37,24, 5,31,28,54,35,17,26		2, 9,56,33,19	
		1,49,16,45,28,38, 1,38		7,59
10″	29,37,25,54,48,14,23,13,19, 4		2, 9,56,41,18	
		1,49,16,43,18,41,20,20		7,59
12″	29,37,27,44, 4,57,41,54,39,24		2, 9,56,49,17	
		1,49,16,41, 8,44,31, 3		7,59
14″	29,37,29,33,21,38,50,39,10,27		2, 9,56,57,16	
		1,49,16,38,58,47,33,47		7,59
16″	29,37,31,22,38,17,49,26,44,14		2, 9,57, 5,15	
		1,49,16,36,48,50,28,32		7,59
18″	29,37,33,11,54,54,38,17,12,46		2, 9,57,13,14	
		1,49,16,34,38,53,15,18		7,59
20″	29,37,35, 1,11,29,17,10,28, 4		2, 9,57,21,13	
		1,49,16,32,28,55,54, 5		7,59
22″	29,37,36,50,28, 1,46, 6,22, 9		2, 9,57,29,12	
		1,49,16,30,18,58,24,53		7,59
24″	29,37,38,39,44,32, 5, 4,47, 2		2, 9,57,37,11	
		1,49,16,28, 9, 0,47,42		7,59
26″	29,37,40,29, 1, 0,14, 5,34,44		2, 9,57,45,10	
		1,49,16,25,59, 3, 2,32		7,59
28″	29,37,42,18,17,26,13, 8,37,16		2, 9,57,53, 9	
		1,49,16,23,49, 5, 9,23		7,59
30″	29,37,44, 7,33,50, 2,13,46,39		2, 9,58, 1, 8	
		1,49,16,21,39, 7, 8,15		7,59
32″	29,37,45,56,50,11,41,20,54,54		2, 9,58, 9, 7	
		1,49,16,19,29, 8,59, 8		7,59
34″	29,37,47,46, 6,31,10,29,54, 2		2, 9,58,17, 6	
		1,49,16,17,19,10,42, 2		7,59
36″	29,37,49,35,22,48,29,40,36, 4		2, 9,58,25, 5	
		1,49,16,15, 9,12,16,57		7,59
38″	29,37,51,24,39, 3,38,52,53, 1		2, 9,58,33, 4	
		1,49,16,12,59,13,43,53		7,59
40″	29,37,53,13,55,16,38, 6,36,54		2, 9,58,41, 3	
		1,49,16,10,49,15, 2,50		7,59
42″	29,37,55, 3,11,27,27,21,39,44		2, 9,58,49, 2	
		1,49,16, 8,39,16,13,48		7,59
44″	29,37,56,52,27,36, 6,37,53,32		2, 9,58,57, 1	
		1,49,16, 6,29,17,16,47		7,59
46″	29,37,58,41,43,42,35,55,10,19		2, 9,59, 5, 0	
		1,49,16, 4,19,18,11,47		7,59
48″	29,38, 0,30,59,46,55,13,22, 6		2, 9,59,12,59	
		1,49,16, 2, 9,18,58,48		7,59
50″	29,38, 2,20,15,49, 4,32,20,54		2, 9,59,20,58	
		1,49,15,59,59,19,37,50		7,59
52″	29,38, 4, 9,31,49, 3,51,58,44		2, 9,59,28,57	
		1,49,15,57,49,20, 8,53		7,59
54″	29,38, 5,58,47,46,53,12, 7,37		2, 9,59,36,56	
		1,49,15,55,39,20,31,57		7,59
56″	29,38, 7,48, 3,42,32,32,39,34		2, 9,59,44,55	
		1,49,15,53,29,20,47, 2		7,59
58″	29,38, 9,37,19,36, 1,53,26,36		2, 9,59,52,54	
		1,49,15,51,19,20,54, 8		
60″	29,38,11,26,35,27,21,14,20,44			
exact	29,38,11,26,35,27,21,13,58, 8			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
29°36′	0″	29,38,11,26,35,27,21,13,58, 8			
	2″	29,38,13,15,51,16,30,34,48,59	1,49,15,49, 9,20,50,51	2,10, 0, 9, 2	
	4″	29,38,15, 5, 7, 3,29,55,30,48	1,49,15,46,59,20,41,49	2,10, 0,17, 1	7,59
	6″	29,38,16,54,22,48,19,15,55,36	1,49,15,44,49,20,24,48	2,10, 0,25, 0	7,59
	8″	29,38,18,43,38,30,58,35,55,24	1,49,15,42,39,19,59,48	2,10, 0,32,59	7,59
	10″	29,38,20,32,54,11,27,55,22,13	1,49,15,40,29,19,26,49	2,10, 0,40,58	7,59
	12″	29,38,22,22, 9,49,47,14, 8, 4	1,49,15,38,19,18,45,51	2,10, 0,48,57	7,59
	14″	29,38,24,11,25,25,56,32, 4,58	1,49,15,36, 9,17,56,54	2,10, 0,56,56	7,59
	16″	29,38,26, 0,40,59,55,49, 4,56	1,49,15,33,59,16,59,58	2,10, 1, 4,55	7,59
	18″	29,38,27,49,56,31,45, 4,59,59	1,49,15,31,49,15,55, 3	2,10, 1,12,54	7,59
	20″	29,38,29,39,12, 1,24,19,42, 8	1,49,15,29,39,14,42, 9	2,10, 1,20,53	7,59
	22″	29,38,31,28,27,28,53,33, 3,24	1,49,15,27,29,13,21,16	2,10, 1,28,52	7,59
	24″	29,38,33,17,42,54,12,44,55,48	1,49,15,25,19,11,52,24	2,10, 1,36,51	7,59
	26″	29,38,35, 6,58,17,21,55,11,21	1,49,15,23, 9,10,15,33	2,10, 1,44,50	7,59
	28″	29,38,36,56,13,38,21, 3,42, 4	1,49,15,20,59, 8,30,43	2,10, 1,52,49	7,59
	30″	29,38,38,45,28,57,10,10,19,58	1,49,15,18,49, 6,37,54	2,10, 2, 0,48	7,59
	32″	29,38,40,34,44,13,49,14,57, 4	1,49,15,16,39, 4,37, 6	2,10, 2, 8,47	7,59
	34″	29,38,42,23,59,28,18,17,25,23	1,49,15,14,29, 2,28,19	2,10, 2,16,46	7,59
	36″	29,38,44,13,14,40,37,17,36,56	1,49,15,12,19, 0,11,33	2,10, 2,24,45	7,59
	38″	29,38,46, 2,29,50,46,15,23,44	1,49,15,10, 8,57,46,48	2,10, 2,32,44	7,59
	40″	29,38,47,51,44,58,45,10,37,48	1,49,15, 7,58,55,14, 4	2,10, 2,40,43	7,59
	42″	29,38,49,41, 0, 4,34, 3,11, 9	1,49,15, 5,48,52,33,21	2,10, 2,48,42	7,59
	44″	29,38,51,30,15, 8,12,52,55,48	1,49,15, 3,38,49,44,39	2,10, 2,56,41	7,59
	46″	29,38,53,19,30, 9,41,39,43,46	1,49,15, 1,28,46,47,58	2,10, 3, 4,40	7,59
	48″	29,38,55, 8,45, 9, 0,23,27, 4	1,49,14,59,18,43,43,18	2,10, 3,12,39	7,59
	50″	29,38,56,58, 0, 6, 9, 3,57,43	1,49,14,57, 8,40,30,39	2,10, 3,20,38	7,59
	52″	29,38,58,47,15, 1, 7,41, 7,44	1,49,14,54,58,37,10, 1	2,10, 3,28,37	7,59
	54″	29,39, 0,36,29,53,56,14,49, 8	1,49,14,52,48,33,41,24	2,10, 3,36,36	7,59
	56″	29,39, 2,25,44,44,34,44,53,56	1,49,14,50,38,30, 4,48	2,10, 3,44,35	7,59
	58″	29,39, 4,14,59,33, 3,11,14, 9	1,49,14,48,28,26,20,13	2,10, 3,52,34	
	60″	29,39, 6, 4,14,19,21,33,41,48	1,49,14,46,18,22,27,39		
exact		29,39, 6, 4,14,19,21,33,26,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°37′ 0″	29,39, 6, 4,14,19,21,33,26,48			
		1,49,14,44, 8,18,25,26		
2″	29,39, 7,53,29, 3,29,51,52,14		2,10, 4, 8,39	
		1,49,14,41,58,14,16,47		7,59
4″	29,39, 9,42,43,45,28, 6, 9, 1		2,10, 4,16,38	
		1,49,14,39,48,10, 0, 9		7,59
6″	29,39,11,31,58,25,16,16, 9,10		2,10, 4,24,37	
		1,49,14,37,38, 5,35,32		7,59
8″	29,39,13,21,13, 2,54,21,44,42		2,10, 4,32,36	
		1,49,14,35,28, 1, 2,56		7,59
10″	29,39,15,10,27,38,22,22,47,38		2,10, 4,40,35	
		1,49,14,33,17,56,22,21		7,59
12″	29,39,16,59,42,11,40,19, 9,59		2,10, 4,48,34	
		1,49,14,31, 7,51,33,47		7,59
14″	29,39,18,48,56,42,48,10,43,46		2,10, 4,56,33	
		1,49,14,28,57,46,37,14		7,59
16″	29,39,20,38,11,11,45,57,21, 0		2,10, 5, 4,32	
		1,49,14,26,47,41,32,42		7,59
18″	29,39,22,27,25,38,33,38,53,42		2,10, 5,12,31	
		1,49,14,24,37,36,20,11		7,59
20″	29,39,24,16,40, 3,11,15,13,53		2,10, 5,20,30	
		1,49,14,22,27,30,59,41		7,59
22″	29,39,26, 5,54,25,38,46,13,34		2,10, 5,28,29	
		1,49,14,20,17,25,31,12		7,59
24″	29,39,27,55, 8,45,56,11,44,46		2,10, 5,36,28	
		1,49,14,18, 7,19,54,44		7,59
26″	29,39,29,44,23, 4, 3,31,39,30		2,10, 5,44,27	
		1,49,14,15,57,14,10,17		7,59
28″	29,39,31,33,37,20, 0,45,49,47		2,10, 5,52,26	
		1,49,14,13,47, 8,17,51		7,59
30″	29,39,33,22,51,33,47,54, 7,38		2,10, 6, 0,25	
		1,49,14,11,37, 2,17,26		7,59
32″	29,39,35,12, 5,45,24,56,25, 4		2,10, 6, 8,24	
		1,49,14, 9,26,56, 9, 2		7,59
34″	29,39,37, 1,19,54,51,52,34, 6		2,10, 6,16,23	
		1,49,14, 7,16,49,52,39		7,59
36″	29,39,38,50,34, 2, 8,42,26,45		2,10, 6,24,22	
		1,49,14, 5, 6,43,28,17		7,59
38″	29,39,40,39,48, 7,15,25,55, 2		2,10, 6,32,21	
		1,49,14, 2,56,36,55,56		7,59
40″	29,39,42,29, 2,10,12, 2,50,58		2,10, 6,40,20	
		1,49,14, 0,46,30,15,36		7,59
42″	29,39,44,18,16,10,58,33, 6,34		2,10, 6,48,19	
		1,49,13,58,36,23,27,17		7,59
44″	29,39,46, 7,30, 9,34,56,33,51		2,10, 6,56,18	
		1,49,13,56,26,16,30,59		7,59
46″	29,39,47,56,44, 6, 1,13, 4,50		2,10, 7, 4,17	
		1,49,13,54,16, 9,26,42		7,59
48″	29,39,49,45,58, 0,17,22,31,32		2,10, 7,12,16	
		1,49,13,52, 6, 2,14,26		7,59
50″	29,39,51,35,11,52,23,24,45,58		2,10, 7,20,15	
		1,49,13,49,55,54,54,11		7,59
52″	29,39,53,24,25,42,19,19,40, 9		2,10, 7,28,14	
		1,49,13,47,45,47,25,57		7,59
54″	29,39,55,13,39,30, 5, 7, 6, 6		2,10, 7,36,13	
		1,49,13,45,35,39,49,44		7,59
56″	29,39,57, 2,53,15,40,46,55,50		2,10, 7,44,12	
		1,49,13,43,25,32, 5,32		7,59
58″	29,39,58,52, 6,59, 6,19, 1,22		2,10, 7,52,11	
		1,49,13,41,15,24,13,21		
60″	29,40, 0,41,20,40,21,43,14,43			
exact	29,40, 0,41,20,40,21,43, 2,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°38′ 0″	29,40, 0,41,20,40,21,43, 2,59	1,49,13,39, 5,16,11,57		
2″	29,40, 2,30,34,19,26,59,14,56	1,49,13,36,55, 8, 3,43	2,10, 8, 8,14	7,59
4″	29,40, 4,19,47,56,22, 7,18,39	1,49,13,34,44,59,47,30	2,10, 8,16,13	7,59
6″	29,40, 6, 9, 1,31, 7, 7, 6, 9	1,49,13,32,34,51,23,18	2,10, 8,24,12	7,59
8″	29,40, 7,58,15, 3,41,58,29,27	1,49,13,30,24,42,51, 7	2,10, 8,32,11	7,59
10″	29,40, 9,47,28,34, 6,41,20,34	1,49,13,28,14,34,10,57	2,10, 8,40,10	7,59
12″	29,40,11,36,42, 2,21,15,31,31	1,49,13,26, 4,25,22,48	2,10, 8,48, 9	7,59
14″	29,40,13,25,55,28,25,40,54,19	1,49,13,23,54,16,26,40	2,10, 8,56, 8	7,59
16″	29,40,15,15, 8,52,19,57,20,59	1,49,13,21,44, 7,22,33	2,10, 9, 4, 7	7,59
18″	29,40,17, 4,22,14, 4, 4,43,32	1,49,13,19,33,58,10,27	2,10, 9,12, 6	7,59
20″	29,40,18,53,35,33,38, 2,53,59	1,49,13,17,23,48,50,22	2,10, 9,20, 5	7,59
22″	29,40,20,42,48,51, 1,51,44,21	1,49,13,15,13,39,22,18	2,10, 9,28, 4	7,59
24″	29,40,22,32, 2, 6,15,31, 6,39	1,49,13,13, 3,29,46,15	2,10, 9,36, 3	7,59
26″	29,40,24,21,15,19,19, 0,52,54	1,49,13,10,53,20, 2,13	2,10, 9,44, 2	7,59
28″	29,40,26,10,28,30,12,20,55, 7	1,49,13, 8,43,10,10,12	2,10, 9,52, 1	7,59
30″	29,40,27,59,41,38,55,31, 5,19	1,49,13, 6,33, 0,10,12	2,10,10, 0, 0	7,59
32″	29,40,29,48,54,45,28,31,15,31	1,49,13, 4,22,50, 2,13	2,10,10, 7,59	7,59
34″	29,40,31,38, 7,49,51,21,17,44	1,49,13, 2,12,39,46,15	2,10,10,15,58	7,59
36″	29,40,33,27,20,52, 4, 1, 3,59	1,49,13, 0, 2,29,22,18	2,10,10,23,57	7,59
38″	29,40,35,16,33,52, 6,30,26,17	1,49,12,57,52,18,50,22	2,10,10,31,56	7,59
40″	29,40,37, 5,46,49,58,49,16,39	1,49,12,55,42, 8,10,27	2,10,10,39,55	7,59
42″	29,40,38,54,59,45,40,57,27, 6	1,49,12,53,31,57,22,33	2,10,10,47,54	7,59
44″	29,40,40,44,12,39,12,54,49,39	1,49,12,51,21,46,26,40	2,10,10,55,53	7,59
46″	29,40,42,33,25,30,34,41,16,19	1,49,12,49,11,35,22,48	2,10,11, 3,52	7,59
48″	29,40,44,22,38,19,46,16,39, 7	1,49,12,47, 1,24,10,57	2,10,11,11,51	7,59
50″	29,40,46,11,51, 6,47,40,50, 4	1,49,12,44,51,12,51, 7	2,10,11,19,50	7,59
52″	29,40,48, 1, 3,51,38,53,41,11	1,49,12,42,41, 1,23,18	2,10,11,27,49	7,59
54″	29,40,49,50,16,34,19,55, 4,29	1,49,12,40,30,49,47,30	2,10,11,35,48	7,59
56″	29,40,51,39,29,14,50,44,51,59	1,49,12,38,20,38, 3,43	2,10,11,43,47	7,59
58″	29,40,53,28,41,53,11,22,55,42	1,49,12,36,10,26,11,57	2,10,11,51,46	
60″	29,40,55,17,54,29,21,49, 7,39			
exact	29,40,55,17,54,29,21,49, 1,45			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
29°39′	0″	29,40,55,17,54,29,21,49, 1,45			
			1,49,12,34, 0,14,11,35		
	2″	29,40,57, 7, 7, 3,22, 3,13,20		2,10,12, 7,46	
			1,49,12,31,50, 2, 3,49		7,59
	4″	29,40,58,56,19,35,12, 5,17, 9		2,10,12,15,45	
			1,49,12,29,39,49,48, 4		7,59
	6″	29,41, 0,45,32, 4,51,55, 5,13		2,10,12,23,44	
			1,49,12,27,29,37,24,20		7,59
	8″	29,41, 2,34,44,32,21,32,29,33		2,10,12,31,43	
			1,49,12,25,19,24,52,37		7,59
	10″	29,41, 4,23,56,57,40,57,22,10		2,10,12,39,42	
			1,49,12,23, 9,12,12,55		7,59
	12″	29,41, 6,13, 9,20,50, 9,35, 5		2,10,12,47,41	
			1,49,12,20,58,59,25,14		7,59
	14″	29,41, 8, 2,21,41,49, 9, 0,19		2,10,12,55,40	
			1,49,12,18,48,46,29,34		7,59
	16″	29,41, 9,51,34, 0,37,55,29,53		2,10,13, 3,39	
			1,49,12,16,38,33,25,55		7,59
	18″	29,41,11,40,46,17,16,28,55,48		2,10,13,11,38	
			1,49,12,14,28,20,14,17		7,59
	20″	29,41,13,29,58,31,44,49,10, 5		2,10,13,19,37	
			1,49,12,12,18, 6,54,40		7,59
	22″	29,41,15,19,10,44, 2,56, 4,45		2,10,13,27,36	
			1,49,12,10, 7,53,27, 4		7,59
	24″	29,41,17, 8,22,54,10,49,31,49		2,10,13,35,35	
			1,49,12, 7,57,39,51,29		7,59
	26″	29,41,18,57,35, 2, 8,29,23,18		2,10,13,43,34	
			1,49,12, 5,47,26, 7,55		7,59
	28″	29,41,20,46,47, 7,55,55,31,13		2,10,13,51,33	
			1,49,12, 3,37,12,16,22		7,59
	30″	29,41,22,35,59,11,33, 7,47,35		2,10,13,59,32	
			1,49,12, 1,26,58,16,50		7,59
	32″	29,41,24,25,11,13, 0, 6, 4,25		2,10,14, 7,31	
			1,49,11,59,16,44, 9,19		7,59
	34″	29,41,26,14,23,12,16,50,13,44		2,10,14,15,30	
			1,49,11,57, 6,29,53,49		7,59
	36″	29,41,28, 3,35, 9,23,20, 7,33		2,10,14,23,29	
			1,49,11,54,56,15,30,20		7,59
	38″	29,41,29,52,47, 4,19,35,37,53		2,10,14,31,28	
			1,49,11,52,46, 0,58,52		7,59
	40″	29,41,31,41,58,57, 5,36,36,45		2,10,14,39,27	
			1,49,11,50,35,46,19,25		7,59
	42″	29,41,33,31,10,47,41,22,56,10		2,10,14,47,26	
			1,49,11,48,25,31,31,59		7,59
	44″	29,41,35,20,22,36, 6,54,28, 9		2,10,14,55,25	
			1,49,11,46,15,16,36,34		7,59
	46″	29,41,37, 9,34,22,22,11, 4,43		2,10,15, 3,24	
			1,49,11,44, 5, 1,33,10		7,59
	48″	29,41,38,58,46, 6,27,12,37,53		2,10,15,11,23	
			1,49,11,41,54,46,21,47		7,59
	50″	29,41,40,47,57,48,21,58,59,40		2,10,15,19,22	
			1,49,11,39,44,31, 2,25		7,59
	52″	29,41,42,37, 9,28, 6,30, 2, 5		2,10,15,27,21	
			1,49,11,37,34,15,35, 4		7,59
	54″	29,41,44,26,21, 5,40,45,37, 9		2,10,15,35,20	
			1,49,11,35,23,59,59,44		7,59
	56″	29,41,46,15,32,41, 4,45,36,53		2,10,15,43,19	
			1,49,11,33,13,44,16,25		7,59
	58″	29,41,48, 4,44,14,18,29,53,18		2,10,15,51,18	
			1,49,11,31, 3,28,25, 7		
	60″	29,41,49,53,55,45,21,58,18,25			
exact		29,41,49,53,55,45,21,58,13,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°40′ 0″	29,41,49,53,55,45,21,58,13,53			
		1,49,11,28,53,12,25,31		
2″	29,41,51,43, 7,14,15,10,39,24		2,10,16, 7,17	
		1,49,11,26,42,56,18,14		7,59
4″	29,41,53,32,18,40,58, 6,57,38		2,10,16,15,16	
		1,49,11,24,32,40, 2,58		7,59
6″	29,41,55,21,30, 5,30,47, 0,36		2,10,16,23,15	
		1,49,11,22,22,23,39,43		7,59
8″	29,41,57,10,41,27,53,10,40,19		2,10,16,31,14	
		1,49,11,20,12, 7, 8,29		7,59
10″	29,41,58,59,52,48, 5,17,48,48		2,10,16,39,13	
		1,49,11,18, 1,50,29,16		7,59
12″	29,42, 0,49, 4, 6, 7, 8,18, 4		2,10,16,47,12	
		1,49,11,15,51,33,42, 4		7,59
14″	29,42, 2,38,15,21,58,42, 0, 8		2,10,16,55,11	
		1,49,11,13,41,16,46,53		7,59
16″	29,42, 4,27,26,35,39,58,47, 1		2,10,17, 3,10	
		1,49,11,11,30,59,43,43		7,59
18″	29,42, 6,16,37,47,10,58,30,44		2,10,17,11, 9	
		1,49,11, 9,20,42,32,34		7,59
20″	29,42, 8, 5,48,56,31,41, 3,18		2,10,17,19, 8	
		1,49,11, 7,10,25,13,26		7,59
22″	29,42, 9,55, 0, 3,42, 6,16,44		2,10,17,27, 7	
		1,49,11, 5, 0, 7,46,19		7,59
24″	29,42,11,44,11, 8,42,14, 3, 3		2,10,17,35, 6	
		1,49,11, 2,49,50,11,13		7,59
26″	29,42,13,33,22,11,32, 4,14,16		2,10,17,43, 5	
		1,49,11, 0,39,32,28, 8		7,59
28″	29,42,15,22,33,12,11,36,42,24		2,10,17,51, 4	
		1,49,10,58,29,14,37, 4		7,59
30″	29,42,17,11,44,10,40,51,19,28		2,10,17,59, 3	
		1,49,10,56,18,56,38, 1		7,59
32″	29,42,19, 0,55, 6,59,47,57,29		2,10,18, 7, 2	
		1,49,10,54, 8,38,30,59		7,59
34″	29,42,20,50, 6, 1, 8,26,28,28		2,10,18,15, 1	
		1,49,10,51,58,20,15,58		7,59
36″	29,42,22,39,16,53, 6,46,44,26		2,10,18,23, 0	
		1,49,10,49,48, 1,52,58		7,59
38″	29,42,24,28,27,42,54,48,37,24		2,10,18,30,59	
		1,49,10,47,37,43,21,59		7,59
40″	29,42,26,17,38,30,32,31,59,23		2,10,18,38,58	
		1,49,10,45,27,24,43, 1		7,59
42″	29,42,28, 6,49,15,59,56,42,24		2,10,18,46,57	
		1,49,10,43,17, 5,56, 4		7,59
44″	29,42,29,55,59,59,17, 2,38,28		2,10,18,54,56	
		1,49,10,41, 6,47, 1, 8		7,59
46″	29,42,31,45,10,40,23,49,39,36		2,10,19, 2,55	
		1,49,10,38,56,27,58,13		7,59
48″	29,42,33,34,21,19,20,17,37,49		2,10,19,10,54	
		1,49,10,36,46, 8,47,19		7,59
50″	29,42,35,23,31,56, 6,26,25, 8		2,10,19,18,53	
		1,49,10,34,35,49,28,26		7,59
52″	29,42,37,12,42,30,42,15,53,34		2,10,19,26,52	
		1,49,10,32,25,30, 1,34		7,59
54″	29,42,39, 1,53, 3, 7,45,55, 8		2,10,19,34,51	
		1,49,10,30,15,10,26,43		7,59
56″	29,42,40,51, 3,33,22,56,21,51		2,10,19,42,50	
		1,49,10,28, 4,50,43,53		7,59
58″	29,42,42,40,14, 1,27,47, 5,44		2,10,19,50,49	
		1,49,10,25,54,30,53, 4		
60″	29,42,44,29,24,27,22,17,58,48			
exact	29,42,44,29,24,27,22,18, 5,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°41′ 0″	29,42,44,29,24,27,22,18, 5,49			
		1,49,10,23,44,10,54,57		
2″	29,42,46,18,34,51, 6,29, 0,46		2,10,20, 6,44	
		1,49,10,21,33,50,48,13		7,59
4″	29,42,48, 7,45,12,40,19,48,59		2,10,20,14,43	
		1,49,10,19,23,30,33,30		7,59
6″	29,42,49,56,55,32, 3,50,22,29		2,10,20,22,42	
		1,49,10,17,13,10,10,48		7,59
8″	29,42,51,46, 5,49,17, 0,33,17		2,10,20,30,41	
		1,49,10,15, 2,49,40, 7		7,59
10″	29,42,53,35,16, 4,19,50,13,24		2,10,20,38,40	
		1,49,10,12,52,29, 1,27		7,59
12″	29,42,55,24,26,17,12,19,14,51		2,10,20,46,39	
		1,49,10,10,42, 8,14,48		7,59
14″	29,42,57,13,36,27,54,27,29,39		2,10,20,54,38	
		1,49,10, 8,31,47,20,10		7,59
16″	29,42,59, 2,46,36,26,14,49,49		2,10,21, 2,37	
		1,49,10, 6,21,26,17,33		7,59
18″	29,43, 0,51,56,42,47,41, 7,22		2,10,21,10,36	
		1,49,10, 4,11, 5, 6,57		7,59
20″	29,43, 2,41, 6,46,58,46,14,19		2,10,21,18,35	
		1,49,10, 2, 0,43,48,22		7,59
22″	29,43, 4,30,16,48,59,30, 2,41		2,10,21,26,34	
		1,49, 9,59,50,22,21,48		7,59
24″	29,43, 6,19,26,48,49,52,24,29		2,10,21,34,33	
		1,49, 9,57,40, 0,47,15		7,59
26″	29,43, 8, 8,36,46,29,53,11,44		2,10,21,42,32	
		1,49, 9,55,29,39, 4,43		7,59
28″	29,43, 9,57,46,41,59,32,16,27		2,10,21,50,31	
		1,49, 9,53,19,17,14,12		7,59
30″	29,43,11,46,56,35,18,49,30,39		2,10,21,58,30	
		1,49, 9,51, 8,55,15,42		7,59
32″	29,43,13,36, 6,26,27,44,46,21		2,10,22, 6,29	
		1,49, 9,48,58,33, 9,13		7,59
34″	29,43,15,25,16,15,26,17,55,34		2,10,22,14,28	
		1,49, 9,46,48,10,54,45		7,59
36″	29,43,17,14,26, 2,14,28,50,19		2,10,22,22,27	
		1,49, 9,44,37,48,32,18		7,59
38″	29,43,19, 3,35,46,52,17,22,37		2,10,22,30,26	
		1,49, 9,42,27,26, 1,52		7,59
40″	29,43,20,52,45,29,19,43,24,29		2,10,22,38,25	
		1,49, 9,40,17, 3,23,27		7,59
42″	29,43,22,41,55, 9,36,46,47,56		2,10,22,46,24	
		1,49, 9,38, 6,40,37, 3		7,59
44″	29,43,24,31, 4,47,43,27,24,59		2,10,22,54,23	
		1,49, 9,35,56,17,42,40		7,59
46″	29,43,26,20,14,23,39,45, 7,39		2,10,23, 2,22	
		1,49, 9,33,45,54,40,18		7,59
48″	29,43,28, 9,23,57,25,39,47,57		2,10,23,10,21	
		1,49, 9,31,35,31,29,57		7,59
50″	29,43,29,58,33,29, 1,11,17,54		2,10,23,18,20	
		1,49, 9,29,25, 8,11,37		7,59
52″	29,43,31,47,42,58,26,19,29,31		2,10,23,26,19	
		1,49, 9,27,14,44,45,18		7,59
54″	29,43,33,36,52,25,41, 4,14,49		2,10,23,34,18	
		1,49, 9,25, 4,21,11, 0		7,59
56″	29,43,35,26, 1,50,45,25,25,49		2,10,23,42,17	
		1,49, 9,22,53,57,28,43		7,59
58″	29,43,37,15,11,13,39,22,54,32		2,10,23,50,16	
		1,49, 9,20,43,33,38,27		
60″	29,43,39, 4,20,34,22,56,32,59			
exact	29,43,39, 4,20,34,22,56,39,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°42′ 0″	29,43,39, 4,20,34,22,56,39,43			
		1,49, 9,18,33, 9,41, 4		
2″	29,43,40,53,29,52,56, 6,20,47		2,10,24, 6,10	
		1,49, 9,16,22,45,34,54		7,59
4″	29,43,42,42,39, 9,18,51,55,41		2,10,24,14, 9	
		1,49, 9,14,12,21,20,45		7,59
6″	29,43,44,31,48,23,31,13,16,26		2,10,24,22, 8	
		1,49, 9,12, 1,56,58,37		7,59
8″	29,43,46,20,57,35,33,10,15, 3		2,10,24,30, 7	
		1,49, 9, 9,51,32,28,30		7,59
10″	29,43,48,10, 6,45,24,42,43,33		2,10,24,38, 6	
		1,49, 9, 7,41, 7,50,24		7,59
12″	29,43,49,59,15,53, 5,50,33,57		2,10,24,46, 5	
		1,49, 9, 5,30,43, 4,19		7,59
14″	29,43,51,48,24,58,36,33,38,16		2,10,24,54, 4	
		1,49, 9, 3,20,18,10,15		7,59
16″	29,43,53,37,34, 1,56,51,48,31		2,10,25, 2, 3	
		1,49, 9, 1, 9,53, 8,12		7,59
18″	29,43,55,26,43, 3, 6,44,56,43		2,10,25,10, 2	
		1,49, 8,58,59,27,58,10		7,59
20″	29,43,57,15,52, 2, 6,12,54,53		2,10,25,18, 1	
		1,49, 8,56,49, 2,40, 9		7,59
22″	29,43,59, 5, 0,58,55,15,35, 2		2,10,25,26, 0	
		1,49, 8,54,38,37,14, 9		7,59
24″	29,44, 0,54, 9,53,33,52,49,11		2,10,25,33,59	
		1,49, 8,52,28,11,40,10		7,59
26″	29,44, 2,43,18,46, 2, 4,29,21		2,10,25,41,58	
		1,49, 8,50,17,45,58,12		7,59
28″	29,44, 4,32,27,36,19,50,27,33		2,10,25,49,57	
		1,49, 8,48, 7,20, 8,15		7,59
30″	29,44, 6,21,36,24,27,10,35,48		2,10,25,57,56	
		1,49, 8,45,56,54,10,19		7,59
32″	29,44, 8,10,45,10,24, 4,46, 7		2,10,26, 5,55	
		1,49, 8,43,46,28, 4,24		7,59
34″	29,44, 9,59,53,54,10,32,50,31		2,10,26,13,54	
		1,49, 8,41,36, 1,50,30		7,59
36″	29,44,11,49, 2,35,46,34,41, 1		2,10,26,21,53	
		1,49, 8,39,25,35,28,37		7,59
38″	29,44,13,38,11,15,12,10, 9,38		2,10,26,29,52	
		1,49, 8,37,15, 8,58,45		7,59
40″	29,44,15,27,19,52,27,19, 8,23		2,10,26,37,51	
		1,49, 8,35, 4,42,20,54		7,59
42″	29,44,17,16,28,27,32, 1,29,17		2,10,26,45,50	
		1,49, 8,32,54,15,35, 4		7,59
44″	29,44,19, 5,37, 0,26,17, 4,21		2,10,26,53,49	
		1,49, 8,30,43,48,41,15		7,59
46″	29,44,20,54,45,31,10, 5,45,36		2,10,27, 1,48	
		1,49, 8,28,33,21,39,27		7,59
48″	29,44,22,43,53,59,43,27,25, 3		2,10,27, 9,47	
		1,49, 8,26,22,54,29,40		7,59
50″	29,44,24,33, 2,26, 6,21,54,43		2,10,27,17,46	
		1,49, 8,24,12,27,11,54		7,59
52″	29,44,26,22,10,50,18,49, 6,37		2,10,27,25,45	
		1,49, 8,22, 1,59,46, 9		7,59
54″	29,44,28,11,19,12,20,48,52,46		2,10,27,33,44	
		1,49, 8,19,51,32,12,25		7,59
56″	29,44,30, 0,27,32,12,21, 5,11		2,10,27,41,43	
		1,49, 8,17,41, 4,30,42		7,59
58″	29,44,31,49,35,49,53,25,35,53		2,10,27,49,42	
		1,49, 8,15,30,36,41, 0		
60″	29,44,33,38,44, 5,24, 2,16,53			
exact	29,44,33,38,44, 5,24, 2,33,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°43′ 0″	29,44,33,38,44, 5,24, 2,33,29			
		1,49, 8,13,20, 8,45, 4		
2″	29,44,35,27,52,18,44,11,18,33		2,10,28, 5,33	
		1,49, 8,11, 9,40,39,31		7,59
4″	29,44,37,17, 0,29,53,51,58, 4		2,10,28,13,32	
		1,49, 8, 8,59,12,25,59		7,59
6″	29,44,39, 6, 8,38,53, 4,24, 3		2,10,28,21,31	
		1,49, 8, 6,48,44, 4,28		7,59
8″	29,44,40,55,16,45,41,48,28,31		2,10,28,29,30	
		1,49, 8, 4,38,15,34,58		7,59
10″	29,44,42,44,24,50,20, 4, 3,29		2,10,28,37,29	
		1,49, 8, 2,27,46,57,29		7,59
12″	29,44,44,33,32,52,47,51, 0,58		2,10,28,45,28	
		1,49, 8, 0,17,18,12, 1		7,59
14″	29,44,46,22,40,53, 5, 9,12,59		2,10,28,53,27	
		1,49, 7,58, 6,49,18,34		7,59
16″	29,44,48,11,48,51,11,58,31,33		2,10,29, 1,26	
		1,49, 7,55,56,20,17, 8		7,59
18″	29,44,50, 0,56,47, 8,18,48,41		2,10,29, 9,25	
		1,49, 7,53,45,51, 7,43		7,59
20″	29,44,51,50, 4,40,54, 9,56,24		2,10,29,17,24	
		1,49, 7,51,35,21,50,19		7,59
22″	29,44,53,39,12,32,29,31,46,43		2,10,29,25,23	
		1,49, 7,49,24,52,24,56		7,59
24″	29,44,55,28,20,21,54,24,11,39		2,10,29,33,22	
		1,49, 7,47,14,22,51,34		7,59
26″	29,44,57,17,28, 9, 8,47, 3,13		2,10,29,41,21	
		1,49, 7,45, 3,53,10,13		7,59
28″	29,44,59, 6,35,54,12,40,13,26		2,10,29,49,20	
		1,49, 7,42,53,23,20,53		7,59
30″	29,45, 0,55,43,37, 6, 3,34,19		2,10,29,57,19	
		1,49, 7,40,42,53,23,34		7,59
32″	29,45, 2,44,51,17,48,56,57,53		2,10,30, 5,18	
		1,49, 7,38,32,23,18,16		7,59
34″	29,45, 4,33,58,56,21,20,16, 9		2,10,30,13,17	
		1,49, 7,36,21,53, 4,59		7,59
36″	29,45, 6,23, 6,32,43,13,21, 8		2,10,30,21,16	
		1,49, 7,34,11,22,43,43		7,59
38″	29,45, 8,12,14, 6,54,36, 4,51		2,10,30,29,15	
		1,49, 7,32, 0,52,14,28		7,59
40″	29,45,10, 1,21,38,55,28,19,19		2,10,30,37,14	
		1,49, 7,29,50,21,37,14		7,59
42″	29,45,11,50,29, 8,45,49,56,33		2,10,30,45,13	
		1,49, 7,27,39,50,52, 1		7,59
44″	29,45,13,39,36,36,25,40,48,34		2,10,30,53,12	
		1,49, 7,25,29,19,58,49		7,59
46″	29,45,15,28,44, 1,55, 0,47,23		2,10,31, 1,11	
		1,49, 7,23,18,48,57,38		7,59
48″	29,45,17,17,51,25,13,49,45, 1		2,10,31, 9,10	
		1,49, 7,21, 8,17,48,28		7,59
50″	29,45,19, 6,58,46,22, 7,33,29		2,10,31,17, 9	
		1,49, 7,18,57,46,31,19		7,59
52″	29,45,20,56, 6, 5,19,54, 4,48		2,10,31,25, 8	
		1,49, 7,16,47,15, 6,11		7,59
54″	29,45,22,45,13,22, 7, 9,10,59		2,10,31,33, 7	
		1,49, 7,14,36,43,33, 4		7,59
56″	29,45,24,34,20,36,43,52,44, 3		2,10,31,41, 6	
		1,49, 7,12,26,11,51,58		7,59
58″	29,45,26,23,27,49,10, 4,36, 1		2,10,31,49, 5	
		1,49, 7,10,15,40, 2,53		
60″	29,45,28,12,34,59,25,44,38,54			
exact	29,45,28,12,34,59,25,45, 0,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°44′ 0″	29,45,28,12,34,59,25,45, 0,47			
		1,49, 7, 8, 5, 8, 8, 8		
2″	29,45,30, 1,42, 7,30,53, 8,55		2,10,32, 4,53	
		1,49, 7, 5,54,36, 3,15		7,59
4″	29,45,31,50,49,13,25,29,12,10		2,10,32,12,52	
		1,49, 7, 3,44, 3,50,23		7,59
6″	29,45,33,39,56,17, 9,33, 2,33		2,10,32,20,51	
		1,49, 7, 1,33,31,29,32		7,59
8″	29,45,35,29, 3,18,43, 4,32, 5		2,10,32,28,50	
		1,49, 6,59,22,59, 0,42		7,59
10″	29,45,37,18,10,18, 6, 3,32,47		2,10,32,36,49	
		1,49, 6,57,12,26,23,53		7,59
12″	29,45,39, 7,17,15,18,29,56,40		2,10,32,44,48	
		1,49, 6,55, 1,53,39, 5		7,59
14″	29,45,40,56,24,10,20,23,35,45		2,10,32,52,47	
		1,49, 6,52,51,20,46,18		7,59
16″	29,45,42,45,31, 3,11,44,22, 3		2,10,33, 0,46	
		1,49, 6,50,40,47,45,32		7,59
18″	29,45,44,34,37,53,52,32, 7,35		2,10,33, 8,45	
		1,49, 6,48,30,14,36,47		7,59
20″	29,45,46,23,44,42,22,46,44,22		2,10,33,16,44	
		1,49, 6,46,19,41,20, 3		7,59
22″	29,45,48,12,51,28,42,28, 4,25		2,10,33,24,43	
		1,49, 6,44, 9, 7,55,20		7,59
24″	29,45,50, 1,58,12,51,35,59,45		2,10,33,32,42	
		1,49, 6,41,58,34,22,38		7,59
26″	29,45,51,51, 4,54,50,10,22,23		2,10,33,40,41	
		1,49, 6,39,48, 0,41,57		7,59
28″	29,45,53,40,11,34,38,11, 4,20		2,10,33,48,40	
		1,49, 6,37,37,26,53,17		7,59
30″	29,45,55,29,18,12,15,37,57,37		2,10,33,56,39	
		1,49, 6,35,26,52,56,38		7,59
32″	29,45,57,18,24,47,42,30,54,15		2,10,34, 4,38	
		1,49, 6,33,16,18,52, 0		7,59
34″	29,45,59, 7,31,20,58,49,46,15		2,10,34,12,37	
		1,49, 6,31, 5,44,39,23		7,59
36″	29,46, 0,56,37,52, 4,34,25,38		2,10,34,20,36	
		1,49, 6,28,55,10,18,47		7,59
38″	29,46, 2,45,44,20,59,44,44,25		2,10,34,28,35	
		1,49, 6,26,44,35,50,12		7,59
40″	29,46, 4,34,50,47,44,20,34,37		2,10,34,36,34	
		1,49, 6,24,34, 1,13,38		7,59
42″	29,46, 6,23,57,12,18,21,48,15		2,10,34,44,33	
		1,49, 6,22,23,26,29, 5		7,59
44″	29,46, 8,13, 3,34,41,48,17,20		2,10,34,52,32	
		1,49, 6,20,12,51,36,33		7,59
46″	29,46,10, 2, 9,54,54,39,53,53		2,10,35, 0,31	
		1,49, 6,18, 2,16,36, 2		7,59
48″	29,46,11,51,16,12,56,56,29,55		2,10,35, 8,30	
		1,49, 6,15,51,41,27,32		7,59
50″	29,46,13,40,22,28,48,37,57,27		2,10,35,16,29	
		1,49, 6,13,41, 6,11, 3		7,59
52″	29,46,15,29,28,42,29,44, 8,30		2,10,35,24,28	
		1,49, 6,11,30,30,46,35		7,59
54″	29,46,17,18,34,54, 0,14,55, 5		2,10,35,32,27	
		1,49, 6, 9,19,55,14, 8		7,59
56″	29,46,19, 7,41, 3,20,10, 9,13		2,10,35,40,26	
		1,49, 6, 7, 9,19,33,42		7,59
58″	29,46,20,56,47,10,29,29,42,55		2,10,35,48,25	
		1,49, 6, 4,58,43,45,17		
60″	29,46,22,45,53,15,28,13,28,12			
exact	29,46,22,45,53,15,28,13,51, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°45′ 0″	29,46,22,45,53,15,28,13,51, 0			
		1,49, 6, 2,48, 7,51,28		
2″	29,46,24,34,59,18,16,21,42,28		2,10,36, 4,12	
		1,49, 6, 0,37,31,47,16		7,59
4″	29,46,26,24, 5,18,53,53,29,44		2,10,36,12,11	
		1,49, 5,58,26,55,35, 5		7,59
6″	29,46,28,13,11,17,20,49, 4,49		2,10,36,20,10	
		1,49, 5,56,16,19,14,55		7,59
8″	29,46,30, 2,17,13,37, 8,19,44		2,10,36,28, 9	
		1,49, 5,54, 5,42,46,46		7,59
10″	29,46,31,51,23, 7,42,51, 6,30		2,10,36,36, 8	
		1,49, 5,51,55, 6,10,38		7,59
12″	29,46,33,40,28,59,37,57,17, 8		2,10,36,44, 7	
		1,49, 5,49,44,29,26,31		7,59
14″	29,46,35,29,34,49,22,26,43,39		2,10,36,52, 6	
		1,49, 5,47,33,52,34,25		7,59
16″	29,46,37,18,40,36,56,19,18, 4		2,10,37, 0, 5	
		1,49, 5,45,23,15,34,20		7,59
18″	29,46,39, 7,46,22,19,34,52,24		2,10,37, 8, 4	
		1,49, 5,43,12,38,26,16		7,59
20″	29,46,40,56,52, 5,32,13,18,40		2,10,37,16, 3	
		1,49, 5,41, 2, 1,10,13		7,59
22″	29,46,42,45,57,46,34,14,28,53		2,10,37,24, 2	
		1,49, 5,38,51,23,46,11		7,59
24″	29,46,44,35, 3,25,25,38,15, 4		2,10,37,32, 1	
		1,49, 5,36,40,46,14,10		7,59
26″	29,46,46,24, 9, 2, 6,24,29,14		2,10,37,40, 0	
		1,49, 5,34,30, 8,34,10		7,59
28″	29,46,48,13,14,36,36,33, 3,24		2,10,37,47,59	
		1,49, 5,32,19,30,46,11		7,59
30″	29,46,50, 2,20, 8,56, 3,49,35		2,10,37,55,58	
		1,49, 5,30, 8,52,50,13		7,59
32″	29,46,51,51,25,39, 4,56,39,48		2,10,38, 3,57	
		1,49, 5,27,58,14,46,16		7,59
34″	29,46,53,40,31, 7, 3,11,26, 4		2,10,38,11,56	
		1,49, 5,25,47,36,34,20		7,59
36″	29,46,55,29,36,32,50,48, 0,24		2,10,38,19,55	
		1,49, 5,23,36,58,14,25		7,59
38″	29,46,57,18,41,56,27,46,14,49		2,10,38,27,54	
		1,49, 5,21,26,19,46,31		7,59
40″	29,46,59, 7,47,17,54, 6, 1,20		2,10,38,35,53	
		1,49, 5,19,15,41,10,38		7,59
42″	29,47, 0,56,52,37, 9,47,11,58		2,10,38,43,52	
		1,49, 5,17, 5, 2,26,46		7,59
44″	29,47, 2,45,57,54,14,49,38,44		2,10,38,51,51	
		1,49, 5,14,54,23,34,55		7,59
46″	29,47, 4,35, 3, 9, 9,13,13,39		2,10,38,59,50	
		1,49, 5,12,43,44,35, 5		7,59
48″	29,47, 6,24, 8,21,52,57,48,44		2,10,39, 7,49	
		1,49, 5,10,33, 5,27,16		7,59
50″	29,47, 8,13,13,32,26, 3,16, 0		2,10,39,15,48	
		1,49, 5, 8,22,26,11,28		7,59
52″	29,47,10, 2,18,40,48,29,27,28		2,10,39,23,47	
		1,49, 5, 6,11,46,47,41		7,59
54″	29,47,11,51,23,47, 0,16,15, 9		2,10,39,31,46	
		1,49, 5, 4, 1, 7,15,55		7,59
56″	29,47,13,40,28,51, 1,23,31, 4		2,10,39,39,45	
		1,49, 5, 1,50,27,36,10		7,59
58″	29,47,15,29,33,52,51,51, 7,14		2,10,39,47,44	
		1,49, 4,59,39,47,48,26		
60″	29,47,17,18,38,52,31,38,55,40			
exact	29,47,17,18,38,52,31,39,29,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°46′ 0″	29,47,17,18,38,52,31,39,29,21			
		1,49, 4,57,29, 7,56,15		
2″	29,47,19, 7,43,50, 0,47,25,36		2,10,40, 3,27	
		1,49, 4,55,18,27,52,48		7,58
4″	29,47,20,56,48,45,19,15,18,24		2,10,40,11,25	
		1,49, 4,53, 7,47,41,23		7,58
6″	29,47,22,45,53,38,27, 2,59,47		2,10,40,19,23	
		1,49, 4,50,57, 7,22, 0		7,58
8″	29,47,24,34,58,29,24,10,21,47		2,10,40,27,21	
		1,49, 4,48,46,26,54,39		7,58
10″	29,47,26,24, 3,18,10,37,16,26		2,10,40,35,19	
		1,49, 4,46,35,46,19,20		7,58
12″	29,47,28,13, 8, 4,46,23,35,46		2,10,40,43,17	
		1,49, 4,44,25, 5,36, 3		7,58
14″	29,47,30, 2,12,49,11,29,11,49		2,10,40,51,15	
		1,49, 4,42,14,24,44,48		7,58
16″	29,47,31,51,17,31,25,53,56,37		2,10,40,59,13	
		1,49, 4,40, 3,43,45,35		7,58
18″	29,47,33,40,22,11,29,37,42,12		2,10,41, 7,11	
		1,49, 4,37,53, 2,38,24		7,58
20″	29,47,35,29,26,49,22,40,20,36		2,10,41,15, 9	
		1,49, 4,35,42,21,23,15		7,58
22″	29,47,37,18,31,25, 5, 1,43,51		2,10,41,23, 7	
		1,49, 4,33,31,40, 0, 8		7,58
24″	29,47,39, 7,35,58,36,41,43,59		2,10,41,31, 5	
		1,49, 4,31,20,58,29, 3		7,58
26″	29,47,40,56,40,29,57,40,13, 2		2,10,41,39, 3	
		1,49, 4,29,10,16,50, 0		7,58
28″	29,47,42,45,44,59, 7,57, 3, 2		2,10,41,47, 1	
		1,49, 4,26,59,35, 2,59		7,58
30″	29,47,44,34,49,26, 7,32, 6, 1		2,10,41,54,59	
		1,49, 4,24,48,53, 8, 0		7,58
32″	29,47,46,23,53,50,56,25,14, 1		2,10,42, 2,57	
		1,49, 4,22,38,11, 5, 3		7,58
34″	29,47,48,12,58,13,34,36,19, 4		2,10,42,10,55	
		1,49, 4,20,27,28,54, 8		7,58
36″	29,47,50, 2, 2,34, 2, 5,13,12		2,10,42,18,53	
		1,49, 4,18,16,46,35,15		7,58
38″	29,47,51,51, 6,52,18,51,48,27		2,10,42,26,51	
		1,49, 4,16, 6, 4, 8,24		7,58
40″	29,47,53,40,11, 8,24,55,56,51		2,10,42,34,49	
		1,49, 4,13,55,21,33,35		7,58
42″	29,47,55,29,15,22,20,17,30,26		2,10,42,42,47	
		1,49, 4,11,44,38,50,48		7,58
44″	29,47,57,18,19,34, 4,56,21,14		2,10,42,50,45	
		1,49, 4, 9,33,56, 0, 3		7,58
46″	29,47,59, 7,23,43,38,52,21,17		2,10,42,58,43	
		1,49, 4, 7,23,13, 1,20		7,58
48″	29,48, 0,56,27,51, 2, 5,22,37		2,10,43, 6,41	
		1,49, 4, 5,12,29,54,39		7,58
50″	29,48, 2,45,31,56,14,35,17,16		2,10,43,14,39	
		1,49, 4, 3, 1,46,40, 0		7,58
52″	29,48, 4,34,35,59,16,21,57,16		2,10,43,22,37	
		1,49, 4, 0,51, 3,17,23		7,58
54″	29,48, 6,23,40, 0, 7,25,14,39		2,10,43,30,35	
		1,49, 3,58,40,19,46,48		7,58
56″	29,48, 8,12,43,58,47,45, 1,27		2,10,43,38,33	
		1,49, 3,56,29,36, 8,15		7,58
58″	29,48,10, 1,47,55,17,21, 9,42		2,10,43,46,31	
		1,49, 3,54,18,52,21,44		
60″	29,48,11,50,51,49,36,13,31,26			
exact	29,48,11,50,51,49,36,12,56,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°47′ 0″	29,48,11,50,51,49,36,12,56,51			
		1,49, 3,52, 8, 8,23,42		
2″	29,48,13,39,55,41,44,21,20,33		2,10,44, 2,41	
		1,49, 3,49,57,24,21, 1		7,58
4″	29,48,15,28,59,31,41,45,41,34		2,10,44,10,39	
		1,49, 3,47,46,40,10,22		7,58
6″	29,48,17,18, 3,19,28,25,51,56		2,10,44,18,37	
		1,49, 3,45,35,55,51,45		7,58
8″	29,48,19, 7, 7, 5, 4,21,43,41		2,10,44,26,35	
		1,49, 3,43,25,11,25,10		7,58
10″	29,48,20,56,10,48,29,33, 8,51		2,10,44,34,33	
		1,49, 3,41,14,26,50,37		7,58
12″	29,48,22,45,14,29,43,59,59,28		2,10,44,42,31	
		1,49, 3,39, 3,42, 8, 6		7,58
14″	29,48,24,34,18, 8,47,42, 7,34		2,10,44,50,29	
		1,49, 3,36,52,57,17,37		7,58
16″	29,48,26,23,21,45,40,39,25,11		2,10,44,58,27	
		1,49, 3,34,42,12,19,10		7,58
18″	29,48,28,12,25,20,22,51,44,21		2,10,45, 6,25	
		1,49, 3,32,31,27,12,45		7,58
20″	29,48,30, 1,28,52,54,18,57, 6		2,10,45,14,23	
		1,49, 3,30,20,41,58,22		7,58
22″	29,48,31,50,32,23,15, 0,55,28		2,10,45,22,21	
		1,49, 3,28, 9,56,36, 1		7,58
24″	29,48,33,39,35,51,24,57,31,29		2,10,45,30,19	
		1,49, 3,25,59,11, 5,42		7,58
26″	29,48,35,28,39,17,24, 8,37,11		2,10,45,38,17	
		1,49, 3,23,48,25,27,25		7,58
28″	29,48,37,17,42,41,12,34, 4,36		2,10,45,46,15	
		1,49, 3,21,37,39,41,10		7,58
30″	29,48,39, 6,46, 2,50,13,45,46		2,10,45,54,13	
		1,49, 3,19,26,53,46,57		7,58
32″	29,48,40,55,49,22,17, 7,32,43		2,10,46, 2,11	
		1,49, 3,17,16, 7,44,46		7,58
34″	29,48,42,44,52,39,33,15,17,29		2,10,46,10, 9	
		1,49, 3,15, 5,21,34,37		7,58
36″	29,48,44,33,55,54,38,36,52, 6		2,10,46,18, 7	
		1,49, 3,12,54,35,16,30		7,58
38″	29,48,46,22,59, 7,33,12, 8,36		2,10,46,26, 5	
		1,49, 3,10,43,48,50,25		7,58
40″	29,48,48,12, 2,18,17, 0,59, 1		2,10,46,34, 3	
		1,49, 3, 8,33, 2,16,22		7,58
42″	29,48,50, 1, 5,26,50, 3,15,23		2,10,46,42, 1	
		1,49, 3, 6,22,15,34,21		7,58
44″	29,48,51,50, 8,33,12,18,49,44		2,10,46,49,59	
		1,49, 3, 4,11,28,44,22		7,58
46″	29,48,53,39,11,37,23,47,34, 6		2,10,46,57,57	
		1,49, 3, 2, 0,41,46,25		7,58
48″	29,48,55,28,14,39,24,29,20,31		2,10,47, 5,55	
		1,49, 2,59,49,54,40,30		7,58
50″	29,48,57,17,17,39,14,24, 1, 1		2,10,47,13,53	
		1,49, 2,57,39, 7,26,37		7,58
52″	29,48,59, 6,20,36,53,31,27,38		2,10,47,21,51	
		1,49, 2,55,28,20, 4,46		7,58
54″	29,49, 0,55,23,32,21,51,32,24		2,10,47,29,49	
		1,49, 2,53,17,32,34,57		7,58
56″	29,49, 2,44,26,25,39,24, 7,21		2,10,47,37,47	
		1,49, 2,51, 6,44,57,10		7,58
58″	29,49, 4,33,29,16,46, 9, 4,31		2,10,47,45,45	
		1,49, 2,48,55,57,11,25		
60″	29,49, 6,22,32, 5,42, 6,15,56			
exact	29,49, 6,22,32, 5,42, 5,50,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°48′ 0″	29,49, 6,22,32, 5,42, 5,50,18			
		1,49, 2,46,45, 9,14,59		
2″	29,49, 8,11,34,52,27,15, 5,17		2,10,48, 1,52	
		1,49, 2,44,34,21,13, 7		7,58
4″	29,49,10, 0,37,37, 1,36,18,24		2,10,48, 9,50	
		1,49, 2,42,23,33, 3,17		7,58
6″	29,49,11,49,40,19,25, 9,21,41		2,10,48,17,48	
		1,49, 2,40,12,44,45,29		7,58
8″	29,49,13,38,42,59,37,54, 7,10		2,10,48,25,46	
		1,49, 2,38, 1,56,19,43		7,58
10″	29,49,15,27,45,37,39,50,26,53		2,10,48,33,44	
		1,49, 2,35,51, 7,45,59		7,58
12″	29,49,17,16,48,13,30,58,12,52		2,10,48,41,42	
		1,49, 2,33,40,19, 4,17		7,58
14″	29,49,19, 5,50,47,11,17,17, 9		2,10,48,49,40	
		1,49, 2,31,29,30,14,37		7,58
16″	29,49,20,54,53,18,40,47,31,46		2,10,48,57,38	
		1,49, 2,29,18,41,16,59		7,58
18″	29,49,22,43,55,47,59,28,48,45		2,10,49, 5,36	
		1,49, 2,27, 7,52,11,23		7,58
20″	29,49,24,32,58,15, 7,21, 0, 8		2,10,49,13,34	
		1,49, 2,24,57, 2,57,49		7,58
22″	29,49,26,22, 0,40, 4,23,57,57		2,10,49,21,32	
		1,49, 2,22,46,13,36,17		7,58
24″	29,49,28,11, 3, 2,50,37,34,14		2,10,49,29,30	
		1,49, 2,20,35,24, 6,47		7,58
26″	29,49,30, 0, 5,23,26, 1,41, 1		2,10,49,37,28	
		1,49, 2,18,24,34,29,19		7,58
28″	29,49,31,49, 7,41,50,36,10,20		2,10,49,45,26	
		1,49, 2,16,13,44,43,53		7,58
30″	29,49,33,38, 9,58, 4,20,54,13		2,10,49,53,24	
		1,49, 2,14, 2,54,50,29		7,58
32″	29,49,35,27,12,12, 7,15,44,42		2,10,50, 1,22	
		1,49, 2,11,52, 4,49, 7		7,58
34″	29,49,37,16,14,23,59,20,33,49		2,10,50, 9,20	
		1,49, 2, 9,41,14,39,47		7,58
36″	29,49,39, 5,16,33,40,35,13,36		2,10,50,17,18	
		1,49, 2, 7,30,24,22,29		7,58
38″	29,49,40,54,18,41,10,59,36, 5		2,10,50,25,16	
		1,49, 2, 5,19,33,57,13		7,58
40″	29,49,42,43,20,46,30,33,33,18		2,10,50,33,14	
		1,49, 2, 3, 8,43,23,59		7,58
42″	29,49,44,32,22,49,39,16,57,17		2,10,50,41,12	
		1,49, 2, 0,57,52,42,47		7,58
44″	29,49,46,21,24,50,37, 9,40, 4		2,10,50,49,10	
		1,49, 1,58,47, 1,53,37		7,58
46″	29,49,48,10,26,49,24,11,33,41		2,10,50,57, 8	
		1,49, 1,56,36,10,56,29		7,58
48″	29,49,49,59,28,46, 0,22,30,10		2,10,51, 5, 6	
		1,49, 1,54,25,19,51,23		7,58
50″	29,49,51,48,30,40,25,42,21,33		2,10,51,13, 4	
		1,49, 1,52,14,28,38,19		7,58
52″	29,49,53,37,32,32,40,10,59,52		2,10,51,21, 2	
		1,49, 1,50, 3,37,17,17		7,58
54″	29,49,55,26,34,22,43,48,17, 9		2,10,51,29, 0	
		1,49, 1,47,52,45,48,17		7,58
56″	29,49,57,15,36,10,36,34, 5,26		2,10,51,36,58	
		1,49, 1,45,41,54,11,19		7,58
58″	29,49,59, 4,37,56,18,28,16,45		2,10,51,44,56	
		1,49, 1,43,31, 2,26,23		
60″	29,50, 0,53,39,39,49,30,43, 8			
exact	29,50, 0,53,39,39,49,30,22,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°49′ 0″	29,50, 0,53,39,39,49,30,22,23			
		1,49, 1,41,20,10,31,18		
2″	29,50, 2,42,41,21, 9,40,53,41		2,10,52, 1, 1	
		1,49, 1,39, 9,18,30,17		7,58
4″	29,50, 4,31,43, 0,18,59,23,58		2,10,52, 8,59	
		1,49, 1,36,58,26,21,18		7,58
6″	29,50, 6,20,44,37,17,25,45,16		2,10,52,16,57	
		1,49, 1,34,47,34, 4,21		7,58
8″	29,50, 8, 9,46,12, 4,59,49,37		2,10,52,24,55	
		1,49, 1,32,36,41,39,26		7,58
10″	29,50, 9,58,47,44,41,41,29, 3		2,10,52,32,53	
		1,49, 1,30,25,49, 6,33		7,58
12″	29,50,11,47,49,15, 7,30,35,36		2,10,52,40,51	
		1,49, 1,28,14,56,25,42		7,58
14″	29,50,13,36,50,43,22,27, 1,18		2,10,52,48,49	
		1,49, 1,26, 4, 3,36,53		7,58
16″	29,50,15,25,52, 9,26,30,38,11		2,10,52,56,47	
		1,49, 1,23,53,10,40, 6		7,58
18″	29,50,17,14,53,33,19,41,18,17		2,10,53, 4,45	
		1,49, 1,21,42,17,35,21		7,58
20″	29,50,19, 3,54,55, 1,58,53,38		2,10,53,12,43	
		1,49, 1,19,31,24,22,38		7,58
22″	29,50,20,52,56,14,33,23,16,16		2,10,53,20,41	
		1,49, 1,17,20,31, 1,57		7,58
24″	29,50,22,41,57,31,53,54,18,13		2,10,53,28,39	
		1,49, 1,15, 9,37,33,18		7,58
26″	29,50,24,30,58,47, 3,31,51,31		2,10,53,36,37	
		1,49, 1,12,58,43,56,41		7,58
28″	29,50,26,20, 0, 0, 2,15,48,12		2,10,53,44,35	
		1,49, 1,10,47,50,12, 6		7,58
30″	29,50,28, 9, 1,10,50, 6, 0,18		2,10,53,52,33	
		1,49, 1, 8,36,56,19,33		7,58
32″	29,50,29,58, 2,19,27, 2,19,51		2,10,54, 0,31	
		1,49, 1, 6,26, 2,19, 2		7,58
34″	29,50,31,47, 3,25,53, 4,38,53		2,10,54, 8,29	
		1,49, 1, 4,15, 8,10,33		7,58
36″	29,50,33,36, 4,30, 8,12,49,26		2,10,54,16,27	
		1,49, 1, 2, 4,13,54, 6		7,58
38″	29,50,35,25, 5,32,12,26,43,32		2,10,54,24,25	
		1,49, 0,59,53,19,29,41		7,58
40″	29,50,37,14, 6,32, 5,46,13,13		2,10,54,32,23	
		1,49, 0,57,42,24,57,18		7,58
42″	29,50,39, 3, 7,29,48,11,10,31		2,10,54,40,21	
		1,49, 0,55,31,30,16,57		7,58
44″	29,50,40,52, 8,25,19,41,27,28		2,10,54,48,19	
		1,49, 0,53,20,35,28,38		7,58
46″	29,50,42,41, 9,18,40,16,56, 6		2,10,54,56,17	
		1,49, 0,51, 9,40,32,21		7,58
48″	29,50,44,30,10, 9,49,57,28,27		2,10,55, 4,15	
		1,49, 0,48,58,45,28, 6		7,58
50″	29,50,46,19,10,58,48,42,56,33		2,10,55,12,13	
		1,49, 0,46,47,50,15,53		7,58
52″	29,50,48, 8,11,45,36,33,12,26		2,10,55,20,11	
		1,49, 0,44,36,54,55,42		7,58
54″	29,50,49,57,12,30,13,28, 8, 8		2,10,55,28, 9	
		1,49, 0,42,25,59,27,33		7,58
56″	29,50,51,46,13,12,39,27,35,41		2,10,55,36, 7	
		1,49, 0,40,15, 3,51,26		7,58
58″	29,50,53,35,13,52,54,31,27, 7		2,10,55,44, 5	
		1,49, 0,38, 4, 8, 7,21		
60″	29,50,55,24,14,30,58,39,34,28			
exact	29,50,55,24,14,30,58,39,21,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°50′ 0″	29,50,55,24,14,30,58,39,21,38			
		1,49, 0,35,53,12,13,52		
2″	29,50,57,13,15, 6,51,51,35,30		2,10,56, 0, 7	
		1,49, 0,33,42,16,13,45		7,58
4″	29,50,59, 2,15,40,34, 7,49,15		2,10,56, 8, 5	
		1,49, 0,31,31,20, 5,40		7,58
6″	29,51, 0,51,16,12, 5,27,54,55		2,10,56,16, 3	
		1,49, 0,29,20,23,49,37		7,58
8″	29,51, 2,40,16,41,25,51,44,32		2,10,56,24, 1	
		1,49, 0,27, 9,27,25,36		7,58
10″	29,51, 4,29,17, 8,35,19,10, 8		2,10,56,31,59	
		1,49, 0,24,58,30,53,37		7,58
12″	29,51, 6,18,17,33,33,50, 3,45		2,10,56,39,57	
		1,49, 0,22,47,34,13,40		7,58
14″	29,51, 8, 7,17,56,21,24,17,25		2,10,56,47,55	
		1,49, 0,20,36,37,25,45		7,58
16″	29,51, 9,56,18,16,58, 1,43,10		2,10,56,55,53	
		1,49, 0,18,25,40,29,52		7,58
18″	29,51,11,45,18,35,23,42,13, 2		2,10,57, 3,51	
		1,49, 0,16,14,43,26, 1		7,58
20″	29,51,13,34,18,51,38,25,39, 3		2,10,57,11,49	
		1,49, 0,14, 3,46,14,12		7,58
22″	29,51,15,23,19, 5,42,11,53,15		2,10,57,19,47	
		1,49, 0,11,52,48,54,25		7,58
24″	29,51,17,12,19,17,35, 0,47,40		2,10,57,27,45	
		1,49, 0, 9,41,51,26,40		7,58
26″	29,51,19, 1,19,27,16,52,14,20		2,10,57,35,43	
		1,49, 0, 7,30,53,50,57		7,58
28″	29,51,20,50,19,34,47,46, 5,17		2,10,57,43,41	
		1,49, 0, 5,19,56, 7,16		7,58
30″	29,51,22,39,19,40, 7,42,12,33		2,10,57,51,39	
		1,49, 0, 3, 8,58,15,37		7,58
32″	29,51,24,28,19,43,16,40,28,10		2,10,57,59,37	
		1,49, 0, 0,58, 0,16, 0		7,58
34″	29,51,26,17,19,44,14,40,44,10		2,10,58, 7,35	
		1,48,59,58,47, 2, 8,25		7,58
36″	29,51,28, 6,19,43, 1,42,52,35		2,10,58,15,33	
		1,48,59,56,36, 3,52,52		7,58
38″	29,51,29,55,19,39,37,46,45,27		2,10,58,23,31	
		1,48,59,54,25, 5,29,21		7,58
40″	29,51,31,44,19,34, 2,52,14,48		2,10,58,31,29	
		1,48,59,52,14, 6,57,52		7,58
42″	29,51,33,33,19,26,16,59,12,40		2,10,58,39,27	
		1,48,59,50, 3, 8,18,25		7,58
44″	29,51,35,22,19,16,20, 7,31, 5		2,10,58,47,25	
		1,48,59,47,52, 9,31, 0		7,58
46″	29,51,37,11,19, 4,12,17, 2, 5		2,10,58,55,23	
		1,48,59,45,41,10,35,37		7,58
48″	29,51,39, 0,18,49,53,27,37,42		2,10,59, 3,21	
		1,48,59,43,30,11,32,16		7,58
50″	29,51,40,49,18,33,23,39, 9,58		2,10,59,11,19	
		1,48,59,41,19,12,20,57		7,58
52″	29,51,42,38,18,14,42,51,30,55		2,10,59,19,17	
		1,48,59,39, 8,13, 1,40		7,58
54″	29,51,44,27,17,53,51, 4,32,35		2,10,59,27,15	
		1,48,59,36,57,13,34,25		7,58
56″	29,51,46,16,17,30,48,18, 7, 0		2,10,59,35,13	
		1,48,59,34,46,13,59,12		7,58
58″	29,51,48, 5,17, 5,34,32, 6,12		2,10,59,43,11	
		1,48,59,32,35,14,16, 1		
60″	29,51,49,54,16,38, 9,46,22,13			
exact	29,51,49,54,16,38, 9,46,12,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°51′ 0″	29,51,49,54,16,38, 9,46,12,27			
		1,48,59,30,24,14,23,51		
2″	29,51,51,43,16, 8,34, 0,36,18		2,10,59,59,11	
		1,48,59,28,13,14,24,40		7,58
4″	29,51,53,32,15,36,47,15, 0,58		2,11, 0, 7, 9	
		1,48,59,26, 2,14,17,31		7,58
6″	29,51,55,21,15, 2,49,29,18,29		2,11, 0,15, 7	
		1,48,59,23,51,14, 2,24		7,58
8″	29,51,57,10,14,26,40,43,20,53		2,11, 0,23, 5	
		1,48,59,21,40,13,39,19		7,58
10″	29,51,58,59,13,48,20,57, 0,12		2,11, 0,31, 3	
		1,48,59,19,29,13, 8,16		7,58
12″	29,52, 0,48,13, 7,50,10, 8,28		2,11, 0,39, 1	
		1,48,59,17,18,12,29,15		7,58
14″	29,52, 2,37,12,25, 8,22,37,43		2,11, 0,46,59	
		1,48,59,15, 7,11,42,16		7,58
16″	29,52, 4,26,11,40,15,34,19,59		2,11, 0,54,57	
		1,48,59,12,56,10,47,19		7,58
18″	29,52, 6,15,10,53,11,45, 7,18		2,11, 1, 2,55	
		1,48,59,10,45, 9,44,24		7,58
20″	29,52, 8, 4,10, 3,56,54,51,42		2,11, 1,10,53	
		1,48,59, 8,34, 8,33,31		7,58
22″	29,52, 9,53, 9,12,31, 3,25,13		2,11, 1,18,51	
		1,48,59, 6,23, 7,14,40		7,58
24″	29,52,11,42, 8,18,54,10,39,53		2,11, 1,26,49	
		1,48,59, 4,12, 5,47,51		7,58
26″	29,52,13,31, 7,23, 6,16,27,44		2,11, 1,34,47	
		1,48,59, 2, 1, 4,13, 4		7,58
28″	29,52,15,20, 6,25, 7,20,40,48		2,11, 1,42,45	
		1,48,58,59,50, 2,30,19		7,58
30″	29,52,17, 9, 5,24,57,23,11, 7		2,11, 1,50,43	
		1,48,58,57,39, 0,39,36		7,58
32″	29,52,18,58, 4,22,36,23,50,43		2,11, 1,58,41	
		1,48,58,55,27,58,40,55		7,58
34″	29,52,20,47, 3,18, 4,22,31,38		2,11, 2, 6,39	
		1,48,58,53,16,56,34,16		7,58
36″	29,52,22,36, 2,11,21,19, 5,54		2,11, 2,14,37	
		1,48,58,51, 5,54,19,39		7,58
38″	29,52,24,25, 1, 2,27,13,25,33		2,11, 2,22,35	
		1,48,58,48,54,51,57, 4		7,58
40″	29,52,26,13,59,51,22, 5,22,37		2,11, 2,30,33	
		1,48,58,46,43,49,26,31		7,58
42″	29,52,28, 2,58,38, 5,54,49, 8		2,11, 2,38,31	
		1,48,58,44,32,46,48, 0		7,58
44″	29,52,29,51,57,22,38,41,37, 8		2,11, 2,46,29	
		1,48,58,42,21,44, 1,31		7,58
46″	29,52,31,40,56, 5, 0,25,38,39		2,11, 2,54,27	
		1,48,58,40,10,41, 7, 4		7,58
48″	29,52,33,29,54,45,11, 6,45,43		2,11, 3, 2,25	
		1,48,58,37,59,38, 4,39		7,58
50″	29,52,35,18,53,23,10,44,50,22		2,11, 3,10,23	
		1,48,58,35,48,34,54,16		7,58
52″	29,52,37, 7,51,58,59,19,44,38		2,11, 3,18,21	
		1,48,58,33,37,31,35,55		7,58
54″	29,52,38,56,50,32,36,51,20,33		2,11, 3,26,19	
		1,48,58,31,26,28, 9,36		7,58
56″	29,52,40,45,49, 4, 3,19,30, 9		2,11, 3,34,17	
		1,48,58,29,15,24,35,19		7,58
58″	29,52,42,34,47,33,18,44, 5,28		2,11, 3,42,15	
		1,48,58,27, 4,20,53, 4		
60″	29,52,44,23,46, 0,23, 4,58,32			
exact	29,52,44,23,46, 0,23, 4,55, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°52′ 0″	29,52,44,23,46, 0,23, 4,55, 9			
		1,48,58,24,53,17, 2,29		
2″	29,52,46,12,44,25,16,21,57,38		2,11, 3,58,12	
		1,48,58,22,42,13, 4,17		7,58
4″	29,52,48, 1,42,47,58,35, 1,55		2,11, 4, 6,10	
		1,48,58,20,31, 8,58, 7		7,58
6″	29,52,49,50,41, 8,29,44, 0, 2		2,11, 4,14, 8	
		1,48,58,18,20, 4,43,59		7,58
8″	29,52,51,39,39,26,49,48,44, 1		2,11, 4,22, 6	
		1,48,58,16, 9, 0,21,53		7,58
10″	29,52,53,28,37,42,58,49, 5,54		2,11, 4,30, 4	
		1,48,58,13,57,55,51,49		7,58
12″	29,52,55,17,35,56,56,44,57,43		2,11, 4,38, 2	
		1,48,58,11,46,51,13,47		7,58
14″	29,52,57, 6,34, 8,43,36,11,30		2,11, 4,46, 0	
		1,48,58, 9,35,46,27,47		7,58
16″	29,52,58,55,32,18,19,22,39,17		2,11, 4,53,58	
		1,48,58, 7,24,41,33,49		7,58
18″	29,53, 0,44,30,25,44, 4,13, 6		2,11, 5, 1,56	
		1,48,58, 5,13,36,31,53		7,58
20″	29,53, 2,33,28,30,57,40,44,59		2,11, 5, 9,54	
		1,48,58, 3, 2,31,21,59		7,58
22″	29,53, 4,22,26,34, 0,12, 6,58		2,11, 5,17,52	
		1,48,58, 0,51,26, 4, 7		7,58
24″	29,53, 6,11,24,34,51,38,11, 5		2,11, 5,25,50	
		1,48,57,58,40,20,38,17		7,58
26″	29,53, 8, 0,22,33,31,58,49,22		2,11, 5,33,48	
		1,48,57,56,29,15, 4,29		7,58
28″	29,53, 9,49,20,30, 1,13,53,51		2,11, 5,41,46	
		1,48,57,54,18, 9,22,43		7,58
30″	29,53,11,38,18,24,19,23,16,34		2,11, 5,49,44	
		1,48,57,52, 7, 3,32,59		7,58
32″	29,53,13,27,16,16,26,26,49,33		2,11, 5,57,42	
		1,48,57,49,55,57,35,17		7,58
34″	29,53,15,16,14, 6,22,24,24,50		2,11, 6, 5,40	
		1,48,57,47,44,51,29,37		7,58
36″	29,53,17, 5,11,54, 7,15,54,27		2,11, 6,13,38	
		1,48,57,45,33,45,15,59		7,58
38″	29,53,18,54, 9,39,41, 1,10,26		2,11, 6,21,36	
		1,48,57,43,22,38,54,23		7,58
40″	29,53,20,43, 7,23, 3,40, 4,49		2,11, 6,29,34	
		1,48,57,41,11,32,24,49		7,58
42″	29,53,22,32, 5, 4,15,12,29,38		2,11, 6,37,32	
		1,48,57,39, 0,25,47,17		7,58
44″	29,53,24,21, 2,43,15,38,16,55		2,11, 6,45,30	
		1,48,57,36,49,19, 1,47		7,58
46″	29,53,26,10, 0,20, 4,57,18,42		2,11, 6,53,28	
		1,48,57,34,38,12, 8,19		7,58
48″	29,53,27,58,57,54,43, 9,27, 1		2,11, 7, 1,26	
		1,48,57,32,27, 5, 6,53		7,58
50″	29,53,29,47,55,27,10,14,33,54		2,11, 7, 9,24	
		1,48,57,30,15,57,57,29		7,58
52″	29,53,31,36,52,57,26,12,31,23		2,11, 7,17,22	
		1,48,57,28, 4,50,40, 7		7,58
54″	29,53,33,25,50,25,31, 3,11,30		2,11, 7,25,20	
		1,48,57,25,53,43,14,47		7,58
56″	29,53,35,14,47,51,24,46,26,17		2,11, 7,33,18	
		1,48,57,23,42,35,41,29		7,58
58″	29,53,37, 3,45,15, 7,22, 7,46		2,11, 7,41,16	
		1,48,57,21,31,28, 0,13		
60″	29,53,38,52,42,36,38,50, 7,59			
exact	29,53,38,52,42,36,38,50, 5,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°53′ 0″	29,53,38,52,42,36,38,50, 5,55			
		1,48,57,19,20,20,10,55		
2″	29,53,40,41,39,55,59,10,16,50		2,11, 7,57,11	
		1,48,57,17, 9,12,13,44		7,58
4″	29,53,42,30,37,13, 8,22,30,34		2,11, 8, 5, 9	
		1,48,57,14,58, 4, 8,35		7,58
6″	29,53,44,19,34,28, 6,26,39, 9		2,11, 8,13, 7	
		1,48,57,12,46,55,55,28		7,58
8″	29,53,46, 8,31,40,53,22,34,37		2,11, 8,21, 5	
		1,48,57,10,35,47,34,23		7,58
10″	29,53,47,57,28,51,29,10, 9, 0		2,11, 8,29, 3	
		1,48,57, 8,24,39, 5,20		7,58
12″	29,53,49,46,25,59,53,49,14,20		2,11, 8,37, 1	
		1,48,57, 6,13,30,28,19		7,58
14″	29,53,51,35,23, 6, 7,19,42,39		2,11, 8,44,59	
		1,48,57, 4, 2,21,43,20		7,58
16″	29,53,53,24,20,10, 9,41,25,59		2,11, 8,52,57	
		1,48,57, 1,51,12,50,23		7,58
18″	29,53,55,13,17,12, 0,54,16,22		2,11, 9, 0,55	
		1,48,56,59,40, 3,49,28		7,58
20″	29,53,57, 2,14,11,40,58, 5,50		2,11, 9, 8,53	
		1,48,56,57,28,54,40,35		7,58
22″	29,53,58,51,11, 9, 9,52,46,25		2,11, 9,16,51	
		1,48,56,55,17,45,23,44		7,58
24″	29,54, 0,40, 8, 4,27,38,10, 9		2,11, 9,24,49	
		1,48,56,53, 6,35,58,55		7,58
26″	29,54, 2,29, 4,57,34,14, 9, 4		2,11, 9,32,47	
		1,48,56,50,55,26,26, 8		7,58
28″	29,54, 4,18, 1,48,29,40,35,12		2,11, 9,40,45	
		1,48,56,48,44,16,45,23		7,58
30″	29,54, 6, 6,58,37,13,57,20,35		2,11, 9,48,43	
		1,48,56,46,33, 6,56,40		7,58
32″	29,54, 7,55,55,23,47, 4,17,15		2,11, 9,56,41	
		1,48,56,44,21,56,59,59		7,58
34″	29,54, 9,44,52, 8, 9, 1,17,14		2,11,10, 4,39	
		1,48,56,42,10,46,55,20		7,58
36″	29,54,11,33,48,50,19,48,12,34		2,11,10,12,37	
		1,48,56,39,59,36,42,43		7,58
38″	29,54,13,22,45,30,19,24,55,17		2,11,10,20,35	
		1,48,56,37,48,26,22, 8		7,58
40″	29,54,15,11,42, 8, 7,51,17,25		2,11,10,28,33	
		1,48,56,35,37,15,53,35		7,58
42″	29,54,17, 0,38,43,45, 7,11, 0		2,11,10,36,31	
		1,48,56,33,26, 5,17, 4		7,58
44″	29,54,18,49,35,17,11,12,28, 4		2,11,10,44,29	
		1,48,56,31,14,54,32,35		7,58
46″	29,54,20,38,31,48,26, 7, 0,39		2,11,10,52,27	
		1,48,56,29, 3,43,40, 8		7,58
48″	29,54,22,27,28,17,29,50,40,47		2,11,11, 0,25	
		1,48,56,26,52,32,39,43		7,58
50″	29,54,24,16,24,44,22,23,20,30		2,11,11, 8,23	
		1,48,56,24,41,21,31,20		7,58
52″	29,54,26, 5,21, 9, 3,44,51,50		2,11,11,16,21	
		1,48,56,22,30,10,14,59		7,58
54″	29,54,27,54,17,31,33,55, 6,49		2,11,11,24,19	
		1,48,56,20,18,58,50,40		7,58
56″	29,54,29,43,13,51,52,53,57,29		2,11,11,32,17	
		1,48,56,18, 7,47,18,23		7,58
58″	29,54,31,32,10,10, 0,41,15,52		2,11,11,40,15	
		1,48,56,15,56,35,38, 8		
60″	29,54,33,21, 6,25,57,16,54, 0			
exact	29,54,33,21, 6,25,57,16,56,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°54′ 0″	29,54,33,21, 6,25,57,16,56,55			
		1,48,56,13,45,23,50,24		
2″	29,54,35,10, 2,39,42,40,47,19		2,11,11,56, 8	
		1,48,56,11,34,11,54,16		7,58
4″	29,54,36,58,58,51,16,52,41,35		2,11,12, 4, 6	
		1,48,56, 9,22,59,50,10		7,58
6″	29,54,38,47,55, 0,39,52,31,45		2,11,12,12, 4	
		1,48,56, 7,11,47,38, 6		7,58
8″	29,54,40,36,51, 7,51,40, 9,51		2,11,12,20, 2	
		1,48,56, 5, 0,35,18, 4		7,58
10″	29,54,42,25,47,12,52,15,27,55		2,11,12,28, 0	
		1,48,56, 2,49,22,50, 4		7,58
12″	29,54,44,14,43,15,41,38,17,59		2,11,12,35,58	
		1,48,56, 0,38,10,14, 6		7,58
14″	29,54,46, 3,39,16,19,48,32, 5		2,11,12,43,56	
		1,48,55,58,26,57,30,10		7,58
16″	29,54,47,52,35,14,46,46, 2,15		2,11,12,51,54	
		1,48,55,56,15,44,38,16		7,58
18″	29,54,49,41,31,11, 2,30,40,31		2,11,12,59,52	
		1,48,55,54, 4,31,38,24		7,58
20″	29,54,51,30,27, 5, 7, 2,18,55		2,11,13, 7,50	
		1,48,55,51,53,18,30,34		7,58
22″	29,54,53,19,22,57, 0,20,49,29		2,11,13,15,48	
		1,48,55,49,42, 5,14,46		7,58
24″	29,54,55, 8,18,46,42,26, 4,15		2,11,13,23,46	
		1,48,55,47,30,51,51, 0		7,58
26″	29,54,56,57,14,34,13,17,55,15		2,11,13,31,44	
		1,48,55,45,19,38,19,16		7,58
28″	29,54,58,46,10,19,32,56,14,31		2,11,13,39,42	
		1,48,55,43, 8,24,39,34		7,58
30″	29,55, 0,35, 6, 2,41,20,54, 5		2,11,13,47,40	
		1,48,55,40,57,10,51,54		7,58
32″	29,55, 2,24, 1,43,38,31,45,59		2,11,13,55,38	
		1,48,55,38,45,56,56,16		7,58
34″	29,55, 4,12,57,22,24,28,42,15		2,11,14, 3,36	
		1,48,55,36,34,42,52,40		7,58
36″	29,55, 6, 1,52,58,59,11,34,55		2,11,14,11,34	
		1,48,55,34,23,28,41, 6		7,58
38″	29,55, 7,50,48,33,22,40,16, 1		2,11,14,19,32	
		1,48,55,32,12,14,21,34		7,58
40″	29,55, 9,39,44, 5,34,54,37,35		2,11,14,27,30	
		1,48,55,30, 0,59,54, 4		7,58
42″	29,55,11,28,39,35,35,54,31,39		2,11,14,35,28	
		1,48,55,27,49,45,18,36		7,58
44″	29,55,13,17,35, 3,25,39,50,15		2,11,14,43,26	
		1,48,55,25,38,30,35,10		7,58
46″	29,55,15, 6,30,29, 4,10,25,25		2,11,14,51,24	
		1,48,55,23,27,15,43,46		7,58
48″	29,55,16,55,25,52,31,26, 9,11		2,11,14,59,22	
		1,48,55,21,16, 0,44,24		7,58
50″	29,55,18,44,21,13,47,26,53,35		2,11,15, 7,20	
		1,48,55,19, 4,45,37, 4		7,58
52″	29,55,20,33,16,32,52,12,30,39		2,11,15,15,18	
		1,48,55,16,53,30,21,46		7,58
54″	29,55,22,22,11,49,45,42,52,25		2,11,15,23,16	
		1,48,55,14,42,14,58,30		7,58
56″	29,55,24,11, 7, 4,27,57,50,55		2,11,15,31,14	
		1,48,55,12,30,59,27,16		7,58
58″	29,55,26, 0, 2,16,58,57,18,11		2,11,15,39,12	
		1,48,55,10,19,43,48, 4		
60″	29,55,27,48,57,27,18,41, 6,15			
exact	29,55,27,48,57,27,18,41,16,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°55′ 0″	29,55,27,48,57,27,18,41,16,15			
		1,48,55, 8, 8,28, 2, 5		
2″	29,55,29,37,52,35,27, 9,18,20		2,11,15,55, 2	
		1,48,55, 5,57,12, 7, 3		7,58
4″	29,55,31,26,47,41,24,21,25,23		2,11,16, 3, 0	
		1,48,55, 3,45,56, 4, 3		7,58
6″	29,55,33,15,42,45,10,17,29,26		2,11,16,10,58	
		1,48,55, 1,34,39,53, 5		7,58
8″	29,55,35, 4,37,46,44,57,22,31		2,11,16,18,56	
		1,48,54,59,23,23,34, 9		7,58
10″	29,55,36,53,32,46, 8,20,56,40		2,11,16,26,54	
		1,48,54,57,12, 7, 7,15		7,58
12″	29,55,38,42,27,43,20,28, 3,55		2,11,16,34,52	
		1,48,54,55, 0,50,32,23		7,58
14″	29,55,40,31,22,38,21,18,36,18		2,11,16,42,50	
		1,48,54,52,49,33,49,33		7,58
16″	29,55,42,20,17,31,10,52,25,51		2,11,16,50,48	
		1,48,54,50,38,16,58,45		7,58
18″	29,55,44, 9,12,21,49, 9,24,36		2,11,16,58,46	
		1,48,54,48,26,59,59,59		7,58
20″	29,55,45,58, 7,10,16, 9,24,35		2,11,17, 6,44	
		1,48,54,46,15,42,53,15		7,58
22″	29,55,47,47, 1,56,31,52,17,50		2,11,17,14,42	
		1,48,54,44, 4,25,38,33		7,58
24″	29,55,49,35,56,40,36,17,56,23		2,11,17,22,40	
		1,48,54,41,53, 8,15,53		7,58
26″	29,55,51,24,51,22,29,26,12,16		2,11,17,30,38	
		1,48,54,39,41,50,45,15		7,58
28″	29,55,53,13,46, 2,11,16,57,31		2,11,17,38,36	
		1,48,54,37,30,33, 6,39		7,58
30″	29,55,55, 2,40,39,41,50, 4,10		2,11,17,46,34	
		1,48,54,35,19,15,20, 5		7,58
32″	29,55,56,51,35,15, 1, 5,24,15		2,11,17,54,32	
		1,48,54,33, 7,57,25,33		7,58
34″	29,55,58,40,29,48, 9, 2,49,48		2,11,18, 2,30	
		1,48,54,30,56,39,23, 3		7,58
36″	29,56, 0,29,24,19, 5,42,12,51		2,11,18,10,28	
		1,48,54,28,45,21,12,35		7,58
38″	29,56, 2,18,18,47,51, 3,25,26		2,11,18,18,26	
		1,48,54,26,34, 2,54, 9		7,58
40″	29,56, 4, 7,13,14,25, 6,19,35		2,11,18,26,24	
		1,48,54,24,22,44,27,45		7,58
42″	29,56, 5,56, 7,38,47,50,47,20		2,11,18,34,22	
		1,48,54,22,11,25,53,23		7,58
44″	29,56, 7,45, 2, 0,59,16,40,43		2,11,18,42,20	
		1,48,54,20, 0, 7,11, 3		7,58
46″	29,56, 9,33,56,20,59,23,51,46		2,11,18,50,18	
		1,48,54,17,48,48,20,45		7,58
48″	29,56,11,22,50,38,48,12,12,31		2,11,18,58,16	
		1,48,54,15,37,29,22,29		7,58
50″	29,56,13,11,44,54,25,41,35, 0		2,11,19, 6,14	
		1,48,54,13,26,10,16,15		7,58
52″	29,56,15, 0,39, 7,51,51,51,15		2,11,19,14,12	
		1,48,54,11,14,51, 2, 3		7,58
54″	29,56,16,49,33,19, 6,42,53,18		2,11,19,22,10	
		1,48,54, 9, 3,31,39,53		7,58
56″	29,56,18,38,27,28,10,14,33,11		2,11,19,30, 8	
		1,48,54, 6,52,12, 9,45		7,58
58″	29,56,20,27,21,35, 2,26,42,56		2,11,19,38, 6	
		1,48,54, 4,40,52,31,39		
60″	29,56,22,16,15,39,43,19,14,35			
exact	29,56,22,16,15,39,43,19,27,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°56′ 0″	29,56,22,16,15,39,43,19,27,58			
		1,48,54, 2,29,32,47,12		
2″	29,56,24, 5, 9,42,12,52,15,10		2,11,19,53,54	
		1,48,54, 0,18,12,53,18		7,58
4″	29,56,25,54, 3,42,31, 5, 8,28		2,11,20, 1,52	
		1,48,53,58, 6,52,51,26		7,58
6″	29,56,27,42,57,40,37,57,59,54		2,11,20, 9,50	
		1,48,53,55,55,32,41,36		7,58
8″	29,56,29,31,51,36,33,30,41,30		2,11,20,17,48	
		1,48,53,53,44,12,23,48		7,58
10″	29,56,31,20,45,30,17,43, 5,18		2,11,20,25,46	
		1,48,53,51,32,51,58, 2		7,58
12″	29,56,33, 9,39,21,50,35, 3,20		2,11,20,33,44	
		1,48,53,49,21,31,24,18		7,58
14″	29,56,34,58,33,11,12, 6,27,38		2,11,20,41,42	
		1,48,53,47,10,10,42,36		7,58
16″	29,56,36,47,26,58,22,17,10,14		2,11,20,49,40	
		1,48,53,44,58,49,52,56		7,58
18″	29,56,38,36,20,43,21, 7, 3,10		2,11,20,57,38	
		1,48,53,42,47,28,55,18		7,58
20″	29,56,40,25,14,26, 8,35,58,28		2,11,21, 5,36	
		1,48,53,40,36, 7,49,42		7,58
22″	29,56,42,14, 8, 6,44,43,48,10		2,11,21,13,34	
		1,48,53,38,24,46,36, 8		7,58
24″	29,56,44, 3, 1,45, 9,30,24,18		2,11,21,21,32	
		1,48,53,36,13,25,14,36		7,58
26″	29,56,45,51,55,21,22,55,38,54		2,11,21,29,30	
		1,48,53,34, 2, 3,45, 6		7,58
28″	29,56,47,40,48,55,24,59,24, 0		2,11,21,37,28	
		1,48,53,31,50,42, 7,38		7,58
30″	29,56,49,29,42,27,15,41,31,38		2,11,21,45,26	
		1,48,53,29,39,20,22,12		7,58
32″	29,56,51,18,35,56,55, 1,53,50		2,11,21,53,24	
		1,48,53,27,27,58,28,48		7,58
34″	29,56,53, 7,29,24,23, 0,22,38		2,11,22, 1,22	
		1,48,53,25,16,36,27,26		7,58
36″	29,56,54,56,22,49,39,36,50, 4		2,11,22, 9,20	
		1,48,53,23, 5,14,18, 6		7,58
38″	29,56,56,45,16,12,44,51, 8,10		2,11,22,17,18	
		1,48,53,20,53,52, 0,48		7,58
40″	29,56,58,34, 9,33,38,43, 8,58		2,11,22,25,16	
		1,48,53,18,42,29,35,32		7,58
42″	29,57, 0,23, 2,52,21,12,44,30		2,11,22,33,14	
		1,48,53,16,31, 7, 2,18		7,58
44″	29,57, 2,11,56, 8,52,19,46,48		2,11,22,41,12	
		1,48,53,14,19,44,21, 6		7,58
46″	29,57, 4, 0,49,23,12, 4, 7,54		2,11,22,49,10	
		1,48,53,12, 8,21,31,56		7,58
48″	29,57, 5,49,42,35,20,25,39,50		2,11,22,57, 8	
		1,48,53, 9,56,58,34,48		7,58
50″	29,57, 7,38,35,45,17,24,14,38		2,11,23, 5, 6	
		1,48,53, 7,45,35,29,42		7,58
52″	29,57, 9,27,28,53, 2,59,44,20		2,11,23,13, 4	
		1,48,53, 5,34,12,16,38		7,58
54″	29,57,11,16,21,58,37,12, 0,58		2,11,23,21, 2	
		1,48,53, 3,22,48,55,36		7,58
56″	29,57,13, 5,15, 2, 0, 0,56,34		2,11,23,29, 0	
		1,48,53, 1,11,25,26,36		7,58
58″	29,57,14,54, 8, 3,11,26,23,10		2,11,23,36,58	
		1,48,52,59, 0, 1,49,38		
60″	29,57,16,43, 1, 2,11,28,12,48			
exact	29,57,16,43, 1, 2,11,28,32, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°57′ 0″	29,57,16,43, 1, 2,11,28,32, 8	1,48,52,56,48,38, 6,56		
2″	29,57,18,31,53,59, 0, 6,39, 4	1,48,52,54,37,14,14,12	2,11,23,52,44	7,58
4″	29,57,20,20,46,53,37,20,53,16	1,48,52,52,25,50,13,30	2,11,24, 0,42	7,58
6″	29,57,22, 9,39,46, 3,11, 6,46	1,48,52,50,14,26, 4,50	2,11,24, 8,40	7,58
8″	29,57,23,58,32,36,17,37,11,36	1,48,52,48, 3, 1,48,12	2,11,24,16,38	7,58
10″	29,57,25,47,25,24,20,38,59,48	1,48,52,45,51,37,23,36	2,11,24,24,36	7,58
12″	29,57,27,36,18,10,12,16,23,24	1,48,52,43,40,12,51, 2	2,11,24,32,34	7,58
14″	29,57,29,25,10,53,52,29,14,26	1,48,52,41,28,48,10,30	2,11,24,40,32	7,58
16″	29,57,31,14, 3,35,21,17,24,56	1,48,52,39,17,23,22, 0	2,11,24,48,30	7,58
18″	29,57,33, 2,56,14,38,40,46,56	1,48,52,37, 5,58,25,32	2,11,24,56,28	7,58
20″	29,57,34,51,48,51,44,39,12,28	1,48,52,34,54,33,21, 6	2,11,25, 4,26	7,58
22″	29,57,36,40,41,26,39,12,33,34	1,48,52,32,43, 8, 8,42	2,11,25,12,24	7,58
24″	29,57,38,29,33,59,22,20,42,16	1,48,52,30,31,42,48,20	2,11,25,20,22	7,58
26″	29,57,40,18,26,29,54, 3,30,36	1,48,52,28,20,17,20, 0	2,11,25,28,20	7,58
28″	29,57,42, 7,18,58,14,20,50,36	1,48,52,26, 8,51,43,42	2,11,25,36,18	7,58
30″	29,57,43,56,11,24,23,12,34,18	1,48,52,23,57,25,59,26	2,11,25,44,16	7,58
32″	29,57,45,45, 3,48,20,38,33,44	1,48,52,21,46, 0, 7,12	2,11,25,52,14	7,58
34″	29,57,47,33,56,10, 6,38,40,56	1,48,52,19,34,34, 7, 0	2,11,26, 0,12	7,58
36″	29,57,49,22,48,29,41,12,47,56	1,48,52,17,23, 7,58,50	2,11,26, 8,10	7,58
38″	29,57,51,11,40,47, 4,20,46,46	1,48,52,15,11,41,42,42	2,11,26,16, 8	7,58
40″	29,57,53, 0,33, 2,16, 2,29,28	1,48,52,13, 0,15,18,36	2,11,26,24, 6	7,58
42″	29,57,54,49,25,15,16,17,48, 4	1,48,52,10,48,48,46,32	2,11,26,32, 4	7,58
44″	29,57,56,38,17,26, 5, 6,34,36	1,48,52, 8,37,22, 6,30	2,11,26,40, 2	7,58
46″	29,57,58,27, 9,34,42,28,41, 6	1,48,52, 6,25,55,18,30	2,11,26,48, 0	7,58
48″	29,58, 0,16, 1,41, 8,23,59,36	1,48,52, 4,14,28,22,32	2,11,26,55,58	7,58
50″	29,58, 2, 4,53,45,22,52,22, 8	1,48,52, 2, 3, 1,18,36	2,11,27, 3,56	7,58
52″	29,58, 3,53,45,47,25,53,40,44	1,48,51,59,51,34, 6,42	2,11,27,11,54	7,58
54″	29,58, 5,42,37,47,17,27,47,26	1,48,51,57,40, 6,46,50	2,11,27,19,52	7,58
56″	29,58, 7,31,29,44,57,34,34,16	1,48,51,55,28,39,19, 0	2,11,27,27,50	7,58
58″	29,58, 9,20,21,40,26,13,53,16	1,48,51,53,17,11,43,12	2,11,27,35,48	
60″	29,58,11, 9,13,33,43,25,36,28			
exact	29,58,11, 9,13,33,43,26, 4,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°58′ 0″	29,58,11, 9,13,33,43,26, 4,48			
		1,48,51,51, 5,44, 2,30		
2″	29,58,12,58, 5,24,49,10, 7,18		2,11,27,51,31	
		1,48,51,48,54,16,10,59		7,58
4″	29,58,14,46,57,13,43,26,18,17		2,11,27,59,29	
		1,48,51,46,42,48,11,30		7,58
6″	29,58,16,35,49, 0,26,14,29,47		2,11,28, 7,27	
		1,48,51,44,31,20, 4, 3		7,58
8″	29,58,18,24,40,44,57,34,33,50		2,11,28,15,25	
		1,48,51,42,19,51,48,38		7,58
10″	29,58,20,13,32,27,17,26,22,28		2,11,28,23,23	
		1,48,51,40, 8,23,25,15		7,58
12″	29,58,22, 2,24, 7,25,49,47,43		2,11,28,31,21	
		1,48,51,37,56,54,53,54		7,58
14″	29,58,23,51,15,45,22,44,41,37		2,11,28,39,19	
		1,48,51,35,45,26,14,35		7,58
16″	29,58,25,40, 7,21, 8,10,56,12		2,11,28,47,17	
		1,48,51,33,33,57,27,18		7,58
18″	29,58,27,28,58,54,42, 8,23,30		2,11,28,55,15	
		1,48,51,31,22,28,32, 3		7,58
20″	29,58,29,17,50,26, 4,36,55,33		2,11,29, 3,13	
		1,48,51,29,10,59,28,50		7,58
22″	29,58,31, 6,41,55,15,36,24,23		2,11,29,11,11	
		1,48,51,26,59,30,17,39		7,58
24″	29,58,32,55,33,22,15, 6,42, 2		2,11,29,19, 9	
		1,48,51,24,48, 0,58,30		7,58
26″	29,58,34,44,24,47, 3, 7,40,32		2,11,29,27, 7	
		1,48,51,22,36,31,31,23		7,58
28″	29,58,36,33,16, 9,39,39,11,55		2,11,29,35, 5	
		1,48,51,20,25, 1,56,18		7,58
30″	29,58,38,22, 7,30, 4,41, 8,13		2,11,29,43, 3	
		1,48,51,18,13,32,13,15		7,58
32″	29,58,40,10,58,48,18,13,21,28		2,11,29,51, 1	
		1,48,51,16, 2, 2,22,14		7,58
34″	29,58,41,59,50, 4,20,15,43,42		2,11,29,58,59	
		1,48,51,13,50,32,23,15		7,58
36″	29,58,43,48,41,18,10,48, 6,57		2,11,30, 6,57	
		1,48,51,11,39, 2,16,18		7,58
38″	29,58,45,37,32,29,49,50,23,15		2,11,30,14,55	
		1,48,51, 9,27,32, 1,23		7,58
40″	29,58,47,26,23,39,17,22,24,38		2,11,30,22,53	
		1,48,51, 7,16, 1,38,30		7,58
42″	29,58,49,15,14,46,33,24, 3, 8		2,11,30,30,51	
		1,48,51, 5, 4,31, 7,39		7,58
44″	29,58,51, 4, 5,51,37,55,10,47		2,11,30,38,49	
		1,48,51, 2,53, 0,28,50		7,58
46″	29,58,52,52,56,54,30,55,39,37		2,11,30,46,47	
		1,48,51, 0,41,29,42, 3		7,58
48″	29,58,54,41,47,55,12,25,21,40		2,11,30,54,45	
		1,48,50,58,29,58,47,18		7,58
50″	29,58,56,30,38,53,42,24, 8,58		2,11,31, 2,43	
		1,48,50,56,18,27,44,35		7,58
52″	29,58,58,19,29,50, 0,51,53,33		2,11,31,10,41	
		1,48,50,54, 6,56,33,54		7,58
54″	29,59, 0, 8,20,44, 7,48,27,27		2,11,31,18,39	
		1,48,50,51,55,25,15,15		7,58
56″	29,59, 1,57,11,36, 3,13,42,42		2,11,31,26,37	
		1,48,50,49,43,53,48,38		7,58
58″	29,59, 3,46, 2,25,47, 7,31,20		2,11,31,34,35	
		1,48,50,47,32,22,14, 3		
60″	29,59, 5,34,53,13,19,29,45,23			
exact	29,59, 5,34,53,13,19,30,18, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
29°59′ 0″	29,59, 5,34,53,13,19,30,18, 3			
		1,48,50,45,20,50,35, 4		
2″	29,59, 7,23,43,58,40,20,53, 7		2,11,31,50,16	
		1,48,50,43, 9,18,44,48		7,57
4″	29,59, 9,12,34,41,49,39,37,55		2,11,31,58,13	
		1,48,50,40,57,46,46,35		7,57
6″	29,59,11, 1,25,22,47,26,24,30		2,11,32, 6,10	
		1,48,50,38,46,14,40,25		7,57
8″	29,59,12,50,16, 1,33,41, 4,55		2,11,32,14, 7	
		1,48,50,36,34,42,26,18		7,57
10″	29,59,14,39, 6,38, 8,23,31,13		2,11,32,22, 4	
		1,48,50,34,23,10, 4,14		7,57
12″	29,59,16,27,57,12,31,33,35,27		2,11,32,30, 1	
		1,48,50,32,11,37,34,13		7,57
14″	29,59,18,16,47,44,43,11, 9,40		2,11,32,37,58	
		1,48,50,30, 0, 4,56,15		7,57
16″	29,59,20, 5,38,14,43,16, 5,55		2,11,32,45,55	
		1,48,50,27,48,32,10,20		7,57
18″	29,59,21,54,28,42,31,48,16,15		2,11,32,53,52	
		1,48,50,25,36,59,16,28		7,57
20″	29,59,23,43,19, 8, 8,47,32,43		2,11,33, 1,49	
		1,48,50,23,25,26,14,39		7,57
22″	29,59,25,32, 9,31,34,13,47,22		2,11,33, 9,46	
		1,48,50,21,13,53, 4,53		7,57
24″	29,59,27,20,59,52,48, 6,52,15		2,11,33,17,43	
		1,48,50,19, 2,19,47,10		7,57
26″	29,59,29, 9,50,11,50,26,39,25		2,11,33,25,40	
		1,48,50,16,50,46,21,30		7,57
28″	29,59,30,58,40,28,41,13, 0,55		2,11,33,33,37	
		1,48,50,14,39,12,47,53		7,57
30″	29,59,32,47,30,43,20,25,48,48		2,11,33,41,34	
		1,48,50,12,27,39, 6,19		7,57
32″	29,59,34,36,20,55,48, 4,55, 7		2,11,33,49,31	
		1,48,50,10,16, 5,16,48		7,57
34″	29,59,36,25,11, 6, 4,10,11,55		2,11,33,57,28	
		1,48,50, 8, 4,31,19,20		7,57
36″	29,59,38,14, 1,14, 8,41,31,15		2,11,34, 5,25	
		1,48,50, 5,52,57,13,55		7,57
38″	29,59,40, 2,51,20, 1,38,45,10		2,11,34,13,22	
		1,48,50, 3,41,23, 0,33		7,57
40″	29,59,41,51,41,23,43, 1,45,43		2,11,34,21,19	
		1,48,50, 1,29,48,39,14		7,57
42″	29,59,43,40,31,25,12,50,24,57		2,11,34,29,16	
		1,48,49,59,18,14, 9,58		7,57
44″	29,59,45,29,21,24,31, 4,34,55		2,11,34,37,13	
		1,48,49,57, 6,39,32,45		7,57
46″	29,59,47,18,11,21,37,44, 7,40		2,11,34,45,10	
		1,48,49,54,55, 4,47,35		7,57
48″	29,59,49, 7, 1,16,32,48,55,15		2,11,34,53, 7	
		1,48,49,52,43,29,54,28		7,57
50″	29,59,50,55,51, 9,16,18,49,43		2,11,35, 1, 4	
		1,48,49,50,31,54,53,24		7,57
52″	29,59,52,44,40,59,48,13,43, 7		2,11,35, 9, 1	
		1,48,49,48,20,19,44,23		7,57
54″	29,59,54,33,30,48, 8,33,27,30		2,11,35,16,58	
		1,48,49,46, 8,44,27,25		7,57
56″	29,59,56,22,20,34,17,17,54,55		2,11,35,24,55	
		1,48,49,43,57, 9, 2,30		7,57
58″	29,59,58,11,10,18,14,26,57,25		2,11,35,32,52	
		1,48,49,41,45,33,29,38		
60″	30, 0, 0, 0, 0, 0, 0, 0,27, 3			
exact	30, 0, 0, 0, 0, 0, 0, 0, 0, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30° 0′ 0″	30, 0, 0, 0, 0, 0, 0, 0, 0, 0	1,48,49,39,33,57,45,53		
2″	30, 0, 1,48,49,39,33,57,45,53	1,48,49,37,22,21,56,55	2,11,35,48,58	7,57
4″	30, 0, 3,37,39,16,56,19,42,48	1,48,49,35,10,46, 0, 0	2,11,35,56,55	7,57
6″	30, 0, 5,26,28,52, 7, 5,42,48	1,48,49,32,59, 9,55, 8	2,11,36, 4,52	7,57
8″	30, 0, 7,15,18,25, 6,15,37,56	1,48,49,30,47,33,42,19	2,11,36,12,49	7,57
10″	30, 0, 9, 4, 7,55,53,49,20,15	1,48,49,28,35,57,21,33	2,11,36,20,46	7,57
12″	30, 0,10,52,57,24,29,46,41,48	1,48,49,26,24,20,52,50	2,11,36,28,43	7,57
14″	30, 0,12,41,46,50,54, 7,34,38	1,48,49,24,12,44,16,10	2,11,36,36,40	7,57
16″	30, 0,14,30,36,15, 6,51,50,48	1,48,49,22, 1, 7,31,33	2,11,36,44,37	7,57
18″	30, 0,16,19,25,37, 7,59,22,21	1,48,49,19,49,30,38,59	2,11,36,52,34	7,57
20″	30, 0,18, 8,14,56,57,30, 1,20	1,48,49,17,37,53,38,28	2,11,37, 0,31	7,57
22″	30, 0,19,57, 4,14,35,23,39,48	1,48,49,15,26,16,30, 0	2,11,37, 8,28	7,57
24″	30, 0,21,45,53,30, 1,40, 9,48	1,48,49,13,14,39,13,35	2,11,37,16,25	7,57
26″	30, 0,23,34,42,43,16,19,23,23	1,48,49,11, 3, 1,49,13	2,11,37,24,22	7,57
28″	30, 0,25,23,31,54,19,21,12,36	1,48,49, 8,51,24,16,54	2,11,37,32,19	7,57
30″	30, 0,27,12,21, 3,10,45,29,30	1,48,49, 6,39,46,36,38	2,11,37,40,16	7,57
32″	30, 0,29, 1,10, 9,50,32, 6, 8	1,48,49, 4,28, 8,48,25	2,11,37,48,13	7,57
34″	30, 0,30,49,59,14,18,40,54,33	1,48,49, 2,16,30,52,15	2,11,37,56,10	7,57
36″	30, 0,32,38,48,16,35,11,46,48	1,48,49, 0, 4,52,48, 8	2,11,38, 4, 7	7,57
38″	30, 0,34,27,37,16,40, 4,34,56	1,48,48,57,53,14,36, 4	2,11,38,12, 4	7,57
40″	30, 0,36,16,26,14,33,19,11, 0	1,48,48,55,41,36,16, 3	2,11,38,20, 1	7,57
42″	30, 0,38, 5,15,10,14,55,27, 3	1,48,48,53,29,57,48, 5	2,11,38,27,58	7,57
44″	30, 0,39,54, 4, 3,44,53,15, 8	1,48,48,51,18,19,12,10	2,11,38,35,55	7,57
46″	30, 0,41,42,52,55, 3,12,27,18	1,48,48,49, 6,40,28,18	2,11,38,43,52	7,57
48″	30, 0,43,31,41,44, 9,52,55,36	1,48,48,46,55, 1,36,29	2,11,38,51,49	7,57
50″	30, 0,45,20,30,31, 4,54,32, 5	1,48,48,44,43,22,36,43	2,11,38,59,46	7,57
52″	30, 0,47, 9,19,15,48,17, 8,48	1,48,48,42,31,43,29, 0	2,11,39, 7,43	7,57
54″	30, 0,48,58, 7,58,20, 0,37,48	1,48,48,40,20, 4,13,20	2,11,39,15,40	7,57
56″	30, 0,50,46,56,38,40, 4,51, 8	1,48,48,38, 8,24,49,43	2,11,39,23,37	7,57
58″	30, 0,52,35,45,16,48,29,40,51	1,48,48,35,56,45,18, 9	2,11,39,31,34	
60″	30, 0,54,24,33,52,45,14,59, 0			
exact	30, 0,54,24,33,52,45,14,34,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30° 1′ 0″	30, 0,54,24,33,52,45,14,34,50	1,48,48,33,45, 5,36, 7	2,11,39,47,38	7,57
2″	30, 0,56,13,22,26,30,20,10,57	1,48,48,31,33,25,48,29	2,11,39,55,35	7,57
4″	30, 0,58, 2,10,58, 3,45,59,26	1,48,48,29,21,45,52,54	2,11,40, 3,32	7,57
6″	30, 0,59,50,59,27,25,31,52,20	1,48,48,27,10, 5,49,22	2,11,40,11,29	7,57
8″	30, 1, 1,39,47,54,35,37,41,42	1,48,48,24,58,25,37,53	2,11,40,19,26	7,57
10″	30, 1, 3,28,36,19,34, 3,19,35	1,48,48,22,46,45,18,27	2,11,40,27,23	7,57
12″	30, 1, 5,17,24,42,20,48,38, 2	1,48,48,20,35, 4,51, 4	2,11,40,35,20	7,57
14″	30, 1, 7, 6,13, 2,55,53,29, 6	1,48,48,18,23,24,15,44	2,11,40,43,17	7,57
16″	30, 1, 8,55, 1,21,19,17,44,50	1,48,48,16,11,43,32,27	2,11,40,51,14	7,57
18″	30, 1,10,43,49,37,31, 1,17,17	1,48,48,14, 0, 2,41,13	2,11,40,59,11	7,57
20″	30, 1,12,32,37,51,31, 3,58,30	1,48,48,11,48,21,42, 2	2,11,41, 7, 8	7,57
22″	30, 1,14,21,26, 3,19,25,40,32	1,48,48, 9,36,40,34,54	2,11,41,15, 5	7,57
24″	30, 1,16,10,14,12,56, 6,15,26	1,48,48, 7,24,59,19,49	2,11,41,23, 2	7,57
26″	30, 1,17,59, 2,20,21, 5,35,15	1,48,48, 5,13,17,56,47	2,11,41,30,59	7,57
28″	30, 1,19,47,50,25,34,23,32, 2	1,48,48, 3, 1,36,25,48	2,11,41,38,56	7,57
30″	30, 1,21,36,38,28,35,59,57,50	1,48,48, 0,49,54,46,52	2,11,41,46,53	7,57
32″	30, 1,23,25,26,29,25,54,44,42	1,48,47,58,38,12,59,59	2,11,41,54,50	7,57
34″	30, 1,25,14,14,28, 4, 7,44,41	1,48,47,56,26,31, 5, 9	2,11,42, 2,47	7,57
36″	30, 1,27, 3, 2,24,30,38,49,50	1,48,47,54,14,49, 2,22	2,11,42,10,44	7,57
38″	30, 1,28,51,50,18,45,27,52,12	1,48,47,52, 3, 6,51,38	2,11,42,18,41	7,57
40″	30, 1,30,40,38,10,48,34,43,50	1,48,47,49,51,24,32,57	2,11,42,26,38	7,57
42″	30, 1,32,29,26, 0,39,59,16,47	1,48,47,47,39,42, 6,19	2,11,42,34,35	7,57
44″	30, 1,34,18,13,48,19,41,23, 6	1,48,47,45,27,59,31,44	2,11,42,42,32	7,57
46″	30, 1,36, 7, 1,33,47,40,54,50	1,48,47,43,16,16,49,12	2,11,42,50,29	7,57
48″	30, 1,37,55,49,17, 3,57,44, 2	1,48,47,41, 4,33,58,43	2,11,42,58,26	7,57
50″	30, 1,39,44,36,58, 8,31,42,45	1,48,47,38,52,51, 0,17	2,11,43, 6,23	7,57
52″	30, 1,41,33,24,37, 1,22,43, 2	1,48,47,36,41, 7,53,54	2,11,43,14,20	7,57
54″	30, 1,43,22,12,13,42,30,36,56	1,48,47,34,29,24,39,34	2,11,43,22,17	7,57
56″	30, 1,45,10,59,48,11,55,16,30	1,48,47,32,17,41,17,17	2,11,43,30,14	
58″	30, 1,46,59,47,20,29,36,33,47	1,48,47,30, 5,57,47, 3		
60″	30, 1,48,48,34,50,35,34,20,50			
exact	30, 1,48,48,34,50,35,34, 2,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30° 2′ 0″	30, 1,48,48,34,50,35,34, 2,47	1,48,47,27,54,14, 6,59		
2″	30, 1,50,37,22,18,29,48, 9,46	1,48,47,25,42,30,20,44	2,11,43,46,15	7,57
4″	30, 1,52,26, 9,44,12,18,30,30	1,48,47,23,30,46,26,32	2,11,43,54,12	7,57
6″	30, 1,54,14,57, 7,43, 4,57, 2	1,48,47,21,19, 2,24,23	2,11,44, 2, 9	7,57
8″	30, 1,56, 3,44,29, 2, 7,21,25	1,48,47,19, 7,18,14,17	2,11,44,10, 6	7,57
10″	30, 1,57,52,31,48, 9,25,35,42	1,48,47,16,55,33,56,14	2,11,44,18, 3	7,57
12″	30, 1,59,41,19, 5, 4,59,31,56	1,48,47,14,43,49,30,14	2,11,44,26, 0	7,57
14″	30, 2, 1,30, 6,19,48,49, 2,10	1,48,47,12,32, 4,56,17	2,11,44,33,57	7,57
16″	30, 2, 3,18,53,32,20,53,58,27	1,48,47,10,20,20,14,23	2,11,44,41,54	7,57
18″	30, 2, 5, 7,40,42,41,14,12,50	1,48,47, 8, 8,35,24,32	2,11,44,49,51	7,57
20″	30, 2, 6,56,27,50,49,49,37,22	1,48,47, 5,56,50,26,44	2,11,44,57,48	7,57
22″	30, 2, 8,45,14,56,46,40, 4, 6	1,48,47, 3,45, 5,20,59	2,11,45, 5,45	7,57
24″	30, 2,10,34, 2, 0,31,45,25, 5	1,48,47, 1,33,20, 7,17	2,11,45,13,42	7,57
26″	30, 2,12,22,49, 2, 5, 5,32,22	1,48,46,59,21,34,45,38	2,11,45,21,39	7,57
28″	30, 2,14,11,36, 1,26,40,18, 0	1,48,46,57, 9,49,16, 2	2,11,45,29,36	7,57
30″	30, 2,16, 0,22,58,36,29,34, 2	1,48,46,54,58, 3,38,29	2,11,45,37,33	7,57
32″	30, 2,17,49, 9,53,34,33,12,31	1,48,46,52,46,17,52,59	2,11,45,45,30	7,57
34″	30, 2,19,37,56,46,20,51, 5,30	1,48,46,50,34,31,59,32	2,11,45,53,27	7,57
36″	30, 2,21,26,43,36,55,23, 5, 2	1,48,46,48,22,45,58, 8	2,11,46, 1,24	7,57
38″	30, 2,23,15,30,25,18, 9, 3,10	1,48,46,46,10,59,48,47	2,11,46, 9,21	7,57
40″	30, 2,25, 4,17,11,29, 8,51,57	1,48,46,43,59,13,31,29	2,11,46,17,18	7,57
42″	30, 2,26,53, 3,55,28,22,23,26	1,48,46,41,47,27, 6,14	2,11,46,25,15	7,57
44″	30, 2,28,41,50,37,15,49,29,40	1,48,46,39,35,40,33, 2	2,11,46,33,12	7,57
46″	30, 2,30,30,37,16,51,30, 2,42	1,48,46,37,23,53,51,53	2,11,46,41, 9	7,57
48″	30, 2,32,19,23,54,15,23,54,35	1,48,46,35,12, 7, 2,47	2,11,46,49, 6	7,57
50″	30, 2,34, 8,10,29,27,30,57,22	1,48,46,33, 0,20, 5,44	2,11,46,57, 3	7,57
52″	30, 2,35,56,57, 2,27,51, 3, 6	1,48,46,30,48,33, 0,44	2,11,47, 5, 0	7,57
54″	30, 2,37,45,43,33,16,24, 3,50	1,48,46,28,36,45,47,47	2,11,47,12,57	7,57
56″	30, 2,39,34,30, 1,53, 9,51,37	1,48,46,26,24,58,26,53	2,11,47,20,54	7,57
58″	30, 2,41,23,16,28,18, 8,18,30	1,48,46,24,13,10,58, 2	2,11,47,28,51	
60″	30, 2,43,12, 2,52,31,19,16,32			
exact	30, 2,43,12, 2,52,31,19, 0,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30° 3′ 0″	30, 2,43,12, 2,52,31,19, 0,14	1,48,46,22, 1,23,19,40		
2″	30, 2,45, 0,49,14,32,42,19,54	1,48,46,19,49,35,34,49	2,11,47,44,51	7,57
4″	30, 2,46,49,35,34,22,17,54,43	1,48,46,17,37,47,42, 1	2,11,47,52,48	7,57
6″	30, 2,48,38,21,52, 0, 5,36,44	1,48,46,15,25,59,41,16	2,11,48, 0,45	7,57
8″	30, 2,50,27, 8, 7,26, 5,18, 0	1,48,46,13,14,11,32,34	2,11,48, 8,42	7,57
10″	30, 2,52,15,54,20,40,16,50,34	1,48,46,11, 2,23,15,55	2,11,48,16,39	7,57
12″	30, 2,54, 4,40,31,42,40, 6,29	1,48,46, 8,50,34,51,19	2,11,48,24,36	7,57
14″	30, 2,55,53,26,40,33,14,57,48	1,48,46, 6,38,46,18,46	2,11,48,32,33	7,57
16″	30, 2,57,42,12,47,12, 1,16,34	1,48,46, 4,26,57,38,16	2,11,48,40,30	7,57
18″	30, 2,59,30,58,51,38,58,54,50	1,48,46, 2,15, 8,49,49	2,11,48,48,27	7,57
20″	30, 3, 1,19,44,53,54, 7,44,39	1,48,46, 0, 3,19,53,25	2,11,48,56,24	7,57
22″	30, 3, 3, 8,30,53,57,27,38, 4	1,48,45,57,51,30,49, 4	2,11,49, 4,21	7,57
24″	30, 3, 4,57,16,51,48,58,27, 8	1,48,45,55,39,41,36,46	2,11,49,12,18	7,57
26″	30, 3, 6,46, 2,47,28,40, 3,54	1,48,45,53,27,52,16,31	2,11,49,20,15	7,57
28″	30, 3, 8,34,48,40,56,32,20,25	1,48,45,51,16, 2,48,19	2,11,49,28,12	7,57
30″	30, 3,10,23,34,32,12,35, 8,44	1,48,45,49, 4,13,12,10	2,11,49,36, 9	7,57
32″	30, 3,12,12,20,21,16,48,20,54	1,48,45,46,52,23,28, 4	2,11,49,44, 6	7,57
34″	30, 3,14, 1, 6, 8, 9,11,48,58	1,48,45,44,40,33,36, 1	2,11,49,52, 3	7,57
36″	30, 3,15,49,51,52,49,45,24,59	1,48,45,42,28,43,36, 1	2,11,50, 0, 0	7,57
38″	30, 3,17,38,37,35,18,29, 1, 0	1,48,45,40,16,53,28, 4	2,11,50, 7,57	7,57
40″	30, 3,19,27,23,15,35,22,29, 4	1,48,45,38, 5, 3,12,10	2,11,50,15,54	7,57
42″	30, 3,21,16, 8,53,40,25,41,14	1,48,45,35,53,12,48,19	2,11,50,23,51	7,57
44″	30, 3,23, 4,54,29,33,38,29,33	1,48,45,33,41,22,16,31	2,11,50,31,48	7,57
46″	30, 3,24,53,40, 3,15, 0,46, 4	1,48,45,31,29,31,36,46	2,11,50,39,45	7,57
48″	30, 3,26,42,25,34,44,32,22,50	1,48,45,29,17,40,49, 4	2,11,50,47,42	7,57
50″	30, 3,28,31,11, 4, 2,13,11,54	1,48,45,27, 5,49,53,25	2,11,50,55,39	7,57
52″	30, 3,30,19,56,31, 8, 3, 5,19	1,48,45,24,53,58,49,49	2,11,51, 3,36	7,57
54″	30, 3,32, 8,41,56, 2, 1,55, 8	1,48,45,22,42, 7,38,16	2,11,51,11,33	7,57
56″	30, 3,33,57,27,18,44, 9,33,24	1,48,45,20,30,16,18,46	2,11,51,19,30	7,57
58″	30, 3,35,46,12,39,14,25,52,10	1,48,45,18,18,24,51,19	2,11,51,27,27	
60″	30, 3,37,34,57,57,32,50,43,29			
exact	30, 3,37,34,57,57,32,50,39,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30° 4′ 0″	30, 3,37,34,57,57,32,50,39,39			
		1,48,45,16, 6,33,15,25		
2″	30, 3,39,23,43,13,39,23,55, 4		2,11,51,43,23	
		1,48,45,13,54,41,32, 2		7,57
4″	30, 3,41,12,28,27,34, 5,27, 6		2,11,51,51,20	
		1,48,45,11,42,49,40,42		7,57
6″	30, 3,43, 1,13,39,16,55, 7,48		2,11,51,59,17	
		1,48,45, 9,30,57,41,25		7,57
8″	30, 3,44,49,58,48,47,52,49,13		2,11,52, 7,14	
		1,48,45, 7,19, 5,34,11		7,57
10″	30, 3,46,38,43,56, 6,58,23,24		2,11,52,15,11	
		1,48,45, 5, 7,13,19, 0		7,57
12″	30, 3,48,27,29, 1,14,11,42,24		2,11,52,23, 8	
		1,48,45, 2,55,20,55,52		7,57
14″	30, 3,50,16,14, 4, 9,32,38,16		2,11,52,31, 5	
		1,48,45, 0,43,28,24,47		7,57
16″	30, 3,52, 4,59, 4,53, 1, 3, 3		2,11,52,39, 2	
		1,48,44,58,31,35,45,45		7,57
18″	30, 3,53,53,44, 3,24,36,48,48		2,11,52,46,59	
		1,48,44,56,19,42,58,46		7,57
20″	30, 3,55,42,28,59,44,19,47,34		2,11,52,54,56	
		1,48,44,54, 7,50, 3,50		7,57
22″	30, 3,57,31,13,53,52, 9,51,24		2,11,53, 2,53	
		1,48,44,51,55,57, 0,57		7,57
24″	30, 3,59,19,58,45,48, 6,52,21		2,11,53,10,50	
		1,48,44,49,44, 3,50, 7		7,57
26″	30, 4, 1, 8,43,35,32,10,42,28		2,11,53,18,47	
		1,48,44,47,32,10,31,20		7,57
28″	30, 4, 2,57,28,23, 4,21,13,48		2,11,53,26,44	
		1,48,44,45,20,17, 4,36		7,57
30″	30, 4, 4,46,13, 8,24,38,18,24		2,11,53,34,41	
		1,48,44,43, 8,23,29,55		7,57
32″	30, 4, 6,34,57,51,33, 1,48,19		2,11,53,42,38	
		1,48,44,40,56,29,47,17		7,57
34″	30, 4, 8,23,42,32,29,31,35,36		2,11,53,50,35	
		1,48,44,38,44,35,56,42		7,57
36″	30, 4,10,12,27,11,14, 7,32,18		2,11,53,58,32	
		1,48,44,36,32,41,58,10		7,57
38″	30, 4,12, 1,11,47,46,49,30,28		2,11,54, 6,29	
		1,48,44,34,20,47,51,41		7,57
40″	30, 4,13,49,56,22, 7,37,22, 9		2,11,54,14,26	
		1,48,44,32, 8,53,37,15		7,57
42″	30, 4,15,38,40,54,16,30,59,24		2,11,54,22,23	
		1,48,44,29,56,59,14,52		7,57
44″	30, 4,17,27,25,24,13,30,14,16		2,11,54,30,20	
		1,48,44,27,45, 4,44,32		7,57
46″	30, 4,19,16, 9,51,58,34,58,48		2,11,54,38,17	
		1,48,44,25,33,10, 6,15		7,57
48″	30, 4,21, 4,54,17,31,45, 5, 3		2,11,54,46,14	
		1,48,44,23,21,15,20, 1		7,57
50″	30, 4,22,53,38,40,53, 0,25, 4		2,11,54,54,11	
		1,48,44,21, 9,20,25,50		7,57
52″	30, 4,24,42,23, 2, 2,20,50,54		2,11,55, 2, 8	
		1,48,44,18,57,25,23,42		7,57
54″	30, 4,26,31, 7,20,59,46,14,36		2,11,55,10, 5	
		1,48,44,16,45,30,13,37		7,57
56″	30, 4,28,19,51,37,45,16,28,13		2,11,55,18, 2	
		1,48,44,14,33,34,55,35		7,57
58″	30, 4,30, 8,35,52,18,51,23,48		2,11,55,25,59	
		1,48,44,12,21,39,29,36		
60″	30, 4,31,57,20, 4,40,30,53,24			
exact	30, 4,31,57,20, 4,40,30,49,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30° 5′ 0″	30, 4,31,57,20, 4,40,30,49,36			
		1,48,44,10, 9,43,55,23		
2″	30, 4,33,46, 4,14,50,14,44,59		2,11,55,41,53	
		1,48,44, 7,57,48,13,30		7,57
4″	30, 4,35,34,48,22,48, 2,58,29		2,11,55,49,50	
		1,48,44, 5,45,52,23,40		7,57
6″	30, 4,37,23,32,28,33,55,22, 9		2,11,55,57,47	
		1,48,44, 3,33,56,25,53		7,57
8″	30, 4,39,12,16,32, 7,51,48, 2		2,11,56, 5,44	
		1,48,44, 1,22, 0,20, 9		7,57
10″	30, 4,41, 1, 0,33,29,52, 8,11		2,11,56,13,41	
		1,48,43,59,10, 4, 6,28		7,57
12″	30, 4,42,49,44,32,39,56,14,39		2,11,56,21,38	
		1,48,43,56,58, 7,44,50		7,57
14″	30, 4,44,38,28,29,38, 3,59,29		2,11,56,29,35	
		1,48,43,54,46,11,15,15		7,57
16″	30, 4,46,27,12,24,24,15,14,44		2,11,56,37,32	
		1,48,43,52,34,14,37,43		7,57
18″	30, 4,48,15,56,16,58,29,52,27		2,11,56,45,29	
		1,48,43,50,22,17,52,14		7,57
20″	30, 4,50, 4,40, 7,20,47,44,41		2,11,56,53,26	
		1,48,43,48,10,20,58,48		7,57
22″	30, 4,51,53,23,55,31, 8,43,29		2,11,57, 1,23	
		1,48,43,45,58,23,57,25		7,57
24″	30, 4,53,42, 7,41,29,32,40,54		2,11,57, 9,20	
		1,48,43,43,46,26,48, 5		7,57
26″	30, 4,55,30,51,25,15,59,28,59		2,11,57,17,17	
		1,48,43,41,34,29,30,48		7,57
28″	30, 4,57,19,35, 6,50,28,59,47		2,11,57,25,14	
		1,48,43,39,22,32, 5,34		7,57
30″	30, 4,59, 8,18,46,13, 1, 5,21		2,11,57,33,11	
		1,48,43,37,10,34,32,23		7,57
32″	30, 5, 0,57, 2,23,23,35,37,44		2,11,57,41, 8	
		1,48,43,34,58,36,51,15		7,57
34″	30, 5, 2,45,45,58,22,12,28,59		2,11,57,49, 5	
		1,48,43,32,46,39, 2,10		7,57
36″	30, 5, 4,34,29,31, 8,51,31, 9		2,11,57,57, 2	
		1,48,43,30,34,41, 5, 8		7,57
38″	30, 5, 6,23,13, 1,43,32,36,17		2,11,58, 4,59	
		1,48,43,28,22,43, 0, 9		7,57
40″	30, 5, 8,11,56,30, 6,15,36,26		2,11,58,12,56	
		1,48,43,26,10,44,47,13		7,57
42″	30, 5,10, 0,39,56,17, 0,23,39		2,11,58,20,53	
		1,48,43,23,58,46,26,20		7,57
44″	30, 5,11,49,23,20,15,46,49,59		2,11,58,28,50	
		1,48,43,21,46,47,57,30		7,57
46″	30, 5,13,38, 6,42, 2,34,47,29		2,11,58,36,47	
		1,48,43,19,34,49,20,43		7,57
48″	30, 5,15,26,50, 1,37,24, 8,12		2,11,58,44,44	
		1,48,43,17,22,50,35,59		7,57
50″	30, 5,17,15,33,19, 0,14,44,11		2,11,58,52,41	
		1,48,43,15,10,51,43,18		7,57
52″	30, 5,19, 4,16,34,11, 6,27,29		2,11,59, 0,38	
		1,48,43,12,58,52,42,40		7,57
54″	30, 5,20,52,59,47, 9,59,10, 9		2,11,59, 8,35	
		1,48,43,10,46,53,34, 5		7,57
56″	30, 5,22,41,42,57,56,52,44,14		2,11,59,16,32	
		1,48,43, 8,34,54,17,33		7,57
58″	30, 5,24,30,26, 6,31,47, 1,47		2,11,59,24,29	
		1,48,43, 6,22,54,53, 4		
60″	30, 5,26,19, 9,12,54,41,54,51			
exact	30, 5,26,19, 9,12,54,41,54,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30° 6′ 0″	30, 5,26,19, 9,12,54,41,54,52	1,48,43, 4,10,55,20,49		
2″	30, 5,28, 7,52,17, 5,37,15,41	1,48,43, 1,58,55,40,28	2,11,59,40,21	7,57
4″	30, 5,29,56,35,19, 4,32,56, 9	1,48,42,59,46,55,52,10	2,11,59,48,18	7,57
6″	30, 5,31,45,18,18,51,28,48,19	1,48,42,57,34,55,55,55	2,11,59,56,15	7,57
8″	30, 5,33,34, 1,16,26,24,44,14	1,48,42,55,22,55,51,43	2,12, 0, 4,12	7,57
10″	30, 5,35,22,44,11,49,20,35,57	1,48,42,53,10,55,39,34	2,12, 0,12, 9	7,57
12″	30, 5,37,11,27, 5, 0,16,15,31	1,48,42,50,58,55,19,28	2,12, 0,20, 6	7,57
14″	30, 5,39, 0, 9,55,59,11,34,59	1,48,42,48,46,54,51,25	2,12, 0,28, 3	7,57
16″	30, 5,40,48,52,44,46, 6,26,24	1,48,42,46,34,54,15,25	2,12, 0,36, 0	7,57
18″	30, 5,42,37,35,31,21, 0,41,49	1,48,42,44,22,53,31,28	2,12, 0,43,57	7,57
20″	30, 5,44,26,18,15,43,54,13,17	1,48,42,42,10,52,39,34	2,12, 0,51,54	7,57
22″	30, 5,46,15, 0,57,54,46,52,51	1,48,42,39,58,51,39,43	2,12, 0,59,51	7,57
24″	30, 5,48, 3,43,37,53,38,32,34	1,48,42,37,46,50,31,55	2,12, 1, 7,48	7,57
26″	30, 5,49,52,26,15,40,29, 4,29	1,48,42,35,34,49,16,10	2,12, 1,15,45	7,57
28″	30, 5,51,41, 8,51,15,18,20,39	1,48,42,33,22,47,52,28	2,12, 1,23,42	7,57
30″	30, 5,53,29,51,24,38, 6,13, 7	1,48,42,31,10,46,20,49	2,12, 1,31,39	7,57
32″	30, 5,55,18,33,55,48,52,33,56	1,48,42,28,58,44,41,13	2,12, 1,39,36	7,57
34″	30, 5,57, 7,16,24,47,37,15, 9	1,48,42,26,46,42,53,40	2,12, 1,47,33	7,57
36″	30, 5,58,55,58,51,34,20, 8,49	1,48,42,24,34,40,58,10	2,12, 1,55,30	7,57
38″	30, 6, 0,44,41,16, 9, 1, 6,59	1,48,42,22,22,38,54,43	2,12, 2, 3,27	7,57
40″	30, 6, 2,33,23,38,31,40, 1,42	1,48,42,20,10,36,43,19	2,12, 2,11,24	7,57
42″	30, 6, 4,22, 5,58,42,16,45, 1	1,48,42,17,58,34,23,58	2,12, 2,19,21	7,57
44″	30, 6, 6,10,48,16,40,51, 8,59	1,48,42,15,46,31,56,40	2,12, 2,27,18	7,57
46″	30, 6, 7,59,30,32,27,23, 5,39	1,48,42,13,34,29,21,25	2,12, 2,35,15	7,57
48″	30, 6, 9,48,12,46, 1,52,27, 4	1,48,42,11,22,26,38,13	2,12, 2,43,12	7,57
50″	30, 6,11,36,54,57,24,19, 5,17	1,48,42, 9,10,23,47, 4	2,12, 2,51, 9	7,57
52″	30, 6,13,25,37, 6,34,42,52,21	1,48,42, 6,58,20,47,58	2,12, 2,59, 6	7,57
54″	30, 6,15,14,19,13,33, 3,40,19	1,48,42, 4,46,17,40,55	2,12, 3, 7, 3	7,57
56″	30, 6,17, 3, 1,18,19,21,21,14	1,48,42, 2,34,14,25,55	2,12, 3,15, 0	7,57
58″	30, 6,18,51,43,20,53,35,47, 9	1,48,42, 0,22,11, 2,58	2,12, 3,22,57	
60″	30, 6,20,40,25,21,15,46,50, 7			
exact	30, 6,20,40,25,21,15,46,56,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30° 7′ 0″	30, 6,20,40,25,21,15,46,56,21	1,48,41,58,10, 7,32,53		
2″	30, 6,22,29, 7,19,25,54,29,14	1,48,41,55,58, 3,54, 6	2,12, 3,38,47	7,57
4″	30, 6,24,17,49,15,23,58,23,20	1,48,41,53,46, 0, 7,22	2,12, 3,46,44	7,57
6″	30, 6,26, 6,31, 9, 9,58,30,42	1,48,41,51,33,56,12,41	2,12, 3,54,41	7,57
8″	30, 6,27,55,13, 0,43,54,43,23	1,48,41,49,21,52,10, 3	2,12, 4, 2,38	7,57
10″	30, 6,29,43,54,50, 5,46,53,26	1,48,41,47, 9,47,59,28	2,12, 4,10,35	7,57
12″	30, 6,31,32,36,37,15,34,52,54	1,48,41,44,57,43,40,56	2,12, 4,18,32	7,57
14″	30, 6,33,21,18,22,13,18,33,50	1,48,41,42,45,39,14,27	2,12, 4,26,29	7,57
16″	30, 6,35,10, 0, 4,58,57,48,17	1,48,41,40,33,34,40, 1	2,12, 4,34,26	7,57
18″	30, 6,36,58,41,45,32,32,28,18	1,48,41,38,21,29,57,38	2,12, 4,42,23	7,57
20″	30, 6,38,47,23,23,54, 2,25,56	1,48,41,36, 9,25, 7,18	2,12, 4,50,20	7,57
22″	30, 6,40,36, 5, 0, 3,27,33,14	1,48,41,33,57,20, 9, 1	2,12, 4,58,17	7,57
24″	30, 6,42,24,46,34, 0,47,42,15	1,48,41,31,45,15, 2,47	2,12, 5, 6,14	7,57
26″	30, 6,44,13,28, 5,46, 2,45, 2	1,48,41,29,33, 9,48,36	2,12, 5,14,11	7,57
28″	30, 6,46, 2, 9,35,19,12,33,38	1,48,41,27,21, 4,26,28	2,12, 5,22, 8	7,57
30″	30, 6,47,50,51, 2,40,17, 0, 6	1,48,41,25, 8,58,56,23	2,12, 5,30, 5	7,57
32″	30, 6,49,39,32,27,49,15,56,29	1,48,41,22,56,53,18,21	2,12, 5,38, 2	7,57
34″	30, 6,51,28,13,50,46, 9,14,50	1,48,41,20,44,47,32,22	2,12, 5,45,59	7,57
36″	30, 6,53,16,55,11,30,56,47,12	1,48,41,18,32,41,38,26	2,12, 5,53,56	7,57
38″	30, 6,55, 5,36,30, 3,38,25,38	1,48,41,16,20,35,36,33	2,12, 6, 1,53	7,57
40″	30, 6,56,54,17,46,24,14, 2,11	1,48,41,14, 8,29,26,43	2,12, 6, 9,50	7,57
42″	30, 6,58,42,59, 0,32,43,28,54	1,48,41,11,56,23, 8,56	2,12, 6,17,47	7,57
44″	30, 7, 0,31,40,12,29, 6,37,50	1,48,41, 9,44,16,43,12	2,12, 6,25,44	7,57
46″	30, 7, 2,20,21,22,13,23,21, 2	1,48,41, 7,32,10, 9,31	2,12, 6,33,41	7,57
48″	30, 7, 4, 9, 2,29,45,33,30,33	1,48,41, 5,20, 3,27,53	2,12, 6,41,38	7,57
50″	30, 7, 5,57,43,35, 5,36,58,26	1,48,41, 3, 7,56,38,18	2,12, 6,49,35	7,57
52″	30, 7, 7,46,24,38,13,33,36,44	1,48,41, 0,55,49,40,46	2,12, 6,57,32	7,57
54″	30, 7, 9,35, 5,39, 9,23,17,30	1,48,40,58,43,42,35,17	2,12, 7, 5,29	7,57
56″	30, 7,11,23,46,37,53, 5,52,47	1,48,40,56,31,35,21,51	2,12, 7,13,26	7,57
58″	30, 7,13,12,27,34,24,41,14,38	1,48,40,54,19,28, 0,28	2,12, 7,21,23	
60″	30, 7,15, 1, 8,28,44, 9,15, 6			
exact	30, 7,15, 1, 8,28,44, 9,31, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30° 8′ 0″	30, 7,15, 1, 8,28,44, 9,31, 9	1,48,40,52, 7,20,32,50		
2″	30, 7,16,49,49,20,51,30, 3,59	1,48,40,49,55,12,55,40	2,12, 7,37,10	
4″	30, 7,18,38,30,10,46,42,59,39	1,48,40,47,43, 5,10,33	2,12, 7,45, 7	7,57
6″	30, 7,20,27,10,58,29,48,10,12	1,48,40,45,30,57,17,29	2,12, 7,53, 4	7,57
8″	30, 7,22,15,51,44, 0,45,27,41	1,48,40,43,18,49,16,28	2,12, 8, 1, 1	7,57
10″	30, 7,24, 4,32,27,19,34,44, 9	1,48,40,41, 6,41, 7,30	2,12, 8, 8,58	7,57
12″	30, 7,25,53,13, 8,26,15,51,39	1,48,40,38,54,32,50,35	2,12, 8,16,55	7,57
14″	30, 7,27,41,53,47,20,48,42,14	1,48,40,36,42,24,25,43	2,12, 8,24,52	7,57
16″	30, 7,29,30,34,24, 3,13, 7,57	1,48,40,34,30,15,52,54	2,12, 8,32,49	7,57
18″	30, 7,31,19,14,58,33,29, 0,51	1,48,40,32,18, 7,12, 8	2,12, 8,40,46	7,57
20″	30, 7,33, 7,55,30,51,36,12,59	1,48,40,30, 5,58,23,25	2,12, 8,48,43	7,57
22″	30, 7,34,56,36, 0,57,34,36,24	1,48,40,27,53,49,26,45	2,12, 8,56,40	7,57
24″	30, 7,36,45,16,28,51,24, 3, 9	1,48,40,25,41,40,22, 8	2,12, 9, 4,37	7,57
26″	30, 7,38,33,56,54,33, 4,25,17	1,48,40,23,29,31, 9,34	2,12, 9,12,34	7,57
28″	30, 7,40,22,37,18, 2,35,34,51	1,48,40,21,17,21,49, 3	2,12, 9,20,31	7,57
30″	30, 7,42,11,17,39,19,57,23,54	1,48,40,19, 5,12,20,35	2,12, 9,28,28	7,57
32″	30, 7,43,59,57,58,25, 9,44,29	1,48,40,16,53, 2,44,10	2,12, 9,36,25	7,57
34″	30, 7,45,48,38,15,18,12,28,39	1,48,40,14,40,52,59,48	2,12, 9,44,22	7,57
36″	30, 7,47,37,18,29,59, 5,28,27	1,48,40,12,28,43, 7,29	2,12, 9,52,19	7,57
38″	30, 7,49,25,58,42,27,48,35,56	1,48,40,10,16,33, 7,13	2,12,10, 0,16	7,57
40″	30, 7,51,14,38,52,44,21,43, 9	1,48,40, 8, 4,22,59, 0	2,12,10, 8,13	7,57
42″	30, 7,53, 3,19, 0,48,44,42, 9	1,48,40, 5,52,12,42,50	2,12,10,16,10	7,57
44″	30, 7,54,51,59, 6,40,57,24,59	1,48,40, 3,40, 2,18,43	2,12,10,24, 7	7,57
46″	30, 7,56,40,39,10,20,59,43,42	1,48,40, 1,27,51,46,39	2,12,10,32, 4	7,57
48″	30, 7,58,29,19,11,48,51,30,21	1,48,39,59,15,41, 6,38	2,12,10,40, 1	7,57
50″	30, 8, 0,17,59,11, 4,32,36,59	1,48,39,57, 3,30,18,40	2,12,10,47,58	7,57
52″	30, 8, 2, 6,39, 8, 8, 2,55,39	1,48,39,54,51,19,22,45	2,12,10,55,55	7,57
54″	30, 8, 3,55,19, 2,59,22,18,24	1,48,39,52,39, 8,18,53	2,12,11, 3,52	7,57
56″	30, 8, 5,43,58,55,38,30,37,17	1,48,39,50,26,57, 7, 4	2,12,11,11,49	7,57
58″	30, 8, 7,32,38,46, 5,27,44,21	1,48,39,48,14,45,47,18	2,12,11,19,46	
60″	30, 8, 9,21,18,34,20,13,31,39			
exact	30, 8, 9,21,18,34,20,13,52,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30° 9′ 0″	30, 8, 9,21,18,34,20,13,52,35	1,48,39,46, 2,34,21,50		
2″	30, 8,11, 9,58,20,22,48,14,25	1,48,39,43,50,22,46,20	2,12,11,35,30	7,57
4″	30, 8,12,58,38, 4,13,11, 0,45	1,48,39,41,38,11, 2,53	2,12,11,43,27	7,57
6″	30, 8,14,47,17,45,51,22, 3,38	1,48,39,39,25,59,11,29	2,12,11,51,24	7,57
8″	30, 8,16,35,57,25,17,21,15, 7	1,48,39,37,13,47,12, 8	2,12,11,59,21	7,57
10″	30, 8,18,24,37, 2,31, 8,27,15	1,48,39,35, 1,35, 4,50	2,12,12, 7,18	7,57
12″	30, 8,20,13,16,37,32,43,32, 5	1,48,39,32,49,22,49,35	2,12,12,15,15	7,57
14″	30, 8,22, 1,56,10,22, 6,21,40	1,48,39,30,37,10,26,23	2,12,12,23,12	7,57
16″	30, 8,23,50,35,40,59,16,48, 3	1,48,39,28,24,57,55,14	2,12,12,31, 9	7,57
18″	30, 8,25,39,15, 9,24,14,43,17	1,48,39,26,12,45,16, 8	2,12,12,39, 6	7,57
20″	30, 8,27,27,54,35,36,59,59,25	1,48,39,24, 0,32,29, 5	2,12,12,47, 3	7,57
22″	30, 8,29,16,33,59,37,32,28,30	1,48,39,21,48,19,34, 5	2,12,12,55, 0	7,57
24″	30, 8,31, 5,13,21,25,52, 2,35	1,48,39,19,36, 6,31, 8	2,12,13, 2,57	7,57
26″	30, 8,32,53,52,41, 1,58,33,43	1,48,39,17,23,53,20,14	2,12,13,10,54	7,57
28″	30, 8,34,42,31,58,25,51,53,57	1,48,39,15,11,40, 1,23	2,12,13,18,51	7,57
30″	30, 8,36,31,11,13,37,31,55,20	1,48,39,12,59,26,34,35	2,12,13,26,48	7,57
32″	30, 8,38,19,50,26,36,58,29,55	1,48,39,10,47,12,59,50	2,12,13,34,45	7,57
34″	30, 8,40, 8,29,37,24,11,29,45	1,48,39, 8,34,59,17, 8	2,12,13,42,42	7,57
36″	30, 8,41,57, 8,45,59,10,46,53	1,48,39, 6,22,45,26,29	2,12,13,50,39	7,57
38″	30, 8,43,45,47,52,21,56,13,22	1,48,39, 4,10,31,27,53	2,12,13,58,36	7,57
40″	30, 8,45,34,26,56,32,27,41,15	1,48,39, 1,58,17,21,20	2,12,14, 6,33	7,57
42″	30, 8,47,23, 5,58,30,45, 2,35	1,48,38,59,46, 3, 6,50	2,12,14,14,30	7,57
44″	30, 8,49,11,44,58,16,48, 9,25	1,48,38,57,33,48,44,23	2,12,14,22,27	7,57
46″	30, 8,51, 0,23,55,50,36,53,48	1,48,38,55,21,34,13,59	2,12,14,30,24	7,57
48″	30, 8,52,49, 2,51,12,11, 7,47	1,48,38,53, 9,19,35,38	2,12,14,38,21	7,57
50″	30, 8,54,37,41,44,21,30,43,25	1,48,38,50,57, 4,49,20	2,12,14,46,18	7,57
52″	30, 8,56,26,20,35,18,35,32,45	1,48,38,48,44,49,55, 5	2,12,14,54,15	7,57
54″	30, 8,58,14,59,24, 3,25,27,50	1,48,38,46,32,34,52,53	2,12,15, 2,12	7,57
56″	30, 9, 0, 3,38,10,36, 0,20,43	1,48,38,44,20,19,42,44	2,12,15,10, 9	7,57
58″	30, 9, 1,52,16,54,56,20, 3,27	1,48,38,42, 8, 4,24,38	2,12,15,18, 6	
60″	30, 9, 3,40,55,37, 4,24,28, 5			
exact	30, 9, 3,40,55,37, 4,24,50,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°10′ 0″	30, 9, 3,40,55,37, 4,24,50,11			
		1,48,38,39,55,49, 1, 7		
2″	30, 9, 5,29,34,17, 0,13,51,18		2,12,15,33,49	
		1,48,38,37,43,33,27,18		7,57
4″	30, 9, 7,18,12,54,43,47,18,36		2,12,15,41,46	
		1,48,38,35,31,17,45,32		7,57
6″	30, 9, 9, 6,51,30,15, 5, 4, 8		2,12,15,49,43	
		1,48,38,33,19, 1,55,49		7,57
8″	30, 9,10,55,30, 3,34, 6,59,57		2,12,15,57,40	
		1,48,38,31, 6,45,58, 9		7,57
10″	30, 9,12,44, 8,34,40,52,58, 6		2,12,16, 5,37	
		1,48,38,28,54,29,52,32		7,57
12″	30, 9,14,32,47, 3,35,22,50,38		2,12,16,13,34	
		1,48,38,26,42,13,38,58		7,57
14″	30, 9,16,21,25,30,17,36,29,36		2,12,16,21,31	
		1,48,38,24,29,57,17,27		7,57
16″	30, 9,18,10, 3,54,47,33,47, 3		2,12,16,29,28	
		1,48,38,22,17,40,47,59		7,57
18″	30, 9,19,58,42,17, 5,14,35, 2		2,12,16,37,25	
		1,48,38,20, 5,24,10,34		7,57
20″	30, 9,21,47,20,37,10,38,45,36		2,12,16,45,22	
		1,48,38,17,53, 7,25,12		7,57
22″	30, 9,23,35,58,55, 3,46,10,48		2,12,16,53,19	
		1,48,38,15,40,50,31,53		7,57
24″	30, 9,25,24,37,10,44,36,42,41		2,12,17, 1,16	
		1,48,38,13,28,33,30,37		7,57
26″	30, 9,27,13,15,24,13,10,13,18		2,12,17, 9,13	
		1,48,38,11,16,16,21,24		7,57
28″	30, 9,29, 1,53,35,29,26,34,42		2,12,17,17,10	
		1,48,38, 9, 3,59, 4,14		7,57
30″	30, 9,30,50,31,44,33,25,38,56		2,12,17,25, 7	
		1,48,38, 6,51,41,39, 7		7,57
32″	30, 9,32,39, 9,51,25, 7,18, 3		2,12,17,33, 4	
		1,48,38, 4,39,24, 6, 3		7,57
34″	30, 9,34,27,47,56, 4,31,24, 6		2,12,17,41, 1	
		1,48,38, 2,27, 6,25, 2		7,57
36″	30, 9,36,16,25,58,31,37,49, 8		2,12,17,48,58	
		1,48,38, 0,14,48,36, 4		7,57
38″	30, 9,38, 5, 3,58,46,26,25,12		2,12,17,56,55	
		1,48,37,58, 2,30,39, 9		7,57
40″	30, 9,39,53,41,56,48,57, 4,21		2,12,18, 4,52	
		1,48,37,55,50,12,34,17		7,57
42″	30, 9,41,42,19,52,39, 9,38,38		2,12,18,12,49	
		1,48,37,53,37,54,21,28		7,57
44″	30, 9,43,30,57,46,17, 4, 0, 6		2,12,18,20,46	
		1,48,37,51,25,36, 0,42		7,57
46″	30, 9,45,19,35,37,42,40, 0,48		2,12,18,28,43	
		1,48,37,49,13,17,31,59		7,57
48″	30, 9,47, 8,13,26,55,57,32,47		2,12,18,36,40	
		1,48,37,47, 0,58,55,19		7,57
50″	30, 9,48,56,51,13,56,56,28, 6		2,12,18,44,37	
		1,48,37,44,48,40,10,42		7,57
52″	30, 9,50,45,28,58,45,36,38,48		2,12,18,52,34	
		1,48,37,42,36,21,18, 8		7,57
54″	30, 9,52,34, 6,41,21,57,56,56		2,12,19, 0,31	
		1,48,37,40,24, 2,17,37		7,57
56″	30, 9,54,22,44,21,46, 0,14,33		2,12,19, 8,28	
		1,48,37,38,11,43, 9, 9		7,57
58″	30, 9,56,11,21,59,57,43,23,42		2,12,19,16,25	
		1,48,37,35,59,23,52,44		
60″	30, 9,57,59,59,35,57, 7,16,26			
exact	30, 9,57,59,59,35,57, 7,49,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°11′ 0″	30, 9,57,59,59,35,57, 7,49,43			
		1,48,37,33,47, 4,31,53		
2″	30, 9,59,48,37, 9,44,12,21,36		2,12,19,32, 4	
		1,48,37,31,34,44,59,49		7,56
4″	30,10, 1,37,14,41,18,57,21,25		2,12,19,40, 0	
		1,48,37,29,22,25,19,49		7,56
6″	30,10, 3,25,52,10,41,22,41,14		2,12,19,47,56	
		1,48,37,27,10, 5,31,53		7,56
8″	30,10, 5,14,29,37,51,28,13, 7		2,12,19,55,52	
		1,48,37,24,57,45,36, 1		7,56
10″	30,10, 7, 3, 7, 2,49,13,49, 8		2,12,20, 3,48	
		1,48,37,22,45,25,32,13		7,56
12″	30,10, 8,51,44,25,34,39,21,21		2,12,20,11,44	
		1,48,37,20,33, 5,20,29		7,56
14″	30,10,10,40,21,46, 7,44,41,50		2,12,20,19,40	
		1,48,37,18,20,45, 0,49		7,56
16″	30,10,12,28,59, 4,28,29,42,39		2,12,20,27,36	
		1,48,37,16, 8,24,33,13		7,56
18″	30,10,14,17,36,20,36,54,15,52		2,12,20,35,32	
		1,48,37,13,56, 3,57,41		7,56
20″	30,10,16, 6,13,34,32,58,13,33		2,12,20,43,28	
		1,48,37,11,43,43,14,13		7,56
22″	30,10,17,54,50,46,16,41,27,46		2,12,20,51,24	
		1,48,37, 9,31,22,22,49		7,56
24″	30,10,19,43,27,55,48, 3,50,35		2,12,20,59,20	
		1,48,37, 7,19, 1,23,29		7,56
26″	30,10,21,32, 5, 3, 7, 5,14, 4		2,12,21, 7,16	
		1,48,37, 5, 6,40,16,13		7,56
28″	30,10,23,20,42, 8,13,45,30,17		2,12,21,15,12	
		1,48,37, 2,54,19, 1, 1		7,56
30″	30,10,25, 9,19,11, 8, 4,31,18		2,12,21,23, 8	
		1,48,37, 0,41,57,37,53		7,56
32″	30,10,26,57,56,11,50, 2, 9,11		2,12,21,31, 4	
		1,48,36,58,29,36, 6,49		7,56
34″	30,10,28,46,33,10,19,38,16, 0		2,12,21,39, 0	
		1,48,36,56,17,14,27,49		7,56
36″	30,10,30,35,10, 6,36,52,43,49		2,12,21,46,56	
		1,48,36,54, 4,52,40,53		7,56
38″	30,10,32,23,47, 0,41,45,24,42		2,12,21,54,52	
		1,48,36,51,52,30,46, 1		7,56
40″	30,10,34,12,23,52,34,16,10,43		2,12,22, 2,48	
		1,48,36,49,40, 8,43,13		7,56
42″	30,10,36, 1, 0,42,14,24,53,56		2,12,22,10,44	
		1,48,36,47,27,46,32,29		7,56
44″	30,10,37,49,37,29,42,11,26,25		2,12,22,18,40	
		1,48,36,45,15,24,13,49		7,56
46″	30,10,39,38,14,14,57,35,40,14		2,12,22,26,36	
		1,48,36,43, 3, 1,47,13		7,56
48″	30,10,41,26,50,58, 0,37,27,27		2,12,22,34,32	
		1,48,36,40,50,39,12,41		7,56
50″	30,10,43,15,27,38,51,16,40, 8		2,12,22,42,28	
		1,48,36,38,38,16,30,13		7,56
52″	30,10,45, 4, 4,17,29,33,10,21		2,12,22,50,24	
		1,48,36,36,25,53,39,49		7,56
54″	30,10,46,52,40,53,55,26,50,10		2,12,22,58,20	
		1,48,36,34,13,30,41,29		7,56
56″	30,10,48,41,17,28, 8,57,31,39		2,12,23, 6,16	
		1,48,36,32, 1, 7,35,13		7,56
58″	30,10,50,29,54, 0,10, 5, 6,52		2,12,23,14,12	
		1,48,36,29,48,44,21, 1		
60″	30,10,52,18,30,29,58,49,27,53			
exact	30,10,52,18,30,29,58,48,53,12			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
30°12′	0″	30,10,52,18,30,29,58,48,53,12	1,48,36,27,36,20,55,20		
	2″	30,10,54, 7, 6,57,35, 9,48,32	1,48,36,25,23,57,25, 2	2,12,23,30,18	7,56
	4″	30,10,55,55,43,22,59, 7,13,34	1,48,36,23,11,33,46,48	2,12,23,38,14	7,56
	6″	30,10,57,44,19,46,10,41, 0,22	1,48,36,20,59,10, 0,38	2,12,23,46,10	7,56
	8″	30,10,59,32,56, 7, 9,51, 1, 0	1,48,36,18,46,46, 6,32	2,12,23,54, 6	7,56
	10″	30,11, 1,21,32,25,56,37, 7,32	1,48,36,16,34,22, 4,30	2,12,24, 2, 2	7,56
	12″	30,11, 3,10, 8,42,30,59,12, 2	1,48,36,14,21,57,54,32	2,12,24, 9,58	7,56
	14″	30,11, 4,58,44,56,52,57, 6,34	1,48,36,12, 9,33,36,38	2,12,24,17,54	7,56
	16″	30,11, 6,47,21, 9, 2,30,43,12	1,48,36, 9,57, 9,10,48	2,12,24,25,50	7,56
	18″	30,11, 8,35,57,18,59,39,54, 0	1,48,36, 7,44,44,37, 2	2,12,24,33,46	7,56
	20″	30,11,10,24,33,26,44,24,31, 2	1,48,36, 5,32,19,55,20	2,12,24,41,42	7,56
	22″	30,11,12,13, 9,32,16,44,26,22	1,48,36, 3,19,55, 5,42	2,12,24,49,38	7,56
	24″	30,11,14, 1,45,35,36,39,32, 4	1,48,36, 1, 7,30, 8, 8	2,12,24,57,34	7,56
	26″	30,11,15,50,21,36,44, 9,40,12	1,48,35,58,55, 5, 2,38	2,12,25, 5,30	7,56
	28″	30,11,17,38,57,35,39,14,42,50	1,48,35,56,42,39,49,12	2,12,25,13,26	7,56
	30″	30,11,19,27,33,32,21,54,32, 2	1,48,35,54,30,14,27,50	2,12,25,21,22	7,56
	32″	30,11,21,16, 9,26,52, 8,59,52	1,48,35,52,17,48,58,32	2,12,25,29,18	7,56
	34″	30,11,23, 4,45,19, 9,57,58,24	1,48,35,50, 5,23,21,18	2,12,25,37,14	7,56
	36″	30,11,24,53,21, 9,15,21,19,42	1,48,35,47,52,57,36, 8	2,12,25,45,10	7,56
	38″	30,11,26,41,56,57, 8,18,55,50	1,48,35,45,40,31,43, 2	2,12,25,53, 6	7,56
	40″	30,11,28,30,32,42,48,50,38,52	1,48,35,43,28, 5,42, 0	2,12,26, 1, 2	7,56
	42″	30,11,30,19, 8,26,16,56,20,52	1,48,35,41,15,39,33, 2	2,12,26, 8,58	7,56
	44″	30,11,32, 7,44, 7,32,35,53,54	1,48,35,39, 3,13,16, 8	2,12,26,16,54	7,56
	46″	30,11,33,56,19,46,35,49,10, 2	1,48,35,36,50,46,51,18	2,12,26,24,50	7,56
	48″	30,11,35,44,55,23,26,36, 1,20	1,48,35,34,38,20,18,32	2,12,26,32,46	7,56
	50″	30,11,37,33,30,58, 4,56,19,52	1,48,35,32,25,53,37,50	2,12,26,40,42	7,56
	52″	30,11,39,22, 6,30,30,49,57,42	1,48,35,30,13,26,49,12	2,12,26,48,38	7,56
	54″	30,11,41,10,42, 0,44,16,46,54	1,48,35,28, 0,59,52,38	2,12,26,56,34	7,56
	56″	30,11,42,59,17,28,45,16,39,32	1,48,35,25,48,32,48, 8	2,12,27, 4,30	7,56
	58″	30,11,44,47,52,54,33,49,27,40	1,48,35,23,36, 5,35,42	2,12,27,12,26	
	60″	30,11,46,36,28,18, 9,55, 3,22			
exact		30,11,46,36,28,18, 9,54,38,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°13′ 0″	30,11,46,36,28,18, 9,54,38,58			
		1,48,35,21,23,38,12,42		
2″	30,11,48,25, 3,39,33,32,51,40		2,12,27,28,29	
		1,48,35,19,11,10,44,13		7,56
4″	30,11,50,13,38,58,44,43,35,53		2,12,27,36,25	
		1,48,35,16,58,43, 7,48		7,56
6″	30,11,52, 2,14,15,43,26,43,41		2,12,27,44,21	
		1,48,35,14,46,15,23,27		7,56
8″	30,11,53,50,49,30,29,42, 7, 8		2,12,27,52,17	
		1,48,35,12,33,47,31,10		7,56
10″	30,11,55,39,24,43, 3,29,38,18		2,12,28, 0,13	
		1,48,35,10,21,19,30,57		7,56
12″	30,11,57,27,59,53,24,49, 9,15		2,12,28, 8, 9	
		1,48,35, 8, 8,51,22,48		7,56
14″	30,11,59,16,35, 1,33,40,32, 3		2,12,28,16, 5	
		1,48,35, 5,56,23, 6,43		7,56
16″	30,12, 1, 5,10, 7,30, 3,38,46		2,12,28,24, 1	
		1,48,35, 3,43,54,42,42		7,56
18″	30,12, 2,53,45,11,13,58,21,28		2,12,28,31,57	
		1,48,35, 1,31,26,10,45		7,56
20″	30,12, 4,42,20,12,45,24,32,13		2,12,28,39,53	
		1,48,34,59,18,57,30,52		7,56
22″	30,12, 6,30,55,12, 4,22, 3, 5		2,12,28,47,49	
		1,48,34,57, 6,28,43, 3		7,56
24″	30,12, 8,19,30, 9,10,50,46, 8		2,12,28,55,45	
		1,48,34,54,53,59,47,18		7,56
26″	30,12,10, 8, 5, 4, 4,50,33,26		2,12,29, 3,41	
		1,48,34,52,41,30,43,37		7,56
28″	30,12,11,56,39,56,46,21,17, 3		2,12,29,11,37	
		1,48,34,50,29, 1,32, 0		7,56
30″	30,12,13,45,14,47,15,22,49, 3		2,12,29,19,33	
		1,48,34,48,16,32,12,27		7,56
32″	30,12,15,33,49,35,31,55, 1,30		2,12,29,27,29	
		1,48,34,46, 4, 2,44,58		7,56
34″	30,12,17,22,24,21,35,57,46,28		2,12,29,35,25	
		1,48,34,43,51,33, 9,33		7,56
36″	30,12,19,10,59, 5,27,30,56, 1		2,12,29,43,21	
		1,48,34,41,39, 3,26,12		7,56
38″	30,12,20,59,33,47, 6,34,22,13		2,12,29,51,17	
		1,48,34,39,26,33,34,55		7,56
40″	30,12,22,48, 8,26,33, 7,57, 8		2,12,29,59,13	
		1,48,34,37,14, 3,35,42		7,56
42″	30,12,24,36,43, 3,47,11,32,50		2,12,30, 7, 9	
		1,48,34,35, 1,33,28,33		7,56
44″	30,12,26,25,17,38,48,45, 1,23		2,12,30,15, 5	
		1,48,34,32,49, 3,13,28		7,56
46″	30,12,28,13,52,11,37,48,14,51		2,12,30,23, 1	
		1,48,34,30,36,32,50,27		7,56
48″	30,12,30, 2,26,42,14,21, 5,18		2,12,30,30,57	
		1,48,34,28,24, 2,19,30		7,56
50″	30,12,31,51, 1,10,38,23,24,48		2,12,30,38,53	
		1,48,34,26,11,31,40,37		7,56
52″	30,12,33,39,35,36,49,55, 5,25		2,12,30,46,49	
		1,48,34,23,59, 0,53,48		7,56
54″	30,12,35,28,10, 0,48,55,59,13		2,12,30,54,45	
		1,48,34,21,46,29,59, 3		7,56
56″	30,12,37,16,44,22,35,25,58,16		2,12,31, 2,41	
		1,48,34,19,33,58,56,22		7,56
58″	30,12,39, 5,18,42, 9,24,54,38		2,12,31,10,37	
		1,48,34,17,21,27,45,45		
60″	30,12,40,53,52,59,30,52,40,23			
exact	30,12,40,53,52,59,30,52,21,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°14′ 0″	30,12,40,53,52,59,30,52,21,36			
		1,48,34,15, 8,56,25,10		
2″	30,12,42,42,27,14,39,48,46,46		2,12,31,26,37	
		1,48,34,12,56,24,58,33		7,56
4″	30,12,44,31, 1,27,36,13,45,19		2,12,31,34,33	
		1,48,34,10,43,53,24, 0		7,56
6″	30,12,46,19,35,38,20, 7, 9,19		2,12,31,42,29	
		1,48,34, 8,31,21,41,31		7,56
8″	30,12,48, 8, 9,46,51,28,50,50		2,12,31,50,25	
		1,48,34, 6,18,49,51, 6		7,56
10″	30,12,49,56,43,53,10,18,41,56		2,12,31,58,21	
		1,48,34, 4, 6,17,52,45		7,56
12″	30,12,51,45,17,57,16,36,34,41		2,12,32, 6,17	
		1,48,34, 1,53,45,46,28		7,56
14″	30,12,53,33,51,59,10,22,21, 9		2,12,32,14,13	
		1,48,33,59,41,13,32,15		7,56
16″	30,12,55,22,25,58,51,35,53,24		2,12,32,22, 9	
		1,48,33,57,28,41,10, 6		7,56
18″	30,12,57,10,59,56,20,17, 3,30		2,12,32,30, 5	
		1,48,33,55,16, 8,40, 1		7,56
20″	30,12,58,59,33,51,36,25,43,31		2,12,32,38, 1	
		1,48,33,53, 3,36, 2, 0		7,56
22″	30,13, 0,48, 7,44,40, 1,45,31		2,12,32,45,57	
		1,48,33,50,51, 3,16, 3		7,56
24″	30,13, 2,36,41,35,31, 5, 1,34		2,12,32,53,53	
		1,48,33,48,38,30,22,10		7,56
26″	30,13, 4,25,15,24, 9,35,23,44		2,12,33, 1,49	
		1,48,33,46,25,57,20,21		7,56
28″	30,13, 6,13,49,10,35,32,44, 5		2,12,33, 9,45	
		1,48,33,44,13,24,10,36		7,56
30″	30,13, 8, 2,22,54,48,56,54,41		2,12,33,17,41	
		1,48,33,42, 0,50,52,55		7,56
32″	30,13, 9,50,56,36,49,47,47,36		2,12,33,25,37	
		1,48,33,39,48,17,27,18		7,56
34″	30,13,11,39,30,16,38, 5,14,54		2,12,33,33,33	
		1,48,33,37,35,43,53,45		7,56
36″	30,13,13,28, 3,54,13,49, 8,39		2,12,33,41,29	
		1,48,33,35,23,10,12,16		7,56
38″	30,13,15,16,37,29,36,59,20,55		2,12,33,49,25	
		1,48,33,33,10,36,22,51		7,56
40″	30,13,17, 5,11, 2,47,35,43,46		2,12,33,57,21	
		1,48,33,30,58, 2,25,30		7,56
42″	30,13,18,53,44,33,45,38, 9,16		2,12,34, 5,17	
		1,48,33,28,45,28,20,13		7,56
44″	30,13,20,42,18, 2,31, 6,29,29		2,12,34,13,13	
		1,48,33,26,32,54, 7, 0		7,56
46″	30,13,22,30,51,29, 4, 0,36,29		2,12,34,21, 9	
		1,48,33,24,20,19,45,51		7,56
48″	30,13,24,19,24,53,24,20,22,20		2,12,34,29, 5	
		1,48,33,22, 7,45,16,46		7,56
50″	30,13,26, 7,58,15,32, 5,39, 6		2,12,34,37, 1	
		1,48,33,19,55,10,39,45		7,56
52″	30,13,27,56,31,35,27,16,18,51		2,12,34,44,57	
		1,48,33,17,42,35,54,48		7,56
54″	30,13,29,45, 4,53, 9,52,13,39		2,12,34,52,53	
		1,48,33,15,30, 1, 1,55		7,56
56″	30,13,31,33,38, 8,39,53,15,34		2,12,35, 0,49	
		1,48,33,13,17,26, 1, 6		7,56
58″	30,13,33,22,11,21,57,19,16,40		2,12,35, 8,45	
		1,48,33,11, 4,50,52,21		
60″	30,13,35,10,44,33, 2,10, 9, 1			
exact	30,13,35,10,44,33, 2, 9,52, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°15′ 0″	30,13,35,10,44,33, 2, 9,52, 1			
		1,48,33, 8,52,15,33,58		
2″	30,13,36,59,17,41,54,25,25,59		2,12,35,24,43	
		1,48,33, 6,39,40, 9,15		7,56
4″	30,13,38,47,50,48,34, 5,35,14		2,12,35,32,39	
		1,48,33, 4,27, 4,36,36		7,56
6″	30,13,40,36,23,53, 1,10,11,50		2,12,35,40,35	
		1,48,33, 2,14,28,56, 1		7,56
8″	30,13,42,24,56,55,15,39, 7,51		2,12,35,48,31	
		1,48,33, 0, 1,53, 7,30		7,56
10″	30,13,44,13,29,55,17,32,15,21		2,12,35,56,27	
		1,48,32,57,49,17,11, 3		7,56
12″	30,13,46, 2, 2,53, 6,49,26,24		2,12,36, 4,23	
		1,48,32,55,36,41, 6,40		7,56
14″	30,13,47,50,35,48,43,30,33, 4		2,12,36,12,19	
		1,48,32,53,24, 4,54,21		7,56
16″	30,13,49,39, 8,42, 7,35,27,25		2,12,36,20,15	
		1,48,32,51,11,28,34, 6		7,56
18″	30,13,51,27,41,33,19, 4, 1,31		2,12,36,28,11	
		1,48,32,48,58,52, 5,55		7,56
20″	30,13,53,16,14,22,17,56, 7,26		2,12,36,36, 7	
		1,48,32,46,46,15,29,48		7,56
22″	30,13,55, 4,47, 9, 4,11,37,14		2,12,36,44, 3	
		1,48,32,44,33,38,45,45		7,56
24″	30,13,56,53,19,53,37,50,22,59		2,12,36,51,59	
		1,48,32,42,21, 1,53,46		7,56
26″	30,13,58,41,52,35,58,52,16,45		2,12,36,59,55	
		1,48,32,40, 8,24,53,51		7,56
28″	30,14, 0,30,25,16, 7,17,10,36		2,12,37, 7,51	
		1,48,32,37,55,47,46, 0		7,56
30″	30,14, 2,18,57,54, 3, 4,56,36		2,12,37,15,47	
		1,48,32,35,43,10,30,13		7,56
32″	30,14, 4, 7,30,29,46,15,26,49		2,12,37,23,43	
		1,48,32,33,30,33, 6,30		7,56
34″	30,14, 5,56, 3, 3,16,48,33,19		2,12,37,31,39	
		1,48,32,31,17,55,34,51		7,56
36″	30,14, 7,44,35,34,34,44, 8,10		2,12,37,39,35	
		1,48,32,29, 5,17,55,16		7,56
38″	30,14, 9,33, 8, 3,40, 2, 3,26		2,12,37,47,31	
		1,48,32,26,52,40, 7,45		7,56
40″	30,14,11,21,40,30,32,42,11,11		2,12,37,55,27	
		1,48,32,24,40, 2,12,18		7,56
42″	30,14,13,10,12,55,12,44,23,29		2,12,38, 3,23	
		1,48,32,22,27,24, 8,55		7,56
44″	30,14,14,58,45,17,40, 8,32,24		2,12,38,11,19	
		1,48,32,20,14,45,57,36		7,56
46″	30,14,16,47,17,37,54,54,30, 0		2,12,38,19,15	
		1,48,32,18, 2, 7,38,21		7,56
48″	30,14,18,35,49,55,57, 2, 8,21		2,12,38,27,11	
		1,48,32,15,49,29,11,10		7,56
50″	30,14,20,24,22,11,46,31,19,31		2,12,38,35, 7	
		1,48,32,13,36,50,36, 3		7,56
52″	30,14,22,12,54,25,23,21,55,34		2,12,38,43, 3	
		1,48,32,11,24,11,53, 0		7,56
54″	30,14,24, 1,26,36,47,33,48,34		2,12,38,50,59	
		1,48,32, 9,11,33, 2, 1		7,56
56″	30,14,25,49,58,45,59, 6,50,35		2,12,38,58,55	
		1,48,32, 6,58,54, 3, 6		7,56
58″	30,14,27,38,30,52,58, 0,53,41		2,12,39, 6,51	
		1,48,32, 4,46,14,56,15		
60″	30,14,29,27, 2,57,44,15,49,56			
exact	30,14,29,27, 2,57,44,15,37,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°16′ 0″	30,14,29,27, 2,57,44,15,37,29			
		1,48,32, 2,33,35,40,17		
2″	30,14,31,15,35, 0,17,51,17,46		2,12,39,22,47	
		1,48,32, 0,20,56,17,30		7,56
4″	30,14,33, 4, 7, 0,38,47,35,16		2,12,39,30,43	
		1,48,31,58, 8,16,46,47		7,56
6″	30,14,34,52,38,58,47, 4,22, 3		2,12,39,38,39	
		1,48,31,55,55,37, 8, 8		7,56
8″	30,14,36,41,10,54,42,41,30,11		2,12,39,46,35	
		1,48,31,53,42,57,21,33		7,56
10″	30,14,38,29,42,48,25,38,51,44		2,12,39,54,31	
		1,48,31,51,30,17,27, 2		7,56
12″	30,14,40,18,14,39,55,56,18,46		2,12,40, 2,27	
		1,48,31,49,17,37,24,35		7,56
14″	30,14,42, 6,46,29,13,33,43,21		2,12,40,10,23	
		1,48,31,47, 4,57,14,12		7,56
16″	30,14,43,55,18,16,18,30,57,33		2,12,40,18,19	
		1,48,31,44,52,16,55,53		7,56
18″	30,14,45,43,50, 1,10,47,53,26		2,12,40,26,15	
		1,48,31,42,39,36,29,38		7,56
20″	30,14,47,32,21,43,50,24,23, 4		2,12,40,34,11	
		1,48,31,40,26,55,55,27		7,56
22″	30,14,49,20,53,24,17,20,18,31		2,12,40,42, 7	
		1,48,31,38,14,15,13,20		7,56
24″	30,14,51, 9,25, 2,31,35,31,51		2,12,40,50, 3	
		1,48,31,36, 1,34,23,17		7,56
26″	30,14,52,57,56,38,33, 9,55, 8		2,12,40,57,59	
		1,48,31,33,48,53,25,18		7,56
28″	30,14,54,46,28,12,22, 3,20,26		2,12,41, 5,55	
		1,48,31,31,36,12,19,23		7,56
30″	30,14,56,34,59,43,58,15,39,49		2,12,41,13,51	
		1,48,31,29,23,31, 5,32		7,56
32″	30,14,58,23,31,13,21,46,45,21		2,12,41,21,47	
		1,48,31,27,10,49,43,45		7,56
34″	30,15, 0,12, 2,40,32,36,29, 6		2,12,41,29,43	
		1,48,31,24,58, 8,14, 2		7,56
36″	30,15, 2, 0,34, 5,30,44,43, 8		2,12,41,37,39	
		1,48,31,22,45,26,36,23		7,56
38″	30,15, 3,49, 5,28,16,11,19,31		2,12,41,45,35	
		1,48,31,20,32,44,50,48		7,56
40″	30,15, 5,37,36,48,48,56,10,19		2,12,41,53,31	
		1,48,31,18,20, 2,57,17		7,56
42″	30,15, 7,26, 8, 7, 8,59, 7,36		2,12,42, 1,27	
		1,48,31,16, 7,20,55,50		7,56
44″	30,15, 9,14,39,23,16,20, 3,26		2,12,42, 9,23	
		1,48,31,13,54,38,46,27		7,56
46″	30,15,11, 3,10,37,10,58,49,53		2,12,42,17,19	
		1,48,31,11,41,56,29, 8		7,56
48″	30,15,12,51,41,48,52,55,19, 1		2,12,42,25,15	
		1,48,31, 9,29,14, 3,53		7,56
50″	30,15,14,40,12,58,22, 9,22,54		2,12,42,33,11	
		1,48,31, 7,16,31,30,42		7,56
52″	30,15,16,28,44, 5,38,40,53,36		2,12,42,41, 7	
		1,48,31, 5, 3,48,49,35		7,56
54″	30,15,18,17,15,10,42,29,43,11		2,12,42,49, 3	
		1,48,31, 2,51, 6, 0,32		7,56
56″	30,15,20, 5,46,13,33,35,43,43		2,12,42,56,59	
		1,48,31, 0,38,23, 3,33		7,56
58″	30,15,21,54,17,14,11,58,47,16		2,12,43, 4,55	
		1,48,30,58,25,39,58,38		
60″	30,15,23,42,48,12,37,38,45,54			
exact	30,15,23,42,48,12,37,38,41,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°17′ 0″	30,15,23,42,48,12,37,38,41,35			
		1,48,30,56,12,56,45,22		
2″	30,15,25,31,19, 8,50,35,26,57		2,12,43,20,48	
		1,48,30,54, 0,13,24,34		7,56
4″	30,15,27,19,50, 2,50,48,51,31		2,12,43,28,44	
		1,48,30,51,47,29,55,50		7,56
6″	30,15,29, 8,20,54,38,18,47,21		2,12,43,36,40	
		1,48,30,49,34,46,19,10		7,56
8″	30,15,30,56,51,44,13, 5, 6,31		2,12,43,44,36	
		1,48,30,47,22, 2,34,34		7,56
10″	30,15,32,45,22,31,35, 7,41, 5		2,12,43,52,32	
		1,48,30,45, 9,18,42, 2		7,56
12″	30,15,34,33,53,16,44,26,23, 7		2,12,44, 0,28	
		1,48,30,42,56,34,41,34		7,56
14″	30,15,36,22,23,59,41, 1, 4,41		2,12,44, 8,24	
		1,48,30,40,43,50,33,10		7,56
16″	30,15,38,10,54,40,24,51,37,51		2,12,44,16,20	
		1,48,30,38,31, 6,16,50		7,56
18″	30,15,39,59,25,18,55,57,54,41		2,12,44,24,16	
		1,48,30,36,18,21,52,34		7,56
20″	30,15,41,47,55,55,14,19,47,15		2,12,44,32,12	
		1,48,30,34, 5,37,20,22		7,56
22″	30,15,43,36,26,29,19,57, 7,37		2,12,44,40, 8	
		1,48,30,31,52,52,40,14		7,56
24″	30,15,45,24,57, 1,12,49,47,51		2,12,44,48, 4	
		1,48,30,29,40, 7,52,10		7,56
26″	30,15,47,13,27,30,52,57,40, 1		2,12,44,56, 0	
		1,48,30,27,27,22,56,10		7,56
28″	30,15,49, 1,57,58,20,20,36,11		2,12,45, 3,56	
		1,48,30,25,14,37,52,14		7,56
30″	30,15,50,50,28,23,34,58,28,25		2,12,45,11,52	
		1,48,30,23, 1,52,40,22		7,56
32″	30,15,52,38,58,46,36,51, 8,47		2,12,45,19,48	
		1,48,30,20,49, 7,20,34		7,56
34″	30,15,54,27,29, 7,25,58,29,21		2,12,45,27,44	
		1,48,30,18,36,21,52,50		7,56
36″	30,15,56,15,59,26, 2,20,22,11		2,12,45,35,40	
		1,48,30,16,23,36,17,10		7,56
38″	30,15,58, 4,29,42,25,56,39,21		2,12,45,43,36	
		1,48,30,14,10,50,33,34		7,56
40″	30,15,59,52,59,56,36,47,12,55		2,12,45,51,32	
		1,48,30,11,58, 4,42, 2		7,56
42″	30,16, 1,41,30, 8,34,51,54,57		2,12,45,59,28	
		1,48,30, 9,45,18,42,34		7,56
44″	30,16, 3,30, 0,18,20,10,37,31		2,12,46, 7,24	
		1,48,30, 7,32,32,35,10		7,56
46″	30,16, 5,18,30,25,52,43,12,41		2,12,46,15,20	
		1,48,30, 5,19,46,19,50		7,56
48″	30,16, 7, 7, 0,31,12,29,32,31		2,12,46,23,16	
		1,48,30, 3, 6,59,56,34		7,56
50″	30,16, 8,55,30,34,19,29,29, 5		2,12,46,31,12	
		1,48,30, 0,54,13,25,22		7,56
52″	30,16,10,44, 0,35,13,42,54,27		2,12,46,39, 8	
		1,48,29,58,41,26,46,14		7,56
54″	30,16,12,32,30,33,55, 9,40,41		2,12,46,47, 4	
		1,48,29,56,28,39,59,10		7,56
56″	30,16,14,21, 0,30,23,49,39,51		2,12,46,55, 0	
		1,48,29,54,15,53, 4,10		7,56
58″	30,16,16, 9,30,24,39,42,44, 1		2,12,47, 2,56	
		1,48,29,52, 3, 6, 1,14		
60″	30,16,17,58, 0,16,42,48,45,15			
exact	30,16,17,58, 0,16,42,48,44,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°18′ 0″	30,16,17,58, 0,16,42,48,44,17	1,48,29,49,50,18,50,24		
2″	30,16,19,46,30, 6,33, 7,34,41	1,48,29,47,37,31,31,37	2,12,47,18,47	7,56
4″	30,16,21,34,59,54,10,39, 6,18	1,48,29,45,24,44, 4,54	2,12,47,26,43	7,56
6″	30,16,23,23,29,39,35,23,11,12	1,48,29,43,11,56,30,15	2,12,47,34,39	7,56
8″	30,16,25,11,59,22,47,19,41,27	1,48,29,40,59, 8,47,40	2,12,47,42,35	7,56
10″	30,16,27, 0,29, 3,46,28,29, 7	1,48,29,38,46,20,57, 9	2,12,47,50,31	7,56
12″	30,16,28,48,58,42,32,49,26,16	1,48,29,36,33,32,58,42	2,12,47,58,27	7,56
14″	30,16,30,37,28,19, 6,22,24,58	1,48,29,34,20,44,52,19	2,12,48, 6,23	7,56
16″	30,16,32,25,57,53,27, 7,17,17	1,48,29,32, 7,56,38, 0	2,12,48,14,19	7,56
18″	30,16,34,14,27,25,35, 3,55,17	1,48,29,29,55, 8,15,45	2,12,48,22,15	7,56
20″	30,16,36, 2,56,55,30,12,11, 2	1,48,29,27,42,19,45,34	2,12,48,30,11	7,56
22″	30,16,37,51,26,23,12,31,56,36	1,48,29,25,29,31, 7,27	2,12,48,38, 7	7,56
24″	30,16,39,39,55,48,42, 3, 4, 3	1,48,29,23,16,42,21,24	2,12,48,46, 3	7,56
26″	30,16,41,28,25,11,58,45,25,27	1,48,29,21, 3,53,27,25	2,12,48,53,59	7,56
28″	30,16,43,16,54,33, 2,38,52,52	1,48,29,18,51, 4,25,30	2,12,49, 1,55	7,56
30″	30,16,45, 5,23,51,53,43,18,22	1,48,29,16,38,15,15,39	2,12,49, 9,51	7,56
32″	30,16,46,53,53, 8,31,58,34, 1	1,48,29,14,25,25,57,52	2,12,49,17,47	7,56
34″	30,16,48,42,22,22,57,24,31,53	1,48,29,12,12,36,32, 9	2,12,49,25,43	7,56
36″	30,16,50,30,51,35,10, 1, 4, 2	1,48,29, 9,59,46,58,30	2,12,49,33,39	7,56
38″	30,16,52,19,20,45, 9,48, 2,32	1,48,29, 7,46,57,16,55	2,12,49,41,35	7,56
40″	30,16,54, 7,49,52,56,45,19,27	1,48,29, 5,34, 7,27,24	2,12,49,49,31	7,56
42″	30,16,55,56,18,58,30,52,46,51	1,48,29, 3,21,17,29,57	2,12,49,57,27	7,56
44″	30,16,57,44,48, 1,52,10,16,48	1,48,29, 1, 8,27,24,34	2,12,50, 5,23	7,56
46″	30,16,59,33,17, 3, 0,37,41,22	1,48,28,58,55,37,11,15	2,12,50,13,19	7,56
48″	30,17, 1,21,46, 1,56,14,52,37	1,48,28,56,42,46,50, 0	2,12,50,21,15	7,56
50″	30,17, 3,10,14,58,39, 1,42,37	1,48,28,54,29,56,20,49	2,12,50,29,11	7,56
52″	30,17, 4,58,43,53, 8,58, 3,26	1,48,28,52,17, 5,43,42	2,12,50,37, 7	7,56
54″	30,17, 6,47,12,45,26, 3,47, 8	1,48,28,50, 4,14,58,39	2,12,50,45, 3	7,56
56″	30,17, 8,35,41,35,30,18,45,47	1,48,28,47,51,24, 5,40	2,12,50,52,59	7,56
58″	30,17,10,24,10,23,21,42,51,27	1,48,28,45,38,33, 4,45	2,12,51, 0,55	
60″	30,17,12,12,39, 9, 0,15,56,12			
exact	30,17,12,12,39, 9, 0,16, 1,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°19′ 0″	30,17,12,12,39, 9, 0,16, 1,56			
		1,48,28,43,25,41,56,36		
2″	30,17,14, 1, 7,52,25,57,58,32		2,12,51,16,44	
		1,48,28,41,12,50,39,52		7,56
4″	30,17,15,49,36,33,38,48,38,24		2,12,51,24,40	
		1,48,28,38,59,59,15,12		7,56
6″	30,17,17,38, 5,12,38,47,53,36		2,12,51,32,36	
		1,48,28,36,47, 7,42,36		7,56
8″	30,17,19,26,33,49,25,55,36,12		2,12,51,40,32	
		1,48,28,34,34,16, 2, 4		7,56
10″	30,17,21,15, 2,24, 0,11,38,16		2,12,51,48,28	
		1,48,28,32,21,24,13,36		7,56
12″	30,17,23, 3,30,56,21,35,51,52		2,12,51,56,24	
		1,48,28,30, 8,32,17,12		7,56
14″	30,17,24,51,59,26,30, 8, 9, 4		2,12,52, 4,20	
		1,48,28,27,55,40,12,52		7,56
16″	30,17,26,40,27,54,25,48,21,56		2,12,52,12,16	
		1,48,28,25,42,48, 0,36		7,56
18″	30,17,28,28,56,20, 8,36,22,32		2,12,52,20,12	
		1,48,28,23,29,55,40,24		7,56
20″	30,17,30,17,24,43,38,32, 2,56		2,12,52,28, 8	
		1,48,28,21,17, 3,12,16		7,56
22″	30,17,32, 5,53, 4,55,35,15,12		2,12,52,36, 4	
		1,48,28,19, 4,10,36,12		7,56
24″	30,17,33,54,21,23,59,45,51,24		2,12,52,44, 0	
		1,48,28,16,51,17,52,12		7,56
26″	30,17,35,42,49,40,51, 3,43,36		2,12,52,51,56	
		1,48,28,14,38,25, 0,16		7,56
28″	30,17,37,31,17,55,29,28,43,52		2,12,52,59,52	
		1,48,28,12,25,32, 0,24		7,56
30″	30,17,39,19,46, 7,55, 0,44,16		2,12,53, 7,48	
		1,48,28,10,12,38,52,36		7,56
32″	30,17,41, 8,14,18, 7,39,36,52		2,12,53,15,44	
		1,48,28, 7,59,45,36,52		7,56
34″	30,17,42,56,42,26, 7,25,13,44		2,12,53,23,40	
		1,48,28, 5,46,52,13,12		7,56
36″	30,17,44,45,10,31,54,17,26,56		2,12,53,31,36	
		1,48,28, 3,33,58,41,36		7,56
38″	30,17,46,33,38,35,28,16, 8,32		2,12,53,39,32	
		1,48,28, 1,21, 5, 2, 4		7,56
40″	30,17,48,22, 6,36,49,21,10,36		2,12,53,47,28	
		1,48,27,59, 8,11,14,36		7,56
42″	30,17,50,10,34,35,57,32,25,12		2,12,53,55,24	
		1,48,27,56,55,17,19,12		7,56
44″	30,17,51,59, 2,32,52,49,44,24		2,12,54, 3,20	
		1,48,27,54,42,23,15,52		7,56
46″	30,17,53,47,30,27,35,13, 0,16		2,12,54,11,16	
		1,48,27,52,29,29, 4,36		7,56
48″	30,17,55,35,58,20, 4,42, 4,52		2,12,54,19,12	
		1,48,27,50,16,34,45,24		7,56
50″	30,17,57,24,26,10,21,16,50,16		2,12,54,27, 8	
		1,48,27,48, 3,40,18,16		7,56
52″	30,17,59,12,53,58,24,57, 8,32		2,12,54,35, 4	
		1,48,27,45,50,45,43,12		7,56
54″	30,18, 1, 1,21,44,15,42,51,44		2,12,54,43, 0	
		1,48,27,43,37,51, 0,12		7,56
56″	30,18, 2,49,49,27,53,33,51,56		2,12,54,50,56	
		1,48,27,41,24,56, 9,16		7,56
58″	30,18, 4,38,17, 9,18,30, 1,12		2,12,54,58,52	
		1,48,27,39,12, 1,10,24		
60″	30,18, 6,26,44,48,30,31,11,36			
exact	30,18, 6,26,44,48,30,31,27,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°20′ 0″	30,18, 6,26,44,48,30,31,27,18			
		1,48,27,36,59, 6, 5,12		
2″	30,18, 8,15,12,25,29,37,32,30		2,12,55,14,38	
		1,48,27,34,46,10,50,34		7,56
4″	30,18,10, 3,40, 0,15,48,23, 4		2,12,55,22,34	
		1,48,27,32,33,15,28, 0		7,56
6″	30,18,11,52, 7,32,49, 3,51, 4		2,12,55,30,30	
		1,48,27,30,20,19,57,30		7,56
8″	30,18,13,40,35, 3, 9,23,48,34		2,12,55,38,26	
		1,48,27,28, 7,24,19, 4		7,56
10″	30,18,15,29, 2,31,16,48, 7,38		2,12,55,46,22	
		1,48,27,25,54,28,32,42		7,56
12″	30,18,17,17,29,57,11,16,40,20		2,12,55,54,18	
		1,48,27,23,41,32,38,24		7,56
14″	30,18,19, 5,57,20,52,49,18,44		2,12,56, 2,14	
		1,48,27,21,28,36,36,10		7,56
16″	30,18,20,54,24,42,21,25,54,54		2,12,56,10,10	
		1,48,27,19,15,40,26, 0		7,56
18″	30,18,22,42,52, 1,37, 6,20,54		2,12,56,18, 6	
		1,48,27,17, 2,44, 7,54		7,56
20″	30,18,24,31,19,18,39,50,28,48		2,12,56,26, 2	
		1,48,27,14,49,47,41,52		7,56
22″	30,18,26,19,46,33,29,38,10,40		2,12,56,33,58	
		1,48,27,12,36,51, 7,54		7,56
24″	30,18,28, 8,13,46, 6,29,18,34		2,12,56,41,54	
		1,48,27,10,23,54,26, 0		7,56
26″	30,18,29,56,40,56,30,23,44,34		2,12,56,49,50	
		1,48,27, 8,10,57,36,10		7,56
28″	30,18,31,45, 8, 4,41,21,20,44		2,12,56,57,46	
		1,48,27, 5,58, 0,38,24		7,56
30″	30,18,33,33,35,10,39,21,59, 8		2,12,57, 5,42	
		1,48,27, 3,45, 3,32,42		7,56
32″	30,18,35,22, 2,14,24,25,31,50		2,12,57,13,38	
		1,48,27, 1,32, 6,19, 4		7,56
34″	30,18,37,10,29,15,56,31,50,54		2,12,57,21,34	
		1,48,26,59,19, 8,57,30		7,56
36″	30,18,38,58,56,15,15,40,48,24		2,12,57,29,30	
		1,48,26,57, 6,11,28, 0		7,56
38″	30,18,40,47,23,12,21,52,16,24		2,12,57,37,26	
		1,48,26,54,53,13,50,34		7,56
40″	30,18,42,35,50, 7,15, 6, 6,58		2,12,57,45,22	
		1,48,26,52,40,16, 5,12		7,56
42″	30,18,44,24,16,59,55,22,12,10		2,12,57,53,18	
		1,48,26,50,27,18,11,54		7,56
44″	30,18,46,12,43,50,22,40,24, 4		2,12,58, 1,14	
		1,48,26,48,14,20,10,40		7,56
46″	30,18,48, 1,10,38,37, 0,34,44		2,12,58, 9,10	
		1,48,26,46, 1,22, 1,30		7,56
48″	30,18,49,49,37,24,38,22,36,14		2,12,58,17, 6	
		1,48,26,43,48,23,44,24		7,56
50″	30,18,51,38, 4, 8,26,46,20,38		2,12,58,25, 2	
		1,48,26,41,35,25,19,22		7,56
52″	30,18,53,26,30,50, 2,11,40, 0		2,12,58,32,58	
		1,48,26,39,22,26,46,24		7,56
54″	30,18,55,14,57,29,24,38,26,24		2,12,58,40,54	
		1,48,26,37, 9,28, 5,30		7,56
56″	30,18,57, 3,24, 6,34, 6,31,54		2,12,58,48,50	
		1,48,26,34,56,29,16,40		7,56
58″	30,18,58,51,50,41,30,35,48,34		2,12,58,56,46	
		1,48,26,32,43,30,19,54		
60″	30,19, 0,40,17,14,14, 6, 8,28			
exact	30,19, 0,40,17,14,14, 6,29,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°21′ 0″	30,19, 0,40,17,14,14, 6,29,34			
		1,48,26,30,30,31,17,23		
2″	30,19, 2,28,43,44,44,37,46,57		2,12,59,12,29	
		1,48,26,28,17,32, 4,54		7,56
4″	30,19, 4,17,10,13, 2, 9,51,51		2,12,59,20,25	
		1,48,26,26, 4,32,44,29		7,56
6″	30,19, 6, 5,36,39, 6,42,36,20		2,12,59,28,21	
		1,48,26,23,51,33,16, 8		7,56
8″	30,19, 7,54, 3, 2,58,15,52,28		2,12,59,36,17	
		1,48,26,21,38,33,39,51		7,56
10″	30,19, 9,42,29,24,36,49,32,19		2,12,59,44,13	
		1,48,26,19,25,33,55,38		7,56
12″	30,19,11,30,55,44, 2,23,27,57		2,12,59,52, 9	
		1,48,26,17,12,34, 3,29		7,56
14″	30,19,13,19,22, 1,14,57,31,26		2,13, 0, 0, 5	
		1,48,26,14,59,34, 3,24		7,56
16″	30,19,15, 7,48,16,14,31,34,50		2,13, 0, 8, 1	
		1,48,26,12,46,33,55,23		7,56
18″	30,19,16,56,14,29, 1, 5,30,13		2,13, 0,15,57	
		1,48,26,10,33,33,39,26		7,56
20″	30,19,18,44,40,39,34,39, 9,39		2,13, 0,23,53	
		1,48,26, 8,20,33,15,33		7,56
22″	30,19,20,33, 6,47,55,12,25,12		2,13, 0,31,49	
		1,48,26, 6, 7,32,43,44		7,56
24″	30,19,22,21,32,54, 2,45, 8,56		2,13, 0,39,45	
		1,48,26, 3,54,32, 3,59		7,56
26″	30,19,24, 9,58,57,57,17,12,55		2,13, 0,47,41	
		1,48,26, 1,41,31,16,18		7,56
28″	30,19,25,58,24,59,38,48,29,13		2,13, 0,55,37	
		1,48,25,59,28,30,20,41		7,56
30″	30,19,27,46,50,59, 7,18,49,54		2,13, 1, 3,33	
		1,48,25,57,15,29,17, 8		7,56
32″	30,19,29,35,16,56,22,48, 7, 2		2,13, 1,11,29	
		1,48,25,55, 2,28, 5,39		7,56
34″	30,19,31,23,42,51,25,16,12,41		2,13, 1,19,25	
		1,48,25,52,49,26,46,14		7,56
36″	30,19,33,12, 8,44,14,42,58,55		2,13, 1,27,21	
		1,48,25,50,36,25,18,53		7,56
38″	30,19,35, 0,34,34,51, 8,17,48		2,13, 1,35,17	
		1,48,25,48,23,23,43,36		7,56
40″	30,19,36,49, 0,23,14,32, 1,24		2,13, 1,43,13	
		1,48,25,46,10,22, 0,23		7,56
42″	30,19,38,37,26, 9,24,54, 1,47		2,13, 1,51, 9	
		1,48,25,43,57,20, 9,14		7,56
44″	30,19,40,25,51,53,22,14,11, 1		2,13, 1,59, 5	
		1,48,25,41,44,18,10, 9		7,56
46″	30,19,42,14,17,35, 6,32,21,10		2,13, 2, 7, 1	
		1,48,25,39,31,16, 3, 8		7,56
48″	30,19,44, 2,43,14,37,48,24,18		2,13, 2,14,57	
		1,48,25,37,18,13,48,11		7,56
50″	30,19,45,51, 8,51,56, 2,12,29		2,13, 2,22,53	
		1,48,25,35, 5,11,25,18		7,56
52″	30,19,47,39,34,27, 1,13,37,47		2,13, 2,30,49	
		1,48,25,32,52, 8,54,29		7,56
54″	30,19,49,27,59,59,53,22,32,16		2,13, 2,38,45	
		1,48,25,30,39, 6,15,44		7,56
56″	30,19,51,16,25,30,32,28,48, 0		2,13, 2,46,41	
		1,48,25,28,26, 3,29, 3		7,56
58″	30,19,53, 4,50,58,58,32,17, 3		2,13, 2,54,37	
		1,48,25,26,13, 0,34,26		
60″	30,19,54,53,16,25,11,32,51,29			
exact	30,19,54,53,16,25,11,33,14,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°22′ 0″	30,19,54,53,16,25,11,33,14,19			
		1,48,25,23,59,57,34,23		
2″	30,19,56,41,41,49,11,30,48,42		2,13, 3,10,18	
		1,48,25,21,46,54,24, 5		7,56
4″	30,19,58,30, 7,10,58,25,12,47		2,13, 3,18,14	
		1,48,25,19,33,51, 5,51		7,56
6″	30,20, 0,18,32,30,32,16,18,38		2,13, 3,26,10	
		1,48,25,17,20,47,39,41		7,56
8″	30,20, 2, 6,57,47,53, 3,58,19		2,13, 3,34, 6	
		1,48,25,15, 7,44, 5,35		7,56
10″	30,20, 3,55,23, 3, 0,48, 3,54		2,13, 3,42, 2	
		1,48,25,12,54,40,23,33		7,56
12″	30,20, 5,43,48,15,55,28,27,27		2,13, 3,49,58	
		1,48,25,10,41,36,33,35		7,56
14″	30,20, 7,32,13,26,37, 5, 1, 2		2,13, 3,57,54	
		1,48,25, 8,28,32,35,41		7,56
16″	30,20, 9,20,38,35, 5,37,36,43		2,13, 4, 5,50	
		1,48,25, 6,15,28,29,51		7,56
18″	30,20,11, 9, 3,41,21, 6, 6,34		2,13, 4,13,46	
		1,48,25, 4, 2,24,16, 5		7,56
20″	30,20,12,57,28,45,23,30,22,39		2,13, 4,21,42	
		1,48,25, 1,49,19,54,23		7,56
22″	30,20,14,45,53,47,12,50,17, 2		2,13, 4,29,38	
		1,48,24,59,36,15,24,45		7,56
24″	30,20,16,34,18,46,49, 5,41,47		2,13, 4,37,34	
		1,48,24,57,23,10,47,11		7,56
26″	30,20,18,22,43,44,12,16,28,58		2,13, 4,45,30	
		1,48,24,55,10, 6, 1,41		7,56
28″	30,20,20,11, 8,39,22,22,30,39		2,13, 4,53,26	
		1,48,24,52,57, 1, 8,15		7,56
30″	30,20,21,59,33,32,19,23,38,54		2,13, 5, 1,22	
		1,48,24,50,43,56, 6,53		7,56
32″	30,20,23,47,58,23, 3,19,45,47		2,13, 5, 9,18	
		1,48,24,48,30,50,57,35		7,56
34″	30,20,25,36,23,11,34,10,43,22		2,13, 5,17,14	
		1,48,24,46,17,45,40,21		7,56
36″	30,20,27,24,47,57,51,56,23,43		2,13, 5,25,10	
		1,48,24,44, 4,40,15,11		7,56
38″	30,20,29,13,12,41,56,36,38,54		2,13, 5,33, 6	
		1,48,24,41,51,34,42, 5		7,56
40″	30,20,31, 1,37,23,48,11,20,59		2,13, 5,41, 2	
		1,48,24,39,38,29, 1, 3		7,56
42″	30,20,32,50, 2, 3,26,40,22, 2		2,13, 5,48,58	
		1,48,24,37,25,23,12, 5		7,56
44″	30,20,34,38,26,40,52, 3,34, 7		2,13, 5,56,54	
		1,48,24,35,12,17,15,11		7,56
46″	30,20,36,26,51,16, 4,20,49,18		2,13, 6, 4,50	
		1,48,24,32,59,11,10,21		7,56
48″	30,20,38,15,15,49, 3,31,59,39		2,13, 6,12,46	
		1,48,24,30,46, 4,57,35		7,56
50″	30,20,40, 3,40,19,49,36,57,14		2,13, 6,20,42	
		1,48,24,28,32,58,36,53		7,56
52″	30,20,41,52, 4,48,22,35,34, 7		2,13, 6,28,38	
		1,48,24,26,19,52, 8,15		7,56
54″	30,20,43,40,29,14,42,27,42,22		2,13, 6,36,34	
		1,48,24,24, 6,45,31,41		7,56
56″	30,20,45,28,53,38,49,13,14, 3		2,13, 6,44,30	
		1,48,24,21,53,38,47,11		7,56
58″	30,20,47,17,18, 0,42,52, 1,14		2,13, 6,52,26	
		1,48,24,19,40,31,54,45		
60″	30,20,49, 5,42,20,23,23,55,59			
exact	30,20,49, 5,42,20,23,24,23,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°23′ 0″	30,20,49, 5,42,20,23,24,23,40			
		1,48,24,17,27,24,57,26		
2″	30,20,50,54, 6,37,50,49,21, 6		2,13, 7, 8, 5	
		1,48,24,15,14,17,49,21		7,56
4″	30,20,52,42,30,53, 5, 7,10,27		2,13, 7,16, 1	
		1,48,24,13, 1,10,33,20		7,56
6″	30,20,54,30,55, 6, 6,17,43,47		2,13, 7,23,57	
		1,48,24,10,48, 3, 9,23		7,56
8″	30,20,56,19,19,16,54,20,53,10		2,13, 7,31,53	
		1,48,24, 8,34,55,37,30		7,56
10″	30,20,58, 7,43,25,29,16,30,40		2,13, 7,39,49	
		1,48,24, 6,21,47,57,41		7,56
12″	30,20,59,56, 7,31,51, 4,28,21		2,13, 7,47,45	
		1,48,24, 4, 8,40, 9,56		7,56
14″	30,21, 1,44,31,35,59,44,38,17		2,13, 7,55,41	
		1,48,24, 1,55,32,14,15		7,56
16″	30,21, 3,32,55,37,55,16,52,32		2,13, 8, 3,37	
		1,48,23,59,42,24,10,38		7,56
18″	30,21, 5,21,19,37,37,41, 3,10		2,13, 8,11,33	
		1,48,23,57,29,15,59, 5		7,56
20″	30,21, 7, 9,43,35, 6,57, 2,15		2,13, 8,19,29	
		1,48,23,55,16, 7,39,36		7,56
22″	30,21, 8,58, 7,30,23, 4,41,51		2,13, 8,27,25	
		1,48,23,53, 2,59,12,11		7,56
24″	30,21,10,46,31,23,26, 3,54, 2		2,13, 8,35,21	
		1,48,23,50,49,50,36,50		7,56
26″	30,21,12,34,55,14,15,54,30,52		2,13, 8,43,17	
		1,48,23,48,36,41,53,33		7,56
28″	30,21,14,23,19, 2,52,36,24,25		2,13, 8,51,13	
		1,48,23,46,23,33, 2,20		7,56
30″	30,21,16,11,42,49,16, 9,26,45		2,13, 8,59, 9	
		1,48,23,44,10,24, 3,11		7,56
32″	30,21,18, 0, 6,33,26,33,29,56		2,13, 9, 7, 5	
		1,48,23,41,57,14,56, 6		7,56
34″	30,21,19,48,30,15,23,48,26, 2		2,13, 9,15, 1	
		1,48,23,39,44, 5,41, 5		7,56
36″	30,21,21,36,53,55, 7,54, 7, 7		2,13, 9,22,57	
		1,48,23,37,30,56,18, 8		7,56
38″	30,21,23,25,17,32,38,50,25,15		2,13, 9,30,53	
		1,48,23,35,17,46,47,15		7,56
40″	30,21,25,13,41, 7,56,37,12,30		2,13, 9,38,49	
		1,48,23,33, 4,37, 8,26		7,56
42″	30,21,27, 2, 4,41, 1,14,20,56		2,13, 9,46,45	
		1,48,23,30,51,27,21,41		7,56
44″	30,21,28,50,28,11,52,41,42,37		2,13, 9,54,41	
		1,48,23,28,38,17,27, 0		7,56
46″	30,21,30,38,51,40,30,59, 9,37		2,13,10, 2,37	
		1,48,23,26,25, 7,24,23		7,56
48″	30,21,32,27,15, 6,56, 6,34, 0		2,13,10,10,33	
		1,48,23,24,11,57,13,50		7,56
50″	30,21,34,15,38,31, 8, 3,47,50		2,13,10,18,29	
		1,48,23,21,58,46,55,21		7,56
52″	30,21,36, 4, 1,53, 6,50,43,11		2,13,10,26,25	
		1,48,23,19,45,36,28,56		7,56
54″	30,21,37,52,25,12,52,27,12, 7		2,13,10,34,21	
		1,48,23,17,32,25,54,35		7,56
56″	30,21,39,40,48,30,24,53, 6,42		2,13,10,42,17	
		1,48,23,15,19,15,12,18		7,56
58″	30,21,41,29,11,45,44, 8,19, 0		2,13,10,50,13	
		1,48,23,13, 6, 4,22, 5		
60″	30,21,43,17,34,58,50,12,41, 5			
exact	30,21,43,17,34,58,50,13,16, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°24′ 0″	30,21,43,17,34,58,50,13,16, 9			
		1,48,23,10,52,53,27,43		
2″	30,21,45, 5,58, 9,43, 6,43,52		2,13,11, 5,49	
		1,48,23, 8,39,42,21,54		7,55
4″	30,21,46,54,21,18,22,49, 5,46		2,13,11,13,44	
		1,48,23, 6,26,31, 8,10		7,55
6″	30,21,48,42,44,24,49,20,13,56		2,13,11,21,39	
		1,48,23, 4,13,19,46,31		7,55
8″	30,21,50,31, 7,29, 2,40, 0,27		2,13,11,29,34	
		1,48,23, 2, 0, 8,16,57		7,55
10″	30,21,52,19,30,31, 2,48,17,24		2,13,11,37,29	
		1,48,22,59,46,56,39,28		7,55
12″	30,21,54, 7,53,30,49,44,56,52		2,13,11,45,24	
		1,48,22,57,33,44,54, 4		7,55
14″	30,21,55,56,16,28,23,29,50,56		2,13,11,53,19	
		1,48,22,55,20,33, 0,45		7,55
16″	30,21,57,44,39,23,44, 2,51,41		2,13,12, 1,14	
		1,48,22,53, 7,20,59,31		7,55
18″	30,21,59,33, 2,16,51,23,51,12		2,13,12, 9, 9	
		1,48,22,50,54, 8,50,22		7,55
20″	30,22, 1,21,25, 7,45,32,41,34		2,13,12,17, 4	
		1,48,22,48,40,56,33,18		7,55
22″	30,22, 3, 9,47,56,26,29,14,52		2,13,12,24,59	
		1,48,22,46,27,44, 8,19		7,55
24″	30,22, 4,58,10,42,54,13,23,11		2,13,12,32,54	
		1,48,22,44,14,31,35,25		7,55
26″	30,22, 6,46,33,27, 8,44,58,36		2,13,12,40,49	
		1,48,22,42, 1,18,54,36		7,55
28″	30,22, 8,34,56, 9,10, 3,53,12		2,13,12,48,44	
		1,48,22,39,48, 6, 5,52		7,55
30″	30,22,10,23,18,48,58, 9,59, 4		2,13,12,56,39	
		1,48,22,37,34,53, 9,13		7,55
32″	30,22,12,11,41,26,33, 3, 8,17		2,13,13, 4,34	
		1,48,22,35,21,40, 4,39		7,55
34″	30,22,14, 0, 4, 1,54,43,12,56		2,13,13,12,29	
		1,48,22,33, 8,26,52,10		7,55
36″	30,22,15,48,26,35, 3,10, 5, 6		2,13,13,20,24	
		1,48,22,30,55,13,31,46		7,55
38″	30,22,17,36,49, 5,58,23,36,52		2,13,13,28,19	
		1,48,22,28,42, 0, 3,27		7,55
40″	30,22,19,25,11,34,40,23,40,19		2,13,13,36,14	
		1,48,22,26,28,46,27,13		7,55
42″	30,22,21,13,34, 1, 9,10, 7,32		2,13,13,44, 9	
		1,48,22,24,15,32,43, 4		7,55
44″	30,22,23, 1,56,25,24,42,50,36		2,13,13,52, 4	
		1,48,22,22, 2,18,51, 0		7,55
46″	30,22,24,50,18,47,27, 1,41,36		2,13,13,59,59	
		1,48,22,19,49, 4,51, 1		7,55
48″	30,22,26,38,41, 7,16, 6,32,37		2,13,14, 7,54	
		1,48,22,17,35,50,43, 7		7,55
50″	30,22,28,27, 3,24,51,57,15,44		2,13,14,15,49	
		1,48,22,15,22,36,27,18		7,55
52″	30,22,30,15,25,40,14,33,43, 2		2,13,14,23,44	
		1,48,22,13, 9,22, 3,34		7,55
54″	30,22,32, 3,47,53,23,55,46,36		2,13,14,31,39	
		1,48,22,10,56, 7,31,55		7,55
56″	30,22,33,52,10, 4,20, 3,18,31		2,13,14,39,34	
		1,48,22, 8,42,52,52,21		7,55
58″	30,22,35,40,32,13, 2,56,10,52		2,13,14,47,29	
		1,48,22, 6,29,38, 4,52		
60″	30,22,37,28,54,19,32,34,15,44			
exact	30,22,37,28,54,19,32,33,46,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°25′ 0″	30,22,37,28,54,19,32,33,46,49			
		1,48,22, 4,16,23, 6,27		
2″	30,22,39,17,16,23,48,56,53,16		2,13,15, 3,31	
		1,48,22, 2, 3, 8, 2,56		7,55
4″	30,22,41, 5,38,25,52, 4,56,12		2,13,15,11,26	
		1,48,21,59,49,52,51,30		7,55
6″	30,22,42,54, 0,25,41,57,47,42		2,13,15,19,21	
		1,48,21,57,36,37,32, 9		7,55
8″	30,22,44,42,22,23,18,35,19,51		2,13,15,27,16	
		1,48,21,55,23,22, 4,53		7,55
10″	30,22,46,30,44,18,41,57,24,44		2,13,15,35,11	
		1,48,21,53,10, 6,29,42		7,55
12″	30,22,48,19, 6,11,52, 3,54,26		2,13,15,43, 6	
		1,48,21,50,56,50,46,36		7,55
14″	30,22,50, 7,28, 2,48,54,41, 2		2,13,15,51, 1	
		1,48,21,48,43,34,55,35		7,55
16″	30,22,51,55,49,51,32,29,36,37		2,13,15,58,56	
		1,48,21,46,30,18,56,39		7,55
18″	30,22,53,44,11,38, 2,48,33,16		2,13,16, 6,51	
		1,48,21,44,17, 2,49,48		7,55
20″	30,22,55,32,33,22,19,51,23, 4		2,13,16,14,46	
		1,48,21,42, 3,46,35, 2		7,55
22″	30,22,57,20,55, 4,23,37,58, 6		2,13,16,22,41	
		1,48,21,39,50,30,12,21		7,55
24″	30,22,59, 9,16,44,14, 8,10,27		2,13,16,30,36	
		1,48,21,37,37,13,41,45		7,55
26″	30,23, 0,57,38,21,51,21,52,12		2,13,16,38,31	
		1,48,21,35,23,57, 3,14		7,55
28″	30,23, 2,45,59,57,15,18,55,26		2,13,16,46,26	
		1,48,21,33,10,40,16,48		7,55
30″	30,23, 4,34,21,30,25,59,12,14		2,13,16,54,21	
		1,48,21,30,57,23,22,27		7,55
32″	30,23, 6,22,43, 1,23,22,34,41		2,13,17, 2,16	
		1,48,21,28,44, 6,20,11		7,55
34″	30,23, 8,11, 4,30, 7,28,54,52		2,13,17,10,11	
		1,48,21,26,30,49,10, 0		7,55
36″	30,23, 9,59,25,56,38,18, 4,52		2,13,17,18, 6	
		1,48,21,24,17,31,51,54		7,55
38″	30,23,11,47,47,20,55,49,56,46		2,13,17,26, 1	
		1,48,21,22, 4,14,25,53		7,55
40″	30,23,13,36, 8,43, 0, 4,22,39		2,13,17,33,56	
		1,48,21,19,50,56,51,57		7,55
42″	30,23,15,24,30, 2,51, 1,14,36		2,13,17,41,51	
		1,48,21,17,37,39,10, 6		7,55
44″	30,23,17,12,51,20,28,40,24,42		2,13,17,49,46	
		1,48,21,15,24,21,20,20		7,55
46″	30,23,19, 1,12,35,53, 1,45, 2		2,13,17,57,41	
		1,48,21,13,11, 3,22,39		7,55
48″	30,23,20,49,33,49, 4, 5, 7,41		2,13,18, 5,36	
		1,48,21,10,57,45,17, 3		7,55
50″	30,23,22,37,55, 0, 1,50,24,44		2,13,18,13,31	
		1,48,21, 8,44,27, 3,32		7,55
52″	30,23,24,26,16, 8,46,17,28,16		2,13,18,21,26	
		1,48,21, 6,31, 8,42, 6		7,55
54″	30,23,26,14,37,15,17,26,10,22		2,13,18,29,21	
		1,48,21, 4,17,50,12,45		7,55
56″	30,23,28, 2,58,19,35,16,23, 7		2,13,18,37,16	
		1,48,21, 2, 4,31,35,29		7,55
58″	30,23,29,51,19,21,39,47,58,36		2,13,18,45,11	
		1,48,20,59,51,12,50,18		
60″	30,23,31,39,40,21,31, 0,48,54			
exact	30,23,31,39,40,21,31, 0,27,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°26′ 0″	30,23,31,39,40,21,31, 0,27,14			
		1,48,20,57,37,53,54,53		
2″	30,23,33,28, 1,19, 8,54,22, 7		2,13,19, 1,10	
		1,48,20,55,24,34,53,43		7,55
4″	30,23,35,16,22,14,33,29,15,50		2,13,19, 9, 5	
		1,48,20,53,11,15,44,38		7,55
6″	30,23,37, 4,43, 7,44,45, 0,28		2,13,19,17, 0	
		1,48,20,50,57,56,27,38		7,55
8″	30,23,38,53, 3,58,42,41,28, 6		2,13,19,24,55	
		1,48,20,48,44,37, 2,43		7,55
10″	30,23,40,41,24,47,27,18,30,49		2,13,19,32,50	
		1,48,20,46,31,17,29,53		7,55
12″	30,23,42,29,45,33,58,36, 0,42		2,13,19,40,45	
		1,48,20,44,17,57,49, 8		7,55
14″	30,23,44,18, 6,18,16,33,49,50		2,13,19,48,40	
		1,48,20,42, 4,38, 0,28		7,55
16″	30,23,46, 6,27, 0,21,11,50,18		2,13,19,56,35	
		1,48,20,39,51,18, 3,53		7,55
18″	30,23,47,54,47,40,12,29,54,11		2,13,20, 4,30	
		1,48,20,37,37,57,59,23		7,55
20″	30,23,49,43, 8,17,50,27,53,34		2,13,20,12,25	
		1,48,20,35,24,37,46,58		7,55
22″	30,23,51,31,28,53,15, 5,40,32		2,13,20,20,20	
		1,48,20,33,11,17,26,38		7,55
24″	30,23,53,19,49,26,26,23, 7,10		2,13,20,28,15	
		1,48,20,30,57,56,58,23		7,55
26″	30,23,55, 8, 9,57,24,20, 5,33		2,13,20,36,10	
		1,48,20,28,44,36,22,13		7,55
28″	30,23,56,56,30,26, 8,56,27,46		2,13,20,44, 5	
		1,48,20,26,31,15,38, 8		7,55
30″	30,23,58,44,50,52,40,12, 5,54		2,13,20,52, 0	
		1,48,20,24,17,54,46, 8		7,55
32″	30,24, 0,33,11,16,58, 6,52, 2		2,13,20,59,55	
		1,48,20,22, 4,33,46,13		7,55
34″	30,24, 2,21,31,39, 2,40,38,15		2,13,21, 7,50	
		1,48,20,19,51,12,38,23		7,55
36″	30,24, 4, 9,51,58,53,53,16,38		2,13,21,15,45	
		1,48,20,17,37,51,22,38		7,55
38″	30,24, 5,58,12,16,31,44,39,16		2,13,21,23,40	
		1,48,20,15,24,29,58,58		7,55
40″	30,24, 7,46,32,31,56,14,38,14		2,13,21,31,35	
		1,48,20,13,11, 8,27,23		7,55
42″	30,24, 9,34,52,45, 7,23, 5,37		2,13,21,39,30	
		1,48,20,10,57,46,47,53		7,55
44″	30,24,11,23,12,56, 5, 9,53,30		2,13,21,47,25	
		1,48,20, 8,44,25, 0,28		7,55
46″	30,24,13,11,33, 4,49,34,53,58		2,13,21,55,20	
		1,48,20, 6,31, 3, 5, 8		7,55
48″	30,24,14,59,53,11,20,37,59, 6		2,13,22, 3,15	
		1,48,20, 4,17,41, 1,53		7,55
50″	30,24,16,48,13,15,38,19, 0,59		2,13,22,11,10	
		1,48,20, 2, 4,18,50,43		7,55
52″	30,24,18,36,33,17,42,37,51,42		2,13,22,19, 5	
		1,48,19,59,50,56,31,38		7,55
54″	30,24,20,24,53,17,33,34,23,20		2,13,22,27, 0	
		1,48,19,57,37,34, 4,38		7,55
56″	30,24,22,13,13,15,11, 8,27,58		2,13,22,34,55	
		1,48,19,55,24,11,29,43		7,55
58″	30,24,24, 1,33,10,35,19,57,41		2,13,22,42,50	
		1,48,19,53,10,48,46,53		
60″	30,24,25,49,53, 3,46, 8,44,34			
exact	30,24,25,49,53, 3,46, 8,25,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°27′ 0″	30,24,25,49,53, 3,46, 8,25,29			
		1,48,19,50,57,25,54,13		
2″	30,24,27,38,12,54,43,34,19,42		2,13,22,58,47	
		1,48,19,48,44, 2,55,26		7,55
4″	30,24,29,26,32,43,27,37,15, 8		2,13,23, 6,42	
		1,48,19,46,30,39,48,44		7,55
6″	30,24,31,14,52,29,58,17, 3,52		2,13,23,14,37	
		1,48,19,44,17,16,34, 7		7,55
8″	30,24,33, 3,12,14,15,33,37,59		2,13,23,22,32	
		1,48,19,42, 3,53,11,35		7,55
10″	30,24,34,51,31,56,19,26,49,34		2,13,23,30,27	
		1,48,19,39,50,29,41, 8		7,55
12″	30,24,36,39,51,36, 9,56,30,42		2,13,23,38,22	
		1,48,19,37,37, 6, 2,46		7,55
14″	30,24,38,28,11,13,47, 2,33,28		2,13,23,46,17	
		1,48,19,35,23,42,16,29		7,55
16″	30,24,40,16,30,49,10,44,49,57		2,13,23,54,12	
		1,48,19,33,10,18,22,17		7,55
18″	30,24,42, 4,50,22,21, 3,12,14		2,13,24, 2, 7	
		1,48,19,30,56,54,20,10		7,55
20″	30,24,43,53, 9,53,17,57,32,24		2,13,24,10, 2	
		1,48,19,28,43,30,10, 8		7,55
22″	30,24,45,41,29,22, 1,27,42,32		2,13,24,17,57	
		1,48,19,26,30, 5,52,11		7,55
24″	30,24,47,29,48,48,31,33,34,43		2,13,24,25,52	
		1,48,19,24,16,41,26,19		7,55
26″	30,24,49,18, 8,12,48,15, 1, 2		2,13,24,33,47	
		1,48,19,22, 3,16,52,32		7,55
28″	30,24,51, 6,27,34,51,31,53,34		2,13,24,41,42	
		1,48,19,19,49,52,10,50		7,55
30″	30,24,52,54,46,54,41,24, 4,24		2,13,24,49,37	
		1,48,19,17,36,27,21,13		7,55
32″	30,24,54,43, 6,12,17,51,25,37		2,13,24,57,32	
		1,48,19,15,23, 2,23,41		7,55
34″	30,24,56,31,25,27,40,53,49,18		2,13,25, 5,27	
		1,48,19,13, 9,37,18,14		7,55
36″	30,24,58,19,44,40,50,31, 7,32		2,13,25,13,22	
		1,48,19,10,56,12, 4,52		7,55
38″	30,25, 0, 8, 3,51,46,43,12,24		2,13,25,21,17	
		1,48,19, 8,42,46,43,35		7,55
40″	30,25, 1,56,23, 0,29,29,55,59		2,13,25,29,12	
		1,48,19, 6,29,21,14,23		7,55
42″	30,25, 3,44,42, 6,58,51,10,22		2,13,25,37, 7	
		1,48,19, 4,15,55,37,16		7,55
44″	30,25, 5,33, 1,11,14,46,47,38		2,13,25,45, 2	
		1,48,19, 2, 2,29,52,14		7,55
46″	30,25, 7,21,20,13,17,16,39,52		2,13,25,52,57	
		1,48,18,59,49, 3,59,17		7,55
48″	30,25, 9, 9,39,13, 6,20,39, 9		2,13,26, 0,52	
		1,48,18,57,35,37,58,25		7,55
50″	30,25,10,57,58,10,41,58,37,34		2,13,26, 8,47	
		1,48,18,55,22,11,49,38		7,55
52″	30,25,12,46,17, 6, 4,10,27,12		2,13,26,16,42	
		1,48,18,53, 8,45,32,56		7,55
54″	30,25,14,34,35,59,12,56, 0, 8		2,13,26,24,37	
		1,48,18,50,55,19, 8,19		7,55
56″	30,25,16,22,54,50, 8,15, 8,27		2,13,26,32,32	
		1,48,18,48,41,52,35,47		7,55
58″	30,25,18,11,13,38,50, 7,44,14		2,13,26,40,27	
		1,48,18,46,28,25,55,20		
60″	30,25,19,59,32,25,18,33,39,34			
exact	30,25,19,59,32,25,18,33,26,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°28′ 0″	30,25,19,59,32,25,18,33,26,14			
		1,48,18,44,14,59, 5,39		
2″	30,25,21,47,51, 9,33,32,31,53		2,13,26,56,22	
		1,48,18,42, 1,32, 9,17		7,55
4″	30,25,23,36, 9,51,35, 4,41,10		2,13,27, 4,17	
		1,48,18,39,48, 5, 5, 0		7,55
6″	30,25,25,24,28,31,23, 9,46,10		2,13,27,12,12	
		1,48,18,37,34,37,52,48		7,55
8″	30,25,27,12,47, 8,57,47,38,58		2,13,27,20, 7	
		1,48,18,35,21,10,32,41		7,55
10″	30,25,29, 1, 5,44,18,58,11,39		2,13,27,28, 2	
		1,48,18,33, 7,43, 4,39		7,55
12″	30,25,30,49,24,17,26,41,16,18		2,13,27,35,57	
		1,48,18,30,54,15,28,42		7,55
14″	30,25,32,37,42,48,20,56,45, 0		2,13,27,43,52	
		1,48,18,28,40,47,44,50		7,55
16″	30,25,34,26, 1,17, 1,44,29,50		2,13,27,51,47	
		1,48,18,26,27,19,53, 3		7,55
18″	30,25,36,14,19,43,29, 4,22,53		2,13,27,59,42	
		1,48,18,24,13,51,53,21		7,55
20″	30,25,38, 2,38, 7,42,56,16,14		2,13,28, 7,37	
		1,48,18,22, 0,23,45,44		7,55
22″	30,25,39,50,56,29,43,20, 1,58		2,13,28,15,32	
		1,48,18,19,46,55,30,12		7,55
24″	30,25,41,39,14,49,30,15,32,10		2,13,28,23,27	
		1,48,18,17,33,27, 6,45		7,55
26″	30,25,43,27,33, 7, 3,42,38,55		2,13,28,31,22	
		1,48,18,15,19,58,35,23		7,55
28″	30,25,45,15,51,22,23,41,14,18		2,13,28,39,17	
		1,48,18,13, 6,29,56, 6		7,55
30″	30,25,47, 4, 9,35,30,11,10,24		2,13,28,47,12	
		1,48,18,10,53, 1, 8,54		7,55
32″	30,25,48,52,27,46,23,12,19,18		2,13,28,55, 7	
		1,48,18, 8,39,32,13,47		7,55
34″	30,25,50,40,45,55, 2,44,33, 5		2,13,29, 3, 2	
		1,48,18, 6,26, 3,10,45		7,55
36″	30,25,52,29, 4, 1,28,47,43,50		2,13,29,10,57	
		1,48,18, 4,12,33,59,48		7,55
38″	30,25,54,17,22, 5,41,21,43,38		2,13,29,18,52	
		1,48,18, 1,59, 4,40,56		7,55
40″	30,25,56, 5,40, 7,40,26,24,34		2,13,29,26,47	
		1,48,17,59,45,35,14, 9		7,55
42″	30,25,57,53,58, 7,26, 1,38,43		2,13,29,34,42	
		1,48,17,57,32, 5,39,27		7,55
44″	30,25,59,42,16, 4,58, 7,18,10		2,13,29,42,37	
		1,48,17,55,18,35,56,50		7,55
46″	30,26, 1,30,34, 0,16,43,15, 0		2,13,29,50,32	
		1,48,17,53, 5, 6, 6,18		7,55
48″	30,26, 3,18,51,53,21,49,21,18		2,13,29,58,27	
		1,48,17,50,51,36, 7,51		7,55
50″	30,26, 5, 7, 9,44,13,25,29, 9		2,13,30, 6,22	
		1,48,17,48,38, 6, 1,29		7,55
52″	30,26, 6,55,27,32,51,31,30,38		2,13,30,14,17	
		1,48,17,46,24,35,47,12		7,55
54″	30,26, 8,43,45,19,16, 7,17,50		2,13,30,22,12	
		1,48,17,44,11, 5,25, 0		7,55
56″	30,26,10,32, 3, 3,27,12,42,50		2,13,30,30, 7	
		1,48,17,41,57,34,54,53		7,55
58″	30,26,12,20,20,45,24,47,37,43		2,13,30,38, 2	
		1,48,17,39,44, 4,16,51		
60″	30,26,14, 8,38,25, 8,51,54,34			
exact	30,26,14, 8,38,25, 8,51,50,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°29′ 0″	30,26,14, 8,38,25, 8,51,50,39			
		1,48,17,37,30,33,30,26		
2″	30,26,15,56,56, 2,39,25,21, 5		2,13,30,53,54	
		1,48,17,35,17, 2,36,32		7,55
4″	30,26,17,45,13,37,56,27,57,37		2,13,31, 1,49	
		1,48,17,33, 3,31,34,43		7,55
6″	30,26,19,33,31,10,59,59,32,20		2,13,31, 9,44	
		1,48,17,30,50, 0,24,59		7,55
8″	30,26,21,21,48,41,49,59,57,19		2,13,31,17,39	
		1,48,17,28,36,29, 7,20		7,55
10″	30,26,23,10, 6,10,26,29, 4,39		2,13,31,25,34	
		1,48,17,26,22,57,41,46		7,55
12″	30,26,24,58,23,36,49,26,46,25		2,13,31,33,29	
		1,48,17,24, 9,26, 8,17		7,55
14″	30,26,26,46,41, 0,58,52,54,42		2,13,31,41,24	
		1,48,17,21,55,54,26,53		7,55
16″	30,26,28,34,58,22,54,47,21,35		2,13,31,49,19	
		1,48,17,19,42,22,37,34		7,55
18″	30,26,30,23,15,42,37, 9,59, 9		2,13,31,57,14	
		1,48,17,17,28,50,40,20		7,55
20″	30,26,32,11,33, 0, 6, 0,39,29		2,13,32, 5, 9	
		1,48,17,15,15,18,35,11		7,55
22″	30,26,33,59,50,15,21,19,14,40		2,13,32,13, 4	
		1,48,17,13, 1,46,22, 7		7,55
24″	30,26,35,48, 7,28,23, 5,36,47		2,13,32,20,59	
		1,48,17,10,48,14, 1, 8		7,55
26″	30,26,37,36,24,39,11,19,37,55		2,13,32,28,54	
		1,48,17, 8,34,41,32,14		7,55
28″	30,26,39,24,41,47,46, 1,10, 9		2,13,32,36,49	
		1,48,17, 6,21, 8,55,25		7,55
30″	30,26,41,12,58,54, 7,10, 5,34		2,13,32,44,44	
		1,48,17, 4, 7,36,10,41		7,55
32″	30,26,43, 1,15,58,14,46,16,15		2,13,32,52,39	
		1,48,17, 1,54, 3,18, 2		7,55
34″	30,26,44,49,33, 0, 8,49,34,17		2,13,33, 0,34	
		1,48,16,59,40,30,17,28		7,55
36″	30,26,46,37,49,59,49,19,51,45		2,13,33, 8,29	
		1,48,16,57,26,57, 8,59		7,55
38″	30,26,48,26, 6,57,16,17, 0,44		2,13,33,16,24	
		1,48,16,55,13,23,52,35		7,55
40″	30,26,50,14,23,52,29,40,53,19		2,13,33,24,19	
		1,48,16,52,59,50,28,16		7,55
42″	30,26,52, 2,40,45,29,31,21,35		2,13,33,32,14	
		1,48,16,50,46,16,56, 2		7,55
44″	30,26,53,50,57,36,15,48,17,37		2,13,33,40, 9	
		1,48,16,48,32,43,15,53		7,55
46″	30,26,55,39,14,24,48,31,33,30		2,13,33,48, 4	
		1,48,16,46,19, 9,27,49		7,55
48″	30,26,57,27,31,11, 7,41, 1,19		2,13,33,55,59	
		1,48,16,44, 5,35,31,50		7,55
50″	30,26,59,15,47,55,13,16,33, 9		2,13,34, 3,54	
		1,48,16,41,52, 1,27,56		7,55
52″	30,27, 1, 4, 4,37, 5,18, 1, 5		2,13,34,11,49	
		1,48,16,39,38,27,16, 7		7,55
54″	30,27, 2,52,21,16,43,45,17,12		2,13,34,19,44	
		1,48,16,37,24,52,56,23		7,55
56″	30,27, 4,40,37,54, 8,38,13,35		2,13,34,27,39	
		1,48,16,35,11,18,28,44		7,55
58″	30,27, 6,28,54,29,19,56,42,19		2,13,34,35,34	
		1,48,16,32,57,43,53,10		
60″	30,27, 8,17,11, 2,17,40,35,29			
exact	30,27, 8,17,11, 2,17,40,36,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°30′ 0″	30,27, 8,17,11, 2,17,40,36,34			
		1,48,16,30,44, 9, 9,47		
2″	30,27,10, 5,27,33, 1,49,46,21		2,13,34,51,23	
		1,48,16,28,30,34,18,24		7,55
4″	30,27,11,53,44, 1,32,24, 4,45		2,13,34,59,18	
		1,48,16,26,16,59,19, 6		7,55
6″	30,27,13,42, 0,27,49,23,23,51		2,13,35, 7,13	
		1,48,16,24, 3,24,11,53		7,55
8″	30,27,15,30,16,51,52,47,35,44		2,13,35,15, 8	
		1,48,16,21,49,48,56,45		7,55
10″	30,27,17,18,33,13,42,36,32,29		2,13,35,23, 3	
		1,48,16,19,36,13,33,42		7,55
12″	30,27,19, 6,49,33,18,50, 6,11		2,13,35,30,58	
		1,48,16,17,22,38, 2,44		7,55
14″	30,27,20,55, 5,50,41,28, 8,55		2,13,35,38,53	
		1,48,16,15, 9, 2,23,51		7,55
16″	30,27,22,43,22, 5,50,30,32,46		2,13,35,46,48	
		1,48,16,12,55,26,37, 3		7,55
18″	30,27,24,31,38,18,45,57, 9,49		2,13,35,54,43	
		1,48,16,10,41,50,42,20		7,55
20″	30,27,26,19,54,29,27,47,52, 9		2,13,36, 2,38	
		1,48,16, 8,28,14,39,42		7,55
22″	30,27,28, 8,10,37,56, 2,31,51		2,13,36,10,33	
		1,48,16, 6,14,38,29, 9		7,55
24″	30,27,29,56,26,44,10,41, 1, 0		2,13,36,18,28	
		1,48,16, 4, 1, 2,10,41		7,55
26″	30,27,31,44,42,48,11,43,11,41		2,13,36,26,23	
		1,48,16, 1,47,25,44,18		7,55
28″	30,27,33,32,58,49,59, 8,55,59		2,13,36,34,18	
		1,48,15,59,33,49,10, 0		7,55
30″	30,27,35,21,14,49,32,58, 5,59		2,13,36,42,13	
		1,48,15,57,20,12,27,47		7,55
32″	30,27,37, 9,30,46,53,10,33,46		2,13,36,50, 8	
		1,48,15,55, 6,35,37,39		7,55
34″	30,27,38,57,46,41,59,46,11,25		2,13,36,58, 3	
		1,48,15,52,52,58,39,36		7,55
36″	30,27,40,46, 2,34,52,44,51, 1		2,13,37, 5,58	
		1,48,15,50,39,21,33,38		7,55
38″	30,27,42,34,18,25,32, 6,24,39		2,13,37,13,53	
		1,48,15,48,25,44,19,45		7,55
40″	30,27,44,22,34,13,57,50,44,24		2,13,37,21,48	
		1,48,15,46,12, 6,57,57		7,55
42″	30,27,46,10,50, 0, 9,57,42,21		2,13,37,29,43	
		1,48,15,43,58,29,28,14		7,55
44″	30,27,47,59, 5,44, 8,27,10,35		2,13,37,37,38	
		1,48,15,41,44,51,50,36		7,55
46″	30,27,49,47,21,25,53,19, 1,11		2,13,37,45,33	
		1,48,15,39,31,14, 5, 3		7,55
48″	30,27,51,35,37, 5,24,33, 6,14		2,13,37,53,28	
		1,48,15,37,17,36,11,35		7,55
50″	30,27,53,23,52,42,42, 9,17,49		2,13,38, 1,23	
		1,48,15,35, 3,58,10,12		7,55
52″	30,27,55,12, 8,17,46, 7,28, 1		2,13,38, 9,18	
		1,48,15,32,50,20, 0,54		7,55
54″	30,27,57, 0,23,50,36,27,28,55		2,13,38,17,13	
		1,48,15,30,36,41,43,41		7,55
56″	30,27,58,48,39,21,13, 9,12,36		2,13,38,25, 8	
		1,48,15,28,23, 3,18,33		7,55
58″	30,28, 0,36,54,49,36,12,31, 9		2,13,38,33, 3	
		1,48,15,26, 9,24,45,30		
60″	30,28, 2,25,10,15,45,37,16,39			
exact	30,28, 2,25,10,15,45,37,18,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°31′ 0″	30,28, 2,25,10,15,45,37,18,21			
		1,48,15,23,55,46, 4,54		
2″	30,28, 4,13,25,39,41,23,23,15		2,13,38,48,51	
		1,48,15,21,42, 7,16, 3		7,55
4″	30,28, 6, 1,41, 1,23,30,39,18		2,13,38,56,46	
		1,48,15,19,28,28,19,17		7,55
6″	30,28, 7,49,56,20,51,58,58,35		2,13,39, 4,41	
		1,48,15,17,14,49,14,36		7,55
8″	30,28, 9,38,11,38, 6,48,13,11		2,13,39,12,36	
		1,48,15,15, 1,10, 2, 0		7,55
10″	30,28,11,26,26,53, 7,58,15,11		2,13,39,20,31	
		1,48,15,12,47,30,41,29		7,55
12″	30,28,13,14,42, 5,55,28,56,40		2,13,39,28,26	
		1,48,15,10,33,51,13, 3		7,55
14″	30,28,15, 2,57,16,29,20, 9,43		2,13,39,36,21	
		1,48,15, 8,20,11,36,42		7,55
16″	30,28,16,51,12,24,49,31,46,25		2,13,39,44,16	
		1,48,15, 6, 6,31,52,26		7,55
18″	30,28,18,39,27,30,56, 3,38,51		2,13,39,52,11	
		1,48,15, 3,52,52, 0,15		7,55
20″	30,28,20,27,42,34,48,55,39, 6		2,13,40, 0, 6	
		1,48,15, 1,39,12, 0, 9		7,55
22″	30,28,22,15,57,36,28, 7,39,15		2,13,40, 8, 1	
		1,48,14,59,25,31,52, 8		7,55
24″	30,28,24, 4,12,35,53,39,31,23		2,13,40,15,56	
		1,48,14,57,11,51,36,12		7,55
26″	30,28,25,52,27,33, 5,31, 7,35		2,13,40,23,51	
		1,48,14,54,58,11,12,21		7,55
28″	30,28,27,40,42,28, 3,42,19,56		2,13,40,31,46	
		1,48,14,52,44,30,40,35		7,55
30″	30,28,29,28,57,20,48,13, 0,31		2,13,40,39,41	
		1,48,14,50,30,50, 0,54		7,55
32″	30,28,31,17,12,11,19, 3, 1,25		2,13,40,47,36	
		1,48,14,48,17, 9,13,18		7,55
34″	30,28,33, 5,26,59,36,12,14,43		2,13,40,55,31	
		1,48,14,46, 3,28,17,47		7,55
36″	30,28,34,53,41,45,39,40,32,30		2,13,41, 3,26	
		1,48,14,43,49,47,14,21		7,55
38″	30,28,36,41,56,29,29,27,46,51		2,13,41,11,21	
		1,48,14,41,36, 6, 3, 0		7,55
40″	30,28,38,30,11,11, 5,33,49,51		2,13,41,19,16	
		1,48,14,39,22,24,43,44		7,55
42″	30,28,40,18,25,50,27,58,33,35		2,13,41,27,11	
		1,48,14,37, 8,43,16,33		7,55
44″	30,28,42, 6,40,27,36,41,50, 8		2,13,41,35, 6	
		1,48,14,34,55, 1,41,27		7,55
46″	30,28,43,54,55, 2,31,43,31,35		2,13,41,43, 1	
		1,48,14,32,41,19,58,26		7,55
48″	30,28,45,43, 9,35,13, 3,30, 1		2,13,41,50,56	
		1,48,14,30,27,38, 7,30		7,55
50″	30,28,47,31,24, 5,40,41,37,31		2,13,41,58,51	
		1,48,14,28,13,56, 8,39		7,55
52″	30,28,49,19,38,33,54,37,46,10		2,13,42, 6,46	
		1,48,14,26, 0,14, 1,53		7,55
54″	30,28,51, 7,52,59,54,51,48, 3		2,13,42,14,41	
		1,48,14,23,46,31,47,12		7,55
56″	30,28,52,56, 7,23,41,23,35,15		2,13,42,22,36	
		1,48,14,21,32,49,24,36		7,55
58″	30,28,54,44,21,45,14,12,59,51		2,13,42,30,31	
		1,48,14,19,19, 6,54, 5		
60″	30,28,56,32,36, 4,33,19,53,56			
exact	30,28,56,32,36, 4,33,20, 7, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°32′ 0″	30,28,56,32,36, 4,33,20, 7, 2			
		1,48,14,17, 5,24,17, 1		
2″	30,28,58,20,50,21,38,44,24, 3		2,13,42,46,15	
		1,48,14,14,51,41,30,46		7,55
4″	30,29, 0, 9, 4,36,30,25,54,49		2,13,42,54,10	
		1,48,14,12,37,58,36,36		7,55
6″	30,29, 1,57,18,49, 8,24,31,25		2,13,43, 2, 5	
		1,48,14,10,24,15,34,31		7,55
8″	30,29, 3,45,32,59,32,40, 5,56		2,13,43,10, 0	
		1,48,14, 8,10,32,24,31		7,55
10″	30,29, 5,33,47, 7,43,12,30,27		2,13,43,17,55	
		1,48,14, 5,56,49, 6,36		7,55
12″	30,29, 7,22, 1,13,40, 1,37, 3		2,13,43,25,50	
		1,48,14, 3,43, 5,40,46		7,55
14″	30,29, 9,10,15,17,23, 7,17,49		2,13,43,33,45	
		1,48,14, 1,29,22, 7, 1		7,55
16″	30,29,10,58,29,18,52,29,24,50		2,13,43,41,40	
		1,48,13,59,15,38,25,21		7,55
18″	30,29,12,46,43,18, 8, 7,50,11		2,13,43,49,35	
		1,48,13,57, 1,54,35,46		7,55
20″	30,29,14,34,57,15,10, 2,25,57		2,13,43,57,30	
		1,48,13,54,48,10,38,16		7,55
22″	30,29,16,23,11, 9,58,13, 4,13		2,13,44, 5,25	
		1,48,13,52,34,26,32,51		7,55
24″	30,29,18,11,25, 2,32,39,37, 4		2,13,44,13,20	
		1,48,13,50,20,42,19,31		7,55
26″	30,29,19,59,38,52,53,21,56,35		2,13,44,21,15	
		1,48,13,48, 6,57,58,16		7,55
28″	30,29,21,47,52,41, 0,19,54,51		2,13,44,29,10	
		1,48,13,45,53,13,29, 6		7,55
30″	30,29,23,36, 6,26,53,33,23,57		2,13,44,37, 5	
		1,48,13,43,39,28,52, 1		7,55
32″	30,29,25,24,20,10,33, 2,15,58		2,13,44,45, 0	
		1,48,13,41,25,44, 7, 1		7,55
34″	30,29,27,12,33,51,58,46,22,59		2,13,44,52,55	
		1,48,13,39,11,59,14, 6		7,55
36″	30,29,29, 0,47,31,10,45,37, 5		2,13,45, 0,50	
		1,48,13,36,58,14,13,16		7,55
38″	30,29,30,49, 1, 8, 8,59,50,21		2,13,45, 8,45	
		1,48,13,34,44,29, 4,31		7,55
40″	30,29,32,37,14,42,53,28,54,52		2,13,45,16,40	
		1,48,13,32,30,43,47,51		7,55
42″	30,29,34,25,28,15,24,12,42,43		2,13,45,24,35	
		1,48,13,30,16,58,23,16		7,55
44″	30,29,36,13,41,45,41,11, 5,59		2,13,45,32,30	
		1,48,13,28, 3,12,50,46		7,55
46″	30,29,38, 1,55,13,44,23,56,45		2,13,45,40,25	
		1,48,13,25,49,27,10,21		7,55
48″	30,29,39,50, 8,39,33,51, 7, 6		2,13,45,48,20	
		1,48,13,23,35,41,22, 1		7,55
50″	30,29,41,38,22, 3, 9,32,29, 7		2,13,45,56,15	
		1,48,13,21,21,55,25,46		7,55
52″	30,29,43,26,35,24,31,27,54,53		2,13,46, 4,10	
		1,48,13,19, 8, 9,21,36		7,55
54″	30,29,45,14,48,43,39,37,16,29		2,13,46,12, 5	
		1,48,13,16,54,23, 9,31		7,55
56″	30,29,47, 3, 2, 0,34, 0,26, 0		2,13,46,20, 0	
		1,48,13,14,40,36,49,31		7,55
58″	30,29,48,51,15,15,14,37,15,31		2,13,46,27,55	
		1,48,13,12,26,50,21,36		
60″	30,29,50,39,28,27,41,27,37, 7			
exact	30,29,50,39,28,27,41,27,50,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°33′ 0″	30,29,50,39,28,27,41,27,50,16			
		1,48,13,10,13, 3,47,21		
2″	30,29,52,27,41,37,54,31,37,37		2,13,46,43,38	
		1,48,13, 7,59,17, 3,43		7,55
4″	30,29,54,15,54,45,53,48,41,20		2,13,46,51,33	
		1,48,13, 5,45,30,12,10		7,55
6″	30,29,56, 4, 7,51,39,18,53,30		2,13,46,59,28	
		1,48,13, 3,31,43,12,42		7,55
8″	30,29,57,52,20,55,11, 2, 6,12		2,13,47, 7,23	
		1,48,13, 1,17,56, 5,19		7,55
10″	30,29,59,40,33,56,28,58,11,31		2,13,47,15,18	
		1,48,12,59, 4, 8,50, 1		7,55
12″	30,30, 1,28,46,55,33, 7, 1,32		2,13,47,23,13	
		1,48,12,56,50,21,26,48		7,55
14″	30,30, 3,16,59,52,23,28,28,20		2,13,47,31, 8	
		1,48,12,54,36,33,55,40		7,55
16″	30,30, 5, 5,12,47, 0, 2,24, 0		2,13,47,39, 3	
		1,48,12,52,22,46,16,37		7,55
18″	30,30, 6,53,25,39,22,48,40,37		2,13,47,46,58	
		1,48,12,50, 8,58,29,39		7,55
20″	30,30, 8,41,38,29,31,47,10,16		2,13,47,54,53	
		1,48,12,47,55,10,34,46		7,55
22″	30,30,10,29,51,17,26,57,45, 2		2,13,48, 2,48	
		1,48,12,45,41,22,31,58		7,55
24″	30,30,12,18, 4, 3, 8,20,17, 0		2,13,48,10,43	
		1,48,12,43,27,34,21,15		7,55
26″	30,30,14, 6,16,46,35,54,38,15		2,13,48,18,38	
		1,48,12,41,13,46, 2,37		7,55
28″	30,30,15,54,29,27,49,40,40,52		2,13,48,26,33	
		1,48,12,38,59,57,36, 4		7,55
30″	30,30,17,42,42, 6,49,38,16,56		2,13,48,34,28	
		1,48,12,36,46, 9, 1,36		7,55
32″	30,30,19,30,54,43,35,47,18,32		2,13,48,42,23	
		1,48,12,34,32,20,19,13		7,55
34″	30,30,21,19, 7,18, 8, 7,37,45		2,13,48,50,18	
		1,48,12,32,18,31,28,55		7,55
36″	30,30,23, 7,19,50,26,39, 6,40		2,13,48,58,13	
		1,48,12,30, 4,42,30,42		7,55
38″	30,30,24,55,32,20,31,21,37,22		2,13,49, 6, 8	
		1,48,12,27,50,53,24,34		7,55
40″	30,30,26,43,44,48,22,15, 1,56		2,13,49,14, 3	
		1,48,12,25,37, 4,10,31		7,55
42″	30,30,28,31,57,13,59,19,12,27		2,13,49,21,58	
		1,48,12,23,23,14,48,33		7,55
44″	30,30,30,20, 9,37,22,34, 1, 0		2,13,49,29,53	
		1,48,12,21, 9,25,18,40		7,55
46″	30,30,32, 8,21,58,31,59,19,40		2,13,49,37,48	
		1,48,12,18,55,35,40,52		7,55
48″	30,30,33,56,34,17,27,35, 0,32		2,13,49,45,43	
		1,48,12,16,41,45,55, 9		7,55
50″	30,30,35,44,46,34, 9,20,55,41		2,13,49,53,38	
		1,48,12,14,27,56, 1,31		7,55
52″	30,30,37,32,58,48,37,16,57,12		2,13,50, 1,33	
		1,48,12,12,14, 5,59,58		7,55
54″	30,30,39,21,11, 0,51,22,57,10		2,13,50, 9,28	
		1,48,12,10, 0,15,50,30		7,55
56″	30,30,41, 9,23,10,51,38,47,40		2,13,50,17,23	
		1,48,12, 7,46,25,33, 7		7,55
58″	30,30,42,57,35,18,38, 4,20,47		2,13,50,25,18	
		1,48,12, 5,32,35, 7,49		
60″	30,30,44,45,47,24,10,39,28,36			
exact	30,30,44,45,47,24,10,39,52,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°34′ 0″	30,30,44,45,47,24,10,39,52,22			
		1,48,12, 3,18,44,37, 7		
2″	30,30,46,33,59,27,29,24,29,29		2,13,50,40,58	
		1,48,12, 1, 4,53,56, 9		7,55
4″	30,30,48,22,11,28,34,18,25,38		2,13,50,48,53	
		1,48,11,58,51, 3, 7,16		7,55
6″	30,30,50,10,23,27,25,21,32,54		2,13,50,56,48	
		1,48,11,56,37,12,10,28		7,55
8″	30,30,51,58,35,24, 2,33,43,22		2,13,51, 4,43	
		1,48,11,54,23,21, 5,45		7,55
10″	30,30,53,46,47,18,25,54,49, 7		2,13,51,12,38	
		1,48,11,52, 9,29,53, 7		7,55
12″	30,30,55,34,59,10,35,24,42,14		2,13,51,20,33	
		1,48,11,49,55,38,32,34		7,55
14″	30,30,57,23,11, 0,31, 3,14,48		2,13,51,28,28	
		1,48,11,47,41,47, 4, 6		7,55
16″	30,30,59,11,22,48,12,50,18,54		2,13,51,36,23	
		1,48,11,45,27,55,27,43		7,55
18″	30,31, 0,59,34,33,40,45,46,37		2,13,51,44,18	
		1,48,11,43,14, 3,43,25		7,55
20″	30,31, 2,47,46,16,54,49,30, 2		2,13,51,52,13	
		1,48,11,41, 0,11,51,12		7,55
22″	30,31, 4,35,57,57,55, 1,21,14		2,13,52, 0, 8	
		1,48,11,38,46,19,51, 4		7,55
24″	30,31, 6,24, 9,36,41,21,12,18		2,13,52, 8, 3	
		1,48,11,36,32,27,43, 1		7,55
26″	30,31, 8,12,21,13,13,48,55,19		2,13,52,15,58	
		1,48,11,34,18,35,27, 3		7,55
28″	30,31,10, 0,32,47,32,24,22,22		2,13,52,23,53	
		1,48,11,32, 4,43, 3,10		7,55
30″	30,31,11,48,44,19,37, 7,25,32		2,13,52,31,48	
		1,48,11,29,50,50,31,22		7,55
32″	30,31,13,36,55,49,27,57,56,54		2,13,52,39,43	
		1,48,11,27,36,57,51,39		7,55
34″	30,31,15,25, 7,17, 4,55,48,33		2,13,52,47,38	
		1,48,11,25,23, 5, 4, 1		7,55
36″	30,31,17,13,18,42,28, 0,52,34		2,13,52,55,33	
		1,48,11,23, 9,12, 8,28		7,55
38″	30,31,19, 1,30, 5,37,13, 1, 2		2,13,53, 3,28	
		1,48,11,20,55,19, 5, 0		7,55
40″	30,31,20,49,41,26,32,32, 6, 2		2,13,53,11,23	
		1,48,11,18,41,25,53,37		7,55
42″	30,31,22,37,52,45,13,57,59,39		2,13,53,19,18	
		1,48,11,16,27,32,34,19		7,55
44″	30,31,24,26, 4, 1,41,30,33,58		2,13,53,27,13	
		1,48,11,14,13,39, 7, 6		7,55
46″	30,31,26,14,15,15,55, 9,41, 4		2,13,53,35, 8	
		1,48,11,11,59,45,31,58		7,55
48″	30,31,28, 2,26,27,54,55,13, 2		2,13,53,43, 3	
		1,48,11, 9,45,51,48,55		7,55
50″	30,31,29,50,37,37,40,47, 1,57		2,13,53,50,58	
		1,48,11, 7,31,57,57,57		7,55
52″	30,31,31,38,48,45,12,44,59,54		2,13,53,58,53	
		1,48,11, 5,18, 3,59, 4		7,55
54″	30,31,33,26,59,50,30,48,58,58		2,13,54, 6,48	
		1,48,11, 3, 4, 9,52,16		7,55
56″	30,31,35,15,10,53,34,58,51,14		2,13,54,14,43	
		1,48,11, 0,50,15,37,33		7,55
58″	30,31,37, 3,21,54,25,14,28,47		2,13,54,22,38	
		1,48,10,58,36,21,14,55		
60″	30,31,38,51,32,53, 1,35,43,42			
exact	30,31,38,51,32,53, 1,36,14,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°35′ 0″	30,31,38,51,32,53, 1,36,14,20			
		1,48,10,56,22,26,47,34		
2″	30,31,40,39,43,49,24, 3, 1,54		2,13,54,38,15	
		1,48,10,54, 8,32, 9,19		7,55
4″	30,31,42,27,54,43,32,35,11,13		2,13,54,46,10	
		1,48,10,51,54,37,23, 9		7,55
6″	30,31,44,16, 5,35,27,12,34,22		2,13,54,54, 5	
		1,48,10,49,40,42,29, 4		7,55
8″	30,31,46, 4,16,25, 7,55, 3,26		2,13,55, 2, 0	
		1,48,10,47,26,47,27, 4		7,55
10″	30,31,47,52,27,12,34,42,30,30		2,13,55, 9,55	
		1,48,10,45,12,52,17, 9		7,55
12″	30,31,49,40,37,57,47,34,47,39		2,13,55,17,50	
		1,48,10,42,58,56,59,19		7,55
14″	30,31,51,28,48,40,46,31,46,58		2,13,55,25,45	
		1,48,10,40,45, 1,33,34		7,55
16″	30,31,53,16,59,21,31,33,20,32		2,13,55,33,40	
		1,48,10,38,31, 5,59,54		7,55
18″	30,31,55, 5,10, 0, 2,39,20,26		2,13,55,41,35	
		1,48,10,36,17,10,18,19		7,55
20″	30,31,56,53,20,36,19,49,38,45		2,13,55,49,30	
		1,48,10,34, 3,14,28,49		7,55
22″	30,31,58,41,31,10,23, 4, 7,34		2,13,55,57,25	
		1,48,10,31,49,18,31,24		7,55
24″	30,32, 0,29,41,42,12,22,38,58		2,13,56, 5,20	
		1,48,10,29,35,22,26, 4		7,55
26″	30,32, 2,17,52,11,47,45, 5, 2		2,13,56,13,15	
		1,48,10,27,21,26,12,49		7,55
28″	30,32, 4, 6, 2,39, 9,11,17,51		2,13,56,21,10	
		1,48,10,25, 7,29,51,39		7,55
30″	30,32, 5,54,13, 4,16,41, 9,30		2,13,56,29, 5	
		1,48,10,22,53,33,22,34		7,55
32″	30,32, 7,42,23,27,10,14,32, 4		2,13,56,37, 0	
		1,48,10,20,39,36,45,34		7,55
34″	30,32, 9,30,33,47,49,51,17,38		2,13,56,44,55	
		1,48,10,18,25,40, 0,39		7,55
36″	30,32,11,18,44, 6,15,31,18,17		2,13,56,52,50	
		1,48,10,16,11,43, 7,49		7,55
38″	30,32,13, 6,54,22,27,14,26, 6		2,13,57, 0,45	
		1,48,10,13,57,46, 7, 4		7,55
40″	30,32,14,55, 4,36,25, 0,33,10		2,13,57, 8,40	
		1,48,10,11,43,48,58,24		7,55
42″	30,32,16,43,14,48, 8,49,31,34		2,13,57,16,35	
		1,48,10, 9,29,51,41,49		7,55
44″	30,32,18,31,24,57,38,41,13,23		2,13,57,24,30	
		1,48,10, 7,15,54,17,19		7,55
46″	30,32,20,19,35, 4,54,35,30,42		2,13,57,32,25	
		1,48,10, 5, 1,56,44,54		7,55
48″	30,32,22, 7,45, 9,56,32,15,36		2,13,57,40,20	
		1,48,10, 2,47,59, 4,34		7,55
50″	30,32,23,55,55,12,44,31,20,10		2,13,57,48,15	
		1,48,10, 0,34, 1,16,19		7,55
52″	30,32,25,44, 5,13,18,32,36,29		2,13,57,56,10	
		1,48, 9,58,20, 3,20, 9		7,55
54″	30,32,27,32,15,11,38,35,56,38		2,13,58, 4, 5	
		1,48, 9,56, 6, 5,16, 4		7,55
56″	30,32,29,20,25, 7,44,41,12,42		2,13,58,12, 0	
		1,48, 9,53,52, 7, 4, 4		7,55
58″	30,32,31, 8,35, 1,36,48,16,46		2,13,58,19,55	
		1,48, 9,51,38, 8,44, 9		
60″	30,32,32,56,44,53,14,57, 0,55			
exact	30,32,32,56,44,53,14,57,33,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°36′ 0″	30,32,32,56,44,53,14,57,33,51			
		1,48, 9,49,24,10,19,53		
2″	30,32,34,44,54,42,39, 7,53,44		2,13,58,35,30	
		1,48, 9,47,10,11,44,23		7,54
4″	30,32,36,33, 4,29,49,19,38, 7		2,13,58,43,24	
		1,48, 9,44,56,13, 0,59		7,54
6″	30,32,38,21,14,14,45,32,39, 6		2,13,58,51,18	
		1,48, 9,42,42,14, 9,41		7,54
8″	30,32,40, 9,23,57,27,46,48,47		2,13,58,59,12	
		1,48, 9,40,28,15,10,29		7,54
10″	30,32,41,57,33,37,56, 1,59,16		2,13,59, 7, 6	
		1,48, 9,38,14,16, 3,23		7,54
12″	30,32,43,45,43,16,10,18, 2,39		2,13,59,15, 0	
		1,48, 9,36, 0,16,48,23		7,54
14″	30,32,45,33,52,52,10,34,51, 2		2,13,59,22,54	
		1,48, 9,33,46,17,25,29		7,54
16″	30,32,47,22, 2,25,56,52,16,31		2,13,59,30,48	
		1,48, 9,31,32,17,54,41		7,54
18″	30,32,49,10,11,57,29,10,11,12		2,13,59,38,42	
		1,48, 9,29,18,18,15,59		7,54
20″	30,32,50,58,21,26,47,28,27,11		2,13,59,46,36	
		1,48, 9,27, 4,18,29,23		7,54
22″	30,32,52,46,30,53,51,46,56,34		2,13,59,54,30	
		1,48, 9,24,50,18,34,53		7,54
24″	30,32,54,34,40,18,42, 5,31,27		2,14, 0, 2,24	
		1,48, 9,22,36,18,32,29		7,54
26″	30,32,56,22,49,41,18,24, 3,56		2,14, 0,10,18	
		1,48, 9,20,22,18,22,11		7,54
28″	30,32,58,10,59, 1,40,42,26, 7		2,14, 0,18,12	
		1,48, 9,18, 8,18, 3,59		7,54
30″	30,32,59,59, 8,19,49, 0,30, 6		2,14, 0,26, 6	
		1,48, 9,15,54,17,37,53		7,54
32″	30,33, 1,47,17,35,43,18, 7,59		2,14, 0,34, 0	
		1,48, 9,13,40,17, 3,53		7,54
34″	30,33, 3,35,26,49,23,35,11,52		2,14, 0,41,54	
		1,48, 9,11,26,16,21,59		7,54
36″	30,33, 5,23,36, 0,49,51,33,51		2,14, 0,49,48	
		1,48, 9, 9,12,15,32,11		7,54
38″	30,33, 7,11,45,10, 2, 7, 6, 2		2,14, 0,57,42	
		1,48, 9, 6,58,14,34,29		7,54
40″	30,33, 8,59,54,17, 0,21,40,31		2,14, 1, 5,36	
		1,48, 9, 4,44,13,28,53		7,54
42″	30,33,10,48, 3,21,44,35, 9,24		2,14, 1,13,30	
		1,48, 9, 2,30,12,15,23		7,54
44″	30,33,12,36,12,24,14,47,24,47		2,14, 1,21,24	
		1,48, 9, 0,16,10,53,59		7,54
46″	30,33,14,24,21,24,30,58,18,46		2,14, 1,29,18	
		1,48, 8,58, 2, 9,24,41		7,54
48″	30,33,16,12,30,22,33, 7,43,27		2,14, 1,37,12	
		1,48, 8,55,48, 7,47,29		7,54
50″	30,33,18, 0,39,18,21,15,30,56		2,14, 1,45, 6	
		1,48, 8,53,34, 6, 2,23		7,54
52″	30,33,19,48,48,11,55,21,33,19		2,14, 1,53, 0	
		1,48, 8,51,20, 4, 9,23		7,54
54″	30,33,21,36,57, 3,15,25,42,42		2,14, 2, 0,54	
		1,48, 8,49, 6, 2, 8,29		7,54
56″	30,33,23,25, 5,52,21,27,51,11		2,14, 2, 8,48	
		1,48, 8,46,51,59,59,41		7,54
58″	30,33,25,13,14,39,13,27,50,52		2,14, 2,16,42	
		1,48, 8,44,37,57,42,59		
60″	30,33,27, 1,23,23,51,25,33,51			
exact	30,33,27, 1,23,23,51,25, 5,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°37′ 0″	30,33,27, 1,23,23,51,25, 5,18			
		1,48, 8,42,23,55,15,20		
2″	30,33,28,49,32, 6,15,20,20,38		2,14, 2,32,42	
		1,48, 8,40, 9,52,42,38		7,54
4″	30,33,30,37,40,46,25,13, 3,16		2,14, 2,40,36	
		1,48, 8,37,55,50, 2, 2		7,54
6″	30,33,32,25,49,24,21, 3, 5,18		2,14, 2,48,30	
		1,48, 8,35,41,47,13,32		7,54
8″	30,33,34,13,58, 0, 2,50,18,50		2,14, 2,56,24	
		1,48, 8,33,27,44,17, 8		7,54
10″	30,33,36, 2, 6,33,30,34,35,58		2,14, 3, 4,18	
		1,48, 8,31,13,41,12,50		7,54
12″	30,33,37,50,15, 4,44,15,48,48		2,14, 3,12,12	
		1,48, 8,28,59,38, 0,38		7,54
14″	30,33,39,38,23,33,43,53,49,26		2,14, 3,20, 6	
		1,48, 8,26,45,34,40,32		7,54
16″	30,33,41,26,32, 0,29,28,29,58		2,14, 3,28, 0	
		1,48, 8,24,31,31,12,32		7,54
18″	30,33,43,14,40,25, 0,59,42,30		2,14, 3,35,54	
		1,48, 8,22,17,27,36,38		7,54
20″	30,33,45, 2,48,47,18,27,19, 8		2,14, 3,43,48	
		1,48, 8,20, 3,23,52,50		7,54
22″	30,33,46,50,57, 7,21,51,11,58		2,14, 3,51,42	
		1,48, 8,17,49,20, 1, 8		7,54
24″	30,33,48,39, 5,25,11,11,13, 6		2,14, 3,59,36	
		1,48, 8,15,35,16, 1,32		7,54
26″	30,33,50,27,13,40,46,27,14,38		2,14, 4, 7,30	
		1,48, 8,13,21,11,54, 2		7,54
28″	30,33,52,15,21,54, 7,39, 8,40		2,14, 4,15,24	
		1,48, 8,11, 7, 7,38,38		7,54
30″	30,33,54, 3,30, 5,14,46,47,18		2,14, 4,23,18	
		1,48, 8, 8,53, 3,15,20		7,54
32″	30,33,55,51,38,14, 7,50, 2,38		2,14, 4,31,12	
		1,48, 8, 6,38,58,44, 8		7,54
34″	30,33,57,39,46,20,46,48,46,46		2,14, 4,39, 6	
		1,48, 8, 4,24,54, 5, 2		7,54
36″	30,33,59,27,54,25,11,42,51,48		2,14, 4,47, 0	
		1,48, 8, 2,10,49,18, 2		7,54
38″	30,34, 1,16, 2,27,22,32, 9,50		2,14, 4,54,54	
		1,48, 7,59,56,44,23, 8		7,54
40″	30,34, 3, 4,10,27,19,16,32,58		2,14, 5, 2,48	
		1,48, 7,57,42,39,20,20		7,54
42″	30,34, 4,52,18,25, 1,55,53,18		2,14, 5,10,42	
		1,48, 7,55,28,34, 9,38		7,54
44″	30,34, 6,40,26,20,30,30, 2,56		2,14, 5,18,36	
		1,48, 7,53,14,28,51, 2		7,54
46″	30,34, 8,28,34,13,44,58,53,58		2,14, 5,26,30	
		1,48, 7,51, 0,23,24,32		7,54
48″	30,34,10,16,42, 4,45,22,18,30		2,14, 5,34,24	
		1,48, 7,48,46,17,50, 8		7,54
50″	30,34,12, 4,49,53,31,40, 8,38		2,14, 5,42,18	
		1,48, 7,46,32,12, 7,50		7,54
52″	30,34,13,52,57,40, 3,52,16,28		2,14, 5,50,12	
		1,48, 7,44,18, 6,17,38		7,54
54″	30,34,15,41, 5,24,21,58,34, 6		2,14, 5,58, 6	
		1,48, 7,42, 4, 0,19,32		7,54
56″	30,34,17,29,13, 6,25,58,53,38		2,14, 6, 6, 0	
		1,48, 7,39,49,54,13,32		7,54
58″	30,34,19,17,20,46,15,53, 7,10		2,14, 6,13,54	
		1,48, 7,37,35,47,59,38		
60″	30,34,21, 5,28,23,51,41, 6,48			
exact	30,34,21, 5,28,23,51,40,39,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°38′ 0″	30,34,21, 5,28,23,51,40,39,49			
		1,48, 7,35,21,41,35, 6		
2″	30,34,22,53,35,59,13,22,14,55		2,14, 6,29,52	
		1,48, 7,33, 7,35, 5,14		7,54
4″	30,34,24,41,43,32,20,57,20, 9		2,14, 6,37,46	
		1,48, 7,30,53,28,27,28		7,54
6″	30,34,26,29,51, 3,14,25,47,37		2,14, 6,45,40	
		1,48, 7,28,39,21,41,48		7,54
8″	30,34,28,17,58,31,53,47,29,25		2,14, 6,53,34	
		1,48, 7,26,25,14,48,14		7,54
10″	30,34,30, 6, 5,58,19, 2,17,39		2,14, 7, 1,28	
		1,48, 7,24,11, 7,46,46		7,54
12″	30,34,31,54,13,22,30,10, 4,25		2,14, 7, 9,22	
		1,48, 7,21,57, 0,37,24		7,54
14″	30,34,33,42,20,44,27,10,41,49		2,14, 7,17,16	
		1,48, 7,19,42,53,20, 8		7,54
16″	30,34,35,30,28, 4,10, 4, 1,57		2,14, 7,25,10	
		1,48, 7,17,28,45,54,58		7,54
18″	30,34,37,18,35,21,38,49,56,55		2,14, 7,33, 4	
		1,48, 7,15,14,38,21,54		7,54
20″	30,34,39, 6,42,36,53,28,18,49		2,14, 7,40,58	
		1,48, 7,13, 0,30,40,56		7,54
22″	30,34,40,54,49,49,53,58,59,45		2,14, 7,48,52	
		1,48, 7,10,46,22,52, 4		7,54
24″	30,34,42,42,57, 0,40,21,51,49		2,14, 7,56,46	
		1,48, 7, 8,32,14,55,18		7,54
26″	30,34,44,31, 4, 9,12,36,47, 7		2,14, 8, 4,40	
		1,48, 7, 6,18, 6,50,38		7,54
28″	30,34,46,19,11,15,30,43,37,45		2,14, 8,12,34	
		1,48, 7, 4, 3,58,38, 4		7,54
30″	30,34,48, 7,18,19,34,42,15,49		2,14, 8,20,28	
		1,48, 7, 1,49,50,17,36		7,54
32″	30,34,49,55,25,21,24,32,33,25		2,14, 8,28,22	
		1,48, 6,59,35,41,49,14		7,54
34″	30,34,51,43,32,21, 0,14,22,39		2,14, 8,36,16	
		1,48, 6,57,21,33,12,58		7,54
36″	30,34,53,31,39,18,21,47,35,37		2,14, 8,44,10	
		1,48, 6,55, 7,24,28,48		7,54
38″	30,34,55,19,46,13,29,12, 4,25		2,14, 8,52, 4	
		1,48, 6,52,53,15,36,44		7,54
40″	30,34,57, 7,53, 6,22,27,41, 9		2,14, 8,59,58	
		1,48, 6,50,39, 6,36,46		7,54
42″	30,34,58,55,59,57, 1,34,17,55		2,14, 9, 7,52	
		1,48, 6,48,24,57,28,54		7,54
44″	30,35, 0,44, 6,45,26,31,46,49		2,14, 9,15,46	
		1,48, 6,46,10,48,13, 8		7,54
46″	30,35, 2,32,13,31,37,19,59,57		2,14, 9,23,40	
		1,48, 6,43,56,38,49,28		7,54
48″	30,35, 4,20,20,15,33,58,49,25		2,14, 9,31,34	
		1,48, 6,41,42,29,17,54		7,54
50″	30,35, 6, 8,26,57,16,28, 7,19		2,14, 9,39,28	
		1,48, 6,39,28,19,38,26		7,54
52″	30,35, 7,56,33,36,44,47,45,45		2,14, 9,47,22	
		1,48, 6,37,14, 9,51, 4		7,54
54″	30,35, 9,44,40,13,58,57,36,49		2,14, 9,55,16	
		1,48, 6,34,59,59,55,48		7,54
56″	30,35,11,32,46,48,58,57,32,37		2,14,10, 3,10	
		1,48, 6,32,45,49,52,38		7,54
58″	30,35,13,20,53,21,44,47,25,15		2,14,10,11, 4	
		1,48, 6,30,31,39,41,34		
60″	30,35,15, 8,59,52,16,27, 6,49			
exact	30,35,15, 8,59,52,16,26,45,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°39′ 0″	30,35,15, 8,59,52,16,26,45,17			
		1,48, 6,28,17,29,20,27		
2″	30,35,16,57, 6,20,33,56, 5,44		2,14,10,27, 0	
		1,48, 6,26, 3,18,53,27		7,54
4″	30,35,18,45,12,46,37,14,59,11		2,14,10,34,54	
		1,48, 6,23,49, 8,18,33		7,54
6″	30,35,20,33,19,10,26,23,17,44		2,14,10,42,48	
		1,48, 6,21,34,57,35,45		7,54
8″	30,35,22,21,25,32, 1,20,53,29		2,14,10,50,42	
		1,48, 6,19,20,46,45, 3		7,54
10″	30,35,24, 9,31,51,22, 7,38,32		2,14,10,58,36	
		1,48, 6,17, 6,35,46,27		7,54
12″	30,35,25,57,38, 8,28,43,24,59		2,14,11, 6,30	
		1,48, 6,14,52,24,39,57		7,54
14″	30,35,27,45,44,23,21, 8, 4,56		2,14,11,14,24	
		1,48, 6,12,38,13,25,33		7,54
16″	30,35,29,33,50,35,59,21,30,29		2,14,11,22,18	
		1,48, 6,10,24, 2, 3,15		7,54
18″	30,35,31,21,56,46,23,23,33,44		2,14,11,30,12	
		1,48, 6, 8, 9,50,33, 3		7,54
20″	30,35,33,10, 2,54,33,14, 6,47		2,14,11,38, 6	
		1,48, 6, 5,55,38,54,57		7,54
22″	30,35,34,58, 9, 0,28,53, 1,44		2,14,11,46, 0	
		1,48, 6, 3,41,27, 8,57		7,54
24″	30,35,36,46,15, 4,10,20,10,41		2,14,11,53,54	
		1,48, 6, 1,27,15,15, 3		7,54
26″	30,35,38,34,21, 5,37,35,25,44		2,14,12, 1,48	
		1,48, 5,59,13, 3,13,15		7,54
28″	30,35,40,22,27, 4,50,38,38,59		2,14,12, 9,42	
		1,48, 5,56,58,51, 3,33		7,54
30″	30,35,42,10,33, 1,49,29,42,32		2,14,12,17,36	
		1,48, 5,54,44,38,45,57		7,54
32″	30,35,43,58,38,56,34, 8,28,29		2,14,12,25,30	
		1,48, 5,52,30,26,20,27		7,54
34″	30,35,45,46,44,49, 4,34,48,56		2,14,12,33,24	
		1,48, 5,50,16,13,47, 3		7,54
36″	30,35,47,34,50,39,20,48,35,59		2,14,12,41,18	
		1,48, 5,48, 2, 1, 5,45		7,54
38″	30,35,49,22,56,27,22,49,41,44		2,14,12,49,12	
		1,48, 5,45,47,48,16,33		7,54
40″	30,35,51,11, 2,13,10,37,58,17		2,14,12,57, 6	
		1,48, 5,43,33,35,19,27		7,54
42″	30,35,52,59, 7,56,44,13,17,44		2,14,13, 5, 0	
		1,48, 5,41,19,22,14,27		7,54
44″	30,35,54,47,13,38, 3,35,32,11		2,14,13,12,54	
		1,48, 5,39, 5, 9, 1,33		7,54
46″	30,35,56,35,19,17, 8,44,33,44		2,14,13,20,48	
		1,48, 5,36,50,55,40,45		7,54
48″	30,35,58,23,24,53,59,40,14,29		2,14,13,28,42	
		1,48, 5,34,36,42,12, 3		7,54
50″	30,36, 0,11,30,28,36,22,26,32		2,14,13,36,36	
		1,48, 5,32,22,28,35,27		7,54
52″	30,36, 1,59,36, 0,58,51, 1,59		2,14,13,44,30	
		1,48, 5,30, 8,14,50,57		7,54
54″	30,36, 3,47,41,31, 7, 5,52,56		2,14,13,52,24	
		1,48, 5,27,54, 0,58,33		7,54
56″	30,36, 5,35,46,59, 1, 6,51,29		2,14,14, 0,18	
		1,48, 5,25,39,46,58,15		7,54
58″	30,36, 7,23,52,24,40,53,49,44		2,14,14, 8,12	
		1,48, 5,23,25,32,50, 3		
60″	30,36, 9,11,57,48, 6,26,39,47			
exact	30,36, 9,11,57,48, 6,26,26,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°40′ 0″	30,36, 9,11,57,48, 6,26,26,19			
		1,48, 5,21,11,18,32,35		
2″	30,36,11, 0, 3, 9,17,44,58,54		2,14,14,24, 5	
		1,48, 5,18,57, 4, 8,30		7,54
4″	30,36,12,48, 8,28,14,49, 7,24		2,14,14,31,59	
		1,48, 5,16,42,49,36,31		7,54
6″	30,36,14,36,13,44,57,38,43,55		2,14,14,39,53	
		1,48, 5,14,28,34,56,38		7,54
8″	30,36,16,24,18,59,26,13,40,33		2,14,14,47,47	
		1,48, 5,12,14,20, 8,51		7,54
10″	30,36,18,12,24,11,40,33,49,24		2,14,14,55,41	
		1,48, 5,10, 0, 5,13,10		7,54
12″	30,36,20, 0,29,21,40,39, 2,34		2,14,15, 3,35	
		1,48, 5, 7,45,50, 9,35		7,54
14″	30,36,21,48,34,29,26,29,12, 9		2,14,15,11,29	
		1,48, 5, 5,31,34,58, 6		7,54
16″	30,36,23,36,39,34,58, 4,10,15		2,14,15,19,23	
		1,48, 5, 3,17,19,38,43		7,54
18″	30,36,25,24,44,38,15,23,48,58		2,14,15,27,17	
		1,48, 5, 1, 3, 4,11,26		7,54
20″	30,36,27,12,49,39,18,28, 0,24		2,14,15,35,11	
		1,48, 4,58,48,48,36,15		7,54
22″	30,36,29, 0,54,38, 7,16,36,39		2,14,15,43, 5	
		1,48, 4,56,34,32,53,10		7,54
24″	30,36,30,48,59,34,41,49,29,49		2,14,15,50,59	
		1,48, 4,54,20,17, 2,11		7,54
26″	30,36,32,37, 4,29, 2, 6,32, 0		2,14,15,58,53	
		1,48, 4,52, 6, 1, 3,18		7,54
28″	30,36,34,25, 9,21, 8, 7,35,18		2,14,16, 6,47	
		1,48, 4,49,51,44,56,31		7,54
30″	30,36,36,13,14,10,59,52,31,49		2,14,16,14,41	
		1,48, 4,47,37,28,41,50		7,54
32″	30,36,38, 1,18,58,37,21,13,39		2,14,16,22,35	
		1,48, 4,45,23,12,19,15		7,54
34″	30,36,39,49,23,44, 0,33,32,54		2,14,16,30,29	
		1,48, 4,43, 8,55,48,46		7,54
36″	30,36,41,37,28,27, 9,29,21,40		2,14,16,38,23	
		1,48, 4,40,54,39,10,23		7,54
38″	30,36,43,25,33, 8, 4, 8,32, 3		2,14,16,46,17	
		1,48, 4,38,40,22,24, 6		7,54
40″	30,36,45,13,37,46,44,30,56, 9		2,14,16,54,11	
		1,48, 4,36,26, 5,29,55		7,54
42″	30,36,47, 1,42,23,10,36,26, 4		2,14,17, 2, 5	
		1,48, 4,34,11,48,27,50		7,54
44″	30,36,48,49,46,57,22,24,53,54		2,14,17, 9,59	
		1,48, 4,31,57,31,17,51		7,54
46″	30,36,50,37,51,29,19,56,11,45		2,14,17,17,53	
		1,48, 4,29,43,13,59,58		7,54
48″	30,36,52,25,55,59, 3,10,11,43		2,14,17,25,47	
		1,48, 4,27,28,56,34,11		7,54
50″	30,36,54,14, 0,26,32, 6,45,54		2,14,17,33,41	
		1,48, 4,25,14,39, 0,30		7,54
52″	30,36,56, 2, 4,51,46,45,46,24		2,14,17,41,35	
		1,48, 4,23, 0,21,18,55		7,54
54″	30,36,57,50, 9,14,47, 7, 5,19		2,14,17,49,29	
		1,48, 4,20,46, 3,29,26		7,54
56″	30,36,59,38,13,35,33,10,34,45		2,14,17,57,23	
		1,48, 4,18,31,45,32, 3		7,54
58″	30,37, 1,26,17,54, 4,56, 6,48		2,14,18, 5,17	
		1,48, 4,16,17,27,26,46		
60″	30,37, 3,14,22,10,22,23,33,34			
exact	30,37, 3,14,22,10,22,23,24,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°41′ 0″	30,37, 3,14,22,10,22,23,24,21	1,48, 4,14, 3, 9,12,43		
2″	30,37, 5, 2,26,24,25,32,37, 4	1,48, 4,11,48,50,51,35	2,14,18,21, 8	7,54
4″	30,37, 6,50,30,36,14,23,28,39	1,48, 4, 9,34,32,22,33	2,14,18,29, 2	7,54
6″	30,37, 8,38,34,45,48,55,51,12	1,48, 4, 7,20,13,45,37	2,14,18,36,56	7,54
8″	30,37,10,26,38,53, 9, 9,36,49	1,48, 4, 5, 5,55, 0,47	2,14,18,44,50	7,54
10″	30,37,12,14,42,58,15, 4,37,36	1,48, 4, 2,51,36, 8, 3	2,14,18,52,44	7,54
12″	30,37,14, 2,47, 1, 6,40,45,39	1,48, 4, 0,37,17, 7,25	2,14,19, 0,38	7,54
14″	30,37,15,50,51, 1,43,57,53, 4	1,48, 3,58,22,57,58,53	2,14,19, 8,32	7,54
16″	30,37,17,38,55, 0, 6,55,51,57	1,48, 3,56, 8,38,42,27	2,14,19,16,26	7,54
18″	30,37,19,26,58,56,15,34,34,24	1,48, 3,53,54,19,18, 7	2,14,19,24,20	7,54
20″	30,37,21,15, 2,50, 9,53,52,31	1,48, 3,51,39,59,45,53	2,14,19,32,14	7,54
22″	30,37,23, 3, 6,41,49,53,38,24	1,48, 3,49,25,40, 5,45	2,14,19,40, 8	7,54
24″	30,37,24,51,10,31,15,33,44, 9	1,48, 3,47,11,20,17,43	2,14,19,48, 2	7,54
26″	30,37,26,39,14,18,26,54, 1,52	1,48, 3,44,57, 0,21,47	2,14,19,55,56	7,54
28″	30,37,28,27,18, 3,23,54,23,39	1,48, 3,42,42,40,17,57	2,14,20, 3,50	7,54
30″	30,37,30,15,21,46, 6,34,41,36	1,48, 3,40,28,20, 6,13	2,14,20,11,44	7,54
32″	30,37,32, 3,25,26,34,54,47,49	1,48, 3,38,13,59,46,35	2,14,20,19,38	7,54
34″	30,37,33,51,29, 4,48,54,34,24	1,48, 3,35,59,39,19, 3	2,14,20,27,32	7,54
36″	30,37,35,39,32,40,48,33,53,27	1,48, 3,33,45,18,43,37	2,14,20,35,26	7,54
38″	30,37,37,27,36,14,33,52,37, 4	1,48, 3,31,30,58, 0,17	2,14,20,43,20	7,54
40″	30,37,39,15,39,46, 4,50,37,21	1,48, 3,29,16,37, 9, 3	2,14,20,51,14	7,54
42″	30,37,41, 3,43,15,21,27,46,24	1,48, 3,27, 2,16, 9,55	2,14,20,59, 8	7,54
44″	30,37,42,51,46,42,23,43,56,19	1,48, 3,24,47,55, 2,53	2,14,21, 7, 2	7,54
46″	30,37,44,39,50, 7,11,38,59,12	1,48, 3,22,33,33,47,57	2,14,21,14,56	7,54
48″	30,37,46,27,53,29,45,12,47, 9	1,48, 3,20,19,12,25, 7	2,14,21,22,50	7,54
50″	30,37,48,15,56,50, 4,25,12,16	1,48, 3,18, 4,50,54,23	2,14,21,30,44	7,54
52″	30,37,50, 4, 0, 8, 9,16, 6,39	1,48, 3,15,50,29,15,45	2,14,21,38,38	7,54
54″	30,37,51,52, 3,23,59,45,22,24	1,48, 3,13,36, 7,29,13	2,14,21,46,32	7,54
56″	30,37,53,40, 6,37,35,52,51,37	1,48, 3,11,21,45,34,47	2,14,21,54,26	7,54
58″	30,37,55,28, 9,48,57,38,26,24	1,48, 3, 9, 7,23,32,27	2,14,22, 2,20	
60″	30,37,57,16,12,58, 5, 1,58,51			
exact	30,37,57,16,12,58, 5, 1,57,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°42′ 0″	30,37,57,16,12,58, 5, 1,57,38			
		1,48, 3, 6,53, 1,22, 6		
2″	30,37,59, 4,16, 4,58, 3,19,44		2,14,22,18, 8	
		1,48, 3, 4,38,39, 3,58		7,54
4″	30,38, 0,52,19, 9,36,42,23,42		2,14,22,26, 2	
		1,48, 3, 2,24,16,37,56		7,54
6″	30,38, 2,40,22,12, 0,59, 1,38		2,14,22,33,56	
		1,48, 3, 0, 9,54, 4, 0		7,54
8″	30,38, 4,28,25,12,10,53, 5,38		2,14,22,41,50	
		1,48, 2,57,55,31,22,10		7,54
10″	30,38, 6,16,28,10, 6,24,27,48		2,14,22,49,44	
		1,48, 2,55,41, 8,32,26		7,54
12″	30,38, 8, 4,31, 5,47,33, 0,14		2,14,22,57,38	
		1,48, 2,53,26,45,34,48		7,54
14″	30,38, 9,52,33,59,14,18,35, 2		2,14,23, 5,32	
		1,48, 2,51,12,22,29,16		7,54
16″	30,38,11,40,36,50,26,41, 4,18		2,14,23,13,26	
		1,48, 2,48,57,59,15,50		7,54
18″	30,38,13,28,39,39,24,40,20, 8		2,14,23,21,20	
		1,48, 2,46,43,35,54,30		7,54
20″	30,38,15,16,42,26, 8,16,14,38		2,14,23,29,14	
		1,48, 2,44,29,12,25,16		7,54
22″	30,38,17, 4,45,10,37,28,39,54		2,14,23,37, 8	
		1,48, 2,42,14,48,48, 8		7,54
24″	30,38,18,52,47,52,52,17,28, 2		2,14,23,45, 2	
		1,48, 2,40, 0,25, 3, 6		7,54
26″	30,38,20,40,50,32,52,42,31, 8		2,14,23,52,56	
		1,48, 2,37,46, 1,10,10		7,54
28″	30,38,22,28,53,10,38,43,41,18		2,14,24, 0,50	
		1,48, 2,35,31,37, 9,20		7,54
30″	30,38,24,16,55,46,10,20,50,38		2,14,24, 8,44	
		1,48, 2,33,17,13, 0,36		7,54
32″	30,38,26, 4,58,19,27,33,51,14		2,14,24,16,38	
		1,48, 2,31, 2,48,43,58		7,54
34″	30,38,27,53, 0,50,30,22,35,12		2,14,24,24,32	
		1,48, 2,28,48,24,19,26		7,54
36″	30,38,29,41, 3,19,18,46,54,38		2,14,24,32,26	
		1,48, 2,26,33,59,47, 0		7,54
38″	30,38,31,29, 5,45,52,46,41,38		2,14,24,40,20	
		1,48, 2,24,19,35, 6,40		7,54
40″	30,38,33,17, 8,10,12,21,48,18		2,14,24,48,14	
		1,48, 2,22, 5,10,18,26		7,54
42″	30,38,35, 5,10,32,17,32, 6,44		2,14,24,56, 8	
		1,48, 2,19,50,45,22,18		7,54
44″	30,38,36,53,12,52, 8,17,29, 2		2,14,25, 4, 2	
		1,48, 2,17,36,20,18,16		7,54
46″	30,38,38,41,15, 9,44,37,47,18		2,14,25,11,56	
		1,48, 2,15,21,55, 6,20		7,54
48″	30,38,40,29,17,25, 6,32,53,38		2,14,25,19,50	
		1,48, 2,13, 7,29,46,30		7,54
50″	30,38,42,17,19,38,14, 2,40, 8		2,14,25,27,44	
		1,48, 2,10,53, 4,18,46		7,54
52″	30,38,44, 5,21,49, 7, 6,58,54		2,14,25,35,38	
		1,48, 2, 8,38,38,43, 8		7,54
54″	30,38,45,53,23,57,45,45,42, 2		2,14,25,43,32	
		1,48, 2, 6,24,12,59,36		7,54
56″	30,38,47,41,26, 4, 9,58,41,38		2,14,25,51,26	
		1,48, 2, 4, 9,47, 8,10		7,54
58″	30,38,49,29,28, 8,19,45,49,48		2,14,25,59,20	
		1,48, 2, 1,55,21, 8,50		
60″	30,38,51,17,30,10,15, 6,58,38			
exact	30,38,51,17,30,10,15, 7, 1,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°43′ 0″	30,38,51,17,30,10,15, 7, 1,11	1,48, 1,59,40,55, 1,57		
2″	30,38,53, 5,32, 9,56, 2, 3, 8	1,48, 1,57,26,28,46,51	2,14,26,15, 6	7,54
4″	30,38,54,53,34, 7,22,30,49,59	1,48, 1,55,12, 2,23,51	2,14,26,23, 0	7,54
6″	30,38,56,41,36, 2,34,33,13,50	1,48, 1,52,57,35,52,57	2,14,26,30,54	7,54
8″	30,38,58,29,37,55,32, 9, 6,47	1,48, 1,50,43, 9,14, 9	2,14,26,38,48	7,54
10″	30,39, 0,17,39,46,15,18,20,56	1,48, 1,48,28,42,27,27	2,14,26,46,42	7,54
12″	30,39, 2, 5,41,34,44, 0,48,23	1,48, 1,46,14,15,32,51	2,14,26,54,36	7,54
14″	30,39, 3,53,43,20,58,16,21,14	1,48, 1,43,59,48,30,21	2,14,27, 2,30	7,54
16″	30,39, 5,41,45, 4,58, 4,51,35	1,48, 1,41,45,21,19,57	2,14,27,10,24	7,54
18″	30,39, 7,29,46,46,43,26,11,32	1,48, 1,39,30,54, 1,39	2,14,27,18,18	7,54
20″	30,39, 9,17,48,26,14,20,13,11	1,48, 1,37,16,26,35,27	2,14,27,26,12	7,54
22″	30,39,11, 5,50, 3,30,46,48,38	1,48, 1,35, 1,59, 1,21	2,14,27,34, 6	7,54
24″	30,39,12,53,51,38,32,45,49,59	1,48, 1,32,47,31,19,21	2,14,27,42, 0	7,54
26″	30,39,14,41,53,11,20,17, 9,20	1,48, 1,30,33, 3,29,27	2,14,27,49,54	7,54
28″	30,39,16,29,54,41,53,20,38,47	1,48, 1,28,18,35,31,39	2,14,27,57,48	7,54
30″	30,39,18,17,56,10,11,56,10,26	1,48, 1,26, 4, 7,25,57	2,14,28, 5,42	7,54
32″	30,39,20, 5,57,36,16, 3,36,23	1,48, 1,23,49,39,12,21	2,14,28,13,36	7,54
34″	30,39,21,53,59, 0, 5,42,48,44	1,48, 1,21,35,10,50,51	2,14,28,21,30	7,54
36″	30,39,23,42, 0,21,40,53,39,35	1,48, 1,19,20,42,21,27	2,14,28,29,24	7,54
38″	30,39,25,30, 1,41, 1,36, 1, 2	1,48, 1,17, 6,13,44, 9	2,14,28,37,18	7,54
40″	30,39,27,18, 2,58, 7,49,45,11	1,48, 1,14,51,44,58,57	2,14,28,45,12	7,54
42″	30,39,29, 6, 4,12,59,34,44, 8	1,48, 1,12,37,16, 5,51	2,14,28,53, 6	7,54
44″	30,39,30,54, 5,25,36,50,49,59	1,48, 1,10,22,47, 4,51	2,14,29, 1, 0	7,54
46″	30,39,32,42, 6,35,59,37,54,50	1,48, 1, 8, 8,17,55,57	2,14,29, 8,54	7,54
48″	30,39,34,30, 7,44, 7,55,50,47	1,48, 1, 5,53,48,39, 9	2,14,29,16,48	7,54
50″	30,39,36,18, 8,50, 1,44,29,56	1,48, 1, 3,39,19,14,27	2,14,29,24,42	7,54
52″	30,39,38, 6, 9,53,41, 3,44,23	1,48, 1, 1,24,49,41,51	2,14,29,32,36	7,54
54″	30,39,39,54,10,55, 5,53,26,14	1,48, 0,59,10,20, 1,21	2,14,29,40,30	7,54
56″	30,39,41,42,11,54,16,13,27,35	1,48, 0,56,55,50,12,57	2,14,29,48,24	7,54
58″	30,39,43,30,12,51,12, 3,40,32	1,48, 0,54,41,20,16,39	2,14,29,56,18	
60″	30,39,45,18,13,45,53,23,57,11			
exact	30,39,45,18,13,45,53,24, 6,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°44′ 0″	30,39,45,18,13,45,53,24, 6,53			
		1,48, 0,52,26,50,13,31		
2″	30,39,47, 6,14,38,20,14,20,24		2,14,30,12, 1	
		1,48, 0,50,12,20, 1,30		7,54
4″	30,39,48,54,15,28,32,34,21,54		2,14,30,19,55	
		1,48, 0,47,57,49,41,35		7,54
6″	30,39,50,42,16,16,30,24, 3,29		2,14,30,27,49	
		1,48, 0,45,43,19,13,46		7,54
8″	30,39,52,30,17, 2,13,43,17,15		2,14,30,35,43	
		1,48, 0,43,28,48,38, 3		7,54
10″	30,39,54,18,17,45,42,31,55,18		2,14,30,43,37	
		1,48, 0,41,14,17,54,26		7,54
12″	30,39,56, 6,18,26,56,49,49,44		2,14,30,51,31	
		1,48, 0,38,59,47, 2,55		7,54
14″	30,39,57,54,19, 5,56,36,52,39		2,14,30,59,25	
		1,48, 0,36,45,16, 3,30		7,54
16″	30,39,59,42,19,42,41,52,56, 9		2,14,31, 7,19	
		1,48, 0,34,30,44,56,11		7,54
18″	30,40, 1,30,20,17,12,37,52,20		2,14,31,15,13	
		1,48, 0,32,16,13,40,58		7,54
20″	30,40, 3,18,20,49,28,51,33,18		2,14,31,23, 7	
		1,48, 0,30, 1,42,17,51		7,54
22″	30,40, 5, 6,21,19,30,33,51, 9		2,14,31,31, 1	
		1,48, 0,27,47,10,46,50		7,54
24″	30,40, 6,54,21,47,17,44,37,59		2,14,31,38,55	
		1,48, 0,25,32,39, 7,55		7,54
26″	30,40, 8,42,22,12,50,23,45,54		2,14,31,46,49	
		1,48, 0,23,18, 7,21, 6		7,54
28″	30,40,10,30,22,36, 8,31, 7, 0		2,14,31,54,43	
		1,48, 0,21, 3,35,26,23		7,54
30″	30,40,12,18,22,57,12, 6,33,23		2,14,32, 2,37	
		1,48, 0,18,49, 3,23,46		7,54
32″	30,40,14, 6,23,16, 1, 9,57, 9		2,14,32,10,31	
		1,48, 0,16,34,31,13,15		7,54
34″	30,40,15,54,23,32,35,41,10,24		2,14,32,18,25	
		1,48, 0,14,19,58,54,50		7,54
36″	30,40,17,42,23,46,55,40, 5,14		2,14,32,26,19	
		1,48, 0,12, 5,26,28,31		7,54
38″	30,40,19,30,23,59, 1, 6,33,45		2,14,32,34,13	
		1,48, 0, 9,50,53,54,18		7,54
40″	30,40,21,18,24, 8,52, 0,28, 3		2,14,32,42, 7	
		1,48, 0, 7,36,21,12,11		7,54
42″	30,40,23, 6,24,16,28,21,40,14		2,14,32,50, 1	
		1,48, 0, 5,21,48,22,10		7,54
44″	30,40,24,54,24,21,50,10, 2,24		2,14,32,57,55	
		1,48, 0, 3, 7,15,24,15		7,54
46″	30,40,26,42,24,24,57,25,26,39		2,14,33, 5,49	
		1,48, 0, 0,52,42,18,26		7,54
48″	30,40,28,30,24,25,50, 7,45, 5		2,14,33,13,43	
		1,47,59,58,38, 9, 4,43		7,54
50″	30,40,30,18,24,24,28,16,49,48		2,14,33,21,37	
		1,47,59,56,23,35,43, 6		7,54
52″	30,40,32, 6,24,20,51,52,32,54		2,14,33,29,31	
		1,47,59,54, 9, 2,13,35		7,54
54″	30,40,33,54,24,15, 0,54,46,29		2,14,33,37,25	
		1,47,59,51,54,28,36,10		7,54
56″	30,40,35,42,24, 6,55,23,22,39		2,14,33,45,19	
		1,47,59,49,39,54,50,51		7,54
58″	30,40,37,30,23,56,35,18,13,30		2,14,33,53,13	
		1,47,59,47,25,20,57,38		
60″	30,40,39,18,23,44, 0,39,11, 8			
exact	30,40,39,18,23,44, 0,39,23,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°45′ 0″	30,40,39,18,23,44, 0,39,23,29			
		1,47,59,45,10,46,57,59		
2″	30,40,41, 6,23,29,11,26,21,28		2,14,34, 8,54	
		1,47,59,42,56,12,49, 5		7,54
4″	30,40,42,54,23,12, 7,39,10,33		2,14,34,16,48	
		1,47,59,40,41,38,32,17		7,54
6″	30,40,44,42,22,52,49,17,42,50		2,14,34,24,42	
		1,47,59,38,27, 4, 7,35		7,54
8″	30,40,46,30,22,31,16,21,50,25		2,14,34,32,36	
		1,47,59,36,12,29,34,59		7,54
10″	30,40,48,18,22, 7,28,51,25,24		2,14,34,40,30	
		1,47,59,33,57,54,54,29		7,54
12″	30,40,50, 6,21,41,26,46,19,53		2,14,34,48,24	
		1,47,59,31,43,20, 6, 5		7,54
14″	30,40,51,54,21,13,10, 6,25,58		2,14,34,56,18	
		1,47,59,29,28,45, 9,47		7,54
16″	30,40,53,42,20,42,38,51,35,45		2,14,35, 4,12	
		1,47,59,27,14,10, 5,35		7,54
18″	30,40,55,30,20, 9,53, 1,41,20		2,14,35,12, 6	
		1,47,59,24,59,34,53,29		7,54
20″	30,40,57,18,19,34,52,36,34,49		2,14,35,20, 0	
		1,47,59,22,44,59,33,29		7,54
22″	30,40,59, 6,18,57,37,36, 8,18		2,14,35,27,54	
		1,47,59,20,30,24, 5,35		7,54
24″	30,41, 0,54,18,18, 8, 0,13,53		2,14,35,35,48	
		1,47,59,18,15,48,29,47		7,54
26″	30,41, 2,42,17,36,23,48,43,40		2,14,35,43,42	
		1,47,59,16, 1,12,46, 5		7,54
28″	30,41, 4,30,16,52,25, 1,29,45		2,14,35,51,36	
		1,47,59,13,46,36,54,29		7,54
30″	30,41, 6,18,16, 6,11,38,24,14		2,14,35,59,30	
		1,47,59,11,32, 0,54,59		7,54
32″	30,41, 8, 6,15,17,43,39,19,13		2,14,36, 7,24	
		1,47,59, 9,17,24,47,35		7,54
34″	30,41, 9,54,14,27, 1, 4, 6,48		2,14,36,15,18	
		1,47,59, 7, 2,48,32,17		7,54
36″	30,41,11,42,13,34, 3,52,39, 5		2,14,36,23,12	
		1,47,59, 4,48,12, 9, 5		7,54
38″	30,41,13,30,12,38,52, 4,48,10		2,14,36,31, 6	
		1,47,59, 2,33,35,37,59		7,54
40″	30,41,15,18,11,41,25,40,26, 9		2,14,36,39, 0	
		1,47,59, 0,18,58,58,59		7,54
42″	30,41,17, 6,10,41,44,39,25, 8		2,14,36,46,54	
		1,47,58,58, 4,22,12, 5		7,54
44″	30,41,18,54, 9,39,49, 1,37,13		2,14,36,54,48	
		1,47,58,55,49,45,17,17		7,54
46″	30,41,20,42, 8,35,38,46,54,30		2,14,37, 2,42	
		1,47,58,53,35, 8,14,35		7,54
48″	30,41,22,30, 7,29,13,55, 9, 5		2,14,37,10,36	
		1,47,58,51,20,31, 3,59		7,54
50″	30,41,24,18, 6,20,34,26,13, 4		2,14,37,18,30	
		1,47,58,49, 5,53,45,29		7,54
52″	30,41,26, 6, 5, 9,40,19,58,33		2,14,37,26,24	
		1,47,58,46,51,16,19, 5		7,54
54″	30,41,27,54, 3,56,31,36,17,38		2,14,37,34,18	
		1,47,58,44,36,38,44,47		7,54
56″	30,41,29,42, 2,41, 8,15, 2,25		2,14,37,42,12	
		1,47,58,42,22, 1, 2,35		7,54
58″	30,41,31,30, 1,23,30,16, 5, 0		2,14,37,50, 6	
		1,47,58,40, 7,23,12,29		
60″	30,41,33,18, 0, 3,37,39,17,29			
exact	30,41,33,18, 0, 3,37,39,36,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°46′ 0″	30,41,33,18, 0, 3,37,39,36,36	1,47,58,37,52,45,16,37		
2″	30,41,35, 5,58,41,30,24,53,13	1,47,58,35,38, 7,10,52	2,14,38, 5,45	7,54
4″	30,41,36,53,57,17, 8,32, 4, 5	1,47,58,33,23,28,57,13	2,14,38,13,39	7,54
6″	30,41,38,41,55,50,32, 1, 1,18	1,47,58,31, 8,50,35,40	2,14,38,21,33	7,54
8″	30,41,40,29,54,21,40,51,36,58	1,47,58,28,54,12, 6,13	2,14,38,29,27	7,54
10″	30,41,42,17,52,50,35, 3,43,11	1,47,58,26,39,33,28,52	2,14,38,37,21	7,54
12″	30,41,44, 5,51,17,14,37,12, 3	1,47,58,24,24,54,43,37	2,14,38,45,15	7,54
14″	30,41,45,53,49,41,39,31,55,40	1,47,58,22,10,15,50,28	2,14,38,53, 9	7,54
16″	30,41,47,41,48, 3,49,47,46, 8	1,47,58,19,55,36,49,25	2,14,39, 1, 3	7,54
18″	30,41,49,29,46,23,45,24,35,33	1,47,58,17,40,57,40,28	2,14,39, 8,57	7,54
20″	30,41,51,17,44,41,26,22,16, 1	1,47,58,15,26,18,23,37	2,14,39,16,51	7,54
22″	30,41,53, 5,42,56,52,40,39,38	1,47,58,13,11,38,58,52	2,14,39,24,45	7,54
24″	30,41,54,53,41,10, 4,19,38,30	1,47,58,10,56,59,26,13	2,14,39,32,39	7,54
26″	30,41,56,41,39,21, 1,19, 4,43	1,47,58, 8,42,19,45,40	2,14,39,40,33	7,54
28″	30,41,58,29,37,29,43,38,50,23	1,47,58, 6,27,39,57,13	2,14,39,48,27	7,54
30″	30,42, 0,17,35,36,11,18,47,36	1,47,58, 4,13, 0, 0,52	2,14,39,56,21	7,54
32″	30,42, 2, 5,33,40,24,18,48,28	1,47,58, 1,58,19,56,37	2,14,40, 4,15	7,54
34″	30,42, 3,53,31,42,22,38,45, 5	1,47,57,59,43,39,44,28	2,14,40,12, 9	7,54
36″	30,42, 5,41,29,42, 6,18,29,33	1,47,57,57,28,59,24,25	2,14,40,20, 3	7,54
38″	30,42, 7,29,27,39,35,17,53,58	1,47,57,55,14,18,56,28	2,14,40,27,57	7,54
40″	30,42, 9,17,25,34,49,36,50,26	1,47,57,52,59,38,20,37	2,14,40,35,51	7,54
42″	30,42,11, 5,23,27,49,15,11, 3	1,47,57,50,44,57,36,52	2,14,40,43,45	7,54
44″	30,42,12,53,21,18,34,12,47,55	1,47,57,48,30,16,45,13	2,14,40,51,39	7,54
46″	30,42,14,41,19, 7, 4,29,33, 8	1,47,57,46,15,35,45,40	2,14,40,59,33	7,54
48″	30,42,16,29,16,53,20, 5,18,48	1,47,57,44, 0,54,38,13	2,14,41, 7,27	7,54
50″	30,42,18,17,14,37,20,59,57, 1	1,47,57,41,46,13,22,52	2,14,41,15,21	7,54
52″	30,42,20, 5,12,19, 7,13,19,53	1,47,57,39,31,31,59,37	2,14,41,23,15	7,54
54″	30,42,21,53, 9,58,38,45,19,30	1,47,57,37,16,50,28,28	2,14,41,31, 9	7,54
56″	30,42,23,41, 7,35,55,35,47,58	1,47,57,35, 2, 8,49,25	2,14,41,39, 3	7,54
58″	30,42,25,29, 5,10,57,44,37,23	1,47,57,32,47,27, 2,28	2,14,41,46,57	
60″	30,42,27,17, 2,43,45,11,39,51			
exact	30,42,27,17, 2,43,45,12, 8,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°47′ 0″	30,42,27,17, 2,43,45,12, 8,45			
		1,47,57,30,32,45,10,38		
2″	30,42,29, 5, 0,14,17,57,19,23		2,14,42, 2,33	
		1,47,57,28,18, 3, 8, 5		7,54
4″	30,42,30,52,57,42,36, 0,27,28		2,14,42,10,27	
		1,47,57,26, 3,20,57,38		7,54
6″	30,42,32,40,55, 8,39,21,25, 6		2,14,42,18,21	
		1,47,57,23,48,38,39,17		7,54
8″	30,42,34,28,52,32,28, 0, 4,23		2,14,42,26,15	
		1,47,57,21,33,56,13, 2		7,54
10″	30,42,36,16,49,54, 1,56,17,25		2,14,42,34, 9	
		1,47,57,19,19,13,38,53		7,54
12″	30,42,38, 4,47,13,21, 9,56,18		2,14,42,42, 3	
		1,47,57,17, 4,30,56,50		7,54
14″	30,42,39,52,44,30,25,40,53, 8		2,14,42,49,57	
		1,47,57,14,49,48, 6,53		7,54
16″	30,42,41,40,41,45,15,29, 0, 1		2,14,42,57,51	
		1,47,57,12,35, 5, 9, 2		7,54
18″	30,42,43,28,38,57,50,34, 9, 3		2,14,43, 5,45	
		1,47,57,10,20,22, 3,17		7,54
20″	30,42,45,16,36, 8,10,56,12,20		2,14,43,13,39	
		1,47,57, 8, 5,38,49,38		7,54
22″	30,42,47, 4,33,16,16,35, 1,58		2,14,43,21,33	
		1,47,57, 5,50,55,28, 5		7,54
24″	30,42,48,52,30,22, 7,30,30, 3		2,14,43,29,27	
		1,47,57, 3,36,11,58,38		7,54
26″	30,42,50,40,27,25,43,42,28,41		2,14,43,37,21	
		1,47,57, 1,21,28,21,17		7,54
28″	30,42,52,28,24,27, 5,10,49,58		2,14,43,45,15	
		1,47,56,59, 6,44,36, 2		7,54
30″	30,42,54,16,21,26,11,55,26, 0		2,14,43,53, 9	
		1,47,56,56,52, 0,42,53		7,54
32″	30,42,56, 4,18,23, 3,56, 8,53		2,14,44, 1, 3	
		1,47,56,54,37,16,41,50		7,54
34″	30,42,57,52,15,17,41,12,50,43		2,14,44, 8,57	
		1,47,56,52,22,32,32,53		7,54
36″	30,42,59,40,12,10, 3,45,23,36		2,14,44,16,51	
		1,47,56,50, 7,48,16, 2		7,54
38″	30,43, 1,28, 9, 0,11,33,39,38		2,14,44,24,45	
		1,47,56,47,53, 3,51,17		7,54
40″	30,43, 3,16, 5,48, 4,37,30,55		2,14,44,32,39	
		1,47,56,45,38,19,18,38		7,54
42″	30,43, 5, 4, 2,33,42,56,49,33		2,14,44,40,33	
		1,47,56,43,23,34,38, 5		7,54
44″	30,43, 6,51,59,17, 6,31,27,38		2,14,44,48,27	
		1,47,56,41, 8,49,49,38		7,54
46″	30,43, 8,39,55,58,15,21,17,16		2,14,44,56,21	
		1,47,56,38,54, 4,53,17		7,54
48″	30,43,10,27,52,37, 9,26,10,33		2,14,45, 4,15	
		1,47,56,36,39,19,49, 2		7,54
50″	30,43,12,15,49,13,48,45,59,35		2,14,45,12, 9	
		1,47,56,34,24,34,36,53		7,54
52″	30,43,14, 3,45,48,13,20,36,28		2,14,45,20, 3	
		1,47,56,32, 9,49,16,50		7,54
54″	30,43,15,51,42,20,23, 9,53,18		2,14,45,27,57	
		1,47,56,29,55, 3,48,53		7,54
56″	30,43,17,39,38,50,18,13,42,11		2,14,45,35,51	
		1,47,56,27,40,18,13, 2		7,54
58″	30,43,19,27,35,17,58,31,55,13		2,14,45,43,45	
		1,47,56,25,25,32,29,17		
60″	30,43,21,15,31,43,24, 4,24,30			
exact	30,43,21,15,31,43,24, 4,59,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°48′ 0″	30,43,21,15,31,43,24, 4,59,20			
		1,47,56,23,10,46,41,16		
2″	30,43,23, 3,28, 6,34,51,40,36		2,14,45,59,18	
		1,47,56,20,56, 0,41,58		7,53
4″	30,43,24,51,24,27,30,52,22,34		2,14,46, 7,11	
		1,47,56,18,41,14,34,47		7,53
6″	30,43,26,39,20,46,12, 6,57,21		2,14,46,15, 4	
		1,47,56,16,26,28,19,43		7,53
8″	30,43,28,27,17, 2,38,35,17, 4		2,14,46,22,57	
		1,47,56,14,11,41,56,46		7,53
10″	30,43,30,15,13,16,50,17,13,50		2,14,46,30,50	
		1,47,56,11,56,55,25,56		7,53
12″	30,43,32, 3, 9,28,47,12,39,46		2,14,46,38,43	
		1,47,56, 9,42, 8,47,13		7,53
14″	30,43,33,51, 5,38,29,21,26,59		2,14,46,46,36	
		1,47,56, 7,27,22, 0,37		7,53
16″	30,43,35,39, 1,45,56,43,27,36		2,14,46,54,29	
		1,47,56, 5,12,35, 6, 8		7,53
18″	30,43,37,26,57,51, 9,18,33,44		2,14,47, 2,22	
		1,47,56, 2,57,48, 3,46		7,53
20″	30,43,39,14,53,54, 7, 6,37,30		2,14,47,10,15	
		1,47,56, 0,43, 0,53,31		7,53
22″	30,43,41, 2,49,54,50, 7,31, 1		2,14,47,18, 8	
		1,47,55,58,28,13,35,23		7,53
24″	30,43,42,50,45,53,18,21, 6,24		2,14,47,26, 1	
		1,47,55,56,13,26, 9,22		7,53
26″	30,43,44,38,41,49,31,47,15,46		2,14,47,33,54	
		1,47,55,53,58,38,35,28		7,53
28″	30,43,46,26,37,43,30,25,51,14		2,14,47,41,47	
		1,47,55,51,43,50,53,41		7,53
30″	30,43,48,14,33,35,14,16,44,55		2,14,47,49,40	
		1,47,55,49,29, 3, 4, 1		7,53
32″	30,43,50, 2,29,24,43,19,48,56		2,14,47,57,33	
		1,47,55,47,14,15, 6,28		7,53
34″	30,43,51,50,25,11,57,34,55,24		2,14,48, 5,26	
		1,47,55,44,59,27, 1, 2		7,53
36″	30,43,53,38,20,56,57, 1,56,26		2,14,48,13,19	
		1,47,55,42,44,38,47,43		7,53
38″	30,43,55,26,16,39,41,40,44, 9		2,14,48,21,12	
		1,47,55,40,29,50,26,31		7,53
40″	30,43,57,14,12,20,11,31,10,40		2,14,48,29, 5	
		1,47,55,38,15, 1,57,26		7,53
42″	30,43,59, 2, 7,58,26,33, 8, 6		2,14,48,36,58	
		1,47,55,36, 0,13,20,28		7,53
44″	30,44, 0,50, 3,34,26,46,28,34		2,14,48,44,51	
		1,47,55,33,45,24,35,37		7,53
46″	30,44, 2,37,59, 8,12,11, 4,11		2,14,48,52,44	
		1,47,55,31,30,35,42,53		7,53
48″	30,44, 4,25,54,39,42,46,47, 4		2,14,49, 0,37	
		1,47,55,29,15,46,42,16		7,53
50″	30,44, 6,13,50, 8,58,33,29,20		2,14,49, 8,30	
		1,47,55,27, 0,57,33,46		7,53
52″	30,44, 8, 1,45,35,59,31, 3, 6		2,14,49,16,23	
		1,47,55,24,46, 8,17,23		7,53
54″	30,44, 9,49,41, 0,45,39,20,29		2,14,49,24,16	
		1,47,55,22,31,18,53, 7		7,53
56″	30,44,11,37,36,23,16,58,13,36		2,14,49,32, 9	
		1,47,55,20,16,29,20,58		7,53
58″	30,44,13,25,31,43,33,27,34,34		2,14,49,40, 2	
		1,47,55,18, 1,39,40,56		
60″	30,44,15,13,27, 1,35, 7,15,30			
exact	30,44,15,13,27, 1,35, 6,44,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°49′ 0″	30,44,15,13,27, 1,35, 6,44,41	1,47,55,15,46,49,49,45		
2″	30,44,17, 1,22,17,21,56,34,26	1,47,55,13,31,59,53,44	2,14,49,56, 1	7,53
4″	30,44,18,49,17,30,53,56,28,10	1,47,55,11,17, 9,49,50	2,14,50, 3,54	7,53
6″	30,44,20,37,12,42,11, 6,18, 0	1,47,55, 9, 2,19,38, 3	2,14,50,11,47	7,53
8″	30,44,22,25, 7,51,13,25,56, 3	1,47,55, 6,47,29,18,23	2,14,50,19,40	7,53
10″	30,44,24,13, 2,58, 0,55,14,26	1,47,55, 4,32,38,50,50	2,14,50,27,33	7,53
12″	30,44,26, 0,58, 2,33,34, 5,16	1,47,55, 2,17,48,15,24	2,14,50,35,26	7,53
14″	30,44,27,48,53, 4,51,22,20,40	1,47,55, 0, 2,57,32, 5	2,14,50,43,19	7,53
16″	30,44,29,36,48, 4,54,19,52,45	1,47,54,57,48, 6,40,53	2,14,50,51,12	7,53
18″	30,44,31,24,43, 2,42,26,33,38	1,47,54,55,33,15,41,48	2,14,50,59, 5	7,53
20″	30,44,33,12,37,58,15,42,15,26	1,47,54,53,18,24,34,50	2,14,51, 6,58	7,53
22″	30,44,35, 0,32,51,34, 6,50,16	1,47,54,51, 3,33,19,59	2,14,51,14,51	7,53
24″	30,44,36,48,27,42,37,40,10,15	1,47,54,48,48,41,57,15	2,14,51,22,44	7,53
26″	30,44,38,36,22,31,26,22, 7,30	1,47,54,46,33,50,26,38	2,14,51,30,37	7,53
28″	30,44,40,24,17,18, 0,12,34, 8	1,47,54,44,18,58,48, 8	2,14,51,38,30	7,53
30″	30,44,42,12,12, 2,19,11,22,16	1,47,54,42, 4, 7, 1,45	2,14,51,46,23	7,53
32″	30,44,44, 0, 6,44,23,18,24, 1	1,47,54,39,49,15, 7,29	2,14,51,54,16	7,53
34″	30,44,45,48, 1,24,12,33,31,30	1,47,54,37,34,23, 5,20	2,14,52, 2, 9	7,53
36″	30,44,47,35,56, 1,46,56,36,50	1,47,54,35,19,30,55,18	2,14,52,10, 2	7,53
38″	30,44,49,23,50,37, 6,27,32, 8	1,47,54,33, 4,38,37,23	2,14,52,17,55	7,53
40″	30,44,51,11,45,10,11, 6, 9,31	1,47,54,30,49,46,11,35	2,14,52,25,48	7,53
42″	30,44,52,59,39,41, 0,52,21, 6	1,47,54,28,34,53,37,54	2,14,52,33,41	7,53
44″	30,44,54,47,34, 9,35,45,59, 0	1,47,54,26,20, 0,56,20	2,14,52,41,34	7,53
46″	30,44,56,35,28,35,55,46,55,20	1,47,54,24, 5, 8, 6,53	2,14,52,49,27	7,53
48″	30,44,58,23,23, 0, 0,55, 2,13	1,47,54,21,50,15, 9,33	2,14,52,57,20	7,53
50″	30,45, 0,11,17,21,51,10,11,46	1,47,54,19,35,22, 4,20	2,14,53, 5,13	7,53
52″	30,45, 1,59,11,41,26,32,16, 6	1,47,54,17,20,28,51,14	2,14,53,13, 6	7,53
54″	30,45, 3,47, 5,58,47, 1, 7,20	1,47,54,15, 5,35,30,15	2,14,53,20,59	7,53
56″	30,45, 5,35, 0,13,52,36,37,35	1,47,54,12,50,42, 1,23	2,14,53,28,52	7,53
58″	30,45, 7,22,54,26,43,18,38,58	1,47,54,10,35,48,24,38	2,14,53,36,45	
60″	30,45, 9,10,48,37,19, 7, 3,36			
exact	30,45, 9,10,48,37,19, 6,38, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°50′ 0″	30,45, 9,10,48,37,19, 6,38, 8			
		1,47,54, 8,20,54,37,19		
2″	30,45,10,58,42,45,40, 1,15,27		2,14,53,52,42	
		1,47,54, 6, 6, 0,44,37		7,53
4″	30,45,12,46,36,51,46, 2, 0, 4		2,14,54, 0,35	
		1,47,54, 3,51, 6,44, 2		7,53
6″	30,45,14,34,30,55,37, 8,44, 6		2,14,54, 8,28	
		1,47,54, 1,36,12,35,34		7,53
8″	30,45,16,22,24,57,13,21,19,40		2,14,54,16,21	
		1,47,53,59,21,18,19,13		7,53
10″	30,45,18,10,18,56,34,39,38,53		2,14,54,24,14	
		1,47,53,57, 6,23,54,59		7,53
12″	30,45,19,58,12,53,41, 3,33,52		2,14,54,32, 7	
		1,47,53,54,51,29,22,52		7,53
14″	30,45,21,46, 6,48,32,32,56,44		2,14,54,40, 0	
		1,47,53,52,36,34,42,52		7,53
16″	30,45,23,34, 0,41, 9, 7,39,36		2,14,54,47,53	
		1,47,53,50,21,39,54,59		7,53
18″	30,45,25,21,54,31,30,47,34,35		2,14,54,55,46	
		1,47,53,48, 6,44,59,13		7,53
20″	30,45,27, 9,48,19,37,32,33,48		2,14,55, 3,39	
		1,47,53,45,51,49,55,34		7,53
22″	30,45,28,57,42, 5,29,22,29,22		2,14,55,11,32	
		1,47,53,43,36,54,44, 2		7,53
24″	30,45,30,45,35,49, 6,17,13,24		2,14,55,19,25	
		1,47,53,41,21,59,24,37		7,53
26″	30,45,32,33,29,30,28,16,38, 1		2,14,55,27,18	
		1,47,53,39, 7, 3,57,19		7,53
28″	30,45,34,21,23, 9,35,20,35,20		2,14,55,35,11	
		1,47,53,36,52, 8,22, 8		7,53
30″	30,45,36, 9,16,46,27,28,57,28		2,14,55,43, 4	
		1,47,53,34,37,12,39, 4		7,53
32″	30,45,37,57,10,21, 4,41,36,32		2,14,55,50,57	
		1,47,53,32,22,16,48, 7		7,53
34″	30,45,39,45, 3,53,26,58,24,39		2,14,55,58,50	
		1,47,53,30, 7,20,49,17		7,53
36″	30,45,41,32,57,23,34,19,13,56		2,14,56, 6,43	
		1,47,53,27,52,24,42,34		7,53
38″	30,45,43,20,50,51,26,43,56,30		2,14,56,14,36	
		1,47,53,25,37,28,27,58		7,53
40″	30,45,45, 8,44,17, 4,12,24,28		2,14,56,22,29	
		1,47,53,23,22,32, 5,29		7,53
42″	30,45,46,56,37,40,26,44,29,57		2,14,56,30,22	
		1,47,53,21, 7,35,35, 7		7,53
44″	30,45,48,44,31, 1,34,20, 5, 4		2,14,56,38,15	
		1,47,53,18,52,38,56,52		7,53
46″	30,45,50,32,24,20,26,59, 1,56		2,14,56,46, 8	
		1,47,53,16,37,42,10,44		7,53
48″	30,45,52,20,17,37, 4,41,12,40		2,14,56,54, 1	
		1,47,53,14,22,45,16,43		7,53
50″	30,45,54, 8,10,51,27,26,29,23		2,14,57, 1,54	
		1,47,53,12, 7,48,14,49		7,53
52″	30,45,55,56, 4, 3,35,14,44,12		2,14,57, 9,47	
		1,47,53, 9,52,51, 5, 2		7,53
54″	30,45,57,43,57,13,28, 5,49,14		2,14,57,17,40	
		1,47,53, 7,37,53,47,22		7,53
56″	30,45,59,31,50,21, 5,59,36,36		2,14,57,25,33	
		1,47,53, 5,22,56,21,49		7,53
58″	30,46, 1,19,43,26,28,55,58,25		2,14,57,33,26	
		1,47,53, 3, 7,58,48,23		
60″	30,46, 3, 7,36,29,36,54,46,48			
exact	30,46, 3, 7,36,29,36,54,29,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°51′ 0″	30,46, 3, 7,36,29,36,54,29,54	1,47,53, 0,53, 1, 5,12		
2″	30,46, 4,55,29,30,29,55,35, 6	1,47,52,58,38, 3,15,52	2,14,57,49,20	7,53
4″	30,46, 6,43,22,29, 7,58,50,58	1,47,52,56,23, 5,18,39	2,14,57,57,13	7,53
6″	30,46, 8,31,15,25,31, 4, 9,37	1,47,52,54, 8, 7,13,33	2,14,58, 5, 6	7,53
8″	30,46,10,19, 8,19,39,11,23,10	1,47,52,51,53, 9, 0,34	2,14,58,12,59	7,53
10″	30,46,12, 7, 1,11,32,20,23,44	1,47,52,49,38,10,39,42	2,14,58,20,52	7,53
12″	30,46,13,54,54, 1,10,31, 3,26	1,47,52,47,23,12,10,57	2,14,58,28,45	7,53
14″	30,46,15,42,46,48,33,43,14,23	1,47,52,45, 8,13,34,19	2,14,58,36,38	7,53
16″	30,46,17,30,39,33,41,56,48,42	1,47,52,42,53,14,49,48	2,14,58,44,31	7,53
18″	30,46,19,18,32,16,35,11,38,30	1,47,52,40,38,15,57,24	2,14,58,52,24	7,53
20″	30,46,21, 6,24,57,13,27,35,54	1,47,52,38,23,16,57, 7	2,14,59, 0,17	7,53
22″	30,46,22,54,17,35,36,44,33, 1	1,47,52,36, 8,17,48,57	2,14,59, 8,10	7,53
24″	30,46,24,42,10,11,45, 2,21,58	1,47,52,33,53,18,32,54	2,14,59,16, 3	7,53
26″	30,46,26,30, 2,45,38,20,54,52	1,47,52,31,38,19, 8,58	2,14,59,23,56	7,53
28″	30,46,28,17,55,17,16,40, 3,50	1,47,52,29,23,19,37, 9	2,14,59,31,49	7,53
30″	30,46,30, 5,47,46,39,59,40,59	1,47,52,27, 8,19,57,27	2,14,59,39,42	7,53
32″	30,46,31,53,40,13,48,19,38,26	1,47,52,24,53,20, 9,52	2,14,59,47,35	7,53
34″	30,46,33,41,32,38,41,39,48,18	1,47,52,22,38,20,14,24	2,14,59,55,28	7,53
36″	30,46,35,29,25, 1,20, 0, 2,42	1,47,52,20,23,20,11, 3	2,15, 0, 3,21	7,53
38″	30,46,37,17,17,21,43,20,13,45	1,47,52,18, 8,19,59,49	2,15, 0,11,14	7,53
40″	30,46,39, 5, 9,39,51,40,13,34	1,47,52,15,53,19,40,42	2,15, 0,19, 7	7,53
42″	30,46,40,53, 1,55,44,59,54,16	1,47,52,13,38,19,13,42	2,15, 0,27, 0	7,53
44″	30,46,42,40,54, 9,23,19, 7,58	1,47,52,11,23,18,38,49	2,15, 0,34,53	7,53
46″	30,46,44,28,46,20,46,37,46,47	1,47,52, 9, 8,17,56, 3	2,15, 0,42,46	7,53
48″	30,46,46,16,38,29,54,55,42,50	1,47,52, 6,53,17, 5,24	2,15, 0,50,39	7,53
50″	30,46,48, 4,30,36,48,12,48,14	1,47,52, 4,38,16, 6,52	2,15, 0,58,32	7,53
52″	30,46,49,52,22,41,26,28,55, 6	1,47,52, 2,23,15, 0,27	2,15, 1, 6,25	7,53
54″	30,46,51,40,14,43,49,43,55,33	1,47,52, 0, 8,13,46, 9	2,15, 1,14,18	7,53
56″	30,46,53,28, 6,43,57,57,41,42	1,47,51,57,53,12,23,58	2,15, 1,22,11	7,53
58″	30,46,55,15,58,41,51,10, 5,40	1,47,51,55,38,10,53,54	2,15, 1,30, 4	
60″	30,46,57, 3,50,37,29,20,59,34			
exact	30,46,57, 3,50,37,29,20,47,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°52′ 0″	30,46,57, 3,50,37,29,20,47,15			
		1,47,51,53,23, 9,14,37		
2″	30,46,58,51,42,30,52,30, 1,52		2,15, 1,45,55	
		1,47,51,51, 8, 7,28,42		7,53
4″	30,47, 0,39,34,22, 0,37,30,34		2,15, 1,53,48	
		1,47,51,48,53, 5,34,54		7,53
6″	30,47, 2,27,26,10,53,43, 5,28		2,15, 2, 1,41	
		1,47,51,46,38, 3,33,13		7,53
8″	30,47, 4,15,17,57,31,46,38,41		2,15, 2, 9,34	
		1,47,51,44,23, 1,23,39		7,53
10″	30,47, 6, 3, 9,41,54,48, 2,20		2,15, 2,17,27	
		1,47,51,42, 7,59, 6,12		7,53
12″	30,47, 7,51, 1,24, 2,47, 8,32		2,15, 2,25,20	
		1,47,51,39,52,56,40,52		7,53
14″	30,47, 9,38,53, 3,55,43,49,24		2,15, 2,33,13	
		1,47,51,37,37,54, 7,39		7,53
16″	30,47,11,26,44,41,33,37,57, 3		2,15, 2,41, 6	
		1,47,51,35,22,51,26,33		7,53
18″	30,47,13,14,36,16,56,29,23,36		2,15, 2,48,59	
		1,47,51,33, 7,48,37,34		7,53
20″	30,47,15, 2,27,50, 4,18, 1,10		2,15, 2,56,52	
		1,47,51,30,52,45,40,42		7,53
22″	30,47,16,50,19,20,57, 3,41,52		2,15, 3, 4,45	
		1,47,51,28,37,42,35,57		7,53
24″	30,47,18,38,10,49,34,46,17,49		2,15, 3,12,38	
		1,47,51,26,22,39,23,19		7,53
26″	30,47,20,26, 2,15,57,25,41, 8		2,15, 3,20,31	
		1,47,51,24, 7,36, 2,48		7,53
28″	30,47,22,13,53,40, 5, 1,43,56		2,15, 3,28,24	
		1,47,51,21,52,32,34,24		7,53
30″	30,47,24, 1,45, 1,57,34,18,20		2,15, 3,36,17	
		1,47,51,19,37,28,58, 7		7,53
32″	30,47,25,49,36,21,35, 3,16,27		2,15, 3,44,10	
		1,47,51,17,22,25,13,57		7,53
34″	30,47,27,37,27,38,57,28,30,24		2,15, 3,52, 3	
		1,47,51,15, 7,21,21,54		7,53
36″	30,47,29,25,18,54, 4,49,52,18		2,15, 3,59,56	
		1,47,51,12,52,17,21,58		7,53
38″	30,47,31,13,10, 6,57, 7,14,16		2,15, 4, 7,49	
		1,47,51,10,37,13,14, 9		7,53
40″	30,47,33, 1, 1,17,34,20,28,25		2,15, 4,15,42	
		1,47,51, 8,22, 8,58,27		7,53
42″	30,47,34,48,52,25,56,29,26,52		2,15, 4,23,35	
		1,47,51, 6, 7, 4,34,52		7,53
44″	30,47,36,36,43,32, 3,34, 1,44		2,15, 4,31,28	
		1,47,51, 3,52, 0, 3,24		7,53
46″	30,47,38,24,34,35,55,34, 5, 8		2,15, 4,39,21	
		1,47,51, 1,36,55,24, 3		7,53
48″	30,47,40,12,25,37,32,29,29,11		2,15, 4,47,14	
		1,47,50,59,21,50,36,49		7,53
50″	30,47,42, 0,16,36,54,20, 6, 0		2,15, 4,55, 7	
		1,47,50,57, 6,45,41,42		7,53
52″	30,47,43,48, 7,34, 1, 5,47,42		2,15, 5, 3, 0	
		1,47,50,54,51,40,38,42		7,53
54″	30,47,45,35,58,28,52,46,26,24		2,15, 5,10,53	
		1,47,50,52,36,35,27,49		7,53
56″	30,47,47,23,49,21,29,21,54,13		2,15, 5,18,46	
		1,47,50,50,21,30, 9, 3		7,53
58″	30,47,49,11,40,11,50,52, 3,16		2,15, 5,26,39	
		1,47,50,48, 6,24,42,24		
60″	30,47,50,59,30,59,57,16,45,40			
exact	30,47,50,59,30,59,57,16,34,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°53′ 0″	30,47,50,59,30,59,57,16,34,24			
		1,47,50,45,51,19, 6,49		
2″	30,47,52,47,21,45,48,35,41,13		2,15, 5,42,29	
		1,47,50,43,36,13,24,20		7,53
4″	30,47,54,35,12,29,24,49, 5,33		2,15, 5,50,22	
		1,47,50,41,21, 7,33,58		7,53
6″	30,47,56,23, 3,10,45,56,39,31		2,15, 5,58,15	
		1,47,50,39, 6, 1,35,43		7,53
8″	30,47,58,10,53,49,51,58,15,14		2,15, 6, 6, 8	
		1,47,50,36,50,55,29,35		7,53
10″	30,47,59,58,44,26,42,53,44,49		2,15, 6,14, 1	
		1,47,50,34,35,49,15,34		7,53
12″	30,48, 1,46,35, 1,18,43, 0,23		2,15, 6,21,54	
		1,47,50,32,20,42,53,40		7,53
14″	30,48, 3,34,25,33,39,25,54, 3		2,15, 6,29,47	
		1,47,50,30, 5,36,23,53		7,53
16″	30,48, 5,22,16, 3,45, 2,17,56		2,15, 6,37,40	
		1,47,50,27,50,29,46,13		7,53
18″	30,48, 7,10, 6,31,35,32, 4, 9		2,15, 6,45,33	
		1,47,50,25,35,23, 0,40		7,53
20″	30,48, 8,57,56,57,10,55, 4,49		2,15, 6,53,26	
		1,47,50,23,20,16, 7,14		7,53
22″	30,48,10,45,47,20,31,11,12, 3		2,15, 7, 1,19	
		1,47,50,21, 5, 9, 5,55		7,53
24″	30,48,12,33,37,41,36,20,17,58		2,15, 7, 9,12	
		1,47,50,18,50, 1,56,43		7,53
26″	30,48,14,21,28, 0,26,22,14,41		2,15, 7,17, 5	
		1,47,50,16,34,54,39,38		7,53
28″	30,48,16, 9,18,17, 1,16,54,19		2,15, 7,24,58	
		1,47,50,14,19,47,14,40		7,53
30″	30,48,17,57, 8,31,21, 4, 8,59		2,15, 7,32,51	
		1,47,50,12, 4,39,41,49		7,53
32″	30,48,19,44,58,43,25,43,50,48		2,15, 7,40,44	
		1,47,50, 9,49,32, 1, 5		7,53
34″	30,48,21,32,48,53,15,15,51,53		2,15, 7,48,37	
		1,47,50, 7,34,24,12,28		7,53
36″	30,48,23,20,39, 0,49,40, 4,21		2,15, 7,56,30	
		1,47,50, 5,19,16,15,58		7,53
38″	30,48,25, 8,29, 6, 8,56,20,19		2,15, 8, 4,23	
		1,47,50, 3, 4, 8,11,35		7,53
40″	30,48,26,56,19, 9,13, 4,31,54		2,15, 8,12,16	
		1,47,50, 0,48,59,59,19		7,53
42″	30,48,28,44, 9,10, 2, 4,31,13		2,15, 8,20, 9	
		1,47,49,58,33,51,39,10		7,53
44″	30,48,30,31,59, 8,35,56,10,23		2,15, 8,28, 2	
		1,47,49,56,18,43,11, 8		7,53
46″	30,48,32,19,49, 4,54,39,21,31		2,15, 8,35,55	
		1,47,49,54, 3,34,35,13		7,53
48″	30,48,34, 7,38,58,58,13,56,44		2,15, 8,43,48	
		1,47,49,51,48,25,51,25		7,53
50″	30,48,35,55,28,50,46,39,48, 9		2,15, 8,51,41	
		1,47,49,49,33,16,59,44		7,53
52″	30,48,37,43,18,40,19,56,47,53		2,15, 8,59,34	
		1,47,49,47,18, 8, 0,10		7,53
54″	30,48,39,31, 8,27,38, 4,48, 3		2,15, 9, 7,27	
		1,47,49,45, 2,58,52,43		7,53
56″	30,48,41,18,58,12,41, 3,40,46		2,15, 9,15,20	
		1,47,49,42,47,49,37,23		7,53
58″	30,48,43, 6,47,55,28,53,18, 9		2,15, 9,23,13	
		1,47,49,40,32,40,14,10		
60″	30,48,44,54,37,36, 1,33,32,19			
exact	30,48,44,54,37,36, 1,33,32,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°54′ 0″	30,48,44,54,37,36, 1,33,32,37			
		1,47,49,38,17,30,43, 2		
2″	30,48,46,42,27,14,19, 4,15,39		2,15, 9,38,59	
		1,47,49,36, 2,21, 4, 3		7,53
4″	30,48,48,30,16,50,21,25,19,42		2,15, 9,46,52	
		1,47,49,33,47,11,17,11		7,53
6″	30,48,50,18, 6,24, 8,36,36,53		2,15, 9,54,45	
		1,47,49,31,32, 1,22,26		7,53
8″	30,48,52, 5,55,55,40,37,59,19		2,15,10, 2,38	
		1,47,49,29,16,51,19,48		7,53
10″	30,48,53,53,45,24,57,29,19, 7		2,15,10,10,31	
		1,47,49,27, 1,41, 9,17		7,53
12″	30,48,55,41,34,51,59,10,28,24		2,15,10,18,24	
		1,47,49,24,46,30,50,53		7,53
14″	30,48,57,29,24,16,45,41,19,17		2,15,10,26,17	
		1,47,49,22,31,20,24,36		7,53
16″	30,48,59,17,13,39,17, 1,43,53		2,15,10,34,10	
		1,47,49,20,16, 9,50,26		7,53
18″	30,49, 1, 5, 2,59,33,11,34,19		2,15,10,42, 3	
		1,47,49,18, 0,59, 8,23		7,53
20″	30,49, 2,52,52,17,34,10,42,42		2,15,10,49,56	
		1,47,49,15,45,48,18,27		7,53
22″	30,49, 4,40,41,33,19,59, 1, 9		2,15,10,57,49	
		1,47,49,13,30,37,20,38		7,53
24″	30,49, 6,28,30,46,50,36,21,47		2,15,11, 5,42	
		1,47,49,11,15,26,14,56		7,53
26″	30,49, 8,16,19,58, 6, 2,36,43		2,15,11,13,35	
		1,47,49, 9, 0,15, 1,21		7,53
28″	30,49,10, 4, 9, 7, 6,17,38, 4		2,15,11,21,28	
		1,47,49, 6,45, 3,39,53		7,53
30″	30,49,11,51,58,13,51,21,17,57		2,15,11,29,21	
		1,47,49, 4,29,52,10,32		7,53
32″	30,49,13,39,47,18,21,13,28,29		2,15,11,37,14	
		1,47,49, 2,14,40,33,18		7,53
34″	30,49,15,27,36,20,35,54, 1,47		2,15,11,45, 7	
		1,47,48,59,59,28,48,11		7,53
36″	30,49,17,15,25,20,35,22,49,58		2,15,11,53, 0	
		1,47,48,57,44,16,55,11		7,53
38″	30,49,19, 3,14,18,19,39,45, 9		2,15,12, 0,53	
		1,47,48,55,29, 4,54,18		7,53
40″	30,49,20,51, 3,13,48,44,39,27		2,15,12, 8,46	
		1,47,48,53,13,52,45,32		7,53
42″	30,49,22,38,52, 7, 2,37,24,59		2,15,12,16,39	
		1,47,48,50,58,40,28,53		7,53
44″	30,49,24,26,40,58, 1,17,53,52		2,15,12,24,32	
		1,47,48,48,43,28, 4,21		7,53
46″	30,49,26,14,29,46,44,45,58,13		2,15,12,32,25	
		1,47,48,46,28,15,31,56		7,53
48″	30,49,28, 2,18,33,13, 1,30, 9		2,15,12,40,18	
		1,47,48,44,13, 2,51,38		7,53
50″	30,49,29,50, 7,17,26, 4,21,47		2,15,12,48,11	
		1,47,48,41,57,50, 3,27		7,53
52″	30,49,31,37,55,59,23,54,25,14		2,15,12,56, 4	
		1,47,48,39,42,37, 7,23		7,53
54″	30,49,33,25,44,39, 6,31,32,37		2,15,13, 3,57	
		1,47,48,37,27,24, 3,26		7,53
56″	30,49,35,13,33,16,33,55,36, 3		2,15,13,11,50	
		1,47,48,35,12,10,51,36		7,53
58″	30,49,37, 1,21,51,46, 6,27,39		2,15,13,19,43	
		1,47,48,32,56,57,31,53		
60″	30,49,38,49,10,24,43, 3,59,32			
exact	30,49,38,49,10,24,43, 4, 0,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°55′ 0″	30,49,38,49,10,24,43, 4, 0,12			
		1,47,48,30,41,44, 4,29		
2″	30,49,40,36,58,55,24,48, 4,41		2,15,13,35,27	
		1,47,48,28,26,30,29, 2		7,53
4″	30,49,42,24,47,23,51,18,33,43		2,15,13,43,20	
		1,47,48,26,11,16,45,42		7,53
6″	30,49,44,12,35,50, 2,35,19,25		2,15,13,51,13	
		1,47,48,23,56, 2,54,29		7,53
8″	30,49,46, 0,24,13,58,38,13,54		2,15,13,59, 6	
		1,47,48,21,40,48,55,23		7,53
10″	30,49,47,48,12,35,39,27, 9,17		2,15,14, 6,59	
		1,47,48,19,25,34,48,24		7,53
12″	30,49,49,36, 0,55, 5, 1,57,41		2,15,14,14,52	
		1,47,48,17,10,20,33,32		7,53
14″	30,49,51,23,49,12,15,22,31,13		2,15,14,22,45	
		1,47,48,14,55, 6,10,47		7,53
16″	30,49,53,11,37,27,10,28,42, 0		2,15,14,30,38	
		1,47,48,12,39,51,40, 9		7,53
18″	30,49,54,59,25,39,50,20,22, 9		2,15,14,38,31	
		1,47,48,10,24,37, 1,38		7,53
20″	30,49,56,47,13,50,14,57,23,47		2,15,14,46,24	
		1,47,48, 8, 9,22,15,14		7,53
22″	30,49,58,35, 1,58,24,19,39, 1		2,15,14,54,17	
		1,47,48, 5,54, 7,20,57		7,53
24″	30,50, 0,22,50, 4,18,26,59,58		2,15,15, 2,10	
		1,47,48, 3,38,52,18,47		7,53
26″	30,50, 2,10,38, 7,57,19,18,45		2,15,15,10, 3	
		1,47,48, 1,23,37, 8,44		7,53
28″	30,50, 3,58,26, 9,20,56,27,29		2,15,15,17,56	
		1,47,47,59, 8,21,50,48		7,53
30″	30,50, 5,46,14, 8,29,18,18,17		2,15,15,25,49	
		1,47,47,56,53, 6,24,59		7,53
32″	30,50, 7,34, 2, 5,22,24,43,16		2,15,15,33,42	
		1,47,47,54,37,50,51,17		7,53
34″	30,50, 9,21,50, 0, 0,15,34,33		2,15,15,41,35	
		1,47,47,52,22,35, 9,42		7,53
36″	30,50,11, 9,37,52,22,50,44,15		2,15,15,49,28	
		1,47,47,50, 7,19,20,14		7,53
38″	30,50,12,57,25,42,30,10, 4,29		2,15,15,57,21	
		1,47,47,47,52, 3,22,53		7,53
40″	30,50,14,45,13,30,22,13,27,22		2,15,16, 5,14	
		1,47,47,45,36,47,17,39		7,53
42″	30,50,16,33, 1,15,59, 0,45, 1		2,15,16,13, 7	
		1,47,47,43,21,31, 4,32		7,53
44″	30,50,18,20,48,59,20,31,49,33		2,15,16,21, 0	
		1,47,47,41, 6,14,43,32		7,53
46″	30,50,20, 8,36,40,26,46,33, 5		2,15,16,28,53	
		1,47,47,38,50,58,14,39		7,53
48″	30,50,21,56,24,19,17,44,47,44		2,15,16,36,46	
		1,47,47,36,35,41,37,53		7,53
50″	30,50,23,44,11,55,53,26,25,37		2,15,16,44,39	
		1,47,47,34,20,24,53,14		7,53
52″	30,50,25,31,59,30,13,51,18,51		2,15,16,52,32	
		1,47,47,32, 5, 8, 0,42		7,53
54″	30,50,27,19,47, 2,18,59,19,33		2,15,17, 0,25	
		1,47,47,29,49,51, 0,17		7,53
56″	30,50,29, 7,34,32, 8,50,19,50		2,15,17, 8,18	
		1,47,47,27,34,33,51,59		7,53
58″	30,50,30,55,21,59,43,24,11,49		2,15,17,16,11	
		1,47,47,25,19,16,35,48		
60″	30,50,32,43, 9,25, 2,40,47,37			
exact	30,50,32,43, 9,25, 2,40,52,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°56′ 0″	30,50,32,43, 9,25, 2,40,52,30			
		1,47,47,23, 3,59,12,26		
2″	30,50,34,30,56,48, 6,40, 4,56		2,15,17,31,53	
		1,47,47,20,48,41,40,33		7,53
4″	30,50,36,18,44, 8,55,21,45,29		2,15,17,39,46	
		1,47,47,18,33,24, 0,47		7,53
6″	30,50,38, 6,31,27,28,45,46,16		2,15,17,47,39	
		1,47,47,16,18, 6,13, 8		7,53
8″	30,50,39,54,18,43,46,51,59,24		2,15,17,55,32	
		1,47,47,14, 2,48,17,36		7,53
10″	30,50,41,42, 5,57,49,40,17, 0		2,15,18, 3,25	
		1,47,47,11,47,30,14,11		7,53
12″	30,50,43,29,53, 9,37,10,31,11		2,15,18,11,18	
		1,47,47, 9,32,12, 2,53		7,53
14″	30,50,45,17,40,19, 9,22,34, 4		2,15,18,19,11	
		1,47,47, 7,16,53,43,42		7,53
16″	30,50,47, 5,27,26,26,16,17,46		2,15,18,27, 4	
		1,47,47, 5, 1,35,16,38		7,53
18″	30,50,48,53,14,31,27,51,34,24		2,15,18,34,57	
		1,47,47, 2,46,16,41,41		7,53
20″	30,50,50,41, 1,34,14, 8,16, 5		2,15,18,42,50	
		1,47,47, 0,30,57,58,51		7,53
22″	30,50,52,28,48,34,45, 6,14,56		2,15,18,50,43	
		1,47,46,58,15,39, 8, 8		7,53
24″	30,50,54,16,35,33, 0,45,23, 4		2,15,18,58,36	
		1,47,46,56, 0,20, 9,32		7,53
26″	30,50,56, 4,22,29, 1, 5,32,36		2,15,19, 6,29	
		1,47,46,53,45, 1, 3, 3		7,53
28″	30,50,57,52, 9,22,46, 6,35,39		2,15,19,14,22	
		1,47,46,51,29,41,48,41		7,53
30″	30,50,59,39,56,14,15,48,24,20		2,15,19,22,15	
		1,47,46,49,14,22,26,26		7,53
32″	30,51, 1,27,43, 3,30,10,50,46		2,15,19,30, 8	
		1,47,46,46,59, 2,56,18		7,53
34″	30,51, 3,15,29,50,29,13,47, 4		2,15,19,38, 1	
		1,47,46,44,43,43,18,17		7,53
36″	30,51, 5, 3,16,35,12,57, 5,21		2,15,19,45,54	
		1,47,46,42,28,23,32,23		7,53
38″	30,51, 6,51, 3,17,41,20,37,44		2,15,19,53,47	
		1,47,46,40,13, 3,38,36		7,53
40″	30,51, 8,38,49,57,54,24,16,20		2,15,20, 1,40	
		1,47,46,37,57,43,36,56		7,53
42″	30,51,10,26,36,35,52, 7,53,16		2,15,20, 9,33	
		1,47,46,35,42,23,27,23		7,53
44″	30,51,12,14,23,11,34,31,20,39		2,15,20,17,26	
		1,47,46,33,27, 3, 9,57		7,53
46″	30,51,14, 2, 9,45, 1,34,30,36		2,15,20,25,19	
		1,47,46,31,11,42,44,38		7,53
48″	30,51,15,49,56,16,13,17,15,14		2,15,20,33,12	
		1,47,46,28,56,22,11,26		7,53
50″	30,51,17,37,42,45, 9,39,26,40		2,15,20,41, 5	
		1,47,46,26,41, 1,30,21		7,53
52″	30,51,19,25,29,11,50,40,57, 1		2,15,20,48,58	
		1,47,46,24,25,40,41,23		7,53
54″	30,51,21,13,15,36,16,21,38,24		2,15,20,56,51	
		1,47,46,22,10,19,44,32		7,53
56″	30,51,23, 1, 1,58,26,41,22,56		2,15,21, 4,44	
		1,47,46,19,54,58,39,48		7,53
58″	30,51,24,48,48,18,21,40, 2,44		2,15,21,12,37	
		1,47,46,17,39,37,27,11		
60″	30,51,26,36,34,36, 1,17,29,55			
exact	30,51,26,36,34,36, 1,17,41,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°57′ 0″	30,51,26,36,34,36, 1,17,41,55			
		1,47,46,15,24,16, 8, 5		
2″	30,51,28,24,20,51,25,33,50, 0		2,15,21,28,16	
		1,47,46,13, 8,54,39,49		7,53
4″	30,51,30,12, 7, 4,34,28,29,49		2,15,21,36, 9	
		1,47,46,10,53,33, 3,40		7,53
6″	30,51,31,59,53,15,28, 1,33,29		2,15,21,44, 2	
		1,47,46, 8,38,11,19,38		7,53
8″	30,51,33,47,39,24, 6,12,53, 7		2,15,21,51,55	
		1,47,46, 6,22,49,27,43		7,53
10″	30,51,35,35,25,30,29, 2,20,50		2,15,21,59,48	
		1,47,46, 4, 7,27,27,55		7,53
12″	30,51,37,23,11,34,36,29,48,45		2,15,22, 7,41	
		1,47,46, 1,52, 5,20,14		7,53
14″	30,51,39,10,57,36,28,35, 8,59		2,15,22,15,34	
		1,47,45,59,36,43, 4,40		7,53
16″	30,51,40,58,43,36, 5,18,13,39		2,15,22,23,27	
		1,47,45,57,21,20,41,13		7,53
18″	30,51,42,46,29,33,26,38,54,52		2,15,22,31,20	
		1,47,45,55, 5,58, 9,53		7,53
20″	30,51,44,34,15,28,32,37, 4,45		2,15,22,39,13	
		1,47,45,52,50,35,30,40		7,53
22″	30,51,46,22, 1,21,23,12,35,25		2,15,22,47, 6	
		1,47,45,50,35,12,43,34		7,53
24″	30,51,48, 9,47,11,58,25,18,59		2,15,22,54,59	
		1,47,45,48,19,49,48,35		7,53
26″	30,51,49,57,33, 0,18,15, 7,34		2,15,23, 2,52	
		1,47,45,46, 4,26,45,43		7,53
28″	30,51,51,45,18,46,22,41,53,17		2,15,23,10,45	
		1,47,45,43,49, 3,34,58		7,53
30″	30,51,53,33, 4,30,11,45,28,15		2,15,23,18,38	
		1,47,45,41,33,40,16,20		7,53
32″	30,51,55,20,50,11,45,25,44,35		2,15,23,26,31	
		1,47,45,39,18,16,49,49		7,53
34″	30,51,57, 8,35,51, 3,42,34,24		2,15,23,34,24	
		1,47,45,37, 2,53,15,25		7,53
36″	30,51,58,56,21,28, 6,35,49,49		2,15,23,42,17	
		1,47,45,34,47,29,33, 8		7,53
38″	30,52, 0,44, 7, 2,54, 5,22,57		2,15,23,50,10	
		1,47,45,32,32, 5,42,58		7,53
40″	30,52, 2,31,52,35,26,11, 5,55		2,15,23,58, 3	
		1,47,45,30,16,41,44,55		7,53
42″	30,52, 4,19,38, 5,42,52,50,50		2,15,24, 5,56	
		1,47,45,28, 1,17,38,59		7,53
44″	30,52, 6, 7,23,33,44,10,29,49		2,15,24,13,49	
		1,47,45,25,45,53,25,10		7,53
46″	30,52, 7,55, 8,59,30, 3,54,59		2,15,24,21,42	
		1,47,45,23,30,29, 3,28		7,53
48″	30,52, 9,42,54,23, 0,32,58,27		2,15,24,29,35	
		1,47,45,21,15, 4,33,53		7,53
50″	30,52,11,30,39,44,15,37,32,20		2,15,24,37,28	
		1,47,45,18,59,39,56,25		7,53
52″	30,52,13,18,25, 3,15,17,28,45		2,15,24,45,21	
		1,47,45,16,44,15,11, 4		7,53
54″	30,52,15, 6,10,19,59,32,39,49		2,15,24,53,14	
		1,47,45,14,28,50,17,50		7,53
56″	30,52,16,53,55,34,28,22,57,39		2,15,25, 1, 7	
		1,47,45,12,13,25,16,43		7,53
58″	30,52,18,41,40,46,41,48,14,22		2,15,25, 9, 0	
		1,47,45, 9,58, 0, 7,43		
60″	30,52,20,29,25,56,39,48,22, 5			
exact	30,52,20,29,25,56,39,48,38, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°58′ 0″	30,52,20,29,25,56,39,48,38, 0	1,47,45, 7,42,34,52,43		
2″	30,52,22,17,11, 4,22,23,30,43	1,47,45, 5,27, 9,28, 6	2,15,25,24,37	7,53
4″	30,52,24, 4,56, 9,49,32,58,49	1,47,45, 3,11,43,55,36	2,15,25,32,30	7,53
6″	30,52,25,52,41,13, 1,16,54,25	1,47,45, 0,56,18,15,13	2,15,25,40,23	7,53
8″	30,52,27,40,26,13,57,35, 9,38	1,47,44,58,40,52,26,57	2,15,25,48,16	7,53
10″	30,52,29,28,11,12,38,27,36,35	1,47,44,56,25,26,30,48	2,15,25,56, 9	7,53
12″	30,52,31,15,56, 9, 3,54, 7,23	1,47,44,54,10, 0,26,46	2,15,26, 4, 2	7,53
14″	30,52,33, 3,41, 3,13,54,34, 9	1,47,44,51,54,34,14,51	2,15,26,11,55	7,53
16″	30,52,34,51,25,55, 8,28,49, 0	1,47,44,49,39, 7,55, 3	2,15,26,19,48	7,53
18″	30,52,36,39,10,44,47,36,44, 3	1,47,44,47,23,41,27,22	2,15,26,27,41	7,53
20″	30,52,38,26,55,32,11,18,11,25	1,47,44,45, 8,14,51,48	2,15,26,35,34	7,53
22″	30,52,40,14,40,17,19,33, 3,13	1,47,44,42,52,48, 8,21	2,15,26,43,27	7,53
24″	30,52,42, 2,25, 0,12,21,11,34	1,47,44,40,37,21,17, 1	2,15,26,51,20	7,53
26″	30,52,43,50, 9,40,49,42,28,35	1,47,44,38,21,54,17,48	2,15,26,59,13	7,53
28″	30,52,45,37,54,19,11,36,46,23	1,47,44,36, 6,27,10,42	2,15,27, 7, 6	7,53
30″	30,52,47,25,38,55,18, 3,57, 5	1,47,44,33,50,59,55,43	2,15,27,14,59	7,53
32″	30,52,49,13,23,29, 9, 3,52,48	1,47,44,31,35,32,32,51	2,15,27,22,52	7,53
34″	30,52,51, 1, 8, 0,44,36,25,39	1,47,44,29,20, 5, 2, 6	2,15,27,30,45	7,53
36″	30,52,52,48,52,30, 4,41,27,45	1,47,44,27, 4,37,23,28	2,15,27,38,38	7,53
38″	30,52,54,36,36,57, 9,18,51,13	1,47,44,24,49, 9,36,57	2,15,27,46,31	7,53
40″	30,52,56,24,21,21,58,28,28,10	1,47,44,22,33,41,42,33	2,15,27,54,24	7,53
42″	30,52,58,12, 5,44,32,10,10,43	1,47,44,20,18,13,40,16	2,15,28, 2,17	7,53
44″	30,52,59,59,50, 4,50,23,50,59	1,47,44,18, 2,45,30, 6	2,15,28,10,10	7,53
46″	30,53, 1,47,34,22,53, 9,21, 5	1,47,44,15,47,17,12, 3	2,15,28,18, 3	7,53
48″	30,53, 3,35,18,38,40,26,33, 8	1,47,44,13,31,48,46, 7	2,15,28,25,56	7,53
50″	30,53, 5,23, 2,52,12,15,19,15	1,47,44,11,16,20,12,18	2,15,28,33,49	7,53
52″	30,53, 7,10,47, 3,28,35,31,33	1,47,44, 9, 0,51,30,36	2,15,28,41,42	7,53
54″	30,53, 8,58,31,12,29,27, 2, 9	1,47,44, 6,45,22,41, 1	2,15,28,49,35	7,53
56″	30,53,10,46,15,19,14,49,43,10	1,47,44, 4,29,53,43,33	2,15,28,57,28	7,53
58″	30,53,12,33,59,23,44,43,26,43	1,47,44, 2,14,24,38,12	2,15,29, 5,21	
60″	30,53,14,21,43,25,59, 8, 4,55			
exact	30,53,14,21,43,25,59, 8,27,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
30°59′ 0″	30,53,14,21,43,25,59, 8,27,20			
		1,47,43,59,58,55,27,31		
2″	30,53,16, 9,27,25,58, 3,54,51		2,15,29,20,56	
		1,47,43,57,43,26, 6,35		7,53
4″	30,53,17,57,11,23,41,30, 1,26		2,15,29,28,49	
		1,47,43,55,27,56,37,46		7,53
6″	30,53,19,44,55,19, 9,26,39,12		2,15,29,36,42	
		1,47,43,53,12,27, 1, 4		7,53
8″	30,53,21,32,39,12,21,53,40,16		2,15,29,44,35	
		1,47,43,50,56,57,16,29		7,53
10″	30,53,23,20,23, 3,18,50,56,45		2,15,29,52,28	
		1,47,43,48,41,27,24, 1		7,53
12″	30,53,25, 8, 6,52, 0,18,20,46		2,15,30, 0,21	
		1,47,43,46,25,57,23,40		7,53
14″	30,53,26,55,50,38,26,15,44,26		2,15,30, 8,14	
		1,47,43,44,10,27,15,26		7,53
16″	30,53,28,43,34,22,36,42,59,52		2,15,30,16, 7	
		1,47,43,41,54,56,59,19		7,53
18″	30,53,30,31,18, 4,31,39,59,11		2,15,30,24, 0	
		1,47,43,39,39,26,35,19		7,53
20″	30,53,32,19, 1,44,11, 6,34,30		2,15,30,31,53	
		1,47,43,37,23,56, 3,26		7,53
22″	30,53,34, 6,45,21,35, 2,37,56		2,15,30,39,46	
		1,47,43,35, 8,25,23,40		7,53
24″	30,53,35,54,28,56,43,28, 1,36		2,15,30,47,39	
		1,47,43,32,52,54,36, 1		7,53
26″	30,53,37,42,12,29,36,22,37,37		2,15,30,55,32	
		1,47,43,30,37,23,40,29		7,53
28″	30,53,39,29,56, 0,13,46,18, 6		2,15,31, 3,25	
		1,47,43,28,21,52,37, 4		7,53
30″	30,53,41,17,39,28,35,38,55,10		2,15,31,11,18	
		1,47,43,26, 6,21,25,46		7,53
32″	30,53,43, 5,22,54,42, 0,20,56		2,15,31,19,11	
		1,47,43,23,50,50, 6,35		7,53
34″	30,53,44,53, 6,18,32,50,27,31		2,15,31,27, 4	
		1,47,43,21,35,18,39,31		7,53
36″	30,53,46,40,49,40, 8, 9, 7, 2		2,15,31,34,57	
		1,47,43,19,19,47, 4,34		7,53
38″	30,53,48,28,32,59,27,56,11,36		2,15,31,42,50	
		1,47,43,17, 4,15,21,44		7,53
40″	30,53,50,16,16,16,32,11,33,20		2,15,31,50,43	
		1,47,43,14,48,43,31, 1		7,53
42″	30,53,52, 3,59,31,20,55, 4,21		2,15,31,58,36	
		1,47,43,12,33,11,32,25		7,53
44″	30,53,53,51,42,43,54, 6,36,46		2,15,32, 6,29	
		1,47,43,10,17,39,25,56		7,53
46″	30,53,55,39,25,54,11,46, 2,42		2,15,32,14,22	
		1,47,43, 8, 2, 7,11,34		7,53
48″	30,53,57,27, 9, 2,13,53,14,16		2,15,32,22,15	
		1,47,43, 5,46,34,49,19		7,53
50″	30,53,59,14,52, 8, 0,28, 3,35		2,15,32,30, 8	
		1,47,43, 3,31, 2,19,11		7,53
52″	30,54, 1, 2,35,11,31,30,22,46		2,15,32,38, 1	
		1,47,43, 1,15,29,41,10		7,53
54″	30,54, 2,50,18,12,47, 0, 3,56		2,15,32,45,54	
		1,47,42,58,59,56,55,16		7,53
56″	30,54, 4,38, 1,11,46,56,59,12		2,15,32,53,47	
		1,47,42,56,44,24, 1,29		7,53
58″	30,54, 6,25,44, 8,31,21, 0,41		2,15,33, 1,40	
		1,47,42,54,28,50,59,49		
60″	30,54, 8,13,27, 3, 0,12, 0,30			
exact	30,54, 8,13,27, 3, 0,12,33,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31° 0′ 0″	30,54, 8,13,27, 3, 0,12,33,40			
		1,47,42,52,13,17,53,46		
2″	30,54,10, 1, 9,55,13,30,27,26		2,15,33,17,12	
		1,47,42,49,57,44,36,34		7,52
4″	30,54,11,48,52,45,11,15, 4, 0		2,15,33,25, 4	
		1,47,42,47,42,11,11,30		7,52
6″	30,54,13,36,35,32,53,26,15,30		2,15,33,32,56	
		1,47,42,45,26,37,38,34		7,52
8″	30,54,15,24,18,18,20, 3,54, 4		2,15,33,40,48	
		1,47,42,43,11, 3,57,46		7,52
10″	30,54,17,12, 1, 1,31, 7,51,50		2,15,33,48,40	
		1,47,42,40,55,30, 9, 6		7,52
12″	30,54,18,59,43,42,26,38, 0,56		2,15,33,56,32	
		1,47,42,38,39,56,12,34		7,52
14″	30,54,20,47,26,21, 6,34,13,30		2,15,34, 4,24	
		1,47,42,36,24,22, 8,10		7,52
16″	30,54,22,35, 8,57,30,56,21,40		2,15,34,12,16	
		1,47,42,34, 8,47,55,54		7,52
18″	30,54,24,22,51,31,39,44,17,34		2,15,34,20, 8	
		1,47,42,31,53,13,35,46		7,52
20″	30,54,26,10,34, 3,32,57,53,20		2,15,34,28, 0	
		1,47,42,29,37,39, 7,46		7,52
22″	30,54,27,58,16,33,10,37, 1, 6		2,15,34,35,52	
		1,47,42,27,22, 4,31,54		7,52
24″	30,54,29,45,59, 0,32,41,33, 0		2,15,34,43,44	
		1,47,42,25, 6,29,48,10		7,52
26″	30,54,31,33,41,25,39,11,21,10		2,15,34,51,36	
		1,47,42,22,50,54,56,34		7,52
28″	30,54,33,21,23,48,30, 6,17,44		2,15,34,59,28	
		1,47,42,20,35,19,57, 6		7,52
30″	30,54,35, 9, 6, 9, 5,26,14,50		2,15,35, 7,20	
		1,47,42,18,19,44,49,46		7,52
32″	30,54,36,56,48,27,25,11, 4,36		2,15,35,15,12	
		1,47,42,16, 4, 9,34,34		7,52
34″	30,54,38,44,30,43,29,20,39,10		2,15,35,23, 4	
		1,47,42,13,48,34,11,30		7,52
36″	30,54,40,32,12,57,17,54,50,40		2,15,35,30,56	
		1,47,42,11,32,58,40,34		7,52
38″	30,54,42,19,55, 8,50,53,31,14		2,15,35,38,48	
		1,47,42, 9,17,23, 1,46		7,52
40″	30,54,44, 7,37,18, 8,16,33, 0		2,15,35,46,40	
		1,47,42, 7, 1,47,15, 6		7,52
42″	30,54,45,55,19,25,10, 3,48, 6		2,15,35,54,32	
		1,47,42, 4,46,11,20,34		7,52
44″	30,54,47,43, 1,29,56,15, 8,40		2,15,36, 2,24	
		1,47,42, 2,30,35,18,10		7,52
46″	30,54,49,30,43,32,26,50,26,50		2,15,36,10,16	
		1,47,42, 0,14,59, 7,54		7,52
48″	30,54,51,18,25,32,41,49,34,44		2,15,36,18, 8	
		1,47,41,57,59,22,49,46		7,52
50″	30,54,53, 6, 7,30,41,12,24,30		2,15,36,26, 0	
		1,47,41,55,43,46,23,46		7,52
52″	30,54,54,53,49,26,24,58,48,16		2,15,36,33,52	
		1,47,41,53,28, 9,49,54		7,52
54″	30,54,56,41,31,19,53, 8,38,10		2,15,36,41,44	
		1,47,41,51,12,33, 8,10		7,52
56″	30,54,58,29,13,11, 5,41,46,20		2,15,36,49,36	
		1,47,41,48,56,56,18,34		7,52
58″	30,55, 0,16,55, 0, 2,38, 4,54		2,15,36,57,28	
		1,47,41,46,41,19,21, 6		
60″	30,55, 2, 4,36,46,43,57,26, 0			
exact	30,55, 2, 4,36,46,43,56,57,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31° 1′ 0″	30,55, 2, 4,36,46,43,56,57,55	1,47,41,44,25,42,12,41		
2″	30,55, 3,52,18,31, 9,39,10,36	1,47,41,42,10, 4,59,16	2,15,37,13,25	7,52
4″	30,55, 5,40, 0,13,19,44, 9,52	1,47,41,39,54,27,37,59	2,15,37,21,17	7,52
6″	30,55, 7,27,41,53,14,11,47,51	1,47,41,37,38,50, 8,50	2,15,37,29, 9	7,52
8″	30,55, 9,15,23,30,53, 1,56,41	1,47,41,35,23,12,31,49	2,15,37,37, 1	7,52
10″	30,55,11, 3, 5, 6,16,14,28,30	1,47,41,33, 7,34,46,56	2,15,37,44,53	7,52
12″	30,55,12,50,46,39,23,49,15,26	1,47,41,30,51,56,54,11	2,15,37,52,45	7,52
14″	30,55,14,38,28,10,15,46, 9,37	1,47,41,28,36,18,53,34	2,15,38, 0,37	7,52
16″	30,55,16,26, 9,38,52, 5, 3,11	1,47,41,26,20,40,45, 5	2,15,38, 8,29	7,52
18″	30,55,18,13,51, 5,12,45,48,16	1,47,41,24, 5, 2,28,44	2,15,38,16,21	7,52
20″	30,55,20, 1,32,29,17,48,17, 0	1,47,41,21,49,24, 4,31	2,15,38,24,13	7,52
22″	30,55,21,49,13,51, 7,12,21,31	1,47,41,19,33,45,32,26	2,15,38,32, 5	7,52
24″	30,55,23,36,55,10,40,57,53,57	1,47,41,17,18, 6,52,29	2,15,38,39,57	7,52
26″	30,55,25,24,36,27,59, 4,46,26	1,47,41,15, 2,28, 4,40	2,15,38,47,49	7,52
28″	30,55,27,12,17,43, 1,32,51, 6	1,47,41,12,46,49, 8,59	2,15,38,55,41	7,52
30″	30,55,28,59,58,55,48,22, 0, 5	1,47,41,10,31,10, 5,26	2,15,39, 3,33	7,52
32″	30,55,30,47,40, 6,19,32, 5,31	1,47,41, 8,15,30,54, 1	2,15,39,11,25	7,52
34″	30,55,32,35,21,14,35, 2,59,32	1,47,41, 5,59,51,34,44	2,15,39,19,17	7,52
36″	30,55,34,23, 2,20,34,54,34,16	1,47,41, 3,44,12, 7,35	2,15,39,27, 9	7,52
38″	30,55,36,10,43,24,19, 6,41,51	1,47,41, 1,28,32,32,34	2,15,39,35, 1	7,52
40″	30,55,37,58,24,25,47,39,14,25	1,47,40,59,12,52,49,41	2,15,39,42,53	7,52
42″	30,55,39,46, 5,25, 0,32, 4, 6	1,47,40,56,57,12,58,56	2,15,39,50,45	7,52
44″	30,55,41,33,46,21,57,45, 3, 2	1,47,40,54,41,33, 0,19	2,15,39,58,37	7,52
46″	30,55,43,21,27,16,39,18, 3,21	1,47,40,52,25,52,53,50	2,15,40, 6,29	7,52
48″	30,55,45, 9, 8, 9, 5,10,57,11	1,47,40,50,10,12,39,29	2,15,40,14,21	7,52
50″	30,55,46,56,48,59,15,23,36,40	1,47,40,47,54,32,17,16	2,15,40,22,13	7,52
52″	30,55,48,44,29,47, 9,55,53,56	1,47,40,45,38,51,47,11	2,15,40,30, 5	7,52
54″	30,55,50,32,10,32,48,47,41, 7	1,47,40,43,23,11, 9,14	2,15,40,37,57	7,52
56″	30,55,52,19,51,16,11,58,50,21	1,47,40,41, 7,30,23,25	2,15,40,45,49	7,52
58″	30,55,54, 7,31,57,19,29,13,46	1,47,40,38,51,49,29,44	2,15,40,53,41	
60″	30,55,55,55,12,36,11,18,43,30			
exact	30,55,55,55,12,36,11,18,18, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31° 2′ 0″	30,55,55,55,12,36,11,18,18, 8			
		1,47,40,36,36, 8,25,30		
2″	30,55,57,42,53,12,47,26,43,38		2,15,41, 9,36	
		1,47,40,34,20,27,15,54		7,52
4″	30,55,59,30,33,47, 7,53,59,32		2,15,41,17,28	
		1,47,40,32, 4,45,58,26		7,52
6″	30,56, 1,18,14,19,12,39,57,58		2,15,41,25,20	
		1,47,40,29,49, 4,33, 6		7,52
8″	30,56, 3, 5,54,49, 1,44,31, 4		2,15,41,33,12	
		1,47,40,27,33,22,59,54		7,52
10″	30,56, 4,53,35,16,35, 7,30,58		2,15,41,41, 4	
		1,47,40,25,17,41,18,50		7,52
12″	30,56, 6,41,15,41,52,48,49,48		2,15,41,48,56	
		1,47,40,23, 1,59,29,54		7,52
14″	30,56, 8,28,56, 4,54,48,19,42		2,15,41,56,48	
		1,47,40,20,46,17,33, 6		7,52
16″	30,56,10,16,36,25,41, 5,52,48		2,15,42, 4,40	
		1,47,40,18,30,35,28,26		7,52
18″	30,56,12, 4,16,44,11,41,21,14		2,15,42,12,32	
		1,47,40,16,14,53,15,54		7,52
20″	30,56,13,51,57, 0,26,34,37, 8		2,15,42,20,24	
		1,47,40,13,59,10,55,30		7,52
22″	30,56,15,39,37,14,25,45,32,38		2,15,42,28,16	
		1,47,40,11,43,28,27,14		7,52
24″	30,56,17,27,17,26, 9,13,59,52		2,15,42,36, 8	
		1,47,40, 9,27,45,51, 6		7,52
26″	30,56,19,14,57,35,36,59,50,58		2,15,42,44, 0	
		1,47,40, 7,12, 3, 7, 6		7,52
28″	30,56,21, 2,37,42,49, 2,58, 4		2,15,42,51,52	
		1,47,40, 4,56,20,15,14		7,52
30″	30,56,22,50,17,47,45,23,13,18		2,15,42,59,44	
		1,47,40, 2,40,37,15,30		7,52
32″	30,56,24,37,57,50,26, 0,28,48		2,15,43, 7,36	
		1,47,40, 0,24,54, 7,54		7,52
34″	30,56,26,25,37,50,50,54,36,42		2,15,43,15,28	
		1,47,39,58, 9,10,52,26		7,52
36″	30,56,28,13,17,49, 0, 5,29, 8		2,15,43,23,20	
		1,47,39,55,53,27,29, 6		7,52
38″	30,56,30, 0,57,44,53,32,58,14		2,15,43,31,12	
		1,47,39,53,37,43,57,54		7,52
40″	30,56,31,48,37,38,31,16,56, 8		2,15,43,39, 4	
		1,47,39,51,22, 0,18,50		7,52
42″	30,56,33,36,17,29,53,17,14,58		2,15,43,46,56	
		1,47,39,49, 6,16,31,54		7,52
44″	30,56,35,23,57,18,59,33,46,52		2,15,43,54,48	
		1,47,39,46,50,32,37, 6		7,52
46″	30,56,37,11,37, 5,50, 6,23,58		2,15,44, 2,40	
		1,47,39,44,34,48,34,26		7,52
48″	30,56,38,59,16,50,24,54,58,24		2,15,44,10,32	
		1,47,39,42,19, 4,23,54		7,52
50″	30,56,40,46,56,32,43,59,22,18		2,15,44,18,24	
		1,47,39,40, 3,20, 5,30		7,52
52″	30,56,42,34,36,12,47,19,27,48		2,15,44,26,16	
		1,47,39,37,47,35,39,14		7,52
54″	30,56,44,22,15,50,34,55, 7, 2		2,15,44,34, 8	
		1,47,39,35,31,51, 5, 6		7,52
56″	30,56,46, 9,55,26, 6,46,12, 8		2,15,44,42, 0	
		1,47,39,33,16, 6,23, 6		7,52
58″	30,56,47,57,34,59,22,52,35,14		2,15,44,49,52	
		1,47,39,31, 0,21,33,14		
60″	30,56,49,45,14,30,23,14, 8,28			
exact	30,56,49,45,14,30,23,13,49,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31° 3′ 0″	30,56,49,45,14,30,23,13,49,31	1,47,39,28,44,36,33,28		
2″	30,56,51,32,53,59, 7,50,22,59	1,47,39,26,28,51,27,44	2,15,45, 5,44	7,52
4″	30,56,53,20,33,25,36,41,50,43	1,47,39,24,13, 6,14, 8	2,15,45,13,36	7,52
6″	30,56,55, 8,12,49,49,48, 4,51	1,47,39,21,57,20,52,40	2,15,45,21,28	7,52
8″	30,56,56,55,52,11,47, 8,57,31	1,47,39,19,41,35,23,20	2,15,45,29,20	7,52
10″	30,56,58,43,31,31,28,44,20,51	1,47,39,17,25,49,46, 8	2,15,45,37,12	7,52
12″	30,57, 0,31,10,48,54,34, 6,59	1,47,39,15,10, 4, 1, 4	2,15,45,45, 4	7,52
14″	30,57, 2,18,50, 4, 4,38, 8, 3	1,47,39,12,54,18, 8, 8	2,15,45,52,56	7,52
16″	30,57, 4, 6,29,16,58,56,16,11	1,47,39,10,38,32, 7,20	2,15,46, 0,48	7,52
18″	30,57, 5,54, 8,27,37,28,23,31	1,47,39, 8,22,45,58,40	2,15,46, 8,40	7,52
20″	30,57, 7,41,47,36, 0,14,22,11	1,47,39, 6, 6,59,42, 8	2,15,46,16,32	7,52
22″	30,57, 9,29,26,42, 7,14, 4,19	1,47,39, 3,51,13,17,44	2,15,46,24,24	7,52
24″	30,57,11,17, 5,45,58,27,22, 3	1,47,39, 1,35,26,45,28	2,15,46,32,16	7,52
26″	30,57,13, 4,44,47,33,54, 7,31	1,47,38,59,19,40, 5,20	2,15,46,40, 8	7,52
28″	30,57,14,52,23,46,53,34,12,51	1,47,38,57, 3,53,17,20	2,15,46,48, 0	7,52
30″	30,57,16,40, 2,43,57,27,30,11	1,47,38,54,48, 6,21,28	2,15,46,55,52	7,52
32″	30,57,18,27,41,38,45,33,51,39	1,47,38,52,32,19,17,44	2,15,47, 3,44	7,52
34″	30,57,20,15,20,31,17,53, 9,23	1,47,38,50,16,32, 6, 8	2,15,47,11,36	7,52
36″	30,57,22, 2,59,21,34,25,15,31	1,47,38,48, 0,44,46,40	2,15,47,19,28	7,52
38″	30,57,23,50,38, 9,35,10, 2,11	1,47,38,45,44,57,19,20	2,15,47,27,20	7,52
40″	30,57,25,38,16,55,20, 7,21,31	1,47,38,43,29, 9,44, 8	2,15,47,35,12	7,52
42″	30,57,27,25,55,38,49,17, 5,39	1,47,38,41,13,22, 1, 4	2,15,47,43, 4	7,52
44″	30,57,29,13,34,20, 2,39, 6,43	1,47,38,38,57,34,10, 8	2,15,47,50,56	7,52
46″	30,57,31, 1,12,59, 0,13,16,51	1,47,38,36,41,46,11,20	2,15,47,58,48	7,52
48″	30,57,32,48,51,35,41,59,28,11	1,47,38,34,25,58, 4,40	2,15,48, 6,40	7,52
50″	30,57,34,36,30,10, 7,57,32,51	1,47,38,32,10, 9,50, 8	2,15,48,14,32	7,52
52″	30,57,36,24, 8,42,18, 7,22,59	1,47,38,29,54,21,27,44	2,15,48,22,24	7,52
54″	30,57,38,11,47,12,12,28,50,43	1,47,38,27,38,32,57,28	2,15,48,30,16	7,52
56″	30,57,39,59,25,39,51, 1,48,11	1,47,38,25,22,44,19,20	2,15,48,38, 8	7,52
58″	30,57,41,47, 4, 5,13,46, 7,31	1,47,38,23, 6,55,33,20	2,15,48,46, 0	
60″	30,57,43,34,42,28,20,41,40,51			
exact	30,57,43,34,42,28,20,41,24,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31° 4′ 0″	30,57,43,34,42,28,20,41,24,32			
		1,47,38,20,51, 6,37,50		
2″	30,57,45,22,20,49,11,48, 2,22		2,15,49, 1,50	
		1,47,38,18,35,17,36, 0		7,52
4″	30,57,47, 9,59, 7,47, 5,38,22		2,15,49, 9,42	
		1,47,38,16,19,28,26,18		7,52
6″	30,57,48,57,37,24, 6,34, 4,40		2,15,49,17,34	
		1,47,38,14, 3,39, 8,44		7,52
8″	30,57,50,45,15,38,10,13,13,24		2,15,49,25,26	
		1,47,38,11,47,49,43,18		7,52
10″	30,57,52,32,53,49,58, 2,56,42		2,15,49,33,18	
		1,47,38, 9,32, 0,10, 0		7,52
12″	30,57,54,20,31,59,30, 3, 6,42		2,15,49,41,10	
		1,47,38, 7,16,10,28,50		7,52
14″	30,57,56, 8,10, 6,46,13,35,32		2,15,49,49, 2	
		1,47,38, 5, 0,20,39,48		7,52
16″	30,57,57,55,48,11,46,34,15,20		2,15,49,56,54	
		1,47,38, 2,44,30,42,54		7,52
18″	30,57,59,43,26,14,31, 4,58,14		2,15,50, 4,46	
		1,47,38, 0,28,40,38, 8		7,52
20″	30,58, 1,31, 4,14,59,45,36,22		2,15,50,12,38	
		1,47,37,58,12,50,25,30		7,52
22″	30,58, 3,18,42,13,12,36, 1,52		2,15,50,20,30	
		1,47,37,55,57, 0, 5, 0		7,52
24″	30,58, 5, 6,20, 9, 9,36, 6,52		2,15,50,28,22	
		1,47,37,53,41, 9,36,38		7,52
26″	30,58, 6,53,58, 2,50,45,43,30		2,15,50,36,14	
		1,47,37,51,25,19, 0,24		7,52
28″	30,58, 8,41,35,54,16, 4,43,54		2,15,50,44, 6	
		1,47,37,49, 9,28,16,18		7,52
30″	30,58,10,29,13,43,25,33, 0,12		2,15,50,51,58	
		1,47,37,46,53,37,24,20		7,52
32″	30,58,12,16,51,30,19,10,24,32		2,15,50,59,50	
		1,47,37,44,37,46,24,30		7,52
34″	30,58,14, 4,29,14,56,56,49, 2		2,15,51, 7,42	
		1,47,37,42,21,55,16,48		7,52
36″	30,58,15,52, 6,57,18,52, 5,50		2,15,51,15,34	
		1,47,37,40, 6, 4, 1,14		7,52
38″	30,58,17,39,44,37,24,56, 7, 4		2,15,51,23,26	
		1,47,37,37,50,12,37,48		7,52
40″	30,58,19,27,22,15,15, 8,44,52		2,15,51,31,18	
		1,47,37,35,34,21, 6,30		7,52
42″	30,58,21,14,59,50,49,29,51,22		2,15,51,39,10	
		1,47,37,33,18,29,27,20		7,52
44″	30,58,23, 2,37,24, 7,59,18,42		2,15,51,47, 2	
		1,47,37,31, 2,37,40,18		7,52
46″	30,58,24,50,14,55,10,36,59, 0		2,15,51,54,54	
		1,47,37,28,46,45,45,24		7,52
48″	30,58,26,37,52,23,57,22,44,24		2,15,52, 2,46	
		1,47,37,26,30,53,42,38		7,52
50″	30,58,28,25,29,50,28,16,27, 2		2,15,52,10,38	
		1,47,37,24,15, 1,32, 0		7,52
52″	30,58,30,13, 7,14,43,17,59, 2		2,15,52,18,30	
		1,47,37,21,59, 9,13,30		7,52
54″	30,58,32, 0,44,36,42,27,12,32		2,15,52,26,22	
		1,47,37,19,43,16,47, 8		7,52
56″	30,58,33,48,21,56,25,43,59,40		2,15,52,34,14	
		1,47,37,17,27,24,12,54		7,52
58″	30,58,35,35,59,13,53, 8,12,34		2,15,52,42, 6	
		1,47,37,15,11,31,30,48		
60″	30,58,37,23,36,29, 4,39,43,22			
exact	30,58,37,23,36,29, 4,39,32,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31° 5′ 0″	30,58,37,23,36,29, 4,39,32,50			
		1,47,37,12,55,38,39,49		
2″	30,58,39,11,13,42, 0,18,12,39		2,15,52,57,54	
		1,47,37,10,39,45,41,55		7,52
4″	30,58,40,58,50,52,40, 3,54,34		2,15,53, 5,46	
		1,47,37, 8,23,52,36, 9		7,52
6″	30,58,42,46,28, 1, 3,56,30,43		2,15,53,13,38	
		1,47,37, 6, 7,59,22,31		7,52
8″	30,58,44,34, 5, 7,11,55,53,14		2,15,53,21,30	
		1,47,37, 3,52, 6, 1, 1		7,52
10″	30,58,46,21,42,11, 4, 1,54,15		2,15,53,29,22	
		1,47,37, 1,36,12,31,39		7,52
12″	30,58,48, 9,19,12,40,14,25,54		2,15,53,37,14	
		1,47,36,59,20,18,54,25		7,52
14″	30,58,49,56,56,12, 0,33,20,19		2,15,53,45, 6	
		1,47,36,57, 4,25, 9,19		7,52
16″	30,58,51,44,33, 9, 4,58,29,38		2,15,53,52,58	
		1,47,36,54,48,31,16,21		7,52
18″	30,58,53,32,10, 3,53,29,45,59		2,15,54, 0,50	
		1,47,36,52,32,37,15,31		7,52
20″	30,58,55,19,46,56,26, 7, 1,30		2,15,54, 8,42	
		1,47,36,50,16,43, 6,49		7,52
22″	30,58,57, 7,23,46,42,50, 8,19		2,15,54,16,34	
		1,47,36,48, 0,48,50,15		7,52
24″	30,58,58,55, 0,34,43,38,58,34		2,15,54,24,26	
		1,47,36,45,44,54,25,49		7,52
26″	30,59, 0,42,37,20,28,33,24,23		2,15,54,32,18	
		1,47,36,43,28,59,53,31		7,52
28″	30,59, 2,30,14, 3,57,33,17,54		2,15,54,40,10	
		1,47,36,41,13, 5,13,21		7,52
30″	30,59, 4,17,50,45,10,38,31,15		2,15,54,48, 2	
		1,47,36,38,57,10,25,19		7,52
32″	30,59, 6, 5,27,24, 7,48,56,34		2,15,54,55,54	
		1,47,36,36,41,15,29,25		7,52
34″	30,59, 7,53, 4, 0,49, 4,25,59		2,15,55, 3,46	
		1,47,36,34,25,20,25,39		7,52
36″	30,59, 9,40,40,35,14,24,51,38		2,15,55,11,38	
		1,47,36,32, 9,25,14, 1		7,52
38″	30,59,11,28,17, 7,23,50, 5,39		2,15,55,19,30	
		1,47,36,29,53,29,54,31		7,52
40″	30,59,13,15,53,37,17,20, 0,10		2,15,55,27,22	
		1,47,36,27,37,34,27, 9		7,52
42″	30,59,15, 3,30, 4,54,54,27,19		2,15,55,35,14	
		1,47,36,25,21,38,51,55		7,52
44″	30,59,16,51, 6,30,16,33,19,14		2,15,55,43, 6	
		1,47,36,23, 5,43, 8,49		7,52
46″	30,59,18,38,42,53,22,16,28, 3		2,15,55,50,58	
		1,47,36,20,49,47,17,51		7,52
48″	30,59,20,26,19,14,12, 3,45,54		2,15,55,58,50	
		1,47,36,18,33,51,19, 1		7,52
50″	30,59,22,13,55,32,45,55, 4,55		2,15,56, 6,42	
		1,47,36,16,17,55,12,19		7,52
52″	30,59,24, 1,31,49, 3,50,17,14		2,15,56,14,34	
		1,47,36,14, 1,58,57,45		7,52
54″	30,59,25,49, 8, 3, 5,49,14,59		2,15,56,22,26	
		1,47,36,11,46, 2,35,19		7,52
56″	30,59,27,36,44,14,51,51,50,18		2,15,56,30,18	
		1,47,36, 9,30, 6, 5, 1		7,52
58″	30,59,29,24,20,24,21,57,55,19		2,15,56,38,10	
		1,47,36, 7,14, 9,26,51		
60″	30,59,31,11,56,31,36, 7,22,10			
exact	30,59,31,11,56,31,36, 7,21,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31° 6′ 0″	30,59,31,11,56,31,36, 7,21,17			
		1,47,36, 4,58,12,40,40		
2″	30,59,32,59,32,36,34,20, 1,57		2,15,56,53,55	
		1,47,36, 2,42,15,46,45		7,52
4″	30,59,34,47, 8,39,16,35,48,42		2,15,57, 1,47	
		1,47,36, 0,26,18,44,58		7,52
6″	30,59,36,34,44,39,42,54,33,40		2,15,57, 9,39	
		1,47,35,58,10,21,35,19		7,52
8″	30,59,38,22,20,37,53,16, 8,59		2,15,57,17,31	
		1,47,35,55,54,24,17,48		7,52
10″	30,59,40, 9,56,33,47,40,26,47		2,15,57,25,23	
		1,47,35,53,38,26,52,25		7,52
12″	30,59,41,57,32,27,26, 7,19,12		2,15,57,33,15	
		1,47,35,51,22,29,19,10		7,52
14″	30,59,43,45, 8,18,48,36,38,22		2,15,57,41, 7	
		1,47,35,49, 6,31,38, 3		7,52
16″	30,59,45,32,44, 7,55, 8,16,25		2,15,57,48,59	
		1,47,35,46,50,33,49, 4		7,52
18″	30,59,47,20,19,54,45,42, 5,29		2,15,57,56,51	
		1,47,35,44,34,35,52,13		7,52
20″	30,59,49, 7,55,39,20,17,57,42		2,15,58, 4,43	
		1,47,35,42,18,37,47,30		7,52
22″	30,59,50,55,31,21,38,55,45,12		2,15,58,12,35	
		1,47,35,40, 2,39,34,55		7,52
24″	30,59,52,43, 7, 1,41,35,20, 7		2,15,58,20,27	
		1,47,35,37,46,41,14,28		7,52
26″	30,59,54,30,42,39,28,16,34,35		2,15,58,28,19	
		1,47,35,35,30,42,46, 9		7,52
28″	30,59,56,18,18,14,58,59,20,44		2,15,58,36,11	
		1,47,35,33,14,44, 9,58		7,52
30″	30,59,58, 5,53,48,13,43,30,42		2,15,58,44, 3	
		1,47,35,30,58,45,25,55		7,52
32″	30,59,59,53,29,19,12,28,56,37		2,15,58,51,55	
		1,47,35,28,42,46,34, 0		7,52
34″	31, 0, 1,41, 4,47,55,15,30,37		2,15,58,59,47	
		1,47,35,26,26,47,34,13		7,52
36″	31, 0, 3,28,40,14,22, 3, 4,50		2,15,59, 7,39	
		1,47,35,24,10,48,26,34		7,52
38″	31, 0, 5,16,15,38,32,51,31,24		2,15,59,15,31	
		1,47,35,21,54,49,11, 3		7,52
40″	31, 0, 7, 3,51, 0,27,40,42,27		2,15,59,23,23	
		1,47,35,19,38,49,47,40		7,52
42″	31, 0, 8,51,26,20, 6,30,30, 7		2,15,59,31,15	
		1,47,35,17,22,50,16,25		7,52
44″	31, 0,10,39, 1,37,29,20,46,32		2,15,59,39, 7	
		1,47,35,15, 6,50,37,18		7,52
46″	31, 0,12,26,36,52,36,11,23,50		2,15,59,46,59	
		1,47,35,12,50,50,50,19		7,52
48″	31, 0,14,14,12, 5,27, 2,14, 9		2,15,59,54,51	
		1,47,35,10,34,50,55,28		7,52
50″	31, 0,16, 1,47,16, 1,53, 9,37		2,16, 0, 2,43	
		1,47,35, 8,18,50,52,45		7,52
52″	31, 0,17,49,22,24,20,44, 2,22		2,16, 0,10,35	
		1,47,35, 6, 2,50,42,10		7,52
54″	31, 0,19,36,57,30,23,34,44,32		2,16, 0,18,27	
		1,47,35, 3,46,50,23,43		7,52
56″	31, 0,21,24,32,34,10,25, 8,15		2,16, 0,26,19	
		1,47,35, 1,30,49,57,24		7,52
58″	31, 0,23,12, 7,35,41,15, 5,39		2,16, 0,34,11	
		1,47,34,59,14,49,23,13		
60″	31, 0,24,59,42,34,56, 4,28,52			
exact	31, 0,24,59,42,34,56, 4,34, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31° 7′ 0″	31, 0,24,59,42,34,56, 4,34, 1			
		1,47,34,56,58,48,41,39		
2″	31, 0,26,47,17,31,54,53,15,40		2,16, 0,49,53	
		1,47,34,54,42,47,51,46		7,52
4″	31, 0,28,34,52,26,37,41, 7,26		2,16, 0,57,45	
		1,47,34,52,26,46,54, 1		7,52
6″	31, 0,30,22,27,19, 4,28, 1,27		2,16, 1, 5,37	
		1,47,34,50,10,45,48,24		7,52
8″	31, 0,32,10, 2, 9,15,13,49,51		2,16, 1,13,29	
		1,47,34,47,54,44,34,55		7,52
10″	31, 0,33,57,36,57, 9,58,24,46		2,16, 1,21,21	
		1,47,34,45,38,43,13,34		7,52
12″	31, 0,35,45,11,42,48,41,38,20		2,16, 1,29,13	
		1,47,34,43,22,41,44,21		7,52
14″	31, 0,37,32,46,26,11,23,22,41		2,16, 1,37, 5	
		1,47,34,41, 6,40, 7,16		7,52
16″	31, 0,39,20,21, 7,18, 3,29,57		2,16, 1,44,57	
		1,47,34,38,50,38,22,19		7,52
18″	31, 0,41, 7,55,46, 8,41,52,16		2,16, 1,52,49	
		1,47,34,36,34,36,29,30		7,52
20″	31, 0,42,55,30,22,43,18,21,46		2,16, 2, 0,41	
		1,47,34,34,18,34,28,49		7,52
22″	31, 0,44,43, 4,57, 1,52,50,35		2,16, 2, 8,33	
		1,47,34,32, 2,32,20,16		7,52
24″	31, 0,46,30,39,29, 4,25,10,51		2,16, 2,16,25	
		1,47,34,29,46,30, 3,51		7,52
26″	31, 0,48,18,13,58,50,55,14,42		2,16, 2,24,17	
		1,47,34,27,30,27,39,34		7,52
28″	31, 0,50, 5,48,26,21,22,54,16		2,16, 2,32, 9	
		1,47,34,25,14,25, 7,25		7,52
30″	31, 0,51,53,22,51,35,48, 1,41		2,16, 2,40, 1	
		1,47,34,22,58,22,27,24		7,52
32″	31, 0,53,40,57,14,34,10,29, 5		2,16, 2,47,53	
		1,47,34,20,42,19,39,31		7,52
34″	31, 0,55,28,31,35,16,30, 8,36		2,16, 2,55,45	
		1,47,34,18,26,16,43,46		7,52
36″	31, 0,57,16, 5,53,42,46,52,22		2,16, 3, 3,37	
		1,47,34,16,10,13,40, 9		7,52
38″	31, 0,59, 3,40, 9,53, 0,32,31		2,16, 3,11,29	
		1,47,34,13,54,10,28,40		7,52
40″	31, 1, 0,51,14,23,47,11, 1,11		2,16, 3,19,21	
		1,47,34,11,38, 7, 9,19		7,52
42″	31, 1, 2,38,48,35,25,18,10,30		2,16, 3,27,13	
		1,47,34, 9,22, 3,42, 6		7,52
44″	31, 1, 4,26,22,44,47,21,52,36		2,16, 3,35, 5	
		1,47,34, 7, 6, 0, 7, 1		7,52
46″	31, 1, 6,13,56,51,53,21,59,37		2,16, 3,42,57	
		1,47,34, 4,49,56,24, 4		7,52
48″	31, 1, 8, 1,30,56,43,18,23,41		2,16, 3,50,49	
		1,47,34, 2,33,52,33,15		7,52
50″	31, 1, 9,49, 4,59,17,10,56,56		2,16, 3,58,41	
		1,47,34, 0,17,48,34,34		7,52
52″	31, 1,11,36,38,59,34,59,31,30		2,16, 4, 6,33	
		1,47,33,58, 1,44,28, 1		7,52
54″	31, 1,13,24,12,57,36,43,59,31		2,16, 4,14,25	
		1,47,33,55,45,40,13,36		7,52
56″	31, 1,15,11,46,53,22,24,13, 7		2,16, 4,22,17	
		1,47,33,53,29,35,51,19		7,52
58″	31, 1,16,59,20,46,52, 0, 4,26		2,16, 4,30, 9	
		1,47,33,51,13,31,21,10		
60″	31, 1,18,46,54,38, 5,31,25,36			
exact	31, 1,18,46,54,38, 5,31,32,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31° 8′ 0″	31, 1,18,46,54,38, 5,31,32,28	1,47,33,48,57,26,43,58		
2″	31, 1,20,34,28,27, 2,58,16,26	1,47,33,46,41,21,58, 9	2,16, 4,45,49	7,52
4″	31, 1,22,22, 2,13,44,20,14,35	1,47,33,44,25,17, 4,28	2,16, 4,53,41	7,52
6″	31, 1,24, 9,35,58, 9,37,19, 3	1,47,33,42, 9,12, 2,55	2,16, 5, 1,33	7,52
8″	31, 1,25,57, 9,40,18,49,21,58	1,47,33,39,53, 6,53,30	2,16, 5, 9,25	7,52
10″	31, 1,27,44,43,20,11,56,15,28	1,47,33,37,37, 1,36,13	2,16, 5,17,17	7,52
12″	31, 1,29,32,16,57,48,57,51,41	1,47,33,35,20,56,11, 4	2,16, 5,25, 9	7,52
14″	31, 1,31,19,50,33, 9,54, 2,45	1,47,33,33, 4,50,38, 3	2,16, 5,33, 1	7,52
16″	31, 1,33, 7,24, 6,14,44,40,48	1,47,33,30,48,44,57,10	2,16, 5,40,53	7,52
18″	31, 1,34,54,57,37, 3,29,37,58	1,47,33,28,32,39, 8,25	2,16, 5,48,45	7,52
20″	31, 1,36,42,31, 5,36, 8,46,23	1,47,33,26,16,33,11,48	2,16, 5,56,37	7,52
22″	31, 1,38,30, 4,31,52,41,58,11	1,47,33,24, 0,27, 7,19	2,16, 6, 4,29	7,52
24″	31, 1,40,17,37,55,53, 9, 5,30	1,47,33,21,44,20,54,58	2,16, 6,12,21	7,52
26″	31, 1,42, 5,11,17,37,30, 0,28	1,47,33,19,28,14,34,45	2,16, 6,20,13	7,52
28″	31, 1,43,52,44,37, 5,44,35,13	1,47,33,17,12, 8, 6,40	2,16, 6,28, 5	7,52
30″	31, 1,45,40,17,54,17,52,41,53	1,47,33,14,56, 1,30,43	2,16, 6,35,57	7,52
32″	31, 1,47,27,51, 9,13,54,12,36	1,47,33,12,39,54,46,54	2,16, 6,43,49	7,52
34″	31, 1,49,15,24,21,53,48,59,30	1,47,33,10,23,47,55,13	2,16, 6,51,41	7,52
36″	31, 1,51, 2,57,32,17,36,54,43	1,47,33, 8, 7,40,55,40	2,16, 6,59,33	7,52
38″	31, 1,52,50,30,40,25,17,50,23	1,47,33, 5,51,33,48,15	2,16, 7, 7,25	7,52
40″	31, 1,54,38, 3,46,16,51,38,38	1,47,33, 3,35,26,32,58	2,16, 7,15,17	7,52
42″	31, 1,56,25,36,49,52,18,11,36	1,47,33, 1,19,19, 9,49	2,16, 7,23, 9	7,52
44″	31, 1,58,13, 9,51,11,37,21,25	1,47,32,59, 3,11,38,48	2,16, 7,31, 1	7,52
46″	31, 2, 0, 0,42,50,14,49, 0,13	1,47,32,56,47, 3,59,55	2,16, 7,38,53	7,52
48″	31, 2, 1,48,15,47, 1,53, 0, 8	1,47,32,54,30,56,13,10	2,16, 7,46,45	7,52
50″	31, 2, 3,35,48,41,32,49,13,18	1,47,32,52,14,48,18,33	2,16, 7,54,37	7,52
52″	31, 2, 5,23,21,33,47,37,31,51	1,47,32,49,58,40,16, 4	2,16, 8, 2,29	7,52
54″	31, 2, 7,10,54,23,46,17,47,55	1,47,32,47,42,32, 5,43	2,16, 8,10,21	7,52
56″	31, 2, 8,58,27,11,28,49,53,38	1,47,32,45,26,23,47,30	2,16, 8,18,13	7,52
58″	31, 2,10,45,59,56,55,13,41, 8	1,47,32,43,10,15,21,25	2,16, 8,26, 5	
60″	31, 2,12,33,32,40, 5,29, 2,33			
exact	31, 2,12,33,32,40, 5,29,15,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31° 9′ 0″	31, 2,12,33,32,40, 5,29,15,18	1,47,32,40,54, 6,48,54		
2″	31, 2,14,21, 5,20,59,36, 4,12	1,47,32,38,37,58, 7,11	2,16, 8,41,43	7,52
4″	31, 2,16, 8,37,59,37,34,11,23	1,47,32,36,21,49,17,36	2,16, 8,49,35	7,52
6″	31, 2,17,56,10,35,59,23,28,59	1,47,32,34, 5,40,20, 9	2,16, 8,57,27	7,52
8″	31, 2,19,43,43,10, 5, 3,49, 8	1,47,32,31,49,31,14,50	2,16, 9, 5,19	7,52
10″	31, 2,21,31,15,41,54,35, 3,58	1,47,32,29,33,22, 1,39	2,16, 9,13,11	7,52
12″	31, 2,23,18,48,11,27,57, 5,37	1,47,32,27,17,12,40,36	2,16, 9,21, 3	7,52
14″	31, 2,25, 6,20,38,45, 9,46,13	1,47,32,25, 1, 3,11,41	2,16, 9,28,55	7,52
16″	31, 2,26,53,53, 3,46,12,57,54	1,47,32,22,44,53,34,54	2,16, 9,36,47	7,52
18″	31, 2,28,41,25,26,31, 6,32,48	1,47,32,20,28,43,50,15	2,16, 9,44,39	7,52
20″	31, 2,30,28,57,46,59,50,23, 3	1,47,32,18,12,33,57,44	2,16, 9,52,31	7,52
22″	31, 2,32,16,30, 5,12,24,20,47	1,47,32,15,56,23,57,21	2,16,10, 0,23	7,52
24″	31, 2,34, 4, 2,21, 8,48,18, 8	1,47,32,13,40,13,49, 6	2,16,10, 8,15	7,52
26″	31, 2,35,51,34,34,49, 2, 7,14	1,47,32,11,24, 3,32,59	2,16,10,16, 7	7,52
28″	31, 2,37,39, 6,46,13, 5,40,13	1,47,32, 9, 7,53, 9, 0	2,16,10,23,59	7,52
30″	31, 2,39,26,38,55,20,58,49,13	1,47,32, 6,51,42,37, 9	2,16,10,31,51	7,52
32″	31, 2,41,14,11, 2,12,41,26,22	1,47,32, 4,35,31,57,26	2,16,10,39,43	7,52
34″	31, 2,43, 1,43, 6,48,13,23,48	1,47,32, 2,19,21, 9,51	2,16,10,47,35	7,52
36″	31, 2,44,49,15, 9, 7,34,33,39	1,47,32, 0, 3,10,14,24	2,16,10,55,27	7,52
38″	31, 2,46,36,47, 9,10,44,48, 3	1,47,31,57,46,59,11, 5	2,16,11, 3,19	7,52
40″	31, 2,48,24,19, 6,57,43,59, 8	1,47,31,55,30,47,59,54	2,16,11,11,11	7,52
42″	31, 2,50,11,51, 2,28,31,59, 2	1,47,31,53,14,36,40,51	2,16,11,19, 3	7,52
44″	31, 2,51,59,22,55,43, 8,39,53	1,47,31,50,58,25,13,56	2,16,11,26,55	7,52
46″	31, 2,53,46,54,46,41,33,53,49	1,47,31,48,42,13,39, 9	2,16,11,34,47	7,52
48″	31, 2,55,34,26,35,23,47,32,58	1,47,31,46,26, 1,56,30	2,16,11,42,39	7,52
50″	31, 2,57,21,58,21,49,49,29,28	1,47,31,44, 9,50, 5,59	2,16,11,50,31	7,52
52″	31, 2,59, 9,30, 5,59,39,35,27	1,47,31,41,53,38, 7,36	2,16,11,58,23	7,52
54″	31, 3, 0,57, 1,47,53,17,43, 3	1,47,31,39,37,26, 1,21	2,16,12, 6,15	7,52
56″	31, 3, 2,44,33,27,30,43,44,24	1,47,31,37,21,13,47,14	2,16,12,14, 7	7,52
58″	31, 3, 4,32, 5, 4,51,57,31,38	1,47,31,35, 5, 1,25,15	2,16,12,21,59	
60″	31, 3, 6,19,36,39,56,58,56,53			
exact	31, 3, 6,19,36,39,56,59,18,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°10′ 0″	31, 3, 6,19,36,39,56,59,18,32			
		1,47,31,32,48,48,57,40		
2″	31, 3, 8, 7, 8,12,45,48,16,12		2,16,12,37,34	
		1,47,31,30,32,36,20, 6		7,52
4″	31, 3, 9,54,39,43,18,24,36,18		2,16,12,45,26	
		1,47,31,28,16,23,34,40		7,52
6″	31, 3,11,42,11,11,34,48,10,58		2,16,12,53,18	
		1,47,31,26, 0,10,41,22		7,52
8″	31, 3,13,29,42,37,34,58,52,20		2,16,13, 1,10	
		1,47,31,23,43,57,40,12		7,52
10″	31, 3,15,17,14, 1,18,56,32,32		2,16,13, 9, 2	
		1,47,31,21,27,44,31,10		7,52
12″	31, 3,17, 4,45,22,46,41, 3,42		2,16,13,16,54	
		1,47,31,19,11,31,14,16		7,52
14″	31, 3,18,52,16,41,58,12,17,58		2,16,13,24,46	
		1,47,31,16,55,17,49,30		7,52
16″	31, 3,20,39,47,58,53,30, 7,28		2,16,13,32,38	
		1,47,31,14,39, 4,16,52		7,52
18″	31, 3,22,27,19,13,32,34,24,20		2,16,13,40,30	
		1,47,31,12,22,50,36,22		7,52
20″	31, 3,24,14,50,25,55,25, 0,42		2,16,13,48,22	
		1,47,31,10, 6,36,48, 0		7,52
22″	31, 3,26, 2,21,36, 2, 1,48,42		2,16,13,56,14	
		1,47,31, 7,50,22,51,46		7,52
24″	31, 3,27,49,52,43,52,24,40,28		2,16,14, 4, 6	
		1,47,31, 5,34, 8,47,40		7,52
26″	31, 3,29,37,23,49,26,33,28, 8		2,16,14,11,58	
		1,47,31, 3,17,54,35,42		7,52
28″	31, 3,31,24,54,52,44,28, 3,50		2,16,14,19,50	
		1,47,31, 1, 1,40,15,52		7,52
30″	31, 3,33,12,25,53,46, 8,19,42		2,16,14,27,42	
		1,47,30,58,45,25,48,10		7,52
32″	31, 3,34,59,56,52,31,34, 7,52		2,16,14,35,34	
		1,47,30,56,29,11,12,36		7,52
34″	31, 3,36,47,27,49, 0,45,20,28		2,16,14,43,26	
		1,47,30,54,12,56,29,10		7,52
36″	31, 3,38,34,58,43,13,41,49,38		2,16,14,51,18	
		1,47,30,51,56,41,37,52		7,52
38″	31, 3,40,22,29,35,10,23,27,30		2,16,14,59,10	
		1,47,30,49,40,26,38,42		7,52
40″	31, 3,42,10, 0,24,50,50, 6,12		2,16,15, 7, 2	
		1,47,30,47,24,11,31,40		7,52
42″	31, 3,43,57,31,12,15, 1,37,52		2,16,15,14,54	
		1,47,30,45, 7,56,16,46		7,52
44″	31, 3,45,45, 1,57,22,57,54,38		2,16,15,22,46	
		1,47,30,42,51,40,54, 0		7,52
46″	31, 3,47,32,32,40,14,38,48,38		2,16,15,30,38	
		1,47,30,40,35,25,23,22		7,52
48″	31, 3,49,20, 3,20,50, 4,12, 0		2,16,15,38,30	
		1,47,30,38,19, 9,44,52		7,52
50″	31, 3,51, 7,33,59, 9,13,56,52		2,16,15,46,22	
		1,47,30,36, 2,53,58,30		7,52
52″	31, 3,52,55, 4,35,12, 7,55,22		2,16,15,54,14	
		1,47,30,33,46,38, 4,16		7,52
54″	31, 3,54,42,35, 8,58,45,59,38		2,16,16, 2, 6	
		1,47,30,31,30,22, 2,10		7,52
56″	31, 3,56,30, 5,40,29, 8, 1,48		2,16,16, 9,58	
		1,47,30,29,14, 5,52,12		7,52
58″	31, 3,58,17,36, 9,43,13,54, 0		2,16,16,17,50	
		1,47,30,26,57,49,34,22		
60″	31, 4, 0, 5, 6,36,41, 3,28,22			
exact	31, 4, 0, 5, 6,36,41, 3,55,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°11′ 0″	31, 4, 0, 5, 6,36,41, 3,55,29			
		1,47,30,24,41,33,11,31		
2″	31, 4, 1,52,37, 1,22,37, 7, 0		2,16,16,33,22	
		1,47,30,22,25,16,38, 9		7,52
4″	31, 4, 3,40, 7,23,47,53,45, 9		2,16,16,41,14	
		1,47,30,20, 8,59,56,55		7,52
6″	31, 4, 5,27,37,43,56,53,42, 4		2,16,16,49, 6	
		1,47,30,17,52,43, 7,49		7,52
8″	31, 4, 7,15, 8, 1,49,36,49,53		2,16,16,56,58	
		1,47,30,15,36,26,10,51		7,52
10″	31, 4, 9, 2,38,17,26, 3, 0,44		2,16,17, 4,50	
		1,47,30,13,20, 9, 6, 1		7,52
12″	31, 4,10,50, 8,30,46,12, 6,45		2,16,17,12,42	
		1,47,30,11, 3,51,53,19		7,52
14″	31, 4,12,37,38,41,50, 4, 0, 4		2,16,17,20,34	
		1,47,30, 8,47,34,32,45		7,52
16″	31, 4,14,25, 8,50,37,38,32,49		2,16,17,28,26	
		1,47,30, 6,31,17, 4,19		7,52
18″	31, 4,16,12,38,57, 8,55,37, 8		2,16,17,36,18	
		1,47,30, 4,14,59,28, 1		7,52
20″	31, 4,18, 0, 9, 1,23,55, 5, 9		2,16,17,44,10	
		1,47,30, 1,58,41,43,51		7,52
22″	31, 4,19,47,39, 3,22,36,49, 0		2,16,17,52, 2	
		1,47,29,59,42,23,51,49		7,52
24″	31, 4,21,35, 9, 3, 5, 0,40,49		2,16,17,59,54	
		1,47,29,57,26, 5,51,55		7,52
26″	31, 4,23,22,39, 0,31, 6,32,44		2,16,18, 7,46	
		1,47,29,55, 9,47,44, 9		7,52
28″	31, 4,25,10, 8,55,40,54,16,53		2,16,18,15,38	
		1,47,29,52,53,29,28,31		7,52
30″	31, 4,26,57,38,48,34,23,45,24		2,16,18,23,30	
		1,47,29,50,37,11, 5, 1		7,52
32″	31, 4,28,45, 8,39,11,34,50,25		2,16,18,31,22	
		1,47,29,48,20,52,33,39		7,52
34″	31, 4,30,32,38,27,32,27,24, 4		2,16,18,39,14	
		1,47,29,46, 4,33,54,25		7,52
36″	31, 4,32,20, 8,13,37, 1,18,29		2,16,18,47, 6	
		1,47,29,43,48,15, 7,19		7,52
38″	31, 4,34, 7,37,57,25,16,25,48		2,16,18,54,58	
		1,47,29,41,31,56,12,21		7,52
40″	31, 4,35,55, 7,38,57,12,38, 9		2,16,19, 2,50	
		1,47,29,39,15,37, 9,31		7,52
42″	31, 4,37,42,37,18,12,49,47,40		2,16,19,10,42	
		1,47,29,36,59,17,58,49		7,52
44″	31, 4,39,30, 6,55,12, 7,46,29		2,16,19,18,34	
		1,47,29,34,42,58,40,15		7,52
46″	31, 4,41,17,36,29,55, 6,26,44		2,16,19,26,26	
		1,47,29,32,26,39,13,49		7,52
48″	31, 4,43, 5, 6, 2,21,45,40,33		2,16,19,34,18	
		1,47,29,30,10,19,39,31		7,52
50″	31, 4,44,52,35,32,32, 5,20, 4		2,16,19,42,10	
		1,47,29,27,53,59,57,21		7,52
52″	31, 4,46,40, 5, 0,26, 5,17,25		2,16,19,50, 2	
		1,47,29,25,37,40, 7,19		7,52
54″	31, 4,48,27,34,26, 3,45,24,44		2,16,19,57,54	
		1,47,29,23,21,20, 9,25		7,52
56″	31, 4,50,15, 3,49,25, 5,34, 9		2,16,20, 5,46	
		1,47,29,21, 5, 0, 3,39		7,52
58″	31, 4,52, 2,33,10,30, 5,37,48		2,16,20,13,38	
		1,47,29,18,48,39,50, 1		
60″	31, 4,53,50, 2,29,18,45,27,49			
exact	31, 4,53,50, 2,29,18,45,56,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°12′ 0″	31, 4,53,50, 2,29,18,45,56,49			
		1,47,29,16,32,19,31,43		
2″	31, 4,55,37,31,45,51, 5,28,32		2,16,20,29, 8	
		1,47,29,14,15,59, 2,35		7,51
4″	31, 4,57,25, 1, 0, 7, 4,31, 7		2,16,20,36,59	
		1,47,29,11,59,38,25,36		7,51
6″	31, 4,59,12,30,12, 6,42,56,43		2,16,20,44,50	
		1,47,29, 9,43,17,40,46		7,51
8″	31, 5, 0,59,59,21,50, 0,37,29		2,16,20,52,41	
		1,47,29, 7,26,56,48, 5		7,51
10″	31, 5, 2,47,28,29,16,57,25,34		2,16,21, 0,32	
		1,47,29, 5,10,35,47,33		7,51
12″	31, 5, 4,34,57,34,27,33,13, 7		2,16,21, 8,23	
		1,47,29, 2,54,14,39,10		7,51
14″	31, 5, 6,22,26,37,21,47,52,17		2,16,21,16,14	
		1,47,29, 0,37,53,22,56		7,51
16″	31, 5, 8, 9,55,37,59,41,15,13		2,16,21,24, 5	
		1,47,28,58,21,31,58,51		7,51
18″	31, 5, 9,57,24,36,21,13,14, 4		2,16,21,31,56	
		1,47,28,56, 5,10,26,55		7,51
20″	31, 5,11,44,53,32,26,23,40,59		2,16,21,39,47	
		1,47,28,53,48,48,47, 8		7,51
22″	31, 5,13,32,22,26,15,12,28, 7		2,16,21,47,38	
		1,47,28,51,32,26,59,30		7,51
24″	31, 5,15,19,51,17,47,39,27,37		2,16,21,55,29	
		1,47,28,49,16, 5, 4, 1		7,51
26″	31, 5,17, 7,20, 7, 3,44,31,38		2,16,22, 3,20	
		1,47,28,46,59,43, 0,41		7,51
28″	31, 5,18,54,48,54, 3,27,32,19		2,16,22,11,11	
		1,47,28,44,43,20,49,30		7,51
30″	31, 5,20,42,17,38,46,48,21,49		2,16,22,19, 2	
		1,47,28,42,26,58,30,28		7,51
32″	31, 5,22,29,46,21,13,46,52,17		2,16,22,26,53	
		1,47,28,40,10,36, 3,35		7,51
34″	31, 5,24,17,15, 1,24,22,55,52		2,16,22,34,44	
		1,47,28,37,54,13,28,51		7,51
36″	31, 5,26, 4,43,39,18,36,24,43		2,16,22,42,35	
		1,47,28,35,37,50,46,16		7,51
38″	31, 5,27,52,12,14,56,27,10,59		2,16,22,50,26	
		1,47,28,33,21,27,55,50		7,51
40″	31, 5,29,39,40,48,17,55, 6,49		2,16,22,58,17	
		1,47,28,31, 5, 4,57,33		7,51
42″	31, 5,31,27, 9,19,23, 0, 4,22		2,16,23, 6, 8	
		1,47,28,28,48,41,51,25		7,51
44″	31, 5,33,14,37,48,11,41,55,47		2,16,23,13,59	
		1,47,28,26,32,18,37,26		7,51
46″	31, 5,35, 2, 6,14,44, 0,33,13		2,16,23,21,50	
		1,47,28,24,15,55,15,36		7,51
48″	31, 5,36,49,34,38,59,55,48,49		2,16,23,29,41	
		1,47,28,21,59,31,45,55		7,51
50″	31, 5,38,37, 3, 0,59,27,34,44		2,16,23,37,32	
		1,47,28,19,43, 8, 8,23		7,51
52″	31, 5,40,24,31,20,42,35,43, 7		2,16,23,45,23	
		1,47,28,17,26,44,23, 0		7,51
54″	31, 5,42,11,59,38, 9,20, 6, 7		2,16,23,53,14	
		1,47,28,15,10,20,29,46		7,51
56″	31, 5,43,59,27,53,19,40,35,53		2,16,24, 1, 5	
		1,47,28,12,53,56,28,41		7,51
58″	31, 5,45,46,56, 6,13,37, 4,34		2,16,24, 8,56	
		1,47,28,10,37,32,19,45		
60″	31, 5,47,34,24,16,51, 9,24,19			
exact	31, 5,47,34,24,16,51, 8,50,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°13′ 0″	31, 5,47,34,24,16,51, 8,50,35			
		1,47,28, 8,21, 7,59,29		
2″	31, 5,49,21,52,25,12,16,50, 4		2,16,24,24,52	
		1,47,28, 6, 4,43,34,37		7,51
4″	31, 5,51, 9,20,31,17, 0,24,41		2,16,24,32,43	
		1,47,28, 3,48,19, 1,54		7,51
6″	31, 5,52,56,48,35, 5,19,26,35		2,16,24,40,34	
		1,47,28, 1,31,54,21,20		7,51
8″	31, 5,54,44,16,36,37,13,47,55		2,16,24,48,25	
		1,47,27,59,15,29,32,55		7,51
10″	31, 5,56,31,44,35,52,43,20,50		2,16,24,56,16	
		1,47,27,56,59, 4,36,39		7,51
12″	31, 5,58,19,12,32,51,47,57,29		2,16,25, 4, 7	
		1,47,27,54,42,39,32,32		7,51
14″	31, 6, 0, 6,40,27,34,27,30, 1		2,16,25,11,58	
		1,47,27,52,26,14,20,34		7,51
16″	31, 6, 1,54, 8,20, 0,41,50,35		2,16,25,19,49	
		1,47,27,50, 9,49, 0,45		7,51
18″	31, 6, 3,41,36,10,10,30,51,20		2,16,25,27,40	
		1,47,27,47,53,23,33, 5		7,51
20″	31, 6, 5,29, 3,58, 3,54,24,25		2,16,25,35,31	
		1,47,27,45,36,57,57,34		7,51
22″	31, 6, 7,16,31,43,40,52,21,59		2,16,25,43,22	
		1,47,27,43,20,32,14,12		7,51
24″	31, 6, 9, 3,59,27, 1,24,36,11		2,16,25,51,13	
		1,47,27,41, 4, 6,22,59		7,51
26″	31, 6,10,51,27, 8, 5,30,59,10		2,16,25,59, 4	
		1,47,27,38,47,40,23,55		7,51
28″	31, 6,12,38,54,46,53,11,23, 5		2,16,26, 6,55	
		1,47,27,36,31,14,17, 0		7,51
30″	31, 6,14,26,22,23,24,25,40, 5		2,16,26,14,46	
		1,47,27,34,14,48, 2,14		7,51
32″	31, 6,16,13,49,57,39,13,42,19		2,16,26,22,37	
		1,47,27,31,58,21,39,37		7,51
34″	31, 6,18, 1,17,29,37,35,21,56		2,16,26,30,28	
		1,47,27,29,41,55, 9, 9		7,51
36″	31, 6,19,48,44,59,19,30,31, 5		2,16,26,38,19	
		1,47,27,27,25,28,30,50		7,51
38″	31, 6,21,36,12,26,44,59, 1,55		2,16,26,46,10	
		1,47,27,25, 9, 1,44,40		7,51
40″	31, 6,23,23,39,51,54, 0,46,35		2,16,26,54, 1	
		1,47,27,22,52,34,50,39		7,51
42″	31, 6,25,11, 7,14,46,35,37,14		2,16,27, 1,52	
		1,47,27,20,36, 7,48,47		7,51
44″	31, 6,26,58,34,35,22,43,26, 1		2,16,27, 9,43	
		1,47,27,18,19,40,39, 4		7,51
46″	31, 6,28,46, 1,53,42,24, 5, 5		2,16,27,17,34	
		1,47,27,16, 3,13,21,30		7,51
48″	31, 6,30,33,29, 9,45,37,26,35		2,16,27,25,25	
		1,47,27,13,46,45,56, 5		7,51
50″	31, 6,32,20,56,23,32,23,22,40		2,16,27,33,16	
		1,47,27,11,30,18,22,49		7,51
52″	31, 6,34, 8,23,35, 2,41,45,29		2,16,27,41, 7	
		1,47,27, 9,13,50,41,42		7,51
54″	31, 6,35,55,50,44,16,32,27,11		2,16,27,48,58	
		1,47,27, 6,57,22,52,44		7,51
56″	31, 6,37,43,17,51,13,55,19,55		2,16,27,56,49	
		1,47,27, 4,40,54,55,55		7,51
58″	31, 6,39,30,44,55,54,50,15,50		2,16,28, 4,40	
		1,47,27, 2,24,26,51,15		
60″	31, 6,41,18,11,58,19,17, 7, 5			
exact	31, 6,41,18,11,58,19,16,42,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°14′ 0″	31, 6,41,18,11,58,19,16,42,10	1,47,27, 0, 7,58,36, 4		
2″	31, 6,43, 5,38,58,27,15,18,14	1,47,26,57,51,30,15,31	2,16,28,20,33	7,51
4″	31, 6,44,53, 5,56,18,45,33,45	1,47,26,55,35, 1,47, 7	2,16,28,28,24	7,51
6″	31, 6,46,40,32,51,53,47,20,52	1,47,26,53,18,33,10,52	2,16,28,36,15	7,51
8″	31, 6,48,27,59,45,12,20,31,44	1,47,26,51, 2, 4,26,46	2,16,28,44, 6	7,51
10″	31, 6,50,15,26,36,14,24,58,30	1,47,26,48,45,35,34,49	2,16,28,51,57	7,51
12″	31, 6,52, 2,53,25, 0, 0,33,19	1,47,26,46,29, 6,35, 1	2,16,28,59,48	7,51
14″	31, 6,53,50,20,11,29, 7, 8,20	1,47,26,44,12,37,27,22	2,16,29, 7,39	7,51
16″	31, 6,55,37,46,55,41,44,35,42	1,47,26,41,56, 8,11,52	2,16,29,15,30	7,51
18″	31, 6,57,25,13,37,37,52,47,34	1,47,26,39,39,38,48,31	2,16,29,23,21	7,51
20″	31, 6,59,12,40,17,17,31,36, 5	1,47,26,37,23, 9,17,19	2,16,29,31,12	7,51
22″	31, 7, 1, 0, 6,54,40,40,53,24	1,47,26,35, 6,39,38,16	2,16,29,39, 3	7,51
24″	31, 7, 2,47,33,29,47,20,31,40	1,47,26,32,50, 9,51,22	2,16,29,46,54	7,51
26″	31, 7, 4,35, 0, 2,37,30,23, 2	1,47,26,30,33,39,56,37	2,16,29,54,45	7,51
28″	31, 7, 6,22,26,33,11,10,19,39	1,47,26,28,17, 9,54, 1	2,16,30, 2,36	7,51
30″	31, 7, 8, 9,53, 1,28,20,13,40	1,47,26,26, 0,39,43,34	2,16,30,10,27	7,51
32″	31, 7, 9,57,19,27,28,59,57,14	1,47,26,23,44, 9,25,16	2,16,30,18,18	7,51
34″	31, 7,11,44,45,51,13, 9,22,30	1,47,26,21,27,38,59, 7	2,16,30,26, 9	7,51
36″	31, 7,13,32,12,12,40,48,21,37	1,47,26,19,11, 8,25, 7	2,16,30,34, 0	7,51
38″	31, 7,15,19,38,31,51,56,46,44	1,47,26,16,54,37,43,16	2,16,30,41,51	7,51
40″	31, 7,17, 7, 4,48,46,34,30, 0	1,47,26,14,38, 6,53,34	2,16,30,49,42	7,51
42″	31, 7,18,54,31, 3,24,41,23,34	1,47,26,12,21,35,56, 1	2,16,30,57,33	7,51
44″	31, 7,20,41,57,15,46,17,19,35	1,47,26,10, 5, 4,50,37	2,16,31, 5,24	7,51
46″	31, 7,22,29,23,25,51,22,10,12	1,47,26, 7,48,33,37,22	2,16,31,13,15	7,51
48″	31, 7,24,16,49,33,39,55,47,34	1,47,26, 5,32, 2,16,16	2,16,31,21, 6	7,51
50″	31, 7,26, 4,15,39,11,58, 3,50	1,47,26, 3,15,30,47,19	2,16,31,28,57	7,51
52″	31, 7,27,51,41,42,27,28,51, 9	1,47,26, 0,58,59,10,31	2,16,31,36,48	7,51
54″	31, 7,29,39, 7,43,26,28, 1,40	1,47,25,58,42,27,25,52	2,16,31,44,39	7,51
56″	31, 7,31,26,33,42, 8,55,27,32	1,47,25,56,25,55,33,22	2,16,31,52,30	7,51
58″	31, 7,33,13,59,38,34,51, 0,54	1,47,25,54, 9,23,33, 1	2,16,32, 0,21	
60″	31, 7,35, 1,25,32,44,14,33,55			
exact	31, 7,35, 1,25,32,44,14,14,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°15′ 0″	31, 7,35, 1,25,32,44,14,14,22			
		1,47,25,51,52,51,22,44		
2″	31, 7,36,48,51,24,37, 5,37, 6		2,16,32,16,11	
		1,47,25,49,36,19, 6,33		7,51
4″	31, 7,38,36,17,14,13,24,43,39		2,16,32,24, 2	
		1,47,25,47,19,46,42,31		7,51
6″	31, 7,40,23,43, 1,33,11,26,10		2,16,32,31,53	
		1,47,25,45, 3,14,10,38		7,51
8″	31, 7,42,11, 8,46,36,25,36,48		2,16,32,39,44	
		1,47,25,42,46,41,30,54		7,51
10″	31, 7,43,58,34,29,23, 7, 7,42		2,16,32,47,35	
		1,47,25,40,30, 8,43,19		7,51
12″	31, 7,45,46, 0, 9,53,15,51, 1		2,16,32,55,26	
		1,47,25,38,13,35,47,53		7,51
14″	31, 7,47,33,25,48, 6,51,38,54		2,16,33, 3,17	
		1,47,25,35,57, 2,44,36		7,51
16″	31, 7,49,20,51,24, 3,54,23,30		2,16,33,11, 8	
		1,47,25,33,40,29,33,28		7,51
18″	31, 7,51, 8,16,57,44,23,56,58		2,16,33,18,59	
		1,47,25,31,23,56,14,29		7,51
20″	31, 7,52,55,42,29, 8,20,11,27		2,16,33,26,50	
		1,47,25,29, 7,22,47,39		7,51
22″	31, 7,54,43, 7,58,15,42,59, 6		2,16,33,34,41	
		1,47,25,26,50,49,12,58		7,51
24″	31, 7,56,30,33,25, 6,32,12, 4		2,16,33,42,32	
		1,47,25,24,34,15,30,26		7,51
26″	31, 7,58,17,58,49,40,47,42,30		2,16,33,50,23	
		1,47,25,22,17,41,40, 3		7,51
28″	31, 8, 0, 5,24,11,58,29,22,33		2,16,33,58,14	
		1,47,25,20, 1, 7,41,49		7,51
30″	31, 8, 1,52,49,31,59,37, 4,22		2,16,34, 6, 5	
		1,47,25,17,44,33,35,44		7,51
32″	31, 8, 3,40,14,49,44,10,40, 6		2,16,34,13,56	
		1,47,25,15,27,59,21,48		7,51
34″	31, 8, 5,27,40, 5,12,10, 1,54		2,16,34,21,47	
		1,47,25,13,11,25, 0, 1		7,51
36″	31, 8, 7,15, 5,18,23,35, 1,55		2,16,34,29,38	
		1,47,25,10,54,50,30,23		7,51
38″	31, 8, 9, 2,30,29,18,25,32,18		2,16,34,37,29	
		1,47,25, 8,38,15,52,54		7,51
40″	31, 8,10,49,55,37,56,41,25,12		2,16,34,45,20	
		1,47,25, 6,21,41, 7,34		7,51
42″	31, 8,12,37,20,44,18,22,32,46		2,16,34,53,11	
		1,47,25, 4, 5, 6,14,23		7,51
44″	31, 8,14,24,45,48,23,28,47, 9		2,16,35, 1, 2	
		1,47,25, 1,48,31,13,21		7,51
46″	31, 8,16,12,10,50,12, 0, 0,30		2,16,35, 8,53	
		1,47,24,59,31,56, 4,28		7,51
48″	31, 8,17,59,35,49,43,56, 4,58		2,16,35,16,44	
		1,47,24,57,15,20,47,44		7,51
50″	31, 8,19,47, 0,46,59,16,52,42		2,16,35,24,35	
		1,47,24,54,58,45,23, 9		7,51
52″	31, 8,21,34,25,41,58, 2,15,51		2,16,35,32,26	
		1,47,24,52,42, 9,50,43		7,51
54″	31, 8,23,21,50,34,40,12, 6,34		2,16,35,40,17	
		1,47,24,50,25,34,10,26		7,51
56″	31, 8,25, 9,15,25, 5,46,17, 0		2,16,35,48, 8	
		1,47,24,48, 8,58,22,18		7,51
58″	31, 8,26,56,40,13,14,44,39,18		2,16,35,55,59	
		1,47,24,45,52,22,26,19		
60″	31, 8,28,44, 4,59, 7, 7, 5,37			
exact	31, 8,28,44, 4,59, 7, 6,47,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°16′ 0″	31, 8,28,44, 4,59, 7, 6,47,25	1,47,24,43,35,46,20,42		
2″	31, 8,30,31,29,42,42,53, 8, 7	1,47,24,41,19,10, 8,55	2,16,36,11,47	7,51
4″	31, 8,32,18,54,24, 2, 3,17, 2	1,47,24,39, 2,33,49,17	2,16,36,19,38	7,51
6″	31, 8,34, 6,19, 3, 4,37, 6,19	1,47,24,36,45,57,21,48	2,16,36,27,29	7,51
8″	31, 8,35,53,43,39,50,34,28, 7	1,47,24,34,29,20,46,28	2,16,36,35,20	7,51
10″	31, 8,37,41, 8,14,19,55,14,35	1,47,24,32,12,44, 3,17	2,16,36,43,11	7,51
12″	31, 8,39,28,32,46,32,39,17,52	1,47,24,29,56, 7,12,15	2,16,36,51, 2	7,51
14″	31, 8,41,15,57,16,28,46,30, 7	1,47,24,27,39,30,13,22	2,16,36,58,53	7,51
16″	31, 8,43, 3,21,44, 8,16,43,29	1,47,24,25,22,53, 6,38	2,16,37, 6,44	7,51
18″	31, 8,44,50,46, 9,31, 9,50, 7	1,47,24,23, 6,15,52, 3	2,16,37,14,35	7,51
20″	31, 8,46,38,10,32,37,25,42,10	1,47,24,20,49,38,29,37	2,16,37,22,26	7,51
22″	31, 8,48,25,34,53,27, 4,11,47	1,47,24,18,33, 0,59,20	2,16,37,30,17	7,51
24″	31, 8,50,12,59,12, 0, 5,11, 7	1,47,24,16,16,23,21,12	2,16,37,38, 8	7,51
26″	31, 8,52, 0,23,28,16,28,32,19	1,47,24,13,59,45,35,13	2,16,37,45,59	7,51
28″	31, 8,53,47,47,42,16,14, 7,32	1,47,24,11,43, 7,41,23	2,16,37,53,50	7,51
30″	31, 8,55,35,11,53,59,21,48,55	1,47,24, 9,26,29,39,42	2,16,38, 1,41	7,51
32″	31, 8,57,22,36, 3,25,51,28,37	1,47,24, 7, 9,51,30,10	2,16,38, 9,32	7,51
34″	31, 8,59,10, 0,10,35,42,58,47	1,47,24, 4,53,13,12,47	2,16,38,17,23	7,51
36″	31, 9, 0,57,24,15,28,56,11,34	1,47,24, 2,36,34,47,33	2,16,38,25,14	7,51
38″	31, 9, 2,44,48,18, 5,30,59, 7	1,47,24, 0,19,56,14,28	2,16,38,33, 5	7,51
40″	31, 9, 4,32,12,18,25,27,13,35	1,47,23,58, 3,17,33,32	2,16,38,40,56	7,51
42″	31, 9, 6,19,36,16,28,44,47, 7	1,47,23,55,46,38,44,45	2,16,38,48,47	7,51
44″	31, 9, 8, 7, 0,12,15,23,31,52	1,47,23,53,29,59,48, 7	2,16,38,56,38	7,51
46″	31, 9, 9,54,24, 5,45,23,19,59	1,47,23,51,13,20,43,38	2,16,39, 4,29	7,51
48″	31, 9,11,41,47,56,58,44, 3,37	1,47,23,48,56,41,31,18	2,16,39,12,20	7,51
50″	31, 9,13,29,11,45,55,25,34,55	1,47,23,46,40, 2,11, 7	2,16,39,20,11	7,51
52″	31, 9,15,16,35,32,35,27,46, 2	1,47,23,44,23,22,43, 5	2,16,39,28, 2	7,51
54″	31, 9,17, 3,59,16,58,50,29, 7	1,47,23,42, 6,43, 7,12	2,16,39,35,53	7,51
56″	31, 9,18,51,22,59, 5,33,36,19	1,47,23,39,50, 3,23,28	2,16,39,43,44	7,51
58″	31, 9,20,38,46,38,55,36,59,47	1,47,23,37,33,23,31,53	2,16,39,51,35	
60″	31, 9,22,26,10,16,29, 0,31,40			
exact	31, 9,22,26,10,16,29, 0,18,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°17′ 0″	31, 9,22,26,10,16,29, 0,18,58	1,47,23,35,16,43,31,15		
2″	31, 9,24,13,33,51,45,43,50,13	1,47,23,33, 0, 3,23,54	2,16,40, 7,21	7,51
4″	31, 9,26, 0,57,24,45,47,14, 7	1,47,23,30,43,23, 8,42	2,16,40,15,12	7,51
6″	31, 9,27,48,20,55,29,10,22,49	1,47,23,28,26,42,45,39	2,16,40,23, 3	7,51
8″	31, 9,29,35,44,23,55,53, 8,28	1,47,23,26,10, 2,14,45	2,16,40,30,54	7,51
10″	31, 9,31,23, 7,50, 5,55,23,13	1,47,23,23,53,21,36, 0	2,16,40,38,45	7,51
12″	31, 9,33,10,31,13,59,16,59,13	1,47,23,21,36,40,49,24	2,16,40,46,36	7,51
14″	31, 9,34,57,54,35,35,57,48,37	1,47,23,19,19,59,54,57	2,16,40,54,27	7,51
16″	31, 9,36,45,17,54,55,57,43,34	1,47,23,17, 3,18,52,39	2,16,41, 2,18	7,51
18″	31, 9,38,32,41,11,59,16,36,13	1,47,23,14,46,37,42,30	2,16,41,10, 9	7,51
20″	31, 9,40,20, 4,26,45,54,18,43	1,47,23,12,29,56,24,30	2,16,41,18, 0	7,51
22″	31, 9,42, 7,27,39,15,50,43,13	1,47,23,10,13,14,58,39	2,16,41,25,51	7,51
24″	31, 9,43,54,50,49,29, 5,41,52	1,47,23, 7,56,33,24,57	2,16,41,33,42	7,51
26″	31, 9,45,42,13,57,25,39, 6,49	1,47,23, 5,39,51,43,24	2,16,41,41,33	7,51
28″	31, 9,47,29,37, 3, 5,30,50,13	1,47,23, 3,23, 9,54, 0	2,16,41,49,24	7,51
30″	31, 9,49,17, 0, 6,28,40,44,13	1,47,23, 1, 6,27,56,45	2,16,41,57,15	7,51
32″	31, 9,51, 4,23, 7,35, 8,40,58	1,47,22,58,49,45,51,39	2,16,42, 5, 6	7,51
34″	31, 9,52,51,46, 6,24,54,32,37	1,47,22,56,33, 3,38,42	2,16,42,12,57	7,51
36″	31, 9,54,39, 9, 2,57,58,11,19	1,47,22,54,16,21,17,54	2,16,42,20,48	7,51
38″	31, 9,56,26,31,57,14,19,29,13	1,47,22,51,59,38,49,15	2,16,42,28,39	7,51
40″	31, 9,58,13,54,49,13,58,18,28	1,47,22,49,42,56,12,45	2,16,42,36,30	7,51
42″	31,10, 0, 1,17,38,56,54,31,13	1,47,22,47,26,13,28,24	2,16,42,44,21	7,51
44″	31,10, 1,48,40,26,23, 7,59,37	1,47,22,45, 9,30,36,12	2,16,42,52,12	7,51
46″	31,10, 3,36, 3,11,32,38,35,49	1,47,22,42,52,47,36, 9	2,16,43, 0, 3	7,51
48″	31,10, 5,23,25,54,25,26,11,58	1,47,22,40,36, 4,28,15	2,16,43, 7,54	7,51
50″	31,10, 7,10,48,35, 1,30,40,13	1,47,22,38,19,21,12,30	2,16,43,15,45	7,51
52″	31,10, 8,58,11,13,20,51,52,43	1,47,22,36, 2,37,48,54	2,16,43,23,36	7,51
54″	31,10,10,45,33,49,23,29,41,37	1,47,22,33,45,54,17,27	2,16,43,31,27	7,51
56″	31,10,12,32,56,23, 9,23,59, 4	1,47,22,31,29,10,38, 9	2,16,43,39,18	7,51
58″	31,10,14,20,18,54,38,34,37,13	1,47,22,29,12,26,51, 0	2,16,43,47, 9	
60″	31,10,16, 7,41,23,51, 1,28,13			
exact	31,10,16, 7,41,23,51, 1,24, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°18′ 0″	31,10,16, 7,41,23,51, 1,24, 6			
		1,47,22,26,55,42,55,37		
2″	31,10,17,55, 3,50,46,44,19,43		2,16,44, 2,52	
		1,47,22,24,38,58,52,45		7,51
4″	31,10,19,42,26,15,25,43,12,28		2,16,44,10,43	
		1,47,22,22,22,14,42, 2		7,51
6″	31,10,21,29,48,37,47,57,54,30		2,16,44,18,34	
		1,47,22,20, 5,30,23,28		7,51
8″	31,10,23,17,10,57,53,28,17,58		2,16,44,26,25	
		1,47,22,17,48,45,57, 3		7,51
10″	31,10,25, 4,33,15,42,14,15, 1		2,16,44,34,16	
		1,47,22,15,32, 1,22,47		7,51
12″	31,10,26,51,55,31,14,15,37,48		2,16,44,42, 7	
		1,47,22,13,15,16,40,40		7,51
14″	31,10,28,39,17,44,29,32,18,28		2,16,44,49,58	
		1,47,22,10,58,31,50,42		7,51
16″	31,10,30,26,39,55,28, 4, 9,10		2,16,44,57,49	
		1,47,22, 8,41,46,52,53		7,51
18″	31,10,32,14, 2, 4, 9,51, 2, 3		2,16,45, 5,40	
		1,47,22, 6,25, 1,47,13		7,51
20″	31,10,34, 1,24,10,34,52,49,16		2,16,45,13,31	
		1,47,22, 4, 8,16,33,42		7,51
22″	31,10,35,48,46,14,43, 9,22,58		2,16,45,21,22	
		1,47,22, 1,51,31,12,20		7,51
24″	31,10,37,36, 8,16,34,40,35,18		2,16,45,29,13	
		1,47,21,59,34,45,43, 7		7,51
26″	31,10,39,23,30,16, 9,26,18,25		2,16,45,37, 4	
		1,47,21,57,18, 0, 6, 3		7,51
28″	31,10,41,10,52,13,27,26,24,28		2,16,45,44,55	
		1,47,21,55, 1,14,21, 8		7,51
30″	31,10,42,58,14, 8,28,40,45,36		2,16,45,52,46	
		1,47,21,52,44,28,28,22		7,51
32″	31,10,44,45,36, 1,13, 9,13,58		2,16,46, 0,37	
		1,47,21,50,27,42,27,45		7,51
34″	31,10,46,32,57,51,40,51,41,43		2,16,46, 8,28	
		1,47,21,48,10,56,19,17		7,51
36″	31,10,48,20,19,39,51,48, 1, 0		2,16,46,16,19	
		1,47,21,45,54,10, 2,58		7,51
38″	31,10,50, 7,41,25,45,58, 3,58		2,16,46,24,10	
		1,47,21,43,37,23,38,48		7,51
40″	31,10,51,55, 3, 9,23,21,42,46		2,16,46,32, 1	
		1,47,21,41,20,37, 6,47		7,51
42″	31,10,53,42,24,50,43,58,49,33		2,16,46,39,52	
		1,47,21,39, 3,50,26,55		7,51
44″	31,10,55,29,46,29,47,49,16,28		2,16,46,47,43	
		1,47,21,36,47, 3,39,12		7,51
46″	31,10,57,17, 8, 6,34,52,55,40		2,16,46,55,34	
		1,47,21,34,30,16,43,38		7,51
48″	31,10,59, 4,29,41, 5, 9,39,18		2,16,47, 3,25	
		1,47,21,32,13,29,40,13		7,51
50″	31,11, 0,51,51,13,18,39,19,31		2,16,47,11,16	
		1,47,21,29,56,42,28,57		7,51
52″	31,11, 2,39,12,43,15,21,48,28		2,16,47,19, 7	
		1,47,21,27,39,55, 9,50		7,51
54″	31,11, 4,26,34,10,55,16,58,18		2,16,47,26,58	
		1,47,21,25,23, 7,42,52		7,51
56″	31,11, 6,13,55,36,18,24,41,10		2,16,47,34,49	
		1,47,21,23, 6,20, 8, 3		7,51
58″	31,11, 8, 1,16,59,24,44,49,13		2,16,47,42,40	
		1,47,21,20,49,32,25,23		
60″	31,11, 9,48,38,20,14,17,14,36			
exact	31,11, 9,48,38,20,14,17,15,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°19′ 0″	31,11, 9,48,38,20,14,17,15,23			
		1,47,21,18,32,44,35, 2		
2″	31,11,11,35,59,38,47, 1,50,25		2,16,47,58,21	
		1,47,21,16,15,56,36,41		7,51
4″	31,11,13,23,20,55, 2,58,27, 6		2,16,48, 6,12	
		1,47,21,13,59, 8,30,29		7,51
6″	31,11,15,10,42, 9, 2, 6,57,35		2,16,48,14, 3	
		1,47,21,11,42,20,16,26		7,51
8″	31,11,16,58, 3,20,44,27,14, 1		2,16,48,21,54	
		1,47,21, 9,25,31,54,32		7,51
10″	31,11,18,45,24,30, 9,59, 8,33		2,16,48,29,45	
		1,47,21, 7, 8,43,24,47		7,51
12″	31,11,20,32,45,37,18,42,33,20		2,16,48,37,36	
		1,47,21, 4,51,54,47,11		7,51
14″	31,11,22,20, 6,42,10,37,20,31		2,16,48,45,27	
		1,47,21, 2,35, 6, 1,44		7,51
16″	31,11,24, 7,27,44,45,43,22,15		2,16,48,53,18	
		1,47,21, 0,18,17, 8,26		7,51
18″	31,11,25,54,48,45, 4, 0,30,41		2,16,49, 1, 9	
		1,47,20,58, 1,28, 7,17		7,51
20″	31,11,27,42, 9,43, 5,28,37,58		2,16,49, 9, 0	
		1,47,20,55,44,38,58,17		7,51
22″	31,11,29,29,30,38,50, 7,36,15		2,16,49,16,51	
		1,47,20,53,27,49,41,26		7,51
24″	31,11,31,16,51,32,17,57,17,41		2,16,49,24,42	
		1,47,20,51,11, 0,16,44		7,51
26″	31,11,33, 4,12,23,28,57,34,25		2,16,49,32,33	
		1,47,20,48,54,10,44,11		7,51
28″	31,11,34,51,33,12,23, 8,18,36		2,16,49,40,24	
		1,47,20,46,37,21, 3,47		7,51
30″	31,11,36,38,53,59, 0,29,22,23		2,16,49,48,15	
		1,47,20,44,20,31,15,32		7,51
32″	31,11,38,26,14,43,21, 0,37,55		2,16,49,56, 6	
		1,47,20,42, 3,41,19,26		7,51
34″	31,11,40,13,35,25,24,41,57,21		2,16,50, 3,57	
		1,47,20,39,46,51,15,29		7,51
36″	31,11,42, 0,56, 5,11,33,12,50		2,16,50,11,48	
		1,47,20,37,30, 1, 3,41		7,51
38″	31,11,43,48,16,42,41,34,16,31		2,16,50,19,39	
		1,47,20,35,13,10,44, 2		7,51
40″	31,11,45,35,37,17,54,45, 0,33		2,16,50,27,30	
		1,47,20,32,56,20,16,32		7,51
42″	31,11,47,22,57,50,51, 5,17, 5		2,16,50,35,21	
		1,47,20,30,39,29,41,11		7,51
44″	31,11,49,10,18,21,30,34,58,16		2,16,50,43,12	
		1,47,20,28,22,38,57,59		7,51
46″	31,11,50,57,38,49,53,13,56,15		2,16,50,51, 3	
		1,47,20,26, 5,48, 6,56		7,51
48″	31,11,52,44,59,15,59, 2, 3,11		2,16,50,58,54	
		1,47,20,23,48,57, 8, 2		7,51
50″	31,11,54,32,19,39,47,59,11,13		2,16,51, 6,45	
		1,47,20,21,32, 6, 1,17		7,51
52″	31,11,56,19,40, 1,20, 5,12,30		2,16,51,14,36	
		1,47,20,19,15,14,46,41		7,51
54″	31,11,58, 7, 0,20,35,19,59,11		2,16,51,22,27	
		1,47,20,16,58,23,24,14		7,51
56″	31,11,59,54,20,37,33,43,23,25		2,16,51,30,18	
		1,47,20,14,41,31,53,56		7,51
58″	31,12, 1,41,40,52,15,15,17,21		2,16,51,38, 9	
		1,47,20,12,24,40,15,47		
60″	31,12, 3,29, 1, 4,39,55,33, 8			
exact	31,12, 3,29, 1, 4,39,55,42,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°20′ 0″	31,12, 3,29, 1, 4,39,55,42,52			
		1,47,20,10, 7,48,30,47		
2″	31,12, 5,16,21,14,47,44,13,39		2,16,51,53,47	
		1,47,20, 7,50,56,37, 0		7,51
4″	31,12, 7, 3,41,22,38,40,50,39		2,16,52, 1,38	
		1,47,20, 5,34, 4,35,22		7,51
6″	31,12, 8,51, 1,28,12,45,26, 1		2,16,52, 9,29	
		1,47,20, 3,17,12,25,53		7,51
8″	31,12,10,38,21,31,29,57,51,54		2,16,52,17,20	
		1,47,20, 1, 0,20, 8,33		7,51
10″	31,12,12,25,41,32,30,18, 0,27		2,16,52,25,11	
		1,47,19,58,43,27,43,22		7,51
12″	31,12,14,13, 1,31,13,45,43,49		2,16,52,33, 2	
		1,47,19,56,26,35,10,20		7,51
14″	31,12,16, 0,21,27,40,20,54, 9		2,16,52,40,53	
		1,47,19,54, 9,42,29,27		7,51
16″	31,12,17,47,41,21,50, 3,23,36		2,16,52,48,44	
		1,47,19,51,52,49,40,43		7,51
18″	31,12,19,35, 1,13,42,53, 4,19		2,16,52,56,35	
		1,47,19,49,35,56,44, 8		7,51
20″	31,12,21,22,21, 3,18,49,48,27		2,16,53, 4,26	
		1,47,19,47,19, 3,39,42		7,51
22″	31,12,23, 9,40,50,37,53,28, 9		2,16,53,12,17	
		1,47,19,45, 2,10,27,25		7,51
24″	31,12,24,57, 0,35,40, 3,55,34		2,16,53,20, 8	
		1,47,19,42,45,17, 7,17		7,51
26″	31,12,26,44,20,18,25,21, 2,51		2,16,53,27,59	
		1,47,19,40,28,23,39,18		7,51
28″	31,12,28,31,39,58,53,44,42, 9		2,16,53,35,50	
		1,47,19,38,11,30, 3,28		7,51
30″	31,12,30,18,59,37, 5,14,45,37		2,16,53,43,41	
		1,47,19,35,54,36,19,47		7,51
32″	31,12,32, 6,19,12,59,51, 5,24		2,16,53,51,32	
		1,47,19,33,37,42,28,15		7,51
34″	31,12,33,53,38,46,37,33,33,39		2,16,53,59,23	
		1,47,19,31,20,48,28,52		7,51
36″	31,12,35,40,58,17,58,22, 2,31		2,16,54, 7,14	
		1,47,19,29, 3,54,21,38		7,51
38″	31,12,37,28,17,47, 2,16,24, 9		2,16,54,15, 5	
		1,47,19,26,47, 0, 6,33		7,51
40″	31,12,39,15,37,13,49,16,30,42		2,16,54,22,56	
		1,47,19,24,30, 5,43,37		7,51
42″	31,12,41, 2,56,38,19,22,14,19		2,16,54,30,47	
		1,47,19,22,13,11,12,50		7,51
44″	31,12,42,50,16, 0,32,33,27, 9		2,16,54,38,38	
		1,47,19,19,56,16,34,12		7,51
46″	31,12,44,37,35,20,28,50, 1,21		2,16,54,46,29	
		1,47,19,17,39,21,47,43		7,51
48″	31,12,46,24,54,38, 8,11,49, 4		2,16,54,54,20	
		1,47,19,15,22,26,53,23		7,51
50″	31,12,48,12,13,53,30,38,42,27		2,16,55, 2,11	
		1,47,19,13, 5,31,51,12		7,51
52″	31,12,49,59,33, 6,36,10,33,39		2,16,55,10, 2	
		1,47,19,10,48,36,41,10		7,51
54″	31,12,51,46,52,17,24,47,14,49		2,16,55,17,53	
		1,47,19, 8,31,41,23,17		7,51
56″	31,12,53,34,11,25,56,28,38, 6		2,16,55,25,44	
		1,47,19, 6,14,45,57,33		7,51
58″	31,12,55,21,30,32,11,14,35,39		2,16,55,33,35	
		1,47,19, 3,57,50,23,58		
60″	31,12,57, 8,49,36, 9, 4,59,37			
exact	31,12,57, 8,49,36, 9, 5,14, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°21′ 0″	31,12,57, 8,49,36, 9, 5,14, 8			
		1,47,19, 1,40,54,44, 5		
2″	31,12,58,56, 8,37,49,59,58,13		2,16,55,49,10	
		1,47,18,59,23,58,54,55		7,51
4″	31,13, 0,43,27,37,13,58,53, 8		2,16,55,57, 1	
		1,47,18,57, 7, 2,57,54		7,51
6″	31,13, 2,30,46,34,21, 1,51, 2		2,16,56, 4,52	
		1,47,18,54,50, 6,53, 2		7,51
8″	31,13, 4,18, 5,29,11, 8,44, 4		2,16,56,12,43	
		1,47,18,52,33,10,40,19		7,51
10″	31,13, 6, 5,24,21,44,19,24,23		2,16,56,20,34	
		1,47,18,50,16,14,19,45		7,51
12″	31,13, 7,52,43,12, 0,33,44, 8		2,16,56,28,25	
		1,47,18,47,59,17,51,20		7,51
14″	31,13, 9,40, 1,59,59,51,35,28		2,16,56,36,16	
		1,47,18,45,42,21,15, 4		7,51
16″	31,13,11,27,20,45,42,12,50,32		2,16,56,44, 7	
		1,47,18,43,25,24,30,57		7,51
18″	31,13,13,14,39,29, 7,37,21,29		2,16,56,51,58	
		1,47,18,41, 8,27,38,59		7,51
20″	31,13,15, 1,58,10,16, 5, 0,28		2,16,56,59,49	
		1,47,18,38,51,30,39,10		7,51
22″	31,13,16,49,16,49, 7,35,39,38		2,16,57, 7,40	
		1,47,18,36,34,33,31,30		7,51
24″	31,13,18,36,35,25,42, 9,11, 8		2,16,57,15,31	
		1,47,18,34,17,36,15,59		7,51
26″	31,13,20,23,53,59,59,45,27, 7		2,16,57,23,22	
		1,47,18,32, 0,38,52,37		7,51
28″	31,13,22,11,12,32, 0,24,19,44		2,16,57,31,13	
		1,47,18,29,43,41,21,24		7,51
30″	31,13,23,58,31, 1,44, 5,41, 8		2,16,57,39, 4	
		1,47,18,27,26,43,42,20		7,51
32″	31,13,25,45,49,29,10,49,23,28		2,16,57,46,55	
		1,47,18,25, 9,45,55,25		7,51
34″	31,13,27,33, 7,54,20,35,18,53		2,16,57,54,46	
		1,47,18,22,52,48, 0,39		7,51
36″	31,13,29,20,26,17,13,23,19,32		2,16,58, 2,37	
		1,47,18,20,35,49,58, 2		7,51
38″	31,13,31, 7,44,37,49,13,17,34		2,16,58,10,28	
		1,47,18,18,18,51,47,34		7,51
40″	31,13,32,55, 2,56, 8, 5, 5, 8		2,16,58,18,19	
		1,47,18,16, 1,53,29,15		7,51
42″	31,13,34,42,21,12, 9,58,34,23		2,16,58,26,10	
		1,47,18,13,44,55, 3, 5		7,51
44″	31,13,36,29,39,25,54,53,37,28		2,16,58,34, 1	
		1,47,18,11,27,56,29, 4		7,51
46″	31,13,38,16,57,37,22,50, 6,32		2,16,58,41,52	
		1,47,18, 9,10,57,47,12		7,51
48″	31,13,40, 4,15,46,33,47,53,44		2,16,58,49,43	
		1,47,18, 6,53,58,57,29		7,51
50″	31,13,41,51,33,53,27,46,51,13		2,16,58,57,34	
		1,47,18, 4,36,59,59,55		7,51
52″	31,13,43,38,51,58, 4,46,51, 8		2,16,59, 5,25	
		1,47,18, 2,20, 0,54,30		7,51
54″	31,13,45,26,10, 0,24,47,45,38		2,16,59,13,16	
		1,47,18, 0, 3, 1,41,14		7,51
56″	31,13,47,13,28, 0,27,49,26,52		2,16,59,21, 7	
		1,47,17,57,46, 2,20, 7		7,51
58″	31,13,49, 0,45,58,13,51,46,59		2,16,59,28,58	
		1,47,17,55,29, 2,51, 9		
60″	31,13,50,48, 3,53,42,54,38, 8			
exact	31,13,50,48, 3,53,42,54,54,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°22′ 0″	31,13,50,48, 3,53,42,54,54,14	1,47,17,53,12, 3,16,12		
2″	31,13,52,35,21,46,54,58,10,26	1,47,17,50,55, 3,31,41	2,16,59,44,31	7,51
4″	31,13,54,22,39,37,50, 1,42, 7	1,47,17,48,38, 3,39,19	2,16,59,52,22	7,51
6″	31,13,56, 9,57,26,28, 5,21,26	1,47,17,46,21, 3,39, 6	2,17, 0, 0,13	7,51
8″	31,13,57,57,15,12,49, 9, 0,32	1,47,17,44, 4, 3,31, 2	2,17, 0, 8, 4	7,51
10″	31,13,59,44,32,56,53,12,31,34	1,47,17,41,47, 3,15, 7	2,17, 0,15,55	7,51
12″	31,14, 1,31,50,38,40,15,46,41	1,47,17,39,30, 2,51,21	2,17, 0,23,46	7,51
14″	31,14, 3,19, 8,18,10,18,38, 2	1,47,17,37,13, 2,19,44	2,17, 0,31,37	7,51
16″	31,14, 5, 6,25,55,23,20,57,46	1,47,17,34,56, 1,40,16	2,17, 0,39,28	7,51
18″	31,14, 6,53,43,30,19,22,38, 2	1,47,17,32,39, 0,52,57	2,17, 0,47,19	7,51
20″	31,14, 8,41, 1, 2,58,23,30,59	1,47,17,30,21,59,57,47	2,17, 0,55,10	7,51
22″	31,14,10,28,18,33,20,23,28,46	1,47,17,28, 4,58,54,46	2,17, 1, 3, 1	7,51
24″	31,14,12,15,36, 1,25,22,23,32	1,47,17,25,47,57,43,54	2,17, 1,10,52	7,51
26″	31,14,14, 2,53,27,13,20, 7,26	1,47,17,23,30,56,25,11	2,17, 1,18,43	7,51
28″	31,14,15,50,10,50,44,16,32,37	1,47,17,21,13,54,58,37	2,17, 1,26,34	7,51
30″	31,14,17,37,28,11,58,11,31,14	1,47,17,18,56,53,24,12	2,17, 1,34,25	7,51
32″	31,14,19,24,45,30,55, 4,55,26	1,47,17,16,39,51,41,56	2,17, 1,42,16	7,51
34″	31,14,21,12, 2,47,34,56,37,22	1,47,17,14,22,49,51,49	2,17, 1,50, 7	7,51
36″	31,14,22,59,20, 1,57,46,29,11	1,47,17,12, 5,47,53,51	2,17, 1,57,58	7,51
38″	31,14,24,46,37,14, 3,34,23, 2	1,47,17, 9,48,45,48, 2	2,17, 2, 5,49	7,51
40″	31,14,26,33,54,23,52,20,11, 4	1,47,17, 7,31,43,34,22	2,17, 2,13,40	7,51
42″	31,14,28,21,11,31,24, 3,45,26	1,47,17, 5,14,41,12,51	2,17, 2,21,31	7,51
44″	31,14,30, 8,28,36,38,44,58,17	1,47,17, 2,57,38,43,29	2,17, 2,29,22	7,51
46″	31,14,31,55,45,39,36,23,41,46	1,47,17, 0,40,36, 6,16	2,17, 2,37,13	7,51
48″	31,14,33,43, 2,40,16,59,48, 2	1,47,16,58,23,33,21,12	2,17, 2,45, 4	7,51
50″	31,14,35,30,19,38,40,33, 9,14	1,47,16,56, 6,30,28,17	2,17, 2,52,55	7,51
52″	31,14,37,17,36,34,47, 3,37,31	1,47,16,53,49,27,27,31	2,17, 3, 0,46	7,51
54″	31,14,39, 4,53,28,36,31, 5, 2	1,47,16,51,32,24,18,54	2,17, 3, 8,37	7,51
56″	31,14,40,52,10,20, 8,55,23,56	1,47,16,49,15,21, 2,26	2,17, 3,16,28	7,51
58″	31,14,42,39,27, 9,24,16,26,22	1,47,16,46,58,17,38, 7	2,17, 3,24,19	
60″	31,14,44,26,43,56,22,34, 4,29			
exact	31,14,44,26,43,56,22,34,25,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°23′ 0″	31,14,44,26,43,56,22,34,25,48			
		1,47,16,44,41,14, 8,24		
2″	31,14,46,14, 0,41, 3,48,34,12		2,17, 3,39,50	
		1,47,16,42,24,10,28,34		7,51
4″	31,14,48, 1,17,23,27,59, 2,46		2,17, 3,47,41	
		1,47,16,40, 7, 6,40,53		7,51
6″	31,14,49,48,34, 3,35, 5,43,39		2,17, 3,55,32	
		1,47,16,37,50, 2,45,21		7,51
8″	31,14,51,35,50,41,25, 8,29, 0		2,17, 4, 3,23	
		1,47,16,35,32,58,41,58		7,51
10″	31,14,53,23, 7,16,58, 7,10,58		2,17, 4,11,14	
		1,47,16,33,15,54,30,44		7,51
12″	31,14,55,10,23,50,14, 1,41,42		2,17, 4,19, 5	
		1,47,16,30,58,50,11,39		7,51
14″	31,14,56,57,40,21,12,51,53,21		2,17, 4,26,56	
		1,47,16,28,41,45,44,43		7,51
16″	31,14,58,44,56,49,54,37,38, 4		2,17, 4,34,47	
		1,47,16,26,24,41, 9,56		7,51
18″	31,15, 0,32,13,16,19,18,48, 0		2,17, 4,42,38	
		1,47,16,24, 7,36,27,18		7,51
20″	31,15, 2,19,29,40,26,55,15,18		2,17, 4,50,29	
		1,47,16,21,50,31,36,49		7,51
22″	31,15, 4, 6,46, 2,17,26,52, 7		2,17, 4,58,20	
		1,47,16,19,33,26,38,29		7,51
24″	31,15, 5,54, 2,21,50,53,30,36		2,17, 5, 6,11	
		1,47,16,17,16,21,32,18		7,51
26″	31,15, 7,41,18,39, 7,15, 2,54		2,17, 5,14, 2	
		1,47,16,14,59,16,18,16		7,51
28″	31,15, 9,28,34,54, 6,31,21,10		2,17, 5,21,53	
		1,47,16,12,42,10,56,23		7,51
30″	31,15,11,15,51, 6,48,42,17,33		2,17, 5,29,44	
		1,47,16,10,25, 5,26,39		7,51
32″	31,15,13, 3, 7,17,13,47,44,12		2,17, 5,37,35	
		1,47,16, 8, 7,59,49, 4		7,51
34″	31,15,14,50,23,25,21,47,33,16		2,17, 5,45,26	
		1,47,16, 5,50,54, 3,38		7,51
36″	31,15,16,37,39,31,12,41,36,54		2,17, 5,53,17	
		1,47,16, 3,33,48,10,21		7,51
38″	31,15,18,24,55,34,46,29,47,15		2,17, 6, 1, 8	
		1,47,16, 1,16,42, 9,13		7,51
40″	31,15,20,12,11,36, 3,11,56,28		2,17, 6, 8,59	
		1,47,15,58,59,36, 0,14		7,51
42″	31,15,21,59,27,35, 2,47,56,42		2,17, 6,16,50	
		1,47,15,56,42,29,43,24		7,51
44″	31,15,23,46,43,31,45,17,40, 6		2,17, 6,24,41	
		1,47,15,54,25,23,18,43		7,51
46″	31,15,25,33,59,26,10,40,58,49		2,17, 6,32,32	
		1,47,15,52, 8,16,46,11		7,51
48″	31,15,27,21,15,18,18,57,45, 0		2,17, 6,40,23	
		1,47,15,49,51,10, 5,48		7,51
50″	31,15,29, 8,31, 8,10, 7,50,48		2,17, 6,48,14	
		1,47,15,47,34, 3,17,34		7,51
52″	31,15,30,55,46,55,44,11, 8,22		2,17, 6,56, 5	
		1,47,15,45,16,56,21,29		7,51
54″	31,15,32,43, 2,41, 1, 7,29,51		2,17, 7, 3,56	
		1,47,15,42,59,49,17,33		7,51
56″	31,15,34,30,18,24, 0,56,47,24		2,17, 7,11,47	
		1,47,15,40,42,42, 5,46		7,51
58″	31,15,36,17,34, 4,43,38,53,10		2,17, 7,19,38	
		1,47,15,38,25,34,46, 8		
60″	31,15,38, 4,49,43, 9,13,39,18			
exact	31,15,38, 4,49,43, 9,14, 8,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°24′ 0″	31,15,38, 4,49,43, 9,14, 8,59			
		1,47,15,36, 8,27,21,54		
2″	31,15,39,52, 5,19,17,41,30,53		2,17, 7,35, 6	
		1,47,15,33,51,19,46,48		7,50
4″	31,15,41,39,20,53, 9, 1,17,41		2,17, 7,42,56	
		1,47,15,31,34,12, 3,52		7,50
6″	31,15,43,26,36,24,43,13,21,33		2,17, 7,50,46	
		1,47,15,29,17, 4,13, 6		7,50
8″	31,15,45,13,51,54, 0,17,34,39		2,17, 7,58,36	
		1,47,15,26,59,56,14,30		7,50
10″	31,15,47, 1, 7,21, 0,13,49, 9		2,17, 8, 6,26	
		1,47,15,24,42,48, 8, 4		7,50
12″	31,15,48,48,22,45,43, 1,57,13		2,17, 8,14,16	
		1,47,15,22,25,39,53,48		7,50
14″	31,15,50,35,38, 8, 8,41,51, 1		2,17, 8,22, 6	
		1,47,15,20, 8,31,31,42		7,50
16″	31,15,52,22,53,28,17,13,22,43		2,17, 8,29,56	
		1,47,15,17,51,23, 1,46		7,50
18″	31,15,54,10, 8,46, 8,36,24,29		2,17, 8,37,46	
		1,47,15,15,34,14,24, 0		7,50
20″	31,15,55,57,24, 1,42,50,48,29		2,17, 8,45,36	
		1,47,15,13,17, 5,38,24		7,50
22″	31,15,57,44,39,14,59,56,26,53		2,17, 8,53,26	
		1,47,15,10,59,56,44,58		7,50
24″	31,15,59,31,54,25,59,53,11,51		2,17, 9, 1,16	
		1,47,15, 8,42,47,43,42		7,50
26″	31,16, 1,19, 9,34,42,40,55,33		2,17, 9, 9, 6	
		1,47,15, 6,25,38,34,36		7,50
28″	31,16, 3, 6,24,41, 8,19,30, 9		2,17, 9,16,56	
		1,47,15, 4, 8,29,17,40		7,50
30″	31,16, 4,53,39,45,16,48,47,49		2,17, 9,24,46	
		1,47,15, 1,51,19,52,54		7,50
32″	31,16, 6,40,54,47, 8, 8,40,43		2,17, 9,32,36	
		1,47,14,59,34,10,20,18		7,50
34″	31,16, 8,28, 9,46,42,19, 1, 1		2,17, 9,40,26	
		1,47,14,57,17, 0,39,52		7,50
36″	31,16,10,15,24,43,59,19,40,53		2,17, 9,48,16	
		1,47,14,54,59,50,51,36		7,50
38″	31,16,12, 2,39,38,59,10,32,29		2,17, 9,56, 6	
		1,47,14,52,42,40,55,30		7,50
40″	31,16,13,49,54,31,41,51,27,59		2,17,10, 3,56	
		1,47,14,50,25,30,51,34		7,50
42″	31,16,15,37, 9,22, 7,22,19,33		2,17,10,11,46	
		1,47,14,48, 8,20,39,48		7,50
44″	31,16,17,24,24,10,15,42,59,21		2,17,10,19,36	
		1,47,14,45,51,10,20,12		7,50
46″	31,16,19,11,38,56, 6,53,19,33		2,17,10,27,26	
		1,47,14,43,33,59,52,46		7,50
48″	31,16,20,58,53,39,40,53,12,19		2,17,10,35,16	
		1,47,14,41,16,49,17,30		7,50
50″	31,16,22,46, 8,20,57,42,29,49		2,17,10,43, 6	
		1,47,14,38,59,38,34,24		7,50
52″	31,16,24,33,22,59,57,21, 4,13		2,17,10,50,56	
		1,47,14,36,42,27,43,28		7,50
54″	31,16,26,20,37,36,39,48,47,41		2,17,10,58,46	
		1,47,14,34,25,16,44,42		7,50
56″	31,16,28, 7,52,11, 5, 5,32,23		2,17,11, 6,36	
		1,47,14,32, 8, 5,38, 6		7,50
58″	31,16,29,55, 6,43,13,11,10,29		2,17,11,14,26	
		1,47,14,29,50,54,23,40		
60″	31,16,31,42,21,13, 4, 5,34, 9			
exact	31,16,31,42,21,13, 4, 5, 1,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°25′ 0″	31,16,31,42,21,13, 4, 5, 1,34			
		1,47,14,27,33,42,57,59		
2″	31,16,33,29,35,40,37,47,59,33		2,17,11,30,20	
		1,47,14,25,16,31,27,39		7,50
4″	31,16,35,16,50, 5,54,19,27,12		2,17,11,38,10	
		1,47,14,22,59,19,49,29		7,50
6″	31,16,37, 4, 4,28,53,39,16,41		2,17,11,46, 0	
		1,47,14,20,42, 8, 3,29		7,50
8″	31,16,38,51,18,49,35,47,20,10		2,17,11,53,50	
		1,47,14,18,24,56, 9,39		7,50
10″	31,16,40,38,33, 8, 0,43,29,49		2,17,12, 1,40	
		1,47,14,16, 7,44, 7,59		7,50
12″	31,16,42,25,47,24, 8,27,37,48		2,17,12, 9,30	
		1,47,14,13,50,31,58,29		7,50
14″	31,16,44,13, 1,37,58,59,36,17		2,17,12,17,20	
		1,47,14,11,33,19,41, 9		7,50
16″	31,16,46, 0,15,49,32,19,17,26		2,17,12,25,10	
		1,47,14, 9,16, 7,15,59		7,50
18″	31,16,47,47,29,58,48,26,33,25		2,17,12,33, 0	
		1,47,14, 6,58,54,42,59		7,50
20″	31,16,49,34,44, 5,47,21,16,24		2,17,12,40,50	
		1,47,14, 4,41,42, 2, 9		7,50
22″	31,16,51,21,58,10,29, 3,18,33		2,17,12,48,40	
		1,47,14, 2,24,29,13,29		7,50
24″	31,16,53, 9,12,12,53,32,32, 2		2,17,12,56,30	
		1,47,14, 0, 7,16,16,59		7,50
26″	31,16,54,56,26,13, 0,48,49, 1		2,17,13, 4,20	
		1,47,13,57,50, 3,12,39		7,50
28″	31,16,56,43,40,10,50,52, 1,40		2,17,13,12,10	
		1,47,13,55,32,50, 0,29		7,50
30″	31,16,58,30,54, 6,23,42, 2, 9		2,17,13,20, 0	
		1,47,13,53,15,36,40,29		7,50
32″	31,17, 0,18, 7,59,39,18,42,38		2,17,13,27,50	
		1,47,13,50,58,23,12,39		7,50
34″	31,17, 2, 5,21,50,37,41,55,17		2,17,13,35,40	
		1,47,13,48,41, 9,36,59		7,50
36″	31,17, 3,52,35,39,18,51,32,16		2,17,13,43,30	
		1,47,13,46,23,55,53,29		7,50
38″	31,17, 5,39,49,25,42,47,25,45		2,17,13,51,20	
		1,47,13,44, 6,42, 2, 9		7,50
40″	31,17, 7,27, 3, 9,49,29,27,54		2,17,13,59,10	
		1,47,13,41,49,28, 2,59		7,50
42″	31,17, 9,14,16,51,38,57,30,53		2,17,14, 7, 0	
		1,47,13,39,32,13,55,59		7,50
44″	31,17,11, 1,30,31,11,11,26,52		2,17,14,14,50	
		1,47,13,37,14,59,41, 9		7,50
46″	31,17,12,48,44, 8,26,11, 8, 1		2,17,14,22,40	
		1,47,13,34,57,45,18,29		7,50
48″	31,17,14,35,57,43,23,56,26,30		2,17,14,30,30	
		1,47,13,32,40,30,47,59		7,50
50″	31,17,16,23,11,16, 4,27,14,29		2,17,14,38,20	
		1,47,13,30,23,16, 9,39		7,50
52″	31,17,18,10,24,46,27,43,24, 8		2,17,14,46,10	
		1,47,13,28, 6, 1,23,29		7,50
54″	31,17,19,57,38,14,33,44,47,37		2,17,14,54, 0	
		1,47,13,25,48,46,29,29		7,50
56″	31,17,21,44,51,40,22,31,17, 6		2,17,15, 1,50	
		1,47,13,23,31,31,27,39		7,50
58″	31,17,23,32, 5, 3,54, 2,44,45		2,17,15, 9,40	
		1,47,13,21,14,16,17,59		
60″	31,17,25,19,18,25, 8,19, 2,44			
exact	31,17,25,19,18,25, 8,18,38,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°26′ 0″	31,17,25,19,18,25, 8,18,38,52			
		1,47,13,18,57, 0,57,53		
2″	31,17,27, 6,31,44, 5,19,36,45		2,17,15,25,31	
		1,47,13,16,39,45,32,22		7,50
4″	31,17,28,53,45, 0,45, 5, 9, 7		2,17,15,33,21	
		1,47,13,14,22,29,59, 1		7,50
6″	31,17,30,40,58,15, 7,35, 8, 8		2,17,15,41,11	
		1,47,13,12, 5,14,17,50		7,50
8″	31,17,32,28,11,27,12,49,25,58		2,17,15,49, 1	
		1,47,13, 9,47,58,28,49		7,50
10″	31,17,34,15,24,37, 0,47,54,47		2,17,15,56,51	
		1,47,13, 7,30,42,31,58		7,50
12″	31,17,36, 2,37,44,31,30,26,45		2,17,16, 4,41	
		1,47,13, 5,13,26,27,17		7,50
14″	31,17,37,49,50,49,44,56,54, 2		2,17,16,12,31	
		1,47,13, 2,56,10,14,46		7,50
16″	31,17,39,37, 3,52,41, 7, 8,48		2,17,16,20,21	
		1,47,13, 0,38,53,54,25		7,50
18″	31,17,41,24,16,53,20, 1, 3,13		2,17,16,28,11	
		1,47,12,58,21,37,26,14		7,50
20″	31,17,43,11,29,51,41,38,29,27		2,17,16,36, 1	
		1,47,12,56, 4,20,50,13		7,50
22″	31,17,44,58,42,47,45,59,19,40		2,17,16,43,51	
		1,47,12,53,47, 4, 6,22		7,50
24″	31,17,46,45,55,41,33, 3,26, 2		2,17,16,51,41	
		1,47,12,51,29,47,14,41		7,50
26″	31,17,48,33, 8,33, 2,50,40,43		2,17,16,59,31	
		1,47,12,49,12,30,15,10		7,50
28″	31,17,50,20,21,22,15,20,55,53		2,17,17, 7,21	
		1,47,12,46,55,13, 7,49		7,50
30″	31,17,52, 7,34, 9,10,34, 3,42		2,17,17,15,11	
		1,47,12,44,37,55,52,38		7,50
32″	31,17,53,54,46,53,48,29,56,20		2,17,17,23, 1	
		1,47,12,42,20,38,29,37		7,50
34″	31,17,55,41,59,36, 9, 8,25,57		2,17,17,30,51	
		1,47,12,40, 3,20,58,46		7,50
36″	31,17,57,29,12,16,12,29,24,43		2,17,17,38,41	
		1,47,12,37,46, 3,20, 5		7,50
38″	31,17,59,16,24,53,58,32,44,48		2,17,17,46,31	
		1,47,12,35,28,45,33,34		7,50
40″	31,18, 1, 3,37,29,27,18,18,22		2,17,17,54,21	
		1,47,12,33,11,27,39,13		7,50
42″	31,18, 2,50,50, 2,38,45,57,35		2,17,18, 2,11	
		1,47,12,30,54, 9,37, 2		7,50
44″	31,18, 4,38, 2,33,32,55,34,37		2,17,18,10, 1	
		1,47,12,28,36,51,27, 1		7,50
46″	31,18, 6,25,15, 2, 9,47, 1,38		2,17,18,17,51	
		1,47,12,26,19,33, 9,10		7,50
48″	31,18, 8,12,27,28,29,20,10,48		2,17,18,25,41	
		1,47,12,24, 2,14,43,29		7,50
50″	31,18, 9,59,39,52,31,34,54,17		2,17,18,33,31	
		1,47,12,21,44,56, 9,58		7,50
52″	31,18,11,46,52,14,16,31, 4,15		2,17,18,41,21	
		1,47,12,19,27,37,28,37		7,50
54″	31,18,13,34, 4,33,44, 8,32,52		2,17,18,49,11	
		1,47,12,17,10,18,39,26		7,50
56″	31,18,15,21,16,50,54,27,12,18		2,17,18,57, 1	
		1,47,12,14,52,59,42,25		7,50
58″	31,18,17, 8,29, 5,47,26,54,43		2,17,19, 4,51	
		1,47,12,12,35,40,37,34		
60″	31,18,18,55,41,18,23, 7,32,17			
exact	31,18,18,55,41,18,23, 7,13,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°27′ 0″	31,18,18,55,41,18,23, 7,13,51			
		1,47,12,10,18,21,22,52		
2″	31,18,20,42,53,28,41,28,36,43		2,17,19,20,39	
		1,47,12, 8, 1, 2, 2,13		7,50
4″	31,18,22,30, 5,36,42,30,38,56		2,17,19,28,29	
		1,47,12, 5,43,42,33,44		7,50
6″	31,18,24,17,17,42,26,13,12,40		2,17,19,36,19	
		1,47,12, 3,26,22,57,25		7,50
8″	31,18,26, 4,29,45,52,36,10, 5		2,17,19,44, 9	
		1,47,12, 1, 9, 3,13,16		7,50
10″	31,18,27,51,41,47, 1,39,23,21		2,17,19,51,59	
		1,47,11,58,51,43,21,17		7,50
12″	31,18,29,38,53,45,53,22,44,38		2,17,19,59,49	
		1,47,11,56,34,23,21,28		7,50
14″	31,18,31,26, 5,42,27,46, 6, 6		2,17,20, 7,39	
		1,47,11,54,17, 3,13,49		7,50
16″	31,18,33,13,17,36,44,49,19,55		2,17,20,15,29	
		1,47,11,51,59,42,58,20		7,50
18″	31,18,35, 0,29,28,44,32,18,15		2,17,20,23,19	
		1,47,11,49,42,22,35, 1		7,50
20″	31,18,36,47,41,18,26,54,53,16		2,17,20,31, 9	
		1,47,11,47,25, 2, 3,52		7,50
22″	31,18,38,34,53, 5,51,56,57, 8		2,17,20,38,59	
		1,47,11,45, 7,41,24,53		7,50
24″	31,18,40,22, 4,50,59,38,22, 1		2,17,20,46,49	
		1,47,11,42,50,20,38, 4		7,50
26″	31,18,42, 9,16,33,49,59, 0, 5		2,17,20,54,39	
		1,47,11,40,32,59,43,25		7,50
28″	31,18,43,56,28,14,22,58,43,30		2,17,21, 2,29	
		1,47,11,38,15,38,40,56		7,50
30″	31,18,45,43,39,52,38,37,24,26		2,17,21,10,19	
		1,47,11,35,58,17,30,37		7,50
32″	31,18,47,30,51,28,36,54,55, 3		2,17,21,18, 9	
		1,47,11,33,40,56,12,28		7,50
34″	31,18,49,18, 3, 2,17,51, 7,31		2,17,21,25,59	
		1,47,11,31,23,34,46,29		7,50
36″	31,18,51, 5,14,33,41,25,54, 0		2,17,21,33,49	
		1,47,11,29, 6,13,12,40		7,50
38″	31,18,52,52,26, 2,47,39, 6,40		2,17,21,41,39	
		1,47,11,26,48,51,31, 1		7,50
40″	31,18,54,39,37,29,36,30,37,41		2,17,21,49,29	
		1,47,11,24,31,29,41,32		7,50
42″	31,18,56,26,48,54, 8, 0,19,13		2,17,21,57,19	
		1,47,11,22,14, 7,44,13		7,50
44″	31,18,58,14, 0,16,22, 8, 3,26		2,17,22, 5, 9	
		1,47,11,19,56,45,39, 4		7,50
46″	31,19, 0, 1,11,36,18,53,42,30		2,17,22,12,59	
		1,47,11,17,39,23,26, 5		7,50
48″	31,19, 1,48,22,53,58,17, 8,35		2,17,22,20,49	
		1,47,11,15,22, 1, 5,16		7,50
50″	31,19, 3,35,34, 9,20,18,13,51		2,17,22,28,39	
		1,47,11,13, 4,38,36,37		7,50
52″	31,19, 5,22,45,22,24,56,50,28		2,17,22,36,29	
		1,47,11,10,47,16, 0, 8		7,50
54″	31,19, 7, 9,56,33,12,12,50,36		2,17,22,44,19	
		1,47,11, 8,29,53,15,49		7,50
56″	31,19, 8,57, 7,41,42, 6, 6,25		2,17,22,52, 9	
		1,47,11, 6,12,30,23,40		7,50
58″	31,19,10,44,18,47,54,36,30, 5		2,17,22,59,59	
		1,47,11, 3,55, 7,23,41		
60″	31,19,12,31,29,51,49,43,53,46			
exact	31,19,12,31,29,51,49,43,37, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°28′ 0″	31,19,12,31,29,51,49,43,37, 7	1,47,11, 1,37,44,14,11		
2″	31,19,14,18,40,53,27,27,51,18	1,47,10,59,20,20,58,26	2,17,23,15,45	7,50
4″	31,19,16, 5,51,52,47,48,49,44	1,47,10,57, 2,57,34,51	2,17,23,23,35	7,50
6″	31,19,17,53, 2,49,50,46,24,35	1,47,10,54,45,34, 3,26	2,17,23,31,25	7,50
8″	31,19,19,40,13,44,36,20,28, 1	1,47,10,52,28,10,24,11	2,17,23,39,15	7,50
10″	31,19,21,27,24,37, 4,30,52,12	1,47,10,50,10,46,37, 6	2,17,23,47, 5	7,50
12″	31,19,23,14,35,27,15,17,29,18	1,47,10,47,53,22,42,11	2,17,23,54,55	7,50
14″	31,19,25, 1,46,15, 8,40,11,29	1,47,10,45,35,58,39,26	2,17,24, 2,45	7,50
16″	31,19,26,48,57, 0,44,38,50,55	1,47,10,43,18,34,28,51	2,17,24,10,35	7,50
18″	31,19,28,36, 7,44, 3,13,19,46	1,47,10,41, 1,10,10,26	2,17,24,18,25	7,50
20″	31,19,30,23,18,25, 4,23,30,12	1,47,10,38,43,45,44,11	2,17,24,26,15	7,50
22″	31,19,32,10,29, 3,48, 9,14,23	1,47,10,36,26,21,10, 6	2,17,24,34, 5	7,50
24″	31,19,33,57,39,40,14,30,24,29	1,47,10,34, 8,56,28,11	2,17,24,41,55	7,50
26″	31,19,35,44,50,14,23,26,52,40	1,47,10,31,51,31,38,26	2,17,24,49,45	7,50
28″	31,19,37,32, 0,46,14,58,31, 6	1,47,10,29,34, 6,40,51	2,17,24,57,35	7,50
30″	31,19,39,19,11,15,49, 5,11,57	1,47,10,27,16,41,35,26	2,17,25, 5,25	7,50
32″	31,19,41, 6,21,43, 5,46,47,23	1,47,10,24,59,16,22,11	2,17,25,13,15	7,50
34″	31,19,42,53,32, 8, 5, 3, 9,34	1,47,10,22,41,51, 1, 6	2,17,25,21, 5	7,50
36″	31,19,44,40,42,30,46,54,10,40	1,47,10,20,24,25,32,11	2,17,25,28,55	7,50
38″	31,19,46,27,52,51,11,19,42,51	1,47,10,18, 6,59,55,26	2,17,25,36,45	7,50
40″	31,19,48,15, 3, 9,18,19,38,17	1,47,10,15,49,34,10,51	2,17,25,44,35	7,50
42″	31,19,50, 2,13,25, 7,53,49, 8	1,47,10,13,32, 8,18,26	2,17,25,52,25	7,50
44″	31,19,51,49,23,38,40, 2, 7,34	1,47,10,11,14,42,18,11	2,17,26, 0,15	7,50
46″	31,19,53,36,33,49,54,44,25,45	1,47,10, 8,57,16,10, 6	2,17,26, 8, 5	7,50
48″	31,19,55,23,43,58,52, 0,35,51	1,47,10, 6,39,49,54,11	2,17,26,15,55	7,50
50″	31,19,57,10,54, 5,31,50,30, 2	1,47,10, 4,22,23,30,26	2,17,26,23,45	7,50
52″	31,19,58,58, 4, 9,54,14, 0,28	1,47,10, 2, 4,56,58,51	2,17,26,31,35	7,50
54″	31,20, 0,45,14,11,59,10,59,19	1,47, 9,59,47,30,19,26	2,17,26,39,25	7,50
56″	31,20, 2,32,24,11,46,41,18,45	1,47, 9,57,30, 3,32,11	2,17,26,47,15	7,50
58″	31,20, 4,19,34, 9,16,44,50,56	1,47, 9,55,12,36,37, 6	2,17,26,55, 5	
60″	31,20, 6, 6,44, 4,29,21,28, 2			
exact	31,20, 6, 6,44, 4,29,21,16,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°29′ 0″	31,20, 6, 6,44, 4,29,21,16,52			
		1,47, 9,52,55, 9,33, 6		
2″	31,20, 7,53,53,57,24,30,49,58		2,17,27,10,49	
		1,47, 9,50,37,42,22,17		7,50
4″	31,20, 9,41, 3,48, 2,13,12,15		2,17,27,18,39	
		1,47, 9,48,20,15, 3,38		7,50
6″	31,20,11,28,13,36,22,28,15,53		2,17,27,26,29	
		1,47, 9,46, 2,47,37, 9		7,50
8″	31,20,13,15,23,22,25,15,53, 2		2,17,27,34,19	
		1,47, 9,43,45,20, 2,50		7,50
10″	31,20,15, 2,33, 6,10,35,55,52		2,17,27,42, 9	
		1,47, 9,41,27,52,20,41		7,50
12″	31,20,16,49,42,47,38,28,16,33		2,17,27,49,59	
		1,47, 9,39,10,24,30,42		7,50
14″	31,20,18,36,52,26,48,52,47,15		2,17,27,57,49	
		1,47, 9,36,52,56,32,53		7,50
16″	31,20,20,24, 2, 3,41,49,20, 8		2,17,28, 5,39	
		1,47, 9,34,35,28,27,14		7,50
18″	31,20,22,11,11,38,17,17,47,22		2,17,28,13,29	
		1,47, 9,32,18, 0,13,45		7,50
20″	31,20,23,58,21,10,35,18, 1, 7		2,17,28,21,19	
		1,47, 9,30, 0,31,52,26		7,50
22″	31,20,25,45,30,40,35,49,53,33		2,17,28,29, 9	
		1,47, 9,27,43, 3,23,17		7,50
24″	31,20,27,32,40, 8,18,53,16,50		2,17,28,36,59	
		1,47, 9,25,25,34,46,18		7,50
26″	31,20,29,19,49,33,44,28, 3, 8		2,17,28,44,49	
		1,47, 9,23, 8, 6, 1,29		7,50
28″	31,20,31, 6,58,56,52,34, 4,37		2,17,28,52,39	
		1,47, 9,20,50,37, 8,50		7,50
30″	31,20,32,54, 8,17,43,11,13,27		2,17,29, 0,29	
		1,47, 9,18,33, 8, 8,21		7,50
32″	31,20,34,41,17,36,16,19,21,48		2,17,29, 8,19	
		1,47, 9,16,15,39, 0, 2		7,50
34″	31,20,36,28,26,52,31,58,21,50		2,17,29,16, 9	
		1,47, 9,13,58, 9,43,53		7,50
36″	31,20,38,15,36, 6,30, 8, 5,43		2,17,29,23,59	
		1,47, 9,11,40,40,19,54		7,50
38″	31,20,40, 2,45,18,10,48,25,37		2,17,29,31,49	
		1,47, 9, 9,23,10,48, 5		7,50
40″	31,20,41,49,54,27,33,59,13,42		2,17,29,39,39	
		1,47, 9, 7, 5,41, 8,26		7,50
42″	31,20,43,37, 3,34,39,40,22, 8		2,17,29,47,29	
		1,47, 9, 4,48,11,20,57		7,50
44″	31,20,45,24,12,39,27,51,43, 5		2,17,29,55,19	
		1,47, 9, 2,30,41,25,38		7,50
46″	31,20,47,11,21,41,58,33, 8,43		2,17,30, 3, 9	
		1,47, 9, 0,13,11,22,29		7,50
48″	31,20,48,58,30,42,11,44,31,12		2,17,30,10,59	
		1,47, 8,57,55,41,11,30		7,50
50″	31,20,50,45,39,40, 7,25,42,42		2,17,30,18,49	
		1,47, 8,55,38,10,52,41		7,50
52″	31,20,52,32,48,35,45,36,35,23		2,17,30,26,39	
		1,47, 8,53,20,40,26, 2		7,50
54″	31,20,54,19,57,29, 6,17, 1,25		2,17,30,34,29	
		1,47, 8,51, 3, 9,51,33		7,50
56″	31,20,56, 7, 6,20, 9,26,52,58		2,17,30,42,19	
		1,47, 8,48,45,39, 9,14		7,50
58″	31,20,57,54,15, 8,55, 6, 2,12		2,17,30,50, 9	
		1,47, 8,46,28, 8,19, 5		
60″	31,20,59,41,23,55,23,14,21,17			
exact	31,20,59,41,23,55,23,14,19, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°30′ 0″	31,20,59,41,23,55,23,14,19, 1			
		1,47, 8,44,10,37,20,51		
2″	31,21, 1,28,32,39,33,51,39,52		2,17,31, 5,50	
		1,47, 8,41,53, 6,15, 1		7,50
4″	31,21, 3,15,41,21,26,57,54,53		2,17,31,13,40	
		1,47, 8,39,35,35, 1,21		7,50
6″	31,21, 5, 2,50, 1, 2,32,56,14		2,17,31,21,30	
		1,47, 8,37,18, 3,39,51		7,50
8″	31,21, 6,49,58,38,20,36,36, 5		2,17,31,29,20	
		1,47, 8,35, 0,32,10,31		7,50
10″	31,21, 8,37, 7,13,21, 8,46,36		2,17,31,37,10	
		1,47, 8,32,43, 0,33,21		7,50
12″	31,21,10,24,15,46, 4, 9,19,57		2,17,31,45, 0	
		1,47, 8,30,25,28,48,21		7,50
14″	31,21,12,11,24,16,29,38, 8,18		2,17,31,52,50	
		1,47, 8,28, 7,56,55,31		7,50
16″	31,21,13,58,32,44,37,35, 3,49		2,17,32, 0,40	
		1,47, 8,25,50,24,54,51		7,50
18″	31,21,15,45,41,10,27,59,58,40		2,17,32, 8,30	
		1,47, 8,23,32,52,46,21		7,50
20″	31,21,17,32,49,34, 0,52,45, 1		2,17,32,16,20	
		1,47, 8,21,15,20,30, 1		7,50
22″	31,21,19,19,57,55,16,13,15, 2		2,17,32,24,10	
		1,47, 8,18,57,48, 5,51		7,50
24″	31,21,21, 7, 6,14,14, 1,20,53		2,17,32,32, 0	
		1,47, 8,16,40,15,33,51		7,50
26″	31,21,22,54,14,30,54,16,54,44		2,17,32,39,50	
		1,47, 8,14,22,42,54, 1		7,50
28″	31,21,24,41,22,45,16,59,48,45		2,17,32,47,40	
		1,47, 8,12, 5,10, 6,21		7,50
30″	31,21,26,28,30,57,22, 9,55, 6		2,17,32,55,30	
		1,47, 8, 9,47,37,10,51		7,50
32″	31,21,28,15,39, 7, 9,47, 5,57		2,17,33, 3,20	
		1,47, 8, 7,30, 4, 7,31		7,50
34″	31,21,30, 2,47,14,39,51,13,28		2,17,33,11,10	
		1,47, 8, 5,12,30,56,21		7,50
36″	31,21,31,49,55,19,52,22, 9,49		2,17,33,19, 0	
		1,47, 8, 2,54,57,37,21		7,50
38″	31,21,33,37, 3,22,47,19,47,10		2,17,33,26,50	
		1,47, 8, 0,37,24,10,31		7,50
40″	31,21,35,24,11,23,24,43,57,41		2,17,33,34,40	
		1,47, 7,58,19,50,35,51		7,50
42″	31,21,37,11,19,21,44,34,33,32		2,17,33,42,30	
		1,47, 7,56, 2,16,53,21		7,50
44″	31,21,38,58,27,17,46,51,26,53		2,17,33,50,20	
		1,47, 7,53,44,43, 3, 1		7,50
46″	31,21,40,45,35,11,31,34,29,54		2,17,33,58,10	
		1,47, 7,51,27, 9, 4,51		7,50
48″	31,21,42,32,43, 2,58,43,34,45		2,17,34, 6, 0	
		1,47, 7,49, 9,34,58,51		7,50
50″	31,21,44,19,50,52, 8,18,33,36		2,17,34,13,50	
		1,47, 7,46,52, 0,45, 1		7,50
52″	31,21,46, 6,58,39, 0,19,18,37		2,17,34,21,40	
		1,47, 7,44,34,26,23,21		7,50
54″	31,21,47,54, 6,23,34,45,41,58		2,17,34,29,30	
		1,47, 7,42,16,51,53,51		7,50
56″	31,21,49,41,14, 5,51,37,35,49		2,17,34,37,20	
		1,47, 7,39,59,17,16,31		7,50
58″	31,21,51,28,21,45,50,54,52,20		2,17,34,45,10	
		1,47, 7,37,41,42,31,21		
60″	31,21,53,15,29,23,32,37,23,41			
exact	31,21,53,15,29,23,32,37,27, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°31′ 0″	31,21,53,15,29,23,32,37,27, 8			
		1,47, 7,35,24, 7,38,43		
2″	31,21,55, 2,36,58,56,45, 5,51		2,17,35, 0,48	
		1,47, 7,33, 6,32,37,55		7,50
4″	31,21,56,49,44,32, 3,17,43,46		2,17,35, 8,38	
		1,47, 7,30,48,57,29,17		7,50
6″	31,21,58,36,52, 2,52,15,13, 3		2,17,35,16,28	
		1,47, 7,28,31,22,12,49		7,50
8″	31,22, 0,23,59,31,23,37,25,52		2,17,35,24,18	
		1,47, 7,26,13,46,48,31		7,50
10″	31,22, 2,11, 6,57,37,24,14,23		2,17,35,32, 8	
		1,47, 7,23,56,11,16,23		7,50
12″	31,22, 3,58,14,21,33,35,30,46		2,17,35,39,58	
		1,47, 7,21,38,35,36,25		7,50
14″	31,22, 5,45,21,43,12,11, 7,11		2,17,35,47,48	
		1,47, 7,19,20,59,48,37		7,50
16″	31,22, 7,32,29, 2,33,10,55,48		2,17,35,55,38	
		1,47, 7,17, 3,23,52,59		7,50
18″	31,22, 9,19,36,19,36,34,48,47		2,17,36, 3,28	
		1,47, 7,14,45,47,49,31		7,50
20″	31,22,11, 6,43,34,22,22,38,18		2,17,36,11,18	
		1,47, 7,12,28,11,38,13		7,50
22″	31,22,12,53,50,46,50,34,16,31		2,17,36,19, 8	
		1,47, 7,10,10,35,19, 5		7,50
24″	31,22,14,40,57,57, 1, 9,35,36		2,17,36,26,58	
		1,47, 7, 7,52,58,52, 7		7,50
26″	31,22,16,28, 5, 4,54, 8,27,43		2,17,36,34,48	
		1,47, 7, 5,35,22,17,19		7,50
28″	31,22,18,15,12,10,29,30,45, 2		2,17,36,42,38	
		1,47, 7, 3,17,45,34,41		7,50
30″	31,22,20, 2,19,13,47,16,19,43		2,17,36,50,28	
		1,47, 7, 1, 0, 8,44,13		7,50
32″	31,22,21,49,26,14,47,25, 3,56		2,17,36,58,18	
		1,47, 6,58,42,31,45,55		7,50
34″	31,22,23,36,33,13,29,56,49,51		2,17,37, 6, 8	
		1,47, 6,56,24,54,39,47		7,50
36″	31,22,25,23,40, 9,54,51,29,38		2,17,37,13,58	
		1,47, 6,54, 7,17,25,49		7,50
38″	31,22,27,10,47, 4, 2, 8,55,27		2,17,37,21,48	
		1,47, 6,51,49,40, 4, 1		7,50
40″	31,22,28,57,53,55,51,48,59,28		2,17,37,29,38	
		1,47, 6,49,32, 2,34,23		7,50
42″	31,22,30,45, 0,45,23,51,33,51		2,17,37,37,28	
		1,47, 6,47,14,24,56,55		7,50
44″	31,22,32,32, 7,32,38,16,30,46		2,17,37,45,18	
		1,47, 6,44,56,47,11,37		7,50
46″	31,22,34,19,14,17,35, 3,42,23		2,17,37,53, 8	
		1,47, 6,42,39, 9,18,29		7,50
48″	31,22,36, 6,21, 0,14,13, 0,52		2,17,38, 0,58	
		1,47, 6,40,21,31,17,31		7,50
50″	31,22,37,53,27,40,35,44,18,23		2,17,38, 8,48	
		1,47, 6,38, 3,53, 8,43		7,50
52″	31,22,39,40,34,18,39,37,27, 6		2,17,38,16,38	
		1,47, 6,35,46,14,52, 5		7,50
54″	31,22,41,27,40,54,25,52,19,11		2,17,38,24,28	
		1,47, 6,33,28,36,27,37		7,50
56″	31,22,43,14,47,27,54,28,46,48		2,17,38,32,18	
		1,47, 6,31,10,57,55,19		7,50
58″	31,22,45, 1,53,59, 5,26,42, 7		2,17,38,40, 8	
		1,47, 6,28,53,19,15,11		
60″	31,22,46,49, 0,27,58,45,57,18			
exact	31,22,46,49, 0,27,58,46, 2,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°32′ 0″	31,22,46,49, 0,27,58,46, 2,31			
		1,47, 6,26,35,40,27,56		
2″	31,22,48,36, 6,54,34,26,30,27		2,17,38,55,44	
		1,47, 6,24,18, 1,32,12		7,50
4″	31,22,50,23,13,18,52,28, 2,39		2,17,39, 3,34	
		1,47, 6,22, 0,22,28,38		7,50
6″	31,22,52,10,19,40,52,50,31,17		2,17,39,11,24	
		1,47, 6,19,42,43,17,14		7,50
8″	31,22,53,57,26, 0,35,33,48,31		2,17,39,19,14	
		1,47, 6,17,25, 3,58, 0		7,50
10″	31,22,55,44,32,18, 0,37,46,31		2,17,39,27, 4	
		1,47, 6,15, 7,24,30,56		7,50
12″	31,22,57,31,38,33, 8, 2,17,27		2,17,39,34,54	
		1,47, 6,12,49,44,56, 2		7,50
14″	31,22,59,18,44,45,57,47,13,29		2,17,39,42,44	
		1,47, 6,10,32, 5,13,18		7,50
16″	31,23, 1, 5,50,56,29,52,26,47		2,17,39,50,34	
		1,47, 6, 8,14,25,22,44		7,50
18″	31,23, 2,52,57, 4,44,17,49,31		2,17,39,58,24	
		1,47, 6, 5,56,45,24,20		7,50
20″	31,23, 4,40, 3,10,41, 3,13,51		2,17,40, 6,14	
		1,47, 6, 3,39, 5,18, 6		7,50
22″	31,23, 6,27, 9,14,20, 8,31,57		2,17,40,14, 4	
		1,47, 6, 1,21,25, 4, 2		7,50
24″	31,23, 8,14,15,15,41,33,35,59		2,17,40,21,54	
		1,47, 5,59, 3,44,42, 8		7,50
26″	31,23,10, 1,21,14,45,18,18, 7		2,17,40,29,44	
		1,47, 5,56,46, 4,12,24		7,50
28″	31,23,11,48,27,11,31,22,30,31		2,17,40,37,34	
		1,47, 5,54,28,23,34,50		7,50
30″	31,23,13,35,33, 5,59,46, 5,21		2,17,40,45,24	
		1,47, 5,52,10,42,49,26		7,50
32″	31,23,15,22,38,58,10,28,54,47		2,17,40,53,14	
		1,47, 5,49,53, 1,56,12		7,50
34″	31,23,17, 9,44,48, 3,30,50,59		2,17,41, 1, 4	
		1,47, 5,47,35,20,55, 8		7,50
36″	31,23,18,56,50,35,38,51,46, 7		2,17,41, 8,54	
		1,47, 5,45,17,39,46,14		7,50
38″	31,23,20,43,56,20,56,31,32,21		2,17,41,16,44	
		1,47, 5,42,59,58,29,30		7,50
40″	31,23,22,31, 2, 3,56,30, 1,51		2,17,41,24,34	
		1,47, 5,40,42,17, 4,56		7,50
42″	31,23,24,18, 7,44,38,47, 6,47		2,17,41,32,24	
		1,47, 5,38,24,35,32,32		7,50
44″	31,23,26, 5,13,23, 3,22,39,19		2,17,41,40,14	
		1,47, 5,36, 6,53,52,18		7,50
46″	31,23,27,52,18,59,10,16,31,37		2,17,41,48, 4	
		1,47, 5,33,49,12, 4,14		7,50
48″	31,23,29,39,24,32,59,28,35,51		2,17,41,55,54	
		1,47, 5,31,31,30, 8,20		7,50
50″	31,23,31,26,30, 4,30,58,44,11		2,17,42, 3,44	
		1,47, 5,29,13,48, 4,36		7,50
52″	31,23,33,13,35,33,44,46,48,47		2,17,42,11,34	
		1,47, 5,26,56, 5,53, 2		7,50
54″	31,23,35, 0,41, 0,40,52,41,49		2,17,42,19,24	
		1,47, 5,24,38,23,33,38		7,50
56″	31,23,36,47,46,25,19,16,15,27		2,17,42,27,14	
		1,47, 5,22,20,41, 6,24		7,50
58″	31,23,38,34,51,47,39,57,21,51		2,17,42,35, 4	
		1,47, 5,20, 2,58,31,20		
60″	31,23,40,21,57, 7,42,55,53,11			
exact	31,23,40,21,57, 7,42,56, 4, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°33′ 0″	31,23,40,21,57, 7,42,56, 4, 9			
		1,47, 5,17,45,15,49,45		
2″	31,23,42, 9, 2,25,28,11,53,54		2,17,42,50,38	
		1,47, 5,15,27,32,59, 7		7,50
4″	31,23,43,56, 7,40,55,44,53, 1		2,17,42,58,28	
		1,47, 5,13, 9,50, 0,39		7,50
6″	31,23,45,43,12,54, 5,34,53,40		2,17,43, 6,18	
		1,47, 5,10,52, 6,54,21		7,50
8″	31,23,47,30,18, 4,57,41,48, 1		2,17,43,14, 8	
		1,47, 5, 8,34,23,40,13		7,50
10″	31,23,49,17,23,13,32, 5,28,14		2,17,43,21,58	
		1,47, 5, 6,16,40,18,15		7,50
12″	31,23,51, 4,28,19,48,45,46,29		2,17,43,29,48	
		1,47, 5, 3,58,56,48,27		7,50
14″	31,23,52,51,33,23,47,42,34,56		2,17,43,37,38	
		1,47, 5, 1,41,13,10,49		7,50
16″	31,23,54,38,38,25,28,55,45,45		2,17,43,45,28	
		1,47, 4,59,23,29,25,21		7,50
18″	31,23,56,25,43,24,52,25,11, 6		2,17,43,53,18	
		1,47, 4,57, 5,45,32, 3		7,50
20″	31,23,58,12,48,21,58,10,43, 9		2,17,44, 1, 8	
		1,47, 4,54,48, 1,30,55		7,50
22″	31,23,59,59,53,16,46,12,14, 4		2,17,44, 8,58	
		1,47, 4,52,30,17,21,57		7,50
24″	31,24, 1,46,58, 9,16,29,36, 1		2,17,44,16,48	
		1,47, 4,50,12,33, 5, 9		7,50
26″	31,24, 3,34, 2,59,29, 2,41,10		2,17,44,24,38	
		1,47, 4,47,54,48,40,31		7,50
28″	31,24, 5,21, 7,47,23,51,21,41		2,17,44,32,28	
		1,47, 4,45,37, 4, 8, 3		7,50
30″	31,24, 7, 8,12,33, 0,55,29,44		2,17,44,40,18	
		1,47, 4,43,19,19,27,45		7,50
32″	31,24, 8,55,17,16,20,14,57,29		2,17,44,48, 8	
		1,47, 4,41, 1,34,39,37		7,50
34″	31,24,10,42,21,57,21,49,37, 6		2,17,44,55,58	
		1,47, 4,38,43,49,43,39		7,50
36″	31,24,12,29,26,36, 5,39,20,45		2,17,45, 3,48	
		1,47, 4,36,26, 4,39,51		7,50
38″	31,24,14,16,31,12,31,44, 0,36		2,17,45,11,38	
		1,47, 4,34, 8,19,28,13		7,50
40″	31,24,16, 3,35,46,40, 3,28,49		2,17,45,19,28	
		1,47, 4,31,50,34, 8,45		7,50
42″	31,24,17,50,40,18,30,37,37,34		2,17,45,27,18	
		1,47, 4,29,32,48,41,27		7,50
44″	31,24,19,37,44,48, 3,26,19, 1		2,17,45,35, 8	
		1,47, 4,27,15, 3, 6,19		7,50
46″	31,24,21,24,49,15,18,29,25,20		2,17,45,42,58	
		1,47, 4,24,57,17,23,21		7,50
48″	31,24,23,11,53,40,15,46,48,41		2,17,45,50,48	
		1,47, 4,22,39,31,32,33		7,50
50″	31,24,24,58,58, 2,55,18,21,14		2,17,45,58,38	
		1,47, 4,20,21,45,33,55		7,50
52″	31,24,26,46, 2,23,17, 3,55, 9		2,17,46, 6,28	
		1,47, 4,18, 3,59,27,27		7,50
54″	31,24,28,33, 6,41,21, 3,22,36		2,17,46,14,18	
		1,47, 4,15,46,13,13, 9		7,50
56″	31,24,30,20,10,57, 7,16,35,45		2,17,46,22, 8	
		1,47, 4,13,28,26,51, 1		7,50
58″	31,24,32, 7,15,10,35,43,26,46		2,17,46,29,58	
		1,47, 4,11,10,40,21, 3		
60″	31,24,33,54,19,21,46,23,47,49			
exact	31,24,33,54,19,21,46,24, 8,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°34′ 0″	31,24,33,54,19,21,46,24, 8,46			
		1,47, 4, 8,52,53,45,28		
2″	31,24,35,41,23,30,39,17,54,14		2,17,46,45,29	
		1,47, 4, 6,35, 6,59,59		7,50
4″	31,24,37,28,27,37,14,24,54,13		2,17,46,53,19	
		1,47, 4, 4,17,20, 6,40		7,50
6″	31,24,39,15,31,41,31,45, 0,53		2,17,47, 1, 9	
		1,47, 4, 1,59,33, 5,31		7,50
8″	31,24,41, 2,35,43,31,18, 6,24		2,17,47, 8,59	
		1,47, 3,59,41,45,56,32		7,50
10″	31,24,42,49,39,43,13, 4, 2,56		2,17,47,16,49	
		1,47, 3,57,23,58,39,43		7,50
12″	31,24,44,36,43,40,37, 2,42,39		2,17,47,24,39	
		1,47, 3,55, 6,11,15, 4		7,50
14″	31,24,46,23,47,35,43,13,57,43		2,17,47,32,29	
		1,47, 3,52,48,23,42,35		7,50
16″	31,24,48,10,51,28,31,37,40,18		2,17,47,40,19	
		1,47, 3,50,30,36, 2,16		7,50
18″	31,24,49,57,55,19, 2,13,42,34		2,17,47,48, 9	
		1,47, 3,48,12,48,14, 7		7,50
20″	31,24,51,44,59, 7,15, 1,56,41		2,17,47,55,59	
		1,47, 3,45,55, 0,18, 8		7,50
22″	31,24,53,32, 2,53,10, 2,14,49		2,17,48, 3,49	
		1,47, 3,43,37,12,14,19		7,50
24″	31,24,55,19, 6,36,47,14,29, 8		2,17,48,11,39	
		1,47, 3,41,19,24, 2,40		7,50
26″	31,24,57, 6,10,18, 6,38,31,48		2,17,48,19,29	
		1,47, 3,39, 1,35,43,11		7,50
28″	31,24,58,53,13,57, 8,14,14,59		2,17,48,27,19	
		1,47, 3,36,43,47,15,52		7,50
30″	31,25, 0,40,17,33,52, 1,30,51		2,17,48,35, 9	
		1,47, 3,34,25,58,40,43		7,50
32″	31,25, 2,27,21, 8,18, 0,11,34		2,17,48,42,59	
		1,47, 3,32, 8, 9,57,44		7,50
34″	31,25, 4,14,24,40,26,10, 9,18		2,17,48,50,49	
		1,47, 3,29,50,21, 6,55		7,50
36″	31,25, 6, 1,28,10,16,31,16,13		2,17,48,58,39	
		1,47, 3,27,32,32, 8,16		7,50
38″	31,25, 7,48,31,37,49, 3,24,29		2,17,49, 6,29	
		1,47, 3,25,14,43, 1,47		7,50
40″	31,25, 9,35,35, 3, 3,46,26,16		2,17,49,14,19	
		1,47, 3,22,56,53,47,28		7,50
42″	31,25,11,22,38,26, 0,40,13,44		2,17,49,22, 9	
		1,47, 3,20,39, 4,25,19		7,50
44″	31,25,13, 9,41,46,39,44,39, 3		2,17,49,29,59	
		1,47, 3,18,21,14,55,20		7,50
46″	31,25,14,56,45, 5, 0,59,34,23		2,17,49,37,49	
		1,47, 3,16, 3,25,17,31		7,50
48″	31,25,16,43,48,21, 4,24,51,54		2,17,49,45,39	
		1,47, 3,13,45,35,31,52		7,50
50″	31,25,18,30,51,34,50, 0,23,46		2,17,49,53,29	
		1,47, 3,11,27,45,38,23		7,50
52″	31,25,20,17,54,46,17,46, 2, 9		2,17,50, 1,19	
		1,47, 3, 9, 9,55,37, 4		7,50
54″	31,25,22, 4,57,55,27,41,39,13		2,17,50, 9, 9	
		1,47, 3, 6,52, 5,27,55		7,50
56″	31,25,23,52, 1, 2,19,47, 7, 8		2,17,50,16,59	
		1,47, 3, 4,34,15,10,56		7,50
58″	31,25,25,39, 4, 6,54, 2,18, 4		2,17,50,24,49	
		1,47, 3, 2,16,24,46, 7		
60″	31,25,27,26, 7, 9,10,27, 4,11			
exact	31,25,27,26, 7, 9,10,27,30,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°35′ 0″	31,25,27,26, 7, 9,10,27,30,52			
		1,47, 2,59,58,34,16,18		
2″	31,25,29,13,10, 9, 9, 1,47,10		2,17,50,40,17	
		1,47, 2,57,40,43,36, 1		7,50
4″	31,25,31, 0,13, 6,49,45,23,11		2,17,50,48, 7	
		1,47, 2,55,22,52,47,54		7,50
6″	31,25,32,47,16, 2,12,38,11, 5		2,17,50,55,57	
		1,47, 2,53, 5, 1,51,57		7,50
8″	31,25,34,34,18,55,17,40, 3, 2		2,17,51, 3,47	
		1,47, 2,50,47,10,48,10		7,50
10″	31,25,36,21,21,46, 4,50,51,12		2,17,51,11,37	
		1,47, 2,48,29,19,36,33		7,50
12″	31,25,38, 8,24,34,34,10,27,45		2,17,51,19,27	
		1,47, 2,46,11,28,17, 6		7,50
14″	31,25,39,55,27,20,45,38,44,51		2,17,51,27,17	
		1,47, 2,43,53,36,49,49		7,50
16″	31,25,41,42,30, 4,39,15,34,40		2,17,51,35, 7	
		1,47, 2,41,35,45,14,42		7,50
18″	31,25,43,29,32,46,15, 0,49,22		2,17,51,42,57	
		1,47, 2,39,17,53,31,45		7,50
20″	31,25,45,16,35,25,32,54,21, 7		2,17,51,50,47	
		1,47, 2,37, 0, 1,40,58		7,50
22″	31,25,47, 3,38, 2,32,56, 2, 5		2,17,51,58,37	
		1,47, 2,34,42, 9,42,21		7,50
24″	31,25,48,50,40,37,15, 5,44,26		2,17,52, 6,27	
		1,47, 2,32,24,17,35,54		7,50
26″	31,25,50,37,43, 9,39,23,20,20		2,17,52,14,17	
		1,47, 2,30, 6,25,21,37		7,50
28″	31,25,52,24,45,39,45,48,41,57		2,17,52,22, 7	
		1,47, 2,27,48,32,59,30		7,50
30″	31,25,54,11,48, 7,34,21,41,27		2,17,52,29,57	
		1,47, 2,25,30,40,29,33		7,50
32″	31,25,55,58,50,33, 5, 2,11, 0		2,17,52,37,47	
		1,47, 2,23,12,47,51,46		7,50
34″	31,25,57,45,52,56,17,50, 2,46		2,17,52,45,37	
		1,47, 2,20,54,55, 6, 9		7,50
36″	31,25,59,32,55,17,12,45, 8,55		2,17,52,53,27	
		1,47, 2,18,37, 2,12,42		7,50
38″	31,26, 1,19,57,35,49,47,21,37		2,17,53, 1,17	
		1,47, 2,16,19, 9,11,25		7,50
40″	31,26, 3, 6,59,52, 8,56,33, 2		2,17,53, 9, 7	
		1,47, 2,14, 1,16, 2,18		7,50
42″	31,26, 4,54, 2, 6,10,12,35,20		2,17,53,16,57	
		1,47, 2,11,43,22,45,21		7,50
44″	31,26, 6,41, 4,17,53,35,20,41		2,17,53,24,47	
		1,47, 2, 9,25,29,20,34		7,50
46″	31,26, 8,28, 6,27,19, 4,41,15		2,17,53,32,37	
		1,47, 2, 7, 7,35,47,57		7,50
48″	31,26,10,15, 8,34,26,40,29,12		2,17,53,40,27	
		1,47, 2, 4,49,42, 7,30		7,50
50″	31,26,12, 2,10,39,16,22,36,42		2,17,53,48,17	
		1,47, 2, 2,31,48,19,13		7,50
52″	31,26,13,49,12,41,48,10,55,55		2,17,53,56, 7	
		1,47, 2, 0,13,54,23, 6		7,50
54″	31,26,15,36,14,42, 2, 5,19, 1		2,17,54, 3,57	
		1,47, 1,57,56, 0,19, 9		7,50
56″	31,26,17,23,16,39,58, 5,38,10		2,17,54,11,47	
		1,47, 1,55,38, 6, 7,22		7,50
58″	31,26,19,10,18,35,36,11,45,32		2,17,54,19,37	
		1,47, 1,53,20,11,47,45		
60″	31,26,20,57,20,28,56,23,33,17			
exact	31,26,20,57,20,28,56,24, 2,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°36′ 0″	31,26,20,57,20,28,56,24, 2,42			
		1,47, 1,51, 2,17,23,32		
2″	31,26,22,44,22,19,58,41,26,14		2,17,54,35, 3	
		1,47, 1,48,44,22,48,29		7,49
4″	31,26,24,31,24, 8,43, 4,14,43		2,17,54,42,52	
		1,47, 1,46,26,28, 5,37		7,49
6″	31,26,26,18,25,55, 9,32,20,20		2,17,54,50,41	
		1,47, 1,44, 8,33,14,56		7,49
8″	31,26,28, 5,27,39,18, 5,35,16		2,17,54,58,30	
		1,47, 1,41,50,38,16,26		7,49
10″	31,26,29,52,29,21, 8,43,51,42		2,17,55, 6,19	
		1,47, 1,39,32,43,10, 7		7,49
12″	31,26,31,39,31, 0,41,27, 1,49		2,17,55,14, 8	
		1,47, 1,37,14,47,55,59		7,49
14″	31,26,33,26,32,37,56,14,57,48		2,17,55,21,57	
		1,47, 1,34,56,52,34, 2		7,49
16″	31,26,35,13,34,12,53, 7,31,50		2,17,55,29,46	
		1,47, 1,32,38,57, 4,16		7,49
18″	31,26,37, 0,35,45,32, 4,36, 6		2,17,55,37,35	
		1,47, 1,30,21, 1,26,41		7,49
20″	31,26,38,47,37,15,53, 6, 2,47		2,17,55,45,24	
		1,47, 1,28, 3, 5,41,17		7,49
22″	31,26,40,34,38,43,56,11,44, 4		2,17,55,53,13	
		1,47, 1,25,45, 9,48, 4		7,49
24″	31,26,42,21,40, 9,41,21,32, 8		2,17,56, 1, 2	
		1,47, 1,23,27,13,47, 2		7,49
26″	31,26,44, 8,41,33, 8,35,19,10		2,17,56, 8,51	
		1,47, 1,21, 9,17,38,11		7,49
28″	31,26,45,55,42,54,17,52,57,21		2,17,56,16,40	
		1,47, 1,18,51,21,21,31		7,49
30″	31,26,47,42,44,13, 9,14,18,52		2,17,56,24,29	
		1,47, 1,16,33,24,57, 2		7,49
32″	31,26,49,29,45,29,42,39,15,54		2,17,56,32,18	
		1,47, 1,14,15,28,24,44		7,49
34″	31,26,51,16,46,43,58, 7,40,38		2,17,56,40, 7	
		1,47, 1,11,57,31,44,37		7,49
36″	31,26,53, 3,47,55,55,39,25,15		2,17,56,47,56	
		1,47, 1, 9,39,34,56,41		7,49
38″	31,26,54,50,49, 5,35,14,21,56		2,17,56,55,45	
		1,47, 1, 7,21,38, 0,56		7,49
40″	31,26,56,37,50,12,56,52,22,52		2,17,57, 3,34	
		1,47, 1, 5, 3,40,57,22		7,49
42″	31,26,58,24,51,18, 0,33,20,14		2,17,57,11,23	
		1,47, 1, 2,45,43,45,59		7,49
44″	31,27, 0,11,52,20,46,17, 6,13		2,17,57,19,12	
		1,47, 1, 0,27,46,26,47		7,49
46″	31,27, 1,58,53,21,14, 3,33, 0		2,17,57,27, 1	
		1,47, 0,58, 9,48,59,46		7,49
48″	31,27, 3,45,54,19,23,52,32,46		2,17,57,34,50	
		1,47, 0,55,51,51,24,56		7,49
50″	31,27, 5,32,55,15,15,43,57,42		2,17,57,42,39	
		1,47, 0,53,33,53,42,17		7,49
52″	31,27, 7,19,56, 8,49,37,39,59		2,17,57,50,28	
		1,47, 0,51,15,55,51,49		7,49
54″	31,27, 9, 6,57, 0, 5,33,31,48		2,17,57,58,17	
		1,47, 0,48,57,57,53,32		7,49
56″	31,27,10,53,57,49, 3,31,25,20		2,17,58, 6, 6	
		1,47, 0,46,39,59,47,26		7,49
58″	31,27,12,40,58,35,43,31,12,46		2,17,58,13,55	
		1,47, 0,44,22, 1,33,31		
60″	31,27,14,27,59,20, 5,32,46,17			
exact	31,27,14,27,59,20, 5,32,14,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°37′ 0″	31,27,14,27,59,20, 5,32,14,20			
		1,47, 0,42, 4, 3, 8,25		
2″	31,27,16,15, 0, 2, 9,35,22,45		2,17,58,29,46	
		1,47, 0,39,46, 4,38,39		7,49
4″	31,27,18, 2, 0,41,55,40, 1,24		2,17,58,37,35	
		1,47, 0,37,28, 6, 1, 4		7,49
6″	31,27,19,49, 1,19,23,46, 2,28		2,17,58,45,24	
		1,47, 0,35,10, 7,15,40		7,49
8″	31,27,21,36, 1,54,33,53,18, 8		2,17,58,53,13	
		1,47, 0,32,52, 8,22,27		7,49
10″	31,27,23,23, 2,27,26, 1,40,35		2,17,59, 1, 2	
		1,47, 0,30,34, 9,21,25		7,49
12″	31,27,25,10, 2,58, 0,11, 2, 0		2,17,59, 8,51	
		1,47, 0,28,16,10,12,34		7,49
14″	31,27,26,57, 3,26,16,21,14,34		2,17,59,16,40	
		1,47, 0,25,58,10,55,54		7,49
16″	31,27,28,44, 3,52,14,32,10,28		2,17,59,24,29	
		1,47, 0,23,40,11,31,25		7,49
18″	31,27,30,31, 4,15,54,43,41,53		2,17,59,32,18	
		1,47, 0,21,22,11,59, 7		7,49
20″	31,27,32,18, 4,37,16,55,41, 0		2,17,59,40, 7	
		1,47, 0,19, 4,12,19, 0		7,49
22″	31,27,34, 5, 4,56,21, 8, 0, 0		2,17,59,47,56	
		1,47, 0,16,46,12,31, 4		7,49
24″	31,27,35,52, 5,13, 7,20,31, 4		2,17,59,55,45	
		1,47, 0,14,28,12,35,19		7,49
26″	31,27,37,39, 5,27,35,33, 6,23		2,18, 0, 3,34	
		1,47, 0,12,10,12,31,45		7,49
28″	31,27,39,26, 5,39,45,45,38, 8		2,18, 0,11,23	
		1,47, 0, 9,52,12,20,22		7,49
30″	31,27,41,13, 5,49,37,57,58,30		2,18, 0,19,12	
		1,47, 0, 7,34,12, 1,10		7,49
32″	31,27,43, 0, 5,57,12, 9,59,40		2,18, 0,27, 1	
		1,47, 0, 5,16,11,34, 9		7,49
34″	31,27,44,47, 6, 2,28,21,33,49		2,18, 0,34,50	
		1,47, 0, 2,58,10,59,19		7,49
36″	31,27,46,34, 6, 5,26,32,33, 8		2,18, 0,42,39	
		1,47, 0, 0,40,10,16,40		7,49
38″	31,27,48,21, 6, 6, 6,42,49,48		2,18, 0,50,28	
		1,46,59,58,22, 9,26,12		7,49
40″	31,27,50, 8, 6, 4,28,52,16, 0		2,18, 0,58,17	
		1,46,59,56, 4, 8,27,55		7,49
42″	31,27,51,55, 6, 0,33, 0,43,55		2,18, 1, 6, 6	
		1,46,59,53,46, 7,21,49		7,49
44″	31,27,53,42, 5,54,19, 8, 5,44		2,18, 1,13,55	
		1,46,59,51,28, 6, 7,54		7,49
46″	31,27,55,29, 5,45,47,14,13,38		2,18, 1,21,44	
		1,46,59,49,10, 4,46,10		7,49
48″	31,27,57,16, 5,34,57,18,59,48		2,18, 1,29,33	
		1,46,59,46,52, 3,16,37		7,49
50″	31,27,59, 3, 5,21,49,22,16,25		2,18, 1,37,22	
		1,46,59,44,34, 1,39,15		7,49
52″	31,28, 0,50, 5, 6,23,23,55,40		2,18, 1,45,11	
		1,46,59,42,15,59,54, 4		7,49
54″	31,28, 2,37, 4,48,39,23,49,44		2,18, 1,53, 0	
		1,46,59,39,57,58, 1, 4		7,49
56″	31,28, 4,24, 4,28,37,21,50,48		2,18, 2, 0,49	
		1,46,59,37,39,56, 0,15		7,49
58″	31,28, 6,11, 4, 6,17,17,51, 3		2,18, 2, 8,38	
		1,46,59,35,21,53,51,37		
60″	31,28, 7,58, 3,41,39,11,42,40			
exact	31,28, 7,58, 3,41,39,11,13,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°38′ 0″	31,28, 7,58, 3,41,39,11,13,37			
		1,46,59,33, 3,51,32,13		
2″	31,28, 9,45, 3,14,43, 2,45,50		2,18, 2,24,27	
		1,46,59,30,45,49, 7,46		7,49
4″	31,28,11,32, 2,45,28,51,53,36		2,18, 2,32,16	
		1,46,59,28,27,46,35,30		7,49
6″	31,28,13,19, 2,13,56,38,29, 6		2,18, 2,40, 5	
		1,46,59,26, 9,43,55,25		7,49
8″	31,28,15, 6, 1,40, 6,22,24,31		2,18, 2,47,54	
		1,46,59,23,51,41, 7,31		7,49
10″	31,28,16,53, 1, 3,58, 3,32, 2		2,18, 2,55,43	
		1,46,59,21,33,38,11,48		7,49
12″	31,28,18,40, 0,25,31,41,43,50		2,18, 3, 3,32	
		1,46,59,19,15,35, 8,16		7,49
14″	31,28,20,26,59,44,47,16,52, 6		2,18, 3,11,21	
		1,46,59,16,57,31,56,55		7,49
16″	31,28,22,13,59, 1,44,48,49, 1		2,18, 3,19,10	
		1,46,59,14,39,28,37,45		7,49
18″	31,28,24, 0,58,16,24,17,26,46		2,18, 3,26,59	
		1,46,59,12,21,25,10,46		7,49
20″	31,28,25,47,57,28,45,42,37,32		2,18, 3,34,48	
		1,46,59,10, 3,21,35,58		7,49
22″	31,28,27,34,56,38,49, 4,13,30		2,18, 3,42,37	
		1,46,59, 7,45,17,53,21		7,49
24″	31,28,29,21,55,46,34,22, 6,51		2,18, 3,50,26	
		1,46,59, 5,27,14, 2,55		7,49
26″	31,28,31, 8,54,52, 1,36, 9,46		2,18, 3,58,15	
		1,46,59, 3, 9,10, 4,40		7,49
28″	31,28,32,55,53,55,10,46,14,26		2,18, 4, 6, 4	
		1,46,59, 0,51, 5,58,36		7,49
30″	31,28,34,42,52,56, 1,52,13, 2		2,18, 4,13,53	
		1,46,58,58,33, 1,44,43		7,49
32″	31,28,36,29,51,54,34,53,57,45		2,18, 4,21,42	
		1,46,58,56,14,57,23, 1		7,49
34″	31,28,38,16,50,50,49,51,20,46		2,18, 4,29,31	
		1,46,58,53,56,52,53,30		7,49
36″	31,28,40, 3,49,44,46,44,14,16		2,18, 4,37,20	
		1,46,58,51,38,48,16,10		7,49
38″	31,28,41,50,48,36,25,32,30,26		2,18, 4,45, 9	
		1,46,58,49,20,43,31, 1		7,49
40″	31,28,43,37,47,25,46,16, 1,27		2,18, 4,52,58	
		1,46,58,47, 2,38,38, 3		7,49
42″	31,28,45,24,46,12,48,54,39,30		2,18, 5, 0,47	
		1,46,58,44,44,33,37,16		7,49
44″	31,28,47,11,44,57,33,28,16,46		2,18, 5, 8,36	
		1,46,58,42,26,28,28,40		7,49
46″	31,28,48,58,43,39,59,56,45,26		2,18, 5,16,25	
		1,46,58,40, 8,23,12,15		7,49
48″	31,28,50,45,42,20, 8,19,57,41		2,18, 5,24,14	
		1,46,58,37,50,17,48, 1		7,49
50″	31,28,52,32,40,57,58,37,45,42		2,18, 5,32, 3	
		1,46,58,35,32,12,15,58		7,49
52″	31,28,54,19,39,33,30,50, 1,40		2,18, 5,39,52	
		1,46,58,33,14, 6,36, 6		7,49
54″	31,28,56, 6,38, 6,44,56,37,46		2,18, 5,47,41	
		1,46,58,30,56, 0,48,25		7,49
56″	31,28,57,53,36,37,40,57,26,11		2,18, 5,55,30	
		1,46,58,28,37,54,52,55		7,49
58″	31,28,59,40,35, 6,18,52,19, 6		2,18, 6, 3,19	
		1,46,58,26,19,48,49,36		
60″	31,29, 1,27,33,32,38,41, 8,42			
exact	31,29, 1,27,33,32,38,40,46,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°39′ 0″	31,29, 1,27,33,32,38,40,46,15	1,46,58,24, 1,42,36,12		
2″	31,29, 3,14,31,56,40,23,22,27	1,46,58,21,43,36,17, 6	2,18, 6,19, 6	7,49
4″	31,29, 5, 1,30,18,23,59,39,33	1,46,58,19,25,29,50,11	2,18, 6,26,55	7,49
6″	31,29, 6,48,28,37,49,29,29,44	1,46,58,17, 7,23,15,27	2,18, 6,34,44	7,49
8″	31,29, 8,35,26,54,56,52,45,11	1,46,58,14,49,16,32,54	2,18, 6,42,33	7,49
10″	31,29,10,22,25, 9,46, 9,18, 5	1,46,58,12,31, 9,42,32	2,18, 6,50,22	7,49
12″	31,29,12, 9,23,22,17,19, 0,37	1,46,58,10,13, 2,44,21	2,18, 6,58,11	7,49
14″	31,29,13,56,21,32,30,21,44,58	1,46,58, 7,54,55,38,21	2,18, 7, 6, 0	7,49
16″	31,29,15,43,19,40,25,17,23,19	1,46,58, 5,36,48,24,32	2,18, 7,13,49	7,49
18″	31,29,17,30,17,46, 2, 5,47,51	1,46,58, 3,18,41, 2,54	2,18, 7,21,38	7,49
20″	31,29,19,17,15,49,20,46,50,45	1,46,58, 1, 0,33,33,27	2,18, 7,29,27	7,49
22″	31,29,21, 4,13,50,21,20,24,12	1,46,57,58,42,25,56,11	2,18, 7,37,16	7,49
24″	31,29,22,51,11,49, 3,46,20,23	1,46,57,56,24,18,11, 6	2,18, 7,45, 5	7,49
26″	31,29,24,38, 9,45,28, 4,31,29	1,46,57,54, 6,10,18,12	2,18, 7,52,54	7,49
28″	31,29,26,25, 7,39,34,14,49,41	1,46,57,51,48, 2,17,29	2,18, 8, 0,43	7,49
30″	31,29,28,12, 5,31,22,17, 7,10	1,46,57,49,29,54, 8,57	2,18, 8, 8,32	7,49
32″	31,29,29,59, 3,20,52,11,16, 7	1,46,57,47,11,45,52,36	2,18, 8,16,21	7,49
34″	31,29,31,46, 1, 8, 3,57, 8,43	1,46,57,44,53,37,28,26	2,18, 8,24,10	7,49
36″	31,29,33,32,58,52,57,34,37, 9	1,46,57,42,35,28,56,27	2,18, 8,31,59	7,49
38″	31,29,35,19,56,35,33, 3,33,36	1,46,57,40,17,20,16,39	2,18, 8,39,48	7,49
40″	31,29,37, 6,54,15,50,23,50,15	1,46,57,37,59,11,29, 2	2,18, 8,47,37	7,49
42″	31,29,38,53,51,53,49,35,19,17	1,46,57,35,41, 2,33,36	2,18, 8,55,26	7,49
44″	31,29,40,40,49,29,30,37,52,53	1,46,57,33,22,53,30,21	2,18, 9, 3,15	7,49
46″	31,29,42,27,47, 2,53,31,23,14	1,46,57,31, 4,44,19,17	2,18, 9,11, 4	7,49
48″	31,29,44,14,44,33,58,15,42,31	1,46,57,28,46,35, 0,24	2,18, 9,18,53	7,49
50″	31,29,46, 1,42, 2,44,50,42,55	1,46,57,26,28,25,33,42	2,18, 9,26,42	7,49
52″	31,29,47,48,39,29,13,16,16,37	1,46,57,24,10,15,59,11	2,18, 9,34,31	7,49
54″	31,29,49,35,36,53,23,32,15,48	1,46,57,21,52, 6,16,51	2,18, 9,42,20	7,49
56″	31,29,51,22,34,15,15,38,32,39	1,46,57,19,33,56,26,42	2,18, 9,50, 9	7,49
58″	31,29,53, 9,31,34,49,34,59,21	1,46,57,17,15,46,28,44	2,18, 9,57,58	
60″	31,29,54,56,28,52, 5,21,28, 5			
exact	31,29,54,56,28,52, 5,21,15,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°40′ 0″	31,29,54,56,28,52, 5,21,15,45			
		1,46,57,14,57,36,21,36		
2″	31,29,56,43,26, 7, 2,57,37,21		2,18,10,13,41	
		1,46,57,12,39,26, 7,55		7,49
4″	31,29,58,30,23,19,42,23,45,16		2,18,10,21,30	
		1,46,57,10,21,15,46,25		7,49
6″	31,30, 0,17,20,30, 3,39,31,41		2,18,10,29,19	
		1,46,57, 8, 3, 5,17, 6		7,49
8″	31,30, 2, 4,17,38, 6,44,48,47		2,18,10,37, 8	
		1,46,57, 5,44,54,39,58		7,49
10″	31,30, 3,51,14,43,51,39,28,45		2,18,10,44,57	
		1,46,57, 3,26,43,55, 1		7,49
12″	31,30, 5,38,11,47,18,23,23,46		2,18,10,52,46	
		1,46,57, 1, 8,33, 2,15		7,49
14″	31,30, 7,25, 8,48,26,56,26, 1		2,18,11, 0,35	
		1,46,56,58,50,22, 1,40		7,49
16″	31,30, 9,12, 5,47,17,18,27,41		2,18,11, 8,24	
		1,46,56,56,32,10,53,16		7,49
18″	31,30,10,59, 2,43,49,29,20,57		2,18,11,16,13	
		1,46,56,54,13,59,37, 3		7,49
20″	31,30,12,45,59,38, 3,28,58, 0		2,18,11,24, 2	
		1,46,56,51,55,48,13, 1		7,49
22″	31,30,14,32,56,29,59,17,11, 1		2,18,11,31,51	
		1,46,56,49,37,36,41,10		7,49
24″	31,30,16,19,53,19,36,53,52,11		2,18,11,39,40	
		1,46,56,47,19,25, 1,30		7,49
26″	31,30,18, 6,50, 6,56,18,53,41		2,18,11,47,29	
		1,46,56,45, 1,13,14, 1		7,49
28″	31,30,19,53,46,51,57,32, 7,42		2,18,11,55,18	
		1,46,56,42,43, 1,18,43		7,49
30″	31,30,21,40,43,34,40,33,26,25		2,18,12, 3, 7	
		1,46,56,40,24,49,15,36		7,49
32″	31,30,23,27,40,15, 5,22,42, 1		2,18,12,10,56	
		1,46,56,38, 6,37, 4,40		7,49
34″	31,30,25,14,36,53,11,59,46,41		2,18,12,18,45	
		1,46,56,35,48,24,45,55		7,49
36″	31,30,27, 1,33,29, 0,24,32,36		2,18,12,26,34	
		1,46,56,33,30,12,19,21		7,49
38″	31,30,28,48,30, 2,30,36,51,57		2,18,12,34,23	
		1,46,56,31,11,59,44,58		7,49
40″	31,30,30,35,26,33,42,36,36,55		2,18,12,42,12	
		1,46,56,28,53,47, 2,46		7,49
42″	31,30,32,22,23, 2,36,23,39,41		2,18,12,50, 1	
		1,46,56,26,35,34,12,45		7,49
44″	31,30,34, 9,19,29,11,57,52,26		2,18,12,57,50	
		1,46,56,24,17,21,14,55		7,49
46″	31,30,35,56,15,53,29,19, 7,21		2,18,13, 5,39	
		1,46,56,21,59, 8, 9,16		7,49
48″	31,30,37,43,12,15,28,27,16,37		2,18,13,13,28	
		1,46,56,19,40,54,55,48		7,49
50″	31,30,39,30, 8,35, 9,22,12,25		2,18,13,21,17	
		1,46,56,17,22,41,34,31		7,49
52″	31,30,41,17, 4,52,32, 3,46,56		2,18,13,29, 6	
		1,46,56,15, 4,28, 5,25		7,49
54″	31,30,43, 4, 1, 7,36,31,52,21		2,18,13,36,55	
		1,46,56,12,46,14,28,30		7,49
56″	31,30,44,50,57,20,22,46,20,51		2,18,13,44,44	
		1,46,56,10,28, 0,43,46		7,49
58″	31,30,46,37,53,30,50,47, 4,37		2,18,13,52,33	
		1,46,56, 8, 9,46,51,13		
60″	31,30,48,24,49,39, 0,33,55,50			
exact	31,30,48,24,49,39, 0,33,43,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°41′ 0″	31,30,48,24,49,39, 0,33,43,30			
		1,46,56, 5,51,32,49,43		
2″	31,30,50,11,45,44,52, 6,33,13		2,18,14, 8,15	
		1,46,56, 3,33,18,41,28		7,49
4″	31,30,51,58,41,48,25,25,14,41		2,18,14,16, 4	
		1,46,56, 1,15, 4,25,24		7,49
6″	31,30,53,45,37,49,40,29,40, 5		2,18,14,23,53	
		1,46,55,58,56,50, 1,31		7,49
8″	31,30,55,32,33,48,37,19,41,36		2,18,14,31,42	
		1,46,55,56,38,35,29,49		7,49
10″	31,30,57,19,29,45,15,55,11,25		2,18,14,39,31	
		1,46,55,54,20,20,50,18		7,49
12″	31,30,59, 6,25,39,36,16, 1,43		2,18,14,47,20	
		1,46,55,52, 2, 6, 2,58		7,49
14″	31,31, 0,53,21,31,38,22, 4,41		2,18,14,55, 9	
		1,46,55,49,43,51, 7,49		7,49
16″	31,31, 2,40,17,21,22,13,12,30		2,18,15, 2,58	
		1,46,55,47,25,36, 4,51		7,49
18″	31,31, 4,27,13, 8,47,49,17,21		2,18,15,10,47	
		1,46,55,45, 7,20,54, 4		7,49
20″	31,31, 6,14, 8,53,55,10,11,25		2,18,15,18,36	
		1,46,55,42,49, 5,35,28		7,49
22″	31,31, 8, 1, 4,36,44,15,46,53		2,18,15,26,25	
		1,46,55,40,30,50, 9, 3		7,49
24″	31,31, 9,48, 0,17,15, 5,55,56		2,18,15,34,14	
		1,46,55,38,12,34,34,49		7,49
26″	31,31,11,34,55,55,27,40,30,45		2,18,15,42, 3	
		1,46,55,35,54,18,52,46		7,49
28″	31,31,13,21,51,31,21,59,23,31		2,18,15,49,52	
		1,46,55,33,36, 3, 2,54		7,49
30″	31,31,15, 8,47, 4,58, 2,26,25		2,18,15,57,41	
		1,46,55,31,17,47, 5,13		7,49
32″	31,31,16,55,42,36,15,49,31,38		2,18,16, 5,30	
		1,46,55,28,59,30,59,43		7,49
34″	31,31,18,42,38, 5,15,20,31,21		2,18,16,13,19	
		1,46,55,26,41,14,46,24		7,49
36″	31,31,20,29,33,31,56,35,17,45		2,18,16,21, 8	
		1,46,55,24,22,58,25,16		7,49
38″	31,31,22,16,28,56,19,33,43, 1		2,18,16,28,57	
		1,46,55,22, 4,41,56,19		7,49
40″	31,31,24, 3,24,18,24,15,39,20		2,18,16,36,46	
		1,46,55,19,46,25,19,33		7,49
42″	31,31,25,50,19,38,10,40,58,53		2,18,16,44,35	
		1,46,55,17,28, 8,34,58		7,49
44″	31,31,27,37,14,55,38,49,33,51		2,18,16,52,24	
		1,46,55,15, 9,51,42,34		7,49
46″	31,31,29,24,10,10,48,41,16,25		2,18,17, 0,13	
		1,46,55,12,51,34,42,21		7,49
48″	31,31,31,11, 5,23,40,15,58,46		2,18,17, 8, 2	
		1,46,55,10,33,17,34,19		7,49
50″	31,31,32,58, 0,34,13,33,33, 5		2,18,17,15,51	
		1,46,55, 8,15, 0,18,28		7,49
52″	31,31,34,44,55,42,28,33,51,33		2,18,17,23,40	
		1,46,55, 5,56,42,54,48		7,49
54″	31,31,36,31,50,48,25,16,46,21		2,18,17,31,29	
		1,46,55, 3,38,25,23,19		7,49
56″	31,31,38,18,45,52, 3,42, 9,40		2,18,17,39,18	
		1,46,55, 1,20, 7,44, 1		7,49
58″	31,31,40, 5,40,53,23,49,53,41		2,18,17,47, 7	
		1,46,54,59, 1,49,56,54		
60″	31,31,41,52,35,52,25,39,50,35			
exact	31,31,41,52,35,52,25,39,48,48			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
31°42′	0″	31,31,41,52,35,52,25,39,48,48	1,46,54,56,43,32, 1,47		
	2″	31,31,43,39,30,49, 9,11,50,35	1,46,54,54,25,13,59, 1	2,18,18, 2,46	7,49
	4″	31,31,45,26,25,43,34,25,49,36	1,46,54,52, 6,55,48,26	2,18,18,10,35	7,49
	6″	31,31,47,13,20,35,41,21,38, 2	1,46,54,49,48,37,30, 2	2,18,18,18,24	7,49
	8″	31,31,49, 0,15,25,29,59, 8, 4	1,46,54,47,30,19, 3,49	2,18,18,26,13	7,49
	10″	31,31,50,47,10,13, 0,18,11,53	1,46,54,45,12, 0,29,47	2,18,18,34, 2	7,49
	12″	31,31,52,34, 4,58,12,18,41,40	1,46,54,42,53,41,47,56	2,18,18,41,51	7,49
	14″	31,31,54,20,59,41, 6, 0,29,36	1,46,54,40,35,22,58,16	2,18,18,49,40	7,49
	16″	31,31,56, 7,54,21,41,23,27,52	1,46,54,38,17, 4, 0,47	2,18,18,57,29	7,49
	18″	31,31,57,54,48,59,58,27,28,39	1,46,54,35,58,44,55,29	2,18,19, 5,18	7,49
	20″	31,31,59,41,43,35,57,12,24, 8	1,46,54,33,40,25,42,22	2,18,19,13, 7	7,49
	22″	31,32, 1,28,38, 9,37,38, 6,30	1,46,54,31,22, 6,21,26	2,18,19,20,56	7,49
	24″	31,32, 3,15,32,40,59,44,27,56	1,46,54,29, 3,46,52,41	2,18,19,28,45	7,49
	26″	31,32, 5, 2,27,10, 3,31,20,37	1,46,54,26,45,27,16, 7	2,18,19,36,34	7,49
	28″	31,32, 6,49,21,36,48,58,36,44	1,46,54,24,27, 7,31,44	2,18,19,44,23	7,49
	30″	31,32, 8,36,16, 1,16, 6, 8,28	1,46,54,22, 8,47,39,32	2,18,19,52,12	7,49
	32″	31,32,10,23,10,23,24,53,48, 0	1,46,54,19,50,27,39,31	2,18,20, 0, 1	7,49
	34″	31,32,12,10, 4,43,15,21,27,31	1,46,54,17,32, 7,31,41	2,18,20, 7,50	7,49
	36″	31,32,13,56,59, 0,47,28,59,12	1,46,54,15,13,47,16, 2	2,18,20,15,39	7,49
	38″	31,32,15,43,53,16, 1,16,15,14	1,46,54,12,55,26,52,34	2,18,20,23,28	7,49
	40″	31,32,17,30,47,28,56,43, 7,48	1,46,54,10,37, 6,21,17	2,18,20,31,17	7,49
	42″	31,32,19,17,41,39,33,49,29, 5	1,46,54, 8,18,45,42,11	2,18,20,39, 6	7,49
	44″	31,32,21, 4,35,47,52,35,11,16	1,46,54, 6, 0,24,55,16	2,18,20,46,55	7,49
	46″	31,32,22,51,29,53,53, 0, 6,32	1,46,54, 3,42, 4, 0,32	2,18,20,54,44	7,49
	48″	31,32,24,38,23,57,35, 4, 7, 4	1,46,54, 1,23,42,57,59	2,18,21, 2,33	7,49
	50″	31,32,26,25,17,58,58,47, 5, 3	1,46,53,59, 5,21,47,37	2,18,21,10,22	7,49
	52″	31,32,28,12,11,58, 4, 8,52,40	1,46,53,56,47, 0,29,26	2,18,21,18,11	7,49
	54″	31,32,29,59, 5,54,51, 9,22, 6	1,46,53,54,28,39, 3,26	2,18,21,26, 0	7,49
	56″	31,32,31,45,59,49,19,48,25,32	1,46,53,52,10,17,29,37	2,18,21,33,49	7,49
	58″	31,32,33,32,53,41,30, 5,55, 9	1,46,53,49,51,55,47,59	2,18,21,41,38	
	60″	31,32,35,19,47,31,22, 1,43, 8			
	exact	31,32,35,19,47,31,22, 1,48,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°43′ 0″	31,32,35,19,47,31,22, 1,48,49	1,46,53,47,33,33,59, 5		
2″	31,32,37, 6,41,18,55,35,47,54	1,46,53,45,15,12, 1,51	2,18,21,57,14	7,49
4″	31,32,38,53,35, 4,10,47,49,45	1,46,53,42,56,49,56,48	2,18,22, 5, 3	7,49
6″	31,32,40,40,28,47, 7,37,46,33	1,46,53,40,38,27,43,56	2,18,22,12,52	7,49
8″	31,32,42,27,22,27,46, 5,30,29	1,46,53,38,20, 5,23,15	2,18,22,20,41	7,49
10″	31,32,44,14,16, 6, 6,10,53,44	1,46,53,36, 1,42,54,45	2,18,22,28,30	7,49
12″	31,32,46, 1, 9,42, 7,53,48,29	1,46,53,33,43,20,18,26	2,18,22,36,19	7,49
14″	31,32,47,48, 3,15,51,14, 6,55	1,46,53,31,24,57,34,18	2,18,22,44, 8	7,49
16″	31,32,49,34,56,47,16,11,41,13	1,46,53,29, 6,34,42,21	2,18,22,51,57	7,49
18″	31,32,51,21,50,16,22,46,23,34	1,46,53,26,48,11,42,35	2,18,22,59,46	7,49
20″	31,32,53, 8,43,43,10,58, 6, 9	1,46,53,24,29,48,35, 0	2,18,23, 7,35	7,49
22″	31,32,54,55,37, 7,40,46,41, 9	1,46,53,22,11,25,19,36	2,18,23,15,24	7,49
24″	31,32,56,42,30,29,52,12, 0,45	1,46,53,19,53, 1,56,23	2,18,23,23,13	7,49
26″	31,32,58,29,23,49,45,13,57, 8	1,46,53,17,34,38,25,21	2,18,23,31, 2	7,49
28″	31,33, 0,16,17, 7,19,52,22,29	1,46,53,15,16,14,46,30	2,18,23,38,51	7,49
30″	31,33, 2, 3,10,22,36, 7, 8,59	1,46,53,12,57,50,59,50	2,18,23,46,40	7,49
32″	31,33, 3,50, 3,35,33,58, 8,49	1,46,53,10,39,27, 5,21	2,18,23,54,29	7,49
34″	31,33, 5,36,56,46,13,25,14,10	1,46,53, 8,21, 3, 3, 3	2,18,24, 2,18	7,49
36″	31,33, 7,23,49,54,34,28,17,13	1,46,53, 6, 2,38,52,56	2,18,24,10, 7	7,49
38″	31,33, 9,10,43, 0,37, 7,10, 9	1,46,53, 3,44,14,35, 0	2,18,24,17,56	7,49
40″	31,33,10,57,36, 4,21,21,45, 9	1,46,53, 1,25,50, 9,15	2,18,24,25,45	7,49
42″	31,33,12,44,29, 5,47,11,54,24	1,46,52,59, 7,25,35,41	2,18,24,33,34	7,49
44″	31,33,14,31,22, 4,54,37,30, 5	1,46,52,56,49, 0,54,18	2,18,24,41,23	7,49
46″	31,33,16,18,15, 1,43,38,24,23	1,46,52,54,30,36, 5, 6	2,18,24,49,12	7,49
48″	31,33,18, 5, 7,56,14,14,29,29	1,46,52,52,12,11, 8, 5	2,18,24,57, 1	7,49
50″	31,33,19,52, 0,48,26,25,37,34	1,46,52,49,53,46, 3,15	2,18,25, 4,50	7,49
52″	31,33,21,38,53,38,20,11,40,49	1,46,52,47,35,20,50,36	2,18,25,12,39	7,49
54″	31,33,23,25,46,25,55,32,31,25	1,46,52,45,16,55,30, 8	2,18,25,20,28	7,49
56″	31,33,25,12,39,11,12,28, 1,33	1,46,52,42,58,30, 1,51	2,18,25,28,17	7,49
58″	31,33,26,59,31,54,10,58, 3,24	1,46,52,40,40, 4,25,45	2,18,25,36, 6	
60″	31,33,28,46,24,34,51, 2,29, 9			
exact	31,33,28,46,24,34,51, 2,38,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°44′ 0″	31,33,28,46,24,34,51, 2,38,36			
		1,46,52,38,21,38,42,52		
2″	31,33,30,33,17,13,12,41,21,28		2,18,25,51,40	
		1,46,52,36, 3,12,51,12		7,49
4″	31,33,32,20, 9,49,15,54,12,40		2,18,25,59,29	
		1,46,52,33,44,46,51,43		7,49
6″	31,33,34, 7, 2,23, 0,41, 4,23		2,18,26, 7,18	
		1,46,52,31,26,20,44,25		7,49
8″	31,33,35,53,54,54,27, 1,48,48		2,18,26,15, 7	
		1,46,52,29, 7,54,29,18		7,49
10″	31,33,37,40,47,23,34,56,18, 6		2,18,26,22,56	
		1,46,52,26,49,28, 6,22		7,49
12″	31,33,39,27,39,50,24,24,24,28		2,18,26,30,45	
		1,46,52,24,31, 1,35,37		7,49
14″	31,33,41,14,32,14,55,26, 0, 5		2,18,26,38,34	
		1,46,52,22,12,34,57, 3		7,49
16″	31,33,43, 1,24,37, 8, 0,57, 8		2,18,26,46,23	
		1,46,52,19,54, 8,10,40		7,49
18″	31,33,44,48,16,57, 2, 9, 7,48		2,18,26,54,12	
		1,46,52,17,35,41,16,28		7,49
20″	31,33,46,35, 9,14,37,50,24,16		2,18,27, 2, 1	
		1,46,52,15,17,14,14,27		7,49
22″	31,33,48,22, 1,29,55, 4,38,43		2,18,27, 9,50	
		1,46,52,12,58,47, 4,37		7,49
24″	31,33,50, 8,53,42,53,51,43,20		2,18,27,17,39	
		1,46,52,10,40,19,46,58		7,49
26″	31,33,51,55,45,53,34,11,30,18		2,18,27,25,28	
		1,46,52, 8,21,52,21,30		7,49
28″	31,33,53,42,38, 1,56, 3,51,48		2,18,27,33,17	
		1,46,52, 6, 3,24,48,13		7,49
30″	31,33,55,29,30, 7,59,28,40, 1		2,18,27,41, 6	
		1,46,52, 3,44,57, 7, 7		7,49
32″	31,33,57,16,22,11,44,25,47, 8		2,18,27,48,55	
		1,46,52, 1,26,29,18,12		7,49
34″	31,33,59, 3,14,13,10,55, 5,20		2,18,27,56,44	
		1,46,51,59, 8, 1,21,28		7,49
36″	31,34, 0,50, 6,12,18,56,26,48		2,18,28, 4,33	
		1,46,51,56,49,33,16,55		7,49
38″	31,34, 2,36,58, 9, 8,29,43,43		2,18,28,12,22	
		1,46,51,54,31, 5, 4,33		7,49
40″	31,34, 4,23,50, 3,39,34,48,16		2,18,28,20,11	
		1,46,51,52,12,36,44,22		7,49
42″	31,34, 6,10,41,55,52,11,32,38		2,18,28,28, 0	
		1,46,51,49,54, 8,16,22		7,49
44″	31,34, 7,57,33,45,46,19,49, 0		2,18,28,35,49	
		1,46,51,47,35,39,40,33		7,49
46″	31,34, 9,44,25,33,21,59,29,33		2,18,28,43,38	
		1,46,51,45,17,10,56,55		7,49
48″	31,34,11,31,17,18,39,10,26,28		2,18,28,51,27	
		1,46,51,42,58,42, 5,28		7,49
50″	31,34,13,18, 9, 1,37,52,31,56		2,18,28,59,16	
		1,46,51,40,40,13, 6,12		7,49
52″	31,34,15, 5, 0,42,18, 5,38, 8		2,18,29, 7, 5	
		1,46,51,38,21,43,59, 7		7,49
54″	31,34,16,51,52,20,39,49,37,15		2,18,29,14,54	
		1,46,51,36, 3,14,44,13		7,49
56″	31,34,18,38,43,56,43, 4,21,28		2,18,29,22,43	
		1,46,51,33,44,45,21,30		7,49
58″	31,34,20,25,35,30,27,49,42,58		2,18,29,30,32	
		1,46,51,31,26,15,50,58		
60″	31,34,22,12,27, 1,54, 5,33,56			
exact	31,34,22,12,27, 1,54, 5,51,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°45′ 0″	31,34,22,12,27, 1,54, 5,51,12			
		1,46,51,29, 7,46,14,24		
2″	31,34,23,59,18,31, 1,52, 5,36		2,18,29,46, 3	
		1,46,51,26,49,16,28,21		7,49
4″	31,34,25,46, 9,57,51, 8,33,57		2,18,29,53,52	
		1,46,51,24,30,46,34,29		7,49
6″	31,34,27,33, 1,22,21,55, 8,26		2,18,30, 1,41	
		1,46,51,22,12,16,32,48		7,49
8″	31,34,29,19,52,44,34,11,41,14		2,18,30, 9,30	
		1,46,51,19,53,46,23,18		7,49
10″	31,34,31, 6,44, 4,27,58, 4,32		2,18,30,17,19	
		1,46,51,17,35,16, 5,59		7,49
12″	31,34,32,53,35,22, 3,14,10,31		2,18,30,25, 8	
		1,46,51,15,16,45,40,51		7,49
14″	31,34,34,40,26,37,19,59,51,22		2,18,30,32,57	
		1,46,51,12,58,15, 7,54		7,49
16″	31,34,36,27,17,50,18,14,59,16		2,18,30,40,46	
		1,46,51,10,39,44,27, 8		7,49
18″	31,34,38,14, 9, 0,57,59,26,24		2,18,30,48,35	
		1,46,51, 8,21,13,38,33		7,49
20″	31,34,40, 1, 0, 9,19,13, 4,57		2,18,30,56,24	
		1,46,51, 6, 2,42,42, 9		7,49
22″	31,34,41,47,51,15,21,55,47, 6		2,18,31, 4,13	
		1,46,51, 3,44,11,37,56		7,49
24″	31,34,43,34,42,19, 6, 7,25, 2		2,18,31,12, 2	
		1,46,51, 1,25,40,25,54		7,49
26″	31,34,45,21,33,20,31,47,50,56		2,18,31,19,51	
		1,46,50,59, 7, 9, 6, 3		7,49
28″	31,34,47, 8,24,19,38,56,56,59		2,18,31,27,40	
		1,46,50,56,48,37,38,23		7,49
30″	31,34,48,55,15,16,27,34,35,22		2,18,31,35,29	
		1,46,50,54,30, 6, 2,54		7,49
32″	31,34,50,42, 6,10,57,40,38,16		2,18,31,43,18	
		1,46,50,52,11,34,19,36		7,49
34″	31,34,52,28,57, 3, 9,14,57,52		2,18,31,51, 7	
		1,46,50,49,53, 2,28,29		7,49
36″	31,34,54,15,47,53, 2,17,26,21		2,18,31,58,56	
		1,46,50,47,34,30,29,33		7,49
38″	31,34,56, 2,38,40,36,47,55,54		2,18,32, 6,45	
		1,46,50,45,15,58,22,48		7,49
40″	31,34,57,49,29,25,52,46,18,42		2,18,32,14,34	
		1,46,50,42,57,26, 8,14		7,49
42″	31,34,59,36,20, 8,50,12,26,56		2,18,32,22,23	
		1,46,50,40,38,53,45,51		7,49
44″	31,35, 1,23,10,49,29, 6,12,47		2,18,32,30,12	
		1,46,50,38,20,21,15,39		7,49
46″	31,35, 3,10, 1,27,49,27,28,26		2,18,32,38, 1	
		1,46,50,36, 1,48,37,38		7,49
48″	31,35, 4,56,52, 3,51,16, 6, 4		2,18,32,45,50	
		1,46,50,33,43,15,51,48		7,49
50″	31,35, 6,43,42,37,34,31,57,52		2,18,32,53,39	
		1,46,50,31,24,42,58, 9		7,49
52″	31,35, 8,30,33, 8,59,14,56, 1		2,18,33, 1,28	
		1,46,50,29, 6, 9,56,41		7,49
54″	31,35,10,17,23,38, 5,24,52,42		2,18,33, 9,17	
		1,46,50,26,47,36,47,24		7,49
56″	31,35,12, 4,14, 4,53, 1,40, 6		2,18,33,17, 6	
		1,46,50,24,29, 3,30,18		7,49
58″	31,35,13,51, 4,29,22, 5,10,24		2,18,33,24,55	
		1,46,50,22,10,30, 5,23		
60″	31,35,15,37,54,51,32,35,15,47			
exact	31,35,15,37,54,51,32,35,37,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°46′ 0″	31,35,15,37,54,51,32,35,37,35			
		1,46,50,19,51,56,34,57		
2″	31,35,17,24,45,11,24,32,12,32		2,18,33,40,23	
		1,46,50,17,33,22,54,34		7,49
4″	31,35,19,11,35,28,57,55, 7, 6		2,18,33,48,12	
		1,46,50,15,14,49, 6,22		7,49
6″	31,35,20,58,25,44,12,44,13,28		2,18,33,56, 1	
		1,46,50,12,56,15,10,21		7,49
8″	31,35,22,45,15,57, 8,59,23,49		2,18,34, 3,50	
		1,46,50,10,37,41, 6,31		7,49
10″	31,35,24,32, 6, 7,46,40,30,20		2,18,34,11,39	
		1,46,50, 8,19, 6,54,52		7,49
12″	31,35,26,18,56,16, 5,47,25,12		2,18,34,19,28	
		1,46,50, 6, 0,32,35,24		7,49
14″	31,35,28, 5,46,22, 6,20, 0,36		2,18,34,27,17	
		1,46,50, 3,41,58, 8, 7		7,49
16″	31,35,29,52,36,25,48,18, 8,43		2,18,34,35, 6	
		1,46,50, 1,23,23,33, 1		7,49
18″	31,35,31,39,26,27,11,41,41,44		2,18,34,42,55	
		1,46,49,59, 4,48,50, 6		7,49
20″	31,35,33,26,16,26,16,30,31,50		2,18,34,50,44	
		1,46,49,56,46,13,59,22		7,49
22″	31,35,35,13, 6,23, 2,44,31,12		2,18,34,58,33	
		1,46,49,54,27,39, 0,49		7,49
24″	31,35,36,59,56,17,30,23,32, 1		2,18,35, 6,22	
		1,46,49,52, 9, 3,54,27		7,49
26″	31,35,38,46,46, 9,39,27,26,28		2,18,35,14,11	
		1,46,49,49,50,28,40,16		7,49
28″	31,35,40,33,35,59,29,56, 6,44		2,18,35,22, 0	
		1,46,49,47,31,53,18,16		7,49
30″	31,35,42,20,25,47, 1,49,25, 0		2,18,35,29,49	
		1,46,49,45,13,17,48,27		7,49
32″	31,35,44, 7,15,32,15, 7,13,27		2,18,35,37,38	
		1,46,49,42,54,42,10,49		7,49
34″	31,35,45,54, 5,15, 9,49,24,16		2,18,35,45,27	
		1,46,49,40,36, 6,25,22		7,49
36″	31,35,47,40,54,55,45,55,49,38		2,18,35,53,16	
		1,46,49,38,17,30,32, 6		7,49
38″	31,35,49,27,44,34, 3,26,21,44		2,18,36, 1, 5	
		1,46,49,35,58,54,31, 1		7,49
40″	31,35,51,14,34,10, 2,20,52,45		2,18,36, 8,54	
		1,46,49,33,40,18,22, 7		7,49
42″	31,35,53, 1,23,43,42,39,14,52		2,18,36,16,43	
		1,46,49,31,21,42, 5,24		7,49
44″	31,35,54,48,13,15, 4,21,20,16		2,18,36,24,32	
		1,46,49,29, 3, 5,40,52		7,49
46″	31,35,56,35, 2,44, 7,27, 1, 8		2,18,36,32,21	
		1,46,49,26,44,29, 8,31		7,49
48″	31,35,58,21,52,10,51,56, 9,39		2,18,36,40,10	
		1,46,49,24,25,52,28,21		7,49
50″	31,36, 0, 8,41,35,17,48,38, 0		2,18,36,47,59	
		1,46,49,22, 7,15,40,22		7,49
52″	31,36, 1,55,30,57,25, 4,18,22		2,18,36,55,48	
		1,46,49,19,48,38,44,34		7,49
54″	31,36, 3,42,20,17,13,43, 2,56		2,18,37, 3,37	
		1,46,49,17,30, 1,40,57		7,49
56″	31,36, 5,29, 9,34,43,44,43,53		2,18,37,11,26	
		1,46,49,15,11,24,29,31		7,49
58″	31,36, 7,15,58,49,55, 9,13,24		2,18,37,19,15	
		1,46,49,12,52,47,10,16		
60″	31,36, 9, 2,48, 2,47,56,23,40			
exact	31,36, 9, 2,48, 2,47,56,46,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°47′ 0″	31,36, 9, 2,48, 2,47,56,46,41			
		1,46,49,10,34, 9,45,48		
2″	31,36,10,49,37,13,22, 6,32,29		2,18,37,34,41	
		1,46,49, 8,15,32,11, 7		7,49
4″	31,36,12,36,26,21,37,38,43,36		2,18,37,42,30	
		1,46,49, 5,56,54,28,37		7,49
6″	31,36,14,23,15,27,34,33,12,13		2,18,37,50,19	
		1,46,49, 3,38,16,38,18		7,49
8″	31,36,16,10, 4,31,12,49,50,31		2,18,37,58, 8	
		1,46,49, 1,19,38,40,10		7,49
10″	31,36,17,56,53,32,32,28,30,41		2,18,38, 5,57	
		1,46,48,59, 1, 0,34,13		7,49
12″	31,36,19,43,42,31,33,29, 4,54		2,18,38,13,46	
		1,46,48,56,42,22,20,27		7,49
14″	31,36,21,30,31,28,15,51,25,21		2,18,38,21,35	
		1,46,48,54,23,43,58,52		7,49
16″	31,36,23,17,20,22,39,35,24,13		2,18,38,29,24	
		1,46,48,52, 5, 5,29,28		7,49
18″	31,36,25, 4, 9,14,44,40,53,41		2,18,38,37,13	
		1,46,48,49,46,26,52,15		7,49
20″	31,36,26,50,58, 4,31, 7,45,56		2,18,38,45, 2	
		1,46,48,47,27,48, 7,13		7,49
22″	31,36,28,37,46,51,58,55,53, 9		2,18,38,52,51	
		1,46,48,45, 9, 9,14,22		7,49
24″	31,36,30,24,35,37, 8, 5, 7,31		2,18,39, 0,40	
		1,46,48,42,50,30,13,42		7,49
26″	31,36,32,11,24,19,58,35,21,13		2,18,39, 8,29	
		1,46,48,40,31,51, 5,13		7,49
28″	31,36,33,58,13, 0,30,26,26,26		2,18,39,16,18	
		1,46,48,38,13,11,48,55		7,49
30″	31,36,35,45, 1,38,43,38,15,21		2,18,39,24, 7	
		1,46,48,35,54,32,24,48		7,49
32″	31,36,37,31,50,14,38,10,40, 9		2,18,39,31,56	
		1,46,48,33,35,52,52,52		7,49
34″	31,36,39,18,38,48,14, 3,33, 1		2,18,39,39,45	
		1,46,48,31,17,13,13, 7		7,49
36″	31,36,41, 5,27,19,31,16,46, 8		2,18,39,47,34	
		1,46,48,28,58,33,25,33		7,49
38″	31,36,42,52,15,48,29,50,11,41		2,18,39,55,23	
		1,46,48,26,39,53,30,10		7,49
40″	31,36,44,39, 4,15, 9,43,41,51		2,18,40, 3,12	
		1,46,48,24,21,13,26,58		7,49
42″	31,36,46,25,52,39,30,57, 8,49		2,18,40,11, 1	
		1,46,48,22, 2,33,15,57		7,49
44″	31,36,48,12,41, 1,33,30,24,46		2,18,40,18,50	
		1,46,48,19,43,52,57, 7		7,49
46″	31,36,49,59,29,21,17,23,21,53		2,18,40,26,39	
		1,46,48,17,25,12,30,28		7,49
48″	31,36,51,46,17,38,42,35,52,21		2,18,40,34,28	
		1,46,48,15, 6,31,56, 0		7,49
50″	31,36,53,33, 5,53,49, 7,48,21		2,18,40,42,17	
		1,46,48,12,47,51,13,43		7,49
52″	31,36,55,19,54, 6,36,59, 2, 4		2,18,40,50, 6	
		1,46,48,10,29,10,23,37		7,49
54″	31,36,57, 6,42,17, 6, 9,25,41		2,18,40,57,55	
		1,46,48, 8,10,29,25,42		7,49
56″	31,36,58,53,30,25,16,38,51,23		2,18,41, 5,44	
		1,46,48, 5,51,48,19,58		7,49
58″	31,37, 0,40,18,31, 8,27,11,21		2,18,41,13,33	
		1,46,48, 3,33, 7, 6,25		
60″	31,37, 2,27, 6,34,41,34,17,46			
exact	31,37, 2,27, 6,34,41,34,45,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°48′ 0″	31,37, 2,27, 6,34,41,34,45,25			
		1,46,48, 1,14,25,48,12		
2″	31,37, 4,13,54,35,56, 0,33,37		2,18,41,28,57	
		1,46,47,58,55,44,19,15		7,48
4″	31,37, 6, 0,42,34,51,44,52,52		2,18,41,36,45	
		1,46,47,56,37, 2,42,30		7,48
6″	31,37, 7,47,30,31,28,47,35,22		2,18,41,44,33	
		1,46,47,54,18,20,57,57		7,48
8″	31,37, 9,34,18,25,47, 8,33,19		2,18,41,52,21	
		1,46,47,51,59,39, 5,36		7,48
10″	31,37,11,21, 6,17,46,47,38,55		2,18,42, 0, 9	
		1,46,47,49,40,57, 5,27		7,48
12″	31,37,13, 7,54, 7,27,44,44,22		2,18,42, 7,57	
		1,46,47,47,22,14,57,30		7,48
14″	31,37,14,54,41,54,49,59,41,52		2,18,42,15,45	
		1,46,47,45, 3,32,41,45		7,48
16″	31,37,16,41,29,39,53,32,23,37		2,18,42,23,33	
		1,46,47,42,44,50,18,12		7,48
18″	31,37,18,28,17,22,38,22,41,49		2,18,42,31,21	
		1,46,47,40,26, 7,46,51		7,48
20″	31,37,20,15, 5, 3, 4,30,28,40		2,18,42,39, 9	
		1,46,47,38, 7,25, 7,42		7,48
22″	31,37,22, 1,52,41,11,55,36,22		2,18,42,46,57	
		1,46,47,35,48,42,20,45		7,48
24″	31,37,23,48,40,17, 0,37,57, 7		2,18,42,54,45	
		1,46,47,33,29,59,26, 0		7,48
26″	31,37,25,35,27,50,30,37,23, 7		2,18,43, 2,33	
		1,46,47,31,11,16,23,27		7,48
28″	31,37,27,22,15,21,41,53,46,34		2,18,43,10,21	
		1,46,47,28,52,33,13, 6		7,48
30″	31,37,29, 9, 2,50,34,26,59,40		2,18,43,18, 9	
		1,46,47,26,33,49,54,57		7,48
32″	31,37,30,55,50,17, 8,16,54,37		2,18,43,25,57	
		1,46,47,24,15, 6,29, 0		7,48
34″	31,37,32,42,37,41,23,23,23,37		2,18,43,33,45	
		1,46,47,21,56,22,55,15		7,48
36″	31,37,34,29,25, 3,19,46,18,52		2,18,43,41,33	
		1,46,47,19,37,39,13,42		7,48
38″	31,37,36,16,12,22,57,25,32,34		2,18,43,49,21	
		1,46,47,17,18,55,24,21		7,48
40″	31,37,38, 2,59,40,16,20,56,55		2,18,43,57, 9	
		1,46,47,15, 0,11,27,12		7,48
42″	31,37,39,49,46,55,16,32,24, 7		2,18,44, 4,57	
		1,46,47,12,41,27,22,15		7,48
44″	31,37,41,36,34, 7,57,59,46,22		2,18,44,12,45	
		1,46,47,10,22,43, 9,30		7,48
46″	31,37,43,23,21,18,20,42,55,52		2,18,44,20,33	
		1,46,47, 8, 3,58,48,57		7,48
48″	31,37,45,10, 8,26,24,41,44,49		2,18,44,28,21	
		1,46,47, 5,45,14,20,36		7,48
50″	31,37,46,56,55,32, 9,56, 5,25		2,18,44,36, 9	
		1,46,47, 3,26,29,44,27		7,48
52″	31,37,48,43,42,35,36,25,49,52		2,18,44,43,57	
		1,46,47, 1, 7,45, 0,30		7,48
54″	31,37,50,30,29,36,44,10,50,22		2,18,44,51,45	
		1,46,46,58,49, 0, 8,45		7,48
56″	31,37,52,17,16,35,33,10,59, 7		2,18,44,59,33	
		1,46,46,56,30,15, 9,12		7,48
58″	31,37,54, 4, 3,32, 3,26, 8,19		2,18,45, 7,21	
		1,46,46,54,11,30, 1,51		
60″	31,37,55,50,50,26,14,56,10,10			
exact	31,37,55,50,50,26,14,55,38,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°49′ 0″	31,37,55,50,50,26,14,55,38,44			
		1,46,46,51,52,44,43,25		
2″	31,37,57,37,37,18, 7,40,22, 9		2,18,45,23,10	
		1,46,46,49,33,59,20,15		7,48
4″	31,37,59,24,24, 7,41,39,42,24		2,18,45,30,58	
		1,46,46,47,15,13,49,17		7,48
6″	31,38, 1,11,10,54,56,53,31,41		2,18,45,38,46	
		1,46,46,44,56,28,10,31		7,48
8″	31,38, 2,57,57,39,53,21,42,12		2,18,45,46,34	
		1,46,46,42,37,42,23,57		7,48
10″	31,38, 4,44,44,22,31, 4, 6, 9		2,18,45,54,22	
		1,46,46,40,18,56,29,35		7,48
12″	31,38, 6,31,31, 2,50, 0,35,44		2,18,46, 2,10	
		1,46,46,38, 0,10,27,25		7,48
14″	31,38, 8,18,17,40,50,11, 3, 9		2,18,46, 9,58	
		1,46,46,35,41,24,17,27		7,48
16″	31,38,10, 5, 4,16,31,35,20,36		2,18,46,17,46	
		1,46,46,33,22,37,59,41		7,48
18″	31,38,11,51,50,49,54,13,20,17		2,18,46,25,34	
		1,46,46,31, 3,51,34, 7		7,48
20″	31,38,13,38,37,20,58, 4,54,24		2,18,46,33,22	
		1,46,46,28,45, 5, 0,45		7,48
22″	31,38,15,25,23,49,43, 9,55, 9		2,18,46,41,10	
		1,46,46,26,26,18,19,35		7,48
24″	31,38,17,12,10,16, 9,28,14,44		2,18,46,48,58	
		1,46,46,24, 7,31,30,37		7,48
26″	31,38,18,58,56,40,16,59,45,21		2,18,46,56,46	
		1,46,46,21,48,44,33,51		7,48
28″	31,38,20,45,43, 2, 5,44,19,12		2,18,47, 4,34	
		1,46,46,19,29,57,29,17		7,48
30″	31,38,22,32,29,21,35,41,48,29		2,18,47,12,22	
		1,46,46,17,11,10,16,55		7,48
32″	31,38,24,19,15,38,46,52, 5,24		2,18,47,20,10	
		1,46,46,14,52,22,56,45		7,48
34″	31,38,26, 6, 1,53,39,15, 2, 9		2,18,47,27,58	
		1,46,46,12,33,35,28,47		7,48
36″	31,38,27,52,48, 6,12,50,30,56		2,18,47,35,46	
		1,46,46,10,14,47,53, 1		7,48
38″	31,38,29,39,34,16,27,38,23,57		2,18,47,43,34	
		1,46,46, 7,56, 0, 9,27		7,48
40″	31,38,31,26,20,24,23,38,33,24		2,18,47,51,22	
		1,46,46, 5,37,12,18, 5		7,48
42″	31,38,33,13, 6,30, 0,50,51,29		2,18,47,59,10	
		1,46,46, 3,18,24,18,55		7,48
44″	31,38,34,59,52,33,19,15,10,24		2,18,48, 6,58	
		1,46,46, 0,59,36,11,57		7,48
46″	31,38,36,46,38,34,18,51,22,21		2,18,48,14,46	
		1,46,45,58,40,47,57,11		7,48
48″	31,38,38,33,24,32,59,39,19,32		2,18,48,22,34	
		1,46,45,56,21,59,34,37		7,48
50″	31,38,40,20,10,29,21,38,54, 9		2,18,48,30,22	
		1,46,45,54, 3,11, 4,15		7,48
52″	31,38,42, 6,56,23,24,49,58,24		2,18,48,38,10	
		1,46,45,51,44,22,26, 5		7,48
54″	31,38,43,53,42,15, 9,12,24,29		2,18,48,45,58	
		1,46,45,49,25,33,40, 7		7,48
56″	31,38,45,40,28, 4,34,46, 4,36		2,18,48,53,46	
		1,46,45,47, 6,44,46,21		7,48
58″	31,38,47,27,13,51,41,30,50,57		2,18,49, 1,34	
		1,46,45,44,47,55,44,47		
60″	31,38,49,13,59,36,29,26,35,44			
exact	31,38,49,13,59,36,29,26, 9,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°50′ 0″	31,38,49,13,59,36,29,26, 9,33			
		1,46,45,42,29, 6,32,43		
2″	31,38,51, 0,45,18,58,32,42,16		2,18,49,17,21	
		1,46,45,40,10,17,15,22		7,48
4″	31,38,52,47,30,59, 8,49,57,38		2,18,49,25, 9	
		1,46,45,37,51,27,50,13		7,48
6″	31,38,54,34,16,37, 0,17,47,51		2,18,49,32,57	
		1,46,45,35,32,38,17,16		7,48
8″	31,38,56,21, 2,12,32,56, 5, 7		2,18,49,40,45	
		1,46,45,33,13,48,36,31		7,48
10″	31,38,58, 7,47,45,46,44,41,38		2,18,49,48,33	
		1,46,45,30,54,58,47,58		7,48
12″	31,38,59,54,33,16,41,43,29,36		2,18,49,56,21	
		1,46,45,28,36, 8,51,37		7,48
14″	31,39, 1,41,18,45,17,52,21,13		2,18,50, 4, 9	
		1,46,45,26,17,18,47,28		7,48
16″	31,39, 3,28, 4,11,35,11, 8,41		2,18,50,11,57	
		1,46,45,23,58,28,35,31		7,48
18″	31,39, 5,14,49,35,33,39,44,12		2,18,50,19,45	
		1,46,45,21,39,38,15,46		7,48
20″	31,39, 7, 1,34,57,13,17,59,58		2,18,50,27,33	
		1,46,45,19,20,47,48,13		7,48
22″	31,39, 8,48,20,16,34, 5,48,11		2,18,50,35,21	
		1,46,45,17, 1,57,12,52		7,48
24″	31,39,10,35, 5,33,36, 3, 1, 3		2,18,50,43, 9	
		1,46,45,14,43, 6,29,43		7,48
26″	31,39,12,21,50,48,19, 9,30,46		2,18,50,50,57	
		1,46,45,12,24,15,38,46		7,48
28″	31,39,14, 8,36, 0,43,25, 9,32		2,18,50,58,45	
		1,46,45,10, 5,24,40, 1		7,48
30″	31,39,15,55,21,10,48,49,49,33		2,18,51, 6,33	
		1,46,45, 7,46,33,33,28		7,48
32″	31,39,17,42, 6,18,35,23,23, 1		2,18,51,14,21	
		1,46,45, 5,27,42,19, 7		7,48
34″	31,39,19,28,51,24, 3, 5,42, 8		2,18,51,22, 9	
		1,46,45, 3, 8,50,56,58		7,48
36″	31,39,21,15,36,27,11,56,39, 6		2,18,51,29,57	
		1,46,45, 0,49,59,27, 1		7,48
38″	31,39,23, 2,21,28, 1,56, 6, 7		2,18,51,37,45	
		1,46,44,58,31, 7,49,16		7,48
40″	31,39,24,49, 6,26,33, 3,55,23		2,18,51,45,33	
		1,46,44,56,12,16, 3,43		7,48
42″	31,39,26,35,51,22,45,19,59, 6		2,18,51,53,21	
		1,46,44,53,53,24,10,22		7,48
44″	31,39,28,22,36,16,38,44, 9,28		2,18,52, 1, 9	
		1,46,44,51,34,32, 9,13		7,48
46″	31,39,30, 9,21, 8,13,16,18,41		2,18,52, 8,57	
		1,46,44,49,15,40, 0,16		7,48
48″	31,39,31,56, 5,57,28,56,18,57		2,18,52,16,45	
		1,46,44,46,56,47,43,31		7,48
50″	31,39,33,42,50,44,25,44, 2,28		2,18,52,24,33	
		1,46,44,44,37,55,18,58		7,48
52″	31,39,35,29,35,29, 3,39,21,26		2,18,52,32,21	
		1,46,44,42,19, 2,46,37		7,48
54″	31,39,37,16,20,11,22,42, 8, 3		2,18,52,40, 9	
		1,46,44,40, 0,10, 6,28		7,48
56″	31,39,39, 3, 4,51,22,52,14,31		2,18,52,47,57	
		1,46,44,37,41,17,18,31		7,48
58″	31,39,40,49,49,29, 4, 9,33, 2		2,18,52,55,45	
		1,46,44,35,22,24,22,46		
60″	31,39,42,36,34, 4,26,33,55,48			
exact	31,39,42,36,34, 4,26,33,38,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°51′ 0″	31,39,42,36,34, 4,26,33,38,54			
		1,46,44,33, 3,31,17,22		
2″	31,39,44,23,18,37,30, 4,56,16		2,18,53,11,29	
		1,46,44,30,44,38, 5,53		7,48
4″	31,39,46,10, 3, 8,14,43, 2, 9		2,18,53,19,17	
		1,46,44,28,25,44,46,36		7,48
6″	31,39,47,56,47,36,40,27,48,45		2,18,53,27, 5	
		1,46,44,26, 6,51,19,31		7,48
8″	31,39,49,43,32, 2,47,19, 8,16		2,18,53,34,53	
		1,46,44,23,47,57,44,38		7,48
10″	31,39,51,30,16,26,35,16,52,54		2,18,53,42,41	
		1,46,44,21,29, 4, 1,57		7,48
12″	31,39,53,17, 0,48, 4,20,54,51		2,18,53,50,29	
		1,46,44,19,10,10,11,28		7,48
14″	31,39,55, 3,45, 7,14,31, 6,19		2,18,53,58,17	
		1,46,44,16,51,16,13,11		7,48
16″	31,39,56,50,29,24, 5,47,19,30		2,18,54, 6, 5	
		1,46,44,14,32,22, 7, 6		7,48
18″	31,39,58,37,13,38,38, 9,26,36		2,18,54,13,53	
		1,46,44,12,13,27,53,13		7,48
20″	31,40, 0,23,57,50,51,37,19,49		2,18,54,21,41	
		1,46,44, 9,54,33,31,32		7,48
22″	31,40, 2,10,42, 0,46,10,51,21		2,18,54,29,29	
		1,46,44, 7,35,39, 2, 3		7,48
24″	31,40, 3,57,26, 8,21,49,53,24		2,18,54,37,17	
		1,46,44, 5,16,44,24,46		7,48
26″	31,40, 5,44,10,13,38,34,18,10		2,18,54,45, 5	
		1,46,44, 2,57,49,39,41		7,48
28″	31,40, 7,30,54,16,36,23,57,51		2,18,54,52,53	
		1,46,44, 0,38,54,46,48		7,48
30″	31,40, 9,17,38,17,15,18,44,39		2,18,55, 0,41	
		1,46,43,58,19,59,46, 7		7,48
32″	31,40,11, 4,22,15,35,18,30,46		2,18,55, 8,29	
		1,46,43,56, 1, 4,37,38		7,48
34″	31,40,12,51, 6,11,36,23, 8,24		2,18,55,16,17	
		1,46,43,53,42, 9,21,21		7,48
36″	31,40,14,37,50, 5,18,32,29,45		2,18,55,24, 5	
		1,46,43,51,23,13,57,16		7,48
38″	31,40,16,24,33,56,41,46,27, 1		2,18,55,31,53	
		1,46,43,49, 4,18,25,23		7,48
40″	31,40,18,11,17,45,46, 4,52,24		2,18,55,39,41	
		1,46,43,46,45,22,45,42		7,48
42″	31,40,19,58, 1,32,31,27,38, 6		2,18,55,47,29	
		1,46,43,44,26,26,58,13		7,48
44″	31,40,21,44,45,16,57,54,36,19		2,18,55,55,17	
		1,46,43,42, 7,31, 2,56		7,48
46″	31,40,23,31,28,59, 5,25,39,15		2,18,56, 3, 5	
		1,46,43,39,48,34,59,51		7,48
48″	31,40,25,18,12,38,54, 0,39, 6		2,18,56,10,53	
		1,46,43,37,29,38,48,58		7,48
50″	31,40,27, 4,56,16,23,39,28, 4		2,18,56,18,41	
		1,46,43,35,10,42,30,17		7,48
52″	31,40,28,51,39,51,34,21,58,21		2,18,56,26,29	
		1,46,43,32,51,46, 3,48		7,48
54″	31,40,30,38,23,24,26, 8, 2, 9		2,18,56,34,17	
		1,46,43,30,32,49,29,31		7,48
56″	31,40,32,25, 6,54,58,57,31,40		2,18,56,42, 5	
		1,46,43,28,13,52,47,26		7,48
58″	31,40,34,11,50,23,12,50,19, 6		2,18,56,49,53	
		1,46,43,25,54,55,57,33		
60″	31,40,35,58,33,49, 7,46,16,39			
exact	31,40,35,58,33,49, 7,46, 5,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°52′ 0″	31,40,35,58,33,49, 7,46, 5,48			
		1,46,43,23,35,58,58,39		
2″	31,40,37,45,17,12,43,45, 4,27		2,18,57, 5,34	
		1,46,43,21,17, 1,53, 5		7,48
4″	31,40,39,32, 0,34, 0,46,57,32		2,18,57,13,22	
		1,46,43,18,58, 4,39,43		7,48
6″	31,40,41,18,43,52,58,51,37,15		2,18,57,21,10	
		1,46,43,16,39, 7,18,33		7,48
8″	31,40,43, 5,27, 9,37,58,55,48		2,18,57,28,58	
		1,46,43,14,20, 9,49,35		7,48
10″	31,40,44,52,10,23,58, 8,45,23		2,18,57,36,46	
		1,46,43,12, 1,12,12,49		7,48
12″	31,40,46,38,53,35,59,20,58,12		2,18,57,44,34	
		1,46,43, 9,42,14,28,15		7,48
14″	31,40,48,25,36,45,41,35,26,27		2,18,57,52,22	
		1,46,43, 7,23,16,35,53		7,48
16″	31,40,50,12,19,53, 4,52, 2,20		2,18,58, 0,10	
		1,46,43, 5, 4,18,35,43		7,48
18″	31,40,51,59, 2,58, 9,10,38, 3		2,18,58, 7,58	
		1,46,43, 2,45,20,27,45		7,48
20″	31,40,53,45,46, 0,54,31, 5,48		2,18,58,15,46	
		1,46,43, 0,26,22,11,59		7,48
22″	31,40,55,32,29, 1,20,53,17,47		2,18,58,23,34	
		1,46,42,58, 7,23,48,25		7,48
24″	31,40,57,19,11,59,28,17, 6,12		2,18,58,31,22	
		1,46,42,55,48,25,17, 3		7,48
26″	31,40,59, 5,54,55,16,42,23,15		2,18,58,39,10	
		1,46,42,53,29,26,37,53		7,48
28″	31,41, 0,52,37,48,46, 9, 1, 8		2,18,58,46,58	
		1,46,42,51,10,27,50,55		7,48
30″	31,41, 2,39,20,39,56,36,52, 3		2,18,58,54,46	
		1,46,42,48,51,28,56, 9		7,48
32″	31,41, 4,26, 3,28,48, 5,48,12		2,18,59, 2,34	
		1,46,42,46,32,29,53,35		7,48
34″	31,41, 6,12,46,15,20,35,41,47		2,18,59,10,22	
		1,46,42,44,13,30,43,13		7,48
36″	31,41, 7,59,28,59,34, 6,25, 0		2,18,59,18,10	
		1,46,42,41,54,31,25, 3		7,48
38″	31,41, 9,46,11,41,28,37,50, 3		2,18,59,25,58	
		1,46,42,39,35,31,59, 5		7,48
40″	31,41,11,32,54,21, 4, 9,49, 8		2,18,59,33,46	
		1,46,42,37,16,32,25,19		7,48
42″	31,41,13,19,36,58,20,42,14,27		2,18,59,41,34	
		1,46,42,34,57,32,43,45		7,48
44″	31,41,15, 6,19,33,18,14,58,12		2,18,59,49,22	
		1,46,42,32,38,32,54,23		7,48
46″	31,41,16,53, 2, 5,56,47,52,35		2,18,59,57,10	
		1,46,42,30,19,32,57,13		7,48
48″	31,41,18,39,44,36,16,20,49,48		2,19, 0, 4,58	
		1,46,42,28, 0,32,52,15		7,48
50″	31,41,20,26,27, 4,16,53,42, 3		2,19, 0,12,46	
		1,46,42,25,41,32,39,29		7,48
52″	31,41,22,13, 9,29,58,26,21,32		2,19, 0,20,34	
		1,46,42,23,22,32,18,55		7,48
54″	31,41,23,59,51,53,20,58,40,27		2,19, 0,28,22	
		1,46,42,21, 3,31,50,33		7,48
56″	31,41,25,46,34,14,24,30,31, 0		2,19, 0,36,10	
		1,46,42,18,44,31,14,23		7,48
58″	31,41,27,33,16,33, 9, 1,45,23		2,19, 0,43,58	
		1,46,42,16,25,30,30,25		
60″	31,41,29,19,58,49,34,32,15,48			
exact	31,41,29,19,58,49,34,32, 7,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°53′ 0″	31,41,29,19,58,49,34,32, 7,24			
		1,46,42,14, 6,29,37,49		
2″	31,41,31, 6,41, 3,41, 1,45,13		2,19, 0,59,37	
		1,46,42,11,47,28,38,12		7,48
4″	31,41,32,53,23,15,28,30,23,25		2,19, 1, 7,25	
		1,46,42, 9,28,27,30,47		7,48
6″	31,41,34,40, 5,24,56,57,54,12		2,19, 1,15,13	
		1,46,42, 7, 9,26,15,34		7,48
8″	31,41,36,26,47,32, 6,24, 9,46		2,19, 1,23, 1	
		1,46,42, 4,50,24,52,33		7,48
10″	31,41,38,13,29,36,56,49, 2,19		2,19, 1,30,49	
		1,46,42, 2,31,23,21,44		7,48
12″	31,41,40, 0,11,39,28,12,24, 3		2,19, 1,38,37	
		1,46,42, 0,12,21,43, 7		7,48
14″	31,41,41,46,53,39,40,34, 7,10		2,19, 1,46,25	
		1,46,41,57,53,19,56,42		7,48
16″	31,41,43,33,35,37,33,54, 3,52		2,19, 1,54,13	
		1,46,41,55,34,18, 2,29		7,48
18″	31,41,45,20,17,33, 8,12, 6,21		2,19, 2, 2, 1	
		1,46,41,53,15,16, 0,28		7,48
20″	31,41,47, 6,59,26,23,28, 6,49		2,19, 2, 9,49	
		1,46,41,50,56,13,50,39		7,48
22″	31,41,48,53,41,17,19,41,57,28		2,19, 2,17,37	
		1,46,41,48,37,11,33, 2		7,48
24″	31,41,50,40,23, 5,56,53,30,30		2,19, 2,25,25	
		1,46,41,46,18, 9, 7,37		7,48
26″	31,41,52,27, 4,52,15, 2,38, 7		2,19, 2,33,13	
		1,46,41,43,59, 6,34,24		7,48
28″	31,41,54,13,46,36,14, 9,12,31		2,19, 2,41, 1	
		1,46,41,41,40, 3,53,23		7,48
30″	31,41,56, 0,28,17,54,13, 5,54		2,19, 2,48,49	
		1,46,41,39,21, 1, 4,34		7,48
32″	31,41,57,47, 9,57,15,14,10,28		2,19, 2,56,37	
		1,46,41,37, 1,58, 7,57		7,48
34″	31,41,59,33,51,34,17,12,18,25		2,19, 3, 4,25	
		1,46,41,34,42,55, 3,32		7,48
36″	31,42, 1,20,33, 9, 0, 7,21,57		2,19, 3,12,13	
		1,46,41,32,23,51,51,19		7,48
38″	31,42, 3, 7,14,41,23,59,13,16		2,19, 3,20, 1	
		1,46,41,30, 4,48,31,18		7,48
40″	31,42, 4,53,56,11,28,47,44,34		2,19, 3,27,49	
		1,46,41,27,45,45, 3,29		7,48
42″	31,42, 6,40,37,39,14,32,48, 3		2,19, 3,35,37	
		1,46,41,25,26,41,27,52		7,48
44″	31,42, 8,27,19, 4,41,14,15,55		2,19, 3,43,25	
		1,46,41,23, 7,37,44,27		7,48
46″	31,42,10,14, 0,27,48,52, 0,22		2,19, 3,51,13	
		1,46,41,20,48,33,53,14		7,48
48″	31,42,12, 0,41,48,37,25,53,36		2,19, 3,59, 1	
		1,46,41,18,29,29,54,13		7,48
50″	31,42,13,47,23, 7, 6,55,47,49		2,19, 4, 6,49	
		1,46,41,16,10,25,47,24		7,48
52″	31,42,15,34, 4,23,17,21,35,13		2,19, 4,14,37	
		1,46,41,13,51,21,32,47		7,48
54″	31,42,17,20,45,37, 8,43, 8, 0		2,19, 4,22,25	
		1,46,41,11,32,17,10,22		7,48
56″	31,42,19, 7,26,48,41, 0,18,22		2,19, 4,30,13	
		1,46,41, 9,13,12,40, 9		7,48
58″	31,42,20,54, 7,57,54,12,58,31		2,19, 4,38, 1	
		1,46,41, 6,54, 8, 2, 8		
60″	31,42,22,40,49, 4,48,21, 0,39			
exact	31,42,22,40,49, 4,48,20,58,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°54′ 0″	31,42,22,40,49, 4,48,20,58,54			
		1,46,41, 4,35, 3,16, 9		
2″	31,42,24,27,30, 9,23,24,15, 3		2,19, 4,53,37	
		1,46,41, 2,15,58,22,32		7,48
4″	31,42,26,14,11,11,39,22,37,35		2,19, 5, 1,25	
		1,46,40,59,56,53,21, 7		7,48
6″	31,42,28, 0,52,11,36,15,58,42		2,19, 5, 9,13	
		1,46,40,57,37,48,11,54		7,48
8″	31,42,29,47,33, 9,14, 4,10,36		2,19, 5,17, 1	
		1,46,40,55,18,42,54,53		7,48
10″	31,42,31,34,14, 4,32,47, 5,29		2,19, 5,24,49	
		1,46,40,52,59,37,30, 4		7,48
12″	31,42,33,20,54,57,32,24,35,33		2,19, 5,32,37	
		1,46,40,50,40,31,57,27		7,48
14″	31,42,35, 7,35,48,12,56,33, 0		2,19, 5,40,25	
		1,46,40,48,21,26,17, 2		7,48
16″	31,42,36,54,16,36,34,22,50, 2		2,19, 5,48,13	
		1,46,40,46, 2,20,28,49		7,48
18″	31,42,38,40,57,22,36,43,18,51		2,19, 5,56, 1	
		1,46,40,43,43,14,32,48		7,48
20″	31,42,40,27,38, 6,19,57,51,39		2,19, 6, 3,49	
		1,46,40,41,24, 8,28,59		7,48
22″	31,42,42,14,18,47,44, 6,20,38		2,19, 6,11,37	
		1,46,40,39, 5, 2,17,22		7,48
24″	31,42,44, 0,59,26,49, 8,38, 0		2,19, 6,19,25	
		1,46,40,36,45,55,57,57		7,48
26″	31,42,45,47,40, 3,35, 4,35,57		2,19, 6,27,13	
		1,46,40,34,26,49,30,44		7,48
28″	31,42,47,34,20,38, 1,54, 6,41		2,19, 6,35, 1	
		1,46,40,32, 7,42,55,43		7,48
30″	31,42,49,21, 1,10, 9,37, 2,24		2,19, 6,42,49	
		1,46,40,29,48,36,12,54		7,48
32″	31,42,51, 7,41,39,58,13,15,18		2,19, 6,50,37	
		1,46,40,27,29,29,22,17		7,48
34″	31,42,52,54,22, 7,27,42,37,35		2,19, 6,58,25	
		1,46,40,25,10,22,23,52		7,48
36″	31,42,54,41, 2,32,38, 5, 1,27		2,19, 7, 6,13	
		1,46,40,22,51,15,17,39		7,48
38″	31,42,56,27,42,55,29,20,19, 6		2,19, 7,14, 1	
		1,46,40,20,32, 8, 3,38		7,48
40″	31,42,58,14,23,16, 1,28,22,44		2,19, 7,21,49	
		1,46,40,18,13, 0,41,49		7,48
42″	31,43, 0, 1, 3,34,14,29, 4,33		2,19, 7,29,37	
		1,46,40,15,53,53,12,12		7,48
44″	31,43, 1,47,43,50, 8,22,16,45		2,19, 7,37,25	
		1,46,40,13,34,45,34,47		7,48
46″	31,43, 3,34,24, 3,43, 7,51,32		2,19, 7,45,13	
		1,46,40,11,15,37,49,34		7,48
48″	31,43, 5,21, 4,14,58,45,41, 6		2,19, 7,53, 1	
		1,46,40, 8,56,29,56,33		7,48
50″	31,43, 7, 7,44,23,55,15,37,39		2,19, 8, 0,49	
		1,46,40, 6,37,21,55,44		7,48
52″	31,43, 8,54,24,30,32,37,33,23		2,19, 8, 8,37	
		1,46,40, 4,18,13,47, 7		7,48
54″	31,43,10,41, 4,34,50,51,20,30		2,19, 8,16,25	
		1,46,40, 1,59, 5,30,42		7,48
56″	31,43,12,27,44,36,49,56,51,12		2,19, 8,24,13	
		1,46,39,59,39,57, 6,29		7,48
58″	31,43,14,14,24,36,29,53,57,41		2,19, 8,32, 1	
		1,46,39,57,20,48,34,28		
60″	31,43,16, 1, 4,33,50,42,32, 9			
exact	31,43,16, 1, 4,33,50,42,33,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°55′ 0″	31,43,16, 1, 4,33,50,42,33,38			
		1,46,39,55, 1,39,54,56		
2″	31,43,17,47,44,28,52,22,28,34		2,19, 8,47,35	
		1,46,39,52,42,31, 7,21		7,48
4″	31,43,19,34,24,21,34,53,35,55		2,19, 8,55,23	
		1,46,39,50,23,22,11,58		7,48
6″	31,43,21,21, 4,11,58,15,47,53		2,19, 9, 3,11	
		1,46,39,48, 4,13, 8,47		7,48
8″	31,43,23, 7,44, 0, 2,28,56,40		2,19, 9,10,59	
		1,46,39,45,45, 3,57,48		7,48
10″	31,43,24,54,23,45,47,32,54,28		2,19, 9,18,47	
		1,46,39,43,25,54,39, 1		7,48
12″	31,43,26,41, 3,29,13,27,33,29		2,19, 9,26,35	
		1,46,39,41, 6,45,12,26		7,48
14″	31,43,28,27,43,10,20,12,45,55		2,19, 9,34,23	
		1,46,39,38,47,35,38, 3		7,48
16″	31,43,30,14,22,49, 7,48,23,58		2,19, 9,42,11	
		1,46,39,36,28,25,55,52		7,48
18″	31,43,32, 1, 2,25,36,14,19,50		2,19, 9,49,59	
		1,46,39,34, 9,16, 5,53		7,48
20″	31,43,33,47,41,59,45,30,25,43		2,19, 9,57,47	
		1,46,39,31,50, 6, 8, 6		7,48
22″	31,43,35,34,21,31,35,36,33,49		2,19,10, 5,35	
		1,46,39,29,30,56, 2,31		7,48
24″	31,43,37,21, 1, 1, 6,32,36,20		2,19,10,13,23	
		1,46,39,27,11,45,49, 8		7,48
26″	31,43,39, 7,40,28,18,18,25,28		2,19,10,21,11	
		1,46,39,24,52,35,27,57		7,48
28″	31,43,40,54,19,53,10,53,53,25		2,19,10,28,59	
		1,46,39,22,33,24,58,58		7,48
30″	31,43,42,40,59,15,44,18,52,23		2,19,10,36,47	
		1,46,39,20,14,14,22,11		7,48
32″	31,43,44,27,38,35,58,33,14,34		2,19,10,44,35	
		1,46,39,17,55, 3,37,36		7,48
34″	31,43,46,14,17,53,53,36,52,10		2,19,10,52,23	
		1,46,39,15,35,52,45,13		7,48
36″	31,43,48, 0,57, 9,29,29,37,23		2,19,11, 0,11	
		1,46,39,13,16,41,45, 2		7,48
38″	31,43,49,47,36,22,46,11,22,25		2,19,11, 7,59	
		1,46,39,10,57,30,37, 3		7,48
40″	31,43,51,34,15,33,43,41,59,28		2,19,11,15,47	
		1,46,39, 8,38,19,21,16		7,48
42″	31,43,53,20,54,42,22, 1,20,44		2,19,11,23,35	
		1,46,39, 6,19, 7,57,41		7,48
44″	31,43,55, 7,33,48,41, 9,18,25		2,19,11,31,23	
		1,46,39, 3,59,56,26,18		7,48
46″	31,43,56,54,12,52,41, 5,44,43		2,19,11,39,11	
		1,46,39, 1,40,44,47, 7		7,48
48″	31,43,58,40,51,54,21,50,31,50		2,19,11,46,59	
		1,46,38,59,21,33, 0, 8		7,48
50″	31,44, 0,27,30,53,43,23,31,58		2,19,11,54,47	
		1,46,38,57, 2,21, 5,21		7,48
52″	31,44, 2,14, 9,50,45,44,37,19		2,19,12, 2,35	
		1,46,38,54,43, 9, 2,46		7,48
54″	31,44, 4, 0,48,45,28,53,40, 5		2,19,12,10,23	
		1,46,38,52,23,56,52,23		7,48
56″	31,44, 5,47,27,37,52,50,32,28		2,19,12,18,11	
		1,46,38,50, 4,44,34,12		7,48
58″	31,44, 7,34, 6,27,57,35, 6,40		2,19,12,25,59	
		1,46,38,47,45,32, 8,13		
60″	31,44, 9,20,45,15,43, 7,14,53			
exact	31,44, 9,20,45,15,43, 7,23, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°56′ 0″	31,44, 9,20,45,15,43, 7,23, 5			
		1,46,38,45,26,19,35,24		
2″	31,44,11, 7,24, 1, 9,26,58,29		2,19,12,41,30	
		1,46,38,43, 7, 6,53,54		7,48
4″	31,44,12,54, 2,44,16,33,52,23		2,19,12,49,18	
		1,46,38,40,47,54, 4,36		7,48
6″	31,44,14,40,41,25, 4,27,56,59		2,19,12,57, 6	
		1,46,38,38,28,41, 7,30		7,48
8″	31,44,16,27,20, 3,33, 9, 4,29		2,19,13, 4,54	
		1,46,38,36, 9,28, 2,36		7,48
10″	31,44,18,13,58,39,42,37, 7, 5		2,19,13,12,42	
		1,46,38,33,50,14,49,54		7,48
12″	31,44,20, 0,37,13,32,51,56,59		2,19,13,20,30	
		1,46,38,31,31, 1,29,24		7,48
14″	31,44,21,47,15,45, 3,53,26,23		2,19,13,28,18	
		1,46,38,29,11,48, 1, 6		7,48
16″	31,44,23,33,54,14,15,41,27,29		2,19,13,36, 6	
		1,46,38,26,52,34,25, 0		7,48
18″	31,44,25,20,32,41, 8,15,52,29		2,19,13,43,54	
		1,46,38,24,33,20,41, 6		7,48
20″	31,44,27, 7,11, 5,41,36,33,35		2,19,13,51,42	
		1,46,38,22,14, 6,49,24		7,48
22″	31,44,28,53,49,27,55,43,22,59		2,19,13,59,30	
		1,46,38,19,54,52,49,54		7,48
24″	31,44,30,40,27,47,50,36,12,53		2,19,14, 7,18	
		1,46,38,17,35,38,42,36		7,48
26″	31,44,32,27, 6, 5,26,14,55,29		2,19,14,15, 6	
		1,46,38,15,16,24,27,30		7,48
28″	31,44,34,13,44,20,42,39,22,59		2,19,14,22,54	
		1,46,38,12,57,10, 4,36		7,48
30″	31,44,36, 0,22,33,39,49,27,35		2,19,14,30,42	
		1,46,38,10,37,55,33,54		7,48
32″	31,44,37,47, 0,44,17,45, 1,29		2,19,14,38,30	
		1,46,38, 8,18,40,55,24		7,48
34″	31,44,39,33,38,52,36,25,56,53		2,19,14,46,18	
		1,46,38, 5,59,26, 9, 6		7,48
36″	31,44,41,20,16,58,35,52, 5,59		2,19,14,54, 6	
		1,46,38, 3,40,11,15, 0		7,48
38″	31,44,43, 6,55, 2,16, 3,20,59		2,19,15, 1,54	
		1,46,38, 1,20,56,13, 6		7,48
40″	31,44,44,53,33, 3,36,59,34, 5		2,19,15, 9,42	
		1,46,37,59, 1,41, 3,24		7,48
42″	31,44,46,40,11, 2,38,40,37,29		2,19,15,17,30	
		1,46,37,56,42,25,45,54		7,48
44″	31,44,48,26,48,59,21, 6,23,23		2,19,15,25,18	
		1,46,37,54,23,10,20,36		7,48
46″	31,44,50,13,26,53,44,16,43,59		2,19,15,33, 6	
		1,46,37,52, 3,54,47,30		7,48
48″	31,44,52, 0, 4,45,48,11,31,29		2,19,15,40,54	
		1,46,37,49,44,39, 6,36		7,48
50″	31,44,53,46,42,35,32,50,38, 5		2,19,15,48,42	
		1,46,37,47,25,23,17,54		7,48
52″	31,44,55,33,20,22,58,13,55,59		2,19,15,56,30	
		1,46,37,45, 6, 7,21,24		7,48
54″	31,44,57,19,58, 8, 4,21,17,23		2,19,16, 4,18	
		1,46,37,42,46,51,17, 6		7,48
56″	31,44,59, 6,35,50,51,12,34,29		2,19,16,12, 6	
		1,46,37,40,27,35, 5, 0		7,48
58″	31,45, 0,53,13,31,18,47,39,29		2,19,16,19,54	
		1,46,37,38, 8,18,45, 6		
60″	31,45, 2,39,51, 9,27, 6,24,35			
exact	31,45, 2,39,51, 9,27, 6,36,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°57′ 0″	31,45, 2,39,51, 9,27, 6,36,51			
		1,46,37,35,49, 2,18,52		
2″	31,45, 4,26,28,45,16, 8,55,43		2,19,16,35,23	
		1,46,37,33,29,45,43,29		7,48
4″	31,45, 6,13, 6,18,45,54,39,12		2,19,16,43,11	
		1,46,37,31,10,29, 0,18		7,48
6″	31,45, 7,59,43,49,56,23,39,30		2,19,16,50,59	
		1,46,37,28,51,12, 9,19		7,48
8″	31,45, 9,46,21,18,47,35,48,49		2,19,16,58,47	
		1,46,37,26,31,55,10,32		7,48
10″	31,45,11,32,58,45,19,30,59,21		2,19,17, 6,35	
		1,46,37,24,12,38, 3,57		7,48
12″	31,45,13,19,36, 9,32, 9, 3,18		2,19,17,14,23	
		1,46,37,21,53,20,49,34		7,48
14″	31,45,15, 6,13,31,25,29,52,52		2,19,17,22,11	
		1,46,37,19,34, 3,27,23		7,48
16″	31,45,16,52,50,50,59,33,20,15		2,19,17,29,59	
		1,46,37,17,14,45,57,24		7,48
18″	31,45,18,39,28, 8,14,19,17,39		2,19,17,37,47	
		1,46,37,14,55,28,19,37		7,48
20″	31,45,20,26, 5,23, 9,47,37,16		2,19,17,45,35	
		1,46,37,12,36,10,34, 2		7,48
22″	31,45,22,12,42,35,45,58,11,18		2,19,17,53,23	
		1,46,37,10,16,52,40,39		7,48
24″	31,45,23,59,19,46, 2,50,51,57		2,19,18, 1,11	
		1,46,37, 7,57,34,39,28		7,48
26″	31,45,25,45,56,54, 0,25,31,25		2,19,18, 8,59	
		1,46,37, 5,38,16,30,29		7,48
28″	31,45,27,32,33,59,38,42, 1,54		2,19,18,16,47	
		1,46,37, 3,18,58,13,42		7,48
30″	31,45,29,19,11, 2,57,40,15,36		2,19,18,24,35	
		1,46,37, 0,59,39,49, 7		7,48
32″	31,45,31, 5,48, 3,57,20, 4,43		2,19,18,32,23	
		1,46,36,58,40,21,16,44		7,48
34″	31,45,32,52,25, 2,37,41,21,27		2,19,18,40,11	
		1,46,36,56,21, 2,36,33		7,48
36″	31,45,34,39, 1,58,58,43,58, 0		2,19,18,47,59	
		1,46,36,54, 1,43,48,34		7,48
38″	31,45,36,25,38,53, 0,27,46,34		2,19,18,55,47	
		1,46,36,51,42,24,52,47		7,48
40″	31,45,38,12,15,44,42,52,39,21		2,19,19, 3,35	
		1,46,36,49,23, 5,49,12		7,48
42″	31,45,39,58,52,34, 5,58,28,33		2,19,19,11,23	
		1,46,36,47, 3,46,37,49		7,48
44″	31,45,41,45,29,21, 9,45, 6,22		2,19,19,19,11	
		1,46,36,44,44,27,18,38		7,48
46″	31,45,43,32, 6, 5,54,12,25, 0		2,19,19,26,59	
		1,46,36,42,25, 7,51,39		7,48
48″	31,45,45,18,42,48,19,20,16,39		2,19,19,34,47	
		1,46,36,40, 5,48,16,52		7,48
50″	31,45,47, 5,19,28,25, 8,33,31		2,19,19,42,35	
		1,46,36,37,46,28,34,17		7,48
52″	31,45,48,51,56, 6,11,37, 7,48		2,19,19,50,23	
		1,46,36,35,27, 8,43,54		7,48
54″	31,45,50,38,32,41,38,45,51,42		2,19,19,58,11	
		1,46,36,33, 7,48,45,43		7,48
56″	31,45,52,25, 9,14,46,34,37,25		2,19,20, 5,59	
		1,46,36,30,48,28,39,44		7,48
58″	31,45,54,11,45,45,35, 3,17, 9		2,19,20,13,47	
		1,46,36,28,29, 8,25,57		
60″	31,45,55,58,22,14, 4,11,43, 6			
exact	31,45,55,58,22,14, 4,12, 2,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°58′ 0″	31,45,55,58,22,14, 4,12, 2,41	1,46,36,26, 9,48, 6,34		
2″	31,45,57,44,58,40,14, 0, 9,15	1,46,36,23,50,27,37,21	2,19,20,29,13	7,48
4″	31,45,59,31,35, 4, 4,27,46,36	1,46,36,21,31, 7, 0,20	2,19,20,37, 1	7,48
6″	31,46, 1,18,11,25,35,34,46,56	1,46,36,19,11,46,15,31	2,19,20,44,49	7,48
8″	31,46, 3, 4,47,44,47,21, 2,27	1,46,36,16,52,25,22,54	2,19,20,52,37	7,48
10″	31,46, 4,51,24, 1,39,46,25,21	1,46,36,14,33, 4,22,29	2,19,21, 0,25	7,48
12″	31,46, 6,38, 0,16,12,50,47,50	1,46,36,12,13,43,14,16	2,19,21, 8,13	7,48
14″	31,46, 8,24,36,28,26,34, 2, 6	1,46,36, 9,54,21,58,15	2,19,21,16, 1	7,48
16″	31,46,10,11,12,38,20,56, 0,21	1,46,36, 7,35, 0,34,26	2,19,21,23,49	7,48
18″	31,46,11,57,48,45,55,56,34,47	1,46,36, 5,15,39, 2,49	2,19,21,31,37	7,48
20″	31,46,13,44,24,51,11,35,37,36	1,46,36, 2,56,17,23,24	2,19,21,39,25	7,48
22″	31,46,15,31, 0,54, 7,53, 1, 0	1,46,36, 0,36,55,36,11	2,19,21,47,13	7,48
24″	31,46,17,17,36,54,44,48,37,11	1,46,35,58,17,33,41,10	2,19,21,55, 1	7,48
26″	31,46,19, 4,12,53, 2,22,18,21	1,46,35,55,58,11,38,21	2,19,22, 2,49	7,48
28″	31,46,20,50,48,49, 0,33,56,42	1,46,35,53,38,49,27,44	2,19,22,10,37	7,48
30″	31,46,22,37,24,42,39,23,24,26	1,46,35,51,19,27, 9,19	2,19,22,18,25	7,48
32″	31,46,24,24, 0,33,58,50,33,45	1,46,35,49, 0, 4,43, 6	2,19,22,26,13	7,48
34″	31,46,26,10,36,22,58,55,16,51	1,46,35,46,40,42, 9, 5	2,19,22,34, 1	7,48
36″	31,46,27,57,12, 9,39,37,25,56	1,46,35,44,21,19,27,16	2,19,22,41,49	7,48
38″	31,46,29,43,47,54, 0,56,53,12	1,46,35,42, 1,56,37,39	2,19,22,49,37	7,48
40″	31,46,31,30,23,36, 2,53,30,51	1,46,35,39,42,33,40,14	2,19,22,57,25	7,48
42″	31,46,33,16,59,15,45,27,11, 5	1,46,35,37,23,10,35, 1	2,19,23, 5,13	7,48
44″	31,46,35, 3,34,53, 8,37,46, 6	1,46,35,35, 3,47,22, 0	2,19,23,13, 1	7,48
46″	31,46,36,50,10,28,12,25, 8, 6	1,46,35,32,44,24, 1,11	2,19,23,20,49	7,48
48″	31,46,38,36,46, 0,56,49, 9,17	1,46,35,30,25, 0,32,34	2,19,23,28,37	7,48
50″	31,46,40,23,21,31,21,49,41,51	1,46,35,28, 5,36,56, 9	2,19,23,36,25	7,48
52″	31,46,42, 9,56,59,27,26,38, 0	1,46,35,25,46,13,11,56	2,19,23,44,13	7,48
54″	31,46,43,56,32,25,13,39,49,56	1,46,35,23,26,49,19,55	2,19,23,52, 1	7,48
56″	31,46,45,43, 7,48,40,29, 9,51	1,46,35,21, 7,25,20, 6	2,19,23,59,49	7,48
58″	31,46,47,29,43, 9,47,54,29,57	1,46,35,18,48, 1,12,29	2,19,24, 7,37	
60″	31,46,49,16,18,28,35,55,42,26			
exact	31,46,49,16,18,28,35,56, 6,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
31°59′ 0″	31,46,49,16,18,28,35,56, 6,34			
		1,46,35,16,28,36,59,48		
2″	31,46,51, 2,53,45, 4,33, 6,22		2,19,24,23, 1	
		1,46,35,14, 9,12,36,47		7,48
4″	31,46,52,49,28,59,13,45,43, 9		2,19,24,30,49	
		1,46,35,11,49,48, 5,58		7,48
6″	31,46,54,36, 4,11, 3,33,49, 7		2,19,24,38,37	
		1,46,35, 9,30,23,27,21		7,48
8″	31,46,56,22,39,20,33,57,16,28		2,19,24,46,25	
		1,46,35, 7,10,58,40,56		7,48
10″	31,46,58, 9,14,27,44,55,57,24		2,19,24,54,13	
		1,46,35, 4,51,33,46,43		7,48
12″	31,46,59,55,49,32,36,29,44, 7		2,19,25, 2, 1	
		1,46,35, 2,32, 8,44,42		7,48
14″	31,47, 1,42,24,35, 8,38,28,49		2,19,25, 9,49	
		1,46,35, 0,12,43,34,53		7,48
16″	31,47, 3,28,59,35,21,22, 3,42		2,19,25,17,37	
		1,46,34,57,53,18,17,16		7,48
18″	31,47, 5,15,34,33,14,40,20,58		2,19,25,25,25	
		1,46,34,55,33,52,51,51		7,48
20″	31,47, 7, 2, 9,28,48,33,12,49		2,19,25,33,13	
		1,46,34,53,14,27,18,38		7,48
22″	31,47, 8,48,44,22, 3, 0,31,27		2,19,25,41, 1	
		1,46,34,50,55, 1,37,37		7,48
24″	31,47,10,35,19,12,58, 2, 9, 4		2,19,25,48,49	
		1,46,34,48,35,35,48,48		7,48
26″	31,47,12,21,54, 1,33,37,57,52		2,19,25,56,37	
		1,46,34,46,16, 9,52,11		7,48
28″	31,47,14, 8,28,47,49,47,50, 3		2,19,26, 4,25	
		1,46,34,43,56,43,47,46		7,48
30″	31,47,15,55, 3,31,46,31,37,49		2,19,26,12,13	
		1,46,34,41,37,17,35,33		7,48
32″	31,47,17,41,38,13,23,49,13,22		2,19,26,20, 1	
		1,46,34,39,17,51,15,32		7,48
34″	31,47,19,28,12,52,41,40,28,54		2,19,26,27,49	
		1,46,34,36,58,24,47,43		7,48
36″	31,47,21,14,47,29,40, 5,16,37		2,19,26,35,37	
		1,46,34,34,38,58,12, 6		7,48
38″	31,47,23, 1,22, 4,19, 3,28,43		2,19,26,43,25	
		1,46,34,32,19,31,28,41		7,48
40″	31,47,24,47,56,36,38,34,57,24		2,19,26,51,13	
		1,46,34,30, 0, 4,37,28		7,48
42″	31,47,26,34,31, 6,38,39,34,52		2,19,26,59, 1	
		1,46,34,27,40,37,38,27		7,48
44″	31,47,28,21, 5,34,19,17,13,19		2,19,27, 6,49	
		1,46,34,25,21,10,31,38		7,48
46″	31,47,30, 7,39,59,40,27,44,57		2,19,27,14,37	
		1,46,34,23, 1,43,17, 1		7,48
48″	31,47,31,54,14,22,42,11, 1,58		2,19,27,22,25	
		1,46,34,20,42,15,54,36		7,48
50″	31,47,33,40,48,43,24,26,56,34		2,19,27,30,13	
		1,46,34,18,22,48,24,23		7,48
52″	31,47,35,27,23, 1,47,15,20,57		2,19,27,38, 1	
		1,46,34,16, 3,20,46,22		7,48
54″	31,47,37,13,57,17,50,36, 7,19		2,19,27,45,49	
		1,46,34,13,43,53, 0,33		7,48
56″	31,47,39, 0,31,31,34,29, 7,52		2,19,27,53,37	
		1,46,34,11,24,25, 6,56		7,48
58″	31,47,40,47, 5,42,58,54,14,48		2,19,28, 1,25	
		1,46,34, 9, 4,57, 5,31		
60″	31,47,42,33,39,52, 3,51,20,19			
exact	31,47,42,33,39,52, 3,51,52,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32° 0′ 0″	31,47,42,33,39,52, 3,51,52,38			
		1,46,34, 6,45,28,59,49		
2″	31,47,44,20,13,58,49,20,52,27		2,19,28,16,46	
		1,46,34, 4,26, 0,43, 3		7,47
4″	31,47,46, 6,48, 3,15,21,35,30		2,19,28,24,33	
		1,46,34, 2, 6,32,18,30		7,47
6″	31,47,47,53,22, 5,21,53,54, 0		2,19,28,32,20	
		1,46,33,59,47, 3,46,10		7,47
8″	31,47,49,39,56, 5, 8,57,40,10		2,19,28,40, 7	
		1,46,33,57,27,35, 6, 3		7,47
10″	31,47,51,26,30, 2,36,32,46,13		2,19,28,47,54	
		1,46,33,55, 8, 6,18, 9		7,47
12″	31,47,53,13, 3,57,44,39, 4,22		2,19,28,55,41	
		1,46,33,52,48,37,22,28		7,47
14″	31,47,54,59,37,50,33,16,26,50		2,19,29, 3,28	
		1,46,33,50,29, 8,19, 0		7,47
16″	31,47,56,46,11,41, 2,24,45,50		2,19,29,11,15	
		1,46,33,48, 9,39, 7,45		7,47
18″	31,47,58,32,45,29,12, 3,53,35		2,19,29,19, 2	
		1,46,33,45,50, 9,48,43		7,47
20″	31,48, 0,19,19,15, 2,13,42,18		2,19,29,26,49	
		1,46,33,43,30,40,21,54		7,47
22″	31,48, 2, 5,52,58,32,54, 4,12		2,19,29,34,36	
		1,46,33,41,11,10,47,18		7,47
24″	31,48, 3,52,26,39,44, 4,51,30		2,19,29,42,23	
		1,46,33,38,51,41, 4,55		7,47
26″	31,48, 5,39, 0,18,35,45,56,25		2,19,29,50,10	
		1,46,33,36,32,11,14,45		7,47
28″	31,48, 7,25,33,55, 7,57,11,10		2,19,29,57,57	
		1,46,33,34,12,41,16,48		7,47
30″	31,48, 9,12, 7,29,20,38,27,58		2,19,30, 5,44	
		1,46,33,31,53,11,11, 4		7,47
32″	31,48,10,58,41, 1,13,49,39, 2		2,19,30,13,31	
		1,46,33,29,33,40,57,33		7,47
34″	31,48,12,45,14,30,47,30,36,35		2,19,30,21,18	
		1,46,33,27,14,10,36,15		7,47
36″	31,48,14,31,47,58, 1,41,12,50		2,19,30,29, 5	
		1,46,33,24,54,40, 7,10		7,47
38″	31,48,16,18,21,22,56,21,20, 0		2,19,30,36,52	
		1,46,33,22,35, 9,30,18		7,47
40″	31,48,18, 4,54,45,31,30,50,18		2,19,30,44,39	
		1,46,33,20,15,38,45,39		7,47
42″	31,48,19,51,28, 5,47, 9,35,57		2,19,30,52,26	
		1,46,33,17,56, 7,53,13		7,47
44″	31,48,21,38, 1,23,43,17,29,10		2,19,31, 0,13	
		1,46,33,15,36,36,53, 0		7,47
46″	31,48,23,24,34,39,19,54,22,10		2,19,31, 8, 0	
		1,46,33,13,17, 5,45, 0		7,47
48″	31,48,25,11, 7,52,37, 0, 7,10		2,19,31,15,47	
		1,46,33,10,57,34,29,13		7,47
50″	31,48,26,57,41, 3,34,34,36,23		2,19,31,23,34	
		1,46,33, 8,38, 3, 5,39		7,47
52″	31,48,28,44,14,12,12,37,42, 2		2,19,31,31,21	
		1,46,33, 6,18,31,34,18		7,47
54″	31,48,30,30,47,18,31, 9,16,20		2,19,31,39, 8	
		1,46,33, 3,58,59,55,10		7,47
56″	31,48,32,17,20,22,30, 9,11,30		2,19,31,46,55	
		1,46,33, 1,39,28, 8,15		7,47
58″	31,48,34, 3,53,24, 9,37,19,45		2,19,31,54,42	
		1,46,32,59,19,56,13,33		
60″	31,48,35,50,26,23,29,33,33,18			
exact	31,48,35,50,26,23,29,33, 3,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32° 1′ 0″	31,48,35,50,26,23,29,33, 3,17	1,46,32,57, 0,24, 7,55		
2″	31,48,37,36,59,20,29,57,11,12	1,46,32,54,40,51,57,26	2,19,32,10,29	
4″	31,48,39,23,32,15,10,49, 8,38	1,46,32,52,21,19,39,10	2,19,32,18,16	7,47
6″	31,48,41,10, 5, 7,32, 8,47,48	1,46,32,50, 1,47,13, 7	2,19,32,26, 3	7,47
8″	31,48,42,56,37,57,33,56, 0,55	1,46,32,47,42,14,39,17	2,19,32,33,50	7,47
10″	31,48,44,43,10,45,16,10,40,12	1,46,32,45,22,41,57,40	2,19,32,41,37	7,47
12″	31,48,46,29,43,30,38,52,37,52	1,46,32,43, 3, 9, 8,16	2,19,32,49,24	7,47
14″	31,48,48,16,16,13,42, 1,46, 8	1,46,32,40,43,36,11, 5	2,19,32,57,11	7,47
16″	31,48,50, 2,48,54,25,37,57,13	1,46,32,38,24, 3, 6, 7	2,19,33, 4,58	7,47
18″	31,48,51,49,21,32,49,41, 3,20	1,46,32,36, 4,29,53,22	2,19,33,12,45	7,47
20″	31,48,53,35,54, 8,54,10,56,42	1,46,32,33,44,56,32,50	2,19,33,20,32	7,47
22″	31,48,55,22,26,42,39, 7,29,32	1,46,32,31,25,23, 4,31	2,19,33,28,19	7,47
24″	31,48,57, 8,59,14, 4,30,34, 3	1,46,32,29, 5,49,28,25	2,19,33,36, 6	7,47
26″	31,48,58,55,31,43,10,20, 2,28	1,46,32,26,46,15,44,32	2,19,33,43,53	7,47
28″	31,49, 0,42, 4, 9,56,35,47, 0	1,46,32,24,26,41,52,52	2,19,33,51,40	7,47
30″	31,49, 2,28,36,34,23,17,39,52	1,46,32,22, 7, 7,53,25	2,19,33,59,27	7,47
32″	31,49, 4,15, 8,56,30,25,33,17	1,46,32,19,47,33,46,11	2,19,34, 7,14	7,47
34″	31,49, 6, 1,41,16,17,59,19,28	1,46,32,17,27,59,31,10	2,19,34,15, 1	7,47
36″	31,49, 7,48,13,33,45,58,50,38	1,46,32,15, 8,25, 8,22	2,19,34,22,48	7,47
38″	31,49, 9,34,45,48,54,23,59, 0	1,46,32,12,48,50,37,47	2,19,34,30,35	7,47
40″	31,49,11,21,18, 1,43,14,36,47	1,46,32,10,29,15,59,25	2,19,34,38,22	7,47
42″	31,49,13, 7,50,12,12,30,36,12	1,46,32, 8, 9,41,13,16	2,19,34,46, 9	7,47
44″	31,49,14,54,22,20,22,11,49,28	1,46,32, 5,50, 6,19,20	2,19,34,53,56	7,47
46″	31,49,16,40,54,26,12,18, 8,48	1,46,32, 3,30,31,17,37	2,19,35, 1,43	7,47
48″	31,49,18,27,26,29,42,49,26,25	1,46,32, 1,10,56, 8, 7	2,19,35, 9,30	7,47
50″	31,49,20,13,58,30,53,45,34,32	1,46,31,58,51,20,50,50	2,19,35,17,17	7,47
52″	31,49,22, 0,30,29,45, 6,25,22	1,46,31,56,31,45,25,46	2,19,35,25, 4	7,47
54″	31,49,23,47, 2,26,16,51,51, 8	1,46,31,54,12, 9,52,55	2,19,35,32,51	7,47
56″	31,49,25,33,34,20,29, 1,44, 3	1,46,31,51,52,34,12,17	2,19,35,40,38	7,47
58″	31,49,27,20, 6,12,21,35,56,20	1,46,31,49,32,58,23,52	2,19,35,48,25	
60″	31,49,29, 6,38, 1,54,34,20,12			
exact	31,49,29, 6,38, 1,54,33,59, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32° 2′ 0″	31,49,29, 6,38, 1,54,33,59, 6			
		1,46,31,47,13,22,25,21		
2″	31,49,30,53, 9,49, 7,56,24,27		2,19,36, 4, 9	
		1,46,31,44,53,46,21,12		7,47
4″	31,49,32,39,41,34, 1,42,45,39		2,19,36,11,56	
		1,46,31,42,34,10, 9,16		7,47
6″	31,49,34,26,13,16,35,52,54,55		2,19,36,19,43	
		1,46,31,40,14,33,49,33		7,47
8″	31,49,36,12,44,56,50,26,44,28		2,19,36,27,30	
		1,46,31,37,54,57,22, 3		7,47
10″	31,49,37,59,16,34,45,24, 6,31		2,19,36,35,17	
		1,46,31,35,35,20,46,46		7,47
12″	31,49,39,45,48,10,20,44,53,17		2,19,36,43, 4	
		1,46,31,33,15,44, 3,42		7,47
14″	31,49,41,32,19,43,36,28,56,59		2,19,36,50,51	
		1,46,31,30,56, 7,12,51		7,47
16″	31,49,43,18,51,14,32,36, 9,50		2,19,36,58,38	
		1,46,31,28,36,30,14,13		7,47
18″	31,49,45, 5,22,43, 9, 6,24, 3		2,19,37, 6,25	
		1,46,31,26,16,53, 7,48		7,47
20″	31,49,46,51,54, 9,25,59,31,51		2,19,37,14,12	
		1,46,31,23,57,15,53,36		7,47
22″	31,49,48,38,25,33,23,15,25,27		2,19,37,21,59	
		1,46,31,21,37,38,31,37		7,47
24″	31,49,50,24,56,55, 0,53,57, 4		2,19,37,29,46	
		1,46,31,19,18, 1, 1,51		7,47
26″	31,49,52,11,28,14,18,54,58,55		2,19,37,37,33	
		1,46,31,16,58,23,24,18		7,47
28″	31,49,53,57,59,31,17,18,23,13		2,19,37,45,20	
		1,46,31,14,38,45,38,58		7,47
30″	31,49,55,44,30,45,56, 4, 2,11		2,19,37,53, 7	
		1,46,31,12,19, 7,45,51		7,47
32″	31,49,57,31, 1,58,15,11,48, 2		2,19,38, 0,54	
		1,46,31, 9,59,29,44,57		7,47
34″	31,49,59,17,33, 8,14,41,32,59		2,19,38, 8,41	
		1,46,31, 7,39,51,36,16		7,47
36″	31,50, 1, 4, 4,15,54,33, 9,15		2,19,38,16,28	
		1,46,31, 5,20,13,19,48		7,47
38″	31,50, 2,50,35,21,14,46,29, 3		2,19,38,24,15	
		1,46,31, 3, 0,34,55,33		7,47
40″	31,50, 4,37, 6,24,15,21,24,36		2,19,38,32, 2	
		1,46,31, 0,40,56,23,31		7,47
42″	31,50, 6,23,37,24,56,17,48, 7		2,19,38,39,49	
		1,46,30,58,21,17,43,42		7,47
44″	31,50, 8,10, 8,23,17,35,31,49		2,19,38,47,36	
		1,46,30,56, 1,38,56, 6		7,47
46″	31,50, 9,56,39,19,19,14,27,55		2,19,38,55,23	
		1,46,30,53,42, 0, 0,43		7,47
48″	31,50,11,43,10,13, 1,14,28,38		2,19,39, 3,10	
		1,46,30,51,22,20,57,33		7,47
50″	31,50,13,29,41, 4,23,35,26,11		2,19,39,10,57	
		1,46,30,49, 2,41,46,36		7,47
52″	31,50,15,16,11,53,26,17,12,47		2,19,39,18,44	
		1,46,30,46,43, 2,27,52		7,47
54″	31,50,17, 2,42,40, 9,19,40,39		2,19,39,26,31	
		1,46,30,44,23,23, 1,21		7,47
56″	31,50,18,49,13,24,32,42,42, 0		2,19,39,34,18	
		1,46,30,42, 3,43,27, 3		7,47
58″	31,50,20,35,44, 6,36,26, 9, 3		2,19,39,42, 5	
		1,46,30,39,44, 3,44,58		
60″	31,50,22,22,14,46,20,29,54, 1			
exact	31,50,22,22,14,46,20,29,38,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32° 3′ 0″	31,50,22,22,14,46,20,29,38,59			
		1,46,30,37,24,23,53,25		
2″	31,50,24, 8,45,23,44,53,32,24		2,19,39,57,46	
		1,46,30,35, 4,43,55,39		7,47
4″	31,50,25,55,15,58,49,37,28, 3		2,19,40, 5,33	
		1,46,30,32,45, 3,50, 6		7,47
6″	31,50,27,41,46,31,34,41,18, 9		2,19,40,13,20	
		1,46,30,30,25,23,36,46		7,47
8″	31,50,29,28,17, 2, 0, 4,54,55		2,19,40,21, 7	
		1,46,30,28, 5,43,15,39		7,47
10″	31,50,31,14,47,30, 5,48,10,34		2,19,40,28,54	
		1,46,30,25,46, 2,46,45		7,47
12″	31,50,33, 1,17,55,51,50,57,19		2,19,40,36,41	
		1,46,30,23,26,22,10, 4		7,47
14″	31,50,34,47,48,19,18,13, 7,23		2,19,40,44,28	
		1,46,30,21, 6,41,25,36		7,47
16″	31,50,36,34,18,40,24,54,32,59		2,19,40,52,15	
		1,46,30,18,47, 0,33,21		7,47
18″	31,50,38,20,48,59,11,55, 6,20		2,19,41, 0, 2	
		1,46,30,16,27,19,33,19		7,47
20″	31,50,40, 7,19,15,39,14,39,39		2,19,41, 7,49	
		1,46,30,14, 7,38,25,30		7,47
22″	31,50,41,53,49,29,46,53, 5, 9		2,19,41,15,36	
		1,46,30,11,47,57, 9,54		7,47
24″	31,50,43,40,19,41,34,50,15, 3		2,19,41,23,23	
		1,46,30, 9,28,15,46,31		7,47
26″	31,50,45,26,49,51, 3, 6, 1,34		2,19,41,31,10	
		1,46,30, 7, 8,34,15,21		7,47
28″	31,50,47,13,19,58,11,40,16,55		2,19,41,38,57	
		1,46,30, 4,48,52,36,24		7,47
30″	31,50,48,59,50, 3, 0,32,53,19		2,19,41,46,44	
		1,46,30, 2,29,10,49,40		7,47
32″	31,50,50,46,20, 5,29,43,42,59		2,19,41,54,31	
		1,46,30, 0, 9,28,55, 9		7,47
34″	31,50,52,32,50, 5,39,12,38, 8		2,19,42, 2,18	
		1,46,29,57,49,46,52,51		7,47
36″	31,50,54,19,20, 3,28,59,30,59		2,19,42,10, 5	
		1,46,29,55,30, 4,42,46		7,47
38″	31,50,56, 5,49,58,59, 4,13,45		2,19,42,17,52	
		1,46,29,53,10,22,24,54		7,47
40″	31,50,57,52,19,52, 9,26,38,39		2,19,42,25,39	
		1,46,29,50,50,39,59,15		7,47
42″	31,50,59,38,49,43, 0, 6,37,54		2,19,42,33,26	
		1,46,29,48,30,57,25,49		7,47
44″	31,51, 1,25,19,31,31, 4, 3,43		2,19,42,41,13	
		1,46,29,46,11,14,44,36		7,47
46″	31,51, 3,11,49,17,42,18,48,19		2,19,42,49, 0	
		1,46,29,43,51,31,55,36		7,47
48″	31,51, 4,58,19, 1,33,50,43,55		2,19,42,56,47	
		1,46,29,41,31,48,58,49		7,47
50″	31,51, 6,44,48,43, 5,39,42,44		2,19,43, 4,34	
		1,46,29,39,12, 5,54,15		7,47
52″	31,51, 8,31,18,22,17,45,36,59		2,19,43,12,21	
		1,46,29,36,52,22,41,54		7,47
54″	31,51,10,17,47,59,10, 8,18,53		2,19,43,20, 8	
		1,46,29,34,32,39,21,46		7,47
56″	31,51,12, 4,17,33,42,47,40,39		2,19,43,27,55	
		1,46,29,32,12,55,53,51		7,47
58″	31,51,13,50,47, 5,55,43,34,30		2,19,43,35,42	
		1,46,29,29,53,12,18, 9		
60″	31,51,15,37,16,35,48,55,52,39			
exact	31,51,15,37,16,35,48,55,40, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32° 4′ 0″	31,51,15,37,16,35,48,55,40, 2			
		1,46,29,27,33,28,33,22		
2″	31,51,17,23,46, 3,22,24,13,24		2,19,43,51,21	
		1,46,29,25,13,44,42, 1		7,47
4″	31,51,19,10,15,28,36, 8,55,25		2,19,43,59, 8	
		1,46,29,22,54, 0,42,53		7,47
6″	31,51,20,56,44,51,30, 9,38,18		2,19,44, 6,55	
		1,46,29,20,34,16,35,58		7,47
8″	31,51,22,43,14,12, 4,26,14,16		2,19,44,14,42	
		1,46,29,18,14,32,21,16		7,47
10″	31,51,24,29,43,30,18,58,35,32		2,19,44,22,29	
		1,46,29,15,54,47,58,47		7,47
12″	31,51,26,16,12,46,13,46,34,19		2,19,44,30,16	
		1,46,29,13,35, 3,28,31		7,47
14″	31,51,28, 2,41,59,48,50, 2,50		2,19,44,38, 3	
		1,46,29,11,15,18,50,28		7,47
16″	31,51,29,49,11,11, 4, 8,53,18		2,19,44,45,50	
		1,46,29, 8,55,34, 4,38		7,47
18″	31,51,31,35,40,19,59,42,57,56		2,19,44,53,37	
		1,46,29, 6,35,49,11, 1		7,47
20″	31,51,33,22, 9,26,35,32, 8,57		2,19,45, 1,24	
		1,46,29, 4,16, 4, 9,37		7,47
22″	31,51,35, 8,38,30,51,36,18,34		2,19,45, 9,11	
		1,46,29, 1,56,19, 0,26		7,47
24″	31,51,36,55, 7,32,47,55,19, 0		2,19,45,16,58	
		1,46,28,59,36,33,43,28		7,47
26″	31,51,38,41,36,32,24,29, 2,28		2,19,45,24,45	
		1,46,28,57,16,48,18,43		7,47
28″	31,51,40,28, 5,29,41,17,21,11		2,19,45,32,32	
		1,46,28,54,57, 2,46,11		7,47
30″	31,51,42,14,34,24,38,20, 7,22		2,19,45,40,19	
		1,46,28,52,37,17, 5,52		7,47
32″	31,51,44, 1, 3,17,15,37,13,14		2,19,45,48, 6	
		1,46,28,50,17,31,17,46		7,47
34″	31,51,45,47,32, 7,33, 8,31, 0		2,19,45,55,53	
		1,46,28,47,57,45,21,53		7,47
36″	31,51,47,34, 0,55,30,53,52,53		2,19,46, 3,40	
		1,46,28,45,37,59,18,13		7,47
38″	31,51,49,20,29,41, 8,53,11, 6		2,19,46,11,27	
		1,46,28,43,18,13, 6,46		7,47
40″	31,51,51, 6,58,24,27, 6,17,52		2,19,46,19,14	
		1,46,28,40,58,26,47,32		7,47
42″	31,51,52,53,27, 5,25,33, 5,24		2,19,46,27, 1	
		1,46,28,38,38,40,20,31		7,47
44″	31,51,54,39,55,44, 4,13,25,55		2,19,46,34,48	
		1,46,28,36,18,53,45,43		7,47
46″	31,51,56,26,24,20,23, 7,11,38		2,19,46,42,35	
		1,46,28,33,59, 7, 3, 8		7,47
48″	31,51,58,12,52,54,22,14,14,46		2,19,46,50,22	
		1,46,28,31,39,20,12,46		7,47
50″	31,51,59,59,21,26, 1,34,27,32		2,19,46,58, 9	
		1,46,28,29,19,33,14,37		7,47
52″	31,52, 1,45,49,55,21, 7,42, 9		2,19,47, 5,56	
		1,46,28,26,59,46, 8,41		7,47
54″	31,52, 3,32,18,22,20,53,50,50		2,19,47,13,43	
		1,46,28,24,39,58,54,58		7,47
56″	31,52, 5,18,46,47, 0,52,45,48		2,19,47,21,30	
		1,46,28,22,20,11,33,28		7,47
58″	31,52, 7, 5,15, 9,21, 4,19,16		2,19,47,29,17	
		1,46,28,20, 0,24, 4,11		
60″	31,52, 8,51,43,29,21,28,23,27			
exact	31,52, 8,51,43,29,21,28,17,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32° 5′ 0″	31,52, 8,51,43,29,21,28,17,42			
		1,46,28,17,40,36,26,30		
2″	31,52,10,38,11,47, 2, 4,44,12		2,19,47,44,53	
		1,46,28,15,20,48,41,37		7,47
4″	31,52,12,24,40, 2,22,53,25,49		2,19,47,52,40	
		1,46,28,13, 1, 0,48,57		7,47
6″	31,52,14,11, 8,15,23,54,14,46		2,19,48, 0,27	
		1,46,28,10,41,12,48,30		7,47
8″	31,52,15,57,36,26, 5, 7, 3,16		2,19,48, 8,14	
		1,46,28, 8,21,24,40,16		7,47
10″	31,52,17,44, 4,34,26,31,43,32		2,19,48,16, 1	
		1,46,28, 6, 1,36,24,15		7,47
12″	31,52,19,30,32,40,28, 8, 7,47		2,19,48,23,48	
		1,46,28, 3,41,48, 0,27		7,47
14″	31,52,21,17, 0,44, 9,56, 8,14		2,19,48,31,35	
		1,46,28, 1,21,59,28,52		7,47
16″	31,52,23, 3,28,45,31,55,37, 6		2,19,48,39,22	
		1,46,27,59, 2,10,49,30		7,47
18″	31,52,24,49,56,44,34, 6,26,36		2,19,48,47, 9	
		1,46,27,56,42,22, 2,21		7,47
20″	31,52,26,36,24,41,16,28,28,57		2,19,48,54,56	
		1,46,27,54,22,33, 7,25		7,47
22″	31,52,28,22,52,35,39, 1,36,22		2,19,49, 2,43	
		1,46,27,52, 2,44, 4,42		7,47
24″	31,52,30, 9,20,27,41,45,41, 4		2,19,49,10,30	
		1,46,27,49,42,54,54,12		7,47
26″	31,52,31,55,48,17,24,40,35,16		2,19,49,18,17	
		1,46,27,47,23, 5,35,55		7,47
28″	31,52,33,42,16, 4,47,46,11,11		2,19,49,26, 4	
		1,46,27,45, 3,16, 9,51		7,47
30″	31,52,35,28,43,49,51, 2,21, 2		2,19,49,33,51	
		1,46,27,42,43,26,36, 0		7,47
32″	31,52,37,15,11,32,34,28,57, 2		2,19,49,41,38	
		1,46,27,40,23,36,54,22		7,47
34″	31,52,39, 1,39,12,58, 5,51,24		2,19,49,49,25	
		1,46,27,38, 3,47, 4,57		7,47
36″	31,52,40,48, 6,51, 1,52,56,21		2,19,49,57,12	
		1,46,27,35,43,57, 7,45		7,47
38″	31,52,42,34,34,26,45,50, 4, 6		2,19,50, 4,59	
		1,46,27,33,24, 7, 2,46		7,47
40″	31,52,44,21, 2, 0, 9,57, 6,52		2,19,50,12,46	
		1,46,27,31, 4,16,50, 0		7,47
42″	31,52,46, 7,29,31,14,13,56,52		2,19,50,20,33	
		1,46,27,28,44,26,29,27		7,47
44″	31,52,47,53,56,59,58,40,26,19		2,19,50,28,20	
		1,46,27,26,24,36, 1, 7		7,47
46″	31,52,49,40,24,26,23,16,27,26		2,19,50,36, 7	
		1,46,27,24, 4,45,25, 0		7,47
48″	31,52,51,26,51,50,28, 1,52,26		2,19,50,43,54	
		1,46,27,21,44,54,41, 6		7,47
50″	31,52,53,13,19,12,12,56,33,32		2,19,50,51,41	
		1,46,27,19,25, 3,49,25		7,47
52″	31,52,54,59,46,31,38, 0,22,57		2,19,50,59,28	
		1,46,27,17, 5,12,49,57		7,47
54″	31,52,56,46,13,48,43,13,12,54		2,19,51, 7,15	
		1,46,27,14,45,21,42,42		7,47
56″	31,52,58,32,41, 3,28,34,55,36		2,19,51,15, 2	
		1,46,27,12,25,30,27,40		7,47
58″	31,53, 0,19, 8,15,54, 5,23,16		2,19,51,22,49	
		1,46,27,10, 5,39, 4,51		
60″	31,53, 2, 5,35,25,59,44,28, 7			
exact	31,53, 2, 5,35,25,59,44,25,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32° 6′ 0″	31,53, 2, 5,35,25,59,44,25,43			
		1,46,27, 7,45,47,34, 6		
2″	31,53, 3,52, 2,33,45,31,59,49		2,19,51,38,23	
		1,46,27, 5,25,55,55,43		7,47
4″	31,53, 5,38,29,39,11,27,55,32		2,19,51,46,10	
		1,46,27, 3, 6, 4, 9,33		7,47
6″	31,53, 7,24,56,42,17,32, 5, 5		2,19,51,53,57	
		1,46,27, 0,46,12,15,36		7,47
8″	31,53, 9,11,23,43, 3,44,20,41		2,19,52, 1,44	
		1,46,26,58,26,20,13,52		7,47
10″	31,53,10,57,50,41,30, 4,34,33		2,19,52, 9,31	
		1,46,26,56, 6,28, 4,21		7,47
12″	31,53,12,44,17,37,36,32,38,54		2,19,52,17,18	
		1,46,26,53,46,35,47, 3		7,47
14″	31,53,14,30,44,31,23, 8,25,57		2,19,52,25, 5	
		1,46,26,51,26,43,21,58		7,47
16″	31,53,16,17,11,22,49,51,47,55		2,19,52,32,52	
		1,46,26,49, 6,50,49, 6		7,47
18″	31,53,18, 3,38,11,56,42,37, 1		2,19,52,40,39	
		1,46,26,46,46,58, 8,27		7,47
20″	31,53,19,50, 4,58,43,40,45,28		2,19,52,48,26	
		1,46,26,44,27, 5,20, 1		7,47
22″	31,53,21,36,31,43,10,46, 5,29		2,19,52,56,13	
		1,46,26,42, 7,12,23,48		7,47
24″	31,53,23,22,58,25,17,58,29,17		2,19,53, 4, 0	
		1,46,26,39,47,19,19,48		7,47
26″	31,53,25, 9,25, 5, 5,17,49, 5		2,19,53,11,47	
		1,46,26,37,27,26, 8, 1		7,47
28″	31,53,26,55,51,42,32,43,57, 6		2,19,53,19,34	
		1,46,26,35, 7,32,48,27		7,47
30″	31,53,28,42,18,17,40,16,45,33		2,19,53,27,21	
		1,46,26,32,47,39,21, 6		7,47
32″	31,53,30,28,44,50,27,56, 6,39		2,19,53,35, 8	
		1,46,26,30,27,45,45,58		7,47
34″	31,53,32,15,11,20,55,41,52,37		2,19,53,42,55	
		1,46,26,28, 7,52, 3, 3		7,47
36″	31,53,34, 1,37,49, 3,33,55,40		2,19,53,50,42	
		1,46,26,25,47,58,12,21		7,47
38″	31,53,35,48, 4,14,51,32, 8, 1		2,19,53,58,29	
		1,46,26,23,28, 4,13,52		7,47
40″	31,53,37,34,30,38,19,36,21,53		2,19,54, 6,16	
		1,46,26,21, 8,10, 7,36		7,47
42″	31,53,39,20,56,59,27,46,29,29		2,19,54,14, 3	
		1,46,26,18,48,15,53,33		7,47
44″	31,53,41, 7,23,18,16, 2,23, 2		2,19,54,21,50	
		1,46,26,16,28,21,31,43		7,47
46″	31,53,42,53,49,34,44,23,54,45		2,19,54,29,37	
		1,46,26,14, 8,27, 2, 6		7,47
48″	31,53,44,40,15,48,52,50,56,51		2,19,54,37,24	
		1,46,26,11,48,32,24,42		7,47
50″	31,53,46,26,42, 0,41,23,21,33		2,19,54,45,11	
		1,46,26, 9,28,37,39,31		7,47
52″	31,53,48,13, 8,10,10, 1, 1, 4		2,19,54,52,58	
		1,46,26, 7, 8,42,46,33		7,47
54″	31,53,49,59,34,17,18,43,47,37		2,19,55, 0,45	
		1,46,26, 4,48,47,45,48		7,47
56″	31,53,51,46, 0,22, 7,31,33,25		2,19,55, 8,32	
		1,46,26, 2,28,52,37,16		7,47
58″	31,53,53,32,26,24,36,24,10,41		2,19,55,16,19	
		1,46,26, 0, 8,57,20,57		
60″	31,53,55,18,52,24,45,21,31,38			
exact	31,53,55,18,52,24,45,21,36, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32° 7′ 0″	31,53,55,18,52,24,45,21,36, 8			
		1,46,25,57,49, 1,57,24		
2″	31,53,57, 5,18,22,34,23,33,32		2,19,55,31,50	
		1,46,25,55,29, 6,25,34		7,47
4″	31,53,58,51,44,18, 3,29,59, 6		2,19,55,39,37	
		1,46,25,53, 9,10,45,57		7,47
6″	31,54, 0,38,10,11,12,40,45, 3		2,19,55,47,24	
		1,46,25,50,49,14,58,33		7,47
8″	31,54, 2,24,36, 2, 1,55,43,36		2,19,55,55,11	
		1,46,25,48,29,19, 3,22		7,47
10″	31,54, 4,11, 1,50,31,14,46,58		2,19,56, 2,58	
		1,46,25,46, 9,23, 0,24		7,47
12″	31,54, 5,57,27,36,40,37,47,22		2,19,56,10,45	
		1,46,25,43,49,26,49,39		7,47
14″	31,54, 7,43,53,20,30, 4,37, 1		2,19,56,18,32	
		1,46,25,41,29,30,31, 7		7,47
16″	31,54, 9,30,19, 1,59,35, 8, 8		2,19,56,26,19	
		1,46,25,39, 9,34, 4,48		7,47
18″	31,54,11,16,44,41, 9, 9,12,56		2,19,56,34, 6	
		1,46,25,36,49,37,30,42		7,47
20″	31,54,13, 3,10,17,58,46,43,38		2,19,56,41,53	
		1,46,25,34,29,40,48,49		7,47
22″	31,54,14,49,35,52,28,27,32,27		2,19,56,49,40	
		1,46,25,32, 9,43,59, 9		7,47
24″	31,54,16,36, 1,24,38,11,31,36		2,19,56,57,27	
		1,46,25,29,49,47, 1,42		7,47
26″	31,54,18,22,26,54,27,58,33,18		2,19,57, 5,14	
		1,46,25,27,29,49,56,28		7,47
28″	31,54,20, 8,52,21,57,48,29,46		2,19,57,13, 1	
		1,46,25,25, 9,52,43,27		7,47
30″	31,54,21,55,17,47, 7,41,13,13		2,19,57,20,48	
		1,46,25,22,49,55,22,39		7,47
32″	31,54,23,41,43, 9,57,36,35,52		2,19,57,28,35	
		1,46,25,20,29,57,54, 4		7,47
34″	31,54,25,28, 8,30,27,34,29,56		2,19,57,36,22	
		1,46,25,18,10, 0,17,42		7,47
36″	31,54,27,14,33,48,37,34,47,38		2,19,57,44, 9	
		1,46,25,15,50, 2,33,33		7,47
38″	31,54,29, 0,59, 4,27,37,21,11		2,19,57,51,56	
		1,46,25,13,30, 4,41,37		7,47
40″	31,54,30,47,24,17,57,42, 2,48		2,19,57,59,43	
		1,46,25,11,10, 6,41,54		7,47
42″	31,54,32,33,49,29, 7,48,44,42		2,19,58, 7,30	
		1,46,25, 8,50, 8,34,24		7,47
44″	31,54,34,20,14,37,57,57,19, 6		2,19,58,15,17	
		1,46,25, 6,30,10,19, 7		7,47
46″	31,54,36, 6,39,44,28, 7,38,13		2,19,58,23, 4	
		1,46,25, 4,10,11,56, 3		7,47
48″	31,54,37,53, 4,48,38,19,34,16		2,19,58,30,51	
		1,46,25, 1,50,13,25,12		7,47
50″	31,54,39,39,29,50,28,32,59,28		2,19,58,38,38	
		1,46,24,59,30,14,46,34		7,47
52″	31,54,41,25,54,49,58,47,46, 2		2,19,58,46,25	
		1,46,24,57,10,16, 0, 9		7,47
54″	31,54,43,12,19,47, 9, 3,46,11		2,19,58,54,12	
		1,46,24,54,50,17, 5,57		7,47
56″	31,54,44,58,44,41,59,20,52, 8		2,19,59, 1,59	
		1,46,24,52,30,18, 3,58		7,47
58″	31,54,46,45, 9,34,29,38,56, 6		2,19,59, 9,46	
		1,46,24,50,10,18,54,12		
60″	31,54,48,31,34,24,39,57,50,18			
exact	31,54,48,31,34,24,39,57,59,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32° 8′ 0″	31,54,48,31,34,24,39,57,59,22			
		1,46,24,47,50,19,37,44		
2″	31,54,50,17,59,12,30,17,37, 6		2,19,59,25,15	
		1,46,24,45,30,20,12,29		7,47
4″	31,54,52, 4,23,58, 0,37,49,35		2,19,59,33, 2	
		1,46,24,43,10,20,39,27		7,47
6″	31,54,53,50,48,41,10,58,29, 2		2,19,59,40,49	
		1,46,24,40,50,20,58,38		7,47
8″	31,54,55,37,13,22, 1,19,27,40		2,19,59,48,36	
		1,46,24,38,30,21,10, 2		7,47
10″	31,54,57,23,38, 0,31,40,37,42		2,19,59,56,23	
		1,46,24,36,10,21,13,39		7,47
12″	31,54,59,10, 2,36,42, 1,51,21		2,20, 0, 4,10	
		1,46,24,33,50,21, 9,29		7,47
14″	31,55, 0,56,27,10,32,23, 0,50		2,20, 0,11,57	
		1,46,24,31,30,20,57,32		7,47
16″	31,55, 2,42,51,42, 2,43,58,22		2,20, 0,19,44	
		1,46,24,29,10,20,37,48		7,47
18″	31,55, 4,29,16,11,13, 4,36,10		2,20, 0,27,31	
		1,46,24,26,50,20,10,17		7,47
20″	31,55, 6,15,40,38, 3,24,46,27		2,20, 0,35,18	
		1,46,24,24,30,19,34,59		7,47
22″	31,55, 8, 2, 5, 2,33,44,21,26		2,20, 0,43, 5	
		1,46,24,22,10,18,51,54		7,47
24″	31,55, 9,48,29,24,44, 3,13,20		2,20, 0,50,52	
		1,46,24,19,50,18, 1, 2		7,47
26″	31,55,11,34,53,44,34,21,14,22		2,20, 0,58,39	
		1,46,24,17,30,17, 2,23		7,47
28″	31,55,13,21,18, 2, 4,38,16,45		2,20, 1, 6,26	
		1,46,24,15,10,15,55,57		7,47
30″	31,55,15, 7,42,17,14,54,12,42		2,20, 1,14,13	
		1,46,24,12,50,14,41,44		7,47
32″	31,55,16,54, 6,30, 5, 8,54,26		2,20, 1,22, 0	
		1,46,24,10,30,13,19,44		7,47
34″	31,55,18,40,30,40,35,22,14,10		2,20, 1,29,47	
		1,46,24, 8,10,11,49,57		7,47
36″	31,55,20,26,54,48,45,34, 4, 7		2,20, 1,37,34	
		1,46,24, 5,50,10,12,23		7,47
38″	31,55,22,13,18,54,35,44,16,30		2,20, 1,45,21	
		1,46,24, 3,30, 8,27, 2		7,47
40″	31,55,23,59,42,58, 5,52,43,32		2,20, 1,53, 8	
		1,46,24, 1,10, 6,33,54		7,47
42″	31,55,25,46, 6,59,15,59,17,26		2,20, 2, 0,55	
		1,46,23,58,50, 4,32,59		7,47
44″	31,55,27,32,30,58, 6, 3,50,25		2,20, 2, 8,42	
		1,46,23,56,30, 2,24,17		7,47
46″	31,55,29,18,54,54,36, 6,14,42		2,20, 2,16,29	
		1,46,23,54,10, 0, 7,48		7,47
48″	31,55,31, 5,18,48,46, 6,22,30		2,20, 2,24,16	
		1,46,23,51,49,57,43,32		7,47
50″	31,55,32,51,42,40,36, 4, 6, 2		2,20, 2,32, 3	
		1,46,23,49,29,55,11,29		7,47
52″	31,55,34,38, 6,30, 5,59,17,31		2,20, 2,39,50	
		1,46,23,47, 9,52,31,39		7,47
54″	31,55,36,24,30,17,15,51,49,10		2,20, 2,47,37	
		1,46,23,44,49,49,44, 2		7,47
56″	31,55,38,10,54, 2, 5,41,33,12		2,20, 2,55,24	
		1,46,23,42,29,46,48,38		7,47
58″	31,55,39,57,17,44,35,28,21,50		2,20, 3, 3,11	
		1,46,23,40, 9,43,45,27		
60″	31,55,41,43,41,24,45,12, 7,17			
exact	31,55,41,43,41,24,45,12,24,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32° 9′ 0″	31,55,41,43,41,24,45,12,24,10			
		1,46,23,37,49,40,36,20		
2″	31,55,43,30, 5, 2,34,53, 0,30		2,20, 3,18,37	
		1,46,23,35,29,37,17,43		7,47
4″	31,55,45,16,28,38, 4,30,18,13		2,20, 3,26,24	
		1,46,23,33, 9,33,51,19		7,47
6″	31,55,47, 2,52,11,14, 4, 9,32		2,20, 3,34,11	
		1,46,23,30,49,30,17, 8		7,47
8″	31,55,48,49,15,42, 3,34,26,40		2,20, 3,41,58	
		1,46,23,28,29,26,35,10		7,47
10″	31,55,50,35,39,10,33, 1, 1,50		2,20, 3,49,45	
		1,46,23,26, 9,22,45,25		7,47
12″	31,55,52,22, 2,36,42,23,47,15		2,20, 3,57,32	
		1,46,23,23,49,18,47,53		7,47
14″	31,55,54, 8,26, 0,31,42,35, 8		2,20, 4, 5,19	
		1,46,23,21,29,14,42,34		7,47
16″	31,55,55,54,49,22, 0,57,17,42		2,20, 4,13, 6	
		1,46,23,19, 9,10,29,28		7,47
18″	31,55,57,41,12,41,10, 7,47,10		2,20, 4,20,53	
		1,46,23,16,49, 6, 8,35		7,47
20″	31,55,59,27,35,57,59,13,55,45		2,20, 4,28,40	
		1,46,23,14,29, 1,39,55		7,47
22″	31,56, 1,13,59,12,28,15,35,40		2,20, 4,36,27	
		1,46,23,12, 8,57, 3,28		7,47
24″	31,56, 3, 0,22,24,37,12,39, 8		2,20, 4,44,14	
		1,46,23, 9,48,52,19,14		7,47
26″	31,56, 4,46,45,34,26, 4,58,22		2,20, 4,52, 1	
		1,46,23, 7,28,47,27,13		7,47
28″	31,56, 6,33, 8,41,54,52,25,35		2,20, 4,59,48	
		1,46,23, 5, 8,42,27,25		7,47
30″	31,56, 8,19,31,47, 3,34,53, 0		2,20, 5, 7,35	
		1,46,23, 2,48,37,19,50		7,47
32″	31,56,10, 5,54,49,52,12,12,50		2,20, 5,15,22	
		1,46,23, 0,28,32, 4,28		7,47
34″	31,56,11,52,17,50,20,44,17,18		2,20, 5,23, 9	
		1,46,22,58, 8,26,41,19		7,47
36″	31,56,13,38,40,48,29,10,58,37		2,20, 5,30,56	
		1,46,22,55,48,21,10,23		7,47
38″	31,56,15,25, 3,44,17,32, 9, 0		2,20, 5,38,43	
		1,46,22,53,28,15,31,40		7,47
40″	31,56,17,11,26,37,45,47,40,40		2,20, 5,46,30	
		1,46,22,51, 8, 9,45,10		7,47
42″	31,56,18,57,49,28,53,57,25,50		2,20, 5,54,17	
		1,46,22,48,48, 3,50,53		7,47
44″	31,56,20,44,12,17,42, 1,16,43		2,20, 6, 2, 4	
		1,46,22,46,27,57,48,49		7,47
46″	31,56,22,30,35, 4, 9,59, 5,32		2,20, 6, 9,51	
		1,46,22,44, 7,51,38,58		7,47
48″	31,56,24,16,57,48,17,50,44,30		2,20, 6,17,38	
		1,46,22,41,47,45,21,20		7,47
50″	31,56,26, 3,20,30, 5,36, 5,50		2,20, 6,25,25	
		1,46,22,39,27,38,55,55		7,47
52″	31,56,27,49,43, 9,33,15, 1,45		2,20, 6,33,12	
		1,46,22,37, 7,32,22,43		7,47
54″	31,56,29,36, 5,46,40,47,24,28		2,20, 6,40,59	
		1,46,22,34,47,25,41,44		7,47
56″	31,56,31,22,28,21,28,13, 6,12		2,20, 6,48,46	
		1,46,22,32,27,18,52,58		7,47
58″	31,56,33, 8,50,53,55,31,59,10		2,20, 6,56,33	
		1,46,22,30, 7,11,56,25		
60″	31,56,34,55,13,24, 2,43,55,35			
exact	31,56,34,55,13,24, 2,44,17,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°10′ 0″	31,56,34,55,13,24, 2,44,17,40			
		1,46,22,27,47, 4,54,30		
2″	31,56,36,41,35,51,49,49,12,10		2,20, 7,11,57	
		1,46,22,25,26,57,42,33		7,47
4″	31,56,38,27,58,17,16,46,54,43		2,20, 7,19,44	
		1,46,22,23, 6,50,22,49		7,47
6″	31,56,40,14,20,40,23,37,17,32		2,20, 7,27,31	
		1,46,22,20,46,42,55,18		7,47
8″	31,56,42, 0,43, 1,10,20,12,50		2,20, 7,35,18	
		1,46,22,18,26,35,20, 0		7,47
10″	31,56,43,47, 5,19,36,55,32,50		2,20, 7,43, 5	
		1,46,22,16, 6,27,36,55		7,47
12″	31,56,45,33,27,35,43,23, 9,45		2,20, 7,50,52	
		1,46,22,13,46,19,46, 3		7,47
14″	31,56,47,19,49,49,29,42,55,48		2,20, 7,58,39	
		1,46,22,11,26,11,47,24		7,47
16″	31,56,49, 6,12, 0,55,54,43,12		2,20, 8, 6,26	
		1,46,22, 9, 6, 3,40,58		7,47
18″	31,56,50,52,34,10, 1,58,24,10		2,20, 8,14,13	
		1,46,22, 6,45,55,26,45		7,47
20″	31,56,52,38,56,16,47,53,50,55		2,20, 8,22, 0	
		1,46,22, 4,25,47, 4,45		7,47
22″	31,56,54,25,18,21,13,40,55,40		2,20, 8,29,47	
		1,46,22, 2, 5,38,34,58		7,47
24″	31,56,56,11,40,23,19,19,30,38		2,20, 8,37,34	
		1,46,21,59,45,29,57,24		7,47
26″	31,56,57,58, 2,23, 4,49,28, 2		2,20, 8,45,21	
		1,46,21,57,25,21,12, 3		7,47
28″	31,56,59,44,24,20,30,10,40, 5		2,20, 8,53, 8	
		1,46,21,55, 5,12,18,55		7,47
30″	31,57, 1,30,46,15,35,22,59, 0		2,20, 9, 0,55	
		1,46,21,52,45, 3,18, 0		7,47
32″	31,57, 3,17, 8, 8,20,26,17, 0		2,20, 9, 8,42	
		1,46,21,50,24,54, 9,18		7,47
34″	31,57, 5, 3,29,58,45,20,26,18		2,20, 9,16,29	
		1,46,21,48, 4,44,52,49		7,47
36″	31,57, 6,49,51,46,50, 5,19, 7		2,20, 9,24,16	
		1,46,21,45,44,35,28,33		7,47
38″	31,57, 8,36,13,32,34,40,47,40		2,20, 9,32, 3	
		1,46,21,43,24,25,56,30		7,47
40″	31,57,10,22,35,15,59, 6,44,10		2,20, 9,39,50	
		1,46,21,41, 4,16,16,40		7,47
42″	31,57,12, 8,56,57, 3,23, 0,50		2,20, 9,47,37	
		1,46,21,38,44, 6,29, 3		7,47
44″	31,57,13,55,18,35,47,29,29,53		2,20, 9,55,24	
		1,46,21,36,23,56,33,39		7,47
46″	31,57,15,41,40,12,11,26, 3,32		2,20,10, 3,11	
		1,46,21,34, 3,46,30,28		7,47
48″	31,57,17,28, 1,46,15,12,34, 0		2,20,10,10,58	
		1,46,21,31,43,36,19,30		7,47
50″	31,57,19,14,23,17,58,48,53,30		2,20,10,18,45	
		1,46,21,29,23,26, 0,45		7,47
52″	31,57,21, 0,44,47,22,14,54,15		2,20,10,26,32	
		1,46,21,27, 3,15,34,13		7,47
54″	31,57,22,47, 6,14,25,30,28,28		2,20,10,34,19	
		1,46,21,24,43, 4,59,54		7,47
56″	31,57,24,33,27,39, 8,35,28,22		2,20,10,42, 6	
		1,46,21,22,22,54,17,48		7,47
58″	31,57,26,19,49, 1,31,29,46,10		2,20,10,49,53	
		1,46,21,20, 2,43,27,55		
60″	31,57,28, 6,10,21,34,13,14, 5			
exact	31,57,28, 6,10,21,34,13,45,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°11′ 0″	31,57,28, 6,10,21,34,13,45,26			
		1,46,21,17,42,32,33,31		
2″	31,57,29,52,31,39,16,46,18,57		2,20,11, 5,14	
		1,46,21,15,22,21,28,17		7,47
4″	31,57,31,38,52,54,39, 7,47,14		2,20,11,13, 1	
		1,46,21,13, 2,10,15,16		7,47
6″	31,57,33,25,14, 7,41,18, 2,30		2,20,11,20,48	
		1,46,21,10,41,58,54,28		7,47
8″	31,57,35,11,35,18,23,16,56,58		2,20,11,28,35	
		1,46,21, 8,21,47,25,53		7,47
10″	31,57,36,57,56,26,45, 4,22,51		2,20,11,36,22	
		1,46,21, 6, 1,35,49,31		7,47
12″	31,57,38,44,17,32,46,40,12,22		2,20,11,44, 9	
		1,46,21, 3,41,24, 5,22		7,47
14″	31,57,40,30,38,36,28, 4,17,44		2,20,11,51,56	
		1,46,21, 1,21,12,13,26		7,47
16″	31,57,42,16,59,37,49,16,31,10		2,20,11,59,43	
		1,46,20,59, 1, 0,13,43		7,47
18″	31,57,44, 3,20,36,50,16,44,53		2,20,12, 7,30	
		1,46,20,56,40,48, 6,13		7,47
20″	31,57,45,49,41,33,31, 4,51, 6		2,20,12,15,17	
		1,46,20,54,20,35,50,56		7,47
22″	31,57,47,36, 2,27,51,40,42, 2		2,20,12,23, 4	
		1,46,20,52, 0,23,27,52		7,47
24″	31,57,49,22,23,19,52, 4, 9,54		2,20,12,30,51	
		1,46,20,49,40,10,57, 1		7,47
26″	31,57,51, 8,44, 9,32,15, 6,55		2,20,12,38,38	
		1,46,20,47,19,58,18,23		7,47
28″	31,57,52,55, 4,56,52,13,25,18		2,20,12,46,25	
		1,46,20,44,59,45,31,58		7,47
30″	31,57,54,41,25,41,51,58,57,16		2,20,12,54,12	
		1,46,20,42,39,32,37,46		7,47
32″	31,57,56,27,46,24,31,31,35, 2		2,20,13, 1,59	
		1,46,20,40,19,19,35,47		7,47
34″	31,57,58,14, 7, 4,50,51,10,49		2,20,13, 9,46	
		1,46,20,37,59, 6,26, 1		7,47
36″	31,58, 0, 0,27,42,49,57,36,50		2,20,13,17,33	
		1,46,20,35,38,53, 8,28		7,47
38″	31,58, 1,46,48,18,28,50,45,18		2,20,13,25,20	
		1,46,20,33,18,39,43, 8		7,47
40″	31,58, 3,33, 8,51,47,30,28,26		2,20,13,33, 7	
		1,46,20,30,58,26,10, 1		7,47
42″	31,58, 5,19,29,22,45,56,38,27		2,20,13,40,54	
		1,46,20,28,38,12,29, 7		7,47
44″	31,58, 7, 5,49,51,24, 9, 7,34		2,20,13,48,41	
		1,46,20,26,17,58,40,26		7,47
46″	31,58, 8,52,10,17,42, 7,48, 0		2,20,13,56,28	
		1,46,20,23,57,44,43,58		7,47
48″	31,58,10,38,30,41,39,52,31,58		2,20,14, 4,15	
		1,46,20,21,37,30,39,43		7,47
50″	31,58,12,24,51, 3,17,23,11,41		2,20,14,12, 2	
		1,46,20,19,17,16,27,41		7,47
52″	31,58,14,11,11,22,34,39,39,22		2,20,14,19,49	
		1,46,20,16,57, 2, 7,52		7,47
54″	31,58,15,57,31,39,31,41,47,14		2,20,14,27,36	
		1,46,20,14,36,47,40,16		7,47
56″	31,58,17,43,51,54, 8,29,27,30		2,20,14,35,23	
		1,46,20,12,16,33, 4,53		7,47
58″	31,58,19,30,12, 6,25, 2,32,23		2,20,14,43,10	
		1,46,20, 9,56,18,21,43		
60″	31,58,21,16,32,16,21,20,54, 6			
exact	31,58,21,16,32,16,21,21,31,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°12′ 0″	31,58,21,16,32,16,21,21,31,24			
		1,46,20, 7,36, 3,34,40		
2″	31,58,23, 2,52,23,57,25, 6, 4		2,20,14,58,28	
		1,46,20, 5,15,48,36,12		7,46
4″	31,58,24,49,12,29,13,13,42,16		2,20,15, 6,14	
		1,46,20, 2,55,33,29,58		7,46
6″	31,58,26,35,32,32, 8,47,12,14		2,20,15,14, 0	
		1,46,20, 0,35,18,15,58		7,46
8″	31,58,28,21,52,32,44, 5,28,12		2,20,15,21,46	
		1,46,19,58,15, 2,54,12		7,46
10″	31,58,30, 8,12,30,59, 8,22,24		2,20,15,29,32	
		1,46,19,55,54,47,24,40		7,46
12″	31,58,31,54,32,26,53,55,47, 4		2,20,15,37,18	
		1,46,19,53,34,31,47,22		7,46
14″	31,58,33,40,52,20,28,27,34,26		2,20,15,45, 4	
		1,46,19,51,14,16, 2,18		7,46
16″	31,58,35,27,12,11,42,43,36,44		2,20,15,52,50	
		1,46,19,48,54, 0, 9,28		7,46
18″	31,58,37,13,32, 0,36,43,46,12		2,20,16, 0,36	
		1,46,19,46,33,44, 8,52		7,46
20″	31,58,38,59,51,47,10,27,55, 4		2,20,16, 8,22	
		1,46,19,44,13,28, 0,30		7,46
22″	31,58,40,46,11,31,23,55,55,34		2,20,16,16, 8	
		1,46,19,41,53,11,44,22		7,46
24″	31,58,42,32,31,13,17, 7,39,56		2,20,16,23,54	
		1,46,19,39,32,55,20,28		7,46
26″	31,58,44,18,50,52,50, 3, 0,24		2,20,16,31,40	
		1,46,19,37,12,38,48,48		7,46
28″	31,58,46, 5,10,30, 2,41,49,12		2,20,16,39,26	
		1,46,19,34,52,22, 9,22		7,46
30″	31,58,47,51,30, 4,55, 3,58,34		2,20,16,47,12	
		1,46,19,32,32, 5,22,10		7,46
32″	31,58,49,37,49,37,27, 9,20,44		2,20,16,54,58	
		1,46,19,30,11,48,27,12		7,46
34″	31,58,51,24, 9, 7,38,57,47,56		2,20,17, 2,44	
		1,46,19,27,51,31,24,28		7,46
36″	31,58,53,10,28,35,30,29,12,24		2,20,17,10,30	
		1,46,19,25,31,14,13,58		7,46
38″	31,58,54,56,48, 1, 1,43,26,22		2,20,17,18,16	
		1,46,19,23,10,56,55,42		7,46
40″	31,58,56,43, 7,24,12,40,22, 4		2,20,17,26, 2	
		1,46,19,20,50,39,29,40		7,46
42″	31,58,58,29,26,45, 3,19,51,44		2,20,17,33,48	
		1,46,19,18,30,21,55,52		7,46
44″	31,59, 0,15,46, 3,33,41,47,36		2,20,17,41,34	
		1,46,19,16,10, 4,14,18		7,46
46″	31,59, 2, 2, 5,19,43,46, 1,54		2,20,17,49,20	
		1,46,19,13,49,46,24,58		7,46
48″	31,59, 3,48,24,33,33,32,26,52		2,20,17,57, 6	
		1,46,19,11,29,28,27,52		7,46
50″	31,59, 5,34,43,45, 3, 0,54,44		2,20,18, 4,52	
		1,46,19, 9, 9,10,23, 0		7,46
52″	31,59, 7,21, 2,54,12,11,17,44		2,20,18,12,38	
		1,46,19, 6,48,52,10,22		7,46
54″	31,59, 9, 7,22, 1, 1, 3,28, 6		2,20,18,20,24	
		1,46,19, 4,28,33,49,58		7,46
56″	31,59,10,53,41, 5,29,37,18, 4		2,20,18,28,10	
		1,46,19, 2, 8,15,21,48		7,46
58″	31,59,12,40, 0, 7,37,52,39,52		2,20,18,35,56	
		1,46,18,59,47,56,45,52		
60″	31,59,14,26,19, 7,25,49,25,44			
exact	31,59,14,26,19, 7,25,48,57,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°13′ 0″	31,59,14,26,19, 7,25,48,57,57			
		1,46,18,57,27,37,59,13		
2″	31,59,16,12,38, 4,53,26,57,10		2,20,18,51,40	
		1,46,18,55, 7,19, 7,33		7,46
4″	31,59,17,58,57, 0, 0,46, 4,43		2,20,18,59,26	
		1,46,18,52,47, 0, 8, 7		7,46
6″	31,59,19,45,15,52,47,46,12,50		2,20,19, 7,12	
		1,46,18,50,26,41, 0,55		7,46
8″	31,59,21,31,34,43,14,27,13,45		2,20,19,14,58	
		1,46,18,48, 6,21,45,57		7,46
10″	31,59,23,17,53,31,20,48,59,42		2,20,19,22,44	
		1,46,18,45,46, 2,23,13		7,46
12″	31,59,25, 4,12,17, 6,51,22,55		2,20,19,30,30	
		1,46,18,43,25,42,52,43		7,46
14″	31,59,26,50,31, 0,32,34,15,38		2,20,19,38,16	
		1,46,18,41, 5,23,14,27		7,46
16″	31,59,28,36,49,41,37,57,30, 5		2,20,19,46, 2	
		1,46,18,38,45, 3,28,25		7,46
18″	31,59,30,23, 8,20,23, 0,58,30		2,20,19,53,48	
		1,46,18,36,24,43,34,37		7,46
20″	31,59,32, 9,26,56,47,44,33, 7		2,20,20, 1,34	
		1,46,18,34, 4,23,33, 3		7,46
22″	31,59,33,55,45,30,52, 8, 6,10		2,20,20, 9,20	
		1,46,18,31,44, 3,23,43		7,46
24″	31,59,35,42, 4, 2,36,11,29,53		2,20,20,17, 6	
		1,46,18,29,23,43, 6,37		7,46
26″	31,59,37,28,22,31,59,54,36,30		2,20,20,24,52	
		1,46,18,27, 3,22,41,45		7,46
28″	31,59,39,14,40,59, 3,17,18,15		2,20,20,32,38	
		1,46,18,24,43, 2, 9, 7		7,46
30″	31,59,41, 0,59,23,46,19,27,22		2,20,20,40,24	
		1,46,18,22,22,41,28,43		7,46
32″	31,59,42,47,17,46, 9, 0,56, 5		2,20,20,48,10	
		1,46,18,20, 2,20,40,33		7,46
34″	31,59,44,33,36, 6,11,21,36,38		2,20,20,55,56	
		1,46,18,17,41,59,44,37		7,46
36″	31,59,46,19,54,23,53,21,21,15		2,20,21, 3,42	
		1,46,18,15,21,38,40,55		7,46
38″	31,59,48, 6,12,39,15, 0, 2,10		2,20,21,11,28	
		1,46,18,13, 1,17,29,27		7,46
40″	31,59,49,52,30,52,16,17,31,37		2,20,21,19,14	
		1,46,18,10,40,56,10,13		7,46
42″	31,59,51,38,49, 2,57,13,41,50		2,20,21,27, 0	
		1,46,18, 8,20,34,43,13		7,46
44″	31,59,53,25, 7,11,17,48,25, 3		2,20,21,34,46	
		1,46,18, 6, 0,13, 8,27		7,46
46″	31,59,55,11,25,17,18, 1,33,30		2,20,21,42,32	
		1,46,18, 3,39,51,25,55		7,46
48″	31,59,56,57,43,20,57,52,59,25		2,20,21,50,18	
		1,46,18, 1,19,29,35,37		7,46
50″	31,59,58,44, 1,22,17,22,35, 2		2,20,21,58, 4	
		1,46,17,58,59, 7,37,33		7,46
52″	32, 0, 0,30,19,21,16,30,12,35		2,20,22, 5,50	
		1,46,17,56,38,45,31,43		7,46
54″	32, 0, 2,16,37,17,55,15,44,18		2,20,22,13,36	
		1,46,17,54,18,23,18, 7		7,46
56″	32, 0, 4, 2,55,12,13,39, 2,25		2,20,22,21,22	
		1,46,17,51,58, 0,56,45		7,46
58″	32, 0, 5,49,13, 4,11,39,59,10		2,20,22,29, 8	
		1,46,17,49,37,38,27,37		
60″	32, 0, 7,35,30,53,49,18,26,47			
exact	32, 0, 7,35,30,53,49,18, 5,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°14′ 0″	32, 0, 7,35,30,53,49,18, 5,56			
		1,46,17,47,17,15,48,28		
2″	32, 0, 9,21,48,41, 6,33,54,24		2,20,22,44,49	
		1,46,17,44,56,53, 3,39		7,46
4″	32, 0,11, 8, 6,26, 3,26,58, 3		2,20,22,52,35	
		1,46,17,42,36,30,11, 4		7,46
6″	32, 0,12,54,24, 8,39,57, 9, 7		2,20,23, 0,21	
		1,46,17,40,16, 7,10,43		7,46
8″	32, 0,14,40,41,48,56, 4,19,50		2,20,23, 8, 7	
		1,46,17,37,55,44, 2,36		7,46
10″	32, 0,16,26,59,26,51,48,22,26		2,20,23,15,53	
		1,46,17,35,35,20,46,43		7,46
12″	32, 0,18,13,17, 2,27, 9, 9, 9		2,20,23,23,39	
		1,46,17,33,14,57,23, 4		7,46
14″	32, 0,19,59,34,35,42, 6,32,13		2,20,23,31,25	
		1,46,17,30,54,33,51,39		7,46
16″	32, 0,21,45,52, 6,36,40,23,52		2,20,23,39,11	
		1,46,17,28,34,10,12,28		7,46
18″	32, 0,23,32, 9,35,10,50,36,20		2,20,23,46,57	
		1,46,17,26,13,46,25,31		7,46
20″	32, 0,25,18,27, 1,24,37, 1,51		2,20,23,54,43	
		1,46,17,23,53,22,30,48		7,46
22″	32, 0,27, 4,44,25,17,59,32,39		2,20,24, 2,29	
		1,46,17,21,32,58,28,19		7,46
24″	32, 0,28,51, 1,46,50,58, 0,58		2,20,24,10,15	
		1,46,17,19,12,34,18, 4		7,46
26″	32, 0,30,37,19, 6, 3,32,19, 2		2,20,24,18, 1	
		1,46,17,16,52,10, 0, 3		7,46
28″	32, 0,32,23,36,22,55,42,19, 5		2,20,24,25,47	
		1,46,17,14,31,45,34,16		7,46
30″	32, 0,34, 9,53,37,27,27,53,21		2,20,24,33,33	
		1,46,17,12,11,21, 0,43		7,46
32″	32, 0,35,56,10,49,38,48,54, 4		2,20,24,41,19	
		1,46,17, 9,50,56,19,24		7,46
34″	32, 0,37,42,27,59,29,45,13,28		2,20,24,49, 5	
		1,46,17, 7,30,31,30,19		7,46
36″	32, 0,39,28,45, 7, 0,16,43,47		2,20,24,56,51	
		1,46,17, 5,10, 6,33,28		7,46
38″	32, 0,41,15, 2,12,10,23,17,15		2,20,25, 4,37	
		1,46,17, 2,49,41,28,51		7,46
40″	32, 0,43, 1,19,15, 0, 4,46, 6		2,20,25,12,23	
		1,46,17, 0,29,16,16,28		7,46
42″	32, 0,44,47,36,15,29,21, 2,34		2,20,25,20, 9	
		1,46,16,58, 8,50,56,19		7,46
44″	32, 0,46,33,53,13,38,11,58,53		2,20,25,27,55	
		1,46,16,55,48,25,28,24		7,46
46″	32, 0,48,20,10, 9,26,37,27,17		2,20,25,35,41	
		1,46,16,53,27,59,52,43		7,46
48″	32, 0,50, 6,27, 2,54,37,20, 0		2,20,25,43,27	
		1,46,16,51, 7,34, 9,16		7,46
50″	32, 0,51,52,43,54, 2,11,29,16		2,20,25,51,13	
		1,46,16,48,47, 8,18, 3		7,46
52″	32, 0,53,39, 0,42,49,19,47,19		2,20,25,58,59	
		1,46,16,46,26,42,19, 4		7,46
54″	32, 0,55,25,17,29,16, 2, 6,23		2,20,26, 6,45	
		1,46,16,44, 6,16,12,19		7,46
56″	32, 0,57,11,34,13,22,18,18,42		2,20,26,14,31	
		1,46,16,41,45,49,57,48		7,46
58″	32, 0,58,57,50,55, 8, 8,16,30		2,20,26,22,17	
		1,46,16,39,25,23,35,31		
60″	32, 1, 0,44, 7,34,33,31,52, 1			
exact	32, 1, 0,44, 7,34,33,31,34,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°15′ 0″	32, 1, 0,44, 7,34,33,31,34,37	1,46,16,37, 4,57, 3,41		
2″	32, 1, 2,30,24,11,38,28,38,18	1,46,16,34,44,30,25,45	2,20,26,37,56	
4″	32, 1, 4,16,40,46,22,59, 4, 3	1,46,16,32,24, 3,40, 3	2,20,26,45,42	7,46
6″	32, 1, 6, 2,57,18,47, 2,44, 6	1,46,16,30, 3,36,46,35	2,20,26,53,28	7,46
8″	32, 1, 7,49,13,48,50,39,30,41	1,46,16,27,43, 9,45,21	2,20,27, 1,14	7,46
10″	32, 1, 9,35,30,16,33,49,16, 2	1,46,16,25,22,42,36,21	2,20,27, 9, 0	7,46
12″	32, 1,11,21,46,41,56,31,52,23	1,46,16,23, 2,15,19,35	2,20,27,16,46	7,46
14″	32, 1,13, 8, 3, 4,58,47,11,58	1,46,16,20,41,47,55, 3	2,20,27,24,32	7,46
16″	32, 1,14,54,19,25,40,35, 7, 1	1,46,16,18,21,20,22,45	2,20,27,32,18	7,46
18″	32, 1,16,40,35,44, 1,55,29,46	1,46,16,16, 0,52,42,41	2,20,27,40, 4	7,46
20″	32, 1,18,26,52, 0, 2,48,12,27	1,46,16,13,40,24,54,51	2,20,27,47,50	7,46
22″	32, 1,20,13, 8,13,43,13, 7,18	1,46,16,11,19,56,59,15	2,20,27,55,36	7,46
24″	32, 1,21,59,24,25, 3,10, 6,33	1,46,16, 8,59,28,55,53	2,20,28, 3,22	7,46
26″	32, 1,23,45,40,34, 2,39, 2,26	1,46,16, 6,39, 0,44,45	2,20,28,11, 8	7,46
28″	32, 1,25,31,56,40,41,39,47,11	1,46,16, 4,18,32,25,51	2,20,28,18,54	7,46
30″	32, 1,27,18,12,45, 0,12,13, 2	1,46,16, 1,58, 3,59,11	2,20,28,26,40	7,46
32″	32, 1,29, 4,28,46,58,16,12,13	1,46,15,59,37,35,24,45	2,20,28,34,26	7,46
34″	32, 1,30,50,44,46,35,51,36,58	1,46,15,57,17, 6,42,33	2,20,28,42,12	7,46
36″	32, 1,32,37, 0,43,52,58,19,31	1,46,15,54,56,37,52,35	2,20,28,49,58	7,46
38″	32, 1,34,23,16,38,49,36,12, 6	1,46,15,52,36, 8,54,51	2,20,28,57,44	7,46
40″	32, 1,36, 9,32,31,25,45, 6,57	1,46,15,50,15,39,49,21	2,20,29, 5,30	7,46
42″	32, 1,37,55,48,21,41,24,56,18	1,46,15,47,55,10,36, 5	2,20,29,13,16	7,46
44″	32, 1,39,42, 4, 9,36,35,32,23	1,46,15,45,34,41,15, 3	2,20,29,21, 2	7,46
46″	32, 1,41,28,19,55,11,16,47,26	1,46,15,43,14,11,46,15	2,20,29,28,48	7,46
48″	32, 1,43,14,35,38,25,28,33,41	1,46,15,40,53,42, 9,41	2,20,29,36,34	7,46
50″	32, 1,45, 0,51,19,19,10,43,22	1,46,15,38,33,12,25,21	2,20,29,44,20	7,46
52″	32, 1,46,47, 6,57,52,23, 8,43	1,46,15,36,12,42,33,15	2,20,29,52, 6	7,46
54″	32, 1,48,33,22,34, 5, 5,41,58	1,46,15,33,52,12,33,23	2,20,29,59,52	7,46
56″	32, 1,50,19,38, 7,57,18,15,21	1,46,15,31,31,42,25,45	2,20,30, 7,38	7,46
58″	32, 1,52, 5,53,39,29, 0,41, 6	1,46,15,29,11,12,10,21	2,20,30,15,24	
60″	32, 1,53,52, 9, 8,40,12,51,27			
exact	32, 1,53,52, 9, 8,40,12,41,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°16′ 0″	32, 1,53,52, 9, 8,40,12,41,50	1,46,15,26,50,41,46, 9		
2″	32, 1,55,38,24,35,30,54,27,59	1,46,15,24,30,11,15, 9	2,20,30,31, 0	7,46
4″	32, 1,57,24,40, 0, 1, 5,43, 8	1,46,15,22, 9,40,36,23	2,20,30,38,46	7,46
6″	32, 1,59,10,55,22,10,46,19,31	1,46,15,19,49, 9,49,51	2,20,30,46,32	7,46
8″	32, 2, 0,57,10,41,59,56, 9,22	1,46,15,17,28,38,55,33	2,20,30,54,18	7,46
10″	32, 2, 2,43,25,59,28,35, 4,55	1,46,15,15, 8, 7,53,29	2,20,31, 2, 4	7,46
12″	32, 2, 4,29,41,14,36,42,58,24	1,46,15,12,47,36,43,39	2,20,31, 9,50	7,46
14″	32, 2, 6,15,56,27,24,19,42, 3	1,46,15,10,27, 5,26, 3	2,20,31,17,36	7,46
16″	32, 2, 8, 2,11,37,51,25, 8, 6	1,46,15, 8, 6,34, 0,41	2,20,31,25,22	7,46
18″	32, 2, 9,48,26,45,57,59, 8,47	1,46,15, 5,46, 2,27,33	2,20,31,33, 8	7,46
20″	32, 2,11,34,41,51,44, 1,36,20	1,46,15, 3,25,30,46,39	2,20,31,40,54	7,46
22″	32, 2,13,20,56,55, 9,32,22,59	1,46,15, 1, 4,58,57,59	2,20,31,48,40	7,46
24″	32, 2,15, 7,11,56,14,31,20,58	1,46,14,58,44,27, 1,33	2,20,31,56,26	7,46
26″	32, 2,16,53,26,54,58,58,22,31	1,46,14,56,23,54,57,21	2,20,32, 4,12	7,46
28″	32, 2,18,39,41,51,22,53,19,52	1,46,14,54, 3,22,45,23	2,20,32,11,58	7,46
30″	32, 2,20,25,56,45,26,16, 5,15	1,46,14,51,42,50,25,39	2,20,32,19,44	7,46
32″	32, 2,22,12,11,37, 9, 6,30,54	1,46,14,49,22,17,58, 9	2,20,32,27,30	7,46
34″	32, 2,23,58,26,26,31,24,29, 3	1,46,14,47, 1,45,22,53	2,20,32,35,16	7,46
36″	32, 2,25,44,41,13,33, 9,51,56	1,46,14,44,41,12,39,51	2,20,32,43, 2	7,46
38″	32, 2,27,30,55,58,14,22,31,47	1,46,14,42,20,39,49, 3	2,20,32,50,48	7,46
40″	32, 2,29,17,10,40,35, 2,20,50	1,46,14,40, 0, 6,50,29	2,20,32,58,34	7,46
42″	32, 2,31, 3,25,20,35, 9,11,19	1,46,14,37,39,33,44, 9	2,20,33, 6,20	7,46
44″	32, 2,32,49,39,58,14,42,55,28	1,46,14,35,19, 0,30, 3	2,20,33,14, 6	7,46
46″	32, 2,34,35,54,33,33,43,25,31	1,46,14,32,58,27, 8,11	2,20,33,21,52	7,46
48″	32, 2,36,22, 9, 6,32,10,33,42	1,46,14,30,37,53,38,33	2,20,33,29,38	7,46
50″	32, 2,38, 8,23,37,10, 4,12,15	1,46,14,28,17,20, 1, 9	2,20,33,37,24	7,46
52″	32, 2,39,54,38, 5,27,24,13,24	1,46,14,25,56,46,15,59	2,20,33,45,10	7,46
54″	32, 2,41,40,52,31,24,10,29,23	1,46,14,23,36,12,23, 3	2,20,33,52,56	7,46
56″	32, 2,43,27, 6,55, 0,22,52,26	1,46,14,21,15,38,22,21	2,20,34, 0,42	7,46
58″	32, 2,45,13,21,16,16, 1,14,47	1,46,14,18,55, 4,13,53	2,20,34, 8,28	
60″	32, 2,46,59,35,35,11, 5,28,40			
exact	32, 2,46,59,35,35,11, 5,23,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°17′ 0″	32, 2,46,59,35,35,11, 5,23,50			
		1,46,14,16,34,29,57,10		
2″	32, 2,48,45,49,51,45,35,21, 0		2,20,34,24, 2	
		1,46,14,14,13,55,33, 8		7,46
4″	32, 2,50,32, 4, 5,59,30,54, 8		2,20,34,31,48	
		1,46,14,11,53,21, 1,20		7,46
6″	32, 2,52,18,18,17,52,51,55,28		2,20,34,39,34	
		1,46,14, 9,32,46,21,46		7,46
8″	32, 2,54, 4,32,27,25,38,17,14		2,20,34,47,20	
		1,46,14, 7,12,11,34,26		7,46
10″	32, 2,55,50,46,34,37,49,51,40		2,20,34,55, 6	
		1,46,14, 4,51,36,39,20		7,46
12″	32, 2,57,37, 0,39,29,26,31, 0		2,20,35, 2,52	
		1,46,14, 2,31, 1,36,28		7,46
14″	32, 2,59,23,14,42, 0,28, 7,28		2,20,35,10,38	
		1,46,14, 0,10,26,25,50		7,46
16″	32, 3, 1, 9,28,42,10,54,33,18		2,20,35,18,24	
		1,46,13,57,49,51, 7,26		7,46
18″	32, 3, 2,55,42,40, 0,45,40,44		2,20,35,26,10	
		1,46,13,55,29,15,41,16		7,46
20″	32, 3, 4,41,56,35,30, 1,22, 0		2,20,35,33,56	
		1,46,13,53, 8,40, 7,20		7,46
22″	32, 3, 6,28,10,28,38,41,29,20		2,20,35,41,42	
		1,46,13,50,48, 4,25,38		7,46
24″	32, 3, 8,14,24,19,26,45,54,58		2,20,35,49,28	
		1,46,13,48,27,28,36,10		7,46
26″	32, 3,10, 0,38, 7,54,14,31, 8		2,20,35,57,14	
		1,46,13,46, 6,52,38,56		7,46
28″	32, 3,11,46,51,54, 1, 7,10, 4		2,20,36, 5, 0	
		1,46,13,43,46,16,33,56		7,46
30″	32, 3,13,33, 5,37,47,23,44, 0		2,20,36,12,46	
		1,46,13,41,25,40,21,10		7,46
32″	32, 3,15,19,19,19,13, 4, 5,10		2,20,36,20,32	
		1,46,13,39, 5, 4, 0,38		7,46
34″	32, 3,17, 5,32,58,18, 8, 5,48		2,20,36,28,18	
		1,46,13,36,44,27,32,20		7,46
36″	32, 3,18,51,46,35, 2,35,38, 8		2,20,36,36, 4	
		1,46,13,34,23,50,56,16		7,46
38″	32, 3,20,38, 0, 9,26,26,34,24		2,20,36,43,50	
		1,46,13,32, 3,14,12,26		7,46
40″	32, 3,22,24,13,41,29,40,46,50		2,20,36,51,36	
		1,46,13,29,42,37,20,50		7,46
42″	32, 3,24,10,27,11,12,18, 7,40		2,20,36,59,22	
		1,46,13,27,22, 0,21,28		7,46
44″	32, 3,25,56,40,38,34,18,29, 8		2,20,37, 7, 8	
		1,46,13,25, 1,23,14,20		7,46
46″	32, 3,27,42,54, 3,35,41,43,28		2,20,37,14,54	
		1,46,13,22,40,45,59,26		7,46
48″	32, 3,29,29, 7,26,16,27,42,54		2,20,37,22,40	
		1,46,13,20,20, 8,36,46		7,46
50″	32, 3,31,15,20,46,36,36,19,40		2,20,37,30,26	
		1,46,13,17,59,31, 6,20		7,46
52″	32, 3,33, 1,34, 4,36, 7,26, 0		2,20,37,38,12	
		1,46,13,15,38,53,28, 8		7,46
54″	32, 3,34,47,47,20,15, 0,54, 8		2,20,37,45,58	
		1,46,13,13,18,15,42,10		7,46
56″	32, 3,36,34, 0,33,33,16,36,18		2,20,37,53,44	
		1,46,13,10,57,37,48,26		7,46
58″	32, 3,38,20,13,44,30,54,24,44		2,20,38, 1,30	
		1,46,13, 8,36,59,46,56		
60″	32, 3,40, 6,26,53, 7,54,11,40			
exact	32, 3,40, 6,26,53, 7,54,15,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°18′ 0″	32, 3,40, 6,26,53, 7,54,15,27	1,46,13, 6,16,21,38, 0		
2″	32, 3,41,52,39,59,24,15,53,27	1,46,13, 3,55,43,20,59	2,20,38,17, 1	7,46
4″	32, 3,43,38,53, 3,19,59,14,26	1,46,13, 1,35, 4,56,12	2,20,38,24,47	7,46
6″	32, 3,45,25, 6, 4,55, 4,10,38	1,46,12,59,14,26,23,39	2,20,38,32,33	7,46
8″	32, 3,47,11,19, 4, 9,30,34,17	1,46,12,56,53,47,43,20	2,20,38,40,19	7,46
10″	32, 3,48,57,32, 1, 3,18,17,37	1,46,12,54,33, 8,55,15	2,20,38,48, 5	7,46
12″	32, 3,50,43,44,55,36,27,12,52	1,46,12,52,12,29,59,24	2,20,38,55,51	7,46
14″	32, 3,52,29,57,47,48,57,12,16	1,46,12,49,51,50,55,47	2,20,39, 3,37	7,46
16″	32, 3,54,16,10,37,40,48, 8, 3	1,46,12,47,31,11,44,24	2,20,39,11,23	7,46
18″	32, 3,56, 2,23,25,11,59,52,27	1,46,12,45,10,32,25,15	2,20,39,19, 9	7,46
20″	32, 3,57,48,36,10,22,32,17,42	1,46,12,42,49,52,58,20	2,20,39,26,55	7,46
22″	32, 3,59,34,48,53,12,25,16, 2	1,46,12,40,29,13,23,39	2,20,39,34,41	7,46
24″	32, 4, 1,21, 1,33,41,38,39,41	1,46,12,38, 8,33,41,12	2,20,39,42,27	7,46
26″	32, 4, 3, 7,14,11,50,12,20,53	1,46,12,35,47,53,50,59	2,20,39,50,13	7,46
28″	32, 4, 4,53,26,47,38, 6,11,52	1,46,12,33,27,13,53, 0	2,20,39,57,59	7,46
30″	32, 4, 6,39,39,21, 5,20, 4,52	1,46,12,31, 6,33,47,15	2,20,40, 5,45	7,46
32″	32, 4, 8,25,51,52,11,53,52, 7	1,46,12,28,45,53,33,44	2,20,40,13,31	7,46
34″	32, 4,10,12, 4,20,57,47,25,51	1,46,12,26,25,13,12,27	2,20,40,21,17	7,46
36″	32, 4,11,58,16,47,23, 0,38,18	1,46,12,24, 4,32,43,24	2,20,40,29, 3	7,46
38″	32, 4,13,44,29,11,27,33,21,42	1,46,12,21,43,52, 6,35	2,20,40,36,49	7,46
40″	32, 4,15,30,41,33,11,25,28,17	1,46,12,19,23,11,22, 0	2,20,40,44,35	7,46
42″	32, 4,17,16,53,52,34,36,50,17	1,46,12,17, 2,30,29,39	2,20,40,52,21	7,46
44″	32, 4,19, 3, 6, 9,37, 7,19,56	1,46,12,14,41,49,29,32	2,20,41, 0, 7	7,46
46″	32, 4,20,49,18,24,18,56,49,28	1,46,12,12,21, 8,21,39	2,20,41, 7,53	7,46
48″	32, 4,22,35,30,36,40, 5,11, 7	1,46,12,10, 0,27, 6, 0	2,20,41,15,39	7,46
50″	32, 4,24,21,42,46,40,32,17, 7	1,46,12, 7,39,45,42,35	2,20,41,23,25	7,46
52″	32, 4,26, 7,54,54,20,17,59,42	1,46,12, 5,19, 4,11,24	2,20,41,31,11	7,46
54″	32, 4,27,54, 6,59,39,22,11, 6	1,46,12, 2,58,22,32,27	2,20,41,38,57	7,46
56″	32, 4,29,40,19, 2,37,44,43,33	1,46,12, 0,37,40,45,44	2,20,41,46,43	7,46
58″	32, 4,31,26,31, 3,15,25,29,17	1,46,11,58,16,58,51,15	2,20,41,54,29	
60″	32, 4,33,12,43, 1,32,24,20,32			
exact	32, 4,33,12,43, 1,32,24,30, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°19′ 0″	32, 4,33,12,43, 1,32,24,30, 1			
		1,46,11,55,56,16,49,57		
2″	32, 4,34,58,54,57,28,41,19,58		2,20,42, 9,57	
		1,46,11,53,35,34,40, 0		7,46
4″	32, 4,36,45, 6,51, 4,15,59,58		2,20,42,17,43	
		1,46,11,51,14,52,22,17		7,46
6″	32, 4,38,31,18,42,19, 8,22,15		2,20,42,25,29	
		1,46,11,48,54, 9,56,48		7,46
8″	32, 4,40,17,30,31,13,18,19, 3		2,20,42,33,15	
		1,46,11,46,33,27,23,33		7,46
10″	32, 4,42, 3,42,17,46,45,42,36		2,20,42,41, 1	
		1,46,11,44,12,44,42,32		7,46
12″	32, 4,43,49,54, 1,59,30,25, 8		2,20,42,48,47	
		1,46,11,41,52, 1,53,45		7,46
14″	32, 4,45,36, 5,43,51,32,18,53		2,20,42,56,33	
		1,46,11,39,31,18,57,12		7,46
16″	32, 4,47,22,17,23,22,51,16, 5		2,20,43, 4,19	
		1,46,11,37,10,35,52,53		7,46
18″	32, 4,49, 8,29, 0,33,27, 8,58		2,20,43,12, 5	
		1,46,11,34,49,52,40,48		7,46
20″	32, 4,50,54,40,35,23,19,49,46		2,20,43,19,51	
		1,46,11,32,29, 9,20,57		7,46
22″	32, 4,52,40,52, 7,52,29,10,43		2,20,43,27,37	
		1,46,11,30, 8,25,53,20		7,46
24″	32, 4,54,27, 3,38, 0,55, 4, 3		2,20,43,35,23	
		1,46,11,27,47,42,17,57		7,46
26″	32, 4,56,13,15, 5,48,37,22, 0		2,20,43,43, 9	
		1,46,11,25,26,58,34,48		7,46
28″	32, 4,57,59,26,31,15,35,56,48		2,20,43,50,55	
		1,46,11,23, 6,14,43,53		7,46
30″	32, 4,59,45,37,54,21,50,40,41		2,20,43,58,41	
		1,46,11,20,45,30,45,12		7,46
32″	32, 5, 1,31,49,15, 7,21,25,53		2,20,44, 6,27	
		1,46,11,18,24,46,38,45		7,46
34″	32, 5, 3,18, 0,33,32, 8, 4,38		2,20,44,14,13	
		1,46,11,16, 4, 2,24,32		7,46
36″	32, 5, 5, 4,11,49,36,10,29,10		2,20,44,21,59	
		1,46,11,13,43,18, 2,33		7,46
38″	32, 5, 6,50,23, 3,19,28,31,43		2,20,44,29,45	
		1,46,11,11,22,33,32,48		7,46
40″	32, 5, 8,36,34,14,42, 2, 4,31		2,20,44,37,31	
		1,46,11, 9, 1,48,55,17		7,46
42″	32, 5,10,22,45,23,43,50,59,48		2,20,44,45,17	
		1,46,11, 6,41, 4,10, 0		7,46
44″	32, 5,12, 8,56,30,24,55, 9,48		2,20,44,53, 3	
		1,46,11, 4,20,19,16,57		7,46
46″	32, 5,13,55, 7,34,45,14,26,45		2,20,45, 0,49	
		1,46,11, 1,59,34,16, 8		7,46
48″	32, 5,15,41,18,36,44,48,42,53		2,20,45, 8,35	
		1,46,10,59,38,49, 7,33		7,46
50″	32, 5,17,27,29,36,23,37,50,26		2,20,45,16,21	
		1,46,10,57,18, 3,51,12		7,46
52″	32, 5,19,13,40,33,41,41,41,38		2,20,45,24, 7	
		1,46,10,54,57,18,27, 5		7,46
54″	32, 5,20,59,51,28,39, 0, 8,43		2,20,45,31,53	
		1,46,10,52,36,32,55,12		7,46
56″	32, 5,22,46, 2,21,15,33, 3,55		2,20,45,39,39	
		1,46,10,50,15,47,15,33		7,46
58″	32, 5,24,32,13,11,31,20,19,28		2,20,45,47,25	
		1,46,10,47,55, 1,28, 8		
60″	32, 5,26,18,23,59,26,21,47,36			
exact	32, 5,26,18,23,59,26,21,59,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°20′ 0″	32, 5,26,18,23,59,26,21,59,27			
		1,46,10,45,34,15,34,17		
2″	32, 5,28, 4,34,45, 0,37,33,44		2,20,46, 2,51	
		1,46,10,43,13,29,31,26		7,46
4″	32, 5,29,50,45,28,14, 7, 5,10		2,20,46,10,37	
		1,46,10,40,52,43,20,49		7,46
6″	32, 5,31,36,56, 9, 6,50,25,59		2,20,46,18,23	
		1,46,10,38,31,57, 2,26		7,46
8″	32, 5,33,23, 6,47,38,47,28,25		2,20,46,26, 9	
		1,46,10,36,11,10,36,17		7,46
10″	32, 5,35, 9,17,23,49,58, 4,42		2,20,46,33,55	
		1,46,10,33,50,24, 2,22		7,46
12″	32, 5,36,55,27,57,40,22, 7, 4		2,20,46,41,41	
		1,46,10,31,29,37,20,41		7,46
14″	32, 5,38,41,38,29, 9,59,27,45		2,20,46,49,27	
		1,46,10,29, 8,50,31,14		7,46
16″	32, 5,40,27,48,58,18,49,58,59		2,20,46,57,13	
		1,46,10,26,48, 3,34, 1		7,46
18″	32, 5,42,13,59,25, 6,53,33, 0		2,20,47, 4,59	
		1,46,10,24,27,16,29, 2		7,46
20″	32, 5,44, 0, 9,49,34,10, 2, 2		2,20,47,12,45	
		1,46,10,22, 6,29,16,17		7,46
22″	32, 5,45,46,20,11,40,39,18,19		2,20,47,20,31	
		1,46,10,19,45,41,55,46		7,46
24″	32, 5,47,32,30,31,26,21,14, 5		2,20,47,28,17	
		1,46,10,17,24,54,27,29		7,46
26″	32, 5,49,18,40,48,51,15,41,34		2,20,47,36, 3	
		1,46,10,15, 4, 6,51,26		7,46
28″	32, 5,51, 4,51, 3,55,22,33, 0		2,20,47,43,49	
		1,46,10,12,43,19, 7,37		7,46
30″	32, 5,52,51, 1,16,38,41,40,37		2,20,47,51,35	
		1,46,10,10,22,31,16, 2		7,46
32″	32, 5,54,37,11,27, 1,12,56,39		2,20,47,59,21	
		1,46,10, 8, 1,43,16,41		7,46
34″	32, 5,56,23,21,35, 2,56,13,20		2,20,48, 7, 7	
		1,46,10, 5,40,55, 9,34		7,46
36″	32, 5,58, 9,31,40,43,51,22,54		2,20,48,14,53	
		1,46,10, 3,20, 6,54,41		7,46
38″	32, 5,59,55,41,44, 3,58,17,35		2,20,48,22,39	
		1,46,10, 0,59,18,32, 2		7,46
40″	32, 6, 1,41,51,45, 3,16,49,37		2,20,48,30,25	
		1,46, 9,58,38,30, 1,37		7,46
42″	32, 6, 3,28, 1,43,41,46,51,14		2,20,48,38,11	
		1,46, 9,56,17,41,23,26		7,46
44″	32, 6, 5,14,11,39,59,28,14,40		2,20,48,45,57	
		1,46, 9,53,56,52,37,29		7,46
46″	32, 6, 7, 0,21,33,56,20,52, 9		2,20,48,53,43	
		1,46, 9,51,36, 3,43,46		7,46
48″	32, 6, 8,46,31,25,32,24,35,55		2,20,49, 1,29	
		1,46, 9,49,15,14,42,17		7,46
50″	32, 6,10,32,41,14,47,39,18,12		2,20,49, 9,15	
		1,46, 9,46,54,25,33, 2		7,46
52″	32, 6,12,18,51, 1,42, 4,51,14		2,20,49,17, 1	
		1,46, 9,44,33,36,16, 1		7,46
54″	32, 6,14, 5, 0,46,15,41, 7,15		2,20,49,24,47	
		1,46, 9,42,12,46,51,14		7,46
56″	32, 6,15,51,10,28,28,27,58,29		2,20,49,32,33	
		1,46, 9,39,51,57,18,41		7,46
58″	32, 6,17,37,20, 8,20,25,17,10		2,20,49,40,19	
		1,46, 9,37,31, 7,38,22		
60″	32, 6,19,23,29,45,51,32,55,32			
exact	32, 6,19,23,29,45,51,33,14,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°21′ 0″	32, 6,19,23,29,45,51,33,14,13			
		1,46, 9,35,10,17,52,19		
2″	32, 6,21, 9,39,21, 1,51, 6,32		2,20,49,55,42	
		1,46, 9,32,49,27,56,37		7,46
4″	32, 6,22,55,48,53,51,19, 3, 9		2,20,50, 3,28	
		1,46, 9,30,28,37,53, 9		7,46
6″	32, 6,24,41,58,24,19,56,56,18		2,20,50,11,14	
		1,46, 9,28, 7,47,41,55		7,46
8″	32, 6,26,28, 7,52,27,44,38,13		2,20,50,19, 0	
		1,46, 9,25,46,57,22,55		7,46
10″	32, 6,28,14,17,18,14,42, 1, 8		2,20,50,26,46	
		1,46, 9,23,26, 6,56, 9		7,46
12″	32, 6,30, 0,26,41,40,48,57,17		2,20,50,34,32	
		1,46, 9,21, 5,16,21,37		7,46
14″	32, 6,31,46,36, 2,46, 5,18,54		2,20,50,42,18	
		1,46, 9,18,44,25,39,19		7,46
16″	32, 6,33,32,45,21,30,30,58,13		2,20,50,50, 4	
		1,46, 9,16,23,34,49,15		7,46
18″	32, 6,35,18,54,37,54, 5,47,28		2,20,50,57,50	
		1,46, 9,14, 2,43,51,25		7,46
20″	32, 6,37, 5, 3,51,56,49,38,53		2,20,51, 5,36	
		1,46, 9,11,41,52,45,49		7,46
22″	32, 6,38,51,13, 3,38,42,24,42		2,20,51,13,22	
		1,46, 9, 9,21, 1,32,27		7,46
24″	32, 6,40,37,22,12,59,43,57, 9		2,20,51,21, 8	
		1,46, 9, 7, 0,10,11,19		7,46
26″	32, 6,42,23,31,19,59,54, 8,28		2,20,51,28,54	
		1,46, 9, 4,39,18,42,25		7,46
28″	32, 6,44, 9,40,24,39,12,50,53		2,20,51,36,40	
		1,46, 9, 2,18,27, 5,45		7,46
30″	32, 6,45,55,49,26,57,39,56,38		2,20,51,44,26	
		1,46, 8,59,57,35,21,19		7,46
32″	32, 6,47,41,58,26,55,15,17,57		2,20,51,52,12	
		1,46, 8,57,36,43,29, 7		7,46
34″	32, 6,49,28, 7,24,31,58,47, 4		2,20,51,59,58	
		1,46, 8,55,15,51,29, 9		7,46
36″	32, 6,51,14,16,19,47,50,16,13		2,20,52, 7,44	
		1,46, 8,52,54,59,21,25		7,46
38″	32, 6,53, 0,25,12,42,49,37,38		2,20,52,15,30	
		1,46, 8,50,34, 7, 5,55		7,46
40″	32, 6,54,46,34, 3,16,56,43,33		2,20,52,23,16	
		1,46, 8,48,13,14,42,39		7,46
42″	32, 6,56,32,42,51,30,11,26,12		2,20,52,31, 2	
		1,46, 8,45,52,22,11,37		7,46
44″	32, 6,58,18,51,37,22,33,37,49		2,20,52,38,48	
		1,46, 8,43,31,29,32,49		7,46
46″	32, 7, 0, 5, 0,20,54, 3,10,38		2,20,52,46,34	
		1,46, 8,41,10,36,46,15		7,46
48″	32, 7, 1,51, 9, 2, 4,39,56,53		2,20,52,54,20	
		1,46, 8,38,49,43,51,55		7,46
50″	32, 7, 3,37,17,40,54,23,48,48		2,20,53, 2, 6	
		1,46, 8,36,28,50,49,49		7,46
52″	32, 7, 5,23,26,17,23,14,38,37		2,20,53, 9,52	
		1,46, 8,34, 7,57,39,57		7,46
54″	32, 7, 7, 9,34,51,31,12,18,34		2,20,53,17,38	
		1,46, 8,31,47, 4,22,19		7,46
56″	32, 7, 8,55,43,23,18,16,40,53		2,20,53,25,24	
		1,46, 8,29,26,10,56,55		7,46
58″	32, 7,10,41,51,52,44,27,37,48		2,20,53,33,10	
		1,46, 8,27, 5,17,23,45		
60″	32, 7,12,28, 0,19,49,45, 1,33			
exact	32, 7,12,28, 0,19,49,45,23,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°22′ 0″	32, 7,12,28, 0,19,49,45,23,23			
		1,46, 8,24,44,23,45,18		
2″	32, 7,14,14, 8,44,34, 9, 8,41		2,20,53,48,31	
		1,46, 8,22,23,29,56,47		7,46
4″	32, 7,16, 0,17, 6,57,39, 5,28		2,20,53,56,17	
		1,46, 8,20, 2,36, 0,30		7,46
6″	32, 7,17,46,25,27, 0,15, 5,58		2,20,54, 4, 3	
		1,46, 8,17,41,41,56,27		7,46
8″	32, 7,19,32,33,44,41,57, 2,25		2,20,54,11,49	
		1,46, 8,15,20,47,44,38		7,46
10″	32, 7,21,18,42, 0, 2,44,47, 3		2,20,54,19,35	
		1,46, 8,12,59,53,25, 3		7,46
12″	32, 7,23, 4,50,13, 2,38,12, 6		2,20,54,27,21	
		1,46, 8,10,38,58,57,42		7,46
14″	32, 7,24,50,58,23,41,37, 9,48		2,20,54,35, 7	
		1,46, 8, 8,18, 4,22,35		7,46
16″	32, 7,26,37, 6,31,59,41,32,23		2,20,54,42,53	
		1,46, 8, 5,57, 9,39,42		7,46
18″	32, 7,28,23,14,37,56,51,12, 5		2,20,54,50,39	
		1,46, 8, 3,36,14,49, 3		7,46
20″	32, 7,30, 9,22,41,33, 6, 1, 8		2,20,54,58,25	
		1,46, 8, 1,15,19,50,38		7,46
22″	32, 7,31,55,30,42,48,25,51,46		2,20,55, 6,11	
		1,46, 7,58,54,24,44,27		7,46
24″	32, 7,33,41,38,41,42,50,36,13		2,20,55,13,57	
		1,46, 7,56,33,29,30,30		7,46
26″	32, 7,35,27,46,38,16,20, 6,43		2,20,55,21,43	
		1,46, 7,54,12,34, 8,47		7,46
28″	32, 7,37,13,54,32,28,54,15,30		2,20,55,29,29	
		1,46, 7,51,51,38,39,18		7,46
30″	32, 7,39, 0, 2,24,20,32,54,48		2,20,55,37,15	
		1,46, 7,49,30,43, 2, 3		7,46
32″	32, 7,40,46,10,13,51,15,56,51		2,20,55,45, 1	
		1,46, 7,47, 9,47,17, 2		7,46
34″	32, 7,42,32,18, 1, 1, 3,13,53		2,20,55,52,47	
		1,46, 7,44,48,51,24,15		7,46
36″	32, 7,44,18,25,45,49,54,38, 8		2,20,56, 0,33	
		1,46, 7,42,27,55,23,42		7,46
38″	32, 7,46, 4,33,28,17,50, 1,50		2,20,56, 8,19	
		1,46, 7,40, 6,59,15,23		7,46
40″	32, 7,47,50,41, 8,24,49,17,13		2,20,56,16, 5	
		1,46, 7,37,46, 2,59,18		7,46
42″	32, 7,49,36,48,46,10,52,16,31		2,20,56,23,51	
		1,46, 7,35,25, 6,35,27		7,46
44″	32, 7,51,22,56,21,35,58,51,58		2,20,56,31,37	
		1,46, 7,33, 4,10, 3,50		7,46
46″	32, 7,53, 9, 3,54,40, 8,55,48		2,20,56,39,23	
		1,46, 7,30,43,13,24,27		7,46
48″	32, 7,54,55,11,25,23,22,20,15		2,20,56,47, 9	
		1,46, 7,28,22,16,37,18		7,46
50″	32, 7,56,41,18,53,45,38,57,33		2,20,56,54,55	
		1,46, 7,26, 1,19,42,23		7,46
52″	32, 7,58,27,26,19,46,58,39,56		2,20,57, 2,41	
		1,46, 7,23,40,22,39,42		7,46
54″	32, 8, 0,13,33,43,27,21,19,38		2,20,57,10,27	
		1,46, 7,21,19,25,29,15		7,46
56″	32, 8, 1,59,41, 4,46,46,48,53		2,20,57,18,13	
		1,46, 7,18,58,28,11, 2		7,46
58″	32, 8, 3,45,48,23,45,14,59,55		2,20,57,25,59	
		1,46, 7,16,37,30,45, 3		
60″	32, 8, 5,31,55,40,22,45,44,58			
exact	32, 8, 5,31,55,40,22,46,14,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°23′ 0″	32, 8, 5,31,55,40,22,46,14,39	1,46, 7,14,16,33,14,32		
2″	32, 8, 7,18, 2,54,39,19,29,11	1,46, 7,11,55,35,33,15	2,20,57,41,17	7,45
4″	32, 8, 9, 4,10, 6,34,55, 2,26	1,46, 7, 9,34,37,44,13	2,20,57,49, 2	7,45
6″	32, 8,10,50,17,16, 9,32,46,39	1,46, 7, 7,13,39,47,26	2,20,57,56,47	7,45
8″	32, 8,12,36,24,23,23,12,34, 5	1,46, 7, 4,52,41,42,54	2,20,58, 4,32	7,45
10″	32, 8,14,22,31,28,15,54,16,59	1,46, 7, 2,31,43,30,37	2,20,58,12,17	7,45
12″	32, 8,16, 8,38,30,47,37,47,36	1,46, 7, 0,10,45,10,35	2,20,58,20, 2	7,45
14″	32, 8,17,54,45,30,58,22,58,11	1,46, 6,57,49,46,42,48	2,20,58,27,47	7,45
16″	32, 8,19,40,52,28,48, 9,40,59	1,46, 6,55,28,48, 7,16	2,20,58,35,32	7,45
18″	32, 8,21,26,59,24,16,57,48,15	1,46, 6,53, 7,49,23,59	2,20,58,43,17	7,45
20″	32, 8,23,13, 6,17,24,47,12,14	1,46, 6,50,46,50,32,57	2,20,58,51, 2	7,45
22″	32, 8,24,59,13, 8,11,37,45,11	1,46, 6,48,25,51,34,10	2,20,58,58,47	7,45
24″	32, 8,26,45,19,56,37,29,19,21	1,46, 6,46, 4,52,27,38	2,20,59, 6,32	7,45
26″	32, 8,28,31,26,42,42,21,46,59	1,46, 6,43,43,53,13,21	2,20,59,14,17	7,45
28″	32, 8,30,17,33,26,26,15, 0,20	1,46, 6,41,22,53,51,19	2,20,59,22, 2	7,45
30″	32, 8,32, 3,40, 7,49, 8,51,39	1,46, 6,39, 1,54,21,32	2,20,59,29,47	7,45
32″	32, 8,33,49,46,46,51, 3,13,11	1,46, 6,36,40,54,44, 0	2,20,59,37,32	7,45
34″	32, 8,35,35,53,23,31,57,57,11	1,46, 6,34,19,54,58,43	2,20,59,45,17	7,45
36″	32, 8,37,21,59,57,51,52,55,54	1,46, 6,31,58,55, 5,41	2,20,59,53, 2	7,45
38″	32, 8,39, 8, 6,29,50,48, 1,35	1,46, 6,29,37,55, 4,54	2,21, 0, 0,47	7,45
40″	32, 8,40,54,12,59,28,43, 6,29	1,46, 6,27,16,54,56,22	2,21, 0, 8,32	7,45
42″	32, 8,42,40,19,26,45,38, 2,51	1,46, 6,24,55,54,40, 5	2,21, 0,16,17	7,45
44″	32, 8,44,26,25,51,41,32,42,56	1,46, 6,22,34,54,16, 3	2,21, 0,24, 2	7,45
46″	32, 8,46,12,32,14,16,26,58,59	1,46, 6,20,13,53,44,16	2,21, 0,31,47	7,45
48″	32, 8,47,58,38,34,30,20,43,15	1,46, 6,17,52,53, 4,44	2,21, 0,39,32	7,45
50″	32, 8,49,44,44,52,23,13,47,59	1,46, 6,15,31,52,17,27	2,21, 0,47,17	7,45
52″	32, 8,51,30,51, 7,55, 6, 5,26	1,46, 6,13,10,51,22,25	2,21, 0,55, 2	7,45
54″	32, 8,53,16,57,21, 5,57,27,51	1,46, 6,10,49,50,19,38	2,21, 1, 2,47	7,45
56″	32, 8,55, 3, 3,31,55,47,47,29	1,46, 6, 8,28,49, 9, 6	2,21, 1,10,32	7,45
58″	32, 8,56,49, 9,40,24,36,56,35	1,46, 6, 6, 7,47,50,49	2,21, 1,18,17	
60″	32, 8,58,35,15,46,32,24,47,24			
exact	32, 8,58,35,15,46,32,24,14,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°24′ 0″	32, 8,58,35,15,46,32,24,14,18			
		1,46, 6, 3,46,46,21,19		
2″	32, 9, 0,21,21,50,19,10,35,37		2,21, 1,34, 1	
		1,46, 6, 1,25,44,47,18		7,45
4″	32, 9, 2, 7,27,51,44,55,22,55		2,21, 1,41,46	
		1,46, 5,59, 4,43, 5,32		7,45
6″	32, 9, 3,53,33,50,49,38,28,27		2,21, 1,49,31	
		1,46, 5,56,43,41,16, 1		7,45
8″	32, 9, 5,39,39,47,33,19,44,28		2,21, 1,57,16	
		1,46, 5,54,22,39,18,45		7,45
10″	32, 9, 7,25,45,41,55,59, 3,13		2,21, 2, 5, 1	
		1,46, 5,52, 1,37,13,44		7,45
12″	32, 9, 9,11,51,33,57,36,16,57		2,21, 2,12,46	
		1,46, 5,49,40,35, 0,58		7,45
14″	32, 9,10,57,57,23,38,11,17,55		2,21, 2,20,31	
		1,46, 5,47,19,32,40,27		7,45
16″	32, 9,12,44, 3,10,57,43,58,22		2,21, 2,28,16	
		1,46, 5,44,58,30,12,11		7,45
18″	32, 9,14,30, 8,55,56,14,10,33		2,21, 2,36, 1	
		1,46, 5,42,37,27,36,10		7,45
20″	32, 9,16,16,14,38,33,41,46,43		2,21, 2,43,46	
		1,46, 5,40,16,24,52,24		7,45
22″	32, 9,18, 2,20,18,50, 6,39, 7		2,21, 2,51,31	
		1,46, 5,37,55,22, 0,53		7,45
24″	32, 9,19,48,25,56,45,28,40, 0		2,21, 2,59,16	
		1,46, 5,35,34,19, 1,37		7,45
26″	32, 9,21,34,31,32,19,47,41,37		2,21, 3, 7, 1	
		1,46, 5,33,13,15,54,36		7,45
28″	32, 9,23,20,37, 5,33, 3,36,13		2,21, 3,14,46	
		1,46, 5,30,52,12,39,50		7,45
30″	32, 9,25, 6,42,36,25,16,16, 3		2,21, 3,22,31	
		1,46, 5,28,31, 9,17,19		7,45
32″	32, 9,26,52,48, 4,56,25,33,22		2,21, 3,30,16	
		1,46, 5,26,10, 5,47, 3		7,45
34″	32, 9,28,38,53,31, 6,31,20,25		2,21, 3,38, 1	
		1,46, 5,23,49, 2, 9, 2		7,45
36″	32, 9,30,24,58,54,55,33,29,27		2,21, 3,45,46	
		1,46, 5,21,27,58,23,16		7,45
38″	32, 9,32,11, 4,16,23,31,52,43		2,21, 3,53,31	
		1,46, 5,19, 6,54,29,45		7,45
40″	32, 9,33,57, 9,35,30,26,22,28		2,21, 4, 1,16	
		1,46, 5,16,45,50,28,29		7,45
42″	32, 9,35,43,14,52,16,16,50,57		2,21, 4, 9, 1	
		1,46, 5,14,24,46,19,28		7,45
44″	32, 9,37,29,20, 6,41, 3,10,25		2,21, 4,16,46	
		1,46, 5,12, 3,42, 2,42		7,45
46″	32, 9,39,15,25,18,44,45,13, 7		2,21, 4,24,31	
		1,46, 5, 9,42,37,38,11		7,45
48″	32, 9,41, 1,30,28,27,22,51,18		2,21, 4,32,16	
		1,46, 5, 7,21,33, 5,55		7,45
50″	32, 9,42,47,35,35,48,55,57,13		2,21, 4,40, 1	
		1,46, 5, 5, 0,28,25,54		7,45
52″	32, 9,44,33,40,40,49,24,23, 7		2,21, 4,47,46	
		1,46, 5, 2,39,23,38, 8		7,45
54″	32, 9,46,19,45,43,28,48, 1,15		2,21, 4,55,31	
		1,46, 5, 0,18,18,42,37		7,45
56″	32, 9,48, 5,50,43,47, 6,43,52		2,21, 5, 3,16	
		1,46, 4,57,57,13,39,21		7,45
58″	32, 9,49,51,55,41,44,20,23,13		2,21, 5,11, 1	
		1,46, 4,55,36, 8,28,20		
60″	32, 9,51,38, 0,37,20,28,51,33			
exact	32, 9,51,38, 0,37,20,28,27,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°25′ 0″	32, 9,51,38, 0,37,20,28,27,18			
		1,46, 4,53,15, 3, 6,56		
2″	32, 9,53,24, 5,30,35,31,34,14		2,21, 5,26,42	
		1,46, 4,50,53,57,40,14		7,45
4″	32, 9,55,10,10,21,29,29,14,28		2,21, 5,34,27	
		1,46, 4,48,32,52, 5,47		7,45
6″	32, 9,56,56,15,10, 2,21,20,15		2,21, 5,42,12	
		1,46, 4,46,11,46,23,35		7,45
8″	32, 9,58,42,19,56,14, 7,43,50		2,21, 5,49,57	
		1,46, 4,43,50,40,33,38		7,45
10″	32,10, 0,28,24,40, 4,48,17,28		2,21, 5,57,42	
		1,46, 4,41,29,34,35,56		7,45
12″	32,10, 2,14,29,21,34,22,53,24		2,21, 6, 5,27	
		1,46, 4,39, 8,28,30,29		7,45
14″	32,10, 4, 0,34, 0,42,51,23,53		2,21, 6,13,12	
		1,46, 4,36,47,22,17,17		7,45
16″	32,10, 5,46,38,37,30,13,41,10		2,21, 6,20,57	
		1,46, 4,34,26,15,56,20		7,45
18″	32,10, 7,32,43,11,56,29,37,30		2,21, 6,28,42	
		1,46, 4,32, 5, 9,27,38		7,45
20″	32,10, 9,18,47,44, 1,39, 5, 8		2,21, 6,36,27	
		1,46, 4,29,44, 2,51,11		7,45
22″	32,10,11, 4,52,13,45,41,56,19		2,21, 6,44,12	
		1,46, 4,27,22,56, 6,59		7,45
24″	32,10,12,50,56,41, 8,38, 3,18		2,21, 6,51,57	
		1,46, 4,25, 1,49,15, 2		7,45
26″	32,10,14,37, 1, 6,10,27,18,20		2,21, 6,59,42	
		1,46, 4,22,40,42,15,20		7,45
28″	32,10,16,23, 5,28,51, 9,33,40		2,21, 7, 7,27	
		1,46, 4,20,19,35, 7,53		7,45
30″	32,10,18, 9, 9,49,10,44,41,33		2,21, 7,15,12	
		1,46, 4,17,58,27,52,41		7,45
32″	32,10,19,55,14, 7, 9,12,34,14		2,21, 7,22,57	
		1,46, 4,15,37,20,29,44		7,45
34″	32,10,21,41,18,22,46,33, 3,58		2,21, 7,30,42	
		1,46, 4,13,16,12,59, 2		7,45
36″	32,10,23,27,22,36, 2,46, 3, 0		2,21, 7,38,27	
		1,46, 4,10,55, 5,20,35		7,45
38″	32,10,25,13,26,46,57,51,23,35		2,21, 7,46,12	
		1,46, 4, 8,33,57,34,23		7,45
40″	32,10,26,59,30,55,31,48,57,58		2,21, 7,53,57	
		1,46, 4, 6,12,49,40,26		7,45
42″	32,10,28,45,35, 1,44,38,38,24		2,21, 8, 1,42	
		1,46, 4, 3,51,41,38,44		7,45
44″	32,10,30,31,39, 5,36,20,17, 8		2,21, 8, 9,27	
		1,46, 4, 1,30,33,29,17		7,45
46″	32,10,32,17,43, 7, 6,53,46,25		2,21, 8,17,12	
		1,46, 3,59, 9,25,12, 5		7,45
48″	32,10,34, 3,47, 6,16,18,58,30		2,21, 8,24,57	
		1,46, 3,56,48,16,47, 8		7,45
50″	32,10,35,49,51, 3, 4,35,45,38		2,21, 8,32,42	
		1,46, 3,54,27, 8,14,26		7,45
52″	32,10,37,35,54,57,31,44, 0, 4		2,21, 8,40,27	
		1,46, 3,52, 5,59,33,59		7,45
54″	32,10,39,21,58,49,37,43,34, 3		2,21, 8,48,12	
		1,46, 3,49,44,50,45,47		7,45
56″	32,10,41, 8, 2,39,22,34,19,50		2,21, 8,55,57	
		1,46, 3,47,23,41,49,50		7,45
58″	32,10,42,54, 6,26,46,16, 9,40		2,21, 9, 3,42	
		1,46, 3,45, 2,32,46, 8		
60″	32,10,44,40,10,11,48,48,55,48			
exact	32,10,44,40,10,11,48,48,37,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°26′ 0″	32,10,44,40,10,11,48,48,37,16			
		1,46, 3,42,41,23,32,40		
2″	32,10,46,26,13,54,30,12, 9,56		2,21, 9,19,20	
		1,46, 3,40,20,14,13,20		7,45
4″	32,10,48,12,17,34,50,26,23,16		2,21, 9,27, 5	
		1,46, 3,37,59, 4,46,15		7,45
6″	32,10,49,58,21,12,49,31, 9,31		2,21, 9,34,50	
		1,46, 3,35,37,55,11,25		7,45
8″	32,10,51,44,24,48,27,26,20,56		2,21, 9,42,35	
		1,46, 3,33,16,45,28,50		7,45
10″	32,10,53,30,28,21,44,11,49,46		2,21, 9,50,20	
		1,46, 3,30,55,35,38,30		7,45
12″	32,10,55,16,31,52,39,47,28,16		2,21, 9,58, 5	
		1,46, 3,28,34,25,40,25		7,45
14″	32,10,57, 2,35,21,14,13, 8,41		2,21,10, 5,50	
		1,46, 3,26,13,15,34,35		7,45
16″	32,10,58,48,38,47,27,28,43,16		2,21,10,13,35	
		1,46, 3,23,52, 5,21, 0		7,45
18″	32,11, 0,34,42,11,19,34, 4,16		2,21,10,21,20	
		1,46, 3,21,30,54,59,40		7,45
20″	32,11, 2,20,45,32,50,29, 3,56		2,21,10,29, 5	
		1,46, 3,19, 9,44,30,35		7,45
22″	32,11, 4, 6,48,52, 0,13,34,31		2,21,10,36,50	
		1,46, 3,16,48,33,53,45		7,45
24″	32,11, 5,52,52, 8,48,47,28,16		2,21,10,44,35	
		1,46, 3,14,27,23, 9,10		7,45
26″	32,11, 7,38,55,23,16,10,37,26		2,21,10,52,20	
		1,46, 3,12, 6,12,16,50		7,45
28″	32,11, 9,24,58,35,22,22,54,16		2,21,11, 0, 5	
		1,46, 3, 9,45, 1,16,45		7,45
30″	32,11,11,11, 1,45, 7,24,11, 1		2,21,11, 7,50	
		1,46, 3, 7,23,50, 8,55		7,45
32″	32,11,12,57, 4,52,31,14,19,56		2,21,11,15,35	
		1,46, 3, 5, 2,38,53,20		7,45
34″	32,11,14,43, 7,57,33,53,13,16		2,21,11,23,20	
		1,46, 3, 2,41,27,30, 0		7,45
36″	32,11,16,29,11, 0,15,20,43,16		2,21,11,31, 5	
		1,46, 3, 0,20,15,58,55		7,45
38″	32,11,18,15,14, 0,35,36,42,11		2,21,11,38,50	
		1,46, 2,57,59, 4,20, 5		7,45
40″	32,11,20, 1,16,58,34,41, 2,16		2,21,11,46,35	
		1,46, 2,55,37,52,33,30		7,45
42″	32,11,21,47,19,54,12,33,35,46		2,21,11,54,20	
		1,46, 2,53,16,40,39,10		7,45
44″	32,11,23,33,22,47,29,14,14,56		2,21,12, 2, 5	
		1,46, 2,50,55,28,37, 5		7,45
46″	32,11,25,19,25,38,24,42,52, 1		2,21,12, 9,50	
		1,46, 2,48,34,16,27,15		7,45
48″	32,11,27, 5,28,26,58,59,19,16		2,21,12,17,35	
		1,46, 2,46,13, 4, 9,40		7,45
50″	32,11,28,51,31,13,12, 3,28,56		2,21,12,25,20	
		1,46, 2,43,51,51,44,20		7,45
52″	32,11,30,37,33,57, 3,55,13,16		2,21,12,33, 5	
		1,46, 2,41,30,39,11,15		7,45
54″	32,11,32,23,36,38,34,34,24,31		2,21,12,40,50	
		1,46, 2,39, 9,26,30,25		7,45
56″	32,11,34, 9,39,17,44, 0,54,56		2,21,12,48,35	
		1,46, 2,36,48,13,41,50		7,45
58″	32,11,35,55,41,54,32,14,36,46		2,21,12,56,20	
		1,46, 2,34,27, 0,45,30		
60″	32,11,37,41,44,28,59,15,22,16			
exact	32,11,37,41,44,28,59,15, 6,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°27′ 0″	32,11,37,41,44,28,59,15, 6,29			
		1,46, 2,32, 5,47,39,49		
2″	32,11,39,27,47, 1, 5, 2,46,18		2,21,13,11,56	
		1,46, 2,29,44,34,27,53		7,45
4″	32,11,41,13,49,30,49,37,14,11		2,21,13,19,41	
		1,46, 2,27,23,21, 8,12		7,45
6″	32,11,42,59,51,58,12,58,22,23		2,21,13,27,26	
		1,46, 2,25, 2, 7,40,46		7,45
8″	32,11,44,45,54,23,15, 6, 3, 9		2,21,13,35,11	
		1,46, 2,22,40,54, 5,35		7,45
10″	32,11,46,31,56,45,56, 0, 8,44		2,21,13,42,56	
		1,46, 2,20,19,40,22,39		7,45
12″	32,11,48,17,59, 6,15,40,31,23		2,21,13,50,41	
		1,46, 2,17,58,26,31,58		7,45
14″	32,11,50, 4, 1,24,14, 7, 3,21		2,21,13,58,26	
		1,46, 2,15,37,12,33,32		7,45
16″	32,11,51,50, 3,39,51,19,36,53		2,21,14, 6,11	
		1,46, 2,13,15,58,27,21		7,45
18″	32,11,53,36, 5,53, 7,18, 4,14		2,21,14,13,56	
		1,46, 2,10,54,44,13,25		7,45
20″	32,11,55,22, 8, 4, 2, 2,17,39		2,21,14,21,41	
		1,46, 2, 8,33,29,51,44		7,45
22″	32,11,57, 8,10,12,35,32, 9,23		2,21,14,29,26	
		1,46, 2, 6,12,15,22,18		7,45
24″	32,11,58,54,12,18,47,47,31,41		2,21,14,37,11	
		1,46, 2, 3,51, 0,45, 7		7,45
26″	32,12, 0,40,14,22,38,48,16,48		2,21,14,44,56	
		1,46, 2, 1,29,46, 0,11		7,45
28″	32,12, 2,26,16,24, 8,34,16,59		2,21,14,52,41	
		1,46, 1,59, 8,31, 7,30		7,45
30″	32,12, 4,12,18,23,17, 5,24,29		2,21,15, 0,26	
		1,46, 1,56,47,16, 7, 4		7,45
32″	32,12, 5,58,20,20, 4,21,31,33		2,21,15, 8,11	
		1,46, 1,54,26, 0,58,53		7,45
34″	32,12, 7,44,22,14,30,22,30,26		2,21,15,15,56	
		1,46, 1,52, 4,45,42,57		7,45
36″	32,12, 9,30,24, 6,35, 8,13,23		2,21,15,23,41	
		1,46, 1,49,43,30,19,16		7,45
38″	32,12,11,16,25,56,18,38,32,39		2,21,15,31,26	
		1,46, 1,47,22,14,47,50		7,45
40″	32,12,13, 2,27,43,40,53,20,29		2,21,15,39,11	
		1,46, 1,45, 0,59, 8,39		7,45
42″	32,12,14,48,29,28,41,52,29, 8		2,21,15,46,56	
		1,46, 1,42,39,43,21,43		7,45
44″	32,12,16,34,31,11,21,35,50,51		2,21,15,54,41	
		1,46, 1,40,18,27,27, 2		7,45
46″	32,12,18,20,32,51,40, 3,17,53		2,21,16, 2,26	
		1,46, 1,37,57,11,24,36		7,45
48″	32,12,20, 6,34,29,37,14,42,29		2,21,16,10,11	
		1,46, 1,35,35,55,14,25		7,45
50″	32,12,21,52,36, 5,13, 9,56,54		2,21,16,17,56	
		1,46, 1,33,14,38,56,29		7,45
52″	32,12,23,38,37,38,27,48,53,23		2,21,16,25,41	
		1,46, 1,30,53,22,30,48		7,45
54″	32,12,25,24,39, 9,21,11,24,11		2,21,16,33,26	
		1,46, 1,28,32, 5,57,22		7,45
56″	32,12,27,10,40,37,53,17,21,33		2,21,16,41,11	
		1,46, 1,26,10,49,16,11		7,45
58″	32,12,28,56,42, 4, 4, 6,37,44		2,21,16,48,56	
		1,46, 1,23,49,32,27,15		
60″	32,12,30,42,43,27,53,39, 4,59			
exact	32,12,30,42,43,27,53,38,55,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°28′ 0″	32,12,30,42,43,27,53,38,55,56			
		1,46, 1,21,28,15,29,40		
2″	32,12,32,28,44,49,21,54,25,36		2,21,17, 4,29	
		1,46, 1,19, 6,58,25,11		7,45
4″	32,12,34,14,46, 8,28,52,50,47		2,21,17,12,14	
		1,46, 1,16,45,41,12,57		7,45
6″	32,12,36, 0,47,25,14,34, 3,44		2,21,17,19,59	
		1,46, 1,14,24,23,52,58		7,45
8″	32,12,37,46,48,39,38,57,56,42		2,21,17,27,44	
		1,46, 1,12, 3, 6,25,14		7,45
10″	32,12,39,32,49,51,42, 4,21,56		2,21,17,35,29	
		1,46, 1, 9,41,48,49,45		7,45
12″	32,12,41,18,51, 1,23,53,11,41		2,21,17,43,14	
		1,46, 1, 7,20,31, 6,31		7,45
14″	32,12,43, 4,52, 8,44,24,18,12		2,21,17,50,59	
		1,46, 1, 4,59,13,15,32		7,45
16″	32,12,44,50,53,13,43,37,33,44		2,21,17,58,44	
		1,46, 1, 2,37,55,16,48		7,45
18″	32,12,46,36,54,16,21,32,50,32		2,21,18, 6,29	
		1,46, 1, 0,16,37,10,19		7,45
20″	32,12,48,22,55,16,38,10, 0,51		2,21,18,14,14	
		1,46, 0,57,55,18,56, 5		7,45
22″	32,12,50, 8,56,14,33,28,56,56		2,21,18,21,59	
		1,46, 0,55,34, 0,34, 6		7,45
24″	32,12,51,54,57,10, 7,29,31, 2		2,21,18,29,44	
		1,46, 0,53,12,42, 4,22		7,45
26″	32,12,53,40,58, 3,20,11,35,24		2,21,18,37,29	
		1,46, 0,50,51,23,26,53		7,45
28″	32,12,55,26,58,54,11,35, 2,17		2,21,18,45,14	
		1,46, 0,48,30, 4,41,39		7,45
30″	32,12,57,12,59,42,41,39,43,56		2,21,18,52,59	
		1,46, 0,46, 8,45,48,40		7,45
32″	32,12,58,59, 0,28,50,25,32,36		2,21,19, 0,44	
		1,46, 0,43,47,26,47,56		7,45
34″	32,13, 0,45, 1,12,37,52,20,32		2,21,19, 8,29	
		1,46, 0,41,26, 7,39,27		7,45
36″	32,13, 2,31, 1,54, 3,59,59,59		2,21,19,16,14	
		1,46, 0,39, 4,48,23,13		7,45
38″	32,13, 4,17, 2,33, 8,48,23,12		2,21,19,23,59	
		1,46, 0,36,43,28,59,14		7,45
40″	32,13, 6, 3, 3, 9,52,17,22,26		2,21,19,31,44	
		1,46, 0,34,22, 9,27,30		7,45
42″	32,13, 7,49, 3,44,14,26,49,56		2,21,19,39,29	
		1,46, 0,32, 0,49,48, 1		7,45
44″	32,13, 9,35, 4,16,15,16,37,57		2,21,19,47,14	
		1,46, 0,29,39,30, 0,47		7,45
46″	32,13,11,21, 4,45,54,46,38,44		2,21,19,54,59	
		1,46, 0,27,18,10, 5,48		7,45
48″	32,13,13, 7, 5,13,12,56,44,32		2,21,20, 2,44	
		1,46, 0,24,56,50, 3, 4		7,45
50″	32,13,14,53, 5,38, 9,46,47,36		2,21,20,10,29	
		1,46, 0,22,35,29,52,35		7,45
52″	32,13,16,39, 6, 0,45,16,40,11		2,21,20,18,14	
		1,46, 0,20,14, 9,34,21		7,45
54″	32,13,18,25, 6,20,59,26,14,32		2,21,20,25,59	
		1,46, 0,17,52,49, 8,22		7,45
56″	32,13,20,11, 6,38,52,15,22,54		2,21,20,33,44	
		1,46, 0,15,31,28,34,38		7,45
58″	32,13,21,57, 6,54,23,43,57,32		2,21,20,41,29	
		1,46, 0,13,10, 7,53, 9		
60″	32,13,23,43, 7, 7,33,51,50,41			
exact	32,13,23,43, 7, 7,33,51,45,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°29′ 0″	32,13,23,43, 7, 7,33,51,45,21			
		1,46, 0,10,48,47, 3,30		
2″	32,13,25,29, 7,18,22,38,48,51		2,21,20,57, 0	
		1,46, 0, 8,27,26, 6,30		7,45
4″	32,13,27,15, 7,26,50, 4,55,21		2,21,21, 4,45	
		1,46, 0, 6, 6, 5, 1,45		7,45
6″	32,13,29, 1, 7,32,56, 9,57, 6		2,21,21,12,30	
		1,46, 0, 3,44,43,49,15		7,45
8″	32,13,30,47, 7,36,40,53,46,21		2,21,21,20,15	
		1,46, 0, 1,23,22,29, 0		7,45
10″	32,13,32,33, 7,38, 4,16,15,21		2,21,21,28, 0	
		1,45,59,59, 2, 1, 1, 0		7,45
12″	32,13,34,19, 7,37, 6,17,16,21		2,21,21,35,45	
		1,45,59,56,40,39,25,15		7,45
14″	32,13,36, 5, 7,33,46,56,41,36		2,21,21,43,30	
		1,45,59,54,19,17,41,45		7,45
16″	32,13,37,51, 7,28, 6,14,23,21		2,21,21,51,15	
		1,45,59,51,57,55,50,30		7,45
18″	32,13,39,37, 7,20, 4,10,13,51		2,21,21,59, 0	
		1,45,59,49,36,33,51,30		7,45
20″	32,13,41,23, 7, 9,40,44, 5,21		2,21,22, 6,45	
		1,45,59,47,15,11,44,45		7,45
22″	32,13,43, 9, 6,56,55,55,50, 6		2,21,22,14,30	
		1,45,59,44,53,49,30,15		7,45
24″	32,13,44,55, 6,41,49,45,20,21		2,21,22,22,15	
		1,45,59,42,32,27, 8, 0		7,45
26″	32,13,46,41, 6,24,22,12,28,21		2,21,22,30, 0	
		1,45,59,40,11, 4,38, 0		7,45
28″	32,13,48,27, 6, 4,33,17, 6,21		2,21,22,37,45	
		1,45,59,37,49,42, 0,15		7,45
30″	32,13,50,13, 5,42,22,59, 6,36		2,21,22,45,30	
		1,45,59,35,28,19,14,45		7,45
32″	32,13,51,59, 5,17,51,18,21,21		2,21,22,53,15	
		1,45,59,33, 6,56,21,30		7,45
34″	32,13,53,45, 4,50,58,14,42,51		2,21,23, 1, 0	
		1,45,59,30,45,33,20,30		7,45
36″	32,13,55,31, 4,21,43,48, 3,21		2,21,23, 8,45	
		1,45,59,28,24,10,11,45		7,45
38″	32,13,57,17, 3,50, 7,58,15, 6		2,21,23,16,30	
		1,45,59,26, 2,46,55,15		7,45
40″	32,13,59, 3, 3,16,10,45,10,21		2,21,23,24,15	
		1,45,59,23,41,23,31, 0		7,45
42″	32,14, 0,49, 2,39,52, 8,41,21		2,21,23,32, 0	
		1,45,59,21,19,59,59, 0		7,45
44″	32,14, 2,35, 2, 1,12, 8,40,21		2,21,23,39,45	
		1,45,59,18,58,36,19,15		7,45
46″	32,14, 4,21, 1,20,10,44,59,36		2,21,23,47,30	
		1,45,59,16,37,12,31,45		7,45
48″	32,14, 6, 7, 0,36,47,57,31,21		2,21,23,55,15	
		1,45,59,14,15,48,36,30		7,45
50″	32,14, 7,52,59,51, 3,46, 7,51		2,21,24, 3, 0	
		1,45,59,11,54,24,33,30		7,45
52″	32,14, 9,38,59, 2,58,10,41,21		2,21,24,10,45	
		1,45,59, 9,33, 0,22,45		7,45
54″	32,14,11,24,58,12,31,11, 4, 6		2,21,24,18,30	
		1,45,59, 7,11,36, 4,15		7,45
56″	32,14,13,10,57,19,42,47, 8,21		2,21,24,26,15	
		1,45,59, 4,50,11,38, 0		7,45
58″	32,14,14,56,56,24,32,58,46,21		2,21,24,34, 0	
		1,45,59, 2,28,47, 4, 0		
60″	32,14,16,42,55,27, 1,45,50,21			
exact	32,14,16,42,55,27, 1,45,53, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°30′ 0″	32,14,16,42,55,27, 1,45,53, 9			
		1,45,59, 0, 7,22,22,37		
2″	32,14,18,28,54,27, 9, 8,15,46		2,21,24,49,28	
		1,45,58,57,45,57,33, 9		7,45
4″	32,14,20,14,53,24,55, 5,48,55		2,21,24,57,13	
		1,45,58,55,24,32,35,56		7,45
6″	32,14,22, 0,52,20,19,38,24,51		2,21,25, 4,58	
		1,45,58,53, 3, 7,30,58		7,45
8″	32,14,23,46,51,13,22,45,55,49		2,21,25,12,43	
		1,45,58,50,41,42,18,15		7,45
10″	32,14,25,32,50, 4, 4,28,14, 4		2,21,25,20,28	
		1,45,58,48,20,16,57,47		7,45
12″	32,14,27,18,48,52,24,45,11,51		2,21,25,28,13	
		1,45,58,45,58,51,29,34		7,45
14″	32,14,29, 4,47,38,23,36,41,25		2,21,25,35,58	
		1,45,58,43,37,25,53,36		7,45
16″	32,14,30,50,46,22, 1, 2,35, 1		2,21,25,43,43	
		1,45,58,41,16, 0, 9,53		7,45
18″	32,14,32,36,45, 3,17, 2,44,54		2,21,25,51,28	
		1,45,58,38,54,34,18,25		7,45
20″	32,14,34,22,43,42,11,37, 3,19		2,21,25,59,13	
		1,45,58,36,33, 8,19,12		7,45
22″	32,14,36, 8,42,18,44,45,22,31		2,21,26, 6,58	
		1,45,58,34,11,42,12,14		7,45
24″	32,14,37,54,40,52,56,27,34,45		2,21,26,14,43	
		1,45,58,31,50,15,57,31		7,45
26″	32,14,39,40,39,24,46,43,32,16		2,21,26,22,28	
		1,45,58,29,28,49,35, 3		7,45
28″	32,14,41,26,37,54,15,33, 7,19		2,21,26,30,13	
		1,45,58,27, 7,23, 4,50		7,45
30″	32,14,43,12,36,21,22,56,12, 9		2,21,26,37,58	
		1,45,58,24,45,56,26,52		7,45
32″	32,14,44,58,34,46, 8,52,39, 1		2,21,26,45,43	
		1,45,58,22,24,29,41, 9		7,45
34″	32,14,46,44,33, 8,33,22,20,10		2,21,26,53,28	
		1,45,58,20, 3, 2,47,41		7,45
36″	32,14,48,30,31,28,36,25, 7,51		2,21,27, 1,13	
		1,45,58,17,41,35,46,28		7,45
38″	32,14,50,16,29,46,18, 0,54,19		2,21,27, 8,58	
		1,45,58,15,20, 8,37,30		7,45
40″	32,14,52, 2,28, 1,38, 9,31,49		2,21,27,16,43	
		1,45,58,12,58,41,20,47		7,45
42″	32,14,53,48,26,14,36,50,52,36		2,21,27,24,28	
		1,45,58,10,37,13,56,19		7,45
44″	32,14,55,34,24,25,14, 4,48,55		2,21,27,32,13	
		1,45,58, 8,15,46,24, 6		7,45
46″	32,14,57,20,22,33,29,51,13, 1		2,21,27,39,58	
		1,45,58, 5,54,18,44, 8		7,45
48″	32,14,59, 6,20,39,24, 9,57, 9		2,21,27,47,43	
		1,45,58, 3,32,50,56,25		7,45
50″	32,15, 0,52,18,42,57, 0,53,34		2,21,27,55,28	
		1,45,58, 1,11,23, 0,57		7,45
52″	32,15, 2,38,16,44, 8,23,54,31		2,21,28, 3,13	
		1,45,57,58,49,54,57,44		7,45
54″	32,15, 4,24,14,42,58,18,52,15		2,21,28,10,58	
		1,45,57,56,28,26,46,46		7,45
56″	32,15, 6,10,12,39,26,45,39, 1		2,21,28,18,43	
		1,45,57,54, 6,58,28, 3		7,45
58″	32,15, 7,56,10,33,33,44, 7, 4		2,21,28,26,28	
		1,45,57,51,45,30, 1,35		
60″	32,15, 9,42, 8,25,19,14, 8,39			
exact	32,15, 9,42, 8,25,19,14,16,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°31′ 0″	32,15, 9,42, 8,25,19,14,16,32			
		1,45,57,49,24, 1,28,18		
2″	32,15,11,28, 6,14,43,15,44,50		2,21,28,41,54	
		1,45,57,47, 2,32,46,24		7,45
4″	32,15,13,14, 4, 1,45,48,31,14		2,21,28,49,39	
		1,45,57,44,41, 3,56,45		7,45
6″	32,15,15, 0, 1,46,26,52,27,59		2,21,28,57,24	
		1,45,57,42,19,34,59,21		7,45
8″	32,15,16,45,59,28,46,27,27,20		2,21,29, 5, 9	
		1,45,57,39,58, 5,54,12		7,45
10″	32,15,18,31,57, 8,44,33,21,32		2,21,29,12,54	
		1,45,57,37,36,36,41,18		7,45
12″	32,15,20,17,54,46,21,10, 2,50		2,21,29,20,39	
		1,45,57,35,15, 7,20,39		7,45
14″	32,15,22, 3,52,21,36,17,23,29		2,21,29,28,24	
		1,45,57,32,53,37,52,15		7,45
16″	32,15,23,49,49,54,29,55,15,44		2,21,29,36, 9	
		1,45,57,30,32, 8,16, 6		7,45
18″	32,15,25,35,47,25, 2, 3,31,50		2,21,29,43,54	
		1,45,57,28,10,38,32,12		7,45
20″	32,15,27,21,44,53,12,42, 4, 2		2,21,29,51,39	
		1,45,57,25,49, 8,40,33		7,45
22″	32,15,29, 7,42,19, 1,50,44,35		2,21,29,59,24	
		1,45,57,23,27,38,41, 9		7,45
24″	32,15,30,53,39,42,29,29,25,44		2,21,30, 7, 9	
		1,45,57,21, 6, 8,34, 0		7,45
26″	32,15,32,39,37, 3,35,37,59,44		2,21,30,14,54	
		1,45,57,18,44,38,19, 6		7,45
28″	32,15,34,25,34,22,20,16,18,50		2,21,30,22,39	
		1,45,57,16,23, 7,56,27		7,45
30″	32,15,36,11,31,38,43,24,15,17		2,21,30,30,24	
		1,45,57,14, 1,37,26, 3		7,45
32″	32,15,37,57,28,52,45, 1,41,20		2,21,30,38, 9	
		1,45,57,11,40, 6,47,54		7,45
34″	32,15,39,43,26, 4,25, 8,29,14		2,21,30,45,54	
		1,45,57, 9,18,36, 2, 0		7,45
36″	32,15,41,29,23,13,43,44,31,14		2,21,30,53,39	
		1,45,57, 6,57, 5, 8,21		7,45
38″	32,15,43,15,20,20,40,49,39,35		2,21,31, 1,24	
		1,45,57, 4,35,34, 6,57		7,45
40″	32,15,45, 1,17,25,16,23,46,32		2,21,31, 9, 9	
		1,45,57, 2,14, 2,57,48		7,45
42″	32,15,46,47,14,27,30,26,44,20		2,21,31,16,54	
		1,45,56,59,52,31,40,54		7,45
44″	32,15,48,33,11,27,22,58,25,14		2,21,31,24,39	
		1,45,56,57,31, 0,16,15		7,45
46″	32,15,50,19, 8,24,53,58,41,29		2,21,31,32,24	
		1,45,56,55, 9,28,43,51		7,45
48″	32,15,52, 5, 5,20, 3,27,25,20		2,21,31,40, 9	
		1,45,56,52,47,57, 3,42		7,45
50″	32,15,53,51, 2,12,51,24,29, 2		2,21,31,47,54	
		1,45,56,50,26,25,15,48		7,45
52″	32,15,55,36,59, 3,17,49,44,50		2,21,31,55,39	
		1,45,56,48, 4,53,20, 9		7,45
54″	32,15,57,22,55,51,22,43, 4,59		2,21,32, 3,24	
		1,45,56,45,43,21,16,45		7,45
56″	32,15,59, 8,52,37, 6, 4,21,44		2,21,32,11, 9	
		1,45,56,43,21,49, 5,36		7,45
58″	32,16, 0,54,49,20,27,53,27,20		2,21,32,18,54	
		1,45,56,41, 0,16,46,42		
60″	32,16, 2,40,46, 1,28,10,14, 2			
exact	32,16, 2,40,46, 1,28,10,31,27			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
32°32′	0″	32,16, 2,40,46, 1,28,10,31,27			
			1,45,56,38,38,44,21,51		
	2″	32,16, 4,26,42,40, 6,54,53,18		2,21,32,34,17	
			1,45,56,36,17,11,47,34		7,45
	4″	32,16, 6,12,39,16,24, 6,40,52		2,21,32,42, 2	
			1,45,56,33,55,39, 5,32		7,45
	6″	32,16, 7,58,35,50,19,45,46,24		2,21,32,49,47	
			1,45,56,31,34, 6,15,45		7,45
	8″	32,16, 9,44,32,21,53,52, 2, 9		2,21,32,57,32	
			1,45,56,29,12,33,18,13		7,45
	10″	32,16,11,30,28,51, 6,25,20,22		2,21,33, 5,17	
			1,45,56,26,51, 0,12,56		7,45
	12″	32,16,13,16,25,17,57,25,33,18		2,21,33,13, 2	
			1,45,56,24,29,26,59,54		7,45
	14″	32,16,15, 2,21,42,26,52,33,12		2,21,33,20,47	
			1,45,56,22, 7,53,39, 7		7,45
	16″	32,16,16,48,18, 4,34,46,12,19		2,21,33,28,32	
			1,45,56,19,46,20,10,35		7,45
	18″	32,16,18,34,14,24,21, 6,22,54		2,21,33,36,17	
			1,45,56,17,24,46,34,18		7,45
	20″	32,16,20,20,10,41,45,52,57,12		2,21,33,44, 2	
			1,45,56,15, 3,12,50,16		7,45
	22″	32,16,22, 6, 6,56,49, 5,47,28		2,21,33,51,47	
			1,45,56,12,41,38,58,29		7,45
	24″	32,16,23,52, 3, 9,30,44,45,57		2,21,33,59,32	
			1,45,56,10,20, 4,58,57		7,45
	26″	32,16,25,37,59,19,50,49,44,54		2,21,34, 7,17	
			1,45,56, 7,58,30,51,40		7,45
	28″	32,16,27,23,55,27,49,20,36,34		2,21,34,15, 2	
			1,45,56, 5,36,56,36,38		7,45
	30″	32,16,29, 9,51,33,26,17,13,12		2,21,34,22,47	
			1,45,56, 3,15,22,13,51		7,45
	32″	32,16,30,55,47,36,41,39,27, 3		2,21,34,30,32	
			1,45,56, 0,53,47,43,19		7,45
	34″	32,16,32,41,43,37,35,27,10,22		2,21,34,38,17	
			1,45,55,58,32,13, 5, 2		7,45
	36″	32,16,34,27,39,36, 7,40,15,24		2,21,34,46, 2	
			1,45,55,56,10,38,19, 0		7,45
	38″	32,16,36,13,35,32,18,18,34,24		2,21,34,53,47	
			1,45,55,53,49, 3,25,13		7,45
	40″	32,16,37,59,31,26, 7,21,59,37		2,21,35, 1,32	
			1,45,55,51,27,28,23,41		7,45
	42″	32,16,39,45,27,17,34,50,23,18		2,21,35, 9,17	
			1,45,55,49, 5,53,14,24		7,45
	44″	32,16,41,31,23, 6,40,43,37,42		2,21,35,17, 2	
			1,45,55,46,44,17,57,22		7,45
	46″	32,16,43,17,18,53,25, 1,35, 4		2,21,35,24,47	
			1,45,55,44,22,42,32,35		7,45
	48″	32,16,45, 3,14,37,47,44, 7,39		2,21,35,32,32	
			1,45,55,42, 1, 7, 0, 3		7,45
	50″	32,16,46,49,10,19,48,51, 7,42		2,21,35,40,17	
			1,45,55,39,39,31,19,46		7,45
	52″	32,16,48,35, 5,59,28,22,27,28		2,21,35,48, 2	
			1,45,55,37,17,55,31,44		7,45
	54″	32,16,50,21, 1,36,46,17,59,12		2,21,35,55,47	
			1,45,55,34,56,19,35,57		7,45
	56″	32,16,52, 6,57,11,42,37,35, 9		2,21,36, 3,32	
			1,45,55,32,34,43,32,25		7,45
	58″	32,16,53,52,52,44,17,21, 7,34		2,21,36,11,17	
			1,45,55,30,13, 7,21, 8		
	60″	32,16,55,38,48,14,30,28,28,42			
exact		32,16,55,38,48,14,30,28,52,41			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
32°33′	0″	32,16,55,38,48,14,30,28,52,41	1,45,55,27,51,31, 4,34		
	2″	32,16,57,24,43,42,21,59,57,15	1,45,55,25,29,54,37,57	2,21,36,26,37	7,45
	4″	32,16,59,10,39, 7,51,54,35,12	1,45,55,23, 8,18, 3,35	2,21,36,34,22	7,45
	6″	32,17, 0,56,34,31, 0,12,38,47	1,45,55,20,46,41,21,28	2,21,36,42, 7	7,45
	8″	32,17, 2,42,29,51,46,54, 0,15	1,45,55,18,25, 4,31,36	2,21,36,49,52	7,45
	10″	32,17, 4,28,25,10,11,58,31,51	1,45,55,16, 3,27,33,59	2,21,36,57,37	7,45
	12″	32,17, 6,14,20,26,15,26, 5,50	1,45,55,13,41,50,28,37	2,21,37, 5,22	7,45
	14″	32,17, 8, 0,15,39,57,16,34,27	1,45,55,11,20,13,15,30	2,21,37,13, 7	7,45
	16″	32,17, 9,46,10,51,17,29,49,57	1,45,55, 8,58,35,54,38	2,21,37,20,52	7,45
	18″	32,17,11,32, 6, 0,16, 5,44,35	1,45,55, 6,36,58,26, 1	2,21,37,28,37	7,45
	20″	32,17,13,18, 1, 6,53, 4,10,36	1,45,55, 4,15,20,49,39	2,21,37,36,22	7,45
	22″	32,17,15, 3,56,11, 8,25, 0,15	1,45,55, 1,53,43, 5,32	2,21,37,44, 7	7,45
	24″	32,17,16,49,51,13, 2, 8, 5,47	1,45,54,59,32, 5,13,40	2,21,37,51,52	7,45
	26″	32,17,18,35,46,12,34,13,19,27	1,45,54,57,10,27,14, 3	2,21,37,59,37	7,45
	28″	32,17,20,21,41, 9,44,40,33,30	1,45,54,54,48,49, 6,41	2,21,38, 7,22	7,45
	30″	32,17,22, 7,36, 4,33,29,40,11	1,45,54,52,27,10,51,34	2,21,38,15, 7	7,45
	32″	32,17,23,53,30,57, 0,40,31,45	1,45,54,50, 5,32,28,42	2,21,38,22,52	7,45
	34″	32,17,25,39,25,47, 6,13, 0,27	1,45,54,47,43,53,58, 5	2,21,38,30,37	7,45
	36″	32,17,27,25,20,34,50, 6,58,32	1,45,54,45,22,15,19,43	2,21,38,38,22	7,45
	38″	32,17,29,11,15,20,12,22,18,15	1,45,54,43, 0,36,33,36	2,21,38,46, 7	7,45
	40″	32,17,30,57,10, 3,12,58,51,51	1,45,54,40,38,57,39,44	2,21,38,53,52	7,45
	42″	32,17,32,43, 4,43,51,56,31,35	1,45,54,38,17,18,38, 7	2,21,39, 1,37	7,45
	44″	32,17,34,28,59,22, 9,15, 9,42	1,45,54,35,55,39,28,45	2,21,39, 9,22	7,45
	46″	32,17,36,14,53,58, 4,54,38,27	1,45,54,33,34, 0,11,38	2,21,39,17, 7	7,45
	48″	32,17,38, 0,48,31,38,54,50, 5	1,45,54,31,12,20,46,46	2,21,39,24,52	7,45
	50″	32,17,39,46,43, 2,51,15,36,51	1,45,54,28,50,41,14, 9	2,21,39,32,37	7,45
	52″	32,17,41,32,37,31,41,56,51, 0	1,45,54,26,29, 1,33,47	2,21,39,40,22	7,45
	54″	32,17,43,18,31,58,10,58,24,47	1,45,54,24, 7,21,45,40	2,21,39,48, 7	7,45
	56″	32,17,45, 4,26,22,18,20,10,27	1,45,54,21,45,41,49,48	2,21,39,55,52	7,45
	58″	32,17,46,50,20,44, 4, 2, 0,15	1,45,54,19,24, 1,46,11	2,21,40, 3,37	
	60″	32,17,48,36,15, 3,28, 3,46,26			
exact		32,17,48,36,15, 3,28, 4,13,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°34′ 0″	32,17,48,36,15, 3,28, 4,13,44			
		1,45,54,17, 2,21,37,45		
2″	32,17,50,22, 9,20,30,25,51,29		2,21,40,18,55	
		1,45,54,14,40,41,18,50		7,45
4″	32,17,52, 8, 3,35,11, 7,10,19		2,21,40,26,40	
		1,45,54,12,19, 0,52,10		7,45
6″	32,17,53,53,57,47,30, 8, 2,29		2,21,40,34,25	
		1,45,54, 9,57,20,17,45		7,45
8″	32,17,55,39,51,57,27,28,20,14		2,21,40,42,10	
		1,45,54, 7,35,39,35,35		7,45
10″	32,17,57,25,46, 5, 3, 7,55,49		2,21,40,49,55	
		1,45,54, 5,13,58,45,40		7,45
12″	32,17,59,11,40,10,17, 6,41,29		2,21,40,57,40	
		1,45,54, 2,52,17,48, 0		7,45
14″	32,18, 0,57,34,13, 9,24,29,29		2,21,41, 5,25	
		1,45,54, 0,30,36,42,35		7,45
16″	32,18, 2,43,28,13,40, 1,12, 4		2,21,41,13,10	
		1,45,53,58, 8,55,29,25		7,45
18″	32,18, 4,29,22,11,48,56,41,29		2,21,41,20,55	
		1,45,53,55,47,14, 8,30		7,45
20″	32,18, 6,15,16, 7,36,10,49,59		2,21,41,28,40	
		1,45,53,53,25,32,39,50		7,45
22″	32,18, 8, 1,10, 1, 1,43,29,49		2,21,41,36,25	
		1,45,53,51, 3,51, 3,25		7,45
24″	32,18, 9,47, 3,52, 5,34,33,14		2,21,41,44,10	
		1,45,53,48,42, 9,19,15		7,45
26″	32,18,11,32,57,40,47,43,52,29		2,21,41,51,55	
		1,45,53,46,20,27,27,20		7,45
28″	32,18,13,18,51,27, 8,11,19,49		2,21,41,59,40	
		1,45,53,43,58,45,27,40		7,45
30″	32,18,15, 4,45,11, 6,56,47,29		2,21,42, 7,25	
		1,45,53,41,37, 3,20,15		7,45
32″	32,18,16,50,38,52,44, 0, 7,44		2,21,42,15,10	
		1,45,53,39,15,21, 5, 5		7,45
34″	32,18,18,36,32,31,59,21,12,49		2,21,42,22,55	
		1,45,53,36,53,38,42,10		7,45
36″	32,18,20,22,26, 8,52,59,54,59		2,21,42,30,40	
		1,45,53,34,31,56,11,30		7,45
38″	32,18,22, 8,19,43,24,56, 6,29		2,21,42,38,25	
		1,45,53,32,10,13,33, 5		7,45
40″	32,18,23,54,13,15,35, 9,39,34		2,21,42,46,10	
		1,45,53,29,48,30,46,55		7,45
42″	32,18,25,40, 6,45,23,40,26,29		2,21,42,53,55	
		1,45,53,27,26,47,53, 0		7,45
44″	32,18,27,26, 0,12,50,28,19,29		2,21,43, 1,40	
		1,45,53,25, 5, 4,51,20		7,45
46″	32,18,29,11,53,37,55,33,10,49		2,21,43, 9,25	
		1,45,53,22,43,21,41,55		7,45
48″	32,18,30,57,47, 0,38,54,52,44		2,21,43,17,10	
		1,45,53,20,21,38,24,45		7,45
50″	32,18,32,43,40,21, 0,33,17,29		2,21,43,24,55	
		1,45,53,17,59,54,59,50		7,45
52″	32,18,34,29,33,39, 0,28,17,19		2,21,43,32,40	
		1,45,53,15,38,11,27,10		7,45
54″	32,18,36,15,26,54,38,39,44,29		2,21,43,40,25	
		1,45,53,13,16,27,46,45		7,45
56″	32,18,38, 1,20, 7,55, 7,31,14		2,21,43,48,10	
		1,45,53,10,54,43,58,35		7,45
58″	32,18,39,47,13,18,49,51,29,49		2,21,43,55,55	
		1,45,53, 8,33, 0, 2,40		
60″	32,18,41,33, 6,27,22,51,32,29			
exact	32,18,41,33, 6,27,22,52, 7, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°35′ 0″	32,18,41,33, 6,27,22,52, 7, 1			
		1,45,53, 6,11,16, 2,40		
2″	32,18,43,18,59,33,34, 8, 9,41		2,21,44,11,10	
		1,45,53, 3,49,31,51,30		7,44
4″	32,18,45, 4,52,37,23,40, 1,11		2,21,44,18,54	
		1,45,53, 1,27,47,32,36		7,44
6″	32,18,46,50,45,38,51,27,33,47		2,21,44,26,38	
		1,45,52,59, 6, 3, 5,58		7,44
8″	32,18,48,36,38,37,57,30,39,45		2,21,44,34,22	
		1,45,52,56,44,18,31,36		7,44
10″	32,18,50,22,31,34,41,49,11,21		2,21,44,42, 6	
		1,45,52,54,22,33,49,30		7,44
12″	32,18,52, 8,24,29, 4,23, 0,51		2,21,44,49,50	
		1,45,52,52, 0,48,59,40		7,44
14″	32,18,53,54,17,21, 5,12, 0,31		2,21,44,57,34	
		1,45,52,49,39, 4, 2, 6		7,44
16″	32,18,55,40,10,10,44,16, 2,37		2,21,45, 5,18	
		1,45,52,47,17,18,56,48		7,44
18″	32,18,57,26, 2,58, 1,34,59,25		2,21,45,13, 2	
		1,45,52,44,55,33,43,46		7,44
20″	32,18,59,11,55,42,57, 8,43,11		2,21,45,20,46	
		1,45,52,42,33,48,23, 0		7,44
22″	32,19, 0,57,48,25,30,57, 6,11		2,21,45,28,30	
		1,45,52,40,12, 2,54,30		7,44
24″	32,19, 2,43,41, 5,43, 0, 0,41		2,21,45,36,14	
		1,45,52,37,50,17,18,16		7,44
26″	32,19, 4,29,33,43,33,17,18,57		2,21,45,43,58	
		1,45,52,35,28,31,34,18		7,44
28″	32,19, 6,15,26,19, 1,48,53,15		2,21,45,51,42	
		1,45,52,33, 6,45,42,36		7,44
30″	32,19, 8, 1,18,52, 8,34,35,51		2,21,45,59,26	
		1,45,52,30,44,59,43,10		7,44
32″	32,19, 9,47,11,22,53,34,19, 1		2,21,46, 7,10	
		1,45,52,28,23,13,36, 0		7,44
34″	32,19,11,33, 3,51,16,47,55, 1		2,21,46,14,54	
		1,45,52,26, 1,27,21, 6		7,44
36″	32,19,13,18,56,17,18,15,16, 7		2,21,46,22,38	
		1,45,52,23,39,40,58,28		7,44
38″	32,19,15, 4,48,40,57,56,14,35		2,21,46,30,22	
		1,45,52,21,17,54,28, 6		7,44
40″	32,19,16,50,41, 2,15,50,42,41		2,21,46,38, 6	
		1,45,52,18,56, 7,50, 0		7,44
42″	32,19,18,36,33,21,11,58,32,41		2,21,46,45,50	
		1,45,52,16,34,21, 4,10		7,44
44″	32,19,20,22,25,37,46,19,36,51		2,21,46,53,34	
		1,45,52,14,12,34,10,36		7,44
46″	32,19,22, 8,17,51,58,53,47,27		2,21,47, 1,18	
		1,45,52,11,50,47, 9,18		7,44
48″	32,19,23,54,10, 3,49,40,56,45		2,21,47, 9, 2	
		1,45,52, 9,29, 0, 0,16		7,44
50″	32,19,25,40, 2,13,18,40,57, 1		2,21,47,16,46	
		1,45,52, 7, 7,12,43,30		7,44
52″	32,19,27,25,54,20,25,53,40,31		2,21,47,24,30	
		1,45,52, 4,45,25,19, 0		7,44
54″	32,19,29,11,46,25,11,18,59,31		2,21,47,32,14	
		1,45,52, 2,23,37,46,46		7,44
56″	32,19,30,57,38,27,34,56,46,17		2,21,47,39,58	
		1,45,52, 0, 1,50, 6,48		7,44
58″	32,19,32,43,30,27,36,46,53, 5		2,21,47,47,42	
		1,45,51,57,40, 2,19, 6		
60″	32,19,34,29,22,25,16,49,12,11			
exact	32,19,34,29,22,25,16,48,43,44			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
32°36′	0″	32,19,34,29,22,25,16,48,43,44			
			1,45,51,55,18,14,20,37		
	2″	32,19,36,15,14,20,35, 3, 4,21		2,21,48, 3,22	
			1,45,51,52,56,26,17,15		7,44
	4″	32,19,38, 1, 6,13,31,29,21,36		2,21,48,11, 6	
			1,45,51,50,34,38, 6, 9		7,44
	6″	32,19,39,46,58, 4, 6, 7,27,45		2,21,48,18,50	
			1,45,51,48,12,49,47,19		7,44
	8″	32,19,41,32,49,52,18,57,15, 4		2,21,48,26,34	
			1,45,51,45,51, 1,20,45		7,44
	10″	32,19,43,18,41,38, 9,58,35,49		2,21,48,34,18	
			1,45,51,43,29,12,46,27		7,44
	12″	32,19,45, 4,33,21,39,11,22,16		2,21,48,42, 2	
			1,45,51,41, 7,24, 4,25		7,44
	14″	32,19,46,50,25, 2,46,35,26,41		2,21,48,49,46	
			1,45,51,38,45,35,14,39		7,44
	16″	32,19,48,36,16,41,32,10,41,20		2,21,48,57,30	
			1,45,51,36,23,46,17, 9		7,44
	18″	32,19,50,22, 8,17,55,56,58,29		2,21,49, 5,14	
			1,45,51,34, 1,57,11,55		7,44
	20″	32,19,52, 7,59,51,57,54,10,24		2,21,49,12,58	
			1,45,51,31,40, 7,58,57		7,44
	22″	32,19,53,53,51,23,38, 2, 9,21		2,21,49,20,42	
			1,45,51,29,18,18,38,15		7,44
	24″	32,19,55,39,42,52,56,20,47,36		2,21,49,28,26	
			1,45,51,26,56,29, 9,49		7,44
	26″	32,19,57,25,34,19,52,49,57,25		2,21,49,36,10	
			1,45,51,24,34,39,33,39		7,44
	28″	32,19,59,11,25,44,27,29,31, 4		2,21,49,43,54	
			1,45,51,22,12,49,49,45		7,44
	30″	32,20, 0,57,17, 6,40,19,20,49		2,21,49,51,38	
			1,45,51,19,50,59,58, 7		7,44
	32″	32,20, 2,43, 8,26,31,19,18,56		2,21,49,59,22	
			1,45,51,17,29, 9,58,45		7,44
	34″	32,20, 4,28,59,44, 0,29,17,41		2,21,50, 7, 6	
			1,45,51,15, 7,19,51,39		7,44
	36″	32,20, 6,14,50,59, 7,49, 9,20		2,21,50,14,50	
			1,45,51,12,45,29,36,49		7,44
	38″	32,20, 8, 0,42,11,53,18,46, 9		2,21,50,22,34	
			1,45,51,10,23,39,14,15		7,44
	40″	32,20, 9,46,33,22,16,58, 0,24		2,21,50,30,18	
			1,45,51, 8, 1,48,43,57		7,44
	42″	32,20,11,32,24,30,18,46,44,21		2,21,50,38, 2	
			1,45,51, 5,39,58, 5,55		7,44
	44″	32,20,13,18,15,35,58,44,50,16		2,21,50,45,46	
			1,45,51, 3,18, 7,20, 9		7,44
	46″	32,20,15, 4, 6,39,16,52,10,25		2,21,50,53,30	
			1,45,51, 0,56,16,26,39		7,44
	48″	32,20,16,49,57,40,13, 8,37, 4		2,21,51, 1,14	
			1,45,50,58,34,25,25,25		7,44
	50″	32,20,18,35,48,38,47,34, 2,29		2,21,51, 8,58	
			1,45,50,56,12,34,16,27		7,44
	52″	32,20,20,21,39,35, 0, 8,18,56		2,21,51,16,42	
			1,45,50,53,50,42,59,45		7,44
	54″	32,20,22, 7,30,28,50,51,18,41		2,21,51,24,26	
			1,45,50,51,28,51,35,19		7,44
	56″	32,20,23,53,21,20,19,42,54, 0		2,21,51,32,10	
			1,45,50,49, 7, 0, 3, 9		7,44
	58″	32,20,25,39,12, 9,26,42,57, 9		2,21,51,39,54	
			1,45,50,46,45, 8,23,15		
	60″	32,20,27,25, 2,56,11,51,20,24			
exact		32,20,27,25, 2,56,11,50,53,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°37′ 0″	32,20,27,25, 2,56,11,50,53,56			
		1,45,50,44,23,16,32,55		
2″	32,20,29,10,53,40,35, 7,26,51		2,21,51,55,32	
		1,45,50,42, 1,24,37,23		7,44
4″	32,20,30,56,44,22,36,32, 4,14		2,21,52, 3,16	
		1,45,50,39,39,32,34, 7		7,44
6″	32,20,32,42,35, 2,16, 4,38,21		2,21,52,11, 0	
		1,45,50,37,17,40,23, 7		7,44
8″	32,20,34,28,25,39,33,45, 1,28		2,21,52,18,44	
		1,45,50,34,55,48, 4,23		7,44
10″	32,20,36,14,16,14,29,33, 5,51		2,21,52,26,28	
		1,45,50,32,33,55,37,55		7,44
12″	32,20,38, 0, 6,47, 3,28,43,46		2,21,52,34,12	
		1,45,50,30,12, 3, 3,43		7,44
14″	32,20,39,45,57,17,15,31,47,29		2,21,52,41,56	
		1,45,50,27,50,10,21,47		7,44
16″	32,20,41,31,47,45, 5,42, 9,16		2,21,52,49,40	
		1,45,50,25,28,17,32, 7		7,44
18″	32,20,43,17,38,10,33,59,41,23		2,21,52,57,24	
		1,45,50,23, 6,24,34,43		7,44
20″	32,20,45, 3,28,33,40,24,16, 6		2,21,53, 5, 8	
		1,45,50,20,44,31,29,35		7,44
22″	32,20,46,49,18,54,24,55,45,41		2,21,53,12,52	
		1,45,50,18,22,38,16,43		7,44
24″	32,20,48,35, 9,12,47,34, 2,24		2,21,53,20,36	
		1,45,50,16, 0,44,56, 7		7,44
26″	32,20,50,20,59,28,48,18,58,31		2,21,53,28,20	
		1,45,50,13,38,51,27,47		7,44
28″	32,20,52, 6,49,42,27,10,26,18		2,21,53,36, 4	
		1,45,50,11,16,57,51,43		7,44
30″	32,20,53,52,39,53,44, 8,18, 1		2,21,53,43,48	
		1,45,50, 8,55, 4, 7,55		7,44
32″	32,20,55,38,30, 2,39,12,25,56		2,21,53,51,32	
		1,45,50, 6,33,10,16,23		7,44
34″	32,20,57,24,20, 9,12,22,42,19		2,21,53,59,16	
		1,45,50, 4,11,16,17, 7		7,44
36″	32,20,59,10,10,13,23,38,59,26		2,21,54, 7, 0	
		1,45,50, 1,49,22,10, 7		7,44
38″	32,21, 0,56, 0,15,13, 1, 9,33		2,21,54,14,44	
		1,45,49,59,27,27,55,23		7,44
40″	32,21, 2,41,50,14,40,29, 4,56		2,21,54,22,28	
		1,45,49,57, 5,33,32,55		7,44
42″	32,21, 4,27,40,11,46, 2,37,51		2,21,54,30,12	
		1,45,49,54,43,39, 2,43		7,44
44″	32,21, 6,13,30, 6,29,41,40,34		2,21,54,37,56	
		1,45,49,52,21,44,24,47		7,44
46″	32,21, 7,59,19,58,51,26, 5,21		2,21,54,45,40	
		1,45,49,49,59,49,39, 7		7,44
48″	32,21, 9,45, 9,48,51,15,44,28		2,21,54,53,24	
		1,45,49,47,37,54,45,43		7,44
50″	32,21,11,30,59,36,29,10,30,11		2,21,55, 1, 8	
		1,45,49,45,15,59,44,35		7,44
52″	32,21,13,16,49,21,45,10,14,46		2,21,55, 8,52	
		1,45,49,42,54, 4,35,43		7,44
54″	32,21,15, 2,39, 4,39,14,50,29		2,21,55,16,36	
		1,45,49,40,32, 9,19, 7		7,44
56″	32,21,16,48,28,45,11,24, 9,36		2,21,55,24,20	
		1,45,49,38,10,13,54,47		7,44
58″	32,21,18,34,18,23,21,38, 4,23		2,21,55,32, 4	
		1,45,49,35,48,18,22,43		
60″	32,21,20,20, 7,59, 9,56,27, 6			
exact	32,21,20,20, 7,59, 9,56, 6,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°38′ 0″	32,21,20,20, 7,59, 9,56, 6,36			
		1,45,49,33,26,22,40,51		
2″	32,21,22, 5,57,32,36,18,47,27		2,21,55,47,40	
		1,45,49,31, 4,26,53,11		7,44
4″	32,21,23,51,47, 3,40,45,40,38		2,21,55,55,24	
		1,45,49,28,42,30,57,47		7,44
6″	32,21,25,37,36,32,23,16,38,25		2,21,56, 3, 8	
		1,45,49,26,20,34,54,39		7,44
8″	32,21,27,23,25,58,43,51,33, 4		2,21,56,10,52	
		1,45,49,23,58,38,43,47		7,44
10″	32,21,29, 9,15,22,42,30,16,51		2,21,56,18,36	
		1,45,49,21,36,42,25,11		7,44
12″	32,21,30,55, 4,44,19,12,42, 2		2,21,56,26,20	
		1,45,49,19,14,45,58,51		7,44
14″	32,21,32,40,54, 3,33,58,40,53		2,21,56,34, 4	
		1,45,49,16,52,49,24,47		7,44
16″	32,21,34,26,43,20,26,48, 5,40		2,21,56,41,48	
		1,45,49,14,30,52,42,59		7,44
18″	32,21,36,12,32,34,57,40,48,39		2,21,56,49,32	
		1,45,49,12, 8,55,53,27		7,44
20″	32,21,37,58,21,47, 6,36,42, 6		2,21,56,57,16	
		1,45,49, 9,46,58,56,11		7,44
22″	32,21,39,44,10,56,53,35,38,17		2,21,57, 5, 0	
		1,45,49, 7,25, 1,51,11		7,44
24″	32,21,41,30, 0, 4,18,37,29,28		2,21,57,12,44	
		1,45,49, 5, 3, 4,38,27		7,44
26″	32,21,43,15,49, 9,21,42, 7,55		2,21,57,20,28	
		1,45,49, 2,41, 7,17,59		7,44
28″	32,21,45, 1,38,12, 2,49,25,54		2,21,57,28,12	
		1,45,49, 0,19, 9,49,47		7,44
30″	32,21,46,47,27,12,21,59,15,41		2,21,57,35,56	
		1,45,48,57,57,12,13,51		7,44
32″	32,21,48,33,16,10,19,11,29,32		2,21,57,43,40	
		1,45,48,55,35,14,30,11		7,44
34″	32,21,50,19, 5, 5,54,25,59,43		2,21,57,51,24	
		1,45,48,53,13,16,38,47		7,44
36″	32,21,52, 4,53,59, 7,42,38,30		2,21,57,59, 8	
		1,45,48,50,51,18,39,39		7,44
38″	32,21,53,50,42,49,59, 1,18, 9		2,21,58, 6,52	
		1,45,48,48,29,20,32,47		7,44
40″	32,21,55,36,31,38,28,21,50,56		2,21,58,14,36	
		1,45,48,46, 7,22,18,11		7,44
42″	32,21,57,22,20,24,35,44, 9, 7		2,21,58,22,20	
		1,45,48,43,45,23,55,51		7,44
44″	32,21,59, 8, 9, 8,21, 8, 4,58		2,21,58,30, 4	
		1,45,48,41,23,25,25,47		7,44
46″	32,22, 0,53,57,49,44,33,30,45		2,21,58,37,48	
		1,45,48,39, 1,26,47,59		7,44
48″	32,22, 2,39,46,28,46, 0,18,44		2,21,58,45,32	
		1,45,48,36,39,28, 2,27		7,44
50″	32,22, 4,25,35, 5,25,28,21,11		2,21,58,53,16	
		1,45,48,34,17,29, 9,11		7,44
52″	32,22, 6,11,23,39,42,57,30,22		2,21,59, 1, 0	
		1,45,48,31,55,30, 8,11		7,44
54″	32,22, 7,57,12,11,38,27,38,33		2,21,59, 8,44	
		1,45,48,29,33,30,59,27		7,44
56″	32,22, 9,43, 0,41,11,58,38, 0		2,21,59,16,28	
		1,45,48,27,11,31,42,59		7,44
58″	32,22,11,28,49, 8,23,30,20,59		2,21,59,24,12	
		1,45,48,24,49,32,18,47		
60″	32,22,13,14,37,33,13, 2,39,46			
exact	32,22,13,14,37,33,13, 2,29,32			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
32°39′	0″	32,22,13,14,37,33,13, 2,29,32			
			1,45,48,22,27,32,45,43		
	2″	32,22,15, 0,25,55,40,35,15,15		2,21,59,39,45	
			1,45,48,20, 5,33, 5,58		7,44
	4″	32,22,16,46,14,15,46, 8,21,13		2,21,59,47,29	
			1,45,48,17,43,33,18,29		7,44
	6″	32,22,18,32, 2,33,29,41,39,42		2,21,59,55,13	
			1,45,48,15,21,33,23,16		7,44
	8″	32,22,20,17,50,48,51,15, 2,58		2,22, 0, 2,57	
			1,45,48,12,59,33,20,19		7,44
	10″	32,22,22, 3,39, 1,50,48,23,17		2,22, 0,10,41	
			1,45,48,10,37,33, 9,38		7,44
	12″	32,22,23,49,27,12,28,21,32,55		2,22, 0,18,25	
			1,45,48, 8,15,32,51,13		7,44
	14″	32,22,25,35,15,20,43,54,24, 8		2,22, 0,26, 9	
			1,45,48, 5,53,32,25, 4		7,44
	16″	32,22,27,21, 3,26,37,26,49,12		2,22, 0,33,53	
			1,45,48, 3,31,31,51,11		7,44
	18″	32,22,29, 6,51,30, 8,58,40,23		2,22, 0,41,37	
			1,45,48, 1, 9,31, 9,34		7,44
	20″	32,22,30,52,39,31,18,29,49,57		2,22, 0,49,21	
			1,45,47,58,47,30,20,13		7,44
	22″	32,22,32,38,27,30, 6, 0,10,10		2,22, 0,57, 5	
			1,45,47,56,25,29,23, 8		7,44
	24″	32,22,34,24,15,26,31,29,33,18		2,22, 1, 4,49	
			1,45,47,54, 3,28,18,19		7,44
	26″	32,22,36,10, 3,20,34,57,51,37		2,22, 1,12,33	
			1,45,47,51,41,27, 5,46		7,44
	28″	32,22,37,55,51,12,16,24,57,23		2,22, 1,20,17	
			1,45,47,49,19,25,45,29		7,44
	30″	32,22,39,41,39, 1,35,50,42,52		2,22, 1,28, 1	
			1,45,47,46,57,24,17,28		7,44
	32″	32,22,41,27,26,48,33,15, 0,20		2,22, 1,35,45	
			1,45,47,44,35,22,41,43		7,44
	34″	32,22,43,13,14,33, 8,37,42, 3		2,22, 1,43,29	
			1,45,47,42,13,20,58,14		7,44
	36″	32,22,44,59, 2,15,21,58,40,17		2,22, 1,51,13	
			1,45,47,39,51,19, 7, 1		7,44
	38″	32,22,46,44,49,55,13,17,47,18		2,22, 1,58,57	
			1,45,47,37,29,17, 8, 4		7,44
	40″	32,22,48,30,37,32,42,34,55,22		2,22, 2, 6,41	
			1,45,47,35, 7,15, 1,23		7,44
	42″	32,22,50,16,25, 7,49,49,56,45		2,22, 2,14,25	
			1,45,47,32,45,12,46,58		7,44
	44″	32,22,52, 2,12,40,35, 2,43,43		2,22, 2,22, 9	
			1,45,47,30,23,10,24,49		7,44
	46″	32,22,53,48, 0,10,58,13, 8,32		2,22, 2,29,53	
			1,45,47,28, 1, 7,54,56		7,44
	48″	32,22,55,33,47,38,59,21, 3,28		2,22, 2,37,37	
			1,45,47,25,39, 5,17,19		7,44
	50″	32,22,57,19,35, 4,38,26,20,47		2,22, 2,45,21	
			1,45,47,23,17, 2,31,58		7,44
	52″	32,22,59, 5,22,27,55,28,52,45		2,22, 2,53, 5	
			1,45,47,20,54,59,38,53		7,44
	54″	32,23, 0,51, 9,48,50,28,31,38		2,22, 3, 0,49	
			1,45,47,18,32,56,38, 4		7,44
	56″	32,23, 2,36,57, 7,23,25, 9,42		2,22, 3, 8,33	
			1,45,47,16,10,53,29,31		7,44
	58″	32,23, 4,22,44,23,34,18,39,13		2,22, 3,16,17	
			1,45,47,13,48,50,13,14		
	60″	32,23, 6, 8,31,37,23, 8,52,27			
exact		32,23, 6, 8,31,37,23, 8,49,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°40′ 0″	32,23, 6, 8,31,37,23, 8,49,30			
		1,45,47,11,26,46,48,49		
2″	32,23, 7,54,18,48,49,55,38,19		2,22, 3,31,47	
		1,45,47, 9, 4,43,17, 2		7,44
4″	32,23, 9,40, 5,57,54,38,55,21		2,22, 3,39,31	
		1,45,47, 6,42,39,37,31		7,44
6″	32,23,11,25,53, 4,37,18,32,52		2,22, 3,47,15	
		1,45,47, 4,20,35,50,16		7,44
8″	32,23,13,11,40, 8,57,54,23, 8		2,22, 3,54,59	
		1,45,47, 1,58,31,55,17		7,44
10″	32,23,14,57,27,10,56,26,18,25		2,22, 4, 2,43	
		1,45,46,59,36,27,52,34		7,44
12″	32,23,16,43,14,10,32,54,10,59		2,22, 4,10,27	
		1,45,46,57,14,23,42, 7		7,44
14″	32,23,18,29, 1, 7,47,17,53, 6		2,22, 4,18,11	
		1,45,46,54,52,19,23,56		7,44
16″	32,23,20,14,48, 2,39,37,17, 2		2,22, 4,25,55	
		1,45,46,52,30,14,58, 1		7,44
18″	32,23,22, 0,34,55, 9,52,15, 3		2,22, 4,33,39	
		1,45,46,50, 8,10,24,22		7,44
20″	32,23,23,46,21,45,18, 2,39,25		2,22, 4,41,23	
		1,45,46,47,46, 5,42,59		7,44
22″	32,23,25,32, 8,33, 4, 8,22,24		2,22, 4,49, 7	
		1,45,46,45,24, 0,53,52		7,44
24″	32,23,27,17,55,18,28, 9,16,16		2,22, 4,56,51	
		1,45,46,43, 1,55,57, 1		7,44
26″	32,23,29, 3,42, 1,30, 5,13,17		2,22, 5, 4,35	
		1,45,46,40,39,50,52,26		7,44
28″	32,23,30,49,28,42, 9,56, 5,43		2,22, 5,12,19	
		1,45,46,38,17,45,40, 7		7,44
30″	32,23,32,35,15,20,27,41,45,50		2,22, 5,20, 3	
		1,45,46,35,55,40,20, 4		7,44
32″	32,23,34,21, 1,56,23,22, 5,54		2,22, 5,27,47	
		1,45,46,33,33,34,52,17		7,44
34″	32,23,36, 6,48,29,56,56,58,11		2,22, 5,35,31	
		1,45,46,31,11,29,16,46		7,44
36″	32,23,37,52,35, 1, 8,26,14,57		2,22, 5,43,15	
		1,45,46,28,49,23,33,31		7,44
38″	32,23,39,38,21,29,57,49,48,28		2,22, 5,50,59	
		1,45,46,26,27,17,42,32		7,44
40″	32,23,41,24, 7,56,25, 7,31, 0		2,22, 5,58,43	
		1,45,46,24, 5,11,43,49		7,44
42″	32,23,43, 9,54,20,30,19,14,49		2,22, 6, 6,27	
		1,45,46,21,43, 5,37,22		7,44
44″	32,23,44,55,40,42,13,24,52,11		2,22, 6,14,11	
		1,45,46,19,20,59,23,11		7,44
46″	32,23,46,41,27, 1,34,24,15,22		2,22, 6,21,55	
		1,45,46,16,58,53, 1,16		7,44
48″	32,23,48,27,13,18,33,17,16,38		2,22, 6,29,39	
		1,45,46,14,36,46,31,37		7,44
50″	32,23,50,12,59,33,10, 3,48,15		2,22, 6,37,23	
		1,45,46,12,14,39,54,14		7,44
52″	32,23,51,58,45,45,24,43,42,29		2,22, 6,45, 7	
		1,45,46, 9,52,33, 9, 7		7,44
54″	32,23,53,44,31,55,17,16,51,36		2,22, 6,52,51	
		1,45,46, 7,30,26,16,16		7,44
56″	32,23,55,30,18, 2,47,43, 7,52		2,22, 7, 0,35	
		1,45,46, 5, 8,19,15,41		7,44
58″	32,23,57,16, 4, 7,56, 2,23,33		2,22, 7, 8,19	
		1,45,46, 2,46,12, 7,22		
60″	32,23,59, 1,50,10,42,14,30,55			
exact	32,23,59, 1,50,10,42,14,32,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°41′ 0″	32,23,59, 1,50,10,42,14,32,10			
		1,45,46, 0,24, 4,51,26		
2″	32,24, 0,47,36,11, 6,19,23,36		2,22, 7,23,46	
		1,45,45,58, 1,57,27,40		7,44
4″	32,24, 2,33,22, 9, 8,16,51,16		2,22, 7,31,30	
		1,45,45,55,39,49,56,10		7,44
6″	32,24, 4,19, 8, 4,48, 6,47,26		2,22, 7,39,14	
		1,45,45,53,17,42,16,56		7,44
8″	32,24, 6, 4,53,58, 5,49, 4,22		2,22, 7,46,58	
		1,45,45,50,55,34,29,58		7,44
10″	32,24, 7,50,39,49, 1,23,34,20		2,22, 7,54,42	
		1,45,45,48,33,26,35,16		7,44
12″	32,24, 9,36,25,37,34,50, 9,36		2,22, 8, 2,26	
		1,45,45,46,11,18,32,50		7,44
14″	32,24,11,22,11,23,46, 8,42,26		2,22, 8,10,10	
		1,45,45,43,49,10,22,40		7,44
16″	32,24,13, 7,57, 7,35,19, 5, 6		2,22, 8,17,54	
		1,45,45,41,27, 2, 4,46		7,44
18″	32,24,14,53,42,49, 2,21, 9,52		2,22, 8,25,38	
		1,45,45,39, 4,53,39, 8		7,44
20″	32,24,16,39,28,28, 7,14,49, 0		2,22, 8,33,22	
		1,45,45,36,42,45, 5,46		7,44
22″	32,24,18,25,14, 4,49,59,54,46		2,22, 8,41, 6	
		1,45,45,34,20,36,24,40		7,44
24″	32,24,20,10,59,39,10,36,19,26		2,22, 8,48,50	
		1,45,45,31,58,27,35,50		7,44
26″	32,24,21,56,45,11, 9, 3,55,16		2,22, 8,56,34	
		1,45,45,29,36,18,39,16		7,44
28″	32,24,23,42,30,40,45,22,34,32		2,22, 9, 4,18	
		1,45,45,27,14, 9,34,58		7,44
30″	32,24,25,28,16, 7,59,32, 9,30		2,22, 9,12, 2	
		1,45,45,24,52, 0,22,56		7,44
32″	32,24,27,14, 1,32,51,32,32,26		2,22, 9,19,46	
		1,45,45,22,29,51, 3,10		7,44
34″	32,24,28,59,46,55,21,23,35,36		2,22, 9,27,30	
		1,45,45,20, 7,41,35,40		7,44
36″	32,24,30,45,32,15,29, 5,11,16		2,22, 9,35,14	
		1,45,45,17,45,32, 0,26		7,44
38″	32,24,32,31,17,33,14,37,11,42		2,22, 9,42,58	
		1,45,45,15,23,22,17,28		7,44
40″	32,24,34,17, 2,48,37,59,29,10		2,22, 9,50,42	
		1,45,45,13, 1,12,26,46		7,44
42″	32,24,36, 2,48, 1,39,11,55,56		2,22, 9,58,26	
		1,45,45,10,39, 2,28,20		7,44
44″	32,24,37,48,33,12,18,14,24,16		2,22,10, 6,10	
		1,45,45, 8,16,52,22,10		7,44
46″	32,24,39,34,18,20,35, 6,46,26		2,22,10,13,54	
		1,45,45, 5,54,42, 8,16		7,44
48″	32,24,41,20, 3,26,29,48,54,42		2,22,10,21,38	
		1,45,45, 3,32,31,46,38		7,44
50″	32,24,43, 5,48,30, 2,20,41,20		2,22,10,29,22	
		1,45,45, 1,10,21,17,16		7,44
52″	32,24,44,51,33,31,12,41,58,36		2,22,10,37, 6	
		1,45,44,58,48,10,40,10		7,44
54″	32,24,46,37,18,30, 0,52,38,46		2,22,10,44,50	
		1,45,44,56,25,59,55,20		7,44
56″	32,24,48,23, 3,26,26,52,34, 6		2,22,10,52,34	
		1,45,44,54, 3,49, 2,46		7,44
58″	32,24,50, 8,48,20,30,41,36,52		2,22,11, 0,18	
		1,45,44,51,41,38, 2,28		
60″	32,24,51,54,33,12,12,19,39,20			
exact	32,24,51,54,33,12,12,19,42,10			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
32°42′	0″	32,24,51,54,33,12,12,19,42,10			
			1,45,44,49,19,26,54,53		
	2″	32,24,53,40,18, 1,31,46,37, 3		2,22,11,15,43	
			1,45,44,46,57,15,39,10		7,44
	4″	32,24,55,26, 2,48,29, 2,16,13		2,22,11,23,27	
			1,45,44,44,35, 4,15,43		7,44
	6″	32,24,57,11,47,33, 4, 6,31,56		2,22,11,31,11	
			1,45,44,42,12,52,44,32		7,44
	8″	32,24,58,57,32,15,16,59,16,28		2,22,11,38,55	
			1,45,44,39,50,41, 5,37		7,44
	10″	32,25, 0,43,16,55, 7,40,22, 5		2,22,11,46,39	
			1,45,44,37,28,29,18,58		7,44
	12″	32,25, 2,29, 1,32,36, 9,41, 3		2,22,11,54,23	
			1,45,44,35, 6,17,24,35		7,44
	14″	32,25, 4,14,46, 7,42,27, 5,38		2,22,12, 2, 7	
			1,45,44,32,44, 5,22,28		7,44
	16″	32,25, 6, 0,30,40,26,32,28, 6		2,22,12, 9,51	
			1,45,44,30,21,53,12,37		7,44
	18″	32,25, 7,46,15,10,48,25,40,43		2,22,12,17,35	
			1,45,44,27,59,40,55, 2		7,44
	20″	32,25, 9,31,59,38,48, 6,35,45		2,22,12,25,19	
			1,45,44,25,37,28,29,43		7,44
	22″	32,25,11,17,44, 4,25,35, 5,28		2,22,12,33, 3	
			1,45,44,23,15,15,56,40		7,44
	24″	32,25,13, 3,28,27,40,51, 2, 8		2,22,12,40,47	
			1,45,44,20,53, 3,15,53		7,44
	26″	32,25,14,49,12,48,33,54,18, 1		2,22,12,48,31	
			1,45,44,18,30,50,27,22		7,44
	28″	32,25,16,34,57, 7, 4,44,45,23		2,22,12,56,15	
			1,45,44,16, 8,37,31, 7		7,44
	30″	32,25,18,20,41,23,13,22,16,30		2,22,13, 3,59	
			1,45,44,13,46,24,27, 8		7,44
	32″	32,25,20, 6,25,36,59,46,43,38		2,22,13,11,43	
			1,45,44,11,24,11,15,25		7,44
	34″	32,25,21,52, 9,48,23,57,59, 3		2,22,13,19,27	
			1,45,44, 9, 1,57,55,58		7,44
	36″	32,25,23,37,53,57,25,55,55, 1		2,22,13,27,11	
			1,45,44, 6,39,44,28,47		7,44
	38″	32,25,25,23,38, 4, 5,40,23,48		2,22,13,34,55	
			1,45,44, 4,17,30,53,52		7,44
	40″	32,25,27, 9,22, 8,23,11,17,40		2,22,13,42,39	
			1,45,44, 1,55,17,11,13		7,44
	42″	32,25,28,55, 6,10,18,28,28,53		2,22,13,50,23	
			1,45,43,59,33, 3,20,50		7,44
	44″	32,25,30,40,50, 9,51,31,49,43		2,22,13,58, 7	
			1,45,43,57,10,49,22,43		7,44
	46″	32,25,32,26,34, 7, 2,21,12,26		2,22,14, 5,51	
			1,45,43,54,48,35,16,52		7,44
	48″	32,25,34,12,18, 1,50,56,29,18		2,22,14,13,35	
			1,45,43,52,26,21, 3,17		7,44
	50″	32,25,35,58, 1,54,17,17,32,35		2,22,14,21,19	
			1,45,43,50, 4, 6,41,58		7,44
	52″	32,25,37,43,45,44,21,24,14,33		2,22,14,29, 3	
			1,45,43,47,41,52,12,55		7,44
	54″	32,25,39,29,29,32, 3,16,27,28		2,22,14,36,47	
			1,45,43,45,19,37,36, 8		7,44
	56″	32,25,41,15,13,17,22,54, 3,36		2,22,14,44,31	
			1,45,43,42,57,22,51,37		7,44
	58″	32,25,43, 0,57, 0,20,16,55,13		2,22,14,52,15	
			1,45,43,40,35, 7,59,22		
	60″	32,25,44,46,40,40,55,24,54,35			
exact		32,25,44,46,40,40,55,25, 3, 5			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
32°43′	0″	32,25,44,46,40,40,55,25, 3, 5			
			1,45,43,38,12,53, 0,27		
	2″	32,25,46,32,24,19, 8,18, 3,32		2,22,15, 7,38	
			1,45,43,35,50,37,52,49		7,44
	4″	32,25,48,18, 7,54,58,55,56,21		2,22,15,15,22	
			1,45,43,33,28,22,37,27		7,44
	6″	32,25,50, 3,51,28,27,18,33,48		2,22,15,23, 6	
			1,45,43,31, 6, 7,14,21		7,44
	8″	32,25,51,49,34,59,33,25,48, 9		2,22,15,30,50	
			1,45,43,28,43,51,43,31		7,44
	10″	32,25,53,35,18,28,17,17,31,40		2,22,15,38,34	
			1,45,43,26,21,36, 4,57		7,44
	12″	32,25,55,21, 1,54,38,53,36,37		2,22,15,46,18	
			1,45,43,23,59,20,18,39		7,44
	14″	32,25,57, 6,45,18,38,13,55,16		2,22,15,54, 2	
			1,45,43,21,37, 4,24,37		7,44
	16″	32,25,58,52,28,40,15,18,19,53		2,22,16, 1,46	
			1,45,43,19,14,48,22,51		7,44
	18″	32,26, 0,38,11,59,30, 6,42,44		2,22,16, 9,30	
			1,45,43,16,52,32,13,21		7,44
	20″	32,26, 2,23,55,16,22,38,56, 5		2,22,16,17,14	
			1,45,43,14,30,15,56, 7		7,44
	22″	32,26, 4, 9,38,30,52,54,52,12		2,22,16,24,58	
			1,45,43,12, 7,59,31, 9		7,44
	24″	32,26, 5,55,21,43, 0,54,23,21		2,22,16,32,42	
			1,45,43, 9,45,42,58,27		7,44
	26″	32,26, 7,41, 4,52,46,37,21,48		2,22,16,40,26	
			1,45,43, 7,23,26,18, 1		7,44
	28″	32,26, 9,26,48, 0,10, 3,39,49		2,22,16,48,10	
			1,45,43, 5, 1, 9,29,51		7,44
	30″	32,26,11,12,31, 5,11,13, 9,40		2,22,16,55,54	
			1,45,43, 2,38,52,33,57		7,44
	32″	32,26,12,58,14, 7,50, 5,43,37		2,22,17, 3,38	
			1,45,43, 0,16,35,30,19		7,44
	34″	32,26,14,43,57, 8, 6,41,13,56		2,22,17,11,22	
			1,45,42,57,54,18,18,57		7,44
	36″	32,26,16,29,40, 6, 0,59,32,53		2,22,17,19, 6	
			1,45,42,55,32, 0,59,51		7,44
	38″	32,26,18,15,23, 1,33, 0,32,44		2,22,17,26,50	
			1,45,42,53, 9,43,33, 1		7,44
	40″	32,26,20, 1, 5,54,42,44, 5,45		2,22,17,34,34	
			1,45,42,50,47,25,58,27		7,44
	42″	32,26,21,46,48,45,30,10, 4,12		2,22,17,42,18	
			1,45,42,48,25, 8,16, 9		7,44
	44″	32,26,23,32,31,33,55,18,20,21		2,22,17,50, 2	
			1,45,42,46, 2,50,26, 7		7,44
	46″	32,26,25,18,14,19,58, 8,46,28		2,22,17,57,46	
			1,45,42,43,40,32,28,21		7,44
	48″	32,26,27, 3,57, 3,38,41,14,49		2,22,18, 5,30	
			1,45,42,41,18,14,22,51		7,44
	50″	32,26,28,49,39,44,56,55,37,40		2,22,18,13,14	
			1,45,42,38,55,56, 9,37		7,44
	52″	32,26,30,35,22,23,52,51,47,17		2,22,18,20,58	
			1,45,42,36,33,37,48,39		7,44
	54″	32,26,32,21, 5, 0,26,29,35,56		2,22,18,28,42	
			1,45,42,34,11,19,19,57		7,44
	56″	32,26,34, 6,47,34,37,48,55,53		2,22,18,36,26	
			1,45,42,31,49, 0,43,31		7,44
	58″	32,26,35,52,30, 6,26,49,39,24		2,22,18,44,10	
			1,45,42,29,26,41,59,21		
	60″	32,26,37,38,12,35,53,31,38,45			
exact		32,26,37,38,12,35,53,31,57,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°44′ 0″	32,26,37,38,12,35,53,31,57,28			
		1,45,42,27, 4,23, 9,27		
2″	32,26,39,23,55, 2,57,55, 6,55		2,22,18,59,30	
		1,45,42,24,42, 4, 9,57		7,44
4″	32,26,41, 9,37,27,39,59,16,52		2,22,19, 7,14	
		1,45,42,22,19,45, 2,43		7,44
6″	32,26,42,55,19,49,59,44,19,35		2,22,19,14,58	
		1,45,42,19,57,25,47,45		7,44
8″	32,26,44,41, 2, 9,57,10, 7,20		2,22,19,22,42	
		1,45,42,17,35, 6,25, 3		7,44
10″	32,26,46,26,44,27,32,16,32,23		2,22,19,30,26	
		1,45,42,15,12,46,54,37		7,44
12″	32,26,48,12,26,42,45, 3,27, 0		2,22,19,38,10	
		1,45,42,12,50,27,16,27		7,44
14″	32,26,49,58, 8,55,35,30,43,27		2,22,19,45,54	
		1,45,42,10,28, 7,30,33		7,44
16″	32,26,51,43,51, 6, 3,38,14, 0		2,22,19,53,38	
		1,45,42, 8, 5,47,36,55		7,44
18″	32,26,53,29,33,14, 9,25,50,55		2,22,20, 1,22	
		1,45,42, 5,43,27,35,33		7,44
20″	32,26,55,15,15,19,52,53,26,28		2,22,20, 9, 6	
		1,45,42, 3,21, 7,26,27		7,44
22″	32,26,57, 0,57,23,14, 0,52,55		2,22,20,16,50	
		1,45,42, 0,58,47, 9,37		7,44
24″	32,26,58,46,39,24,12,48, 2,32		2,22,20,24,34	
		1,45,41,58,36,26,45, 3		7,44
26″	32,27, 0,32,21,22,49,14,47,35		2,22,20,32,18	
		1,45,41,56,14, 6,12,45		7,44
28″	32,27, 2,18, 3,19, 3,21, 0,20		2,22,20,40, 2	
		1,45,41,53,51,45,32,43		7,44
30″	32,27, 4, 3,45,12,55, 6,33, 3		2,22,20,47,46	
		1,45,41,51,29,24,44,57		7,44
32″	32,27, 5,49,27, 4,24,31,18, 0		2,22,20,55,30	
		1,45,41,49, 7, 3,49,27		7,44
34″	32,27, 7,35, 8,53,31,35, 7,27		2,22,21, 3,14	
		1,45,41,46,44,42,46,13		7,44
36″	32,27, 9,20,50,40,16,17,53,40		2,22,21,10,58	
		1,45,41,44,22,21,35,15		7,44
38″	32,27,11, 6,32,24,38,39,28,55		2,22,21,18,42	
		1,45,41,42, 0, 0,16,33		7,44
40″	32,27,12,52,14, 6,38,39,45,28		2,22,21,26,26	
		1,45,41,39,37,38,50, 7		7,44
42″	32,27,14,37,55,46,16,18,35,35		2,22,21,34,10	
		1,45,41,37,15,17,15,57		7,44
44″	32,27,16,23,37,23,31,35,51,32		2,22,21,41,54	
		1,45,41,34,52,55,34, 3		7,44
46″	32,27,18, 9,18,58,24,31,25,35		2,22,21,49,38	
		1,45,41,32,30,33,44,25		7,44
48″	32,27,19,55, 0,30,55, 5,10, 0		2,22,21,57,22	
		1,45,41,30, 8,11,47, 3		7,44
50″	32,27,21,40,42, 1, 3,16,57, 3		2,22,22, 5, 6	
		1,45,41,27,45,49,41,57		7,44
52″	32,27,23,26,23,28,49, 6,39, 0		2,22,22,12,50	
		1,45,41,25,23,27,29, 7		7,44
54″	32,27,25,12, 4,54,12,34, 8, 7		2,22,22,20,34	
		1,45,41,23, 1, 5, 8,33		7,44
56″	32,27,26,57,46,17,13,39,16,40		2,22,22,28,18	
		1,45,41,20,38,42,40,15		7,44
58″	32,27,28,43,27,37,52,21,56,55		2,22,22,36, 2	
		1,45,41,18,16,20, 4,13		
60″	32,27,30,29, 8,56, 8,42, 1, 8			
exact	32,27,30,29, 8,56, 8,42,26,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°45′ 0″	32,27,30,29, 8,56, 8,42,26,54			
		1,45,41,15,53,57,23,10		
2″	32,27,32,14,50,12, 2,39,50, 4		2,22,22,51,19	
		1,45,41,13,31,34,31,51		7,44
4″	32,27,34, 0,31,25,34,14,21,55		2,22,22,59, 3	
		1,45,41,11, 9,11,32,48		7,44
6″	32,27,35,46,12,36,43,25,54,43		2,22,23, 6,47	
		1,45,41, 8,46,48,26, 1		7,44
8″	32,27,37,31,53,45,30,14,20,44		2,22,23,14,31	
		1,45,41, 6,24,25,11,30		7,44
10″	32,27,39,17,34,51,54,39,32,14		2,22,23,22,15	
		1,45,41, 4, 2, 1,49,15		7,44
12″	32,27,41, 3,15,55,56,41,21,29		2,22,23,29,59	
		1,45,41, 1,39,38,19,16		7,44
14″	32,27,42,48,56,57,36,19,40,45		2,22,23,37,43	
		1,45,40,59,17,14,41,33		7,44
16″	32,27,44,34,37,56,53,34,22,18		2,22,23,45,27	
		1,45,40,56,54,50,56, 6		7,44
18″	32,27,46,20,18,53,48,25,18,24		2,22,23,53,11	
		1,45,40,54,32,27, 2,55		7,44
20″	32,27,48, 5,59,48,20,52,21,19		2,22,24, 0,55	
		1,45,40,52,10, 3, 2, 0		7,44
22″	32,27,49,51,40,40,30,55,23,19		2,22,24, 8,39	
		1,45,40,49,47,38,53,21		7,44
24″	32,27,51,37,21,30,18,34,16,40		2,22,24,16,23	
		1,45,40,47,25,14,36,58		7,44
26″	32,27,53,23, 2,17,43,48,53,38		2,22,24,24, 7	
		1,45,40,45, 2,50,12,51		7,44
28″	32,27,55, 8,43, 2,46,39, 6,29		2,22,24,31,51	
		1,45,40,42,40,25,41, 0		7,44
30″	32,27,56,54,23,45,27, 4,47,29		2,22,24,39,35	
		1,45,40,40,18, 1, 1,25		7,44
32″	32,27,58,40, 4,25,45, 5,48,54		2,22,24,47,19	
		1,45,40,37,55,36,14, 6		7,44
34″	32,28, 0,25,45, 3,40,42, 3, 0		2,22,24,55, 3	
		1,45,40,35,33,11,19, 3		7,44
36″	32,28, 2,11,25,39,13,53,22, 3		2,22,25, 2,47	
		1,45,40,33,10,46,16,16		7,44
38″	32,28, 3,57, 6,12,24,39,38,19		2,22,25,10,31	
		1,45,40,30,48,21, 5,45		7,44
40″	32,28, 5,42,46,43,13, 0,44, 4		2,22,25,18,15	
		1,45,40,28,25,55,47,30		7,44
42″	32,28, 7,28,27,11,38,56,31,34		2,22,25,25,59	
		1,45,40,26, 3,30,21,31		7,44
44″	32,28, 9,14, 7,37,42,26,53, 5		2,22,25,33,43	
		1,45,40,23,41, 4,47,48		7,44
46″	32,28,10,59,48, 1,23,31,40,53		2,22,25,41,27	
		1,45,40,21,18,39, 6,21		7,44
48″	32,28,12,45,28,22,42,10,47,14		2,22,25,49,11	
		1,45,40,18,56,13,17,10		7,44
50″	32,28,14,31, 8,41,38,24, 4,24		2,22,25,56,55	
		1,45,40,16,33,47,20,15		7,44
52″	32,28,16,16,48,58,12,11,24,39		2,22,26, 4,39	
		1,45,40,14,11,21,15,36		7,44
54″	32,28,18, 2,29,12,23,32,40,15		2,22,26,12,23	
		1,45,40,11,48,55, 3,13		7,44
56″	32,28,19,48, 9,24,12,27,43,28		2,22,26,20, 7	
		1,45,40, 9,26,28,43, 6		7,44
58″	32,28,21,33,49,33,38,56,26,34		2,22,26,27,51	
		1,45,40, 7, 4, 2,15,15		
60″	32,28,23,19,29,40,42,58,41,49			
exact	32,28,23,19,29,40,42,59,11,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°46′ 0″	32,28,23,19,29,40,42,59,11,57	1,45,40, 4,41,35,42,54		
2″	32,28,25, 5, 9,45,24,34,54,51	1,45,40, 2,19, 8,59,49	2,22,26,43, 5	7,44
4″	32,28,26,50,49,47,43,43,54,40	1,45,39,59,56,42, 9, 0	2,22,26,50,49	7,44
6″	32,28,28,36,29,47,40,26, 3,40	1,45,39,57,34,15,10,27	2,22,26,58,33	7,44
8″	32,28,30,22, 9,45,14,41,14, 7	1,45,39,55,11,48, 4,10	2,22,27, 6,17	7,44
10″	32,28,32, 7,49,40,26,29,18,17	1,45,39,52,49,20,50, 9	2,22,27,14, 1	7,44
12″	32,28,33,53,29,33,15,50, 8,26	1,45,39,50,26,53,28,24	2,22,27,21,45	7,44
14″	32,28,35,39, 9,23,42,43,36,50	1,45,39,48, 4,25,58,55	2,22,27,29,29	7,44
16″	32,28,37,24,49,11,47, 9,35,45	1,45,39,45,41,58,21,42	2,22,27,37,13	7,44
18″	32,28,39,10,28,57,29, 7,57,27	1,45,39,43,19,30,36,45	2,22,27,44,57	7,44
20″	32,28,40,56, 8,40,48,38,34,12	1,45,39,40,57, 2,44, 4	2,22,27,52,41	7,44
22″	32,28,42,41,48,21,45,41,18,16	1,45,39,38,34,34,43,39	2,22,28, 0,25	7,44
24″	32,28,44,27,28, 0,20,16, 1,55	1,45,39,36,12, 6,35,30	2,22,28, 8, 9	7,44
26″	32,28,46,13, 7,36,32,22,37,25	1,45,39,33,49,38,19,37	2,22,28,15,53	7,44
28″	32,28,47,58,47,10,22, 0,57, 2	1,45,39,31,27, 9,56, 0	2,22,28,23,37	7,44
30″	32,28,49,44,26,41,49,10,53, 2	1,45,39,29, 4,41,24,39	2,22,28,31,21	7,44
32″	32,28,51,30, 6,10,53,52,17,41	1,45,39,26,42,12,45,34	2,22,28,39, 5	7,44
34″	32,28,53,15,45,37,36, 5, 3,15	1,45,39,24,19,43,58,45	2,22,28,46,49	7,44
36″	32,28,55, 1,25, 1,55,49, 2, 0	1,45,39,21,57,15, 4,12	2,22,28,54,33	7,44
38″	32,28,56,47, 4,23,53, 4, 6,12	1,45,39,19,34,46, 1,55	2,22,29, 2,17	7,44
40″	32,28,58,32,43,43,27,50, 8, 7	1,45,39,17,12,16,51,54	2,22,29,10, 1	7,44
42″	32,29, 0,18,23, 0,40, 7, 0, 1	1,45,39,14,49,47,34, 9	2,22,29,17,45	7,44
44″	32,29, 2, 4, 2,15,29,54,34,10	1,45,39,12,27,18, 8,40	2,22,29,25,29	7,44
46″	32,29, 3,49,41,27,57,12,42,50	1,45,39,10, 4,48,35,27	2,22,29,33,13	7,44
48″	32,29, 5,35,20,38, 2, 1,18,17	1,45,39, 7,42,18,54,30	2,22,29,40,57	7,44
50″	32,29, 7,20,59,45,44,20,12,47	1,45,39, 5,19,49, 5,49	2,22,29,48,41	7,44
52″	32,29, 9, 6,38,51, 4, 9,18,36	1,45,39, 2,57,19, 9,24	2,22,29,56,25	7,44
54″	32,29,10,52,17,54, 1,28,28, 0	1,45,39, 0,34,49, 5,15	2,22,30, 4, 9	7,44
56″	32,29,12,37,56,54,36,17,33,15	1,45,38,58,12,18,53,22	2,22,30,11,53	7,44
58″	32,29,14,23,35,52,48,36,26,37	1,45,38,55,49,48,33,45	2,22,30,19,37	
60″	32,29,16, 9,14,48,38,25, 0,22			
exact	32,29,16, 9,14,48,38,25,32,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°47′ 0″	32,29,16, 9,14,48,38,25,32,15			
		1,45,38,53,27,18, 9,58		
2″	32,29,17,54,53,42, 5,43,42,13		2,22,30,34,49	
		1,45,38,51, 4,47,35, 9		7,43
4″	32,29,19,40,32,33,10,31,17,22		2,22,30,42,32	
		1,45,38,48,42,16,52,37		7,43
6″	32,29,21,26,11,21,52,48, 9,59		2,22,30,50,15	
		1,45,38,46,19,46, 2,22		7,43
8″	32,29,23,11,50, 8,12,34,12,21		2,22,30,57,58	
		1,45,38,43,57,15, 4,24		7,43
10″	32,29,24,57,28,52, 9,49,16,45		2,22,31, 5,41	
		1,45,38,41,34,43,58,43		7,43
12″	32,29,26,43, 7,33,44,33,15,28		2,22,31,13,24	
		1,45,38,39,12,12,45,19		7,43
14″	32,29,28,28,46,12,56,46, 0,47		2,22,31,21, 7	
		1,45,38,36,49,41,24,12		7,43
16″	32,29,30,14,24,49,46,27,24,59		2,22,31,28,50	
		1,45,38,34,27, 9,55,22		7,43
18″	32,29,32, 0, 3,24,13,37,20,21		2,22,31,36,33	
		1,45,38,32, 4,38,18,49		7,43
20″	32,29,33,45,41,56,18,15,39,10		2,22,31,44,16	
		1,45,38,29,42, 6,34,33		7,43
22″	32,29,35,31,20,26, 0,22,13,43		2,22,31,51,59	
		1,45,38,27,19,34,42,34		7,43
24″	32,29,37,16,58,53,19,56,56,17		2,22,31,59,42	
		1,45,38,24,57, 2,42,52		7,43
26″	32,29,39, 2,37,18,16,59,39, 9		2,22,32, 7,25	
		1,45,38,22,34,30,35,27		7,43
28″	32,29,40,48,15,40,51,30,14,36		2,22,32,15, 8	
		1,45,38,20,11,58,20,19		7,43
30″	32,29,42,33,54, 1, 3,28,34,55		2,22,32,22,51	
		1,45,38,17,49,25,57,28		7,43
32″	32,29,44,19,32,18,52,54,32,23		2,22,32,30,34	
		1,45,38,15,26,53,26,54		7,43
34″	32,29,46, 5,10,34,19,47,59,17		2,22,32,38,17	
		1,45,38,13, 4,20,48,37		7,43
36″	32,29,47,50,48,47,24, 8,47,54		2,22,32,46, 0	
		1,45,38,10,41,48, 2,37		7,43
38″	32,29,49,36,26,58, 5,56,50,31		2,22,32,53,43	
		1,45,38, 8,19,15, 8,54		7,43
40″	32,29,51,22, 5, 6,25,11,59,25		2,22,33, 1,26	
		1,45,38, 5,56,42, 7,28		7,43
42″	32,29,53, 7,43,12,21,54, 6,53		2,22,33, 9, 9	
		1,45,38, 3,34, 8,58,19		7,43
44″	32,29,54,53,21,15,56, 3, 5,12		2,22,33,16,52	
		1,45,38, 1,11,35,41,27		7,43
46″	32,29,56,38,59,17, 7,38,46,39		2,22,33,24,35	
		1,45,37,58,49, 2,16,52		7,43
48″	32,29,58,24,37,15,56,41, 3,31		2,22,33,32,18	
		1,45,37,56,26,28,44,34		7,43
50″	32,30, 0,10,15,12,23, 9,48, 5		2,22,33,40, 1	
		1,45,37,54, 3,55, 4,33		7,43
52″	32,30, 1,55,53, 6,27, 4,52,38		2,22,33,47,44	
		1,45,37,51,41,21,16,49		7,43
54″	32,30, 3,41,30,58, 8,26, 9,27		2,22,33,55,27	
		1,45,37,49,18,47,21,22		7,43
56″	32,30, 5,27, 8,47,27,13,30,49		2,22,34, 3,10	
		1,45,37,46,56,13,18,12		7,43
58″	32,30, 7,12,46,34,23,26,49, 1		2,22,34,10,53	
		1,45,37,44,33,39, 7,19		
60″	32,30, 8,58,24,18,57, 5,56,20			
exact	32,30, 8,58,24,18,57, 5,26,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°48′ 0″	32,30, 8,58,24,18,57, 5,26,27			
		1,45,37,42,11, 4,45,40		
2″	32,30,10,44, 2, 1, 8,10,12, 7		2,22,34,26,31	
		1,45,37,39,48,30,19, 9		7,43
4″	32,30,12,29,39,40,56,40,31,16		2,22,34,34,14	
		1,45,37,37,25,55,44,55		7,43
6″	32,30,14,15,17,18,22,36,16,11		2,22,34,41,57	
		1,45,37,35, 3,21, 2,58		7,43
8″	32,30,16, 0,54,53,25,57,19, 9		2,22,34,49,40	
		1,45,37,32,40,46,13,18		7,43
10″	32,30,17,46,32,26, 6,43,32,27		2,22,34,57,23	
		1,45,37,30,18,11,15,55		7,43
12″	32,30,19,32, 9,56,24,54,48,22		2,22,35, 5, 6	
		1,45,37,27,55,36,10,49		7,43
14″	32,30,21,17,47,24,20,30,59,11		2,22,35,12,49	
		1,45,37,25,33, 0,58, 0		7,43
16″	32,30,23, 3,24,49,53,31,57,11		2,22,35,20,32	
		1,45,37,23,10,25,37,28		7,43
18″	32,30,24,49, 2,13, 3,57,34,39		2,22,35,28,15	
		1,45,37,20,47,50, 9,13		7,43
20″	32,30,26,34,39,33,51,47,43,52		2,22,35,35,58	
		1,45,37,18,25,14,33,15		7,43
22″	32,30,28,20,16,52,17, 2,17, 7		2,22,35,43,41	
		1,45,37,16, 2,38,49,34		7,43
24″	32,30,30, 5,54, 8,19,41, 6,41		2,22,35,51,24	
		1,45,37,13,40, 2,58,10		7,43
26″	32,30,31,51,31,21,59,44, 4,51		2,22,35,59, 7	
		1,45,37,11,17,26,59, 3		7,43
28″	32,30,33,37, 8,33,17,11, 3,54		2,22,36, 6,50	
		1,45,37, 8,54,50,52,13		7,43
30″	32,30,35,22,45,42,12, 1,56, 7		2,22,36,14,33	
		1,45,37, 6,32,14,37,40		7,43
32″	32,30,37, 8,22,48,44,16,33,47		2,22,36,22,16	
		1,45,37, 4, 9,38,15,24		7,43
34″	32,30,38,53,59,52,53,54,49,11		2,22,36,29,59	
		1,45,37, 1,47, 1,45,25		7,43
36″	32,30,40,39,36,54,40,56,34,36		2,22,36,37,42	
		1,45,36,59,24,25, 7,43		7,43
38″	32,30,42,25,13,54, 5,21,42,19		2,22,36,45,25	
		1,45,36,57, 1,48,22,18		7,43
40″	32,30,44,10,50,51, 7,10, 4,37		2,22,36,53, 8	
		1,45,36,54,39,11,29,10		7,43
42″	32,30,45,56,27,45,46,21,33,47		2,22,37, 0,51	
		1,45,36,52,16,34,28,19		7,43
44″	32,30,47,42, 4,38, 2,56, 2, 6		2,22,37, 8,34	
		1,45,36,49,53,57,19,45		7,43
46″	32,30,49,27,41,27,56,53,21,51		2,22,37,16,17	
		1,45,36,47,31,20, 3,28		7,43
48″	32,30,51,13,18,15,28,13,25,19		2,22,37,24, 0	
		1,45,36,45, 8,42,39,28		7,43
50″	32,30,52,58,55, 0,36,56, 4,47		2,22,37,31,43	
		1,45,36,42,46, 5, 7,45		7,43
52″	32,30,54,44,31,43,23, 1,12,32		2,22,37,39,26	
		1,45,36,40,23,27,28,19		7,43
54″	32,30,56,30, 8,23,46,28,40,51		2,22,37,47, 9	
		1,45,36,38, 0,49,41,10		7,43
56″	32,30,58,15,45, 1,47,18,22, 1		2,22,37,54,52	
		1,45,36,35,38,11,46,18		7,43
58″	32,31, 0, 1,21,37,25,30, 8,19		2,22,38, 2,35	
		1,45,36,33,15,33,43,43		
60″	32,31, 1,46,58,10,41, 3,52, 2			
exact	32,31, 1,46,58,10,41, 3,32,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°49′ 0″	32,31, 1,46,58,10,41, 3,32,17			
		1,45,36,30,52,55,31,18		
2″	32,31, 3,32,34,41,33,59, 3,35		2,22,38,18,10	
		1,45,36,28,30,17,13, 8		7,43
4″	32,31, 5,18,11,10, 4,16,16,43		2,22,38,25,53	
		1,45,36,26, 7,38,47,15		7,43
6″	32,31, 7, 3,47,36,11,55, 3,58		2,22,38,33,36	
		1,45,36,23,45, 0,13,39		7,43
8″	32,31, 8,49,23,59,56,55,17,37		2,22,38,41,19	
		1,45,36,21,22,21,32,20		7,43
10″	32,31,10,35, 0,21,19,16,49,57		2,22,38,49, 2	
		1,45,36,18,59,42,43,18		7,43
12″	32,31,12,20,36,40,18,59,33,15		2,22,38,56,45	
		1,45,36,16,37, 3,46,33		7,43
14″	32,31,14, 6,12,56,56, 3,19,48		2,22,39, 4,28	
		1,45,36,14,14,24,42, 5		7,43
16″	32,31,15,51,49,11,10,28, 1,53		2,22,39,12,11	
		1,45,36,11,51,45,29,54		7,43
18″	32,31,17,37,25,23, 2,13,31,47		2,22,39,19,54	
		1,45,36, 9,29, 6,10, 0		7,43
20″	32,31,19,23, 1,32,31,19,41,47		2,22,39,27,37	
		1,45,36, 7, 6,26,42,23		7,43
22″	32,31,21, 8,37,39,37,46,24,10		2,22,39,35,20	
		1,45,36, 4,43,47, 7, 3		7,43
24″	32,31,22,54,13,44,21,33,31,13		2,22,39,43, 3	
		1,45,36, 2,21, 7,24, 0		7,43
26″	32,31,24,39,49,46,42,40,55,13		2,22,39,50,46	
		1,45,35,59,58,27,33,14		7,43
28″	32,31,26,25,25,46,41, 8,28,27		2,22,39,58,29	
		1,45,35,57,35,47,34,45		7,43
30″	32,31,28,11, 1,44,16,56, 3,12		2,22,40, 6,12	
		1,45,35,55,13, 7,28,33		7,43
32″	32,31,29,56,37,39,30, 3,31,45		2,22,40,13,55	
		1,45,35,52,50,27,14,38		7,43
34″	32,31,31,42,13,32,20,30,46,23		2,22,40,21,38	
		1,45,35,50,27,46,53, 0		7,43
36″	32,31,33,27,49,22,48,17,39,23		2,22,40,29,21	
		1,45,35,48, 5, 6,23,39		7,43
38″	32,31,35,13,25,10,53,24, 3, 2		2,22,40,37, 4	
		1,45,35,45,42,25,46,35		7,43
40″	32,31,36,59, 0,56,35,49,49,37		2,22,40,44,47	
		1,45,35,43,19,45, 1,48		7,43
42″	32,31,38,44,36,39,55,34,51,25		2,22,40,52,30	
		1,45,35,40,57, 4, 9,18		7,43
44″	32,31,40,30,12,20,52,39, 0,43		2,22,41, 0,13	
		1,45,35,38,34,23, 9, 5		7,43
46″	32,31,42,15,47,59,27, 2, 9,48		2,22,41, 7,56	
		1,45,35,36,11,42, 1, 9		7,43
48″	32,31,44, 1,23,35,38,44,10,57		2,22,41,15,39	
		1,45,35,33,49, 0,45,30		7,43
50″	32,31,45,46,59, 9,27,44,56,27		2,22,41,23,22	
		1,45,35,31,26,19,22, 8		7,43
52″	32,31,47,32,34,40,54, 4,18,35		2,22,41,31, 5	
		1,45,35,29, 3,37,51, 3		7,43
54″	32,31,49,18,10, 9,57,42, 9,38		2,22,41,38,48	
		1,45,35,26,40,56,12,15		7,43
56″	32,31,51, 3,45,36,38,38,21,53		2,22,41,46,31	
		1,45,35,24,18,14,25,44		7,43
58″	32,31,52,49,21, 0,56,52,47,37		2,22,41,54,14	
		1,45,35,21,55,32,31,30		
60″	32,31,54,34,56,22,52,25,19, 7			
exact	32,31,54,34,56,22,52,25, 6,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°50′ 0″	32,31,54,34,56,22,52,25, 6,35	1,45,35,19,32,50,28, 9		
2″	32,31,56,20,31,42,25,15,34,44	1,45,35,17,10, 8,18,23	2,22,42, 9,46	7,43
4″	32,31,58, 6, 6,59,35,23,53, 7	1,45,35,14,47,26, 0,54	2,22,42,17,29	7,43
6″	32,31,59,51,42,14,22,49,54, 1	1,45,35,12,24,43,35,42	2,22,42,25,12	7,43
8″	32,32, 1,37,17,26,47,33,29,43	1,45,35,10, 2, 1, 2,47	2,22,42,32,55	7,43
10″	32,32, 3,22,52,36,49,34,32,30	1,45,35, 7,39,18,22, 9	2,22,42,40,38	7,43
12″	32,32, 5, 8,27,44,28,52,54,39	1,45,35, 5,16,35,33,48	2,22,42,48,21	7,43
14″	32,32, 6,54, 2,49,45,28,28,27	1,45,35, 2,53,52,37,44	2,22,42,56, 4	7,43
16″	32,32, 8,39,37,52,39,21, 6,11	1,45,35, 0,31, 9,33,57	2,22,43, 3,47	7,43
18″	32,32,10,25,12,53,10,30,40, 8	1,45,34,58, 8,26,22,27	2,22,43,11,30	7,43
20″	32,32,12,10,47,51,18,57, 2,35	1,45,34,55,45,43, 3,14	2,22,43,19,13	7,43
22″	32,32,13,56,22,47, 4,40, 5,49	1,45,34,53,22,59,36,18	2,22,43,26,56	7,43
24″	32,32,15,41,57,40,27,39,42, 7	1,45,34,51, 0,16, 1,39	2,22,43,34,39	7,43
26″	32,32,17,27,32,31,27,55,43,46	1,45,34,48,37,32,19,17	2,22,43,42,22	7,43
28″	32,32,19,13, 7,20, 5,28, 3, 3	1,45,34,46,14,48,29,12	2,22,43,50, 5	7,43
30″	32,32,20,58,42, 6,20,16,32,15	1,45,34,43,52, 4,31,24	2,22,43,57,48	7,43
32″	32,32,22,44,16,50,12,21, 3,39	1,45,34,41,29,20,25,53	2,22,44, 5,31	7,43
34″	32,32,24,29,51,31,41,41,29,32	1,45,34,39, 6,36,12,39	2,22,44,13,14	7,43
36″	32,32,26,15,26,10,48,17,42,11	1,45,34,36,43,51,51,42	2,22,44,20,57	7,43
38″	32,32,28, 1, 0,47,32, 9,33,53	1,45,34,34,21, 7,23, 2	2,22,44,28,40	7,43
40″	32,32,29,46,35,21,53,16,56,55	1,45,34,31,58,22,46,39	2,22,44,36,23	7,43
42″	32,32,31,32, 9,53,51,39,43,34	1,45,34,29,35,38, 2,33	2,22,44,44, 6	7,43
44″	32,32,33,17,44,23,27,17,46, 7	1,45,34,27,12,53,10,44	2,22,44,51,49	7,43
46″	32,32,35, 3,18,50,40,10,56,51	1,45,34,24,50, 8,11,12	2,22,44,59,32	7,43
48″	32,32,36,48,53,15,30,19, 8, 3	1,45,34,22,27,23, 3,57	2,22,45, 7,15	7,43
50″	32,32,38,34,27,37,57,42,12, 0	1,45,34,20, 4,37,48,59	2,22,45,14,58	7,43
52″	32,32,40,20, 1,58, 2,20, 0,59	1,45,34,17,41,52,26,18	2,22,45,22,41	7,43
54″	32,32,42, 5,36,15,44,12,27,17	1,45,34,15,19, 6,55,54	2,22,45,30,24	7,43
56″	32,32,43,51,10,31, 3,19,23,11	1,45,34,12,56,21,17,47	2,22,45,38, 7	7,43
58″	32,32,45,36,44,43,59,40,40,58	1,45,34,10,33,35,31,57	2,22,45,45,50	
60″	32,32,47,22,18,54,33,16,12,55			
exact	32,32,47,22,18,54,33,16, 5,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°51′ 0″	32,32,47,22,18,54,33,16, 5,16			
		1,45,34, 8,10,49,37,33		
2″	32,32,49, 7,53, 2,44, 5,42,49		2,22,46, 1,19	
		1,45,34, 5,48, 3,36,14		7,43
4″	32,32,50,53,27, 8,32, 9,19, 3		2,22,46, 9, 2	
		1,45,34, 3,25,17,27,12		7,43
6″	32,32,52,39, 1,11,57,26,46,15		2,22,46,16,45	
		1,45,34, 1, 2,31,10,27		7,43
8″	32,32,54,24,35,12,59,57,56,42		2,22,46,24,28	
		1,45,33,58,39,44,45,59		7,43
10″	32,32,56,10, 9,11,39,42,42,41		2,22,46,32,11	
		1,45,33,56,16,58,13,48		7,43
12″	32,32,57,55,43, 7,56,40,56,29		2,22,46,39,54	
		1,45,33,53,54,11,33,54		7,43
14″	32,32,59,41,17, 1,50,52,30,23		2,22,46,47,37	
		1,45,33,51,31,24,46,17		7,43
16″	32,33, 1,26,50,53,22,17,16,40		2,22,46,55,20	
		1,45,33,49, 8,37,50,57		7,43
18″	32,33, 3,12,24,42,30,55, 7,37		2,22,47, 3, 3	
		1,45,33,46,45,50,47,54		7,43
20″	32,33, 4,57,58,29,16,45,55,31		2,22,47,10,46	
		1,45,33,44,23, 3,37, 8		7,43
22″	32,33, 6,43,32,13,39,49,32,39		2,22,47,18,29	
		1,45,33,42, 0,16,18,39		7,43
24″	32,33, 8,29, 5,55,40, 5,51,18		2,22,47,26,12	
		1,45,33,39,37,28,52,27		7,43
26″	32,33,10,14,39,35,17,34,43,45		2,22,47,33,55	
		1,45,33,37,14,41,18,32		7,43
28″	32,33,12, 0,13,12,32,16, 2,17		2,22,47,41,38	
		1,45,33,34,51,53,36,54		7,43
30″	32,33,13,45,46,47,24, 9,39,11		2,22,47,49,21	
		1,45,33,32,29, 5,47,33		7,43
32″	32,33,15,31,20,19,53,15,26,44		2,22,47,57, 4	
		1,45,33,30, 6,17,50,29		7,43
34″	32,33,17,16,53,49,59,33,17,13		2,22,48, 4,47	
		1,45,33,27,43,29,45,42		7,43
36″	32,33,19, 2,27,17,43, 3, 2,55		2,22,48,12,30	
		1,45,33,25,20,41,33,12		7,43
38″	32,33,20,48, 0,43, 3,44,36, 7		2,22,48,20,13	
		1,45,33,22,57,53,12,59		7,43
40″	32,33,22,33,34, 6, 1,37,49, 6		2,22,48,27,56	
		1,45,33,20,35, 4,45, 3		7,43
42″	32,33,24,19, 7,26,36,42,34, 9		2,22,48,35,39	
		1,45,33,18,12,16, 9,24		7,43
44″	32,33,26, 4,40,44,48,58,43,33		2,22,48,43,22	
		1,45,33,15,49,27,26, 2		7,43
46″	32,33,27,50,14, 0,38,26, 9,35		2,22,48,51, 5	
		1,45,33,13,26,38,34,57		7,43
48″	32,33,29,35,47,14, 5, 4,44,32		2,22,48,58,48	
		1,45,33,11, 3,49,36, 9		7,43
50″	32,33,31,21,20,25, 8,54,20,41		2,22,49, 6,31	
		1,45,33, 8,41, 0,29,38		7,43
52″	32,33,33, 6,53,33,49,54,50,19		2,22,49,14,14	
		1,45,33, 6,18,11,15,24		7,43
54″	32,33,34,52,26,40, 8, 6, 5,43		2,22,49,21,57	
		1,45,33, 3,55,21,53,27		7,43
56″	32,33,36,37,59,44, 3,27,59,10		2,22,49,29,40	
		1,45,33, 1,32,32,23,47		7,43
58″	32,33,38,23,32,45,36, 0,22,57		2,22,49,37,23	
		1,45,32,59, 9,42,46,24		
60″	32,33,40, 9, 5,44,45,43, 9,21			
exact	32,33,40, 9, 5,44,45,43, 3,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°52′ 0″	32,33,40, 9, 5,44,45,43, 3,24			
		1,45,32,56,46,53, 0,48		
2″	32,33,41,54,38,41,32,36, 4,12		2,22,49,52,50	
		1,45,32,54,24, 3, 7,58		7,43
4″	32,33,43,40,11,35,56,39,12,10		2,22,50, 0,33	
		1,45,32,52, 1,13, 7,25		7,43
6″	32,33,45,25,44,27,57,52,19,35		2,22,50, 8,16	
		1,45,32,49,38,22,59, 9		7,43
8″	32,33,47,11,17,17,36,15,18,44		2,22,50,15,59	
		1,45,32,47,15,32,43,10		7,43
10″	32,33,48,56,50, 4,51,48, 1,54		2,22,50,23,42	
		1,45,32,44,52,42,19,28		7,43
12″	32,33,50,42,22,49,44,30,21,22		2,22,50,31,25	
		1,45,32,42,29,51,48, 3		7,43
14″	32,33,52,27,55,32,14,22, 9,25		2,22,50,39, 8	
		1,45,32,40, 7, 1, 8,55		7,43
16″	32,33,54,13,28,12,21,23,18,20		2,22,50,46,51	
		1,45,32,37,44,10,22, 4		7,43
18″	32,33,55,59, 0,50, 5,33,40,24		2,22,50,54,34	
		1,45,32,35,21,19,27,30		7,43
20″	32,33,57,44,33,25,26,53, 7,54		2,22,51, 2,17	
		1,45,32,32,58,28,25,13		7,43
22″	32,33,59,30, 5,58,25,21,33, 7		2,22,51,10, 0	
		1,45,32,30,35,37,15,13		7,43
24″	32,34, 1,15,38,29, 0,58,48,20		2,22,51,17,43	
		1,45,32,28,12,45,57,30		7,43
26″	32,34, 3, 1,10,57,13,44,45,50		2,22,51,25,26	
		1,45,32,25,49,54,32, 4		7,43
28″	32,34, 4,46,43,23, 3,39,17,54		2,22,51,33, 9	
		1,45,32,23,27, 2,58,55		7,43
30″	32,34, 6,32,15,46,30,42,16,49		2,22,51,40,52	
		1,45,32,21, 4,11,18, 3		7,43
32″	32,34, 8,17,48, 7,34,53,34,52		2,22,51,48,35	
		1,45,32,18,41,19,29,28		7,43
34″	32,34,10, 3,20,26,16,13, 4,20		2,22,51,56,18	
		1,45,32,16,18,27,33,10		7,43
36″	32,34,11,48,52,42,34,40,37,30		2,22,52, 4, 1	
		1,45,32,13,55,35,29, 9		7,43
38″	32,34,13,34,24,56,30,16, 6,39		2,22,52,11,44	
		1,45,32,11,32,43,17,25		7,43
40″	32,34,15,19,57, 8, 2,59,24, 4		2,22,52,19,27	
		1,45,32, 9, 9,50,57,58		7,43
42″	32,34,17, 5,29,17,12,50,22, 2		2,22,52,27,10	
		1,45,32, 6,46,58,30,48		7,43
44″	32,34,18,51, 1,23,59,48,52,50		2,22,52,34,53	
		1,45,32, 4,24, 5,55,55		7,43
46″	32,34,20,36,33,28,23,54,48,45		2,22,52,42,36	
		1,45,32, 2, 1,13,13,19		7,43
48″	32,34,22,22, 5,30,25, 8, 2, 4		2,22,52,50,19	
		1,45,31,59,38,20,23, 0		7,43
50″	32,34,24, 7,37,30, 3,28,25, 4		2,22,52,58, 2	
		1,45,31,57,15,27,24,58		7,43
52″	32,34,25,53, 9,27,18,55,50, 2		2,22,53, 5,45	
		1,45,31,54,52,34,19,13		7,43
54″	32,34,27,38,41,22,11,30, 9,15		2,22,53,13,28	
		1,45,31,52,29,41, 5,45		7,43
56″	32,34,29,24,13,14,41,11,15, 0		2,22,53,21,11	
		1,45,31,50, 6,47,44,34		7,43
58″	32,34,31, 9,45, 4,47,58,59,34		2,22,53,28,54	
		1,45,31,47,43,54,15,40		
60″	32,34,32,55,16,52,31,53,15,14			
exact	32,34,32,55,16,52,31,53,15, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°53′ 0″	32,34,32,55,16,52,31,53,15, 9			
		1,45,31,45,21, 0,39,11		
2″	32,34,34,40,48,37,52,53,54,20		2,22,53,44,19	
		1,45,31,42,58, 6,54,52		7,43
4″	32,34,36,26,20,20,51, 0,49,12		2,22,53,52, 2	
		1,45,31,40,35,13, 2,50		7,43
6″	32,34,38,11,52, 1,26,13,52, 2		2,22,53,59,45	
		1,45,31,38,12,19, 3, 5		7,43
8″	32,34,39,57,23,39,38,32,55, 7		2,22,54, 7,28	
		1,45,31,35,49,24,55,37		7,43
10″	32,34,41,42,55,15,27,57,50,44		2,22,54,15,11	
		1,45,31,33,26,30,40,26		7,43
12″	32,34,43,28,26,48,54,28,31,10		2,22,54,22,54	
		1,45,31,31, 3,36,17,32		7,43
14″	32,34,45,13,58,19,58, 4,48,42		2,22,54,30,37	
		1,45,31,28,40,41,46,55		7,43
16″	32,34,46,59,29,48,38,46,35,37		2,22,54,38,20	
		1,45,31,26,17,47, 8,35		7,43
18″	32,34,48,45, 1,14,56,33,44,12		2,22,54,46, 3	
		1,45,31,23,54,52,22,32		7,43
20″	32,34,50,30,32,38,51,26, 6,44		2,22,54,53,46	
		1,45,31,21,31,57,28,46		7,43
22″	32,34,52,16, 4, 0,23,23,35,30		2,22,55, 1,29	
		1,45,31,19, 9, 2,27,17		7,43
24″	32,34,54, 1,35,19,32,26, 2,47		2,22,55, 9,12	
		1,45,31,16,46, 7,18, 5		7,43
26″	32,34,55,47, 6,36,18,33,20,52		2,22,55,16,55	
		1,45,31,14,23,12, 1,10		7,43
28″	32,34,57,32,37,50,41,45,22, 2		2,22,55,24,38	
		1,45,31,12, 0,16,36,32		7,43
30″	32,34,59,18, 9, 2,42, 1,58,34		2,22,55,32,21	
		1,45,31, 9,37,21, 4,11		7,43
32″	32,35, 1, 3,40,12,19,23, 2,45		2,22,55,40, 4	
		1,45,31, 7,14,25,24, 7		7,43
34″	32,35, 2,49,11,19,33,48,26,52		2,22,55,47,47	
		1,45,31, 4,51,29,36,20		7,43
36″	32,35, 4,34,42,24,25,18, 3,12		2,22,55,55,30	
		1,45,31, 2,28,33,40,50		7,43
38″	32,35, 6,20,13,26,53,51,44, 2		2,22,56, 3,13	
		1,45,31, 0, 5,37,37,37		7,43
40″	32,35, 8, 5,44,26,59,29,21,39		2,22,56,10,56	
		1,45,30,57,42,41,26,41		7,43
42″	32,35, 9,51,15,24,42,10,48,20		2,22,56,18,39	
		1,45,30,55,19,45, 8, 2		7,43
44″	32,35,11,36,46,20, 1,55,56,22		2,22,56,26,22	
		1,45,30,52,56,48,41,40		7,43
46″	32,35,13,22,17,12,58,44,38, 2		2,22,56,34, 5	
		1,45,30,50,33,52, 7,35		7,43
48″	32,35,15, 7,48, 3,32,36,45,37		2,22,56,41,48	
		1,45,30,48,10,55,25,47		7,43
50″	32,35,16,53,18,51,43,32,11,24		2,22,56,49,31	
		1,45,30,45,47,58,36,16		7,43
52″	32,35,18,38,49,37,31,30,47,40		2,22,56,57,14	
		1,45,30,43,25, 1,39, 2		7,43
54″	32,35,20,24,20,20,56,32,26,42		2,22,57, 4,57	
		1,45,30,41, 2, 4,34, 5		7,43
56″	32,35,22, 9,51, 1,58,37, 0,47		2,22,57,12,40	
		1,45,30,38,39, 7,21,25		7,43
58″	32,35,23,55,21,40,37,44,22,12		2,22,57,20,23	
		1,45,30,36,16,10, 1, 2		
60″	32,35,25,40,52,16,53,54,23,14			
exact	32,35,25,40,52,16,53,54,33,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°54′ 0″	32,35,25,40,52,16,53,54,33,53			
		1,45,30,33,53,12,34, 2		
2″	32,35,27,26,22,50,47, 7, 7,55		2,22,57,35,44	
		1,45,30,31,30,14,58,18		7,43
4″	32,35,29,11,53,22,17,22, 6,13		2,22,57,43,27	
		1,45,30,29, 7,17,14,51		7,43
6″	32,35,30,57,23,51,24,39,21, 4		2,22,57,51,10	
		1,45,30,26,44,19,23,41		7,43
8″	32,35,32,42,54,18, 8,58,44,45		2,22,57,58,53	
		1,45,30,24,21,21,24,48		7,43
10″	32,35,34,28,24,42,30,20, 9,33		2,22,58, 6,36	
		1,45,30,21,58,23,18,12		7,43
12″	32,35,36,13,55, 4,28,43,27,45		2,22,58,14,19	
		1,45,30,19,35,25, 3,53		7,43
14″	32,35,37,59,25,24, 4, 8,31,38		2,22,58,22, 2	
		1,45,30,17,12,26,41,51		7,43
16″	32,35,39,44,55,41,16,35,13,29		2,22,58,29,45	
		1,45,30,14,49,28,12, 6		7,43
18″	32,35,41,30,25,56, 6, 3,25,35		2,22,58,37,28	
		1,45,30,12,26,29,34,38		7,43
20″	32,35,43,15,56, 8,32,33, 0,13		2,22,58,45,11	
		1,45,30,10, 3,30,49,27		7,43
22″	32,35,45, 1,26,18,36, 3,49,40		2,22,58,52,54	
		1,45,30, 7,40,31,56,33		7,43
24″	32,35,46,46,56,26,16,35,46,13		2,22,59, 0,37	
		1,45,30, 5,17,32,55,56		7,43
26″	32,35,48,32,26,31,34, 8,42, 9		2,22,59, 8,20	
		1,45,30, 2,54,33,47,36		7,43
28″	32,35,50,17,56,34,28,42,29,45		2,22,59,16, 3	
		1,45,30, 0,31,34,31,33		7,43
30″	32,35,52, 3,26,35, 0,17, 1,18		2,22,59,23,46	
		1,45,29,58, 8,35, 7,47		7,43
32″	32,35,53,48,56,33, 8,52, 9, 5		2,22,59,31,29	
		1,45,29,55,45,35,36,18		7,43
34″	32,35,55,34,26,28,54,27,45,23		2,22,59,39,12	
		1,45,29,53,22,35,57, 6		7,43
36″	32,35,57,19,56,22,17, 3,42,29		2,22,59,46,55	
		1,45,29,50,59,36,10,11		7,43
38″	32,35,59, 5,26,13,16,39,52,40		2,22,59,54,38	
		1,45,29,48,36,36,15,33		7,43
40″	32,36, 0,50,56, 1,53,16, 8,13		2,23, 0, 2,21	
		1,45,29,46,13,36,13,12		7,43
42″	32,36, 2,36,25,48, 6,52,21,25		2,23, 0,10, 4	
		1,45,29,43,50,36, 3, 8		7,43
44″	32,36, 4,21,55,31,57,28,24,33		2,23, 0,17,47	
		1,45,29,41,27,35,45,21		7,43
46″	32,36, 6, 7,25,13,25, 4, 9,54		2,23, 0,25,30	
		1,45,29,39, 4,35,19,51		7,43
48″	32,36, 7,52,54,52,29,39,29,45		2,23, 0,33,13	
		1,45,29,36,41,34,46,38		7,43
50″	32,36, 9,38,24,29,11,14,16,23		2,23, 0,40,56	
		1,45,29,34,18,34, 5,42		7,43
52″	32,36,11,23,54, 3,29,48,22, 5		2,23, 0,48,39	
		1,45,29,31,55,33,17, 3		7,43
54″	32,36,13, 9,23,35,25,21,39, 8		2,23, 0,56,22	
		1,45,29,29,32,32,20,41		7,43
56″	32,36,14,54,53, 4,57,53,59,49		2,23, 1, 4, 5	
		1,45,29,27, 9,31,16,36		7,43
58″	32,36,16,40,22,32, 7,25,16,25		2,23, 1,11,48	
		1,45,29,24,46,30, 4,48		
60″	32,36,18,25,51,56,53,55,21,13			
exact	32,36,18,25,51,56,53,55,32, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°55′ 0″	32,36,18,25,51,56,53,55,32, 6			
		1,45,29,22,23,28,46,38		
2″	32,36,20,11,21,19,17,24,18,44		2,23, 1,27, 8	
		1,45,29,20, 0,27,19,30		7,43
4″	32,36,21,56,50,39,17,51,38,14		2,23, 1,34,51	
		1,45,29,17,37,25,44,39		7,43
6″	32,36,23,42,19,56,55,17,22,53		2,23, 1,42,34	
		1,45,29,15,14,24, 2, 5		7,43
8″	32,36,25,27,49,12, 9,41,24,58		2,23, 1,50,17	
		1,45,29,12,51,22,11,48		7,43
10″	32,36,27,13,18,25, 1, 3,36,46		2,23, 1,58, 0	
		1,45,29,10,28,20,13,48		7,43
12″	32,36,28,58,47,35,29,23,50,34		2,23, 2, 5,43	
		1,45,29, 8, 5,18, 8, 5		7,43
14″	32,36,30,44,16,43,34,41,58,39		2,23, 2,13,26	
		1,45,29, 5,42,15,54,39		7,43
16″	32,36,32,29,45,49,16,57,53,18		2,23, 2,21, 9	
		1,45,29, 3,19,13,33,30		7,43
18″	32,36,34,15,14,52,36,11,26,48		2,23, 2,28,52	
		1,45,29, 0,56,11, 4,38		7,43
20″	32,36,36, 0,43,53,32,22,31,26		2,23, 2,36,35	
		1,45,28,58,33, 8,28, 3		7,43
22″	32,36,37,46,12,52, 5,30,59,29		2,23, 2,44,18	
		1,45,28,56,10, 5,43,45		7,43
24″	32,36,39,31,41,48,15,36,43,14		2,23, 2,52, 1	
		1,45,28,53,47, 2,51,44		7,43
26″	32,36,41,17,10,42, 2,39,34,58		2,23, 2,59,44	
		1,45,28,51,23,59,52, 0		7,43
28″	32,36,43, 2,39,33,26,39,26,58		2,23, 3, 7,27	
		1,45,28,49, 0,56,44,33		7,43
30″	32,36,44,48, 8,22,27,36,11,31		2,23, 3,15,10	
		1,45,28,46,37,53,29,23		7,43
32″	32,36,46,33,37, 9, 5,29,40,54		2,23, 3,22,53	
		1,45,28,44,14,50, 6,30		7,43
34″	32,36,48,19, 5,53,20,19,47,24		2,23, 3,30,36	
		1,45,28,41,51,46,35,54		7,43
36″	32,36,50, 4,34,35,12, 6,23,18		2,23, 3,38,19	
		1,45,28,39,28,42,57,35		7,43
38″	32,36,51,50, 3,14,40,49,20,53		2,23, 3,46, 2	
		1,45,28,37, 5,39,11,33		7,43
40″	32,36,53,35,31,51,46,28,32,26		2,23, 3,53,45	
		1,45,28,34,42,35,17,48		7,43
42″	32,36,55,21, 0,26,29, 3,50,14		2,23, 4, 1,28	
		1,45,28,32,19,31,16,20		7,43
44″	32,36,57, 6,28,58,48,35, 6,34		2,23, 4, 9,11	
		1,45,28,29,56,27, 7, 9		7,43
46″	32,36,58,51,57,28,45, 2,13,43		2,23, 4,16,54	
		1,45,28,27,33,22,50,15		7,43
48″	32,37, 0,37,25,56,18,25, 3,58		2,23, 4,24,37	
		1,45,28,25,10,18,25,38		7,43
50″	32,37, 2,22,54,21,28,43,29,36		2,23, 4,32,20	
		1,45,28,22,47,13,53,18		7,43
52″	32,37, 4, 8,22,44,15,57,22,54		2,23, 4,40, 3	
		1,45,28,20,24, 9,13,15		7,43
54″	32,37, 5,53,51, 4,40, 6,36, 9		2,23, 4,47,46	
		1,45,28,18, 1, 4,25,29		7,43
56″	32,37, 7,39,19,22,41,11, 1,38		2,23, 4,55,29	
		1,45,28,15,37,59,30, 0		7,43
58″	32,37, 9,24,47,38,19,10,31,38		2,23, 5, 3,12	
		1,45,28,13,14,54,26,48		
60″	32,37,11,10,15,51,34, 4,58,26			
exact	32,37,11,10,15,51,34, 5,21,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°56′ 0″	32,37,11,10,15,51,34, 5,21,32			
		1,45,28,10,51,49,18,18		
2″	32,37,12,55,44, 2,25,54,39,50		2,23, 5,18,28	
		1,45,28, 8,28,43,59,50		7,43
4″	32,37,14,41,12,10,54,38,39,40		2,23, 5,26,11	
		1,45,28, 6, 5,38,33,39		7,43
6″	32,37,16,26,40,17, 0,17,13,19		2,23, 5,33,54	
		1,45,28, 3,42,32,59,45		7,43
8″	32,37,18,12, 8,20,42,50,13, 4		2,23, 5,41,37	
		1,45,28, 1,19,27,18, 8		7,43
10″	32,37,19,57,36,22, 2,17,31,12		2,23, 5,49,20	
		1,45,27,58,56,21,28,48		7,43
12″	32,37,21,43, 4,20,58,39, 0, 0		2,23, 5,57, 3	
		1,45,27,56,33,15,31,45		7,43
14″	32,37,23,28,32,17,31,54,31,45		2,23, 6, 4,46	
		1,45,27,54,10, 9,26,59		7,43
16″	32,37,25,14, 0,11,42, 3,58,44		2,23, 6,12,29	
		1,45,27,51,47, 3,14,30		7,43
18″	32,37,26,59,28, 3,29, 7,13,14		2,23, 6,20,12	
		1,45,27,49,23,56,54,18		7,43
20″	32,37,28,44,55,52,53, 4, 7,32		2,23, 6,27,55	
		1,45,27,47, 0,50,26,23		7,43
22″	32,37,30,30,23,39,53,54,33,55		2,23, 6,35,38	
		1,45,27,44,37,43,50,45		7,43
24″	32,37,32,15,51,24,31,38,24,40		2,23, 6,43,21	
		1,45,27,42,14,37, 7,24		7,43
26″	32,37,34, 1,19, 6,46,15,32, 4		2,23, 6,51, 4	
		1,45,27,39,51,30,16,20		7,43
28″	32,37,35,46,46,46,37,45,48,24		2,23, 6,58,47	
		1,45,27,37,28,23,17,33		7,43
30″	32,37,37,32,14,24, 6, 9, 5,57		2,23, 7, 6,30	
		1,45,27,35, 5,16,11, 3		7,43
32″	32,37,39,17,41,59,11,25,17, 0		2,23, 7,14,13	
		1,45,27,32,42, 8,56,50		7,43
34″	32,37,41, 3, 9,31,53,34,13,50		2,23, 7,21,56	
		1,45,27,30,19, 1,34,54		7,43
36″	32,37,42,48,37, 2,12,35,48,44		2,23, 7,29,39	
		1,45,27,27,55,54, 5,15		7,43
38″	32,37,44,34, 4,30, 8,29,53,59		2,23, 7,37,22	
		1,45,27,25,32,46,27,53		7,43
40″	32,37,46,19,31,55,41,16,21,52		2,23, 7,45, 5	
		1,45,27,23, 9,38,42,48		7,43
42″	32,37,48, 4,59,18,50,55, 4,40		2,23, 7,52,48	
		1,45,27,20,46,30,50, 0		7,43
44″	32,37,49,50,26,39,37,25,54,40		2,23, 8, 0,31	
		1,45,27,18,23,22,49,29		7,43
46″	32,37,51,35,53,58, 0,48,44, 9		2,23, 8, 8,14	
		1,45,27,16, 0,14,41,15		7,43
48″	32,37,53,21,21,14, 1, 3,25,24		2,23, 8,15,57	
		1,45,27,13,37, 6,25,18		7,43
50″	32,37,55, 6,48,27,38, 9,50,42		2,23, 8,23,40	
		1,45,27,11,13,58, 1,38		7,43
52″	32,37,56,52,15,38,52, 7,52,20		2,23, 8,31,23	
		1,45,27, 8,50,49,30,15		7,43
54″	32,37,58,37,42,47,42,57,22,35		2,23, 8,39, 6	
		1,45,27, 6,27,40,51, 9		7,43
56″	32,38, 0,23, 9,54,10,38,13,44		2,23, 8,46,49	
		1,45,27, 4, 4,32, 4,20		7,43
58″	32,38, 2, 8,36,58,15,10,18, 4		2,23, 8,54,32	
		1,45,27, 1,41,23, 9,48		
60″	32,38, 3,54, 3,59,56,33,27,52			
exact	32,38, 3,54, 3,59,56,33,53, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°57′ 0″	32,38, 3,54, 3,59,56,33,53, 6			
		1,45,26,59,18,14,10,20		
2″	32,38, 5,39,30,59,14,48, 3,26		2,23, 9, 9,46	
		1,45,26,56,55, 5, 0,34		7,43
4″	32,38, 7,24,57,56, 9,53, 4, 0		2,23, 9,17,29	
		1,45,26,54,31,55,43, 5		7,43
6″	32,38, 9,10,24,50,41,48,47, 5		2,23, 9,25,12	
		1,45,26,52, 8,46,17,53		7,43
8″	32,38,10,55,51,42,50,35, 4,58		2,23, 9,32,55	
		1,45,26,49,45,36,44,58		7,43
10″	32,38,12,41,18,32,36,11,49,56		2,23, 9,40,38	
		1,45,26,47,22,27, 4,20		7,43
12″	32,38,14,26,45,19,58,38,54,16		2,23, 9,48,21	
		1,45,26,44,59,17,15,59		7,43
14″	32,38,16,12,12, 4,57,56,10,15		2,23, 9,56, 4	
		1,45,26,42,36, 7,19,55		7,43
16″	32,38,17,57,38,47,34, 3,30,10		2,23,10, 3,47	
		1,45,26,40,12,57,16, 8		7,43
18″	32,38,19,43, 5,27,47, 0,46,18		2,23,10,11,30	
		1,45,26,37,49,47, 4,38		7,43
20″	32,38,21,28,32, 5,36,47,50,56		2,23,10,19,13	
		1,45,26,35,26,36,45,25		7,43
22″	32,38,23,13,58,41, 3,24,36,21		2,23,10,26,56	
		1,45,26,33, 3,26,18,29		7,43
24″	32,38,24,59,25,14, 6,50,54,50		2,23,10,34,39	
		1,45,26,30,40,15,43,50		7,43
26″	32,38,26,44,51,44,47, 6,38,40		2,23,10,42,22	
		1,45,26,28,17, 5, 1,28		7,43
28″	32,38,28,30,18,13, 4,11,40, 8		2,23,10,50, 5	
		1,45,26,25,53,54,11,23		7,43
30″	32,38,30,15,44,38,58, 5,51,31		2,23,10,57,48	
		1,45,26,23,30,43,13,35		7,43
32″	32,38,32, 1,11, 2,28,49, 5, 6		2,23,11, 5,31	
		1,45,26,21, 7,32, 8, 4		7,43
34″	32,38,33,46,37,23,36,21,13,10		2,23,11,13,14	
		1,45,26,18,44,20,54,50		7,43
36″	32,38,35,32, 3,42,20,42, 8, 0		2,23,11,20,57	
		1,45,26,16,21, 9,33,53		7,43
38″	32,38,37,17,29,58,41,51,41,53		2,23,11,28,40	
		1,45,26,13,57,58, 5,13		7,43
40″	32,38,39, 2,56,12,39,49,47, 6		2,23,11,36,23	
		1,45,26,11,34,46,28,50		7,43
42″	32,38,40,48,22,24,14,36,15,56		2,23,11,44, 6	
		1,45,26, 9,11,34,44,44		7,43
44″	32,38,42,33,48,33,26,11, 0,40		2,23,11,51,49	
		1,45,26, 6,48,22,52,55		7,43
46″	32,38,44,19,14,40,14,33,53,35		2,23,11,59,32	
		1,45,26, 4,25,10,53,23		7,43
48″	32,38,46, 4,40,44,39,44,46,58		2,23,12, 7,15	
		1,45,26, 2, 1,58,46, 8		7,43
50″	32,38,47,50, 6,46,41,43,33, 6		2,23,12,14,58	
		1,45,25,59,38,46,31,10		7,43
52″	32,38,49,35,32,46,20,30, 4,16		2,23,12,22,41	
		1,45,25,57,15,34, 8,29		7,43
54″	32,38,51,20,58,43,36, 4,12,45		2,23,12,30,24	
		1,45,25,54,52,21,38, 5		7,43
56″	32,38,53, 6,24,38,28,25,50,50		2,23,12,38, 7	
		1,45,25,52,29, 8,59,58		7,43
58″	32,38,54,51,50,30,57,34,50,48		2,23,12,45,50	
		1,45,25,50, 5,56,14, 8		
60″	32,38,56,37,16,21, 3,31, 4,56			
exact	32,38,56,37,16,21, 3,31,36,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°58′ 0″	32,38,56,37,16,21, 3,31,36,57	1,45,25,47,42,43,24, 3	2,23,13, 1, 1	7,42
2″	32,38,58,22,42, 8,46,15, 1, 0	1,45,25,45,19,30,23, 2	2,23,13, 8,43	7,42
4″	32,39, 0, 8, 7,54, 5,45,24, 2	1,45,25,42,56,17,14,19	2,23,13,16,25	7,42
6″	32,39, 1,53,33,37, 2, 2,38,21	1,45,25,40,33, 3,57,54	2,23,13,24, 7	7,42
8″	32,39, 3,38,59,17,35, 6,36,15	1,45,25,38, 9,50,33,47	2,23,13,31,49	7,42
10″	32,39, 5,24,24,55,44,57,10, 2	1,45,25,35,46,37, 1,58	2,23,13,39,31	7,42
12″	32,39, 7, 9,50,31,31,34,12, 0	1,45,25,33,23,23,22,27	2,23,13,47,13	7,42
14″	32,39, 8,55,16, 4,54,57,34,27	1,45,25,31, 0, 9,35,14	2,23,13,54,55	7,42
16″	32,39,10,40,41,35,55, 7, 9,41	1,45,25,28,36,55,40,19	2,23,14, 2,37	7,42
18″	32,39,12,26, 7, 4,32, 2,50, 0	1,45,25,26,13,41,37,42	2,23,14,10,19	7,42
20″	32,39,14,11,32,30,45,44,27,42	1,45,25,23,50,27,27,23	2,23,14,18, 1	7,42
22″	32,39,15,56,57,54,36,11,55, 5	1,45,25,21,27,13, 9,22	2,23,14,25,43	7,42
24″	32,39,17,42,23,16, 3,25, 4,27	1,45,25,19, 3,58,43,39	2,23,14,33,25	7,42
26″	32,39,19,27,48,35, 7,23,48, 6	1,45,25,16,40,44,10,14	2,23,14,41, 7	7,42
28″	32,39,21,13,13,51,48, 7,58,20	1,45,25,14,17,29,29, 7	2,23,14,48,49	7,42
30″	32,39,22,58,39, 6, 5,37,27,27	1,45,25,11,54,14,40,18	2,23,14,56,31	7,42
32″	32,39,24,44, 4,17,59,52, 7,45	1,45,25, 9,30,59,43,47	2,23,15, 4,13	7,42
34″	32,39,26,29,29,27,30,51,51,32	1,45,25, 7, 7,44,39,34	2,23,15,11,55	7,42
36″	32,39,28,14,54,34,38,36,31, 6	1,45,25, 4,44,29,27,39	2,23,15,19,37	7,42
38″	32,39,30, 0,19,39,23, 5,58,45	1,45,25, 2,21,14, 8, 2	2,23,15,27,19	7,42
40″	32,39,31,45,44,41,44,20, 6,47	1,45,24,59,57,58,40,43	2,23,15,35, 1	7,42
42″	32,39,33,31, 9,41,42,18,47,30	1,45,24,57,34,43, 5,42	2,23,15,42,43	7,42
44″	32,39,35,16,34,39,17, 1,53,12	1,45,24,55,11,27,22,59	2,23,15,50,25	7,42
46″	32,39,37, 1,59,34,28,29,16,11	1,45,24,52,48,11,32,34	2,23,15,58, 7	7,42
48″	32,39,38,47,24,27,16,40,48,45	1,45,24,50,24,55,34,27	2,23,16, 5,49	7,42
50″	32,39,40,32,49,17,41,36,23,12	1,45,24,48, 1,39,28,38	2,23,16,13,31	7,42
52″	32,39,42,18,14, 5,43,15,51,50	1,45,24,45,38,23,15, 7	2,23,16,21,13	7,42
54″	32,39,44, 3,38,51,21,39, 6,57	1,45,24,43,15, 6,53,54	2,23,16,28,55	7,42
56″	32,39,45,49, 3,34,36,46, 0,51	1,45,24,40,51,50,24,59	2,23,16,36,37	
58″	32,39,47,34,28,15,28,36,25,50	1,45,24,38,28,33,48,22		
60″	32,39,49,19,52,53,57,10,14,12			
exact	32,39,49,19,52,53,57, 9,42,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
32°59′ 0″	32,39,49,19,52,53,57, 9,42,29			
		1,45,24,36, 5,17, 0,46		
2″	32,39,51, 5,17,30, 2,26,43,15		2,23,16,52,14	
		1,45,24,33,42, 0, 8,32		7,42
4″	32,39,52,50,42, 3,44,26,51,47		2,23,16,59,56	
		1,45,24,31,18,43, 8,36		7,42
6″	32,39,54,36, 6,35, 3,10, 0,23		2,23,17, 7,38	
		1,45,24,28,55,26, 0,58		7,42
8″	32,39,56,21,31, 3,58,36, 1,21		2,23,17,15,20	
		1,45,24,26,32, 8,45,38		7,42
10″	32,39,58, 6,55,30,30,44,46,59		2,23,17,23, 2	
		1,45,24,24, 8,51,22,36		7,42
12″	32,39,59,52,19,54,39,36, 9,35		2,23,17,30,44	
		1,45,24,21,45,33,51,52		7,42
14″	32,40, 1,37,44,16,25,10, 1,27		2,23,17,38,26	
		1,45,24,19,22,16,13,26		7,42
16″	32,40, 3,23, 8,35,47,26,14,53		2,23,17,46, 8	
		1,45,24,16,58,58,27,18		7,42
18″	32,40, 5, 8,32,52,46,24,42,11		2,23,17,53,50	
		1,45,24,14,35,40,33,28		7,42
20″	32,40, 6,53,57, 7,22, 5,15,39		2,23,18, 1,32	
		1,45,24,12,12,22,31,56		7,42
22″	32,40, 8,39,21,19,34,27,47,35		2,23,18, 9,14	
		1,45,24, 9,49, 4,22,42		7,42
24″	32,40,10,24,45,29,23,32,10,17		2,23,18,16,56	
		1,45,24, 7,25,46, 5,46		7,42
26″	32,40,12,10, 9,36,49,18,16, 3		2,23,18,24,38	
		1,45,24, 5, 2,27,41, 8		7,42
28″	32,40,13,55,33,41,51,45,57,11		2,23,18,32,20	
		1,45,24, 2,39, 9, 8,48		7,42
30″	32,40,15,40,57,44,30,55, 5,59		2,23,18,40, 2	
		1,45,24, 0,15,50,28,46		7,42
32″	32,40,17,26,21,44,46,45,34,45		2,23,18,47,44	
		1,45,23,57,52,31,41, 2		7,42
34″	32,40,19,11,45,42,39,17,15,47		2,23,18,55,26	
		1,45,23,55,29,12,45,36		7,42
36″	32,40,20,57, 9,38, 8,30, 1,23		2,23,19, 3, 8	
		1,45,23,53, 5,53,42,28		7,42
38″	32,40,22,42,33,31,14,23,43,51		2,23,19,10,50	
		1,45,23,50,42,34,31,38		7,42
40″	32,40,24,27,57,21,56,58,15,29		2,23,19,18,32	
		1,45,23,48,19,15,13, 6		7,42
42″	32,40,26,13,21,10,16,13,28,35		2,23,19,26,14	
		1,45,23,45,55,55,46,52		7,42
44″	32,40,27,58,44,56,12, 9,15,27		2,23,19,33,56	
		1,45,23,43,32,36,12,56		7,42
46″	32,40,29,44, 8,39,44,45,28,23		2,23,19,41,38	
		1,45,23,41, 9,16,31,18		7,42
48″	32,40,31,29,32,20,54, 1,59,41		2,23,19,49,20	
		1,45,23,38,45,56,41,58		7,42
50″	32,40,33,14,55,59,39,58,41,39		2,23,19,57, 2	
		1,45,23,36,22,36,44,56		7,42
52″	32,40,35, 0,19,36, 2,35,26,35		2,23,20, 4,44	
		1,45,23,33,59,16,40,12		7,42
54″	32,40,36,45,43,10, 1,52, 6,47		2,23,20,12,26	
		1,45,23,31,35,56,27,46		7,42
56″	32,40,38,31, 6,41,37,48,34,33		2,23,20,20, 8	
		1,45,23,29,12,36, 7,38		7,42
58″	32,40,40,16,30,10,50,24,42,11		2,23,20,27,50	
		1,45,23,26,49,15,39,48		
60″	32,40,42, 1,53,37,39,40,21,59			
exact	32,40,42, 1,53,37,39,39,58,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33° 0′ 0″	32,40,42, 1,53,37,39,39,58,22			
		1,45,23,24,25,55, 1,46		
2″	32,40,43,47,17, 2, 5,35, 0, 8		2,23,20,43,24	
		1,45,23,22, 2,34,18,22		7,42
4″	32,40,45,32,40,24, 8, 9,18,30		2,23,20,51, 6	
		1,45,23,19,39,13,27,16		7,42
6″	32,40,47,18, 3,43,47,22,45,46		2,23,20,58,48	
		1,45,23,17,15,52,28,28		7,42
8″	32,40,49, 3,27, 1, 3,15,14,14		2,23,21, 6,30	
		1,45,23,14,52,31,21,58		7,42
10″	32,40,50,48,50,15,55,46,36,12		2,23,21,14,12	
		1,45,23,12,29,10, 7,46		7,42
12″	32,40,52,34,13,28,24,56,43,58		2,23,21,21,54	
		1,45,23,10, 5,48,45,52		7,42
14″	32,40,54,19,36,38,30,45,29,50		2,23,21,29,36	
		1,45,23, 7,42,27,16,16		7,42
16″	32,40,56, 4,59,46,13,12,46, 6		2,23,21,37,18	
		1,45,23, 5,19, 5,38,58		7,42
18″	32,40,57,50,22,51,32,18,25, 4		2,23,21,45, 0	
		1,45,23, 2,55,43,53,58		7,42
20″	32,40,59,35,45,54,28, 2,19, 2		2,23,21,52,42	
		1,45,23, 0,32,22, 1,16		7,42
22″	32,41, 1,21, 8,55, 0,24,20,18		2,23,22, 0,24	
		1,45,22,58, 9, 0, 0,52		7,42
24″	32,41, 3, 6,31,53, 9,24,21,10		2,23,22, 8, 6	
		1,45,22,55,45,37,52,46		7,42
26″	32,41, 4,51,54,48,55, 2,13,56		2,23,22,15,48	
		1,45,22,53,22,15,36,58		7,42
28″	32,41, 6,37,17,42,17,17,50,54		2,23,22,23,30	
		1,45,22,50,58,53,13,28		7,42
30″	32,41, 8,22,40,33,16,11, 4,22		2,23,22,31,12	
		1,45,22,48,35,30,42,16		7,42
32″	32,41,10, 8, 3,21,51,41,46,38		2,23,22,38,54	
		1,45,22,46,12, 8, 3,22		7,42
34″	32,41,11,53,26, 8, 3,49,50, 0		2,23,22,46,36	
		1,45,22,43,48,45,16,46		7,42
36″	32,41,13,38,48,51,52,35, 6,46		2,23,22,54,18	
		1,45,22,41,25,22,22,28		7,42
38″	32,41,15,24,11,33,17,57,29,14		2,23,23, 2, 0	
		1,45,22,39, 1,59,20,28		7,42
40″	32,41,17, 9,34,12,19,56,49,42		2,23,23, 9,42	
		1,45,22,36,38,36,10,46		7,42
42″	32,41,18,54,56,48,58,33, 0,28		2,23,23,17,24	
		1,45,22,34,15,12,53,22		7,42
44″	32,41,20,40,19,23,13,45,53,50		2,23,23,25, 6	
		1,45,22,31,51,49,28,16		7,42
46″	32,41,22,25,41,55, 5,35,22, 6		2,23,23,32,48	
		1,45,22,29,28,25,55,28		7,42
48″	32,41,24,11, 4,24,34, 1,17,34		2,23,23,40,30	
		1,45,22,27, 5, 2,14,58		7,42
50″	32,41,25,56,26,51,39, 3,32,32		2,23,23,48,12	
		1,45,22,24,41,38,26,46		7,42
52″	32,41,27,41,49,16,20,41,59,18		2,23,23,55,54	
		1,45,22,22,18,14,30,52		7,42
54″	32,41,29,27,11,38,38,56,30,10		2,23,24, 3,36	
		1,45,22,19,54,50,27,16		7,42
56″	32,41,31,12,33,58,33,46,57,26		2,23,24,11,18	
		1,45,22,17,31,26,15,58		7,42
58″	32,41,32,57,56,16, 5,13,13,24		2,23,24,19, 0	
		1,45,22,15, 8, 1,56,58		
60″	32,41,34,43,18,31,13,15,10,22			
exact	32,41,34,43,18,31,13,14,52,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33° 1′ 0″	32,41,34,43,18,31,13,14,52,32	1,45,22,12,44,37,28,23		
2″	32,41,36,28,40,43,57,52,20,55	1,45,22,10,21,12,53,52	2,23,24,34,31	
4″	32,41,38,14, 2,54,19, 5,14,47	1,45,22, 7,57,48,11,39	2,23,24,42,13	7,42
6″	32,41,39,59,25, 2,16,53,26,26	1,45,22, 5,34,23,21,44	2,23,24,49,55	7,42
8″	32,41,41,44,47, 7,51,16,48,10	1,45,22, 3,10,58,24, 7	2,23,24,57,37	7,42
10″	32,41,43,30, 9,11, 2,15,12,17	1,45,22, 0,47,33,18,48	2,23,25, 5,19	7,42
12″	32,41,45,15,31,11,49,48,31, 5	1,45,21,58,24, 8, 5,47	2,23,25,13, 1	7,42
14″	32,41,47, 0,53,10,13,56,36,52	1,45,21,56, 0,42,45, 4	2,23,25,20,43	7,42
16″	32,41,48,46,15, 6,14,39,21,56	1,45,21,53,37,17,16,39	2,23,25,28,25	7,42
18″	32,41,50,31,36,59,51,56,38,35	1,45,21,51,13,51,40,32	2,23,25,36, 7	7,42
20″	32,41,52,16,58,51, 5,48,19, 7	1,45,21,48,50,25,56,43	2,23,25,43,49	7,42
22″	32,41,54, 2,20,39,56,14,15,50	1,45,21,46,27, 0, 5,12	2,23,25,51,31	7,42
24″	32,41,55,47,42,26,23,14,21, 2	1,45,21,44, 3,34, 5,59	2,23,25,59,13	7,42
26″	32,41,57,33, 4,10,26,48,27, 1	1,45,21,41,40, 7,59, 4	2,23,26, 6,55	7,42
28″	32,41,59,18,25,52, 6,56,26, 5	1,45,21,39,16,41,44,27	2,23,26,14,37	7,42
30″	32,42, 1, 3,47,31,23,38,10,32	1,45,21,36,53,15,22, 8	2,23,26,22,19	7,42
32″	32,42, 2,49, 9, 8,16,53,32,40	1,45,21,34,29,48,52, 7	2,23,26,30, 1	7,42
34″	32,42, 4,34,30,42,46,42,24,47	1,45,21,32, 6,22,14,24	2,23,26,37,43	7,42
36″	32,42, 6,19,52,14,53, 4,39,11	1,45,21,29,42,55,28,59	2,23,26,45,25	7,42
38″	32,42, 8, 5,13,44,36, 0, 8,10	1,45,21,27,19,28,35,52	2,23,26,53, 7	7,42
40″	32,42, 9,50,35,11,55,28,44, 2	1,45,21,24,56, 1,35, 3	2,23,27, 0,49	7,42
42″	32,42,11,35,56,36,51,30,19, 5	1,45,21,22,32,34,26,32	2,23,27, 8,31	7,42
44″	32,42,13,21,17,59,24, 4,45,37	1,45,21,20, 9, 7,10,19	2,23,27,16,13	7,42
46″	32,42,15, 6,39,19,33,11,55,56	1,45,21,17,45,39,46,24	2,23,27,23,55	7,42
48″	32,42,16,52, 0,37,18,51,42,20	1,45,21,15,22,12,14,47	2,23,27,31,37	7,42
50″	32,42,18,37,21,52,41, 3,57, 7	1,45,21,12,58,44,35,28	2,23,27,39,19	7,42
52″	32,42,20,22,43, 5,39,48,32,35	1,45,21,10,35,16,48,27	2,23,27,47, 1	7,42
54″	32,42,22, 8, 4,16,15, 5,21, 2	1,45,21, 8,11,48,53,44	2,23,27,54,43	7,42
56″	32,42,23,53,25,24,26,54,14,46	1,45,21, 5,48,20,51,19	2,23,28, 2,25	7,42
58″	32,42,25,38,46,30,15,15, 6, 5	1,45,21, 3,24,52,41,12	2,23,28,10, 7	
60″	32,42,27,24, 7,33,40, 7,47,17			
exact	32,42,27,24, 7,33,40, 7,32,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33° 2′ 0″	32,42,27,24, 7,33,40, 7,32,14			
		1,45,21, 1, 1,24,21,55		
2″	32,42,29, 9,28,34,41,31,54, 9		2,23,28,25,36	
		1,45,20,58,37,55,56,19		7,42
4″	32,42,30,54,49,33,19,27,50,28		2,23,28,33,18	
		1,45,20,56,14,27,23, 1		7,42
6″	32,42,32,40,10,29,33,55,13,29		2,23,28,41, 0	
		1,45,20,53,50,58,42, 1		7,42
8″	32,42,34,25,31,23,24,53,55,30		2,23,28,48,42	
		1,45,20,51,27,29,53,19		7,42
10″	32,42,36,10,52,14,52,23,48,49		2,23,28,56,24	
		1,45,20,49, 4, 0,56,55		7,42
12″	32,42,37,56,13, 3,56,24,45,44		2,23,29, 4, 6	
		1,45,20,46,40,31,52,49		7,42
14″	32,42,39,41,33,50,36,56,38,33		2,23,29,11,48	
		1,45,20,44,17, 2,41, 1		7,42
16″	32,42,41,26,54,34,53,59,19,34		2,23,29,19,30	
		1,45,20,41,53,33,21,31		7,42
18″	32,42,43,12,15,16,47,32,41, 5		2,23,29,27,12	
		1,45,20,39,30, 3,54,19		7,42
20″	32,42,44,57,35,56,17,36,35,24		2,23,29,34,54	
		1,45,20,37, 6,34,19,25		7,42
22″	32,42,46,42,56,33,24,10,54,49		2,23,29,42,36	
		1,45,20,34,43, 4,36,49		7,42
24″	32,42,48,28,17, 8, 7,15,31,38		2,23,29,50,18	
		1,45,20,32,19,34,46,31		7,42
26″	32,42,50,13,37,40,26,50,18, 9		2,23,29,58, 0	
		1,45,20,29,56, 4,48,31		7,42
28″	32,42,51,58,58,10,22,55, 6,40		2,23,30, 5,42	
		1,45,20,27,32,34,42,49		7,42
30″	32,42,53,44,18,37,55,29,49,29		2,23,30,13,24	
		1,45,20,25, 9, 4,29,25		7,42
32″	32,42,55,29,39, 3, 4,34,18,54		2,23,30,21, 6	
		1,45,20,22,45,34, 8,19		7,42
34″	32,42,57,14,59,25,50, 8,27,13		2,23,30,28,48	
		1,45,20,20,22, 3,39,31		7,42
36″	32,42,59, 0,19,46,12,12, 6,44		2,23,30,36,30	
		1,45,20,17,58,33, 3, 1		7,42
38″	32,43, 0,45,40, 4,10,45, 9,45		2,23,30,44,12	
		1,45,20,15,35, 2,18,49		7,42
40″	32,43, 2,31, 0,19,45,47,28,34		2,23,30,51,54	
		1,45,20,13,11,31,26,55		7,42
42″	32,43, 4,16,20,32,57,18,55,29		2,23,30,59,36	
		1,45,20,10,48, 0,27,19		7,42
44″	32,43, 6, 1,40,43,45,19,22,48		2,23,31, 7,18	
		1,45,20, 8,24,29,20, 1		7,42
46″	32,43, 7,47, 0,52, 9,48,42,49		2,23,31,15, 0	
		1,45,20, 6, 0,58, 5, 1		7,42
48″	32,43, 9,32,20,58,10,46,47,50		2,23,31,22,42	
		1,45,20, 3,37,26,42,19		7,42
50″	32,43,11,17,41, 1,48,13,30, 9		2,23,31,30,24	
		1,45,20, 1,13,55,11,55		7,42
52″	32,43,13, 3, 1, 3, 2, 8,42, 4		2,23,31,38, 6	
		1,45,19,58,50,23,33,49		7,42
54″	32,43,14,48,21, 1,52,32,15,53		2,23,31,45,48	
		1,45,19,56,26,51,48, 1		7,42
56″	32,43,16,33,40,58,19,24, 3,54		2,23,31,53,30	
		1,45,19,54, 3,19,54,31		7,42
58″	32,43,18,19, 0,52,22,43,58,25		2,23,32, 1,12	
		1,45,19,51,39,47,53,19		
60″	32,43,20, 4,20,44, 2,31,51,44			
exact	32,43,20, 4,20,44, 2,31,44, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33° 3′ 0″	32,43,20, 4,20,44, 2,31,44, 1	1,45,19,49,16,15,43,41		
2″	32,43,21,49,40,33,18,47,27,42	1,45,19,46,52,43,27, 3	2,23,32,16,38	7,42
4″	32,43,23,35, 0,20,11,30,54,45	1,45,19,44,29,11, 2,43	2,23,32,24,20	7,42
6″	32,43,25,20,20, 4,40,41,57,28	1,45,19,42, 5,38,30,41	2,23,32,32, 2	7,42
8″	32,43,27, 5,39,46,46,20,28, 9	1,45,19,39,42, 5,50,57	2,23,32,39,44	7,42
10″	32,43,28,50,59,26,28,26,19, 6	1,45,19,37,18,33, 3,31	2,23,32,47,26	7,42
12″	32,43,30,36,19, 3,46,59,22,37	1,45,19,34,55, 0, 8,23	2,23,32,55, 8	7,42
14″	32,43,32,21,38,38,41,59,31, 0	1,45,19,32,31,27, 5,33	2,23,33, 2,50	7,42
16″	32,43,34, 6,58,11,13,26,36,33	1,45,19,30, 7,53,55, 1	2,23,33,10,32	7,42
18″	32,43,35,52,17,41,21,20,31,34	1,45,19,27,44,20,36,47	2,23,33,18,14	7,42
20″	32,43,37,37,37, 9, 5,41, 8,21	1,45,19,25,20,47,10,51	2,23,33,25,56	7,42
22″	32,43,39,22,56,34,26,28,19,12	1,45,19,22,57,13,37,13	2,23,33,33,38	7,42
24″	32,43,41, 8,15,57,23,41,56,25	1,45,19,20,33,39,55,53	2,23,33,41,20	7,42
26″	32,43,42,53,35,17,57,21,52,18	1,45,19,18,10, 6, 6,51	2,23,33,49, 2	7,42
28″	32,43,44,38,54,36, 7,27,59, 9	1,45,19,15,46,32,10, 7	2,23,33,56,44	7,42
30″	32,43,46,24,13,51,54, 0, 9,16	1,45,19,13,22,58, 5,41	2,23,34, 4,26	7,42
32″	32,43,48, 9,33, 5,16,58,14,57	1,45,19,10,59,23,53,33	2,23,34,12, 8	7,42
34″	32,43,49,54,52,16,16,22, 8,30	1,45,19, 8,35,49,33,43	2,23,34,19,50	7,42
36″	32,43,51,40,11,24,52,11,42,13	1,45,19, 6,12,15, 6,11	2,23,34,27,32	7,42
38″	32,43,53,25,30,31, 4,26,48,24	1,45,19, 3,48,40,30,57	2,23,34,35,14	7,42
40″	32,43,55,10,49,34,53, 7,19,21	1,45,19, 1,25, 5,48, 1	2,23,34,42,56	7,42
42″	32,43,56,56, 8,36,18,13, 7,22	1,45,18,59, 1,30,57,23	2,23,34,50,38	7,42
44″	32,43,58,41,27,35,19,44, 4,45	1,45,18,56,37,55,59, 3	2,23,34,58,20	7,42
46″	32,44, 0,26,46,31,57,40, 3,48	1,45,18,54,14,20,53, 1	2,23,35, 6, 2	7,42
48″	32,44, 2,12, 5,26,12, 0,56,49	1,45,18,51,50,45,39,17	2,23,35,13,44	7,42
50″	32,44, 3,57,24,18, 2,46,36, 6	1,45,18,49,27,10,17,51	2,23,35,21,26	7,42
52″	32,44, 5,42,43, 7,29,56,53,57	1,45,18,47, 3,34,48,43	2,23,35,29, 8	7,42
54″	32,44, 7,28, 1,54,33,31,42,40	1,45,18,44,39,59,11,53	2,23,35,36,50	7,42
56″	32,44, 9,13,20,39,13,30,54,33	1,45,18,42,16,23,27,21	2,23,35,44,32	7,42
58″	32,44,10,58,39,21,29,54,21,54	1,45,18,39,52,47,35, 7	2,23,35,52,14	
60″	32,44,12,43,58, 1,22,41,57, 1			
exact	32,44,12,43,58, 1,22,41,53,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33° 4′ 0″	32,44,12,43,58, 1,22,41,53,46			
		1,45,18,37,29,11,34,59		
2″	32,44,14,29,16,38,51,53,28,45		2,23,36, 7,38	
		1,45,18,35, 5,35,27,21		7,42
4″	32,44,16,14,35,13,57,28,56, 6		2,23,36,15,20	
		1,45,18,32,41,59,12, 1		7,42
6″	32,44,17,59,53,46,39,28, 8, 7		2,23,36,23, 2	
		1,45,18,30,18,22,48,59		7,42
8″	32,44,19,45,12,16,57,50,57, 6		2,23,36,30,44	
		1,45,18,27,54,46,18,15		7,42
10″	32,44,21,30,30,44,52,37,15,21		2,23,36,38,26	
		1,45,18,25,31, 9,39,49		7,42
12″	32,44,23,15,49,10,23,46,55,10		2,23,36,46, 8	
		1,45,18,23, 7,32,53,41		7,42
14″	32,44,25, 1, 7,33,31,19,48,51		2,23,36,53,50	
		1,45,18,20,43,55,59,51		7,42
16″	32,44,26,46,25,54,15,15,48,42		2,23,37, 1,32	
		1,45,18,18,20,18,58,19		7,42
18″	32,44,28,31,44,12,35,34,47, 1		2,23,37, 9,14	
		1,45,18,15,56,41,49, 5		7,42
20″	32,44,30,17, 2,28,32,16,36, 6		2,23,37,16,56	
		1,45,18,13,33, 4,32, 9		7,42
22″	32,44,32, 2,20,42, 5,21, 8,15		2,23,37,24,38	
		1,45,18,11, 9,27, 7,31		7,42
24″	32,44,33,47,38,53,14,48,15,46		2,23,37,32,20	
		1,45,18, 8,45,49,35,11		7,42
26″	32,44,35,32,57, 2, 0,37,50,57		2,23,37,40, 2	
		1,45,18, 6,22,11,55, 9		7,42
28″	32,44,37,18,15, 8,22,49,46, 6		2,23,37,47,44	
		1,45,18, 3,58,34, 7,25		7,42
30″	32,44,39, 3,33,12,21,23,53,31		2,23,37,55,26	
		1,45,18, 1,34,56,11,59		7,42
32″	32,44,40,48,51,13,56,20, 5,30		2,23,38, 3, 8	
		1,45,17,59,11,18, 8,51		7,42
34″	32,44,42,34, 9,13, 7,38,14,21		2,23,38,10,50	
		1,45,17,56,47,39,58, 1		7,42
36″	32,44,44,19,27, 9,55,18,12,22		2,23,38,18,32	
		1,45,17,54,24, 1,39,29		7,42
38″	32,44,46, 4,45, 4,19,19,51,51		2,23,38,26,14	
		1,45,17,52, 0,23,13,15		7,42
40″	32,44,47,50, 2,56,19,43, 5, 6		2,23,38,33,56	
		1,45,17,49,36,44,39,19		7,42
42″	32,44,49,35,20,45,56,27,44,25		2,23,38,41,38	
		1,45,17,47,13, 5,57,41		7,42
44″	32,44,51,20,38,33, 9,33,42, 6		2,23,38,49,20	
		1,45,17,44,49,27, 8,21		7,42
46″	32,44,53, 5,56,17,59, 0,50,27		2,23,38,57, 2	
		1,45,17,42,25,48,11,19		7,42
48″	32,44,54,51,14, 0,24,49, 1,46		2,23,39, 4,44	
		1,45,17,40, 2, 9, 6,35		7,42
50″	32,44,56,36,31,40,26,58, 8,21		2,23,39,12,26	
		1,45,17,37,38,29,54, 9		7,42
52″	32,44,58,21,49,18, 5,28, 2,30		2,23,39,20, 8	
		1,45,17,35,14,50,34, 1		7,42
54″	32,45, 0, 7, 6,53,20,18,36,31		2,23,39,27,50	
		1,45,17,32,51,11, 6,11		7,42
56″	32,45, 1,52,24,26,11,29,42,42		2,23,39,35,32	
		1,45,17,30,27,31,30,39		7,42
58″	32,45, 3,37,41,56,39, 1,13,21		2,23,39,43,14	
		1,45,17,28, 3,51,47,25		
60″	32,45, 5,22,59,24,42,53, 0,46			
exact	32,45, 5,22,59,24,42,53, 6,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33° 5′ 0″	32,45, 5,22,59,24,42,53, 6,44	1,45,17,25,40,11,57, 9		
2″	32,45, 7, 8,16,50,23, 5, 3,53	1,45,17,23,16,31,58,34	2,23,39,58,35	7,42
4″	32,45, 8,53,34,13,39,37, 2,27	1,45,17,20,52,51,52,17	2,23,40, 6,17	7,42
6″	32,45,10,38,51,34,32,28,54,44	1,45,17,18,29,11,38,18	2,23,40,13,59	7,42
8″	32,45,12,24, 8,53, 1,40,33, 2	1,45,17,16, 5,31,16,37	2,23,40,21,41	7,42
10″	32,45,14, 9,26, 9, 7,11,49,39	1,45,17,13,41,50,47,14	2,23,40,29,23	7,42
12″	32,45,15,54,43,22,49, 2,36,53	1,45,17,11,18,10,10, 9	2,23,40,37, 5	7,42
14″	32,45,17,40, 0,34, 7,12,47, 2	1,45,17, 8,54,29,25,22	2,23,40,44,47	7,42
16″	32,45,19,25,17,43, 1,42,12,24	1,45,17, 6,30,48,32,53	2,23,40,52,29	7,42
18″	32,45,21,10,34,49,32,30,45,17	1,45,17, 4, 7, 7,32,42	2,23,41, 0,11	7,42
20″	32,45,22,55,51,53,39,38,17,59	1,45,17, 1,43,26,24,49	2,23,41, 7,53	7,42
22″	32,45,24,41, 8,55,23, 4,42,48	1,45,16,59,19,45, 9,14	2,23,41,15,35	7,42
24″	32,45,26,26,25,54,42,49,52, 2	1,45,16,56,56, 3,45,57	2,23,41,23,17	7,42
26″	32,45,28,11,42,51,38,53,37,59	1,45,16,54,32,22,14,58	2,23,41,30,59	7,42
28″	32,45,29,56,59,46,11,15,52,57	1,45,16,52, 8,40,36,17	2,23,41,38,41	7,42
30″	32,45,31,42,16,38,19,56,29,14	1,45,16,49,44,58,49,54	2,23,41,46,23	7,42
32″	32,45,33,27,33,28, 4,55,19, 8	1,45,16,47,21,16,55,49	2,23,41,54, 5	7,42
34″	32,45,35,12,50,15,26,12,14,57	1,45,16,44,57,34,54, 2	2,23,42, 1,47	7,42
36″	32,45,36,58, 7, 0,23,47, 8,59	1,45,16,42,33,52,44,33	2,23,42, 9,29	7,42
38″	32,45,38,43,23,42,57,39,53,32	1,45,16,40,10,10,27,22	2,23,42,17,11	7,42
40″	32,45,40,28,40,23, 7,50,20,54	1,45,16,37,46,28, 2,29	2,23,42,24,53	7,42
42″	32,45,42,13,57, 0,54,18,23,23	1,45,16,35,22,45,29,54	2,23,42,32,35	7,42
44″	32,45,43,59,13,36,17, 3,53,17	1,45,16,32,59, 2,49,37	2,23,42,40,17	7,42
46″	32,45,45,44,30, 9,16, 6,42,54	1,45,16,30,35,20, 1,38	2,23,42,47,59	7,42
48″	32,45,47,29,46,39,51,26,44,32	1,45,16,28,11,37, 5,57	2,23,42,55,41	7,42
50″	32,45,49,15, 3, 8, 3, 3,50,29	1,45,16,25,47,54, 2,34	2,23,43, 3,23	7,42
52″	32,45,51, 0,19,33,50,57,53, 3	1,45,16,23,24,10,51,29	2,23,43,11, 5	7,42
54″	32,45,52,45,35,57,15, 8,44,32	1,45,16,21, 0,27,32,42	2,23,43,18,47	7,42
56″	32,45,54,30,52,18,15,36,17,14	1,45,16,18,36,44, 6,13	2,23,43,26,29	7,42
58″	32,45,56,16, 8,36,52,20,23,27	1,45,16,16,13, 0,32, 2	2,23,43,34,11	
60″	32,45,58, 1,24,53, 5,20,55,29			
exact	32,45,58, 1,24,53, 5,21, 7,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33° 6′ 0″	32,45,58, 1,24,53, 5,21, 7,31	1,45,16,13,49,16,51,28		
2″	32,45,59,46,41, 6,54,37,58,59	1,45,16,11,25,33, 1,59	2,23,43,49,29	7,42
4″	32,46, 1,31,57,18,20,11, 0,58	1,45,16, 9, 1,49, 4,48	2,23,43,57,11	7,42
6″	32,46, 3,17,13,27,22, 0, 5,46	1,45,16, 6,38, 4,59,55	2,23,44, 4,53	7,42
8″	32,46, 5, 2,29,34, 0, 5, 5,41	1,45,16, 4,14,20,47,20	2,23,44,12,35	7,42
10″	32,46, 6,47,45,38,14,25,53, 1	1,45,16, 1,50,36,27, 3	2,23,44,20,17	7,42
12″	32,46, 8,33, 1,40, 5, 2,20, 4	1,45,15,59,26,51,59, 4	2,23,44,27,59	7,42
14″	32,46,10,18,17,39,31,54,19, 8	1,45,15,57, 3, 7,23,23	2,23,44,35,41	7,42
16″	32,46,12, 3,33,36,35, 1,42,31	1,45,15,54,39,22,40, 0	2,23,44,43,23	7,42
18″	32,46,13,48,49,31,14,24,22,31	1,45,15,52,15,37,48,55	2,23,44,51, 5	7,42
20″	32,46,15,34, 5,23,30, 2,11,26	1,45,15,49,51,52,50, 8	2,23,44,58,47	7,42
22″	32,46,17,19,21,13,21,55, 1,34	1,45,15,47,28, 7,43,39	2,23,45, 6,29	7,42
24″	32,46,19, 4,37, 0,50, 2,45,13	1,45,15,45, 4,22,29,28	2,23,45,14,11	7,42
26″	32,46,20,49,52,45,54,25,14,41	1,45,15,42,40,37, 7,35	2,23,45,21,53	7,42
28″	32,46,22,35, 8,28,35, 2,22,16	1,45,15,40,16,51,38, 0	2,23,45,29,35	7,42
30″	32,46,24,20,24, 8,51,54, 0,16	1,45,15,37,53, 6, 0,43	2,23,45,37,17	7,42
32″	32,46,26, 5,39,46,45, 0, 0,59	1,45,15,35,29,20,15,44	2,23,45,44,59	7,42
34″	32,46,27,50,55,22,14,20,16,43	1,45,15,33, 5,34,23, 3	2,23,45,52,41	7,42
36″	32,46,29,36,10,55,19,54,39,46	1,45,15,30,41,48,22,40	2,23,46, 0,23	7,42
38″	32,46,31,21,26,26, 1,43, 2,26	1,45,15,28,18, 2,14,35	2,23,46, 8, 5	7,42
40″	32,46,33, 6,41,54,19,45,17, 1	1,45,15,25,54,15,58,48	2,23,46,15,47	7,42
42″	32,46,34,51,57,20,14, 1,15,49	1,45,15,23,30,29,35,19	2,23,46,23,29	7,42
44″	32,46,36,37,12,43,44,30,51, 8	1,45,15,21, 6,43, 4, 8	2,23,46,31,11	7,42
46″	32,46,38,22,28, 4,51,13,55,16	1,45,15,18,42,56,25,15	2,23,46,38,53	7,42
48″	32,46,40, 7,43,23,34,10,20,31	1,45,15,16,19, 9,38,40	2,23,46,46,35	7,42
50″	32,46,41,52,58,39,53,19,59,11	1,45,15,13,55,22,44,23	2,23,46,54,17	7,42
52″	32,46,43,38,13,53,48,42,43,34	1,45,15,11,31,35,42,24	2,23,47, 1,59	7,42
54″	32,46,45,23,29, 5,20,18,25,58	1,45,15, 9, 7,48,32,43	2,23,47, 9,41	7,42
56″	32,46,47, 8,44,14,28, 6,58,41	1,45,15, 6,44, 1,15,20	2,23,47,17,23	7,42
58″	32,46,48,53,59,21,12, 8,14, 1	1,45,15, 4,20,13,50,15	2,23,47,25, 5	
60″	32,46,50,39,14,25,32,22, 4,16			
exact	32,46,50,39,14,25,32,22,20, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33° 7′ 0″	32,46,50,39,14,25,32,22,20, 8			
		1,45,15, 1,56,26,19,16		
2″	32,46,52,24,29,27,28,48,39,24		2,23,47,40,21	
		1,45,14,59,32,38,38,55		7,42
4″	32,46,54, 9,44,27, 1,27,18,19		2,23,47,48, 3	
		1,45,14,57, 8,50,50,52		7,42
6″	32,46,55,54,59,24,10,18, 9,11		2,23,47,55,45	
		1,45,14,54,45, 2,55, 7		7,42
8″	32,46,57,40,14,18,55,21, 4,18		2,23,48, 3,27	
		1,45,14,52,21,14,51,40		7,42
10″	32,46,59,25,29,11,16,35,55,58		2,23,48,11, 9	
		1,45,14,49,57,26,40,31		7,42
12″	32,47, 1,10,44, 1,14, 2,36,29		2,23,48,18,51	
		1,45,14,47,33,38,21,40		7,42
14″	32,47, 2,55,58,48,47,40,58, 9		2,23,48,26,33	
		1,45,14,45, 9,49,55, 7		7,42
16″	32,47, 4,41,13,33,57,30,53,16		2,23,48,34,15	
		1,45,14,42,46, 1,20,52		7,42
18″	32,47, 6,26,28,16,43,32,14, 8		2,23,48,41,57	
		1,45,14,40,22,12,38,55		7,42
20″	32,47, 8,11,42,57, 5,44,53, 3		2,23,48,49,39	
		1,45,14,37,58,23,49,16		7,42
22″	32,47, 9,56,57,35, 4, 8,42,19		2,23,48,57,21	
		1,45,14,35,34,34,51,55		7,42
24″	32,47,11,42,12,10,38,43,34,14		2,23,49, 5, 3	
		1,45,14,33,10,45,46,52		7,42
26″	32,47,13,27,26,43,49,29,21, 6		2,23,49,12,45	
		1,45,14,30,46,56,34, 7		7,42
28″	32,47,15,12,41,14,36,25,55,13		2,23,49,20,27	
		1,45,14,28,23, 7,13,40		7,42
30″	32,47,16,57,55,42,59,33, 8,53		2,23,49,28, 9	
		1,45,14,25,59,17,45,31		7,42
32″	32,47,18,43,10, 8,58,50,54,24		2,23,49,35,51	
		1,45,14,23,35,28, 9,40		7,42
34″	32,47,20,28,24,32,34,19, 4, 4		2,23,49,43,33	
		1,45,14,21,11,38,26, 7		7,42
36″	32,47,22,13,38,53,45,57,30,11		2,23,49,51,15	
		1,45,14,18,47,48,34,52		7,42
38″	32,47,23,58,53,12,33,46, 5, 3		2,23,49,58,57	
		1,45,14,16,23,58,35,55		7,42
40″	32,47,25,44, 7,28,57,44,40,58		2,23,50, 6,39	
		1,45,14,14, 0, 8,29,16		7,42
42″	32,47,27,29,21,42,57,53,10,14		2,23,50,14,21	
		1,45,14,11,36,18,14,55		7,42
44″	32,47,29,14,35,54,34,11,25, 9		2,23,50,22, 3	
		1,45,14, 9,12,27,52,52		7,42
46″	32,47,30,59,50, 3,46,39,18, 1		2,23,50,29,45	
		1,45,14, 6,48,37,23, 7		7,42
48″	32,47,32,45, 4,10,35,16,41, 8		2,23,50,37,27	
		1,45,14, 4,24,46,45,40		7,42
50″	32,47,34,30,18,15, 0, 3,26,48		2,23,50,45, 9	
		1,45,14, 2, 0,56, 0,31		7,42
52″	32,47,36,15,32,17, 0,59,27,19		2,23,50,52,51	
		1,45,13,59,37, 5, 7,40		7,42
54″	32,47,38, 0,46,16,38, 4,34,59		2,23,51, 0,33	
		1,45,13,57,13,14, 7, 7		7,42
56″	32,47,39,46, 0,13,51,18,42, 6		2,23,51, 8,15	
		1,45,13,54,49,22,58,52		7,42
58″	32,47,41,31,14, 8,40,41,40,58		2,23,51,15,57	
		1,45,13,52,25,31,42,55		
60″	32,47,43,16,28, 1, 6,13,23,53			
exact	32,47,43,16,28, 1, 6,13,47,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33° 8′ 0″	32,47,43,16,28, 1, 6,13,47,57			
		1,45,13,50, 1,40,21,52		
2″	32,47,45, 1,41,51, 7,54, 9,49		2,23,51,31,10	
		1,45,13,47,37,48,50,42		7,42
4″	32,47,46,46,55,38,45,43, 0,31		2,23,51,38,52	
		1,45,13,45,13,57,11,50		7,42
6″	32,47,48,32, 9,23,59,40,12,21		2,23,51,46,34	
		1,45,13,42,50, 5,25,16		7,42
8″	32,47,50,17,23, 6,49,45,37,37		2,23,51,54,16	
		1,45,13,40,26,13,31, 0		7,42
10″	32,47,52, 2,36,47,15,59, 8,37		2,23,52, 1,58	
		1,45,13,38, 2,21,29, 2		7,42
12″	32,47,53,47,50,25,18,20,37,39		2,23,52, 9,40	
		1,45,13,35,38,29,19,22		7,42
14″	32,47,55,33, 4, 0,56,49,57, 1		2,23,52,17,22	
		1,45,13,33,14,37, 2, 0		7,42
16″	32,47,57,18,17,34,11,26,59, 1		2,23,52,25, 4	
		1,45,13,30,50,44,36,56		7,42
18″	32,47,59, 3,31, 5, 2,11,35,57		2,23,52,32,46	
		1,45,13,28,26,52, 4,10		7,42
20″	32,48, 0,48,44,33,29, 3,40, 7		2,23,52,40,28	
		1,45,13,26, 2,59,23,42		7,42
22″	32,48, 2,33,57,59,32, 3, 3,49		2,23,52,48,10	
		1,45,13,23,39, 6,35,32		7,42
24″	32,48, 4,19,11,23,11, 9,39,21		2,23,52,55,52	
		1,45,13,21,15,13,39,40		7,42
26″	32,48, 6, 4,24,44,26,23,19, 1		2,23,53, 3,34	
		1,45,13,18,51,20,36, 6		7,42
28″	32,48, 7,49,38, 3,17,43,55, 7		2,23,53,11,16	
		1,45,13,16,27,27,24,50		7,42
30″	32,48, 9,34,51,19,45,11,19,57		2,23,53,18,58	
		1,45,13,14, 3,34, 5,52		7,42
32″	32,48,11,20, 4,33,48,45,25,49		2,23,53,26,40	
		1,45,13,11,39,40,39,12		7,42
34″	32,48,13, 5,17,45,28,26, 5, 1		2,23,53,34,22	
		1,45,13, 9,15,47, 4,50		7,42
36″	32,48,14,50,30,54,44,13, 9,51		2,23,53,42, 4	
		1,45,13, 6,51,53,22,46		7,42
38″	32,48,16,35,44, 1,36, 6,32,37		2,23,53,49,46	
		1,45,13, 4,27,59,33, 0		7,42
40″	32,48,18,20,57, 6, 4, 6, 5,37		2,23,53,57,28	
		1,45,13, 2, 4, 5,35,32		7,42
42″	32,48,20, 6,10, 8, 8,11,41, 9		2,23,54, 5,10	
		1,45,12,59,40,11,30,22		7,42
44″	32,48,21,51,23, 7,48,23,11,31		2,23,54,12,52	
		1,45,12,57,16,17,17,30		7,42
46″	32,48,23,36,36, 5, 4,40,29, 1		2,23,54,20,34	
		1,45,12,54,52,22,56,56		7,42
48″	32,48,25,21,48,59,57, 3,25,57		2,23,54,28,16	
		1,45,12,52,28,28,28,40		7,42
50″	32,48,27, 7, 1,52,25,31,54,37		2,23,54,35,58	
		1,45,12,50, 4,33,52,42		7,42
52″	32,48,28,52,14,42,30, 5,47,19		2,23,54,43,40	
		1,45,12,47,40,39, 9, 2		7,42
54″	32,48,30,37,27,30,10,44,56,21		2,23,54,51,22	
		1,45,12,45,16,44,17,40		7,42
56″	32,48,32,22,40,15,27,29,14, 1		2,23,54,59, 4	
		1,45,12,42,52,49,18,36		7,42
58″	32,48,34, 7,52,58,20,18,32,37		2,23,55, 6,46	
		1,45,12,40,28,54,11,50		
60″	32,48,35,53, 5,38,49,12,44,27			
exact	32,48,35,53, 5,38,49,13,13,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33° 9′ 0″	32,48,35,53, 5,38,49,13,13,49	1,45,12,38, 4,59, 0,34		
2″	32,48,37,38,18,16,54,12,14,23	1,45,12,35,41, 3,38,38	2,23,55,21,56	
4″	32,48,39,23,30,52,35,15,53, 1	1,45,12,33,17, 8, 9, 0	2,23,55,29,38	7,42
6″	32,48,41, 8,43,25,52,24, 2, 1	1,45,12,30,53,12,31,40	2,23,55,37,20	7,42
8″	32,48,42,53,55,56,45,36,33,41	1,45,12,28,29,16,46,38	2,23,55,45, 2	7,42
10″	32,48,44,39, 8,25,14,53,20,19	1,45,12,26, 5,20,53,54	2,23,55,52,44	7,42
12″	32,48,46,24,20,51,20,14,14,13	1,45,12,23,41,24,53,28	2,23,56, 0,26	7,42
14″	32,48,48, 9,33,15, 1,39, 7,41	1,45,12,21,17,28,45,20	2,23,56, 8, 8	7,42
16″	32,48,49,54,45,36,19, 7,53, 1	1,45,12,18,53,32,29,30	2,23,56,15,50	7,42
18″	32,48,51,39,57,55,12,40,22,31	1,45,12,16,29,36, 5,58	2,23,56,23,32	7,42
20″	32,48,53,25,10,11,42,16,28,29	1,45,12,14, 5,39,34,44	2,23,56,31,14	7,42
22″	32,48,55,10,22,25,47,56, 3,13	1,45,12,11,41,42,55,48	2,23,56,38,56	7,42
24″	32,48,56,55,34,37,29,38,59, 1	1,45,12, 9,17,46, 9,10	2,23,56,46,38	7,42
26″	32,48,58,40,46,46,47,25, 8,11	1,45,12, 6,53,49,14,50	2,23,56,54,20	7,42
28″	32,49, 0,25,58,53,41,14,23, 1	1,45,12, 4,29,52,12,48	2,23,57, 2, 2	7,42
30″	32,49, 2,11,10,58,11, 6,35,49	1,45,12, 2, 5,55, 3, 4	2,23,57, 9,44	7,42
32″	32,49, 3,56,23, 0,17, 1,38,53	1,45,11,59,41,57,45,38	2,23,57,17,26	7,42
34″	32,49, 5,41,34,59,58,59,24,31	1,45,11,57,18, 0,20,30	2,23,57,25, 8	7,42
36″	32,49, 7,26,46,57,16,59,45, 1	1,45,11,54,54, 2,47,40	2,23,57,32,50	7,42
38″	32,49, 9,11,58,52,11, 2,32,41	1,45,11,52,30, 5, 7, 8	2,23,57,40,32	7,42
40″	32,49,10,57,10,44,41, 7,39,49	1,45,11,50, 6, 7,18,54	2,23,57,48,14	7,42
42″	32,49,12,42,22,34,47,14,58,43	1,45,11,47,42, 9,22,58	2,23,57,55,56	7,42
44″	32,49,14,27,34,22,29,24,21,41	1,45,11,45,18,11,19,20	2,23,58, 3,38	7,42
46″	32,49,16,12,46, 7,47,35,41, 1	1,45,11,42,54,13, 8, 0	2,23,58,11,20	7,42
48″	32,49,17,57,57,50,41,48,49, 1	1,45,11,40,30,14,48,58	2,23,58,19, 2	7,42
50″	32,49,19,43, 9,31,12, 3,37,59	1,45,11,38, 6,16,22,14	2,23,58,26,44	7,42
52″	32,49,21,28,21, 9,18,20, 0,13	1,45,11,35,42,17,47,48	2,23,58,34,26	7,42
54″	32,49,23,13,32,45, 0,37,48, 1	1,45,11,33,18,19, 5,40	2,23,58,42, 8	7,42
56″	32,49,24,58,44,18,18,56,53,41	1,45,11,30,54,20,15,50	2,23,58,49,50	7,42
58″	32,49,26,43,55,49,13,17, 9,31	1,45,11,28,30,21,18,18	2,23,58,57,32	
60″	32,49,28,29, 7,17,43,38,27,49			
exact	32,49,28,29, 7,17,43,39, 0, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°10′ 0″	32,49,28,29, 7,17,43,39, 0, 0			
		1,45,11,26, 6,22,16,41		
2″	32,49,30,14,18,43,50, 1,16,41		2,23,59,12,40	
		1,45,11,23,42,23, 4, 1		7,41
4″	32,49,31,59,30, 7,32,24,20,42		2,23,59,20,21	
		1,45,11,21,18,23,43,40		7,41
6″	32,49,33,44,41,28,50,48, 4,22		2,23,59,28, 2	
		1,45,11,18,54,24,15,38		7,41
8″	32,49,35,29,52,47,45,12,20, 0		2,23,59,35,43	
		1,45,11,16,30,24,39,55		7,41
10″	32,49,37,15, 4, 4,15,36,59,55		2,23,59,43,24	
		1,45,11,14, 6,24,56,31		7,41
12″	32,49,39, 0,15,18,22, 1,56,26		2,23,59,51, 5	
		1,45,11,11,42,25, 5,26		7,41
14″	32,49,40,45,26,30, 4,27, 1,52		2,23,59,58,46	
		1,45,11, 9,18,25, 6,40		7,41
16″	32,49,42,30,37,39,22,52, 8,32		2,24, 0, 6,27	
		1,45,11, 6,54,25, 0,13		7,41
18″	32,49,44,15,48,46,17,17, 8,45		2,24, 0,14, 8	
		1,45,11, 4,30,24,46, 5		7,41
20″	32,49,46, 0,59,50,47,41,54,50		2,24, 0,21,49	
		1,45,11, 2, 6,24,24,16		7,41
22″	32,49,47,46,10,52,54, 6,19, 6		2,24, 0,29,30	
		1,45,10,59,42,23,54,46		7,41
24″	32,49,49,31,21,52,36,30,13,52		2,24, 0,37,11	
		1,45,10,57,18,23,17,35		7,41
26″	32,49,51,16,32,49,54,53,31,27		2,24, 0,44,52	
		1,45,10,54,54,22,32,43		7,41
28″	32,49,53, 1,43,44,49,16, 4,10		2,24, 0,52,33	
		1,45,10,52,30,21,40,10		7,41
30″	32,49,54,46,54,37,19,37,44,20		2,24, 1, 0,14	
		1,45,10,50, 6,20,39,56		7,41
32″	32,49,56,32, 5,27,25,58,24,16		2,24, 1, 7,55	
		1,45,10,47,42,19,32, 1		7,41
34″	32,49,58,17,16,15, 8,17,56,17		2,24, 1,15,36	
		1,45,10,45,18,18,16,25		7,41
36″	32,50, 0, 2,27, 0,26,36,12,42		2,24, 1,23,17	
		1,45,10,42,54,16,53, 8		7,41
38″	32,50, 1,47,37,43,20,53, 5,50		2,24, 1,30,58	
		1,45,10,40,30,15,22,10		7,41
40″	32,50, 3,32,48,23,51, 8,28, 0		2,24, 1,38,39	
		1,45,10,38, 6,13,43,31		7,41
42″	32,50, 5,17,59, 1,57,22,11,31		2,24, 1,46,20	
		1,45,10,35,42,11,57,11		7,41
44″	32,50, 7, 3, 9,37,39,34, 8,42		2,24, 1,54, 1	
		1,45,10,33,18,10, 3,10		7,41
46″	32,50, 8,48,20,10,57,44,11,52		2,24, 2, 1,42	
		1,45,10,30,54, 8, 1,28		7,41
48″	32,50,10,33,30,41,51,52,13,20		2,24, 2, 9,23	
		1,45,10,28,30, 5,52, 5		7,41
50″	32,50,12,18,41,10,21,58, 5,25		2,24, 2,17, 4	
		1,45,10,26, 6, 3,35, 1		7,41
52″	32,50,14, 3,51,36,28, 1,40,26		2,24, 2,24,45	
		1,45,10,23,42, 1,10,16		7,41
54″	32,50,15,49, 2, 0,10, 2,50,42		2,24, 2,32,26	
		1,45,10,21,17,58,37,50		7,41
56″	32,50,17,34,12,21,28, 1,28,32		2,24, 2,40, 7	
		1,45,10,18,53,55,57,43		7,41
58″	32,50,19,19,22,40,21,57,26,15		2,24, 2,47,48	
		1,45,10,16,29,53, 9,55		
60″	32,50,21, 4,32,56,51,50,36,10			
exact	32,50,21, 4,32,56,51,50, 8,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°11′ 0″	32,50,21, 4,32,56,51,50, 8,11			
		1,45,10,14, 5,50,11,32		
2″	32,50,22,49,43,10,57,40,19,43		2,24, 3, 3,21	
		1,45,10,11,41,47, 8,11		7,41
4″	32,50,24,34,53,22,39,27,27,54		2,24, 3,11, 2	
		1,45,10, 9,17,43,57, 9		7,41
6″	32,50,26,20, 3,31,57,11,25, 3		2,24, 3,18,43	
		1,45,10, 6,53,40,38,26		7,41
8″	32,50,28, 5,13,38,50,52, 3,29		2,24, 3,26,24	
		1,45,10, 4,29,37,12, 2		7,41
10″	32,50,29,50,23,43,20,29,15,31		2,24, 3,34, 5	
		1,45,10, 2, 5,33,37,57		7,41
12″	32,50,31,35,33,45,26, 2,53,28		2,24, 3,41,46	
		1,45, 9,59,41,29,56,11		7,41
14″	32,50,33,20,43,45, 7,32,49,39		2,24, 3,49,27	
		1,45, 9,57,17,26, 6,44		7,41
16″	32,50,35, 5,53,42,24,58,56,23		2,24, 3,57, 8	
		1,45, 9,54,53,22, 9,36		7,41
18″	32,50,36,51, 3,37,18,21, 5,59		2,24, 4, 4,49	
		1,45, 9,52,29,18, 4,47		7,41
20″	32,50,38,36,13,29,47,39,10,46		2,24, 4,12,30	
		1,45, 9,50, 5,13,52,17		7,41
22″	32,50,40,21,23,19,52,53, 3, 3		2,24, 4,20,11	
		1,45, 9,47,41, 9,32, 6		7,41
24″	32,50,42, 6,33, 7,34, 2,35, 9		2,24, 4,27,52	
		1,45, 9,45,17, 5, 4,14		7,41
26″	32,50,43,51,42,52,51, 7,39,23		2,24, 4,35,33	
		1,45, 9,42,53, 0,28,41		7,41
28″	32,50,45,36,52,35,44, 8, 8, 4		2,24, 4,43,14	
		1,45, 9,40,28,55,45,27		7,41
30″	32,50,47,22, 2,16,13, 3,53,31		2,24, 4,50,55	
		1,45, 9,38, 4,50,54,32		7,41
32″	32,50,49, 7,11,54,17,54,48, 3		2,24, 4,58,36	
		1,45, 9,35,40,45,55,56		7,41
34″	32,50,50,52,21,29,58,40,43,59		2,24, 5, 6,17	
		1,45, 9,33,16,40,49,39		7,41
36″	32,50,52,37,31, 3,15,21,33,38		2,24, 5,13,58	
		1,45, 9,30,52,35,35,41		7,41
38″	32,50,54,22,40,34, 7,57, 9,19		2,24, 5,21,39	
		1,45, 9,28,28,30,14, 2		7,41
40″	32,50,56, 7,50, 2,36,27,23,21		2,24, 5,29,20	
		1,45, 9,26, 4,24,44,42		7,41
42″	32,50,57,52,59,28,40,52, 8, 3		2,24, 5,37, 1	
		1,45, 9,23,40,19, 7,41		7,41
44″	32,50,59,38, 8,52,21,11,15,44		2,24, 5,44,42	
		1,45, 9,21,16,13,22,59		7,41
46″	32,51, 1,23,18,13,37,24,38,43		2,24, 5,52,23	
		1,45, 9,18,52, 7,30,36		7,41
48″	32,51, 3, 8,27,32,29,32, 9,19		2,24, 6, 0, 4	
		1,45, 9,16,28, 1,30,32		7,41
50″	32,51, 4,53,36,48,57,33,39,51		2,24, 6, 7,45	
		1,45, 9,14, 3,55,22,47		7,41
52″	32,51, 6,38,46, 3, 1,29, 2,38		2,24, 6,15,26	
		1,45, 9,11,39,49, 7,21		7,41
54″	32,51, 8,23,55,14,41,18, 9,59		2,24, 6,23, 7	
		1,45, 9, 9,15,42,44,14		7,41
56″	32,51,10, 9, 4,23,57, 0,54,13		2,24, 6,30,48	
		1,45, 9, 6,51,36,13,26		7,41
58″	32,51,11,54,13,30,48,37, 7,39		2,24, 6,38,29	
		1,45, 9, 4,27,29,34,57		
60″	32,51,13,39,22,35,16, 6,42,36			
exact	32,51,13,39,22,35,16, 6,19,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°12′ 0″	32,51,13,39,22,35,16, 6,19,35			
		1,45, 9, 2, 3,22,46,27		
2″	32,51,15,24,31,37,19,29, 6, 2		2,24, 6,54, 0	
		1,45, 8,59,39,15,52,27		7,41
4″	32,51,17, 9,40,36,58,44,58,29		2,24, 7, 1,41	
		1,45, 8,57,15, 8,50,46		7,41
6″	32,51,18,54,49,34,13,53,49,15		2,24, 7, 9,22	
		1,45, 8,54,51, 1,41,24		7,41
8″	32,51,20,39,58,29, 4,55,30,39		2,24, 7,17, 3	
		1,45, 8,52,26,54,24,21		7,41
10″	32,51,22,25, 7,21,31,49,55, 0		2,24, 7,24,44	
		1,45, 8,50, 2,46,59,37		7,41
12″	32,51,24,10,16,11,34,36,54,37		2,24, 7,32,25	
		1,45, 8,47,38,39,27,12		7,41
14″	32,51,25,55,24,59,13,16,21,49		2,24, 7,40, 6	
		1,45, 8,45,14,31,47, 6		7,41
16″	32,51,27,40,33,44,27,48, 8,55		2,24, 7,47,47	
		1,45, 8,42,50,23,59,19		7,41
18″	32,51,29,25,42,27,18,12, 8,14		2,24, 7,55,28	
		1,45, 8,40,26,16, 3,51		7,41
20″	32,51,31,10,51, 7,44,28,12, 5		2,24, 8, 3, 9	
		1,45, 8,38, 2, 8, 0,42		7,41
22″	32,51,32,55,59,45,46,36,12,47		2,24, 8,10,50	
		1,45, 8,35,37,59,49,52		7,41
24″	32,51,34,41, 8,21,24,36, 2,39		2,24, 8,18,31	
		1,45, 8,33,13,51,31,21		7,41
26″	32,51,36,26,16,54,38,27,34, 0		2,24, 8,26,12	
		1,45, 8,30,49,43, 5, 9		7,41
28″	32,51,38,11,25,25,28,10,39, 9		2,24, 8,33,53	
		1,45, 8,28,25,34,31,16		7,41
30″	32,51,39,56,33,53,53,45,10,25		2,24, 8,41,34	
		1,45, 8,26, 1,25,49,42		7,41
32″	32,51,41,41,42,19,55,11, 0, 7		2,24, 8,49,15	
		1,45, 8,23,37,17, 0,27		7,41
34″	32,51,43,26,50,43,32,28, 0,34		2,24, 8,56,56	
		1,45, 8,21,13, 8, 3,31		7,41
36″	32,51,45,11,59, 4,45,36, 4, 5		2,24, 9, 4,37	
		1,45, 8,18,48,58,58,54		7,41
38″	32,51,46,57, 7,23,34,35, 2,59		2,24, 9,12,18	
		1,45, 8,16,24,49,46,36		7,41
40″	32,51,48,42,15,39,59,24,49,35		2,24, 9,19,59	
		1,45, 8,14, 0,40,26,37		7,41
42″	32,51,50,27,23,54, 0, 5,16,12		2,24, 9,27,40	
		1,45, 8,11,36,30,58,57		7,41
44″	32,51,52,12,32, 5,36,36,15, 9		2,24, 9,35,21	
		1,45, 8, 9,12,21,23,36		7,41
46″	32,51,53,57,40,14,48,57,38,45		2,24, 9,43, 2	
		1,45, 8, 6,48,11,40,34		7,41
48″	32,51,55,42,48,21,37, 9,19,19		2,24, 9,50,43	
		1,45, 8, 4,24, 1,49,51		7,41
50″	32,51,57,27,56,26, 1,11, 9,10		2,24, 9,58,24	
		1,45, 8, 1,59,51,51,27		7,41
52″	32,51,59,13, 4,28, 1, 3, 0,37		2,24,10, 6, 5	
		1,45, 7,59,35,41,45,22		7,41
54″	32,52, 0,58,12,27,36,44,45,59		2,24,10,13,46	
		1,45, 7,57,11,31,31,36		7,41
56″	32,52, 2,43,20,24,48,16,17,35		2,24,10,21,27	
		1,45, 7,54,47,21,10, 9		7,41
58″	32,52, 4,28,28,19,35,37,27,44		2,24,10,29, 8	
		1,45, 7,52,23,10,41, 1		
60″	32,52, 6,13,36,11,58,48, 8,45			
exact	32,52, 6,13,36,11,58,47,54,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°13′ 0″	32,52, 6,13,36,11,58,47,54,53	1,45, 7,49,59, 0, 2,44		
2″	32,52, 7,58,44, 1,57,47,57,37	1,45, 7,47,34,49,18, 8	2,24,10,44,36	7,41
4″	32,52, 9,43,51,49,32,37,15,45	1,45, 7,45,10,38,25,51	2,24,10,52,17	7,41
6″	32,52,11,28,59,34,43,15,41,36	1,45, 7,42,46,27,25,53	2,24,10,59,58	7,41
8″	32,52,13,14, 7,17,29,43, 7,29	1,45, 7,40,22,16,18,14	2,24,11, 7,39	7,41
10″	32,52,14,59,14,57,51,59,25,43	1,45, 7,37,58, 5, 2,54	2,24,11,15,20	7,41
12″	32,52,16,44,22,35,50, 4,28,37	1,45, 7,35,33,53,39,53	2,24,11,23, 1	7,41
14″	32,52,18,29,30,11,23,58, 8,30	1,45, 7,33, 9,42, 9,11	2,24,11,30,42	7,41
16″	32,52,20,14,37,44,33,40,17,41	1,45, 7,30,45,30,30,48	2,24,11,38,23	7,41
18″	32,52,21,59,45,15,19,10,48,29	1,45, 7,28,21,18,44,44	2,24,11,46, 4	7,41
20″	32,52,23,44,52,43,40,29,33,13	1,45, 7,25,57, 6,50,59	2,24,11,53,45	7,41
22″	32,52,25,30, 0, 9,37,36,24,12	1,45, 7,23,32,54,49,33	2,24,12, 1,26	7,41
24″	32,52,27,15, 7,33,10,31,13,45	1,45, 7,21, 8,42,40,26	2,24,12, 9, 7	7,41
26″	32,52,29, 0,14,54,19,13,54,11	1,45, 7,18,44,30,23,38	2,24,12,16,48	7,41
28″	32,52,30,45,22,13, 3,44,17,49	1,45, 7,16,20,17,59, 9	2,24,12,24,29	7,41
30″	32,52,32,30,29,29,24, 2,16,58	1,45, 7,13,56, 5,26,59	2,24,12,32,10	7,41
32″	32,52,34,15,36,43,20, 7,43,57	1,45, 7,11,31,52,47, 8	2,24,12,39,51	7,41
34″	32,52,36, 0,43,54,52, 0,31, 5	1,45, 7, 9, 7,39,59,36	2,24,12,47,32	7,41
36″	32,52,37,45,51, 3,59,40,30,41	1,45, 7, 6,43,27, 4,23	2,24,12,55,13	7,41
38″	32,52,39,30,58,10,43, 7,35, 4	1,45, 7, 4,19,14, 1,29	2,24,13, 2,54	7,41
40″	32,52,41,16, 5,15, 2,21,36,33	1,45, 7, 1,55, 0,50,54	2,24,13,10,35	7,41
42″	32,52,43, 1,12,16,57,22,27,27	1,45, 6,59,30,47,32,38	2,24,13,18,16	7,41
44″	32,52,44,46,19,16,28,10, 0, 5	1,45, 6,57, 6,34, 6,41	2,24,13,25,57	7,41
46″	32,52,46,31,26,13,34,44, 6,46	1,45, 6,54,42,20,33, 3	2,24,13,33,38	7,41
48″	32,52,48,16,33, 8,17, 4,39,49	1,45, 6,52,18, 6,51,44	2,24,13,41,19	7,41
50″	32,52,50, 1,40, 0,35,11,31,33	1,45, 6,49,53,53, 2,44	2,24,13,49, 0	7,41
52″	32,52,51,46,46,50,29, 4,34,17	1,45, 6,47,29,39, 6, 3	2,24,13,56,41	7,41
54″	32,52,53,31,53,37,58,43,40,20	1,45, 6,45, 5,25, 1,41	2,24,14, 4,22	7,41
56″	32,52,55,17, 0,23, 4, 8,42, 1	1,45, 6,42,41,10,49,38	2,24,14,12, 3	7,41
58″	32,52,57, 2, 7, 5,45,19,31,39	1,45, 6,40,16,56,29,54	2,24,14,19,44	
60″	32,52,58,47,13,46, 2,16, 1,33			
exact	32,52,58,47,13,46, 2,15,54,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°14′ 0″	32,52,58,47,13,46, 2,15,54,15			
		1,45, 6,37,52,42, 1,42		
2″	32,53, 0,32,20,23,54,57,55,57		2,24,14,35, 9	
		1,45, 6,35,28,27,26,33		7,41
4″	32,53, 2,17,26,59,23,25,22,30		2,24,14,42,50	
		1,45, 6,33, 4,12,43,43		7,41
6″	32,53, 4, 2,33,32,27,38, 6,13		2,24,14,50,31	
		1,45, 6,30,39,57,53,12		7,41
8″	32,53, 5,47,40, 3, 7,35,59,25		2,24,14,58,12	
		1,45, 6,28,15,42,55, 0		7,41
10″	32,53, 7,32,46,31,23,18,54,25		2,24,15, 5,53	
		1,45, 6,25,51,27,49, 7		7,41
12″	32,53, 9,17,52,57,14,46,43,32		2,24,15,13,34	
		1,45, 6,23,27,12,35,33		7,41
14″	32,53,11, 2,59,20,41,59,19, 5		2,24,15,21,15	
		1,45, 6,21, 2,57,14,18		7,41
16″	32,53,12,48, 5,41,44,56,33,23		2,24,15,28,56	
		1,45, 6,18,38,41,45,22		7,41
18″	32,53,14,33,12, 0,23,38,18,45		2,24,15,36,37	
		1,45, 6,16,14,26, 8,45		7,41
20″	32,53,16,18,18,16,38, 4,27,30		2,24,15,44,18	
		1,45, 6,13,50,10,24,27		7,41
22″	32,53,18, 3,24,30,28,14,51,57		2,24,15,51,59	
		1,45, 6,11,25,54,32,28		7,41
24″	32,53,19,48,30,41,54, 9,24,25		2,24,15,59,40	
		1,45, 6, 9, 1,38,32,48		7,41
26″	32,53,21,33,36,50,55,47,57,13		2,24,16, 7,21	
		1,45, 6, 6,37,22,25,27		7,41
28″	32,53,23,18,42,57,33,10,22,40		2,24,16,15, 2	
		1,45, 6, 4,13, 6,10,25		7,41
30″	32,53,25, 3,49, 1,46,16,33, 5		2,24,16,22,43	
		1,45, 6, 1,48,49,47,42		7,41
32″	32,53,26,48,55, 3,35, 6,20,47		2,24,16,30,24	
		1,45, 5,59,24,33,17,18		7,41
34″	32,53,28,34, 1, 2,59,39,38, 5		2,24,16,38, 5	
		1,45, 5,57, 0,16,39,13		7,41
36″	32,53,30,19, 6,59,59,56,17,18		2,24,16,45,46	
		1,45, 5,54,35,59,53,27		7,41
38″	32,53,32, 4,12,54,35,56,10,45		2,24,16,53,27	
		1,45, 5,52,11,43, 0, 0		7,41
40″	32,53,33,49,18,46,47,39,10,45		2,24,17, 1, 8	
		1,45, 5,49,47,25,58,52		7,41
42″	32,53,35,34,24,36,35, 5, 9,37		2,24,17, 8,49	
		1,45, 5,47,23, 8,50, 3		7,41
44″	32,53,37,19,30,23,58,13,59,40		2,24,17,16,30	
		1,45, 5,44,58,51,33,33		7,41
46″	32,53,39, 4,36, 8,57, 5,33,13		2,24,17,24,11	
		1,45, 5,42,34,34, 9,22		7,41
48″	32,53,40,49,41,51,31,39,42,35		2,24,17,31,52	
		1,45, 5,40,10,16,37,30		7,41
50″	32,53,42,34,47,31,41,56,20, 5		2,24,17,39,33	
		1,45, 5,37,45,58,57,57		7,41
52″	32,53,44,19,53, 9,27,55,18, 2		2,24,17,47,14	
		1,45, 5,35,21,41,10,43		7,41
54″	32,53,46, 4,58,44,49,36,28,45		2,24,17,54,55	
		1,45, 5,32,57,23,15,48		7,41
56″	32,53,47,50, 4,17,46,59,44,33		2,24,18, 2,36	
		1,45, 5,30,33, 5,13,12		7,41
58″	32,53,49,35, 9,48,20, 4,57,45		2,24,18,10,17	
		1,45, 5,28, 8,47, 2,55		
60″	32,53,51,20,15,16,28,52, 0,40			
exact	32,53,51,20,15,16,28,51,57,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°15′ 0″	32,53,51,20,15,16,28,51,57,26			
		1,45, 5,25,44,28,44,40		
2″	32,53,53, 5,20,42,13,20,42, 6		2,24,18,25,40	
		1,45, 5,23,20,10,19, 0		7,41
4″	32,53,54,50,26, 5,33,31, 1, 6		2,24,18,33,21	
		1,45, 5,20,55,51,45,39		7,41
6″	32,53,56,35,31,26,29,22,46,45		2,24,18,41, 2	
		1,45, 5,18,31,33, 4,37		7,41
8″	32,53,58,20,36,45, 0,55,51,22		2,24,18,48,43	
		1,45, 5,16, 7,14,15,54		7,41
10″	32,54, 0, 5,42, 1, 8,10, 7,16		2,24,18,56,24	
		1,45, 5,13,42,55,19,30		7,41
12″	32,54, 1,50,47,14,51, 5,26,46		2,24,19, 4, 5	
		1,45, 5,11,18,36,15,25		7,41
14″	32,54, 3,35,52,26, 9,41,42,11		2,24,19,11,46	
		1,45, 5, 8,54,17, 3,39		7,41
16″	32,54, 5,20,57,35, 3,58,45,50		2,24,19,19,27	
		1,45, 5, 6,29,57,44,12		7,41
18″	32,54, 7, 6, 2,41,33,56,30, 2		2,24,19,27, 8	
		1,45, 5, 4, 5,38,17, 4		7,41
20″	32,54, 8,51, 7,45,39,34,47, 6		2,24,19,34,49	
		1,45, 5, 1,41,18,42,15		7,41
22″	32,54,10,36,12,47,20,53,29,21		2,24,19,42,30	
		1,45, 4,59,16,58,59,45		7,41
24″	32,54,12,21,17,46,37,52,29, 6		2,24,19,50,11	
		1,45, 4,56,52,39, 9,34		7,41
26″	32,54,14, 6,22,43,30,31,38,40		2,24,19,57,52	
		1,45, 4,54,28,19,11,42		7,41
28″	32,54,15,51,27,37,58,50,50,22		2,24,20, 5,33	
		1,45, 4,52, 3,59, 6, 9		7,41
30″	32,54,17,36,32,30, 2,49,56,31		2,24,20,13,14	
		1,45, 4,49,39,38,52,55		7,41
32″	32,54,19,21,37,19,42,28,49,26		2,24,20,20,55	
		1,45, 4,47,15,18,32, 0		7,41
34″	32,54,21, 6,42, 6,57,47,21,26		2,24,20,28,36	
		1,45, 4,44,50,58, 3,24		7,41
36″	32,54,22,51,46,51,48,45,24,50		2,24,20,36,17	
		1,45, 4,42,26,37,27, 7		7,41
38″	32,54,24,36,51,34,15,22,51,57		2,24,20,43,58	
		1,45, 4,40, 2,16,43, 9		7,41
40″	32,54,26,21,56,14,17,39,35, 6		2,24,20,51,39	
		1,45, 4,37,37,55,51,30		7,41
42″	32,54,28, 7, 0,51,55,35,26,36		2,24,20,59,20	
		1,45, 4,35,13,34,52,10		7,41
44″	32,54,29,52, 5,27, 9,10,18,46		2,24,21, 7, 1	
		1,45, 4,32,49,13,45, 9		7,41
46″	32,54,31,37, 9,59,58,24, 3,55		2,24,21,14,42	
		1,45, 4,30,24,52,30,27		7,41
48″	32,54,33,22,14,30,23,16,34,22		2,24,21,22,23	
		1,45, 4,28, 0,31, 8, 4		7,41
50″	32,54,35, 7,18,58,23,47,42,26		2,24,21,30, 4	
		1,45, 4,25,36, 9,38, 0		7,41
52″	32,54,36,52,23,23,59,57,20,26		2,24,21,37,45	
		1,45, 4,23,11,48, 0,15		7,41
54″	32,54,38,37,27,47,11,45,20,41		2,24,21,45,26	
		1,45, 4,20,47,26,14,49		7,41
56″	32,54,40,22,32, 7,59,11,35,30		2,24,21,53, 7	
		1,45, 4,18,23, 4,21,42		7,41
58″	32,54,42, 7,36,26,22,15,57,12		2,24,22, 0,48	
		1,45, 4,15,58,42,20,54		
60″	32,54,43,52,40,42,20,58,18, 6			
exact	32,54,43,52,40,42,20,58,23,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°16′ 0″	32,54,43,52,40,42,20,58,23,41	1,45, 4,13,34,20,12,58		
2″	32,54,45,37,44,55,55,18,36,39	1,45, 4,11, 9,57,56,50	2,24,22,16, 8	7,41
4″	32,54,47,22,49, 7, 5,16,33,29	1,45, 4, 8,45,35,33, 1	2,24,22,23,49	7,41
6″	32,54,49, 7,53,15,50,52, 6,30	1,45, 4, 6,21,13, 1,31	2,24,22,31,30	7,41
8″	32,54,50,52,57,22,12, 5, 8, 1	1,45, 4, 3,56,50,22,20	2,24,22,39,11	7,41
10″	32,54,52,38, 1,26, 8,55,30,21	1,45, 4, 1,32,27,35,28	2,24,22,46,52	7,41
12″	32,54,54,23, 5,27,41,23, 5,49	1,45, 3,59, 8, 4,40,55	2,24,22,54,33	7,41
14″	32,54,56, 8, 9,26,49,27,46,44	1,45, 3,56,43,41,38,41	2,24,23, 2,14	7,41
16″	32,54,57,53,13,23,33, 9,25,25	1,45, 3,54,19,18,28,46	2,24,23, 9,55	7,41
18″	32,54,59,38,17,17,52,27,54,11	1,45, 3,51,54,55,11,10	2,24,23,17,36	7,41
20″	32,55, 1,23,21, 9,47,23, 5,21	1,45, 3,49,30,31,45,53	2,24,23,25,17	7,41
22″	32,55, 3, 8,24,59,17,54,51,14	1,45, 3,47, 6, 8,12,55	2,24,23,32,58	7,41
24″	32,55, 4,53,28,46,24, 3, 4, 9	1,45, 3,44,41,44,32,16	2,24,23,40,39	7,41
26″	32,55, 6,38,32,31, 5,47,36,25	1,45, 3,42,17,20,43,56	2,24,23,48,20	7,41
28″	32,55, 8,23,36,13,23, 8,20,21	1,45, 3,39,52,56,47,55	2,24,23,56, 1	7,41
30″	32,55,10, 8,39,53,16, 5, 8,16	1,45, 3,37,28,32,44,13	2,24,24, 3,42	7,41
32″	32,55,11,53,43,30,44,37,52,29	1,45, 3,35, 4, 8,32,50	2,24,24,11,23	7,41
34″	32,55,13,38,47, 5,48,46,25,19	1,45, 3,32,39,44,13,46	2,24,24,19, 4	7,41
36″	32,55,15,23,50,38,28,30,39, 5	1,45, 3,30,15,19,47, 1	2,24,24,26,45	7,41
38″	32,55,17, 8,54, 8,43,50,26, 6	1,45, 3,27,50,55,12,35	2,24,24,34,26	7,41
40″	32,55,18,53,57,36,34,45,38,41	1,45, 3,25,26,30,30,28	2,24,24,42, 7	7,41
42″	32,55,20,39, 1, 2, 1,16, 9, 9	1,45, 3,23, 2, 5,40,40	2,24,24,49,48	7,41
44″	32,55,22,24, 4,25, 3,21,49,49	1,45, 3,20,37,40,43,11	2,24,24,57,29	7,41
46″	32,55,24, 9, 7,45,41, 2,33, 0	1,45, 3,18,13,15,38, 1	2,24,25, 5,10	7,41
48″	32,55,25,54,11, 3,54,18,11, 1	1,45, 3,15,48,50,25,10	2,24,25,12,51	7,41
50″	32,55,27,39,14,19,43, 8,36,11	1,45, 3,13,24,25, 4,38	2,24,25,20,32	7,41
52″	32,55,29,24,17,33, 7,33,40,49	1,45, 3,10,59,59,36,25	2,24,25,28,13	7,41
54″	32,55,31, 9,20,44, 7,33,17,14	1,45, 3, 8,35,34, 0,31	2,24,25,35,54	7,41
56″	32,55,32,54,23,52,43, 7,17,45	1,45, 3, 6,11, 8,16,56	2,24,25,43,35	7,41
58″	32,55,34,39,26,58,54,15,34,41	1,45, 3, 3,46,42,25,40	2,24,25,51,16	
60″	32,55,36,24,30, 2,40,58, 0,21			
exact	32,55,36,24,30, 2,40,58,11,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°17′ 0″	32,55,36,24,30, 2,40,58,11,50			
		1,45, 3, 1,22,16,27,54		
2″	32,55,38, 9,33, 4, 3,14,39,44		2,24,26, 6,33	
		1,45, 2,58,57,50,21,21		7,41
4″	32,55,39,54,36, 3, 1, 5, 1, 5		2,24,26,14,14	
		1,45, 2,56,33,24, 7, 7		7,41
6″	32,55,41,39,38,59,34,29, 8,12		2,24,26,21,55	
		1,45, 2,54, 8,57,45,12		7,41
8″	32,55,43,24,41,53,43,26,53,24		2,24,26,29,36	
		1,45, 2,51,44,31,15,36		7,41
10″	32,55,45, 9,44,45,27,58, 9, 0		2,24,26,37,17	
		1,45, 2,49,20, 4,38,19		7,41
12″	32,55,46,54,47,34,48, 2,47,19		2,24,26,44,58	
		1,45, 2,46,55,37,53,21		7,41
14″	32,55,48,39,50,21,43,40,40,40		2,24,26,52,39	
		1,45, 2,44,31,11, 0,42		7,41
16″	32,55,50,24,53, 6,14,51,41,22		2,24,27, 0,20	
		1,45, 2,42, 6,44, 0,22		7,41
18″	32,55,52, 9,55,48,21,35,41,44		2,24,27, 8, 1	
		1,45, 2,39,42,16,52,21		7,41
20″	32,55,53,54,58,28, 3,52,34, 5		2,24,27,15,42	
		1,45, 2,37,17,49,36,39		7,41
22″	32,55,55,40, 1, 5,21,42,10,44		2,24,27,23,23	
		1,45, 2,34,53,22,13,16		7,41
24″	32,55,57,25, 3,40,15, 4,24, 0		2,24,27,31, 4	
		1,45, 2,32,28,54,42,12		7,41
26″	32,55,59,10, 6,12,43,59, 6,12		2,24,27,38,45	
		1,45, 2,30, 4,27, 3,27		7,41
28″	32,56, 0,55, 8,42,48,26, 9,39		2,24,27,46,26	
		1,45, 2,27,39,59,17, 1		7,41
30″	32,56, 2,40,11,10,28,25,26,40		2,24,27,54, 7	
		1,45, 2,25,15,31,22,54		7,41
32″	32,56, 4,25,13,35,43,56,49,34		2,24,28, 1,48	
		1,45, 2,22,51, 3,21, 6		7,41
34″	32,56, 6,10,15,58,35, 0,10,40		2,24,28, 9,29	
		1,45, 2,20,26,35,11,37		7,41
36″	32,56, 7,55,18,19, 1,35,22,17		2,24,28,17,10	
		1,45, 2,18, 2, 6,54,27		7,41
38″	32,56, 9,40,20,37, 3,42,16,44		2,24,28,24,51	
		1,45, 2,15,37,38,29,36		7,41
40″	32,56,11,25,22,52,41,20,46,20		2,24,28,32,32	
		1,45, 2,13,13, 9,57, 4		7,41
42″	32,56,13,10,25, 5,54,30,43,24		2,24,28,40,13	
		1,45, 2,10,48,41,16,51		7,41
44″	32,56,14,55,27,16,43,12, 0,15		2,24,28,47,54	
		1,45, 2, 8,24,12,28,57		7,41
46″	32,56,16,40,29,25, 7,24,29,12		2,24,28,55,35	
		1,45, 2, 5,59,43,33,22		7,41
48″	32,56,18,25,31,31, 7, 8, 2,34		2,24,29, 3,16	
		1,45, 2, 3,35,14,30, 6		7,41
50″	32,56,20,10,33,34,42,22,32,40		2,24,29,10,57	
		1,45, 2, 1,10,45,19, 9		7,41
52″	32,56,21,55,35,35,53, 7,51,49		2,24,29,18,38	
		1,45, 1,58,46,16, 0,31		7,41
54″	32,56,23,40,37,34,39,23,52,20		2,24,29,26,19	
		1,45, 1,56,21,46,34,12		7,41
56″	32,56,25,25,39,31, 1,10,26,32		2,24,29,34, 0	
		1,45, 1,53,57,17, 0,12		7,41
58″	32,56,27,10,41,24,58,27,26,44		2,24,29,41,41	
		1,45, 1,51,32,47,18,31		
60″	32,56,28,55,43,16,31,14,45,15			
exact	32,56,28,55,43,16,31,15, 0,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°18′ 0″	32,56,28,55,43,16,31,15, 0,17			
		1,45, 1,49, 8,17,30,48		
2″	32,56,30,40,45, 5,39,32,31, 5		2,24,29,56,56	
		1,45, 1,46,43,47,33,52		7,41
4″	32,56,32,25,46,52,23,20, 4,57		2,24,30, 4,37	
		1,45, 1,44,19,17,29,15		7,41
6″	32,56,34,10,48,36,42,37,34,12		2,24,30,12,18	
		1,45, 1,41,54,47,16,57		7,41
8″	32,56,35,55,50,18,37,24,51, 9		2,24,30,19,59	
		1,45, 1,39,30,16,56,58		7,41
10″	32,56,37,40,51,58, 7,41,48, 7		2,24,30,27,40	
		1,45, 1,37, 5,46,29,18		7,41
12″	32,56,39,25,53,35,13,28,17,25		2,24,30,35,21	
		1,45, 1,34,41,15,53,57		7,41
14″	32,56,41,10,55, 9,54,44,11,22		2,24,30,43, 2	
		1,45, 1,32,16,45,10,55		7,41
16″	32,56,42,55,56,42,11,29,22,17		2,24,30,50,43	
		1,45, 1,29,52,14,20,12		7,41
18″	32,56,44,40,58,12, 3,43,42,29		2,24,30,58,24	
		1,45, 1,27,27,43,21,48		7,41
20″	32,56,46,25,59,39,31,27, 4,17		2,24,31, 6, 5	
		1,45, 1,25, 3,12,15,43		7,41
22″	32,56,48,11, 1, 4,34,39,20, 0		2,24,31,13,46	
		1,45, 1,22,38,41, 1,57		7,41
24″	32,56,49,56, 2,27,13,20,21,57		2,24,31,21,27	
		1,45, 1,20,14, 9,40,30		7,41
26″	32,56,51,41, 3,47,27,30, 2,27		2,24,31,29, 8	
		1,45, 1,17,49,38,11,22		7,41
28″	32,56,53,26, 5, 5,17, 8,13,49		2,24,31,36,49	
		1,45, 1,15,25, 6,34,33		7,41
30″	32,56,55,11, 6,20,42,14,48,22		2,24,31,44,30	
		1,45, 1,13, 0,34,50, 3		7,41
32″	32,56,56,56, 7,33,42,49,38,25		2,24,31,52,11	
		1,45, 1,10,36, 2,57,52		7,41
34″	32,56,58,41, 8,44,18,52,36,17		2,24,31,59,52	
		1,45, 1, 8,11,30,58, 0		7,41
36″	32,57, 0,26, 9,52,30,23,34,17		2,24,32, 7,33	
		1,45, 1, 5,46,58,50,27		7,41
38″	32,57, 2,11,10,58,17,22,24,44		2,24,32,15,14	
		1,45, 1, 3,22,26,35,13		7,41
40″	32,57, 3,56,12, 1,39,48,59,57		2,24,32,22,55	
		1,45, 1, 0,57,54,12,18		7,41
42″	32,57, 5,41,13, 2,37,43,12,15		2,24,32,30,36	
		1,45, 0,58,33,21,41,42		7,41
44″	32,57, 7,26,14, 1,11, 4,53,57		2,24,32,38,17	
		1,45, 0,56, 8,49, 3,25		7,41
46″	32,57, 9,11,14,57,19,53,57,22		2,24,32,45,58	
		1,45, 0,53,44,16,17,27		7,41
48″	32,57,10,56,15,51, 4,10,14,49		2,24,32,53,39	
		1,45, 0,51,19,43,23,48		7,41
50″	32,57,12,41,16,42,23,53,38,37		2,24,33, 1,20	
		1,45, 0,48,55,10,22,28		7,41
52″	32,57,14,26,17,31,19, 4, 1, 5		2,24,33, 9, 1	
		1,45, 0,46,30,37,13,27		7,41
54″	32,57,16,11,18,17,49,41,14,32		2,24,33,16,42	
		1,45, 0,44, 6, 3,56,45		7,41
56″	32,57,17,56,19, 1,55,45,11,17		2,24,33,24,23	
		1,45, 0,41,41,30,32,22		7,41
58″	32,57,19,41,19,43,37,15,43,39		2,24,33,32, 4	
		1,45, 0,39,16,57, 0,18		
60″	32,57,21,26,20,22,54,12,43,57			
exact	32,57,21,26,20,22,54,13, 7, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°19′ 0″	32,57,21,26,20,22,54,13, 7, 2			
		1,45, 0,36,52,23,22,59		
2″	32,57,23,11,20,59,46,36,30, 1		2,24,33,47,16	
		1,45, 0,34,27,49,35,43		7,41
4″	32,57,24,56,21,34,14,26, 5,44		2,24,33,54,57	
		1,45, 0,32, 3,15,40,46		7,41
6″	32,57,26,41,22, 6,17,41,46,30		2,24,34, 2,38	
		1,45, 0,29,38,41,38, 8		7,41
8″	32,57,28,26,22,35,56,23,24,38		2,24,34,10,19	
		1,45, 0,27,14, 7,27,49		7,41
10″	32,57,30,11,23, 3,10,30,52,27		2,24,34,18, 0	
		1,45, 0,24,49,33, 9,49		7,41
12″	32,57,31,56,23,28, 0, 4, 2,16		2,24,34,25,41	
		1,45, 0,22,24,58,44, 8		7,41
14″	32,57,33,41,23,50,25, 2,46,24		2,24,34,33,22	
		1,45, 0,20, 0,24,10,46		7,41
16″	32,57,35,26,24,10,25,26,57,10		2,24,34,41, 3	
		1,45, 0,17,35,49,29,43		7,41
18″	32,57,37,11,24,28, 1,16,26,53		2,24,34,48,44	
		1,45, 0,15,11,14,40,59		7,41
20″	32,57,38,56,24,43,12,31, 7,52		2,24,34,56,25	
		1,45, 0,12,46,39,44,34		7,41
22″	32,57,40,41,24,55,59,10,52,26		2,24,35, 4, 6	
		1,45, 0,10,22, 4,40,28		7,41
24″	32,57,42,26,25, 6,21,15,32,54		2,24,35,11,47	
		1,45, 0, 7,57,29,28,41		7,41
26″	32,57,44,11,25,14,18,45, 1,35		2,24,35,19,28	
		1,45, 0, 5,32,54, 9,13		7,41
28″	32,57,45,56,25,19,51,39,10,48		2,24,35,27, 9	
		1,45, 0, 3, 8,18,42, 4		7,41
30″	32,57,47,41,25,22,59,57,52,52		2,24,35,34,50	
		1,45, 0, 0,43,43, 7,14		7,41
32″	32,57,49,26,25,23,43,41, 0, 6		2,24,35,42,31	
		1,44,59,58,19, 7,24,43		7,41
34″	32,57,51,11,25,22, 2,48,24,49		2,24,35,50,12	
		1,44,59,55,54,31,34,31		7,41
36″	32,57,52,56,25,17,57,19,59,20		2,24,35,57,53	
		1,44,59,53,29,55,36,38		7,41
38″	32,57,54,41,25,11,27,15,35,58		2,24,36, 5,34	
		1,44,59,51, 5,19,31, 4		7,41
40″	32,57,56,26,25, 2,32,35, 7, 2		2,24,36,13,15	
		1,44,59,48,40,43,17,49		7,41
42″	32,57,58,11,24,51,13,18,24,51		2,24,36,20,56	
		1,44,59,46,16, 6,56,53		7,41
44″	32,57,59,56,24,37,29,25,21,44		2,24,36,28,37	
		1,44,59,43,51,30,28,16		7,41
46″	32,58, 1,41,24,21,20,55,50, 0		2,24,36,36,18	
		1,44,59,41,26,53,51,58		7,41
48″	32,58, 3,26,24, 2,47,49,41,58		2,24,36,43,59	
		1,44,59,39, 2,17, 7,59		7,41
50″	32,58, 5,11,23,41,50, 6,49,57		2,24,36,51,40	
		1,44,59,36,37,40,16,19		7,41
52″	32,58, 6,56,23,18,27,47, 6,16		2,24,36,59,21	
		1,44,59,34,13, 3,16,58		7,41
54″	32,58, 8,41,22,52,40,50,23,14		2,24,37, 7, 2	
		1,44,59,31,48,26, 9,56		7,41
56″	32,58,10,26,22,24,29,16,33,10		2,24,37,14,43	
		1,44,59,29,23,48,55,13		7,41
58″	32,58,12,11,21,53,53, 5,28,23		2,24,37,22,24	
		1,44,59,26,59,11,32,49		
60″	32,58,13,56,21,20,52,17, 1,12			
exact	32,58,13,56,21,20,52,17,29,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°20′ 0″	32,58,13,56,21,20,52,17,29,42			
		1,44,59,24,34,34, 5,46		
2″	32,58,15,41,20,45,26,51,35,28		2,24,37,37,33	
		1,44,59,22, 9,56,28,13		7,41
4″	32,58,17,26,20, 7,36,48, 3,41		2,24,37,45,14	
		1,44,59,19,45,18,42,59		7,41
6″	32,58,19,11,19,27,22, 6,46,40		2,24,37,52,55	
		1,44,59,17,20,40,50, 4		7,41
8″	32,58,20,56,18,44,42,47,36,44		2,24,38, 0,36	
		1,44,59,14,56, 2,49,28		7,41
10″	32,58,22,41,17,59,38,50,26,12		2,24,38, 8,17	
		1,44,59,12,31,24,41,11		7,41
12″	32,58,24,26,17,12,10,15, 7,23		2,24,38,15,58	
		1,44,59,10, 6,46,25,13		7,41
14″	32,58,26,11,16,22,17, 1,32,36		2,24,38,23,39	
		1,44,59, 7,42, 8, 1,34		7,41
16″	32,58,27,56,15,29,59, 9,34,10		2,24,38,31,20	
		1,44,59, 5,17,29,30,14		7,41
18″	32,58,29,41,14,35,16,39, 4,24		2,24,38,39, 1	
		1,44,59, 2,52,50,51,13		7,41
20″	32,58,31,26,13,38, 9,29,55,37		2,24,38,46,42	
		1,44,59, 0,28,12, 4,31		7,41
22″	32,58,33,11,12,38,37,42, 0, 8		2,24,38,54,23	
		1,44,58,58, 3,33,10, 8		7,41
24″	32,58,34,56,11,36,41,15,10,16		2,24,39, 2, 4	
		1,44,58,55,38,54, 8, 4		7,41
26″	32,58,36,41,10,32,20, 9,18,20		2,24,39, 9,45	
		1,44,58,53,14,14,58,19		7,41
28″	32,58,38,26, 9,25,34,24,16,39		2,24,39,17,26	
		1,44,58,50,49,35,40,53		7,41
30″	32,58,40,11, 8,16,23,59,57,32		2,24,39,25, 7	
		1,44,58,48,24,56,15,46		7,41
32″	32,58,41,56, 7, 4,48,56,13,18		2,24,39,32,48	
		1,44,58,46, 0,16,42,58		7,41
34″	32,58,43,41, 5,50,49,12,56,16		2,24,39,40,29	
		1,44,58,43,35,37, 2,29		7,41
36″	32,58,45,26, 4,34,24,49,58,45		2,24,39,48,10	
		1,44,58,41,10,57,14,19		7,41
38″	32,58,47,11, 3,15,35,47,13, 4		2,24,39,55,51	
		1,44,58,38,46,17,18,28		7,41
40″	32,58,48,56, 1,54,22, 4,31,32		2,24,40, 3,32	
		1,44,58,36,21,37,14,56		7,41
42″	32,58,50,41, 0,30,43,41,46,28		2,24,40,11,13	
		1,44,58,33,56,57, 3,43		7,41
44″	32,58,52,25,59, 4,40,38,50,11		2,24,40,18,54	
		1,44,58,31,32,16,44,49		7,41
46″	32,58,54,10,57,36,12,55,35, 0		2,24,40,26,35	
		1,44,58,29, 7,36,18,14		7,41
48″	32,58,55,55,56, 5,20,31,53,14		2,24,40,34,16	
		1,44,58,26,42,55,43,58		7,41
50″	32,58,57,40,54,32, 3,27,37,12		2,24,40,41,57	
		1,44,58,24,18,15, 2, 1		7,41
52″	32,58,59,25,52,56,21,42,39,13		2,24,40,49,38	
		1,44,58,21,53,34,12,23		7,41
54″	32,59, 1,10,51,18,15,16,51,36		2,24,40,57,19	
		1,44,58,19,28,53,15, 4		7,41
56″	32,59, 2,55,49,37,44,10, 6,40		2,24,41, 5, 0	
		1,44,58,17, 4,12,10, 4		7,41
58″	32,59, 4,40,47,54,48,22,16,44		2,24,41,12,41	
		1,44,58,14,39,30,57,23		
60″	32,59, 6,25,46, 9,27,53,14, 7			
exact	32,59, 6,25,46, 9,27,53,45,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°21′ 0″	32,59, 6,25,46, 9,27,53,45,32	1,44,58,12,14,49,40,29		
2″	32,59, 8,10,44,21,42,43,26, 1	1,44,58, 9,50, 8,12,41	2,24,41,27,48	7,40
4″	32,59, 9,55,42,31,32,51,38,42	1,44,58, 7,25,26,37,13	2,24,41,35,28	7,40
6″	32,59,11,40,40,38,58,18,15,55	1,44,58, 5, 0,44,54, 5	2,24,41,43, 8	7,40
8″	32,59,13,25,38,43,59, 3,10, 0	1,44,58, 2,36, 3, 3,17	2,24,41,50,48	7,40
10″	32,59,15,10,36,46,35, 6,13,17	1,44,58, 0,11,21, 4,49	2,24,41,58,28	7,40
12″	32,59,16,55,34,46,46,27,18, 6	1,44,57,57,46,38,58,41	2,24,42, 6, 8	7,40
14″	32,59,18,40,32,44,33, 6,16,47	1,44,57,55,21,56,44,53	2,24,42,13,48	7,40
16″	32,59,20,25,30,39,55, 3, 1,40	1,44,57,52,57,14,23,25	2,24,42,21,28	7,40
18″	32,59,22,10,28,32,52,17,25, 5	1,44,57,50,32,31,54,17	2,24,42,29, 8	7,40
20″	32,59,23,55,26,23,24,49,19,22	1,44,57,48, 7,49,17,29	2,24,42,36,48	7,40
22″	32,59,25,40,24,11,32,38,36,51	1,44,57,45,43, 6,33, 1	2,24,42,44,28	7,40
24″	32,59,27,25,21,57,15,45, 9,52	1,44,57,43,18,23,40,53	2,24,42,52, 8	7,40
26″	32,59,29,10,19,40,34, 8,50,45	1,44,57,40,53,40,41, 5	2,24,42,59,48	7,40
28″	32,59,30,55,17,21,27,49,31,50	1,44,57,38,28,57,33,37	2,24,43, 7,28	7,40
30″	32,59,32,40,14,59,56,47, 5,27	1,44,57,36, 4,14,18,29	2,24,43,15, 8	7,40
32″	32,59,34,25,12,36, 1, 1,23,56	1,44,57,33,39,30,55,41	2,24,43,22,48	7,40
34″	32,59,36,10,10, 9,40,32,19,37	1,44,57,31,14,47,25,13	2,24,43,30,28	7,40
36″	32,59,37,55, 7,40,55,19,44,50	1,44,57,28,50, 3,47, 5	2,24,43,38, 8	7,40
38″	32,59,39,40, 5, 9,45,23,31,55	1,44,57,26,25,20, 1,17	2,24,43,45,48	7,40
40″	32,59,41,25, 2,36,10,43,33,12	1,44,57,24, 0,36, 7,49	2,24,43,53,28	7,40
42″	32,59,43,10, 0, 0,11,19,41, 1	1,44,57,21,35,52, 6,41	2,24,44, 1, 8	7,40
44″	32,59,44,54,57,21,47,11,47,42	1,44,57,19,11, 7,57,53	2,24,44, 8,48	7,40
46″	32,59,46,39,54,40,58,19,45,35	1,44,57,16,46,23,41,25	2,24,44,16,28	7,40
48″	32,59,48,24,51,57,44,43,27, 0	1,44,57,14,21,39,17,17	2,24,44,24, 8	7,40
50″	32,59,50, 9,49,12, 6,22,44,17	1,44,57,11,56,54,45,29	2,24,44,31,48	7,40
52″	32,59,51,54,46,24, 3,17,29,46	1,44,57, 9,32,10, 6, 1	2,24,44,39,28	7,40
54″	32,59,53,39,43,33,35,27,35,47	1,44,57, 7, 7,25,18,53	2,24,44,47, 8	7,40
56″	32,59,55,24,40,40,42,52,54,40	1,44,57, 4,42,40,24, 5	2,24,44,54,48	7,40
58″	32,59,57, 9,37,45,25,33,18,45	1,44,57, 2,17,55,21,37	2,24,45, 2,28	
60″	32,59,58,54,34,47,43,28,40,22			
exact	32,59,58,54,34,47,43,28,11,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°22′ 0″	32,59,58,54,34,47,43,28,11,27			
		1,44,56,59,53,10, 8,26		
2″	33, 0, 0,39,31,47,36,38,19,53		2,24,45,18, 0	
		1,44,56,57,28,24,50,26		7,40
4″	33, 0, 2,24,28,45, 5, 3,10,19		2,24,45,25,40	
		1,44,56,55, 3,39,24,46		7,40
6″	33, 0, 4, 9,25,40, 8,42,35, 5		2,24,45,33,20	
		1,44,56,52,38,53,51,26		7,40
8″	33, 0, 5,54,22,32,47,36,26,31		2,24,45,41, 0	
		1,44,56,50,14, 8,10,26		7,40
10″	33, 0, 7,39,19,23, 1,44,36,57		2,24,45,48,40	
		1,44,56,47,49,22,21,46		7,40
12″	33, 0, 9,24,16,10,51, 6,58,43		2,24,45,56,20	
		1,44,56,45,24,36,25,26		7,40
14″	33, 0,11, 9,12,56,15,43,24, 9		2,24,46, 4, 0	
		1,44,56,42,59,50,21,26		7,40
16″	33, 0,12,54, 9,39,15,33,45,35		2,24,46,11,40	
		1,44,56,40,35, 4, 9,46		7,40
18″	33, 0,14,39, 6,19,50,37,55,21		2,24,46,19,20	
		1,44,56,38,10,17,50,26		7,40
20″	33, 0,16,24, 2,58, 0,55,45,47		2,24,46,27, 0	
		1,44,56,35,45,31,23,26		7,40
22″	33, 0,18, 8,59,33,46,27, 9,13		2,24,46,34,40	
		1,44,56,33,20,44,48,46		7,40
24″	33, 0,19,53,56, 7, 7,11,57,59		2,24,46,42,20	
		1,44,56,30,55,58, 6,26		7,40
26″	33, 0,21,38,52,38, 3,10, 4,25		2,24,46,50, 0	
		1,44,56,28,31,11,16,26		7,40
28″	33, 0,23,23,49, 6,34,21,20,51		2,24,46,57,40	
		1,44,56,26, 6,24,18,46		7,40
30″	33, 0,25, 8,45,32,40,45,39,37		2,24,47, 5,20	
		1,44,56,23,41,37,13,26		7,40
32″	33, 0,26,53,41,56,22,22,53, 3		2,24,47,13, 0	
		1,44,56,21,16,50, 0,26		7,40
34″	33, 0,28,38,38,17,39,12,53,29		2,24,47,20,40	
		1,44,56,18,52, 2,39,46		7,40
36″	33, 0,30,23,34,36,31,15,33,15		2,24,47,28,20	
		1,44,56,16,27,15,11,26		7,40
38″	33, 0,32, 8,30,52,58,30,44,41		2,24,47,36, 0	
		1,44,56,14, 2,27,35,26		7,40
40″	33, 0,33,53,27, 7, 0,58,20, 7		2,24,47,43,40	
		1,44,56,11,37,39,51,46		7,40
42″	33, 0,35,38,23,18,38,38,11,53		2,24,47,51,20	
		1,44,56, 9,12,52, 0,26		7,40
44″	33, 0,37,23,19,27,51,30,12,19		2,24,47,59, 0	
		1,44,56, 6,48, 4, 1,26		7,40
46″	33, 0,39, 8,15,34,39,34,13,45		2,24,48, 6,40	
		1,44,56, 4,23,15,54,46		7,40
48″	33, 0,40,53,11,39, 2,50, 8,31		2,24,48,14,20	
		1,44,56, 1,58,27,40,26		7,40
50″	33, 0,42,38, 7,41, 1,17,48,57		2,24,48,22, 0	
		1,44,55,59,33,39,18,26		7,40
52″	33, 0,44,23, 3,40,34,57, 7,23		2,24,48,29,40	
		1,44,55,57, 8,50,48,46		7,40
54″	33, 0,46, 7,59,37,43,47,56, 9		2,24,48,37,20	
		1,44,55,54,44, 2,11,26		7,40
56″	33, 0,47,52,55,32,27,50, 7,35		2,24,48,45, 0	
		1,44,55,52,19,13,26,26		7,40
58″	33, 0,49,37,51,24,47, 3,34, 1		2,24,48,52,40	
		1,44,55,49,54,24,33,46		
60″	33, 0,51,22,47,14,41,28, 7,47			
exact	33, 0,51,22,47,14,41,27,43,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°23′ 0″	33, 0,51,22,47,14,41,27,43,59	1,44,55,47,29,35,30,58		
2″	33, 0,53, 7,43, 2,11, 3,14,57	1,44,55,45, 4,46,22,48	2,24,49, 8,10	7,40
4″	33, 0,54,52,38,47,15,49,37,45	1,44,55,42,39,57, 6,58	2,24,49,15,50	7,40
6″	33, 0,56,37,34,29,55,46,44,43	1,44,55,40,15, 7,43,28	2,24,49,23,30	7,40
8″	33, 0,58,22,30,10,10,54,28,11	1,44,55,37,50,18,12,18	2,24,49,31,10	7,40
10″	33, 1, 0, 7,25,48, 1,12,40,29	1,44,55,35,25,28,33,28	2,24,49,38,50	7,40
12″	33, 1, 1,52,21,23,26,41,13,57	1,44,55,33, 0,38,46,58	2,24,49,46,30	7,40
14″	33, 1, 3,37,16,56,27,20, 0,55	1,44,55,30,35,48,52,48	2,24,49,54,10	7,40
16″	33, 1, 5,22,12,27, 3, 8,53,43	1,44,55,28,10,58,50,58	2,24,50, 1,50	7,40
18″	33, 1, 7, 7, 7,55,14, 7,44,41	1,44,55,25,46, 8,41,28	2,24,50, 9,30	7,40
20″	33, 1, 8,52, 3,21, 0,16,26, 9	1,44,55,23,21,18,24,18	2,24,50,17,10	7,40
22″	33, 1,10,36,58,44,21,34,50,27	1,44,55,20,56,27,59,28	2,24,50,24,50	7,40
24″	33, 1,12,21,54, 5,18, 2,49,55	1,44,55,18,31,37,26,58	2,24,50,32,30	7,40
26″	33, 1,14, 6,49,23,49,40,16,53	1,44,55,16, 6,46,46,48	2,24,50,40,10	7,40
28″	33, 1,15,51,44,39,56,27, 3,41	1,44,55,13,41,55,58,58	2,24,50,47,50	7,40
30″	33, 1,17,36,39,53,38,23, 2,39	1,44,55,11,17, 5, 3,28	2,24,50,55,30	7,40
32″	33, 1,19,21,35, 4,55,28, 6, 7	1,44,55, 8,52,14, 0,18	2,24,51, 3,10	7,40
34″	33, 1,21, 6,30,13,47,42, 6,25	1,44,55, 6,27,22,49,28	2,24,51,10,50	7,40
36″	33, 1,22,51,25,20,15, 4,55,53	1,44,55, 4, 2,31,30,58	2,24,51,18,30	7,40
38″	33, 1,24,36,20,24,17,36,26,51	1,44,55, 1,37,40, 4,48	2,24,51,26,10	7,40
40″	33, 1,26,21,15,25,55,16,31,39	1,44,54,59,12,48,30,58	2,24,51,33,50	7,40
42″	33, 1,28, 6,10,25, 8, 5, 2,37	1,44,54,56,47,56,49,28	2,24,51,41,30	7,40
44″	33, 1,29,51, 5,21,56, 1,52, 5	1,44,54,54,23, 5, 0,18	2,24,51,49,10	7,40
46″	33, 1,31,36, 0,16,19, 6,52,23	1,44,54,51,58,13, 3,28	2,24,51,56,50	7,40
48″	33, 1,33,20,55, 8,17,19,55,51	1,44,54,49,33,20,58,58	2,24,52, 4,30	7,40
50″	33, 1,35, 5,49,57,50,40,54,49	1,44,54,47, 8,28,46,48	2,24,52,12,10	7,40
52″	33, 1,36,50,44,44,59, 9,41,37	1,44,54,44,43,36,26,58	2,24,52,19,50	7,40
54″	33, 1,38,35,39,29,42,46, 8,35	1,44,54,42,18,43,59,28	2,24,52,27,30	7,40
56″	33, 1,40,20,34,12, 1,30, 8, 3	1,44,54,39,53,51,24,18	2,24,52,35,10	7,40
58″	33, 1,42, 5,28,51,55,21,32,21	1,44,54,37,28,58,41,28	2,24,52,42,50	
60″	33, 1,43,50,23,29,24,20,13,49			
exact	33, 1,43,50,23,29,24,19,59,25			

10-digit interpolations for Bürgi's 2″ sine table (reconstruction, D. Roegel, 2016)

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°24′ 0″	33, 1,43,50,23,29,24,19,59,25			
		1,44,54,35, 4, 5,49,23		
2″	33, 1,45,35,18, 4,28,25,48,48		2,24,52,58,16	
		1,44,54,32,39,12,51, 7		7,40
4″	33, 1,47,20,12,37, 7,38,39,55		2,24,53, 5,56	
		1,44,54,30,14,19,45,11		7,40
6″	33, 1,49, 5, 7, 7,21,58,25, 6		2,24,53,13,36	
		1,44,54,27,49,26,31,35		7,40
8″	33, 1,50,50, 1,35,11,24,56,41		2,24,53,21,16	
		1,44,54,25,24,33,10,19		7,40
10″	33, 1,52,34,56, 0,35,58, 7, 0		2,24,53,28,56	
		1,44,54,22,59,39,41,23		7,40
12″	33, 1,54,19,50,23,35,37,48,23		2,24,53,36,36	
		1,44,54,20,34,46, 4,47		7,40
14″	33, 1,56, 4,44,44,10,23,53,10		2,24,53,44,16	
		1,44,54,18, 9,52,20,31		7,40
16″	33, 1,57,49,39, 2,20,16,13,41		2,24,53,51,56	
		1,44,54,15,44,58,28,35		7,40
18″	33, 1,59,34,33,18, 5,14,42,16		2,24,53,59,36	
		1,44,54,13,20, 4,28,59		7,40
20″	33, 2, 1,19,27,31,25,19,11,15		2,24,54, 7,16	
		1,44,54,10,55,10,21,43		7,40
22″	33, 2, 3, 4,21,42,20,29,32,58		2,24,54,14,56	
		1,44,54, 8,30,16, 6,47		7,40
24″	33, 2, 4,49,15,50,50,45,39,45		2,24,54,22,36	
		1,44,54, 6, 5,21,44,11		7,40
26″	33, 2, 6,34, 9,56,56, 7,23,56		2,24,54,30,16	
		1,44,54, 3,40,27,13,55		7,40
28″	33, 2, 8,19, 4, 0,36,34,37,51		2,24,54,37,56	
		1,44,54, 1,15,32,35,59		7,40
30″	33, 2,10, 3,58, 1,52, 7,13,50		2,24,54,45,36	
		1,44,53,58,50,37,50,23		7,40
32″	33, 2,11,48,52, 0,42,45, 4,13		2,24,54,53,16	
		1,44,53,56,25,42,57, 7		7,40
34″	33, 2,13,33,45,57, 8,28, 1,20		2,24,55, 0,56	
		1,44,53,54, 0,47,56,11		7,40
36″	33, 2,15,18,39,51, 9,15,57,31		2,24,55, 8,36	
		1,44,53,51,35,52,47,35		7,40
38″	33, 2,17, 3,33,42,45, 8,45, 6		2,24,55,16,16	
		1,44,53,49,10,57,31,19		7,40
40″	33, 2,18,48,27,31,56, 6,16,25		2,24,55,23,56	
		1,44,53,46,46, 2, 7,23		7,40
42″	33, 2,20,33,21,18,42, 8,23,48		2,24,55,31,36	
		1,44,53,44,21, 6,35,47		7,40
44″	33, 2,22,18,15, 3, 3,14,59,35		2,24,55,39,16	
		1,44,53,41,56,10,56,31		7,40
46″	33, 2,24, 3, 8,44,59,25,56, 6		2,24,55,46,56	
		1,44,53,39,31,15, 9,35		7,40
48″	33, 2,25,48, 2,24,30,41, 5,41		2,24,55,54,36	
		1,44,53,37, 6,19,14,59		7,40
50″	33, 2,27,32,56, 1,37, 0,20,40		2,24,56, 2,16	
		1,44,53,34,41,23,12,43		7,40
52″	33, 2,29,17,49,36,18,23,33,23		2,24,56, 9,56	
		1,44,53,32,16,27, 2,47		7,40
54″	33, 2,31, 2,43, 8,34,50,36,10		2,24,56,17,36	
		1,44,53,29,51,30,45,11		7,40
56″	33, 2,32,47,36,38,26,21,21,21		2,24,56,25,16	
		1,44,53,27,26,34,19,55		7,40
58″	33, 2,34,32,30, 5,52,55,41,16		2,24,56,32,56	
		1,44,53,25, 1,37,46,59		
60″	33, 2,36,17,23,30,54,33,28,15			
exact	33, 2,36,17,23,30,54,33,13,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°25′ 0″	33, 2,36,17,23,30,54,33,13,42	1,44,53,22,36,41, 5, 1		
2″	33, 2,38, 2,16,53,31,14,18,43	1,44,53,20,11,44,16,40	2,24,56,48,21	
4″	33, 2,39,47,10,13,42,58,35,23	1,44,53,17,46,47,20,39	2,24,56,56, 1	7,40
6″	33, 2,41,32, 3,31,29,45,56, 2	1,44,53,15,21,50,16,58	2,24,57, 3,41	7,40
8″	33, 2,43,16,56,46,51,36,13, 0	1,44,53,12,56,53, 5,37	2,24,57,11,21	7,40
10″	33, 2,45, 1,49,59,48,29,18,37	1,44,53,10,31,55,46,36	2,24,57,19, 1	7,40
12″	33, 2,46,46,43,10,20,25, 5,13	1,44,53, 8, 6,58,19,55	2,24,57,26,41	7,40
14″	33, 2,48,31,36,18,27,23,25, 8	1,44,53, 5,42, 0,45,34	2,24,57,34,21	7,40
16″	33, 2,50,16,29,24, 9,24,10,42	1,44,53, 3,17, 3, 3,33	2,24,57,42, 1	7,40
18″	33, 2,52, 1,22,27,26,27,14,15	1,44,53, 0,52, 5,13,52	2,24,57,49,41	7,40
20″	33, 2,53,46,15,28,18,32,28, 7	1,44,52,58,27, 7,16,31	2,24,57,57,21	7,40
22″	33, 2,55,31, 8,26,45,39,44,38	1,44,52,56, 2, 9,11,30	2,24,58, 5, 1	7,40
24″	33, 2,57,16, 1,22,47,48,56, 8	1,44,52,53,37,10,58,49	2,24,58,12,41	7,40
26″	33, 2,59, 0,54,16,24,59,54,57	1,44,52,51,12,12,38,28	2,24,58,20,21	7,40
28″	33, 3, 0,45,47, 7,37,12,33,25	1,44,52,48,47,14,10,27	2,24,58,28, 1	7,40
30″	33, 3, 2,30,39,56,24,26,43,52	1,44,52,46,22,15,34,46	2,24,58,35,41	7,40
32″	33, 3, 4,15,32,42,46,42,18,38	1,44,52,43,57,16,51,25	2,24,58,43,21	7,40
34″	33, 3, 6, 0,25,26,43,59,10, 3	1,44,52,41,32,18, 0,24	2,24,58,51, 1	7,40
36″	33, 3, 7,45,18, 8,16,17,10,27	1,44,52,39, 7,19, 1,43	2,24,58,58,41	7,40
38″	33, 3, 9,30,10,47,23,36,12,10	1,44,52,36,42,19,55,22	2,24,59, 6,21	7,40
40″	33, 3,11,15, 3,24, 5,56, 7,32	1,44,52,34,17,20,41,21	2,24,59,14, 1	7,40
42″	33, 3,12,59,55,58,23,16,48,53	1,44,52,31,52,21,19,40	2,24,59,21,41	7,40
44″	33, 3,14,44,48,30,15,38, 8,33	1,44,52,29,27,21,50,19	2,24,59,29,21	7,40
46″	33, 3,16,29,40,59,42,59,58,52	1,44,52,27, 2,22,13,18	2,24,59,37, 1	7,40
48″	33, 3,18,14,33,26,45,22,12,10	1,44,52,24,37,22,28,37	2,24,59,44,41	7,40
50″	33, 3,19,59,25,51,22,44,40,47	1,44,52,22,12,22,36,16	2,24,59,52,21	7,40
52″	33, 3,21,44,18,13,35, 7,17, 3	1,44,52,19,47,22,36,15	2,25, 0, 0, 1	7,40
54″	33, 3,23,29,10,33,22,29,53,18	1,44,52,17,22,22,28,34	2,25, 0, 7,41	7,40
56″	33, 3,25,14, 2,50,44,52,21,52	1,44,52,14,57,22,13,13	2,25, 0,15,21	7,40
58″	33, 3,26,58,55, 5,42,14,35, 5	1,44,52,12,32,21,50,12	2,25, 0,23, 1	
60″	33, 3,28,43,47,18,14,36,25,17			
exact	33, 3,28,43,47,18,14,36,22,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°26′ 0″	33, 3,28,43,47,18,14,36,22,29			
		1,44,52,10, 7,21,19,11		
2″	33, 3,30,28,39,28,21,57,41,40		2,25, 0,38,22	
		1,44,52, 7,42,20,40,49		7,40
4″	33, 3,32,13,31,36, 4,18,22,29		2,25, 0,46, 2	
		1,44,52, 5,17,19,54,47		7,40
6″	33, 3,33,58,23,41,21,38,17,16		2,25, 0,53,42	
		1,44,52, 2,52,19, 1, 5		7,40
8″	33, 3,35,43,15,44,13,57,18,21		2,25, 1, 1,22	
		1,44,52, 0,27,17,59,43		7,40
10″	33, 3,37,28, 7,44,41,15,18, 4		2,25, 1, 9, 2	
		1,44,51,58, 2,16,50,41		7,40
12″	33, 3,39,12,59,42,43,32, 8,45		2,25, 1,16,42	
		1,44,51,55,37,15,33,59		7,40
14″	33, 3,40,57,51,38,20,47,42,44		2,25, 1,24,22	
		1,44,51,53,12,14, 9,37		7,40
16″	33, 3,42,42,43,31,33, 1,52,21		2,25, 1,32, 2	
		1,44,51,50,47,12,37,35		7,40
18″	33, 3,44,27,35,22,20,14,29,56		2,25, 1,39,42	
		1,44,51,48,22,10,57,53		7,40
20″	33, 3,46,12,27,10,42,25,27,49		2,25, 1,47,22	
		1,44,51,45,57, 9,10,31		7,40
22″	33, 3,47,57,18,56,39,34,38,20		2,25, 1,55, 2	
		1,44,51,43,32, 7,15,29		7,40
24″	33, 3,49,42,10,40,11,41,53,49		2,25, 2, 2,42	
		1,44,51,41, 7, 5,12,47		7,40
26″	33, 3,51,27, 2,21,18,47, 6,36		2,25, 2,10,22	
		1,44,51,38,42, 3, 2,25		7,40
28″	33, 3,53,11,54, 0, 0,50, 9, 1		2,25, 2,18, 2	
		1,44,51,36,17, 0,44,23		7,40
30″	33, 3,54,56,45,36,17,50,53,24		2,25, 2,25,42	
		1,44,51,33,51,58,18,41		7,40
32″	33, 3,56,41,37,10, 9,49,12, 5		2,25, 2,33,22	
		1,44,51,31,26,55,45,19		7,40
34″	33, 3,58,26,28,41,36,44,57,24		2,25, 2,41, 2	
		1,44,51,29, 1,53, 4,17		7,40
36″	33, 4, 0,11,20,10,38,38, 1,41		2,25, 2,48,42	
		1,44,51,26,36,50,15,35		7,40
38″	33, 4, 1,56,11,37,15,28,17,16		2,25, 2,56,22	
		1,44,51,24,11,47,19,13		7,40
40″	33, 4, 3,41, 3, 1,27,15,36,29		2,25, 3, 4, 2	
		1,44,51,21,46,44,15,11		7,40
42″	33, 4, 5,25,54,23,13,59,51,40		2,25, 3,11,42	
		1,44,51,19,21,41, 3,29		7,40
44″	33, 4, 7,10,45,42,35,40,55, 9		2,25, 3,19,22	
		1,44,51,16,56,37,44, 7		7,40
46″	33, 4, 8,55,36,59,32,18,39,16		2,25, 3,27, 2	
		1,44,51,14,31,34,17, 5		7,40
48″	33, 4,10,40,28,14, 3,52,56,21		2,25, 3,34,42	
		1,44,51,12, 6,30,42,23		7,40
50″	33, 4,12,25,19,26,10,23,38,44		2,25, 3,42,22	
		1,44,51, 9,41,27, 0, 1		7,40
52″	33, 4,14,10,10,35,51,50,38,45		2,25, 3,50, 2	
		1,44,51, 7,16,23, 9,59		7,40
54″	33, 4,15,55, 1,43, 8,13,48,44		2,25, 3,57,42	
		1,44,51, 4,51,19,12,17		7,40
56″	33, 4,17,39,52,47,59,33, 1, 1		2,25, 4, 5,22	
		1,44,51, 2,26,15, 6,55		7,40
58″	33, 4,19,24,43,50,25,48, 7,56		2,25, 4,13, 2	
		1,44,51, 0, 1,10,53,53		
60″	33, 4,21, 9,34,50,26,59, 1,49			
exact	33, 4,21, 9,34,50,26,59, 1,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°27′ 0″	33, 4,21, 9,34,50,26,59, 1,12			
		1,44,50,57,36, 6,33,14		
2″	33, 4,22,54,25,48, 3, 5,34,26		2,25, 4,28,21	
		1,44,50,55,11, 2, 4,53		7,40
4″	33, 4,24,39,16,43,14, 7,39,19		2,25, 4,36, 1	
		1,44,50,52,45,57,28,52		7,40
6″	33, 4,26,24, 7,36, 0, 5, 8,11		2,25, 4,43,41	
		1,44,50,50,20,52,45,11		7,40
8″	33, 4,28, 8,58,26,20,57,53,22		2,25, 4,51,21	
		1,44,50,47,55,47,53,50		7,40
10″	33, 4,29,53,49,14,16,45,47,12		2,25, 4,59, 1	
		1,44,50,45,30,42,54,49		7,40
12″	33, 4,31,38,39,59,47,28,42, 1		2,25, 5, 6,41	
		1,44,50,43, 5,37,48, 8		7,40
14″	33, 4,33,23,30,42,53, 6,30, 9		2,25, 5,14,21	
		1,44,50,40,40,32,33,47		7,40
16″	33, 4,35, 8,21,23,33,39, 3,56		2,25, 5,22, 1	
		1,44,50,38,15,27,11,46		7,40
18″	33, 4,36,53,12, 1,49, 6,15,42		2,25, 5,29,41	
		1,44,50,35,50,21,42, 5		7,40
20″	33, 4,38,38, 2,37,39,27,57,47		2,25, 5,37,21	
		1,44,50,33,25,16, 4,44		7,40
22″	33, 4,40,22,53,11, 4,44, 2,31		2,25, 5,45, 1	
		1,44,50,31, 0,10,19,43		7,40
24″	33, 4,42, 7,43,42, 4,54,22,14		2,25, 5,52,41	
		1,44,50,28,35, 4,27, 2		7,40
26″	33, 4,43,52,34,10,39,58,49,16		2,25, 6, 0,21	
		1,44,50,26, 9,58,26,41		7,40
28″	33, 4,45,37,24,36,49,57,15,57		2,25, 6, 8, 1	
		1,44,50,23,44,52,18,40		7,40
30″	33, 4,47,22,15, 0,34,49,34,37		2,25, 6,15,41	
		1,44,50,21,19,46, 2,59		7,40
32″	33, 4,49, 7, 5,21,54,35,37,36		2,25, 6,23,21	
		1,44,50,18,54,39,39,38		7,40
34″	33, 4,50,51,55,40,49,15,17,14		2,25, 6,31, 1	
		1,44,50,16,29,33, 8,37		7,40
36″	33, 4,52,36,45,57,18,48,25,51		2,25, 6,38,41	
		1,44,50,14, 4,26,29,56		7,40
38″	33, 4,54,21,36,11,23,14,55,47		2,25, 6,46,21	
		1,44,50,11,39,19,43,35		7,40
40″	33, 4,56, 6,26,23, 2,34,39,22		2,25, 6,54, 1	
		1,44,50, 9,14,12,49,34		7,40
42″	33, 4,57,51,16,32,16,47,28,56		2,25, 7, 1,41	
		1,44,50, 6,49, 5,47,53		7,40
44″	33, 4,59,36, 6,39, 5,53,16,49		2,25, 7, 9,21	
		1,44,50, 4,23,58,38,32		7,40
46″	33, 5, 1,20,56,43,29,51,55,21		2,25, 7,17, 1	
		1,44,50, 1,58,51,21,31		7,40
48″	33, 5, 3, 5,46,45,28,43,16,52		2,25, 7,24,41	
		1,44,49,59,33,43,56,50		7,40
50″	33, 5, 4,50,36,45, 2,27,13,42		2,25, 7,32,21	
		1,44,49,57, 8,36,24,29		7,40
52″	33, 5, 6,35,26,42,11, 3,38,11		2,25, 7,40, 1	
		1,44,49,54,43,28,44,28		7,40
54″	33, 5, 8,20,16,36,54,32,22,39		2,25, 7,47,41	
		1,44,49,52,18,20,56,47		7,40
56″	33, 5,10, 5, 6,29,12,53,19,26		2,25, 7,55,21	
		1,44,49,49,53,13, 1,26		7,40
58″	33, 5,11,49,56,19, 6, 6,20,52		2,25, 8, 3, 1	
		1,44,49,47,28, 4,58,25		
60″	33, 5,13,34,46, 6,34,11,19,17			
exact	33, 5,13,34,46, 6,34,11,25, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°28′ 0″	33, 5,13,34,46, 6,34,11,25, 0	1,44,49,45, 2,56,48,27		
2″	33, 5,15,19,35,51,37, 8,13,27	1,44,49,42,37,48,30,10	2,25, 8,18,17	7,40
4″	33, 5,17, 4,25,34,14,56,43,37	1,44,49,40,12,40, 4,13	2,25, 8,25,57	7,40
6″	33, 5,18,49,15,14,27,36,47,50	1,44,49,37,47,31,30,36	2,25, 8,33,37	7,40
8″	33, 5,20,34, 4,52,15, 8,18,26	1,44,49,35,22,22,49,19	2,25, 8,41,17	7,40
10″	33, 5,22,18,54,27,37,31, 7,45	1,44,49,32,57,14, 0,22	2,25, 8,48,57	7,40
12″	33, 5,24, 3,44, 0,34,45, 8, 7	1,44,49,30,32, 5, 3,45	2,25, 8,56,37	7,40
14″	33, 5,25,48,33,31, 6,50,11,52	1,44,49,28, 6,55,59,28	2,25, 9, 4,17	7,40
16″	33, 5,27,33,22,59,13,46,11,20	1,44,49,25,41,46,47,31	2,25, 9,11,57	7,40
18″	33, 5,29,18,12,24,55,32,58,51	1,44,49,23,16,37,27,54	2,25, 9,19,37	7,40
20″	33, 5,31, 3, 1,48,12,10,26,45	1,44,49,20,51,28, 0,37	2,25, 9,27,17	7,40
22″	33, 5,32,47,51, 9, 3,38,27,22	1,44,49,18,26,18,25,40	2,25, 9,34,57	7,40
24″	33, 5,34,32,40,27,29,56,53, 2	1,44,49,16, 1, 8,43, 3	2,25, 9,42,37	7,40
26″	33, 5,36,17,29,43,31, 5,36, 5	1,44,49,13,35,58,52,46	2,25, 9,50,17	7,40
28″	33, 5,38, 2,18,57, 7, 4,28,51	1,44,49,11,10,48,54,49	2,25, 9,57,57	7,40
30″	33, 5,39,47, 8, 8,17,53,23,40	1,44,49, 8,45,38,49,12	2,25,10, 5,37	7,40
32″	33, 5,41,31,57,17, 3,32,12,52	1,44,49, 6,20,28,35,55	2,25,10,13,17	7,40
34″	33, 5,43,16,46,23,24, 0,48,47	1,44,49, 3,55,18,14,58	2,25,10,20,57	7,40
36″	33, 5,45, 1,35,27,19,19, 3,45	1,44,49, 1,30, 7,46,21	2,25,10,28,37	7,40
38″	33, 5,46,46,24,28,49,26,50, 6	1,44,48,59, 4,57,10, 4	2,25,10,36,17	7,40
40″	33, 5,48,31,13,27,54,24, 0,10	1,44,48,56,39,46,26, 7	2,25,10,43,57	7,40
42″	33, 5,50,16, 2,24,34,10,26,17	1,44,48,54,14,35,34,30	2,25,10,51,37	7,40
44″	33, 5,52, 0,51,18,48,46, 0,47	1,44,48,51,49,24,35,13	2,25,10,59,17	7,40
46″	33, 5,53,45,40,10,38,10,36, 0	1,44,48,49,24,13,28,16	2,25,11, 6,57	7,40
48″	33, 5,55,30,29, 0, 2,24, 4,16	1,44,48,46,59, 2,13,39	2,25,11,14,37	7,40
50″	33, 5,57,15,17,47, 1,26,17,55	1,44,48,44,33,50,51,22	2,25,11,22,17	7,40
52″	33, 5,59, 0, 6,31,35,17, 9,17	1,44,48,42, 8,39,21,25	2,25,11,29,57	7,40
54″	33, 6, 0,44,55,13,43,56,30,42	1,44,48,39,43,27,43,48	2,25,11,37,37	7,40
56″	33, 6, 2,29,43,53,27,24,14,30	1,44,48,37,18,15,58,31	2,25,11,45,17	7,40
58″	33, 6, 4,14,32,30,45,40,13, 1	1,44,48,34,53, 4, 5,34	2,25,11,52,57	
60″	33, 6, 5,59,21, 5,38,44,18,35			
exact	33, 6, 5,59,21, 5,38,44,28,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°29′ 0″	33, 6, 5,59,21, 5,38,44,28,50	1,44,48,32,27,52, 6,12		
2″	33, 6, 7,44, 9,38, 6,36,35, 2	1,44,48,30, 2,39,58, 1	2,25,12, 8,11	7,40
4″	33, 6, 9,28,58, 8, 9,16,33, 3	1,44,48,27,37,27,42,10	2,25,12,15,51	7,40
6″	33, 6,11,13,46,35,46,44,15,13	1,44,48,25,12,15,18,39	2,25,12,23,31	7,40
8″	33, 6,12,58,35, 0,58,59,33,52	1,44,48,22,47, 2,47,28	2,25,12,31,11	7,40
10″	33, 6,14,43,23,23,46, 2,21,20	1,44,48,20,21,50, 8,37	2,25,12,38,51	7,40
12″	33, 6,16,28,11,44, 7,52,29,57	1,44,48,17,56,37,22, 6	2,25,12,46,31	7,40
14″	33, 6,18,13, 0, 2, 4,29,52, 3	1,44,48,15,31,24,27,55	2,25,12,54,11	7,40
16″	33, 6,19,57,48,17,35,54,19,58	1,44,48,13, 6,11,26, 4	2,25,13, 1,51	7,40
18″	33, 6,21,42,36,30,42, 5,46, 2	1,44,48,10,40,58,16,33	2,25,13, 9,31	7,40
20″	33, 6,23,27,24,41,23, 4, 2,35	1,44,48, 8,15,44,59,22	2,25,13,17,11	7,40
22″	33, 6,25,12,12,49,38,49, 1,57	1,44,48, 5,50,31,34,31	2,25,13,24,51	7,40
24″	33, 6,26,57, 0,55,29,20,36,28	1,44,48, 3,25,18, 2, 0	2,25,13,32,31	7,40
26″	33, 6,28,41,48,58,54,38,38,28	1,44,48, 1, 0, 4,21,49	2,25,13,40,11	7,40
28″	33, 6,30,26,36,59,54,43, 0,17	1,44,47,58,34,50,33,58	2,25,13,47,51	7,40
30″	33, 6,32,11,24,58,29,33,34,15	1,44,47,56, 9,36,38,27	2,25,13,55,31	7,40
32″	33, 6,33,56,12,54,39,10,12,42	1,44,47,53,44,22,35,16	2,25,14, 3,11	7,40
34″	33, 6,35,41, 0,48,23,32,47,58	1,44,47,51,19, 8,24,25	2,25,14,10,51	7,40
36″	33, 6,37,25,48,39,42,41,12,23	1,44,47,48,53,54, 5,54	2,25,14,18,31	7,40
38″	33, 6,39,10,36,28,36,35,18,17	1,44,47,46,28,39,39,43	2,25,14,26,11	7,40
40″	33, 6,40,55,24,15, 5,14,58, 0	1,44,47,44, 3,25, 5,52	2,25,14,33,51	7,40
42″	33, 6,42,40,11,59, 8,40, 3,52	1,44,47,41,38,10,24,21	2,25,14,41,31	7,40
44″	33, 6,44,24,59,40,46,50,28,13	1,44,47,39,12,55,35,10	2,25,14,49,11	7,40
46″	33, 6,46, 9,47,19,59,46, 3,23	1,44,47,36,47,40,38,19	2,25,14,56,51	7,40
48″	33, 6,47,54,34,56,47,26,41,42	1,44,47,34,22,25,33,48	2,25,15, 4,31	7,40
50″	33, 6,49,39,22,31, 9,52,15,30	1,44,47,31,57,10,21,37	2,25,15,12,11	7,40
52″	33, 6,51,24,10, 3, 7, 2,37, 7	1,44,47,29,31,55, 1,46	2,25,15,19,51	7,40
54″	33, 6,53, 8,57,32,38,57,38,53	1,44,47,27, 6,39,34,15	2,25,15,27,31	7,40
56″	33, 6,54,53,44,59,45,37,13, 8	1,44,47,24,41,23,59, 4	2,25,15,35,11	7,40
58″	33, 6,56,38,32,24,27, 1,12,12	1,44,47,22,16, 8,16,13	2,25,15,42,51	
60″	33, 6,58,23,19,46,43, 9,28,25			
exact	33, 6,58,23,19,46,43, 9,47,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°30′ 0″	33, 6,58,23,19,46,43, 9,47,26			
		1,44,47,19,50,52,27,47		
2″	33, 7, 0, 8, 7, 6,34, 2,15,13		2,25,15,58, 2	
		1,44,47,17,25,36,29,45		7,40
4″	33, 7, 1,52,54,23,59,38,44,58		2,25,16, 5,42	
		1,44,47,15, 0,20,24, 3		7,40
6″	33, 7, 3,37,41,38,59,59, 9, 1		2,25,16,13,22	
		1,44,47,12,35, 4,10,41		7,40
8″	33, 7, 5,22,28,51,35, 3,19,42		2,25,16,21, 2	
		1,44,47,10, 9,47,49,39		7,40
10″	33, 7, 7, 7,16, 1,44,51, 9,21		2,25,16,28,42	
		1,44,47, 7,44,31,20,57		7,40
12″	33, 7, 8,52, 3, 9,29,22,30,18		2,25,16,36,22	
		1,44,47, 5,19,14,44,35		7,40
14″	33, 7,10,36,50,14,48,37,14,53		2,25,16,44, 2	
		1,44,47, 2,53,58, 0,33		7,40
16″	33, 7,12,21,37,17,42,35,15,26		2,25,16,51,42	
		1,44,47, 0,28,41, 8,51		7,40
18″	33, 7,14, 6,24,18,11,16,24,17		2,25,16,59,22	
		1,44,46,58, 3,24, 9,29		7,40
20″	33, 7,15,51,11,16,14,40,33,46		2,25,17, 7, 2	
		1,44,46,55,38, 7, 2,27		7,40
22″	33, 7,17,35,58,11,52,47,36,13		2,25,17,14,42	
		1,44,46,53,12,49,47,45		7,40
24″	33, 7,19,20,45, 5, 5,37,23,58		2,25,17,22,22	
		1,44,46,50,47,32,25,23		7,40
26″	33, 7,21, 5,31,55,53, 9,49,21		2,25,17,30, 2	
		1,44,46,48,22,14,55,21		7,40
28″	33, 7,22,50,18,44,15,24,44,42		2,25,17,37,42	
		1,44,46,45,56,57,17,39		7,40
30″	33, 7,24,35, 5,30,12,22, 2,21		2,25,17,45,22	
		1,44,46,43,31,39,32,17		7,40
32″	33, 7,26,19,52,13,44, 1,34,38		2,25,17,53, 2	
		1,44,46,41, 6,21,39,15		7,40
34″	33, 7,28, 4,38,54,50,23,13,53		2,25,18, 0,42	
		1,44,46,38,41, 3,38,33		7,40
36″	33, 7,29,49,25,33,31,26,52,26		2,25,18, 8,22	
		1,44,46,36,15,45,30,11		7,40
38″	33, 7,31,34,12, 9,47,12,22,37		2,25,18,16, 2	
		1,44,46,33,50,27,14, 9		7,40
40″	33, 7,33,18,58,43,37,39,36,46		2,25,18,23,42	
		1,44,46,31,25, 8,50,27		7,40
42″	33, 7,35, 3,45,15, 2,48,27,13		2,25,18,31,22	
		1,44,46,28,59,50,19, 5		7,40
44″	33, 7,36,48,31,44, 2,38,46,18		2,25,18,39, 2	
		1,44,46,26,34,31,40, 3		7,40
46″	33, 7,38,33,18,10,37,10,26,21		2,25,18,46,42	
		1,44,46,24, 9,12,53,21		7,40
48″	33, 7,40,18, 4,34,46,23,19,42		2,25,18,54,22	
		1,44,46,21,43,53,58,59		7,40
50″	33, 7,42, 2,50,56,30,17,18,41		2,25,19, 2, 2	
		1,44,46,19,18,34,56,57		7,40
52″	33, 7,43,47,37,15,48,52,15,38		2,25,19, 9,42	
		1,44,46,16,53,15,47,15		7,40
54″	33, 7,45,32,23,32,42, 8, 2,53		2,25,19,17,22	
		1,44,46,14,27,56,29,53		7,40
56″	33, 7,47,17, 9,47,10, 4,32,46		2,25,19,25, 2	
		1,44,46,12, 2,37, 4,51		7,40
58″	33, 7,49, 1,55,59,12,41,37,37		2,25,19,32,42	
		1,44,46, 9,37,17,32, 9		
60″	33, 7,50,46,42, 8,49,59, 9,46			
exact	33, 7,50,46,42, 8,49,59,35,19			

10-digit interpolations for Bürgi's 2″ sine table (reconstruction, D. Roegel, 2016)

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°31′ 0″	33, 7,50,46,42, 8,49,59,35,19			
		1,44,46, 7,11,57,54,33		
2″	33, 7,52,31,28,16, 1,57,29,52		2,25,19,47,50	
		1,44,46, 4,46,38, 6,43		7,40
4″	33, 7,54,16,14,20,48,35,36,35		2,25,19,55,30	
		1,44,46, 2,21,18,11,13		7,40
6″	33, 7,56, 1, 0,23, 9,53,47,48		2,25,20, 3,10	
		1,44,45,59,55,58, 8, 3		7,40
8″	33, 7,57,45,46,23, 5,51,55,51		2,25,20,10,50	
		1,44,45,57,30,37,57,13		7,40
10″	33, 7,59,30,32,20,36,29,53, 4		2,25,20,18,30	
		1,44,45,55, 5,17,38,43		7,40
12″	33, 8, 1,15,18,15,41,47,31,47		2,25,20,26,10	
		1,44,45,52,39,57,12,33		7,40
14″	33, 8, 3, 0, 4, 8,21,44,44,20		2,25,20,33,50	
		1,44,45,50,14,36,38,43		7,40
16″	33, 8, 4,44,49,58,36,21,23, 3		2,25,20,41,30	
		1,44,45,47,49,15,57,13		7,40
18″	33, 8, 6,29,35,46,25,37,20,16		2,25,20,49,10	
		1,44,45,45,23,55, 8, 3		7,40
20″	33, 8, 8,14,21,31,49,32,28,19		2,25,20,56,50	
		1,44,45,42,58,34,11,13		7,40
22″	33, 8, 9,59, 7,14,48, 6,39,32		2,25,21, 4,30	
		1,44,45,40,33,13, 6,43		7,40
24″	33, 8,11,43,52,55,21,19,46,15		2,25,21,12,10	
		1,44,45,38, 7,51,54,33		7,40
26″	33, 8,13,28,38,33,29,11,40,48		2,25,21,19,50	
		1,44,45,35,42,30,34,43		7,40
28″	33, 8,15,13,24, 9,11,42,15,31		2,25,21,27,30	
		1,44,45,33,17, 9, 7,13		7,40
30″	33, 8,16,58, 9,42,28,51,22,44		2,25,21,35,10	
		1,44,45,30,51,47,32, 3		7,40
32″	33, 8,18,42,55,13,20,38,54,47		2,25,21,42,50	
		1,44,45,28,26,25,49,13		7,40
34″	33, 8,20,27,40,41,47, 4,44, 0		2,25,21,50,30	
		1,44,45,26, 1, 3,58,43		7,40
36″	33, 8,22,12,26, 7,48, 8,42,43		2,25,21,58,10	
		1,44,45,23,35,42, 0,33		7,40
38″	33, 8,23,57,11,31,23,50,43,16		2,25,22, 5,50	
		1,44,45,21,10,19,54,43		7,40
40″	33, 8,25,41,56,52,34,10,37,59		2,25,22,13,30	
		1,44,45,18,44,57,41,13		7,40
42″	33, 8,27,26,42,11,19, 8,19,12		2,25,22,21,10	
		1,44,45,16,19,35,20, 3		7,40
44″	33, 8,29,11,27,27,38,43,39,15		2,25,22,28,50	
		1,44,45,13,54,12,51,13		7,40
46″	33, 8,30,56,12,41,32,56,30,28		2,25,22,36,30	
		1,44,45,11,28,50,14,43		7,40
48″	33, 8,32,40,57,53, 1,46,45,11		2,25,22,44,10	
		1,44,45, 9, 3,27,30,33		7,40
50″	33, 8,34,25,43, 2, 5,14,15,44		2,25,22,51,50	
		1,44,45, 6,38, 4,38,43		7,40
52″	33, 8,36,10,28, 8,43,18,54,27		2,25,22,59,30	
		1,44,45, 4,12,41,39,13		7,40
54″	33, 8,37,55,13,12,56, 0,33,40		2,25,23, 7,10	
		1,44,45, 1,47,18,32, 3		7,40
56″	33, 8,39,39,58,14,43,19, 5,43		2,25,23,14,50	
		1,44,44,59,21,55,17,13		7,40
58″	33, 8,41,24,43,14, 5,14,22,56		2,25,23,22,30	
		1,44,44,56,56,31,54,43		
60″	33, 8,43, 9,28,11, 1,46,17,39			
exact	33, 8,43, 9,28,11, 1,46,46,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°32′ 0″	33, 8,43, 9,28,11, 1,46,46,52			
		1,44,44,54,31, 8,27,48		
2″	33, 8,44,54,13, 5,32,55,14,40		2,25,23,37,36	
		1,44,44,52, 5,44,50,12		7,39
4″	33, 8,46,38,57,57,38,40, 4,52		2,25,23,45,15	
		1,44,44,49,40,21, 4,57		7,39
6″	33, 8,48,23,42,47,19, 1, 9,49		2,25,23,52,54	
		1,44,44,47,14,57,12, 3		7,39
8″	33, 8,50, 8,27,34,33,58,21,52		2,25,24, 0,33	
		1,44,44,44,49,33,11,30		7,39
10″	33, 8,51,53,12,19,23,31,33,22		2,25,24, 8,12	
		1,44,44,42,24, 9, 3,18		7,39
12″	33, 8,53,37,57, 1,47,40,36,40		2,25,24,15,51	
		1,44,44,39,58,44,47,27		7,39
14″	33, 8,55,22,41,41,46,25,24, 7		2,25,24,23,30	
		1,44,44,37,33,20,23,57		7,39
16″	33, 8,57, 7,26,19,19,45,48, 4		2,25,24,31, 9	
		1,44,44,35, 7,55,52,48		7,39
18″	33, 8,58,52,10,54,27,41,40,52		2,25,24,38,48	
		1,44,44,32,42,31,14, 0		7,39
20″	33, 9, 0,36,55,27,10,12,54,52		2,25,24,46,27	
		1,44,44,30,17, 6,27,33		7,39
22″	33, 9, 2,21,39,57,27,19,22,25		2,25,24,54, 6	
		1,44,44,27,51,41,33,27		7,39
24″	33, 9, 4, 6,24,25,19, 0,55,52		2,25,25, 1,45	
		1,44,44,25,26,16,31,42		7,39
26″	33, 9, 5,51, 8,50,45,17,27,34		2,25,25, 9,24	
		1,44,44,23, 0,51,22,18		7,39
28″	33, 9, 7,35,53,13,46, 8,49,52		2,25,25,17, 3	
		1,44,44,20,35,26, 5,15		7,39
30″	33, 9, 9,20,37,34,21,34,55, 7		2,25,25,24,42	
		1,44,44,18,10, 0,40,33		7,39
32″	33, 9,11, 5,21,52,31,35,35,40		2,25,25,32,21	
		1,44,44,15,44,35, 8,12		7,39
34″	33, 9,12,50, 6, 8,16,10,43,52		2,25,25,40, 0	
		1,44,44,13,19, 9,28,12		7,39
36″	33, 9,14,34,50,21,35,20,12, 4		2,25,25,47,39	
		1,44,44,10,53,43,40,33		7,39
38″	33, 9,16,19,34,32,29, 3,52,37		2,25,25,55,18	
		1,44,44, 8,28,17,45,15		7,39
40″	33, 9,18, 4,18,40,57,21,37,52		2,25,26, 2,57	
		1,44,44, 6, 2,51,42,18		7,39
42″	33, 9,19,49, 2,47, 0,13,20,10		2,25,26,10,36	
		1,44,44, 3,37,25,31,42		7,39
44″	33, 9,21,33,46,50,37,38,51,52		2,25,26,18,15	
		1,44,44, 1,11,59,13,27		7,39
46″	33, 9,23,18,30,51,49,38, 5,19		2,25,26,25,54	
		1,44,43,58,46,32,47,33		7,39
48″	33, 9,25, 3,14,50,36,10,52,52		2,25,26,33,33	
		1,44,43,56,21, 6,14, 0		7,39
50″	33, 9,26,47,58,46,57,17, 6,52		2,25,26,41,12	
		1,44,43,53,55,39,32,48		7,39
52″	33, 9,28,32,42,40,52,56,39,40		2,25,26,48,51	
		1,44,43,51,30,12,43,57		7,39
54″	33, 9,30,17,26,32,23, 9,23,37		2,25,26,56,30	
		1,44,43,49, 4,45,47,27		7,39
56″	33, 9,32, 2,10,21,27,55,11, 4		2,25,27, 4, 9	
		1,44,43,46,39,18,43,18		7,39
58″	33, 9,33,46,54, 8, 7,13,54,22		2,25,27,11,48	
		1,44,43,44,13,51,31,30		
60″	33, 9,35,31,37,52,21, 5,25,52			
exact	33, 9,35,31,37,52,21, 4,56,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°33′ 0″	33, 9,35,31,37,52,21, 4,56,16			
		1,44,43,41,48,24, 8,53		
2″	33, 9,37,16,21,34, 9,29, 5, 9		2,25,27,27,19	
		1,44,43,39,22,56,41,34		7,39
4″	33, 9,39, 1, 5,13,32,25,46,43		2,25,27,34,58	
		1,44,43,36,57,29, 6,36		7,39
6″	33, 9,40,45,48,50,29,54,53,19		2,25,27,42,37	
		1,44,43,34,32, 1,23,59		7,39
8″	33, 9,42,30,32,25, 1,56,17,18		2,25,27,50,16	
		1,44,43,32, 6,33,33,43		7,39
10″	33, 9,44,15,15,57, 8,29,51, 1		2,25,27,57,55	
		1,44,43,29,41, 5,35,48		7,39
12″	33, 9,45,59,59,26,49,35,26,49		2,25,28, 5,34	
		1,44,43,27,15,37,30,14		7,39
14″	33, 9,47,44,42,54, 5,12,57, 3		2,25,28,13,13	
		1,44,43,24,50, 9,17, 1		7,39
16″	33, 9,49,29,26,18,55,22,14, 4		2,25,28,20,52	
		1,44,43,22,24,40,56, 9		7,39
18″	33, 9,51,14, 9,41,20, 3,10,13		2,25,28,28,31	
		1,44,43,19,59,12,27,38		7,39
20″	33, 9,52,58,53, 1,19,15,37,51		2,25,28,36,10	
		1,44,43,17,33,43,51,28		7,39
22″	33, 9,54,43,36,18,52,59,29,19		2,25,28,43,49	
		1,44,43,15, 8,15, 7,39		7,39
24″	33, 9,56,28,19,34, 1,14,36,58		2,25,28,51,28	
		1,44,43,12,42,46,16,11		7,39
26″	33, 9,58,13, 2,46,44, 0,53, 9		2,25,28,59, 7	
		1,44,43,10,17,17,17, 4		7,39
28″	33, 9,59,57,45,57, 1,18,10,13		2,25,29, 6,46	
		1,44,43, 7,51,48,10,18		7,39
30″	33,10, 1,42,29, 4,53, 6,20,31		2,25,29,14,25	
		1,44,43, 5,26,18,55,53		7,39
32″	33,10, 3,27,12,10,19,25,16,24		2,25,29,22, 4	
		1,44,43, 3, 0,49,33,49		7,39
34″	33,10, 5,11,55,13,20,14,50,13		2,25,29,29,43	
		1,44,43, 0,35,20, 4, 6		7,39
36″	33,10, 6,56,38,13,55,34,54,19		2,25,29,37,22	
		1,44,42,58, 9,50,26,44		7,39
38″	33,10, 8,41,21,12, 5,25,21, 3		2,25,29,45, 1	
		1,44,42,55,44,20,41,43		7,39
40″	33,10,10,26, 4, 7,49,46, 2,46		2,25,29,52,40	
		1,44,42,53,18,50,49, 3		7,39
42″	33,10,12,10,47, 1, 8,36,51,49		2,25,30, 0,19	
		1,44,42,50,53,20,48,44		7,39
44″	33,10,13,55,29,52, 1,57,40,33		2,25,30, 7,58	
		1,44,42,48,27,50,40,46		7,39
46″	33,10,15,40,12,40,29,48,21,19		2,25,30,15,37	
		1,44,42,46, 2,20,25, 9		7,39
48″	33,10,17,24,55,26,32, 8,46,28		2,25,30,23,16	
		1,44,42,43,36,50, 1,53		7,39
50″	33,10,19, 9,38,10, 8,58,48,21		2,25,30,30,55	
		1,44,42,41,11,19,30,58		7,39
52″	33,10,20,54,20,51,20,18,19,19		2,25,30,38,34	
		1,44,42,38,45,48,52,24		7,39
54″	33,10,22,39, 3,30, 6, 7,11,43		2,25,30,46,13	
		1,44,42,36,20,18, 6,11		7,39
56″	33,10,24,23,46, 6,26,25,17,54		2,25,30,53,52	
		1,44,42,33,54,47,12,19		7,39
58″	33,10,26, 8,28,40,21,12,30,13		2,25,31, 1,31	
		1,44,42,31,29,16,10,48		
60″	33,10,27,53,11,11,50,28,41, 1			
exact	33,10,27,53,11,11,50,28,17,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°34′ 0″	33,10,27,53,11,11,50,28,17,35			
		1,44,42,29, 3,44,59, 7		
2″	33,10,29,37,53,40,54,13,16,42		2,25,31,16,59	
		1,44,42,26,38,13,42, 8		7,39
4″	33,10,31,22,36, 7,32,26,58,50		2,25,31,24,38	
		1,44,42,24,12,42,17,30		7,39
6″	33,10,33, 7,18,31,45, 9,16,20		2,25,31,32,17	
		1,44,42,21,47,10,45,13		7,39
8″	33,10,34,52, 0,53,32,20, 1,33		2,25,31,39,56	
		1,44,42,19,21,39, 5,17		7,39
10″	33,10,36,36,43,12,53,59, 6,50		2,25,31,47,35	
		1,44,42,16,56, 7,17,42		7,39
12″	33,10,38,21,25,29,50, 6,24,32		2,25,31,55,14	
		1,44,42,14,30,35,22,28		7,39
14″	33,10,40, 6, 7,44,20,41,47, 0		2,25,32, 2,53	
		1,44,42,12, 5, 3,19,35		7,39
16″	33,10,41,50,49,56,25,45, 6,35		2,25,32,10,32	
		1,44,42, 9,39,31, 9, 3		7,39
18″	33,10,43,35,32, 6, 5,16,15,38		2,25,32,18,11	
		1,44,42, 7,13,58,50,52		7,39
20″	33,10,45,20,14,13,19,15, 6,30		2,25,32,25,50	
		1,44,42, 4,48,26,25, 2		7,39
22″	33,10,47, 4,56,18, 7,41,31,32		2,25,32,33,29	
		1,44,42, 2,22,53,51,33		7,39
24″	33,10,48,49,38,20,30,35,23, 5		2,25,32,41, 8	
		1,44,41,59,57,21,10,25		7,39
26″	33,10,50,34,20,20,27,56,33,30		2,25,32,48,47	
		1,44,41,57,31,48,21,38		7,39
28″	33,10,52,19, 2,17,59,44,55, 8		2,25,32,56,26	
		1,44,41,55, 6,15,25,12		7,39
30″	33,10,54, 3,44,13, 6, 0,20,20		2,25,33, 4, 5	
		1,44,41,52,40,42,21, 7		7,39
32″	33,10,55,48,26, 5,46,42,41,27		2,25,33,11,44	
		1,44,41,50,15, 9, 9,23		7,39
34″	33,10,57,33, 7,56, 1,51,50,50		2,25,33,19,23	
		1,44,41,47,49,35,50, 0		7,39
36″	33,10,59,17,49,43,51,27,40,50		2,25,33,27, 2	
		1,44,41,45,24, 2,22,58		7,39
38″	33,11, 1, 2,31,29,15,30, 3,48		2,25,33,34,41	
		1,44,41,42,58,28,48,17		7,39
40″	33,11, 2,47,13,12,13,58,52, 5		2,25,33,42,20	
		1,44,41,40,32,55, 5,57		7,39
42″	33,11, 4,31,54,52,46,53,58, 2		2,25,33,49,59	
		1,44,41,38, 7,21,15,58		7,39
44″	33,11, 6,16,36,30,54,15,14, 0		2,25,33,57,38	
		1,44,41,35,41,47,18,20		7,39
46″	33,11, 8, 1,18, 6,36, 2,32,20		2,25,34, 5,17	
		1,44,41,33,16,13,13, 3		7,39
48″	33,11, 9,45,59,39,52,15,45,23		2,25,34,12,56	
		1,44,41,30,50,39, 0, 7		7,39
50″	33,11,11,30,41,10,42,54,45,30		2,25,34,20,35	
		1,44,41,28,25, 4,39,32		7,39
52″	33,11,13,15,22,39, 7,59,25, 2		2,25,34,28,14	
		1,44,41,25,59,30,11,18		7,39
54″	33,11,15, 0, 4, 5, 7,29,36,20		2,25,34,35,53	
		1,44,41,23,33,55,35,25		7,39
56″	33,11,16,44,45,28,41,25,11,45		2,25,34,43,32	
		1,44,41,21, 8,20,51,53		7,39
58″	33,11,18,29,26,49,49,46, 3,38		2,25,34,51,11	
		1,44,41,18,42,46, 0,42		
60″	33,11,20,14, 8, 8,32,32, 4,20			
exact	33,11,20,14, 8, 8,32,31,44,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°35′ 0″	33,11,20,14, 8, 8,32,31,44,46			
		1,44,41,16,17,10,59,51		
2″	33,11,21,58,49,24,49,42,44,37		2,25,35, 6,37	
		1,44,41,13,51,35,53,14		7,39
4″	33,11,23,43,30,38,41,18,37,51		2,25,35,14,16	
		1,44,41,11,26, 0,38,58		7,39
6″	33,11,25,28,11,50, 7,19,16,49		2,25,35,21,55	
		1,44,41, 9, 0,25,17, 3		7,39
8″	33,11,27,12,52,59, 7,44,33,52		2,25,35,29,34	
		1,44,41, 6,34,49,47,29		7,39
10″	33,11,28,57,34, 5,42,34,21,21		2,25,35,37,13	
		1,44,41, 4, 9,14,10,16		7,39
12″	33,11,30,42,15, 9,51,48,31,37		2,25,35,44,52	
		1,44,41, 1,43,38,25,24		7,39
14″	33,11,32,26,56,11,35,26,57, 1		2,25,35,52,31	
		1,44,40,59,18, 2,32,53		7,39
16″	33,11,34,11,37,10,53,29,29,54		2,25,36, 0,10	
		1,44,40,56,52,26,32,43		7,39
18″	33,11,35,56,18, 7,45,56, 2,37		2,25,36, 7,49	
		1,44,40,54,26,50,24,54		7,39
20″	33,11,37,40,59, 2,12,46,27,31		2,25,36,15,28	
		1,44,40,52, 1,14, 9,26		7,39
22″	33,11,39,25,39,54,14, 0,36,57		2,25,36,23, 7	
		1,44,40,49,35,37,46,19		7,39
24″	33,11,41,10,20,43,49,38,23,16		2,25,36,30,46	
		1,44,40,47,10, 1,15,33		7,39
26″	33,11,42,55, 1,30,59,39,38,49		2,25,36,38,25	
		1,44,40,44,44,24,37, 8		7,39
28″	33,11,44,39,42,15,44, 4,15,57		2,25,36,46, 4	
		1,44,40,42,18,47,51, 4		7,39
30″	33,11,46,24,22,58, 2,52, 7, 1		2,25,36,53,43	
		1,44,40,39,53,10,57,21		7,39
32″	33,11,48, 9, 3,37,56, 3, 4,22		2,25,37, 1,22	
		1,44,40,37,27,33,55,59		7,39
34″	33,11,49,53,44,15,23,37, 0,21		2,25,37, 9, 1	
		1,44,40,35, 1,56,46,58		7,39
36″	33,11,51,38,24,50,25,33,47,19		2,25,37,16,40	
		1,44,40,32,36,19,30,18		7,39
38″	33,11,53,23, 5,23, 1,53,17,37		2,25,37,24,19	
		1,44,40,30,10,42, 5,59		7,39
40″	33,11,55, 7,45,53,12,35,23,36		2,25,37,31,58	
		1,44,40,27,45, 4,34, 1		7,39
42″	33,11,56,52,26,20,57,39,57,37		2,25,37,39,37	
		1,44,40,25,19,26,54,24		7,39
44″	33,11,58,37, 6,46,17, 6,52, 1		2,25,37,47,16	
		1,44,40,22,53,49, 7, 8		7,39
46″	33,12, 0,21,47, 9,10,55,59, 9		2,25,37,54,55	
		1,44,40,20,28,11,12,13		7,39
48″	33,12, 2, 6,27,29,39, 7,11,22		2,25,38, 2,34	
		1,44,40,18, 2,33, 9,39		7,39
50″	33,12, 3,51, 7,47,41,40,21, 1		2,25,38,10,13	
		1,44,40,15,36,54,59,26		7,39
52″	33,12, 5,35,48, 3,18,35,20,27		2,25,38,17,52	
		1,44,40,13,11,16,41,34		7,39
54″	33,12, 7,20,28,16,29,52, 2, 1		2,25,38,25,31	
		1,44,40,10,45,38,16, 3		7,39
56″	33,12, 9, 5, 8,27,15,30,18, 4		2,25,38,33,10	
		1,44,40, 8,19,59,42,53		7,39
58″	33,12,10,49,48,35,35,30, 0,57		2,25,38,40,49	
		1,44,40, 5,54,21, 2, 4		
60″	33,12,12,34,28,41,29,51, 3, 1			
exact	33,12,12,34,28,41,29,50,51,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°36′ 0″	33,12,12,34,28,41,29,50,51,38			
		1,44,40, 3,28,42,12,23		
2″	33,12,14,19, 8,44,58,33, 4, 1		2,25,38,56,12	
		1,44,40, 1, 3, 3,16,11		7,39
4″	33,12,16, 3,48,46, 1,36,20,12		2,25,39, 3,51	
		1,44,39,58,37,24,12,20		7,39
6″	33,12,17,48,28,44,39, 0,32,32		2,25,39,11,30	
		1,44,39,56,11,45, 0,50		7,39
8″	33,12,19,33, 8,40,50,45,33,22		2,25,39,19, 9	
		1,44,39,53,46, 5,41,41		7,39
10″	33,12,21,17,48,34,36,51,15, 3		2,25,39,26,48	
		1,44,39,51,20,26,14,53		7,39
12″	33,12,23, 2,28,25,57,17,29,56		2,25,39,34,27	
		1,44,39,48,54,46,40,26		7,39
14″	33,12,24,47, 8,14,52, 4,10,22		2,25,39,42, 6	
		1,44,39,46,29, 6,58,20		7,39
16″	33,12,26,31,48, 1,21,11, 8,42		2,25,39,49,45	
		1,44,39,44, 3,27, 8,35		7,39
18″	33,12,28,16,27,45,24,38,17,17		2,25,39,57,24	
		1,44,39,41,37,47,11,11		7,39
20″	33,12,30, 1, 7,27, 2,25,28,28		2,25,40, 5, 3	
		1,44,39,39,12, 7, 6, 8		7,39
22″	33,12,31,45,47, 6,14,32,34,36		2,25,40,12,42	
		1,44,39,36,46,26,53,26		7,39
24″	33,12,33,30,26,43, 0,59,28, 2		2,25,40,20,21	
		1,44,39,34,20,46,33, 5		7,39
26″	33,12,35,15, 6,17,21,46, 1, 7		2,25,40,28, 0	
		1,44,39,31,55, 6, 5, 5		7,39
28″	33,12,36,59,45,49,16,52, 6,12		2,25,40,35,39	
		1,44,39,29,29,25,29,26		7,39
30″	33,12,38,44,25,18,46,17,35,38		2,25,40,43,18	
		1,44,39,27, 3,44,46, 8		7,39
32″	33,12,40,29, 4,45,50, 2,21,46		2,25,40,50,57	
		1,44,39,24,38, 3,55,11		7,39
34″	33,12,42,13,44,10,28, 6,16,57		2,25,40,58,36	
		1,44,39,22,12,22,56,35		7,39
36″	33,12,43,58,23,32,40,29,13,32		2,25,41, 6,15	
		1,44,39,19,46,41,50,20		7,39
38″	33,12,45,43, 2,52,27,11, 3,52		2,25,41,13,54	
		1,44,39,17,21, 0,36,26		7,39
40″	33,12,47,27,42, 9,48,11,40,18		2,25,41,21,33	
		1,44,39,14,55,19,14,53		7,39
42″	33,12,49,12,21,24,43,30,55,11		2,25,41,29,12	
		1,44,39,12,29,37,45,41		7,39
44″	33,12,50,57, 0,37,13, 8,40,52		2,25,41,36,51	
		1,44,39,10, 3,56, 8,50		7,39
46″	33,12,52,41,39,47,17, 4,49,42		2,25,41,44,30	
		1,44,39, 7,38,14,24,20		7,39
48″	33,12,54,26,18,54,55,19,14, 2		2,25,41,52, 9	
		1,44,39, 5,12,32,32,11		7,39
50″	33,12,56,10,58, 0, 7,51,46,13		2,25,41,59,48	
		1,44,39, 2,46,50,32,23		7,39
52″	33,12,57,55,37, 2,54,42,18,36		2,25,42, 7,27	
		1,44,39, 0,21, 8,24,56		7,39
54″	33,12,59,40,16, 3,15,50,43,32		2,25,42,15, 6	
		1,44,38,57,55,26, 9,50		7,39
56″	33,13, 1,24,55, 1,11,16,53,22		2,25,42,22,45	
		1,44,38,55,29,43,47, 5		7,39
58″	33,13, 3, 9,33,56,41, 0,40,27		2,25,42,30,24	
		1,44,38,53, 4, 1,16,41		
60″	33,13, 4,54,12,49,45, 1,57, 8			
exact	33,13, 4,54,12,49,45, 1,51,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°37′ 0″	33,13, 4,54,12,49,45, 1,51,58			
		1,44,38,50,38,18,38, 4		
2″	33,13, 6,38,51,40,23,20,30, 2		2,25,42,45,44	
		1,44,38,48,12,35,52,20		7,39
4″	33,13, 8,23,30,28,35,56,22,22		2,25,42,53,23	
		1,44,38,45,46,52,58,57		7,39
6″	33,13,10, 8, 9,14,22,49,21,19		2,25,43, 1, 2	
		1,44,38,43,21, 9,57,55		7,39
8″	33,13,11,52,47,57,43,59,19,14		2,25,43, 8,41	
		1,44,38,40,55,26,49,14		7,39
10″	33,13,13,37,26,38,39,26, 8,28		2,25,43,16,20	
		1,44,38,38,29,43,32,54		7,39
12″	33,13,15,22, 5,17, 9, 9,41,22		2,25,43,23,59	
		1,44,38,36, 4, 0, 8,55		7,39
14″	33,13,17, 6,43,53,13, 9,50,17		2,25,43,31,38	
		1,44,38,33,38,16,37,17		7,39
16″	33,13,18,51,22,26,51,26,27,34		2,25,43,39,17	
		1,44,38,31,12,32,58, 0		7,39
18″	33,13,20,36, 0,58, 3,59,25,34		2,25,43,46,56	
		1,44,38,28,46,49,11, 4		7,39
20″	33,13,22,20,39,26,50,48,36,38		2,25,43,54,35	
		1,44,38,26,21, 5,16,29		7,39
22″	33,13,24, 5,17,53,11,53,53, 7		2,25,44, 2,14	
		1,44,38,23,55,21,14,15		7,39
24″	33,13,25,49,56,17, 7,15, 7,22		2,25,44, 9,53	
		1,44,38,21,29,37, 4,22		7,39
26″	33,13,27,34,34,38,36,52,11,44		2,25,44,17,32	
		1,44,38,19, 3,52,46,50		7,39
28″	33,13,29,19,12,57,40,44,58,34		2,25,44,25,11	
		1,44,38,16,38, 8,21,39		7,39
30″	33,13,31, 3,51,14,18,53,20,13		2,25,44,32,50	
		1,44,38,14,12,23,48,49		7,39
32″	33,13,32,48,29,28,31,17, 9, 2		2,25,44,40,29	
		1,44,38,11,46,39, 8,20		7,39
34″	33,13,34,33, 7,40,17,56,17,22		2,25,44,48, 8	
		1,44,38, 9,20,54,20,12		7,39
36″	33,13,36,17,45,49,38,50,37,34		2,25,44,55,47	
		1,44,38, 6,55, 9,24,25		7,39
38″	33,13,38, 2,23,56,34, 0, 1,59		2,25,45, 3,26	
		1,44,38, 4,29,24,20,59		7,39
40″	33,13,39,47, 2, 1, 3,24,22,58		2,25,45,11, 5	
		1,44,38, 2, 3,39, 9,54		7,39
42″	33,13,41,31,40, 3, 7, 3,32,52		2,25,45,18,44	
		1,44,37,59,37,53,51,10		7,39
44″	33,13,43,16,18, 2,44,57,24, 2		2,25,45,26,23	
		1,44,37,57,12, 8,24,47		7,39
46″	33,13,45, 0,55,59,57, 5,48,49		2,25,45,34, 2	
		1,44,37,54,46,22,50,45		7,39
48″	33,13,46,45,33,54,43,28,39,34		2,25,45,41,41	
		1,44,37,52,20,37, 9, 4		7,39
50″	33,13,48,30,11,47, 4, 5,48,38		2,25,45,49,20	
		1,44,37,49,54,51,19,44		7,39
52″	33,13,50,14,49,36,58,57, 8,22		2,25,45,56,59	
		1,44,37,47,29, 5,22,45		7,39
54″	33,13,51,59,27,24,28, 2,31, 7		2,25,46, 4,38	
		1,44,37,45, 3,19,18, 7		7,39
56″	33,13,53,44, 5, 9,31,21,49,14		2,25,46,12,17	
		1,44,37,42,37,33, 5,50		7,39
58″	33,13,55,28,42,52, 8,54,55, 4		2,25,46,19,56	
		1,44,37,40,11,46,45,54		
60″	33,13,57,13,20,32,20,41,40,58			
exact	33,13,57,13,20,32,20,41,39,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°38′ 0″	33,13,57,13,20,32,20,41,39,25			
		1,44,37,37,46, 0,18,14		
2″	33,13,58,57,58,10, 6,41,57,39		2,25,46,35,14	
		1,44,37,35,20,13,43, 0		7,39
4″	33,14, 0,42,35,45,26,55,40,39		2,25,46,42,53	
		1,44,37,32,54,27, 0, 7		7,39
6″	33,14, 2,27,13,18,21,22,40,46		2,25,46,50,32	
		1,44,37,30,28,40, 9,35		7,39
8″	33,14, 4,11,50,48,50, 2,50,21		2,25,46,58,11	
		1,44,37,28, 2,53,11,24		7,39
10″	33,14, 5,56,28,16,52,56, 1,45		2,25,47, 5,50	
		1,44,37,25,37, 6, 5,34		7,39
12″	33,14, 7,41, 5,42,30, 2, 7,19		2,25,47,13,29	
		1,44,37,23,11,18,52, 5		7,39
14″	33,14, 9,25,43, 5,41,20,59,24		2,25,47,21, 8	
		1,44,37,20,45,31,30,57		7,39
16″	33,14,11,10,20,26,26,52,30,21		2,25,47,28,47	
		1,44,37,18,19,44, 2,10		7,39
18″	33,14,12,54,57,44,46,36,32,31		2,25,47,36,26	
		1,44,37,15,53,56,25,44		7,39
20″	33,14,14,39,35, 0,40,32,58,15		2,25,47,44, 5	
		1,44,37,13,28, 8,41,39		7,39
22″	33,14,16,24,12,14, 8,41,39,54		2,25,47,51,44	
		1,44,37,11, 2,20,49,55		7,39
24″	33,14,18, 8,49,25,11, 2,29,49		2,25,47,59,23	
		1,44,37, 8,36,32,50,32		7,39
26″	33,14,19,53,26,33,47,35,20,21		2,25,48, 7, 2	
		1,44,37, 6,10,44,43,30		7,39
28″	33,14,21,38, 3,39,58,20, 3,51		2,25,48,14,41	
		1,44,37, 3,44,56,28,49		7,39
30″	33,14,23,22,40,43,43,16,32,40		2,25,48,22,20	
		1,44,37, 1,19, 8, 6,29		7,39
32″	33,14,25, 7,17,45, 2,24,39, 9		2,25,48,29,59	
		1,44,36,58,53,19,36,30		7,39
34″	33,14,26,51,54,43,55,44,15,39		2,25,48,37,38	
		1,44,36,56,27,30,58,52		7,39
36″	33,14,28,36,31,40,23,15,14,31		2,25,48,45,17	
		1,44,36,54, 1,42,13,35		7,39
38″	33,14,30,21, 8,34,24,57,28, 6		2,25,48,52,56	
		1,44,36,51,35,53,20,39		7,39
40″	33,14,32, 5,45,26, 0,50,48,45		2,25,49, 0,35	
		1,44,36,49,10, 4,20, 4		7,39
42″	33,14,33,50,22,15,10,55, 8,49		2,25,49, 8,14	
		1,44,36,46,44,15,11,50		7,39
44″	33,14,35,34,59, 1,55,10,20,39		2,25,49,15,53	
		1,44,36,44,18,25,55,57		7,39
46″	33,14,37,19,35,46,13,36,16,36		2,25,49,23,32	
		1,44,36,41,52,36,32,25		7,39
48″	33,14,39, 4,12,28, 6,12,49, 1		2,25,49,31,11	
		1,44,36,39,26,47, 1,14		7,39
50″	33,14,40,48,49, 7,32,59,50,15		2,25,49,38,50	
		1,44,36,37, 0,57,22,24		7,39
52″	33,14,42,33,25,44,33,57,12,39		2,25,49,46,29	
		1,44,36,34,35, 7,35,55		7,39
54″	33,14,44,18, 2,19, 9, 4,48,34		2,25,49,54, 8	
		1,44,36,32, 9,17,41,47		7,39
56″	33,14,46, 2,38,51,18,22,30,21		2,25,50, 1,47	
		1,44,36,29,43,27,40, 0		7,39
58″	33,14,47,47,15,21, 1,50,10,21		2,25,50, 9,26	
		1,44,36,27,17,37,30,34		
60″	33,14,49,31,51,48,19,27,40,55			
exact	33,14,49,31,51,48,19,27,47,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°39′ 0″	33,14,49,31,51,48,19,27,47,36			
		1,44,36,24,51,47,14,12		
2″	33,14,51,16,28,13,11,15, 1,48		2,25,50,24,41	
		1,44,36,22,25,56,49,31		7,39
4″	33,14,53, 1, 4,35,37,11,51,19		2,25,50,32,20	
		1,44,36,20, 0, 6,17,11		7,39
6″	33,14,54,45,40,55,37,18, 8,30		2,25,50,39,59	
		1,44,36,17,34,15,37,12		7,39
8″	33,14,56,30,17,13,11,33,45,42		2,25,50,47,38	
		1,44,36,15, 8,24,49,34		7,39
10″	33,14,58,14,53,28,19,58,35,16		2,25,50,55,17	
		1,44,36,12,42,33,54,17		7,39
12″	33,14,59,59,29,41, 2,32,29,33		2,25,51, 2,56	
		1,44,36,10,16,42,51,21		7,39
14″	33,15, 1,44, 5,51,19,15,20,54		2,25,51,10,35	
		1,44,36, 7,50,51,40,46		7,39
16″	33,15, 3,28,41,59,10, 7, 1,40		2,25,51,18,14	
		1,44,36, 5,25, 0,22,32		7,39
18″	33,15, 5,13,18, 4,35, 7,24,12		2,25,51,25,53	
		1,44,36, 2,59, 8,56,39		7,39
20″	33,15, 6,57,54, 7,34,16,20,51		2,25,51,33,32	
		1,44,36, 0,33,17,23, 7		7,39
22″	33,15, 8,42,30, 8, 7,33,43,58		2,25,51,41,11	
		1,44,35,58, 7,25,41,56		7,39
24″	33,15,10,27, 6, 6,14,59,25,54		2,25,51,48,50	
		1,44,35,55,41,33,53, 6		7,39
26″	33,15,12,11,42, 1,56,33,19, 0		2,25,51,56,29	
		1,44,35,53,15,41,56,37		7,39
28″	33,15,13,56,17,55,12,15,15,37		2,25,52, 4, 8	
		1,44,35,50,49,49,52,29		7,39
30″	33,15,15,40,53,46, 2, 5, 8, 6		2,25,52,11,47	
		1,44,35,48,23,57,40,42		7,39
32″	33,15,17,25,29,34,26, 2,48,48		2,25,52,19,26	
		1,44,35,45,58, 5,21,16		7,39
34″	33,15,19,10, 5,20,24, 8,10, 4		2,25,52,27, 5	
		1,44,35,43,32,12,54,11		7,39
36″	33,15,20,54,41, 3,56,21, 4,15		2,25,52,34,44	
		1,44,35,41, 6,20,19,27		7,39
38″	33,15,22,39,16,45, 2,41,23,42		2,25,52,42,23	
		1,44,35,38,40,27,37, 4		7,39
40″	33,15,24,23,52,23,43, 9, 0,46		2,25,52,50, 2	
		1,44,35,36,14,34,47, 2		7,39
42″	33,15,26, 8,27,59,57,43,47,48		2,25,52,57,41	
		1,44,35,33,48,41,49,21		7,39
44″	33,15,27,53, 3,33,46,25,37, 9		2,25,53, 5,20	
		1,44,35,31,22,48,44, 1		7,39
46″	33,15,29,37,39, 5, 9,14,21,10		2,25,53,12,59	
		1,44,35,28,56,55,31, 2		7,39
48″	33,15,31,22,14,34, 6, 9,52,12		2,25,53,20,38	
		1,44,35,26,31, 2,10,24		7,39
50″	33,15,33, 6,50, 0,37,12, 2,36		2,25,53,28,17	
		1,44,35,24, 5, 8,42, 7		7,39
52″	33,15,34,51,25,24,42,20,44,43		2,25,53,35,56	
		1,44,35,21,39,15, 6,11		7,39
54″	33,15,36,36, 0,46,21,35,50,54		2,25,53,43,35	
		1,44,35,19,13,21,22,36		7,39
56″	33,15,38,20,36, 5,34,57,13,30		2,25,53,51,14	
		1,44,35,16,47,27,31,22		7,39
58″	33,15,40, 5,11,22,22,24,44,52		2,25,53,58,53	
		1,44,35,14,21,33,32,29		
60″	33,15,41,49,46,36,43,58,17,21			
exact	33,15,41,49,46,36,43,58,30, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°40′ 0″	33,15,41,49,46,36,43,58,30, 8			
		1,44,35,11,55,39,27,19		
2″	33,15,43,34,21,48,39,37,57,27		2,25,54,14, 5	
		1,44,35, 9,29,45,13,14		7,39
4″	33,15,45,18,56,58, 9,23,10,41		2,25,54,21,44	
		1,44,35, 7, 3,50,51,30		7,39
6″	33,15,47, 3,32, 5,13,14, 2,11		2,25,54,29,23	
		1,44,35, 4,37,56,22, 7		7,39
8″	33,15,48,48, 7, 9,51,10,24,18		2,25,54,37, 2	
		1,44,35, 2,12, 1,45, 5		7,39
10″	33,15,50,32,42,12, 3,12, 9,23		2,25,54,44,41	
		1,44,34,59,46, 7, 0,24		7,39
12″	33,15,52,17,17,11,49,19, 9,47		2,25,54,52,20	
		1,44,34,57,20,12, 8, 4		7,39
14″	33,15,54, 1,52, 9, 9,31,17,51		2,25,54,59,59	
		1,44,34,54,54,17, 8, 5		7,39
16″	33,15,55,46,27, 4, 3,48,25,56		2,25,55, 7,38	
		1,44,34,52,28,22, 0,27		7,39
18″	33,15,57,31, 1,56,32,10,26,23		2,25,55,15,17	
		1,44,34,50, 2,26,45,10		7,39
20″	33,15,59,15,36,46,34,37,11,33		2,25,55,22,56	
		1,44,34,47,36,31,22,14		7,39
22″	33,16, 1, 0,11,34,11, 8,33,47		2,25,55,30,35	
		1,44,34,45,10,35,51,39		7,39
24″	33,16, 2,44,46,19,21,44,25,26		2,25,55,38,14	
		1,44,34,42,44,40,13,25		7,39
26″	33,16, 4,29,21, 2, 6,24,38,51		2,25,55,45,53	
		1,44,34,40,18,44,27,32		7,39
28″	33,16, 6,13,55,42,25, 9, 6,23		2,25,55,53,32	
		1,44,34,37,52,48,34, 0		7,39
30″	33,16, 7,58,30,20,17,57,40,23		2,25,56, 1,11	
		1,44,34,35,26,52,32,49		7,39
32″	33,16, 9,43, 4,55,44,50,13,12		2,25,56, 8,50	
		1,44,34,33, 0,56,23,59		7,39
34″	33,16,11,27,39,28,45,46,37,11		2,25,56,16,29	
		1,44,34,30,35, 0, 7,30		7,39
36″	33,16,13,12,13,59,20,46,44,41		2,25,56,24, 8	
		1,44,34,28, 9, 3,43,22		7,39
38″	33,16,14,56,48,27,29,50,28, 3		2,25,56,31,47	
		1,44,34,25,43, 7,11,35		7,39
40″	33,16,16,41,22,53,12,57,39,38		2,25,56,39,26	
		1,44,34,23,17,10,32, 9		7,39
42″	33,16,18,25,57,16,30, 8,11,47		2,25,56,47, 5	
		1,44,34,20,51,13,45, 4		7,39
44″	33,16,20,10,31,37,21,21,56,51		2,25,56,54,44	
		1,44,34,18,25,16,50,20		7,39
46″	33,16,21,55, 5,55,46,38,47,11		2,25,57, 2,23	
		1,44,34,15,59,19,47,57		7,39
48″	33,16,23,39,40,11,45,58,35, 8		2,25,57,10, 2	
		1,44,34,13,33,22,37,55		7,39
50″	33,16,25,24,14,25,19,21,13, 3		2,25,57,17,41	
		1,44,34,11, 7,25,20,14		7,39
52″	33,16,27, 8,48,36,26,46,33,17		2,25,57,25,20	
		1,44,34, 8,41,27,54,54		7,39
54″	33,16,28,53,22,45, 8,14,28,11		2,25,57,32,59	
		1,44,34, 6,15,30,21,55		7,39
56″	33,16,30,37,56,51,23,44,50, 6		2,25,57,40,38	
		1,44,34, 3,49,32,41,17		7,39
58″	33,16,32,22,30,55,13,17,31,23		2,25,57,48,17	
		1,44,34, 1,23,34,53, 0		
60″	33,16,34, 7, 4,56,36,52,24,23			
exact	33,16,34, 7, 4,56,36,52,40,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°41′ 0″	33,16,34, 7, 4,56,36,52,40,35			
		1,44,33,58,57,36,58,54		
2″	33,16,35,51,38,55,34,29,39,29		2,25,58, 3,27	
		1,44,33,56,31,38,55,27		7,39
4″	33,16,37,36,12,52, 6, 8,34,56		2,25,58,11, 6	
		1,44,33,54, 5,40,44,21		7,39
6″	33,16,39,20,46,46,11,49,19,17		2,25,58,18,45	
		1,44,33,51,39,42,25,36		7,39
8″	33,16,41, 5,20,37,51,31,44,53		2,25,58,26,24	
		1,44,33,49,13,43,59,12		7,39
10″	33,16,42,49,54,27, 5,15,44, 5		2,25,58,34, 3	
		1,44,33,46,47,45,25, 9		7,39
12″	33,16,44,34,28,13,53, 1, 9,14		2,25,58,41,42	
		1,44,33,44,21,46,43,27		7,39
14″	33,16,46,19, 1,58,14,47,52,41		2,25,58,49,21	
		1,44,33,41,55,47,54, 6		7,39
16″	33,16,48, 3,35,40,10,35,46,47		2,25,58,57, 0	
		1,44,33,39,29,48,57, 6		7,39
18″	33,16,49,48, 9,19,40,24,43,53		2,25,59, 4,39	
		1,44,33,37, 3,49,52,27		7,39
20″	33,16,51,32,42,56,44,14,36,20		2,25,59,12,18	
		1,44,33,34,37,50,40, 9		7,39
22″	33,16,53,17,16,31,22, 5,16,29		2,25,59,19,57	
		1,44,33,32,11,51,20,12		7,39
24″	33,16,55, 1,50, 3,33,56,36,41		2,25,59,27,36	
		1,44,33,29,45,51,52,36		7,39
26″	33,16,56,46,23,33,19,48,29,17		2,25,59,35,15	
		1,44,33,27,19,52,17,21		7,39
28″	33,16,58,30,57, 0,39,40,46,38		2,25,59,42,54	
		1,44,33,24,53,52,34,27		7,39
30″	33,17, 0,15,30,25,33,33,21, 5		2,25,59,50,33	
		1,44,33,22,27,52,43,54		7,39
32″	33,17, 2, 0, 3,48, 1,26, 4,59		2,25,59,58,12	
		1,44,33,20, 1,52,45,42		7,39
34″	33,17, 3,44,37, 8, 3,18,50,41		2,26, 0, 5,51	
		1,44,33,17,35,52,39,51		7,39
36″	33,17, 5,29,10,25,39,11,30,32		2,26, 0,13,30	
		1,44,33,15, 9,52,26,21		7,39
38″	33,17, 7,13,43,40,49, 3,56,53		2,26, 0,21, 9	
		1,44,33,12,43,52, 5,12		7,39
40″	33,17, 8,58,16,53,32,56, 2, 5		2,26, 0,28,48	
		1,44,33,10,17,51,36,24		7,39
42″	33,17,10,42,50, 3,50,47,38,29		2,26, 0,36,27	
		1,44,33, 7,51,50,59,57		7,39
44″	33,17,12,27,23,11,42,38,38,26		2,26, 0,44, 6	
		1,44,33, 5,25,50,15,51		7,39
46″	33,17,14,11,56,17, 8,28,54,17		2,26, 0,51,45	
		1,44,33, 2,59,49,24, 6		7,39
48″	33,17,15,56,29,20, 8,18,18,23		2,26, 0,59,24	
		1,44,33, 0,33,48,24,42		7,39
50″	33,17,17,41, 2,20,42, 6,43, 5		2,26, 1, 7, 3	
		1,44,32,58, 7,47,17,39		7,39
52″	33,17,19,25,35,18,49,54, 0,44		2,26, 1,14,42	
		1,44,32,55,41,46, 2,57		7,39
54″	33,17,21,10, 8,14,31,40, 3,41		2,26, 1,22,21	
		1,44,32,53,15,44,40,36		7,39
56″	33,17,22,54,41, 7,47,24,44,17		2,26, 1,30, 0	
		1,44,32,50,49,43,10,36		7,39
58″	33,17,24,39,13,58,37, 7,54,53		2,26, 1,37,39	
		1,44,32,48,23,41,32,57		
60″	33,17,26,23,46,47, 0,49,27,50			
exact	33,17,26,23,46,47, 0,49,52,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°42′ 0″	33,17,26,23,46,47, 0,49,52,30			
		1,44,32,45,57,39,50,18		
2″	33,17,28, 8,19,32,58,29,42,48		2,26, 1,52,46	
		1,44,32,43,31,37,57,32		7,39
4″	33,17,29,52,52,16,30, 7,40,20		2,26, 2, 0,25	
		1,44,32,41, 5,35,57, 7		7,39
6″	33,17,31,37,24,57,35,43,37,27		2,26, 2, 8, 4	
		1,44,32,38,39,33,49, 3		7,39
8″	33,17,33,21,57,36,15,17,26,30		2,26, 2,15,43	
		1,44,32,36,13,31,33,20		7,39
10″	33,17,35, 6,30,12,28,48,59,50		2,26, 2,23,22	
		1,44,32,33,47,29, 9,58		7,39
12″	33,17,36,51, 2,46,16,18, 9,48		2,26, 2,31, 1	
		1,44,32,31,21,26,38,57		7,39
14″	33,17,38,35,35,17,37,44,48,45		2,26, 2,38,40	
		1,44,32,28,55,24, 0,17		7,39
16″	33,17,40,20, 7,46,33, 8,49, 2		2,26, 2,46,19	
		1,44,32,26,29,21,13,58		7,39
18″	33,17,42, 4,40,13, 2,30, 3, 0		2,26, 2,53,58	
		1,44,32,24, 3,18,20, 0		7,39
20″	33,17,43,49,12,37, 5,48,23, 0		2,26, 3, 1,37	
		1,44,32,21,37,15,18,23		7,39
22″	33,17,45,33,44,58,43, 3,41,23		2,26, 3, 9,16	
		1,44,32,19,11,12, 9, 7		7,39
24″	33,17,47,18,17,17,54,15,50,30		2,26, 3,16,55	
		1,44,32,16,45, 8,52,12		7,39
26″	33,17,49, 2,49,34,39,24,42,42		2,26, 3,24,34	
		1,44,32,14,19, 5,27,38		7,39
28″	33,17,50,47,21,48,58,30,10,20		2,26, 3,32,13	
		1,44,32,11,53, 1,55,25		7,39
30″	33,17,52,31,54, 0,51,32, 5,45		2,26, 3,39,52	
		1,44,32, 9,26,58,15,33		7,39
32″	33,17,54,16,26,10,18,30,21,18		2,26, 3,47,31	
		1,44,32, 7, 0,54,28, 2		7,39
34″	33,17,56, 0,58,17,19,24,49,20		2,26, 3,55,10	
		1,44,32, 4,34,50,32,52		7,39
36″	33,17,57,45,30,21,54,15,22,12		2,26, 4, 2,49	
		1,44,32, 2, 8,46,30, 3		7,39
38″	33,17,59,30, 2,24, 3, 1,52,15		2,26, 4,10,28	
		1,44,31,59,42,42,19,35		7,39
40″	33,18, 1,14,34,23,45,44,11,50		2,26, 4,18, 7	
		1,44,31,57,16,38, 1,28		7,39
42″	33,18, 2,59, 6,21, 2,22,13,18		2,26, 4,25,46	
		1,44,31,54,50,33,35,42		7,39
44″	33,18, 4,43,38,15,52,55,49, 0		2,26, 4,33,25	
		1,44,31,52,24,29, 2,17		7,39
46″	33,18, 6,28,10, 8,17,24,51,17		2,26, 4,41, 4	
		1,44,31,49,58,24,21,13		7,39
48″	33,18, 8,12,41,58,15,49,12,30		2,26, 4,48,43	
		1,44,31,47,32,19,32,30		7,39
50″	33,18, 9,57,13,45,48, 8,45, 0		2,26, 4,56,22	
		1,44,31,45, 6,14,36, 8		7,39
52″	33,18,11,41,45,30,54,23,21, 8		2,26, 5, 4, 1	
		1,44,31,42,40, 9,32, 7		7,39
54″	33,18,13,26,17,13,34,32,53,15		2,26, 5,11,40	
		1,44,31,40,14, 4,20,27		7,39
56″	33,18,15,10,48,53,48,37,13,42		2,26, 5,19,19	
		1,44,31,37,47,59, 1, 8		7,39
58″	33,18,16,55,20,31,36,36,14,50		2,26, 5,26,58	
		1,44,31,35,21,53,34,10		
60″	33,18,18,39,52, 6,58,29,49, 0			
exact	33,18,18,39,52, 6,58,30,19,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°43′ 0″	33,18,18,39,52, 6,58,30,19,30			
		1,44,31,32,55,48, 2,50		
2″	33,18,20,24,23,39,54,18,22,20		2,26, 5,42, 2	
		1,44,31,30,29,42,20,48		7,38
4″	33,18,22, 8,55,10,24, 0,43, 8		2,26, 5,49,40	
		1,44,31,28, 3,36,31, 8		7,38
6″	33,18,23,53,26,38,27,37,14,16		2,26, 5,57,18	
		1,44,31,25,37,30,33,50		7,38
8″	33,18,25,37,58, 4, 5, 7,48, 6		2,26, 6, 4,56	
		1,44,31,23,11,24,28,54		7,38
10″	33,18,27,22,29,27,16,32,17, 0		2,26, 6,12,34	
		1,44,31,20,45,18,16,20		7,38
12″	33,18,29, 7, 0,48, 1,50,33,20		2,26, 6,20,12	
		1,44,31,18,19,11,56, 8		7,38
14″	33,18,30,51,32, 6,21, 2,29,28		2,26, 6,27,50	
		1,44,31,15,53, 5,28,18		7,38
16″	33,18,32,36, 3,22,14, 7,57,46		2,26, 6,35,28	
		1,44,31,13,26,58,52,50		7,38
18″	33,18,34,20,34,35,41, 6,50,36		2,26, 6,43, 6	
		1,44,31,11, 0,52, 9,44		7,38
20″	33,18,36, 5, 5,46,41,59, 0,20		2,26, 6,50,44	
		1,44,31, 8,34,45,19, 0		7,38
22″	33,18,37,49,36,55,16,44,19,20		2,26, 6,58,22	
		1,44,31, 6, 8,38,20,38		7,38
24″	33,18,39,34, 8, 1,25,22,39,58		2,26, 7, 6, 0	
		1,44,31, 3,42,31,14,38		7,38
26″	33,18,41,18,39, 5, 7,53,54,36		2,26, 7,13,38	
		1,44,31, 1,16,24, 1, 0		7,38
28″	33,18,43, 3,10, 6,24,17,55,36		2,26, 7,21,16	
		1,44,30,58,50,16,39,44		7,38
30″	33,18,44,47,41, 5,14,34,35,20		2,26, 7,28,54	
		1,44,30,56,24, 9,10,50		7,38
32″	33,18,46,32,12, 1,38,43,46,10		2,26, 7,36,32	
		1,44,30,53,58, 1,34,18		7,38
34″	33,18,48,16,42,55,36,45,20,28		2,26, 7,44,10	
		1,44,30,51,31,53,50, 8		7,38
36″	33,18,50, 1,13,47, 8,39,10,36		2,26, 7,51,48	
		1,44,30,49, 5,45,58,20		7,38
38″	33,18,51,45,44,36,14,25, 8,56		2,26, 7,59,26	
		1,44,30,46,39,37,58,54		7,38
40″	33,18,53,30,15,22,54, 3, 7,50		2,26, 8, 7, 4	
		1,44,30,44,13,29,51,50		7,38
42″	33,18,55,14,46, 7, 7,32,59,40		2,26, 8,14,42	
		1,44,30,41,47,21,37, 8		7,38
44″	33,18,56,59,16,48,54,54,36,48		2,26, 8,22,20	
		1,44,30,39,21,13,14,48		7,38
46″	33,18,58,43,47,28,16, 7,51,36		2,26, 8,29,58	
		1,44,30,36,55, 4,44,50		7,38
48″	33,19, 0,28,18, 5,11,12,36,26		2,26, 8,37,36	
		1,44,30,34,28,56, 7,14		7,38
50″	33,19, 2,12,48,39,40, 8,43,40		2,26, 8,45,14	
		1,44,30,32, 2,47,22, 0		7,38
52″	33,19, 3,57,19,11,42,56, 5,40		2,26, 8,52,52	
		1,44,30,29,36,38,29, 8		7,38
54″	33,19, 5,41,49,41,19,34,34,48		2,26, 9, 0,30	
		1,44,30,27,10,29,28,38		7,38
56″	33,19, 7,26,20, 8,30, 4, 3,26		2,26, 9, 8, 8	
		1,44,30,24,44,20,20,30		7,38
58″	33,19, 9,10,50,33,14,24,23,56		2,26, 9,15,46	
		1,44,30,22,18,11, 4,44		
60″	33,19,10,55,20,55,32,35,28,40			
exact	33,19,10,55,20,55,32,34,55,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°44′ 0″	33,19,10,55,20,55,32,34,55,12			
		1,44,30,19,52, 1,37,51		
2″	33,19,12,39,51,15,24,36,33, 3		2,26, 9,31,16	
		1,44,30,17,25,52, 6,35		7,38
4″	33,19,14,24,21,32,50,28,39,38		2,26, 9,38,54	
		1,44,30,14,59,42,27,41		7,38
6″	33,19,16, 8,51,47,50,11, 7,19		2,26, 9,46,32	
		1,44,30,12,33,32,41, 9		7,38
8″	33,19,17,53,22, 0,23,43,48,28		2,26, 9,54,10	
		1,44,30,10, 7,22,46,59		7,38
10″	33,19,19,37,52,10,31, 6,35,27		2,26,10, 1,48	
		1,44,30, 7,41,12,45,11		7,38
12″	33,19,21,22,22,18,12,19,20,38		2,26,10, 9,26	
		1,44,30, 5,15, 2,35,45		7,38
14″	33,19,23, 6,52,23,27,21,56,23		2,26,10,17, 4	
		1,44,30, 2,48,52,18,41		7,38
16″	33,19,24,51,22,26,16,14,15, 4		2,26,10,24,42	
		1,44,30, 0,22,41,53,59		7,38
18″	33,19,26,35,52,26,38,56, 9, 3		2,26,10,32,20	
		1,44,29,57,56,31,21,39		7,38
20″	33,19,28,20,22,24,35,27,30,42		2,26,10,39,58	
		1,44,29,55,30,20,41,41		7,38
22″	33,19,30, 4,52,20, 5,48,12,23		2,26,10,47,36	
		1,44,29,53, 4, 9,54, 5		7,38
24″	33,19,31,49,22,13, 9,58, 6,28		2,26,10,55,14	
		1,44,29,50,37,58,58,51		7,38
26″	33,19,33,33,52, 3,47,57, 5,19		2,26,11, 2,52	
		1,44,29,48,11,47,55,59		7,38
28″	33,19,35,18,21,51,59,45, 1,18		2,26,11,10,30	
		1,44,29,45,45,36,45,29		7,38
30″	33,19,37, 2,51,37,45,21,46,47		2,26,11,18, 8	
		1,44,29,43,19,25,27,21		7,38
32″	33,19,38,47,21,21, 4,47,14, 8		2,26,11,25,46	
		1,44,29,40,53,14, 1,35		7,38
34″	33,19,40,31,51, 1,58, 1,15,43		2,26,11,33,24	
		1,44,29,38,27, 2,28,11		7,38
36″	33,19,42,16,20,40,25, 3,43,54		2,26,11,41, 2	
		1,44,29,36, 0,50,47, 9		7,38
38″	33,19,44, 0,50,16,25,54,31, 3		2,26,11,48,40	
		1,44,29,33,34,38,58,29		7,38
40″	33,19,45,45,19,50, 0,33,29,32		2,26,11,56,18	
		1,44,29,31, 8,27, 2,11		7,38
42″	33,19,47,29,49,21, 9, 0,31,43		2,26,12, 3,56	
		1,44,29,28,42,14,58,15		7,38
44″	33,19,49,14,18,49,51,15,29,58		2,26,12,11,34	
		1,44,29,26,16, 2,46,41		7,38
46″	33,19,50,58,48,16, 7,18,16,39		2,26,12,19,12	
		1,44,29,23,49,50,27,29		7,38
48″	33,19,52,43,17,39,57, 8,44, 8		2,26,12,26,50	
		1,44,29,21,23,38, 0,39		7,38
50″	33,19,54,27,47, 1,20,46,44,47		2,26,12,34,28	
		1,44,29,18,57,25,26,11		7,38
52″	33,19,56,12,16,20,18,12,10,58		2,26,12,42, 6	
		1,44,29,16,31,12,44, 5		7,38
54″	33,19,57,56,45,36,49,24,55, 3		2,26,12,49,44	
		1,44,29,14, 4,59,54,21		7,38
56″	33,19,59,41,14,50,54,24,49,24		2,26,12,57,22	
		1,44,29,11,38,46,56,59		7,38
58″	33,20, 1,25,44, 2,33,11,46,23		2,26,13, 5, 0	
		1,44,29, 9,12,33,51,59		
60″	33,20, 3,10,13,11,45,45,38,22			
exact	33,20, 3,10,13,11,45,45,13,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°45′ 0″	33,20, 3,10,13,11,45,45,13,16	1,44,29, 6,46,20,36,40		
2″	33,20, 4,54,42,18,32, 5,49,56	1,44,29, 4,20, 7,16,13	2,26,13,20,27	7,38
4″	33,20, 6,39,11,22,52,13, 6, 9	1,44,29, 1,53,53,48, 8	2,26,13,28, 5	7,38
6″	33,20, 8,23,40,24,46, 6,54,17	1,44,28,59,27,40,12,25	2,26,13,35,43	7,38
8″	33,20,10, 8, 9,24,13,47, 6,42	1,44,28,57, 1,26,29, 4	2,26,13,43,21	7,38
10″	33,20,11,52,38,21,15,13,35,46	1,44,28,54,35,12,38, 5	2,26,13,50,59	7,38
12″	33,20,13,37, 7,15,50,26,13,51	1,44,28,52, 8,58,39,28	2,26,13,58,37	7,38
14″	33,20,15,21,36, 7,59,24,53,19	1,44,28,49,42,44,33,13	2,26,14, 6,15	7,38
16″	33,20,17, 6, 4,57,42, 9,26,32	1,44,28,47,16,30,19,20	2,26,14,13,53	7,38
18″	33,20,18,50,33,44,58,39,45,52	1,44,28,44,50,15,57,49	2,26,14,21,31	7,38
20″	33,20,20,35, 2,29,48,55,43,41	1,44,28,42,24, 1,28,40	2,26,14,29, 9	7,38
22″	33,20,22,19,31,12,12,57,12,21	1,44,28,39,57,46,51,53	2,26,14,36,47	7,38
24″	33,20,24, 3,59,52,10,44, 4,14	1,44,28,37,31,32, 7,28	2,26,14,44,25	7,38
26″	33,20,25,48,28,29,42,16,11,42	1,44,28,35, 5,17,15,25	2,26,14,52, 3	7,38
28″	33,20,27,32,57, 4,47,33,27, 7	1,44,28,32,39, 2,15,44	2,26,14,59,41	7,38
30″	33,20,29,17,25,37,26,35,42,51	1,44,28,30,12,47, 8,25	2,26,15, 7,19	7,38
32″	33,20,31, 1,54, 7,39,22,51,16	1,44,28,27,46,31,53,28	2,26,15,14,57	7,38
34″	33,20,32,46,22,35,25,54,44,44	1,44,28,25,20,16,30,53	2,26,15,22,35	7,38
36″	33,20,34,30,51, 0,46,11,15,37	1,44,28,22,54, 1, 0,40	2,26,15,30,13	7,38
38″	33,20,36,15,19,23,40,12,16,17	1,44,28,20,27,45,22,49	2,26,15,37,51	7,38
40″	33,20,37,59,47,44, 7,57,39, 6	1,44,28,18, 1,29,37,20	2,26,15,45,29	7,38
42″	33,20,39,44,16, 2, 9,27,16,26	1,44,28,15,35,13,44,13	2,26,15,53, 7	7,38
44″	33,20,41,28,44,17,44,41, 0,39	1,44,28,13, 8,57,43,28	2,26,16, 0,45	7,38
46″	33,20,43,13,12,30,53,38,44, 7	1,44,28,10,42,41,35, 5	2,26,16, 8,23	7,38
48″	33,20,44,57,40,41,36,20,19,12	1,44,28, 8,16,25,19, 4	2,26,16,16, 1	7,38
50″	33,20,46,42, 8,49,52,45,38,16	1,44,28, 5,50, 8,55,25	2,26,16,23,39	7,38
52″	33,20,48,26,36,55,42,54,33,41	1,44,28, 3,23,52,24, 8	2,26,16,31,17	7,38
54″	33,20,50,11, 4,59, 6,46,57,49	1,44,28, 0,57,35,45,13	2,26,16,38,55	7,38
56″	33,20,51,55,33, 0, 4,22,43, 2	1,44,27,58,31,18,58,40	2,26,16,46,33	7,38
58″	33,20,53,40, 0,58,35,41,41,42	1,44,27,56, 5, 2, 4,29	2,26,16,54,11	
60″	33,20,55,24,28,54,40,43,46,11			
exact	33,20,55,24,28,54,40,43,27,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°46′ 0″	33,20,55,24,28,54,40,43,27,27	1,44,27,53,38,45, 0,39		
2″	33,20,57, 8,56,48,19,28,28, 6	1,44,27,51,12,27,51, 4	2,26,17, 9,35	7,38
4″	33,20,58,53,24,39,31,56,19,10	1,44,27,48,46,10,33,51	2,26,17,17,13	7,38
6″	33,21, 0,37,52,28,18, 6,53, 1	1,44,27,46,19,53, 9, 0	2,26,17,24,51	7,38
8″	33,21, 2,22,20,14,38, 0, 2, 1	1,44,27,43,53,35,36,31	2,26,17,32,29	7,38
10″	33,21, 4, 6,47,58,31,35,38,32	1,44,27,41,27,17,56,24	2,26,17,40, 7	7,38
12″	33,21, 5,51,15,39,58,53,34,56	1,44,27,39, 1, 0, 8,39	2,26,17,47,45	7,38
14″	33,21, 7,35,43,18,59,53,43,35	1,44,27,36,34,42,13,16	2,26,17,55,23	7,38
16″	33,21, 9,20,10,55,34,35,56,51	1,44,27,34, 8,24,10,15	2,26,18, 3, 1	7,38
18″	33,21,11, 4,38,29,43, 0, 7, 6	1,44,27,31,42, 5,59,36	2,26,18,10,39	7,38
20″	33,21,12,49, 6, 1,25, 6, 6,42	1,44,27,29,15,47,41,19	2,26,18,18,17	7,38
22″	33,21,14,33,33,30,40,53,48, 1	1,44,27,26,49,29,15,24	2,26,18,25,55	7,38
24″	33,21,16,18, 0,57,30,23, 3,25	1,44,27,24,23,10,41,51	2,26,18,33,33	7,38
26″	33,21,18, 2,28,21,53,33,45,16	1,44,27,21,56,52, 0,40	2,26,18,41,11	7,38
28″	33,21,19,46,55,43,50,25,45,56	1,44,27,19,30,33,11,51	2,26,18,48,49	7,38
30″	33,21,21,31,23, 3,20,58,57,47	1,44,27,17, 4,14,15,24	2,26,18,56,27	7,38
32″	33,21,23,15,50,20,25,13,13,11	1,44,27,14,37,55,11,19	2,26,19, 4, 5	7,38
34″	33,21,25, 0,17,35, 3, 8,24,30	1,44,27,12,11,35,59,36	2,26,19,11,43	7,38
36″	33,21,26,44,44,47,14,44,24, 6	1,44,27, 9,45,16,40,15	2,26,19,19,21	7,38
38″	33,21,28,29,11,57, 0, 1, 4,21	1,44,27, 7,18,57,13,16	2,26,19,26,59	7,38
40″	33,21,30,13,39, 4,18,58,17,37	1,44,27, 4,52,37,38,39	2,26,19,34,37	7,38
42″	33,21,31,58, 6, 9,11,35,56,16	1,44,27, 2,26,17,56,24	2,26,19,42,15	7,38
44″	33,21,33,42,33,11,37,53,52,40	1,44,26,59,59,58, 6,31	2,26,19,49,53	7,38
46″	33,21,35,27, 0,11,37,51,59,11	1,44,26,57,33,38, 9, 0	2,26,19,57,31	7,38
48″	33,21,37,11,27, 9,11,30, 8,11	1,44,26,55, 7,18, 3,51	2,26,20, 5, 9	7,38
50″	33,21,38,55,54, 4,18,48,12, 2	1,44,26,52,40,57,51, 4	2,26,20,12,47	7,38
52″	33,21,40,40,20,56,59,46, 3, 6	1,44,26,50,14,37,30,39	2,26,20,20,25	7,38
54″	33,21,42,24,47,47,14,23,33,45	1,44,26,47,48,17, 2,36	2,26,20,28, 3	7,38
56″	33,21,44, 9,14,35, 2,40,36,21	1,44,26,45,21,56,26,55	2,26,20,35,41	7,38
58″	33,21,45,53,41,20,24,37, 3,16	1,44,26,42,55,35,43,36	2,26,20,43,19	
60″	33,21,47,38, 8, 3,20,12,46,52			
exact	33,21,47,38, 8, 3,20,12,31,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°47′ 0″	33,21,47,38, 8, 3,20,12,31,35			
		1,44,26,40,29,14,51, 6		
2″	33,21,49,22,34,43,49,27,22,41		2,26,20,58,41	
		1,44,26,38, 2,53,52,25		7,38
4″	33,21,51, 7, 1,21,52,21,15, 6		2,26,21, 6,19	
		1,44,26,35,36,32,46, 6		7,38
6″	33,21,52,51,27,57,28,54, 1,12		2,26,21,13,57	
		1,44,26,33,10,11,32, 9		7,38
8″	33,21,54,35,54,30,39, 5,33,21		2,26,21,21,35	
		1,44,26,30,43,50,10,34		7,38
10″	33,21,56,20,21, 1,22,55,43,55		2,26,21,29,13	
		1,44,26,28,17,28,41,21		7,38
12″	33,21,58, 4,47,29,40,24,25,16		2,26,21,36,51	
		1,44,26,25,51, 7, 4,30		7,38
14″	33,21,59,49,13,55,31,31,29,46		2,26,21,44,29	
		1,44,26,23,24,45,20, 1		7,38
16″	33,22, 1,33,40,18,56,16,49,47		2,26,21,52, 7	
		1,44,26,20,58,23,27,54		7,38
18″	33,22, 3,18, 6,39,54,40,17,41		2,26,21,59,45	
		1,44,26,18,32, 1,28, 9		7,38
20″	33,22, 5, 2,32,58,26,41,45,50		2,26,22, 7,23	
		1,44,26,16, 5,39,20,46		7,38
22″	33,22, 6,46,59,14,32,21, 6,36		2,26,22,15, 1	
		1,44,26,13,39,17, 5,45		7,38
24″	33,22, 8,31,25,28,11,38,12,21		2,26,22,22,39	
		1,44,26,11,12,54,43, 6		7,38
26″	33,22,10,15,51,39,24,32,55,27		2,26,22,30,17	
		1,44,26, 8,46,32,12,49		7,38
28″	33,22,12, 0,17,48,11, 5, 8,16		2,26,22,37,55	
		1,44,26, 6,20, 9,34,54		7,38
30″	33,22,13,44,43,54,31,14,43,10		2,26,22,45,33	
		1,44,26, 3,53,46,49,21		7,38
32″	33,22,15,29, 9,58,25, 1,32,31		2,26,22,53,11	
		1,44,26, 1,27,23,56,10		7,38
34″	33,22,17,13,35,59,52,25,28,41		2,26,23, 0,49	
		1,44,25,59, 1, 0,55,21		7,38
36″	33,22,18,58, 1,58,53,26,24, 2		2,26,23, 8,27	
		1,44,25,56,34,37,46,54		7,38
38″	33,22,20,42,27,55,28, 4,10,56		2,26,23,16, 5	
		1,44,25,54, 8,14,30,49		7,38
40″	33,22,22,26,53,49,36,18,41,45		2,26,23,23,43	
		1,44,25,51,41,51, 7, 6		7,38
42″	33,22,24,11,19,41,18, 9,48,51		2,26,23,31,21	
		1,44,25,49,15,27,35,45		7,38
44″	33,22,25,55,45,30,33,37,24,36		2,26,23,38,59	
		1,44,25,46,49, 3,56,46		7,38
46″	33,22,27,40,11,17,22,41,21,22		2,26,23,46,37	
		1,44,25,44,22,40,10, 9		7,38
48″	33,22,29,24,37, 1,45,21,31,31		2,26,23,54,15	
		1,44,25,41,56,16,15,54		7,38
50″	33,22,31, 9, 2,43,41,37,47,25		2,26,24, 1,53	
		1,44,25,39,29,52,14, 1		7,38
52″	33,22,32,53,28,23,11,30, 1,26		2,26,24, 9,31	
		1,44,25,37, 3,28, 4,30		7,38
54″	33,22,34,37,54, 0,14,58, 5,56		2,26,24,17, 9	
		1,44,25,34,37, 3,47,21		7,38
56″	33,22,36,22,19,34,52, 1,53,17		2,26,24,24,47	
		1,44,25,32,10,39,22,34		7,38
58″	33,22,38, 6,45, 7, 2,41,15,51		2,26,24,32,25	
		1,44,25,29,44,14,50, 9		
60″	33,22,39,51,10,36,46,56, 6, 0			
exact	33,22,39,51,10,36,46,55,59,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°48′ 0″	33,22,39,51,10,36,46,55,59,36			
		1,44,25,27,17,50, 9,23		
2″	33,22,41,35,36, 4, 4,46, 8,59		2,26,24,47,44	
		1,44,25,24,51,25,21,39		7,38
4″	33,22,43,20, 1,28,56,11,30,38		2,26,24,55,22	
		1,44,25,22,25, 0,26,17		7,38
6″	33,22,45, 4,26,51,21,11,56,55		2,26,25, 3, 0	
		1,44,25,19,58,35,23,17		7,38
8″	33,22,46,48,52,11,19,47,20,12		2,26,25,10,38	
		1,44,25,17,32,10,12,39		7,38
10″	33,22,48,33,17,28,51,57,32,51		2,26,25,18,16	
		1,44,25,15, 5,44,54,23		7,38
12″	33,22,50,17,42,43,57,42,27,14		2,26,25,25,54	
		1,44,25,12,39,19,28,29		7,38
14″	33,22,52, 2, 7,56,37, 1,55,43		2,26,25,33,32	
		1,44,25,10,12,53,54,57		7,38
16″	33,22,53,46,33, 6,49,55,50,40		2,26,25,41,10	
		1,44,25, 7,46,28,13,47		7,38
18″	33,22,55,30,58,14,36,24, 4,27		2,26,25,48,48	
		1,44,25, 5,20, 2,24,59		7,38
20″	33,22,57,15,23,19,56,26,29,26		2,26,25,56,26	
		1,44,25, 2,53,36,28,33		7,38
22″	33,22,58,59,48,22,50, 2,57,59		2,26,26, 4, 4	
		1,44,25, 0,27,10,24,29		7,38
24″	33,23, 0,44,13,23,17,13,22,28		2,26,26,11,42	
		1,44,24,58, 0,44,12,47		7,38
26″	33,23, 2,28,38,21,17,57,35,15		2,26,26,19,20	
		1,44,24,55,34,17,53,27		7,38
28″	33,23, 4,13, 3,16,52,15,28,42		2,26,26,26,58	
		1,44,24,53, 7,51,26,29		7,38
30″	33,23, 5,57,28,10, 0, 6,55,11		2,26,26,34,36	
		1,44,24,50,41,24,51,53		7,38
32″	33,23, 7,41,53, 0,41,31,47, 4		2,26,26,42,14	
		1,44,24,48,14,58, 9,39		7,38
34″	33,23, 9,26,17,48,56,29,56,43		2,26,26,49,52	
		1,44,24,45,48,31,19,47		7,38
36″	33,23,11,10,42,34,45, 1,16,30		2,26,26,57,30	
		1,44,24,43,22, 4,22,17		7,38
38″	33,23,12,55, 7,18, 7, 5,38,47		2,26,27, 5, 8	
		1,44,24,40,55,37,17, 9		7,38
40″	33,23,14,39,31,59, 2,42,55,56		2,26,27,12,46	
		1,44,24,38,29,10, 4,23		7,38
42″	33,23,16,23,56,37,31,53, 0,19		2,26,27,20,24	
		1,44,24,36, 2,42,43,59		7,38
44″	33,23,18, 8,21,13,34,35,44,18		2,26,27,28, 2	
		1,44,24,33,36,15,15,57		7,38
46″	33,23,19,52,45,47,10,51, 0,15		2,26,27,35,40	
		1,44,24,31, 9,47,40,17		7,38
48″	33,23,21,37,10,18,20,38,40,32		2,26,27,43,18	
		1,44,24,28,43,19,56,59		7,38
50″	33,23,23,21,34,47, 3,58,37,31		2,26,27,50,56	
		1,44,24,26,16,52, 6, 3		7,38
52″	33,23,25, 5,59,13,20,50,43,34		2,26,27,58,34	
		1,44,24,23,50,24, 7,29		7,38
54″	33,23,26,50,23,37,11,14,51, 3		2,26,28, 6,12	
		1,44,24,21,23,56, 1,17		7,38
56″	33,23,28,34,47,58,35,10,52,20		2,26,28,13,50	
		1,44,24,18,57,27,47,27		7,38
58″	33,23,30,19,12,17,32,38,39,47		2,26,28,21,28	
		1,44,24,16,30,59,25,59		
60″	33,23,32, 3,36,34, 3,38, 5,46			
exact	33,23,32, 3,36,34, 3,38, 5,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°49′ 0″	33,23,32, 3,36,34, 3,38, 5,35			
		1,44,24,14, 4,30,56,50		
2″	33,23,33,48, 0,48, 8, 9, 2,25		2,26,28,36,44	
		1,44,24,11,38, 2,20, 6		7,38
4″	33,23,35,32,24,59,46,11,22,31		2,26,28,44,22	
		1,44,24, 9,11,33,35,44		7,38
6″	33,23,37,16,49, 8,57,44,58,15		2,26,28,52, 0	
		1,44,24, 6,45, 4,43,44		7,38
8″	33,23,39, 1,13,15,42,49,41,59		2,26,28,59,38	
		1,44,24, 4,18,35,44, 6		7,38
10″	33,23,40,45,37,20, 1,25,26, 5		2,26,29, 7,16	
		1,44,24, 1,52, 6,36,50		7,38
12″	33,23,42,30, 1,21,53,32, 2,55		2,26,29,14,54	
		1,44,23,59,25,37,21,56		7,38
14″	33,23,44,14,25,21,19, 9,24,51		2,26,29,22,32	
		1,44,23,56,59, 7,59,24		7,38
16″	33,23,45,58,49,18,18,17,24,15		2,26,29,30,10	
		1,44,23,54,32,38,29,14		7,38
18″	33,23,47,43,13,12,50,55,53,29		2,26,29,37,48	
		1,44,23,52, 6, 8,51,26		7,38
20″	33,23,49,27,37, 4,57, 4,44,55		2,26,29,45,26	
		1,44,23,49,39,39, 6, 0		7,38
22″	33,23,51,12, 0,54,36,43,50,55		2,26,29,53, 4	
		1,44,23,47,13, 9,12,56		7,38
24″	33,23,52,56,24,41,49,53, 3,51		2,26,30, 0,42	
		1,44,23,44,46,39,12,14		7,38
26″	33,23,54,40,48,26,36,32,16, 5		2,26,30, 8,20	
		1,44,23,42,20, 9, 3,54		7,38
28″	33,23,56,25,12, 8,56,41,19,59		2,26,30,15,58	
		1,44,23,39,53,38,47,56		7,38
30″	33,23,58, 9,35,48,50,20, 7,55		2,26,30,23,36	
		1,44,23,37,27, 8,24,20		7,38
32″	33,23,59,53,59,26,17,28,32,15		2,26,30,31,14	
		1,44,23,35, 0,37,53, 6		7,38
34″	33,24, 1,38,23, 1,18, 6,25,21		2,26,30,38,52	
		1,44,23,32,34, 7,14,14		7,38
36″	33,24, 3,22,46,33,52,13,39,35		2,26,30,46,30	
		1,44,23,30, 7,36,27,44		7,38
38″	33,24, 5, 7,10, 3,59,50, 7,19		2,26,30,54, 8	
		1,44,23,27,41, 5,33,36		7,38
40″	33,24, 6,51,33,31,40,55,40,55		2,26,31, 1,46	
		1,44,23,25,14,34,31,50		7,38
42″	33,24, 8,35,56,56,55,30,12,45		2,26,31, 9,24	
		1,44,23,22,48, 3,22,26		7,38
44″	33,24,10,20,20,19,43,33,35,11		2,26,31,17, 2	
		1,44,23,20,21,32, 5,24		7,38
46″	33,24,12, 4,43,40, 5, 5,40,35		2,26,31,24,40	
		1,44,23,17,55, 0,40,44		7,38
48″	33,24,13,49, 6,58, 0, 6,21,19		2,26,31,32,18	
		1,44,23,15,28,29, 8,26		7,38
50″	33,24,15,33,30,13,28,35,29,45		2,26,31,39,56	
		1,44,23,13, 1,57,28,30		7,38
52″	33,24,17,17,53,26,30,32,58,15		2,26,31,47,34	
		1,44,23,10,35,25,40,56		7,38
54″	33,24,19, 2,16,37, 5,58,39,11		2,26,31,55,12	
		1,44,23, 8, 8,53,45,44		7,38
56″	33,24,20,46,39,45,14,52,24,55		2,26,32, 2,50	
		1,44,23, 5,42,21,42,54		7,38
58″	33,24,22,31, 2,50,57,14, 7,49		2,26,32,10,28	
		1,44,23, 3,15,49,32,26		
60″	33,24,24,15,25,54,13, 3,40,15			
exact	33,24,24,15,25,54,13, 3,43,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°50′ 0″	33,24,24,15,25,54,13, 3,43,42			
		1,44,23, 0,49,17,14,46		
2″	33,24,25,59,48,55, 2,20,58,28		2,26,32,25,42	
		1,44,22,58,22,44,49, 4		7,38
4″	33,24,27,44,11,53,25, 5,47,32		2,26,32,33,20	
		1,44,22,55,56,12,15,44		7,38
6″	33,24,29,28,34,49,21,18, 3,16		2,26,32,40,58	
		1,44,22,53,29,39,34,46		7,38
8″	33,24,31,12,57,42,50,57,38, 2		2,26,32,48,36	
		1,44,22,51, 3, 6,46,10		7,38
10″	33,24,32,57,20,33,54, 4,24,12		2,26,32,56,14	
		1,44,22,48,36,33,49,56		7,38
12″	33,24,34,41,43,22,30,38,14, 8		2,26,33, 3,52	
		1,44,22,46,10, 0,46, 4		7,38
14″	33,24,36,26, 6, 8,40,39, 0,12		2,26,33,11,30	
		1,44,22,43,43,27,34,34		7,38
16″	33,24,38,10,28,52,24, 6,34,46		2,26,33,19, 8	
		1,44,22,41,16,54,15,26		7,38
18″	33,24,39,54,51,33,41, 0,50,12		2,26,33,26,46	
		1,44,22,38,50,20,48,40		7,38
20″	33,24,41,39,14,12,31,21,38,52		2,26,33,34,24	
		1,44,22,36,23,47,14,16		7,38
22″	33,24,43,23,36,48,55, 8,53, 8		2,26,33,42, 2	
		1,44,22,33,57,13,32,14		7,38
24″	33,24,45, 7,59,22,52,22,25,22		2,26,33,49,40	
		1,44,22,31,30,39,42,34		7,38
26″	33,24,46,52,21,54,23, 2, 7,56		2,26,33,57,18	
		1,44,22,29, 4, 5,45,16		7,38
28″	33,24,48,36,44,23,27, 7,53,12		2,26,34, 4,56	
		1,44,22,26,37,31,40,20		7,38
30″	33,24,50,21, 6,50, 4,39,33,32		2,26,34,12,34	
		1,44,22,24,10,57,27,46		7,38
32″	33,24,52, 5,29,14,15,37, 1,18		2,26,34,20,12	
		1,44,22,21,44,23, 7,34		7,38
34″	33,24,53,49,51,36, 0, 0, 8,52		2,26,34,27,50	
		1,44,22,19,17,48,39,44		7,38
36″	33,24,55,34,13,55,17,48,48,36		2,26,34,35,28	
		1,44,22,16,51,14, 4,16		7,38
38″	33,24,57,18,36,12, 9, 2,52,52		2,26,34,43, 6	
		1,44,22,14,24,39,21,10		7,38
40″	33,24,59, 2,58,26,33,42,14, 2		2,26,34,50,44	
		1,44,22,11,58, 4,30,26		7,38
42″	33,25, 0,47,20,38,31,46,44,28		2,26,34,58,22	
		1,44,22, 9,31,29,32, 4		7,38
44″	33,25, 2,31,42,48, 3,16,16,32		2,26,35, 6, 0	
		1,44,22, 7, 4,54,26, 4		7,38
46″	33,25, 4,16, 4,55, 8,10,42,36		2,26,35,13,38	
		1,44,22, 4,38,19,12,26		7,38
48″	33,25, 6, 0,26,59,46,29,55, 2		2,26,35,21,16	
		1,44,22, 2,11,43,51,10		7,38
50″	33,25, 7,44,49, 1,58,13,46,12		2,26,35,28,54	
		1,44,21,59,45, 8,22,16		7,38
52″	33,25, 9,29,11, 1,43,22, 8,28		2,26,35,36,32	
		1,44,21,57,18,32,45,44		7,38
54″	33,25,11,13,32,59, 1,54,54,12		2,26,35,44,10	
		1,44,21,54,51,57, 1,34		7,38
56″	33,25,12,57,54,53,53,51,55,46		2,26,35,51,48	
		1,44,21,52,25,21, 9,46		7,38
58″	33,25,14,42,16,46,19,13, 5,32		2,26,35,59,26	
		1,44,21,49,58,45,10,20		
60″	33,25,16,26,38,36,17,58,15,52			
exact	33,25,16,26,38,36,17,58,28,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°51′ 0″	33,25,16,26,38,36,17,58,28,19			
		1,44,21,47,32, 9, 4,33		
2″	33,25,18,11, 0,23,50, 7,32,52		2,26,36,14,37	
		1,44,21,45, 5,32,49,56		7,38
4″	33,25,19,55,22, 8,55,40,22,48		2,26,36,22,15	
		1,44,21,42,38,56,27,41		7,38
6″	33,25,21,39,43,51,34,36,50,29		2,26,36,29,53	
		1,44,21,40,12,19,57,48		7,38
8″	33,25,23,24, 5,31,46,56,48,17		2,26,36,37,31	
		1,44,21,37,45,43,20,17		7,38
10″	33,25,25, 8,27, 9,32,40, 8,34		2,26,36,45, 9	
		1,44,21,35,19, 6,35, 8		7,38
12″	33,25,26,52,48,44,51,46,43,42		2,26,36,52,47	
		1,44,21,32,52,29,42,21		7,38
14″	33,25,28,37,10,17,44,16,26, 3		2,26,37, 0,25	
		1,44,21,30,25,52,41,56		7,38
16″	33,25,30,21,31,48,10, 9, 7,59		2,26,37, 8, 3	
		1,44,21,27,59,15,33,53		7,38
18″	33,25,32, 5,53,16, 9,24,41,52		2,26,37,15,41	
		1,44,21,25,32,38,18,12		7,38
20″	33,25,33,50,14,41,42, 3, 0, 4		2,26,37,23,19	
		1,44,21,23, 6, 0,54,53		7,38
22″	33,25,35,34,36, 4,48, 3,54,57		2,26,37,30,57	
		1,44,21,20,39,23,23,56		7,38
24″	33,25,37,18,57,25,27,27,18,53		2,26,37,38,35	
		1,44,21,18,12,45,45,21		7,38
26″	33,25,39, 3,18,43,40,13, 4,14		2,26,37,46,13	
		1,44,21,15,46, 7,59, 8		7,38
28″	33,25,40,47,39,59,26,21, 3,22		2,26,37,53,51	
		1,44,21,13,19,30, 5,17		7,38
30″	33,25,42,32, 1,12,45,51, 8,39		2,26,38, 1,29	
		1,44,21,10,52,52, 3,48		7,38
32″	33,25,44,16,22,23,38,43,12,27		2,26,38, 9, 7	
		1,44,21, 8,26,13,54,41		7,38
34″	33,25,46, 0,43,32, 4,57, 7, 8		2,26,38,16,45	
		1,44,21, 5,59,35,37,56		7,38
36″	33,25,47,45, 4,38, 4,32,45, 4		2,26,38,24,23	
		1,44,21, 3,32,57,13,33		7,38
38″	33,25,49,29,25,41,37,29,58,37		2,26,38,32, 1	
		1,44,21, 1, 6,18,41,32		7,38
40″	33,25,51,13,46,42,43,48,40, 9		2,26,38,39,39	
		1,44,20,58,39,40, 1,53		7,38
42″	33,25,52,58, 7,41,23,28,42, 2		2,26,38,47,17	
		1,44,20,56,13, 1,14,36		7,38
44″	33,25,54,42,28,37,36,29,56,38		2,26,38,54,55	
		1,44,20,53,46,22,19,41		7,38
46″	33,25,56,26,49,31,22,52,16,19		2,26,39, 2,33	
		1,44,20,51,19,43,17, 8		7,38
48″	33,25,58,11,10,22,42,35,33,27		2,26,39,10,11	
		1,44,20,48,53, 4, 6,57		7,38
50″	33,25,59,55,31,11,35,39,40,24		2,26,39,17,49	
		1,44,20,46,26,24,49, 8		7,38
52″	33,26, 1,39,51,58, 2, 4,29,32		2,26,39,25,27	
		1,44,20,43,59,45,23,41		7,38
54″	33,26, 3,24,12,42, 1,49,53,13		2,26,39,33, 5	
		1,44,20,41,33, 5,50,36		7,38
56″	33,26, 5, 8,33,23,34,55,43,49		2,26,39,40,43	
		1,44,20,39, 6,26, 9,53		7,38
58″	33,26, 6,52,54, 2,41,21,53,42		2,26,39,48,21	
		1,44,20,36,39,46,21,32		
60″	33,26, 8,37,14,39,21, 8,15,14			
exact	33,26, 8,37,14,39,21, 8,33,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°52′ 0″	33,26, 8,37,14,39,21, 8,33,59			
		1,44,20,34,13, 6,27,30		
2″	33,26,10,21,35,13,34,15, 1,29		2,26,40, 3,29	
		1,44,20,31,46,26,24, 1		7,38
4″	33,26,12, 5,55,45,20,41,25,30		2,26,40,11, 7	
		1,44,20,29,19,46,12,54		7,38
6″	33,26,13,50,16,14,40,27,38,24		2,26,40,18,45	
		1,44,20,26,53, 5,54, 9		7,38
8″	33,26,15,34,36,41,33,33,32,33		2,26,40,26,23	
		1,44,20,24,26,25,27,46		7,38
10″	33,26,17,18,57, 5,59,59, 0,19		2,26,40,34, 1	
		1,44,20,21,59,44,53,45		7,38
12″	33,26,19, 3,17,27,59,43,54, 4		2,26,40,41,39	
		1,44,20,19,33, 4,12, 6		7,38
14″	33,26,20,47,37,47,32,48, 6,10		2,26,40,49,17	
		1,44,20,17, 6,23,22,49		7,38
16″	33,26,22,31,58, 4,39,11,28,59		2,26,40,56,55	
		1,44,20,14,39,42,25,54		7,38
18″	33,26,24,16,18,19,18,53,54,53		2,26,41, 4,33	
		1,44,20,12,13, 1,21,21		7,38
20″	33,26,26, 0,38,31,31,55,16,14		2,26,41,12,11	
		1,44,20, 9,46,20, 9,10		7,38
22″	33,26,27,44,58,41,18,15,25,24		2,26,41,19,49	
		1,44,20, 7,19,38,49,21		7,38
24″	33,26,29,29,18,48,37,54,14,45		2,26,41,27,27	
		1,44,20, 4,52,57,21,54		7,38
26″	33,26,31,13,38,53,30,51,36,39		2,26,41,35, 5	
		1,44,20, 2,26,15,46,49		7,38
28″	33,26,32,57,58,55,57, 7,23,28		2,26,41,42,43	
		1,44,19,59,59,34, 4, 6		7,38
30″	33,26,34,42,18,55,56,41,27,34		2,26,41,50,21	
		1,44,19,57,32,52,13,45		7,38
32″	33,26,36,26,38,53,29,33,41,19		2,26,41,57,59	
		1,44,19,55, 6,10,15,46		7,38
34″	33,26,38,10,58,48,35,43,57, 5		2,26,42, 5,37	
		1,44,19,52,39,28,10, 9		7,38
36″	33,26,39,55,18,41,15,12, 7,14		2,26,42,13,15	
		1,44,19,50,12,45,56,54		7,38
38″	33,26,41,39,38,31,27,58, 4, 8		2,26,42,20,53	
		1,44,19,47,46, 3,36, 1		7,38
40″	33,26,43,23,58,19,14, 1,40, 9		2,26,42,28,31	
		1,44,19,45,19,21, 7,30		7,38
42″	33,26,45, 8,18, 4,33,22,47,39		2,26,42,36, 9	
		1,44,19,42,52,38,31,21		7,38
44″	33,26,46,52,37,47,26, 1,19, 0		2,26,42,43,47	
		1,44,19,40,25,55,47,34		7,38
46″	33,26,48,36,57,27,51,57, 6,34		2,26,42,51,25	
		1,44,19,37,59,12,56, 9		7,38
48″	33,26,50,21,17, 5,51,10, 2,43		2,26,42,59, 3	
		1,44,19,35,32,29,57, 6		7,38
50″	33,26,52, 5,36,41,23,39,59,49		2,26,43, 6,41	
		1,44,19,33, 5,46,50,25		7,38
52″	33,26,53,49,56,14,29,26,50,14		2,26,43,14,19	
		1,44,19,30,39, 3,36, 6		7,38
54″	33,26,55,34,15,45, 8,30,26,20		2,26,43,21,57	
		1,44,19,28,12,20,14, 9		7,38
56″	33,26,57,18,35,13,20,50,40,29		2,26,43,29,35	
		1,44,19,25,45,36,44,34		7,38
58″	33,26,59, 2,54,39, 6,27,25, 3		2,26,43,37,13	
		1,44,19,23,18,53, 7,21		
60″	33,27, 0,47,14, 2,25,20,32,24			
exact	33,27, 0,47,14, 2,25,20,55,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°53′ 0″	33,27, 0,47,14, 2,25,20,55,24			
		1,44,19,20,52, 9,24,58		
2″	33,27, 2,31,33,23,17,30,20,22		2,26,43,52,18	
		1,44,19,18,25,25,32,40		7,38
4″	33,27, 4,15,52,41,42,55,53, 2		2,26,43,59,56	
		1,44,19,15,58,41,32,44		7,38
6″	33,27, 6, 0,11,57,41,37,25,46		2,26,44, 7,34	
		1,44,19,13,31,57,25,10		7,38
8″	33,27, 7,44,31,11,13,34,50,56		2,26,44,15,12	
		1,44,19,11, 5,13, 9,58		7,38
10″	33,27, 9,28,50,22,18,48, 0,54		2,26,44,22,50	
		1,44,19, 8,38,28,47, 8		7,38
12″	33,27,11,13, 9,30,57,16,48, 2		2,26,44,30,28	
		1,44,19, 6,11,44,16,40		7,38
14″	33,27,12,57,28,37, 9, 1, 4,42		2,26,44,38, 6	
		1,44,19, 3,44,59,38,34		7,38
16″	33,27,14,41,47,40,54, 0,43,16		2,26,44,45,44	
		1,44,19, 1,18,14,52,50		7,38
18″	33,27,16,26, 6,42,12,15,36, 6		2,26,44,53,22	
		1,44,18,58,51,29,59,28		7,38
20″	33,27,18,10,25,41, 3,45,35,34		2,26,45, 1, 0	
		1,44,18,56,24,44,58,28		7,38
22″	33,27,19,54,44,37,28,30,34, 2		2,26,45, 8,38	
		1,44,18,53,57,59,49,50		7,38
24″	33,27,21,39, 3,31,26,30,23,52		2,26,45,16,16	
		1,44,18,51,31,14,33,34		7,38
26″	33,27,23,23,22,22,57,44,57,26		2,26,45,23,54	
		1,44,18,49, 4,29, 9,40		7,38
28″	33,27,25, 7,41,12, 2,14, 7, 6		2,26,45,31,32	
		1,44,18,46,37,43,38, 8		7,38
30″	33,27,26,51,59,58,39,57,45,14		2,26,45,39,10	
		1,44,18,44,10,57,58,58		7,38
32″	33,27,28,36,18,42,50,55,44,12		2,26,45,46,48	
		1,44,18,41,44,12,12,10		7,38
34″	33,27,30,20,37,24,35, 7,56,22		2,26,45,54,26	
		1,44,18,39,17,26,17,44		7,38
36″	33,27,32, 4,56, 3,52,34,14, 6		2,26,46, 2, 4	
		1,44,18,36,50,40,15,40		7,38
38″	33,27,33,49,14,40,43,14,29,46		2,26,46, 9,42	
		1,44,18,34,23,54, 5,58		7,38
40″	33,27,35,33,33,15, 7, 8,35,44		2,26,46,17,20	
		1,44,18,31,57, 7,48,38		7,38
42″	33,27,37,17,51,47, 4,16,24,22		2,26,46,24,58	
		1,44,18,29,30,21,23,40		7,38
44″	33,27,39, 2,10,16,34,37,48, 2		2,26,46,32,36	
		1,44,18,27, 3,34,51, 4		7,38
46″	33,27,40,46,28,43,38,12,39, 6		2,26,46,40,14	
		1,44,18,24,36,48,10,50		7,38
48″	33,27,42,30,47, 8,15, 0,49,56		2,26,46,47,52	
		1,44,18,22,10, 1,22,58		7,38
50″	33,27,44,15, 5,30,25, 2,12,54		2,26,46,55,30	
		1,44,18,19,43,14,27,28		7,38
52″	33,27,45,59,23,50, 8,16,40,22		2,26,47, 3, 8	
		1,44,18,17,16,27,24,20		7,38
54″	33,27,47,43,42, 7,24,44, 4,42		2,26,47,10,46	
		1,44,18,14,49,40,13,34		7,38
56″	33,27,49,28, 0,22,14,24,18,16		2,26,47,18,24	
		1,44,18,12,22,52,55,10		7,38
58″	33,27,51,12,18,34,37,17,13,26		2,26,47,26, 2	
		1,44,18, 9,56, 5,29, 8		
60″	33,27,52,56,36,44,33,22,42,34			
exact	33,27,52,56,36,44,33,23, 7,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°54′ 0″	33,27,52,56,36,44,33,23, 7,30			
		1,44,18, 7,29,17,58,18		
2″	33,27,54,40,54,52, 2,41, 5,48		2,26,47,41, 5	
		1,44,18, 5, 2,30,17,13		7,38
4″	33,27,56,25,12,57, 5,11,23, 1		2,26,47,48,43	
		1,44,18, 2,35,42,28,30		7,38
6″	33,27,58, 9,30,59,40,53,51,31		2,26,47,56,21	
		1,44,18, 0, 8,54,32, 9		7,38
8″	33,27,59,53,48,59,49,48,23,40		2,26,48, 3,59	
		1,44,17,57,42, 6,28,10		7,38
10″	33,28, 1,38, 6,57,31,54,51,50		2,26,48,11,37	
		1,44,17,55,15,18,16,33		7,38
12″	33,28, 3,22,24,52,47,13, 8,23		2,26,48,19,15	
		1,44,17,52,48,29,57,18		7,38
14″	33,28, 5, 6,42,45,35,43, 5,41		2,26,48,26,53	
		1,44,17,50,21,41,30,25		7,38
16″	33,28, 6,51, 0,35,57,24,36, 6		2,26,48,34,31	
		1,44,17,47,54,52,55,54		7,38
18″	33,28, 8,35,18,23,52,17,32, 0		2,26,48,42, 9	
		1,44,17,45,28, 4,13,45		7,38
20″	33,28,10,19,36, 9,20,21,45,45		2,26,48,49,47	
		1,44,17,43, 1,15,23,58		7,38
22″	33,28,12, 3,53,52,21,37, 9,43		2,26,48,57,25	
		1,44,17,40,34,26,26,33		7,38
24″	33,28,13,48,11,32,56, 3,36,16		2,26,49, 5, 3	
		1,44,17,38, 7,37,21,30		7,38
26″	33,28,15,32,29,11, 3,40,57,46		2,26,49,12,41	
		1,44,17,35,40,48, 8,49		7,38
28″	33,28,17,16,46,46,44,29, 6,35		2,26,49,20,19	
		1,44,17,33,13,58,48,30		7,38
30″	33,28,19, 1, 4,19,58,27,55, 5		2,26,49,27,57	
		1,44,17,30,47, 9,20,33		7,38
32″	33,28,20,45,21,50,45,37,15,38		2,26,49,35,35	
		1,44,17,28,20,19,44,58		7,38
34″	33,28,22,29,39,19, 5,57, 0,36		2,26,49,43,13	
		1,44,17,25,53,30, 1,45		7,38
36″	33,28,24,13,56,44,59,27, 2,21		2,26,49,50,51	
		1,44,17,23,26,40,10,54		7,38
38″	33,28,25,58,14, 8,26, 7,13,15		2,26,49,58,29	
		1,44,17,20,59,50,12,25		7,38
40″	33,28,27,42,31,29,25,57,25,40		2,26,50, 6, 7	
		1,44,17,18,33, 0, 6,18		7,38
42″	33,28,29,26,48,47,58,57,31,58		2,26,50,13,45	
		1,44,17,16, 6, 9,52,33		7,38
44″	33,28,31,11, 6, 4, 5, 7,24,31		2,26,50,21,23	
		1,44,17,13,39,19,31,10		7,38
46″	33,28,32,55,23,17,44,26,55,41		2,26,50,29, 1	
		1,44,17,11,12,29, 2, 9		7,38
48″	33,28,34,39,40,28,56,55,57,50		2,26,50,36,39	
		1,44,17, 8,45,38,25,30		7,38
50″	33,28,36,23,57,37,42,34,23,20		2,26,50,44,17	
		1,44,17, 6,18,47,41,13		7,38
52″	33,28,38, 8,14,44, 1,22, 4,33		2,26,50,51,55	
		1,44,17, 3,51,56,49,18		7,38
54″	33,28,39,52,31,47,53,18,53,51		2,26,50,59,33	
		1,44,17, 1,25, 5,49,45		7,38
56″	33,28,41,36,48,49,18,24,43,36		2,26,51, 7,11	
		1,44,16,58,58,14,42,34		7,38
58″	33,28,43,21, 5,48,16,39,26,10		2,26,51,14,49	
		1,44,16,56,31,23,27,45		
60″	33,28,45, 5,22,44,48, 2,53,55			
exact	33,28,45, 5,22,44,48, 3,25,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°55′ 0″	33,28,45, 5,22,44,48, 3,25,27			
		1,44,16,54, 4,32, 8,50		
2″	33,28,46,49,39,38,52,35,34,17		2,26,51,29,50	
		1,44,16,51,37,40,39, 0		7,37
4″	33,28,48,33,56,30,30,16,13,17		2,26,51,37,27	
		1,44,16,49,10,49, 1,33		7,37
6″	33,28,50,18,13,19,41, 5,14,50		2,26,51,45, 4	
		1,44,16,46,43,57,16,29		7,37
8″	33,28,52, 2,30, 6,25, 2,31,19		2,26,51,52,41	
		1,44,16,44,17, 5,23,48		7,37
10″	33,28,53,46,46,50,42, 7,55, 7		2,26,52, 0,18	
		1,44,16,41,50,13,23,30		7,37
12″	33,28,55,31, 3,32,32,21,18,37		2,26,52, 7,55	
		1,44,16,39,23,21,15,35		7,37
14″	33,28,57,15,20,11,55,42,34,12		2,26,52,15,32	
		1,44,16,36,56,29, 0, 3		7,37
16″	33,28,58,59,36,48,52,11,34,15		2,26,52,23, 9	
		1,44,16,34,29,36,36,54		7,37
18″	33,29, 0,43,53,23,21,48,11, 9		2,26,52,30,46	
		1,44,16,32, 2,44, 6, 8		7,37
20″	33,29, 2,28, 9,55,24,32,17,17		2,26,52,38,23	
		1,44,16,29,35,51,27,45		7,37
22″	33,29, 4,12,26,25, 0,23,45, 2		2,26,52,46, 0	
		1,44,16,27, 8,58,41,45		7,37
24″	33,29, 5,56,42,52, 9,22,26,47		2,26,52,53,37	
		1,44,16,24,42, 5,48, 8		7,37
26″	33,29, 7,40,59,16,51,28,14,55		2,26,53, 1,14	
		1,44,16,22,15,12,46,54		7,37
28″	33,29, 9,25,15,39, 6,41, 1,49		2,26,53, 8,51	
		1,44,16,19,48,19,38, 3		7,37
30″	33,29,11, 9,31,58,55, 0,39,52		2,26,53,16,28	
		1,44,16,17,21,26,21,35		7,37
32″	33,29,12,53,48,16,16,27, 1,27		2,26,53,24, 5	
		1,44,16,14,54,32,57,30		7,37
34″	33,29,14,38, 4,31,10,59,58,57		2,26,53,31,42	
		1,44,16,12,27,39,25,48		7,37
36″	33,29,16,22,20,43,38,39,24,45		2,26,53,39,19	
		1,44,16,10, 0,45,46,29		7,37
38″	33,29,18, 6,36,53,39,25,11,14		2,26,53,46,56	
		1,44,16, 7,33,51,59,33		7,37
40″	33,29,19,50,53, 1,13,17,10,47		2,26,53,54,33	
		1,44,16, 5, 6,58, 5, 0		7,37
42″	33,29,21,35, 9, 6,20,15,15,47		2,26,54, 2,10	
		1,44,16, 2,40, 4, 2,50		7,37
44″	33,29,23,19,25, 9, 0,19,18,37		2,26,54, 9,47	
		1,44,16, 0,13, 9,53, 3		7,37
46″	33,29,25, 3,41, 9,13,29,11,40		2,26,54,17,24	
		1,44,15,57,46,15,35,39		7,37
48″	33,29,26,47,57, 6,59,44,47,19		2,26,54,25, 1	
		1,44,15,55,19,21,10,38		7,37
50″	33,29,28,32,13, 2,19, 5,57,57		2,26,54,32,38	
		1,44,15,52,52,26,38, 0		7,37
52″	33,29,30,16,28,55,11,32,35,57		2,26,54,40,15	
		1,44,15,50,25,31,57,45		7,37
54″	33,29,32, 0,44,45,37, 4,33,42		2,26,54,47,52	
		1,44,15,47,58,37, 9,53		7,37
56″	33,29,33,45, 0,33,35,41,43,35		2,26,54,55,29	
		1,44,15,45,31,42,14,24		7,37
58″	33,29,35,29,16,19, 7,23,57,59		2,26,55, 3, 6	
		1,44,15,43, 4,47,11,18		
60″	33,29,37,13,32, 2,12,11, 9,17			
exact	33,29,37,13,32, 2,12,10,44,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°56′ 0″	33,29,37,13,32, 2,12,10,44,38			
		1,44,15,40,37,51,57,54		
2″	33,29,38,57,47,42,50, 2,42,32		2,26,55,18,31	
		1,44,15,38,10,56,39,23		7,37
4″	33,29,40,42, 3,21, 0,59,21,55		2,26,55,26, 8	
		1,44,15,35,44, 1,13,15		7,37
6″	33,29,42,26,18,56,45, 0,35,10		2,26,55,33,45	
		1,44,15,33,17, 5,39,30		7,37
8″	33,29,44,10,34,30, 2, 6,14,40		2,26,55,41,22	
		1,44,15,30,50, 9,58, 8		7,37
10″	33,29,45,54,50, 0,52,16,12,48		2,26,55,48,59	
		1,44,15,28,23,14, 9, 9		7,37
12″	33,29,47,39, 5,29,15,30,21,57		2,26,55,56,36	
		1,44,15,25,56,18,12,33		7,37
14″	33,29,49,23,20,55,11,48,34,30		2,26,56, 4,13	
		1,44,15,23,29,22, 8,20		7,37
16″	33,29,51, 7,36,18,41,10,42,50		2,26,56,11,50	
		1,44,15,21, 2,25,56,30		7,37
18″	33,29,52,51,51,39,43,36,39,20		2,26,56,19,27	
		1,44,15,18,35,29,37, 3		7,37
20″	33,29,54,36, 6,58,19, 6,16,23		2,26,56,27, 4	
		1,44,15,16, 8,33, 9,59		7,37
22″	33,29,56,20,22,14,27,39,26,22		2,26,56,34,41	
		1,44,15,13,41,36,35,18		7,37
24″	33,29,58, 4,37,28, 9,16, 1,40		2,26,56,42,18	
		1,44,15,11,14,39,53, 0		7,37
26″	33,29,59,48,52,39,23,55,54,40		2,26,56,49,55	
		1,44,15, 8,47,43, 3, 5		7,37
28″	33,30, 1,33, 7,48,11,38,57,45		2,26,56,57,32	
		1,44,15, 6,20,46, 5,33		7,37
30″	33,30, 3,17,22,54,32,25, 3,18		2,26,57, 5, 9	
		1,44,15, 3,53,49, 0,24		7,37
32″	33,30, 5, 1,37,58,26,14, 3,42		2,26,57,12,46	
		1,44,15, 1,26,51,47,38		7,37
34″	33,30, 6,45,52,59,53, 5,51,20		2,26,57,20,23	
		1,44,14,58,59,54,27,15		7,37
36″	33,30, 8,30, 7,58,53, 0,18,35		2,26,57,28, 0	
		1,44,14,56,32,56,59,15		7,37
38″	33,30,10,14,22,55,25,57,17,50		2,26,57,35,37	
		1,44,14,54, 5,59,23,38		7,37
40″	33,30,11,58,37,49,31,56,41,28		2,26,57,43,14	
		1,44,14,51,39, 1,40,24		7,37
42″	33,30,13,42,52,41,10,58,21,52		2,26,57,50,51	
		1,44,14,49,12, 3,49,33		7,37
44″	33,30,15,27, 7,30,23, 2,11,25		2,26,57,58,28	
		1,44,14,46,45, 5,51, 5		7,37
46″	33,30,17,11,22,17, 8, 8, 2,30		2,26,58, 6, 5	
		1,44,14,44,18, 7,45, 0		7,37
48″	33,30,18,55,37, 1,26,15,47,30		2,26,58,13,42	
		1,44,14,41,51, 9,31,18		7,37
50″	33,30,20,39,51,43,17,25,18,48		2,26,58,21,19	
		1,44,14,39,24,11, 9,59		7,37
52″	33,30,22,24, 6,22,41,36,28,47		2,26,58,28,56	
		1,44,14,36,57,12,41, 3		7,37
54″	33,30,24, 8,20,59,38,49, 9,50		2,26,58,36,33	
		1,44,14,34,30,14, 4,30		7,37
56″	33,30,25,52,35,34, 9, 3,14,20		2,26,58,44,10	
		1,44,14,32, 3,15,20,20		7,37
58″	33,30,27,36,50, 6,12,18,34,40		2,26,58,51,47	
		1,44,14,29,36,16,28,33		
60″	33,30,29,21, 4,35,48,35, 3,13			
exact	33,30,29,21, 4,35,48,34,40,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°57′ 0″	33,30,29,21, 4,35,48,34,40,45	1,44,14,27, 9,17,26,50		
2″	33,30,31, 5,19, 2,57,52, 7,35	1,44,14,24,42,18,19,40	2,26,59, 7,10	7,37
4″	33,30,32,49,33,27,40,10,27,15	1,44,14,22,15,19, 4,53	2,26,59,14,47	7,37
6″	33,30,34,33,47,49,55,29,32, 8	1,44,14,19,48,19,42,29	2,26,59,22,24	7,37
8″	33,30,36,18, 2, 9,43,49,14,37	1,44,14,17,21,20,12,28	2,26,59,30, 1	7,37
10″	33,30,38, 2,16,27, 5, 9,27, 5	1,44,14,14,54,20,34,50	2,26,59,37,38	7,37
12″	33,30,39,46,30,41,59,30, 1,55	1,44,14,12,27,20,49,35	2,26,59,45,15	7,37
14″	33,30,41,30,44,54,26,50,51,30	1,44,14,10, 0,20,56,43	2,26,59,52,52	7,37
16″	33,30,43,14,59, 4,27,11,48,13	1,44,14, 7,33,20,56,14	2,27, 0, 0,29	7,37
18″	33,30,44,59,13,12, 0,32,44,27	1,44,14, 5, 6,20,48, 8	2,27, 0, 8, 6	7,37
20″	33,30,46,43,27,17, 6,53,32,35	1,44,14, 2,39,20,32,25	2,27, 0,15,43	7,37
22″	33,30,48,27,41,19,46,14, 5, 0	1,44,14, 0,12,20, 9, 5	2,27, 0,23,20	7,37
24″	33,30,50,11,55,19,58,34,14, 5	1,44,13,57,45,19,38, 8	2,27, 0,30,57	7,37
26″	33,30,51,56, 9,17,43,53,52,13	1,44,13,55,18,18,59,34	2,27, 0,38,34	7,37
28″	33,30,53,40,23,13, 2,12,51,47	1,44,13,52,51,18,13,23	2,27, 0,46,11	7,37
30″	33,30,55,24,37, 5,53,31, 5,10	1,44,13,50,24,17,19,35	2,27, 0,53,48	7,37
32″	33,30,57, 8,50,56,17,48,24,45	1,44,13,47,57,16,18,10	2,27, 1, 1,25	7,37
34″	33,30,58,53, 4,44,15, 4,42,55	1,44,13,45,30,15, 9, 8	2,27, 1, 9, 2	7,37
36″	33,31, 0,37,18,29,45,19,52, 3	1,44,13,43, 3,13,52,29	2,27, 1,16,39	7,37
38″	33,31, 2,21,32,12,48,33,44,32	1,44,13,40,36,12,28,13	2,27, 1,24,16	7,37
40″	33,31, 4, 5,45,53,24,46,12,45	1,44,13,38, 9,10,56,20	2,27, 1,31,53	7,37
42″	33,31, 5,49,59,31,33,57, 9, 5	1,44,13,35,42, 9,16,50	2,27, 1,39,30	7,37
44″	33,31, 7,34,13, 7,16, 6,25,55	1,44,13,33,15, 7,29,43	2,27, 1,47, 7	7,37
46″	33,31, 9,18,26,40,31,13,55,38	1,44,13,30,48, 5,34,59	2,27, 1,54,44	7,37
48″	33,31,11, 2,40,11,19,19,30,37	1,44,13,28,21, 3,32,38	2,27, 2, 2,21	7,37
50″	33,31,12,46,53,39,40,23, 3,15	1,44,13,25,54, 1,22,40	2,27, 2, 9,58	7,37
52″	33,31,14,31, 7, 5,34,24,25,55	1,44,13,23,26,59, 5, 5	2,27, 2,17,35	7,37
54″	33,31,16,15,20,29, 1,23,31, 0	1,44,13,20,59,56,39,53	2,27, 2,25,12	7,37
56″	33,31,17,59,33,50, 1,20,10,53	1,44,13,18,32,54, 7, 4	2,27, 2,32,49	7,37
58″	33,31,19,43,47, 8,34,14,17,57	1,44,13,16, 5,51,26,38	2,27, 2,40,26	
60″	33,31,21,28, 0,24,40, 5,44,35			
exact	33,31,21,28, 0,24,40, 5,29,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°58′ 0″	33,31,21,28, 0,24,40, 5,29,42			
		1,44,13,13,38,48,37, 1		
2″	33,31,23,12,13,38,18,54, 6,43		2,27, 2,55,46	
		1,44,13,11,11,45,41,15		7,37
4″	33,31,24,56,26,49,30,39,47,58		2,27, 3, 3,23	
		1,44,13, 8,44,42,37,52		7,37
6″	33,31,26,40,39,58,15,22,25,50		2,27, 3,11, 0	
		1,44,13, 6,17,39,26,52		7,37
8″	33,31,28,24,53, 4,33, 1,52,42		2,27, 3,18,37	
		1,44,13, 3,50,36, 8,15		7,37
10″	33,31,30, 9, 6, 8,23,38, 0,57		2,27, 3,26,14	
		1,44,13, 1,23,32,42, 1		7,37
12″	33,31,31,53,19, 9,47,10,42,58		2,27, 3,33,51	
		1,44,12,58,56,29, 8,10		7,37
14″	33,31,33,37,32, 8,43,39,51, 8		2,27, 3,41,28	
		1,44,12,56,29,25,26,42		7,37
16″	33,31,35,21,45, 5,13, 5,17,50		2,27, 3,49, 5	
		1,44,12,54, 2,21,37,37		7,37
18″	33,31,37, 5,57,59,15,26,55,27		2,27, 3,56,42	
		1,44,12,51,35,17,40,55		7,37
20″	33,31,38,50,10,50,50,44,36,22		2,27, 4, 4,19	
		1,44,12,49, 8,13,36,36		7,37
22″	33,31,40,34,23,39,58,58,12,58		2,27, 4,11,56	
		1,44,12,46,41, 9,24,40		7,37
24″	33,31,42,18,36,26,40, 7,37,38		2,27, 4,19,33	
		1,44,12,44,14, 5, 5, 7		7,37
26″	33,31,44, 2,49,10,54,12,42,45		2,27, 4,27,10	
		1,44,12,41,47, 0,37,57		7,37
28″	33,31,45,47, 1,52,41,13,20,42		2,27, 4,34,47	
		1,44,12,39,19,56, 3,10		7,37
30″	33,31,47,31,14,32, 1, 9,23,52		2,27, 4,42,24	
		1,44,12,36,52,51,20,46		7,37
32″	33,31,49,15,27, 8,54, 0,44,38		2,27, 4,50, 1	
		1,44,12,34,25,46,30,45		7,37
34″	33,31,50,59,39,43,19,47,15,23		2,27, 4,57,38	
		1,44,12,31,58,41,33, 7		7,37
36″	33,31,52,43,52,15,18,28,48,30		2,27, 5, 5,15	
		1,44,12,29,31,36,27,52		7,37
38″	33,31,54,28, 4,44,50, 5,16,22		2,27, 5,12,52	
		1,44,12,27, 4,31,15, 0		7,37
40″	33,31,56,12,17,11,54,36,31,22		2,27, 5,20,29	
		1,44,12,24,37,25,54,31		7,37
42″	33,31,57,56,29,36,32, 2,25,53		2,27, 5,28, 6	
		1,44,12,22,10,20,26,25		7,37
44″	33,31,59,40,41,58,42,22,52,18		2,27, 5,35,43	
		1,44,12,19,43,14,50,42		7,37
46″	33,32, 1,24,54,18,25,37,43, 0		2,27, 5,43,20	
		1,44,12,17,16, 9, 7,22		7,37
48″	33,32, 3, 9, 6,35,41,46,50,22		2,27, 5,50,57	
		1,44,12,14,49, 3,16,25		7,37
50″	33,32, 4,53,18,50,30,50, 6,47		2,27, 5,58,34	
		1,44,12,12,21,57,17,51		7,37
52″	33,32, 6,37,31, 2,52,47,24,38		2,27, 6, 6,11	
		1,44,12, 9,54,51,11,40		7,37
54″	33,32, 8,21,43,12,47,38,36,18		2,27, 6,13,48	
		1,44,12, 7,27,44,57,52		7,37
56″	33,32,10, 5,55,20,15,23,34,10		2,27, 6,21,25	
		1,44,12, 5, 0,38,36,27		7,37
58″	33,32,11,50, 7,25,16, 2,10,37		2,27, 6,29, 2	
		1,44,12, 2,33,32, 7,25		
60″	33,32,13,34,19,27,49,34,18, 2			
exact	33,32,13,34,19,27,49,34, 7,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
33°59′ 0″	33,32,13,34,19,27,49,34, 7,45			
		1,44,12, 0, 6,25,29,45		
2″	33,32,15,18,31,27,55,59,37,30		2,27, 6,44,20	
		1,44,11,57,39,18,45,25		7,37
4″	33,32,17, 2,43,25,35,18,22,55		2,27, 6,51,57	
		1,44,11,55,12,11,53,28		7,37
6″	33,32,18,46,55,20,47,30,16,23		2,27, 6,59,34	
		1,44,11,52,45, 4,53,54		7,37
8″	33,32,20,31, 7,13,32,35,10,17		2,27, 7, 7,11	
		1,44,11,50,17,57,46,43		7,37
10″	33,32,22,15,19, 3,50,32,57, 0		2,27, 7,14,48	
		1,44,11,47,50,50,31,55		7,37
12″	33,32,23,59,30,51,41,23,28,55		2,27, 7,22,25	
		1,44,11,45,23,43, 9,30		7,37
14″	33,32,25,43,42,37, 5, 6,38,25		2,27, 7,30, 2	
		1,44,11,42,56,35,39,28		7,37
16″	33,32,27,27,54,20, 1,42,17,53		2,27, 7,37,39	
		1,44,11,40,29,28, 1,49		7,37
18″	33,32,29,12, 6, 0,31,10,19,42		2,27, 7,45,16	
		1,44,11,38, 2,20,16,33		7,37
20″	33,32,30,56,17,38,33,30,36,15		2,27, 7,52,53	
		1,44,11,35,35,12,23,40		7,37
22″	33,32,32,40,29,14, 8,42,59,55		2,27, 8, 0,30	
		1,44,11,33, 8, 4,23,10		7,37
24″	33,32,34,24,40,47,16,47,23, 5		2,27, 8, 8, 7	
		1,44,11,30,40,56,15, 3		7,37
26″	33,32,36, 8,52,17,57,43,38, 8		2,27, 8,15,44	
		1,44,11,28,13,47,59,19		7,37
28″	33,32,37,53, 3,46,11,31,37,27		2,27, 8,23,21	
		1,44,11,25,46,39,35,58		7,37
30″	33,32,39,37,15,11,58,11,13,25		2,27, 8,30,58	
		1,44,11,23,19,31, 5, 0		7,37
32″	33,32,41,21,26,35,17,42,18,25		2,27, 8,38,35	
		1,44,11,20,52,22,26,25		7,37
34″	33,32,43, 5,37,56,10, 4,44,50		2,27, 8,46,12	
		1,44,11,18,25,13,40,13		7,37
36″	33,32,44,49,49,14,35,18,25, 3		2,27, 8,53,49	
		1,44,11,15,58, 4,46,24		7,37
38″	33,32,46,34, 0,30,33,23,11,27		2,27, 9, 1,26	
		1,44,11,13,30,55,44,58		7,37
40″	33,32,48,18,11,44, 4,18,56,25		2,27, 9, 9, 3	
		1,44,11,11, 3,46,35,55		7,37
42″	33,32,50, 2,22,55, 8, 5,32,20		2,27, 9,16,40	
		1,44,11, 8,36,37,19,15		7,37
44″	33,32,51,46,34, 3,44,42,51,35		2,27, 9,24,17	
		1,44,11, 6, 9,27,54,58		7,37
46″	33,32,53,30,45, 9,54,10,46,33		2,27, 9,31,54	
		1,44,11, 3,42,18,23, 4		7,37
48″	33,32,55,14,56,13,36,29, 9,37		2,27, 9,39,31	
		1,44,11, 1,15, 8,43,33		7,37
50″	33,32,56,59, 7,14,51,37,53,10		2,27, 9,47, 8	
		1,44,10,58,47,58,56,25		7,37
52″	33,32,58,43,18,13,39,36,49,35		2,27, 9,54,45	
		1,44,10,56,20,49, 1,40		7,37
54″	33,33, 0,27,29,10, 0,25,51,15		2,27,10, 2,22	
		1,44,10,53,53,38,59,18		7,37
56″	33,33, 2,11,40, 3,54, 4,50,33		2,27,10, 9,59	
		1,44,10,51,26,28,49,19		7,37
58″	33,33, 3,55,50,55,20,33,39,52		2,27,10,17,36	
		1,44,10,48,59,18,31,43		
60″	33,33, 5,40, 1,44,19,52,11,35			
exact	33,33, 5,40, 1,44,19,52,11,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34° 0′ 0″	33,33, 5,40, 1,44,19,52,11,27			
		1,44,10,46,32, 8, 6,25		
2″	33,33, 7,24,12,30,52, 0,17,52		2,27,10,32,50	
		1,44,10,44, 4,57,33,35		7,37
4″	33,33, 9, 8,23,14,56,57,51,27		2,27,10,40,27	
		1,44,10,41,37,46,53, 8		7,37
6″	33,33,10,52,33,56,34,44,44,35		2,27,10,48, 4	
		1,44,10,39,10,36, 5, 4		7,37
8″	33,33,12,36,44,35,45,20,49,39		2,27,10,55,41	
		1,44,10,36,43,25, 9,23		7,37
10″	33,33,14,20,55,12,28,45,59, 2		2,27,11, 3,18	
		1,44,10,34,16,14, 6, 5		7,37
12″	33,33,16, 5, 5,46,45, 0, 5, 7		2,27,11,10,55	
		1,44,10,31,49, 2,55,10		7,37
14″	33,33,17,49,16,18,34, 3, 0,17		2,27,11,18,32	
		1,44,10,29,21,51,36,38		7,37
16″	33,33,19,33,26,47,55,54,36,55		2,27,11,26, 9	
		1,44,10,26,54,40,10,29		7,37
18″	33,33,21,17,37,14,50,34,47,24		2,27,11,33,46	
		1,44,10,24,27,28,36,43		7,37
20″	33,33,23, 1,47,39,18, 3,24, 7		2,27,11,41,23	
		1,44,10,22, 0,16,55,20		7,37
22″	33,33,24,45,58, 1,18,20,19,27		2,27,11,49, 0	
		1,44,10,19,33, 5, 6,20		7,37
24″	33,33,26,30, 8,20,51,25,25,47		2,27,11,56,37	
		1,44,10,17, 5,53, 9,43		7,37
26″	33,33,28,14,18,37,57,18,35,30		2,27,12, 4,14	
		1,44,10,14,38,41, 5,29		7,37
28″	33,33,29,58,28,52,35,59,40,59		2,27,12,11,51	
		1,44,10,12,11,28,53,38		7,37
30″	33,33,31,42,39, 4,47,28,34,37		2,27,12,19,28	
		1,44,10, 9,44,16,34,10		7,37
32″	33,33,33,26,49,14,31,45, 8,47		2,27,12,27, 5	
		1,44,10, 7,17, 4, 7, 5		7,37
34″	33,33,35,10,59,21,48,49,15,52		2,27,12,34,42	
		1,44,10, 4,49,51,32,23		7,37
36″	33,33,36,55, 9,26,38,40,48,15		2,27,12,42,19	
		1,44,10, 2,22,38,50, 4		7,37
38″	33,33,38,39,19,29, 1,19,38,19		2,27,12,49,56	
		1,44, 9,59,55,26, 0, 8		7,37
40″	33,33,40,23,29,28,56,45,38,27		2,27,12,57,33	
		1,44, 9,57,28,13, 2,35		7,37
42″	33,33,42, 7,39,26,24,58,41, 2		2,27,13, 5,10	
		1,44, 9,55, 0,59,57,25		7,37
44″	33,33,43,51,49,21,25,58,38,27		2,27,13,12,47	
		1,44, 9,52,33,46,44,38		7,37
46″	33,33,45,35,59,13,59,45,23, 5		2,27,13,20,24	
		1,44, 9,50, 6,33,24,14		7,37
48″	33,33,47,20, 9, 4, 6,18,47,19		2,27,13,28, 1	
		1,44, 9,47,39,19,56,13		7,37
50″	33,33,49, 4,18,51,45,38,43,32		2,27,13,35,38	
		1,44, 9,45,12, 6,20,35		7,37
52″	33,33,50,48,28,36,57,45, 4, 7		2,27,13,43,15	
		1,44, 9,42,44,52,37,20		7,37
54″	33,33,52,32,38,19,42,37,41,27		2,27,13,50,52	
		1,44, 9,40,17,38,46,28		7,37
56″	33,33,54,16,48, 0, 0,16,27,55		2,27,13,58,29	
		1,44, 9,37,50,24,47,59		7,37
58″	33,33,56, 0,57,37,50,41,15,54		2,27,14, 6, 6	
		1,44, 9,35,23,10,41,53		
60″	33,33,57,45, 7,13,13,51,57,47			
exact	33,33,57,45, 7,13,13,51,57,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34° 1′ 0″	33,33,57,45, 7,13,13,51,57,40			
		1,44, 9,32,55,56,28,19		
2″	33,33,59,29,16,46, 9,48,25,59		2,27,14,21,18	
		1,44, 9,30,28,42, 7, 1		7,37
4″	33,34, 1,13,26,16,38,30,33, 0		2,27,14,28,55	
		1,44, 9,28, 1,27,38, 6		7,37
6″	33,34, 2,57,35,44,39,58,11, 6		2,27,14,36,32	
		1,44, 9,25,34,13, 1,34		7,37
8″	33,34, 4,41,45,10,14,11,12,40		2,27,14,44, 9	
		1,44, 9,23, 6,58,17,25		7,37
10″	33,34, 6,25,54,33,21, 9,30, 5		2,27,14,51,46	
		1,44, 9,20,39,43,25,39		7,37
12″	33,34, 8,10, 3,54, 0,52,55,44		2,27,14,59,23	
		1,44, 9,18,12,28,26,16		7,37
14″	33,34, 9,54,13,12,13,21,22, 0		2,27,15, 7, 0	
		1,44, 9,15,45,13,19,16		7,37
16″	33,34,11,38,22,27,58,34,41,16		2,27,15,14,37	
		1,44, 9,13,17,58, 4,39		7,37
18″	33,34,13,22,31,41,16,32,45,55		2,27,15,22,14	
		1,44, 9,10,50,42,42,25		7,37
20″	33,34,15, 6,40,52, 7,15,28,20		2,27,15,29,51	
		1,44, 9, 8,23,27,12,34		7,37
22″	33,34,16,50,50, 0,30,42,40,54		2,27,15,37,28	
		1,44, 9, 5,56,11,35, 6		7,37
24″	33,34,18,34,59, 6,26,54,16, 0		2,27,15,45, 5	
		1,44, 9, 3,28,55,50, 1		7,37
26″	33,34,20,19, 8, 9,55,50, 6, 1		2,27,15,52,42	
		1,44, 9, 1, 1,39,57,19		7,37
28″	33,34,22, 3,17,10,57,30, 3,20		2,27,16, 0,19	
		1,44, 8,58,34,23,57, 0		7,37
30″	33,34,23,47,26, 9,31,54, 0,20		2,27,16, 7,56	
		1,44, 8,56, 7, 7,49, 4		7,37
32″	33,34,25,31,35, 5,39, 1,49,24		2,27,16,15,33	
		1,44, 8,53,39,51,33,31		7,37
34″	33,34,27,15,43,59,18,53,22,55		2,27,16,23,10	
		1,44, 8,51,12,35,10,21		7,37
36″	33,34,28,59,52,50,31,28,33,16		2,27,16,30,47	
		1,44, 8,48,45,18,39,34		7,37
38″	33,34,30,44, 1,39,16,47,12,50		2,27,16,38,24	
		1,44, 8,46,18, 2, 1,10		7,37
40″	33,34,32,28,10,25,34,49,14, 0		2,27,16,46, 1	
		1,44, 8,43,50,45,15, 9		7,37
42″	33,34,34,12,19, 9,25,34,29, 9		2,27,16,53,38	
		1,44, 8,41,23,28,21,31		7,37
44″	33,34,35,56,27,50,49, 2,50,40		2,27,17, 1,15	
		1,44, 8,38,56,11,20,16		7,37
46″	33,34,37,40,36,29,45,14,10,56		2,27,17, 8,52	
		1,44, 8,36,28,54,11,24		7,37
48″	33,34,39,24,45, 6,14, 8,22,20		2,27,17,16,29	
		1,44, 8,34, 1,36,54,55		7,37
50″	33,34,41, 8,53,40,15,45,17,15		2,27,17,24, 6	
		1,44, 8,31,34,19,30,49		7,37
52″	33,34,42,53, 2,11,50, 4,48, 4		2,27,17,31,43	
		1,44, 8,29, 7, 1,59, 6		7,37
54″	33,34,44,37,10,40,57, 6,47,10		2,27,17,39,20	
		1,44, 8,26,39,44,19,46		7,37
56″	33,34,46,21,19, 7,36,51, 6,56		2,27,17,46,57	
		1,44, 8,24,12,26,32,49		7,37
58″	33,34,48, 5,27,31,49,17,39,45		2,27,17,54,34	
		1,44, 8,21,45, 8,38,15		
60″	33,34,49,49,35,53,34,26,18, 0			
exact	33,34,49,49,35,53,34,26,23,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34° 2′ 0″	33,34,49,49,35,53,34,26,23,39			
		1,44, 8,19,17,50,36,50		
2″	33,34,51,33,44,12,52,17, 0,29		2,27,18, 9,44	
		1,44, 8,16,50,32,27, 6		7,37
4″	33,34,53,17,52,29,42,49,27,35		2,27,18,17,21	
		1,44, 8,14,23,14, 9,45		7,37
6″	33,34,55, 2, 0,44, 6, 3,37,20		2,27,18,24,58	
		1,44, 8,11,55,55,44,47		7,37
8″	33,34,56,46, 8,56, 1,59,22, 7		2,27,18,32,35	
		1,44, 8, 9,28,37,12,12		7,37
10″	33,34,58,30,17, 5,30,36,34,19		2,27,18,40,12	
		1,44, 8, 7, 1,18,32, 0		7,37
12″	33,35, 0,14,25,12,31,55, 6,19		2,27,18,47,49	
		1,44, 8, 4,33,59,44,11		7,37
14″	33,35, 1,58,33,17, 5,54,50,30		2,27,18,55,26	
		1,44, 8, 2, 6,40,48,45		7,37
16″	33,35, 3,42,41,19,12,35,39,15		2,27,19, 3, 3	
		1,44, 7,59,39,21,45,42		7,37
18″	33,35, 5,26,49,18,51,57,24,57		2,27,19,10,40	
		1,44, 7,57,12, 2,35, 2		7,37
20″	33,35, 7,10,57,16, 3,59,59,59		2,27,19,18,17	
		1,44, 7,54,44,43,16,45		7,37
22″	33,35, 8,55, 5,10,48,43,16,44		2,27,19,25,54	
		1,44, 7,52,17,23,50,51		7,37
24″	33,35,10,39,13, 3, 6, 7, 7,35		2,27,19,33,31	
		1,44, 7,49,50, 4,17,20		7,37
26″	33,35,12,23,20,52,56,11,24,55		2,27,19,41, 8	
		1,44, 7,47,22,44,36,12		7,37
28″	33,35,14, 7,28,40,18,56, 1, 7		2,27,19,48,45	
		1,44, 7,44,55,24,47,27		7,37
30″	33,35,15,51,36,25,14,20,48,34		2,27,19,56,22	
		1,44, 7,42,28, 4,51, 5		7,37
32″	33,35,17,35,44, 7,42,25,39,39		2,27,20, 3,59	
		1,44, 7,40, 0,44,47, 6		7,37
34″	33,35,19,19,51,47,43,10,26,45		2,27,20,11,36	
		1,44, 7,37,33,24,35,30		7,37
36″	33,35,21, 3,59,25,16,35, 2,15		2,27,20,19,13	
		1,44, 7,35, 6, 4,16,17		7,37
38″	33,35,22,48, 7, 0,22,39,18,32		2,27,20,26,50	
		1,44, 7,32,38,43,49,27		7,37
40″	33,35,24,32,14,33, 1,23, 7,59		2,27,20,34,27	
		1,44, 7,30,11,23,15, 0		7,37
42″	33,35,26,16,22, 3,12,46,22,59		2,27,20,42, 4	
		1,44, 7,27,44, 2,32,56		7,37
44″	33,35,28, 0,29,30,56,48,55,55		2,27,20,49,41	
		1,44, 7,25,16,41,43,15		7,37
46″	33,35,29,44,36,56,13,30,39,10		2,27,20,57,18	
		1,44, 7,22,49,20,45,57		7,37
48″	33,35,31,28,44,19, 2,51,25, 7		2,27,21, 4,55	
		1,44, 7,20,21,59,41, 2		7,37
50″	33,35,33,12,51,39,24,51, 6, 9		2,27,21,12,32	
		1,44, 7,17,54,38,28,30		7,37
52″	33,35,34,56,58,57,19,29,34,39		2,27,21,20, 9	
		1,44, 7,15,27,17, 8,21		7,37
54″	33,35,36,41, 6,12,46,46,43, 0		2,27,21,27,46	
		1,44, 7,12,59,55,40,35		7,37
56″	33,35,38,25,13,25,46,42,23,35		2,27,21,35,23	
		1,44, 7,10,32,34, 5,12		7,37
58″	33,35,40, 9,20,36,19,16,28,47		2,27,21,43, 0	
		1,44, 7, 8, 5,12,22,12		
60″	33,35,41,53,27,44,24,28,50,59			
exact	33,35,41,53,27,44,24,29, 6,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34° 3′ 0″	33,35,41,53,27,44,24,29, 6,59			
		1,44, 7, 5,37,50,33,18		
2″	33,35,43,37,34,50, 2,19,40,17		2,27,21,58, 7	
		1,44, 7, 3,10,28,35,11		7,37
4″	33,35,45,21,41,53,12,48,15,28		2,27,22, 5,44	
		1,44, 7, 0,43, 6,29,27		7,37
6″	33,35,47, 5,48,53,55,54,44,55		2,27,22,13,21	
		1,44, 6,58,15,44,16, 6		7,37
8″	33,35,48,49,55,52,11,39, 1, 1		2,27,22,20,58	
		1,44, 6,55,48,21,55, 8		7,37
10″	33,35,50,34, 2,48, 0, 0,56, 9		2,27,22,28,35	
		1,44, 6,53,20,59,26,33		7,37
12″	33,35,52,18, 9,41,21, 0,22,42		2,27,22,36,12	
		1,44, 6,50,53,36,50,21		7,37
14″	33,35,54, 2,16,32,14,37,13, 3		2,27,22,43,49	
		1,44, 6,48,26,14, 6,32		7,37
16″	33,35,55,46,23,20,40,51,19,35		2,27,22,51,26	
		1,44, 6,45,58,51,15, 6		7,37
18″	33,35,57,30,30, 6,39,42,34,41		2,27,22,59, 3	
		1,44, 6,43,31,28,16, 3		7,37
20″	33,35,59,14,36,50,11,10,50,44		2,27,23, 6,40	
		1,44, 6,41, 4, 5, 9,23		7,37
22″	33,36, 0,58,43,31,15,16, 0, 7		2,27,23,14,17	
		1,44, 6,38,36,41,55, 6		7,37
24″	33,36, 2,42,50, 9,51,57,55,13		2,27,23,21,54	
		1,44, 6,36, 9,18,33,12		7,37
26″	33,36, 4,26,56,46, 1,16,28,25		2,27,23,29,31	
		1,44, 6,33,41,55, 3,41		7,37
28″	33,36, 6,11, 3,19,43,11,32, 6		2,27,23,37, 8	
		1,44, 6,31,14,31,26,33		7,37
30″	33,36, 7,55, 9,50,57,42,58,39		2,27,23,44,45	
		1,44, 6,28,47, 7,41,48		7,37
32″	33,36, 9,39,16,19,44,50,40,27		2,27,23,52,22	
		1,44, 6,26,19,43,49,26		7,37
34″	33,36,11,23,22,46, 4,34,29,53		2,27,23,59,59	
		1,44, 6,23,52,19,49,27		7,37
36″	33,36,13, 7,29, 9,56,54,19,20		2,27,24, 7,36	
		1,44, 6,21,24,55,41,51		7,37
38″	33,36,14,51,35,31,21,50, 1,11		2,27,24,15,13	
		1,44, 6,18,57,31,26,38		7,37
40″	33,36,16,35,41,50,19,21,27,49		2,27,24,22,50	
		1,44, 6,16,30, 7, 3,48		7,37
42″	33,36,18,19,48, 6,49,28,31,37		2,27,24,30,27	
		1,44, 6,14, 2,42,33,21		7,37
44″	33,36,20, 3,54,20,52,11, 4,58		2,27,24,38, 4	
		1,44, 6,11,35,17,55,17		7,37
46″	33,36,21,48, 0,32,27,29, 0,15		2,27,24,45,41	
		1,44, 6, 9, 7,53, 9,36		7,37
48″	33,36,23,32, 6,41,35,22, 9,51		2,27,24,53,18	
		1,44, 6, 6,40,28,16,18		7,37
50″	33,36,25,16,12,48,15,50,26, 9		2,27,25, 0,55	
		1,44, 6, 4,13, 3,15,23		7,37
52″	33,36,27, 0,18,52,28,53,41,32		2,27,25, 8,32	
		1,44, 6, 1,45,38, 6,51		7,37
54″	33,36,28,44,24,54,14,31,48,23		2,27,25,16, 9	
		1,44, 5,59,18,12,50,42		7,37
56″	33,36,30,28,30,53,32,44,39, 5		2,27,25,23,46	
		1,44, 5,56,50,47,26,56		7,37
58″	33,36,32,12,36,50,23,32, 6, 1		2,27,25,31,23	
		1,44, 5,54,23,21,55,33		
60″	33,36,33,56,42,44,46,54, 1,34			
exact	33,36,33,56,42,44,46,54,25,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34° 4′ 0″	33,36,33,56,42,44,46,54,25,39	1,44, 5,51,55,56,19, 4		
2″	33,36,35,40,48,36,42,50,44,43	1,44, 5,49,28,30,32,37	2,27,25,46,27	7,37
4″	33,36,37,24,54,26,11,21,17,20	1,44, 5,47, 1, 4,38,33	2,27,25,54, 4	7,37
6″	33,36,39, 9, 0,13,12,25,55,53	1,44, 5,44,33,38,36,52	2,27,26, 1,41	7,37
8″	33,36,40,53, 5,57,46, 4,32,45	1,44, 5,42, 6,12,27,34	2,27,26, 9,18	7,37
10″	33,36,42,37,11,39,52,17, 0,19	1,44, 5,39,38,46,10,39	2,27,26,16,55	7,37
12″	33,36,44,21,17,19,31, 3,10,58	1,44, 5,37,11,19,46, 7	2,27,26,24,32	7,37
14″	33,36,46, 5,22,56,42,22,57, 5	1,44, 5,34,43,53,13,58	2,27,26,32, 9	7,37
16″	33,36,47,49,28,31,26,16,11, 3	1,44, 5,32,16,26,34,12	2,27,26,39,46	7,37
18″	33,36,49,33,34, 3,42,42,45,15	1,44, 5,29,48,59,46,49	2,27,26,47,23	7,37
20″	33,36,51,17,39,33,31,42,32, 4	1,44, 5,27,21,32,51,49	2,27,26,55, 0	7,37
22″	33,36,53, 1,45, 0,53,15,23,53	1,44, 5,24,54, 5,49,12	2,27,27, 2,37	7,37
24″	33,36,54,45,50,25,47,21,13, 5	1,44, 5,22,26,38,38,58	2,27,27,10,14	7,37
26″	33,36,56,29,55,48,13,59,52, 3	1,44, 5,19,59,11,21, 7	2,27,27,17,51	7,37
28″	33,36,58,14, 1, 8,13,11,13,10	1,44, 5,17,31,43,55,39	2,27,27,25,28	7,37
30″	33,36,59,58, 6,25,44,55, 8,49	1,44, 5,15, 4,16,22,34	2,27,27,33, 5	7,37
32″	33,37, 1,42,11,40,49,11,31,23	1,44, 5,12,36,48,41,52	2,27,27,40,42	7,37
34″	33,37, 3,26,16,53,26, 0,13,15	1,44, 5,10, 9,20,53,33	2,27,27,48,19	7,37
36″	33,37, 5,10,22, 3,35,21, 6,48	1,44, 5, 7,41,52,57,37	2,27,27,55,56	7,37
38″	33,37, 6,54,27,11,17,14, 4,25	1,44, 5, 5,14,24,54, 4	2,27,28, 3,33	7,37
40″	33,37, 8,38,32,16,31,38,58,29	1,44, 5, 2,46,56,42,54	2,27,28,11,10	7,37
42″	33,37,10,22,37,19,18,35,41,23	1,44, 5, 0,19,28,24, 7	2,27,28,18,47	7,37
44″	33,37,12, 6,42,19,38, 4, 5,30	1,44, 4,57,51,59,57,43	2,27,28,26,24	7,37
46″	33,37,13,50,47,17,30, 4, 3,13	1,44, 4,55,24,31,23,42	2,27,28,34, 1	7,37
48″	33,37,15,34,52,12,54,35,26,55	1,44, 4,52,57, 2,42, 4	2,27,28,41,38	7,37
50″	33,37,17,18,57, 5,51,38, 8,59	1,44, 4,50,29,33,52,49	2,27,28,49,15	7,37
52″	33,37,19, 3, 1,56,21,12, 1,48	1,44, 4,48, 2, 4,55,57	2,27,28,56,52	7,37
54″	33,37,20,47, 6,44,23,16,57,45	1,44, 4,45,34,35,51,28	2,27,29, 4,29	7,37
56″	33,37,22,31,11,29,57,52,49,13	1,44, 4,43, 7, 6,39,22	2,27,29,12, 6	7,37
58″	33,37,24,15,16,13, 4,59,28,35	1,44, 4,40,39,37,19,39	2,27,29,19,43	
60″	33,37,25,59,20,53,44,36,48,14			
exact	33,37,25,59,20,53,44,37,18, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34° 5′ 0″	33,37,25,59,20,53,44,37,18, 3			
		1,44, 4,38,12, 7,55,28		
2″	33,37,27,43,25,31,56,45,13,31		2,27,29,34,44	
		1,44, 4,35,44,38,20,44		7,37
4″	33,37,29,27,30, 7,41,23,34,15		2,27,29,42,21	
		1,44, 4,33,17, 8,38,23		7,37
6″	33,37,31,11,34,40,58,32,12,38		2,27,29,49,58	
		1,44, 4,30,49,38,48,25		7,37
8″	33,37,32,55,39,11,48,11, 1, 3		2,27,29,57,35	
		1,44, 4,28,22, 8,50,50		7,37
10″	33,37,34,39,43,40,10,19,51,53		2,27,30, 5,12	
		1,44, 4,25,54,38,45,38		7,37
12″	33,37,36,23,48, 6, 4,58,37,31		2,27,30,12,49	
		1,44, 4,23,27, 8,32,49		7,37
14″	33,37,38, 7,52,29,32, 7,10,20		2,27,30,20,26	
		1,44, 4,20,59,38,12,23		7,37
16″	33,37,39,51,56,50,31,45,22,43		2,27,30,28, 3	
		1,44, 4,18,32, 7,44,20		7,37
18″	33,37,41,36, 1, 9, 3,53, 7, 3		2,27,30,35,40	
		1,44, 4,16, 4,37, 8,40		7,37
20″	33,37,43,20, 5,25, 8,30,15,43		2,27,30,43,17	
		1,44, 4,13,37, 6,25,23		7,37
22″	33,37,45, 4, 9,38,45,36,41, 6		2,27,30,50,54	
		1,44, 4,11, 9,35,34,29		7,37
24″	33,37,46,48,13,49,55,12,15,35		2,27,30,58,31	
		1,44, 4, 8,42, 4,35,58		7,37
26″	33,37,48,32,17,58,37,16,51,33		2,27,31, 6, 8	
		1,44, 4, 6,14,33,29,50		7,37
28″	33,37,50,16,22, 4,51,50,21,23		2,27,31,13,45	
		1,44, 4, 3,47, 2,16, 5		7,37
30″	33,37,52, 0,26, 8,38,52,37,28		2,27,31,21,22	
		1,44, 4, 1,19,30,54,43		7,37
32″	33,37,53,44,30, 9,58,23,32,11		2,27,31,28,59	
		1,44, 3,58,51,59,25,44		7,37
34″	33,37,55,28,34, 8,50,22,57,55		2,27,31,36,36	
		1,44, 3,56,24,27,49, 8		7,37
36″	33,37,57,12,38, 5,14,50,47, 3		2,27,31,44,13	
		1,44, 3,53,56,56, 4,55		7,37
38″	33,37,58,56,41,59,11,46,51,58		2,27,31,51,50	
		1,44, 3,51,29,24,13, 5		7,37
40″	33,38, 0,40,45,50,41,11, 5, 3		2,27,31,59,27	
		1,44, 3,49, 1,52,13,38		7,37
42″	33,38, 2,24,49,39,43, 3,18,41		2,27,32, 7, 4	
		1,44, 3,46,34,20, 6,34		7,37
44″	33,38, 4, 8,53,26,17,23,25,15		2,27,32,14,41	
		1,44, 3,44, 6,47,51,53		7,37
46″	33,38, 5,52,57,10,24,11,17, 8		2,27,32,22,18	
		1,44, 3,41,39,15,29,35		7,37
48″	33,38, 7,37, 0,52, 3,26,46,43		2,27,32,29,55	
		1,44, 3,39,11,42,59,40		7,37
50″	33,38, 9,21, 4,31,15, 9,46,23		2,27,32,37,32	
		1,44, 3,36,44,10,22, 8		7,37
52″	33,38,11, 5, 8, 7,59,20, 8,31		2,27,32,45, 9	
		1,44, 3,34,16,37,36,59		7,37
54″	33,38,12,49,11,42,15,57,45,30		2,27,32,52,46	
		1,44, 3,31,49, 4,44,13		7,37
56″	33,38,14,33,15,14, 5, 2,29,43		2,27,33, 0,23	
		1,44, 3,29,21,31,43,50		7,37
58″	33,38,16,17,18,43,26,34,13,33		2,27,33, 8, 0	
		1,44, 3,26,53,58,35,50		
60″	33,38,18, 1,22,10,20,32,49,23			
exact	33,38,18, 1,22,10,20,33,22,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34° 6′ 0″	33,38,18, 1,22,10,20,33,22,57			
		1,44, 3,24,26,25,23,51		
2″	33,38,19,45,25,34,46,58,46,48		2,27,33,22,59	
		1,44, 3,21,58,52, 0,52		7,36
4″	33,38,21,29,28,56,45,50,47,40		2,27,33,30,35	
		1,44, 3,19,31,18,30,17		7,36
6″	33,38,23,13,32,16,17, 9,17,57		2,27,33,38,11	
		1,44, 3,17, 3,44,52, 6		7,36
8″	33,38,24,57,35,33,20,54,10, 3		2,27,33,45,47	
		1,44, 3,14,36,11, 6,19		7,36
10″	33,38,26,41,38,47,57, 5,16,22		2,27,33,53,23	
		1,44, 3,12, 8,37,12,56		7,36
12″	33,38,28,25,42, 0, 5,42,29,18		2,27,34, 0,59	
		1,44, 3, 9,41, 3,11,57		7,36
14″	33,38,30, 9,45, 9,46,45,41,15		2,27,34, 8,35	
		1,44, 3, 7,13,29, 3,22		7,36
16″	33,38,31,53,48,17, 0,14,44,37		2,27,34,16,11	
		1,44, 3, 4,45,54,47,11		7,36
18″	33,38,33,37,51,21,46, 9,31,48		2,27,34,23,47	
		1,44, 3, 2,18,20,23,24		7,36
20″	33,38,35,21,54,24, 4,29,55,12		2,27,34,31,23	
		1,44, 2,59,50,45,52, 1		7,36
22″	33,38,37, 5,57,23,55,15,47,13		2,27,34,38,59	
		1,44, 2,57,23,11,13, 2		7,36
24″	33,38,38,50, 0,21,18,27, 0,15		2,27,34,46,35	
		1,44, 2,54,55,36,26,27		7,36
26″	33,38,40,34, 3,16,14, 3,26,42		2,27,34,54,11	
		1,44, 2,52,28, 1,32,16		7,36
28″	33,38,42,18, 6, 8,42, 4,58,58		2,27,35, 1,47	
		1,44, 2,50, 0,26,30,29		7,36
30″	33,38,44, 2, 8,58,42,31,29,27		2,27,35, 9,23	
		1,44, 2,47,32,51,21, 6		7,36
32″	33,38,45,46,11,46,15,22,50,33		2,27,35,16,59	
		1,44, 2,45, 5,16, 4, 7		7,36
34″	33,38,47,30,14,31,20,38,54,40		2,27,35,24,35	
		1,44, 2,42,37,40,39,32		7,36
36″	33,38,49,14,17,13,58,19,34,12		2,27,35,32,11	
		1,44, 2,40,10, 5, 7,21		7,36
38″	33,38,50,58,19,54, 8,24,41,33		2,27,35,39,47	
		1,44, 2,37,42,29,27,34		7,36
40″	33,38,52,42,22,31,50,54, 9, 7		2,27,35,47,23	
		1,44, 2,35,14,53,40,11		7,36
42″	33,38,54,26,25, 7, 5,47,49,18		2,27,35,54,59	
		1,44, 2,32,47,17,45,12		7,36
44″	33,38,56,10,27,39,53, 5,34,30		2,27,36, 2,35	
		1,44, 2,30,19,41,42,37		7,36
46″	33,38,57,54,30,10,12,47,17, 7		2,27,36,10,11	
		1,44, 2,27,52, 5,32,26		7,36
48″	33,38,59,38,32,38, 4,52,49,33		2,27,36,17,47	
		1,44, 2,25,24,29,14,39		7,36
50″	33,39, 1,22,35, 3,29,22, 4,12		2,27,36,25,23	
		1,44, 2,22,56,52,49,16		7,36
52″	33,39, 3, 6,37,26,26,14,53,28		2,27,36,32,59	
		1,44, 2,20,29,16,16,17		7,36
54″	33,39, 4,50,39,46,55,31, 9,45		2,27,36,40,35	
		1,44, 2,18, 1,39,35,42		7,36
56″	33,39, 6,34,42, 4,57,10,45,27		2,27,36,48,11	
		1,44, 2,15,34, 2,47,31		7,36
58″	33,39, 8,18,44,20,31,13,32,58		2,27,36,55,47	
		1,44, 2,13, 6,25,51,44		
60″	33,39,10, 2,46,33,37,39,24,42			
exact	33,39,10, 2,46,33,37,38,59,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34° 7′ 0″	33,39,10, 2,46,33,37,38,59,37			
		1,44, 2,10,38,48,45,35		
2″	33,39,11,46,48,44,16,27,45,12		2,27,37,11,10	
		1,44, 2, 8,11,11,34,25		7,36
4″	33,39,13,30,50,52,27,39,19,37		2,27,37,18,46	
		1,44, 2, 5,43,34,15,39		7,36
6″	33,39,15,14,52,58,11,13,35,16		2,27,37,26,22	
		1,44, 2, 3,15,56,49,17		7,36
8″	33,39,16,58,55, 1,27,10,24,33		2,27,37,33,58	
		1,44, 2, 0,48,19,15,19		7,36
10″	33,39,18,42,57, 2,15,29,39,52		2,27,37,41,34	
		1,44, 1,58,20,41,33,45		7,36
12″	33,39,20,26,59, 0,36,11,13,37		2,27,37,49,10	
		1,44, 1,55,53, 3,44,35		7,36
14″	33,39,22,11, 0,56,29,14,58,12		2,27,37,56,46	
		1,44, 1,53,25,25,47,49		7,36
16″	33,39,23,55, 2,49,54,40,46, 1		2,27,38, 4,22	
		1,44, 1,50,57,47,43,27		7,36
18″	33,39,25,39, 4,40,52,28,29,28		2,27,38,11,58	
		1,44, 1,48,30, 9,31,29		7,36
20″	33,39,27,23, 6,29,22,38, 0,57		2,27,38,19,34	
		1,44, 1,46, 2,31,11,55		7,36
22″	33,39,29, 7, 8,15,25, 9,12,52		2,27,38,27,10	
		1,44, 1,43,34,52,44,45		7,36
24″	33,39,30,51, 9,59, 0, 1,57,37		2,27,38,34,46	
		1,44, 1,41, 7,14, 9,59		7,36
26″	33,39,32,35,11,40, 7,16, 7,36		2,27,38,42,22	
		1,44, 1,38,39,35,27,37		7,36
28″	33,39,34,19,13,18,46,51,35,13		2,27,38,49,58	
		1,44, 1,36,11,56,37,39		7,36
30″	33,39,36, 3,14,54,58,48,12,52		2,27,38,57,34	
		1,44, 1,33,44,17,40, 5		7,36
32″	33,39,37,47,16,28,43, 5,52,57		2,27,39, 5,10	
		1,44, 1,31,16,38,34,55		7,36
34″	33,39,39,31,17,59,59,44,27,52		2,27,39,12,46	
		1,44, 1,28,48,59,22, 9		7,36
36″	33,39,41,15,19,28,48,43,50, 1		2,27,39,20,22	
		1,44, 1,26,21,20, 1,47		7,36
38″	33,39,42,59,20,55,10, 3,51,48		2,27,39,27,58	
		1,44, 1,23,53,40,33,49		7,36
40″	33,39,44,43,22,19, 3,44,25,37		2,27,39,35,34	
		1,44, 1,21,26, 0,58,15		7,36
42″	33,39,46,27,23,40,29,45,23,52		2,27,39,43,10	
		1,44, 1,18,58,21,15, 5		7,36
44″	33,39,48,11,24,59,28, 6,38,57		2,27,39,50,46	
		1,44, 1,16,30,41,24,19		7,36
46″	33,39,49,55,26,15,58,48, 3,16		2,27,39,58,22	
		1,44, 1,14, 3, 1,25,57		7,36
48″	33,39,51,39,27,30, 1,49,29,13		2,27,40, 5,58	
		1,44, 1,11,35,21,19,59		7,36
50″	33,39,53,23,28,41,37,10,49,12		2,27,40,13,34	
		1,44, 1, 9, 7,41, 6,25		7,36
52″	33,39,55, 7,29,50,44,51,55,37		2,27,40,21,10	
		1,44, 1, 6,40, 0,45,15		7,36
54″	33,39,56,51,30,57,24,52,40,52		2,27,40,28,46	
		1,44, 1, 4,12,20,16,29		7,36
56″	33,39,58,35,32, 1,37,12,57,21		2,27,40,36,22	
		1,44, 1, 1,44,39,40, 7		7,36
58″	33,40, 0,19,33, 3,21,52,37,28		2,27,40,43,58	
		1,44, 0,59,16,58,56, 9		
60″	33,40, 2, 3,34, 2,38,51,33,37			
exact	33,40, 2, 3,34, 2,38,51, 7,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34° 8′ 0″	33,40, 2, 3,34, 2,38,51, 7,43	1,44, 0,56,49,18, 2, 0		
2″	33,40, 3,47,34,59,28, 9, 9,43	1,44, 0,54,21,37, 2,40	2,27,40,59,20	
4″	33,40, 5,31,35,53,49,46,12,23	1,44, 0,51,53,55,55,44	2,27,41, 6,56	7,36
6″	33,40, 7,15,36,45,43,42, 8, 7	1,44, 0,49,26,14,41,12	2,27,41,14,32	7,36
8″	33,40, 8,59,37,35, 9,56,49,19	1,44, 0,46,58,33,19, 4	2,27,41,22, 8	7,36
10″	33,40,10,43,38,22, 8,30, 8,23	1,44, 0,44,30,51,49,20	2,27,41,29,44	7,36
12″	33,40,12,27,39, 6,39,21,57,43	1,44, 0,42, 3,10,12, 0	2,27,41,37,20	7,36
14″	33,40,14,11,39,48,42,32, 9,43	1,44, 0,39,35,28,27, 4	2,27,41,44,56	7,36
16″	33,40,15,55,40,28,18, 0,36,47	1,44, 0,37, 7,46,34,32	2,27,41,52,32	7,36
18″	33,40,17,39,41, 5,25,47,11,19	1,44, 0,34,40, 4,34,24	2,27,42, 0, 8	7,36
20″	33,40,19,23,41,40, 5,51,45,43	1,44, 0,32,12,22,26,40	2,27,42, 7,44	7,36
22″	33,40,21, 7,42,12,18,14,12,23	1,44, 0,29,44,40,11,20	2,27,42,15,20	7,36
24″	33,40,22,51,42,42, 2,54,23,43	1,44, 0,27,16,57,48,24	2,27,42,22,56	7,36
26″	33,40,24,35,43, 9,19,52,12, 7	1,44, 0,24,49,15,17,52	2,27,42,30,32	7,36
28″	33,40,26,19,43,34, 9, 7,29,59	1,44, 0,22,21,32,39,44	2,27,42,38, 8	7,36
30″	33,40,28, 3,43,56,30,40, 9,43	1,44, 0,19,53,49,54, 0	2,27,42,45,44	7,36
32″	33,40,29,47,44,16,24,30, 3,43	1,44, 0,17,26, 7, 0,40	2,27,42,53,20	7,36
34″	33,40,31,31,44,33,50,37, 4,23	1,44, 0,14,58,23,59,44	2,27,43, 0,56	7,36
36″	33,40,33,15,44,48,49, 1, 4, 7	1,44, 0,12,30,40,51,12	2,27,43, 8,32	7,36
38″	33,40,34,59,45, 1,19,41,55,19	1,44, 0,10, 2,57,35, 4	2,27,43,16, 8	7,36
40″	33,40,36,43,45,11,22,39,30,23	1,44, 0, 7,35,14,11,20	2,27,43,23,44	7,36
42″	33,40,38,27,45,18,57,53,41,43	1,44, 0, 5, 7,30,40, 0	2,27,43,31,20	7,36
44″	33,40,40,11,45,24, 5,24,21,43	1,44, 0, 2,39,47, 1, 4	2,27,43,38,56	7,36
46″	33,40,41,55,45,26,45,11,22,47	1,44, 0, 0,12, 3,14,32	2,27,43,46,32	7,36
48″	33,40,43,39,45,26,57,14,37,19	1,43,59,57,44,19,20,24	2,27,43,54, 8	7,36
50″	33,40,45,23,45,24,41,33,57,43	1,43,59,55,16,35,18,40	2,27,44, 1,44	7,36
52″	33,40,47, 7,45,19,58, 9,16,23	1,43,59,52,48,51, 9,20	2,27,44, 9,20	7,36
54″	33,40,48,51,45,12,47, 0,25,43	1,43,59,50,21, 6,52,24	2,27,44,16,56	7,36
56″	33,40,50,35,45, 3, 8, 7,18, 7	1,43,59,47,53,22,27,52	2,27,44,24,32	7,36
58″	33,40,52,19,44,51, 1,29,45,59	1,43,59,45,25,37,55,44	2,27,44,32, 8	
60″	33,40,54, 3,44,36,27, 7,41,43			
exact	33,40,54, 3,44,36,27, 7,27,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34° 9′ 0″	33,40,54, 3,44,36,27, 7,27,26			
		1,43,59,42,57,53,14,27		
2″	33,40,55,47,44,19,25, 0,41,53		2,27,44,47,26	
		1,43,59,40,30, 8,27, 1		7,36
4″	33,40,57,31,43,59,55, 9, 8,54		2,27,44,55, 2	
		1,43,59,38, 2,23,31,59		7,36
6″	33,40,59,15,43,37,57,32,40,53		2,27,45, 2,38	
		1,43,59,35,34,38,29,21		7,36
8″	33,41, 0,59,43,13,32,11,10,14		2,27,45,10,14	
		1,43,59,33, 6,53,19, 7		7,36
10″	33,41, 2,43,42,46,39, 4,29,21		2,27,45,17,50	
		1,43,59,30,39, 8, 1,17		7,36
12″	33,41, 4,27,42,17,18,12,30,38		2,27,45,25,26	
		1,43,59,28,11,22,35,51		7,36
14″	33,41, 6,11,41,45,29,35, 6,29		2,27,45,33, 2	
		1,43,59,25,43,37, 2,49		7,36
16″	33,41, 7,55,41,11,13,12, 9,18		2,27,45,40,38	
		1,43,59,23,15,51,22,11		7,36
18″	33,41, 9,39,40,34,29, 3,31,29		2,27,45,48,14	
		1,43,59,20,48, 5,33,57		7,36
20″	33,41,11,23,39,55,17, 9, 5,26		2,27,45,55,50	
		1,43,59,18,20,19,38, 7		7,36
22″	33,41,13, 7,39,13,37,28,43,33		2,27,46, 3,26	
		1,43,59,15,52,33,34,41		7,36
24″	33,41,14,51,38,29,30, 2,18,14		2,27,46,11, 2	
		1,43,59,13,24,47,23,39		7,36
26″	33,41,16,35,37,42,54,49,41,53		2,27,46,18,38	
		1,43,59,10,57, 1, 5, 1		7,36
28″	33,41,18,19,36,53,51,50,46,54		2,27,46,26,14	
		1,43,59, 8,29,14,38,47		7,36
30″	33,41,20, 3,36, 2,21, 5,25,41		2,27,46,33,50	
		1,43,59, 6, 1,28, 4,57		7,36
32″	33,41,21,47,35, 8,22,33,30,38		2,27,46,41,26	
		1,43,59, 3,33,41,23,31		7,36
34″	33,41,23,31,34,11,56,14,54, 9		2,27,46,49, 2	
		1,43,59, 1, 5,54,34,29		7,36
36″	33,41,25,15,33,13, 2, 9,28,38		2,27,46,56,38	
		1,43,58,58,38, 7,37,51		7,36
38″	33,41,26,59,32,11,40,17, 6,29		2,27,47, 4,14	
		1,43,58,56,10,20,33,37		7,36
40″	33,41,28,43,31, 7,50,37,40, 6		2,27,47,11,50	
		1,43,58,53,42,33,21,47		7,36
42″	33,41,30,27,30, 1,33,11, 1,53		2,27,47,19,26	
		1,43,58,51,14,46, 2,21		7,36
44″	33,41,32,11,28,52,47,57, 4,14		2,27,47,27, 2	
		1,43,58,48,46,58,35,19		7,36
46″	33,41,33,55,27,41,34,55,39,33		2,27,47,34,38	
		1,43,58,46,19,11, 0,41		7,36
48″	33,41,35,39,26,27,54, 6,40,14		2,27,47,42,14	
		1,43,58,43,51,23,18,27		7,36
50″	33,41,37,23,25,11,45,29,58,41		2,27,47,49,50	
		1,43,58,41,23,35,28,37		7,36
52″	33,41,39, 7,23,53, 9, 5,27,18		2,27,47,57,26	
		1,43,58,38,55,47,31,11		7,36
54″	33,41,40,51,22,32, 4,52,58,29		2,27,48, 5, 2	
		1,43,58,36,27,59,26, 9		7,36
56″	33,41,42,35,21, 8,32,52,24,38		2,27,48,12,38	
		1,43,58,34, 0,11,13,31		7,36
58″	33,41,44,19,19,42,33, 3,38, 9		2,27,48,20,14	
		1,43,58,31,32,22,53,17		
60″	33,41,46, 3,18,14, 5,26,31,26			
exact	33,41,46, 3,18,14, 5,26,19,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°10′ 0″	33,41,46, 3,18,14, 5,26,19,23			
		1,43,58,29, 4,34,24,17		
2″	33,41,47,47,16,43,10, 0,43,40		2,27,48,35,30	
		1,43,58,26,36,45,48,47		7,36
4″	33,41,49,31,15, 9,46,46,32,27		2,27,48,43, 6	
		1,43,58,24, 8,57, 5,41		7,36
6″	33,41,51,15,13,33,55,43,38, 8		2,27,48,50,42	
		1,43,58,21,41, 8,14,59		7,36
8″	33,41,52,59,11,55,36,51,53, 7		2,27,48,58,18	
		1,43,58,19,13,19,16,41		7,36
10″	33,41,54,43,10,14,50,11, 9,48		2,27,49, 5,54	
		1,43,58,16,45,30,10,47		7,36
12″	33,41,56,27, 8,31,35,41,20,35		2,27,49,13,30	
		1,43,58,14,17,40,57,17		7,36
14″	33,41,58,11, 6,45,53,22,17,52		2,27,49,21, 6	
		1,43,58,11,49,51,36,11		7,36
16″	33,41,59,55, 4,57,43,13,54, 3		2,27,49,28,42	
		1,43,58, 9,22, 2, 7,29		7,36
18″	33,42, 1,39, 3, 7, 5,16, 1,32		2,27,49,36,18	
		1,43,58, 6,54,12,31,11		7,36
20″	33,42, 3,23, 1,13,59,28,32,43		2,27,49,43,54	
		1,43,58, 4,26,22,47,17		7,36
22″	33,42, 5, 6,59,18,25,51,20, 0		2,27,49,51,30	
		1,43,58, 1,58,32,55,47		7,36
24″	33,42, 6,50,57,20,24,24,15,47		2,27,49,59, 6	
		1,43,57,59,30,42,56,41		7,36
26″	33,42, 8,34,55,19,55, 7,12,28		2,27,50, 6,42	
		1,43,57,57, 2,52,49,59		7,36
28″	33,42,10,18,53,16,58, 0, 2,27		2,27,50,14,18	
		1,43,57,54,35, 2,35,41		7,36
30″	33,42,12, 2,51,11,33, 2,38, 8		2,27,50,21,54	
		1,43,57,52, 7,12,13,47		7,36
32″	33,42,13,46,49, 3,40,14,51,55		2,27,50,29,30	
		1,43,57,49,39,21,44,17		7,36
34″	33,42,15,30,46,53,19,36,36,12		2,27,50,37, 6	
		1,43,57,47,11,31, 7,11		7,36
36″	33,42,17,14,44,40,31, 7,43,23		2,27,50,44,42	
		1,43,57,44,43,40,22,29		7,36
38″	33,42,18,58,42,25,14,48, 5,52		2,27,50,52,18	
		1,43,57,42,15,49,30,11		7,36
40″	33,42,20,42,40, 7,30,37,36, 3		2,27,50,59,54	
		1,43,57,39,47,58,30,17		7,36
42″	33,42,22,26,37,47,18,36, 6,20		2,27,51, 7,30	
		1,43,57,37,20, 7,22,47		7,36
44″	33,42,24,10,35,24,38,43,29, 7		2,27,51,15, 6	
		1,43,57,34,52,16, 7,41		7,36
46″	33,42,25,54,32,59,30,59,36,48		2,27,51,22,42	
		1,43,57,32,24,24,44,59		7,36
48″	33,42,27,38,30,31,55,24,21,47		2,27,51,30,18	
		1,43,57,29,56,33,14,41		7,36
50″	33,42,29,22,28, 1,51,57,36,28		2,27,51,37,54	
		1,43,57,27,28,41,36,47		7,36
52″	33,42,31, 6,25,29,20,39,13,15		2,27,51,45,30	
		1,43,57,25, 0,49,51,17		7,36
54″	33,42,32,50,22,54,21,29, 4,32		2,27,51,53, 6	
		1,43,57,22,32,57,58,11		7,36
56″	33,42,34,34,20,16,54,27, 2,43		2,27,52, 0,42	
		1,43,57,20, 5, 5,57,29		7,36
58″	33,42,36,18,17,36,59,33, 0,12		2,27,52, 8,18	
		1,43,57,17,37,13,49,11		
60″	33,42,38, 2,14,54,36,46,49,23			
exact	33,42,38, 2,14,54,36,46,44,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°11′ 0″	33,42,38, 2,14,54,36,46,44,43			
		1,43,57,15, 9,21,32,52		
2″	33,42,39,46,12, 9,46, 8,17,35		2,27,52,23,31	
		1,43,57,12,41,29, 9,21		7,36
4″	33,42,41,30, 9,22,27,37,26,56		2,27,52,31, 7	
		1,43,57,10,13,36,38,14		7,36
6″	33,42,43,14, 6,32,41,14, 5,10		2,27,52,38,43	
		1,43,57, 7,45,43,59,31		7,36
8″	33,42,44,58, 3,40,26,58, 4,41		2,27,52,46,19	
		1,43,57, 5,17,51,13,12		7,36
10″	33,42,46,42, 0,45,44,49,17,53		2,27,52,53,55	
		1,43,57, 2,49,58,19,17		7,36
12″	33,42,48,25,57,48,34,47,37,10		2,27,53, 1,31	
		1,43,57, 0,22, 5,17,46		7,36
14″	33,42,50, 9,54,48,56,52,54,56		2,27,53, 9, 7	
		1,43,56,57,54,12, 8,39		7,36
16″	33,42,51,53,51,46,51, 5, 3,35		2,27,53,16,43	
		1,43,56,55,26,18,51,56		7,36
18″	33,42,53,37,48,42,17,23,55,31		2,27,53,24,19	
		1,43,56,52,58,25,27,37		7,36
20″	33,42,55,21,45,35,15,49,23, 8		2,27,53,31,55	
		1,43,56,50,30,31,55,42		7,36
22″	33,42,57, 5,42,25,46,21,18,50		2,27,53,39,31	
		1,43,56,48, 2,38,16,11		7,36
24″	33,42,58,49,39,13,48,59,35, 1		2,27,53,47, 7	
		1,43,56,45,34,44,29, 4		7,36
26″	33,43, 0,33,35,59,23,44, 4, 5		2,27,53,54,43	
		1,43,56,43, 6,50,34,21		7,36
28″	33,43, 2,17,32,42,30,34,38,26		2,27,54, 2,19	
		1,43,56,40,38,56,32, 2		7,36
30″	33,43, 4, 1,29,23, 9,31,10,28		2,27,54, 9,55	
		1,43,56,38,11, 2,22, 7		7,36
32″	33,43, 5,45,26, 1,20,33,32,35		2,27,54,17,31	
		1,43,56,35,43, 8, 4,36		7,36
34″	33,43, 7,29,22,37, 3,41,37,11		2,27,54,25, 7	
		1,43,56,33,15,13,39,29		7,36
36″	33,43, 9,13,19,10,18,55,16,40		2,27,54,32,43	
		1,43,56,30,47,19, 6,46		7,36
38″	33,43,10,57,15,41, 6,14,23,26		2,27,54,40,19	
		1,43,56,28,19,24,26,27		7,36
40″	33,43,12,41,12, 9,25,38,49,53		2,27,54,47,55	
		1,43,56,25,51,29,38,32		7,36
42″	33,43,14,25, 8,35,17, 8,28,25		2,27,54,55,31	
		1,43,56,23,23,34,43, 1		7,36
44″	33,43,16, 9, 4,58,40,43,11,26		2,27,55, 3, 7	
		1,43,56,20,55,39,39,54		7,36
46″	33,43,17,53, 1,19,36,22,51,20		2,27,55,10,43	
		1,43,56,18,27,44,29,11		7,36
48″	33,43,19,36,57,38, 4, 7,20,31		2,27,55,18,19	
		1,43,56,15,59,49,10,52		7,36
50″	33,43,21,20,53,54, 3,56,31,23		2,27,55,25,55	
		1,43,56,13,31,53,44,57		7,36
52″	33,43,23, 4,50, 7,35,50,16,20		2,27,55,33,31	
		1,43,56,11, 3,58,11,26		7,36
54″	33,43,24,48,46,18,39,48,27,46		2,27,55,41, 7	
		1,43,56, 8,36, 2,30,19		7,36
56″	33,43,26,32,42,27,15,50,58, 5		2,27,55,48,43	
		1,43,56, 6, 8, 6,41,36		7,36
58″	33,43,28,16,38,33,23,57,39,41		2,27,55,56,19	
		1,43,56, 3,40,10,45,17		
60″	33,43,30, 0,34,37, 4, 8,24,58			
exact	33,43,30, 0,34,37, 4, 8,25, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°12′ 0″	33,43,30, 0,34,37, 4, 8,25, 8			
		1,43,56, 1,12,14,41,31		
2″	33,43,31,44,30,38,16,23, 6,39		2,27,56,11,30	
		1,43,55,58,44,18,30, 1		7,36
4″	33,43,33,28,26,37, 0,41,36,40		2,27,56,19, 6	
		1,43,55,56,16,22,10,55		7,36
6″	33,43,35,12,22,33,17, 3,47,35		2,27,56,26,42	
		1,43,55,53,48,25,44,13		7,36
8″	33,43,36,56,18,27, 5,29,31,48		2,27,56,34,18	
		1,43,55,51,20,29, 9,55		7,36
10″	33,43,38,40,14,18,25,58,41,43		2,27,56,41,54	
		1,43,55,48,52,32,28, 1		7,36
12″	33,43,40,24,10, 7,18,31, 9,44		2,27,56,49,30	
		1,43,55,46,24,35,38,31		7,36
14″	33,43,42, 8, 5,53,43, 6,48,15		2,27,56,57, 6	
		1,43,55,43,56,38,41,25		7,36
16″	33,43,43,52, 1,37,39,45,29,40		2,27,57, 4,42	
		1,43,55,41,28,41,36,43		7,36
18″	33,43,45,35,57,19, 8,27, 6,23		2,27,57,12,18	
		1,43,55,39, 0,44,24,25		7,36
20″	33,43,47,19,52,58, 9,11,30,48		2,27,57,19,54	
		1,43,55,36,32,47, 4,31		7,36
22″	33,43,49, 3,48,34,41,58,35,19		2,27,57,27,30	
		1,43,55,34, 4,49,37, 1		7,36
24″	33,43,50,47,44, 8,46,48,12,20		2,27,57,35, 6	
		1,43,55,31,36,52, 1,55		7,36
26″	33,43,52,31,39,40,23,40,14,15		2,27,57,42,42	
		1,43,55,29, 8,54,19,13		7,36
28″	33,43,54,15,35, 9,32,34,33,28		2,27,57,50,18	
		1,43,55,26,40,56,28,55		7,36
30″	33,43,55,59,30,36,13,31, 2,23		2,27,57,57,54	
		1,43,55,24,12,58,31, 1		7,36
32″	33,43,57,43,26, 0,26,29,33,24		2,27,58, 5,30	
		1,43,55,21,45, 0,25,31		7,36
34″	33,43,59,27,21,22,11,29,58,55		2,27,58,13, 6	
		1,43,55,19,17, 2,12,25		7,36
36″	33,44, 1,11,16,41,28,32,11,20		2,27,58,20,42	
		1,43,55,16,49, 3,51,43		7,36
38″	33,44, 2,55,11,58,17,36, 3, 3		2,27,58,28,18	
		1,43,55,14,21, 5,23,25		7,36
40″	33,44, 4,39, 7,12,38,41,26,28		2,27,58,35,54	
		1,43,55,11,53, 6,47,31		7,36
42″	33,44, 6,23, 2,24,31,48,13,59		2,27,58,43,30	
		1,43,55, 9,25, 8, 4, 1		7,36
44″	33,44, 8, 6,57,33,56,56,18, 0		2,27,58,51, 6	
		1,43,55, 6,57, 9,12,55		7,36
46″	33,44, 9,50,52,40,54, 5,30,55		2,27,58,58,42	
		1,43,55, 4,29,10,14,13		7,36
48″	33,44,11,34,47,45,23,15,45, 8		2,27,59, 6,18	
		1,43,55, 2, 1,11, 7,55		7,36
50″	33,44,13,18,42,47,24,26,53, 3		2,27,59,13,54	
		1,43,54,59,33,11,54, 1		7,36
52″	33,44,15, 2,37,46,57,38,47, 4		2,27,59,21,30	
		1,43,54,57, 5,12,32,31		7,36
54″	33,44,16,46,32,44, 2,51,19,35		2,27,59,29, 6	
		1,43,54,54,37,13, 3,25		7,36
56″	33,44,18,30,27,38,40, 4,23, 0		2,27,59,36,42	
		1,43,54,52, 9,13,26,43		7,36
58″	33,44,20,14,22,30,49,17,49,43		2,27,59,44,18	
		1,43,54,49,41,13,42,25		
60″	33,44,21,58,17,20,30,31,32, 8			
exact	33,44,21,58,17,20,30,31,42,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°13′ 0″	33,44,21,58,17,20,30,31,42,50	1,43,54,47,13,13,51,37		
2″	33,44,23,42,12, 7,43,45,34,27	1,43,54,44,45,13,52,12	2,27,59,59,25	7,36
4″	33,44,25,26, 6,52,28,59,26,39	1,43,54,42,17,13,45,11	2,28, 0, 7, 1	7,36
6″	33,44,27,10, 1,34,46,13,11,50	1,43,54,39,49,13,30,34	2,28, 0,14,37	7,36
8″	33,44,28,53,56,14,35,26,42,24	1,43,54,37,21,13, 8,21	2,28, 0,22,13	7,36
10″	33,44,30,37,50,51,56,39,50,45	1,43,54,34,53,12,38,32	2,28, 0,29,49	7,36
12″	33,44,32,21,45,26,49,52,29,17	1,43,54,32,25,12, 1, 7	2,28, 0,37,25	7,36
14″	33,44,34, 5,39,59,15, 4,30,24	1,43,54,29,57,11,16, 6	2,28, 0,45, 1	7,36
16″	33,44,35,49,34,29,12,15,46,30	1,43,54,27,29,10,23,29	2,28, 0,52,37	7,36
18″	33,44,37,33,28,56,41,26, 9,59	1,43,54,25, 1, 9,23,16	2,28, 1, 0,13	7,36
20″	33,44,39,17,23,21,42,35,33,15	1,43,54,22,33, 8,15,27	2,28, 1, 7,49	7,36
22″	33,44,41, 1,17,44,15,43,48,42	1,43,54,20, 5, 7, 0, 2	2,28, 1,15,25	7,36
24″	33,44,42,45,12, 4,20,50,48,44	1,43,54,17,37, 5,37, 1	2,28, 1,23, 1	7,36
26″	33,44,44,29, 6,21,57,56,25,45	1,43,54,15, 9, 4, 6,24	2,28, 1,30,37	7,36
28″	33,44,46,13, 0,37, 7, 0,32, 9	1,43,54,12,41, 2,28,11	2,28, 1,38,13	7,36
30″	33,44,47,56,54,49,48, 3, 0,20	1,43,54,10,13, 0,42,22	2,28, 1,45,49	7,36
32″	33,44,49,40,49, 0, 1, 3,42,42	1,43,54, 7,44,58,48,57	2,28, 1,53,25	7,36
34″	33,44,51,24,43, 7,46, 2,31,39	1,43,54, 5,16,56,47,56	2,28, 2, 1, 1	7,36
36″	33,44,53, 8,37,13, 2,59,19,35	1,43,54, 2,48,54,39,19	2,28, 2, 8,37	7,36
38″	33,44,54,52,31,15,51,53,58,54	1,43,54, 0,20,52,23, 6	2,28, 2,16,13	7,36
40″	33,44,56,36,25,16,12,46,22, 0	1,43,53,57,52,49,59,17	2,28, 2,23,49	7,36
42″	33,44,58,20,19,14, 5,36,21,17	1,43,53,55,24,47,27,52	2,28, 2,31,25	7,36
44″	33,45, 0, 4,13, 9,30,23,49, 9	1,43,53,52,56,44,48,51	2,28, 2,39, 1	7,36
46″	33,45, 1,48, 7, 2,27, 8,38, 0	1,43,53,50,28,42, 2,14	2,28, 2,46,37	7,36
48″	33,45, 3,32, 0,52,55,50,40,14	1,43,53,48, 0,39, 8, 1	2,28, 2,54,13	7,36
50″	33,45, 5,15,54,40,56,29,48,15	1,43,53,45,32,36, 6,12	2,28, 3, 1,49	7,36
52″	33,45, 6,59,48,26,29, 5,54,27	1,43,53,43, 4,32,56,47	2,28, 3, 9,25	7,36
54″	33,45, 8,43,42, 9,33,38,51,14	1,43,53,40,36,29,39,46	2,28, 3,17, 1	7,36
56″	33,45,10,27,35,50,10, 8,31, 0	1,43,53,38, 8,26,15, 9	2,28, 3,24,37	7,36
58″	33,45,12,11,29,28,18,34,46, 9	1,43,53,35,40,22,42,56	2,28, 3,32,13	
60″	33,45,13,55,23, 3,58,57,29, 5			
exact	33,45,13,55,23, 3,58,57,40,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°14′ 0″	33,45,13,55,23, 3,58,57,40,35			
		1,43,53,33,12,19, 4,30		
2″	33,45,15,39,16,37,11,16,45, 5		2,28, 3,47,18	
		1,43,53,30,44,15,17,12		7,36
4″	33,45,17,23,10, 7,55,32, 2,17		2,28, 3,54,54	
		1,43,53,28,16,11,22,18		7,36
6″	33,45,19, 7, 3,36,11,43,24,35		2,28, 4, 2,30	
		1,43,53,25,48, 7,19,48		7,36
8″	33,45,20,50,57, 1,59,50,44,23		2,28, 4,10, 6	
		1,43,53,23,20, 3, 9,42		7,36
10″	33,45,22,34,50,25,19,53,54, 5		2,28, 4,17,42	
		1,43,53,20,51,58,52, 0		7,36
12″	33,45,24,18,43,46,11,52,46, 5		2,28, 4,25,18	
		1,43,53,18,23,54,26,42		7,36
14″	33,45,26, 2,37, 4,35,47,12,47		2,28, 4,32,54	
		1,43,53,15,55,49,53,48		7,36
16″	33,45,27,46,30,20,31,37, 6,35		2,28, 4,40,30	
		1,43,53,13,27,45,13,18		7,36
18″	33,45,29,30,23,33,59,22,19,53		2,28, 4,48, 6	
		1,43,53,10,59,40,25,12		7,36
20″	33,45,31,14,16,44,59, 2,45, 5		2,28, 4,55,42	
		1,43,53, 8,31,35,29,30		7,36
22″	33,45,32,58, 9,53,30,38,14,35		2,28, 5, 3,18	
		1,43,53, 6, 3,30,26,12		7,36
24″	33,45,34,42, 2,59,34, 8,40,47		2,28, 5,10,54	
		1,43,53, 3,35,25,15,18		7,36
26″	33,45,36,25,56, 3, 9,33,56, 5		2,28, 5,18,30	
		1,43,53, 1, 7,19,56,48		7,36
28″	33,45,38, 9,49, 4,16,53,52,53		2,28, 5,26, 6	
		1,43,52,58,39,14,30,42		7,36
30″	33,45,39,53,42, 2,56, 8,23,35		2,28, 5,33,42	
		1,43,52,56,11, 8,57, 0		7,36
32″	33,45,41,37,34,59, 7,17,20,35		2,28, 5,41,18	
		1,43,52,53,43, 3,15,42		7,36
34″	33,45,43,21,27,52,50,20,36,17		2,28, 5,48,54	
		1,43,52,51,14,57,26,48		7,36
36″	33,45,45, 5,20,44, 5,18, 3, 5		2,28, 5,56,30	
		1,43,52,48,46,51,30,18		7,36
38″	33,45,46,49,13,32,52, 9,33,23		2,28, 6, 4, 6	
		1,43,52,46,18,45,26,12		7,36
40″	33,45,48,33, 6,19,10,54,59,35		2,28, 6,11,42	
		1,43,52,43,50,39,14,30		7,36
42″	33,45,50,16,59, 3, 1,34,14, 5		2,28, 6,19,18	
		1,43,52,41,22,32,55,12		7,36
44″	33,45,52, 0,51,44,24, 7, 9,17		2,28, 6,26,54	
		1,43,52,38,54,26,28,18		7,36
46″	33,45,53,44,44,23,18,33,37,35		2,28, 6,34,30	
		1,43,52,36,26,19,53,48		7,36
48″	33,45,55,28,36,59,44,53,31,23		2,28, 6,42, 6	
		1,43,52,33,58,13,11,42		7,36
50″	33,45,57,12,29,33,43, 6,43, 5		2,28, 6,49,42	
		1,43,52,31,30, 6,22, 0		7,36
52″	33,45,58,56,22, 5,13,13, 5, 5		2,28, 6,57,18	
		1,43,52,29, 1,59,24,42		7,36
54″	33,46, 0,40,14,34,15,12,29,47		2,28, 7, 4,54	
		1,43,52,26,33,52,19,48		7,36
56″	33,46, 2,24, 7, 0,49, 4,49,35		2,28, 7,12,30	
		1,43,52,24, 5,45, 7,18		7,36
58″	33,46, 4, 7,59,24,54,49,56,53		2,28, 7,20, 6	
		1,43,52,21,37,37,47,12		
60″	33,46, 5,51,51,46,32,27,44, 5			
exact	33,46, 5,51,51,46,32,28, 1,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°15′ 0″	33,46, 5,51,51,46,32,28, 1,44			
		1,43,52,19, 9,30,21,32		
2″	33,46, 7,35,44, 5,41,58,23,16		2,28, 7,35, 9	
		1,43,52,16,41,22,46,23		7,36
4″	33,46, 9,19,36,22,23,21, 9,39		2,28, 7,42,45	
		1,43,52,14,13,15, 3,38		7,36
6″	33,46,11, 3,28,36,36,36,13,17		2,28, 7,50,21	
		1,43,52,11,45, 7,13,17		7,36
8″	33,46,12,47,20,48,21,43,26,34		2,28, 7,57,57	
		1,43,52, 9,16,59,15,20		7,36
10″	33,46,14,31,12,57,38,42,41,54		2,28, 8, 5,33	
		1,43,52, 6,48,51, 9,47		7,36
12″	33,46,16,15, 5, 4,27,33,51,41		2,28, 8,13, 9	
		1,43,52, 4,20,42,56,38		7,36
14″	33,46,17,58,57, 8,48,16,48,19		2,28, 8,20,45	
		1,43,52, 1,52,34,35,53		7,36
16″	33,46,19,42,49,10,40,51,24,12		2,28, 8,28,21	
		1,43,51,59,24,26, 7,32		7,36
18″	33,46,21,26,41,10, 5,17,31,44		2,28, 8,35,57	
		1,43,51,56,56,17,31,35		7,36
20″	33,46,23,10,33, 7, 1,35, 3,19		2,28, 8,43,33	
		1,43,51,54,28, 8,48, 2		7,36
22″	33,46,24,54,25, 1,29,43,51,21		2,28, 8,51, 9	
		1,43,51,51,59,59,56,53		7,36
24″	33,46,26,38,16,53,29,43,48,14		2,28, 8,58,45	
		1,43,51,49,31,50,58, 8		7,36
26″	33,46,28,22, 8,43, 1,34,46,22		2,28, 9, 6,21	
		1,43,51,47, 3,41,51,47		7,36
28″	33,46,30, 6, 0,30, 5,16,38, 9		2,28, 9,13,57	
		1,43,51,44,35,32,37,50		7,36
30″	33,46,31,49,52,14,40,49,15,59		2,28, 9,21,33	
		1,43,51,42, 7,23,16,17		7,36
32″	33,46,33,33,43,56,48,12,32,16		2,28, 9,29, 9	
		1,43,51,39,39,13,47, 8		7,36
34″	33,46,35,17,35,36,27,26,19,24		2,28, 9,36,45	
		1,43,51,37,11, 4,10,23		7,36
36″	33,46,37, 1,27,13,38,30,29,47		2,28, 9,44,21	
		1,43,51,34,42,54,26, 2		7,36
38″	33,46,38,45,18,48,21,24,55,49		2,28, 9,51,57	
		1,43,51,32,14,44,34, 5		7,36
40″	33,46,40,29,10,20,36, 9,29,54		2,28, 9,59,33	
		1,43,51,29,46,34,34,32		7,36
42″	33,46,42,13, 1,50,22,44, 4,26		2,28,10, 7, 9	
		1,43,51,27,18,24,27,23		7,36
44″	33,46,43,56,53,17,41, 8,31,49		2,28,10,14,45	
		1,43,51,24,50,14,12,38		7,36
46″	33,46,45,40,44,42,31,22,44,27		2,28,10,22,21	
		1,43,51,22,22, 3,50,17		7,36
48″	33,46,47,24,36, 4,53,26,34,44		2,28,10,29,57	
		1,43,51,19,53,53,20,20		7,36
50″	33,46,49, 8,27,24,47,19,55, 4		2,28,10,37,33	
		1,43,51,17,25,42,42,47		7,36
52″	33,46,50,52,18,42,13, 2,37,51		2,28,10,45, 9	
		1,43,51,14,57,31,57,38		7,36
54″	33,46,52,36, 9,57,10,34,35,29		2,28,10,52,45	
		1,43,51,12,29,21, 4,53		7,36
56″	33,46,54,20, 1, 9,39,55,40,22		2,28,11, 0,21	
		1,43,51,10, 1,10, 4,32		7,36
58″	33,46,56, 3,52,19,41, 5,44,54		2,28,11, 7,57	
		1,43,51, 7,32,58,56,35		
60″	33,46,57,47,43,27,14, 4,41,29			
exact	33,46,57,47,43,27,14, 5,10,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°16′ 0″	33,46,57,47,43,27,14, 5,10,13			
		1,43,51, 5, 4,47,44, 4		
2″	33,46,59,31,34,32,18,52,54,17		2,28,11,22,56	
		1,43,51, 2,36,36,21, 8		7,36
4″	33,47, 1,15,25,34,55,29,15,25		2,28,11,30,32	
		1,43,51, 0, 8,24,50,36		7,36
6″	33,47, 2,59,16,35, 3,54, 6, 1		2,28,11,38, 8	
		1,43,50,57,40,13,12,28		7,36
8″	33,47, 4,43, 7,32,44, 7,18,29		2,28,11,45,44	
		1,43,50,55,12, 1,26,44		7,36
10″	33,47, 6,26,58,27,56, 8,45,13		2,28,11,53,20	
		1,43,50,52,43,49,33,24		7,36
12″	33,47, 8,10,49,20,39,58,18,37		2,28,12, 0,56	
		1,43,50,50,15,37,32,28		7,36
14″	33,47, 9,54,40,10,55,35,51, 5		2,28,12, 8,32	
		1,43,50,47,47,25,23,56		7,36
16″	33,47,11,38,30,58,43, 1,15, 1		2,28,12,16, 8	
		1,43,50,45,19,13, 7,48		7,36
18″	33,47,13,22,21,44, 2,14,22,49		2,28,12,23,44	
		1,43,50,42,51, 0,44, 4		7,36
20″	33,47,15, 6,12,26,53,15, 6,53		2,28,12,31,20	
		1,43,50,40,22,48,12,44		7,36
22″	33,47,16,50, 3, 7,16, 3,19,37		2,28,12,38,56	
		1,43,50,37,54,35,33,48		7,36
24″	33,47,18,33,53,45,10,38,53,25		2,28,12,46,32	
		1,43,50,35,26,22,47,16		7,36
26″	33,47,20,17,44,20,37, 1,40,41		2,28,12,54, 8	
		1,43,50,32,58, 9,53, 8		7,36
28″	33,47,22, 1,34,53,35,11,33,49		2,28,13, 1,44	
		1,43,50,30,29,56,51,24		7,36
30″	33,47,23,45,25,24, 5, 8,25,13		2,28,13, 9,20	
		1,43,50,28, 1,43,42, 4		7,36
32″	33,47,25,29,15,52, 6,52, 7,17		2,28,13,16,56	
		1,43,50,25,33,30,25, 8		7,36
34″	33,47,27,13, 6,17,40,22,32,25		2,28,13,24,32	
		1,43,50,23, 5,17, 0,36		7,36
36″	33,47,28,56,56,40,45,39,33, 1		2,28,13,32, 8	
		1,43,50,20,37, 3,28,28		7,36
38″	33,47,30,40,47, 1,22,43, 1,29		2,28,13,39,44	
		1,43,50,18, 8,49,48,44		7,36
40″	33,47,32,24,37,19,31,32,50,13		2,28,13,47,20	
		1,43,50,15,40,36, 1,24		7,36
42″	33,47,34, 8,27,35,12, 8,51,37		2,28,13,54,56	
		1,43,50,13,12,22, 6,28		7,36
44″	33,47,35,52,17,48,24,30,58, 5		2,28,14, 2,32	
		1,43,50,10,44, 8, 3,56		7,36
46″	33,47,37,36, 7,59, 8,39, 2, 1		2,28,14,10, 8	
		1,43,50, 8,15,53,53,48		7,36
48″	33,47,39,19,58, 7,24,32,55,49		2,28,14,17,44	
		1,43,50, 5,47,39,36, 4		7,36
50″	33,47,41, 3,48,13,12,12,31,53		2,28,14,25,20	
		1,43,50, 3,19,25,10,44		7,36
52″	33,47,42,47,38,16,31,37,42,37		2,28,14,32,56	
		1,43,50, 0,51,10,37,48		7,36
54″	33,47,44,31,28,17,22,48,20,25		2,28,14,40,32	
		1,43,49,58,22,55,57,16		7,36
56″	33,47,46,15,18,15,45,44,17,41		2,28,14,48, 8	
		1,43,49,55,54,41, 9, 8		7,36
58″	33,47,47,59, 8,11,40,25,26,49		2,28,14,55,44	
		1,43,49,53,26,26,13,24		
60″	33,47,49,42,58, 5, 6,51,40,13			
exact	33,47,49,42,58, 5, 6,52,10,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°17′ 0″	33,47,49,42,58, 5, 6,52,10,35	1,43,49,50,58,11,13,27		
2″	33,47,51,26,47,56, 5, 3,24, 2	1,43,49,48,29,56, 2,46	2,28,15,10,41	7,35
4″	33,47,53,10,37,44,34,59,26,48	1,43,49,46, 1,40,44,30	2,28,15,18,16	7,35
6″	33,47,54,54,27,30,36,40,11,18	1,43,49,43,33,25,18,39	2,28,15,25,51	7,35
8″	33,47,56,38,17,14,10, 5,29,57	1,43,49,41, 5, 9,45,13	2,28,15,33,26	7,35
10″	33,47,58,22, 6,55,15,15,15,10	1,43,49,38,36,54, 4,12	2,28,15,41, 1	7,35
12″	33,48, 0, 5,56,33,52, 9,19,22	1,43,49,36, 8,38,15,36	2,28,15,48,36	7,35
14″	33,48, 1,49,46,10, 0,47,34,58	1,43,49,33,40,22,19,25	2,28,15,56,11	7,35
16″	33,48, 3,33,35,43,41, 9,54,23	1,43,49,31,12, 6,15,39	2,28,16, 3,46	7,35
18″	33,48, 5,17,25,14,53,16,10, 2	1,43,49,28,43,50, 4,18	2,28,16,11,21	7,35
20″	33,48, 7, 1,14,43,37, 6,14,20	1,43,49,26,15,33,45,22	2,28,16,18,56	7,35
22″	33,48, 8,45, 4, 9,52,39,59,42	1,43,49,23,47,17,18,51	2,28,16,26,31	7,35
24″	33,48,10,28,53,33,39,57,18,33	1,43,49,21,19, 0,44,45	2,28,16,34, 6	7,35
26″	33,48,12,12,42,54,58,58, 3,18	1,43,49,18,50,44, 3, 4	2,28,16,41,41	7,35
28″	33,48,13,56,32,13,49,42, 6,22	1,43,49,16,22,27,13,48	2,28,16,49,16	7,35
30″	33,48,15,40,21,30,12, 9,20,10	1,43,49,13,54,10,16,57	2,28,16,56,51	7,35
32″	33,48,17,24,10,44, 6,19,37, 7	1,43,49,11,25,53,12,31	2,28,17, 4,26	7,35
34″	33,48,19, 7,59,55,32,12,49,38	1,43,49, 8,57,36, 0,30	2,28,17,12, 1	7,35
36″	33,48,20,51,49, 4,29,48,50, 8	1,43,49, 6,29,18,40,54	2,28,17,19,36	7,35
38″	33,48,22,35,38,10,59, 7,31, 2	1,43,49, 4, 1, 1,13,43	2,28,17,27,11	7,35
40″	33,48,24,19,27,15, 0, 8,44,45	1,43,49, 1,32,43,38,57	2,28,17,34,46	7,35
42″	33,48,26, 3,16,16,32,52,23,42	1,43,48,59, 4,25,56,36	2,28,17,42,21	7,35
44″	33,48,27,47, 5,15,37,18,20,18	1,43,48,56,36, 8, 6,40	2,28,17,49,56	7,35
46″	33,48,29,30,54,12,13,26,26,58	1,43,48,54, 7,50, 9, 9	2,28,17,57,31	7,35
48″	33,48,31,14,43, 6,21,16,36, 7	1,43,48,51,39,32, 4, 3	2,28,18, 5, 6	7,35
50″	33,48,32,58,31,58, 0,48,40,10	1,43,48,49,11,13,51,22	2,28,18,12,41	7,35
52″	33,48,34,42,20,47,12, 2,31,32	1,43,48,46,42,55,31, 6	2,28,18,20,16	7,35
54″	33,48,36,26, 9,33,54,58, 2,38	1,43,48,44,14,37, 3,15	2,28,18,27,51	7,35
56″	33,48,38, 9,58,18, 9,35, 5,53	1,43,48,41,46,18,27,49	2,28,18,35,26	7,35
58″	33,48,39,53,46,59,55,53,33,42	1,43,48,39,17,59,44,48	2,28,18,43, 1	
60″	33,48,41,37,35,39,13,53,18,30			
exact	33,48,41,37,35,39,13,52,47,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°18′ 0″	33,48,41,37,35,39,13,52,47,59			
		1,43,48,36,49,40,51, 2		
2″	33,48,43,21,24,16, 3,33,39, 1		2,28,18,58,23	
		1,43,48,34,21,21,52,39		7,35
4″	33,48,45, 5,12,50,24,55,31,40		2,28,19, 5,58	
		1,43,48,31,53, 2,46,41		7,35
6″	33,48,46,49, 1,22,17,58,18,21		2,28,19,13,33	
		1,43,48,29,24,43,33, 8		7,35
8″	33,48,48,32,49,51,42,41,51,29		2,28,19,21, 8	
		1,43,48,26,56,24,12, 0		7,35
10″	33,48,50,16,38,18,39, 6, 3,29		2,28,19,28,43	
		1,43,48,24,28, 4,43,17		7,35
12″	33,48,52, 0,26,43, 7,10,46,46		2,28,19,36,18	
		1,43,48,21,59,45, 6,59		7,35
14″	33,48,53,44,15, 5, 6,55,53,45		2,28,19,43,53	
		1,43,48,19,31,25,23, 6		7,35
16″	33,48,55,28, 3,24,38,21,16,51		2,28,19,51,28	
		1,43,48,17, 3, 5,31,38		7,35
18″	33,48,57,11,51,41,41,26,48,29		2,28,19,59, 3	
		1,43,48,14,34,45,32,35		7,35
20″	33,48,58,55,39,56,16,12,21, 4		2,28,20, 6,38	
		1,43,48,12, 6,25,25,57		7,35
22″	33,49, 0,39,28, 8,22,37,47, 1		2,28,20,14,13	
		1,43,48, 9,38, 5,11,44		7,35
24″	33,49, 2,23,16,18, 0,42,58,45		2,28,20,21,48	
		1,43,48, 7, 9,44,49,56		7,35
26″	33,49, 4, 7, 4,25,10,27,48,41		2,28,20,29,23	
		1,43,48, 4,41,24,20,33		7,35
28″	33,49, 5,50,52,29,51,52, 9,14		2,28,20,36,58	
		1,43,48, 2,13, 3,43,35		7,35
30″	33,49, 7,34,40,32, 4,55,52,49		2,28,20,44,33	
		1,43,47,59,44,42,59, 2		7,35
32″	33,49, 9,18,28,31,49,38,51,51		2,28,20,52, 8	
		1,43,47,57,16,22, 6,54		7,35
34″	33,49,11, 2,16,29, 6, 0,58,45		2,28,20,59,43	
		1,43,47,54,48, 1, 7,11		7,35
36″	33,49,12,46, 4,23,54, 2, 5,56		2,28,21, 7,18	
		1,43,47,52,19,39,59,53		7,35
38″	33,49,14,29,52,16,13,42, 5,49		2,28,21,14,53	
		1,43,47,49,51,18,45, 0		7,35
40″	33,49,16,13,40, 6, 5, 0,50,49		2,28,21,22,28	
		1,43,47,47,22,57,22,32		7,35
42″	33,49,17,57,27,53,27,58,13,21		2,28,21,30, 3	
		1,43,47,44,54,35,52,29		7,35
44″	33,49,19,41,15,38,22,34, 5,50		2,28,21,37,38	
		1,43,47,42,26,14,14,51		7,35
46″	33,49,21,25, 3,20,48,48,20,41		2,28,21,45,13	
		1,43,47,39,57,52,29,38		7,35
48″	33,49,23, 8,51, 0,46,40,50,19		2,28,21,52,48	
		1,43,47,37,29,30,36,50		7,35
50″	33,49,24,52,38,38,16,11,27, 9		2,28,22, 0,23	
		1,43,47,35, 1, 8,36,27		7,35
52″	33,49,26,36,26,13,17,20, 3,36		2,28,22, 7,58	
		1,43,47,32,32,46,28,29		7,35
54″	33,49,28,20,13,45,50, 6,32, 5		2,28,22,15,33	
		1,43,47,30, 4,24,12,56		7,35
56″	33,49,30, 4, 1,15,54,30,45, 1		2,28,22,23, 8	
		1,43,47,27,36, 1,49,48		7,35
58″	33,49,31,47,48,43,30,32,34,49		2,28,22,30,43	
		1,43,47,25, 7,39,19, 5		
60″	33,49,33,31,36, 8,38,11,53,54			
exact	33,49,33,31,36, 8,38,11,28,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°19′ 0″	33,49,33,31,36, 8,38,11,28,16			
		1,43,47,22,39,16,38,11		
2″	33,49,35,15,23,31,17,28, 6,27		2,28,22,46, 3	
		1,43,47,20,10,53,52, 8		7,35
4″	33,49,36,59,10,51,28,21,58,35		2,28,22,53,38	
		1,43,47,17,42,30,58,30		7,35
6″	33,49,38,42,58, 9,10,52,57, 5		2,28,23, 1,13	
		1,43,47,15,14, 7,57,17		7,35
8″	33,49,40,26,45,24,25, 0,54,22		2,28,23, 8,48	
		1,43,47,12,45,44,48,29		7,35
10″	33,49,42,10,32,37,10,45,42,51		2,28,23,16,23	
		1,43,47,10,17,21,32, 6		7,35
12″	33,49,43,54,19,47,28, 7,14,57		2,28,23,23,58	
		1,43,47, 7,48,58, 8, 8		7,35
14″	33,49,45,38, 6,55,17, 5,23, 5		2,28,23,31,33	
		1,43,47, 5,20,34,36,35		7,35
16″	33,49,47,21,54, 0,37,39,59,40		2,28,23,39, 8	
		1,43,47, 2,52,10,57,27		7,35
18″	33,49,49, 5,41, 3,29,50,57, 7		2,28,23,46,43	
		1,43,47, 0,23,47,10,44		7,35
20″	33,49,50,49,28, 3,53,38, 7,51		2,28,23,54,18	
		1,43,46,57,55,23,16,26		7,35
22″	33,49,52,33,15, 1,49, 1,24,17		2,28,24, 1,53	
		1,43,46,55,26,59,14,33		7,35
24″	33,49,54,17, 1,57,16, 0,38,50		2,28,24, 9,28	
		1,43,46,52,58,35, 5, 5		7,35
26″	33,49,56, 0,48,50,14,35,43,55		2,28,24,17, 3	
		1,43,46,50,30,10,48, 2		7,35
28″	33,49,57,44,35,40,44,46,31,57		2,28,24,24,38	
		1,43,46,48, 1,46,23,24		7,35
30″	33,49,59,28,22,28,46,32,55,21		2,28,24,32,13	
		1,43,46,45,33,21,51,11		7,35
32″	33,50, 1,12, 9,14,19,54,46,32		2,28,24,39,48	
		1,43,46,43, 4,57,11,23		7,35
34″	33,50, 2,55,55,57,24,51,57,55		2,28,24,47,23	
		1,43,46,40,36,32,24, 0		7,35
36″	33,50, 4,39,42,38, 1,24,21,55		2,28,24,54,58	
		1,43,46,38, 8, 7,29, 2		7,35
38″	33,50, 6,23,29,16, 9,31,50,57		2,28,25, 2,33	
		1,43,46,35,39,42,26,29		7,35
40″	33,50, 8, 7,15,51,49,14,17,26		2,28,25,10, 8	
		1,43,46,33,11,17,16,21		7,35
42″	33,50, 9,51, 2,25, 0,31,33,47		2,28,25,17,43	
		1,43,46,30,42,51,58,38		7,35
44″	33,50,11,34,48,55,43,23,32,25		2,28,25,25,18	
		1,43,46,28,14,26,33,20		7,35
46″	33,50,13,18,35,23,57,50, 5,45		2,28,25,32,53	
		1,43,46,25,46, 1, 0,27		7,35
48″	33,50,15, 2,21,49,43,51, 6,12		2,28,25,40,28	
		1,43,46,23,17,35,19,59		7,35
50″	33,50,16,46, 8,13, 1,26,26,11		2,28,25,48, 3	
		1,43,46,20,49, 9,31,56		7,35
52″	33,50,18,29,54,33,50,35,58, 7		2,28,25,55,38	
		1,43,46,18,20,43,36,18		7,35
54″	33,50,20,13,40,52,11,19,34,25		2,28,26, 3,13	
		1,43,46,15,52,17,33, 5		7,35
56″	33,50,21,57,27, 8, 3,37, 7,30		2,28,26,10,48	
		1,43,46,13,23,51,22,17		7,35
58″	33,50,23,41,13,21,27,28,29,47		2,28,26,18,23	
		1,43,46,10,55,25, 3,54		
60″	33,50,25,24,59,32,22,53,33,41			
exact	33,50,25,24,59,32,22,53,17,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°20′ 0″	33,50,25,24,59,32,22,53,17,53			
		1,43,46, 8,26,58,36,15		
2″	33,50,27, 8,45,40,49,51,54, 8		2,28,26,33,40	
		1,43,46, 5,58,32, 2,35		7,35
4″	33,50,28,52,31,46,48,23,56,43		2,28,26,41,15	
		1,43,46, 3,30, 5,21,20		7,35
6″	33,50,30,36,17,50,18,29,18, 3		2,28,26,48,50	
		1,43,46, 1, 1,38,32,30		7,35
8″	33,50,32,20, 3,51,20, 7,50,33		2,28,26,56,25	
		1,43,45,58,33,11,36, 5		7,35
10″	33,50,34, 3,49,49,53,19,26,38		2,28,27, 4, 0	
		1,43,45,56, 4,44,32, 5		7,35
12″	33,50,35,47,35,45,58, 3,58,43		2,28,27,11,35	
		1,43,45,53,36,17,20,30		7,35
14″	33,50,37,31,21,39,34,21,19,13		2,28,27,19,10	
		1,43,45,51, 7,50, 1,20		7,35
16″	33,50,39,15, 7,30,42,11,20,33		2,28,27,26,45	
		1,43,45,48,39,22,34,35		7,35
18″	33,50,40,58,53,19,21,33,55, 8		2,28,27,34,20	
		1,43,45,46,10,55, 0,15		7,35
20″	33,50,42,42,39, 5,32,28,55,23		2,28,27,41,55	
		1,43,45,43,42,27,18,20		7,35
22″	33,50,44,26,24,49,14,56,13,43		2,28,27,49,30	
		1,43,45,41,13,59,28,50		7,35
24″	33,50,46,10,10,30,28,55,42,33		2,28,27,57, 5	
		1,43,45,38,45,31,31,45		7,35
26″	33,50,47,53,56, 9,14,27,14,18		2,28,28, 4,40	
		1,43,45,36,17, 3,27, 5		7,35
28″	33,50,49,37,41,45,31,30,41,23		2,28,28,12,15	
		1,43,45,33,48,35,14,50		7,35
30″	33,50,51,21,27,19,20, 5,56,13		2,28,28,19,50	
		1,43,45,31,20, 6,55, 0		7,35
32″	33,50,53, 5,12,50,40,12,51,13		2,28,28,27,25	
		1,43,45,28,51,38,27,35		7,35
34″	33,50,54,48,58,19,31,51,18,48		2,28,28,35, 0	
		1,43,45,26,23, 9,52,35		7,35
36″	33,50,56,32,43,45,55, 1,11,23		2,28,28,42,35	
		1,43,45,23,54,41,10, 0		7,35
38″	33,50,58,16,29, 9,49,42,21,23		2,28,28,50,10	
		1,43,45,21,26,12,19,50		7,35
40″	33,51, 0, 0,14,31,15,54,41,13		2,28,28,57,45	
		1,43,45,18,57,43,22, 5		7,35
42″	33,51, 1,43,59,50,13,38, 3,18		2,28,29, 5,20	
		1,43,45,16,29,14,16,45		7,35
44″	33,51, 3,27,45, 6,42,52,20, 3		2,28,29,12,55	
		1,43,45,14, 0,45, 3,50		7,35
46″	33,51, 5,11,30,20,43,37,23,53		2,28,29,20,30	
		1,43,45,11,32,15,43,20		7,35
48″	33,51, 6,55,15,32,15,53, 7,13		2,28,29,28, 5	
		1,43,45, 9, 3,46,15,15		7,35
50″	33,51, 8,39, 0,41,19,39,22,28		2,28,29,35,40	
		1,43,45, 6,35,16,39,35		7,35
52″	33,51,10,22,45,47,54,56, 2, 3		2,28,29,43,15	
		1,43,45, 4, 6,46,56,20		7,35
54″	33,51,12, 6,30,52, 1,42,58,23		2,28,29,50,50	
		1,43,45, 1,38,17, 5,30		7,35
56″	33,51,13,50,15,53,40, 0, 3,53		2,28,29,58,25	
		1,43,44,59, 9,47, 7, 5		7,35
58″	33,51,15,34, 0,52,49,47,10,58		2,28,30, 6, 0	
		1,43,44,56,41,17, 1, 5		
60″	33,51,17,17,45,49,31, 4,12, 3			
exact	33,51,17,17,45,49,31, 4, 4, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°21′ 0″	33,51,17,17,45,49,31, 4, 4, 0			
		1,43,44,54,12,46,46,35		
2″	33,51,19, 1,30,43,43,50,50,35		2,28,30,21,14	
		1,43,44,51,44,16,25,21		7,35
4″	33,51,20,45,15,35,28, 7,15,56		2,28,30,28,49	
		1,43,44,49,15,45,56,32		7,35
6″	33,51,22,29, 0,24,43,53,12,28		2,28,30,36,24	
		1,43,44,46,47,15,20, 8		7,35
8″	33,51,24,12,45,11,31, 8,32,36		2,28,30,43,59	
		1,43,44,44,18,44,36, 9		7,35
10″	33,51,25,56,29,55,49,53, 8,45		2,28,30,51,34	
		1,43,44,41,50,13,44,35		7,35
12″	33,51,27,40,14,37,40, 6,53,20		2,28,30,59, 9	
		1,43,44,39,21,42,45,26		7,35
14″	33,51,29,23,59,17, 1,49,38,46		2,28,31, 6,44	
		1,43,44,36,53,11,38,42		7,35
16″	33,51,31, 7,43,53,55, 1,17,28		2,28,31,14,19	
		1,43,44,34,24,40,24,23		7,35
18″	33,51,32,51,28,28,19,41,41,51		2,28,31,21,54	
		1,43,44,31,56, 9, 2,29		7,35
20″	33,51,34,35,13, 0,15,50,44,20		2,28,31,29,29	
		1,43,44,29,27,37,33, 0		7,35
22″	33,51,36,18,57,29,43,28,17,20		2,28,31,37, 4	
		1,43,44,26,59, 5,55,56		7,35
24″	33,51,38, 2,41,56,42,34,13,16		2,28,31,44,39	
		1,43,44,24,30,34,11,17		7,35
26″	33,51,39,46,26,21,13, 8,24,33		2,28,31,52,14	
		1,43,44,22, 2, 2,19, 3		7,35
28″	33,51,41,30,10,43,15,10,43,36		2,28,31,59,49	
		1,43,44,19,33,30,19,14		7,35
30″	33,51,43,13,55, 2,48,41, 2,50		2,28,32, 7,24	
		1,43,44,17, 4,58,11,50		7,35
32″	33,51,44,57,39,19,53,39,14,40		2,28,32,14,59	
		1,43,44,14,36,25,56,51		7,35
34″	33,51,46,41,23,34,30, 5,11,31		2,28,32,22,34	
		1,43,44,12, 7,53,34,17		7,35
36″	33,51,48,25, 7,46,37,58,45,48		2,28,32,30, 9	
		1,43,44, 9,39,21, 4, 8		7,35
38″	33,51,50, 8,51,56,17,19,49,56		2,28,32,37,44	
		1,43,44, 7,10,48,26,24		7,35
40″	33,51,51,52,36, 3,28, 8,16,20		2,28,32,45,19	
		1,43,44, 4,42,15,41, 5		7,35
42″	33,51,53,36,20, 8,10,23,57,25		2,28,32,52,54	
		1,43,44, 2,13,42,48,11		7,35
44″	33,51,55,20, 4,10,24, 6,45,36		2,28,33, 0,29	
		1,43,43,59,45, 9,47,42		7,35
46″	33,51,57, 3,48,10, 9,16,33,18		2,28,33, 8, 4	
		1,43,43,57,16,36,39,38		7,35
48″	33,51,58,47,32, 7,25,53,12,56		2,28,33,15,39	
		1,43,43,54,48, 3,23,59		7,35
50″	33,52, 0,31,16, 2,13,56,36,55		2,28,33,23,14	
		1,43,43,52,19,30, 0,45		7,35
52″	33,52, 2,14,59,54,33,26,37,40		2,28,33,30,49	
		1,43,43,49,50,56,29,56		7,35
54″	33,52, 3,58,43,44,24,23, 7,36		2,28,33,38,24	
		1,43,43,47,22,22,51,32		7,35
56″	33,52, 5,42,27,31,46,45,59, 8		2,28,33,45,59	
		1,43,43,44,53,49, 5,33		7,35
58″	33,52, 7,26,11,16,40,35, 4,41		2,28,33,53,34	
		1,43,43,42,25,15,11,59		
60″	33,52, 9, 9,54,59, 5,50,16,40			
exact	33,52, 9, 9,54,59, 5,50,14,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°22′ 0″	33,52, 9, 9,54,59, 5,50,14,27			
		1,43,43,39,56,41,10,33		
2″	33,52,10,53,38,39, 2,31,25, 0		2,28,34, 8,45	
		1,43,43,37,28, 7, 1,48		7,35
4″	33,52,12,37,22,16,30,38,26,48		2,28,34,16,20	
		1,43,43,34,59,32,45,28		7,35
6″	33,52,14,21, 5,51,30,11,12,16		2,28,34,23,55	
		1,43,43,32,30,58,21,33		7,35
8″	33,52,16, 4,49,24, 1, 9,33,49		2,28,34,31,30	
		1,43,43,30, 2,23,50, 3		7,35
10″	33,52,17,48,32,54, 3,33,23,52		2,28,34,39, 5	
		1,43,43,27,33,49,10,58		7,35
12″	33,52,19,32,16,21,37,22,34,50		2,28,34,46,40	
		1,43,43,25, 5,14,24,18		7,35
14″	33,52,21,15,59,46,42,36,59, 8		2,28,34,54,15	
		1,43,43,22,36,39,30, 3		7,35
16″	33,52,22,59,43, 9,19,16,29,11		2,28,35, 1,50	
		1,43,43,20, 8, 4,28,13		7,35
18″	33,52,24,43,26,29,27,20,57,24		2,28,35, 9,25	
		1,43,43,17,39,29,18,48		7,35
20″	33,52,26,27, 9,47, 6,50,16,12		2,28,35,17, 0	
		1,43,43,15,10,54, 1,48		7,35
22″	33,52,28,10,53, 2,17,44,18, 0		2,28,35,24,35	
		1,43,43,12,42,18,37,13		7,35
24″	33,52,29,54,36,15, 0, 2,55,13		2,28,35,32,10	
		1,43,43,10,13,43, 5, 3		7,35
26″	33,52,31,38,19,25,13,46, 0,16		2,28,35,39,45	
		1,43,43, 7,45, 7,25,18		7,35
28″	33,52,33,22, 2,32,58,53,25,34		2,28,35,47,20	
		1,43,43, 5,16,31,37,58		7,35
30″	33,52,35, 5,45,38,15,25, 3,32		2,28,35,54,55	
		1,43,43, 2,47,55,43, 3		7,35
32″	33,52,36,49,28,41, 3,20,46,35		2,28,36, 2,30	
		1,43,43, 0,19,19,40,33		7,35
34″	33,52,38,33,11,41,22,40,27, 8		2,28,36,10, 5	
		1,43,42,57,50,43,30,28		7,35
36″	33,52,40,16,54,39,13,23,57,36		2,28,36,17,40	
		1,43,42,55,22, 7,12,48		7,35
38″	33,52,42, 0,37,34,35,31,10,24		2,28,36,25,15	
		1,43,42,52,53,30,47,33		7,35
40″	33,52,43,44,20,27,29, 1,57,57		2,28,36,32,50	
		1,43,42,50,24,54,14,43		7,35
42″	33,52,45,28, 3,17,53,56,12,40		2,28,36,40,25	
		1,43,42,47,56,17,34,18		7,35
44″	33,52,47,11,46, 5,50,13,46,58		2,28,36,48, 0	
		1,43,42,45,27,40,46,18		7,35
46″	33,52,48,55,28,51,17,54,33,16		2,28,36,55,35	
		1,43,42,42,59, 3,50,43		7,35
48″	33,52,50,39,11,34,16,58,23,59		2,28,37, 3,10	
		1,43,42,40,30,26,47,33		7,35
50″	33,52,52,22,54,14,47,25,11,32		2,28,37,10,45	
		1,43,42,38, 1,49,36,48		7,35
52″	33,52,54, 6,36,52,49,14,48,20		2,28,37,18,20	
		1,43,42,35,33,12,18,28		7,35
54″	33,52,55,50,19,28,22,27, 6,48		2,28,37,25,55	
		1,43,42,33, 4,34,52,33		7,35
56″	33,52,57,34, 2, 1,27, 1,59,21		2,28,37,33,30	
		1,43,42,30,35,57,19, 3		7,35
58″	33,52,59,17,44,32, 2,59,18,24		2,28,37,41, 5	
		1,43,42,28, 7,19,37,58		
60″	33,53, 1, 1,27, 0,10,18,56,22			
exact	33,53, 1, 1,27, 0,10,18,57,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°23′ 0″	33,53, 1, 1,27, 0,10,18,57,50	1,43,42,25,38,41,49,31		
2″	33,53, 2,45, 9,25,49, 0,47,21	1,43,42,23,10, 3,53,17	2,28,37,56,14	7,35
4″	33,53, 4,28,51,48,59, 4,40,38	1,43,42,20,41,25,49,28	2,28,38, 3,49	7,35
6″	33,53, 6,12,34, 9,40,30,30, 6	1,43,42,18,12,47,38, 4	2,28,38,11,24	7,35
8″	33,53, 7,56,16,27,53,18, 8,10	1,43,42,15,44, 9,19, 5	2,28,38,18,59	7,35
10″	33,53, 9,39,58,43,37,27,27,15	1,43,42,13,15,30,52,31	2,28,38,26,34	7,35
12″	33,53,11,23,40,56,52,58,19,46	1,43,42,10,46,52,18,22	2,28,38,34, 9	7,35
14″	33,53,13, 7,23, 7,39,50,38, 8	1,43,42, 8,18,13,36,38	2,28,38,41,44	7,35
16″	33,53,14,51, 5,15,58, 4,14,46	1,43,42, 5,49,34,47,19	2,28,38,49,19	7,35
18″	33,53,16,34,47,21,47,39, 2, 5	1,43,42, 3,20,55,50,25	2,28,38,56,54	7,35
20″	33,53,18,18,29,25, 8,34,52,30	1,43,42, 0,52,16,45,56	2,28,39, 4,29	7,35
22″	33,53,20, 2,11,26, 0,51,38,26	1,43,41,58,23,37,33,52	2,28,39,12, 4	7,35
24″	33,53,21,45,53,24,24,29,12,18	1,43,41,55,54,58,14,13	2,28,39,19,39	7,35
26″	33,53,23,29,35,20,19,27,26,31	1,43,41,53,26,18,46,59	2,28,39,27,14	7,35
28″	33,53,25,13,17,13,45,46,13,30	1,43,41,50,57,39,12,10	2,28,39,34,49	7,35
30″	33,53,26,56,59, 4,43,25,25,40	1,43,41,48,28,59,29,46	2,28,39,42,24	7,35
32″	33,53,28,40,40,53,12,24,55,26	1,43,41,46, 0,19,39,47	2,28,39,49,59	7,35
34″	33,53,30,24,22,39,12,44,35,13	1,43,41,43,31,39,42,13	2,28,39,57,34	7,35
36″	33,53,32, 8, 4,22,44,24,17,26	1,43,41,41, 2,59,37, 4	2,28,40, 5, 9	7,35
38″	33,53,33,51,46, 3,47,23,54,30	1,43,41,38,34,19,24,20	2,28,40,12,44	7,35
40″	33,53,35,35,27,42,21,43,18,50	1,43,41,36, 5,39, 4, 1	2,28,40,20,19	7,35
42″	33,53,37,19, 9,18,27,22,22,51	1,43,41,33,36,58,36, 7	2,28,40,27,54	7,35
44″	33,53,39, 2,50,52, 4,20,58,58	1,43,41,31, 8,18, 0,38	2,28,40,35,29	7,35
46″	33,53,40,46,32,23,12,38,59,36	1,43,41,28,39,37,17,34	2,28,40,43, 4	7,35
48″	33,53,42,30,13,51,52,16,17,10	1,43,41,26,10,56,26,55	2,28,40,50,39	7,35
50″	33,53,44,13,55,18, 3,12,44, 5	1,43,41,23,42,15,28,41	2,28,40,58,14	7,35
52″	33,53,45,57,36,41,45,28,12,46	1,43,41,21,13,34,22,52	2,28,41, 5,49	7,35
54″	33,53,47,41,18, 2,59, 2,35,38	1,43,41,18,44,53, 9,28	2,28,41,13,24	7,35
56″	33,53,49,24,59,21,43,55,45, 6	1,43,41,16,16,11,48,29	2,28,41,20,59	7,35
58″	33,53,51, 8,40,38, 0, 7,33,35	1,43,41,13,47,30,19,55	2,28,41,28,34	
60″	33,53,52,52,21,51,47,37,53,30			
exact	33,53,52,52,21,51,47,38, 3,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°24′ 0″	33,53,52,52,21,51,47,38, 3,25			
		1,43,41,11,18,48,44,48		
2″	33,53,54,36, 3, 3, 6,26,48,13		2,28,41,43,40	
		1,43,41, 8,50, 7, 1, 8		7,35
4″	33,53,56,19,44,11,56,33,49,21		2,28,41,51,15	
		1,43,41, 6,21,25, 9,53		7,35
6″	33,53,58, 3,25,18,17,58,59,14		2,28,41,58,50	
		1,43,41, 3,52,43,11, 3		7,35
8″	33,53,59,47, 6,22,10,42,10,17		2,28,42, 6,25	
		1,43,41, 1,24, 1, 4,38		7,35
10″	33,54, 1,30,47,23,34,43,14,55		2,28,42,14, 0	
		1,43,40,58,55,18,50,38		7,35
12″	33,54, 3,14,28,22,30, 2, 5,33		2,28,42,21,35	
		1,43,40,56,26,36,29, 3		7,35
14″	33,54, 4,58, 9,18,56,38,34,36		2,28,42,29,10	
		1,43,40,53,57,53,59,53		7,35
16″	33,54, 6,41,50,12,54,32,34,29		2,28,42,36,45	
		1,43,40,51,29,11,23, 8		7,35
18″	33,54, 8,25,31, 4,23,43,57,37		2,28,42,44,20	
		1,43,40,49, 0,28,38,48		7,35
20″	33,54,10, 9,11,53,24,12,36,25		2,28,42,51,55	
		1,43,40,46,31,45,46,53		7,35
22″	33,54,11,52,52,39,55,58,23,18		2,28,42,59,30	
		1,43,40,44, 3, 2,47,23		7,35
24″	33,54,13,36,33,23,59, 1,10,41		2,28,43, 7, 5	
		1,43,40,41,34,19,40,18		7,35
26″	33,54,15,20,14, 5,33,20,50,59		2,28,43,14,40	
		1,43,40,39, 5,36,25,38		7,35
28″	33,54,17, 3,54,44,38,57,16,37		2,28,43,22,15	
		1,43,40,36,36,53, 3,23		7,35
30″	33,54,18,47,35,21,15,50,20, 0		2,28,43,29,50	
		1,43,40,34, 8, 9,33,33		7,35
32″	33,54,20,31,15,55,23,59,53,33		2,28,43,37,25	
		1,43,40,31,39,25,56, 8		7,35
34″	33,54,22,14,56,27, 3,25,49,41		2,28,43,45, 0	
		1,43,40,29,10,42,11, 8		7,35
36″	33,54,23,58,36,56,14, 8, 0,49		2,28,43,52,35	
		1,43,40,26,41,58,18,33		7,35
38″	33,54,25,42,17,22,56, 6,19,22		2,28,44, 0,10	
		1,43,40,24,13,14,18,23		7,35
40″	33,54,27,25,57,47, 9,20,37,45		2,28,44, 7,45	
		1,43,40,21,44,30,10,38		7,35
42″	33,54,29, 9,38, 8,53,50,48,23		2,28,44,15,20	
		1,43,40,19,15,45,55,18		7,35
44″	33,54,30,53,18,28, 9,36,43,41		2,28,44,22,55	
		1,43,40,16,47, 1,32,23		7,35
46″	33,54,32,36,58,44,56,38,16, 4		2,28,44,30,30	
		1,43,40,14,18,17, 1,53		7,35
48″	33,54,34,20,38,59,14,55,17,57		2,28,44,38, 5	
		1,43,40,11,49,32,23,48		7,35
50″	33,54,36, 4,19,11, 4,27,41,45		2,28,44,45,40	
		1,43,40, 9,20,47,38, 8		7,35
52″	33,54,37,47,59,20,25,15,19,53		2,28,44,53,15	
		1,43,40, 6,52, 2,44,53		7,35
54″	33,54,39,31,39,27,17,18, 4,46		2,28,45, 0,50	
		1,43,40, 4,23,17,44, 3		7,35
56″	33,54,41,15,19,31,40,35,48,49		2,28,45, 8,25	
		1,43,40, 1,54,32,35,38		7,35
58″	33,54,42,58,59,33,35, 8,24,27		2,28,45,16, 0	
		1,43,39,59,25,47,19,38		
60″	33,54,44,42,39,33, 0,55,44, 5			
exact	33,54,44,42,39,33, 0,56, 1,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°25′ 0″	33,54,44,42,39,33, 0,56, 1,14			
		1,43,39,56,57, 1,57,49		
2″	33,54,46,26,19,29,57,57,59, 3		2,28,45,31, 3	
		1,43,39,54,28,16,26,46		7,35
4″	33,54,48, 9,59,24,26,14,25,49		2,28,45,38,38	
		1,43,39,51,59,30,48, 8		7,35
6″	33,54,49,53,39,16,25,45,13,57		2,28,45,46,13	
		1,43,39,49,30,45, 1,55		7,35
8″	33,54,51,37,19, 5,56,30,15,52		2,28,45,53,48	
		1,43,39,47, 1,59, 8, 7		7,35
10″	33,54,53,20,58,52,58,29,23,59		2,28,46, 1,23	
		1,43,39,44,33,13, 6,44		7,35
12″	33,54,55, 4,38,37,31,42,30,43		2,28,46, 8,58	
		1,43,39,42, 4,26,57,46		7,35
14″	33,54,56,48,18,19,36, 9,28,29		2,28,46,16,33	
		1,43,39,39,35,40,41,13		7,35
16″	33,54,58,31,57,59,11,50, 9,42		2,28,46,24, 8	
		1,43,39,37, 6,54,17, 5		7,35
18″	33,55, 0,15,37,36,18,44,26,47		2,28,46,31,43	
		1,43,39,34,38, 7,45,22		7,35
20″	33,55, 1,59,17,10,56,52,12, 9		2,28,46,39,18	
		1,43,39,32, 9,21, 6, 4		7,35
22″	33,55, 3,42,56,43, 6,13,18,13		2,28,46,46,53	
		1,43,39,29,40,34,19,11		7,35
24″	33,55, 5,26,36,12,46,47,37,24		2,28,46,54,28	
		1,43,39,27,11,47,24,43		7,35
26″	33,55, 7,10,15,39,58,35, 2, 7		2,28,47, 2, 3	
		1,43,39,24,43, 0,22,40		7,35
28″	33,55, 8,53,55, 4,41,35,24,47		2,28,47, 9,38	
		1,43,39,22,14,13,13, 2		7,35
30″	33,55,10,37,34,26,55,48,37,49		2,28,47,17,13	
		1,43,39,19,45,25,55,49		7,35
32″	33,55,12,21,13,46,41,14,33,38		2,28,47,24,48	
		1,43,39,17,16,38,31, 1		7,35
34″	33,55,14, 4,53, 3,57,53, 4,39		2,28,47,32,23	
		1,43,39,14,47,50,58,38		7,35
36″	33,55,15,48,32,18,45,44, 3,17		2,28,47,39,58	
		1,43,39,12,19, 3,18,40		7,35
38″	33,55,17,32,11,31, 4,47,21,57		2,28,47,47,33	
		1,43,39, 9,50,15,31, 7		7,35
40″	33,55,19,15,50,40,55, 2,53, 4		2,28,47,55, 8	
		1,43,39, 7,21,27,35,59		7,35
42″	33,55,20,59,29,48,16,30,29, 3		2,28,48, 2,43	
		1,43,39, 4,52,39,33,16		7,35
44″	33,55,22,43, 8,53, 9,10, 2,19		2,28,48,10,18	
		1,43,39, 2,23,51,22,58		7,35
46″	33,55,24,26,47,55,33, 1,25,17		2,28,48,17,53	
		1,43,38,59,55, 3, 5, 5		7,35
48″	33,55,26,10,26,55,28, 4,30,22		2,28,48,25,28	
		1,43,38,57,26,14,39,37		7,35
50″	33,55,27,54, 5,52,54,19, 9,59		2,28,48,33, 3	
		1,43,38,54,57,26, 6,34		7,35
52″	33,55,29,37,44,47,51,45,16,33		2,28,48,40,38	
		1,43,38,52,28,37,25,56		7,35
54″	33,55,31,21,23,40,20,22,42,29		2,28,48,48,13	
		1,43,38,49,59,48,37,43		7,35
56″	33,55,33, 5, 2,30,20,11,20,12		2,28,48,55,48	
		1,43,38,47,30,59,41,55		7,35
58″	33,55,34,48,41,17,51,11, 2, 7		2,28,49, 3,23	
		1,43,38,45, 2,10,38,32		
60″	33,55,36,32,20, 2,53,21,40,39			
exact	33,55,36,32,20, 2,53,22, 2, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°26′ 0″	33,55,36,32,20, 2,53,22, 2, 7			
		1,43,38,42,33,21,29,52		
2″	33,55,38,15,58,45,26,43,31,59		2,28,49,18,23	
		1,43,38,40, 4,32,11,29		7,35
4″	33,55,39,59,37,25,31,15,43,28		2,28,49,25,58	
		1,43,38,37,35,42,45,31		7,35
6″	33,55,41,43,16, 3, 6,58,28,59		2,28,49,33,33	
		1,43,38,35, 6,53,11,58		7,35
8″	33,55,43,26,54,38,13,51,40,57		2,28,49,41, 8	
		1,43,38,32,38, 3,30,50		7,35
10″	33,55,45,10,33,10,51,55,11,47		2,28,49,48,43	
		1,43,38,30, 9,13,42, 7		7,35
12″	33,55,46,54,11,41, 1, 8,53,54		2,28,49,56,18	
		1,43,38,27,40,23,45,49		7,35
14″	33,55,48,37,50, 8,41,32,39,43		2,28,50, 3,53	
		1,43,38,25,11,33,41,56		7,35
16″	33,55,50,21,28,33,53, 6,21,39		2,28,50,11,28	
		1,43,38,22,42,43,30,28		7,35
18″	33,55,52, 5, 6,56,35,49,52, 7		2,28,50,19, 3	
		1,43,38,20,13,53,11,25		7,35
20″	33,55,53,48,45,16,49,43, 3,32		2,28,50,26,38	
		1,43,38,17,45, 2,44,47		7,35
22″	33,55,55,32,23,34,34,45,48,19		2,28,50,34,13	
		1,43,38,15,16,12,10,34		7,35
24″	33,55,57,16, 1,49,50,57,58,53		2,28,50,41,48	
		1,43,38,12,47,21,28,46		7,35
26″	33,55,58,59,40, 2,38,19,27,39		2,28,50,49,23	
		1,43,38,10,18,30,39,23		7,35
28″	33,56, 0,43,18,12,56,50, 7, 2		2,28,50,56,58	
		1,43,38, 7,49,39,42,25		7,35
30″	33,56, 2,26,56,20,46,29,49,27		2,28,51, 4,33	
		1,43,38, 5,20,48,37,52		7,35
32″	33,56, 4,10,34,26, 7,18,27,19		2,28,51,12, 8	
		1,43,38, 2,51,57,25,44		7,35
34″	33,56, 5,54,12,28,59,15,53, 3		2,28,51,19,43	
		1,43,38, 0,23, 6, 6, 1		7,35
36″	33,56, 7,37,50,29,22,21,59, 4		2,28,51,27,18	
		1,43,37,57,54,14,38,43		7,35
38″	33,56, 9,21,28,27,16,36,37,47		2,28,51,34,53	
		1,43,37,55,25,23, 3,50		7,35
40″	33,56,11, 5, 6,22,41,59,41,37		2,28,51,42,28	
		1,43,37,52,56,31,21,22		7,35
42″	33,56,12,48,44,15,38,31, 2,59		2,28,51,50, 3	
		1,43,37,50,27,39,31,19		7,35
44″	33,56,14,32,22, 6, 6,10,34,18		2,28,51,57,38	
		1,43,37,47,58,47,33,41		7,35
46″	33,56,16,15,59,54, 4,58, 7,59		2,28,52, 5,13	
		1,43,37,45,29,55,28,28		7,35
48″	33,56,17,59,37,39,34,53,36,27		2,28,52,12,48	
		1,43,37,43, 1, 3,15,40		7,35
50″	33,56,19,43,15,22,35,56,52, 7		2,28,52,20,23	
		1,43,37,40,32,10,55,17		7,35
52″	33,56,21,26,53, 3, 8, 7,47,24		2,28,52,27,58	
		1,43,37,38, 3,18,27,19		7,35
54″	33,56,23,10,30,41,11,26,14,43		2,28,52,35,33	
		1,43,37,35,34,25,51,46		7,35
56″	33,56,24,54, 8,16,45,52, 6,29		2,28,52,43, 8	
		1,43,37,33, 5,33, 8,38		7,35
58″	33,56,26,37,45,49,51,25,15, 7		2,28,52,50,43	
		1,43,37,30,36,40,17,55		
60″	33,56,28,21,23,20,28, 5,33, 2			
exact	33,56,28,21,23,20,28, 5,57,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°27′ 0″	33,56,28,21,23,20,28, 5,57,39			
		1,43,37,28, 7,47,22,22		
2″	33,56,30, 5, 0,48,35,53,20, 1		2,28,53, 5,41	
		1,43,37,25,38,54,16,41		7,35
4″	33,56,31,48,38,14,14,47,36,42		2,28,53,13,16	
		1,43,37,23,10, 1, 3,25		7,35
6″	33,56,33,32,15,37,24,48,40, 7		2,28,53,20,51	
		1,43,37,20,41, 7,42,34		7,35
8″	33,56,35,15,52,58, 5,56,22,41		2,28,53,28,26	
		1,43,37,18,12,14,14, 8		7,35
10″	33,56,36,59,30,16,18,10,36,49		2,28,53,36, 1	
		1,43,37,15,43,20,38, 7		7,35
12″	33,56,38,43, 7,32, 1,31,14,56		2,28,53,43,36	
		1,43,37,13,14,26,54,31		7,35
14″	33,56,40,26,44,45,15,58, 9,27		2,28,53,51,11	
		1,43,37,10,45,33, 3,20		7,35
16″	33,56,42,10,21,56, 1,31,12,47		2,28,53,58,46	
		1,43,37, 8,16,39, 4,34		7,35
18″	33,56,43,53,59, 4,18,10,17,21		2,28,54, 6,21	
		1,43,37, 5,47,44,58,13		7,35
20″	33,56,45,37,36,10, 5,55,15,34		2,28,54,13,56	
		1,43,37, 3,18,50,44,17		7,35
22″	33,56,47,21,13,13,24,45,59,51		2,28,54,21,31	
		1,43,37, 0,49,56,22,46		7,35
24″	33,56,49, 4,50,14,14,42,22,37		2,28,54,29, 6	
		1,43,36,58,21, 1,53,40		7,35
26″	33,56,50,48,27,12,35,44,16,17		2,28,54,36,41	
		1,43,36,55,52, 7,16,59		7,35
28″	33,56,52,32, 4, 8,27,51,33,16		2,28,54,44,16	
		1,43,36,53,23,12,32,43		7,35
30″	33,56,54,15,41, 1,51, 4, 5,59		2,28,54,51,51	
		1,43,36,50,54,17,40,52		7,35
32″	33,56,55,59,17,52,45,21,46,51		2,28,54,59,26	
		1,43,36,48,25,22,41,26		7,35
34″	33,56,57,42,54,41,10,44,28,17		2,28,55, 7, 1	
		1,43,36,45,56,27,34,25		7,35
36″	33,56,59,26,31,27, 7,12, 2,42		2,28,55,14,36	
		1,43,36,43,27,32,19,49		7,35
38″	33,57, 1,10, 8,10,34,44,22,31		2,28,55,22,11	
		1,43,36,40,58,36,57,38		7,35
40″	33,57, 2,53,44,51,33,21,20, 9		2,28,55,29,46	
		1,43,36,38,29,41,27,52		7,35
42″	33,57, 4,37,21,30, 3, 2,48, 1		2,28,55,37,21	
		1,43,36,36, 0,45,50,31		7,35
44″	33,57, 6,20,58, 6, 3,48,38,32		2,28,55,44,56	
		1,43,36,33,31,50, 5,35		7,35
46″	33,57, 8, 4,34,39,35,38,44, 7		2,28,55,52,31	
		1,43,36,31, 2,54,13, 4		7,35
48″	33,57, 9,48,11,10,38,32,57,11		2,28,56, 0, 6	
		1,43,36,28,33,58,12,58		7,35
50″	33,57,11,31,47,39,12,31,10, 9		2,28,56, 7,41	
		1,43,36,26, 5, 2, 5,17		7,35
52″	33,57,13,15,24, 5,17,33,15,26		2,28,56,15,16	
		1,43,36,23,36, 5,50, 1		7,35
54″	33,57,14,59, 0,28,53,39, 5,27		2,28,56,22,51	
		1,43,36,21, 7, 9,27,10		7,35
56″	33,57,16,42,36,50, 0,48,32,37		2,28,56,30,26	
		1,43,36,18,38,12,56,44		7,35
58″	33,57,18,26,13, 8,39, 1,29,21		2,28,56,38, 1	
		1,43,36,16, 9,16,18,43		
60″	33,57,20, 9,49,24,48,17,48, 4			
exact	33,57,20, 9,49,24,48,18,20,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°28′ 0″	33,57,20, 9,49,24,48,18,20,13			
		1,43,36,13,40,19,36,38		
2″	33,57,21,53,25,38,28,37,56,51		2,28,56,52,56	
		1,43,36,11,11,22,43,42		7,34
4″	33,57,23,37, 1,49,40, 0,40,33		2,28,57, 0,30	
		1,43,36, 8,42,25,43,12		7,34
6″	33,57,25,20,37,58,22,26,23,45		2,28,57, 8, 4	
		1,43,36, 6,13,28,35, 8		7,34
8″	33,57,27, 4,14, 4,35,54,58,53		2,28,57,15,38	
		1,43,36, 3,44,31,19,30		7,34
10″	33,57,28,47,50, 8,20,26,18,23		2,28,57,23,12	
		1,43,36, 1,15,33,56,18		7,34
12″	33,57,30,31,26, 9,36, 0,14,41		2,28,57,30,46	
		1,43,35,58,46,36,25,32		7,34
14″	33,57,32,15, 2, 8,22,36,40,13		2,28,57,38,20	
		1,43,35,56,17,38,47,12		7,34
16″	33,57,33,58,38, 4,40,15,27,25		2,28,57,45,54	
		1,43,35,53,48,41, 1,18		7,34
18″	33,57,35,42,13,58,28,56,28,43		2,28,57,53,28	
		1,43,35,51,19,43, 7,50		7,34
20″	33,57,37,25,49,49,48,39,36,33		2,28,58, 1, 2	
		1,43,35,48,50,45, 6,48		7,34
22″	33,57,39, 9,25,38,39,24,43,21		2,28,58, 8,36	
		1,43,35,46,21,46,58,12		7,34
24″	33,57,40,53, 1,25, 1,11,41,33		2,28,58,16,10	
		1,43,35,43,52,48,42, 2		7,34
26″	33,57,42,36,37, 8,54, 0,23,35		2,28,58,23,44	
		1,43,35,41,23,50,18,18		7,34
28″	33,57,44,20,12,50,17,50,41,53		2,28,58,31,18	
		1,43,35,38,54,51,47, 0		7,34
30″	33,57,46, 3,48,29,12,42,28,53		2,28,58,38,52	
		1,43,35,36,25,53, 8, 8		7,34
32″	33,57,47,47,24, 5,38,35,37, 1		2,28,58,46,26	
		1,43,35,33,56,54,21,42		7,34
34″	33,57,49,30,59,39,35,29,58,43		2,28,58,54, 0	
		1,43,35,31,27,55,27,42		7,34
36″	33,57,51,14,35,11, 3,25,26,25		2,28,59, 1,34	
		1,43,35,28,58,56,26, 8		7,34
38″	33,57,52,58,10,40, 2,21,52,33		2,28,59, 9, 8	
		1,43,35,26,29,57,17, 0		7,34
40″	33,57,54,41,46, 6,32,19, 9,33		2,28,59,16,42	
		1,43,35,24, 0,58, 0,18		7,34
42″	33,57,56,25,21,30,33,17, 9,51		2,28,59,24,16	
		1,43,35,21,31,58,36, 2		7,34
44″	33,57,58, 8,56,52, 5,15,45,53		2,28,59,31,50	
		1,43,35,19, 2,59, 4,12		7,34
46″	33,57,59,52,32,11, 8,14,50, 5		2,28,59,39,24	
		1,43,35,16,33,59,24,48		7,34
48″	33,58, 1,36, 7,27,42,14,14,53		2,28,59,46,58	
		1,43,35,14, 4,59,37,50		7,34
50″	33,58, 3,19,42,41,47,13,52,43		2,28,59,54,32	
		1,43,35,11,35,59,43,18		7,34
52″	33,58, 5, 3,17,53,23,13,36, 1		2,29, 0, 2, 6	
		1,43,35, 9, 6,59,41,12		7,34
54″	33,58, 6,46,53, 2,30,13,17,13		2,29, 0, 9,40	
		1,43,35, 6,37,59,31,32		7,34
56″	33,58, 8,30,28, 9, 8,12,48,45		2,29, 0,17,14	
		1,43,35, 4, 8,59,14,18		7,34
58″	33,58,10,14, 3,13,17,12, 3, 3		2,29, 0,24,48	
		1,43,35, 1,39,58,49,30		
60″	33,58,11,57,38,14,57,10,52,33			
exact	33,58,11,57,38,14,57,10,23, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°29′ 0″	33,58,11,57,38,14,57,10,23, 2			
		1,43,34,59,10,58,14, 2		
2″	33,58,13,41,13,14, 8, 8,37, 4		2,29, 0,40, 8	
		1,43,34,56,41,57,33,54		7,34
4″	33,58,15,24,48,10,50, 6,10,58		2,29, 0,47,42	
		1,43,34,54,12,56,46,12		7,34
6″	33,58,17, 8,23, 5, 3, 2,57,10		2,29, 0,55,16	
		1,43,34,51,43,55,50,56		7,34
8″	33,58,18,51,57,56,46,58,48, 6		2,29, 1, 2,50	
		1,43,34,49,14,54,48, 6		7,34
10″	33,58,20,35,32,46, 1,53,36,12		2,29, 1,10,24	
		1,43,34,46,45,53,37,42		7,34
12″	33,58,22,19, 7,32,47,47,13,54		2,29, 1,17,58	
		1,43,34,44,16,52,19,44		7,34
14″	33,58,24, 2,42,17, 4,39,33,38		2,29, 1,25,32	
		1,43,34,41,47,50,54,12		7,34
16″	33,58,25,46,16,58,52,30,27,50		2,29, 1,33, 6	
		1,43,34,39,18,49,21, 6		7,34
18″	33,58,27,29,51,38,11,19,48,56		2,29, 1,40,40	
		1,43,34,36,49,47,40,26		7,34
20″	33,58,29,13,26,15, 1, 7,29,22		2,29, 1,48,14	
		1,43,34,34,20,45,52,12		7,34
22″	33,58,30,57, 0,49,21,53,21,34		2,29, 1,55,48	
		1,43,34,31,51,43,56,24		7,34
24″	33,58,32,40,35,21,13,37,17,58		2,29, 2, 3,22	
		1,43,34,29,22,41,53, 2		7,34
26″	33,58,34,24, 9,50,36,19,11, 0		2,29, 2,10,56	
		1,43,34,26,53,39,42, 6		7,34
28″	33,58,36, 7,44,17,29,58,53, 6		2,29, 2,18,30	
		1,43,34,24,24,37,23,36		7,34
30″	33,58,37,51,18,41,54,36,16,42		2,29, 2,26, 4	
		1,43,34,21,55,34,57,32		7,34
32″	33,58,39,34,53, 3,50,11,14,14		2,29, 2,33,38	
		1,43,34,19,26,32,23,54		7,34
34″	33,58,41,18,27,23,16,43,38, 8		2,29, 2,41,12	
		1,43,34,16,57,29,42,42		7,34
36″	33,58,43, 2, 1,40,14,13,20,50		2,29, 2,48,46	
		1,43,34,14,28,26,53,56		7,34
38″	33,58,44,45,35,54,42,40,14,46		2,29, 2,56,20	
		1,43,34,11,59,23,57,36		7,34
40″	33,58,46,29,10, 6,42, 4,12,22		2,29, 3, 3,54	
		1,43,34, 9,30,20,53,42		7,34
42″	33,58,48,12,44,16,12,25, 6, 4		2,29, 3,11,28	
		1,43,34, 7, 1,17,42,14		7,34
44″	33,58,49,56,18,23,13,42,48,18		2,29, 3,19, 2	
		1,43,34, 4,32,14,23,12		7,34
46″	33,58,51,39,52,27,45,57,11,30		2,29, 3,26,36	
		1,43,34, 2, 3,10,56,36		7,34
48″	33,58,53,23,26,29,49, 8, 8, 6		2,29, 3,34,10	
		1,43,33,59,34, 7,22,26		7,34
50″	33,58,55, 7, 0,29,23,15,30,32		2,29, 3,41,44	
		1,43,33,57, 5, 3,40,42		7,34
52″	33,58,56,50,34,26,28,19,11,14		2,29, 3,49,18	
		1,43,33,54,35,59,51,24		7,34
54″	33,58,58,34, 8,21, 4,19, 2,38		2,29, 3,56,52	
		1,43,33,52, 6,55,54,32		7,34
56″	33,59, 0,17,42,13,11,14,57,10		2,29, 4, 4,26	
		1,43,33,49,37,51,50, 6		7,34
58″	33,59, 2, 1,16, 2,49, 6,47,16		2,29, 4,12, 0	
		1,43,33,47, 8,47,38, 6		
60″	33,59, 3,44,49,49,57,54,25,22			
exact	33,59, 3,44,49,49,57,54, 0, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°30′ 0″	33,59, 3,44,49,49,57,54, 0, 8			
		1,43,33,44,39,43,15,57		
2″	33,59, 5,28,23,34,37,37,16, 5		2,29, 4,27,18	
		1,43,33,42,10,38,48,39		7,34
4″	33,59, 7,11,57,16,48,16, 4,44		2,29, 4,34,52	
		1,43,33,39,41,34,13,47		7,34
6″	33,59, 8,55,30,56,29,50,18,31		2,29, 4,42,26	
		1,43,33,37,12,29,31,21		7,34
8″	33,59,10,39, 4,33,42,19,49,52		2,29, 4,50, 0	
		1,43,33,34,43,24,41,21		7,34
10″	33,59,12,22,38, 8,25,44,31,13		2,29, 4,57,34	
		1,43,33,32,14,19,43,47		7,34
12″	33,59,14, 6,11,40,40, 4,15, 0		2,29, 5, 5, 8	
		1,43,33,29,45,14,38,39		7,34
14″	33,59,15,49,45,10,25,18,53,39		2,29, 5,12,42	
		1,43,33,27,16, 9,25,57		7,34
16″	33,59,17,33,18,37,41,28,19,36		2,29, 5,20,16	
		1,43,33,24,47, 4, 5,41		7,34
18″	33,59,19,16,52, 2,28,32,25,17		2,29, 5,27,50	
		1,43,33,22,17,58,37,51		7,34
20″	33,59,21, 0,25,24,46,31, 3, 8		2,29, 5,35,24	
		1,43,33,19,48,53, 2,27		7,34
22″	33,59,22,43,58,44,35,24, 5,35		2,29, 5,42,58	
		1,43,33,17,19,47,19,29		7,34
24″	33,59,24,27,32, 1,55,11,25, 4		2,29, 5,50,32	
		1,43,33,14,50,41,28,57		7,34
26″	33,59,26,11, 5,16,45,52,54, 1		2,29, 5,58, 6	
		1,43,33,12,21,35,30,51		7,34
28″	33,59,27,54,38,29, 7,28,24,52		2,29, 6, 5,40	
		1,43,33, 9,52,29,25,11		7,34
30″	33,59,29,38,11,38,59,57,50, 3		2,29, 6,13,14	
		1,43,33, 7,23,23,11,57		7,34
32″	33,59,31,21,44,46,23,21, 2, 0		2,29, 6,20,48	
		1,43,33, 4,54,16,51, 9		7,34
34″	33,59,33, 5,17,51,17,37,53, 9		2,29, 6,28,22	
		1,43,33, 2,25,10,22,47		7,34
36″	33,59,34,48,50,53,42,48,15,56		2,29, 6,35,56	
		1,43,32,59,56, 3,46,51		7,34
38″	33,59,36,32,23,53,38,52, 2,47		2,29, 6,43,30	
		1,43,32,57,26,57, 3,21		7,34
40″	33,59,38,15,56,51, 5,49, 6, 8		2,29, 6,51, 4	
		1,43,32,54,57,50,12,17		7,34
42″	33,59,39,59,29,46, 3,39,18,25		2,29, 6,58,38	
		1,43,32,52,28,43,13,39		7,34
44″	33,59,41,43, 2,38,32,22,32, 4		2,29, 7, 6,12	
		1,43,32,49,59,36, 7,27		7,34
46″	33,59,43,26,35,28,31,58,39,31		2,29, 7,13,46	
		1,43,32,47,30,28,53,41		7,34
48″	33,59,45,10, 8,16, 2,27,33,12		2,29, 7,21,20	
		1,43,32,45, 1,21,32,21		7,34
50″	33,59,46,53,41, 1, 3,49, 5,33		2,29, 7,28,54	
		1,43,32,42,32,14, 3,27		7,34
52″	33,59,48,37,13,43,36, 3, 9, 0		2,29, 7,36,28	
		1,43,32,40, 3, 6,26,59		7,34
54″	33,59,50,20,46,23,39, 9,35,59		2,29, 7,44, 2	
		1,43,32,37,33,58,42,57		7,34
56″	33,59,52, 4,19, 1,13, 8,18,56		2,29, 7,51,36	
		1,43,32,35, 4,50,51,21		7,34
58″	33,59,53,47,51,36,17,59,10,17		2,29, 7,59,10	
		1,43,32,32,35,42,52,11		
60″	33,59,55,31,24, 8,53,42, 2,28			
exact	33,59,55,31,24, 8,53,41,46,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°31′ 0″	33,59,55,31,24, 8,53,41,46,24			
		1,43,32,30, 6,34,43,44		
2″	33,59,57,14,56,39, 0,16,30, 8		2,29, 8,14,25	
		1,43,32,27,37,26,29,19		7,34
4″	33,59,58,58,29, 6,37,42,59,27		2,29, 8,21,59	
		1,43,32,25, 8,18, 7,20		7,34
6″	34, 0, 0,42, 1,31,46, 1, 6,47		2,29, 8,29,33	
		1,43,32,22,39, 9,37,47		7,34
8″	34, 0, 2,25,33,54,25,10,44,34		2,29, 8,37, 7	
		1,43,32,20,10, 1, 0,40		7,34
10″	34, 0, 4, 9, 6,14,35,11,45,14		2,29, 8,44,41	
		1,43,32,17,40,52,15,59		7,34
12″	34, 0, 5,52,38,32,16, 4, 1,13		2,29, 8,52,15	
		1,43,32,15,11,43,23,44		7,34
14″	34, 0, 7,36,10,47,27,47,24,57		2,29, 8,59,49	
		1,43,32,12,42,34,23,55		7,34
16″	34, 0, 9,19,43, 0,10,21,48,52		2,29, 9, 7,23	
		1,43,32,10,13,25,16,32		7,34
18″	34, 0,11, 3,15,10,23,47, 5,24		2,29, 9,14,57	
		1,43,32, 7,44,16, 1,35		7,34
20″	34, 0,12,46,47,18, 8, 3, 6,59		2,29, 9,22,31	
		1,43,32, 5,15, 6,39, 4		7,34
22″	34, 0,14,30,19,23,23, 9,46, 3		2,29, 9,30, 5	
		1,43,32, 2,45,57, 8,59		7,34
24″	34, 0,16,13,51,26, 9, 6,55, 2		2,29, 9,37,39	
		1,43,32, 0,16,47,31,20		7,34
26″	34, 0,17,57,23,26,25,54,26,22		2,29, 9,45,13	
		1,43,31,57,47,37,46, 7		7,34
28″	34, 0,19,40,55,24,13,32,12,29		2,29, 9,52,47	
		1,43,31,55,18,27,53,20		7,34
30″	34, 0,21,24,27,19,32, 0, 5,49		2,29,10, 0,21	
		1,43,31,52,49,17,52,59		7,34
32″	34, 0,23, 7,59,12,21,17,58,48		2,29,10, 7,55	
		1,43,31,50,20, 7,45, 4		7,34
34″	34, 0,24,51,31, 2,41,25,43,52		2,29,10,15,29	
		1,43,31,47,50,57,29,35		7,34
36″	34, 0,26,35, 2,50,32,23,13,27		2,29,10,23, 3	
		1,43,31,45,21,47, 6,32		7,34
38″	34, 0,28,18,34,35,54,10,19,59		2,29,10,30,37	
		1,43,31,42,52,36,35,55		7,34
40″	34, 0,30, 2, 6,18,46,46,55,54		2,29,10,38,11	
		1,43,31,40,23,25,57,44		7,34
42″	34, 0,31,45,37,59,10,12,53,38		2,29,10,45,45	
		1,43,31,37,54,15,11,59		7,34
44″	34, 0,33,29, 9,37, 4,28, 5,37		2,29,10,53,19	
		1,43,31,35,25, 4,18,40		7,34
46″	34, 0,35,12,41,12,29,32,24,17		2,29,11, 0,53	
		1,43,31,32,55,53,17,47		7,34
48″	34, 0,36,56,12,45,25,25,42, 4		2,29,11, 8,27	
		1,43,31,30,26,42, 9,20		7,34
50″	34, 0,38,39,44,15,52, 7,51,24		2,29,11,16, 1	
		1,43,31,27,57,30,53,19		7,34
52″	34, 0,40,23,15,43,49,38,44,43		2,29,11,23,35	
		1,43,31,25,28,19,29,44		7,34
54″	34, 0,42, 6,47, 9,17,58,14,27		2,29,11,31, 9	
		1,43,31,22,59, 7,58,35		7,34
56″	34, 0,43,50,18,32,17, 6,13, 2		2,29,11,38,43	
		1,43,31,20,29,56,19,52		7,34
58″	34, 0,45,33,49,52,47, 2,32,54		2,29,11,46,17	
		1,43,31,18, 0,44,33,35		
60″	34, 0,47,17,21,10,47,47, 6,29			
exact	34, 0,47,17,21,10,47,46,57,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°32′ 0″	34, 0,47,17,21,10,47,46,57,37			
		1,43,31,15,31,32,38,45		
2″	34, 0,49, 0,52,26,19,19,36,22		2,29,12, 1,29	
		1,43,31,13, 2,20,37,16		7,34
4″	34, 0,50,44,23,39,21,40,13,38		2,29,12, 9, 3	
		1,43,31,10,33, 8,28,13		7,34
6″	34, 0,52,27,54,49,54,48,41,51		2,29,12,16,37	
		1,43,31, 8, 3,56,11,36		7,34
8″	34, 0,54,11,25,57,58,44,53,27		2,29,12,24,11	
		1,43,31, 5,34,43,47,25		7,34
10″	34, 0,55,54,57, 3,33,28,40,52		2,29,12,31,45	
		1,43,31, 3, 5,31,15,40		7,34
12″	34, 0,57,38,28, 6,38,59,56,32		2,29,12,39,19	
		1,43,31, 0,36,18,36,21		7,34
14″	34, 0,59,21,59, 7,15,18,32,53		2,29,12,46,53	
		1,43,30,58, 7, 5,49,28		7,34
16″	34, 1, 1, 5,30, 5,22,24,22,21		2,29,12,54,27	
		1,43,30,55,37,52,55, 1		7,34
18″	34, 1, 2,49, 1, 1, 0,17,17,22		2,29,13, 2, 1	
		1,43,30,53, 8,39,53, 0		7,34
20″	34, 1, 4,32,31,54, 8,57,10,22		2,29,13, 9,35	
		1,43,30,50,39,26,43,25		7,34
22″	34, 1, 6,16, 2,44,48,23,53,47		2,29,13,17, 9	
		1,43,30,48,10,13,26,16		7,34
24″	34, 1, 7,59,33,32,58,37,20, 3		2,29,13,24,43	
		1,43,30,45,41, 0, 1,33		7,34
26″	34, 1, 9,43, 4,18,39,37,21,36		2,29,13,32,17	
		1,43,30,43,11,46,29,16		7,34
28″	34, 1,11,26,35, 1,51,23,50,52		2,29,13,39,51	
		1,43,30,40,42,32,49,25		7,34
30″	34, 1,13,10, 5,42,33,56,40,17		2,29,13,47,25	
		1,43,30,38,13,19, 2, 0		7,34
32″	34, 1,14,53,36,20,47,15,42,17		2,29,13,54,59	
		1,43,30,35,44, 5, 7, 1		7,34
34″	34, 1,16,37, 6,56,31,20,49,18		2,29,14, 2,33	
		1,43,30,33,14,51, 4,28		7,34
36″	34, 1,18,20,37,29,46,11,53,46		2,29,14,10, 7	
		1,43,30,30,45,36,54,21		7,34
38″	34, 1,20, 4, 8, 0,31,48,48, 7		2,29,14,17,41	
		1,43,30,28,16,22,36,40		7,34
40″	34, 1,21,47,38,28,48,11,24,47		2,29,14,25,15	
		1,43,30,25,47, 8,11,25		7,34
42″	34, 1,23,31, 8,54,35,19,36,12		2,29,14,32,49	
		1,43,30,23,17,53,38,36		7,34
44″	34, 1,25,14,39,17,53,13,14,48		2,29,14,40,23	
		1,43,30,20,48,38,58,13		7,34
46″	34, 1,26,58, 9,38,41,52,13, 1		2,29,14,47,57	
		1,43,30,18,19,24,10,16		7,34
48″	34, 1,28,41,39,57, 1,16,23,17		2,29,14,55,31	
		1,43,30,15,50, 9,14,45		7,34
50″	34, 1,30,25,10,12,51,25,38, 2		2,29,15, 3, 5	
		1,43,30,13,20,54,11,40		7,34
52″	34, 1,32, 8,40,26,12,19,49,42		2,29,15,10,39	
		1,43,30,10,51,39, 1, 1		7,34
54″	34, 1,33,52,10,37, 3,58,50,43		2,29,15,18,13	
		1,43,30, 8,22,23,42,48		7,34
56″	34, 1,35,35,40,45,26,22,33,31		2,29,15,25,47	
		1,43,30, 5,53, 8,17, 1		7,34
58″	34, 1,37,19,10,51,19,30,50,32		2,29,15,33,21	
		1,43,30, 3,23,52,43,40		
60″	34, 1,39, 2,40,54,43,23,34,12			
exact	34, 1,39, 2,40,54,43,23,30,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°33′ 0″	34, 1,39, 2,40,54,43,23,30,25	1,43,30, 0,54,37, 2,22		
2″	34, 1,40,46,10,55,38, 0,32,47	1,43,29,58,25,21,13,52	2,29,15,48,30	7,34
4″	34, 1,42,29,40,54, 3,21,46,39	1,43,29,55,56, 5,17,48	2,29,15,56, 4	7,34
6″	34, 1,44,13,10,49,59,27, 4,27	1,43,29,53,26,49,14,10	2,29,16, 3,38	7,34
8″	34, 1,45,56,40,43,26,16,18,37	1,43,29,50,57,33, 2,58	2,29,16,11,12	7,34
10″	34, 1,47,40,10,34,23,49,21,35	1,43,29,48,28,16,44,12	2,29,16,18,46	7,34
12″	34, 1,49,23,40,22,52, 6, 5,47	1,43,29,45,59, 0,17,52	2,29,16,26,20	7,34
14″	34, 1,51, 7,10, 8,51, 6,23,39	1,43,29,43,29,43,43,58	2,29,16,33,54	7,34
16″	34, 1,52,50,39,52,20,50, 7,37	1,43,29,41, 0,27, 2,30	2,29,16,41,28	7,34
18″	34, 1,54,34, 9,33,21,17,10, 7	1,43,29,38,31,10,13,28	2,29,16,49, 2	7,34
20″	34, 1,56,17,39,11,52,27,23,35	1,43,29,36, 1,53,16,52	2,29,16,56,36	7,34
22″	34, 1,58, 1, 8,47,54,20,40,27	1,43,29,33,32,36,12,42	2,29,17, 4,10	7,34
24″	34, 1,59,44,38,21,26,56,53, 9	1,43,29,31, 3,19, 0,58	2,29,17,11,44	7,34
26″	34, 2, 1,28, 7,52,30,15,54, 7	1,43,29,28,34, 1,41,40	2,29,17,19,18	7,34
28″	34, 2, 3,11,37,21, 4,17,35,47	1,43,29,26, 4,44,14,48	2,29,17,26,52	7,34
30″	34, 2, 4,55, 6,47, 9, 1,50,35	1,43,29,23,35,26,40,22	2,29,17,34,26	7,34
32″	34, 2, 6,38,36,10,44,28,30,57	1,43,29,21, 6, 8,58,22	2,29,17,42, 0	7,34
34″	34, 2, 8,22, 5,31,50,37,29,19	1,43,29,18,36,51, 8,48	2,29,17,49,34	7,34
36″	34, 2,10, 5,34,50,27,28,38, 7	1,43,29,16, 7,33,11,40	2,29,17,57, 8	7,34
38″	34, 2,11,49, 4, 6,35, 1,49,47	1,43,29,13,38,15, 6,58	2,29,18, 4,42	7,34
40″	34, 2,13,32,33,20,13,16,56,45	1,43,29,11, 8,56,54,42	2,29,18,12,16	7,34
42″	34, 2,15,16, 2,31,22,13,51,27	1,43,29, 8,39,38,34,52	2,29,18,19,50	7,34
44″	34, 2,16,59,31,40, 1,52,26,19	1,43,29, 6,10,20, 7,28	2,29,18,27,24	7,34
46″	34, 2,18,43, 0,46,12,12,33,47	1,43,29, 3,41, 1,32,30	2,29,18,34,58	7,34
48″	34, 2,20,26,29,49,53,14, 6,17	1,43,29, 1,11,42,49,58	2,29,18,42,32	7,34
50″	34, 2,22, 9,58,51, 4,56,56,15	1,43,28,58,42,23,59,52	2,29,18,50, 6	7,34
52″	34, 2,23,53,27,49,47,20,56, 7	1,43,28,56,13, 5, 2,12	2,29,18,57,40	7,34
54″	34, 2,25,36,56,46, 0,25,58,19	1,43,28,53,43,45,56,58	2,29,19, 5,14	7,34
56″	34, 2,27,20,25,39,44,11,55,17	1,43,28,51,14,26,44,10	2,29,19,12,48	7,34
58″	34, 2,29, 3,54,30,58,38,39,27	1,43,28,48,45, 7,23,48	2,29,19,20,22	
60″	34, 2,30,47,23,19,43,46, 3,15			
exact	34, 2,30,47,23,19,43,46, 2,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°34′ 0″	34, 2,30,47,23,19,43,46, 2,21	1,43,28,46,15,47,55,55		
2″	34, 2,32,30,52, 5,59,33,58,16	1,43,28,43,46,28,20,26	2,29,19,35,29	
4″	34, 2,34,14,20,49,46, 2,18,42	1,43,28,41,17, 8,37,23	2,29,19,43, 3	7,34
6″	34, 2,35,57,49,31, 3,10,56, 5	1,43,28,38,47,48,46,46	2,29,19,50,37	7,34
8″	34, 2,37,41,18, 9,50,59,42,51	1,43,28,36,18,28,48,35	2,29,19,58,11	7,34
10″	34, 2,39,24,46,46, 9,28,31,26	1,43,28,33,49, 8,42,50	2,29,20, 5,45	7,34
12″	34, 2,41, 8,15,19,58,37,14,16	1,43,28,31,19,48,29,31	2,29,20,13,19	7,34
14″	34, 2,42,51,43,51,18,25,43,47	1,43,28,28,50,28, 8,38	2,29,20,20,53	7,34
16″	34, 2,44,35,12,20, 8,53,52,25	1,43,28,26,21, 7,40,11	2,29,20,28,27	7,34
18″	34, 2,46,18,40,46,30, 1,32,36	1,43,28,23,51,47, 4,10	2,29,20,36, 1	7,34
20″	34, 2,48, 2, 9,10,21,48,36,46	1,43,28,21,22,26,20,35	2,29,20,43,35	7,34
22″	34, 2,49,45,37,31,44,14,57,21	1,43,28,18,53, 5,29,26	2,29,20,51, 9	7,34
24″	34, 2,51,29, 5,50,37,20,26,47	1,43,28,16,23,44,30,43	2,29,20,58,43	7,34
26″	34, 2,53,12,34, 7, 1, 4,57,30	1,43,28,13,54,23,24,26	2,29,21, 6,17	7,34
28″	34, 2,54,56, 2,20,55,28,21,56	1,43,28,11,25, 2,10,35	2,29,21,13,51	7,34
30″	34, 2,56,39,30,32,20,30,32,31	1,43,28, 8,55,40,49,10	2,29,21,21,25	7,34
32″	34, 2,58,22,58,41,16,11,21,41	1,43,28, 6,26,19,20,11	2,29,21,28,59	7,34
34″	34, 3, 0, 6,26,47,42,30,41,52	1,43,28, 3,56,57,43,38	2,29,21,36,33	7,34
36″	34, 3, 1,49,54,51,39,28,25,30	1,43,28, 1,27,35,59,31	2,29,21,44, 7	7,34
38″	34, 3, 3,33,22,53, 7, 4,25, 1	1,43,27,58,58,14, 7,50	2,29,21,51,41	7,34
40″	34, 3, 5,16,50,52, 5,18,32,51	1,43,27,56,28,52, 8,35	2,29,21,59,15	7,34
42″	34, 3, 7, 0,18,48,34,10,41,26	1,43,27,53,59,30, 1,46	2,29,22, 6,49	7,34
44″	34, 3, 8,43,46,42,33,40,43,12	1,43,27,51,30, 7,47,23	2,29,22,14,23	7,34
46″	34, 3,10,27,14,34, 3,48,30,35	1,43,27,49, 0,45,25,26	2,29,22,21,57	7,34
48″	34, 3,12,10,42,23, 4,33,56, 1	1,43,27,46,31,22,55,55	2,29,22,29,31	7,34
50″	34, 3,13,54,10, 9,35,56,51,56	1,43,27,44, 2, 0,18,50	2,29,22,37, 5	7,34
52″	34, 3,15,37,37,53,37,57,10,46	1,43,27,41,32,37,34,11	2,29,22,44,39	7,34
54″	34, 3,17,21, 5,35,10,34,44,57	1,43,27,39, 3,14,41,58	2,29,22,52,13	7,34
56″	34, 3,19, 4,33,14,13,49,26,55	1,43,27,36,33,51,42,11	2,29,22,59,47	7,34
58″	34, 3,20,48, 0,50,47,41, 9, 6	1,43,27,34, 4,28,34,50	2,29,23, 7,21	
60″	34, 3,22,31,28,24,52, 9,43,56			
exact	34, 3,22,31,28,24,52, 9,51,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°35′ 0″	34, 3,22,31,28,24,52, 9,51,54	1,43,27,31,35, 5,20,48		
2″	34, 3,24,14,55,56,27,15,12,42	1,43,27,29, 5,41,58,23	2,29,23,22,25	7,34
4″	34, 3,25,58,23,25,32,57,11, 5	1,43,27,26,36,18,28,24	2,29,23,29,59	7,34
6″	34, 3,27,41,50,52, 9,15,39,29	1,43,27,24, 6,54,50,51	2,29,23,37,33	7,34
8″	34, 3,29,25,18,16,16,10,30,20	1,43,27,21,37,31, 5,44	2,29,23,45, 7	7,34
10″	34, 3,31, 8,45,37,53,41,36, 4	1,43,27,19, 8, 7,13, 3	2,29,23,52,41	7,34
12″	34, 3,32,52,12,57, 1,48,49, 7	1,43,27,16,38,43,12,48	2,29,24, 0,15	7,34
14″	34, 3,34,35,40,13,40,32, 1,55	1,43,27,14, 9,19, 4,59	2,29,24, 7,49	7,34
16″	34, 3,36,19, 7,27,49,51, 6,54	1,43,27,11,39,54,49,36	2,29,24,15,23	7,34
18″	34, 3,38, 2,34,39,29,45,56,30	1,43,27, 9,10,30,26,39	2,29,24,22,57	7,34
20″	34, 3,39,46, 1,48,40,16,23, 9	1,43,27, 6,41, 5,56, 8	2,29,24,30,31	7,34
22″	34, 3,41,29,28,55,21,22,19,17	1,43,27, 4,11,41,18, 3	2,29,24,38, 5	7,34
24″	34, 3,43,12,55,59,33, 3,37,20	1,43,27, 1,42,16,32,24	2,29,24,45,39	7,34
26″	34, 3,44,56,23, 1,15,20, 9,44	1,43,26,59,12,51,39,11	2,29,24,53,13	7,34
28″	34, 3,46,39,50, 0,28,11,48,55	1,43,26,56,43,26,38,24	2,29,25, 0,47	7,34
30″	34, 3,48,23,16,57,11,38,27,19	1,43,26,54,14, 1,30, 3	2,29,25, 8,21	7,34
32″	34, 3,50, 6,43,51,25,39,57,22	1,43,26,51,44,36,14, 8	2,29,25,15,55	7,34
34″	34, 3,51,50,10,43,10,16,11,30	1,43,26,49,15,10,50,39	2,29,25,23,29	7,34
36″	34, 3,53,33,37,32,25,27, 2, 9	1,43,26,46,45,45,19,36	2,29,25,31, 3	7,34
38″	34, 3,55,17, 4,19,11,12,21,45	1,43,26,44,16,19,40,59	2,29,25,38,37	7,34
40″	34, 3,57, 0,31, 3,27,32, 2,44	1,43,26,41,46,53,54,48	2,29,25,46,11	7,34
42″	34, 3,58,43,57,45,14,25,57,32	1,43,26,39,17,28, 1, 3	2,29,25,53,45	7,34
44″	34, 4, 0,27,24,24,31,53,58,35	1,43,26,36,48, 1,59,44	2,29,26, 1,19	7,34
46″	34, 4, 2,10,51, 1,19,55,58,19	1,43,26,34,18,35,50,51	2,29,26, 8,53	7,34
48″	34, 4, 3,54,17,35,38,31,49,10	1,43,26,31,49, 9,34,24	2,29,26,16,27	7,34
50″	34, 4, 5,37,44, 7,27,41,23,34	1,43,26,29,19,43,10,23	2,29,26,24, 1	7,34
52″	34, 4, 7,21,10,36,47,24,33,57	1,43,26,26,50,16,38,48	2,29,26,31,35	7,34
54″	34, 4, 9, 4,37, 3,37,41,12,45	1,43,26,24,20,49,59,39	2,29,26,39, 9	7,34
56″	34, 4,10,48, 3,27,58,31,12,24	1,43,26,21,51,23,12,56	2,29,26,46,43	7,34
58″	34, 4,12,31,29,49,49,54,25,20	1,43,26,19,21,56,18,39	2,29,26,54,17	
60″	34, 4,14,14,56, 9,11,50,43,59			
exact	34, 4,14,14,56, 9,11,50,58,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°36′ 0″	34, 4,14,14,56, 9,11,50,58,28			
		1,43,26,16,52,29,18,22		
2″	34, 4,15,58,22,26, 4,20,16,50		2,29,27, 9,18	
		1,43,26,14,23, 2, 9, 4		7,34
4″	34, 4,17,41,48,40,27,22,25,54		2,29,27,16,52	
		1,43,26,11,53,34,52,12		7,34
6″	34, 4,19,25,14,52,20,57,18, 6		2,29,27,24,26	
		1,43,26, 9,24, 7,27,46		7,34
8″	34, 4,21, 8,41, 1,45, 4,45,52		2,29,27,32, 0	
		1,43,26, 6,54,39,55,46		7,34
10″	34, 4,22,52, 7, 8,39,44,41,38		2,29,27,39,34	
		1,43,26, 4,25,12,16,12		7,34
12″	34, 4,24,35,33,13, 4,56,57,50		2,29,27,47, 8	
		1,43,26, 1,55,44,29, 4		7,34
14″	34, 4,26,18,59,15, 0,41,26,54		2,29,27,54,42	
		1,43,25,59,26,16,34,22		7,34
16″	34, 4,28, 2,25,14,26,58, 1,16		2,29,28, 2,16	
		1,43,25,56,56,48,32, 6		7,34
18″	34, 4,29,45,51,11,23,46,33,22		2,29,28, 9,50	
		1,43,25,54,27,20,22,16		7,34
20″	34, 4,31,29,17, 5,51, 6,55,38		2,29,28,17,24	
		1,43,25,51,57,52, 4,52		7,34
22″	34, 4,33,12,42,57,48,59, 0,30		2,29,28,24,58	
		1,43,25,49,28,23,39,54		7,34
24″	34, 4,34,56, 8,47,17,22,40,24		2,29,28,32,32	
		1,43,25,46,58,55, 7,22		7,34
26″	34, 4,36,39,34,34,16,17,47,46		2,29,28,40, 6	
		1,43,25,44,29,26,27,16		7,34
28″	34, 4,38,23, 0,18,45,44,15, 2		2,29,28,47,40	
		1,43,25,41,59,57,39,36		7,34
30″	34, 4,40, 6,26, 0,45,41,54,38		2,29,28,55,14	
		1,43,25,39,30,28,44,22		7,34
32″	34, 4,41,49,51,40,16,10,39, 0		2,29,29, 2,48	
		1,43,25,37, 0,59,41,34		7,34
34″	34, 4,43,33,17,17,17,10,20,34		2,29,29,10,22	
		1,43,25,34,31,30,31,12		7,34
36″	34, 4,45,16,42,51,48,40,51,46		2,29,29,17,56	
		1,43,25,32, 2, 1,13,16		7,34
38″	34, 4,47, 0, 8,23,50,42, 5, 2		2,29,29,25,30	
		1,43,25,29,32,31,47,46		7,34
40″	34, 4,48,43,33,53,23,13,52,48		2,29,29,33, 4	
		1,43,25,27, 3, 2,14,42		7,34
42″	34, 4,50,26,59,20,26,16, 7,30		2,29,29,40,38	
		1,43,25,24,33,32,34, 4		7,34
44″	34, 4,52,10,24,44,59,48,41,34		2,29,29,48,12	
		1,43,25,22, 4, 2,45,52		7,34
46″	34, 4,53,53,50, 7, 3,51,27,26		2,29,29,55,46	
		1,43,25,19,34,32,50, 6		7,34
48″	34, 4,55,37,15,26,38,24,17,32		2,29,30, 3,20	
		1,43,25,17, 5, 2,46,46		7,34
50″	34, 4,57,20,40,43,43,27, 4,18		2,29,30,10,54	
		1,43,25,14,35,32,35,52		7,34
52″	34, 4,59, 4, 5,58,18,59,40,10		2,29,30,18,28	
		1,43,25,12, 6, 2,17,24		7,34
54″	34, 5, 0,47,31,10,25, 1,57,34		2,29,30,26, 2	
		1,43,25, 9,36,31,51,22		7,34
56″	34, 5, 2,30,56,20, 1,33,48,56		2,29,30,33,36	
		1,43,25, 7, 7, 1,17,46		7,34
58″	34, 5, 4,14,21,27, 8,35, 6,42		2,29,30,41,10	
		1,43,25, 4,37,30,36,36		
60″	34, 5, 5,57,46,31,46, 5,43,18			
exact	34, 5, 5,57,46,31,46, 6, 2,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°37′ 0″	34, 5, 5,57,46,31,46, 6, 2,26			
		1,43,25, 2, 7,59,50, 0		
2″	34, 5, 7,41,11,33,54, 5,52,26		2,29,30,56, 9	
		1,43,24,59,38,28,53,51		7,34
4″	34, 5, 9,24,36,33,32,34,46,17		2,29,31, 3,43	
		1,43,24,57, 8,57,50, 8		7,34
6″	34, 5,11, 8, 1,30,41,32,36,25		2,29,31,11,17	
		1,43,24,54,39,26,38,51		7,34
8″	34, 5,12,51,26,25,20,59,15,16		2,29,31,18,51	
		1,43,24,52, 9,55,20, 0		7,34
10″	34, 5,14,34,51,17,30,54,35,16		2,29,31,26,25	
		1,43,24,49,40,23,53,35		7,34
12″	34, 5,16,18,16, 7,11,18,28,51		2,29,31,33,59	
		1,43,24,47,10,52,19,36		7,34
14″	34, 5,18, 1,40,54,22,10,48,27		2,29,31,41,33	
		1,43,24,44,41,20,38, 3		7,34
16″	34, 5,19,45, 5,39, 3,31,26,30		2,29,31,49, 7	
		1,43,24,42,11,48,48,56		7,34
18″	34, 5,21,28,30,21,15,20,15,26		2,29,31,56,41	
		1,43,24,39,42,16,52,15		7,34
20″	34, 5,23,11,55, 0,57,37, 7,41		2,29,32, 4,15	
		1,43,24,37,12,44,48, 0		7,34
22″	34, 5,24,55,19,38,10,21,55,41		2,29,32,11,49	
		1,43,24,34,43,12,36,11		7,34
24″	34, 5,26,38,44,12,53,34,31,52		2,29,32,19,23	
		1,43,24,32,13,40,16,48		7,34
26″	34, 5,28,22, 8,45, 7,14,48,40		2,29,32,26,57	
		1,43,24,29,44, 7,49,51		7,34
28″	34, 5,30, 5,33,14,51,22,38,31		2,29,32,34,31	
		1,43,24,27,14,35,15,20		7,34
30″	34, 5,31,48,57,42, 5,57,53,51		2,29,32,42, 5	
		1,43,24,24,45, 2,33,15		7,34
32″	34, 5,33,32,22, 6,51, 0,27, 6		2,29,32,49,39	
		1,43,24,22,15,29,43,36		7,34
34″	34, 5,35,15,46,29, 6,30,10,42		2,29,32,57,13	
		1,43,24,19,45,56,46,23		7,34
36″	34, 5,36,59,10,48,52,26,57, 5		2,29,33, 4,47	
		1,43,24,17,16,23,41,36		7,34
38″	34, 5,38,42,35, 6, 8,50,38,41		2,29,33,12,21	
		1,43,24,14,46,50,29,15		7,34
40″	34, 5,40,25,59,20,55,41, 7,56		2,29,33,19,55	
		1,43,24,12,17,17, 9,20		7,34
42″	34, 5,42, 9,23,33,12,58,17,16		2,29,33,27,29	
		1,43,24, 9,47,43,41,51		7,34
44″	34, 5,43,52,47,43, 0,41,59, 7		2,29,33,35, 3	
		1,43,24, 7,18,10, 6,48		7,34
46″	34, 5,45,36,11,50,18,52, 5,55		2,29,33,42,37	
		1,43,24, 4,48,36,24,11		7,34
48″	34, 5,47,19,35,55, 7,28,30, 6		2,29,33,50,11	
		1,43,24, 2,19, 2,34, 0		7,34
50″	34, 5,49, 2,59,57,26,31, 4, 6		2,29,33,57,45	
		1,43,23,59,49,28,36,15		7,34
52″	34, 5,50,46,23,57,15,59,40,21		2,29,34, 5,19	
		1,43,23,57,19,54,30,56		7,34
54″	34, 5,52,29,47,54,35,54,11,17		2,29,34,12,53	
		1,43,23,54,50,20,18, 3		7,34
56″	34, 5,54,13,11,49,26,14,29,20		2,29,34,20,27	
		1,43,23,52,20,45,57,36		7,34
58″	34, 5,55,56,35,41,47, 0,26,56		2,29,34,28, 1	
		1,43,23,49,51,11,29,35		
60″	34, 5,57,39,59,31,38,11,56,31			
exact	34, 5,57,39,59,31,38,12,25, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°38′ 0″	34, 5,57,39,59,31,38,12,25, 7			
		1,43,23,47,21,36,57, 2		
2″	34, 5,59,23,23,18,59,49,22, 9		2,29,34,42,56	
		1,43,23,44,52, 2,14, 6		7,34
4″	34, 6, 1, 6,47, 3,51,51,36,15		2,29,34,50,30	
		1,43,23,42,22,27,23,36		7,34
6″	34, 6, 2,50,10,46,14,18,59,51		2,29,34,58, 4	
		1,43,23,39,52,52,25,32		7,34
8″	34, 6, 4,33,34,26, 7,11,25,23		2,29,35, 5,38	
		1,43,23,37,23,17,19,54		7,34
10″	34, 6, 6,16,58, 3,30,28,45,17		2,29,35,13,12	
		1,43,23,34,53,42, 6,42		7,34
12″	34, 6, 8, 0,21,38,24,10,51,59		2,29,35,20,46	
		1,43,23,32,24, 6,45,56		7,34
14″	34, 6, 9,43,45,10,48,17,37,55		2,29,35,28,20	
		1,43,23,29,54,31,17,36		7,34
16″	34, 6,11,27, 8,40,42,48,55,31		2,29,35,35,54	
		1,43,23,27,24,55,41,42		7,34
18″	34, 6,13,10,32, 8, 7,44,37,13		2,29,35,43,28	
		1,43,23,24,55,19,58,14		7,34
20″	34, 6,14,53,55,33, 3, 4,35,27		2,29,35,51, 2	
		1,43,23,22,25,44, 7,12		7,34
22″	34, 6,16,37,18,55,28,48,42,39		2,29,35,58,36	
		1,43,23,19,56, 8, 8,36		7,34
24″	34, 6,18,20,42,15,24,56,51,15		2,29,36, 6,10	
		1,43,23,17,26,32, 2,26		7,34
26″	34, 6,20, 4, 5,32,51,28,53,41		2,29,36,13,44	
		1,43,23,14,56,55,48,42		7,34
28″	34, 6,21,47,28,47,48,24,42,23		2,29,36,21,18	
		1,43,23,12,27,19,27,24		7,34
30″	34, 6,23,30,52, 0,15,44, 9,47		2,29,36,28,52	
		1,43,23, 9,57,42,58,32		7,34
32″	34, 6,25,14,15,10,13,27, 8,19		2,29,36,36,26	
		1,43,23, 7,28, 6,22, 6		7,34
34″	34, 6,26,57,38,17,41,33,30,25		2,29,36,44, 0	
		1,43,23, 4,58,29,38, 6		7,34
36″	34, 6,28,41, 1,22,40, 3, 8,31		2,29,36,51,34	
		1,43,23, 2,28,52,46,32		7,34
38″	34, 6,30,24,24,25, 8,55,55, 3		2,29,36,59, 8	
		1,43,22,59,59,15,47,24		7,34
40″	34, 6,32, 7,47,25, 8,11,42,27		2,29,37, 6,42	
		1,43,22,57,29,38,40,42		7,34
42″	34, 6,33,51,10,22,37,50,23, 9		2,29,37,14,16	
		1,43,22,55, 0, 1,26,26		7,34
44″	34, 6,35,34,33,17,37,51,49,35		2,29,37,21,50	
		1,43,22,52,30,24, 4,36		7,34
46″	34, 6,37,17,56,10, 8,15,54,11		2,29,37,29,24	
		1,43,22,50, 0,46,35,12		7,34
48″	34, 6,39, 1,19, 0, 9, 2,29,23		2,29,37,36,58	
		1,43,22,47,31, 8,58,14		7,34
50″	34, 6,40,44,41,47,40,11,27,37		2,29,37,44,32	
		1,43,22,45, 1,31,13,42		7,34
52″	34, 6,42,28, 4,32,41,42,41,19		2,29,37,52, 6	
		1,43,22,42,31,53,21,36		7,34
54″	34, 6,44,11,27,15,13,36, 2,55		2,29,37,59,40	
		1,43,22,40, 2,15,21,56		7,34
56″	34, 6,45,54,49,55,15,51,24,51		2,29,38, 7,14	
		1,43,22,37,32,37,14,42		7,34
58″	34, 6,47,38,12,32,48,28,39,33		2,29,38,14,48	
		1,43,22,35, 2,58,59,54		
60″	34, 6,49,21,35, 7,51,27,39,27			
exact	34, 6,49,21,35, 7,51,28, 8,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°39′ 0″	34, 6,49,21,35, 7,51,28, 8,51			
		1,43,22,32,33,20,40,51		
2″	34, 6,51, 4,57,40,24,48,49,42		2,29,38,29,41	
		1,43,22,30, 3,42,11,10		7,33
4″	34, 6,52,48,20,10,28,31, 0,52		2,29,38,37,14	
		1,43,22,27,34, 3,33,56		7,33
6″	34, 6,54,31,42,38, 2,34,34,48		2,29,38,44,47	
		1,43,22,25, 4,24,49, 9		7,33
8″	34, 6,56,15, 5, 3, 6,59,23,57		2,29,38,52,20	
		1,43,22,22,34,45,56,49		7,33
10″	34, 6,57,58,27,25,41,45,20,46		2,29,38,59,53	
		1,43,22,20, 5, 6,56,56		7,33
12″	34, 6,59,41,49,45,46,52,17,42		2,29,39, 7,26	
		1,43,22,17,35,27,49,30		7,33
14″	34, 7, 1,25,12, 3,22,20, 7,12		2,29,39,14,59	
		1,43,22,15, 5,48,34,31		7,33
16″	34, 7, 3, 8,34,18,28, 8,41,43		2,29,39,22,32	
		1,43,22,12,36, 9,11,59		7,33
18″	34, 7, 4,51,56,31, 4,17,53,42		2,29,39,30, 5	
		1,43,22,10, 6,29,41,54		7,33
20″	34, 7, 6,35,18,41,10,47,35,36		2,29,39,37,38	
		1,43,22, 7,36,50, 4,16		7,33
22″	34, 7, 8,18,40,48,47,37,39,52		2,29,39,45,11	
		1,43,22, 5, 7,10,19, 5		7,33
24″	34, 7,10, 2, 2,53,54,47,58,57		2,29,39,52,44	
		1,43,22, 2,37,30,26,21		7,33
26″	34, 7,11,45,24,56,32,18,25,18		2,29,40, 0,17	
		1,43,22, 0, 7,50,26, 4		7,33
28″	34, 7,13,28,46,56,40, 8,51,22		2,29,40, 7,50	
		1,43,21,57,38,10,18,14		7,33
30″	34, 7,15,12, 8,54,18,19, 9,36		2,29,40,15,23	
		1,43,21,55, 8,30, 2,51		7,33
32″	34, 7,16,55,30,49,26,49,12,27		2,29,40,22,56	
		1,43,21,52,38,49,39,55		7,33
34″	34, 7,18,38,52,42, 5,38,52,22		2,29,40,30,29	
		1,43,21,50, 9, 9, 9,26		7,33
36″	34, 7,20,22,14,32,14,48, 1,48		2,29,40,38, 2	
		1,43,21,47,39,28,31,24		7,33
38″	34, 7,22, 5,36,19,54,16,33,12		2,29,40,45,35	
		1,43,21,45, 9,47,45,49		7,33
40″	34, 7,23,48,58, 5, 4, 4,19, 1		2,29,40,53, 8	
		1,43,21,42,40, 6,52,41		7,33
42″	34, 7,25,32,19,47,44,11,11,42		2,29,41, 0,41	
		1,43,21,40,10,25,52, 0		7,33
44″	34, 7,27,15,41,27,54,37, 3,42		2,29,41, 8,14	
		1,43,21,37,40,44,43,46		7,33
46″	34, 7,28,59, 3, 5,35,21,47,28		2,29,41,15,47	
		1,43,21,35,11, 3,27,59		7,33
48″	34, 7,30,42,24,40,46,25,15,27		2,29,41,23,20	
		1,43,21,32,41,22, 4,39		7,33
50″	34, 7,32,25,46,13,27,47,20, 6		2,29,41,30,53	
		1,43,21,30,11,40,33,46		7,33
52″	34, 7,34, 9, 7,43,39,27,53,52		2,29,41,38,26	
		1,43,21,27,41,58,55,20		7,33
54″	34, 7,35,52,29,11,21,26,49,12		2,29,41,45,59	
		1,43,21,25,12,17, 9,21		7,33
56″	34, 7,37,35,50,36,33,43,58,33		2,29,41,53,32	
		1,43,21,22,42,35,15,49		7,33
58″	34, 7,39,19,11,59,16,19,14,22		2,29,42, 1, 5	
		1,43,21,20,12,53,14,44		
60″	34, 7,41, 2,33,19,29,12,29, 6			
exact	34, 7,41, 2,33,19,29,11,56,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°40′ 0″	34, 7,41, 2,33,19,29,11,56,59			
		1,43,21,17,43,11, 2,49		
2″	34, 7,42,45,54,37,12,22,59,48		2,29,42,16,24	
		1,43,21,15,13,28,46,25		7,33
4″	34, 7,44,29,15,52,25,51,46,13		2,29,42,23,57	
		1,43,21,12,43,46,22,28		7,33
6″	34, 7,46,12,37, 5, 9,38, 8,41		2,29,42,31,30	
		1,43,21,10,14, 3,50,58		7,33
8″	34, 7,47,55,58,15,23,41,59,39		2,29,42,39, 3	
		1,43,21, 7,44,21,11,55		7,33
10″	34, 7,49,39,19,23, 8, 3,11,34		2,29,42,46,36	
		1,43,21, 5,14,38,25,19		7,33
12″	34, 7,51,22,40,28,22,41,36,53		2,29,42,54, 9	
		1,43,21, 2,44,55,31,10		7,33
14″	34, 7,53, 6, 1,31, 7,37, 8, 3		2,29,43, 1,42	
		1,43,21, 0,15,12,29,28		7,33
16″	34, 7,54,49,22,31,22,49,37,31		2,29,43, 9,15	
		1,43,20,57,45,29,20,13		7,33
18″	34, 7,56,32,43,29, 8,18,57,44		2,29,43,16,48	
		1,43,20,55,15,46, 3,25		7,33
20″	34, 7,58,16, 4,24,24, 5, 1, 9		2,29,43,24,21	
		1,43,20,52,46, 2,39, 4		7,33
22″	34, 7,59,59,25,17,10, 7,40,13		2,29,43,31,54	
		1,43,20,50,16,19, 7,10		7,33
24″	34, 8, 1,42,46, 7,26,26,47,23		2,29,43,39,27	
		1,43,20,47,46,35,27,43		7,33
26″	34, 8, 3,26, 6,55,13, 2,15, 6		2,29,43,47, 0	
		1,43,20,45,16,51,40,43		7,33
28″	34, 8, 5, 9,27,40,29,53,55,49		2,29,43,54,33	
		1,43,20,42,47, 7,46,10		7,33
30″	34, 8, 6,52,48,23,17, 1,41,59		2,29,44, 2, 6	
		1,43,20,40,17,23,44, 4		7,33
32″	34, 8, 8,36, 9, 3,34,25,26, 3		2,29,44, 9,39	
		1,43,20,37,47,39,34,25		7,33
34″	34, 8,10,19,29,41,22, 5, 0,28		2,29,44,17,12	
		1,43,20,35,17,55,17,13		7,33
36″	34, 8,12, 2,50,16,40, 0,17,41		2,29,44,24,45	
		1,43,20,32,48,10,52,28		7,33
38″	34, 8,13,46,10,49,28,11,10, 9		2,29,44,32,18	
		1,43,20,30,18,26,20,10		7,33
40″	34, 8,15,29,31,19,46,37,30,19		2,29,44,39,51	
		1,43,20,27,48,41,40,19		7,33
42″	34, 8,17,12,51,47,35,19,10,38		2,29,44,47,24	
		1,43,20,25,18,56,52,55		7,33
44″	34, 8,18,56,12,12,54,16, 3,33		2,29,44,54,57	
		1,43,20,22,49,11,57,58		7,33
46″	34, 8,20,39,32,35,43,28, 1,31		2,29,45, 2,30	
		1,43,20,20,19,26,55,28		7,33
48″	34, 8,22,22,52,56, 2,54,56,59		2,29,45,10, 3	
		1,43,20,17,49,41,45,25		7,33
50″	34, 8,24, 6,13,13,52,36,42,24		2,29,45,17,36	
		1,43,20,15,19,56,27,49		7,33
52″	34, 8,25,49,33,29,12,33,10,13		2,29,45,25, 9	
		1,43,20,12,50,11, 2,40		7,33
54″	34, 8,27,32,53,42, 2,44,12,53		2,29,45,32,42	
		1,43,20,10,20,25,29,58		7,33
56″	34, 8,29,16,13,52,23, 9,42,51		2,29,45,40,15	
		1,43,20, 7,50,39,49,43		7,33
58″	34, 8,30,59,34, 0,13,49,32,34		2,29,45,47,48	
		1,43,20, 5,20,54, 1,55		
60″	34, 8,32,42,54, 5,34,43,34,29			
exact	34, 8,32,42,54, 5,34,43,13,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°41′ 0″	34, 8,32,42,54, 5,34,43,13,52			
		1,43,20, 2,51, 8, 4,19		
2″	34, 8,34,26,14, 8,25,51,18,11		2,29,46, 3, 3	
		1,43,20, 0,21,22, 1,16		7,33
4″	34, 8,36, 9,34, 8,47,13,19,27		2,29,46,10,36	
		1,43,19,57,51,35,50,40		7,33
6″	34, 8,37,52,54, 6,38,49,10, 7		2,29,46,18, 9	
		1,43,19,55,21,49,32,31		7,33
8″	34, 8,39,36,14, 2, 0,38,42,38		2,29,46,25,42	
		1,43,19,52,52, 3, 6,49		7,33
10″	34, 8,41,19,33,54,52,41,49,27		2,29,46,33,15	
		1,43,19,50,22,16,33,34		7,33
12″	34, 8,43, 2,53,45,14,58,23, 1		2,29,46,40,48	
		1,43,19,47,52,29,52,46		7,33
14″	34, 8,44,46,13,33, 7,28,15,47		2,29,46,48,21	
		1,43,19,45,22,43, 4,25		7,33
16″	34, 8,46,29,33,18,30,11,20,12		2,29,46,55,54	
		1,43,19,42,52,56, 8,31		7,33
18″	34, 8,48,12,53, 1,23, 7,28,43		2,29,47, 3,27	
		1,43,19,40,23, 9, 5, 4		7,33
20″	34, 8,49,56,12,41,46,16,33,47		2,29,47,11, 0	
		1,43,19,37,53,21,54, 4		7,33
22″	34, 8,51,39,32,19,39,38,27,51		2,29,47,18,33	
		1,43,19,35,23,34,35,31		7,33
24″	34, 8,53,22,51,55, 3,13, 3,22		2,29,47,26, 6	
		1,43,19,32,53,47, 9,25		7,33
26″	34, 8,55, 6,11,27,57, 0,12,47		2,29,47,33,39	
		1,43,19,30,23,59,35,46		7,33
28″	34, 8,56,49,30,58,20,59,48,33		2,29,47,41,12	
		1,43,19,27,54,11,54,34		7,33
30″	34, 8,58,32,50,26,15,11,43, 7		2,29,47,48,45	
		1,43,19,25,24,24, 5,49		7,33
32″	34, 9, 0,16, 9,51,39,35,48,56		2,29,47,56,18	
		1,43,19,22,54,36, 9,31		7,33
34″	34, 9, 1,59,29,14,34,11,58,27		2,29,48, 3,51	
		1,43,19,20,24,48, 5,40		7,33
36″	34, 9, 3,42,48,34,59, 0, 4, 7		2,29,48,11,24	
		1,43,19,17,54,59,54,16		7,33
38″	34, 9, 5,26, 7,52,53,59,58,23		2,29,48,18,57	
		1,43,19,15,25,11,35,19		7,33
40″	34, 9, 7, 9,27, 8,19,11,33,42		2,29,48,26,30	
		1,43,19,12,55,23, 8,49		7,33
42″	34, 9, 8,52,46,21,14,34,42,31		2,29,48,34, 3	
		1,43,19,10,25,34,34,46		7,33
44″	34, 9,10,36, 5,31,40, 9,17,17		2,29,48,41,36	
		1,43,19, 7,55,45,53,10		7,33
46″	34, 9,12,19,24,39,35,55,10,27		2,29,48,49, 9	
		1,43,19, 5,25,57, 4, 1		7,33
48″	34, 9,14, 2,43,45, 1,52,14,28		2,29,48,56,42	
		1,43,19, 2,56, 8, 7,19		7,33
50″	34, 9,15,46, 2,47,58, 0,21,47		2,29,49, 4,15	
		1,43,19, 0,26,19, 3, 4		7,33
52″	34, 9,17,29,21,48,24,19,24,51		2,29,49,11,48	
		1,43,18,57,56,29,51,16		7,33
54″	34, 9,19,12,40,46,20,49,16, 7		2,29,49,19,21	
		1,43,18,55,26,40,31,55		7,33
56″	34, 9,20,55,59,41,47,29,48, 2		2,29,49,26,54	
		1,43,18,52,56,51, 5, 1		7,33
58″	34, 9,22,39,18,34,44,20,53, 3		2,29,49,34,27	
		1,43,18,50,27, 1,30,34		
60″	34, 9,24,22,37,25,11,22,23,37			
exact	34, 9,24,22,37,25,11,22, 4,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°42′ 0″	34, 9,24,22,37,25,11,22, 4,54			
		1,43,18,47,57,11,46,41		
2″	34, 9,26, 5,56,13, 8,33,51,35		2,29,49,49,40	
		1,43,18,45,27,21,57, 1		7,33
4″	34, 9,27,49,14,58,35,55,48,36		2,29,49,57,13	
		1,43,18,42,57,31,59,48		7,33
6″	34, 9,29,32,33,41,33,27,48,24		2,29,50, 4,46	
		1,43,18,40,27,41,55, 2		7,33
8″	34, 9,31,15,52,22, 1, 9,43,26		2,29,50,12,19	
		1,43,18,37,57,51,42,43		7,33
10″	34, 9,32,59,10,59,59, 1,26, 9		2,29,50,19,52	
		1,43,18,35,28, 1,22,51		7,33
12″	34, 9,34,42,29,35,27, 2,49, 0		2,29,50,27,25	
		1,43,18,32,58,10,55,26		7,33
14″	34, 9,36,25,48, 8,25,13,44,26		2,29,50,34,58	
		1,43,18,30,28,20,20,28		7,33
16″	34, 9,38, 9, 6,38,53,34, 4,54		2,29,50,42,31	
		1,43,18,27,58,29,37,57		7,33
18″	34, 9,39,52,25, 6,52, 3,42,51		2,29,50,50, 4	
		1,43,18,25,28,38,47,53		7,33
20″	34, 9,41,35,43,32,20,42,30,44		2,29,50,57,37	
		1,43,18,22,58,47,50,16		7,33
22″	34, 9,43,19, 1,55,19,30,21, 0		2,29,51, 5,10	
		1,43,18,20,28,56,45, 6		7,33
24″	34, 9,45, 2,20,15,48,27, 6, 6		2,29,51,12,43	
		1,43,18,17,59, 5,32,23		7,33
26″	34, 9,46,45,38,33,47,32,38,29		2,29,51,20,16	
		1,43,18,15,29,14,12, 7		7,33
28″	34, 9,48,28,56,49,16,46,50,36		2,29,51,27,49	
		1,43,18,12,59,22,44,18		7,33
30″	34, 9,50,12,15, 2,16, 9,34,54		2,29,51,35,22	
		1,43,18,10,29,31, 8,56		7,33
32″	34, 9,51,55,33,12,45,40,43,50		2,29,51,42,55	
		1,43,18, 7,59,39,26, 1		7,33
34″	34, 9,53,38,51,20,45,20, 9,51		2,29,51,50,28	
		1,43,18, 5,29,47,35,33		7,33
36″	34, 9,55,22, 9,26,15, 7,45,24		2,29,51,58, 1	
		1,43,18, 2,59,55,37,32		7,33
38″	34, 9,57, 5,27,29,15, 3,22,56		2,29,52, 5,34	
		1,43,18, 0,30, 3,31,58		7,33
40″	34, 9,58,48,45,29,45, 6,54,54		2,29,52,13, 7	
		1,43,17,58, 0,11,18,51		7,33
42″	34,10, 0,32, 3,27,45,18,13,45		2,29,52,20,40	
		1,43,17,55,30,18,58,11		7,33
44″	34,10, 2,15,21,23,15,37,11,56		2,29,52,28,13	
		1,43,17,53, 0,26,29,58		7,33
46″	34,10, 3,58,39,16,16, 3,41,54		2,29,52,35,46	
		1,43,17,50,30,33,54,12		7,33
48″	34,10, 5,41,57, 6,46,37,36, 6		2,29,52,43,19	
		1,43,17,48, 0,41,10,53		7,33
50″	34,10, 7,25,14,54,47,18,46,59		2,29,52,50,52	
		1,43,17,45,30,48,20, 1		7,33
52″	34,10, 9, 8,32,40,18, 7, 7, 0		2,29,52,58,25	
		1,43,17,43, 0,55,21,36		7,33
54″	34,10,10,51,50,23,19, 2,28,36		2,29,53, 5,58	
		1,43,17,40,31, 2,15,38		7,33
56″	34,10,12,35, 8, 3,50, 4,44,14		2,29,53,13,31	
		1,43,17,38, 1, 9, 2, 7		7,33
58″	34,10,14,18,25,41,51,13,46,21		2,29,53,21, 4	
		1,43,17,35,31,15,41, 3		
60″	34,10,16, 1,43,17,22,29,27,24			
exact	34,10,16, 1,43,17,22,29,16,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°43′ 0″	34,10,16, 1,43,17,22,29,16,33			
		1,43,17,33, 1,22,11,19		
2″	34,10,17,45, 0,50,23,51,27,52		2,29,53,36,14	
		1,43,17,30,31,28,35, 5		7,33
4″	34,10,19,28,18,20,55,20, 2,57		2,29,53,43,47	
		1,43,17,28, 1,34,51,18		7,33
6″	34,10,21,11,35,48,56,54,54,15		2,29,53,51,20	
		1,43,17,25,31,40,59,58		7,33
8″	34,10,22,54,53,14,28,35,54,13		2,29,53,58,53	
		1,43,17,23, 1,47, 1, 5		7,33
10″	34,10,24,38,10,37,30,22,55,18		2,29,54, 6,26	
		1,43,17,20,31,52,54,39		7,33
12″	34,10,26,21,27,58, 2,15,49,57		2,29,54,13,59	
		1,43,17,18, 1,58,40,40		7,33
14″	34,10,28, 4,45,16, 4,14,30,37		2,29,54,21,32	
		1,43,17,15,32, 4,19, 8		7,33
16″	34,10,29,48, 2,31,36,18,49,45		2,29,54,29, 5	
		1,43,17,13, 2, 9,50, 3		7,33
18″	34,10,31,31,19,44,38,28,39,48		2,29,54,36,38	
		1,43,17,10,32,15,13,25		7,33
20″	34,10,33,14,36,55,10,43,53,13		2,29,54,44,11	
		1,43,17, 8, 2,20,29,14		7,33
22″	34,10,34,57,54, 3,13, 4,22,27		2,29,54,51,44	
		1,43,17, 5,32,25,37,30		7,33
24″	34,10,36,41,11, 8,45,29,59,57		2,29,54,59,17	
		1,43,17, 3, 2,30,38,13		7,33
26″	34,10,38,24,28,11,48, 0,38,10		2,29,55, 6,50	
		1,43,17, 0,32,35,31,23		7,33
28″	34,10,40, 7,45,12,20,36, 9,33		2,29,55,14,23	
		1,43,16,58, 2,40,17, 0		7,33
30″	34,10,41,51, 2,10,23,16,26,33		2,29,55,21,56	
		1,43,16,55,32,44,55, 4		7,33
32″	34,10,43,34,19, 5,56, 1,21,37		2,29,55,29,29	
		1,43,16,53, 2,49,25,35		7,33
34″	34,10,45,17,35,58,58,50,47,12		2,29,55,37, 2	
		1,43,16,50,32,53,48,33		7,33
36″	34,10,47, 0,52,49,31,44,35,45		2,29,55,44,35	
		1,43,16,48, 2,58, 3,58		7,33
38″	34,10,48,44, 9,37,34,42,39,43		2,29,55,52, 8	
		1,43,16,45,33, 2,11,50		7,33
40″	34,10,50,27,26,23, 7,44,51,33		2,29,55,59,41	
		1,43,16,43, 3, 6,12, 9		7,33
42″	34,10,52,10,43, 6,10,51, 3,42		2,29,56, 7,14	
		1,43,16,40,33,10, 4,55		7,33
44″	34,10,53,53,59,46,44, 1, 8,37		2,29,56,14,47	
		1,43,16,38, 3,13,50, 8		7,33
46″	34,10,55,37,16,24,47,14,58,45		2,29,56,22,20	
		1,43,16,35,33,17,27,48		7,33
48″	34,10,57,20,33, 0,20,32,26,33		2,29,56,29,53	
		1,43,16,33, 3,20,57,55		7,33
50″	34,10,59, 3,49,33,23,53,24,28		2,29,56,37,26	
		1,43,16,30,33,24,20,29		7,33
52″	34,11, 0,47, 6, 3,57,17,44,57		2,29,56,44,59	
		1,43,16,28, 3,27,35,30		7,33
54″	34,11, 2,30,22,32, 0,45,20,27		2,29,56,52,32	
		1,43,16,25,33,30,42,58		7,33
56″	34,11, 4,13,38,57,34,16, 3,25		2,29,57, 0, 5	
		1,43,16,23, 3,33,42,53		7,33
58″	34,11, 5,56,55,20,37,49,46,18		2,29,57, 7,38	
		1,43,16,20,33,36,35,15		
60″	34,11, 7,40,11,41,11,26,21,33			
exact	34,11, 7,40,11,41,11,26,16,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°44′ 0″	34,11, 7,40,11,41,11,26,16,22			
		1,43,16,18, 3,39,19,35		
2″	34,11, 9,23,27,59,15, 5,35,57		2,29,57,22,45	
		1,43,16,15,33,41,56,50		7,33
4″	34,11,11, 6,44,14,48,47,32,47		2,29,57,30,18	
		1,43,16,13, 3,44,26,32		7,33
6″	34,11,12,50, 0,27,52,31,59,19		2,29,57,37,51	
		1,43,16,10,33,46,48,41		7,33
8″	34,11,14,33,16,38,26,18,48, 0		2,29,57,45,24	
		1,43,16, 8, 3,49, 3,17		7,33
10″	34,11,16,16,32,46,30, 7,51,17		2,29,57,52,57	
		1,43,16, 5,33,51,10,20		7,33
12″	34,11,17,59,48,52, 3,59, 1,37		2,29,58, 0,30	
		1,43,16, 3, 3,53, 9,50		7,33
14″	34,11,19,43, 4,55, 7,52,11,27		2,29,58, 8, 3	
		1,43,16, 0,33,55, 1,47		7,33
16″	34,11,21,26,20,55,41,47,13,14		2,29,58,15,36	
		1,43,15,58, 3,56,46,11		7,33
18″	34,11,23, 9,36,53,45,43,59,25		2,29,58,23, 9	
		1,43,15,55,33,58,23, 2		7,33
20″	34,11,24,52,52,49,19,42,22,27		2,29,58,30,42	
		1,43,15,53, 3,59,52,20		7,33
22″	34,11,26,36, 8,42,23,42,14,47		2,29,58,38,15	
		1,43,15,50,34, 1,14, 5		7,33
24″	34,11,28,19,24,32,57,43,28,52		2,29,58,45,48	
		1,43,15,48, 4, 2,28,17		7,33
26″	34,11,30, 2,40,21, 1,45,57, 9		2,29,58,53,21	
		1,43,15,45,34, 3,34,56		7,33
28″	34,11,31,45,56, 6,35,49,32, 5		2,29,59, 0,54	
		1,43,15,43, 4, 4,34, 2		7,33
30″	34,11,33,29,11,49,39,54, 6, 7		2,29,59, 8,27	
		1,43,15,40,34, 5,25,35		7,33
32″	34,11,35,12,27,30,13,59,31,42		2,29,59,16, 0	
		1,43,15,38, 4, 6, 9,35		7,33
34″	34,11,36,55,43, 8,18, 5,41,17		2,29,59,23,33	
		1,43,15,35,34, 6,46, 2		7,33
36″	34,11,38,38,58,43,52,12,27,19		2,29,59,31, 6	
		1,43,15,33, 4, 7,14,56		7,33
38″	34,11,40,22,14,16,56,19,42,15		2,29,59,38,39	
		1,43,15,30,34, 7,36,17		7,33
40″	34,11,42, 5,29,47,30,27,18,32		2,29,59,46,12	
		1,43,15,28, 4, 7,50, 5		7,33
42″	34,11,43,48,45,15,34,35, 8,37		2,29,59,53,45	
		1,43,15,25,34, 7,56,20		7,33
44″	34,11,45,32, 0,41, 8,43, 4,57		2,30, 0, 1,18	
		1,43,15,23, 4, 7,55, 2		7,33
46″	34,11,47,15,16, 4,12,50,59,59		2,30, 0, 8,51	
		1,43,15,20,34, 7,46,11		7,33
48″	34,11,48,58,31,24,46,58,46,10		2,30, 0,16,24	
		1,43,15,18, 4, 7,29,47		7,33
50″	34,11,50,41,46,42,51, 6,15,57		2,30, 0,23,57	
		1,43,15,15,34, 7, 5,50		7,33
52″	34,11,52,25, 1,58,25,13,21,47		2,30, 0,31,30	
		1,43,15,13, 4, 6,34,20		7,33
54″	34,11,54, 8,17,11,29,19,56, 7		2,30, 0,39, 3	
		1,43,15,10,34, 5,55,17		7,33
56″	34,11,55,51,32,22, 3,25,51,24		2,30, 0,46,36	
		1,43,15, 8, 4, 5, 8,41		7,33
58″	34,11,57,34,47,30, 7,31, 0, 5		2,30, 0,54, 9	
		1,43,15, 5,34, 4,14,32		
60″	34,11,59,18, 2,35,41,35,14,37			
exact	34,11,59,18, 2,35,41,35,12,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°45′ 0″	34,11,59,18, 2,35,41,35,12,57			
		1,43,15, 3, 4, 3,12,50		
2″	34,12, 1, 1,17,38,45,38,25,47		2,30, 1, 9,14	
		1,43,15, 0,34, 2, 3,36		7,33
4″	34,12, 2,44,32,39,19,40,29,23		2,30, 1,16,47	
		1,43,14,58, 4, 0,46,49		7,33
6″	34,12, 4,27,47,37,23,41,16,12		2,30, 1,24,20	
		1,43,14,55,33,59,22,29		7,33
8″	34,12, 6,11, 2,32,57,40,38,41		2,30, 1,31,53	
		1,43,14,53, 3,57,50,36		7,33
10″	34,12, 7,54,17,26, 1,38,29,17		2,30, 1,39,26	
		1,43,14,50,33,56,11,10		7,33
12″	34,12, 9,37,32,16,35,34,40,27		2,30, 1,46,59	
		1,43,14,48, 3,54,24,11		7,33
14″	34,12,11,20,47, 4,39,29, 4,38		2,30, 1,54,32	
		1,43,14,45,33,52,29,39		7,33
16″	34,12,13, 4, 1,50,13,21,34,17		2,30, 2, 2, 5	
		1,43,14,43, 3,50,27,34		7,33
18″	34,12,14,47,16,33,17,12, 1,51		2,30, 2, 9,38	
		1,43,14,40,33,48,17,56		7,33
20″	34,12,16,30,31,13,51, 0,19,47		2,30, 2,17,11	
		1,43,14,38, 3,46, 0,45		7,33
22″	34,12,18,13,45,51,54,46,20,32		2,30, 2,24,44	
		1,43,14,35,33,43,36, 1		7,33
24″	34,12,19,57, 0,27,28,29,56,33		2,30, 2,32,17	
		1,43,14,33, 3,41, 3,44		7,33
26″	34,12,21,40,15, 0,32,11, 0,17		2,30, 2,39,50	
		1,43,14,30,33,38,23,54		7,33
28″	34,12,23,23,29,31, 5,49,24,11		2,30, 2,47,23	
		1,43,14,28, 3,35,36,31		7,33
30″	34,12,25, 6,43,59, 9,25, 0,42		2,30, 2,54,56	
		1,43,14,25,33,32,41,35		7,33
32″	34,12,26,49,58,24,42,57,42,17		2,30, 3, 2,29	
		1,43,14,23, 3,29,39, 6		7,33
34″	34,12,28,33,12,47,46,27,21,23		2,30, 3,10, 2	
		1,43,14,20,33,26,29, 4		7,33
36″	34,12,30,16,27, 8,19,53,50,27		2,30, 3,17,35	
		1,43,14,18, 3,23,11,29		7,33
38″	34,12,31,59,41,26,23,17, 1,56		2,30, 3,25, 8	
		1,43,14,15,33,19,46,21		7,33
40″	34,12,33,42,55,41,56,36,48,17		2,30, 3,32,41	
		1,43,14,13, 3,16,13,40		7,33
42″	34,12,35,26, 9,54,59,53, 1,57		2,30, 3,40,14	
		1,43,14,10,33,12,33,26		7,33
44″	34,12,37, 9,24, 5,33, 5,35,23		2,30, 3,47,47	
		1,43,14, 8, 3, 8,45,39		7,33
46″	34,12,38,52,38,13,36,14,21, 2		2,30, 3,55,20	
		1,43,14, 5,33, 4,50,19		7,33
48″	34,12,40,35,52,19, 9,19,11,21		2,30, 4, 2,53	
		1,43,14, 3, 3, 0,47,26		7,33
50″	34,12,42,19, 6,22,12,19,58,47		2,30, 4,10,26	
		1,43,14, 0,32,56,37, 0		7,33
52″	34,12,44, 2,20,22,45,16,35,47		2,30, 4,17,59	
		1,43,13,58, 2,52,19, 1		7,33
54″	34,12,45,45,34,20,48, 8,54,48		2,30, 4,25,32	
		1,43,13,55,32,47,53,29		7,33
56″	34,12,47,28,48,16,20,56,48,17		2,30, 4,33, 5	
		1,43,13,53, 2,43,20,24		7,33
58″	34,12,49,12, 2, 9,23,40, 8,41		2,30, 4,40,38	
		1,43,13,50,32,38,39,46		
60″	34,12,50,55,15,59,56,18,48,27			
exact	34,12,50,55,15,59,56,18,56, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°46′ 0″	34,12,50,55,15,59,56,18,56, 4			
		1,43,13,48, 2,33,52,27		
2″	34,12,52,38,29,47,58,52,48,31		2,30, 4,55,40	
		1,43,13,45,32,28,56,47		7,33
4″	34,12,54,21,43,33,31,21,45,18		2,30, 5, 3,13	
		1,43,13,43, 2,23,53,34		7,33
6″	34,12,56, 4,57,16,33,45,38,52		2,30, 5,10,46	
		1,43,13,40,32,18,42,48		7,33
8″	34,12,57,48,10,57, 6, 4,21,40		2,30, 5,18,19	
		1,43,13,38, 2,13,24,29		7,33
10″	34,12,59,31,24,35, 8,17,46, 9		2,30, 5,25,52	
		1,43,13,35,32, 7,58,37		7,33
12″	34,13, 1,14,38,10,40,25,44,46		2,30, 5,33,25	
		1,43,13,33, 2, 2,25,12		7,33
14″	34,13, 2,57,51,43,42,28, 9,58		2,30, 5,40,58	
		1,43,13,30,31,56,44,14		7,33
16″	34,13, 4,41, 5,14,14,24,54,12		2,30, 5,48,31	
		1,43,13,28, 1,50,55,43		7,33
18″	34,13, 6,24,18,42,16,15,49,55		2,30, 5,56, 4	
		1,43,13,25,31,44,59,39		7,33
20″	34,13, 8, 7,32, 7,48, 0,49,34		2,30, 6, 3,37	
		1,43,13,23, 1,38,56, 2		7,33
22″	34,13, 9,50,45,30,49,39,45,36		2,30, 6,11,10	
		1,43,13,20,31,32,44,52		7,33
24″	34,13,11,33,58,51,21,12,30,28		2,30, 6,18,43	
		1,43,13,18, 1,26,26, 9		7,33
26″	34,13,13,17,12, 9,22,38,56,37		2,30, 6,26,16	
		1,43,13,15,31,19,59,53		7,33
28″	34,13,15, 0,25,24,53,58,56,30		2,30, 6,33,49	
		1,43,13,13, 1,13,26, 4		7,33
30″	34,13,16,43,38,37,55,12,22,34		2,30, 6,41,22	
		1,43,13,10,31, 6,44,42		7,33
32″	34,13,18,26,51,48,26,19, 7,16		2,30, 6,48,55	
		1,43,13, 8, 0,59,55,47		7,33
34″	34,13,20,10, 4,56,27,19, 3, 3		2,30, 6,56,28	
		1,43,13, 5,30,52,59,19		7,33
36″	34,13,21,53,18, 1,58,12, 2,22		2,30, 7, 4, 1	
		1,43,13, 3, 0,45,55,18		7,33
38″	34,13,23,36,31, 4,58,57,57,40		2,30, 7,11,34	
		1,43,13, 0,30,38,43,44		7,33
40″	34,13,25,19,44, 5,29,36,41,24		2,30, 7,19, 7	
		1,43,12,58, 0,31,24,37		7,33
42″	34,13,27, 2,57, 3,30, 8, 6, 1		2,30, 7,26,40	
		1,43,12,55,30,23,57,57		7,33
44″	34,13,28,46, 9,59, 0,32, 3,58		2,30, 7,34,13	
		1,43,12,53, 0,16,23,44		7,33
46″	34,13,30,29,22,52, 0,48,27,42		2,30, 7,41,46	
		1,43,12,50,30, 8,41,58		7,33
48″	34,13,32,12,35,42,30,57, 9,40		2,30, 7,49,19	
		1,43,12,48, 0, 0,52,39		7,33
50″	34,13,33,55,48,30,30,58, 2,19		2,30, 7,56,52	
		1,43,12,45,29,52,55,47		7,33
52″	34,13,35,39, 1,16, 0,50,58, 6		2,30, 8, 4,25	
		1,43,12,42,59,44,51,22		7,33
54″	34,13,37,22,13,59, 0,35,49,28		2,30, 8,11,58	
		1,43,12,40,29,36,39,24		7,33
56″	34,13,39, 5,26,39,30,12,28,52		2,30, 8,19,31	
		1,43,12,37,59,28,19,53		7,33
58″	34,13,40,48,39,17,29,40,48,45		2,30, 8,27, 4	
		1,43,12,35,29,19,52,49		
60″	34,13,42,31,51,52,59, 0,41,34			
exact	34,13,42,31,51,52,59, 0,56,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°47′ 0″	34,13,42,31,51,52,59, 0,56,35			
		1,43,12,32,59,11,19,49		
2″	34,13,44,15, 4,25,58,12,16,24		2,30, 8,42, 3	
		1,43,12,30,29, 2,37,46		7,33
4″	34,13,45,58,16,56,27,14,54,10		2,30, 8,49,36	
		1,43,12,27,58,53,48,10		7,33
6″	34,13,47,41,29,24,26, 8,42,20		2,30, 8,57, 9	
		1,43,12,25,28,44,51, 1		7,33
8″	34,13,49,24,41,49,54,53,33,21		2,30, 9, 4,42	
		1,43,12,22,58,35,46,19		7,33
10″	34,13,51, 7,54,12,53,29,19,40		2,30, 9,12,15	
		1,43,12,20,28,26,34, 4		7,33
12″	34,13,52,51, 6,33,21,55,53,44		2,30, 9,19,48	
		1,43,12,17,58,17,14,16		7,33
14″	34,13,54,34,18,51,20,13, 8, 0		2,30, 9,27,21	
		1,43,12,15,28, 7,46,55		7,33
16″	34,13,56,17,31, 6,48,20,54,55		2,30, 9,34,54	
		1,43,12,12,57,58,12, 1		7,33
18″	34,13,58, 0,43,19,46,19, 6,56		2,30, 9,42,27	
		1,43,12,10,27,48,29,34		7,33
20″	34,13,59,43,55,30,14, 7,36,30		2,30, 9,50, 0	
		1,43,12, 7,57,38,39,34		7,33
22″	34,14, 1,27, 7,38,11,46,16, 4		2,30, 9,57,33	
		1,43,12, 5,27,28,42, 1		7,33
24″	34,14, 3,10,19,43,39,14,58, 5		2,30,10, 5, 6	
		1,43,12, 2,57,18,36,55		7,33
26″	34,14, 4,53,31,46,36,33,35, 0		2,30,10,12,39	
		1,43,12, 0,27, 8,24,16		7,33
28″	34,14, 6,36,43,47, 3,41,59,16		2,30,10,20,12	
		1,43,11,57,56,58, 4, 4		7,33
30″	34,14, 8,19,55,45, 0,40, 3,20		2,30,10,27,45	
		1,43,11,55,26,47,36,19		7,33
32″	34,14,10, 3, 7,40,27,27,39,39		2,30,10,35,18	
		1,43,11,52,56,37, 1, 1		7,33
34″	34,14,11,46,19,33,24, 4,40,40		2,30,10,42,51	
		1,43,11,50,26,26,18,10		7,33
36″	34,14,13,29,31,23,50,30,58,50		2,30,10,50,24	
		1,43,11,47,56,15,27,46		7,33
38″	34,14,15,12,43,11,46,46,26,36		2,30,10,57,57	
		1,43,11,45,26, 4,29,49		7,33
40″	34,14,16,55,54,57,12,50,56,25		2,30,11, 5,30	
		1,43,11,42,55,53,24,19		7,33
42″	34,14,18,39, 6,40, 8,44,20,44		2,30,11,13, 3	
		1,43,11,40,25,42,11,16		7,33
44″	34,14,20,22,18,20,34,26,32, 0		2,30,11,20,36	
		1,43,11,37,55,30,50,40		7,33
46″	34,14,22, 5,29,58,29,57,22,40		2,30,11,28, 9	
		1,43,11,35,25,19,22,31		7,33
48″	34,14,23,48,41,33,55,16,45,11		2,30,11,35,42	
		1,43,11,32,55, 7,46,49		7,33
50″	34,14,25,31,53, 6,50,24,32, 0		2,30,11,43,15	
		1,43,11,30,24,56, 3,34		7,33
52″	34,14,27,15, 4,37,15,20,35,34		2,30,11,50,48	
		1,43,11,27,54,44,12,46		7,33
54″	34,14,28,58,16, 5,10, 4,48,20		2,30,11,58,21	
		1,43,11,25,24,32,14,25		7,33
56″	34,14,30,41,27,30,34,37, 2,45		2,30,12, 5,54	
		1,43,11,22,54,20, 8,31		7,33
58″	34,14,32,24,38,53,28,57,11,16		2,30,12,13,27	
		1,43,11,20,24, 7,55, 4		
60″	34,14,34, 7,50,13,53, 5, 6,20			
exact	34,14,34, 7,50,13,53, 5,26,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°48′ 0″	34,14,34, 7,50,13,53, 5,26,30			
		1,43,11,17,53,55,36,17		
2″	34,14,35,51, 1,31,47, 1, 2,47		2,30,12,28,23	
		1,43,11,15,23,43, 7,54		7,33
4″	34,14,37,34,12,47,10,44,10,41		2,30,12,35,56	
		1,43,11,12,53,30,31,58		7,33
6″	34,14,39,17,24, 0, 4,14,42,39		2,30,12,43,29	
		1,43,11,10,23,17,48,29		7,33
8″	34,14,41, 0,35,10,27,32,31, 8		2,30,12,51, 2	
		1,43,11, 7,53, 4,57,27		7,33
10″	34,14,42,43,46,18,20,37,28,35		2,30,12,58,35	
		1,43,11, 5,22,51,58,52		7,33
12″	34,14,44,26,57,23,43,29,27,27		2,30,13, 6, 8	
		1,43,11, 2,52,38,52,44		7,33
14″	34,14,46,10, 8,26,36, 8,20,11		2,30,13,13,41	
		1,43,11, 0,22,25,39, 3		7,33
16″	34,14,47,53,19,26,58,33,59,14		2,30,13,21,14	
		1,43,10,57,52,12,17,49		7,33
18″	34,14,49,36,30,24,50,46,17, 3		2,30,13,28,47	
		1,43,10,55,21,58,49, 2		7,33
20″	34,14,51,19,41,20,12,45, 6, 5		2,30,13,36,20	
		1,43,10,52,51,45,12,42		7,33
22″	34,14,53, 2,52,13, 4,30,18,47		2,30,13,43,53	
		1,43,10,50,21,31,28,49		7,33
24″	34,14,54,46, 3, 3,26, 1,47,36		2,30,13,51,26	
		1,43,10,47,51,17,37,23		7,33
26″	34,14,56,29,13,51,17,19,24,59		2,30,13,58,59	
		1,43,10,45,21, 3,38,24		7,33
28″	34,14,58,12,24,36,38,23, 3,23		2,30,14, 6,32	
		1,43,10,42,50,49,31,52		7,33
30″	34,14,59,55,35,19,29,12,35,15		2,30,14,14, 5	
		1,43,10,40,20,35,17,47		7,33
32″	34,15, 1,38,45,59,49,47,53, 2		2,30,14,21,38	
		1,43,10,37,50,20,56, 9		7,33
34″	34,15, 3,21,56,37,40, 8,49,11		2,30,14,29,11	
		1,43,10,35,20, 6,26,58		7,33
36″	34,15, 5, 5, 7,13, 0,15,16, 9		2,30,14,36,44	
		1,43,10,32,49,51,50,14		7,33
38″	34,15, 6,48,17,45,50, 7, 6,23		2,30,14,44,17	
		1,43,10,30,19,37, 5,57		7,33
40″	34,15, 8,31,28,16, 9,44,12,20		2,30,14,51,50	
		1,43,10,27,49,22,14, 7		7,33
42″	34,15,10,14,38,43,59, 6,26,27		2,30,14,59,23	
		1,43,10,25,19, 7,14,44		7,33
44″	34,15,11,57,49, 9,18,13,41,11		2,30,15, 6,56	
		1,43,10,22,48,52, 7,48		7,33
46″	34,15,13,40,59,32, 7, 5,48,59		2,30,15,14,29	
		1,43,10,20,18,36,53,19		7,33
48″	34,15,15,24, 9,52,25,42,42,18		2,30,15,22, 2	
		1,43,10,17,48,21,31,17		7,33
50″	34,15,17, 7,20,10,14, 4,13,35		2,30,15,29,35	
		1,43,10,15,18, 6, 1,42		7,33
52″	34,15,18,50,30,25,32,10,15,17		2,30,15,37, 8	
		1,43,10,12,47,50,24,34		7,33
54″	34,15,20,33,40,38,20, 0,39,51		2,30,15,44,41	
		1,43,10,10,17,34,39,53		7,33
56″	34,15,22,16,50,48,37,35,19,44		2,30,15,52,14	
		1,43,10, 7,47,18,47,39		7,33
58″	34,15,24, 0, 0,56,24,54, 7,23		2,30,15,59,47	
		1,43,10, 5,17, 2,47,52		
60″	34,15,25,43,11, 1,41,56,55,15			
exact	34,15,25,43,11, 1,41,57,19, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°49′ 0″	34,15,25,43,11, 1,41,57,19, 1			
		1,43,10, 2,46,46,43,14		
2″	34,15,27,26,21, 4,28,44, 2,15		2,30,16,14,41	
		1,43,10, 0,16,30,28,33		7,33
4″	34,15,29, 9,31, 4,45,14,30,48		2,30,16,22,14	
		1,43, 9,57,46,14, 6,19		7,33
6″	34,15,30,52,41, 2,31,28,37, 7		2,30,16,29,47	
		1,43, 9,55,15,57,36,32		7,33
8″	34,15,32,35,50,57,47,26,13,39		2,30,16,37,20	
		1,43, 9,52,45,40,59,12		7,33
10″	34,15,34,19, 0,50,33, 7,12,51		2,30,16,44,53	
		1,43, 9,50,15,24,14,19		7,33
12″	34,15,36, 2,10,40,48,31,27,10		2,30,16,52,26	
		1,43, 9,47,45, 7,21,53		7,33
14″	34,15,37,45,20,28,33,38,49, 3		2,30,16,59,59	
		1,43, 9,45,14,50,21,54		7,33
16″	34,15,39,28,30,13,48,29,10,57		2,30,17, 7,32	
		1,43, 9,42,44,33,14,22		7,33
18″	34,15,41,11,39,56,33, 2,25,19		2,30,17,15, 5	
		1,43, 9,40,14,15,59,17		7,33
20″	34,15,42,54,49,36,47,18,24,36		2,30,17,22,38	
		1,43, 9,37,43,58,36,39		7,33
22″	34,15,44,37,59,14,31,17, 1,15		2,30,17,30,11	
		1,43, 9,35,13,41, 6,28		7,33
24″	34,15,46,21, 8,49,44,58, 7,43		2,30,17,37,44	
		1,43, 9,32,43,23,28,44		7,33
26″	34,15,48, 4,18,22,28,21,36,27		2,30,17,45,17	
		1,43, 9,30,13, 5,43,27		7,33
28″	34,15,49,47,27,52,41,27,19,54		2,30,17,52,50	
		1,43, 9,27,42,47,50,37		7,33
30″	34,15,51,30,37,20,24,15,10,31		2,30,18, 0,23	
		1,43, 9,25,12,29,50,14		7,33
32″	34,15,53,13,46,45,36,45, 0,45		2,30,18, 7,56	
		1,43, 9,22,42,11,42,18		7,33
34″	34,15,54,56,56, 8,18,56,43, 3		2,30,18,15,29	
		1,43, 9,20,11,53,26,49		7,33
36″	34,15,56,40, 5,28,30,50, 9,52		2,30,18,23, 2	
		1,43, 9,17,41,35, 3,47		7,33
38″	34,15,58,23,14,46,12,25,13,39		2,30,18,30,35	
		1,43, 9,15,11,16,33,12		7,33
40″	34,16, 0, 6,24, 1,23,41,46,51		2,30,18,38, 8	
		1,43, 9,12,40,57,55, 4		7,33
42″	34,16, 1,49,33,14, 4,39,41,55		2,30,18,45,41	
		1,43, 9,10,10,39, 9,23		7,33
44″	34,16, 3,32,42,24,15,18,51,18		2,30,18,53,14	
		1,43, 9, 7,40,20,16, 9		7,33
46″	34,16, 5,15,51,31,55,39, 7,27		2,30,19, 0,47	
		1,43, 9, 5,10, 1,15,22		7,33
48″	34,16, 6,59, 0,37, 5,40,22,49		2,30,19, 8,20	
		1,43, 9, 2,39,42, 7, 2		7,33
50″	34,16, 8,42, 9,39,45,22,29,51		2,30,19,15,53	
		1,43, 9, 0, 9,22,51, 9		7,33
52″	34,16,10,25,18,39,54,45,21, 0		2,30,19,23,26	
		1,43, 8,57,39, 3,27,43		7,33
54″	34,16,12, 8,27,37,33,48,48,43		2,30,19,30,59	
		1,43, 8,55, 8,43,56,44		7,33
56″	34,16,13,51,36,32,42,32,45,27		2,30,19,38,32	
		1,43, 8,52,38,24,18,12		7,33
58″	34,16,15,34,45,25,20,57, 3,39		2,30,19,46, 5	
		1,43, 8,50, 8, 4,32, 7		
60″	34,16,17,17,54,15,29, 1,35,46			
exact	34,16,17,17,54,15,29, 2, 8,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°50′ 0″	34,16,17,17,54,15,29, 2, 8,28			
		1,43, 8,47,37,44,42, 2		
2″	34,16,19, 1, 3, 3, 6,46,50,30		2,30,20, 0,56	
		1,43, 8,45, 7,24,41, 6		7,32
4″	34,16,20,44,11,48,14,11,31,36		2,30,20, 8,28	
		1,43, 8,42,37, 4,32,38		7,32
6″	34,16,22,27,20,30,51,16, 4,14		2,30,20,16, 0	
		1,43, 8,40, 6,44,16,38		7,32
8″	34,16,24,10,29,10,58, 0,20,52		2,30,20,23,32	
		1,43, 8,37,36,23,53, 6		7,32
10″	34,16,25,53,37,48,34,24,13,58		2,30,20,31, 4	
		1,43, 8,35, 6, 3,22, 2		7,32
12″	34,16,27,36,46,23,40,27,36, 0		2,30,20,38,36	
		1,43, 8,32,35,42,43,26		7,32
14″	34,16,29,19,54,56,16,10,19,26		2,30,20,46, 8	
		1,43, 8,30, 5,21,57,18		7,32
16″	34,16,31, 3, 3,26,21,32,16,44		2,30,20,53,40	
		1,43, 8,27,35, 1, 3,38		7,32
18″	34,16,32,46,11,53,56,33,20,22		2,30,21, 1,12	
		1,43, 8,25, 4,40, 2,26		7,32
20″	34,16,34,29,20,19, 1,13,22,48		2,30,21, 8,44	
		1,43, 8,22,34,18,53,42		7,32
22″	34,16,36,12,28,41,35,32,16,30		2,30,21,16,16	
		1,43, 8,20, 3,57,37,26		7,32
24″	34,16,37,55,37, 1,39,29,53,56		2,30,21,23,48	
		1,43, 8,17,33,36,13,38		7,32
26″	34,16,39,38,45,19,13, 6, 7,34		2,30,21,31,20	
		1,43, 8,15, 3,14,42,18		7,32
28″	34,16,41,21,53,34,16,20,49,52		2,30,21,38,52	
		1,43, 8,12,32,53, 3,26		7,32
30″	34,16,43, 5, 1,46,49,13,53,18		2,30,21,46,24	
		1,43, 8,10, 2,31,17, 2		7,32
32″	34,16,44,48, 9,56,51,45,10,20		2,30,21,53,56	
		1,43, 8, 7,32, 9,23, 6		7,32
34″	34,16,46,31,18, 4,23,54,33,26		2,30,22, 1,28	
		1,43, 8, 5, 1,47,21,38		7,32
36″	34,16,48,14,26, 9,25,41,55, 4		2,30,22, 9, 0	
		1,43, 8, 2,31,25,12,38		7,32
38″	34,16,49,57,34,11,57, 7, 7,42		2,30,22,16,32	
		1,43, 8, 0, 1, 2,56, 6		7,32
40″	34,16,51,40,42,11,58,10, 3,48		2,30,22,24, 4	
		1,43, 7,57,30,40,32, 2		7,32
42″	34,16,53,23,50, 9,28,50,35,50		2,30,22,31,36	
		1,43, 7,55, 0,18, 0,26		7,32
44″	34,16,55, 6,58, 4,29, 8,36,16		2,30,22,39, 8	
		1,43, 7,52,29,55,21,18		7,32
46″	34,16,56,50, 5,56,59, 3,57,34		2,30,22,46,40	
		1,43, 7,49,59,32,34,38		7,32
48″	34,16,58,33,13,46,58,36,32,12		2,30,22,54,12	
		1,43, 7,47,29, 9,40,26		7,32
50″	34,17, 0,16,21,34,27,46,12,38		2,30,23, 1,44	
		1,43, 7,44,58,46,38,42		7,32
52″	34,17, 1,59,29,19,26,32,51,20		2,30,23, 9,16	
		1,43, 7,42,28,23,29,26		7,32
54″	34,17, 3,42,37, 1,54,56,20,46		2,30,23,16,48	
		1,43, 7,39,58, 0,12,38		7,32
56″	34,17, 5,25,44,41,52,56,33,24		2,30,23,24,20	
		1,43, 7,37,27,36,48,18		7,32
58″	34,17, 7, 8,52,19,20,33,21,42		2,30,23,31,52	
		1,43, 7,34,57,13,16,26		
60″	34,17, 8,51,59,54,17,46,38, 8			
exact	34,17, 8,51,59,54,17,46,10,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°51′ 0″	34,17, 8,51,59,54,17,46,10,26			
		1,43, 7,32,26,49,34, 4		
2″	34,17,10,35, 7,26,44,35,44,30		2,30,23,47, 8	
		1,43, 7,29,56,25,46,56		7,32
4″	34,17,12,18,14,56,41, 1,31,26		2,30,23,54,40	
		1,43, 7,27,26, 1,52,16		7,32
6″	34,17,14, 1,22,24, 7, 3,23,42		2,30,24, 2,12	
		1,43, 7,24,55,37,50, 4		7,32
8″	34,17,15,44,29,49, 2,41,13,46		2,30,24, 9,44	
		1,43, 7,22,25,13,40,20		7,32
10″	34,17,17,27,37,11,27,54,54, 6		2,30,24,17,16	
		1,43, 7,19,54,49,23, 4		7,32
12″	34,17,19,10,44,31,22,44,17,10		2,30,24,24,48	
		1,43, 7,17,24,24,58,16		7,32
14″	34,17,20,53,51,48,47, 9,15,26		2,30,24,32,20	
		1,43, 7,14,54, 0,25,56		7,32
16″	34,17,22,36,59, 3,41, 9,41,22		2,30,24,39,52	
		1,43, 7,12,23,35,46, 4		7,32
18″	34,17,24,20, 6,16, 4,45,27,26		2,30,24,47,24	
		1,43, 7, 9,53,10,58,40		7,32
20″	34,17,26, 3,13,25,57,56,26, 6		2,30,24,54,56	
		1,43, 7, 7,22,46, 3,44		7,32
22″	34,17,27,46,20,33,20,42,29,50		2,30,25, 2,28	
		1,43, 7, 4,52,21, 1,16		7,32
24″	34,17,29,29,27,38,13, 3,31, 6		2,30,25,10, 0	
		1,43, 7, 2,21,55,51,16		7,32
26″	34,17,31,12,34,40,34,59,22,22		2,30,25,17,32	
		1,43, 6,59,51,30,33,44		7,32
28″	34,17,32,55,41,40,26,29,56, 6		2,30,25,25, 4	
		1,43, 6,57,21, 5, 8,40		7,32
30″	34,17,34,38,48,37,47,35, 4,46		2,30,25,32,36	
		1,43, 6,54,50,39,36, 4		7,32
32″	34,17,36,21,55,32,38,14,40,50		2,30,25,40, 8	
		1,43, 6,52,20,13,55,56		7,32
34″	34,17,38, 5, 2,24,58,28,36,46		2,30,25,47,40	
		1,43, 6,49,49,48, 8,16		7,32
36″	34,17,39,48, 9,14,48,16,45, 2		2,30,25,55,12	
		1,43, 6,47,19,22,13, 4		7,32
38″	34,17,41,31,16, 2, 7,38,58, 6		2,30,26, 2,44	
		1,43, 6,44,48,56,10,20		7,32
40″	34,17,43,14,22,46,56,35, 8,26		2,30,26,10,16	
		1,43, 6,42,18,30, 0, 4		7,32
42″	34,17,44,57,29,29,15, 5, 8,30		2,30,26,17,48	
		1,43, 6,39,48, 3,42,16		7,32
44″	34,17,46,40,36, 9, 3, 8,50,46		2,30,26,25,20	
		1,43, 6,37,17,37,16,56		7,32
46″	34,17,48,23,42,46,20,46, 7,42		2,30,26,32,52	
		1,43, 6,34,47,10,44, 4		7,32
48″	34,17,50, 6,49,21, 7,56,51,46		2,30,26,40,24	
		1,43, 6,32,16,44, 3,40		7,32
50″	34,17,51,49,55,53,24,40,55,26		2,30,26,47,56	
		1,43, 6,29,46,17,15,44		7,32
52″	34,17,53,33, 2,23,10,58,11,10		2,30,26,55,28	
		1,43, 6,27,15,50,20,16		7,32
54″	34,17,55,16, 8,50,26,48,31,26		2,30,27, 3, 0	
		1,43, 6,24,45,23,17,16		7,32
56″	34,17,56,59,15,15,12,11,48,42		2,30,27,10,32	
		1,43, 6,22,14,56, 6,44		7,32
58″	34,17,58,42,21,37,27, 7,55,26		2,30,27,18, 4	
		1,43, 6,19,44,28,48,40		
60″	34,18, 0,25,27,57,11,36,44, 6			
exact	34,18, 0,25,27,57,11,36,21,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°52′ 0″	34,18, 0,25,27,57,11,36,21,40	1,43, 6,17,14, 1,20,42		
2″	34,18, 2, 8,34,14,25,37,42,22	1,43, 6,14,43,33,47,25	2,30,27,33,17	7,32
4″	34,18, 3,51,40,29, 9,11,29,47	1,43, 6,12,13, 6, 6,36	2,30,27,40,49	7,32
6″	34,18, 5,34,46,41,22,17,36,23	1,43, 6, 9,42,38,18,15	2,30,27,48,21	7,32
8″	34,18, 7,17,52,51, 4,55,54,38	1,43, 6, 7,12,10,22,22	2,30,27,55,53	7,32
10″	34,18, 9, 0,58,58,17, 6,17, 0	1,43, 6, 4,41,42,18,57	2,30,28, 3,25	7,32
12″	34,18,10,44, 5, 2,58,48,35,57	1,43, 6, 2,11,14, 8, 0	2,30,28,10,57	7,32
14″	34,18,12,27,11, 5,10, 2,43,57	1,43, 5,59,40,45,49,31	2,30,28,18,29	7,32
16″	34,18,14,10,17, 4,50,48,33,28	1,43, 5,57,10,17,23,30	2,30,28,26, 1	7,32
18″	34,18,15,53,23, 2, 1, 5,56,58	1,43, 5,54,39,48,49,57	2,30,28,33,33	7,32
20″	34,18,17,36,28,56,40,54,46,55	1,43, 5,52, 9,20, 8,52	2,30,28,41, 5	7,32
22″	34,18,19,19,34,48,50,14,55,47	1,43, 5,49,38,51,20,15	2,30,28,48,37	7,32
24″	34,18,21, 2,40,38,29, 6,16, 2	1,43, 5,47, 8,22,24, 6	2,30,28,56, 9	7,32
26″	34,18,22,45,46,25,37,28,40, 8	1,43, 5,44,37,53,20,25	2,30,29, 3,41	7,32
28″	34,18,24,28,52,10,15,22, 0,33	1,43, 5,42, 7,24, 9,12	2,30,29,11,13	7,32
30″	34,18,26,11,57,52,22,46, 9,45	1,43, 5,39,36,54,50,27	2,30,29,18,45	7,32
32″	34,18,27,55, 3,31,59,41, 0,12	1,43, 5,37, 6,25,24,10	2,30,29,26,17	7,32
34″	34,18,29,38, 9, 9, 6, 6,24,22	1,43, 5,34,35,55,50,21	2,30,29,33,49	7,32
36″	34,18,31,21,14,43,42, 2,14,43	1,43, 5,32, 5,26, 9, 0	2,30,29,41,21	7,32
38″	34,18,33, 4,20,15,47,28,23,43	1,43, 5,29,34,56,20, 7	2,30,29,48,53	7,32
40″	34,18,34,47,25,45,22,24,43,50	1,43, 5,27, 4,26,23,42	2,30,29,56,25	7,32
42″	34,18,36,30,31,12,26,51, 7,32	1,43, 5,24,33,56,19,45	2,30,30, 3,57	7,32
44″	34,18,38,13,36,37, 0,47,27,17	1,43, 5,22, 3,26, 8,16	2,30,30,11,29	7,32
46″	34,18,39,56,41,59, 4,13,35,33	1,43, 5,19,32,55,49,15	2,30,30,19, 1	7,32
48″	34,18,41,39,47,18,37, 9,24,48	1,43, 5,17, 2,25,22,42	2,30,30,26,33	7,32
50″	34,18,43,22,52,35,39,34,47,30	1,43, 5,14,31,54,48,37	2,30,30,34, 5	7,32
52″	34,18,45, 5,57,50,11,29,36, 7	1,43, 5,12, 1,24, 7, 0	2,30,30,41,37	7,32
54″	34,18,46,49, 3, 2,12,53,43, 7	1,43, 5, 9,30,53,17,51	2,30,30,49, 9	7,32
56″	34,18,48,32, 8,11,43,47, 0,58	1,43, 5, 7, 0,22,21,10	2,30,30,56,41	7,32
58″	34,18,50,15,13,18,44, 9,22, 8	1,43, 5, 4,29,51,16,57	2,30,31, 4,13	
60″	34,18,51,58,18,23,14, 0,39, 5			
exact	34,18,51,58,18,23,14, 0,20,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°53′ 0″	34,18,51,58,18,23,14, 0,20,10			
		1,43, 5, 1,59,20, 3,19		
2″	34,18,53,41,23,25,13,20,23,29		2,30,31,19,24	
		1,43, 4,59,28,48,43,55		7,32
4″	34,18,55,24,28,24,42, 9, 7,24		2,30,31,26,56	
		1,43, 4,56,58,17,16,59		7,32
6″	34,18,57, 7,33,21,40,26,24,23		2,30,31,34,28	
		1,43, 4,54,27,45,42,31		7,32
8″	34,18,58,50,38,16, 8,12, 6,54		2,30,31,42, 0	
		1,43, 4,51,57,14, 0,31		7,32
10″	34,19, 0,33,43, 8, 5,26, 7,25		2,30,31,49,32	
		1,43, 4,49,26,42,10,59		7,32
12″	34,19, 2,16,47,57,32, 8,18,24		2,30,31,57, 4	
		1,43, 4,46,56,10,13,55		7,32
14″	34,19, 3,59,52,44,28,18,32,19		2,30,32, 4,36	
		1,43, 4,44,25,38, 9,19		7,32
16″	34,19, 5,42,57,28,53,56,41,38		2,30,32,12, 8	
		1,43, 4,41,55, 5,57,11		7,32
18″	34,19, 7,26, 2,10,49, 2,38,49		2,30,32,19,40	
		1,43, 4,39,24,33,37,31		7,32
20″	34,19, 9, 9, 6,50,13,36,16,20		2,30,32,27,12	
		1,43, 4,36,54, 1,10,19		7,32
22″	34,19,10,52,11,27, 7,37,26,39		2,30,32,34,44	
		1,43, 4,34,23,28,35,35		7,32
24″	34,19,12,35,16, 1,31, 6, 2,14		2,30,32,42,16	
		1,43, 4,31,52,55,53,19		7,32
26″	34,19,14,18,20,33,24, 1,55,33		2,30,32,49,48	
		1,43, 4,29,22,23, 3,31		7,32
28″	34,19,16, 1,25, 2,46,24,59, 4		2,30,32,57,20	
		1,43, 4,26,51,50, 6,11		7,32
30″	34,19,17,44,29,29,38,15, 5,15		2,30,33, 4,52	
		1,43, 4,24,21,17, 1,19		7,32
32″	34,19,19,27,33,53,59,32, 6,34		2,30,33,12,24	
		1,43, 4,21,50,43,48,55		7,32
34″	34,19,21,10,38,15,50,15,55,29		2,30,33,19,56	
		1,43, 4,19,20,10,28,59		7,32
36″	34,19,22,53,42,35,10,26,24,28		2,30,33,27,28	
		1,43, 4,16,49,37, 1,31		7,32
38″	34,19,24,36,46,52, 0, 3,25,59		2,30,33,35, 0	
		1,43, 4,14,19, 3,26,31		7,32
40″	34,19,26,19,51, 6,19, 6,52,30		2,30,33,42,32	
		1,43, 4,11,48,29,43,59		7,32
42″	34,19,28, 2,55,18, 7,36,36,29		2,30,33,50, 4	
		1,43, 4, 9,17,55,53,55		7,32
44″	34,19,29,45,59,27,25,32,30,24		2,30,33,57,36	
		1,43, 4, 6,47,21,56,19		7,32
46″	34,19,31,29, 3,34,12,54,26,43		2,30,34, 5, 8	
		1,43, 4, 4,16,47,51,11		7,32
48″	34,19,33,12, 7,38,29,42,17,54		2,30,34,12,40	
		1,43, 4, 1,46,13,38,31		7,32
50″	34,19,34,55,11,40,15,55,56,25		2,30,34,20,12	
		1,43, 3,59,15,39,18,19		7,32
52″	34,19,36,38,15,39,31,35,14,44		2,30,34,27,44	
		1,43, 3,56,45, 4,50,35		7,32
54″	34,19,38,21,19,36,16,40, 5,19		2,30,34,35,16	
		1,43, 3,54,14,30,15,19		7,32
56″	34,19,40, 4,23,30,31,10,20,38		2,30,34,42,48	
		1,43, 3,51,43,55,32,31		7,32
58″	34,19,41,47,27,22,15, 5,53, 9		2,30,34,50,20	
		1,43, 3,49,13,20,42,11		
60″	34,19,43,30,31,11,28,26,35,20			
exact	34,19,43,30,31,11,28,26,25,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°54′ 0″	34,19,43,30,31,11,28,26,25,11			
		1,43, 3,46,42,45,43,17		
2″	34,19,45,13,34,58,11,12, 8,28		2,30,35, 5,28	
		1,43, 3,44,12,10,37,49		7,32
4″	34,19,46,56,38,42,23,22,46,17		2,30,35,13, 0	
		1,43, 3,41,41,35,24,49		7,32
6″	34,19,48,39,42,24, 4,58,11, 6		2,30,35,20,32	
		1,43, 3,39,11, 0, 4,17		7,32
8″	34,19,50,22,46, 3,15,58,15,23		2,30,35,28, 4	
		1,43, 3,36,40,24,36,13		7,32
10″	34,19,52, 5,49,39,56,22,51,36		2,30,35,35,36	
		1,43, 3,34, 9,49, 0,37		7,32
12″	34,19,53,48,53,14, 6,11,52,13		2,30,35,43, 8	
		1,43, 3,31,39,13,17,29		7,32
14″	34,19,55,31,56,45,45,25, 9,42		2,30,35,50,40	
		1,43, 3,29, 8,37,26,49		7,32
16″	34,19,57,15, 0,14,54, 2,36,31		2,30,35,58,12	
		1,43, 3,26,38, 1,28,37		7,32
18″	34,19,58,58, 3,41,32, 4, 5, 8		2,30,36, 5,44	
		1,43, 3,24, 7,25,22,53		7,32
20″	34,20, 0,41, 7, 5,39,29,28, 1		2,30,36,13,16	
		1,43, 3,21,36,49, 9,37		7,32
22″	34,20, 2,24,10,27,16,18,37,38		2,30,36,20,48	
		1,43, 3,19, 6,12,48,49		7,32
24″	34,20, 4, 7,13,46,22,31,26,27		2,30,36,28,20	
		1,43, 3,16,35,36,20,29		7,32
26″	34,20, 5,50,17, 2,58, 7,46,56		2,30,36,35,52	
		1,43, 3,14, 4,59,44,37		7,32
28″	34,20, 7,33,20,17, 3, 7,31,33		2,30,36,43,24	
		1,43, 3,11,34,23, 1,13		7,32
30″	34,20, 9,16,23,28,37,30,32,46		2,30,36,50,56	
		1,43, 3, 9, 3,46,10,17		7,32
32″	34,20,10,59,26,37,41,16,43, 3		2,30,36,58,28	
		1,43, 3, 6,33, 9,11,49		7,32
34″	34,20,12,42,29,44,14,25,54,52		2,30,37, 6, 0	
		1,43, 3, 4, 2,32, 5,49		7,32
36″	34,20,14,25,32,48,16,58, 0,41		2,30,37,13,32	
		1,43, 3, 1,31,54,52,17		7,32
38″	34,20,16, 8,35,49,48,52,52,58		2,30,37,21, 4	
		1,43, 2,59, 1,17,31,13		7,32
40″	34,20,17,51,38,48,50,10,24,11		2,30,37,28,36	
		1,43, 2,56,30,40, 2,37		7,32
42″	34,20,19,34,41,45,20,50,26,48		2,30,37,36, 8	
		1,43, 2,54, 0, 2,26,29		7,32
44″	34,20,21,17,44,39,20,52,53,17		2,30,37,43,40	
		1,43, 2,51,29,24,42,49		7,32
46″	34,20,23, 0,47,30,50,17,36, 6		2,30,37,51,12	
		1,43, 2,48,58,46,51,37		7,32
48″	34,20,24,43,50,19,49, 4,27,43		2,30,37,58,44	
		1,43, 2,46,28, 8,52,53		7,32
50″	34,20,26,26,53, 6,17,13,20,36		2,30,38, 6,16	
		1,43, 2,43,57,30,46,37		7,32
52″	34,20,28, 9,55,50,14,44, 7,13		2,30,38,13,48	
		1,43, 2,41,26,52,32,49		7,32
54″	34,20,29,52,58,31,41,36,40, 2		2,30,38,21,20	
		1,43, 2,38,56,14,11,29		7,32
56″	34,20,31,36, 1,10,37,50,51,31		2,30,38,28,52	
		1,43, 2,36,25,35,42,37		7,32
58″	34,20,33,19, 3,47, 3,26,34, 8		2,30,38,36,24	
		1,43, 2,33,54,57, 6,13		
60″	34,20,35, 2, 6,20,58,23,40,21			
exact	34,20,35, 2, 6,20,58,23,37,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°55′ 0″	34,20,35, 2, 6,20,58,23,37,14			
		1,43, 2,31,24,18,21,58		
2″	34,20,36,45, 8,52,22,41,59,12		2,30,38,51,29	
		1,43, 2,28,53,39,30,29		7,32
4″	34,20,38,28,11,21,16,21,29,41		2,30,38,59, 1	
		1,43, 2,26,23, 0,31,28		7,32
6″	34,20,40,11,13,47,39,22, 1, 9		2,30,39, 6,33	
		1,43, 2,23,52,21,24,55		7,32
8″	34,20,41,54,16,11,31,43,26, 4		2,30,39,14, 5	
		1,43, 2,21,21,42,10,50		7,32
10″	34,20,43,37,18,32,53,25,36,54		2,30,39,21,37	
		1,43, 2,18,51, 2,49,13		7,32
12″	34,20,45,20,20,51,44,28,26, 7		2,30,39,29, 9	
		1,43, 2,16,20,23,20, 4		7,32
14″	34,20,47, 3,23, 8, 4,51,46,11		2,30,39,36,41	
		1,43, 2,13,49,43,43,23		7,32
16″	34,20,48,46,25,21,54,35,29,34		2,30,39,44,13	
		1,43, 2,11,19, 3,59,10		7,32
18″	34,20,50,29,27,33,13,39,28,44		2,30,39,51,45	
		1,43, 2, 8,48,24, 7,25		7,32
20″	34,20,52,12,29,42, 2, 3,36, 9		2,30,39,59,17	
		1,43, 2, 6,17,44, 8, 8		7,32
22″	34,20,53,55,31,48,19,47,44,17		2,30,40, 6,49	
		1,43, 2, 3,47, 4, 1,19		7,32
24″	34,20,55,38,33,52, 6,51,45,36		2,30,40,14,21	
		1,43, 2, 1,16,23,46,58		7,32
26″	34,20,57,21,35,53,23,15,32,34		2,30,40,21,53	
		1,43, 1,58,45,43,25, 5		7,32
28″	34,20,59, 4,37,52, 8,58,57,39		2,30,40,29,25	
		1,43, 1,56,15, 2,55,40		7,32
30″	34,21, 0,47,39,48,24, 1,53,19		2,30,40,36,57	
		1,43, 1,53,44,22,18,43		7,32
32″	34,21, 2,30,41,42, 8,24,12, 2		2,30,40,44,29	
		1,43, 1,51,13,41,34,14		7,32
34″	34,21, 4,13,43,33,22, 5,46,16		2,30,40,52, 1	
		1,43, 1,48,43, 0,42,13		7,32
36″	34,21, 5,56,45,22, 5, 6,28,29		2,30,40,59,33	
		1,43, 1,46,12,19,42,40		7,32
38″	34,21, 7,39,47, 8,17,26,11, 9		2,30,41, 7, 5	
		1,43, 1,43,41,38,35,35		7,32
40″	34,21, 9,22,48,51,59, 4,46,44		2,30,41,14,37	
		1,43, 1,41,10,57,20,58		7,32
42″	34,21,11, 5,50,33,10, 2, 7,42		2,30,41,22, 9	
		1,43, 1,38,40,15,58,49		7,32
44″	34,21,12,48,52,11,50,18, 6,31		2,30,41,29,41	
		1,43, 1,36, 9,34,29, 8		7,32
46″	34,21,14,31,53,47,59,52,35,39		2,30,41,37,13	
		1,43, 1,33,38,52,51,55		7,32
48″	34,21,16,14,55,21,38,45,27,34		2,30,41,44,45	
		1,43, 1,31, 8,11, 7,10		7,32
50″	34,21,17,57,56,52,46,56,34,44		2,30,41,52,17	
		1,43, 1,28,37,29,14,53		7,32
52″	34,21,19,40,58,21,24,25,49,37		2,30,41,59,49	
		1,43, 1,26, 6,47,15, 4		7,32
54″	34,21,21,23,59,47,31,13, 4,41		2,30,42, 7,21	
		1,43, 1,23,36, 5, 7,43		7,32
56″	34,21,23, 7, 1,11, 7,18,12,24		2,30,42,14,53	
		1,43, 1,21, 5,22,52,50		7,32
58″	34,21,24,50, 2,32,12,41, 5,14		2,30,42,22,25	
		1,43, 1,18,34,40,30,25		
60″	34,21,26,33, 3,50,47,21,35,39			
exact	34,21,26,33, 3,50,47,21,38, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°56′ 0″	34,21,26,33, 3,50,47,21,38, 8			
		1,43, 1,16, 3,58, 0,46		
2″	34,21,28,16, 5, 6,51,19,38,54		2,30,42,37,27	
		1,43, 1,13,33,15,23,19		7,32
4″	34,21,29,59, 6,20,24,35, 2,13		2,30,42,44,59	
		1,43, 1,11, 2,32,38,20		7,32
6″	34,21,31,42, 7,31,27, 7,40,33		2,30,42,52,31	
		1,43, 1, 8,31,49,45,49		7,32
8″	34,21,33,25, 8,39,58,57,26,22		2,30,43, 0, 3	
		1,43, 1, 6, 1, 6,45,46		7,32
10″	34,21,35, 8, 9,46, 0, 4,12, 8		2,30,43, 7,35	
		1,43, 1, 3,30,23,38,11		7,32
12″	34,21,36,51,10,49,30,27,50,19		2,30,43,15, 7	
		1,43, 1, 0,59,40,23, 4		7,32
14″	34,21,38,34,11,50,30, 8,13,23		2,30,43,22,39	
		1,43, 0,58,28,57, 0,25		7,32
16″	34,21,40,17,12,48,59, 5,13,48		2,30,43,30,11	
		1,43, 0,55,58,13,30,14		7,32
18″	34,21,42, 0,13,44,57,18,44, 2		2,30,43,37,43	
		1,43, 0,53,27,29,52,31		7,32
20″	34,21,43,43,14,38,24,48,36,33		2,30,43,45,15	
		1,43, 0,50,56,46, 7,16		7,32
22″	34,21,45,26,15,29,21,34,43,49		2,30,43,52,47	
		1,43, 0,48,26, 2,14,29		7,32
24″	34,21,47, 9,16,17,47,36,58,18		2,30,44, 0,19	
		1,43, 0,45,55,18,14,10		7,32
26″	34,21,48,52,17, 3,42,55,12,28		2,30,44, 7,51	
		1,43, 0,43,24,34, 6,19		7,32
28″	34,21,50,35,17,47, 7,29,18,47		2,30,44,15,23	
		1,43, 0,40,53,49,50,56		7,32
30″	34,21,52,18,18,28, 1,19, 9,43		2,30,44,22,55	
		1,43, 0,38,23, 5,28, 1		7,32
32″	34,21,54, 1,19, 6,24,24,37,44		2,30,44,30,27	
		1,43, 0,35,52,20,57,34		7,32
34″	34,21,55,44,19,42,16,45,35,18		2,30,44,37,59	
		1,43, 0,33,21,36,19,35		7,32
36″	34,21,57,27,20,15,38,21,54,53		2,30,44,45,31	
		1,43, 0,30,50,51,34, 4		7,32
38″	34,21,59,10,20,46,29,13,28,57		2,30,44,53, 3	
		1,43, 0,28,20, 6,41, 1		7,32
40″	34,22, 0,53,21,14,49,20, 9,58		2,30,45, 0,35	
		1,43, 0,25,49,21,40,26		7,32
42″	34,22, 2,36,21,40,38,41,50,24		2,30,45, 8, 7	
		1,43, 0,23,18,36,32,19		7,32
44″	34,22, 4,19,22, 3,57,18,22,43		2,30,45,15,39	
		1,43, 0,20,47,51,16,40		7,32
46″	34,22, 6, 2,22,24,45, 9,39,23		2,30,45,23,11	
		1,43, 0,18,17, 5,53,29		7,32
48″	34,22, 7,45,22,43, 2,15,32,52		2,30,45,30,43	
		1,43, 0,15,46,20,22,46		7,32
50″	34,22, 9,28,22,58,48,35,55,38		2,30,45,38,15	
		1,43, 0,13,15,34,44,31		7,32
52″	34,22,11,11,23,12, 4,10,40, 9		2,30,45,45,47	
		1,43, 0,10,44,48,58,44		7,32
54″	34,22,12,54,23,22,48,59,38,53		2,30,45,53,19	
		1,43, 0, 8,14, 3, 5,25		7,32
56″	34,22,14,37,23,31, 3, 2,44,18		2,30,46, 0,51	
		1,43, 0, 5,43,17, 4,34		7,32
58″	34,22,16,20,23,36,46,19,48,52		2,30,46, 8,23	
		1,43, 0, 3,12,30,56,11		
60″	34,22,18, 3,23,39,58,50,45, 3			
exact	34,22,18, 3,23,39,58,50,50,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°57′ 0″	34,22,18, 3,23,39,58,50,50,57			
		1,43, 0, 0,41,44,41, 3		
2″	34,22,19,46,23,40,40,35,32, 0		2,30,46,23,23	
		1,42,59,58,10,58,17,40		7,32
4″	34,22,21,29,23,38,51,33,49,40		2,30,46,30,55	
		1,42,59,55,40,11,46,45		7,32
6″	34,22,23,12,23,34,31,45,36,25		2,30,46,38,27	
		1,42,59,53, 9,25, 8,18		7,32
8″	34,22,24,55,23,27,41,10,44,43		2,30,46,45,59	
		1,42,59,50,38,38,22,19		7,32
10″	34,22,26,38,23,18,19,49, 7, 2		2,30,46,53,31	
		1,42,59,48, 7,51,28,48		7,32
12″	34,22,28,21,23, 6,27,40,35,50		2,30,47, 1, 3	
		1,42,59,45,37, 4,27,45		7,32
14″	34,22,30, 4,22,52, 4,45, 3,35		2,30,47, 8,35	
		1,42,59,43, 6,17,19,10		7,32
16″	34,22,31,47,22,35,11, 2,22,45		2,30,47,16, 7	
		1,42,59,40,35,30, 3, 3		7,32
18″	34,22,33,30,22,15,46,32,25,48		2,30,47,23,39	
		1,42,59,38, 4,42,39,24		7,32
20″	34,22,35,13,21,53,51,15, 5,12		2,30,47,31,11	
		1,42,59,35,33,55, 8,13		7,32
22″	34,22,36,56,21,29,25,10,13,25		2,30,47,38,43	
		1,42,59,33, 3, 7,29,30		7,32
24″	34,22,38,39,21, 2,28,17,42,55		2,30,47,46,15	
		1,42,59,30,32,19,43,15		7,32
26″	34,22,40,22,20,33, 0,37,26,10		2,30,47,53,47	
		1,42,59,28, 1,31,49,28		7,32
28″	34,22,42, 5,20, 1, 2, 9,15,38		2,30,48, 1,19	
		1,42,59,25,30,43,48, 9		7,32
30″	34,22,43,48,19,26,32,53, 3,47		2,30,48, 8,51	
		1,42,59,22,59,55,39,18		7,32
32″	34,22,45,31,18,49,32,48,43, 5		2,30,48,16,23	
		1,42,59,20,29, 7,22,55		7,32
34″	34,22,47,14,18,10, 1,56, 6, 0		2,30,48,23,55	
		1,42,59,17,58,18,59, 0		7,32
36″	34,22,48,57,17,28, 0,15, 5, 0		2,30,48,31,27	
		1,42,59,15,27,30,27,33		7,32
38″	34,22,50,40,16,43,27,45,32,33		2,30,48,38,59	
		1,42,59,12,56,41,48,34		7,32
40″	34,22,52,23,15,56,24,27,21, 7		2,30,48,46,31	
		1,42,59,10,25,53, 2, 3		7,32
42″	34,22,54, 6,15, 6,50,20,23,10		2,30,48,54, 3	
		1,42,59, 7,55, 4, 8, 0		7,32
44″	34,22,55,49,14,14,45,24,31,10		2,30,49, 1,35	
		1,42,59, 5,24,15, 6,25		7,32
46″	34,22,57,32,13,20, 9,39,37,35		2,30,49, 9, 7	
		1,42,59, 2,53,25,57,18		7,32
48″	34,22,59,15,12,23, 3, 5,34,53		2,30,49,16,39	
		1,42,59, 0,22,36,40,39		7,32
50″	34,23, 0,58,11,23,25,42,15,32		2,30,49,24,11	
		1,42,58,57,51,47,16,28		7,32
52″	34,23, 2,41,10,21,17,29,32, 0		2,30,49,31,43	
		1,42,58,55,20,57,44,45		7,32
54″	34,23, 4,24, 9,16,38,27,16,45		2,30,49,39,15	
		1,42,58,52,50, 8, 5,30		7,32
56″	34,23, 6, 7, 8, 9,28,35,22,15		2,30,49,46,47	
		1,42,58,50,19,18,18,43		7,32
58″	34,23, 7,50, 6,59,47,53,40,58		2,30,49,54,19	
		1,42,58,47,48,28,24,24		
60″	34,23, 9,33, 5,47,36,22, 5,22			
exact	34,23, 9,33, 5,47,36,22,20, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°58′ 0″	34,23, 9,33, 5,47,36,22,20, 7	1,42,58,45,17,38,24,11		
2″	34,23,11,16, 4,32,54, 0,44,18	1,42,58,42,46,48,14,55	2,30,50, 9,16	7,32
4″	34,23,12,59, 3,15,40,48,59,13	1,42,58,40,15,57,58, 7	2,30,50,16,48	7,32
6″	34,23,14,42, 1,55,56,46,57,20	1,42,58,37,45, 7,33,47	2,30,50,24,20	7,32
8″	34,23,16,25, 0,33,41,54,31, 7	1,42,58,35,14,17, 1,55	2,30,50,31,52	7,32
10″	34,23,18, 7,59, 8,56,11,33, 2	1,42,58,32,43,26,22,31	2,30,50,39,24	7,32
12″	34,23,19,50,57,41,39,37,55,33	1,42,58,30,12,35,35,35	2,30,50,46,56	7,32
14″	34,23,21,33,56,11,52,13,31, 8	1,42,58,27,41,44,41, 7	2,30,50,54,28	7,32
16″	34,23,23,16,54,39,33,58,12,15	1,42,58,25,10,53,39, 7	2,30,51, 2, 0	7,32
18″	34,23,24,59,53, 4,44,51,51,22	1,42,58,22,40, 2,29,35	2,30,51, 9,32	7,32
20″	34,23,26,42,51,27,24,54,20,57	1,42,58,20, 9,11,12,31	2,30,51,17, 4	7,32
22″	34,23,28,25,49,47,34, 5,33,28	1,42,58,17,38,19,47,55	2,30,51,24,36	7,32
24″	34,23,30, 8,48, 5,12,25,21,23	1,42,58,15, 7,28,15,47	2,30,51,32, 8	7,32
26″	34,23,31,51,46,20,19,53,37,10	1,42,58,12,36,36,36, 7	2,30,51,39,40	7,32
28″	34,23,33,34,44,32,56,30,13,17	1,42,58,10, 5,44,48,55	2,30,51,47,12	7,32
30″	34,23,35,17,42,43, 2,15, 2,12	1,42,58, 7,34,52,54,11	2,30,51,54,44	7,32
32″	34,23,37, 0,40,50,37, 7,56,23	1,42,58, 5, 4, 0,51,55	2,30,52, 2,16	7,32
34″	34,23,38,43,38,55,41, 8,48,18	1,42,58, 2,33, 8,42, 7	2,30,52, 9,48	7,32
36″	34,23,40,26,36,58,14,17,30,25	1,42,58, 0, 2,16,24,47	2,30,52,17,20	7,32
38″	34,23,42, 9,34,58,16,33,55,12	1,42,57,57,31,23,59,55	2,30,52,24,52	7,32
40″	34,23,43,52,32,55,47,57,55, 7	1,42,57,55, 0,31,27,31	2,30,52,32,24	7,32
42″	34,23,45,35,30,50,48,29,22,38	1,42,57,52,29,38,47,35	2,30,52,39,56	7,32
44″	34,23,47,18,28,43,18, 8,10,13	1,42,57,49,58,46, 0, 7	2,30,52,47,28	7,32
46″	34,23,49, 1,26,33,16,54,10,20	1,42,57,47,27,53, 5, 7	2,30,52,55, 0	7,32
48″	34,23,50,44,24,20,44,47,15,27	1,42,57,44,57, 0, 2,35	2,30,53, 2,32	7,32
50″	34,23,52,27,22, 5,41,47,18, 2	1,42,57,42,26, 6,52,31	2,30,53,10, 4	7,32
52″	34,23,54,10,19,48, 7,54,10,33	1,42,57,39,55,13,34,55	2,30,53,17,36	7,32
54″	34,23,55,53,17,28, 3, 7,45,28	1,42,57,37,24,20, 9,47	2,30,53,25, 8	7,32
56″	34,23,57,36,15, 5,27,27,55,15	1,42,57,34,53,26,37, 7	2,30,53,32,40	7,32
58″	34,23,59,19,12,40,20,54,32,22	1,42,57,32,22,32,56,55	2,30,53,40,12	
60″	34,24, 1, 2,10,12,43,27,29,17			
exact	34,24, 1, 2,10,12,43,27,51,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
34°59′ 0″	34,24, 1, 2,10,12,43,27,51,23			
		1,42,57,29,51,39,11,33		
2″	34,24, 2,45, 7,42,35, 7, 2,56		2,30,53,55, 6	
		1,42,57,27,20,45,16,27		7,32
4″	34,24, 4,28, 5, 9,55,52,19,23		2,30,54, 2,38	
		1,42,57,24,49,51,13,49		7,32
6″	34,24, 6,11, 2,34,45,43,33,12		2,30,54,10,10	
		1,42,57,22,18,57, 3,39		7,32
8″	34,24, 7,53,59,57, 4,40,36,51		2,30,54,17,42	
		1,42,57,19,48, 2,45,57		7,32
10″	34,24, 9,36,57,16,52,43,22,48		2,30,54,25,14	
		1,42,57,17,17, 8,20,43		7,32
12″	34,24,11,19,54,34, 9,51,43,31		2,30,54,32,46	
		1,42,57,14,46,13,47,57		7,32
14″	34,24,13, 2,51,48,56, 5,31,28		2,30,54,40,18	
		1,42,57,12,15,19, 7,39		7,32
16″	34,24,14,45,49, 1,11,24,39, 7		2,30,54,47,50	
		1,42,57, 9,44,24,19,49		7,32
18″	34,24,16,28,46,10,55,48,58,56		2,30,54,55,22	
		1,42,57, 7,13,29,24,27		7,32
20″	34,24,18,11,43,18, 9,18,23,23		2,30,55, 2,54	
		1,42,57, 4,42,34,21,33		7,32
22″	34,24,19,54,40,22,51,52,44,56		2,30,55,10,26	
		1,42,57, 2,11,39,11, 7		7,32
24″	34,24,21,37,37,25, 3,31,56, 3		2,30,55,17,58	
		1,42,56,59,40,43,53, 9		7,32
26″	34,24,23,20,34,24,44,15,49,12		2,30,55,25,30	
		1,42,56,57, 9,48,27,39		7,32
28″	34,24,25, 3,31,21,54, 4,16,51		2,30,55,33, 2	
		1,42,56,54,38,52,54,37		7,32
30″	34,24,26,46,28,16,32,57,11,28		2,30,55,40,34	
		1,42,56,52, 7,57,14, 3		7,32
32″	34,24,28,29,25, 8,40,54,25,31		2,30,55,48, 6	
		1,42,56,49,37, 1,25,57		7,32
34″	34,24,30,12,21,58,17,55,51,28		2,30,55,55,38	
		1,42,56,47, 6, 5,30,19		7,32
36″	34,24,31,55,18,45,24, 1,21,47		2,30,56, 3,10	
		1,42,56,44,35, 9,27, 9		7,32
38″	34,24,33,38,15,29,59,10,48,56		2,30,56,10,42	
		1,42,56,42, 4,13,16,27		7,32
40″	34,24,35,21,12,12, 3,24, 5,23		2,30,56,18,14	
		1,42,56,39,33,16,58,13		7,32
42″	34,24,37, 4, 8,51,36,41, 3,36		2,30,56,25,46	
		1,42,56,37, 2,20,32,27		7,32
44″	34,24,38,47, 5,28,39, 1,36, 3		2,30,56,33,18	
		1,42,56,34,31,23,59, 9		7,32
46″	34,24,40,30, 2, 3,10,25,35,12		2,30,56,40,50	
		1,42,56,32, 0,27,18,19		7,32
48″	34,24,42,12,58,35,10,52,53,31		2,30,56,48,22	
		1,42,56,29,29,30,29,57		7,32
50″	34,24,43,55,55, 4,40,23,23,28		2,30,56,55,54	
		1,42,56,26,58,33,34, 3		7,32
52″	34,24,45,38,51,31,38,56,57,31		2,30,57, 3,26	
		1,42,56,24,27,36,30,37		7,32
54″	34,24,47,21,47,56, 6,33,28, 8		2,30,57,10,58	
		1,42,56,21,56,39,19,39		7,32
56″	34,24,49, 4,44,18, 3,12,47,47		2,30,57,18,30	
		1,42,56,19,25,42, 1, 9		7,32
58″	34,24,50,47,40,37,28,54,48,56		2,30,57,26, 2	
		1,42,56,16,54,44,35, 7		
60″	34,24,52,30,36,54,23,39,24, 3			
exact	34,24,52,30,36,54,23,39,51,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35° 0′ 0″	34,24,52,30,36,54,23,39,51,50			
		1,42,56,14,23,47, 4,33		
2″	34,24,54,13,33, 8,47,26,56,23		2,30,57,40,53	
		1,42,56,11,52,49,23,40		7,32
4″	34,24,55,56,29,20,40,16,20, 3		2,30,57,48,25	
		1,42,56, 9,21,51,35,15		7,32
6″	34,24,57,39,25,30, 2, 7,55,18		2,30,57,55,57	
		1,42,56, 6,50,53,39,18		7,32
8″	34,24,59,22,21,36,53, 1,34,36		2,30,58, 3,29	
		1,42,56, 4,19,55,35,49		7,32
10″	34,25, 1, 5,17,41,12,57,10,25		2,30,58,11, 1	
		1,42,56, 1,48,57,24,48		7,32
12″	34,25, 2,48,13,43, 1,54,35,13		2,30,58,18,33	
		1,42,55,59,17,59, 6,15		7,32
14″	34,25, 4,31, 9,42,19,53,41,28		2,30,58,26, 5	
		1,42,55,56,47, 0,40,10		7,32
16″	34,25, 6,14, 5,39, 6,54,21,38		2,30,58,33,37	
		1,42,55,54,16, 2, 6,33		7,32
18″	34,25, 7,57, 1,33,22,56,28,11		2,30,58,41, 9	
		1,42,55,51,45, 3,25,24		7,32
20″	34,25, 9,39,57,25, 7,59,53,35		2,30,58,48,41	
		1,42,55,49,14, 4,36,43		7,32
22″	34,25,11,22,53,14,22, 4,30,18		2,30,58,56,13	
		1,42,55,46,43, 5,40,30		7,32
24″	34,25,13, 5,49, 1, 5,10,10,48		2,30,59, 3,45	
		1,42,55,44,12, 6,36,45		7,32
26″	34,25,14,48,44,45,17,16,47,33		2,30,59,11,17	
		1,42,55,41,41, 7,25,28		7,32
28″	34,25,16,31,40,26,58,24,13, 1		2,30,59,18,49	
		1,42,55,39,10, 8, 6,39		7,32
30″	34,25,18,14,36, 6, 8,32,19,40		2,30,59,26,21	
		1,42,55,36,39, 8,40,18		7,32
32″	34,25,19,57,31,42,47,40,59,58		2,30,59,33,53	
		1,42,55,34, 8, 9, 6,25		7,32
34″	34,25,21,40,27,16,55,50, 6,23		2,30,59,41,25	
		1,42,55,31,37, 9,25, 0		7,32
36″	34,25,23,23,22,48,32,59,31,23		2,30,59,48,57	
		1,42,55,29, 6, 9,36, 3		7,32
38″	34,25,25, 6,18,17,39, 9, 7,26		2,30,59,56,29	
		1,42,55,26,35, 9,39,34		7,32
40″	34,25,26,49,13,44,14,18,47, 0		2,31, 0, 4, 1	
		1,42,55,24, 4, 9,35,33		7,32
42″	34,25,28,32, 9, 8,18,28,22,33		2,31, 0,11,33	
		1,42,55,21,33, 9,24, 0		7,32
44″	34,25,30,15, 4,29,51,37,46,33		2,31, 0,19, 5	
		1,42,55,19, 2, 9, 4,55		7,32
46″	34,25,31,57,59,48,53,46,51,28		2,31, 0,26,37	
		1,42,55,16,31, 8,38,18		7,32
48″	34,25,33,40,55, 5,24,55,29,46		2,31, 0,34, 9	
		1,42,55,14, 0, 8, 4, 9		7,32
50″	34,25,35,23,50,19,25, 3,33,55		2,31, 0,41,41	
		1,42,55,11,29, 7,22,28		7,32
52″	34,25,37, 6,45,30,54,10,56,23		2,31, 0,49,13	
		1,42,55, 8,58, 6,33,15		7,32
54″	34,25,38,49,40,39,52,17,29,38		2,31, 0,56,45	
		1,42,55, 6,27, 5,36,30		7,32
56″	34,25,40,32,35,46,19,23, 6, 8		2,31, 1, 4,17	
		1,42,55, 3,56, 4,32,13		7,32
58″	34,25,42,15,30,50,15,27,38,21		2,31, 1,11,49	
		1,42,55, 1,25, 3,20,24		
60″	34,25,43,58,25,51,40,30,58,45			
exact	34,25,43,58,25,51,40,31,29,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35° 1′ 0″	34,25,43,58,25,51,40,31,29,58			
		1,42,54,58,54, 2, 4,32		
2″	34,25,45,41,20,50,34,33,34,30		2,31, 1,26,38	
		1,42,54,56,23, 0,37,54		7,31
4″	34,25,47,24,15,46,57,34,12,24		2,31, 1,34, 9	
		1,42,54,53,51,59, 3,45		7,31
6″	34,25,49, 7,10,40,49,33,16, 9		2,31, 1,41,40	
		1,42,54,51,20,57,22, 5		7,31
8″	34,25,50,50, 5,32,10,30,38,14		2,31, 1,49,11	
		1,42,54,48,49,55,32,54		7,31
10″	34,25,52,33, 0,21, 0,26,11, 8		2,31, 1,56,42	
		1,42,54,46,18,53,36,12		7,31
12″	34,25,54,15,55, 7,19,19,47,20		2,31, 2, 4,13	
		1,42,54,43,47,51,31,59		7,31
14″	34,25,55,58,49,51, 7,11,19,19		2,31, 2,11,44	
		1,42,54,41,16,49,20,15		7,31
16″	34,25,57,41,44,32,24, 0,39,34		2,31, 2,19,15	
		1,42,54,38,45,47, 1, 0		7,31
18″	34,25,59,24,39,11, 9,47,40,34		2,31, 2,26,46	
		1,42,54,36,14,44,34,14		7,31
20″	34,26, 1, 7,33,47,24,32,14,48		2,31, 2,34,17	
		1,42,54,33,43,41,59,57		7,31
22″	34,26, 2,50,28,21, 8,14,14,45		2,31, 2,41,48	
		1,42,54,31,12,39,18, 9		7,31
24″	34,26, 4,33,22,52,20,53,32,54		2,31, 2,49,19	
		1,42,54,28,41,36,28,50		7,31
26″	34,26, 6,16,17,21, 2,30, 1,44		2,31, 2,56,50	
		1,42,54,26,10,33,32, 0		7,31
28″	34,26, 7,59,11,47,13, 3,33,44		2,31, 3, 4,21	
		1,42,54,23,39,30,27,39		7,31
30″	34,26, 9,42, 6,10,52,34, 1,23		2,31, 3,11,52	
		1,42,54,21, 8,27,15,47		7,31
32″	34,26,11,25, 0,32, 1, 1,17,10		2,31, 3,19,23	
		1,42,54,18,37,23,56,24		7,31
34″	34,26,13, 7,54,50,38,25,13,34		2,31, 3,26,54	
		1,42,54,16, 6,20,29,30		7,31
36″	34,26,14,50,49, 6,44,45,43, 4		2,31, 3,34,25	
		1,42,54,13,35,16,55, 5		7,31
38″	34,26,16,33,43,20,20, 2,38, 9		2,31, 3,41,56	
		1,42,54,11, 4,13,13, 9		7,31
40″	34,26,18,16,37,31,24,15,51,18		2,31, 3,49,27	
		1,42,54, 8,33, 9,23,42		7,31
42″	34,26,19,59,31,39,57,25,15, 0		2,31, 3,56,58	
		1,42,54, 6, 2, 5,26,44		7,31
44″	34,26,21,42,25,45,59,30,41,44		2,31, 4, 4,29	
		1,42,54, 3,31, 1,22,15		7,31
46″	34,26,23,25,19,49,30,32, 3,59		2,31, 4,12, 0	
		1,42,54, 0,59,57,10,15		7,31
48″	34,26,25, 8,13,50,30,29,14,14		2,31, 4,19,31	
		1,42,53,58,28,52,50,44		7,31
50″	34,26,26,51, 7,48,59,22, 4,58		2,31, 4,27, 2	
		1,42,53,55,57,48,23,42		7,31
52″	34,26,28,34, 1,44,57,10,28,40		2,31, 4,34,33	
		1,42,53,53,26,43,49, 9		7,31
54″	34,26,30,16,55,38,23,54,17,49		2,31, 4,42, 4	
		1,42,53,50,55,39, 7, 5		7,31
56″	34,26,31,59,49,29,19,33,24,54		2,31, 4,49,35	
		1,42,53,48,24,34,17,30		7,31
58″	34,26,33,42,43,17,44, 7,42,24		2,31, 4,57, 6	
		1,42,53,45,53,29,20,24		
60″	34,26,35,25,37, 3,37,37, 2,48			
exact	34,26,35,25,37, 3,37,36,35,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35° 2′ 0″	34,26,35,25,37, 3,37,36,35,38			
		1,42,53,43,22,24,12,53		
2″	34,26,37, 8,30,47, 0, 0,48,31		2,31, 5,12,20	
		1,42,53,40,51,19, 0,33		7,31
4″	34,26,38,51,24,27,51,19,49, 4		2,31, 5,19,51	
		1,42,53,38,20,13,40,42		7,31
6″	34,26,40,34,18, 6,11,33,29,46		2,31, 5,27,22	
		1,42,53,35,49, 8,13,20		7,31
8″	34,26,42,17,11,42, 0,41,43, 6		2,31, 5,34,53	
		1,42,53,33,18, 2,38,27		7,31
10″	34,26,44, 0, 5,15,18,44,21,33		2,31, 5,42,24	
		1,42,53,30,46,56,56, 3		7,31
12″	34,26,45,42,58,46, 5,41,17,36		2,31, 5,49,55	
		1,42,53,28,15,51, 6, 8		7,31
14″	34,26,47,25,52,14,21,32,23,44		2,31, 5,57,26	
		1,42,53,25,44,45, 8,42		7,31
16″	34,26,49, 8,45,40, 6,17,32,26		2,31, 6, 4,57	
		1,42,53,23,13,39, 3,45		7,31
18″	34,26,50,51,39, 3,19,56,36,11		2,31, 6,12,28	
		1,42,53,20,42,32,51,17		7,31
20″	34,26,52,34,32,24, 2,29,27,28		2,31, 6,19,59	
		1,42,53,18,11,26,31,18		7,31
22″	34,26,54,17,25,42,13,55,58,46		2,31, 6,27,30	
		1,42,53,15,40,20, 3,48		7,31
24″	34,26,56, 0,18,57,54,16, 2,34		2,31, 6,35, 1	
		1,42,53,13, 9,13,28,47		7,31
26″	34,26,57,43,12,11, 3,29,31,21		2,31, 6,42,32	
		1,42,53,10,38, 6,46,15		7,31
28″	34,26,59,26, 5,21,41,36,17,36		2,31, 6,50, 3	
		1,42,53, 8, 6,59,56,12		7,31
30″	34,27, 1, 8,58,29,48,36,13,48		2,31, 6,57,34	
		1,42,53, 5,35,52,58,38		7,31
32″	34,27, 2,51,51,35,24,29,12,26		2,31, 7, 5, 5	
		1,42,53, 3, 4,45,53,33		7,31
34″	34,27, 4,34,44,38,29,15, 5,59		2,31, 7,12,36	
		1,42,53, 0,33,38,40,57		7,31
36″	34,27, 6,17,37,39, 2,53,46,56		2,31, 7,20, 7	
		1,42,52,58, 2,31,20,50		7,31
38″	34,27, 8, 0,30,37, 5,25, 7,46		2,31, 7,27,38	
		1,42,52,55,31,23,53,12		7,31
40″	34,27, 9,43,23,32,36,49, 0,58		2,31, 7,35, 9	
		1,42,52,53, 0,16,18, 3		7,31
42″	34,27,11,26,16,25,37, 5,19, 1		2,31, 7,42,40	
		1,42,52,50,29, 8,35,23		7,31
44″	34,27,13, 9, 9,16, 6,13,54,24		2,31, 7,50,11	
		1,42,52,47,58, 0,45,12		7,31
46″	34,27,14,52, 2, 4, 4,14,39,36		2,31, 7,57,42	
		1,42,52,45,26,52,47,30		7,31
48″	34,27,16,34,54,49,31, 7,27, 6		2,31, 8, 5,13	
		1,42,52,42,55,44,42,17		7,31
50″	34,27,18,17,47,32,26,52, 9,23		2,31, 8,12,44	
		1,42,52,40,24,36,29,33		7,31
52″	34,27,20, 0,40,12,51,28,38,56		2,31, 8,20,15	
		1,42,52,37,53,28, 9,18		7,31
54″	34,27,21,43,32,50,44,56,48,14		2,31, 8,27,46	
		1,42,52,35,22,19,41,32		7,31
56″	34,27,23,26,25,26, 7,16,29,46		2,31, 8,35,17	
		1,42,52,32,51,11, 6,15		7,31
58″	34,27,25, 9,17,58,58,27,36, 1		2,31, 8,42,48	
		1,42,52,30,20, 2,23,27		
60″	34,27,26,52,10,29,18,29,59,28			
exact	34,27,26,52,10,29,18,29,40, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35° 3′ 0″	34,27,26,52,10,29,18,29,40, 5			
		1,42,52,27,48,53,31, 0		
2″	34,27,28,35, 2,57, 7,23,11, 5		2,31, 8,57,59	
		1,42,52,25,17,44,33, 1		7,31
4″	34,27,30,17,55,22,25, 7,44, 6		2,31, 9, 5,30	
		1,42,52,22,46,35,27,31		7,31
6″	34,27,32, 0,47,45,11,43,11,37		2,31, 9,13, 1	
		1,42,52,20,15,26,14,30		7,31
8″	34,27,33,43,40, 5,27, 9,26, 7		2,31, 9,20,32	
		1,42,52,17,44,16,53,58		7,31
10″	34,27,35,26,32,23,11,26,20, 5		2,31, 9,28, 3	
		1,42,52,15,13, 7,25,55		7,31
12″	34,27,37, 9,24,38,24,33,46, 0		2,31, 9,35,34	
		1,42,52,12,41,57,50,21		7,31
14″	34,27,38,52,16,51, 6,31,36,21		2,31, 9,43, 5	
		1,42,52,10,10,48, 7,16		7,31
16″	34,27,40,35, 9, 1,17,19,43,37		2,31, 9,50,36	
		1,42,52, 7,39,38,16,40		7,31
18″	34,27,42,18, 1, 8,56,58, 0,17		2,31, 9,58, 7	
		1,42,52, 5, 8,28,18,33		7,31
20″	34,27,44, 0,53,14, 5,26,18,50		2,31,10, 5,38	
		1,42,52, 2,37,18,12,55		7,31
22″	34,27,45,43,45,16,42,44,31,45		2,31,10,13, 9	
		1,42,52, 0, 6, 7,59,46		7,31
24″	34,27,47,26,37,16,48,52,31,31		2,31,10,20,40	
		1,42,51,57,34,57,39, 6		7,31
26″	34,27,49, 9,29,14,23,50,10,37		2,31,10,28,11	
		1,42,51,55, 3,47,10,55		7,31
28″	34,27,50,52,21, 9,27,37,21,32		2,31,10,35,42	
		1,42,51,52,32,36,35,13		7,31
30″	34,27,52,35,13, 2, 0,13,56,45		2,31,10,43,13	
		1,42,51,50, 1,25,52, 0		7,31
32″	34,27,54,18, 4,52, 1,39,48,45		2,31,10,50,44	
		1,42,51,47,30,15, 1,16		7,31
34″	34,27,56, 0,56,39,31,54,50, 1		2,31,10,58,15	
		1,42,51,44,59, 4, 3, 1		7,31
36″	34,27,57,43,48,24,30,58,53, 2		2,31,11, 5,46	
		1,42,51,42,27,52,57,15		7,31
38″	34,27,59,26,40, 6,58,51,50,17		2,31,11,13,17	
		1,42,51,39,56,41,43,58		7,31
40″	34,28, 1, 9,31,46,55,33,34,15		2,31,11,20,48	
		1,42,51,37,25,30,23,10		7,31
42″	34,28, 2,52,23,24,21, 3,57,25		2,31,11,28,19	
		1,42,51,34,54,18,54,51		7,31
44″	34,28, 4,35,14,59,15,22,52,16		2,31,11,35,50	
		1,42,51,32,23, 7,19, 1		7,31
46″	34,28, 6,18, 6,31,38,30,11,17		2,31,11,43,21	
		1,42,51,29,51,55,35,40		7,31
48″	34,28, 8, 0,58, 1,30,25,46,57		2,31,11,50,52	
		1,42,51,27,20,43,44,48		7,31
50″	34,28, 9,43,49,28,51, 9,31,45		2,31,11,58,23	
		1,42,51,24,49,31,46,25		7,31
52″	34,28,11,26,40,53,40,41,18,10		2,31,12, 5,54	
		1,42,51,22,18,19,40,31		7,31
54″	34,28,13, 9,32,15,59, 0,58,41		2,31,12,13,25	
		1,42,51,19,47, 7,27, 6		7,31
56″	34,28,14,52,23,35,46, 8,25,47		2,31,12,20,56	
		1,42,51,17,15,55, 6,10		7,31
58″	34,28,16,35,14,53, 2, 3,31,57		2,31,12,28,27	
		1,42,51,14,44,42,37,43		
60″	34,28,18,18, 6, 7,46,46, 9,40			
exact	34,28,18,18, 6, 7,46,45,56, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35° 4′ 0″	34,28,18,18, 6, 7,46,45,56, 1	1,42,51,12,13,30, 0,15		
2″	34,28,20, 0,57,20, 0,15,56,16	1,42,51, 9,42,17,16,40	2,31,12,43,35	7,31
4″	34,28,21,43,48,29,42,33,12,56	1,42,51, 7,11, 4,25,34	2,31,12,51, 6	7,31
6″	34,28,23,26,39,36,53,37,38,30	1,42,51, 4,39,51,26,57	2,31,12,58,37	7,31
8″	34,28,25, 9,30,41,33,29, 5,27	1,42,51, 2, 8,38,20,49	2,31,13, 6, 8	7,31
10″	34,28,26,52,21,43,42, 7,26,16	1,42,50,59,37,25, 7,10	2,31,13,13,39	7,31
12″	34,28,28,35,12,43,19,32,33,26	1,42,50,57, 6,11,46, 0	2,31,13,21,10	7,31
14″	34,28,30,18, 3,40,25,44,19,26	1,42,50,54,34,58,17,19	2,31,13,28,41	7,31
16″	34,28,32, 0,54,35, 0,42,36,45	1,42,50,52, 3,44,41, 7	2,31,13,36,12	7,31
18″	34,28,33,43,45,27, 4,27,17,52	1,42,50,49,32,30,57,24	2,31,13,43,43	7,31
20″	34,28,35,26,36,16,36,58,15,16	1,42,50,47, 1,17, 6,10	2,31,13,51,14	7,31
22″	34,28,37, 9,27, 3,38,15,21,26	1,42,50,44,30, 3, 7,25	2,31,13,58,45	7,31
24″	34,28,38,52,17,48, 8,18,28,51	1,42,50,41,58,49, 1, 9	2,31,14, 6,16	7,31
26″	34,28,40,35, 8,30, 7, 7,30, 0	1,42,50,39,27,34,47,22	2,31,14,13,47	7,31
28″	34,28,42,17,59, 9,34,42,17,22	1,42,50,36,56,20,26, 4	2,31,14,21,18	7,31
30″	34,28,44, 0,49,46,31, 2,43,26	1,42,50,34,25, 5,57,15	2,31,14,28,49	7,31
32″	34,28,45,43,40,20,56, 8,40,41	1,42,50,31,53,51,20,55	2,31,14,36,20	7,31
34″	34,28,47,26,30,52,50, 0, 1,36	1,42,50,29,22,36,37, 4	2,31,14,43,51	7,31
36″	34,28,49, 9,21,22,12,36,38,40	1,42,50,26,51,21,45,42	2,31,14,51,22	7,31
38″	34,28,50,52,11,49, 3,58,24,22	1,42,50,24,20, 6,46,49	2,31,14,58,53	7,31
40″	34,28,52,35, 2,13,24, 5,11,11	1,42,50,21,48,51,40,25	2,31,15, 6,24	7,31
42″	34,28,54,17,52,35,12,56,51,36	1,42,50,19,17,36,26,30	2,31,15,13,55	7,31
44″	34,28,56, 0,42,54,30,33,18, 6	1,42,50,16,46,21, 5, 4	2,31,15,21,26	7,31
46″	34,28,57,43,33,11,16,54,23,10	1,42,50,14,15, 5,36, 7	2,31,15,28,57	7,31
48″	34,28,59,26,23,25,31,59,59,17	1,42,50,11,43,49,59,39	2,31,15,36,28	7,31
50″	34,29, 1, 9,13,37,15,49,58,56	1,42,50, 9,12,34,15,40	2,31,15,43,59	7,31
52″	34,29, 2,52, 3,46,28,24,14,36	1,42,50, 6,41,18,24,10	2,31,15,51,30	7,31
54″	34,29, 4,34,53,53, 9,42,38,46	1,42,50, 4,10, 2,25, 9	2,31,15,59, 1	7,31
56″	34,29, 6,17,43,57,19,45, 3,55	1,42,50, 1,38,46,18,37	2,31,16, 6,32	7,31
58″	34,29, 8, 0,33,58,58,31,22,32	1,42,49,59, 7,30, 4,34	2,31,16,14, 3	
60″	34,29, 9,43,23,58, 6, 1,27, 6			
exact	34,29, 9,43,23,58, 6, 1,17,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35° 5′ 0″	34,29, 9,43,23,58, 6, 1,17,32	1,42,49,56,36,13,42, 2		
2″	34,29,11,26,13,54,42,14,59,34	1,42,49,54, 4,57,12,53	2,31,16,29, 9	7,31
4″	34,29,13, 9, 3,48,47,12,12,27	1,42,49,51,33,40,36,13	2,31,16,36,40	7,31
6″	34,29,14,51,53,40,20,52,48,40	1,42,49,49, 2,23,52, 2	2,31,16,44,11	7,31
8″	34,29,16,34,43,29,23,16,40,42	1,42,49,46,31, 7, 0,20	2,31,16,51,42	7,31
10″	34,29,18,17,33,15,54,23,41, 2	1,42,49,43,59,50, 1, 7	2,31,16,59,13	7,31
12″	34,29,20, 0,22,59,54,13,42, 9	1,42,49,41,28,32,54,23	2,31,17, 6,44	7,31
14″	34,29,21,43,12,41,22,46,36,32	1,42,49,38,57,15,40, 8	2,31,17,14,15	7,31
16″	34,29,23,26, 2,20,20, 2,16,40	1,42,49,36,25,58,18,22	2,31,17,21,46	7,31
18″	34,29,25, 8,51,56,46, 0,35, 2	1,42,49,33,54,40,49, 5	2,31,17,29,17	7,31
20″	34,29,26,51,41,30,40,41,24, 7	1,42,49,31,23,23,12,17	2,31,17,36,48	7,31
22″	34,29,28,34,31, 2, 4, 4,36,24	1,42,49,28,52, 5,27,58	2,31,17,44,19	7,31
24″	34,29,30,17,20,30,56,10, 4,22	1,42,49,26,20,47,36, 8	2,31,17,51,50	7,31
26″	34,29,32, 0, 9,57,16,57,40,30	1,42,49,23,49,29,36,47	2,31,17,59,21	7,31
28″	34,29,33,42,59,21, 6,27,17,17	1,42,49,21,18,11,29,55	2,31,18, 6,52	7,31
30″	34,29,35,25,48,42,24,38,47,12	1,42,49,18,46,53,15,32	2,31,18,14,23	7,31
32″	34,29,37, 8,38, 1,11,32, 2,44	1,42,49,16,15,34,53,38	2,31,18,21,54	7,31
34″	34,29,38,51,27,17,27, 6,56,22	1,42,49,13,44,16,24,13	2,31,18,29,25	7,31
36″	34,29,40,34,16,31,11,23,20,35	1,42,49,11,12,57,47,17	2,31,18,36,56	7,31
38″	34,29,42,17, 5,42,24,21, 7,52	1,42,49, 8,41,39, 2,50	2,31,18,44,27	7,31
40″	34,29,43,59,54,51, 6, 0,10,42	1,42,49, 6,10,20,10,52	2,31,18,51,58	7,31
42″	34,29,45,42,43,57,16,20,21,34	1,42,49, 3,39, 1,11,23	2,31,18,59,29	7,31
44″	34,29,47,25,33, 0,55,21,32,57	1,42,49, 1, 7,42, 4,23	2,31,19, 7, 0	7,31
46″	34,29,49, 8,22, 2, 3, 3,37,20	1,42,48,58,36,22,49,52	2,31,19,14,31	7,31
48″	34,29,50,51,11, 0,39,26,27,12	1,42,48,56, 5, 3,27,50	2,31,19,22, 2	7,31
50″	34,29,52,33,59,56,44,29,55, 2	1,42,48,53,33,43,58,17	2,31,19,29,33	7,31
52″	34,29,54,16,48,50,18,13,53,19	1,42,48,51, 2,24,21,13	2,31,19,37, 4	7,31
54″	34,29,55,59,37,41,20,38,14,32	1,42,48,48,31, 4,36,38	2,31,19,44,35	7,31
56″	34,29,57,42,26,29,51,42,51,10	1,42,48,45,59,44,44,32	2,31,19,52, 6	7,31
58″	34,29,59,25,15,15,51,27,35,42	1,42,48,43,28,24,44,55	2,31,19,59,37	
60″	34,30, 1, 8, 3,59,19,52,20,37			
exact	34,30, 1, 8, 3,59,19,52,20,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35° 6′ 0″	34,30, 1, 8, 3,59,19,52,20,14			
		1,42,48,40,57, 4,37,42		
2″	34,30, 2,50,52,40,16,56,57,56		2,31,20,14,39	
		1,42,48,38,25,44,23, 3		7,31
4″	34,30, 4,33,41,18,42,41,20,59		2,31,20,22,10	
		1,42,48,35,54,24, 0,53		7,31
6″	34,30, 6,16,29,54,37, 5,21,52		2,31,20,29,41	
		1,42,48,33,23, 3,31,12		7,31
8″	34,30, 7,59,18,28, 0, 8,53, 4		2,31,20,37,12	
		1,42,48,30,51,42,54, 0		7,31
10″	34,30, 9,42, 6,58,51,51,47, 4		2,31,20,44,43	
		1,42,48,28,20,22, 9,17		7,31
12″	34,30,11,24,55,27,12,13,56,21		2,31,20,52,14	
		1,42,48,25,49, 1,17, 3		7,31
14″	34,30,13, 7,43,53, 1,15,13,24		2,31,20,59,45	
		1,42,48,23,17,40,17,18		7,31
16″	34,30,14,50,32,16,18,55,30,42		2,31,21, 7,16	
		1,42,48,20,46,19,10, 2		7,31
18″	34,30,16,33,20,37, 5,14,40,44		2,31,21,14,47	
		1,42,48,18,14,57,55,15		7,31
20″	34,30,18,16, 8,55,20,12,35,59		2,31,21,22,18	
		1,42,48,15,43,36,32,57		7,31
22″	34,30,19,58,57,11, 3,49, 8,56		2,31,21,29,49	
		1,42,48,13,12,15, 3, 8		7,31
24″	34,30,21,41,45,24,16, 4,12, 4		2,31,21,37,20	
		1,42,48,10,40,53,25,48		7,31
26″	34,30,23,24,33,34,56,57,37,52		2,31,21,44,51	
		1,42,48, 8, 9,31,40,57		7,31
28″	34,30,25, 7,21,43, 6,29,18,49		2,31,21,52,22	
		1,42,48, 5,38, 9,48,35		7,31
30″	34,30,26,50, 9,48,44,39, 7,24		2,31,21,59,53	
		1,42,48, 3, 6,47,48,42		7,31
32″	34,30,28,32,57,51,51,26,56, 6		2,31,22, 7,24	
		1,42,48, 0,35,25,41,18		7,31
34″	34,30,30,15,45,52,26,52,37,24		2,31,22,14,55	
		1,42,47,58, 4, 3,26,23		7,31
36″	34,30,31,58,33,50,30,56, 3,47		2,31,22,22,26	
		1,42,47,55,32,41, 3,57		7,31
38″	34,30,33,41,21,46, 3,37, 7,44		2,31,22,29,57	
		1,42,47,53, 1,18,34, 0		7,31
40″	34,30,35,24, 9,39, 4,55,41,44		2,31,22,37,28	
		1,42,47,50,29,55,56,32		7,31
42″	34,30,37, 6,57,29,34,51,38,16		2,31,22,44,59	
		1,42,47,47,58,33,11,33		7,31
44″	34,30,38,49,45,17,33,24,49,49		2,31,22,52,30	
		1,42,47,45,27,10,19, 3		7,31
46″	34,30,40,32,33, 3, 0,35, 8,52		2,31,23, 0, 1	
		1,42,47,42,55,47,19, 2		7,31
48″	34,30,42,15,20,45,56,22,27,54		2,31,23, 7,32	
		1,42,47,40,24,24,11,30		7,31
50″	34,30,43,58, 8,26,20,46,39,24		2,31,23,15, 3	
		1,42,47,37,53, 0,56,27		7,31
52″	34,30,45,40,56, 4,13,47,35,51		2,31,23,22,34	
		1,42,47,35,21,37,33,53		7,31
54″	34,30,47,23,43,39,35,25, 9,44		2,31,23,30, 5	
		1,42,47,32,50,14, 3,48		7,31
56″	34,30,49, 6,31,12,25,39,13,32		2,31,23,37,36	
		1,42,47,30,18,50,26,12		7,31
58″	34,30,50,49,18,42,44,29,39,44		2,31,23,45, 7	
		1,42,47,27,47,26,41, 5		
60″	34,30,52,32, 6,10,31,56,20,49			
exact	34,30,52,32, 6,10,31,56,21, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35° 7′ 0″	34,30,52,32, 6,10,31,56,21, 8			
		1,42,47,25,16, 2,48,39		
2″	34,30,54,14,53,35,47,59, 9,47		2,31,24, 0, 7	
		1,42,47,22,44,38,48,32		7,31
4″	34,30,55,57,40,58,32,37,58,19		2,31,24, 7,38	
		1,42,47,20,13,14,40,54		7,31
6″	34,30,57,40,28,18,45,52,39,13		2,31,24,15, 9	
		1,42,47,17,41,50,25,45		7,31
8″	34,30,59,23,15,36,27,43, 4,58		2,31,24,22,40	
		1,42,47,15,10,26, 3, 5		7,31
10″	34,31, 1, 6, 2,51,38, 9, 8, 3		2,31,24,30,11	
		1,42,47,12,39, 1,32,54		7,31
12″	34,31, 2,48,50, 4,17,10,40,57		2,31,24,37,42	
		1,42,47,10, 7,36,55,12		7,31
14″	34,31, 4,31,37,14,24,47,36, 9		2,31,24,45,13	
		1,42,47, 7,36,12, 9,59		7,31
16″	34,31, 6,14,24,22, 0,59,46, 8		2,31,24,52,44	
		1,42,47, 5, 4,47,17,15		7,31
18″	34,31, 7,57,11,27, 5,47, 3,23		2,31,25, 0,15	
		1,42,47, 2,33,22,17, 0		7,31
20″	34,31, 9,39,58,29,39, 9,20,23		2,31,25, 7,46	
		1,42,47, 0, 1,57, 9,14		7,31
22″	34,31,11,22,45,29,41, 6,29,37		2,31,25,15,17	
		1,42,46,57,30,31,53,57		7,31
24″	34,31,13, 5,32,27,11,38,23,34		2,31,25,22,48	
		1,42,46,54,59, 6,31, 9		7,31
26″	34,31,14,48,19,22,10,44,54,43		2,31,25,30,19	
		1,42,46,52,27,41, 0,50		7,31
28″	34,31,16,31, 6,14,38,25,55,33		2,31,25,37,50	
		1,42,46,49,56,15,23, 0		7,31
30″	34,31,18,13,53, 4,34,41,18,33		2,31,25,45,21	
		1,42,46,47,24,49,37,39		7,31
32″	34,31,19,56,39,51,59,30,56,12		2,31,25,52,52	
		1,42,46,44,53,23,44,47		7,31
34″	34,31,21,39,26,36,52,54,40,59		2,31,26, 0,23	
		1,42,46,42,21,57,44,24		7,31
36″	34,31,23,22,13,19,14,52,25,23		2,31,26, 7,54	
		1,42,46,39,50,31,36,30		7,31
38″	34,31,25, 4,59,59, 5,24, 1,53		2,31,26,15,25	
		1,42,46,37,19, 5,21, 5		7,31
40″	34,31,26,47,46,36,24,29,22,58		2,31,26,22,56	
		1,42,46,34,47,38,58, 9		7,31
42″	34,31,28,30,33,11,12, 8,21, 7		2,31,26,30,27	
		1,42,46,32,16,12,27,42		7,31
44″	34,31,30,13,19,43,28,20,48,49		2,31,26,37,58	
		1,42,46,29,44,45,49,44		7,31
46″	34,31,31,56, 6,13,13, 6,38,33		2,31,26,45,29	
		1,42,46,27,13,19, 4,15		7,31
48″	34,31,33,38,52,40,26,25,42,48		2,31,26,53, 0	
		1,42,46,24,41,52,11,15		7,31
50″	34,31,35,21,39, 5, 8,17,54, 3		2,31,27, 0,31	
		1,42,46,22,10,25,10,44		7,31
52″	34,31,37, 4,25,27,18,43, 4,47		2,31,27, 8, 2	
		1,42,46,19,38,58, 2,42		7,31
54″	34,31,38,47,11,46,57,41, 7,29		2,31,27,15,33	
		1,42,46,17, 7,30,47, 9		7,31
56″	34,31,40,29,58, 4, 5,11,54,38		2,31,27,23, 4	
		1,42,46,14,36, 3,24, 5		7,31
58″	34,31,42,12,44,18,41,15,18,43		2,31,27,30,35	
		1,42,46,12, 4,35,53,30		
60″	34,31,43,55,30,30,45,51,12,13			
exact	34,31,43,55,30,30,45,51,18,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35° 8′ 0″	34,31,43,55,30,30,45,51,18,48			
		1,42,46, 9,33, 8,16,16		
2″	34,31,45,38,16,40,18,59,35, 4		2,31,27,45,33	
		1,42,46, 7, 1,40,30,43		7,31
4″	34,31,47,21, 2,47,20,40, 5,47		2,31,27,53, 4	
		1,42,46, 4,30,12,37,39		7,31
6″	34,31,49, 3,48,51,50,52,43,26		2,31,28, 0,35	
		1,42,46, 1,58,44,37, 4		7,31
8″	34,31,50,46,34,53,49,37,20,30		2,31,28, 8, 6	
		1,42,45,59,27,16,28,58		7,31
10″	34,31,52,29,20,53,16,53,49,28		2,31,28,15,37	
		1,42,45,56,55,48,13,21		7,31
12″	34,31,54,12, 6,50,12,42, 2,49		2,31,28,23, 8	
		1,42,45,54,24,19,50,13		7,31
14″	34,31,55,54,52,44,37, 1,53, 2		2,31,28,30,39	
		1,42,45,51,52,51,19,34		7,31
16″	34,31,57,37,38,36,29,53,12,36		2,31,28,38,10	
		1,42,45,49,21,22,41,24		7,31
18″	34,31,59,20,24,25,51,15,54, 0		2,31,28,45,41	
		1,42,45,46,49,53,55,43		7,31
20″	34,32, 1, 3,10,12,41, 9,49,43		2,31,28,53,12	
		1,42,45,44,18,25, 2,31		7,31
22″	34,32, 2,45,55,56,59,34,52,14		2,31,29, 0,43	
		1,42,45,41,46,56, 1,48		7,31
24″	34,32, 4,28,41,38,46,30,54, 2		2,31,29, 8,14	
		1,42,45,39,15,26,53,34		7,31
26″	34,32, 6,11,27,18, 1,57,47,36		2,31,29,15,45	
		1,42,45,36,43,57,37,49		7,31
28″	34,32, 7,54,12,54,45,55,25,25		2,31,29,23,16	
		1,42,45,34,12,28,14,33		7,31
30″	34,32, 9,36,58,28,58,23,39,58		2,31,29,30,47	
		1,42,45,31,40,58,43,46		7,31
32″	34,32,11,19,44, 0,39,22,23,44		2,31,29,38,18	
		1,42,45,29, 9,29, 5,28		7,31
34″	34,32,13, 2,29,29,48,51,29,12		2,31,29,45,49	
		1,42,45,26,37,59,19,39		7,31
36″	34,32,14,45,14,56,26,50,48,51		2,31,29,53,20	
		1,42,45,24, 6,29,26,19		7,31
38″	34,32,16,28, 0,20,33,20,15,10		2,31,30, 0,51	
		1,42,45,21,34,59,25,28		7,31
40″	34,32,18,10,45,42, 8,19,40,38		2,31,30, 8,22	
		1,42,45,19, 3,29,17, 6		7,31
42″	34,32,19,53,31, 1,11,48,57,44		2,31,30,15,53	
		1,42,45,16,31,59, 1,13		7,31
44″	34,32,21,36,16,17,43,47,58,57		2,31,30,23,24	
		1,42,45,14, 0,28,37,49		7,31
46″	34,32,23,19, 1,31,44,16,36,46		2,31,30,30,55	
		1,42,45,11,28,58, 6,54		7,31
48″	34,32,25, 1,46,43,13,14,43,40		2,31,30,38,26	
		1,42,45, 8,57,27,28,28		7,31
50″	34,32,26,44,31,52,10,42,12, 8		2,31,30,45,57	
		1,42,45, 6,25,56,42,31		7,31
52″	34,32,28,27,16,58,36,38,54,39		2,31,30,53,28	
		1,42,45, 3,54,25,49, 3		7,31
54″	34,32,30,10, 2, 2,31, 4,43,42		2,31,31, 0,59	
		1,42,45, 1,22,54,48, 4		7,31
56″	34,32,31,52,47, 3,53,59,31,46		2,31,31, 8,30	
		1,42,44,58,51,23,39,34		7,31
58″	34,32,33,35,32, 2,45,23,11,20		2,31,31,16, 1	
		1,42,44,56,19,52,23,33		
60″	34,32,35,18,16,59, 5,15,34,53			
exact	34,32,35,18,16,59, 5,15,53,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35° 9′ 0″	34,32,35,18,16,59, 5,15,53,15			
		1,42,44,53,48,21, 1,56		
2″	34,32,37, 1, 1,52,53,36,55,11		2,31,31,30,55	
		1,42,44,51,16,49,31, 1		7,31
4″	34,32,38,43,46,44,10,26,26,12		2,31,31,38,26	
		1,42,44,48,45,17,52,35		7,31
6″	34,32,40,26,31,32,55,44,18,47		2,31,31,45,57	
		1,42,44,46,13,46, 6,38		7,31
8″	34,32,42, 9,16,19, 9,30,25,25		2,31,31,53,28	
		1,42,44,43,42,14,13,10		7,31
10″	34,32,43,52, 1, 2,51,44,38,35		2,31,32, 0,59	
		1,42,44,41,10,42,12,11		7,31
12″	34,32,45,34,45,44, 2,26,50,46		2,31,32, 8,30	
		1,42,44,38,39,10, 3,41		7,31
14″	34,32,47,17,30,22,41,36,54,27		2,31,32,16, 1	
		1,42,44,36, 7,37,47,40		7,31
16″	34,32,49, 0,14,58,49,14,42, 7		2,31,32,23,32	
		1,42,44,33,36, 5,24, 8		7,31
18″	34,32,50,42,59,32,25,20, 6,15		2,31,32,31, 3	
		1,42,44,31, 4,32,53, 5		7,31
20″	34,32,52,25,44, 3,29,52,59,20		2,31,32,38,34	
		1,42,44,28,33, 0,14,31		7,31
22″	34,32,54, 8,28,32, 2,53,13,51		2,31,32,46, 5	
		1,42,44,26, 1,27,28,26		7,31
24″	34,32,55,51,12,58, 4,20,42,17		2,31,32,53,36	
		1,42,44,23,29,54,34,50		7,31
26″	34,32,57,33,57,21,34,15,17, 7		2,31,33, 1, 7	
		1,42,44,20,58,21,33,43		7,31
28″	34,32,59,16,41,42,32,36,50,50		2,31,33, 8,38	
		1,42,44,18,26,48,25, 5		7,31
30″	34,33, 0,59,26, 0,59,25,15,55		2,31,33,16, 9	
		1,42,44,15,55,15, 8,56		7,31
32″	34,33, 2,42,10,16,54,40,24,51		2,31,33,23,40	
		1,42,44,13,23,41,45,16		7,31
34″	34,33, 4,24,54,30,18,22,10, 7		2,31,33,31,11	
		1,42,44,10,52, 8,14, 5		7,31
36″	34,33, 6, 7,38,41,10,30,24,12		2,31,33,38,42	
		1,42,44, 8,20,34,35,23		7,31
38″	34,33, 7,50,22,49,31, 4,59,35		2,31,33,46,13	
		1,42,44, 5,49, 0,49,10		7,31
40″	34,33, 9,33, 6,55,20, 5,48,45		2,31,33,53,44	
		1,42,44, 3,17,26,55,26		7,31
42″	34,33,11,15,50,58,37,32,44,11		2,31,34, 1,15	
		1,42,44, 0,45,52,54,11		7,31
44″	34,33,12,58,34,59,23,25,38,22		2,31,34, 8,46	
		1,42,43,58,14,18,45,25		7,31
46″	34,33,14,41,18,57,37,44,23,47		2,31,34,16,17	
		1,42,43,55,42,44,29, 8		7,31
48″	34,33,16,24, 2,53,20,28,52,55		2,31,34,23,48	
		1,42,43,53,11,10, 5,20		7,31
50″	34,33,18, 6,46,46,31,38,58,15		2,31,34,31,19	
		1,42,43,50,39,35,34, 1		7,31
52″	34,33,19,49,30,37,11,14,32,16		2,31,34,38,50	
		1,42,43,48, 8, 0,55,11		7,31
54″	34,33,21,32,14,25,19,15,27,27		2,31,34,46,21	
		1,42,43,45,36,26, 8,50		7,31
56″	34,33,23,14,58,10,55,41,36,17		2,31,34,53,52	
		1,42,43,43, 4,51,14,58		7,31
58″	34,33,24,57,41,54, 0,32,51,15		2,31,35, 1,23	
		1,42,43,40,33,16,13,35		
60″	34,33,26,40,25,34,33,49, 4,50			
exact	34,33,26,40,25,34,33,49,26, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°10′ 0″	34,33,26,40,25,34,33,49,26, 5			
		1,42,43,38, 1,41, 7, 2		
2″	34,33,28,23, 9,12,35,30,33, 7		2,31,35,16,15	
		1,42,43,35,30, 5,50,47		7,31
4″	34,33,30, 5,52,48, 5,36,23,54		2,31,35,23,46	
		1,42,43,32,58,30,27, 1		7,31
6″	34,33,31,48,36,21, 4, 6,50,55		2,31,35,31,17	
		1,42,43,30,26,54,55,44		7,31
8″	34,33,33,31,19,51,31, 1,46,39		2,31,35,38,48	
		1,42,43,27,55,19,16,56		7,31
10″	34,33,35,14, 3,19,26,21, 3,35		2,31,35,46,19	
		1,42,43,25,23,43,30,37		7,31
12″	34,33,36,56,46,44,50, 4,34,12		2,31,35,53,50	
		1,42,43,22,52, 7,36,47		7,31
14″	34,33,38,39,30, 7,42,12,10,59		2,31,36, 1,21	
		1,42,43,20,20,31,35,26		7,31
16″	34,33,40,22,13,28, 2,43,46,25		2,31,36, 8,52	
		1,42,43,17,48,55,26,34		7,31
18″	34,33,42, 4,56,45,51,39,12,59		2,31,36,16,23	
		1,42,43,15,17,19,10,11		7,31
20″	34,33,43,47,40, 1, 8,58,23,10		2,31,36,23,54	
		1,42,43,12,45,42,46,17		7,31
22″	34,33,45,30,23,13,54,41, 9,27		2,31,36,31,25	
		1,42,43,10,14, 6,14,52		7,31
24″	34,33,47,13, 6,24, 8,47,24,19		2,31,36,38,56	
		1,42,43, 7,42,29,35,56		7,31
26″	34,33,48,55,49,31,51,17, 0,15		2,31,36,46,27	
		1,42,43, 5,10,52,49,29		7,31
28″	34,33,50,38,32,37, 2, 9,49,44		2,31,36,53,58	
		1,42,43, 2,39,15,55,31		7,31
30″	34,33,52,21,15,39,41,25,45,15		2,31,37, 1,29	
		1,42,43, 0, 7,38,54, 2		7,31
32″	34,33,54, 3,58,39,49, 4,39,17		2,31,37, 9, 0	
		1,42,42,57,36, 1,45, 2		7,31
34″	34,33,55,46,41,37,25, 6,24,19		2,31,37,16,31	
		1,42,42,55, 4,24,28,31		7,31
36″	34,33,57,29,24,32,29,30,52,50		2,31,37,24, 2	
		1,42,42,52,32,47, 4,29		7,31
38″	34,33,59,12, 7,25, 2,17,57,19		2,31,37,31,33	
		1,42,42,50, 1, 9,32,56		7,31
40″	34,34, 0,54,50,15, 3,27,30,15		2,31,37,39, 4	
		1,42,42,47,29,31,53,52		7,31
42″	34,34, 2,37,33, 2,32,59,24, 7		2,31,37,46,35	
		1,42,42,44,57,54, 7,17		7,31
44″	34,34, 4,20,15,47,30,53,31,24		2,31,37,54, 6	
		1,42,42,42,26,16,13,11		7,31
46″	34,34, 6, 2,58,29,57, 9,44,35		2,31,38, 1,37	
		1,42,42,39,54,38,11,34		7,31
48″	34,34, 7,45,41, 9,51,47,56, 9		2,31,38, 9, 8	
		1,42,42,37,23, 0, 2,26		7,31
50″	34,34, 9,28,23,47,14,47,58,35		2,31,38,16,39	
		1,42,42,34,51,21,45,47		7,31
52″	34,34,11,11, 6,22, 6, 9,44,22		2,31,38,24,10	
		1,42,42,32,19,43,21,37		7,31
54″	34,34,12,53,48,54,25,53, 5,59		2,31,38,31,41	
		1,42,42,29,48, 4,49,56		7,31
56″	34,34,14,36,31,24,13,57,55,55		2,31,38,39,12	
		1,42,42,27,16,26,10,44		7,31
58″	34,34,16,19,13,51,30,24, 6,39		2,31,38,46,43	
		1,42,42,24,44,47,24, 1		
60″	34,34,18, 1,56,16,15,11,30,40			
exact	34,34,18, 1,56,16,15,12, 0,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°11′ 0″	34,34,18, 1,56,16,15,12, 0,22			
		1,42,42,22,13, 8,32,57		
2″	34,34,19,44,38,38,28,20,33,19		2,31,39, 1,32	
		1,42,42,19,41,29,31,25		7,31
4″	34,34,21,27,20,58, 9,50, 4,44		2,31,39, 9, 3	
		1,42,42,17, 9,50,22,22		7,31
6″	34,34,23,10, 3,15,19,40,27, 6		2,31,39,16,34	
		1,42,42,14,38,11, 5,48		7,31
8″	34,34,24,52,45,29,57,51,32,54		2,31,39,24, 5	
		1,42,42,12, 6,31,41,43		7,31
10″	34,34,26,35,27,42, 4,23,14,37		2,31,39,31,36	
		1,42,42, 9,34,52,10, 7		7,31
12″	34,34,28,18, 9,51,39,15,24,44		2,31,39,39, 7	
		1,42,42, 7, 3,12,31, 0		7,31
14″	34,34,30, 0,51,58,42,27,55,44		2,31,39,46,38	
		1,42,42, 4,31,32,44,22		7,31
16″	34,34,31,43,34, 3,14, 0,40, 6		2,31,39,54, 9	
		1,42,42, 1,59,52,50,13		7,31
18″	34,34,33,26,16, 5,13,53,30,19		2,31,40, 1,40	
		1,42,41,59,28,12,48,33		7,31
20″	34,34,35, 8,58, 4,42, 6,18,52		2,31,40, 9,11	
		1,42,41,56,56,32,39,22		7,31
22″	34,34,36,51,40, 1,38,38,58,14		2,31,40,16,42	
		1,42,41,54,24,52,22,40		7,31
24″	34,34,38,34,21,56, 3,31,20,54		2,31,40,24,13	
		1,42,41,51,53,11,58,27		7,31
26″	34,34,40,17, 3,47,56,43,19,21		2,31,40,31,44	
		1,42,41,49,21,31,26,43		7,31
28″	34,34,41,59,45,37,18,14,46, 4		2,31,40,39,15	
		1,42,41,46,49,50,47,28		7,31
30″	34,34,43,42,27,24, 8, 5,33,32		2,31,40,46,46	
		1,42,41,44,18,10, 0,42		7,31
32″	34,34,45,25, 9, 8,26,15,34,14		2,31,40,54,17	
		1,42,41,41,46,29, 6,25		7,31
34″	34,34,47, 7,50,50,12,44,40,39		2,31,41, 1,48	
		1,42,41,39,14,48, 4,37		7,31
36″	34,34,48,50,32,29,27,32,45,16		2,31,41, 9,19	
		1,42,41,36,43, 6,55,18		7,31
38″	34,34,50,33,14, 6,10,39,40,34		2,31,41,16,50	
		1,42,41,34,11,25,38,28		7,31
40″	34,34,52,15,55,40,22, 5,19, 2		2,31,41,24,21	
		1,42,41,31,39,44,14, 7		7,31
42″	34,34,53,58,37,12, 1,49,33, 9		2,31,41,31,52	
		1,42,41,29, 8, 2,42,15		7,31
44″	34,34,55,41,18,41, 9,52,15,24		2,31,41,39,23	
		1,42,41,26,36,21, 2,52		7,31
46″	34,34,57,24, 0, 7,46,13,18,16		2,31,41,46,54	
		1,42,41,24, 4,39,15,58		7,31
48″	34,34,59, 6,41,31,50,52,34,14		2,31,41,54,25	
		1,42,41,21,32,57,21,33		7,31
50″	34,35, 0,49,22,53,23,49,55,47		2,31,42, 1,56	
		1,42,41,19, 1,15,19,37		7,31
52″	34,35, 2,32, 4,12,25, 5,15,24		2,31,42, 9,27	
		1,42,41,16,29,33,10,10		7,31
54″	34,35, 4,14,45,28,54,38,25,34		2,31,42,16,58	
		1,42,41,13,57,50,53,12		7,31
56″	34,35, 5,57,26,42,52,29,18,46		2,31,42,24,29	
		1,42,41,11,26, 8,28,43		7,31
58″	34,35, 7,40, 7,54,18,37,47,29		2,31,42,32, 0	
		1,42,41, 8,54,25,56,43		
60″	34,35, 9,22,49, 3,13, 3,44,12			
exact	34,35, 9,22,49, 3,13, 4,20,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°12′ 0″	34,35, 9,22,49, 3,13, 4,20,48			
		1,42,41, 6,22,43,21, 5		
2″	34,35,11, 5,30, 9,35,47,41,53		2,31,42,46,46	
		1,42,41, 3,51, 0,34,19		7,30
4″	34,35,12,48,11,13,26,48,16,12		2,31,42,54,16	
		1,42,41, 1,19,17,40, 3		7,30
6″	34,35,14,30,52,14,46, 5,56,15		2,31,43, 1,46	
		1,42,40,58,47,34,38,17		7,30
8″	34,35,16,13,33,13,33,40,34,32		2,31,43, 9,16	
		1,42,40,56,15,51,29, 1		7,30
10″	34,35,17,56,14, 9,49,32, 3,33		2,31,43,16,46	
		1,42,40,53,44, 8,12,15		7,30
12″	34,35,19,38,55, 3,33,40,15,48		2,31,43,24,16	
		1,42,40,51,12,24,47,59		7,30
14″	34,35,21,21,35,54,46, 5, 3,47		2,31,43,31,46	
		1,42,40,48,40,41,16,13		7,30
16″	34,35,23, 4,16,43,26,46,20, 0		2,31,43,39,16	
		1,42,40,46, 8,57,36,57		7,30
18″	34,35,24,46,57,29,35,43,56,57		2,31,43,46,46	
		1,42,40,43,37,13,50,11		7,30
20″	34,35,26,29,38,13,12,57,47, 8		2,31,43,54,16	
		1,42,40,41, 5,29,55,55		7,30
22″	34,35,28,12,18,54,18,27,43, 3		2,31,44, 1,46	
		1,42,40,38,33,45,54, 9		7,30
24″	34,35,29,54,59,32,52,13,37,12		2,31,44, 9,16	
		1,42,40,36, 2, 1,44,53		7,30
26″	34,35,31,37,40, 8,54,15,22, 5		2,31,44,16,46	
		1,42,40,33,30,17,28, 7		7,30
28″	34,35,33,20,20,42,24,32,50,12		2,31,44,24,16	
		1,42,40,30,58,33, 3,51		7,30
30″	34,35,35, 3, 1,13,23, 5,54, 3		2,31,44,31,46	
		1,42,40,28,26,48,32, 5		7,30
32″	34,35,36,45,41,41,49,54,26, 8		2,31,44,39,16	
		1,42,40,25,55, 3,52,49		7,30
34″	34,35,38,28,22, 7,44,58,18,57		2,31,44,46,46	
		1,42,40,23,23,19, 6, 3		7,30
36″	34,35,40,11, 2,31, 8,17,25, 0		2,31,44,54,16	
		1,42,40,20,51,34,11,47		7,30
38″	34,35,41,53,42,51,59,51,36,47		2,31,45, 1,46	
		1,42,40,18,19,49,10, 1		7,30
40″	34,35,43,36,23,10,19,40,46,48		2,31,45, 9,16	
		1,42,40,15,48, 4, 0,45		7,30
42″	34,35,45,19, 3,26, 7,44,47,33		2,31,45,16,46	
		1,42,40,13,16,18,43,59		7,30
44″	34,35,47, 1,43,39,24, 3,31,32		2,31,45,24,16	
		1,42,40,10,44,33,19,43		7,30
46″	34,35,48,44,23,50, 8,36,51,15		2,31,45,31,46	
		1,42,40, 8,12,47,47,57		7,30
48″	34,35,50,27, 3,58,21,24,39,12		2,31,45,39,16	
		1,42,40, 5,41, 2, 8,41		7,30
50″	34,35,52, 9,44, 4, 2,26,47,53		2,31,45,46,46	
		1,42,40, 3, 9,16,21,55		7,30
52″	34,35,53,52,24, 7,11,43, 9,48		2,31,45,54,16	
		1,42,40, 0,37,30,27,39		7,30
54″	34,35,55,35, 4, 7,49,13,37,27		2,31,46, 1,46	
		1,42,39,58, 5,44,25,53		7,30
56″	34,35,57,17,44, 5,54,58, 3,20		2,31,46, 9,16	
		1,42,39,55,33,58,16,37		7,30
58″	34,35,59, 0,24, 1,28,56,19,57		2,31,46,16,46	
		1,42,39,53, 2,11,59,51		
60″	34,36, 0,43, 3,54,31, 8,19,48			
exact	34,36, 0,43, 3,54,31, 7,53,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°13′ 0″	34,36, 0,43, 3,54,31, 7,53,37			
		1,42,39,50,30,25,32,48		
2″	34,36, 2,25,43,45, 1,33,26,25		2,31,46,31,57	
		1,42,39,47,58,39, 0,51		7,30
4″	34,36, 4, 8,23,33, 0,12,27,16		2,31,46,39,27	
		1,42,39,45,26,52,21,24		7,30
6″	34,36, 5,51, 3,18,27, 4,48,40		2,31,46,46,57	
		1,42,39,42,55, 5,34,27		7,30
8″	34,36, 7,33,43, 1,22,10,23, 7		2,31,46,54,27	
		1,42,39,40,23,18,40, 0		7,30
10″	34,36, 9,16,22,41,45,29, 3, 7		2,31,47, 1,57	
		1,42,39,37,51,31,38, 3		7,30
12″	34,36,10,59, 2,19,37, 0,41,10		2,31,47, 9,27	
		1,42,39,35,19,44,28,36		7,30
14″	34,36,12,41,41,54,56,45, 9,46		2,31,47,16,57	
		1,42,39,32,47,57,11,39		7,30
16″	34,36,14,24,21,27,44,42,21,25		2,31,47,24,27	
		1,42,39,30,16, 9,47,12		7,30
18″	34,36,16, 7, 0,58, 0,52, 8,37		2,31,47,31,57	
		1,42,39,27,44,22,15,15		7,30
20″	34,36,17,49,40,25,45,14,23,52		2,31,47,39,27	
		1,42,39,25,12,34,35,48		7,30
22″	34,36,19,32,19,50,57,48,59,40		2,31,47,46,57	
		1,42,39,22,40,46,48,51		7,30
24″	34,36,21,14,59,13,38,35,48,31		2,31,47,54,27	
		1,42,39,20, 8,58,54,24		7,30
26″	34,36,22,57,38,33,47,34,42,55		2,31,48, 1,57	
		1,42,39,17,37,10,52,27		7,30
28″	34,36,24,40,17,51,24,45,35,22		2,31,48, 9,27	
		1,42,39,15, 5,22,43, 0		7,30
30″	34,36,26,22,57, 6,30, 8,18,22		2,31,48,16,57	
		1,42,39,12,33,34,26, 3		7,30
32″	34,36,28, 5,36,19, 3,42,44,25		2,31,48,24,27	
		1,42,39,10, 1,46, 1,36		7,30
34″	34,36,29,48,15,29, 5,28,46, 1		2,31,48,31,57	
		1,42,39, 7,29,57,29,39		7,30
36″	34,36,31,30,54,36,35,26,15,40		2,31,48,39,27	
		1,42,39, 4,58, 8,50,12		7,30
38″	34,36,33,13,33,41,33,35, 5,52		2,31,48,46,57	
		1,42,39, 2,26,20, 3,15		7,30
40″	34,36,34,56,12,43,59,55, 9, 7		2,31,48,54,27	
		1,42,38,59,54,31, 8,48		7,30
42″	34,36,36,38,51,43,54,26,17,55		2,31,49, 1,57	
		1,42,38,57,22,42, 6,51		7,30
44″	34,36,38,21,30,41,17, 8,24,46		2,31,49, 9,27	
		1,42,38,54,50,52,57,24		7,30
46″	34,36,40, 4, 9,36, 8, 1,22,10		2,31,49,16,57	
		1,42,38,52,19, 3,40,27		7,30
48″	34,36,41,46,48,28,27, 5, 2,37		2,31,49,24,27	
		1,42,38,49,47,14,16, 0		7,30
50″	34,36,43,29,27,18,14,19,18,37		2,31,49,31,57	
		1,42,38,47,15,24,44, 3		7,30
52″	34,36,45,12, 6, 5,29,44, 2,40		2,31,49,39,27	
		1,42,38,44,43,35, 4,36		7,30
54″	34,36,46,54,44,50,13,19, 7,16		2,31,49,46,57	
		1,42,38,42,11,45,17,39		7,30
56″	34,36,48,37,23,32,25, 4,24,55		2,31,49,54,27	
		1,42,38,39,39,55,23,12		7,30
58″	34,36,50,20, 2,12, 4,59,48, 7		2,31,50, 1,57	
		1,42,38,37, 8, 5,21,15		
60″	34,36,52, 2,40,49,13, 5, 9,22			
exact	34,36,52, 2,40,49,13, 4,46,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°14′ 0″	34,36,52, 2,40,49,13, 4,46,39			
		1,42,38,34,36,15, 9,29		
2″	34,36,53,45,19,23,49,19,56, 8		2,31,50,17, 6	
		1,42,38,32, 4,24,52,23		7,30
4″	34,36,55,27,57,55,53,44,48,31		2,31,50,24,36	
		1,42,38,29,32,34,27,47		7,30
6″	34,36,57,10,36,25,26,19,16,18		2,31,50,32, 6	
		1,42,38,27, 0,43,55,41		7,30
8″	34,36,58,53,14,52,27, 3,11,59		2,31,50,39,36	
		1,42,38,24,28,53,16, 5		7,30
10″	34,37, 0,35,53,16,55,56,28, 4		2,31,50,47, 6	
		1,42,38,21,57, 2,28,59		7,30
12″	34,37, 2,18,31,38,52,58,57, 3		2,31,50,54,36	
		1,42,38,19,25,11,34,23		7,30
14″	34,37, 4, 1, 9,58,18,10,31,26		2,31,51, 2, 6	
		1,42,38,16,53,20,32,17		7,30
16″	34,37, 5,43,48,15,11,31, 3,43		2,31,51, 9,36	
		1,42,38,14,21,29,22,41		7,30
18″	34,37, 7,26,26,29,33, 0,26,24		2,31,51,17, 6	
		1,42,38,11,49,38, 5,35		7,30
20″	34,37, 9, 9, 4,41,22,38,31,59		2,31,51,24,36	
		1,42,38, 9,17,46,40,59		7,30
22″	34,37,10,51,42,50,40,25,12,58		2,31,51,32, 6	
		1,42,38, 6,45,55, 8,53		7,30
24″	34,37,12,34,20,57,26,20,21,51		2,31,51,39,36	
		1,42,38, 4,14, 3,29,17		7,30
26″	34,37,14,16,59, 1,40,23,51, 8		2,31,51,47, 6	
		1,42,38, 1,42,11,42,11		7,30
28″	34,37,15,59,37, 3,22,35,33,19		2,31,51,54,36	
		1,42,37,59,10,19,47,35		7,30
30″	34,37,17,42,15, 2,32,55,20,54		2,31,52, 2, 6	
		1,42,37,56,38,27,45,29		7,30
32″	34,37,19,24,52,59,11,23, 6,23		2,31,52, 9,36	
		1,42,37,54, 6,35,35,53		7,30
34″	34,37,21, 7,30,53,17,58,42,16		2,31,52,17, 6	
		1,42,37,51,34,43,18,47		7,30
36″	34,37,22,50, 8,44,52,42, 1, 3		2,31,52,24,36	
		1,42,37,49, 2,50,54,11		7,30
38″	34,37,24,32,46,33,55,32,55,14		2,31,52,32, 6	
		1,42,37,46,30,58,22, 5		7,30
40″	34,37,26,15,24,20,26,31,17,19		2,31,52,39,36	
		1,42,37,43,59, 5,42,29		7,30
42″	34,37,27,58, 2, 4,25,36,59,48		2,31,52,47, 6	
		1,42,37,41,27,12,55,23		7,30
44″	34,37,29,40,39,45,52,49,55,11		2,31,52,54,36	
		1,42,37,38,55,20, 0,47		7,30
46″	34,37,31,23,17,24,48, 9,55,58		2,31,53, 2, 6	
		1,42,37,36,23,26,58,41		7,30
48″	34,37,33, 5,55, 1,11,36,54,39		2,31,53, 9,36	
		1,42,37,33,51,33,49, 5		7,30
50″	34,37,34,48,32,35, 3,10,43,44		2,31,53,17, 6	
		1,42,37,31,19,40,31,59		7,30
52″	34,37,36,31,10, 6,22,51,15,43		2,31,53,24,36	
		1,42,37,28,47,47, 7,23		7,30
54″	34,37,38,13,47,35,10,38,23, 6		2,31,53,32, 6	
		1,42,37,26,15,53,35,17		7,30
56″	34,37,39,56,25, 1,26,31,58,23		2,31,53,39,36	
		1,42,37,23,43,59,55,41		7,30
58″	34,37,41,39, 2,25,10,31,54, 4		2,31,53,47, 6	
		1,42,37,21,12, 6, 8,35		
60″	34,37,43,21,39,46,22,38, 2,39			
exact	34,37,43,21,39,46,22,37,49,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°15′ 0″	34,37,43,21,39,46,22,37,49,20			
		1,42,37,18,40,12,12,33		
2″	34,37,45, 4,17, 5, 2,50, 1,53		2,31,54, 2,12	
		1,42,37,16, 8,18,10,21		7,30
4″	34,37,46,46,54,21,11, 8,12,14		2,31,54, 9,42	
		1,42,37,13,36,24, 0,39		7,30
6″	34,37,48,29,31,34,47,32,12,53		2,31,54,17,12	
		1,42,37,11, 4,29,43,27		7,30
8″	34,37,50,12, 8,45,52, 1,56,20		2,31,54,24,42	
		1,42,37, 8,32,35,18,45		7,30
10″	34,37,51,54,45,54,24,37,15, 5		2,31,54,32,12	
		1,42,37, 6, 0,40,46,33		7,30
12″	34,37,53,37,23, 0,25,18, 1,38		2,31,54,39,42	
		1,42,37, 3,28,46, 6,51		7,30
14″	34,37,55,20, 0, 3,54, 4, 8,29		2,31,54,47,12	
		1,42,37, 0,56,51,19,39		7,30
16″	34,37,57, 2,37, 4,50,55,28, 8		2,31,54,54,42	
		1,42,36,58,24,56,24,57		7,30
18″	34,37,58,45,14, 3,15,51,53, 5		2,31,55, 2,12	
		1,42,36,55,53, 1,22,45		7,30
20″	34,38, 0,27,50,59, 8,53,15,50		2,31,55, 9,42	
		1,42,36,53,21, 6,13, 3		7,30
22″	34,38, 2,10,27,52,29,59,28,53		2,31,55,17,12	
		1,42,36,50,49,10,55,51		7,30
24″	34,38, 3,53, 4,43,19,10,24,44		2,31,55,24,42	
		1,42,36,48,17,15,31, 9		7,30
26″	34,38, 5,35,41,31,36,25,55,53		2,31,55,32,12	
		1,42,36,45,45,19,58,57		7,30
28″	34,38, 7,18,18,17,21,45,54,50		2,31,55,39,42	
		1,42,36,43,13,24,19,15		7,30
30″	34,38, 9, 0,55, 0,35,10,14, 5		2,31,55,47,12	
		1,42,36,40,41,28,32, 3		7,30
32″	34,38,10,43,31,41,16,38,46, 8		2,31,55,54,42	
		1,42,36,38, 9,32,37,21		7,30
34″	34,38,12,26, 8,19,26,11,23,29		2,31,56, 2,12	
		1,42,36,35,37,36,35, 9		7,30
36″	34,38,14, 8,44,55, 3,47,58,38		2,31,56, 9,42	
		1,42,36,33, 5,40,25,27		7,30
38″	34,38,15,51,21,28, 9,28,24, 5		2,31,56,17,12	
		1,42,36,30,33,44, 8,15		7,30
40″	34,38,17,33,57,58,43,12,32,20		2,31,56,24,42	
		1,42,36,28, 1,47,43,33		7,30
42″	34,38,19,16,34,26,45, 0,15,53		2,31,56,32,12	
		1,42,36,25,29,51,11,21		7,30
44″	34,38,20,59,10,52,14,51,27,14		2,31,56,39,42	
		1,42,36,22,57,54,31,39		7,30
46″	34,38,22,41,47,15,12,45,58,53		2,31,56,47,12	
		1,42,36,20,25,57,44,27		7,30
48″	34,38,24,24,23,35,38,43,43,20		2,31,56,54,42	
		1,42,36,17,54, 0,49,45		7,30
50″	34,38,26, 6,59,53,32,44,33, 5		2,31,57, 2,12	
		1,42,36,15,22, 3,47,33		7,30
52″	34,38,27,49,36, 8,54,48,20,38		2,31,57, 9,42	
		1,42,36,12,50, 6,37,51		7,30
54″	34,38,29,32,12,21,44,54,58,29		2,31,57,17,12	
		1,42,36,10,18, 9,20,39		7,30
56″	34,38,31,14,48,32, 3, 4,19, 8		2,31,57,24,42	
		1,42,36, 7,46,11,55,57		7,30
58″	34,38,32,57,24,39,49,16,15, 5		2,31,57,32,12	
		1,42,36, 5,14,14,23,45		
60″	34,38,34,40, 0,45, 3,30,38,50			
exact	34,38,34,40, 0,45, 3,30,32,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°16′ 0″	34,38,34,40, 0,45, 3,30,32,45			
		1,42,36, 2,42,16,43,22		
2″	34,38,36,22,36,47,45,47,16, 7		2,31,57,47,15	
		1,42,36, 0,10,18,56, 7		7,30
4″	34,38,38, 5,12,47,56, 6,12,14		2,31,57,54,45	
		1,42,35,57,38,21, 1,22		7,30
6″	34,38,39,47,48,45,34,27,13,36		2,31,58, 2,15	
		1,42,35,55, 6,22,59, 7		7,30
8″	34,38,41,30,24,40,40,50,12,43		2,31,58, 9,45	
		1,42,35,52,34,24,49,22		7,30
10″	34,38,43,13, 0,33,15,15, 2, 5		2,31,58,17,15	
		1,42,35,50, 2,26,32, 7		7,30
12″	34,38,44,55,36,23,17,41,34,12		2,31,58,24,45	
		1,42,35,47,30,28, 7,22		7,30
14″	34,38,46,38,12,10,48, 9,41,34		2,31,58,32,15	
		1,42,35,44,58,29,35, 7		7,30
16″	34,38,48,20,47,55,46,39,16,41		2,31,58,39,45	
		1,42,35,42,26,30,55,22		7,30
18″	34,38,50, 3,23,38,13,10,12, 3		2,31,58,47,15	
		1,42,35,39,54,32, 8, 7		7,30
20″	34,38,51,45,59,18, 7,42,20,10		2,31,58,54,45	
		1,42,35,37,22,33,13,22		7,30
22″	34,38,53,28,34,55,30,15,33,32		2,31,59, 2,15	
		1,42,35,34,50,34,11, 7		7,30
24″	34,38,55,11,10,30,20,49,44,39		2,31,59, 9,45	
		1,42,35,32,18,35, 1,22		7,30
26″	34,38,56,53,46, 2,39,24,46, 1		2,31,59,17,15	
		1,42,35,29,46,35,44, 7		7,30
28″	34,38,58,36,21,32,26, 0,30, 8		2,31,59,24,45	
		1,42,35,27,14,36,19,22		7,30
30″	34,39, 0,18,56,59,40,36,49,30		2,31,59,32,15	
		1,42,35,24,42,36,47, 7		7,30
32″	34,39, 2, 1,32,24,23,13,36,37		2,31,59,39,45	
		1,42,35,22,10,37, 7,22		7,30
34″	34,39, 3,44, 7,46,33,50,43,59		2,31,59,47,15	
		1,42,35,19,38,37,20, 7		7,30
36″	34,39, 5,26,43, 6,12,28, 4, 6		2,31,59,54,45	
		1,42,35,17, 6,37,25,22		7,30
38″	34,39, 7, 9,18,23,19, 5,29,28		2,32, 0, 2,15	
		1,42,35,14,34,37,23, 7		7,30
40″	34,39, 8,51,53,37,53,42,52,35		2,32, 0, 9,45	
		1,42,35,12, 2,37,13,22		7,30
42″	34,39,10,34,28,49,56,20, 5,57		2,32, 0,17,15	
		1,42,35, 9,30,36,56, 7		7,30
44″	34,39,12,17, 3,59,26,57, 2, 4		2,32, 0,24,45	
		1,42,35, 6,58,36,31,22		7,30
46″	34,39,13,59,39, 6,25,33,33,26		2,32, 0,32,15	
		1,42,35, 4,26,35,59, 7		7,30
48″	34,39,15,42,14,10,52, 9,32,33		2,32, 0,39,45	
		1,42,35, 1,54,35,19,22		7,30
50″	34,39,17,24,49,12,46,44,51,55		2,32, 0,47,15	
		1,42,34,59,22,34,32, 7		7,30
52″	34,39,19, 7,24,12, 9,19,24, 2		2,32, 0,54,45	
		1,42,34,56,50,33,37,22		7,30
54″	34,39,20,49,59, 8,59,53, 1,24		2,32, 1, 2,15	
		1,42,34,54,18,32,35, 7		7,30
56″	34,39,22,32,34, 3,18,25,36,31		2,32, 1, 9,45	
		1,42,34,51,46,31,25,22		7,30
58″	34,39,24,15, 8,55, 4,57, 1,53		2,32, 1,17,15	
		1,42,34,49,14,30, 8, 7		
60″	34,39,25,57,43,44,19,27,10, 0			
exact	34,39,25,57,43,44,19,27, 9,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°17′ 0″	34,39,25,57,43,44,19,27, 9,36			
		1,42,34,46,42,28,43,19		
2″	34,39,27,40,18,31, 1,55,52,55		2,32, 1,32,15	
		1,42,34,44,10,27,11, 4		7,30
4″	34,39,29,22,53,15,12,23, 3,59		2,32, 1,39,45	
		1,42,34,41,38,25,31,19		7,30
6″	34,39,31, 5,27,56,50,48,35,18		2,32, 1,47,15	
		1,42,34,39, 6,23,44, 4		7,30
8″	34,39,32,48, 2,35,57,12,19,22		2,32, 1,54,45	
		1,42,34,36,34,21,49,19		7,30
10″	34,39,34,30,37,12,31,34, 8,41		2,32, 2, 2,15	
		1,42,34,34, 2,19,47, 4		7,30
12″	34,39,36,13,11,46,33,53,55,45		2,32, 2, 9,45	
		1,42,34,31,30,17,37,19		7,30
14″	34,39,37,55,46,18, 4,11,33, 4		2,32, 2,17,15	
		1,42,34,28,58,15,20, 4		7,30
16″	34,39,39,38,20,47, 2,26,53, 8		2,32, 2,24,45	
		1,42,34,26,26,12,55,19		7,30
18″	34,39,41,20,55,13,28,39,48,27		2,32, 2,32,15	
		1,42,34,23,54,10,23, 4		7,30
20″	34,39,43, 3,29,37,22,50,11,31		2,32, 2,39,45	
		1,42,34,21,22, 7,43,19		7,30
22″	34,39,44,46, 3,58,44,57,54,50		2,32, 2,47,15	
		1,42,34,18,50, 4,56, 4		7,30
24″	34,39,46,28,38,17,35, 2,50,54		2,32, 2,54,45	
		1,42,34,16,18, 2, 1,19		7,30
26″	34,39,48,11,12,33,53, 4,52,13		2,32, 3, 2,15	
		1,42,34,13,45,58,59, 4		7,30
28″	34,39,49,53,46,47,39, 3,51,17		2,32, 3, 9,45	
		1,42,34,11,13,55,49,19		7,30
30″	34,39,51,36,20,58,52,59,40,36		2,32, 3,17,15	
		1,42,34, 8,41,52,32, 4		7,30
32″	34,39,53,18,55, 7,34,52,12,40		2,32, 3,24,45	
		1,42,34, 6, 9,49, 7,19		7,30
34″	34,39,55, 1,29,13,44,41,19,59		2,32, 3,32,15	
		1,42,34, 3,37,45,35, 4		7,30
36″	34,39,56,44, 3,17,22,26,55, 3		2,32, 3,39,45	
		1,42,34, 1, 5,41,55,19		7,30
38″	34,39,58,26,37,18,28, 8,50,22		2,32, 3,47,15	
		1,42,33,58,33,38, 8, 4		7,30
40″	34,40, 0, 9,11,17, 1,46,58,26		2,32, 3,54,45	
		1,42,33,56, 1,34,13,19		7,30
42″	34,40, 1,51,45,13, 3,21,11,45		2,32, 4, 2,15	
		1,42,33,53,29,30,11, 4		7,30
44″	34,40, 3,34,19, 6,32,51,22,49		2,32, 4, 9,45	
		1,42,33,50,57,26, 1,19		7,30
46″	34,40, 5,16,52,57,30,17,24, 8		2,32, 4,17,15	
		1,42,33,48,25,21,44, 4		7,30
48″	34,40, 6,59,26,45,55,39, 8,12		2,32, 4,24,45	
		1,42,33,45,53,17,19,19		7,30
50″	34,40, 8,42, 0,31,48,56,27,31		2,32, 4,32,15	
		1,42,33,43,21,12,47, 4		7,30
52″	34,40,10,24,34,15,10, 9,14,35		2,32, 4,39,45	
		1,42,33,40,49, 8, 7,19		7,30
54″	34,40,12, 7, 7,55,59,17,21,54		2,32, 4,47,15	
		1,42,33,38,17, 3,20, 4		7,30
56″	34,40,13,49,41,34,16,20,41,58		2,32, 4,54,45	
		1,42,33,35,44,58,25,19		7,30
58″	34,40,15,32,15,10, 1,19, 7,17		2,32, 5, 2,15	
		1,42,33,33,12,53,23, 4		
60″	34,40,17,14,48,43,14,12,30,21			
exact	34,40,17,14,48,43,14,12,34,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°18′ 0″	34,40,17,14,48,43,14,12,34,17			
		1,42,33,30,40,48,13,48		
2″	34,40,18,57,22,13,55, 0,48, 5		2,32, 5,17,13	
		1,42,33,28, 8,42,56,35		7,30
4″	34,40,20,39,55,42, 3,43,44,40		2,32, 5,24,43	
		1,42,33,25,36,37,31,52		7,30
6″	34,40,22,22,29, 7,40,21,16,32		2,32, 5,32,13	
		1,42,33,23, 4,31,59,39		7,30
8″	34,40,24, 5, 2,30,44,53,16,11		2,32, 5,39,43	
		1,42,33,20,32,26,19,56		7,30
10″	34,40,25,47,35,51,17,19,36, 7		2,32, 5,47,13	
		1,42,33,18, 0,20,32,43		7,30
12″	34,40,27,30, 9, 9,17,40, 8,50		2,32, 5,54,43	
		1,42,33,15,28,14,38, 0		7,30
14″	34,40,29,12,42,24,45,54,46,50		2,32, 6, 2,13	
		1,42,33,12,56, 8,35,47		7,30
16″	34,40,30,55,15,37,42, 3,22,37		2,32, 6, 9,43	
		1,42,33,10,24, 2,26, 4		7,30
18″	34,40,32,37,48,48, 6, 5,48,41		2,32, 6,17,13	
		1,42,33, 7,51,56, 8,51		7,30
20″	34,40,34,20,21,55,58, 1,57,32		2,32, 6,24,43	
		1,42,33, 5,19,49,44, 8		7,30
22″	34,40,36, 2,55, 1,17,51,41,40		2,32, 6,32,13	
		1,42,33, 2,47,43,11,55		7,30
24″	34,40,37,45,28, 4, 5,34,53,35		2,32, 6,39,43	
		1,42,33, 0,15,36,32,12		7,30
26″	34,40,39,28, 1, 4,21,11,25,47		2,32, 6,47,13	
		1,42,32,57,43,29,44,59		7,30
28″	34,40,41,10,34, 2, 4,41,10,46		2,32, 6,54,43	
		1,42,32,55,11,22,50,16		7,30
30″	34,40,42,53, 6,57,16, 4, 1, 2		2,32, 7, 2,13	
		1,42,32,52,39,15,48, 3		7,30
32″	34,40,44,35,39,49,55,19,49, 5		2,32, 7, 9,43	
		1,42,32,50, 7, 8,38,20		7,30
34″	34,40,46,18,12,40, 2,28,27,25		2,32, 7,17,13	
		1,42,32,47,35, 1,21, 7		7,30
36″	34,40,48, 0,45,27,37,29,48,32		2,32, 7,24,43	
		1,42,32,45, 2,53,56,24		7,30
38″	34,40,49,43,18,12,40,23,44,56		2,32, 7,32,13	
		1,42,32,42,30,46,24,11		7,30
40″	34,40,51,25,50,55,11,10, 9, 7		2,32, 7,39,43	
		1,42,32,39,58,38,44,28		7,30
42″	34,40,53, 8,23,35, 9,48,53,35		2,32, 7,47,13	
		1,42,32,37,26,30,57,15		7,30
44″	34,40,54,50,56,12,36,19,50,50		2,32, 7,54,43	
		1,42,32,34,54,23, 2,32		7,30
46″	34,40,56,33,28,47,30,42,53,22		2,32, 8, 2,13	
		1,42,32,32,22,15, 0,19		7,30
48″	34,40,58,16, 1,19,52,57,53,41		2,32, 8, 9,43	
		1,42,32,29,50, 6,50,36		7,30
50″	34,40,59,58,33,49,43, 4,44,17		2,32, 8,17,13	
		1,42,32,27,17,58,33,23		7,30
52″	34,41, 1,41, 6,17, 1, 3,17,40		2,32, 8,24,43	
		1,42,32,24,45,50, 8,40		7,30
54″	34,41, 3,23,38,41,46,53,26,20		2,32, 8,32,13	
		1,42,32,22,13,41,36,27		7,30
56″	34,41, 5, 6,11, 4, 0,35, 2,47		2,32, 8,39,43	
		1,42,32,19,41,32,56,44		7,30
58″	34,41, 6,48,43,23,42, 7,59,31		2,32, 8,47,13	
		1,42,32,17, 9,24, 9,31		
60″	34,41, 8,31,15,40,51,32, 9, 2			
exact	34,41, 8,31,15,40,51,32,22,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°19′ 0″	34,41, 8,31,15,40,51,32,22,50			
		1,42,32,14,37,15,16,12		
2″	34,41,10,13,47,55,28,47,39, 2		2,32, 9, 2, 7	
		1,42,32,12, 5, 6,14, 5		7,30
4″	34,41,11,56,20, 7,33,53,53, 7		2,32, 9, 9,37	
		1,42,32, 9,32,57, 4,28		7,30
6″	34,41,13,38,52,17, 6,50,57,35		2,32, 9,17, 7	
		1,42,32, 7, 0,47,47,21		7,30
8″	34,41,15,21,24,24, 7,38,44,56		2,32, 9,24,37	
		1,42,32, 4,28,38,22,44		7,30
10″	34,41,17, 3,56,28,36,17, 7,40		2,32, 9,32, 7	
		1,42,32, 1,56,28,50,37		7,30
12″	34,41,18,46,28,30,32,45,58,17		2,32, 9,39,37	
		1,42,31,59,24,19,11, 0		7,30
14″	34,41,20,29, 0,29,57, 5, 9,17		2,32, 9,47, 7	
		1,42,31,56,52, 9,23,53		7,30
16″	34,41,22,11,32,26,49,14,33,10		2,32, 9,54,37	
		1,42,31,54,19,59,29,16		7,30
18″	34,41,23,54, 4,21, 9,14, 2,26		2,32,10, 2, 7	
		1,42,31,51,47,49,27, 9		7,30
20″	34,41,25,36,36,12,57, 3,29,35		2,32,10, 9,37	
		1,42,31,49,15,39,17,32		7,30
22″	34,41,27,19, 8, 2,12,42,47, 7		2,32,10,17, 7	
		1,42,31,46,43,29, 0,25		7,30
24″	34,41,29, 1,39,48,56,11,47,32		2,32,10,24,37	
		1,42,31,44,11,18,35,48		7,30
26″	34,41,30,44,11,33, 7,30,23,20		2,32,10,32, 7	
		1,42,31,41,39, 8, 3,41		7,30
28″	34,41,32,26,43,14,46,38,27, 1		2,32,10,39,37	
		1,42,31,39, 6,57,24, 4		7,30
30″	34,41,34, 9,14,53,53,35,51, 5		2,32,10,47, 7	
		1,42,31,36,34,46,36,57		7,30
32″	34,41,35,51,46,30,28,22,28, 2		2,32,10,54,37	
		1,42,31,34, 2,35,42,20		7,30
34″	34,41,37,34,18, 4,30,58,10,22		2,32,11, 2, 7	
		1,42,31,31,30,24,40,13		7,30
36″	34,41,39,16,49,36, 1,22,50,35		2,32,11, 9,37	
		1,42,31,28,58,13,30,36		7,30
38″	34,41,40,59,21, 4,59,36,21,11		2,32,11,17, 7	
		1,42,31,26,26, 2,13,29		7,30
40″	34,41,42,41,52,31,25,38,34,40		2,32,11,24,37	
		1,42,31,23,53,50,48,52		7,30
42″	34,41,44,24,23,55,19,29,23,32		2,32,11,32, 7	
		1,42,31,21,21,39,16,45		7,30
44″	34,41,46, 6,55,16,41, 8,40,17		2,32,11,39,37	
		1,42,31,18,49,27,37, 8		7,30
46″	34,41,47,49,26,35,30,36,17,25		2,32,11,47, 7	
		1,42,31,16,17,15,50, 1		7,30
48″	34,41,49,31,57,51,47,52, 7,26		2,32,11,54,37	
		1,42,31,13,45, 3,55,24		7,30
50″	34,41,51,14,29, 5,32,56, 2,50		2,32,12, 2, 7	
		1,42,31,11,12,51,53,17		7,30
52″	34,41,52,57, 0,16,45,47,56, 7		2,32,12, 9,37	
		1,42,31, 8,40,39,43,40		7,30
54″	34,41,54,39,31,25,26,27,39,47		2,32,12,17, 7	
		1,42,31, 6, 8,27,26,33		7,30
56″	34,41,56,22, 2,31,34,55, 6,20		2,32,12,24,37	
		1,42,31, 3,36,15, 1,56		7,30
58″	34,41,58, 4,33,35,11,10, 8,16		2,32,12,32, 7	
		1,42,31, 1, 4, 2,29,49		
60″	34,41,59,47, 4,36,15,12,38, 5			
exact	34,41,59,47, 4,36,15,12,53, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°20′ 0″	34,41,59,47, 4,36,15,12,53, 0			
		1,42,30,58,31,49,51,55		
2″	34,42, 1,29,35,34,47, 2,44,55		2,32,12,46,59	
		1,42,30,55,59,37, 4,56		7,30
4″	34,42, 3,12, 6,30,46,39,49,51		2,32,12,54,29	
		1,42,30,53,27,24,10,27		7,30
6″	34,42, 4,54,37,24,14, 4, 0,18		2,32,13, 1,59	
		1,42,30,50,55,11, 8,28		7,30
8″	34,42, 6,37, 8,15, 9,15, 8,46		2,32,13, 9,29	
		1,42,30,48,22,57,58,59		7,30
10″	34,42, 8,19,39, 3,32,13, 7,45		2,32,13,16,59	
		1,42,30,45,50,44,42, 0		7,30
12″	34,42,10, 2, 9,49,22,57,49,45		2,32,13,24,29	
		1,42,30,43,18,31,17,31		7,30
14″	34,42,11,44,40,32,41,29, 7,16		2,32,13,31,59	
		1,42,30,40,46,17,45,32		7,30
16″	34,42,13,27,11,13,27,46,52,48		2,32,13,39,29	
		1,42,30,38,14, 4, 6, 3		7,30
18″	34,42,15, 9,41,51,41,50,58,51		2,32,13,46,59	
		1,42,30,35,41,50,19, 4		7,30
20″	34,42,16,52,12,27,23,41,17,55		2,32,13,54,29	
		1,42,30,33, 9,36,24,35		7,30
22″	34,42,18,34,43, 0,33,17,42,30		2,32,14, 1,59	
		1,42,30,30,37,22,22,36		7,30
24″	34,42,20,17,13,31,10,40, 5, 6		2,32,14, 9,29	
		1,42,30,28, 5, 8,13, 7		7,30
26″	34,42,21,59,43,59,15,48,18,13		2,32,14,16,59	
		1,42,30,25,32,53,56, 8		7,30
28″	34,42,23,42,14,24,48,42,14,21		2,32,14,24,29	
		1,42,30,23, 0,39,31,39		7,30
30″	34,42,25,24,44,47,49,21,46, 0		2,32,14,31,59	
		1,42,30,20,28,24,59,40		7,30
32″	34,42,27, 7,15, 8,17,46,45,40		2,32,14,39,29	
		1,42,30,17,56,10,20,11		7,30
34″	34,42,28,49,45,26,13,57, 5,51		2,32,14,46,59	
		1,42,30,15,23,55,33,12		7,30
36″	34,42,30,32,15,41,37,52,39, 3		2,32,14,54,29	
		1,42,30,12,51,40,38,43		7,30
38″	34,42,32,14,45,54,29,33,17,46		2,32,15, 1,59	
		1,42,30,10,19,25,36,44		7,30
40″	34,42,33,57,16, 4,48,58,54,30		2,32,15, 9,29	
		1,42,30, 7,47,10,27,15		7,30
42″	34,42,35,39,46,12,36, 9,21,45		2,32,15,16,59	
		1,42,30, 5,14,55,10,16		7,30
44″	34,42,37,22,16,17,51, 4,32, 1		2,32,15,24,29	
		1,42,30, 2,42,39,45,47		7,30
46″	34,42,39, 4,46,20,33,44,17,48		2,32,15,31,59	
		1,42,30, 0,10,24,13,48		7,30
48″	34,42,40,47,16,20,44, 8,31,36		2,32,15,39,29	
		1,42,29,57,38, 8,34,19		7,30
50″	34,42,42,29,46,18,22,17, 5,55		2,32,15,46,59	
		1,42,29,55, 5,52,47,20		7,30
52″	34,42,44,12,16,13,28, 9,53,15		2,32,15,54,29	
		1,42,29,52,33,36,52,51		7,30
54″	34,42,45,54,46, 6, 1,46,46, 6		2,32,16, 1,59	
		1,42,29,50, 1,20,50,52		7,30
56″	34,42,47,37,15,56, 3, 7,36,58		2,32,16, 9,29	
		1,42,29,47,29, 4,41,23		7,30
58″	34,42,49,19,45,43,32,12,18,21		2,32,16,16,59	
		1,42,29,44,56,48,24,24		
60″	34,42,51, 2,15,28,29, 0,42,45			
exact	34,42,51, 2,15,28,29, 1, 4,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°21′ 0″	34,42,51, 2,15,28,29, 1, 4,14			
		1,42,29,42,24,32, 2,20		
2″	34,42,52,44,45,10,53,33, 6,34		2,32,16,31,48	
		1,42,29,39,52,15,30,32		7,30
4″	34,42,54,27,14,50,45,48,37, 6		2,32,16,39,18	
		1,42,29,37,19,58,51,14		7,30
6″	34,42,56, 9,44,28, 5,47,28,20		2,32,16,46,48	
		1,42,29,34,47,42, 4,26		7,30
8″	34,42,57,52,14, 2,53,29,32,46		2,32,16,54,18	
		1,42,29,32,15,25,10, 8		7,30
10″	34,42,59,34,43,35, 8,54,42,54		2,32,17, 1,48	
		1,42,29,29,43, 8, 8,20		7,30
12″	34,43, 1,17,13, 4,52, 2,51,14		2,32,17, 9,18	
		1,42,29,27,10,50,59, 2		7,30
14″	34,43, 2,59,42,32, 2,53,50,16		2,32,17,16,48	
		1,42,29,24,38,33,42,14		7,30
16″	34,43, 4,42,11,56,41,27,32,30		2,32,17,24,18	
		1,42,29,22, 6,16,17,56		7,30
18″	34,43, 6,24,41,18,47,43,50,26		2,32,17,31,48	
		1,42,29,19,33,58,46, 8		7,30
20″	34,43, 8, 7,10,38,21,42,36,34		2,32,17,39,18	
		1,42,29,17, 1,41, 6,50		7,30
22″	34,43, 9,49,39,55,23,23,43,24		2,32,17,46,48	
		1,42,29,14,29,23,20, 2		7,30
24″	34,43,11,32, 9, 9,52,47, 3,26		2,32,17,54,18	
		1,42,29,11,57, 5,25,44		7,30
26″	34,43,13,14,38,21,49,52,29,10		2,32,18, 1,48	
		1,42,29, 9,24,47,23,56		7,30
28″	34,43,14,57, 7,31,14,39,53, 6		2,32,18, 9,18	
		1,42,29, 6,52,29,14,38		7,30
30″	34,43,16,39,36,38, 7, 9, 7,44		2,32,18,16,48	
		1,42,29, 4,20,10,57,50		7,30
32″	34,43,18,22, 5,42,27,20, 5,34		2,32,18,24,18	
		1,42,29, 1,47,52,33,32		7,30
34″	34,43,20, 4,34,44,15,12,39, 6		2,32,18,31,48	
		1,42,28,59,15,34, 1,44		7,30
36″	34,43,21,47, 3,43,30,46,40,50		2,32,18,39,18	
		1,42,28,56,43,15,22,26		7,30
38″	34,43,23,29,32,40,14, 2, 3,16		2,32,18,46,48	
		1,42,28,54,10,56,35,38		7,30
40″	34,43,25,12, 1,34,24,58,38,54		2,32,18,54,18	
		1,42,28,51,38,37,41,20		7,30
42″	34,43,26,54,30,26, 3,36,20,14		2,32,19, 1,48	
		1,42,28,49, 6,18,39,32		7,30
44″	34,43,28,36,59,15, 9,54,59,46		2,32,19, 9,18	
		1,42,28,46,33,59,30,14		7,30
46″	34,43,30,19,28, 1,43,54,30, 0		2,32,19,16,48	
		1,42,28,44, 1,40,13,26		7,30
48″	34,43,32, 1,56,45,45,34,43,26		2,32,19,24,18	
		1,42,28,41,29,20,49, 8		7,30
50″	34,43,33,44,25,27,14,55,32,34		2,32,19,31,48	
		1,42,28,38,57, 1,17,20		7,30
52″	34,43,35,26,54, 6,11,56,49,54		2,32,19,39,18	
		1,42,28,36,24,41,38, 2		7,30
54″	34,43,37, 9,22,42,36,38,27,56		2,32,19,46,48	
		1,42,28,33,52,21,51,14		7,30
56″	34,43,38,51,51,16,29, 0,19,10		2,32,19,54,18	
		1,42,28,31,20, 1,56,56		7,30
58″	34,43,40,34,19,47,49, 2,16, 6		2,32,20, 1,48	
		1,42,28,28,47,41,55, 8		
60″	34,43,42,16,48,16,36,44,11,14			
exact	34,43,42,16,48,16,36,44,37,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°22′ 0″	34,43,42,16,48,16,36,44,37,46			
		1,42,28,26,15,21,48,50		
2″	34,43,43,59,16,42,52, 6,26,36		2,32,20,16,35	
		1,42,28,23,43, 1,32,15		7,29
4″	34,43,45,41,45, 6,35, 7,58,51		2,32,20,24, 4	
		1,42,28,21,10,41, 8,11		7,29
6″	34,43,47,24,13,27,45,49, 7, 2		2,32,20,31,33	
		1,42,28,18,38,20,36,38		7,29
8″	34,43,49, 6,41,46,24, 9,43,40		2,32,20,39, 2	
		1,42,28,16, 5,59,57,36		7,29
10″	34,43,50,49,10, 2,30, 9,41,16		2,32,20,46,31	
		1,42,28,13,33,39,11, 5		7,29
12″	34,43,52,31,38,16, 3,48,52,21		2,32,20,54, 0	
		1,42,28,11, 1,18,17, 5		7,29
14″	34,43,54,14, 6,27, 5, 7, 9,26		2,32,21, 1,29	
		1,42,28, 8,28,57,15,36		7,29
16″	34,43,55,56,34,35,34, 4,25, 2		2,32,21, 8,58	
		1,42,28, 5,56,36, 6,38		7,29
18″	34,43,57,39, 2,41,30,40,31,40		2,32,21,16,27	
		1,42,28, 3,24,14,50,11		7,29
20″	34,43,59,21,30,44,54,55,21,51		2,32,21,23,56	
		1,42,28, 0,51,53,26,15		7,29
22″	34,44, 1, 3,58,45,46,48,48, 6		2,32,21,31,25	
		1,42,27,58,19,31,54,50		7,29
24″	34,44, 2,46,26,44, 6,20,42,56		2,32,21,38,54	
		1,42,27,55,47,10,15,56		7,29
26″	34,44, 4,28,54,39,53,30,58,52		2,32,21,46,23	
		1,42,27,53,14,48,29,33		7,29
28″	34,44, 6,11,22,33, 8,19,28,25		2,32,21,53,52	
		1,42,27,50,42,26,35,41		7,29
30″	34,44, 7,53,50,23,50,46, 4, 6		2,32,22, 1,21	
		1,42,27,48,10, 4,34,20		7,29
32″	34,44, 9,36,18,12, 0,50,38,26		2,32,22, 8,50	
		1,42,27,45,37,42,25,30		7,29
34″	34,44,11,18,45,57,38,33, 3,56		2,32,22,16,19	
		1,42,27,43, 5,20, 9,11		7,29
36″	34,44,13, 1,13,40,43,53,13, 7		2,32,22,23,48	
		1,42,27,40,32,57,45,23		7,29
38″	34,44,14,43,41,21,16,50,58,30		2,32,22,31,17	
		1,42,27,38, 0,35,14, 6		7,29
40″	34,44,16,26, 8,59,17,26,12,36		2,32,22,38,46	
		1,42,27,35,28,12,35,20		7,29
42″	34,44,18, 8,36,34,45,38,47,56		2,32,22,46,15	
		1,42,27,32,55,49,49, 5		7,29
44″	34,44,19,51, 4, 7,41,28,37, 1		2,32,22,53,44	
		1,42,27,30,23,26,55,21		7,29
46″	34,44,21,33,31,38, 4,55,32,22		2,32,23, 1,13	
		1,42,27,27,51, 3,54, 8		7,29
48″	34,44,23,15,59, 5,55,59,26,30		2,32,23, 8,42	
		1,42,27,25,18,40,45,26		7,29
50″	34,44,24,58,26,31,14,40,11,56		2,32,23,16,11	
		1,42,27,22,46,17,29,15		7,29
52″	34,44,26,40,53,54, 0,57,41,11		2,32,23,23,40	
		1,42,27,20,13,54, 5,35		7,29
54″	34,44,28,23,21,14,14,51,46,46		2,32,23,31, 9	
		1,42,27,17,41,30,34,26		7,29
56″	34,44,30, 5,48,31,56,22,21,12		2,32,23,38,38	
		1,42,27,15, 9, 6,55,48		7,29
58″	34,44,31,48,15,47, 5,29,17, 0		2,32,23,46, 7	
		1,42,27,12,36,43, 9,41		
60″	34,44,33,30,42,59,42,12,26,41			
exact	34,44,33,30,42,59,42,11,56,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°23′ 0″	34,44,33,30,42,59,42,11,56,29			
		1,42,27,10, 4,19,12,49		
2″	34,44,35,13,10, 9,46,31, 9,18		2,32,24, 1,18	
		1,42,27, 7,31,55,11,31		7,29
4″	34,44,36,55,37,17,18,26,20,49		2,32,24, 8,47	
		1,42,27, 4,59,31, 2,44		7,29
6″	34,44,38,38, 4,22,17,57,23,33		2,32,24,16,16	
		1,42,27, 2,27, 6,46,28		7,29
8″	34,44,40,20,31,24,45, 4,10, 1		2,32,24,23,45	
		1,42,26,59,54,42,22,43		7,29
10″	34,44,42, 2,58,24,39,46,32,44		2,32,24,31,14	
		1,42,26,57,22,17,51,29		7,29
12″	34,44,43,45,25,22, 2, 4,24,13		2,32,24,38,43	
		1,42,26,54,49,53,12,46		7,29
14″	34,44,45,27,52,16,51,57,36,59		2,32,24,46,12	
		1,42,26,52,17,28,26,34		7,29
16″	34,44,47,10,19, 9, 9,26, 3,33		2,32,24,53,41	
		1,42,26,49,45, 3,32,53		7,29
18″	34,44,48,52,45,58,54,29,36,26		2,32,25, 1,10	
		1,42,26,47,12,38,31,43		7,29
20″	34,44,50,35,12,46, 7, 8, 8, 9		2,32,25, 8,39	
		1,42,26,44,40,13,23, 4		7,29
22″	34,44,52,17,39,30,47,21,31,13		2,32,25,16, 8	
		1,42,26,42, 7,48, 6,56		7,29
24″	34,44,54, 0, 6,12,55, 9,38, 9		2,32,25,23,37	
		1,42,26,39,35,22,43,19		7,29
26″	34,44,55,42,32,52,30,32,21,28		2,32,25,31, 6	
		1,42,26,37, 2,57,12,13		7,29
28″	34,44,57,24,59,29,33,29,33,41		2,32,25,38,35	
		1,42,26,34,30,31,33,38		7,29
30″	34,44,59, 7,26, 4, 4, 1, 7,19		2,32,25,46, 4	
		1,42,26,31,58, 5,47,34		7,29
32″	34,45, 0,49,52,36, 2, 6,54,53		2,32,25,53,33	
		1,42,26,29,25,39,54, 1		7,29
34″	34,45, 2,32,19, 5,27,46,48,54		2,32,26, 1, 2	
		1,42,26,26,53,13,52,59		7,29
36″	34,45, 4,14,45,32,21, 0,41,53		2,32,26, 8,31	
		1,42,26,24,20,47,44,28		7,29
38″	34,45, 5,57,11,56,41,48,26,21		2,32,26,16, 0	
		1,42,26,21,48,21,28,28		7,29
40″	34,45, 7,39,38,18,30, 9,54,49		2,32,26,23,29	
		1,42,26,19,15,55, 4,59		7,29
42″	34,45, 9,22, 4,37,46, 4,59,48		2,32,26,30,58	
		1,42,26,16,43,28,34, 1		7,29
44″	34,45,11, 4,30,54,29,33,33,49		2,32,26,38,27	
		1,42,26,14,11, 1,55,34		7,29
46″	34,45,12,46,57, 8,40,35,29,23		2,32,26,45,56	
		1,42,26,11,38,35, 9,38		7,29
48″	34,45,14,29,23,20,19,10,39, 1		2,32,26,53,25	
		1,42,26, 9, 6, 8,16,13		7,29
50″	34,45,16,11,49,29,25,18,55,14		2,32,27, 0,54	
		1,42,26, 6,33,41,15,19		7,29
52″	34,45,17,54,15,35,59, 0,10,33		2,32,27, 8,23	
		1,42,26, 4, 1,14, 6,56		7,29
54″	34,45,19,36,41,40, 0,14,17,29		2,32,27,15,52	
		1,42,26, 1,28,46,51, 4		7,29
56″	34,45,21,19, 7,41,29, 1, 8,33		2,32,27,23,21	
		1,42,25,58,56,19,27,43		7,29
58″	34,45,23, 1,33,40,25,20,36,16		2,32,27,30,50	
		1,42,25,56,23,51,56,53		
60″	34,45,24,43,59,36,49,12,33, 9			
exact	34,45,24,43,59,36,49,12, 5, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°24′ 0″	34,45,24,43,59,36,49,12, 5, 7			
		1,42,25,53,51,24,15,41		
2″	34,45,26,26,25,30,40,36,20,48		2,32,27,45,59	
		1,42,25,51,18,56,29,42		7,29
4″	34,45,28, 8,51,21,59,32,50,30		2,32,27,53,28	
		1,42,25,48,46,28,36,14		7,29
6″	34,45,29,51,17,10,46, 1,26,44		2,32,28, 0,57	
		1,42,25,46,14, 0,35,17		7,29
8″	34,45,31,33,42,57, 0, 2, 2, 1		2,32,28, 8,26	
		1,42,25,43,41,32,26,51		7,29
10″	34,45,33,16, 8,40,41,34,28,52		2,32,28,15,55	
		1,42,25,41, 9, 4,10,56		7,29
12″	34,45,34,58,34,21,50,38,39,48		2,32,28,23,24	
		1,42,25,38,36,35,47,32		7,29
14″	34,45,36,41, 0, 0,27,14,27,20		2,32,28,30,53	
		1,42,25,36, 4, 7,16,39		7,29
16″	34,45,38,23,25,36,31,21,43,59		2,32,28,38,22	
		1,42,25,33,31,38,38,17		7,29
18″	34,45,40, 5,51,10, 3, 0,22,16		2,32,28,45,51	
		1,42,25,30,59, 9,52,26		7,29
20″	34,45,41,48,16,41, 2,10,14,42		2,32,28,53,20	
		1,42,25,28,26,40,59, 6		7,29
22″	34,45,43,30,42, 9,28,51,13,48		2,32,29, 0,49	
		1,42,25,25,54,11,58,17		7,29
24″	34,45,45,13, 7,35,23, 3,12, 5		2,32,29, 8,18	
		1,42,25,23,21,42,49,59		7,29
26″	34,45,46,55,32,58,44,46, 2, 4		2,32,29,15,47	
		1,42,25,20,49,13,34,12		7,29
28″	34,45,48,37,58,19,33,59,36,16		2,32,29,23,16	
		1,42,25,18,16,44,10,56		7,29
30″	34,45,50,20,23,37,50,43,47,12		2,32,29,30,45	
		1,42,25,15,44,14,40,11		7,29
32″	34,45,52, 2,48,53,34,58,27,23		2,32,29,38,14	
		1,42,25,13,11,45, 1,57		7,29
34″	34,45,53,45,14, 6,46,43,29,20		2,32,29,45,43	
		1,42,25,10,39,15,16,14		7,29
36″	34,45,55,27,39,17,25,58,45,34		2,32,29,53,12	
		1,42,25, 8, 6,45,23, 2		7,29
38″	34,45,57,10, 4,25,32,44, 8,36		2,32,30, 0,41	
		1,42,25, 5,34,15,22,21		7,29
40″	34,45,58,52,29,31, 6,59,30,57		2,32,30, 8,10	
		1,42,25, 3, 1,45,14,11		7,29
42″	34,46, 0,34,54,34, 8,44,45, 8		2,32,30,15,39	
		1,42,25, 0,29,14,58,32		7,29
44″	34,46, 2,17,19,34,37,59,43,40		2,32,30,23, 8	
		1,42,24,57,56,44,35,24		7,29
46″	34,46, 3,59,44,32,34,44,19, 4		2,32,30,30,37	
		1,42,24,55,24,14, 4,47		7,29
48″	34,46, 5,42, 9,27,58,58,23,51		2,32,30,38, 6	
		1,42,24,52,51,43,26,41		7,29
50″	34,46, 7,24,34,20,50,41,50,32		2,32,30,45,35	
		1,42,24,50,19,12,41, 6		7,29
52″	34,46, 9, 6,59,11, 9,54,31,38		2,32,30,53, 4	
		1,42,24,47,46,41,48, 2		7,29
54″	34,46,10,49,23,58,56,36,19,40		2,32,31, 0,33	
		1,42,24,45,14,10,47,29		7,29
56″	34,46,12,31,48,44,10,47, 7, 9		2,32,31, 8, 2	
		1,42,24,42,41,39,39,27		7,29
58″	34,46,14,14,13,26,52,26,46,36		2,32,31,15,31	
		1,42,24,40, 9, 8,23,56		
60″	34,46,15,56,38, 7, 1,35,10,32			
exact	34,46,15,56,38, 7, 1,34,50, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°25′ 0″	34,46,15,56,38, 7, 1,34,50, 9			
		1,42,24,37,36,36,58,49		
2″	34,46,17,39, 2,44,38,11,48,58		2,32,31,30,37	
		1,42,24,35, 4, 5,28,12		7,29
4″	34,46,19,21,27,19,42,17,17,10		2,32,31,38, 6	
		1,42,24,32,31,33,50, 6		7,29
6″	34,46,21, 3,51,52,13,51, 7,16		2,32,31,45,35	
		1,42,24,29,59, 2, 4,31		7,29
8″	34,46,22,46,16,22,12,53,11,47		2,32,31,53, 4	
		1,42,24,27,26,30,11,27		7,29
10″	34,46,24,28,40,49,39,23,23,14		2,32,32, 0,33	
		1,42,24,24,53,58,10,54		7,29
12″	34,46,26,11, 5,14,33,21,34, 8		2,32,32, 8, 2	
		1,42,24,22,21,26, 2,52		7,29
14″	34,46,27,53,29,36,54,47,37, 0		2,32,32,15,31	
		1,42,24,19,48,53,47,21		7,29
16″	34,46,29,35,53,56,43,41,24,21		2,32,32,23, 0	
		1,42,24,17,16,21,24,21		7,29
18″	34,46,31,18,18,14, 0, 2,48,42		2,32,32,30,29	
		1,42,24,14,43,48,53,52		7,29
20″	34,46,33, 0,42,28,43,51,42,34		2,32,32,37,58	
		1,42,24,12,11,16,15,54		7,29
22″	34,46,34,43, 6,40,55, 7,58,28		2,32,32,45,27	
		1,42,24, 9,38,43,30,27		7,29
24″	34,46,36,25,30,50,33,51,28,55		2,32,32,52,56	
		1,42,24, 7, 6,10,37,31		7,29
26″	34,46,38, 7,54,57,40, 2, 6,26		2,32,33, 0,25	
		1,42,24, 4,33,37,37, 6		7,29
28″	34,46,39,50,19, 2,13,39,43,32		2,32,33, 7,54	
		1,42,24, 2, 1, 4,29,12		7,29
30″	34,46,41,32,43, 4,14,44,12,44		2,32,33,15,23	
		1,42,23,59,28,31,13,49		7,29
32″	34,46,43,15, 7, 3,43,15,26,33		2,32,33,22,52	
		1,42,23,56,55,57,50,57		7,29
34″	34,46,44,57,31, 0,39,13,17,30		2,32,33,30,21	
		1,42,23,54,23,24,20,36		7,29
36″	34,46,46,39,54,55, 2,37,38, 6		2,32,33,37,50	
		1,42,23,51,50,50,42,46		7,29
38″	34,46,48,22,18,46,53,28,20,52		2,32,33,45,19	
		1,42,23,49,18,16,57,27		7,29
40″	34,46,50, 4,42,36,11,45,18,19		2,32,33,52,48	
		1,42,23,46,45,43, 4,39		7,29
42″	34,46,51,47, 6,22,57,28,22,58		2,32,34, 0,17	
		1,42,23,44,13, 9, 4,22		7,29
44″	34,46,53,29,30, 7,10,37,27,20		2,32,34, 7,46	
		1,42,23,41,40,34,56,36		7,29
46″	34,46,55,11,53,48,51,12,23,56		2,32,34,15,15	
		1,42,23,39, 8, 0,41,21		7,29
48″	34,46,56,54,17,27,59,13, 5,17		2,32,34,22,44	
		1,42,23,36,35,26,18,37		7,29
50″	34,46,58,36,41, 4,34,39,23,54		2,32,34,30,13	
		1,42,23,34, 2,51,48,24		7,29
52″	34,47, 0,19, 4,38,37,31,12,18		2,32,34,37,42	
		1,42,23,31,30,17,10,42		7,29
54″	34,47, 2, 1,28,10, 7,48,23, 0		2,32,34,45,11	
		1,42,23,28,57,42,25,31		7,29
56″	34,47, 3,43,51,39, 5,30,48,31		2,32,34,52,40	
		1,42,23,26,25, 7,32,51		7,29
58″	34,47, 5,26,15, 5,30,38,21,22		2,32,35, 0, 9	
		1,42,23,23,52,32,32,42		
60″	34,47, 7, 8,38,29,23,10,54, 4			
exact	34,47, 7, 8,38,29,23,10,39,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°26′ 0″	34,47, 7, 8,38,29,23,10,39,50			
		1,42,23,21,19,57,23,37		
2″	34,47, 8,51, 1,50,43, 8, 3,27		2,32,35,15,12	
		1,42,23,18,47,22, 8,25		7,29
4″	34,47,10,33,25, 9,30,30,11,52		2,32,35,22,41	
		1,42,23,16,14,46,45,44		7,29
6″	34,47,12,15,48,25,45,16,57,36		2,32,35,30,10	
		1,42,23,13,42,11,15,34		7,29
8″	34,47,13,58,11,39,27,28,13,10		2,32,35,37,39	
		1,42,23,11, 9,35,37,55		7,29
10″	34,47,15,40,34,50,37, 3,51, 5		2,32,35,45, 8	
		1,42,23, 8,36,59,52,47		7,29
12″	34,47,17,22,57,59,14, 3,43,52		2,32,35,52,37	
		1,42,23, 6, 4,24, 0,10		7,29
14″	34,47,19, 5,21, 5,18,27,44, 2		2,32,36, 0, 6	
		1,42,23, 3,31,48, 0, 4		7,29
16″	34,47,20,47,44, 8,50,15,44, 6		2,32,36, 7,35	
		1,42,23, 0,59,11,52,29		7,29
18″	34,47,22,30, 7, 9,49,27,36,35		2,32,36,15, 4	
		1,42,22,58,26,35,37,25		7,29
20″	34,47,24,12,30, 8,16, 3,14, 0		2,32,36,22,33	
		1,42,22,55,53,59,14,52		7,29
22″	34,47,25,54,53, 4,10, 2,28,52		2,32,36,30, 2	
		1,42,22,53,21,22,44,50		7,29
24″	34,47,27,37,15,57,31,25,13,42		2,32,36,37,31	
		1,42,22,50,48,46, 7,19		7,29
26″	34,47,29,19,38,48,20,11,21, 1		2,32,36,45, 0	
		1,42,22,48,16, 9,22,19		7,29
28″	34,47,31, 2, 1,36,36,20,43,20		2,32,36,52,29	
		1,42,22,45,43,32,29,50		7,29
30″	34,47,32,44,24,22,19,53,13,10		2,32,36,59,58	
		1,42,22,43,10,55,29,52		7,29
32″	34,47,34,26,47, 5,30,48,43, 2		2,32,37, 7,27	
		1,42,22,40,38,18,22,25		7,29
34″	34,47,36, 9, 9,46, 9, 7, 5,27		2,32,37,14,56	
		1,42,22,38, 5,41, 7,29		7,29
36″	34,47,37,51,32,24,14,48,12,56		2,32,37,22,25	
		1,42,22,35,33, 3,45, 4		7,29
38″	34,47,39,33,54,59,47,51,58, 0		2,32,37,29,54	
		1,42,22,33, 0,26,15,10		7,29
40″	34,47,41,16,17,32,48,18,13,10		2,32,37,37,23	
		1,42,22,30,27,48,37,47		7,29
42″	34,47,42,58,40, 3,16, 6,50,57		2,32,37,44,52	
		1,42,22,27,55,10,52,55		7,29
44″	34,47,44,41, 2,31,11,17,43,52		2,32,37,52,21	
		1,42,22,25,22,33, 0,34		7,29
46″	34,47,46,23,24,56,33,50,44,26		2,32,37,59,50	
		1,42,22,22,49,55, 0,44		7,29
48″	34,47,48, 5,47,19,23,45,45,10		2,32,38, 7,19	
		1,42,22,20,17,16,53,25		7,29
50″	34,47,49,48, 9,39,41, 2,38,35		2,32,38,14,48	
		1,42,22,17,44,38,38,37		7,29
52″	34,47,51,30,31,57,25,41,17,12		2,32,38,22,17	
		1,42,22,15,12, 0,16,20		7,29
54″	34,47,53,12,54,12,37,41,33,32		2,32,38,29,46	
		1,42,22,12,39,21,46,34		7,29
56″	34,47,54,55,16,25,17, 3,20, 6		2,32,38,37,15	
		1,42,22,10, 6,43, 9,19		7,29
58″	34,47,56,37,38,35,23,46,29,25		2,32,38,44,44	
		1,42,22, 7,34, 4,24,35		
60″	34,47,58,20, 0,42,57,50,54, 0			
exact	34,47,58,20, 0,42,57,50,44,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°27′ 0″	34,47,58,20, 0,42,57,50,44,18			
		1,42,22, 5, 1,25,31,29		
2″	34,48, 0, 2,22,47,59,16,15,47		2,32,38,59,45	
		1,42,22, 2,28,46,31,44		7,29
4″	34,48, 1,44,44,50,28, 2,47,31		2,32,39, 7,14	
		1,42,21,59,56, 7,24,30		7,29
6″	34,48, 3,27, 6,50,24,10,12, 1		2,32,39,14,43	
		1,42,21,57,23,28, 9,47		7,29
8″	34,48, 5, 9,28,47,47,38,21,48		2,32,39,22,12	
		1,42,21,54,50,48,47,35		7,29
10″	34,48, 6,51,50,42,38,27, 9,23		2,32,39,29,41	
		1,42,21,52,18, 9,17,54		7,29
12″	34,48, 8,34,12,34,56,36,27,17		2,32,39,37,10	
		1,42,21,49,45,29,40,44		7,29
14″	34,48,10,16,34,24,42, 6, 8, 1		2,32,39,44,39	
		1,42,21,47,12,49,56, 5		7,29
16″	34,48,11,58,56,11,54,56, 4, 6		2,32,39,52, 8	
		1,42,21,44,40,10, 3,57		7,29
18″	34,48,13,41,17,56,35, 6, 8, 3		2,32,39,59,37	
		1,42,21,42, 7,30, 4,20		7,29
20″	34,48,15,23,39,38,42,36,12,23		2,32,40, 7, 6	
		1,42,21,39,34,49,57,14		7,29
22″	34,48,17, 6, 1,18,17,26, 9,37		2,32,40,14,35	
		1,42,21,37, 2, 9,42,39		7,29
24″	34,48,18,48,22,55,19,35,52,16		2,32,40,22, 4	
		1,42,21,34,29,29,20,35		7,29
26″	34,48,20,30,44,29,49, 5,12,51		2,32,40,29,33	
		1,42,21,31,56,48,51, 2		7,29
28″	34,48,22,13, 6, 1,45,54, 3,53		2,32,40,37, 2	
		1,42,21,29,24, 8,14, 0		7,29
30″	34,48,23,55,27,31,10, 2,17,53		2,32,40,44,31	
		1,42,21,26,51,27,29,29		7,29
32″	34,48,25,37,48,58, 1,29,47,22		2,32,40,52, 0	
		1,42,21,24,18,46,37,29		7,29
34″	34,48,27,20,10,22,20,16,24,51		2,32,40,59,29	
		1,42,21,21,46, 5,38, 0		7,29
36″	34,48,29, 2,31,44, 6,22, 2,51		2,32,41, 6,58	
		1,42,21,19,13,24,31, 2		7,29
38″	34,48,30,44,53, 3,19,46,33,53		2,32,41,14,27	
		1,42,21,16,40,43,16,35		7,29
40″	34,48,32,27,14,20, 0,29,50,28		2,32,41,21,56	
		1,42,21,14, 8, 1,54,39		7,29
42″	34,48,34, 9,35,34, 8,31,45, 7		2,32,41,29,25	
		1,42,21,11,35,20,25,14		7,29
44″	34,48,35,51,56,45,43,52,10,21		2,32,41,36,54	
		1,42,21, 9, 2,38,48,20		7,29
46″	34,48,37,34,17,54,46,30,58,41		2,32,41,44,23	
		1,42,21, 6,29,57, 3,57		7,29
48″	34,48,39,16,39, 1,16,28, 2,38		2,32,41,51,52	
		1,42,21, 3,57,15,12, 5		7,29
50″	34,48,40,59, 0, 5,13,43,14,43		2,32,41,59,21	
		1,42,21, 1,24,33,12,44		7,29
52″	34,48,42,41,21, 6,38,16,27,27		2,32,42, 6,50	
		1,42,20,58,51,51, 5,54		7,29
54″	34,48,44,23,42, 5,30, 7,33,21		2,32,42,14,19	
		1,42,20,56,19, 8,51,35		7,29
56″	34,48,46, 6, 3, 1,49,16,24,56		2,32,42,21,48	
		1,42,20,53,46,26,29,47		7,29
58″	34,48,47,48,23,55,35,42,54,43		2,32,42,29,17	
		1,42,20,51,13,44, 0,30		
60″	34,48,49,30,44,46,49,26,55,13			
exact	34,48,49,30,44,46,49,26,55,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°28′ 0″	34,48,49,30,44,46,49,26,55,27			
		1,42,20,48,41, 1,23,47		
2″	34,48,51,13, 5,35,30,28,19,14		2,32,42,44,14	
		1,42,20,46, 8,18,39,33		7,29
4″	34,48,52,55,26,21,38,46,58,47		2,32,42,51,43	
		1,42,20,43,35,35,47,50		7,29
6″	34,48,54,37,47, 5,14,22,46,37		2,32,42,59,12	
		1,42,20,41, 2,52,48,38		7,29
8″	34,48,56,20, 7,46,17,15,35,15		2,32,43, 6,41	
		1,42,20,38,30, 9,41,57		7,29
10″	34,48,58, 2,28,24,47,25,17,12		2,32,43,14,10	
		1,42,20,35,57,26,27,47		7,29
12″	34,48,59,44,49, 0,44,51,44,59		2,32,43,21,39	
		1,42,20,33,24,43, 6, 8		7,29
14″	34,49, 1,27, 9,34, 9,34,51, 7		2,32,43,29, 8	
		1,42,20,30,51,59,37, 0		7,29
16″	34,49, 3, 9,30, 5, 1,34,28, 7		2,32,43,36,37	
		1,42,20,28,19,16, 0,23		7,29
18″	34,49, 4,51,50,33,20,50,28,30		2,32,43,44, 6	
		1,42,20,25,46,32,16,17		7,29
20″	34,49, 6,34,10,59, 7,22,44,47		2,32,43,51,35	
		1,42,20,23,13,48,24,42		7,29
22″	34,49, 8,16,31,22,21,11, 9,29		2,32,43,59, 4	
		1,42,20,20,41, 4,25,38		7,29
24″	34,49, 9,58,51,43, 2,15,35, 7		2,32,44, 6,33	
		1,42,20,18, 8,20,19, 5		7,29
26″	34,49,11,41,12, 1,10,35,54,12		2,32,44,14, 2	
		1,42,20,15,35,36, 5, 3		7,29
28″	34,49,13,23,32,16,46,11,59,15		2,32,44,21,31	
		1,42,20,13, 2,51,43,32		7,29
30″	34,49,15, 5,52,29,49, 3,42,47		2,32,44,29, 0	
		1,42,20,10,30, 7,14,32		7,29
32″	34,49,16,48,12,40,19,10,57,19		2,32,44,36,29	
		1,42,20, 7,57,22,38, 3		7,29
34″	34,49,18,30,32,48,16,33,35,22		2,32,44,43,58	
		1,42,20, 5,24,37,54, 5		7,29
36″	34,49,20,12,52,53,41,11,29,27		2,32,44,51,27	
		1,42,20, 2,51,53, 2,38		7,29
38″	34,49,21,55,12,56,33, 4,32, 5		2,32,44,58,56	
		1,42,20, 0,19, 8, 3,42		7,29
40″	34,49,23,37,32,56,52,12,35,47		2,32,45, 6,25	
		1,42,19,57,46,22,57,17		7,29
42″	34,49,25,19,52,54,38,35,33, 4		2,32,45,13,54	
		1,42,19,55,13,37,43,23		7,29
44″	34,49,27, 2,12,49,52,13,16,27		2,32,45,21,23	
		1,42,19,52,40,52,22, 0		7,29
46″	34,49,28,44,32,42,33, 5,38,27		2,32,45,28,52	
		1,42,19,50, 8, 6,53, 8		7,29
48″	34,49,30,26,52,32,41,12,31,35		2,32,45,36,21	
		1,42,19,47,35,21,16,47		7,29
50″	34,49,32, 9,12,20,16,33,48,22		2,32,45,43,50	
		1,42,19,45, 2,35,32,57		7,29
52″	34,49,33,51,32, 5,19, 9,21,19		2,32,45,51,19	
		1,42,19,42,29,49,41,38		7,29
54″	34,49,35,33,51,47,48,59, 2,57		2,32,45,58,48	
		1,42,19,39,57, 3,42,50		7,29
56″	34,49,37,16,11,27,46, 2,45,47		2,32,46, 6,17	
		1,42,19,37,24,17,36,33		7,29
58″	34,49,38,58,31, 5,10,20,22,20		2,32,46,13,46	
		1,42,19,34,51,31,22,47		
60″	34,49,40,40,50,40, 1,51,45, 7			
exact	34,49,40,40,50,40, 1,51,47, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°29′ 0″	34,49,40,40,50,40, 1,51,47, 4			
		1,42,19,32,18,45, 1,56		
2″	34,49,42,23,10,12,20,36,49, 0		2,32,46,28,41	
		1,42,19,29,45,58,33,15		7,29
4″	34,49,44, 5,29,42, 6,35,22,15		2,32,46,36,10	
		1,42,19,27,13,11,57, 5		7,29
6″	34,49,45,47,49, 9,19,47,19,20		2,32,46,43,39	
		1,42,19,24,40,25,13,26		7,29
8″	34,49,47,30, 8,34, 0,12,32,46		2,32,46,51, 8	
		1,42,19,22, 7,38,22,18		7,29
10″	34,49,49,12,27,56, 7,50,55, 4		2,32,46,58,37	
		1,42,19,19,34,51,23,41		7,29
12″	34,49,50,54,47,15,42,42,18,45		2,32,47, 6, 6	
		1,42,19,17, 2, 4,17,35		7,29
14″	34,49,52,37, 6,32,44,46,36,20		2,32,47,13,35	
		1,42,19,14,29,17, 4, 0		7,29
16″	34,49,54,19,25,47,14, 3,40,20		2,32,47,21, 4	
		1,42,19,11,56,29,42,56		7,29
18″	34,49,56, 1,44,59,10,33,23,16		2,32,47,28,33	
		1,42,19, 9,23,42,14,23		7,29
20″	34,49,57,44, 4, 8,34,15,37,39		2,32,47,36, 2	
		1,42,19, 6,50,54,38,21		7,29
22″	34,49,59,26,23,15,25,10,16, 0		2,32,47,43,31	
		1,42,19, 4,18, 6,54,50		7,29
24″	34,50, 1, 8,42,19,43,17,10,50		2,32,47,51, 0	
		1,42,19, 1,45,19, 3,50		7,29
26″	34,50, 2,51, 1,21,28,36,14,40		2,32,47,58,29	
		1,42,18,59,12,31, 5,21		7,29
28″	34,50, 4,33,20,20,41, 7,20, 1		2,32,48, 5,58	
		1,42,18,56,39,42,59,23		7,29
30″	34,50, 6,15,39,17,20,50,19,24		2,32,48,13,27	
		1,42,18,54, 6,54,45,56		7,29
32″	34,50, 7,57,58,11,27,45, 5,20		2,32,48,20,56	
		1,42,18,51,34, 6,25, 0		7,29
34″	34,50, 9,40,17, 3, 1,51,30,20		2,32,48,28,25	
		1,42,18,49, 1,17,56,35		7,29
36″	34,50,11,22,35,52, 3, 9,26,55		2,32,48,35,54	
		1,42,18,46,28,29,20,41		7,29
38″	34,50,13, 4,54,38,31,38,47,36		2,32,48,43,23	
		1,42,18,43,55,40,37,18		7,29
40″	34,50,14,47,13,22,27,19,24,54		2,32,48,50,52	
		1,42,18,41,22,51,46,26		7,29
42″	34,50,16,29,32, 3,50,11,11,20		2,32,48,58,21	
		1,42,18,38,50, 2,48, 5		7,29
44″	34,50,18,11,50,42,40,13,59,25		2,32,49, 5,50	
		1,42,18,36,17,13,42,15		7,29
46″	34,50,19,54, 9,18,57,27,41,40		2,32,49,13,19	
		1,42,18,33,44,24,28,56		7,29
48″	34,50,21,36,27,52,41,52,10,36		2,32,49,20,48	
		1,42,18,31,11,35, 8, 8		7,29
50″	34,50,23,18,46,23,53,27,18,44		2,32,49,28,17	
		1,42,18,28,38,45,39,51		7,29
52″	34,50,25, 1, 4,52,32,12,58,35		2,32,49,35,46	
		1,42,18,26, 5,56, 4, 5		7,29
54″	34,50,26,43,23,18,38, 9, 2,40		2,32,49,43,15	
		1,42,18,23,33, 6,20,50		7,29
56″	34,50,28,25,41,42,11,15,23,30		2,32,49,50,44	
		1,42,18,21, 0,16,30, 6		7,29
58″	34,50,30, 8, 0, 3,11,31,53,36		2,32,49,58,13	
		1,42,18,18,27,26,31,53		
60″	34,50,31,50,18,21,38,58,25,29			
exact	34,50,31,50,18,21,38,58,34,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°30′ 0″	34,50,31,50,18,21,38,58,34,47			
		1,42,18,15,54,36,27,20		
2″	34,50,33,32,36,37,33,35, 2, 7		2,32,50,13, 5	
		1,42,18,13,21,46,14,15		7,29
4″	34,50,35,14,54,50,55,21,16,22		2,32,50,20,34	
		1,42,18,10,48,55,53,41		7,29
6″	34,50,36,57,13, 1,44,17,10, 3		2,32,50,28, 3	
		1,42,18, 8,16, 5,25,38		7,29
8″	34,50,38,39,31,10, 0,22,35,41		2,32,50,35,32	
		1,42,18, 5,43,14,50, 6		7,29
10″	34,50,40,21,49,15,43,37,25,47		2,32,50,43, 1	
		1,42,18, 3,10,24, 7, 5		7,29
12″	34,50,42, 4, 7,18,54, 1,32,52		2,32,50,50,30	
		1,42,18, 0,37,33,16,35		7,29
14″	34,50,43,46,25,19,31,34,49,27		2,32,50,57,59	
		1,42,17,58, 4,42,18,36		7,29
16″	34,50,45,28,43,17,36,17, 8, 3		2,32,51, 5,28	
		1,42,17,55,31,51,13, 8		7,29
18″	34,50,47,11, 1,13, 8, 8,21,11		2,32,51,12,57	
		1,42,17,52,59, 0, 0,11		7,29
20″	34,50,48,53,19, 6, 7, 8,21,22		2,32,51,20,26	
		1,42,17,50,26, 8,39,45		7,29
22″	34,50,50,35,36,56,33,17, 1, 7		2,32,51,27,55	
		1,42,17,47,53,17,11,50		7,29
24″	34,50,52,17,54,44,26,34,12,57		2,32,51,35,24	
		1,42,17,45,20,25,36,26		7,29
26″	34,50,54, 0,12,29,46,59,49,23		2,32,51,42,53	
		1,42,17,42,47,33,53,33		7,29
28″	34,50,55,42,30,12,34,33,42,56		2,32,51,50,22	
		1,42,17,40,14,42, 3,11		7,29
30″	34,50,57,24,47,52,49,15,46, 7		2,32,51,57,51	
		1,42,17,37,41,50, 5,20		7,29
32″	34,50,59, 7, 5,30,31, 5,51,27		2,32,52, 5,20	
		1,42,17,35, 8,58, 0, 0		7,29
34″	34,51, 0,49,23, 5,40, 3,51,27		2,32,52,12,49	
		1,42,17,32,36, 5,47,11		7,29
36″	34,51, 2,31,40,38,16, 9,38,38		2,32,52,20,18	
		1,42,17,30, 3,13,26,53		7,29
38″	34,51, 4,13,58, 8,19,23, 5,31		2,32,52,27,47	
		1,42,17,27,30,20,59, 6		7,29
40″	34,51, 5,56,15,35,49,44, 4,37		2,32,52,35,16	
		1,42,17,24,57,28,23,50		7,29
42″	34,51, 7,38,33, 0,47,12,28,27		2,32,52,42,45	
		1,42,17,22,24,35,41, 5		7,29
44″	34,51, 9,20,50,23,11,48, 9,32		2,32,52,50,14	
		1,42,17,19,51,42,50,51		7,29
46″	34,51,11, 3, 7,43, 3,31, 0,23		2,32,52,57,43	
		1,42,17,17,18,49,53, 8		7,29
48″	34,51,12,45,25, 0,22,20,53,31		2,32,53, 5,12	
		1,42,17,14,45,56,47,56		7,29
50″	34,51,14,27,42,15, 8,17,41,27		2,32,53,12,41	
		1,42,17,12,13, 3,35,15		7,29
52″	34,51,16, 9,59,27,21,21,16,42		2,32,53,20,10	
		1,42,17, 9,40,10,15, 5		7,29
54″	34,51,17,52,16,37, 1,31,31,47		2,32,53,27,39	
		1,42,17, 7, 7,16,47,26		7,29
56″	34,51,19,34,33,44, 8,48,19,13		2,32,53,35, 8	
		1,42,17, 4,34,23,12,18		7,29
58″	34,51,21,16,50,48,43,11,31,31		2,32,53,42,37	
		1,42,17, 2, 1,29,29,41		
60″	34,51,22,59, 7,50,44,41, 1,12			
exact	34,51,22,59, 7,50,44,41,16, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°31′ 0″	34,51,22,59, 7,50,44,41,16, 9			
		1,42,16,59,28,35,41,22		
2″	34,51,24,41,24,50,13,16,57,31		2,32,53,57,27	
		1,42,16,56,55,41,43,55		7,29
4″	34,51,26,23,41,47, 8,58,41,26		2,32,54, 4,56	
		1,42,16,54,22,47,38,59		7,29
6″	34,51,28, 5,58,41,31,46,20,25		2,32,54,12,25	
		1,42,16,51,49,53,26,34		7,29
8″	34,51,29,48,15,33,21,39,46,59		2,32,54,19,54	
		1,42,16,49,16,59, 6,40		7,29
10″	34,51,31,30,32,22,38,38,53,39		2,32,54,27,23	
		1,42,16,46,44, 4,39,17		7,29
12″	34,51,33,12,49, 9,22,43,32,56		2,32,54,34,52	
		1,42,16,44,11,10, 4,25		7,29
14″	34,51,34,55, 5,53,33,53,37,21		2,32,54,42,21	
		1,42,16,41,38,15,22, 4		7,29
16″	34,51,36,37,22,35,12, 8,59,25		2,32,54,49,50	
		1,42,16,39, 5,20,32,14		7,29
18″	34,51,38,19,39,14,17,29,31,39		2,32,54,57,19	
		1,42,16,36,32,25,34,55		7,29
20″	34,51,40, 1,55,50,49,55, 6,34		2,32,55, 4,48	
		1,42,16,33,59,30,30, 7		7,29
22″	34,51,41,44,12,24,49,25,36,41		2,32,55,12,17	
		1,42,16,31,26,35,17,50		7,29
24″	34,51,43,26,28,56,16, 0,54,31		2,32,55,19,46	
		1,42,16,28,53,39,58, 4		7,29
26″	34,51,45, 8,45,25, 9,40,52,35		2,32,55,27,15	
		1,42,16,26,20,44,30,49		7,29
28″	34,51,46,51, 1,51,30,25,23,24		2,32,55,34,44	
		1,42,16,23,47,48,56, 5		7,29
30″	34,51,48,33,18,15,18,14,19,29		2,32,55,42,13	
		1,42,16,21,14,53,13,52		7,29
32″	34,51,50,15,34,36,33, 7,33,21		2,32,55,49,42	
		1,42,16,18,41,57,24,10		7,29
34″	34,51,51,57,50,55,15, 4,57,31		2,32,55,57,11	
		1,42,16,16, 9, 1,26,59		7,29
36″	34,51,53,40, 7,11,24, 6,24,30		2,32,56, 4,40	
		1,42,16,13,36, 5,22,19		7,29
38″	34,51,55,22,23,25, 0,11,46,49		2,32,56,12, 9	
		1,42,16,11, 3, 9,10,10		7,29
40″	34,51,57, 4,39,36, 3,20,56,59		2,32,56,19,38	
		1,42,16, 8,30,12,50,32		7,29
42″	34,51,58,46,55,44,33,33,47,31		2,32,56,27, 7	
		1,42,16, 5,57,16,23,25		7,29
44″	34,52, 0,29,11,50,30,50,10,56		2,32,56,34,36	
		1,42,16, 3,24,19,48,49		7,29
46″	34,52, 2,11,27,53,55, 9,59,45		2,32,56,42, 5	
		1,42,16, 0,51,23, 6,44		7,29
48″	34,52, 3,53,43,54,46,33, 6,29		2,32,56,49,34	
		1,42,15,58,18,26,17,10		7,29
50″	34,52, 5,35,59,53, 4,59,23,39		2,32,56,57, 3	
		1,42,15,55,45,29,20, 7		7,29
52″	34,52, 7,18,15,48,50,28,43,46		2,32,57, 4,32	
		1,42,15,53,12,32,15,35		7,29
54″	34,52, 9, 0,31,42, 3, 0,59,21		2,32,57,12, 1	
		1,42,15,50,39,35, 3,34		7,29
56″	34,52,10,42,47,32,42,36, 2,55		2,32,57,19,30	
		1,42,15,48, 6,37,44, 4		7,29
58″	34,52,12,25, 3,20,49,13,46,59		2,32,57,26,59	
		1,42,15,45,33,40,17, 5		
60″	34,52,14, 7,19, 6,22,54, 4, 4			
exact	34,52,14, 7,19, 6,22,54,30,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°32′ 0″	34,52,14, 7,19, 6,22,54,30,34			
		1,42,15,43, 0,42,45,26		
2″	34,52,15,49,34,49,23,37,16, 0		2,32,57,41,45	
		1,42,15,40,27,45, 3,41		7,29
4″	34,52,17,31,50,29,51,22,19,41		2,32,57,49,14	
		1,42,15,37,54,47,14,27		7,29
6″	34,52,19,14, 6, 7,46, 9,34, 8		2,32,57,56,43	
		1,42,15,35,21,49,17,44		7,29
8″	34,52,20,56,21,43, 7,58,51,52		2,32,58, 4,12	
		1,42,15,32,48,51,13,32		7,29
10″	34,52,22,38,37,15,56,50, 5,24		2,32,58,11,41	
		1,42,15,30,15,53, 1,51		7,29
12″	34,52,24,20,52,46,12,43, 7,15		2,32,58,19,10	
		1,42,15,27,42,54,42,41		7,29
14″	34,52,26, 3, 8,13,55,37,49,56		2,32,58,26,39	
		1,42,15,25, 9,56,16, 2		7,29
16″	34,52,27,45,23,39, 5,34, 5,58		2,32,58,34, 8	
		1,42,15,22,36,57,41,54		7,29
18″	34,52,29,27,39, 1,42,31,47,52		2,32,58,41,37	
		1,42,15,20, 3,59, 0,17		7,29
20″	34,52,31, 9,54,21,46,30,48, 9		2,32,58,49, 6	
		1,42,15,17,31, 0,11,11		7,29
22″	34,52,32,52, 9,39,17,30,59,20		2,32,58,56,35	
		1,42,15,14,58, 1,14,36		7,29
24″	34,52,34,34,24,54,15,32,13,56		2,32,59, 4, 4	
		1,42,15,12,25, 2,10,32		7,29
26″	34,52,36,16,40, 6,40,34,24,28		2,32,59,11,33	
		1,42,15, 9,52, 2,58,59		7,29
28″	34,52,37,58,55,16,32,37,23,27		2,32,59,19, 2	
		1,42,15, 7,19, 3,39,57		7,29
30″	34,52,39,41,10,23,51,41, 3,24		2,32,59,26,31	
		1,42,15, 4,46, 4,13,26		7,29
32″	34,52,41,23,25,28,37,45,16,50		2,32,59,34, 0	
		1,42,15, 2,13, 4,39,26		7,29
34″	34,52,43, 5,40,30,50,49,56,16		2,32,59,41,29	
		1,42,14,59,40, 4,57,57		7,29
36″	34,52,44,47,55,30,30,54,54,13		2,32,59,48,58	
		1,42,14,57, 7, 5, 8,59		7,29
38″	34,52,46,30,10,27,38, 0, 3,12		2,32,59,56,27	
		1,42,14,54,34, 5,12,32		7,29
40″	34,52,48,12,25,22,12, 5,15,44		2,33, 0, 3,56	
		1,42,14,52, 1, 5, 8,36		7,29
42″	34,52,49,54,40,14,13,10,24,20		2,33, 0,11,25	
		1,42,14,49,28, 4,57,11		7,29
44″	34,52,51,36,55, 3,41,15,21,31		2,33, 0,18,54	
		1,42,14,46,55, 4,38,17		7,29
46″	34,52,53,19, 9,50,36,19,59,48		2,33, 0,26,23	
		1,42,14,44,22, 4,11,54		7,29
48″	34,52,55, 1,24,34,58,24,11,42		2,33, 0,33,52	
		1,42,14,41,49, 3,38, 2		7,29
50″	34,52,56,43,39,16,47,27,49,44		2,33, 0,41,21	
		1,42,14,39,16, 2,56,41		7,29
52″	34,52,58,25,53,56, 3,30,46,25		2,33, 0,48,50	
		1,42,14,36,43, 2, 7,51		7,29
54″	34,53, 0, 8, 8,32,46,32,54,16		2,33, 0,56,19	
		1,42,14,34,10, 1,11,32		7,29
56″	34,53, 1,50,23, 6,56,34, 5,48		2,33, 1, 3,48	
		1,42,14,31,37, 0, 7,44		7,29
58″	34,53, 3,32,37,38,33,34,13,32		2,33, 1,11,17	
		1,42,14,29, 3,58,56,27		
60″	34,53, 5,14,52, 7,37,33, 9,59			
exact	34,53, 5,14,52, 7,37,33,39,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°33′ 0″	34,53, 5,14,52, 7,37,33,39,24			
		1,42,14,26,30,57,40,56		
2″	34,53, 6,57, 6,34, 8,31,20,20		2,33, 1,26, 1	
		1,42,14,23,57,56,14,55		7,28
4″	34,53, 8,39,20,58, 6,27,35,15		2,33, 1,33,29	
		1,42,14,21,24,54,41,26		7,28
6″	34,53,10,21,35,19,31,22,16,41		2,33, 1,40,57	
		1,42,14,18,51,53, 0,29		7,28
8″	34,53,12, 3,49,38,23,15,17,10		2,33, 1,48,25	
		1,42,14,16,18,51,12, 4		7,28
10″	34,53,13,46, 3,54,42, 6,29,14		2,33, 1,55,53	
		1,42,14,13,45,49,16,11		7,28
12″	34,53,15,28,18, 8,27,55,45,25		2,33, 2, 3,21	
		1,42,14,11,12,47,12,50		7,28
14″	34,53,17,10,32,19,40,42,58,15		2,33, 2,10,49	
		1,42,14, 8,39,45, 2, 1		7,28
16″	34,53,18,52,46,28,20,28, 0,16		2,33, 2,18,17	
		1,42,14, 6, 6,42,43,44		7,28
18″	34,53,20,35, 0,34,27,10,44, 0		2,33, 2,25,45	
		1,42,14, 3,33,40,17,59		7,28
20″	34,53,22,17,14,38, 0,51, 1,59		2,33, 2,33,13	
		1,42,14, 1, 0,37,44,46		7,28
22″	34,53,23,59,28,39, 1,28,46,45		2,33, 2,40,41	
		1,42,13,58,27,35, 4, 5		7,28
24″	34,53,25,41,42,37,29, 3,50,50		2,33, 2,48, 9	
		1,42,13,55,54,32,15,56		7,28
26″	34,53,27,23,56,33,23,36, 6,46		2,33, 2,55,37	
		1,42,13,53,21,29,20,19		7,28
28″	34,53,29, 6,10,26,45, 5,27, 5		2,33, 3, 3, 5	
		1,42,13,50,48,26,17,14		7,28
30″	34,53,30,48,24,17,33,31,44,19		2,33, 3,10,33	
		1,42,13,48,15,23, 6,41		7,28
32″	34,53,32,30,38, 5,48,54,51, 0		2,33, 3,18, 1	
		1,42,13,45,42,19,48,40		7,28
34″	34,53,34,12,51,51,31,14,39,40		2,33, 3,25,29	
		1,42,13,43, 9,16,23,11		7,28
36″	34,53,35,55, 5,34,40,31, 2,51		2,33, 3,32,57	
		1,42,13,40,36,12,50,14		7,28
38″	34,53,37,37,19,15,16,43,53, 5		2,33, 3,40,25	
		1,42,13,38, 3, 9, 9,49		7,28
40″	34,53,39,19,32,53,19,53, 2,54		2,33, 3,47,53	
		1,42,13,35,30, 5,21,56		7,28
42″	34,53,41, 1,46,28,49,58,24,50		2,33, 3,55,21	
		1,42,13,32,57, 1,26,35		7,28
44″	34,53,42,44, 0, 1,46,59,51,25		2,33, 4, 2,49	
		1,42,13,30,23,57,23,46		7,28
46″	34,53,44,26,13,32,10,57,15,11		2,33, 4,10,17	
		1,42,13,27,50,53,13,29		7,28
48″	34,53,46, 8,27, 0, 1,50,28,40		2,33, 4,17,45	
		1,42,13,25,17,48,55,44		7,28
50″	34,53,47,50,40,25,19,39,24,24		2,33, 4,25,13	
		1,42,13,22,44,44,30,31		7,28
52″	34,53,49,32,53,48, 4,23,54,55		2,33, 4,32,41	
		1,42,13,20,11,39,57,50		7,28
54″	34,53,51,15, 7, 8,16, 3,52,45		2,33, 4,40, 9	
		1,42,13,17,38,35,17,41		7,28
56″	34,53,52,57,20,25,54,39,10,26		2,33, 4,47,37	
		1,42,13,15, 5,30,30, 4		7,28
58″	34,53,54,39,33,41, 0, 9,40,30		2,33, 4,55, 5	
		1,42,13,12,32,25,34,59		
60″	34,53,56,21,46,53,32,35,15,29			
exact	34,53,56,21,46,53,32,34,45,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°34′ 0″	34,53,56,21,46,53,32,34,45,55			
		1,42,13, 9,59,20,29,16		
2″	34,53,58, 4, 0, 3,31,55,15,11		2,33, 5,10,14	
		1,42,13, 7,26,15,19, 2		7,28
4″	34,53,59,46,13,10,58,10,34,13		2,33, 5,17,42	
		1,42,13, 4,53,10, 1,20		7,28
6″	34,54, 1,28,26,15,51,20,35,33		2,33, 5,25,10	
		1,42,13, 2,20, 4,36,10		7,28
8″	34,54, 3,10,39,18,11,25,11,43		2,33, 5,32,38	
		1,42,12,59,46,59, 3,32		7,28
10″	34,54, 4,52,52,17,58,24,15,15		2,33, 5,40, 6	
		1,42,12,57,13,53,23,26		7,28
12″	34,54, 6,35, 5,15,12,17,38,41		2,33, 5,47,34	
		1,42,12,54,40,47,35,52		7,28
14″	34,54, 8,17,18, 9,53, 5,14,33		2,33, 5,55, 2	
		1,42,12,52, 7,41,40,50		7,28
16″	34,54, 9,59,31, 2, 0,46,55,23		2,33, 6, 2,30	
		1,42,12,49,34,35,38,20		7,28
18″	34,54,11,41,43,51,35,22,33,43		2,33, 6, 9,58	
		1,42,12,47, 1,29,28,22		7,28
20″	34,54,13,23,56,38,36,52, 2, 5		2,33, 6,17,26	
		1,42,12,44,28,23,10,56		7,28
22″	34,54,15, 6, 9,23, 5,15,13, 1		2,33, 6,24,54	
		1,42,12,41,55,16,46, 2		7,28
24″	34,54,16,48,22, 5, 0,31,59, 3		2,33, 6,32,22	
		1,42,12,39,22,10,13,40		7,28
26″	34,54,18,30,34,44,22,42,12,43		2,33, 6,39,50	
		1,42,12,36,49, 3,33,50		7,28
28″	34,54,20,12,47,21,11,45,46,33		2,33, 6,47,18	
		1,42,12,34,15,56,46,32		7,28
30″	34,54,21,54,59,55,27,42,33, 5		2,33, 6,54,46	
		1,42,12,31,42,49,51,46		7,28
32″	34,54,23,37,12,27,10,32,24,51		2,33, 7, 2,14	
		1,42,12,29, 9,42,49,32		7,28
34″	34,54,25,19,24,56,20,15,14,23		2,33, 7, 9,42	
		1,42,12,26,36,35,39,50		7,28
36″	34,54,27, 1,37,22,56,50,54,13		2,33, 7,17,10	
		1,42,12,24, 3,28,22,40		7,28
38″	34,54,28,43,49,47, 0,19,16,53		2,33, 7,24,38	
		1,42,12,21,30,20,58, 2		7,28
40″	34,54,30,26, 2, 8,30,40,14,55		2,33, 7,32, 6	
		1,42,12,18,57,13,25,56		7,28
42″	34,54,32, 8,14,27,27,53,40,51		2,33, 7,39,34	
		1,42,12,16,24, 5,46,22		7,28
44″	34,54,33,50,26,43,51,59,27,13		2,33, 7,47, 2	
		1,42,12,13,50,57,59,20		7,28
46″	34,54,35,32,38,57,42,57,26,33		2,33, 7,54,30	
		1,42,12,11,17,50, 4,50		7,28
48″	34,54,37,14,51, 9, 0,47,31,23		2,33, 8, 1,58	
		1,42,12, 8,44,42, 2,52		7,28
50″	34,54,38,57, 3,17,45,29,34,15		2,33, 8, 9,26	
		1,42,12, 6,11,33,53,26		7,28
52″	34,54,40,39,15,23,57, 3,27,41		2,33, 8,16,54	
		1,42,12, 3,38,25,36,32		7,28
54″	34,54,42,21,27,27,35,29, 4,13		2,33, 8,24,22	
		1,42,12, 1, 5,17,12,10		7,28
56″	34,54,44, 3,39,28,40,46,16,23		2,33, 8,31,50	
		1,42,11,58,32, 8,40,20		7,28
58″	34,54,45,45,51,27,12,54,56,43		2,33, 8,39,18	
		1,42,11,55,59, 0, 1, 2		
60″	34,54,47,28, 3,23,11,54,57,45			
exact	34,54,47,28, 3,23,11,54,35,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°35′ 0″	34,54,47,28, 3,23,11,54,35,21			
		1,42,11,53,25,51,11,50		
2″	34,54,49,10,15,16,37,45,47,11		2,33, 8,54,24	
		1,42,11,50,52,42,17,26		7,28
4″	34,54,50,52,27, 7,30,28, 4,37		2,33, 9, 1,52	
		1,42,11,48,19,33,15,34		7,28
6″	34,54,52,34,38,55,50, 1,20,11		2,33, 9, 9,20	
		1,42,11,45,46,24, 6,14		7,28
8″	34,54,54,16,50,41,36,25,26,25		2,33, 9,16,48	
		1,42,11,43,13,14,49,26		7,28
10″	34,54,55,59, 2,24,49,40,15,51		2,33, 9,24,16	
		1,42,11,40,40, 5,25,10		7,28
12″	34,54,57,41,14, 5,29,45,41, 1		2,33, 9,31,44	
		1,42,11,38, 6,55,53,26		7,28
14″	34,54,59,23,25,43,36,41,34,27		2,33, 9,39,12	
		1,42,11,35,33,46,14,14		7,28
16″	34,55, 1, 5,37,19,10,27,48,41		2,33, 9,46,40	
		1,42,11,33, 0,36,27,34		7,28
18″	34,55, 2,47,48,52,11, 4,16,15		2,33, 9,54, 8	
		1,42,11,30,27,26,33,26		7,28
20″	34,55, 4,30, 0,22,38,30,49,41		2,33,10, 1,36	
		1,42,11,27,54,16,31,50		7,28
22″	34,55, 6,12,11,50,32,47,21,31		2,33,10, 9, 4	
		1,42,11,25,21, 6,22,46		7,28
24″	34,55, 7,54,23,15,53,53,44,17		2,33,10,16,32	
		1,42,11,22,47,56, 6,14		7,28
26″	34,55, 9,36,34,38,41,49,50,31		2,33,10,24, 0	
		1,42,11,20,14,45,42,14		7,28
28″	34,55,11,18,45,58,56,35,32,45		2,33,10,31,28	
		1,42,11,17,41,35,10,46		7,28
30″	34,55,13, 0,57,16,38,10,43,31		2,33,10,38,56	
		1,42,11,15, 8,24,31,50		7,28
32″	34,55,14,43, 8,31,46,35,15,21		2,33,10,46,24	
		1,42,11,12,35,13,45,26		7,28
34″	34,55,16,25,19,44,21,49, 0,47		2,33,10,53,52	
		1,42,11,10, 2, 2,51,34		7,28
36″	34,55,18, 7,30,54,23,51,52,21		2,33,11, 1,20	
		1,42,11, 7,28,51,50,14		7,28
38″	34,55,19,49,42, 1,52,43,42,35		2,33,11, 8,48	
		1,42,11, 4,55,40,41,26		7,28
40″	34,55,21,31,53, 6,48,24,24, 1		2,33,11,16,16	
		1,42,11, 2,22,29,25,10		7,28
42″	34,55,23,14, 4, 9,10,53,49,11		2,33,11,23,44	
		1,42,10,59,49,18, 1,26		7,28
44″	34,55,24,56,15, 9, 0,11,50,37		2,33,11,31,12	
		1,42,10,57,16, 6,30,14		7,28
46″	34,55,26,38,26, 6,16,18,20,51		2,33,11,38,40	
		1,42,10,54,42,54,51,34		7,28
48″	34,55,28,20,37, 0,59,13,12,25		2,33,11,46, 8	
		1,42,10,52, 9,43, 5,26		7,28
50″	34,55,30, 2,47,53, 8,56,17,51		2,33,11,53,36	
		1,42,10,49,36,31,11,50		7,28
52″	34,55,31,44,58,42,45,27,29,41		2,33,12, 1, 4	
		1,42,10,47, 3,19,10,46		7,28
54″	34,55,33,27, 9,29,48,46,40,27		2,33,12, 8,32	
		1,42,10,44,30, 7, 2,14		7,28
56″	34,55,35, 9,20,14,18,53,42,41		2,33,12,16, 0	
		1,42,10,41,56,54,46,14		7,28
58″	34,55,36,51,30,56,15,48,28,55		2,33,12,23,28	
		1,42,10,39,23,42,22,46		
60″	34,55,38,33,41,35,39,30,51,41			
exact	34,55,38,33,41,35,39,30,34,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°36′ 0″	34,55,38,33,41,35,39,30,34,53			
		1,42,10,36,50,29,50, 2		
2″	34,55,40,15,52,12,30, 0,24,55		2,33,12,38,31	
		1,42,10,34,17,17,11,31		7,28
4″	34,55,41,58, 2,46,47,17,36,26		2,33,12,45,59	
		1,42,10,31,44, 4,25,32		7,28
6″	34,55,43,40,13,18,31,22, 1,58		2,33,12,53,27	
		1,42,10,29,10,51,32, 5		7,28
8″	34,55,45,22,23,47,42,13,34, 3		2,33,13, 0,55	
		1,42,10,26,37,38,31,10		7,28
10″	34,55,47, 4,34,14,19,52, 5,13		2,33,13, 8,23	
		1,42,10,24, 4,25,22,47		7,28
12″	34,55,48,46,44,38,24,17,28, 0		2,33,13,15,51	
		1,42,10,21,31,12, 6,56		7,28
14″	34,55,50,28,54,59,55,29,34,56		2,33,13,23,19	
		1,42,10,18,57,58,43,37		7,28
16″	34,55,52,11, 5,18,53,28,18,33		2,33,13,30,47	
		1,42,10,16,24,45,12,50		7,28
18″	34,55,53,53,15,35,18,13,31,23		2,33,13,38,15	
		1,42,10,13,51,31,34,35		7,28
20″	34,55,55,35,25,49, 9,45, 5,58		2,33,13,45,43	
		1,42,10,11,18,17,48,52		7,28
22″	34,55,57,17,36, 0,28, 2,54,50		2,33,13,53,11	
		1,42,10, 8,45, 3,55,41		7,28
24″	34,55,58,59,46, 9,13, 6,50,31		2,33,14, 0,39	
		1,42,10, 6,11,49,55, 2		7,28
26″	34,56, 0,41,56,15,24,56,45,33		2,33,14, 8, 7	
		1,42,10, 3,38,35,46,55		7,28
28″	34,56, 2,24, 6,19, 3,32,32,28		2,33,14,15,35	
		1,42,10, 1, 5,21,31,20		7,28
30″	34,56, 4, 6,16,20, 8,54, 3,48		2,33,14,23, 3	
		1,42, 9,58,32, 7, 8,17		7,28
32″	34,56, 5,48,26,18,41, 1,12, 5		2,33,14,30,31	
		1,42, 9,55,58,52,37,46		7,28
34″	34,56, 7,30,36,14,39,53,49,51		2,33,14,37,59	
		1,42, 9,53,25,37,59,47		7,28
36″	34,56, 9,12,46, 8, 5,31,49,38		2,33,14,45,27	
		1,42, 9,50,52,23,14,20		7,28
38″	34,56,10,54,55,58,57,55, 3,58		2,33,14,52,55	
		1,42, 9,48,19, 8,21,25		7,28
40″	34,56,12,37, 5,47,17, 3,25,23		2,33,15, 0,23	
		1,42, 9,45,45,53,21, 2		7,28
42″	34,56,14,19,15,33, 2,56,46,25		2,33,15, 7,51	
		1,42, 9,43,12,38,13,11		7,28
44″	34,56,16, 1,25,16,15,34,59,36		2,33,15,15,19	
		1,42, 9,40,39,22,57,52		7,28
46″	34,56,17,43,34,56,54,57,57,28		2,33,15,22,47	
		1,42, 9,38, 6, 7,35, 5		7,28
48″	34,56,19,25,44,35, 1, 5,32,33		2,33,15,30,15	
		1,42, 9,35,32,52, 4,50		7,28
50″	34,56,21, 7,54,10,33,57,37,23		2,33,15,37,43	
		1,42, 9,32,59,36,27, 7		7,28
52″	34,56,22,50, 3,43,33,34, 4,30		2,33,15,45,11	
		1,42, 9,30,26,20,41,56		7,28
54″	34,56,24,32,13,13,59,54,46,26		2,33,15,52,39	
		1,42, 9,27,53, 4,49,17		7,28
56″	34,56,26,14,22,41,52,59,35,43		2,33,16, 0, 7	
		1,42, 9,25,19,48,49,10		7,28
58″	34,56,27,56,32, 7,12,48,24,53		2,33,16, 7,35	
		1,42, 9,22,46,32,41,35		
60″	34,56,29,38,41,29,59,21, 6,28			
exact	34,56,29,38,41,29,59,20,53,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°37′ 0″	34,56,29,38,41,29,59,20,53,44	1,42, 9,20,13,16,25,16		
2″	34,56,31,20,50,50,12,37,19, 0	1,42, 9,17,40, 0, 2,40	2,33,16,22,36	7,28
4″	34,56,33, 3, 0, 7,52,37,21,40	1,42, 9,15, 6,43,32,36	2,33,16,30, 4	7,28
6″	34,56,34,45, 9,22,59,20,54,16	1,42, 9,12,33,26,55, 4	2,33,16,37,32	7,28
8″	34,56,36,27,18,35,32,47,49,20	1,42, 9,10, 0,10,10, 4	2,33,16,45, 0	7,28
10″	34,56,38, 9,27,45,32,57,59,24	1,42, 9, 7,26,53,17,36	2,33,16,52,28	7,28
12″	34,56,39,51,36,52,59,51,17, 0	1,42, 9, 4,53,36,17,40	2,33,16,59,56	7,28
14″	34,56,41,33,45,57,53,27,34,40	1,42, 9, 2,20,19,10,16	2,33,17, 7,24	7,28
16″	34,56,43,15,55, 0,13,46,44,56	1,42, 8,59,47, 1,55,24	2,33,17,14,52	7,28
18″	34,56,44,58, 4, 0, 0,48,40,20	1,42, 8,57,13,44,33, 4	2,33,17,22,20	7,28
20″	34,56,46,40,12,57,14,33,13,24	1,42, 8,54,40,27, 3,16	2,33,17,29,48	7,28
22″	34,56,48,22,21,51,55, 0,16,40	1,42, 8,52, 7, 9,26, 0	2,33,17,37,16	7,28
24″	34,56,50, 4,30,44, 2, 9,42,40	1,42, 8,49,33,51,41,16	2,33,17,44,44	7,28
26″	34,56,51,46,39,33,36, 1,23,56	1,42, 8,47, 0,33,49, 4	2,33,17,52,12	7,28
28″	34,56,53,28,48,20,36,35,13, 0	1,42, 8,44,27,15,49,24	2,33,17,59,40	7,28
30″	34,56,55,10,57, 5, 3,51, 2,24	1,42, 8,41,53,57,42,16	2,33,18, 7, 8	7,28
32″	34,56,56,53, 5,46,57,48,44,40	1,42, 8,39,20,39,27,40	2,33,18,14,36	7,28
34″	34,56,58,35,14,26,18,28,12,20	1,42, 8,36,47,21, 5,36	2,33,18,22, 4	7,28
36″	34,57, 0,17,23, 3, 5,49,17,56	1,42, 8,34,14, 2,36, 4	2,33,18,29,32	7,28
38″	34,57, 1,59,31,37,19,51,54, 0	1,42, 8,31,40,43,59, 4	2,33,18,37, 0	7,28
40″	34,57, 3,41,40, 9, 0,35,53, 4	1,42, 8,29, 7,25,14,36	2,33,18,44,28	7,28
42″	34,57, 5,23,48,38, 8, 1, 7,40	1,42, 8,26,34, 6,22,40	2,33,18,51,56	7,28
44″	34,57, 7, 5,57, 4,42, 7,30,20	1,42, 8,24, 0,47,23,16	2,33,18,59,24	7,28
46″	34,57, 8,48, 5,28,42,54,53,36	1,42, 8,21,27,28,16,24	2,33,19, 6,52	7,28
48″	34,57,10,30,13,50,10,23,10, 0	1,42, 8,18,54, 9, 2, 4	2,33,19,14,20	7,28
50″	34,57,12,12,22, 9, 4,32,12, 4	1,42, 8,16,20,49,40,16	2,33,19,21,48	7,28
52″	34,57,13,54,30,25,25,21,52,20	1,42, 8,13,47,30,11, 0	2,33,19,29,16	7,28
54″	34,57,15,36,38,39,12,52, 3,20	1,42, 8,11,14,10,34,16	2,33,19,36,44	7,28
56″	34,57,17,18,46,50,27, 2,37,36	1,42, 8, 8,40,50,50, 4	2,33,19,44,12	7,28
58″	34,57,19, 0,54,59, 7,53,27,40	1,42, 8, 6, 7,30,58,24	2,33,19,51,40	
60″	34,57,20,43, 3, 5,15,24,26, 4			
exact	34,57,20,43, 3, 5,15,24,23, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°38′ 0″	34,57,20,43, 3, 5,15,24,23, 4			
		1,42, 8, 3,34,10,58,55		
2″	34,57,22,25,11, 8,49,35,21,59		2,33,20, 6,37	
		1,42, 8, 1, 0,50,52,18		7,28
4″	34,57,24, 7,19, 9,50,26,14,17		2,33,20,14, 5	
		1,42, 7,58,27,30,38,13		7,28
6″	34,57,25,49,27, 8,17,56,52,30		2,33,20,21,33	
		1,42, 7,55,54,10,16,40		7,28
8″	34,57,27,31,35, 4,12, 7, 9,10		2,33,20,29, 1	
		1,42, 7,53,20,49,47,39		7,28
10″	34,57,29,13,42,57,32,56,56,49		2,33,20,36,29	
		1,42, 7,50,47,29,11,10		7,28
12″	34,57,30,55,50,48,20,26, 7,59		2,33,20,43,57	
		1,42, 7,48,14, 8,27,13		7,28
14″	34,57,32,37,58,36,34,34,35,12		2,33,20,51,25	
		1,42, 7,45,40,47,35,48		7,28
16″	34,57,34,20, 6,22,15,22,11, 0		2,33,20,58,53	
		1,42, 7,43, 7,26,36,55		7,28
18″	34,57,36, 2,14, 5,22,48,47,55		2,33,21, 6,21	
		1,42, 7,40,34, 5,30,34		7,28
20″	34,57,37,44,21,45,56,54,18,29		2,33,21,13,49	
		1,42, 7,38, 0,44,16,45		7,28
22″	34,57,39,26,29,23,57,38,35,14		2,33,21,21,17	
		1,42, 7,35,27,22,55,28		7,28
24″	34,57,41, 8,36,59,25, 1,30,42		2,33,21,28,45	
		1,42, 7,32,54, 1,26,43		7,28
26″	34,57,42,50,44,32,19, 2,57,25		2,33,21,36,13	
		1,42, 7,30,20,39,50,30		7,28
28″	34,57,44,32,52, 2,39,42,47,55		2,33,21,43,41	
		1,42, 7,27,47,18, 6,49		7,28
30″	34,57,46,14,59,30,27, 0,54,44		2,33,21,51, 9	
		1,42, 7,25,13,56,15,40		7,28
32″	34,57,47,57, 6,55,40,57,10,24		2,33,21,58,37	
		1,42, 7,22,40,34,17, 3		7,28
34″	34,57,49,39,14,18,21,31,27,27		2,33,22, 6, 5	
		1,42, 7,20, 7,12,10,58		7,28
36″	34,57,51,21,21,38,28,43,38,25		2,33,22,13,33	
		1,42, 7,17,33,49,57,25		7,28
38″	34,57,53, 3,28,56, 2,33,35,50		2,33,22,21, 1	
		1,42, 7,15, 0,27,36,24		7,28
40″	34,57,54,45,36,11, 3, 1,12,14		2,33,22,28,29	
		1,42, 7,12,27, 5, 7,55		7,28
42″	34,57,56,27,43,23,30, 6,20, 9		2,33,22,35,57	
		1,42, 7, 9,53,42,31,58		7,28
44″	34,57,58, 9,50,33,23,48,52, 7		2,33,22,43,25	
		1,42, 7, 7,20,19,48,33		7,28
46″	34,57,59,51,57,40,44, 8,40,40		2,33,22,50,53	
		1,42, 7, 4,46,56,57,40		7,28
48″	34,58, 1,34, 4,45,31, 5,38,20		2,33,22,58,21	
		1,42, 7, 2,13,33,59,19		7,28
50″	34,58, 3,16,11,47,44,39,37,39		2,33,23, 5,49	
		1,42, 6,59,40,10,53,30		7,28
52″	34,58, 4,58,18,47,24,50,31, 9		2,33,23,13,17	
		1,42, 6,57, 6,47,40,13		7,28
54″	34,58, 6,40,25,44,31,38,11,22		2,33,23,20,45	
		1,42, 6,54,33,24,19,28		7,28
56″	34,58, 8,22,32,39, 5, 2,30,50		2,33,23,28,13	
		1,42, 6,52, 0, 0,51,15		7,28
58″	34,58,10, 4,39,31, 5, 3,22, 5		2,33,23,35,41	
		1,42, 6,49,26,37,15,34		
60″	34,58,11,46,46,20,31,40,37,39			
exact	34,58,11,46,46,20,31,40,36, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°39′ 0″	34,58,11,46,46,20,31,40,36, 6			
		1,42, 6,46,53,13,32,24		
2″	34,58,13,28,53, 7,24,54, 8,30		2,33,23,50,36	
		1,42, 6,44,19,49,41,48		7,28
4″	34,58,15,10,59,51,44,43,50,18		2,33,23,58, 4	
		1,42, 6,41,46,25,43,44		7,28
6″	34,58,16,53, 6,33,31, 9,34, 2		2,33,24, 5,32	
		1,42, 6,39,13, 1,38,12		7,28
8″	34,58,18,35,13,12,44,11,12,14		2,33,24,13, 0	
		1,42, 6,36,39,37,25,12		7,28
10″	34,58,20,17,19,49,23,48,37,26		2,33,24,20,28	
		1,42, 6,34, 6,13, 4,44		7,28
12″	34,58,21,59,26,23,30, 1,42,10		2,33,24,27,56	
		1,42, 6,31,32,48,36,48		7,28
14″	34,58,23,41,32,55, 2,50,18,58		2,33,24,35,24	
		1,42, 6,28,59,24, 1,24		7,28
16″	34,58,25,23,39,24, 2,14,20,22		2,33,24,42,52	
		1,42, 6,26,25,59,18,32		7,28
18″	34,58,27, 5,45,50,28,13,38,54		2,33,24,50,20	
		1,42, 6,23,52,34,28,12		7,28
20″	34,58,28,47,52,14,20,48, 7, 6		2,33,24,57,48	
		1,42, 6,21,19, 9,30,24		7,28
22″	34,58,30,29,58,35,39,57,37,30		2,33,25, 5,16	
		1,42, 6,18,45,44,25, 8		7,28
24″	34,58,32,12, 4,54,25,42, 2,38		2,33,25,12,44	
		1,42, 6,16,12,19,12,24		7,28
26″	34,58,33,54,11,10,38, 1,15, 2		2,33,25,20,12	
		1,42, 6,13,38,53,52,12		7,28
28″	34,58,35,36,17,24,16,55, 7,14		2,33,25,27,40	
		1,42, 6,11, 5,28,24,32		7,28
30″	34,58,37,18,23,35,22,23,31,46		2,33,25,35, 8	
		1,42, 6, 8,32, 2,49,24		7,28
32″	34,58,39, 0,29,43,54,26,21,10		2,33,25,42,36	
		1,42, 6, 5,58,37, 6,48		7,28
34″	34,58,40,42,35,49,53, 3,27,58		2,33,25,50, 4	
		1,42, 6, 3,25,11,16,44		7,28
36″	34,58,42,24,41,53,18,14,44,42		2,33,25,57,32	
		1,42, 6, 0,51,45,19,12		7,28
38″	34,58,44, 6,47,54,10, 0, 3,54		2,33,26, 5, 0	
		1,42, 5,58,18,19,14,12		7,28
40″	34,58,45,48,53,52,28,19,18, 6		2,33,26,12,28	
		1,42, 5,55,44,53, 1,44		7,28
42″	34,58,47,30,59,48,13,12,19,50		2,33,26,19,56	
		1,42, 5,53,11,26,41,48		7,28
44″	34,58,49,13, 5,41,24,39, 1,38		2,33,26,27,24	
		1,42, 5,50,38, 0,14,24		7,28
46″	34,58,50,55,11,32, 2,39,16, 2		2,33,26,34,52	
		1,42, 5,48, 4,33,39,32		7,28
48″	34,58,52,37,17,20, 7,12,55,34		2,33,26,42,20	
		1,42, 5,45,31, 6,57,12		7,28
50″	34,58,54,19,23, 5,38,19,52,46		2,33,26,49,48	
		1,42, 5,42,57,40, 7,24		7,28
52″	34,58,56, 1,28,48,36, 0, 0,10		2,33,26,57,16	
		1,42, 5,40,24,13,10, 8		7,28
54″	34,58,57,43,34,29, 0,13,10,18		2,33,27, 4,44	
		1,42, 5,37,50,46, 5,24		7,28
56″	34,58,59,25,40, 6,50,59,15,42		2,33,27,12,12	
		1,42, 5,35,17,18,53,12		7,28
58″	34,59, 1, 7,45,42, 8,18, 8,54		2,33,27,19,40	
		1,42, 5,32,43,51,33,32		
60″	34,59, 2,49,51,14,52, 9,42,26			
exact	34,59, 2,49,51,14,52, 9,48, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°40′ 0″	34,59, 2,49,51,14,52, 9,48, 4			
		1,42, 5,30,10,24, 7, 7		
2″	34,59, 4,31,56,45, 2,33,55,11		2,33,27,34,32	
		1,42, 5,27,36,56,32,35		7,28
4″	34,59, 6,14, 2,12,39,30,27,46		2,33,27,42, 0	
		1,42, 5,25, 3,28,50,35		7,28
6″	34,59, 7,56, 7,37,42,59,18,21		2,33,27,49,28	
		1,42, 5,22,30, 1, 1, 7		7,28
8″	34,59, 9,38,13, 0,13, 0,19,28		2,33,27,56,56	
		1,42, 5,19,56,33, 4,11		7,28
10″	34,59,11,20,18,20, 9,33,23,39		2,33,28, 4,24	
		1,42, 5,17,23, 4,59,47		7,28
12″	34,59,13, 2,23,37,32,38,23,26		2,33,28,11,52	
		1,42, 5,14,49,36,47,55		7,28
14″	34,59,14,44,28,52,22,15,11,21		2,33,28,19,20	
		1,42, 5,12,16, 8,28,35		7,28
16″	34,59,16,26,34, 4,38,23,39,56		2,33,28,26,48	
		1,42, 5, 9,42,40, 1,47		7,28
18″	34,59,18, 8,39,14,21, 3,41,43		2,33,28,34,16	
		1,42, 5, 7, 9,11,27,31		7,28
20″	34,59,19,50,44,21,30,15, 9,14		2,33,28,41,44	
		1,42, 5, 4,35,42,45,47		7,28
22″	34,59,21,32,49,26, 5,57,55, 1		2,33,28,49,12	
		1,42, 5, 2, 2,13,56,35		7,28
24″	34,59,23,14,54,28, 8,11,51,36		2,33,28,56,40	
		1,42, 4,59,28,44,59,55		7,28
26″	34,59,24,56,59,27,36,56,51,31		2,33,29, 4, 8	
		1,42, 4,56,55,15,55,47		7,28
28″	34,59,26,39, 4,24,32,12,47,18		2,33,29,11,36	
		1,42, 4,54,21,46,44,11		7,28
30″	34,59,28,21, 9,18,53,59,31,29		2,33,29,19, 4	
		1,42, 4,51,48,17,25, 7		7,28
32″	34,59,30, 3,14,10,42,16,56,36		2,33,29,26,32	
		1,42, 4,49,14,47,58,35		7,28
34″	34,59,31,45,18,59,57, 4,55,11		2,33,29,34, 0	
		1,42, 4,46,41,18,24,35		7,28
36″	34,59,33,27,23,46,38,23,19,46		2,33,29,41,28	
		1,42, 4,44, 7,48,43, 7		7,28
38″	34,59,35, 9,28,30,46,12, 2,53		2,33,29,48,56	
		1,42, 4,41,34,18,54,11		7,28
40″	34,59,36,51,33,12,20,30,57, 4		2,33,29,56,24	
		1,42, 4,39, 0,48,57,47		7,28
42″	34,59,38,33,37,51,21,19,54,51		2,33,30, 3,52	
		1,42, 4,36,27,18,53,55		7,28
44″	34,59,40,15,42,27,48,38,48,46		2,33,30,11,20	
		1,42, 4,33,53,48,42,35		7,28
46″	34,59,41,57,47, 1,42,27,31,21		2,33,30,18,48	
		1,42, 4,31,20,18,23,47		7,28
48″	34,59,43,39,51,33, 2,45,55, 8		2,33,30,26,16	
		1,42, 4,28,46,47,57,31		7,28
50″	34,59,45,21,56, 1,49,33,52,39		2,33,30,33,44	
		1,42, 4,26,13,17,23,47		7,28
52″	34,59,47, 4, 0,28, 2,51,16,26		2,33,30,41,12	
		1,42, 4,23,39,46,42,35		7,28
54″	34,59,48,46, 4,51,42,37,59, 1		2,33,30,48,40	
		1,42, 4,21, 6,15,53,55		7,28
56″	34,59,50,28, 9,12,48,53,52,56		2,33,30,56, 8	
		1,42, 4,18,32,44,57,47		7,28
58″	34,59,52,10,13,31,21,38,50,43		2,33,31, 3,36	
		1,42, 4,15,59,13,54,11		
60″	34,59,53,52,17,47,20,52,44,54			
exact	34,59,53,52,17,47,20,52,56,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°41′ 0″	34,59,53,52,17,47,20,52,56,17			
		1,42, 4,13,25,42,44,28		
2″	34,59,55,34,22, 0,46,35,40,45		2,33,31,18,26	
		1,42, 4,10,52,11,26, 2		7,28
4″	34,59,57,16,26,11,38,47, 6,47		2,33,31,25,54	
		1,42, 4, 8,18,40, 0, 8		7,28
6″	34,59,58,58,30,19,57,27, 6,55		2,33,31,33,22	
		1,42, 4, 5,45, 8,26,46		7,28
8″	35, 0, 0,40,34,25,42,35,33,41		2,33,31,40,50	
		1,42, 4, 3,11,36,45,56		7,28
10″	35, 0, 2,22,38,28,54,12,19,37		2,33,31,48,18	
		1,42, 4, 0,38, 4,57,38		7,28
12″	35, 0, 4, 4,42,29,32,17,17,15		2,33,31,55,46	
		1,42, 3,58, 4,33, 1,52		7,28
14″	35, 0, 5,46,46,27,36,50,19, 7		2,33,32, 3,14	
		1,42, 3,55,31, 0,58,38		7,28
16″	35, 0, 7,28,50,23, 7,51,17,45		2,33,32,10,42	
		1,42, 3,52,57,28,47,56		7,28
18″	35, 0, 9,10,54,16, 5,20, 5,41		2,33,32,18,10	
		1,42, 3,50,23,56,29,46		7,28
20″	35, 0,10,52,58, 6,29,16,35,27		2,33,32,25,38	
		1,42, 3,47,50,24, 4, 8		7,28
22″	35, 0,12,35, 1,54,19,40,39,35		2,33,32,33, 6	
		1,42, 3,45,16,51,31, 2		7,28
24″	35, 0,14,17, 5,39,36,32,10,37		2,33,32,40,34	
		1,42, 3,42,43,18,50,28		7,28
26″	35, 0,15,59, 9,22,19,51, 1, 5		2,33,32,48, 2	
		1,42, 3,40, 9,46, 2,26		7,28
28″	35, 0,17,41,13, 2,29,37, 3,31		2,33,32,55,30	
		1,42, 3,37,36,13, 6,56		7,28
30″	35, 0,19,23,16,40, 5,50,10,27		2,33,33, 2,58	
		1,42, 3,35, 2,40, 3,58		7,28
32″	35, 0,21, 5,20,15, 8,30,14,25		2,33,33,10,26	
		1,42, 3,32,29, 6,53,32		7,28
34″	35, 0,22,47,23,47,37,37, 7,57		2,33,33,17,54	
		1,42, 3,29,55,33,35,38		7,28
36″	35, 0,24,29,27,17,33,10,43,35		2,33,33,25,22	
		1,42, 3,27,22, 0,10,16		7,28
38″	35, 0,26,11,30,44,55,10,53,51		2,33,33,32,50	
		1,42, 3,24,48,26,37,26		7,28
40″	35, 0,27,53,34, 9,43,37,31,17		2,33,33,40,18	
		1,42, 3,22,14,52,57, 8		7,28
42″	35, 0,29,35,37,31,58,30,28,25		2,33,33,47,46	
		1,42, 3,19,41,19, 9,22		7,28
44″	35, 0,31,17,40,51,39,49,37,47		2,33,33,55,14	
		1,42, 3,17, 7,45,14, 8		7,28
46″	35, 0,32,59,44, 8,47,34,51,55		2,33,34, 2,42	
		1,42, 3,14,34,11,11,26		7,28
48″	35, 0,34,41,47,23,21,46, 3,21		2,33,34,10,10	
		1,42, 3,12, 0,37, 1,16		7,28
50″	35, 0,36,23,50,35,22,23, 4,37		2,33,34,17,38	
		1,42, 3, 9,27, 2,43,38		7,28
52″	35, 0,38, 5,53,44,49,25,48,15		2,33,34,25, 6	
		1,42, 3, 6,53,28,18,32		7,28
54″	35, 0,39,47,56,51,42,54, 6,47		2,33,34,32,34	
		1,42, 3, 4,19,53,45,58		7,28
56″	35, 0,41,29,59,56, 2,47,52,45		2,33,34,40, 2	
		1,42, 3, 1,46,19, 5,56		7,28
58″	35, 0,43,12, 2,57,49, 6,58,41		2,33,34,47,30	
		1,42, 2,59,12,44,18,26		
60″	35, 0,44,54, 5,57, 1,51,17, 7			
exact	35, 0,44,54, 5,57, 1,51,40, 7			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
35°42′	0″	35, 0,44,54, 5,57, 1,51,40, 7	1,42, 2,56,39, 9,25,52		
	2″	35, 0,46,36, 8,53,41, 1, 5,59	1,42, 2,54, 5,34,23,36	2,33,35, 2,16	7,28
	4″	35, 0,48,18,11,47,46,35,29,35	1,42, 2,51,31,59,13,52	2,33,35, 9,44	7,28
	6″	35, 0,50, 0,14,39,18,34,43,27	1,42, 2,48,58,23,56,40	2,33,35,17,12	7,28
	8″	35, 0,51,42,17,28,16,58,40, 7	1,42, 2,46,24,48,32, 0	2,33,35,24,40	7,28
	10″	35, 0,53,24,20,14,41,47,12, 7	1,42, 2,43,51,12,59,52	2,33,35,32, 8	7,28
	12″	35, 0,55, 6,22,58,33, 0,11,59	1,42, 2,41,17,37,20,16	2,33,35,39,36	7,28
	14″	35, 0,56,48,25,39,50,37,32,15	1,42, 2,38,44, 1,33,12	2,33,35,47, 4	7,28
	16″	35, 0,58,30,28,18,34,39, 5,27	1,42, 2,36,10,25,38,40	2,33,35,54,32	7,28
	18″	35, 1, 0,12,30,54,45, 4,44, 7	1,42, 2,33,36,49,36,40	2,33,36, 2, 0	7,28
	20″	35, 1, 1,54,33,28,21,54,20,47	1,42, 2,31, 3,13,27,12	2,33,36, 9,28	7,28
	22″	35, 1, 3,36,35,59,25, 7,47,59	1,42, 2,28,29,37,10,16	2,33,36,16,56	7,28
	24″	35, 1, 5,18,38,27,54,44,58,15	1,42, 2,25,56, 0,45,52	2,33,36,24,24	7,28
	26″	35, 1, 7, 0,40,53,50,45,44, 7	1,42, 2,23,22,24,14, 0	2,33,36,31,52	7,28
	28″	35, 1, 8,42,43,17,13, 9,58, 7	1,42, 2,20,48,47,34,40	2,33,36,39,20	7,28
	30″	35, 1,10,24,45,38, 1,57,32,47	1,42, 2,18,15,10,47,52	2,33,36,46,48	7,28
	32″	35, 1,12, 6,47,56,17, 8,20,39	1,42, 2,15,41,33,53,36	2,33,36,54,16	7,28
	34″	35, 1,13,48,50,11,58,42,14,15	1,42, 2,13, 7,56,51,52	2,33,37, 1,44	7,28
	36″	35, 1,15,30,52,25, 6,39, 6, 7	1,42, 2,10,34,19,42,40	2,33,37, 9,12	7,28
	38″	35, 1,17,12,54,35,40,58,48,47	1,42, 2, 8, 0,42,26, 0	2,33,37,16,40	7,28
	40″	35, 1,18,54,56,43,41,41,14,47	1,42, 2, 5,27, 5, 1,52	2,33,37,24, 8	7,28
	42″	35, 1,20,36,58,49, 8,46,16,39	1,42, 2, 2,53,27,30,16	2,33,37,31,36	7,28
	44″	35, 1,22,19, 0,52, 2,13,46,55	1,42, 2, 0,19,49,51,12	2,33,37,39, 4	7,28
	46″	35, 1,24, 1, 2,52,22, 3,38, 7	1,42, 1,57,46,12, 4,40	2,33,37,46,32	7,28
	48″	35, 1,25,43, 4,50, 8,15,42,47	1,42, 1,55,12,34,10,40	2,33,37,54, 0	7,28
	50″	35, 1,27,25, 6,45,20,49,53,27	1,42, 1,52,38,56, 9,12	2,33,38, 1,28	7,28
	52″	35, 1,29, 7, 8,37,59,46, 2,39	1,42, 1,50, 5,18, 0,16	2,33,38, 8,56	7,28
	54″	35, 1,30,49,10,28, 5, 4, 2,55	1,42, 1,47,31,39,43,52	2,33,38,16,24	7,28
	56″	35, 1,32,31,12,15,36,43,46,47	1,42, 1,44,58, 1,20, 0	2,33,38,23,52	7,28
	58″	35, 1,34,13,14, 0,34,45, 6,47	1,42, 1,42,24,22,48,40	2,33,38,31,20	
	60″	35, 1,35,55,15,42,59, 7,55,27			
exact		35, 1,35,55,15,42,59, 8,21, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°43′ 0″	35, 1,35,55,15,42,59, 8,21, 1			
		1,42, 1,39,50,44,12,42		
2″	35, 1,37,37,17,22,49,52,33,43		2,33,38,46, 4	
		1,42, 1,37,17, 5,26,38		7,28
4″	35, 1,39,19,19, 0, 6,58, 0,21		2,33,38,53,32	
		1,42, 1,34,43,26,33, 6		7,28
6″	35, 1,41, 1,20,34,50,24,33,27		2,33,39, 1, 0	
		1,42, 1,32, 9,47,32, 6		7,28
8″	35, 1,42,43,22, 7, 0,12, 5,33		2,33,39, 8,28	
		1,42, 1,29,36, 8,23,38		7,28
10″	35, 1,44,25,23,36,36,20,29,11		2,33,39,15,56	
		1,42, 1,27, 2,29, 7,42		7,28
12″	35, 1,46, 7,25, 3,38,49,36,53		2,33,39,23,24	
		1,42, 1,24,28,49,44,18		7,28
14″	35, 1,47,49,26,28, 7,39,21,11		2,33,39,30,52	
		1,42, 1,21,55,10,13,26		7,28
16″	35, 1,49,31,27,50, 2,49,34,37		2,33,39,38,20	
		1,42, 1,19,21,30,35, 6		7,28
18″	35, 1,51,13,29, 9,24,20, 9,43		2,33,39,45,48	
		1,42, 1,16,47,50,49,18		7,28
20″	35, 1,52,55,30,26,12,10,59, 1		2,33,39,53,16	
		1,42, 1,14,14,10,56, 2		7,28
22″	35, 1,54,37,31,40,26,21,55, 3		2,33,40, 0,44	
		1,42, 1,11,40,30,55,18		7,28
24″	35, 1,56,19,32,52, 6,52,50,21		2,33,40, 8,12	
		1,42, 1, 9, 6,50,47, 6		7,28
26″	35, 1,58, 1,34, 1,13,43,37,27		2,33,40,15,40	
		1,42, 1, 6,33,10,31,26		7,28
28″	35, 1,59,43,35, 7,46,54, 8,53		2,33,40,23, 8	
		1,42, 1, 3,59,30, 8,18		7,28
30″	35, 2, 1,25,36,11,46,24,17,11		2,33,40,30,36	
		1,42, 1, 1,25,49,37,42		7,28
32″	35, 2, 3, 7,37,13,12,13,54,53		2,33,40,38, 4	
		1,42, 0,58,52, 8,59,38		7,28
34″	35, 2, 4,49,38,12, 4,22,54,31		2,33,40,45,32	
		1,42, 0,56,18,28,14, 6		7,28
36″	35, 2, 6,31,39, 8,22,51, 8,37		2,33,40,53, 0	
		1,42, 0,53,44,47,21, 6		7,28
38″	35, 2, 8,13,40, 2, 7,38,29,43		2,33,41, 0,28	
		1,42, 0,51,11, 6,20,38		7,28
40″	35, 2, 9,55,40,53,18,44,50,21		2,33,41, 7,56	
		1,42, 0,48,37,25,12,42		7,28
42″	35, 2,11,37,41,41,56,10, 3, 3		2,33,41,15,24	
		1,42, 0,46, 3,43,57,18		7,28
44″	35, 2,13,19,42,27,59,54, 0,21		2,33,41,22,52	
		1,42, 0,43,30, 2,34,26		7,28
46″	35, 2,15, 1,43,11,29,56,34,47		2,33,41,30,20	
		1,42, 0,40,56,21, 4, 6		7,28
48″	35, 2,16,43,43,52,26,17,38,53		2,33,41,37,48	
		1,42, 0,38,22,39,26,18		7,28
50″	35, 2,18,25,44,30,48,57, 5,11		2,33,41,45,16	
		1,42, 0,35,48,57,41, 2		7,28
52″	35, 2,20, 7,45, 6,37,54,46,13		2,33,41,52,44	
		1,42, 0,33,15,15,48,18		7,28
54″	35, 2,21,49,45,39,53,10,34,31		2,33,42, 0,12	
		1,42, 0,30,41,33,48, 6		7,28
56″	35, 2,23,31,46,10,34,44,22,37		2,33,42, 7,40	
		1,42, 0,28, 7,51,40,26		7,28
58″	35, 2,25,13,46,38,42,36, 3, 3		2,33,42,15, 8	
		1,42, 0,25,34, 9,25,18		
60″	35, 2,26,55,47, 4,16,45,28,21			
exact	35, 2,26,55,47, 4,16,46, 2,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°44′ 0″	35, 2,26,55,47, 4,16,46, 2,34			
		1,42, 0,23, 0,27, 6,22		
2″	35, 2,28,37,47,27,17,13, 8,56		2,33,42,29,49	
		1,42, 0,20,26,44,36,33		7,27
4″	35, 2,30,19,47,47,43,57,45,29		2,33,42,37,16	
		1,42, 0,17,53, 1,59,17		7,27
6″	35, 2,32, 1,48, 5,36,59,44,46		2,33,42,44,43	
		1,42, 0,15,19,19,14,34		7,27
8″	35, 2,33,43,48,20,56,18,59,20		2,33,42,52,10	
		1,42, 0,12,45,36,22,24		7,27
10″	35, 2,35,25,48,33,41,55,21,44		2,33,42,59,37	
		1,42, 0,10,11,53,22,47		7,27
12″	35, 2,37, 7,48,43,53,48,44,31		2,33,43, 7, 4	
		1,42, 0, 7,38,10,15,43		7,27
14″	35, 2,38,49,48,51,31,59, 0,14		2,33,43,14,31	
		1,42, 0, 5, 4,27, 1,12		7,27
16″	35, 2,40,31,48,56,36,26, 1,26		2,33,43,21,58	
		1,42, 0, 2,30,43,39,14		7,27
18″	35, 2,42,13,48,59, 7, 9,40,40		2,33,43,29,25	
		1,41,59,59,57, 0, 9,49		7,27
20″	35, 2,43,55,48,59, 4, 9,50,29		2,33,43,36,52	
		1,41,59,57,23,16,32,57		7,27
22″	35, 2,45,37,48,56,27,26,23,26		2,33,43,44,19	
		1,41,59,54,49,32,48,38		7,27
24″	35, 2,47,19,48,51,16,59,12, 4		2,33,43,51,46	
		1,41,59,52,15,48,56,52		7,27
26″	35, 2,49, 1,48,43,32,48, 8,56		2,33,43,59,13	
		1,41,59,49,42, 4,57,39		7,27
28″	35, 2,50,43,48,33,14,53, 6,35		2,33,44, 6,40	
		1,41,59,47, 8,20,50,59		7,27
30″	35, 2,52,25,48,20,23,13,57,34		2,33,44,14, 7	
		1,41,59,44,34,36,36,52		7,27
32″	35, 2,54, 7,48, 4,57,50,34,26		2,33,44,21,34	
		1,41,59,42, 0,52,15,18		7,27
34″	35, 2,55,49,47,46,58,42,49,44		2,33,44,29, 1	
		1,41,59,39,27, 7,46,17		7,27
36″	35, 2,57,31,47,26,25,50,36, 1		2,33,44,36,28	
		1,41,59,36,53,23, 9,49		7,27
38″	35, 2,59,13,47, 3,19,13,45,50		2,33,44,43,55	
		1,41,59,34,19,38,25,54		7,27
40″	35, 3, 0,55,46,37,38,52,11,44		2,33,44,51,22	
		1,41,59,31,45,53,34,32		7,27
42″	35, 3, 2,37,46, 9,24,45,46,16		2,33,44,58,49	
		1,41,59,29,12, 8,35,43		7,27
44″	35, 3, 4,19,45,38,36,54,21,59		2,33,45, 6,16	
		1,41,59,26,38,23,29,27		7,27
46″	35, 3, 6, 1,45, 5,15,17,51,26		2,33,45,13,43	
		1,41,59,24, 4,38,15,44		7,27
48″	35, 3, 7,43,44,29,19,56, 7,10		2,33,45,21,10	
		1,41,59,21,30,52,54,34		7,27
50″	35, 3, 9,25,43,50,50,49, 1,44		2,33,45,28,37	
		1,41,59,18,57, 7,25,57		7,27
52″	35, 3,11, 7,43, 9,47,56,27,41		2,33,45,36, 4	
		1,41,59,16,23,21,49,53		7,27
54″	35, 3,12,49,42,26,11,18,17,34		2,33,45,43,31	
		1,41,59,13,49,36, 6,22		7,27
56″	35, 3,14,31,41,40, 0,54,23,56		2,33,45,50,58	
		1,41,59,11,15,50,15,24		7,27
58″	35, 3,16,13,40,51,16,44,39,20		2,33,45,58,25	
		1,41,59, 8,42, 4,16,59		
60″	35, 3,17,55,39,59,58,48,56,19			
exact	35, 3,17,55,39,59,58,48,30,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°45′ 0″	35, 3,17,55,39,59,58,48,30,26	1,41,59, 6, 8,18, 8,17		
2″	35, 3,19,37,39, 6, 7, 6,38,43	1,41,59, 3,34,31,54,46	2,33,46,13,31	7,27
4″	35, 3,21,19,38, 9,41,38,33,29	1,41,59, 1, 0,45,33,48	2,33,46,20,58	7,27
6″	35, 3,23, 1,37,10,42,24, 7,17	1,41,58,58,26,59, 5,23	2,33,46,28,25	7,27
8″	35, 3,24,43,36, 9, 9,23,12,40	1,41,58,55,53,12,29,31	2,33,46,35,52	7,27
10″	35, 3,26,25,35, 5, 2,35,42,11	1,41,58,53,19,25,46,12	2,33,46,43,19	7,27
12″	35, 3,28, 7,33,58,22, 1,28,23	1,41,58,50,45,38,55,26	2,33,46,50,46	7,27
14″	35, 3,29,49,32,49, 7,40,23,49	1,41,58,48,11,51,57,13	2,33,46,58,13	7,27
16″	35, 3,31,31,31,37,19,32,21, 2	1,41,58,45,38, 4,51,33	2,33,47, 5,40	7,27
18″	35, 3,33,13,30,22,57,37,12,35	1,41,58,43, 4,17,38,26	2,33,47,13, 7	7,27
20″	35, 3,34,55,29, 6, 1,54,51, 1	1,41,58,40,30,30,17,52	2,33,47,20,34	7,27
22″	35, 3,36,37,27,46,32,25, 8,53	1,41,58,37,56,42,49,51	2,33,47,28, 1	7,27
24″	35, 3,38,19,26,24,29, 7,58,44	1,41,58,35,22,55,14,23	2,33,47,35,28	7,27
26″	35, 3,40, 1,24,59,52, 3,13, 7	1,41,58,32,49, 7,31,28	2,33,47,42,55	7,27
28″	35, 3,41,43,23,32,41,10,44,35	1,41,58,30,15,19,41, 6	2,33,47,50,22	7,27
30″	35, 3,43,25,22, 2,56,30,25,41	1,41,58,27,41,31,43,17	2,33,47,57,49	7,27
32″	35, 3,45, 7,20,30,38, 2, 8,58	1,41,58,25, 7,43,38, 1	2,33,48, 5,16	7,27
34″	35, 3,46,49,18,55,45,45,46,59	1,41,58,22,33,55,25,18	2,33,48,12,43	7,27
36″	35, 3,48,31,17,18,19,41,12,17	1,41,58,20, 0, 7, 5, 8	2,33,48,20,10	7,27
38″	35, 3,50,13,15,38,19,48,17,25	1,41,58,17,26,18,37,31	2,33,48,27,37	7,27
40″	35, 3,51,55,13,55,46, 6,54,56	1,41,58,14,52,30, 2,27	2,33,48,35, 4	7,27
42″	35, 3,53,37,12,10,38,36,57,23	1,41,58,12,18,41,19,56	2,33,48,42,31	7,27
44″	35, 3,55,19,10,22,57,18,17,19	1,41,58, 9,44,52,29,58	2,33,48,49,58	7,27
46″	35, 3,57, 1, 8,32,42,10,47,17	1,41,58, 7,11, 3,32,33	2,33,48,57,25	7,27
48″	35, 3,58,43, 6,39,53,14,19,50	1,41,58, 4,37,14,27,41	2,33,49, 4,52	7,27
50″	35, 4, 0,25, 4,44,30,28,47,31	1,41,58, 2, 3,25,15,22	2,33,49,12,19	7,27
52″	35, 4, 2, 7, 2,46,33,54, 2,53	1,41,57,59,29,35,55,36	2,33,49,19,46	7,27
54″	35, 4, 3,49, 0,46, 3,29,58,29	1,41,57,56,55,46,28,23	2,33,49,27,13	7,27
56″	35, 4, 5,30,58,42,59,16,26,52	1,41,57,54,21,56,53,43	2,33,49,34,40	7,27
58″	35, 4, 7,12,56,37,21,13,20,35	1,41,57,51,48, 7,11,36	2,33,49,42, 7	
60″	35, 4, 8,54,54,29, 9,20,32,11			
exact	35, 4, 8,54,54,29, 9,20,12,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°46′ 0″	35, 4, 8,54,54,29, 9,20,12,27	1,41,57,49,14,17,19,52		
2″	35, 4,10,36,52,18,23,37,32,19	1,41,57,46,40,27,22,42	2,33,49,57,10	7,27
4″	35, 4,12,18,50, 5, 4, 4,55, 1	1,41,57,44, 6,37,18, 5	2,33,50, 4,37	7,27
6″	35, 4,14, 0,47,49,10,42,13, 6	1,41,57,41,32,47, 6, 1	2,33,50,12, 4	7,27
8″	35, 4,15,42,45,30,43,29,19, 7	1,41,57,38,58,56,46,30	2,33,50,19,31	7,27
10″	35, 4,17,24,43, 9,42,26, 5,37	1,41,57,36,25, 6,19,32	2,33,50,26,58	7,27
12″	35, 4,19, 6,40,46, 7,32,25, 9	1,41,57,33,51,15,45, 7	2,33,50,34,25	7,27
14″	35, 4,20,48,38,19,58,48,10,16	1,41,57,31,17,25, 3,15	2,33,50,41,52	7,27
16″	35, 4,22,30,35,51,16,13,13,31	1,41,57,28,43,34,13,56	2,33,50,49,19	7,27
18″	35, 4,24,12,33,19,59,47,27,27	1,41,57,26, 9,43,17,10	2,33,50,56,46	7,27
20″	35, 4,25,54,30,46, 9,30,44,37	1,41,57,23,35,52,12,57	2,33,51, 4,13	7,27
22″	35, 4,27,36,28, 9,45,22,57,34	1,41,57,21, 2, 1, 1,17	2,33,51,11,40	7,27
24″	35, 4,29,18,25,30,47,23,58,51	1,41,57,18,28, 9,42,10	2,33,51,19, 7	7,27
26″	35, 4,31, 0,22,49,15,33,41, 1	1,41,57,15,54,18,15,36	2,33,51,26,34	7,27
28″	35, 4,32,42,20, 5, 9,51,56,37	1,41,57,13,20,26,41,35	2,33,51,34, 1	7,27
30″	35, 4,34,24,17,18,30,18,38,12	1,41,57,10,46,35, 0, 7	2,33,51,41,28	7,27
32″	35, 4,36, 6,14,29,16,53,38,19	1,41,57, 8,12,43,11,12	2,33,51,48,55	7,27
34″	35, 4,37,48,11,37,29,36,49,31	1,41,57, 5,38,51,14,50	2,33,51,56,22	7,27
36″	35, 4,39,30, 8,43, 8,28, 4,21	1,41,57, 3, 4,59,11, 1	2,33,52, 3,49	7,27
38″	35, 4,41,12, 5,46,13,27,15,22	1,41,57, 0,31, 6,59,45	2,33,52,11,16	7,27
40″	35, 4,42,54, 2,46,44,34,15, 7	1,41,56,57,57,14,41, 2	2,33,52,18,43	7,27
42″	35, 4,44,35,59,44,41,48,56, 9	1,41,56,55,23,22,14,52	2,33,52,26,10	7,27
44″	35, 4,46,17,56,40, 5,11,11, 1	1,41,56,52,49,29,41,15	2,33,52,33,37	7,27
46″	35, 4,47,59,53,32,54,40,52,16	1,41,56,50,15,37, 0,11	2,33,52,41, 4	7,27
48″	35, 4,49,41,50,23,10,17,52,27	1,41,56,47,41,44,11,40	2,33,52,48,31	7,27
50″	35, 4,51,23,47,10,52, 2, 4, 7	1,41,56,45, 7,51,15,42	2,33,52,55,58	7,27
52″	35, 4,53, 5,43,55,59,53,19,49	1,41,56,42,33,58,12,17	2,33,53, 3,25	7,27
54″	35, 4,54,47,40,38,33,51,32, 6	1,41,56,40, 0, 5, 1,25	2,33,53,10,52	7,27
56″	35, 4,56,29,37,18,33,56,33,31	1,41,56,37,26,11,43, 6	2,33,53,18,19	7,27
58″	35, 4,58,11,33,56, 0, 8,16,37	1,41,56,34,52,18,17,20	2,33,53,25,46	
60″	35, 4,59,53,30,30,52,26,33,57			
exact	35, 4,59,53,30,30,52,26,18,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°47′ 0″	35, 4,59,53,30,30,52,26,18,36			
		1,41,56,32,18,24,42,30		
2″	35, 5, 1,35,27, 3,10,51, 1, 6		2,33,53,40,46	
		1,41,56,29,44,31, 1,44		7,27
4″	35, 5, 3,17,23,32,55,22, 2,50		2,33,53,48,13	
		1,41,56,27,10,37,13,31		7,27
6″	35, 5, 4,59,20, 0, 5,59,16,21		2,33,53,55,40	
		1,41,56,24,36,43,17,51		7,27
8″	35, 5, 6,41,16,24,42,42,34,12		2,33,54, 3, 7	
		1,41,56,22, 2,49,14,44		7,27
10″	35, 5, 8,23,12,46,45,31,48,56		2,33,54,10,34	
		1,41,56,19,28,55, 4,10		7,27
12″	35, 5,10, 5, 9, 6,14,26,53, 6		2,33,54,18, 1	
		1,41,56,16,55, 0,46, 9		7,27
14″	35, 5,11,47, 5,23, 9,27,39,15		2,33,54,25,28	
		1,41,56,14,21, 6,20,41		7,27
16″	35, 5,13,29, 1,37,30,33,59,56		2,33,54,32,55	
		1,41,56,11,47,11,47,46		7,27
18″	35, 5,15,10,57,49,17,45,47,42		2,33,54,40,22	
		1,41,56, 9,13,17, 7,24		7,27
20″	35, 5,16,52,53,58,31, 2,55, 6		2,33,54,47,49	
		1,41,56, 6,39,22,19,35		7,27
22″	35, 5,18,34,50, 5,10,25,14,41		2,33,54,55,16	
		1,41,56, 4, 5,27,24,19		7,27
24″	35, 5,20,16,46, 9,15,52,39, 0		2,33,55, 2,43	
		1,41,56, 1,31,32,21,36		7,27
26″	35, 5,21,58,42,10,47,25, 0,36		2,33,55,10,10	
		1,41,55,58,57,37,11,26		7,27
28″	35, 5,23,40,38, 9,45, 2,12, 2		2,33,55,17,37	
		1,41,55,56,23,41,53,49		7,27
30″	35, 5,25,22,34, 6, 8,44, 5,51		2,33,55,25, 4	
		1,41,55,53,49,46,28,45		7,27
32″	35, 5,27, 4,29,59,58,30,34,36		2,33,55,32,31	
		1,41,55,51,15,50,56,14		7,27
34″	35, 5,28,46,25,51,14,21,30,50		2,33,55,39,58	
		1,41,55,48,41,55,16,16		7,27
36″	35, 5,30,28,21,39,56,16,47, 6		2,33,55,47,25	
		1,41,55,46, 7,59,28,51		7,27
38″	35, 5,32,10,17,26, 4,16,15,57		2,33,55,54,52	
		1,41,55,43,34, 3,33,59		7,27
40″	35, 5,33,52,13, 9,38,19,49,56		2,33,56, 2,19	
		1,41,55,41, 0, 7,31,40		7,27
42″	35, 5,35,34, 8,50,38,27,21,36		2,33,56, 9,46	
		1,41,55,38,26,11,21,54		7,27
44″	35, 5,37,16, 4,29, 4,38,43,30		2,33,56,17,13	
		1,41,55,35,52,15, 4,41		7,27
46″	35, 5,38,58, 0, 4,56,53,48,11		2,33,56,24,40	
		1,41,55,33,18,18,40, 1		7,27
48″	35, 5,40,39,55,38,15,12,28,12		2,33,56,32, 7	
		1,41,55,30,44,22, 7,54		7,27
50″	35, 5,42,21,51, 8,59,34,36, 6		2,33,56,39,34	
		1,41,55,28,10,25,28,20		7,27
52″	35, 5,44, 3,46,37,10, 0, 4,26		2,33,56,47, 1	
		1,41,55,25,36,28,41,19		7,27
54″	35, 5,45,45,42, 2,46,28,45,45		2,33,56,54,28	
		1,41,55,23, 2,31,46,51		7,27
56″	35, 5,47,27,37,25,49, 0,32,36		2,33,57, 1,55	
		1,41,55,20,28,34,44,56		7,27
58″	35, 5,49, 9,32,46,17,35,17,32		2,33,57, 9,22	
		1,41,55,17,54,37,35,34		
60″	35, 5,50,51,28, 4,12,12,53, 6			
exact	35, 5,50,51,28, 4,12,12,41, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°48′ 0″	35, 5,50,51,28, 4,12,12,41, 3			
		1,41,55,15,20,40,17,36		
2″	35, 5,52,33,23,19,32,52,58,39		2,33,57,24,20	
		1,41,55,12,46,42,53,16		7,27
4″	35, 5,54,15,18,32,19,35,51,55		2,33,57,31,47	
		1,41,55,10,12,45,21,29		7,27
6″	35, 5,55,57,13,42,32,21,13,24		2,33,57,39,14	
		1,41,55, 7,38,47,42,15		7,27
8″	35, 5,57,39, 8,50,11, 8,55,39		2,33,57,46,41	
		1,41,55, 5, 4,49,55,34		7,27
10″	35, 5,59,21, 3,55,15,58,51,13		2,33,57,54, 8	
		1,41,55, 2,30,52, 1,26		7,27
12″	35, 6, 1, 2,58,57,46,50,52,39		2,33,58, 1,35	
		1,41,54,59,56,53,59,51		7,27
14″	35, 6, 2,44,53,57,43,44,52,30		2,33,58, 9, 2	
		1,41,54,57,22,55,50,49		7,27
16″	35, 6, 4,26,48,55, 6,40,43,19		2,33,58,16,29	
		1,41,54,54,48,57,34,20		7,27
18″	35, 6, 6, 8,43,49,55,38,17,39		2,33,58,23,56	
		1,41,54,52,14,59,10,24		7,27
20″	35, 6, 7,50,38,42,10,37,28, 3		2,33,58,31,23	
		1,41,54,49,41, 0,39, 1		7,27
22″	35, 6, 9,32,33,31,51,38, 7, 4		2,33,58,38,50	
		1,41,54,47, 7, 2, 0,11		7,27
24″	35, 6,11,14,28,18,58,40, 7,15		2,33,58,46,17	
		1,41,54,44,33, 3,13,54		7,27
26″	35, 6,12,56,23, 3,31,43,21, 9		2,33,58,53,44	
		1,41,54,41,59, 4,20,10		7,27
28″	35, 6,14,38,17,45,30,47,41,19		2,33,59, 1,11	
		1,41,54,39,25, 5,18,59		7,27
30″	35, 6,16,20,12,24,55,53, 0,18		2,33,59, 8,38	
		1,41,54,36,51, 6,10,21		7,27
32″	35, 6,18, 2, 7, 1,46,59,10,39		2,33,59,16, 5	
		1,41,54,34,17, 6,54,16		7,27
34″	35, 6,19,44, 1,36, 4, 6, 4,55		2,33,59,23,32	
		1,41,54,31,43, 7,30,44		7,27
36″	35, 6,21,25,56, 7,47,13,35,39		2,33,59,30,59	
		1,41,54,29, 9, 7,59,45		7,27
38″	35, 6,23, 7,50,36,56,21,35,24		2,33,59,38,26	
		1,41,54,26,35, 8,21,19		7,27
40″	35, 6,24,49,45, 3,31,29,56,43		2,33,59,45,53	
		1,41,54,24, 1, 8,35,26		7,27
42″	35, 6,26,31,39,27,32,38,32, 9		2,33,59,53,20	
		1,41,54,21,27, 8,42, 6		7,27
44″	35, 6,28,13,33,48,59,47,14,15		2,34, 0, 0,47	
		1,41,54,18,53, 8,41,19		7,27
46″	35, 6,29,55,28, 7,52,55,55,34		2,34, 0, 8,14	
		1,41,54,16,19, 8,33, 5		7,27
48″	35, 6,31,37,22,24,12, 4,28,39		2,34, 0,15,41	
		1,41,54,13,45, 8,17,24		7,27
50″	35, 6,33,19,16,37,57,12,46, 3		2,34, 0,23, 8	
		1,41,54,11,11, 7,54,16		7,27
52″	35, 6,35, 1,10,49, 8,20,40,19		2,34, 0,30,35	
		1,41,54, 8,37, 7,23,41		7,27
54″	35, 6,36,43, 4,57,45,28, 4, 0		2,34, 0,38, 2	
		1,41,54, 6, 3, 6,45,39		7,27
56″	35, 6,38,24,59, 3,48,34,49,39		2,34, 0,45,29	
		1,41,54, 3,29, 6, 0,10		7,27
58″	35, 6,40, 6,53, 7,17,40,49,49		2,34, 0,52,56	
		1,41,54, 0,55, 5, 7,14		
60″	35, 6,41,48,47, 8,12,45,57, 3			
exact	35, 6,41,48,47, 8,12,45,54, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°49′ 0″	35, 6,41,48,47, 8,12,45,54, 8			
		1,41,53,58,21, 4, 6,34		
2″	35, 6,43,30,41, 6,33,50, 0,42		2,34, 1, 7,51	
		1,41,53,55,47, 2,58,43		7,27
4″	35, 6,45,12,35, 2,20,52,59,25		2,34, 1,15,18	
		1,41,53,53,13, 1,43,25		7,27
6″	35, 6,46,54,28,55,33,54,42,50		2,34, 1,22,45	
		1,41,53,50,39, 0,20,40		7,27
8″	35, 6,48,36,22,46,12,55, 3,30		2,34, 1,30,12	
		1,41,53,48, 4,58,50,28		7,27
10″	35, 6,50,18,16,34,17,53,53,58		2,34, 1,37,39	
		1,41,53,45,30,57,12,49		7,27
12″	35, 6,52, 0,10,19,48,51, 6,47		2,34, 1,45, 6	
		1,41,53,42,56,55,27,43		7,27
14″	35, 6,53,42, 4, 2,45,46,34,30		2,34, 1,52,33	
		1,41,53,40,22,53,35,10		7,27
16″	35, 6,55,23,57,43, 8,40, 9,40		2,34, 2, 0, 0	
		1,41,53,37,48,51,35,10		7,27
18″	35, 6,57, 5,51,20,57,31,44,50		2,34, 2, 7,27	
		1,41,53,35,14,49,27,43		7,27
20″	35, 6,58,47,44,56,12,21,12,33		2,34, 2,14,54	
		1,41,53,32,40,47,12,49		7,27
22″	35, 7, 0,29,38,28,53, 8,25,22		2,34, 2,22,21	
		1,41,53,30, 6,44,50,28		7,27
24″	35, 7, 2,11,31,58,59,53,15,50		2,34, 2,29,48	
		1,41,53,27,32,42,20,40		7,27
26″	35, 7, 3,53,25,26,32,35,36,30		2,34, 2,37,15	
		1,41,53,24,58,39,43,25		7,27
28″	35, 7, 5,35,18,51,31,15,19,55		2,34, 2,44,42	
		1,41,53,22,24,36,58,43		7,27
30″	35, 7, 7,17,12,13,55,52,18,38		2,34, 2,52, 9	
		1,41,53,19,50,34, 6,34		7,27
32″	35, 7, 8,59, 5,33,46,26,25,12		2,34, 2,59,36	
		1,41,53,17,16,31, 6,58		7,27
34″	35, 7,10,40,58,51, 2,57,32,10		2,34, 3, 7, 3	
		1,41,53,14,42,27,59,55		7,27
36″	35, 7,12,22,52, 5,45,25,32, 5		2,34, 3,14,30	
		1,41,53,12, 8,24,45,25		7,27
38″	35, 7,14, 4,45,17,53,50,17,30		2,34, 3,21,57	
		1,41,53, 9,34,21,23,28		7,27
40″	35, 7,15,46,38,27,28,11,40,58		2,34, 3,29,24	
		1,41,53, 7, 0,17,54, 4		7,27
42″	35, 7,17,28,31,34,28,29,35, 2		2,34, 3,36,51	
		1,41,53, 4,26,14,17,13		7,27
44″	35, 7,19,10,24,38,54,43,52,15		2,34, 3,44,18	
		1,41,53, 1,52,10,32,55		7,27
46″	35, 7,20,52,17,40,46,54,25,10		2,34, 3,51,45	
		1,41,52,59,18, 6,41,10		7,27
48″	35, 7,22,34,10,40, 5, 1, 6,20		2,34, 3,59,12	
		1,41,52,56,44, 2,41,58		7,27
50″	35, 7,24,16, 3,36,49, 3,48,18		2,34, 4, 6,39	
		1,41,52,54, 9,58,35,19		7,27
52″	35, 7,25,57,56,30,59, 2,23,37		2,34, 4,14, 6	
		1,41,52,51,35,54,21,13		7,27
54″	35, 7,27,39,49,22,34,56,44,50		2,34, 4,21,33	
		1,41,52,49, 1,49,59,40		7,27
56″	35, 7,29,21,42,11,36,46,44,30		2,34, 4,29, 0	
		1,41,52,46,27,45,30,40		7,27
58″	35, 7,31, 3,34,58, 4,32,15,10		2,34, 4,36,27	
		1,41,52,43,53,40,54,13		
60″	35, 7,32,45,27,41,58,13, 9,23			
exact	35, 7,32,45,27,41,58,13,14,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°50′ 0″	35, 7,32,45,27,41,58,13,14,25	1,41,52,41,19,36,10,49		
2″	35, 7,34,27,20,23,17,49,25,14	1,41,52,38,45,31,19,30	2,34, 4,51,19	7,27
4″	35, 7,36, 9,13, 2, 3,20,44,44	1,41,52,36,11,26,20,44	2,34, 4,58,46	7,27
6″	35, 7,37,51, 5,38,14,47, 5,28	1,41,52,33,37,21,14,31	2,34, 5, 6,13	7,27
8″	35, 7,39,32,58,11,52, 8,19,59	1,41,52,31, 3,16, 0,51	2,34, 5,13,40	7,27
10″	35, 7,41,14,50,42,55,24,20,50	1,41,52,28,29,10,39,44	2,34, 5,21, 7	7,27
12″	35, 7,42,56,43,11,24,35, 0,34	1,41,52,25,55, 5,11,10	2,34, 5,28,34	7,27
14″	35, 7,44,38,35,37,19,40,11,44	1,41,52,23,20,59,35, 9	2,34, 5,36, 1	7,27
16″	35, 7,46,20,28, 0,40,39,46,53	1,41,52,20,46,53,51,41	2,34, 5,43,28	7,27
18″	35, 7,48, 2,20,21,27,33,38,34	1,41,52,18,12,48, 0,46	2,34, 5,50,55	7,27
20″	35, 7,49,44,12,39,40,21,39,20	1,41,52,15,38,42, 2,24	2,34, 5,58,22	7,27
22″	35, 7,51,26, 4,55,19, 3,41,44	1,41,52,13, 4,35,56,35	2,34, 6, 5,49	7,27
24″	35, 7,53, 7,57, 8,23,39,38,19	1,41,52,10,30,29,43,19	2,34, 6,13,16	7,27
26″	35, 7,54,49,49,18,54, 9,21,38	1,41,52, 7,56,23,22,36	2,34, 6,20,43	7,27
28″	35, 7,56,31,41,26,50,32,44,14	1,41,52, 5,22,16,54,26	2,34, 6,28,10	7,27
30″	35, 7,58,13,33,32,12,49,38,40	1,41,52, 2,48,10,18,49	2,34, 6,35,37	7,27
32″	35, 7,59,55,25,35, 0,59,57,29	1,41,52, 0,14, 3,35,45	2,34, 6,43, 4	7,27
34″	35, 8, 1,37,17,35,15, 3,33,14	1,41,51,57,39,56,45,14	2,34, 6,50,31	7,27
36″	35, 8, 3,19, 9,32,55, 0,18,28	1,41,51,55, 5,49,47,16	2,34, 6,57,58	7,27
38″	35, 8, 5, 1, 1,28, 0,50, 5,44	1,41,51,52,31,42,41,51	2,34, 7, 5,25	7,27
40″	35, 8, 6,42,53,20,32,32,47,35	1,41,51,49,57,35,28,59	2,34, 7,12,52	7,27
42″	35, 8, 8,24,45,10,30, 8,16,34	1,41,51,47,23,28, 8,40	2,34, 7,20,19	7,27
44″	35, 8,10, 6,36,57,53,36,25,14	1,41,51,44,49,20,40,54	2,34, 7,27,46	7,27
46″	35, 8,11,48,28,42,42,57, 6, 8	1,41,51,42,15,13, 5,41	2,34, 7,35,13	7,27
48″	35, 8,13,30,20,24,58,10,11,49	1,41,51,39,41, 5,23, 1	2,34, 7,42,40	7,27
50″	35, 8,15,12,12, 4,39,15,34,50	1,41,51,37, 6,57,32,54	2,34, 7,50, 7	7,27
52″	35, 8,16,54, 3,41,46,13, 7,44	1,41,51,34,32,49,35,20	2,34, 7,57,34	7,27
54″	35, 8,18,35,55,16,19, 2,43, 4	1,41,51,31,58,41,30,19	2,34, 8, 5, 1	7,27
56″	35, 8,20,17,46,48,17,44,13,23	1,41,51,29,24,33,17,51	2,34, 8,12,28	7,27
58″	35, 8,21,59,38,17,42,17,31,14	1,41,51,26,50,24,57,56	2,34, 8,19,55	
60″	35, 8,23,41,29,44,32,42,29,10			
exact	35, 8,23,41,29,44,32,42,40,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°51′ 0″	35, 8,23,41,29,44,32,42,40,40			
		1,41,51,24,16,16,31,46		
2″	35, 8,25,23,21, 8,48,59,12,26		2,34, 8,34,44	
		1,41,51,21,42, 7,57, 2		7,27
4″	35, 8,27, 5,12,30,31, 7, 9,28		2,34, 8,42,11	
		1,41,51,19, 7,59,14,51		7,27
6″	35, 8,28,47, 3,49,39, 6,24,19		2,34, 8,49,38	
		1,41,51,16,33,50,25,13		7,27
8″	35, 8,30,28,55, 6,12,56,49,32		2,34, 8,57, 5	
		1,41,51,13,59,41,28, 8		7,27
10″	35, 8,32,10,46,20,12,38,17,40		2,34, 9, 4,32	
		1,41,51,11,25,32,23,36		7,27
12″	35, 8,33,52,37,31,38,10,41,16		2,34, 9,11,59	
		1,41,51, 8,51,23,11,37		7,27
14″	35, 8,35,34,28,40,29,33,52,53		2,34, 9,19,26	
		1,41,51, 6,17,13,52,11		7,27
16″	35, 8,37,16,19,46,46,47,45, 4		2,34, 9,26,53	
		1,41,51, 3,43, 4,25,18		7,27
18″	35, 8,38,58,10,50,29,52,10,22		2,34, 9,34,20	
		1,41,51, 1, 8,54,50,58		7,27
20″	35, 8,40,40, 1,51,38,47, 1,20		2,34, 9,41,47	
		1,41,50,58,34,45, 9,11		7,27
22″	35, 8,42,21,52,50,13,32,10,31		2,34, 9,49,14	
		1,41,50,56, 0,35,19,57		7,27
24″	35, 8,44, 3,43,46,14, 7,30,28		2,34, 9,56,41	
		1,41,50,53,26,25,23,16		7,27
26″	35, 8,45,45,34,39,40,32,53,44		2,34,10, 4, 8	
		1,41,50,50,52,15,19, 8		7,27
28″	35, 8,47,27,25,30,32,48,12,52		2,34,10,11,35	
		1,41,50,48,18, 5, 7,33		7,27
30″	35, 8,49, 9,16,18,50,53,20,25		2,34,10,19, 2	
		1,41,50,45,43,54,48,31		7,27
32″	35, 8,50,51, 7, 4,34,48, 8,56		2,34,10,26,29	
		1,41,50,43, 9,44,22, 2		7,27
34″	35, 8,52,32,57,47,44,32,30,58		2,34,10,33,56	
		1,41,50,40,35,33,48, 6		7,27
36″	35, 8,54,14,48,28,20, 6,19, 4		2,34,10,41,23	
		1,41,50,38, 1,23, 6,43		7,27
38″	35, 8,55,56,39, 6,21,29,25,47		2,34,10,48,50	
		1,41,50,35,27,12,17,53		7,27
40″	35, 8,57,38,29,41,48,41,43,40		2,34,10,56,17	
		1,41,50,32,53, 1,21,36		7,27
42″	35, 8,59,20,20,14,41,43, 5,16		2,34,11, 3,44	
		1,41,50,30,18,50,17,52		7,27
44″	35, 9, 1, 2,10,45, 0,33,23, 8		2,34,11,11,11	
		1,41,50,27,44,39, 6,41		7,27
46″	35, 9, 2,44, 1,12,45,12,29,49		2,34,11,18,38	
		1,41,50,25,10,27,48, 3		7,27
48″	35, 9, 4,25,51,37,55,40,17,52		2,34,11,26, 5	
		1,41,50,22,36,16,21,58		7,27
50″	35, 9, 6, 7,42, 0,31,56,39,50		2,34,11,33,32	
		1,41,50,20, 2, 4,48,26		7,27
52″	35, 9, 7,49,32,20,34, 1,28,16		2,34,11,40,59	
		1,41,50,17,27,53, 7,27		7,27
54″	35, 9, 9,31,22,38, 1,54,35,43		2,34,11,48,26	
		1,41,50,14,53,41,19, 1		7,27
56″	35, 9,11,13,12,52,55,35,54,44		2,34,11,55,53	
		1,41,50,12,19,29,23, 8		7,27
58″	35, 9,12,55, 3, 5,15, 5,17,52		2,34,12, 3,20	
		1,41,50, 9,45,17,19,48		
60″	35, 9,14,36,53,15, 0,22,37,40			
exact	35, 9,14,36,53,15, 0,22,53,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°52′ 0″	35, 9,14,36,53,15, 0,22,53,54	1,41,50, 7,11, 5,10,48		
2″	35, 9,16,18,43,22,11,28, 4,42	1,41,50, 4,36,52,52,42	2,34,12,18, 6	7,27
4″	35, 9,18, 0,33,26,48,20,57,24	1,41,50, 2, 2,40,27, 9	2,34,12,25,33	7,27
6″	35, 9,19,42,23,28,51, 1,24,33	1,41,49,59,28,27,54, 9	2,34,12,33, 0	7,27
8″	35, 9,21,24,13,28,19,29,18,42	1,41,49,56,54,15,13,42	2,34,12,40,27	7,27
10″	35, 9,23, 6, 3,25,13,44,32,24	1,41,49,54,20, 2,25,48	2,34,12,47,54	7,27
12″	35, 9,24,47,53,19,33,46,58,12	1,41,49,51,45,49,30,27	2,34,12,55,21	7,27
14″	35, 9,26,29,43,11,19,36,28,39	1,41,49,49,11,36,27,39	2,34,13, 2,48	7,27
16″	35, 9,28,11,33, 0,31,12,56,18	1,41,49,46,37,23,17,24	2,34,13,10,15	7,27
18″	35, 9,29,53,22,47, 8,36,13,42	1,41,49,44, 3, 9,59,42	2,34,13,17,42	7,27
20″	35, 9,31,35,12,31,11,46,13,24	1,41,49,41,28,56,34,33	2,34,13,25, 9	7,27
22″	35, 9,33,17, 2,12,40,42,47,57	1,41,49,38,54,43, 1,57	2,34,13,32,36	7,27
24″	35, 9,34,58,51,51,35,25,49,54	1,41,49,36,20,29,21,54	2,34,13,40, 3	7,27
26″	35, 9,36,40,41,27,55,55,11,48	1,41,49,33,46,15,34,24	2,34,13,47,30	7,27
28″	35, 9,38,22,31, 1,42,10,46,12	1,41,49,31,12, 1,39,27	2,34,13,54,57	7,27
30″	35, 9,40, 4,20,32,54,12,25,39	1,41,49,28,37,47,37, 3	2,34,14, 2,24	7,27
32″	35, 9,41,46,10, 1,32, 0, 2,42	1,41,49,26, 3,33,27,12	2,34,14, 9,51	7,27
34″	35, 9,43,27,59,27,35,33,29,54	1,41,49,23,29,19, 9,54	2,34,14,17,18	7,27
36″	35, 9,45, 9,48,51, 4,52,39,48	1,41,49,20,55, 4,45, 9	2,34,14,24,45	7,27
38″	35, 9,46,51,38,11,59,57,24,57	1,41,49,18,20,50,12,57	2,34,14,32,12	7,27
40″	35, 9,48,33,27,30,20,47,37,54	1,41,49,15,46,35,33,18	2,34,14,39,39	7,27
42″	35, 9,50,15,16,46, 7,23,11,12	1,41,49,13,12,20,46,12	2,34,14,47, 6	7,27
44″	35, 9,51,57, 5,59,19,43,57,24	1,41,49,10,38, 5,51,39	2,34,14,54,33	7,27
46″	35, 9,53,38,55, 9,57,49,49, 3	1,41,49, 8, 3,50,49,39	2,34,15, 2, 0	7,27
48″	35, 9,55,20,44,18, 1,40,38,42	1,41,49, 5,29,35,40,12	2,34,15, 9,27	7,27
50″	35, 9,57, 2,33,23,31,16,18,54	1,41,49, 2,55,20,23,18	2,34,15,16,54	7,27
52″	35, 9,58,44,22,26,26,36,42,12	1,41,49, 0,21, 4,58,57	2,34,15,24,21	7,27
54″	35,10, 0,26,11,26,47,41,41, 9	1,41,48,57,46,49,27, 9	2,34,15,31,48	7,27
56″	35,10, 2, 8, 0,24,34,31, 8,18	1,41,48,55,12,33,47,54	2,34,15,39,15	7,27
58″	35,10, 3,49,49,19,47, 4,56,12	1,41,48,52,38,18, 1,12	2,34,15,46,42	
60″	35,10, 5,31,38,12,25,22,57,24			
exact	35,10, 5,31,38,12,25,23,17,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°53′ 0″	35,10, 5,31,38,12,25,23,17,25			
		1,41,48,50, 4, 2, 9,20		
2″	35,10, 7,13,27, 2,29,25,26,45		2,34,16, 1,26	
		1,41,48,47,29,46, 7,54		7,27
4″	35,10, 8,55,15,49,59,11,34,39		2,34,16, 8,53	
		1,41,48,44,55,29,59, 1		7,27
6″	35,10,10,37, 4,34,54,41,33,40		2,34,16,16,20	
		1,41,48,42,21,13,42,41		7,27
8″	35,10,12,18,53,17,15,55,16,21		2,34,16,23,47	
		1,41,48,39,46,57,18,54		7,27
10″	35,10,14, 0,41,57, 2,52,35,15		2,34,16,31,14	
		1,41,48,37,12,40,47,40		7,27
12″	35,10,15,42,30,34,15,33,22,55		2,34,16,38,41	
		1,41,48,34,38,24, 8,59		7,27
14″	35,10,17,24,19, 8,53,57,31,54		2,34,16,46, 8	
		1,41,48,32, 4, 7,22,51		7,27
16″	35,10,19, 6, 7,40,58, 4,54,45		2,34,16,53,35	
		1,41,48,29,29,50,29,16		7,27
18″	35,10,20,47,56,10,27,55,24, 1		2,34,17, 1, 2	
		1,41,48,26,55,33,28,14		7,27
20″	35,10,22,29,44,37,23,28,52,15		2,34,17, 8,29	
		1,41,48,24,21,16,19,45		7,27
22″	35,10,24,11,33, 1,44,45,12, 0		2,34,17,15,56	
		1,41,48,21,46,59, 3,49		7,27
24″	35,10,25,53,21,23,31,44,15,49		2,34,17,23,23	
		1,41,48,19,12,41,40,26		7,27
26″	35,10,27,35, 9,42,44,25,56,15		2,34,17,30,50	
		1,41,48,16,38,24, 9,36		7,27
28″	35,10,29,16,57,59,22,50, 5,51		2,34,17,38,17	
		1,41,48,14, 4, 6,31,19		7,27
30″	35,10,30,58,46,13,26,56,37,10		2,34,17,45,44	
		1,41,48,11,29,48,45,35		7,27
32″	35,10,32,40,34,24,56,45,22,45		2,34,17,53,11	
		1,41,48, 8,55,30,52,24		7,27
34″	35,10,34,22,22,33,52,16,15, 9		2,34,18, 0,38	
		1,41,48, 6,21,12,51,46		7,27
36″	35,10,36, 4,10,40,13,29, 6,55		2,34,18, 8, 5	
		1,41,48, 3,46,54,43,41		7,27
38″	35,10,37,45,58,44, 0,23,50,36		2,34,18,15,32	
		1,41,48, 1,12,36,28, 9		7,27
40″	35,10,39,27,46,45,13, 0,18,45		2,34,18,22,59	
		1,41,47,58,38,18, 5,10		7,27
42″	35,10,41, 9,34,43,51,18,23,55		2,34,18,30,26	
		1,41,47,56, 3,59,34,44		7,27
44″	35,10,42,51,22,39,55,17,58,39		2,34,18,37,53	
		1,41,47,53,29,40,56,51		7,27
46″	35,10,44,33,10,33,24,58,55,30		2,34,18,45,20	
		1,41,47,50,55,22,11,31		7,27
48″	35,10,46,14,58,24,20,21, 7, 1		2,34,18,52,47	
		1,41,47,48,21, 3,18,44		7,27
50″	35,10,47,56,46,12,41,24,25,45		2,34,19, 0,14	
		1,41,47,45,46,44,18,30		7,27
52″	35,10,49,38,33,58,28, 8,44,15		2,34,19, 7,41	
		1,41,47,43,12,25,10,49		7,27
54″	35,10,51,20,21,41,40,33,55, 4		2,34,19,15, 8	
		1,41,47,40,38, 5,55,41		7,27
56″	35,10,53, 2, 9,22,18,39,50,45		2,34,19,22,35	
		1,41,47,38, 3,46,33, 6		7,27
58″	35,10,54,43,57, 0,22,26,23,51		2,34,19,30, 2	
		1,41,47,35,29,27, 3, 4		
60″	35,10,56,25,44,35,51,53,26,55			
exact	35,10,56,25,44,35,51,53,56,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°54′ 0″	35,10,56,25,44,35,51,53,56,46			
		1,41,47,32,55, 7,28,47		
2″	35,10,58, 7,32, 8,47, 1,25,33		2,34,19,44,43	
		1,41,47,30,20,47,44, 4		7,27
4″	35,10,59,49,19,39, 7,49, 9,37		2,34,19,52,10	
		1,41,47,27,46,27,51,54		7,27
6″	35,11, 1,31, 7, 6,54,17, 1,31		2,34,19,59,37	
		1,41,47,25,12, 7,52,17		7,27
8″	35,11, 3,12,54,32, 6,24,53,48		2,34,20, 7, 4	
		1,41,47,22,37,47,45,13		7,27
10″	35,11, 4,54,41,54,44,12,39, 1		2,34,20,14,31	
		1,41,47,20, 3,27,30,42		7,27
12″	35,11, 6,36,29,14,47,40, 9,43		2,34,20,21,58	
		1,41,47,17,29, 7, 8,44		7,27
14″	35,11, 8,18,16,32,16,47,18,27		2,34,20,29,25	
		1,41,47,14,54,46,39,19		7,27
16″	35,11,10, 0, 3,47,11,33,57,46		2,34,20,36,52	
		1,41,47,12,20,26, 2,27		7,27
18″	35,11,11,41,50,59,32, 0, 0,13		2,34,20,44,19	
		1,41,47, 9,46, 5,18, 8		7,27
20″	35,11,13,23,38, 9,18, 5,18,21		2,34,20,51,46	
		1,41,47, 7,11,44,26,22		7,27
22″	35,11,15, 5,25,16,29,49,44,43		2,34,20,59,13	
		1,41,47, 4,37,23,27, 9		7,27
24″	35,11,16,47,12,21, 7,13,11,52		2,34,21, 6,40	
		1,41,47, 2, 3, 2,20,29		7,27
26″	35,11,18,28,59,23,10,15,32,21		2,34,21,14, 7	
		1,41,46,59,28,41, 6,22		7,27
28″	35,11,20,10,46,22,38,56,38,43		2,34,21,21,34	
		1,41,46,56,54,19,44,48		7,27
30″	35,11,21,52,33,19,33,16,23,31		2,34,21,29, 1	
		1,41,46,54,19,58,15,47		7,27
32″	35,11,23,34,20,13,53,14,39,18		2,34,21,36,28	
		1,41,46,51,45,36,39,19		7,27
34″	35,11,25,16, 7, 5,38,51,18,37		2,34,21,43,55	
		1,41,46,49,11,14,55,24		7,27
36″	35,11,26,57,53,54,50, 6,14, 1		2,34,21,51,22	
		1,41,46,46,36,53, 4, 2		7,27
38″	35,11,28,39,40,41,26,59,18, 3		2,34,21,58,49	
		1,41,46,44, 2,31, 5,13		7,27
40″	35,11,30,21,27,25,29,30,23,16		2,34,22, 6,16	
		1,41,46,41,28, 8,58,57		7,27
42″	35,11,32, 3,14, 6,57,39,22,13		2,34,22,13,43	
		1,41,46,38,53,46,45,14		7,27
44″	35,11,33,45, 0,45,51,26, 7,27		2,34,22,21,10	
		1,41,46,36,19,24,24, 4		7,27
46″	35,11,35,26,47,22,10,50,31,31		2,34,22,28,37	
		1,41,46,33,45, 1,55,27		7,27
48″	35,11,37, 8,33,55,55,52,26,58		2,34,22,36, 4	
		1,41,46,31,10,39,19,23		7,27
50″	35,11,38,50,20,27, 6,31,46,21		2,34,22,43,31	
		1,41,46,28,36,16,35,52		7,27
52″	35,11,40,32, 6,55,42,48,22,13		2,34,22,50,58	
		1,41,46,26, 1,53,44,54		7,27
54″	35,11,42,13,53,21,44,42, 7, 7		2,34,22,58,25	
		1,41,46,23,27,30,46,29		7,27
56″	35,11,43,55,39,45,12,12,53,36		2,34,23, 5,52	
		1,41,46,20,53, 7,40,37		7,27
58″	35,11,45,37,26, 6, 5,20,34,13		2,34,23,13,19	
		1,41,46,18,18,44,27,18		
60″	35,11,47,19,12,24,24, 5, 1,31			
exact	35,11,47,19,12,24,24, 5,39,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°55′ 0″	35,11,47,19,12,24,24, 5,39,47			
		1,41,46,15,44,21,10,33		
2″	35,11,49, 0,58,40, 8,26,50,20		2,34,23,27,56	
		1,41,46,13, 9,57,42,37		7,26
4″	35,11,50,42,44,53,18,24,32,57		2,34,23,35,22	
		1,41,46,10,35,34, 7,15		7,26
6″	35,11,52,24,31, 3,53,58,40,12		2,34,23,42,48	
		1,41,46, 8, 1,10,24,27		7,26
8″	35,11,54, 6,17,11,55, 9, 4,39		2,34,23,50,14	
		1,41,46, 5,26,46,34,13		7,26
10″	35,11,55,48, 3,17,21,55,38,52		2,34,23,57,40	
		1,41,46, 2,52,22,36,33		7,26
12″	35,11,57,29,49,20,14,18,15,25		2,34,24, 5, 6	
		1,41,46, 0,17,58,31,27		7,26
14″	35,11,59,11,35,20,32,16,46,52		2,34,24,12,32	
		1,41,45,57,43,34,18,55		7,26
16″	35,12, 0,53,21,18,15,51, 5,47		2,34,24,19,58	
		1,41,45,55, 9, 9,58,57		7,26
18″	35,12, 2,35, 7,13,25, 1, 4,44		2,34,24,27,24	
		1,41,45,52,34,45,31,33		7,26
20″	35,12, 4,16,53, 5,59,46,36,17		2,34,24,34,50	
		1,41,45,50, 0,20,56,43		7,26
22″	35,12, 5,58,38,56, 0, 7,33, 0		2,34,24,42,16	
		1,41,45,47,25,56,14,27		7,26
24″	35,12, 7,40,24,43,26, 3,47,27		2,34,24,49,42	
		1,41,45,44,51,31,24,45		7,26
26″	35,12, 9,22,10,28,17,35,12,12		2,34,24,57, 8	
		1,41,45,42,17, 6,27,37		7,26
28″	35,12,11, 3,56,10,34,41,39,49		2,34,25, 4,34	
		1,41,45,39,42,41,23, 3		7,26
30″	35,12,12,45,41,50,17,23, 2,52		2,34,25,12, 0	
		1,41,45,37, 8,16,11, 3		7,26
32″	35,12,14,27,27,27,25,39,13,55		2,34,25,19,26	
		1,41,45,34,33,50,51,37		7,26
34″	35,12,16, 9,13, 1,59,30, 5,32		2,34,25,26,52	
		1,41,45,31,59,25,24,45		7,26
36″	35,12,17,50,58,33,58,55,30,17		2,34,25,34,18	
		1,41,45,29,24,59,50,27		7,26
38″	35,12,19,32,44, 3,23,55,20,44		2,34,25,41,44	
		1,41,45,26,50,34, 8,43		7,26
40″	35,12,21,14,29,30,14,29,29,27		2,34,25,49,10	
		1,41,45,24,16, 8,19,33		7,26
42″	35,12,22,56,14,54,30,37,49, 0		2,34,25,56,36	
		1,41,45,21,41,42,22,57		7,26
44″	35,12,24,38, 0,16,12,20,11,57		2,34,26, 4, 2	
		1,41,45,19, 7,16,18,55		7,26
46″	35,12,26,19,45,35,19,36,30,52		2,34,26,11,28	
		1,41,45,16,32,50, 7,27		7,26
48″	35,12,28, 1,30,51,52,26,38,19		2,34,26,18,54	
		1,41,45,13,58,23,48,33		7,26
50″	35,12,29,43,16, 5,50,50,26,52		2,34,26,26,20	
		1,41,45,11,23,57,22,13		7,26
52″	35,12,31,25, 1,17,14,47,49, 5		2,34,26,33,46	
		1,41,45, 8,49,30,48,27		7,26
54″	35,12,33, 6,46,26, 4,18,37,32		2,34,26,41,12	
		1,41,45, 6,15, 4, 7,15		7,26
56″	35,12,34,48,31,32,19,22,44,47		2,34,26,48,38	
		1,41,45, 3,40,37,18,37		7,26
58″	35,12,36,30,16,36, 0, 0, 3,24		2,34,26,56, 4	
		1,41,45, 1, 6,10,22,33		
60″	35,12,38,12, 1,37, 6,10,25,57			
exact	35,12,38,12, 1,37, 6, 9,56,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°56′ 0″	35,12,38,12, 1,37, 6, 9,56,38			
		1,41,44,58,31,43,16, 4		
2″	35,12,39,53,46,35,37,53,12,42		2,34,27,11, 7	
		1,41,44,55,57,16, 4,57		7,26
4″	35,12,41,35,31,31,35, 9,17,39		2,34,27,18,33	
		1,41,44,53,22,48,46,24		7,26
6″	35,12,43,17,16,24,57,58, 4, 3		2,34,27,25,59	
		1,41,44,50,48,21,20,25		7,26
8″	35,12,44,59, 1,15,46,19,24,28		2,34,27,33,25	
		1,41,44,48,13,53,47, 0		7,26
10″	35,12,46,40,46, 4, 0,13,11,28		2,34,27,40,51	
		1,41,44,45,39,26, 6, 9		7,26
12″	35,12,48,22,30,49,39,39,17,37		2,34,27,48,17	
		1,41,44,43, 4,58,17,52		7,26
14″	35,12,50, 4,15,32,44,37,35,29		2,34,27,55,43	
		1,41,44,40,30,30,22, 9		7,26
16″	35,12,51,46, 0,13,15, 7,57,38		2,34,28, 3, 9	
		1,41,44,37,56, 2,19, 0		7,26
18″	35,12,53,27,44,51,11,10,16,38		2,34,28,10,35	
		1,41,44,35,21,34, 8,25		7,26
20″	35,12,55, 9,29,26,32,44,25, 3		2,34,28,18, 1	
		1,41,44,32,47, 5,50,24		7,26
22″	35,12,56,51,13,59,19,50,15,27		2,34,28,25,27	
		1,41,44,30,12,37,24,57		7,26
24″	35,12,58,32,58,29,32,27,40,24		2,34,28,32,53	
		1,41,44,27,38, 8,52, 4		7,26
26″	35,13, 0,14,42,57,10,36,32,28		2,34,28,40,19	
		1,41,44,25, 3,40,11,45		7,26
28″	35,13, 1,56,27,22,14,16,44,13		2,34,28,47,45	
		1,41,44,22,29,11,24, 0		7,26
30″	35,13, 3,38,11,44,43,28, 8,13		2,34,28,55,11	
		1,41,44,19,54,42,28,49		7,26
32″	35,13, 5,19,56, 4,38,10,37, 2		2,34,29, 2,37	
		1,41,44,17,20,13,26,12		7,26
34″	35,13, 7, 1,40,21,58,24, 3,14		2,34,29,10, 3	
		1,41,44,14,45,44,16, 9		7,26
36″	35,13, 8,43,24,36,44, 8,19,23		2,34,29,17,29	
		1,41,44,12,11,14,58,40		7,26
38″	35,13,10,25, 8,48,55,23,18, 3		2,34,29,24,55	
		1,41,44, 9,36,45,33,45		7,26
40″	35,13,12, 6,52,58,32, 8,51,48		2,34,29,32,21	
		1,41,44, 7, 2,16, 1,24		7,26
42″	35,13,13,48,37, 5,34,24,53,12		2,34,29,39,47	
		1,41,44, 4,27,46,21,37		7,26
44″	35,13,15,30,21,10, 2,11,14,49		2,34,29,47,13	
		1,41,44, 1,53,16,34,24		7,26
46″	35,13,17,12, 5,11,55,27,49,13		2,34,29,54,39	
		1,41,43,59,18,46,39,45		7,26
48″	35,13,18,53,49,11,14,14,28,58		2,34,30, 2, 5	
		1,41,43,56,44,16,37,40		7,26
50″	35,13,20,35,33, 7,58,31, 6,38		2,34,30, 9,31	
		1,41,43,54, 9,46,28, 9		7,26
52″	35,13,22,17,17, 2, 8,17,34,47		2,34,30,16,57	
		1,41,43,51,35,16,11,12		7,26
54″	35,13,23,59, 0,53,43,33,45,59		2,34,30,24,23	
		1,41,43,49, 0,45,46,49		7,26
56″	35,13,25,40,44,42,44,19,32,48		2,34,30,31,49	
		1,41,43,46,26,15,15, 0		7,26
58″	35,13,27,22,28,29,10,34,47,48		2,34,30,39,15	
		1,41,43,43,51,44,35,45		
60″	35,13,29, 4,12,13, 2,19,23,33			
exact	35,13,29, 4,12,13, 2,18,59,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°57′ 0″	35,13,29, 4,12,13, 2,18,59,48			
		1,41,43,41,17,13,46,43		
2″	35,13,30,45,55,54,19,32,46,31		2,34,30,54,16	
		1,41,43,38,42,42,52,27		7,26
4″	35,13,32,27,39,33, 2,15,38,58		2,34,31, 1,42	
		1,41,43,36, 8,11,50,45		7,26
6″	35,13,34, 9,23, 9,10,27,29,43		2,34,31, 9, 8	
		1,41,43,33,33,40,41,37		7,26
8″	35,13,35,51, 6,42,44, 8,11,20		2,34,31,16,34	
		1,41,43,30,59, 9,25, 3		7,26
10″	35,13,37,32,50,13,43,17,36,23		2,34,31,24, 0	
		1,41,43,28,24,38, 1, 3		7,26
12″	35,13,39,14,33,42, 7,55,37,26		2,34,31,31,26	
		1,41,43,25,50, 6,29,37		7,26
14″	35,13,40,56,17, 7,58, 2, 7, 3		2,34,31,38,52	
		1,41,43,23,15,34,50,45		7,26
16″	35,13,42,38, 0,31,13,36,57,48		2,34,31,46,18	
		1,41,43,20,41, 3, 4,27		7,26
18″	35,13,44,19,43,51,54,40, 2,15		2,34,31,53,44	
		1,41,43,18, 6,31,10,43		7,26
20″	35,13,46, 1,27,10, 1,11,12,58		2,34,32, 1,10	
		1,41,43,15,31,59, 9,33		7,26
22″	35,13,47,43,10,25,33,10,22,31		2,34,32, 8,36	
		1,41,43,12,57,27, 0,57		7,26
24″	35,13,49,24,53,38,30,37,23,28		2,34,32,16, 2	
		1,41,43,10,22,54,44,55		7,26
26″	35,13,51, 6,36,48,53,32, 8,23		2,34,32,23,28	
		1,41,43, 7,48,22,21,27		7,26
28″	35,13,52,48,19,56,41,54,29,50		2,34,32,30,54	
		1,41,43, 5,13,49,50,33		7,26
30″	35,13,54,30, 3, 1,55,44,20,23		2,34,32,38,20	
		1,41,43, 2,39,17,12,13		7,26
32″	35,13,56,11,46, 4,35, 1,32,36		2,34,32,45,46	
		1,41,43, 0, 4,44,26,27		7,26
34″	35,13,57,53,29, 4,39,45,59, 3		2,34,32,53,12	
		1,41,42,57,30,11,33,15		7,26
36″	35,13,59,35,12, 2, 9,57,32,18		2,34,33, 0,38	
		1,41,42,54,55,38,32,37		7,26
38″	35,14, 1,16,54,57, 5,36, 4,55		2,34,33, 8, 4	
		1,41,42,52,21, 5,24,33		7,26
40″	35,14, 2,58,37,49,26,41,29,28		2,34,33,15,30	
		1,41,42,49,46,32, 9, 3		7,26
42″	35,14, 4,40,20,39,13,13,38,31		2,34,33,22,56	
		1,41,42,47,11,58,46, 7		7,26
44″	35,14, 6,22, 3,26,25,12,24,38		2,34,33,30,22	
		1,41,42,44,37,25,15,45		7,26
46″	35,14, 8, 3,46,11, 2,37,40,23		2,34,33,37,48	
		1,41,42,42, 2,51,37,57		7,26
48″	35,14, 9,45,28,53, 5,29,18,20		2,34,33,45,14	
		1,41,42,39,28,17,52,43		7,26
50″	35,14,11,27,11,32,33,47,11, 3		2,34,33,52,40	
		1,41,42,36,53,44, 0, 3		7,26
52″	35,14,13, 8,54, 9,27,31,11, 6		2,34,34, 0, 6	
		1,41,42,34,19, 9,59,57		7,26
54″	35,14,14,50,36,43,46,41,11, 3		2,34,34, 7,32	
		1,41,42,31,44,35,52,25		7,26
56″	35,14,16,32,19,15,31,17, 3,28		2,34,34,14,58	
		1,41,42,29,10, 1,37,27		7,26
58″	35,14,18,14, 1,44,41,18,40,55		2,34,34,22,24	
		1,41,42,26,35,27,15, 3		
60″	35,14,19,55,44,11,16,45,55,58			
exact	35,14,19,55,44,11,16,45,44, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°58′ 0″	35,14,19,55,44,11,16,45,44, 6	1,41,42,24, 0,52,43,56		
2″	35,14,21,37,26,35,17,38,28, 2	1,41,42,21,26,18, 6,35	2,34,34,37,21	7,26
4″	35,14,23,19, 8,56,43,56,34,37	1,41,42,18,51,43,21,48	2,34,34,44,47	7,26
6″	35,14,25, 0,51,15,35,39,56,25	1,41,42,16,17, 8,29,35	2,34,34,52,13	7,26
8″	35,14,26,42,33,31,52,48,26, 0	1,41,42,13,42,33,29,56	2,34,34,59,39	7,26
10″	35,14,28,24,15,45,35,21,55,56	1,41,42,11, 7,58,22,51	2,34,35, 7, 5	7,26
12″	35,14,30, 5,57,56,43,20,18,47	1,41,42, 8,33,23, 8,20	2,34,35,14,31	7,26
14″	35,14,31,47,40, 5,16,43,27, 7	1,41,42, 5,58,47,46,23	2,34,35,21,57	7,26
16″	35,14,33,29,22,11,15,31,13,30	1,41,42, 3,24,12,17, 0	2,34,35,29,23	7,26
18″	35,14,35,11, 4,14,39,43,30,30	1,41,42, 0,49,36,40,11	2,34,35,36,49	7,26
20″	35,14,36,52,46,15,29,20,10,41	1,41,41,58,15, 0,55,56	2,34,35,44,15	7,26
22″	35,14,38,34,28,13,44,21, 6,37	1,41,41,55,40,25, 4,15	2,34,35,51,41	7,26
24″	35,14,40,16,10, 9,24,46,10,52	1,41,41,53, 5,49, 5, 8	2,34,35,59, 7	7,26
26″	35,14,41,57,52, 2,30,35,16, 0	1,41,41,50,31,12,58,35	2,34,36, 6,33	7,26
28″	35,14,43,39,33,53, 1,48,14,35	1,41,41,47,56,36,44,36	2,34,36,13,59	7,26
30″	35,14,45,21,15,40,58,24,59,11	1,41,41,45,22, 0,23,11	2,34,36,21,25	7,26
32″	35,14,47, 2,57,26,20,25,22,22	1,41,41,42,47,23,54,20	2,34,36,28,51	7,26
34″	35,14,48,44,39, 9, 7,49,16,42	1,41,41,40,12,47,18, 3	2,34,36,36,17	7,26
36″	35,14,50,26,20,49,20,36,34,45	1,41,41,37,38,10,34,20	2,34,36,43,43	7,26
38″	35,14,52, 8, 2,26,58,47, 9, 5	1,41,41,35, 3,33,43,11	2,34,36,51, 9	7,26
40″	35,14,53,49,44, 2, 2,20,52,16	1,41,41,32,28,56,44,36	2,34,36,58,35	7,26
42″	35,14,55,31,25,34,31,17,36,52	1,41,41,29,54,19,38,35	2,34,37, 6, 1	7,26
44″	35,14,57,13, 7, 4,25,37,15,27	1,41,41,27,19,42,25, 8	2,34,37,13,27	7,26
46″	35,14,58,54,48,31,45,19,40,35	1,41,41,24,45, 5, 4,15	2,34,37,20,53	7,26
48″	35,15, 0,36,29,56,30,24,44,50	1,41,41,22,10,27,35,56	2,34,37,28,19	7,26
50″	35,15, 2,18,11,18,40,52,20,46	1,41,41,19,35,50, 0,11	2,34,37,35,45	7,26
52″	35,15, 3,59,52,38,16,42,20,57	1,41,41,17, 1,12,17, 0	2,34,37,43,11	7,26
54″	35,15, 5,41,33,55,17,54,37,57	1,41,41,14,26,34,26,23	2,34,37,50,37	7,26
56″	35,15, 7,23,15, 9,44,29, 4,20	1,41,41,11,51,56,28,20	2,34,37,58, 3	7,26
58″	35,15, 9, 4,56,21,36,25,32,40	1,41,41, 9,17,18,22,51	2,34,38, 5,29	
60″	35,15,10,46,37,30,53,43,55,31			
exact	35,15,10,46,37,30,53,43,46,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
35°59′ 0″	35,15,10,46,37,30,53,43,46,45	1,41,41, 6,42,40, 9, 6		
2″	35,15,12,28,18,37,36,23,55,51	1,41,41, 4, 8, 1,48,42	2,34,38,20,24	7,26
4″	35,15,14, 9,59,41,44,25,44,33	1,41,41, 1,33,23,20,52	2,34,38,27,50	7,26
6″	35,15,15,51,40,43,17,49, 5,25	1,41,40,58,58,44,45,36	2,34,38,35,16	7,26
8″	35,15,17,33,21,42,16,33,51, 1	1,41,40,56,24, 6, 2,54	2,34,38,42,42	7,26
10″	35,15,19,15, 2,38,40,39,53,55	1,41,40,53,49,27,12,46	2,34,38,50, 8	7,26
12″	35,15,20,56,43,32,30, 7, 6,41	1,41,40,51,14,48,15,12	2,34,38,57,34	7,26
14″	35,15,22,38,24,23,44,55,21,53	1,41,40,48,40, 9,10,12	2,34,39, 5, 0	7,26
16″	35,15,24,20, 5,12,25, 4,32, 5	1,41,40,46, 5,29,57,46	2,34,39,12,26	7,26
18″	35,15,26, 1,45,58,30,34,29,51	1,41,40,43,30,50,37,54	2,34,39,19,52	7,26
20″	35,15,27,43,26,42, 1,25, 7,45	1,41,40,40,56,11,10,36	2,34,39,27,18	7,26
22″	35,15,29,25, 7,22,57,36,18,21	1,41,40,38,21,31,35,52	2,34,39,34,44	7,26
24″	35,15,31, 6,48, 1,19, 7,54,13	1,41,40,35,46,51,53,42	2,34,39,42,10	7,26
26″	35,15,32,48,28,37, 5,59,47,55	1,41,40,33,12,12, 4, 6	2,34,39,49,36	7,26
28″	35,15,34,30, 9,10,18,11,52, 1	1,41,40,30,37,32, 7, 4	2,34,39,57, 2	7,26
30″	35,15,36,11,49,40,55,43,59, 5	1,41,40,28, 2,52, 2,36	2,34,40, 4,28	7,26
32″	35,15,37,53,30, 8,58,36, 1,41	1,41,40,25,28,11,50,42	2,34,40,11,54	7,26
34″	35,15,39,35,10,34,26,47,52,23	1,41,40,22,53,31,31,22	2,34,40,19,20	7,26
36″	35,15,41,16,50,57,20,19,23,45	1,41,40,20,18,51, 4,36	2,34,40,26,46	7,26
38″	35,15,42,58,31,17,39,10,28,21	1,41,40,17,44,10,30,24	2,34,40,34,12	7,26
40″	35,15,44,40,11,35,23,20,58,45	1,41,40,15, 9,29,48,46	2,34,40,41,38	7,26
42″	35,15,46,21,51,50,32,50,47,31	1,41,40,12,34,48,59,42	2,34,40,49, 4	7,26
44″	35,15,48, 3,32, 3, 7,39,47,13	1,41,40,10, 0, 8, 3,12	2,34,40,56,30	7,26
46″	35,15,49,45,12,13, 7,47,50,25	1,41,40, 7,25,26,59,16	2,34,41, 3,56	7,26
48″	35,15,51,26,52,20,33,14,49,41	1,41,40, 4,50,45,47,54	2,34,41,11,22	7,26
50″	35,15,53, 8,32,25,24, 0,37,35	1,41,40, 2,16, 4,29, 6	2,34,41,18,48	7,26
52″	35,15,54,50,12,27,40, 5, 6,41	1,41,39,59,41,23, 2,52	2,34,41,26,14	7,26
54″	35,15,56,31,52,27,21,28, 9,33	1,41,39,57, 6,41,29,12	2,34,41,33,40	7,26
56″	35,15,58,13,32,24,28, 9,38,45	1,41,39,54,31,59,48, 6	2,34,41,41, 6	7,26
58″	35,15,59,55,12,19, 0, 9,26,51	1,41,39,51,57,17,59,34	2,34,41,48,32	
60″	35,16, 1,36,52,10,57,27,26,25			
exact	35,16, 1,36,52,10,57,27,27,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36° 0′ 0″	35,16, 1,36,52,10,57,27,27,17			
		1,41,39,49,22,36, 3,40		
2″	35,16, 3,18,32, 0,20, 3,30,57		2,34,42, 3,24	
		1,41,39,46,47,54, 0,16		7,26
4″	35,16, 5, 0,11,47, 7,57,31,13		2,34,42,10,50	
		1,41,39,44,13,11,49,26		7,26
6″	35,16, 6,41,51,31,21, 9,20,39		2,34,42,18,16	
		1,41,39,41,38,29,31,10		7,26
8″	35,16, 8,23,31,12,59,38,51,49		2,34,42,25,42	
		1,41,39,39, 3,47, 5,28		7,26
10″	35,16,10, 5,10,52, 3,25,57,17		2,34,42,33, 8	
		1,41,39,36,29, 4,32,20		7,26
12″	35,16,11,46,50,28,32,30,29,37		2,34,42,40,34	
		1,41,39,33,54,21,51,46		7,26
14″	35,16,13,28,30, 2,26,52,21,23		2,34,42,48, 0	
		1,41,39,31,19,39, 3,46		7,26
16″	35,16,15,10, 9,33,46,31,25, 9		2,34,42,55,26	
		1,41,39,28,44,56, 8,20		7,26
18″	35,16,16,51,49, 2,31,27,33,29		2,34,43, 2,52	
		1,41,39,26,10,13, 5,28		7,26
20″	35,16,18,33,28,28,41,40,38,57		2,34,43,10,18	
		1,41,39,23,35,29,55,10		7,26
22″	35,16,20,15, 7,52,17,10,34, 7		2,34,43,17,44	
		1,41,39,21, 0,46,37,26		7,26
24″	35,16,21,56,47,13,17,57,11,33		2,34,43,25,10	
		1,41,39,18,26, 3,12,16		7,26
26″	35,16,23,38,26,31,44, 0,23,49		2,34,43,32,36	
		1,41,39,15,51,19,39,40		7,26
28″	35,16,25,20, 5,47,35,20, 3,29		2,34,43,40, 2	
		1,41,39,13,16,35,59,38		7,26
30″	35,16,27, 1,45, 0,51,56, 3, 7		2,34,43,47,28	
		1,41,39,10,41,52,12,10		7,26
32″	35,16,28,43,24,11,33,48,15,17		2,34,43,54,54	
		1,41,39, 8, 7, 8,17,16		7,26
34″	35,16,30,25, 3,19,40,56,32,33		2,34,44, 2,20	
		1,41,39, 5,32,24,14,56		7,26
36″	35,16,32, 6,42,25,13,20,47,29		2,34,44, 9,46	
		1,41,39, 2,57,40, 5,10		7,26
38″	35,16,33,48,21,28,11, 0,52,39		2,34,44,17,12	
		1,41,39, 0,22,55,47,58		7,26
40″	35,16,35,30, 0,28,33,56,40,37		2,34,44,24,38	
		1,41,38,57,48,11,23,20		7,26
42″	35,16,37,11,39,26,22, 8, 3,57		2,34,44,32, 4	
		1,41,38,55,13,26,51,16		7,26
44″	35,16,38,53,18,21,35,34,55,13		2,34,44,39,30	
		1,41,38,52,38,42,11,46		7,26
46″	35,16,40,34,57,14,14,17, 6,59		2,34,44,46,56	
		1,41,38,50, 3,57,24,50		7,26
48″	35,16,42,16,36, 4,18,14,31,49		2,34,44,54,22	
		1,41,38,47,29,12,30,28		7,26
50″	35,16,43,58,14,51,47,27, 2,17		2,34,45, 1,48	
		1,41,38,44,54,27,28,40		7,26
52″	35,16,45,39,53,36,41,54,30,57		2,34,45, 9,14	
		1,41,38,42,19,42,19,26		7,26
54″	35,16,47,21,32,19, 1,36,50,23		2,34,45,16,40	
		1,41,38,39,44,57, 2,46		7,26
56″	35,16,49, 3,10,58,46,33,53, 9		2,34,45,24, 6	
		1,41,38,37,10,11,38,40		7,26
58″	35,16,50,44,49,35,56,45,31,49		2,34,45,31,32	
		1,41,38,34,35,26, 7, 8		
60″	35,16,52,26,28,10,32,11,38,57			
exact	35,16,52,26,28,10,32,11,47,41			

x			$\sin(x)$	Δ^1	Δ^2	Δ^3
36°	1′	0″	35,16,52,26,28,10,32,11,47,41	1,41,38,32, 0,40,29, 2		
		2″	35,16,54, 8, 6,42,32,52,16,43	1,41,38,29,25,54,42,42	2,34,45,46,20	7,26
		4″	35,16,55,49,45,11,58,46,59,25	1,41,38,26,51, 8,48,56	2,34,45,53,46	7,26
		6″	35,16,57,31,23,38,49,55,48,21	1,41,38,24,16,22,47,44	2,34,46, 1,12	7,26
		8″	35,16,59,13, 2, 3, 6,18,36, 5	1,41,38,21,41,36,39, 6	2,34,46, 8,38	7,26
		10″	35,17, 0,54,40,24,47,55,15,11	1,41,38,19, 6,50,23, 2	2,34,46,16, 4	7,26
		12″	35,17, 2,36,18,43,54,45,38,13	1,41,38,16,32, 3,59,32	2,34,46,23,30	7,26
		14″	35,17, 4,17,57, 0,26,49,37,45	1,41,38,13,57,17,28,36	2,34,46,30,56	7,26
		16″	35,17, 5,59,35,14,24, 7, 6,21	1,41,38,11,22,30,50,14	2,34,46,38,22	7,26
		18″	35,17, 7,41,13,25,46,37,56,35	1,41,38, 8,47,44, 4,26	2,34,46,45,48	7,26
		20″	35,17, 9,22,51,34,34,22, 1, 1	1,41,38, 6,12,57,11,12	2,34,46,53,14	7,26
		22″	35,17,11, 4,29,40,47,19,12,13	1,41,38, 3,38,10,10,32	2,34,47, 0,40	7,26
		24″	35,17,12,46, 7,44,25,29,22,45	1,41,38, 1, 3,23, 2,26	2,34,47, 8, 6	7,26
		26″	35,17,14,27,45,45,28,52,25,11	1,41,37,58,28,35,46,54	2,34,47,15,32	7,26
		28″	35,17,16, 9,23,43,57,28,12, 5	1,41,37,55,53,48,23,56	2,34,47,22,58	7,26
		30″	35,17,17,51, 1,39,51,16,36, 1	1,41,37,53,19, 0,53,32	2,34,47,30,24	7,26
		32″	35,17,19,32,39,33,10,17,29,33	1,41,37,50,44,13,15,42	2,34,47,37,50	7,26
		34″	35,17,21,14,17,23,54,30,45,15	1,41,37,48, 9,25,30,26	2,34,47,45,16	7,26
		36″	35,17,22,55,55,12, 3,56,15,41	1,41,37,45,34,37,37,44	2,34,47,52,42	7,26
		38″	35,17,24,37,32,57,38,33,53,25	1,41,37,42,59,49,37,36	2,34,48, 0, 8	7,26
		40″	35,17,26,19,10,40,38,23,31, 1	1,41,37,40,25, 1,30, 2	2,34,48, 7,34	7,26
		42″	35,17,28, 0,48,21, 3,25, 1, 3	1,41,37,37,50,13,15, 2	2,34,48,15, 0	7,26
		44″	35,17,29,42,25,58,53,38,16, 5	1,41,37,35,15,24,52,36	2,34,48,22,26	7,26
		46″	35,17,31,24, 3,34, 9, 3, 8,41	1,41,37,32,40,36,22,44	2,34,48,29,52	7,26
		48″	35,17,33, 5,41, 6,49,39,31,25	1,41,37,30, 5,47,45,26	2,34,48,37,18	7,26
		50″	35,17,34,47,18,36,55,27,16,51	1,41,37,27,30,59, 0,42	2,34,48,44,44	7,26
		52″	35,17,36,28,56, 4,26,26,17,33	1,41,37,24,56,10, 8,32	2,34,48,52,10	7,26
		54″	35,17,38,10,33,29,22,36,26, 5	1,41,37,22,21,21, 8,56	2,34,48,59,36	7,26
		56″	35,17,39,52,10,51,43,57,35, 1	1,41,37,19,46,32, 1,54	2,34,49, 7, 2	7,26
		58″	35,17,41,33,48,11,30,29,36,55	1,41,37,17,11,42,47,26	2,34,49,14,28	
		60″	35,17,43,15,25,28,42,12,24,21			
	exact		35,17,43,15,25,28,42,12,32,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36° 2′ 0″	35,17,43,15,25,28,42,12,32,18	1,41,37,14,36,53,26,36		
2″	35,17,44,57, 2,43,19, 5,58,54	1,41,37,12, 2, 3,57,21	2,34,49,29,15	7,26
4″	35,17,46,38,39,55,21, 9,56,15	1,41,37, 9,27,14,20,40	2,34,49,36,41	7,26
6″	35,17,48,20,17, 4,48,24,16,55	1,41,37, 6,52,24,36,33	2,34,49,44, 7	7,26
8″	35,17,50, 1,54,11,40,48,53,28	1,41,37, 4,17,34,45, 0	2,34,49,51,33	7,26
10″	35,17,51,43,31,15,58,23,38,28	1,41,37, 1,42,44,46, 1	2,34,49,58,59	7,26
12″	35,17,53,25, 8,17,41, 8,24,29	1,41,36,59, 7,54,39,36	2,34,50, 6,25	7,26
14″	35,17,55, 6,45,16,49, 3, 4, 5	1,41,36,56,33, 4,25,45	2,34,50,13,51	7,26
16″	35,17,56,48,22,13,22, 7,29,50	1,41,36,53,58,14, 4,28	2,34,50,21,17	7,26
18″	35,17,58,29,59, 7,20,21,34,18	1,41,36,51,23,23,35,45	2,34,50,28,43	7,26
20″	35,18, 0,11,35,58,43,45,10, 3	1,41,36,48,48,32,59,36	2,34,50,36, 9	7,26
22″	35,18, 1,53,12,47,32,18, 9,39	1,41,36,46,13,42,16, 1	2,34,50,43,35	7,26
24″	35,18, 3,34,49,33,46, 0,25,40	1,41,36,43,38,51,25, 0	2,34,50,51, 1	7,26
26″	35,18, 5,16,26,17,24,51,50,40	1,41,36,41, 4, 0,26,33	2,34,50,58,27	7,26
28″	35,18, 6,58, 2,58,28,52,17,13	1,41,36,38,29, 9,20,40	2,34,51, 5,53	7,26
30″	35,18, 8,39,39,36,58, 1,37,53	1,41,36,35,54,18, 7,21	2,34,51,13,19	7,26
32″	35,18,10,21,16,12,52,19,45,14	1,41,36,33,19,26,46,36	2,34,51,20,45	7,26
34″	35,18,12, 2,52,46,11,46,31,50	1,41,36,30,44,35,18,25	2,34,51,28,11	7,26
36″	35,18,13,44,29,16,56,21,50,15	1,41,36,28, 9,43,42,48	2,34,51,35,37	7,26
38″	35,18,15,26, 5,45, 6, 5,33, 3	1,41,36,25,34,51,59,45	2,34,51,43, 3	7,26
40″	35,18,17, 7,42,10,40,57,32,48	1,41,36,23, 0, 0, 9,16	2,34,51,50,29	7,26
42″	35,18,18,49,18,33,40,57,42, 4	1,41,36,20,25, 8,11,21	2,34,51,57,55	7,26
44″	35,18,20,30,54,54, 6, 5,53,25	1,41,36,17,50,16, 6, 0	2,34,52, 5,21	7,26
46″	35,18,22,12,31,11,56,21,59,25	1,41,36,15,15,23,53,13	2,34,52,12,47	7,26
48″	35,18,23,54, 7,27,11,45,52,38	1,41,36,12,40,31,33, 0	2,34,52,20,13	7,26
50″	35,18,25,35,43,39,52,17,25,38	1,41,36,10, 5,39, 5,21	2,34,52,27,39	7,26
52″	35,18,27,17,19,49,57,56,30,59	1,41,36, 7,30,46,30,16	2,34,52,35, 5	7,26
54″	35,18,28,58,55,57,28,43, 1,15	1,41,36, 4,55,53,47,45	2,34,52,42,31	7,26
56″	35,18,30,40,32, 2,24,36,49, 0	1,41,36, 2,21, 0,57,48	2,34,52,49,57	7,26
58″	35,18,32,22, 8, 4,45,37,46,48	1,41,35,59,46, 8, 0,25	2,34,52,57,23	
60″	35,18,34, 3,44, 4,31,45,47,13			
exact	35,18,34, 3,44, 4,31,46, 7,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36° 3′ 0″	35,18,34, 3,44, 4,31,46, 7,58			
		1,41,35,57,11,14,57,47		
2″	35,18,35,45,20, 1,43, 1, 5,45		2,34,53,12, 6	
		1,41,35,54,36,21,45,41		7,26
4″	35,18,37,26,55,56,19,22,51,26		2,34,53,19,32	
		1,41,35,52, 1,28,26, 9		7,26
6″	35,18,39, 8,31,48,20,51,17,35		2,34,53,26,58	
		1,41,35,49,26,34,59,11		7,26
8″	35,18,40,50, 7,37,47,26,16,46		2,34,53,34,24	
		1,41,35,46,51,41,24,47		7,26
10″	35,18,42,31,43,24,39, 7,41,33		2,34,53,41,50	
		1,41,35,44,16,47,42,57		7,26
12″	35,18,44,13,19, 8,55,55,24,30		2,34,53,49,16	
		1,41,35,41,41,53,53,41		7,26
14″	35,18,45,54,54,50,37,49,18,11		2,34,53,56,42	
		1,41,35,39, 6,59,56,59		7,26
16″	35,18,47,36,30,29,44,49,15,10		2,34,54, 4, 8	
		1,41,35,36,32, 5,52,51		7,26
18″	35,18,49,18, 6, 6,16,55, 8, 1		2,34,54,11,34	
		1,41,35,33,57,11,41,17		7,26
20″	35,18,50,59,41,40,14, 6,49,18		2,34,54,19, 0	
		1,41,35,31,22,17,22,17		7,26
22″	35,18,52,41,17,11,36,24,11,35		2,34,54,26,26	
		1,41,35,28,47,22,55,51		7,26
24″	35,18,54,22,52,40,23,47, 7,26		2,34,54,33,52	
		1,41,35,26,12,28,21,59		7,26
26″	35,18,56, 4,28, 6,36,15,29,25		2,34,54,41,18	
		1,41,35,23,37,33,40,41		7,26
28″	35,18,57,46, 3,30,13,49,10, 6		2,34,54,48,44	
		1,41,35,21, 2,38,51,57		7,26
30″	35,18,59,27,38,51,16,28, 2, 3		2,34,54,56,10	
		1,41,35,18,27,43,55,47		7,26
32″	35,19, 1, 9,14, 9,44,11,57,50		2,34,55, 3,36	
		1,41,35,15,52,48,52,11		7,26
34″	35,19, 2,50,49,25,37, 0,50, 1		2,34,55,11, 2	
		1,41,35,13,17,53,41, 9		7,26
36″	35,19, 4,32,24,38,54,54,31,10		2,34,55,18,28	
		1,41,35,10,42,58,22,41		7,26
38″	35,19, 6,13,59,49,37,52,53,51		2,34,55,25,54	
		1,41,35, 8, 8, 2,56,47		7,26
40″	35,19, 7,55,34,57,45,55,50,38		2,34,55,33,20	
		1,41,35, 5,33, 7,23,27		7,26
42″	35,19, 9,37,10, 3,19, 3,14, 5		2,34,55,40,46	
		1,41,35, 2,58,11,42,41		7,26
44″	35,19,11,18,45, 6,17,14,56,46		2,34,55,48,12	
		1,41,35, 0,23,15,54,29		7,26
46″	35,19,13, 0,20, 6,40,30,51,15		2,34,55,55,38	
		1,41,34,57,48,19,58,51		7,26
48″	35,19,14,41,55, 4,28,50,50, 6		2,34,56, 3, 4	
		1,41,34,55,13,23,55,47		7,26
50″	35,19,16,23,29,59,42,14,45,53		2,34,56,10,30	
		1,41,34,52,38,27,45,17		7,26
52″	35,19,18, 5, 4,52,20,42,31,10		2,34,56,17,56	
		1,41,34,50, 3,31,27,21		7,26
54″	35,19,19,46,39,42,24,13,58,31		2,34,56,25,22	
		1,41,34,47,28,35, 1,59		7,26
56″	35,19,21,28,14,29,52,49, 0,30		2,34,56,32,48	
		1,41,34,44,53,38,29,11		7,26
58″	35,19,23, 9,49,14,46,27,29,41		2,34,56,40,14	
		1,41,34,42,18,41,48,57		
60″	35,19,24,51,23,57, 5, 9,18,38			
exact	35,19,24,51,23,57, 5, 9,43,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36° 4′ 0″	35,19,24,51,23,57, 5, 9,43,54			
		1,41,34,39,43,45, 4, 1		
2″	35,19,26,32,58,36,48,54,47,55		2,34,56,54,54	
		1,41,34,37, 8,48, 9, 7		7,26
4″	35,19,28,14,33,13,57,42,57, 2		2,34,57, 2,20	
		1,41,34,34,33,51, 6,47		7,26
6″	35,19,29,56, 7,48,31,34, 3,49		2,34,57, 9,46	
		1,41,34,31,58,53,57, 1		7,26
8″	35,19,31,37,42,20,30,28, 0,50		2,34,57,17,12	
		1,41,34,29,23,56,39,49		7,26
10″	35,19,33,19,16,49,54,24,40,39		2,34,57,24,38	
		1,41,34,26,48,59,15,11		7,26
12″	35,19,35, 0,51,16,43,23,55,50		2,34,57,32, 4	
		1,41,34,24,14, 1,43, 7		7,26
14″	35,19,36,42,25,40,57,25,38,57		2,34,57,39,30	
		1,41,34,21,39, 4, 3,37		7,26
16″	35,19,38,24, 0, 2,36,29,42,34		2,34,57,46,56	
		1,41,34,19, 4, 6,16,41		7,26
18″	35,19,40, 5,34,21,40,35,59,15		2,34,57,54,22	
		1,41,34,16,29, 8,22,19		7,26
20″	35,19,41,47, 8,38, 9,44,21,34		2,34,58, 1,48	
		1,41,34,13,54,10,20,31		7,26
22″	35,19,43,28,42,52, 3,54,42, 5		2,34,58, 9,14	
		1,41,34,11,19,12,11,17		7,26
24″	35,19,45,10,17, 3,23, 6,53,22		2,34,58,16,40	
		1,41,34, 8,44,13,54,37		7,26
26″	35,19,46,51,51,12, 7,20,47,59		2,34,58,24, 6	
		1,41,34, 6, 9,15,30,31		7,26
28″	35,19,48,33,25,18,16,36,18,30		2,34,58,31,32	
		1,41,34, 3,34,16,58,59		7,26
30″	35,19,50,14,59,21,50,53,17,29		2,34,58,38,58	
		1,41,34, 0,59,18,20, 1		7,26
32″	35,19,51,56,33,22,50,11,37,30		2,34,58,46,24	
		1,41,33,58,24,19,33,37		7,26
34″	35,19,53,38, 7,21,14,31,11, 7		2,34,58,53,50	
		1,41,33,55,49,20,39,47		7,26
36″	35,19,55,19,41,17, 3,51,50,54		2,34,59, 1,16	
		1,41,33,53,14,21,38,31		7,26
38″	35,19,57, 1,15,10,18,13,29,25		2,34,59, 8,42	
		1,41,33,50,39,22,29,49		7,26
40″	35,19,58,42,49, 0,57,35,59,14		2,34,59,16, 8	
		1,41,33,48, 4,23,13,41		7,26
42″	35,20, 0,24,22,49, 1,59,12,55		2,34,59,23,34	
		1,41,33,45,29,23,50, 7		7,26
44″	35,20, 2, 5,56,34,31,23, 3, 2		2,34,59,31, 0	
		1,41,33,42,54,24,19, 7		7,26
46″	35,20, 3,47,30,17,25,47,22, 9		2,34,59,38,26	
		1,41,33,40,19,24,40,41		7,26
48″	35,20, 5,29, 3,57,45,12, 2,50		2,34,59,45,52	
		1,41,33,37,44,24,54,49		7,26
50″	35,20, 7,10,37,35,29,36,57,39		2,34,59,53,18	
		1,41,33,35, 9,25, 1,31		7,26
52″	35,20, 8,52,11,10,39, 1,59,10		2,35, 0, 0,44	
		1,41,33,32,34,25, 0,47		7,26
54″	35,20,10,33,44,43,13,26,59,57		2,35, 0, 8,10	
		1,41,33,29,59,24,52,37		7,26
56″	35,20,12,15,18,13,12,51,52,34		2,35, 0,15,36	
		1,41,33,27,24,24,37, 1		7,26
58″	35,20,13,56,51,40,37,16,29,35		2,35, 0,23, 2	
		1,41,33,24,49,24,13,59		
60″	35,20,15,38,25, 5,26,40,43,34			
exact	35,20,15,38,25, 5,26,41,11,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36° 5′ 0″	35,20,15,38,25, 5,26,41,11,49			
		1,41,33,22,14,23,46,42		
2″	35,20,17,19,58,27,41, 4,58,31		2,35, 0,37,40	
		1,41,33,19,39,23, 9, 2		7,25
4″	35,20,19, 1,31,47,20,28, 7,33		2,35, 0,45, 5	
		1,41,33,17, 4,22,23,57		7,25
6″	35,20,20,43, 5, 4,24,50,31,30		2,35, 0,52,30	
		1,41,33,14,29,21,31,27		7,25
8″	35,20,22,24,38,18,54,12, 2,57		2,35, 0,59,55	
		1,41,33,11,54,20,31,32		7,25
10″	35,20,24, 6,11,30,48,32,34,29		2,35, 1, 7,20	
		1,41,33, 9,19,19,24,12		7,25
12″	35,20,25,47,44,40, 7,51,58,41		2,35, 1,14,45	
		1,41,33, 6,44,18, 9,27		7,25
14″	35,20,27,29,17,46,52,10, 8, 8		2,35, 1,22,10	
		1,41,33, 4, 9,16,47,17		7,25
16″	35,20,29,10,50,51, 1,26,55,25		2,35, 1,29,35	
		1,41,33, 1,34,15,17,42		7,25
18″	35,20,30,52,23,52,35,42,13, 7		2,35, 1,37, 0	
		1,41,32,58,59,13,40,42		7,25
20″	35,20,32,33,56,51,34,55,53,49		2,35, 1,44,25	
		1,41,32,56,24,11,56,17		7,25
22″	35,20,34,15,29,47,59, 7,50, 6		2,35, 1,51,50	
		1,41,32,53,49,10, 4,27		7,25
24″	35,20,35,57, 2,41,48,17,54,33		2,35, 1,59,15	
		1,41,32,51,14, 8, 5,12		7,25
26″	35,20,37,38,35,33, 2,25,59,45		2,35, 2, 6,40	
		1,41,32,48,39, 5,58,32		7,25
28″	35,20,39,20, 8,21,41,31,58,17		2,35, 2,14, 5	
		1,41,32,46, 4, 3,44,27		7,25
30″	35,20,41, 1,41, 7,45,35,42,44		2,35, 2,21,30	
		1,41,32,43,29, 1,22,57		7,25
32″	35,20,42,43,13,51,14,37, 5,41		2,35, 2,28,55	
		1,41,32,40,53,58,54, 2		7,25
34″	35,20,44,24,46,32, 8,35,59,43		2,35, 2,36,20	
		1,41,32,38,18,56,17,42		7,25
36″	35,20,46, 6,19,10,27,32,17,25		2,35, 2,43,45	
		1,41,32,35,43,53,33,57		7,25
38″	35,20,47,47,51,46,11,25,51,22		2,35, 2,51,10	
		1,41,32,33, 8,50,42,47		7,25
40″	35,20,49,29,24,19,20,16,34, 9		2,35, 2,58,35	
		1,41,32,30,33,47,44,12		7,25
42″	35,20,51,10,56,49,54, 4,18,21		2,35, 3, 6, 0	
		1,41,32,27,58,44,38,12		7,25
44″	35,20,52,52,29,17,52,48,56,33		2,35, 3,13,25	
		1,41,32,25,23,41,24,47		7,25
46″	35,20,54,34, 1,43,16,30,21,20		2,35, 3,20,50	
		1,41,32,22,48,38, 3,57		7,25
48″	35,20,56,15,34, 6, 5, 8,25,17		2,35, 3,28,15	
		1,41,32,20,13,34,35,42		7,25
50″	35,20,57,57, 6,26,18,43, 0,59		2,35, 3,35,40	
		1,41,32,17,38,31, 0, 2		7,25
52″	35,20,59,38,38,43,57,14, 1, 1		2,35, 3,43, 5	
		1,41,32,15, 3,27,16,57		7,25
54″	35,21, 1,20,10,59, 0,41,17,58		2,35, 3,50,30	
		1,41,32,12,28,23,26,27		7,25
56″	35,21, 3, 1,43,11,29, 4,44,25		2,35, 3,57,55	
		1,41,32, 9,53,19,28,32		7,25
58″	35,21, 4,43,15,21,22,24,12,57		2,35, 4, 5,20	
		1,41,32, 7,18,15,23,12		
60″	35,21, 6,24,47,28,40,39,36, 9			
exact	35,21, 6,24,47,28,40,39, 5,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36° 6′ 0″	35,21, 6,24,47,28,40,39, 5,54			
		1,41,32, 4,43,11, 7,15		
2″	35,21, 8, 6,19,33,23,50,13, 9		2,35, 4,20,23	
		1,41,32, 2, 8, 6,46,52		7,25
4″	35,21, 9,47,51,35,31,57, 0, 1		2,35, 4,27,48	
		1,41,31,59,33, 2,19, 4		7,25
6″	35,21,11,29,23,35, 4,59,19, 5		2,35, 4,35,13	
		1,41,31,56,57,57,43,51		7,25
8″	35,21,13,10,55,32, 2,57, 2,56		2,35, 4,42,38	
		1,41,31,54,22,53, 1,13		7,25
10″	35,21,14,52,27,26,25,50, 4, 9		2,35, 4,50, 3	
		1,41,31,51,47,48,11,10		7,25
12″	35,21,16,33,59,18,13,38,15,19		2,35, 4,57,28	
		1,41,31,49,12,43,13,42		7,25
14″	35,21,18,15,31, 7,26,21,29, 1		2,35, 5, 4,53	
		1,41,31,46,37,38, 8,49		7,25
16″	35,21,19,57, 2,54, 3,59,37,50		2,35, 5,12,18	
		1,41,31,44, 2,32,56,31		7,25
18″	35,21,21,38,34,38, 6,32,34,21		2,35, 5,19,43	
		1,41,31,41,27,27,36,48		7,25
20″	35,21,23,20, 6,19,34, 0,11, 9		2,35, 5,27, 8	
		1,41,31,38,52,22, 9,40		7,25
22″	35,21,25, 1,37,58,26,22,20,49		2,35, 5,34,33	
		1,41,31,36,17,16,35, 7		7,25
24″	35,21,26,43, 9,34,43,38,55,56		2,35, 5,41,58	
		1,41,31,33,42,10,53, 9		7,25
26″	35,21,28,24,41, 8,25,49,49, 5		2,35, 5,49,23	
		1,41,31,31, 7, 5, 3,46		7,25
28″	35,21,30, 6,12,39,32,54,52,51		2,35, 5,56,48	
		1,41,31,28,31,59, 6,58		7,25
30″	35,21,31,47,44, 8, 4,53,59,49		2,35, 6, 4,13	
		1,41,31,25,56,53, 2,45		7,25
32″	35,21,33,29,15,34, 1,47, 2,34		2,35, 6,11,38	
		1,41,31,23,21,46,51, 7		7,25
34″	35,21,35,10,46,57,23,33,53,41		2,35, 6,19, 3	
		1,41,31,20,46,40,32, 4		7,25
36″	35,21,36,52,18,18,10,14,25,45		2,35, 6,26,28	
		1,41,31,18,11,34, 5,36		7,25
38″	35,21,38,33,49,36,21,48,31,21		2,35, 6,33,53	
		1,41,31,15,36,27,31,43		7,25
40″	35,21,40,15,20,51,58,16, 3, 4		2,35, 6,41,18	
		1,41,31,13, 1,20,50,25		7,25
42″	35,21,41,56,52, 4,59,36,53,29		2,35, 6,48,43	
		1,41,31,10,26,14, 1,42		7,25
44″	35,21,43,38,23,15,25,50,55,11		2,35, 6,56, 8	
		1,41,31, 7,51, 7, 5,34		7,25
46″	35,21,45,19,54,23,16,58, 0,45		2,35, 7, 3,33	
		1,41,31, 5,16, 0, 2, 1		7,25
48″	35,21,47, 1,25,28,32,58, 2,46		2,35, 7,10,58	
		1,41,31, 2,40,52,51, 3		7,25
50″	35,21,48,42,56,31,13,50,53,49		2,35, 7,18,23	
		1,41,31, 0, 5,45,32,40		7,25
52″	35,21,50,24,27,31,19,36,26,29		2,35, 7,25,48	
		1,41,30,57,30,38, 6,52		7,25
54″	35,21,52, 5,58,28,50,14,33,21		2,35, 7,33,13	
		1,41,30,54,55,30,33,39		7,25
56″	35,21,53,47,29,23,45,45, 7, 0		2,35, 7,40,38	
		1,41,30,52,20,22,53, 1		7,25
58″	35,21,55,29, 0,16, 6, 8, 0, 1		2,35, 7,48, 3	
		1,41,30,49,45,15, 4,58		
60″	35,21,57,10,31, 5,51,23, 4,59			
exact	35,21,57,10,31, 5,51,22,42,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36° 7′ 0″	35,21,57,10,31, 5,51,22,42,51			
		1,41,30,47,10, 7, 7, 6		
2″	35,21,58,52, 1,53, 1,29,49,57		2,35, 8, 3, 3	
		1,41,30,44,34,59, 4, 3		7,25
4″	35,22, 0,33,32,37,36,28,54, 0		2,35, 8,10,28	
		1,41,30,41,59,50,53,35		7,25
6″	35,22, 2,15, 3,19,36,19,47,35		2,35, 8,17,53	
		1,41,30,39,24,42,35,42		7,25
8″	35,22, 3,56,33,59, 1, 2,23,17		2,35, 8,25,18	
		1,41,30,36,49,34,10,24		7,25
10″	35,22, 5,38, 4,35,50,36,33,41		2,35, 8,32,43	
		1,41,30,34,14,25,37,41		7,25
12″	35,22, 7,19,35,10, 5, 2,11,22		2,35, 8,40, 8	
		1,41,30,31,39,16,57,33		7,25
14″	35,22, 9, 1, 5,41,44,19, 8,55		2,35, 8,47,33	
		1,41,30,29, 4, 8,10, 0		7,25
16″	35,22,10,42,36,10,48,27,18,55		2,35, 8,54,58	
		1,41,30,26,28,59,15, 2		7,25
18″	35,22,12,24, 6,37,17,26,33,57		2,35, 9, 2,23	
		1,41,30,23,53,50,12,39		7,25
20″	35,22,14, 5,37, 1,11,16,46,36		2,35, 9, 9,48	
		1,41,30,21,18,41, 2,51		7,25
22″	35,22,15,47, 7,22,29,57,49,27		2,35, 9,17,13	
		1,41,30,18,43,31,45,38		7,25
24″	35,22,17,28,37,41,13,29,35, 5		2,35, 9,24,38	
		1,41,30,16, 8,22,21, 0		7,25
26″	35,22,19,10, 7,57,21,51,56, 5		2,35, 9,32, 3	
		1,41,30,13,33,12,48,57		7,25
28″	35,22,20,51,38,10,55, 4,45, 2		2,35, 9,39,28	
		1,41,30,10,58, 3, 9,29		7,25
30″	35,22,22,33, 8,21,53, 7,54,31		2,35, 9,46,53	
		1,41,30, 8,22,53,22,36		7,25
32″	35,22,24,14,38,30,16, 1,17, 7		2,35, 9,54,18	
		1,41,30, 5,47,43,28,18		7,25
34″	35,22,25,56, 8,36, 3,44,45,25		2,35,10, 1,43	
		1,41,30, 3,12,33,26,35		7,25
36″	35,22,27,37,38,39,16,18,12, 0		2,35,10, 9, 8	
		1,41,30, 0,37,23,17,27		7,25
38″	35,22,29,19, 8,39,53,41,29,27		2,35,10,16,33	
		1,41,29,58, 2,13, 0,54		7,25
40″	35,22,31, 0,38,37,55,54,30,21		2,35,10,23,58	
		1,41,29,55,27, 2,36,56		7,25
42″	35,22,32,42, 8,33,22,57, 7,17		2,35,10,31,23	
		1,41,29,52,51,52, 5,33		7,25
44″	35,22,34,23,38,26,14,49,12,50		2,35,10,38,48	
		1,41,29,50,16,41,26,45		7,25
46″	35,22,36, 5, 8,16,31,30,39,35		2,35,10,46,13	
		1,41,29,47,41,30,40,32		7,25
48″	35,22,37,46,38, 4,13, 1,20, 7		2,35,10,53,38	
		1,41,29,45, 6,19,46,54		7,25
50″	35,22,39,28, 7,49,19,21, 7, 1		2,35,11, 1, 3	
		1,41,29,42,31, 8,45,51		7,25
52″	35,22,41, 9,37,31,50,29,52,52		2,35,11, 8,28	
		1,41,29,39,55,57,37,23		7,25
54″	35,22,42,51, 7,11,46,27,30,15		2,35,11,15,53	
		1,41,29,37,20,46,21,30		7,25
56″	35,22,44,32,36,49, 7,13,51,45		2,35,11,23,18	
		1,41,29,34,45,34,58,12		7,25
58″	35,22,46,14, 6,23,52,48,49,57		2,35,11,30,43	
		1,41,29,32,10,23,27,29		
60″	35,22,47,55,35,56, 3,12,17,26			
exact	35,22,47,55,35,56, 3,12, 1,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36° 8′ 0″	35,22,47,55,35,56, 3,12, 1,51			
		1,41,29,29,35,11,47,39		
2″	35,22,49,37, 5,25,38,23,49,30		2,35,11,45,40	
		1,41,29,27, 0, 0, 1,59		7,25
4″	35,22,51,18,34,52,38,23,51,29		2,35,11,53, 5	
		1,41,29,24,24,48, 8,54		7,25
6″	35,22,53, 0, 4,17, 3,12, 0,23		2,35,12, 0,30	
		1,41,29,21,49,36, 8,24		7,25
8″	35,22,54,41,33,38,52,48, 8,47		2,35,12, 7,55	
		1,41,29,19,14,24, 0,29		7,25
10″	35,22,56,23, 2,58, 7,12, 9,16		2,35,12,15,20	
		1,41,29,16,39,11,45, 9		7,25
12″	35,22,58, 4,32,14,46,23,54,25		2,35,12,22,45	
		1,41,29,14, 3,59,22,24		7,25
14″	35,22,59,46, 1,28,50,23,16,49		2,35,12,30,10	
		1,41,29,11,28,46,52,14		7,25
16″	35,23, 1,27,30,40,19,10, 9, 3		2,35,12,37,35	
		1,41,29, 8,53,34,14,39		7,25
18″	35,23, 3, 8,59,49,12,44,23,42		2,35,12,45, 0	
		1,41,29, 6,18,21,29,39		7,25
20″	35,23, 4,50,28,55,31, 5,53,21		2,35,12,52,25	
		1,41,29, 3,43, 8,37,14		7,25
22″	35,23, 6,31,57,59,14,14,30,35		2,35,12,59,50	
		1,41,29, 1, 7,55,37,24		7,25
24″	35,23, 8,13,27, 0,22,10, 7,59		2,35,13, 7,15	
		1,41,28,58,32,42,30, 9		7,25
26″	35,23, 9,54,55,58,54,52,38, 8		2,35,13,14,40	
		1,41,28,55,57,29,15,29		7,25
28″	35,23,11,36,24,54,52,21,53,37		2,35,13,22, 5	
		1,41,28,53,22,15,53,24		7,25
30″	35,23,13,17,53,48,14,37,47, 1		2,35,13,29,30	
		1,41,28,50,47, 2,23,54		7,25
32″	35,23,14,59,22,39, 1,40,10,55		2,35,13,36,55	
		1,41,28,48,11,48,46,59		7,25
34″	35,23,16,40,51,27,13,28,57,54		2,35,13,44,20	
		1,41,28,45,36,35, 2,39		7,25
36″	35,23,18,22,20,12,50, 4, 0,33		2,35,13,51,45	
		1,41,28,43, 1,21,10,54		7,25
38″	35,23,20, 3,48,55,51,25,11,27		2,35,13,59,10	
		1,41,28,40,26, 7,11,44		7,25
40″	35,23,21,45,17,36,17,32,23,11		2,35,14, 6,35	
		1,41,28,37,50,53, 5, 9		7,25
42″	35,23,23,26,46,14, 8,25,28,20		2,35,14,14, 0	
		1,41,28,35,15,38,51, 9		7,25
44″	35,23,25, 8,14,49,24, 4,19,29		2,35,14,21,25	
		1,41,28,32,40,24,29,44		7,25
46″	35,23,26,49,43,22, 4,28,49,13		2,35,14,28,50	
		1,41,28,30, 5,10, 0,54		7,25
48″	35,23,28,31,11,52, 9,38,50, 7		2,35,14,36,15	
		1,41,28,27,29,55,24,39		7,25
50″	35,23,30,12,40,19,39,34,14,46		2,35,14,43,40	
		1,41,28,24,54,40,40,59		7,25
52″	35,23,31,54, 8,44,34,14,55,45		2,35,14,51, 5	
		1,41,28,22,19,25,49,54		7,25
54″	35,23,33,35,37, 6,53,40,45,39		2,35,14,58,30	
		1,41,28,19,44,10,51,24		7,25
56″	35,23,35,17, 5,26,37,51,37, 3		2,35,15, 5,55	
		1,41,28,17, 8,55,45,29		7,25
58″	35,23,36,58,33,43,46,47,22,32		2,35,15,13,20	
		1,41,28,14,33,40,32, 9		
60″	35,23,38,40, 1,58,20,27,54,41			
exact	35,23,38,40, 1,58,20,27,44,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36° 9′ 0″	35,23,38,40, 1,58,20,27,44,39			
		1,41,28,11,58,25,10,20		
2″	35,23,40,21,30,10,18,52,54,59		2,35,15,28,14	
		1,41,28, 9,23, 9,42, 6		7,25
4″	35,23,42, 2,58,19,42, 2,37, 5		2,35,15,35,39	
		1,41,28, 6,47,54, 6,27		7,25
6″	35,23,43,44,26,26,29,56,43,32		2,35,15,43, 4	
		1,41,28, 4,12,38,23,23		7,25
8″	35,23,45,25,54,30,42,35, 6,55		2,35,15,50,29	
		1,41,28, 1,37,22,32,54		7,25
10″	35,23,47, 7,22,32,19,57,39,49		2,35,15,57,54	
		1,41,27,59, 2, 6,35, 0		7,25
12″	35,23,48,48,50,31,22, 4,14,49		2,35,16, 5,19	
		1,41,27,56,26,50,29,41		7,25
14″	35,23,50,30,18,27,48,54,44,30		2,35,16,12,44	
		1,41,27,53,51,34,16,57		7,25
16″	35,23,52,11,46,21,40,29, 1,27		2,35,16,20, 9	
		1,41,27,51,16,17,56,48		7,25
18″	35,23,53,53,14,12,56,46,58,15		2,35,16,27,34	
		1,41,27,48,41, 1,29,14		7,25
20″	35,23,55,34,42, 1,37,48,27,29		2,35,16,34,59	
		1,41,27,46, 5,44,54,15		7,25
22″	35,23,57,16, 9,47,43,33,21,44		2,35,16,42,24	
		1,41,27,43,30,28,11,51		7,25
24″	35,23,58,57,37,31,14, 1,33,35		2,35,16,49,49	
		1,41,27,40,55,11,22, 2		7,25
26″	35,24, 0,39, 5,12, 9,12,55,37		2,35,16,57,14	
		1,41,27,38,19,54,24,48		7,25
28″	35,24, 2,20,32,50,29, 7,20,25		2,35,17, 4,39	
		1,41,27,35,44,37,20, 9		7,25
30″	35,24, 4, 2, 0,26,13,44,40,34		2,35,17,12, 4	
		1,41,27,33, 9,20, 8, 5		7,25
32″	35,24, 5,43,27,59,23, 4,48,39		2,35,17,19,29	
		1,41,27,30,34, 2,48,36		7,25
34″	35,24, 7,24,55,29,57, 7,37,15		2,35,17,26,54	
		1,41,27,27,58,45,21,42		7,25
36″	35,24, 9, 6,22,57,55,52,58,57		2,35,17,34,19	
		1,41,27,25,23,27,47,23		7,25
38″	35,24,10,47,50,23,19,20,46,20		2,35,17,41,44	
		1,41,27,22,48,10, 5,39		7,25
40″	35,24,12,29,17,46, 7,30,51,59		2,35,17,49, 9	
		1,41,27,20,12,52,16,30		7,25
42″	35,24,14,10,45, 6,20,23, 8,29		2,35,17,56,34	
		1,41,27,17,37,34,19,56		7,25
44″	35,24,15,52,12,23,57,57,28,25		2,35,18, 3,59	
		1,41,27,15, 2,16,15,57		7,25
46″	35,24,17,33,39,39, 0,13,44,22		2,35,18,11,24	
		1,41,27,12,26,58, 4,33		7,25
48″	35,24,19,15, 6,51,27,11,48,55		2,35,18,18,49	
		1,41,27, 9,51,39,45,44		7,25
50″	35,24,20,56,34, 1,18,51,34,39		2,35,18,26,14	
		1,41,27, 7,16,21,19,30		7,25
52″	35,24,22,38, 1, 8,35,12,54, 9		2,35,18,33,39	
		1,41,27, 4,41, 2,45,51		7,25
54″	35,24,24,19,28,13,16,15,40, 0		2,35,18,41, 4	
		1,41,27, 2, 5,44, 4,47		7,25
56″	35,24,26, 0,55,15,21,59,44,47		2,35,18,48,29	
		1,41,26,59,30,25,16,18		7,25
58″	35,24,27,42,22,14,52,25, 1, 5		2,35,18,55,54	
		1,41,26,56,55, 6,20,24		
60″	35,24,29,23,49,11,47,31,21,29			
exact	35,24,29,23,49,11,47,31,15,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°10′ 0″	35,24,29,23,49,11,47,31,15,29			
		1,41,26,54,19,47,16,33		
2″	35,24,31, 5,16, 6, 7,18,32, 2		2,35,19,10,46	
		1,41,26,51,44,28, 5,47		7,25
4″	35,24,32,46,42,57,51,46,37,49		2,35,19,18,11	
		1,41,26,49, 9, 8,47,36		7,25
6″	35,24,34,28, 9,47, 0,55,25,25		2,35,19,25,36	
		1,41,26,46,33,49,22, 0		7,25
8″	35,24,36, 9,36,33,34,44,47,25		2,35,19,33, 1	
		1,41,26,43,58,29,48,59		7,25
10″	35,24,37,51, 3,17,33,14,36,24		2,35,19,40,26	
		1,41,26,41,23,10, 8,33		7,25
12″	35,24,39,32,29,58,56,24,44,57		2,35,19,47,51	
		1,41,26,38,47,50,20,42		7,25
14″	35,24,41,13,56,37,44,15, 5,39		2,35,19,55,16	
		1,41,26,36,12,30,25,26		7,25
16″	35,24,42,55,23,13,56,45,31, 5		2,35,20, 2,41	
		1,41,26,33,37,10,22,45		7,25
18″	35,24,44,36,49,47,33,55,53,50		2,35,20,10, 6	
		1,41,26,31, 1,50,12,39		7,25
20″	35,24,46,18,16,18,35,46, 6,29		2,35,20,17,31	
		1,41,26,28,26,29,55, 8		7,25
22″	35,24,47,59,42,47, 2,16, 1,37		2,35,20,24,56	
		1,41,26,25,51, 9,30,12		7,25
24″	35,24,49,41, 9,12,53,25,31,49		2,35,20,32,21	
		1,41,26,23,15,48,57,51		7,25
26″	35,24,51,22,35,36, 9,14,29,40		2,35,20,39,46	
		1,41,26,20,40,28,18, 5		7,25
28″	35,24,53, 4, 1,56,49,42,47,45		2,35,20,47,11	
		1,41,26,18, 5, 7,30,54		7,25
30″	35,24,54,45,28,14,54,50,18,39		2,35,20,54,36	
		1,41,26,15,29,46,36,18		7,25
32″	35,24,56,26,54,30,24,36,54,57		2,35,21, 2, 1	
		1,41,26,12,54,25,34,17		7,25
34″	35,24,58, 8,20,43,19, 2,29,14		2,35,21, 9,26	
		1,41,26,10,19, 4,24,51		7,25
36″	35,24,59,49,46,53,38, 6,54, 5		2,35,21,16,51	
		1,41,26, 7,43,43, 8, 0		7,25
38″	35,25, 1,31,13, 1,21,50, 2, 5		2,35,21,24,16	
		1,41,26, 5, 8,21,43,44		7,25
40″	35,25, 3,12,39, 6,30,11,45,49		2,35,21,31,41	
		1,41,26, 2,33, 0,12, 3		7,25
42″	35,25, 4,54, 5, 9, 3,11,57,52		2,35,21,39, 6	
		1,41,25,59,57,38,32,57		7,25
44″	35,25, 6,35,31, 9, 0,50,30,49		2,35,21,46,31	
		1,41,25,57,22,16,46,26		7,25
46″	35,25, 8,16,57, 6,23, 7,17,15		2,35,21,53,56	
		1,41,25,54,46,54,52,30		7,25
48″	35,25, 9,58,23, 1,10, 2, 9,45		2,35,22, 1,21	
		1,41,25,52,11,32,51, 9		7,25
50″	35,25,11,39,48,53,21,35, 0,54		2,35,22, 8,46	
		1,41,25,49,36,10,42,23		7,25
52″	35,25,13,21,14,42,57,45,43,17		2,35,22,16,11	
		1,41,25,47, 0,48,26,12		7,25
54″	35,25,15, 2,40,29,58,34, 9,29		2,35,22,23,36	
		1,41,25,44,25,26, 2,36		7,25
56″	35,25,16,44, 6,14,24, 0,12, 5		2,35,22,31, 1	
		1,41,25,41,50, 3,31,35		7,25
58″	35,25,18,25,31,56,14, 3,43,40		2,35,22,38,26	
		1,41,25,39,14,40,53, 9		
60″	35,25,20, 6,57,35,28,44,36,49			
exact	35,25,20, 6,57,35,28,44,41,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°11′ 0″	35,25,20, 6,57,35,28,44,41,14			
		1,41,25,36,39,18, 7,43		
2″	35,25,21,48,23,12, 8, 2,48,57		2,35,22,53,14	
		1,41,25,34, 3,55,14,29		7,25
4″	35,25,23,29,48,46,11,58, 3,26		2,35,23, 0,39	
		1,41,25,31,28,32,13,50		7,25
6″	35,25,25,11,14,17,40,30,17,16		2,35,23, 8, 4	
		1,41,25,28,53, 9, 5,46		7,25
8″	35,25,26,52,39,46,33,39,23, 2		2,35,23,15,29	
		1,41,25,26,17,45,50,17		7,25
10″	35,25,28,34, 5,12,51,25,13,19		2,35,23,22,54	
		1,41,25,23,42,22,27,23		7,25
12″	35,25,30,15,30,36,33,47,40,42		2,35,23,30,19	
		1,41,25,21, 6,58,57, 4		7,25
14″	35,25,31,56,55,57,40,46,37,46		2,35,23,37,44	
		1,41,25,18,31,35,19,20		7,25
16″	35,25,33,38,21,16,12,21,57, 6		2,35,23,45, 9	
		1,41,25,15,56,11,34,11		7,25
18″	35,25,35,19,46,32, 8,33,31,17		2,35,23,52,34	
		1,41,25,13,20,47,41,37		7,25
20″	35,25,37, 1,11,45,29,21,12,54		2,35,23,59,59	
		1,41,25,10,45,23,41,38		7,25
22″	35,25,38,42,36,56,14,44,54,32		2,35,24, 7,24	
		1,41,25, 8, 9,59,34,14		7,25
24″	35,25,40,24, 2, 4,24,44,28,46		2,35,24,14,49	
		1,41,25, 5,34,35,19,25		7,25
26″	35,25,42, 5,27, 9,59,19,48,11		2,35,24,22,14	
		1,41,25, 2,59,10,57,11		7,25
28″	35,25,43,46,52,12,58,30,45,22		2,35,24,29,39	
		1,41,25, 0,23,46,27,32		7,25
30″	35,25,45,28,17,13,22,17,12,54		2,35,24,37, 4	
		1,41,24,57,48,21,50,28		7,25
32″	35,25,47, 9,42,11,10,39, 3,22		2,35,24,44,29	
		1,41,24,55,12,57, 5,59		7,25
34″	35,25,48,51, 7, 6,23,36, 9,21		2,35,24,51,54	
		1,41,24,52,37,32,14, 5		7,25
36″	35,25,50,32,31,59, 1, 8,23,26		2,35,24,59,19	
		1,41,24,50, 2, 7,14,46		7,25
38″	35,25,52,13,56,49, 3,15,38,12		2,35,25, 6,44	
		1,41,24,47,26,42, 8, 2		7,25
40″	35,25,53,55,21,36,29,57,46,14		2,35,25,14, 9	
		1,41,24,44,51,16,53,53		7,25
42″	35,25,55,36,46,21,21,14,40, 7		2,35,25,21,34	
		1,41,24,42,15,51,32,19		7,25
44″	35,25,57,18,11, 3,37, 6,12,26		2,35,25,28,59	
		1,41,24,39,40,26, 3,20		7,25
46″	35,25,58,59,35,43,17,32,15,46		2,35,25,36,24	
		1,41,24,37, 5, 0,26,56		7,25
48″	35,26, 0,41, 0,20,22,32,42,42		2,35,25,43,49	
		1,41,24,34,29,34,43, 7		7,25
50″	35,26, 2,22,24,54,52, 7,25,49		2,35,25,51,14	
		1,41,24,31,54, 8,51,53		7,25
52″	35,26, 4, 3,49,26,46,16,17,42		2,35,25,58,39	
		1,41,24,29,18,42,53,14		7,25
54″	35,26, 5,45,13,56, 4,59,10,56		2,35,26, 6, 4	
		1,41,24,26,43,16,47,10		7,25
56″	35,26, 7,26,38,22,48,15,58, 6		2,35,26,13,29	
		1,41,24,24, 7,50,33,41		7,25
58″	35,26, 9, 8, 2,46,56, 6,31,47		2,35,26,20,54	
		1,41,24,21,32,24,12,47		
60″	35,26,10,49,27, 8,28,30,44,34			
exact	35,26,10,49,27, 8,28,30,51,17			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
36°12′	0″	35,26,10,49,27, 8,28,30,51,17	1,41,24,18,56,57,45,17		
	2″	35,26,12,30,51,27,25,28,36,34	1,41,24,16,21,31, 9,37	2,35,26,35,40	7,25
	4″	35,26,14,12,15,43,46,59,46,11	1,41,24,13,46, 4,26,32	2,35,26,43, 5	7,25
	6″	35,26,15,53,39,57,33, 4,12,43	1,41,24,11,10,37,36, 2	2,35,26,50,30	7,25
	8″	35,26,17,35, 4, 8,43,41,48,45	1,41,24, 8,35,10,38, 7	2,35,26,57,55	7,25
	10″	35,26,19,16,28,17,18,52,26,52	1,41,24, 5,59,43,32,47	2,35,27, 5,20	7,25
	12″	35,26,20,57,52,23,18,35,59,39	1,41,24, 3,24,16,20, 2	2,35,27,12,45	7,25
	14″	35,26,22,39,16,26,42,52,19,41	1,41,24, 0,48,48,59,52	2,35,27,20,10	7,25
	16″	35,26,24,20,40,27,31,41,19,33	1,41,23,58,13,21,32,17	2,35,27,27,35	7,25
	18″	35,26,26, 2, 4,25,45, 2,51,50	1,41,23,55,37,53,57,17	2,35,27,35, 0	7,25
	20″	35,26,27,43,28,21,22,56,49, 7	1,41,23,53, 2,26,14,52	2,35,27,42,25	7,25
	22″	35,26,29,24,52,14,25,23, 3,59	1,41,23,50,26,58,25, 2	2,35,27,49,50	7,25
	24″	35,26,31, 6,16, 4,52,21,29, 1	1,41,23,47,51,30,27,47	2,35,27,57,15	7,25
	26″	35,26,32,47,39,52,43,51,56,48	1,41,23,45,16, 2,23, 7	2,35,28, 4,40	7,25
	28″	35,26,34,29, 3,37,59,54,19,55	1,41,23,42,40,34,11, 2	2,35,28,12, 5	7,25
	30″	35,26,36,10,27,20,40,28,30,57	1,41,23,40, 5, 5,51,32	2,35,28,19,30	7,25
	32″	35,26,37,51,51, 0,45,34,22,29	1,41,23,37,29,37,24,37	2,35,28,26,55	7,25
	34″	35,26,39,33,14,38,15,11,47, 6	1,41,23,34,54, 8,50,17	2,35,28,34,20	7,25
	36″	35,26,41,14,38,13, 9,20,37,23	1,41,23,32,18,40, 8,32	2,35,28,41,45	7,25
	38″	35,26,42,56, 1,45,28, 0,45,55	1,41,23,29,43,11,19,22	2,35,28,49,10	7,25
	40″	35,26,44,37,25,15,11,12, 5,17	1,41,23,27, 7,42,22,47	2,35,28,56,35	7,25
	42″	35,26,46,18,48,42,18,54,28, 4	1,41,23,24,32,13,18,47	2,35,29, 4, 0	7,25
	44″	35,26,48, 0,12, 6,51, 7,46,51	1,41,23,21,56,44, 7,22	2,35,29,11,25	7,25
	46″	35,26,49,41,35,28,47,51,54,13	1,41,23,19,21,14,48,32	2,35,29,18,50	7,25
	48″	35,26,51,22,58,48, 9, 6,42,45	1,41,23,16,45,45,22,17	2,35,29,26,15	7,25
	50″	35,26,53, 4,22, 4,54,52, 5, 2	1,41,23,14,10,15,48,37	2,35,29,33,40	7,25
	52″	35,26,54,45,45,19, 5, 7,53,39	1,41,23,11,34,46, 7,32	2,35,29,41, 5	7,25
	54″	35,26,56,27, 8,30,39,54, 1,11	1,41,23, 8,59,16,19, 2	2,35,29,48,30	7,25
	56″	35,26,58, 8,31,39,39,10,20,13	1,41,23, 6,23,46,23, 7	2,35,29,55,55	7,25
	58″	35,26,59,49,54,46, 2,56,43,20	1,41,23, 3,48,16,19,47	2,35,30, 3,20	
	60″	35,27, 1,31,17,49,51,13, 3, 7			
exact		35,27, 1,31,17,49,51,13,17,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°13′ 0″	35,27, 1,31,17,49,51,13,17,41			
		1,41,23, 1,12,46,10,39		
2″	35,27, 3,12,40,51, 3,59,28,20		2,35,30,18, 3	
		1,41,22,58,37,15,52,36		7,25
4″	35,27, 4,54, 3,49,41,15,20,56		2,35,30,25,28	
		1,41,22,56, 1,45,27, 8		7,25
6″	35,27, 6,35,26,45,43, 0,48, 4		2,35,30,32,53	
		1,41,22,53,26,14,54,15		7,25
8″	35,27, 8,16,49,39, 9,15,42,19		2,35,30,40,18	
		1,41,22,50,50,44,13,57		7,25
10″	35,27, 9,58,12,29,59,59,56,16		2,35,30,47,43	
		1,41,22,48,15,13,26,14		7,25
12″	35,27,11,39,35,18,15,13,22,30		2,35,30,55, 8	
		1,41,22,45,39,42,31, 6		7,25
14″	35,27,13,20,58, 3,54,55,53,36		2,35,31, 2,33	
		1,41,22,43, 4,11,28,33		7,25
16″	35,27,15, 2,20,46,59, 7,22, 9		2,35,31, 9,58	
		1,41,22,40,28,40,18,35		7,25
18″	35,27,16,43,43,27,27,47,40,44		2,35,31,17,23	
		1,41,22,37,53, 9, 1,12		7,25
20″	35,27,18,25, 6, 5,20,56,41,56		2,35,31,24,48	
		1,41,22,35,17,37,36,24		7,25
22″	35,27,20, 6,28,40,38,34,18,20		2,35,31,32,13	
		1,41,22,32,42, 6, 4,11		7,25
24″	35,27,21,47,51,13,20,40,22,31		2,35,31,39,38	
		1,41,22,30, 6,34,24,33		7,25
26″	35,27,23,29,13,43,27,14,47, 4		2,35,31,47, 3	
		1,41,22,27,31, 2,37,30		7,25
28″	35,27,25,10,36,10,58,17,24,34		2,35,31,54,28	
		1,41,22,24,55,30,43, 2		7,25
30″	35,27,26,51,58,35,53,48, 7,36		2,35,32, 1,53	
		1,41,22,22,19,58,41, 9		7,25
32″	35,27,28,33,20,58,13,46,48,45		2,35,32, 9,18	
		1,41,22,19,44,26,31,51		7,25
34″	35,27,30,14,43,17,58,13,20,36		2,35,32,16,43	
		1,41,22,17, 8,54,15, 8		7,25
36″	35,27,31,56, 5,35, 7, 7,35,44		2,35,32,24, 8	
		1,41,22,14,33,21,51, 0		7,25
38″	35,27,33,37,27,49,40,29,26,44		2,35,32,31,33	
		1,41,22,11,57,49,19,27		7,25
40″	35,27,35,18,50, 1,38,18,46,11		2,35,32,38,58	
		1,41,22, 9,22,16,40,29		7,25
42″	35,27,37, 0,12,11, 0,35,26,40		2,35,32,46,23	
		1,41,22, 6,46,43,54, 6		7,25
44″	35,27,38,41,34,17,47,19,20,46		2,35,32,53,48	
		1,41,22, 4,11,11, 0,18		7,25
46″	35,27,40,22,56,21,58,30,21, 4		2,35,33, 1,13	
		1,41,22, 1,35,37,59, 5		7,25
48″	35,27,42, 4,18,23,34, 8,20, 9		2,35,33, 8,38	
		1,41,21,59, 0, 4,50,27		7,25
50″	35,27,43,45,40,22,34,13,10,36		2,35,33,16, 3	
		1,41,21,56,24,31,34,24		7,25
52″	35,27,45,27, 2,18,58,44,45, 0		2,35,33,23,28	
		1,41,21,53,48,58,10,56		7,25
54″	35,27,47, 8,24,12,47,42,55,56		2,35,33,30,53	
		1,41,21,51,13,24,40, 3		7,25
56″	35,27,48,49,46, 4, 1, 7,35,59		2,35,33,38,18	
		1,41,21,48,37,51, 1,45		7,25
58″	35,27,50,31, 7,52,38,58,37,44		2,35,33,45,43	
		1,41,21,46, 2,17,16, 2		
60″	35,27,52,12,29,38,41,15,53,46			
exact	35,27,52,12,29,38,41,16,15, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°14′ 0″	35,27,52,12,29,38,41,16,15, 4			
		1,41,21,43,26,43,25,14		
2″	35,27,53,53,51,22, 7,59,40,18		2,35,34, 0,23	
		1,41,21,40,51, 9,24,51		7,25
4″	35,27,55,35,13, 2,59, 9, 5, 9		2,35,34, 7,48	
		1,41,21,38,15,35,17, 3		7,25
6″	35,27,57,16,34,41,14,44,22,12		2,35,34,15,13	
		1,41,21,35,40, 1, 1,50		7,25
8″	35,27,58,57,56,16,54,45,24, 2		2,35,34,22,38	
		1,41,21,33, 4,26,39,12		7,25
10″	35,28, 0,39,17,49,59,12, 3,14		2,35,34,30, 3	
		1,41,21,30,28,52, 9, 9		7,25
12″	35,28, 2,20,39,20,28, 4,12,23		2,35,34,37,28	
		1,41,21,27,53,17,31,41		7,25
14″	35,28, 4, 2, 0,48,21,21,44, 4		2,35,34,44,53	
		1,41,21,25,17,42,46,48		7,25
16″	35,28, 5,43,22,13,39, 4,30,52		2,35,34,52,18	
		1,41,21,22,42, 7,54,30		7,25
18″	35,28, 7,24,43,36,21,12,25,22		2,35,34,59,43	
		1,41,21,20, 6,32,54,47		7,25
20″	35,28, 9, 6, 4,56,27,45,20, 9		2,35,35, 7, 8	
		1,41,21,17,30,57,47,39		7,25
22″	35,28,10,47,26,13,58,43, 7,48		2,35,35,14,33	
		1,41,21,14,55,22,33, 6		7,25
24″	35,28,12,28,47,28,54, 5,40,54		2,35,35,21,58	
		1,41,21,12,19,47,11, 8		7,25
26″	35,28,14,10, 8,41,13,52,52, 2		2,35,35,29,23	
		1,41,21, 9,44,11,41,45		7,25
28″	35,28,15,51,29,50,58, 4,33,47		2,35,35,36,48	
		1,41,21, 7, 8,36, 4,57		7,25
30″	35,28,17,32,50,58, 6,40,38,44		2,35,35,44,13	
		1,41,21, 4,33, 0,20,44		7,25
32″	35,28,19,14,12, 2,39,40,59,28		2,35,35,51,38	
		1,41,21, 1,57,24,29, 6		7,25
34″	35,28,20,55,33, 4,37, 5,28,34		2,35,35,59, 3	
		1,41,20,59,21,48,30, 3		7,25
36″	35,28,22,36,54, 3,58,53,58,37		2,35,36, 6,28	
		1,41,20,56,46,12,23,35		7,25
38″	35,28,24,18,15, 0,45, 6,22,12		2,35,36,13,53	
		1,41,20,54,10,36, 9,42		7,25
40″	35,28,25,59,35,54,55,42,31,54		2,35,36,21,18	
		1,41,20,51,34,59,48,24		7,25
42″	35,28,27,40,56,46,30,42,20,18		2,35,36,28,43	
		1,41,20,48,59,23,19,41		7,25
44″	35,28,29,22,17,35,30, 5,39,59		2,35,36,36, 8	
		1,41,20,46,23,46,43,33		7,25
46″	35,28,31, 3,38,21,53,52,23,32		2,35,36,43,33	
		1,41,20,43,48,10, 0, 0		7,25
48″	35,28,32,44,59, 5,42, 2,23,32		2,35,36,50,58	
		1,41,20,41,12,33, 9, 2		7,25
50″	35,28,34,26,19,46,54,35,32,34		2,35,36,58,23	
		1,41,20,38,36,56,10,39		7,25
52″	35,28,36, 7,40,25,31,31,43,13		2,35,37, 5,48	
		1,41,20,36, 1,19, 4,51		7,25
54″	35,28,37,49, 1, 1,32,50,48, 4		2,35,37,13,13	
		1,41,20,33,25,41,51,38		7,25
56″	35,28,39,30,21,34,58,32,39,42		2,35,37,20,38	
		1,41,20,30,50, 4,31, 0		7,25
58″	35,28,41,11,42, 5,48,37,10,42		2,35,37,28, 3	
		1,41,20,28,14,27, 2,57		
60″	35,28,42,53, 2,34, 3, 4,13,39			
exact	35,28,42,53, 2,34, 3, 4,40,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°15′ 0″	35,28,42,53, 2,34, 3, 4,40,40			
		1,41,20,25,38,49,30,27		
2″	35,28,44,34,22,59,41,54,11, 7		2,35,37,42,40	
		1,41,20,23, 3,11,47,47		7,25
4″	35,28,46,15,43,22,45, 5,58,54		2,35,37,50, 5	
		1,41,20,20,27,33,57,42		7,25
6″	35,28,47,57, 3,43,12,39,56,36		2,35,37,57,30	
		1,41,20,17,51,56, 0,12		7,25
8″	35,28,49,38,24, 1, 4,35,56,48		2,35,38, 4,55	
		1,41,20,15,16,17,55,17		7,25
10″	35,28,51,19,44,16,20,53,52, 5		2,35,38,12,20	
		1,41,20,12,40,39,42,57		7,25
12″	35,28,53, 1, 4,29, 1,33,35, 2		2,35,38,19,45	
		1,41,20,10, 5, 1,23,12		7,25
14″	35,28,54,42,24,39, 6,34,58,14		2,35,38,27,10	
		1,41,20, 7,29,22,56, 2		7,25
16″	35,28,56,23,44,46,35,57,54,16		2,35,38,34,35	
		1,41,20, 4,53,44,21,27		7,25
18″	35,28,58, 5, 4,51,29,42,15,43		2,35,38,42, 0	
		1,41,20, 2,18, 5,39,27		7,25
20″	35,28,59,46,24,53,47,47,55,10		2,35,38,49,25	
		1,41,19,59,42,26,50, 2		7,25
22″	35,29, 1,27,44,53,30,14,45,12		2,35,38,56,50	
		1,41,19,57, 6,47,53,12		7,25
24″	35,29, 3, 9, 4,50,37, 2,38,24		2,35,39, 4,15	
		1,41,19,54,31, 8,48,57		7,25
26″	35,29, 4,50,24,45, 8,11,27,21		2,35,39,11,40	
		1,41,19,51,55,29,37,17		7,25
28″	35,29, 6,31,44,37, 3,41, 4,38		2,35,39,19, 5	
		1,41,19,49,19,50,18,12		7,25
30″	35,29, 8,13, 4,26,23,31,22,50		2,35,39,26,30	
		1,41,19,46,44,10,51,42		7,25
32″	35,29, 9,54,24,13, 7,42,14,32		2,35,39,33,55	
		1,41,19,44, 8,31,17,47		7,25
34″	35,29,11,35,43,57,16,13,32,19		2,35,39,41,20	
		1,41,19,41,32,51,36,27		7,25
36″	35,29,13,17, 3,38,49, 5, 8,46		2,35,39,48,45	
		1,41,19,38,57,11,47,42		7,25
38″	35,29,14,58,23,17,46,16,56,28		2,35,39,56,10	
		1,41,19,36,21,31,51,32		7,25
40″	35,29,16,39,42,54, 7,48,48, 0		2,35,40, 3,35	
		1,41,19,33,45,51,47,57		7,25
42″	35,29,18,21, 2,27,53,40,35,57		2,35,40,11, 0	
		1,41,19,31,10,11,36,57		7,25
44″	35,29,20, 2,21,59, 3,52,12,54		2,35,40,18,25	
		1,41,19,28,34,31,18,32		7,25
46″	35,29,21,43,41,27,38,23,31,26		2,35,40,25,50	
		1,41,19,25,58,50,52,42		7,25
48″	35,29,23,25, 0,53,37,14,24, 8		2,35,40,33,15	
		1,41,19,23,23,10,19,27		7,25
50″	35,29,25, 6,20,17, 0,24,43,35		2,35,40,40,40	
		1,41,19,20,47,29,38,47		7,25
52″	35,29,26,47,39,37,47,54,22,22		2,35,40,48, 5	
		1,41,19,18,11,48,50,42		7,25
54″	35,29,28,28,58,55,59,43,13, 4		2,35,40,55,30	
		1,41,19,15,36, 7,55,12		7,25
56″	35,29,30,10,18,11,35,51, 8,16		2,35,41, 2,55	
		1,41,19,13, 0,26,52,17		7,25
58″	35,29,31,51,37,24,36,18, 0,33		2,35,41,10,20	
		1,41,19,10,24,45,41,57		
60″	35,29,33,32,56,35, 1, 3,42,30			
exact	35,29,33,32,56,35, 1, 4,14,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°16′ 0″	35,29,33,32,56,35, 1, 4,14,26			
		1,41,19, 7,49, 4,27,44		
2″	35,29,35,14,15,42,50, 8,42,10		2,35,41,24,55	
		1,41,19, 5,13,23, 2,49		7,24
4″	35,29,36,55,34,48, 3,31,44,59		2,35,41,32,19	
		1,41,19, 2,37,41,30,30		7,24
6″	35,29,38,36,53,50,41,13,15,29		2,35,41,39,43	
		1,41,19, 0, 1,59,50,47		7,24
8″	35,29,40,18,12,50,43,13, 6,16		2,35,41,47, 7	
		1,41,18,57,26,18, 3,40		7,24
10″	35,29,41,59,31,48, 9,31, 9,56		2,35,41,54,31	
		1,41,18,54,50,36, 9, 9		7,24
12″	35,29,43,40,50,43, 0, 7,19, 5		2,35,42, 1,55	
		1,41,18,52,14,54, 7,14		7,24
14″	35,29,45,22, 9,35,15, 1,26,19		2,35,42, 9,19	
		1,41,18,49,39,11,57,55		7,24
16″	35,29,47, 3,28,24,54,13,24,14		2,35,42,16,43	
		1,41,18,47, 3,29,41,12		7,24
18″	35,29,48,44,47,11,57,43, 5,26		2,35,42,24, 7	
		1,41,18,44,27,47,17, 5		7,24
20″	35,29,50,26, 5,56,25,30,22,31		2,35,42,31,31	
		1,41,18,41,52, 4,45,34		7,24
22″	35,29,52, 7,24,38,17,35, 8, 5		2,35,42,38,55	
		1,41,18,39,16,22, 6,39		7,24
24″	35,29,53,48,43,17,33,57,14,44		2,35,42,46,19	
		1,41,18,36,40,39,20,20		7,24
26″	35,29,55,30, 1,54,14,36,35, 4		2,35,42,53,43	
		1,41,18,34, 4,56,26,37		7,24
28″	35,29,57,11,20,28,19,33, 1,41		2,35,43, 1, 7	
		1,41,18,31,29,13,25,30		7,24
30″	35,29,58,52,38,59,48,46,27,11		2,35,43, 8,31	
		1,41,18,28,53,30,16,59		7,24
32″	35,30, 0,33,57,28,42,16,44,10		2,35,43,15,55	
		1,41,18,26,17,47, 1, 4		7,24
34″	35,30, 2,15,15,55, 0, 3,45,14		2,35,43,23,19	
		1,41,18,23,42, 3,37,45		7,24
36″	35,30, 3,56,34,18,42, 7,22,59		2,35,43,30,43	
		1,41,18,21, 6,20, 7, 2		7,24
38″	35,30, 5,37,52,39,48,27,30, 1		2,35,43,38, 7	
		1,41,18,18,30,36,28,55		7,24
40″	35,30, 7,19,10,58,19, 3,58,56		2,35,43,45,31	
		1,41,18,15,54,52,43,24		7,24
42″	35,30, 9, 0,29,14,13,56,42,20		2,35,43,52,55	
		1,41,18,13,19, 8,50,29		7,24
44″	35,30,10,41,47,27,33, 5,32,49		2,35,44, 0,19	
		1,41,18,10,43,24,50,10		7,24
46″	35,30,12,23, 5,38,16,30,22,59		2,35,44, 7,43	
		1,41,18, 8, 7,40,42,27		7,24
48″	35,30,14, 4,23,46,24,11, 5,26		2,35,44,15, 7	
		1,41,18, 5,31,56,27,20		7,24
50″	35,30,15,45,41,51,56, 7,32,46		2,35,44,22,31	
		1,41,18, 2,56,12, 4,49		7,24
52″	35,30,17,26,59,54,52,19,37,35		2,35,44,29,55	
		1,41,18, 0,20,27,34,54		7,24
54″	35,30,19, 8,17,55,12,47,12,29		2,35,44,37,19	
		1,41,17,57,44,42,57,35		7,24
56″	35,30,20,49,35,52,57,30,10, 4		2,35,44,44,43	
		1,41,17,55, 8,58,12,52		7,24
58″	35,30,22,30,53,48, 6,28,22,56		2,35,44,52, 7	
		1,41,17,52,33,13,20,45		
60″	35,30,24,12,11,40,39,41,43,41			
exact	35,30,24,12,11,40,39,41,18,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°17′ 0″	35,30,24,12,11,40,39,41,18,56			
		1,41,17,49,57,28,18,31		
2″	35,30,25,53,29,30,37, 9,37,27		2,35,45, 7, 6	
		1,41,17,47,21,43,11,25		7,24
4″	35,30,27,34,47,17,58,52,48,52		2,35,45,14,30	
		1,41,17,44,45,57,56,55		7,24
6″	35,30,29,16, 5, 2,44,50,45,47		2,35,45,21,54	
		1,41,17,42,10,12,35, 1		7,24
8″	35,30,30,57,22,44,55, 3,20,48		2,35,45,29,18	
		1,41,17,39,34,27, 5,43		7,24
10″	35,30,32,38,40,24,29,30,26,31		2,35,45,36,42	
		1,41,17,36,58,41,29, 1		7,24
12″	35,30,34,19,58, 1,28,11,55,32		2,35,45,44, 6	
		1,41,17,34,22,55,44,55		7,24
14″	35,30,36, 1,15,35,51, 7,40,27		2,35,45,51,30	
		1,41,17,31,47, 9,53,25		7,24
16″	35,30,37,42,33, 7,38,17,33,52		2,35,45,58,54	
		1,41,17,29,11,23,54,31		7,24
18″	35,30,39,23,50,36,49,41,28,23		2,35,46, 6,18	
		1,41,17,26,35,37,48,13		7,24
20″	35,30,41, 5, 8, 3,25,19,16,36		2,35,46,13,42	
		1,41,17,23,59,51,34,31		7,24
22″	35,30,42,46,25,27,25,10,51, 7		2,35,46,21, 6	
		1,41,17,21,24, 5,13,25		7,24
24″	35,30,44,27,42,48,49,16, 4,32		2,35,46,28,30	
		1,41,17,18,48,18,44,55		7,24
26″	35,30,46, 9, 0, 7,37,34,49,27		2,35,46,35,54	
		1,41,17,16,12,32, 9, 1		7,24
28″	35,30,47,50,17,23,50, 6,58,28		2,35,46,43,18	
		1,41,17,13,36,45,25,43		7,24
30″	35,30,49,31,34,37,26,52,24,11		2,35,46,50,42	
		1,41,17,11, 0,58,35, 1		7,24
32″	35,30,51,12,51,48,27,50,59,12		2,35,46,58, 6	
		1,41,17, 8,25,11,36,55		7,24
34″	35,30,52,54, 8,56,53, 2,36, 7		2,35,47, 5,30	
		1,41,17, 5,49,24,31,25		7,24
36″	35,30,54,35,26, 2,42,27, 7,32		2,35,47,12,54	
		1,41,17, 3,13,37,18,31		7,24
38″	35,30,56,16,43, 5,56, 4,26, 3		2,35,47,20,18	
		1,41,17, 0,37,49,58,13		7,24
40″	35,30,57,58, 0, 6,33,54,24,16		2,35,47,27,42	
		1,41,16,58, 2, 2,30,31		7,24
42″	35,30,59,39,17, 4,35,56,54,47		2,35,47,35, 6	
		1,41,16,55,26,14,55,25		7,24
44″	35,31, 1,20,34, 0, 2,11,50,12		2,35,47,42,30	
		1,41,16,52,50,27,12,55		7,24
46″	35,31, 3, 1,50,52,52,39, 3, 7		2,35,47,49,54	
		1,41,16,50,14,39,23, 1		7,24
48″	35,31, 4,43, 7,43, 7,18,26, 8		2,35,47,57,18	
		1,41,16,47,38,51,25,43		7,24
50″	35,31, 6,24,24,30,46, 9,51,51		2,35,48, 4,42	
		1,41,16,45, 3, 3,21, 1		7,24
52″	35,31, 8, 5,41,15,49,13,12,52		2,35,48,12, 6	
		1,41,16,42,27,15, 8,55		7,24
54″	35,31, 9,46,57,58,16,28,21,47		2,35,48,19,30	
		1,41,16,39,51,26,49,25		7,24
56″	35,31,11,28,14,38, 7,55,11,12		2,35,48,26,54	
		1,41,16,37,15,38,22,31		7,24
58″	35,31,13, 9,31,15,23,33,33,43		2,35,48,34,18	
		1,41,16,34,39,49,48,13		
60″	35,31,14,50,47,50, 3,23,21,56			
exact	35,31,14,50,47,50, 3,22,59,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°18′ 0″	35,31,14,50,47,50, 3,22,59,25			
		1,41,16,32, 4, 1, 4,12		
2″	35,31,16,32, 4,22, 7,24, 3,37		2,35,48,49,15	
		1,41,16,29,28,12,14,57		7,24
4″	35,31,18,13,20,51,35,36,18,34		2,35,48,56,39	
		1,41,16,26,52,23,18,18		7,24
6″	35,31,19,54,37,18,27,59,36,52		2,35,49, 4, 3	
		1,41,16,24,16,34,14,15		7,24
8″	35,31,21,35,53,42,44,33,51, 7		2,35,49,11,27	
		1,41,16,21,40,45, 2,48		7,24
10″	35,31,23,17,10, 4,25,18,53,55		2,35,49,18,51	
		1,41,16,19, 4,55,43,57		7,24
12″	35,31,24,58,26,23,30,14,37,52		2,35,49,26,15	
		1,41,16,16,29, 6,17,42		7,24
14″	35,31,26,39,42,39,59,20,55,34		2,35,49,33,39	
		1,41,16,13,53,16,44, 3		7,24
16″	35,31,28,20,58,53,52,37,39,37		2,35,49,41, 3	
		1,41,16,11,17,27, 3, 0		7,24
18″	35,31,30, 2,15, 5,10, 4,42,37		2,35,49,48,27	
		1,41,16, 8,41,37,14,33		7,24
20″	35,31,31,43,31,13,51,41,57,10		2,35,49,55,51	
		1,41,16, 6, 5,47,18,42		7,24
22″	35,31,33,24,47,19,57,29,15,52		2,35,50, 3,15	
		1,41,16, 3,29,57,15,27		7,24
24″	35,31,35, 6, 3,23,27,26,31,19		2,35,50,10,39	
		1,41,16, 0,54, 7, 4,48		7,24
26″	35,31,36,47,19,24,21,33,36, 7		2,35,50,18, 3	
		1,41,15,58,18,16,46,45		7,24
28″	35,31,38,28,35,22,39,50,22,52		2,35,50,25,27	
		1,41,15,55,42,26,21,18		7,24
30″	35,31,40, 9,51,18,22,16,44,10		2,35,50,32,51	
		1,41,15,53, 6,35,48,27		7,24
32″	35,31,41,51, 7,11,28,52,32,37		2,35,50,40,15	
		1,41,15,50,30,45, 8,12		7,24
34″	35,31,43,32,23, 1,59,37,40,49		2,35,50,47,39	
		1,41,15,47,54,54,20,33		7,24
36″	35,31,45,13,38,49,54,32, 1,22		2,35,50,55, 3	
		1,41,15,45,19, 3,25,30		7,24
38″	35,31,46,54,54,35,13,35,26,52		2,35,51, 2,27	
		1,41,15,42,43,12,23, 3		7,24
40″	35,31,48,36,10,17,56,47,49,55		2,35,51, 9,51	
		1,41,15,40, 7,21,13,12		7,24
42″	35,31,50,17,25,58, 4, 9, 3, 7		2,35,51,17,15	
		1,41,15,37,31,29,55,57		7,24
44″	35,31,51,58,41,35,35,38,59, 4		2,35,51,24,39	
		1,41,15,34,55,38,31,18		7,24
46″	35,31,53,39,57,10,31,17,30,22		2,35,51,32, 3	
		1,41,15,32,19,46,59,15		7,24
48″	35,31,55,21,12,42,51, 4,29,37		2,35,51,39,27	
		1,41,15,29,43,55,19,48		7,24
50″	35,31,57, 2,28,12,34,59,49,25		2,35,51,46,51	
		1,41,15,27, 8, 3,32,57		7,24
52″	35,31,58,43,43,39,43, 3,22,22		2,35,51,54,15	
		1,41,15,24,32,11,38,42		7,24
54″	35,32, 0,24,59, 4,15,15, 1, 4		2,35,52, 1,39	
		1,41,15,21,56,19,37, 3		7,24
56″	35,32, 2, 6,14,26,11,34,38, 7		2,35,52, 9, 3	
		1,41,15,19,20,27,28, 0		7,24
58″	35,32, 3,47,29,45,32, 2, 6, 7		2,35,52,16,27	
		1,41,15,16,44,35,11,33		
60″	35,32, 5,28,45, 2,16,37,17,40			
exact	35,32, 5,28,45, 2,16,37, 3,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°19′ 0″	35,32, 5,28,45, 2,16,37, 3,53			
		1,41,15,14, 8,42,46,14		
2″	35,32, 7,10, 0,16,25,19,50, 7		2,35,52,31,21	
		1,41,15,11,32,50,14,53		7,24
4″	35,32, 8,51,15,27,58,10, 5, 0		2,35,52,38,45	
		1,41,15, 8,56,57,36, 8		7,24
6″	35,32,10,32,30,36,55, 7,41, 8		2,35,52,46, 9	
		1,41,15, 6,21, 4,49,59		7,24
8″	35,32,12,13,45,43,16,12,31, 7		2,35,52,53,33	
		1,41,15, 3,45,11,56,26		7,24
10″	35,32,13,55, 0,47, 1,24,27,33		2,35,53, 0,57	
		1,41,15, 1, 9,18,55,29		7,24
12″	35,32,15,36,15,48,10,43,23, 2		2,35,53, 8,21	
		1,41,14,58,33,25,47, 8		7,24
14″	35,32,17,17,30,46,44, 9,10,10		2,35,53,15,45	
		1,41,14,55,57,32,31,23		7,24
16″	35,32,18,58,45,42,41,41,41,33		2,35,53,23, 9	
		1,41,14,53,21,39, 8,14		7,24
18″	35,32,20,40, 0,36, 3,20,49,47		2,35,53,30,33	
		1,41,14,50,45,45,37,41		7,24
20″	35,32,22,21,15,26,49, 6,27,28		2,35,53,37,57	
		1,41,14,48, 9,51,59,44		7,24
22″	35,32,24, 2,30,14,58,58,27,12		2,35,53,45,21	
		1,41,14,45,33,58,14,23		7,24
24″	35,32,25,43,45, 0,32,56,41,35		2,35,53,52,45	
		1,41,14,42,58, 4,21,38		7,24
26″	35,32,27,24,59,43,31, 1, 3,13		2,35,54, 0, 9	
		1,41,14,40,22,10,21,29		7,24
28″	35,32,29, 6,14,23,53,11,24,42		2,35,54, 7,33	
		1,41,14,37,46,16,13,56		7,24
30″	35,32,30,47,29, 1,39,27,38,38		2,35,54,14,57	
		1,41,14,35,10,21,58,59		7,24
32″	35,32,32,28,43,36,49,49,37,37		2,35,54,22,21	
		1,41,14,32,34,27,36,38		7,24
34″	35,32,34, 9,58, 9,24,17,14,15		2,35,54,29,45	
		1,41,14,29,58,33, 6,53		7,24
36″	35,32,35,51,12,39,22,50,21, 8		2,35,54,37, 9	
		1,41,14,27,22,38,29,44		7,24
38″	35,32,37,32,27, 6,45,28,50,52		2,35,54,44,33	
		1,41,14,24,46,43,45,11		7,24
40″	35,32,39,13,41,31,32,12,36, 3		2,35,54,51,57	
		1,41,14,22,10,48,53,14		7,24
42″	35,32,40,54,55,53,43, 1,29,17		2,35,54,59,21	
		1,41,14,19,34,53,53,53		7,24
44″	35,32,42,36,10,13,17,55,23,10		2,35,55, 6,45	
		1,41,14,16,58,58,47, 8		7,24
46″	35,32,44,17,24,30,16,54,10,18		2,35,55,14, 9	
		1,41,14,14,23, 3,32,59		7,24
48″	35,32,45,58,38,44,39,57,43,17		2,35,55,21,33	
		1,41,14,11,47, 8,11,26		7,24
50″	35,32,47,39,52,56,27, 5,54,43		2,35,55,28,57	
		1,41,14, 9,11,12,42,29		7,24
52″	35,32,49,21, 7, 5,38,18,37,12		2,35,55,36,21	
		1,41,14, 6,35,17, 6, 8		7,24
54″	35,32,51, 2,21,12,13,35,43,20		2,35,55,43,45	
		1,41,14, 3,59,21,22,23		7,24
56″	35,32,52,43,35,16,12,57, 5,43		2,35,55,51, 9	
		1,41,14, 1,23,25,31,14		7,24
58″	35,32,54,24,49,17,36,22,36,57		2,35,55,58,33	
		1,41,13,58,47,29,32,41		
60″	35,32,56, 6, 3,16,23,52, 9,38			
exact	35,32,56, 6, 3,16,23,52, 2,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°20′ 0″	35,32,56, 6, 3,16,23,52, 2,59			
		1,41,13,56,11,33,26, 1		
2″	35,32,57,47,17,12,35,25,29, 0		2,35,56,13,24	
		1,41,13,53,35,37,12,37		7,24
4″	35,32,59,28,31, 6,11, 2,41,37		2,35,56,20,48	
		1,41,13,50,59,40,51,49		7,24
6″	35,33, 1, 9,44,57,10,43,33,26		2,35,56,28,12	
		1,41,13,48,23,44,23,37		7,24
8″	35,33, 2,50,58,45,34,27,57, 3		2,35,56,35,36	
		1,41,13,45,47,47,48, 1		7,24
10″	35,33, 4,32,12,31,22,15,45, 4		2,35,56,43, 0	
		1,41,13,43,11,51, 5, 1		7,24
12″	35,33, 6,13,26,14,34, 6,50, 5		2,35,56,50,24	
		1,41,13,40,35,54,14,37		7,24
14″	35,33, 7,54,39,55,10, 1, 4,42		2,35,56,57,48	
		1,41,13,37,59,57,16,49		7,24
16″	35,33, 9,35,53,33, 9,58,21,31		2,35,57, 5,12	
		1,41,13,35,24, 0,11,37		7,24
18″	35,33,11,17, 7, 8,33,58,33, 8		2,35,57,12,36	
		1,41,13,32,48, 2,59, 1		7,24
20″	35,33,12,58,20,41,22, 1,32, 9		2,35,57,20, 0	
		1,41,13,30,12, 5,39, 1		7,24
22″	35,33,14,39,34,11,34, 7,11,10		2,35,57,27,24	
		1,41,13,27,36, 8,11,37		7,24
24″	35,33,16,20,47,39,10,15,22,47		2,35,57,34,48	
		1,41,13,25, 0,10,36,49		7,24
26″	35,33,18, 2, 1, 4,10,25,59,36		2,35,57,42,12	
		1,41,13,22,24,12,54,37		7,24
28″	35,33,19,43,14,26,34,38,54,13		2,35,57,49,36	
		1,41,13,19,48,15, 5, 1		7,24
30″	35,33,21,24,27,46,22,53,59,14		2,35,57,57, 0	
		1,41,13,17,12,17, 8, 1		7,24
32″	35,33,23, 5,41, 3,35,11, 7,15		2,35,58, 4,24	
		1,41,13,14,36,19, 3,37		7,24
34″	35,33,24,46,54,18,11,30,10,52		2,35,58,11,48	
		1,41,13,12, 0,20,51,49		7,24
36″	35,33,26,28, 7,30,11,51, 2,41		2,35,58,19,12	
		1,41,13, 9,24,22,32,37		7,24
38″	35,33,28, 9,20,39,36,13,35,18		2,35,58,26,36	
		1,41,13, 6,48,24, 6, 1		7,24
40″	35,33,29,50,33,46,24,37,41,19		2,35,58,34, 0	
		1,41,13, 4,12,25,32, 1		7,24
42″	35,33,31,31,46,50,37, 3,13,20		2,35,58,41,24	
		1,41,13, 1,36,26,50,37		7,24
44″	35,33,33,12,59,52,13,30, 3,57		2,35,58,48,48	
		1,41,12,59, 0,28, 1,49		7,24
46″	35,33,34,54,12,51,13,58, 5,46		2,35,58,56,12	
		1,41,12,56,24,29, 5,37		7,24
48″	35,33,36,35,25,47,38,27,11,23		2,35,59, 3,36	
		1,41,12,53,48,30, 2, 1		7,24
50″	35,33,38,16,38,41,26,57,13,24		2,35,59,11, 0	
		1,41,12,51,12,30,51, 1		7,24
52″	35,33,39,57,51,32,39,28, 4,25		2,35,59,18,24	
		1,41,12,48,36,31,32,37		7,24
54″	35,33,41,39, 4,21,15,59,37, 2		2,35,59,25,48	
		1,41,12,46, 0,32, 6,49		7,24
56″	35,33,43,20,17, 7,16,31,43,51		2,35,59,33,12	
		1,41,12,43,24,32,33,37		7,24
58″	35,33,45, 1,29,50,41, 4,17,28		2,35,59,40,36	
		1,41,12,40,48,32,53, 1		
60″	35,33,46,42,42,31,29,37,10,29			
exact	35,33,46,42,42,31,29,37,10, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°21′ 0″	35,33,46,42,42,31,29,37,10, 8			
		1,41,12,38,12,33, 4,59		
2″	35,33,48,23,55, 9,42,10,15, 7		2,35,59,55,24	
		1,41,12,35,36,33, 9,35		7,24
4″	35,33,50, 5, 7,45,18,43,24,42		2,36, 0, 2,48	
		1,41,12,33, 0,33, 6,47		7,24
6″	35,33,51,46,20,18,19,16,31,29		2,36, 0,10,12	
		1,41,12,30,24,32,56,35		7,24
8″	35,33,53,27,32,48,43,49,28, 4		2,36, 0,17,36	
		1,41,12,27,48,32,38,59		7,24
10″	35,33,55, 8,45,16,32,22, 7, 3		2,36, 0,25, 0	
		1,41,12,25,12,32,13,59		7,24
12″	35,33,56,49,57,41,44,54,21, 2		2,36, 0,32,24	
		1,41,12,22,36,31,41,35		7,24
14″	35,33,58,31,10, 4,21,26, 2,37		2,36, 0,39,48	
		1,41,12,20, 0,31, 1,47		7,24
16″	35,34, 0,12,22,24,21,57, 4,24		2,36, 0,47,12	
		1,41,12,17,24,30,14,35		7,24
18″	35,34, 1,53,34,41,46,27,18,59		2,36, 0,54,36	
		1,41,12,14,48,29,19,59		7,24
20″	35,34, 3,34,46,56,34,56,38,58		2,36, 1, 2, 0	
		1,41,12,12,12,28,17,59		7,24
22″	35,34, 5,15,59, 8,47,24,56,57		2,36, 1, 9,24	
		1,41,12, 9,36,27, 8,35		7,24
24″	35,34, 6,57,11,18,23,52, 5,32		2,36, 1,16,48	
		1,41,12, 7, 0,25,51,47		7,24
26″	35,34, 8,38,23,25,24,17,57,19		2,36, 1,24,12	
		1,41,12, 4,24,24,27,35		7,24
28″	35,34,10,19,35,29,48,42,24,54		2,36, 1,31,36	
		1,41,12, 1,48,22,55,59		7,24
30″	35,34,12, 0,47,31,37, 5,20,53		2,36, 1,39, 0	
		1,41,11,59,12,21,16,59		7,24
32″	35,34,13,41,59,30,49,26,37,52		2,36, 1,46,24	
		1,41,11,56,36,19,30,35		7,24
34″	35,34,15,23,11,27,25,46, 8,27		2,36, 1,53,48	
		1,41,11,54, 0,17,36,47		7,24
36″	35,34,17, 4,23,21,26, 3,45,14		2,36, 2, 1,12	
		1,41,11,51,24,15,35,35		7,24
38″	35,34,18,45,35,12,50,19,20,49		2,36, 2, 8,36	
		1,41,11,48,48,13,26,59		7,24
40″	35,34,20,26,47, 1,38,32,47,48		2,36, 2,16, 0	
		1,41,11,46,12,11,10,59		7,24
42″	35,34,22, 7,58,47,50,43,58,47		2,36, 2,23,24	
		1,41,11,43,36, 8,47,35		7,24
44″	35,34,23,49,10,31,26,52,46,22		2,36, 2,30,48	
		1,41,11,41, 0, 6,16,47		7,24
46″	35,34,25,30,22,12,26,59, 3, 9		2,36, 2,38,12	
		1,41,11,38,24, 3,38,35		7,24
48″	35,34,27,11,33,50,51, 2,41,44		2,36, 2,45,36	
		1,41,11,35,48, 0,52,59		7,24
50″	35,34,28,52,45,26,39, 3,34,43		2,36, 2,53, 0	
		1,41,11,33,11,57,59,59		7,24
52″	35,34,30,33,56,59,51, 1,34,42		2,36, 3, 0,24	
		1,41,11,30,35,54,59,35		7,24
54″	35,34,32,15, 8,30,26,56,34,17		2,36, 3, 7,48	
		1,41,11,27,59,51,51,47		7,24
56″	35,34,33,56,19,58,26,48,26, 4		2,36, 3,15,12	
		1,41,11,25,23,48,36,35		7,24
58″	35,34,35,37,31,23,50,37, 2,39		2,36, 3,22,36	
		1,41,11,22,47,45,13,59		
60″	35,34,37,18,42,46,38,22,16,38			
exact	35,34,37,18,42,46,38,22,21,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°22′ 0″	35,34,37,18,42,46,38,22,21,30			
		1,41,11,20,11,41,44,33		
2″	35,34,38,59,54, 6,50, 4, 6, 3		2,36, 3,37,21	
		1,41,11,17,35,38, 7,12		7,24
4″	35,34,40,41, 5,24,25,42,13,15		2,36, 3,44,45	
		1,41,11,14,59,34,22,27		7,24
6″	35,34,42,22,16,39,25,16,35,42		2,36, 3,52, 9	
		1,41,11,12,23,30,30,18		7,24
8″	35,34,44, 3,27,51,48,47, 6, 0		2,36, 3,59,33	
		1,41,11, 9,47,26,30,45		7,24
10″	35,34,45,44,39, 1,36,13,36,45		2,36, 4, 6,57	
		1,41,11, 7,11,22,23,48		7,24
12″	35,34,47,25,50, 8,47,36, 0,33		2,36, 4,14,21	
		1,41,11, 4,35,18, 9,27		7,24
14″	35,34,49, 7, 1,13,22,54,10, 0		2,36, 4,21,45	
		1,41,11, 1,59,13,47,42		7,24
16″	35,34,50,48,12,15,22, 7,57,42		2,36, 4,29, 9	
		1,41,10,59,23, 9,18,33		7,24
18″	35,34,52,29,23,14,45,17,16,15		2,36, 4,36,33	
		1,41,10,56,47, 4,42, 0		7,24
20″	35,34,54,10,34,11,32,21,58,15		2,36, 4,43,57	
		1,41,10,54,10,59,58, 3		7,24
22″	35,34,55,51,45, 5,43,21,56,18		2,36, 4,51,21	
		1,41,10,51,34,55, 6,42		7,24
24″	35,34,57,32,55,57,18,17, 3, 0		2,36, 4,58,45	
		1,41,10,48,58,50, 7,57		7,24
26″	35,34,59,14, 6,46,17, 7,10,57		2,36, 5, 6, 9	
		1,41,10,46,22,45, 1,48		7,24
28″	35,35, 0,55,17,32,39,52,12,45		2,36, 5,13,33	
		1,41,10,43,46,39,48,15		7,24
30″	35,35, 2,36,28,16,26,32, 1, 0		2,36, 5,20,57	
		1,41,10,41,10,34,27,18		7,24
32″	35,35, 4,17,38,57,37, 6,28,18		2,36, 5,28,21	
		1,41,10,38,34,28,58,57		7,24
34″	35,35, 5,58,49,36,11,35,27,15		2,36, 5,35,45	
		1,41,10,35,58,23,23,12		7,24
36″	35,35, 7,40, 0,12, 9,58,50,27		2,36, 5,43, 9	
		1,41,10,33,22,17,40, 3		7,24
38″	35,35, 9,21,10,45,32,16,30,30		2,36, 5,50,33	
		1,41,10,30,46,11,49,30		7,24
40″	35,35,11, 2,21,16,18,28,20, 0		2,36, 5,57,57	
		1,41,10,28,10, 5,51,33		7,24
42″	35,35,12,43,31,44,28,34,11,33		2,36, 6, 5,21	
		1,41,10,25,33,59,46,12		7,24
44″	35,35,14,24,42,10, 2,33,57,45		2,36, 6,12,45	
		1,41,10,22,57,53,33,27		7,24
46″	35,35,16, 5,52,33, 0,27,31,12		2,36, 6,20, 9	
		1,41,10,20,21,47,13,18		7,24
48″	35,35,17,47, 2,53,22,14,44,30		2,36, 6,27,33	
		1,41,10,17,45,40,45,45		7,24
50″	35,35,19,28,13,11, 7,55,30,15		2,36, 6,34,57	
		1,41,10,15, 9,34,10,48		7,24
52″	35,35,21, 9,23,26,17,29,41, 3		2,36, 6,42,21	
		1,41,10,12,33,27,28,27		7,24
54″	35,35,22,50,33,38,50,57, 9,30		2,36, 6,49,45	
		1,41,10, 9,57,20,38,42		7,24
56″	35,35,24,31,43,48,48,17,48,12		2,36, 6,57, 9	
		1,41,10, 7,21,13,41,33		7,24
58″	35,35,26,12,53,56, 9,31,29,45		2,36, 7, 4,33	
		1,41,10, 4,45, 6,37, 0		
60″	35,35,27,54, 4, 0,54,38, 6,45			
exact	35,35,27,54, 4, 0,54,38,16, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°23′ 0″	35,35,27,54, 4, 0,54,38,16, 2			
		1,41,10, 2, 8,59,26,10		
2″	35,35,29,35,14, 3, 3,37,42,12		2,36, 7,19,16	
		1,41, 9,59,32,52, 6,54		7,24
4″	35,35,31,16,24, 2,36,29,49, 6		2,36, 7,26,40	
		1,41, 9,56,56,44,40,14		7,24
6″	35,35,32,57,33,59,33,14,29,20		2,36, 7,34, 4	
		1,41, 9,54,20,37, 6,10		7,24
8″	35,35,34,38,43,53,53,51,35,30		2,36, 7,41,28	
		1,41, 9,51,44,29,24,42		7,24
10″	35,35,36,19,53,45,38,21, 0,12		2,36, 7,48,52	
		1,41, 9,49, 8,21,35,50		7,24
12″	35,35,38, 1, 3,34,46,42,36, 2		2,36, 7,56,16	
		1,41, 9,46,32,13,39,34		7,24
14″	35,35,39,42,13,21,18,56,15,36		2,36, 8, 3,40	
		1,41, 9,43,56, 5,35,54		7,24
16″	35,35,41,23,23, 5,15, 1,51,30		2,36, 8,11, 4	
		1,41, 9,41,19,57,24,50		7,24
18″	35,35,43, 4,32,46,34,59,16,20		2,36, 8,18,28	
		1,41, 9,38,43,49, 6,22		7,24
20″	35,35,44,45,42,25,18,48,22,42		2,36, 8,25,52	
		1,41, 9,36, 7,40,40,30		7,24
22″	35,35,46,26,52, 1,26,29, 3,12		2,36, 8,33,16	
		1,41, 9,33,31,32, 7,14		7,24
24″	35,35,48, 8, 1,34,58, 1,10,26		2,36, 8,40,40	
		1,41, 9,30,55,23,26,34		7,24
26″	35,35,49,49,11, 5,53,24,37, 0		2,36, 8,48, 4	
		1,41, 9,28,19,14,38,30		7,24
28″	35,35,51,30,20,34,12,39,15,30		2,36, 8,55,28	
		1,41, 9,25,43, 5,43, 2		7,24
30″	35,35,53,11,29,59,55,44,58,32		2,36, 9, 2,52	
		1,41, 9,23, 6,56,40,10		7,24
32″	35,35,54,52,39,23, 2,41,38,42		2,36, 9,10,16	
		1,41, 9,20,30,47,29,54		7,24
34″	35,35,56,33,48,43,33,29, 8,36		2,36, 9,17,40	
		1,41, 9,17,54,38,12,14		7,24
36″	35,35,58,14,58, 1,28, 7,20,50		2,36, 9,25, 4	
		1,41, 9,15,18,28,47,10		7,24
38″	35,35,59,56, 7,16,46,36, 8, 0		2,36, 9,32,28	
		1,41, 9,12,42,19,14,42		7,24
40″	35,36, 1,37,16,29,28,55,22,42		2,36, 9,39,52	
		1,41, 9,10, 6, 9,34,50		7,24
42″	35,36, 3,18,25,39,35, 4,57,32		2,36, 9,47,16	
		1,41, 9, 7,29,59,47,34		7,24
44″	35,36, 4,59,34,47, 5, 4,45, 6		2,36, 9,54,40	
		1,41, 9, 4,53,49,52,54		7,24
46″	35,36, 6,40,43,51,58,54,38, 0		2,36,10, 2, 4	
		1,41, 9, 2,17,39,50,50		7,24
48″	35,36, 8,21,52,54,16,34,28,50		2,36,10, 9,28	
		1,41, 8,59,41,29,41,22		7,24
50″	35,36,10, 3, 1,53,58, 4,10,12		2,36,10,16,52	
		1,41, 8,57, 5,19,24,30		7,24
52″	35,36,11,44,10,51, 3,23,34,42		2,36,10,24,16	
		1,41, 8,54,29, 9, 0,14		7,24
54″	35,36,13,25,19,45,32,32,34,56		2,36,10,31,40	
		1,41, 8,51,52,58,28,34		7,24
56″	35,36,15, 6,28,37,25,31, 3,30		2,36,10,39, 4	
		1,41, 8,49,16,47,49,30		7,24
58″	35,36,16,47,37,26,42,18,53, 0		2,36,10,46,28	
		1,41, 8,46,40,37, 3, 2		
60″	35,36,18,28,46,13,22,55,56, 2			
exact	35,36,18,28,46,13,22,56,15,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°24′ 0″	35,36,18,28,46,13,22,56,15,25			
		1,41, 8,44, 4,26,11,14		
2″	35,36,20, 9,54,57,27,22,26,39		2,36,11, 1, 7	
		1,41, 8,41,28,15,10, 7		7,24
4″	35,36,21,51, 3,38,55,37,36,46		2,36,11, 8,31	
		1,41, 8,38,52, 4, 1,36		7,24
6″	35,36,23,32,12,17,47,41,38,22		2,36,11,15,55	
		1,41, 8,36,15,52,45,41		7,24
8″	35,36,25,13,20,54, 3,34,24, 3		2,36,11,23,19	
		1,41, 8,33,39,41,22,22		7,24
10″	35,36,26,54,29,27,43,15,46,25		2,36,11,30,43	
		1,41, 8,31, 3,29,51,39		7,24
12″	35,36,28,35,37,58,46,45,38, 4		2,36,11,38, 7	
		1,41, 8,28,27,18,13,32		7,24
14″	35,36,30,16,46,27,14, 3,51,36		2,36,11,45,31	
		1,41, 8,25,51, 6,28, 1		7,24
16″	35,36,31,57,54,53, 5,10,19,37		2,36,11,52,55	
		1,41, 8,23,14,54,35, 6		7,24
18″	35,36,33,39, 3,16,20, 4,54,43		2,36,12, 0,19	
		1,41, 8,20,38,42,34,47		7,24
20″	35,36,35,20,11,36,58,47,29,30		2,36,12, 7,43	
		1,41, 8,18, 2,30,27, 4		7,24
22″	35,36,37, 1,19,55, 1,17,56,34		2,36,12,15, 7	
		1,41, 8,15,26,18,11,57		7,24
24″	35,36,38,42,28,10,27,36, 8,31		2,36,12,22,31	
		1,41, 8,12,50, 5,49,26		7,24
26″	35,36,40,23,36,23,17,41,57,57		2,36,12,29,55	
		1,41, 8,10,13,53,19,31		7,24
28″	35,36,42, 4,44,33,31,35,17,28		2,36,12,37,19	
		1,41, 8, 7,37,40,42,12		7,24
30″	35,36,43,45,52,41, 9,15,59,40		2,36,12,44,43	
		1,41, 8, 5, 1,27,57,29		7,24
32″	35,36,45,27, 0,46,10,43,57, 9		2,36,12,52, 7	
		1,41, 8, 2,25,15, 5,22		7,24
34″	35,36,47, 8, 8,48,35,59, 2,31		2,36,12,59,31	
		1,41, 7,59,49, 2, 5,51		7,24
36″	35,36,48,49,16,48,25, 1, 8,22		2,36,13, 6,55	
		1,41, 7,57,12,48,58,56		7,24
38″	35,36,50,30,24,45,37,50, 7,18		2,36,13,14,19	
		1,41, 7,54,36,35,44,37		7,24
40″	35,36,52,11,32,40,14,25,51,55		2,36,13,21,43	
		1,41, 7,52, 0,22,22,54		7,24
42″	35,36,53,52,40,32,14,48,14,49		2,36,13,29, 7	
		1,41, 7,49,24, 8,53,47		7,24
44″	35,36,55,33,48,21,38,57, 8,36		2,36,13,36,31	
		1,41, 7,46,47,55,17,16		7,24
46″	35,36,57,14,56, 8,26,52,25,52		2,36,13,43,55	
		1,41, 7,44,11,41,33,21		7,24
48″	35,36,58,56, 3,52,38,33,59,13		2,36,13,51,19	
		1,41, 7,41,35,27,42, 2		7,24
50″	35,37, 0,37,11,34,14, 1,41,15		2,36,13,58,43	
		1,41, 7,38,59,13,43,19		7,24
52″	35,37, 2,18,19,13,13,15,24,34		2,36,14, 6, 7	
		1,41, 7,36,22,59,37,12		7,24
54″	35,37, 3,59,26,49,36,15, 1,46		2,36,14,13,31	
		1,41, 7,33,46,45,23,41		7,24
56″	35,37, 5,40,34,23,23, 0,25,27		2,36,14,20,55	
		1,41, 7,31,10,31, 2,46		7,24
58″	35,37, 7,21,41,54,33,31,28,13		2,36,14,28,19	
		1,41, 7,28,34,16,34,27		
60″	35,37, 9, 2,49,23, 7,48, 2,40			
exact	35,37, 9, 2,49,23, 7,48,24,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°25′ 0″	35,37, 9, 2,49,23, 7,48,24,11	1,41, 7,25,58, 2, 1,11		
2″	35,37,10,43,56,49, 5,50,25,22	1,41, 7,23,21,47,18,15	2,36,14,42,56	7,24
4″	35,37,12,25, 4,12,27,37,43,37	1,41, 7,20,45,32,27,55	2,36,14,50,20	7,24
6″	35,37,14, 6,11,33,13,10,11,32	1,41, 7,18, 9,17,30,11	2,36,14,57,44	7,24
8″	35,37,15,47,18,51,22,27,41,43	1,41, 7,15,33, 2,25, 3	2,36,15, 5, 8	7,24
10″	35,37,17,28,26, 6,55,30, 6,46	1,41, 7,12,56,47,12,31	2,36,15,12,32	7,24
12″	35,37,19, 9,33,19,52,17,19,17	1,41, 7,10,20,31,52,35	2,36,15,19,56	7,24
14″	35,37,20,50,40,30,12,49,11,52	1,41, 7, 7,44,16,25,15	2,36,15,27,20	7,24
16″	35,37,22,31,47,37,57, 5,37, 7	1,41, 7, 5, 8, 0,50,31	2,36,15,34,44	7,24
18″	35,37,24,12,54,43, 5, 6,27,38	1,41, 7, 2,31,45, 8,23	2,36,15,42, 8	7,24
20″	35,37,25,54, 1,45,36,51,36, 1	1,41, 6,59,55,29,18,51	2,36,15,49,32	7,24
22″	35,37,27,35, 8,45,32,20,54,52	1,41, 6,57,19,13,21,55	2,36,15,56,56	7,24
24″	35,37,29,16,15,42,51,34,16,47	1,41, 6,54,42,57,17,35	2,36,16, 4,20	7,24
26″	35,37,30,57,22,37,34,31,34,22	1,41, 6,52, 6,41, 5,51	2,36,16,11,44	7,24
28″	35,37,32,38,29,29,41,12,40,13	1,41, 6,49,30,24,46,43	2,36,16,19, 8	7,24
30″	35,37,34,19,36,19,11,37,26,56	1,41, 6,46,54, 8,20,11	2,36,16,26,32	7,24
32″	35,37,36, 0,43, 6, 5,45,47, 7	1,41, 6,44,17,51,46,15	2,36,16,33,56	7,24
34″	35,37,37,41,49,50,23,37,33,22	1,41, 6,41,41,35, 4,55	2,36,16,41,20	7,24
36″	35,37,39,22,56,32, 5,12,38,17	1,41, 6,39, 5,18,16,11	2,36,16,48,44	7,24
38″	35,37,41, 4, 3,11,10,30,54,28	1,41, 6,36,29, 1,20, 3	2,36,16,56, 8	7,24
40″	35,37,42,45, 9,47,39,32,14,31	1,41, 6,33,52,44,16,31	2,36,17, 3,32	7,24
42″	35,37,44,26,16,21,32,16,31, 2	1,41, 6,31,16,27, 5,35	2,36,17,10,56	7,24
44″	35,37,46, 7,22,52,48,43,36,37	1,41, 6,28,40, 9,47,15	2,36,17,18,20	7,24
46″	35,37,47,48,29,21,28,53,23,52	1,41, 6,26, 3,52,21,31	2,36,17,25,44	7,24
48″	35,37,49,29,35,47,32,45,45,23	1,41, 6,23,27,34,48,23	2,36,17,33, 8	7,24
50″	35,37,51,10,42,11, 0,20,33,46	1,41, 6,20,51,17, 7,51	2,36,17,40,32	7,24
52″	35,37,52,51,48,31,51,37,41,37	1,41, 6,18,14,59,19,55	2,36,17,47,56	7,24
54″	35,37,54,32,54,50, 6,37, 1,32	1,41, 6,15,38,41,24,35	2,36,17,55,20	7,24
56″	35,37,56,14, 1, 5,45,18,26, 7	1,41, 6,13, 2,23,21,51	2,36,18, 2,44	7,24
58″	35,37,57,55, 7,18,47,41,47,58	1,41, 6,10,26, 5,11,43	2,36,18,10, 8	
60″	35,37,59,36,13,29,13,46,59,41			
exact	35,37,59,36,13,29,13,47,29,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°26′ 0″	35,37,59,36,13,29,13,47,29,41			
		1,41, 6, 7,49,46,57,28		
2″	35,38, 1,17,19,37, 3,34,27, 9		2,36,18,24,42	
		1,41, 6, 5,13,28,32,46		7,23
4″	35,38, 2,58,25,42,17, 2,59,55		2,36,18,32, 5	
		1,41, 6, 2,37,10, 0,41		7,23
6″	35,38, 4,39,31,44,54,13, 0,36		2,36,18,39,28	
		1,41, 6, 0, 0,51,21,13		7,23
8″	35,38, 6,20,37,44,55, 4,21,49		2,36,18,46,51	
		1,41, 5,57,24,32,34,22		7,23
10″	35,38, 8, 1,43,42,19,36,56,11		2,36,18,54,14	
		1,41, 5,54,48,13,40, 8		7,23
12″	35,38, 9,42,49,37, 7,50,36,19		2,36,19, 1,37	
		1,41, 5,52,11,54,38,31		7,23
14″	35,38,11,23,55,29,19,45,14,50		2,36,19, 9, 0	
		1,41, 5,49,35,35,29,31		7,23
16″	35,38,13, 5, 1,18,55,20,44,21		2,36,19,16,23	
		1,41, 5,46,59,16,13, 8		7,23
18″	35,38,14,46, 7, 5,54,36,57,29		2,36,19,23,46	
		1,41, 5,44,22,56,49,22		7,23
20″	35,38,16,27,12,50,17,33,46,51		2,36,19,31, 9	
		1,41, 5,41,46,37,18,13		7,23
22″	35,38,18, 8,18,32, 4,11, 5, 4		2,36,19,38,32	
		1,41, 5,39,10,17,39,41		7,23
24″	35,38,19,49,24,11,14,28,44,45		2,36,19,45,55	
		1,41, 5,36,33,57,53,46		7,23
26″	35,38,21,30,29,47,48,26,38,31		2,36,19,53,18	
		1,41, 5,33,57,38, 0,28		7,23
28″	35,38,23,11,35,21,46, 4,38,59		2,36,20, 0,41	
		1,41, 5,31,21,17,59,47		7,23
30″	35,38,24,52,40,53, 7,22,38,46		2,36,20, 8, 4	
		1,41, 5,28,44,57,51,43		7,23
32″	35,38,26,33,46,21,52,20,30,29		2,36,20,15,27	
		1,41, 5,26, 8,37,36,16		7,23
34″	35,38,28,14,51,48, 0,58, 6,45		2,36,20,22,50	
		1,41, 5,23,32,17,13,26		7,23
36″	35,38,29,55,57,11,33,15,20,11		2,36,20,30,13	
		1,41, 5,20,55,56,43,13		7,23
38″	35,38,31,37, 2,32,29,12, 3,24		2,36,20,37,36	
		1,41, 5,18,19,36, 5,37		7,23
40″	35,38,33,18, 7,50,48,48, 9, 1		2,36,20,44,59	
		1,41, 5,15,43,15,20,38		7,23
42″	35,38,34,59,13, 6,32, 3,29,39		2,36,20,52,22	
		1,41, 5,13, 6,54,28,16		7,23
44″	35,38,36,40,18,19,38,57,57,55		2,36,20,59,45	
		1,41, 5,10,30,33,28,31		7,23
46″	35,38,38,21,23,30, 9,31,26,26		2,36,21, 7, 8	
		1,41, 5, 7,54,12,21,23		7,23
48″	35,38,40, 2,28,38, 3,43,47,49		2,36,21,14,31	
		1,41, 5, 5,17,51, 6,52		7,23
50″	35,38,41,43,33,43,21,34,54,41		2,36,21,21,54	
		1,41, 5, 2,41,29,44,58		7,23
52″	35,38,43,24,38,46, 3, 4,39,39		2,36,21,29,17	
		1,41, 5, 0, 5, 8,15,41		7,23
54″	35,38,45, 5,43,46, 8,12,55,20		2,36,21,36,40	
		1,41, 4,57,28,46,39, 1		7,23
56″	35,38,46,46,48,43,36,59,34,21		2,36,21,44, 3	
		1,41, 4,54,52,24,54,58		7,23
58″	35,38,48,27,53,38,29,24,29,19		2,36,21,51,26	
		1,41, 4,52,16, 3, 3,32		
60″	35,38,50, 8,58,30,45,27,32,51			
exact	35,38,50, 8,58,30,45,27, 2, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°27′ 0″	35,38,50, 8,58,30,45,27, 2, 4			
		1,41, 4,49,39,41, 1,29		
2″	35,38,51,50, 3,20,25, 8, 3,33		2,36,22, 6,25	
		1,41, 4,47, 3,18,55, 4		7,23
4″	35,38,53,31, 8, 7,28,26,58,37		2,36,22,13,48	
		1,41, 4,44,26,56,41,16		7,23
6″	35,38,55,12,12,51,55,23,39,53		2,36,22,21,11	
		1,41, 4,41,50,34,20, 5		7,23
8″	35,38,56,53,17,33,45,57,59,58		2,36,22,28,34	
		1,41, 4,39,14,11,51,31		7,23
10″	35,38,58,34,22,13, 0, 9,51,29		2,36,22,35,57	
		1,41, 4,36,37,49,15,34		7,23
12″	35,39, 0,15,26,49,37,59, 7, 3		2,36,22,43,20	
		1,41, 4,34, 1,26,32,14		7,23
14″	35,39, 1,56,31,23,39,25,39,17		2,36,22,50,43	
		1,41, 4,31,25, 3,41,31		7,23
16″	35,39, 3,37,35,55, 4,29,20,48		2,36,22,58, 6	
		1,41, 4,28,48,40,43,25		7,23
18″	35,39, 5,18,40,23,53,10, 4,13		2,36,23, 5,29	
		1,41, 4,26,12,17,37,56		7,23
20″	35,39, 6,59,44,50, 5,27,42, 9		2,36,23,12,52	
		1,41, 4,23,35,54,25, 4		7,23
22″	35,39, 8,40,49,13,41,22, 7,13		2,36,23,20,15	
		1,41, 4,20,59,31, 4,49		7,23
24″	35,39,10,21,53,34,40,53,12, 2		2,36,23,27,38	
		1,41, 4,18,23, 7,37,11		7,23
26″	35,39,12, 2,57,53, 4, 0,49,13		2,36,23,35, 1	
		1,41, 4,15,46,44, 2,10		7,23
28″	35,39,13,44, 2, 8,50,44,51,23		2,36,23,42,24	
		1,41, 4,13,10,20,19,46		7,23
30″	35,39,15,25, 6,22, 1, 5,11, 9		2,36,23,49,47	
		1,41, 4,10,33,56,29,59		7,23
32″	35,39,17, 6,10,32,35, 1,41, 8		2,36,23,57,10	
		1,41, 4, 7,57,32,32,49		7,23
34″	35,39,18,47,14,40,32,34,13,57		2,36,24, 4,33	
		1,41, 4, 5,21, 8,28,16		7,23
36″	35,39,20,28,18,45,53,42,42,13		2,36,24,11,56	
		1,41, 4, 2,44,44,16,20		7,23
38″	35,39,22, 9,22,48,38,26,58,33		2,36,24,19,19	
		1,41, 4, 0, 8,19,57, 1		7,23
40″	35,39,23,50,26,48,46,46,55,34		2,36,24,26,42	
		1,41, 3,57,31,55,30,19		7,23
42″	35,39,25,31,30,46,18,42,25,53		2,36,24,34, 5	
		1,41, 3,54,55,30,56,14		7,23
44″	35,39,27,12,34,41,14,13,22, 7		2,36,24,41,28	
		1,41, 3,52,19, 6,14,46		7,23
46″	35,39,28,53,38,33,33,19,36,53		2,36,24,48,51	
		1,41, 3,49,42,41,25,55		7,23
48″	35,39,30,34,42,23,16, 1, 2,48		2,36,24,56,14	
		1,41, 3,47, 6,16,29,41		7,23
50″	35,39,32,15,46,10,22,17,32,29		2,36,25, 3,37	
		1,41, 3,44,29,51,26, 4		7,23
52″	35,39,33,56,49,54,52, 8,58,33		2,36,25,11, 0	
		1,41, 3,41,53,26,15, 4		7,23
54″	35,39,35,37,53,36,45,35,13,37		2,36,25,18,23	
		1,41, 3,39,17, 0,56,41		7,23
56″	35,39,37,18,57,16, 2,36,10,18		2,36,25,25,46	
		1,41, 3,36,40,35,30,55		7,23
58″	35,39,39, 0, 0,52,43,11,41,13		2,36,25,33, 9	
		1,41, 3,34, 4, 9,57,46		
60″	35,39,40,41, 4,26,47,21,38,59			
exact	35,39,40,41, 4,26,47,21,14,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°28′ 0″	35,39,40,41, 4,26,47,21,14,21			
		1,41, 3,31,27,44,14,40		
2″	35,39,42,22, 7,58,15, 5,29, 1		2,36,25,48, 5	
		1,41, 3,28,51,18,26,35		7,23
4″	35,39,44, 3,11,27, 6,23,55,36		2,36,25,55,28	
		1,41, 3,26,14,52,31, 7		7,23
6″	35,39,45,44,14,53,21,16,26,43		2,36,26, 2,51	
		1,41, 3,23,38,26,28,16		7,23
8″	35,39,47,25,18,16,59,42,54,59		2,36,26,10,14	
		1,41, 3,21, 2, 0,18, 2		7,23
10″	35,39,49, 6,21,38, 1,43,13, 1		2,36,26,17,37	
		1,41, 3,18,25,34, 0,25		7,23
12″	35,39,50,47,24,56,27,17,13,26		2,36,26,25, 0	
		1,41, 3,15,49, 7,35,25		7,23
14″	35,39,52,28,28,12,16,24,48,51		2,36,26,32,23	
		1,41, 3,13,12,41, 3, 2		7,23
16″	35,39,54, 9,31,25,29, 5,51,53		2,36,26,39,46	
		1,41, 3,10,36,14,23,16		7,23
18″	35,39,55,50,34,36, 5,20,15, 9		2,36,26,47, 9	
		1,41, 3, 7,59,47,36, 7		7,23
20″	35,39,57,31,37,44, 5, 7,51,16		2,36,26,54,32	
		1,41, 3, 5,23,20,41,35		7,23
22″	35,39,59,12,40,49,28,28,32,51		2,36,27, 1,55	
		1,41, 3, 2,46,53,39,40		7,23
24″	35,40, 0,53,43,52,15,22,12,31		2,36,27, 9,18	
		1,41, 3, 0,10,26,30,22		7,23
26″	35,40, 2,34,46,52,25,48,42,53		2,36,27,16,41	
		1,41, 2,57,33,59,13,41		7,23
28″	35,40, 4,15,49,49,59,47,56,34		2,36,27,24, 4	
		1,41, 2,54,57,31,49,37		7,23
30″	35,40, 5,56,52,44,57,19,46,11		2,36,27,31,27	
		1,41, 2,52,21, 4,18,10		7,23
32″	35,40, 7,37,55,37,18,24, 4,21		2,36,27,38,50	
		1,41, 2,49,44,36,39,20		7,23
34″	35,40, 9,18,58,27, 3, 0,43,41		2,36,27,46,13	
		1,41, 2,47, 8, 8,53, 7		7,23
36″	35,40,11, 0, 1,14,11, 9,36,48		2,36,27,53,36	
		1,41, 2,44,31,40,59,31		7,23
38″	35,40,12,41, 3,58,42,50,36,19		2,36,28, 0,59	
		1,41, 2,41,55,12,58,32		7,23
40″	35,40,14,22, 6,40,38, 3,34,51		2,36,28, 8,22	
		1,41, 2,39,18,44,50,10		7,23
42″	35,40,16, 3, 9,19,56,48,25, 1		2,36,28,15,45	
		1,41, 2,36,42,16,34,25		7,23
44″	35,40,17,44,11,56,39, 4,59,26		2,36,28,23, 8	
		1,41, 2,34, 5,48,11,17		7,23
46″	35,40,19,25,14,30,44,53,10,43		2,36,28,30,31	
		1,41, 2,31,29,19,40,46		7,23
48″	35,40,21, 6,17, 2,14,12,51,29		2,36,28,37,54	
		1,41, 2,28,52,51, 2,52		7,23
50″	35,40,22,47,19,31, 7, 3,54,21		2,36,28,45,17	
		1,41, 2,26,16,22,17,35		7,23
52″	35,40,24,28,21,57,23,26,11,56		2,36,28,52,40	
		1,41, 2,23,39,53,24,55		7,23
54″	35,40,26, 9,24,21, 3,19,36,51		2,36,29, 0, 3	
		1,41, 2,21, 3,24,24,52		7,23
56″	35,40,27,50,26,42, 6,44, 1,43		2,36,29, 7,26	
		1,41, 2,18,26,55,17,26		7,23
58″	35,40,29,31,29, 0,33,39,19, 9		2,36,29,14,49	
		1,41, 2,15,50,26, 2,37		
60″	35,40,31,12,31,16,24, 5,21,46			
exact	35,40,31,12,31,16,24, 5, 2,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°29′ 0″	35,40,31,12,31,16,24, 5, 2,27			
		1,41, 2,13,13,56,38,27		
2″	35,40,32,53,33,29,38, 1,40,54		2,36,29,29,42	
		1,41, 2,10,37,27, 8,45		7,23
4″	35,40,34,34,35,40,15,28,49,39		2,36,29,37, 5	
		1,41, 2, 8, 0,57,31,40		7,23
6″	35,40,36,15,37,48,16,26,21,19		2,36,29,44,28	
		1,41, 2, 5,24,27,47,12		7,23
8″	35,40,37,56,39,53,40,54, 8,31		2,36,29,51,51	
		1,41, 2, 2,47,57,55,21		7,23
10″	35,40,39,37,41,56,28,52, 3,52		2,36,29,59,14	
		1,41, 2, 0,11,27,56, 7		7,23
12″	35,40,41,18,43,56,40,19,59,59		2,36,30, 6,37	
		1,41, 1,57,34,57,49,30		7,23
14″	35,40,42,59,45,54,15,17,49,29		2,36,30,14, 0	
		1,41, 1,54,58,27,35,30		7,23
16″	35,40,44,40,47,49,13,45,24,59		2,36,30,21,23	
		1,41, 1,52,21,57,14, 7		7,23
18″	35,40,46,21,49,41,35,42,39, 6		2,36,30,28,46	
		1,41, 1,49,45,26,45,21		7,23
20″	35,40,48, 2,51,31,21, 9,24,27		2,36,30,36, 9	
		1,41, 1,47, 8,56, 9,12		7,23
22″	35,40,49,43,53,18,30, 5,33,39		2,36,30,43,32	
		1,41, 1,44,32,25,25,40		7,23
24″	35,40,51,24,55, 3, 2,30,59,19		2,36,30,50,55	
		1,41, 1,41,55,54,34,45		7,23
26″	35,40,53, 5,56,44,58,25,34, 4		2,36,30,58,18	
		1,41, 1,39,19,23,36,27		7,23
28″	35,40,54,46,58,24,17,49,10,31		2,36,31, 5,41	
		1,41, 1,36,42,52,30,46		7,23
30″	35,40,56,28, 0, 1, 0,41,41,17		2,36,31,13, 4	
		1,41, 1,34, 6,21,17,42		7,23
32″	35,40,58, 9, 1,35, 7, 2,58,59		2,36,31,20,27	
		1,41, 1,31,29,49,57,15		7,23
34″	35,40,59,50, 3, 6,36,52,56,14		2,36,31,27,50	
		1,41, 1,28,53,18,29,25		7,23
36″	35,41, 1,31, 4,35,30,11,25,39		2,36,31,35,13	
		1,41, 1,26,16,46,54,12		7,23
38″	35,41, 3,12, 6, 1,46,58,19,51		2,36,31,42,36	
		1,41, 1,23,40,15,11,36		7,23
40″	35,41, 4,53, 7,25,27,13,31,27		2,36,31,49,59	
		1,41, 1,21, 3,43,21,37		7,23
42″	35,41, 6,34, 8,46,30,56,53, 4		2,36,31,57,22	
		1,41, 1,18,27,11,24,15		7,23
44″	35,41, 8,15,10, 4,58, 8,17,19		2,36,32, 4,45	
		1,41, 1,15,50,39,19,30		7,23
46″	35,41, 9,56,11,20,48,47,36,49		2,36,32,12, 8	
		1,41, 1,13,14, 7, 7,22		7,23
48″	35,41,11,37,12,34, 2,54,44,11		2,36,32,19,31	
		1,41, 1,10,37,34,47,51		7,23
50″	35,41,13,18,13,44,40,29,32, 2		2,36,32,26,54	
		1,41, 1, 8, 1, 2,20,57		7,23
52″	35,41,14,59,14,52,41,31,52,59		2,36,32,34,17	
		1,41, 1, 5,24,29,46,40		7,23
54″	35,41,16,40,15,58, 6, 1,39,39		2,36,32,41,40	
		1,41, 1, 2,47,57, 5, 0		7,23
56″	35,41,18,21,17, 0,53,58,44,39		2,36,32,49, 3	
		1,41, 1, 0,11,24,15,57		7,23
58″	35,41,20, 2,18, 1, 5,23, 0,36		2,36,32,56,26	
		1,41, 0,57,34,51,19,31		
60″	35,41,21,43,18,58,40,14,20, 7			
exact	35,41,21,43,18,58,40,14, 5, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°30′ 0″	35,41,21,43,18,58,40,14, 5, 7			
		1,41, 0,54,58,18,14,16		
2″	35,41,23,24,19,53,38,32,19,23		2,36,33,11,17	
		1,41, 0,52,21,45, 2,59		7,23
4″	35,41,25, 5,20,46, 0,17,22,22		2,36,33,18,40	
		1,41, 0,49,45,11,44,19		7,23
6″	35,41,26,46,21,35,45,29, 6,41		2,36,33,26, 3	
		1,41, 0,47, 8,38,18,16		7,23
8″	35,41,28,27,22,22,54, 7,24,57		2,36,33,33,26	
		1,41, 0,44,32, 4,44,50		7,23
10″	35,41,30, 8,23, 7,26,12, 9,47		2,36,33,40,49	
		1,41, 0,41,55,31, 4, 1		7,23
12″	35,41,31,49,23,49,21,43,13,48		2,36,33,48,12	
		1,41, 0,39,18,57,15,49		7,23
14″	35,41,33,30,24,28,40,40,29,37		2,36,33,55,35	
		1,41, 0,36,42,23,20,14		7,23
16″	35,41,35,11,25, 5,23, 3,49,51		2,36,34, 2,58	
		1,41, 0,34, 5,49,17,16		7,23
18″	35,41,36,52,25,39,28,53, 7, 7		2,36,34,10,21	
		1,41, 0,31,29,15, 6,55		7,23
20″	35,41,38,33,26,10,58, 8,14, 2		2,36,34,17,44	
		1,41, 0,28,52,40,49,11		7,23
22″	35,41,40,14,26,39,50,49, 3,13		2,36,34,25, 7	
		1,41, 0,26,16, 6,24, 4		7,23
24″	35,41,41,55,27, 6, 6,55,27,17		2,36,34,32,30	
		1,41, 0,23,39,31,51,34		7,23
26″	35,41,43,36,27,29,46,27,18,51		2,36,34,39,53	
		1,41, 0,21, 2,57,11,41		7,23
28″	35,41,45,17,27,50,49,24,30,32		2,36,34,47,16	
		1,41, 0,18,26,22,24,25		7,23
30″	35,41,46,58,28, 9,15,46,54,57		2,36,34,54,39	
		1,41, 0,15,49,47,29,46		7,23
32″	35,41,48,39,28,25, 5,34,24,43		2,36,35, 2, 2	
		1,41, 0,13,13,12,27,44		7,23
34″	35,41,50,20,28,38,18,46,52,27		2,36,35, 9,25	
		1,41, 0,10,36,37,18,19		7,23
36″	35,41,52, 1,28,48,55,24,10,46		2,36,35,16,48	
		1,41, 0, 8, 0, 2, 1,31		7,23
38″	35,41,53,42,28,56,55,26,12,17		2,36,35,24,11	
		1,41, 0, 5,23,26,37,20		7,23
40″	35,41,55,23,29, 2,18,52,49,37		2,36,35,31,34	
		1,41, 0, 2,46,51, 5,46		7,23
42″	35,41,57, 4,29, 5, 5,43,55,23		2,36,35,38,57	
		1,41, 0, 0,10,15,26,49		7,23
44″	35,41,58,45,29, 5,15,59,22,12		2,36,35,46,20	
		1,40,59,57,33,39,40,29		7,23
46″	35,42, 0,26,29, 2,49,39, 2,41		2,36,35,53,43	
		1,40,59,54,57, 3,46,46		7,23
48″	35,42, 2, 7,28,57,46,42,49,27		2,36,36, 1, 6	
		1,40,59,52,20,27,45,40		7,23
50″	35,42, 3,48,28,50, 7,10,35, 7		2,36,36, 8,29	
		1,40,59,49,43,51,37,11		7,23
52″	35,42, 5,29,28,39,51, 2,12,18		2,36,36,15,52	
		1,40,59,47, 7,15,21,19		7,23
54″	35,42, 7,10,28,26,58,17,33,37		2,36,36,23,15	
		1,40,59,44,30,38,58, 4		7,23
56″	35,42, 8,51,28,11,28,56,31,41		2,36,36,30,38	
		1,40,59,41,54, 2,27,26		7,23
58″	35,42,10,32,27,53,22,58,59, 7		2,36,36,38, 1	
		1,40,59,39,17,25,49,25		
60″	35,42,12,13,27,32,40,24,48,32			
exact	35,42,12,13,27,32,40,24,44, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°31′ 0″	35,42,12,13,27,32,40,24,44, 3			
		1,40,59,36,40,49, 3,33		
2″	35,42,13,54,27, 9,21,13,47,36		2,36,36,52,49	
		1,40,59,34, 4,12,10,44		7,23
4″	35,42,15,35,26,43,25,25,58,20		2,36,37, 0,12	
		1,40,59,31,27,35,10,32		7,23
6″	35,42,17,16,26,14,53, 1, 8,52		2,36,37, 7,35	
		1,40,59,28,50,58, 2,57		7,23
8″	35,42,18,57,25,43,43,59,11,49		2,36,37,14,58	
		1,40,59,26,14,20,47,59		7,23
10″	35,42,20,38,25, 9,58,19,59,48		2,36,37,22,21	
		1,40,59,23,37,43,25,38		7,23
12″	35,42,22,19,24,33,36, 3,25,26		2,36,37,29,44	
		1,40,59,21, 1, 5,55,54		7,23
14″	35,42,24, 0,23,54,37, 9,21,20		2,36,37,37, 7	
		1,40,59,18,24,28,18,47		7,23
16″	35,42,25,41,23,13, 1,37,40, 7		2,36,37,44,30	
		1,40,59,15,47,50,34,17		7,23
18″	35,42,27,22,22,28,49,28,14,24		2,36,37,51,53	
		1,40,59,13,11,12,42,24		7,23
20″	35,42,29, 3,21,42, 0,40,56,48		2,36,37,59,16	
		1,40,59,10,34,34,43, 8		7,23
22″	35,42,30,44,20,52,35,15,39,56		2,36,38, 6,39	
		1,40,59, 7,57,56,36,29		7,23
24″	35,42,32,25,20, 0,33,12,16,25		2,36,38,14, 2	
		1,40,59, 5,21,18,22,27		7,23
26″	35,42,34, 6,19, 5,54,30,38,52		2,36,38,21,25	
		1,40,59, 2,44,40, 1, 2		7,23
28″	35,42,35,47,18, 8,39,10,39,54		2,36,38,28,48	
		1,40,59, 0, 8, 1,32,14		7,23
30″	35,42,37,28,17, 8,47,12,12, 8		2,36,38,36,11	
		1,40,58,57,31,22,56, 3		7,23
32″	35,42,39, 9,16, 6,18,35, 8,11		2,36,38,43,34	
		1,40,58,54,54,44,12,29		7,23
34″	35,42,40,50,15, 1,13,19,20,40		2,36,38,50,57	
		1,40,58,52,18, 5,21,32		7,23
36″	35,42,42,31,13,53,31,24,42,12		2,36,38,58,20	
		1,40,58,49,41,26,23,12		7,23
38″	35,42,44,12,12,43,12,51, 5,24		2,36,39, 5,43	
		1,40,58,47, 4,47,17,29		7,23
40″	35,42,45,53,11,30,17,38,22,53		2,36,39,13, 6	
		1,40,58,44,28, 8, 4,23		7,23
42″	35,42,47,34,10,14,45,46,27,16		2,36,39,20,29	
		1,40,58,41,51,28,43,54		7,23
44″	35,42,49,15, 8,56,37,15,11,10		2,36,39,27,52	
		1,40,58,39,14,49,16, 2		7,23
46″	35,42,50,56, 7,35,52, 4,27,12		2,36,39,35,15	
		1,40,58,36,38, 9,40,47		7,23
48″	35,42,52,37, 6,12,30,14, 7,59		2,36,39,42,38	
		1,40,58,34, 1,29,58, 9		7,23
50″	35,42,54,18, 4,46,31,44, 6, 8		2,36,39,50, 1	
		1,40,58,31,24,50, 8, 8		7,23
52″	35,42,55,59, 3,17,56,34,14,16		2,36,39,57,24	
		1,40,58,28,48,10,10,44		7,23
54″	35,42,57,40, 1,46,44,44,25, 0		2,36,40, 4,47	
		1,40,58,26,11,30, 5,57		7,23
56″	35,42,59,21, 0,12,56,14,30,57		2,36,40,12,10	
		1,40,58,23,34,49,53,47		7,23
58″	35,43, 1, 1,58,36,31, 4,24,44		2,36,40,19,33	
		1,40,58,20,58, 9,34,14		
60″	35,43, 2,42,56,57,29,13,58,58			
exact	35,43, 2,42,56,57,29,14, 3,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°32′ 0″	35,43, 2,42,56,57,29,14, 3,49			
		1,40,58,18,21,29, 7,44		
2″	35,43, 4,23,55,15,50,43,11,33		2,36,40,34,17	
		1,40,58,15,44,48,33,27		7,23
4″	35,43, 6, 4,53,31,35,31,45, 0		2,36,40,41,40	
		1,40,58,13, 8, 7,51,47		7,23
6″	35,43, 7,45,51,44,43,39,36,47		2,36,40,49, 3	
		1,40,58,10,31,27, 2,44		7,23
8″	35,43, 9,26,49,55,15, 6,39,31		2,36,40,56,26	
		1,40,58, 7,54,46, 6,18		7,23
10″	35,43,11, 7,48, 3, 9,52,45,49		2,36,41, 3,49	
		1,40,58, 5,18, 5, 2,29		7,23
12″	35,43,12,48,46, 8,27,57,48,18		2,36,41,11,12	
		1,40,58, 2,41,23,51,17		7,23
14″	35,43,14,29,44,11, 9,21,39,35		2,36,41,18,35	
		1,40,58, 0, 4,42,32,42		7,23
16″	35,43,16,10,42,11,14, 4,12,17		2,36,41,25,58	
		1,40,57,57,28, 1, 6,44		7,23
18″	35,43,17,51,40, 8,42, 5,19, 1		2,36,41,33,21	
		1,40,57,54,51,19,33,23		7,23
20″	35,43,19,32,38, 3,33,24,52,24		2,36,41,40,44	
		1,40,57,52,14,37,52,39		7,23
22″	35,43,21,13,35,55,48, 2,45, 3		2,36,41,48, 7	
		1,40,57,49,37,56, 4,32		7,23
24″	35,43,22,54,33,45,25,58,49,35		2,36,41,55,30	
		1,40,57,47, 1,14, 9, 2		7,23
26″	35,43,24,35,31,32,27,12,58,37		2,36,42, 2,53	
		1,40,57,44,24,32, 6, 9		7,23
28″	35,43,26,16,29,16,51,45, 4,46		2,36,42,10,16	
		1,40,57,41,47,49,55,53		7,23
30″	35,43,27,57,26,58,39,35, 0,39		2,36,42,17,39	
		1,40,57,39,11, 7,38,14		7,23
32″	35,43,29,38,24,37,50,42,38,53		2,36,42,25, 2	
		1,40,57,36,34,25,13,12		7,23
34″	35,43,31,19,22,14,25, 7,52, 5		2,36,42,32,25	
		1,40,57,33,57,42,40,47		7,23
36″	35,43,33, 0,19,48,22,50,32,52		2,36,42,39,48	
		1,40,57,31,21, 0, 0,59		7,23
38″	35,43,34,41,17,19,43,50,33,51		2,36,42,47,11	
		1,40,57,28,44,17,13,48		7,23
40″	35,43,36,22,14,48,28, 7,47,39		2,36,42,54,34	
		1,40,57,26, 7,34,19,14		7,23
42″	35,43,38, 3,12,14,35,42, 6,53		2,36,43, 1,57	
		1,40,57,23,30,51,17,17		7,23
44″	35,43,39,44, 9,38, 6,33,24,10		2,36,43, 9,20	
		1,40,57,20,54, 8, 7,57		7,23
46″	35,43,41,25, 6,59, 0,41,32, 7		2,36,43,16,43	
		1,40,57,18,17,24,51,14		7,23
48″	35,43,43, 6, 4,17,18, 6,23,21		2,36,43,24, 6	
		1,40,57,15,40,41,27, 8		7,23
50″	35,43,44,47, 1,32,58,47,50,29		2,36,43,31,29	
		1,40,57,13, 3,57,55,39		7,23
52″	35,43,46,27,58,46, 2,45,46, 8		2,36,43,38,52	
		1,40,57,10,27,14,16,47		7,23
54″	35,43,48, 8,55,56,30, 0, 2,55		2,36,43,46,15	
		1,40,57, 7,50,30,30,32		7,23
56″	35,43,49,49,53, 4,20,30,33,27		2,36,43,53,38	
		1,40,57, 5,13,46,36,54		7,23
58″	35,43,51,30,50, 9,34,17,10,21		2,36,44, 1, 1	
		1,40,57, 2,37, 2,35,53		
60″	35,43,53,11,47,12,11,19,46,14			
exact	35,43,53,11,47,12,11,19,52, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°33′ 0″	35,43,53,11,47,12,11,19,52, 0	1,40,57, 0, 0,18,28,14		
2″	35,43,54,52,44,12,11,38,20,14	1,40,56,57,23,34,12,31	2,36,44,15,43	7,23
4″	35,43,56,33,41, 9,35,12,32,45	1,40,56,54,46,49,49,25	2,36,44,23, 6	7,23
6″	35,43,58,14,38, 4,22, 2,22,10	1,40,56,52,10, 5,18,56	2,36,44,30,29	7,23
8″	35,43,59,55,34,56,32, 7,41, 6	1,40,56,49,33,20,41, 4	2,36,44,37,52	7,23
10″	35,44, 1,36,31,46, 5,28,22,10	1,40,56,46,56,35,55,49	2,36,44,45,15	7,23
12″	35,44, 3,17,28,33, 2, 4,17,59	1,40,56,44,19,51, 3,11	2,36,44,52,38	7,23
14″	35,44, 4,58,25,17,21,55,21,10	1,40,56,41,43, 6, 3,10	2,36,45, 0, 1	7,23
16″	35,44, 6,39,21,59, 5, 1,24,20	1,40,56,39, 6,20,55,46	2,36,45, 7,24	7,23
18″	35,44, 8,20,18,38,11,22,20, 6	1,40,56,36,29,35,40,59	2,36,45,14,47	7,23
20″	35,44,10, 1,15,14,40,58, 1, 5	1,40,56,33,52,50,18,49	2,36,45,22,10	7,23
22″	35,44,11,42,11,48,33,48,19,54	1,40,56,31,16, 4,49,16	2,36,45,29,33	7,23
24″	35,44,13,23, 8,19,49,53, 9,10	1,40,56,28,39,19,12,20	2,36,45,36,56	7,23
26″	35,44,15, 4, 4,48,29,12,21,30	1,40,56,26, 2,33,28, 1	2,36,45,44,19	7,23
28″	35,44,16,45, 1,14,31,45,49,31	1,40,56,23,25,47,36,19	2,36,45,51,42	7,23
30″	35,44,18,25,57,37,57,33,25,50	1,40,56,20,49, 1,37,14	2,36,45,59, 5	7,23
32″	35,44,20, 6,53,58,46,35, 3, 4	1,40,56,18,12,15,30,46	2,36,46, 6,28	7,23
34″	35,44,21,47,50,16,58,50,33,50	1,40,56,15,35,29,16,55	2,36,46,13,51	7,23
36″	35,44,23,28,46,32,34,19,50,45	1,40,56,12,58,42,55,41	2,36,46,21,14	7,23
38″	35,44,25, 9,42,45,33, 2,46,26	1,40,56,10,21,56,27, 4	2,36,46,28,37	7,23
40″	35,44,26,50,38,55,54,59,13,30	1,40,56, 7,45, 9,51, 4	2,36,46,36, 0	7,23
42″	35,44,28,31,35, 3,40, 9, 4,34	1,40,56, 5, 8,23, 7,41	2,36,46,43,23	7,23
44″	35,44,30,12,31, 8,48,32,12,15	1,40,56, 2,31,36,16,55	2,36,46,50,46	7,23
46″	35,44,31,53,27,11,20, 8,29,10	1,40,55,59,54,49,18,46	2,36,46,58, 9	7,23
48″	35,44,33,34,23,11,14,57,47,56	1,40,55,57,18, 2,13,14	2,36,47, 5,32	7,23
50″	35,44,35,15,19, 8,33, 0, 1,10	1,40,55,54,41,15, 0,19	2,36,47,12,55	7,23
52″	35,44,36,56,15, 3,14,15, 1,29	1,40,55,52, 4,27,40, 1	2,36,47,20,18	7,23
54″	35,44,38,37,10,55,18,42,41,30	1,40,55,49,27,40,12,20	2,36,47,27,41	7,23
56″	35,44,40,18, 6,44,46,22,53,50	1,40,55,46,50,52,37,16	2,36,47,35, 4	7,23
58″	35,44,41,59, 2,31,37,15,31, 6	1,40,55,44,14, 4,54,49	2,36,47,42,27	
60″	35,44,43,39,58,15,51,20,25,55			
exact	35,44,43,39,58,15,51,20,39, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°34′ 0″	35,44,43,39,58,15,51,20,39, 2			
		1,40,55,41,37,17, 6,29		
2″	35,44,45,20,53,57,28,37,45,31		2,36,47,57, 6	
		1,40,55,39, 0,29, 9,23		7,23
4″	35,44,47, 1,49,36,29, 6,54,54		2,36,48, 4,29	
		1,40,55,36,23,41, 4,54		7,23
6″	35,44,48,42,45,12,52,47,59,48		2,36,48,11,52	
		1,40,55,33,46,52,53, 2		7,23
8″	35,44,50,23,40,46,39,40,52,50		2,36,48,19,15	
		1,40,55,31,10, 4,33,47		7,23
10″	35,44,52, 4,36,17,49,45,26,37		2,36,48,26,38	
		1,40,55,28,33,16, 7, 9		7,23
12″	35,44,53,45,31,46,23, 1,33,46		2,36,48,34, 1	
		1,40,55,25,56,27,33, 8		7,23
14″	35,44,55,26,27,12,19,29, 6,54		2,36,48,41,24	
		1,40,55,23,19,38,51,44		7,23
16″	35,44,57, 7,22,35,39, 7,58,38		2,36,48,48,47	
		1,40,55,20,42,50, 2,57		7,23
18″	35,44,58,48,17,56,21,58, 1,35		2,36,48,56,10	
		1,40,55,18, 6, 1, 6,47		7,23
20″	35,45, 0,29,13,14,27,59, 8,22		2,36,49, 3,33	
		1,40,55,15,29,12, 3,14		7,23
22″	35,45, 2,10, 8,29,57,11,11,36		2,36,49,10,56	
		1,40,55,12,52,22,52,18		7,23
24″	35,45, 3,51, 3,42,49,34, 3,54		2,36,49,18,19	
		1,40,55,10,15,33,33,59		7,23
26″	35,45, 5,31,58,53, 5, 7,37,53		2,36,49,25,42	
		1,40,55, 7,38,44, 8,17		7,23
28″	35,45, 7,12,54, 0,43,51,46,10		2,36,49,33, 5	
		1,40,55, 5, 1,54,35,12		7,23
30″	35,45, 8,53,49, 5,45,46,21,22		2,36,49,40,28	
		1,40,55, 2,25, 4,54,44		7,23
32″	35,45,10,34,44, 8,10,51,16, 6		2,36,49,47,51	
		1,40,54,59,48,15, 6,53		7,23
34″	35,45,12,15,39, 7,59, 6,22,59		2,36,49,55,14	
		1,40,54,57,11,25,11,39		7,23
36″	35,45,13,56,34, 5,10,31,34,38		2,36,50, 2,37	
		1,40,54,54,34,35, 9, 2		7,23
38″	35,45,15,37,28,59,45, 6,43,40		2,36,50,10, 0	
		1,40,54,51,57,44,59, 2		7,23
40″	35,45,17,18,23,51,42,51,42,42		2,36,50,17,23	
		1,40,54,49,20,54,41,39		7,23
42″	35,45,18,59,18,41, 3,46,24,21		2,36,50,24,46	
		1,40,54,46,44, 4,16,53		7,23
44″	35,45,20,40,13,27,47,50,41,14		2,36,50,32, 9	
		1,40,54,44, 7,13,44,44		7,23
46″	35,45,22,21, 8,11,55, 4,25,58		2,36,50,39,32	
		1,40,54,41,30,23, 5,12		7,23
48″	35,45,24, 2, 2,53,25,27,31,10		2,36,50,46,55	
		1,40,54,38,53,32,18,17		7,23
50″	35,45,25,42,57,32,18,59,49,27		2,36,50,54,18	
		1,40,54,36,16,41,23,59		7,23
52″	35,45,27,23,52, 8,35,41,13,26		2,36,51, 1,41	
		1,40,54,33,39,50,22,18		7,23
54″	35,45,29, 4,46,42,15,31,35,44		2,36,51, 9, 4	
		1,40,54,31, 2,59,13,14		7,23
56″	35,45,30,45,41,13,18,30,48,58		2,36,51,16,27	
		1,40,54,28,26, 7,56,47		7,23
58″	35,45,32,26,35,41,44,38,45,45		2,36,51,23,50	
		1,40,54,25,49,16,32,57		
60″	35,45,34, 7,30, 7,33,55,18,42			
exact	35,45,34, 7,30, 7,33,55,38,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°35′ 0″	35,45,34, 7,30, 7,33,55,38,25	1,40,54,23,12,25, 3,56		
2″	35,45,35,48,24,30,46,20,42,21	1,40,54,20,35,33,25,30	2,36,51,38,26	7,23
4″	35,45,37,29,18,51,21,54, 7,51	1,40,54,17,58,41,39,41	2,36,51,45,49	7,23
6″	35,45,39,10,13, 9,20,35,47,32	1,40,54,15,21,49,46,29	2,36,51,53,12	7,23
8″	35,45,40,51, 7,24,42,25,34, 1	1,40,54,12,44,57,45,54	2,36,52, 0,35	7,23
10″	35,45,42,32, 1,37,27,23,19,55	1,40,54,10, 8, 5,37,56	2,36,52, 7,58	7,23
12″	35,45,44,12,55,47,35,28,57,51	1,40,54, 7,31,13,22,35	2,36,52,15,21	7,23
14″	35,45,45,53,49,55, 6,42,20,26	1,40,54, 4,54,20,59,51	2,36,52,22,44	7,23
16″	35,45,47,34,44, 0, 1, 3,20,17	1,40,54, 2,17,28,29,44	2,36,52,30, 7	7,23
18″	35,45,49,15,38, 2,18,31,50, 1	1,40,53,59,40,35,52,14	2,36,52,37,30	7,23
20″	35,45,50,56,32, 1,59, 7,42,15	1,40,53,57, 3,43, 7,21	2,36,52,44,53	7,23
22″	35,45,52,37,25,59, 2,50,49,36	1,40,53,54,26,50,15, 5	2,36,52,52,16	7,23
24″	35,45,54,18,19,53,29,41, 4,41	1,40,53,51,49,57,15,26	2,36,52,59,39	7,23
26″	35,45,55,59,13,45,19,38,20, 7	1,40,53,49,13, 4, 8,24	2,36,53, 7, 2	7,23
28″	35,45,57,40, 7,34,32,42,28,31	1,40,53,46,36,10,53,59	2,36,53,14,25	7,23
30″	35,45,59,21, 1,21, 8,53,22,30	1,40,53,43,59,17,32,11	2,36,53,21,48	7,23
32″	35,46, 1, 1,55, 5, 8,10,54,41	1,40,53,41,22,24, 3, 0	2,36,53,29,11	7,23
34″	35,46, 2,42,48,46,30,34,57,41	1,40,53,38,45,30,26,26	2,36,53,36,34	7,23
36″	35,46, 4,23,42,25,16, 5,24, 7	1,40,53,36, 8,36,42,29	2,36,53,43,57	7,23
38″	35,46, 6, 4,36, 1,24,42, 6,36	1,40,53,33,31,42,51, 9	2,36,53,51,20	7,23
40″	35,46, 7,45,29,34,56,24,57,45	1,40,53,30,54,48,52,26	2,36,53,58,43	7,23
42″	35,46, 9,26,23, 5,51,13,50,11	1,40,53,28,17,54,46,20	2,36,54, 6, 6	7,23
44″	35,46,11, 7,16,34, 9, 8,36,31	1,40,53,25,41, 0,32,51	2,36,54,13,29	7,23
46″	35,46,12,48, 9,59,50, 9, 9,22	1,40,53,23, 4, 6,11,59	2,36,54,20,52	7,23
48″	35,46,14,29, 3,22,54,15,21,21	1,40,53,20,27,11,43,44	2,36,54,28,15	7,23
50″	35,46,16, 9,56,43,21,27, 5, 5	1,40,53,17,50,17, 8, 6	2,36,54,35,38	7,23
52″	35,46,17,50,50, 1,11,44,13,11	1,40,53,15,13,22,25, 5	2,36,54,43, 1	7,23
54″	35,46,19,31,43,16,25, 6,38,16	1,40,53,12,36,27,34,41	2,36,54,50,24	7,23
56″	35,46,21,12,36,29, 1,34,12,57	1,40,53, 9,59,32,36,54	2,36,54,57,47	7,23
58″	35,46,22,53,29,39, 1, 6,49,51	1,40,53, 7,22,37,31,44	2,36,55, 5,10	
60″	35,46,24,34,22,46,23,44,21,35			
exact	35,46,24,34,22,46,23,44,46,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°36′ 0″	35,46,24,34,22,46,23,44,46,34			
		1,40,53, 4,45,42,22, 0		
2″	35,46,26,15,15,51, 9,27, 8,34		2,36,55,19,44	
		1,40,53, 2, 8,47, 2,16		7,23
4″	35,46,27,56, 8,53,18,14,10,50		2,36,55,27, 7	
		1,40,52,59,31,51,35, 9		7,23
6″	35,46,29,37, 1,52,50, 5,45,59		2,36,55,34,30	
		1,40,52,56,54,56, 0,39		7,23
8″	35,46,31,17,54,49,45, 1,46,38		2,36,55,41,53	
		1,40,52,54,18, 0,18,46		7,23
10″	35,46,32,58,47,44, 3, 2, 5,24		2,36,55,49,16	
		1,40,52,51,41, 4,29,30		7,23
12″	35,46,34,39,40,35,44, 6,34,54		2,36,55,56,39	
		1,40,52,49, 4, 8,32,51		7,23
14″	35,46,36,20,33,24,48,15, 7,45		2,36,56, 4, 2	
		1,40,52,46,27,12,28,49		7,23
16″	35,46,38, 1,26,11,15,27,36,34		2,36,56,11,25	
		1,40,52,43,50,16,17,24		7,23
18″	35,46,39,42,18,55, 5,43,53,58		2,36,56,18,48	
		1,40,52,41,13,19,58,36		7,23
20″	35,46,41,23,11,36,19, 3,52,34		2,36,56,26,11	
		1,40,52,38,36,23,32,25		7,23
22″	35,46,43, 4, 4,14,55,27,24,59		2,36,56,33,34	
		1,40,52,35,59,26,58,51		7,23
24″	35,46,44,44,56,50,54,54,23,50		2,36,56,40,57	
		1,40,52,33,22,30,17,54		7,23
26″	35,46,46,25,49,24,17,24,41,44		2,36,56,48,20	
		1,40,52,30,45,33,29,34		7,23
28″	35,46,48, 6,41,55, 2,58,11,18		2,36,56,55,43	
		1,40,52,28, 8,36,33,51		7,23
30″	35,46,49,47,34,23,11,34,45, 9		2,36,57, 3, 6	
		1,40,52,25,31,39,30,45		7,23
32″	35,46,51,28,26,48,43,14,15,54		2,36,57,10,29	
		1,40,52,22,54,42,20,16		7,23
34″	35,46,53, 9,19,11,37,56,36,10		2,36,57,17,52	
		1,40,52,20,17,45, 2,24		7,23
36″	35,46,54,50,11,31,55,41,38,34		2,36,57,25,15	
		1,40,52,17,40,47,37, 9		7,23
38″	35,46,56,31, 3,49,36,29,15,43		2,36,57,32,38	
		1,40,52,15, 3,50, 4,31		7,23
40″	35,46,58,11,56, 4,40,19,20,14		2,36,57,40, 1	
		1,40,52,12,26,52,24,30		7,23
42″	35,46,59,52,48,17, 7,11,44,44		2,36,57,47,24	
		1,40,52, 9,49,54,37, 6		7,23
44″	35,47, 1,33,40,26,57, 6,21,50		2,36,57,54,47	
		1,40,52, 7,12,56,42,19		7,23
46″	35,47, 3,14,32,34,10, 3, 4, 9		2,36,58, 2,10	
		1,40,52, 4,35,58,40, 9		7,23
48″	35,47, 4,55,24,38,46, 1,44,18		2,36,58, 9,33	
		1,40,52, 1,59, 0,30,36		7,23
50″	35,47, 6,36,16,40,45, 2,14,54		2,36,58,16,56	
		1,40,51,59,22, 2,13,40		7,23
52″	35,47, 8,17, 8,40, 7, 4,28,34		2,36,58,24,19	
		1,40,51,56,45, 3,49,21		7,23
54″	35,47, 9,58, 0,36,52, 8,17,55		2,36,58,31,42	
		1,40,51,54, 8, 5,17,39		7,23
56″	35,47,11,38,52,31, 0,13,35,34		2,36,58,39, 5	
		1,40,51,51,31, 6,38,34		7,23
58″	35,47,13,19,44,22,31,20,14, 8		2,36,58,46,28	
		1,40,51,48,54, 7,52, 6		
60″	35,47,15, 0,36,11,25,28, 6,14			
exact	35,47,15, 0,36,11,25,28,42,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°37′ 0″	35,47,15, 0,36,11,25,28,42,57			
		1,40,51,46,17, 9, 2, 7		
2″	35,47,16,41,27,57,42,37,45, 4		2,36,59, 0,58	
		1,40,51,43,40,10, 1, 9		7,22
4″	35,47,18,22,19,41,22,47,46,13		2,36,59, 8,20	
		1,40,51,41, 3,10,52,49		7,22
6″	35,47,20, 3,11,22,25,58,39, 2		2,36,59,15,42	
		1,40,51,38,26,11,37, 7		7,22
8″	35,47,21,44, 3, 0,52,10,16, 9		2,36,59,23, 4	
		1,40,51,35,49,12,14, 3		7,22
10″	35,47,23,24,54,36,41,22,30,12		2,36,59,30,26	
		1,40,51,33,12,12,43,37		7,22
12″	35,47,25, 5,46, 9,53,35,13,49		2,36,59,37,48	
		1,40,51,30,35,13, 5,49		7,22
14″	35,47,26,46,37,40,28,48,19,38		2,36,59,45,10	
		1,40,51,27,58,13,20,39		7,22
16″	35,47,28,27,29, 8,27, 1,40,17		2,36,59,52,32	
		1,40,51,25,21,13,28, 7		7,22
18″	35,47,30, 8,20,33,48,15, 8,24		2,36,59,59,54	
		1,40,51,22,44,13,28,13		7,22
20″	35,47,31,49,11,56,32,28,36,37		2,37, 0, 7,16	
		1,40,51,20, 7,13,20,57		7,22
22″	35,47,33,30, 3,16,39,41,57,34		2,37, 0,14,38	
		1,40,51,17,30,13, 6,19		7,22
24″	35,47,35,10,54,34, 9,55, 3,53		2,37, 0,22, 0	
		1,40,51,14,53,12,44,19		7,22
26″	35,47,36,51,45,49, 3, 7,48,12		2,37, 0,29,22	
		1,40,51,12,16,12,14,57		7,22
28″	35,47,38,32,37, 1,19,20, 3, 9		2,37, 0,36,44	
		1,40,51, 9,39,11,38,13		7,22
30″	35,47,40,13,28,10,58,31,41,22		2,37, 0,44, 6	
		1,40,51, 7, 2,10,54, 7		7,22
32″	35,47,41,54,19,18, 0,42,35,29		2,37, 0,51,28	
		1,40,51, 4,25,10, 2,39		7,22
34″	35,47,43,35,10,22,25,52,38, 8		2,37, 0,58,50	
		1,40,51, 1,48, 9, 3,49		7,22
36″	35,47,45,16, 1,24,14, 1,41,57		2,37, 1, 6,12	
		1,40,50,59,11, 7,57,37		7,22
38″	35,47,46,56,52,23,25, 9,39,34		2,37, 1,13,34	
		1,40,50,56,34, 6,44, 3		7,22
40″	35,47,48,37,43,19,59,16,23,37		2,37, 1,20,56	
		1,40,50,53,57, 5,23, 7		7,22
42″	35,47,50,18,34,13,56,21,46,44		2,37, 1,28,18	
		1,40,50,51,20, 3,54,49		7,22
44″	35,47,51,59,25, 5,16,25,41,33		2,37, 1,35,40	
		1,40,50,48,43, 2,19, 9		7,22
46″	35,47,53,40,15,53,59,28, 0,42		2,37, 1,43, 2	
		1,40,50,46, 6, 0,36, 7		7,22
48″	35,47,55,21, 6,40, 5,28,36,49		2,37, 1,50,24	
		1,40,50,43,28,58,45,43		7,22
50″	35,47,57, 1,57,23,34,27,22,32		2,37, 1,57,46	
		1,40,50,40,51,56,47,57		7,22
52″	35,47,58,42,48, 4,26,24,10,29		2,37, 2, 5, 8	
		1,40,50,38,14,54,42,49		7,22
54″	35,48, 0,23,38,42,41,18,53,18		2,37, 2,12,30	
		1,40,50,35,37,52,30,19		7,22
56″	35,48, 2, 4,29,18,19,11,23,37		2,37, 2,19,52	
		1,40,50,33, 0,50,10,27		7,22
58″	35,48, 3,45,19,51,20, 1,34, 4		2,37, 2,27,14	
		1,40,50,30,23,47,43,13		
60″	35,48, 5,26,10,21,43,49,17,17			
exact	35,48, 5,26,10,21,43,48,50, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°38′ 0″	35,48, 5,26,10,21,43,48,50, 1			
		1,40,50,27,46,45, 5,44		
2″	35,48, 7, 7, 0,49,30,33,55,45		2,37, 2,42, 9	
		1,40,50,25, 9,42,23,35		7,22
4″	35,48, 8,47,51,14,40,16,19,20		2,37, 2,49,31	
		1,40,50,22,32,39,34, 4		7,22
6″	35,48,10,28,41,37,12,55,53,24		2,37, 2,56,53	
		1,40,50,19,55,36,37,11		7,22
8″	35,48,12, 9,31,57, 8,32,30,35		2,37, 3, 4,15	
		1,40,50,17,18,33,32,56		7,22
10″	35,48,13,50,22,14,27, 6, 3,31		2,37, 3,11,37	
		1,40,50,14,41,30,21,19		7,22
12″	35,48,15,31,12,29, 8,36,24,50		2,37, 3,18,59	
		1,40,50,12, 4,27, 2,20		7,22
14″	35,48,17,12, 2,41,13, 3,27,10		2,37, 3,26,21	
		1,40,50, 9,27,23,35,59		7,22
16″	35,48,18,52,52,50,40,27, 3, 9		2,37, 3,33,43	
		1,40,50, 6,50,20, 2,16		7,22
18″	35,48,20,33,42,57,30,47, 5,25		2,37, 3,41, 5	
		1,40,50, 4,13,16,21,11		7,22
20″	35,48,22,14,33, 1,44, 3,26,36		2,37, 3,48,27	
		1,40,50, 1,36,12,32,44		7,22
22″	35,48,23,55,23, 3,20,15,59,20		2,37, 3,55,49	
		1,40,49,58,59, 8,36,55		7,22
24″	35,48,25,36,13, 2,19,24,36,15		2,37, 4, 3,11	
		1,40,49,56,22, 4,33,44		7,22
26″	35,48,27,17, 2,58,41,29, 9,59		2,37, 4,10,33	
		1,40,49,53,45, 0,23,11		7,22
28″	35,48,28,57,52,52,26,29,33,10		2,37, 4,17,55	
		1,40,49,51, 7,56, 5,16		7,22
30″	35,48,30,38,42,43,34,25,38,26		2,37, 4,25,17	
		1,40,49,48,30,51,39,59		7,22
32″	35,48,32,19,32,32, 5,17,18,25		2,37, 4,32,39	
		1,40,49,45,53,47, 7,20		7,22
34″	35,48,34, 0,22,17,59, 4,25,45		2,37, 4,40, 1	
		1,40,49,43,16,42,27,19		7,22
36″	35,48,35,41,12, 1,15,46,53, 4		2,37, 4,47,23	
		1,40,49,40,39,37,39,56		7,22
38″	35,48,37,22, 1,41,55,24,33, 0		2,37, 4,54,45	
		1,40,49,38, 2,32,45,11		7,22
40″	35,48,39, 2,51,19,57,57,18,11		2,37, 5, 2, 7	
		1,40,49,35,25,27,43, 4		7,22
42″	35,48,40,43,40,55,23,25, 1,15		2,37, 5, 9,29	
		1,40,49,32,48,22,33,35		7,22
44″	35,48,42,24,30,28,11,47,34,50		2,37, 5,16,51	
		1,40,49,30,11,17,16,44		7,22
46″	35,48,44, 5,19,58,23, 4,51,34		2,37, 5,24,13	
		1,40,49,27,34,11,52,31		7,22
48″	35,48,45,46, 9,25,57,16,44, 5		2,37, 5,31,35	
		1,40,49,24,57, 6,20,56		7,22
50″	35,48,47,26,58,50,54,23, 5, 1		2,37, 5,38,57	
		1,40,49,22,20, 0,41,59		7,22
52″	35,48,49, 7,48,13,14,23,47, 0		2,37, 5,46,19	
		1,40,49,19,42,54,55,40		7,22
54″	35,48,50,48,37,32,57,18,42,40		2,37, 5,53,41	
		1,40,49,17, 5,49, 1,59		7,22
56″	35,48,52,29,26,50, 3, 7,44,39		2,37, 6, 1, 3	
		1,40,49,14,28,43, 0,56		7,22
58″	35,48,54,10,16, 4,31,50,45,35		2,37, 6, 8,25	
		1,40,49,11,51,36,52,31		
60″	35,48,55,51, 5,16,23,27,38, 6			
exact	35,48,55,51, 5,16,23,27,13,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°39′ 0″	35,48,55,51, 5,16,23,27,13,17			
		1,40,49, 9,14,30,34,16		
2″	35,48,57,31,54,25,37,57,47,33		2,37, 6,23,18	
		1,40,49, 6,37,24,10,58		7,22
4″	35,48,59,12,43,32,15,21,58,31		2,37, 6,30,40	
		1,40,49, 4, 0,17,40,18		7,22
6″	35,49, 0,53,32,36,15,39,38,49		2,37, 6,38, 2	
		1,40,49, 1,23,11, 2,16		7,22
8″	35,49, 2,34,21,37,38,50,41, 5		2,37, 6,45,24	
		1,40,48,58,46, 4,16,52		7,22
10″	35,49, 4,15,10,36,24,54,57,57		2,37, 6,52,46	
		1,40,48,56, 8,57,24, 6		7,22
12″	35,49, 5,55,59,32,33,52,22, 3		2,37, 7, 0, 8	
		1,40,48,53,31,50,23,58		7,22
14″	35,49, 7,36,48,26, 5,42,46, 1		2,37, 7, 7,30	
		1,40,48,50,54,43,16,28		7,22
16″	35,49, 9,17,37,17, 0,26, 2,29		2,37, 7,14,52	
		1,40,48,48,17,36, 1,36		7,22
18″	35,49,10,58,26, 5,18, 2, 4, 5		2,37, 7,22,14	
		1,40,48,45,40,28,39,22		7,22
20″	35,49,12,39,14,50,58,30,43,27		2,37, 7,29,36	
		1,40,48,43, 3,21, 9,46		7,22
22″	35,49,14,20, 3,34, 1,51,53,13		2,37, 7,36,58	
		1,40,48,40,26,13,32,48		7,22
24″	35,49,16, 0,52,14,28, 5,26, 1		2,37, 7,44,20	
		1,40,48,37,49, 5,48,28		7,22
26″	35,49,17,41,40,52,17,11,14,29		2,37, 7,51,42	
		1,40,48,35,11,57,56,46		7,22
28″	35,49,19,22,29,27,29, 9,11,15		2,37, 7,59, 4	
		1,40,48,32,34,49,57,42		7,22
30″	35,49,21, 3,18, 0, 3,59, 8,57		2,37, 8, 6,26	
		1,40,48,29,57,41,51,16		7,22
32″	35,49,22,44, 6,30, 1,41, 0,13		2,37, 8,13,48	
		1,40,48,27,20,33,37,28		7,22
34″	35,49,24,24,54,57,22,14,37,41		2,37, 8,21,10	
		1,40,48,24,43,25,16,18		7,22
36″	35,49,26, 5,43,22, 5,39,53,59		2,37, 8,28,32	
		1,40,48,22, 6,16,47,46		7,22
38″	35,49,27,46,31,44,11,56,41,45		2,37, 8,35,54	
		1,40,48,19,29, 8,11,52		7,22
40″	35,49,29,27,20, 3,41, 4,53,37		2,37, 8,43,16	
		1,40,48,16,51,59,28,36		7,22
42″	35,49,31, 8, 8,20,33, 4,22,13		2,37, 8,50,38	
		1,40,48,14,14,50,37,58		7,22
44″	35,49,32,48,56,34,47,55, 0,11		2,37, 8,58, 0	
		1,40,48,11,37,41,39,58		7,22
46″	35,49,34,29,44,46,25,36,40, 9		2,37, 9, 5,22	
		1,40,48, 9, 0,32,34,36		7,22
48″	35,49,36,10,32,55,26, 9,14,45		2,37, 9,12,44	
		1,40,48, 6,23,23,21,52		7,22
50″	35,49,37,51,21, 1,49,32,36,37		2,37, 9,20, 6	
		1,40,48, 3,46,14, 1,46		7,22
52″	35,49,39,32, 9, 5,35,46,38,23		2,37, 9,27,28	
		1,40,48, 1, 9, 4,34,18		7,22
54″	35,49,41,12,57, 6,44,51,12,41		2,37, 9,34,50	
		1,40,47,58,31,54,59,28		7,22
56″	35,49,42,53,45, 5,16,46,12, 9		2,37, 9,42,12	
		1,40,47,55,54,45,17,16		7,22
58″	35,49,44,34,33, 1,11,31,29,25		2,37, 9,49,34	
		1,40,47,53,17,35,27,42		
60″	35,49,46,15,20,54,29, 6,57, 7			
exact	35,49,46,15,20,54,29, 6,41,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°40′ 0″	35,49,46,15,20,54,29, 6,41,19			
		1,40,47,50,40,25,29,10		
2″	35,49,47,56, 8,45, 9,32,10,29		2,37,10, 4,24	
		1,40,47,48, 3,15,24,46		7,22
4″	35,49,49,36,56,33,12,47,35,15		2,37,10,11,46	
		1,40,47,45,26, 5,13, 0		7,22
6″	35,49,51,17,44,18,38,52,48,15		2,37,10,19, 8	
		1,40,47,42,48,54,53,52		7,22
8″	35,49,52,58,32, 1,27,47,42, 7		2,37,10,26,30	
		1,40,47,40,11,44,27,22		7,22
10″	35,49,54,39,19,41,39,32, 9,29		2,37,10,33,52	
		1,40,47,37,34,33,53,30		7,22
12″	35,49,56,20, 7,19,14, 6, 2,59		2,37,10,41,14	
		1,40,47,34,57,23,12,16		7,22
14″	35,49,58, 0,54,54,11,29,15,15		2,37,10,48,36	
		1,40,47,32,20,12,23,40		7,22
16″	35,49,59,41,42,26,31,41,38,55		2,37,10,55,58	
		1,40,47,29,43, 1,27,42		7,22
18″	35,50, 1,22,29,56,14,43, 6,37		2,37,11, 3,20	
		1,40,47,27, 5,50,24,22		7,22
20″	35,50, 3, 3,17,23,20,33,30,59		2,37,11,10,42	
		1,40,47,24,28,39,13,40		7,22
22″	35,50, 4,44, 4,47,49,12,44,39		2,37,11,18, 4	
		1,40,47,21,51,27,55,36		7,22
24″	35,50, 6,24,52, 9,40,40,40,15		2,37,11,25,26	
		1,40,47,19,14,16,30,10		7,22
26″	35,50, 8, 5,39,28,54,57,10,25		2,37,11,32,48	
		1,40,47,16,37, 4,57,22		7,22
28″	35,50, 9,46,26,45,32, 2, 7,47		2,37,11,40,10	
		1,40,47,13,59,53,17,12		7,22
30″	35,50,11,27,13,59,31,55,24,59		2,37,11,47,32	
		1,40,47,11,22,41,29,40		7,22
32″	35,50,13, 8, 1,10,54,36,54,39		2,37,11,54,54	
		1,40,47, 8,45,29,34,46		7,22
34″	35,50,14,48,48,19,40, 6,29,25		2,37,12, 2,16	
		1,40,47, 6, 8,17,32,30		7,22
36″	35,50,16,29,35,25,48,24, 1,55		2,37,12, 9,38	
		1,40,47, 3,31, 5,22,52		7,22
38″	35,50,18,10,22,29,19,29,24,47		2,37,12,17, 0	
		1,40,47, 0,53,53, 5,52		7,22
40″	35,50,19,51, 9,30,13,22,30,39		2,37,12,24,22	
		1,40,46,58,16,40,41,30		7,22
42″	35,50,21,31,56,28,30, 3,12, 9		2,37,12,31,44	
		1,40,46,55,39,28, 9,46		7,22
44″	35,50,23,12,43,24, 9,31,21,55		2,37,12,39, 6	
		1,40,46,53, 2,15,30,40		7,22
46″	35,50,24,53,30,17,11,46,52,35		2,37,12,46,28	
		1,40,46,50,25, 2,44,12		7,22
48″	35,50,26,34,17, 7,36,49,36,47		2,37,12,53,50	
		1,40,46,47,47,49,50,22		7,22
50″	35,50,28,15, 3,55,24,39,27, 9		2,37,13, 1,12	
		1,40,46,45,10,36,49,10		7,22
52″	35,50,29,55,50,40,35,16,16,19		2,37,13, 8,34	
		1,40,46,42,33,23,40,36		7,22
54″	35,50,31,36,37,23, 8,39,56,55		2,37,13,15,56	
		1,40,46,39,56,10,24,40		7,22
56″	35,50,33,17,24, 3, 4,50,21,35		2,37,13,23,18	
		1,40,46,37,18,57, 1,22		7,22
58″	35,50,34,58,10,40,23,47,22,57		2,37,13,30,40	
		1,40,46,34,41,43,30,42		
60″	35,50,36,38,57,15, 5,30,53,39			
exact	35,50,36,38,57,15, 5,30,45,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°41′ 0″	35,50,36,38,57,15, 5,30,45,45			
		1,40,46,32, 4,29,51,52		
2″	35,50,38,19,43,47,10, 0,37,37		2,37,13,45,27	
		1,40,46,29,27,16, 6,25		7,22
4″	35,50,40, 0,30,16,37,16,44, 2		2,37,13,52,49	
		1,40,46,26,50, 2,13,36		7,22
6″	35,50,41,41,16,43,27,18,57,38		2,37,14, 0,11	
		1,40,46,24,12,48,13,25		7,22
8″	35,50,43,22, 3, 7,40, 7,11, 3		2,37,14, 7,33	
		1,40,46,21,35,34, 5,52		7,22
10″	35,50,45, 2,49,29,15,41,16,55		2,37,14,14,55	
		1,40,46,18,58,19,50,57		7,22
12″	35,50,46,43,35,48,14, 1, 7,52		2,37,14,22,17	
		1,40,46,16,21, 5,28,40		7,22
14″	35,50,48,24,22, 4,35, 6,36,32		2,37,14,29,39	
		1,40,46,13,43,50,59, 1		7,22
16″	35,50,50, 5, 8,18,18,57,35,33		2,37,14,37, 1	
		1,40,46,11, 6,36,22, 0		7,22
18″	35,50,51,45,54,29,25,33,57,33		2,37,14,44,23	
		1,40,46, 8,29,21,37,37		7,22
20″	35,50,53,26,40,37,54,55,35,10		2,37,14,51,45	
		1,40,46, 5,52, 6,45,52		7,22
22″	35,50,55, 7,26,43,47, 2,21, 2		2,37,14,59, 7	
		1,40,46, 3,14,51,46,45		7,22
24″	35,50,56,48,12,47, 1,54, 7,47		2,37,15, 6,29	
		1,40,46, 0,37,36,40,16		7,22
26″	35,50,58,28,58,47,39,30,48, 3		2,37,15,13,51	
		1,40,45,58, 0,21,26,25		7,22
28″	35,51, 0, 9,44,45,39,52,14,28		2,37,15,21,13	
		1,40,45,55,23, 6, 5,12		7,22
30″	35,51, 1,50,30,41, 2,58,19,40		2,37,15,28,35	
		1,40,45,52,45,50,36,37		7,22
32″	35,51, 3,31,16,33,48,48,56,17		2,37,15,35,57	
		1,40,45,50, 8,35, 0,40		7,22
34″	35,51, 5,12, 2,23,57,23,56,57		2,37,15,43,19	
		1,40,45,47,31,19,17,21		7,22
36″	35,51, 6,52,48,11,28,43,14,18		2,37,15,50,41	
		1,40,45,44,54, 3,26,40		7,22
38″	35,51, 8,33,33,56,22,46,40,58		2,37,15,58, 3	
		1,40,45,42,16,47,28,37		7,22
40″	35,51,10,14,19,38,39,34, 9,35		2,37,16, 5,25	
		1,40,45,39,39,31,23,12		7,22
42″	35,51,11,55, 5,18,19, 5,32,47		2,37,16,12,47	
		1,40,45,37, 2,15,10,25		7,22
44″	35,51,13,35,50,55,21,20,43,12		2,37,16,20, 9	
		1,40,45,34,24,58,50,16		7,22
46″	35,51,15,16,36,29,46,19,33,28		2,37,16,27,31	
		1,40,45,31,47,42,22,45		7,22
48″	35,51,16,57,22, 1,34, 1,56,13		2,37,16,34,53	
		1,40,45,29,10,25,47,52		7,22
50″	35,51,18,38, 7,30,44,27,44, 5		2,37,16,42,15	
		1,40,45,26,33, 9, 5,37		7,22
52″	35,51,20,18,52,57,17,36,49,42		2,37,16,49,37	
		1,40,45,23,55,52,16, 0		7,22
54″	35,51,21,59,38,21,13,29, 5,42		2,37,16,56,59	
		1,40,45,21,18,35,19, 1		7,22
56″	35,51,23,40,23,42,32, 4,24,43		2,37,17, 4,21	
		1,40,45,18,41,18,14,40		7,22
58″	35,51,25,21, 9, 1,13,22,39,23		2,37,17,11,43	
		1,40,45,16, 4, 1, 2,57		
60″	35,51,27, 1,54,17,17,23,42,20			
exact	35,51,27, 1,54,17,17,23,41,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°42′ 0″	35,51,27, 1,54,17,17,23,41,16			
		1,40,45,13,26,43,43,47		
2″	35,51,28,42,39,30,44, 7,25, 3		2,37,17,26,27	
		1,40,45,10,49,26,17,20		7,22
4″	35,51,30,23,24,41,33,33,42,23		2,37,17,33,49	
		1,40,45, 8,12, 8,43,31		7,22
6″	35,51,32, 4, 9,49,45,42,25,54		2,37,17,41,11	
		1,40,45, 5,34,51, 2,20		7,22
8″	35,51,33,44,54,55,20,33,28,14		2,37,17,48,33	
		1,40,45, 2,57,33,13,47		7,22
10″	35,51,35,25,39,58,18, 6,42, 1		2,37,17,55,55	
		1,40,45, 0,20,15,17,52		7,22
12″	35,51,37, 6,24,58,38,21,59,53		2,37,18, 3,17	
		1,40,44,57,42,57,14,35		7,22
14″	35,51,38,47, 9,56,21,19,14,28		2,37,18,10,39	
		1,40,44,55, 5,39, 3,56		7,22
16″	35,51,40,27,54,51,26,58,18,24		2,37,18,18, 1	
		1,40,44,52,28,20,45,55		7,22
18″	35,51,42, 8,39,43,55,19, 4,19		2,37,18,25,23	
		1,40,44,49,51, 2,20,32		7,22
20″	35,51,43,49,24,33,46,21,24,51		2,37,18,32,45	
		1,40,44,47,13,43,47,47		7,22
22″	35,51,45,30, 9,21, 0, 5,12,38		2,37,18,40, 7	
		1,40,44,44,36,25, 7,40		7,22
24″	35,51,47,10,54, 5,36,30,20,18		2,37,18,47,29	
		1,40,44,41,59, 6,20,11		7,22
26″	35,51,48,51,38,47,35,36,40,29		2,37,18,54,51	
		1,40,44,39,21,47,25,20		7,22
28″	35,51,50,32,23,26,57,24, 5,49		2,37,19, 2,13	
		1,40,44,36,44,28,23, 7		7,22
30″	35,51,52,13, 8, 3,41,52,28,56		2,37,19, 9,35	
		1,40,44,34, 7, 9,13,32		7,22
32″	35,51,53,53,52,37,49, 1,42,28		2,37,19,16,57	
		1,40,44,31,29,49,56,35		7,22
34″	35,51,55,34,37, 9,18,51,39, 3		2,37,19,24,19	
		1,40,44,28,52,30,32,16		7,22
36″	35,51,57,15,21,38,11,22,11,19		2,37,19,31,41	
		1,40,44,26,15,11, 0,35		7,22
38″	35,51,58,56, 6, 4,26,33,11,54		2,37,19,39, 3	
		1,40,44,23,37,51,21,32		7,22
40″	35,52, 0,36,50,28, 4,24,33,26		2,37,19,46,25	
		1,40,44,21, 0,31,35, 7		7,22
42″	35,52, 2,17,34,49, 4,56, 8,33		2,37,19,53,47	
		1,40,44,18,23,11,41,20		7,22
44″	35,52, 3,58,19, 7,28, 7,49,53		2,37,20, 1, 9	
		1,40,44,15,45,51,40,11		7,22
46″	35,52, 5,39, 3,23,13,59,30, 4		2,37,20, 8,31	
		1,40,44,13, 8,31,31,40		7,22
48″	35,52, 7,19,47,36,22,31, 1,44		2,37,20,15,53	
		1,40,44,10,31,11,15,47		7,22
50″	35,52, 9, 0,31,46,53,42,17,31		2,37,20,23,15	
		1,40,44, 7,53,50,52,32		7,22
52″	35,52,10,41,15,54,47,33,10, 3		2,37,20,30,37	
		1,40,44, 5,16,30,21,55		7,22
54″	35,52,12,22, 0, 0, 4, 3,31,58		2,37,20,37,59	
		1,40,44, 2,39, 9,43,56		7,22
56″	35,52,14, 2,44, 2,43,13,15,54		2,37,20,45,21	
		1,40,44, 0, 1,48,58,35		7,22
58″	35,52,15,43,28, 2,45, 2,14,29		2,37,20,52,43	
		1,40,43,57,24,28, 5,52		
60″	35,52,17,24,12, 0, 9,30,20,21			
exact	35,52,17,24,12, 0, 9,30,25,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°43′ 0″	35,52,17,24,12, 0, 9,30,25,44			
		1,40,43,54,47, 7, 6,23		
2″	35,52,19, 4,55,54,56,37,32, 7		2,37,21, 7,24	
		1,40,43,52, 9,45,58,59		7,22
4″	35,52,20,45,39,47, 6,23,31, 6		2,37,21,14,46	
		1,40,43,49,32,24,44,13		7,22
6″	35,52,22,26,23,36,38,48,15,19		2,37,21,22, 8	
		1,40,43,46,55, 3,22, 5		7,22
8″	35,52,24, 7, 7,23,33,51,37,24		2,37,21,29,30	
		1,40,43,44,17,41,52,35		7,22
10″	35,52,25,47,51, 7,51,33,29,59		2,37,21,36,52	
		1,40,43,41,40,20,15,43		7,22
12″	35,52,27,28,34,49,31,53,45,42		2,37,21,44,14	
		1,40,43,39, 2,58,31,29		7,22
14″	35,52,29, 9,18,28,34,52,17,11		2,37,21,51,36	
		1,40,43,36,25,36,39,53		7,22
16″	35,52,30,50, 2, 5, 0,28,57, 4		2,37,21,58,58	
		1,40,43,33,48,14,40,55		7,22
18″	35,52,32,30,45,38,48,43,37,59		2,37,22, 6,20	
		1,40,43,31,10,52,34,35		7,22
20″	35,52,34,11,29, 9,59,36,12,34		2,37,22,13,42	
		1,40,43,28,33,30,20,53		7,22
22″	35,52,35,52,12,38,33, 6,33,27		2,37,22,21, 4	
		1,40,43,25,56, 7,59,49		7,22
24″	35,52,37,32,56, 4,29,14,33,16		2,37,22,28,26	
		1,40,43,23,18,45,31,23		7,22
26″	35,52,39,13,39,27,48, 0, 4,39		2,37,22,35,48	
		1,40,43,20,41,22,55,35		7,22
28″	35,52,40,54,22,48,29,23, 0,14		2,37,22,43,10	
		1,40,43,18, 4, 0,12,25		7,22
30″	35,52,42,35, 6, 6,33,23,12,39		2,37,22,50,32	
		1,40,43,15,26,37,21,53		7,22
32″	35,52,44,15,49,22, 0, 0,34,32		2,37,22,57,54	
		1,40,43,12,49,14,23,59		7,22
34″	35,52,45,56,32,34,49,14,58,31		2,37,23, 5,16	
		1,40,43,10,11,51,18,43		7,22
36″	35,52,47,37,15,45, 1, 6,17,14		2,37,23,12,38	
		1,40,43, 7,34,28, 6, 5		7,22
38″	35,52,49,17,58,52,35,34,23,19		2,37,23,20, 0	
		1,40,43, 4,57, 4,46, 5		7,22
40″	35,52,50,58,41,57,32,39, 9,24		2,37,23,27,22	
		1,40,43, 2,19,41,18,43		7,22
42″	35,52,52,39,24,59,52,20,28, 7		2,37,23,34,44	
		1,40,42,59,42,17,43,59		7,22
44″	35,52,54,20, 7,59,34,38,12, 6		2,37,23,42, 6	
		1,40,42,57, 4,54, 1,53		7,22
46″	35,52,56, 0,50,56,39,32,13,59		2,37,23,49,28	
		1,40,42,54,27,30,12,25		7,22
48″	35,52,57,41,33,51, 7, 2,26,24		2,37,23,56,50	
		1,40,42,51,50, 6,15,35		7,22
50″	35,52,59,22,16,42,57, 8,41,59		2,37,24, 4,12	
		1,40,42,49,12,42,11,23		7,22
52″	35,53, 1, 2,59,32, 9,50,53,22		2,37,24,11,34	
		1,40,42,46,35,17,59,49		7,22
54″	35,53, 2,43,42,18,45, 8,53,11		2,37,24,18,56	
		1,40,42,43,57,53,40,53		7,22
56″	35,53, 4,24,25, 2,43, 2,34, 4		2,37,24,26,18	
		1,40,42,41,20,29,14,35		7,22
58″	35,53, 6, 5, 7,44, 3,31,48,39		2,37,24,33,40	
		1,40,42,38,43, 4,40,55		
60″	35,53, 7,45,50,22,46,36,29,34			
exact	35,53, 7,45,50,22,46,36,40, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°44′ 0″	35,53, 7,45,50,22,46,36,40, 5			
		1,40,42,36, 5,40, 1, 5		
2″	35,53, 9,26,32,58,52,16,41,10		2,37,24,48,18	
		1,40,42,33,28,15,12,47		7,22
4″	35,53,11, 7,15,32,20,31,53,57		2,37,24,55,40	
		1,40,42,30,50,50,17, 7		7,22
6″	35,53,12,47,58, 3,11,22,11, 4		2,37,25, 3, 2	
		1,40,42,28,13,25,14, 5		7,22
8″	35,53,14,28,40,31,24,47,25, 9		2,37,25,10,24	
		1,40,42,25,36, 0, 3,41		7,22
10″	35,53,16, 9,22,57, 0,47,28,50		2,37,25,17,46	
		1,40,42,22,58,34,45,55		7,22
12″	35,53,17,50, 5,19,59,22,14,45		2,37,25,25, 8	
		1,40,42,20,21, 9,20,47		7,22
14″	35,53,19,30,47,40,20,31,35,32		2,37,25,32,30	
		1,40,42,17,43,43,48,17		7,22
16″	35,53,21,11,29,58, 4,15,23,49		2,37,25,39,52	
		1,40,42,15, 6,18, 8,25		7,22
18″	35,53,22,52,12,13,10,33,32,14		2,37,25,47,14	
		1,40,42,12,28,52,21,11		7,22
20″	35,53,24,32,54,25,39,25,53,25		2,37,25,54,36	
		1,40,42, 9,51,26,26,35		7,22
22″	35,53,26,13,36,35,30,52,20, 0		2,37,26, 1,58	
		1,40,42, 7,14, 0,24,37		7,22
24″	35,53,27,54,18,42,44,52,44,37		2,37,26, 9,20	
		1,40,42, 4,36,34,15,17		7,22
26″	35,53,29,35, 0,47,21,26,59,54		2,37,26,16,42	
		1,40,42, 1,59, 7,58,35		7,22
28″	35,53,31,15,42,49,20,34,58,29		2,37,26,24, 4	
		1,40,41,59,21,41,34,31		7,22
30″	35,53,32,56,24,48,42,16,33, 0		2,37,26,31,26	
		1,40,41,56,44,15, 3, 5		7,22
32″	35,53,34,37, 6,45,26,31,36, 5		2,37,26,38,48	
		1,40,41,54, 6,48,24,17		7,22
34″	35,53,36,17,48,39,33,20, 0,22		2,37,26,46,10	
		1,40,41,51,29,21,38, 7		7,22
36″	35,53,37,58,30,31, 2,41,38,29		2,37,26,53,32	
		1,40,41,48,51,54,44,35		7,22
38″	35,53,39,39,12,19,54,36,23, 4		2,37,27, 0,54	
		1,40,41,46,14,27,43,41		7,22
40″	35,53,41,19,54, 6, 9, 4, 6,45		2,37,27, 8,16	
		1,40,41,43,37, 0,35,25		7,22
42″	35,53,43, 0,35,49,46, 4,42,10		2,37,27,15,38	
		1,40,41,40,59,33,19,47		7,22
44″	35,53,44,41,17,30,45,38, 1,57		2,37,27,23, 0	
		1,40,41,38,22, 5,56,47		7,22
46″	35,53,46,21,59, 9, 7,43,58,44		2,37,27,30,22	
		1,40,41,35,44,38,26,25		7,22
48″	35,53,48, 2,40,44,52,22,25, 9		2,37,27,37,44	
		1,40,41,33, 7,10,48,41		7,22
50″	35,53,49,43,22,17,59,33,13,50		2,37,27,45, 6	
		1,40,41,30,29,43, 3,35		7,22
52″	35,53,51,24, 3,48,29,16,17,25		2,37,27,52,28	
		1,40,41,27,52,15,11, 7		7,22
54″	35,53,53, 4,45,16,21,31,28,32		2,37,27,59,50	
		1,40,41,25,14,47,11,17		7,22
56″	35,53,54,45,26,41,36,18,39,49		2,37,28, 7,12	
		1,40,41,22,37,19, 4, 5		7,22
58″	35,53,56,26, 8, 4,13,37,43,54		2,37,28,14,34	
		1,40,41,19,59,50,49,31		
60″	35,53,58, 6,49,24,13,28,33,25			
exact	35,53,58, 6,49,24,13,28,48,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°45′ 0″	35,53,58, 6,49,24,13,28,48,23			
		1,40,41,17,22,22,29,21		
2″	35,53,59,47,30,41,35,51,17,44		2,37,28,29,10	
		1,40,41,14,44,54, 0,11		7,22
4″	35,54, 1,28,11,56,20,45,17,55		2,37,28,36,32	
		1,40,41,12, 7,25,23,39		7,22
6″	35,54, 3, 8,53, 8,28,10,41,34		2,37,28,43,54	
		1,40,41, 9,29,56,39,45		7,22
8″	35,54, 4,49,34,17,58, 7,21,19		2,37,28,51,16	
		1,40,41, 6,52,27,48,29		7,22
10″	35,54, 6,30,15,24,50,35, 9,48		2,37,28,58,38	
		1,40,41, 4,14,58,49,51		7,22
12″	35,54, 8,10,56,29, 5,33,59,39		2,37,29, 6, 0	
		1,40,41, 1,37,29,43,51		7,22
14″	35,54, 9,51,37,30,43, 3,43,30		2,37,29,13,22	
		1,40,40,59, 0, 0,30,29		7,22
16″	35,54,11,32,18,29,43, 4,13,59		2,37,29,20,44	
		1,40,40,56,22,31, 9,45		7,22
18″	35,54,13,12,59,26, 5,35,23,44		2,37,29,28, 6	
		1,40,40,53,45, 1,41,39		7,22
20″	35,54,14,53,40,19,50,37, 5,23		2,37,29,35,28	
		1,40,40,51, 7,32, 6,11		7,22
22″	35,54,16,34,21,10,58, 9,11,34		2,37,29,42,50	
		1,40,40,48,30, 2,23,21		7,22
24″	35,54,18,15, 1,59,28,11,34,55		2,37,29,50,12	
		1,40,40,45,52,32,33, 9		7,22
26″	35,54,19,55,42,45,20,44, 8, 4		2,37,29,57,34	
		1,40,40,43,15, 2,35,35		7,22
28″	35,54,21,36,23,28,35,46,43,39		2,37,30, 4,56	
		1,40,40,40,37,32,30,39		7,22
30″	35,54,23,17, 4, 9,13,19,14,18		2,37,30,12,18	
		1,40,40,38, 0, 2,18,21		7,22
32″	35,54,24,57,44,47,13,21,32,39		2,37,30,19,40	
		1,40,40,35,22,31,58,41		7,22
34″	35,54,26,38,25,22,35,53,31,20		2,37,30,27, 2	
		1,40,40,32,45, 1,31,39		7,22
36″	35,54,28,19, 5,55,20,55, 2,59		2,37,30,34,24	
		1,40,40,30, 7,30,57,15		7,22
38″	35,54,29,59,46,25,28,26, 0,14		2,37,30,41,46	
		1,40,40,27,30, 0,15,29		7,22
40″	35,54,31,40,26,52,58,26,15,43		2,37,30,49, 8	
		1,40,40,24,52,29,26,21		7,22
42″	35,54,33,21, 7,17,50,55,42, 4		2,37,30,56,30	
		1,40,40,22,14,58,29,51		7,22
44″	35,54,35, 1,47,40, 5,54,11,55		2,37,31, 3,52	
		1,40,40,19,37,27,25,59		7,22
46″	35,54,36,42,27,59,43,21,37,54		2,37,31,11,14	
		1,40,40,16,59,56,14,45		7,22
48″	35,54,38,23, 8,16,43,17,52,39		2,37,31,18,36	
		1,40,40,14,22,24,56, 9		7,22
50″	35,54,40, 3,48,31, 5,42,48,48		2,37,31,25,58	
		1,40,40,11,44,53,30,11		7,22
52″	35,54,41,44,28,42,50,36,18,59		2,37,31,33,20	
		1,40,40, 9, 7,21,56,51		7,22
54″	35,54,43,25, 8,51,57,58,15,50		2,37,31,40,42	
		1,40,40, 6,29,50,16, 9		7,22
56″	35,54,45, 5,48,58,27,48,31,59		2,37,31,48, 4	
		1,40,40, 3,52,18,28, 5		7,22
58″	35,54,46,46,29, 2,20, 7, 0, 4		2,37,31,55,26	
		1,40,40, 1,14,46,32,39		
60″	35,54,48,27, 9, 3,34,53,32,43			
exact	35,54,48,27, 9, 3,34,53,57,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°46′ 0″	35,54,48,27, 9, 3,34,53,57,53			
		1,40,39,58,37,14,32,35		
2″	35,54,50, 7,49, 2,12, 8,30,28		2,37,32, 9,58	
		1,40,39,55,59,42,22,37		7,22
4″	35,54,51,48,28,58,11,50,53, 5		2,37,32,17,20	
		1,40,39,53,22,10, 5,17		7,22
6″	35,54,53,29, 8,51,34, 0,58,22		2,37,32,24,42	
		1,40,39,50,44,37,40,35		7,22
8″	35,54,55, 9,48,42,18,38,38,57		2,37,32,32, 4	
		1,40,39,48, 7, 5, 8,31		7,22
10″	35,54,56,50,28,30,25,43,47,28		2,37,32,39,26	
		1,40,39,45,29,32,29, 5		7,22
12″	35,54,58,31, 8,15,55,16,16,33		2,37,32,46,48	
		1,40,39,42,51,59,42,17		7,22
14″	35,55, 0,11,47,58,47,15,58,50		2,37,32,54,10	
		1,40,39,40,14,26,48, 7		7,22
16″	35,55, 1,52,27,39, 1,42,46,57		2,37,33, 1,32	
		1,40,39,37,36,53,46,35		7,22
18″	35,55, 3,33, 7,16,38,36,33,32		2,37,33, 8,54	
		1,40,39,34,59,20,37,41		7,22
20″	35,55, 5,13,46,51,37,57,11,13		2,37,33,16,16	
		1,40,39,32,21,47,21,25		7,22
22″	35,55, 6,54,26,23,59,44,32,38		2,37,33,23,38	
		1,40,39,29,44,13,57,47		7,22
24″	35,55, 8,35, 5,53,43,58,30,25		2,37,33,31, 0	
		1,40,39,27, 6,40,26,47		7,22
26″	35,55,10,15,45,20,50,38,57,12		2,37,33,38,22	
		1,40,39,24,29, 6,48,25		7,22
28″	35,55,11,56,24,45,19,45,45,37		2,37,33,45,44	
		1,40,39,21,51,33, 2,41		7,22
30″	35,55,13,37, 4, 7,11,18,48,18		2,37,33,53, 6	
		1,40,39,19,13,59, 9,35		7,22
32″	35,55,15,17,43,26,25,17,57,53		2,37,34, 0,28	
		1,40,39,16,36,25, 9, 7		7,22
34″	35,55,16,58,22,43, 1,43, 7, 0		2,37,34, 7,50	
		1,40,39,13,58,51, 1,17		7,22
36″	35,55,18,39, 1,57, 0,34, 8,17		2,37,34,15,12	
		1,40,39,11,21,16,46, 5		7,22
38″	35,55,20,19,41, 8,21,50,54,22		2,37,34,22,34	
		1,40,39, 8,43,42,23,31		7,22
40″	35,55,22, 0,20,17, 5,33,17,53		2,37,34,29,56	
		1,40,39, 6, 6, 7,53,35		7,22
42″	35,55,23,40,59,23,11,41,11,28		2,37,34,37,18	
		1,40,39, 3,28,33,16,17		7,22
44″	35,55,25,21,38,26,40,14,27,45		2,37,34,44,40	
		1,40,39, 0,50,58,31,37		7,22
46″	35,55,27, 2,17,27,31,12,59,22		2,37,34,52, 2	
		1,40,38,58,13,23,39,35		7,22
48″	35,55,28,42,56,25,44,36,38,57		2,37,34,59,24	
		1,40,38,55,35,48,40,11		7,22
50″	35,55,30,23,35,21,20,25,19, 8		2,37,35, 6,46	
		1,40,38,52,58,13,33,25		7,22
52″	35,55,32, 4,14,14,18,38,52,33		2,37,35,14, 8	
		1,40,38,50,20,38,19,17		7,22
54″	35,55,33,44,53, 4,39,17,11,50		2,37,35,21,30	
		1,40,38,47,43, 2,57,47		7,22
56″	35,55,35,25,31,52,22,20, 9,37		2,37,35,28,52	
		1,40,38,45, 5,27,28,55		7,22
58″	35,55,37, 6,10,37,27,47,38,32		2,37,35,36,14	
		1,40,38,42,27,51,52,41		
60″	35,55,38,46,49,19,55,39,31,13			
exact	35,55,38,46,49,19,55,39,59, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°47′ 0″	35,55,38,46,49,19,55,39,59, 1			
		1,40,38,39,50,16,12,14		
2″	35,55,40,27,27,59,45,56,11,15		2,37,35,50,44	
		1,40,38,37,12,40,21,30		7,21
4″	35,55,42, 8, 6,36,58,36,32,45		2,37,35,58, 5	
		1,40,38,34,35, 4,23,25		7,21
6″	35,55,43,48,45,11,33,40,56,10		2,37,36, 5,26	
		1,40,38,31,57,28,17,59		7,21
8″	35,55,45,29,23,43,31, 9,14, 9		2,37,36,12,47	
		1,40,38,29,19,52, 5,12		7,21
10″	35,55,47,10, 2,12,51, 1,19,21		2,37,36,20, 8	
		1,40,38,26,42,15,45, 4		7,21
12″	35,55,48,50,40,39,33,17, 4,25		2,37,36,27,29	
		1,40,38,24, 4,39,17,35		7,21
14″	35,55,50,31,19, 3,37,56,22, 0		2,37,36,34,50	
		1,40,38,21,27, 2,42,45		7,21
16″	35,55,52,11,57,25, 4,59, 4,45		2,37,36,42,11	
		1,40,38,18,49,26, 0,34		7,21
18″	35,55,53,52,35,43,54,25, 5,19		2,37,36,49,32	
		1,40,38,16,11,49,11, 2		7,21
20″	35,55,55,33,14, 0, 6,14,16,21		2,37,36,56,53	
		1,40,38,13,34,12,14, 9		7,21
22″	35,55,57,13,52,13,40,26,30,30		2,37,37, 4,14	
		1,40,38,10,56,35, 9,55		7,21
24″	35,55,58,54,30,24,37, 1,40,25		2,37,37,11,35	
		1,40,38, 8,18,57,58,20		7,21
26″	35,56, 0,35, 8,32,55,59,38,45		2,37,37,18,56	
		1,40,38, 5,41,20,39,24		7,21
28″	35,56, 2,15,46,38,37,20,18, 9		2,37,37,26,17	
		1,40,38, 3, 3,43,13, 7		7,21
30″	35,56, 3,56,24,41,41, 3,31,16		2,37,37,33,38	
		1,40,38, 0,26, 5,39,29		7,21
32″	35,56, 5,37, 2,42, 7, 9,10,45		2,37,37,40,59	
		1,40,37,57,48,27,58,30		7,21
34″	35,56, 7,17,40,39,55,37, 9,15		2,37,37,48,20	
		1,40,37,55,10,50,10,10		7,21
36″	35,56, 8,58,18,35, 6,27,19,25		2,37,37,55,41	
		1,40,37,52,33,12,14,29		7,21
38″	35,56,10,38,56,27,39,39,33,54		2,37,38, 3, 2	
		1,40,37,49,55,34,11,27		7,21
40″	35,56,12,19,34,17,35,13,45,21		2,37,38,10,23	
		1,40,37,47,17,56, 1, 4		7,21
42″	35,56,14, 0,12, 4,53, 9,46,25		2,37,38,17,44	
		1,40,37,44,40,17,43,20		7,21
44″	35,56,15,40,49,49,33,27,29,45		2,37,38,25, 5	
		1,40,37,42, 2,39,18,15		7,21
46″	35,56,17,21,27,31,36, 6,48, 0		2,37,38,32,26	
		1,40,37,39,25, 0,45,49		7,21
48″	35,56,19, 2, 5,11, 1, 7,33,49		2,37,38,39,47	
		1,40,37,36,47,22, 6, 2		7,21
50″	35,56,20,42,42,47,48,29,39,51		2,37,38,47, 8	
		1,40,37,34, 9,43,18,54		7,21
52″	35,56,22,23,20,21,58,12,58,45		2,37,38,54,29	
		1,40,37,31,32, 4,24,25		7,21
54″	35,56,24, 3,57,53,30,17,23,10		2,37,39, 1,50	
		1,40,37,28,54,25,22,35		7,21
56″	35,56,25,44,35,22,24,42,45,45		2,37,39, 9,11	
		1,40,37,26,16,46,13,24		7,21
58″	35,56,27,25,12,48,41,28,59, 9		2,37,39,16,32	
		1,40,37,23,39, 6,56,52		
60″	35,56,29, 5,50,12,20,35,56, 1			
exact	35,56,29, 5,50,12,20,35,25,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°48′ 0″	35,56,29, 5,50,12,20,35,25,20			
		1,40,37,21, 1,27,29,46		
2″	35,56,30,46,27,33,22, 2,55, 6		2,37,39,31,27	
		1,40,37,18,23,47,58,19		7,21
4″	35,56,32,27, 4,51,45,50,53,25		2,37,39,38,48	
		1,40,37,15,46, 8,19,31		7,21
6″	35,56,34, 7,42, 7,31,59,12,56		2,37,39,46, 9	
		1,40,37,13, 8,28,33,22		7,21
8″	35,56,35,48,19,20,40,27,46,18		2,37,39,53,30	
		1,40,37,10,30,48,39,52		7,21
10″	35,56,37,28,56,31,11,16,26,10		2,37,40, 0,51	
		1,40,37, 7,53, 8,39, 1		7,21
12″	35,56,39, 9,33,39, 4,25, 5,11		2,37,40, 8,12	
		1,40,37, 5,15,28,30,49		7,21
14″	35,56,40,50,10,44,19,53,36, 0		2,37,40,15,33	
		1,40,37, 2,37,48,15,16		7,21
16″	35,56,42,30,47,46,57,41,51,16		2,37,40,22,54	
		1,40,37, 0, 0, 7,52,22		7,21
18″	35,56,44,11,24,46,57,49,43,38		2,37,40,30,15	
		1,40,36,57,22,27,22, 7		7,21
20″	35,56,45,52, 1,44,20,17, 5,45		2,37,40,37,36	
		1,40,36,54,44,46,44,31		7,21
22″	35,56,47,32,38,39, 5, 3,50,16		2,37,40,44,57	
		1,40,36,52, 7, 5,59,34		7,21
24″	35,56,49,13,15,31,12, 9,49,50		2,37,40,52,18	
		1,40,36,49,29,25, 7,16		7,21
26″	35,56,50,53,52,20,41,34,57, 6		2,37,40,59,39	
		1,40,36,46,51,44, 7,37		7,21
28″	35,56,52,34,29, 7,33,19, 4,43		2,37,41, 7, 0	
		1,40,36,44,14, 3, 0,37		7,21
30″	35,56,54,15, 5,51,47,22, 5,20		2,37,41,14,21	
		1,40,36,41,36,21,46,16		7,21
32″	35,56,55,55,42,33,23,43,51,36		2,37,41,21,42	
		1,40,36,38,58,40,24,34		7,21
34″	35,56,57,36,19,12,22,24,16,10		2,37,41,29, 3	
		1,40,36,36,20,58,55,31		7,21
36″	35,56,59,16,55,48,43,23,11,41		2,37,41,36,24	
		1,40,36,33,43,17,19, 7		7,21
38″	35,57, 0,57,32,22,26,40,30,48		2,37,41,43,45	
		1,40,36,31, 5,35,35,22		7,21
40″	35,57, 2,38, 8,53,32,16, 6,10		2,37,41,51, 6	
		1,40,36,28,27,53,44,16		7,21
42″	35,57, 4,18,45,22, 0, 9,50,26		2,37,41,58,27	
		1,40,36,25,50,11,45,49		7,21
44″	35,57, 5,59,21,47,50,21,36,15		2,37,42, 5,48	
		1,40,36,23,12,29,40, 1		7,21
46″	35,57, 7,39,58,11, 2,51,16,16		2,37,42,13, 9	
		1,40,36,20,34,47,26,52		7,21
48″	35,57, 9,20,34,31,37,38,43, 8		2,37,42,20,30	
		1,40,36,17,57, 5, 6,22		7,21
50″	35,57,11, 1,10,49,34,43,49,30		2,37,42,27,51	
		1,40,36,15,19,22,38,31		7,21
52″	35,57,12,41,47, 4,54, 6,28, 1		2,37,42,35,12	
		1,40,36,12,41,40, 3,19		7,21
54″	35,57,14,22,23,17,35,46,31,20		2,37,42,42,33	
		1,40,36,10, 3,57,20,46		7,21
56″	35,57,16, 2,59,27,39,43,52, 6		2,37,42,49,54	
		1,40,36, 7,26,14,30,52		7,21
58″	35,57,17,43,35,35, 5,58,22,58		2,37,42,57,15	
		1,40,36, 4,48,31,33,37		
60″	35,57,19,24,11,39,54,29,56,35			
exact	35,57,19,24,11,39,54,29,33,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°49′ 0″	35,57,19,24,11,39,54,29,33,41			
		1,40,36, 2,10,48,26,35		
2″	35,57,21, 4,47,42, 5,18, 0,16		2,37,43,12, 7	
		1,40,35,59,33, 5,14,28		7,21
4″	35,57,22,45,23,41,38,23,14,44		2,37,43,19,28	
		1,40,35,56,55,21,55, 0		7,21
6″	35,57,24,25,59,38,33,45, 9,44		2,37,43,26,49	
		1,40,35,54,17,38,28,11		7,21
8″	35,57,26, 6,35,32,51,23,37,55		2,37,43,34,10	
		1,40,35,51,39,54,54, 1		7,21
10″	35,57,27,47,11,24,31,18,31,56		2,37,43,41,31	
		1,40,35,49, 2,11,12,30		7,21
12″	35,57,29,27,47,13,33,29,44,26		2,37,43,48,52	
		1,40,35,46,24,27,23,38		7,21
14″	35,57,31, 8,22,59,57,57, 8, 4		2,37,43,56,13	
		1,40,35,43,46,43,27,25		7,21
16″	35,57,32,48,58,43,44,40,35,29		2,37,44, 3,34	
		1,40,35,41, 8,59,23,51		7,21
18″	35,57,34,29,34,24,53,39,59,20		2,37,44,10,55	
		1,40,35,38,31,15,12,56		7,21
20″	35,57,36,10,10, 3,24,55,12,16		2,37,44,18,16	
		1,40,35,35,53,30,54,40		7,21
22″	35,57,37,50,45,39,18,26, 6,56		2,37,44,25,37	
		1,40,35,33,15,46,29, 3		7,21
24″	35,57,39,31,21,12,34,12,35,59		2,37,44,32,58	
		1,40,35,30,38, 1,56, 5		7,21
26″	35,57,41,11,56,43,12,14,32, 4		2,37,44,40,19	
		1,40,35,28, 0,17,15,46		7,21
28″	35,57,42,52,32,11,12,31,47,50		2,37,44,47,40	
		1,40,35,25,22,32,28, 6		7,21
30″	35,57,44,33, 7,36,35, 4,15,56		2,37,44,55, 1	
		1,40,35,22,44,47,33, 5		7,21
32″	35,57,46,13,42,59,19,51,49, 1		2,37,45, 2,22	
		1,40,35,20, 7, 2,30,43		7,21
34″	35,57,47,54,18,19,26,54,19,44		2,37,45, 9,43	
		1,40,35,17,29,17,21, 0		7,21
36″	35,57,49,34,53,36,56,11,40,44		2,37,45,17, 4	
		1,40,35,14,51,32, 3,56		7,21
38″	35,57,51,15,28,51,47,43,44,40		2,37,45,24,25	
		1,40,35,12,13,46,39,31		7,21
40″	35,57,52,56, 4, 4, 1,30,24,11		2,37,45,31,46	
		1,40,35, 9,36, 1, 7,45		7,21
42″	35,57,54,36,39,13,37,31,31,56		2,37,45,39, 7	
		1,40,35, 6,58,15,28,38		7,21
44″	35,57,56,17,14,20,35,47, 0,34		2,37,45,46,28	
		1,40,35, 4,20,29,42,10		7,21
46″	35,57,57,57,49,24,56,16,42,44		2,37,45,53,49	
		1,40,35, 1,42,43,48,21		7,21
48″	35,57,59,38,24,26,39, 0,31, 5		2,37,46, 1,10	
		1,40,34,59, 4,57,47,11		7,21
50″	35,58, 1,18,59,25,43,58,18,16		2,37,46, 8,31	
		1,40,34,56,27,11,38,40		7,21
52″	35,58, 2,59,34,22,11, 9,56,56		2,37,46,15,52	
		1,40,34,53,49,25,22,48		7,21
54″	35,58, 4,40, 9,16, 0,35,19,44		2,37,46,23,13	
		1,40,34,51,11,38,59,35		7,21
56″	35,58, 6,20,44, 7,12,14,19,19		2,37,46,30,34	
		1,40,34,48,33,52,29, 1		7,21
58″	35,58, 8, 1,18,55,46, 6,48,20		2,37,46,37,55	
		1,40,34,45,56, 5,51, 6		
60″	35,58, 9,41,53,41,42,12,39,26			
exact	35,58, 9,41,53,41,42,12,24, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°50′ 0″	35,58, 9,41,53,41,42,12,24, 5			
		1,40,34,43,18,19, 4,10		
2″	35,58,11,22,28,25, 0,31,28,15		2,37,46,52,44	
		1,40,34,40,40,32,11,26		7,21
4″	35,58,13, 3, 3, 5,41, 3,39,41		2,37,47, 0, 5	
		1,40,34,38, 2,45,11,21		7,21
6″	35,58,14,43,37,43,43,48,51, 2		2,37,47, 7,26	
		1,40,34,35,24,58, 3,55		7,21
8″	35,58,16,24,12,19, 8,46,54,57		2,37,47,14,47	
		1,40,34,32,47,10,49, 8		7,21
10″	35,58,18, 4,46,51,55,57,44, 5		2,37,47,22, 8	
		1,40,34,30, 9,23,27, 0		7,21
12″	35,58,19,45,21,22, 5,21,11, 5		2,37,47,29,29	
		1,40,34,27,31,35,57,31		7,21
14″	35,58,21,25,55,49,36,57, 8,36		2,37,47,36,50	
		1,40,34,24,53,48,20,41		7,21
16″	35,58,23, 6,30,14,30,45,29,17		2,37,47,44,11	
		1,40,34,22,16, 0,36,30		7,21
18″	35,58,24,47, 4,36,46,46, 5,47		2,37,47,51,32	
		1,40,34,19,38,12,44,58		7,21
20″	35,58,26,27,38,56,24,58,50,45		2,37,47,58,53	
		1,40,34,17, 0,24,46, 5		7,21
22″	35,58,28, 8,13,13,25,23,36,50		2,37,48, 6,14	
		1,40,34,14,22,36,39,51		7,21
24″	35,58,29,48,47,27,48, 0,16,41		2,37,48,13,35	
		1,40,34,11,44,48,26,16		7,21
26″	35,58,31,29,21,39,32,48,42,57		2,37,48,20,56	
		1,40,34, 9, 7, 0, 5,20		7,21
28″	35,58,33, 9,55,48,39,48,48,17		2,37,48,28,17	
		1,40,34, 6,29,11,37, 3		7,21
30″	35,58,34,50,29,55, 9, 0,25,20		2,37,48,35,38	
		1,40,34, 3,51,23, 1,25		7,21
32″	35,58,36,31, 3,59, 0,23,26,45		2,37,48,42,59	
		1,40,34, 1,13,34,18,26		7,21
34″	35,58,38,11,38, 0,13,57,45,11		2,37,48,50,20	
		1,40,33,58,35,45,28, 6		7,21
36″	35,58,39,52,11,58,49,43,13,17		2,37,48,57,41	
		1,40,33,55,57,56,30,25		7,21
38″	35,58,41,32,45,54,47,39,43,42		2,37,49, 5, 2	
		1,40,33,53,20, 7,25,23		7,21
40″	35,58,43,13,19,48, 7,47, 9, 5		2,37,49,12,23	
		1,40,33,50,42,18,13, 0		7,21
42″	35,58,44,53,53,38,50, 5,22, 5		2,37,49,19,44	
		1,40,33,48, 4,28,53,16		7,21
44″	35,58,46,34,27,26,54,34,15,21		2,37,49,27, 5	
		1,40,33,45,26,39,26,11		7,21
46″	35,58,48,15, 1,12,21,13,41,32		2,37,49,34,26	
		1,40,33,42,48,49,51,45		7,21
48″	35,58,49,55,34,55,10, 3,33,17		2,37,49,41,47	
		1,40,33,40,11, 0, 9,58		7,21
50″	35,58,51,36, 8,35,21, 3,43,15		2,37,49,49, 8	
		1,40,33,37,33,10,20,50		7,21
52″	35,58,53,16,42,12,54,14, 4, 5		2,37,49,56,29	
		1,40,33,34,55,20,24,21		7,21
54″	35,58,54,57,15,47,49,34,28,26		2,37,50, 3,50	
		1,40,33,32,17,30,20,31		7,21
56″	35,58,56,37,49,20, 7, 4,48,57		2,37,50,11,11	
		1,40,33,29,39,40, 9,20		7,21
58″	35,58,58,18,22,49,46,44,58,17		2,37,50,18,32	
		1,40,33,27, 1,49,50,48		
60″	35,58,59,58,56,16,48,34,49, 5			
exact	35,58,59,58,56,16,48,34,39,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°51′ 0″	35,58,59,58,56,16,48,34,39,47			
		1,40,33,24,23,59,23,55		
2″	35,59, 1,39,29,41,12,34, 3,42		2,37,50,33,18	
		1,40,33,21,46, 8,50,37		7,21
4″	35,59, 3,20, 3, 2,58,42,54,19		2,37,50,40,39	
		1,40,33,19, 8,18, 9,58		7,21
6″	35,59, 5, 0,36,22, 7, 1, 4,17		2,37,50,48, 0	
		1,40,33,16,30,27,21,58		7,21
8″	35,59, 6,41, 9,38,37,28,26,15		2,37,50,55,21	
		1,40,33,13,52,36,26,37		7,21
10″	35,59, 8,21,42,52,30, 4,52,52		2,37,51, 2,42	
		1,40,33,11,14,45,23,55		7,21
12″	35,59,10, 2,16, 3,44,50,16,47		2,37,51,10, 3	
		1,40,33, 8,36,54,13,52		7,21
14″	35,59,11,42,49,12,21,44,30,39		2,37,51,17,24	
		1,40,33, 5,59, 2,56,28		7,21
16″	35,59,13,23,22,18,20,47,27, 7		2,37,51,24,45	
		1,40,33, 3,21,11,31,43		7,21
18″	35,59,15, 3,55,21,41,58,58,50		2,37,51,32, 6	
		1,40,33, 0,43,19,59,37		7,21
20″	35,59,16,44,28,22,25,18,58,27		2,37,51,39,27	
		1,40,32,58, 5,28,20,10		7,21
22″	35,59,18,25, 1,20,30,47,18,37		2,37,51,46,48	
		1,40,32,55,27,36,33,22		7,21
24″	35,59,20, 5,34,15,58,23,51,59		2,37,51,54, 9	
		1,40,32,52,49,44,39,13		7,21
26″	35,59,21,46, 7, 8,48, 8,31,12		2,37,52, 1,30	
		1,40,32,50,11,52,37,43		7,21
28″	35,59,23,26,39,59, 0, 1, 8,55		2,37,52, 8,51	
		1,40,32,47,34, 0,28,52		7,21
30″	35,59,25, 7,12,46,34, 1,37,47		2,37,52,16,12	
		1,40,32,44,56, 8,12,40		7,21
32″	35,59,26,47,45,31,30, 9,50,27		2,37,52,23,33	
		1,40,32,42,18,15,49, 7		7,21
34″	35,59,28,28,18,13,48,25,39,34		2,37,52,30,54	
		1,40,32,39,40,23,18,13		7,21
36″	35,59,30, 8,50,53,28,48,57,47		2,37,52,38,15	
		1,40,32,37, 2,30,39,58		7,21
38″	35,59,31,49,23,30,31,19,37,45		2,37,52,45,36	
		1,40,32,34,24,37,54,22		7,21
40″	35,59,33,29,56, 4,55,57,32, 7		2,37,52,52,57	
		1,40,32,31,46,45, 1,25		7,21
42″	35,59,35,10,28,36,42,42,33,32		2,37,53, 0,18	
		1,40,32,29, 8,52, 1, 7		7,21
44″	35,59,36,51, 1, 5,51,34,34,39		2,37,53, 7,39	
		1,40,32,26,30,58,53,28		7,21
46″	35,59,38,31,33,32,22,33,28, 7		2,37,53,15, 0	
		1,40,32,23,53, 5,38,28		7,21
48″	35,59,40,12, 5,56,15,39, 6,35		2,37,53,22,21	
		1,40,32,21,15,12,16, 7		7,21
50″	35,59,41,52,38,17,30,51,22,42		2,37,53,29,42	
		1,40,32,18,37,18,46,25		7,21
52″	35,59,43,33,10,36, 8,10, 9, 7		2,37,53,37, 3	
		1,40,32,15,59,25, 9,22		7,21
54″	35,59,45,13,42,52, 7,35,18,29		2,37,53,44,24	
		1,40,32,13,21,31,24,58		7,21
56″	35,59,46,54,15, 5,29, 6,43,27		2,37,53,51,45	
		1,40,32,10,43,37,33,13		7,21
58″	35,59,48,34,47,16,12,44,16,40		2,37,53,59, 6	
		1,40,32, 8, 5,43,34, 7		
60″	35,59,50,15,19,24,18,27,50,47			
exact	35,59,50,15,19,24,18,27,47,19			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
36°52′	0″	35,59,50,15,19,24,18,27,47,19			
	2″	35,59,51,55,51,29,46,17,14,38	1,40,32, 5,27,49,27,19	2,37,54,13,49	
	4″	35,59,53,36,23,32,36,12,28, 8	1,40,32, 2,49,55,13,30	2,37,54,21,10	7,21
	6″	35,59,55,16,55,32,48,13,20,28	1,40,32, 0,12, 0,52,20	2,37,54,28,31	7,21
	8″	35,59,56,57,27,30,22,19,44,17	1,40,31,57,34, 6,23,49	2,37,54,35,52	7,21
	10″	35,59,58,37,59,25,18,31,32,14	1,40,31,54,56,11,47,57	2,37,54,43,13	7,21
	12″	36, 0, 0,18,31,17,36,48,36,58	1,40,31,52,18,17, 4,44	2,37,54,50,34	7,21
	14″	36, 0, 1,59, 3, 7,17,10,51, 8	1,40,31,49,40,22,14,10	2,37,54,57,55	7,21
	16″	36, 0, 3,39,34,54,19,38, 7,23	1,40,31,47, 2,27,16,15	2,37,55, 5,16	7,21
	18″	36, 0, 5,20, 6,38,44,10,18,22	1,40,31,44,24,32,10,59	2,37,55,12,37	7,21
	20″	36, 0, 7, 0,38,20,30,47,16,44	1,40,31,41,46,36,58,22	2,37,55,19,58	7,21
	22″	36, 0, 8,41, 9,59,39,28,55, 8	1,40,31,39, 8,41,38,24	2,37,55,27,19	7,21
	24″	36, 0,10,21,41,36,10,15, 6,13	1,40,31,36,30,46,11, 5	2,37,55,34,40	7,21
	26″	36, 0,12, 2,13,10, 3, 5,42,38	1,40,31,33,52,50,36,25	2,37,55,42, 1	7,21
	28″	36, 0,13,42,44,41,18, 0,37, 2	1,40,31,31,14,54,54,24	2,37,55,49,22	7,21
	30″	36, 0,15,23,16, 9,54,59,42, 4	1,40,31,28,36,59, 5, 2	2,37,55,56,43	7,21
	32″	36, 0,17, 3,47,35,54, 2,50,23	1,40,31,25,59, 3, 8,19	2,37,56, 4, 4	7,21
	34″	36, 0,18,44,18,59,15, 9,54,38	1,40,31,23,21, 7, 4,15	2,37,56,11,25	7,21
	36″	36, 0,20,24,50,19,58,20,47,28	1,40,31,20,43,10,52,50	2,37,56,18,46	7,21
	38″	36, 0,22, 5,21,38, 3,35,21,32	1,40,31,18, 5,14,34, 4	2,37,56,26, 7	7,21
	40″	36, 0,23,45,52,53,30,53,29,29	1,40,31,15,27,18, 7,57	2,37,56,33,28	7,21
	42″	36, 0,25,26,24, 6,20,15, 3,58	1,40,31,12,49,21,34,29	2,37,56,40,49	7,21
	44″	36, 0,27, 6,55,16,31,39,57,38	1,40,31,10,11,24,53,40	2,37,56,48,10	7,21
	46″	36, 0,28,47,26,24, 5, 8, 3, 8	1,40,31, 7,33,28, 5,30	2,37,56,55,31	7,21
	48″	36, 0,30,27,57,29, 0,39,13, 7	1,40,31, 4,55,31, 9,59	2,37,57, 2,52	7,21
	50″	36, 0,32, 8,28,31,18,13,20,14	1,40,31, 2,17,34, 7, 7	2,37,57,10,13	7,21
	52″	36, 0,33,48,59,30,57,50,17, 8	1,40,30,59,39,36,56,54	2,37,57,17,34	7,21
	54″	36, 0,35,29,30,27,59,29,56,28	1,40,30,57, 1,39,39,20	2,37,57,24,55	7,21
	56″	36, 0,37,10, 1,22,23,12,10,53	1,40,30,54,23,42,14,25	2,37,57,32,16	7,21
	58″	36, 0,38,50,32,14, 8,56,53, 2	1,40,30,51,45,44,42, 9	2,37,57,39,37	
	60″	36, 0,40,31, 3, 3,16,43,55,34	1,40,30,49, 7,47, 2,32		
exact		36, 0,40,31, 3, 3,16,43,56,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°53′ 0″	36, 0,40,31, 3, 3,16,43,56,30	1,40,30,46,29,49,15,46		
2″	36, 0,42,11,33,49,46,33,12,16	1,40,30,43,51,51,21,29	2,37,57,54,17	7,21
4″	36, 0,43,52, 4,33,38,24,33,45	1,40,30,41,13,53,19,51	2,37,58, 1,38	7,21
6″	36, 0,45,32,35,14,52,17,53,36	1,40,30,38,35,55,10,52	2,37,58, 8,59	7,21
8″	36, 0,47,13, 5,53,28,13, 4,28	1,40,30,35,57,56,54,32	2,37,58,16,20	7,21
10″	36, 0,48,53,36,29,26, 9,59, 0	1,40,30,33,19,58,30,51	2,37,58,23,41	7,21
12″	36, 0,50,34, 7, 2,46, 8,29,51	1,40,30,30,41,59,59,49	2,37,58,31, 2	7,21
14″	36, 0,52,14,37,33,28, 8,29,40	1,40,30,28, 4, 1,21,26	2,37,58,38,23	7,21
16″	36, 0,53,55, 8, 1,32, 9,51, 6	1,40,30,25,26, 2,35,42	2,37,58,45,44	7,21
18″	36, 0,55,35,38,26,58,12,26,48	1,40,30,22,48, 3,42,37	2,37,58,53, 5	7,21
20″	36, 0,57,16, 8,49,46,16, 9,25	1,40,30,20,10, 4,42,11	2,37,59, 0,26	7,21
22″	36, 0,58,56,39, 9,56,20,51,36	1,40,30,17,32, 5,34,24	2,37,59, 7,47	7,21
24″	36, 1, 0,37, 9,27,28,26,26, 0	1,40,30,14,54, 6,19,16	2,37,59,15, 8	7,21
26″	36, 1, 2,17,39,42,22,32,45,16	1,40,30,12,16, 6,56,47	2,37,59,22,29	7,21
28″	36, 1, 3,58, 9,54,38,39,42, 3	1,40,30, 9,38, 7,26,57	2,37,59,29,50	7,21
30″	36, 1, 5,38,40, 4,16,47, 9, 0	1,40,30, 7, 0, 7,49,46	2,37,59,37,11	7,21
32″	36, 1, 7,19,10,11,16,54,58,46	1,40,30, 4,22, 8, 5,14	2,37,59,44,32	7,21
34″	36, 1, 8,59,40,15,39, 3, 4, 0	1,40,30, 1,44, 8,13,21	2,37,59,51,53	7,21
36″	36, 1,10,40,10,17,23,11,17,21	1,40,29,59, 6, 8,14, 7	2,37,59,59,14	7,21
38″	36, 1,12,20,40,16,29,19,31,28	1,40,29,56,28, 8, 7,32	2,38, 0, 6,35	7,21
40″	36, 1,14, 1,10,12,57,27,39, 0	1,40,29,53,50, 7,53,36	2,38, 0,13,56	7,21
42″	36, 1,15,41,40, 6,47,35,32,36	1,40,29,51,12, 7,32,19	2,38, 0,21,17	7,21
44″	36, 1,17,22, 9,57,59,43, 4,55	1,40,29,48,34, 7, 3,41	2,38, 0,28,38	7,21
46″	36, 1,19, 2,39,46,33,50, 8,36	1,40,29,45,56, 6,27,42	2,38, 0,35,59	7,21
48″	36, 1,20,43, 9,32,29,56,36,18	1,40,29,43,18, 5,44,22	2,38, 0,43,20	7,21
50″	36, 1,22,23,39,15,48, 2,20,40	1,40,29,40,40, 4,53,41	2,38, 0,50,41	7,21
52″	36, 1,24, 4, 8,56,28, 7,14,21	1,40,29,38, 2, 3,55,39	2,38, 0,58, 2	7,21
54″	36, 1,25,44,38,34,30,11,10, 0	1,40,29,35,24, 2,50,16	2,38, 1, 5,23	7,21
56″	36, 1,27,25, 8, 9,54,14, 0,16	1,40,29,32,46, 1,37,32	2,38, 1,12,44	7,21
58″	36, 1,29, 5,37,42,40,15,37,48	1,40,29,30, 8, 0,17,27	2,38, 1,20, 5	
60″	36, 1,30,46, 7,12,48,15,55,15			
exact	36, 1,30,46, 7,12,48,16, 0,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°54′ 0″	36, 1,30,46, 7,12,48,16, 0,23			
		1,40,29,27,29,58,50,45		
2″	36, 1,32,26,36,40,18,14,51, 8		2,38, 1,34,43	
		1,40,29,24,51,57,16, 2		7,21
4″	36, 1,34, 7, 6, 5,10,12, 7,10		2,38, 1,42, 4	
		1,40,29,22,13,55,33,58		7,21
6″	36, 1,35,47,35,27,24, 7,41, 8		2,38, 1,49,25	
		1,40,29,19,35,53,44,33		7,21
8″	36, 1,37,28, 4,47, 0, 1,25,41		2,38, 1,56,46	
		1,40,29,16,57,51,47,47		7,21
10″	36, 1,39, 8,34, 3,57,53,13,28		2,38, 2, 4, 7	
		1,40,29,14,19,49,43,40		7,21
12″	36, 1,40,49, 3,18,17,42,57, 8		2,38, 2,11,28	
		1,40,29,11,41,47,32,12		7,21
14″	36, 1,42,29,32,29,59,30,29,20		2,38, 2,18,49	
		1,40,29, 9, 3,45,13,23		7,21
16″	36, 1,44,10, 1,39, 3,15,42,43		2,38, 2,26,10	
		1,40,29, 6,25,42,47,13		7,21
18″	36, 1,45,50,30,45,28,58,29,56		2,38, 2,33,31	
		1,40,29, 3,47,40,13,42		7,21
20″	36, 1,47,30,59,49,16,38,43,38		2,38, 2,40,52	
		1,40,29, 1, 9,37,32,50		7,21
22″	36, 1,49,11,28,50,26,16,16,28		2,38, 2,48,13	
		1,40,28,58,31,34,44,37		7,21
24″	36, 1,50,51,57,48,57,51, 1, 5		2,38, 2,55,34	
		1,40,28,55,53,31,49, 3		7,21
26″	36, 1,52,32,26,44,51,22,50, 8		2,38, 3, 2,55	
		1,40,28,53,15,28,46, 8		7,21
28″	36, 1,54,12,55,38, 6,51,36,16		2,38, 3,10,16	
		1,40,28,50,37,25,35,52		7,21
30″	36, 1,55,53,24,28,44,17,12, 8		2,38, 3,17,37	
		1,40,28,47,59,22,18,15		7,21
32″	36, 1,57,33,53,16,43,39,30,23		2,38, 3,24,58	
		1,40,28,45,21,18,53,17		7,21
34″	36, 1,59,14,22, 2, 4,58,23,40		2,38, 3,32,19	
		1,40,28,42,43,15,20,58		7,21
36″	36, 2, 0,54,50,44,48,13,44,38		2,38, 3,39,40	
		1,40,28,40, 5,11,41,18		7,21
38″	36, 2, 2,35,19,24,53,25,25,56		2,38, 3,47, 1	
		1,40,28,37,27, 7,54,17		7,21
40″	36, 2, 4,15,48, 2,20,33,20,13		2,38, 3,54,22	
		1,40,28,34,49, 3,59,55		7,21
42″	36, 2, 5,56,16,37, 9,37,20, 8		2,38, 4, 1,43	
		1,40,28,32,10,59,58,12		7,21
44″	36, 2, 7,36,45, 9,20,37,18,20		2,38, 4, 9, 4	
		1,40,28,29,32,55,49, 8		7,21
46″	36, 2, 9,17,13,38,53,33, 7,28		2,38, 4,16,25	
		1,40,28,26,54,51,32,43		7,21
48″	36, 2,10,57,42, 5,48,24,40,11		2,38, 4,23,46	
		1,40,28,24,16,47, 8,57		7,21
50″	36, 2,12,38,10,30, 5,11,49, 8		2,38, 4,31, 7	
		1,40,28,21,38,42,37,50		7,21
52″	36, 2,14,18,38,51,43,54,26,58		2,38, 4,38,28	
		1,40,28,19, 0,37,59,22		7,21
54″	36, 2,15,59, 7,10,44,32,26,20		2,38, 4,45,49	
		1,40,28,16,22,33,13,33		7,21
56″	36, 2,17,39,35,27, 7, 5,39,53		2,38, 4,53,10	
		1,40,28,13,44,28,20,23		7,21
58″	36, 2,19,20, 3,40,51,34, 0,16		2,38, 5, 0,31	
		1,40,28,11, 6,23,19,52		
60″	36, 2,21, 0,31,51,57,57,20, 8			
exact	36, 2,21, 0,31,51,57,57,35,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°55′ 0″	36, 2,21, 0,31,51,57,57,35,23			
		1,40,28, 8,28,18,13,41		
2″	36, 2,22,41, 0, 0,26,15,49, 4		2,38, 5,15, 6	
		1,40,28, 5,50,12,58,35		7,21
4″	36, 2,24,21,28, 6,16,28,47,39		2,38, 5,22,27	
		1,40,28, 3,12, 7,36, 8		7,21
6″	36, 2,26, 1,56, 9,28,36,23,47		2,38, 5,29,48	
		1,40,28, 0,34, 2, 6,20		7,21
8″	36, 2,27,42,24,10, 2,38,30, 7		2,38, 5,37, 9	
		1,40,27,57,55,56,29,11		7,21
10″	36, 2,29,22,52, 7,58,34,59,18		2,38, 5,44,30	
		1,40,27,55,17,50,44,41		7,21
12″	36, 2,31, 3,20, 3,16,25,43,59		2,38, 5,51,51	
		1,40,27,52,39,44,52,50		7,21
14″	36, 2,32,43,47,55,56,10,36,49		2,38, 5,59,12	
		1,40,27,50, 1,38,53,38		7,21
16″	36, 2,34,24,15,45,57,49,30,27		2,38, 6, 6,33	
		1,40,27,47,23,32,47, 5		7,21
18″	36, 2,36, 4,43,33,21,22,17,32		2,38, 6,13,54	
		1,40,27,44,45,26,33,11		7,21
20″	36, 2,37,45,11,18, 6,48,50,43		2,38, 6,21,15	
		1,40,27,42, 7,20,11,56		7,21
22″	36, 2,39,25,39, 0,14, 9, 2,39		2,38, 6,28,36	
		1,40,27,39,29,13,43,20		7,21
24″	36, 2,41, 6, 6,39,43,22,45,59		2,38, 6,35,57	
		1,40,27,36,51, 7, 7,23		7,21
26″	36, 2,42,46,34,16,34,29,53,22		2,38, 6,43,18	
		1,40,27,34,13, 0,24, 5		7,21
28″	36, 2,44,27, 1,50,47,30,17,27		2,38, 6,50,39	
		1,40,27,31,34,53,33,26		7,21
30″	36, 2,46, 7,29,22,22,23,50,53		2,38, 6,58, 0	
		1,40,27,28,56,46,35,26		7,21
32″	36, 2,47,47,56,51,19,10,26,19		2,38, 7, 5,21	
		1,40,27,26,18,39,30, 5		7,21
34″	36, 2,49,28,24,17,37,49,56,24		2,38, 7,12,42	
		1,40,27,23,40,32,17,23		7,21
36″	36, 2,51, 8,51,41,18,22,13,47		2,38, 7,20, 3	
		1,40,27,21, 2,24,57,20		7,21
38″	36, 2,52,49,19, 2,20,47,11, 7		2,38, 7,27,24	
		1,40,27,18,24,17,29,56		7,21
40″	36, 2,54,29,46,20,45, 4,41, 3		2,38, 7,34,45	
		1,40,27,15,46, 9,55,11		7,21
42″	36, 2,56,10,13,36,31,14,36,14		2,38, 7,42, 6	
		1,40,27,13, 8, 2,13, 5		7,21
44″	36, 2,57,50,40,49,39,16,49,19		2,38, 7,49,27	
		1,40,27,10,29,54,23,38		7,21
46″	36, 2,59,31, 8, 0, 9,11,12,57		2,38, 7,56,48	
		1,40,27, 7,51,46,26,50		7,21
48″	36, 3, 1,11,35, 8, 0,57,39,47		2,38, 8, 4, 9	
		1,40,27, 5,13,38,22,41		7,21
50″	36, 3, 2,52, 2,13,14,36, 2,28		2,38, 8,11,30	
		1,40,27, 2,35,30,11,11		7,21
52″	36, 3, 4,32,29,15,50, 6,13,39		2,38, 8,18,51	
		1,40,26,59,57,21,52,20		7,21
54″	36, 3, 6,12,56,15,47,28, 5,59		2,38, 8,26,12	
		1,40,26,57,19,13,26, 8		7,21
56″	36, 3, 7,53,23,13, 6,41,32, 7		2,38, 8,33,33	
		1,40,26,54,41, 4,52,35		7,21
58″	36, 3, 9,33,50, 7,47,46,24,42		2,38, 8,40,54	
		1,40,26,52, 2,56,11,41		
60″	36, 3,11,14,16,59,50,42,36,23			
exact	36, 3,11,14,16,59,50,43, 1,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°56′ 0″	36, 3,11,14,16,59,50,43, 1,13	1,40,26,49,24,47,26, 2		
2″	36, 3,12,54,43,49,15,30,27,15	1,40,26,46,46,38,30,37	2,38, 8,55,25	7,21
4″	36, 3,14,35,10,36, 2, 8,57,52	1,40,26,44, 8,29,27,51	2,38, 9, 2,46	7,21
6″	36, 3,16,15,37,20,10,38,25,43	1,40,26,41,30,20,17,44	2,38, 9,10, 7	7,21
8″	36, 3,17,56, 4, 1,40,58,43,27	1,40,26,38,52,11, 0,16	2,38, 9,17,28	7,21
10″	36, 3,19,36,30,40,33, 9,43,43	1,40,26,36,14, 1,35,27	2,38, 9,24,49	7,21
12″	36, 3,21,16,57,16,47,11,19,10	1,40,26,33,35,52, 3,17	2,38, 9,32,10	7,21
14″	36, 3,22,57,23,50,23, 3,22,27	1,40,26,30,57,42,23,46	2,38, 9,39,31	7,21
16″	36, 3,24,37,50,21,20,45,46,13	1,40,26,28,19,32,36,54	2,38, 9,46,52	7,21
18″	36, 3,26,18,16,49,40,18,23, 7	1,40,26,25,41,22,42,41	2,38, 9,54,13	7,21
20″	36, 3,27,58,43,15,21,41, 5,48	1,40,26,23, 3,12,41, 7	2,38,10, 1,34	7,21
22″	36, 3,29,39, 9,38,24,53,46,55	1,40,26,20,25, 2,32,12	2,38,10, 8,55	7,21
24″	36, 3,31,19,35,58,49,56,19, 7	1,40,26,17,46,52,15,56	2,38,10,16,16	7,21
26″	36, 3,33, 0, 2,16,36,48,35, 3	1,40,26,15, 8,41,52,19	2,38,10,23,37	7,21
28″	36, 3,34,40,28,31,45,30,27,22	1,40,26,12,30,31,21,21	2,38,10,30,58	7,21
30″	36, 3,36,20,54,44,16, 1,48,43	1,40,26, 9,52,20,43, 2	2,38,10,38,19	7,21
32″	36, 3,38, 1,20,54, 8,22,31,45	1,40,26, 7,14, 9,57,22	2,38,10,45,40	7,21
34″	36, 3,39,41,47, 1,22,32,29, 7	1,40,26, 4,35,59, 4,21	2,38,10,53, 1	7,21
36″	36, 3,41,22,13, 5,58,31,33,28	1,40,26, 1,57,48, 3,59	2,38,11, 0,22	7,21
38″	36, 3,43, 2,39, 7,56,19,37,27	1,40,25,59,19,36,56,16	2,38,11, 7,43	7,21
40″	36, 3,44,43, 5, 7,15,56,33,43	1,40,25,56,41,25,41,12	2,38,11,15, 4	7,21
42″	36, 3,46,23,31, 3,57,22,14,55	1,40,25,54, 3,14,18,47	2,38,11,22,25	7,21
44″	36, 3,48, 3,56,58, 0,36,33,42	1,40,25,51,25, 2,49, 1	2,38,11,29,46	7,21
46″	36, 3,49,44,22,49,25,39,22,43	1,40,25,48,46,51,11,54	2,38,11,37, 7	7,21
48″	36, 3,51,24,48,38,12,30,34,37	1,40,25,46, 8,39,27,26	2,38,11,44,28	7,21
50″	36, 3,53, 5,14,24,21,10, 2, 3	1,40,25,43,30,27,35,37	2,38,11,51,49	7,21
52″	36, 3,54,45,40, 7,51,37,37,40	1,40,25,40,52,15,36,27	2,38,11,59,10	7,21
54″	36, 3,56,26, 5,48,43,53,14, 7	1,40,25,38,14, 3,29,56	2,38,12, 6,31	7,21
56″	36, 3,58, 6,31,26,57,56,44, 3	1,40,25,35,35,51,16, 4	2,38,12,13,52	7,21
58″	36, 3,59,46,57, 2,33,48, 0, 7	1,40,25,32,57,38,54,51	2,38,12,21,13	
60″	36, 4, 1,27,22,35,31,26,54,58			
exact	36, 4, 1,27,22,35,31,27,20,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°57′ 0″	36, 4, 1,27,22,35,31,27,20,55	1,40,25,30,19,26,29,13		
2″	36, 4, 3, 7,48, 5,50,53,50, 8	1,40,25,27,41,13,53,31	2,38,12,35,42	7,21
4″	36, 4, 4,48,13,33,32, 7,43,39	1,40,25,25, 3, 1,10,28	2,38,12,43, 3	7,21
6″	36, 4, 6,28,38,58,35, 8,54, 7	1,40,25,22,24,48,20, 4	2,38,12,50,24	7,21
8″	36, 4, 8, 9, 4,20,59,57,14,11	1,40,25,19,46,35,22,19	2,38,12,57,45	7,21
10″	36, 4, 9,49,29,40,46,32,36,30	1,40,25,17, 8,22,17,13	2,38,13, 5, 6	7,21
12″	36, 4,11,29,54,57,54,54,53,43	1,40,25,14,30, 9, 4,46	2,38,13,12,27	7,21
14″	36, 4,13,10,20,12,25, 3,58,29	1,40,25,11,51,55,44,58	2,38,13,19,48	7,21
16″	36, 4,14,50,45,24,16,59,43,27	1,40,25, 9,13,42,17,49	2,38,13,27, 9	7,21
18″	36, 4,16,31,10,33,30,42, 1,16	1,40,25, 6,35,28,43,19	2,38,13,34,30	7,21
20″	36, 4,18,11,35,40, 6,10,44,35	1,40,25, 3,57,15, 1,28	2,38,13,41,51	7,21
22″	36, 4,19,52, 0,44, 3,25,46, 3	1,40,25, 1,19, 1,12,16	2,38,13,49,12	7,21
24″	36, 4,21,32,25,45,22,26,58,19	1,40,24,58,40,47,15,43	2,38,13,56,33	7,21
26″	36, 4,23,12,50,44, 3,14,14, 2	1,40,24,56, 2,33,11,49	2,38,14, 3,54	7,21
28″	36, 4,24,53,15,40, 5,47,25,51	1,40,24,53,24,19, 0,34	2,38,14,11,15	7,21
30″	36, 4,26,33,40,33,30, 6,26,25	1,40,24,50,46, 4,41,58	2,38,14,18,36	7,21
32″	36, 4,28,14, 5,24,16,11, 8,23	1,40,24,48, 7,50,16, 1	2,38,14,25,57	7,21
34″	36, 4,29,54,30,12,24, 1,24,24	1,40,24,45,29,35,42,43	2,38,14,33,18	7,21
36″	36, 4,31,34,54,57,53,37, 7, 7	1,40,24,42,51,21, 2, 4	2,38,14,40,39	7,21
38″	36, 4,33,15,19,40,44,58, 9,11	1,40,24,40,13, 6,14, 4	2,38,14,48, 0	7,21
40″	36, 4,34,55,44,20,58, 4,23,15	1,40,24,37,34,51,18,43	2,38,14,55,21	7,21
42″	36, 4,36,36, 8,58,32,55,41,58	1,40,24,34,56,36,16, 1	2,38,15, 2,42	7,21
44″	36, 4,38,16,33,33,29,31,57,59	1,40,24,32,18,21, 5,58	2,38,15,10, 3	7,21
46″	36, 4,39,56,58, 5,47,53, 3,57	1,40,24,29,40, 5,48,34	2,38,15,17,24	7,21
48″	36, 4,41,37,22,35,27,58,52,31	1,40,24,27, 1,50,23,49	2,38,15,24,45	7,21
50″	36, 4,43,17,47, 2,29,49,16,20	1,40,24,24,23,34,51,43	2,38,15,32, 6	7,21
52″	36, 4,44,58,11,26,53,24, 8, 3	1,40,24,21,45,19,12,16	2,38,15,39,27	7,21
54″	36, 4,46,38,35,48,38,43,20,19	1,40,24,19, 7, 3,25,28	2,38,15,46,48	7,21
56″	36, 4,48,19, 0, 7,45,46,45,47	1,40,24,16,28,47,31,19	2,38,15,54, 9	7,21
58″	36, 4,49,59,24,24,14,34,17, 6	1,40,24,13,50,31,29,49	2,38,16, 1,30	
60″	36, 4,51,39,48,38, 5, 5,46,55			
exact	36, 4,51,39,48,38, 5, 6,20,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°58′ 0″	36, 4,51,39,48,38, 5, 6,20,55	1,40,24,11,12,15,24,42		
2″	36, 4,53,20,12,49,17,21,45,37	1,40,24, 8,33,59, 8,46	2,38,16,15,56	7,20
4″	36, 4,55, 0,36,57,51,20,54,23	1,40,24, 5,55,42,45,30	2,38,16,23,16	7,20
6″	36, 4,56,41, 1, 3,47, 3,39,53	1,40,24, 3,17,26,14,54	2,38,16,30,36	7,20
8″	36, 4,58,21,25, 7, 4,29,54,47	1,40,24, 0,39, 9,36,58	2,38,16,37,56	7,20
10″	36, 5, 0, 1,49, 7,43,39,31,45	1,40,23,58, 0,52,51,42	2,38,16,45,16	7,20
12″	36, 5, 1,42,13, 5,44,32,23,27	1,40,23,55,22,35,59, 6	2,38,16,52,36	7,20
14″	36, 5, 3,22,37, 1, 7, 8,22,33	1,40,23,52,44,18,59,10	2,38,16,59,56	7,20
16″	36, 5, 5, 3, 0,53,51,27,21,43	1,40,23,50, 6, 1,51,54	2,38,17, 7,16	7,20
18″	36, 5, 6,43,24,43,57,29,13,37	1,40,23,47,27,44,37,18	2,38,17,14,36	7,20
20″	36, 5, 8,23,48,31,25,13,50,55	1,40,23,44,49,27,15,22	2,38,17,21,56	7,20
22″	36, 5,10, 4,12,16,14,41, 6,17	1,40,23,42,11, 9,46, 6	2,38,17,29,16	7,20
24″	36, 5,11,44,35,58,25,50,52,23	1,40,23,39,32,52, 9,30	2,38,17,36,36	7,20
26″	36, 5,13,24,59,37,58,43, 1,53	1,40,23,36,54,34,25,34	2,38,17,43,56	7,20
28″	36, 5,15, 5,23,14,53,17,27,27	1,40,23,34,16,16,34,18	2,38,17,51,16	7,20
30″	36, 5,16,45,46,49, 9,34, 1,45	1,40,23,31,37,58,35,42	2,38,17,58,36	7,20
32″	36, 5,18,26,10,20,47,32,37,27	1,40,23,28,59,40,29,46	2,38,18, 5,56	7,20
34″	36, 5,20, 6,33,49,47,13, 7,13	1,40,23,26,21,22,16,30	2,38,18,13,16	7,20
36″	36, 5,21,46,57,16, 8,35,23,43	1,40,23,23,43, 3,55,54	2,38,18,20,36	7,20
38″	36, 5,23,27,20,39,51,39,19,37	1,40,23,21, 4,45,27,58	2,38,18,27,56	7,20
40″	36, 5,25, 7,44, 0,56,24,47,35	1,40,23,18,26,26,52,42	2,38,18,35,16	7,20
42″	36, 5,26,48, 7,19,22,51,40,17	1,40,23,15,48, 8,10, 6	2,38,18,42,36	7,20
44″	36, 5,28,28,30,35,10,59,50,23	1,40,23,13, 9,49,20,10	2,38,18,49,56	7,20
46″	36, 5,30, 8,53,48,20,49,10,33	1,40,23,10,31,30,22,54	2,38,18,57,16	7,20
48″	36, 5,31,49,16,58,52,19,33,27	1,40,23, 7,53,11,18,18	2,38,19, 4,36	7,20
50″	36, 5,33,29,40, 6,45,30,51,45	1,40,23, 5,14,52, 6,22	2,38,19,11,56	7,20
52″	36, 5,35,10, 3,12, 0,22,58, 7	1,40,23, 2,36,32,47, 6	2,38,19,19,16	7,20
54″	36, 5,36,50,26,14,36,55,45,13	1,40,22,59,58,13,20,30	2,38,19,26,36	7,20
56″	36, 5,38,30,49,14,35, 9, 5,43	1,40,22,57,19,53,46,34	2,38,19,33,56	7,20
58″	36, 5,40,11,12,11,55, 2,52,17	1,40,22,54,41,34, 5,18	2,38,19,41,16	
60″	36, 5,41,51,35, 6,36,36,57,35			
exact	36, 5,41,51,35, 6,36,36,31, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
36°59′ 0″	36, 5,41,51,35, 6,36,36,31, 0			
		1,40,22,52, 3,14,13,55		
2″	36, 5,43,31,57,58,39,50,44,55		2,38,19,56, 7	
		1,40,22,49,24,54,17,48		7,20
4″	36, 5,45,12,20,48, 4,45, 2,43		2,38,20, 3,27	
		1,40,22,46,46,34,14,21		7,20
6″	36, 5,46,52,43,34,51,19,17, 4		2,38,20,10,47	
		1,40,22,44, 8,14, 3,34		7,20
8″	36, 5,48,33, 6,18,59,33,20,38		2,38,20,18, 7	
		1,40,22,41,29,53,45,27		7,20
10″	36, 5,50,13,29, 0,29,27, 6, 5		2,38,20,25,27	
		1,40,22,38,51,33,20, 0		7,20
12″	36, 5,51,53,51,39,21, 0,26, 5		2,38,20,32,47	
		1,40,22,36,13,12,47,13		7,20
14″	36, 5,53,34,14,15,34,13,13,18		2,38,20,40, 7	
		1,40,22,33,34,52, 7, 6		7,20
16″	36, 5,55,14,36,49, 9, 5,20,24		2,38,20,47,27	
		1,40,22,30,56,31,19,39		7,20
18″	36, 5,56,54,59,20, 5,36,40, 3		2,38,20,54,47	
		1,40,22,28,18,10,24,52		7,20
20″	36, 5,58,35,21,48,23,47, 4,55		2,38,21, 2, 7	
		1,40,22,25,39,49,22,45		7,20
22″	36, 6, 0,15,44,14, 3,36,27,40		2,38,21, 9,27	
		1,40,22,23, 1,28,13,18		7,20
24″	36, 6, 1,56, 6,37, 5, 4,40,58		2,38,21,16,47	
		1,40,22,20,23, 6,56,31		7,20
26″	36, 6, 3,36,28,57,28,11,37,29		2,38,21,24, 7	
		1,40,22,17,44,45,32,24		7,20
28″	36, 6, 5,16,51,15,12,57, 9,53		2,38,21,31,27	
		1,40,22,15, 6,24, 0,57		7,20
30″	36, 6, 6,57,13,30,19,21,10,50		2,38,21,38,47	
		1,40,22,12,28, 2,22,10		7,20
32″	36, 6, 8,37,35,42,47,23,33, 0		2,38,21,46, 7	
		1,40,22, 9,49,40,36, 3		7,20
34″	36, 6,10,17,57,52,37, 4, 9, 3		2,38,21,53,27	
		1,40,22, 7,11,18,42,36		7,20
36″	36, 6,11,58,19,59,48,22,51,39		2,38,22, 0,47	
		1,40,22, 4,32,56,41,49		7,20
38″	36, 6,13,38,42, 4,21,19,33,28		2,38,22, 8, 7	
		1,40,22, 1,54,34,33,42		7,20
40″	36, 6,15,19, 4, 6,15,54, 7,10		2,38,22,15,27	
		1,40,21,59,16,12,18,15		7,20
42″	36, 6,16,59,26, 5,32, 6,25,25		2,38,22,22,47	
		1,40,21,56,37,49,55,28		7,20
44″	36, 6,18,39,48, 2, 9,56,20,53		2,38,22,30, 7	
		1,40,21,53,59,27,25,21		7,20
46″	36, 6,20,20, 9,56, 9,23,46,14		2,38,22,37,27	
		1,40,21,51,21, 4,47,54		7,20
48″	36, 6,22, 0,31,47,30,28,34, 8		2,38,22,44,47	
		1,40,21,48,42,42, 3, 7		7,20
50″	36, 6,23,40,53,36,13,10,37,15		2,38,22,52, 7	
		1,40,21,46, 4,19,11, 0		7,20
52″	36, 6,25,21,15,22,17,29,48,15		2,38,22,59,27	
		1,40,21,43,25,56,11,33		7,20
54″	36, 6,27, 1,37, 5,43,25,59,48		2,38,23, 6,47	
		1,40,21,40,47,33, 4,46		7,20
56″	36, 6,28,41,58,46,30,59, 4,34		2,38,23,14, 7	
		1,40,21,38, 9, 9,50,39		7,20
58″	36, 6,30,22,20,24,40, 8,55,13		2,38,23,21,27	
		1,40,21,35,30,46,29,12		
60″	36, 6,32, 2,42, 0,10,55,24,25			
exact	36, 6,32, 2,42, 0,10,55, 4,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37° 0′ 0″	36, 6,32, 2,42, 0,10,55, 4,21			
		1,40,21,32,52,22,58,20		
2″	36, 6,33,43, 3,33, 3,18, 2,41		2,38,23,36,15	
		1,40,21,30,13,59,22, 5		7,20
4″	36, 6,35,23,25, 3,17,17,24,46		2,38,23,43,35	
		1,40,21,27,35,35,38,30		7,20
6″	36, 6,37, 3,46,30,52,53, 3,16		2,38,23,50,55	
		1,40,21,24,57,11,47,35		7,20
8″	36, 6,38,44, 7,55,50, 4,50,51		2,38,23,58,15	
		1,40,21,22,18,47,49,20		7,20
10″	36, 6,40,24,29,18, 8,52,40,11		2,38,24, 5,35	
		1,40,21,19,40,23,43,45		7,20
12″	36, 6,42, 4,50,37,49,16,23,56		2,38,24,12,55	
		1,40,21,17, 1,59,30,50		7,20
14″	36, 6,43,45,11,54,51,15,54,46		2,38,24,20,15	
		1,40,21,14,23,35,10,35		7,20
16″	36, 6,45,25,33, 9,14,51, 5,21		2,38,24,27,35	
		1,40,21,11,45,10,43, 0		7,20
18″	36, 6,47, 5,54,21, 0, 1,48,21		2,38,24,34,55	
		1,40,21, 9, 6,46, 8, 5		7,20
20″	36, 6,48,46,15,30, 6,47,56,26		2,38,24,42,15	
		1,40,21, 6,28,21,25,50		7,20
22″	36, 6,50,26,36,36,35, 9,22,16		2,38,24,49,35	
		1,40,21, 3,49,56,36,15		7,20
24″	36, 6,52, 6,57,40,25, 5,58,31		2,38,24,56,55	
		1,40,21, 1,11,31,39,20		7,20
26″	36, 6,53,47,18,41,36,37,37,51		2,38,25, 4,15	
		1,40,20,58,33, 6,35, 5		7,20
28″	36, 6,55,27,39,40, 9,44,12,56		2,38,25,11,35	
		1,40,20,55,54,41,23,30		7,20
30″	36, 6,57, 8, 0,36, 4,25,36,26		2,38,25,18,55	
		1,40,20,53,16,16, 4,35		7,20
32″	36, 6,58,48,21,29,20,41,41, 1		2,38,25,26,15	
		1,40,20,50,37,50,38,20		7,20
34″	36, 7, 0,28,42,19,58,32,19,21		2,38,25,33,35	
		1,40,20,47,59,25, 4,45		7,20
36″	36, 7, 2, 9, 3, 7,57,57,24, 6		2,38,25,40,55	
		1,40,20,45,20,59,23,50		7,20
38″	36, 7, 3,49,23,53,18,56,47,56		2,38,25,48,15	
		1,40,20,42,42,33,35,35		7,20
40″	36, 7, 5,29,44,36, 1,30,23,31		2,38,25,55,35	
		1,40,20,40, 4, 7,40, 0		7,20
42″	36, 7, 7,10, 5,16, 5,38, 3,31		2,38,26, 2,55	
		1,40,20,37,25,41,37, 5		7,20
44″	36, 7, 8,50,25,53,31,19,40,36		2,38,26,10,15	
		1,40,20,34,47,15,26,50		7,20
46″	36, 7,10,30,46,28,18,35, 7,26		2,38,26,17,35	
		1,40,20,32, 8,49, 9,15		7,20
48″	36, 7,12,11, 7, 0,27,24,16,41		2,38,26,24,55	
		1,40,20,29,30,22,44,20		7,20
50″	36, 7,13,51,27,29,57,47, 1, 1		2,38,26,32,15	
		1,40,20,26,51,56,12, 5		7,20
52″	36, 7,15,31,47,56,49,43,13, 6		2,38,26,39,35	
		1,40,20,24,13,29,32,30		7,20
54″	36, 7,17,12, 8,21, 3,12,45,36		2,38,26,46,55	
		1,40,20,21,35, 2,45,35		7,20
56″	36, 7,18,52,28,42,38,15,31,11		2,38,26,54,15	
		1,40,20,18,56,35,51,20		7,20
58″	36, 7,20,32,49, 1,34,51,22,31		2,38,27, 1,35	
		1,40,20,16,18, 8,49,45		
60″	36, 7,22,13, 9,17,53, 0,12,16			
exact	36, 7,22,13, 9,17,52,59,57,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37° 1′ 0″	36, 7,22,13, 9,17,52,59,57,31			
		1,40,20,13,39,41,39,22		
2″	36, 7,23,53,29,31,32,41,36,53		2,38,27,16,20	
		1,40,20,11, 1,14,23, 2		7,20
4″	36, 7,25,33,49,42,33,55,59,55		2,38,27,23,40	
		1,40,20, 8,22,46,59,22		7,20
6″	36, 7,27,14, 9,50,56,42,59,17		2,38,27,31, 0	
		1,40,20, 5,44,19,28,22		7,20
8″	36, 7,28,54,29,56,41, 2,27,39		2,38,27,38,20	
		1,40,20, 3, 5,51,50, 2		7,20
10″	36, 7,30,34,49,59,46,54,17,41		2,38,27,45,40	
		1,40,20, 0,27,24, 4,22		7,20
12″	36, 7,32,15,10, 0,14,18,22, 3		2,38,27,53, 0	
		1,40,19,57,48,56,11,22		7,20
14″	36, 7,33,55,29,58, 3,14,33,25		2,38,28, 0,20	
		1,40,19,55,10,28,11, 2		7,20
16″	36, 7,35,35,49,53,13,42,44,27		2,38,28, 7,40	
		1,40,19,52,32, 0, 3,22		7,20
18″	36, 7,37,16, 9,45,45,42,47,49		2,38,28,15, 0	
		1,40,19,49,53,31,48,22		7,20
20″	36, 7,38,56,29,35,39,14,36,11		2,38,28,22,20	
		1,40,19,47,15, 3,26, 2		7,20
22″	36, 7,40,36,49,22,54,18, 2,13		2,38,28,29,40	
		1,40,19,44,36,34,56,22		7,20
24″	36, 7,42,17, 9, 7,30,52,58,35		2,38,28,37, 0	
		1,40,19,41,58, 6,19,22		7,20
26″	36, 7,43,57,28,49,28,59,17,57		2,38,28,44,20	
		1,40,19,39,19,37,35, 2		7,20
28″	36, 7,45,37,48,28,48,36,52,59		2,38,28,51,40	
		1,40,19,36,41, 8,43,22		7,20
30″	36, 7,47,18, 8, 5,29,45,36,21		2,38,28,59, 0	
		1,40,19,34, 2,39,44,22		7,20
32″	36, 7,48,58,27,39,32,25,20,43		2,38,29, 6,20	
		1,40,19,31,24,10,38, 2		7,20
34″	36, 7,50,38,47,10,56,35,58,45		2,38,29,13,40	
		1,40,19,28,45,41,24,22		7,20
36″	36, 7,52,19, 6,39,42,17,23, 7		2,38,29,21, 0	
		1,40,19,26, 7,12, 3,22		7,20
38″	36, 7,53,59,26, 5,49,29,26,29		2,38,29,28,20	
		1,40,19,23,28,42,35, 2		7,20
40″	36, 7,55,39,45,29,18,12, 1,31		2,38,29,35,40	
		1,40,19,20,50,12,59,22		7,20
42″	36, 7,57,20, 4,50, 8,25, 0,53		2,38,29,43, 0	
		1,40,19,18,11,43,16,22		7,20
44″	36, 7,59, 0,24, 8,20, 8,17,15		2,38,29,50,20	
		1,40,19,15,33,13,26, 2		7,20
46″	36, 8, 0,40,43,23,53,21,43,17		2,38,29,57,40	
		1,40,19,12,54,43,28,22		7,20
48″	36, 8, 2,21, 2,36,48, 5,11,39		2,38,30, 5, 0	
		1,40,19,10,16,13,23,22		7,20
50″	36, 8, 4, 1,21,47, 4,18,35, 1		2,38,30,12,20	
		1,40,19, 7,37,43,11, 2		7,20
52″	36, 8, 5,41,40,54,42, 1,46, 3		2,38,30,19,40	
		1,40,19, 4,59,12,51,22		7,20
54″	36, 8, 7,21,59,59,41,14,37,25		2,38,30,27, 0	
		1,40,19, 2,20,42,24,22		7,20
56″	36, 8, 9, 2,19, 2, 1,57, 1,47		2,38,30,34,20	
		1,40,18,59,42,11,50, 2		7,20
58″	36, 8,10,42,38, 1,44, 8,51,49		2,38,30,41,40	
		1,40,18,57, 3,41, 8,22		
60″	36, 8,12,22,56,58,47,50, 0,11			
exact	36, 8,12,22,56,58,47,49,50,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37° 2′ 0″	36, 8,12,22,56,58,47,49,50,33	1,40,18,54,25,10,18,30		
2″	36, 8,14, 3,15,53,13, 0, 9, 3	1,40,18,51,46,39,22, 7	2,38,30,56,23	7,20
4″	36, 8,15,43,34,44,59,39,31,10	1,40,18,49, 8, 8,18,24	2,38,31, 3,43	7,20
6″	36, 8,17,23,53,34, 7,47,49,34	1,40,18,46,29,37, 7,21	2,38,31,11, 3	7,20
8″	36, 8,19, 4,12,20,37,24,56,55	1,40,18,43,51, 5,48,58	2,38,31,18,23	7,20
10″	36, 8,20,44,31, 4,28,30,45,53	1,40,18,41,12,34,23,15	2,38,31,25,43	7,20
12″	36, 8,22,24,49,45,41, 5, 9, 8	1,40,18,38,34, 2,50,12	2,38,31,33, 3	7,20
14″	36, 8,24, 5, 8,24,15, 7,59,20	1,40,18,35,55,31, 9,49	2,38,31,40,23	7,20
16″	36, 8,25,45,27, 0,10,39, 9, 9	1,40,18,33,16,59,22, 6	2,38,31,47,43	7,20
18″	36, 8,27,25,45,33,27,38,31,15	1,40,18,30,38,27,27, 3	2,38,31,55, 3	7,20
20″	36, 8,29, 6, 4, 4, 6, 5,58,18	1,40,18,27,59,55,24,40	2,38,32, 2,23	7,20
22″	36, 8,30,46,22,32, 6, 1,22,58	1,40,18,25,21,23,14,57	2,38,32, 9,43	7,20
24″	36, 8,32,26,40,57,27,24,37,55	1,40,18,22,42,50,57,54	2,38,32,17, 3	7,20
26″	36, 8,34, 6,59,20,10,15,35,49	1,40,18,20, 4,18,33,31	2,38,32,24,23	7,20
28″	36, 8,35,47,17,40,14,34, 9,20	1,40,18,17,25,46, 1,48	2,38,32,31,43	7,20
30″	36, 8,37,27,35,57,40,20,11, 8	1,40,18,14,47,13,22,45	2,38,32,39, 3	7,20
32″	36, 8,39, 7,54,12,27,33,33,53	1,40,18,12, 8,40,36,22	2,38,32,46,23	7,20
34″	36, 8,40,48,12,24,36,14,10,15	1,40,18, 9,30, 7,42,39	2,38,32,53,43	7,20
36″	36, 8,42,28,30,34, 6,21,52,54	1,40,18, 6,51,34,41,36	2,38,33, 1, 3	7,20
38″	36, 8,44, 8,48,40,57,56,34,30	1,40,18, 4,13, 1,33,13	2,38,33, 8,23	7,20
40″	36, 8,45,49, 6,45,10,58, 7,43	1,40,18, 1,34,28,17,30	2,38,33,15,43	7,20
42″	36, 8,47,29,24,46,45,26,25,13	1,40,17,58,55,54,54,27	2,38,33,23, 3	7,20
44″	36, 8,49, 9,42,45,41,21,19,40	1,40,17,56,17,21,24, 4	2,38,33,30,23	7,20
46″	36, 8,50,50, 0,41,58,42,43,44	1,40,17,53,38,47,46,21	2,38,33,37,43	7,20
48″	36, 8,52,30,18,35,37,30,30, 5	1,40,17,51, 0,14, 1,18	2,38,33,45, 3	7,20
50″	36, 8,54,10,36,26,37,44,31,23	1,40,17,48,21,40, 8,55	2,38,33,52,23	7,20
52″	36, 8,55,50,54,14,59,24,40,18	1,40,17,45,43, 6, 9,12	2,38,33,59,43	7,20
54″	36, 8,57,31,12, 0,42,30,49,30	1,40,17,43, 4,32, 2, 9	2,38,34, 7, 3	7,20
56″	36, 8,59,11,29,43,47, 2,51,39	1,40,17,40,25,57,47,46	2,38,34,14,23	7,20
58″	36, 9, 0,51,47,24,13, 0,39,25	1,40,17,37,47,23,26, 3	2,38,34,21,43	
60″	36, 9, 2,32, 5, 2, 0,24, 5,28			
exact	36, 9, 2,32, 5, 2, 0,24, 6,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37° 3′ 0″	36, 9, 2,32, 5, 2, 0,24, 6,52	1,40,17,35, 8,48,57, 9		
2″	36, 9, 4,12,22,37, 9,13, 4, 1	1,40,17,32,30,14,20,47	2,38,34,36,22	7,20
4″	36, 9, 5,52,40, 9,39,27,24,48	1,40,17,29,51,39,37, 5	2,38,34,43,42	7,20
6″	36, 9, 7,32,57,39,31, 7, 1,53	1,40,17,27,13, 4,46, 3	2,38,34,51, 2	7,20
8″	36, 9, 9,13,15, 6,44,11,47,56	1,40,17,24,34,29,47,41	2,38,34,58,22	7,20
10″	36, 9,10,53,32,31,18,41,35,37	1,40,17,21,55,54,41,59	2,38,35, 5,42	7,20
12″	36, 9,12,33,49,53,14,36,17,36	1,40,17,19,17,19,28,57	2,38,35,13, 2	7,20
14″	36, 9,14,14, 7,12,31,55,46,33	1,40,17,16,38,44, 8,35	2,38,35,20,22	7,20
16″	36, 9,15,54,24,29,10,39,55, 8	1,40,17,14, 0, 8,40,53	2,38,35,27,42	7,20
18″	36, 9,17,34,41,43,10,48,36, 1	1,40,17,11,21,33, 5,51	2,38,35,35, 2	7,20
20″	36, 9,19,14,58,54,32,21,41,52	1,40,17, 8,42,57,23,29	2,38,35,42,22	7,20
22″	36, 9,20,55,16, 3,15,19, 5,21	1,40,17, 6, 4,21,33,47	2,38,35,49,42	7,20
24″	36, 9,22,35,33, 9,19,40,39, 8	1,40,17, 3,25,45,36,45	2,38,35,57, 2	7,20
26″	36, 9,24,15,50,12,45,26,15,53	1,40,17, 0,47, 9,32,23	2,38,36, 4,22	7,20
28″	36, 9,25,56, 7,13,32,35,48,16	1,40,16,58, 8,33,20,41	2,38,36,11,42	7,20
30″	36, 9,27,36,24,11,41, 9, 8,57	1,40,16,55,29,57, 1,39	2,38,36,19, 2	7,20
32″	36, 9,29,16,41, 7,11, 6,10,36	1,40,16,52,51,20,35,17	2,38,36,26,22	7,20
34″	36, 9,30,56,58, 0, 2,26,45,53	1,40,16,50,12,44, 1,35	2,38,36,33,42	7,20
36″	36, 9,32,37,14,50,15,10,47,28	1,40,16,47,34, 7,20,33	2,38,36,41, 2	7,20
38″	36, 9,34,17,31,37,49,18, 8, 1	1,40,16,44,55,30,32,11	2,38,36,48,22	7,20
40″	36, 9,35,57,48,22,44,48,40,12	1,40,16,42,16,53,36,29	2,38,36,55,42	7,20
42″	36, 9,37,38, 5, 5, 1,42,16,41	1,40,16,39,38,16,33,27	2,38,37, 3, 2	7,20
44″	36, 9,39,18,21,44,39,58,50, 8	1,40,16,36,59,39,23, 5	2,38,37,10,22	7,20
46″	36, 9,40,58,38,21,39,38,13,13	1,40,16,34,21, 2, 5,23	2,38,37,17,42	7,20
48″	36, 9,42,38,54,56, 0,40,18,36	1,40,16,31,42,24,40,21	2,38,37,25, 2	7,20
50″	36, 9,44,19,11,27,43, 4,58,57	1,40,16,29, 3,47, 7,59	2,38,37,32,22	7,20
52″	36, 9,45,59,27,56,46,52, 6,56	1,40,16,26,25, 9,28,17	2,38,37,39,42	7,20
54″	36, 9,47,39,44,23,12, 1,35,13	1,40,16,23,46,31,41,15	2,38,37,47, 2	7,20
56″	36, 9,49,20, 0,46,58,33,16,28	1,40,16,21, 7,53,46,53	2,38,37,54,22	7,20
58″	36, 9,51, 0,17, 8, 6,27, 3,21	1,40,16,18,29,15,45,11	2,38,38, 1,42	
60″	36, 9,52,40,33,26,35,42,48,32			
exact	36, 9,52,40,33,26,35,42,53,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37° 4′ 0″	36, 9,52,40,33,26,35,42,53,23	1,40,16,15,50,37,36,47		
2″	36, 9,54,20,49,42,26,20,30,10	1,40,16,13,11,59,20,28	2,38,38,16,19	
4″	36, 9,56, 1, 5,55,38,19,50,38	1,40,16,10,33,20,56,49	2,38,38,23,39	7,20
6″	36, 9,57,41,22, 6,11,40,47,27	1,40,16, 7,54,42,25,50	2,38,38,30,59	7,20
8″	36, 9,59,21,38,14, 6,23,13,17	1,40,16, 5,16, 3,47,31	2,38,38,38,19	7,20
10″	36,10, 1, 1,54,19,22,27, 0,48	1,40,16, 2,37,25, 1,52	2,38,38,45,39	7,20
12″	36,10, 2,42,10,21,59,52, 2,40	1,40,15,59,58,46, 8,53	2,38,38,52,59	7,20
14″	36,10, 4,22,26,21,58,38,11,33	1,40,15,57,20, 7, 8,34	2,38,39, 0,19	7,20
16″	36,10, 6, 2,42,19,18,45,20, 7	1,40,15,54,41,28, 0,55	2,38,39, 7,39	7,20
18″	36,10, 7,42,58,14, 0,13,21, 2	1,40,15,52, 2,48,45,56	2,38,39,14,59	7,20
20″	36,10, 9,23,14, 6, 3, 2, 6,58	1,40,15,49,24, 9,23,37	2,38,39,22,19	7,20
22″	36,10,11, 3,29,55,27,11,30,35	1,40,15,46,45,29,53,58	2,38,39,29,39	7,20
24″	36,10,12,43,45,42,12,41,24,33	1,40,15,44, 6,50,16,59	2,38,39,36,59	7,20
26″	36,10,14,24, 1,26,19,31,41,32	1,40,15,41,28,10,32,40	2,38,39,44,19	7,20
28″	36,10,16, 4,17, 7,47,42,14,12	1,40,15,38,49,30,41, 1	2,38,39,51,39	7,20
30″	36,10,17,44,32,46,37,12,55,13	1,40,15,36,10,50,42, 2	2,38,39,58,59	7,20
32″	36,10,19,24,48,22,48, 3,37,15	1,40,15,33,32,10,35,43	2,38,40, 6,19	7,20
34″	36,10,21, 5, 3,56,20,14,12,58	1,40,15,30,53,30,22, 4	2,38,40,13,39	7,20
36″	36,10,22,45,19,27,13,44,35, 2	1,40,15,28,14,50, 1, 5	2,38,40,20,59	7,20
38″	36,10,24,25,34,55,28,34,36, 7	1,40,15,25,36, 9,32,46	2,38,40,28,19	7,20
40″	36,10,26, 5,50,21, 4,44, 8,53	1,40,15,22,57,28,57, 7	2,38,40,35,39	7,20
42″	36,10,27,46, 5,44, 2,13, 6, 0	1,40,15,20,18,48,14, 8	2,38,40,42,59	7,20
44″	36,10,29,26,21, 4,21, 1,20, 8	1,40,15,17,40, 7,23,49	2,38,40,50,19	7,20
46″	36,10,31, 6,36,22, 1, 8,43,57	1,40,15,15, 1,26,26,10	2,38,40,57,39	7,20
48″	36,10,32,46,51,37, 2,35,10, 7	1,40,15,12,22,45,21,11	2,38,41, 4,59	7,20
50″	36,10,34,27, 6,49,25,20,31,18	1,40,15, 9,44, 4, 8,52	2,38,41,12,19	7,20
52″	36,10,36, 7,21,59, 9,24,40,10	1,40,15, 7, 5,22,49,13	2,38,41,19,39	7,20
54″	36,10,37,47,37, 6,14,47,29,23	1,40,15, 4,26,41,22,14	2,38,41,26,59	7,20
56″	36,10,39,27,52,10,41,28,51,37	1,40,15, 1,47,59,47,55	2,38,41,34,19	7,20
58″	36,10,41, 8, 7,12,29,28,39,32	1,40,14,59, 9,18, 6,16	2,38,41,41,39	
60″	36,10,42,48,22,11,38,46,45,48			
exact	36,10,42,48,22,11,38,47, 0,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37° 5′ 0″	36,10,42,48,22,11,38,47, 0,29			
		1,40,14,56,30,36,18,51		
2″	36,10,44,28,37, 8, 9,23,19,20		2,38,41,56,12	
		1,40,14,53,51,54,22,39		7,20
4″	36,10,46, 8,52, 2, 1,17,41,59		2,38,42, 3,32	
		1,40,14,51,13,12,19, 7		7,20
6″	36,10,47,49, 6,53,14,30, 1, 6		2,38,42,10,52	
		1,40,14,48,34,30, 8,15		7,20
8″	36,10,49,29,21,41,49, 0, 9,21		2,38,42,18,12	
		1,40,14,45,55,47,50, 3		7,20
10″	36,10,51, 9,36,27,44,47,59,24		2,38,42,25,32	
		1,40,14,43,17, 5,24,31		7,20
12″	36,10,52,49,51,11, 1,53,23,55		2,38,42,32,52	
		1,40,14,40,38,22,51,39		7,20
14″	36,10,54,30, 5,51,40,16,15,34		2,38,42,40,12	
		1,40,14,37,59,40,11,27		7,20
16″	36,10,56,10,20,29,39,56,27, 1		2,38,42,47,32	
		1,40,14,35,20,57,23,55		7,20
18″	36,10,57,50,35, 5, 0,53,50,56		2,38,42,54,52	
		1,40,14,32,42,14,29, 3		7,20
20″	36,10,59,30,49,37,43, 8,19,59		2,38,43, 2,12	
		1,40,14,30, 3,31,26,51		7,20
22″	36,11, 1,11, 4, 7,46,39,46,50		2,38,43, 9,32	
		1,40,14,27,24,48,17,19		7,20
24″	36,11, 2,51,18,35,11,28, 4, 9		2,38,43,16,52	
		1,40,14,24,46, 5, 0,27		7,20
26″	36,11, 4,31,32,59,57,33, 4,36		2,38,43,24,12	
		1,40,14,22, 7,21,36,15		7,20
28″	36,11, 6,11,47,22, 4,54,40,51		2,38,43,31,32	
		1,40,14,19,28,38, 4,43		7,20
30″	36,11, 7,52, 1,41,33,32,45,34		2,38,43,38,52	
		1,40,14,16,49,54,25,51		7,20
32″	36,11, 9,32,15,58,23,27,11,25		2,38,43,46,12	
		1,40,14,14,11,10,39,39		7,20
34″	36,11,11,12,30,12,34,37,51, 4		2,38,43,53,32	
		1,40,14,11,32,26,46, 7		7,20
36″	36,11,12,52,44,24, 7, 4,37,11		2,38,44, 0,52	
		1,40,14, 8,53,42,45,15		7,20
38″	36,11,14,32,58,33, 0,47,22,26		2,38,44, 8,12	
		1,40,14, 6,14,58,37, 3		7,20
40″	36,11,16,13,12,39,15,45,59,29		2,38,44,15,32	
		1,40,14, 3,36,14,21,31		7,20
42″	36,11,17,53,26,42,52, 0,21, 0		2,38,44,22,52	
		1,40,14, 0,57,29,58,39		7,20
44″	36,11,19,33,40,43,49,30,19,39		2,38,44,30,12	
		1,40,13,58,18,45,28,27		7,20
46″	36,11,21,13,54,42, 8,15,48, 6		2,38,44,37,32	
		1,40,13,55,40, 0,50,55		7,20
48″	36,11,22,54, 8,37,48,16,39, 1		2,38,44,44,52	
		1,40,13,53, 1,16, 6, 3		7,20
50″	36,11,24,34,22,30,49,32,45, 4		2,38,44,52,12	
		1,40,13,50,22,31,13,51		7,20
52″	36,11,26,14,36,21,12, 3,58,55		2,38,44,59,32	
		1,40,13,47,43,46,14,19		7,20
54″	36,11,27,54,50, 8,55,50,13,14		2,38,45, 6,52	
		1,40,13,45, 5, 1, 7,27		7,20
56″	36,11,29,35, 3,54, 0,51,20,41		2,38,45,14,12	
		1,40,13,42,26,15,53,15		7,20
58″	36,11,31,15,17,36,27, 7,13,56		2,38,45,21,32	
		1,40,13,39,47,30,31,43		
60″	36,11,32,55,31,16,14,37,45,39			
exact	36,11,32,55,31,16,14,38, 2, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37° 6′ 0″	36,11,32,55,31,16,14,38, 2, 3			
		1,40,13,37, 8,45, 4,47		
2″	36,11,34,35,44,53,23,23, 6,50		2,38,45,36, 3	
		1,40,13,34,29,59,28,44		7,20
4″	36,11,36,15,58,27,53,22,35,34		2,38,45,43,23	
		1,40,13,31,51,13,45,21		7,20
6″	36,11,37,56,11,59,44,36,20,55		2,38,45,50,43	
		1,40,13,29,12,27,54,38		7,20
8″	36,11,39,36,25,28,57, 4,15,33		2,38,45,58, 3	
		1,40,13,26,33,41,56,35		7,20
10″	36,11,41,16,38,55,30,46,12, 8		2,38,46, 5,23	
		1,40,13,23,54,55,51,12		7,20
12″	36,11,42,56,52,19,25,42, 3,20		2,38,46,12,43	
		1,40,13,21,16, 9,38,29		7,20
14″	36,11,44,37, 5,40,41,51,41,49		2,38,46,20, 3	
		1,40,13,18,37,23,18,26		7,20
16″	36,11,46,17,18,59,19,15, 0,15		2,38,46,27,23	
		1,40,13,15,58,36,51, 3		7,20
18″	36,11,47,57,32,15,17,51,51,18		2,38,46,34,43	
		1,40,13,13,19,50,16,20		7,20
20″	36,11,49,37,45,28,37,42, 7,38		2,38,46,42, 3	
		1,40,13,10,41, 3,34,17		7,20
22″	36,11,51,17,58,39,18,45,41,55		2,38,46,49,23	
		1,40,13, 8, 2,16,44,54		7,20
24″	36,11,52,58,11,47,21, 2,26,49		2,38,46,56,43	
		1,40,13, 5,23,29,48,11		7,20
26″	36,11,54,38,24,52,44,32,15, 0		2,38,47, 4, 3	
		1,40,13, 2,44,42,44, 8		7,20
28″	36,11,56,18,37,55,29,14,59, 8		2,38,47,11,23	
		1,40,13, 0, 5,55,32,45		7,20
30″	36,11,57,58,50,55,35,10,31,53		2,38,47,18,43	
		1,40,12,57,27, 8,14, 2		7,20
32″	36,11,59,39, 3,53, 2,18,45,55		2,38,47,26, 3	
		1,40,12,54,48,20,47,59		7,20
34″	36,12, 1,19,16,47,50,39,33,54		2,38,47,33,23	
		1,40,12,52, 9,33,14,36		7,20
36″	36,12, 2,59,29,40, 0,12,48,30		2,38,47,40,43	
		1,40,12,49,30,45,33,53		7,20
38″	36,12, 4,39,42,29,30,58,22,23		2,38,47,48, 3	
		1,40,12,46,51,57,45,50		7,20
40″	36,12, 6,19,55,16,22,56, 8,13		2,38,47,55,23	
		1,40,12,44,13, 9,50,27		7,20
42″	36,12, 8, 0, 8, 0,36, 5,58,40		2,38,48, 2,43	
		1,40,12,41,34,21,47,44		7,20
44″	36,12, 9,40,20,42,10,27,46,24		2,38,48,10, 3	
		1,40,12,38,55,33,37,41		7,20
46″	36,12,11,20,33,21, 6, 1,24, 5		2,38,48,17,23	
		1,40,12,36,16,45,20,18		7,20
48″	36,12,13, 0,45,57,22,46,44,23		2,38,48,24,43	
		1,40,12,33,37,56,55,35		7,20
50″	36,12,14,40,58,31, 0,43,39,58		2,38,48,32, 3	
		1,40,12,30,59, 8,23,32		7,20
52″	36,12,16,21,11, 1,59,52, 3,30		2,38,48,39,23	
		1,40,12,28,20,19,44, 9		7,20
54″	36,12,18, 1,23,30,20,11,47,39		2,38,48,46,43	
		1,40,12,25,41,30,57,26		7,20
56″	36,12,19,41,35,56, 1,42,45, 5		2,38,48,54, 3	
		1,40,12,23, 2,42, 3,23		7,20
58″	36,12,21,21,48,19, 4,24,48,28		2,38,49, 1,23	
		1,40,12,20,23,53, 2, 0		
60″	36,12,23, 2, 0,39,28,17,50,28			
exact	36,12,23, 2, 0,39,28,18,15,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37° 7′ 0″	36,12,23, 2, 0,39,28,18,15,26	1,40,12,17,45, 3,56, 3		
2″	36,12,24,42,12,57,13,22,11,29	1,40,12,15, 6,14,40,12	2,38,49,15,51	
4″	36,12,26,22,25,12,19,36,51,41	1,40,12,12,27,25,17, 1	2,38,49,23,11	7,20
6″	36,12,28, 2,37,24,47, 2, 8,42	1,40,12, 9,48,35,46,30	2,38,49,30,31	7,20
8″	36,12,29,42,49,34,35,37,55,12	1,40,12, 7, 9,46, 8,39	2,38,49,37,51	7,20
10″	36,12,31,23, 1,41,45,24, 3,51	1,40,12, 4,30,56,23,28	2,38,49,45,11	7,20
12″	36,12,33, 3,13,46,16,20,27,19	1,40,12, 1,52, 6,30,57	2,38,49,52,31	7,20
14″	36,12,34,43,25,48, 8,26,58,16	1,40,11,59,13,16,31, 6	2,38,49,59,51	7,20
16″	36,12,36,23,37,47,21,43,29,22	1,40,11,56,34,26,23,55	2,38,50, 7,11	7,20
18″	36,12,38, 3,49,43,56, 9,53,17	1,40,11,53,55,36, 9,24	2,38,50,14,31	7,20
20″	36,12,39,44, 1,37,51,46, 2,41	1,40,11,51,16,45,47,33	2,38,50,21,51	7,20
22″	36,12,41,24,13,29, 8,31,50,14	1,40,11,48,37,55,18,22	2,38,50,29,11	7,20
24″	36,12,43, 4,25,17,46,27, 8,36	1,40,11,45,59, 4,41,51	2,38,50,36,31	7,20
26″	36,12,44,44,37, 3,45,31,50,27	1,40,11,43,20,13,58, 0	2,38,50,43,51	7,20
28″	36,12,46,24,48,47, 5,45,48,27	1,40,11,40,41,23, 6,49	2,38,50,51,11	7,20
30″	36,12,48, 5, 0,27,47, 8,55,16	1,40,11,38, 2,32, 8,18	2,38,50,58,31	7,20
32″	36,12,49,45,12, 5,49,41, 3,34	1,40,11,35,23,41, 2,27	2,38,51, 5,51	7,20
34″	36,12,51,25,23,41,13,22, 6, 1	1,40,11,32,44,49,49,16	2,38,51,13,11	7,20
36″	36,12,53, 5,35,13,58,11,55,17	1,40,11,30, 5,58,28,45	2,38,51,20,31	7,20
38″	36,12,54,45,46,44, 4,10,24, 2	1,40,11,27,27, 7, 0,54	2,38,51,27,51	7,20
40″	36,12,56,25,58,11,31,17,24,56	1,40,11,24,48,15,25,43	2,38,51,35,11	7,20
42″	36,12,58, 6, 9,36,19,32,50,39	1,40,11,22, 9,23,43,12	2,38,51,42,31	7,20
44″	36,12,59,46,20,58,28,56,33,51	1,40,11,19,30,31,53,21	2,38,51,49,51	7,20
46″	36,13, 1,26,32,17,59,28,27,12	1,40,11,16,51,39,56,10	2,38,51,57,11	7,20
48″	36,13, 3, 6,43,34,51, 8,23,22	1,40,11,14,12,47,51,39	2,38,52, 4,31	7,20
50″	36,13, 4,46,54,49, 3,56,15, 1	1,40,11,11,33,55,39,48	2,38,52,11,51	7,20
52″	36,13, 6,27, 6, 0,37,51,54,49	1,40,11, 8,55, 3,20,37	2,38,52,19,11	7,20
54″	36,13, 8, 7,17, 9,32,55,15,26	1,40,11, 6,16,10,54, 6	2,38,52,26,31	7,20
56″	36,13, 9,47,28,15,49, 6, 9,32	1,40,11, 3,37,18,20,15	2,38,52,33,51	7,20
58″	36,13,11,27,39,19,26,24,29,47	1,40,11, 0,58,25,39, 4	2,38,52,41,11	
60″	36,13,13, 7,50,20,24,50, 8,51			
exact	36,13,13, 7,50,20,24,50,41,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37° 8′ 0″	36,13,13, 7,50,20,24,50,41,32			
		1,40,10,58,19,32,54, 6		
2″	36,13,14,48, 1,18,44,23,35,38		2,38,52,55,36	
		1,40,10,55,40,39,58,30		7,19
4″	36,13,16,28,12,14,25, 3,34, 8		2,38,53, 2,55	
		1,40,10,53, 1,46,55,35		7,19
6″	36,13,18, 8,23, 7,26,50,29,43		2,38,53,10,14	
		1,40,10,50,22,53,45,21		7,19
8″	36,13,19,48,33,57,49,44,15, 4		2,38,53,17,33	
		1,40,10,47,44, 0,27,48		7,19
10″	36,13,21,28,44,45,33,44,42,52		2,38,53,24,52	
		1,40,10,45, 5, 7, 2,56		7,19
12″	36,13,23, 8,55,30,38,51,45,48		2,38,53,32,11	
		1,40,10,42,26,13,30,45		7,19
14″	36,13,24,49, 6,13, 5, 5,16,33		2,38,53,39,30	
		1,40,10,39,47,19,51,15		7,19
16″	36,13,26,29,16,52,52,25, 7,48		2,38,53,46,49	
		1,40,10,37, 8,26, 4,26		7,19
18″	36,13,28, 9,27,30, 0,51,12,14		2,38,53,54, 8	
		1,40,10,34,29,32,10,18		7,19
20″	36,13,29,49,38, 4,30,23,22,32		2,38,54, 1,27	
		1,40,10,31,50,38, 8,51		7,19
22″	36,13,31,29,48,36,21, 1,31,23		2,38,54, 8,46	
		1,40,10,29,11,44, 0, 5		7,19
24″	36,13,33, 9,59, 5,32,45,31,28		2,38,54,16, 5	
		1,40,10,26,32,49,44, 0		7,19
26″	36,13,34,50, 9,32, 5,35,15,28		2,38,54,23,24	
		1,40,10,23,53,55,20,36		7,19
28″	36,13,36,30,19,55,59,30,36, 4		2,38,54,30,43	
		1,40,10,21,15, 0,49,53		7,19
30″	36,13,38,10,30,17,14,31,25,57		2,38,54,38, 2	
		1,40,10,18,36, 6,11,51		7,19
32″	36,13,39,50,40,35,50,37,37,48		2,38,54,45,21	
		1,40,10,15,57,11,26,30		7,19
34″	36,13,41,30,50,51,47,49, 4,18		2,38,54,52,40	
		1,40,10,13,18,16,33,50		7,19
36″	36,13,43,11, 1, 5, 6, 5,38, 8		2,38,54,59,59	
		1,40,10,10,39,21,33,51		7,19
38″	36,13,44,51,11,15,45,27,11,59		2,38,55, 7,18	
		1,40,10, 8, 0,26,26,33		7,19
40″	36,13,46,31,21,23,45,53,38,32		2,38,55,14,37	
		1,40,10, 5,21,31,11,56		7,19
42″	36,13,48,11,31,29, 7,24,50,28		2,38,55,21,56	
		1,40,10, 2,42,35,50, 0		7,19
44″	36,13,49,51,41,31,50, 0,40,28		2,38,55,29,15	
		1,40,10, 0, 3,40,20,45		7,19
46″	36,13,51,31,51,31,53,41, 1,13		2,38,55,36,34	
		1,40, 9,57,24,44,44,11		7,19
48″	36,13,53,12, 1,29,18,25,45,24		2,38,55,43,53	
		1,40, 9,54,45,49, 0,18		7,19
50″	36,13,54,52,11,24, 4,14,45,42		2,38,55,51,12	
		1,40, 9,52, 6,53, 9, 6		7,19
52″	36,13,56,32,21,16,11, 7,54,48		2,38,55,58,31	
		1,40, 9,49,27,57,10,35		7,19
54″	36,13,58,12,31, 5,39, 5, 5,23		2,38,56, 5,50	
		1,40, 9,46,49, 1, 4,45		7,19
56″	36,13,59,52,40,52,28, 6,10, 8		2,38,56,13, 9	
		1,40, 9,44,10, 4,51,36		7,19
58″	36,14, 1,32,50,36,38,11, 1,44		2,38,56,20,28	
		1,40, 9,41,31, 8,31, 8		
60″	36,14, 3,13, 0,18, 9,19,32,52			
exact	36,14, 3,13, 0,18, 9,19, 4,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37° 9′ 0″	36,14, 3,13, 0,18, 9,19, 4,50			
		1,40, 9,38,52,12, 0,23		
2″	36,14, 4,53, 9,57, 1,31, 5,13		2,38,56,35,18	
		1,40, 9,36,13,15,25, 5		7,19
4″	36,14, 6,33,19,33,14,46,30,18		2,38,56,42,37	
		1,40, 9,33,34,18,42,28		7,19
6″	36,14, 8,13,29, 6,49, 5,12,46		2,38,56,49,56	
		1,40, 9,30,55,21,52,32		7,19
8″	36,14, 9,53,38,37,44,27, 5,18		2,38,56,57,15	
		1,40, 9,28,16,24,55,17		7,19
10″	36,14,11,33,48, 6, 0,52, 0,35		2,38,57, 4,34	
		1,40, 9,25,37,27,50,43		7,19
12″	36,14,13,13,57,31,38,19,51,18		2,38,57,11,53	
		1,40, 9,22,58,30,38,50		7,19
14″	36,14,14,54, 6,54,36,50,30, 8		2,38,57,19,12	
		1,40, 9,20,19,33,19,38		7,19
16″	36,14,16,34,16,14,56,23,49,46		2,38,57,26,31	
		1,40, 9,17,40,35,53, 7		7,19
18″	36,14,18,14,25,32,36,59,42,53		2,38,57,33,50	
		1,40, 9,15, 1,38,19,17		7,19
20″	36,14,19,54,34,47,38,38, 2,10		2,38,57,41, 9	
		1,40, 9,12,22,40,38, 8		7,19
22″	36,14,21,34,44, 0, 1,18,40,18		2,38,57,48,28	
		1,40, 9, 9,43,42,49,40		7,19
24″	36,14,23,14,53, 9,45, 1,29,58		2,38,57,55,47	
		1,40, 9, 7, 4,44,53,53		7,19
26″	36,14,24,55, 2,16,49,46,23,51		2,38,58, 3, 6	
		1,40, 9, 4,25,46,50,47		7,19
28″	36,14,26,35,11,21,15,33,14,38		2,38,58,10,25	
		1,40, 9, 1,46,48,40,22		7,19
30″	36,14,28,15,20,23, 2,21,55, 0		2,38,58,17,44	
		1,40, 8,59, 7,50,22,38		7,19
32″	36,14,29,55,29,22,10,12,17,38		2,38,58,25, 3	
		1,40, 8,56,28,51,57,35		7,19
34″	36,14,31,35,38,18,39, 4,15,13		2,38,58,32,22	
		1,40, 8,53,49,53,25,13		7,19
36″	36,14,33,15,47,12,28,57,40,26		2,38,58,39,41	
		1,40, 8,51,10,54,45,32		7,19
38″	36,14,34,55,56, 3,39,52,25,58		2,38,58,47, 0	
		1,40, 8,48,31,55,58,32		7,19
40″	36,14,36,36, 4,52,11,48,24,30		2,38,58,54,19	
		1,40, 8,45,52,57, 4,13		7,19
42″	36,14,38,16,13,38, 4,45,28,43		2,38,59, 1,38	
		1,40, 8,43,13,58, 2,35		7,19
44″	36,14,39,56,22,21,18,43,31,18		2,38,59, 8,57	
		1,40, 8,40,34,58,53,38		7,19
46″	36,14,41,36,31, 1,53,42,24,56		2,38,59,16,16	
		1,40, 8,37,55,59,37,22		7,19
48″	36,14,43,16,39,39,49,42, 2,18		2,38,59,23,35	
		1,40, 8,35,17, 0,13,47		7,19
50″	36,14,44,56,48,15, 6,42,16, 5		2,38,59,30,54	
		1,40, 8,32,38, 0,42,53		7,19
52″	36,14,46,36,56,47,44,42,58,58		2,38,59,38,13	
		1,40, 8,29,59, 1, 4,40		7,19
54″	36,14,48,17, 5,17,43,44, 3,38		2,38,59,45,32	
		1,40, 8,27,20, 1,19, 8		7,19
56″	36,14,49,57,13,45, 3,45,22,46		2,38,59,52,51	
		1,40, 8,24,41, 1,26,17		7,19
58″	36,14,51,37,22, 9,44,46,49, 3		2,39, 0, 0,10	
		1,40, 8,22, 2, 1,26, 7		
60″	36,14,53,17,30,31,46,48,15,10			
exact	36,14,53,17,30,31,46,47,53,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°10′ 0″	36,14,53,17,30,31,46,47,53,18			
		1,40, 8,19,23, 1,16,20		
2″	36,14,54,57,38,51, 9,49, 9,38		2,39, 0,14,57	
		1,40, 8,16,44, 1, 1,23		7,19
4″	36,14,56,37,47, 7,53,50,11, 1		2,39, 0,22,16	
		1,40, 8,14, 5, 0,39, 7		7,19
6″	36,14,58,17,55,21,58,50,50, 8		2,39, 0,29,35	
		1,40, 8,11,26, 0, 9,32		7,19
8″	36,14,59,58, 3,33,24,50,59,40		2,39, 0,36,54	
		1,40, 8, 8,46,59,32,38		7,19
10″	36,15, 1,38,11,42,11,50,32,18		2,39, 0,44,13	
		1,40, 8, 6, 7,58,48,25		7,19
12″	36,15, 3,18,19,48,19,49,20,43		2,39, 0,51,32	
		1,40, 8, 3,28,57,56,53		7,19
14″	36,15, 4,58,27,51,48,47,17,36		2,39, 0,58,51	
		1,40, 8, 0,49,56,58, 2		7,19
16″	36,15, 6,38,35,52,38,44,15,38		2,39, 1, 6,10	
		1,40, 7,58,10,55,51,52		7,19
18″	36,15, 8,18,43,50,49,40, 7,30		2,39, 1,13,29	
		1,40, 7,55,31,54,38,23		7,19
20″	36,15, 9,58,51,46,21,34,45,53		2,39, 1,20,48	
		1,40, 7,52,52,53,17,35		7,19
22″	36,15,11,38,59,39,14,28, 3,28		2,39, 1,28, 7	
		1,40, 7,50,13,51,49,28		7,19
24″	36,15,13,19, 7,29,28,19,52,56		2,39, 1,35,26	
		1,40, 7,47,34,50,14, 2		7,19
26″	36,15,14,59,15,17, 3,10, 6,58		2,39, 1,42,45	
		1,40, 7,44,55,48,31,17		7,19
28″	36,15,16,39,23, 1,58,58,38,15		2,39, 1,50, 4	
		1,40, 7,42,16,46,41,13		7,19
30″	36,15,18,19,30,44,15,45,19,28		2,39, 1,57,23	
		1,40, 7,39,37,44,43,50		7,19
32″	36,15,19,59,38,23,53,30, 3,18		2,39, 2, 4,42	
		1,40, 7,36,58,42,39, 8		7,19
34″	36,15,21,39,46, 0,52,12,42,26		2,39, 2,12, 1	
		1,40, 7,34,19,40,27, 7		7,19
36″	36,15,23,19,53,35,11,53, 9,33		2,39, 2,19,20	
		1,40, 7,31,40,38, 7,47		7,19
38″	36,15,25, 0, 1, 6,52,31,17,20		2,39, 2,26,39	
		1,40, 7,29, 1,35,41, 8		7,19
40″	36,15,26,40, 8,35,54, 6,58,28		2,39, 2,33,58	
		1,40, 7,26,22,33, 7,10		7,19
42″	36,15,28,20,16, 2,16,40, 5,38		2,39, 2,41,17	
		1,40, 7,23,43,30,25,53		7,19
44″	36,15,30, 0,23,26, 0,10,31,31		2,39, 2,48,36	
		1,40, 7,21, 4,27,37,17		7,19
46″	36,15,31,40,30,47, 4,38, 8,48		2,39, 2,55,55	
		1,40, 7,18,25,24,41,22		7,19
48″	36,15,33,20,38, 5,30, 2,50,10		2,39, 3, 3,14	
		1,40, 7,15,46,21,38, 8		7,19
50″	36,15,35, 0,45,21,16,24,28,18		2,39, 3,10,33	
		1,40, 7,13, 7,18,27,35		7,19
52″	36,15,36,40,52,34,23,42,55,53		2,39, 3,17,52	
		1,40, 7,10,28,15, 9,43		7,19
54″	36,15,38,20,59,44,51,58, 5,36		2,39, 3,25,11	
		1,40, 7, 7,49,11,44,32		7,19
56″	36,15,40, 1, 6,52,41, 9,50, 8		2,39, 3,32,30	
		1,40, 7, 5,10, 8,12, 2		7,19
58″	36,15,41,41,13,57,51,18, 2,10		2,39, 3,39,49	
		1,40, 7, 2,31, 4,32,13		
60″	36,15,43,21,21, 0,22,22,34,23			
exact	36,15,43,21,21, 0,22,22,18,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°11′ 0″	36,15,43,21,21, 0,22,22,18,31			
		1,40, 6,59,52, 0,43,26		
2″	36,15,45, 1,28, 0,14,23, 1,57		2,39, 3,54,33	
		1,40, 6,57,12,56,48,53		7,19
4″	36,15,46,41,34,57,27,19,50,50		2,39, 4, 1,52	
		1,40, 6,54,33,52,47, 1		7,19
6″	36,15,48,21,41,52, 1,12,37,51		2,39, 4, 9,11	
		1,40, 6,51,54,48,37,50		7,19
8″	36,15,50, 1,48,43,56, 1,15,41		2,39, 4,16,30	
		1,40, 6,49,15,44,21,20		7,19
10″	36,15,51,41,55,33,11,45,37, 1		2,39, 4,23,49	
		1,40, 6,46,36,39,57,31		7,19
12″	36,15,53,22, 2,19,48,25,34,32		2,39, 4,31, 8	
		1,40, 6,43,57,35,26,23		7,19
14″	36,15,55, 2, 9, 3,46, 1, 0,55		2,39, 4,38,27	
		1,40, 6,41,18,30,47,56		7,19
16″	36,15,56,42,15,45, 4,31,48,51		2,39, 4,45,46	
		1,40, 6,38,39,26, 2,10		7,19
18″	36,15,58,22,22,23,43,57,51, 1		2,39, 4,53, 5	
		1,40, 6,36, 0,21, 9, 5		7,19
20″	36,16, 0, 2,28,59,44,19, 0, 6		2,39, 5, 0,24	
		1,40, 6,33,21,16, 8,41		7,19
22″	36,16, 1,42,35,33, 5,35, 8,47		2,39, 5, 7,43	
		1,40, 6,30,42,11, 0,58		7,19
24″	36,16, 3,22,42, 3,47,46, 9,45		2,39, 5,15, 2	
		1,40, 6,28, 3, 5,45,56		7,19
26″	36,16, 5, 2,48,31,50,51,55,41		2,39, 5,22,21	
		1,40, 6,25,24, 0,23,35		7,19
28″	36,16, 6,42,54,57,14,52,19,16		2,39, 5,29,40	
		1,40, 6,22,44,54,53,55		7,19
30″	36,16, 8,23, 1,19,59,47,13,11		2,39, 5,36,59	
		1,40, 6,20, 5,49,16,56		7,19
32″	36,16,10, 3, 7,40, 5,36,30, 7		2,39, 5,44,18	
		1,40, 6,17,26,43,32,38		7,19
34″	36,16,11,43,13,57,32,20, 2,45		2,39, 5,51,37	
		1,40, 6,14,47,37,41, 1		7,19
36″	36,16,13,23,20,12,19,57,43,46		2,39, 5,58,56	
		1,40, 6,12, 8,31,42, 5		7,19
38″	36,16,15, 3,26,24,28,29,25,51		2,39, 6, 6,15	
		1,40, 6, 9,29,25,35,50		7,19
40″	36,16,16,43,32,33,57,55, 1,41		2,39, 6,13,34	
		1,40, 6, 6,50,19,22,16		7,19
42″	36,16,18,23,38,40,48,14,23,57		2,39, 6,20,53	
		1,40, 6, 4,11,13, 1,23		7,19
44″	36,16,20, 3,44,44,59,27,25,20		2,39, 6,28,12	
		1,40, 6, 1,32, 6,33,11		7,19
46″	36,16,21,43,50,46,31,33,58,31		2,39, 6,35,31	
		1,40, 5,58,52,59,57,40		7,19
48″	36,16,23,23,56,45,24,33,56,11		2,39, 6,42,50	
		1,40, 5,56,13,53,14,50		7,19
50″	36,16,25, 4, 2,41,38,27,11, 1		2,39, 6,50, 9	
		1,40, 5,53,34,46,24,41		7,19
52″	36,16,26,44, 8,35,13,13,35,42		2,39, 6,57,28	
		1,40, 5,50,55,39,27,13		7,19
54″	36,16,28,24,14,26, 8,53, 2,55		2,39, 7, 4,47	
		1,40, 5,48,16,32,22,26		7,19
56″	36,16,30, 4,20,14,25,25,25,21		2,39, 7,12, 6	
		1,40, 5,45,37,25,10,20		7,19
58″	36,16,31,44,26, 0, 2,50,35,41		2,39, 7,19,25	
		1,40, 5,42,58,17,50,55		
60″	36,16,33,24,31,43, 1, 8,26,36			
exact	36,16,33,24,31,43, 1, 8,15,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°12′ 0″	36,16,33,24,31,43, 1, 8,15,40			
		1,40, 5,40,19,10,23, 8		
2″	36,16,35, 4,37,23,20,18,38,48		2,39, 7,34, 7	
		1,40, 5,37,40, 2,49, 1		7,19
4″	36,16,36,44,43, 1, 0,21,27,49		2,39, 7,41,26	
		1,40, 5,35, 0,55, 7,35		7,19
6″	36,16,38,24,48,36, 1,16,35,24		2,39, 7,48,45	
		1,40, 5,32,21,47,18,50		7,19
8″	36,16,40, 4,54, 8,23, 3,54,14		2,39, 7,56, 4	
		1,40, 5,29,42,39,22,46		7,19
10″	36,16,41,44,59,38, 5,43,17, 0		2,39, 8, 3,23	
		1,40, 5,27, 3,31,19,23		7,19
12″	36,16,43,25, 5, 5, 9,14,36,23		2,39, 8,10,42	
		1,40, 5,24,24,23, 8,41		7,19
14″	36,16,45, 5,10,29,33,37,45, 4		2,39, 8,18, 1	
		1,40, 5,21,45,14,50,40		7,19
16″	36,16,46,45,15,51,18,52,35,44		2,39, 8,25,20	
		1,40, 5,19, 6, 6,25,20		7,19
18″	36,16,48,25,21,10,24,59, 1, 4		2,39, 8,32,39	
		1,40, 5,16,26,57,52,41		7,19
20″	36,16,50, 5,26,26,51,56,53,45		2,39, 8,39,58	
		1,40, 5,13,47,49,12,43		7,19
22″	36,16,51,45,31,40,39,46, 6,28		2,39, 8,47,17	
		1,40, 5,11, 8,40,25,26		7,19
24″	36,16,53,25,36,51,48,26,31,54		2,39, 8,54,36	
		1,40, 5, 8,29,31,30,50		7,19
26″	36,16,55, 5,42, 0,17,58, 2,44		2,39, 9, 1,55	
		1,40, 5, 5,50,22,28,55		7,19
28″	36,16,56,45,47, 6, 8,20,31,39		2,39, 9, 9,14	
		1,40, 5, 3,11,13,19,41		7,19
30″	36,16,58,25,52, 9,19,33,51,20		2,39, 9,16,33	
		1,40, 5, 0,32, 4, 3, 8		7,19
32″	36,17, 0, 5,57, 9,51,37,54,28		2,39, 9,23,52	
		1,40, 4,57,52,54,39,16		7,19
34″	36,17, 1,46, 2, 7,44,32,33,44		2,39, 9,31,11	
		1,40, 4,55,13,45, 8, 5		7,19
36″	36,17, 3,26, 7, 2,58,17,41,49		2,39, 9,38,30	
		1,40, 4,52,34,35,29,35		7,19
38″	36,17, 5, 6,11,55,32,53,11,24		2,39, 9,45,49	
		1,40, 4,49,55,25,43,46		7,19
40″	36,17, 6,46,16,45,28,18,55,10		2,39, 9,53, 8	
		1,40, 4,47,16,15,50,38		7,19
42″	36,17, 8,26,21,32,44,34,45,48		2,39,10, 0,27	
		1,40, 4,44,37, 5,50,11		7,19
44″	36,17,10, 6,26,17,21,40,35,59		2,39,10, 7,46	
		1,40, 4,41,57,55,42,25		7,19
46″	36,17,11,46,30,59,19,36,18,24		2,39,10,15, 5	
		1,40, 4,39,18,45,27,20		7,19
48″	36,17,13,26,35,38,38,21,45,44		2,39,10,22,24	
		1,40, 4,36,39,35, 4,56		7,19
50″	36,17,15, 6,40,15,17,56,50,40		2,39,10,29,43	
		1,40, 4,34, 0,24,35,13		7,19
52″	36,17,16,46,44,49,18,21,25,53		2,39,10,37, 2	
		1,40, 4,31,21,13,58,11		7,19
54″	36,17,18,26,49,20,39,35,24, 4		2,39,10,44,21	
		1,40, 4,28,42, 3,13,50		7,19
56″	36,17,20, 6,53,49,21,38,37,54		2,39,10,51,40	
		1,40, 4,26, 2,52,22,10		7,19
58″	36,17,21,46,58,15,24,31, 0, 4		2,39,10,58,59	
		1,40, 4,23,23,41,23,11		
60″	36,17,23,27, 2,38,48,12,23,15			
exact	36,17,23,27, 2,38,48,12,23,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°13′ 0″	36,17,23,27, 2,38,48,12,23,30			
		1,40, 4,20,44,30,16,52		
2″	36,17,25, 7, 6,59,32,42,40,22		2,39,11,13,37	
		1,40, 4,18, 5,19, 3,15		7,19
4″	36,17,26,47,11,17,38, 1,43,37		2,39,11,20,56	
		1,40, 4,15,26, 7,42,19		7,19
6″	36,17,28,27,15,33, 4, 9,25,56		2,39,11,28,15	
		1,40, 4,12,46,56,14, 4		7,19
8″	36,17,30, 7,19,45,51, 5,40, 0		2,39,11,35,34	
		1,40, 4,10, 7,44,38,30		7,19
10″	36,17,31,47,23,55,58,50,18,30		2,39,11,42,53	
		1,40, 4, 7,28,32,55,37		7,19
12″	36,17,33,27,28, 3,27,23,14, 7		2,39,11,50,12	
		1,40, 4, 4,49,21, 5,25		7,19
14″	36,17,35, 7,32, 8,16,44,19,32		2,39,11,57,31	
		1,40, 4, 2,10, 9, 7,54		7,19
16″	36,17,36,47,36,10,26,53,27,26		2,39,12, 4,50	
		1,40, 3,59,30,57, 3, 4		7,19
18″	36,17,38,27,40, 9,57,50,30,30		2,39,12,12, 9	
		1,40, 3,56,51,44,50,55		7,19
20″	36,17,40, 7,44, 6,49,35,21,25		2,39,12,19,28	
		1,40, 3,54,12,32,31,27		7,19
22″	36,17,41,47,48, 1, 2, 7,52,52		2,39,12,26,47	
		1,40, 3,51,33,20, 4,40		7,19
24″	36,17,43,27,51,52,35,27,57,32		2,39,12,34, 6	
		1,40, 3,48,54, 7,30,34		7,19
26″	36,17,45, 7,55,41,29,35,28, 6		2,39,12,41,25	
		1,40, 3,46,14,54,49, 9		7,19
28″	36,17,46,47,59,27,44,30,17,15		2,39,12,48,44	
		1,40, 3,43,35,42, 0,25		7,19
30″	36,17,48,28, 3,11,20,12,17,40		2,39,12,56, 3	
		1,40, 3,40,56,29, 4,22		7,19
32″	36,17,50, 8, 6,52,16,41,22, 2		2,39,13, 3,22	
		1,40, 3,38,17,16, 1, 0		7,19
34″	36,17,51,48,10,30,33,57,23, 2		2,39,13,10,41	
		1,40, 3,35,38, 2,50,19		7,19
36″	36,17,53,28,14, 6,12, 0,13,21		2,39,13,18, 0	
		1,40, 3,32,58,49,32,19		7,19
38″	36,17,55, 8,17,39,10,49,45,40		2,39,13,25,19	
		1,40, 3,30,19,36, 7, 0		7,19
40″	36,17,56,48,21, 9,30,25,52,40		2,39,13,32,38	
		1,40, 3,27,40,22,34,22		7,19
42″	36,17,58,28,24,37,10,48,27, 2		2,39,13,39,57	
		1,40, 3,25, 1, 8,54,25		7,19
44″	36,18, 0, 8,28, 2,11,57,21,27		2,39,13,47,16	
		1,40, 3,22,21,55, 7, 9		7,19
46″	36,18, 1,48,31,24,33,52,28,36		2,39,13,54,35	
		1,40, 3,19,42,41,12,34		7,19
48″	36,18, 3,28,34,44,16,33,41,10		2,39,14, 1,54	
		1,40, 3,17, 3,27,10,40		7,19
50″	36,18, 5, 8,38, 1,20, 0,51,50		2,39,14, 9,13	
		1,40, 3,14,24,13, 1,27		7,19
52″	36,18, 6,48,41,15,44,13,53,17		2,39,14,16,32	
		1,40, 3,11,44,58,44,55		7,19
54″	36,18, 8,28,44,27,29,12,38,12		2,39,14,23,51	
		1,40, 3, 9, 5,44,21, 4		7,19
56″	36,18,10, 8,47,36,34,56,59,16		2,39,14,31,10	
		1,40, 3, 6,26,29,49,54		7,19
58″	36,18,11,48,50,43, 1,26,49,10		2,39,14,38,29	
		1,40, 3, 3,47,15,11,25		
60″	36,18,13,28,53,46,48,42, 0,35			
exact	36,18,13,28,53,46,48,42, 4,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°14′ 0″	36,18,13,28,53,46,48,42, 4,26			
		1,40, 3, 1, 8, 0,26, 6		
2″	36,18,15, 8,56,47,56,42,30,32		2,39,14,53, 5	
		1,40, 2,58,28,45,33, 1		7,19
4″	36,18,16,48,59,46,25,28, 3,33		2,39,15, 0,24	
		1,40, 2,55,49,30,32,37		7,19
6″	36,18,18,29, 2,42,14,58,36,10		2,39,15, 7,43	
		1,40, 2,53,10,15,24,54		7,19
8″	36,18,20, 9, 5,35,25,14, 1, 4		2,39,15,15, 2	
		1,40, 2,50,31, 0, 9,52		7,19
10″	36,18,21,49, 8,25,56,14,10,56		2,39,15,22,21	
		1,40, 2,47,51,44,47,31		7,19
12″	36,18,23,29,11,13,47,58,58,27		2,39,15,29,40	
		1,40, 2,45,12,29,17,51		7,19
14″	36,18,25, 9,13,59, 0,28,16,18		2,39,15,36,59	
		1,40, 2,42,33,13,40,52		7,19
16″	36,18,26,49,16,41,33,41,57,10		2,39,15,44,18	
		1,40, 2,39,53,57,56,34		7,19
18″	36,18,28,29,19,21,27,39,53,44		2,39,15,51,37	
		1,40, 2,37,14,42, 4,57		7,19
20″	36,18,30, 9,21,58,42,21,58,41		2,39,15,58,56	
		1,40, 2,34,35,26, 6, 1		7,19
22″	36,18,31,49,24,33,17,48, 4,42		2,39,16, 6,15	
		1,40, 2,31,56, 9,59,46		7,19
24″	36,18,33,29,27, 5,13,58, 4,28		2,39,16,13,34	
		1,40, 2,29,16,53,46,12		7,19
26″	36,18,35, 9,29,34,30,51,50,40		2,39,16,20,53	
		1,40, 2,26,37,37,25,19		7,19
28″	36,18,36,49,32, 1, 8,29,15,59		2,39,16,28,12	
		1,40, 2,23,58,20,57, 7		7,19
30″	36,18,38,29,34,25, 6,50,13, 6		2,39,16,35,31	
		1,40, 2,21,19, 4,21,36		7,19
32″	36,18,40, 9,36,46,25,54,34,42		2,39,16,42,50	
		1,40, 2,18,39,47,38,46		7,19
34″	36,18,41,49,39, 5, 5,42,13,28		2,39,16,50, 9	
		1,40, 2,16, 0,30,48,37		7,19
36″	36,18,43,29,41,21, 6,13, 2, 5		2,39,16,57,28	
		1,40, 2,13,21,13,51, 9		7,19
38″	36,18,45, 9,43,34,27,26,53,14		2,39,17, 4,47	
		1,40, 2,10,41,56,46,22		7,19
40″	36,18,46,49,45,45, 9,23,39,36		2,39,17,12, 6	
		1,40, 2, 8, 2,39,34,16		7,19
42″	36,18,48,29,47,53,12, 3,13,52		2,39,17,19,25	
		1,40, 2, 5,23,22,14,51		7,19
44″	36,18,50, 9,49,58,35,25,28,43		2,39,17,26,44	
		1,40, 2, 2,44, 4,48, 7		7,19
46″	36,18,51,49,52, 1,19,30,16,50		2,39,17,34, 3	
		1,40, 2, 0, 4,47,14, 4		7,19
48″	36,18,53,29,54, 1,24,17,30,54		2,39,17,41,22	
		1,40, 1,57,25,29,32,42		7,19
50″	36,18,55, 9,55,58,49,47, 3,36		2,39,17,48,41	
		1,40, 1,54,46,11,44, 1		7,19
52″	36,18,56,49,57,53,35,58,47,37		2,39,17,56, 0	
		1,40, 1,52, 6,53,48, 1		7,19
54″	36,18,58,29,59,45,42,52,35,38		2,39,18, 3,19	
		1,40, 1,49,27,35,44,42		7,19
56″	36,19, 0,10, 1,35,10,28,20,20		2,39,18,10,38	
		1,40, 1,46,48,17,34, 4		7,19
58″	36,19, 1,50, 3,21,58,45,54,24		2,39,18,17,57	
		1,40, 1,44, 8,59,16, 7		
60″	36,19, 3,30, 5, 6, 7,45,10,31			
exact	36,19, 3,30, 5, 6, 7,45,24,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°15′ 0″	36,19, 3,30, 5, 6, 7,45,24,30			
		1,40, 1,41,29,40,52,17		
2″	36,19, 5,10, 6,47,37,26,16,47		2,39,18,32,29	
		1,40, 1,38,50,22,19,48		7,19
4″	36,19, 6,50, 8,26,27,48,36,35		2,39,18,39,48	
		1,40, 1,36,11, 3,40, 0		7,19
6″	36,19, 8,30,10, 2,38,52,16,35		2,39,18,47, 7	
		1,40, 1,33,31,44,52,53		7,19
8″	36,19,10,10,11,36,10,37, 9,28		2,39,18,54,26	
		1,40, 1,30,52,25,58,27		7,19
10″	36,19,11,50,13, 7, 3, 3, 7,55		2,39,19, 1,45	
		1,40, 1,28,13, 6,56,42		7,19
12″	36,19,13,30,14,35,16,10, 4,37		2,39,19, 9, 4	
		1,40, 1,25,33,47,47,38		7,19
14″	36,19,15,10,16, 0,49,57,52,15		2,39,19,16,23	
		1,40, 1,22,54,28,31,15		7,19
16″	36,19,16,50,17,23,44,26,23,30		2,39,19,23,42	
		1,40, 1,20,15, 9, 7,33		7,19
18″	36,19,18,30,18,43,59,35,31, 3		2,39,19,31, 1	
		1,40, 1,17,35,49,36,32		7,19
20″	36,19,20,10,20, 1,35,25, 7,35		2,39,19,38,20	
		1,40, 1,14,56,29,58,12		7,19
22″	36,19,21,50,21,16,31,55, 5,47		2,39,19,45,39	
		1,40, 1,12,17,10,12,33		7,19
24″	36,19,23,30,22,28,49, 5,18,20		2,39,19,52,58	
		1,40, 1, 9,37,50,19,35		7,19
26″	36,19,25,10,23,38,26,55,37,55		2,39,20, 0,17	
		1,40, 1, 6,58,30,19,18		7,19
28″	36,19,26,50,24,45,25,25,57,13		2,39,20, 7,36	
		1,40, 1, 4,19,10,11,42		7,19
30″	36,19,28,30,25,49,44,36, 8,55		2,39,20,14,55	
		1,40, 1, 1,39,49,56,47		7,19
32″	36,19,30,10,26,51,24,26, 5,42		2,39,20,22,14	
		1,40, 0,59, 0,29,34,33		7,19
34″	36,19,31,50,27,50,24,55,40,15		2,39,20,29,33	
		1,40, 0,56,21, 9, 5, 0		7,19
36″	36,19,33,30,28,46,46, 4,45,15		2,39,20,36,52	
		1,40, 0,53,41,48,28, 8		7,19
38″	36,19,35,10,29,40,27,53,13,23		2,39,20,44,11	
		1,40, 0,51, 2,27,43,57		7,19
40″	36,19,36,50,30,31,30,20,57,20		2,39,20,51,30	
		1,40, 0,48,23, 6,52,27		7,19
42″	36,19,38,30,31,19,53,27,49,47		2,39,20,58,49	
		1,40, 0,45,43,45,53,38		7,19
44″	36,19,40,10,32, 5,37,13,43,25		2,39,21, 6, 8	
		1,40, 0,43, 4,24,47,30		7,19
46″	36,19,41,50,32,48,41,38,30,55		2,39,21,13,27	
		1,40, 0,40,25, 3,34, 3		7,19
48″	36,19,43,30,33,29, 6,42, 4,58		2,39,21,20,46	
		1,40, 0,37,45,42,13,17		7,19
50″	36,19,45,10,34, 6,52,24,18,15		2,39,21,28, 5	
		1,40, 0,35, 6,20,45,12		7,19
52″	36,19,46,50,34,41,58,45, 3,27		2,39,21,35,24	
		1,40, 0,32,26,59, 9,48		7,19
54″	36,19,48,30,35,14,25,44,13,15		2,39,21,42,43	
		1,40, 0,29,47,37,27, 5		7,19
56″	36,19,50,10,35,44,13,21,40,20		2,39,21,50, 2	
		1,40, 0,27, 8,15,37, 3		7,19
58″	36,19,51,50,36,11,21,37,17,23		2,39,21,57,21	
		1,40, 0,24,28,53,39,42		
60″	36,19,53,30,36,35,50,30,57, 5			
exact	36,19,53,30,36,35,50,31,13,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°16′ 0″	36,19,53,30,36,35,50,31,13,25			
		1,40, 0,21,49,31,36,52		
2″	36,19,55,10,36,57,40, 2,50,17		2,39,22,11,51	
		1,40, 0,19,10, 9,25, 1		7,19
4″	36,19,56,50,37,16,50,12,15,18		2,39,22,19,10	
		1,40, 0,16,30,47, 5,51		7,19
6″	36,19,58,30,37,33,20,59,21, 9		2,39,22,26,29	
		1,40, 0,13,51,24,39,22		7,19
8″	36,20, 0,10,37,47,12,24, 0,31		2,39,22,33,48	
		1,40, 0,11,12, 2, 5,34		7,19
10″	36,20, 1,50,37,58,24,26, 6, 5		2,39,22,41, 7	
		1,40, 0, 8,32,39,24,27		7,19
12″	36,20, 3,30,38, 6,57, 5,30,32		2,39,22,48,26	
		1,40, 0, 5,53,16,36, 1		7,19
14″	36,20, 5,10,38,12,50,22, 6,33		2,39,22,55,45	
		1,40, 0, 3,13,53,40,16		7,19
16″	36,20, 6,50,38,16, 4,15,46,49		2,39,23, 3, 4	
		1,40, 0, 0,34,30,37,12		7,19
18″	36,20, 8,30,38,16,38,46,24, 1		2,39,23,10,23	
		1,39,59,57,55, 7,26,49		7,19
20″	36,20,10,10,38,14,33,53,50,50		2,39,23,17,42	
		1,39,59,55,15,44, 9, 7		7,19
22″	36,20,11,50,38, 9,49,37,59,57		2,39,23,25, 1	
		1,39,59,52,36,20,44, 6		7,19
24″	36,20,13,30,38, 2,25,58,44, 3		2,39,23,32,20	
		1,39,59,49,56,57,11,46		7,19
26″	36,20,15,10,37,52,22,55,55,49		2,39,23,39,39	
		1,39,59,47,17,33,32, 7		7,19
28″	36,20,16,50,37,39,40,29,27,56		2,39,23,46,58	
		1,39,59,44,38, 9,45, 9		7,19
30″	36,20,18,30,37,24,18,39,13, 5		2,39,23,54,17	
		1,39,59,41,58,45,50,52		7,19
32″	36,20,20,10,37, 6,17,25, 3,57		2,39,24, 1,36	
		1,39,59,39,19,21,49,16		7,19
34″	36,20,21,50,36,45,36,46,53,13		2,39,24, 8,55	
		1,39,59,36,39,57,40,21		7,19
36″	36,20,23,30,36,22,16,44,33,34		2,39,24,16,14	
		1,39,59,34, 0,33,24, 7		7,19
38″	36,20,25,10,35,56,17,17,57,41		2,39,24,23,33	
		1,39,59,31,21, 9, 0,34		7,19
40″	36,20,26,50,35,27,38,26,58,15		2,39,24,30,52	
		1,39,59,28,41,44,29,42		7,19
42″	36,20,28,30,34,56,20,11,27,57		2,39,24,38,11	
		1,39,59,26, 2,19,51,31		7,19
44″	36,20,30,10,34,22,22,31,19,28		2,39,24,45,30	
		1,39,59,23,22,55, 6, 1		7,19
46″	36,20,31,50,33,45,45,26,25,29		2,39,24,52,49	
		1,39,59,20,43,30,13,12		7,19
48″	36,20,33,30,33, 6,28,56,38,41		2,39,25, 0, 8	
		1,39,59,18, 4, 5,13, 4		7,19
50″	36,20,35,10,32,24,33, 1,51,45		2,39,25, 7,27	
		1,39,59,15,24,40, 5,37		7,19
52″	36,20,36,50,31,39,57,41,57,22		2,39,25,14,46	
		1,39,59,12,45,14,50,51		7,19
54″	36,20,38,30,30,52,42,56,48,13		2,39,25,22, 5	
		1,39,59,10, 5,49,28,46		7,19
56″	36,20,40,10,30, 2,48,46,16,59		2,39,25,29,24	
		1,39,59, 7,26,23,59,22		7,19
58″	36,20,41,50,29,10,15,10,16,21		2,39,25,36,43	
		1,39,59, 4,46,58,22,39		
60″	36,20,43,30,28,15, 2, 8,39, 0			
exact	36,20,43,30,28,15, 2, 9, 4,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°17′ 0″	36,20,43,30,28,15, 2, 9, 4,33			
		1,39,59, 2, 7,32,41,20		
2″	36,20,45,10,27,17, 9,41,45,53		2,39,25,51,10	
		1,39,58,59,28, 6,50,10		7,19
4″	36,20,46,50,26,16,37,48,36, 3		2,39,25,58,29	
		1,39,58,56,48,40,51,41		7,19
6″	36,20,48,30,25,13,26,29,27,44		2,39,26, 5,48	
		1,39,58,54, 9,14,45,53		7,19
8″	36,20,50,10,24, 7,35,44,13,37		2,39,26,13, 7	
		1,39,58,51,29,48,32,46		7,19
10″	36,20,51,50,22,59, 5,32,46,23		2,39,26,20,26	
		1,39,58,48,50,22,12,20		7,19
12″	36,20,53,30,21,47,55,54,58,43		2,39,26,27,45	
		1,39,58,46,10,55,44,35		7,19
14″	36,20,55,10,20,34, 6,50,43,18		2,39,26,35, 4	
		1,39,58,43,31,29, 9,31		7,19
16″	36,20,56,50,19,17,38,19,52,49		2,39,26,42,23	
		1,39,58,40,52, 2,27, 8		7,19
18″	36,20,58,30,17,58,30,22,19,57		2,39,26,49,42	
		1,39,58,38,12,35,37,26		7,19
20″	36,21, 0,10,16,36,42,57,57,23		2,39,26,57, 1	
		1,39,58,35,33, 8,40,25		7,19
22″	36,21, 1,50,15,12,16, 6,37,48		2,39,27, 4,20	
		1,39,58,32,53,41,36, 5		7,19
24″	36,21, 3,30,13,45, 9,48,13,53		2,39,27,11,39	
		1,39,58,30,14,14,24,26		7,19
26″	36,21, 5,10,12,15,24, 2,38,19		2,39,27,18,58	
		1,39,58,27,34,47, 5,28		7,19
28″	36,21, 6,50,10,42,58,49,43,47		2,39,27,26,17	
		1,39,58,24,55,19,39,11		7,19
30″	36,21, 8,30, 9, 7,54, 9,22,58		2,39,27,33,36	
		1,39,58,22,15,52, 5,35		7,19
32″	36,21,10,10, 7,30,10, 1,28,33		2,39,27,40,55	
		1,39,58,19,36,24,24,40		7,19
34″	36,21,11,50, 5,49,46,25,53,13		2,39,27,48,14	
		1,39,58,16,56,56,36,26		7,19
36″	36,21,13,30, 4, 6,43,22,29,39		2,39,27,55,33	
		1,39,58,14,17,28,40,53		7,19
38″	36,21,15,10, 2,21, 0,51,10,32		2,39,28, 2,52	
		1,39,58,11,38, 0,38, 1		7,19
40″	36,21,16,50, 0,32,38,51,48,33		2,39,28,10,11	
		1,39,58, 8,58,32,27,50		7,19
42″	36,21,18,29,58,41,37,24,16,23		2,39,28,17,30	
		1,39,58, 6,19, 4,10,20		7,19
44″	36,21,20, 9,56,47,56,28,26,43		2,39,28,24,49	
		1,39,58, 3,39,35,45,31		7,19
46″	36,21,21,49,54,51,36, 4,12,14		2,39,28,32, 8	
		1,39,58, 1, 0, 7,13,23		7,19
48″	36,21,23,29,52,52,36,11,25,37		2,39,28,39,27	
		1,39,57,58,20,38,33,56		7,19
50″	36,21,25, 9,50,50,56,49,59,33		2,39,28,46,46	
		1,39,57,55,41, 9,47,10		7,19
52″	36,21,26,49,48,46,37,59,46,43		2,39,28,54, 5	
		1,39,57,53, 1,40,53, 5		7,19
54″	36,21,28,29,46,39,39,40,39,48		2,39,29, 1,24	
		1,39,57,50,22,11,51,41		7,19
56″	36,21,30, 9,44,30, 1,52,31,29		2,39,29, 8,43	
		1,39,57,47,42,42,42,58		7,19
58″	36,21,31,49,42,17,44,35,14,27		2,39,29,16, 2	
		1,39,57,45, 3,13,26,56		
60″	36,21,33,29,40, 2,47,48,41,23			
exact	36,21,33,29,40, 2,47,49,14,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°18′ 0″	36,21,33,29,40, 2,47,49,14,57			
		1,39,57,42,23,44, 7, 7		
2″	36,21,35, 9,37,45,11,33,22, 4		2,39,29,30,25	
		1,39,57,39,44,14,36,42		7,18
4″	36,21,36,49,35,24,55,47,58,46		2,39,29,37,43	
		1,39,57,37, 4,44,58,59		7,18
6″	36,21,38,29,33, 2, 0,32,57,45		2,39,29,45, 1	
		1,39,57,34,25,15,13,58		7,18
8″	36,21,40, 9,30,36,25,48,11,43		2,39,29,52,19	
		1,39,57,31,45,45,21,39		7,18
10″	36,21,41,49,28, 8,11,33,33,22		2,39,29,59,37	
		1,39,57,29, 6,15,22, 2		7,18
12″	36,21,43,29,25,37,17,48,55,24		2,39,30, 6,55	
		1,39,57,26,26,45,15, 7		7,18
14″	36,21,45, 9,23, 3,44,34,10,31		2,39,30,14,13	
		1,39,57,23,47,15, 0,54		7,18
16″	36,21,46,49,20,27,31,49,11,25		2,39,30,21,31	
		1,39,57,21, 7,44,39,23		7,18
18″	36,21,48,29,17,48,39,33,50,48		2,39,30,28,49	
		1,39,57,18,28,14,10,34		7,18
20″	36,21,50, 9,15, 7, 7,48, 1,22		2,39,30,36, 7	
		1,39,57,15,48,43,34,27		7,18
22″	36,21,51,49,12,22,56,31,35,49		2,39,30,43,25	
		1,39,57,13, 9,12,51, 2		7,18
24″	36,21,53,29, 9,36, 5,44,26,51		2,39,30,50,43	
		1,39,57,10,29,42, 0,19		7,18
26″	36,21,55, 9, 6,46,35,26,27,10		2,39,30,58, 1	
		1,39,57, 7,50,11, 2,18		7,18
28″	36,21,56,49, 3,54,25,37,29,28		2,39,31, 5,19	
		1,39,57, 5,10,39,56,59		7,18
30″	36,21,58,29, 0,59,36,17,26,27		2,39,31,12,37	
		1,39,57, 2,31, 8,44,22		7,18
32″	36,22, 0, 8,58, 2, 7,26,10,49		2,39,31,19,55	
		1,39,56,59,51,37,24,27		7,18
34″	36,22, 1,48,55, 1,59, 3,35,16		2,39,31,27,13	
		1,39,56,57,12, 5,57,14		7,18
36″	36,22, 3,28,51,59,11, 9,32,30		2,39,31,34,31	
		1,39,56,54,32,34,22,43		7,18
38″	36,22, 5, 8,48,53,43,43,55,13		2,39,31,41,49	
		1,39,56,51,53, 2,40,54		7,18
40″	36,22, 6,48,45,45,36,46,36, 7		2,39,31,49, 7	
		1,39,56,49,13,30,51,47		7,18
42″	36,22, 8,28,42,34,50,17,27,54		2,39,31,56,25	
		1,39,56,46,33,58,55,22		7,18
44″	36,22,10, 8,39,21,24,16,23,16		2,39,32, 3,43	
		1,39,56,43,54,26,51,39		7,18
46″	36,22,11,48,36, 5,18,43,14,55		2,39,32,11, 1	
		1,39,56,41,14,54,40,38		7,18
48″	36,22,13,28,32,46,33,37,55,33		2,39,32,18,19	
		1,39,56,38,35,22,22,19		7,18
50″	36,22,15, 8,29,25, 9, 0,17,52		2,39,32,25,37	
		1,39,56,35,55,49,56,42		7,18
52″	36,22,16,48,26, 1, 4,50,14,34		2,39,32,32,55	
		1,39,56,33,16,17,23,47		7,18
54″	36,22,18,28,22,34,21, 7,38,21		2,39,32,40,13	
		1,39,56,30,36,44,43,34		7,18
56″	36,22,20, 8,19, 4,57,52,21,55		2,39,32,47,31	
		1,39,56,27,57,11,56, 3		7,18
58″	36,22,21,48,15,32,55, 4,17,58		2,39,32,54,49	
		1,39,56,25,17,39, 1,14		
60″	36,22,23,28,11,58,12,43,19,12			
exact	36,22,23,28,11,58,12,42,45,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°19′ 0″	36,22,23,28,11,58,12,42,45,25			
		1,39,56,22,38, 5,55,40		
2″	36,22,25, 8, 8,20,50,48,41, 5		2,39,33, 9,38	
		1,39,56,19,58,32,46, 2		7,18
4″	36,22,26,48, 4,40,49,21,27, 7		2,39,33,16,56	
		1,39,56,17,18,59,29, 6		7,18
6″	36,22,28,28, 0,58, 8,20,56,13		2,39,33,24,14	
		1,39,56,14,39,26, 4,52		7,18
8″	36,22,30, 7,57,12,47,47, 1, 5		2,39,33,31,32	
		1,39,56,11,59,52,33,20		7,18
10″	36,22,31,47,53,24,47,39,34,25		2,39,33,38,50	
		1,39,56, 9,20,18,54,30		7,18
12″	36,22,33,27,49,34, 7,58,28,55		2,39,33,46, 8	
		1,39,56, 6,40,45, 8,22		7,18
14″	36,22,35, 7,45,40,48,43,37,17		2,39,33,53,26	
		1,39,56, 4, 1,11,14,56		7,18
16″	36,22,36,47,41,44,49,54,52,13		2,39,34, 0,44	
		1,39,56, 1,21,37,14,12		7,18
18″	36,22,38,27,37,46,11,32, 6,25		2,39,34, 8, 2	
		1,39,55,58,42, 3, 6,10		7,18
20″	36,22,40, 7,33,44,53,35,12,35		2,39,34,15,20	
		1,39,55,56, 2,28,50,50		7,18
22″	36,22,41,47,29,40,56, 4, 3,25		2,39,34,22,38	
		1,39,55,53,22,54,28,12		7,18
24″	36,22,43,27,25,34,18,58,31,37		2,39,34,29,56	
		1,39,55,50,43,19,58,16		7,18
26″	36,22,45, 7,21,25, 2,18,29,53		2,39,34,37,14	
		1,39,55,48, 3,45,21, 2		7,18
28″	36,22,46,47,17,13, 6, 3,50,55		2,39,34,44,32	
		1,39,55,45,24,10,36,30		7,18
30″	36,22,48,27,12,58,30,14,27,25		2,39,34,51,50	
		1,39,55,42,44,35,44,40		7,18
32″	36,22,50, 7, 8,41,14,50,12, 5		2,39,34,59, 8	
		1,39,55,40, 5, 0,45,32		7,18
34″	36,22,51,47, 4,21,19,50,57,37		2,39,35, 6,26	
		1,39,55,37,25,25,39, 6		7,18
36″	36,22,53,26,59,58,45,16,36,43		2,39,35,13,44	
		1,39,55,34,45,50,25,22		7,18
38″	36,22,55, 6,55,33,31, 7, 2, 5		2,39,35,21, 2	
		1,39,55,32, 6,15, 4,20		7,18
40″	36,22,56,46,51, 5,37,22, 6,25		2,39,35,28,20	
		1,39,55,29,26,39,36, 0		7,18
42″	36,22,58,26,46,35, 4, 1,42,25		2,39,35,35,38	
		1,39,55,26,47, 4, 0,22		7,18
44″	36,23, 0, 6,42, 1,51, 5,42,47		2,39,35,42,56	
		1,39,55,24, 7,28,17,26		7,18
46″	36,23, 1,46,37,25,58,34, 0,13		2,39,35,50,14	
		1,39,55,21,27,52,27,12		7,18
48″	36,23, 3,26,32,47,26,26,27,25		2,39,35,57,32	
		1,39,55,18,48,16,29,40		7,18
50″	36,23, 5, 6,28, 6,14,42,57, 5		2,39,36, 4,50	
		1,39,55,16, 8,40,24,50		7,18
52″	36,23, 6,46,23,22,23,23,21,55		2,39,36,12, 8	
		1,39,55,13,29, 4,12,42		7,18
54″	36,23, 8,26,18,35,52,27,34,37		2,39,36,19,26	
		1,39,55,10,49,27,53,16		7,18
56″	36,23,10, 6,13,46,41,55,27,53		2,39,36,26,44	
		1,39,55, 8, 9,51,26,32		7,18
58″	36,23,11,46, 8,54,51,46,54,25		2,39,36,34, 2	
		1,39,55, 5,30,14,52,30		
60″	36,23,13,26, 4, 0,22, 1,46,55			
exact	36,23,13,26, 4, 0,22, 1,20,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°20′ 0″	36,23,13,26, 4, 0,22, 1,20,26			
		1,39,55, 2,50,38, 8,28		
2″	36,23,15, 5,59, 3,12,39,28,54		2,39,36,48,48	
		1,39,55, 0,11, 1,19,40		7,18
4″	36,23,16,45,54, 3,23,40,48,34		2,39,36,56, 6	
		1,39,54,57,31,24,23,34		7,18
6″	36,23,18,25,49, 0,55, 5,12, 8		2,39,37, 3,24	
		1,39,54,54,51,47,20,10		7,18
8″	36,23,20, 5,43,55,46,52,32,18		2,39,37,10,42	
		1,39,54,52,12,10, 9,28		7,18
10″	36,23,21,45,38,47,59, 2,41,46		2,39,37,18, 0	
		1,39,54,49,32,32,51,28		7,18
12″	36,23,23,25,33,37,31,35,33,14		2,39,37,25,18	
		1,39,54,46,52,55,26,10		7,18
14″	36,23,25, 5,28,24,24,30,59,24		2,39,37,32,36	
		1,39,54,44,13,17,53,34		7,18
16″	36,23,26,45,23, 8,37,48,52,58		2,39,37,39,54	
		1,39,54,41,33,40,13,40		7,18
18″	36,23,28,25,17,50,11,29, 6,38		2,39,37,47,12	
		1,39,54,38,54, 2,26,28		7,18
20″	36,23,30, 5,12,29, 5,31,33, 6		2,39,37,54,30	
		1,39,54,36,14,24,31,58		7,18
22″	36,23,31,45, 7, 5,19,56, 5, 4		2,39,38, 1,48	
		1,39,54,33,34,46,30,10		7,18
24″	36,23,33,25, 1,38,54,42,35,14		2,39,38, 9, 6	
		1,39,54,30,55, 8,21, 4		7,18
26″	36,23,35, 4,56, 9,49,50,56,18		2,39,38,16,24	
		1,39,54,28,15,30, 4,40		7,18
28″	36,23,36,44,50,38, 5,21, 0,58		2,39,38,23,42	
		1,39,54,25,35,51,40,58		7,18
30″	36,23,38,24,45, 3,41,12,41,56		2,39,38,31, 0	
		1,39,54,22,56,13, 9,58		7,18
32″	36,23,40, 4,39,26,37,25,51,54		2,39,38,38,18	
		1,39,54,20,16,34,31,40		7,18
34″	36,23,41,44,33,46,54, 0,23,34		2,39,38,45,36	
		1,39,54,17,36,55,46, 4		7,18
36″	36,23,43,24,28, 4,30,56, 9,38		2,39,38,52,54	
		1,39,54,14,57,16,53,10		7,18
38″	36,23,45, 4,22,19,28,13, 2,48		2,39,39, 0,12	
		1,39,54,12,17,37,52,58		7,18
40″	36,23,46,44,16,31,45,50,55,46		2,39,39, 7,30	
		1,39,54, 9,37,58,45,28		7,18
42″	36,23,48,24,10,41,23,49,41,14		2,39,39,14,48	
		1,39,54, 6,58,19,30,40		7,18
44″	36,23,50, 4, 4,48,22, 9,11,54		2,39,39,22, 6	
		1,39,54, 4,18,40, 8,34		7,18
46″	36,23,51,43,58,52,40,49,20,28		2,39,39,29,24	
		1,39,54, 1,39, 0,39,10		7,18
48″	36,23,53,23,52,54,19,49,59,38		2,39,39,36,42	
		1,39,53,58,59,21, 2,28		7,18
50″	36,23,55, 3,46,53,19,11, 2, 6		2,39,39,44, 0	
		1,39,53,56,19,41,18,28		7,18
52″	36,23,56,43,40,49,38,52,20,34		2,39,39,51,18	
		1,39,53,53,40, 1,27,10		7,18
54″	36,23,58,23,34,43,18,53,47,44		2,39,39,58,36	
		1,39,53,51, 0,21,28,34		7,18
56″	36,24, 0, 3,28,34,19,15,16,18		2,39,40, 5,54	
		1,39,53,48,20,41,22,40		7,18
58″	36,24, 1,43,22,22,39,56,38,58		2,39,40,13,12	
		1,39,53,45,41, 1, 9,28		
60″	36,24, 3,23,16, 8,20,57,48,26			
exact	36,24, 3,23,16, 8,20,57,28,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°21′ 0″	36,24, 3,23,16, 8,20,57,28,15	1,39,53,43, 1,20,46,57		
2″	36,24, 5, 3, 9,51,22,18,15,12	1,39,53,40,21,40,19, 2	2,39,40,27,55	7,18
4″	36,24, 6,43, 3,31,43,58,34,14	1,39,53,37,41,59,43,49	2,39,40,35,13	7,18
6″	36,24, 8,22,57, 9,25,58,18, 3	1,39,53,35, 2,19, 1,18	2,39,40,42,31	7,18
8″	36,24,10, 2,50,44,28,17,19,21	1,39,53,32,22,38,11,29	2,39,40,49,49	7,18
10″	36,24,11,42,44,16,50,55,30,50	1,39,53,29,42,57,14,22	2,39,40,57, 7	7,18
12″	36,24,13,22,37,46,33,52,45,12	1,39,53,27, 3,16, 9,57	2,39,41, 4,25	7,18
14″	36,24,15, 2,31,13,37, 8,55, 9	1,39,53,24,23,34,58,14	2,39,41,11,43	7,18
16″	36,24,16,42,24,38, 0,43,53,23	1,39,53,21,43,53,39,13	2,39,41,19, 1	7,18
18″	36,24,18,22,17,59,44,37,32,36	1,39,53,19, 4,12,12,54	2,39,41,26,19	7,18
20″	36,24,20, 2,11,18,48,49,45,30	1,39,53,16,24,30,39,17	2,39,41,33,37	7,18
22″	36,24,21,42, 4,35,13,20,24,47	1,39,53,13,44,48,58,22	2,39,41,40,55	7,18
24″	36,24,23,21,57,48,58, 9,23, 9	1,39,53,11, 5, 7,10, 9	2,39,41,48,13	7,18
26″	36,24,25, 1,51, 0, 3,16,33,18	1,39,53, 8,25,25,14,38	2,39,41,55,31	7,18
28″	36,24,26,41,44, 8,28,41,47,56	1,39,53, 5,45,43,11,49	2,39,42, 2,49	7,18
30″	36,24,28,21,37,14,14,24,59,45	1,39,53, 3, 6, 1, 1,42	2,39,42,10, 7	7,18
32″	36,24,30, 1,30,17,20,26, 1,27	1,39,53, 0,26,18,44,17	2,39,42,17,25	7,18
34″	36,24,31,41,23,17,46,44,45,44	1,39,52,57,46,36,19,34	2,39,42,24,43	7,18
36″	36,24,33,21,16,15,33,21, 5,18	1,39,52,55, 6,53,47,33	2,39,42,32, 1	7,18
38″	36,24,35, 1, 9,10,40,14,52,51	1,39,52,52,27,11, 8,14	2,39,42,39,19	7,18
40″	36,24,36,41, 2, 3, 7,26, 1, 5	1,39,52,49,47,28,21,37	2,39,42,46,37	7,18
42″	36,24,38,20,54,52,54,54,22,42	1,39,52,47, 7,45,27,42	2,39,42,53,55	7,18
44″	36,24,40, 0,47,40, 2,39,50,24	1,39,52,44,28, 2,26,29	2,39,43, 1,13	7,18
46″	36,24,41,40,40,24,30,42,16,53	1,39,52,41,48,19,17,58	2,39,43, 8,31	7,18
48″	36,24,43,20,33, 6,19, 1,34,51	1,39,52,39, 8,36, 2, 9	2,39,43,15,49	7,18
50″	36,24,45, 0,25,45,27,37,37, 0	1,39,52,36,28,52,39, 2	2,39,43,23, 7	7,18
52″	36,24,46,40,18,21,56,30,16, 2	1,39,52,33,49, 9, 8,37	2,39,43,30,25	7,18
54″	36,24,48,20,10,55,45,39,24,39	1,39,52,31, 9,25,30,54	2,39,43,37,43	7,18
56″	36,24,50, 0, 3,26,55, 4,55,33	1,39,52,28,29,41,45,53	2,39,43,45, 1	7,18
58″	36,24,51,39,55,55,24,46,41,26	1,39,52,25,49,57,53,34	2,39,43,52,19	
60″	36,24,53,19,48,21,14,44,35, 0			
exact	36,24,53,19,48,21,14,44,20,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°22′ 0″	36,24,53,19,48,21,14,44,20,51			
		1,39,52,23,10,13,52,36		
2″	36,24,54,59,40,44,24,58,13,27		2,39,44, 7, 0	
		1,39,52,20,30,29,45,36		7,18
4″	36,24,56,39,33, 4,55,27,59, 3		2,39,44,14,18	
		1,39,52,17,50,45,31,18		7,18
6″	36,24,58,19,25,22,46,13,30,21		2,39,44,21,36	
		1,39,52,15,11, 1, 9,42		7,18
8″	36,24,59,59,17,37,57,14,40, 3		2,39,44,28,54	
		1,39,52,12,31,16,40,48		7,18
10″	36,25, 1,39, 9,50,28,31,20,51		2,39,44,36,12	
		1,39,52, 9,51,32, 4,36		7,18
12″	36,25, 3,19, 2, 0,20, 3,25,27		2,39,44,43,30	
		1,39,52, 7,11,47,21, 6		7,18
14″	36,25, 4,58,54, 7,31,50,46,33		2,39,44,50,48	
		1,39,52, 4,32, 2,30,18		7,18
16″	36,25, 6,38,46,12, 3,53,16,51		2,39,44,58, 6	
		1,39,52, 1,52,17,32,12		7,18
18″	36,25, 8,18,38,13,56,10,49, 3		2,39,45, 5,24	
		1,39,51,59,12,32,26,48		7,18
20″	36,25, 9,58,30,13, 8,43,15,51		2,39,45,12,42	
		1,39,51,56,32,47,14, 6		7,18
22″	36,25,11,38,22, 9,41,30,29,57		2,39,45,20, 0	
		1,39,51,53,53, 1,54, 6		7,18
24″	36,25,13,18,14, 3,34,32,24, 3		2,39,45,27,18	
		1,39,51,51,13,16,26,48		7,18
26″	36,25,14,58, 5,54,47,48,50,51		2,39,45,34,36	
		1,39,51,48,33,30,52,12		7,18
28″	36,25,16,37,57,43,21,19,43, 3		2,39,45,41,54	
		1,39,51,45,53,45,10,18		7,18
30″	36,25,18,17,49,29,15, 4,53,21		2,39,45,49,12	
		1,39,51,43,13,59,21, 6		7,18
32″	36,25,19,57,41,12,29, 4,14,27		2,39,45,56,30	
		1,39,51,40,34,13,24,36		7,18
34″	36,25,21,37,32,53, 3,17,39, 3		2,39,46, 3,48	
		1,39,51,37,54,27,20,48		7,18
36″	36,25,23,17,24,30,57,44,59,51		2,39,46,11, 6	
		1,39,51,35,14,41, 9,42		7,18
38″	36,25,24,57,16, 6,12,26, 9,33		2,39,46,18,24	
		1,39,51,32,34,54,51,18		7,18
40″	36,25,26,37, 7,38,47,21, 0,51		2,39,46,25,42	
		1,39,51,29,55, 8,25,36		7,18
42″	36,25,28,16,59, 8,42,29,26,27		2,39,46,33, 0	
		1,39,51,27,15,21,52,36		7,18
44″	36,25,29,56,50,35,57,51,19, 3		2,39,46,40,18	
		1,39,51,24,35,35,12,18		7,18
46″	36,25,31,36,42, 0,33,26,31,21		2,39,46,47,36	
		1,39,51,21,55,48,24,42		7,18
48″	36,25,33,16,33,22,29,14,56, 3		2,39,46,54,54	
		1,39,51,19,16, 1,29,48		7,18
50″	36,25,34,56,24,41,45,16,25,51		2,39,47, 2,12	
		1,39,51,16,36,14,27,36		7,18
52″	36,25,36,36,15,58,21,30,53,27		2,39,47, 9,30	
		1,39,51,13,56,27,18, 6		7,18
54″	36,25,38,16, 7,12,17,58,11,33		2,39,47,16,48	
		1,39,51,11,16,40, 1,18		7,18
56″	36,25,39,55,58,23,34,38,12,51		2,39,47,24, 6	
		1,39,51, 8,36,52,37,12		7,18
58″	36,25,41,35,49,32,11,30,50, 3		2,39,47,31,24	
		1,39,51, 5,57, 5, 5,48		
60″	36,25,43,15,40,38, 8,35,55,51			
exact	36,25,43,15,40,38, 8,35,54, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°23′ 0″	36,25,43,15,40,38, 8,35,54, 3			
		1,39,51, 3,17,17,26,52		
2″	36,25,44,55,31,41,25,53,20,55		2,39,47,46, 1	
		1,39,51, 0,37,29,40,51		7,18
4″	36,25,46,35,22,42, 3,23, 1,46		2,39,47,53,19	
		1,39,50,57,57,41,47,32		7,18
6″	36,25,48,15,13,40, 1, 4,49,18		2,39,48, 0,37	
		1,39,50,55,17,53,46,55		7,18
8″	36,25,49,55, 4,35,18,58,36,13		2,39,48, 7,55	
		1,39,50,52,38, 5,39, 0		7,18
10″	36,25,51,34,55,27,57, 4,15,13		2,39,48,15,13	
		1,39,50,49,58,17,23,47		7,18
12″	36,25,53,14,46,17,55,21,39, 0		2,39,48,22,31	
		1,39,50,47,18,29, 1,16		7,18
14″	36,25,54,54,37, 5,13,50,40,16		2,39,48,29,49	
		1,39,50,44,38,40,31,27		7,18
16″	36,25,56,34,27,49,52,31,11,43		2,39,48,37, 7	
		1,39,50,41,58,51,54,20		7,18
18″	36,25,58,14,18,31,51,23, 6, 3		2,39,48,44,25	
		1,39,50,39,19, 3, 9,55		7,18
20″	36,25,59,54, 9,11,10,26,15,58		2,39,48,51,43	
		1,39,50,36,39,14,18,12		7,18
22″	36,26, 1,33,59,47,49,40,34,10		2,39,48,59, 1	
		1,39,50,33,59,25,19,11		7,18
24″	36,26, 3,13,50,21,49, 5,53,21		2,39,49, 6,19	
		1,39,50,31,19,36,12,52		7,18
26″	36,26, 4,53,40,53, 8,42, 6,13		2,39,49,13,37	
		1,39,50,28,39,46,59,15		7,18
28″	36,26, 6,33,31,21,48,29, 5,28		2,39,49,20,55	
		1,39,50,25,59,57,38,20		7,18
30″	36,26, 8,13,21,47,48,26,43,48		2,39,49,28,13	
		1,39,50,23,20, 8,10, 7		7,18
32″	36,26, 9,53,12,11, 8,34,53,55		2,39,49,35,31	
		1,39,50,20,40,18,34,36		7,18
34″	36,26,11,33, 2,31,48,53,28,31		2,39,49,42,49	
		1,39,50,18, 0,28,51,47		7,18
36″	36,26,13,12,52,49,49,22,20,18		2,39,49,50, 7	
		1,39,50,15,20,39, 1,40		7,18
38″	36,26,14,52,43, 5,10, 1,21,58		2,39,49,57,25	
		1,39,50,12,40,49, 4,15		7,18
40″	36,26,16,32,33,17,50,50,26,13		2,39,50, 4,43	
		1,39,50,10, 0,58,59,32		7,18
42″	36,26,18,12,23,27,51,49,25,45		2,39,50,12, 1	
		1,39,50, 7,21, 8,47,31		7,18
44″	36,26,19,52,13,35,12,58,13,16		2,39,50,19,19	
		1,39,50, 4,41,18,28,12		7,18
46″	36,26,21,32, 3,39,54,16,41,28		2,39,50,26,37	
		1,39,50, 2, 1,28, 1,35		7,18
48″	36,26,23,11,53,41,55,44,43, 3		2,39,50,33,55	
		1,39,49,59,21,37,27,40		7,18
50″	36,26,24,51,43,41,17,22,10,43		2,39,50,41,13	
		1,39,49,56,41,46,46,27		7,18
52″	36,26,26,31,33,37,59, 8,57,10		2,39,50,48,31	
		1,39,49,54, 1,55,57,56		7,18
54″	36,26,28,11,23,32, 1, 4,55, 6		2,39,50,55,49	
		1,39,49,51,22, 5, 2, 7		7,18
56″	36,26,29,51,13,23,23, 9,57,13		2,39,51, 3, 7	
		1,39,49,48,42,13,59, 0		7,18
58″	36,26,31,31, 3,12, 5,23,56,13		2,39,51,10,25	
		1,39,49,46, 2,22,48,35		
60″	36,26,33,10,52,58, 7,46,44,48			
exact	36,26,33,10,52,58, 7,46,47,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°24′ 0″	36,26,33,10,52,58, 7,46,47,22			
		1,39,49,43,22,31,31,11		
2″	36,26,34,50,42,41,30,18,18,33		2,39,51,24,59	
		1,39,49,40,42,40, 6,12		7,18
4″	36,26,36,30,32,22,12,58,24,45		2,39,51,32,17	
		1,39,49,38, 2,48,33,55		7,18
6″	36,26,38,10,22, 0,15,46,58,40		2,39,51,39,35	
		1,39,49,35,22,56,54,20		7,18
8″	36,26,39,50,11,35,38,43,53, 0		2,39,51,46,53	
		1,39,49,32,43, 5, 7,27		7,18
10″	36,26,41,30, 1, 8,21,49, 0,27		2,39,51,54,11	
		1,39,49,30, 3,13,13,16		7,18
12″	36,26,43, 9,50,38,25, 2,13,43		2,39,52, 1,29	
		1,39,49,27,23,21,11,47		7,18
14″	36,26,44,49,40, 5,48,23,25,30		2,39,52, 8,47	
		1,39,49,24,43,29, 3, 0		7,18
16″	36,26,46,29,29,30,31,52,28,30		2,39,52,16, 5	
		1,39,49,22, 3,36,46,55		7,18
18″	36,26,48, 9,18,52,35,29,15,25		2,39,52,23,23	
		1,39,49,19,23,44,23,32		7,18
20″	36,26,49,49, 8,11,59,13,38,57		2,39,52,30,41	
		1,39,49,16,43,51,52,51		7,18
22″	36,26,51,28,57,28,43, 5,31,48		2,39,52,37,59	
		1,39,49,14, 3,59,14,52		7,18
24″	36,26,53, 8,46,42,47, 4,46,40		2,39,52,45,17	
		1,39,49,11,24, 6,29,35		7,18
26″	36,26,54,48,35,54,11,11,16,15		2,39,52,52,35	
		1,39,49, 8,44,13,37, 0		7,18
28″	36,26,56,28,25, 2,55,24,53,15		2,39,52,59,53	
		1,39,49, 6, 4,20,37, 7		7,18
30″	36,26,58, 8,14, 8,59,45,30,22		2,39,53, 7,11	
		1,39,49, 3,24,27,29,56		7,18
32″	36,26,59,48, 3,12,24,13, 0,18		2,39,53,14,29	
		1,39,49, 0,44,34,15,27		7,18
34″	36,27, 1,27,52,13, 8,47,15,45		2,39,53,21,47	
		1,39,48,58, 4,40,53,40		7,18
36″	36,27, 3, 7,41,11,13,28, 9,25		2,39,53,29, 5	
		1,39,48,55,24,47,24,35		7,18
38″	36,27, 4,47,30, 6,38,15,34, 0		2,39,53,36,23	
		1,39,48,52,44,53,48,12		7,18
40″	36,27, 6,27,18,59,23, 9,22,12		2,39,53,43,41	
		1,39,48,50, 5, 0, 4,31		7,18
42″	36,27, 8, 7, 7,49,28, 9,26,43		2,39,53,50,59	
		1,39,48,47,25, 6,13,32		7,18
44″	36,27, 9,46,56,36,53,15,40,15		2,39,53,58,17	
		1,39,48,44,45,12,15,15		7,18
46″	36,27,11,26,45,21,38,27,55,30		2,39,54, 5,35	
		1,39,48,42, 5,18, 9,40		7,18
48″	36,27,13, 6,34, 3,43,46, 5,10		2,39,54,12,53	
		1,39,48,39,25,23,56,47		7,18
50″	36,27,14,46,22,43, 9,10, 1,57		2,39,54,20,11	
		1,39,48,36,45,29,36,36		7,18
52″	36,27,16,26,11,19,54,39,38,33		2,39,54,27,29	
		1,39,48,34, 5,35, 9, 7		7,18
54″	36,27,18, 5,59,54, 0,14,47,40		2,39,54,34,47	
		1,39,48,31,25,40,34,20		7,18
56″	36,27,19,45,48,25,25,55,22, 0		2,39,54,42, 5	
		1,39,48,28,45,45,52,15		7,18
58″	36,27,21,25,36,54,11,41,14,15		2,39,54,49,23	
		1,39,48,26, 5,51, 2,52		
60″	36,27,23, 5,25,20,17,32,17, 7			
exact	36,27,23, 5,25,20,17,32,24,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°25′ 0″	36,27,23, 5,25,20,17,32,24,12			
		1,39,48,23,25,56, 7, 3		
2″	36,27,24,45,13,43,43,28,31,15		2,39,55, 3,55	
		1,39,48,20,46, 1, 3, 8		7,18
4″	36,27,26,25, 2, 4,29,29,34,23		2,39,55,11,13	
		1,39,48,18, 6, 5,51,55		7,18
6″	36,27,28, 4,50,22,35,35,26,18		2,39,55,18,31	
		1,39,48,15,26,10,33,24		7,18
8″	36,27,29,44,38,38, 1,45,59,42		2,39,55,25,49	
		1,39,48,12,46,15, 7,35		7,18
10″	36,27,31,24,26,50,48, 1, 7,17		2,39,55,33, 7	
		1,39,48,10, 6,19,34,28		7,18
12″	36,27,33, 4,15, 0,54,20,41,45		2,39,55,40,25	
		1,39,48, 7,26,23,54, 3		7,18
14″	36,27,34,44, 3, 8,20,44,35,48		2,39,55,47,43	
		1,39,48, 4,46,28, 6,20		7,18
16″	36,27,36,23,51,13, 7,12,42, 8		2,39,55,55, 1	
		1,39,48, 2, 6,32,11,19		7,18
18″	36,27,38, 3,39,15,13,44,53,27		2,39,56, 2,19	
		1,39,47,59,26,36, 9, 0		7,18
20″	36,27,39,43,27,14,40,21, 2,27		2,39,56, 9,37	
		1,39,47,56,46,39,59,23		7,18
22″	36,27,41,23,15,11,27, 1, 1,50		2,39,56,16,55	
		1,39,47,54, 6,43,42,28		7,18
24″	36,27,43, 3, 3, 5,33,44,44,18		2,39,56,24,13	
		1,39,47,51,26,47,18,15		7,18
26″	36,27,44,42,50,57, 0,32, 2,33		2,39,56,31,31	
		1,39,47,48,46,50,46,44		7,18
28″	36,27,46,22,38,45,47,22,49,17		2,39,56,38,49	
		1,39,47,46, 6,54, 7,55		7,18
30″	36,27,48, 2,26,31,54,16,57,12		2,39,56,46, 7	
		1,39,47,43,26,57,21,48		7,18
32″	36,27,49,42,14,15,21,14,19, 0		2,39,56,53,25	
		1,39,47,40,47, 0,28,23		7,18
34″	36,27,51,22, 1,56, 8,14,47,23		2,39,57, 0,43	
		1,39,47,38, 7, 3,27,40		7,18
36″	36,27,53, 1,49,34,15,18,15, 3		2,39,57, 8, 1	
		1,39,47,35,27, 6,19,39		7,18
38″	36,27,54,41,37, 9,42,24,34,42		2,39,57,15,19	
		1,39,47,32,47, 9, 4,20		7,18
40″	36,27,56,21,24,42,29,33,39, 2		2,39,57,22,37	
		1,39,47,30, 7,11,41,43		7,18
42″	36,27,58, 1,12,12,36,45,20,45		2,39,57,29,55	
		1,39,47,27,27,14,11,48		7,18
44″	36,27,59,40,59,40, 3,59,32,33		2,39,57,37,13	
		1,39,47,24,47,16,34,35		7,18
46″	36,28, 1,20,47, 4,51,16, 7, 8		2,39,57,44,31	
		1,39,47,22, 7,18,50, 4		7,18
48″	36,28, 3, 0,34,26,58,34,57,12		2,39,57,51,49	
		1,39,47,19,27,20,58,15		7,18
50″	36,28, 4,40,21,46,25,55,55,27		2,39,57,59, 7	
		1,39,47,16,47,22,59, 8		7,18
52″	36,28, 6,20, 9, 3,13,18,54,35		2,39,58, 6,25	
		1,39,47,14, 7,24,52,43		7,18
54″	36,28, 7,59,56,17,20,43,47,18		2,39,58,13,43	
		1,39,47,11,27,26,39, 0		7,18
56″	36,28, 9,39,43,28,48,10,26,18		2,39,58,21, 1	
		1,39,47, 8,47,28,17,59		7,18
58″	36,28,11,19,30,37,35,38,44,17		2,39,58,28,19	
		1,39,47, 6, 7,29,49,40		
60″	36,28,12,59,17,43,43, 8,33,57			
exact	36,28,12,59,17,43,43, 8,51,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°26′ 0″	36,28,12,59,17,43,43, 8,51,46			
		1,39,47, 3,27,31,15,55		
2″	36,28,14,39, 4,47,10,40, 7,41		2,39,58,42,47	
		1,39,47, 0,47,32,33, 8		7,18
4″	36,28,16,18,51,47,58,12,40,49		2,39,58,50, 5	
		1,39,46,58, 7,33,43, 3		7,18
6″	36,28,17,58,38,46, 5,46,23,52		2,39,58,57,23	
		1,39,46,55,27,34,45,40		7,18
8″	36,28,19,38,25,41,33,21, 9,32		2,39,59, 4,41	
		1,39,46,52,47,35,40,59		7,18
10″	36,28,21,18,12,34,20,56,50,31		2,39,59,11,59	
		1,39,46,50, 7,36,29, 0		7,18
12″	36,28,22,57,59,24,28,33,19,31		2,39,59,19,17	
		1,39,46,47,27,37, 9,43		7,18
14″	36,28,24,37,46,11,56,10,29,14		2,39,59,26,35	
		1,39,46,44,47,37,43, 8		7,18
16″	36,28,26,17,32,56,43,48,12,22		2,39,59,33,53	
		1,39,46,42, 7,38, 9,15		7,18
18″	36,28,27,57,19,38,51,26,21,37		2,39,59,41,11	
		1,39,46,39,27,38,28, 4		7,18
20″	36,28,29,37, 6,18,19, 4,49,41		2,39,59,48,29	
		1,39,46,36,47,38,39,35		7,18
22″	36,28,31,16,52,55, 6,43,29,16		2,39,59,55,47	
		1,39,46,34, 7,38,43,48		7,18
24″	36,28,32,56,39,29,14,22,13, 4		2,40, 0, 3, 5	
		1,39,46,31,27,38,40,43		7,18
26″	36,28,34,36,26, 0,42, 0,53,47		2,40, 0,10,23	
		1,39,46,28,47,38,30,20		7,18
28″	36,28,36,16,12,29,29,39,24, 7		2,40, 0,17,41	
		1,39,46,26, 7,38,12,39		7,18
30″	36,28,37,55,58,55,37,17,36,46		2,40, 0,24,59	
		1,39,46,23,27,37,47,40		7,18
32″	36,28,39,35,45,19, 4,55,24,26		2,40, 0,32,17	
		1,39,46,20,47,37,15,23		7,18
34″	36,28,41,15,31,39,52,32,39,49		2,40, 0,39,35	
		1,39,46,18, 7,36,35,48		7,18
36″	36,28,42,55,17,58, 0, 9,15,37		2,40, 0,46,53	
		1,39,46,15,27,35,48,55		7,18
38″	36,28,44,35, 4,13,27,45, 4,32		2,40, 0,54,11	
		1,39,46,12,47,34,54,44		7,18
40″	36,28,46,14,50,26,15,19,59,16		2,40, 1, 1,29	
		1,39,46,10, 7,33,53,15		7,18
42″	36,28,47,54,36,36,22,53,52,31		2,40, 1, 8,47	
		1,39,46, 7,27,32,44,28		7,18
44″	36,28,49,34,22,43,50,26,36,59		2,40, 1,16, 5	
		1,39,46, 4,47,31,28,23		7,18
46″	36,28,51,14, 8,48,37,58, 5,22		2,40, 1,23,23	
		1,39,46, 2, 7,30, 5, 0		7,18
48″	36,28,52,53,54,50,45,28,10,22		2,40, 1,30,41	
		1,39,45,59,27,28,34,19		7,18
50″	36,28,54,33,40,50,12,56,44,41		2,40, 1,37,59	
		1,39,45,56,47,26,56,20		7,18
52″	36,28,56,13,26,47, 0,23,41, 1		2,40, 1,45,17	
		1,39,45,54, 7,25,11, 3		7,18
54″	36,28,57,53,12,41, 7,48,52, 4		2,40, 1,52,35	
		1,39,45,51,27,23,18,28		7,18
56″	36,28,59,32,58,32,35,12,10,32		2,40, 1,59,53	
		1,39,45,48,47,21,18,35		7,18
58″	36,29, 1,12,44,21,22,33,29, 7		2,40, 2, 7,11	
		1,39,45,46, 7,19,11,24		
60″	36,29, 2,52,30, 7,29,52,40,31			
exact	36,29, 2,52,30, 7,29,53, 1, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°27′ 0″	36,29, 2,52,30, 7,29,53, 1, 4			
		1,39,45,43,27,16,59,14		
2″	36,29, 4,32,15,50,57,10, 0,18		2,40, 2,21,37	
		1,39,45,40,47,14,37,37		7,18
4″	36,29, 6,12, 1,31,44,24,37,55		2,40, 2,28,55	
		1,39,45,38, 7,12, 8,42		7,18
6″	36,29, 7,51,47, 9,51,36,46,37		2,40, 2,36,13	
		1,39,45,35,27, 9,32,29		7,18
8″	36,29, 9,31,32,45,18,46,19, 6		2,40, 2,43,31	
		1,39,45,32,47, 6,48,58		7,18
10″	36,29,11,11,18,18, 5,53, 8, 4		2,40, 2,50,49	
		1,39,45,30, 7, 3,58, 9		7,18
12″	36,29,12,51, 3,48,12,57, 6,13		2,40, 2,58, 7	
		1,39,45,27,27, 1, 0, 2		7,18
14″	36,29,14,30,49,15,39,58, 6,15		2,40, 3, 5,25	
		1,39,45,24,46,57,54,37		7,18
16″	36,29,16,10,34,40,26,56, 0,52		2,40, 3,12,43	
		1,39,45,22, 6,54,41,54		7,18
18″	36,29,17,50,20, 2,33,50,42,46		2,40, 3,20, 1	
		1,39,45,19,26,51,21,53		7,18
20″	36,29,19,30, 5,22, 0,42, 4,39		2,40, 3,27,19	
		1,39,45,16,46,47,54,34		7,18
22″	36,29,21, 9,50,38,47,29,59,13		2,40, 3,34,37	
		1,39,45,14, 6,44,19,57		7,18
24″	36,29,22,49,35,52,54,14,19,10		2,40, 3,41,55	
		1,39,45,11,26,40,38, 2		7,18
26″	36,29,24,29,21, 4,20,54,57,12		2,40, 3,49,13	
		1,39,45, 8,46,36,48,49		7,18
28″	36,29,26, 9, 6,13, 7,31,46, 1		2,40, 3,56,31	
		1,39,45, 6, 6,32,52,18		7,18
30″	36,29,27,48,51,19,14, 4,38,19		2,40, 4, 3,49	
		1,39,45, 3,26,28,48,29		7,18
32″	36,29,29,28,36,22,40,33,26,48		2,40, 4,11, 7	
		1,39,45, 0,46,24,37,22		7,18
34″	36,29,31, 8,21,23,26,58, 4,10		2,40, 4,18,25	
		1,39,44,58, 6,20,18,57		7,18
36″	36,29,32,48, 6,21,33,18,23, 7		2,40, 4,25,43	
		1,39,44,55,26,15,53,14		7,18
38″	36,29,34,27,51,16,59,34,16,21		2,40, 4,33, 1	
		1,39,44,52,46,11,20,13		7,18
40″	36,29,36, 7,36, 9,45,45,36,34		2,40, 4,40,19	
		1,39,44,50, 6, 6,39,54		7,18
42″	36,29,37,47,20,59,51,52,16,28		2,40, 4,47,37	
		1,39,44,47,26, 1,52,17		7,18
44″	36,29,39,27, 5,47,17,54, 8,45		2,40, 4,54,55	
		1,39,44,44,45,56,57,22		7,18
46″	36,29,41, 6,50,32, 3,51, 6, 7		2,40, 5, 2,13	
		1,39,44,42, 5,51,55, 9		7,18
48″	36,29,42,46,35,14, 9,43, 1,16		2,40, 5, 9,31	
		1,39,44,39,25,46,45,38		7,18
50″	36,29,44,26,19,53,35,29,46,54		2,40, 5,16,49	
		1,39,44,36,45,41,28,49		7,18
52″	36,29,46, 6, 4,30,21,11,15,43		2,40, 5,24, 7	
		1,39,44,34, 5,36, 4,42		7,18
54″	36,29,47,45,49, 4,26,47,20,25		2,40, 5,31,25	
		1,39,44,31,25,30,33,17		7,18
56″	36,29,49,25,33,35,52,17,53,42		2,40, 5,38,43	
		1,39,44,28,45,24,54,34		7,18
58″	36,29,51, 5,18, 4,37,42,48,16		2,40, 5,46, 1	
		1,39,44,26, 5,19, 8,33		
60″	36,29,52,45, 2,30,43, 1,56,49			
exact	36,29,52,45, 2,30,43, 2,27, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°28′ 0″	36,29,52,45, 2,30,43, 2,27, 2			
		1,39,44,23,25,13,18,28		
2″	36,29,54,24,46,54, 8,15,45,30		2,40, 6, 0,23	
		1,39,44,20,45, 7,18, 5		7,18
4″	36,29,56, 4,31,14,53,23, 3,35		2,40, 6, 7,41	
		1,39,44,18, 5, 1,10,24		7,18
6″	36,29,57,44,15,32,58,24,13,59		2,40, 6,14,59	
		1,39,44,15,24,54,55,25		7,18
8″	36,29,59,23,59,48,23,19, 9,24		2,40, 6,22,17	
		1,39,44,12,44,48,33, 8		7,18
10″	36,30, 1, 3,44, 1, 8, 7,42,32		2,40, 6,29,35	
		1,39,44,10, 4,42, 3,33		7,18
12″	36,30, 2,43,28,11,12,49,46, 5		2,40, 6,36,53	
		1,39,44, 7,24,35,26,40		7,18
14″	36,30, 4,23,12,18,37,25,12,45		2,40, 6,44,11	
		1,39,44, 4,44,28,42,29		7,18
16″	36,30, 6, 2,56,23,21,53,55,14		2,40, 6,51,29	
		1,39,44, 2, 4,21,51, 0		7,18
18″	36,30, 7,42,40,25,26,15,46,14		2,40, 6,58,47	
		1,39,43,59,24,14,52,13		7,18
20″	36,30, 9,22,24,24,50,30,38,27		2,40, 7, 6, 5	
		1,39,43,56,44, 7,46, 8		7,18
22″	36,30,11, 2, 8,21,34,38,24,35		2,40, 7,13,23	
		1,39,43,54, 4, 0,32,45		7,18
24″	36,30,12,41,52,15,38,38,57,20		2,40, 7,20,41	
		1,39,43,51,23,53,12, 4		7,18
26″	36,30,14,21,36, 7, 2,32, 9,24		2,40, 7,27,59	
		1,39,43,48,43,45,44, 5		7,18
28″	36,30,16, 1,19,55,46,17,53,29		2,40, 7,35,17	
		1,39,43,46, 3,38, 8,48		7,18
30″	36,30,17,41, 3,41,49,56, 2,17		2,40, 7,42,35	
		1,39,43,43,23,30,26,13		7,18
32″	36,30,19,20,47,25,13,26,28,30		2,40, 7,49,53	
		1,39,43,40,43,22,36,20		7,18
34″	36,30,21, 0,31, 5,56,49, 4,50		2,40, 7,57,11	
		1,39,43,38, 3,14,39, 9		7,18
36″	36,30,22,40,14,44, 0, 3,43,59		2,40, 8, 4,29	
		1,39,43,35,23, 6,34,40		7,18
38″	36,30,24,19,58,19,23,10,18,39		2,40, 8,11,47	
		1,39,43,32,42,58,22,53		7,18
40″	36,30,25,59,41,52, 6, 8,41,32		2,40, 8,19, 5	
		1,39,43,30, 2,50, 3,48		7,18
42″	36,30,27,39,25,22, 8,58,45,20		2,40, 8,26,23	
		1,39,43,27,22,41,37,25		7,18
44″	36,30,29,19, 8,49,31,40,22,45		2,40, 8,33,41	
		1,39,43,24,42,33, 3,44		7,18
46″	36,30,30,58,52,14,14,13,26,29		2,40, 8,40,59	
		1,39,43,22, 2,24,22,45		7,18
48″	36,30,32,38,35,36,16,37,49,14		2,40, 8,48,17	
		1,39,43,19,22,15,34,28		7,18
50″	36,30,34,18,18,55,38,53,23,42		2,40, 8,55,35	
		1,39,43,16,42, 6,38,53		7,18
52″	36,30,35,58, 2,12,21, 0, 2,35		2,40, 9, 2,53	
		1,39,43,14, 1,57,36, 0		7,18
54″	36,30,37,37,45,26,22,57,38,35		2,40, 9,10,11	
		1,39,43,11,21,48,25,49		7,18
56″	36,30,39,17,28,37,44,46, 4,24		2,40, 9,17,29	
		1,39,43, 8,41,39, 8,20		7,18
58″	36,30,40,57,11,46,26,25,12,44		2,40, 9,24,47	
		1,39,43, 6, 1,29,43,33		
60″	36,30,42,36,54,52,27,54,56,17			
exact	36,30,42,36,54,52,27,55,28,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°29′ 0″	36,30,42,36,54,52,27,55,28,27			
		1,39,43, 3,21,20,15, 5		
2″	36,30,44,16,37,55,49,15,43,32		2,40, 9,39, 7	
		1,39,43, 0,41,10,35,58		7,17
4″	36,30,45,56,20,56,30,26,19,30		2,40, 9,46,24	
		1,39,42,58, 1, 0,49,34		7,17
6″	36,30,47,36, 3,54,31,27, 9, 4		2,40, 9,53,41	
		1,39,42,55,20,50,55,53		7,17
8″	36,30,49,15,46,49,52,18, 4,57		2,40,10, 0,58	
		1,39,42,52,40,40,54,55		7,17
10″	36,30,50,55,29,42,32,58,59,52		2,40,10, 8,15	
		1,39,42,50, 0,30,46,40		7,17
12″	36,30,52,35,12,32,33,29,46,32		2,40,10,15,32	
		1,39,42,47,20,20,31, 8		7,17
14″	36,30,54,14,55,19,53,50,17,40		2,40,10,22,49	
		1,39,42,44,40,10, 8,19		7,17
16″	36,30,55,54,38, 4,34, 0,25,59		2,40,10,30, 6	
		1,39,42,41,59,59,38,13		7,17
18″	36,30,57,34,20,46,34, 0, 4,12		2,40,10,37,23	
		1,39,42,39,19,49, 0,50		7,17
20″	36,30,59,14, 3,25,53,49, 5, 2		2,40,10,44,40	
		1,39,42,36,39,38,16,10		7,17
22″	36,31, 0,53,46, 2,33,27,21,12		2,40,10,51,57	
		1,39,42,33,59,27,24,13		7,17
24″	36,31, 2,33,28,36,32,54,45,25		2,40,10,59,14	
		1,39,42,31,19,16,24,59		7,17
26″	36,31, 4,13,11, 7,52,11,10,24		2,40,11, 6,31	
		1,39,42,28,39, 5,18,28		7,17
28″	36,31, 5,52,53,36,31,16,28,52		2,40,11,13,48	
		1,39,42,25,58,54, 4,40		7,17
30″	36,31, 7,32,36, 2,30,10,33,32		2,40,11,21, 5	
		1,39,42,23,18,42,43,35		7,17
32″	36,31, 9,12,18,25,48,53,17, 7		2,40,11,28,22	
		1,39,42,20,38,31,15,13		7,17
34″	36,31,10,52, 0,46,27,24,32,20		2,40,11,35,39	
		1,39,42,17,58,19,39,34		7,17
36″	36,31,12,31,43, 4,25,44,11,54		2,40,11,42,56	
		1,39,42,15,18, 7,56,38		7,17
38″	36,31,14,11,25,19,43,52, 8,32		2,40,11,50,13	
		1,39,42,12,37,56, 6,25		7,17
40″	36,31,15,51, 7,32,21,48,14,57		2,40,11,57,30	
		1,39,42, 9,57,44, 8,55		7,17
42″	36,31,17,30,49,42,19,32,23,52		2,40,12, 4,47	
		1,39,42, 7,17,32, 4, 8		7,17
44″	36,31,19,10,31,49,37, 4,28, 0		2,40,12,12, 4	
		1,39,42, 4,37,19,52, 4		7,17
46″	36,31,20,50,13,54,14,24,20, 4		2,40,12,19,21	
		1,39,42, 1,57, 7,32,43		7,17
48″	36,31,22,29,55,56,11,31,52,47		2,40,12,26,38	
		1,39,41,59,16,55, 6, 5		7,17
50″	36,31,24, 9,37,55,28,26,58,52		2,40,12,33,55	
		1,39,41,56,36,42,32,10		7,17
52″	36,31,25,49,19,52, 5, 9,31, 2		2,40,12,41,12	
		1,39,41,53,56,29,50,58		7,17
54″	36,31,27,29, 1,46, 1,39,22, 0		2,40,12,48,29	
		1,39,41,51,16,17, 2,29		7,17
56″	36,31,29, 8,43,37,17,56,24,29		2,40,12,55,46	
		1,39,41,48,36, 4, 6,43		7,17
58″	36,31,30,48,25,25,54, 0,31,12		2,40,13, 3, 3	
		1,39,41,45,55,51, 3,40		
60″	36,31,32,28, 7,11,49,51,34,52			
exact	36,31,32,28, 7,11,49,51, 7,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°30′ 0″	36,31,32,28, 7,11,49,51, 7,57			
		1,39,41,43,15,37,50,33		
2″	36,31,34, 7,48,55, 5,28,58,30		2,40,13,17,48	
		1,39,41,40,35,24,32,45		7,17
4″	36,31,35,47,30,35,40,53,31,15		2,40,13,25, 5	
		1,39,41,37,55,11, 7,40		7,17
6″	36,31,37,27,12,13,36, 4,38,55		2,40,13,32,22	
		1,39,41,35,14,57,35,18		7,17
8″	36,31,39, 6,53,48,51, 2,14,13		2,40,13,39,39	
		1,39,41,32,34,43,55,39		7,17
10″	36,31,40,46,35,21,25,46, 9,52		2,40,13,46,56	
		1,39,41,29,54,30, 8,43		7,17
12″	36,31,42,26,16,51,20,16,18,35		2,40,13,54,13	
		1,39,41,27,14,16,14,30		7,17
14″	36,31,44, 5,58,18,34,32,33, 5		2,40,14, 1,30	
		1,39,41,24,34, 2,13, 0		7,17
16″	36,31,45,45,39,43, 8,34,46, 5		2,40,14, 8,47	
		1,39,41,21,53,48, 4,13		7,17
18″	36,31,47,25,21, 5, 2,22,50,18		2,40,14,16, 4	
		1,39,41,19,13,33,48, 9		7,17
20″	36,31,49, 5, 2,24,15,56,38,27		2,40,14,23,21	
		1,39,41,16,33,19,24,48		7,17
22″	36,31,50,44,43,40,49,16, 3,15		2,40,14,30,38	
		1,39,41,13,53, 4,54,10		7,17
24″	36,31,52,24,24,54,42,20,57,25		2,40,14,37,55	
		1,39,41,11,12,50,16,15		7,17
26″	36,31,54, 4, 6, 5,55,11,13,40		2,40,14,45,12	
		1,39,41, 8,32,35,31, 3		7,17
28″	36,31,55,43,47,14,27,46,44,43		2,40,14,52,29	
		1,39,41, 5,52,20,38,34		7,17
30″	36,31,57,23,28,20,20, 7,23,17		2,40,14,59,46	
		1,39,41, 3,12, 5,38,48		7,17
32″	36,31,59, 3, 9,23,32,13, 2, 5		2,40,15, 7, 3	
		1,39,41, 0,31,50,31,45		7,17
34″	36,32, 0,42,50,24, 4, 3,33,50		2,40,15,14,20	
		1,39,40,57,51,35,17,25		7,17
36″	36,32, 2,22,31,21,55,38,51,15		2,40,15,21,37	
		1,39,40,55,11,19,55,48		7,17
38″	36,32, 4, 2,12,17, 6,58,47, 3		2,40,15,28,54	
		1,39,40,52,31, 4,26,54		7,17
40″	36,32, 5,41,53, 9,38, 3,13,57		2,40,15,36,11	
		1,39,40,49,50,48,50,43		7,17
42″	36,32, 7,21,33,59,28,52, 4,40		2,40,15,43,28	
		1,39,40,47,10,33, 7,15		7,17
44″	36,32, 9, 1,14,46,39,25,11,55		2,40,15,50,45	
		1,39,40,44,30,17,16,30		7,17
46″	36,32,10,40,55,31, 9,42,28,25		2,40,15,58, 2	
		1,39,40,41,50, 1,18,28		7,17
48″	36,32,12,20,36,12,59,43,46,53		2,40,16, 5,19	
		1,39,40,39, 9,45,13, 9		7,17
50″	36,32,14, 0,16,52, 9,29, 0, 2		2,40,16,12,36	
		1,39,40,36,29,29, 0,33		7,17
52″	36,32,15,39,57,28,38,58, 0,35		2,40,16,19,53	
		1,39,40,33,49,12,40,40		7,17
54″	36,32,17,19,38, 2,28,10,41,15		2,40,16,27,10	
		1,39,40,31, 8,56,13,30		7,17
56″	36,32,18,59,18,33,37, 6,54,45		2,40,16,34,27	
		1,39,40,28,28,39,39, 3		7,17
58″	36,32,20,38,59, 2, 5,46,33,48		2,40,16,41,44	
		1,39,40,25,48,22,57,19		
60″	36,32,22,18,39,27,54, 9,31, 7			
exact	36,32,22,18,39,27,54, 9,12, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°31′ 0″	36,32,22,18,39,27,54, 9,12, 8			
		1,39,40,23, 8, 6, 6,19		
2″	36,32,23,58,19,51, 2,15,18,27		2,40,16,56,26	
		1,39,40,20,27,49, 9,53		7,17
4″	36,32,25,38, 0,11,30, 4,28,20		2,40,17, 3,43	
		1,39,40,17,47,32, 6,10		7,17
6″	36,32,27,17,40,29,17,36,34,30		2,40,17,11, 0	
		1,39,40,15, 7,14,55,10		7,17
8″	36,32,28,57,20,44,24,51,29,40		2,40,17,18,17	
		1,39,40,12,26,57,36,53		7,17
10″	36,32,30,37, 0,56,51,49, 6,33		2,40,17,25,34	
		1,39,40, 9,46,40,11,19		7,17
12″	36,32,32,16,41, 6,38,29,17,52		2,40,17,32,51	
		1,39,40, 7, 6,22,38,28		7,17
14″	36,32,33,56,21,13,44,51,56,20		2,40,17,40, 8	
		1,39,40, 4,26, 4,58,20		7,17
16″	36,32,35,36, 1,18,10,56,54,40		2,40,17,47,25	
		1,39,40, 1,45,47,10,55		7,17
18″	36,32,37,15,41,19,56,44, 5,35		2,40,17,54,42	
		1,39,39,59, 5,29,16,13		7,17
20″	36,32,38,55,21,19, 2,13,21,48		2,40,18, 1,59	
		1,39,39,56,25,11,14,14		7,17
22″	36,32,40,35, 1,15,27,24,36, 2		2,40,18, 9,16	
		1,39,39,53,44,53, 4,58		7,17
24″	36,32,42,14,41, 9,12,17,41, 0		2,40,18,16,33	
		1,39,39,51, 4,34,48,25		7,17
26″	36,32,43,54,21, 0,16,52,29,25		2,40,18,23,50	
		1,39,39,48,24,16,24,35		7,17
28″	36,32,45,34, 0,48,41, 8,54, 0		2,40,18,31, 7	
		1,39,39,45,43,57,53,28		7,17
30″	36,32,47,13,40,34,25, 6,47,28		2,40,18,38,24	
		1,39,39,43, 3,39,15, 4		7,17
32″	36,32,48,53,20,17,28,46, 2,32		2,40,18,45,41	
		1,39,39,40,23,20,29,23		7,17
34″	36,32,50,32,59,57,52, 6,31,55		2,40,18,52,58	
		1,39,39,37,43, 1,36,25		7,17
36″	36,32,52,12,39,35,35, 8, 8,20		2,40,19, 0,15	
		1,39,39,35, 2,42,36,10		7,17
38″	36,32,53,52,19,10,37,50,44,30		2,40,19, 7,32	
		1,39,39,32,22,23,28,38		7,17
40″	36,32,55,31,58,43, 0,14,13, 8		2,40,19,14,49	
		1,39,39,29,42, 4,13,49		7,17
42″	36,32,57,11,38,12,42,18,26,57		2,40,19,22, 6	
		1,39,39,27, 1,44,51,43		7,17
44″	36,32,58,51,17,39,44, 3,18,40		2,40,19,29,23	
		1,39,39,24,21,25,22,20		7,17
46″	36,33, 0,30,57, 4, 5,28,41, 0		2,40,19,36,40	
		1,39,39,21,41, 5,45,40		7,17
48″	36,33, 2,10,36,25,46,34,26,40		2,40,19,43,57	
		1,39,39,19, 0,46, 1,43		7,17
50″	36,33, 3,50,15,44,47,20,28,23		2,40,19,51,14	
		1,39,39,16,20,26,10,29		7,17
52″	36,33, 5,29,55, 1, 7,46,38,52		2,40,19,58,31	
		1,39,39,13,40, 6,11,58		7,17
54″	36,33, 7, 9,34,14,47,52,50,50		2,40,20, 5,48	
		1,39,39,10,59,46, 6,10		7,17
56″	36,33, 8,49,13,25,47,38,57, 0		2,40,20,13, 5	
		1,39,39, 8,19,25,53, 5		7,17
58″	36,33,10,28,52,34, 7, 4,50, 5		2,40,20,20,22	
		1,39,39, 5,39, 5,32,43		
60″	36,33,12, 8,31,39,46,10,22,48			
exact	36,33,12, 8,31,39,46,10,11,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°32′ 0″	36,33,12, 8,31,39,46,10,11,30			
		1,39,39, 2,58,45, 3,52		
2″	36,33,13,48,10,42,44,55,15,22		2,40,20,35, 1	
		1,39,39, 0,18,24,28,51		7,17
4″	36,33,15,27,49,43, 3,19,44,13		2,40,20,42,18	
		1,39,38,57,38, 3,46,33		7,17
6″	36,33,17, 7,28,40,41,23,30,46		2,40,20,49,35	
		1,39,38,54,57,42,56,58		7,17
8″	36,33,18,47, 7,35,39, 6,27,44		2,40,20,56,52	
		1,39,38,52,17,22, 0, 6		7,17
10″	36,33,20,26,46,27,56,28,27,50		2,40,21, 4, 9	
		1,39,38,49,37, 0,55,57		7,17
12″	36,33,22, 6,25,17,33,29,23,47		2,40,21,11,26	
		1,39,38,46,56,39,44,31		7,17
14″	36,33,23,46, 4, 4,30, 9, 8,18		2,40,21,18,43	
		1,39,38,44,16,18,25,48		7,17
16″	36,33,25,25,42,48,46,27,34, 6		2,40,21,26, 0	
		1,39,38,41,35,56,59,48		7,17
18″	36,33,27, 5,21,30,22,24,33,54		2,40,21,33,17	
		1,39,38,38,55,35,26,31		7,17
20″	36,33,28,45, 0, 9,18, 0, 0,25		2,40,21,40,34	
		1,39,38,36,15,13,45,57		7,17
22″	36,33,30,24,38,45,33,13,46,22		2,40,21,47,51	
		1,39,38,33,34,51,58, 6		7,17
24″	36,33,32, 4,17,19, 8, 5,44,28		2,40,21,55, 8	
		1,39,38,30,54,30, 2,58		7,17
26″	36,33,33,43,55,50, 2,35,47,26		2,40,22, 2,25	
		1,39,38,28,14, 8, 0,33		7,17
28″	36,33,35,23,34,18,16,43,47,59		2,40,22, 9,42	
		1,39,38,25,33,45,50,51		7,17
30″	36,33,37, 3,12,43,50,29,38,50		2,40,22,16,59	
		1,39,38,22,53,23,33,52		7,17
32″	36,33,38,42,51, 6,43,53,12,42		2,40,22,24,16	
		1,39,38,20,13, 1, 9,36		7,17
34″	36,33,40,22,29,26,56,54,22,18		2,40,22,31,33	
		1,39,38,17,32,38,38, 3		7,17
36″	36,33,42, 2, 7,44,29,33, 0,21		2,40,22,38,50	
		1,39,38,14,52,15,59,13		7,17
38″	36,33,43,41,45,59,21,48,59,34		2,40,22,46, 7	
		1,39,38,12,11,53,13, 6		7,17
40″	36,33,45,21,24,11,33,42,12,40		2,40,22,53,24	
		1,39,38, 9,31,30,19,42		7,17
42″	36,33,47, 1, 2,21, 5,12,32,22		2,40,23, 0,41	
		1,39,38, 6,51, 7,19, 1		7,17
44″	36,33,48,40,40,27,56,19,51,23		2,40,23, 7,58	
		1,39,38, 4,10,44,11, 3		7,17
46″	36,33,50,20,18,32, 7, 4, 2,26		2,40,23,15,15	
		1,39,38, 1,30,20,55,48		7,17
48″	36,33,51,59,56,33,37,24,58,14		2,40,23,22,32	
		1,39,37,58,49,57,33,16		7,17
50″	36,33,53,39,34,32,27,22,31,30		2,40,23,29,49	
		1,39,37,56, 9,34, 3,27		7,17
52″	36,33,55,19,12,28,36,56,34,57		2,40,23,37, 6	
		1,39,37,53,29,10,26,21		7,17
54″	36,33,56,58,50,22, 6, 7, 1,18		2,40,23,44,23	
		1,39,37,50,48,46,41,58		7,17
56″	36,33,58,38,28,12,54,53,43,16		2,40,23,51,40	
		1,39,37,48, 8,22,50,18		7,17
58″	36,34, 0,18, 6, 1, 3,16,33,34		2,40,23,58,57	
		1,39,37,45,27,58,51,21		
60″	36,34, 1,57,43,46,31,15,24,55			
exact	36,34, 1,57,43,46,31,15,20,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°33′ 0″	36,34, 1,57,43,46,31,15,20,30			
		1,39,37,42,47,34,44,39		
2″	36,34, 3,37,21,29,18,50, 5, 9		2,40,24,13,33	
		1,39,37,40, 7,10,31, 6		7,17
4″	36,34, 5,16,59, 9,26, 0,36,15		2,40,24,20,50	
		1,39,37,37,26,46,10,16		7,17
6″	36,34, 6,56,36,46,52,46,46,31		2,40,24,28, 7	
		1,39,37,34,46,21,42, 9		7,17
8″	36,34, 8,36,14,21,39, 8,28,40		2,40,24,35,24	
		1,39,37,32, 5,57, 6,45		7,17
10″	36,34,10,15,51,53,45, 5,35,25		2,40,24,42,41	
		1,39,37,29,25,32,24, 4		7,17
12″	36,34,11,55,29,23,10,37,59,29		2,40,24,49,58	
		1,39,37,26,45, 7,34, 6		7,17
14″	36,34,13,35, 6,49,55,45,33,35		2,40,24,57,15	
		1,39,37,24, 4,42,36,51		7,17
16″	36,34,15,14,44,14, 0,28,10,26		2,40,25, 4,32	
		1,39,37,21,24,17,32,19		7,17
18″	36,34,16,54,21,35,24,45,42,45		2,40,25,11,49	
		1,39,37,18,43,52,20,30		7,17
20″	36,34,18,33,58,54, 8,38, 3,15		2,40,25,19, 6	
		1,39,37,16, 3,27, 1,24		7,17
22″	36,34,20,13,36,10,12, 5, 4,39		2,40,25,26,23	
		1,39,37,13,23, 1,35, 1		7,17
24″	36,34,21,53,13,23,35, 6,39,40		2,40,25,33,40	
		1,39,37,10,42,36, 1,21		7,17
26″	36,34,23,32,50,34,17,42,41, 1		2,40,25,40,57	
		1,39,37, 8, 2,10,20,24		7,17
28″	36,34,25,12,27,42,19,53, 1,25		2,40,25,48,14	
		1,39,37, 5,21,44,32,10		7,17
30″	36,34,26,52, 4,47,41,37,33,35		2,40,25,55,31	
		1,39,37, 2,41,18,36,39		7,17
32″	36,34,28,31,41,50,22,56,10,14		2,40,26, 2,48	
		1,39,37, 0, 0,52,33,51		7,17
34″	36,34,30,11,18,50,23,48,44, 5		2,40,26,10, 5	
		1,39,36,57,20,26,23,46		7,17
36″	36,34,31,50,55,47,44,15, 7,51		2,40,26,17,22	
		1,39,36,54,40, 0, 6,24		7,17
38″	36,34,33,30,32,42,24,15,14,15		2,40,26,24,39	
		1,39,36,51,59,33,41,45		7,17
40″	36,34,35,10, 9,34,23,48,56, 0		2,40,26,31,56	
		1,39,36,49,19, 7, 9,49		7,17
42″	36,34,36,49,46,23,42,56, 5,49		2,40,26,39,13	
		1,39,36,46,38,40,30,36		7,17
44″	36,34,38,29,23,10,21,36,36,25		2,40,26,46,30	
		1,39,36,43,58,13,44, 6		7,17
46″	36,34,40, 8,59,54,19,50,20,31		2,40,26,53,47	
		1,39,36,41,17,46,50,19		7,17
48″	36,34,41,48,36,35,37,37,10,50		2,40,27, 1, 4	
		1,39,36,38,37,19,49,15		7,17
50″	36,34,43,28,13,14,14,57, 0, 5		2,40,27, 8,21	
		1,39,36,35,56,52,40,54		7,17
52″	36,34,45, 7,49,50,11,49,40,59		2,40,27,15,38	
		1,39,36,33,16,25,25,16		7,17
54″	36,34,46,47,26,23,28,15, 6,15		2,40,27,22,55	
		1,39,36,30,35,58, 2,21		7,17
56″	36,34,48,27, 2,54, 4,13, 8,36		2,40,27,30,12	
		1,39,36,27,55,30,32, 9		7,17
58″	36,34,50, 6,39,21,59,43,40,45		2,40,27,37,29	
		1,39,36,25,15, 2,54,40		
60″	36,34,51,46,15,47,14,46,35,25			
exact	36,34,51,46,15,47,14,46,37,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°34′ 0″	36,34,51,46,15,47,14,46,37,30			
		1,39,36,22,34,35,10, 8		
2″	36,34,53,25,52, 9,49,21,47,38		2,40,27,52, 2	
		1,39,36,19,54, 7,18, 6		7,17
4″	36,34,55, 5,28,29,43,29, 5,44		2,40,27,59,19	
		1,39,36,17,13,39,18,47		7,17
6″	36,34,56,45, 4,46,57, 8,24,31		2,40,28, 6,36	
		1,39,36,14,33,11,12,11		7,17
8″	36,34,58,24,41, 1,30,19,36,42		2,40,28,13,53	
		1,39,36,11,52,42,58,18		7,17
10″	36,35, 0, 4,17,13,23, 2,35, 0		2,40,28,21,10	
		1,39,36, 9,12,14,37, 8		7,17
12″	36,35, 1,43,53,22,35,17,12, 8		2,40,28,28,27	
		1,39,36, 6,31,46, 8,41		7,17
14″	36,35, 3,23,29,29, 7, 3,20,49		2,40,28,35,44	
		1,39,36, 3,51,17,32,57		7,17
16″	36,35, 5, 3, 5,32,58,20,53,46		2,40,28,43, 1	
		1,39,36, 1,10,48,49,56		7,17
18″	36,35, 6,42,41,34, 9, 9,43,42		2,40,28,50,18	
		1,39,35,58,30,19,59,38		7,17
20″	36,35, 8,22,17,32,39,29,43,20		2,40,28,57,35	
		1,39,35,55,49,51, 2, 3		7,17
22″	36,35,10, 1,53,28,29,20,45,23		2,40,29, 4,52	
		1,39,35,53, 9,21,57,11		7,17
24″	36,35,11,41,29,21,38,42,42,34		2,40,29,12, 9	
		1,39,35,50,28,52,45, 2		7,17
26″	36,35,13,21, 5,12, 7,35,27,36		2,40,29,19,26	
		1,39,35,47,48,23,25,36		7,17
28″	36,35,15, 0,40,59,55,58,53,12		2,40,29,26,43	
		1,39,35,45, 7,53,58,53		7,17
30″	36,35,16,40,16,45, 3,52,52, 5		2,40,29,34, 0	
		1,39,35,42,27,24,24,53		7,17
32″	36,35,18,19,52,27,31,17,16,58		2,40,29,41,17	
		1,39,35,39,46,54,43,36		7,17
34″	36,35,19,59,28, 7,18,12, 0,34		2,40,29,48,34	
		1,39,35,37, 6,24,55, 2		7,17
36″	36,35,21,39, 3,44,24,36,55,36		2,40,29,55,51	
		1,39,35,34,25,54,59,11		7,17
38″	36,35,23,18,39,18,50,31,54,47		2,40,30, 3, 8	
		1,39,35,31,45,24,56, 3		7,17
40″	36,35,24,58,14,50,35,56,50,50		2,40,30,10,25	
		1,39,35,29, 4,54,45,38		7,17
42″	36,35,26,37,50,19,40,51,36,28		2,40,30,17,42	
		1,39,35,26,24,24,27,56		7,17
44″	36,35,28,17,25,46, 5,16, 4,24		2,40,30,24,59	
		1,39,35,23,43,54, 2,57		7,17
46″	36,35,29,57, 1, 9,49,10, 7,21		2,40,30,32,16	
		1,39,35,21, 3,23,30,41		7,17
48″	36,35,31,36,36,30,52,33,38, 2		2,40,30,39,33	
		1,39,35,18,22,52,51, 8		7,17
50″	36,35,33,16,11,49,15,26,29,10		2,40,30,46,50	
		1,39,35,15,42,22, 4,18		7,17
52″	36,35,34,55,47, 4,57,48,33,28		2,40,30,54, 7	
		1,39,35,13, 1,51,10,11		7,17
54″	36,35,36,35,22,17,59,39,43,39		2,40,31, 1,24	
		1,39,35,10,21,20, 8,47		7,17
56″	36,35,38,14,57,28,20,59,52,26		2,40,31, 8,41	
		1,39,35, 7,40,49, 0, 6		7,17
58″	36,35,39,54,32,36, 1,48,52,32		2,40,31,15,58	
		1,39,35, 5, 0,17,44, 8		
60″	36,35,41,34, 7,41, 2, 6,36,40			
exact	36,35,41,34, 7,41, 2, 6,44,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°35′ 0″	36,35,41,34, 7,41, 2, 6,44,55			
		1,39,35, 2,19,46,21,47		
2″	36,35,43,13,42,43,21,53, 6,42		2,40,31,30,28	
		1,39,34,59,39,14,51,19		7,17
4″	36,35,44,53,17,43, 1, 7,58, 1		2,40,31,37,45	
		1,39,34,56,58,43,13,34		7,17
6″	36,35,46,32,52,39,59,51,11,35		2,40,31,45, 2	
		1,39,34,54,18,11,28,32		7,17
8″	36,35,48,12,27,34,18, 2,40, 7		2,40,31,52,19	
		1,39,34,51,37,39,36,13		7,17
10″	36,35,49,52, 2,25,55,42,16,20		2,40,31,59,36	
		1,39,34,48,57, 7,36,37		7,17
12″	36,35,51,31,37,14,52,49,52,57		2,40,32, 6,53	
		1,39,34,46,16,35,29,44		7,17
14″	36,35,53,11,12, 1, 9,25,22,41		2,40,32,14,10	
		1,39,34,43,36, 3,15,34		7,17
16″	36,35,54,50,46,44,45,28,38,15		2,40,32,21,27	
		1,39,34,40,55,30,54, 7		7,17
18″	36,35,56,30,21,25,40,59,32,22		2,40,32,28,44	
		1,39,34,38,14,58,25,23		7,17
20″	36,35,58, 9,56, 3,55,57,57,45		2,40,32,36, 1	
		1,39,34,35,34,25,49,22		7,17
22″	36,35,59,49,30,39,30,23,47, 7		2,40,32,43,18	
		1,39,34,32,53,53, 6, 4		7,17
24″	36,36, 1,29, 5,12,24,16,53,11		2,40,32,50,35	
		1,39,34,30,13,20,15,29		7,17
26″	36,36, 3, 8,39,42,37,37, 8,40		2,40,32,57,52	
		1,39,34,27,32,47,17,37		7,17
28″	36,36, 4,48,14,10,10,24,26,17		2,40,33, 5, 9	
		1,39,34,24,52,14,12,28		7,17
30″	36,36, 6,27,48,35, 2,38,38,45		2,40,33,12,26	
		1,39,34,22,11,41, 0, 2		7,17
32″	36,36, 8, 7,22,57,14,19,38,47		2,40,33,19,43	
		1,39,34,19,31, 7,40,19		7,17
34″	36,36, 9,46,57,16,45,27,19, 6		2,40,33,27, 0	
		1,39,34,16,50,34,13,19		7,17
36″	36,36,11,26,31,33,36, 1,32,25		2,40,33,34,17	
		1,39,34,14,10, 0,39, 2		7,17
38″	36,36,13, 6, 5,47,46, 2,11,27		2,40,33,41,34	
		1,39,34,11,29,26,57,28		7,17
40″	36,36,14,45,39,59,15,29, 8,55		2,40,33,48,51	
		1,39,34, 8,48,53, 8,37		7,17
42″	36,36,16,25,14, 8, 4,22,17,32		2,40,33,56, 8	
		1,39,34, 6, 8,19,12,29		7,17
44″	36,36,18, 4,48,14,12,41,30, 1		2,40,34, 3,25	
		1,39,34, 3,27,45, 9, 4		7,17
46″	36,36,19,44,22,17,40,26,39, 5		2,40,34,10,42	
		1,39,34, 0,47,10,58,22		7,17
48″	36,36,21,23,56,18,27,37,37,27		2,40,34,17,59	
		1,39,33,58, 6,36,40,23		7,17
50″	36,36,23, 3,30,16,34,14,17,50		2,40,34,25,16	
		1,39,33,55,26, 2,15, 7		7,17
52″	36,36,24,43, 4,12, 0,16,32,57		2,40,34,32,33	
		1,39,33,52,45,27,42,34		7,17
54″	36,36,26,22,38, 4,45,44,15,31		2,40,34,39,50	
		1,39,33,50, 4,53, 2,44		7,17
56″	36,36,28, 2,11,54,50,37,18,15		2,40,34,47, 7	
		1,39,33,47,24,18,15,37		7,17
58″	36,36,29,41,45,42,14,55,33,52		2,40,34,54,24	
		1,39,33,44,43,43,21,13		
60″	36,36,31,21,19,26,58,38,55, 5			
exact	36,36,31,21,19,26,58,39, 9, 6			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
37°36′	0″	36,36,31,21,19,26,58,39, 9, 6	1,39,33,42, 3, 8,21, 5		
	2″	36,36,33, 0,53, 9, 1,47,30,11	1,39,33,39,22,33,12,14	2,40,35, 8,51	7,17
	4″	36,36,34,40,26,48,24,20,42,25	1,39,33,36,41,57,56, 6	2,40,35,16, 8	7,17
	6″	36,36,36,20, 0,25, 6,18,38,31	1,39,33,34, 1,22,32,41	2,40,35,23,25	7,17
	8″	36,36,37,59,33,59, 7,41,11,12	1,39,33,31,20,47, 1,59	2,40,35,30,42	7,17
	10″	36,36,39,39, 7,30,28,28,13,11	1,39,33,28,40,11,24, 0	2,40,35,37,59	7,17
	12″	36,36,41,18,40,59, 8,39,37,11	1,39,33,25,59,35,38,44	2,40,35,45,16	7,17
	14″	36,36,42,58,14,25, 8,15,15,55	1,39,33,23,18,59,46,11	2,40,35,52,33	7,17
	16″	36,36,44,37,47,48,27,15, 2, 6	1,39,33,20,38,23,46,21	2,40,35,59,50	7,17
	18″	36,36,46,17,21, 9, 5,38,48,27	1,39,33,17,57,47,39,14	2,40,36, 7, 7	7,17
	20″	36,36,47,56,54,27, 3,26,27,41	1,39,33,15,17,11,24,50	2,40,36,14,24	7,17
	22″	36,36,49,36,27,42,20,37,52,31	1,39,33,12,36,35, 3, 9	2,40,36,21,41	7,17
	24″	36,36,51,16, 0,54,57,12,55,40	1,39,33, 9,55,58,34,11	2,40,36,28,58	7,17
	26″	36,36,52,55,34, 4,53,11,29,51	1,39,33, 7,15,21,57,56	2,40,36,36,15	7,17
	28″	36,36,54,35, 7,12, 8,33,27,47	1,39,33, 4,34,45,14,24	2,40,36,43,32	7,17
	30″	36,36,56,14,40,16,43,18,42,11	1,39,33, 1,54, 8,23,35	2,40,36,50,49	7,17
	32″	36,36,57,54,13,18,37,27, 5,46	1,39,32,59,13,31,25,29	2,40,36,58, 6	7,17
	34″	36,36,59,33,46,17,50,58,31,15	1,39,32,56,32,54,20, 6	2,40,37, 5,23	7,17
	36″	36,37, 1,13,19,14,23,52,51,21	1,39,32,53,52,17, 7,26	2,40,37,12,40	7,17
	38″	36,37, 2,52,52, 8,16, 9,58,47	1,39,32,51,11,39,47,29	2,40,37,19,57	7,17
	40″	36,37, 4,32,24,59,27,49,46,16	1,39,32,48,31, 2,20,15	2,40,37,27,14	7,17
	42″	36,37, 6,11,57,47,58,52, 6,31	1,39,32,45,50,24,45,44	2,40,37,34,31	7,17
	44″	36,37, 7,51,30,33,49,16,52,15	1,39,32,43, 9,47, 3,56	2,40,37,41,48	7,17
	46″	36,37, 9,31, 3,16,59, 3,56,11	1,39,32,40,29, 9,14,51	2,40,37,49, 5	7,17
	48″	36,37,11,10,35,57,28,13,11, 2	1,39,32,37,48,31,18,29	2,40,37,56,22	7,17
	50″	36,37,12,50, 8,35,16,44,29,31	1,39,32,35, 7,53,14,50	2,40,38, 3,39	7,17
	52″	36,37,14,29,41,10,24,37,44,21	1,39,32,32,27,15, 3,54	2,40,38,10,56	7,17
	54″	36,37,16, 9,13,42,51,52,48,15	1,39,32,29,46,36,45,41	2,40,38,18,13	7,17
	56″	36,37,17,48,46,12,38,29,33,56	1,39,32,27, 5,58,20,11	2,40,38,25,30	7,17
	58″	36,37,19,28,18,39,44,27,54, 7	1,39,32,24,25,19,47,24	2,40,38,32,47	
	60″	36,37,21, 7,51, 4, 9,47,41,31			
exact		36,37,21, 7,51, 4, 9,48, 0,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°37′ 0″	36,37,21, 7,51, 4, 9,48, 0,26			
		1,39,32,21,44,41, 9,29		
2″	36,37,22,47,23,25,54,29, 9,55		2,40,38,47,11	
		1,39,32,19, 4, 2,22,18		7,17
4″	36,37,24,26,55,44,58,31,32,13		2,40,38,54,28	
		1,39,32,16,23,23,27,50		7,17
6″	36,37,26, 6,28, 1,21,55, 0, 3		2,40,39, 1,45	
		1,39,32,13,42,44,26, 5		7,17
8″	36,37,27,46, 0,15, 4,39,26, 8		2,40,39, 9, 2	
		1,39,32,11, 2, 5,17, 3		7,17
10″	36,37,29,25,32,26, 6,44,43,11		2,40,39,16,19	
		1,39,32, 8,21,26, 0,44		7,17
12″	36,37,31, 5, 4,34,28,10,43,55		2,40,39,23,36	
		1,39,32, 5,40,46,37, 8		7,17
14″	36,37,32,44,36,40, 8,57,21, 3		2,40,39,30,53	
		1,39,32, 3, 0, 7, 6,15		7,17
16″	36,37,34,24, 8,43, 9, 4,27,18		2,40,39,38,10	
		1,39,32, 0,19,27,28, 5		7,17
18″	36,37,36, 3,40,43,28,31,55,23		2,40,39,45,27	
		1,39,31,57,38,47,42,38		7,17
20″	36,37,37,43,12,41, 7,19,38, 1		2,40,39,52,44	
		1,39,31,54,58, 7,49,54		7,17
22″	36,37,39,22,44,36, 5,27,27,55		2,40,40, 0, 1	
		1,39,31,52,17,27,49,53		7,17
24″	36,37,41, 2,16,28,22,55,17,48		2,40,40, 7,18	
		1,39,31,49,36,47,42,35		7,17
26″	36,37,42,41,48,17,59,43, 0,23		2,40,40,14,35	
		1,39,31,46,56, 7,28, 0		7,17
28″	36,37,44,21,20, 4,55,50,28,23		2,40,40,21,52	
		1,39,31,44,15,27, 6, 8		7,17
30″	36,37,46, 0,51,49,11,17,34,31		2,40,40,29, 9	
		1,39,31,41,34,46,36,59		7,17
32″	36,37,47,40,23,30,46, 4,11,30		2,40,40,36,26	
		1,39,31,38,54, 6, 0,33		7,17
34″	36,37,49,19,55, 9,40,10,12, 3		2,40,40,43,43	
		1,39,31,36,13,25,16,50		7,17
36″	36,37,50,59,26,45,53,35,28,53		2,40,40,51, 0	
		1,39,31,33,32,44,25,50		7,17
38″	36,37,52,38,58,19,26,19,54,43		2,40,40,58,17	
		1,39,31,30,52, 3,27,33		7,17
40″	36,37,54,18,29,50,18,23,22,16		2,40,41, 5,34	
		1,39,31,28,11,22,21,59		7,17
42″	36,37,55,58, 1,18,29,45,44,15		2,40,41,12,51	
		1,39,31,25,30,41, 9, 8		7,17
44″	36,37,57,37,32,44, 0,26,53,23		2,40,41,20, 8	
		1,39,31,22,49,59,49, 0		7,17
46″	36,37,59,17, 4, 6,50,26,42,23		2,40,41,27,25	
		1,39,31,20, 9,18,21,35		7,17
48″	36,38, 0,56,35,26,59,45, 3,58		2,40,41,34,42	
		1,39,31,17,28,36,46,53		7,17
50″	36,38, 2,36, 6,44,28,21,50,51		2,40,41,41,59	
		1,39,31,14,47,55, 4,54		7,17
52″	36,38, 4,15,37,59,16,16,55,45		2,40,41,49,16	
		1,39,31,12, 7,13,15,38		7,17
54″	36,38, 5,55, 9,11,23,30,11,23		2,40,41,56,33	
		1,39,31, 9,26,31,19, 5		7,17
56″	36,38, 7,34,40,20,50, 1,30,28		2,40,42, 3,50	
		1,39,31, 6,45,49,15,15		7,17
58″	36,38, 9,14,11,27,35,50,45,43		2,40,42,11, 7	
		1,39,31, 4, 5, 7, 4, 8		
60″	36,38,10,53,42,31,40,57,49,51			
exact	36,38,10,53,42,31,40,58,13,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°38′ 0″	36,38,10,53,42,31,40,58,13,18			
		1,39,31, 1,24,24,48,27		
2″	36,38,12,33,13,33, 5,23, 1,45		2,40,42,25,29	
		1,39,30,58,43,42,22,58		7,17
4″	36,38,14,12,44,31,49, 5,24,43		2,40,42,32,46	
		1,39,30,56, 2,59,50,12		7,17
6″	36,38,15,52,15,27,52, 5,14,55		2,40,42,40, 3	
		1,39,30,53,22,17,10, 9		7,17
8″	36,38,17,31,46,21,14,22,25, 4		2,40,42,47,20	
		1,39,30,50,41,34,22,49		7,17
10″	36,38,19,11,17,11,55,56,47,53		2,40,42,54,37	
		1,39,30,48, 0,51,28,12		7,17
12″	36,38,20,50,47,59,56,48,16, 5		2,40,43, 1,54	
		1,39,30,45,20, 8,26,18		7,17
14″	36,38,22,30,18,45,16,56,42,23		2,40,43, 9,11	
		1,39,30,42,39,25,17, 7		7,17
16″	36,38,24, 9,49,27,56,21,59,30		2,40,43,16,28	
		1,39,30,39,58,42, 0,39		7,17
18″	36,38,25,49,20, 7,55, 4, 0, 9		2,40,43,23,45	
		1,39,30,37,17,58,36,54		7,17
20″	36,38,27,28,50,45,13, 2,37, 3		2,40,43,31, 2	
		1,39,30,34,37,15, 5,52		7,17
22″	36,38,29, 8,21,19,50,17,42,55		2,40,43,38,19	
		1,39,30,31,56,31,27,33		7,17
24″	36,38,30,47,51,51,46,49,10,28		2,40,43,45,36	
		1,39,30,29,15,47,41,57		7,17
26″	36,38,32,27,22,21, 2,36,52,25		2,40,43,52,53	
		1,39,30,26,35, 3,49, 4		7,17
28″	36,38,34, 6,52,47,37,40,41,29		2,40,44, 0,10	
		1,39,30,23,54,19,48,54		7,17
30″	36,38,35,46,23,11,32, 0,30,23		2,40,44, 7,27	
		1,39,30,21,13,35,41,27		7,17
32″	36,38,37,25,53,32,45,36,11,50		2,40,44,14,44	
		1,39,30,18,32,51,26,43		7,17
34″	36,38,39, 5,23,51,18,27,38,33		2,40,44,22, 1	
		1,39,30,15,52, 7, 4,42		7,17
36″	36,38,40,44,54, 7,10,34,43,15		2,40,44,29,18	
		1,39,30,13,11,22,35,24		7,17
38″	36,38,42,24,24,20,21,57,18,39		2,40,44,36,35	
		1,39,30,10,30,37,58,49		7,17
40″	36,38,44, 3,54,30,52,35,17,28		2,40,44,43,52	
		1,39,30, 7,49,53,14,57		7,17
42″	36,38,45,43,24,38,42,28,32,25		2,40,44,51, 9	
		1,39,30, 5, 9, 8,23,48		7,17
44″	36,38,47,22,54,43,51,36,56,13		2,40,44,58,26	
		1,39,30, 2,28,23,25,22		7,17
46″	36,38,49, 2,24,46,20, 0,21,35		2,40,45, 5,43	
		1,39,29,59,47,38,19,39		7,17
48″	36,38,50,41,54,46, 7,38,41,14		2,40,45,13, 0	
		1,39,29,57, 6,53, 6,39		7,17
50″	36,38,52,21,24,43,14,31,47,53		2,40,45,20,17	
		1,39,29,54,26, 7,46,22		7,17
52″	36,38,54, 0,54,37,40,39,34,15		2,40,45,27,34	
		1,39,29,51,45,22,18,48		7,17
54″	36,38,55,40,24,29,26, 1,53, 3		2,40,45,34,51	
		1,39,29,49, 4,36,43,57		7,17
56″	36,38,57,19,54,18,30,38,37, 0		2,40,45,42, 8	
		1,39,29,46,23,51, 1,49		7,17
58″	36,38,58,59,24, 4,54,29,38,49		2,40,45,49,25	
		1,39,29,43,43, 5,12,24		
60″	36,39, 0,38,53,48,37,34,51,13			
exact	36,39, 0,38,53,48,37,35,26,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°39′ 0″	36,39, 0,38,53,48,37,35,26,10			
		1,39,29,41, 2,19,19,27		
2″	36,39, 2,18,23,29,39,54,45,37		2,40,46, 3,43	
		1,39,29,38,21,33,15,44		7,16
4″	36,39, 3,57,53, 8, 1,28, 1,21		2,40,46,10,59	
		1,39,29,35,40,47, 4,45		7,16
6″	36,39, 5,37,22,43,42,15, 6, 6		2,40,46,18,15	
		1,39,29,33, 0, 0,46,30		7,16
8″	36,39, 7,16,52,16,42,15,52,36		2,40,46,25,31	
		1,39,29,30,19,14,20,59		7,16
10″	36,39, 8,56,21,47, 1,30,13,35		2,40,46,32,47	
		1,39,29,27,38,27,48,12		7,16
12″	36,39,10,35,51,14,39,58, 1,47		2,40,46,40, 3	
		1,39,29,24,57,41, 8, 9		7,16
14″	36,39,12,15,20,39,37,39, 9,56		2,40,46,47,19	
		1,39,29,22,16,54,20,50		7,16
16″	36,39,13,54,50, 1,54,33,30,46		2,40,46,54,35	
		1,39,29,19,36, 7,26,15		7,16
18″	36,39,15,34,19,21,30,40,57, 1		2,40,47, 1,51	
		1,39,29,16,55,20,24,24		7,16
20″	36,39,17,13,48,38,26, 1,21,25		2,40,47, 9, 7	
		1,39,29,14,14,33,15,17		7,16
22″	36,39,18,53,17,52,40,34,36,42		2,40,47,16,23	
		1,39,29,11,33,45,58,54		7,16
24″	36,39,20,32,47, 4,14,20,35,36		2,40,47,23,39	
		1,39,29, 8,52,58,35,15		7,16
26″	36,39,22,12,16,13, 7,19,10,51		2,40,47,30,55	
		1,39,29, 6,12,11, 4,20		7,16
28″	36,39,23,51,45,19,19,30,15,11		2,40,47,38,11	
		1,39,29, 3,31,23,26, 9		7,16
30″	36,39,25,31,14,22,50,53,41,20		2,40,47,45,27	
		1,39,29, 0,50,35,40,42		7,16
32″	36,39,27,10,43,23,41,29,22, 2		2,40,47,52,43	
		1,39,28,58, 9,47,47,59		7,16
34″	36,39,28,50,12,21,51,17,10, 1		2,40,47,59,59	
		1,39,28,55,28,59,48, 0		7,16
36″	36,39,30,29,41,17,20,16,58, 1		2,40,48, 7,15	
		1,39,28,52,48,11,40,45		7,16
38″	36,39,32, 9,10,10, 8,28,38,46		2,40,48,14,31	
		1,39,28,50, 7,23,26,14		7,16
40″	36,39,33,48,39, 0,15,52, 5, 0		2,40,48,21,47	
		1,39,28,47,26,35, 4,27		7,16
42″	36,39,35,28, 7,47,42,27, 9,27		2,40,48,29, 3	
		1,39,28,44,45,46,35,24		7,16
44″	36,39,37, 7,36,32,28,13,44,51		2,40,48,36,19	
		1,39,28,42, 4,57,59, 5		7,16
46″	36,39,38,47, 5,14,33,11,43,56		2,40,48,43,35	
		1,39,28,39,24, 9,15,30		7,16
48″	36,39,40,26,33,53,57,20,59,26		2,40,48,50,51	
		1,39,28,36,43,20,24,39		7,16
50″	36,39,42, 6, 2,30,40,41,24, 5		2,40,48,58, 7	
		1,39,28,34, 2,31,26,32		7,16
52″	36,39,43,45,31, 4,43,12,50,37		2,40,49, 5,23	
		1,39,28,31,21,42,21, 9		7,16
54″	36,39,45,24,59,36, 4,55,11,46		2,40,49,12,39	
		1,39,28,28,40,53, 8,30		7,16
56″	36,39,47, 4,28, 4,45,48,20,16		2,40,49,19,55	
		1,39,28,26, 0, 3,48,35		7,16
58″	36,39,48,43,56,30,45,52, 8,51		2,40,49,27,11	
		1,39,28,23,19,14,21,24		
60″	36,39,50,23,24,54, 5, 6,30,15			
exact	36,39,50,23,24,54, 5, 6, 1,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°40′ 0″	36,39,50,23,24,54, 5, 6, 1,32			
		1,39,28,20,38,24,43,58		
2″	36,39,52, 2,53,14,43,30,45,30		2,40,49,41,55	
		1,39,28,17,57,35, 2, 3		7,16
4″	36,39,53,42,21,32,41, 5,47,33		2,40,49,49,11	
		1,39,28,15,16,45,12,52		7,16
6″	36,39,55,21,49,47,57,51, 0,25		2,40,49,56,27	
		1,39,28,12,35,55,16,25		7,16
8″	36,39,57, 1,18, 0,33,46,16,50		2,40,50, 3,43	
		1,39,28, 9,55, 5,12,42		7,16
10″	36,39,58,40,46,10,28,51,29,32		2,40,50,10,59	
		1,39,28, 7,14,15, 1,43		7,16
12″	36,40, 0,20,14,17,43, 6,31,15		2,40,50,18,15	
		1,39,28, 4,33,24,43,28		7,16
14″	36,40, 1,59,42,22,16,31,14,43		2,40,50,25,31	
		1,39,28, 1,52,34,17,57		7,16
16″	36,40, 3,39,10,24, 9, 5,32,40		2,40,50,32,47	
		1,39,27,59,11,43,45,10		7,16
18″	36,40, 5,18,38,23,20,49,17,50		2,40,50,40, 3	
		1,39,27,56,30,53, 5, 7		7,16
20″	36,40, 6,58, 6,19,51,42,22,57		2,40,50,47,19	
		1,39,27,53,50, 2,17,48		7,16
22″	36,40, 8,37,34,13,41,44,40,45		2,40,50,54,35	
		1,39,27,51, 9,11,23,13		7,16
24″	36,40,10,17, 2, 4,50,56, 3,58		2,40,51, 1,51	
		1,39,27,48,28,20,21,22		7,16
26″	36,40,11,56,29,53,19,16,25,20		2,40,51, 9, 7	
		1,39,27,45,47,29,12,15		7,16
28″	36,40,13,35,57,39, 6,45,37,35		2,40,51,16,23	
		1,39,27,43, 6,37,55,52		7,16
30″	36,40,15,15,25,22,13,23,33,27		2,40,51,23,39	
		1,39,27,40,25,46,32,13		7,16
32″	36,40,16,54,53, 2,39,10, 5,40		2,40,51,30,55	
		1,39,27,37,44,55, 1,18		7,16
34″	36,40,18,34,20,40,24, 5, 6,58		2,40,51,38,11	
		1,39,27,35, 4, 3,23, 7		7,16
36″	36,40,20,13,48,15,28, 8,30, 5		2,40,51,45,27	
		1,39,27,32,23,11,37,40		7,16
38″	36,40,21,53,15,47,51,20, 7,45		2,40,51,52,43	
		1,39,27,29,42,19,44,57		7,16
40″	36,40,23,32,43,17,33,39,52,42		2,40,51,59,59	
		1,39,27,27, 1,27,44,58		7,16
42″	36,40,25,12,10,44,35, 7,37,40		2,40,52, 7,15	
		1,39,27,24,20,35,37,43		7,16
44″	36,40,26,51,38, 8,55,43,15,23		2,40,52,14,31	
		1,39,27,21,39,43,23,12		7,16
46″	36,40,28,31, 5,30,35,26,38,35		2,40,52,21,47	
		1,39,27,18,58,51, 1,25		7,16
48″	36,40,30,10,32,49,34,17,40, 0		2,40,52,29, 3	
		1,39,27,16,17,58,32,22		7,16
50″	36,40,31,50, 0, 5,52,16,12,22		2,40,52,36,19	
		1,39,27,13,37, 5,56, 3		7,16
52″	36,40,33,29,27,19,29,22, 8,25		2,40,52,43,35	
		1,39,27,10,56,13,12,28		7,16
54″	36,40,35, 8,54,30,25,35,20,53		2,40,52,50,51	
		1,39,27, 8,15,20,21,37		7,16
56″	36,40,36,48,21,38,40,55,42,30		2,40,52,58, 7	
		1,39,27, 5,34,27,23,30		7,16
58″	36,40,38,27,48,44,15,23, 6, 0		2,40,53, 5,23	
		1,39,27, 2,53,34,18, 7		
60″	36,40,40, 7,15,47, 8,57,24, 7			
exact	36,40,40, 7,15,47, 8,57, 5,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°41′ 0″	36,40,40, 7,15,47, 8,57, 5,57			
		1,39,27, 0,12,41, 3,28		
2″	36,40,41,46,42,47,21,38, 9,25		2,40,53,20, 3	
		1,39,26,57,31,47,43,25		7,16
4″	36,40,43,26, 9,44,53,25,52,50		2,40,53,27,19	
		1,39,26,54,50,54,16, 6		7,16
6″	36,40,45, 5,36,39,44,20, 8,56		2,40,53,34,35	
		1,39,26,52,10, 0,41,31		7,16
8″	36,40,46,45, 3,31,54,20,50,27		2,40,53,41,51	
		1,39,26,49,29, 6,59,40		7,16
10″	36,40,48,24,30,21,23,27,50, 7		2,40,53,49, 7	
		1,39,26,46,48,13,10,33		7,16
12″	36,40,50, 3,57, 8,11,41, 0,40		2,40,53,56,23	
		1,39,26,44, 7,19,14,10		7,16
14″	36,40,51,43,23,52,19, 0,14,50		2,40,54, 3,39	
		1,39,26,41,26,25,10,31		7,16
16″	36,40,53,22,50,33,45,25,25,21		2,40,54,10,55	
		1,39,26,38,45,30,59,36		7,16
18″	36,40,55, 2,17,12,30,56,24,57		2,40,54,18,11	
		1,39,26,36, 4,36,41,25		7,16
20″	36,40,56,41,43,48,35,33, 6,22		2,40,54,25,27	
		1,39,26,33,23,42,15,58		7,16
22″	36,40,58,21,10,21,59,15,22,20		2,40,54,32,43	
		1,39,26,30,42,47,43,15		7,16
24″	36,41, 0, 0,36,52,42, 3, 5,35		2,40,54,39,59	
		1,39,26,28, 1,53, 3,16		7,16
26″	36,41, 1,40, 3,20,43,56, 8,51		2,40,54,47,15	
		1,39,26,25,20,58,16, 1		7,16
28″	36,41, 3,19,29,46, 4,54,24,52		2,40,54,54,31	
		1,39,26,22,40, 3,21,30		7,16
30″	36,41, 4,58,56, 8,44,57,46,22		2,40,55, 1,47	
		1,39,26,19,59, 8,19,43		7,16
32″	36,41, 6,38,22,28,44, 6, 6, 5		2,40,55, 9, 3	
		1,39,26,17,18,13,10,40		7,16
34″	36,41, 8,17,48,46, 2,19,16,45		2,40,55,16,19	
		1,39,26,14,37,17,54,21		7,16
36″	36,41, 9,57,15, 0,39,37,11, 6		2,40,55,23,35	
		1,39,26,11,56,22,30,46		7,16
38″	36,41,11,36,41,12,35,59,41,52		2,40,55,30,51	
		1,39,26, 9,15,26,59,55		7,16
40″	36,41,13,16, 7,21,51,26,41,47		2,40,55,38, 7	
		1,39,26, 6,34,31,21,48		7,16
42″	36,41,14,55,33,28,25,58, 3,35		2,40,55,45,23	
		1,39,26, 3,53,35,36,25		7,16
44″	36,41,16,34,59,32,19,33,40, 0		2,40,55,52,39	
		1,39,26, 1,12,39,43,46		7,16
46″	36,41,18,14,25,33,32,13,23,46		2,40,55,59,55	
		1,39,25,58,31,43,43,51		7,16
48″	36,41,19,53,51,32, 3,57, 7,37		2,40,56, 7,11	
		1,39,25,55,50,47,36,40		7,16
50″	36,41,21,33,17,27,54,44,44,17		2,40,56,14,27	
		1,39,25,53, 9,51,22,13		7,16
52″	36,41,23,12,43,21, 4,36, 6,30		2,40,56,21,43	
		1,39,25,50,28,55, 0,30		7,16
54″	36,41,24,52, 9,11,33,31, 7, 0		2,40,56,28,59	
		1,39,25,47,47,58,31,31		7,16
56″	36,41,26,31,34,59,21,29,38,31		2,40,56,36,15	
		1,39,25,45, 7, 1,55,16		7,16
58″	36,41,28,11, 0,44,28,31,33,47		2,40,56,43,31	
		1,39,25,42,26, 5,11,45		
60″	36,41,29,50,26,26,54,36,45,32			
exact	36,41,29,50,26,26,54,36,30, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°42′ 0″	36,41,29,50,26,26,54,36,30, 7			
		1,39,25,39,45, 8,19,25		
2″	36,41,31,29,52, 6,39,44,49,32		2,40,56,58, 9	
		1,39,25,37, 4,11,21,16		7,16
4″	36,41,33, 9,17,43,43,56,10,48		2,40,57, 5,25	
		1,39,25,34,23,14,15,51		7,16
6″	36,41,34,48,43,18, 7,10,26,39		2,40,57,12,41	
		1,39,25,31,42,17, 3,10		7,16
8″	36,41,36,28, 8,49,49,27,29,49		2,40,57,19,57	
		1,39,25,29, 1,19,43,13		7,16
10″	36,41,38, 7,34,18,50,47,13, 2		2,40,57,27,13	
		1,39,25,26,20,22,16, 0		7,16
12″	36,41,39,46,59,45,11, 9,29, 2		2,40,57,34,29	
		1,39,25,23,39,24,41,31		7,16
14″	36,41,41,26,25, 8,50,34,10,33		2,40,57,41,45	
		1,39,25,20,58,26,59,46		7,16
16″	36,41,43, 5,50,29,49, 1,10,19		2,40,57,49, 1	
		1,39,25,18,17,29,10,45		7,16
18″	36,41,44,45,15,48, 6,30,21, 4		2,40,57,56,17	
		1,39,25,15,36,31,14,28		7,16
20″	36,41,46,24,41, 3,43, 1,35,32		2,40,58, 3,33	
		1,39,25,12,55,33,10,55		7,16
22″	36,41,48, 4, 6,16,38,34,46,27		2,40,58,10,49	
		1,39,25,10,14,35, 0, 6		7,16
24″	36,41,49,43,31,26,53, 9,46,33		2,40,58,18, 5	
		1,39,25, 7,33,36,42, 1		7,16
26″	36,41,51,22,56,34,26,46,28,34		2,40,58,25,21	
		1,39,25, 4,52,38,16,40		7,16
28″	36,41,53, 2,21,39,19,24,45,14		2,40,58,32,37	
		1,39,25, 2,11,39,44, 3		7,16
30″	36,41,54,41,46,41,31, 4,29,17		2,40,58,39,53	
		1,39,24,59,30,41, 4,10		7,16
32″	36,41,56,21,11,41, 1,45,33,27		2,40,58,47, 9	
		1,39,24,56,49,42,17, 1		7,16
34″	36,41,58, 0,36,37,51,27,50,28		2,40,58,54,25	
		1,39,24,54, 8,43,22,36		7,16
36″	36,41,59,40, 1,32, 0,11,13, 4		2,40,59, 1,41	
		1,39,24,51,27,44,20,55		7,16
38″	36,42, 1,19,26,23,27,55,33,59		2,40,59, 8,57	
		1,39,24,48,46,45,11,58		7,16
40″	36,42, 2,58,51,12,14,40,45,57		2,40,59,16,13	
		1,39,24,46, 5,45,55,45		7,16
42″	36,42, 4,38,15,58,20,26,41,42		2,40,59,23,29	
		1,39,24,43,24,46,32,16		7,16
44″	36,42, 6,17,40,41,45,13,13,58		2,40,59,30,45	
		1,39,24,40,43,47, 1,31		7,16
46″	36,42, 7,57, 5,22,29, 0,15,29		2,40,59,38, 1	
		1,39,24,38, 2,47,23,30		7,16
48″	36,42, 9,36,30, 0,31,47,38,59		2,40,59,45,17	
		1,39,24,35,21,47,38,13		7,16
50″	36,42,11,15,54,35,53,35,17,12		2,40,59,52,33	
		1,39,24,32,40,47,45,40		7,16
52″	36,42,12,55,19, 8,34,23, 2,52		2,40,59,59,49	
		1,39,24,29,59,47,45,51		7,16
54″	36,42,14,34,43,38,34,10,48,43		2,41, 0, 7, 5	
		1,39,24,27,18,47,38,46		7,16
56″	36,42,16,14, 8, 5,52,58,27,29		2,41, 0,14,21	
		1,39,24,24,37,47,24,25		7,16
58″	36,42,17,53,32,30,30,45,51,54		2,41, 0,21,37	
		1,39,24,21,56,47, 2,48		
60″	36,42,19,32,56,52,27,32,54,42			
exact	36,42,19,32,56,52,27,32,48,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°43′ 0″	36,42,19,32,56,52,27,32,48,47			
		1,39,24,19,15,46,33,17		
2″	36,42,21,12,21,11,43,19,22, 4		2,41, 0,36,11	
		1,39,24,16,34,45,57, 6		7,16
4″	36,42,22,51,45,28,18, 5,19,10		2,41, 0,43,27	
		1,39,24,13,53,45,13,39		7,16
6″	36,42,24,31, 9,42,11,50,32,49		2,41, 0,50,43	
		1,39,24,11,12,44,22,56		7,16
8″	36,42,26,10,33,53,24,34,55,45		2,41, 0,57,59	
		1,39,24, 8,31,43,24,57		7,16
10″	36,42,27,49,58, 1,56,18,20,42		2,41, 1, 5,15	
		1,39,24, 5,50,42,19,42		7,16
12″	36,42,29,29,22, 7,47, 0,40,24		2,41, 1,12,31	
		1,39,24, 3, 9,41, 7,11		7,16
14″	36,42,31, 8,46,10,56,41,47,35		2,41, 1,19,47	
		1,39,24, 0,28,39,47,24		7,16
16″	36,42,32,48,10,11,25,21,34,59		2,41, 1,27, 3	
		1,39,23,57,47,38,20,21		7,16
18″	36,42,34,27,34, 9,12,59,55,20		2,41, 1,34,19	
		1,39,23,55, 6,36,46, 2		7,16
20″	36,42,36, 6,58, 4,19,36,41,22		2,41, 1,41,35	
		1,39,23,52,25,35, 4,27		7,16
22″	36,42,37,46,21,56,45,11,45,49		2,41, 1,48,51	
		1,39,23,49,44,33,15,36		7,16
24″	36,42,39,25,45,46,29,45, 1,25		2,41, 1,56, 7	
		1,39,23,47, 3,31,19,29		7,16
26″	36,42,41, 5, 9,33,33,16,20,54		2,41, 2, 3,23	
		1,39,23,44,22,29,16, 6		7,16
28″	36,42,42,44,33,17,55,45,37, 0		2,41, 2,10,39	
		1,39,23,41,41,27, 5,27		7,16
30″	36,42,44,23,56,59,37,12,42,27		2,41, 2,17,55	
		1,39,23,39, 0,24,47,32		7,16
32″	36,42,46, 3,20,38,37,37,29,59		2,41, 2,25,11	
		1,39,23,36,19,22,22,21		7,16
34″	36,42,47,42,44,14,56,59,52,20		2,41, 2,32,27	
		1,39,23,33,38,19,49,54		7,16
36″	36,42,49,22, 7,48,35,19,42,14		2,41, 2,39,43	
		1,39,23,30,57,17,10,11		7,16
38″	36,42,51, 1,31,19,32,36,52,25		2,41, 2,46,59	
		1,39,23,28,16,14,23,12		7,16
40″	36,42,52,40,54,47,48,51,15,37		2,41, 2,54,15	
		1,39,23,25,35,11,28,57		7,16
42″	36,42,54,20,18,13,24, 2,44,34		2,41, 3, 1,31	
		1,39,23,22,54, 8,27,26		7,16
44″	36,42,55,59,41,36,18,11,12, 0		2,41, 3, 8,47	
		1,39,23,20,13, 5,18,39		7,16
46″	36,42,57,39, 4,56,31,16,30,39		2,41, 3,16, 3	
		1,39,23,17,32, 2, 2,36		7,16
48″	36,42,59,18,28,14, 3,18,33,15		2,41, 3,23,19	
		1,39,23,14,50,58,39,17		7,16
50″	36,43, 0,57,51,28,54,17,12,32		2,41, 3,30,35	
		1,39,23,12, 9,55, 8,42		7,16
52″	36,43, 2,37,14,41, 4,12,21,14		2,41, 3,37,51	
		1,39,23, 9,28,51,30,51		7,16
54″	36,43, 4,16,37,50,33, 3,52, 5		2,41, 3,45, 7	
		1,39,23, 6,47,47,45,44		7,16
56″	36,43, 5,56, 0,57,20,51,37,49		2,41, 3,52,23	
		1,39,23, 4, 6,43,53,21		7,16
58″	36,43, 7,35,24, 1,27,35,31,10		2,41, 3,59,39	
		1,39,23, 1,25,39,53,42		
60″	36,43, 9,14,47, 2,53,15,24,52			
exact	36,43, 9,14,47, 2,53,15,20,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°44′ 0″	36,43, 9,14,47, 2,53,15,20,52			
		1,39,22,58,44,35,46,32		
2″	36,43,10,54,10, 1,37,51, 7,24		2,41, 4,14,11	
		1,39,22,56, 3,31,32,21		7,16
4″	36,43,12,33,32,57,41,22,39,45		2,41, 4,21,27	
		1,39,22,53,22,27,10,54		7,16
6″	36,43,14,12,55,51, 3,49,50,39		2,41, 4,28,43	
		1,39,22,50,41,22,42,11		7,16
8″	36,43,15,52,18,41,45,12,32,50		2,41, 4,35,59	
		1,39,22,48, 0,18, 6,12		7,16
10″	36,43,17,31,41,29,45,30,39, 2		2,41, 4,43,15	
		1,39,22,45,19,13,22,57		7,16
12″	36,43,19,11, 4,15, 4,44, 1,59		2,41, 4,50,31	
		1,39,22,42,38, 8,32,26		7,16
14″	36,43,20,50,26,57,42,52,34,25		2,41, 4,57,47	
		1,39,22,39,57, 3,34,39		7,16
16″	36,43,22,29,49,37,39,56, 9, 4		2,41, 5, 5, 3	
		1,39,22,37,15,58,29,36		7,16
18″	36,43,24, 9,12,14,55,54,38,40		2,41, 5,12,19	
		1,39,22,34,34,53,17,17		7,16
20″	36,43,25,48,34,49,30,47,55,57		2,41, 5,19,35	
		1,39,22,31,53,47,57,42		7,16
22″	36,43,27,27,57,21,24,35,53,39		2,41, 5,26,51	
		1,39,22,29,12,42,30,51		7,16
24″	36,43,29, 7,19,50,37,18,24,30		2,41, 5,34, 7	
		1,39,22,26,31,36,56,44		7,16
26″	36,43,30,46,42,17, 8,55,21,14		2,41, 5,41,23	
		1,39,22,23,50,31,15,21		7,16
28″	36,43,32,26, 4,40,59,26,36,35		2,41, 5,48,39	
		1,39,22,21, 9,25,26,42		7,16
30″	36,43,34, 5,27, 2, 8,52, 3,17		2,41, 5,55,55	
		1,39,22,18,28,19,30,47		7,16
32″	36,43,35,44,49,20,37,11,34, 4		2,41, 6, 3,11	
		1,39,22,15,47,13,27,36		7,16
34″	36,43,37,24,11,36,24,25, 1,40		2,41, 6,10,27	
		1,39,22,13, 6, 7,17, 9		7,16
36″	36,43,39, 3,33,49,30,32,18,49		2,41, 6,17,43	
		1,39,22,10,25, 0,59,26		7,16
38″	36,43,40,42,55,59,55,33,18,15		2,41, 6,24,59	
		1,39,22, 7,43,54,34,27		7,16
40″	36,43,42,22,18, 7,39,27,52,42		2,41, 6,32,15	
		1,39,22, 5, 2,48, 2,12		7,16
42″	36,43,44, 1,40,12,42,15,54,54		2,41, 6,39,31	
		1,39,22, 2,21,41,22,41		7,16
44″	36,43,45,41, 2,15, 3,57,17,35		2,41, 6,46,47	
		1,39,21,59,40,34,35,54		7,16
46″	36,43,47,20,24,14,44,31,53,29		2,41, 6,54, 3	
		1,39,21,56,59,27,41,51		7,16
48″	36,43,48,59,46,11,43,59,35,20		2,41, 7, 1,19	
		1,39,21,54,18,20,40,32		7,16
50″	36,43,50,39, 8, 6, 2,20,15,52		2,41, 7, 8,35	
		1,39,21,51,37,13,31,57		7,16
52″	36,43,52,18,29,57,39,33,47,49		2,41, 7,15,51	
		1,39,21,48,56, 6,16, 6		7,16
54″	36,43,53,57,51,46,35,40, 3,55		2,41, 7,23, 7	
		1,39,21,46,14,58,52,59		7,16
56″	36,43,55,37,13,32,50,38,56,54		2,41, 7,30,23	
		1,39,21,43,33,51,22,36		7,16
58″	36,43,57,16,35,16,24,30,19,30		2,41, 7,37,39	
		1,39,21,40,52,43,44,57		
60″	36,43,58,55,56,57,17,14, 4,27			
exact	36,43,58,55,56,57,17,14, 9,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°45′ 0″	36,43,58,55,56,57,17,14, 9,24			
		1,39,21,38,11,36, 0,39		
2″	36,44, 0,35,18,35,28,50,10, 3		2,41, 7,52, 8	
		1,39,21,35,30,28, 8,31		7,16
4″	36,44, 2,14,40,10,59,18,18,34		2,41, 7,59,24	
		1,39,21,32,49,20, 9, 7		7,16
6″	36,44, 3,54, 1,43,48,38,27,41		2,41, 8, 6,40	
		1,39,21,30, 8,12, 2,27		7,16
8″	36,44, 5,33,23,13,56,50,30, 8		2,41, 8,13,56	
		1,39,21,27,27, 3,48,31		7,16
10″	36,44, 7,12,44,41,23,54,18,39		2,41, 8,21,12	
		1,39,21,24,45,55,27,19		7,16
12″	36,44, 8,52, 6, 6, 9,49,45,58		2,41, 8,28,28	
		1,39,21,22, 4,46,58,51		7,16
14″	36,44,10,31,27,28,14,36,44,49		2,41, 8,35,44	
		1,39,21,19,23,38,23, 7		7,16
16″	36,44,12,10,48,47,38,15, 7,56		2,41, 8,43, 0	
		1,39,21,16,42,29,40, 7		7,16
18″	36,44,13,50,10, 4,20,44,48, 3		2,41, 8,50,16	
		1,39,21,14, 1,20,49,51		7,16
20″	36,44,15,29,31,18,22, 5,37,54		2,41, 8,57,32	
		1,39,21,11,20,11,52,19		7,16
22″	36,44,17, 8,52,29,42,17,30,13		2,41, 9, 4,48	
		1,39,21, 8,39, 2,47,31		7,16
24″	36,44,18,48,13,38,21,20,17,44		2,41, 9,12, 4	
		1,39,21, 5,57,53,35,27		7,16
26″	36,44,20,27,34,44,19,13,53,11		2,41, 9,19,20	
		1,39,21, 3,16,44,16, 7		7,16
28″	36,44,22, 6,55,47,35,58, 9,18		2,41, 9,26,36	
		1,39,21, 0,35,34,49,31		7,16
30″	36,44,23,46,16,48,11,32,58,49		2,41, 9,33,52	
		1,39,20,57,54,25,15,39		7,16
32″	36,44,25,25,37,46, 5,58,14,28		2,41, 9,41, 8	
		1,39,20,55,13,15,34,31		7,16
34″	36,44,27, 4,58,41,19,13,48,59		2,41, 9,48,24	
		1,39,20,52,32, 5,46, 7		7,16
36″	36,44,28,44,19,33,51,19,35, 6		2,41, 9,55,40	
		1,39,20,49,50,55,50,27		7,16
38″	36,44,30,23,40,23,42,15,25,33		2,41,10, 2,56	
		1,39,20,47, 9,45,47,31		7,16
40″	36,44,32, 3, 1,10,52, 1,13, 4		2,41,10,10,12	
		1,39,20,44,28,35,37,19		7,16
42″	36,44,33,42,21,55,20,36,50,23		2,41,10,17,28	
		1,39,20,41,47,25,19,51		7,16
44″	36,44,35,21,42,37, 8, 2,10,14		2,41,10,24,44	
		1,39,20,39, 6,14,55, 7		7,16
46″	36,44,37, 1, 3,16,14,17, 5,21		2,41,10,32, 0	
		1,39,20,36,25, 4,23, 7		7,16
48″	36,44,38,40,23,52,39,21,28,28		2,41,10,39,16	
		1,39,20,33,43,53,43,51		7,16
50″	36,44,40,19,44,26,23,15,12,19		2,41,10,46,32	
		1,39,20,31, 2,42,57,19		7,16
52″	36,44,41,59, 4,57,25,58, 9,38		2,41,10,53,48	
		1,39,20,28,21,32, 3,31		7,16
54″	36,44,43,38,25,25,47,30,13, 9		2,41,11, 1, 4	
		1,39,20,25,40,21, 2,27		7,16
56″	36,44,45,17,45,51,27,51,15,36		2,41,11, 8,20	
		1,39,20,22,59, 9,54, 7		7,16
58″	36,44,46,57, 6,14,27, 1, 9,43		2,41,11,15,36	
		1,39,20,20,17,58,38,31		
60″	36,44,48,36,26,34,44,59,48,14			
exact	36,44,48,36,26,34,45, 0, 1,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°46′ 0″	36,44,48,36,26,34,45, 0, 1,35			
		1,39,20,17,36,47,17, 6		
2″	36,44,50,15,46,52,21,47,18,41		2,41,11,30, 2	
		1,39,20,14,55,35,47, 4		7,16
4″	36,44,51,55, 7, 7,17,23, 5,45		2,41,11,37,18	
		1,39,20,12,14,24, 9,46		7,16
6″	36,44,53,34,27,19,31,47,15,31		2,41,11,44,34	
		1,39,20, 9,33,12,25,12		7,16
8″	36,44,55,13,47,29, 4,59,40,43		2,41,11,51,50	
		1,39,20, 6,52, 0,33,22		7,16
10″	36,44,56,53, 7,35,57, 0,14, 5		2,41,11,59, 6	
		1,39,20, 4,10,48,34,16		7,16
12″	36,44,58,32,27,40, 7,48,48,21		2,41,12, 6,22	
		1,39,20, 1,29,36,27,54		7,16
14″	36,45, 0,11,47,41,37,25,16,15		2,41,12,13,38	
		1,39,19,58,48,24,14,16		7,16
16″	36,45, 1,51, 7,40,25,49,30,31		2,41,12,20,54	
		1,39,19,56, 7,11,53,22		7,16
18″	36,45, 3,30,27,36,33, 1,23,53		2,41,12,28,10	
		1,39,19,53,25,59,25,12		7,16
20″	36,45, 5, 9,47,29,59, 0,49, 5		2,41,12,35,26	
		1,39,19,50,44,46,49,46		7,16
22″	36,45, 6,49, 7,20,43,47,38,51		2,41,12,42,42	
		1,39,19,48, 3,34, 7, 4		7,16
24″	36,45, 8,28,27, 8,47,21,45,55		2,41,12,49,58	
		1,39,19,45,22,21,17, 6		7,16
26″	36,45,10, 7,46,54, 9,43, 3, 1		2,41,12,57,14	
		1,39,19,42,41, 8,19,52		7,16
28″	36,45,11,47, 6,36,50,51,22,53		2,41,13, 4,30	
		1,39,19,39,59,55,15,22		7,16
30″	36,45,13,26,26,16,50,46,38,15		2,41,13,11,46	
		1,39,19,37,18,42, 3,36		7,16
32″	36,45,15, 5,45,54, 9,28,41,51		2,41,13,19, 2	
		1,39,19,34,37,28,44,34		7,16
34″	36,45,16,45, 5,28,46,57,26,25		2,41,13,26,18	
		1,39,19,31,56,15,18,16		7,16
36″	36,45,18,24,25, 0,43,12,44,41		2,41,13,33,34	
		1,39,19,29,15, 1,44,42		7,16
38″	36,45,20, 3,44,29,58,14,29,23		2,41,13,40,50	
		1,39,19,26,33,48, 3,52		7,16
40″	36,45,21,43, 3,56,32, 2,33,15		2,41,13,48, 6	
		1,39,19,23,52,34,15,46		7,16
42″	36,45,23,22,23,20,24,36,49, 1		2,41,13,55,22	
		1,39,19,21,11,20,20,24		7,16
44″	36,45,25, 1,42,41,35,57, 9,25		2,41,14, 2,38	
		1,39,19,18,30, 6,17,46		7,16
46″	36,45,26,41, 2, 0, 6, 3,27,11		2,41,14, 9,54	
		1,39,19,15,48,52, 7,52		7,16
48″	36,45,28,20,21,15,54,55,35, 3		2,41,14,17,10	
		1,39,19,13, 7,37,50,42		7,16
50″	36,45,29,59,40,29, 2,33,25,45		2,41,14,24,26	
		1,39,19,10,26,23,26,16		7,16
52″	36,45,31,38,59,39,28,56,52, 1		2,41,14,31,42	
		1,39,19, 7,45, 8,54,34		7,16
54″	36,45,33,18,18,47,14, 5,46,35		2,41,14,38,58	
		1,39,19, 5, 3,54,15,36		7,16
56″	36,45,34,57,37,52,18, 0, 2,11		2,41,14,46,14	
		1,39,19, 2,22,39,29,22		7,16
58″	36,45,36,36,56,54,40,39,31,33		2,41,14,53,30	
		1,39,18,59,41,24,35,52		
60″	36,45,38,16,15,54,22, 4, 7,25			
exact	36,45,38,16,15,54,22, 4,28,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°47′ 0″	36,45,38,16,15,54,22, 4,28,48			
		1,39,18,57, 0, 9,37,21		
2″	36,45,39,55,34,51,22,14, 6, 9		2,41,15, 7,53	
		1,39,18,54,18,54,29,28		7,16
4″	36,45,41,34,53,45,41, 8,35,37		2,41,15,15, 9	
		1,39,18,51,37,39,14,19		7,16
6″	36,45,43,14,12,37,18,47,49,56		2,41,15,22,25	
		1,39,18,48,56,23,51,54		7,16
8″	36,45,44,53,31,26,15,11,41,50		2,41,15,29,41	
		1,39,18,46,15, 8,22,13		7,16
10″	36,45,46,32,50,12,30,20, 4, 3		2,41,15,36,57	
		1,39,18,43,33,52,45,16		7,16
12″	36,45,48,12, 8,56, 4,12,49,19		2,41,15,44,13	
		1,39,18,40,52,37, 1, 3		7,16
14″	36,45,49,51,27,36,56,49,50,22		2,41,15,51,29	
		1,39,18,38,11,21, 9,34		7,16
16″	36,45,51,30,46,15, 8,10,59,56		2,41,15,58,45	
		1,39,18,35,30, 5,10,49		7,16
18″	36,45,53,10, 4,50,38,16,10,45		2,41,16, 6, 1	
		1,39,18,32,48,49, 4,48		7,16
20″	36,45,54,49,23,23,27, 5,15,33		2,41,16,13,17	
		1,39,18,30, 7,32,51,31		7,16
22″	36,45,56,28,41,53,34,38, 7, 4		2,41,16,20,33	
		1,39,18,27,26,16,30,58		7,16
24″	36,45,58, 8, 0,21, 0,54,38, 2		2,41,16,27,49	
		1,39,18,24,45, 0, 3, 9		7,16
26″	36,45,59,47,18,45,45,54,41,11		2,41,16,35, 5	
		1,39,18,22, 3,43,28, 4		7,16
28″	36,46, 1,26,37, 7,49,38, 9,15		2,41,16,42,21	
		1,39,18,19,22,26,45,43		7,16
30″	36,46, 3, 5,55,27,12, 4,54,58		2,41,16,49,37	
		1,39,18,16,41, 9,56, 6		7,16
32″	36,46, 4,45,13,43,53,14,51, 4		2,41,16,56,53	
		1,39,18,13,59,52,59,13		7,16
34″	36,46, 6,24,31,57,53, 7,50,17		2,41,17, 4, 9	
		1,39,18,11,18,35,55, 4		7,16
36″	36,46, 8, 3,50, 9,11,43,45,21		2,41,17,11,25	
		1,39,18, 8,37,18,43,39		7,16
38″	36,46, 9,43, 8,17,49, 2,29, 0		2,41,17,18,41	
		1,39,18, 5,56, 1,24,58		7,16
40″	36,46,11,22,26,23,45, 3,53,58		2,41,17,25,57	
		1,39,18, 3,14,43,59, 1		7,16
42″	36,46,13, 1,44,26,59,47,52,59		2,41,17,33,13	
		1,39,18, 0,33,26,25,48		7,16
44″	36,46,14,41, 2,27,33,14,18,47		2,41,17,40,29	
		1,39,17,57,52, 8,45,19		7,16
46″	36,46,16,20,20,25,25,23, 4, 6		2,41,17,47,45	
		1,39,17,55,10,50,57,34		7,16
48″	36,46,17,59,38,20,36,14, 1,40		2,41,17,55, 1	
		1,39,17,52,29,33, 2,33		7,16
50″	36,46,19,38,56,13, 5,47, 4,13		2,41,18, 2,17	
		1,39,17,49,48,15, 0,16		7,16
52″	36,46,21,18,14, 2,54, 2, 4,29		2,41,18, 9,33	
		1,39,17,47, 6,56,50,43		7,16
54″	36,46,22,57,31,50, 0,58,55,12		2,41,18,16,49	
		1,39,17,44,25,38,33,54		7,16
56″	36,46,24,36,49,34,26,37,29, 6		2,41,18,24, 5	
		1,39,17,41,44,20, 9,49		7,16
58″	36,46,26,16, 7,16,10,57,38,55		2,41,18,31,21	
		1,39,17,39, 3, 1,38,28		
60″	36,46,27,55,24,55,13,59,17,23			
exact	36,46,27,55,24,55,13,59,46,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°48′ 0″	36,46,27,55,24,55,13,59,46,36			
		1,39,17,36,21,43, 2,54		
2″	36,46,29,34,42,31,35,42,49,30		2,41,18,45,40	
		1,39,17,33,40,24,17,14		7,16
4″	36,46,31,14, 0, 5,16, 7, 6,44		2,41,18,52,56	
		1,39,17,30,59, 5,24,18		7,16
6″	36,46,32,53,17,36,15,12,31, 2		2,41,19, 0,12	
		1,39,17,28,17,46,24, 6		7,16
8″	36,46,34,32,35, 4,32,58,55, 8		2,41,19, 7,28	
		1,39,17,25,36,27,16,38		7,16
10″	36,46,36,11,52,30, 9,26,11,46		2,41,19,14,44	
		1,39,17,22,55, 8, 1,54		7,16
12″	36,46,37,51, 9,53, 4,34,13,40		2,41,19,22, 0	
		1,39,17,20,13,48,39,54		7,16
14″	36,46,39,30,27,13,18,22,53,34		2,41,19,29,16	
		1,39,17,17,32,29,10,38		7,16
16″	36,46,41, 9,44,30,50,52, 4,12		2,41,19,36,32	
		1,39,17,14,51, 9,34, 6		7,16
18″	36,46,42,49, 1,45,42, 1,38,18		2,41,19,43,48	
		1,39,17,12, 9,49,50,18		7,16
20″	36,46,44,28,18,57,51,51,28,36		2,41,19,51, 4	
		1,39,17, 9,28,29,59,14		7,16
22″	36,46,46, 7,36, 7,20,21,27,50		2,41,19,58,20	
		1,39,17, 6,47,10, 0,54		7,16
24″	36,46,47,46,53,14, 7,31,28,44		2,41,20, 5,36	
		1,39,17, 4, 5,49,55,18		7,16
26″	36,46,49,26,10,18,13,21,24, 2		2,41,20,12,52	
		1,39,17, 1,24,29,42,26		7,16
28″	36,46,51, 5,27,19,37,51, 6,28		2,41,20,20, 8	
		1,39,16,58,43, 9,22,18		7,16
30″	36,46,52,44,44,18,21, 0,28,46		2,41,20,27,24	
		1,39,16,56, 1,48,54,54		7,16
32″	36,46,54,24, 1,14,22,49,23,40		2,41,20,34,40	
		1,39,16,53,20,28,20,14		7,16
34″	36,46,56, 3,18, 7,43,17,43,54		2,41,20,41,56	
		1,39,16,50,39, 7,38,18		7,16
36″	36,46,57,42,34,58,22,25,22,12		2,41,20,49,12	
		1,39,16,47,57,46,49, 6		7,16
38″	36,46,59,21,51,46,20,12,11,18		2,41,20,56,28	
		1,39,16,45,16,25,52,38		7,16
40″	36,47, 1, 1, 8,31,36,38, 3,56		2,41,21, 3,44	
		1,39,16,42,35, 4,48,54		7,16
42″	36,47, 2,40,25,14,11,42,52,50		2,41,21,11, 0	
		1,39,16,39,53,43,37,54		7,16
44″	36,47, 4,19,41,54, 5,26,30,44		2,41,21,18,16	
		1,39,16,37,12,22,19,38		7,16
46″	36,47, 5,58,58,31,17,48,50,22		2,41,21,25,32	
		1,39,16,34,31, 0,54, 6		7,16
48″	36,47, 7,38,15, 5,48,49,44,28		2,41,21,32,48	
		1,39,16,31,49,39,21,18		7,16
50″	36,47, 9,17,31,37,38,29, 5,46		2,41,21,40, 4	
		1,39,16,29, 8,17,41,14		7,16
52″	36,47,10,56,48, 6,46,46,47, 0		2,41,21,47,20	
		1,39,16,26,26,55,53,54		7,16
54″	36,47,12,36, 4,33,13,42,40,54		2,41,21,54,36	
		1,39,16,23,45,33,59,18		7,16
56″	36,47,14,15,20,56,59,16,40,12		2,41,22, 1,52	
		1,39,16,21, 4,11,57,26		7,16
58″	36,47,15,54,37,18, 3,28,37,38		2,41,22, 9, 8	
		1,39,16,18,22,49,48,18		
60″	36,47,17,33,53,36,26,18,25,56			
exact	36,47,17,33,53,36,26,18,54,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°49′ 0″	36,47,17,33,53,36,26,18,54,46			
		1,39,16,15,41,27,35,11		
2″	36,47,19,13, 9,52, 7,46,29,57		2,41,22,23,25	
		1,39,16,13, 0, 5,11,46		7,15
4″	36,47,20,52,26, 5, 7,51,41,43		2,41,22,30,40	
		1,39,16,10,18,42,41, 6		7,15
6″	36,47,22,31,42,15,26,34,22,49		2,41,22,37,55	
		1,39,16, 7,37,20, 3,11		7,15
8″	36,47,24,10,58,23, 3,54,26, 0		2,41,22,45,10	
		1,39,16, 4,55,57,18, 1		7,15
10″	36,47,25,50,14,27,59,51,44, 1		2,41,22,52,25	
		1,39,16, 2,14,34,25,36		7,15
12″	36,47,27,29,30,30,14,26, 9,37		2,41,22,59,40	
		1,39,15,59,33,11,25,56		7,15
14″	36,47,29, 8,46,29,47,37,35,33		2,41,23, 6,55	
		1,39,15,56,51,48,19, 1		7,15
16″	36,47,30,48, 2,26,39,25,54,34		2,41,23,14,10	
		1,39,15,54,10,25, 4,51		7,15
18″	36,47,32,27,18,20,49,50,59,25		2,41,23,21,25	
		1,39,15,51,29, 1,43,26		7,15
20″	36,47,34, 6,34,12,18,52,42,51		2,41,23,28,40	
		1,39,15,48,47,38,14,46		7,15
22″	36,47,35,45,50, 1, 6,30,57,37		2,41,23,35,55	
		1,39,15,46, 6,14,38,51		7,15
24″	36,47,37,25, 5,47,12,45,36,28		2,41,23,43,10	
		1,39,15,43,24,50,55,41		7,15
26″	36,47,39, 4,21,30,37,36,32, 9		2,41,23,50,25	
		1,39,15,40,43,27, 5,16		7,15
28″	36,47,40,43,37,11,21, 3,37,25		2,41,23,57,40	
		1,39,15,38, 2, 3, 7,36		7,15
30″	36,47,42,22,52,49,23, 6,45, 1		2,41,24, 4,55	
		1,39,15,35,20,39, 2,41		7,15
32″	36,47,44, 2, 8,24,43,45,47,42		2,41,24,12,10	
		1,39,15,32,39,14,50,31		7,15
34″	36,47,45,41,23,57,23, 0,38,13		2,41,24,19,25	
		1,39,15,29,57,50,31, 6		7,15
36″	36,47,47,20,39,27,20,51, 9,19		2,41,24,26,40	
		1,39,15,27,16,26, 4,26		7,15
38″	36,47,48,59,54,54,37,17,13,45		2,41,24,33,55	
		1,39,15,24,35, 1,30,31		7,15
40″	36,47,50,39,10,19,12,18,44,16		2,41,24,41,10	
		1,39,15,21,53,36,49,21		7,15
42″	36,47,52,18,25,41, 5,55,33,37		2,41,24,48,25	
		1,39,15,19,12,12, 0,56		7,15
44″	36,47,53,57,41, 0,18, 7,34,33		2,41,24,55,40	
		1,39,15,16,30,47, 5,16		7,15
46″	36,47,55,36,56,16,48,54,39,49		2,41,25, 2,55	
		1,39,15,13,49,22, 2,21		7,15
48″	36,47,57,16,11,30,38,16,42,10		2,41,25,10,10	
		1,39,15,11, 7,56,52,11		7,15
50″	36,47,58,55,26,41,46,13,34,21		2,41,25,17,25	
		1,39,15, 8,26,31,34,46		7,15
52″	36,48, 0,34,41,50,12,45, 9, 7		2,41,25,24,40	
		1,39,15, 5,45, 6,10, 6		7,15
54″	36,48, 2,13,56,55,57,51,19,13		2,41,25,31,55	
		1,39,15, 3, 3,40,38,11		7,15
56″	36,48, 3,53,11,59, 1,31,57,24		2,41,25,39,10	
		1,39,15, 0,22,14,59, 1		7,15
58″	36,48, 5,32,26,59,23,46,56,25		2,41,25,46,25	
		1,39,14,57,40,49,12,36		
60″	36,48, 7,11,41,57, 4,36, 9, 1			
exact	36,48, 7,11,41,57, 4,35,37,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°50′ 0″	36,48, 7,11,41,57, 4,35,37,17			
		1,39,14,54,59,23,15,42		
2″	36,48, 8,50,56,52, 3,58,52,59		2,41,26, 1, 7	
		1,39,14,52,17,57,14,35		7,15
4″	36,48,10,30,11,44,21,56, 7,34		2,41,26, 8,22	
		1,39,14,49,36,31, 6,13		7,15
6″	36,48,12, 9,26,33,58,27,13,47		2,41,26,15,37	
		1,39,14,46,55, 4,50,36		7,15
8″	36,48,13,48,41,20,53,32, 4,23		2,41,26,22,52	
		1,39,14,44,13,38,27,44		7,15
10″	36,48,15,27,56, 5, 7,10,32, 7		2,41,26,30, 7	
		1,39,14,41,32,11,57,37		7,15
12″	36,48,17, 7,10,46,39,22,29,44		2,41,26,37,22	
		1,39,14,38,50,45,20,15		7,15
14″	36,48,18,46,25,25,30, 7,49,59		2,41,26,44,37	
		1,39,14,36, 9,18,35,38		7,15
16″	36,48,20,25,40, 1,39,26,25,37		2,41,26,51,52	
		1,39,14,33,27,51,43,46		7,15
18″	36,48,22, 4,54,35, 7,18, 9,23		2,41,26,59, 7	
		1,39,14,30,46,24,44,39		7,15
20″	36,48,23,44, 9, 5,53,42,54, 2		2,41,27, 6,22	
		1,39,14,28, 4,57,38,17		7,15
22″	36,48,25,23,23,33,58,40,32,19		2,41,27,13,37	
		1,39,14,25,23,30,24,40		7,15
24″	36,48,27, 2,37,59,22,10,56,59		2,41,27,20,52	
		1,39,14,22,42, 3, 3,48		7,15
26″	36,48,28,41,52,22, 4,14, 0,47		2,41,27,28, 7	
		1,39,14,20, 0,35,35,41		7,15
28″	36,48,30,21, 6,42, 4,49,36,28		2,41,27,35,22	
		1,39,14,17,19, 8, 0,19		7,15
30″	36,48,32, 0,20,59,23,57,36,47		2,41,27,42,37	
		1,39,14,14,37,40,17,42		7,15
32″	36,48,33,39,35,14, 1,37,54,29		2,41,27,49,52	
		1,39,14,11,56,12,27,50		7,15
34″	36,48,35,18,49,25,57,50,22,19		2,41,27,57, 7	
		1,39,14, 9,14,44,30,43		7,15
36″	36,48,36,58, 3,35,12,34,53, 2		2,41,28, 4,22	
		1,39,14, 6,33,16,26,21		7,15
38″	36,48,38,37,17,41,45,51,19,23		2,41,28,11,37	
		1,39,14, 3,51,48,14,44		7,15
40″	36,48,40,16,31,45,37,39,34, 7		2,41,28,18,52	
		1,39,14, 1,10,19,55,52		7,15
42″	36,48,41,55,45,46,47,59,29,59		2,41,28,26, 7	
		1,39,13,58,28,51,29,45		7,15
44″	36,48,43,34,59,45,16,50,59,44		2,41,28,33,22	
		1,39,13,55,47,22,56,23		7,15
46″	36,48,45,14,13,41, 4,13,56, 7		2,41,28,40,37	
		1,39,13,53, 5,54,15,46		7,15
48″	36,48,46,53,27,34,10, 8,11,53		2,41,28,47,52	
		1,39,13,50,24,25,27,54		7,15
50″	36,48,48,32,41,24,34,33,39,47		2,41,28,55, 7	
		1,39,13,47,42,56,32,47		7,15
52″	36,48,50,11,55,12,17,30,12,34		2,41,29, 2,22	
		1,39,13,45, 1,27,30,25		7,15
54″	36,48,51,51, 8,57,18,57,42,59		2,41,29, 9,37	
		1,39,13,42,19,58,20,48		7,15
56″	36,48,53,30,22,39,38,56, 3,47		2,41,29,16,52	
		1,39,13,39,38,29, 3,56		7,15
58″	36,48,55, 9,36,19,17,25, 7,43		2,41,29,24, 7	
		1,39,13,36,56,59,39,49		
60″	36,48,56,48,49,56,14,24,47,32			
exact	36,48,56,48,49,56,14,24,22,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°51′ 0″	36,48,56,48,49,56,14,24,22,24			
		1,39,13,34,15,30, 5,56		
2″	36,48,58,28, 3,30,29,54,28,20		2,41,29,38,46	
		1,39,13,31,34, 0,27,10		7,15
4″	36,49, 0, 7,17, 2, 3,54,55,30		2,41,29,46, 1	
		1,39,13,28,52,30,41, 9		7,15
6″	36,49, 1,46,30,30,56,25,36,39		2,41,29,53,16	
		1,39,13,26,11, 0,47,53		7,15
8″	36,49, 3,25,43,57, 7,26,24,32		2,41,30, 0,31	
		1,39,13,23,29,30,47,22		7,15
10″	36,49, 5, 4,57,20,36,57,11,54		2,41,30, 7,46	
		1,39,13,20,48, 0,39,36		7,15
12″	36,49, 6,44,10,41,24,57,51,30		2,41,30,15, 1	
		1,39,13,18, 6,30,24,35		7,15
14″	36,49, 8,23,23,59,31,28,16, 5		2,41,30,22,16	
		1,39,13,15,25, 0, 2,19		7,15
16″	36,49,10, 2,37,14,56,28,18,24		2,41,30,29,31	
		1,39,13,12,43,29,32,48		7,15
18″	36,49,11,41,50,27,39,57,51,12		2,41,30,36,46	
		1,39,13,10, 1,58,56, 2		7,15
20″	36,49,13,21, 3,37,41,56,47,14		2,41,30,44, 1	
		1,39,13, 7,20,28,12, 1		7,15
22″	36,49,15, 0,16,45, 2,24,59,15		2,41,30,51,16	
		1,39,13, 4,38,57,20,45		7,15
24″	36,49,16,39,29,49,41,22,20, 0		2,41,30,58,31	
		1,39,13, 1,57,26,22,14		7,15
26″	36,49,18,18,42,51,38,48,42,14		2,41,31, 5,46	
		1,39,12,59,15,55,16,28		7,15
28″	36,49,19,57,55,50,54,43,58,42		2,41,31,13, 1	
		1,39,12,56,34,24, 3,27		7,15
30″	36,49,21,37, 8,47,29, 8, 2, 9		2,41,31,20,16	
		1,39,12,53,52,52,43,11		7,15
32″	36,49,23,16,21,41,22, 0,45,20		2,41,31,27,31	
		1,39,12,51,11,21,15,40		7,15
34″	36,49,24,55,34,32,33,22, 1, 0		2,41,31,34,46	
		1,39,12,48,29,49,40,54		7,15
36″	36,49,26,34,47,21, 3,11,41,54		2,41,31,42, 1	
		1,39,12,45,48,17,58,53		7,15
38″	36,49,28,14, 0, 6,51,29,40,47		2,41,31,49,16	
		1,39,12,43, 6,46, 9,37		7,15
40″	36,49,29,53,12,49,58,15,50,24		2,41,31,56,31	
		1,39,12,40,25,14,13, 6		7,15
42″	36,49,31,32,25,30,23,30, 3,30		2,41,32, 3,46	
		1,39,12,37,43,42, 9,20		7,15
44″	36,49,33,11,38, 8, 7,12,12,50		2,41,32,11, 1	
		1,39,12,35, 2, 9,58,19		7,15
46″	36,49,34,50,50,43, 9,22,11, 9		2,41,32,18,16	
		1,39,12,32,20,37,40, 3		7,15
48″	36,49,36,30, 3,15,29,59,51,12		2,41,32,25,31	
		1,39,12,29,39, 5,14,32		7,15
50″	36,49,38, 9,15,45, 9, 5, 5,44		2,41,32,32,46	
		1,39,12,26,57,32,41,46		7,15
52″	36,49,39,48,28,12, 6,37,47,30		2,41,32,40, 1	
		1,39,12,24,16, 0, 1,45		7,15
54″	36,49,41,27,40,36,22,37,49,15		2,41,32,47,16	
		1,39,12,21,34,27,14,29		7,15
56″	36,49,43, 6,52,57,57, 5, 3,44		2,41,32,54,31	
		1,39,12,18,52,54,19,58		7,15
58″	36,49,44,46, 5,16,49,59,23,42		2,41,33, 1,46	
		1,39,12,16,11,21,18,12		
60″	36,49,46,25,17,33, 1,20,41,54			
exact	36,49,46,25,17,33, 1,20,22,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°52′ 0″	36,49,46,25,17,33, 1,20,22,37			
		1,39,12,13,29,48, 7,20		
2″	36,49,48, 4,29,46,31, 8,29,57		2,41,33,16,23	
		1,39,12,10,48,14,50,57		7,15
4″	36,49,49,43,41,57,19,23,20,54		2,41,33,23,38	
		1,39,12, 8, 6,41,27,19		7,15
6″	36,49,51,22,54, 5,26, 4,48,13		2,41,33,30,53	
		1,39,12, 5,25, 7,56,26		7,15
8″	36,49,53, 2, 6,10,51,12,44,39		2,41,33,38, 8	
		1,39,12, 2,43,34,18,18		7,15
10″	36,49,54,41,18,13,34,47, 2,57		2,41,33,45,23	
		1,39,12, 0, 2, 0,32,55		7,15
12″	36,49,56,20,30,13,36,47,35,52		2,41,33,52,38	
		1,39,11,57,20,26,40,17		7,15
14″	36,49,57,59,42,10,57,14,16, 9		2,41,33,59,53	
		1,39,11,54,38,52,40,24		7,15
16″	36,49,59,38,54, 5,36, 6,56,33		2,41,34, 7, 8	
		1,39,11,51,57,18,33,16		7,15
18″	36,50, 1,18, 5,57,33,25,29,49		2,41,34,14,23	
		1,39,11,49,15,44,18,53		7,15
20″	36,50, 2,57,17,46,49, 9,48,42		2,41,34,21,38	
		1,39,11,46,34, 9,57,15		7,15
22″	36,50, 4,36,29,33,23,19,45,57		2,41,34,28,53	
		1,39,11,43,52,35,28,22		7,15
24″	36,50, 6,15,41,17,15,55,14,19		2,41,34,36, 8	
		1,39,11,41,11, 0,52,14		7,15
26″	36,50, 7,54,52,58,26,56, 6,33		2,41,34,43,23	
		1,39,11,38,29,26, 8,51		7,15
28″	36,50, 9,34, 4,36,56,22,15,24		2,41,34,50,38	
		1,39,11,35,47,51,18,13		7,15
30″	36,50,11,13,16,12,44,13,33,37		2,41,34,57,53	
		1,39,11,33, 6,16,20,20		7,15
32″	36,50,12,52,27,45,50,29,53,57		2,41,35, 5, 8	
		1,39,11,30,24,41,15,12		7,15
34″	36,50,14,31,39,16,15,11, 9, 9		2,41,35,12,23	
		1,39,11,27,43, 6, 2,49		7,15
36″	36,50,16,10,50,43,58,17,11,58		2,41,35,19,38	
		1,39,11,25, 1,30,43,11		7,15
38″	36,50,17,50, 2, 8,59,47,55, 9		2,41,35,26,53	
		1,39,11,22,19,55,16,18		7,15
40″	36,50,19,29,13,31,19,43,11,27		2,41,35,34, 8	
		1,39,11,19,38,19,42,10		7,15
42″	36,50,21, 8,24,50,58, 2,53,37		2,41,35,41,23	
		1,39,11,16,56,44, 0,47		7,15
44″	36,50,22,47,36, 7,54,46,54,24		2,41,35,48,38	
		1,39,11,14,15, 8,12, 9		7,15
46″	36,50,24,26,47,22, 9,55, 6,33		2,41,35,55,53	
		1,39,11,11,33,32,16,16		7,15
48″	36,50,26, 5,58,33,43,27,22,49		2,41,36, 3, 8	
		1,39,11, 8,51,56,13, 8		7,15
50″	36,50,27,45, 9,42,35,23,35,57		2,41,36,10,23	
		1,39,11, 6,10,20, 2,45		7,15
52″	36,50,29,24,20,48,45,43,38,42		2,41,36,17,38	
		1,39,11, 3,28,43,45, 7		7,15
54″	36,50,31, 3,31,52,14,27,23,49		2,41,36,24,53	
		1,39,11, 0,47, 7,20,14		7,15
56″	36,50,32,42,42,53, 1,34,44, 3		2,41,36,32, 8	
		1,39,10,58, 5,30,48, 6		7,15
58″	36,50,34,21,53,51, 7, 5,32, 9		2,41,36,39,23	
		1,39,10,55,23,54, 8,43		
60″	36,50,36, 1, 4,46,30,59,40,52			
exact	36,50,36, 1, 4,46,30,59,34,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°53′ 0″	36,50,36, 1, 4,46,30,59,34,42			
		1,39,10,52,42,17,21,23		
2″	36,50,37,40,15,39,13,16,56, 5		2,41,36,53,56	
		1,39,10,50, 0,40,27,27		7,15
4″	36,50,39,19,26,29,13,57,23,32		2,41,37, 1,11	
		1,39,10,47,19, 3,26,16		7,15
6″	36,50,40,58,37,16,33, 0,49,48		2,41,37, 8,26	
		1,39,10,44,37,26,17,50		7,15
8″	36,50,42,37,48, 1,10,27, 7,38		2,41,37,15,41	
		1,39,10,41,55,49, 2, 9		7,15
10″	36,50,44,16,58,43, 6,16, 9,47		2,41,37,22,56	
		1,39,10,39,14,11,39,13		7,15
12″	36,50,45,56, 9,22,20,27,49, 0		2,41,37,30,11	
		1,39,10,36,32,34, 9, 2		7,15
14″	36,50,47,35,19,58,53, 1,58, 2		2,41,37,37,26	
		1,39,10,33,50,56,31,36		7,15
16″	36,50,49,14,30,32,43,58,29,38		2,41,37,44,41	
		1,39,10,31, 9,18,46,55		7,15
18″	36,50,50,53,41, 3,53,17,16,33		2,41,37,51,56	
		1,39,10,28,27,40,54,59		7,15
20″	36,50,52,32,51,32,20,58,11,32		2,41,37,59,11	
		1,39,10,25,46, 2,55,48		7,15
22″	36,50,54,12, 1,58, 7, 1, 7,20		2,41,38, 6,26	
		1,39,10,23, 4,24,49,22		7,15
24″	36,50,55,51,12,21,11,25,56,42		2,41,38,13,41	
		1,39,10,20,22,46,35,41		7,15
26″	36,50,57,30,22,41,34,12,32,23		2,41,38,20,56	
		1,39,10,17,41, 8,14,45		7,15
28″	36,50,59, 9,32,59,15,20,47, 8		2,41,38,28,11	
		1,39,10,14,59,29,46,34		7,15
30″	36,51, 0,48,43,14,14,50,33,42		2,41,38,35,26	
		1,39,10,12,17,51,11, 8		7,15
32″	36,51, 2,27,53,26,32,41,44,50		2,41,38,42,41	
		1,39,10, 9,36,12,28,27		7,15
34″	36,51, 4, 7, 3,36, 8,54,13,17		2,41,38,49,56	
		1,39,10, 6,54,33,38,31		7,15
36″	36,51, 5,46,13,43, 3,27,51,48		2,41,38,57,11	
		1,39,10, 4,12,54,41,20		7,15
38″	36,51, 7,25,23,47,16,22,33, 8		2,41,39, 4,26	
		1,39,10, 1,31,15,36,54		7,15
40″	36,51, 9, 4,33,48,47,38,10, 2		2,41,39,11,41	
		1,39, 9,58,49,36,25,13		7,15
42″	36,51,10,43,43,47,37,14,35,15		2,41,39,18,56	
		1,39, 9,56, 7,57, 6,17		7,15
44″	36,51,12,22,53,43,45,11,41,32		2,41,39,26,11	
		1,39, 9,53,26,17,40, 6		7,15
46″	36,51,14, 2, 3,37,11,29,21,38		2,41,39,33,26	
		1,39, 9,50,44,38, 6,40		7,15
48″	36,51,15,41,13,27,56, 7,28,18		2,41,39,40,41	
		1,39, 9,48, 2,58,25,59		7,15
50″	36,51,17,20,23,15,59, 5,54,17		2,41,39,47,56	
		1,39, 9,45,21,18,38, 3		7,15
52″	36,51,18,59,33, 1,20,24,32,20		2,41,39,55,11	
		1,39, 9,42,39,38,42,52		7,15
54″	36,51,20,38,42,44, 0, 3,15,12		2,41,40, 2,26	
		1,39, 9,39,57,58,40,26		7,15
56″	36,51,22,17,52,23,58, 1,55,38		2,41,40, 9,41	
		1,39, 9,37,16,18,30,45		7,15
58″	36,51,23,57, 2, 1,14,20,26,23		2,41,40,16,56	
		1,39, 9,34,34,38,13,49		
60″	36,51,25,36,11,35,48,58,40,12			
exact	36,51,25,36,11,35,48,58,39,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°54′ 0″	36,51,25,36,11,35,48,58,39,42			
		1,39, 9,31,52,57,49,34		
2″	36,51,27,15,21, 7,41,56,29,16		2,41,40,31,26	
		1,39, 9,29,11,17,18, 8		7,15
4″	36,51,28,54,30,36,53,13,47,24		2,41,40,38,41	
		1,39, 9,26,29,36,39,27		7,15
6″	36,51,30,33,40, 3,22,50,26,51		2,41,40,45,56	
		1,39, 9,23,47,55,53,31		7,15
8″	36,51,32,12,49,27,10,46,20,22		2,41,40,53,11	
		1,39, 9,21, 6,15, 0,20		7,15
10″	36,51,33,51,58,48,17, 1,20,42		2,41,41, 0,26	
		1,39, 9,18,24,33,59,54		7,15
12″	36,51,35,31, 8, 6,41,35,20,36		2,41,41, 7,41	
		1,39, 9,15,42,52,52,13		7,15
14″	36,51,37,10,17,22,24,28,12,49		2,41,41,14,56	
		1,39, 9,13, 1,11,37,17		7,15
16″	36,51,38,49,26,35,25,39,50, 6		2,41,41,22,11	
		1,39, 9,10,19,30,15, 6		7,15
18″	36,51,40,28,35,45,45,10, 5,12		2,41,41,29,26	
		1,39, 9, 7,37,48,45,40		7,15
20″	36,51,42, 7,44,53,22,58,50,52		2,41,41,36,41	
		1,39, 9, 4,56, 7, 8,59		7,15
22″	36,51,43,46,53,58,19, 5,59,51		2,41,41,43,56	
		1,39, 9, 2,14,25,25, 3		7,15
24″	36,51,45,26, 3, 0,33,31,24,54		2,41,41,51,11	
		1,39, 8,59,32,43,33,52		7,15
26″	36,51,47, 5,12, 0, 6,14,58,46		2,41,41,58,26	
		1,39, 8,56,51, 1,35,26		7,15
28″	36,51,48,44,20,56,57,16,34,12		2,41,42, 5,41	
		1,39, 8,54, 9,19,29,45		7,15
30″	36,51,50,23,29,51, 6,36, 3,57		2,41,42,12,56	
		1,39, 8,51,27,37,16,49		7,15
32″	36,51,52, 2,38,42,34,13,20,46		2,41,42,20,11	
		1,39, 8,48,45,54,56,38		7,15
34″	36,51,53,41,47,31,20, 8,17,24		2,41,42,27,26	
		1,39, 8,46, 4,12,29,12		7,15
36″	36,51,55,20,56,17,24,20,46,36		2,41,42,34,41	
		1,39, 8,43,22,29,54,31		7,15
38″	36,51,57, 0, 5, 0,46,50,41, 7		2,41,42,41,56	
		1,39, 8,40,40,47,12,35		7,15
40″	36,51,58,39,13,41,27,37,53,42		2,41,42,49,11	
		1,39, 8,37,59, 4,23,24		7,15
42″	36,52, 0,18,22,19,26,42,17, 6		2,41,42,56,26	
		1,39, 8,35,17,21,26,58		7,15
44″	36,52, 1,57,30,54,44, 3,44, 4		2,41,43, 3,41	
		1,39, 8,32,35,38,23,17		7,15
46″	36,52, 3,36,39,27,19,42, 7,21		2,41,43,10,56	
		1,39, 8,29,53,55,12,21		7,15
48″	36,52, 5,15,47,57,13,37,19,42		2,41,43,18,11	
		1,39, 8,27,12,11,54,10		7,15
50″	36,52, 6,54,56,24,25,49,13,52		2,41,43,25,26	
		1,39, 8,24,30,28,28,44		7,15
52″	36,52, 8,34, 4,48,56,17,42,36		2,41,43,32,41	
		1,39, 8,21,48,44,56, 3		7,15
54″	36,52,10,13,13,10,45, 2,38,39		2,41,43,39,56	
		1,39, 8,19, 7, 1,16, 7		7,15
56″	36,52,11,52,21,29,52, 3,54,46		2,41,43,47,11	
		1,39, 8,16,25,17,28,56		7,15
58″	36,52,13,31,29,46,17,21,23,42		2,41,43,54,26	
		1,39, 8,13,43,33,34,30		
60″	36,52,15,10,38, 0, 0,54,58,12			
exact	36,52,15,10,38, 0, 0,55, 2,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°55′ 0″	36,52,15,10,38, 0, 0,55, 2,59			
		1,39, 8,11, 1,49,33,22		
2″	36,52,16,49,46,11, 2,44,36,21		2,41,44, 8,53	
		1,39, 8, 8,20, 5,24,29		7,15
4″	36,52,18,28,54,19,22,50, 0,50		2,41,44,16, 8	
		1,39, 8, 5,38,21, 8,21		7,15
6″	36,52,20, 8, 2,25, 1,11, 9,11		2,41,44,23,23	
		1,39, 8, 2,56,36,44,58		7,15
8″	36,52,21,47,10,27,57,47,54, 9		2,41,44,30,38	
		1,39, 8, 0,14,52,14,20		7,15
10″	36,52,23,26,18,28,12,40, 8,29		2,41,44,37,53	
		1,39, 7,57,33, 7,36,27		7,15
12″	36,52,25, 5,26,25,45,47,44,56		2,41,44,45, 8	
		1,39, 7,54,51,22,51,19		7,15
14″	36,52,26,44,34,20,37,10,36,15		2,41,44,52,23	
		1,39, 7,52, 9,37,58,56		7,15
16″	36,52,28,23,42,12,46,48,35,11		2,41,44,59,38	
		1,39, 7,49,27,52,59,18		7,15
18″	36,52,30, 2,50, 2,14,41,34,29		2,41,45, 6,53	
		1,39, 7,46,46, 7,52,25		7,15
20″	36,52,31,41,57,49, 0,49,26,54		2,41,45,14, 8	
		1,39, 7,44, 4,22,38,17		7,15
22″	36,52,33,21, 5,33, 5,12, 5,11		2,41,45,21,23	
		1,39, 7,41,22,37,16,54		7,15
24″	36,52,35, 0,13,14,27,49,22, 5		2,41,45,28,38	
		1,39, 7,38,40,51,48,16		7,15
26″	36,52,36,39,20,53, 8,41,10,21		2,41,45,35,53	
		1,39, 7,35,59, 6,12,23		7,15
28″	36,52,38,18,28,29, 7,47,22,44		2,41,45,43, 8	
		1,39, 7,33,17,20,29,15		7,15
30″	36,52,39,57,36, 2,25, 7,51,59		2,41,45,50,23	
		1,39, 7,30,35,34,38,52		7,15
32″	36,52,41,36,43,33, 0,42,30,51		2,41,45,57,38	
		1,39, 7,27,53,48,41,14		7,15
34″	36,52,43,15,51, 0,54,31,12, 5		2,41,46, 4,53	
		1,39, 7,25,12, 2,36,21		7,15
36″	36,52,44,54,58,26, 6,33,48,26		2,41,46,12, 8	
		1,39, 7,22,30,16,24,13		7,15
38″	36,52,46,34, 5,48,36,50,12,39		2,41,46,19,23	
		1,39, 7,19,48,30, 4,50		7,15
40″	36,52,48,13,13, 8,25,20,17,29		2,41,46,26,38	
		1,39, 7,17, 6,43,38,12		7,15
42″	36,52,49,52,20,25,32, 3,55,41		2,41,46,33,53	
		1,39, 7,14,24,57, 4,19		7,15
44″	36,52,51,31,27,39,57, 1, 0, 0		2,41,46,41, 8	
		1,39, 7,11,43,10,23,11		7,15
46″	36,52,53,10,34,51,40,11,23,11		2,41,46,48,23	
		1,39, 7, 9, 1,23,34,48		7,15
48″	36,52,54,49,42, 0,41,34,57,59		2,41,46,55,38	
		1,39, 7, 6,19,36,39,10		7,15
50″	36,52,56,28,49, 7, 1,11,37, 9		2,41,47, 2,53	
		1,39, 7, 3,37,49,36,17		7,15
52″	36,52,58, 7,56,10,39, 1,13,26		2,41,47,10, 8	
		1,39, 7, 0,56, 2,26, 9		7,15
54″	36,52,59,47, 3,11,35, 3,39,35		2,41,47,17,23	
		1,39, 6,58,14,15, 8,46		7,15
56″	36,53, 1,26,10, 9,49,18,48,21		2,41,47,24,38	
		1,39, 6,55,32,27,44, 8		7,15
58″	36,53, 3, 5,17, 5,21,46,32,29		2,41,47,31,53	
		1,39, 6,52,50,40,12,15		
60″	36,53, 4,44,23,58,12,26,44,44			
exact	36,53, 4,44,23,58,12,26,54,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°56′ 0″	36,53, 4,44,23,58,12,26,54,15			
		1,39, 6,50, 8,52,34,15		
2″	36,53, 6,23,30,48,21,19,28,30		2,41,47,46,18	
		1,39, 6,47,27, 4,47,57		7,15
4″	36,53, 8, 2,37,35,48,24,16,27		2,41,47,53,33	
		1,39, 6,44,45,16,54,24		7,15
6″	36,53, 9,41,44,20,33,41,10,51		2,41,48, 0,48	
		1,39, 6,42, 3,28,53,36		7,15
8″	36,53,11,20,51, 2,37,10, 4,27		2,41,48, 8, 3	
		1,39, 6,39,21,40,45,33		7,15
10″	36,53,12,59,57,41,58,50,50, 0		2,41,48,15,18	
		1,39, 6,36,39,52,30,15		7,15
12″	36,53,14,39, 4,18,38,43,20,15		2,41,48,22,33	
		1,39, 6,33,58, 4, 7,42		7,15
14″	36,53,16,18,10,52,36,47,27,57		2,41,48,29,48	
		1,39, 6,31,16,15,37,54		7,15
16″	36,53,17,57,17,23,53, 3, 5,51		2,41,48,37, 3	
		1,39, 6,28,34,27, 0,51		7,15
18″	36,53,19,36,23,52,27,30, 6,42		2,41,48,44,18	
		1,39, 6,25,52,38,16,33		7,15
20″	36,53,21,15,30,18,20, 8,23,15		2,41,48,51,33	
		1,39, 6,23,10,49,25, 0		7,15
22″	36,53,22,54,36,41,30,57,48,15		2,41,48,58,48	
		1,39, 6,20,29, 0,26,12		7,15
24″	36,53,24,33,43, 1,59,58,14,27		2,41,49, 6, 3	
		1,39, 6,17,47,11,20, 9		7,15
26″	36,53,26,12,49,19,47, 9,34,36		2,41,49,13,18	
		1,39, 6,15, 5,22, 6,51		7,15
28″	36,53,27,51,55,34,52,31,41,27		2,41,49,20,33	
		1,39, 6,12,23,32,46,18		7,15
30″	36,53,29,31, 1,47,16, 4,27,45		2,41,49,27,48	
		1,39, 6, 9,41,43,18,30		7,15
32″	36,53,31,10, 7,56,57,47,46,15		2,41,49,35, 3	
		1,39, 6, 6,59,53,43,27		7,15
34″	36,53,32,49,14, 3,57,41,29,42		2,41,49,42,18	
		1,39, 6, 4,18, 4, 1, 9		7,15
36″	36,53,34,28,20, 8,15,45,30,51		2,41,49,49,33	
		1,39, 6, 1,36,14,11,36		7,15
38″	36,53,36, 7,26, 9,51,59,42,27		2,41,49,56,48	
		1,39, 5,58,54,24,14,48		7,15
40″	36,53,37,46,32, 8,46,23,57,15		2,41,50, 4, 3	
		1,39, 5,56,12,34,10,45		7,15
42″	36,53,39,25,38, 4,58,58, 8, 0		2,41,50,11,18	
		1,39, 5,53,30,43,59,27		7,15
44″	36,53,41, 4,43,58,29,42, 7,27		2,41,50,18,33	
		1,39, 5,50,48,53,40,54		7,15
46″	36,53,42,43,49,49,18,35,48,21		2,41,50,25,48	
		1,39, 5,48, 7, 3,15, 6		7,15
48″	36,53,44,22,55,37,25,39, 3,27		2,41,50,33, 3	
		1,39, 5,45,25,12,42, 3		7,15
50″	36,53,46, 2, 1,22,50,51,45,30		2,41,50,40,18	
		1,39, 5,42,43,22, 1,45		7,15
52″	36,53,47,41, 7, 5,34,13,47,15		2,41,50,47,33	
		1,39, 5,40, 1,31,14,12		7,15
54″	36,53,49,20,12,45,35,45, 1,27		2,41,50,54,48	
		1,39, 5,37,19,40,19,24		7,15
56″	36,53,50,59,18,22,55,25,20,51		2,41,51, 2, 3	
		1,39, 5,34,37,49,17,21		7,15
58″	36,53,52,38,23,57,33,14,38,12		2,41,51, 9,18	
		1,39, 5,31,55,58, 8, 3		
60″	36,53,54,17,29,29,29,12,46,15			
exact	36,53,54,17,29,29,29,13, 7,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°57′ 0″	36,53,54,17,29,29,29,13, 7,31			
		1,39, 5,29,14, 6,53,42		
2″	36,53,55,56,34,58,43,20, 1,13		2,41,51,23,39	
		1,39, 5,26,32,15,30, 3		7,15
4″	36,53,57,35,40,25,15,35,31,16		2,41,51,30,54	
		1,39, 5,23,50,23,59, 9		7,15
6″	36,53,59,14,45,49, 5,59,30,25		2,41,51,38, 9	
		1,39, 5,21, 8,32,21, 0		7,15
8″	36,54, 0,53,51,10,14,31,51,25		2,41,51,45,24	
		1,39, 5,18,26,40,35,36		7,15
10″	36,54, 2,32,56,28,41,12,27, 1		2,41,51,52,39	
		1,39, 5,15,44,48,42,57		7,15
12″	36,54, 4,12, 1,44,26, 1, 9,58		2,41,51,59,54	
		1,39, 5,13, 2,56,43, 3		7,15
14″	36,54, 5,51, 6,57,28,57,53, 1		2,41,52, 7, 9	
		1,39, 5,10,21, 4,35,54		7,15
16″	36,54, 7,30,12, 7,50, 2,28,55		2,41,52,14,24	
		1,39, 5, 7,39,12,21,30		7,15
18″	36,54, 9, 9,17,15,29,14,50,25		2,41,52,21,39	
		1,39, 5, 4,57,19,59,51		7,15
20″	36,54,10,48,22,20,26,34,50,16		2,41,52,28,54	
		1,39, 5, 2,15,27,30,57		7,15
22″	36,54,12,27,27,22,42, 2,21,13		2,41,52,36, 9	
		1,39, 4,59,33,34,54,48		7,15
24″	36,54,14, 6,32,22,15,37,16, 1		2,41,52,43,24	
		1,39, 4,56,51,42,11,24		7,15
26″	36,54,15,45,37,19, 7,19,27,25		2,41,52,50,39	
		1,39, 4,54, 9,49,20,45		7,15
28″	36,54,17,24,42,13,17, 8,48,10		2,41,52,57,54	
		1,39, 4,51,27,56,22,51		7,15
30″	36,54,19, 3,47, 4,45, 5,11, 1		2,41,53, 5, 9	
		1,39, 4,48,46, 3,17,42		7,15
32″	36,54,20,42,51,53,31, 8,28,43		2,41,53,12,24	
		1,39, 4,46, 4,10, 5,18		7,15
34″	36,54,22,21,56,39,35,18,34, 1		2,41,53,19,39	
		1,39, 4,43,22,16,45,39		7,15
36″	36,54,24, 1, 1,22,57,35,19,40		2,41,53,26,54	
		1,39, 4,40,40,23,18,45		7,15
38″	36,54,25,40, 6, 3,37,58,38,25		2,41,53,34, 9	
		1,39, 4,37,58,29,44,36		7,15
40″	36,54,27,19,10,41,36,28,23, 1		2,41,53,41,24	
		1,39, 4,35,16,36, 3,12		7,15
42″	36,54,28,58,15,16,53, 4,26,13		2,41,53,48,39	
		1,39, 4,32,34,42,14,33		7,15
44″	36,54,30,37,19,49,27,46,40,46		2,41,53,55,54	
		1,39, 4,29,52,48,18,39		7,15
46″	36,54,32,16,24,19,20,34,59,25		2,41,54, 3, 9	
		1,39, 4,27,10,54,15,30		7,15
48″	36,54,33,55,28,46,31,29,14,55		2,41,54,10,24	
		1,39, 4,24,29, 0, 5, 6		7,15
50″	36,54,35,34,33,11, 0,29,20, 1		2,41,54,17,39	
		1,39, 4,21,47, 5,47,27		7,15
52″	36,54,37,13,37,32,47,35, 7,28		2,41,54,24,54	
		1,39, 4,19, 5,11,22,33		7,15
54″	36,54,38,52,41,51,52,46,30, 1		2,41,54,32, 9	
		1,39, 4,16,23,16,50,24		7,15
56″	36,54,40,31,46, 8,16, 3,20,25		2,41,54,39,24	
		1,39, 4,13,41,22,11, 0		7,15
58″	36,54,42,10,50,21,57,25,31,25		2,41,54,46,39	
		1,39, 4,10,59,27,24,21		
60″	36,54,43,49,54,32,56,52,55,46			
exact	36,54,43,49,54,32,56,53,21,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°58′ 0″	36,54,43,49,54,32,56,53,21,11	1,39, 4, 8,17,32,33,12		
2″	36,54,45,28,58,41,14,25,54,23	1,39, 4, 5,35,37,32,15	2,41,55, 0,57	7,15
4″	36,54,47, 8, 2,46,50, 3,26,38	1,39, 4, 2,53,42,24, 3	2,41,55, 8,12	7,15
6″	36,54,48,47, 6,49,43,45,50,41	1,39, 4, 0,11,47, 8,36	2,41,55,15,27	7,15
8″	36,54,50,26,10,49,55,32,59,17	1,39, 3,57,29,51,45,54	2,41,55,22,42	7,15
10″	36,54,52, 5,14,47,25,24,45,11	1,39, 3,54,47,56,15,57	2,41,55,29,57	7,15
12″	36,54,53,44,18,42,13,21, 1, 8	1,39, 3,52, 6, 0,38,45	2,41,55,37,12	7,15
14″	36,54,55,23,22,34,19,21,39,53	1,39, 3,49,24, 4,54,18	2,41,55,44,27	7,15
16″	36,54,57, 2,26,23,43,26,34,11	1,39, 3,46,42, 9, 2,36	2,41,55,51,42	7,15
18″	36,54,58,41,30,10,25,35,36,47	1,39, 3,44, 0,13, 3,39	2,41,55,58,57	7,15
20″	36,55, 0,20,33,54,25,48,40,26	1,39, 3,41,18,16,57,27	2,41,56, 6,12	7,15
22″	36,55, 1,59,37,35,44, 5,37,53	1,39, 3,38,36,20,44, 0	2,41,56,13,27	7,15
24″	36,55, 3,38,41,14,20,26,21,53	1,39, 3,35,54,24,23,18	2,41,56,20,42	7,15
26″	36,55, 5,17,44,50,14,50,45,11	1,39, 3,33,12,27,55,21	2,41,56,27,57	7,15
28″	36,55, 6,56,48,23,27,18,40,32	1,39, 3,30,30,31,20, 9	2,41,56,35,12	7,15
30″	36,55, 8,35,51,53,57,50, 0,41	1,39, 3,27,48,34,37,42	2,41,56,42,27	7,15
32″	36,55,10,14,55,21,46,24,38,23	1,39, 3,25, 6,37,48, 0	2,41,56,49,42	7,15
34″	36,55,11,53,58,46,53, 2,26,23	1,39, 3,22,24,40,51, 3	2,41,56,56,57	7,15
36″	36,55,13,33, 2, 9,17,43,17,26	1,39, 3,19,42,43,46,51	2,41,57, 4,12	7,15
38″	36,55,15,12, 5,29, 0,27, 4,17	1,39, 3,17, 0,46,35,24	2,41,57,11,27	7,15
40″	36,55,16,51, 8,46, 1,13,39,41	1,39, 3,14,18,49,16,42	2,41,57,18,42	7,15
42″	36,55,18,30,12, 0,20, 2,56,23	1,39, 3,11,36,51,50,45	2,41,57,25,57	7,15
44″	36,55,20, 9,15,11,56,54,47, 8	1,39, 3, 8,54,54,17,33	2,41,57,33,12	7,15
46″	36,55,21,48,18,20,51,49, 4,41	1,39, 3, 6,12,56,37, 6	2,41,57,40,27	7,15
48″	36,55,23,27,21,27, 4,45,41,47	1,39, 3, 3,30,58,49,24	2,41,57,47,42	7,15
50″	36,55,25, 6,24,30,35,44,31,11	1,39, 3, 0,49, 0,54,27	2,41,57,54,57	7,15
52″	36,55,26,45,27,31,24,45,25,38	1,39, 2,58, 7, 2,52,15	2,41,58, 2,12	7,15
54″	36,55,28,24,30,29,31,48,17,53	1,39, 2,55,25, 4,42,48	2,41,58, 9,27	7,15
56″	36,55,30, 3,33,24,56,53, 0,41	1,39, 2,52,43, 6,26, 6	2,41,58,16,42	7,15
58″	36,55,31,42,36,17,39,59,26,47	1,39, 2,50, 1, 8, 2, 9	2,41,58,23,57	
60″	36,55,33,21,39, 7,41, 7,28,56			
exact	36,55,33,21,39, 7,41, 7,58, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
37°59′ 0″	36,55,33,21,39, 7,41, 7,58, 1			
		1,39, 2,47,19, 9,34,13		
2″	36,55,35, 0,41,55, 0,17,32,14		2,41,58,38,13	
		1,39, 2,44,37,10,56, 0		7,14
4″	36,55,36,39,44,39,37,28,28,14		2,41,58,45,27	
		1,39, 2,41,55,12,10,33		7,14
6″	36,55,38,18,47,21,32,40,38,47		2,41,58,52,41	
		1,39, 2,39,13,13,17,52		7,14
8″	36,55,39,57,50, 0,45,53,56,39		2,41,58,59,55	
		1,39, 2,36,31,14,17,57		7,14
10″	36,55,41,36,52,37,17, 8,14,36		2,41,59, 7, 9	
		1,39, 2,33,49,15,10,48		7,14
12″	36,55,43,15,55,11, 6,23,25,24		2,41,59,14,23	
		1,39, 2,31, 7,15,56,25		7,14
14″	36,55,44,54,57,42,13,39,21,49		2,41,59,21,37	
		1,39, 2,28,25,16,34,48		7,14
16″	36,55,46,34, 0,10,38,55,56,37		2,41,59,28,51	
		1,39, 2,25,43,17, 5,57		7,14
18″	36,55,48,13, 2,36,22,13, 2,34		2,41,59,36, 5	
		1,39, 2,23, 1,17,29,52		7,14
20″	36,55,49,52, 4,59,23,30,32,26		2,41,59,43,19	
		1,39, 2,20,19,17,46,33		7,14
22″	36,55,51,31, 7,19,42,48,18,59		2,41,59,50,33	
		1,39, 2,17,37,17,56, 0		7,14
24″	36,55,53,10, 9,37,20, 6,14,59		2,41,59,57,47	
		1,39, 2,14,55,17,58,13		7,14
26″	36,55,54,49,11,52,15,24,13,12		2,42, 0, 5, 1	
		1,39, 2,12,13,17,53,12		7,14
28″	36,55,56,28,14, 4,28,42, 6,24		2,42, 0,12,15	
		1,39, 2, 9,31,17,40,57		7,14
30″	36,55,58, 7,16,13,59,59,47,21		2,42, 0,19,29	
		1,39, 2, 6,49,17,21,28		7,14
32″	36,55,59,46,18,20,49,17, 8,49		2,42, 0,26,43	
		1,39, 2, 4, 7,16,54,45		7,14
34″	36,56, 1,25,20,24,56,34, 3,34		2,42, 0,33,57	
		1,39, 2, 1,25,16,20,48		7,14
36″	36,56, 3, 4,22,26,21,50,24,22		2,42, 0,41,11	
		1,39, 1,58,43,15,39,37		7,14
38″	36,56, 4,43,24,25, 5, 6, 3,59		2,42, 0,48,25	
		1,39, 1,56, 1,14,51,12		7,14
40″	36,56, 6,22,26,21, 6,20,55,11		2,42, 0,55,39	
		1,39, 1,53,19,13,55,33		7,14
42″	36,56, 8, 1,28,14,25,34,50,44		2,42, 1, 2,53	
		1,39, 1,50,37,12,52,40		7,14
44″	36,56, 9,40,30, 5, 2,47,43,24		2,42, 1,10, 7	
		1,39, 1,47,55,11,42,33		7,14
46″	36,56,11,19,31,52,57,59,25,57		2,42, 1,17,21	
		1,39, 1,45,13,10,25,12		7,14
48″	36,56,12,58,33,38,11, 9,51, 9		2,42, 1,24,35	
		1,39, 1,42,31, 9, 0,37		7,14
50″	36,56,14,37,35,20,42,18,51,46		2,42, 1,31,49	
		1,39, 1,39,49, 7,28,48		7,14
52″	36,56,16,16,37, 0,31,26,20,34		2,42, 1,39, 3	
		1,39, 1,37, 7, 5,49,45		7,14
54″	36,56,17,55,38,37,38,32,10,19		2,42, 1,46,17	
		1,39, 1,34,25, 4, 3,28		7,14
56″	36,56,19,34,40,12, 3,36,13,47		2,42, 1,53,31	
		1,39, 1,31,43, 2, 9,57		7,14
58″	36,56,21,13,41,43,46,38,23,44		2,42, 2, 0,45	
		1,39, 1,29, 1, 0, 9,12		
60″	36,56,22,52,43,12,47,38,32,56			
exact	36,56,22,52,43,12,47,38, 5, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38° 0′ 0″	36,56,22,52,43,12,47,38, 5, 9			
		1,39, 1,26,18,57,58,14		
2″	36,56,24,31,44,39, 6,36, 3,23		2,42, 2,15,25	
		1,39, 1,23,36,55,42,49		7,14
4″	36,56,26,10,46, 2,43,31,46,12		2,42, 2,22,39	
		1,39, 1,20,54,53,20,10		7,14
6″	36,56,27,49,47,23,38,25, 6,22		2,42, 2,29,53	
		1,39, 1,18,12,50,50,17		7,14
8″	36,56,29,28,48,41,51,15,56,39		2,42, 2,37, 7	
		1,39, 1,15,30,48,13,10		7,14
10″	36,56,31, 7,49,57,22, 4, 9,49		2,42, 2,44,21	
		1,39, 1,12,48,45,28,49		7,14
12″	36,56,32,46,51,10,10,49,38,38		2,42, 2,51,35	
		1,39, 1,10, 6,42,37,14		7,14
14″	36,56,34,25,52,20,17,32,15,52		2,42, 2,58,49	
		1,39, 1, 7,24,39,38,25		7,14
16″	36,56,36, 4,53,27,42,11,54,17		2,42, 3, 6, 3	
		1,39, 1, 4,42,36,32,22		7,14
18″	36,56,37,43,54,32,24,48,26,39		2,42, 3,13,17	
		1,39, 1, 2, 0,33,19, 5		7,14
20″	36,56,39,22,55,34,25,21,45,44		2,42, 3,20,31	
		1,39, 0,59,18,29,58,34		7,14
22″	36,56,41, 1,56,33,43,51,44,18		2,42, 3,27,45	
		1,39, 0,56,36,26,30,49		7,14
24″	36,56,42,40,57,30,20,18,15, 7		2,42, 3,34,59	
		1,39, 0,53,54,22,55,50		7,14
26″	36,56,44,19,58,24,14,41,10,57		2,42, 3,42,13	
		1,39, 0,51,12,19,13,37		7,14
28″	36,56,45,58,59,15,27, 0,24,34		2,42, 3,49,27	
		1,39, 0,48,30,15,24,10		7,14
30″	36,56,47,38, 0, 3,57,15,48,44		2,42, 3,56,41	
		1,39, 0,45,48,11,27,29		7,14
32″	36,56,49,17, 0,49,45,27,16,13		2,42, 4, 3,55	
		1,39, 0,43, 6, 7,23,34		7,14
34″	36,56,50,56, 1,32,51,34,39,47		2,42, 4,11, 9	
		1,39, 0,40,24, 3,12,25		7,14
36″	36,56,52,35, 2,13,15,37,52,12		2,42, 4,18,23	
		1,39, 0,37,41,58,54, 2		7,14
38″	36,56,54,14, 2,50,57,36,46,14		2,42, 4,25,37	
		1,39, 0,34,59,54,28,25		7,14
40″	36,56,55,53, 3,25,57,31,14,39		2,42, 4,32,51	
		1,39, 0,32,17,49,55,34		7,14
42″	36,56,57,32, 3,58,15,21,10,13		2,42, 4,40, 5	
		1,39, 0,29,35,45,15,29		7,14
44″	36,56,59,11, 4,27,51, 6,25,42		2,42, 4,47,19	
		1,39, 0,26,53,40,28,10		7,14
46″	36,57, 0,50, 4,54,44,46,53,52		2,42, 4,54,33	
		1,39, 0,24,11,35,33,37		7,14
48″	36,57, 2,29, 5,18,56,22,27,29		2,42, 5, 1,47	
		1,39, 0,21,29,30,31,50		7,14
50″	36,57, 4, 8, 5,40,25,52,59,19		2,42, 5, 9, 1	
		1,39, 0,18,47,25,22,49		7,14
52″	36,57, 5,47, 5,59,13,18,22, 8		2,42, 5,16,15	
		1,39, 0,16, 5,20, 6,34		7,14
54″	36,57, 7,26, 6,15,18,38,28,42		2,42, 5,23,29	
		1,39, 0,13,23,14,43, 5		7,14
56″	36,57, 9, 5, 6,28,41,53,11,47		2,42, 5,30,43	
		1,39, 0,10,41, 9,12,22		7,14
58″	36,57,10,44, 6,39,23, 2,24, 9		2,42, 5,37,57	
		1,39, 0, 7,59, 3,34,25		
60″	36,57,12,23, 6,47,22, 5,58,34			
exact	36,57,12,23, 6,47,22, 5,34, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38° 1′ 0″	36,57,12,23, 6,47,22, 5,34, 8			
		1,39, 0, 5,16,57,46,44		
2″	36,57,14, 2, 6,52,39, 3,20,52		2,42, 5,52,35	
		1,39, 0, 2,34,51,54, 9		7,14
4″	36,57,15,41, 6,55,13,55,15, 1		2,42, 5,59,49	
		1,38,59,59,52,45,54,20		7,14
6″	36,57,17,20, 6,55, 6,41, 9,21		2,42, 6, 7, 3	
		1,38,59,57,10,39,47,17		7,14
8″	36,57,18,59, 6,52,17,20,56,38		2,42, 6,14,17	
		1,38,59,54,28,33,33, 0		7,14
10″	36,57,20,38, 6,46,45,54,29,38		2,42, 6,21,31	
		1,38,59,51,46,27,11,29		7,14
12″	36,57,22,17, 6,38,32,21,41, 7		2,42, 6,28,45	
		1,38,59,49, 4,20,42,44		7,14
14″	36,57,23,56, 6,27,36,42,23,51		2,42, 6,35,59	
		1,38,59,46,22,14, 6,45		7,14
16″	36,57,25,35, 6,13,58,56,30,36		2,42, 6,43,13	
		1,38,59,43,40, 7,23,32		7,14
18″	36,57,27,14, 5,57,39, 3,54, 8		2,42, 6,50,27	
		1,38,59,40,58, 0,33, 5		7,14
20″	36,57,28,53, 5,38,37, 4,27,13		2,42, 6,57,41	
		1,38,59,38,15,53,35,24		7,14
22″	36,57,30,32, 5,16,52,58, 2,37		2,42, 7, 4,55	
		1,38,59,35,33,46,30,29		7,14
24″	36,57,32,11, 4,52,26,44,33, 6		2,42, 7,12, 9	
		1,38,59,32,51,39,18,20		7,14
26″	36,57,33,50, 4,25,18,23,51,26		2,42, 7,19,23	
		1,38,59,30, 9,31,58,57		7,14
28″	36,57,35,29, 3,55,27,55,50,23		2,42, 7,26,37	
		1,38,59,27,27,24,32,20		7,14
30″	36,57,37, 8, 3,22,55,20,22,43		2,42, 7,33,51	
		1,38,59,24,45,16,58,29		7,14
32″	36,57,38,47, 2,47,40,37,21,12		2,42, 7,41, 5	
		1,38,59,22, 3, 9,17,24		7,14
34″	36,57,40,26, 2, 9,43,46,38,36		2,42, 7,48,19	
		1,38,59,19,21, 1,29, 5		7,14
36″	36,57,42, 5, 1,29, 4,48, 7,41		2,42, 7,55,33	
		1,38,59,16,38,53,33,32		7,14
38″	36,57,43,44, 0,45,43,41,41,13		2,42, 8, 2,47	
		1,38,59,13,56,45,30,45		7,14
40″	36,57,45,22,59,59,40,27,11,58		2,42, 8,10, 1	
		1,38,59,11,14,37,20,44		7,14
42″	36,57,47, 1,59,10,55, 4,32,42		2,42, 8,17,15	
		1,38,59, 8,32,29, 3,29		7,14
44″	36,57,48,40,58,19,27,33,36,11		2,42, 8,24,29	
		1,38,59, 5,50,20,39, 0		7,14
46″	36,57,50,19,57,25,17,54,15,11		2,42, 8,31,43	
		1,38,59, 3, 8,12, 7,17		7,14
48″	36,57,51,58,56,28,26, 6,22,28		2,42, 8,38,57	
		1,38,59, 0,26, 3,28,20		7,14
50″	36,57,53,37,55,28,52, 9,50,48		2,42, 8,46,11	
		1,38,58,57,43,54,42, 9		7,14
52″	36,57,55,16,54,26,36, 4,32,57		2,42, 8,53,25	
		1,38,58,55, 1,45,48,44		7,14
54″	36,57,56,55,53,21,37,50,21,41		2,42, 9, 0,39	
		1,38,58,52,19,36,48, 5		7,14
56″	36,57,58,34,52,13,57,27, 9,46		2,42, 9, 7,53	
		1,38,58,49,37,27,40,12		7,14
58″	36,58, 0,13,51, 3,34,54,49,58		2,42, 9,15, 7	
		1,38,58,46,55,18,25, 5		
60″	36,58, 1,52,49,50,30,13,15, 3			
exact	36,58, 1,52,49,50,30,13, 0,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38° 2′ 0″	36,58, 1,52,49,50,30,13, 0,59			
		1,38,58,44,13, 9, 1,12		
2″	36,58, 3,31,48,34,43,22, 2,11		2,42, 9,29,41	
		1,38,58,41,30,59,31,31		7,14
4″	36,58, 5,10,47,16,14,21,33,42		2,42, 9,36,55	
		1,38,58,38,48,49,54,36		7,14
6″	36,58, 6,49,45,55, 3,11,28,18		2,42, 9,44, 9	
		1,38,58,36, 6,40,10,27		7,14
8″	36,58, 8,28,44,31, 9,51,38,45		2,42, 9,51,23	
		1,38,58,33,24,30,19, 4		7,14
10″	36,58,10, 7,43, 4,34,21,57,49		2,42, 9,58,37	
		1,38,58,30,42,20,20,27		7,14
12″	36,58,11,46,41,35,16,42,18,16		2,42,10, 5,51	
		1,38,58,28, 0,10,14,36		7,14
14″	36,58,13,25,40, 3,16,52,32,52		2,42,10,13, 5	
		1,38,58,25,18, 0, 1,31		7,14
16″	36,58,15, 4,38,28,34,52,34,23		2,42,10,20,19	
		1,38,58,22,35,49,41,12		7,14
18″	36,58,16,43,36,51,10,42,15,35		2,42,10,27,33	
		1,38,58,19,53,39,13,39		7,14
20″	36,58,18,22,35,11, 4,21,29,14		2,42,10,34,47	
		1,38,58,17,11,28,38,52		7,14
22″	36,58,20, 1,33,28,15,50, 8, 6		2,42,10,42, 1	
		1,38,58,14,29,17,56,51		7,14
24″	36,58,21,40,31,42,45, 8, 4,57		2,42,10,49,15	
		1,38,58,11,47, 7, 7,36		7,14
26″	36,58,23,19,29,54,32,15,12,33		2,42,10,56,29	
		1,38,58, 9, 4,56,11, 7		7,14
28″	36,58,24,58,28, 3,37,11,23,40		2,42,11, 3,43	
		1,38,58, 6,22,45, 7,24		7,14
30″	36,58,26,37,26, 9,59,56,31, 4		2,42,11,10,57	
		1,38,58, 3,40,33,56,27		7,14
32″	36,58,28,16,24,13,40,30,27,31		2,42,11,18,11	
		1,38,58, 0,58,22,38,16		7,14
34″	36,58,29,55,22,14,38,53, 5,47		2,42,11,25,25	
		1,38,57,58,16,11,12,51		7,14
36″	36,58,31,34,20,12,55, 4,18,38		2,42,11,32,39	
		1,38,57,55,33,59,40,12		7,14
38″	36,58,33,13,18, 8,29, 3,58,50		2,42,11,39,53	
		1,38,57,52,51,48, 0,19		7,14
40″	36,58,34,52,16, 1,20,51,59, 9		2,42,11,47, 7	
		1,38,57,50, 9,36,13,12		7,14
42″	36,58,36,31,13,51,30,28,12,21		2,42,11,54,21	
		1,38,57,47,27,24,18,51		7,14
44″	36,58,38,10,11,38,57,52,31,12		2,42,12, 1,35	
		1,38,57,44,45,12,17,16		7,14
46″	36,58,39,49, 9,23,43, 4,48,28		2,42,12, 8,49	
		1,38,57,42, 3, 0, 8,27		7,14
48″	36,58,41,28, 7, 5,46, 4,56,55		2,42,12,16, 3	
		1,38,57,39,20,47,52,24		7,14
50″	36,58,43, 7, 4,45, 6,52,49,19		2,42,12,23,17	
		1,38,57,36,38,35,29, 7		7,14
52″	36,58,44,46, 2,21,45,28,18,26		2,42,12,30,31	
		1,38,57,33,56,22,58,36		7,14
54″	36,58,46,24,59,55,41,51,17, 2		2,42,12,37,45	
		1,38,57,31,14,10,20,51		7,14
56″	36,58,48, 3,57,26,56, 1,37,53		2,42,12,44,59	
		1,38,57,28,31,57,35,52		7,14
58″	36,58,49,42,54,55,27,59,13,45		2,42,12,52,13	
		1,38,57,25,49,44,43,39		
60″	36,58,51,21,52,21,17,43,57,24			
exact	36,58,51,21,52,21,17,43,46, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38° 3′ 0″	36,58,51,21,52,21,17,43,46, 5			
		1,38,57,23, 7,31,43, 7		
2″	36,58,53, 0,49,44,25,15,29,12		2,42,13, 6,45	
		1,38,57,20,25,18,36,22		7,14
4″	36,58,54,39,47, 4,50,34, 5,34		2,42,13,13,59	
		1,38,57,17,43, 5,22,23		7,14
6″	36,58,56,18,44,22,33,39,27,57		2,42,13,21,13	
		1,38,57,15, 0,52, 1,10		7,14
8″	36,58,57,57,41,37,34,31,29, 7		2,42,13,28,27	
		1,38,57,12,18,38,32,43		7,14
10″	36,58,59,36,38,49,53,10, 1,50		2,42,13,35,41	
		1,38,57, 9,36,24,57, 2		7,14
12″	36,59, 1,15,35,59,29,34,58,52		2,42,13,42,55	
		1,38,57, 6,54,11,14, 7		7,14
14″	36,59, 2,54,33, 6,23,46,12,59		2,42,13,50, 9	
		1,38,57, 4,11,57,23,58		7,14
16″	36,59, 4,33,30,10,35,43,36,57		2,42,13,57,23	
		1,38,57, 1,29,43,26,35		7,14
18″	36,59, 6,12,27,12, 5,27, 3,32		2,42,14, 4,37	
		1,38,56,58,47,29,21,58		7,14
20″	36,59, 7,51,24,10,52,56,25,30		2,42,14,11,51	
		1,38,56,56, 5,15,10, 7		7,14
22″	36,59, 9,30,21, 6,58,11,35,37		2,42,14,19, 5	
		1,38,56,53,23, 0,51, 2		7,14
24″	36,59,11, 9,18, 0,21,12,26,39		2,42,14,26,19	
		1,38,56,50,40,46,24,43		7,14
26″	36,59,12,48,14,51, 1,58,51,22		2,42,14,33,33	
		1,38,56,47,58,31,51,10		7,14
28″	36,59,14,27,11,39, 0,30,42,32		2,42,14,40,47	
		1,38,56,45,16,17,10,23		7,14
30″	36,59,16, 6, 8,24,16,47,52,55		2,42,14,48, 1	
		1,38,56,42,34, 2,22,22		7,14
32″	36,59,17,45, 5, 6,50,50,15,17		2,42,14,55,15	
		1,38,56,39,51,47,27, 7		7,14
34″	36,59,19,24, 1,46,42,37,42,24		2,42,15, 2,29	
		1,38,56,37, 9,32,24,38		7,14
36″	36,59,21, 2,58,23,52,10, 7, 2		2,42,15, 9,43	
		1,38,56,34,27,17,14,55		7,14
38″	36,59,22,41,54,58,19,27,21,57		2,42,15,16,57	
		1,38,56,31,45, 1,57,58		7,14
40″	36,59,24,20,51,30, 4,29,19,55		2,42,15,24,11	
		1,38,56,29, 2,46,33,47		7,14
42″	36,59,25,59,47,59, 7,15,53,42		2,42,15,31,25	
		1,38,56,26,20,31, 2,22		7,14
44″	36,59,27,38,44,25,27,46,56, 4		2,42,15,38,39	
		1,38,56,23,38,15,23,43		7,14
46″	36,59,29,17,40,49, 6, 2,19,47		2,42,15,45,53	
		1,38,56,20,55,59,37,50		7,14
48″	36,59,30,56,37,10, 2, 1,57,37		2,42,15,53, 7	
		1,38,56,18,13,43,44,43		7,14
50″	36,59,32,35,33,28,15,45,42,20		2,42,16, 0,21	
		1,38,56,15,31,27,44,22		7,14
52″	36,59,34,14,29,43,47,13,26,42		2,42,16, 7,35	
		1,38,56,12,49,11,36,47		7,14
54″	36,59,35,53,25,56,36,25, 3,29		2,42,16,14,49	
		1,38,56,10, 6,55,21,58		7,14
56″	36,59,37,32,22, 6,43,20,25,27		2,42,16,22, 3	
		1,38,56, 7,24,38,59,55		7,14
58″	36,59,39,11,18,14, 7,59,25,22		2,42,16,29,17	
		1,38,56, 4,42,22,30,38		
60″	36,59,40,50,14,18,50,21,56, 0			
exact	36,59,40,50,14,18,50,21,54,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38° 4′ 0″	36,59,40,50,14,18,50,21,54,19			
		1,38,56, 2, 0, 5,53,57		
2″	36,59,42,29,10,20,50,27,48,16		2,42,16,43,45	
		1,38,55,59,17,49,10,12		7,14
4″	36,59,44, 8, 6,20, 8,16,58,28		2,42,16,50,59	
		1,38,55,56,35,32,19,13		7,14
6″	36,59,45,47, 2,16,43,49,17,41		2,42,16,58,13	
		1,38,55,53,53,15,21, 0		7,14
8″	36,59,47,25,58,10,37, 4,38,41		2,42,17, 5,27	
		1,38,55,51,10,58,15,33		7,14
10″	36,59,49, 4,54, 1,48, 2,54,14		2,42,17,12,41	
		1,38,55,48,28,41, 2,52		7,14
12″	36,59,50,43,49,50,16,43,57, 6		2,42,17,19,55	
		1,38,55,45,46,23,42,57		7,14
14″	36,59,52,22,45,36, 3, 7,40, 3		2,42,17,27, 9	
		1,38,55,43, 4, 6,15,48		7,14
16″	36,59,54, 1,41,19, 7,13,55,51		2,42,17,34,23	
		1,38,55,40,21,48,41,25		7,14
18″	36,59,55,40,36,59,29, 2,37,16		2,42,17,41,37	
		1,38,55,37,39,30,59,48		7,14
20″	36,59,57,19,32,37, 8,33,37, 4		2,42,17,48,51	
		1,38,55,34,57,13,10,57		7,14
22″	36,59,58,58,28,12, 5,46,48, 1		2,42,17,56, 5	
		1,38,55,32,14,55,14,52		7,14
24″	37, 0, 0,37,23,44,20,42, 2,53		2,42,18, 3,19	
		1,38,55,29,32,37,11,33		7,14
26″	37, 0, 2,16,19,13,53,19,14,26		2,42,18,10,33	
		1,38,55,26,50,19, 1, 0		7,14
28″	37, 0, 3,55,14,40,43,38,15,26		2,42,18,17,47	
		1,38,55,24, 8, 0,43,13		7,14
30″	37, 0, 5,34,10, 4,51,38,58,39		2,42,18,25, 1	
		1,38,55,21,25,42,18,12		7,14
32″	37, 0, 7,13, 5,26,17,21,16,51		2,42,18,32,15	
		1,38,55,18,43,23,45,57		7,14
34″	37, 0, 8,52, 0,45, 0,45, 2,48		2,42,18,39,29	
		1,38,55,16, 1, 5, 6,28		7,14
36″	37, 0,10,30,56, 1, 1,50, 9,16		2,42,18,46,43	
		1,38,55,13,18,46,19,45		7,14
38″	37, 0,12, 9,51,14,20,36,29, 1		2,42,18,53,57	
		1,38,55,10,36,27,25,48		7,14
40″	37, 0,13,48,46,24,57, 3,54,49		2,42,19, 1,11	
		1,38,55, 7,54, 8,24,37		7,14
42″	37, 0,15,27,41,32,51,12,19,26		2,42,19, 8,25	
		1,38,55, 5,11,49,16,12		7,14
44″	37, 0,17, 6,36,38, 3, 1,35,38		2,42,19,15,39	
		1,38,55, 2,29,30, 0,33		7,14
46″	37, 0,18,45,31,40,32,31,36,11		2,42,19,22,53	
		1,38,54,59,47,10,37,40		7,14
48″	37, 0,20,24,26,40,19,42,13,51		2,42,19,30, 7	
		1,38,54,57, 4,51, 7,33		7,14
50″	37, 0,22, 3,21,37,24,33,21,24		2,42,19,37,21	
		1,38,54,54,22,31,30,12		7,14
52″	37, 0,23,42,16,31,47, 4,51,36		2,42,19,44,35	
		1,38,54,51,40,11,45,37		7,14
54″	37, 0,25,21,11,23,27,16,37,13		2,42,19,51,49	
		1,38,54,48,57,51,53,48		7,14
56″	37, 0,27, 0, 6,12,25, 8,31, 1		2,42,19,59, 3	
		1,38,54,46,15,31,54,45		7,14
58″	37, 0,28,39, 0,58,40,40,25,46		2,42,20, 6,17	
		1,38,54,43,33,11,48,28		
60″	37, 0,30,17,55,42,13,52,14,14			
exact	37, 0,30,17,55,42,13,52,15, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38° 5′ 0″	37, 0,30,17,55,42,13,52,15, 3			
		1,38,54,40,50,51,35,12		
2″	37, 0,31,56,50,23, 4,43,50,15		2,42,20,20,43	
		1,38,54,38, 8,31,14,29		7,14
4″	37, 0,33,35,45, 1,13,15, 4,44		2,42,20,27,57	
		1,38,54,35,26,10,46,32		7,14
6″	37, 0,35,14,39,36,39,25,51,16		2,42,20,35,11	
		1,38,54,32,43,50,11,21		7,14
8″	37, 0,36,53,34, 9,23,16, 2,37		2,42,20,42,25	
		1,38,54,30, 1,29,28,56		7,14
10″	37, 0,38,32,28,39,24,45,31,33		2,42,20,49,39	
		1,38,54,27,19, 8,39,17		7,14
12″	37, 0,40,11,23, 6,43,54,10,50		2,42,20,56,53	
		1,38,54,24,36,47,42,24		7,14
14″	37, 0,41,50,17,31,20,41,53,14		2,42,21, 4, 7	
		1,38,54,21,54,26,38,17		7,14
16″	37, 0,43,29,11,53,15, 8,31,31		2,42,21,11,21	
		1,38,54,19,12, 5,26,56		7,14
18″	37, 0,45, 8, 6,12,27,13,58,27		2,42,21,18,35	
		1,38,54,16,29,44, 8,21		7,14
20″	37, 0,46,47, 0,28,56,58, 6,48		2,42,21,25,49	
		1,38,54,13,47,22,42,32		7,14
22″	37, 0,48,25,54,42,44,20,49,20		2,42,21,33, 3	
		1,38,54,11, 5, 1, 9,29		7,14
24″	37, 0,50, 4,48,53,49,21,58,49		2,42,21,40,17	
		1,38,54, 8,22,39,29,12		7,14
26″	37, 0,51,43,43, 2,12, 1,28, 1		2,42,21,47,31	
		1,38,54, 5,40,17,41,41		7,14
28″	37, 0,53,22,37, 7,52,19, 9,42		2,42,21,54,45	
		1,38,54, 2,57,55,46,56		7,14
30″	37, 0,55, 1,31,10,50,14,56,38		2,42,22, 1,59	
		1,38,54, 0,15,33,44,57		7,14
32″	37, 0,56,40,25,11, 5,48,41,35		2,42,22, 9,13	
		1,38,53,57,33,11,35,44		7,14
34″	37, 0,58,19,19, 8,39, 0,17,19		2,42,22,16,27	
		1,38,53,54,50,49,19,17		7,14
36″	37, 0,59,58,13, 3,29,49,36,36		2,42,22,23,41	
		1,38,53,52, 8,26,55,36		7,14
38″	37, 1, 1,37, 6,55,38,16,32,12		2,42,22,30,55	
		1,38,53,49,26, 4,24,41		7,14
40″	37, 1, 3,16, 0,45, 4,20,56,53		2,42,22,38, 9	
		1,38,53,46,43,41,46,32		7,14
42″	37, 1, 4,54,54,31,48, 2,43,25		2,42,22,45,23	
		1,38,53,44, 1,19, 1, 9		7,14
44″	37, 1, 6,33,48,15,49,21,44,34		2,42,22,52,37	
		1,38,53,41,18,56, 8,32		7,14
46″	37, 1, 8,12,41,57, 8,17,53, 6		2,42,22,59,51	
		1,38,53,38,36,33, 8,41		7,14
48″	37, 1, 9,51,35,35,44,51, 1,47		2,42,23, 7, 5	
		1,38,53,35,54,10, 1,36		7,14
50″	37, 1,11,30,29,11,39, 1, 3,23		2,42,23,14,19	
		1,38,53,33,11,46,47,17		7,14
52″	37, 1,13, 9,22,44,50,47,50,40		2,42,23,21,33	
		1,38,53,30,29,23,25,44		7,14
54″	37, 1,14,48,16,15,20,11,16,24		2,42,23,28,47	
		1,38,53,27,46,59,56,57		7,14
56″	37, 1,16,27, 9,43, 7,11,13,21		2,42,23,36, 1	
		1,38,53,25, 4,36,20,56		7,14
58″	37, 1,18, 6, 3, 8,11,47,34,17		2,42,23,43,15	
		1,38,53,22,22,12,37,41		
60″	37, 1,19,44,56,30,34, 0,11,58			
exact	37, 1,19,44,56,30,34, 0,22, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38° 6′ 0″	37, 1,19,44,56,30,34, 0,22, 7	1,38,53,19,39,48,48,21		
2″	37, 1,21,23,49,50,13,49,10,28	1,38,53,16,57,24,50,43	2,42,23,57,38	7,14
4″	37, 1,23, 2,43, 7,11,14, 1,11	1,38,53,14,15, 0,45,51	2,42,24, 4,52	7,14
6″	37, 1,24,41,36,21,26,14,47, 2	1,38,53,11,32,36,33,45	2,42,24,12, 6	7,14
8″	37, 1,26,20,29,32,58,51,20,47	1,38,53, 8,50,12,14,25	2,42,24,19,20	7,14
10″	37, 1,27,59,22,41,49, 3,35,12	1,38,53, 6, 7,47,47,51	2,42,24,26,34	7,14
12″	37, 1,29,38,15,47,56,51,23, 3	1,38,53, 3,25,23,14, 3	2,42,24,33,48	7,14
14″	37, 1,31,17, 8,51,22,14,37, 6	1,38,53, 0,42,58,33, 1	2,42,24,41, 2	7,14
16″	37, 1,32,56, 1,52, 5,13,10, 7	1,38,52,58, 0,33,44,45	2,42,24,48,16	7,14
18″	37, 1,34,34,54,50, 5,46,54,52	1,38,52,55,18, 8,49,15	2,42,24,55,30	7,14
20″	37, 1,36,13,47,45,23,55,44, 7	1,38,52,52,35,43,46,31	2,42,25, 2,44	7,14
22″	37, 1,37,52,40,37,59,39,30,38	1,38,52,49,53,18,36,33	2,42,25, 9,58	7,14
24″	37, 1,39,31,33,27,52,58, 7,11	1,38,52,47,10,53,19,21	2,42,25,17,12	7,14
26″	37, 1,41,10,26,15, 3,51,26,32	1,38,52,44,28,27,54,55	2,42,25,24,26	7,14
28″	37, 1,42,49,18,59,32,19,21,27	1,38,52,41,46, 2,23,15	2,42,25,31,40	7,14
30″	37, 1,44,28,11,41,18,21,44,42	1,38,52,39, 3,36,44,21	2,42,25,38,54	7,14
32″	37, 1,46, 7, 4,20,21,58,29, 3	1,38,52,36,21,10,58,13	2,42,25,46, 8	7,14
34″	37, 1,47,45,56,56,43, 9,27,16	1,38,52,33,38,45, 4,51	2,42,25,53,22	7,14
36″	37, 1,49,24,49,30,21,54,32, 7	1,38,52,30,56,19, 4,15	2,42,26, 0,36	7,14
38″	37, 1,51, 3,42, 1,18,13,36,22	1,38,52,28,13,52,56,25	2,42,26, 7,50	7,14
40″	37, 1,52,42,34,29,32, 6,32,47	1,38,52,25,31,26,41,21	2,42,26,15, 4	7,14
42″	37, 1,54,21,26,55, 3,33,14, 8	1,38,52,22,49, 0,19, 3	2,42,26,22,18	7,14
44″	37, 1,56, 0,19,17,52,33,33,11	1,38,52,20, 6,33,49,31	2,42,26,29,32	7,14
46″	37, 1,57,39,11,37,59, 7,22,42	1,38,52,17,24, 7,12,45	2,42,26,36,46	7,14
48″	37, 1,59,18, 3,55,23,14,35,27	1,38,52,14,41,40,28,45	2,42,26,44, 0	7,14
50″	37, 2, 0,56,56,10, 4,55, 4,12	1,38,52,11,59,13,37,31	2,42,26,51,14	7,14
52″	37, 2, 2,35,48,22, 4, 8,41,43	1,38,52, 9,16,46,39, 3	2,42,26,58,28	7,14
54″	37, 2, 4,14,40,31,20,55,20,46	1,38,52, 6,34,19,33,21	2,42,27, 5,42	7,14
56″	37, 2, 5,53,32,37,55,14,54, 7	1,38,52, 3,51,52,20,25	2,42,27,12,56	7,14
58″	37, 2, 7,32,24,41,47, 7,14,32	1,38,52, 1, 9,25, 0,15	2,42,27,20,10	
60″	37, 2, 9,11,16,42,56,32,14,47			
exact	37, 2, 9,11,16,42,56,32,33,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38° 7′ 0″	37, 2, 9,11,16,42,56,32,33,50	1,38,51,58,26,57,34,52		
2″	37, 2,10,50, 8,41,23,30, 8,42	1,38,51,55,44,30, 0,23	2,42,27,34,29	7,14
4″	37, 2,12,29, 0,37, 8, 0, 9, 5	1,38,51,53, 2, 2,18,40	2,42,27,41,43	7,14
6″	37, 2,14, 7,52,30,10, 2,27,45	1,38,51,50,19,34,29,43	2,42,27,48,57	7,14
8″	37, 2,15,46,44,20,29,36,57,28	1,38,51,47,37, 6,33,32	2,42,27,56,11	7,14
10″	37, 2,17,25,36, 8, 6,43,31, 0	1,38,51,44,54,38,30, 7	2,42,28, 3,25	7,14
12″	37, 2,19, 4,27,53, 1,22, 1, 7	1,38,51,42,12,10,19,28	2,42,28,10,39	7,14
14″	37, 2,20,43,19,35,13,32,20,35	1,38,51,39,29,42, 1,35	2,42,28,17,53	7,14
16″	37, 2,22,22,11,14,43,14,22,10	1,38,51,36,47,13,36,28	2,42,28,25, 7	7,14
18″	37, 2,24, 1, 2,51,30,27,58,38	1,38,51,34, 4,45, 4, 7	2,42,28,32,21	7,14
20″	37, 2,25,39,54,25,35,13, 2,45	1,38,51,31,22,16,24,32	2,42,28,39,35	7,14
22″	37, 2,27,18,45,56,57,29,27,17	1,38,51,28,39,47,37,43	2,42,28,46,49	7,14
24″	37, 2,28,57,37,25,37,17, 5, 0	1,38,51,25,57,18,43,40	2,42,28,54, 3	7,14
26″	37, 2,30,36,28,51,34,35,48,40	1,38,51,23,14,49,42,23	2,42,29, 1,17	7,14
28″	37, 2,32,15,20,14,49,25,31, 3	1,38,51,20,32,20,33,52	2,42,29, 8,31	7,14
30″	37, 2,33,54,11,35,21,46, 4,55	1,38,51,17,49,51,18, 7	2,42,29,15,45	7,14
32″	37, 2,35,33, 2,53,11,37,23, 2	1,38,51,15, 7,21,55, 8	2,42,29,22,59	7,14
34″	37, 2,37,11,54, 8,18,59,18,10	1,38,51,12,24,52,24,55	2,42,29,30,13	7,14
36″	37, 2,38,50,45,20,43,51,43, 5	1,38,51, 9,42,22,47,28	2,42,29,37,27	7,14
38″	37, 2,40,29,36,30,26,14,30,33	1,38,51, 6,59,53, 2,47	2,42,29,44,41	7,14
40″	37, 2,42, 8,27,37,26, 7,33,20	1,38,51, 4,17,23,10,52	2,42,29,51,55	7,14
42″	37, 2,43,47,18,41,43,30,44,12	1,38,51, 1,34,53,11,43	2,42,29,59, 9	7,14
44″	37, 2,45,26, 9,43,18,23,55,55	1,38,50,58,52,23, 5,20	2,42,30, 6,23	7,14
46″	37, 2,47, 5, 0,42,10,47, 1,15	1,38,50,56, 9,52,51,43	2,42,30,13,37	7,14
48″	37, 2,48,43,51,38,20,39,52,58	1,38,50,53,27,22,30,52	2,42,30,20,51	7,14
50″	37, 2,50,22,42,31,48, 2,23,50	1,38,50,50,44,52, 2,47	2,42,30,28, 5	7,14
52″	37, 2,52, 1,33,22,32,54,26,37	1,38,50,48, 2,21,27,28	2,42,30,35,19	7,14
54″	37, 2,53,40,24,10,35,15,54, 5	1,38,50,45,19,50,44,55	2,42,30,42,33	7,14
56″	37, 2,55,19,14,55,55, 6,39, 0	1,38,50,42,37,19,55, 8	2,42,30,49,47	7,14
58″	37, 2,56,58, 5,38,32,26,34, 8	1,38,50,39,54,48,58, 7	2,42,30,57, 1	
60″	37, 2,58,36,56,18,27,15,32,15			
exact	37, 2,58,36,56,18,27,15,53, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38° 8′ 0″	37, 2,58,36,56,18,27,15,53, 5	1,38,50,37,12,17,56,16		
2″	37, 3, 0,15,46,55,39,33,49,21	1,38,50,34,29,46,44,58	2,42,31,11,18	7,14
4″	37, 3, 1,54,37,30, 9,20,34,19	1,38,50,31,47,15,26,26	2,42,31,18,32	7,14
6″	37, 3, 3,33,28, 1,56,36, 0,45	1,38,50,29, 4,44, 0,40	2,42,31,25,46	7,14
8″	37, 3, 5,12,18,31, 1,20, 1,25	1,38,50,26,22,12,27,40	2,42,31,33, 0	7,14
10″	37, 3, 6,51, 8,57,23,32,29, 5	1,38,50,23,39,40,47,26	2,42,31,40,14	7,14
12″	37, 3, 8,29,59,21, 3,13,16,31	1,38,50,20,57, 8,59,58	2,42,31,47,28	7,14
14″	37, 3,10, 8,49,42, 0,22,16,29	1,38,50,18,14,37, 5,16	2,42,31,54,42	7,14
16″	37, 3,11,47,40, 0,14,59,21,45	1,38,50,15,32, 5, 3,20	2,42,32, 1,56	7,14
18″	37, 3,13,26,30,15,47, 4,25, 5	1,38,50,12,49,32,54,10	2,42,32, 9,10	7,14
20″	37, 3,15, 5,20,28,36,37,19,15	1,38,50,10, 7, 0,37,46	2,42,32,16,24	7,14
22″	37, 3,16,44,10,38,43,37,57, 1	1,38,50, 7,24,28,14, 8	2,42,32,23,38	7,14
24″	37, 3,18,23, 0,46, 8, 6,11, 9	1,38,50, 4,41,55,43,16	2,42,32,30,52	7,14
26″	37, 3,20, 1,50,50,50, 1,54,25	1,38,50, 1,59,23, 5,10	2,42,32,38, 6	7,14
28″	37, 3,21,40,40,52,49,24,59,35	1,38,49,59,16,50,19,50	2,42,32,45,20	7,14
30″	37, 3,23,19,30,52, 6,15,19,25	1,38,49,56,34,17,27,16	2,42,32,52,34	7,14
32″	37, 3,24,58,20,48,40,32,46,41	1,38,49,53,51,44,27,28	2,42,32,59,48	7,14
34″	37, 3,26,37,10,42,32,17,14, 9	1,38,49,51, 9,11,20,26	2,42,33, 7, 2	7,14
36″	37, 3,28,16, 0,33,41,28,34,35	1,38,49,48,26,38, 6,10	2,42,33,14,16	7,14
38″	37, 3,29,54,50,22, 8, 6,40,45	1,38,49,45,44, 4,44,40	2,42,33,21,30	7,14
40″	37, 3,31,33,40, 7,52,11,25,25	1,38,49,43, 1,31,15,56	2,42,33,28,44	7,14
42″	37, 3,33,12,29,50,53,42,41,21	1,38,49,40,18,57,39,58	2,42,33,35,58	7,14
44″	37, 3,34,51,19,31,12,40,21,19	1,38,49,37,36,23,56,46	2,42,33,43,12	7,14
46″	37, 3,36,30, 9, 8,49, 4,18, 5	1,38,49,34,53,50, 6,20	2,42,33,50,26	7,14
48″	37, 3,38, 8,58,43,42,54,24,25	1,38,49,32,11,16, 8,40	2,42,33,57,40	7,14
50″	37, 3,39,47,48,15,54,10,33, 5	1,38,49,29,28,42, 3,46	2,42,34, 4,54	7,14
52″	37, 3,41,26,37,45,22,52,36,51	1,38,49,26,46, 7,51,38	2,42,34,12, 8	7,14
54″	37, 3,43, 5,27,12, 9, 0,28,29	1,38,49,24, 3,33,32,16	2,42,34,19,22	7,14
56″	37, 3,44,44,16,36,12,34, 0,45	1,38,49,21,20,59, 5,40	2,42,34,26,36	7,14
58″	37, 3,46,23, 5,57,33,33, 6,25	1,38,49,18,38,24,31,50	2,42,34,33,50	
60″	37, 3,48, 1,55,16,11,57,38,15			
exact	37, 3,48, 1,55,16,11,58, 7,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38° 9′ 0″	37, 3,48, 1,55,16,11,58, 7,17			
		1,38,49,15,55,49,54, 0		
2″	37, 3,49,40,44,32, 7,48, 1,17		2,42,34,48, 4	
		1,38,49,13,13,15, 5,56		7,13
4″	37, 3,51,19,33,45,21, 3, 7,13		2,42,34,55,17	
		1,38,49,10,30,40,10,39		7,13
6″	37, 3,52,58,22,55,51,43,17,52		2,42,35, 2,30	
		1,38,49, 7,48, 5, 8, 9		7,13
8″	37, 3,54,37,12, 3,39,48,26, 1		2,42,35, 9,43	
		1,38,49, 5, 5,29,58,26		7,13
10″	37, 3,56,16, 1, 8,45,18,24,27		2,42,35,16,56	
		1,38,49, 2,22,54,41,30		7,13
12″	37, 3,57,54,50,11, 8,13, 5,57		2,42,35,24, 9	
		1,38,48,59,40,19,17,21		7,13
14″	37, 3,59,33,39,10,48,32,23,18		2,42,35,31,22	
		1,38,48,56,57,43,45,59		7,13
16″	37, 4, 1,12,28, 7,46,16, 9,17		2,42,35,38,35	
		1,38,48,54,15, 8, 7,24		7,13
18″	37, 4, 2,51,17, 2, 1,24,16,41		2,42,35,45,48	
		1,38,48,51,32,32,21,36		7,13
20″	37, 4, 4,30, 5,53,33,56,38,17		2,42,35,53, 1	
		1,38,48,48,49,56,28,35		7,13
22″	37, 4, 6, 8,54,42,23,53, 6,52		2,42,36, 0,14	
		1,38,48,46, 7,20,28,21		7,13
24″	37, 4, 7,47,43,28,31,13,35,13		2,42,36, 7,27	
		1,38,48,43,24,44,20,54		7,13
26″	37, 4, 9,26,32,11,55,57,56, 7		2,42,36,14,40	
		1,38,48,40,42, 8, 6,14		7,13
28″	37, 4,11, 5,20,52,38, 6, 2,21		2,42,36,21,53	
		1,38,48,37,59,31,44,21		7,13
30″	37, 4,12,44, 9,30,37,37,46,42		2,42,36,29, 6	
		1,38,48,35,16,55,15,15		7,13
32″	37, 4,14,22,58, 5,54,33, 1,57		2,42,36,36,19	
		1,38,48,32,34,18,38,56		7,13
34″	37, 4,16, 1,46,38,28,51,40,53		2,42,36,43,32	
		1,38,48,29,51,41,55,24		7,13
36″	37, 4,17,40,35, 8,20,33,36,17		2,42,36,50,45	
		1,38,48,27, 9, 5, 4,39		7,13
38″	37, 4,19,19,23,35,29,38,40,56		2,42,36,57,58	
		1,38,48,24,26,28, 6,41		7,13
40″	37, 4,20,58,11,59,56, 6,47,37		2,42,37, 5,11	
		1,38,48,21,43,51, 1,30		7,13
42″	37, 4,22,37, 0,21,39,57,49, 7		2,42,37,12,24	
		1,38,48,19, 1,13,49, 6		7,13
44″	37, 4,24,15,48,40,41,11,38,13		2,42,37,19,37	
		1,38,48,16,18,36,29,29		7,13
46″	37, 4,25,54,36,56,59,48, 7,42		2,42,37,26,50	
		1,38,48,13,35,59, 2,39		7,13
48″	37, 4,27,33,25,10,35,47,10,21		2,42,37,34, 3	
		1,38,48,10,53,21,28,36		7,13
50″	37, 4,29,12,13,21,29, 8,38,57		2,42,37,41,16	
		1,38,48, 8,10,43,47,20		7,13
52″	37, 4,30,51, 1,29,39,52,26,17		2,42,37,48,29	
		1,38,48, 5,28, 5,58,51		7,13
54″	37, 4,32,29,49,35, 7,58,25, 8		2,42,37,55,42	
		1,38,48, 2,45,28, 3, 9		7,13
56″	37, 4,34, 8,37,37,53,26,28,17		2,42,38, 2,55	
		1,38,48, 0, 2,50, 0,14		7,13
58″	37, 4,35,47,25,37,56,16,28,31		2,42,38,10, 8	
		1,38,47,57,20,11,50, 6		
60″	37, 4,37,26,13,35,16,28,18,37			
exact	37, 4,37,26,13,35,16,27,48,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°10′ 0″	37, 4,37,26,13,35,16,27,48,22	1,38,47,54,37,33,29,34		
2″	37, 4,39, 5, 1,29,54, 1,17,56	1,38,47,51,54,55, 4,47	2,42,38,24,47	7,13
4″	37, 4,40,43,49,21,48,56,22,43	1,38,47,49,12,16,32,47	2,42,38,32, 0	7,13
6″	37, 4,42,22,37,11, 1,12,55,30	1,38,47,46,29,37,53,34	2,42,38,39,13	7,13
8″	37, 4,44, 1,24,57,30,50,49, 4	1,38,47,43,46,59, 7, 8	2,42,38,46,26	7,13
10″	37, 4,45,40,12,41,17,49,56,12	1,38,47,41, 4,20,13,29	2,42,38,53,39	7,13
12″	37, 4,47,19, 0,22,22,10, 9,41	1,38,47,38,21,41,12,37	2,42,39, 0,52	7,13
14″	37, 4,48,57,48, 0,43,51,22,18	1,38,47,35,39, 2, 4,32	2,42,39, 8, 5	7,13
16″	37, 4,50,36,35,36,22,53,26,50	1,38,47,32,56,22,49,14	2,42,39,15,18	7,13
18″	37, 4,52,15,23, 9,19,16,16, 4	1,38,47,30,13,43,26,43	2,42,39,22,31	7,13
20″	37, 4,53,54,10,39,32,59,42,47	1,38,47,27,31, 3,56,59	2,42,39,29,44	7,13
22″	37, 4,55,32,58, 7, 4, 3,39,46	1,38,47,24,48,24,20, 2	2,42,39,36,57	7,13
24″	37, 4,57,11,45,31,52,27,59,48	1,38,47,22, 5,44,35,52	2,42,39,44,10	7,13
26″	37, 4,58,50,32,53,58,12,35,40	1,38,47,19,23, 4,44,29	2,42,39,51,23	7,13
28″	37, 5, 0,29,20,13,21,17,20, 9	1,38,47,16,40,24,45,53	2,42,39,58,36	7,13
30″	37, 5, 2, 8, 7,30, 1,42, 6, 2	1,38,47,13,57,44,40, 4	2,42,40, 5,49	7,13
32″	37, 5, 3,46,54,43,59,26,46, 6	1,38,47,11,15, 4,27, 2	2,42,40,13, 2	7,13
34″	37, 5, 5,25,41,55,14,31,13, 8	1,38,47, 8,32,24, 6,47	2,42,40,20,15	7,13
36″	37, 5, 7, 4,29, 3,46,55,19,55	1,38,47, 5,49,43,39,19	2,42,40,27,28	7,13
38″	37, 5, 8,43,16, 9,36,38,59,14	1,38,47, 3, 7, 3, 4,38	2,42,40,34,41	7,13
40″	37, 5,10,22, 3,12,43,42, 3,52	1,38,47, 0,24,22,22,44	2,42,40,41,54	7,13
42″	37, 5,12, 0,50,13, 8, 4,26,36	1,38,46,57,41,41,33,37	2,42,40,49, 7	7,13
44″	37, 5,13,39,37,10,49,46, 0,13	1,38,46,54,59, 0,37,17	2,42,40,56,20	7,13
46″	37, 5,15,18,24, 5,48,46,37,30	1,38,46,52,16,19,33,44	2,42,41, 3,33	7,13
48″	37, 5,16,57,10,58, 5, 6,11,14	1,38,46,49,33,38,22,58	2,42,41,10,46	7,13
50″	37, 5,18,35,57,47,38,44,34,12	1,38,46,46,50,57, 4,59	2,42,41,17,59	7,13
52″	37, 5,20,14,44,34,29,41,39,11	1,38,46,44, 8,15,39,47	2,42,41,25,12	7,13
54″	37, 5,21,53,31,18,37,57,18,58	1,38,46,41,25,34, 7,22	2,42,41,32,25	7,13
56″	37, 5,23,32,18, 0, 3,31,26,20	1,38,46,38,42,52,27,44	2,42,41,39,38	7,13
58″	37, 5,25,11, 4,38,46,23,54, 4	1,38,46,36, 0,10,40,53	2,42,41,46,51	
60″	37, 5,26,49,51,14,46,34,34,57			
exact	37, 5,26,49,51,14,46,34,12,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°11′ 0″	37, 5,26,49,51,14,46,34,12,53	1,38,46,33,17,28,44,27		
2″	37, 5,28,28,37,48, 4, 2,57,20	1,38,46,30,34,46,43, 0	2,42,42, 1,27	7,13
4″	37, 5,30, 7,24,18,38,49,40,20	1,38,46,27,52, 4,34,20	2,42,42, 8,40	7,13
6″	37, 5,31,46,10,46,30,54,14,40	1,38,46,25, 9,22,18,27	2,42,42,15,53	7,13
8″	37, 5,33,24,57,11,40,16,33, 7	1,38,46,22,26,39,55,21	2,42,42,23, 6	7,13
10″	37, 5,35, 3,43,34, 6,56,28,28	1,38,46,19,43,57,25, 2	2,42,42,30,19	7,13
12″	37, 5,36,42,29,53,50,53,53,30	1,38,46,17, 1,14,47,30	2,42,42,37,32	7,13
14″	37, 5,38,21,16,10,52, 8,41, 0	1,38,46,14,18,32, 2,45	2,42,42,44,45	7,13
16″	37, 5,40, 0, 2,25,10,40,43,45	1,38,46,11,35,49,10,47	2,42,42,51,58	7,13
18″	37, 5,41,38,48,36,46,29,54,32	1,38,46, 8,53, 6,11,36	2,42,42,59,11	7,13
20″	37, 5,43,17,34,45,39,36, 6, 8	1,38,46, 6,10,23, 5,12	2,42,43, 6,24	7,13
22″	37, 5,44,56,20,51,49,59,11,20	1,38,46, 3,27,39,51,35	2,42,43,13,37	7,13
24″	37, 5,46,35, 6,55,17,39, 2,55	1,38,46, 0,44,56,30,45	2,42,43,20,50	7,13
26″	37, 5,48,13,52,56, 2,35,33,40	1,38,45,58, 2,13, 2,42	2,42,43,28, 3	7,13
28″	37, 5,49,52,38,54, 4,48,36,22	1,38,45,55,19,29,27,26	2,42,43,35,16	7,13
30″	37, 5,51,31,24,49,24,18, 3,48	1,38,45,52,36,45,44,57	2,42,43,42,29	7,13
32″	37, 5,53,10,10,42, 1, 3,48,45	1,38,45,49,54, 1,55,15	2,42,43,49,42	7,13
34″	37, 5,54,48,56,31,55, 5,44, 0	1,38,45,47,11,17,58,20	2,42,43,56,55	7,13
36″	37, 5,56,27,42,19, 6,23,42,20	1,38,45,44,28,33,54,12	2,42,44, 4, 8	7,13
38″	37, 5,58, 6,28, 3,34,57,36,32	1,38,45,41,45,49,42,51	2,42,44,11,21	7,13
40″	37, 5,59,45,13,45,20,47,19,23	1,38,45,39, 3, 5,24,17	2,42,44,18,34	7,13
42″	37, 6, 1,23,59,24,23,52,43,40	1,38,45,36,20,20,58,30	2,42,44,25,47	7,13
44″	37, 6, 3, 2,45, 0,44,13,42,10	1,38,45,33,37,36,25,30	2,42,44,33, 0	7,13
46″	37, 6, 4,41,30,34,21,50, 7,40	1,38,45,30,54,51,45,17	2,42,44,40,13	7,13
48″	37, 6, 6,20,16, 5,16,41,52,57	1,38,45,28,12, 6,57,51	2,42,44,47,26	7,13
50″	37, 6, 7,59, 1,33,28,48,50,48	1,38,45,25,29,22, 3,12	2,42,44,54,39	7,13
52″	37, 6, 9,37,46,58,58,10,54, 0	1,38,45,22,46,37, 1,20	2,42,45, 1,52	7,13
54″	37, 6,11,16,32,21,44,47,55,20	1,38,45,20, 3,51,52,15	2,42,45, 9, 5	7,13
56″	37, 6,12,55,17,41,48,39,47,35	1,38,45,17,21, 6,35,57	2,42,45,16,18	7,13
58″	37, 6,14,34, 2,59, 9,46,23,32	1,38,45,14,38,21,12,26	2,42,45,23,31	
60″	37, 6,16,12,48,13,48, 7,35,58			
exact	37, 6,16,12,48,13,48, 7,21,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°12′ 0″	37, 6,16,12,48,13,48, 7,21,56			
		1,38,45,11,55,35,40, 8		
2″	37, 6,17,51,33,25,43,43, 2, 4		2,42,45,38, 3	
		1,38,45, 9,12,50, 2, 5		7,13
4″	37, 6,19,30,18,34,56,33, 4, 9		2,42,45,45,16	
		1,38,45, 6,30, 4,16,49		7,13
6″	37, 6,21, 9, 3,41,26,37,20,58		2,42,45,52,29	
		1,38,45, 3,47,18,24,20		7,13
8″	37, 6,22,47,48,45,13,55,45,18		2,42,45,59,42	
		1,38,45, 1, 4,32,24,38		7,13
10″	37, 6,24,26,33,46,18,28, 9,56		2,42,46, 6,55	
		1,38,44,58,21,46,17,43		7,13
12″	37, 6,26, 5,18,44,40,14,27,39		2,42,46,14, 8	
		1,38,44,55,39, 0, 3,35		7,13
14″	37, 6,27,44, 3,40,19,14,31,14		2,42,46,21,21	
		1,38,44,52,56,13,42,14		7,13
16″	37, 6,29,22,48,33,15,28,13,28		2,42,46,28,34	
		1,38,44,50,13,27,13,40		7,13
18″	37, 6,31, 1,33,23,28,55,27, 8		2,42,46,35,47	
		1,38,44,47,30,40,37,53		7,13
20″	37, 6,32,40,18,10,59,36, 5, 1		2,42,46,43, 0	
		1,38,44,44,47,53,54,53		7,13
22″	37, 6,34,19, 2,55,47,29,59,54		2,42,46,50,13	
		1,38,44,42, 5, 7, 4,40		7,13
24″	37, 6,35,57,47,37,52,37, 4,34		2,42,46,57,26	
		1,38,44,39,22,20, 7,14		7,13
26″	37, 6,37,36,32,17,14,57,11,48		2,42,47, 4,39	
		1,38,44,36,39,33, 2,35		7,13
28″	37, 6,39,15,16,53,54,30,14,23		2,42,47,11,52	
		1,38,44,33,56,45,50,43		7,13
30″	37, 6,40,54, 1,27,51,16, 5, 6		2,42,47,19, 5	
		1,38,44,31,13,58,31,38		7,13
32″	37, 6,42,32,45,59, 5,14,36,44		2,42,47,26,18	
		1,38,44,28,31,11, 5,20		7,13
34″	37, 6,44,11,30,27,36,25,42, 4		2,42,47,33,31	
		1,38,44,25,48,23,31,49		7,13
36″	37, 6,45,50,14,53,24,49,13,53		2,42,47,40,44	
		1,38,44,23, 5,35,51, 5		7,13
38″	37, 6,47,28,59,16,30,25, 4,58		2,42,47,47,57	
		1,38,44,20,22,48, 3, 8		7,13
40″	37, 6,49, 7,43,36,53,13, 8, 6		2,42,47,55,10	
		1,38,44,17,40, 0, 7,58		7,13
42″	37, 6,50,46,27,54,33,13,16, 4		2,42,48, 2,23	
		1,38,44,14,57,12, 5,35		7,13
44″	37, 6,52,25,12, 9,30,25,21,39		2,42,48, 9,36	
		1,38,44,12,14,23,55,59		7,13
46″	37, 6,54, 3,56,21,44,49,17,38		2,42,48,16,49	
		1,38,44, 9,31,35,39,10		7,13
48″	37, 6,55,42,40,31,16,24,56,48		2,42,48,24, 2	
		1,38,44, 6,48,47,15, 8		7,13
50″	37, 6,57,21,24,38, 5,12,11,56		2,42,48,31,15	
		1,38,44, 4, 5,58,43,53		7,13
52″	37, 6,59, 0, 8,42,11,10,55,49		2,42,48,38,28	
		1,38,44, 1,23,10, 5,25		7,13
54″	37, 7, 0,38,52,43,34,21, 1,14		2,42,48,45,41	
		1,38,43,58,40,21,19,44		7,13
56″	37, 7, 2,17,36,42,14,42,20,58		2,42,48,52,54	
		1,38,43,55,57,32,26,50		7,13
58″	37, 7, 3,56,20,38,12,14,47,48		2,42,49, 0, 7	
		1,38,43,53,14,43,26,43		
60″	37, 7, 5,35, 4,31,26,58,14,31			
exact	37, 7, 5,35, 4,31,26,58, 1,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°13′ 0″	37, 7, 5,35, 4,31,26,58, 1,16	1,38,43,50,31,54,18, 7		
2″	37, 7, 7,13,48,21,58,52,19,23	1,38,43,47,49, 5, 3,30	2,42,49,14,37	7,13
4″	37, 7, 8,52,32, 9,47,57,22,53	1,38,43,45, 6,15,41,40	2,42,49,21,50	7,13
6″	37, 7,10,31,15,54,54,13, 4,33	1,38,43,42,23,26,12,37	2,42,49,29, 3	7,13
8″	37, 7,12, 9,59,37,17,39,17,10	1,38,43,39,40,36,36,21	2,42,49,36,16	7,13
10″	37, 7,13,48,43,16,58,15,53,31	1,38,43,36,57,46,52,52	2,42,49,43,29	7,13
12″	37, 7,15,27,26,53,56, 2,46,23	1,38,43,34,14,57, 2,10	2,42,49,50,42	7,13
14″	37, 7,17, 6,10,28,10,59,48,33	1,38,43,31,32, 7, 4,15	2,42,49,57,55	7,13
16″	37, 7,18,44,53,59,43, 6,52,48	1,38,43,28,49,16,59, 7	2,42,50, 5, 8	7,13
18″	37, 7,20,23,37,28,32,23,51,55	1,38,43,26, 6,26,46,46	2,42,50,12,21	7,13
20″	37, 7,22, 2,20,54,38,50,38,41	1,38,43,23,23,36,27,12	2,42,50,19,34	7,13
22″	37, 7,23,41, 4,18, 2,27, 5,53	1,38,43,20,40,46, 0,25	2,42,50,26,47	7,13
24″	37, 7,25,19,47,38,43,13, 6,18	1,38,43,17,57,55,26,25	2,42,50,34, 0	7,13
26″	37, 7,26,58,30,56,41, 8,32,43	1,38,43,15,15, 4,45,12	2,42,50,41,13	7,13
28″	37, 7,28,37,14,11,56,13,17,55	1,38,43,12,32,13,56,46	2,42,50,48,26	7,13
30″	37, 7,30,15,57,24,28,27,14,41	1,38,43, 9,49,23, 1, 7	2,42,50,55,39	7,13
32″	37, 7,31,54,40,34,17,50,15,48	1,38,43, 7, 6,31,58,15	2,42,51, 2,52	7,13
34″	37, 7,33,33,23,41,24,22,14, 3	1,38,43, 4,23,40,48,10	2,42,51,10, 5	7,13
36″	37, 7,35,12, 6,45,48, 3, 2,13	1,38,43, 1,40,49,30,52	2,42,51,17,18	7,13
38″	37, 7,36,50,49,47,28,52,33, 5	1,38,42,58,57,58, 6,21	2,42,51,24,31	7,13
40″	37, 7,38,29,32,46,26,50,39,26	1,38,42,56,15, 6,34,37	2,42,51,31,44	7,13
42″	37, 7,40, 8,15,42,41,57,14, 3	1,38,42,53,32,14,55,40	2,42,51,38,57	7,13
44″	37, 7,41,46,58,36,14,12, 9,43	1,38,42,50,49,23, 9,30	2,42,51,46,10	7,13
46″	37, 7,43,25,41,27, 3,35,19,13	1,38,42,48, 6,31,16, 7	2,42,51,53,23	7,13
48″	37, 7,45, 4,24,15,10, 6,35,20	1,38,42,45,23,39,15,31	2,42,52, 0,36	7,13
50″	37, 7,46,43, 7, 0,33,45,50,51	1,38,42,42,40,47, 7,42	2,42,52, 7,49	7,13
52″	37, 7,48,21,49,43,14,32,58,33	1,38,42,39,57,54,52,40	2,42,52,15, 2	7,13
54″	37, 7,50, 0,32,23,12,27,51,13	1,38,42,37,15, 2,30,25	2,42,52,22,15	7,13
56″	37, 7,51,39,15, 0,27,30,21,38	1,38,42,34,32,10, 0,57	2,42,52,29,28	7,13
58″	37, 7,53,17,57,34,59,40,22,35	1,38,42,31,49,17,24,16	2,42,52,36,41	
60″	37, 7,54,56,40, 6,48,57,46,51			
exact	37, 7,54,56,40, 6,48,57,41,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°14′ 0″	37, 7,54,56,40, 6,48,57,41,12	1,38,42,29, 6,24,39,53		
2″	37, 7,56,35,22,35,55,22,21, 5	1,38,42,26,23,31,48,45	2,42,52,51, 8	7,13
4″	37, 7,58,14, 5, 2,18,54, 9,50	1,38,42,23,40,38,50,24	2,42,52,58,21	7,13
6″	37, 7,59,52,47,25,59,33, 0,14	1,38,42,20,57,45,44,50	2,42,53, 5,34	7,13
8″	37, 8, 1,31,29,46,57,18,45, 4	1,38,42,18,14,52,32, 3	2,42,53,12,47	7,13
10″	37, 8, 3,10,12, 5,12,11,17, 7	1,38,42,15,31,59,12, 3	2,42,53,20, 0	7,13
12″	37, 8, 4,48,54,20,44,10,29,10	1,38,42,12,49, 5,44,50	2,42,53,27,13	7,13
14″	37, 8, 6,27,36,33,33,16,14, 0	1,38,42,10, 6,12,10,24	2,42,53,34,26	7,13
16″	37, 8, 8, 6,18,43,39,28,24,24	1,38,42, 7,23,18,28,45	2,42,53,41,39	7,13
18″	37, 8, 9,45, 0,51, 2,46,53, 9	1,38,42, 4,40,24,39,53	2,42,53,48,52	7,13
20″	37, 8,11,23,42,55,43,11,33, 2	1,38,42, 1,57,30,43,48	2,42,53,56, 5	7,13
22″	37, 8,13, 2,24,57,40,42,16,50	1,38,41,59,14,36,40,30	2,42,54, 3,18	7,13
24″	37, 8,14,41, 6,56,55,18,57,20	1,38,41,56,31,42,29,59	2,42,54,10,31	7,13
26″	37, 8,16,19,48,53,27, 1,27,19	1,38,41,53,48,48,12,15	2,42,54,17,44	7,13
28″	37, 8,17,58,30,47,15,49,39,34	1,38,41,51, 5,53,47,18	2,42,54,24,57	7,13
30″	37, 8,19,37,12,38,21,43,26,52	1,38,41,48,22,59,15, 8	2,42,54,32,10	7,13
32″	37, 8,21,15,54,26,44,42,42, 0	1,38,41,45,40, 4,35,45	2,42,54,39,23	7,13
34″	37, 8,22,54,36,12,24,47,17,45	1,38,41,42,57, 9,49, 9	2,42,54,46,36	7,13
36″	37, 8,24,33,17,55,21,57, 6,54	1,38,41,40,14,14,55,20	2,42,54,53,49	7,13
38″	37, 8,26,11,59,35,36,12, 2,14	1,38,41,37,31,19,54,18	2,42,55, 1, 2	7,13
40″	37, 8,27,50,41,13, 7,31,56,32	1,38,41,34,48,24,46, 3	2,42,55, 8,15	7,13
42″	37, 8,29,29,22,47,55,56,42,35	1,38,41,32, 5,29,30,35	2,42,55,15,28	7,13
44″	37, 8,31, 8, 4,20, 1,26,13,10	1,38,41,29,22,34, 7,54	2,42,55,22,41	7,13
46″	37, 8,32,46,45,49,24, 0,21, 4	1,38,41,26,39,38,38, 0	2,42,55,29,54	7,13
48″	37, 8,34,25,27,16, 3,38,59, 4	1,38,41,23,56,43, 0,53	2,42,55,37, 7	7,13
50″	37, 8,36, 4, 8,40, 0,21,59,57	1,38,41,21,13,47,16,33	2,42,55,44,20	7,13
52″	37, 8,37,42,50, 1,14, 9,16,30	1,38,41,18,30,51,25, 0	2,42,55,51,33	7,13
54″	37, 8,39,21,31,19,45, 0,41,30	1,38,41,15,47,55,26,14	2,42,55,58,46	7,13
56″	37, 8,41, 0,12,35,32,56, 7,44	1,38,41,13, 4,59,20,15	2,42,56, 5,59	7,13
58″	37, 8,42,38,53,48,37,55,27,59	1,38,41,10,22, 3, 7, 3	2,42,56,13,12	
60″	37, 8,44,17,34,58,59,58,35, 2			
exact	37, 8,44,17,34,58,59,58,36,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°15′ 0″	37, 8,44,17,34,58,59,58,36,44	1,38,41, 7,39, 6,46,55		
2″	37, 8,45,56,16, 6,39, 5,23,39	1,38,41, 4,56,10,19,19	2,42,56,27,36	7,13
4″	37, 8,47,34,57,11,35,15,42,58	1,38,41, 2,13,13,44,30	2,42,56,34,49	7,13
6″	37, 8,49,13,38,13,48,29,27,28	1,38,40,59,30,17, 2,28	2,42,56,42, 2	7,13
8″	37, 8,50,52,19,13,18,46,29,56	1,38,40,56,47,20,13,13	2,42,56,49,15	7,13
10″	37, 8,52,31, 0,10, 6, 6,43, 9	1,38,40,54, 4,23,16,45	2,42,56,56,28	7,13
12″	37, 8,54, 9,41, 4,10,29,59,54	1,38,40,51,21,26,13, 4	2,42,57, 3,41	7,13
14″	37, 8,55,48,21,55,31,56,12,58	1,38,40,48,38,29, 2,10	2,42,57,10,54	7,13
16″	37, 8,57,27, 2,44,10,25,15, 8	1,38,40,45,55,31,44, 3	2,42,57,18, 7	7,13
18″	37, 8,59, 5,43,30, 5,56,59,11	1,38,40,43,12,34,18,43	2,42,57,25,20	7,13
20″	37, 9, 0,44,24,13,18,31,17,54	1,38,40,40,29,36,46,10	2,42,57,32,33	7,13
22″	37, 9, 2,23, 4,53,48, 8, 4, 4	1,38,40,37,46,39, 6,24	2,42,57,39,46	7,13
24″	37, 9, 4, 1,45,31,34,47,10,28	1,38,40,35, 3,41,19,25	2,42,57,46,59	7,13
26″	37, 9, 5,40,26, 6,38,28,29,53	1,38,40,32,20,43,25,13	2,42,57,54,12	7,13
28″	37, 9, 7,19, 6,38,59,11,55, 6	1,38,40,29,37,45,23,48	2,42,58, 1,25	7,13
30″	37, 9, 8,57,47, 8,36,57,18,54	1,38,40,26,54,47,15,10	2,42,58, 8,38	7,13
32″	37, 9,10,36,27,35,31,44,34, 4	1,38,40,24,11,48,59,19	2,42,58,15,51	7,13
34″	37, 9,12,15, 7,59,43,33,33,23	1,38,40,21,28,50,36,15	2,42,58,23, 4	7,13
36″	37, 9,13,53,48,21,12,24, 9,38	1,38,40,18,45,52, 5,58	2,42,58,30,17	7,13
38″	37, 9,15,32,28,39,58,16,15,36	1,38,40,16, 2,53,28,28	2,42,58,37,30	7,13
40″	37, 9,17,11, 8,56, 1, 9,44, 4	1,38,40,13,19,54,43,45	2,42,58,44,43	7,13
42″	37, 9,18,49,49, 9,21, 4,27,49	1,38,40,10,36,55,51,49	2,42,58,51,56	7,13
44″	37, 9,20,28,29,19,58, 0,19,38	1,38,40, 7,53,56,52,40	2,42,58,59, 9	7,13
46″	37, 9,22, 7, 9,27,51,57,12,18	1,38,40, 5,10,57,46,18	2,42,59, 6,22	7,13
48″	37, 9,23,45,49,33, 2,54,58,36	1,38,40, 2,27,58,32,43	2,42,59,13,35	7,13
50″	37, 9,25,24,29,35,30,53,31,19	1,38,39,59,44,59,11,55	2,42,59,20,48	7,13
52″	37, 9,27, 3, 9,35,15,52,43,14	1,38,39,57, 1,59,43,54	2,42,59,28, 1	7,13
54″	37, 9,28,41,49,32,17,52,27, 8	1,38,39,54,19, 0, 8,40	2,42,59,35,14	7,13
56″	37, 9,30,20,29,26,36,52,35,48	1,38,39,51,36, 0,26,13	2,42,59,42,27	7,13
58″	37, 9,31,59, 9,18,12,53, 2, 1	1,38,39,48,53, 0,36,33	2,42,59,49,40	
60″	37, 9,33,37,49, 7, 5,53,38,34			
exact	37, 9,33,37,49, 7, 5,53,47,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°16′ 0″	37, 9,33,37,49, 7, 5,53,47,30			
		1,38,39,46,10, 0,40,43		
2″	37, 9,35,16,28,53,15,54,28,13		2,43, 0, 4, 1	
		1,38,39,43,27, 0,36,42		7,13
4″	37, 9,36,55, 8,36,42,55, 4,55		2,43, 0,11,14	
		1,38,39,40,44, 0,25,28		7,13
6″	37, 9,38,33,48,17,26,55,30,23		2,43, 0,18,27	
		1,38,39,38, 1, 0, 7, 1		7,13
8″	37, 9,40,12,27,55,27,55,37,24		2,43, 0,25,40	
		1,38,39,35,17,59,41,21		7,13
10″	37, 9,41,51, 7,30,45,55,18,45		2,43, 0,32,53	
		1,38,39,32,34,59, 8,28		7,13
12″	37, 9,43,29,47, 3,20,54,27,13		2,43, 0,40, 6	
		1,38,39,29,51,58,28,22		7,13
14″	37, 9,45, 8,26,33,12,52,55,35		2,43, 0,47,19	
		1,38,39,27, 8,57,41, 3		7,13
16″	37, 9,46,47, 6, 0,21,50,36,38		2,43, 0,54,32	
		1,38,39,24,25,56,46,31		7,13
18″	37, 9,48,25,45,24,47,47,23, 9		2,43, 1, 1,45	
		1,38,39,21,42,55,44,46		7,13
20″	37, 9,50, 4,24,46,30,43, 7,55		2,43, 1, 8,58	
		1,38,39,18,59,54,35,48		7,13
22″	37, 9,51,43, 4, 5,30,37,43,43		2,43, 1,16,11	
		1,38,39,16,16,53,19,37		7,13
24″	37, 9,53,21,43,21,47,31, 3,20		2,43, 1,23,24	
		1,38,39,13,33,51,56,13		7,13
26″	37, 9,55, 0,22,35,21,22,59,33		2,43, 1,30,37	
		1,38,39,10,50,50,25,36		7,13
28″	37, 9,56,39, 1,46,12,13,25, 9		2,43, 1,37,50	
		1,38,39, 8, 7,48,47,46		7,13
30″	37, 9,58,17,40,54,20, 2,12,55		2,43, 1,45, 3	
		1,38,39, 5,24,47, 2,43		7,13
32″	37, 9,59,56,19,59,44,49,15,38		2,43, 1,52,16	
		1,38,39, 2,41,45,10,27		7,13
34″	37,10, 1,34,59, 2,26,34,26, 5		2,43, 1,59,29	
		1,38,38,59,58,43,10,58		7,13
36″	37,10, 3,13,38, 2,25,17,37, 3		2,43, 2, 6,42	
		1,38,38,57,15,41, 4,16		7,13
38″	37,10, 4,52,16,59,40,58,41,19		2,43, 2,13,55	
		1,38,38,54,32,38,50,21		7,13
40″	37,10, 6,30,55,54,13,37,31,40		2,43, 2,21, 8	
		1,38,38,51,49,36,29,13		7,13
42″	37,10, 8, 9,34,46, 3,14, 0,53		2,43, 2,28,21	
		1,38,38,49, 6,34, 0,52		7,13
44″	37,10, 9,48,13,35, 9,48, 1,45		2,43, 2,35,34	
		1,38,38,46,23,31,25,18		7,13
46″	37,10,11,26,52,21,33,19,27, 3		2,43, 2,42,47	
		1,38,38,43,40,28,42,31		7,13
48″	37,10,13, 5,31, 5,13,48, 9,34		2,43, 2,50, 0	
		1,38,38,40,57,25,52,31		7,13
50″	37,10,14,44, 9,46,11,14, 2, 5		2,43, 2,57,13	
		1,38,38,38,14,22,55,18		7,13
52″	37,10,16,22,48,24,25,36,57,23		2,43, 3, 4,26	
		1,38,38,35,31,19,50,52		7,13
54″	37,10,18, 1,26,59,56,56,48,15		2,43, 3,11,39	
		1,38,38,32,48,16,39,13		7,13
56″	37,10,19,40, 5,32,45,13,27,28		2,43, 3,18,52	
		1,38,38,30, 5,13,20,21		7,13
58″	37,10,21,18,44, 2,50,26,47,49		2,43, 3,26, 5	
		1,38,38,27,22, 9,54,16		
60″	37,10,22,57,22,30,12,36,42, 5			
exact	37,10,22,57,22,30,12,36,57,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°17′ 0″	37,10,22,57,22,30,12,36,57,48			
		1,38,38,24,39, 6,22,45		
2″	37,10,24,36, 0,54,51,43,20,33		2,43, 3,40,23	
		1,38,38,21,56, 2,42,22		7,13
4″	37,10,26,14,39,16,47,46, 2,55		2,43, 3,47,36	
		1,38,38,19,12,58,54,46		7,13
6″	37,10,27,53,17,36, 0,44,57,41		2,43, 3,54,49	
		1,38,38,16,29,54,59,57		7,13
8″	37,10,29,31,55,52,30,39,57,38		2,43, 4, 2, 2	
		1,38,38,13,46,50,57,55		7,13
10″	37,10,31,10,34, 6,17,30,55,33		2,43, 4, 9,15	
		1,38,38,11, 3,46,48,40		7,13
12″	37,10,32,49,12,17,21,17,44,13		2,43, 4,16,28	
		1,38,38, 8,20,42,32,12		7,13
14″	37,10,34,27,50,25,42, 0,16,25		2,43, 4,23,41	
		1,38,38, 5,37,38, 8,31		7,13
16″	37,10,36, 6,28,31,19,38,24,56		2,43, 4,30,54	
		1,38,38, 2,54,33,37,37		7,13
18″	37,10,37,45, 6,34,14,12, 2,33		2,43, 4,38, 7	
		1,38,38, 0,11,28,59,30		7,13
20″	37,10,39,23,44,34,25,41, 2, 3		2,43, 4,45,20	
		1,38,37,57,28,24,14,10		7,13
22″	37,10,41, 2,22,31,54, 5,16,13		2,43, 4,52,33	
		1,38,37,54,45,19,21,37		7,13
24″	37,10,42,41, 0,26,39,24,37,50		2,43, 4,59,46	
		1,38,37,52, 2,14,21,51		7,13
26″	37,10,44,19,38,18,41,38,59,41		2,43, 5, 6,59	
		1,38,37,49,19, 9,14,52		7,13
28″	37,10,45,58,16, 8, 0,48,14,33		2,43, 5,14,12	
		1,38,37,46,36, 4, 0,40		7,13
30″	37,10,47,36,53,54,36,52,15,13		2,43, 5,21,25	
		1,38,37,43,52,58,39,15		7,13
32″	37,10,49,15,31,38,29,50,54,28		2,43, 5,28,38	
		1,38,37,41, 9,53,10,37		7,13
34″	37,10,50,54, 9,19,39,44, 5, 5		2,43, 5,35,51	
		1,38,37,38,26,47,34,46		7,13
36″	37,10,52,32,46,58, 6,31,39,51		2,43, 5,43, 4	
		1,38,37,35,43,41,51,42		7,13
38″	37,10,54,11,24,33,50,13,31,33		2,43, 5,50,17	
		1,38,37,33, 0,36, 1,25		7,13
40″	37,10,55,50, 2, 6,50,49,32,58		2,43, 5,57,30	
		1,38,37,30,17,30, 3,55		7,13
42″	37,10,57,28,39,37, 8,19,36,53		2,43, 6, 4,43	
		1,38,37,27,34,23,59,12		7,13
44″	37,10,59, 7,17, 4,42,43,36, 5		2,43, 6,11,56	
		1,38,37,24,51,17,47,16		7,13
46″	37,11, 0,45,54,29,34, 1,23,21		2,43, 6,19, 9	
		1,38,37,22, 8,11,28, 7		7,13
48″	37,11, 2,24,31,51,42,12,51,28		2,43, 6,26,22	
		1,38,37,19,25, 5, 1,45		7,13
50″	37,11, 4, 3, 9,11, 7,17,53,13		2,43, 6,33,35	
		1,38,37,16,41,58,28,10		7,13
52″	37,11, 5,41,46,27,49,16,21,23		2,43, 6,40,48	
		1,38,37,13,58,51,47,22		7,13
54″	37,11, 7,20,23,41,48, 8, 8,45		2,43, 6,48, 1	
		1,38,37,11,15,44,59,21		7,13
56″	37,11, 8,59, 0,53, 3,53, 8, 6		2,43, 6,55,14	
		1,38,37, 8,32,38, 4, 7		7,13
58″	37,11,10,37,38, 1,36,31,12,13		2,43, 7, 2,27	
		1,38,37, 5,49,31, 1,40		
60″	37,11,12,16,15, 7,26, 2,13,53			
exact	37,11,12,16,15, 7,26, 2,36,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°18′ 0″	37,11,12,16,15, 7,26, 2,36,38			
		1,38,37, 3, 6,23,54,31		
2″	37,11,13,54,52,10,32,26,31, 9		2,43, 7,16,42	
		1,38,37, 0,23,16,37,49		7,13
4″	37,11,15,33,29,10,55,43, 8,58		2,43, 7,23,55	
		1,38,36,57,40, 9,13,54		7,13
6″	37,11,17,12, 6, 8,35,52,22,52		2,43, 7,31, 8	
		1,38,36,54,57, 1,42,46		7,13
8″	37,11,18,50,43, 3,32,54, 5,38		2,43, 7,38,21	
		1,38,36,52,13,54, 4,25		7,13
10″	37,11,20,29,19,55,46,48,10, 3		2,43, 7,45,34	
		1,38,36,49,30,46,18,51		7,13
12″	37,11,22, 7,56,45,17,34,28,54		2,43, 7,52,47	
		1,38,36,46,47,38,26, 4		7,13
14″	37,11,23,46,33,32, 5,12,54,58		2,43, 8, 0, 0	
		1,38,36,44, 4,30,26, 4		7,13
16″	37,11,25,25,10,16, 9,43,21, 2		2,43, 8, 7,13	
		1,38,36,41,21,22,18,51		7,13
18″	37,11,27, 3,46,57,31, 5,39,53		2,43, 8,14,26	
		1,38,36,38,38,14, 4,25		7,13
20″	37,11,28,42,23,36, 9,19,44,18		2,43, 8,21,39	
		1,38,36,35,55, 5,42,46		7,13
22″	37,11,30,21, 0,12, 4,25,27, 4		2,43, 8,28,52	
		1,38,36,33,11,57,13,54		7,13
24″	37,11,31,59,36,45,16,22,40,58		2,43, 8,36, 5	
		1,38,36,30,28,48,37,49		7,13
26″	37,11,33,38,13,15,45,11,18,47		2,43, 8,43,18	
		1,38,36,27,45,39,54,31		7,13
28″	37,11,35,16,49,43,30,51,13,18		2,43, 8,50,31	
		1,38,36,25, 2,31, 4, 0		7,13
30″	37,11,36,55,26, 8,33,22,17,18		2,43, 8,57,44	
		1,38,36,22,19,22, 6,16		7,13
32″	37,11,38,34, 2,30,52,44,23,34		2,43, 9, 4,57	
		1,38,36,19,36,13, 1,19		7,13
34″	37,11,40,12,38,50,28,57,24,53		2,43, 9,12,10	
		1,38,36,16,53, 3,49, 9		7,13
36″	37,11,41,51,15, 7,22, 1,14, 2		2,43, 9,19,23	
		1,38,36,14, 9,54,29,46		7,13
38″	37,11,43,29,51,21,31,55,43,48		2,43, 9,26,36	
		1,38,36,11,26,45, 3,10		7,13
40″	37,11,45, 8,27,32,58,40,46,58		2,43, 9,33,49	
		1,38,36, 8,43,35,29,21		7,13
42″	37,11,46,47, 3,41,42,16,16,19		2,43, 9,41, 2	
		1,38,36, 6, 0,25,48,19		7,13
44″	37,11,48,25,39,47,42,42, 4,38		2,43, 9,48,15	
		1,38,36, 3,17,16, 0, 4		7,13
46″	37,11,50, 4,15,50,59,58, 4,42		2,43, 9,55,28	
		1,38,36, 0,34, 6, 4,36		7,13
48″	37,11,51,42,51,51,34, 4, 9,18		2,43,10, 2,41	
		1,38,35,57,50,56, 1,55		7,13
50″	37,11,53,21,27,49,25, 0,11,13		2,43,10, 9,54	
		1,38,35,55, 7,45,52, 1		7,13
52″	37,11,55, 0, 3,44,32,46, 3,14		2,43,10,17, 7	
		1,38,35,52,24,35,34,54		7,13
54″	37,11,56,38,39,36,57,21,38, 8		2,43,10,24,20	
		1,38,35,49,41,25,10,34		7,13
56″	37,11,58,17,15,26,38,46,48,42		2,43,10,31,33	
		1,38,35,46,58,14,39, 1		7,13
58″	37,11,59,55,51,13,37, 1,27,43		2,43,10,38,46	
		1,38,35,44,15, 4, 0,15		
60″	37,12, 1,34,26,57,52, 5,27,58			
exact	37,12, 1,34,26,57,52, 5,57,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°19′ 0″	37,12, 1,34,26,57,52, 5,57,42			
		1,38,35,41,31,53,17,31		
2″	37,12, 3,13, 2,39,23,59,15,13		2,43,10,52,58	
		1,38,35,38,48,42,24,33		7,12
4″	37,12, 4,51,38,18,12,41,39,46		2,43,11, 0,10	
		1,38,35,36, 5,31,24,23		7,12
6″	37,12, 6,30,13,54,18,13, 4, 9		2,43,11, 7,22	
		1,38,35,33,22,20,17, 1		7,12
8″	37,12, 8, 8,49,27,40,33,21,10		2,43,11,14,34	
		1,38,35,30,39, 9, 2,27		7,12
10″	37,12, 9,47,24,58,19,42,23,37		2,43,11,21,46	
		1,38,35,27,55,57,40,41		7,12
12″	37,12,11,26, 0,26,15,40, 4,18		2,43,11,28,58	
		1,38,35,25,12,46,11,43		7,12
14″	37,12,13, 4,35,51,28,26,16, 1		2,43,11,36,10	
		1,38,35,22,29,34,35,33		7,12
16″	37,12,14,43,11,13,58, 0,51,34		2,43,11,43,22	
		1,38,35,19,46,22,52,11		7,12
18″	37,12,16,21,46,33,44,23,43,45		2,43,11,50,34	
		1,38,35,17, 3,11, 1,37		7,12
20″	37,12,18, 0,21,50,47,34,45,22		2,43,11,57,46	
		1,38,35,14,19,59, 3,51		7,12
22″	37,12,19,38,57, 5, 7,33,49,13		2,43,12, 4,58	
		1,38,35,11,36,46,58,53		7,12
24″	37,12,21,17,32,16,44,20,48, 6		2,43,12,12,10	
		1,38,35, 8,53,34,46,43		7,12
26″	37,12,22,56, 7,25,37,55,34,49		2,43,12,19,22	
		1,38,35, 6,10,22,27,21		7,12
28″	37,12,24,34,42,31,48,18, 2,10		2,43,12,26,34	
		1,38,35, 3,27,10, 0,47		7,12
30″	37,12,26,13,17,35,15,28, 2,57		2,43,12,33,46	
		1,38,35, 0,43,57,27, 1		7,12
32″	37,12,27,51,52,35,59,25,29,58		2,43,12,40,58	
		1,38,34,58, 0,44,46, 3		7,12
34″	37,12,29,30,27,34, 0,10,16, 1		2,43,12,48,10	
		1,38,34,55,17,31,57,53		7,12
36″	37,12,31, 9, 2,29,17,42,13,54		2,43,12,55,22	
		1,38,34,52,34,19, 2,31		7,12
38″	37,12,32,47,37,21,52, 1,16,25		2,43,13, 2,34	
		1,38,34,49,51, 5,59,57		7,12
40″	37,12,34,26,12,11,43, 7,16,22		2,43,13, 9,46	
		1,38,34,47, 7,52,50,11		7,12
42″	37,12,36, 4,46,58,51, 0, 6,33		2,43,13,16,58	
		1,38,34,44,24,39,33,13		7,12
44″	37,12,37,43,21,43,15,39,39,46		2,43,13,24,10	
		1,38,34,41,41,26, 9, 3		7,12
46″	37,12,39,21,56,24,57, 5,48,49		2,43,13,31,22	
		1,38,34,38,58,12,37,41		7,12
48″	37,12,41, 0,31, 3,55,18,26,30		2,43,13,38,34	
		1,38,34,36,14,58,59, 7		7,12
50″	37,12,42,39, 5,40,10,17,25,37		2,43,13,45,46	
		1,38,34,33,31,45,13,21		7,12
52″	37,12,44,17,40,13,42, 2,38,58		2,43,13,52,58	
		1,38,34,30,48,31,20,23		7,12
54″	37,12,45,56,14,44,30,33,59,21		2,43,14, 0,10	
		1,38,34,28, 5,17,20,13		7,12
56″	37,12,47,34,49,12,35,51,19,34		2,43,14, 7,22	
		1,38,34,25,22, 3,12,51		7,12
58″	37,12,49,13,23,37,57,54,32,25		2,43,14,14,34	
		1,38,34,22,38,48,58,17		
60″	37,12,50,51,58, 0,36,43,30,42			
exact	37,12,50,51,58, 0,36,42,59,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°20′ 0″	37,12,50,51,58, 0,36,42,59,25			
		1,38,34,19,55,34,33,14		
2″	37,12,52,30,32,20,32,17,32,39		2,43,14,29,11	
		1,38,34,17,12,20, 4, 3		7,12
4″	37,12,54, 9, 6,37,44,37,36,42		2,43,14,36,23	
		1,38,34,14,29, 5,27,40		7,12
6″	37,12,55,47,40,52,13,43, 4,22		2,43,14,43,35	
		1,38,34,11,45,50,44, 5		7,12
8″	37,12,57,26,15, 3,59,33,48,27		2,43,14,50,47	
		1,38,34, 9, 2,35,53,18		7,12
10″	37,12,59, 4,49,13, 2, 9,41,45		2,43,14,57,59	
		1,38,34, 6,19,20,55,19		7,12
12″	37,13, 0,43,23,19,21,30,37, 4		2,43,15, 5,11	
		1,38,34, 3,36, 5,50, 8		7,12
14″	37,13, 2,21,57,22,57,36,27,12		2,43,15,12,23	
		1,38,34, 0,52,50,37,45		7,12
16″	37,13, 4, 0,31,23,50,27, 4,57		2,43,15,19,35	
		1,38,33,58, 9,35,18,10		7,12
18″	37,13, 5,39, 5,22, 0, 2,23, 7		2,43,15,26,47	
		1,38,33,55,26,19,51,23		7,12
20″	37,13, 7,17,39,17,26,22,14,30		2,43,15,33,59	
		1,38,33,52,43, 4,17,24		7,12
22″	37,13, 8,56,13,10, 9,26,31,54		2,43,15,41,11	
		1,38,33,49,59,48,36,13		7,12
24″	37,13,10,34,47, 0, 9,15, 8, 7		2,43,15,48,23	
		1,38,33,47,16,32,47,50		7,12
26″	37,13,12,13,20,47,25,47,55,57		2,43,15,55,35	
		1,38,33,44,33,16,52,15		7,12
28″	37,13,13,51,54,31,59, 4,48,12		2,43,16, 2,47	
		1,38,33,41,50, 0,49,28		7,12
30″	37,13,15,30,28,13,49, 5,37,40		2,43,16, 9,59	
		1,38,33,39, 6,44,39,29		7,12
32″	37,13,17, 9, 1,52,55,50,17, 9		2,43,16,17,11	
		1,38,33,36,23,28,22,18		7,12
34″	37,13,18,47,35,29,19,18,39,27		2,43,16,24,23	
		1,38,33,33,40,11,57,55		7,12
36″	37,13,20,26, 9, 2,59,30,37,22		2,43,16,31,35	
		1,38,33,30,56,55,26,20		7,12
38″	37,13,22, 4,42,33,56,26, 3,42		2,43,16,38,47	
		1,38,33,28,13,38,47,33		7,12
40″	37,13,23,43,16, 2,10, 4,51,15		2,43,16,45,59	
		1,38,33,25,30,22, 1,34		7,12
42″	37,13,25,21,49,27,40,26,52,49		2,43,16,53,11	
		1,38,33,22,47, 5, 8,23		7,12
44″	37,13,27, 0,22,50,27,32, 1,12		2,43,17, 0,23	
		1,38,33,20, 3,48, 8, 0		7,12
46″	37,13,28,38,56,10,31,20, 9,12		2,43,17, 7,35	
		1,38,33,17,20,31, 0,25		7,12
48″	37,13,30,17,29,27,51,51, 9,37		2,43,17,14,47	
		1,38,33,14,37,13,45,38		7,12
50″	37,13,31,56, 2,42,29, 4,55,15		2,43,17,21,59	
		1,38,33,11,53,56,23,39		7,12
52″	37,13,33,34,35,54,23, 1,18,54		2,43,17,29,11	
		1,38,33, 9,10,38,54,28		7,12
54″	37,13,35,13, 9, 3,33,40,13,22		2,43,17,36,23	
		1,38,33, 6,27,21,18, 5		7,12
56″	37,13,36,51,42,10, 1, 1,31,27		2,43,17,43,35	
		1,38,33, 3,44, 3,34,30		7,12
58″	37,13,38,30,15,13,45, 5, 5,57		2,43,17,50,47	
		1,38,33, 1, 0,45,43,43		
60″	37,13,40, 8,48,14,45,50,49,40			
exact	37,13,40, 8,48,14,45,50,24,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°21′ 0″	37,13,40, 8,48,14,45,50,24,56			
		1,38,32,58,17,27,43,10		
2″	37,13,41,47,21,13, 3,18, 8, 6		2,43,18, 5,21	
		1,38,32,55,34, 9,37,49		7,12
4″	37,13,43,25,54, 8,37,27,45,55		2,43,18,12,33	
		1,38,32,52,50,51,25,16		7,12
6″	37,13,45, 4,27, 1,28,19,11,11		2,43,18,19,45	
		1,38,32,50, 7,33, 5,31		7,12
8″	37,13,46,42,59,51,35,52,16,42		2,43,18,26,57	
		1,38,32,47,24,14,38,34		7,12
10″	37,13,48,21,32,39, 0, 6,55,16		2,43,18,34, 9	
		1,38,32,44,40,56, 4,25		7,12
12″	37,13,50, 0, 5,23,41, 2,59,41		2,43,18,41,21	
		1,38,32,41,57,37,23, 4		7,12
14″	37,13,51,38,38, 5,38,40,22,45		2,43,18,48,33	
		1,38,32,39,14,18,34,31		7,12
16″	37,13,53,17,10,44,52,58,57,16		2,43,18,55,45	
		1,38,32,36,30,59,38,46		7,12
18″	37,13,54,55,43,21,23,58,36, 2		2,43,19, 2,57	
		1,38,32,33,47,40,35,49		7,12
20″	37,13,56,34,15,55,11,39,11,51		2,43,19,10, 9	
		1,38,32,31, 4,21,25,40		7,12
22″	37,13,58,12,48,26,16, 0,37,31		2,43,19,17,21	
		1,38,32,28,21, 2, 8,19		7,12
24″	37,13,59,51,20,54,37, 2,45,50		2,43,19,24,33	
		1,38,32,25,37,42,43,46		7,12
26″	37,14, 1,29,53,20,14,45,29,36		2,43,19,31,45	
		1,38,32,22,54,23,12, 1		7,12
28″	37,14, 3, 8,25,43, 9, 8,41,37		2,43,19,38,57	
		1,38,32,20,11, 3,33, 4		7,12
30″	37,14, 4,46,58, 3,20,12,14,41		2,43,19,46, 9	
		1,38,32,17,27,43,46,55		7,12
32″	37,14, 6,25,30,20,47,56, 1,36		2,43,19,53,21	
		1,38,32,14,44,23,53,34		7,12
34″	37,14, 8, 4, 2,35,32,19,55,10		2,43,20, 0,33	
		1,38,32,12, 1, 3,53, 1		7,12
36″	37,14, 9,42,34,47,33,23,48,11		2,43,20, 7,45	
		1,38,32, 9,17,43,45,16		7,12
38″	37,14,11,21, 6,56,51, 7,33,27		2,43,20,14,57	
		1,38,32, 6,34,23,30,19		7,12
40″	37,14,12,59,39, 3,25,31, 3,46		2,43,20,22, 9	
		1,38,32, 3,51, 3, 8,10		7,12
42″	37,14,14,38,11, 7,16,34,11,56		2,43,20,29,21	
		1,38,32, 1, 7,42,38,49		7,12
44″	37,14,16,16,43, 8,24,16,50,45		2,43,20,36,33	
		1,38,31,58,24,22, 2,16		7,12
46″	37,14,17,55,15, 6,48,38,53, 1		2,43,20,43,45	
		1,38,31,55,41, 1,18,31		7,12
48″	37,14,19,33,47, 2,29,40,11,32		2,43,20,50,57	
		1,38,31,52,57,40,27,34		7,12
50″	37,14,21,12,18,55,27,20,39, 6		2,43,20,58, 9	
		1,38,31,50,14,19,29,25		7,12
52″	37,14,22,50,50,45,41,40, 8,31		2,43,21, 5,21	
		1,38,31,47,30,58,24, 4		7,12
54″	37,14,24,29,22,33,12,38,32,35		2,43,21,12,33	
		1,38,31,44,47,37,11,31		7,12
56″	37,14,26, 7,54,18, 0,15,44, 6		2,43,21,19,45	
		1,38,31,42, 4,15,51,46		7,12
58″	37,14,27,46,26, 0, 4,31,35,52		2,43,21,26,57	
		1,38,31,39,20,54,24,49		
60″	37,14,29,24,57,39,25,26, 0,41			
exact	37,14,29,24,57,39,25,25,42, 9			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
38°22′	0″	37,14,29,24,57,39,25,25,42, 9			
			1,38,31,36,37,32,48,47		
	2″	37,14,31, 3,29,16, 2,58,30,56		2,43,21,41,28	
			1,38,31,33,54,11, 7,19		7,12
	4″	37,14,32,42, 0,49,57, 9,38,15		2,43,21,48,40	
			1,38,31,31,10,49,18,39		7,12
	6″	37,14,34,20,32,21, 7,58,56,54		2,43,21,55,52	
			1,38,31,28,27,27,22,47		7,12
	8″	37,14,35,59, 3,49,35,26,19,41		2,43,22, 3, 4	
			1,38,31,25,44, 5,19,43		7,12
	10″	37,14,37,37,35,15,19,31,39,24		2,43,22,10,16	
			1,38,31,23, 0,43, 9,27		7,12
	12″	37,14,39,16, 6,38,20,14,48,51		2,43,22,17,28	
			1,38,31,20,17,20,51,59		7,12
	14″	37,14,40,54,37,58,37,35,40,50		2,43,22,24,40	
			1,38,31,17,33,58,27,19		7,12
	16″	37,14,42,33, 9,16,11,34, 8, 9		2,43,22,31,52	
			1,38,31,14,50,35,55,27		7,12
	18″	37,14,44,11,40,31, 2,10, 3,36		2,43,22,39, 4	
			1,38,31,12, 7,13,16,23		7,12
	20″	37,14,45,50,11,43, 9,23,19,59		2,43,22,46,16	
			1,38,31, 9,23,50,30, 7		7,12
	22″	37,14,47,28,42,52,33,13,50, 6		2,43,22,53,28	
			1,38,31, 6,40,27,36,39		7,12
	24″	37,14,49, 7,13,59,13,41,26,45		2,43,23, 0,40	
			1,38,31, 3,57, 4,35,59		7,12
	26″	37,14,50,45,45, 3,10,46, 2,44		2,43,23, 7,52	
			1,38,31, 1,13,41,28, 7		7,12
	28″	37,14,52,24,16, 4,24,27,30,51		2,43,23,15, 4	
			1,38,30,58,30,18,13, 3		7,12
	30″	37,14,54, 2,47, 2,54,45,43,54		2,43,23,22,16	
			1,38,30,55,46,54,50,47		7,12
	32″	37,14,55,41,17,58,41,40,34,41		2,43,23,29,28	
			1,38,30,53, 3,31,21,19		7,12
	34″	37,14,57,19,48,51,45,11,56, 0		2,43,23,36,40	
			1,38,30,50,20, 7,44,39		7,12
	36″	37,14,58,58,19,42, 5,19,40,39		2,43,23,43,52	
			1,38,30,47,36,44, 0,47		7,12
	38″	37,15, 0,36,50,29,42, 3,41,26		2,43,23,51, 4	
			1,38,30,44,53,20, 9,43		7,12
	40″	37,15, 2,15,21,14,35,23,51, 9		2,43,23,58,16	
			1,38,30,42, 9,56,11,27		7,12
	42″	37,15, 3,53,51,56,45,20, 2,36		2,43,24, 5,28	
			1,38,30,39,26,32, 5,59		7,12
	44″	37,15, 5,32,22,36,11,52, 8,35		2,43,24,12,40	
			1,38,30,36,43, 7,53,19		7,12
	46″	37,15, 7,10,53,12,55, 0, 1,54		2,43,24,19,52	
			1,38,30,33,59,43,33,27		7,12
	48″	37,15, 8,49,23,46,54,43,35,21		2,43,24,27, 4	
			1,38,30,31,16,19, 6,23		7,12
	50″	37,15,10,27,54,18,11, 2,41,44		2,43,24,34,16	
			1,38,30,28,32,54,32, 7		7,12
	52″	37,15,12, 6,24,46,43,57,13,51		2,43,24,41,28	
			1,38,30,25,49,29,50,39		7,12
	54″	37,15,13,44,55,12,33,27, 4,30		2,43,24,48,40	
			1,38,30,23, 6, 5, 1,59		7,12
	56″	37,15,15,23,25,35,39,32, 6,29		2,43,24,55,52	
			1,38,30,20,22,40, 6, 7		7,12
	58″	37,15,17, 1,55,56, 2,12,12,36		2,43,25, 3, 4	
			1,38,30,17,39,15, 3, 3		
	60″	37,15,18,40,26,13,41,27,15,39			
exact		37,15,18,40,26,13,41,27, 3,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°23′ 0″	37,15,18,40,26,13,41,27, 3,46			
		1,38,30,14,55,49,51,36		
2″	37,15,20,18,56,28,37,16,55,22		2,43,25,17,32	
		1,38,30,12,12,24,34, 4		7,12
4″	37,15,21,57,26,40,49,41,29,26		2,43,25,24,44	
		1,38,30, 9,28,59, 9,20		7,12
6″	37,15,23,35,56,50,18,40,38,46		2,43,25,31,56	
		1,38,30, 6,45,33,37,24		7,12
8″	37,15,25,14,26,57, 4,14,16,10		2,43,25,39, 8	
		1,38,30, 4, 2, 7,58,16		7,12
10″	37,15,26,52,57, 1, 6,22,14,26		2,43,25,46,20	
		1,38,30, 1,18,42,11,56		7,12
12″	37,15,28,31,27, 2,25, 4,26,22		2,43,25,53,32	
		1,38,29,58,35,16,18,24		7,12
14″	37,15,30, 9,57, 1, 0,20,44,46		2,43,26, 0,44	
		1,38,29,55,51,50,17,40		7,12
16″	37,15,31,48,26,56,52,11, 2,26		2,43,26, 7,56	
		1,38,29,53, 8,24, 9,44		7,12
18″	37,15,33,26,56,50, 0,35,12,10		2,43,26,15, 8	
		1,38,29,50,24,57,54,36		7,12
20″	37,15,35, 5,26,40,25,33, 6,46		2,43,26,22,20	
		1,38,29,47,41,31,32,16		7,12
22″	37,15,36,43,56,28, 7, 4,39, 2		2,43,26,29,32	
		1,38,29,44,58, 5, 2,44		7,12
24″	37,15,38,22,26,13, 5, 9,41,46		2,43,26,36,44	
		1,38,29,42,14,38,26, 0		7,12
26″	37,15,40, 0,55,55,19,48, 7,46		2,43,26,43,56	
		1,38,29,39,31,11,42, 4		7,12
28″	37,15,41,39,25,34,50,59,49,50		2,43,26,51, 8	
		1,38,29,36,47,44,50,56		7,12
30″	37,15,43,17,55,11,38,44,40,46		2,43,26,58,20	
		1,38,29,34, 4,17,52,36		7,12
32″	37,15,44,56,24,45,43, 2,33,22		2,43,27, 5,32	
		1,38,29,31,20,50,47, 4		7,12
34″	37,15,46,34,54,17, 3,53,20,26		2,43,27,12,44	
		1,38,29,28,37,23,34,20		7,12
36″	37,15,48,13,23,45,41,16,54,46		2,43,27,19,56	
		1,38,29,25,53,56,14,24		7,12
38″	37,15,49,51,53,11,35,13, 9,10		2,43,27,27, 8	
		1,38,29,23,10,28,47,16		7,12
40″	37,15,51,30,22,34,45,41,56,26		2,43,27,34,20	
		1,38,29,20,27, 1,12,56		7,12
42″	37,15,53, 8,51,55,12,43, 9,22		2,43,27,41,32	
		1,38,29,17,43,33,31,24		7,12
44″	37,15,54,47,21,12,56,16,40,46		2,43,27,48,44	
		1,38,29,15, 0, 5,42,40		7,12
46″	37,15,56,25,50,27,56,22,23,26		2,43,27,55,56	
		1,38,29,12,16,37,46,44		7,12
48″	37,15,58, 4,19,40,13, 0,10,10		2,43,28, 3, 8	
		1,38,29, 9,33, 9,43,36		7,12
50″	37,15,59,42,48,49,46, 9,53,46		2,43,28,10,20	
		1,38,29, 6,49,41,33,16		7,12
52″	37,16, 1,21,17,56,35,51,27, 2		2,43,28,17,32	
		1,38,29, 4, 6,13,15,44		7,12
54″	37,16, 2,59,47, 0,42, 4,42,46		2,43,28,24,44	
		1,38,29, 1,22,44,51, 0		7,12
56″	37,16, 4,38,16, 2, 4,49,33,46		2,43,28,31,56	
		1,38,28,58,39,16,19, 4		7,12
58″	37,16, 6,16,45, 0,44, 5,52,50		2,43,28,39, 8	
		1,38,28,55,55,47,39,56		
60″	37,16, 7,55,13,56,39,53,32,46			
exact	37,16, 7,55,13,56,39,53,27,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°24′ 0″	37,16, 7,55,13,56,39,53,27,14			
		1,38,28,53,12,18,53, 7		
2″	37,16, 9,33,42,49,52,12,20,21		2,43,28,53,33	
		1,38,28,50,28,49,59,34		7,12
4″	37,16,11,12,11,40,21, 2,19,55		2,43,29, 0,45	
		1,38,28,47,45,20,58,49		7,12
6″	37,16,12,50,40,28, 6,23,18,44		2,43,29, 7,57	
		1,38,28,45, 1,51,50,52		7,12
8″	37,16,14,29, 9,13, 8,15, 9,36		2,43,29,15, 9	
		1,38,28,42,18,22,35,43		7,12
10″	37,16,16, 7,37,55,26,37,45,19		2,43,29,22,21	
		1,38,28,39,34,53,13,22		7,12
12″	37,16,17,46, 6,35, 1,30,58,41		2,43,29,29,33	
		1,38,28,36,51,23,43,49		7,12
14″	37,16,19,24,35,11,52,54,42,30		2,43,29,36,45	
		1,38,28,34, 7,54, 7, 4		7,12
16″	37,16,21, 3, 3,46, 0,48,49,34		2,43,29,43,57	
		1,38,28,31,24,24,23, 7		7,12
18″	37,16,22,41,32,17,25,13,12,41		2,43,29,51, 9	
		1,38,28,28,40,54,31,58		7,12
20″	37,16,24,20, 0,46, 6, 7,44,39		2,43,29,58,21	
		1,38,28,25,57,24,33,37		7,12
22″	37,16,25,58,29,12, 3,32,18,16		2,43,30, 5,33	
		1,38,28,23,13,54,28, 4		7,12
24″	37,16,27,36,57,35,17,26,46,20		2,43,30,12,45	
		1,38,28,20,30,24,15,19		7,12
26″	37,16,29,15,25,55,47,51, 1,39		2,43,30,19,57	
		1,38,28,17,46,53,55,22		7,12
28″	37,16,30,53,54,13,34,44,57, 1		2,43,30,27, 9	
		1,38,28,15, 3,23,28,13		7,12
30″	37,16,32,32,22,28,38, 8,25,14		2,43,30,34,21	
		1,38,28,12,19,52,53,52		7,12
32″	37,16,34,10,50,40,58, 1,19, 6		2,43,30,41,33	
		1,38,28, 9,36,22,12,19		7,12
34″	37,16,35,49,18,50,34,23,31,25		2,43,30,48,45	
		1,38,28, 6,52,51,23,34		7,12
36″	37,16,37,27,46,57,27,14,54,59		2,43,30,55,57	
		1,38,28, 4, 9,20,27,37		7,12
38″	37,16,39, 6,15, 1,36,35,22,36		2,43,31, 3, 9	
		1,38,28, 1,25,49,24,28		7,12
40″	37,16,40,44,43, 3, 2,24,47, 4		2,43,31,10,21	
		1,38,27,58,42,18,14, 7		7,12
42″	37,16,42,23,11, 1,44,43, 1,11		2,43,31,17,33	
		1,38,27,55,58,46,56,34		7,12
44″	37,16,44, 1,38,57,43,29,57,45		2,43,31,24,45	
		1,38,27,53,15,15,31,49		7,12
46″	37,16,45,40, 6,50,58,45,29,34		2,43,31,31,57	
		1,38,27,50,31,43,59,52		7,12
48″	37,16,47,18,34,41,30,29,29,26		2,43,31,39, 9	
		1,38,27,47,48,12,20,43		7,12
50″	37,16,48,57, 2,29,18,41,50, 9		2,43,31,46,21	
		1,38,27,45, 4,40,34,22		7,12
52″	37,16,50,35,30,14,23,22,24,31		2,43,31,53,33	
		1,38,27,42,21, 8,40,49		7,12
54″	37,16,52,13,57,56,44,31, 5,20		2,43,32, 0,45	
		1,38,27,39,37,36,40, 4		7,12
56″	37,16,53,52,25,36,22, 7,45,24		2,43,32, 7,57	
		1,38,27,36,54, 4,32, 7		7,12
58″	37,16,55,30,53,13,16,12,17,31		2,43,32,15, 9	
		1,38,27,34,10,32,16,58		
60″	37,16,57, 9,20,47,26,44,34,29			
exact	37,16,57, 9,20,47,26,44,34,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°25′ 0″	37,16,57, 9,20,47,26,44,34,49			
		1,38,27,31,26,59,54,48		
2″	37,16,58,47,48,18,53,44,29,37		2,43,32,29,31	
		1,38,27,28,43,27,25,17		7,12
4″	37,17, 0,26,15,47,37,11,54,54		2,43,32,36,43	
		1,38,27,25,59,54,48,34		7,12
6″	37,17, 2, 4,43,13,37, 6,43,28		2,43,32,43,55	
		1,38,27,23,16,22, 4,39		7,12
8″	37,17, 3,43,10,36,53,28,48, 7		2,43,32,51, 7	
		1,38,27,20,32,49,13,32		7,12
10″	37,17, 5,21,37,57,26,18, 1,39		2,43,32,58,19	
		1,38,27,17,49,16,15,13		7,12
12″	37,17, 7, 0, 5,15,15,34,16,52		2,43,33, 5,31	
		1,38,27,15, 5,43, 9,42		7,12
14″	37,17, 8,38,32,30,21,17,26,34		2,43,33,12,43	
		1,38,27,12,22, 9,56,59		7,12
16″	37,17,10,16,59,42,43,27,23,33		2,43,33,19,55	
		1,38,27, 9,38,36,37, 4		7,12
18″	37,17,11,55,26,52,22, 4, 0,37		2,43,33,27, 7	
		1,38,27, 6,55, 3, 9,57		7,12
20″	37,17,13,33,53,59,17, 7,10,34		2,43,33,34,19	
		1,38,27, 4,11,29,35,38		7,12
22″	37,17,15,12,21, 3,28,36,46,12		2,43,33,41,31	
		1,38,27, 1,27,55,54, 7		7,12
24″	37,17,16,50,48, 4,56,32,40,19		2,43,33,48,43	
		1,38,26,58,44,22, 5,24		7,12
26″	37,17,18,29,15, 3,40,54,45,43		2,43,33,55,55	
		1,38,26,56, 0,48, 9,29		7,12
28″	37,17,20, 7,41,59,41,42,55,12		2,43,34, 3, 7	
		1,38,26,53,17,14, 6,22		7,12
30″	37,17,21,46, 8,52,58,57, 1,34		2,43,34,10,19	
		1,38,26,50,33,39,56, 3		7,12
32″	37,17,23,24,35,43,32,36,57,37		2,43,34,17,31	
		1,38,26,47,50, 5,38,32		7,12
34″	37,17,25, 3, 2,31,22,42,36, 9		2,43,34,24,43	
		1,38,26,45, 6,31,13,49		7,12
36″	37,17,26,41,29,16,29,13,49,58		2,43,34,31,55	
		1,38,26,42,22,56,41,54		7,12
38″	37,17,28,19,55,58,52,10,31,52		2,43,34,39, 7	
		1,38,26,39,39,22, 2,47		7,12
40″	37,17,29,58,22,38,31,32,34,39		2,43,34,46,19	
		1,38,26,36,55,47,16,28		7,12
42″	37,17,31,36,49,15,27,19,51, 7		2,43,34,53,31	
		1,38,26,34,12,12,22,57		7,12
44″	37,17,33,15,15,49,39,32,14, 4		2,43,35, 0,43	
		1,38,26,31,28,37,22,14		7,12
46″	37,17,34,53,42,21, 8, 9,36,18		2,43,35, 7,55	
		1,38,26,28,45, 2,14,19		7,12
48″	37,17,36,32, 8,49,53,11,50,37		2,43,35,15, 7	
		1,38,26,26, 1,26,59,12		7,12
50″	37,17,38,10,35,15,54,38,49,49		2,43,35,22,19	
		1,38,26,23,17,51,36,53		7,12
52″	37,17,39,49, 1,39,12,30,26,42		2,43,35,29,31	
		1,38,26,20,34,16, 7,22		7,12
54″	37,17,41,27,27,59,46,46,34, 4		2,43,35,36,43	
		1,38,26,17,50,40,30,39		7,12
56″	37,17,43, 5,54,17,37,27, 4,43		2,43,35,43,55	
		1,38,26,15, 7, 4,46,44		7,12
58″	37,17,44,44,20,32,44,31,51,27		2,43,35,51, 7	
		1,38,26,12,23,28,55,37		
60″	37,17,46,22,46,45, 8, 0,47, 4			
exact	37,17,46,22,46,45, 8, 0,53,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°26′ 0″	37,17,46,22,46,45, 8, 0,53,36			
		1,38,26, 9,39,52,58,10		
2″	37,17,48, 1,12,54,47,53,51,46		2,43,36, 5,26	
		1,38,26, 6,56,16,52,44		7,12
4″	37,17,49,39,39, 1,44,10,44,30		2,43,36,12,38	
		1,38,26, 4,12,40,40, 6		7,12
6″	37,17,51,18, 5, 5,56,51,24,36		2,43,36,19,50	
		1,38,26, 1,29, 4,20,16		7,12
8″	37,17,52,56,31, 7,25,55,44,52		2,43,36,27, 2	
		1,38,25,58,45,27,53,14		7,12
10″	37,17,54,34,57, 6,11,23,38, 6		2,43,36,34,14	
		1,38,25,56, 1,51,19, 0		7,12
12″	37,17,56,13,23, 2,13,14,57, 6		2,43,36,41,26	
		1,38,25,53,18,14,37,34		7,12
14″	37,17,57,51,48,55,31,29,34,40		2,43,36,48,38	
		1,38,25,50,34,37,48,56		7,12
16″	37,17,59,30,14,46, 6, 7,23,36		2,43,36,55,50	
		1,38,25,47,51, 0,53, 6		7,12
18″	37,18, 1, 8,40,33,57, 8,16,42		2,43,37, 3, 2	
		1,38,25,45, 7,23,50, 4		7,12
20″	37,18, 2,47, 6,19, 4,32, 6,46		2,43,37,10,14	
		1,38,25,42,23,46,39,50		7,12
22″	37,18, 4,25,32, 1,28,18,46,36		2,43,37,17,26	
		1,38,25,39,40, 9,22,24		7,12
24″	37,18, 6, 3,57,41, 8,28, 9, 0		2,43,37,24,38	
		1,38,25,36,56,31,57,46		7,12
26″	37,18, 7,42,23,18, 5, 0, 6,46		2,43,37,31,50	
		1,38,25,34,12,54,25,56		7,12
28″	37,18, 9,20,48,52,17,54,32,42		2,43,37,39, 2	
		1,38,25,31,29,16,46,54		7,12
30″	37,18,10,59,14,23,47,11,19,36		2,43,37,46,14	
		1,38,25,28,45,39, 0,40		7,12
32″	37,18,12,37,39,52,32,50,20,16		2,43,37,53,26	
		1,38,25,26, 2, 1, 7,14		7,12
34″	37,18,14,16, 5,18,34,51,27,30		2,43,38, 0,38	
		1,38,25,23,18,23, 6,36		7,12
36″	37,18,15,54,30,41,53,14,34, 6		2,43,38, 7,50	
		1,38,25,20,34,44,58,46		7,12
38″	37,18,17,32,56, 2,27,59,32,52		2,43,38,15, 2	
		1,38,25,17,51, 6,43,44		7,12
40″	37,18,19,11,21,20,19, 6,16,36		2,43,38,22,14	
		1,38,25,15, 7,28,21,30		7,12
42″	37,18,20,49,46,35,26,34,38, 6		2,43,38,29,26	
		1,38,25,12,23,49,52, 4		7,12
44″	37,18,22,28,11,47,50,24,30,10		2,43,38,36,38	
		1,38,25, 9,40,11,15,26		7,12
46″	37,18,24, 6,36,57,30,35,45,36		2,43,38,43,50	
		1,38,25, 6,56,32,31,36		7,12
48″	37,18,25,45, 2, 4,27, 8,17,12		2,43,38,51, 2	
		1,38,25, 4,12,53,40,34		7,12
50″	37,18,27,23,27, 8,40, 1,57,46		2,43,38,58,14	
		1,38,25, 1,29,14,42,20		7,12
52″	37,18,29, 1,52,10, 9,16,40, 6		2,43,39, 5,26	
		1,38,24,58,45,35,36,54		7,12
54″	37,18,30,40,17, 8,54,52,17, 0		2,43,39,12,38	
		1,38,24,56, 1,56,24,16		7,12
56″	37,18,32,18,42, 4,56,48,41,16		2,43,39,19,50	
		1,38,24,53,18,17, 4,26		7,12
58″	37,18,33,57, 6,58,15, 5,45,42		2,43,39,27, 2	
		1,38,24,50,34,37,37,24		
60″	37,18,35,35,31,48,49,43,23, 6			
exact	37,18,35,35,31,48,49,43,35,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°27′ 0″	37,18,35,35,31,48,49,43,35,30			
		1,38,24,47,50,58, 4,42		
2″	37,18,37,13,56,36,40,41,40,12		2,43,39,41,19	
		1,38,24,45, 7,18,23,23		7,12
4″	37,18,38,52,21,21,48, 0, 3,35		2,43,39,48,31	
		1,38,24,42,23,38,34,52		7,12
6″	37,18,40,30,46, 4,11,38,38,27		2,43,39,55,43	
		1,38,24,39,39,58,39, 9		7,12
8″	37,18,42, 9,10,43,51,37,17,36		2,43,40, 2,55	
		1,38,24,36,56,18,36,14		7,12
10″	37,18,43,47,35,20,47,55,53,50		2,43,40,10, 7	
		1,38,24,34,12,38,26, 7		7,12
12″	37,18,45,25,59,55, 0,34,19,57		2,43,40,17,19	
		1,38,24,31,28,58, 8,48		7,12
14″	37,18,47, 4,24,26,29,32,28,45		2,43,40,24,31	
		1,38,24,28,45,17,44,17		7,12
16″	37,18,48,42,48,55,14,50,13, 2		2,43,40,31,43	
		1,38,24,26, 1,37,12,34		7,12
18″	37,18,50,21,13,21,16,27,25,36		2,43,40,38,55	
		1,38,24,23,17,56,33,39		7,12
20″	37,18,51,59,37,44,34,23,59,15		2,43,40,46, 7	
		1,38,24,20,34,15,47,32		7,12
22″	37,18,53,38, 2, 5, 8,39,46,47		2,43,40,53,19	
		1,38,24,17,50,34,54,13		7,12
24″	37,18,55,16,26,22,59,14,41, 0		2,43,41, 0,31	
		1,38,24,15, 6,53,53,42		7,12
26″	37,18,56,54,50,38, 6, 8,34,42		2,43,41, 7,43	
		1,38,24,12,23,12,45,59		7,12
28″	37,18,58,33,14,50,29,21,20,41		2,43,41,14,55	
		1,38,24, 9,39,31,31, 4		7,12
30″	37,19, 0,11,39, 0, 8,52,51,45		2,43,41,22, 7	
		1,38,24, 6,55,50, 8,57		7,12
32″	37,19, 1,50, 3, 7, 4,43, 0,42		2,43,41,29,19	
		1,38,24, 4,12, 8,39,38		7,12
34″	37,19, 3,28,27,11,16,51,40,20		2,43,41,36,31	
		1,38,24, 1,28,27, 3, 7		7,12
36″	37,19, 5, 6,51,12,45,18,43,27		2,43,41,43,43	
		1,38,23,58,44,45,19,24		7,12
38″	37,19, 6,45,15,11,30, 4, 2,51		2,43,41,50,55	
		1,38,23,56, 1, 3,28,29		7,12
40″	37,19, 8,23,39, 7,31, 7,31,20		2,43,41,58, 7	
		1,38,23,53,17,21,30,22		7,12
42″	37,19,10, 2, 3, 0,48,29, 1,42		2,43,42, 5,19	
		1,38,23,50,33,39,25, 3		7,12
44″	37,19,11,40,26,51,22, 8,26,45		2,43,42,12,31	
		1,38,23,47,49,57,12,32		7,12
46″	37,19,13,18,50,39,12, 5,39,17		2,43,42,19,43	
		1,38,23,45, 6,14,52,49		7,12
48″	37,19,14,57,14,24,18,20,32, 6		2,43,42,26,55	
		1,38,23,42,22,32,25,54		7,12
50″	37,19,16,35,38, 6,40,52,58, 0		2,43,42,34, 7	
		1,38,23,39,38,49,51,47		7,12
52″	37,19,18,14, 1,46,19,42,49,47		2,43,42,41,19	
		1,38,23,36,55, 7,10,28		7,12
54″	37,19,19,52,25,23,14,50, 0,15		2,43,42,48,31	
		1,38,23,34,11,24,21,57		7,12
56″	37,19,21,30,48,57,26,14,22,12		2,43,42,55,43	
		1,38,23,31,27,41,26,14		7,12
58″	37,19,23, 9,12,28,53,55,48,26		2,43,43, 2,55	
		1,38,23,28,43,58,23,19		
60″	37,19,24,47,35,57,37,54,11,45			
exact	37,19,24,47,35,57,37,54,37,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°28′ 0″	37,19,24,47,35,57,37,54,37,18			
		1,38,23,26, 0,15,15,54		
2″	37,19,26,25,59,23,38, 9,53,12		2,43,43,17, 8	
		1,38,23,23,16,31,58,46		7,12
4″	37,19,28, 4,22,46,54,41,51,58		2,43,43,24,20	
		1,38,23,20,32,48,34,26		7,12
6″	37,19,29,42,46, 7,27,30,26,24		2,43,43,31,32	
		1,38,23,17,49, 5, 2,54		7,12
8″	37,19,31,21, 9,25,16,35,29,18		2,43,43,38,44	
		1,38,23,15, 5,21,24,10		7,12
10″	37,19,32,59,32,40,21,56,53,28		2,43,43,45,56	
		1,38,23,12,21,37,38,14		7,12
12″	37,19,34,37,55,52,43,34,31,42		2,43,43,53, 8	
		1,38,23, 9,37,53,45, 6		7,12
14″	37,19,36,16,19, 2,21,28,16,48		2,43,44, 0,20	
		1,38,23, 6,54, 9,44,46		7,12
16″	37,19,37,54,42, 9,15,38, 1,34		2,43,44, 7,32	
		1,38,23, 4,10,25,37,14		7,12
18″	37,19,39,33, 5,13,26, 3,38,48		2,43,44,14,44	
		1,38,23, 1,26,41,22,30		7,12
20″	37,19,41,11,28,14,52,45, 1,18		2,43,44,21,56	
		1,38,22,58,42,57, 0,34		7,12
22″	37,19,42,49,51,13,35,42, 1,52		2,43,44,29, 8	
		1,38,22,55,59,12,31,26		7,12
24″	37,19,44,28,14, 9,34,54,33,18		2,43,44,36,20	
		1,38,22,53,15,27,55, 6		7,12
26″	37,19,46, 6,37, 2,50,22,28,24		2,43,44,43,32	
		1,38,22,50,31,43,11,34		7,12
28″	37,19,47,44,59,53,22, 5,39,58		2,43,44,50,44	
		1,38,22,47,47,58,20,50		7,12
30″	37,19,49,23,22,41,10, 4, 0,48		2,43,44,57,56	
		1,38,22,45, 4,13,22,54		7,12
32″	37,19,51, 1,45,26,14,17,23,42		2,43,45, 5, 8	
		1,38,22,42,20,28,17,46		7,12
34″	37,19,52,40, 8, 8,34,45,41,28		2,43,45,12,20	
		1,38,22,39,36,43, 5,26		7,12
36″	37,19,54,18,30,48,11,28,46,54		2,43,45,19,32	
		1,38,22,36,52,57,45,54		7,12
38″	37,19,55,56,53,25, 4,26,32,48		2,43,45,26,44	
		1,38,22,34, 9,12,19,10		7,12
40″	37,19,57,35,15,59,13,38,51,58		2,43,45,33,56	
		1,38,22,31,25,26,45,14		7,12
42″	37,19,59,13,38,30,39, 5,37,12		2,43,45,41, 8	
		1,38,22,28,41,41, 4, 6		7,12
44″	37,20, 0,52, 0,59,20,46,41,18		2,43,45,48,20	
		1,38,22,25,57,55,15,46		7,12
46″	37,20, 2,30,23,25,18,41,57, 4		2,43,45,55,32	
		1,38,22,23,14, 9,20,14		7,12
48″	37,20, 4, 8,45,48,32,51,17,18		2,43,46, 2,44	
		1,38,22,20,30,23,17,30		7,12
50″	37,20, 5,47, 8, 9, 3,14,34,48		2,43,46, 9,56	
		1,38,22,17,46,37, 7,34		7,12
52″	37,20, 7,25,30,26,49,51,42,22		2,43,46,17, 8	
		1,38,22,15, 2,50,50,26		7,12
54″	37,20, 9, 3,52,41,52,42,32,48		2,43,46,24,20	
		1,38,22,12,19, 4,26, 6		7,12
56″	37,20,10,42,14,54,11,46,58,54		2,43,46,31,32	
		1,38,22, 9,35,17,54,34		7,12
58″	37,20,12,20,37, 3,47, 4,53,28		2,43,46,38,44	
		1,38,22, 6,51,31,15,50		
60″	37,20,13,58,59,10,38,36, 9,18			
exact	37,20,13,58,59,10,38,36,40,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°29′ 0″	37,20,13,58,59,10,38,36,40,37			
		1,38,22, 4, 7,44,33,15		
2″	37,20,15,37,21,14,46,21,13,52		2,43,46,52,54	
		1,38,22, 1,23,57,40,21		7,11
4″	37,20,17,15,43,16,10,18,54,13		2,43,47, 0, 5	
		1,38,21,58,40,10,40,16		7,11
6″	37,20,18,54, 5,14,50,29,34,29		2,43,47, 7,16	
		1,38,21,55,56,23,33, 0		7,11
8″	37,20,20,32,27,10,46,53, 7,29		2,43,47,14,27	
		1,38,21,53,12,36,18,33		7,11
10″	37,20,22,10,49, 3,59,29,26, 2		2,43,47,21,38	
		1,38,21,50,28,48,56,55		7,11
12″	37,20,23,49,10,54,28,18,22,57		2,43,47,28,49	
		1,38,21,47,45, 1,28, 6		7,11
14″	37,20,25,27,32,42,13,19,51, 3		2,43,47,36, 0	
		1,38,21,45, 1,13,52, 6		7,11
16″	37,20,27, 5,54,27,14,33,43, 9		2,43,47,43,11	
		1,38,21,42,17,26, 8,55		7,11
18″	37,20,28,44,16, 9,31,59,52, 4		2,43,47,50,22	
		1,38,21,39,33,38,18,33		7,11
20″	37,20,30,22,37,49, 5,38,10,37		2,43,47,57,33	
		1,38,21,36,49,50,21, 0		7,11
22″	37,20,32, 0,59,25,55,28,31,37		2,43,48, 4,44	
		1,38,21,34, 6, 2,16,16		7,11
24″	37,20,33,39,21, 0, 1,30,47,53		2,43,48,11,55	
		1,38,21,31,22,14, 4,21		7,11
26″	37,20,35,17,42,31,23,44,52,14		2,43,48,19, 6	
		1,38,21,28,38,25,45,15		7,11
28″	37,20,36,56, 4, 0, 2,10,37,29		2,43,48,26,17	
		1,38,21,25,54,37,18,58		7,11
30″	37,20,38,34,25,25,56,47,56,27		2,43,48,33,28	
		1,38,21,23,10,48,45,30		7,11
32″	37,20,40,12,46,49, 7,36,41,57		2,43,48,40,39	
		1,38,21,20,27, 0, 4,51		7,11
34″	37,20,41,51, 8, 9,34,36,46,48		2,43,48,47,50	
		1,38,21,17,43,11,17, 1		7,11
36″	37,20,43,29,29,27,17,48, 3,49		2,43,48,55, 1	
		1,38,21,14,59,22,22, 0		7,11
38″	37,20,45, 7,50,42,17,10,25,49		2,43,49, 2,12	
		1,38,21,12,15,33,19,48		7,11
40″	37,20,46,46,11,54,32,43,45,37		2,43,49, 9,23	
		1,38,21, 9,31,44,10,25		7,11
42″	37,20,48,24,33, 4, 4,27,56, 2		2,43,49,16,34	
		1,38,21, 6,47,54,53,51		7,11
44″	37,20,50, 2,54,10,52,22,49,53		2,43,49,23,45	
		1,38,21, 4, 4, 5,30, 6		7,11
46″	37,20,51,41,15,14,56,28,19,59		2,43,49,30,56	
		1,38,21, 1,20,15,59,10		7,11
48″	37,20,53,19,36,16,16,44,19, 9		2,43,49,38, 7	
		1,38,20,58,36,26,21, 3		7,11
50″	37,20,54,57,57,14,53,10,40,12		2,43,49,45,18	
		1,38,20,55,52,36,35,45		7,11
52″	37,20,56,36,18,10,45,47,15,57		2,43,49,52,29	
		1,38,20,53, 8,46,43,16		7,11
54″	37,20,58,14,39, 3,54,33,59,13		2,43,49,59,40	
		1,38,20,50,24,56,43,36		7,11
56″	37,20,59,52,59,54,19,30,42,49		2,43,50, 6,51	
		1,38,20,47,41, 6,36,45		7,11
58″	37,21, 1,31,20,42, 0,37,19,34		2,43,50,14, 2	
		1,38,20,44,57,16,22,43		
60″	37,21, 3, 9,41,26,57,53,42,17			
exact	37,21, 3, 9,41,26,57,53,12, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°30′ 0″	37,21, 3, 9,41,26,57,53,12, 0	1,38,20,42,13,25,58,16		
2″	37,21, 4,48, 2, 9,11,19,10,16	1,38,20,39,29,35,29,39	2,43,50,28,37	7,11
4″	37,21, 6,26,22,48,40,54,39,55	1,38,20,36,45,44,53,51	2,43,50,35,48	7,11
6″	37,21, 8, 4,43,25,26,39,33,46	1,38,20,34, 1,54,10,52	2,43,50,42,59	7,11
8″	37,21, 9,43, 3,59,28,33,44,38	1,38,20,31,18, 3,20,42	2,43,50,50,10	7,11
10″	37,21,11,21,24,30,46,37, 5,20	1,38,20,28,34,12,23,21	2,43,50,57,21	7,11
12″	37,21,12,59,44,59,20,49,28,41	1,38,20,25,50,21,18,49	2,43,51, 4,32	7,11
14″	37,21,14,38, 5,25,11,10,47,30	1,38,20,23, 6,30, 7, 6	2,43,51,11,43	7,11
16″	37,21,16,16,25,48,17,40,54,36	1,38,20,20,22,38,48,12	2,43,51,18,54	7,11
18″	37,21,17,54,46, 8,40,19,42,48	1,38,20,17,38,47,22, 7	2,43,51,26, 5	7,11
20″	37,21,19,33, 6,26,19, 7, 4,55	1,38,20,14,54,55,48,51	2,43,51,33,16	7,11
22″	37,21,21,11,26,41,14, 2,53,46	1,38,20,12,11, 4, 8,24	2,43,51,40,27	7,11
24″	37,21,22,49,46,53,25, 7, 2,10	1,38,20, 9,27,12,20,46	2,43,51,47,38	7,11
26″	37,21,24,28, 7, 2,52,19,22,56	1,38,20, 6,43,20,25,57	2,43,51,54,49	7,11
28″	37,21,26, 6,27, 9,35,39,48,53	1,38,20, 3,59,28,23,57	2,43,52, 2, 0	7,11
30″	37,21,27,44,47,13,35, 8,12,50	1,38,20, 1,15,36,14,46	2,43,52, 9,11	7,11
32″	37,21,29,23, 7,14,50,44,27,36	1,38,19,58,31,43,58,24	2,43,52,16,22	7,11
34″	37,21,31, 1,27,13,22,28,26, 0	1,38,19,55,47,51,34,51	2,43,52,23,33	7,11
36″	37,21,32,39,47, 9,10,20, 0,51	1,38,19,53, 3,59, 4, 7	2,43,52,30,44	7,11
38″	37,21,34,18, 7, 2,14,19, 4,58	1,38,19,50,20, 6,26,12	2,43,52,37,55	7,11
40″	37,21,35,56,26,52,34,25,31,10	1,38,19,47,36,13,41, 6	2,43,52,45, 6	7,11
42″	37,21,37,34,46,40,10,39,12,16	1,38,19,44,52,20,48,49	2,43,52,52,17	7,11
44″	37,21,39,13, 6,25, 3, 0, 1, 5	1,38,19,42, 8,27,49,21	2,43,52,59,28	7,11
46″	37,21,40,51,26, 7,11,27,50,26	1,38,19,39,24,34,42,42	2,43,53, 6,39	7,11
48″	37,21,42,29,45,46,36, 2,33, 8	1,38,19,36,40,41,28,52	2,43,53,13,50	7,11
50″	37,21,44, 8, 5,23,16,44, 2, 0	1,38,19,33,56,48, 7,51	2,43,53,21, 1	7,11
52″	37,21,45,46,24,57,13,32, 9,51	1,38,19,31,12,54,39,39	2,43,53,28,12	7,11
54″	37,21,47,24,44,28,26,26,49,30	1,38,19,28,29, 1, 4,16	2,43,53,35,23	7,11
56″	37,21,49, 3, 3,56,55,27,53,46	1,38,19,25,45, 7,21,42	2,43,53,42,34	7,11
58″	37,21,50,41,23,22,40,35,15,28	1,38,19,23, 1,13,31,57	2,43,53,49,45	
60″	37,21,52,19,42,45,41,48,47,25			
exact	37,21,52,19,42,45,41,48,22,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°31′ 0″	37,21,52,19,42,45,41,48,22,51			
		1,38,19,20,17,19,32,26		
2″	37,21,53,58, 2, 5,59, 7,55,17		2,43,54, 4,17	
		1,38,19,17,33,25,28, 9		7,11
4″	37,21,55,36,21,23,32,33,23,26		2,43,54,11,28	
		1,38,19,14,49,31,16,41		7,11
6″	37,21,57,14,40,38,22, 4,40, 7		2,43,54,18,39	
		1,38,19,12, 5,36,58, 2		7,11
8″	37,21,58,52,59,50,27,41,38, 9		2,43,54,25,50	
		1,38,19, 9,21,42,32,12		7,11
10″	37,22, 0,31,18,59,49,24,10,21		2,43,54,33, 1	
		1,38,19, 6,37,47,59,11		7,11
12″	37,22, 2, 9,38, 6,27,12, 9,32		2,43,54,40,12	
		1,38,19, 3,53,53,18,59		7,11
14″	37,22, 3,47,57,10,21, 5,28,31		2,43,54,47,23	
		1,38,19, 1, 9,58,31,36		7,11
16″	37,22, 5,26,16,11,31, 4, 0, 7		2,43,54,54,34	
		1,38,18,58,26, 3,37, 2		7,11
18″	37,22, 7, 4,35, 9,57, 7,37, 9		2,43,55, 1,45	
		1,38,18,55,42, 8,35,17		7,11
20″	37,22, 8,42,54, 5,39,16,12,26		2,43,55, 8,56	
		1,38,18,52,58,13,26,21		7,11
22″	37,22,10,21,12,58,37,29,38,47		2,43,55,16, 7	
		1,38,18,50,14,18,10,14		7,11
24″	37,22,11,59,31,48,51,47,49, 1		2,43,55,23,18	
		1,38,18,47,30,22,46,56		7,11
26″	37,22,13,37,50,36,22,10,35,57		2,43,55,30,29	
		1,38,18,44,46,27,16,27		7,11
28″	37,22,15,16, 9,21, 8,37,52,24		2,43,55,37,40	
		1,38,18,42, 2,31,38,47		7,11
30″	37,22,16,54,28, 3,11, 9,31,11		2,43,55,44,51	
		1,38,18,39,18,35,53,56		7,11
32″	37,22,18,32,46,42,29,45,25, 7		2,43,55,52, 2	
		1,38,18,36,34,40, 1,54		7,11
34″	37,22,20,11, 5,19, 4,25,27, 1		2,43,55,59,13	
		1,38,18,33,50,44, 2,41		7,11
36″	37,22,21,49,23,52,55, 9,29,42		2,43,56, 6,24	
		1,38,18,31, 6,47,56,17		7,11
38″	37,22,23,27,42,24, 1,57,25,59		2,43,56,13,35	
		1,38,18,28,22,51,42,42		7,11
40″	37,22,25, 6, 0,52,24,49, 8,41		2,43,56,20,46	
		1,38,18,25,38,55,21,56		7,11
42″	37,22,26,44,19,18, 3,44,30,37		2,43,56,27,57	
		1,38,18,22,54,58,53,59		7,11
44″	37,22,28,22,37,40,58,43,24,36		2,43,56,35, 8	
		1,38,18,20,11, 2,18,51		7,11
46″	37,22,30, 0,56, 1, 9,45,43,27		2,43,56,42,19	
		1,38,18,17,27, 5,36,32		7,11
48″	37,22,31,39,14,18,36,51,19,59		2,43,56,49,30	
		1,38,18,14,43, 8,47, 2		7,11
50″	37,22,33,17,32,33,20, 0, 7, 1		2,43,56,56,41	
		1,38,18,11,59,11,50,21		7,11
52″	37,22,34,55,50,45,19,11,57,22		2,43,57, 3,52	
		1,38,18, 9,15,14,46,29		7,11
54″	37,22,36,34, 8,54,34,26,43,51		2,43,57,11, 3	
		1,38,18, 6,31,17,35,26		7,11
56″	37,22,38,12,27, 1, 5,44,19,17		2,43,57,18,14	
		1,38,18, 3,47,20,17,12		7,11
58″	37,22,39,50,45, 4,53, 4,36,29		2,43,57,25,25	
		1,38,18, 1, 3,22,51,47		
60″	37,22,41,29, 3, 5,56,27,28,16			
exact	37,22,41,29, 3, 5,56,27, 9,31			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
38°32′	0″	37,22,41,29, 3, 5,56,27, 9,31	1,38,17,58,19,25,17,16		
	2″	37,22,43, 7,21, 4,15,52,26,47	1,38,17,55,35,27,37,22	2,43,57,39,54	
	4″	37,22,44,45,38,59,51,20, 4, 9	1,38,17,52,51,29,50,17	2,43,57,47, 5	7,11
	6″	37,22,46,23,56,52,42,49,54,26	1,38,17,50, 7,31,56, 1	2,43,57,54,16	7,11
	8″	37,22,48, 2,14,42,50,21,50,27	1,38,17,47,23,33,54,34	2,43,58, 1,27	7,11
	10″	37,22,49,40,32,30,13,55,45, 1	1,38,17,44,39,35,45,56	2,43,58, 8,38	7,11
	12″	37,22,51,18,50,14,53,31,30,57	1,38,17,41,55,37,30, 7	2,43,58,15,49	7,11
	14″	37,22,52,57, 7,56,49, 9, 1, 4	1,38,17,39,11,39, 7, 7	2,43,58,23, 0	7,11
	16″	37,22,54,35,25,36, 0,48, 8,11	1,38,17,36,27,40,36,56	2,43,58,30,11	7,11
	18″	37,22,56,13,43,12,28,28,45, 7	1,38,17,33,43,41,59,34	2,43,58,37,22	7,11
	20″	37,22,57,52, 0,46,12,10,44,41	1,38,17,30,59,43,15, 1	2,43,58,44,33	7,11
	22″	37,22,59,30,18,17,11,53,59,42	1,38,17,28,15,44,23,17	2,43,58,51,44	7,11
	24″	37,23, 1, 8,35,45,27,38,22,59	1,38,17,25,31,45,24,22	2,43,58,58,55	7,11
	26″	37,23, 2,46,53,10,59,23,47,21	1,38,17,22,47,46,18,16	2,43,59, 6, 6	7,11
	28″	37,23, 4,25,10,33,47,10, 5,37	1,38,17,20, 3,47, 4,59	2,43,59,13,17	7,11
	30″	37,23, 6, 3,27,53,50,57,10,36	1,38,17,17,19,47,44,31	2,43,59,20,28	7,11
	32″	37,23, 7,41,45,11,10,44,55, 7	1,38,17,14,35,48,16,52	2,43,59,27,39	7,11
	34″	37,23, 9,20, 2,25,46,33,11,59	1,38,17,11,51,48,42, 2	2,43,59,34,50	7,11
	36″	37,23,10,58,19,37,38,21,54, 1	1,38,17, 9, 7,49, 0, 1	2,43,59,42, 1	7,11
	38″	37,23,12,36,36,46,46,10,54, 2	1,38,17, 6,23,49,10,49	2,43,59,49,12	7,11
	40″	37,23,14,14,53,53,10, 0, 4,51	1,38,17, 3,39,49,14,26	2,43,59,56,23	7,11
	42″	37,23,15,53,10,56,49,49,19,17	1,38,17, 0,55,49,10,52	2,44, 0, 3,34	7,11
	44″	37,23,17,31,27,57,45,38,30, 9	1,38,16,58,11,49, 0, 7	2,44, 0,10,45	7,11
	46″	37,23,19, 9,44,55,57,27,30,16	1,38,16,55,27,48,42,11	2,44, 0,17,56	7,11
	48″	37,23,20,48, 1,51,25,16,12,27	1,38,16,52,43,48,17, 4	2,44, 0,25, 7	7,11
	50″	37,23,22,26,18,44, 9, 4,29,31	1,38,16,49,59,47,44,46	2,44, 0,32,18	7,11
	52″	37,23,24, 4,35,34, 8,52,14,17	1,38,16,47,15,47, 5,17	2,44, 0,39,29	7,11
	54″	37,23,25,42,52,21,24,39,19,34	1,38,16,44,31,46,18,37	2,44, 0,46,40	7,11
	56″	37,23,27,21, 9, 5,56,25,38,11	1,38,16,41,47,45,24,46	2,44, 0,53,51	7,11
	58″	37,23,28,59,25,47,44,11, 2,57	1,38,16,39, 3,44,23,44	2,44, 1, 1, 2	
	60″	37,23,30,37,42,26,47,55,26,41			
exact		37,23,30,37,42,26,47,55,13,18			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
38°33′	0″	37,23,30,37,42,26,47,55,13,18			
			1,38,16,36,19,43,14,14		
	2″	37,23,32,15,59, 3, 7,38,27,32		2,44, 1,15,28	
			1,38,16,33,35,41,58,46		7,11
	4″	37,23,33,54,15,36,43,20,26,18		2,44, 1,22,39	
			1,38,16,30,51,40,36, 7		7,11
	6″	37,23,35,32,32, 7,35, 1, 2,25		2,44, 1,29,50	
			1,38,16,28, 7,39, 6,17		7,11
	8″	37,23,37,10,48,35,42,40, 8,42		2,44, 1,37, 1	
			1,38,16,25,23,37,29,16		7,11
	10″	37,23,38,49, 5, 1, 6,17,37,58		2,44, 1,44,12	
			1,38,16,22,39,35,45, 4		7,11
	12″	37,23,40,27,21,23,45,53,23, 2		2,44, 1,51,23	
			1,38,16,19,55,33,53,41		7,11
	14″	37,23,42, 5,37,43,41,27,16,43		2,44, 1,58,34	
			1,38,16,17,11,31,55, 7		7,11
	16″	37,23,43,43,54, 0,52,59,11,50		2,44, 2, 5,45	
			1,38,16,14,27,29,49,22		7,11
	18″	37,23,45,22,10,15,20,29, 1,12		2,44, 2,12,56	
			1,38,16,11,43,27,36,26		7,11
	20″	37,23,47, 0,26,27, 3,56,37,38		2,44, 2,20, 7	
			1,38,16, 8,59,25,16,19		7,11
	22″	37,23,48,38,42,36, 3,21,53,57		2,44, 2,27,18	
			1,38,16, 6,15,22,49, 1		7,11
	24″	37,23,50,16,58,42,18,44,42,58		2,44, 2,34,29	
			1,38,16, 3,31,20,14,32		7,11
	26″	37,23,51,55,14,45,50, 4,57,30		2,44, 2,41,40	
			1,38,16, 0,47,17,32,52		7,11
	28″	37,23,53,33,30,46,37,22,30,22		2,44, 2,48,51	
			1,38,15,58, 3,14,44, 1		7,11
	30″	37,23,55,11,46,44,40,37,14,23		2,44, 2,56, 2	
			1,38,15,55,19,11,47,59		7,11
	32″	37,23,56,50, 2,39,59,49, 2,22		2,44, 3, 3,13	
			1,38,15,52,35, 8,44,46		7,11
	34″	37,23,58,28,18,32,34,57,47, 8		2,44, 3,10,24	
			1,38,15,49,51, 5,34,22		7,11
	36″	37,24, 0, 6,34,22,26, 3,21,30		2,44, 3,17,35	
			1,38,15,47, 7, 2,16,47		7,11
	38″	37,24, 1,44,50, 9,33, 5,38,17		2,44, 3,24,46	
			1,38,15,44,22,58,52, 1		7,11
	40″	37,24, 3,23, 5,53,56, 4,30,18		2,44, 3,31,57	
			1,38,15,41,38,55,20, 4		7,11
	42″	37,24, 5, 1,21,35,34,59,50,22		2,44, 3,39, 8	
			1,38,15,38,54,51,40,56		7,11
	44″	37,24, 6,39,37,14,29,51,31,18		2,44, 3,46,19	
			1,38,15,36,10,47,54,37		7,11
	46″	37,24, 8,17,52,50,40,39,25,55		2,44, 3,53,30	
			1,38,15,33,26,44, 1, 7		7,11
	48″	37,24, 9,56, 8,24, 7,23,27, 2		2,44, 4, 0,41	
			1,38,15,30,42,40, 0,26		7,11
	50″	37,24,11,34,23,54,50, 3,27,28		2,44, 4, 7,52	
			1,38,15,27,58,35,52,34		7,11
	52″	37,24,13,12,39,22,48,39,20, 2		2,44, 4,15, 3	
			1,38,15,25,14,31,37,31		7,11
	54″	37,24,14,50,54,48, 3,10,57,33		2,44, 4,22,14	
			1,38,15,22,30,27,15,17		7,11
	56″	37,24,16,29,10,10,33,38,12,50		2,44, 4,29,25	
			1,38,15,19,46,22,45,52		7,11
	58″	37,24,18, 7,25,30,20, 0,58,42		2,44, 4,36,36	
			1,38,15,17, 2,18, 9,16		
	60″	37,24,19,45,40,47,22,19, 7,58			
exact		37,24,19,45,40,47,22,19, 0,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°34′ 0″	37,24,19,45,40,47,22,19, 0,24			
		1,38,15,14,18,13,24,51		
2″	37,24,21,23,56, 1,40,32,25,15		2,44, 4,51, 0	
		1,38,15,11,34, 8,33,51		7,11
4″	37,24,23, 2,11,13,14,40,59, 6		2,44, 4,58,11	
		1,38,15, 8,50, 3,35,40		7,11
6″	37,24,24,40,26,22, 4,44,34,46		2,44, 5, 5,22	
		1,38,15, 6, 5,58,30,18		7,11
8″	37,24,26,18,41,28,10,43, 5, 4		2,44, 5,12,33	
		1,38,15, 3,21,53,17,45		7,11
10″	37,24,27,56,56,31,32,36,22,49		2,44, 5,19,44	
		1,38,15, 0,37,47,58, 1		7,11
12″	37,24,29,35,11,32,10,24,20,50		2,44, 5,26,55	
		1,38,14,57,53,42,31, 6		7,11
14″	37,24,31,13,26,30, 4, 6,51,56		2,44, 5,34, 6	
		1,38,14,55, 9,36,57, 0		7,11
16″	37,24,32,51,41,25,13,43,48,56		2,44, 5,41,17	
		1,38,14,52,25,31,15,43		7,11
18″	37,24,34,29,56,17,39,15, 4,39		2,44, 5,48,28	
		1,38,14,49,41,25,27,15		7,11
20″	37,24,36, 8,11, 7,20,40,31,54		2,44, 5,55,39	
		1,38,14,46,57,19,31,36		7,11
22″	37,24,37,46,25,54,18, 0, 3,30		2,44, 6, 2,50	
		1,38,14,44,13,13,28,46		7,11
24″	37,24,39,24,40,38,31,13,32,16		2,44, 6,10, 1	
		1,38,14,41,29, 7,18,45		7,11
26″	37,24,41, 2,55,20, 0,20,51, 1		2,44, 6,17,12	
		1,38,14,38,45, 1, 1,33		7,11
28″	37,24,42,41, 9,58,45,21,52,34		2,44, 6,24,23	
		1,38,14,36, 0,54,37,10		7,11
30″	37,24,44,19,24,34,46,16,29,44		2,44, 6,31,34	
		1,38,14,33,16,48, 5,36		7,11
32″	37,24,45,57,39, 8, 3, 4,35,20		2,44, 6,38,45	
		1,38,14,30,32,41,26,51		7,11
34″	37,24,47,35,53,38,35,46, 2,11		2,44, 6,45,56	
		1,38,14,27,48,34,40,55		7,11
36″	37,24,49,14, 8, 6,24,20,43, 6		2,44, 6,53, 7	
		1,38,14,25, 4,27,47,48		7,11
38″	37,24,50,52,22,31,28,48,30,54		2,44, 7, 0,18	
		1,38,14,22,20,20,47,30		7,11
40″	37,24,52,30,36,53,49, 9,18,24		2,44, 7, 7,29	
		1,38,14,19,36,13,40, 1		7,11
42″	37,24,54, 8,51,13,25,22,58,25		2,44, 7,14,40	
		1,38,14,16,52, 6,25,21		7,11
44″	37,24,55,47, 5,30,17,29,23,46		2,44, 7,21,51	
		1,38,14,14, 7,59, 3,30		7,11
46″	37,24,57,25,19,44,25,28,27,16		2,44, 7,29, 2	
		1,38,14,11,23,51,34,28		7,11
48″	37,24,59, 3,33,55,49,20, 1,44		2,44, 7,36,13	
		1,38,14, 8,39,43,58,15		7,11
50″	37,25, 0,41,48, 4,29, 3,59,59		2,44, 7,43,24	
		1,38,14, 5,55,36,14,51		7,11
52″	37,25, 2,20, 2,10,24,40,14,50		2,44, 7,50,35	
		1,38,14, 3,11,28,24,16		7,11
54″	37,25, 3,58,16,13,36, 8,39, 6		2,44, 7,57,46	
		1,38,14, 0,27,20,26,30		7,11
56″	37,25, 5,36,30,14, 3,29, 5,36		2,44, 8, 4,57	
		1,38,13,57,43,12,21,33		7,11
58″	37,25, 7,14,44,11,46,41,27, 9		2,44, 8,12, 8	
		1,38,13,54,59, 4, 9,25		
60″	37,25, 8,52,58, 6,45,45,36,34			
exact	37,25, 8,52,58, 6,45,45,42, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°35′ 0″	37,25, 8,52,58, 6,45,45,42, 1	1,38,13,52,14,55,50,37		
2″	37,25,10,31,11,59, 0,41,32,38	1,38,13,49,30,47,24, 9	2,44, 8,26,28	7,11
4″	37,25,12, 9,25,48,31,28,56,47	1,38,13,46,46,38,50,30	2,44, 8,33,39	7,11
6″	37,25,13,47,39,35,18, 7,47,17	1,38,13,44, 2,30, 9,40	2,44, 8,40,50	7,11
8″	37,25,15,25,53,19,20,37,56,57	1,38,13,41,18,21,21,39	2,44, 8,48, 1	7,11
10″	37,25,17, 4, 7, 0,38,59,18,36	1,38,13,38,34,12,26,27	2,44, 8,55,12	7,11
12″	37,25,18,42,20,39,13,11,45, 3	1,38,13,35,50, 3,24, 4	2,44, 9, 2,23	7,11
14″	37,25,20,20,34,15, 3,15, 9, 7	1,38,13,33, 5,54,14,30	2,44, 9, 9,34	7,11
16″	37,25,21,58,47,48, 9, 9,23,37	1,38,13,30,21,44,57,45	2,44, 9,16,45	7,11
18″	37,25,23,37, 1,18,30,54,21,22	1,38,13,27,37,35,33,49	2,44, 9,23,56	7,11
20″	37,25,25,15,14,46, 8,29,55,11	1,38,13,24,53,26, 2,42	2,44, 9,31, 7	7,11
22″	37,25,26,53,28,11, 1,55,57,53	1,38,13,22, 9,16,24,24	2,44, 9,38,18	7,11
24″	37,25,28,31,41,33,11,12,22,17	1,38,13,19,25, 6,38,55	2,44, 9,45,29	7,11
26″	37,25,30, 9,54,52,36,19, 1,12	1,38,13,16,40,56,46,15	2,44, 9,52,40	7,11
28″	37,25,31,48, 8, 9,17,15,47,27	1,38,13,13,56,46,46,24	2,44, 9,59,51	7,11
30″	37,25,33,26,21,23,14, 2,33,51	1,38,13,11,12,36,39,22	2,44,10, 7, 2	7,11
32″	37,25,35, 4,34,34,26,39,13,13	1,38,13, 8,28,26,25, 9	2,44,10,14,13	7,11
34″	37,25,36,42,47,42,55, 5,38,22	1,38,13, 5,44,16, 3,45	2,44,10,21,24	7,11
36″	37,25,38,21, 0,48,39,21,42, 7	1,38,13, 3, 0, 5,35,10	2,44,10,28,35	7,11
38″	37,25,39,59,13,51,39,27,17,17	1,38,13, 0,15,54,59,24	2,44,10,35,46	7,11
40″	37,25,41,37,26,51,55,22,16,41	1,38,12,57,31,44,16,27	2,44,10,42,57	7,11
42″	37,25,43,15,39,49,27, 6,33, 8	1,38,12,54,47,33,26,19	2,44,10,50, 8	7,11
44″	37,25,44,53,52,44,14,39,59,27	1,38,12,52, 3,22,29, 0	2,44,10,57,19	7,11
46″	37,25,46,32, 5,36,18, 2,28,27	1,38,12,49,19,11,24,30	2,44,11, 4,30	7,11
48″	37,25,48,10,18,25,37,13,52,57	1,38,12,46,35, 0,12,49	2,44,11,11,41	7,11
50″	37,25,49,48,31,12,12,14, 5,46	1,38,12,43,50,48,53,57	2,44,11,18,52	7,11
52″	37,25,51,26,43,56, 3, 2,59,43	1,38,12,41, 6,37,27,54	2,44,11,26, 3	7,11
54″	37,25,53, 4,56,37, 9,40,27,37	1,38,12,38,22,25,54,40	2,44,11,33,14	7,11
56″	37,25,54,43, 9,15,32, 6,22,17	1,38,12,35,38,14,14,15	2,44,11,40,25	7,11
58″	37,25,56,21,21,51,10,20,36,32	1,38,12,32,54, 2,26,39	2,44,11,47,36	
60″	37,25,57,59,34,24, 4,23, 3,11			
exact	37,25,57,59,34,24, 4,23,14,19			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
38°36′	0″	37,25,57,59,34,24, 4,23,14,19	1,38,12,30, 9,50,33, 2		
	2″	37,25,59,37,46,54,14,13,47,21	1,38,12,27,25,38,31, 9	2,44,12, 1,53	7,11
	4″	37,26, 1,15,59,21,39,52,18,30	1,38,12,24,41,26,22, 5	2,44,12, 9, 4	7,11
	6″	37,26, 2,54,11,46,21,18,40,35	1,38,12,21,57,14, 5,50	2,44,12,16,15	7,11
	8″	37,26, 4,32,24, 8,18,32,46,25	1,38,12,19,13, 1,42,24	2,44,12,23,26	7,11
	10″	37,26, 6,10,36,27,31,34,28,49	1,38,12,16,28,49,11,47	2,44,12,30,37	7,11
	12″	37,26, 7,48,48,44, 0,23,40,36	1,38,12,13,44,36,33,59	2,44,12,37,48	7,11
	14″	37,26, 9,27, 0,57,45, 0,14,35	1,38,12,11, 0,23,49, 0	2,44,12,44,59	7,11
	16″	37,26,11, 5,13, 8,45,24, 3,35	1,38,12, 8,16,10,56,50	2,44,12,52,10	7,11
	18″	37,26,12,43,25,17, 1,35, 0,25	1,38,12, 5,31,57,57,29	2,44,12,59,21	7,11
	20″	37,26,14,21,37,22,33,32,57,54	1,38,12, 2,47,44,50,57	2,44,13, 6,32	7,11
	22″	37,26,15,59,49,25,21,17,48,51	1,38,12, 0, 3,31,37,14	2,44,13,13,43	7,11
	24″	37,26,17,38, 1,25,24,49,26, 5	1,38,11,57,19,18,16,20	2,44,13,20,54	7,11
	26″	37,26,19,16,13,22,44, 7,42,25	1,38,11,54,35, 4,48,15	2,44,13,28, 5	7,11
	28″	37,26,20,54,25,17,19,12,30,40	1,38,11,51,50,51,12,59	2,44,13,35,16	7,11
	30″	37,26,22,32,37, 9,10, 3,43,39	1,38,11,49, 6,37,30,32	2,44,13,42,27	7,11
	32″	37,26,24,10,48,58,16,41,14,11	1,38,11,46,22,23,40,54	2,44,13,49,38	7,11
	34″	37,26,25,49, 0,44,39, 4,55, 5	1,38,11,43,38, 9,44, 5	2,44,13,56,49	7,11
	36″	37,26,27,27,12,28,17,14,39,10	1,38,11,40,53,55,40, 5	2,44,14, 4, 0	7,11
	38″	37,26,29, 5,24, 9,11,10,19,15	1,38,11,38, 9,41,28,54	2,44,14,11,11	7,11
	40″	37,26,30,43,35,47,20,51,48, 9	1,38,11,35,25,27,10,32	2,44,14,18,22	7,11
	42″	37,26,32,21,47,22,46,18,58,41	1,38,11,32,41,12,44,59	2,44,14,25,33	7,11
	44″	37,26,33,59,58,55,27,31,43,40	1,38,11,29,56,58,12,15	2,44,14,32,44	7,11
	46″	37,26,35,38,10,25,24,29,55,55	1,38,11,27,12,43,32,20	2,44,14,39,55	7,11
	48″	37,26,37,16,21,52,37,13,28,15	1,38,11,24,28,28,45,14	2,44,14,47, 6	7,11
	50″	37,26,38,54,33,17, 5,42,13,29	1,38,11,21,44,13,50,57	2,44,14,54,17	7,11
	52″	37,26,40,32,44,38,49,56, 4,26	1,38,11,18,59,58,49,29	2,44,15, 1,28	7,11
	54″	37,26,42,10,55,57,49,54,53,55	1,38,11,16,15,43,40,50	2,44,15, 8,39	7,11
	56″	37,26,43,49, 7,14, 5,38,34,45	1,38,11,13,31,28,25, 0	2,44,15,15,50	7,11
	58″	37,26,45,27,18,27,37, 6,59,45	1,38,11,10,47,13, 1,59	2,44,15,23, 1	
	60″	37,26,47, 5,29,38,24,20, 1,44			
exact		37,26,47, 5,29,38,24,20,18,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°37′ 0″	37,26,47, 5,29,38,24,20,18,30			
		1,38,11, 8, 2,57,33,36		
2″	37,26,48,43,40,46,27,17,52, 6		2,44,15,37,15	
		1,38,11, 5,18,41,56,21		7,11
4″	37,26,50,21,51,51,45,59,48,27		2,44,15,44,26	
		1,38,11, 2,34,26,11,55		7,11
6″	37,26,52, 0, 2,54,20,26, 0,22		2,44,15,51,37	
		1,38,10,59,50,10,20,18		7,11
8″	37,26,53,38,13,54,10,36,20,40		2,44,15,58,48	
		1,38,10,57, 5,54,21,30		7,11
10″	37,26,55,16,24,51,16,30,42,10		2,44,16, 5,59	
		1,38,10,54,21,38,15,31		7,11
12″	37,26,56,54,35,45,38, 8,57,41		2,44,16,13,10	
		1,38,10,51,37,22, 2,21		7,11
14″	37,26,58,32,46,37,15,31, 0, 2		2,44,16,20,21	
		1,38,10,48,53, 5,42, 0		7,11
16″	37,27, 0,10,57,26, 8,36,42, 2		2,44,16,27,32	
		1,38,10,46, 8,49,14,28		7,11
18″	37,27, 1,49, 8,12,17,25,56,30		2,44,16,34,43	
		1,38,10,43,24,32,39,45		7,11
20″	37,27, 3,27,18,55,41,58,36,15		2,44,16,41,54	
		1,38,10,40,40,15,57,51		7,11
22″	37,27, 5, 5,29,36,22,14,34, 6		2,44,16,49, 5	
		1,38,10,37,55,59, 8,46		7,11
24″	37,27, 6,43,40,14,18,13,42,52		2,44,16,56,16	
		1,38,10,35,11,42,12,30		7,11
26″	37,27, 8,21,50,49,29,55,55,22		2,44,17, 3,27	
		1,38,10,32,27,25, 9, 3		7,11
28″	37,27,10, 0, 1,21,57,21, 4,25		2,44,17,10,38	
		1,38,10,29,43, 7,58,25		7,11
30″	37,27,11,38,11,51,40,29, 2,50		2,44,17,17,49	
		1,38,10,26,58,50,40,36		7,11
32″	37,27,13,16,22,18,39,19,43,26		2,44,17,25, 0	
		1,38,10,24,14,33,15,36		7,11
34″	37,27,14,54,32,42,53,52,59, 2		2,44,17,32,11	
		1,38,10,21,30,15,43,25		7,11
36″	37,27,16,32,43, 4,24, 8,42,27		2,44,17,39,22	
		1,38,10,18,45,58, 4, 3		7,11
38″	37,27,18,10,53,23,10, 6,46,30		2,44,17,46,33	
		1,38,10,16, 1,40,17,30		7,11
40″	37,27,19,49, 3,39,11,47, 4, 0		2,44,17,53,44	
		1,38,10,13,17,22,23,46		7,11
42″	37,27,21,27,13,52,29, 9,27,46		2,44,18, 0,55	
		1,38,10,10,33, 4,22,51		7,11
44″	37,27,23, 5,24, 3, 2,13,50,37		2,44,18, 8, 6	
		1,38,10, 7,48,46,14,45		7,11
46″	37,27,24,43,34,10,51, 0, 5,22		2,44,18,15,17	
		1,38,10, 5, 4,27,59,28		7,11
48″	37,27,26,21,44,15,55,28, 4,50		2,44,18,22,28	
		1,38,10, 2,20, 9,37, 0		7,11
50″	37,27,27,59,54,18,15,37,41,50		2,44,18,29,39	
		1,38, 9,59,35,51, 7,21		7,11
52″	37,27,29,38, 4,17,51,28,49,11		2,44,18,36,50	
		1,38, 9,56,51,32,30,31		7,11
54″	37,27,31,16,14,14,43, 1,19,42		2,44,18,44, 1	
		1,38, 9,54, 7,13,46,30		7,11
56″	37,27,32,54,24, 8,50,15, 6,12		2,44,18,51,12	
		1,38, 9,51,22,54,55,18		7,11
58″	37,27,34,32,34, 0,13,10, 1,30		2,44,18,58,23	
		1,38, 9,48,38,35,56,55		
60″	37,27,36,10,43,48,51,45,58,25			
exact	37,27,36,10,43,48,51,46,20,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°38′ 0″	37,27,36,10,43,48,51,46,20,45			
		1,38, 9,45,54,16,53,49		
2″	37,27,37,48,53,34,46, 3,14,34		2,44,19,12,34	
		1,38, 9,43, 9,57,41,15		7,11
4″	37,27,39,27, 3,17,56, 0,55,49		2,44,19,19,45	
		1,38, 9,40,25,38,21,30		7,11
6″	37,27,41, 5,12,58,21,39,17,19		2,44,19,26,56	
		1,38, 9,37,41,18,54,34		7,11
8″	37,27,42,43,22,36, 2,58,11,53		2,44,19,34, 7	
		1,38, 9,34,56,59,20,27		7,11
10″	37,27,44,21,32,10,59,57,32,20		2,44,19,41,18	
		1,38, 9,32,12,39,39, 9		7,11
12″	37,27,45,59,41,43,12,37,11,29		2,44,19,48,29	
		1,38, 9,29,28,19,50,40		7,11
14″	37,27,47,37,51,12,40,57, 2, 9		2,44,19,55,40	
		1,38, 9,26,43,59,55, 0		7,11
16″	37,27,49,16, 0,39,24,56,57, 9		2,44,20, 2,51	
		1,38, 9,23,59,39,52, 9		7,11
18″	37,27,50,54,10, 3,24,36,49,18		2,44,20,10, 2	
		1,38, 9,21,15,19,42, 7		7,11
20″	37,27,52,32,19,24,39,56,31,25		2,44,20,17,13	
		1,38, 9,18,30,59,24,54		7,11
22″	37,27,54,10,28,43,10,55,56,19		2,44,20,24,24	
		1,38, 9,15,46,39, 0,30		7,11
24″	37,27,55,48,37,58,57,34,56,49		2,44,20,31,35	
		1,38, 9,13, 2,18,28,55		7,11
26″	37,27,57,26,47,11,59,53,25,44		2,44,20,38,46	
		1,38, 9,10,17,57,50, 9		7,11
28″	37,27,59, 4,56,22,17,51,15,53		2,44,20,45,57	
		1,38, 9, 7,33,37, 4,12		7,11
30″	37,28, 0,43, 5,29,51,28,20, 5		2,44,20,53, 8	
		1,38, 9, 4,49,16,11, 4		7,11
32″	37,28, 2,21,14,34,40,44,31, 9		2,44,21, 0,19	
		1,38, 9, 2, 4,55,10,45		7,11
34″	37,28, 3,59,23,36,45,39,41,54		2,44,21, 7,30	
		1,38, 8,59,20,34, 3,15		7,11
36″	37,28, 5,37,32,36, 6,13,45, 9		2,44,21,14,41	
		1,38, 8,56,36,12,48,34		7,11
38″	37,28, 7,15,41,32,42,26,33,43		2,44,21,21,52	
		1,38, 8,53,51,51,26,42		7,11
40″	37,28, 8,53,50,26,34,18, 0,25		2,44,21,29, 3	
		1,38, 8,51, 7,29,57,39		7,11
42″	37,28,10,31,59,17,41,47,58, 4		2,44,21,36,14	
		1,38, 8,48,23, 8,21,25		7,11
44″	37,28,12,10, 8, 6, 4,56,19,29		2,44,21,43,25	
		1,38, 8,45,38,46,38, 0		7,11
46″	37,28,13,48,16,51,43,42,57,29		2,44,21,50,36	
		1,38, 8,42,54,24,47,24		7,11
48″	37,28,15,26,25,34,38, 7,44,53		2,44,21,57,47	
		1,38, 8,40,10, 2,49,37		7,11
50″	37,28,17, 4,34,14,48,10,34,30		2,44,22, 4,58	
		1,38, 8,37,25,40,44,39		7,11
52″	37,28,18,42,42,52,13,51,19, 9		2,44,22,12, 9	
		1,38, 8,34,41,18,32,30		7,11
54″	37,28,20,20,51,26,55, 9,51,39		2,44,22,19,20	
		1,38, 8,31,56,56,13,10		7,11
56″	37,28,21,58,59,58,52, 6, 4,49		2,44,22,26,31	
		1,38, 8,29,12,33,46,39		7,11
58″	37,28,23,37, 8,28, 4,39,51,28		2,44,22,33,42	
		1,38, 8,26,28,11,12,57		
60″	37,28,25,15,16,54,32,51, 4,25			
exact	37,28,25,15,16,54,32,51,32,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°39′ 0″	37,28,25,15,16,54,32,51,32,17			
		1,38, 8,23,43,48,35,11		
2″	37,28,26,53,25,18,16,40, 7,28		2,44,22,47,50	
		1,38, 8,20,59,25,47,21		7,10
4″	37,28,28,31,33,39,16, 5,54,49		2,44,22,55, 0	
		1,38, 8,18,15, 2,52,21		7,10
6″	37,28,30, 9,41,57,31, 8,47,10		2,44,23, 2,10	
		1,38, 8,15,30,39,50,11		7,10
8″	37,28,31,47,50,13, 1,48,37,21		2,44,23, 9,20	
		1,38, 8,12,46,16,40,51		7,10
10″	37,28,33,25,58,25,48, 5,18,12		2,44,23,16,30	
		1,38, 8,10, 1,53,24,21		7,10
12″	37,28,35, 4, 6,35,49,58,42,33		2,44,23,23,40	
		1,38, 8, 7,17,30, 0,41		7,10
14″	37,28,36,42,14,43, 7,28,43,14		2,44,23,30,50	
		1,38, 8, 4,33, 6,29,51		7,10
16″	37,28,38,20,22,47,40,35,13, 5		2,44,23,38, 0	
		1,38, 8, 1,48,42,51,51		7,10
18″	37,28,39,58,30,49,29,18, 4,56		2,44,23,45,10	
		1,38, 7,59, 4,19, 6,41		7,10
20″	37,28,41,36,38,48,33,37,11,37		2,44,23,52,20	
		1,38, 7,56,19,55,14,21		7,10
22″	37,28,43,14,46,44,53,32,25,58		2,44,23,59,30	
		1,38, 7,53,35,31,14,51		7,10
24″	37,28,44,52,54,38,29, 3,40,49		2,44,24, 6,40	
		1,38, 7,50,51, 7, 8,11		7,10
26″	37,28,46,31, 2,29,20,10,49, 0		2,44,24,13,50	
		1,38, 7,48, 6,42,54,21		7,10
28″	37,28,48, 9,10,17,26,53,43,21		2,44,24,21, 0	
		1,38, 7,45,22,18,33,21		7,10
30″	37,28,49,47,18, 2,49,12,16,42		2,44,24,28,10	
		1,38, 7,42,37,54, 5,11		7,10
32″	37,28,51,25,25,45,27, 6,21,53		2,44,24,35,20	
		1,38, 7,39,53,29,29,51		7,10
34″	37,28,53, 3,33,25,20,35,51,44		2,44,24,42,30	
		1,38, 7,37, 9, 4,47,21		7,10
36″	37,28,54,41,41, 2,29,40,39, 5		2,44,24,49,40	
		1,38, 7,34,24,39,57,41		7,10
38″	37,28,56,19,48,36,54,20,36,46		2,44,24,56,50	
		1,38, 7,31,40,15, 0,51		7,10
40″	37,28,57,57,56, 8,34,35,37,37		2,44,25, 4, 0	
		1,38, 7,28,55,49,56,51		7,10
42″	37,28,59,36, 3,37,30,25,34,28		2,44,25,11,10	
		1,38, 7,26,11,24,45,41		7,10
44″	37,29, 1,14,11, 3,41,50,20, 9		2,44,25,18,20	
		1,38, 7,23,26,59,27,21		7,10
46″	37,29, 2,52,18,27, 8,49,47,30		2,44,25,25,30	
		1,38, 7,20,42,34, 1,51		7,10
48″	37,29, 4,30,25,47,51,23,49,21		2,44,25,32,40	
		1,38, 7,17,58, 8,29,11		7,10
50″	37,29, 6, 8,33, 5,49,32,18,32		2,44,25,39,50	
		1,38, 7,15,13,42,49,21		7,10
52″	37,29, 7,46,40,21, 3,15, 7,53		2,44,25,47, 0	
		1,38, 7,12,29,17, 2,21		7,10
54″	37,29, 9,24,47,33,32,32,10,14		2,44,25,54,10	
		1,38, 7, 9,44,51, 8,11		7,10
56″	37,29,11, 2,54,43,17,23,18,25		2,44,26, 1,20	
		1,38, 7, 7, 0,25, 6,51		7,10
58″	37,29,12,41, 1,50,17,48,25,16		2,44,26, 8,30	
		1,38, 7, 4,15,58,58,21		
60″	37,29,14,19, 8,54,33,47,23,37			
exact	37,29,14,19, 8,54,33,46,49,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°40′ 0″	37,29,14,19, 8,54,33,46,49,23			
		1,38, 7, 1,31,32,39,11		
2″	37,29,15,57,15,56, 5,19,28,34		2,44,26,23, 4	
		1,38, 6,58,47, 6,16, 7		7,10
4″	37,29,17,35,22,54,52,25,44,41		2,44,26,30,14	
		1,38, 6,56, 2,39,45,53		7,10
6″	37,29,19,13,29,50,55, 5,30,34		2,44,26,37,24	
		1,38, 6,53,18,13, 8,29		7,10
8″	37,29,20,51,36,44,13,18,39, 3		2,44,26,44,34	
		1,38, 6,50,33,46,23,55		7,10
10″	37,29,22,29,43,34,47, 5, 2,58		2,44,26,51,44	
		1,38, 6,47,49,19,32,11		7,10
12″	37,29,24, 7,50,22,36,24,35, 9		2,44,26,58,54	
		1,38, 6,45, 4,52,33,17		7,10
14″	37,29,25,45,57, 7,41,17, 8,26		2,44,27, 6, 4	
		1,38, 6,42,20,25,27,13		7,10
16″	37,29,27,24, 3,50, 1,42,35,39		2,44,27,13,14	
		1,38, 6,39,35,58,13,59		7,10
18″	37,29,29, 2,10,29,37,40,49,38		2,44,27,20,24	
		1,38, 6,36,51,30,53,35		7,10
20″	37,29,30,40,17, 6,29,11,43,13		2,44,27,27,34	
		1,38, 6,34, 7, 3,26, 1		7,10
22″	37,29,32,18,23,40,36,15, 9,14		2,44,27,34,44	
		1,38, 6,31,22,35,51,17		7,10
24″	37,29,33,56,30,11,58,51, 0,31		2,44,27,41,54	
		1,38, 6,28,38, 8, 9,23		7,10
26″	37,29,35,34,36,40,36,59, 9,54		2,44,27,49, 4	
		1,38, 6,25,53,40,20,19		7,10
28″	37,29,37,12,43, 6,30,39,30,13		2,44,27,56,14	
		1,38, 6,23, 9,12,24, 5		7,10
30″	37,29,38,50,49,29,39,51,54,18		2,44,28, 3,24	
		1,38, 6,20,24,44,20,41		7,10
32″	37,29,40,28,55,50, 4,36,14,59		2,44,28,10,34	
		1,38, 6,17,40,16,10, 7		7,10
34″	37,29,42, 7, 2, 7,44,52,25, 6		2,44,28,17,44	
		1,38, 6,14,55,47,52,23		7,10
36″	37,29,43,45, 8,22,40,40,17,29		2,44,28,24,54	
		1,38, 6,12,11,19,27,29		7,10
38″	37,29,45,23,14,34,51,59,44,58		2,44,28,32, 4	
		1,38, 6, 9,26,50,55,25		7,10
40″	37,29,47, 1,20,44,18,50,40,23		2,44,28,39,14	
		1,38, 6, 6,42,22,16,11		7,10
42″	37,29,48,39,26,51, 1,12,56,34		2,44,28,46,24	
		1,38, 6, 3,57,53,29,47		7,10
44″	37,29,50,17,32,54,59, 6,26,21		2,44,28,53,34	
		1,38, 6, 1,13,24,36,13		7,10
46″	37,29,51,55,38,56,12,31, 2,34		2,44,29, 0,44	
		1,38, 5,58,28,55,35,29		7,10
48″	37,29,53,33,44,54,41,26,38, 3		2,44,29, 7,54	
		1,38, 5,55,44,26,27,35		7,10
50″	37,29,55,11,50,50,25,53, 5,38		2,44,29,15, 4	
		1,38, 5,52,59,57,12,31		7,10
52″	37,29,56,49,56,43,25,50,18, 9		2,44,29,22,14	
		1,38, 5,50,15,27,50,17		7,10
54″	37,29,58,28, 2,33,41,18, 8,26		2,44,29,29,24	
		1,38, 5,47,30,58,20,53		7,10
56″	37,30, 0, 6, 8,21,12,16,29,19		2,44,29,36,34	
		1,38, 5,44,46,28,44,19		7,10
58″	37,30, 1,44,14, 5,58,45,13,38		2,44,29,43,44	
		1,38, 5,42, 1,59, 0,35		
60″	37,30, 3,22,19,48, 0,44,14,13			
exact	37,30, 3,22,19,48, 0,43,53,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°41′ 0″	37,30, 3,22,19,48, 0,43,53,22			
		1,38, 5,39,17,29, 7,22		
2″	37,30, 5, 0,25,27,18,13, 0,44		2,44,29,58,14	
		1,38, 5,36,32,59, 9, 8		7,10
4″	37,30, 6,38,31, 3,51,12, 9,52		2,44,30, 5,24	
		1,38, 5,33,48,29, 3,44		7,10
6″	37,30, 8,16,36,37,39,41,13,36		2,44,30,12,34	
		1,38, 5,31, 3,58,51,10		7,10
8″	37,30, 9,54,42, 8,43,40, 4,46		2,44,30,19,44	
		1,38, 5,28,19,28,31,26		7,10
10″	37,30,11,32,47,37, 3, 8,36,12		2,44,30,26,54	
		1,38, 5,25,34,58, 4,32		7,10
12″	37,30,13,10,53, 2,38, 6,40,44		2,44,30,34, 4	
		1,38, 5,22,50,27,30,28		7,10
14″	37,30,14,48,58,25,28,34,11,12		2,44,30,41,14	
		1,38, 5,20, 5,56,49,14		7,10
16″	37,30,16,27, 3,45,34,31, 0,26		2,44,30,48,24	
		1,38, 5,17,21,26, 0,50		7,10
18″	37,30,18, 5, 9, 2,55,57, 1,16		2,44,30,55,34	
		1,38, 5,14,36,55, 5,16		7,10
20″	37,30,19,43,14,17,32,52, 6,32		2,44,31, 2,44	
		1,38, 5,11,52,24, 2,32		7,10
22″	37,30,21,21,19,29,25,16, 9, 4		2,44,31, 9,54	
		1,38, 5, 9, 7,52,52,38		7,10
24″	37,30,22,59,24,38,33, 9, 1,42		2,44,31,17, 4	
		1,38, 5, 6,23,21,35,34		7,10
26″	37,30,24,37,29,44,56,30,37,16		2,44,31,24,14	
		1,38, 5, 3,38,50,11,20		7,10
28″	37,30,26,15,34,48,35,20,48,36		2,44,31,31,24	
		1,38, 5, 0,54,18,39,56		7,10
30″	37,30,27,53,39,49,29,39,28,32		2,44,31,38,34	
		1,38, 4,58, 9,47, 1,22		7,10
32″	37,30,29,31,44,47,39,26,29,54		2,44,31,45,44	
		1,38, 4,55,25,15,15,38		7,10
34″	37,30,31, 9,49,43, 4,41,45,32		2,44,31,52,54	
		1,38, 4,52,40,43,22,44		7,10
36″	37,30,32,47,54,35,45,25, 8,16		2,44,32, 0, 4	
		1,38, 4,49,56,11,22,40		7,10
38″	37,30,34,25,59,25,41,36,30,56		2,44,32, 7,14	
		1,38, 4,47,11,39,15,26		7,10
40″	37,30,36, 4, 4,12,53,15,46,22		2,44,32,14,24	
		1,38, 4,44,27, 7, 1, 2		7,10
42″	37,30,37,42, 8,57,20,22,47,24		2,44,32,21,34	
		1,38, 4,41,42,34,39,28		7,10
44″	37,30,39,20,13,39, 2,57,26,52		2,44,32,28,44	
		1,38, 4,38,58, 2,10,44		7,10
46″	37,30,40,58,18,18, 0,59,37,36		2,44,32,35,54	
		1,38, 4,36,13,29,34,50		7,10
48″	37,30,42,36,22,54,14,29,12,26		2,44,32,43, 4	
		1,38, 4,33,28,56,51,46		7,10
50″	37,30,44,14,27,27,43,26, 4,12		2,44,32,50,14	
		1,38, 4,30,44,24, 1,32		7,10
52″	37,30,45,52,31,58,27,50, 5,44		2,44,32,57,24	
		1,38, 4,27,59,51, 4, 8		7,10
54″	37,30,47,30,36,26,27,41, 9,52		2,44,33, 4,34	
		1,38, 4,25,15,17,59,34		7,10
56″	37,30,49, 8,40,51,42,59, 9,26		2,44,33,11,44	
		1,38, 4,22,30,44,47,50		7,10
58″	37,30,50,46,45,14,13,43,57,16		2,44,33,18,54	
		1,38, 4,19,46,11,28,56		
60″	37,30,52,24,49,33,59,55,26,12			
exact	37,30,52,24,49,33,59,55,10,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°42′ 0″	37,30,52,24,49,33,59,55,10,41			
		1,38, 4,17, 1,38, 1,11		
2″	37,30,54, 2,53,51, 1,33,11,52		2,44,33,33,21	
		1,38, 4,14,17, 4,27,50		7,10
4″	37,30,55,40,58, 5,18,37,39,42		2,44,33,40,31	
		1,38, 4,11,32,30,47,19		7,10
6″	37,30,57,19, 2,16,51, 8,27, 1		2,44,33,47,41	
		1,38, 4, 8,47,56,59,38		7,10
8″	37,30,58,57, 6,25,39, 5,26,39		2,44,33,54,51	
		1,38, 4, 6, 3,23, 4,47		7,10
10″	37,31, 0,35,10,31,42,28,31,26		2,44,34, 2, 1	
		1,38, 4, 3,18,49, 2,46		7,10
12″	37,31, 2,13,14,35, 1,17,34,12		2,44,34, 9,11	
		1,38, 4, 0,34,14,53,35		7,10
14″	37,31, 3,51,18,35,35,32,27,47		2,44,34,16,21	
		1,38, 3,57,49,40,37,14		7,10
16″	37,31, 5,29,22,33,25,13, 5, 1		2,44,34,23,31	
		1,38, 3,55, 5, 6,13,43		7,10
18″	37,31, 7, 7,26,28,30,19,18,44		2,44,34,30,41	
		1,38, 3,52,20,31,43, 2		7,10
20″	37,31, 8,45,30,20,50,51, 1,46		2,44,34,37,51	
		1,38, 3,49,35,57, 5,11		7,10
22″	37,31,10,23,34,10,26,48, 6,57		2,44,34,45, 1	
		1,38, 3,46,51,22,20,10		7,10
24″	37,31,12, 1,37,57,18,10,27, 7		2,44,34,52,11	
		1,38, 3,44, 6,47,27,59		7,10
26″	37,31,13,39,41,41,24,57,55, 6		2,44,34,59,21	
		1,38, 3,41,22,12,28,38		7,10
28″	37,31,15,17,45,22,47,10,23,44		2,44,35, 6,31	
		1,38, 3,38,37,37,22, 7		7,10
30″	37,31,16,55,49, 1,24,47,45,51		2,44,35,13,41	
		1,38, 3,35,53, 2, 8,26		7,10
32″	37,31,18,33,52,37,17,49,54,17		2,44,35,20,51	
		1,38, 3,33, 8,26,47,35		7,10
34″	37,31,20,11,56,10,26,16,41,52		2,44,35,28, 1	
		1,38, 3,30,23,51,19,34		7,10
36″	37,31,21,49,59,40,50, 8, 1,26		2,44,35,35,11	
		1,38, 3,27,39,15,44,23		7,10
38″	37,31,23,28, 3, 8,29,23,45,49		2,44,35,42,21	
		1,38, 3,24,54,40, 2, 2		7,10
40″	37,31,25, 6, 6,33,24, 3,47,51		2,44,35,49,31	
		1,38, 3,22,10, 4,12,31		7,10
42″	37,31,26,44, 9,55,34, 8, 0,22		2,44,35,56,41	
		1,38, 3,19,25,28,15,50		7,10
44″	37,31,28,22,13,14,59,36,16,12		2,44,36, 3,51	
		1,38, 3,16,40,52,11,59		7,10
46″	37,31,30, 0,16,31,40,28,28,11		2,44,36,11, 1	
		1,38, 3,13,56,16, 0,58		7,10
48″	37,31,31,38,19,45,36,44,29, 9		2,44,36,18,11	
		1,38, 3,11,11,39,42,47		7,10
50″	37,31,33,16,22,56,48,24,11,56		2,44,36,25,21	
		1,38, 3, 8,27, 3,17,26		7,10
52″	37,31,34,54,26, 5,15,27,29,22		2,44,36,32,31	
		1,38, 3, 5,42,26,44,55		7,10
54″	37,31,36,32,29,10,57,54,14,17		2,44,36,39,41	
		1,38, 3, 2,57,50, 5,14		7,10
56″	37,31,38,10,32,13,55,44,19,31		2,44,36,46,51	
		1,38, 3, 0,13,13,18,23		7,10
58″	37,31,39,48,35,14, 8,57,37,54		2,44,36,54, 1	
		1,38, 2,57,28,36,24,22		
60″	37,31,41,26,38,11,37,34, 2,16			
exact	37,31,41,26,38,11,37,33,52,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°43′ 0″	37,31,41,26,38,11,37,33,52,49			
		1,38, 2,54,43,59,22,10		
2″	37,31,43, 4,41, 6,21,33,14,59		2,44,37, 8,25	
		1,38, 2,51,59,22,13,45		7,10
4″	37,31,44,42,43,58,20,55,28,44		2,44,37,15,35	
		1,38, 2,49,14,44,58,10		7,10
6″	37,31,46,20,46,47,35,40,26,54		2,44,37,22,45	
		1,38, 2,46,30, 7,35,25		7,10
8″	37,31,47,58,49,34, 5,48, 2,19		2,44,37,29,55	
		1,38, 2,43,45,30, 5,30		7,10
10″	37,31,49,36,52,17,51,18, 7,49		2,44,37,37, 5	
		1,38, 2,41, 0,52,28,25		7,10
12″	37,31,51,14,54,58,52,10,36,14		2,44,37,44,15	
		1,38, 2,38,16,14,44,10		7,10
14″	37,31,52,52,57,37, 8,25,20,24		2,44,37,51,25	
		1,38, 2,35,31,36,52,45		7,10
16″	37,31,54,31, 0,12,40, 2,13, 9		2,44,37,58,35	
		1,38, 2,32,46,58,54,10		7,10
18″	37,31,56, 9, 2,45,27, 1, 7,19		2,44,38, 5,45	
		1,38, 2,30, 2,20,48,25		7,10
20″	37,31,57,47, 5,15,29,21,55,44		2,44,38,12,55	
		1,38, 2,27,17,42,35,30		7,10
22″	37,31,59,25, 7,42,47, 4,31,14		2,44,38,20, 5	
		1,38, 2,24,33, 4,15,25		7,10
24″	37,32, 1, 3,10, 7,20, 8,46,39		2,44,38,27,15	
		1,38, 2,21,48,25,48,10		7,10
26″	37,32, 2,41,12,29, 8,34,34,49		2,44,38,34,25	
		1,38, 2,19, 3,47,13,45		7,10
28″	37,32, 4,19,14,48,12,21,48,34		2,44,38,41,35	
		1,38, 2,16,19, 8,32,10		7,10
30″	37,32, 5,57,17, 4,31,30,20,44		2,44,38,48,45	
		1,38, 2,13,34,29,43,25		7,10
32″	37,32, 7,35,19,18, 6, 0, 4, 9		2,44,38,55,55	
		1,38, 2,10,49,50,47,30		7,10
34″	37,32, 9,13,21,28,55,50,51,39		2,44,39, 3, 5	
		1,38, 2, 8, 5,11,44,25		7,10
36″	37,32,10,51,23,37, 1, 2,36, 4		2,44,39,10,15	
		1,38, 2, 5,20,32,34,10		7,10
38″	37,32,12,29,25,42,21,35,10,14		2,44,39,17,25	
		1,38, 2, 2,35,53,16,45		7,10
40″	37,32,14, 7,27,44,57,28,26,59		2,44,39,24,35	
		1,38, 1,59,51,13,52,10		7,10
42″	37,32,15,45,29,44,48,42,19, 9		2,44,39,31,45	
		1,38, 1,57, 6,34,20,25		7,10
44″	37,32,17,23,31,41,55,16,39,34		2,44,39,38,55	
		1,38, 1,54,21,54,41,30		7,10
46″	37,32,19, 1,33,36,17,11,21, 4		2,44,39,46, 5	
		1,38, 1,51,37,14,55,25		7,10
48″	37,32,20,39,35,27,54,26,16,29		2,44,39,53,15	
		1,38, 1,48,52,35, 2,10		7,10
50″	37,32,22,17,37,16,47, 1,18,39		2,44,40, 0,25	
		1,38, 1,46, 7,55, 1,45		7,10
52″	37,32,23,55,39, 2,54,56,20,24		2,44,40, 7,35	
		1,38, 1,43,23,14,54,10		7,10
54″	37,32,25,33,40,46,18,11,14,34		2,44,40,14,45	
		1,38, 1,40,38,34,39,25		7,10
56″	37,32,27,11,42,26,56,45,53,59		2,44,40,21,55	
		1,38, 1,37,53,54,17,30		7,10
58″	37,32,28,49,44, 4,50,40,11,29		2,44,40,29, 5	
		1,38, 1,35, 9,13,48,25		
60″	37,32,30,27,45,39,59,53,59,54			
exact	37,32,30,27,45,39,59,53,56,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°44′ 0″	37,32,30,27,45,39,59,53,56,26			
		1,38, 1,32,24,33,11,49		
2″	37,32,32, 5,47,12,24,27, 8,15		2,44,40,43,26	
		1,38, 1,29,39,52,28,23		7,10
4″	37,32,33,43,48,42, 4,19,36,38		2,44,40,50,36	
		1,38, 1,26,55,11,37,47		7,10
6″	37,32,35,21,50, 8,59,31,14,25		2,44,40,57,46	
		1,38, 1,24,10,30,40, 1		7,10
8″	37,32,36,59,51,33,10, 1,54,26		2,44,41, 4,56	
		1,38, 1,21,25,49,35, 5		7,10
10″	37,32,38,37,52,54,35,51,29,31		2,44,41,12, 6	
		1,38, 1,18,41, 8,22,59		7,10
12″	37,32,40,15,54,13,16,59,52,30		2,44,41,19,16	
		1,38, 1,15,56,27, 3,43		7,10
14″	37,32,41,53,55,29,13,26,56,13		2,44,41,26,26	
		1,38, 1,13,11,45,37,17		7,10
16″	37,32,43,31,56,42,25,12,33,30		2,44,41,33,36	
		1,38, 1,10,27, 4, 3,41		7,10
18″	37,32,45, 9,57,52,52,16,37,11		2,44,41,40,46	
		1,38, 1, 7,42,22,22,55		7,10
20″	37,32,46,47,59, 0,34,39, 0, 6		2,44,41,47,56	
		1,38, 1, 4,57,40,34,59		7,10
22″	37,32,48,26, 0, 5,32,19,35, 5		2,44,41,55, 6	
		1,38, 1, 2,12,58,39,53		7,10
24″	37,32,50, 4, 1, 7,45,18,14,58		2,44,42, 2,16	
		1,38, 0,59,28,16,37,37		7,10
26″	37,32,51,42, 2, 7,13,34,52,35		2,44,42, 9,26	
		1,38, 0,56,43,34,28,11		7,10
28″	37,32,53,20, 3, 3,57, 9,20,46		2,44,42,16,36	
		1,38, 0,53,58,52,11,35		7,10
30″	37,32,54,58, 3,57,56, 1,32,21		2,44,42,23,46	
		1,38, 0,51,14, 9,47,49		7,10
32″	37,32,56,36, 4,49,10,11,20,10		2,44,42,30,56	
		1,38, 0,48,29,27,16,53		7,10
34″	37,32,58,14, 5,37,39,38,37, 3		2,44,42,38, 6	
		1,38, 0,45,44,44,38,47		7,10
36″	37,32,59,52, 6,23,24,23,15,50		2,44,42,45,16	
		1,38, 0,43, 0, 1,53,31		7,10
38″	37,33, 1,30, 7, 6,24,25, 9,21		2,44,42,52,26	
		1,38, 0,40,15,19, 1, 5		7,10
40″	37,33, 3, 8, 7,46,39,44,10,26		2,44,42,59,36	
		1,38, 0,37,30,36, 1,29		7,10
42″	37,33, 4,46, 8,24,10,20,11,55		2,44,43, 6,46	
		1,38, 0,34,45,52,54,43		7,10
44″	37,33, 6,24, 8,58,56,13, 6,38		2,44,43,13,56	
		1,38, 0,32, 1, 9,40,47		7,10
46″	37,33, 8, 2, 9,30,57,22,47,25		2,44,43,21, 6	
		1,38, 0,29,16,26,19,41		7,10
48″	37,33, 9,40,10, 0,13,49, 7, 6		2,44,43,28,16	
		1,38, 0,26,31,42,51,25		7,10
50″	37,33,11,18,10,26,45,31,58,31		2,44,43,35,26	
		1,38, 0,23,46,59,15,59		7,10
52″	37,33,12,56,10,50,32,31,14,30		2,44,43,42,36	
		1,38, 0,21, 2,15,33,23		7,10
54″	37,33,14,34,11,11,34,46,47,53		2,44,43,49,46	
		1,38, 0,18,17,31,43,37		7,10
56″	37,33,16,12,11,29,52,18,31,30		2,44,43,56,56	
		1,38, 0,15,32,47,46,41		7,10
58″	37,33,17,50,11,45,25, 6,18,11		2,44,44, 4, 6	
		1,38, 0,12,48, 3,42,35		
60″	37,33,19,28,11,58,13,10, 0,46			
exact	37,33,19,28,11,58,13,10, 3,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°45′ 0″	37,33,19,28,11,58,13,10, 3,17			
		1,38, 0,10, 3,19,31,39		
2″	37,33,21, 6,12, 8,16,29,34,56		2,44,44,18,24	
		1,38, 0, 7,18,35,13,15		7,10
4″	37,33,22,44,12,15,35, 4,48,11		2,44,44,25,34	
		1,38, 0, 4,33,50,47,41		7,10
6″	37,33,24,22,12,20, 8,55,35,52		2,44,44,32,44	
		1,38, 0, 1,49, 6,14,57		7,10
8″	37,33,26, 0,12,21,58, 1,50,49		2,44,44,39,54	
		1,37,59,59, 4,21,35, 3		7,10
10″	37,33,27,38,12,21, 2,23,25,52		2,44,44,47, 4	
		1,37,59,56,19,36,47,59		7,10
12″	37,33,29,16,12,17,22, 0,13,51		2,44,44,54,14	
		1,37,59,53,34,51,53,45		7,10
14″	37,33,30,54,12,10,56,52, 7,36		2,44,45, 1,24	
		1,37,59,50,50, 6,52,21		7,10
16″	37,33,32,32,12, 1,46,58,59,57		2,44,45, 8,34	
		1,37,59,48, 5,21,43,47		7,10
18″	37,33,34,10,11,49,52,20,43,44		2,44,45,15,44	
		1,37,59,45,20,36,28, 3		7,10
20″	37,33,35,48,11,35,12,57,11,47		2,44,45,22,54	
		1,37,59,42,35,51, 5, 9		7,10
22″	37,33,37,26,11,17,48,48,16,56		2,44,45,30, 4	
		1,37,59,39,51, 5,35, 5		7,10
24″	37,33,39, 4,10,57,39,53,52, 1		2,44,45,37,14	
		1,37,59,37, 6,19,57,51		7,10
26″	37,33,40,42,10,34,46,13,49,52		2,44,45,44,24	
		1,37,59,34,21,34,13,27		7,10
28″	37,33,42,20,10, 9, 7,48, 3,19		2,44,45,51,34	
		1,37,59,31,36,48,21,53		7,10
30″	37,33,43,58, 9,40,44,36,25,12		2,44,45,58,44	
		1,37,59,28,52, 2,23, 9		7,10
32″	37,33,45,36, 9, 9,36,38,48,21		2,44,46, 5,54	
		1,37,59,26, 7,16,17,15		7,10
34″	37,33,47,14, 8,35,43,55, 5,36		2,44,46,13, 4	
		1,37,59,23,22,30, 4,11		7,10
36″	37,33,48,52, 7,59, 6,25, 9,47		2,44,46,20,14	
		1,37,59,20,37,43,43,57		7,10
38″	37,33,50,30, 7,19,44, 8,53,44		2,44,46,27,24	
		1,37,59,17,52,57,16,33		7,10
40″	37,33,52, 8, 6,37,37, 6,10,17		2,44,46,34,34	
		1,37,59,15, 8,10,41,59		7,10
42″	37,33,53,46, 5,52,45,16,52,16		2,44,46,41,44	
		1,37,59,12,23,24, 0,15		7,10
44″	37,33,55,24, 5, 5, 8,40,52,31		2,44,46,48,54	
		1,37,59, 9,38,37,11,21		7,10
46″	37,33,57, 2, 4,14,47,18, 3,52		2,44,46,56, 4	
		1,37,59, 6,53,50,15,17		7,10
48″	37,33,58,40, 3,21,41, 8,19, 9		2,44,47, 3,14	
		1,37,59, 4, 9, 3,12, 3		7,10
50″	37,34, 0,18, 2,25,50,11,31,12		2,44,47,10,24	
		1,37,59, 1,24,16, 1,39		7,10
52″	37,34, 1,56, 1,27,14,27,32,51		2,44,47,17,34	
		1,37,58,58,39,28,44, 5		7,10
54″	37,34, 3,34, 0,25,53,56,16,56		2,44,47,24,44	
		1,37,58,55,54,41,19,21		7,10
56″	37,34, 5,11,59,21,48,37,36,17		2,44,47,31,54	
		1,37,58,53, 9,53,47,27		7,10
58″	37,34, 6,49,58,14,58,31,23,44		2,44,47,39, 4	
		1,37,58,50,25, 6, 8,23		
60″	37,34, 8,27,57, 5,23,37,32, 7			
exact	37,34, 8,27,57, 5,23,37,40,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°46′ 0″	37,34, 8,27,57, 5,23,37,40,17			
		1,37,58,47,40,18,23, 8		
2″	37,34,10, 5,55,53, 3,56, 3,25		2,44,47,53,19	
		1,37,58,44,55,30,29,49		7,10
4″	37,34,11,43,54,37,59,26,33,14		2,44,48, 0,29	
		1,37,58,42,10,42,29,20		7,10
6″	37,34,13,21,53,20,10, 9, 2,34		2,44,48, 7,39	
		1,37,58,39,25,54,21,41		7,10
8″	37,34,14,59,51,59,36, 3,24,15		2,44,48,14,49	
		1,37,58,36,41, 6, 6,52		7,10
10″	37,34,16,37,50,36,17, 9,31, 7		2,44,48,21,59	
		1,37,58,33,56,17,44,53		7,10
12″	37,34,18,15,49,10,13,27,16, 0		2,44,48,29, 9	
		1,37,58,31,11,29,15,44		7,10
14″	37,34,19,53,47,41,24,56,31,44		2,44,48,36,19	
		1,37,58,28,26,40,39,25		7,10
16″	37,34,21,31,46, 9,51,37,11, 9		2,44,48,43,29	
		1,37,58,25,41,51,55,56		7,10
18″	37,34,23, 9,44,35,33,29, 7, 5		2,44,48,50,39	
		1,37,58,22,57, 3, 5,17		7,10
20″	37,34,24,47,42,58,30,32,12,22		2,44,48,57,49	
		1,37,58,20,12,14, 7,28		7,10
22″	37,34,26,25,41,18,42,46,19,50		2,44,49, 4,59	
		1,37,58,17,27,25, 2,29		7,10
24″	37,34,28, 3,39,36,10,11,22,19		2,44,49,12, 9	
		1,37,58,14,42,35,50,20		7,10
26″	37,34,29,41,37,50,52,47,12,39		2,44,49,19,19	
		1,37,58,11,57,46,31, 1		7,10
28″	37,34,31,19,36, 2,50,33,43,40		2,44,49,26,29	
		1,37,58, 9,12,57, 4,32		7,10
30″	37,34,32,57,34,12, 3,30,48,12		2,44,49,33,39	
		1,37,58, 6,28, 7,30,53		7,10
32″	37,34,34,35,32,18,31,38,19, 5		2,44,49,40,49	
		1,37,58, 3,43,17,50, 4		7,10
34″	37,34,36,13,30,22,14,56, 9, 9		2,44,49,47,59	
		1,37,58, 0,58,28, 2, 5		7,10
36″	37,34,37,51,28,23,13,24,11,14		2,44,49,55, 9	
		1,37,57,58,13,38, 6,56		7,10
38″	37,34,39,29,26,21,27, 2,18,10		2,44,50, 2,19	
		1,37,57,55,28,48, 4,37		7,10
40″	37,34,41, 7,24,16,55,50,22,47		2,44,50, 9,29	
		1,37,57,52,43,57,55, 8		7,10
42″	37,34,42,45,22, 9,39,48,17,55		2,44,50,16,39	
		1,37,57,49,59, 7,38,29		7,10
44″	37,34,44,23,19,59,38,55,56,24		2,44,50,23,49	
		1,37,57,47,14,17,14,40		7,10
46″	37,34,46, 1,17,46,53,13,11, 4		2,44,50,30,59	
		1,37,57,44,29,26,43,41		7,10
48″	37,34,47,39,15,31,22,39,54,45		2,44,50,38, 9	
		1,37,57,41,44,36, 5,32		7,10
50″	37,34,49,17,13,13, 7,16, 0,17		2,44,50,45,19	
		1,37,57,38,59,45,20,13		7,10
52″	37,34,50,55,10,52, 7, 1,20,30		2,44,50,52,29	
		1,37,57,36,14,54,27,44		7,10
54″	37,34,52,33, 8,28,21,55,48,14		2,44,50,59,39	
		1,37,57,33,30, 3,28, 5		7,10
56″	37,34,54,11, 6, 1,51,59,16,19		2,44,51, 6,49	
		1,37,57,30,45,12,21,16		7,10
58″	37,34,55,49, 3,32,37,11,37,35		2,44,51,13,59	
		1,37,57,28, 0,21, 7,17		
60″	37,34,57,27, 1, 0,37,32,44,52			
exact	37,34,57,27, 1, 0,37,32,59,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°47′ 0″	37,34,57,27, 1, 0,37,32,59,29			
		1,37,57,25,15,29,47,49		
2″	37,34,59, 4,58,25,53, 2,47,18		2,44,51,28,11	
		1,37,57,22,30,38,19,38		7,10
4″	37,35, 0,42,55,48,23,41, 6,56		2,44,51,35,21	
		1,37,57,19,45,46,44,17		7,10
6″	37,35, 2,20,53, 8, 9,27,51,13		2,44,51,42,31	
		1,37,57,17, 0,55, 1,46		7,10
8″	37,35, 3,58,50,25,10,22,52,59		2,44,51,49,41	
		1,37,57,14,16, 3,12, 5		7,10
10″	37,35, 5,36,47,39,26,26, 5, 4		2,44,51,56,51	
		1,37,57,11,31,11,15,14		7,10
12″	37,35, 7,14,44,50,57,37,20,18		2,44,52, 4, 1	
		1,37,57, 8,46,19,11,13		7,10
14″	37,35, 8,52,41,59,43,56,31,31		2,44,52,11,11	
		1,37,57, 6, 1,27, 0, 2		7,10
16″	37,35,10,30,39, 5,45,23,31,33		2,44,52,18,21	
		1,37,57, 3,16,34,41,41		7,10
18″	37,35,12, 8,36, 9, 1,58,13,14		2,44,52,25,31	
		1,37,57, 0,31,42,16,10		7,10
20″	37,35,13,46,33, 9,33,40,29,24		2,44,52,32,41	
		1,37,56,57,46,49,43,29		7,10
22″	37,35,15,24,30, 7,20,30,12,53		2,44,52,39,51	
		1,37,56,55, 1,57, 3,38		7,10
24″	37,35,17, 2,27, 2,22,27,16,31		2,44,52,47, 1	
		1,37,56,52,17, 4,16,37		7,10
26″	37,35,18,40,23,54,39,31,33, 8		2,44,52,54,11	
		1,37,56,49,32,11,22,26		7,10
28″	37,35,20,18,20,44,11,42,55,34		2,44,53, 1,21	
		1,37,56,46,47,18,21, 5		7,10
30″	37,35,21,56,17,30,59, 1,16,39		2,44,53, 8,31	
		1,37,56,44, 2,25,12,34		7,10
32″	37,35,23,34,14,15, 1,26,29,13		2,44,53,15,41	
		1,37,56,41,17,31,56,53		7,10
34″	37,35,25,12,10,56,18,58,26, 6		2,44,53,22,51	
		1,37,56,38,32,38,34, 2		7,10
36″	37,35,26,50, 7,34,51,37, 0, 8		2,44,53,30, 1	
		1,37,56,35,47,45, 4, 1		7,10
38″	37,35,28,28, 4,10,39,22, 4, 9		2,44,53,37,11	
		1,37,56,33, 2,51,26,50		7,10
40″	37,35,30, 6, 0,43,42,13,30,59		2,44,53,44,21	
		1,37,56,30,17,57,42,29		7,10
42″	37,35,31,43,57,14, 0,11,13,28		2,44,53,51,31	
		1,37,56,27,33, 3,50,58		7,10
44″	37,35,33,21,53,41,33,15, 4,26		2,44,53,58,41	
		1,37,56,24,48, 9,52,17		7,10
46″	37,35,34,59,50, 6,21,24,56,43		2,44,54, 5,51	
		1,37,56,22, 3,15,46,26		7,10
48″	37,35,36,37,46,28,24,40,43, 9		2,44,54,13, 1	
		1,37,56,19,18,21,33,25		7,10
50″	37,35,38,15,42,47,43, 2,16,34		2,44,54,20,11	
		1,37,56,16,33,27,13,14		7,10
52″	37,35,39,53,39, 4,16,29,29,48		2,44,54,27,21	
		1,37,56,13,48,32,45,53		7,10
54″	37,35,41,31,35,18, 5, 2,15,41		2,44,54,34,31	
		1,37,56,11, 3,38,11,22		7,10
56″	37,35,43, 9,31,29, 8,40,27, 3		2,44,54,41,41	
		1,37,56, 8,18,43,29,41		7,10
58″	37,35,44,47,27,37,27,23,56,44		2,44,54,48,51	
		1,37,56, 5,33,48,40,50		
60″	37,35,46,25,23,43, 1,12,37,34			
exact	37,35,46,25,23,43, 1,12,58, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°48′ 0″	37,35,46,25,23,43, 1,12,58, 9			
		1,37,56, 2,48,53,47,11		
2″	37,35,48, 3,19,45,50, 6,45,20		2,44,55, 3, 0	
		1,37,56, 0, 3,58,44,11		7,10
4″	37,35,49,41,15,45,54, 5,29,31		2,44,55,10,10	
		1,37,55,57,19, 3,34, 1		7,10
6″	37,35,51,19,11,43,13, 9, 3,32		2,44,55,17,20	
		1,37,55,54,34, 8,16,41		7,10
8″	37,35,52,57, 7,37,47,17,20,13		2,44,55,24,30	
		1,37,55,51,49,12,52,11		7,10
10″	37,35,54,35, 3,29,36,30,12,24		2,44,55,31,40	
		1,37,55,49, 4,17,20,31		7,10
12″	37,35,56,12,59,18,40,47,32,55		2,44,55,38,50	
		1,37,55,46,19,21,41,41		7,10
14″	37,35,57,50,55, 5, 0, 9,14,36		2,44,55,46, 0	
		1,37,55,43,34,25,55,41		7,10
16″	37,35,59,28,50,48,34,35,10,17		2,44,55,53,10	
		1,37,55,40,49,30, 2,31		7,10
18″	37,36, 1, 6,46,29,24, 5,12,48		2,44,56, 0,20	
		1,37,55,38, 4,34, 2,11		7,10
20″	37,36, 2,44,42, 7,28,39,14,59		2,44,56, 7,30	
		1,37,55,35,19,37,54,41		7,10
22″	37,36, 4,22,37,42,48,17, 9,40		2,44,56,14,40	
		1,37,55,32,34,41,40, 1		7,10
24″	37,36, 6, 0,33,15,22,58,49,41		2,44,56,21,50	
		1,37,55,29,49,45,18,11		7,10
26″	37,36, 7,38,28,45,12,44, 7,52		2,44,56,29, 0	
		1,37,55,27, 4,48,49,11		7,10
28″	37,36, 9,16,24,12,17,32,57, 3		2,44,56,36,10	
		1,37,55,24,19,52,13, 1		7,10
30″	37,36,10,54,19,36,37,25,10, 4		2,44,56,43,20	
		1,37,55,21,34,55,29,41		7,10
32″	37,36,12,32,14,58,12,20,39,45		2,44,56,50,30	
		1,37,55,18,49,58,39,11		7,10
34″	37,36,14,10,10,17, 2,19,18,56		2,44,56,57,40	
		1,37,55,16, 5, 1,41,31		7,10
36″	37,36,15,48, 5,33, 7,21, 0,27		2,44,57, 4,50	
		1,37,55,13,20, 4,36,41		7,10
38″	37,36,17,26, 0,46,27,25,37, 8		2,44,57,12, 0	
		1,37,55,10,35, 7,24,41		7,10
40″	37,36,19, 3,55,57, 2,33, 1,49		2,44,57,19,10	
		1,37,55, 7,50,10, 5,31		7,10
42″	37,36,20,41,51, 4,52,43, 7,20		2,44,57,26,20	
		1,37,55, 5, 5,12,39,11		7,10
44″	37,36,22,19,46, 9,57,55,46,31		2,44,57,33,30	
		1,37,55, 2,20,15, 5,41		7,10
46″	37,36,23,57,41,12,18,10,52,12		2,44,57,40,40	
		1,37,54,59,35,17,25, 1		7,10
48″	37,36,25,35,36,11,53,28,17,13		2,44,57,47,50	
		1,37,54,56,50,19,37,11		7,10
50″	37,36,27,13,31, 8,43,47,54,24		2,44,57,55, 0	
		1,37,54,54, 5,21,42,11		7,10
52″	37,36,28,51,26, 2,49, 9,36,35		2,44,58, 2,10	
		1,37,54,51,20,23,40, 1		7,10
54″	37,36,30,29,20,54, 9,33,16,36		2,44,58, 9,20	
		1,37,54,48,35,25,30,41		7,10
56″	37,36,32, 7,15,42,44,58,47,17		2,44,58,16,30	
		1,37,54,45,50,27,14,11		7,10
58″	37,36,33,45,10,28,35,26, 1,28		2,44,58,23,40	
		1,37,54,43, 5,28,50,31		
60″	37,36,35,23, 5,11,40,54,51,59			
exact	37,36,35,23, 5,11,40,55,18,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°49′ 0″	37,36,35,23, 5,11,40,55,18,44			
		1,37,54,40,20,30,22,44		
2″	37,36,37, 0,59,52, 1,25,41,28		2,44,58,37,46	
		1,37,54,37,35,31,44,58		7, 9
4″	37,36,38,38,54,29,36,57,26,26		2,44,58,44,55	
		1,37,54,34,50,33, 0, 3		7, 9
6″	37,36,40,16,49, 4,27,30,26,29		2,44,58,52, 4	
		1,37,54,32, 5,34, 7,59		7, 9
8″	37,36,41,54,43,36,33, 4,34,28		2,44,58,59,13	
		1,37,54,29,20,35, 8,46		7, 9
10″	37,36,43,32,38, 5,53,39,43,14		2,44,59, 6,22	
		1,37,54,26,35,36, 2,24		7, 9
12″	37,36,45,10,32,32,29,15,45,38		2,44,59,13,31	
		1,37,54,23,50,36,48,53		7, 9
14″	37,36,46,48,26,56,19,52,34,31		2,44,59,20,40	
		1,37,54,21, 5,37,28,13		7, 9
16″	37,36,48,26,21,17,25,30, 2,44		2,44,59,27,49	
		1,37,54,18,20,38, 0,24		7, 9
18″	37,36,50, 4,15,35,46, 8, 3, 8		2,44,59,34,58	
		1,37,54,15,35,38,25,26		7, 9
20″	37,36,51,42, 9,51,21,46,28,34		2,44,59,42, 7	
		1,37,54,12,50,38,43,19		7, 9
22″	37,36,53,20, 4, 4,12,25,11,53		2,44,59,49,16	
		1,37,54,10, 5,38,54, 3		7, 9
24″	37,36,54,57,58,14,18, 4, 5,56		2,44,59,56,25	
		1,37,54, 7,20,38,57,38		7, 9
26″	37,36,56,35,52,21,38,43, 3,34		2,45, 0, 3,34	
		1,37,54, 4,35,38,54, 4		7, 9
28″	37,36,58,13,46,26,14,21,57,38		2,45, 0,10,43	
		1,37,54, 1,50,38,43,21		7, 9
30″	37,36,59,51,40,28, 5, 0,40,59		2,45, 0,17,52	
		1,37,53,59, 5,38,25,29		7, 9
32″	37,37, 1,29,34,27,10,39, 6,28		2,45, 0,25, 1	
		1,37,53,56,20,38, 0,28		7, 9
34″	37,37, 3, 7,28,23,31,17, 6,56		2,45, 0,32,10	
		1,37,53,53,35,37,28,18		7, 9
36″	37,37, 4,45,22,17, 6,54,35,14		2,45, 0,39,19	
		1,37,53,50,50,36,48,59		7, 9
38″	37,37, 6,23,16, 7,57,31,24,13		2,45, 0,46,28	
		1,37,53,48, 5,36, 2,31		7, 9
40″	37,37, 8, 1, 9,56, 3, 7,26,44		2,45, 0,53,37	
		1,37,53,45,20,35, 8,54		7, 9
42″	37,37, 9,39, 3,41,23,42,35,38		2,45, 1, 0,46	
		1,37,53,42,35,34, 8, 8		7, 9
44″	37,37,11,16,57,23,59,16,43,46		2,45, 1, 7,55	
		1,37,53,39,50,33, 0,13		7, 9
46″	37,37,12,54,51, 3,49,49,43,59		2,45, 1,15, 4	
		1,37,53,37, 5,31,45, 9		7, 9
48″	37,37,14,32,44,40,55,21,29, 8		2,45, 1,22,13	
		1,37,53,34,20,30,22,56		7, 9
50″	37,37,16,10,38,15,15,51,52, 4		2,45, 1,29,22	
		1,37,53,31,35,28,53,34		7, 9
52″	37,37,17,48,31,46,51,20,45,38		2,45, 1,36,31	
		1,37,53,28,50,27,17, 3		7, 9
54″	37,37,19,26,25,15,41,48, 2,41		2,45, 1,43,40	
		1,37,53,26, 5,25,33,23		7, 9
56″	37,37,21, 4,18,41,47,13,36, 4		2,45, 1,50,49	
		1,37,53,23,20,23,42,34		7, 9
58″	37,37,22,42,12, 5, 7,37,18,38		2,45, 1,57,58	
		1,37,53,20,35,21,44,36		
60″	37,37,24,20, 5,25,42,59, 3,14			
exact	37,37,24,20, 5,25,42,58,28,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°50′ 0″	37,37,24,20, 5,25,42,58,28,54			
		1,37,53,17,50,19,35,59		
2″	37,37,25,57,58,43,33,18, 4,53		2,45, 2,12,29	
		1,37,53,15, 5,17,23,30		7, 9
4″	37,37,27,35,51,58,38,35,28,23		2,45, 2,19,38	
		1,37,53,12,20,15, 3,52		7, 9
6″	37,37,29,13,45,10,58,50,32,15		2,45, 2,26,47	
		1,37,53, 9,35,12,37, 5		7, 9
8″	37,37,30,51,38,20,34, 3, 9,20		2,45, 2,33,56	
		1,37,53, 6,50,10, 3, 9		7, 9
10″	37,37,32,29,31,27,24,13,12,29		2,45, 2,41, 5	
		1,37,53, 4, 5, 7,22, 4		7, 9
12″	37,37,34, 7,24,31,29,20,34,33		2,45, 2,48,14	
		1,37,53, 1,20, 4,33,50		7, 9
14″	37,37,35,45,17,32,49,25, 8,23		2,45, 2,55,23	
		1,37,52,58,35, 1,38,27		7, 9
16″	37,37,37,23,10,31,24,26,46,50		2,45, 3, 2,32	
		1,37,52,55,49,58,35,55		7, 9
18″	37,37,39, 1, 3,27,14,25,22,45		2,45, 3, 9,41	
		1,37,52,53, 4,55,26,14		7, 9
20″	37,37,40,38,56,20,19,20,48,59		2,45, 3,16,50	
		1,37,52,50,19,52, 9,24		7, 9
22″	37,37,42,16,49,10,39,12,58,23		2,45, 3,23,59	
		1,37,52,47,34,48,45,25		7, 9
24″	37,37,43,54,41,58,14, 1,43,48		2,45, 3,31, 8	
		1,37,52,44,49,45,14,17		7, 9
26″	37,37,45,32,34,43, 3,46,58, 5		2,45, 3,38,17	
		1,37,52,42, 4,41,36, 0		7, 9
28″	37,37,47,10,27,25, 8,28,34, 5		2,45, 3,45,26	
		1,37,52,39,19,37,50,34		7, 9
30″	37,37,48,48,20, 4,28, 6,24,39		2,45, 3,52,35	
		1,37,52,36,34,33,57,59		7, 9
32″	37,37,50,26,12,41, 2,40,22,38		2,45, 3,59,44	
		1,37,52,33,49,29,58,15		7, 9
34″	37,37,52, 4, 5,14,52,10,20,53		2,45, 4, 6,53	
		1,37,52,31, 4,25,51,22		7, 9
36″	37,37,53,41,57,45,56,36,12,15		2,45, 4,14, 2	
		1,37,52,28,19,21,37,20		7, 9
38″	37,37,55,19,50,14,15,57,49,35		2,45, 4,21,11	
		1,37,52,25,34,17,16, 9		7, 9
40″	37,37,56,57,42,39,50,15, 5,44		2,45, 4,28,20	
		1,37,52,22,49,12,47,49		7, 9
42″	37,37,58,35,35, 2,39,27,53,33		2,45, 4,35,29	
		1,37,52,20, 4, 8,12,20		7, 9
44″	37,38, 0,13,27,22,43,36, 5,53		2,45, 4,42,38	
		1,37,52,17,19, 3,29,42		7, 9
46″	37,38, 1,51,19,40, 2,39,35,35		2,45, 4,49,47	
		1,37,52,14,33,58,39,55		7, 9
48″	37,38, 3,29,11,54,36,38,15,30		2,45, 4,56,56	
		1,37,52,11,48,53,42,59		7, 9
50″	37,38, 5, 7, 4, 6,25,31,58,29		2,45, 5, 4, 5	
		1,37,52, 9, 3,48,38,54		7, 9
52″	37,38, 6,44,56,15,29,20,37,23		2,45, 5,11,14	
		1,37,52, 6,18,43,27,40		7, 9
54″	37,38, 8,22,48,21,48, 4, 5, 3		2,45, 5,18,23	
		1,37,52, 3,33,38, 9,17		7, 9
56″	37,38,10, 0,40,25,21,42,14,20		2,45, 5,25,32	
		1,37,52, 0,48,32,43,45		7, 9
58″	37,38,11,38,32,26,10,14,58, 5		2,45, 5,32,41	
		1,37,51,58, 3,27,11, 4		
60″	37,38,13,16,24,24,13,42, 9, 9			
exact	37,38,13,16,24,24,13,41,41,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°51′ 0″	37,38,13,16,24,24,13,41,41,32			
		1,37,51,55,18,21,28,27		
2″	37,38,14,54,16,19,32, 3, 9,59		2,45, 5,47, 9	
		1,37,51,52,33,15,41,18		7, 9
4″	37,38,16,32, 8,12, 5,18,51,17		2,45, 5,54,18	
		1,37,51,49,48, 9,47, 0		7, 9
6″	37,38,18,10, 0, 1,53,28,38,17		2,45, 6, 1,27	
		1,37,51,47, 3, 3,45,33		7, 9
8″	37,38,19,47,51,48,56,32,23,50		2,45, 6, 8,36	
		1,37,51,44,17,57,36,57		7, 9
10″	37,38,21,25,43,33,14,30, 0,47		2,45, 6,15,45	
		1,37,51,41,32,51,21,12		7, 9
12″	37,38,23, 3,35,14,47,21,21,59		2,45, 6,22,54	
		1,37,51,38,47,44,58,18		7, 9
14″	37,38,24,41,26,53,35, 6,20,17		2,45, 6,30, 3	
		1,37,51,36, 2,38,28,15		7, 9
16″	37,38,26,19,18,29,37,44,48,32		2,45, 6,37,12	
		1,37,51,33,17,31,51, 3		7, 9
18″	37,38,27,57,10, 2,55,16,39,35		2,45, 6,44,21	
		1,37,51,30,32,25, 6,42		7, 9
20″	37,38,29,35, 1,33,27,41,46,17		2,45, 6,51,30	
		1,37,51,27,47,18,15,12		7, 9
22″	37,38,31,12,53, 1,15, 0, 1,29		2,45, 6,58,39	
		1,37,51,25, 2,11,16,33		7, 9
24″	37,38,32,50,44,26,17,11,18, 2		2,45, 7, 5,48	
		1,37,51,22,17, 4,10,45		7, 9
26″	37,38,34,28,35,48,34,15,28,47		2,45, 7,12,57	
		1,37,51,19,31,56,57,48		7, 9
28″	37,38,36, 6,27, 8, 6,12,26,35		2,45, 7,20, 6	
		1,37,51,16,46,49,37,42		7, 9
30″	37,38,37,44,18,24,53, 2, 4,17		2,45, 7,27,15	
		1,37,51,14, 1,42,10,27		7, 9
32″	37,38,39,22, 9,38,54,44,14,44		2,45, 7,34,24	
		1,37,51,11,16,34,36, 3		7, 9
34″	37,38,41, 0, 0,50,11,18,50,47		2,45, 7,41,33	
		1,37,51, 8,31,26,54,30		7, 9
36″	37,38,42,37,51,58,42,45,45,17		2,45, 7,48,42	
		1,37,51, 5,46,19, 5,48		7, 9
38″	37,38,44,15,43, 4,29, 4,51, 5		2,45, 7,55,51	
		1,37,51, 3, 1,11, 9,57		7, 9
40″	37,38,45,53,34, 7,30,16, 1, 2		2,45, 8, 3, 0	
		1,37,51, 0,16, 3, 6,57		7, 9
42″	37,38,47,31,25, 7,46,19, 7,59		2,45, 8,10, 9	
		1,37,50,57,30,54,56,48		7, 9
44″	37,38,49, 9,16, 5,17,14, 4,47		2,45, 8,17,18	
		1,37,50,54,45,46,39,30		7, 9
46″	37,38,50,47, 7, 0, 3, 0,44,17		2,45, 8,24,27	
		1,37,50,52, 0,38,15, 3		7, 9
48″	37,38,52,24,57,52, 3,38,59,20		2,45, 8,31,36	
		1,37,50,49,15,29,43,27		7, 9
50″	37,38,54, 2,48,41,19, 8,42,47		2,45, 8,38,45	
		1,37,50,46,30,21, 4,42		7, 9
52″	37,38,55,40,39,27,49,29,47,29		2,45, 8,45,54	
		1,37,50,43,45,12,18,48		7, 9
54″	37,38,57,18,30,11,34,42, 6,17		2,45, 8,53, 3	
		1,37,50,41, 0, 3,25,45		7, 9
56″	37,38,58,56,20,52,34,45,32, 2		2,45, 9, 0,12	
		1,37,50,38,14,54,25,33		7, 9
58″	37,39, 0,34,11,30,49,39,57,35		2,45, 9, 7,21	
		1,37,50,35,29,45,18,12		
60″	37,39, 2,12, 2, 6,19,25,15,47			
exact	37,39, 2,12, 2, 6,19,24,54,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°52′ 0″	37,39, 2,12, 2, 6,19,24,54,47			
		1,37,50,32,44,36, 1,38		
2″	37,39, 3,49,52,39, 4, 0,56,25		2,45, 9,21,47	
		1,37,50,29,59,26,39,51		7, 9
4″	37,39, 5,27,43, 9, 3,27,36,16		2,45, 9,28,56	
		1,37,50,27,14,17,10,55		7, 9
6″	37,39, 7, 5,33,36,17,44,47,11		2,45, 9,36, 5	
		1,37,50,24,29, 7,34,50		7, 9
8″	37,39, 8,43,24, 0,46,52,22, 1		2,45, 9,43,14	
		1,37,50,21,43,57,51,36		7, 9
10″	37,39,10,21,14,22,30,50,13,37		2,45, 9,50,23	
		1,37,50,18,58,48, 1,13		7, 9
12″	37,39,11,59, 4,41,29,38,14,50		2,45, 9,57,32	
		1,37,50,16,13,38, 3,41		7, 9
14″	37,39,13,36,54,57,43,16,18,31		2,45,10, 4,41	
		1,37,50,13,28,27,59, 0		7, 9
16″	37,39,15,14,45,11,11,44,17,31		2,45,10,11,50	
		1,37,50,10,43,17,47,10		7, 9
18″	37,39,16,52,35,21,55, 2, 4,41		2,45,10,18,59	
		1,37,50, 7,58, 7,28,11		7, 9
20″	37,39,18,30,25,29,53, 9,32,52		2,45,10,26, 8	
		1,37,50, 5,12,57, 2, 3		7, 9
22″	37,39,20, 8,15,35, 6, 6,34,55		2,45,10,33,17	
		1,37,50, 2,27,46,28,46		7, 9
24″	37,39,21,46, 5,37,33,53, 3,41		2,45,10,40,26	
		1,37,49,59,42,35,48,20		7, 9
26″	37,39,23,23,55,37,16,28,52, 1		2,45,10,47,35	
		1,37,49,56,57,25, 0,45		7, 9
28″	37,39,25, 1,45,34,13,53,52,46		2,45,10,54,44	
		1,37,49,54,12,14, 6, 1		7, 9
30″	37,39,26,39,35,28,26, 7,58,47		2,45,11, 1,53	
		1,37,49,51,27, 3, 4, 8		7, 9
32″	37,39,28,17,25,19,53,11, 2,55		2,45,11, 9, 2	
		1,37,49,48,41,51,55, 6		7, 9
34″	37,39,29,55,15, 8,35, 2,58, 1		2,45,11,16,11	
		1,37,49,45,56,40,38,55		7, 9
36″	37,39,31,33, 4,54,31,43,36,56		2,45,11,23,20	
		1,37,49,43,11,29,15,35		7, 9
38″	37,39,33,10,54,37,43,12,52,31		2,45,11,30,29	
		1,37,49,40,26,17,45, 6		7, 9
40″	37,39,34,48,44,18, 9,30,37,37		2,45,11,37,38	
		1,37,49,37,41, 6, 7,28		7, 9
42″	37,39,36,26,33,55,50,36,45, 5		2,45,11,44,47	
		1,37,49,34,55,54,22,41		7, 9
44″	37,39,38, 4,23,30,46,31, 7,46		2,45,11,51,56	
		1,37,49,32,10,42,30,45		7, 9
46″	37,39,39,42,13, 2,57,13,38,31		2,45,11,59, 5	
		1,37,49,29,25,30,31,40		7, 9
48″	37,39,41,20, 2,32,22,44,10,11		2,45,12, 6,14	
		1,37,49,26,40,18,25,26		7, 9
50″	37,39,42,57,51,59, 3, 2,35,37		2,45,12,13,23	
		1,37,49,23,55, 6,12, 3		7, 9
52″	37,39,44,35,41,22,58, 8,47,40		2,45,12,20,32	
		1,37,49,21, 9,53,51,31		7, 9
54″	37,39,46,13,30,44, 8, 2,39,11		2,45,12,27,41	
		1,37,49,18,24,41,23,50		7, 9
56″	37,39,47,51,20, 2,32,44, 3, 1		2,45,12,34,50	
		1,37,49,15,39,28,49, 0		7, 9
58″	37,39,49,29, 9,18,12,12,52, 1		2,45,12,41,59	
		1,37,49,12,54,16, 7, 1		
60″	37,39,51, 6,58,31, 6,28,59, 2			
exact	37,39,51, 6,58,31, 6,28,52, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°53′ 0″	37,39,51, 6,58,31, 6,28,52, 2			
		1,37,49,10, 9, 3,17, 3		
2″	37,39,52,44,47,41,15,32, 9, 5		2,45,12,56,20	
		1,37,49, 7,23,50,20,43		7, 9
4″	37,39,54,22,36,48,39,22,29,48		2,45,13, 3,29	
		1,37,49, 4,38,37,17,14		7, 9
6″	37,39,56, 0,25,53,17,59,47, 2		2,45,13,10,38	
		1,37,49, 1,53,24, 6,36		7, 9
8″	37,39,57,38,14,55,11,23,53,38		2,45,13,17,47	
		1,37,48,59, 8,10,48,49		7, 9
10″	37,39,59,16, 3,54,19,34,42,27		2,45,13,24,56	
		1,37,48,56,22,57,23,53		7, 9
12″	37,40, 0,53,52,50,42,32, 6,20		2,45,13,32, 5	
		1,37,48,53,37,43,51,48		7, 9
14″	37,40, 2,31,41,44,20,15,58, 8		2,45,13,39,14	
		1,37,48,50,52,30,12,34		7, 9
16″	37,40, 4, 9,30,35,12,46,10,42		2,45,13,46,23	
		1,37,48,48, 7,16,26,11		7, 9
18″	37,40, 5,47,19,23,20, 2,36,53		2,45,13,53,32	
		1,37,48,45,22, 2,32,39		7, 9
20″	37,40, 7,25, 8, 8,42, 5, 9,32		2,45,14, 0,41	
		1,37,48,42,36,48,31,58		7, 9
22″	37,40, 9, 2,56,51,18,53,41,30		2,45,14, 7,50	
		1,37,48,39,51,34,24, 8		7, 9
24″	37,40,10,40,45,31,10,28, 5,38		2,45,14,14,59	
		1,37,48,37, 6,20, 9, 9		7, 9
26″	37,40,12,18,34, 8,16,48,14,47		2,45,14,22, 8	
		1,37,48,34,21, 5,47, 1		7, 9
28″	37,40,13,56,22,42,37,54, 1,48		2,45,14,29,17	
		1,37,48,31,35,51,17,44		7, 9
30″	37,40,15,34,11,14,13,45,19,32		2,45,14,36,26	
		1,37,48,28,50,36,41,18		7, 9
32″	37,40,17,11,59,43, 4,22, 0,50		2,45,14,43,35	
		1,37,48,26, 5,21,57,43		7, 9
34″	37,40,18,49,48, 9, 9,43,58,33		2,45,14,50,44	
		1,37,48,23,20, 7, 6,59		7, 9
36″	37,40,20,27,36,32,29,51, 5,32		2,45,14,57,53	
		1,37,48,20,34,52, 9, 6		7, 9
38″	37,40,22, 5,24,53, 4,43,14,38		2,45,15, 5, 2	
		1,37,48,17,49,37, 4, 4		7, 9
40″	37,40,23,43,13,10,54,20,18,42		2,45,15,12,11	
		1,37,48,15, 4,21,51,53		7, 9
42″	37,40,25,21, 1,25,58,42,10,35		2,45,15,19,20	
		1,37,48,12,19, 6,32,33		7, 9
44″	37,40,26,58,49,38,17,48,43, 8		2,45,15,26,29	
		1,37,48, 9,33,51, 6, 4		7, 9
46″	37,40,28,36,37,47,51,39,49,12		2,45,15,33,38	
		1,37,48, 6,48,35,32,26		7, 9
48″	37,40,30,14,25,54,40,15,21,38		2,45,15,40,47	
		1,37,48, 4, 3,19,51,39		7, 9
50″	37,40,31,52,13,58,43,35,13,17		2,45,15,47,56	
		1,37,48, 1,18, 4, 3,43		7, 9
52″	37,40,33,30, 2, 0, 1,39,17, 0		2,45,15,55, 5	
		1,37,47,58,32,48, 8,38		7, 9
54″	37,40,35, 7,49,58,34,27,25,38		2,45,16, 2,14	
		1,37,47,55,47,32, 6,24		7, 9
56″	37,40,36,45,37,54,21,59,32, 2		2,45,16, 9,23	
		1,37,47,53, 2,15,57, 1		7, 9
58″	37,40,38,23,25,47,24,15,29, 3		2,45,16,16,32	
		1,37,47,50,16,59,40,29		
60″	37,40,40, 1,13,37,41,15, 9,32			
exact	37,40,40, 1,13,37,41,15, 1,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°54′ 0″	37,40,40, 1,13,37,41,15, 1,57			
		1,37,47,47,31,43,16,12		
2″	37,40,41,39, 1,25,12,58,18, 9		2,45,16,30,51	
		1,37,47,44,46,26,45,21		7, 9
4″	37,40,43,16,49, 9,59,25, 3,30		2,45,16,38, 0	
		1,37,47,42, 1,10, 7,21		7, 9
6″	37,40,44,54,36,52, 0,35,10,51		2,45,16,45, 9	
		1,37,47,39,15,53,22,12		7, 9
8″	37,40,46,32,24,31,16,28,33, 3		2,45,16,52,18	
		1,37,47,36,30,36,29,54		7, 9
10″	37,40,48,10,12, 7,47, 5, 2,57		2,45,16,59,27	
		1,37,47,33,45,19,30,27		7, 9
12″	37,40,49,47,59,41,32,24,33,24		2,45,17, 6,36	
		1,37,47,31, 0, 2,23,51		7, 9
14″	37,40,51,25,47,12,32,26,57,15		2,45,17,13,45	
		1,37,47,28,14,45,10, 6		7, 9
16″	37,40,53, 3,34,40,47,12, 7,21		2,45,17,20,54	
		1,37,47,25,29,27,49,12		7, 9
18″	37,40,54,41,22, 6,16,39,56,33		2,45,17,28, 3	
		1,37,47,22,44,10,21, 9		7, 9
20″	37,40,56,19, 9,29, 0,50,17,42		2,45,17,35,12	
		1,37,47,19,58,52,45,57		7, 9
22″	37,40,57,56,56,48,59,43, 3,39		2,45,17,42,21	
		1,37,47,17,13,35, 3,36		7, 9
24″	37,40,59,34,44, 6,13,18, 7,15		2,45,17,49,30	
		1,37,47,14,28,17,14, 6		7, 9
26″	37,41, 1,12,31,20,41,35,21,21		2,45,17,56,39	
		1,37,47,11,42,59,17,27		7, 9
28″	37,41, 2,50,18,32,24,34,38,48		2,45,18, 3,48	
		1,37,47, 8,57,41,13,39		7, 9
30″	37,41, 4,28, 5,41,22,15,52,27		2,45,18,10,57	
		1,37,47, 6,12,23, 2,42		7, 9
32″	37,41, 6, 5,52,47,34,38,55, 9		2,45,18,18, 6	
		1,37,47, 3,27, 4,44,36		7, 9
34″	37,41, 7,43,39,51, 1,43,39,45		2,45,18,25,15	
		1,37,47, 0,41,46,19,21		7, 9
36″	37,41, 9,21,26,51,43,29,59, 6		2,45,18,32,24	
		1,37,46,57,56,27,46,57		7, 9
38″	37,41,10,59,13,49,39,57,46, 3		2,45,18,39,33	
		1,37,46,55,11, 9, 7,24		7, 9
40″	37,41,12,37, 0,44,51, 6,53,27		2,45,18,46,42	
		1,37,46,52,25,50,20,42		7, 9
42″	37,41,14,14,47,37,16,57,14, 9		2,45,18,53,51	
		1,37,46,49,40,31,26,51		7, 9
44″	37,41,15,52,34,26,57,28,41, 0		2,45,19, 1, 0	
		1,37,46,46,55,12,25,51		7, 9
46″	37,41,17,30,21,13,52,41, 6,51		2,45,19, 8, 9	
		1,37,46,44, 9,53,17,42		7, 9
48″	37,41,19, 8, 7,58, 2,34,24,33		2,45,19,15,18	
		1,37,46,41,24,34, 2,24		7, 9
50″	37,41,20,45,54,39,27, 8,26,57		2,45,19,22,27	
		1,37,46,38,39,14,39,57		7, 9
52″	37,41,22,23,41,18, 6,23, 6,54		2,45,19,29,36	
		1,37,46,35,53,55,10,21		7, 9
54″	37,41,24, 1,27,54, 0,18,17,15		2,45,19,36,45	
		1,37,46,33, 8,35,33,36		7, 9
56″	37,41,25,39,14,27, 8,53,50,51		2,45,19,43,54	
		1,37,46,30,23,15,49,42		7, 9
58″	37,41,27,17, 0,57,32, 9,40,33		2,45,19,51, 3	
		1,37,46,27,37,55,58,39		
60″	37,41,28,54,47,25,10, 5,39,12			
exact	37,41,28,54,47,25,10, 5,38,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°55′ 0″	37,41,28,54,47,25,10, 5,38,31			
		1,37,46,24,52,36, 0,35		
2″	37,41,30,32,33,50, 2,41,39, 6		2,45,20, 5,19	
		1,37,46,22, 7,15,55,16		7, 9
4″	37,41,32,10,20,12, 9,57,34,22		2,45,20,12,28	
		1,37,46,19,21,55,42,48		7, 9
6″	37,41,33,48, 6,31,31,53,17,10		2,45,20,19,37	
		1,37,46,16,36,35,23,11		7, 9
8″	37,41,35,25,52,48, 8,28,40,21		2,45,20,26,46	
		1,37,46,13,51,14,56,25		7, 9
10″	37,41,37, 3,39, 1,59,43,36,46		2,45,20,33,55	
		1,37,46,11, 5,54,22,30		7, 9
12″	37,41,38,41,25,13, 5,37,59,16		2,45,20,41, 4	
		1,37,46, 8,20,33,41,26		7, 9
14″	37,41,40,19,11,21,26,11,40,42		2,45,20,48,13	
		1,37,46, 5,35,12,53,13		7, 9
16″	37,41,41,56,57,27, 1,24,33,55		2,45,20,55,22	
		1,37,46, 2,49,51,57,51		7, 9
18″	37,41,43,34,43,29,51,16,31,46		2,45,21, 2,31	
		1,37,46, 0, 4,30,55,20		7, 9
20″	37,41,45,12,29,29,55,47,27, 6		2,45,21, 9,40	
		1,37,45,57,19, 9,45,40		7, 9
22″	37,41,46,50,15,27,14,57,12,46		2,45,21,16,49	
		1,37,45,54,33,48,28,51		7, 9
24″	37,41,48,28, 1,21,48,45,41,37		2,45,21,23,58	
		1,37,45,51,48,27, 4,53		7, 9
26″	37,41,50, 5,47,13,37,12,46,30		2,45,21,31, 7	
		1,37,45,49, 3, 5,33,46		7, 9
28″	37,41,51,43,33, 2,40,18,20,16		2,45,21,38,16	
		1,37,45,46,17,43,55,30		7, 9
30″	37,41,53,21,18,48,58, 2,15,46		2,45,21,45,25	
		1,37,45,43,32,22,10, 5		7, 9
32″	37,41,54,59, 4,32,30,24,25,51		2,45,21,52,34	
		1,37,45,40,47, 0,17,31		7, 9
34″	37,41,56,36,50,13,17,24,43,22		2,45,21,59,43	
		1,37,45,38, 1,38,17,48		7, 9
36″	37,41,58,14,35,51,19, 3, 1,10		2,45,22, 6,52	
		1,37,45,35,16,16,10,56		7, 9
38″	37,41,59,52,21,26,35,19,12, 6		2,45,22,14, 1	
		1,37,45,32,30,53,56,55		7, 9
40″	37,42, 1,30, 6,59, 6,13, 9, 1		2,45,22,21,10	
		1,37,45,29,45,31,35,45		7, 9
42″	37,42, 3, 7,52,28,51,44,44,46		2,45,22,28,19	
		1,37,45,27, 0, 9, 7,26		7, 9
44″	37,42, 4,45,37,55,51,53,52,12		2,45,22,35,28	
		1,37,45,24,14,46,31,58		7, 9
46″	37,42, 6,23,23,20, 6,40,24,10		2,45,22,42,37	
		1,37,45,21,29,23,49,21		7, 9
48″	37,42, 8, 1, 8,41,36, 4,13,31		2,45,22,49,46	
		1,37,45,18,44, 0,59,35		7, 9
50″	37,42, 9,38,54, 0,20, 5,13, 6		2,45,22,56,55	
		1,37,45,15,58,38, 2,40		7, 9
52″	37,42,11,16,39,16,18,43,15,46		2,45,23, 4, 4	
		1,37,45,13,13,14,58,36		7, 9
54″	37,42,12,54,24,29,31,58,14,22		2,45,23,11,13	
		1,37,45,10,27,51,47,23		7, 9
56″	37,42,14,32, 9,39,59,50, 1,45		2,45,23,18,22	
		1,37,45, 7,42,28,29, 1		7, 9
58″	37,42,16, 9,54,47,42,18,30,46		2,45,23,25,31	
		1,37,45, 4,57, 5, 3,30		
60″	37,42,17,47,39,52,39,23,34,16			
exact	37,42,17,47,39,52,39,23,41, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°56′ 0″	37,42,17,47,39,52,39,23,41, 1	1,37,45, 2,11,41,31,44		
2″	37,42,19,25,24,54,51, 5,12,45	1,37,44,59,26,17,52, 0	2,45,23,39,44	7, 9
4″	37,42,21, 3, 9,54,17,23, 4,45	1,37,44,56,40,54, 5, 7	2,45,23,46,53	7, 9
6″	37,42,22,40,54,50,58,17, 9,52	1,37,44,53,55,30,11, 5	2,45,23,54, 2	7, 9
8″	37,42,24,18,39,44,53,47,20,57	1,37,44,51,10, 6, 9,54	2,45,24, 1,11	7, 9
10″	37,42,25,56,24,36, 3,53,30,51	1,37,44,48,24,42, 1,34	2,45,24, 8,20	7, 9
12″	37,42,27,34, 9,24,28,35,32,25	1,37,44,45,39,17,46, 5	2,45,24,15,29	7, 9
14″	37,42,29,11,54,10, 7,53,18,30	1,37,44,42,53,53,23,27	2,45,24,22,38	7, 9
16″	37,42,30,49,38,53, 1,46,41,57	1,37,44,40, 8,28,53,40	2,45,24,29,47	7, 9
18″	37,42,32,27,23,33,10,15,35,37	1,37,44,37,23, 4,16,44	2,45,24,36,56	7, 9
20″	37,42,34, 5, 8,10,33,19,52,21	1,37,44,34,37,39,32,39	2,45,24,44, 5	7, 9
22″	37,42,35,42,52,45,10,59,25, 0	1,37,44,31,52,14,41,25	2,45,24,51,14	7, 9
24″	37,42,37,20,37,17, 3,14, 6,25	1,37,44,29, 6,49,43, 2	2,45,24,58,23	7, 9
26″	37,42,38,58,21,46,10, 3,49,27	1,37,44,26,21,24,37,30	2,45,25, 5,32	7, 9
28″	37,42,40,36, 6,12,31,28,26,57	1,37,44,23,35,59,24,49	2,45,25,12,41	7, 9
30″	37,42,42,13,50,36, 7,27,51,46	1,37,44,20,50,34, 4,59	2,45,25,19,50	7, 9
32″	37,42,43,51,34,56,58, 1,56,45	1,37,44,18, 5, 8,38, 0	2,45,25,26,59	7, 9
34″	37,42,45,29,19,15, 3,10,34,45	1,37,44,15,19,43, 3,52	2,45,25,34, 8	7, 9
36″	37,42,47, 7, 3,30,22,53,38,37	1,37,44,12,34,17,22,35	2,45,25,41,17	7, 9
38″	37,42,48,44,47,42,57,11, 1,12	1,37,44, 9,48,51,34, 9	2,45,25,48,26	7, 9
40″	37,42,50,22,31,52,46, 2,35,21	1,37,44, 7, 3,25,38,34	2,45,25,55,35	7, 9
42″	37,42,52, 0,15,59,49,28,13,55	1,37,44, 4,17,59,35,50	2,45,26, 2,44	7, 9
44″	37,42,53,38, 0, 4, 7,27,49,45	1,37,44, 1,32,33,25,57	2,45,26, 9,53	7, 9
46″	37,42,55,15,44, 5,40, 1,15,42	1,37,43,58,47, 7, 8,55	2,45,26,17, 2	7, 9
48″	37,42,56,53,28, 4,27, 8,24,37	1,37,43,56, 1,40,44,44	2,45,26,24,11	7, 9
50″	37,42,58,31,12, 0,28,49, 9,21	1,37,43,53,16,14,13,24	2,45,26,31,20	7, 9
52″	37,43, 0, 8,55,53,45, 3,22,45	1,37,43,50,30,47,34,55	2,45,26,38,29	7, 9
54″	37,43, 1,46,39,44,15,50,57,40	1,37,43,47,45,20,49,17	2,45,26,45,38	7, 9
56″	37,43, 3,24,23,32, 1,11,46,57	1,37,43,44,59,53,56,30	2,45,26,52,47	7, 9
58″	37,43, 5, 2, 7,17, 1, 5,43,27	1,37,43,42,14,26,56,34	2,45,26,59,56	
60″	37,43, 6,39,50,59,15,32,40, 1			
exact	37,43, 6,39,50,59,15,32,54, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°57′ 0″	37,43, 6,39,50,59,15,32,54, 4			
		1,37,43,39,28,59,51, 9		
2″	37,43, 8,17,34,38,44,32,45,13		2,45,27,14, 6	
		1,37,43,36,43,32,37, 3		7, 9
4″	37,43, 9,55,18,15,28, 5,22,16		2,45,27,21,15	
		1,37,43,33,58, 5,15,48		7, 9
6″	37,43,11,33, 1,49,26,10,38, 4		2,45,27,28,24	
		1,37,43,31,12,37,47,24		7, 9
8″	37,43,13,10,45,20,38,48,25,28		2,45,27,35,33	
		1,37,43,28,27,10,11,51		7, 9
10″	37,43,14,48,28,49, 5,58,37,19		2,45,27,42,42	
		1,37,43,25,41,42,29, 9		7, 9
12″	37,43,16,26,12,14,47,41, 6,28		2,45,27,49,51	
		1,37,43,22,56,14,39,18		7, 9
14″	37,43,18, 3,55,37,43,55,45,46		2,45,27,57, 0	
		1,37,43,20,10,46,42,18		7, 9
16″	37,43,19,41,38,57,54,42,28, 4		2,45,28, 4, 9	
		1,37,43,17,25,18,38, 9		7, 9
18″	37,43,21,19,22,15,20, 1, 6,13		2,45,28,11,18	
		1,37,43,14,39,50,26,51		7, 9
20″	37,43,22,57, 5,29,59,51,33, 4		2,45,28,18,27	
		1,37,43,11,54,22, 8,24		7, 9
22″	37,43,24,34,48,41,54,13,41,28		2,45,28,25,36	
		1,37,43, 9, 8,53,42,48		7, 9
24″	37,43,26,12,31,51, 3, 7,24,16		2,45,28,32,45	
		1,37,43, 6,23,25,10, 3		7, 9
26″	37,43,27,50,14,57,26,32,34,19		2,45,28,39,54	
		1,37,43, 3,37,56,30, 9		7, 9
28″	37,43,29,27,58, 1, 4,29, 4,28		2,45,28,47, 3	
		1,37,43, 0,52,27,43, 6		7, 9
30″	37,43,31, 5,41, 1,56,56,47,34		2,45,28,54,12	
		1,37,42,58, 6,58,48,54		7, 9
32″	37,43,32,43,24, 0, 3,55,36,28		2,45,29, 1,21	
		1,37,42,55,21,29,47,33		7, 9
34″	37,43,34,21, 6,55,25,25,24, 1		2,45,29, 8,30	
		1,37,42,52,36, 0,39, 3		7, 9
36″	37,43,35,58,49,48, 1,26, 3, 4		2,45,29,15,39	
		1,37,42,49,50,31,23,24		7, 9
38″	37,43,37,36,32,37,51,57,26,28		2,45,29,22,48	
		1,37,42,47, 5, 2, 0,36		7, 9
40″	37,43,39,14,15,24,56,59,27, 4		2,45,29,29,57	
		1,37,42,44,19,32,30,39		7, 9
42″	37,43,40,51,58, 9,16,31,57,43		2,45,29,37, 6	
		1,37,42,41,34, 2,53,33		7, 9
44″	37,43,42,29,40,50,50,34,51,16		2,45,29,44,15	
		1,37,42,38,48,33, 9,18		7, 9
46″	37,43,44, 7,23,29,39, 8, 0,34		2,45,29,51,24	
		1,37,42,36, 3, 3,17,54		7, 9
48″	37,43,45,45, 6, 5,42,11,18,28		2,45,29,58,33	
		1,37,42,33,17,33,19,21		7, 9
50″	37,43,47,22,48,38,59,44,37,49		2,45,30, 5,42	
		1,37,42,30,32, 3,13,39		7, 9
52″	37,43,49, 0,31, 9,31,47,51,28		2,45,30,12,51	
		1,37,42,27,46,33, 0,48		7, 9
54″	37,43,50,38,13,37,18,20,52,16		2,45,30,20, 0	
		1,37,42,25, 1, 2,40,48		7, 9
56″	37,43,52,15,56, 2,19,23,33, 4		2,45,30,27, 9	
		1,37,42,22,15,32,13,39		7, 9
58″	37,43,53,53,38,24,34,55,46,43		2,45,30,34,18	
		1,37,42,19,30, 1,39,21		
60″	37,43,55,31,20,44, 4,57,26, 4			
exact	37,43,55,31,20,44, 4,57,47,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°58′ 0″	37,43,55,31,20,44, 4,57,47,35			
		1,37,42,16,44,31, 0,20		
2″	37,43,57, 9, 3, 0,49,28,47,55		2,45,30,48,25	
		1,37,42,13,59, 0,11,55		7, 9
4″	37,43,58,46,45,14,48,28,59,50		2,45,30,55,34	
		1,37,42,11,13,29,16,21		7, 9
6″	37,44, 0,24,27,26, 1,58,16,11		2,45,31, 2,43	
		1,37,42, 8,27,58,13,38		7, 9
8″	37,44, 2, 2, 9,34,29,56,29,49		2,45,31, 9,52	
		1,37,42, 5,42,27, 3,46		7, 9
10″	37,44, 3,39,51,40,12,23,33,35		2,45,31,17, 1	
		1,37,42, 2,56,55,46,45		7, 9
12″	37,44, 5,17,33,43, 9,19,20,20		2,45,31,24,10	
		1,37,42, 0,11,24,22,35		7, 9
14″	37,44, 6,55,15,43,20,43,42,55		2,45,31,31,19	
		1,37,41,57,25,52,51,16		7, 9
16″	37,44, 8,32,57,40,46,36,34,11		2,45,31,38,28	
		1,37,41,54,40,21,12,48		7, 9
18″	37,44,10,10,39,35,26,57,46,59		2,45,31,45,37	
		1,37,41,51,54,49,27,11		7, 9
20″	37,44,11,48,21,27,21,47,14,10		2,45,31,52,46	
		1,37,41,49, 9,17,34,25		7, 9
22″	37,44,13,26, 3,16,31, 4,48,35		2,45,31,59,55	
		1,37,41,46,23,45,34,30		7, 9
24″	37,44,15, 3,45, 2,54,50,23, 5		2,45,32, 7, 4	
		1,37,41,43,38,13,27,26		7, 9
26″	37,44,16,41,26,46,33, 3,50,31		2,45,32,14,13	
		1,37,41,40,52,41,13,13		7, 9
28″	37,44,18,19, 8,27,25,45, 3,44		2,45,32,21,22	
		1,37,41,38, 7, 8,51,51		7, 9
30″	37,44,19,56,50, 5,32,53,55,35		2,45,32,28,31	
		1,37,41,35,21,36,23,20		7, 9
32″	37,44,21,34,31,40,54,30,18,55		2,45,32,35,40	
		1,37,41,32,36, 3,47,40		7, 9
34″	37,44,23,12,13,13,30,34, 6,35		2,45,32,42,49	
		1,37,41,29,50,31, 4,51		7, 9
36″	37,44,24,49,54,43,21, 5,11,26		2,45,32,49,58	
		1,37,41,27, 4,58,14,53		7, 9
38″	37,44,26,27,36,10,26, 3,26,19		2,45,32,57, 7	
		1,37,41,24,19,25,17,46		7, 9
40″	37,44,28, 5,17,34,45,28,44, 5		2,45,33, 4,16	
		1,37,41,21,33,52,13,30		7, 9
42″	37,44,29,42,58,56,19,20,57,35		2,45,33,11,25	
		1,37,41,18,48,19, 2, 5		7, 9
44″	37,44,31,20,40,15, 7,39,59,40		2,45,33,18,34	
		1,37,41,16, 2,45,43,31		7, 9
46″	37,44,32,58,21,31,10,25,43,11		2,45,33,25,43	
		1,37,41,13,17,12,17,48		7, 9
48″	37,44,34,36, 2,44,27,38, 0,59		2,45,33,32,52	
		1,37,41,10,31,38,44,56		7, 9
50″	37,44,36,13,43,54,59,16,45,55		2,45,33,40, 1	
		1,37,41, 7,46, 5, 4,55		7, 9
52″	37,44,37,51,25, 2,45,21,50,50		2,45,33,47,10	
		1,37,41, 5, 0,31,17,45		7, 9
54″	37,44,39,29, 6, 7,45,53, 8,35		2,45,33,54,19	
		1,37,41, 2,14,57,23,26		7, 9
56″	37,44,41, 6,47,10, 0,50,32, 1		2,45,34, 1,28	
		1,37,40,59,29,23,21,58		7, 9
58″	37,44,42,44,28, 9,30,13,53,59		2,45,34, 8,37	
		1,37,40,56,43,49,13,21		
60″	37,44,44,22, 9, 6,14, 3, 7,20			
exact	37,44,44,22, 9, 6,14, 3,36,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
38°59′ 0″	37,44,44,22, 9, 6,14, 3,36,54			
		1,37,40,53,58,15, 0,50		
2″	37,44,45,59,50, 0,12,18,37,44		2,45,34,22,41	
		1,37,40,51,12,40,38, 9		7, 8
4″	37,44,47,37,30,51,24,59,15,53		2,45,34,29,49	
		1,37,40,48,27, 6, 8,20		7, 8
6″	37,44,49,15,11,39,52, 5,24,13		2,45,34,36,57	
		1,37,40,45,41,31,31,23		7, 8
8″	37,44,50,52,52,25,33,36,55,36		2,45,34,44, 5	
		1,37,40,42,55,56,47,18		7, 8
10″	37,44,52,30,33, 8,29,33,42,54		2,45,34,51,13	
		1,37,40,40,10,21,56, 5		7, 8
12″	37,44,54, 8,13,48,39,55,38,59		2,45,34,58,21	
		1,37,40,37,24,46,57,44		7, 8
14″	37,44,55,45,54,26, 4,42,36,43		2,45,35, 5,29	
		1,37,40,34,39,11,52,15		7, 8
16″	37,44,57,23,35, 0,43,54,28,58		2,45,35,12,37	
		1,37,40,31,53,36,39,38		7, 8
18″	37,44,59, 1,15,32,37,31, 8,36		2,45,35,19,45	
		1,37,40,29, 8, 1,19,53		7, 8
20″	37,45, 0,38,56, 1,45,32,28,29		2,45,35,26,53	
		1,37,40,26,22,25,53, 0		7, 8
22″	37,45, 2,16,36,28, 7,58,21,29		2,45,35,34, 1	
		1,37,40,23,36,50,18,59		7, 8
24″	37,45, 3,54,16,51,44,48,40,28		2,45,35,41, 9	
		1,37,40,20,51,14,37,50		7, 8
26″	37,45, 5,31,57,12,36, 3,18,18		2,45,35,48,17	
		1,37,40,18, 5,38,49,33		7, 8
28″	37,45, 7, 9,37,30,41,42, 7,51		2,45,35,55,25	
		1,37,40,15,20, 2,54, 8		7, 8
30″	37,45, 8,47,17,46, 1,45, 1,59		2,45,36, 2,33	
		1,37,40,12,34,26,51,35		7, 8
32″	37,45,10,24,57,58,36,11,53,34		2,45,36, 9,41	
		1,37,40, 9,48,50,41,54		7, 8
34″	37,45,12, 2,38, 8,25, 2,35,28		2,45,36,16,49	
		1,37,40, 7, 3,14,25, 5		7, 8
36″	37,45,13,40,18,15,28,17, 0,33		2,45,36,23,57	
		1,37,40, 4,17,38, 1, 8		7, 8
38″	37,45,15,17,58,19,45,55, 1,41		2,45,36,31, 5	
		1,37,40, 1,32, 1,30, 3		7, 8
40″	37,45,16,55,38,21,17,56,31,44		2,45,36,38,13	
		1,37,39,58,46,24,51,50		7, 8
42″	37,45,18,33,18,20, 4,21,23,34		2,45,36,45,21	
		1,37,39,56, 0,48, 6,29		7, 8
44″	37,45,20,10,58,16, 5, 9,30, 3		2,45,36,52,29	
		1,37,39,53,15,11,14, 0		7, 8
46″	37,45,21,48,38, 9,20,20,44, 3		2,45,36,59,37	
		1,37,39,50,29,34,14,23		7, 8
48″	37,45,23,26,17,59,49,54,58,26		2,45,37, 6,45	
		1,37,39,47,43,57, 7,38		7, 8
50″	37,45,25, 3,57,47,33,52, 6, 4		2,45,37,13,53	
		1,37,39,44,58,19,53,45		7, 8
52″	37,45,26,41,37,32,32,11,59,49		2,45,37,21, 1	
		1,37,39,42,12,42,32,44		7, 8
54″	37,45,28,19,17,14,44,54,32,33		2,45,37,28, 9	
		1,37,39,39,27, 5, 4,35		7, 8
56″	37,45,29,56,56,54,11,59,37, 8		2,45,37,35,17	
		1,37,39,36,41,27,29,18		7, 8
58″	37,45,31,34,36,30,53,27, 6,26		2,45,37,42,25	
		1,37,39,33,55,49,46,53		
60″	37,45,33,12,16, 4,49,16,53,19			
exact	37,45,33,12,16, 4,49,16,22,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39° 0′ 0″	37,45,33,12,16, 4,49,16,22,42			
		1,37,39,31,10,11,54, 7		
2″	37,45,34,49,55,35,59,28,16,49		2,45,37,56,54	
		1,37,39,28,24,33,57,13		7, 8
4″	37,45,36,27,35, 4,24, 2,14, 2		2,45,38, 4, 2	
		1,37,39,25,38,55,53,11		7, 8
6″	37,45,38, 5,14,30, 2,58, 7,13		2,45,38,11,10	
		1,37,39,22,53,17,42, 1		7, 8
8″	37,45,39,42,53,52,56,15,49,14		2,45,38,18,18	
		1,37,39,20, 7,39,23,43		7, 8
10″	37,45,41,20,33,13, 3,55,12,57		2,45,38,25,26	
		1,37,39,17,22, 0,58,17		7, 8
12″	37,45,42,58,12,30,25,56,11,14		2,45,38,32,34	
		1,37,39,14,36,22,25,43		7, 8
14″	37,45,44,35,51,45, 2,18,36,57		2,45,38,39,42	
		1,37,39,11,50,43,46, 1		7, 8
16″	37,45,46,13,30,56,53, 2,22,58		2,45,38,46,50	
		1,37,39, 9, 5, 4,59,11		7, 8
18″	37,45,47,51,10, 5,58, 7,22, 9		2,45,38,53,58	
		1,37,39, 6,19,26, 5,13		7, 8
20″	37,45,49,28,49,12,17,33,27,22		2,45,39, 1, 6	
		1,37,39, 3,33,47, 4, 7		7, 8
22″	37,45,51, 6,28,15,51,20,31,29		2,45,39, 8,14	
		1,37,39, 0,48, 7,55,53		7, 8
24″	37,45,52,44, 7,16,39,28,27,22		2,45,39,15,22	
		1,37,38,58, 2,28,40,31		7, 8
26″	37,45,54,21,46,14,41,57, 7,53		2,45,39,22,30	
		1,37,38,55,16,49,18, 1		7, 8
28″	37,45,55,59,25, 9,58,46,25,54		2,45,39,29,38	
		1,37,38,52,31, 9,48,23		7, 8
30″	37,45,57,37, 4, 2,29,56,14,17		2,45,39,36,46	
		1,37,38,49,45,30,11,37		7, 8
32″	37,45,59,14,42,52,15,26,25,54		2,45,39,43,54	
		1,37,38,46,59,50,27,43		7, 8
34″	37,46, 0,52,21,39,15,16,53,37		2,45,39,51, 2	
		1,37,38,44,14,10,36,41		7, 8
36″	37,46, 2,30, 0,23,29,27,30,18		2,45,39,58,10	
		1,37,38,41,28,30,38,31		7, 8
38″	37,46, 4, 7,39, 4,57,58, 8,49		2,45,40, 5,18	
		1,37,38,38,42,50,33,13		7, 8
40″	37,46, 5,45,17,43,40,48,42, 2		2,45,40,12,26	
		1,37,38,35,57,10,20,47		7, 8
42″	37,46, 7,22,56,19,37,59, 2,49		2,45,40,19,34	
		1,37,38,33,11,30, 1,13		7, 8
44″	37,46, 9, 0,34,52,49,29, 4, 2		2,45,40,26,42	
		1,37,38,30,25,49,34,31		7, 8
46″	37,46,10,38,13,23,15,18,38,33		2,45,40,33,50	
		1,37,38,27,40, 9, 0,41		7, 8
48″	37,46,12,15,51,50,55,27,39,14		2,45,40,40,58	
		1,37,38,24,54,28,19,43		7, 8
50″	37,46,13,53,30,15,49,55,58,57		2,45,40,48, 6	
		1,37,38,22, 8,47,31,37		7, 8
52″	37,46,15,31, 8,37,58,43,30,34		2,45,40,55,14	
		1,37,38,19,23, 6,36,23		7, 8
54″	37,46,17, 8,46,57,21,50, 6,57		2,45,41, 2,22	
		1,37,38,16,37,25,34, 1		7, 8
56″	37,46,18,46,25,13,59,15,40,58		2,45,41, 9,30	
		1,37,38,13,51,44,24,31		7, 8
58″	37,46,20,24, 3,27,51, 0, 5,29		2,45,41,16,38	
		1,37,38,11, 6, 3, 7,53		
60″	37,46,22, 1,41,38,57, 3,13,22			
exact	37,46,22, 1,41,38,57, 2,51, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39° 1′ 0″	37,46,22, 1,41,38,57, 2,51, 3			
		1,37,38, 8,20,21,41,44		
2″	37,46,23,39,19,47,17,24,32,47		2,45,41,31, 4	
		1,37,38, 5,34,40,10,40		7, 8
4″	37,46,25,16,57,52,52, 4,43,27		2,45,41,38,12	
		1,37,38, 2,48,58,32,28		7, 8
6″	37,46,26,54,35,55,41, 3,15,55		2,45,41,45,20	
		1,37,38, 0, 3,16,47, 8		7, 8
8″	37,46,28,32,13,55,44,20, 3, 3		2,45,41,52,28	
		1,37,37,57,17,34,54,40		7, 8
10″	37,46,30, 9,51,53, 1,54,57,43		2,45,41,59,36	
		1,37,37,54,31,52,55, 4		7, 8
12″	37,46,31,47,29,47,33,47,52,47		2,45,42, 6,44	
		1,37,37,51,46,10,48,20		7, 8
14″	37,46,33,25, 7,39,19,58,41, 7		2,45,42,13,52	
		1,37,37,49, 0,28,34,28		7, 8
16″	37,46,35, 2,45,28,20,27,15,35		2,45,42,21, 0	
		1,37,37,46,14,46,13,28		7, 8
18″	37,46,36,40,23,14,35,13,29, 3		2,45,42,28, 8	
		1,37,37,43,29, 3,45,20		7, 8
20″	37,46,38,18, 0,58, 4,17,14,23		2,45,42,35,16	
		1,37,37,40,43,21,10, 4		7, 8
22″	37,46,39,55,38,38,47,38,24,27		2,45,42,42,24	
		1,37,37,37,57,38,27,40		7, 8
24″	37,46,41,33,16,16,45,16,52, 7		2,45,42,49,32	
		1,37,37,35,11,55,38, 8		7, 8
26″	37,46,43,10,53,51,57,12,30,15		2,45,42,56,40	
		1,37,37,32,26,12,41,28		7, 8
28″	37,46,44,48,31,24,23,25,11,43		2,45,43, 3,48	
		1,37,37,29,40,29,37,40		7, 8
30″	37,46,46,26, 8,54, 3,54,49,23		2,45,43,10,56	
		1,37,37,26,54,46,26,44		7, 8
32″	37,46,48, 3,46,20,58,41,16, 7		2,45,43,18, 4	
		1,37,37,24, 9, 3, 8,40		7, 8
34″	37,46,49,41,23,45, 7,44,24,47		2,45,43,25,12	
		1,37,37,21,23,19,43,28		7, 8
36″	37,46,51,19, 1, 6,31, 4, 8,15		2,45,43,32,20	
		1,37,37,18,37,36,11, 8		7, 8
38″	37,46,52,56,38,25, 8,40,19,23		2,45,43,39,28	
		1,37,37,15,51,52,31,40		7, 8
40″	37,46,54,34,15,41, 0,32,51, 3		2,45,43,46,36	
		1,37,37,13, 6, 8,45, 4		7, 8
42″	37,46,56,11,52,54, 6,41,36, 7		2,45,43,53,44	
		1,37,37,10,20,24,51,20		7, 8
44″	37,46,57,49,30, 4,27, 6,27,27		2,45,44, 0,52	
		1,37,37, 7,34,40,50,28		7, 8
46″	37,46,59,27, 7,12, 1,47,17,55		2,45,44, 8, 0	
		1,37,37, 4,48,56,42,28		7, 8
48″	37,47, 1, 4,44,16,50,44, 0,23		2,45,44,15, 8	
		1,37,37, 2, 3,12,27,20		7, 8
50″	37,47, 2,42,21,18,53,56,27,43		2,45,44,22,16	
		1,37,36,59,17,28, 5, 4		7, 8
52″	37,47, 4,19,58,18,11,24,32,47		2,45,44,29,24	
		1,37,36,56,31,43,35,40		7, 8
54″	37,47, 5,57,35,14,43, 8, 8,27		2,45,44,36,32	
		1,37,36,53,45,58,59, 8		7, 8
56″	37,47, 7,35,12, 8,29, 7, 7,35		2,45,44,43,40	
		1,37,36,51, 0,14,15,28		7, 8
58″	37,47, 9,12,48,59,29,21,23, 3		2,45,44,50,48	
		1,37,36,48,14,29,24,40		
60″	37,47,10,50,25,47,43,50,47,43			
exact	37,47,10,50,25,47,43,50,33,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39° 2′ 0″	37,47,10,50,25,47,43,50,33,28			
		1,37,36,45,28,44,25,10		
2″	37,47,12,28, 2,33,12,34,58,38		2,45,45, 5,10	
		1,37,36,42,42,59,20, 0		7, 8
4″	37,47,14, 5,39,15,55,34,18,38		2,45,45,12,18	
		1,37,36,39,57,14, 7,42		7, 8
6″	37,47,15,43,15,55,52,48,26,20		2,45,45,19,26	
		1,37,36,37,11,28,48,16		7, 8
8″	37,47,17,20,52,33, 4,17,14,36		2,45,45,26,34	
		1,37,36,34,25,43,21,42		7, 8
10″	37,47,18,58,29, 7,30, 0,36,18		2,45,45,33,42	
		1,37,36,31,39,57,48, 0		7, 8
12″	37,47,20,36, 5,39, 9,58,24,18		2,45,45,40,50	
		1,37,36,28,54,12, 7,10		7, 8
14″	37,47,22,13,42, 8, 4,10,31,28		2,45,45,47,58	
		1,37,36,26, 8,26,19,12		7, 8
16″	37,47,23,51,18,34,12,36,50,40		2,45,45,55, 6	
		1,37,36,23,22,40,24, 6		7, 8
18″	37,47,25,28,54,57,35,17,14,46		2,45,46, 2,14	
		1,37,36,20,36,54,21,52		7, 8
20″	37,47,27, 6,31,18,12,11,36,38		2,45,46, 9,22	
		1,37,36,17,51, 8,12,30		7, 8
22″	37,47,28,44, 7,36, 3,19,49, 8		2,45,46,16,30	
		1,37,36,15, 5,21,56, 0		7, 8
24″	37,47,30,21,43,51, 8,41,45, 8		2,45,46,23,38	
		1,37,36,12,19,35,32,22		7, 8
26″	37,47,31,59,20, 3,28,17,17,30		2,45,46,30,46	
		1,37,36, 9,33,49, 1,36		7, 8
28″	37,47,33,36,56,13, 2, 6,19, 6		2,45,46,37,54	
		1,37,36, 6,48, 2,23,42		7, 8
30″	37,47,35,14,32,19,50, 8,42,48		2,45,46,45, 2	
		1,37,36, 4, 2,15,38,40		7, 8
32″	37,47,36,52, 8,23,52,24,21,28		2,45,46,52,10	
		1,37,36, 1,16,28,46,30		7, 8
34″	37,47,38,29,44,25, 8,53, 7,58		2,45,46,59,18	
		1,37,35,58,30,41,47,12		7, 8
36″	37,47,40, 7,20,23,39,34,55,10		2,45,47, 6,26	
		1,37,35,55,44,54,40,46		7, 8
38″	37,47,41,44,56,19,24,29,35,56		2,45,47,13,34	
		1,37,35,52,59, 7,27,12		7, 8
40″	37,47,43,22,32,12,23,37, 3, 8		2,45,47,20,42	
		1,37,35,50,13,20, 6,30		7, 8
42″	37,47,45, 0, 8, 2,36,57, 9,38		2,45,47,27,50	
		1,37,35,47,27,32,38,40		7, 8
44″	37,47,46,37,43,50, 4,29,48,18		2,45,47,34,58	
		1,37,35,44,41,45, 3,42		7, 8
46″	37,47,48,15,19,34,46,14,52, 0		2,45,47,42, 6	
		1,37,35,41,55,57,21,36		7, 8
48″	37,47,49,52,55,16,42,12,13,36		2,45,47,49,14	
		1,37,35,39,10, 9,32,22		7, 8
50″	37,47,51,30,30,55,52,21,45,58		2,45,47,56,22	
		1,37,35,36,24,21,36, 0		7, 8
52″	37,47,53, 8, 6,32,16,43,21,58		2,45,48, 3,30	
		1,37,35,33,38,33,32,30		7, 8
54″	37,47,54,45,42, 5,55,16,54,28		2,45,48,10,38	
		1,37,35,30,52,45,21,52		7, 8
56″	37,47,56,23,17,36,48, 2,16,20		2,45,48,17,46	
		1,37,35,28, 6,57, 4, 6		7, 8
58″	37,47,58, 0,53, 4,54,59,20,26		2,45,48,24,54	
		1,37,35,25,21, 8,39,12		
60″	37,47,59,38,28,30,16, 7,59,38			
exact	37,47,59,38,28,30,16, 7,46,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39° 3′ 0″	37,47,59,38,28,30,16, 7,46,50			
		1,37,35,22,35,20, 5,57		
2″	37,48, 1,16, 3,52,51,27,52,47		2,45,48,39,14	
		1,37,35,19,49,31,26,43		7, 8
4″	37,48, 2,53,39,12,40,59,19,30		2,45,48,46,22	
		1,37,35,17, 3,42,40,21		7, 8
6″	37,48, 4,31,14,29,44,41,59,51		2,45,48,53,30	
		1,37,35,14,17,53,46,51		7, 8
8″	37,48, 6, 8,49,44, 2,35,46,42		2,45,49, 0,38	
		1,37,35,11,32, 4,46,13		7, 8
10″	37,48, 7,46,24,55,34,40,32,55		2,45,49, 7,46	
		1,37,35, 8,46,15,38,27		7, 8
12″	37,48, 9,24, 0, 4,20,56,11,22		2,45,49,14,54	
		1,37,35, 6, 0,26,23,33		7, 8
14″	37,48,11, 1,35,10,21,22,34,55		2,45,49,22, 2	
		1,37,35, 3,14,37, 1,31		7, 8
16″	37,48,12,39,10,13,35,59,36,26		2,45,49,29,10	
		1,37,35, 0,28,47,32,21		7, 8
18″	37,48,14,16,45,14, 4,47, 8,47		2,45,49,36,18	
		1,37,34,57,42,57,56, 3		7, 8
20″	37,48,15,54,20,11,47,45, 4,50		2,45,49,43,26	
		1,37,34,54,57, 8,12,37		7, 8
22″	37,48,17,31,55, 6,44,53,17,27		2,45,49,50,34	
		1,37,34,52,11,18,22, 3		7, 8
24″	37,48,19, 9,29,58,56,11,39,30		2,45,49,57,42	
		1,37,34,49,25,28,24,21		7, 8
26″	37,48,20,47, 4,48,21,40, 3,51		2,45,50, 4,50	
		1,37,34,46,39,38,19,31		7, 8
28″	37,48,22,24,39,35, 1,18,23,22		2,45,50,11,58	
		1,37,34,43,53,48, 7,33		7, 8
30″	37,48,24, 2,14,18,55, 6,30,55		2,45,50,19, 6	
		1,37,34,41, 7,57,48,27		7, 8
32″	37,48,25,39,49, 0, 3, 4,19,22		2,45,50,26,14	
		1,37,34,38,22, 7,22,13		7, 8
34″	37,48,27,17,23,38,25,11,41,35		2,45,50,33,22	
		1,37,34,35,36,16,48,51		7, 8
36″	37,48,28,54,58,14, 1,28,30,26		2,45,50,40,30	
		1,37,34,32,50,26, 8,21		7, 8
38″	37,48,30,32,32,46,51,54,38,47		2,45,50,47,38	
		1,37,34,30, 4,35,20,43		7, 8
40″	37,48,32,10, 7,16,56,29,59,30		2,45,50,54,46	
		1,37,34,27,18,44,25,57		7, 8
42″	37,48,33,47,41,44,15,14,25,27		2,45,51, 1,54	
		1,37,34,24,32,53,24, 3		7, 8
44″	37,48,35,25,16, 8,48, 7,49,30		2,45,51, 9, 2	
		1,37,34,21,47, 2,15, 1		7, 8
46″	37,48,37, 2,50,30,35,10, 4,31		2,45,51,16,10	
		1,37,34,19, 1,10,58,51		7, 8
48″	37,48,38,40,24,49,36,21, 3,22		2,45,51,23,18	
		1,37,34,16,15,19,35,33		7, 8
50″	37,48,40,17,59, 5,51,40,38,55		2,45,51,30,26	
		1,37,34,13,29,28, 5, 7		7, 8
52″	37,48,41,55,33,19,21, 8,44, 2		2,45,51,37,34	
		1,37,34,10,43,36,27,33		7, 8
54″	37,48,43,33, 7,30, 4,45,11,35		2,45,51,44,42	
		1,37,34, 7,57,44,42,51		7, 8
56″	37,48,45,10,41,38, 2,29,54,26		2,45,51,51,50	
		1,37,34, 5,11,52,51, 1		7, 8
58″	37,48,46,48,15,43,14,22,45,27		2,45,51,58,58	
		1,37,34, 2,26, 0,52, 3		
60″	37,48,48,25,49,45,40,23,37,30			
exact	37,48,48,25,49,45,40,23,33,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39° 4′ 0″	37,48,48,25,49,45,40,23,33,30			
		1,37,33,59,40, 8,45,36		
2″	37,48,50, 3,23,45,20,32,19, 6		2,45,52,13,15	
		1,37,33,56,54,16,32,21		7, 8
4″	37,48,51,40,57,42,14,48,51,27		2,45,52,20,23	
		1,37,33,54, 8,24,11,58		7, 8
6″	37,48,53,18,31,36,23,13, 3,25		2,45,52,27,31	
		1,37,33,51,22,31,44,27		7, 8
8″	37,48,54,56, 5,27,45,44,47,52		2,45,52,34,39	
		1,37,33,48,36,39, 9,48		7, 8
10″	37,48,56,33,39,16,22,23,57,40		2,45,52,41,47	
		1,37,33,45,50,46,28, 1		7, 8
12″	37,48,58,11,13, 2,13,10,25,41		2,45,52,48,55	
		1,37,33,43, 4,53,39, 6		7, 8
14″	37,48,59,48,46,45,18, 4, 4,47		2,45,52,56, 3	
		1,37,33,40,19, 0,43, 3		7, 8
16″	37,49, 1,26,20,25,37, 4,47,50		2,45,53, 3,11	
		1,37,33,37,33, 7,39,52		7, 8
18″	37,49, 3, 3,54, 3,10,12,27,42		2,45,53,10,19	
		1,37,33,34,47,14,29,33		7, 8
20″	37,49, 4,41,27,37,57,26,57,15		2,45,53,17,27	
		1,37,33,32, 1,21,12, 6		7, 8
22″	37,49, 6,19, 1, 9,58,48, 9,21		2,45,53,24,35	
		1,37,33,29,15,27,47,31		7, 8
24″	37,49, 7,56,34,39,14,15,56,52		2,45,53,31,43	
		1,37,33,26,29,34,15,48		7, 8
26″	37,49, 9,34, 8, 5,43,50,12,40		2,45,53,38,51	
		1,37,33,23,43,40,36,57		7, 8
28″	37,49,11,11,41,29,27,30,49,37		2,45,53,45,59	
		1,37,33,20,57,46,50,58		7, 8
30″	37,49,12,49,14,50,25,17,40,35		2,45,53,53, 7	
		1,37,33,18,11,52,57,51		7, 8
32″	37,49,14,26,48, 8,37,10,38,26		2,45,54, 0,15	
		1,37,33,15,25,58,57,36		7, 8
34″	37,49,16, 4,21,24, 3, 9,36, 2		2,45,54, 7,23	
		1,37,33,12,40, 4,50,13		7, 8
36″	37,49,17,41,54,36,43,14,26,15		2,45,54,14,31	
		1,37,33, 9,54,10,35,42		7, 8
38″	37,49,19,19,27,46,37,25, 1,57		2,45,54,21,39	
		1,37,33, 7, 8,16,14, 3		7, 8
40″	37,49,20,57, 0,53,45,41,16, 0		2,45,54,28,47	
		1,37,33, 4,22,21,45,16		7, 8
42″	37,49,22,34,33,58, 8, 3, 1,16		2,45,54,35,55	
		1,37,33, 1,36,27, 9,21		7, 8
44″	37,49,24,12, 6,59,44,30,10,37		2,45,54,43, 3	
		1,37,32,58,50,32,26,18		7, 8
46″	37,49,25,49,39,58,35, 2,36,55		2,45,54,50,11	
		1,37,32,56, 4,37,36, 7		7, 8
48″	37,49,27,27,12,54,39,40,13, 2		2,45,54,57,19	
		1,37,32,53,18,42,38,48		7, 8
50″	37,49,29, 4,45,47,58,22,51,50		2,45,55, 4,27	
		1,37,32,50,32,47,34,21		7, 8
52″	37,49,30,42,18,38,31,10,26,11		2,45,55,11,35	
		1,37,32,47,46,52,22,46		7, 8
54″	37,49,32,19,51,26,18, 2,48,57		2,45,55,18,43	
		1,37,32,45, 0,57, 4, 3		7, 8
56″	37,49,33,57,24,11,18,59,53, 0		2,45,55,25,51	
		1,37,32,42,15, 1,38,12		7, 8
58″	37,49,35,34,56,53,34, 1,31,12		2,45,55,32,59	
		1,37,32,39,29, 6, 5,13		
60″	37,49,37,12,29,33, 3, 7,36,25			
exact	37,49,37,12,29,33, 3, 7,41,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39° 5′ 0″	37,49,37,12,29,33, 3, 7,41,18			
		1,37,32,36,43,10,25,38		
2″	37,49,38,50, 2, 9,46,18, 6,56		2,45,55,47,12	
		1,37,32,33,57,14,38,26		7, 8
4″	37,49,40,27,34,43,43,32,45,22		2,45,55,54,20	
		1,37,32,31,11,18,44, 6		7, 8
6″	37,49,42, 5, 7,14,54,51,29,28		2,45,56, 1,28	
		1,37,32,28,25,22,42,38		7, 8
8″	37,49,43,42,39,43,20,14,12, 6		2,45,56, 8,36	
		1,37,32,25,39,26,34, 2		7, 8
10″	37,49,45,20,12, 8,59,40,46, 8		2,45,56,15,44	
		1,37,32,22,53,30,18,18		7, 8
12″	37,49,46,57,44,31,53,11, 4,26		2,45,56,22,52	
		1,37,32,20, 7,33,55,26		7, 8
14″	37,49,48,35,16,52, 0,44,59,52		2,45,56,30, 0	
		1,37,32,17,21,37,25,26		7, 8
16″	37,49,50,12,49, 9,22,22,25,18		2,45,56,37, 8	
		1,37,32,14,35,40,48,18		7, 8
18″	37,49,51,50,21,23,58, 3,13,36		2,45,56,44,16	
		1,37,32,11,49,44, 4, 2		7, 8
20″	37,49,53,27,53,35,47,47,17,38		2,45,56,51,24	
		1,37,32, 9, 3,47,12,38		7, 8
22″	37,49,55, 5,25,44,51,34,30,16		2,45,56,58,32	
		1,37,32, 6,17,50,14, 6		7, 8
24″	37,49,56,42,57,51, 9,24,44,22		2,45,57, 5,40	
		1,37,32, 3,31,53, 8,26		7, 8
26″	37,49,58,20,29,54,41,17,52,48		2,45,57,12,48	
		1,37,32, 0,45,55,55,38		7, 8
28″	37,49,59,58, 1,55,27,13,48,26		2,45,57,19,56	
		1,37,31,57,59,58,35,42		7, 8
30″	37,50, 1,35,33,53,27,12,24, 8		2,45,57,27, 4	
		1,37,31,55,14, 1, 8,38		7, 8
32″	37,50, 3,13, 5,48,41,13,32,46		2,45,57,34,12	
		1,37,31,52,28, 3,34,26		7, 8
34″	37,50, 4,50,37,41, 9,17, 7,12		2,45,57,41,20	
		1,37,31,49,42, 5,53, 6		7, 8
36″	37,50, 6,28, 9,30,51,23, 0,18		2,45,57,48,28	
		1,37,31,46,56, 8, 4,38		7, 8
38″	37,50, 8, 5,41,17,47,31, 4,56		2,45,57,55,36	
		1,37,31,44,10,10, 9, 2		7, 8
40″	37,50, 9,43,13, 1,57,41,13,58		2,45,58, 2,44	
		1,37,31,41,24,12, 6,18		7, 8
42″	37,50,11,20,44,43,21,53,20,16		2,45,58, 9,52	
		1,37,31,38,38,13,56,26		7, 8
44″	37,50,12,58,16,22, 0, 7,16,42		2,45,58,17, 0	
		1,37,31,35,52,15,39,26		7, 8
46″	37,50,14,35,47,57,52,22,56, 8		2,45,58,24, 8	
		1,37,31,33, 6,17,15,18		7, 8
48″	37,50,16,13,19,30,58,40,11,26		2,45,58,31,16	
		1,37,31,30,20,18,44, 2		7, 8
50″	37,50,17,50,51, 1,18,58,55,28		2,45,58,38,24	
		1,37,31,27,34,20, 5,38		7, 8
52″	37,50,19,28,22,28,53,19, 1, 6		2,45,58,45,32	
		1,37,31,24,48,21,20, 6		7, 8
54″	37,50,21, 5,53,53,41,40,21,12		2,45,58,52,40	
		1,37,31,22, 2,22,27,26		7, 8
56″	37,50,22,43,25,15,44, 2,48,38		2,45,58,59,48	
		1,37,31,19,16,23,27,38		7, 8
58″	37,50,24,20,56,35, 0,26,16,16		2,45,59, 6,56	
		1,37,31,16,30,24,20,42		
60″	37,50,25,58,27,51,30,50,36,58			
exact	37,50,25,58,27,51,30,50,43,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39° 6′ 0″	37,50,25,58,27,51,30,50,43,31	1,37,31,13,44,25, 7,33		
2″	37,50,27,35,59, 5,15,15,51, 4	1,37,31,10,58,25,46,26	2,45,59,21, 7	7, 8
4″	37,50,29,13,30,16,13,41,37,30	1,37,31, 8,12,26,18,11	2,45,59,28,15	7, 8
6″	37,50,30,51, 1,24,26, 7,55,41	1,37,31, 5,26,26,42,48	2,45,59,35,23	7, 8
8″	37,50,32,28,32,29,52,34,38,29	1,37,31, 2,40,27, 0,17	2,45,59,42,31	7, 8
10″	37,50,34, 6, 3,32,33, 1,38,46	1,37,30,59,54,27,10,38	2,45,59,49,39	7, 8
12″	37,50,35,43,34,32,27,28,49,24	1,37,30,57, 8,27,13,51	2,45,59,56,47	7, 8
14″	37,50,37,21, 5,29,35,56, 3,15	1,37,30,54,22,27, 9,56	2,46, 0, 3,55	7, 8
16″	37,50,38,58,36,23,58,23,13,11	1,37,30,51,36,26,58,53	2,46, 0,11, 3	7, 8
18″	37,50,40,36, 7,15,34,50,12, 4	1,37,30,48,50,26,40,42	2,46, 0,18,11	7, 8
20″	37,50,42,13,38, 4,25,16,52,46	1,37,30,46, 4,26,15,23	2,46, 0,25,19	7, 8
22″	37,50,43,51, 8,50,29,43, 8, 9	1,37,30,43,18,25,42,56	2,46, 0,32,27	7, 8
24″	37,50,45,28,39,33,48, 8,51, 5	1,37,30,40,32,25, 3,21	2,46, 0,39,35	7, 8
26″	37,50,47, 6,10,14,20,33,54,26	1,37,30,37,46,24,16,38	2,46, 0,46,43	7, 8
28″	37,50,48,43,40,52, 6,58,11, 4	1,37,30,35, 0,23,22,47	2,46, 0,53,51	7, 8
30″	37,50,50,21,11,27, 7,21,33,51	1,37,30,32,14,22,21,48	2,46, 1, 0,59	7, 8
32″	37,50,51,58,41,59,21,43,55,39	1,37,30,29,28,21,13,41	2,46, 1, 8, 7	7, 8
34″	37,50,53,36,12,28,50, 5, 9,20	1,37,30,26,42,19,58,26	2,46, 1,15,15	7, 8
36″	37,50,55,13,42,55,32,25, 7,46	1,37,30,23,56,18,36, 3	2,46, 1,22,23	7, 8
38″	37,50,56,51,13,19,28,43,43,49	1,37,30,21,10,17, 6,32	2,46, 1,29,31	7, 8
40″	37,50,58,28,43,40,39, 0,50,21	1,37,30,18,24,15,29,53	2,46, 1,36,39	7, 8
42″	37,51, 0, 6,13,59, 3,16,20,14	1,37,30,15,38,13,46, 6	2,46, 1,43,47	7, 8
44″	37,51, 1,43,44,14,41,30, 6,20	1,37,30,12,52,11,55,11	2,46, 1,50,55	7, 8
46″	37,51, 3,21,14,27,33,42, 1,31	1,37,30,10, 6, 9,57, 8	2,46, 1,58, 3	7, 8
48″	37,51, 4,58,44,37,39,51,58,39	1,37,30, 7,20, 7,51,57	2,46, 2, 5,11	7, 8
50″	37,51, 6,36,14,44,59,59,50,36	1,37,30, 4,34, 5,39,38	2,46, 2,12,19	7, 8
52″	37,51, 8,13,44,49,34, 5,30,14	1,37,30, 1,48, 3,20,11	2,46, 2,19,27	7, 8
54″	37,51, 9,51,14,51,22, 8,50,25	1,37,29,59, 2, 0,53,36	2,46, 2,26,35	7, 8
56″	37,51,11,28,44,50,24, 9,44, 1	1,37,29,56,15,58,19,53	2,46, 2,33,43	7, 8
58″	37,51,13, 6,14,46,40, 8, 3,54	1,37,29,53,29,55,39, 2	2,46, 2,40,51	
60″	37,51,14,43,44,40,10, 3,42,56			
exact	37,51,14,43,44,40,10, 3,58,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39° 7′ 0″	37,51,14,43,44,40,10, 3,58,54			
		1,37,29,50,43,52,52,52		
2″	37,51,16,21,14,30,53,56,51,46		2,46, 2,54,59	
		1,37,29,47,57,49,57,53		7, 8
4″	37,51,17,58,44,18,51,46,49,39		2,46, 3, 2, 7	
		1,37,29,45,11,46,55,46		7, 8
6″	37,51,19,36,14, 4, 3,33,45,25		2,46, 3, 9,15	
		1,37,29,42,25,43,46,31		7, 8
8″	37,51,21,13,43,46,29,17,31,56		2,46, 3,16,23	
		1,37,29,39,39,40,30, 8		7, 8
10″	37,51,22,51,13,26, 8,58, 2, 4		2,46, 3,23,31	
		1,37,29,36,53,37, 6,37		7, 8
12″	37,51,24,28,43, 3, 2,35, 8,41		2,46, 3,30,39	
		1,37,29,34, 7,33,35,58		7, 8
14″	37,51,26, 6,12,37,10, 8,44,39		2,46, 3,37,47	
		1,37,29,31,21,29,58,11		7, 8
16″	37,51,27,43,42, 8,31,38,42,50		2,46, 3,44,55	
		1,37,29,28,35,26,13,16		7, 8
18″	37,51,29,21,11,37, 7, 4,56, 6		2,46, 3,52, 3	
		1,37,29,25,49,22,21,13		7, 8
20″	37,51,30,58,41, 2,56,27,17,19		2,46, 3,59,11	
		1,37,29,23, 3,18,22, 2		7, 8
22″	37,51,32,36,10,25,59,45,39,21		2,46, 4, 6,19	
		1,37,29,20,17,14,15,43		7, 8
24″	37,51,34,13,39,46,16,59,55, 4		2,46, 4,13,27	
		1,37,29,17,31,10, 2,16		7, 8
26″	37,51,35,51, 9, 3,48, 9,57,20		2,46, 4,20,35	
		1,37,29,14,45, 5,41,41		7, 8
28″	37,51,37,28,38,18,33,15,39, 1		2,46, 4,27,43	
		1,37,29,11,59, 1,13,58		7, 8
30″	37,51,39, 6, 7,30,32,16,52,59		2,46, 4,34,51	
		1,37,29, 9,12,56,39, 7		7, 8
32″	37,51,40,43,36,39,45,13,32, 6		2,46, 4,41,59	
		1,37,29, 6,26,51,57, 8		7, 8
34″	37,51,42,21, 5,46,12, 5,29,14		2,46, 4,49, 7	
		1,37,29, 3,40,47, 8, 1		7, 8
36″	37,51,43,58,34,49,52,52,37,15		2,46, 4,56,15	
		1,37,29, 0,54,42,11,46		7, 8
38″	37,51,45,36, 3,50,47,34,49, 1		2,46, 5, 3,23	
		1,37,28,58, 8,37, 8,23		7, 8
40″	37,51,47,13,32,48,56,11,57,24		2,46, 5,10,31	
		1,37,28,55,22,31,57,52		7, 8
42″	37,51,48,51, 1,44,18,43,55,16		2,46, 5,17,39	
		1,37,28,52,36,26,40,13		7, 8
44″	37,51,50,28,30,36,55,10,35,29		2,46, 5,24,47	
		1,37,28,49,50,21,15,26		7, 8
46″	37,51,52, 5,59,26,45,31,50,55		2,46, 5,31,55	
		1,37,28,47, 4,15,43,31		7, 8
48″	37,51,53,43,28,13,49,47,34,26		2,46, 5,39, 3	
		1,37,28,44,18,10, 4,28		7, 8
50″	37,51,55,20,56,58, 7,57,38,54		2,46, 5,46,11	
		1,37,28,41,32, 4,18,17		7, 8
52″	37,51,56,58,25,39,40, 1,57,11		2,46, 5,53,19	
		1,37,28,38,45,58,24,58		7, 8
54″	37,51,58,35,54,18,26, 0,22, 9		2,46, 6, 0,27	
		1,37,28,35,59,52,24,31		7, 8
56″	37,52, 0,13,22,54,25,52,46,40		2,46, 6, 7,35	
		1,37,28,33,13,46,16,56		7, 8
58″	37,52, 1,50,51,27,39,39, 3,36		2,46, 6,14,43	
		1,37,28,30,27,40, 2,13		
60″	37,52, 3,28,19,58, 7,19, 5,49			
exact	37,52, 3,28,19,58, 7,19,31,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39° 8′ 0″	37,52, 3,28,19,58, 7,19,31,44			
		1,37,28,27,41,33,43, 8		
2″	37,52, 5, 5,48,25,48,53,14,52		2,46, 6,28,47	
		1,37,28,24,55,27,14,21		7, 8
4″	37,52, 6,43,16,50,44,20,29,13		2,46, 6,35,55	
		1,37,28,22, 9,20,38,26		7, 8
6″	37,52, 8,20,45,12,53,41, 7,39		2,46, 6,43, 3	
		1,37,28,19,23,13,55,23		7, 8
8″	37,52, 9,58,13,32,16,55, 3, 2		2,46, 6,50,11	
		1,37,28,16,37, 7, 5,12		7, 8
10″	37,52,11,35,41,48,54, 2, 8,14		2,46, 6,57,19	
		1,37,28,13,51, 0, 7,53		7, 8
12″	37,52,13,13,10, 2,45, 2,16, 7		2,46, 7, 4,27	
		1,37,28,11, 4,53, 3,26		7, 8
14″	37,52,14,50,38,13,49,55,19,33		2,46, 7,11,35	
		1,37,28, 8,18,45,51,51		7, 8
16″	37,52,16,28, 6,22, 8,41,11,24		2,46, 7,18,43	
		1,37,28, 5,32,38,33, 8		7, 8
18″	37,52,18, 5,34,27,41,19,44,32		2,46, 7,25,51	
		1,37,28, 2,46,31, 7,17		7, 8
20″	37,52,19,43, 2,30,27,50,51,49		2,46, 7,32,59	
		1,37,28, 0, 0,23,34,18		7, 8
22″	37,52,21,20,30,30,28,14,26, 7		2,46, 7,40, 7	
		1,37,27,57,14,15,54,11		7, 8
24″	37,52,22,57,58,27,42,30,20,18		2,46, 7,47,15	
		1,37,27,54,28, 8, 6,56		7, 8
26″	37,52,24,35,26,22,10,38,27,14		2,46, 7,54,23	
		1,37,27,51,42, 0,12,33		7, 8
28″	37,52,26,12,54,13,52,38,39,47		2,46, 8, 1,31	
		1,37,27,48,55,52,11, 2		7, 8
30″	37,52,27,50,22, 2,48,30,50,49		2,46, 8, 8,39	
		1,37,27,46, 9,44, 2,23		7, 8
32″	37,52,29,27,49,48,58,14,53,12		2,46, 8,15,47	
		1,37,27,43,23,35,46,36		7, 8
34″	37,52,31, 5,17,32,21,50,39,48		2,46, 8,22,55	
		1,37,27,40,37,27,23,41		7, 8
36″	37,52,32,42,45,12,59,18, 3,29		2,46, 8,30, 3	
		1,37,27,37,51,18,53,38		7, 8
38″	37,52,34,20,12,50,50,36,57, 7		2,46, 8,37,11	
		1,37,27,35, 5,10,16,27		7, 8
40″	37,52,35,57,40,25,55,47,13,34		2,46, 8,44,19	
		1,37,27,32,19, 1,32, 8		7, 8
42″	37,52,37,35, 7,58,14,48,45,42		2,46, 8,51,27	
		1,37,27,29,32,52,40,41		7, 8
44″	37,52,39,12,35,27,47,41,26,23		2,46, 8,58,35	
		1,37,27,26,46,43,42, 6		7, 8
46″	37,52,40,50, 2,54,34,25, 8,29		2,46, 9, 5,43	
		1,37,27,24, 0,34,36,23		7, 8
48″	37,52,42,27,30,18,34,59,44,52		2,46, 9,12,51	
		1,37,27,21,14,25,23,32		7, 8
50″	37,52,44, 4,57,39,49,25, 8,24		2,46, 9,19,59	
		1,37,27,18,28,16, 3,33		7, 8
52″	37,52,45,42,24,58,17,41,11,57		2,46, 9,27, 7	
		1,37,27,15,42, 6,36,26		7, 8
54″	37,52,47,19,52,13,59,47,48,23		2,46, 9,34,15	
		1,37,27,12,55,57, 2,11		7, 8
56″	37,52,48,57,19,26,55,44,50,34		2,46, 9,41,23	
		1,37,27,10, 9,47,20,48		7, 8
58″	37,52,50,34,46,37, 5,32,11,22		2,46, 9,48,31	
		1,37,27, 7,23,37,32,17		
60″	37,52,52,12,13,44,29, 9,43,39			
exact	37,52,52,12,13,44,29,10,11,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39° 9′ 0″	37,52,52,12,13,44,29,10,11,51	1,37,27, 4,37,27,39,49		
2″	37,52,53,49,40,49, 6,37,51,40		2,46,10, 2,33	
		1,37,27, 1,51,17,37,16		7, 7
4″	37,52,55,27, 7,50,57,55,28,56		2,46,10, 9,40	
		1,37,26,59, 5, 7,27,36		7, 7
6″	37,52,57, 4,34,50, 3, 2,56,32		2,46,10,16,47	
		1,37,26,56,18,57,10,49		7, 7
8″	37,52,58,42, 1,46,22, 0, 7,21		2,46,10,23,54	
		1,37,26,53,32,46,46,55		7, 7
10″	37,53, 0,19,28,39,54,46,54,16		2,46,10,31, 1	
		1,37,26,50,46,36,15,54		7, 7
12″	37,53, 1,56,55,30,41,23,10,10		2,46,10,38, 8	
		1,37,26,48, 0,25,37,46		7, 7
14″	37,53, 3,34,22,18,41,48,47,56		2,46,10,45,15	
		1,37,26,45,14,14,52,31		7, 7
16″	37,53, 5,11,49, 3,56, 3,40,27		2,46,10,52,22	
		1,37,26,42,28, 4, 0, 9		7, 7
18″	37,53, 6,49,15,46,24, 7,40,36		2,46,10,59,29	
		1,37,26,39,41,53, 0,40		7, 7
20″	37,53, 8,26,42,26, 6, 0,41,16		2,46,11, 6,36	
		1,37,26,36,55,41,54, 4		7, 7
22″	37,53,10, 4, 9, 3, 1,42,35,20		2,46,11,13,43	
		1,37,26,34, 9,30,40,21		7, 7
24″	37,53,11,41,35,37,11,13,15,41		2,46,11,20,50	
		1,37,26,31,23,19,19,31		7, 7
26″	37,53,13,19, 2, 8,34,32,35,12		2,46,11,27,57	
		1,37,26,28,37, 7,51,34		7, 7
28″	37,53,14,56,28,37,11,40,26,46		2,46,11,35, 4	
		1,37,26,25,50,56,16,30		7, 7
30″	37,53,16,33,55, 3, 2,36,43,16		2,46,11,42,11	
		1,37,26,23, 4,44,34,19		7, 7
32″	37,53,18,11,21,26, 7,21,17,35		2,46,11,49,18	
		1,37,26,20,18,32,45, 1		7, 7
34″	37,53,19,48,47,46,25,54, 2,36		2,46,11,56,25	
		1,37,26,17,32,20,48,36		7, 7
36″	37,53,21,26,14, 3,58,14,51,12		2,46,12, 3,32	
		1,37,26,14,46, 8,45, 4		7, 7
38″	37,53,23, 3,40,18,44,23,36,16		2,46,12,10,39	
		1,37,26,11,59,56,34,25		7, 7
40″	37,53,24,41, 6,30,44,20,10,41		2,46,12,17,46	
		1,37,26, 9,13,44,16,39		7, 7
42″	37,53,26,18,32,39,58, 4,27,20		2,46,12,24,53	
		1,37,26, 6,27,31,51,46		7, 7
44″	37,53,27,55,58,46,25,36,19, 6		2,46,12,32, 0	
		1,37,26, 3,41,19,19,46		7, 7
46″	37,53,29,33,24,50, 6,55,38,52		2,46,12,39, 7	
		1,37,26, 0,55, 6,40,39		7, 7
48″	37,53,31,10,50,51, 2, 2,19,31		2,46,12,46,14	
		1,37,25,58, 8,53,54,25		7, 7
50″	37,53,32,48,16,49,10,56,13,56		2,46,12,53,21	
		1,37,25,55,22,41, 1, 4		7, 7
52″	37,53,34,25,42,44,33,37,15, 0		2,46,13, 0,28	
		1,37,25,52,36,28, 0,36		7, 7
54″	37,53,36, 3, 8,37,10, 5,15,36		2,46,13, 7,35	
		1,37,25,49,50,14,53, 1		7, 7
56″	37,53,37,40,34,27, 0,20, 8,37		2,46,13,14,42	
		1,37,25,47, 4, 1,38,19		7, 7
58″	37,53,39,18, 0,14, 4,21,46,56		2,46,13,21,49	
		1,37,25,44,17,48,16,30		
60″	37,53,40,55,25,58,22,10, 3,26			
exact	37,53,40,55,25,58,22, 9,34,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°10′ 0″	37,53,40,55,25,58,22, 9,34,33			
		1,37,25,41,31,34,44,29		
2″	37,53,42,32,51,39,53,44,19, 2		2,46,13,36,15	
		1,37,25,38,45,21, 8,14		7, 7
4″	37,53,44,10,17,18,39, 5,27,16		2,46,13,43,22	
		1,37,25,35,59, 7,24,52		7, 7
6″	37,53,45,47,42,54,38,12,52, 8		2,46,13,50,29	
		1,37,25,33,12,53,34,23		7, 7
8″	37,53,47,25, 8,27,51, 6,26,31		2,46,13,57,36	
		1,37,25,30,26,39,36,47		7, 7
10″	37,53,49, 2,33,58,17,46, 3,18		2,46,14, 4,43	
		1,37,25,27,40,25,32, 4		7, 7
12″	37,53,50,39,59,25,58,11,35,22		2,46,14,11,50	
		1,37,25,24,54,11,20,14		7, 7
14″	37,53,52,17,24,50,52,22,55,36		2,46,14,18,57	
		1,37,25,22, 7,57, 1,17		7, 7
16″	37,53,53,54,50,13, 0,19,56,53		2,46,14,26, 4	
		1,37,25,19,21,42,35,13		7, 7
18″	37,53,55,32,15,32,22, 2,32, 6		2,46,14,33,11	
		1,37,25,16,35,28, 2, 2		7, 7
20″	37,53,57, 9,40,48,57,30,34, 8		2,46,14,40,18	
		1,37,25,13,49,13,21,44		7, 7
22″	37,53,58,47, 6, 2,46,43,55,52		2,46,14,47,25	
		1,37,25,11, 2,58,34,19		7, 7
24″	37,54, 0,24,31,13,49,42,30,11		2,46,14,54,32	
		1,37,25, 8,16,43,39,47		7, 7
26″	37,54, 2, 1,56,22, 6,26, 9,58		2,46,15, 1,39	
		1,37,25, 5,30,28,38, 8		7, 7
28″	37,54, 3,39,21,27,36,54,48, 6		2,46,15, 8,46	
		1,37,25, 2,44,13,29,22		7, 7
30″	37,54, 5,16,46,30,21, 8,17,28		2,46,15,15,53	
		1,37,24,59,57,58,13,29		7, 7
32″	37,54, 6,54,11,30,19, 6,30,57		2,46,15,23, 0	
		1,37,24,57,11,42,50,29		7, 7
34″	37,54, 8,31,36,27,30,49,21,26		2,46,15,30, 7	
		1,37,24,54,25,27,20,22		7, 7
36″	37,54,10, 9, 1,21,56,16,41,48		2,46,15,37,14	
		1,37,24,51,39,11,43, 8		7, 7
38″	37,54,11,46,26,13,35,28,24,56		2,46,15,44,21	
		1,37,24,48,52,55,58,47		7, 7
40″	37,54,13,23,51, 2,28,24,23,43		2,46,15,51,28	
		1,37,24,46, 6,40, 7,19		7, 7
42″	37,54,15, 1,15,48,35, 4,31, 2		2,46,15,58,35	
		1,37,24,43,20,24, 8,44		7, 7
44″	37,54,16,38,40,31,55,28,39,46		2,46,16, 5,42	
		1,37,24,40,34, 8, 3, 2		7, 7
46″	37,54,18,16, 5,12,29,36,42,48		2,46,16,12,49	
		1,37,24,37,47,51,50,13		7, 7
48″	37,54,19,53,29,50,17,28,33, 1		2,46,16,19,56	
		1,37,24,35, 1,35,30,17		7, 7
50″	37,54,21,30,54,25,19, 4, 3,18		2,46,16,27, 3	
		1,37,24,32,15,19, 3,14		7, 7
52″	37,54,23, 8,18,57,34,23, 6,32		2,46,16,34,10	
		1,37,24,29,29, 2,29, 4		7, 7
54″	37,54,24,45,43,27, 3,25,35,36		2,46,16,41,17	
		1,37,24,26,42,45,47,47		7, 7
56″	37,54,26,23, 7,53,46,11,23,23		2,46,16,48,24	
		1,37,24,23,56,28,59,23		7, 7
58″	37,54,28, 0,32,17,42,40,22,46		2,46,16,55,31	
		1,37,24,21,10,12, 3,52		
60″	37,54,29,37,56,38,52,52,26,38			
exact	37,54,29,37,56,38,52,52, 0,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°11′ 0″	37,54,29,37,56,38,52,52, 0,46			
		1,37,24,18,23,54,58,38		
2″	37,54,31,15,20,57,16,46,59,24		2,46,17, 9,55	
		1,37,24,15,37,37,48,43		7, 7
4″	37,54,32,52,45,12,54,24,48, 7		2,46,17,17, 2	
		1,37,24,12,51,20,31,41		7, 7
6″	37,54,34,30, 9,25,45,45,19,48		2,46,17,24, 9	
		1,37,24,10, 5, 3, 7,32		7, 7
8″	37,54,36, 7,33,35,50,48,27,20		2,46,17,31,16	
		1,37,24, 7,18,45,36,16		7, 7
10″	37,54,37,44,57,43, 9,34, 3,36		2,46,17,38,23	
		1,37,24, 4,32,27,57,53		7, 7
12″	37,54,39,22,21,47,42, 2, 1,29		2,46,17,45,30	
		1,37,24, 1,46,10,12,23		7, 7
14″	37,54,40,59,45,49,28,12,13,52		2,46,17,52,37	
		1,37,23,58,59,52,19,46		7, 7
16″	37,54,42,37, 9,48,28, 4,33,38		2,46,17,59,44	
		1,37,23,56,13,34,20, 2		7, 7
18″	37,54,44,14,33,44,41,38,53,40		2,46,18, 6,51	
		1,37,23,53,27,16,13,11		7, 7
20″	37,54,45,51,57,38, 8,55, 6,51		2,46,18,13,58	
		1,37,23,50,40,57,59,13		7, 7
22″	37,54,47,29,21,28,49,53, 6, 4		2,46,18,21, 5	
		1,37,23,47,54,39,38, 8		7, 7
24″	37,54,49, 6,45,16,44,32,44,12		2,46,18,28,12	
		1,37,23,45, 8,21, 9,56		7, 7
26″	37,54,50,44, 9, 1,52,53,54, 8		2,46,18,35,19	
		1,37,23,42,22, 2,34,37		7, 7
28″	37,54,52,21,32,44,14,56,28,45		2,46,18,42,26	
		1,37,23,39,35,43,52,11		7, 7
30″	37,54,53,58,56,23,50,40,20,56		2,46,18,49,33	
		1,37,23,36,49,25, 2,38		7, 7
32″	37,54,55,36,20, 0,40, 5,23,34		2,46,18,56,40	
		1,37,23,34, 3, 6, 5,58		7, 7
34″	37,54,57,13,43,34,43,11,29,32		2,46,19, 3,47	
		1,37,23,31,16,47, 2,11		7, 7
36″	37,54,58,51, 7, 5,59,58,31,43		2,46,19,10,54	
		1,37,23,28,30,27,51,17		7, 7
38″	37,55, 0,28,30,34,30,26,23, 0		2,46,19,18, 1	
		1,37,23,25,44, 8,33,16		7, 7
40″	37,55, 2, 5,54, 0,14,34,56,16		2,46,19,25, 8	
		1,37,23,22,57,49, 8, 8		7, 7
42″	37,55, 3,43,17,23,12,24, 4,24		2,46,19,32,15	
		1,37,23,20,11,29,35,53		7, 7
44″	37,55, 5,20,40,43,23,53,40,17		2,46,19,39,22	
		1,37,23,17,25, 9,56,31		7, 7
46″	37,55, 6,58, 4, 0,49, 3,36,48		2,46,19,46,29	
		1,37,23,14,38,50,10, 2		7, 7
48″	37,55, 8,35,27,15,27,53,46,50		2,46,19,53,36	
		1,37,23,11,52,30,16,26		7, 7
50″	37,55,10,12,50,27,20,24, 3,16		2,46,20, 0,43	
		1,37,23, 9, 6,10,15,43		7, 7
52″	37,55,11,50,13,36,26,34,18,59		2,46,20, 7,50	
		1,37,23, 6,19,50, 7,53		7, 7
54″	37,55,13,27,36,42,46,24,26,52		2,46,20,14,57	
		1,37,23, 3,33,29,52,56		7, 7
56″	37,55,15, 4,59,46,19,54,19,48		2,46,20,22, 4	
		1,37,23, 0,47, 9,30,52		7, 7
58″	37,55,16,42,22,47, 7, 3,50,40		2,46,20,29,11	
		1,37,22,58, 0,49, 1,41		
60″	37,55,18,19,45,45, 7,52,52,21			
exact	37,55,18,19,45,45, 7,52,36,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°12′ 0″	37,55,18,19,45,45, 7,52,36,57			
		1,37,22,55,14,28,23,46		
2″	37,55,19,57, 8,40,22,21, 0,43		2,46,20,43,31	
		1,37,22,52,28, 7,40,15		7, 7
4″	37,55,21,34,31,32,50,28,40,58		2,46,20,50,38	
		1,37,22,49,41,46,49,37		7, 7
6″	37,55,23,11,54,22,32,15,30,35		2,46,20,57,45	
		1,37,22,46,55,25,51,52		7, 7
8″	37,55,24,49,17, 9,27,41,22,27		2,46,21, 4,52	
		1,37,22,44, 9, 4,47, 0		7, 7
10″	37,55,26,26,39,53,36,46, 9,27		2,46,21,11,59	
		1,37,22,41,22,43,35, 1		7, 7
12″	37,55,28, 4, 2,34,59,29,44,28		2,46,21,19, 6	
		1,37,22,38,36,22,15,55		7, 7
14″	37,55,29,41,25,13,35,52, 0,23		2,46,21,26,13	
		1,37,22,35,50, 0,49,42		7, 7
16″	37,55,31,18,47,49,25,52,50, 5		2,46,21,33,20	
		1,37,22,33, 3,39,16,22		7, 7
18″	37,55,32,56,10,22,29,32, 6,27		2,46,21,40,27	
		1,37,22,30,17,17,35,55		7, 7
20″	37,55,34,33,32,52,46,49,42,22		2,46,21,47,34	
		1,37,22,27,30,55,48,21		7, 7
22″	37,55,36,10,55,20,17,45,30,43		2,46,21,54,41	
		1,37,22,24,44,33,53,40		7, 7
24″	37,55,37,48,17,45, 2,19,24,23		2,46,22, 1,48	
		1,37,22,21,58,11,51,52		7, 7
26″	37,55,39,25,40, 7, 0,31,16,15		2,46,22, 8,55	
		1,37,22,19,11,49,42,57		7, 7
28″	37,55,41, 3, 2,26,12,20,59,12		2,46,22,16, 2	
		1,37,22,16,25,27,26,55		7, 7
30″	37,55,42,40,24,42,37,48,26, 7		2,46,22,23, 9	
		1,37,22,13,39, 5, 3,46		7, 7
32″	37,55,44,17,46,56,16,53,29,53		2,46,22,30,16	
		1,37,22,10,52,42,33,30		7, 7
34″	37,55,45,55, 9, 7, 9,36, 3,23		2,46,22,37,23	
		1,37,22, 8, 6,19,56, 7		7, 7
36″	37,55,47,32,31,15,15,55,59,30		2,46,22,44,30	
		1,37,22, 5,19,57,11,37		7, 7
38″	37,55,49, 9,53,20,35,53,11, 7		2,46,22,51,37	
		1,37,22, 2,33,34,20, 0		7, 7
40″	37,55,50,47,15,23, 9,27,31, 7		2,46,22,58,44	
		1,37,21,59,47,11,21,16		7, 7
42″	37,55,52,24,37,22,56,38,52,23		2,46,23, 5,51	
		1,37,21,57, 0,48,15,25		7, 7
44″	37,55,54, 1,59,19,57,27, 7,48		2,46,23,12,58	
		1,37,21,54,14,25, 2,27		7, 7
46″	37,55,55,39,21,14,11,52,10,15		2,46,23,20, 5	
		1,37,21,51,28, 1,42,22		7, 7
48″	37,55,57,16,43, 5,39,53,52,37		2,46,23,27,12	
		1,37,21,48,41,38,15,10		7, 7
50″	37,55,58,54, 4,54,21,32, 7,47		2,46,23,34,19	
		1,37,21,45,55,14,40,51		7, 7
52″	37,56, 0,31,26,40,16,46,48,38		2,46,23,41,26	
		1,37,21,43, 8,50,59,25		7, 7
54″	37,56, 2, 8,48,23,25,37,48, 3		2,46,23,48,33	
		1,37,21,40,22,27,10,52		7, 7
56″	37,56, 3,46,10, 3,48, 4,58,55		2,46,23,55,40	
		1,37,21,37,36, 3,15,12		7, 7
58″	37,56, 5,23,31,41,24, 8,14, 7		2,46,24, 2,47	
		1,37,21,34,49,39,12,25		
60″	37,56, 7, 0,53,16,13,47,26,32			
exact	37,56, 7, 0,53,16,13,47,15,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°13′ 0″	37,56, 7, 0,53,16,13,47,15,10			
		1,37,21,32, 3,15, 1,26		
2″	37,56, 8,38,14,48,17, 2,16,36		2,46,24,17, 5	
		1,37,21,29,16,50,44,21		7, 7
4″	37,56,10,15,36,17,33,53, 0,57		2,46,24,24,12	
		1,37,21,26,30,26,20, 9		7, 7
6″	37,56,11,52,57,44, 4,19,21, 6		2,46,24,31,19	
		1,37,21,23,44, 1,48,50		7, 7
8″	37,56,13,30,19, 7,48,21, 9,56		2,46,24,38,26	
		1,37,21,20,57,37,10,24		7, 7
10″	37,56,15, 7,40,28,45,58,20,20		2,46,24,45,33	
		1,37,21,18,11,12,24,51		7, 7
12″	37,56,16,45, 1,46,57,10,45,11		2,46,24,52,40	
		1,37,21,15,24,47,32,11		7, 7
14″	37,56,18,22,23, 2,21,58,17,22		2,46,24,59,47	
		1,37,21,12,38,22,32,24		7, 7
16″	37,56,19,59,44,15, 0,20,49,46		2,46,25, 6,54	
		1,37,21, 9,51,57,25,30		7, 7
18″	37,56,21,37, 5,24,52,18,15,16		2,46,25,14, 1	
		1,37,21, 7, 5,32,11,29		7, 7
20″	37,56,23,14,26,31,57,50,26,45		2,46,25,21, 8	
		1,37,21, 4,19, 6,50,21		7, 7
22″	37,56,24,51,47,36,16,57,17, 6		2,46,25,28,15	
		1,37,21, 1,32,41,22, 6		7, 7
24″	37,56,26,29, 8,37,49,38,39,12		2,46,25,35,22	
		1,37,20,58,46,15,46,44		7, 7
26″	37,56,28, 6,29,36,35,54,25,56		2,46,25,42,29	
		1,37,20,55,59,50, 4,15		7, 7
28″	37,56,29,43,50,32,35,44,30,11		2,46,25,49,36	
		1,37,20,53,13,24,14,39		7, 7
30″	37,56,31,21,11,25,49, 8,44,50		2,46,25,56,43	
		1,37,20,50,26,58,17,56		7, 7
32″	37,56,32,58,32,16,16, 7, 2,46		2,46,26, 3,50	
		1,37,20,47,40,32,14, 6		7, 7
34″	37,56,34,35,53, 3,56,39,16,52		2,46,26,10,57	
		1,37,20,44,54, 6, 3, 9		7, 7
36″	37,56,36,13,13,48,50,45,20, 1		2,46,26,18, 4	
		1,37,20,42, 7,39,45, 5		7, 7
38″	37,56,37,50,34,30,58,25, 5, 6		2,46,26,25,11	
		1,37,20,39,21,13,19,54		7, 7
40″	37,56,39,27,55,10,19,38,25, 0		2,46,26,32,18	
		1,37,20,36,34,46,47,36		7, 7
42″	37,56,41, 5,15,46,54,25,12,36		2,46,26,39,25	
		1,37,20,33,48,20, 8,11		7, 7
44″	37,56,42,42,36,20,42,45,20,47		2,46,26,46,32	
		1,37,20,31, 1,53,21,39		7, 7
46″	37,56,44,19,56,51,44,38,42,26		2,46,26,53,39	
		1,37,20,28,15,26,28, 0		7, 7
48″	37,56,45,57,17,20, 0, 5,10,26		2,46,27, 0,46	
		1,37,20,25,28,59,27,14		7, 7
50″	37,56,47,34,37,45,29, 4,37,40		2,46,27, 7,53	
		1,37,20,22,42,32,19,21		7, 7
52″	37,56,49,11,58, 8,11,36,57, 1		2,46,27,15, 0	
		1,37,20,19,56, 5, 4,21		7, 7
54″	37,56,50,49,18,28, 7,42, 1,22		2,46,27,22, 7	
		1,37,20,17, 9,37,42,14		7, 7
56″	37,56,52,26,38,45,17,19,43,36		2,46,27,29,14	
		1,37,20,14,23,10,13, 0		7, 7
58″	37,56,54, 3,58,59,40,29,56,36		2,46,27,36,21	
		1,37,20,11,36,42,36,39		
60″	37,56,55,41,19,11,17,12,33,15			
exact	37,56,55,41,19,11,17,12,33, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°14′ 0″	37,56,55,41,19,11,17,12,33, 3			
		1,37,20, 8,50,14,53, 8		
2″	37,56,57,18,39,20, 7,27,26,11		2,46,27,50,35	
		1,37,20, 6, 3,47, 2,33		7, 7
4″	37,56,58,55,59,26,11,14,28,44		2,46,27,57,42	
		1,37,20, 3,17,19, 4,51		7, 7
6″	37,57, 0,33,19,29,28,33,33,35		2,46,28, 4,49	
		1,37,20, 0,30,51, 0, 2		7, 7
8″	37,57, 2,10,39,29,59,24,33,37		2,46,28,11,56	
		1,37,19,57,44,22,48, 6		7, 7
10″	37,57, 3,47,59,27,43,47,21,43		2,46,28,19, 3	
		1,37,19,54,57,54,29, 3		7, 7
12″	37,57, 5,25,19,22,41,41,50,46		2,46,28,26,10	
		1,37,19,52,11,26, 2,53		7, 7
14″	37,57, 7, 2,39,14,53, 7,53,39		2,46,28,33,17	
		1,37,19,49,24,57,29,36		7, 7
16″	37,57, 8,39,59, 4,18, 5,23,15		2,46,28,40,24	
		1,37,19,46,38,28,49,12		7, 7
18″	37,57,10,17,18,50,56,34,12,27		2,46,28,47,31	
		1,37,19,43,52, 0, 1,41		7, 7
20″	37,57,11,54,38,34,48,34,14, 8		2,46,28,54,38	
		1,37,19,41, 5,31, 7, 3		7, 7
22″	37,57,13,31,58,15,54, 5,21,11		2,46,29, 1,45	
		1,37,19,38,19, 2, 5,18		7, 7
24″	37,57,15, 9,17,54,13, 7,26,29		2,46,29, 8,52	
		1,37,19,35,32,32,56,26		7, 7
26″	37,57,16,46,37,29,45,40,22,55		2,46,29,15,59	
		1,37,19,32,46, 3,40,27		7, 7
28″	37,57,18,23,57, 2,31,44, 3,22		2,46,29,23, 6	
		1,37,19,29,59,34,17,21		7, 7
30″	37,57,20, 1,16,32,31,18,20,43		2,46,29,30,13	
		1,37,19,27,13, 4,47, 8		7, 7
32″	37,57,21,38,35,59,44,23, 7,51		2,46,29,37,20	
		1,37,19,24,26,35, 9,48		7, 7
34″	37,57,23,15,55,24,10,58,17,39		2,46,29,44,27	
		1,37,19,21,40, 5,25,21		7, 7
36″	37,57,24,53,14,45,51, 3,43, 0		2,46,29,51,34	
		1,37,19,18,53,35,33,47		7, 7
38″	37,57,26,30,34, 4,44,39,16,47		2,46,29,58,41	
		1,37,19,16, 7, 5,35, 6		7, 7
40″	37,57,28, 7,53,20,51,44,51,53		2,46,30, 5,48	
		1,37,19,13,20,35,29,18		7, 7
42″	37,57,29,45,12,34,12,20,21,11		2,46,30,12,55	
		1,37,19,10,34, 5,16,23		7, 7
44″	37,57,31,22,31,44,46,25,37,34		2,46,30,20, 2	
		1,37,19, 7,47,34,56,21		7, 7
46″	37,57,32,59,50,52,34, 0,33,55		2,46,30,27, 9	
		1,37,19, 5, 1, 4,29,12		7, 7
48″	37,57,34,37, 9,57,35, 5, 3, 7		2,46,30,34,16	
		1,37,19, 2,14,33,54,56		7, 7
50″	37,57,36,14,28,59,49,38,58, 3		2,46,30,41,23	
		1,37,18,59,28, 3,13,33		7, 7
52″	37,57,37,51,47,59,17,42,11,36		2,46,30,48,30	
		1,37,18,56,41,32,25, 3		7, 7
54″	37,57,39,29, 6,55,59,14,36,39		2,46,30,55,37	
		1,37,18,53,55, 1,29,26		7, 7
56″	37,57,41, 6,25,49,54,16, 6, 5		2,46,31, 2,44	
		1,37,18,51, 8,30,26,42		7, 7
58″	37,57,42,43,44,41, 2,46,32,47		2,46,31, 9,51	
		1,37,18,48,21,59,16,51		
60″	37,57,44,21, 3,29,24,45,49,38			
exact	37,57,44,21, 3,29,24,45,53,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°15′ 0″	37,57,44,21, 3,29,24,45,53,55			
		1,37,18,45,35,28, 0,24		
2″	37,57,45,58,22,15, 0,13,54,19		2,46,31,24, 2	
		1,37,18,42,48,56,36,22		7, 7
4″	37,57,47,35,40,57,49,10,30,41		2,46,31,31, 9	
		1,37,18,40, 2,25, 5,13		7, 7
6″	37,57,49,12,59,37,51,35,35,54		2,46,31,38,16	
		1,37,18,37,15,53,26,57		7, 7
8″	37,57,50,50,18,15, 7,29, 2,51		2,46,31,45,23	
		1,37,18,34,29,21,41,34		7, 7
10″	37,57,52,27,36,49,36,50,44,25		2,46,31,52,30	
		1,37,18,31,42,49,49, 4		7, 7
12″	37,57,54, 4,55,21,19,40,33,29		2,46,31,59,37	
		1,37,18,28,56,17,49,27		7, 7
14″	37,57,55,42,13,50,15,58,22,56		2,46,32, 6,44	
		1,37,18,26, 9,45,42,43		7, 7
16″	37,57,57,19,32,16,25,44, 5,39		2,46,32,13,51	
		1,37,18,23,23,13,28,52		7, 7
18″	37,57,58,56,50,39,48,57,34,31		2,46,32,20,58	
		1,37,18,20,36,41, 7,54		7, 7
20″	37,58, 0,34, 9, 0,25,38,42,25		2,46,32,28, 5	
		1,37,18,17,50, 8,39,49		7, 7
22″	37,58, 2,11,27,18,15,47,22,14		2,46,32,35,12	
		1,37,18,15, 3,36, 4,37		7, 7
24″	37,58, 3,48,45,33,19,23,26,51		2,46,32,42,19	
		1,37,18,12,17, 3,22,18		7, 7
26″	37,58, 5,26, 3,45,36,26,49, 9		2,46,32,49,26	
		1,37,18, 9,30,30,32,52		7, 7
28″	37,58, 7, 3,21,55, 6,57,22, 1		2,46,32,56,33	
		1,37,18, 6,43,57,36,19		7, 7
30″	37,58, 8,40,40, 1,50,54,58,20		2,46,33, 3,40	
		1,37,18, 3,57,24,32,39		7, 7
32″	37,58,10,17,58, 5,48,19,30,59		2,46,33,10,47	
		1,37,18, 1,10,51,21,52		7, 7
34″	37,58,11,55,16, 6,59,10,52,51		2,46,33,17,54	
		1,37,17,58,24,18, 3,58		7, 7
36″	37,58,13,32,34, 5,23,28,56,49		2,46,33,25, 1	
		1,37,17,55,37,44,38,57		7, 7
38″	37,58,15, 9,52, 1, 1,13,35,46		2,46,33,32, 8	
		1,37,17,52,51,11, 6,49		7, 7
40″	37,58,16,47, 9,53,52,24,42,35		2,46,33,39,15	
		1,37,17,50, 4,37,27,34		7, 7
42″	37,58,18,24,27,43,57, 2,10, 9		2,46,33,46,22	
		1,37,17,47,18, 3,41,12		7, 7
44″	37,58,20, 1,45,31,15, 5,51,21		2,46,33,53,29	
		1,37,17,44,31,29,47,43		7, 7
46″	37,58,21,39, 3,15,46,35,39, 4		2,46,34, 0,36	
		1,37,17,41,44,55,47, 7		7, 7
48″	37,58,23,16,20,57,31,31,26,11		2,46,34, 7,43	
		1,37,17,38,58,21,39,24		7, 7
50″	37,58,24,53,38,36,29,53, 5,35		2,46,34,14,50	
		1,37,17,36,11,47,24,34		7, 7
52″	37,58,26,30,56,12,41,40,30, 9		2,46,34,21,57	
		1,37,17,33,25,13, 2,37		7, 7
54″	37,58,28, 8,13,46, 6,53,32,46		2,46,34,29, 4	
		1,37,17,30,38,38,33,33		7, 7
56″	37,58,29,45,31,16,45,32, 6,19		2,46,34,36,11	
		1,37,17,27,52, 3,57,22		7, 7
58″	37,58,31,22,48,44,37,36, 3,41		2,46,34,43,18	
		1,37,17,25, 5,29,14, 4		
60″	37,58,33, 0, 6, 9,43, 5,17,45			
exact	37,58,33, 0, 6, 9,43, 5,26,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°16′ 0″	37,58,33, 0, 6, 9,43, 5,26,40			
		1,37,17,22,18,54,24,45		
2″	37,58,34,37,23,32, 1,59,51,25		2,46,34,57,27	
		1,37,17,19,32,19,27,18		7, 7
4″	37,58,36,14,40,51,34,19,18,43		2,46,35, 4,34	
		1,37,17,16,45,44,22,44		7, 7
6″	37,58,37,51,58, 8,20, 3,41,27		2,46,35,11,41	
		1,37,17,13,59, 9,11, 3		7, 7
8″	37,58,39,29,15,22,19,12,52,30		2,46,35,18,48	
		1,37,17,11,12,33,52,15		7, 7
10″	37,58,41, 6,32,33,31,46,44,45		2,46,35,25,55	
		1,37,17, 8,25,58,26,20		7, 7
12″	37,58,42,43,49,41,57,45,11, 5		2,46,35,33, 2	
		1,37,17, 5,39,22,53,18		7, 7
14″	37,58,44,21, 6,47,37, 8, 4,23		2,46,35,40, 9	
		1,37,17, 2,52,47,13, 9		7, 7
16″	37,58,45,58,23,50,29,55,17,32		2,46,35,47,16	
		1,37,17, 0, 6,11,25,53		7, 7
18″	37,58,47,35,40,50,36, 6,43,25		2,46,35,54,23	
		1,37,16,57,19,35,31,30		7, 7
20″	37,58,49,12,57,47,55,42,14,55		2,46,36, 1,30	
		1,37,16,54,32,59,30, 0		7, 7
22″	37,58,50,50,14,42,28,41,44,55		2,46,36, 8,37	
		1,37,16,51,46,23,21,23		7, 7
24″	37,58,52,27,31,34,15, 5, 6,18		2,46,36,15,44	
		1,37,16,48,59,47, 5,39		7, 7
26″	37,58,54, 4,48,23,14,52,11,57		2,46,36,22,51	
		1,37,16,46,13,10,42,48		7, 7
28″	37,58,55,42, 5, 9,28, 2,54,45		2,46,36,29,58	
		1,37,16,43,26,34,12,50		7, 7
30″	37,58,57,19,21,52,54,37, 7,35		2,46,36,37, 5	
		1,37,16,40,39,57,35,45		7, 7
32″	37,58,58,56,38,33,34,34,43,20		2,46,36,44,12	
		1,37,16,37,53,20,51,33		7, 7
34″	37,59, 0,33,55,11,27,55,34,53		2,46,36,51,19	
		1,37,16,35, 6,44, 0,14		7, 7
36″	37,59, 2,11,11,46,34,39,35, 7		2,46,36,58,26	
		1,37,16,32,20, 7, 1,48		7, 7
38″	37,59, 3,48,28,18,54,46,36,55		2,46,37, 5,33	
		1,37,16,29,33,29,56,15		7, 7
40″	37,59, 5,25,44,48,28,16,33,10		2,46,37,12,40	
		1,37,16,26,46,52,43,35		7, 7
42″	37,59, 7, 3, 1,15,15, 9,16,45		2,46,37,19,47	
		1,37,16,24, 0,15,23,48		7, 7
44″	37,59, 8,40,17,39,15,24,40,33		2,46,37,26,54	
		1,37,16,21,13,37,56,54		7, 7
46″	37,59,10,17,34, 0,29, 2,37,27		2,46,37,34, 1	
		1,37,16,18,27, 0,22,53		7, 7
48″	37,59,11,54,50,18,56, 3, 0,20		2,46,37,41, 8	
		1,37,16,15,40,22,41,45		7, 7
50″	37,59,13,32, 6,34,36,25,42, 5		2,46,37,48,15	
		1,37,16,12,53,44,53,30		7, 7
52″	37,59,15, 9,22,47,30,10,35,35		2,46,37,55,22	
		1,37,16,10, 7, 6,58, 8		7, 7
54″	37,59,16,46,38,57,37,17,33,43		2,46,38, 2,29	
		1,37,16, 7,20,28,55,39		7, 7
56″	37,59,18,23,55, 4,57,46,29,22		2,46,38, 9,36	
		1,37,16, 4,33,50,46, 3		7, 7
58″	37,59,20, 1,11, 9,31,37,15,25		2,46,38,16,43	
		1,37,16, 1,47,12,29,20		
60″	37,59,21,38,27,11,18,49,44,45			
exact	37,59,21,38,27,11,18,50, 5,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°17′ 0″	37,59,21,38,27,11,18,50, 5,52			
		1,37,15,59, 0,34, 7,42		
2″	37,59,23,15,43,10,19,24,13,34		2,46,38,30,48	
		1,37,15,56,13,55,36,54		7, 7
4″	37,59,24,52,59, 6,33,19,50,28		2,46,38,37,55	
		1,37,15,53,27,16,58,59		7, 7
6″	37,59,26,30,15, 0, 0,36,49,27		2,46,38,45, 2	
		1,37,15,50,40,38,13,57		7, 7
8″	37,59,28, 7,30,50,41,15, 3,24		2,46,38,52, 9	
		1,37,15,47,53,59,21,48		7, 7
10″	37,59,29,44,46,38,35,14,25,12		2,46,38,59,16	
		1,37,15,45, 7,20,22,32		7, 7
12″	37,59,31,22, 2,23,42,34,47,44		2,46,39, 6,23	
		1,37,15,42,20,41,16, 9		7, 7
14″	37,59,32,59,18, 6, 3,16, 3,53		2,46,39,13,30	
		1,37,15,39,34, 2, 2,39		7, 7
16″	37,59,34,36,33,45,37,18, 6,32		2,46,39,20,37	
		1,37,15,36,47,22,42, 2		7, 7
18″	37,59,36,13,49,22,24,40,48,34		2,46,39,27,44	
		1,37,15,34, 0,43,14,18		7, 7
20″	37,59,37,51, 4,56,25,24, 2,52		2,46,39,34,51	
		1,37,15,31,14, 3,39,27		7, 7
22″	37,59,39,28,20,27,39,27,42,19		2,46,39,41,58	
		1,37,15,28,27,23,57,29		7, 7
24″	37,59,41, 5,35,56, 6,51,39,48		2,46,39,49, 5	
		1,37,15,25,40,44, 8,24		7, 7
26″	37,59,42,42,51,21,47,35,48,12		2,46,39,56,12	
		1,37,15,22,54, 4,12,12		7, 7
28″	37,59,44,20, 6,44,41,40, 0,24		2,46,40, 3,19	
		1,37,15,20, 7,24, 8,53		7, 7
30″	37,59,45,57,22, 4,49, 4, 9,17		2,46,40,10,26	
		1,37,15,17,20,43,58,27		7, 7
32″	37,59,47,34,37,22, 9,48, 7,44		2,46,40,17,33	
		1,37,15,14,34, 3,40,54		7, 7
34″	37,59,49,11,52,36,43,51,48,38		2,46,40,24,40	
		1,37,15,11,47,23,16,14		7, 7
36″	37,59,50,49, 7,48,31,15, 4,52		2,46,40,31,47	
		1,37,15, 9, 0,42,44,27		7, 7
38″	37,59,52,26,22,57,31,57,49,19		2,46,40,38,54	
		1,37,15, 6,14, 2, 5,33		7, 7
40″	37,59,54, 3,38, 3,45,59,54,52		2,46,40,46, 1	
		1,37,15, 3,27,21,19,32		7, 7
42″	37,59,55,40,53, 7,13,21,14,24		2,46,40,53, 8	
		1,37,15, 0,40,40,26,24		7, 7
44″	37,59,57,18, 8, 7,54, 1,40,48		2,46,41, 0,15	
		1,37,14,57,53,59,26, 9		7, 7
46″	37,59,58,55,23, 5,48, 1, 6,57		2,46,41, 7,22	
		1,37,14,55, 7,18,18,47		7, 7
48″	38, 0, 0,32,38, 0,55,19,25,44		2,46,41,14,29	
		1,37,14,52,20,37, 4,18		7, 7
50″	38, 0, 2, 9,52,53,15,56,30, 2		2,46,41,21,36	
		1,37,14,49,33,55,42,42		7, 7
52″	38, 0, 3,47, 7,42,49,52,12,44		2,46,41,28,43	
		1,37,14,46,47,14,13,59		7, 7
54″	38, 0, 5,24,22,29,37, 6,26,43		2,46,41,35,50	
		1,37,14,44, 0,32,38, 9		7, 7
56″	38, 0, 7, 1,37,13,37,39, 4,52		2,46,41,42,57	
		1,37,14,41,13,50,55,12		7, 7
58″	38, 0, 8,38,51,54,51,30, 0, 4		2,46,41,50, 4	
		1,37,14,38,27, 9, 5, 8		
60″	38, 0,10,16, 6,33,18,39, 5,12			
exact	38, 0,10,16, 6,33,18,39,31,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°18′ 0″	38, 0,10,16, 6,33,18,39,31,45	1,37,14,35,40,27,10,47		
2″	38, 0,11,53,21, 8,59, 6,42,32	1,37,14,32,53,45, 6,41	2,46,42, 4, 6	7, 7
4″	38, 0,13,30,35,41,52,51,49,13	1,37,14,30, 7, 2,55,28	2,46,42,11,13	7, 7
6″	38, 0,15, 7,50,11,59,54,44,41	1,37,14,27,20,20,37, 8	2,46,42,18,20	7, 7
8″	38, 0,16,45, 4,39,20,15,21,49	1,37,14,24,33,38,11,41	2,46,42,25,27	7, 7
10″	38, 0,18,22,19, 3,53,53,33,30	1,37,14,21,46,55,39, 7	2,46,42,32,34	7, 7
12″	38, 0,19,59,33,25,40,49,12,37	1,37,14,19, 0,12,59,26	2,46,42,39,41	7, 7
14″	38, 0,21,36,47,44,41, 2,12, 3	1,37,14,16,13,30,12,38	2,46,42,46,48	7, 7
16″	38, 0,23,14, 2, 0,54,32,24,41	1,37,14,13,26,47,18,43	2,46,42,53,55	7, 7
18″	38, 0,24,51,16,14,21,19,43,24	1,37,14,10,40, 4,17,41	2,46,43, 1, 2	7, 7
20″	38, 0,26,28,30,25, 1,24, 1, 5	1,37,14, 7,53,21, 9,32	2,46,43, 8, 9	7, 7
22″	38, 0,28, 5,44,32,54,45,10,37	1,37,14, 5, 6,37,54,16	2,46,43,15,16	7, 7
24″	38, 0,29,42,58,38, 1,23, 4,53	1,37,14, 2,19,54,31,53	2,46,43,22,23	7, 7
26″	38, 0,31,20,12,40,21,17,36,46	1,37,13,59,33,11, 2,23	2,46,43,29,30	7, 7
28″	38, 0,32,57,26,39,54,28,39, 9	1,37,13,56,46,27,25,46	2,46,43,36,37	7, 7
30″	38, 0,34,34,40,36,40,56, 4,55	1,37,13,53,59,43,42, 2	2,46,43,43,44	7, 7
32″	38, 0,36,11,54,30,40,39,46,57	1,37,13,51,12,59,51,11	2,46,43,50,51	7, 7
34″	38, 0,37,49, 8,21,53,39,38, 8	1,37,13,48,26,15,53,13	2,46,43,57,58	7, 7
36″	38, 0,39,26,22,10,19,55,31,21	1,37,13,45,39,31,48, 8	2,46,44, 5, 5	7, 7
38″	38, 0,41, 3,35,55,59,27,19,29	1,37,13,42,52,47,35,56	2,46,44,12,12	7, 7
40″	38, 0,42,40,49,38,52,14,55,25	1,37,13,40, 6, 3,16,37	2,46,44,19,19	7, 7
42″	38, 0,44,18, 3,18,58,18,12, 2	1,37,13,37,19,18,50,11	2,46,44,26,26	7, 7
44″	38, 0,45,55,16,56,17,37, 2,13	1,37,13,34,32,34,16,38	2,46,44,33,33	7, 7
46″	38, 0,47,32,30,30,50,11,18,51	1,37,13,31,45,49,35,58	2,46,44,40,40	7, 7
48″	38, 0,49, 9,44, 2,36, 0,54,49	1,37,13,28,59, 4,48,11	2,46,44,47,47	7, 7
50″	38, 0,50,46,57,31,35, 5,43, 0	1,37,13,26,12,19,53,17	2,46,44,54,54	7, 7
52″	38, 0,52,24,10,57,47,25,36,17	1,37,13,23,25,34,51,16	2,46,45, 2, 1	7, 7
54″	38, 0,54, 1,24,21,13, 0,27,33	1,37,13,20,38,49,42, 8	2,46,45, 9, 8	7, 7
56″	38, 0,55,38,37,41,51,50, 9,41	1,37,13,17,52, 4,25,53	2,46,45,16,15	7, 7
58″	38, 0,57,15,50,59,43,54,35,34	1,37,13,15, 5,19, 2,31	2,46,45,23,22	
60″	38, 0,58,53, 4,14,49,13,38, 5			
exact	38, 0,58,53, 4,14,49,14,10,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°19′ 0″	38, 0,58,53, 4,14,49,14,10,16			
		1,37,13,12,18,33,35,31		
2″	38, 1, 0,30,17,27, 7,47,45,47		2,46,45,37,21	
		1,37,13, 9,31,47,58,10		7, 6
4″	38, 1, 2, 7,30,36,39,35,43,57		2,46,45,44,27	
		1,37,13, 6,45, 2,13,43		7, 6
6″	38, 1, 3,44,43,43,24,37,57,40		2,46,45,51,33	
		1,37,13, 3,58,16,22,10		7, 6
8″	38, 1, 5,21,56,47,22,54,19,50		2,46,45,58,39	
		1,37,13, 1,11,30,23,31		7, 6
10″	38, 1, 6,59, 9,48,34,24,43,21		2,46,46, 5,45	
		1,37,12,58,24,44,17,46		7, 6
12″	38, 1, 8,36,22,46,59, 9, 1, 7		2,46,46,12,51	
		1,37,12,55,37,58, 4,55		7, 6
14″	38, 1,10,13,35,42,37, 7, 6, 2		2,46,46,19,57	
		1,37,12,52,51,11,44,58		7, 6
16″	38, 1,11,50,48,35,28,18,51, 0		2,46,46,27, 3	
		1,37,12,50, 4,25,17,55		7, 6
18″	38, 1,13,28, 1,25,32,44, 8,55		2,46,46,34, 9	
		1,37,12,47,17,38,43,46		7, 6
20″	38, 1,15, 5,14,12,50,22,52,41		2,46,46,41,15	
		1,37,12,44,30,52, 2,31		7, 6
22″	38, 1,16,42,26,57,21,14,55,12		2,46,46,48,21	
		1,37,12,41,44, 5,14,10		7, 6
24″	38, 1,18,19,39,39, 5,20, 9,22		2,46,46,55,27	
		1,37,12,38,57,18,18,43		7, 6
26″	38, 1,19,56,52,18, 2,38,28, 5		2,46,47, 2,33	
		1,37,12,36,10,31,16,10		7, 6
28″	38, 1,21,34, 4,54,13, 9,44,15		2,46,47, 9,39	
		1,37,12,33,23,44, 6,31		7, 6
30″	38, 1,23,11,17,27,36,53,50,46		2,46,47,16,45	
		1,37,12,30,36,56,49,46		7, 6
32″	38, 1,24,48,29,58,13,50,40,32		2,46,47,23,51	
		1,37,12,27,50, 9,25,55		7, 6
34″	38, 1,26,25,42,26, 4, 0, 6,27		2,46,47,30,57	
		1,37,12,25, 3,21,54,58		7, 6
36″	38, 1,28, 2,54,51, 7,22, 1,25		2,46,47,38, 3	
		1,37,12,22,16,34,16,55		7, 6
38″	38, 1,29,40, 7,13,23,56,18,20		2,46,47,45, 9	
		1,37,12,19,29,46,31,46		7, 6
40″	38, 1,31,17,19,32,53,42,50, 6		2,46,47,52,15	
		1,37,12,16,42,58,39,31		7, 6
42″	38, 1,32,54,31,49,36,41,29,37		2,46,47,59,21	
		1,37,12,13,56,10,40,10		7, 6
44″	38, 1,34,31,44, 3,32,52, 9,47		2,46,48, 6,27	
		1,37,12,11, 9,22,33,43		7, 6
46″	38, 1,36, 8,56,14,42,14,43,30		2,46,48,13,33	
		1,37,12, 8,22,34,20,10		7, 6
48″	38, 1,37,46, 8,23, 4,49, 3,40		2,46,48,20,39	
		1,37,12, 5,35,45,59,31		7, 6
50″	38, 1,39,23,20,28,40,35, 3,11		2,46,48,27,45	
		1,37,12, 2,48,57,31,46		7, 6
52″	38, 1,41, 0,32,31,29,32,34,57		2,46,48,34,51	
		1,37,12, 0, 2, 8,56,55		7, 6
54″	38, 1,42,37,44,31,31,41,31,52		2,46,48,41,57	
		1,37,11,57,15,20,14,58		7, 6
56″	38, 1,44,14,56,28,47, 1,46,50		2,46,48,49, 3	
		1,37,11,54,28,31,25,55		7, 6
58″	38, 1,45,52, 8,23,15,33,12,45		2,46,48,56, 9	
		1,37,11,51,41,42,29,46		
60″	38, 1,47,29,20,14,57,15,42,31			
exact	38, 1,47,29,20,14,57,15,13, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°20′ 0″	38, 1,47,29,20,14,57,15,13, 1			
		1,37,11,48,54,53,23,26		
2″	38, 1,49, 6,32, 3,52, 8,36,27		2,46,49,10,33	
		1,37,11,46, 8, 4,12,53		7, 6
4″	38, 1,50,43,43,50, 0,12,49,20		2,46,49,17,39	
		1,37,11,43,21,14,55,14		7, 6
6″	38, 1,52,20,55,33,21,27,44,34		2,46,49,24,45	
		1,37,11,40,34,25,30,29		7, 6
8″	38, 1,53,58, 7,13,55,53,15, 3		2,46,49,31,51	
		1,37,11,37,47,35,58,38		7, 6
10″	38, 1,55,35,18,51,43,29,13,41		2,46,49,38,57	
		1,37,11,35, 0,46,19,41		7, 6
12″	38, 1,57,12,30,26,44,15,33,22		2,46,49,46, 3	
		1,37,11,32,13,56,33,38		7, 6
14″	38, 1,58,49,41,58,58,12, 7, 0		2,46,49,53, 9	
		1,37,11,29,27, 6,40,29		7, 6
16″	38, 2, 0,26,53,28,25,18,47,29		2,46,50, 0,15	
		1,37,11,26,40,16,40,14		7, 6
18″	38, 2, 2, 4, 4,55, 5,35,27,43		2,46,50, 7,21	
		1,37,11,23,53,26,32,53		7, 6
20″	38, 2, 3,41,16,18,59, 2, 0,36		2,46,50,14,27	
		1,37,11,21, 6,36,18,26		7, 6
22″	38, 2, 5,18,27,40, 5,38,19, 2		2,46,50,21,33	
		1,37,11,18,19,45,56,53		7, 6
24″	38, 2, 6,55,38,58,25,24,15,55		2,46,50,28,39	
		1,37,11,15,32,55,28,14		7, 6
26″	38, 2, 8,32,50,13,58,19,44, 9		2,46,50,35,45	
		1,37,11,12,46, 4,52,29		7, 6
28″	38, 2,10,10, 1,26,44,24,36,38		2,46,50,42,51	
		1,37,11, 9,59,14, 9,38		7, 6
30″	38, 2,11,47,12,36,43,38,46,16		2,46,50,49,57	
		1,37,11, 7,12,23,19,41		7, 6
32″	38, 2,13,24,23,43,56, 2, 5,57		2,46,50,57, 3	
		1,37,11, 4,25,32,22,38		7, 6
34″	38, 2,15, 1,34,48,21,34,28,35		2,46,51, 4, 9	
		1,37,11, 1,38,41,18,29		7, 6
36″	38, 2,16,38,45,50, 0,15,47, 4		2,46,51,11,15	
		1,37,10,58,51,50, 7,14		7, 6
38″	38, 2,18,15,56,48,52, 5,54,18		2,46,51,18,21	
		1,37,10,56, 4,58,48,53		7, 6
40″	38, 2,19,53, 7,44,57, 4,43,11		2,46,51,25,27	
		1,37,10,53,18, 7,23,26		7, 6
42″	38, 2,21,30,18,38,15,12, 6,37		2,46,51,32,33	
		1,37,10,50,31,15,50,53		7, 6
44″	38, 2,23, 7,29,28,46,27,57,30		2,46,51,39,39	
		1,37,10,47,44,24,11,14		7, 6
46″	38, 2,24,44,40,16,30,52, 8,44		2,46,51,46,45	
		1,37,10,44,57,32,24,29		7, 6
48″	38, 2,26,21,51, 1,28,24,33,13		2,46,51,53,51	
		1,37,10,42,10,40,30,38		7, 6
50″	38, 2,27,59, 1,43,39, 5, 3,51		2,46,52, 0,57	
		1,37,10,39,23,48,29,41		7, 6
52″	38, 2,29,36,12,23, 2,53,33,32		2,46,52, 8, 3	
		1,37,10,36,36,56,21,38		7, 6
54″	38, 2,31,13,22,59,39,49,55,10		2,46,52,15, 9	
		1,37,10,33,50, 4, 6,29		7, 6
56″	38, 2,32,50,33,33,29,54, 1,39		2,46,52,22,15	
		1,37,10,31, 3,11,44,14		7, 6
58″	38, 2,34,27,44, 4,33, 5,45,53		2,46,52,29,21	
		1,37,10,28,16,19,14,53		
60″	38, 2,36, 4,54,32,49,25, 0,46			
exact	38, 2,36, 4,54,32,49,24,37,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°21′ 0″	38, 2,36, 4,54,32,49,24,37,22			
		1,37,10,25,29,26,36, 2		
2″	38, 2,37,42, 4,58,18,51,13,24		2,46,52,43,42	
		1,37,10,22,42,33,52,20		7, 6
4″	38, 2,39,19,15,21, 1,25, 5,44		2,46,52,50,48	
		1,37,10,19,55,41, 1,32		7, 6
6″	38, 2,40,56,25,40,57, 6, 7,16		2,46,52,57,54	
		1,37,10,17, 8,48, 3,38		7, 6
8″	38, 2,42,33,35,58, 5,54,10,54		2,46,53, 5, 0	
		1,37,10,14,21,54,58,38		7, 6
10″	38, 2,44,10,46,12,27,49, 9,32		2,46,53,12, 6	
		1,37,10,11,35, 1,46,32		7, 6
12″	38, 2,45,47,56,24, 2,50,56, 4		2,46,53,19,12	
		1,37,10, 8,48, 8,27,20		7, 6
14″	38, 2,47,25, 6,32,50,59,23,24		2,46,53,26,18	
		1,37,10, 6, 1,15, 1, 2		7, 6
16″	38, 2,49, 2,16,38,52,14,24,26		2,46,53,33,24	
		1,37,10, 3,14,21,27,38		7, 6
18″	38, 2,50,39,26,42, 6,35,52, 4		2,46,53,40,30	
		1,37,10, 0,27,27,47, 8		7, 6
20″	38, 2,52,16,36,42,34, 3,39,12		2,46,53,47,36	
		1,37, 9,57,40,33,59,32		7, 6
22″	38, 2,53,53,46,40,14,37,38,44		2,46,53,54,42	
		1,37, 9,54,53,40, 4,50		7, 6
24″	38, 2,55,30,56,35, 8,17,43,34		2,46,54, 1,48	
		1,37, 9,52, 6,46, 3, 2		7, 6
26″	38, 2,57, 8, 6,27,15, 3,46,36		2,46,54, 8,54	
		1,37, 9,49,19,51,54, 8		7, 6
28″	38, 2,58,45,16,16,34,55,40,44		2,46,54,16, 0	
		1,37, 9,46,32,57,38, 8		7, 6
30″	38, 3, 0,22,26, 3, 7,53,18,52		2,46,54,23, 6	
		1,37, 9,43,46, 3,15, 2		7, 6
32″	38, 3, 1,59,35,46,53,56,33,54		2,46,54,30,12	
		1,37, 9,40,59, 8,44,50		7, 6
34″	38, 3, 3,36,45,27,53, 5,18,44		2,46,54,37,18	
		1,37, 9,38,12,14, 7,32		7, 6
36″	38, 3, 5,13,55, 6, 5,19,26,16		2,46,54,44,24	
		1,37, 9,35,25,19,23, 8		7, 6
38″	38, 3, 6,51, 4,41,30,38,49,24		2,46,54,51,30	
		1,37, 9,32,38,24,31,38		7, 6
40″	38, 3, 8,28,14,14, 9, 3,21, 2		2,46,54,58,36	
		1,37, 9,29,51,29,33, 2		7, 6
42″	38, 3,10, 5,23,44, 0,32,54, 4		2,46,55, 5,42	
		1,37, 9,27, 4,34,27,20		7, 6
44″	38, 3,11,42,33,11, 5, 7,21,24		2,46,55,12,48	
		1,37, 9,24,17,39,14,32		7, 6
46″	38, 3,13,19,42,35,22,46,35,56		2,46,55,19,54	
		1,37, 9,21,30,43,54,38		7, 6
48″	38, 3,14,56,51,56,53,30,30,34		2,46,55,27, 0	
		1,37, 9,18,43,48,27,38		7, 6
50″	38, 3,16,34, 1,15,37,18,58,12		2,46,55,34, 6	
		1,37, 9,15,56,52,53,32		7, 6
52″	38, 3,18,11,10,31,34,11,51,44		2,46,55,41,12	
		1,37, 9,13, 9,57,12,20		7, 6
54″	38, 3,19,48,19,44,44, 9, 4, 4		2,46,55,48,18	
		1,37, 9,10,23, 1,24, 2		7, 6
56″	38, 3,21,25,28,55, 7,10,28, 6		2,46,55,55,24	
		1,37, 9, 7,36, 5,28,38		7, 6
58″	38, 3,23, 2,38, 2,43,15,56,44		2,46,56, 2,30	
		1,37, 9, 4,49, 9,26, 8		
60″	38, 3,24,39,47, 7,32,25,22,52			
exact	38, 3,24,39,47, 7,32,25, 6,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°22′ 0″	38, 3,24,39,47, 7,32,25, 6,22			
		1,37, 9, 2, 2,13,14,52		
2″	38, 3,26,16,56, 9,34,38,21,14		2,46,56,16,48	
		1,37, 8,59,15,16,58, 4		7, 6
4″	38, 3,27,54, 5, 8,49,55,19,18		2,46,56,23,54	
		1,37, 8,56,28,20,34,10		7, 6
6″	38, 3,29,31,14, 5,18,15,53,28		2,46,56,31, 0	
		1,37, 8,53,41,24, 3,10		7, 6
8″	38, 3,31, 8,22,58,59,39,56,38		2,46,56,38, 6	
		1,37, 8,50,54,27,25, 4		7, 6
10″	38, 3,32,45,31,49,54, 7,21,42		2,46,56,45,12	
		1,37, 8,48, 7,30,39,52		7, 6
12″	38, 3,34,22,40,38, 1,38, 1,34		2,46,56,52,18	
		1,37, 8,45,20,33,47,34		7, 6
14″	38, 3,35,59,49,23,22,11,49, 8		2,46,56,59,24	
		1,37, 8,42,33,36,48,10		7, 6
16″	38, 3,37,36,58, 5,55,48,37,18		2,46,57, 6,30	
		1,37, 8,39,46,39,41,40		7, 6
18″	38, 3,39,14, 6,45,42,28,18,58		2,46,57,13,36	
		1,37, 8,36,59,42,28, 4		7, 6
20″	38, 3,40,51,15,22,42,10,47, 2		2,46,57,20,42	
		1,37, 8,34,12,45, 7,22		7, 6
22″	38, 3,42,28,23,56,54,55,54,24		2,46,57,27,48	
		1,37, 8,31,25,47,39,34		7, 6
24″	38, 3,44, 5,32,28,20,43,33,58		2,46,57,34,54	
		1,37, 8,28,38,50, 4,40		7, 6
26″	38, 3,45,42,40,56,59,33,38,38		2,46,57,42, 0	
		1,37, 8,25,51,52,22,40		7, 6
28″	38, 3,47,19,49,22,51,26, 1,18		2,46,57,49, 6	
		1,37, 8,23, 4,54,33,34		7, 6
30″	38, 3,48,56,57,45,56,20,34,52		2,46,57,56,12	
		1,37, 8,20,17,56,37,22		7, 6
32″	38, 3,50,34, 6, 6,14,17,12,14		2,46,58, 3,18	
		1,37, 8,17,30,58,34, 4		7, 6
34″	38, 3,52,11,14,23,45,15,46,18		2,46,58,10,24	
		1,37, 8,14,44, 0,23,40		7, 6
36″	38, 3,53,48,22,38,29,16, 9,58		2,46,58,17,30	
		1,37, 8,11,57, 2, 6,10		7, 6
38″	38, 3,55,25,30,50,26,18,16, 8		2,46,58,24,36	
		1,37, 8, 9,10, 3,41,34		7, 6
40″	38, 3,57, 2,38,59,36,21,57,42		2,46,58,31,42	
		1,37, 8, 6,23, 5, 9,52		7, 6
42″	38, 3,58,39,47, 5,59,27, 7,34		2,46,58,38,48	
		1,37, 8, 3,36, 6,31, 4		7, 6
44″	38, 4, 0,16,55, 9,35,33,38,38		2,46,58,45,54	
		1,37, 8, 0,49, 7,45,10		7, 6
46″	38, 4, 1,54, 3,10,24,41,23,48		2,46,58,53, 0	
		1,37, 7,58, 2, 8,52,10		7, 6
48″	38, 4, 3,31,11, 8,26,50,15,58		2,46,59, 0, 6	
		1,37, 7,55,15, 9,52, 4		7, 6
50″	38, 4, 5, 8,19, 3,42, 0, 8, 2		2,46,59, 7,12	
		1,37, 7,52,28,10,44,52		7, 6
52″	38, 4, 6,45,26,56,10,10,52,54		2,46,59,14,18	
		1,37, 7,49,41,11,30,34		7, 6
54″	38, 4, 8,22,34,45,51,22,23,28		2,46,59,21,24	
		1,37, 7,46,54,12, 9,10		7, 6
56″	38, 4, 9,59,42,32,45,34,32,38		2,46,59,28,30	
		1,37, 7,44, 7,12,40,40		7, 6
58″	38, 4,11,36,50,16,52,47,13,18		2,46,59,35,36	
		1,37, 7,41,20,13, 5, 4		
60″	38, 4,13,13,57,58,13, 0,18,22			
exact	38, 4,13,13,57,58,13, 0, 8,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°23′ 0″	38, 4,13,13,57,58,13, 0, 8,51			
		1,37, 7,38,33,13,21,27		
2″	38, 4,14,51, 5,36,46,13,30,18		2,46,59,49,51	
		1,37, 7,35,46,13,31,36		7, 6
4″	38, 4,16,28,13,12,32,27, 1,54		2,46,59,56,57	
		1,37, 7,32,59,13,34,39		7, 6
6″	38, 4,18, 5,20,45,31,40,36,33		2,47, 0, 4, 3	
		1,37, 7,30,12,13,30,36		7, 6
8″	38, 4,19,42,28,15,43,54, 7, 9		2,47, 0,11, 9	
		1,37, 7,27,25,13,19,27		7, 6
10″	38, 4,21,19,35,43, 9, 7,26,36		2,47, 0,18,15	
		1,37, 7,24,38,13, 1,12		7, 6
12″	38, 4,22,56,43, 7,47,20,27,48		2,47, 0,25,21	
		1,37, 7,21,51,12,35,51		7, 6
14″	38, 4,24,33,50,29,38,33, 3,39		2,47, 0,32,27	
		1,37, 7,19, 4,12, 3,24		7, 6
16″	38, 4,26,10,57,48,42,45, 7, 3		2,47, 0,39,33	
		1,37, 7,16,17,11,23,51		7, 6
18″	38, 4,27,48, 5, 4,59,56,30,54		2,47, 0,46,39	
		1,37, 7,13,30,10,37,12		7, 6
20″	38, 4,29,25,12,18,30, 7, 8, 6		2,47, 0,53,45	
		1,37, 7,10,43, 9,43,27		7, 6
22″	38, 4,31, 2,19,29,13,16,51,33		2,47, 1, 0,51	
		1,37, 7, 7,56, 8,42,36		7, 6
24″	38, 4,32,39,26,37, 9,25,34, 9		2,47, 1, 7,57	
		1,37, 7, 5, 9, 7,34,39		7, 6
26″	38, 4,34,16,33,42,18,33, 8,48		2,47, 1,15, 3	
		1,37, 7, 2,22, 6,19,36		7, 6
28″	38, 4,35,53,40,44,40,39,28,24		2,47, 1,22, 9	
		1,37, 6,59,35, 4,57,27		7, 6
30″	38, 4,37,30,47,44,15,44,25,51		2,47, 1,29,15	
		1,37, 6,56,48, 3,28,12		7, 6
32″	38, 4,39, 7,54,41, 3,47,54, 3		2,47, 1,36,21	
		1,37, 6,54, 1, 1,51,51		7, 6
34″	38, 4,40,45, 1,35, 4,49,45,54		2,47, 1,43,27	
		1,37, 6,51,14, 0, 8,24		7, 6
36″	38, 4,42,22, 8,26,18,49,54,18		2,47, 1,50,33	
		1,37, 6,48,26,58,17,51		7, 6
38″	38, 4,43,59,15,14,45,48,12, 9		2,47, 1,57,39	
		1,37, 6,45,39,56,20,12		7, 6
40″	38, 4,45,36,22, 0,25,44,32,21		2,47, 2, 4,45	
		1,37, 6,42,52,54,15,27		7, 6
42″	38, 4,47,13,28,43,18,38,47,48		2,47, 2,11,51	
		1,37, 6,40, 5,52, 3,36		7, 6
44″	38, 4,48,50,35,23,24,30,51,24		2,47, 2,18,57	
		1,37, 6,37,18,49,44,39		7, 6
46″	38, 4,50,27,42, 0,43,20,36, 3		2,47, 2,26, 3	
		1,37, 6,34,31,47,18,36		7, 6
48″	38, 4,52, 4,48,35,15, 7,54,39		2,47, 2,33, 9	
		1,37, 6,31,44,44,45,27		7, 6
50″	38, 4,53,41,55, 6,59,52,40, 6		2,47, 2,40,15	
		1,37, 6,28,57,42, 5,12		7, 6
52″	38, 4,55,19, 1,35,57,34,45,18		2,47, 2,47,21	
		1,37, 6,26,10,39,17,51		7, 6
54″	38, 4,56,56, 8, 2, 8,14, 3, 9		2,47, 2,54,27	
		1,37, 6,23,23,36,23,24		7, 6
56″	38, 4,58,33,14,25,31,50,26,33		2,47, 3, 1,33	
		1,37, 6,20,36,33,21,51		7, 6
58″	38, 5, 0,10,20,46, 8,23,48,24		2,47, 3, 8,39	
		1,37, 6,17,49,30,13,12		
60″	38, 5, 1,47,27, 3,57,54, 1,36			
exact	38, 5, 1,47,27, 3,57,53,59,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°24′ 0″	38, 5, 1,47,27, 3,57,53,59,26			
		1,37, 6,15, 2,26,57,18		
2″	38, 5, 3,24,33,19, 0,20,56,44		2,47, 3,22,51	
		1,37, 6,12,15,23,34,27		7, 6
4″	38, 5, 5, 1,39,31,15,44,31,11		2,47, 3,29,57	
		1,37, 6, 9,28,20, 4,30		7, 6
6″	38, 5, 6,38,45,40,44, 4,35,41		2,47, 3,37, 3	
		1,37, 6, 6,41,16,27,27		7, 6
8″	38, 5, 8,15,51,47,25,21, 3, 8		2,47, 3,44, 9	
		1,37, 6, 3,54,12,43,18		7, 6
10″	38, 5, 9,52,57,51,19,33,46,26		2,47, 3,51,15	
		1,37, 6, 1, 7, 8,52, 3		7, 6
12″	38, 5,11,30, 3,52,26,42,38,29		2,47, 3,58,21	
		1,37, 5,58,20, 4,53,42		7, 6
14″	38, 5,13, 7, 9,50,46,47,32,11		2,47, 4, 5,27	
		1,37, 5,55,33, 0,48,15		7, 6
16″	38, 5,14,44,15,46,19,48,20,26		2,47, 4,12,33	
		1,37, 5,52,45,56,35,42		7, 6
18″	38, 5,16,21,21,39, 5,44,56, 8		2,47, 4,19,39	
		1,37, 5,49,58,52,16, 3		7, 6
20″	38, 5,17,58,27,29, 4,37,12,11		2,47, 4,26,45	
		1,37, 5,47,11,47,49,18		7, 6
22″	38, 5,19,35,33,16,16,25, 1,29		2,47, 4,33,51	
		1,37, 5,44,24,43,15,27		7, 6
24″	38, 5,21,12,39, 0,41, 8,16,56		2,47, 4,40,57	
		1,37, 5,41,37,38,34,30		7, 6
26″	38, 5,22,49,44,42,18,46,51,26		2,47, 4,48, 3	
		1,37, 5,38,50,33,46,27		7, 6
28″	38, 5,24,26,50,21, 9,20,37,53		2,47, 4,55, 9	
		1,37, 5,36, 3,28,51,18		7, 6
30″	38, 5,26, 3,55,57,12,49,29,11		2,47, 5, 2,15	
		1,37, 5,33,16,23,49, 3		7, 6
32″	38, 5,27,41, 1,30,29,13,18,14		2,47, 5, 9,21	
		1,37, 5,30,29,18,39,42		7, 6
34″	38, 5,29,18, 7, 0,58,31,57,56		2,47, 5,16,27	
		1,37, 5,27,42,13,23,15		7, 6
36″	38, 5,30,55,12,28,40,45,21,11		2,47, 5,23,33	
		1,37, 5,24,55, 7,59,42		7, 6
38″	38, 5,32,32,17,53,35,53,20,53		2,47, 5,30,39	
		1,37, 5,22, 8, 2,29, 3		7, 6
40″	38, 5,34, 9,23,15,43,55,49,56		2,47, 5,37,45	
		1,37, 5,19,20,56,51,18		7, 6
42″	38, 5,35,46,28,35, 4,52,41,14		2,47, 5,44,51	
		1,37, 5,16,33,51, 6,27		7, 6
44″	38, 5,37,23,33,51,38,43,47,41		2,47, 5,51,57	
		1,37, 5,13,46,45,14,30		7, 6
46″	38, 5,39, 0,39, 5,25,29, 2,11		2,47, 5,59, 3	
		1,37, 5,10,59,39,15,27		7, 6
48″	38, 5,40,37,44,16,25, 8,17,38		2,47, 6, 6, 9	
		1,37, 5, 8,12,33, 9,18		7, 6
50″	38, 5,42,14,49,24,37,41,26,56		2,47, 6,13,15	
		1,37, 5, 5,25,26,56, 3		7, 6
52″	38, 5,43,51,54,30, 3, 8,22,59		2,47, 6,20,21	
		1,37, 5, 2,38,20,35,42		7, 6
54″	38, 5,45,28,59,32,41,28,58,41		2,47, 6,27,27	
		1,37, 4,59,51,14, 8,15		7, 6
56″	38, 5,47, 6, 4,32,32,43, 6,56		2,47, 6,34,33	
		1,37, 4,57, 4, 7,33,42		7, 6
58″	38, 5,48,43, 9,29,36,50,40,38		2,47, 6,41,39	
		1,37, 4,54,17, 0,52, 3		
60″	38, 5,50,20,14,23,53,51,32,41			
exact	38, 5,50,20,14,23,53,51,38,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°25′ 0″	38, 5,50,20,14,23,53,51,38,28	1,37, 4,51,29,54, 3,58		
2″	38, 5,51,57,19,15,23,45,42,26	1,37, 4,48,42,47, 8,10	2,47, 6,55,48	7, 6
4″	38, 5,53,34,24, 4, 6,32,50,36	1,37, 4,45,55,40, 5,16	2,47, 7, 2,54	7, 6
6″	38, 5,55,11,28,50, 2,12,55,52	1,37, 4,43, 8,32,55,16	2,47, 7,10, 0	7, 6
8″	38, 5,56,48,33,33,10,45,51, 8	1,37, 4,40,21,25,38,10	2,47, 7,17, 6	7, 6
10″	38, 5,58,25,38,13,32,11,29,18	1,37, 4,37,34,18,13,58	2,47, 7,24,12	7, 6
12″	38, 6, 0, 2,42,51, 6,29,43,16	1,37, 4,34,47,10,42,40	2,47, 7,31,18	7, 6
14″	38, 6, 1,39,47,25,53,40,25,56	1,37, 4,32, 0, 3, 4,16	2,47, 7,38,24	7, 6
16″	38, 6, 3,16,51,57,53,43,30,12	1,37, 4,29,12,55,18,46	2,47, 7,45,30	7, 6
18″	38, 6, 4,53,56,27, 6,38,48,58	1,37, 4,26,25,47,26,10	2,47, 7,52,36	7, 6
20″	38, 6, 6,31, 0,53,32,26,15, 8	1,37, 4,23,38,39,26,28	2,47, 7,59,42	7, 6
22″	38, 6, 8, 8, 5,17,11, 5,41,36	1,37, 4,20,51,31,19,40	2,47, 8, 6,48	7, 6
24″	38, 6, 9,45, 9,38, 2,37, 1,16	1,37, 4,18, 4,23, 5,46	2,47, 8,13,54	7, 6
26″	38, 6,11,22,13,56, 7, 0, 7, 2	1,37, 4,15,17,14,44,46	2,47, 8,21, 0	7, 6
28″	38, 6,12,59,18,11,24,14,51,48	1,37, 4,12,30, 6,16,40	2,47, 8,28, 6	7, 6
30″	38, 6,14,36,22,23,54,21, 8,28	1,37, 4, 9,42,57,41,28	2,47, 8,35,12	7, 6
32″	38, 6,16,13,26,33,37,18,49,56	1,37, 4, 6,55,48,59,10	2,47, 8,42,18	7, 6
34″	38, 6,17,50,30,40,33, 7,49, 6	1,37, 4, 4, 8,40, 9,46	2,47, 8,49,24	7, 6
36″	38, 6,19,27,34,44,41,47,58,52	1,37, 4, 1,21,31,13,16	2,47, 8,56,30	7, 6
38″	38, 6,21, 4,38,46, 3,19,12, 8	1,37, 3,58,34,22, 9,40	2,47, 9, 3,36	7, 6
40″	38, 6,22,41,42,44,37,41,21,48	1,37, 3,55,47,12,58,58	2,47, 9,10,42	7, 6
42″	38, 6,24,18,46,40,24,54,20,46	1,37, 3,53, 0, 3,41,10	2,47, 9,17,48	7, 6
44″	38, 6,25,55,50,33,24,58, 1,56	1,37, 3,50,12,54,16,16	2,47, 9,24,54	7, 6
46″	38, 6,27,32,54,23,37,52,18,12	1,37, 3,47,25,44,44,16	2,47, 9,32, 0	7, 6
48″	38, 6,29, 9,58,11, 3,37, 2,28	1,37, 3,44,38,35, 5,10	2,47, 9,39, 6	7, 6
50″	38, 6,30,47, 1,55,42,12, 7,38	1,37, 3,41,51,25,18,58	2,47, 9,46,12	7, 6
52″	38, 6,32,24, 5,37,33,37,26,36	1,37, 3,39, 4,15,25,40	2,47, 9,53,18	7, 6
54″	38, 6,34, 1, 9,16,37,52,52,16	1,37, 3,36,17, 5,25,16	2,47,10, 0,24	7, 6
56″	38, 6,35,38,12,52,54,58,17,32	1,37, 3,33,29,55,17,46	2,47,10, 7,30	7, 6
58″	38, 6,37,15,16,26,24,53,35,18	1,37, 3,30,42,45, 3,10	2,47,10,14,36	
60″	38, 6,38,52,19,57, 7,38,38,28			
exact	38, 6,38,52,19,57, 7,38,52, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°26′ 0″	38, 6,38,52,19,57, 7,38,52, 9			
		1,37, 3,27,55,34,42,57		
2″	38, 6,40,29,23,25, 3,13,35, 6		2,47,10,28,42	
		1,37, 3,25, 8,24,14,15		7, 6
4″	38, 6,42, 6,26,50,11,37,49,21		2,47,10,35,48	
		1,37, 3,22,21,13,38,27		7, 6
6″	38, 6,43,43,30,12,32,51,27,48		2,47,10,42,54	
		1,37, 3,19,34, 2,55,33		7, 6
8″	38, 6,45,20,33,32, 6,54,23,21		2,47,10,50, 0	
		1,37, 3,16,46,52, 5,33		7, 6
10″	38, 6,46,57,36,48,53,46,28,54		2,47,10,57, 6	
		1,37, 3,13,59,41, 8,27		7, 6
12″	38, 6,48,34,40, 2,53,27,37,21		2,47,11, 4,12	
		1,37, 3,11,12,30, 4,15		7, 6
14″	38, 6,50,11,43,14, 5,57,41,36		2,47,11,11,18	
		1,37, 3, 8,25,18,52,57		7, 6
16″	38, 6,51,48,46,22,31,16,34,33		2,47,11,18,24	
		1,37, 3, 5,38, 7,34,33		7, 6
18″	38, 6,53,25,49,28, 9,24, 9, 6		2,47,11,25,30	
		1,37, 3, 2,50,56, 9, 3		7, 6
20″	38, 6,55, 2,52,31, 0,20,18, 9		2,47,11,32,36	
		1,37, 3, 0, 3,44,36,27		7, 6
22″	38, 6,56,39,55,31, 4, 4,54,36		2,47,11,39,42	
		1,37, 2,57,16,32,56,45		7, 6
24″	38, 6,58,16,58,28,20,37,51,21		2,47,11,46,48	
		1,37, 2,54,29,21, 9,57		7, 6
26″	38, 6,59,54, 1,22,49,59, 1,18		2,47,11,53,54	
		1,37, 2,51,42, 9,16, 3		7, 6
28″	38, 7, 1,31, 4,14,32, 8,17,21		2,47,12, 1, 0	
		1,37, 2,48,54,57,15, 3		7, 6
30″	38, 7, 3, 8, 7, 3,27, 5,32,24		2,47,12, 8, 6	
		1,37, 2,46, 7,45, 6,57		7, 6
32″	38, 7, 4,45, 9,49,34,50,39,21		2,47,12,15,12	
		1,37, 2,43,20,32,51,45		7, 6
34″	38, 7, 6,22,12,32,55,23,31, 6		2,47,12,22,18	
		1,37, 2,40,33,20,29,27		7, 6
36″	38, 7, 7,59,15,13,28,44, 0,33		2,47,12,29,24	
		1,37, 2,37,46, 8, 0, 3		7, 6
38″	38, 7, 9,36,17,51,14,52, 0,36		2,47,12,36,30	
		1,37, 2,34,58,55,23,33		7, 6
40″	38, 7,11,13,20,26,13,47,24, 9		2,47,12,43,36	
		1,37, 2,32,11,42,39,57		7, 6
42″	38, 7,12,50,22,58,25,30, 4, 6		2,47,12,50,42	
		1,37, 2,29,24,29,49,15		7, 6
44″	38, 7,14,27,25,27,49,59,53,21		2,47,12,57,48	
		1,37, 2,26,37,16,51,27		7, 6
46″	38, 7,16, 4,27,54,27,16,44,48		2,47,13, 4,54	
		1,37, 2,23,50, 3,46,33		7, 6
48″	38, 7,17,41,30,18,17,20,31,21		2,47,13,12, 0	
		1,37, 2,21, 2,50,34,33		7, 6
50″	38, 7,19,18,32,39,20,11, 5,54		2,47,13,19, 6	
		1,37, 2,18,15,37,15,27		7, 6
52″	38, 7,20,55,34,57,35,48,21,21		2,47,13,26,12	
		1,37, 2,15,28,23,49,15		7, 6
54″	38, 7,22,32,37,13, 4,12,10,36		2,47,13,33,18	
		1,37, 2,12,41,10,15,57		7, 6
56″	38, 7,24, 9,39,25,45,22,26,33		2,47,13,40,24	
		1,37, 2, 9,53,56,35,33		7, 6
58″	38, 7,25,46,41,35,39,19, 2, 6		2,47,13,47,30	
		1,37, 2, 7, 6,42,48, 3		
60″	38, 7,27,23,43,42,46, 1,50, 9			
exact	38, 7,27,23,43,42,46, 2,12,27			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
39°27′	0″	38, 7,27,23,43,42,46, 2,12,27			
			1,37, 2, 4,19,28,55,47		
	2″	38, 7,29, 0,45,47, 5,31, 8,14		2,47,14, 1,32	
			1,37, 2, 1,32,14,54,15		7, 6
	4″	38, 7,30,37,47,48,37,46, 2,29		2,47,14, 8,38	
			1,37, 1,58,45, 0,45,37		7, 6
	6″	38, 7,32,14,49,47,22,46,48, 6		2,47,14,15,44	
			1,37, 1,55,57,46,29,53		7, 6
	8″	38, 7,33,51,51,43,20,33,17,59		2,47,14,22,50	
			1,37, 1,53,10,32, 7, 3		7, 6
	10″	38, 7,35,28,53,36,31, 5,25, 2		2,47,14,29,56	
			1,37, 1,50,23,17,37, 7		7, 6
	12″	38, 7,37, 5,55,26,54,23, 2, 9		2,47,14,37, 2	
			1,37, 1,47,36, 3, 0, 5		7, 6
	14″	38, 7,38,42,57,14,30,26, 2,14		2,47,14,44, 8	
			1,37, 1,44,48,48,15,57		7, 6
	16″	38, 7,40,19,58,59,19,14,18,11		2,47,14,51,14	
			1,37, 1,42, 1,33,24,43		7, 6
	18″	38, 7,41,57, 0,41,20,47,42,54		2,47,14,58,20	
			1,37, 1,39,14,18,26,23		7, 6
	20″	38, 7,43,34, 2,20,35, 6, 9,17		2,47,15, 5,26	
			1,37, 1,36,27, 3,20,57		7, 6
	22″	38, 7,45,11, 3,57, 2, 9,30,14		2,47,15,12,32	
			1,37, 1,33,39,48, 8,25		7, 6
	24″	38, 7,46,48, 5,30,41,57,38,39		2,47,15,19,38	
			1,37, 1,30,52,32,48,47		7, 6
	26″	38, 7,48,25, 7, 1,34,30,27,26		2,47,15,26,44	
			1,37, 1,28, 5,17,22, 3		7, 6
	28″	38, 7,50, 2, 8,29,39,47,49,29		2,47,15,33,50	
			1,37, 1,25,18, 1,48,13		7, 6
	30″	38, 7,51,39, 9,54,57,49,37,42		2,47,15,40,56	
			1,37, 1,22,30,46, 7,17		7, 6
	32″	38, 7,53,16,11,17,28,35,44,59		2,47,15,48, 2	
			1,37, 1,19,43,30,19,15		7, 6
	34″	38, 7,54,53,12,37,12, 6, 4,14		2,47,15,55, 8	
			1,37, 1,16,56,14,24, 7		7, 6
	36″	38, 7,56,30,13,54, 8,20,28,21		2,47,16, 2,14	
			1,37, 1,14, 8,58,21,53		7, 6
	38″	38, 7,58, 7,15, 8,17,18,50,14		2,47,16, 9,20	
			1,37, 1,11,21,42,12,33		7, 6
	40″	38, 7,59,44,16,19,39, 1, 2,47		2,47,16,16,26	
			1,37, 1, 8,34,25,56, 7		7, 6
	42″	38, 8, 1,21,17,28,13,26,58,54		2,47,16,23,32	
			1,37, 1, 5,47, 9,32,35		7, 6
	44″	38, 8, 2,58,18,34, 0,36,31,29		2,47,16,30,38	
			1,37, 1, 2,59,53, 1,57		7, 6
	46″	38, 8, 4,35,19,37, 0,29,33,26		2,47,16,37,44	
			1,37, 1, 0,12,36,24,13		7, 6
	48″	38, 8, 6,12,20,37,13, 5,57,39		2,47,16,44,50	
			1,37, 0,57,25,19,39,23		7, 6
	50″	38, 8, 7,49,21,34,38,25,37, 2		2,47,16,51,56	
			1,37, 0,54,38, 2,47,27		7, 6
	52″	38, 8, 9,26,22,29,16,28,24,29		2,47,16,59, 2	
			1,37, 0,51,50,45,48,25		7, 6
	54″	38, 8,11, 3,23,21, 7,14,12,54		2,47,17, 6, 8	
			1,37, 0,49, 3,28,42,17		7, 6
	56″	38, 8,12,40,24,10,10,42,55,11		2,47,17,13,14	
			1,37, 0,46,16,11,29, 3		7, 6
	58″	38, 8,14,17,24,56,26,54,24,14		2,47,17,20,20	
			1,37, 0,43,28,54, 8,43		
	60″	38, 8,15,54,25,39,55,48,32,57			
exact		38, 8,15,54,25,39,55,48,57,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°28′ 0″	38, 8,15,54,25,39,55,48,57,13	1,37, 0,40,41,36,44, 1		
2″	38, 8,17,31,26,20,37,25,41,14	1,37, 0,37,54,19, 9,41	2,47,17,34,20	7, 6
4″	38, 8,19, 8,26,58,31,44,50,55	1,37, 0,35, 7, 1,28,15	2,47,17,41,26	7, 6
6″	38, 8,20,45,27,33,38,46,19,10	1,37, 0,32,19,43,39,43	2,47,17,48,32	7, 6
8″	38, 8,22,22,28, 5,58,29,58,53	1,37, 0,29,32,25,44, 5	2,47,17,55,38	7, 6
10″	38, 8,23,59,28,35,30,55,42,58	1,37, 0,26,45, 7,41,21	2,47,18, 2,44	7, 6
12″	38, 8,25,36,29, 2,16, 3,24,19	1,37, 0,23,57,49,31,31	2,47,18, 9,50	7, 6
14″	38, 8,27,13,29,26,13,52,55,50	1,37, 0,21,10,31,14,35	2,47,18,16,56	7, 6
16″	38, 8,28,50,29,47,24,24,10,25	1,37, 0,18,23,12,50,33	2,47,18,24, 2	7, 6
18″	38, 8,30,27,30, 5,47,37, 0,58	1,37, 0,15,35,54,19,25	2,47,18,31, 8	7, 6
20″	38, 8,32, 4,30,21,23,31,20,23	1,37, 0,12,48,35,41,11	2,47,18,38,14	7, 6
22″	38, 8,33,41,30,34,12, 7, 1,34	1,37, 0,10, 1,16,55,51	2,47,18,45,20	7, 6
24″	38, 8,35,18,30,44,13,23,57,25	1,37, 0, 7,13,58, 3,25	2,47,18,52,26	7, 6
26″	38, 8,36,55,30,51,27,22, 0,50	1,37, 0, 4,26,39, 3,53	2,47,18,59,32	7, 6
28″	38, 8,38,32,30,55,54, 1, 4,43	1,37, 0, 1,39,19,57,15	2,47,19, 6,38	7, 6
30″	38, 8,40, 9,30,57,33,21, 1,58	1,36,59,58,52, 0,43,31	2,47,19,13,44	7, 6
32″	38, 8,41,46,30,56,25,21,45,29	1,36,59,56, 4,41,22,41	2,47,19,20,50	7, 6
34″	38, 8,43,23,30,52,30, 3, 8,10	1,36,59,53,17,21,54,45	2,47,19,27,56	7, 6
36″	38, 8,45, 0,30,45,47,25, 2,55	1,36,59,50,30, 2,19,43	2,47,19,35, 2	7, 6
38″	38, 8,46,37,30,36,17,27,22,38	1,36,59,47,42,42,37,35	2,47,19,42, 8	7, 6
40″	38, 8,48,14,30,24, 0,10, 0,13	1,36,59,44,55,22,48,21	2,47,19,49,14	7, 6
42″	38, 8,49,51,30, 8,55,32,48,34	1,36,59,42, 8, 2,52, 1	2,47,19,56,20	7, 6
44″	38, 8,51,28,29,51, 3,35,40,35	1,36,59,39,20,42,48,35	2,47,20, 3,26	7, 6
46″	38, 8,53, 5,29,30,24,18,29,10	1,36,59,36,33,22,38, 3	2,47,20,10,32	7, 6
48″	38, 8,54,42,29, 6,57,41, 7,13	1,36,59,33,46, 2,20,25	2,47,20,17,38	7, 6
50″	38, 8,56,19,28,40,43,43,27,38	1,36,59,30,58,41,55,41	2,47,20,24,44	7, 6
52″	38, 8,57,56,28,11,42,25,23,19	1,36,59,28,11,21,23,51	2,47,20,31,50	7, 6
54″	38, 8,59,33,27,39,53,46,47,10	1,36,59,25,24, 0,44,55	2,47,20,38,56	7, 6
56″	38, 9, 1,10,27, 5,17,47,32, 5	1,36,59,22,36,39,58,53	2,47,20,46, 2	7, 6
58″	38, 9, 2,47,26,27,54,27,30,58	1,36,59,19,49,19, 5,45	2,47,20,53, 8	
60″	38, 9, 4,24,25,47,43,46,36,43			
exact	38, 9, 4,24,25,47,43,47,10, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°29′ 0″	38, 9, 4,24,25,47,43,47,10, 5	1,36,59,17, 1,58, 9, 9		
2″	38, 9, 6, 1,25, 4,45,45,19,14	1,36,59,14,14,37, 2, 4	2,47,21, 7, 5	7, 5
4″	38, 9, 7,38,24,19, 0,22,21,18	1,36,59,11,27,15,47,54	2,47,21,14,10	7, 5
6″	38, 9, 9,15,23,30,27,38, 9,12	1,36,59, 8,39,54,26,39	2,47,21,21,15	7, 5
8″	38, 9,10,52,22,39, 7,32,35,51	1,36,59, 5,52,32,58,19	2,47,21,28,20	7, 5
10″	38, 9,12,29,21,45, 0, 5,34,10	1,36,59, 3, 5,11,22,54	2,47,21,35,25	7, 5
12″	38, 9,14, 6,20,48, 5,16,57, 4	1,36,59, 0,17,49,40,24	2,47,21,42,30	7, 5
14″	38, 9,15,43,19,48,23, 6,37,28	1,36,58,57,30,27,50,49	2,47,21,49,35	7, 5
16″	38, 9,17,20,18,45,53,34,28,17	1,36,58,54,43, 5,54, 9	2,47,21,56,40	7, 5
18″	38, 9,18,57,17,40,36,40,22,26	1,36,58,51,55,43,50,24	2,47,22, 3,45	7, 5
20″	38, 9,20,34,16,32,32,24,12,50	1,36,58,49, 8,21,39,34	2,47,22,10,50	7, 5
22″	38, 9,22,11,15,21,40,45,52,24	1,36,58,46,20,59,21,39	2,47,22,17,55	7, 5
24″	38, 9,23,48,14, 8, 1,45,14, 3	1,36,58,43,33,36,56,39	2,47,22,25, 0	7, 5
26″	38, 9,25,25,12,51,35,22,10,42	1,36,58,40,46,14,24,34	2,47,22,32, 5	7, 5
28″	38, 9,27, 2,11,32,21,36,35,16	1,36,58,37,58,51,45,24	2,47,22,39,10	7, 5
30″	38, 9,28,39,10,10,20,28,20,40	1,36,58,35,11,28,59, 9	2,47,22,46,15	7, 5
32″	38, 9,30,16, 8,45,31,57,19,49	1,36,58,32,24, 6, 5,49	2,47,22,53,20	7, 5
34″	38, 9,31,53, 7,17,56, 3,25,38	1,36,58,29,36,43, 5,24	2,47,23, 0,25	7, 5
36″	38, 9,33,30, 5,47,32,46,31, 2	1,36,58,26,49,19,57,54	2,47,23, 7,30	7, 5
38″	38, 9,35, 7, 4,14,22, 6,28,56	1,36,58,24, 1,56,43,19	2,47,23,14,35	7, 5
40″	38, 9,36,44, 2,38,24, 3,12,15	1,36,58,21,14,33,21,39	2,47,23,21,40	7, 5
42″	38, 9,38,21, 0,59,38,36,33,54	1,36,58,18,27, 9,52,54	2,47,23,28,45	7, 5
44″	38, 9,39,57,59,18, 5,46,26,48	1,36,58,15,39,46,17, 4	2,47,23,35,50	7, 5
46″	38, 9,41,34,57,33,45,32,43,52	1,36,58,12,52,22,34, 9	2,47,23,42,55	7, 5
48″	38, 9,43,11,55,46,37,55,18, 1	1,36,58,10, 4,58,44, 9	2,47,23,50, 0	7, 5
50″	38, 9,44,48,53,56,42,54, 2,10	1,36,58, 7,17,34,47, 4	2,47,23,57, 5	7, 5
52″	38, 9,46,25,52, 4, 0,28,49,14	1,36,58, 4,30,10,42,54	2,47,24, 4,10	7, 5
54″	38, 9,48, 2,50, 8,30,39,32, 8	1,36,58, 1,42,46,31,39	2,47,24,11,15	7, 5
56″	38, 9,49,39,48,10,13,26, 3,47	1,36,57,58,55,22,13,19	2,47,24,18,20	7, 5
58″	38, 9,51,16,46, 9, 8,48,17, 6	1,36,57,56, 7,57,47,54	2,47,24,25,25	
60″	38, 9,52,53,44, 5,16,46, 5, 0			
exact	38, 9,52,53,44, 5,16,45,40,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°30′ 0″	38, 9,52,53,44, 5,16,45,40,37	1,36,57,53,20,33,12,43		
2″	38, 9,54,30,41,58,37,18,53,20	1,36,57,50,33, 8,32,57	2,47,24,39,46	7, 5
4″	38, 9,56, 7,39,49,10,27,26,17	1,36,57,47,45,43,46, 6	2,47,24,46,51	7, 5
6″	38, 9,57,44,37,36,56,11,12,23	1,36,57,44,58,18,52,10	2,47,24,53,56	7, 5
8″	38, 9,59,21,35,21,54,30, 4,33	1,36,57,42,10,53,51, 9	2,47,25, 1, 1	7, 5
10″	38,10, 0,58,33, 4, 5,23,55,42	1,36,57,39,23,28,43, 3	2,47,25, 8, 6	7, 5
12″	38,10, 2,35,30,43,28,52,38,45	1,36,57,36,36, 3,27,52	2,47,25,15,11	7, 5
14″	38,10, 4,12,28,20, 4,56, 6,37	1,36,57,33,48,38, 5,36	2,47,25,22,16	7, 5
16″	38,10, 5,49,25,53,53,34,12,13	1,36,57,31, 1,12,36,15	2,47,25,29,21	7, 5
18″	38,10, 7,26,23,24,54,46,48,28	1,36,57,28,13,46,59,49	2,47,25,36,26	7, 5
20″	38,10, 9, 3,20,53, 8,33,48,17	1,36,57,25,26,21,16,18	2,47,25,43,31	7, 5
22″	38,10,10,40,18,18,34,55, 4,35	1,36,57,22,38,55,25,42	2,47,25,50,36	7, 5
24″	38,10,12,17,15,41,13,50,30,17	1,36,57,19,51,29,28, 1	2,47,25,57,41	7, 5
26″	38,10,13,54,13, 1, 5,19,58,18	1,36,57,17, 4, 3,23,15	2,47,26, 4,46	7, 5
28″	38,10,15,31,10,18, 9,23,21,33	1,36,57,14,16,37,11,24	2,47,26,11,51	7, 5
30″	38,10,17, 8, 7,32,26, 0,32,57	1,36,57,11,29,10,52,28	2,47,26,18,56	7, 5
32″	38,10,18,45, 4,43,55,11,25,25	1,36,57, 8,41,44,26,27	2,47,26,26, 1	7, 5
34″	38,10,20,22, 1,52,36,55,51,52	1,36,57, 5,54,17,53,21	2,47,26,33, 6	7, 5
36″	38,10,21,58,58,58,31,13,45,13	1,36,57, 3, 6,51,13,10	2,47,26,40,11	7, 5
38″	38,10,23,35,56, 1,38, 4,58,23	1,36,57, 0,19,24,25,54	2,47,26,47,16	7, 5
40″	38,10,25,12,53, 1,57,29,24,17	1,36,56,57,31,57,31,33	2,47,26,54,21	7, 5
42″	38,10,26,49,49,59,29,26,55,50	1,36,56,54,44,30,30, 7	2,47,27, 1,26	7, 5
44″	38,10,28,26,46,54,13,57,25,57	1,36,56,51,57, 3,21,36	2,47,27, 8,31	7, 5
46″	38,10,30, 3,43,46,11, 0,47,33	1,36,56,49, 9,36, 6, 0	2,47,27,15,36	7, 5
48″	38,10,31,40,40,35,20,36,53,33	1,36,56,46,22, 8,43,19	2,47,27,22,41	7, 5
50″	38,10,33,17,37,21,42,45,36,52	1,36,56,43,34,41,13,33	2,47,27,29,46	7, 5
52″	38,10,34,54,34, 5,17,26,50,25	1,36,56,40,47,13,36,42	2,47,27,36,51	7, 5
54″	38,10,36,31,30,46, 4,40,27, 7	1,36,56,37,59,45,52,46	2,47,27,43,56	7, 5
56″	38,10,38, 8,27,24, 4,26,19,53	1,36,56,35,12,18, 1,45	2,47,27,51, 1	7, 5
58″	38,10,39,45,23,59,16,44,21,38	1,36,56,32,24,50, 3,39	2,47,27,58, 6	
60″	38,10,41,22,20,31,41,34,25,17			
exact	38,10,41,22,20,31,41,34, 4,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°31′ 0″	38,10,41,22,20,31,41,34, 4,13			
		1,36,56,29,37,21,56,16		
2″	38,10,42,59,17, 1,18,56, 0,29		2,47,28,12,25	
		1,36,56,26,49,53,43,51		7, 5
4″	38,10,44,36,13,28, 8,49,44,20		2,47,28,19,30	
		1,36,56,24, 2,25,24,21		7, 5
6″	38,10,46,13, 9,52,11,15, 8,41		2,47,28,26,35	
		1,36,56,21,14,56,57,46		7, 5
8″	38,10,47,50, 6,13,26,12, 6,27		2,47,28,33,40	
		1,36,56,18,27,28,24, 6		7, 5
10″	38,10,49,27, 2,31,53,40,30,33		2,47,28,40,45	
		1,36,56,15,39,59,43,21		7, 5
12″	38,10,51, 3,58,47,33,40,13,54		2,47,28,47,50	
		1,36,56,12,52,30,55,31		7, 5
14″	38,10,52,40,55, 0,26,11, 9,25		2,47,28,54,55	
		1,36,56,10, 5, 2, 0,36		7, 5
16″	38,10,54,17,51,10,31,13,10, 1		2,47,29, 2, 0	
		1,36,56, 7,17,32,58,36		7, 5
18″	38,10,55,54,47,17,48,46, 8,37		2,47,29, 9, 5	
		1,36,56, 4,30, 3,49,31		7, 5
20″	38,10,57,31,43,22,18,49,58, 8		2,47,29,16,10	
		1,36,56, 1,42,34,33,21		7, 5
22″	38,10,59, 8,39,24, 1,24,31,29		2,47,29,23,15	
		1,36,55,58,55, 5,10, 6		7, 5
24″	38,11, 0,45,35,22,56,29,41,35		2,47,29,30,20	
		1,36,55,56, 7,35,39,46		7, 5
26″	38,11, 2,22,31,19, 4, 5,21,21		2,47,29,37,25	
		1,36,55,53,20, 6, 2,21		7, 5
28″	38,11, 3,59,27,12,24,11,23,42		2,47,29,44,30	
		1,36,55,50,32,36,17,51		7, 5
30″	38,11, 5,36,23, 2,56,47,41,33		2,47,29,51,35	
		1,36,55,47,45, 6,26,16		7, 5
32″	38,11, 7,13,18,50,41,54, 7,49		2,47,29,58,40	
		1,36,55,44,57,36,27,36		7, 5
34″	38,11, 8,50,14,35,39,30,35,25		2,47,30, 5,45	
		1,36,55,42,10, 6,21,51		7, 5
36″	38,11,10,27,10,17,49,36,57,16		2,47,30,12,50	
		1,36,55,39,22,36, 9, 1		7, 5
38″	38,11,12, 4, 5,57,12,13, 6,17		2,47,30,19,55	
		1,36,55,36,35, 5,49, 6		7, 5
40″	38,11,13,41, 1,33,47,18,55,23		2,47,30,27, 0	
		1,36,55,33,47,35,22, 6		7, 5
42″	38,11,15,17,57, 7,34,54,17,29		2,47,30,34, 5	
		1,36,55,31, 0, 4,48, 1		7, 5
44″	38,11,16,54,52,38,34,59, 5,30		2,47,30,41,10	
		1,36,55,28,12,34, 6,51		7, 5
46″	38,11,18,31,48, 6,47,33,12,21		2,47,30,48,15	
		1,36,55,25,25, 3,18,36		7, 5
48″	38,11,20, 8,43,32,12,36,30,57		2,47,30,55,20	
		1,36,55,22,37,32,23,16		7, 5
50″	38,11,21,45,38,54,50, 8,54,13		2,47,31, 2,25	
		1,36,55,19,50, 1,20,51		7, 5
52″	38,11,23,22,34,14,40,10,15, 4		2,47,31, 9,30	
		1,36,55,17, 2,30,11,21		7, 5
54″	38,11,24,59,29,31,42,40,26,25		2,47,31,16,35	
		1,36,55,14,14,58,54,46		7, 5
56″	38,11,26,36,24,45,57,39,21,11		2,47,31,23,40	
		1,36,55,11,27,27,31, 6		7, 5
58″	38,11,28,13,19,57,25, 6,52,17		2,47,31,30,45	
		1,36,55, 8,39,56, 0,21		
60″	38,11,29,50,15, 6, 5, 2,52,38			
exact	38,11,29,50,15, 6, 5, 2,42,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°32′ 0″	38,11,29,50,15, 6, 5, 2,42,11			
		1,36,55, 5,52,24,21,19		
2″	38,11,31,27,10,11,57,27, 3,30		2,47,31,45, 0	
		1,36,55, 3, 4,52,36,19		7, 5
4″	38,11,33, 4, 5,15, 2,19,39,49		2,47,31,52, 5	
		1,36,55, 0,17,20,44,14		7, 5
6″	38,11,34,41, 0,15,19,40,24, 3		2,47,31,59,10	
		1,36,54,57,29,48,45, 4		7, 5
8″	38,11,36,17,55,12,49,29, 9, 7		2,47,32, 6,15	
		1,36,54,54,42,16,38,49		7, 5
10″	38,11,37,54,50, 7,31,45,47,56		2,47,32,13,20	
		1,36,54,51,54,44,25,29		7, 5
12″	38,11,39,31,44,59,26,30,13,25		2,47,32,20,25	
		1,36,54,49, 7,12, 5, 4		7, 5
14″	38,11,41, 8,39,48,33,42,18,29		2,47,32,27,30	
		1,36,54,46,19,39,37,34		7, 5
16″	38,11,42,45,34,34,53,21,56, 3		2,47,32,34,35	
		1,36,54,43,32, 7, 2,59		7, 5
18″	38,11,44,22,29,18,25,28,59, 2		2,47,32,41,40	
		1,36,54,40,44,34,21,19		7, 5
20″	38,11,45,59,23,59,10, 3,20,21		2,47,32,48,45	
		1,36,54,37,57, 1,32,34		7, 5
22″	38,11,47,36,18,37, 7, 4,52,55		2,47,32,55,50	
		1,36,54,35, 9,28,36,44		7, 5
24″	38,11,49,13,13,12,16,33,29,39		2,47,33, 2,55	
		1,36,54,32,21,55,33,49		7, 5
26″	38,11,50,50, 7,44,38,29, 3,28		2,47,33,10, 0	
		1,36,54,29,34,22,23,49		7, 5
28″	38,11,52,27, 2,14,12,51,27,17		2,47,33,17, 5	
		1,36,54,26,46,49, 6,44		7, 5
30″	38,11,54, 3,56,40,59,40,34, 1		2,47,33,24,10	
		1,36,54,23,59,15,42,34		7, 5
32″	38,11,55,40,51, 4,58,56,16,35		2,47,33,31,15	
		1,36,54,21,11,42,11,19		7, 5
34″	38,11,57,17,45,26,10,38,27,54		2,47,33,38,20	
		1,36,54,18,24, 8,32,59		7, 5
36″	38,11,58,54,39,44,34,47, 0,53		2,47,33,45,25	
		1,36,54,15,36,34,47,34		7, 5
38″	38,12, 0,31,34, 0,11,21,48,27		2,47,33,52,30	
		1,36,54,12,49, 0,55, 4		7, 5
40″	38,12, 2, 8,28,13, 0,22,43,31		2,47,33,59,35	
		1,36,54,10, 1,26,55,29		7, 5
42″	38,12, 3,45,22,23, 1,49,39, 0		2,47,34, 6,40	
		1,36,54, 7,13,52,48,49		7, 5
44″	38,12, 5,22,16,30,15,42,27,49		2,47,34,13,45	
		1,36,54, 4,26,18,35, 4		7, 5
46″	38,12, 6,59,10,34,42, 1, 2,53		2,47,34,20,50	
		1,36,54, 1,38,44,14,14		7, 5
48″	38,12, 8,36, 4,36,20,45,17, 7		2,47,34,27,55	
		1,36,53,58,51, 9,46,19		7, 5
50″	38,12,10,12,58,35,11,55, 3,26		2,47,34,35, 0	
		1,36,53,56, 3,35,11,19		7, 5
52″	38,12,11,49,52,31,15,30,14,45		2,47,34,42, 5	
		1,36,53,53,16, 0,29,14		7, 5
54″	38,12,13,26,46,24,31,30,43,59		2,47,34,49,10	
		1,36,53,50,28,25,40, 4		7, 5
56″	38,12,15, 3,40,14,59,56,24, 3		2,47,34,56,15	
		1,36,53,47,40,50,43,49		7, 5
58″	38,12,16,40,34, 2,40,47, 7,52		2,47,35, 3,20	
		1,36,53,44,53,15,40,29		
60″	38,12,18,17,27,47,34, 2,48,21			
exact	38,12,18,17,27,47,34, 2,41,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°33′ 0″	38,12,18,17,27,47,34, 2,41,45			
		1,36,53,42, 5,40,29,24		
2″	38,12,19,54,21,29,39,43,11, 9		2,47,35,17,32	
		1,36,53,39,18, 5,11,52		7, 5
4″	38,12,21,31,15, 8,57,48,23, 1		2,47,35,24,37	
		1,36,53,36,30,29,47,15		7, 5
6″	38,12,23, 8, 8,45,28,18,10,16		2,47,35,31,42	
		1,36,53,33,42,54,15,33		7, 5
8″	38,12,24,45, 2,19,11,12,25,49		2,47,35,38,47	
		1,36,53,30,55,18,36,46		7, 5
10″	38,12,26,21,55,50, 6,31, 2,35		2,47,35,45,52	
		1,36,53,28, 7,42,50,54		7, 5
12″	38,12,27,58,49,18,14,13,53,29		2,47,35,52,57	
		1,36,53,25,20, 6,57,57		7, 5
14″	38,12,29,35,42,43,34,20,51,26		2,47,36, 0, 2	
		1,36,53,22,32,30,57,55		7, 5
16″	38,12,31,12,36, 6, 6,51,49,21		2,47,36, 7, 7	
		1,36,53,19,44,54,50,48		7, 5
18″	38,12,32,49,29,25,51,46,40, 9		2,47,36,14,12	
		1,36,53,16,57,18,36,36		7, 5
20″	38,12,34,26,22,42,49, 5,16,45		2,47,36,21,17	
		1,36,53,14, 9,42,15,19		7, 5
22″	38,12,36, 3,15,56,58,47,32, 4		2,47,36,28,22	
		1,36,53,11,22, 5,46,57		7, 5
24″	38,12,37,40, 9, 8,20,53,19, 1		2,47,36,35,27	
		1,36,53, 8,34,29,11,30		7, 5
26″	38,12,39,17, 2,16,55,22,30,31		2,47,36,42,32	
		1,36,53, 5,46,52,28,58		7, 5
28″	38,12,40,53,55,22,42,14,59,29		2,47,36,49,37	
		1,36,53, 2,59,15,39,21		7, 5
30″	38,12,42,30,48,25,41,30,38,50		2,47,36,56,42	
		1,36,53, 0,11,38,42,39		7, 5
32″	38,12,44, 7,41,25,53, 9,21,29		2,47,37, 3,47	
		1,36,52,57,24, 1,38,52		7, 5
34″	38,12,45,44,34,23,17,11, 0,21		2,47,37,10,52	
		1,36,52,54,36,24,28, 0		7, 5
36″	38,12,47,21,27,17,53,35,28,21		2,47,37,17,57	
		1,36,52,51,48,47,10, 3		7, 5
38″	38,12,48,58,20, 9,42,22,38,24		2,47,37,25, 2	
		1,36,52,49, 1, 9,45, 1		7, 5
40″	38,12,50,35,12,58,43,32,23,25		2,47,37,32, 7	
		1,36,52,46,13,32,12,54		7, 5
42″	38,12,52,12, 5,44,57, 4,36,19		2,47,37,39,12	
		1,36,52,43,25,54,33,42		7, 5
44″	38,12,53,48,58,28,22,59,10, 1		2,47,37,46,17	
		1,36,52,40,38,16,47,25		7, 5
46″	38,12,55,25,51, 9, 1,15,57,26		2,47,37,53,22	
		1,36,52,37,50,38,54, 3		7, 5
48″	38,12,57, 2,43,46,51,54,51,29		2,47,38, 0,27	
		1,36,52,35, 3, 0,53,36		7, 5
50″	38,12,58,39,36,21,54,55,45, 5		2,47,38, 7,32	
		1,36,52,32,15,22,46, 4		7, 5
52″	38,13, 0,16,28,54,10,18,31, 9		2,47,38,14,37	
		1,36,52,29,27,44,31,27		7, 5
54″	38,13, 1,53,21,23,38, 3, 2,36		2,47,38,21,42	
		1,36,52,26,40, 6, 9,45		7, 5
56″	38,13, 3,30,13,50,18, 9,12,21		2,47,38,28,47	
		1,36,52,23,52,27,40,58		7, 5
58″	38,13, 5, 7, 6,14,10,36,53,19		2,47,38,35,52	
		1,36,52,21, 4,49, 5, 6		
60″	38,13, 6,43,58,35,15,25,58,25			
exact	38,13, 6,43,58,35,15,25,56, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°34′ 0″	38,13, 6,43,58,35,15,25,56, 4			
		1,36,52,18,17,10,22, 3		
2″	38,13, 8,20,50,53,32,36,18, 7		2,47,38,50, 2	
		1,36,52,15,29,31,32, 1		7, 5
4″	38,13, 9,57,43, 9, 2, 7,50, 8		2,47,38,57, 7	
		1,36,52,12,41,52,34,54		7, 5
6″	38,13,11,34,35,21,44, 0,25, 2		2,47,39, 4,12	
		1,36,52, 9,54,13,30,42		7, 5
8″	38,13,13,11,27,31,38,13,55,44		2,47,39,11,17	
		1,36,52, 7, 6,34,19,25		7, 5
10″	38,13,14,48,19,38,44,48,15, 9		2,47,39,18,22	
		1,36,52, 4,18,55, 1, 3		7, 5
12″	38,13,16,25,11,43, 3,43,16,12		2,47,39,25,27	
		1,36,52, 1,31,15,35,36		7, 5
14″	38,13,18, 2, 3,44,34,58,51,48		2,47,39,32,32	
		1,36,51,58,43,36, 3, 4		7, 5
16″	38,13,19,38,55,43,18,34,54,52		2,47,39,39,37	
		1,36,51,55,55,56,23,27		7, 5
18″	38,13,21,15,47,39,14,31,18,19		2,47,39,46,42	
		1,36,51,53, 8,16,36,45		7, 5
20″	38,13,22,52,39,32,22,47,55, 4		2,47,39,53,47	
		1,36,51,50,20,36,42,58		7, 5
22″	38,13,24,29,31,22,43,24,38, 2		2,47,40, 0,52	
		1,36,51,47,32,56,42, 6		7, 5
24″	38,13,26, 6,23,10,16,21,20, 8		2,47,40, 7,57	
		1,36,51,44,45,16,34, 9		7, 5
26″	38,13,27,43,14,55, 1,37,54,17		2,47,40,15, 2	
		1,36,51,41,57,36,19, 7		7, 5
28″	38,13,29,20, 6,36,59,14,13,24		2,47,40,22, 7	
		1,36,51,39, 9,55,57, 0		7, 5
30″	38,13,30,56,58,16, 9,10,10,24		2,47,40,29,12	
		1,36,51,36,22,15,27,48		7, 5
32″	38,13,32,33,49,52,31,25,38,12		2,47,40,36,17	
		1,36,51,33,34,34,51,31		7, 5
34″	38,13,34,10,41,26, 6, 0,29,43		2,47,40,43,22	
		1,36,51,30,46,54, 8, 9		7, 5
36″	38,13,35,47,32,56,52,54,37,52		2,47,40,50,27	
		1,36,51,27,59,13,17,42		7, 5
38″	38,13,37,24,24,24,52, 7,55,34		2,47,40,57,32	
		1,36,51,25,11,32,20,10		7, 5
40″	38,13,39, 1,15,50, 3,40,15,44		2,47,41, 4,37	
		1,36,51,22,23,51,15,33		7, 5
42″	38,13,40,38, 7,12,27,31,31,17		2,47,41,11,42	
		1,36,51,19,36,10, 3,51		7, 5
44″	38,13,42,14,58,32, 3,41,35, 8		2,47,41,18,47	
		1,36,51,16,48,28,45, 4		7, 5
46″	38,13,43,51,49,48,52,10,20,12		2,47,41,25,52	
		1,36,51,14, 0,47,19,12		7, 5
48″	38,13,45,28,41, 2,52,57,39,24		2,47,41,32,57	
		1,36,51,11,13, 5,46,15		7, 5
50″	38,13,47, 5,32,14, 6, 3,25,39		2,47,41,40, 2	
		1,36,51, 8,25,24, 6,13		7, 5
52″	38,13,48,42,23,22,31,27,31,52		2,47,41,47, 7	
		1,36,51, 5,37,42,19, 6		7, 5
54″	38,13,50,19,14,28, 9, 9,50,58		2,47,41,54,12	
		1,36,51, 2,50, 0,24,54		7, 5
56″	38,13,51,56, 5,30,59,10,15,52		2,47,42, 1,17	
		1,36,51, 0, 2,18,23,37		7, 5
58″	38,13,53,32,56,31, 1,28,39,29		2,47,42, 8,22	
		1,36,50,57,14,36,15,15		
60″	38,13,55, 9,47,28,16, 4,54,44			
exact	38,13,55, 9,47,28,16, 5, 4,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°35′ 0″	38,13,55, 9,47,28,16, 5, 4,14			
		1,36,50,54,26,54, 0,47		
2″	38,13,56,46,38,22,42,59, 5, 1		2,47,42,22,28	
		1,36,50,51,39,11,38,19		7, 5
4″	38,13,58,23,29,14,22,10,43,20		2,47,42,29,33	
		1,36,50,48,51,29, 8,46		7, 5
6″	38,14, 0, 0,20, 3,13,39,52, 6		2,47,42,36,38	
		1,36,50,46, 3,46,32, 8		7, 5
8″	38,14, 1,37,10,49,17,26,24,14		2,47,42,43,43	
		1,36,50,43,16, 3,48,25		7, 5
10″	38,14, 3,14, 1,32,33,30,12,39		2,47,42,50,48	
		1,36,50,40,28,20,57,37		7, 5
12″	38,14, 4,50,52,13, 1,51,10,16		2,47,42,57,53	
		1,36,50,37,40,37,59,44		7, 5
14″	38,14, 6,27,42,50,42,29,10, 0		2,47,43, 4,58	
		1,36,50,34,52,54,54,46		7, 5
16″	38,14, 8, 4,33,25,35,24, 4,46		2,47,43,12, 3	
		1,36,50,32, 5,11,42,43		7, 5
18″	38,14, 9,41,23,57,40,35,47,29		2,47,43,19, 8	
		1,36,50,29,17,28,23,35		7, 5
20″	38,14,11,18,14,26,58, 4,11, 4		2,47,43,26,13	
		1,36,50,26,29,44,57,22		7, 5
22″	38,14,12,55, 4,53,27,49, 8,26		2,47,43,33,18	
		1,36,50,23,42, 1,24, 4		7, 5
24″	38,14,14,31,55,17, 9,50,32,30		2,47,43,40,23	
		1,36,50,20,54,17,43,41		7, 5
26″	38,14,16, 8,45,38, 4, 8,16,11		2,47,43,47,28	
		1,36,50,18, 6,33,56,13		7, 5
28″	38,14,17,45,35,56,10,42,12,24		2,47,43,54,33	
		1,36,50,15,18,50, 1,40		7, 5
30″	38,14,19,22,26,11,29,32,14, 4		2,47,44, 1,38	
		1,36,50,12,31, 6, 0, 2		7, 5
32″	38,14,20,59,16,24, 0,38,14, 6		2,47,44, 8,43	
		1,36,50, 9,43,21,51,19		7, 5
34″	38,14,22,36, 6,33,44, 0, 5,25		2,47,44,15,48	
		1,36,50, 6,55,37,35,31		7, 5
36″	38,14,24,12,56,40,39,37,40,56		2,47,44,22,53	
		1,36,50, 4, 7,53,12,38		7, 5
38″	38,14,25,49,46,44,47,30,53,34		2,47,44,29,58	
		1,36,50, 1,20, 8,42,40		7, 5
40″	38,14,27,26,36,46, 7,39,36,14		2,47,44,37, 3	
		1,36,49,58,32,24, 5,37		7, 5
42″	38,14,29, 3,26,44,40, 3,41,51		2,47,44,44, 8	
		1,36,49,55,44,39,21,29		7, 5
44″	38,14,30,40,16,40,24,43, 3,20		2,47,44,51,13	
		1,36,49,52,56,54,30,16		7, 5
46″	38,14,32,17, 6,33,21,37,33,36		2,47,44,58,18	
		1,36,49,50, 9, 9,31,58		7, 5
48″	38,14,33,53,56,23,30,47, 5,34		2,47,45, 5,23	
		1,36,49,47,21,24,26,35		7, 5
50″	38,14,35,30,46,10,52,11,32, 9		2,47,45,12,28	
		1,36,49,44,33,39,14, 7		7, 5
52″	38,14,37, 7,35,55,25,50,46,16		2,47,45,19,33	
		1,36,49,41,45,53,54,34		7, 5
54″	38,14,38,44,25,37,11,44,40,50		2,47,45,26,38	
		1,36,49,38,58, 8,27,56		7, 5
56″	38,14,40,21,15,16, 9,53, 8,46		2,47,45,33,43	
		1,36,49,36,10,22,54,13		7, 5
58″	38,14,41,58, 4,52,20,16, 2,59		2,47,45,40,48	
		1,36,49,33,22,37,13,25		
60″	38,14,43,34,54,25,42,53,16,24			
exact	38,14,43,34,54,25,42,53,31,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°36′ 0″	38,14,43,34,54,25,42,53,31,18			
		1,36,49,30,34,51,27, 9		
2″	38,14,45,11,43,56,17,44,58,27		2,47,45,54,51	
		1,36,49,27,47, 5,32,18		7, 5
4″	38,14,46,48,33,24, 4,50,30,45		2,47,46, 1,56	
		1,36,49,24,59,19,30,22		7, 5
6″	38,14,48,25,22,49, 4,10, 1, 7		2,47,46, 9, 1	
		1,36,49,22,11,33,21,21		7, 5
8″	38,14,50, 2,12,11,15,43,22,28		2,47,46,16, 6	
		1,36,49,19,23,47, 5,15		7, 5
10″	38,14,51,39, 1,30,39,30,27,43		2,47,46,23,11	
		1,36,49,16,36, 0,42, 4		7, 5
12″	38,14,53,15,50,47,15,31, 9,47		2,47,46,30,16	
		1,36,49,13,48,14,11,48		7, 5
14″	38,14,54,52,40, 1, 3,45,21,35		2,47,46,37,21	
		1,36,49,11, 0,27,34,27		7, 5
16″	38,14,56,29,29,12, 4,12,56, 2		2,47,46,44,26	
		1,36,49, 8,12,40,50, 1		7, 5
18″	38,14,58, 6,18,20,16,53,46, 3		2,47,46,51,31	
		1,36,49, 5,24,53,58,30		7, 5
20″	38,14,59,43, 7,25,41,47,44,33		2,47,46,58,36	
		1,36,49, 2,37, 6,59,54		7, 5
22″	38,15, 1,19,56,28,18,54,44,27		2,47,47, 5,41	
		1,36,48,59,49,19,54,13		7, 5
24″	38,15, 2,56,45,28, 8,14,38,40		2,47,47,12,46	
		1,36,48,57, 1,32,41,27		7, 5
26″	38,15, 4,33,34,25, 9,47,20, 7		2,47,47,19,51	
		1,36,48,54,13,45,21,36		7, 5
28″	38,15, 6,10,23,19,23,32,41,43		2,47,47,26,56	
		1,36,48,51,25,57,54,40		7, 5
30″	38,15, 7,47,12,10,49,30,36,23		2,47,47,34, 1	
		1,36,48,48,38,10,20,39		7, 5
32″	38,15, 9,24, 0,59,27,40,57, 2		2,47,47,41, 6	
		1,36,48,45,50,22,39,33		7, 5
34″	38,15,11, 0,49,45,18, 3,36,35		2,47,47,48,11	
		1,36,48,43, 2,34,51,22		7, 5
36″	38,15,12,37,38,28,20,38,27,57		2,47,47,55,16	
		1,36,48,40,14,46,56, 6		7, 5
38″	38,15,14,14,27, 8,35,25,24, 3		2,47,48, 2,21	
		1,36,48,37,26,58,53,45		7, 5
40″	38,15,15,51,15,46, 2,24,17,48		2,47,48, 9,26	
		1,36,48,34,39,10,44,19		7, 5
42″	38,15,17,28, 4,20,41,35, 2, 7		2,47,48,16,31	
		1,36,48,31,51,22,27,48		7, 5
44″	38,15,19, 4,52,52,32,57,29,55		2,47,48,23,36	
		1,36,48,29, 3,34, 4,12		7, 5
46″	38,15,20,41,41,21,36,31,34, 7		2,47,48,30,41	
		1,36,48,26,15,45,33,31		7, 5
48″	38,15,22,18,29,47,52,17, 7,38		2,47,48,37,46	
		1,36,48,23,27,56,55,45		7, 5
50″	38,15,23,55,18,11,20,14, 3,23		2,47,48,44,51	
		1,36,48,20,40, 8,10,54		7, 5
52″	38,15,25,32, 6,32, 0,22,14,17		2,47,48,51,56	
		1,36,48,17,52,19,18,58		7, 5
54″	38,15,27, 8,54,49,52,41,33,15		2,47,48,59, 1	
		1,36,48,15, 4,30,19,57		7, 5
56″	38,15,28,45,43, 4,57,11,53,12		2,47,49, 6, 6	
		1,36,48,12,16,41,13,51		7, 5
58″	38,15,30,22,31,17,13,53, 7, 3		2,47,49,13,11	
		1,36,48, 9,28,52, 0,40		
60″	38,15,31,59,19,26,42,45, 7,43			
exact	38,15,31,59,19,26,42,45,28,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°37′ 0″	38,15,31,59,19,26,42,45,28,18			
		1,36,48, 6,41, 2,42,40		
2″	38,15,33,36, 7,33,23,48,10,58		2,47,49,27,11	
		1,36,48, 3,53,13,15,29		7, 5
4″	38,15,35,12,55,37,17, 1,26,27		2,47,49,34,16	
		1,36,48, 1, 5,23,41,13		7, 5
6″	38,15,36,49,43,38,22,25, 7,40		2,47,49,41,21	
		1,36,47,58,17,33,59,52		7, 5
8″	38,15,38,26,31,36,39,59, 7,32		2,47,49,48,26	
		1,36,47,55,29,44,11,26		7, 5
10″	38,15,40, 3,19,32, 9,43,18,58		2,47,49,55,31	
		1,36,47,52,41,54,15,55		7, 5
12″	38,15,41,40, 7,24,51,37,34,53		2,47,50, 2,36	
		1,36,47,49,54, 4,13,19		7, 5
14″	38,15,43,16,55,14,45,41,48,12		2,47,50, 9,41	
		1,36,47,47, 6,14, 3,38		7, 5
16″	38,15,44,53,43, 1,51,55,51,50		2,47,50,16,46	
		1,36,47,44,18,23,46,52		7, 5
18″	38,15,46,30,30,46,10,19,38,42		2,47,50,23,51	
		1,36,47,41,30,33,23, 1		7, 5
20″	38,15,48, 7,18,27,40,53, 1,43		2,47,50,30,56	
		1,36,47,38,42,42,52, 5		7, 5
22″	38,15,49,44, 6, 6,23,35,53,48		2,47,50,38, 1	
		1,36,47,35,54,52,14, 4		7, 5
24″	38,15,51,20,53,42,18,28, 7,52		2,47,50,45, 6	
		1,36,47,33, 7, 1,28,58		7, 5
26″	38,15,52,57,41,15,25,29,36,50		2,47,50,52,11	
		1,36,47,30,19,10,36,47		7, 5
28″	38,15,54,34,28,45,44,40,13,37		2,47,50,59,16	
		1,36,47,27,31,19,37,31		7, 5
30″	38,15,56,11,16,13,15,59,51, 8		2,47,51, 6,21	
		1,36,47,24,43,28,31,10		7, 5
32″	38,15,57,48, 3,37,59,28,22,18		2,47,51,13,26	
		1,36,47,21,55,37,17,44		7, 5
34″	38,15,59,24,50,59,55, 5,40, 2		2,47,51,20,31	
		1,36,47,19, 7,45,57,13		7, 5
36″	38,16, 1, 1,38,19, 2,51,37,15		2,47,51,27,36	
		1,36,47,16,19,54,29,37		7, 5
38″	38,16, 2,38,25,35,22,46, 6,52		2,47,51,34,41	
		1,36,47,13,32, 2,54,56		7, 5
40″	38,16, 4,15,12,48,54,49, 1,48		2,47,51,41,46	
		1,36,47,10,44,11,13,10		7, 5
42″	38,16, 5,51,59,59,39, 0,14,58		2,47,51,48,51	
		1,36,47, 7,56,19,24,19		7, 5
44″	38,16, 7,28,47, 7,35,19,39,17		2,47,51,55,56	
		1,36,47, 5, 8,27,28,23		7, 5
46″	38,16, 9, 5,34,12,43,47, 7,40		2,47,52, 3, 1	
		1,36,47, 2,20,35,25,22		7, 5
48″	38,16,10,42,21,15, 4,22,33, 2		2,47,52,10, 6	
		1,36,46,59,32,43,15,16		7, 5
50″	38,16,12,19, 8,14,37, 5,48,18		2,47,52,17,11	
		1,36,46,56,44,50,58, 5		7, 5
52″	38,16,13,55,55,11,21,56,46,23		2,47,52,24,16	
		1,36,46,53,56,58,33,49		7, 5
54″	38,16,15,32,42, 5,18,55,20,12		2,47,52,31,21	
		1,36,46,51, 9, 6, 2,28		7, 5
56″	38,16,17, 9,28,56,28, 1,22,40		2,47,52,38,26	
		1,36,46,48,21,13,24, 2		7, 5
58″	38,16,18,46,15,44,49,14,46,42		2,47,52,45,31	
		1,36,46,45,33,20,38,31		
60″	38,16,20,23, 2,30,22,35,25,13			
exact	38,16,20,23, 2,30,22,35,52,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°38′ 0″	38,16,20,23, 2,30,22,35,52,15	1,36,46,42,45,27,48,53		
2″	38,16,21,59,49,13, 8, 3,41, 8	1,36,46,39,57,34,49,25	2,47,52,59,28	7, 5
4″	38,16,23,36,35,53, 5,38,30,33	1,36,46,37, 9,41,42,52	2,47,53, 6,33	7, 5
6″	38,16,25,13,22,30,15,20,13,25	1,36,46,34,21,48,29,14	2,47,53,13,38	7, 5
8″	38,16,26,50, 9, 4,37, 8,42,39	1,36,46,31,33,55, 8,31	2,47,53,20,43	7, 5
10″	38,16,28,26,55,36,11, 3,51,10	1,36,46,28,46, 1,40,43	2,47,53,27,48	7, 5
12″	38,16,30, 3,42, 4,57, 5,31,53	1,36,46,25,58, 8, 5,50	2,47,53,34,53	7, 5
14″	38,16,31,40,28,30,55,13,37,43	1,36,46,23,10,14,23,52	2,47,53,41,58	7, 5
16″	38,16,33,17,14,54, 5,28, 1,35	1,36,46,20,22,20,34,49	2,47,53,49, 3	7, 5
18″	38,16,34,54, 1,14,27,48,36,24	1,36,46,17,34,26,38,41	2,47,53,56, 8	7, 5
20″	38,16,36,30,47,32, 2,15,15, 5	1,36,46,14,46,32,35,28	2,47,54, 3,13	7, 5
22″	38,16,38, 7,33,46,48,47,50,33	1,36,46,11,58,38,25,10	2,47,54,10,18	7, 5
24″	38,16,39,44,19,58,47,26,15,43	1,36,46, 9,10,44, 7,47	2,47,54,17,23	7, 5
26″	38,16,41,21, 6, 7,58,10,23,30	1,36,46, 6,22,49,43,19	2,47,54,24,28	7, 5
28″	38,16,42,57,52,14,21, 0, 6,49	1,36,46, 3,34,55,11,46	2,47,54,31,33	7, 5
30″	38,16,44,34,38,17,55,55,18,35	1,36,46, 0,47, 0,33, 8	2,47,54,38,38	7, 5
32″	38,16,46,11,24,18,42,55,51,43	1,36,45,57,59, 5,47,25	2,47,54,45,43	7, 5
34″	38,16,47,48,10,16,42, 1,39, 8	1,36,45,55,11,10,54,37	2,47,54,52,48	7, 5
36″	38,16,49,24,56,11,53,12,33,45	1,36,45,52,23,15,54,44	2,47,54,59,53	7, 5
38″	38,16,51, 1,42, 4,16,28,28,29	1,36,45,49,35,20,47,46	2,47,55, 6,58	7, 5
40″	38,16,52,38,27,53,51,49,16,15	1,36,45,46,47,25,33,43	2,47,55,14, 3	7, 5
42″	38,16,54,15,13,40,39,14,49,58	1,36,45,43,59,30,12,35	2,47,55,21, 8	7, 5
44″	38,16,55,51,59,24,38,45, 2,33	1,36,45,41,11,34,44,22	2,47,55,28,13	7, 5
46″	38,16,57,28,45, 5,50,19,46,55	1,36,45,38,23,39, 9, 4	2,47,55,35,18	7, 5
48″	38,16,59, 5,30,44,13,58,55,59	1,36,45,35,35,43,26,41	2,47,55,42,23	7, 5
50″	38,17, 0,42,16,19,49,42,22,40	1,36,45,32,47,47,37,13	2,47,55,49,28	7, 5
52″	38,17, 2,19, 1,52,37,29,59,53	1,36,45,29,59,51,40,40	2,47,55,56,33	7, 5
54″	38,17, 3,55,47,22,37,21,40,33	1,36,45,27,11,55,37, 2	2,47,56, 3,38	7, 5
56″	38,17, 5,32,32,49,49,17,17,35	1,36,45,24,23,59,26,19	2,47,56,10,43	7, 5
58″	38,17, 7, 9,18,14,13,16,43,54	1,36,45,21,36, 3, 8,31	2,47,56,17,48	
60″	38,17, 8,46, 3,35,49,19,52,25			
exact	38,17, 8,46, 3,35,49,20,26,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°39′ 0″	38,17, 8,46, 3,35,49,20,26,12			
		1,36,45,18,48, 6,47,20		
2″	38,17,10,22,48,54,37,27,13,32		2,47,56,31,42	
		1,36,45,16, 0,10,15,38		7, 4
4″	38,17,11,59,34,10,37,37,29,10		2,47,56,38,46	
		1,36,45,13,12,13,36,52		7, 4
6″	38,17,13,36,19,23,49,51, 6, 2		2,47,56,45,50	
		1,36,45,10,24,16,51, 2		7, 4
8″	38,17,15,13, 4,34,14, 7,57, 4		2,47,56,52,54	
		1,36,45, 7,36,19,58, 8		7, 4
10″	38,17,16,49,49,41,50,27,55,12		2,47,56,59,58	
		1,36,45, 4,48,22,58,10		7, 4
12″	38,17,18,26,34,46,38,50,53,22		2,47,57, 7, 2	
		1,36,45, 2, 0,25,51, 8		7, 4
14″	38,17,20, 3,19,48,39,16,44,30		2,47,57,14, 6	
		1,36,44,59,12,28,37, 2		7, 4
16″	38,17,21,40, 4,47,51,45,21,32		2,47,57,21,10	
		1,36,44,56,24,31,15,52		7, 4
18″	38,17,23,16,49,44,16,16,37,24		2,47,57,28,14	
		1,36,44,53,36,33,47,38		7, 4
20″	38,17,24,53,34,37,52,50,25, 2		2,47,57,35,18	
		1,36,44,50,48,36,12,20		7, 4
22″	38,17,26,30,19,28,41,26,37,22		2,47,57,42,22	
		1,36,44,48, 0,38,29,58		7, 4
24″	38,17,28, 7, 4,16,42, 5, 7,20		2,47,57,49,26	
		1,36,44,45,12,40,40,32		7, 4
26″	38,17,29,43,49, 1,54,45,47,52		2,47,57,56,30	
		1,36,44,42,24,42,44, 2		7, 4
28″	38,17,31,20,33,44,19,28,31,54		2,47,58, 3,34	
		1,36,44,39,36,44,40,28		7, 4
30″	38,17,32,57,18,23,56,13,12,22		2,47,58,10,38	
		1,36,44,36,48,46,29,50		7, 4
32″	38,17,34,34, 3, 0,44,59,42,12		2,47,58,17,42	
		1,36,44,34, 0,48,12, 8		7, 4
34″	38,17,36,10,47,34,45,47,54,20		2,47,58,24,46	
		1,36,44,31,12,49,47,22		7, 4
36″	38,17,37,47,32, 5,58,37,41,42		2,47,58,31,50	
		1,36,44,28,24,51,15,32		7, 4
38″	38,17,39,24,16,34,23,28,57,14		2,47,58,38,54	
		1,36,44,25,36,52,36,38		7, 4
40″	38,17,41, 1, 1, 0, 0,21,33,52		2,47,58,45,58	
		1,36,44,22,48,53,50,40		7, 4
42″	38,17,42,37,45,22,49,15,24,32		2,47,58,53, 2	
		1,36,44,20, 0,54,57,38		7, 4
44″	38,17,44,14,29,42,50,10,22,10		2,47,59, 0, 6	
		1,36,44,17,12,55,57,32		7, 4
46″	38,17,45,51,14, 0, 3, 6,19,42		2,47,59, 7,10	
		1,36,44,14,24,56,50,22		7, 4
48″	38,17,47,27,58,14,28, 3,10, 4		2,47,59,14,14	
		1,36,44,11,36,57,36, 8		7, 4
50″	38,17,49, 4,42,26, 5, 0,46,12		2,47,59,21,18	
		1,36,44, 8,48,58,14,50		7, 4
52″	38,17,50,41,26,34,53,59, 1, 2		2,47,59,28,22	
		1,36,44, 6, 0,58,46,28		7, 4
54″	38,17,52,18,10,40,54,57,47,30		2,47,59,35,26	
		1,36,44, 3,12,59,11, 2		7, 4
56″	38,17,53,54,54,44, 7,56,58,32		2,47,59,42,30	
		1,36,44, 0,24,59,28,32		7, 4
58″	38,17,55,31,38,44,32,56,27, 4		2,47,59,49,34	
		1,36,43,57,36,59,38,58		
60″	38,17,57, 8,22,42, 9,56, 6, 2			
exact	38,17,57, 8,22,42, 9,55,39,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°40′ 0″	38,17,57, 8,22,42, 9,55,39,12			
		1,36,43,54,48,59,39,32		
2″	38,17,58,45, 6,36,58,55,18,44		2,48, 0, 3,53	
		1,36,43,52, 0,59,35,39		7, 4
4″	38,18, 0,21,50,28,59,54,54,23		2,48, 0,10,57	
		1,36,43,49,12,59,24,42		7, 4
6″	38,18, 1,58,34,18,12,54,19, 5		2,48, 0,18, 1	
		1,36,43,46,24,59, 6,41		7, 4
8″	38,18, 3,35,18, 4,37,53,25,46		2,48, 0,25, 5	
		1,36,43,43,36,58,41,36		7, 4
10″	38,18, 5,12, 1,48,14,52, 7,22		2,48, 0,32, 9	
		1,36,43,40,48,58, 9,27		7, 4
12″	38,18, 6,48,45,29, 3,50,16,49		2,48, 0,39,13	
		1,36,43,38, 0,57,30,14		7, 4
14″	38,18, 8,25,29, 7, 4,47,47, 3		2,48, 0,46,17	
		1,36,43,35,12,56,43,57		7, 4
16″	38,18,10, 2,12,42,17,44,31, 0		2,48, 0,53,21	
		1,36,43,32,24,55,50,36		7, 4
18″	38,18,11,38,56,14,42,40,21,36		2,48, 1, 0,25	
		1,36,43,29,36,54,50,11		7, 4
20″	38,18,13,15,39,44,19,35,11,47		2,48, 1, 7,29	
		1,36,43,26,48,53,42,42		7, 4
22″	38,18,14,52,23,11, 8,28,54,29		2,48, 1,14,33	
		1,36,43,24, 0,52,28, 9		7, 4
24″	38,18,16,29, 6,35, 9,21,22,38		2,48, 1,21,37	
		1,36,43,21,12,51, 6,32		7, 4
26″	38,18,18, 5,49,56,22,12,29,10		2,48, 1,28,41	
		1,36,43,18,24,49,37,51		7, 4
28″	38,18,19,42,33,14,47, 2, 7, 1		2,48, 1,35,45	
		1,36,43,15,36,48, 2, 6		7, 4
30″	38,18,21,19,16,30,23,50, 9, 7		2,48, 1,42,49	
		1,36,43,12,48,46,19,17		7, 4
32″	38,18,22,55,59,43,12,36,28,24		2,48, 1,49,53	
		1,36,43,10, 0,44,29,24		7, 4
34″	38,18,24,32,42,53,13,20,57,48		2,48, 1,56,57	
		1,36,43, 7,12,42,32,27		7, 4
36″	38,18,26, 9,26, 0,26, 3,30,15		2,48, 2, 4, 1	
		1,36,43, 4,24,40,28,26		7, 4
38″	38,18,27,46, 9, 4,50,43,58,41		2,48, 2,11, 5	
		1,36,43, 1,36,38,17,21		7, 4
40″	38,18,29,22,52, 6,27,22,16, 2		2,48, 2,18, 9	
		1,36,42,58,48,35,59,12		7, 4
42″	38,18,30,59,35, 5,15,58,15,14		2,48, 2,25,13	
		1,36,42,56, 0,33,33,59		7, 4
44″	38,18,32,36,18, 1,16,31,49,13		2,48, 2,32,17	
		1,36,42,53,12,31, 1,42		7, 4
46″	38,18,34,13, 0,54,29, 2,50,55		2,48, 2,39,21	
		1,36,42,50,24,28,22,21		7, 4
48″	38,18,35,49,43,44,53,31,13,16		2,48, 2,46,25	
		1,36,42,47,36,25,35,56		7, 4
50″	38,18,37,26,26,32,29,56,49,12		2,48, 2,53,29	
		1,36,42,44,48,22,42,27		7, 4
52″	38,18,39, 3, 9,17,18,19,31,39		2,48, 3, 0,33	
		1,36,42,42, 0,19,41,54		7, 4
54″	38,18,40,39,51,59,18,39,13,33		2,48, 3, 7,37	
		1,36,42,39,12,16,34,17		7, 4
56″	38,18,42,16,34,38,30,55,47,50		2,48, 3,14,41	
		1,36,42,36,24,13,19,36		7, 4
58″	38,18,43,53,17,14,55, 9, 7,26		2,48, 3,21,45	
		1,36,42,33,36, 9,57,51		
60″	38,18,45,29,59,48,31,19, 5,17			
exact	38,18,45,29,59,48,31,18,46,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°41′ 0″	38,18,45,29,59,48,31,18,46,22			
		1,36,42,30,48, 6,27, 3		
2″	38,18,47, 6,42,19,19,25,13,25		2,48, 3,36, 1	
		1,36,42,28, 0, 2,51, 2		7, 4
4″	38,18,48,43,24,47,19,28, 4,27		2,48, 3,43, 5	
		1,36,42,25,11,59, 7,57		7, 4
6″	38,18,50,20, 7,12,31,27,12,24		2,48, 3,50, 9	
		1,36,42,22,23,55,17,48		7, 4
8″	38,18,51,56,49,34,55,22,30,12		2,48, 3,57,13	
		1,36,42,19,35,51,20,35		7, 4
10″	38,18,53,33,31,54,31,13,50,47		2,48, 4, 4,17	
		1,36,42,16,47,47,16,18		7, 4
12″	38,18,55,10,14,11,19, 1, 7, 5		2,48, 4,11,21	
		1,36,42,13,59,43, 4,57		7, 4
14″	38,18,56,46,56,25,18,44,12, 2		2,48, 4,18,25	
		1,36,42,11,11,38,46,32		7, 4
16″	38,18,58,23,38,36,30,22,58,34		2,48, 4,25,29	
		1,36,42, 8,23,34,21, 3		7, 4
18″	38,19, 0, 0,20,44,53,57,19,37		2,48, 4,32,33	
		1,36,42, 5,35,29,48,30		7, 4
20″	38,19, 1,37, 2,50,29,27, 8, 7		2,48, 4,39,37	
		1,36,42, 2,47,25, 8,53		7, 4
22″	38,19, 3,13,44,53,16,52,17, 0		2,48, 4,46,41	
		1,36,41,59,59,20,22,12		7, 4
24″	38,19, 4,50,26,53,16,12,39,12		2,48, 4,53,45	
		1,36,41,57,11,15,28,27		7, 4
26″	38,19, 6,27, 8,50,27,28, 7,39		2,48, 5, 0,49	
		1,36,41,54,23,10,27,38		7, 4
28″	38,19, 8, 3,50,44,50,38,35,17		2,48, 5, 7,53	
		1,36,41,51,35, 5,19,45		7, 4
30″	38,19, 9,40,32,36,25,43,55, 2		2,48, 5,14,57	
		1,36,41,48,47, 0, 4,48		7, 4
32″	38,19,11,17,14,25,12,43,59,50		2,48, 5,22, 1	
		1,36,41,45,58,54,42,47		7, 4
34″	38,19,12,53,56,11,11,38,42,37		2,48, 5,29, 5	
		1,36,41,43,10,49,13,42		7, 4
36″	38,19,14,30,37,54,22,27,56,19		2,48, 5,36, 9	
		1,36,41,40,22,43,37,33		7, 4
38″	38,19,16, 7,19,34,45,11,33,52		2,48, 5,43,13	
		1,36,41,37,34,37,54,20		7, 4
40″	38,19,17,44, 1,12,19,49,28,12		2,48, 5,50,17	
		1,36,41,34,46,32, 4, 3		7, 4
42″	38,19,19,20,42,47, 6,21,32,15		2,48, 5,57,21	
		1,36,41,31,58,26, 6,42		7, 4
44″	38,19,20,57,24,19, 4,47,38,57		2,48, 6, 4,25	
		1,36,41,29,10,20, 2,17		7, 4
46″	38,19,22,34, 5,48,15, 7,41,14		2,48, 6,11,29	
		1,36,41,26,22,13,50,48		7, 4
48″	38,19,24,10,47,14,37,21,32, 2		2,48, 6,18,33	
		1,36,41,23,34, 7,32,15		7, 4
50″	38,19,25,47,28,38,11,29, 4,17		2,48, 6,25,37	
		1,36,41,20,46, 1, 6,38		7, 4
52″	38,19,27,24, 9,58,57,30,10,55		2,48, 6,32,41	
		1,36,41,17,57,54,33,57		7, 4
54″	38,19,29, 0,51,16,55,24,44,52		2,48, 6,39,45	
		1,36,41,15, 9,47,54,12		7, 4
56″	38,19,30,37,32,32, 5,12,39, 4		2,48, 6,46,49	
		1,36,41,12,21,41, 7,23		7, 4
58″	38,19,32,14,13,44,26,53,46,27		2,48, 6,53,53	
		1,36,41, 9,33,34,13,30		
60″	38,19,33,50,54,54, 0,27,59,57			
exact	38,19,33,50,54,54, 0,27,48,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°42′ 0″	38,19,33,50,54,54, 0,27,48,51	1,36,41, 6,45,27,11,23		
2″	38,19,35,27,36, 0,45,55, 0,14	1,36,41, 3,57,20, 3,17	2,48, 7, 8, 6	7, 4
4″	38,19,37, 4,17, 4,43,15, 3,31	1,36,41, 1, 9,12,48, 7	2,48, 7,15,10	7, 4
6″	38,19,38,40,58, 5,52,27,51,38	1,36,40,58,21, 5,25,53	2,48, 7,22,14	7, 4
8″	38,19,40,17,39, 4,13,33,17,31	1,36,40,55,32,57,56,35	2,48, 7,29,18	7, 4
10″	38,19,41,54,19,59,46,31,14, 6	1,36,40,52,44,50,20,13	2,48, 7,36,22	7, 4
12″	38,19,43,31, 0,52,31,21,34,19	1,36,40,49,56,42,36,47	2,48, 7,43,26	7, 4
14″	38,19,45, 7,41,42,28, 4,11, 6	1,36,40,47, 8,34,46,17	2,48, 7,50,30	7, 4
16″	38,19,46,44,22,29,36,38,57,23	1,36,40,44,20,26,48,43	2,48, 7,57,34	7, 4
18″	38,19,48,21, 3,13,57, 5,46, 6	1,36,40,41,32,18,44, 5	2,48, 8, 4,38	7, 4
20″	38,19,49,57,43,55,29,24,30,11	1,36,40,38,44,10,32,23	2,48, 8,11,42	7, 4
22″	38,19,51,34,24,34,13,35, 2,34	1,36,40,35,56, 2,13,37	2,48, 8,18,46	7, 4
24″	38,19,53,11, 5,10, 9,37,16,11	1,36,40,33, 7,53,47,47	2,48, 8,25,50	7, 4
26″	38,19,54,47,45,43,17,31, 3,58	1,36,40,30,19,45,14,53	2,48, 8,32,54	7, 4
28″	38,19,56,24,26,13,37,16,18,51	1,36,40,27,31,36,34,55	2,48, 8,39,58	7, 4
30″	38,19,58, 1, 6,41, 8,52,53,46	1,36,40,24,43,27,47,53	2,48, 8,47, 2	7, 4
32″	38,19,59,37,47, 5,52,20,41,39	1,36,40,21,55,18,53,47	2,48, 8,54, 6	7, 4
34″	38,20, 1,14,27,27,47,39,35,26	1,36,40,19, 7, 9,52,37	2,48, 9, 1,10	7, 4
36″	38,20, 2,51, 7,46,54,49,28, 3	1,36,40,16,19, 0,44,23	2,48, 9, 8,14	7, 4
38″	38,20, 4,27,48, 3,13,50,12,26	1,36,40,13,30,51,29, 5	2,48, 9,15,18	7, 4
40″	38,20, 6, 4,28,16,44,41,41,31	1,36,40,10,42,42, 6,43	2,48, 9,22,22	7, 4
42″	38,20, 7,41, 8,27,27,23,48,14	1,36,40, 7,54,32,37,17	2,48, 9,29,26	7, 4
44″	38,20, 9,17,48,35,21,56,25,31	1,36,40, 5, 6,23, 0,47	2,48, 9,36,30	7, 4
46″	38,20,10,54,28,40,28,19,26,18	1,36,40, 2,18,13,17,13	2,48, 9,43,34	7, 4
48″	38,20,12,31, 8,42,46,32,43,31	1,36,39,59,30, 3,26,35	2,48, 9,50,38	7, 4
50″	38,20,14, 7,48,42,16,36,10, 6	1,36,39,56,41,53,28,53	2,48, 9,57,42	7, 4
52″	38,20,15,44,28,38,58,29,38,59	1,36,39,53,53,43,24, 7	2,48,10, 4,46	7, 4
54″	38,20,17,21, 8,32,52,13, 3, 6	1,36,39,51, 5,33,12,17	2,48,10,11,50	7, 4
56″	38,20,18,57,48,23,57,46,15,23	1,36,39,48,17,22,53,23	2,48,10,18,54	7, 4
58″	38,20,20,34,28,12,15, 9, 8,46	1,36,39,45,29,12,27,25	2,48,10,25,58	
60″	38,20,22,11, 7,57,44,21,36,11			
exact	38,20,22,11, 7,57,44,21,33,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°43′ 0″	38,20,22,11, 7,57,44,21,33,53			
		1,36,39,42,41, 1,54, 5		
2″	38,20,23,47,47,40,25,23,27,58		2,48,10,40, 7	
		1,36,39,39,52,51,13,58		7, 4
4″	38,20,25,24,27,20,18,14,41,56		2,48,10,47,11	
		1,36,39,37, 4,40,26,47		7, 4
6″	38,20,27, 1, 6,57,22,55, 8,43		2,48,10,54,15	
		1,36,39,34,16,29,32,32		7, 4
8″	38,20,28,37,46,31,39,24,41,15		2,48,11, 1,19	
		1,36,39,31,28,18,31,13		7, 4
10″	38,20,30,14,26, 3, 7,43,12,28		2,48,11, 8,23	
		1,36,39,28,40, 7,22,50		7, 4
12″	38,20,31,51, 5,31,47,50,35,18		2,48,11,15,27	
		1,36,39,25,51,56, 7,23		7, 4
14″	38,20,33,27,44,57,39,46,42,41		2,48,11,22,31	
		1,36,39,23, 3,44,44,52		7, 4
16″	38,20,35, 4,24,20,43,31,27,33		2,48,11,29,35	
		1,36,39,20,15,33,15,17		7, 4
18″	38,20,36,41, 3,40,59, 4,42,50		2,48,11,36,39	
		1,36,39,17,27,21,38,38		7, 4
20″	38,20,38,17,42,58,26,26,21,28		2,48,11,43,43	
		1,36,39,14,39, 9,54,55		7, 4
22″	38,20,39,54,22,13, 5,36,16,23		2,48,11,50,47	
		1,36,39,11,50,58, 4, 8		7, 4
24″	38,20,41,31, 1,24,56,34,20,31		2,48,11,57,51	
		1,36,39, 9, 2,46, 6,17		7, 4
26″	38,20,43, 7,40,33,59,20,26,48		2,48,12, 4,55	
		1,36,39, 6,14,34, 1,22		7, 4
28″	38,20,44,44,19,40,13,54,28,10		2,48,12,11,59	
		1,36,39, 3,26,21,49,23		7, 4
30″	38,20,46,20,58,43,40,16,17,33		2,48,12,19, 3	
		1,36,39, 0,38, 9,30,20		7, 4
32″	38,20,47,57,37,44,18,25,47,53		2,48,12,26, 7	
		1,36,38,57,49,57, 4,13		7, 4
34″	38,20,49,34,16,42, 8,22,52, 6		2,48,12,33,11	
		1,36,38,55, 1,44,31, 2		7, 4
36″	38,20,51,10,55,37,10, 7,23, 8		2,48,12,40,15	
		1,36,38,52,13,31,50,47		7, 4
38″	38,20,52,47,34,29,23,39,13,55		2,48,12,47,19	
		1,36,38,49,25,19, 3,28		7, 4
40″	38,20,54,24,13,18,48,58,17,23		2,48,12,54,23	
		1,36,38,46,37, 6, 9, 5		7, 4
42″	38,20,56, 0,52, 5,26, 4,26,28		2,48,13, 1,27	
		1,36,38,43,48,53, 7,38		7, 4
44″	38,20,57,37,30,49,14,57,34, 6		2,48,13, 8,31	
		1,36,38,41, 0,39,59, 7		7, 4
46″	38,20,59,14, 9,30,15,37,33,13		2,48,13,15,35	
		1,36,38,38,12,26,43,32		7, 4
48″	38,21, 0,50,48, 8,28, 4,16,45		2,48,13,22,39	
		1,36,38,35,24,13,20,53		7, 4
50″	38,21, 2,27,26,43,52,17,37,38		2,48,13,29,43	
		1,36,38,32,35,59,51,10		7, 4
52″	38,21, 4, 4, 5,16,28,17,28,48		2,48,13,36,47	
		1,36,38,29,47,46,14,23		7, 4
54″	38,21, 5,40,43,46,16, 3,43,11		2,48,13,43,51	
		1,36,38,26,59,32,30,32		7, 4
56″	38,21, 7,17,22,13,15,36,13,43		2,48,13,50,55	
		1,36,38,24,11,18,39,37		7, 4
58″	38,21, 8,54, 0,37,26,54,53,20		2,48,13,57,59	
		1,36,38,21,23, 4,41,38		
60″	38,21,10,30,38,58,49,59,34,58			
exact	38,21,10,30,38,58,49,59,34,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°44′ 0″	38,21,10,30,38,58,49,59,34,49			
		1,36,38,18,34,50,36,41		
2″	38,21,12, 7,17,17,24,50,11,30		2,48,14,12, 6	
		1,36,38,15,46,36,24,35		7, 4
4″	38,21,13,43,55,33,11,26,36, 5		2,48,14,19,10	
		1,36,38,12,58,22, 5,25		7, 4
6″	38,21,15,20,33,46, 9,48,41,30		2,48,14,26,14	
		1,36,38,10,10, 7,39,11		7, 4
8″	38,21,16,57,11,56,19,56,20,41		2,48,14,33,18	
		1,36,38, 7,21,53, 5,53		7, 4
10″	38,21,18,33,50, 3,41,49,26,34		2,48,14,40,22	
		1,36,38, 4,33,38,25,31		7, 4
12″	38,21,20,10,28, 8,15,27,52, 5		2,48,14,47,26	
		1,36,38, 1,45,23,38, 5		7, 4
14″	38,21,21,47, 6,10, 0,51,30,10		2,48,14,54,30	
		1,36,37,58,57, 8,43,35		7, 4
16″	38,21,23,23,44, 8,58, 0,13,45		2,48,15, 1,34	
		1,36,37,56, 8,53,42, 1		7, 4
18″	38,21,25, 0,22, 5, 6,53,55,46		2,48,15, 8,38	
		1,36,37,53,20,38,33,23		7, 4
20″	38,21,26,36,59,58,27,32,29, 9		2,48,15,15,42	
		1,36,37,50,32,23,17,41		7, 4
22″	38,21,28,13,37,48,59,55,46,50		2,48,15,22,46	
		1,36,37,47,44, 7,54,55		7, 4
24″	38,21,29,50,15,36,44, 3,41,45		2,48,15,29,50	
		1,36,37,44,55,52,25, 5		7, 4
26″	38,21,31,26,53,21,39,56, 6,50		2,48,15,36,54	
		1,36,37,42, 7,36,48,11		7, 4
28″	38,21,33, 3,31, 3,47,32,55, 1		2,48,15,43,58	
		1,36,37,39,19,21, 4,13		7, 4
30″	38,21,34,40, 8,43, 6,53,59,14		2,48,15,51, 2	
		1,36,37,36,31, 5,13,11		7, 4
32″	38,21,36,16,46,19,37,59,12,25		2,48,15,58, 6	
		1,36,37,33,42,49,15, 5		7, 4
34″	38,21,37,53,23,53,20,48,27,30		2,48,16, 5,10	
		1,36,37,30,54,33, 9,55		7, 4
36″	38,21,39,30, 1,24,15,21,37,25		2,48,16,12,14	
		1,36,37,28, 6,16,57,41		7, 4
38″	38,21,41, 6,38,52,21,38,35, 6		2,48,16,19,18	
		1,36,37,25,18, 0,38,23		7, 4
40″	38,21,42,43,16,17,39,39,13,29		2,48,16,26,22	
		1,36,37,22,29,44,12, 1		7, 4
42″	38,21,44,19,53,40, 9,23,25,30		2,48,16,33,26	
		1,36,37,19,41,27,38,35		7, 4
44″	38,21,45,56,30,59,50,51, 4, 5		2,48,16,40,30	
		1,36,37,16,53,10,58, 5		7, 4
46″	38,21,47,33, 8,16,44, 2, 2,10		2,48,16,47,34	
		1,36,37,14, 4,54,10,31		7, 4
48″	38,21,49, 9,45,30,48,56,12,41		2,48,16,54,38	
		1,36,37,11,16,37,15,53		7, 4
50″	38,21,50,46,22,42, 5,33,28,34		2,48,17, 1,42	
		1,36,37, 8,28,20,14,11		7, 4
52″	38,21,52,22,59,50,33,53,42,45		2,48,17, 8,46	
		1,36,37, 5,40, 3, 5,25		7, 4
54″	38,21,53,59,36,56,13,56,48,10		2,48,17,15,50	
		1,36,37, 2,51,45,49,35		7, 4
56″	38,21,55,36,13,59, 5,42,37,45		2,48,17,22,54	
		1,36,37, 0, 3,28,26,41		7, 4
58″	38,21,57,12,50,59, 9,11, 4,26		2,48,17,29,58	
		1,36,36,57,15,10,56,43		
60″	38,21,58,49,27,56,24,22, 1, 9			
exact	38,21,58,49,27,56,24,22,11, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°45′ 0″	38,21,58,49,27,56,24,22,11, 3			
		1,36,36,54,26,53,20,44		
2″	38,22, 0,26, 4,50,51,15,31,47		2,48,17,44, 1	
		1,36,36,51,38,35,36,43		7, 4
4″	38,22, 2, 2,41,42,29,51, 8,30		2,48,17,51, 5	
		1,36,36,48,50,17,45,38		7, 4
6″	38,22, 3,39,18,31,20, 8,54, 8		2,48,17,58, 9	
		1,36,36,46, 1,59,47,29		7, 4
8″	38,22, 5,15,55,17,22, 8,41,37		2,48,18, 5,13	
		1,36,36,43,13,41,42,16		7, 4
10″	38,22, 6,52,32, 0,35,50,23,53		2,48,18,12,17	
		1,36,36,40,25,23,29,59		7, 4
12″	38,22, 8,29, 8,41, 1,13,53,52		2,48,18,19,21	
		1,36,36,37,37, 5,10,38		7, 4
14″	38,22,10, 5,45,18,38,19, 4,30		2,48,18,26,25	
		1,36,36,34,48,46,44,13		7, 4
16″	38,22,11,42,21,53,27, 5,48,43		2,48,18,33,29	
		1,36,36,32, 0,28,10,44		7, 4
18″	38,22,13,18,58,25,27,33,59,27		2,48,18,40,33	
		1,36,36,29,12, 9,30,11		7, 4
20″	38,22,14,55,34,54,39,43,29,38		2,48,18,47,37	
		1,36,36,26,23,50,42,34		7, 4
22″	38,22,16,32,11,21, 3,34,12,12		2,48,18,54,41	
		1,36,36,23,35,31,47,53		7, 4
24″	38,22,18, 8,47,44,39, 6, 0, 5		2,48,19, 1,45	
		1,36,36,20,47,12,46, 8		7, 4
26″	38,22,19,45,24, 5,26,18,46,13		2,48,19, 8,49	
		1,36,36,17,58,53,37,19		7, 4
28″	38,22,21,22, 0,23,25,12,23,32		2,48,19,15,53	
		1,36,36,15,10,34,21,26		7, 4
30″	38,22,22,58,36,38,35,46,44,58		2,48,19,22,57	
		1,36,36,12,22,14,58,29		7, 4
32″	38,22,24,35,12,50,58, 1,43,27		2,48,19,30, 1	
		1,36,36, 9,33,55,28,28		7, 4
34″	38,22,26,11,49, 0,31,57,11,55		2,48,19,37, 5	
		1,36,36, 6,45,35,51,23		7, 4
36″	38,22,27,48,25, 7,17,33, 3,18		2,48,19,44, 9	
		1,36,36, 3,57,16, 7,14		7, 4
38″	38,22,29,25, 1,11,14,49,10,32		2,48,19,51,13	
		1,36,36, 1, 8,56,16, 1		7, 4
40″	38,22,31, 1,37,12,23,45,26,33		2,48,19,58,17	
		1,36,35,58,20,36,17,44		7, 4
42″	38,22,32,38,13,10,44,21,44,17		2,48,20, 5,21	
		1,36,35,55,32,16,12,23		7, 4
44″	38,22,34,14,49, 6,16,37,56,40		2,48,20,12,25	
		1,36,35,52,43,55,59,58		7, 4
46″	38,22,35,51,24,59, 0,33,56,38		2,48,20,19,29	
		1,36,35,49,55,35,40,29		7, 4
48″	38,22,37,28, 0,48,56, 9,37, 7		2,48,20,26,33	
		1,36,35,47, 7,15,13,56		7, 4
50″	38,22,39, 4,36,36, 3,24,51, 3		2,48,20,33,37	
		1,36,35,44,18,54,40,19		7, 4
52″	38,22,40,41,12,20,22,19,31,22		2,48,20,40,41	
		1,36,35,41,30,33,59,38		7, 4
54″	38,22,42,17,48, 1,52,53,31, 0		2,48,20,47,45	
		1,36,35,38,42,13,11,53		7, 4
56″	38,22,43,54,23,40,35, 6,42,53		2,48,20,54,49	
		1,36,35,35,53,52,17, 4		7, 4
58″	38,22,45,30,59,16,28,58,59,57		2,48,21, 1,53	
		1,36,35,33, 5,31,15,11		
60″	38,22,47, 7,34,49,34,30,15, 8			
exact	38,22,47, 7,34,49,34,30,28, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°46′ 0″	38,22,47, 7,34,49,34,30,28, 9			
		1,36,35,30,17,10, 7,46		
2″	38,22,48,44,10,19,51,40,35,55		2,48,21,15,54	
		1,36,35,27,28,48,51,52		7, 4
4″	38,22,50,20,45,47,20,29,27,47		2,48,21,22,58	
		1,36,35,24,40,27,28,54		7, 4
6″	38,22,51,57,21,12, 0,56,56,41		2,48,21,30, 2	
		1,36,35,21,52, 5,58,52		7, 4
8″	38,22,53,33,56,33,53, 2,55,33		2,48,21,37, 6	
		1,36,35,19, 3,44,21,46		7, 4
10″	38,22,55,10,31,52,56,47,17,19		2,48,21,44,10	
		1,36,35,16,15,22,37,36		7, 4
12″	38,22,56,47, 7, 9,12, 9,54,55		2,48,21,51,14	
		1,36,35,13,27, 0,46,22		7, 4
14″	38,22,58,23,42,22,39,10,41,17		2,48,21,58,18	
		1,36,35,10,38,38,48, 4		7, 4
16″	38,23, 0, 0,17,33,17,49,29,21		2,48,22, 5,22	
		1,36,35, 7,50,16,42,42		7, 4
18″	38,23, 1,36,52,41, 8, 6,12, 3		2,48,22,12,26	
		1,36,35, 5, 1,54,30,16		7, 4
20″	38,23, 3,13,27,46,10, 0,42,19		2,48,22,19,30	
		1,36,35, 2,13,32,10,46		7, 4
22″	38,23, 4,50, 2,48,23,32,53, 5		2,48,22,26,34	
		1,36,34,59,25, 9,44,12		7, 4
24″	38,23, 6,26,37,47,48,42,37,17		2,48,22,33,38	
		1,36,34,56,36,47,10,34		7, 4
26″	38,23, 8, 3,12,44,25,29,47,51		2,48,22,40,42	
		1,36,34,53,48,24,29,52		7, 4
28″	38,23, 9,39,47,38,13,54,17,43		2,48,22,47,46	
		1,36,34,51, 0, 1,42, 6		7, 4
30″	38,23,11,16,22,29,13,55,59,49		2,48,22,54,50	
		1,36,34,48,11,38,47,16		7, 4
32″	38,23,12,52,57,17,25,34,47, 5		2,48,23, 1,54	
		1,36,34,45,23,15,45,22		7, 4
34″	38,23,14,29,32, 2,48,50,32,27		2,48,23, 8,58	
		1,36,34,42,34,52,36,24		7, 4
36″	38,23,16, 6, 6,45,23,43, 8,51		2,48,23,16, 2	
		1,36,34,39,46,29,20,22		7, 4
38″	38,23,17,42,41,25,10,12,29,13		2,48,23,23, 6	
		1,36,34,36,58, 5,57,16		7, 4
40″	38,23,19,19,16, 2, 8,18,26,29		2,48,23,30,10	
		1,36,34,34, 9,42,27, 6		7, 4
42″	38,23,20,55,50,36,18, 0,53,35		2,48,23,37,14	
		1,36,34,31,21,18,49,52		7, 4
44″	38,23,22,32,25, 7,39,19,43,27		2,48,23,44,18	
		1,36,34,28,32,55, 5,34		7, 4
46″	38,23,24, 8,59,36,12,14,49, 1		2,48,23,51,22	
		1,36,34,25,44,31,14,12		7, 4
48″	38,23,25,45,34, 1,56,46, 3,13		2,48,23,58,26	
		1,36,34,22,56, 7,15,46		7, 4
50″	38,23,27,22, 8,24,52,53,18,59		2,48,24, 5,30	
		1,36,34,20, 7,43,10,16		7, 4
52″	38,23,28,58,42,45, 0,36,29,15		2,48,24,12,34	
		1,36,34,17,19,18,57,42		7, 4
54″	38,23,30,35,17, 2,19,55,26,57		2,48,24,19,38	
		1,36,34,14,30,54,38, 4		7, 4
56″	38,23,32,11,51,16,50,50, 5, 1		2,48,24,26,42	
		1,36,34,11,42,30,11,22		7, 4
58″	38,23,33,48,25,28,33,20,16,23		2,48,24,33,46	
		1,36,34, 8,54, 5,37,36		
60″	38,23,35,24,59,37,27,25,53,59			
exact	38,23,35,24,59,37,27,26,17,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°47′ 0″	38,23,35,24,59,37,27,26,17,48			
		1,36,34, 6, 5,40,59,19		
2″	38,23,37, 1,33,43,33, 7,17, 7		2,48,24,47,43	
		1,36,34, 3,17,16,11,36		7, 4
4″	38,23,38,38, 7,46,50,23,28,43		2,48,24,54,47	
		1,36,34, 0,28,51,16,49		7, 4
6″	38,23,40,14,41,47,19,14,45,32		2,48,25, 1,51	
		1,36,33,57,40,26,14,58		7, 4
8″	38,23,41,51,15,44,59,41, 0,30		2,48,25, 8,55	
		1,36,33,54,52, 1, 6, 3		7, 4
10″	38,23,43,27,49,39,51,42, 6,33		2,48,25,15,59	
		1,36,33,52, 3,35,50, 4		7, 4
12″	38,23,45, 4,23,31,55,17,56,37		2,48,25,23, 3	
		1,36,33,49,15,10,27, 1		7, 4
14″	38,23,46,40,57,21,10,28,23,38		2,48,25,30, 7	
		1,36,33,46,26,44,56,54		7, 4
16″	38,23,48,17,31, 7,37,13,20,32		2,48,25,37,11	
		1,36,33,43,38,19,19,43		7, 4
18″	38,23,49,54, 4,51,15,32,40,15		2,48,25,44,15	
		1,36,33,40,49,53,35,28		7, 4
20″	38,23,51,30,38,32, 5,26,15,43		2,48,25,51,19	
		1,36,33,38, 1,27,44, 9		7, 4
22″	38,23,53, 7,12,10, 6,53,59,52		2,48,25,58,23	
		1,36,33,35,13, 1,45,46		7, 4
24″	38,23,54,43,45,45,19,55,45,38		2,48,26, 5,27	
		1,36,33,32,24,35,40,19		7, 4
26″	38,23,56,20,19,17,44,31,25,57		2,48,26,12,31	
		1,36,33,29,36, 9,27,48		7, 4
28″	38,23,57,56,52,47,20,40,53,45		2,48,26,19,35	
		1,36,33,26,47,43, 8,13		7, 4
30″	38,23,59,33,26,14, 8,24, 1,58		2,48,26,26,39	
		1,36,33,23,59,16,41,34		7, 4
32″	38,24, 1, 9,59,38, 7,40,43,32		2,48,26,33,43	
		1,36,33,21,10,50, 7,51		7, 4
34″	38,24, 2,46,32,59,18,30,51,23		2,48,26,40,47	
		1,36,33,18,22,23,27, 4		7, 4
36″	38,24, 4,23, 6,17,40,54,18,27		2,48,26,47,51	
		1,36,33,15,33,56,39,13		7, 4
38″	38,24, 5,59,39,33,14,50,57,40		2,48,26,54,55	
		1,36,33,12,45,29,44,18		7, 4
40″	38,24, 7,36,12,46, 0,20,41,58		2,48,27, 1,59	
		1,36,33, 9,57, 2,42,19		7, 4
42″	38,24, 9,12,45,55,57,23,24,17		2,48,27, 9, 3	
		1,36,33, 7, 8,35,33,16		7, 4
44″	38,24,10,49,19, 3, 5,58,57,33		2,48,27,16, 7	
		1,36,33, 4,20, 8,17, 9		7, 4
46″	38,24,12,25,52, 7,26, 7,14,42		2,48,27,23,11	
		1,36,33, 1,31,40,53,58		7, 4
48″	38,24,14, 2,25, 8,57,48, 8,40		2,48,27,30,15	
		1,36,32,58,43,13,23,43		7, 4
50″	38,24,15,38,58, 7,41, 1,32,23		2,48,27,37,19	
		1,36,32,55,54,45,46,24		7, 4
52″	38,24,17,15,31, 3,35,47,18,47		2,48,27,44,23	
		1,36,32,53, 6,18, 2, 1		7, 4
54″	38,24,18,52, 3,56,42, 5,20,48		2,48,27,51,27	
		1,36,32,50,17,50,10,34		7, 4
56″	38,24,20,28,36,46,59,55,31,22		2,48,27,58,31	
		1,36,32,47,29,22,12, 3		7, 4
58″	38,24,22, 5, 9,34,29,17,43,25		2,48,28, 5,35	
		1,36,32,44,40,54, 6,28		
60″	38,24,23,41,42,19,10,11,49,53			
exact	38,24,23,41,42,19,10,12,17,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°48′ 0″	38,24,23,41,42,19,10,12,17,52			
		1,36,32,41,52,25,56,55		
2″	38,24,25,18,15, 1, 2,38,14,47		2,48,28,19,29	
		1,36,32,39, 3,57,37,26		7, 3
4″	38,24,26,54,47,40, 6,35,52,13		2,48,28,26,32	
		1,36,32,36,15,29,10,54		7, 3
6″	38,24,28,31,20,16,22, 5, 3, 7		2,48,28,33,35	
		1,36,32,33,27, 0,37,19		7, 3
8″	38,24,30, 7,52,49,49, 5,40,26		2,48,28,40,38	
		1,36,32,30,38,31,56,41		7, 3
10″	38,24,31,44,25,20,27,37,37, 7		2,48,28,47,41	
		1,36,32,27,50, 3, 9, 0		7, 3
12″	38,24,33,20,57,48,17,40,46, 7		2,48,28,54,44	
		1,36,32,25, 1,34,14,16		7, 3
14″	38,24,34,57,30,13,19,15, 0,23		2,48,29, 1,47	
		1,36,32,22,13, 5,12,29		7, 3
16″	38,24,36,34, 2,35,32,20,12,52		2,48,29, 8,50	
		1,36,32,19,24,36, 3,39		7, 3
18″	38,24,38,10,34,54,56,56,16,31		2,48,29,15,53	
		1,36,32,16,36, 6,47,46		7, 3
20″	38,24,39,47, 7,11,33, 3, 4,17		2,48,29,22,56	
		1,36,32,13,47,37,24,50		7, 3
22″	38,24,41,23,39,25,20,40,29, 7		2,48,29,29,59	
		1,36,32,10,59, 7,54,51		7, 3
24″	38,24,43, 0,11,36,19,48,23,58		2,48,29,37, 2	
		1,36,32, 8,10,38,17,49		7, 3
26″	38,24,44,36,43,44,30,26,41,47		2,48,29,44, 5	
		1,36,32, 5,22, 8,33,44		7, 3
28″	38,24,46,13,15,49,52,35,15,31		2,48,29,51, 8	
		1,36,32, 2,33,38,42,36		7, 3
30″	38,24,47,49,47,52,26,13,58, 7		2,48,29,58,11	
		1,36,31,59,45, 8,44,25		7, 3
32″	38,24,49,26,19,52,11,22,42,32		2,48,30, 5,14	
		1,36,31,56,56,38,39,11		7, 3
34″	38,24,51, 2,51,49, 8, 1,21,43		2,48,30,12,17	
		1,36,31,54, 8, 8,26,54		7, 3
36″	38,24,52,39,23,43,16, 9,48,37		2,48,30,19,20	
		1,36,31,51,19,38, 7,34		7, 3
38″	38,24,54,15,55,34,35,47,56,11		2,48,30,26,23	
		1,36,31,48,31, 7,41,11		7, 3
40″	38,24,55,52,27,23, 6,55,37,22		2,48,30,33,26	
		1,36,31,45,42,37, 7,45		7, 3
42″	38,24,57,28,59, 8,49,32,45, 7		2,48,30,40,29	
		1,36,31,42,54, 6,27,16		7, 3
44″	38,24,59, 5,30,51,43,39,12,23		2,48,30,47,32	
		1,36,31,40, 5,35,39,44		7, 3
46″	38,25, 0,42, 2,31,49,14,52, 7		2,48,30,54,35	
		1,36,31,37,17, 4,45, 9		7, 3
48″	38,25, 2,18,34, 9, 6,19,37,16		2,48,31, 1,38	
		1,36,31,34,28,33,43,31		7, 3
50″	38,25, 3,55, 5,43,34,53,20,47		2,48,31, 8,41	
		1,36,31,31,40, 2,34,50		7, 3
52″	38,25, 5,31,37,15,14,55,55,37		2,48,31,15,44	
		1,36,31,28,51,31,19, 6		7, 3
54″	38,25, 7, 8, 8,44, 6,27,14,43		2,48,31,22,47	
		1,36,31,26, 2,59,56,19		7, 3
56″	38,25, 8,44,40,10, 9,27,11, 2		2,48,31,29,50	
		1,36,31,23,14,28,26,29		7, 3
58″	38,25,10,21,11,33,23,55,37,31		2,48,31,36,53	
		1,36,31,20,25,56,49,36		
60″	38,25,11,57,42,53,49,52,27, 7			
exact	38,25,11,57,42,53,49,51,52,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°49′ 0″	38,25,11,57,42,53,49,51,52,22			
		1,36,31,17,37,25, 2, 7		
2″	38,25,13,34,14,11,27,16,54,29		2,48,31,51,13	
		1,36,31,14,48,53,10,54		7, 3
4″	38,25,15,10,45,26,16,10, 5,23		2,48,31,58,16	
		1,36,31,12, 0,21,12,38		7, 3
6″	38,25,16,47,16,38,16,31,18, 1		2,48,32, 5,19	
		1,36,31, 9,11,49, 7,19		7, 3
8″	38,25,18,23,47,47,28,20,25,20		2,48,32,12,22	
		1,36,31, 6,23,16,54,57		7, 3
10″	38,25,20, 0,18,53,51,37,20,17		2,48,32,19,25	
		1,36,31, 3,34,44,35,32		7, 3
12″	38,25,21,36,49,57,26,21,55,49		2,48,32,26,28	
		1,36,31, 0,46,12, 9, 4		7, 3
14″	38,25,23,13,20,58,12,34, 4,53		2,48,32,33,31	
		1,36,30,57,57,39,35,33		7, 3
16″	38,25,24,49,51,56,10,13,40,26		2,48,32,40,34	
		1,36,30,55, 9, 6,54,59		7, 3
18″	38,25,26,26,22,51,19,20,35,25		2,48,32,47,37	
		1,36,30,52,20,34, 7,22		7, 3
20″	38,25,28, 2,53,43,39,54,42,47		2,48,32,54,40	
		1,36,30,49,32, 1,12,42		7, 3
22″	38,25,29,39,24,33,11,55,55,29		2,48,33, 1,43	
		1,36,30,46,43,28,10,59		7, 3
24″	38,25,31,15,55,19,55,24, 6,28		2,48,33, 8,46	
		1,36,30,43,54,55, 2,13		7, 3
26″	38,25,32,52,26, 3,50,19, 8,41		2,48,33,15,49	
		1,36,30,41, 6,21,46,24		7, 3
28″	38,25,34,28,56,44,56,40,55, 5		2,48,33,22,52	
		1,36,30,38,17,48,23,32		7, 3
30″	38,25,36, 5,27,23,14,29,18,37		2,48,33,29,55	
		1,36,30,35,29,14,53,37		7, 3
32″	38,25,37,41,57,58,43,44,12,14		2,48,33,36,58	
		1,36,30,32,40,41,16,39		7, 3
34″	38,25,39,18,28,31,24,25,28,53		2,48,33,44, 1	
		1,36,30,29,52, 7,32,38		7, 3
36″	38,25,40,54,59, 1,16,33, 1,31		2,48,33,51, 4	
		1,36,30,27, 3,33,41,34		7, 3
38″	38,25,42,31,29,28,20, 6,43, 5		2,48,33,58, 7	
		1,36,30,24,14,59,43,27		7, 3
40″	38,25,44, 7,59,52,35, 6,26,32		2,48,34, 5,10	
		1,36,30,21,26,25,38,17		7, 3
42″	38,25,45,44,30,14, 1,32, 4,49		2,48,34,12,13	
		1,36,30,18,37,51,26, 4		7, 3
44″	38,25,47,21, 0,32,39,23,30,53		2,48,34,19,16	
		1,36,30,15,49,17, 6,48		7, 3
46″	38,25,48,57,30,48,28,40,37,41		2,48,34,26,19	
		1,36,30,13, 0,42,40,29		7, 3
48″	38,25,50,34, 1, 1,29,23,18,10		2,48,34,33,22	
		1,36,30,10,12, 8, 7, 7		7, 3
50″	38,25,52,10,31,11,41,31,25,17		2,48,34,40,25	
		1,36,30, 7,23,33,26,42		7, 3
52″	38,25,53,47, 1,19, 5, 4,51,59		2,48,34,47,28	
		1,36,30, 4,34,58,39,14		7, 3
54″	38,25,55,23,31,23,40, 3,31,13		2,48,34,54,31	
		1,36,30, 1,46,23,44,43		7, 3
56″	38,25,57, 0, 1,25,26,27,15,56		2,48,35, 1,34	
		1,36,29,58,57,48,43, 9		7, 3
58″	38,25,58,36,31,24,24,15,59, 5		2,48,35, 8,37	
		1,36,29,56, 9,13,34,32		
60″	38,26, 0,13, 1,20,33,29,33,37			
exact	38,26, 0,13, 1,20,33,29,11,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°50′ 0″	38,26, 0,13, 1,20,33,29,11,29			
		1,36,29,53,20,38,16,27		
2″	38,26, 1,49,31,13,54, 7,27,56		2,48,35,22,53	
		1,36,29,50,32, 2,53,34		7, 3
4″	38,26, 3,26, 1, 4,26,10,21,30		2,48,35,29,56	
		1,36,29,47,43,27,23,38		7, 3
6″	38,26, 5, 2,30,52, 9,37,45, 8		2,48,35,36,59	
		1,36,29,44,54,51,46,39		7, 3
8″	38,26, 6,39, 0,37, 4,29,31,47		2,48,35,44, 2	
		1,36,29,42, 6,16, 2,37		7, 3
10″	38,26, 8,15,30,19,10,45,34,24		2,48,35,51, 5	
		1,36,29,39,17,40,11,32		7, 3
12″	38,26, 9,51,59,58,28,25,45,56		2,48,35,58, 8	
		1,36,29,36,29, 4,13,24		7, 3
14″	38,26,11,28,29,34,57,29,59,20		2,48,36, 5,11	
		1,36,29,33,40,28, 8,13		7, 3
16″	38,26,13, 4,59, 8,37,58, 7,33		2,48,36,12,14	
		1,36,29,30,51,51,55,59		7, 3
18″	38,26,14,41,28,39,29,50, 3,32		2,48,36,19,17	
		1,36,29,28, 3,15,36,42		7, 3
20″	38,26,16,17,58, 7,33, 5,40,14		2,48,36,26,20	
		1,36,29,25,14,39,10,22		7, 3
22″	38,26,17,54,27,32,47,44,50,36		2,48,36,33,23	
		1,36,29,22,26, 2,36,59		7, 3
24″	38,26,19,30,56,55,13,47,27,35		2,48,36,40,26	
		1,36,29,19,37,25,56,33		7, 3
26″	38,26,21, 7,26,14,51,13,24, 8		2,48,36,47,29	
		1,36,29,16,48,49, 9, 4		7, 3
28″	38,26,22,43,55,31,40, 2,33,12		2,48,36,54,32	
		1,36,29,14, 0,12,14,32		7, 3
30″	38,26,24,20,24,45,40,14,47,44		2,48,37, 1,35	
		1,36,29,11,11,35,12,57		7, 3
32″	38,26,25,56,53,56,51,50, 0,41		2,48,37, 8,38	
		1,36,29, 8,22,58, 4,19		7, 3
34″	38,26,27,33,23, 5,14,48, 5, 0		2,48,37,15,41	
		1,36,29, 5,34,20,48,38		7, 3
36″	38,26,29, 9,52,10,49, 8,53,38		2,48,37,22,44	
		1,36,29, 2,45,43,25,54		7, 3
38″	38,26,30,46,21,13,34,52,19,32		2,48,37,29,47	
		1,36,28,59,57, 5,56, 7		7, 3
40″	38,26,32,22,50,13,31,58,15,39		2,48,37,36,50	
		1,36,28,57, 8,28,19,17		7, 3
42″	38,26,33,59,19,10,40,26,34,56		2,48,37,43,53	
		1,36,28,54,19,50,35,24		7, 3
44″	38,26,35,35,48, 5, 0,17,10,20		2,48,37,50,56	
		1,36,28,51,31,12,44,28		7, 3
46″	38,26,37,12,16,56,31,29,54,48		2,48,37,57,59	
		1,36,28,48,42,34,46,29		7, 3
48″	38,26,38,48,45,45,14, 4,41,17		2,48,38, 5, 2	
		1,36,28,45,53,56,41,27		7, 3
50″	38,26,40,25,14,31, 8, 1,22,44		2,48,38,12, 5	
		1,36,28,43, 5,18,29,22		7, 3
52″	38,26,42, 1,43,14,13,19,52, 6		2,48,38,19, 8	
		1,36,28,40,16,40,10,14		7, 3
54″	38,26,43,38,11,54,30, 0, 2,20		2,48,38,26,11	
		1,36,28,37,28, 1,44, 3		7, 3
56″	38,26,45,14,40,31,58, 1,46,23		2,48,38,33,14	
		1,36,28,34,39,23,10,49		7, 3
58″	38,26,46,51, 9, 6,37,24,57,12		2,48,38,40,17	
		1,36,28,31,50,44,30,32		
60″	38,26,48,27,37,38,28, 9,27,44			
exact	38,26,48,27,37,38,28, 9,11,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°51′ 0″	38,26,48,27,37,38,28, 9,11,39			
		1,36,28,29, 2, 5,41,28		
2″	38,26,50, 4, 6, 7,30,14,53, 7		2,48,38,54,30	
		1,36,28,26,13,26,46,58		7, 3
4″	38,26,51,40,34,33,43,41,40, 5		2,48,39, 1,33	
		1,36,28,23,24,47,45,25		7, 3
6″	38,26,53,17, 2,57, 8,29,25,30		2,48,39, 8,36	
		1,36,28,20,36, 8,36,49		7, 3
8″	38,26,54,53,31,17,44,38, 2,19		2,48,39,15,39	
		1,36,28,17,47,29,21,10		7, 3
10″	38,26,56,29,59,35,32, 7,23,29		2,48,39,22,42	
		1,36,28,14,58,49,58,28		7, 3
12″	38,26,58, 6,27,50,30,57,21,57		2,48,39,29,45	
		1,36,28,12,10,10,28,43		7, 3
14″	38,26,59,42,56, 2,41, 7,50,40		2,48,39,36,48	
		1,36,28, 9,21,30,51,55		7, 3
16″	38,27, 1,19,24,12, 2,38,42,35		2,48,39,43,51	
		1,36,28, 6,32,51, 8, 4		7, 3
18″	38,27, 2,55,52,18,35,29,50,39		2,48,39,50,54	
		1,36,28, 3,44,11,17,10		7, 3
20″	38,27, 4,32,20,22,19,41, 7,49		2,48,39,57,57	
		1,36,28, 0,55,31,19,13		7, 3
22″	38,27, 6, 8,48,23,15,12,27, 2		2,48,40, 5, 0	
		1,36,27,58, 6,51,14,13		7, 3
24″	38,27, 7,45,16,21,22, 3,41,15		2,48,40,12, 3	
		1,36,27,55,18,11, 2,10		7, 3
26″	38,27, 9,21,44,16,40,14,43,25		2,48,40,19, 6	
		1,36,27,52,29,30,43, 4		7, 3
28″	38,27,10,58,12, 9, 9,45,26,29		2,48,40,26, 9	
		1,36,27,49,40,50,16,55		7, 3
30″	38,27,12,34,39,58,50,35,43,24		2,48,40,33,12	
		1,36,27,46,52, 9,43,43		7, 3
32″	38,27,14,11, 7,45,42,45,27, 7		2,48,40,40,15	
		1,36,27,44, 3,29, 3,28		7, 3
34″	38,27,15,47,35,29,46,14,30,35		2,48,40,47,18	
		1,36,27,41,14,48,16,10		7, 3
36″	38,27,17,24, 3,11, 1, 2,46,45		2,48,40,54,21	
		1,36,27,38,26, 7,21,49		7, 3
38″	38,27,19, 0,30,49,27,10, 8,34		2,48,41, 1,24	
		1,36,27,35,37,26,20,25		7, 3
40″	38,27,20,36,58,25, 4,36,28,59		2,48,41, 8,27	
		1,36,27,32,48,45,11,58		7, 3
42″	38,27,22,13,25,57,53,21,40,57		2,48,41,15,30	
		1,36,27,30, 0, 3,56,28		7, 3
44″	38,27,23,49,53,27,53,25,37,25		2,48,41,22,33	
		1,36,27,27,11,22,33,55		7, 3
46″	38,27,25,26,20,55, 4,48,11,20		2,48,41,29,36	
		1,36,27,24,22,41, 4,19		7, 3
48″	38,27,27, 2,48,19,27,29,15,39		2,48,41,36,39	
		1,36,27,21,33,59,27,40		7, 3
50″	38,27,28,39,15,41, 1,28,43,19		2,48,41,43,42	
		1,36,27,18,45,17,43,58		7, 3
52″	38,27,30,15,42,59,46,46,27,17		2,48,41,50,45	
		1,36,27,15,56,35,53,13		7, 3
54″	38,27,31,52,10,15,43,22,20,30		2,48,41,57,48	
		1,36,27,13, 7,53,55,25		7, 3
56″	38,27,33,28,37,28,51,16,15,55		2,48,42, 4,51	
		1,36,27,10,19,11,50,34		7, 3
58″	38,27,35, 5, 4,39,10,28, 6,29		2,48,42,11,54	
		1,36,27, 7,30,29,38,40		
60″	38,27,36,41,31,46,40,57,45, 9			
exact	38,27,36,41,31,46,40,57,35,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°52′ 0″	38,27,36,41,31,46,40,57,35,28			
		1,36,27, 4,41,47,18,42		
2″	38,27,38,17,58,51,22,44,54,10		2,48,42,26, 4	
		1,36,27, 1,53, 4,52,38		7, 3
4″	38,27,39,54,25,53,15,49,46,48		2,48,42,33, 7	
		1,36,26,59, 4,22,19,31		7, 3
6″	38,27,41,30,52,52,20,12, 6,19		2,48,42,40,10	
		1,36,26,56,15,39,39,21		7, 3
8″	38,27,43, 7,19,48,35,51,45,40		2,48,42,47,13	
		1,36,26,53,26,56,52, 8		7, 3
10″	38,27,44,43,46,42, 2,48,37,48		2,48,42,54,16	
		1,36,26,50,38,13,57,52		7, 3
12″	38,27,46,20,13,32,41, 2,35,40		2,48,43, 1,19	
		1,36,26,47,49,30,56,33		7, 3
14″	38,27,47,56,40,20,30,33,32,13		2,48,43, 8,22	
		1,36,26,45, 0,47,48,11		7, 3
16″	38,27,49,33, 7, 5,31,21,20,24		2,48,43,15,25	
		1,36,26,42,12, 4,32,46		7, 3
18″	38,27,51, 9,33,47,43,25,53,10		2,48,43,22,28	
		1,36,26,39,23,21,10,18		7, 3
20″	38,27,52,46, 0,27, 6,47, 3,28		2,48,43,29,31	
		1,36,26,36,34,37,40,47		7, 3
22″	38,27,54,22,27, 3,41,24,44,15		2,48,43,36,34	
		1,36,26,33,45,54, 4,13		7, 3
24″	38,27,55,58,53,37,27,18,48,28		2,48,43,43,37	
		1,36,26,30,57,10,20,36		7, 3
26″	38,27,57,35,20, 8,24,29, 9, 4		2,48,43,50,40	
		1,36,26,28, 8,26,29,56		7, 3
28″	38,27,59,11,46,36,32,55,39, 0		2,48,43,57,43	
		1,36,26,25,19,42,32,13		7, 3
30″	38,28, 0,48,13, 1,52,38,11,13		2,48,44, 4,46	
		1,36,26,22,30,58,27,27		7, 3
32″	38,28, 2,24,39,24,23,36,38,40		2,48,44,11,49	
		1,36,26,19,42,14,15,38		7, 3
34″	38,28, 4, 1, 5,44, 5,50,54,18		2,48,44,18,52	
		1,36,26,16,53,29,56,46		7, 3
36″	38,28, 5,37,32, 0,59,20,51, 4		2,48,44,25,55	
		1,36,26,14, 4,45,30,51		7, 3
38″	38,28, 7,13,58,15, 4, 6,21,55		2,48,44,32,58	
		1,36,26,11,16, 0,57,53		7, 3
40″	38,28, 8,50,24,26,20, 7,19,48		2,48,44,40, 1	
		1,36,26, 8,27,16,17,52		7, 3
42″	38,28,10,26,50,34,47,23,37,40		2,48,44,47, 4	
		1,36,26, 5,38,31,30,48		7, 3
44″	38,28,12, 3,16,40,25,55, 8,28		2,48,44,54, 7	
		1,36,26, 2,49,46,36,41		7, 3
46″	38,28,13,39,42,43,15,41,45, 9		2,48,45, 1,10	
		1,36,26, 0, 1, 1,35,31		7, 3
48″	38,28,15,16, 8,43,16,43,20,40		2,48,45, 8,13	
		1,36,25,57,12,16,27,18		7, 3
50″	38,28,16,52,34,40,28,59,47,58		2,48,45,15,16	
		1,36,25,54,23,31,12, 2		7, 3
52″	38,28,18,29, 0,34,52,31, 0, 0		2,48,45,22,19	
		1,36,25,51,34,45,49,43		7, 3
54″	38,28,20, 5,26,26,27,16,49,43		2,48,45,29,22	
		1,36,25,48,46, 0,20,21		7, 3
56″	38,28,21,41,52,15,13,17,10, 4		2,48,45,36,25	
		1,36,25,45,57,14,43,56		7, 3
58″	38,28,23,18,18, 1,10,31,54, 0		2,48,45,43,28	
		1,36,25,43, 8,29, 0,28		
60″	38,28,24,54,43,44,19, 0,54,28			
exact	38,28,24,54,43,44,19, 0,51,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°53′ 0″	38,28,24,54,43,44,19, 0,51,50	1,36,25,40,19,43, 9,41		
2″	38,28,26,31, 9,24,38,44, 1,31	1,36,25,37,30,57,12, 6	2,48,45,57,35	7, 3
4″	38,28,28, 7,35, 2, 9,41,13,37	1,36,25,34,42,11, 7,28	2,48,46, 4,38	7, 3
6″	38,28,29,44, 0,36,51,52,21, 5	1,36,25,31,53,24,55,47	2,48,46,11,41	7, 3
8″	38,28,31,20,26, 8,45,17,16,52	1,36,25,29, 4,38,37, 3	2,48,46,18,44	7, 3
10″	38,28,32,56,51,37,49,55,53,55	1,36,25,26,15,52,11,16	2,48,46,25,47	7, 3
12″	38,28,34,33,17, 4, 5,48, 5,11	1,36,25,23,27, 5,38,26	2,48,46,32,50	7, 3
14″	38,28,36, 9,42,27,32,53,43,37	1,36,25,20,38,18,58,33	2,48,46,39,53	7, 3
16″	38,28,37,46, 7,48,11,12,42,10	1,36,25,17,49,32,11,37	2,48,46,46,56	7, 3
18″	38,28,39,22,33, 6, 0,44,53,47	1,36,25,15, 0,45,17,38	2,48,46,53,59	7, 3
20″	38,28,40,58,58,21, 1,30,11,25	1,36,25,12,11,58,16,36	2,48,47, 1, 2	7, 3
22″	38,28,42,35,23,33,13,28,28, 1	1,36,25, 9,23,11, 8,31	2,48,47, 8, 5	7, 3
24″	38,28,44,11,48,42,36,39,36,32	1,36,25, 6,34,23,53,23	2,48,47,15, 8	7, 3
26″	38,28,45,48,13,49,11, 3,29,55	1,36,25, 3,45,36,31,12	2,48,47,22,11	7, 3
28″	38,28,47,24,38,52,56,40, 1, 7	1,36,25, 0,56,49, 1,58	2,48,47,29,14	7, 3
30″	38,28,49, 1, 3,53,53,29, 3, 5	1,36,24,58, 8, 1,25,41	2,48,47,36,17	7, 3
32″	38,28,50,37,28,52, 1,30,28,46	1,36,24,55,19,13,42,21	2,48,47,43,20	7, 3
34″	38,28,52,13,53,47,20,44,11, 7	1,36,24,52,30,25,51,58	2,48,47,50,23	7, 3
36″	38,28,53,50,18,39,51,10, 3, 5	1,36,24,49,41,37,54,32	2,48,47,57,26	7, 3
38″	38,28,55,26,43,29,32,47,57,37	1,36,24,46,52,49,50, 3	2,48,48, 4,29	7, 3
40″	38,28,57, 3, 8,16,25,37,47,40	1,36,24,44, 4, 1,38,31	2,48,48,11,32	7, 3
42″	38,28,58,39,33, 0,29,39,26,11	1,36,24,41,15,13,19,56	2,48,48,18,35	7, 3
44″	38,29, 0,15,57,41,44,52,46, 7	1,36,24,38,26,24,54,18	2,48,48,25,38	7, 3
46″	38,29, 1,52,22,20,11,17,40,25	1,36,24,35,37,36,21,37	2,48,48,32,41	7, 3
48″	38,29, 3,28,46,55,48,54, 2, 2	1,36,24,32,48,47,41,53	2,48,48,39,44	7, 3
50″	38,29, 5, 5,11,28,37,41,43,55	1,36,24,29,59,58,55, 6	2,48,48,46,47	7, 3
52″	38,29, 6,41,35,58,37,40,39, 1	1,36,24,27,11,10, 1,16	2,48,48,53,50	7, 3
54″	38,29, 8,18, 0,25,48,50,40,17	1,36,24,24,22,21, 0,23	2,48,49, 0,53	7, 3
56″	38,29, 9,54,24,50,11,11,40,40	1,36,24,21,33,31,52,27	2,48,49, 7,56	7, 3
58″	38,29,11,30,49,11,44,43,33, 7	1,36,24,18,44,42,37,28	2,48,49,14,59	
60″	38,29,13, 7,13,30,29,26,10,35			
exact	38,29,13, 7,13,30,29,26,15,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°54′ 0″	38,29,13, 7,13,30,29,26,15,50			
		1,36,24,15,55,53,15,59		
2″	38,29,14,43,37,46,25,19,31,49		2,48,49,29, 3	
		1,36,24,13, 7, 3,46,56		7, 3
4″	38,29,16,20, 1,59,32,23,18,45		2,48,49,36, 6	
		1,36,24,10,18,14,10,50		7, 3
6″	38,29,17,56,26, 9,50,37,29,35		2,48,49,43, 9	
		1,36,24, 7,29,24,27,41		7, 3
8″	38,29,19,32,50,17,20, 1,57,16		2,48,49,50,12	
		1,36,24, 4,40,34,37,29		7, 3
10″	38,29,21, 9,14,22, 0,36,34,45		2,48,49,57,15	
		1,36,24, 1,51,44,40,14		7, 3
12″	38,29,22,45,38,23,52,21,14,59		2,48,50, 4,18	
		1,36,23,59, 2,54,35,56		7, 3
14″	38,29,24,22, 2,22,55,15,50,55		2,48,50,11,21	
		1,36,23,56,14, 4,24,35		7, 3
16″	38,29,25,58,26,19, 9,20,15,30		2,48,50,18,24	
		1,36,23,53,25,14, 6,11		7, 3
18″	38,29,27,34,50,12,34,34,21,41		2,48,50,25,27	
		1,36,23,50,36,23,40,44		7, 3
20″	38,29,29,11,14, 3,10,58, 2,25		2,48,50,32,30	
		1,36,23,47,47,33, 8,14		7, 3
22″	38,29,30,47,37,50,58,31,10,39		2,48,50,39,33	
		1,36,23,44,58,42,28,41		7, 3
24″	38,29,32,24, 1,35,57,13,39,20		2,48,50,46,36	
		1,36,23,42, 9,51,42, 5		7, 3
26″	38,29,34, 0,25,18, 7, 5,21,25		2,48,50,53,39	
		1,36,23,39,21, 0,48,26		7, 3
28″	38,29,35,36,48,57,28, 6, 9,51		2,48,51, 0,42	
		1,36,23,36,32, 9,47,44		7, 3
30″	38,29,37,13,12,34, 0,15,57,35		2,48,51, 7,45	
		1,36,23,33,43,18,39,59		7, 3
32″	38,29,38,49,36, 7,43,34,37,34		2,48,51,14,48	
		1,36,23,30,54,27,25,11		7, 3
34″	38,29,40,25,59,38,38, 2, 2,45		2,48,51,21,51	
		1,36,23,28, 5,36, 3,20		7, 3
36″	38,29,42, 2,23, 6,43,38, 6, 5		2,48,51,28,54	
		1,36,23,25,16,44,34,26		7, 3
38″	38,29,43,38,46,32, 0,22,40,31		2,48,51,35,57	
		1,36,23,22,27,52,58,29		7, 3
40″	38,29,45,15, 9,54,28,15,39, 0		2,48,51,43, 0	
		1,36,23,19,39, 1,15,29		7, 3
42″	38,29,46,51,33,14, 7,16,54,29		2,48,51,50, 3	
		1,36,23,16,50, 9,25,26		7, 3
44″	38,29,48,27,56,30,57,26,19,55		2,48,51,57, 6	
		1,36,23,14, 1,17,28,20		7, 3
46″	38,29,50, 4,19,44,58,43,48,15		2,48,52, 4, 9	
		1,36,23,11,12,25,24,11		7, 3
48″	38,29,51,40,42,56,11, 9,12,26		2,48,52,11,12	
		1,36,23, 8,23,33,12,59		7, 3
50″	38,29,53,17, 6, 4,34,42,25,25		2,48,52,18,15	
		1,36,23, 5,34,40,54,44		7, 3
52″	38,29,54,53,29,10, 9,23,20, 9		2,48,52,25,18	
		1,36,23, 2,45,48,29,26		7, 3
54″	38,29,56,29,52,12,55,11,49,35		2,48,52,32,21	
		1,36,22,59,56,55,57, 5		7, 3
56″	38,29,58, 6,15,12,52, 7,46,40		2,48,52,39,24	
		1,36,22,57, 8, 3,17,41		7, 3
58″	38,29,59,42,38,10, 0,11, 4,21		2,48,52,46,27	
		1,36,22,54,19,10,31,14		
60″	38,30, 1,19, 1, 4,19,21,35,35			
exact	38,30, 1,19, 1, 4,19,21,48,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°55′ 0″	38,30, 1,19, 1, 4,19,21,48,52			
		1,36,22,51,30,17,39, 6		
2″	38,30, 2,55,23,55,49,39,27,58		2,48,53, 0,27	
		1,36,22,48,41,24,38,39		7, 3
4″	38,30, 4,31,46,44,31, 4, 6,37		2,48,53, 7,30	
		1,36,22,45,52,31,31, 9		7, 3
6″	38,30, 6, 8, 9,30,23,35,37,46		2,48,53,14,33	
		1,36,22,43, 3,38,16,36		7, 3
8″	38,30, 7,44,32,13,27,13,54,22		2,48,53,21,36	
		1,36,22,40,14,44,55, 0		7, 3
10″	38,30, 9,20,54,53,41,58,49,22		2,48,53,28,39	
		1,36,22,37,25,51,26,21		7, 3
12″	38,30,10,57,17,31, 7,50,15,43		2,48,53,35,42	
		1,36,22,34,36,57,50,39		7, 3
14″	38,30,12,33,40, 5,44,48, 6,22		2,48,53,42,45	
		1,36,22,31,48, 4, 7,54		7, 3
16″	38,30,14,10, 2,37,32,52,14,16		2,48,53,49,48	
		1,36,22,28,59,10,18, 6		7, 3
18″	38,30,15,46,25, 6,32, 2,32,22		2,48,53,56,51	
		1,36,22,26,10,16,21,15		7, 3
20″	38,30,17,22,47,32,42,18,53,37		2,48,54, 3,54	
		1,36,22,23,21,22,17,21		7, 3
22″	38,30,18,59, 9,56, 3,41,10,58		2,48,54,10,57	
		1,36,22,20,32,28, 6,24		7, 3
24″	38,30,20,35,32,16,36, 9,17,22		2,48,54,18, 0	
		1,36,22,17,43,33,48,24		7, 3
26″	38,30,22,11,54,34,19,43, 5,46		2,48,54,25, 3	
		1,36,22,14,54,39,23,21		7, 3
28″	38,30,23,48,16,49,14,22,29, 7		2,48,54,32, 6	
		1,36,22,12, 5,44,51,15		7, 3
30″	38,30,25,24,39, 1,20, 7,20,22		2,48,54,39, 9	
		1,36,22, 9,16,50,12, 6		7, 3
32″	38,30,27, 1, 1,10,36,57,32,28		2,48,54,46,12	
		1,36,22, 6,27,55,25,54		7, 3
34″	38,30,28,37,23,17, 4,52,58,22		2,48,54,53,15	
		1,36,22, 3,39, 0,32,39		7, 3
36″	38,30,30,13,45,20,43,53,31, 1		2,48,55, 0,18	
		1,36,22, 0,50, 5,32,21		7, 3
38″	38,30,31,50, 7,21,33,59, 3,22		2,48,55, 7,21	
		1,36,21,58, 1,10,25, 0		7, 3
40″	38,30,33,26,29,19,35, 9,28,22		2,48,55,14,24	
		1,36,21,55,12,15,10,36		7, 3
42″	38,30,35, 2,51,14,47,24,38,58		2,48,55,21,27	
		1,36,21,52,23,19,49, 9		7, 3
44″	38,30,36,39,13, 7,10,44,28, 7		2,48,55,28,30	
		1,36,21,49,34,24,20,39		7, 3
46″	38,30,38,15,34,56,45, 8,48,46		2,48,55,35,33	
		1,36,21,46,45,28,45, 6		7, 3
48″	38,30,39,51,56,43,30,37,33,52		2,48,55,42,36	
		1,36,21,43,56,33, 2,30		7, 3
50″	38,30,41,28,18,27,27,10,36,22		2,48,55,49,39	
		1,36,21,41, 7,37,12,51		7, 3
52″	38,30,43, 4,40, 8,34,47,49,13		2,48,55,56,42	
		1,36,21,38,18,41,16, 9		7, 3
54″	38,30,44,41, 1,46,53,29, 5,22		2,48,56, 3,45	
		1,36,21,35,29,45,12,24		7, 3
56″	38,30,46,17,23,22,23,14,17,46		2,48,56,10,48	
		1,36,21,32,40,49, 1,36		7, 3
58″	38,30,47,53,44,55, 4, 3,19,22		2,48,56,17,51	
		1,36,21,29,51,52,43,45		
60″	38,30,49,30, 6,24,55,56, 3, 7			
exact	38,30,49,30, 6,24,55,56,18,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°56′ 0″	38,30,49,30, 6,24,55,56,18,36			
		1,36,21,27, 2,56,20,38		
2″	38,30,51, 6,27,51,58,52,39,14		2,48,56,31,49	
		1,36,21,24,13,59,48,49		7, 3
4″	38,30,52,42,49,16,12,52,28, 3		2,48,56,38,52	
		1,36,21,21,25, 3, 9,57		7, 3
6″	38,30,54,19,10,37,37,55,38, 0		2,48,56,45,55	
		1,36,21,18,36, 6,24, 2		7, 3
8″	38,30,55,55,31,56,14, 2, 2, 2		2,48,56,52,58	
		1,36,21,15,47, 9,31, 4		7, 3
10″	38,30,57,31,53,12, 1,11,33, 6		2,48,57, 0, 1	
		1,36,21,12,58,12,31, 3		7, 3
12″	38,30,59, 8,14,24,59,24, 4, 9		2,48,57, 7, 4	
		1,36,21,10, 9,15,23,59		7, 3
14″	38,31, 0,44,35,35, 8,39,28, 8		2,48,57,14, 7	
		1,36,21, 7,20,18, 9,52		7, 3
16″	38,31, 2,20,56,42,28,57,38, 0		2,48,57,21,10	
		1,36,21, 4,31,20,48,42		7, 3
18″	38,31, 3,57,17,47, 0,18,26,42		2,48,57,28,13	
		1,36,21, 1,42,23,20,29		7, 3
20″	38,31, 5,33,38,48,42,41,47,11		2,48,57,35,16	
		1,36,20,58,53,25,45,13		7, 3
22″	38,31, 7, 9,59,47,36, 7,32,24		2,48,57,42,19	
		1,36,20,56, 4,28, 2,54		7, 3
24″	38,31, 8,46,20,43,40,35,35,18		2,48,57,49,22	
		1,36,20,53,15,30,13,32		7, 3
26″	38,31,10,22,41,36,56, 5,48,50		2,48,57,56,25	
		1,36,20,50,26,32,17, 7		7, 3
28″	38,31,11,59, 2,27,22,38, 5,57		2,48,58, 3,28	
		1,36,20,47,37,34,13,39		7, 3
30″	38,31,13,35,23,15, 0,12,19,36		2,48,58,10,31	
		1,36,20,44,48,36, 3, 8		7, 3
32″	38,31,15,11,43,59,48,48,22,44		2,48,58,17,34	
		1,36,20,41,59,37,45,34		7, 3
34″	38,31,16,48, 4,41,48,26, 8,18		2,48,58,24,37	
		1,36,20,39,10,39,20,57		7, 3
36″	38,31,18,24,25,20,59, 5,29,15		2,48,58,31,40	
		1,36,20,36,21,40,49,17		7, 3
38″	38,31,20, 0,45,57,20,46,18,32		2,48,58,38,43	
		1,36,20,33,32,42,10,34		7, 3
40″	38,31,21,37, 6,30,53,28,29, 6		2,48,58,45,46	
		1,36,20,30,43,43,24,48		7, 3
42″	38,31,23,13,27, 1,37,11,53,54		2,48,58,52,49	
		1,36,20,27,54,44,31,59		7, 3
44″	38,31,24,49,47,29,31,56,25,53		2,48,58,59,52	
		1,36,20,25, 5,45,32, 7		7, 3
46″	38,31,26,26, 7,54,37,41,58, 0		2,48,59, 6,55	
		1,36,20,22,16,46,25,12		7, 3
48″	38,31,28, 2,28,16,54,28,23,12		2,48,59,13,58	
		1,36,20,19,27,47,11,14		7, 3
50″	38,31,29,38,48,36,22,15,34,26		2,48,59,21, 1	
		1,36,20,16,38,47,50,13		7, 3
52″	38,31,31,15, 8,53, 1, 3,24,39		2,48,59,28, 4	
		1,36,20,13,49,48,22, 9		7, 3
54″	38,31,32,51,29, 6,50,51,46,48		2,48,59,35, 7	
		1,36,20,11, 0,48,47, 2		7, 3
56″	38,31,34,27,49,17,51,40,33,50		2,48,59,42,10	
		1,36,20, 8,11,49, 4,52		7, 3
58″	38,31,36, 4, 9,26, 3,29,38,42		2,48,59,49,13	
		1,36,20, 5,22,49,15,39		
60″	38,31,37,40,29,31,26,18,54,21			
exact	38,31,37,40,29,31,26,19,19, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°57′ 0″	38,31,37,40,29,31,26,19,19, 0			
		1,36,20, 2,33,49,22, 4		
2″	38,31,39,16,49,34, 0, 8,41, 4		2,49, 0, 3, 7	
		1,36,19,59,44,49,18,57		7, 3
4″	38,31,40,53, 9,33,44,58, 0, 1		2,49, 0,10,10	
		1,36,19,56,55,49, 8,47		7, 3
6″	38,31,42,29,29,30,40,47, 8,48		2,49, 0,17,13	
		1,36,19,54, 6,48,51,34		7, 3
8″	38,31,44, 5,49,24,47,36, 0,22		2,49, 0,24,16	
		1,36,19,51,17,48,27,18		7, 3
10″	38,31,45,42, 9,16, 5,24,27,40		2,49, 0,31,19	
		1,36,19,48,28,47,55,59		7, 3
12″	38,31,47,18,29, 4,34,12,23,39		2,49, 0,38,22	
		1,36,19,45,39,47,17,37		7, 3
14″	38,31,48,54,48,50,13,59,41,16		2,49, 0,45,25	
		1,36,19,42,50,46,32,12		7, 3
16″	38,31,50,31, 8,33, 4,46,13,28		2,49, 0,52,28	
		1,36,19,40, 1,45,39,44		7, 3
18″	38,31,52, 7,28,13, 6,31,53,12		2,49, 0,59,31	
		1,36,19,37,12,44,40,13		7, 3
20″	38,31,53,43,47,50,19,16,33,25		2,49, 1, 6,34	
		1,36,19,34,23,43,33,39		7, 3
22″	38,31,55,20, 7,24,43, 0, 7, 4		2,49, 1,13,37	
		1,36,19,31,34,42,20, 2		7, 3
24″	38,31,56,56,26,56,17,42,27, 6		2,49, 1,20,40	
		1,36,19,28,45,40,59,22		7, 3
26″	38,31,58,32,46,25, 3,23,26,28		2,49, 1,27,43	
		1,36,19,25,56,39,31,39		7, 3
28″	38,32, 0, 9, 5,51, 0, 2,58, 7		2,49, 1,34,46	
		1,36,19,23, 7,37,56,53		7, 3
30″	38,32, 1,45,25,14, 7,40,55, 0		2,49, 1,41,49	
		1,36,19,20,18,36,15, 4		7, 3
32″	38,32, 3,21,44,34,26,17,10, 4		2,49, 1,48,52	
		1,36,19,17,29,34,26,12		7, 3
34″	38,32, 4,58, 3,51,55,51,36,16		2,49, 1,55,55	
		1,36,19,14,40,32,30,17		7, 3
36″	38,32, 6,34,23, 6,36,24, 6,33		2,49, 2, 2,58	
		1,36,19,11,51,30,27,19		7, 3
38″	38,32, 8,10,42,18,27,54,33,52		2,49, 2,10, 1	
		1,36,19, 9, 2,28,17,18		7, 3
40″	38,32, 9,47, 1,27,30,22,51,10		2,49, 2,17, 4	
		1,36,19, 6,13,26, 0,14		7, 3
42″	38,32,11,23,20,33,43,48,51,24		2,49, 2,24, 7	
		1,36,19, 3,24,23,36, 7		7, 3
44″	38,32,12,59,39,37, 8,12,27,31		2,49, 2,31,10	
		1,36,19, 0,35,21, 4,57		7, 3
46″	38,32,14,35,58,37,43,33,32,28		2,49, 2,38,13	
		1,36,18,57,46,18,26,44		7, 3
48″	38,32,16,12,17,35,29,51,59,12		2,49, 2,45,16	
		1,36,18,54,57,15,41,28		7, 3
50″	38,32,17,48,36,30,27, 7,40,40		2,49, 2,52,19	
		1,36,18,52, 8,12,49, 9		7, 3
52″	38,32,19,24,55,22,35,20,29,49		2,49, 2,59,22	
		1,36,18,49,19, 9,49,47		7, 3
54″	38,32,21, 1,14,11,54,30,19,36		2,49, 3, 6,25	
		1,36,18,46,30, 6,43,22		7, 3
56″	38,32,22,37,32,58,24,37, 2,58		2,49, 3,13,28	
		1,36,18,43,41, 3,29,54		7, 3
58″	38,32,24,13,51,42, 5,40,32,52		2,49, 3,20,31	
		1,36,18,40,52, 0, 9,23		
60″	38,32,25,50,10,22,57,40,42,15			
exact	38,32,25,50,10,22,57,41,10,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°58′ 0″	38,32,25,50,10,22,57,41,10,20			
		1,36,18,38, 2,56,45, 0		
2″	38,32,27,26,29, 1, 0,37,55,20		2,49, 3,34,23	
		1,36,18,35,13,53,10,37		7, 2
4″	38,32,29, 2,47,36,14,31, 5,57		2,49, 3,41,25	
		1,36,18,32,24,49,29,12		7, 2
6″	38,32,30,39, 6, 8,39,20,35, 9		2,49, 3,48,27	
		1,36,18,29,35,45,40,45		7, 2
8″	38,32,32,15,24,38,15, 6,15,54		2,49, 3,55,29	
		1,36,18,26,46,41,45,16		7, 2
10″	38,32,33,51,43, 5, 1,48, 1,10		2,49, 4, 2,31	
		1,36,18,23,57,37,42,45		7, 2
12″	38,32,35,28, 1,28,59,25,43,55		2,49, 4, 9,33	
		1,36,18,21, 8,33,33,12		7, 2
14″	38,32,37, 4,19,50, 7,59,17, 7		2,49, 4,16,35	
		1,36,18,18,19,29,16,37		7, 2
16″	38,32,38,40,38, 8,27,28,33,44		2,49, 4,23,37	
		1,36,18,15,30,24,53, 0		7, 2
18″	38,32,40,16,56,23,57,53,26,44		2,49, 4,30,39	
		1,36,18,12,41,20,22,21		7, 2
20″	38,32,41,53,14,36,39,13,49, 5		2,49, 4,37,41	
		1,36,18, 9,52,15,44,40		7, 2
22″	38,32,43,29,32,46,31,29,33,45		2,49, 4,44,43	
		1,36,18, 7, 3,10,59,57		7, 2
24″	38,32,45, 5,50,53,34,40,33,42		2,49, 4,51,45	
		1,36,18, 4,14, 6, 8,12		7, 2
26″	38,32,46,42, 8,57,48,46,41,54		2,49, 4,58,47	
		1,36,18, 1,25, 1, 9,25		7, 2
28″	38,32,48,18,26,59,13,47,51,19		2,49, 5, 5,49	
		1,36,17,58,35,56, 3,36		7, 2
30″	38,32,49,54,44,57,49,43,54,55		2,49, 5,12,51	
		1,36,17,55,46,50,50,45		7, 2
32″	38,32,51,31, 2,53,36,34,45,40		2,49, 5,19,53	
		1,36,17,52,57,45,30,52		7, 2
34″	38,32,53, 7,20,46,34,20,16,32		2,49, 5,26,55	
		1,36,17,50, 8,40, 3,57		7, 2
36″	38,32,54,43,38,36,43, 0,20,29		2,49, 5,33,57	
		1,36,17,47,19,34,30, 0		7, 2
38″	38,32,56,19,56,24, 2,34,50,29		2,49, 5,40,59	
		1,36,17,44,30,28,49, 1		7, 2
40″	38,32,57,56,14, 8,33, 3,39,30		2,49, 5,48, 1	
		1,36,17,41,41,23, 1, 0		7, 2
42″	38,32,59,32,31,50,14,26,40,30		2,49, 5,55, 3	
		1,36,17,38,52,17, 5,57		7, 2
44″	38,33, 1, 8,49,29, 6,43,46,27		2,49, 6, 2, 5	
		1,36,17,36, 3,11, 3,52		7, 2
46″	38,33, 2,45, 7, 5, 9,54,50,19		2,49, 6, 9, 7	
		1,36,17,33,14, 4,54,45		7, 2
48″	38,33, 4,21,24,38,23,59,45, 4		2,49, 6,16, 9	
		1,36,17,30,24,58,38,36		7, 2
50″	38,33, 5,57,42, 8,48,58,23,40		2,49, 6,23,11	
		1,36,17,27,35,52,15,25		7, 2
52″	38,33, 7,33,59,36,24,50,39, 5		2,49, 6,30,13	
		1,36,17,24,46,45,45,12		7, 2
54″	38,33, 9,10,17, 1,11,36,24,17		2,49, 6,37,15	
		1,36,17,21,57,39, 7,57		7, 2
56″	38,33,10,46,34,23, 9,15,32,14		2,49, 6,44,17	
		1,36,17,19, 8,32,23,40		7, 2
58″	38,33,12,22,51,42,17,47,55,54		2,49, 6,51,19	
		1,36,17,16,19,25,32,21		
60″	38,33,13,59, 8,58,37,13,28,15			
exact	38,33,13,59, 8,58,37,12,59,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
39°59′ 0″	38,33,13,59, 8,58,37,12,59,13			
		1,36,17,13,30,18,30,56		
2″	38,33,15,35,26,12, 7,31,30, 9		2,49, 7, 5,35	
		1,36,17,10,41,11,25,21		7, 2
4″	38,33,17,11,43,22,48,42,55,30		2,49, 7,12,37	
		1,36,17, 7,52, 4,12,44		7, 2
6″	38,33,18,48, 0,30,40,47, 8,14		2,49, 7,19,39	
		1,36,17, 5, 2,56,53, 5		7, 2
8″	38,33,20,24,17,35,43,44, 1,19		2,49, 7,26,41	
		1,36,17, 2,13,49,26,24		7, 2
10″	38,33,22, 0,34,37,57,33,27,43		2,49, 7,33,43	
		1,36,16,59,24,41,52,41		7, 2
12″	38,33,23,36,51,37,22,15,20,24		2,49, 7,40,45	
		1,36,16,56,35,34,11,56		7, 2
14″	38,33,25,13, 8,33,57,49,32,20		2,49, 7,47,47	
		1,36,16,53,46,26,24, 9		7, 2
16″	38,33,26,49,25,27,44,15,56,29		2,49, 7,54,49	
		1,36,16,50,57,18,29,20		7, 2
18″	38,33,28,25,42,18,41,34,25,49		2,49, 8, 1,51	
		1,36,16,48, 8,10,27,29		7, 2
20″	38,33,30, 1,59, 6,49,44,53,18		2,49, 8, 8,53	
		1,36,16,45,19, 2,18,36		7, 2
22″	38,33,31,38,15,52, 8,47,11,54		2,49, 8,15,55	
		1,36,16,42,29,54, 2,41		7, 2
24″	38,33,33,14,32,34,38,41,14,35		2,49, 8,22,57	
		1,36,16,39,40,45,39,44		7, 2
26″	38,33,34,50,49,14,19,26,54,19		2,49, 8,29,59	
		1,36,16,36,51,37, 9,45		7, 2
28″	38,33,36,27, 5,51,11, 4, 4, 4		2,49, 8,37, 1	
		1,36,16,34, 2,28,32,44		7, 2
30″	38,33,38, 3,22,25,13,32,36,48		2,49, 8,44, 3	
		1,36,16,31,13,19,48,41		7, 2
32″	38,33,39,39,38,56,26,52,25,29		2,49, 8,51, 5	
		1,36,16,28,24,10,57,36		7, 2
34″	38,33,41,15,55,24,51, 3,23, 5		2,49, 8,58, 7	
		1,36,16,25,35, 1,59,29		7, 2
36″	38,33,42,52,11,50,26, 5,22,34		2,49, 9, 5, 9	
		1,36,16,22,45,52,54,20		7, 2
38″	38,33,44,28,28,13,11,58,16,54		2,49, 9,12,11	
		1,36,16,19,56,43,42, 9		7, 2
40″	38,33,46, 4,44,33, 8,41,59, 3		2,49, 9,19,13	
		1,36,16,17, 7,34,22,56		7, 2
42″	38,33,47,41, 0,50,16,16,21,59		2,49, 9,26,15	
		1,36,16,14,18,24,56,41		7, 2
44″	38,33,49,17,17, 4,34,41,18,40		2,49, 9,33,17	
		1,36,16,11,29,15,23,24		7, 2
46″	38,33,50,53,33,16, 3,56,42, 4		2,49, 9,40,19	
		1,36,16, 8,40, 5,43, 5		7, 2
48″	38,33,52,29,49,24,44, 2,25, 9		2,49, 9,47,21	
		1,36,16, 5,50,55,55,44		7, 2
50″	38,33,54, 6, 5,30,34,58,20,53		2,49, 9,54,23	
		1,36,16, 3, 1,46, 1,21		7, 2
52″	38,33,55,42,21,33,36,44,22,14		2,49,10, 1,25	
		1,36,16, 0,12,35,59,56		7, 2
54″	38,33,57,18,37,33,49,20,22,10		2,49,10, 8,27	
		1,36,15,57,23,25,51,29		7, 2
56″	38,33,58,54,53,31,12,46,13,39		2,49,10,15,29	
		1,36,15,54,34,15,36, 0		7, 2
58″	38,34, 0,31, 9,25,47, 1,49,39		2,49,10,22,31	
		1,36,15,51,45, 5,13,29		
60″	38,34, 2, 7,25,17,32, 7, 3, 8			
exact	38,34, 2, 7,25,17,32, 6,38,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40° 0′ 0″	38,34, 2, 7,25,17,32, 6,38,37	1,36,15,48,55,54,41,26		
2″	38,34, 3,43,41, 6,28, 1,20, 3	1,36,15,46, 6,44, 4,41	2,49,10,36,45	7, 2
4″	38,34, 5,19,56,52,34,45,24,44	1,36,15,43,17,33,20,54	2,49,10,43,47	7, 2
6″	38,34, 6,56,12,35,52,18,45,38	1,36,15,40,28,22,30, 5	2,49,10,50,49	7, 2
8″	38,34, 8,32,28,16,20,41,15,43	1,36,15,37,39,11,32,14	2,49,10,57,51	7, 2
10″	38,34,10, 8,43,53,59,52,47,57	1,36,15,34,50, 0,27,21	2,49,11, 4,53	7, 2
12″	38,34,11,44,59,28,49,53,15,18	1,36,15,32, 0,49,15,26	2,49,11,11,55	7, 2
14″	38,34,13,21,15, 0,50,42,30,44	1,36,15,29,11,37,56,29	2,49,11,18,57	7, 2
16″	38,34,14,57,30,30, 2,20,27,13	1,36,15,26,22,26,30,30	2,49,11,25,59	7, 2
18″	38,34,16,33,45,56,24,46,57,43	1,36,15,23,33,14,57,29	2,49,11,33, 1	7, 2
20″	38,34,18,10, 1,19,58, 1,55,12	1,36,15,20,44, 3,17,26	2,49,11,40, 3	7, 2
22″	38,34,19,46,16,40,42, 5,12,38	1,36,15,17,54,51,30,21	2,49,11,47, 5	7, 2
24″	38,34,21,22,31,58,36,56,42,59	1,36,15,15, 5,39,36,14	2,49,11,54, 7	7, 2
26″	38,34,22,58,47,13,42,36,19,13	1,36,15,12,16,27,35, 5	2,49,12, 1, 9	7, 2
28″	38,34,24,35, 2,25,59, 3,54,18	1,36,15, 9,27,15,26,54	2,49,12, 8,11	7, 2
30″	38,34,26,11,17,35,26,19,21,12	1,36,15, 6,38, 3,11,41	2,49,12,15,13	7, 2
32″	38,34,27,47,32,42, 4,22,32,53	1,36,15, 3,48,50,49,26	2,49,12,22,15	7, 2
34″	38,34,29,23,47,45,53,13,22,19	1,36,15, 0,59,38,20, 9	2,49,12,29,17	7, 2
36″	38,34,31, 0, 2,46,52,51,42,28	1,36,14,58,10,25,43,50	2,49,12,36,19	7, 2
38″	38,34,32,36,17,45, 3,17,26,18	1,36,14,55,21,13, 0,29	2,49,12,43,21	7, 2
40″	38,34,34,12,32,40,24,30,26,47	1,36,14,52,32, 0,10, 6	2,49,12,50,23	7, 2
42″	38,34,35,48,47,32,56,30,36,53	1,36,14,49,42,47,12,41	2,49,12,57,25	7, 2
44″	38,34,37,25, 2,22,39,17,49,34	1,36,14,46,53,34, 8,14	2,49,13, 4,27	7, 2
46″	38,34,39, 1,17, 9,32,51,57,48	1,36,14,44, 4,20,56,45	2,49,13,11,29	7, 2
48″	38,34,40,37,31,53,37,12,54,33	1,36,14,41,15, 7,38,14	2,49,13,18,31	7, 2
50″	38,34,42,13,46,34,52,20,32,47	1,36,14,38,25,54,12,41	2,49,13,25,33	7, 2
52″	38,34,43,50, 1,13,18,14,45,28	1,36,14,35,36,40,40, 6	2,49,13,32,35	7, 2
54″	38,34,45,26,15,48,54,55,25,34	1,36,14,32,47,27, 0,29	2,49,13,39,37	7, 2
56″	38,34,47, 2,30,21,42,22,26, 3	1,36,14,29,58,13,13,50	2,49,13,46,39	7, 2
58″	38,34,48,38,44,51,40,35,39,53	1,36,14,27, 8,59,20, 9	2,49,13,53,41	
60″	38,34,50,14,59,18,49,35, 0, 2			
exact	38,34,50,14,59,18,49,34,47,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40° 1′ 0″	38,34,50,14,59,18,49,34,47,53			
		1,36,14,24,19,45,18, 3		
2″	38,34,51,51,13,43, 9,20, 5,56		2,49,14, 7,51	
		1,36,14,21,30,31,10,12		7, 2
4″	38,34,53,27,28, 4,39,51,16, 8		2,49,14,14,53	
		1,36,14,18,41,16,55,19		7, 2
6″	38,34,55, 3,42,23,21, 8,11,27		2,49,14,21,55	
		1,36,14,15,52, 2,33,24		7, 2
8″	38,34,56,39,56,39,13,10,44,51		2,49,14,28,57	
		1,36,14,13, 2,48, 4,27		7, 2
10″	38,34,58,16,10,52,15,58,49,18		2,49,14,35,59	
		1,36,14,10,13,33,28,28		7, 2
12″	38,34,59,52,25, 2,29,32,17,46		2,49,14,43, 1	
		1,36,14, 7,24,18,45,27		7, 2
14″	38,35, 1,28,39, 9,53,51, 3,13		2,49,14,50, 3	
		1,36,14, 4,35, 3,55,24		7, 2
16″	38,35, 3, 4,53,14,28,54,58,37		2,49,14,57, 5	
		1,36,14, 1,45,48,58,19		7, 2
18″	38,35, 4,41, 7,16,14,43,56,56		2,49,15, 4, 7	
		1,36,13,58,56,33,54,12		7, 2
20″	38,35, 6,17,21,15,11,17,51, 8		2,49,15,11, 9	
		1,36,13,56, 7,18,43, 3		7, 2
22″	38,35, 7,53,35,11,18,36,34,11		2,49,15,18,11	
		1,36,13,53,18, 3,24,52		7, 2
24″	38,35, 9,29,49, 4,36,39,59, 3		2,49,15,25,13	
		1,36,13,50,28,47,59,39		7, 2
26″	38,35,11, 6, 2,55, 5,27,58,42		2,49,15,32,15	
		1,36,13,47,39,32,27,24		7, 2
28″	38,35,12,42,16,42,45, 0,26, 6		2,49,15,39,17	
		1,36,13,44,50,16,48, 7		7, 2
30″	38,35,14,18,30,27,35,17,14,13		2,49,15,46,19	
		1,36,13,42, 1, 1, 1,48		7, 2
32″	38,35,15,54,44, 9,36,18,16, 1		2,49,15,53,21	
		1,36,13,39,11,45, 8,27		7, 2
34″	38,35,17,30,57,48,48, 3,24,28		2,49,16, 0,23	
		1,36,13,36,22,29, 8, 4		7, 2
36″	38,35,19, 7,11,25,10,32,32,32		2,49,16, 7,25	
		1,36,13,33,33,13, 0,39		7, 2
38″	38,35,20,43,24,58,43,45,33,11		2,49,16,14,27	
		1,36,13,30,43,56,46,12		7, 2
40″	38,35,22,19,38,29,27,42,19,23		2,49,16,21,29	
		1,36,13,27,54,40,24,43		7, 2
42″	38,35,23,55,51,57,22,22,44, 6		2,49,16,28,31	
		1,36,13,25, 5,23,56,12		7, 2
44″	38,35,25,32, 5,22,27,46,40,18		2,49,16,35,33	
		1,36,13,22,16, 7,20,39		7, 2
46″	38,35,27, 8,18,44,43,54, 0,57		2,49,16,42,35	
		1,36,13,19,26,50,38, 4		7, 2
48″	38,35,28,44,32, 4,10,44,39, 1		2,49,16,49,37	
		1,36,13,16,37,33,48,27		7, 2
50″	38,35,30,20,45,20,48,18,27,28		2,49,16,56,39	
		1,36,13,13,48,16,51,48		7, 2
52″	38,35,31,56,58,34,36,35,19,16		2,49,17, 3,41	
		1,36,13,10,58,59,48, 7		7, 2
54″	38,35,33,33,11,45,35,35, 7,23		2,49,17,10,43	
		1,36,13, 8, 9,42,37,24		7, 2
56″	38,35,35, 9,24,53,45,17,44,47		2,49,17,17,45	
		1,36,13, 5,20,25,19,39		7, 2
58″	38,35,36,45,37,59, 5,43, 4,26		2,49,17,24,47	
		1,36,13, 2,31, 7,54,52		
60″	38,35,38,21,51, 1,36,50,59,18			
exact	38,35,38,21,51, 1,36,50,52,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40° 2′ 0″	38,35,38,21,51, 1,36,50,52,41			
		1,36,12,59,41,50,22,19		
2″	38,35,39,58, 4, 1,18,41,15, 0		2,49,17,38,54	
		1,36,12,56,52,32,43,25		7, 2
4″	38,35,41,34,16,58,11,13,58,25		2,49,17,45,56	
		1,36,12,54, 3,14,57,29		7, 2
6″	38,35,43,10,29,52,14,28,55,54		2,49,17,52,58	
		1,36,12,51,13,57, 4,31		7, 2
8″	38,35,44,46,42,43,28,26, 0,25		2,49,18, 0, 0	
		1,36,12,48,24,39, 4,31		7, 2
10″	38,35,46,22,55,31,53, 5, 4,56		2,49,18, 7, 2	
		1,36,12,45,35,20,57,29		7, 2
12″	38,35,47,59, 8,17,28,26, 2,25		2,49,18,14, 4	
		1,36,12,42,46, 2,43,25		7, 2
14″	38,35,49,35,21, 0,14,28,45,50		2,49,18,21, 6	
		1,36,12,39,56,44,22,19		7, 2
16″	38,35,51,11,33,40,11,13, 8, 9		2,49,18,28, 8	
		1,36,12,37, 7,25,54,11		7, 2
18″	38,35,52,47,46,17,18,39, 2,20		2,49,18,35,10	
		1,36,12,34,18, 7,19, 1		7, 2
20″	38,35,54,23,58,51,36,46,21,21		2,49,18,42,12	
		1,36,12,31,28,48,36,49		7, 2
22″	38,35,56, 0,11,23, 5,34,58,10		2,49,18,49,14	
		1,36,12,28,39,29,47,35		7, 2
24″	38,35,57,36,23,51,45, 4,45,45		2,49,18,56,16	
		1,36,12,25,50,10,51,19		7, 2
26″	38,35,59,12,36,17,35,15,37, 4		2,49,19, 3,18	
		1,36,12,23, 0,51,48, 1		7, 2
28″	38,36, 0,48,48,40,36, 7,25, 5		2,49,19,10,20	
		1,36,12,20,11,32,37,41		7, 2
30″	38,36, 2,25, 1, 0,47,40, 2,46		2,49,19,17,22	
		1,36,12,17,22,13,20,19		7, 2
32″	38,36, 4, 1,13,18, 9,53,23, 5		2,49,19,24,24	
		1,36,12,14,32,53,55,55		7, 2
34″	38,36, 5,37,25,32,42,47,19, 0		2,49,19,31,26	
		1,36,12,11,43,34,24,29		7, 2
36″	38,36, 7,13,37,44,26,21,43,29		2,49,19,38,28	
		1,36,12, 8,54,14,46, 1		7, 2
38″	38,36, 8,49,49,53,20,36,29,30		2,49,19,45,30	
		1,36,12, 6, 4,55, 0,31		7, 2
40″	38,36,10,26, 1,59,25,31,30, 1		2,49,19,52,32	
		1,36,12, 3,15,35, 7,59		7, 2
42″	38,36,12, 2,14, 2,41, 6,38, 0		2,49,19,59,34	
		1,36,12, 0,26,15, 8,25		7, 2
44″	38,36,13,38,26, 3, 7,21,46,25		2,49,20, 6,36	
		1,36,11,57,36,55, 1,49		7, 2
46″	38,36,15,14,38, 0,44,16,48,14		2,49,20,13,38	
		1,36,11,54,47,34,48,11		7, 2
48″	38,36,16,50,49,55,31,51,36,25		2,49,20,20,40	
		1,36,11,51,58,14,27,31		7, 2
50″	38,36,18,27, 1,47,30, 6, 3,56		2,49,20,27,42	
		1,36,11,49, 8,53,59,49		7, 2
52″	38,36,20, 3,13,36,39, 0, 3,45		2,49,20,34,44	
		1,36,11,46,19,33,25, 5		7, 2
54″	38,36,21,39,25,22,58,33,28,50		2,49,20,41,46	
		1,36,11,43,30,12,43,19		7, 2
56″	38,36,23,15,37, 6,28,46,12, 9		2,49,20,48,48	
		1,36,11,40,40,51,54,31		7, 2
58″	38,36,24,51,48,47, 9,38, 6,40		2,49,20,55,50	
		1,36,11,37,51,30,58,41		
60″	38,36,26,28, 0,25, 1, 9, 5,21			
exact	38,36,26,28, 0,25, 1, 9, 5, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40° 3′ 0″	38,36,26,28, 0,25, 1, 9, 5, 8			
		1,36,11,35, 2, 9,55,48		
2″	38,36,28, 4,12, 0, 3,19, 0,56		2,49,21, 9,54	
		1,36,11,32,12,48,45,54		7, 2
4″	38,36,29,40,23,32,16, 7,46,50		2,49,21,16,56	
		1,36,11,29,23,27,28,58		7, 2
6″	38,36,31,16,35, 1,39,35,15,48		2,49,21,23,58	
		1,36,11,26,34, 6, 5, 0		7, 2
8″	38,36,32,52,46,28,13,41,20,48		2,49,21,31, 0	
		1,36,11,23,44,44,34, 0		7, 2
10″	38,36,34,28,57,51,58,25,54,48		2,49,21,38, 2	
		1,36,11,20,55,22,55,58		7, 2
12″	38,36,36, 5, 9,12,53,48,50,46		2,49,21,45, 4	
		1,36,11,18, 6, 1,10,54		7, 2
14″	38,36,37,41,20,30,59,50, 1,40		2,49,21,52, 6	
		1,36,11,15,16,39,18,48		7, 2
16″	38,36,39,17,31,46,16,29,20,28		2,49,21,59, 8	
		1,36,11,12,27,17,19,40		7, 2
18″	38,36,40,53,42,58,43,46,40, 8		2,49,22, 6,10	
		1,36,11, 9,37,55,13,30		7, 2
20″	38,36,42,29,54, 8,21,41,53,38		2,49,22,13,12	
		1,36,11, 6,48,33, 0,18		7, 2
22″	38,36,44, 6, 5,15,10,14,53,56		2,49,22,20,14	
		1,36,11, 3,59,10,40, 4		7, 2
24″	38,36,45,42,16,19, 9,25,34, 0		2,49,22,27,16	
		1,36,11, 1, 9,48,12,48		7, 2
26″	38,36,47,18,27,20,19,13,46,48		2,49,22,34,18	
		1,36,10,58,20,25,38,30		7, 2
28″	38,36,48,54,38,18,39,39,25,18		2,49,22,41,20	
		1,36,10,55,31, 2,57,10		7, 2
30″	38,36,50,30,49,14,10,42,22,28		2,49,22,48,22	
		1,36,10,52,41,40, 8,48		7, 2
32″	38,36,52, 7, 0, 6,52,22,31,16		2,49,22,55,24	
		1,36,10,49,52,17,13,24		7, 2
34″	38,36,53,43,10,56,44,39,44,40		2,49,23, 2,26	
		1,36,10,47, 2,54,10,58		7, 2
36″	38,36,55,19,21,43,47,33,55,38		2,49,23, 9,28	
		1,36,10,44,13,31, 1,30		7, 2
38″	38,36,56,55,32,28, 1, 4,57, 8		2,49,23,16,30	
		1,36,10,41,24, 7,45, 0		7, 2
40″	38,36,58,31,43, 9,25,12,42, 8		2,49,23,23,32	
		1,36,10,38,34,44,21,28		7, 2
42″	38,37, 0, 7,53,47,59,57, 3,36		2,49,23,30,34	
		1,36,10,35,45,20,50,54		7, 2
44″	38,37, 1,44, 4,23,45,17,54,30		2,49,23,37,36	
		1,36,10,32,55,57,13,18		7, 2
46″	38,37, 3,20,14,56,41,15, 7,48		2,49,23,44,38	
		1,36,10,30, 6,33,28,40		7, 2
48″	38,37, 4,56,25,26,47,48,36,28		2,49,23,51,40	
		1,36,10,27,17, 9,37, 0		7, 2
50″	38,37, 6,32,35,54, 4,58,13,28		2,49,23,58,42	
		1,36,10,24,27,45,38,18		7, 2
52″	38,37, 8, 8,46,18,32,43,51,46		2,49,24, 5,44	
		1,36,10,21,38,21,32,34		7, 2
54″	38,37, 9,44,56,40,11, 5,24,20		2,49,24,12,46	
		1,36,10,18,48,57,19,48		7, 2
56″	38,37,11,21, 6,59, 0, 2,44, 8		2,49,24,19,48	
		1,36,10,15,59,33, 0, 0		7, 2
58″	38,37,12,57,17,14,59,35,44, 8		2,49,24,26,50	
		1,36,10,13,10, 8,33,10		
60″	38,37,14,33,27,28, 9,44,17,18			
exact	38,37,14,33,27,28, 9,44,23,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40° 4′ 0″	38,37,14,33,27,28, 9,44,23,46			
		1,36,10,10,20,44, 0, 1		
2″	38,37,16, 9,37,38,30,28,23,47		2,49,24,40,51	
		1,36,10, 7,31,19,19,10		7, 2
4″	38,37,17,45,47,46, 1,47,42,57		2,49,24,47,53	
		1,36,10, 4,41,54,31,17		7, 2
6″	38,37,19,21,57,50,43,42,14,14		2,49,24,54,55	
		1,36,10, 1,52,29,36,22		7, 2
8″	38,37,20,58, 7,52,36,11,50,36		2,49,25, 1,57	
		1,36, 9,59, 3, 4,34,25		7, 2
10″	38,37,22,34,17,51,39,16,25, 1		2,49,25, 8,59	
		1,36, 9,56,13,39,25,26		7, 2
12″	38,37,24,10,27,47,52,55,50,27		2,49,25,16, 1	
		1,36, 9,53,24,14, 9,25		7, 2
14″	38,37,25,46,37,41,17, 9,59,52		2,49,25,23, 3	
		1,36, 9,50,34,48,46,22		7, 2
16″	38,37,27,22,47,31,51,58,46,14		2,49,25,30, 5	
		1,36, 9,47,45,23,16,17		7, 2
18″	38,37,28,58,57,19,37,22, 2,31		2,49,25,37, 7	
		1,36, 9,44,55,57,39,10		7, 2
20″	38,37,30,35, 7, 4,33,19,41,41		2,49,25,44, 9	
		1,36, 9,42, 6,31,55, 1		7, 2
22″	38,37,32,11,16,46,39,51,36,42		2,49,25,51,11	
		1,36, 9,39,17, 6, 3,50		7, 2
24″	38,37,33,47,26,25,56,57,40,32		2,49,25,58,13	
		1,36, 9,36,27,40, 5,37		7, 2
26″	38,37,35,23,36, 2,24,37,46, 9		2,49,26, 5,15	
		1,36, 9,33,38,14, 0,22		7, 2
28″	38,37,36,59,45,36, 2,51,46,31		2,49,26,12,17	
		1,36, 9,30,48,47,48, 5		7, 2
30″	38,37,38,35,55, 6,51,39,34,36		2,49,26,19,19	
		1,36, 9,27,59,21,28,46		7, 2
32″	38,37,40,12, 4,34,51, 1, 3,22		2,49,26,26,21	
		1,36, 9,25, 9,55, 2,25		7, 2
34″	38,37,41,48,14, 0, 0,56, 5,47		2,49,26,33,23	
		1,36, 9,22,20,28,29, 2		7, 2
36″	38,37,43,24,23,22,21,24,34,49		2,49,26,40,25	
		1,36, 9,19,31, 1,48,37		7, 2
38″	38,37,45, 0,32,41,52,26,23,26		2,49,26,47,27	
		1,36, 9,16,41,35, 1,10		7, 2
40″	38,37,46,36,41,58,34, 1,24,36		2,49,26,54,29	
		1,36, 9,13,52, 8, 6,41		7, 2
42″	38,37,48,12,51,12,26, 9,31,17		2,49,27, 1,31	
		1,36, 9,11, 2,41, 5,10		7, 2
44″	38,37,49,49, 0,23,28,50,36,27		2,49,27, 8,33	
		1,36, 9, 8,13,13,56,37		7, 2
46″	38,37,51,25, 9,31,42, 4,33, 4		2,49,27,15,35	
		1,36, 9, 5,23,46,41, 2		7, 2
48″	38,37,53, 1,18,37, 5,51,14, 6		2,49,27,22,37	
		1,36, 9, 2,34,19,18,25		7, 2
50″	38,37,54,37,27,39,40,10,32,31		2,49,27,29,39	
		1,36, 8,59,44,51,48,46		7, 2
52″	38,37,56,13,36,39,25, 2,21,17		2,49,27,36,41	
		1,36, 8,56,55,24,12, 5		7, 2
54″	38,37,57,49,45,36,20,26,33,22		2,49,27,43,43	
		1,36, 8,54, 5,56,28,22		7, 2
56″	38,37,59,25,54,30,26,23, 1,44		2,49,27,50,45	
		1,36, 8,51,16,28,37,37		7, 2
58″	38,38, 1, 2, 3,21,42,51,39,21		2,49,27,57,47	
		1,36, 8,48,27, 0,39,50		
60″	38,38, 2,38,12,10, 9,52,19,11			
exact	38,38, 2,38,12,10, 9,52,33,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40° 5′ 0″	38,38, 2,38,12,10, 9,52,33,31			
		1,36, 8,45,37,32,36,32		
2″	38,38, 4,14,20,55,47,25,10, 3		2,49,28,11,45	
		1,36, 8,42,48, 4,24,47		7, 2
4″	38,38, 5,50,29,38,35,29,34,50		2,49,28,18,47	
		1,36, 8,39,58,36, 6, 0		7, 2
6″	38,38, 7,26,38,18,34, 5,40,50		2,49,28,25,49	
		1,36, 8,37, 9, 7,40,11		7, 2
8″	38,38, 9, 2,46,55,43,13,21, 1		2,49,28,32,51	
		1,36, 8,34,19,39, 7,20		7, 2
10″	38,38,10,38,55,30, 2,52,28,21		2,49,28,39,53	
		1,36, 8,31,30,10,27,27		7, 2
12″	38,38,12,15, 4, 1,33, 2,55,48		2,49,28,46,55	
		1,36, 8,28,40,41,40,32		7, 2
14″	38,38,13,51,12,30,13,44,36,20		2,49,28,53,57	
		1,36, 8,25,51,12,46,35		7, 2
16″	38,38,15,27,20,56, 4,57,22,55		2,49,29, 0,59	
		1,36, 8,23, 1,43,45,36		7, 2
18″	38,38,17, 3,29,19, 6,41, 8,31		2,49,29, 8, 1	
		1,36, 8,20,12,14,37,35		7, 2
20″	38,38,18,39,37,39,18,55,46, 6		2,49,29,15, 3	
		1,36, 8,17,22,45,22,32		7, 2
22″	38,38,20,15,45,56,41,41, 8,38		2,49,29,22, 5	
		1,36, 8,14,33,16, 0,27		7, 2
24″	38,38,21,51,54,11,14,57, 9, 5		2,49,29,29, 7	
		1,36, 8,11,43,46,31,20		7, 2
26″	38,38,23,28, 2,22,58,43,40,25		2,49,29,36, 9	
		1,36, 8, 8,54,16,55,11		7, 2
28″	38,38,25, 4,10,31,53, 0,35,36		2,49,29,43,11	
		1,36, 8, 6, 4,47,12, 0		7, 2
30″	38,38,26,40,18,37,57,47,47,36		2,49,29,50,13	
		1,36, 8, 3,15,17,21,47		7, 2
32″	38,38,28,16,26,41,13, 5, 9,23		2,49,29,57,15	
		1,36, 8, 0,25,47,24,32		7, 2
34″	38,38,29,52,34,41,38,52,33,55		2,49,30, 4,17	
		1,36, 7,57,36,17,20,15		7, 2
36″	38,38,31,28,42,39,15, 9,54,10		2,49,30,11,19	
		1,36, 7,54,46,47, 8,56		7, 2
38″	38,38,33, 4,50,34, 1,57, 3, 6		2,49,30,18,21	
		1,36, 7,51,57,16,50,35		7, 2
40″	38,38,34,40,58,25,59,13,53,41		2,49,30,25,23	
		1,36, 7,49, 7,46,25,12		7, 2
42″	38,38,36,17, 6,15, 7, 0,18,53		2,49,30,32,25	
		1,36, 7,46,18,15,52,47		7, 2
44″	38,38,37,53,14, 1,25,16,11,40		2,49,30,39,27	
		1,36, 7,43,28,45,13,20		7, 2
46″	38,38,39,29,21,44,54, 1,25, 0		2,49,30,46,29	
		1,36, 7,40,39,14,26,51		7, 2
48″	38,38,41, 5,29,25,33,15,51,51		2,49,30,53,31	
		1,36, 7,37,49,43,33,20		7, 2
50″	38,38,42,41,37, 3,22,59,25,11		2,49,31, 0,33	
		1,36, 7,35, 0,12,32,47		7, 2
52″	38,38,44,17,44,38,23,11,57,58		2,49,31, 7,35	
		1,36, 7,32,10,41,25,12		7, 2
54″	38,38,45,53,52,10,33,53,23,10		2,49,31,14,37	
		1,36, 7,29,21,10,10,35		7, 2
56″	38,38,47,29,59,39,55, 3,33,45		2,49,31,21,39	
		1,36, 7,26,31,38,48,56		7, 2
58″	38,38,49, 6, 7, 6,26,42,22,41		2,49,31,28,41	
		1,36, 7,23,42, 7,20,15		
60″	38,38,50,42,14,30, 8,49,42,56			
exact	38,38,50,42,14,30, 8,50, 5,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40° 6′ 0″	38,38,50,42,14,30, 8,50, 5,45			
		1,36, 7,20,52,35,46,54		
2″	38,38,52,18,21,51, 1,25,52,39		2,49,31,42,35	
		1,36, 7,18, 3, 4, 4,19		7, 2
4″	38,38,53,54,29, 9, 4,29,56,58		2,49,31,49,37	
		1,36, 7,15,13,32,14,42		7, 2
6″	38,38,55,30,36,24,18, 2,11,40		2,49,31,56,39	
		1,36, 7,12,24, 0,18, 3		7, 2
8″	38,38,57, 6,43,36,42, 2,29,43		2,49,32, 3,41	
		1,36, 7, 9,34,28,14,22		7, 2
10″	38,38,58,42,50,46,16,30,44, 5		2,49,32,10,43	
		1,36, 7, 6,44,56, 3,39		7, 2
12″	38,39, 0,18,57,53, 1,26,47,44		2,49,32,17,45	
		1,36, 7, 3,55,23,45,54		7, 2
14″	38,39, 1,55, 4,56,56,50,33,38		2,49,32,24,47	
		1,36, 7, 1, 5,51,21, 7		7, 2
16″	38,39, 3,31,11,58, 2,41,54,45		2,49,32,31,49	
		1,36, 6,58,16,18,49,18		7, 2
18″	38,39, 5, 7,18,56,19, 0,44, 3		2,49,32,38,51	
		1,36, 6,55,26,46,10,27		7, 2
20″	38,39, 6,43,25,51,45,46,54,30		2,49,32,45,53	
		1,36, 6,52,37,13,24,34		7, 2
22″	38,39, 8,19,32,44,23, 0,19, 4		2,49,32,52,55	
		1,36, 6,49,47,40,31,39		7, 2
24″	38,39, 9,55,39,34,10,40,50,43		2,49,32,59,57	
		1,36, 6,46,58, 7,31,42		7, 2
26″	38,39,11,31,46,21, 8,48,22,25		2,49,33, 6,59	
		1,36, 6,44, 8,34,24,43		7, 2
28″	38,39,13, 7,53, 5,17,22,47, 8		2,49,33,14, 1	
		1,36, 6,41,19, 1,10,42		7, 2
30″	38,39,14,43,59,46,36,23,57,50		2,49,33,21, 3	
		1,36, 6,38,29,27,49,39		7, 2
32″	38,39,16,20, 6,25, 5,51,47,29		2,49,33,28, 5	
		1,36, 6,35,39,54,21,34		7, 2
34″	38,39,17,56,13, 0,45,46, 9, 3		2,49,33,35, 7	
		1,36, 6,32,50,20,46,27		7, 2
36″	38,39,19,32,19,33,36, 6,55,30		2,49,33,42, 9	
		1,36, 6,30, 0,47, 4,18		7, 2
38″	38,39,21, 8,26, 3,36,53,59,48		2,49,33,49,11	
		1,36, 6,27,11,13,15, 7		7, 2
40″	38,39,22,44,32,30,48, 7,14,55		2,49,33,56,13	
		1,36, 6,24,21,39,18,54		7, 2
42″	38,39,24,20,38,55, 9,46,33,49		2,49,34, 3,15	
		1,36, 6,21,32, 5,15,39		7, 2
44″	38,39,25,56,45,16,41,51,49,28		2,49,34,10,17	
		1,36, 6,18,42,31, 5,22		7, 2
46″	38,39,27,32,51,35,24,22,54,50		2,49,34,17,19	
		1,36, 6,15,52,56,48, 3		7, 2
48″	38,39,29, 8,57,51,17,19,42,53		2,49,34,24,21	
		1,36, 6,13, 3,22,23,42		7, 2
50″	38,39,30,45, 4, 4,20,42, 6,35		2,49,34,31,23	
		1,36, 6,10,13,47,52,19		7, 2
52″	38,39,32,21,10,14,34,29,58,54		2,49,34,38,25	
		1,36, 6, 7,24,13,13,54		7, 2
54″	38,39,33,57,16,21,58,43,12,48		2,49,34,45,27	
		1,36, 6, 4,34,38,28,27		7, 2
56″	38,39,35,33,22,26,33,21,41,15		2,49,34,52,29	
		1,36, 6, 1,45, 3,35,58		7, 2
58″	38,39,37, 9,28,28,18,25,17,13		2,49,34,59,31	
		1,36, 5,58,55,28,36,27		
60″	38,39,38,45,34,27,13,53,53,40			
exact	38,39,38,45,34,27,13,54,18,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40° 7′ 0″	38,39,38,45,34,27,13,54,18,21	1,36, 5,56, 5,53,32,40		
2″	38,39,40,21,40,23,19,47,51, 1	1,36, 5,53,16,18,19,17	2,49,35,13,23	7, 2
4″	38,39,41,57,46,16,36, 6,10,18	1,36, 5,50,26,42,58,52	2,49,35,20,25	7, 2
6″	38,39,43,33,52, 7, 2,49, 9,10	1,36, 5,47,37, 7,31,25	2,49,35,27,27	7, 2
8″	38,39,45, 9,57,54,39,56,40,35	1,36, 5,44,47,31,56,56	2,49,35,34,29	7, 2
10″	38,39,46,46, 3,39,27,28,37,31	1,36, 5,41,57,56,15,25	2,49,35,41,31	7, 2
12″	38,39,48,22, 9,21,25,24,52,56	1,36, 5,39, 8,20,26,52	2,49,35,48,33	7, 2
14″	38,39,49,58,15, 0,33,45,19,48	1,36, 5,36,18,44,31,17	2,49,35,55,35	7, 2
16″	38,39,51,34,20,36,52,29,51, 5	1,36, 5,33,29, 8,28,40	2,49,36, 2,37	7, 2
18″	38,39,53,10,26,10,21,38,19,45	1,36, 5,30,39,32,19, 1	2,49,36, 9,39	7, 2
20″	38,39,54,46,31,41, 1,10,38,46	1,36, 5,27,49,56, 2,20	2,49,36,16,41	7, 2
22″	38,39,56,22,37, 8,51, 6,41, 6	1,36, 5,25, 0,19,38,37	2,49,36,23,43	7, 2
24″	38,39,57,58,42,33,51,26,19,43	1,36, 5,22,10,43, 7,52	2,49,36,30,45	7, 2
26″	38,39,59,34,47,56, 2, 9,27,35	1,36, 5,19,21, 6,30, 5	2,49,36,37,47	7, 2
28″	38,40, 1,10,53,15,23,15,57,40	1,36, 5,16,31,29,45,16	2,49,36,44,49	7, 2
30″	38,40, 2,46,58,31,54,45,42,56	1,36, 5,13,41,52,53,25	2,49,36,51,51	7, 2
32″	38,40, 4,23, 3,45,36,38,36,21	1,36, 5,10,52,15,54,32	2,49,36,58,53	7, 2
34″	38,40, 5,59, 8,56,28,54,30,53	1,36, 5, 8, 2,38,48,37	2,49,37, 5,55	7, 2
36″	38,40, 7,35,14, 4,31,33,19,30	1,36, 5, 5,13, 1,35,40	2,49,37,12,57	7, 2
38″	38,40, 9,11,19, 9,44,34,55,10	1,36, 5, 2,23,24,15,41	2,49,37,19,59	7, 2
40″	38,40,10,47,24,12, 7,59,10,51	1,36, 4,59,33,46,48,40	2,49,37,27, 1	7, 2
42″	38,40,12,23,29,11,41,45,59,31	1,36, 4,56,44, 9,14,37	2,49,37,34, 3	7, 2
44″	38,40,13,59,34, 8,25,55,14, 8	1,36, 4,53,54,31,33,32	2,49,37,41, 5	7, 2
46″	38,40,15,35,39, 2,20,26,47,40	1,36, 4,51, 4,53,45,25	2,49,37,48, 7	7, 2
48″	38,40,17,11,43,53,25,20,33, 5	1,36, 4,48,15,15,50,16	2,49,37,55, 9	7, 2
50″	38,40,18,47,48,41,40,36,23,21	1,36, 4,45,25,37,48, 5	2,49,38, 2,11	7, 2
52″	38,40,20,23,53,27, 6,14,11,26	1,36, 4,42,35,59,38,52	2,49,38, 9,13	7, 2
54″	38,40,21,59,58, 9,42,13,50,18	1,36, 4,39,46,21,22,37	2,49,38,16,15	7, 2
56″	38,40,23,36, 2,49,28,35,12,55	1,36, 4,36,56,42,59,20	2,49,38,23,17	7, 2
58″	38,40,25,12, 7,26,25,18,12,15	1,36, 4,34, 7, 4,29, 1	2,49,38,30,19	
60″	38,40,26,48,12, 0,32,22,41,16			
exact	38,40,26,48,12, 0,32,23,15,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40° 8′ 0″	38,40,26,48,12, 0,32,23,15,37			
		1,36, 4,31,17,25,55,22		
2″	38,40,28,24,16,31,49,49,10,59		2,49,38,44, 7	
		1,36, 4,28,27,47,11,15		7, 1
4″	38,40,30, 0,21, 0,17,36,22,14		2,49,38,51, 8	
		1,36, 4,25,38, 8,20, 7		7, 1
6″	38,40,31,36,25,25,55,44,42,21		2,49,38,58, 9	
		1,36, 4,22,48,29,21,58		7, 1
8″	38,40,33,12,29,48,44,14, 4,19		2,49,39, 5,10	
		1,36, 4,19,58,50,16,48		7, 1
10″	38,40,34,48,34, 8,43, 4,21, 7		2,49,39,12,11	
		1,36, 4,17, 9,11, 4,37		7, 1
12″	38,40,36,24,38,25,52,15,25,44		2,49,39,19,12	
		1,36, 4,14,19,31,45,25		7, 1
14″	38,40,38, 0,42,40,11,47,11, 9		2,49,39,26,13	
		1,36, 4,11,29,52,19,12		7, 1
16″	38,40,39,36,46,51,41,39,30,21		2,49,39,33,14	
		1,36, 4, 8,40,12,45,58		7, 1
18″	38,40,41,12,51, 0,21,52,16,19		2,49,39,40,15	
		1,36, 4, 5,50,33, 5,43		7, 1
20″	38,40,42,48,55, 6,12,25,22, 2		2,49,39,47,16	
		1,36, 4, 3, 0,53,18,27		7, 1
22″	38,40,44,24,59, 9,13,18,40,29		2,49,39,54,17	
		1,36, 4, 0,11,13,24,10		7, 1
24″	38,40,46, 1, 3, 9,24,32, 4,39		2,49,40, 1,18	
		1,36, 3,57,21,33,22,52		7, 1
26″	38,40,47,37, 7, 6,46, 5,27,31		2,49,40, 8,19	
		1,36, 3,54,31,53,14,33		7, 1
28″	38,40,49,13,11, 1,17,58,42, 4		2,49,40,15,20	
		1,36, 3,51,42,12,59,13		7, 1
30″	38,40,50,49,14,53, 0,11,41,17		2,49,40,22,21	
		1,36, 3,48,52,32,36,52		7, 1
32″	38,40,52,25,18,41,52,44,18, 9		2,49,40,29,22	
		1,36, 3,46, 2,52, 7,30		7, 1
34″	38,40,54, 1,22,27,55,36,25,39		2,49,40,36,23	
		1,36, 3,43,13,11,31, 7		7, 1
36″	38,40,55,37,26,11, 8,47,56,46		2,49,40,43,24	
		1,36, 3,40,23,30,47,43		7, 1
38″	38,40,57,13,29,51,32,18,44,29		2,49,40,50,25	
		1,36, 3,37,33,49,57,18		7, 1
40″	38,40,58,49,33,29, 6, 8,41,47		2,49,40,57,26	
		1,36, 3,34,44, 8,59,52		7, 1
42″	38,41, 0,25,37, 3,50,17,41,39		2,49,41, 4,27	
		1,36, 3,31,54,27,55,25		7, 1
44″	38,41, 2, 1,40,35,44,45,37, 4		2,49,41,11,28	
		1,36, 3,29, 4,46,43,57		7, 1
46″	38,41, 3,37,44, 4,49,32,21, 1		2,49,41,18,29	
		1,36, 3,26,15, 5,25,28		7, 1
48″	38,41, 5,13,47,31, 4,37,46,29		2,49,41,25,30	
		1,36, 3,23,25,23,59,58		7, 1
50″	38,41, 6,49,50,54,30, 1,46,27		2,49,41,32,31	
		1,36, 3,20,35,42,27,27		7, 1
52″	38,41, 8,25,54,15, 5,44,13,54		2,49,41,39,32	
		1,36, 3,17,46, 0,47,55		7, 1
54″	38,41,10, 1,57,32,51,45, 1,49		2,49,41,46,33	
		1,36, 3,14,56,19, 1,22		7, 1
56″	38,41,11,38, 0,47,48, 4, 3,11		2,49,41,53,34	
		1,36, 3,12, 6,37, 7,48		7, 1
58″	38,41,13,14, 3,59,54,41,10,59		2,49,42, 0,35	
		1,36, 3, 9,16,55, 7,13		
60″	38,41,14,50, 7, 9,11,36,18,12			
exact	38,41,14,50, 7, 9,11,35,48,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40° 9′ 0″	38,41,14,50, 7, 9,11,35,48,23			
		1,36, 3, 6,27,12,56,34		
2″	38,41,16,26,10,15,38,48,44,57		2,49,42,14,49	
		1,36, 3, 3,37,30,41,45		7, 1
4″	38,41,18, 2,13,19,16,19,26,42		2,49,42,21,50	
		1,36, 3, 0,47,48,19,55		7, 1
6″	38,41,19,38,16,20, 4, 7,46,37		2,49,42,28,51	
		1,36, 2,57,58, 5,51, 4		7, 1
8″	38,41,21,14,19,18, 2,13,37,41		2,49,42,35,52	
		1,36, 2,55, 8,23,15,12		7, 1
10″	38,41,22,50,22,13,10,36,52,53		2,49,42,42,53	
		1,36, 2,52,18,40,32,19		7, 1
12″	38,41,24,26,25, 5,29,17,25,12		2,49,42,49,54	
		1,36, 2,49,28,57,42,25		7, 1
14″	38,41,26, 2,27,54,58,15, 7,37		2,49,42,56,55	
		1,36, 2,46,39,14,45,30		7, 1
16″	38,41,27,38,30,41,37,29,53, 7		2,49,43, 3,56	
		1,36, 2,43,49,31,41,34		7, 1
18″	38,41,29,14,33,25,27, 1,34,41		2,49,43,10,57	
		1,36, 2,40,59,48,30,37		7, 1
20″	38,41,30,50,36, 6,26,50, 5,18		2,49,43,17,58	
		1,36, 2,38,10, 5,12,39		7, 1
22″	38,41,32,26,38,44,36,55,17,57		2,49,43,24,59	
		1,36, 2,35,20,21,47,40		7, 1
24″	38,41,34, 2,41,19,57,17, 5,37		2,49,43,32, 0	
		1,36, 2,32,30,38,15,40		7, 1
26″	38,41,35,38,43,52,27,55,21,17		2,49,43,39, 1	
		1,36, 2,29,40,54,36,39		7, 1
28″	38,41,37,14,46,22, 8,49,57,56		2,49,43,46, 2	
		1,36, 2,26,51,10,50,37		7, 1
30″	38,41,38,50,48,49, 0, 0,48,33		2,49,43,53, 3	
		1,36, 2,24, 1,26,57,34		7, 1
32″	38,41,40,26,51,13, 1,27,46, 7		2,49,44, 0, 4	
		1,36, 2,21,11,42,57,30		7, 1
34″	38,41,42, 2,53,34,13,10,43,37		2,49,44, 7, 5	
		1,36, 2,18,21,58,50,25		7, 1
36″	38,41,43,38,55,52,35, 9,34, 2		2,49,44,14, 6	
		1,36, 2,15,32,14,36,19		7, 1
38″	38,41,45,14,58, 8, 7,24,10,21		2,49,44,21, 7	
		1,36, 2,12,42,30,15,12		7, 1
40″	38,41,46,51, 0,20,49,54,25,33		2,49,44,28, 8	
		1,36, 2, 9,52,45,47, 4		7, 1
42″	38,41,48,27, 2,30,42,40,12,37		2,49,44,35, 9	
		1,36, 2, 7, 3, 1,11,55		7, 1
44″	38,41,50, 3, 4,37,45,41,24,32		2,49,44,42,10	
		1,36, 2, 4,13,16,29,45		7, 1
46″	38,41,51,39, 6,41,58,57,54,17		2,49,44,49,11	
		1,36, 2, 1,23,31,40,34		7, 1
48″	38,41,53,15, 8,43,22,29,34,51		2,49,44,56,12	
		1,36, 1,58,33,46,44,22		7, 1
50″	38,41,54,51,10,41,56,16,19,13		2,49,45, 3,13	
		1,36, 1,55,44, 1,41, 9		7, 1
52″	38,41,56,27,12,37,40,18, 0,22		2,49,45,10,14	
		1,36, 1,52,54,16,30,55		7, 1
54″	38,41,58, 3,14,30,34,34,31,17		2,49,45,17,15	
		1,36, 1,50, 4,31,13,40		7, 1
56″	38,41,59,39,16,20,39, 5,44,57		2,49,45,24,16	
		1,36, 1,47,14,45,49,24		7, 1
58″	38,42, 1,15,18, 7,53,51,34,21		2,49,45,31,17	
		1,36, 1,44,25, 0,18, 7		
60″	38,42, 2,51,19,52,18,51,52,28			
exact	38,42, 2,51,19,52,18,51,33,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°10′ 0″	38,42, 2,51,19,52,18,51,33,58	1,36, 1,41,35,14,37,49		
2″	38,42, 4,27,21,33,54, 6,11,47	1,36, 1,38,45,28,52,22	2,49,45,45,27	7, 1
4″	38,42, 6, 3,23,12,39,35, 4, 9	1,36, 1,35,55,42,59,54	2,49,45,52,28	7, 1
6″	38,42, 7,39,24,48,35,18, 4, 3	1,36, 1,33, 5,57, 0,25	2,49,45,59,29	7, 1
8″	38,42, 9,15,26,21,41,15, 4,28	1,36, 1,30,16,10,53,55	2,49,46, 6,30	7, 1
10″	38,42,10,51,27,51,57,25,58,23	1,36, 1,27,26,24,40,24	2,49,46,13,31	7, 1
12″	38,42,12,27,29,19,23,50,38,47	1,36, 1,24,36,38,19,52	2,49,46,20,32	7, 1
14″	38,42,14, 3,30,44, 0,28,58,39	1,36, 1,21,46,51,52,19	2,49,46,27,33	7, 1
16″	38,42,15,39,32, 5,47,20,50,58	1,36, 1,18,57, 5,17,45	2,49,46,34,34	7, 1
18″	38,42,17,15,33,24,44,26, 8,43	1,36, 1,16, 7,18,36,10	2,49,46,41,35	7, 1
20″	38,42,18,51,34,40,51,44,44,53	1,36, 1,13,17,31,47,34	2,49,46,48,36	7, 1
22″	38,42,20,27,35,54, 9,16,32,27	1,36, 1,10,27,44,51,57	2,49,46,55,37	7, 1
24″	38,42,22, 3,37, 4,37, 1,24,24	1,36, 1, 7,37,57,49,19	2,49,47, 2,38	7, 1
26″	38,42,23,39,38,12,14,59,13,43	1,36, 1, 4,48,10,39,40	2,49,47, 9,39	7, 1
28″	38,42,25,15,39,17, 3, 9,53,23	1,36, 1, 1,58,23,23, 0	2,49,47,16,40	7, 1
30″	38,42,26,51,40,19, 1,33,16,23	1,36, 0,59, 8,35,59,19	2,49,47,23,41	7, 1
32″	38,42,28,27,41,18,10, 9,15,42	1,36, 0,56,18,48,28,37	2,49,47,30,42	7, 1
34″	38,42,30, 3,42,14,28,57,44,19	1,36, 0,53,29, 0,50,54	2,49,47,37,43	7, 1
36″	38,42,31,39,43, 7,57,58,35,13	1,36, 0,50,39,13, 6,10	2,49,47,44,44	7, 1
38″	38,42,33,15,43,58,37,11,41,23	1,36, 0,47,49,25,14,25	2,49,47,51,45	7, 1
40″	38,42,34,51,44,46,26,36,55,48	1,36, 0,44,59,37,15,39	2,49,47,58,46	7, 1
42″	38,42,36,27,45,31,26,14,11,27	1,36, 0,42, 9,49, 9,52	2,49,48, 5,47	7, 1
44″	38,42,38, 3,46,13,36, 3,21,19	1,36, 0,39,20, 0,57, 4	2,49,48,12,48	7, 1
46″	38,42,39,39,46,52,56, 4,18,23	1,36, 0,36,30,12,37,15	2,49,48,19,49	7, 1
48″	38,42,41,15,47,29,26,16,55,38	1,36, 0,33,40,24,10,25	2,49,48,26,50	7, 1
50″	38,42,42,51,48, 3, 6,41, 6, 3	1,36, 0,30,50,35,36,34	2,49,48,33,51	7, 1
52″	38,42,44,27,48,33,57,16,42,37	1,36, 0,28, 0,46,55,42	2,49,48,40,52	7, 1
54″	38,42,46, 3,49, 1,58, 3,38,19	1,36, 0,25,10,58, 7,49	2,49,48,47,53	7, 1
56″	38,42,47,39,49,27, 9, 1,46, 8	1,36, 0,22,21, 9,12,55	2,49,48,54,54	7, 1
58″	38,42,49,15,49,49,30,10,59, 3	1,36, 0,19,31,20,11, 0	2,49,49, 1,55	
60″	38,42,50,51,50, 9, 1,31,10, 3			
exact	38,42,50,51,50, 9, 1,30,56,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°11′ 0″	38,42,50,51,50, 9, 1,30,56,14			
		1,36, 0,16,41,31, 0,40		
2″	38,42,52,27,50,25,43, 1,56,54		2,49,49,16, 2	
		1,36, 0,13,51,41,44,38		7, 1
4″	38,42,54, 3,50,39,34,43,41,32		2,49,49,23, 3	
		1,36, 0,11, 1,52,21,35		7, 1
6″	38,42,55,39,50,50,36,36, 3, 7		2,49,49,30, 4	
		1,36, 0, 8,12, 2,51,31		7, 1
8″	38,42,57,15,50,58,48,38,54,38		2,49,49,37, 5	
		1,36, 0, 5,22,13,14,26		7, 1
10″	38,42,58,51,51, 4,10,52, 9, 4		2,49,49,44, 6	
		1,36, 0, 2,32,23,30,20		7, 1
12″	38,43, 0,27,51, 6,43,15,39,24		2,49,49,51, 7	
		1,35,59,59,42,33,39,13		7, 1
14″	38,43, 2, 3,51, 6,25,49,18,37		2,49,49,58, 8	
		1,35,59,56,52,43,41, 5		7, 1
16″	38,43, 3,39,51, 3,18,32,59,42		2,49,50, 5, 9	
		1,35,59,54, 2,53,35,56		7, 1
18″	38,43, 5,15,50,57,21,26,35,38		2,49,50,12,10	
		1,35,59,51,13, 3,23,46		7, 1
20″	38,43, 6,51,50,48,34,29,59,24		2,49,50,19,11	
		1,35,59,48,23,13, 4,35		7, 1
22″	38,43, 8,27,50,36,57,43, 3,59		2,49,50,26,12	
		1,35,59,45,33,22,38,23		7, 1
24″	38,43,10, 3,50,22,31, 5,42,22		2,49,50,33,13	
		1,35,59,42,43,32, 5,10		7, 1
26″	38,43,11,39,50, 5,14,37,47,32		2,49,50,40,14	
		1,35,59,39,53,41,24,56		7, 1
28″	38,43,13,15,49,45, 8,19,12,28		2,49,50,47,15	
		1,35,59,37, 3,50,37,41		7, 1
30″	38,43,14,51,49,22,12, 9,50, 9		2,49,50,54,16	
		1,35,59,34,13,59,43,25		7, 1
32″	38,43,16,27,48,56,26, 9,33,34		2,49,51, 1,17	
		1,35,59,31,24, 8,42, 8		7, 1
34″	38,43,18, 3,48,27,50,18,15,42		2,49,51, 8,18	
		1,35,59,28,34,17,33,50		7, 1
36″	38,43,19,39,47,56,24,35,49,32		2,49,51,15,19	
		1,35,59,25,44,26,18,31		7, 1
38″	38,43,21,15,47,22, 9, 2, 8, 3		2,49,51,22,20	
		1,35,59,22,54,34,56,11		7, 1
40″	38,43,22,51,46,45, 3,37, 4,14		2,49,51,29,21	
		1,35,59,20, 4,43,26,50		7, 1
42″	38,43,24,27,46, 5, 8,20,31, 4		2,49,51,36,22	
		1,35,59,17,14,51,50,28		7, 1
44″	38,43,26, 3,45,22,23,12,21,32		2,49,51,43,23	
		1,35,59,14,25, 0, 7, 5		7, 1
46″	38,43,27,39,44,36,48,12,28,37		2,49,51,50,24	
		1,35,59,11,35, 8,16,41		7, 1
48″	38,43,29,15,43,48,23,20,45,18		2,49,51,57,25	
		1,35,59, 8,45,16,19,16		7, 1
50″	38,43,30,51,42,57, 8,37, 4,34		2,49,52, 4,26	
		1,35,59, 5,55,24,14,50		7, 1
52″	38,43,32,27,42, 3, 4, 1,19,24		2,49,52,11,27	
		1,35,59, 3, 5,32, 3,23		7, 1
54″	38,43,34, 3,41, 6, 9,33,22,47		2,49,52,18,28	
		1,35,59, 0,15,39,44,55		7, 1
56″	38,43,35,39,40, 6,25,13, 7,42		2,49,52,25,29	
		1,35,58,57,25,47,19,26		7, 1
58″	38,43,37,15,39, 3,51, 0,27, 8		2,49,52,32,30	
		1,35,58,54,35,54,46,56		
60″	38,43,38,51,37,58,26,55,14, 4			
exact	38,43,38,51,37,58,26,55, 5,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°12′ 0″	38,43,38,51,37,58,26,55, 5,34	1,35,58,51,46, 2, 6,39		
2″	38,43,40,27,36,50,12,57,12,13	1,35,58,48,56, 9,20, 5	2,49,52,46,34	7, 1
4″	38,43,42, 3,35,39, 9, 6,32,18	1,35,58,46, 6,16,26,30	2,49,52,53,35	7, 1
6″	38,43,43,39,34,25,15,22,58,48	1,35,58,43,16,23,25,54	2,49,53, 0,36	7, 1
8″	38,43,45,15,33, 8,31,46,24,42	1,35,58,40,26,30,18,17	2,49,53, 7,37	7, 1
10″	38,43,46,51,31,48,58,16,42,59	1,35,58,37,36,37, 3,39	2,49,53,14,38	7, 1
12″	38,43,48,27,30,26,34,53,46,38	1,35,58,34,46,43,42, 0	2,49,53,21,39	7, 1
14″	38,43,50, 3,29, 1,21,37,28,38	1,35,58,31,56,50,13,20	2,49,53,28,40	7, 1
16″	38,43,51,39,27,33,18,27,41,58	1,35,58,29, 6,56,37,39	2,49,53,35,41	7, 1
18″	38,43,53,15,26, 2,25,24,19,37	1,35,58,26,17, 2,54,57	2,49,53,42,42	7, 1
20″	38,43,54,51,24,28,42,27,14,34	1,35,58,23,27, 9, 5,14	2,49,53,49,43	7, 1
22″	38,43,56,27,22,52, 9,36,19,48	1,35,58,20,37,15, 8,30	2,49,53,56,44	7, 1
24″	38,43,58, 3,21,12,46,51,28,18	1,35,58,17,47,21, 4,45	2,49,54, 3,45	7, 1
26″	38,43,59,39,19,30,34,12,33, 3	1,35,58,14,57,26,53,59	2,49,54,10,46	7, 1
28″	38,44, 1,15,17,45,31,39,27, 2	1,35,58,12, 7,32,36,12	2,49,54,17,47	7, 1
30″	38,44, 2,51,15,57,39,12, 3,14	1,35,58, 9,17,38,11,24	2,49,54,24,48	7, 1
32″	38,44, 4,27,14, 6,56,50,14,38	1,35,58, 6,27,43,39,35	2,49,54,31,49	7, 1
34″	38,44, 6, 3,12,13,24,33,54,13	1,35,58, 3,37,49, 0,45	2,49,54,38,50	7, 1
36″	38,44, 7,39,10,17, 2,22,54,58	1,35,58, 0,47,54,14,54	2,49,54,45,51	7, 1
38″	38,44, 9,15, 8,17,50,17, 9,52	1,35,57,57,57,59,22, 2	2,49,54,52,52	7, 1
40″	38,44,10,51, 6,15,48,16,31,54	1,35,57,55, 8, 4,22, 9	2,49,54,59,53	7, 1
42″	38,44,12,27, 4,10,56,20,54, 3	1,35,57,52,18, 9,15,15	2,49,55, 6,54	7, 1
44″	38,44,14, 3, 2, 3,14,30, 9,18	1,35,57,49,28,14, 1,20	2,49,55,13,55	7, 1
46″	38,44,15,38,59,52,42,44,10,38	1,35,57,46,38,18,40,24	2,49,55,20,56	7, 1
48″	38,44,17,14,57,39,21, 2,51, 2	1,35,57,43,48,23,12,27	2,49,55,27,57	7, 1
50″	38,44,18,50,55,23, 9,26, 3,29	1,35,57,40,58,27,37,29	2,49,55,34,58	7, 1
52″	38,44,20,26,53, 4, 7,53,40,58	1,35,57,38, 8,31,55,30	2,49,55,41,59	7, 1
54″	38,44,22, 2,50,42,16,25,36,28	1,35,57,35,18,36, 6,30	2,49,55,49, 0	7, 1
56″	38,44,23,38,48,17,35, 1,42,58	1,35,57,32,28,40,10,29	2,49,55,56, 1	7, 1
58″	38,44,25,14,45,50, 3,41,53,27	1,35,57,29,38,44, 7,27	2,49,56, 3, 2	
60″	38,44,26,50,43,19,42,26, 0,54			
exact	38,44,26,50,43,19,42,25,58,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°13′ 0″	38,44,26,50,43,19,42,25,58,54			
		1,35,57,26,48,47,57,21		
2″	38,44,28,26,40,46,31,13,56,15		2,49,56,17, 3	
		1,35,57,23,58,51,40,18		7, 1
4″	38,44,30, 2,38,10,30, 5,36,33		2,49,56,24, 4	
		1,35,57,21, 8,55,16,14		7, 1
6″	38,44,31,38,35,31,39, 0,52,47		2,49,56,31, 5	
		1,35,57,18,18,58,45, 9		7, 1
8″	38,44,33,14,32,49,57,59,37,56		2,49,56,38, 6	
		1,35,57,15,29, 2, 7, 3		7, 1
10″	38,44,34,50,30, 5,27, 1,44,59		2,49,56,45, 7	
		1,35,57,12,39, 5,21,56		7, 1
12″	38,44,36,26,27,18, 6, 7, 6,55		2,49,56,52, 8	
		1,35,57, 9,49, 8,29,48		7, 1
14″	38,44,38, 2,24,27,55,15,36,43		2,49,56,59, 9	
		1,35,57, 6,59,11,30,39		7, 1
16″	38,44,39,38,21,34,54,27, 7,22		2,49,57, 6,10	
		1,35,57, 4, 9,14,24,29		7, 1
18″	38,44,41,14,18,39, 3,41,31,51		2,49,57,13,11	
		1,35,57, 1,19,17,11,18		7, 1
20″	38,44,42,50,15,40,22,58,43, 9		2,49,57,20,12	
		1,35,56,58,29,19,51, 6		7, 1
22″	38,44,44,26,12,38,52,18,34,15		2,49,57,27,13	
		1,35,56,55,39,22,23,53		7, 1
24″	38,44,46, 2, 9,34,31,40,58, 8		2,49,57,34,14	
		1,35,56,52,49,24,49,39		7, 1
26″	38,44,47,38, 6,27,21, 5,47,47		2,49,57,41,15	
		1,35,56,49,59,27, 8,24		7, 1
28″	38,44,49,14, 3,17,20,32,56,11		2,49,57,48,16	
		1,35,56,47, 9,29,20, 8		7, 1
30″	38,44,50,50, 0, 4,30, 2,16,19		2,49,57,55,17	
		1,35,56,44,19,31,24,51		7, 1
32″	38,44,52,25,56,48,49,33,41,10		2,49,58, 2,18	
		1,35,56,41,29,33,22,33		7, 1
34″	38,44,54, 1,53,30,19, 7, 3,43		2,49,58, 9,19	
		1,35,56,38,39,35,13,14		7, 1
36″	38,44,55,37,50, 8,58,42,16,57		2,49,58,16,20	
		1,35,56,35,49,36,56,54		7, 1
38″	38,44,57,13,46,44,48,19,13,51		2,49,58,23,21	
		1,35,56,32,59,38,33,33		7, 1
40″	38,44,58,49,43,17,47,57,47,24		2,49,58,30,22	
		1,35,56,30, 9,40, 3,11		7, 1
42″	38,45, 0,25,39,47,57,37,50,35		2,49,58,37,23	
		1,35,56,27,19,41,25,48		7, 1
44″	38,45, 2, 1,36,15,17,19,16,23		2,49,58,44,24	
		1,35,56,24,29,42,41,24		7, 1
46″	38,45, 3,37,32,39,47, 1,57,47		2,49,58,51,25	
		1,35,56,21,39,43,49,59		7, 1
48″	38,45, 5,13,29, 1,26,45,47,46		2,49,58,58,26	
		1,35,56,18,49,44,51,33		7, 1
50″	38,45, 6,49,25,20,16,30,39,19		2,49,59, 5,27	
		1,35,56,15,59,45,46, 6		7, 1
52″	38,45, 8,25,21,36,16,16,25,25		2,49,59,12,28	
		1,35,56,13, 9,46,33,38		7, 1
54″	38,45,10, 1,17,49,26, 2,59, 3		2,49,59,19,29	
		1,35,56,10,19,47,14, 9		7, 1
56″	38,45,11,37,13,59,45,50,13,12		2,49,59,26,30	
		1,35,56, 7,29,47,47,39		7, 1
58″	38,45,13,13,10, 7,15,38, 0,51		2,49,59,33,31	
		1,35,56, 4,39,48,14, 8		
60″	38,45,14,49, 6,11,55,26,14,59			
exact	38,45,14,49, 6,11,55,26,19,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°14′ 0″	38,45,14,49, 6,11,55,26,19,47	1,35,56, 1,49,48,34,17		
2″	38,45,16,25, 2,13,45,14,54, 4	1,35,55,58,59,48,46,48	2,49,59,47,29	7, 1
4″	38,45,18, 0,58,12,45, 3,40,52	1,35,55,56, 9,48,52,18	2,49,59,54,30	7, 1
6″	38,45,19,36,54, 8,54,52,33,10	1,35,55,53,19,48,50,47	2,50, 0, 1,31	7, 1
8″	38,45,21,12,50, 2,14,41,23,57	1,35,55,50,29,48,42,15	2,50, 0, 8,32	7, 1
10″	38,45,22,48,45,52,44,30, 6,12	1,35,55,47,39,48,26,42	2,50, 0,15,33	7, 1
12″	38,45,24,24,41,40,24,18,32,54	1,35,55,44,49,48, 4, 8	2,50, 0,22,34	7, 1
14″	38,45,26, 0,37,25,14, 6,37, 2	1,35,55,41,59,47,34,33	2,50, 0,29,35	7, 1
16″	38,45,27,36,33, 7,13,54,11,35	1,35,55,39, 9,46,57,57	2,50, 0,36,36	7, 1
18″	38,45,29,12,28,46,23,41, 9,32	1,35,55,36,19,46,14,20	2,50, 0,43,37	7, 1
20″	38,45,30,48,24,22,43,27,23,52	1,35,55,33,29,45,23,42	2,50, 0,50,38	7, 1
22″	38,45,32,24,19,56,13,12,47,34	1,35,55,30,39,44,26, 3	2,50, 0,57,39	7, 1
24″	38,45,34, 0,15,26,52,57,13,37	1,35,55,27,49,43,21,23	2,50, 1, 4,40	7, 1
26″	38,45,35,36,10,54,42,40,35, 0	1,35,55,24,59,42, 9,42	2,50, 1,11,41	7, 1
28″	38,45,37,12, 6,19,42,22,44,42	1,35,55,22, 9,40,51, 0	2,50, 1,18,42	7, 1
30″	38,45,38,48, 1,41,52, 3,35,42	1,35,55,19,19,39,25,17	2,50, 1,25,43	7, 1
32″	38,45,40,23,57, 1,11,43, 0,59	1,35,55,16,29,37,52,33	2,50, 1,32,44	7, 1
34″	38,45,41,59,52,17,41,20,53,32	1,35,55,13,39,36,12,48	2,50, 1,39,45	7, 1
36″	38,45,43,35,47,31,20,57, 6,20	1,35,55,10,49,34,26, 2	2,50, 1,46,46	7, 1
38″	38,45,45,11,42,42,10,31,32,22	1,35,55, 7,59,32,32,15	2,50, 1,53,47	7, 1
40″	38,45,46,47,37,50,10, 4, 4,37	1,35,55, 5, 9,30,31,27	2,50, 2, 0,48	7, 1
42″	38,45,48,23,32,55,19,34,36, 4	1,35,55, 2,19,28,23,38	2,50, 2, 7,49	7, 1
44″	38,45,49,59,27,57,39, 2,59,42	1,35,54,59,29,26, 8,48	2,50, 2,14,50	7, 1
46″	38,45,51,35,22,57, 8,29, 8,30	1,35,54,56,39,23,46,57	2,50, 2,21,51	7, 1
48″	38,45,53,11,17,53,47,52,55,27	1,35,54,53,49,21,18, 5	2,50, 2,28,52	7, 1
50″	38,45,54,47,12,47,37,14,13,32	1,35,54,50,59,18,42,12	2,50, 2,35,53	7, 1
52″	38,45,56,23, 7,38,36,32,55,44	1,35,54,48, 9,15,59,18	2,50, 2,42,54	7, 1
54″	38,45,57,59, 2,26,45,48,55, 2	1,35,54,45,19,13, 9,23	2,50, 2,49,55	7, 1
56″	38,45,59,34,57,12, 5, 2, 4,25	1,35,54,42,29,10,12,27	2,50, 2,56,56	7, 1
58″	38,46, 1,10,51,54,34,12,16,52	1,35,54,39,39, 7, 8,30	2,50, 3, 3,57	
60″	38,46, 2,46,46,34,13,19,25,22			
exact	38,46, 2,46,46,34,13,19,38,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°15′ 0″	38,46, 2,46,46,34,13,19,38,19			
		1,35,54,36,49, 3,59, 2		
2″	38,46, 4,22,41,11, 2,23,37,21		2,50, 3,17,52	
		1,35,54,33,59, 0,41,10		7, 1
4″	38,46, 5,58,35,45, 1,24,18,31		2,50, 3,24,53	
		1,35,54,31, 8,57,16,17		7, 1
6″	38,46, 7,34,30,16,10,21,34,48		2,50, 3,31,54	
		1,35,54,28,18,53,44,23		7, 1
8″	38,46, 9,10,24,44,29,15,19,11		2,50, 3,38,55	
		1,35,54,25,28,50, 5,28		7, 1
10″	38,46,10,46,19, 9,58, 5,24,39		2,50, 3,45,56	
		1,35,54,22,38,46,19,32		7, 1
12″	38,46,12,22,13,32,36,51,44,11		2,50, 3,52,57	
		1,35,54,19,48,42,26,35		7, 1
14″	38,46,13,58, 7,52,25,34,10,46		2,50, 3,59,58	
		1,35,54,16,58,38,26,37		7, 1
16″	38,46,15,34, 2, 9,24,12,37,23		2,50, 4, 6,59	
		1,35,54,14, 8,34,19,38		7, 1
18″	38,46,17, 9,56,23,32,46,57, 1		2,50, 4,14, 0	
		1,35,54,11,18,30, 5,38		7, 1
20″	38,46,18,45,50,34,51,17, 2,39		2,50, 4,21, 1	
		1,35,54, 8,28,25,44,37		7, 1
22″	38,46,20,21,44,43,19,42,47,16		2,50, 4,28, 2	
		1,35,54, 5,38,21,16,35		7, 1
24″	38,46,21,57,38,48,58, 4, 3,51		2,50, 4,35, 3	
		1,35,54, 2,48,16,41,32		7, 1
26″	38,46,23,33,32,51,46,20,45,23		2,50, 4,42, 4	
		1,35,53,59,58,11,59,28		7, 1
28″	38,46,25, 9,26,51,44,32,44,51		2,50, 4,49, 5	
		1,35,53,57, 8, 7,10,23		7, 1
30″	38,46,26,45,20,48,52,39,55,14		2,50, 4,56, 6	
		1,35,53,54,18, 2,14,17		7, 1
32″	38,46,28,21,14,43,10,42, 9,31		2,50, 5, 3, 7	
		1,35,53,51,27,57,11,10		7, 1
34″	38,46,29,57, 8,34,38,39,20,41		2,50, 5,10, 8	
		1,35,53,48,37,52, 1, 2		7, 1
36″	38,46,31,33, 2,23,16,31,21,43		2,50, 5,17, 9	
		1,35,53,45,47,46,43,53		7, 1
38″	38,46,33, 8,56, 9, 4,18, 5,36		2,50, 5,24,10	
		1,35,53,42,57,41,19,43		7, 1
40″	38,46,34,44,49,52, 1,59,25,19		2,50, 5,31,11	
		1,35,53,40, 7,35,48,32		7, 1
42″	38,46,36,20,43,32, 9,35,13,51		2,50, 5,38,12	
		1,35,53,37,17,30,10,20		7, 1
44″	38,46,37,56,37, 9,27, 5,24,11		2,50, 5,45,13	
		1,35,53,34,27,24,25, 7		7, 1
46″	38,46,39,32,30,43,54,29,49,18		2,50, 5,52,14	
		1,35,53,31,37,18,32,53		7, 1
48″	38,46,41, 8,24,15,31,48,22,11		2,50, 5,59,15	
		1,35,53,28,47,12,33,38		7, 1
50″	38,46,42,44,17,44,19, 0,55,49		2,50, 6, 6,16	
		1,35,53,25,57, 6,27,22		7, 1
52″	38,46,44,20,11,10,16, 7,23,11		2,50, 6,13,17	
		1,35,53,23, 7, 0,14, 5		7, 1
54″	38,46,45,56, 4,33,23, 7,37,16		2,50, 6,20,18	
		1,35,53,20,16,53,53,47		7, 1
56″	38,46,47,31,57,53,40, 1,31, 3		2,50, 6,27,19	
		1,35,53,17,26,47,26,28		7, 1
58″	38,46,49, 7,51,11, 6,48,57,31		2,50, 6,34,20	
		1,35,53,14,36,40,52, 8		
60″	38,46,50,43,44,25,43,29,49,39			
exact	38,46,50,43,44,25,43,30,11,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°16′ 0″	38,46,50,43,44,25,43,30,11,13			
		1,35,53,11,46,34,13, 9		
2″	38,46,52,19,37,37,30, 4,24,22		2,50, 6,48,12	
		1,35,53, 8,56,27,24,57		7, 1
4″	38,46,53,55,30,46,26,31,49,19		2,50, 6,55,13	
		1,35,53, 6, 6,20,29,44		7, 1
6″	38,46,55,31,23,52,32,52,19, 3		2,50, 7, 2,14	
		1,35,53, 3,16,13,27,30		7, 1
8″	38,46,57, 7,16,55,49, 5,46,33		2,50, 7, 9,15	
		1,35,53, 0,26, 6,18,15		7, 1
10″	38,46,58,43, 9,56,15,12, 4,48		2,50, 7,16,16	
		1,35,52,57,35,59, 1,59		7, 1
12″	38,47, 0,19, 2,53,51,11, 6,47		2,50, 7,23,17	
		1,35,52,54,45,51,38,42		7, 1
14″	38,47, 1,54,55,48,37, 2,45,29		2,50, 7,30,18	
		1,35,52,51,55,44, 8,24		7, 1
16″	38,47, 3,30,48,40,32,46,53,53		2,50, 7,37,19	
		1,35,52,49, 5,36,31, 5		7, 1
18″	38,47, 5, 6,41,29,38,23,24,58		2,50, 7,44,20	
		1,35,52,46,15,28,46,45		7, 1
20″	38,47, 6,42,34,15,53,52,11,43		2,50, 7,51,21	
		1,35,52,43,25,20,55,24		7, 1
22″	38,47, 8,18,26,59,19,13, 7, 7		2,50, 7,58,22	
		1,35,52,40,35,12,57, 2		7, 1
24″	38,47, 9,54,19,39,54,26, 4, 9		2,50, 8, 5,23	
		1,35,52,37,45, 4,51,39		7, 1
26″	38,47,11,30,12,17,39,30,55,48		2,50, 8,12,24	
		1,35,52,34,54,56,39,15		7, 1
28″	38,47,13, 6, 4,52,34,27,35, 3		2,50, 8,19,25	
		1,35,52,32, 4,48,19,50		7, 1
30″	38,47,14,41,57,24,39,15,54,53		2,50, 8,26,26	
		1,35,52,29,14,39,53,24		7, 1
32″	38,47,16,17,49,53,53,55,48,17		2,50, 8,33,27	
		1,35,52,26,24,31,19,57		7, 1
34″	38,47,17,53,42,20,18,27, 8,14		2,50, 8,40,28	
		1,35,52,23,34,22,39,29		7, 1
36″	38,47,19,29,34,43,52,49,47,43		2,50, 8,47,29	
		1,35,52,20,44,13,52, 0		7, 1
38″	38,47,21, 5,27, 4,37, 3,39,43		2,50, 8,54,30	
		1,35,52,17,54, 4,57,30		7, 1
40″	38,47,22,41,19,22,31, 8,37,13		2,50, 9, 1,31	
		1,35,52,15, 3,55,55,59		7, 1
42″	38,47,24,17,11,37,35, 4,33,12		2,50, 9, 8,32	
		1,35,52,12,13,46,47,27		7, 1
44″	38,47,25,53, 3,49,48,51,20,39		2,50, 9,15,33	
		1,35,52, 9,23,37,31,54		7, 1
46″	38,47,27,28,55,59,12,28,52,33		2,50, 9,22,34	
		1,35,52, 6,33,28, 9,20		7, 1
48″	38,47,29, 4,48, 5,45,57, 1,53		2,50, 9,29,35	
		1,35,52, 3,43,18,39,45		7, 1
50″	38,47,30,40,40, 9,29,15,41,38		2,50, 9,36,36	
		1,35,52, 0,53, 9, 3, 9		7, 1
52″	38,47,32,16,32,10,22,24,44,47		2,50, 9,43,37	
		1,35,51,58, 2,59,19,32		7, 1
54″	38,47,33,52,24, 8,25,24, 4,19		2,50, 9,50,38	
		1,35,51,55,12,49,28,54		7, 1
56″	38,47,35,28,16, 3,38,13,33,13		2,50, 9,57,39	
		1,35,51,52,22,39,31,15		7, 1
58″	38,47,37, 4, 7,56, 0,53, 4,28		2,50,10, 4,40	
		1,35,51,49,32,29,26,35		
60″	38,47,38,39,59,45,33,22,31, 3			
exact	38,47,38,39,59,45,33,23, 1,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°17′ 0″	38,47,38,39,59,45,33,23, 1,49			
		1,35,51,46,42,19,18,10		
2″	38,47,40,15,51,32,15,42,19,59		2,50,10,18,28	
		1,35,51,43,52, 8,59,42		7, 0
4″	38,47,41,51,43,16, 7,51,19,41		2,50,10,25,28	
		1,35,51,41, 1,58,34,14		7, 0
6″	38,47,43,27,34,57, 9,49,53,55		2,50,10,32,28	
		1,35,51,38,11,48, 1,46		7, 0
8″	38,47,45, 3,26,35,21,37,55,41		2,50,10,39,28	
		1,35,51,35,21,37,22,18		7, 0
10″	38,47,46,39,18,10,43,15,17,59		2,50,10,46,28	
		1,35,51,32,31,26,35,50		7, 0
12″	38,47,48,15, 9,43,14,41,53,49		2,50,10,53,28	
		1,35,51,29,41,15,42,22		7, 0
14″	38,47,49,51, 1,12,55,57,36,11		2,50,11, 0,28	
		1,35,51,26,51, 4,41,54		7, 0
16″	38,47,51,26,52,39,47, 2,18, 5		2,50,11, 7,28	
		1,35,51,24, 0,53,34,26		7, 0
18″	38,47,53, 2,44, 3,47,55,52,31		2,50,11,14,28	
		1,35,51,21,10,42,19,58		7, 0
20″	38,47,54,38,35,24,58,38,12,29		2,50,11,21,28	
		1,35,51,18,20,30,58,30		7, 0
22″	38,47,56,14,26,43,19, 9,10,59		2,50,11,28,28	
		1,35,51,15,30,19,30, 2		7, 0
24″	38,47,57,50,17,58,49,28,41, 1		2,50,11,35,28	
		1,35,51,12,40, 7,54,34		7, 0
26″	38,47,59,26, 9,11,29,36,35,35		2,50,11,42,28	
		1,35,51, 9,49,56,12, 6		7, 0
28″	38,48, 1, 2, 0,21,19,32,47,41		2,50,11,49,28	
		1,35,51, 6,59,44,22,38		7, 0
30″	38,48, 2,37,51,28,19,17,10,19		2,50,11,56,28	
		1,35,51, 4, 9,32,26,10		7, 0
32″	38,48, 4,13,42,32,28,49,36,29		2,50,12, 3,28	
		1,35,51, 1,19,20,22,42		7, 0
34″	38,48, 5,49,33,33,48, 9,59,11		2,50,12,10,28	
		1,35,50,58,29, 8,12,14		7, 0
36″	38,48, 7,25,24,32,17,18,11,25		2,50,12,17,28	
		1,35,50,55,38,55,54,46		7, 0
38″	38,48, 9, 1,15,27,56,14, 6,11		2,50,12,24,28	
		1,35,50,52,48,43,30,18		7, 0
40″	38,48,10,37, 6,20,44,57,36,29		2,50,12,31,28	
		1,35,50,49,58,30,58,50		7, 0
42″	38,48,12,12,57,10,43,28,35,19		2,50,12,38,28	
		1,35,50,47, 8,18,20,22		7, 0
44″	38,48,13,48,47,57,51,46,55,41		2,50,12,45,28	
		1,35,50,44,18, 5,34,54		7, 0
46″	38,48,15,24,38,42, 9,52,30,35		2,50,12,52,28	
		1,35,50,41,27,52,42,26		7, 0
48″	38,48,17, 0,29,23,37,45,13, 1		2,50,12,59,28	
		1,35,50,38,37,39,42,58		7, 0
50″	38,48,18,36,20, 2,15,24,55,59		2,50,13, 6,28	
		1,35,50,35,47,26,36,30		7, 0
52″	38,48,20,12,10,38, 2,51,32,29		2,50,13,13,28	
		1,35,50,32,57,13,23, 2		7, 0
54″	38,48,21,48, 1,11, 0, 4,55,31		2,50,13,20,28	
		1,35,50,30, 7, 0, 2,34		7, 0
56″	38,48,23,23,51,41, 7, 4,58, 5		2,50,13,27,28	
		1,35,50,27,16,46,35, 6		7, 0
58″	38,48,24,59,42, 8,23,51,33,11		2,50,13,34,28	
		1,35,50,24,26,33, 0,38		
60″	38,48,26,35,32,32,50,24,33,49			
exact	38,48,26,35,32,32,50,24, 0, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°18′ 0″	38,48,26,35,32,32,50,24, 0, 6			
		1,35,50,21,36,19,15,40		
2″	38,48,28,11,22,54,26,43,15,46		2,50,13,48,42	
		1,35,50,18,46, 5,26,58		7, 0
4″	38,48,29,47,13,13,12,48,42,44		2,50,13,55,42	
		1,35,50,15,55,51,31,16		7, 0
6″	38,48,31,23, 3,29, 8,40,14, 0		2,50,14, 2,42	
		1,35,50,13, 5,37,28,34		7, 0
8″	38,48,32,58,53,42,14,17,42,34		2,50,14, 9,42	
		1,35,50,10,15,23,18,52		7, 0
10″	38,48,34,34,43,52,29,41, 1,26		2,50,14,16,42	
		1,35,50, 7,25, 9, 2,10		7, 0
12″	38,48,36,10,33,59,54,50, 3,36		2,50,14,23,42	
		1,35,50, 4,34,54,38,28		7, 0
14″	38,48,37,46,24, 4,29,44,42, 4		2,50,14,30,42	
		1,35,50, 1,44,40, 7,46		7, 0
16″	38,48,39,22,14, 6,14,24,49,50		2,50,14,37,42	
		1,35,49,58,54,25,30, 4		7, 0
18″	38,48,40,58, 4, 5, 8,50,19,54		2,50,14,44,42	
		1,35,49,56, 4,10,45,22		7, 0
20″	38,48,42,33,54, 1,13, 1, 5,16		2,50,14,51,42	
		1,35,49,53,13,55,53,40		7, 0
22″	38,48,44, 9,43,54,26,56,58,56		2,50,14,58,42	
		1,35,49,50,23,40,54,58		7, 0
24″	38,48,45,45,33,44,50,37,53,54		2,50,15, 5,42	
		1,35,49,47,33,25,49,16		7, 0
26″	38,48,47,21,23,32,24, 3,43,10		2,50,15,12,42	
		1,35,49,44,43,10,36,34		7, 0
28″	38,48,48,57,13,17, 7,14,19,44		2,50,15,19,42	
		1,35,49,41,52,55,16,52		7, 0
30″	38,48,50,33, 2,59, 0, 9,36,36		2,50,15,26,42	
		1,35,49,39, 2,39,50,10		7, 0
32″	38,48,52, 8,52,38, 2,49,26,46		2,50,15,33,42	
		1,35,49,36,12,24,16,28		7, 0
34″	38,48,53,44,42,14,15,13,43,14		2,50,15,40,42	
		1,35,49,33,22, 8,35,46		7, 0
36″	38,48,55,20,31,47,37,22,19, 0		2,50,15,47,42	
		1,35,49,30,31,52,48, 4		7, 0
38″	38,48,56,56,21,18, 9,15, 7, 4		2,50,15,54,42	
		1,35,49,27,41,36,53,22		7, 0
40″	38,48,58,32,10,45,50,52, 0,26		2,50,16, 1,42	
		1,35,49,24,51,20,51,40		7, 0
42″	38,49, 0, 8, 0,10,42,12,52, 6		2,50,16, 8,42	
		1,35,49,22, 1, 4,42,58		7, 0
44″	38,49, 1,43,49,32,43,17,35, 4		2,50,16,15,42	
		1,35,49,19,10,48,27,16		7, 0
46″	38,49, 3,19,38,51,54, 6, 2,20		2,50,16,22,42	
		1,35,49,16,20,32, 4,34		7, 0
48″	38,49, 4,55,28, 8,14,38, 6,54		2,50,16,29,42	
		1,35,49,13,30,15,34,52		7, 0
50″	38,49, 6,31,17,21,44,53,41,46		2,50,16,36,42	
		1,35,49,10,39,58,58,10		7, 0
52″	38,49, 8, 7, 6,32,24,52,39,56		2,50,16,43,42	
		1,35,49, 7,49,42,14,28		7, 0
54″	38,49, 9,42,55,40,14,34,54,24		2,50,16,50,42	
		1,35,49, 4,59,25,23,46		7, 0
56″	38,49,11,18,44,45,14, 0,18,10		2,50,16,57,42	
		1,35,49, 2, 9, 8,26, 4		7, 0
58″	38,49,12,54,33,47,23, 8,44,14		2,50,17, 4,42	
		1,35,48,59,18,51,21,22		
60″	38,49,14,30,22,46,42, 0, 5,36			
exact	38,49,14,30,22,46,41,59,42,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°19′ 0″	38,49,14,30,22,46,41,59,42,41			
		1,35,48,56,28,34, 7,11		
2″	38,49,16, 6,11,43,10,33,49,52		2,50,17,18,52	
		1,35,48,53,38,16,48,19		7, 0
4″	38,49,17,42, 0,36,48,50,38,11		2,50,17,25,52	
		1,35,48,50,47,59,22,27		7, 0
6″	38,49,19,17,49,27,36,50, 0,38		2,50,17,32,52	
		1,35,48,47,57,41,49,35		7, 0
8″	38,49,20,53,38,15,34,31,50,13		2,50,17,39,52	
		1,35,48,45, 7,24, 9,43		7, 0
10″	38,49,22,29,27, 0,41,55,59,56		2,50,17,46,52	
		1,35,48,42,17, 6,22,51		7, 0
12″	38,49,24, 5,15,42,59, 2,22,47		2,50,17,53,52	
		1,35,48,39,26,48,28,59		7, 0
14″	38,49,25,41, 4,22,25,50,51,46		2,50,18, 0,52	
		1,35,48,36,36,30,28, 7		7, 0
16″	38,49,27,16,52,59, 2,21,19,53		2,50,18, 7,52	
		1,35,48,33,46,12,20,15		7, 0
18″	38,49,28,52,41,32,48,33,40, 8		2,50,18,14,52	
		1,35,48,30,55,54, 5,23		7, 0
20″	38,49,30,28,30, 3,44,27,45,31		2,50,18,21,52	
		1,35,48,28, 5,35,43,31		7, 0
22″	38,49,32, 4,18,31,50, 3,29, 2		2,50,18,28,52	
		1,35,48,25,15,17,14,39		7, 0
24″	38,49,33,40, 6,57, 5,20,43,41		2,50,18,35,52	
		1,35,48,22,24,58,38,47		7, 0
26″	38,49,35,15,55,19,30,19,22,28		2,50,18,42,52	
		1,35,48,19,34,39,55,55		7, 0
28″	38,49,36,51,43,39, 4,59,18,23		2,50,18,49,52	
		1,35,48,16,44,21, 6, 3		7, 0
30″	38,49,38,27,31,55,49,20,24,26		2,50,18,56,52	
		1,35,48,13,54, 2, 9,11		7, 0
32″	38,49,40, 3,20, 9,43,22,33,37		2,50,19, 3,52	
		1,35,48,11, 3,43, 5,19		7, 0
34″	38,49,41,39, 8,20,47, 5,38,56		2,50,19,10,52	
		1,35,48, 8,13,23,54,27		7, 0
36″	38,49,43,14,56,29, 0,29,33,23		2,50,19,17,52	
		1,35,48, 5,23, 4,36,35		7, 0
38″	38,49,44,50,44,34,23,34, 9,58		2,50,19,24,52	
		1,35,48, 2,32,45,11,43		7, 0
40″	38,49,46,26,32,36,56,19,21,41		2,50,19,31,52	
		1,35,47,59,42,25,39,51		7, 0
42″	38,49,48, 2,20,36,38,45, 1,32		2,50,19,38,52	
		1,35,47,56,52, 6, 0,59		7, 0
44″	38,49,49,38, 8,33,30,51, 2,31		2,50,19,45,52	
		1,35,47,54, 1,46,15, 7		7, 0
46″	38,49,51,13,56,27,32,37,17,38		2,50,19,52,52	
		1,35,47,51,11,26,22,15		7, 0
48″	38,49,52,49,44,18,44, 3,39,53		2,50,19,59,52	
		1,35,47,48,21, 6,22,23		7, 0
50″	38,49,54,25,32, 7, 5,10, 2,16		2,50,20, 6,52	
		1,35,47,45,30,46,15,31		7, 0
52″	38,49,56, 1,19,52,35,56,17,47		2,50,20,13,52	
		1,35,47,42,40,26, 1,39		7, 0
54″	38,49,57,37, 7,35,16,22,19,26		2,50,20,20,52	
		1,35,47,39,50, 5,40,47		7, 0
56″	38,49,59,12,55,15, 6,28, 0,13		2,50,20,27,52	
		1,35,47,36,59,45,12,55		7, 0
58″	38,50, 0,48,42,52, 6,13,13, 8		2,50,20,34,52	
		1,35,47,34, 9,24,38, 3		
60″	38,50, 2,24,30,26,15,37,51,11			
exact	38,50, 2,24,30,26,15,37,32,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°20′ 0″	38,50, 2,24,30,26,15,37,32,52	1,35,47,31,19, 3,54,17		
2″	38,50, 4, 0,17,57,34,41,27, 9	1,35,47,28,28,43, 5,18	2,50,20,48,59	7, 0
4″	38,50, 5,36, 5,26, 3,24,32,27	1,35,47,25,38,22, 9,19	2,50,20,55,59	7, 0
6″	38,50, 7,11,52,51,41,46,41,46	1,35,47,22,48, 1, 6,20	2,50,21, 2,59	7, 0
8″	38,50, 8,47,40,14,29,47,48, 6	1,35,47,19,57,39,56,21	2,50,21, 9,59	7, 0
10″	38,50,10,23,27,34,27,27,44,27	1,35,47,17, 7,18,39,22	2,50,21,16,59	7, 0
12″	38,50,11,59,14,51,34,46,23,49	1,35,47,14,16,57,15,23	2,50,21,23,59	7, 0
14″	38,50,13,35, 2, 5,51,43,39,12	1,35,47,11,26,35,44,24	2,50,21,30,59	7, 0
16″	38,50,15,10,49,17,18,19,23,36	1,35,47, 8,36,14, 6,25	2,50,21,37,59	7, 0
18″	38,50,16,46,36,25,54,33,30, 1	1,35,47, 5,45,52,21,26	2,50,21,44,59	7, 0
20″	38,50,18,22,23,31,40,25,51,27	1,35,47, 2,55,30,29,27	2,50,21,51,59	7, 0
22″	38,50,19,58,10,34,35,56,20,54	1,35,47, 0, 5, 8,30,28	2,50,21,58,59	7, 0
24″	38,50,21,33,57,34,41, 4,51,22	1,35,46,57,14,46,24,29	2,50,22, 5,59	7, 0
26″	38,50,23, 9,44,31,55,51,15,51	1,35,46,54,24,24,11,30	2,50,22,12,59	7, 0
28″	38,50,24,45,31,26,20,15,27,21	1,35,46,51,34, 1,51,31	2,50,22,19,59	7, 0
30″	38,50,26,21,18,17,54,17,18,52	1,35,46,48,43,39,24,32	2,50,22,26,59	7, 0
32″	38,50,27,57, 5, 6,37,56,43,24	1,35,46,45,53,16,50,33	2,50,22,33,59	7, 0
34″	38,50,29,32,51,52,31,13,33,57	1,35,46,43, 2,54, 9,34	2,50,22,40,59	7, 0
36″	38,50,31, 8,38,35,34, 7,43,31	1,35,46,40,12,31,21,35	2,50,22,47,59	7, 0
38″	38,50,32,44,25,15,46,39, 5, 6	1,35,46,37,22, 8,26,36	2,50,22,54,59	7, 0
40″	38,50,34,20,11,53, 8,47,31,42	1,35,46,34,31,45,24,37	2,50,23, 1,59	7, 0
42″	38,50,35,55,58,27,40,32,56,19	1,35,46,31,41,22,15,38	2,50,23, 8,59	7, 0
44″	38,50,37,31,44,59,21,55,11,57	1,35,46,28,50,58,59,39	2,50,23,15,59	7, 0
46″	38,50,39, 7,31,28,12,54,11,36	1,35,46,26, 0,35,36,40	2,50,23,22,59	7, 0
48″	38,50,40,43,17,54,13,29,48,16	1,35,46,23,10,12, 6,41	2,50,23,29,59	7, 0
50″	38,50,42,19, 4,17,23,41,54,57	1,35,46,20,19,48,29,42	2,50,23,36,59	7, 0
52″	38,50,43,54,50,37,43,30,24,39	1,35,46,17,29,24,45,43	2,50,23,43,59	7, 0
54″	38,50,45,30,36,55,12,55,10,22	1,35,46,14,39, 0,54,44	2,50,23,50,59	7, 0
56″	38,50,47, 6,23, 9,51,56, 5, 6	1,35,46,11,48,36,56,45	2,50,23,57,59	7, 0
58″	38,50,48,42, 9,21,40,33, 1,51	1,35,46, 8,58,12,51,46	2,50,24, 4,59	
60″	38,50,50,17,55,30,38,45,53,37			
exact	38,50,50,17,55,30,38,45,40,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°21′ 0″	38,50,50,17,55,30,38,45,40,38	1,35,46, 6, 7,48,38,31		
2″	38,50,51,53,41,36,46,34,19, 9	1,35,46, 3,17,24,19,28	2,50,24,19, 3	7, 0
4″	38,50,53,29,27,40, 3,58,38,37	1,35,46, 0,26,59,53,25	2,50,24,26, 3	7, 0
6″	38,50,55, 5,13,40,30,58,32, 2	1,35,45,57,36,35,20,22	2,50,24,33, 3	7, 0
8″	38,50,56,40,59,38, 7,33,52,24	1,35,45,54,46,10,40,19	2,50,24,40, 3	7, 0
10″	38,50,58,16,45,32,53,44,32,43	1,35,45,51,55,45,53,16	2,50,24,47, 3	7, 0
12″	38,50,59,52,31,24,49,30,25,59	1,35,45,49, 5,20,59,13	2,50,24,54, 3	7, 0
14″	38,51, 1,28,17,13,54,51,25,12	1,35,45,46,14,55,58,10	2,50,25, 1, 3	7, 0
16″	38,51, 3, 4, 3, 0, 9,47,23,22	1,35,45,43,24,30,50, 7	2,50,25, 8, 3	7, 0
18″	38,51, 4,39,48,43,34,18,13,29	1,35,45,40,34, 5,35, 4	2,50,25,15, 3	7, 0
20″	38,51, 6,15,34,24, 8,23,48,33	1,35,45,37,43,40,13, 1	2,50,25,22, 3	7, 0
22″	38,51, 7,51,20, 1,52, 4, 1,34	1,35,45,34,53,14,43,58	2,50,25,29, 3	7, 0
24″	38,51, 9,27, 5,36,45,18,45,32	1,35,45,32, 2,49, 7,55	2,50,25,36, 3	7, 0
26″	38,51,11, 2,51, 8,48, 7,53,27	1,35,45,29,12,23,24,52	2,50,25,43, 3	7, 0
28″	38,51,12,38,36,38, 0,31,18,19	1,35,45,26,21,57,34,49	2,50,25,50, 3	7, 0
30″	38,51,14,14,22, 4,22,28,53, 8	1,35,45,23,31,31,37,46	2,50,25,57, 3	7, 0
32″	38,51,15,50, 7,27,54, 0,30,54	1,35,45,20,41, 5,33,43	2,50,26, 4, 3	7, 0
34″	38,51,17,25,52,48,35, 6, 4,37	1,35,45,17,50,39,22,40	2,50,26,11, 3	7, 0
36″	38,51,19, 1,38, 6,25,45,27,17	1,35,45,15, 0,13, 4,37	2,50,26,18, 3	7, 0
38″	38,51,20,37,23,21,25,58,31,54	1,35,45,12, 9,46,39,34	2,50,26,25, 3	7, 0
40″	38,51,22,13, 8,33,35,45,11,28	1,35,45, 9,19,20, 7,31	2,50,26,32, 3	7, 0
42″	38,51,23,48,53,42,55, 5,18,59	1,35,45, 6,28,53,28,28	2,50,26,39, 3	7, 0
44″	38,51,25,24,38,49,23,58,47,27	1,35,45, 3,38,26,42,25	2,50,26,46, 3	7, 0
46″	38,51,27, 0,23,53, 2,25,29,52	1,35,45, 0,47,59,49,22	2,50,26,53, 3	7, 0
48″	38,51,28,36, 8,53,50,25,19,14	1,35,44,57,57,32,49,19	2,50,27, 0, 3	7, 0
50″	38,51,30,11,53,51,47,58, 8,33	1,35,44,55, 7, 5,42,16	2,50,27, 7, 3	7, 0
52″	38,51,31,47,38,46,55, 3,50,49	1,35,44,52,16,38,28,13	2,50,27,14, 3	7, 0
54″	38,51,33,23,23,39,11,42,19, 2	1,35,44,49,26,11, 7,10	2,50,27,21, 3	7, 0
56″	38,51,34,59, 8,28,37,53,26,12	1,35,44,46,35,43,39, 7	2,50,27,28, 3	7, 0
58″	38,51,36,34,53,15,13,37, 5,19	1,35,44,43,45,16, 4, 4	2,50,27,35, 3	
60″	38,51,38,10,37,58,58,53, 9,23			
exact	38,51,38,10,37,58,58,53, 2,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°22′ 0″	38,51,38,10,37,58,58,53, 2,40			
		1,35,44,40,54,48,21,27		
2″	38,51,39,46,22,39,53,41,24, 7		2,50,27,49, 4	
		1,35,44,38, 4,20,32,23		7, 0
4″	38,51,41,22, 7,17,58, 1,56,30		2,50,27,56, 4	
		1,35,44,35,13,52,36,19		7, 0
6″	38,51,42,57,51,53,11,54,32,49		2,50,28, 3, 4	
		1,35,44,32,23,24,33,15		7, 0
8″	38,51,44,33,36,25,35,19, 6, 4		2,50,28,10, 4	
		1,35,44,29,32,56,23,11		7, 0
10″	38,51,46, 9,20,55, 8,15,29,15		2,50,28,17, 4	
		1,35,44,26,42,28, 6, 7		7, 0
12″	38,51,47,45, 5,21,50,43,35,22		2,50,28,24, 4	
		1,35,44,23,51,59,42, 3		7, 0
14″	38,51,49,20,49,45,42,43,17,25		2,50,28,31, 4	
		1,35,44,21, 1,31,10,59		7, 0
16″	38,51,50,56,34, 6,44,14,28,24		2,50,28,38, 4	
		1,35,44,18,11, 2,32,55		7, 0
18″	38,51,52,32,18,24,55,17, 1,19		2,50,28,45, 4	
		1,35,44,15,20,33,47,51		7, 0
20″	38,51,54, 8, 2,40,15,50,49,10		2,50,28,52, 4	
		1,35,44,12,30, 4,55,47		7, 0
22″	38,51,55,43,46,52,45,55,44,57		2,50,28,59, 4	
		1,35,44, 9,39,35,56,43		7, 0
24″	38,51,57,19,31, 2,25,31,41,40		2,50,29, 6, 4	
		1,35,44, 6,49, 6,50,39		7, 0
26″	38,51,58,55,15, 9,14,38,32,19		2,50,29,13, 4	
		1,35,44, 3,58,37,37,35		7, 0
28″	38,52, 0,30,59,13,13,16, 9,54		2,50,29,20, 4	
		1,35,44, 1, 8, 8,17,31		7, 0
30″	38,52, 2, 6,43,14,21,24,27,25		2,50,29,27, 4	
		1,35,43,58,17,38,50,27		7, 0
32″	38,52, 3,42,27,12,39, 3,17,52		2,50,29,34, 4	
		1,35,43,55,27, 9,16,23		7, 0
34″	38,52, 5,18,11, 8, 6,12,34,15		2,50,29,41, 4	
		1,35,43,52,36,39,35,19		7, 0
36″	38,52, 6,53,55, 0,42,52, 9,34		2,50,29,48, 4	
		1,35,43,49,46, 9,47,15		7, 0
38″	38,52, 8,29,38,50,29, 1,56,49		2,50,29,55, 4	
		1,35,43,46,55,39,52,11		7, 0
40″	38,52,10, 5,22,37,24,41,49, 0		2,50,30, 2, 4	
		1,35,43,44, 5, 9,50, 7		7, 0
42″	38,52,11,41, 6,21,29,51,39, 7		2,50,30, 9, 4	
		1,35,43,41,14,39,41, 3		7, 0
44″	38,52,13,16,50, 2,44,31,20,10		2,50,30,16, 4	
		1,35,43,38,24, 9,24,59		7, 0
46″	38,52,14,52,33,41, 8,40,45, 9		2,50,30,23, 4	
		1,35,43,35,33,39, 1,55		7, 0
48″	38,52,16,28,17,16,42,19,47, 4		2,50,30,30, 4	
		1,35,43,32,43, 8,31,51		7, 0
50″	38,52,18, 4, 0,49,25,28,18,55		2,50,30,37, 4	
		1,35,43,29,52,37,54,47		7, 0
52″	38,52,19,39,44,19,18, 6,13,42		2,50,30,44, 4	
		1,35,43,27, 2, 7,10,43		7, 0
54″	38,52,21,15,27,46,20,13,24,25		2,50,30,51, 4	
		1,35,43,24,11,36,19,39		7, 0
56″	38,52,22,51,11,10,31,49,44, 4		2,50,30,58, 4	
		1,35,43,21,21, 5,21,35		7, 0
58″	38,52,24,26,54,31,52,55, 5,39		2,50,31, 5, 4	
		1,35,43,18,30,34,16,31		
60″	38,52,26, 2,37,50,23,29,22,10			
exact	38,52,26, 2,37,50,23,29,22,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°23′ 0″	38,52,26, 2,37,50,23,29,22,23			
		1,35,43,15,40, 3, 4,38		
2″	38,52,27,38,21, 6, 3,32,27, 1		2,50,31,19, 2	
		1,35,43,12,49,31,45,36		7, 0
4″	38,52,29,14, 4,18,53, 4,12,37		2,50,31,26, 2	
		1,35,43, 9,59, 0,19,34		7, 0
6″	38,52,30,49,47,28,52, 4,32,11		2,50,31,33, 2	
		1,35,43, 7, 8,28,46,32		7, 0
8″	38,52,32,25,30,36, 0,33,18,43		2,50,31,40, 2	
		1,35,43, 4,17,57, 6,30		7, 0
10″	38,52,34, 1,13,40,18,30,25,13		2,50,31,47, 2	
		1,35,43, 1,27,25,19,28		7, 0
12″	38,52,35,36,56,41,45,55,44,41		2,50,31,54, 2	
		1,35,42,58,36,53,25,26		7, 0
14″	38,52,37,12,39,40,22,49,10, 7		2,50,32, 1, 2	
		1,35,42,55,46,21,24,24		7, 0
16″	38,52,38,48,22,36, 9,10,34,31		2,50,32, 8, 2	
		1,35,42,52,55,49,16,22		7, 0
18″	38,52,40,24, 5,29, 4,59,50,53		2,50,32,15, 2	
		1,35,42,50, 5,17, 1,20		7, 0
20″	38,52,41,59,48,19,10,16,52,13		2,50,32,22, 2	
		1,35,42,47,14,44,39,18		7, 0
22″	38,52,43,35,31, 6,25, 1,31,31		2,50,32,29, 2	
		1,35,42,44,24,12,10,16		7, 0
24″	38,52,45,11,13,50,49,13,41,47		2,50,32,36, 2	
		1,35,42,41,33,39,34,14		7, 0
26″	38,52,46,46,56,32,22,53,16, 1		2,50,32,43, 2	
		1,35,42,38,43, 6,51,12		7, 0
28″	38,52,48,22,39,11, 6, 0, 7,13		2,50,32,50, 2	
		1,35,42,35,52,34, 1,10		7, 0
30″	38,52,49,58,21,46,58,34, 8,23		2,50,32,57, 2	
		1,35,42,33, 2, 1, 4, 8		7, 0
32″	38,52,51,34, 4,20, 0,35,12,31		2,50,33, 4, 2	
		1,35,42,30,11,28, 0, 6		7, 0
34″	38,52,53, 9,46,50,12, 3,12,37		2,50,33,11, 2	
		1,35,42,27,20,54,49, 4		7, 0
36″	38,52,54,45,29,17,32,58, 1,41		2,50,33,18, 2	
		1,35,42,24,30,21,31, 2		7, 0
38″	38,52,56,21,11,42, 3,19,32,43		2,50,33,25, 2	
		1,35,42,21,39,48, 6, 0		7, 0
40″	38,52,57,56,54, 3,43, 7,38,43		2,50,33,32, 2	
		1,35,42,18,49,14,33,58		7, 0
42″	38,52,59,32,36,22,32,22,12,41		2,50,33,39, 2	
		1,35,42,15,58,40,54,56		7, 0
44″	38,53, 1, 8,18,38,31, 3, 7,37		2,50,33,46, 2	
		1,35,42,13, 8, 7, 8,54		7, 0
46″	38,53, 2,44, 0,51,39,10,16,31		2,50,33,53, 2	
		1,35,42,10,17,33,15,52		7, 0
48″	38,53, 4,19,43, 1,56,43,32,23		2,50,34, 0, 2	
		1,35,42, 7,26,59,15,50		7, 0
50″	38,53, 5,55,25, 9,23,42,48,13		2,50,34, 7, 2	
		1,35,42, 4,36,25, 8,48		7, 0
52″	38,53, 7,31, 7,14, 0, 7,57, 1		2,50,34,14, 2	
		1,35,42, 1,45,50,54,46		7, 0
54″	38,53, 9, 6,49,15,45,58,51,47		2,50,34,21, 2	
		1,35,41,58,55,16,33,44		7, 0
56″	38,53,10,42,31,14,41,15,25,31		2,50,34,28, 2	
		1,35,41,56, 4,42, 5,42		7, 0
58″	38,53,12,18,13,10,45,57,31,13		2,50,34,35, 2	
		1,35,41,53,14, 7,30,40		
60″	38,53,13,53,55, 4, 0, 5, 1,53			
exact	38,53,13,53,55, 4, 0, 5, 9,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°24′ 0″	38,53,13,53,55, 4, 0, 5, 9,53			
		1,35,41,50,23,32,49,38		
2″	38,53,15,29,36,54,23,37,59,31		2,50,34,48,57	
		1,35,41,47,32,58, 0,41		7, 0
4″	38,53,17, 5,18,41,56,36, 0,12		2,50,34,55,57	
		1,35,41,44,42,23, 4,44		7, 0
6″	38,53,18,41, 0,26,38,59, 4,56		2,50,35, 2,57	
		1,35,41,41,51,48, 1,47		7, 0
8″	38,53,20,16,42, 8,30,47, 6,43		2,50,35, 9,57	
		1,35,41,39, 1,12,51,50		7, 0
10″	38,53,21,52,23,47,31,59,58,33		2,50,35,16,57	
		1,35,41,36,10,37,34,53		7, 0
12″	38,53,23,28, 5,23,42,37,33,26		2,50,35,23,57	
		1,35,41,33,20, 2,10,56		7, 0
14″	38,53,25, 3,46,57, 2,39,44,22		2,50,35,30,57	
		1,35,41,30,29,26,39,59		7, 0
16″	38,53,26,39,28,27,32, 6,24,21		2,50,35,37,57	
		1,35,41,27,38,51, 2, 2		7, 0
18″	38,53,28,15, 9,55,10,57,26,23		2,50,35,44,57	
		1,35,41,24,48,15,17, 5		7, 0
20″	38,53,29,50,51,19,59,12,43,28		2,50,35,51,57	
		1,35,41,21,57,39,25, 8		7, 0
22″	38,53,31,26,32,41,56,52, 8,36		2,50,35,58,57	
		1,35,41,19, 7, 3,26,11		7, 0
24″	38,53,33, 2,14, 1, 3,55,34,47		2,50,36, 5,57	
		1,35,41,16,16,27,20,14		7, 0
26″	38,53,34,37,55,17,20,22,55, 1		2,50,36,12,57	
		1,35,41,13,25,51, 7,17		7, 0
28″	38,53,36,13,36,30,46,14, 2,18		2,50,36,19,57	
		1,35,41,10,35,14,47,20		7, 0
30″	38,53,37,49,17,41,21,28,49,38		2,50,36,26,57	
		1,35,41, 7,44,38,20,23		7, 0
32″	38,53,39,24,58,49, 6, 7,10, 1		2,50,36,33,57	
		1,35,41, 4,54, 1,46,26		7, 0
34″	38,53,41, 0,39,54, 0, 8,56,27		2,50,36,40,57	
		1,35,41, 2, 3,25, 5,29		7, 0
36″	38,53,42,36,20,56, 3,34, 1,56		2,50,36,47,57	
		1,35,40,59,12,48,17,32		7, 0
38″	38,53,44,12, 1,55,16,22,19,28		2,50,36,54,57	
		1,35,40,56,22,11,22,35		7, 0
40″	38,53,45,47,42,51,38,33,42, 3		2,50,37, 1,57	
		1,35,40,53,31,34,20,38		7, 0
42″	38,53,47,23,23,45,10, 8, 2,41		2,50,37, 8,57	
		1,35,40,50,40,57,11,41		7, 0
44″	38,53,48,59, 4,35,51, 5,14,22		2,50,37,15,57	
		1,35,40,47,50,19,55,44		7, 0
46″	38,53,50,34,45,23,41,25,10, 6		2,50,37,22,57	
		1,35,40,44,59,42,32,47		7, 0
48″	38,53,52,10,26, 8,41, 7,42,53		2,50,37,29,57	
		1,35,40,42, 9, 5, 2,50		7, 0
50″	38,53,53,46, 6,50,50,12,45,43		2,50,37,36,57	
		1,35,40,39,18,27,25,53		7, 0
52″	38,53,55,21,47,30, 8,40,11,36		2,50,37,43,57	
		1,35,40,36,27,49,41,56		7, 0
54″	38,53,56,57,28, 6,36,29,53,32		2,50,37,50,57	
		1,35,40,33,37,11,50,59		7, 0
56″	38,53,58,33, 8,40,13,41,44,31		2,50,37,57,57	
		1,35,40,30,46,33,53, 2		7, 0
58″	38,54, 0, 8,49,11, 0,15,37,33		2,50,38, 4,57	
		1,35,40,27,55,55,48, 5		
60″	38,54, 1,44,29,38,56,11,25,38			
exact	38,54, 1,44,29,38,56,11,42, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°25′ 0″	38,54, 1,44,29,38,56,11,42, 4			
		1,35,40,25, 5,17,37,59		
2″	38,54, 3,20,10, 4, 1,29,20, 3		2,50,38,18,49	
		1,35,40,22,14,39,19,10		7, 0
4″	38,54, 4,55,50,26,16, 8,39,13		2,50,38,25,49	
		1,35,40,19,24, 0,53,21		7, 0
6″	38,54, 6,31,30,45,40, 9,32,34		2,50,38,32,49	
		1,35,40,16,33,22,20,32		7, 0
8″	38,54, 8, 7,11, 2,13,31,53, 6		2,50,38,39,49	
		1,35,40,13,42,43,40,43		7, 0
10″	38,54, 9,42,51,15,56,15,33,49		2,50,38,46,49	
		1,35,40,10,52, 4,53,54		7, 0
12″	38,54,11,18,31,26,48,20,27,43		2,50,38,53,49	
		1,35,40, 8, 1,26, 0, 5		7, 0
14″	38,54,12,54,11,34,49,46,27,48		2,50,39, 0,49	
		1,35,40, 5,10,46,59,16		7, 0
16″	38,54,14,29,51,40, 0,33,27, 4		2,50,39, 7,49	
		1,35,40, 2,20, 7,51,27		7, 0
18″	38,54,16, 5,31,42,20,41,18,31		2,50,39,14,49	
		1,35,39,59,29,28,36,38		7, 0
20″	38,54,17,41,11,41,50, 9,55, 9		2,50,39,21,49	
		1,35,39,56,38,49,14,49		7, 0
22″	38,54,19,16,51,38,28,59, 9,58		2,50,39,28,49	
		1,35,39,53,48, 9,46, 0		7, 0
24″	38,54,20,52,31,32,17, 8,55,58		2,50,39,35,49	
		1,35,39,50,57,30,10,11		7, 0
26″	38,54,22,28,11,23,14,39, 6, 9		2,50,39,42,49	
		1,35,39,48, 6,50,27,22		7, 0
28″	38,54,24, 3,51,11,21,29,33,31		2,50,39,49,49	
		1,35,39,45,16,10,37,33		7, 0
30″	38,54,25,39,30,56,37,40,11, 4		2,50,39,56,49	
		1,35,39,42,25,30,40,44		7, 0
32″	38,54,27,15,10,39, 3,10,51,48		2,50,40, 3,49	
		1,35,39,39,34,50,36,55		7, 0
34″	38,54,28,50,50,18,38, 1,28,43		2,50,40,10,49	
		1,35,39,36,44,10,26, 6		7, 0
36″	38,54,30,26,29,55,22,11,54,49		2,50,40,17,49	
		1,35,39,33,53,30, 8,17		7, 0
38″	38,54,32, 2, 9,29,15,42, 3, 6		2,50,40,24,49	
		1,35,39,31, 2,49,43,28		7, 0
40″	38,54,33,37,49, 0,18,31,46,34		2,50,40,31,49	
		1,35,39,28,12, 9,11,39		7, 0
42″	38,54,35,13,28,28,30,40,58,13		2,50,40,38,49	
		1,35,39,25,21,28,32,50		7, 0
44″	38,54,36,49, 7,53,52, 9,31, 3		2,50,40,45,49	
		1,35,39,22,30,47,47, 1		7, 0
46″	38,54,38,24,47,16,22,57,18, 4		2,50,40,52,49	
		1,35,39,19,40, 6,54,12		7, 0
48″	38,54,40, 0,26,36, 3, 4,12,16		2,50,40,59,49	
		1,35,39,16,49,25,54,23		7, 0
50″	38,54,41,36, 5,52,52,30, 6,39		2,50,41, 6,49	
		1,35,39,13,58,44,47,34		7, 0
52″	38,54,43,11,45, 6,51,14,54,13		2,50,41,13,49	
		1,35,39,11, 8, 3,33,45		7, 0
54″	38,54,44,47,24,17,59,18,27,58		2,50,41,20,49	
		1,35,39, 8,17,22,12,56		7, 0
56″	38,54,46,23, 3,26,16,40,40,54		2,50,41,27,49	
		1,35,39, 5,26,40,45, 7		7, 0
58″	38,54,47,58,42,31,43,21,26, 1		2,50,41,34,49	
		1,35,39, 2,35,59,10,18		
60″	38,54,49,34,21,34,19,20,36,19			
exact	38,54,49,34,21,34,19,21, 2,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°26′ 0″	38,54,49,34,21,34,19,21, 2,35			
		1,35,38,59,45,17,31,16		
2″	38,54,51,10, 0,34, 4,38,33,51		2,50,41,48,37	
		1,35,38,56,54,35,42,39		7, 0
4″	38,54,52,45,39,30,59,14,16,30		2,50,41,55,37	
		1,35,38,54, 3,53,47, 2		7, 0
6″	38,54,54,21,18,25, 3, 8, 3,32		2,50,42, 2,37	
		1,35,38,51,13,11,44,25		7, 0
8″	38,54,55,56,57,16,16,19,47,57		2,50,42, 9,37	
		1,35,38,48,22,29,34,48		7, 0
10″	38,54,57,32,36, 4,38,49,22,45		2,50,42,16,37	
		1,35,38,45,31,47,18,11		7, 0
12″	38,54,59, 8,14,50,10,36,40,56		2,50,42,23,37	
		1,35,38,42,41, 4,54,34		7, 0
14″	38,55, 0,43,53,32,51,41,35,30		2,50,42,30,37	
		1,35,38,39,50,22,23,57		7, 0
16″	38,55, 2,19,32,12,42, 3,59,27		2,50,42,37,37	
		1,35,38,36,59,39,46,20		7, 0
18″	38,55, 3,55,10,49,41,43,45,47		2,50,42,44,37	
		1,35,38,34, 8,57, 1,43		7, 0
20″	38,55, 5,30,49,23,50,40,47,30		2,50,42,51,37	
		1,35,38,31,18,14,10, 6		7, 0
22″	38,55, 7, 6,27,55, 8,54,57,36		2,50,42,58,37	
		1,35,38,28,27,31,11,29		7, 0
24″	38,55, 8,42, 6,23,36,26, 9, 5		2,50,43, 5,37	
		1,35,38,25,36,48, 5,52		7, 0
26″	38,55,10,17,44,49,13,14,14,57		2,50,43,12,37	
		1,35,38,22,46, 4,53,15		7, 0
28″	38,55,11,53,23,11,59,19, 8,12		2,50,43,19,37	
		1,35,38,19,55,21,33,38		7, 0
30″	38,55,13,29, 1,31,54,40,41,50		2,50,43,26,37	
		1,35,38,17, 4,38, 7, 1		7, 0
32″	38,55,15, 4,39,48,59,18,48,51		2,50,43,33,37	
		1,35,38,14,13,54,33,24		7, 0
34″	38,55,16,40,18, 3,13,13,22,15		2,50,43,40,37	
		1,35,38,11,23,10,52,47		7, 0
36″	38,55,18,15,56,14,36,24,15, 2		2,50,43,47,37	
		1,35,38, 8,32,27, 5,10		7, 0
38″	38,55,19,51,34,23, 8,51,20,12		2,50,43,54,37	
		1,35,38, 5,41,43,10,33		7, 0
40″	38,55,21,27,12,28,50,34,30,45		2,50,44, 1,37	
		1,35,38, 2,50,59, 8,56		7, 0
42″	38,55,23, 2,50,31,41,33,39,41		2,50,44, 8,37	
		1,35,38, 0, 0,15, 0,19		7, 0
44″	38,55,24,38,28,31,41,48,40, 0		2,50,44,15,37	
		1,35,37,57, 9,30,44,42		7, 0
46″	38,55,26,14, 6,28,51,19,24,42		2,50,44,22,37	
		1,35,37,54,18,46,22, 5		7, 0
48″	38,55,27,49,44,23,10, 5,46,47		2,50,44,29,37	
		1,35,37,51,28, 1,52,28		7, 0
50″	38,55,29,25,22,14,38, 7,39,15		2,50,44,36,37	
		1,35,37,48,37,17,15,51		7, 0
52″	38,55,31, 1, 0, 3,15,24,55, 6		2,50,44,43,37	
		1,35,37,45,46,32,32,14		7, 0
54″	38,55,32,36,37,49, 1,57,27,20		2,50,44,50,37	
		1,35,37,42,55,47,41,37		7, 0
56″	38,55,34,12,15,31,57,45, 8,57		2,50,44,57,37	
		1,35,37,40, 5, 2,44, 0		7, 0
58″	38,55,35,47,53,12, 2,47,52,57		2,50,45, 4,37	
		1,35,37,37,14,17,39,23		
60″	38,55,37,23,30,49,17, 5,32,20			
exact	38,55,37,23,30,49,17, 6, 1,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°27′ 0″	38,55,37,23,30,49,17, 6, 1,51			
		1,35,37,34,23,32,31, 3		
2″	38,55,38,59, 8,23,40,38,32,54		2,50,45,18,23	
		1,35,37,31,32,47,12,40		6,59
4″	38,55,40,34,45,55,13,25,45,34		2,50,45,25,22	
		1,35,37,28,42, 1,47,18		6,59
6″	38,55,42,10,23,23,55,27,32,52		2,50,45,32,21	
		1,35,37,25,51,16,14,57		6,59
8″	38,55,43,46, 0,49,46,43,47,49		2,50,45,39,20	
		1,35,37,23, 0,30,35,37		6,59
10″	38,55,45,21,38,12,47,14,23,26		2,50,45,46,19	
		1,35,37,20, 9,44,49,18		6,59
12″	38,55,46,57,15,32,56,59,12,44		2,50,45,53,18	
		1,35,37,17,18,58,56, 0		6,59
14″	38,55,48,32,52,50,15,58, 8,44		2,50,46, 0,17	
		1,35,37,14,28,12,55,43		6,59
16″	38,55,50, 8,30, 4,44,11, 4,27		2,50,46, 7,16	
		1,35,37,11,37,26,48,27		6,59
18″	38,55,51,44, 7,16,21,37,52,54		2,50,46,14,15	
		1,35,37, 8,46,40,34,12		6,59
20″	38,55,53,19,44,25, 8,18,27, 6		2,50,46,21,14	
		1,35,37, 5,55,54,12,58		6,59
22″	38,55,54,55,21,31, 4,12,40, 4		2,50,46,28,13	
		1,35,37, 3, 5, 7,44,45		6,59
24″	38,55,56,30,58,34, 9,20,24,49		2,50,46,35,12	
		1,35,37, 0,14,21, 9,33		6,59
26″	38,55,58, 6,35,34,23,41,34,22		2,50,46,42,11	
		1,35,36,57,23,34,27,22		6,59
28″	38,55,59,42,12,31,47,16, 1,44		2,50,46,49,10	
		1,35,36,54,32,47,38,12		6,59
30″	38,56, 1,17,49,26,20, 3,39,56		2,50,46,56, 9	
		1,35,36,51,42, 0,42, 3		6,59
32″	38,56, 2,53,26,18, 2, 4,21,59		2,50,47, 3, 8	
		1,35,36,48,51,13,38,55		6,59
34″	38,56, 4,29, 3, 6,53,18, 0,54		2,50,47,10, 7	
		1,35,36,46, 0,26,28,48		6,59
36″	38,56, 6, 4,39,52,53,44,29,42		2,50,47,17, 6	
		1,35,36,43, 9,39,11,42		6,59
38″	38,56, 7,40,16,36, 3,23,41,24		2,50,47,24, 5	
		1,35,36,40,18,51,47,37		6,59
40″	38,56, 9,15,53,16,22,15,29, 1		2,50,47,31, 4	
		1,35,36,37,28, 4,16,33		6,59
42″	38,56,10,51,29,53,50,19,45,34		2,50,47,38, 3	
		1,35,36,34,37,16,38,30		6,59
44″	38,56,12,27, 6,28,27,36,24, 4		2,50,47,45, 2	
		1,35,36,31,46,28,53,28		6,59
46″	38,56,14, 2,43, 0,14, 5,17,32		2,50,47,52, 1	
		1,35,36,28,55,41, 1,27		6,59
48″	38,56,15,38,19,29, 9,46,18,59		2,50,47,59, 0	
		1,35,36,26, 4,53, 2,27		6,59
50″	38,56,17,13,55,55,14,39,21,26		2,50,48, 5,59	
		1,35,36,23,14, 4,56,28		6,59
52″	38,56,18,49,32,18,28,44,17,54		2,50,48,12,58	
		1,35,36,20,23,16,43,30		6,59
54″	38,56,20,25, 8,38,52, 1, 1,24		2,50,48,19,57	
		1,35,36,17,32,28,23,33		6,59
56″	38,56,22, 0,44,56,24,29,24,57		2,50,48,26,56	
		1,35,36,14,41,39,56,37		6,59
58″	38,56,23,36,21,11, 6, 9,21,34		2,50,48,33,55	
		1,35,36,11,50,51,22,42		
60″	38,56,25,11,57,22,57, 0,44,16			
exact	38,56,25,11,57,22,57, 0,17, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°28′ 0″	38,56,25,11,57,22,57, 0,17, 6			
		1,35,36, 9, 0, 2,38,52		
2″	38,56,26,47,33,31,57, 2,55,58		2,50,48,48, 5	
		1,35,36, 6, 9,13,50,47		6,59
4″	38,56,28,23, 9,38, 6,16,46,45		2,50,48,55, 4	
		1,35,36, 3,18,24,55,43		6,59
6″	38,56,29,58,45,41,24,41,42,28		2,50,49, 2, 3	
		1,35,36, 0,27,35,53,40		6,59
8″	38,56,31,34,21,41,52,17,36, 8		2,50,49, 9, 2	
		1,35,35,57,36,46,44,38		6,59
10″	38,56,33, 9,57,39,29, 4,20,46		2,50,49,16, 1	
		1,35,35,54,45,57,28,37		6,59
12″	38,56,34,45,33,34,15, 1,49,23		2,50,49,23, 0	
		1,35,35,51,55, 8, 5,37		6,59
14″	38,56,36,21, 9,26,10, 9,55, 0		2,50,49,29,59	
		1,35,35,49, 4,18,35,38		6,59
16″	38,56,37,56,45,15,14,28,30,38		2,50,49,36,58	
		1,35,35,46,13,28,58,40		6,59
18″	38,56,39,32,21, 1,27,57,29,18		2,50,49,43,57	
		1,35,35,43,22,39,14,43		6,59
20″	38,56,41, 7,56,44,50,36,44, 1		2,50,49,50,56	
		1,35,35,40,31,49,23,47		6,59
22″	38,56,42,43,32,25,22,26, 7,48		2,50,49,57,55	
		1,35,35,37,40,59,25,52		6,59
24″	38,56,44,19, 8, 3, 3,25,33,40		2,50,50, 4,54	
		1,35,35,34,50, 9,20,58		6,59
26″	38,56,45,54,43,37,53,34,54,38		2,50,50,11,53	
		1,35,35,31,59,19, 9, 5		6,59
28″	38,56,47,30,19, 9,52,54, 3,43		2,50,50,18,52	
		1,35,35,29, 8,28,50,13		6,59
30″	38,56,49, 5,54,39, 1,22,53,56		2,50,50,25,51	
		1,35,35,26,17,38,24,22		6,59
32″	38,56,50,41,30, 5,19, 1,18,18		2,50,50,32,50	
		1,35,35,23,26,47,51,32		6,59
34″	38,56,52,17, 5,28,45,49, 9,50		2,50,50,39,49	
		1,35,35,20,35,57,11,43		6,59
36″	38,56,53,52,40,49,21,46,21,33		2,50,50,46,48	
		1,35,35,17,45, 6,24,55		6,59
38″	38,56,55,28,16, 7, 6,52,46,28		2,50,50,53,47	
		1,35,35,14,54,15,31, 8		6,59
40″	38,56,57, 3,51,22, 1, 8,17,36		2,50,51, 0,46	
		1,35,35,12, 3,24,30,22		6,59
42″	38,56,58,39,26,34, 4,32,47,58		2,50,51, 7,45	
		1,35,35, 9,12,33,22,37		6,59
44″	38,57, 0,15, 1,43,17, 6,10,35		2,50,51,14,44	
		1,35,35, 6,21,42, 7,53		6,59
46″	38,57, 1,50,36,49,38,48,18,28		2,50,51,21,43	
		1,35,35, 3,30,50,46,10		6,59
48″	38,57, 3,26,11,53, 9,39, 4,38		2,50,51,28,42	
		1,35,35, 0,39,59,17,28		6,59
50″	38,57, 5, 1,46,53,49,38,22, 6		2,50,51,35,41	
		1,35,34,57,49, 7,41,47		6,59
52″	38,57, 6,37,21,51,38,46, 3,53		2,50,51,42,40	
		1,35,34,54,58,15,59, 7		6,59
54″	38,57, 8,12,56,46,37, 2, 3, 0		2,50,51,49,39	
		1,35,34,52, 7,24, 9,28		6,59
56″	38,57, 9,48,31,38,44,26,12,28		2,50,51,56,38	
		1,35,34,49,16,32,12,50		6,59
58″	38,57,11,24, 6,28, 0,58,25,18		2,50,52, 3,37	
		1,35,34,46,25,40, 9,13		
60″	38,57,12,59,41,14,26,38,34,31			
exact	38,57,12,59,41,14,26,38,12,21			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
40°29′	0″	38,57,12,59,41,14,26,38,12,21			
			1,35,34,43,34,47,56,18		
	2″	38,57,14,35,15,58, 1,26, 8,39		2,50,52,17,44	
			1,35,34,40,43,55,38,34		6,59
	4″	38,57,16,10,50,38,45,21,47,13		2,50,52,24,43	
			1,35,34,37,53, 3,13,51		6,59
	6″	38,57,17,46,25,16,38,25, 1, 4		2,50,52,31,42	
			1,35,34,35, 2,10,42, 9		6,59
	8″	38,57,19,21,59,51,40,35,43,13		2,50,52,38,41	
			1,35,34,32,11,18, 3,28		6,59
	10″	38,57,20,57,34,23,51,53,46,41		2,50,52,45,40	
			1,35,34,29,20,25,17,48		6,59
	12″	38,57,22,33, 8,53,12,19, 4,29		2,50,52,52,39	
			1,35,34,26,29,32,25, 9		6,59
	14″	38,57,24, 8,43,19,41,51,29,38		2,50,52,59,38	
			1,35,34,23,38,39,25,31		6,59
	16″	38,57,25,44,17,43,20,30,55, 9		2,50,53, 6,37	
			1,35,34,20,47,46,18,54		6,59
	18″	38,57,27,19,52, 4, 8,17,14, 3		2,50,53,13,36	
			1,35,34,17,56,53, 5,18		6,59
	20″	38,57,28,55,26,22, 5,10,19,21		2,50,53,20,35	
			1,35,34,15, 5,59,44,43		6,59
	22″	38,57,30,31, 0,37,11,10, 4, 4		2,50,53,27,34	
			1,35,34,12,15, 6,17, 9		6,59
	24″	38,57,32, 6,34,49,26,16,21,13		2,50,53,34,33	
			1,35,34, 9,24,12,42,36		6,59
	26″	38,57,33,42, 8,58,50,29, 3,49		2,50,53,41,32	
			1,35,34, 6,33,19, 1, 4		6,59
	28″	38,57,35,17,43, 5,23,48, 4,53		2,50,53,48,31	
			1,35,34, 3,42,25,12,33		6,59
	30″	38,57,36,53,17, 9, 6,13,17,26		2,50,53,55,30	
			1,35,34, 0,51,31,17, 3		6,59
	32″	38,57,38,28,51, 9,57,44,34,29		2,50,54, 2,29	
			1,35,33,58, 0,37,14,34		6,59
	34″	38,57,40, 4,25, 7,58,21,49, 3		2,50,54, 9,28	
			1,35,33,55, 9,43, 5, 6		6,59
	36″	38,57,41,39,59, 3, 8, 4,54, 9		2,50,54,16,27	
			1,35,33,52,18,48,48,39		6,59
	38″	38,57,43,15,32,55,26,53,42,48		2,50,54,23,26	
			1,35,33,49,27,54,25,13		6,59
	40″	38,57,44,51, 6,44,54,48, 8, 1		2,50,54,30,25	
			1,35,33,46,36,59,54,48		6,59
	42″	38,57,46,26,40,31,31,48, 2,49		2,50,54,37,24	
			1,35,33,43,46, 5,17,24		6,59
	44″	38,57,48, 2,14,15,17,53,20,13		2,50,54,44,23	
			1,35,33,40,55,10,33, 1		6,59
	46″	38,57,49,37,47,56,13, 3,53,14		2,50,54,51,22	
			1,35,33,38, 4,15,41,39		6,59
	48″	38,57,51,13,21,34,17,19,34,53		2,50,54,58,21	
			1,35,33,35,13,20,43,18		6,59
	50″	38,57,52,48,55, 9,30,40,18,11		2,50,55, 5,20	
			1,35,33,32,22,25,37,58		6,59
	52″	38,57,54,24,28,41,53, 5,56, 9		2,50,55,12,19	
			1,35,33,29,31,30,25,39		6,59
	54″	38,57,56, 0, 2,11,24,36,21,48		2,50,55,19,18	
			1,35,33,26,40,35, 6,21		6,59
	56″	38,57,57,35,35,38, 5,11,28, 9		2,50,55,26,17	
			1,35,33,23,49,39,40, 4		6,59
	58″	38,57,59,11, 9, 1,54,51, 8,13		2,50,55,33,16	
			1,35,33,20,58,44, 6,48		
	60″	38,58, 0,46,42,22,53,35,15, 1			
exact		38,58, 0,46,42,22,53,34,58,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°30′ 0″	38,58, 0,46,42,22,53,34,58,30			
		1,35,33,18, 7,48,24,53		
2″	38,58, 2,22,15,41, 1,23,23,23		2,50,55,47,20	
		1,35,33,15,16,52,37,33		6,59
4″	38,58, 3,57,48,56,18,16, 0,56		2,50,55,54,19	
		1,35,33,12,25,56,43,14		6,59
6″	38,58, 5,33,22, 8,44,12,44,10		2,50,56, 1,18	
		1,35,33, 9,35, 0,41,56		6,59
8″	38,58, 7, 8,55,18,19,13,26, 6		2,50,56, 8,17	
		1,35,33, 6,44, 4,33,39		6,59
10″	38,58, 8,44,28,25, 3,17,59,45		2,50,56,15,16	
		1,35,33, 3,53, 8,18,23		6,59
12″	38,58,10,20, 1,28,56,26,18, 8		2,50,56,22,15	
		1,35,33, 1, 2,11,56, 8		6,59
14″	38,58,11,55,34,29,58,38,14,16		2,50,56,29,14	
		1,35,32,58,11,15,26,54		6,59
16″	38,58,13,31, 7,28, 9,53,41,10		2,50,56,36,13	
		1,35,32,55,20,18,50,41		6,59
18″	38,58,15, 6,40,23,30,12,31,51		2,50,56,43,12	
		1,35,32,52,29,22, 7,29		6,59
20″	38,58,16,42,13,15,59,34,39,20		2,50,56,50,11	
		1,35,32,49,38,25,17,18		6,59
22″	38,58,18,17,46, 5,37,59,56,38		2,50,56,57,10	
		1,35,32,46,47,28,20, 8		6,59
24″	38,58,19,53,18,52,25,28,16,46		2,50,57, 4, 9	
		1,35,32,43,56,31,15,59		6,59
26″	38,58,21,28,51,36,21,59,32,45		2,50,57,11, 8	
		1,35,32,41, 5,34, 4,51		6,59
28″	38,58,23, 4,24,17,27,33,37,36		2,50,57,18, 7	
		1,35,32,38,14,36,46,44		6,59
30″	38,58,24,39,56,55,42,10,24,20		2,50,57,25, 6	
		1,35,32,35,23,39,21,38		6,59
32″	38,58,26,15,29,31, 5,49,45,58		2,50,57,32, 5	
		1,35,32,32,32,41,49,33		6,59
34″	38,58,27,51, 2, 3,38,31,35,31		2,50,57,39, 4	
		1,35,32,29,41,44,10,29		6,59
36″	38,58,29,26,34,33,20,15,46, 0		2,50,57,46, 3	
		1,35,32,26,50,46,24,26		6,59
38″	38,58,31, 2, 7, 0,11, 2,10,26		2,50,57,53, 2	
		1,35,32,23,59,48,31,24		6,59
40″	38,58,32,37,39,24,10,50,41,50		2,50,58, 0, 1	
		1,35,32,21, 8,50,31,23		6,59
42″	38,58,34,13,11,45,19,41,13,13		2,50,58, 7, 0	
		1,35,32,18,17,52,24,23		6,59
44″	38,58,35,48,44, 3,37,33,37,36		2,50,58,13,59	
		1,35,32,15,26,54,10,24		6,59
46″	38,58,37,24,16,19, 4,27,48, 0		2,50,58,20,58	
		1,35,32,12,35,55,49,26		6,59
48″	38,58,38,59,48,31,40,23,37,26		2,50,58,27,57	
		1,35,32, 9,44,57,21,29		6,59
50″	38,58,40,35,20,41,25,20,58,55		2,50,58,34,56	
		1,35,32, 6,53,58,46,33		6,59
52″	38,58,42,10,52,48,19,19,45,28		2,50,58,41,55	
		1,35,32, 4, 3, 0, 4,38		6,59
54″	38,58,43,46,24,52,22,19,50, 6		2,50,58,48,54	
		1,35,32, 1,12, 1,15,44		6,59
56″	38,58,45,21,56,53,34,21, 5,50		2,50,58,55,53	
		1,35,31,58,21, 2,19,51		6,59
58″	38,58,46,57,28,51,55,23,25,41		2,50,59, 2,52	
		1,35,31,55,30, 3,16,59		
60″	38,58,48,33, 0,47,25,26,42,40			
exact	38,58,48,33, 0,47,25,26,33,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°31′ 0″	38,58,48,33, 0,47,25,26,33,15	1,35,31,52,39, 4, 6,13		
2″	38,58,50, 8,32,40, 4,30,39,28	1,35,31,49,48, 4,49,20	2,50,59,16,53	6,59
4″	38,58,51,44, 4,29,52,35,28,48	1,35,31,46,57, 5,25,28	2,50,59,23,52	6,59
6″	38,58,53,19,36,16,49,40,54,16	1,35,31,44, 6, 5,54,37	2,50,59,30,51	6,59
8″	38,58,54,55, 8, 0,55,46,48,53	1,35,31,41,15, 6,16,47	2,50,59,37,50	6,59
10″	38,58,56,30,39,42,10,53, 5,40	1,35,31,38,24, 6,31,58	2,50,59,44,49	6,59
12″	38,58,58, 6,11,20,34,59,37,38	1,35,31,35,33, 6,40,10	2,50,59,51,48	6,59
14″	38,58,59,41,42,56, 8, 6,17,48	1,35,31,32,42, 6,41,23	2,50,59,58,47	6,59
16″	38,59, 1,17,14,28,50,12,59,11	1,35,31,29,51, 6,35,37	2,51, 0, 5,46	6,59
18″	38,59, 2,52,45,58,41,19,34,48	1,35,31,27, 0, 6,22,52	2,51, 0,12,45	6,59
20″	38,59, 4,28,17,25,41,25,57,40	1,35,31,24, 9, 6, 3, 8	2,51, 0,19,44	6,59
22″	38,59, 6, 3,48,49,50,32, 0,48	1,35,31,21,18, 5,36,25	2,51, 0,26,43	6,59
24″	38,59, 7,39,20,11, 8,37,37,13	1,35,31,18,27, 5, 2,43	2,51, 0,33,42	6,59
26″	38,59, 9,14,51,29,35,42,39,56	1,35,31,15,36, 4,22, 2	2,51, 0,40,41	6,59
28″	38,59,10,50,22,45,11,47, 1,58	1,35,31,12,45, 3,34,22	2,51, 0,47,40	6,59
30″	38,59,12,25,53,57,56,50,36,20	1,35,31, 9,54, 2,39,43	2,51, 0,54,39	6,59
32″	38,59,14, 1,25, 7,50,53,16, 3	1,35,31, 7, 3, 1,38, 5	2,51, 1, 1,38	6,59
34″	38,59,15,36,56,14,53,54,54, 8	1,35,31, 4,12, 0,29,28	2,51, 1, 8,37	6,59
36″	38,59,17,12,27,19, 5,55,23,36	1,35,31, 1,20,59,13,52	2,51, 1,15,36	6,59
38″	38,59,18,47,58,20,26,54,37,28	1,35,30,58,29,57,51,17	2,51, 1,22,35	6,59
40″	38,59,20,23,29,18,56,52,28,45	1,35,30,55,38,56,21,43	2,51, 1,29,34	6,59
42″	38,59,21,59, 0,14,35,48,50,28	1,35,30,52,47,54,45,10	2,51, 1,36,33	6,59
44″	38,59,23,34,31, 7,23,43,35,38	1,35,30,49,56,53, 1,38	2,51, 1,43,32	6,59
46″	38,59,25,10, 1,57,20,36,37,16	1,35,30,47, 5,51,11, 7	2,51, 1,50,31	6,59
48″	38,59,26,45,32,44,26,27,48,23	1,35,30,44,14,49,13,37	2,51, 1,57,30	6,59
50″	38,59,28,21, 3,28,41,17, 2, 0	1,35,30,41,23,47, 9, 8	2,51, 2, 4,29	6,59
52″	38,59,29,56,34,10, 5, 4,11, 8	1,35,30,38,32,44,57,40	2,51, 2,11,28	6,59
54″	38,59,31,32, 4,48,37,49, 8,48	1,35,30,35,41,42,39,13	2,51, 2,18,27	6,59
56″	38,59,33, 7,35,24,19,31,48, 1	1,35,30,32,50,40,13,47	2,51, 2,25,26	6,59
58″	38,59,34,43, 5,57,10,12, 1,48	1,35,30,29,59,37,41,22	2,51, 2,32,25	
60″	38,59,36,18,36,27, 9,49,43,10			
exact	38,59,36,18,36,27, 9,49,41,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°32′ 0″	38,59,36,18,36,27, 9,49,41,10			
		1,35,30,27, 8,35, 1,50		
2″	38,59,37,54, 6,54,18,24,43, 0		2,51, 2,46,23	
		1,35,30,24,17,32,15,27		6,59
4″	38,59,39,29,37,18,35,56,58,27		2,51, 2,53,22	
		1,35,30,21,26,29,22, 5		6,59
6″	38,59,41, 5, 7,40, 2,26,20,32		2,51, 3, 0,21	
		1,35,30,18,35,26,21,44		6,59
8″	38,59,42,40,37,58,37,52,42,16		2,51, 3, 7,20	
		1,35,30,15,44,23,14,24		6,59
10″	38,59,44,16, 8,14,22,15,56,40		2,51, 3,14,19	
		1,35,30,12,53,20, 0, 5		6,59
12″	38,59,45,51,38,27,15,35,56,45		2,51, 3,21,18	
		1,35,30,10, 2,16,38,47		6,59
14″	38,59,47,27, 8,37,17,52,35,32		2,51, 3,28,17	
		1,35,30, 7,11,13,10,30		6,59
16″	38,59,49, 2,38,44,29, 5,46, 2		2,51, 3,35,16	
		1,35,30, 4,20, 9,35,14		6,59
18″	38,59,50,38, 8,48,49,15,21,16		2,51, 3,42,15	
		1,35,30, 1,29, 5,52,59		6,59
20″	38,59,52,13,38,50,18,21,14,15		2,51, 3,49,14	
		1,35,29,58,38, 2, 3,45		6,59
22″	38,59,53,49, 8,48,56,23,18, 0		2,51, 3,56,13	
		1,35,29,55,46,58, 7,32		6,59
24″	38,59,55,24,38,44,43,21,25,32		2,51, 4, 3,12	
		1,35,29,52,55,54, 4,20		6,59
26″	38,59,57, 0, 8,37,39,15,29,52		2,51, 4,10,11	
		1,35,29,50, 4,49,54, 9		6,59
28″	38,59,58,35,38,27,44, 5,24, 1		2,51, 4,17,10	
		1,35,29,47,13,45,36,59		6,59
30″	39, 0, 0,11, 8,14,57,51, 1, 0		2,51, 4,24, 9	
		1,35,29,44,22,41,12,50		6,59
32″	39, 0, 1,46,37,59,20,32,13,50		2,51, 4,31, 8	
		1,35,29,41,31,36,41,42		6,59
34″	39, 0, 3,22, 7,40,52, 8,55,32		2,51, 4,38, 7	
		1,35,29,38,40,32, 3,35		6,59
36″	39, 0, 4,57,37,19,32,40,59, 7		2,51, 4,45, 6	
		1,35,29,35,49,27,18,29		6,59
38″	39, 0, 6,33, 6,55,22, 8,17,36		2,51, 4,52, 5	
		1,35,29,32,58,22,26,24		6,59
40″	39, 0, 8, 8,36,28,20,30,44, 0		2,51, 4,59, 4	
		1,35,29,30, 7,17,27,20		6,59
42″	39, 0, 9,44, 5,58,27,48,11,20		2,51, 5, 6, 3	
		1,35,29,27,16,12,21,17		6,59
44″	39, 0,11,19,35,25,44, 0,32,37		2,51, 5,13, 2	
		1,35,29,24,25, 7, 8,15		6,59
46″	39, 0,12,55, 4,50, 9, 7,40,52		2,51, 5,20, 1	
		1,35,29,21,34, 1,48,14		6,59
48″	39, 0,14,30,34,11,43, 9,29, 6		2,51, 5,27, 0	
		1,35,29,18,42,56,21,14		6,59
50″	39, 0,16, 6, 3,30,26, 5,50,20		2,51, 5,33,59	
		1,35,29,15,51,50,47,15		6,59
52″	39, 0,17,41,32,46,17,56,37,35		2,51, 5,40,58	
		1,35,29,13, 0,45, 6,17		6,59
54″	39, 0,19,17, 1,59,18,41,43,52		2,51, 5,47,57	
		1,35,29,10, 9,39,18,20		6,59
56″	39, 0,20,52,31, 9,28,21, 2,12		2,51, 5,54,56	
		1,35,29, 7,18,33,23,24		6,59
58″	39, 0,22,28, 0,16,46,54,25,36		2,51, 6, 1,55	
		1,35,29, 4,27,27,21,29		
60″	39, 0,24, 3,29,21,14,21,47, 5			
exact	39, 0,24, 3,29,21,14,21,53,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°33′ 0″	39, 0,24, 3,29,21,14,21,53,42			
		1,35,29, 1,36,21,13,19		
2″	39, 0,25,38,58,22,50,43, 7, 1		2,51, 6,15,50	
		1,35,28,58,45,14,57,29		6,59
4″	39, 0,27,14,27,21,35,58, 4,30		2,51, 6,22,49	
		1,35,28,55,54, 8,34,40		6,59
6″	39, 0,28,49,56,17,30, 6,39,10		2,51, 6,29,48	
		1,35,28,53, 3, 2, 4,52		6,59
8″	39, 0,30,25,25,10,33, 8,44, 2		2,51, 6,36,47	
		1,35,28,50,11,55,28, 5		6,59
10″	39, 0,32, 0,54, 0,45, 4,12, 7		2,51, 6,43,46	
		1,35,28,47,20,48,44,19		6,59
12″	39, 0,33,36,22,48, 5,52,56,26		2,51, 6,50,45	
		1,35,28,44,29,41,53,34		6,59
14″	39, 0,35,11,51,32,35,34,50, 0		2,51, 6,57,44	
		1,35,28,41,38,34,55,50		6,59
16″	39, 0,36,47,20,14,14, 9,45,50		2,51, 7, 4,43	
		1,35,28,38,47,27,51, 7		6,59
18″	39, 0,38,22,48,53, 1,37,36,57		2,51, 7,11,42	
		1,35,28,35,56,20,39,25		6,59
20″	39, 0,39,58,17,28,57,58,16,22		2,51, 7,18,41	
		1,35,28,33, 5,13,20,44		6,59
22″	39, 0,41,33,46, 2, 3,11,37, 6		2,51, 7,25,40	
		1,35,28,30,14, 5,55, 4		6,59
24″	39, 0,43, 9,14,32,17,17,32,10		2,51, 7,32,39	
		1,35,28,27,22,58,22,25		6,59
26″	39, 0,44,44,42,59,40,15,54,35		2,51, 7,39,38	
		1,35,28,24,31,50,42,47		6,59
28″	39, 0,46,20,11,24,12, 6,37,22		2,51, 7,46,37	
		1,35,28,21,40,42,56,10		6,59
30″	39, 0,47,55,39,45,52,49,33,32		2,51, 7,53,36	
		1,35,28,18,49,35, 2,34		6,59
32″	39, 0,49,31, 8, 4,42,24,36, 6		2,51, 8, 0,35	
		1,35,28,15,58,27, 1,59		6,59
34″	39, 0,51, 6,36,20,40,51,38, 5		2,51, 8, 7,34	
		1,35,28,13, 7,18,54,25		6,59
36″	39, 0,52,42, 4,33,48,10,32,30		2,51, 8,14,33	
		1,35,28,10,16,10,39,52		6,59
38″	39, 0,54,17,32,44, 4,21,12,22		2,51, 8,21,32	
		1,35,28, 7,25, 2,18,20		6,59
40″	39, 0,55,53, 0,51,29,23,30,42		2,51, 8,28,31	
		1,35,28, 4,33,53,49,49		6,59
42″	39, 0,57,28,28,56, 3,17,20,31		2,51, 8,35,30	
		1,35,28, 1,42,45,14,19		6,59
44″	39, 0,59, 3,56,57,46, 2,34,50		2,51, 8,42,29	
		1,35,27,58,51,36,31,50		6,59
46″	39, 1, 0,39,24,56,37,39, 6,40		2,51, 8,49,28	
		1,35,27,56, 0,27,42,22		6,59
48″	39, 1, 2,14,52,52,38, 6,49, 2		2,51, 8,56,27	
		1,35,27,53, 9,18,45,55		6,59
50″	39, 1, 3,50,20,45,47,25,34,57		2,51, 9, 3,26	
		1,35,27,50,18, 9,42,29		6,59
52″	39, 1, 5,25,48,36, 5,35,17,26		2,51, 9,10,25	
		1,35,27,47,27, 0,32, 4		6,59
54″	39, 1, 7, 1,16,23,32,35,49,30		2,51, 9,17,24	
		1,35,27,44,35,51,14,40		6,59
56″	39, 1, 8,36,44, 8, 8,27, 4,10		2,51, 9,24,23	
		1,35,27,41,44,41,50,17		6,59
58″	39, 1,10,12,11,49,53, 8,54,27		2,51, 9,31,22	
		1,35,27,38,53,32,18,55		
60″	39, 1,11,47,39,28,46,41,13,22			
exact	39, 1,11,47,39,28,46,41,29,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°34′ 0″	39, 1,11,47,39,28,46,41,29,11	1,35,27,36, 2,22,42,13		
2″	39, 1,13,23, 7, 4,49, 4,11,24	1,35,27,33,11,12,57, 0	2,51, 9,45,13	6,59
4″	39, 1,14,58,34,38, 0,17, 8,24	1,35,27,30,20, 3, 4,48	2,51, 9,52,12	6,59
6″	39, 1,16,34, 2, 8,20,20,13,12	1,35,27,27,28,53, 5,37	2,51, 9,59,11	6,59
8″	39, 1,18, 9,29,35,49,13,18,49	1,35,27,24,37,42,59,27	2,51,10, 6,10	6,59
10″	39, 1,19,44,57, 0,26,56,18,16	1,35,27,21,46,32,46,18	2,51,10,13, 9	6,59
12″	39, 1,21,20,24,22,13,29, 4,34	1,35,27,18,55,22,26,10	2,51,10,20, 8	6,59
14″	39, 1,22,55,51,41, 8,51,30,44	1,35,27,16, 4,11,59, 3	2,51,10,27, 7	6,59
16″	39, 1,24,31,18,57,13, 3,29,47	1,35,27,13,13, 1,24,57	2,51,10,34, 6	6,59
18″	39, 1,26, 6,46,10,26, 4,54,44	1,35,27,10,21,50,43,52	2,51,10,41, 5	6,59
20″	39, 1,27,42,13,20,47,55,38,36	1,35,27, 7,30,39,55,48	2,51,10,48, 4	6,59
22″	39, 1,29,17,40,28,18,35,34,24	1,35,27, 4,39,29, 0,45	2,51,10,55, 3	6,59
24″	39, 1,30,53, 7,32,58, 4,35, 9	1,35,27, 1,48,17,58,43	2,51,11, 2, 2	6,59
26″	39, 1,32,28,34,34,46,22,33,52	1,35,26,58,57, 6,49,42	2,51,11, 9, 1	6,59
28″	39, 1,34, 4, 1,33,43,29,23,34	1,35,26,56, 5,55,33,42	2,51,11,16, 0	6,59
30″	39, 1,35,39,28,29,49,24,57,16	1,35,26,53,14,44,10,43	2,51,11,22,59	6,59
32″	39, 1,37,14,55,23, 4, 9, 7,59	1,35,26,50,23,32,40,45	2,51,11,29,58	6,59
34″	39, 1,38,50,22,13,27,41,48,44	1,35,26,47,32,21, 3,48	2,51,11,36,57	6,59
36″	39, 1,40,25,49, 1, 0, 2,52,32	1,35,26,44,41, 9,19,52	2,51,11,43,56	6,59
38″	39, 1,42, 1,15,45,41,12,12,24	1,35,26,41,49,57,28,57	2,51,11,50,55	6,59
40″	39, 1,43,36,42,27,31, 9,41,21	1,35,26,38,58,45,31, 3	2,51,11,57,54	6,59
42″	39, 1,45,12, 9, 6,29,55,12,24	1,35,26,36, 7,33,26,10	2,51,12, 4,53	6,59
44″	39, 1,46,47,35,42,37,28,38,34	1,35,26,33,16,21,14,18	2,51,12,11,52	6,59
46″	39, 1,48,23, 2,15,53,49,52,52	1,35,26,30,25, 8,55,27	2,51,12,18,51	6,59
48″	39, 1,49,58,28,46,18,58,48,19	1,35,26,27,33,56,29,37	2,51,12,25,50	6,59
50″	39, 1,51,33,55,13,52,55,17,56	1,35,26,24,42,43,56,48	2,51,12,32,49	6,59
52″	39, 1,53, 9,21,38,35,39,14,44	1,35,26,21,51,31,17, 0	2,51,12,39,48	6,59
54″	39, 1,54,44,48, 0,27,10,31,44	1,35,26,19, 0,18,30,13	2,51,12,46,47	6,59
56″	39, 1,56,20,14,19,27,29, 1,57	1,35,26,16, 9, 5,36,27	2,51,12,53,46	6,59
58″	39, 1,57,55,40,35,36,34,38,24	1,35,26,13,17,52,35,42	2,51,13, 0,45	
60″	39, 1,59,31, 6,48,54,27,14, 6			
exact	39, 1,59,31, 6,48,54,27,32,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°35′ 0″	39, 1,59,31, 6,48,54,27,32,53			
		1,35,26,10,26,39,30, 5		
2″	39, 2, 1, 6,32,59,21, 7, 2,58		2,51,13,14,34	
		1,35,26, 7,35,26,15,31		6,59
4″	39, 2, 2,41,59, 6,56,33,18,29		2,51,13,21,33	
		1,35,26, 4,44,12,53,58		6,59
6″	39, 2, 4,17,25,11,40,46,12,27		2,51,13,28,32	
		1,35,26, 1,52,59,25,26		6,59
8″	39, 2, 5,52,51,13,33,45,37,53		2,51,13,35,31	
		1,35,25,59, 1,45,49,55		6,59
10″	39, 2, 7,28,17,12,35,31,27,48		2,51,13,42,30	
		1,35,25,56,10,32, 7,25		6,59
12″	39, 2, 9, 3,43, 8,46, 3,35,13		2,51,13,49,29	
		1,35,25,53,19,18,17,56		6,59
14″	39, 2,10,39, 9, 2, 5,21,53, 9		2,51,13,56,28	
		1,35,25,50,28, 4,21,28		6,59
16″	39, 2,12,14,34,52,33,26,14,37		2,51,14, 3,27	
		1,35,25,47,36,50,18, 1		6,59
18″	39, 2,13,50, 0,40,10,16,32,38		2,51,14,10,26	
		1,35,25,44,45,36, 7,35		6,59
20″	39, 2,15,25,26,24,55,52,40,13		2,51,14,17,25	
		1,35,25,41,54,21,50,10		6,59
22″	39, 2,17, 0,52, 6,50,14,30,23		2,51,14,24,24	
		1,35,25,39, 3, 7,25,46		6,59
24″	39, 2,18,36,17,45,53,21,56, 9		2,51,14,31,23	
		1,35,25,36,11,52,54,23		6,59
26″	39, 2,20,11,43,22, 5,14,50,32		2,51,14,38,22	
		1,35,25,33,20,38,16, 1		6,59
28″	39, 2,21,47, 8,55,25,53, 6,33		2,51,14,45,21	
		1,35,25,30,29,23,30,40		6,59
30″	39, 2,23,22,34,25,55,16,37,13		2,51,14,52,20	
		1,35,25,27,38, 8,38,20		6,59
32″	39, 2,24,57,59,53,33,25,15,33		2,51,14,59,19	
		1,35,25,24,46,53,39, 1		6,59
34″	39, 2,26,33,25,18,20,18,54,34		2,51,15, 6,18	
		1,35,25,21,55,38,32,43		6,59
36″	39, 2,28, 8,50,40,15,57,27,17		2,51,15,13,17	
		1,35,25,19, 4,23,19,26		6,59
38″	39, 2,29,44,15,59,20,20,46,43		2,51,15,20,16	
		1,35,25,16,13, 7,59,10		6,59
40″	39, 2,31,19,41,15,33,28,45,53		2,51,15,27,15	
		1,35,25,13,21,52,31,55		6,59
42″	39, 2,32,55, 6,28,55,21,17,48		2,51,15,34,14	
		1,35,25,10,30,36,57,41		6,59
44″	39, 2,34,30,31,39,25,58,15,29		2,51,15,41,13	
		1,35,25, 7,39,21,16,28		6,59
46″	39, 2,36, 5,56,47, 5,19,31,57		2,51,15,48,12	
		1,35,25, 4,48, 5,28,16		6,59
48″	39, 2,37,41,21,51,53,25, 0,13		2,51,15,55,11	
		1,35,25, 1,56,49,33, 5		6,59
50″	39, 2,39,16,46,53,50,14,33,18		2,51,16, 2,10	
		1,35,24,59, 5,33,30,55		6,59
52″	39, 2,40,52,11,52,55,48, 4,13		2,51,16, 9, 9	
		1,35,24,56,14,17,21,46		6,59
54″	39, 2,42,27,36,49,10, 5,25,59		2,51,16,16, 8	
		1,35,24,53,23, 1, 5,38		6,59
56″	39, 2,44, 3, 1,42,33, 6,31,37		2,51,16,23, 7	
		1,35,24,50,31,44,42,31		6,59
58″	39, 2,45,38,26,33, 4,51,14, 8		2,51,16,30, 6	
		1,35,24,47,40,28,12,25		
60″	39, 2,47,13,51,20,45,19,26,33			
exact	39, 2,47,13,51,20,45,19,56,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°36′ 0″	39, 2,47,13,51,20,45,19,56,58			
		1,35,24,44,49,11,38,31		
2″	39, 2,48,49,16, 5,34,31,35,29		2,51,16,43,51	
		1,35,24,41,57,54,54,40		6,59
4″	39, 2,50,24,40,47,32,26,30, 9		2,51,16,50,50	
		1,35,24,39, 6,38, 3,50		6,59
6″	39, 2,52, 0, 5,26,39, 4,33,59		2,51,16,57,49	
		1,35,24,36,15,21, 6, 1		6,59
8″	39, 2,53,35,30, 2,54,25,40, 0		2,51,17, 4,48	
		1,35,24,33,24, 4, 1,13		6,59
10″	39, 2,55,10,54,36,18,29,41,13		2,51,17,11,47	
		1,35,24,30,32,46,49,26		6,59
12″	39, 2,56,46,19, 6,51,16,30,39		2,51,17,18,46	
		1,35,24,27,41,29,30,40		6,59
14″	39, 2,58,21,43,34,32,46, 1,19		2,51,17,25,45	
		1,35,24,24,50,12, 4,55		6,59
16″	39, 2,59,57, 7,59,22,58, 6,14		2,51,17,32,44	
		1,35,24,21,58,54,32,11		6,59
18″	39, 3, 1,32,32,21,21,52,38,25		2,51,17,39,43	
		1,35,24,19, 7,36,52,28		6,59
20″	39, 3, 3, 7,56,40,29,29,30,53		2,51,17,46,42	
		1,35,24,16,16,19, 5,46		6,59
22″	39, 3, 4,43,20,56,45,48,36,39		2,51,17,53,41	
		1,35,24,13,25, 1,12, 5		6,59
24″	39, 3, 6,18,45,10,10,49,48,44		2,51,18, 0,40	
		1,35,24,10,33,43,11,25		6,59
26″	39, 3, 7,54, 9,20,44,33, 0, 9		2,51,18, 7,39	
		1,35,24, 7,42,25, 3,46		6,59
28″	39, 3, 9,29,33,28,26,58, 3,55		2,51,18,14,38	
		1,35,24, 4,51, 6,49, 8		6,59
30″	39, 3,11, 4,57,33,18, 4,53, 3		2,51,18,21,37	
		1,35,24, 1,59,48,27,31		6,59
32″	39, 3,12,40,21,35,17,53,20,34		2,51,18,28,36	
		1,35,23,59, 8,29,58,55		6,59
34″	39, 3,14,15,45,34,26,23,19,29		2,51,18,35,35	
		1,35,23,56,17,11,23,20		6,59
36″	39, 3,15,51, 9,30,43,34,42,49		2,51,18,42,34	
		1,35,23,53,25,52,40,46		6,59
38″	39, 3,17,26,33,24, 9,27,23,35		2,51,18,49,33	
		1,35,23,50,34,33,51,13		6,59
40″	39, 3,19, 1,57,14,44, 1,14,48		2,51,18,56,32	
		1,35,23,47,43,14,54,41		6,59
42″	39, 3,20,37,21, 2,27,16, 9,29		2,51,19, 3,31	
		1,35,23,44,51,55,51,10		6,59
44″	39, 3,22,12,44,47,19,12, 0,39		2,51,19,10,30	
		1,35,23,42, 0,36,40,40		6,59
46″	39, 3,23,48, 8,29,19,48,41,19		2,51,19,17,29	
		1,35,23,39, 9,17,23,11		6,59
48″	39, 3,25,23,32, 8,29, 6, 4,30		2,51,19,24,28	
		1,35,23,36,17,57,58,43		6,59
50″	39, 3,26,58,55,44,47, 4, 3,13		2,51,19,31,27	
		1,35,23,33,26,38,27,16		6,59
52″	39, 3,28,34,19,18,13,42,30,29		2,51,19,38,26	
		1,35,23,30,35,18,48,50		6,59
54″	39, 3,30, 9,42,48,49, 1,19,19		2,51,19,45,25	
		1,35,23,27,43,59, 3,25		6,59
56″	39, 3,31,45, 6,16,33, 0,22,44		2,51,19,52,24	
		1,35,23,24,52,39,11, 1		6,59
58″	39, 3,33,20,29,41,25,39,33,45		2,51,19,59,23	
		1,35,23,22, 1,19,11,38		
60″	39, 3,34,55,53, 3,26,58,45,23			
exact	39, 3,34,55,53, 3,26,59,20,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°37′ 0″	39, 3,34,55,53, 3,26,59,20,33	1,35,23,19, 9,59, 9, 3		
2″	39, 3,36,31,16,22,36,58,29,36	1,35,23,16,18,38,55,58	2,51,20,13, 5	6,58
4″	39, 3,38, 6,39,38,55,37,25,34	1,35,23,13,27,18,35,55	2,51,20,20, 3	6,58
6″	39, 3,39,42, 2,52,22,56, 1,29	1,35,23,10,35,58, 8,54	2,51,20,27, 1	6,58
8″	39, 3,41,17,26, 2,58,54,10,23	1,35,23, 7,44,37,34,55	2,51,20,33,59	6,58
10″	39, 3,42,52,49,10,43,31,45,18	1,35,23, 4,53,16,53,58	2,51,20,40,57	6,58
12″	39, 3,44,28,12,15,36,48,39,16	1,35,23, 2, 1,56, 6, 3	2,51,20,47,55	6,58
14″	39, 3,46, 3,35,17,38,44,45,19	1,35,22,59,10,35,11,10	2,51,20,54,53	6,58
16″	39, 3,47,38,58,16,49,19,56,29	1,35,22,56,19,14, 9,19	2,51,21, 1,51	6,58
18″	39, 3,49,14,21,13, 8,34, 5,48	1,35,22,53,27,53, 0,30	2,51,21, 8,49	6,58
20″	39, 3,50,49,44, 6,36,27, 6,18	1,35,22,50,36,31,44,43	2,51,21,15,47	6,58
22″	39, 3,52,25, 6,57,12,58,51, 1	1,35,22,47,45,10,21,58	2,51,21,22,45	6,58
24″	39, 3,54, 0,29,44,58, 9,12,59	1,35,22,44,53,48,52,15	2,51,21,29,43	6,58
26″	39, 3,55,35,52,29,51,58, 5,14	1,35,22,42, 2,27,15,34	2,51,21,36,41	6,58
28″	39, 3,57,11,15,11,54,25,20,48	1,35,22,39,11, 5,31,55	2,51,21,43,39	6,58
30″	39, 3,58,46,37,51, 5,30,52,43	1,35,22,36,19,43,41,18	2,51,21,50,37	6,58
32″	39, 4, 0,22, 0,27,25,14,34, 1	1,35,22,33,28,21,43,43	2,51,21,57,35	6,58
34″	39, 4, 1,57,23, 0,53,36,17,44	1,35,22,30,36,59,39,10	2,51,22, 4,33	6,58
36″	39, 4, 3,32,45,31,30,35,56,54	1,35,22,27,45,37,27,39	2,51,22,11,31	6,58
38″	39, 4, 5, 8, 7,59,16,13,24,33	1,35,22,24,54,15, 9,10	2,51,22,18,29	6,58
40″	39, 4, 6,43,30,24,10,28,33,43	1,35,22,22, 2,52,43,43	2,51,22,25,27	6,58
42″	39, 4, 8,18,52,46,13,21,17,26	1,35,22,19,11,30,11,18	2,51,22,32,25	6,58
44″	39, 4, 9,54,15, 5,24,51,28,44	1,35,22,16,20, 7,31,55	2,51,22,39,23	6,58
46″	39, 4,11,29,37,21,44,59, 0,39	1,35,22,13,28,44,45,34	2,51,22,46,21	6,58
48″	39, 4,13, 4,59,35,13,43,46,13	1,35,22,10,37,21,52,15	2,51,22,53,19	6,58
50″	39, 4,14,40,21,45,51, 5,38,28	1,35,22, 7,45,58,51,58	2,51,23, 0,17	6,58
52″	39, 4,16,15,43,53,37, 4,30,26	1,35,22, 4,54,35,44,43	2,51,23, 7,15	6,58
54″	39, 4,17,51, 5,58,31,40,15, 9	1,35,22, 2, 3,12,30,30	2,51,23,14,13	6,58
56″	39, 4,19,26,28, 0,34,52,45,39	1,35,21,59,11,49, 9,19	2,51,23,21,11	6,58
58″	39, 4,21, 1,49,59,46,41,54,58	1,35,21,56,20,25,41,10	2,51,23,28, 9	
60″	39, 4,22,37,11,56, 7, 7,36, 8			
exact	39, 4,22,37,11,56, 7, 7, 9,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°38′ 0″	39, 4,22,37,11,56, 7, 7, 9,43			
		1,35,21,53,29, 2, 3,16		
2″	39, 4,24,12,33,49,36, 9,12,59		2,51,23,42,16	
		1,35,21,50,37,38,21, 0		6,58
4″	39, 4,25,47,55,40,13,47,33,59		2,51,23,49,14	
		1,35,21,47,46,14,31,46		6,58
6″	39, 4,27,23,17,28, 0, 2, 5,45		2,51,23,56,12	
		1,35,21,44,54,50,35,34		6,58
8″	39, 4,28,58,39,12,54,52,41,19		2,51,24, 3,10	
		1,35,21,42, 3,26,32,24		6,58
10″	39, 4,30,34, 0,54,58,19,13,43		2,51,24,10, 8	
		1,35,21,39,12, 2,22,16		6,58
12″	39, 4,32, 9,22,34,10,21,35,59		2,51,24,17, 6	
		1,35,21,36,20,38, 5,10		6,58
14″	39, 4,33,44,44,10,30,59,41, 9		2,51,24,24, 4	
		1,35,21,33,29,13,41, 6		6,58
16″	39, 4,35,20, 5,44, 0,13,22,15		2,51,24,31, 2	
		1,35,21,30,37,49,10, 4		6,58
18″	39, 4,36,55,27,14,38, 2,32,19		2,51,24,38, 0	
		1,35,21,27,46,24,32, 4		6,58
20″	39, 4,38,30,48,42,24,27, 4,23		2,51,24,44,58	
		1,35,21,24,54,59,47, 6		6,58
22″	39, 4,40, 6,10, 7,19,26,51,29		2,51,24,51,56	
		1,35,21,22, 3,34,55,10		6,58
24″	39, 4,41,41,31,29,23, 1,46,39		2,51,24,58,54	
		1,35,21,19,12, 9,56,16		6,58
26″	39, 4,43,16,52,48,35,11,42,55		2,51,25, 5,52	
		1,35,21,16,20,44,50,24		6,58
28″	39, 4,44,52,14, 4,55,56,33,19		2,51,25,12,50	
		1,35,21,13,29,19,37,34		6,58
30″	39, 4,46,27,35,18,25,16,10,53		2,51,25,19,48	
		1,35,21,10,37,54,17,46		6,58
32″	39, 4,48, 2,56,29, 3,10,28,39		2,51,25,26,46	
		1,35,21, 7,46,28,51, 0		6,58
34″	39, 4,49,38,17,36,49,39,19,39		2,51,25,33,44	
		1,35,21, 4,55, 3,17,16		6,58
36″	39, 4,51,13,38,41,44,42,36,55		2,51,25,40,42	
		1,35,21, 2, 3,37,36,34		6,58
38″	39, 4,52,48,59,43,48,20,13,29		2,51,25,47,40	
		1,35,20,59,12,11,48,54		6,58
40″	39, 4,54,24,20,43, 0,32, 2,23		2,51,25,54,38	
		1,35,20,56,20,45,54,16		6,58
42″	39, 4,55,59,41,39,21,17,56,39		2,51,26, 1,36	
		1,35,20,53,29,19,52,40		6,58
44″	39, 4,57,35, 2,32,50,37,49,19		2,51,26, 8,34	
		1,35,20,50,37,53,44, 6		6,58
46″	39, 4,59,10,23,23,28,31,33,25		2,51,26,15,32	
		1,35,20,47,46,27,28,34		6,58
48″	39, 5, 0,45,44,11,14,59, 1,59		2,51,26,22,30	
		1,35,20,44,55, 1, 6, 4		6,58
50″	39, 5, 2,21, 4,56,10, 0, 8, 3		2,51,26,29,28	
		1,35,20,42, 3,34,36,36		6,58
52″	39, 5, 3,56,25,38,13,34,44,39		2,51,26,36,26	
		1,35,20,39,12, 8, 0,10		6,58
54″	39, 5, 5,31,46,17,25,42,44,49		2,51,26,43,24	
		1,35,20,36,20,41,16,46		6,58
56″	39, 5, 7, 7, 6,53,46,24, 1,35		2,51,26,50,22	
		1,35,20,33,29,14,26,24		6,58
58″	39, 5, 8,42,27,27,15,38,27,59		2,51,26,57,20	
		1,35,20,30,37,47,29, 4		
60″	39, 5,10,17,47,57,53,25,57, 3			
exact	39, 5,10,17,47,57,53,25,37,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°39′ 0″	39, 5,10,17,47,57,53,25,37,30			
		1,35,20,27,46,20,22,44		
2″	39, 5,11,53, 8,25,39,46, 0,14		2,51,27,11,24	
		1,35,20,24,54,53,11,20		6,58
4″	39, 5,13,28,28,50,34,39,11,34		2,51,27,18,22	
		1,35,20,22, 3,25,52,58		6,58
6″	39, 5,15, 3,49,12,38, 5, 4,32		2,51,27,25,20	
		1,35,20,19,11,58,27,38		6,58
8″	39, 5,16,39, 9,31,50, 3,32,10		2,51,27,32,18	
		1,35,20,16,20,30,55,20		6,58
10″	39, 5,18,14,29,48,10,34,27,30		2,51,27,39,16	
		1,35,20,13,29, 3,16, 4		6,58
12″	39, 5,19,49,50, 1,39,37,43,34		2,51,27,46,14	
		1,35,20,10,37,35,29,50		6,58
14″	39, 5,21,25,10,12,17,13,13,24		2,51,27,53,12	
		1,35,20, 7,46, 7,36,38		6,58
16″	39, 5,23, 0,30,20, 3,20,50, 2		2,51,28, 0,10	
		1,35,20, 4,54,39,36,28		6,58
18″	39, 5,24,35,50,24,58, 0,26,30		2,51,28, 7, 8	
		1,35,20, 2, 3,11,29,20		6,58
20″	39, 5,26,11,10,27, 1,11,55,50		2,51,28,14, 6	
		1,35,19,59,11,43,15,14		6,58
22″	39, 5,27,46,30,26,12,55,11, 4		2,51,28,21, 4	
		1,35,19,56,20,14,54,10		6,58
24″	39, 5,29,21,50,22,33,10, 5,14		2,51,28,28, 2	
		1,35,19,53,28,46,26, 8		6,58
26″	39, 5,30,57,10,16, 1,56,31,22		2,51,28,35, 0	
		1,35,19,50,37,17,51, 8		6,58
28″	39, 5,32,32,30, 6,39,14,22,30		2,51,28,41,58	
		1,35,19,47,45,49, 9,10		6,58
30″	39, 5,34, 7,49,54,25, 3,31,40		2,51,28,48,56	
		1,35,19,44,54,20,20,14		6,58
32″	39, 5,35,43, 9,39,19,23,51,54		2,51,28,55,54	
		1,35,19,42, 2,51,24,20		6,58
34″	39, 5,37,18,29,21,22,15,16,14		2,51,29, 2,52	
		1,35,19,39,11,22,21,28		6,58
36″	39, 5,38,53,49, 0,33,37,37,42		2,51,29, 9,50	
		1,35,19,36,19,53,11,38		6,58
38″	39, 5,40,29, 8,36,53,30,49,20		2,51,29,16,48	
		1,35,19,33,28,23,54,50		6,58
40″	39, 5,42, 4,28,10,21,54,44,10		2,51,29,23,46	
		1,35,19,30,36,54,31, 4		6,58
42″	39, 5,43,39,47,40,58,49,15,14		2,51,29,30,44	
		1,35,19,27,45,25, 0,20		6,58
44″	39, 5,45,15, 7, 8,44,14,15,34		2,51,29,37,42	
		1,35,19,24,53,55,22,38		6,58
46″	39, 5,46,50,26,33,38, 9,38,12		2,51,29,44,40	
		1,35,19,22, 2,25,37,58		6,58
48″	39, 5,48,25,45,55,40,35,16,10		2,51,29,51,38	
		1,35,19,19,10,55,46,20		6,58
50″	39, 5,50, 1, 5,14,51,31, 2,30		2,51,29,58,36	
		1,35,19,16,19,25,47,44		6,58
52″	39, 5,51,36,24,31,10,56,50,14		2,51,30, 5,34	
		1,35,19,13,27,55,42,10		6,58
54″	39, 5,53,11,43,44,38,52,32,24		2,51,30,12,32	
		1,35,19,10,36,25,29,38		6,58
56″	39, 5,54,47, 2,55,15,18, 2, 2		2,51,30,19,30	
		1,35,19, 7,44,55,10, 8		6,58
58″	39, 5,56,22,22, 3, 0,13,12,10		2,51,30,26,28	
		1,35,19, 4,53,24,43,40		
60″	39, 5,57,57,41, 7,53,37,55,50			
exact	39, 5,57,57,41, 7,53,37,43,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°40′ 0″	39, 5,57,57,41, 7,53,37,43,56	1,35,19, 2, 1,54, 9, 0		
2″	39, 5,59,33, 0, 9,55,31,52,56	1,35,18,59,10,23,28,31	2,51,30,40,29	6,58
4″	39, 6, 1, 8,19, 9, 5,55,21,27	1,35,18,56,18,52,41, 4	2,51,30,47,27	6,58
6″	39, 6, 2,43,38, 5,24,48, 2,31	1,35,18,53,27,21,46,39	2,51,30,54,25	6,58
8″	39, 6, 4,18,56,58,52, 9,49,10	1,35,18,50,35,50,45,16	2,51,31, 1,23	6,58
10″	39, 6, 5,54,15,49,28, 0,34,26	1,35,18,47,44,19,36,55	2,51,31, 8,21	6,58
12″	39, 6, 7,29,34,37,12,20,11,21	1,35,18,44,52,48,21,36	2,51,31,15,19	6,58
14″	39, 6, 9, 4,53,22, 5, 8,32,57	1,35,18,42, 1,16,59,19	2,51,31,22,17	6,58
16″	39, 6,10,40,12, 4, 6,25,32,16	1,35,18,39, 9,45,30, 4	2,51,31,29,15	6,58
18″	39, 6,12,15,30,43,16,11, 2,20	1,35,18,36,18,13,53,51	2,51,31,36,13	6,58
20″	39, 6,13,50,49,19,34,24,56,11	1,35,18,33,26,42,10,40	2,51,31,43,11	6,58
22″	39, 6,15,26, 7,53, 1, 7, 6,51	1,35,18,30,35,10,20,31	2,51,31,50, 9	6,58
24″	39, 6,17, 1,26,23,36,17,27,22	1,35,18,27,43,38,23,24	2,51,31,57, 7	6,58
26″	39, 6,18,36,44,51,19,55,50,46	1,35,18,24,52, 6,19,19	2,51,32, 4, 5	6,58
28″	39, 6,20,12, 3,16,12, 2,10, 5	1,35,18,22, 0,34, 8,16	2,51,32,11, 3	6,58
30″	39, 6,21,47,21,38,12,36,18,21	1,35,18,19, 9, 1,50,15	2,51,32,18, 1	6,58
32″	39, 6,23,22,39,57,21,38, 8,36	1,35,18,16,17,29,25,16	2,51,32,24,59	6,58
34″	39, 6,24,57,58,13,39, 7,33,52	1,35,18,13,25,56,53,19	2,51,32,31,57	6,58
36″	39, 6,26,33,16,27, 5, 4,27,11	1,35,18,10,34,24,14,24	2,51,32,38,55	6,58
38″	39, 6,28, 8,34,37,39,28,41,35	1,35,18, 7,42,51,28,31	2,51,32,45,53	6,58
40″	39, 6,29,43,52,45,22,20,10, 6	1,35,18, 4,51,18,35,40	2,51,32,52,51	6,58
42″	39, 6,31,19,10,50,13,38,45,46	1,35,18, 1,59,45,35,51	2,51,32,59,49	6,58
44″	39, 6,32,54,28,52,13,24,21,37	1,35,17,59, 8,12,29, 4	2,51,33, 6,47	6,58
46″	39, 6,34,29,46,51,21,36,50,41	1,35,17,56,16,39,15,19	2,51,33,13,45	6,58
48″	39, 6,36, 5, 4,47,38,16, 6, 0	1,35,17,53,25, 5,54,36	2,51,33,20,43	6,58
50″	39, 6,37,40,22,41, 3,22, 0,36	1,35,17,50,33,32,26,55	2,51,33,27,41	6,58
52″	39, 6,39,15,40,31,36,54,27,31	1,35,17,47,41,58,52,16	2,51,33,34,39	6,58
54″	39, 6,40,50,58,19,18,53,19,47	1,35,17,44,50,25,10,39	2,51,33,41,37	6,58
56″	39, 6,42,26,16, 4, 9,18,30,26	1,35,17,41,58,51,22, 4	2,51,33,48,35	6,58
58″	39, 6,44, 1,33,46, 8, 9,52,30	1,35,17,39, 7,17,26,31	2,51,33,55,33	
60″	39, 6,45,36,51,25,15,27,19, 1			
exact	39, 6,45,36,51,25,15,27,16, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°41′ 0″	39, 6,45,36,51,25,15,27,16, 3			
		1,35,17,36,15,43,23,39		
2″	39, 6,47,12, 9, 1,31,10,39,42		2,51,34, 9,30	
		1,35,17,33,24, 9,14, 9		6,58
4″	39, 6,48,47,26,34,55,19,53,51		2,51,34,16,28	
		1,35,17,30,32,34,57,41		6,58
6″	39, 6,50,22,44, 5,27,54,51,32		2,51,34,23,26	
		1,35,17,27,41, 0,34,15		6,58
8″	39, 6,51,58, 1,33, 8,55,25,47		2,51,34,30,24	
		1,35,17,24,49,26, 3,51		6,58
10″	39, 6,53,33,18,57,58,21,29,38		2,51,34,37,22	
		1,35,17,21,57,51,26,29		6,58
12″	39, 6,55, 8,36,19,56,12,56, 7		2,51,34,44,20	
		1,35,17,19, 6,16,42, 9		6,58
14″	39, 6,56,43,53,39, 2,29,38,16		2,51,34,51,18	
		1,35,17,16,14,41,50,51		6,58
16″	39, 6,58,19,10,55,17,11,29, 7		2,51,34,58,16	
		1,35,17,13,23, 6,52,35		6,58
18″	39, 6,59,54,28, 8,40,18,21,42		2,51,35, 5,14	
		1,35,17,10,31,31,47,21		6,58
20″	39, 7, 1,29,45,19,11,50, 9, 3		2,51,35,12,12	
		1,35,17, 7,39,56,35, 9		6,58
22″	39, 7, 3, 5, 2,26,51,46,44,12		2,51,35,19,10	
		1,35,17, 4,48,21,15,59		6,58
24″	39, 7, 4,40,19,31,40, 8, 0,11		2,51,35,26, 8	
		1,35,17, 1,56,45,49,51		6,58
26″	39, 7, 6,15,36,33,36,53,50, 2		2,51,35,33, 6	
		1,35,16,59, 5,10,16,45		6,58
28″	39, 7, 7,50,53,32,42, 4, 6,47		2,51,35,40, 4	
		1,35,16,56,13,34,36,41		6,58
30″	39, 7, 9,26,10,28,55,38,43,28		2,51,35,47, 2	
		1,35,16,53,21,58,49,39		6,58
32″	39, 7,11, 1,27,22,17,37,33, 7		2,51,35,54, 0	
		1,35,16,50,30,22,55,39		6,58
34″	39, 7,12,36,44,12,48, 0,28,46		2,51,36, 0,58	
		1,35,16,47,38,46,54,41		6,58
36″	39, 7,14,12, 1, 0,26,47,23,27		2,51,36, 7,56	
		1,35,16,44,47,10,46,45		6,58
38″	39, 7,15,47,17,45,13,58,10,12		2,51,36,14,54	
		1,35,16,41,55,34,31,51		6,58
40″	39, 7,17,22,34,27, 9,32,42, 3		2,51,36,21,52	
		1,35,16,39, 3,58, 9,59		6,58
42″	39, 7,18,57,51, 6,13,30,52, 2		2,51,36,28,50	
		1,35,16,36,12,21,41, 9		6,58
44″	39, 7,20,33, 7,42,25,52,33,11		2,51,36,35,48	
		1,35,16,33,20,45, 5,21		6,58
46″	39, 7,22, 8,24,15,46,37,38,32		2,51,36,42,46	
		1,35,16,30,29, 8,22,35		6,58
48″	39, 7,23,43,40,46,15,46, 1, 7		2,51,36,49,44	
		1,35,16,27,37,31,32,51		6,58
50″	39, 7,25,18,57,13,53,17,33,58		2,51,36,56,42	
		1,35,16,24,45,54,36, 9		6,58
52″	39, 7,26,54,13,38,39,12,10, 7		2,51,37, 3,40	
		1,35,16,21,54,17,32,29		6,58
54″	39, 7,28,29,30, 0,33,29,42,36		2,51,37,10,38	
		1,35,16,19, 2,40,21,51		6,58
56″	39, 7,30, 4,46,19,36,10, 4,27		2,51,37,17,36	
		1,35,16,16,11, 3, 4,15		6,58
58″	39, 7,31,40, 2,35,47,13, 8,42		2,51,37,24,34	
		1,35,16,13,19,25,39,41		
60″	39, 7,33,15,18,49, 6,38,48,23			
exact	39, 7,33,15,18,49, 6,38,47,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°42′ 0″	39, 7,33,15,18,49, 6,38,47,55			
		1,35,16,10,27,48, 8,15		
2″	39, 7,34,50,34,59,34,26,56,10		2,51,37,38,29	
		1,35,16, 7,36,10,29,46		6,58
4″	39, 7,36,25,51, 7,10,37,25,56		2,51,37,45,27	
		1,35,16, 4,44,32,44,19		6,58
6″	39, 7,38, 1, 7,11,55,10,10,15		2,51,37,52,25	
		1,35,16, 1,52,54,51,54		6,58
8″	39, 7,39,36,23,13,48, 5, 2, 9		2,51,37,59,23	
		1,35,15,59, 1,16,52,31		6,58
10″	39, 7,41,11,39,12,49,21,54,40		2,51,38, 6,21	
		1,35,15,56, 9,38,46,10		6,58
12″	39, 7,42,46,55, 8,59, 0,40,50		2,51,38,13,19	
		1,35,15,53,18, 0,32,51		6,58
14″	39, 7,44,22,11, 2,17, 1,13,41		2,51,38,20,17	
		1,35,15,50,26,22,12,34		6,58
16″	39, 7,45,57,26,52,43,23,26,15		2,51,38,27,15	
		1,35,15,47,34,43,45,19		6,58
18″	39, 7,47,32,42,40,18, 7,11,34		2,51,38,34,13	
		1,35,15,44,43, 5,11, 6		6,58
20″	39, 7,49, 7,58,25, 1,12,22,40		2,51,38,41,11	
		1,35,15,41,51,26,29,55		6,58
22″	39, 7,50,43,14, 6,52,38,52,35		2,51,38,48, 9	
		1,35,15,38,59,47,41,46		6,58
24″	39, 7,52,18,29,45,52,26,34,21		2,51,38,55, 7	
		1,35,15,36, 8, 8,46,39		6,58
26″	39, 7,53,53,45,22, 0,35,21, 0		2,51,39, 2, 5	
		1,35,15,33,16,29,44,34		6,58
28″	39, 7,55,29, 0,55,17, 5, 5,34		2,51,39, 9, 3	
		1,35,15,30,24,50,35,31		6,58
30″	39, 7,57, 4,16,25,41,55,41, 5		2,51,39,16, 1	
		1,35,15,27,33,11,19,30		6,58
32″	39, 7,58,39,31,53,15, 7, 0,35		2,51,39,22,59	
		1,35,15,24,41,31,56,31		6,58
34″	39, 8, 0,14,47,17,56,38,57, 6		2,51,39,29,57	
		1,35,15,21,49,52,26,34		6,58
36″	39, 8, 1,50, 2,39,46,31,23,40		2,51,39,36,55	
		1,35,15,18,58,12,49,39		6,58
38″	39, 8, 3,25,17,58,44,44,13,19		2,51,39,43,53	
		1,35,15,16, 6,33, 5,46		6,58
40″	39, 8, 5, 0,33,14,51,17,19, 5		2,51,39,50,51	
		1,35,15,13,14,53,14,55		6,58
42″	39, 8, 6,35,48,28, 6,10,34, 0		2,51,39,57,49	
		1,35,15,10,23,13,17, 6		6,58
44″	39, 8, 8,11, 3,38,29,23,51, 6		2,51,40, 4,47	
		1,35,15, 7,31,33,12,19		6,58
46″	39, 8, 9,46,18,46, 0,57, 3,25		2,51,40,11,45	
		1,35,15, 4,39,53, 0,34		6,58
48″	39, 8,11,21,33,50,40,50, 3,59		2,51,40,18,43	
		1,35,15, 1,48,12,41,51		6,58
50″	39, 8,12,56,48,52,29, 2,45,50		2,51,40,25,41	
		1,35,14,58,56,32,16,10		6,58
52″	39, 8,14,32, 3,51,25,35, 2, 0		2,51,40,32,39	
		1,35,14,56, 4,51,43,31		6,58
54″	39, 8,16, 7,18,47,30,26,45,31		2,51,40,39,37	
		1,35,14,53,13,11, 3,54		6,58
56″	39, 8,17,42,33,40,43,37,49,25		2,51,40,46,35	
		1,35,14,50,21,30,17,19		6,58
58″	39, 8,19,17,48,31, 5, 8, 6,44		2,51,40,53,33	
		1,35,14,47,29,49,23,46		
60″	39, 8,20,53, 3,18,34,57,30,30			
exact	39, 8,20,53, 3,18,34,57,40,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°43′ 0″	39, 8,20,53, 3,18,34,57,40,37	1,35,14,44,38, 8,24,21		
2″	39, 8,22,28,18, 3,13, 6, 4,58	1,35,14,41,46,27,16,57	2,51,41, 7,24	6,58
4″	39, 8,24, 3,32,44,59,33,21,55	1,35,14,38,54,46, 2,35	2,51,41,14,22	6,58
6″	39, 8,25,38,47,23,54,19,24,30	1,35,14,36, 3, 4,41,15	2,51,41,21,20	6,58
8″	39, 8,27,14, 1,59,57,24, 5,45	1,35,14,33,11,23,12,57	2,51,41,28,18	6,58
10″	39, 8,28,49,16,33, 8,47,18,42	1,35,14,30,19,41,37,41	2,51,41,35,16	6,58
12″	39, 8,30,24,31, 3,28,28,56,23	1,35,14,27,27,59,55,27	2,51,41,42,14	6,58
14″	39, 8,31,59,45,30,56,28,51,50	1,35,14,24,36,18, 6,15	2,51,41,49,12	6,58
16″	39, 8,33,34,59,55,32,46,58, 5	1,35,14,21,44,36,10, 5	2,51,41,56,10	6,58
18″	39, 8,35,10,14,17,17,23, 8,10	1,35,14,18,52,54, 6,57	2,51,42, 3, 8	6,58
20″	39, 8,36,45,28,36,10,17,15, 7	1,35,14,16, 1,11,56,51	2,51,42,10, 6	6,58
22″	39, 8,38,20,42,52,11,29,11,58	1,35,14,13, 9,29,39,47	2,51,42,17, 4	6,58
24″	39, 8,39,55,57, 5,20,58,51,45	1,35,14,10,17,47,15,45	2,51,42,24, 2	6,58
26″	39, 8,41,31,11,15,38,46, 7,30	1,35,14, 7,26, 4,44,45	2,51,42,31, 0	6,58
28″	39, 8,43, 6,25,23, 4,50,52,15	1,35,14, 4,34,22, 6,47	2,51,42,37,58	6,58
30″	39, 8,44,41,39,27,39,12,59, 2	1,35,14, 1,42,39,21,51	2,51,42,44,56	6,58
32″	39, 8,46,16,53,29,21,52,20,53	1,35,13,58,50,56,29,57	2,51,42,51,54	6,58
34″	39, 8,47,52, 7,28,12,48,50,50	1,35,13,55,59,13,31, 5	2,51,42,58,52	6,58
36″	39, 8,49,27,21,24,12, 2,21,55	1,35,13,53, 7,30,25,15	2,51,43, 5,50	6,58
38″	39, 8,51, 2,35,17,19,32,47,10	1,35,13,50,15,47,12,27	2,51,43,12,48	6,58
40″	39, 8,52,37,49, 7,35,19,59,37	1,35,13,47,24, 3,52,41	2,51,43,19,46	6,58
42″	39, 8,54,13, 2,54,59,23,52,18	1,35,13,44,32,20,25,57	2,51,43,26,44	6,58
44″	39, 8,55,48,16,39,31,44,18,15	1,35,13,41,40,36,52,15	2,51,43,33,42	6,58
46″	39, 8,57,23,30,21,12,21,10,30	1,35,13,38,48,53,11,35	2,51,43,40,40	6,58
48″	39, 8,58,58,44, 0, 1,14,22, 5	1,35,13,35,57, 9,23,57	2,51,43,47,38	6,58
50″	39, 9, 0,33,57,35,58,23,46, 2	1,35,13,33, 5,25,29,21	2,51,43,54,36	6,58
52″	39, 9, 2, 9,11, 9, 3,49,15,23	1,35,13,30,13,41,27,47	2,51,44, 1,34	6,58
54″	39, 9, 3,44,24,39,17,30,43,10	1,35,13,27,21,57,19,15	2,51,44, 8,32	6,58
56″	39, 9, 5,19,38, 6,39,28, 2,25	1,35,13,24,30,13, 3,45	2,51,44,15,30	6,58
58″	39, 9, 6,54,51,31, 9,41, 6,10	1,35,13,21,38,28,41,17	2,51,44,22,28	
60″	39, 9, 8,30, 4,52,48, 9,47,27			
exact	39, 9, 8,30, 4,52,48,10, 2,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°44′ 0″	39, 9, 8,30, 4,52,48,10, 2,19			
		1,35,13,18,46,44,13,32		
2″	39, 9,10, 5,18,11,34,54,15,51		2,51,44,36,16	
		1,35,13,15,54,59,37,16		6,58
4″	39, 9,11,40,31,27,29,53,53, 7		2,51,44,43,14	
		1,35,13,13, 3,14,54, 2		6,58
6″	39, 9,13,15,44,40,33, 8,47, 9		2,51,44,50,12	
		1,35,13,10,11,30, 3,50		6,58
8″	39, 9,14,50,57,50,44,38,50,59		2,51,44,57,10	
		1,35,13, 7,19,45, 6,40		6,58
10″	39, 9,16,26,10,58, 4,23,57,39		2,51,45, 4, 8	
		1,35,13, 4,28, 0, 2,32		6,58
12″	39, 9,18, 1,24, 2,32,24, 0,11		2,51,45,11, 6	
		1,35,13, 1,36,14,51,26		6,58
14″	39, 9,19,36,37, 4, 8,38,51,37		2,51,45,18, 4	
		1,35,12,58,44,29,33,22		6,58
16″	39, 9,21,11,50, 2,53, 8,24,59		2,51,45,25, 2	
		1,35,12,55,52,44, 8,20		6,58
18″	39, 9,22,47, 2,58,45,52,33,19		2,51,45,32, 0	
		1,35,12,53, 0,58,36,20		6,58
20″	39, 9,24,22,15,51,46,51, 9,39		2,51,45,38,58	
		1,35,12,50, 9,12,57,22		6,58
22″	39, 9,25,57,28,41,56, 4, 7, 1		2,51,45,45,56	
		1,35,12,47,17,27,11,26		6,58
24″	39, 9,27,32,41,29,13,31,18,27		2,51,45,52,54	
		1,35,12,44,25,41,18,32		6,58
26″	39, 9,29, 7,54,13,39,12,36,59		2,51,45,59,52	
		1,35,12,41,33,55,18,40		6,58
28″	39, 9,30,43, 6,55,13, 7,55,39		2,51,46, 6,50	
		1,35,12,38,42, 9,11,50		6,58
30″	39, 9,32,18,19,33,55,17, 7,29		2,51,46,13,48	
		1,35,12,35,50,22,58, 2		6,58
32″	39, 9,33,53,32, 9,45,40, 5,31		2,51,46,20,46	
		1,35,12,32,58,36,37,16		6,58
34″	39, 9,35,28,44,42,44,16,42,47		2,51,46,27,44	
		1,35,12,30, 6,50, 9,32		6,58
36″	39, 9,37, 3,57,12,51, 6,52,19		2,51,46,34,42	
		1,35,12,27,15, 3,34,50		6,58
38″	39, 9,38,39, 9,40, 6,10,27, 9		2,51,46,41,40	
		1,35,12,24,23,16,53,10		6,58
40″	39, 9,40,14,22, 4,29,27,20,19		2,51,46,48,38	
		1,35,12,21,31,30, 4,32		6,58
42″	39, 9,41,49,34,26, 0,57,24,51		2,51,46,55,36	
		1,35,12,18,39,43, 8,56		6,58
44″	39, 9,43,24,46,44,40,40,33,47		2,51,47, 2,34	
		1,35,12,15,47,56, 6,22		6,58
46″	39, 9,44,59,59, 0,28,36,40, 9		2,51,47, 9,32	
		1,35,12,12,56, 8,56,50		6,58
48″	39, 9,46,35,11,13,24,45,36,59		2,51,47,16,30	
		1,35,12,10, 4,21,40,20		6,58
50″	39, 9,48,10,23,23,29, 7,17,19		2,51,47,23,28	
		1,35,12, 7,12,34,16,52		6,58
52″	39, 9,49,45,35,30,41,41,34,11		2,51,47,30,26	
		1,35,12, 4,20,46,46,26		6,58
54″	39, 9,51,20,47,35, 2,28,20,37		2,51,47,37,24	
		1,35,12, 1,28,59, 9, 2		6,58
56″	39, 9,52,55,59,36,31,27,29,39		2,51,47,44,22	
		1,35,11,58,37,11,24,40		6,58
58″	39, 9,54,31,11,35, 8,38,54,19		2,51,47,51,20	
		1,35,11,55,45,23,33,20		
60″	39, 9,56, 6,23,30,54, 2,27,39			
exact	39, 9,56, 6,23,30,54, 2,48,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°45′ 0″	39, 9,56, 6,23,30,54, 2,48,12			
		1,35,11,52,53,35,37,23		
2″	39, 9,57,41,35,23,47,38,25,35		2,51,48, 5, 5	
		1,35,11,50, 1,47,32,18		6,58
4″	39, 9,59,16,47,13,49,25,57,53		2,51,48,12, 3	
		1,35,11,47, 9,59,20,15		6,58
6″	39,10, 0,51,59, 0,59,25,18, 8		2,51,48,19, 1	
		1,35,11,44,18,11, 1,14		6,58
8″	39,10, 2,27,10,45,17,36,19,22		2,51,48,25,59	
		1,35,11,41,26,22,35,15		6,58
10″	39,10, 4, 2,22,26,43,58,54,37		2,51,48,32,57	
		1,35,11,38,34,34, 2,18		6,58
12″	39,10, 5,37,34, 5,18,32,56,55		2,51,48,39,55	
		1,35,11,35,42,45,22,23		6,58
14″	39,10, 7,12,45,41, 1,18,19,18		2,51,48,46,53	
		1,35,11,32,50,56,35,30		6,58
16″	39,10, 8,47,57,13,52,14,54,48		2,51,48,53,51	
		1,35,11,29,59, 7,41,39		6,58
18″	39,10,10,23, 8,43,51,22,36,27		2,51,49, 0,49	
		1,35,11,27, 7,18,40,50		6,58
20″	39,10,11,58,20,10,58,41,17,17		2,51,49, 7,47	
		1,35,11,24,15,29,33, 3		6,58
22″	39,10,13,33,31,35,14,10,50,20		2,51,49,14,45	
		1,35,11,21,23,40,18,18		6,58
24″	39,10,15, 8,42,56,37,51, 8,38		2,51,49,21,43	
		1,35,11,18,31,50,56,35		6,58
26″	39,10,16,43,54,15, 9,42, 5,13		2,51,49,28,41	
		1,35,11,15,40, 1,27,54		6,58
28″	39,10,18,19, 5,30,49,43,33, 7		2,51,49,35,39	
		1,35,11,12,48,11,52,15		6,58
30″	39,10,19,54,16,43,37,55,25,22		2,51,49,42,37	
		1,35,11, 9,56,22, 9,38		6,58
32″	39,10,21,29,27,53,34,17,35, 0		2,51,49,49,35	
		1,35,11, 7, 4,32,20, 3		6,58
34″	39,10,23, 4,39, 0,38,49,55, 3		2,51,49,56,33	
		1,35,11, 4,12,42,23,30		6,58
36″	39,10,24,39,50, 4,51,32,18,33		2,51,50, 3,31	
		1,35,11, 1,20,52,19,59		6,58
38″	39,10,26,15, 1, 6,12,24,38,32		2,51,50,10,29	
		1,35,10,58,29, 2, 9,30		6,58
40″	39,10,27,50,12, 4,41,26,48, 2		2,51,50,17,27	
		1,35,10,55,37,11,52, 3		6,58
42″	39,10,29,25,23, 0,18,38,40, 5		2,51,50,24,25	
		1,35,10,52,45,21,27,38		6,58
44″	39,10,31, 0,33,53, 4, 0, 7,43		2,51,50,31,23	
		1,35,10,49,53,30,56,15		6,58
46″	39,10,32,35,44,42,57,31, 3,58		2,51,50,38,21	
		1,35,10,47, 1,40,17,54		6,58
48″	39,10,34,10,55,29,59,11,21,52		2,51,50,45,19	
		1,35,10,44, 9,49,32,35		6,58
50″	39,10,35,46, 6,14, 9, 0,54,27		2,51,50,52,17	
		1,35,10,41,17,58,40,18		6,58
52″	39,10,37,21,16,55,26,59,34,45		2,51,50,59,15	
		1,35,10,38,26, 7,41, 3		6,58
54″	39,10,38,56,27,33,53, 7,15,48		2,51,51, 6,13	
		1,35,10,35,34,16,34,50		6,58
56″	39,10,40,31,38, 9,27,23,50,38		2,51,51,13,11	
		1,35,10,32,42,25,21,39		6,58
58″	39,10,42, 6,48,42, 9,49,12,17		2,51,51,20, 9	
		1,35,10,29,50,34, 1,30		
60″	39,10,43,41,59,12, 0,23,13,47			
exact	39,10,43,41,59,12, 0,23,40,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°46′ 0″	39,10,43,41,59,12, 0,23,40,36			
		1,35,10,26,58,42,37,27		
2″	39,10,45,17, 9,38,59, 6,18, 3		2,51,51,33,51	
		1,35,10,24, 6,51, 3,36		6,57
4″	39,10,46,52,20, 3, 5,57,21,39		2,51,51,40,48	
		1,35,10,21,14,59,22,48		6,57
6″	39,10,48,27,30,24,20,56,44,27		2,51,51,47,45	
		1,35,10,18,23, 7,35, 3		6,57
8″	39,10,50, 2,40,42,44, 4,19,30		2,51,51,54,42	
		1,35,10,15,31,15,40,21		6,57
10″	39,10,51,37,50,58,15,19,59,51		2,51,52, 1,39	
		1,35,10,12,39,23,38,42		6,57
12″	39,10,53,13, 1,10,54,43,38,33		2,51,52, 8,36	
		1,35,10, 9,47,31,30, 6		6,57
14″	39,10,54,48,11,20,42,15, 8,39		2,51,52,15,33	
		1,35,10, 6,55,39,14,33		6,57
16″	39,10,56,23,21,27,37,54,23,12		2,51,52,22,30	
		1,35,10, 4, 3,46,52, 3		6,57
18″	39,10,57,58,31,31,41,41,15,15		2,51,52,29,27	
		1,35,10, 1,11,54,22,36		6,57
20″	39,10,59,33,41,32,53,35,37,51		2,51,52,36,24	
		1,35, 9,58,20, 1,46,12		6,57
22″	39,11, 1, 8,51,31,13,37,24, 3		2,51,52,43,21	
		1,35, 9,55,28, 9, 2,51		6,57
24″	39,11, 2,44, 1,26,41,46,26,54		2,51,52,50,18	
		1,35, 9,52,36,16,12,33		6,57
26″	39,11, 4,19,11,19,18, 2,39,27		2,51,52,57,15	
		1,35, 9,49,44,23,15,18		6,57
28″	39,11, 5,54,21, 9, 2,25,54,45		2,51,53, 4,12	
		1,35, 9,46,52,30,11, 6		6,57
30″	39,11, 7,29,30,55,54,56, 5,51		2,51,53,11, 9	
		1,35, 9,44, 0,36,59,57		6,57
32″	39,11, 9, 4,40,39,55,33, 5,48		2,51,53,18, 6	
		1,35, 9,41, 8,43,41,51		6,57
34″	39,11,10,39,50,21, 4,16,47,39		2,51,53,25, 3	
		1,35, 9,38,16,50,16,48		6,57
36″	39,11,12,14,59,59,21, 7, 4,27		2,51,53,32, 0	
		1,35, 9,35,24,56,44,48		6,57
38″	39,11,13,50, 9,34,46, 3,49,15		2,51,53,38,57	
		1,35, 9,32,33, 3, 5,51		6,57
40″	39,11,15,25,19, 7,19, 6,55, 6		2,51,53,45,54	
		1,35, 9,29,41, 9,19,57		6,57
42″	39,11,17, 0,28,37, 0,16,15, 3		2,51,53,52,51	
		1,35, 9,26,49,15,27, 6		6,57
44″	39,11,18,35,38, 3,49,31,42, 9		2,51,53,59,48	
		1,35, 9,23,57,21,27,18		6,57
46″	39,11,20,10,47,27,46,53, 9,27		2,51,54, 6,45	
		1,35, 9,21, 5,27,20,33		6,57
48″	39,11,21,45,56,48,52,20,30, 0		2,51,54,13,42	
		1,35, 9,18,13,33, 6,51		6,57
50″	39,11,23,21, 6, 7, 5,53,36,51		2,51,54,20,39	
		1,35, 9,15,21,38,46,12		6,57
52″	39,11,24,56,15,22,27,32,23, 3		2,51,54,27,36	
		1,35, 9,12,29,44,18,36		6,57
54″	39,11,26,31,24,34,57,16,41,39		2,51,54,34,33	
		1,35, 9, 9,37,49,44, 3		6,57
56″	39,11,28, 6,33,44,35, 6,25,42		2,51,54,41,30	
		1,35, 9, 6,45,55, 2,33		6,57
58″	39,11,29,41,42,51,21, 1,28,15		2,51,54,48,27	
		1,35, 9, 3,54, 0,14, 6		
60″	39,11,31,16,51,55,15, 1,42,21			
exact	39,11,31,16,51,55,15, 1, 8,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°47′ 0″	39,11,31,16,51,55,15, 1, 8,54			
		1,35, 9, 1, 2, 5,15,18		
2″	39,11,32,52, 0,56,17, 6,24,12		2,51,55, 2,34	
		1,35, 8,58,10,10,12,44		6,57
4″	39,11,34,27, 9,54,27,16,36,56		2,51,55, 9,31	
		1,35, 8,55,18,15, 3,13		6,57
6″	39,11,36, 2,18,49,45,31,40, 9		2,51,55,16,28	
		1,35, 8,52,26,19,46,45		6,57
8″	39,11,37,37,27,42,11,51,26,54		2,51,55,23,25	
		1,35, 8,49,34,24,23,20		6,57
10″	39,11,39,12,36,31,46,15,50,14		2,51,55,30,22	
		1,35, 8,46,42,28,52,58		6,57
12″	39,11,40,47,45,18,28,44,43,12		2,51,55,37,19	
		1,35, 8,43,50,33,15,39		6,57
14″	39,11,42,22,54, 2,19,17,58,51		2,51,55,44,16	
		1,35, 8,40,58,37,31,23		6,57
16″	39,11,43,58, 2,43,17,55,30,14		2,51,55,51,13	
		1,35, 8,38, 6,41,40,10		6,57
18″	39,11,45,33,11,21,24,37,10,24		2,51,55,58,10	
		1,35, 8,35,14,45,42, 0		6,57
20″	39,11,47, 8,19,56,39,22,52,24		2,51,56, 5, 7	
		1,35, 8,32,22,49,36,53		6,57
22″	39,11,48,43,28,29, 2,12,29,17		2,51,56,12, 4	
		1,35, 8,29,30,53,24,49		6,57
24″	39,11,50,18,36,58,33, 5,54, 6		2,51,56,19, 1	
		1,35, 8,26,38,57, 5,48		6,57
26″	39,11,51,53,45,25,12, 2,59,54		2,51,56,25,58	
		1,35, 8,23,47, 0,39,50		6,57
28″	39,11,53,28,53,48,59, 3,39,44		2,51,56,32,55	
		1,35, 8,20,55, 4, 6,55		6,57
30″	39,11,55, 4, 2, 9,54, 7,46,39		2,51,56,39,52	
		1,35, 8,18, 3, 7,27, 3		6,57
32″	39,11,56,39,10,27,57,15,13,42		2,51,56,46,49	
		1,35, 8,15,11,10,40,14		6,57
34″	39,11,58,14,18,43, 8,25,53,56		2,51,56,53,46	
		1,35, 8,12,19,13,46,28		6,57
36″	39,11,59,49,26,55,27,39,40,24		2,51,57, 0,43	
		1,35, 8, 9,27,16,45,45		6,57
38″	39,12, 1,24,35, 4,54,56,26, 9		2,51,57, 7,40	
		1,35, 8, 6,35,19,38, 5		6,57
40″	39,12, 2,59,43,11,30,16, 4,14		2,51,57,14,37	
		1,35, 8, 3,43,22,23,28		6,57
42″	39,12, 4,34,51,15,13,38,27,42		2,51,57,21,34	
		1,35, 8, 0,51,25, 1,54		6,57
44″	39,12, 6, 9,59,16, 5, 3,29,36		2,51,57,28,31	
		1,35, 7,57,59,27,33,23		6,57
46″	39,12, 7,45, 7,14, 4,31, 2,59		2,51,57,35,28	
		1,35, 7,55, 7,29,57,55		6,57
48″	39,12, 9,20,15, 9,12, 1, 0,54		2,51,57,42,25	
		1,35, 7,52,15,32,15,30		6,57
50″	39,12,10,55,23, 1,27,33,16,24		2,51,57,49,22	
		1,35, 7,49,23,34,26, 8		6,57
52″	39,12,12,30,30,50,51, 7,42,32		2,51,57,56,19	
		1,35, 7,46,31,36,29,49		6,57
54″	39,12,14, 5,38,37,22,44,12,21		2,51,58, 3,16	
		1,35, 7,43,39,38,26,33		6,57
56″	39,12,15,40,46,21, 2,22,38,54		2,51,58,10,13	
		1,35, 7,40,47,40,16,20		6,57
58″	39,12,17,15,54, 1,50, 2,55,14		2,51,58,17,10	
		1,35, 7,37,55,41,59,10		
60″	39,12,18,51, 1,39,45,44,54,24			
exact	39,12,18,51, 1,39,45,44,29,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°48′ 0″	39,12,18,51, 1,39,45,44,29,36			
		1,35, 7,35, 3,43,32,31		
2″	39,12,20,26, 9,14,49,28, 2, 7		2,51,58,31,14	
		1,35, 7,32,11,45, 1,17		6,57
4″	39,12,22, 1,16,47, 1,13, 3,24		2,51,58,38,11	
		1,35, 7,29,19,46,23, 6		6,57
6″	39,12,23,36,24,16,20,59,26,30		2,51,58,45, 8	
		1,35, 7,26,27,47,37,58		6,57
8″	39,12,25,11,31,42,48,47, 4,28		2,51,58,52, 5	
		1,35, 7,23,35,48,45,53		6,57
10″	39,12,26,46,39, 6,24,35,50,21		2,51,58,59, 2	
		1,35, 7,20,43,49,46,51		6,57
12″	39,12,28,21,46,27, 8,25,37,12		2,51,59, 5,59	
		1,35, 7,17,51,50,40,52		6,57
14″	39,12,29,56,53,45, 0,16,18, 4		2,51,59,12,56	
		1,35, 7,14,59,51,27,56		6,57
16″	39,12,31,32, 1, 0, 0, 7,46, 0		2,51,59,19,53	
		1,35, 7,12, 7,52, 8, 3		6,57
18″	39,12,33, 7, 8,12, 7,59,54, 3		2,51,59,26,50	
		1,35, 7, 9,15,52,41,13		6,57
20″	39,12,34,42,15,21,23,52,35,16		2,51,59,33,47	
		1,35, 7, 6,23,53, 7,26		6,57
22″	39,12,36,17,22,27,47,45,42,42		2,51,59,40,44	
		1,35, 7, 3,31,53,26,42		6,57
24″	39,12,37,52,29,31,19,39, 9,24		2,51,59,47,41	
		1,35, 7, 0,39,53,39, 1		6,57
26″	39,12,39,27,36,31,59,32,48,25		2,51,59,54,38	
		1,35, 6,57,47,53,44,23		6,57
28″	39,12,41, 2,43,29,47,26,32,48		2,52, 0, 1,35	
		1,35, 6,54,55,53,42,48		6,57
30″	39,12,42,37,50,24,43,20,15,36		2,52, 0, 8,32	
		1,35, 6,52, 3,53,34,16		6,57
32″	39,12,44,12,57,16,47,13,49,52		2,52, 0,15,29	
		1,35, 6,49,11,53,18,47		6,57
34″	39,12,45,48, 4, 5,59, 7, 8,39		2,52, 0,22,26	
		1,35, 6,46,19,52,56,21		6,57
36″	39,12,47,23,10,52,19, 0, 5, 0		2,52, 0,29,23	
		1,35, 6,43,27,52,26,58		6,57
38″	39,12,48,58,17,35,46,52,31,58		2,52, 0,36,20	
		1,35, 6,40,35,51,50,38		6,57
40″	39,12,50,33,24,16,22,44,22,36		2,52, 0,43,17	
		1,35, 6,37,43,51, 7,21		6,57
42″	39,12,52, 8,30,54, 6,35,29,57		2,52, 0,50,14	
		1,35, 6,34,51,50,17, 7		6,57
44″	39,12,53,43,37,28,58,25,47, 4		2,52, 0,57,11	
		1,35, 6,31,59,49,19,56		6,57
46″	39,12,55,18,44, 0,58,15, 7, 0		2,52, 1, 4, 8	
		1,35, 6,29, 7,48,15,48		6,57
48″	39,12,56,53,50,30, 6, 3,22,48		2,52, 1,11, 5	
		1,35, 6,26,15,47, 4,43		6,57
50″	39,12,58,28,56,56,21,50,27,31		2,52, 1,18, 2	
		1,35, 6,23,23,45,46,41		6,57
52″	39,13, 0, 4, 3,19,45,36,14,12		2,52, 1,24,59	
		1,35, 6,20,31,44,21,42		6,57
54″	39,13, 1,39, 9,40,17,20,35,54		2,52, 1,31,56	
		1,35, 6,17,39,42,49,46		6,57
56″	39,13, 3,14,15,57,57, 3,25,40		2,52, 1,38,53	
		1,35, 6,14,47,41,10,53		6,57
58″	39,13, 4,49,22,12,44,44,36,33		2,52, 1,45,50	
		1,35, 6,11,55,39,25, 3		
60″	39,13, 6,24,28,24,40,24, 1,36			
exact	39,13, 6,24,28,24,40,23,46,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°49′ 0″	39,13, 6,24,28,24,40,23,46,21			
		1,35, 6, 9, 3,37,30,39		
2″	39,13, 7,59,34,33,44, 1,17, 0		2,52, 1,59,50	
		1,35, 6, 6,11,35,30,49		6,57
4″	39,13, 9,34,40,39,55,36,47,49		2,52, 2, 6,47	
		1,35, 6, 3,19,33,24, 2		6,57
6″	39,13,11, 9,46,43,15,10,11,51		2,52, 2,13,44	
		1,35, 6, 0,27,31,10,18		6,57
8″	39,13,12,44,52,43,42,41,22, 9		2,52, 2,20,41	
		1,35, 5,57,35,28,49,37		6,57
10″	39,13,14,19,58,41,18,10,11,46		2,52, 2,27,38	
		1,35, 5,54,43,26,21,59		6,57
12″	39,13,15,55, 4,36, 1,36,33,45		2,52, 2,34,35	
		1,35, 5,51,51,23,47,24		6,57
14″	39,13,17,30,10,27,53, 0,21, 9		2,52, 2,41,32	
		1,35, 5,48,59,21, 5,52		6,57
16″	39,13,19, 5,16,16,52,21,27, 1		2,52, 2,48,29	
		1,35, 5,46, 7,18,17,23		6,57
18″	39,13,20,40,22, 2,59,39,44,24		2,52, 2,55,26	
		1,35, 5,43,15,15,21,57		6,57
20″	39,13,22,15,27,46,14,55, 6,21		2,52, 3, 2,23	
		1,35, 5,40,23,12,19,34		6,57
22″	39,13,23,50,33,26,38, 7,25,55		2,52, 3, 9,20	
		1,35, 5,37,31, 9,10,14		6,57
24″	39,13,25,25,39, 4, 9,16,36, 9		2,52, 3,16,17	
		1,35, 5,34,39, 5,53,57		6,57
26″	39,13,27, 0,44,38,48,22,30, 6		2,52, 3,23,14	
		1,35, 5,31,47, 2,30,43		6,57
28″	39,13,28,35,50,10,35,25, 0,49		2,52, 3,30,11	
		1,35, 5,28,54,59, 0,32		6,57
30″	39,13,30,10,55,39,30,24, 1,21		2,52, 3,37, 8	
		1,35, 5,26, 2,55,23,24		6,57
32″	39,13,31,46, 1, 5,33,19,24,45		2,52, 3,44, 5	
		1,35, 5,23,10,51,39,19		6,57
34″	39,13,33,21, 6,28,44,11, 4, 4		2,52, 3,51, 2	
		1,35, 5,20,18,47,48,17		6,57
36″	39,13,34,56,11,49, 2,58,52,21		2,52, 3,57,59	
		1,35, 5,17,26,43,50,18		6,57
38″	39,13,36,31,17, 6,29,42,42,39		2,52, 4, 4,56	
		1,35, 5,14,34,39,45,22		6,57
40″	39,13,38, 6,22,21, 4,22,28, 1		2,52, 4,11,53	
		1,35, 5,11,42,35,33,29		6,57
42″	39,13,39,41,27,32,46,58, 1,30		2,52, 4,18,50	
		1,35, 5, 8,50,31,14,39		6,57
44″	39,13,41,16,32,41,37,29,16, 9		2,52, 4,25,47	
		1,35, 5, 5,58,26,48,52		6,57
46″	39,13,42,51,37,47,35,56, 5, 1		2,52, 4,32,44	
		1,35, 5, 3, 6,22,16, 8		6,57
48″	39,13,44,26,42,50,42,18,21, 9		2,52, 4,39,41	
		1,35, 5, 0,14,17,36,27		6,57
50″	39,13,46, 1,47,50,56,35,57,36		2,52, 4,46,38	
		1,35, 4,57,22,12,49,49		6,57
52″	39,13,47,36,52,48,18,48,47,25		2,52, 4,53,35	
		1,35, 4,54,30, 7,56,14		6,57
54″	39,13,49,11,57,42,48,56,43,39		2,52, 5, 0,32	
		1,35, 4,51,38, 2,55,42		6,57
56″	39,13,50,47, 2,34,26,59,39,21		2,52, 5, 7,29	
		1,35, 4,48,45,57,48,13		6,57
58″	39,13,52,22, 7,23,12,57,27,34		2,52, 5,14,26	
		1,35, 4,45,53,52,33,47		
60″	39,13,53,57,12, 9, 6,50, 1,21			
exact	39,13,53,57,12, 9, 6,49,49,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°50′ 0″	39,13,53,57,12, 9, 6,49,49,58			
		1,35, 4,43, 1,47,11,19		
2″	39,13,55,32,16,52, 8,37, 1,17		2,52, 5,28,24	
		1,35, 4,40, 9,41,42,55		6,57
4″	39,13,57, 7,21,32,18,18,44,12		2,52, 5,35,21	
		1,35, 4,37,17,36, 7,34		6,57
6″	39,13,58,42,26, 9,35,54,51,46		2,52, 5,42,18	
		1,35, 4,34,25,30,25,16		6,57
8″	39,14, 0,17,30,44, 1,25,17, 2		2,52, 5,49,15	
		1,35, 4,31,33,24,36, 1		6,57
10″	39,14, 1,52,35,15,34,49,53, 3		2,52, 5,56,12	
		1,35, 4,28,41,18,39,49		6,57
12″	39,14, 3,27,39,44,16, 8,32,52		2,52, 6, 3, 9	
		1,35, 4,25,49,12,36,40		6,57
14″	39,14, 5, 2,44,10, 5,21, 9,32		2,52, 6,10, 6	
		1,35, 4,22,57, 6,26,34		6,57
16″	39,14, 6,37,48,33, 2,27,36, 6		2,52, 6,17, 3	
		1,35, 4,20, 5, 0, 9,31		6,57
18″	39,14, 8,12,52,53, 7,27,45,37		2,52, 6,24, 0	
		1,35, 4,17,12,53,45,31		6,57
20″	39,14, 9,47,57,10,20,21,31, 8		2,52, 6,30,57	
		1,35, 4,14,20,47,14,34		6,57
22″	39,14,11,23, 1,24,41, 8,45,42		2,52, 6,37,54	
		1,35, 4,11,28,40,36,40		6,57
24″	39,14,12,58, 5,36, 9,49,22,22		2,52, 6,44,51	
		1,35, 4, 8,36,33,51,49		6,57
26″	39,14,14,33, 9,44,46,23,14,11		2,52, 6,51,48	
		1,35, 4, 5,44,27, 0, 1		6,57
28″	39,14,16, 8,13,50,30,50,14,12		2,52, 6,58,45	
		1,35, 4, 2,52,20, 1,16		6,57
30″	39,14,17,43,17,53,23,10,15,28		2,52, 7, 5,42	
		1,35, 4, 0, 0,12,55,34		6,57
32″	39,14,19,18,21,53,23,23,11, 2		2,52, 7,12,39	
		1,35, 3,57, 8, 5,42,55		6,57
34″	39,14,20,53,25,50,31,28,53,57		2,52, 7,19,36	
		1,35, 3,54,15,58,23,19		6,57
36″	39,14,22,28,29,44,47,27,17,16		2,52, 7,26,33	
		1,35, 3,51,23,50,56,46		6,57
38″	39,14,24, 3,33,36,11,18,14, 2		2,52, 7,33,30	
		1,35, 3,48,31,43,23,16		6,57
40″	39,14,25,38,37,24,43, 1,37,18		2,52, 7,40,27	
		1,35, 3,45,39,35,42,49		6,57
42″	39,14,27,13,41,10,22,37,20, 7		2,52, 7,47,24	
		1,35, 3,42,47,27,55,25		6,57
44″	39,14,28,48,44,53,10, 5,15,32		2,52, 7,54,21	
		1,35, 3,39,55,20, 1, 4		6,57
46″	39,14,30,23,48,33, 5,25,16,36		2,52, 8, 1,18	
		1,35, 3,37, 3,11,59,46		6,57
48″	39,14,31,58,52,10, 8,37,16,22		2,52, 8, 8,15	
		1,35, 3,34,11, 3,51,31		6,57
50″	39,14,33,33,55,44,19,41, 7,53		2,52, 8,15,12	
		1,35, 3,31,18,55,36,19		6,57
52″	39,14,35, 8,59,15,38,36,44,12		2,52, 8,22, 9	
		1,35, 3,28,26,47,14,10		6,57
54″	39,14,36,44, 2,44, 5,23,58,22		2,52, 8,29, 6	
		1,35, 3,25,34,38,45, 4		6,57
56″	39,14,38,19, 6, 9,40, 2,43,26		2,52, 8,36, 3	
		1,35, 3,22,42,30, 9, 1		6,57
58″	39,14,39,54, 9,32,22,32,52,27		2,52, 8,43, 0	
		1,35, 3,19,50,21,26, 1		
60″	39,14,41,29,12,52,12,54,18,28			
exact	39,14,41,29,12,52,12,54,18,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°51′ 0″	39,14,41,29,12,52,12,54,18,22			
		1,35, 3,16,58,12,36, 3		
2″	39,14,43, 4,16, 9,11, 6,54,25		2,52, 8,56,54	
		1,35, 3,14, 6, 3,39, 9		6,57
4″	39,14,44,39,19,23,17,10,33,34		2,52, 9, 3,51	
		1,35, 3,11,13,54,35,18		6,57
6″	39,14,46,14,22,34,31, 5, 8,52		2,52, 9,10,48	
		1,35, 3, 8,21,45,24,30		6,57
8″	39,14,47,49,25,42,52,50,33,22		2,52, 9,17,45	
		1,35, 3, 5,29,36, 6,45		6,57
10″	39,14,49,24,28,48,22,26,40, 7		2,52, 9,24,42	
		1,35, 3, 2,37,26,42, 3		6,57
12″	39,14,50,59,31,50,59,53,22,10		2,52, 9,31,39	
		1,35, 2,59,45,17,10,24		6,57
14″	39,14,52,34,34,50,45,10,32,34		2,52, 9,38,36	
		1,35, 2,56,53, 7,31,48		6,57
16″	39,14,54, 9,37,47,38,18, 4,22		2,52, 9,45,33	
		1,35, 2,54, 0,57,46,15		6,57
18″	39,14,55,44,40,41,39,15,50,37		2,52, 9,52,30	
		1,35, 2,51, 8,47,53,45		6,57
20″	39,14,57,19,43,32,48, 3,44,22		2,52, 9,59,27	
		1,35, 2,48,16,37,54,18		6,57
22″	39,14,58,54,46,21, 4,41,38,40		2,52,10, 6,24	
		1,35, 2,45,24,27,47,54		6,57
24″	39,15, 0,29,49, 6,29, 9,26,34		2,52,10,13,21	
		1,35, 2,42,32,17,34,33		6,57
26″	39,15, 2, 4,51,49, 1,27, 1, 7		2,52,10,20,18	
		1,35, 2,39,40, 7,14,15		6,57
28″	39,15, 3,39,54,28,41,34,15,22		2,52,10,27,15	
		1,35, 2,36,47,56,47, 0		6,57
30″	39,15, 5,14,57, 5,29,31, 2,22		2,52,10,34,12	
		1,35, 2,33,55,46,12,48		6,57
32″	39,15, 6,49,59,39,25,17,15,10		2,52,10,41, 9	
		1,35, 2,31, 3,35,31,39		6,57
34″	39,15, 8,25, 2,10,28,52,46,49		2,52,10,48, 6	
		1,35, 2,28,11,24,43,33		6,57
36″	39,15,10, 0, 4,38,40,17,30,22		2,52,10,55, 3	
		1,35, 2,25,19,13,48,30		6,57
38″	39,15,11,35, 7, 3,59,31,18,52		2,52,11, 2, 0	
		1,35, 2,22,27, 2,46,30		6,57
40″	39,15,13,10, 9,26,26,34, 5,22		2,52,11, 8,57	
		1,35, 2,19,34,51,37,33		6,57
42″	39,15,14,45,11,46, 1,25,42,55		2,52,11,15,54	
		1,35, 2,16,42,40,21,39		6,57
44″	39,15,16,20,14, 2,44, 6, 4,34		2,52,11,22,51	
		1,35, 2,13,50,28,58,48		6,57
46″	39,15,17,55,16,16,34,35, 3,22		2,52,11,29,48	
		1,35, 2,10,58,17,29, 0		6,57
48″	39,15,19,30,18,27,32,52,32,22		2,52,11,36,45	
		1,35, 2, 8, 6, 5,52,15		6,57
50″	39,15,21, 5,20,35,38,58,24,37		2,52,11,43,42	
		1,35, 2, 5,13,54, 8,33		6,57
52″	39,15,22,40,22,40,52,52,33,10		2,52,11,50,39	
		1,35, 2, 2,21,42,17,54		6,57
54″	39,15,24,15,24,43,14,34,51, 4		2,52,11,57,36	
		1,35, 1,59,29,30,20,18		6,57
56″	39,15,25,50,26,42,44, 5,11,22		2,52,12, 4,33	
		1,35, 1,56,37,18,15,45		6,57
58″	39,15,27,25,28,39,21,23,27, 7		2,52,12,11,30	
		1,35, 1,53,45, 6, 4,15		
60″	39,15,29, 0,30,33, 6,29,31,22			
exact	39,15,29, 0,30,33, 6,29,36,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°52′ 0″	39,15,29, 0,30,33, 6,29,36,43			
		1,35, 1,50,52,53,46,25		
2″	39,15,30,35,32,23,59,23,23, 8		2,52,12,25,21	
		1,35, 1,48, 0,41,21, 4		6,57
4″	39,15,32,10,34,12, 0, 4,44,12		2,52,12,32,18	
		1,35, 1,45, 8,28,48,46		6,57
6″	39,15,33,45,35,57, 8,33,32,58		2,52,12,39,15	
		1,35, 1,42,16,16, 9,31		6,57
8″	39,15,35,20,37,39,24,49,42,29		2,52,12,46,12	
		1,35, 1,39,24, 3,23,19		6,57
10″	39,15,36,55,39,18,48,53, 5,48		2,52,12,53, 9	
		1,35, 1,36,31,50,30,10		6,57
12″	39,15,38,30,40,55,20,43,35,58		2,52,13, 0, 6	
		1,35, 1,33,39,37,30, 4		6,57
14″	39,15,40, 5,42,29, 0,21, 6, 2		2,52,13, 7, 3	
		1,35, 1,30,47,24,23, 1		6,57
16″	39,15,41,40,43,59,47,45,29, 3		2,52,13,14, 0	
		1,35, 1,27,55,11, 9, 1		6,57
18″	39,15,43,15,45,27,42,56,38, 4		2,52,13,20,57	
		1,35, 1,25, 2,57,48, 4		6,57
20″	39,15,44,50,46,52,45,54,26, 8		2,52,13,27,54	
		1,35, 1,22,10,44,20,10		6,57
22″	39,15,46,25,48,14,56,38,46,18		2,52,13,34,51	
		1,35, 1,19,18,30,45,19		6,57
24″	39,15,48, 0,49,34,15, 9,31,37		2,52,13,41,48	
		1,35, 1,16,26,17, 3,31		6,57
26″	39,15,49,35,50,50,41,26,35, 8		2,52,13,48,45	
		1,35, 1,13,34, 3,14,46		6,57
28″	39,15,51,10,52, 4,15,29,49,54		2,52,13,55,42	
		1,35, 1,10,41,49,19, 4		6,57
30″	39,15,52,45,53,14,57,19, 8,58		2,52,14, 2,39	
		1,35, 1, 7,49,35,16,25		6,57
32″	39,15,54,20,54,22,46,54,25,23		2,52,14, 9,36	
		1,35, 1, 4,57,21, 6,49		6,57
34″	39,15,55,55,55,27,44,15,32,12		2,52,14,16,33	
		1,35, 1, 2, 5, 6,50,16		6,57
36″	39,15,57,30,56,29,49,22,22,28		2,52,14,23,30	
		1,35, 0,59,12,52,26,46		6,57
38″	39,15,59, 5,57,29, 2,14,49,14		2,52,14,30,27	
		1,35, 0,56,20,37,56,19		6,57
40″	39,16, 0,40,58,25,22,52,45,33		2,52,14,37,24	
		1,35, 0,53,28,23,18,55		6,57
42″	39,16, 2,15,59,18,51,16, 4,28		2,52,14,44,21	
		1,35, 0,50,36, 8,34,34		6,57
44″	39,16, 3,51, 0, 9,27,24,39, 2		2,52,14,51,18	
		1,35, 0,47,43,53,43,16		6,57
46″	39,16, 5,26, 0,57,11,18,22,18		2,52,14,58,15	
		1,35, 0,44,51,38,45, 1		6,57
48″	39,16, 7, 1, 1,42, 2,57, 7,19		2,52,15, 5,12	
		1,35, 0,41,59,23,39,49		6,57
50″	39,16, 8,36, 2,24, 2,20,47, 8		2,52,15,12, 9	
		1,35, 0,39, 7, 8,27,40		6,57
52″	39,16,10,11, 3, 3, 9,29,14,48		2,52,15,19, 6	
		1,35, 0,36,14,53, 8,34		6,57
54″	39,16,11,46, 3,39,24,22,23,22		2,52,15,26, 3	
		1,35, 0,33,22,37,42,31		6,57
56″	39,16,13,21, 4,12,47, 0, 5,53		2,52,15,33, 0	
		1,35, 0,30,30,22, 9,31		6,57
58″	39,16,14,56, 4,43,17,22,15,24		2,52,15,39,57	
		1,35, 0,27,38, 6,29,34		
60″	39,16,16,31, 5,10,55,28,44,58			
exact	39,16,16,31, 5,10,55,28,57,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°53′ 0″	39,16,16,31, 5,10,55,28,57,21	1,35, 0,24,45,50,44, 2		
2″	39,16,18, 6, 5,35,41,19,41,23	1,35, 0,21,53,34,50,17	2,52,15,53,45	6,57
4″	39,16,19,41, 5,57,34,54,31,40	1,35, 0,19, 1,18,49,35	2,52,16, 0,42	6,57
6″	39,16,21,16, 6,16,36,13,21,15	1,35, 0,16, 9, 2,41,56	2,52,16, 7,39	6,57
8″	39,16,22,51, 6,32,45,16, 3,11	1,35, 0,13,16,46,27,20	2,52,16,14,36	6,57
10″	39,16,24,26, 6,46, 2, 2,30,31	1,35, 0,10,24,30, 5,47	2,52,16,21,33	6,57
12″	39,16,26, 1, 6,56,26,32,36,18	1,35, 0, 7,32,13,37,17	2,52,16,28,30	6,57
14″	39,16,27,36, 7, 3,58,46,13,35	1,35, 0, 4,39,57, 1,50	2,52,16,35,27	6,57
16″	39,16,29,11, 7, 8,38,43,15,25	1,35, 0, 1,47,40,19,26	2,52,16,42,24	6,57
18″	39,16,30,46, 7,10,26,23,34,51	1,34,59,58,55,23,30, 5	2,52,16,49,21	6,57
20″	39,16,32,21, 7, 9,21,47, 4,56	1,34,59,56, 3, 6,33,47	2,52,16,56,18	6,57
22″	39,16,33,56, 7, 5,24,53,38,43	1,34,59,53,10,49,30,32	2,52,17, 3,15	6,57
24″	39,16,35,31, 6,58,35,43, 9,15	1,34,59,50,18,32,20,20	2,52,17,10,12	6,57
26″	39,16,37, 6, 6,48,54,15,29,35	1,34,59,47,26,15, 3,11	2,52,17,17, 9	6,57
28″	39,16,38,41, 6,36,20,30,32,46	1,34,59,44,33,57,39, 5	2,52,17,24, 6	6,57
30″	39,16,40,16, 6,20,54,28,11,51	1,34,59,41,41,40, 8, 2	2,52,17,31, 3	6,57
32″	39,16,41,51, 6, 2,36, 8,19,53	1,34,59,38,49,22,30, 2	2,52,17,38, 0	6,57
34″	39,16,43,26, 5,41,25,30,49,55	1,34,59,35,57, 4,45, 5	2,52,17,44,57	6,57
36″	39,16,45, 1, 5,17,22,35,35, 0	1,34,59,33, 4,46,53,11	2,52,17,51,54	6,57
38″	39,16,46,36, 4,50,27,22,28,11	1,34,59,30,12,28,54,20	2,52,17,58,51	6,57
40″	39,16,48,11, 4,20,39,51,22,31	1,34,59,27,20,10,48,32	2,52,18, 5,48	6,57
42″	39,16,49,46, 3,48, 0, 2,11, 3	1,34,59,24,27,52,35,47	2,52,18,12,45	6,57
44″	39,16,51,21, 3,12,27,54,46,50	1,34,59,21,35,34,16, 5	2,52,18,19,42	6,57
46″	39,16,52,56, 2,34, 3,29, 2,55	1,34,59,18,43,15,49,26	2,52,18,26,39	6,57
48″	39,16,54,31, 1,52,46,44,52,21	1,34,59,15,50,57,15,50	2,52,18,33,36	6,57
50″	39,16,56, 6, 1, 8,37,42, 8,11	1,34,59,12,58,38,35,17	2,52,18,40,33	6,57
52″	39,16,57,41, 0,21,36,20,43,28	1,34,59,10, 6,19,47,47	2,52,18,47,30	6,57
54″	39,16,59,15,59,31,42,40,31,15	1,34,59, 7,14, 0,53,20	2,52,18,54,27	6,57
56″	39,17, 0,50,58,38,56,41,24,35	1,34,59, 4,21,41,51,56	2,52,19, 1,24	6,57
58″	39,17, 2,25,57,43,18,23,16,31	1,34,59, 1,29,22,43,35	2,52,19, 8,21	
60″	39,17, 4, 0,56,44,47,46, 0, 6			
exact	39,17, 4, 0,56,44,47,46,19,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°54′ 0″	39,17, 4, 0,56,44,47,46,19,47			
		1,34,58,58,37, 3,30,26		
2″	39,17, 5,35,55,43,24,49,50,13		2,52,19,22, 6	
		1,34,58,55,44,44, 8,20		6,57
4″	39,17, 7,10,54,39, 9,33,58,33		2,52,19,29, 3	
		1,34,58,52,52,24,39,17		6,57
6″	39,17, 8,45,53,32, 1,58,37,50		2,52,19,36, 0	
		1,34,58,50, 0, 5, 3,17		6,57
8″	39,17,10,20,52,22, 2, 3,41, 7		2,52,19,42,57	
		1,34,58,47, 7,45,20,20		6,57
10″	39,17,11,55,51, 9, 9,49, 1,27		2,52,19,49,54	
		1,34,58,44,15,25,30,26		6,57
12″	39,17,13,30,49,53,25,14,31,53		2,52,19,56,51	
		1,34,58,41,23, 5,33,35		6,57
14″	39,17,15, 5,48,34,48,20, 5,28		2,52,20, 3,48	
		1,34,58,38,30,45,29,47		6,57
16″	39,17,16,40,47,13,19, 5,35,15		2,52,20,10,45	
		1,34,58,35,38,25,19, 2		6,57
18″	39,17,18,15,45,48,57,30,54,17		2,52,20,17,42	
		1,34,58,32,46, 5, 1,20		6,57
20″	39,17,19,50,44,21,43,35,55,37		2,52,20,24,39	
		1,34,58,29,53,44,36,41		6,57
22″	39,17,21,25,42,51,37,20,32,18		2,52,20,31,36	
		1,34,58,27, 1,24, 5, 5		6,57
24″	39,17,23, 0,41,18,38,44,37,23		2,52,20,38,33	
		1,34,58,24, 9, 3,26,32		6,57
26″	39,17,24,35,39,42,47,48, 3,55		2,52,20,45,30	
		1,34,58,21,16,42,41, 2		6,57
28″	39,17,26,10,38, 4, 4,30,44,57		2,52,20,52,27	
		1,34,58,18,24,21,48,35		6,57
30″	39,17,27,45,36,22,28,52,33,32		2,52,20,59,24	
		1,34,58,15,32, 0,49,11		6,57
32″	39,17,29,20,34,38, 0,53,22,43		2,52,21, 6,21	
		1,34,58,12,39,39,42,50		6,57
34″	39,17,30,55,32,50,40,33, 5,33		2,52,21,13,18	
		1,34,58, 9,47,18,29,32		6,57
36″	39,17,32,30,31, 0,27,51,35, 5		2,52,21,20,15	
		1,34,58, 6,54,57, 9,17		6,57
38″	39,17,34, 5,29, 7,22,48,44,22		2,52,21,27,12	
		1,34,58, 4, 2,35,42, 5		6,57
40″	39,17,35,40,27,11,25,24,26,27		2,52,21,34, 9	
		1,34,58, 1,10,14, 7,56		6,57
42″	39,17,37,15,25,12,35,38,34,23		2,52,21,41, 6	
		1,34,57,58,17,52,26,50		6,57
44″	39,17,38,50,23,10,53,31, 1,13		2,52,21,48, 3	
		1,34,57,55,25,30,38,47		6,57
46″	39,17,40,25,21, 6,19, 1,40, 0		2,52,21,55, 0	
		1,34,57,52,33, 8,43,47		6,57
48″	39,17,42, 0,18,58,52,10,23,47		2,52,22, 1,57	
		1,34,57,49,40,46,41,50		6,57
50″	39,17,43,35,16,48,32,57, 5,37		2,52,22, 8,54	
		1,34,57,46,48,24,32,56		6,57
52″	39,17,45,10,14,35,21,21,38,33		2,52,22,15,51	
		1,34,57,43,56, 2,17, 5		6,57
54″	39,17,46,45,12,19,17,23,55,38		2,52,22,22,48	
		1,34,57,41, 3,39,54,17		6,57
56″	39,17,48,20,10, 0,21, 3,49,55		2,52,22,29,45	
		1,34,57,38,11,17,24,32		6,57
58″	39,17,49,55, 7,38,32,21,14,27		2,52,22,36,42	
		1,34,57,35,18,54,47,50		
60″	39,17,51,30, 5,13,51,16, 2,17			
exact	39,17,51,30, 5,13,51,16,30,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°55′ 0″	39,17,51,30, 5,13,51,16,30,47			
		1,34,57,32,26,32, 7,13		
2″	39,17,53, 5, 2,46,17,48,38, 0		2,52,22,50,23	
		1,34,57,29,34, 9,16,50		6,57
4″	39,17,54,40, 0,15,51,57,54,50		2,52,22,57,20	
		1,34,57,26,41,46,19,30		6,57
6″	39,17,56,14,57,42,33,44,14,20		2,52,23, 4,17	
		1,34,57,23,49,23,15,13		6,57
8″	39,17,57,49,55, 6,23, 7,29,33		2,52,23,11,14	
		1,34,57,20,57, 0, 3,59		6,57
10″	39,17,59,24,52,27,20, 7,33,32		2,52,23,18,11	
		1,34,57,18, 4,36,45,48		6,57
12″	39,18, 0,59,49,45,24,44,19,20		2,52,23,25, 8	
		1,34,57,15,12,13,20,40		6,57
14″	39,18, 2,34,47, 0,36,57,40, 0		2,52,23,32, 5	
		1,34,57,12,19,49,48,35		6,57
16″	39,18, 4, 9,44,12,56,47,28,35		2,52,23,39, 2	
		1,34,57, 9,27,26, 9,33		6,57
18″	39,18, 5,44,41,22,24,13,38, 8		2,52,23,45,59	
		1,34,57, 6,35, 2,23,34		6,57
20″	39,18, 7,19,38,28,59,16, 1,42		2,52,23,52,56	
		1,34,57, 3,42,38,30,38		6,57
22″	39,18, 8,54,35,32,41,54,32,20		2,52,23,59,53	
		1,34,57, 0,50,14,30,45		6,57
24″	39,18,10,29,32,33,32, 9, 3, 5		2,52,24, 6,50	
		1,34,56,57,57,50,23,55		6,57
26″	39,18,12, 4,29,31,29,59,27, 0		2,52,24,13,47	
		1,34,56,55, 5,26,10, 8		6,57
28″	39,18,13,39,26,26,35,25,37, 8		2,52,24,20,44	
		1,34,56,52,13, 1,49,24		6,57
30″	39,18,15,14,23,18,48,27,26,32		2,52,24,27,41	
		1,34,56,49,20,37,21,43		6,57
32″	39,18,16,49,20, 8, 9, 4,48,15		2,52,24,34,38	
		1,34,56,46,28,12,47, 5		6,57
34″	39,18,18,24,16,54,37,17,35,20		2,52,24,41,35	
		1,34,56,43,35,48, 5,30		6,57
36″	39,18,19,59,13,38,13, 5,40,50		2,52,24,48,32	
		1,34,56,40,43,23,16,58		6,57
38″	39,18,21,34,10,18,56,28,57,48		2,52,24,55,29	
		1,34,56,37,50,58,21,29		6,57
40″	39,18,23, 9, 6,56,47,27,19,17		2,52,25, 2,26	
		1,34,56,34,58,33,19, 3		6,57
42″	39,18,24,44, 3,31,46, 0,38,20		2,52,25, 9,23	
		1,34,56,32, 6, 8, 9,40		6,57
44″	39,18,26,19, 0, 3,52, 8,48, 0		2,52,25,16,20	
		1,34,56,29,13,42,53,20		6,57
46″	39,18,27,53,56,33, 5,51,41,20		2,52,25,23,17	
		1,34,56,26,21,17,30, 3		6,57
48″	39,18,29,28,52,59,27, 9,11,23		2,52,25,30,14	
		1,34,56,23,28,51,59,49		6,57
50″	39,18,31, 3,49,22,56, 1,11,12		2,52,25,37,11	
		1,34,56,20,36,26,22,38		6,57
52″	39,18,32,38,45,43,32,27,33,50		2,52,25,44, 8	
		1,34,56,17,44, 0,38,30		6,57
54″	39,18,34,13,42, 1,16,28,12,20		2,52,25,51, 5	
		1,34,56,14,51,34,47,25		6,57
56″	39,18,35,48,38,16, 8, 2,59,45		2,52,25,58, 2	
		1,34,56,11,59, 8,49,23		6,57
58″	39,18,37,23,34,28, 7,11,49, 8		2,52,26, 4,59	
		1,34,56, 9, 6,42,44,24		
60″	39,18,38,58,30,37,13,54,33,32			
exact	39,18,38,58,30,37,13,55, 4,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°56′ 0″	39,18,38,58,30,37,13,55, 4,23			
		1,34,56, 6,14,16,35,56		
2″	39,18,40,33,26,43,28,11,40,19		2,52,26,18,38	
		1,34,56, 3,21,50,17,18		6,56
4″	39,18,42, 8,22,46,50, 1,57,37		2,52,26,25,34	
		1,34,56, 0,29,23,51,44		6,56
6″	39,18,43,43,18,47,19,25,49,21		2,52,26,32,30	
		1,34,55,57,36,57,19,14		6,56
8″	39,18,45,18,14,44,56,23, 8,35		2,52,26,39,26	
		1,34,55,54,44,30,39,48		6,56
10″	39,18,46,53,10,39,40,53,48,23		2,52,26,46,22	
		1,34,55,51,52, 3,53,26		6,56
12″	39,18,48,28, 6,31,32,57,41,49		2,52,26,53,18	
		1,34,55,48,59,37, 0, 8		6,56
14″	39,18,50, 3, 2,20,32,34,41,57		2,52,27, 0,14	
		1,34,55,46, 7, 9,59,54		6,56
16″	39,18,51,37,58, 6,39,44,41,51		2,52,27, 7,10	
		1,34,55,43,14,42,52,44		6,56
18″	39,18,53,12,53,49,54,27,34,35		2,52,27,14, 6	
		1,34,55,40,22,15,38,38		6,56
20″	39,18,54,47,49,30,16,43,13,13		2,52,27,21, 2	
		1,34,55,37,29,48,17,36		6,56
22″	39,18,56,22,45, 7,46,31,30,49		2,52,27,27,58	
		1,34,55,34,37,20,49,38		6,56
24″	39,18,57,57,40,42,23,52,20,27		2,52,27,34,54	
		1,34,55,31,44,53,14,44		6,56
26″	39,18,59,32,36,14, 8,45,35,11		2,52,27,41,50	
		1,34,55,28,52,25,32,54		6,56
28″	39,19, 1, 7,31,43, 1,11, 8, 5		2,52,27,48,46	
		1,34,55,25,59,57,44, 8		6,56
30″	39,19, 2,42,27, 9, 1, 8,52,13		2,52,27,55,42	
		1,34,55,23, 7,29,48,26		6,56
32″	39,19, 4,17,22,32, 8,38,40,39		2,52,28, 2,38	
		1,34,55,20,15, 1,45,48		6,56
34″	39,19, 5,52,17,52,23,40,26,27		2,52,28, 9,34	
		1,34,55,17,22,33,36,14		6,56
36″	39,19, 7,27,13, 9,46,14, 2,41		2,52,28,16,30	
		1,34,55,14,30, 5,19,44		6,56
38″	39,19, 9, 2, 8,24,16,19,22,25		2,52,28,23,26	
		1,34,55,11,37,36,56,18		6,56
40″	39,19,10,37, 3,35,53,56,18,43		2,52,28,30,22	
		1,34,55, 8,45, 8,25,56		6,56
42″	39,19,12,11,58,44,39, 4,44,39		2,52,28,37,18	
		1,34,55, 5,52,39,48,38		6,56
44″	39,19,13,46,53,50,31,44,33,17		2,52,28,44,14	
		1,34,55, 3, 0,11, 4,24		6,56
46″	39,19,15,21,48,53,31,55,37,41		2,52,28,51,10	
		1,34,55, 0, 7,42,13,14		6,56
48″	39,19,16,56,43,53,39,37,50,55		2,52,28,58, 6	
		1,34,54,57,15,13,15, 8		6,56
50″	39,19,18,31,38,50,54,51, 6, 3		2,52,29, 5, 2	
		1,34,54,54,22,44,10, 6		6,56
52″	39,19,20, 6,33,45,17,35,16, 9		2,52,29,11,58	
		1,34,54,51,30,14,58, 8		6,56
54″	39,19,21,41,28,36,47,50,14,17		2,52,29,18,54	
		1,34,54,48,37,45,39,14		6,56
56″	39,19,23,16,23,25,25,35,53,31		2,52,29,25,50	
		1,34,54,45,45,16,13,24		6,56
58″	39,19,24,51,18,11,10,52, 6,55		2,52,29,32,46	
		1,34,54,42,52,46,40,38		
60″	39,19,26,26,12,54, 3,38,47,33			
exact	39,19,26,26,12,54, 3,38,21,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°57′ 0″	39,19,26,26,12,54, 3,38,21,51	1,34,54,40, 0,16,58,11		
2″	39,19,28, 1, 7,34, 3,55,20, 2	1,34,54,37, 7,47,11,22	2,52,29,46,49	6,56
4″	39,19,29,36, 2,11,11,42,31,24	1,34,54,34,15,17,17,37	2,52,29,53,45	6,56
6″	39,19,31,10,56,45,26,59,49, 1	1,34,54,31,22,47,16,56	2,52,30, 0,41	6,56
8″	39,19,32,45,51,16,49,47, 5,57	1,34,54,28,30,17, 9,19	2,52,30, 7,37	6,56
10″	39,19,34,20,45,45,20, 4,15,16	1,34,54,25,37,46,54,46	2,52,30,14,33	6,56
12″	39,19,35,55,40,10,57,51,10, 2	1,34,54,22,45,16,33,17	2,52,30,21,29	6,56
14″	39,19,37,30,34,33,43, 7,43,19	1,34,54,19,52,46, 4,52	2,52,30,28,25	6,56
16″	39,19,39, 5,28,53,35,53,48,11	1,34,54,17, 0,15,29,31	2,52,30,35,21	6,56
18″	39,19,40,40,23,10,36, 9,17,42	1,34,54,14, 7,44,47,14	2,52,30,42,17	6,56
20″	39,19,42,15,17,24,43,54, 4,56	1,34,54,11,15,13,58, 1	2,52,30,49,13	6,56
22″	39,19,43,50,11,35,59, 8, 2,57	1,34,54, 8,22,43, 1,52	2,52,30,56, 9	6,56
24″	39,19,45,25, 5,44,21,51, 4,49	1,34,54, 5,30,11,58,47	2,52,31, 3, 5	6,56
26″	39,19,46,59,59,49,52, 3, 3,36	1,34,54, 2,37,40,48,46	2,52,31,10, 1	6,56
28″	39,19,48,34,53,52,29,43,52,22	1,34,53,59,45, 9,31,49	2,52,31,16,57	6,56
30″	39,19,50, 9,47,52,14,53,24,11	1,34,53,56,52,38, 7,56	2,52,31,23,53	6,56
32″	39,19,51,44,41,49, 7,31,32, 7	1,34,53,54, 0, 6,37, 7	2,52,31,30,49	6,56
34″	39,19,53,19,35,43, 7,38, 9,14	1,34,53,51, 7,34,59,22	2,52,31,37,45	6,56
36″	39,19,54,54,29,34,15,13, 8,36	1,34,53,48,15, 3,14,41	2,52,31,44,41	6,56
38″	39,19,56,29,23,22,30,16,23,17	1,34,53,45,22,31,23, 4	2,52,31,51,37	6,56
40″	39,19,58, 4,17, 7,52,47,46,21	1,34,53,42,29,59,24,31	2,52,31,58,33	6,56
42″	39,19,59,39,10,50,22,47,10,52	1,34,53,39,37,27,19, 2	2,52,32, 5,29	6,56
44″	39,20, 1,14, 4,30, 0,14,29,54	1,34,53,36,44,55, 6,37	2,52,32,12,25	6,56
46″	39,20, 2,48,58, 6,45, 9,36,31	1,34,53,33,52,22,47,16	2,52,32,19,21	6,56
48″	39,20, 4,23,51,40,37,32,23,47	1,34,53,30,59,50,20,59	2,52,32,26,17	6,56
50″	39,20, 5,58,45,11,37,22,44,46	1,34,53,28, 7,17,47,46	2,52,32,33,13	6,56
52″	39,20, 7,33,38,39,44,40,32,32	1,34,53,25,14,45, 7,37	2,52,32,40, 9	6,56
54″	39,20, 9, 8,32, 4,59,25,40, 9	1,34,53,22,22,12,20,32	2,52,32,47, 5	6,56
56″	39,20,10,43,25,27,21,38, 0,41	1,34,53,19,29,39,26,31	2,52,32,54, 1	6,56
58″	39,20,12,18,18,46,51,17,27,12	1,34,53,16,37, 6,25,34	2,52,33, 0,57	
60″	39,20,13,53,12, 3,28,23,52,46			
exact	39,20,13,53,12, 3,28,23,31,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°58′ 0″	39,20,13,53,12, 3,28,23,31,43			
		1,34,53,13,44,33,15,32		
2″	39,20,15,28, 5,17,12,56,47,15		2,52,33,14,57	
		1,34,53,10,52, 0, 0,35		6,56
4″	39,20,17, 2,58,28, 4,56,47,50		2,52,33,21,53	
		1,34,53, 7,59,26,38,42		6,56
6″	39,20,18,37,51,36, 4,23,26,32		2,52,33,28,49	
		1,34,53, 5, 6,53, 9,53		6,56
8″	39,20,20,12,44,41,11,16,36,25		2,52,33,35,45	
		1,34,53, 2,14,19,34, 8		6,56
10″	39,20,21,47,37,43,25,36,10,33		2,52,33,42,41	
		1,34,52,59,21,45,51,27		6,56
12″	39,20,23,22,30,42,47,22, 2, 0		2,52,33,49,37	
		1,34,52,56,29,12, 1,50		6,56
14″	39,20,24,57,23,39,16,34, 3,50		2,52,33,56,33	
		1,34,52,53,36,38, 5,17		6,56
16″	39,20,26,32,16,32,53,12, 9, 7		2,52,34, 3,29	
		1,34,52,50,44, 4, 1,48		6,56
18″	39,20,28, 7, 9,23,37,16,10,55		2,52,34,10,25	
		1,34,52,47,51,29,51,23		6,56
20″	39,20,29,42, 2,11,28,46, 2,18		2,52,34,17,21	
		1,34,52,44,58,55,34, 2		6,56
22″	39,20,31,16,54,56,27,41,36,20		2,52,34,24,17	
		1,34,52,42, 6,21, 9,45		6,56
24″	39,20,32,51,47,38,34, 2,46, 5		2,52,34,31,13	
		1,34,52,39,13,46,38,32		6,56
26″	39,20,34,26,40,17,47,49,24,37		2,52,34,38, 9	
		1,34,52,36,21,12, 0,23		6,56
28″	39,20,36, 1,32,54, 9, 1,25, 0		2,52,34,45, 5	
		1,34,52,33,28,37,15,18		6,56
30″	39,20,37,36,25,27,37,38,40,18		2,52,34,52, 1	
		1,34,52,30,36, 2,23,17		6,56
32″	39,20,39,11,17,58,13,41, 3,35		2,52,34,58,57	
		1,34,52,27,43,27,24,20		6,56
34″	39,20,40,46,10,25,57, 8,27,55		2,52,35, 5,53	
		1,34,52,24,50,52,18,27		6,56
36″	39,20,42,21, 2,50,48, 0,46,22		2,52,35,12,49	
		1,34,52,21,58,17, 5,38		6,56
38″	39,20,43,55,55,12,46,17,52, 0		2,52,35,19,45	
		1,34,52,19, 5,41,45,53		6,56
40″	39,20,45,30,47,31,51,59,37,53		2,52,35,26,41	
		1,34,52,16,13, 6,19,12		6,56
42″	39,20,47, 5,39,48, 5, 5,57, 5		2,52,35,33,37	
		1,34,52,13,20,30,45,35		6,56
44″	39,20,48,40,32, 1,25,36,42,40		2,52,35,40,33	
		1,34,52,10,27,55, 5, 2		6,56
46″	39,20,50,15,24,11,53,31,47,42		2,52,35,47,29	
		1,34,52, 7,35,19,17,33		6,56
48″	39,20,51,50,16,19,28,51, 5,15		2,52,35,54,25	
		1,34,52, 4,42,43,23, 8		6,56
50″	39,20,53,25, 8,24,11,34,28,23		2,52,36, 1,21	
		1,34,52, 1,50, 7,21,47		6,56
52″	39,20,55, 0, 0,26, 1,41,50,10		2,52,36, 8,17	
		1,34,51,58,57,31,13,30		6,56
54″	39,20,56,34,52,24,59,13, 3,40		2,52,36,15,13	
		1,34,51,56, 4,54,58,17		6,56
56″	39,20,58, 9,44,21, 4, 8, 1,57		2,52,36,22, 9	
		1,34,51,53,12,18,36, 8		6,56
58″	39,20,59,44,36,14,16,26,38, 5		2,52,36,29, 5	
		1,34,51,50,19,42, 7, 3		
60″	39,21, 1,19,28, 4,36, 8,45, 8			
exact	39,21, 1,19,28, 4,36, 8,29,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
40°59′ 0″	39,21, 1,19,28, 4,36, 8,29,49			
		1,34,51,47,27, 5,29,33		
2″	39,21, 2,54,19,52, 3,13,59,22		2,52,36,43, 2	
		1,34,51,44,34,28,46,31		6,56
4″	39,21, 4,29,11,36,37,42,45,53		2,52,36,49,58	
		1,34,51,41,41,51,56,33		6,56
6″	39,21, 6, 4, 3,18,19,34,42,26		2,52,36,56,54	
		1,34,51,38,49,14,59,39		6,56
8″	39,21, 7,38,54,57, 8,49,42, 5		2,52,37, 3,50	
		1,34,51,35,56,37,55,49		6,56
10″	39,21, 9,13,46,33, 5,27,37,54		2,52,37,10,46	
		1,34,51,33, 4, 0,45, 3		6,56
12″	39,21,10,48,38, 6, 9,28,22,57		2,52,37,17,42	
		1,34,51,30,11,23,27,21		6,56
14″	39,21,12,23,29,36,20,51,50,18		2,52,37,24,38	
		1,34,51,27,18,46, 2,43		6,56
16″	39,21,13,58,21, 3,39,37,53, 1		2,52,37,31,34	
		1,34,51,24,26, 8,31, 9		6,56
18″	39,21,15,33,12,28, 5,46,24,10		2,52,37,38,30	
		1,34,51,21,33,30,52,39		6,56
20″	39,21,17, 8, 3,49,39,17,16,49		2,52,37,45,26	
		1,34,51,18,40,53, 7,13		6,56
22″	39,21,18,42,55, 8,20,10,24, 2		2,52,37,52,22	
		1,34,51,15,48,15,14,51		6,56
24″	39,21,20,17,46,24, 8,25,38,53		2,52,37,59,18	
		1,34,51,12,55,37,15,33		6,56
26″	39,21,21,52,37,37, 4, 2,54,26		2,52,38, 6,14	
		1,34,51,10, 2,59, 9,19		6,56
28″	39,21,23,27,28,47, 7, 2, 3,45		2,52,38,13,10	
		1,34,51, 7,10,20,56, 9		6,56
30″	39,21,25, 2,19,54,17,22,59,54		2,52,38,20, 6	
		1,34,51, 4,17,42,36, 3		6,56
32″	39,21,26,37,10,58,35, 5,35,57		2,52,38,27, 2	
		1,34,51, 1,25, 4, 9, 1		6,56
34″	39,21,28,12, 2, 0, 0, 9,44,58		2,52,38,33,58	
		1,34,50,58,32,25,35, 3		6,56
36″	39,21,29,46,52,58,32,35,20, 1		2,52,38,40,54	
		1,34,50,55,39,46,54, 9		6,56
38″	39,21,31,21,43,54,12,22,14,10		2,52,38,47,50	
		1,34,50,52,47, 8, 6,19		6,56
40″	39,21,32,56,34,46,59,30,20,29		2,52,38,54,46	
		1,34,50,49,54,29,11,33		6,56
42″	39,21,34,31,25,36,53,59,32, 2		2,52,39, 1,42	
		1,34,50,47, 1,50, 9,51		6,56
44″	39,21,36, 6,16,23,55,49,41,53		2,52,39, 8,38	
		1,34,50,44, 9,11, 1,13		6,56
46″	39,21,37,41, 7, 8, 5, 0,43, 6		2,52,39,15,34	
		1,34,50,41,16,31,45,39		6,56
48″	39,21,39,15,57,49,21,32,28,45		2,52,39,22,30	
		1,34,50,38,23,52,23, 9		6,56
50″	39,21,40,50,48,27,45,24,51,54		2,52,39,29,26	
		1,34,50,35,31,12,53,43		6,56
52″	39,21,42,25,39, 3,16,37,45,37		2,52,39,36,22	
		1,34,50,32,38,33,17,21		6,56
54″	39,21,44, 0,29,35,55,11, 2,58		2,52,39,43,18	
		1,34,50,29,45,53,34, 3		6,56
56″	39,21,45,35,20, 5,41, 4,37, 1		2,52,39,50,14	
		1,34,50,26,53,13,43,49		6,56
58″	39,21,47,10,10,32,34,18,20,50		2,52,39,57,10	
		1,34,50,24, 0,33,46,39		
60″	39,21,48,45, 0,56,34,52, 7,29			
exact	39,21,48,45, 0,56,34,51,59,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41° 0′ 0″	39,21,48,45, 0,56,34,51,59,18			
		1,34,50,21, 7,53,41,49		
2″	39,21,50,19,51,17,42,45,41, 7		2,52,40,11, 4	
		1,34,50,18,15,13,30,45		6,56
4″	39,21,51,54,41,35,57,59,11,52		2,52,40,18, 0	
		1,34,50,15,22,33,12,45		6,56
6″	39,21,53,29,31,51,20,32,24,37		2,52,40,24,56	
		1,34,50,12,29,52,47,49		6,56
8″	39,21,55, 4,22, 3,50,25,12,26		2,52,40,31,52	
		1,34,50, 9,37,12,15,57		6,56
10″	39,21,56,39,12,13,27,37,28,23		2,52,40,38,48	
		1,34,50, 6,44,31,37, 9		6,56
12″	39,21,58,14, 2,20,12, 9, 5,32		2,52,40,45,44	
		1,34,50, 3,51,50,51,25		6,56
14″	39,21,59,48,52,24, 3,59,56,57		2,52,40,52,40	
		1,34,50, 0,59, 9,58,45		6,56
16″	39,22, 1,23,42,25, 3, 9,55,42		2,52,40,59,36	
		1,34,49,58, 6,28,59, 9		6,56
18″	39,22, 2,58,32,23, 9,38,54,51		2,52,41, 6,32	
		1,34,49,55,13,47,52,37		6,56
20″	39,22, 4,33,22,18,23,26,47,28		2,52,41,13,28	
		1,34,49,52,21, 6,39, 9		6,56
22″	39,22, 6, 8,12,10,44,33,26,37		2,52,41,20,24	
		1,34,49,49,28,25,18,45		6,56
24″	39,22, 7,43, 2, 0,12,58,45,22		2,52,41,27,20	
		1,34,49,46,35,43,51,25		6,56
26″	39,22, 9,17,51,46,48,42,36,47		2,52,41,34,16	
		1,34,49,43,43, 2,17, 9		6,56
28″	39,22,10,52,41,30,31,44,53,56		2,52,41,41,12	
		1,34,49,40,50,20,35,57		6,56
30″	39,22,12,27,31,11,22, 5,29,53		2,52,41,48, 8	
		1,34,49,37,57,38,47,49		6,56
32″	39,22,14, 2,20,49,19,44,17,42		2,52,41,55, 4	
		1,34,49,35, 4,56,52,45		6,56
34″	39,22,15,37,10,24,24,41,10,27		2,52,42, 2, 0	
		1,34,49,32,12,14,50,45		6,56
36″	39,22,17,11,59,56,36,56, 1,12		2,52,42, 8,56	
		1,34,49,29,19,32,41,49		6,56
38″	39,22,18,46,49,25,56,28,43, 1		2,52,42,15,52	
		1,34,49,26,26,50,25,57		6,56
40″	39,22,20,21,38,52,23,19, 8,58		2,52,42,22,48	
		1,34,49,23,34, 8, 3, 9		6,56
42″	39,22,21,56,28,15,57,27,12, 7		2,52,42,29,44	
		1,34,49,20,41,25,33,25		6,56
44″	39,22,23,31,17,36,38,52,45,32		2,52,42,36,40	
		1,34,49,17,48,42,56,45		6,56
46″	39,22,25, 6, 6,54,27,35,42,17		2,52,42,43,36	
		1,34,49,14,56, 0,13, 9		6,56
48″	39,22,26,40,56, 9,23,35,55,26		2,52,42,50,32	
		1,34,49,12, 3,17,22,37		6,56
50″	39,22,28,15,45,21,26,53,18, 3		2,52,42,57,28	
		1,34,49, 9,10,34,25, 9		6,56
52″	39,22,29,50,34,30,37,27,43,12		2,52,43, 4,24	
		1,34,49, 6,17,51,20,45		6,56
54″	39,22,31,25,23,36,55,19, 3,57		2,52,43,11,20	
		1,34,49, 3,25, 8, 9,25		6,56
56″	39,22,33, 0,12,40,20,27,13,22		2,52,43,18,16	
		1,34,49, 0,32,24,51, 9		6,56
58″	39,22,34,35, 1,40,52,52, 4,31		2,52,43,25,12	
		1,34,48,57,39,41,25,57		
60″	39,22,36, 9,50,38,32,33,30,28			
exact	39,22,36, 9,50,38,32,33,30,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41° 1′ 0″	39,22,36, 9,50,38,32,33,30,38			
		1,34,48,54,46,57,53,56		
2″	39,22,37,44,39,33,19,31,24,34		2,52,43,39, 3	
		1,34,48,51,54,14,14,53		6,56
4″	39,22,39,19,28,25,13,45,39,27		2,52,43,45,59	
		1,34,48,49, 1,30,28,54		6,56
6″	39,22,40,54,17,14,15,16, 8,21		2,52,43,52,55	
		1,34,48,46, 8,46,35,59		6,56
8″	39,22,42,29, 6, 0,24, 2,44,20		2,52,43,59,51	
		1,34,48,43,16, 2,36, 8		6,56
10″	39,22,44, 3,54,43,40, 5,20,28		2,52,44, 6,47	
		1,34,48,40,23,18,29,21		6,56
12″	39,22,45,38,43,24, 3,23,49,49		2,52,44,13,43	
		1,34,48,37,30,34,15,38		6,56
14″	39,22,47,13,32, 1,33,58, 5,27		2,52,44,20,39	
		1,34,48,34,37,49,54,59		6,56
16″	39,22,48,48,20,36,11,48, 0,26		2,52,44,27,35	
		1,34,48,31,45, 5,27,24		6,56
18″	39,22,50,23, 9, 7,56,53,27,50		2,52,44,34,31	
		1,34,48,28,52,20,52,53		6,56
20″	39,22,51,57,57,36,49,14,20,43		2,52,44,41,27	
		1,34,48,25,59,36,11,26		6,56
22″	39,22,53,32,46, 2,48,50,32, 9		2,52,44,48,23	
		1,34,48,23, 6,51,23, 3		6,56
24″	39,22,55, 7,34,25,55,41,55,12		2,52,44,55,19	
		1,34,48,20,14, 6,27,44		6,56
26″	39,22,56,42,22,46, 9,48,22,56		2,52,45, 2,15	
		1,34,48,17,21,21,25,29		6,56
28″	39,22,58,17,11, 3,31, 9,48,25		2,52,45, 9,11	
		1,34,48,14,28,36,16,18		6,56
30″	39,22,59,51,59,17,59,46, 4,43		2,52,45,16, 7	
		1,34,48,11,35,51, 0,11		6,56
32″	39,23, 1,26,47,29,35,37, 4,54		2,52,45,23, 3	
		1,34,48, 8,43, 5,37, 8		6,56
34″	39,23, 3, 1,35,38,18,42,42, 2		2,52,45,29,59	
		1,34,48, 5,50,20, 7, 9		6,56
36″	39,23, 4,36,23,44, 9, 2,49,11		2,52,45,36,55	
		1,34,48, 2,57,34,30,14		6,56
38″	39,23, 6,11,11,47, 6,37,19,25		2,52,45,43,51	
		1,34,48, 0, 4,48,46,23		6,56
40″	39,23, 7,45,59,47,11,26, 5,48		2,52,45,50,47	
		1,34,47,57,12, 2,55,36		6,56
42″	39,23, 9,20,47,44,23,29, 1,24		2,52,45,57,43	
		1,34,47,54,19,16,57,53		6,56
44″	39,23,10,55,35,38,42,45,59,17		2,52,46, 4,39	
		1,34,47,51,26,30,53,14		6,56
46″	39,23,12,30,23,30, 9,16,52,31		2,52,46,11,35	
		1,34,47,48,33,44,41,39		6,56
48″	39,23,14, 5,11,18,43, 1,34,10		2,52,46,18,31	
		1,34,47,45,40,58,23, 8		6,56
50″	39,23,15,39,59, 4,23,59,57,18		2,52,46,25,27	
		1,34,47,42,48,11,57,41		6,56
52″	39,23,17,14,46,47,12,11,54,59		2,52,46,32,23	
		1,34,47,39,55,25,25,18		6,56
54″	39,23,18,49,34,27, 7,37,20,17		2,52,46,39,19	
		1,34,47,37, 2,38,45,59		6,56
56″	39,23,20,24,22, 4,10,16, 6,16		2,52,46,46,15	
		1,34,47,34, 9,51,59,44		6,56
58″	39,23,21,59, 9,38,20, 8, 6, 0		2,52,46,53,11	
		1,34,47,31,17, 5, 6,33		
60″	39,23,23,33,57, 9,37,13,12,33			
exact	39,23,23,33,57, 9,37,13,21,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41° 2′ 0″	39,23,23,33,57, 9,37,13,21,36			
		1,34,47,28,24,18, 7,27		
2″	39,23,25, 8,44,38, 1,31,29, 3		2,52,47, 6,58	
		1,34,47,25,31,31, 0,29		6,56
4″	39,23,26,43,32, 3,33, 2,29,32		2,52,47,13,54	
		1,34,47,22,38,43,46,35		6,56
6″	39,23,28,18,19,26,11,46,16, 7		2,52,47,20,50	
		1,34,47,19,45,56,25,45		6,56
8″	39,23,29,53, 6,45,57,42,41,52		2,52,47,27,46	
		1,34,47,16,53, 8,57,59		6,56
10″	39,23,31,27,54, 2,50,51,39,51		2,52,47,34,42	
		1,34,47,14, 0,21,23,17		6,56
12″	39,23,33, 2,41,16,51,13, 3, 8		2,52,47,41,38	
		1,34,47,11, 7,33,41,39		6,56
14″	39,23,34,37,28,27,58,46,44,47		2,52,47,48,34	
		1,34,47, 8,14,45,53, 5		6,56
16″	39,23,36,12,15,36,13,32,37,52		2,52,47,55,30	
		1,34,47, 5,21,57,57,35		6,56
18″	39,23,37,47, 2,41,35,30,35,27		2,52,48, 2,26	
		1,34,47, 2,29, 9,55, 9		6,56
20″	39,23,39,21,49,44, 4,40,30,36		2,52,48, 9,22	
		1,34,46,59,36,21,45,47		6,56
22″	39,23,40,56,36,43,41, 2,16,23		2,52,48,16,18	
		1,34,46,56,43,33,29,29		6,56
24″	39,23,42,31,23,40,24,35,45,52		2,52,48,23,14	
		1,34,46,53,50,45, 6,15		6,56
26″	39,23,44, 6,10,34,15,20,52, 7		2,52,48,30,10	
		1,34,46,50,57,56,36, 5		6,56
28″	39,23,45,40,57,25,13,17,28,12		2,52,48,37, 6	
		1,34,46,48, 5, 7,58,59		6,56
30″	39,23,47,15,44,13,18,25,27,11		2,52,48,44, 2	
		1,34,46,45,12,19,14,57		6,56
32″	39,23,48,50,30,58,30,44,42, 8		2,52,48,50,58	
		1,34,46,42,19,30,23,59		6,56
34″	39,23,50,25,17,40,50,15, 6, 7		2,52,48,57,54	
		1,34,46,39,26,41,26, 5		6,56
36″	39,23,52, 0, 4,20,16,56,32,12		2,52,49, 4,50	
		1,34,46,36,33,52,21,15		6,56
38″	39,23,53,34,50,56,50,48,53,27		2,52,49,11,46	
		1,34,46,33,41, 3, 9,29		6,56
40″	39,23,55, 9,37,30,31,52, 2,56		2,52,49,18,42	
		1,34,46,30,48,13,50,47		6,56
42″	39,23,56,44,24, 1,20, 5,53,43		2,52,49,25,38	
		1,34,46,27,55,24,25, 9		6,56
44″	39,23,58,19,10,29,15,30,18,52		2,52,49,32,34	
		1,34,46,25, 2,34,52,35		6,56
46″	39,23,59,53,56,54,18, 5,11,27		2,52,49,39,30	
		1,34,46,22, 9,45,13, 5		6,56
48″	39,24, 1,28,43,16,27,50,24,32		2,52,49,46,26	
		1,34,46,19,16,55,26,39		6,56
50″	39,24, 3, 3,29,35,44,45,51,11		2,52,49,53,22	
		1,34,46,16,24, 5,33,17		6,56
52″	39,24, 4,38,15,52, 8,51,24,28		2,52,50, 0,18	
		1,34,46,13,31,15,32,59		6,56
54″	39,24, 6,13, 2, 5,40, 6,57,27		2,52,50, 7,14	
		1,34,46,10,38,25,25,45		6,56
56″	39,24, 7,47,48,16,18,32,23,12		2,52,50,14,10	
		1,34,46, 7,45,35,11,35		6,56
58″	39,24, 9,22,34,24, 4, 7,34,47		2,52,50,21, 6	
		1,34,46, 4,52,44,50,29		
60″	39,24,10,57,20,28,56,52,25,16			
exact	39,24,10,57,20,28,56,52,37,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41° 3′ 0″	39,24,10,57,20,28,56,52,37,21			
		1,34,46, 1,59,54,23,57		
2″	39,24,12,32, 6,30,56,47, 1,18		2,52,50,34,51	
		1,34,45,59, 7, 3,49, 6		6,56
4″	39,24,14, 6,52,30, 3,50,50,24		2,52,50,41,47	
		1,34,45,56,14,13, 7,19		6,56
6″	39,24,15,41,38,26,18, 3,57,43		2,52,50,48,43	
		1,34,45,53,21,22,18,36		6,56
8″	39,24,17,16,24,19,39,26,16,19		2,52,50,55,39	
		1,34,45,50,28,31,22,57		6,56
10″	39,24,18,51,10,10, 7,57,39,16		2,52,51, 2,35	
		1,34,45,47,35,40,20,22		6,56
12″	39,24,20,25,55,57,43,37,59,38		2,52,51, 9,31	
		1,34,45,44,42,49,10,51		6,56
14″	39,24,22, 0,41,42,26,27,10,29		2,52,51,16,27	
		1,34,45,41,49,57,54,24		6,56
16″	39,24,23,35,27,24,16,25, 4,53		2,52,51,23,23	
		1,34,45,38,57, 6,31, 1		6,56
18″	39,24,25,10,13, 3,13,31,35,54		2,52,51,30,19	
		1,34,45,36, 4,15, 0,42		6,56
20″	39,24,26,44,58,39,17,46,36,36		2,52,51,37,15	
		1,34,45,33,11,23,23,27		6,56
22″	39,24,28,19,44,12,29,10, 0, 3		2,52,51,44,11	
		1,34,45,30,18,31,39,16		6,56
24″	39,24,29,54,29,42,47,41,39,19		2,52,51,51, 7	
		1,34,45,27,25,39,48, 9		6,56
26″	39,24,31,29,15,10,13,21,27,28		2,52,51,58, 3	
		1,34,45,24,32,47,50, 6		6,56
28″	39,24,33, 4, 0,34,46, 9,17,34		2,52,52, 4,59	
		1,34,45,21,39,55,45, 7		6,56
30″	39,24,34,38,45,56,26, 5, 2,41		2,52,52,11,55	
		1,34,45,18,47, 3,33,12		6,56
32″	39,24,36,13,31,15,13, 8,35,53		2,52,52,18,51	
		1,34,45,15,54,11,14,21		6,56
34″	39,24,37,48,16,31, 7,19,50,14		2,52,52,25,47	
		1,34,45,13, 1,18,48,34		6,56
36″	39,24,39,23, 1,44, 8,38,38,48		2,52,52,32,43	
		1,34,45,10, 8,26,15,51		6,56
38″	39,24,40,57,46,54,17, 4,54,39		2,52,52,39,39	
		1,34,45, 7,15,33,36,12		6,56
40″	39,24,42,32,32, 1,32,38,30,51		2,52,52,46,35	
		1,34,45, 4,22,40,49,37		6,56
42″	39,24,44, 7,17, 5,55,19,20,28		2,52,52,53,31	
		1,34,45, 1,29,47,56, 6		6,56
44″	39,24,45,42, 2, 7,25, 7,16,34		2,52,53, 0,27	
		1,34,44,58,36,54,55,39		6,56
46″	39,24,47,16,47, 6, 2, 2,12,13		2,52,53, 7,23	
		1,34,44,55,44, 1,48,16		6,56
48″	39,24,48,51,32, 1,46, 4, 0,29		2,52,53,14,19	
		1,34,44,52,51, 8,33,57		6,56
50″	39,24,50,26,16,54,37,12,34,26		2,52,53,21,15	
		1,34,44,49,58,15,12,42		6,56
52″	39,24,52, 1, 1,44,35,27,47, 8		2,52,53,28,11	
		1,34,44,47, 5,21,44,31		6,56
54″	39,24,53,35,46,31,40,49,31,39		2,52,53,35, 7	
		1,34,44,44,12,28, 9,24		6,56
56″	39,24,55,10,31,15,53,17,41, 3		2,52,53,42, 3	
		1,34,44,41,19,34,27,21		6,56
58″	39,24,56,45,15,57,12,52, 8,24		2,52,53,48,59	
		1,34,44,38,26,40,38,22		
60″	39,24,58,20, 0,35,39,32,46,46			
exact	39,24,58,20, 0,35,39,33,10,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41° 4′ 0″	39,24,58,20, 0,35,39,33,10,26			
		1,34,44,35,33,46,45, 1		
2″	39,24,59,54,45,11,13,19,55,27		2,52,54, 2,40	
		1,34,44,32,40,52,42,21		6,56
4″	39,25, 1,29,29,43,54,12,37,48		2,52,54, 9,36	
		1,34,44,29,47,58,32,45		6,56
6″	39,25, 3, 4,14,13,42,11,10,33		2,52,54,16,32	
		1,34,44,26,55, 4,16,13		6,56
8″	39,25, 4,38,58,40,37,15,26,46		2,52,54,23,28	
		1,34,44,24, 2, 9,52,45		6,56
10″	39,25, 6,13,43, 4,39,25,19,31		2,52,54,30,24	
		1,34,44,21, 9,15,22,21		6,56
12″	39,25, 7,48,27,25,48,40,41,52		2,52,54,37,20	
		1,34,44,18,16,20,45, 1		6,56
14″	39,25, 9,23,11,44, 5, 1,26,53		2,52,54,44,16	
		1,34,44,15,23,26, 0,45		6,56
16″	39,25,10,57,55,59,28,27,27,38		2,52,54,51,12	
		1,34,44,12,30,31, 9,33		6,56
18″	39,25,12,32,40,11,58,58,37,11		2,52,54,58, 8	
		1,34,44, 9,37,36,11,25		6,56
20″	39,25,14, 7,24,21,36,34,48,36		2,52,55, 5, 4	
		1,34,44, 6,44,41, 6,21		6,56
22″	39,25,15,42, 8,28,21,15,54,57		2,52,55,12, 0	
		1,34,44, 3,51,45,54,21		6,56
24″	39,25,17,16,52,32,13, 1,49,18		2,52,55,18,56	
		1,34,44, 0,58,50,35,25		6,56
26″	39,25,18,51,36,33,11,52,24,43		2,52,55,25,52	
		1,34,43,58, 5,55, 9,33		6,56
28″	39,25,20,26,20,31,17,47,34,16		2,52,55,32,48	
		1,34,43,55,12,59,36,45		6,56
30″	39,25,22, 1, 4,26,30,47,11, 1		2,52,55,39,44	
		1,34,43,52,20, 3,57, 1		6,56
32″	39,25,23,35,48,18,50,51, 8, 2		2,52,55,46,40	
		1,34,43,49,27, 8,10,21		6,56
34″	39,25,25,10,32, 8,17,59,18,23		2,52,55,53,36	
		1,34,43,46,34,12,16,45		6,56
36″	39,25,26,45,15,54,52,11,35, 8		2,52,56, 0,32	
		1,34,43,43,41,16,16,13		6,56
38″	39,25,28,19,59,38,33,27,51,21		2,52,56, 7,28	
		1,34,43,40,48,20, 8,45		6,56
40″	39,25,29,54,43,19,21,48, 0, 6		2,52,56,14,24	
		1,34,43,37,55,23,54,21		6,56
42″	39,25,31,29,26,57,17,11,54,27		2,52,56,21,20	
		1,34,43,35, 2,27,33, 1		6,56
44″	39,25,33, 4,10,32,19,39,27,28		2,52,56,28,16	
		1,34,43,32, 9,31, 4,45		6,56
46″	39,25,34,38,54, 4,29,10,32,13		2,52,56,35,12	
		1,34,43,29,16,34,29,33		6,56
48″	39,25,36,13,37,33,45,45, 1,46		2,52,56,42, 8	
		1,34,43,26,23,37,47,25		6,56
50″	39,25,37,48,21, 0, 9,22,49,11		2,52,56,49, 4	
		1,34,43,23,30,40,58,21		6,56
52″	39,25,39,23, 4,23,40, 3,47,32		2,52,56,56, 0	
		1,34,43,20,37,44, 2,21		6,56
54″	39,25,40,57,47,44,17,47,49,53		2,52,57, 2,56	
		1,34,43,17,44,46,59,25		6,56
56″	39,25,42,32,31, 2, 2,34,49,18		2,52,57, 9,52	
		1,34,43,14,51,49,49,33		6,56
58″	39,25,44, 7,14,16,54,24,38,51		2,52,57,16,48	
		1,34,43,11,58,52,32,45		
60″	39,25,45,41,57,28,53,17,11,36			
exact	39,25,45,41,57,28,53,17,40,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41° 5′ 0″	39,25,45,41,57,28,53,17,40,45			
		1,34,43, 9, 5,55,12,14		
2″	39,25,47,16,40,37,59,12,52,59		2,52,57,30,26	
		1,34,43, 6,12,57,41,48		6,55
4″	39,25,48,51,23,44,12,10,34,47		2,52,57,37,21	
		1,34,43, 3,20, 0, 4,27		6,55
6″	39,25,50,26, 6,47,32,10,39,14		2,52,57,44,16	
		1,34,43, 0,27, 2,20,11		6,55
8″	39,25,52, 0,49,47,59,12,59,25		2,52,57,51,11	
		1,34,42,57,34, 4,29, 0		6,55
10″	39,25,53,35,32,45,33,17,28,25		2,52,57,58, 6	
		1,34,42,54,41, 6,30,54		6,55
12″	39,25,55,10,15,40,14,23,59,19		2,52,58, 5, 1	
		1,34,42,51,48, 8,25,53		6,55
14″	39,25,56,44,58,32, 2,32,25,12		2,52,58,11,56	
		1,34,42,48,55,10,13,57		6,55
16″	39,25,58,19,41,20,57,42,39, 9		2,52,58,18,51	
		1,34,42,46, 2,11,55, 6		6,55
18″	39,25,59,54,24, 6,59,54,34,15		2,52,58,25,46	
		1,34,42,43, 9,13,29,20		6,55
20″	39,26, 1,29, 6,50, 9, 8, 3,35		2,52,58,32,41	
		1,34,42,40,16,14,56,39		6,55
22″	39,26, 3, 3,49,30,25,23, 0,14		2,52,58,39,36	
		1,34,42,37,23,16,17, 3		6,55
24″	39,26, 4,38,32, 7,48,39,17,17		2,52,58,46,31	
		1,34,42,34,30,17,30,32		6,55
26″	39,26, 6,13,14,42,18,56,47,49		2,52,58,53,26	
		1,34,42,31,37,18,37, 6		6,55
28″	39,26, 7,47,57,13,56,15,24,55		2,52,59, 0,21	
		1,34,42,28,44,19,36,45		6,55
30″	39,26, 9,22,39,42,40,35, 1,40		2,52,59, 7,16	
		1,34,42,25,51,20,29,29		6,55
32″	39,26,10,57,22, 8,31,55,31, 9		2,52,59,14,11	
		1,34,42,22,58,21,15,18		6,55
34″	39,26,12,32, 4,31,30,16,46,27		2,52,59,21, 6	
		1,34,42,20, 5,21,54,12		6,55
36″	39,26,14, 6,46,51,35,38,40,39		2,52,59,28, 1	
		1,34,42,17,12,22,26,11		6,55
38″	39,26,15,41,29, 8,48, 1, 6,50		2,52,59,34,56	
		1,34,42,14,19,22,51,15		6,55
40″	39,26,17,16,11,23, 7,23,58, 5		2,52,59,41,51	
		1,34,42,11,26,23, 9,24		6,55
42″	39,26,18,50,53,34,33,47, 7,29		2,52,59,48,46	
		1,34,42, 8,33,23,20,38		6,55
44″	39,26,20,25,35,43, 7,10,28, 7		2,52,59,55,41	
		1,34,42, 5,40,23,24,57		6,55
46″	39,26,22, 0,17,48,47,33,53, 4		2,53, 0, 2,36	
		1,34,42, 2,47,23,22,21		6,55
48″	39,26,23,34,59,51,34,57,15,25		2,53, 0, 9,31	
		1,34,41,59,54,23,12,50		6,55
50″	39,26,25, 9,41,51,29,20,28,15		2,53, 0,16,26	
		1,34,41,57, 1,22,56,24		6,55
52″	39,26,26,44,23,48,30,43,24,39		2,53, 0,23,21	
		1,34,41,54, 8,22,33, 3		6,55
54″	39,26,28,19, 5,42,39, 5,57,42		2,53, 0,30,16	
		1,34,41,51,15,22, 2,47		6,55
56″	39,26,29,53,47,33,54,28, 0,29		2,53, 0,37,11	
		1,34,41,48,22,21,25,36		6,55
58″	39,26,31,28,29,22,16,49,26, 5		2,53, 0,44, 6	
		1,34,41,45,29,20,41,30		
60″	39,26,33, 3,11, 7,46,10, 7,35			
exact	39,26,33, 3,11, 7,46, 9,35,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41° 6′ 0″	39,26,33, 3,11, 7,46, 9,35,36			
		1,34,41,42,36,19,47,10		
2″	39,26,34,37,52,50,22,29,22,46		2,53, 0,58, 9	
		1,34,41,39,43,18,49, 1		6,55
4″	39,26,36,12,34,30, 5,48,11,47		2,53, 1, 5, 4	
		1,34,41,36,50,17,43,57		6,55
6″	39,26,37,47,16, 6,56, 5,55,44		2,53, 1,11,59	
		1,34,41,33,57,16,31,58		6,55
8″	39,26,39,21,57,40,53,22,27,42		2,53, 1,18,54	
		1,34,41,31, 4,15,13, 4		6,55
10″	39,26,40,56,39,11,57,37,40,46		2,53, 1,25,49	
		1,34,41,28,11,13,47,15		6,55
12″	39,26,42,31,20,40, 8,51,28, 1		2,53, 1,32,44	
		1,34,41,25,18,12,14,31		6,55
14″	39,26,44, 6, 2, 5,27, 3,42,32		2,53, 1,39,39	
		1,34,41,22,25,10,34,52		6,55
16″	39,26,45,40,43,27,52,14,17,24		2,53, 1,46,34	
		1,34,41,19,32, 8,48,18		6,55
18″	39,26,47,15,24,47,24,23, 5,42		2,53, 1,53,29	
		1,34,41,16,39, 6,54,49		6,55
20″	39,26,48,50, 6, 4, 3,30, 0,31		2,53, 2, 0,24	
		1,34,41,13,46, 4,54,25		6,55
22″	39,26,50,24,47,17,49,34,54,56		2,53, 2, 7,19	
		1,34,41,10,53, 2,47, 6		6,55
24″	39,26,51,59,28,28,42,37,42, 2		2,53, 2,14,14	
		1,34,41, 8, 0, 0,32,52		6,55
26″	39,26,53,34, 9,36,42,38,14,54		2,53, 2,21, 9	
		1,34,41, 5, 6,58,11,43		6,55
28″	39,26,55, 8,50,41,49,36,26,37		2,53, 2,28, 4	
		1,34,41, 2,13,55,43,39		6,55
30″	39,26,56,43,31,44, 3,32,10,16		2,53, 2,34,59	
		1,34,40,59,20,53, 8,40		6,55
32″	39,26,58,18,12,43,24,25,18,56		2,53, 2,41,54	
		1,34,40,56,27,50,26,46		6,55
34″	39,26,59,52,53,39,52,15,45,42		2,53, 2,48,49	
		1,34,40,53,34,47,37,57		6,55
36″	39,27, 1,27,34,33,27, 3,23,39		2,53, 2,55,44	
		1,34,40,50,41,44,42,13		6,55
38″	39,27, 3, 2,15,24, 8,48, 5,52		2,53, 3, 2,39	
		1,34,40,47,48,41,39,34		6,55
40″	39,27, 4,36,56,11,57,29,45,26		2,53, 3, 9,34	
		1,34,40,44,55,38,30, 0		6,55
42″	39,27, 6,11,36,56,53, 8,15,26		2,53, 3,16,29	
		1,34,40,42, 2,35,13,31		6,55
44″	39,27, 7,46,17,38,55,43,28,57		2,53, 3,23,24	
		1,34,40,39, 9,31,50, 7		6,55
46″	39,27, 9,20,58,18, 5,15,19, 4		2,53, 3,30,19	
		1,34,40,36,16,28,19,48		6,55
48″	39,27,10,55,38,54,21,43,38,52		2,53, 3,37,14	
		1,34,40,33,23,24,42,34		6,55
50″	39,27,12,30,19,27,45, 8,21,26		2,53, 3,44, 9	
		1,34,40,30,30,20,58,25		6,55
52″	39,27,14, 4,59,58,15,29,19,51		2,53, 3,51, 4	
		1,34,40,27,37,17, 7,21		6,55
54″	39,27,15,39,40,25,52,46,27,12		2,53, 3,57,59	
		1,34,40,24,44,13, 9,22		6,55
56″	39,27,17,14,20,50,36,59,36,34		2,53, 4, 4,54	
		1,34,40,21,51, 9, 4,28		6,55
58″	39,27,18,49, 1,12,28, 8,41, 2		2,53, 4,11,49	
		1,34,40,18,58, 4,52,39		
60″	39,27,20,23,41,31,26,13,33,41			
exact	39,27,20,23,41,31,26,13, 9,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41° 7′ 0″	39,27,20,23,41,31,26,13, 9,43			
		1,34,40,16, 5, 0,31,25		
2″	39,27,21,58,21,47,31,13,41, 8		2,53, 4,25,49	
		1,34,40,13,11,56, 5,36		6,55
4″	39,27,23,33, 2, 0,43, 9,46,44		2,53, 4,32,44	
		1,34,40,10,18,51,32,52		6,55
6″	39,27,25, 7,42,11, 2, 1,19,36		2,53, 4,39,39	
		1,34,40, 7,25,46,53,13		6,55
8″	39,27,26,42,22,18,27,48,12,49		2,53, 4,46,34	
		1,34,40, 4,32,42, 6,39		6,55
10″	39,27,28,17, 2,23, 0,30,19,28		2,53, 4,53,29	
		1,34,40, 1,39,37,13,10		6,55
12″	39,27,29,51,42,24,40, 7,32,38		2,53, 5, 0,24	
		1,34,39,58,46,32,12,46		6,55
14″	39,27,31,26,22,23,26,39,45,24		2,53, 5, 7,19	
		1,34,39,55,53,27, 5,27		6,55
16″	39,27,33, 1, 2,19,20, 6,50,51		2,53, 5,14,14	
		1,34,39,53, 0,21,51,13		6,55
18″	39,27,34,35,42,12,20,28,42, 4		2,53, 5,21, 9	
		1,34,39,50, 7,16,30, 4		6,55
20″	39,27,36,10,22, 2,27,45,12, 8		2,53, 5,28, 4	
		1,34,39,47,14,11, 2, 0		6,55
22″	39,27,37,45, 1,49,41,56,14, 8		2,53, 5,34,59	
		1,34,39,44,21, 5,27, 1		6,55
24″	39,27,39,19,41,34, 3, 1,41, 9		2,53, 5,41,54	
		1,34,39,41,27,59,45, 7		6,55
26″	39,27,40,54,21,15,31, 1,26,16		2,53, 5,48,49	
		1,34,39,38,34,53,56,18		6,55
28″	39,27,42,29, 0,54, 5,55,22,34		2,53, 5,55,44	
		1,34,39,35,41,48, 0,34		6,55
30″	39,27,44, 3,40,29,47,43,23, 8		2,53, 6, 2,39	
		1,34,39,32,48,41,57,55		6,55
32″	39,27,45,38,20, 2,36,25,21, 3		2,53, 6, 9,34	
		1,34,39,29,55,35,48,21		6,55
34″	39,27,47,12,59,32,32, 1, 9,24		2,53, 6,16,29	
		1,34,39,27, 2,29,31,52		6,55
36″	39,27,48,47,38,59,34,30,41,16		2,53, 6,23,24	
		1,34,39,24, 9,23, 8,28		6,55
38″	39,27,50,22,18,23,43,53,49,44		2,53, 6,30,19	
		1,34,39,21,16,16,38, 9		6,55
40″	39,27,51,56,57,45, 0,10,27,53		2,53, 6,37,14	
		1,34,39,18,23,10, 0,55		6,55
42″	39,27,53,31,37, 3,23,20,28,48		2,53, 6,44, 9	
		1,34,39,15,30, 3,16,46		6,55
44″	39,27,55, 6,16,18,53,23,45,34		2,53, 6,51, 4	
		1,34,39,12,36,56,25,42		6,55
46″	39,27,56,40,55,31,30,20,11,16		2,53, 6,57,59	
		1,34,39, 9,43,49,27,43		6,55
48″	39,27,58,15,34,41,14, 9,38,59		2,53, 7, 4,54	
		1,34,39, 6,50,42,22,49		6,55
50″	39,27,59,50,13,48, 4,52, 1,48		2,53, 7,11,49	
		1,34,39, 3,57,35,11, 0		6,55
52″	39,28, 1,24,52,52, 2,27,12,48		2,53, 7,18,44	
		1,34,39, 1, 4,27,52,16		6,55
54″	39,28, 2,59,31,53, 6,55, 5, 4		2,53, 7,25,39	
		1,34,38,58,11,20,26,37		6,55
56″	39,28, 4,34,10,51,18,15,31,41		2,53, 7,32,34	
		1,34,38,55,18,12,54, 3		6,55
58″	39,28, 6, 8,49,46,36,28,25,44		2,53, 7,39,29	
		1,34,38,52,25, 5,14,34		
60″	39,28, 7,43,28,39, 1,33,40,18			
exact	39,28, 7,43,28,39, 1,33,25,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41° 8′ 0″	39,28, 7,43,28,39, 1,33,25,15			
		1,34,38,49,31,57,26,33		
2″	39,28, 9,18, 7,28,33,30,51,48		2,53, 7,53,25	
		1,34,38,46,38,49,33, 8		6,55
4″	39,28,10,52,46,15,12,20,24,56		2,53, 8, 0,20	
		1,34,38,43,45,41,32,48		6,55
6″	39,28,12,27,24,58,58, 1,57,44		2,53, 8, 7,15	
		1,34,38,40,52,33,25,33		6,55
8″	39,28,14, 2, 3,39,50,35,23,17		2,53, 8,14,10	
		1,34,38,37,59,25,11,23		6,55
10″	39,28,15,36,42,17,50, 0,34,40		2,53, 8,21, 5	
		1,34,38,35, 6,16,50,18		6,55
12″	39,28,17,11,20,52,56,17,24,58		2,53, 8,28, 0	
		1,34,38,32,13, 8,22,18		6,55
14″	39,28,18,45,59,25, 9,25,47,16		2,53, 8,34,55	
		1,34,38,29,19,59,47,23		6,55
16″	39,28,20,20,37,54,29,25,34,39		2,53, 8,41,50	
		1,34,38,26,26,51, 5,33		6,55
18″	39,28,21,55,16,20,56,16,40,12		2,53, 8,48,45	
		1,34,38,23,33,42,16,48		6,55
20″	39,28,23,29,54,44,29,58,57, 0		2,53, 8,55,40	
		1,34,38,20,40,33,21, 8		6,55
22″	39,28,25, 4,33, 5,10,32,18, 8		2,53, 9, 2,35	
		1,34,38,17,47,24,18,33		6,55
24″	39,28,26,39,11,22,57,56,36,41		2,53, 9, 9,30	
		1,34,38,14,54,15, 9, 3		6,55
26″	39,28,28,13,49,37,52,11,45,44		2,53, 9,16,25	
		1,34,38,12, 1, 5,52,38		6,55
28″	39,28,29,48,27,49,53,17,38,22		2,53, 9,23,20	
		1,34,38, 9, 7,56,29,18		6,55
30″	39,28,31,23, 5,59, 1,14, 7,40		2,53, 9,30,15	
		1,34,38, 6,14,46,59, 3		6,55
32″	39,28,32,57,44, 5,16, 1, 6,43		2,53, 9,37,10	
		1,34,38, 3,21,37,21,53		6,55
34″	39,28,34,32,22, 8,37,38,28,36		2,53, 9,44, 5	
		1,34,38, 0,28,27,37,48		6,55
36″	39,28,36, 7, 0, 9, 6, 6, 6,24		2,53, 9,51, 0	
		1,34,37,57,35,17,46,48		6,55
38″	39,28,37,41,38, 6,41,23,53,12		2,53, 9,57,55	
		1,34,37,54,42, 7,48,53		6,55
40″	39,28,39,16,16, 1,23,31,42, 5		2,53,10, 4,50	
		1,34,37,51,48,57,44, 3		6,55
42″	39,28,40,50,53,53,12,29,26, 8		2,53,10,11,45	
		1,34,37,48,55,47,32,18		6,55
44″	39,28,42,25,31,42, 8,16,58,26		2,53,10,18,40	
		1,34,37,46, 2,37,13,38		6,55
46″	39,28,44, 0, 9,28,10,54,12, 4		2,53,10,25,35	
		1,34,37,43, 9,26,48, 3		6,55
48″	39,28,45,34,47,11,20,21, 0, 7		2,53,10,32,30	
		1,34,37,40,16,16,15,33		6,55
50″	39,28,47, 9,24,51,36,37,15,40		2,53,10,39,25	
		1,34,37,37,23, 5,36, 8		6,55
52″	39,28,48,44, 2,28,59,42,51,48		2,53,10,46,20	
		1,34,37,34,29,54,49,48		6,55
54″	39,28,50,18,40, 3,29,37,41,36		2,53,10,53,15	
		1,34,37,31,36,43,56,33		6,55
56″	39,28,51,53,17,35, 6,21,38, 9		2,53,11, 0,10	
		1,34,37,28,43,32,56,23		6,55
58″	39,28,53,27,55, 3,49,54,34,32		2,53,11, 7, 5	
		1,34,37,25,50,21,49,18		
60″	39,28,55, 2,32,29,40,16,23,50			
exact	39,28,55, 2,32,29,40,16,11,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41° 9′ 0″	39,28,55, 2,32,29,40,16,11,50			
		1,34,37,22,57,10,34,10		
2″	39,28,56,37, 9,52,37,26,46, 0		2,53,11,20,59	
		1,34,37,20, 3,59,13,11		6,55
4″	39,28,58,11,47,12,41,25,59,11		2,53,11,27,54	
		1,34,37,17,10,47,45,17		6,55
6″	39,28,59,46,24,29,52,13,44,28		2,53,11,34,49	
		1,34,37,14,17,36,10,28		6,55
8″	39,29, 1,21, 1,44, 9,49,54,56		2,53,11,41,44	
		1,34,37,11,24,24,28,44		6,55
10″	39,29, 2,55,38,55,34,14,23,40		2,53,11,48,39	
		1,34,37, 8,31,12,40, 5		6,55
12″	39,29, 4,30,16, 4, 5,27, 3,45		2,53,11,55,34	
		1,34,37, 5,38, 0,44,31		6,55
14″	39,29, 6, 4,53, 9,43,27,48,16		2,53,12, 2,29	
		1,34,37, 2,44,48,42, 2		6,55
16″	39,29, 7,39,30,12,28,16,30,18		2,53,12, 9,24	
		1,34,36,59,51,36,32,38		6,55
18″	39,29, 9,14, 7,12,19,53, 2,56		2,53,12,16,19	
		1,34,36,56,58,24,16,19		6,55
20″	39,29,10,48,44, 9,18,17,19,15		2,53,12,23,14	
		1,34,36,54, 5,11,53, 5		6,55
22″	39,29,12,23,21, 3,23,29,12,20		2,53,12,30, 9	
		1,34,36,51,11,59,22,56		6,55
24″	39,29,13,57,57,54,35,28,35,16		2,53,12,37, 4	
		1,34,36,48,18,46,45,52		6,55
26″	39,29,15,32,34,42,54,15,21, 8		2,53,12,43,59	
		1,34,36,45,25,34, 1,53		6,55
28″	39,29,17, 7,11,28,19,49,23, 1		2,53,12,50,54	
		1,34,36,42,32,21,10,59		6,55
30″	39,29,18,41,48,10,52,10,34, 0		2,53,12,57,49	
		1,34,36,39,39, 8,13,10		6,55
32″	39,29,20,16,24,50,31,18,47,10		2,53,13, 4,44	
		1,34,36,36,45,55, 8,26		6,55
34″	39,29,21,51, 1,27,17,13,55,36		2,53,13,11,39	
		1,34,36,33,52,41,56,47		6,55
36″	39,29,23,25,38, 1, 9,55,52,23		2,53,13,18,34	
		1,34,36,30,59,28,38,13		6,55
38″	39,29,25, 0,14,32, 9,24,30,36		2,53,13,25,29	
		1,34,36,28, 6,15,12,44		6,55
40″	39,29,26,34,51, 0,15,39,43,20		2,53,13,32,24	
		1,34,36,25,13, 1,40,20		6,55
42″	39,29,28, 9,27,25,28,41,23,40		2,53,13,39,19	
		1,34,36,22,19,48, 1, 1		6,55
44″	39,29,29,44, 3,47,48,29,24,41		2,53,13,46,14	
		1,34,36,19,26,34,14,47		6,55
46″	39,29,31,18,40, 7,15, 3,39,28		2,53,13,53, 9	
		1,34,36,16,33,20,21,38		6,55
48″	39,29,32,53,16,23,48,24, 1, 6		2,53,14, 0, 4	
		1,34,36,13,40, 6,21,34		6,55
50″	39,29,34,27,52,37,28,30,22,40		2,53,14, 6,59	
		1,34,36,10,46,52,14,35		6,55
52″	39,29,36, 2,28,48,15,22,37,15		2,53,14,13,54	
		1,34,36, 7,53,38, 0,41		6,55
54″	39,29,37,37, 4,56, 9, 0,37,56		2,53,14,20,49	
		1,34,36, 5, 0,23,39,52		6,55
56″	39,29,39,11,41, 1, 9,24,17,48		2,53,14,27,44	
		1,34,36, 2, 7, 9,12, 8		6,55
58″	39,29,40,46,17, 3,16,33,29,56		2,53,14,34,39	
		1,34,35,59,13,54,37,29		
60″	39,29,42,20,53, 2,30,28, 7,25			
exact	39,29,42,20,53, 2,30,28, 6,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°10′ 0″	39,29,42,20,53, 2,30,28, 6,31			
		1,34,35,56,20,39,55,50		
2″	39,29,43,55,28,58,51, 8, 2,21		2,53,14,48,29	
		1,34,35,53,27,25, 7,21		6,55
4″	39,29,45,30, 4,52,18,33, 9,42		2,53,14,55,24	
		1,34,35,50,34,10,11,57		6,55
6″	39,29,47, 4,40,42,52,43,21,39		2,53,15, 2,19	
		1,34,35,47,40,55, 9,38		6,55
8″	39,29,48,39,16,30,33,38,31,17		2,53,15, 9,14	
		1,34,35,44,47,40, 0,24		6,55
10″	39,29,50,13,52,15,21,18,31,41		2,53,15,16, 9	
		1,34,35,41,54,24,44,15		6,55
12″	39,29,51,48,27,57,15,43,15,56		2,53,15,23, 4	
		1,34,35,39, 1, 9,21,11		6,55
14″	39,29,53,23, 3,36,16,52,37, 7		2,53,15,29,59	
		1,34,35,36, 7,53,51,12		6,55
16″	39,29,54,57,39,12,24,46,28,19		2,53,15,36,54	
		1,34,35,33,14,38,14,18		6,55
18″	39,29,56,32,14,45,39,24,42,37		2,53,15,43,49	
		1,34,35,30,21,22,30,29		6,55
20″	39,29,58, 6,50,16, 0,47,13, 6		2,53,15,50,44	
		1,34,35,27,28, 6,39,45		6,55
22″	39,29,59,41,25,43,28,53,52,51		2,53,15,57,39	
		1,34,35,24,34,50,42, 6		6,55
24″	39,30, 1,16, 1, 8, 3,44,34,57		2,53,16, 4,34	
		1,34,35,21,41,34,37,32		6,55
26″	39,30, 2,50,36,29,45,19,12,29		2,53,16,11,29	
		1,34,35,18,48,18,26, 3		6,55
28″	39,30, 4,25,11,48,33,37,38,32		2,53,16,18,24	
		1,34,35,15,55, 2, 7,39		6,55
30″	39,30, 5,59,47, 4,28,39,46,11		2,53,16,25,19	
		1,34,35,13, 1,45,42,20		6,55
32″	39,30, 7,34,22,17,30,25,28,31		2,53,16,32,14	
		1,34,35,10, 8,29,10, 6		6,55
34″	39,30, 9, 8,57,27,38,54,38,37		2,53,16,39, 9	
		1,34,35, 7,15,12,30,57		6,55
36″	39,30,10,43,32,34,54, 7, 9,34		2,53,16,46, 4	
		1,34,35, 4,21,55,44,53		6,55
38″	39,30,12,18, 7,39,16, 2,54,27		2,53,16,52,59	
		1,34,35, 1,28,38,51,54		6,55
40″	39,30,13,52,42,40,44,41,46,21		2,53,16,59,54	
		1,34,34,58,35,21,52, 0		6,55
42″	39,30,15,27,17,39,20, 3,38,21		2,53,17, 6,49	
		1,34,34,55,42, 4,45,11		6,55
44″	39,30,17, 1,52,35, 2, 8,23,32		2,53,17,13,44	
		1,34,34,52,48,47,31,27		6,55
46″	39,30,18,36,27,27,50,55,54,59		2,53,17,20,39	
		1,34,34,49,55,30,10,48		6,55
48″	39,30,20,11, 2,17,46,26, 5,47		2,53,17,27,34	
		1,34,34,47, 2,12,43,14		6,55
50″	39,30,21,45,37, 4,48,38,49, 1		2,53,17,34,29	
		1,34,34,44, 8,55, 8,45		6,55
52″	39,30,23,20,11,48,57,33,57,46		2,53,17,41,24	
		1,34,34,41,15,37,27,21		6,55
54″	39,30,24,54,46,30,13,11,25, 7		2,53,17,48,19	
		1,34,34,38,22,19,39, 2		6,55
56″	39,30,26,29,21, 8,35,31, 4, 9		2,53,17,55,14	
		1,34,34,35,29, 1,43,48		6,55
58″	39,30,28, 3,55,44, 4,32,47,57		2,53,18, 2, 9	
		1,34,34,32,35,43,41,39		
60″	39,30,29,38,30,16,40,16,29,36			
exact	39,30,29,38,30,16,40,16,33,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°11′ 0″	39,30,29,38,30,16,40,16,33,52			
		1,34,34,29,42,25,33, 8		
2″	39,30,31,13, 4,46,22,42, 7, 0		2,53,18,15,56	
		1,34,34,26,49, 7,17,12		6,55
4″	39,30,32,47,39,13,11,49,24,12		2,53,18,22,51	
		1,34,34,23,55,48,54,21		6,55
6″	39,30,34,22,13,37, 7,38,18,33		2,53,18,29,46	
		1,34,34,21, 2,30,24,35		6,55
8″	39,30,35,56,47,58,10, 8,43, 8		2,53,18,36,41	
		1,34,34,18, 9,11,47,54		6,55
10″	39,30,37,31,22,16,19,20,31, 2		2,53,18,43,36	
		1,34,34,15,15,53, 4,18		6,55
12″	39,30,39, 5,56,31,35,13,35,20		2,53,18,50,31	
		1,34,34,12,22,34,13,47		6,55
14″	39,30,40,40,30,43,57,47,49, 7		2,53,18,57,26	
		1,34,34, 9,29,15,16,21		6,55
16″	39,30,42,15, 4,53,27, 3, 5,28		2,53,19, 4,21	
		1,34,34, 6,35,56,12, 0		6,55
18″	39,30,43,49,39, 0, 2,59,17,28		2,53,19,11,16	
		1,34,34, 3,42,37, 0,44		6,55
20″	39,30,45,24,13, 3,45,36,18,12		2,53,19,18,11	
		1,34,34, 0,49,17,42,33		6,55
22″	39,30,46,58,47, 4,34,54, 0,45		2,53,19,25, 6	
		1,34,33,57,55,58,17,27		6,55
24″	39,30,48,33,21, 2,30,52,18,12		2,53,19,32, 1	
		1,34,33,55, 2,38,45,26		6,55
26″	39,30,50, 7,54,57,33,31, 3,38		2,53,19,38,56	
		1,34,33,52, 9,19, 6,30		6,55
28″	39,30,51,42,28,49,42,50,10, 8		2,53,19,45,51	
		1,34,33,49,15,59,20,39		6,55
30″	39,30,53,17, 2,38,58,49,30,47		2,53,19,52,46	
		1,34,33,46,22,39,27,53		6,55
32″	39,30,54,51,36,25,21,28,58,40		2,53,19,59,41	
		1,34,33,43,29,19,28,12		6,55
34″	39,30,56,26,10, 8,50,48,26,52		2,53,20, 6,36	
		1,34,33,40,35,59,21,36		6,55
36″	39,30,58, 0,43,49,26,47,48,28		2,53,20,13,31	
		1,34,33,37,42,39, 8, 5		6,55
38″	39,30,59,35,17,27, 9,26,56,33		2,53,20,20,26	
		1,34,33,34,49,18,47,39		6,55
40″	39,31, 1, 9,51, 1,58,45,44,12		2,53,20,27,21	
		1,34,33,31,55,58,20,18		6,55
42″	39,31, 2,44,24,33,54,44, 4,30		2,53,20,34,16	
		1,34,33,29, 2,37,46, 2		6,55
44″	39,31, 4,18,58, 2,57,21,50,32		2,53,20,41,11	
		1,34,33,26, 9,17, 4,51		6,55
46″	39,31, 5,53,31,29, 6,38,55,23		2,53,20,48, 6	
		1,34,33,23,15,56,16,45		6,55
48″	39,31, 7,28, 4,52,22,35,12, 8		2,53,20,55, 1	
		1,34,33,20,22,35,21,44		6,55
50″	39,31, 9, 2,38,12,45,10,33,52		2,53,21, 1,56	
		1,34,33,17,29,14,19,48		6,55
52″	39,31,10,37,11,30,14,24,53,40		2,53,21, 8,51	
		1,34,33,14,35,53,10,57		6,55
54″	39,31,12,11,44,44,50,18, 4,37		2,53,21,15,46	
		1,34,33,11,42,31,55,11		6,55
56″	39,31,13,46,17,56,32,49,59,48		2,53,21,22,41	
		1,34,33, 8,49,10,32,30		6,55
58″	39,31,15,20,51, 5,22, 0,32,18		2,53,21,29,36	
		1,34,33, 5,55,49, 2,54		
60″	39,31,16,55,24,11,17,49,35,12			
exact	39,31,16,55,24,11,17,49,45,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°12′ 0″	39,31,16,55,24,11,17,49,45,56			
		1,34,33, 3, 2,27,27,39		
2″	39,31,18,29,57,14,20,17,13,35		2,53,21,43,20	
		1,34,33, 0, 9, 5,44,19		6,55
4″	39,31,20, 4,30,14,29,22,57,54		2,53,21,50,15	
		1,34,32,57,15,43,54, 4		6,55
6″	39,31,21,39, 3,11,45, 6,51,58		2,53,21,57,10	
		1,34,32,54,22,21,56,54		6,55
8″	39,31,23,13,36, 6, 7,28,48,52		2,53,22, 4, 5	
		1,34,32,51,28,59,52,49		6,55
10″	39,31,24,48, 8,57,36,28,41,41		2,53,22,11, 0	
		1,34,32,48,35,37,41,49		6,55
12″	39,31,26,22,41,46,12, 6,23,30		2,53,22,17,55	
		1,34,32,45,42,15,23,54		6,55
14″	39,31,27,57,14,31,54,21,47,24		2,53,22,24,50	
		1,34,32,42,48,52,59, 4		6,55
16″	39,31,29,31,47,14,43,14,46,28		2,53,22,31,45	
		1,34,32,39,55,30,27,19		6,55
18″	39,31,31, 6,19,54,38,45,13,47		2,53,22,38,40	
		1,34,32,37, 2, 7,48,39		6,55
20″	39,31,32,40,52,31,40,53, 2,26		2,53,22,45,35	
		1,34,32,34, 8,45, 3, 4		6,55
22″	39,31,34,15,25, 5,49,38, 5,30		2,53,22,52,30	
		1,34,32,31,15,22,10,34		6,55
24″	39,31,35,49,57,37, 5, 0,16, 4		2,53,22,59,25	
		1,34,32,28,21,59,11, 9		6,55
26″	39,31,37,24,30, 5,26,59,27,13		2,53,23, 6,20	
		1,34,32,25,28,36, 4,49		6,55
28″	39,31,38,59, 2,30,55,35,32, 2		2,53,23,13,15	
		1,34,32,22,35,12,51,34		6,55
30″	39,31,40,33,34,53,30,48,23,36		2,53,23,20,10	
		1,34,32,19,41,49,31,24		6,55
32″	39,31,42, 8, 7,13,12,37,55, 0		2,53,23,27, 5	
		1,34,32,16,48,26, 4,19		6,55
34″	39,31,43,42,39,30, 1, 3,59,19		2,53,23,34, 0	
		1,34,32,13,55, 2,30,19		6,55
36″	39,31,45,17,11,43,56, 6,29,38		2,53,23,40,55	
		1,34,32,11, 1,38,49,24		6,55
38″	39,31,46,51,43,54,57,45,19, 2		2,53,23,47,50	
		1,34,32, 8, 8,15, 1,34		6,55
40″	39,31,48,26,16, 3, 6, 0,20,36		2,53,23,54,45	
		1,34,32, 5,14,51, 6,49		6,55
42″	39,31,50, 0,48, 8,20,51,27,25		2,53,24, 1,40	
		1,34,32, 2,21,27, 5, 9		6,55
44″	39,31,51,35,20,10,42,18,32,34		2,53,24, 8,35	
		1,34,31,59,28, 2,56,34		6,55
46″	39,31,53, 9,52,10,10,21,29, 8		2,53,24,15,30	
		1,34,31,56,34,38,41, 4		6,55
48″	39,31,54,44,24, 6,45, 0,10,12		2,53,24,22,25	
		1,34,31,53,41,14,18,39		6,55
50″	39,31,56,18,56, 0,26,14,28,51		2,53,24,29,20	
		1,34,31,50,47,49,49,19		6,55
52″	39,31,57,53,27,51,14, 4,18,10		2,53,24,36,15	
		1,34,31,47,54,25,13, 4		6,55
54″	39,31,59,27,59,39, 8,29,31,14		2,53,24,43,10	
		1,34,31,45, 1, 0,29,54		6,55
56″	39,32, 1, 2,31,24, 9,30, 1, 8		2,53,24,50, 5	
		1,34,31,42, 7,35,39,49		6,55
58″	39,32, 2,37, 3, 6,17, 5,40,57		2,53,24,57, 0	
		1,34,31,39,14,10,42,49		
60″	39,32, 4,11,34,45,31,16,23,46			
exact	39,32, 4,11,34,45,31,16,42,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°13′ 0″	39,32, 4,11,34,45,31,16,42,15			
		1,34,31,36,20,45,40,58		
2″	39,32, 5,46, 6,21,52, 2,23,13		2,53,25,10,41	
		1,34,31,33,27,20,30,17		6,55
4″	39,32, 7,20,37,55,19,22,53,30		2,53,25,17,36	
		1,34,31,30,33,55,12,41		6,55
6″	39,32, 8,55, 9,25,53,18, 6,11		2,53,25,24,31	
		1,34,31,27,40,29,48,10		6,55
8″	39,32,10,29,40,53,33,47,54,21		2,53,25,31,26	
		1,34,31,24,47, 4,16,44		6,55
10″	39,32,12, 4,12,18,20,52,11, 5		2,53,25,38,21	
		1,34,31,21,53,38,38,23		6,55
12″	39,32,13,38,43,40,14,30,49,28		2,53,25,45,16	
		1,34,31,19, 0,12,53, 7		6,55
14″	39,32,15,13,14,59,14,43,42,35		2,53,25,52,11	
		1,34,31,16, 6,47, 0,56		6,55
16″	39,32,16,47,46,15,21,30,43,31		2,53,25,59, 6	
		1,34,31,13,13,21, 1,50		6,55
18″	39,32,18,22,17,28,34,51,45,21		2,53,26, 6, 1	
		1,34,31,10,19,54,55,49		6,55
20″	39,32,19,56,48,38,54,46,41,10		2,53,26,12,56	
		1,34,31, 7,26,28,42,53		6,55
22″	39,32,21,31,19,46,21,15,24, 3		2,53,26,19,51	
		1,34,31, 4,33, 2,23, 2		6,55
24″	39,32,23, 5,50,50,54,17,47, 5		2,53,26,26,46	
		1,34,31, 1,39,35,56,16		6,55
26″	39,32,24,40,21,52,33,53,43,21		2,53,26,33,41	
		1,34,30,58,46, 9,22,35		6,55
28″	39,32,26,14,52,51,20, 3, 5,56		2,53,26,40,36	
		1,34,30,55,52,42,41,59		6,55
30″	39,32,27,49,23,47,12,45,47,55		2,53,26,47,31	
		1,34,30,52,59,15,54,28		6,55
32″	39,32,29,23,54,40,12, 1,42,23		2,53,26,54,26	
		1,34,30,50, 5,49, 0, 2		6,55
34″	39,32,30,58,25,30,17,50,42,25		2,53,27, 1,21	
		1,34,30,47,12,21,58,41		6,55
36″	39,32,32,32,56,17,30,12,41, 6		2,53,27, 8,16	
		1,34,30,44,18,54,50,25		6,55
38″	39,32,34, 7,27, 1,49, 7,31,31		2,53,27,15,11	
		1,34,30,41,25,27,35,14		6,55
40″	39,32,35,41,57,43,14,35, 6,45		2,53,27,22, 6	
		1,34,30,38,32, 0,13, 8		6,55
42″	39,32,37,16,28,21,46,35,19,53		2,53,27,29, 1	
		1,34,30,35,38,32,44, 7		6,55
44″	39,32,38,50,58,57,25, 8, 4, 0		2,53,27,35,56	
		1,34,30,32,45, 5, 8,11		6,55
46″	39,32,40,25,29,30,10,13,12,11		2,53,27,42,51	
		1,34,30,29,51,37,25,20		6,55
48″	39,32,42, 0, 0, 0, 1,50,37,31		2,53,27,49,46	
		1,34,30,26,58, 9,35,34		6,55
50″	39,32,43,34,30,27, 0, 0,13, 5		2,53,27,56,41	
		1,34,30,24, 4,41,38,53		6,55
52″	39,32,45, 9, 0,51, 4,41,51,58		2,53,28, 3,36	
		1,34,30,21,11,13,35,17		6,55
54″	39,32,46,43,31,12,15,55,27,15		2,53,28,10,31	
		1,34,30,18,17,45,24,46		6,55
56″	39,32,48,18, 1,30,33,40,52, 1		2,53,28,17,26	
		1,34,30,15,24,17, 7,20		6,55
58″	39,32,49,52,31,45,57,57,59,21		2,53,28,24,21	
		1,34,30,12,30,48,42,59		
60″	39,32,51,27, 1,58,28,46,42,20			
exact	39,32,51,27, 1,58,28,47, 9,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°14′ 0″	39,32,51,27, 1,58,28,47, 9,57			
		1,34,30, 9,37,20,14,41		
2″	39,32,53, 1,32, 8, 6, 7,24,38		2,53,28,37,58	
		1,34,30, 6,43,51,36,43		6,55
4″	39,32,54,36, 2,14,49,59, 1,21		2,53,28,44,53	
		1,34,30, 3,50,22,51,50		6,55
6″	39,32,56,10,32,18,40,21,53,11		2,53,28,51,48	
		1,34,30, 0,56,54, 0, 2		6,55
8″	39,32,57,45, 2,19,37,15,53,13		2,53,28,58,43	
		1,34,29,58, 3,25, 1,19		6,55
10″	39,32,59,19,32,17,40,40,54,32		2,53,29, 5,38	
		1,34,29,55, 9,55,55,41		6,55
12″	39,33, 0,54, 2,12,50,36,50,13		2,53,29,12,33	
		1,34,29,52,16,26,43, 8		6,55
14″	39,33, 2,28,32, 5, 7, 3,33,21		2,53,29,19,28	
		1,34,29,49,22,57,23,40		6,55
16″	39,33, 4, 3, 1,54,30, 0,57, 1		2,53,29,26,23	
		1,34,29,46,29,27,57,17		6,55
18″	39,33, 5,37,31,40,59,28,54,18		2,53,29,33,18	
		1,34,29,43,35,58,23,59		6,55
20″	39,33, 7,12, 1,24,35,27,18,17		2,53,29,40,13	
		1,34,29,40,42,28,43,46		6,55
22″	39,33, 8,46,31, 5,17,56, 2, 3		2,53,29,47, 8	
		1,34,29,37,48,58,56,38		6,55
24″	39,33,10,21, 0,43, 6,54,58,41		2,53,29,54, 3	
		1,34,29,34,55,29, 2,35		6,55
26″	39,33,11,55,30,18, 2,24, 1,16		2,53,30, 0,58	
		1,34,29,32, 1,59, 1,37		6,55
28″	39,33,13,29,59,50, 4,23, 2,53		2,53,30, 7,53	
		1,34,29,29, 8,28,53,44		6,55
30″	39,33,15, 4,29,19,12,51,56,37		2,53,30,14,48	
		1,34,29,26,14,58,38,56		6,55
32″	39,33,16,38,58,45,27,50,35,33		2,53,30,21,43	
		1,34,29,23,21,28,17,13		6,55
34″	39,33,18,13,28, 8,49,18,52,46		2,53,30,28,38	
		1,34,29,20,27,57,48,35		6,55
36″	39,33,19,47,57,29,17,16,41,21		2,53,30,35,33	
		1,34,29,17,34,27,13, 2		6,55
38″	39,33,21,22,26,46,51,43,54,23		2,53,30,42,28	
		1,34,29,14,40,56,30,34		6,55
40″	39,33,22,56,56, 1,32,40,24,57		2,53,30,49,23	
		1,34,29,11,47,25,41,11		6,55
42″	39,33,24,31,25,13,20, 6, 6, 8		2,53,30,56,18	
		1,34,29, 8,53,54,44,53		6,55
44″	39,33,26, 5,54,22,14, 0,51, 1		2,53,31, 3,13	
		1,34,29, 6, 0,23,41,40		6,55
46″	39,33,27,40,23,28,14,24,32,41		2,53,31,10, 8	
		1,34,29, 3, 6,52,31,32		6,55
48″	39,33,29,14,52,31,21,17, 4,13		2,53,31,17, 3	
		1,34,29, 0,13,21,14,29		6,55
50″	39,33,30,49,21,31,34,38,18,42		2,53,31,23,58	
		1,34,28,57,19,49,50,31		6,55
52″	39,33,32,23,50,28,54,28, 9,13		2,53,31,30,53	
		1,34,28,54,26,18,19,38		6,55
54″	39,33,33,58,19,23,20,46,28,51		2,53,31,37,48	
		1,34,28,51,32,46,41,50		6,55
56″	39,33,35,32,48,14,53,33,10,41		2,53,31,44,43	
		1,34,28,48,39,14,57, 7		6,55
58″	39,33,37, 7,17, 3,32,48, 7,48		2,53,31,51,38	
		1,34,28,45,45,43, 5,29		
60″	39,33,38,41,45,49,18,31,13,17			
exact	39,33,38,41,45,49,18,31,43,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°15′ 0″	39,33,38,41,45,49,18,31,43,38			
		1,34,28,42,52,11,10,22		
2″	39,33,40,16,14,32,10,42,54, 0		2,53,32, 5,13	
		1,34,28,39,58,39, 5, 9		6,54
4″	39,33,41,50,43,12, 9,21,59, 9		2,53,32,12, 7	
		1,34,28,37, 5, 6,53, 2		6,54
6″	39,33,43,25,11,49,14,28,52,11		2,53,32,19, 1	
		1,34,28,34,11,34,34, 1		6,54
8″	39,33,44,59,40,23,26, 3,26,12		2,53,32,25,55	
		1,34,28,31,18, 2, 8, 6		6,54
10″	39,33,46,34, 8,54,44, 5,34,18		2,53,32,32,49	
		1,34,28,28,24,29,35,17		6,54
12″	39,33,48, 8,37,23, 8,35, 9,35		2,53,32,39,43	
		1,34,28,25,30,56,55,34		6,54
14″	39,33,49,43, 5,48,39,32, 5, 9		2,53,32,46,37	
		1,34,28,22,37,24, 8,57		6,54
16″	39,33,51,17,34,11,16,56,14, 6		2,53,32,53,31	
		1,34,28,19,43,51,15,26		6,54
18″	39,33,52,52, 2,31, 0,47,29,32		2,53,33, 0,25	
		1,34,28,16,50,18,15, 1		6,54
20″	39,33,54,26,30,47,51, 5,44,33		2,53,33, 7,19	
		1,34,28,13,56,45, 7,42		6,54
22″	39,33,56, 0,59, 1,47,50,52,15		2,53,33,14,13	
		1,34,28,11, 3,11,53,29		6,54
24″	39,33,57,35,27,12,51, 2,45,44		2,53,33,21, 7	
		1,34,28, 8, 9,38,32,22		6,54
26″	39,33,59, 9,55,21, 0,41,18, 6		2,53,33,28, 1	
		1,34,28, 5,16, 5, 4,21		6,54
28″	39,34, 0,44,23,26,16,46,22,27		2,53,33,34,55	
		1,34,28, 2,22,31,29,26		6,54
30″	39,34, 2,18,51,28,39,17,51,53		2,53,33,41,49	
		1,34,27,59,28,57,47,37		6,54
32″	39,34, 3,53,19,28, 8,15,39,30		2,53,33,48,43	
		1,34,27,56,35,23,58,54		6,54
34″	39,34, 5,27,47,24,43,39,38,24		2,53,33,55,37	
		1,34,27,53,41,50, 3,17		6,54
36″	39,34, 7, 2,15,18,25,29,41,41		2,53,34, 2,31	
		1,34,27,50,48,16, 0,46		6,54
38″	39,34, 8,36,43, 9,13,45,42,27		2,53,34, 9,25	
		1,34,27,47,54,41,51,21		6,54
40″	39,34,10,11,10,57, 8,27,33,48		2,53,34,16,19	
		1,34,27,45, 1, 7,35, 2		6,54
42″	39,34,11,45,38,42, 9,35, 8,50		2,53,34,23,13	
		1,34,27,42, 7,33,11,49		6,54
44″	39,34,13,20, 6,24,17, 8,20,39		2,53,34,30, 7	
		1,34,27,39,13,58,41,42		6,54
46″	39,34,14,54,34, 3,31, 7, 2,21		2,53,34,37, 1	
		1,34,27,36,20,24, 4,41		6,54
48″	39,34,16,29, 1,39,51,31, 7, 2		2,53,34,43,55	
		1,34,27,33,26,49,20,46		6,54
50″	39,34,18, 3,29,13,18,20,27,48		2,53,34,50,49	
		1,34,27,30,33,14,29,57		6,54
52″	39,34,19,37,56,43,51,34,57,45		2,53,34,57,43	
		1,34,27,27,39,39,32,14		6,54
54″	39,34,21,12,24,11,31,14,29,59		2,53,35, 4,37	
		1,34,27,24,46, 4,27,37		6,54
56″	39,34,22,46,51,36,17,18,57,36		2,53,35,11,31	
		1,34,27,21,52,29,16, 6		6,54
58″	39,34,24,21,18,58, 9,48,13,42		2,53,35,18,25	
		1,34,27,18,58,53,57,41		
60″	39,34,25,55,46,17, 8,42,11,23			
exact	39,34,25,55,46,17, 8,41,45,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°16′ 0″	39,34,25,55,46,17, 8,41,45,30			
		1,34,27,16, 5,18,29,37		
2″	39,34,27,30,13,33,14, 0,15, 7		2,53,35,32,24	
		1,34,27,13,11,42,57,13		6,54
4″	39,34,29, 4,40,46,25,43,12,20		2,53,35,39,18	
		1,34,27,10,18, 7,17,55		6,54
6″	39,34,30,39, 7,56,43,50,30,15		2,53,35,46,12	
		1,34,27, 7,24,31,31,43		6,54
8″	39,34,32,13,35, 4, 8,22, 1,58		2,53,35,53, 6	
		1,34,27, 4,30,55,38,37		6,54
10″	39,34,33,48, 2, 8,39,17,40,35		2,53,36, 0, 0	
		1,34,27, 1,37,19,38,37		6,54
12″	39,34,35,22,29,10,16,37,19,12		2,53,36, 6,54	
		1,34,26,58,43,43,31,43		6,54
14″	39,34,36,56,56, 9, 0,20,50,55		2,53,36,13,48	
		1,34,26,55,50, 7,17,55		6,54
16″	39,34,38,31,23, 4,50,28, 8,50		2,53,36,20,42	
		1,34,26,52,56,30,57,13		6,54
18″	39,34,40, 5,49,57,46,59, 6, 3		2,53,36,27,36	
		1,34,26,50, 2,54,29,37		6,54
20″	39,34,41,40,16,47,49,53,35,40		2,53,36,34,30	
		1,34,26,47, 9,17,55, 7		6,54
22″	39,34,43,14,43,34,59,11,30,47		2,53,36,41,24	
		1,34,26,44,15,41,13,43		6,54
24″	39,34,44,49,10,19,14,52,44,30		2,53,36,48,18	
		1,34,26,41,22, 4,25,25		6,54
26″	39,34,46,23,37, 0,36,57, 9,55		2,53,36,55,12	
		1,34,26,38,28,27,30,13		6,54
28″	39,34,47,58, 3,39, 5,24,40, 8		2,53,37, 2, 6	
		1,34,26,35,34,50,28, 7		6,54
30″	39,34,49,32,30,14,40,15, 8,15		2,53,37, 9, 0	
		1,34,26,32,41,13,19, 7		6,54
32″	39,34,51, 6,56,47,21,28,27,22		2,53,37,15,54	
		1,34,26,29,47,36, 3,13		6,54
34″	39,34,52,41,23,17, 9, 4,30,35		2,53,37,22,48	
		1,34,26,26,53,58,40,25		6,54
36″	39,34,54,15,49,44, 3, 3,11, 0		2,53,37,29,42	
		1,34,26,24, 0,21,10,43		6,54
38″	39,34,55,50,16, 8, 3,24,21,43		2,53,37,36,36	
		1,34,26,21, 6,43,34, 7		6,54
40″	39,34,57,24,42,29,10, 7,55,50		2,53,37,43,30	
		1,34,26,18,13, 5,50,37		6,54
42″	39,34,58,59, 8,47,23,13,46,27		2,53,37,50,24	
		1,34,26,15,19,28, 0,13		6,54
44″	39,35, 0,33,35, 2,42,41,46,40		2,53,37,57,18	
		1,34,26,12,25,50, 2,55		6,54
46″	39,35, 2, 8, 1,15, 8,31,49,35		2,53,38, 4,12	
		1,34,26, 9,32,11,58,43		6,54
48″	39,35, 3,42,27,24,40,43,48,18		2,53,38,11, 6	
		1,34,26, 6,38,33,47,37		6,54
50″	39,35, 5,16,53,31,19,17,35,55		2,53,38,18, 0	
		1,34,26, 3,44,55,29,37		6,54
52″	39,35, 6,51,19,35, 4,13, 5,32		2,53,38,24,54	
		1,34,26, 0,51,17, 4,43		6,54
54″	39,35, 8,25,45,35,55,30,10,15		2,53,38,31,48	
		1,34,25,57,57,38,32,55		6,54
56″	39,35,10, 0,11,33,53, 8,43,10		2,53,38,38,42	
		1,34,25,55, 3,59,54,13		6,54
58″	39,35,11,34,37,28,57, 8,37,23		2,53,38,45,36	
		1,34,25,52,10,21, 8,37		
60″	39,35,13, 9, 3,21, 7,29,46, 0			
exact	39,35,13, 9, 3,21, 7,29,25,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°17′ 0″	39,35,13, 9, 3,21, 7,29,25,20			
		1,34,25,49,16,42,14, 0		
2″	39,35,14,43,29,10,24,11,39,20		2,53,38,59,32	
		1,34,25,46,23, 3,14,28		6,54
4″	39,35,16,17,54,56,47,14,53,48		2,53,39, 6,26	
		1,34,25,43,29,24, 8, 2		6,54
6″	39,35,17,52,20,40,16,39, 1,50		2,53,39,13,20	
		1,34,25,40,35,44,54,42		6,54
8″	39,35,19,26,46,20,52,23,56,32		2,53,39,20,14	
		1,34,25,37,42, 5,34,28		6,54
10″	39,35,21, 1,11,58,34,29,31, 0		2,53,39,27, 8	
		1,34,25,34,48,26, 7,20		6,54
12″	39,35,22,35,37,33,22,55,38,20		2,53,39,34, 2	
		1,34,25,31,54,46,33,18		6,54
14″	39,35,24,10, 3, 5,17,42,11,38		2,53,39,40,56	
		1,34,25,29, 1, 6,52,22		6,54
16″	39,35,25,44,28,34,18,49, 4, 0		2,53,39,47,50	
		1,34,25,26, 7,27, 4,32		6,54
18″	39,35,27,18,54, 0,26,16, 8,32		2,53,39,54,44	
		1,34,25,23,13,47, 9,48		6,54
20″	39,35,28,53,19,23,40, 3,18,20		2,53,40, 1,38	
		1,34,25,20,20, 7, 8,10		6,54
22″	39,35,30,27,44,44, 0,10,26,30		2,53,40, 8,32	
		1,34,25,17,26,26,59,38		6,54
24″	39,35,32, 2,10, 1,26,37,26, 8		2,53,40,15,26	
		1,34,25,14,32,46,44,12		6,54
26″	39,35,33,36,35,15,59,24,10,20		2,53,40,22,20	
		1,34,25,11,39, 6,21,52		6,54
28″	39,35,35,11, 0,27,38,30,32,12		2,53,40,29,14	
		1,34,25, 8,45,25,52,38		6,54
30″	39,35,36,45,25,36,23,56,24,50		2,53,40,36, 8	
		1,34,25, 5,51,45,16,30		6,54
32″	39,35,38,19,50,42,15,41,41,20		2,53,40,43, 2	
		1,34,25, 2,58, 4,33,28		6,54
34″	39,35,39,54,15,45,13,46,14,48		2,53,40,49,56	
		1,34,25, 0, 4,23,43,32		6,54
36″	39,35,41,28,40,45,18, 9,58,20		2,53,40,56,50	
		1,34,24,57,10,42,46,42		6,54
38″	39,35,43, 3, 5,42,28,52,45, 2		2,53,41, 3,44	
		1,34,24,54,17, 1,42,58		6,54
40″	39,35,44,37,30,36,45,54,28, 0		2,53,41,10,38	
		1,34,24,51,23,20,32,20		6,54
42″	39,35,46,11,55,28, 9,15, 0,20		2,53,41,17,32	
		1,34,24,48,29,39,14,48		6,54
44″	39,35,47,46,20,16,38,54,15, 8		2,53,41,24,26	
		1,34,24,45,35,57,50,22		6,54
46″	39,35,49,20,45, 2,14,52, 5,30		2,53,41,31,20	
		1,34,24,42,42,16,19, 2		6,54
48″	39,35,50,55, 9,44,57, 8,24,32		2,53,41,38,14	
		1,34,24,39,48,34,40,48		6,54
50″	39,35,52,29,34,24,45,43, 5,20		2,53,41,45, 8	
		1,34,24,36,54,52,55,40		6,54
52″	39,35,54, 3,59, 1,40,36, 1, 0		2,53,41,52, 2	
		1,34,24,34, 1,11, 3,38		6,54
54″	39,35,55,38,23,35,41,47, 4,38		2,53,41,58,56	
		1,34,24,31, 7,29, 4,42		6,54
56″	39,35,57,12,48, 6,49,16, 9,20		2,53,42, 5,50	
		1,34,24,28,13,46,58,52		6,54
58″	39,35,58,47,12,35, 3, 3, 8,12		2,53,42,12,44	
		1,34,24,25,20, 4,46, 8		
60″	39,36, 0,21,37, 0,23, 7,54,20			
exact	39,36, 0,21,37, 0,23, 7,40,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°18′ 0″	39,36, 0,21,37, 0,23, 7,40,28			
		1,34,24,22,26,22,25, 7		
2″	39,36, 1,56, 1,22,49,30, 5,35		2,53,42,26,37	
		1,34,24,19,32,39,58,30		6,54
4″	39,36, 3,30,25,42,22,10, 4, 5		2,53,42,33,31	
		1,34,24,16,38,57,24,59		6,54
6″	39,36, 5, 4,49,59, 1, 7,29, 4		2,53,42,40,25	
		1,34,24,13,45,14,44,34		6,54
8″	39,36, 6,39,14,12,46,22,13,38		2,53,42,47,19	
		1,34,24,10,51,31,57,15		6,54
10″	39,36, 8,13,38,23,37,54,10,53		2,53,42,54,13	
		1,34,24, 7,57,49, 3, 2		6,54
12″	39,36, 9,48, 2,31,35,43,13,55		2,53,43, 1, 7	
		1,34,24, 5, 4, 6, 1,55		6,54
14″	39,36,11,22,26,36,39,49,15,50		2,53,43, 8, 1	
		1,34,24, 2,10,22,53,54		6,54
16″	39,36,12,56,50,38,50,12, 9,44		2,53,43,14,55	
		1,34,23,59,16,39,38,59		6,54
18″	39,36,14,31,14,38, 6,51,48,43		2,53,43,21,49	
		1,34,23,56,22,56,17,10		6,54
20″	39,36,16, 5,38,34,29,48, 5,53		2,53,43,28,43	
		1,34,23,53,29,12,48,27		6,54
22″	39,36,17,40, 2,27,59, 0,54,20		2,53,43,35,37	
		1,34,23,50,35,29,12,50		6,54
24″	39,36,19,14,26,18,34,30, 7,10		2,53,43,42,31	
		1,34,23,47,41,45,30,19		6,54
26″	39,36,20,48,50, 6,16,15,37,29		2,53,43,49,25	
		1,34,23,44,48, 1,40,54		6,54
28″	39,36,22,23,13,51, 4,17,18,23		2,53,43,56,19	
		1,34,23,41,54,17,44,35		6,54
30″	39,36,23,57,37,32,58,35, 2,58		2,53,44, 3,13	
		1,34,23,39, 0,33,41,22		6,54
32″	39,36,25,32, 1,11,59, 8,44,20		2,53,44,10, 7	
		1,34,23,36, 6,49,31,15		6,54
34″	39,36,27, 6,24,48, 5,58,15,35		2,53,44,17, 1	
		1,34,23,33,13, 5,14,14		6,54
36″	39,36,28,40,48,21,19, 3,29,49		2,53,44,23,55	
		1,34,23,30,19,20,50,19		6,54
38″	39,36,30,15,11,51,38,24,20, 8		2,53,44,30,49	
		1,34,23,27,25,36,19,30		6,54
40″	39,36,31,49,35,19, 4, 0,39,38		2,53,44,37,43	
		1,34,23,24,31,51,41,47		6,54
42″	39,36,33,23,58,43,35,52,21,25		2,53,44,44,37	
		1,34,23,21,38, 6,57,10		6,54
44″	39,36,34,58,22, 5,13,59,18,35		2,53,44,51,31	
		1,34,23,18,44,22, 5,39		6,54
46″	39,36,36,32,45,23,58,21,24,14		2,53,44,58,25	
		1,34,23,15,50,37, 7,14		6,54
48″	39,36,38, 7, 8,39,48,58,31,28		2,53,45, 5,19	
		1,34,23,12,56,52, 1,55		6,54
50″	39,36,39,41,31,52,45,50,33,23		2,53,45,12,13	
		1,34,23,10, 3, 6,49,42		6,54
52″	39,36,41,15,55, 2,48,57,23, 5		2,53,45,19, 7	
		1,34,23, 7, 9,21,30,35		6,54
54″	39,36,42,50,18, 9,58,18,53,40		2,53,45,26, 1	
		1,34,23, 4,15,36, 4,34		6,54
56″	39,36,44,24,41,14,13,54,58,14		2,53,45,32,55	
		1,34,23, 1,21,50,31,39		6,54
58″	39,36,45,59, 4,15,35,45,29,53		2,53,45,39,49	
		1,34,22,58,28, 4,51,50		
60″	39,36,47,33,27,14, 3,50,21,43			
exact	39,36,47,33,27,14, 3,50,15,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°19′ 0″	39,36,47,33,27,14, 3,50,15,53			
		1,34,22,55,34,19, 4,34		
2″	39,36,49, 7,50, 9,38, 9,20,27		2,53,45,53,39	
		1,34,22,52,40,33,10,55		6,54
4″	39,36,50,42,13, 2,18,42,31,22		2,53,46, 0,33	
		1,34,22,49,46,47,10,22		6,54
6″	39,36,52,16,35,52, 5,29,41,44		2,53,46, 7,27	
		1,34,22,46,53, 1, 2,55		6,54
8″	39,36,53,50,58,38,58,30,44,39		2,53,46,14,21	
		1,34,22,43,59,14,48,34		6,54
10″	39,36,55,25,21,22,57,45,33,13		2,53,46,21,15	
		1,34,22,41, 5,28,27,19		6,54
12″	39,36,56,59,44, 4, 3,14, 0,32		2,53,46,28, 9	
		1,34,22,38,11,41,59,10		6,54
14″	39,36,58,34, 6,42,14,55,59,42		2,53,46,35, 3	
		1,34,22,35,17,55,24, 7		6,54
16″	39,37, 0, 8,29,17,32,51,23,49		2,53,46,41,57	
		1,34,22,32,24, 8,42,10		6,54
18″	39,37, 1,42,51,49,57, 0, 5,59		2,53,46,48,51	
		1,34,22,29,30,21,53,19		6,54
20″	39,37, 3,17,14,19,27,21,59,18		2,53,46,55,45	
		1,34,22,26,36,34,57,34		6,54
22″	39,37, 4,51,36,46, 3,56,56,52		2,53,47, 2,39	
		1,34,22,23,42,47,54,55		6,54
24″	39,37, 6,25,59, 9,46,44,51,47		2,53,47, 9,33	
		1,34,22,20,49, 0,45,22		6,54
26″	39,37, 8, 0,21,30,35,45,37, 9		2,53,47,16,27	
		1,34,22,17,55,13,28,55		6,54
28″	39,37, 9,34,43,48,30,59, 6, 4		2,53,47,23,21	
		1,34,22,15, 1,26, 5,34		6,54
30″	39,37,11, 9, 6, 3,32,25,11,38		2,53,47,30,15	
		1,34,22,12, 7,38,35,19		6,54
32″	39,37,12,43,28,15,40, 3,46,57		2,53,47,37, 9	
		1,34,22, 9,13,50,58,10		6,54
34″	39,37,14,17,50,24,53,54,45, 7		2,53,47,44, 3	
		1,34,22, 6,20, 3,14, 7		6,54
36″	39,37,15,52,12,31,13,57,59,14		2,53,47,50,57	
		1,34,22, 3,26,15,23,10		6,54
38″	39,37,17,26,34,34,40,13,22,24		2,53,47,57,51	
		1,34,22, 0,32,27,25,19		6,54
40″	39,37,19, 0,56,35,12,40,47,43		2,53,48, 4,45	
		1,34,21,57,38,39,20,34		6,54
42″	39,37,20,35,18,32,51,20, 8,17		2,53,48,11,39	
		1,34,21,54,44,51, 8,55		6,54
44″	39,37,22, 9,40,27,36,11,17,12		2,53,48,18,33	
		1,34,21,51,51, 2,50,22		6,54
46″	39,37,23,44, 2,19,27,14, 7,34		2,53,48,25,27	
		1,34,21,48,57,14,24,55		6,54
48″	39,37,25,18,24, 8,24,28,32,29		2,53,48,32,21	
		1,34,21,46, 3,25,52,34		6,54
50″	39,37,26,52,45,54,27,54,25, 3		2,53,48,39,15	
		1,34,21,43, 9,37,13,19		6,54
52″	39,37,28,27, 7,37,37,31,38,22		2,53,48,46, 9	
		1,34,21,40,15,48,27,10		6,54
54″	39,37,30, 1,29,17,53,20, 5,32		2,53,48,53, 3	
		1,34,21,37,21,59,34, 7		6,54
56″	39,37,31,35,50,55,15,19,39,39		2,53,48,59,57	
		1,34,21,34,28,10,34,10		6,54
58″	39,37,33,10,12,29,43,30,13,49		2,53,49, 6,51	
		1,34,21,31,34,21,27,19		
60″	39,37,34,44,34, 1,17,51,41, 8			
exact	39,37,34,44,34, 1,17,51,44, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°20′ 0″	39,37,34,44,34, 1,17,51,44, 9			
		1,34,21,28,40,32,13,54		
2″	39,37,36,18,55,29,58,23,58, 3		2,53,49,20,37	
		1,34,21,25,46,42,53,17		6,54
4″	39,37,37,53,16,55,45, 6,51,20		2,53,49,27,31	
		1,34,21,22,52,53,25,46		6,54
6″	39,37,39,27,38,18,38, 0,17, 6		2,53,49,34,25	
		1,34,21,19,59, 3,51,21		6,54
8″	39,37,41, 1,59,38,37, 4, 8,27		2,53,49,41,19	
		1,34,21,17, 5,14,10, 2		6,54
10″	39,37,42,36,20,55,42,18,18,29		2,53,49,48,13	
		1,34,21,14,11,24,21,49		6,54
12″	39,37,44,10,42, 9,53,42,40,18		2,53,49,55, 7	
		1,34,21,11,17,34,26,42		6,54
14″	39,37,45,45, 3,21,11,17, 7, 0		2,53,50, 2, 1	
		1,34,21, 8,23,44,24,41		6,54
16″	39,37,47,19,24,29,35, 1,31,41		2,53,50, 8,55	
		1,34,21, 5,29,54,15,46		6,54
18″	39,37,48,53,45,35, 4,55,47,27		2,53,50,15,49	
		1,34,21, 2,36, 3,59,57		6,54
20″	39,37,50,28, 6,37,40,59,47,24		2,53,50,22,43	
		1,34,20,59,42,13,37,14		6,54
22″	39,37,52, 2,27,37,23,13,24,38		2,53,50,29,37	
		1,34,20,56,48,23, 7,37		6,54
24″	39,37,53,36,48,34,11,36,32,15		2,53,50,36,31	
		1,34,20,53,54,32,31, 6		6,54
26″	39,37,55,11, 9,28, 6, 9, 3,21		2,53,50,43,25	
		1,34,20,51, 0,41,47,41		6,54
28″	39,37,56,45,30,19, 6,50,51, 2		2,53,50,50,19	
		1,34,20,48, 6,50,57,22		6,54
30″	39,37,58,19,51, 7,13,41,48,24		2,53,50,57,13	
		1,34,20,45,13, 0, 0, 9		6,54
32″	39,37,59,54,11,52,26,41,48,33		2,53,51, 4, 7	
		1,34,20,42,19, 8,56, 2		6,54
34″	39,38, 1,28,32,34,45,50,44,35		2,53,51,11, 1	
		1,34,20,39,25,17,45, 1		6,54
36″	39,38, 3, 2,53,14,11, 8,29,36		2,53,51,17,55	
		1,34,20,36,31,26,27, 6		6,54
38″	39,38, 4,37,13,50,42,34,56,42		2,53,51,24,49	
		1,34,20,33,37,35, 2,17		6,54
40″	39,38, 6,11,34,24,20, 9,58,59		2,53,51,31,43	
		1,34,20,30,43,43,30,34		6,54
42″	39,38, 7,45,54,55, 3,53,29,33		2,53,51,38,37	
		1,34,20,27,49,51,51,57		6,54
44″	39,38, 9,20,15,22,53,45,21,30		2,53,51,45,31	
		1,34,20,24,56, 0, 6,26		6,54
46″	39,38,10,54,35,47,49,45,27,56		2,53,51,52,25	
		1,34,20,22, 2, 8,14, 1		6,54
48″	39,38,12,28,56, 9,51,53,41,57		2,53,51,59,19	
		1,34,20,19, 8,16,14,42		6,54
50″	39,38,14, 3,16,29, 0, 9,56,39		2,53,52, 6,13	
		1,34,20,16,14,24, 8,29		6,54
52″	39,38,15,37,36,45,14,34, 5, 8		2,53,52,13, 7	
		1,34,20,13,20,31,55,22		6,54
54″	39,38,17,11,56,58,35, 6, 0,30		2,53,52,20, 1	
		1,34,20,10,26,39,35,21		6,54
56″	39,38,18,46,17, 9, 1,45,35,51		2,53,52,26,55	
		1,34,20, 7,32,47, 8,26		6,54
58″	39,38,20,20,37,16,34,32,44,17		2,53,52,33,49	
		1,34,20, 4,38,54,34,37		
60″	39,38,21,54,57,21,13,27,18,54			
exact	39,38,21,54,57,21,13,27,25,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°21′ 0″	39,38,21,54,57,21,13,27,25,30			
		1,34,20, 1,45, 1,54,45		
2″	39,38,23,29,17,22,58,29,20,15		2,53,52,47,33	
		1,34,19,58,51, 9, 7,12		6,54
4″	39,38,25, 3,37,21,49,38,27,27		2,53,52,54,27	
		1,34,19,55,57,16,12,45		6,54
6″	39,38,26,37,57,17,46,54,40,12		2,53,53, 1,21	
		1,34,19,53, 3,23,11,24		6,54
8″	39,38,28,12,17,10,50,17,51,36		2,53,53, 8,15	
		1,34,19,50, 9,30, 3, 9		6,54
10″	39,38,29,46,37, 0,59,47,54,45		2,53,53,15, 9	
		1,34,19,47,15,36,48, 0		6,54
12″	39,38,31,20,56,48,15,24,42,45		2,53,53,22, 3	
		1,34,19,44,21,43,25,57		6,54
14″	39,38,32,55,16,32,37, 8, 8,42		2,53,53,28,57	
		1,34,19,41,27,49,57, 0		6,54
16″	39,38,34,29,36,14, 4,58, 5,42		2,53,53,35,51	
		1,34,19,38,33,56,21, 9		6,54
18″	39,38,36, 3,55,52,38,54,26,51		2,53,53,42,45	
		1,34,19,35,40, 2,38,24		6,54
20″	39,38,37,38,15,28,18,57, 5,15		2,53,53,49,39	
		1,34,19,32,46, 8,48,45		6,54
22″	39,38,39,12,35, 1, 5, 5,54, 0		2,53,53,56,33	
		1,34,19,29,52,14,52,12		6,54
24″	39,38,40,46,54,30,57,20,46,12		2,53,54, 3,27	
		1,34,19,26,58,20,48,45		6,54
26″	39,38,42,21,13,57,55,41,34,57		2,53,54,10,21	
		1,34,19,24, 4,26,38,24		6,54
28″	39,38,43,55,33,22, 0, 8,13,21		2,53,54,17,15	
		1,34,19,21,10,32,21, 9		6,54
30″	39,38,45,29,52,43,10,40,34,30		2,53,54,24, 9	
		1,34,19,18,16,37,57, 0		6,54
32″	39,38,47, 4,12, 1,27,18,31,30		2,53,54,31, 3	
		1,34,19,15,22,43,25,57		6,54
34″	39,38,48,38,31,16,50, 1,57,27		2,53,54,37,57	
		1,34,19,12,28,48,48, 0		6,54
36″	39,38,50,12,50,29,18,50,45,27		2,53,54,44,51	
		1,34,19, 9,34,54, 3, 9		6,54
38″	39,38,51,47, 9,38,53,44,48,36		2,53,54,51,45	
		1,34,19, 6,40,59,11,24		6,54
40″	39,38,53,21,28,45,34,44, 0, 0		2,53,54,58,39	
		1,34,19, 3,47, 4,12,45		6,54
42″	39,38,54,55,47,49,21,48,12,45		2,53,55, 5,33	
		1,34,19, 0,53, 9, 7,12		6,54
44″	39,38,56,30, 6,50,14,57,19,57		2,53,55,12,27	
		1,34,18,57,59,13,54,45		6,54
46″	39,38,58, 4,25,48,14,11,14,42		2,53,55,19,21	
		1,34,18,55, 5,18,35,24		6,54
48″	39,38,59,38,44,43,19,29,50, 6		2,53,55,26,15	
		1,34,18,52,11,23, 9, 9		6,54
50″	39,39, 1,13, 3,35,30,52,59,15		2,53,55,33, 9	
		1,34,18,49,17,27,36, 0		6,54
52″	39,39, 2,47,22,24,48,20,35,15		2,53,55,40, 3	
		1,34,18,46,23,31,55,57		6,54
54″	39,39, 4,21,41,11,11,52,31,12		2,53,55,46,57	
		1,34,18,43,29,36, 9, 0		6,54
56″	39,39, 5,55,59,54,41,28,40,12		2,53,55,53,51	
		1,34,18,40,35,40,15, 9		6,54
58″	39,39, 7,30,18,35,17, 8,55,21		2,53,56, 0,45	
		1,34,18,37,41,44,14,24		
60″	39,39, 9, 4,37,12,58,53, 9,45			
exact	39,39, 9, 4,37,12,58,53,27,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°22′ 0″	39,39, 9, 4,37,12,58,53,27,49			
		1,34,18,34,47,48, 8,40		
2″	39,39,10,38,55,47,46,41,36,29		2,53,56,14,25	
		1,34,18,31,53,51,54,15		6,54
4″	39,39,12,13,14,19,40,33,30,44		2,53,56,21,19	
		1,34,18,28,59,55,32,56		6,54
6″	39,39,13,47,32,48,40,29, 3,40		2,53,56,28,13	
		1,34,18,26, 5,59, 4,43		6,54
8″	39,39,15,21,51,14,46,28, 8,23		2,53,56,35, 7	
		1,34,18,23,12, 2,29,36		6,54
10″	39,39,16,56, 9,37,58,30,37,59		2,53,56,42, 1	
		1,34,18,20,18, 5,47,35		6,54
12″	39,39,18,30,27,58,16,36,25,34		2,53,56,48,55	
		1,34,18,17,24, 8,58,40		6,54
14″	39,39,20, 4,46,15,40,45,24,14		2,53,56,55,49	
		1,34,18,14,30,12, 2,51		6,54
16″	39,39,21,39, 4,30,10,57,27, 5		2,53,57, 2,43	
		1,34,18,11,36,15, 0, 8		6,54
18″	39,39,23,13,22,41,47,12,27,13		2,53,57, 9,37	
		1,34,18, 8,42,17,50,31		6,54
20″	39,39,24,47,40,50,29,30,17,44		2,53,57,16,31	
		1,34,18, 5,48,20,34, 0		6,54
22″	39,39,26,21,58,56,17,50,51,44		2,53,57,23,25	
		1,34,18, 2,54,23,10,35		6,54
24″	39,39,27,56,16,59,12,14, 2,19		2,53,57,30,19	
		1,34,18, 0, 0,25,40,16		6,54
26″	39,39,29,30,34,59,12,39,42,35		2,53,57,37,13	
		1,34,17,57, 6,28, 3, 3		6,54
28″	39,39,31, 4,52,56,19, 7,45,38		2,53,57,44, 7	
		1,34,17,54,12,30,18,56		6,54
30″	39,39,32,39,10,50,31,38, 4,34		2,53,57,51, 1	
		1,34,17,51,18,32,27,55		6,54
32″	39,39,34,13,28,41,50,10,32,29		2,53,57,57,55	
		1,34,17,48,24,34,30, 0		6,54
34″	39,39,35,47,46,30,14,45, 2,29		2,53,58, 4,49	
		1,34,17,45,30,36,25,11		6,54
36″	39,39,37,22, 4,15,45,21,27,40		2,53,58,11,43	
		1,34,17,42,36,38,13,28		6,54
38″	39,39,38,56,21,58,21,59,41, 8		2,53,58,18,37	
		1,34,17,39,42,39,54,51		6,54
40″	39,39,40,30,39,38, 4,39,35,59		2,53,58,25,31	
		1,34,17,36,48,41,29,20		6,54
42″	39,39,42, 4,57,14,53,21, 5,19		2,53,58,32,25	
		1,34,17,33,54,42,56,55		6,54
44″	39,39,43,39,14,48,48, 4, 2,14		2,53,58,39,19	
		1,34,17,31, 0,44,17,36		6,54
46″	39,39,45,13,32,19,48,48,19,50		2,53,58,46,13	
		1,34,17,28, 6,45,31,23		6,54
48″	39,39,46,47,49,47,55,33,51,13		2,53,58,53, 7	
		1,34,17,25,12,46,38,16		6,54
50″	39,39,48,22, 7,13, 8,20,29,29		2,53,59, 0, 1	
		1,34,17,22,18,47,38,15		6,54
52″	39,39,49,56,24,35,27, 8, 7,44		2,53,59, 6,55	
		1,34,17,19,24,48,31,20		6,54
54″	39,39,51,30,41,54,51,56,39, 4		2,53,59,13,49	
		1,34,17,16,30,49,17,31		6,54
56″	39,39,53, 4,59,11,22,45,56,35		2,53,59,20,43	
		1,34,17,13,36,49,56,48		6,54
58″	39,39,54,39,16,24,59,35,53,23		2,53,59,27,37	
		1,34,17,10,42,50,29,11		
60″	39,39,56,13,33,35,42,26,22,34			
exact	39,39,56,13,33,35,42,26,46,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°23′ 0″	39,39,56,13,33,35,42,26,46,39			
		1,34,17, 7,48,50,57,16		
2″	39,39,57,47,50,43,31,17,43,55		2,53,59,41,14	
		1,34,17, 4,54,51,16, 2		6,54
4″	39,39,59,22, 7,48,26, 8,59,57		2,53,59,48, 8	
		1,34,17, 2, 0,51,27,54		6,54
6″	39,40, 0,56,24,50,27, 0,27,51		2,53,59,55, 2	
		1,34,16,59, 6,51,32,52		6,54
8″	39,40, 2,30,41,49,33,52, 0,43		2,54, 0, 1,56	
		1,34,16,56,12,51,30,56		6,54
10″	39,40, 4, 4,58,45,46,43,31,39		2,54, 0, 8,50	
		1,34,16,53,18,51,22, 6		6,54
12″	39,40, 5,39,15,39, 5,34,53,45		2,54, 0,15,44	
		1,34,16,50,24,51, 6,22		6,54
14″	39,40, 7,13,32,29,30,26, 0, 7		2,54, 0,22,38	
		1,34,16,47,30,50,43,44		6,54
16″	39,40, 8,47,49,17, 1,16,43,51		2,54, 0,29,32	
		1,34,16,44,36,50,14,12		6,54
18″	39,40,10,22, 6, 1,38, 6,58, 3		2,54, 0,36,26	
		1,34,16,41,42,49,37,46		6,54
20″	39,40,11,56,22,43,20,56,35,49		2,54, 0,43,20	
		1,34,16,38,48,48,54,26		6,54
22″	39,40,13,30,39,22, 9,45,30,15		2,54, 0,50,14	
		1,34,16,35,54,48, 4,12		6,54
24″	39,40,15, 4,55,58, 4,33,34,27		2,54, 0,57, 8	
		1,34,16,33, 0,47, 7, 4		6,54
26″	39,40,16,39,12,31, 5,20,41,31		2,54, 1, 4, 2	
		1,34,16,30, 6,46, 3, 2		6,54
28″	39,40,18,13,29, 1,12, 6,44,33		2,54, 1,10,56	
		1,34,16,27,12,44,52, 6		6,54
30″	39,40,19,47,45,28,24,51,36,39		2,54, 1,17,50	
		1,34,16,24,18,43,34,16		6,54
32″	39,40,21,22, 1,52,43,35,10,55		2,54, 1,24,44	
		1,34,16,21,24,42, 9,32		6,54
34″	39,40,22,56,18,14, 8,17,20,27		2,54, 1,31,38	
		1,34,16,18,30,40,37,54		6,54
36″	39,40,24,30,34,32,38,57,58,21		2,54, 1,38,32	
		1,34,16,15,36,38,59,22		6,54
38″	39,40,26, 4,50,48,15,36,57,43		2,54, 1,45,26	
		1,34,16,12,42,37,13,56		6,54
40″	39,40,27,39, 7, 0,58,14,11,39		2,54, 1,52,20	
		1,34,16, 9,48,35,21,36		6,54
42″	39,40,29,13,23,10,46,49,33,15		2,54, 1,59,14	
		1,34,16, 6,54,33,22,22		6,54
44″	39,40,30,47,39,17,41,22,55,37		2,54, 2, 6, 8	
		1,34,16, 4, 0,31,16,14		6,54
46″	39,40,32,21,55,21,41,54,11,51		2,54, 2,13, 2	
		1,34,16, 1, 6,29, 3,12		6,54
48″	39,40,33,56,11,22,48,23,15, 3		2,54, 2,19,56	
		1,34,15,58,12,26,43,16		6,54
50″	39,40,35,30,27,21, 0,49,58,19		2,54, 2,26,50	
		1,34,15,55,18,24,16,26		6,54
52″	39,40,37, 4,43,16,19,14,14,45		2,54, 2,33,44	
		1,34,15,52,24,21,42,42		6,54
54″	39,40,38,38,59, 8,43,35,57,27		2,54, 2,40,38	
		1,34,15,49,30,19, 2, 4		6,54
56″	39,40,40,13,14,58,13,54,59,31		2,54, 2,47,32	
		1,34,15,46,36,16,14,32		6,54
58″	39,40,41,47,30,44,50,11,14, 3		2,54, 2,54,26	
		1,34,15,43,42,13,20, 6		
60″	39,40,43,21,46,28,32,24,34, 9			
exact	39,40,43,21,46,28,32,25, 5,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°24′ 0″	39,40,43,21,46,28,32,25, 5,13			
		1,34,15,40,48,10,22, 8		
2″	39,40,44,56, 2, 9,20,35,27,21		2,54, 3, 8, 0	
		1,34,15,37,54, 7,14, 8		6,53
4″	39,40,46,30,17,47,14,42,41,29		2,54, 3,14,53	
		1,34,15,35, 0, 3,59,15		6,53
6″	39,40,48, 4,33,22,14,46,40,44		2,54, 3,21,46	
		1,34,15,32, 6, 0,37,29		6,53
8″	39,40,49,38,48,54,20,47,18,13		2,54, 3,28,39	
		1,34,15,29,11,57, 8,50		6,53
10″	39,40,51,13, 4,23,32,44,27, 3		2,54, 3,35,32	
		1,34,15,26,17,53,33,18		6,53
12″	39,40,52,47,19,49,50,38, 0,21		2,54, 3,42,25	
		1,34,15,23,23,49,50,53		6,53
14″	39,40,54,21,35,13,14,27,51,14		2,54, 3,49,18	
		1,34,15,20,29,46, 1,35		6,53
16″	39,40,55,55,50,33,44,13,52,49		2,54, 3,56,11	
		1,34,15,17,35,42, 5,24		6,53
18″	39,40,57,30, 5,51,19,55,58,13		2,54, 4, 3, 4	
		1,34,15,14,41,38, 2,20		6,53
20″	39,40,59, 4,21, 6, 1,34, 0,33		2,54, 4, 9,57	
		1,34,15,11,47,33,52,23		6,53
22″	39,41, 0,38,36,17,49, 7,52,56		2,54, 4,16,50	
		1,34,15, 8,53,29,35,33		6,53
24″	39,41, 2,12,51,26,42,37,28,29		2,54, 4,23,43	
		1,34,15, 5,59,25,11,50		6,53
26″	39,41, 3,47, 6,32,42, 2,40,19		2,54, 4,30,36	
		1,34,15, 3, 5,20,41,14		6,53
28″	39,41, 5,21,21,35,47,23,21,33		2,54, 4,37,29	
		1,34,15, 0,11,16, 3,45		6,53
30″	39,41, 6,55,36,35,58,39,25,18		2,54, 4,44,22	
		1,34,14,57,17,11,19,23		6,53
32″	39,41, 8,29,51,33,15,50,44,41		2,54, 4,51,15	
		1,34,14,54,23, 6,28, 8		6,53
34″	39,41,10, 4, 6,27,38,57,12,49		2,54, 4,58, 8	
		1,34,14,51,29, 1,30, 0		6,53
36″	39,41,11,38,21,19, 7,58,42,49		2,54, 5, 5, 1	
		1,34,14,48,34,56,24,59		6,53
38″	39,41,13,12,36, 7,42,55, 7,48		2,54, 5,11,54	
		1,34,14,45,40,51,13, 5		6,53
40″	39,41,14,46,50,53,23,46,20,53		2,54, 5,18,47	
		1,34,14,42,46,45,54,18		6,53
42″	39,41,16,21, 5,36,10,32,15,11		2,54, 5,25,40	
		1,34,14,39,52,40,28,38		6,53
44″	39,41,17,55,20,16, 3,12,43,49		2,54, 5,32,33	
		1,34,14,36,58,34,56, 5		6,53
46″	39,41,19,29,34,53, 1,47,39,54		2,54, 5,39,26	
		1,34,14,34, 4,29,16,39		6,53
48″	39,41,21, 3,49,27, 6,16,56,33		2,54, 5,46,19	
		1,34,14,31,10,23,30,20		6,53
50″	39,41,22,38, 3,58,16,40,26,53		2,54, 5,53,12	
		1,34,14,28,16,17,37, 8		6,53
52″	39,41,24,12,18,26,32,58, 4, 1		2,54, 6, 0, 5	
		1,34,14,25,22,11,37, 3		6,53
54″	39,41,25,46,32,51,55, 9,41, 4		2,54, 6, 6,58	
		1,34,14,22,28, 5,30, 5		6,53
56″	39,41,27,20,47,14,23,15,11, 9		2,54, 6,13,51	
		1,34,14,19,33,59,16,14		6,53
58″	39,41,28,55, 1,33,57,14,27,23		2,54, 6,20,44	
		1,34,14,16,39,52,55,30		
60″	39,41,30,29,15,50,37, 7,22,53			
exact	39,41,30,29,15,50,37, 6,54,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°25′ 0″	39,41,30,29,15,50,37, 6,54,29			
		1,34,14,13,45,46,24,50		
2″	39,41,32, 3,30, 4,22,53,19,19		2,54, 6,34,42	
		1,34,14,10,51,39,50, 8		6,53
4″	39,41,33,37,44,15,14,33, 9,27		2,54, 6,41,35	
		1,34,14, 7,57,33, 8,33		6,53
6″	39,41,35,11,58,23,12, 6,18, 0		2,54, 6,48,28	
		1,34,14, 5, 3,26,20, 5		6,53
8″	39,41,36,46,12,28,15,32,38, 5		2,54, 6,55,21	
		1,34,14, 2, 9,19,24,44		6,53
10″	39,41,38,20,26,30,24,52, 2,49		2,54, 7, 2,14	
		1,34,13,59,15,12,22,30		6,53
12″	39,41,39,54,40,29,40, 4,25,19		2,54, 7, 9, 7	
		1,34,13,56,21, 5,13,23		6,53
14″	39,41,41,28,54,26, 1, 9,38,42		2,54, 7,16, 0	
		1,34,13,53,26,57,57,23		6,53
16″	39,41,43, 3, 8,19,28, 7,36, 5		2,54, 7,22,53	
		1,34,13,50,32,50,34,30		6,53
18″	39,41,44,37,22,10, 0,58,10,35		2,54, 7,29,46	
		1,34,13,47,38,43, 4,44		6,53
20″	39,41,46,11,35,57,39,41,15,19		2,54, 7,36,39	
		1,34,13,44,44,35,28, 5		6,53
22″	39,41,47,45,49,42,24,16,43,24		2,54, 7,43,32	
		1,34,13,41,50,27,44,33		6,53
24″	39,41,49,20, 3,24,14,44,27,57		2,54, 7,50,25	
		1,34,13,38,56,19,54, 8		6,53
26″	39,41,50,54,17, 3,11, 4,22, 5		2,54, 7,57,18	
		1,34,13,36, 2,11,56,50		6,53
28″	39,41,52,28,30,39,13,16,18,55		2,54, 8, 4,11	
		1,34,13,33, 8, 3,52,39		6,53
30″	39,41,54, 2,44,12,21,20,11,34		2,54, 8,11, 4	
		1,34,13,30,13,55,41,35		6,53
32″	39,41,55,36,57,42,35,15,53, 9		2,54, 8,17,57	
		1,34,13,27,19,47,23,38		6,53
34″	39,41,57,11,11, 9,55, 3,16,47		2,54, 8,24,50	
		1,34,13,24,25,38,58,48		6,53
36″	39,41,58,45,24,34,20,42,15,35		2,54, 8,31,43	
		1,34,13,21,31,30,27, 5		6,53
38″	39,42, 0,19,37,55,52,12,42,40		2,54, 8,38,36	
		1,34,13,18,37,21,48,29		6,53
40″	39,42, 1,53,51,14,29,34,31, 9		2,54, 8,45,29	
		1,34,13,15,43,13, 3, 0		6,53
42″	39,42, 3,28, 4,30,12,47,34, 9		2,54, 8,52,22	
		1,34,13,12,49, 4,10,38		6,53
44″	39,42, 5, 2,17,43, 1,51,44,47		2,54, 8,59,15	
		1,34,13, 9,54,55,11,23		6,53
46″	39,42, 6,36,30,52,56,46,56,10		2,54, 9, 6, 8	
		1,34,13, 7, 0,46, 5,15		6,53
48″	39,42, 8,10,43,59,57,33, 1,25		2,54, 9,13, 1	
		1,34,13, 4, 6,36,52,14		6,53
50″	39,42, 9,44,57, 4, 4, 9,53,39		2,54, 9,19,54	
		1,34,13, 1,12,27,32,20		6,53
52″	39,42,11,19,10, 5,16,37,25,59		2,54, 9,26,47	
		1,34,12,58,18,18, 5,33		6,53
54″	39,42,12,53,23, 3,34,55,31,32		2,54, 9,33,40	
		1,34,12,55,24, 8,31,53		6,53
56″	39,42,14,27,35,58,59, 4, 3,25		2,54, 9,40,33	
		1,34,12,52,29,58,51,20		6,53
58″	39,42,16, 1,48,51,29, 2,54,45		2,54, 9,47,26	
		1,34,12,49,35,49, 3,54		
60″	39,42,17,36, 1,41, 4,51,58,39			
exact	39,42,17,36, 1,41, 4,51,33, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°26′ 0″	39,42,17,36, 1,41, 4,51,33, 4			
		1,34,12,46,41,39, 7, 0		
2″	39,42,19,10,14,27,46,30,40, 4		2,54,10, 1,22	
		1,34,12,43,47,29, 5,38		6,53
4″	39,42,20,44,27,11,33,59,45,42		2,54,10, 8,15	
		1,34,12,40,53,18,57,23		6,53
6″	39,42,22,18,39,52,27,18,43, 5		2,54,10,15, 8	
		1,34,12,37,59, 8,42,15		6,53
8″	39,42,23,52,52,30,26,27,25,20		2,54,10,22, 1	
		1,34,12,35, 4,58,20,14		6,53
10″	39,42,25,27, 5, 5,31,25,45,34		2,54,10,28,54	
		1,34,12,32,10,47,51,20		6,53
12″	39,42,27, 1,17,37,42,13,36,54		2,54,10,35,47	
		1,34,12,29,16,37,15,33		6,53
14″	39,42,28,35,30, 6,58,50,52,27		2,54,10,42,40	
		1,34,12,26,22,26,32,53		6,53
16″	39,42,30, 9,42,33,21,17,25,20		2,54,10,49,33	
		1,34,12,23,28,15,43,20		6,53
18″	39,42,31,43,54,56,49,33, 8,40		2,54,10,56,26	
		1,34,12,20,34, 4,46,54		6,53
20″	39,42,33,18, 7,17,23,37,55,34		2,54,11, 3,19	
		1,34,12,17,39,53,43,35		6,53
22″	39,42,34,52,19,35, 3,31,39, 9		2,54,11,10,12	
		1,34,12,14,45,42,33,23		6,53
24″	39,42,36,26,31,49,49,14,12,32		2,54,11,17, 5	
		1,34,12,11,51,31,16,18		6,53
26″	39,42,38, 0,44, 1,40,45,28,50		2,54,11,23,58	
		1,34,12, 8,57,19,52,20		6,53
28″	39,42,39,34,56,10,38, 5,21,10		2,54,11,30,51	
		1,34,12, 6, 3, 8,21,29		6,53
30″	39,42,41, 9, 8,16,41,13,42,39		2,54,11,37,44	
		1,34,12, 3, 8,56,43,45		6,53
32″	39,42,42,43,20,19,50,10,26,24		2,54,11,44,37	
		1,34,12, 0,14,44,59, 8		6,53
34″	39,42,44,17,32,20, 4,55,25,32		2,54,11,51,30	
		1,34,11,57,20,33, 7,38		6,53
36″	39,42,45,51,44,17,25,28,33,10		2,54,11,58,23	
		1,34,11,54,26,21, 9,15		6,53
38″	39,42,47,25,56,11,51,49,42,25		2,54,12, 5,16	
		1,34,11,51,32, 9, 3,59		6,53
40″	39,42,49, 0, 8, 3,23,58,46,24		2,54,12,12, 9	
		1,34,11,48,37,56,51,50		6,53
42″	39,42,50,34,19,52, 1,55,38,14		2,54,12,19, 2	
		1,34,11,45,43,44,32,48		6,53
44″	39,42,52, 8,31,37,45,40,11, 2		2,54,12,25,55	
		1,34,11,42,49,32, 6,53		6,53
46″	39,42,53,42,43,20,35,12,17,55		2,54,12,32,48	
		1,34,11,39,55,19,34, 5		6,53
48″	39,42,55,16,55, 0,30,31,52, 0		2,54,12,39,41	
		1,34,11,37, 1, 6,54,24		6,53
50″	39,42,56,51, 6,37,31,38,46,24		2,54,12,46,34	
		1,34,11,34, 6,54, 7,50		6,53
52″	39,42,58,25,18,11,38,32,54,14		2,54,12,53,27	
		1,34,11,31,12,41,14,23		6,53
54″	39,42,59,59,29,42,51,14, 8,37		2,54,13, 0,20	
		1,34,11,28,18,28,14, 3		6,53
56″	39,43, 1,33,41,11, 9,42,22,40		2,54,13, 7,13	
		1,34,11,25,24,15, 6,50		6,53
58″	39,43, 3, 7,52,36,33,57,29,30		2,54,13,14, 6	
		1,34,11,22,30, 1,52,44		
60″	39,43, 4,42, 3,59, 3,59,22,14			
exact	39,43, 4,42, 3,59, 3,59, 7,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°27′ 0″	39,43, 4,42, 3,59, 3,59, 7,22			
		1,34,11,19,35,48,30,11		
2″	39,43, 6,16,15,18,39,47,37,33		2,54,13,27,58	
		1,34,11,16,41,35, 2,13		6,53
4″	39,43, 7,50,26,35,21,22,39,46		2,54,13,34,51	
		1,34,11,13,47,21,27,22		6,53
6″	39,43, 9,24,37,49, 8,44, 7, 8		2,54,13,41,44	
		1,34,11,10,53, 7,45,38		6,53
8″	39,43,10,58,49, 0, 1,51,52,46		2,54,13,48,37	
		1,34,11, 7,58,53,57, 1		6,53
10″	39,43,12,33, 0, 8, 0,45,49,47		2,54,13,55,30	
		1,34,11, 5, 4,40, 1,31		6,53
12″	39,43,14, 7,11,13, 5,25,51,18		2,54,14, 2,23	
		1,34,11, 2,10,25,59, 8		6,53
14″	39,43,15,41,22,15,15,51,50,26		2,54,14, 9,16	
		1,34,10,59,16,11,49,52		6,53
16″	39,43,17,15,33,14,32, 3,40,18		2,54,14,16, 9	
		1,34,10,56,21,57,33,43		6,53
18″	39,43,18,49,44,10,54, 1,14, 1		2,54,14,23, 2	
		1,34,10,53,27,43,10,41		6,53
20″	39,43,20,23,55, 4,21,44,24,42		2,54,14,29,55	
		1,34,10,50,33,28,40,46		6,53
22″	39,43,21,58, 5,54,55,13, 5,28		2,54,14,36,48	
		1,34,10,47,39,14, 3,58		6,53
24″	39,43,23,32,16,42,34,27, 9,26		2,54,14,43,41	
		1,34,10,44,44,59,20,17		6,53
26″	39,43,25, 6,27,27,19,26,29,43		2,54,14,50,34	
		1,34,10,41,50,44,29,43		6,53
28″	39,43,26,40,38, 9,10,10,59,26		2,54,14,57,27	
		1,34,10,38,56,29,32,16		6,53
30″	39,43,28,14,48,48, 6,40,31,42		2,54,15, 4,20	
		1,34,10,36, 2,14,27,56		6,53
32″	39,43,29,48,59,24, 8,54,59,38		2,54,15,11,13	
		1,34,10,33, 7,59,16,43		6,53
34″	39,43,31,23, 9,57,16,54,16,21		2,54,15,18, 6	
		1,34,10,30,13,43,58,37		6,53
36″	39,43,32,57,20,27,30,38,14,58		2,54,15,24,59	
		1,34,10,27,19,28,33,38		6,53
38″	39,43,34,31,30,54,50, 6,48,36		2,54,15,31,52	
		1,34,10,24,25,13, 1,46		6,53
40″	39,43,36, 5,41,19,15,19,50,22		2,54,15,38,45	
		1,34,10,21,30,57,23, 1		6,53
42″	39,43,37,39,51,40,46,17,13,23		2,54,15,45,38	
		1,34,10,18,36,41,37,23		6,53
44″	39,43,39,14, 1,59,22,58,50,46		2,54,15,52,31	
		1,34,10,15,42,25,44,52		6,53
46″	39,43,40,48,12,15, 5,24,35,38		2,54,15,59,24	
		1,34,10,12,48, 9,45,28		6,53
48″	39,43,42,22,22,27,53,34,21, 6		2,54,16, 6,17	
		1,34,10, 9,53,53,39,11		6,53
50″	39,43,43,56,32,37,47,28, 0,17		2,54,16,13,10	
		1,34,10, 6,59,37,26, 1		6,53
52″	39,43,45,30,42,44,47, 5,26,18		2,54,16,20, 3	
		1,34,10, 4, 5,21, 5,58		6,53
54″	39,43,47, 4,52,48,52,26,32,16		2,54,16,26,56	
		1,34,10, 1,11, 4,39, 2		6,53
56″	39,43,48,39, 2,50, 3,31,11,18		2,54,16,33,49	
		1,34, 9,58,16,48, 5,13		6,53
58″	39,43,50,13,12,48,20,19,16,31		2,54,16,40,42	
		1,34, 9,55,22,31,24,31		
60″	39,43,51,47,22,43,42,50,41, 2			
exact	39,43,51,47,22,43,42,50,31,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°28′ 0″	39,43,51,47,22,43,42,50,31,31			
		1,34, 9,52,28,14,36, 0		
2″	39,43,53,21,32,36,11, 5, 7,31		2,54,16,54,31	
		1,34, 9,49,33,57,41,29		6,53
4″	39,43,54,55,42,25,45, 2,49, 0		2,54,17, 1,24	
		1,34, 9,46,39,40,40, 5		6,53
6″	39,43,56,29,52,12,24,43,29, 5		2,54,17, 8,17	
		1,34, 9,43,45,23,31,48		6,53
8″	39,43,58, 4, 1,56,10, 7, 0,53		2,54,17,15,10	
		1,34, 9,40,51, 6,16,38		6,53
10″	39,43,59,38,11,37, 1,13,17,31		2,54,17,22, 3	
		1,34, 9,37,56,48,54,35		6,53
12″	39,44, 1,12,21,14,58, 2,12, 6		2,54,17,28,56	
		1,34, 9,35, 2,31,25,39		6,53
14″	39,44, 2,46,30,50, 0,33,37,45		2,54,17,35,49	
		1,34, 9,32, 8,13,49,50		6,53
16″	39,44, 4,20,40,22, 8,47,27,35		2,54,17,42,42	
		1,34, 9,29,13,56, 7, 8		6,53
18″	39,44, 5,54,49,51,22,43,34,43		2,54,17,49,35	
		1,34, 9,26,19,38,17,33		6,53
20″	39,44, 7,28,59,17,42,21,52,16		2,54,17,56,28	
		1,34, 9,23,25,20,21, 5		6,53
22″	39,44, 9, 3, 8,41, 7,42,13,21		2,54,18, 3,21	
		1,34, 9,20,31, 2,17,44		6,53
24″	39,44,10,37,18, 1,38,44,31, 5		2,54,18,10,14	
		1,34, 9,17,36,44, 7,30		6,53
26″	39,44,12,11,27,19,15,28,38,35		2,54,18,17, 7	
		1,34, 9,14,42,25,50,23		6,53
28″	39,44,13,45,36,33,57,54,28,58		2,54,18,24, 0	
		1,34, 9,11,48, 7,26,23		6,53
30″	39,44,15,19,45,45,46, 1,55,21		2,54,18,30,53	
		1,34, 9, 8,53,48,55,30		6,53
32″	39,44,16,53,54,54,39,50,50,51		2,54,18,37,46	
		1,34, 9, 5,59,30,17,44		6,53
34″	39,44,18,28, 4, 0,39,21, 8,35		2,54,18,44,39	
		1,34, 9, 3, 5,11,33, 5		6,53
36″	39,44,20, 2,13, 3,44,32,41,40		2,54,18,51,32	
		1,34, 9, 0,10,52,41,33		6,53
38″	39,44,21,36,22, 3,55,25,23,13		2,54,18,58,25	
		1,34, 8,57,16,33,43, 8		6,53
40″	39,44,23,10,31, 1,11,59, 6,21		2,54,19, 5,18	
		1,34, 8,54,22,14,37,50		6,53
42″	39,44,24,44,39,55,34,13,44,11		2,54,19,12,11	
		1,34, 8,51,27,55,25,39		6,53
44″	39,44,26,18,48,47, 2, 9, 9,50		2,54,19,19, 4	
		1,34, 8,48,33,36, 6,35		6,53
46″	39,44,27,52,57,35,35,45,16,25		2,54,19,25,57	
		1,34, 8,45,39,16,40,38		6,53
48″	39,44,29,27, 6,21,15, 1,57, 3		2,54,19,32,50	
		1,34, 8,42,44,57, 7,48		6,53
50″	39,44,31, 1,15, 3,59,59, 4,51		2,54,19,39,43	
		1,34, 8,39,50,37,28, 5		6,53
52″	39,44,32,35,23,43,50,36,32,56		2,54,19,46,36	
		1,34, 8,36,56,17,41,29		6,53
54″	39,44,34, 9,32,20,46,54,14,25		2,54,19,53,29	
		1,34, 8,34, 1,57,48, 0		6,53
56″	39,44,35,43,40,54,48,52, 2,25		2,54,20, 0,22	
		1,34, 8,31, 7,37,47,38		6,53
58″	39,44,37,17,49,25,56,29,50, 3		2,54,20, 7,15	
		1,34, 8,28,13,17,40,23		
60″	39,44,38,51,57,54, 9,47,30,26			
exact	39,44,38,51,57,54, 9,47,27,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°29′ 0″	39,44,38,51,57,54, 9,47,27,24			
		1,34, 8,25,18,57,26, 2		
2″	39,44,40,26, 6,19,28,44,53,26		2,54,20,21, 1	
		1,34, 8,22,24,37, 5, 1		6,53
4″	39,44,42, 0,14,41,53,21,58,27		2,54,20,27,54	
		1,34, 8,19,30,16,37, 7		6,53
6″	39,44,43,34,23, 1,23,38,35,34		2,54,20,34,47	
		1,34, 8,16,35,56, 2,20		6,53
8″	39,44,45, 8,31,17,59,34,37,54		2,54,20,41,40	
		1,34, 8,13,41,35,20,40		6,53
10″	39,44,46,42,39,31,41, 9,58,34		2,54,20,48,33	
		1,34, 8,10,47,14,32, 7		6,53
12″	39,44,48,16,47,42,28,24,30,41		2,54,20,55,26	
		1,34, 8, 7,52,53,36,41		6,53
14″	39,44,49,50,55,50,21,18, 7,22		2,54,21, 2,19	
		1,34, 8, 4,58,32,34,22		6,53
16″	39,44,51,25, 3,55,19,50,41,44		2,54,21, 9,12	
		1,34, 8, 2, 4,11,25,10		6,53
18″	39,44,52,59,11,57,24, 2, 6,54		2,54,21,16, 5	
		1,34, 7,59, 9,50, 9, 5		6,53
20″	39,44,54,33,19,56,33,52,15,59		2,54,21,22,58	
		1,34, 7,56,15,28,46, 7		6,53
22″	39,44,56, 7,27,52,49,21, 2, 6		2,54,21,29,51	
		1,34, 7,53,21, 7,16,16		6,53
24″	39,44,57,41,35,46,10,28,18,22		2,54,21,36,44	
		1,34, 7,50,26,45,39,32		6,53
26″	39,44,59,15,43,36,37,13,57,54		2,54,21,43,37	
		1,34, 7,47,32,23,55,55		6,53
28″	39,45, 0,49,51,24, 9,37,53,49		2,54,21,50,30	
		1,34, 7,44,38, 2, 5,25		6,53
30″	39,45, 2,23,59, 8,47,39,59,14		2,54,21,57,23	
		1,34, 7,41,43,40, 8, 2		6,53
32″	39,45, 3,58, 6,50,31,20, 7,16		2,54,22, 4,16	
		1,34, 7,38,49,18, 3,46		6,53
34″	39,45, 5,32,14,29,20,38,11, 2		2,54,22,11, 9	
		1,34, 7,35,54,55,52,37		6,53
36″	39,45, 7, 6,22, 5,15,34, 3,39		2,54,22,18, 2	
		1,34, 7,33, 0,33,34,35		6,53
38″	39,45, 8,40,29,38,16, 7,38,14		2,54,22,24,55	
		1,34, 7,30, 6,11, 9,40		6,53
40″	39,45,10,14,37, 8,22,18,47,54		2,54,22,31,48	
		1,34, 7,27,11,48,37,52		6,53
42″	39,45,11,48,44,35,34, 7,25,46		2,54,22,38,41	
		1,34, 7,24,17,25,59,11		6,53
44″	39,45,13,22,51,59,51,33,24,57		2,54,22,45,34	
		1,34, 7,21,23, 3,13,37		6,53
46″	39,45,14,56,59,21,14,36,38,34		2,54,22,52,27	
		1,34, 7,18,28,40,21,10		6,53
48″	39,45,16,31, 6,39,43,16,59,44		2,54,22,59,20	
		1,34, 7,15,34,17,21,50		6,53
50″	39,45,18, 5,13,55,17,34,21,34		2,54,23, 6,13	
		1,34, 7,12,39,54,15,37		6,53
52″	39,45,19,39,21, 7,57,28,37,11		2,54,23,13, 6	
		1,34, 7, 9,45,31, 2,31		6,53
54″	39,45,21,13,28,17,42,59,39,42		2,54,23,19,59	
		1,34, 7, 6,51, 7,42,32		6,53
56″	39,45,22,47,35,24,34, 7,22,14		2,54,23,26,52	
		1,34, 7, 3,56,44,15,40		6,53
58″	39,45,24,21,42,28,30,51,37,54		2,54,23,33,45	
		1,34, 7, 1, 2,20,41,55		
60″	39,45,25,55,49,29,33,12,19,49			
exact	39,45,25,55,49,29,33,12,24,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°30′ 0″	39,45,25,55,49,29,33,12,24,43			
		1,34, 6,58, 7,57, 1,53		
2″	39,45,27,29,56,27,41, 9,26,36		2,54,23,47,28	
		1,34, 6,55,13,33,14,25		6,53
4″	39,45,29, 4, 3,22,54,42,41, 1		2,54,23,54,21	
		1,34, 6,52,19, 9,20, 4		6,53
6″	39,45,30,38,10,15,13,52, 1, 5		2,54,24, 1,14	
		1,34, 6,49,24,45,18,50		6,53
8″	39,45,32,12,17, 4,38,37,19,55		2,54,24, 8, 7	
		1,34, 6,46,30,21,10,43		6,53
10″	39,45,33,46,23,51, 8,58,30,38		2,54,24,15, 0	
		1,34, 6,43,35,56,55,43		6,53
12″	39,45,35,20,30,34,44,55,26,21		2,54,24,21,53	
		1,34, 6,40,41,32,33,50		6,53
14″	39,45,36,54,37,15,26,28, 0,11		2,54,24,28,46	
		1,34, 6,37,47, 8, 5, 4		6,53
16″	39,45,38,28,43,53,13,36, 5,15		2,54,24,35,39	
		1,34, 6,34,52,43,29,25		6,53
18″	39,45,40, 2,50,28, 6,19,34,40		2,54,24,42,32	
		1,34, 6,31,58,18,46,53		6,53
20″	39,45,41,36,57, 0, 4,38,21,33		2,54,24,49,25	
		1,34, 6,29, 3,53,57,28		6,53
22″	39,45,43,11, 3,29, 8,32,19, 1		2,54,24,56,18	
		1,34, 6,26, 9,29, 1,10		6,53
24″	39,45,44,45, 9,55,18, 1,20,11		2,54,25, 3,11	
		1,34, 6,23,15, 3,57,59		6,53
26″	39,45,46,19,16,18,33, 5,18,10		2,54,25,10, 4	
		1,34, 6,20,20,38,47,55		6,53
28″	39,45,47,53,22,38,53,44, 6, 5		2,54,25,16,57	
		1,34, 6,17,26,13,30,58		6,53
30″	39,45,49,27,28,56,19,57,37, 3		2,54,25,23,50	
		1,34, 6,14,31,48, 7, 8		6,53
32″	39,45,51, 1,35,10,51,45,44,11		2,54,25,30,43	
		1,34, 6,11,37,22,36,25		6,53
34″	39,45,52,35,41,22,29, 8,20,36		2,54,25,37,36	
		1,34, 6, 8,42,56,58,49		6,53
36″	39,45,54, 9,47,31,12, 5,19,25		2,54,25,44,29	
		1,34, 6, 5,48,31,14,20		6,53
38″	39,45,55,43,53,37, 0,36,33,45		2,54,25,51,22	
		1,34, 6, 2,54, 5,22,58		6,53
40″	39,45,57,17,59,39,54,41,56,43		2,54,25,58,15	
		1,34, 5,59,59,39,24,43		6,53
42″	39,45,58,52, 5,39,54,21,21,26		2,54,26, 5, 8	
		1,34, 5,57, 5,13,19,35		6,53
44″	39,46, 0,26,11,36,59,34,41, 1		2,54,26,12, 1	
		1,34, 5,54,10,47, 7,34		6,53
46″	39,46, 2, 0,17,31,10,21,48,35		2,54,26,18,54	
		1,34, 5,51,16,20,48,40		6,53
48″	39,46, 3,34,23,22,26,42,37,15		2,54,26,25,47	
		1,34, 5,48,21,54,22,53		6,53
50″	39,46, 5, 8,29,10,48,37, 0, 8		2,54,26,32,40	
		1,34, 5,45,27,27,50,13		6,53
52″	39,46, 6,42,34,56,16, 4,50,21		2,54,26,39,33	
		1,34, 5,42,33, 1,10,40		6,53
54″	39,46, 8,16,40,38,49, 6, 1, 1		2,54,26,46,26	
		1,34, 5,39,38,34,24,14		6,53
56″	39,46, 9,50,46,18,27,40,25,15		2,54,26,53,19	
		1,34, 5,36,44, 7,30,55		6,53
58″	39,46,11,24,51,55,11,47,56,10		2,54,27, 0,12	
		1,34, 5,33,49,40,30,43		
60″	39,46,12,58,57,29, 1,28,26,53			
exact	39,46,12,58,57,29, 1,28,40,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°31′ 0″	39,46,12,58,57,29, 1,28,40,55			
		1,34, 5,30,55,13,25, 9		
2″	39,46,14,33, 2,59,56,42, 6, 4		2,54,27,13,51	
		1,34, 5,28, 0,46,11,18		6,53
4″	39,46,16, 7, 8,27,57,28,17,22		2,54,27,20,44	
		1,34, 5,25, 6,18,50,34		6,53
6″	39,46,17,41,13,53, 3,47, 7,56		2,54,27,27,37	
		1,34, 5,22,11,51,22,57		6,53
8″	39,46,19,15,19,15,15,38,30,53		2,54,27,34,30	
		1,34, 5,19,17,23,48,27		6,53
10″	39,46,20,49,24,34,33, 2,19,20		2,54,27,41,23	
		1,34, 5,16,22,56, 7, 4		6,53
12″	39,46,22,23,29,50,55,58,26,24		2,54,27,48,16	
		1,34, 5,13,28,28,18,48		6,53
14″	39,46,23,57,35, 4,24,26,45,12		2,54,27,55, 9	
		1,34, 5,10,34, 0,23,39		6,53
16″	39,46,25,31,40,14,58,27, 8,51		2,54,28, 2, 2	
		1,34, 5, 7,39,32,21,37		6,53
18″	39,46,27, 5,45,22,37,59,30,28		2,54,28, 8,55	
		1,34, 5, 4,45, 4,12,42		6,53
20″	39,46,28,39,50,27,23, 3,43,10		2,54,28,15,48	
		1,34, 5, 1,50,35,56,54		6,53
22″	39,46,30,13,55,29,13,39,40, 4		2,54,28,22,41	
		1,34, 4,58,56, 7,34,13		6,53
24″	39,46,31,48, 0,28, 9,47,14,17		2,54,28,29,34	
		1,34, 4,56, 1,39, 4,39		6,53
26″	39,46,33,22, 5,24,11,26,18,56		2,54,28,36,27	
		1,34, 4,53, 7,10,28,12		6,53
28″	39,46,34,56,10,17,18,36,47, 8		2,54,28,43,20	
		1,34, 4,50,12,41,44,52		6,53
30″	39,46,36,30,15, 7,31,18,32, 0		2,54,28,50,13	
		1,34, 4,47,18,12,54,39		6,53
32″	39,46,38, 4,19,54,49,31,26,39		2,54,28,57, 6	
		1,34, 4,44,23,43,57,33		6,53
34″	39,46,39,38,24,39,13,15,24,12		2,54,29, 3,59	
		1,34, 4,41,29,14,53,34		6,53
36″	39,46,41,12,29,20,42,30,17,46		2,54,29,10,52	
		1,34, 4,38,34,45,42,42		6,53
38″	39,46,42,46,33,59,17,16, 0,28		2,54,29,17,45	
		1,34, 4,35,40,16,24,57		6,53
40″	39,46,44,20,38,34,57,32,25,25		2,54,29,24,38	
		1,34, 4,32,45,47, 0,19		6,53
42″	39,46,45,54,43, 7,43,19,25,44		2,54,29,31,31	
		1,34, 4,29,51,17,28,48		6,53
44″	39,46,47,28,47,37,34,36,54,32		2,54,29,38,24	
		1,34, 4,26,56,47,50,24		6,53
46″	39,46,49, 2,52, 4,31,24,44,56		2,54,29,45,17	
		1,34, 4,24, 2,18, 5, 7		6,53
48″	39,46,50,36,56,28,33,42,50, 3		2,54,29,52,10	
		1,34, 4,21, 7,48,12,57		6,53
50″	39,46,52,11, 0,49,41,31, 3, 0		2,54,29,59, 3	
		1,34, 4,18,13,18,13,54		6,53
52″	39,46,53,45, 5, 7,54,49,16,54		2,54,30, 5,56	
		1,34, 4,15,18,48, 7,58		6,53
54″	39,46,55,19, 9,23,13,37,24,52		2,54,30,12,49	
		1,34, 4,12,24,17,55, 9		6,53
56″	39,46,56,53,13,35,37,55,20, 1		2,54,30,19,42	
		1,34, 4, 9,29,47,35,27		6,53
58″	39,46,58,27,17,45, 7,42,55,28		2,54,30,26,35	
		1,34, 4, 6,35,17, 8,52		
60″	39,47, 0, 1,21,51,43, 0, 4,20			
exact	39,47, 0, 1,21,51,43, 0,21,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°32′ 0″	39,47, 0, 1,21,51,43, 0,21,18			
		1,34, 4, 3,40,46,37,24		
2″	39,47, 1,35,25,55,23,46,58,42		2,54,30,40,12	
		1,34, 4, 0,46,15,57,12		6,53
4″	39,47, 3, 9,29,56,10, 2,55,54		2,54,30,47, 5	
		1,34, 3,57,51,45,10, 7		6,53
6″	39,47, 4,43,33,54, 1,48, 6, 1		2,54,30,53,58	
		1,34, 3,54,57,14,16, 9		6,53
8″	39,47, 6,17,37,48,59, 2,22,10		2,54,31, 0,51	
		1,34, 3,52, 2,43,15,18		6,53
10″	39,47, 7,51,41,41, 1,45,37,28		2,54,31, 7,44	
		1,34, 3,49, 8,12, 7,34		6,53
12″	39,47, 9,25,45,30, 9,57,45, 2		2,54,31,14,37	
		1,34, 3,46,13,40,52,57		6,53
14″	39,47,10,59,49,16,23,38,37,59		2,54,31,21,30	
		1,34, 3,43,19, 9,31,27		6,53
16″	39,47,12,33,52,59,42,48, 9,26		2,54,31,28,23	
		1,34, 3,40,24,38, 3, 4		6,53
18″	39,47,14, 7,56,40, 7,26,12,30		2,54,31,35,16	
		1,34, 3,37,30, 6,27,48		6,53
20″	39,47,15,42, 0,17,37,32,40,18		2,54,31,42, 9	
		1,34, 3,34,35,34,45,39		6,53
22″	39,47,17,16, 3,52,13, 7,25,57		2,54,31,49, 2	
		1,34, 3,31,41, 2,56,37		6,53
24″	39,47,18,50, 7,23,54,10,22,34		2,54,31,55,55	
		1,34, 3,28,46,31, 0,42		6,53
26″	39,47,20,24,10,52,40,41,23,16		2,54,32, 2,48	
		1,34, 3,25,51,58,57,54		6,53
28″	39,47,21,58,14,18,32,40,21,10		2,54,32, 9,41	
		1,34, 3,22,57,26,48,13		6,53
30″	39,47,23,32,17,41,30, 7, 9,23		2,54,32,16,34	
		1,34, 3,20, 2,54,31,39		6,53
32″	39,47,25, 6,21, 1,33, 1,41, 2		2,54,32,23,27	
		1,34, 3,17, 8,22, 8,12		6,53
34″	39,47,26,40,24,18,41,23,49,14		2,54,32,30,20	
		1,34, 3,14,13,49,37,52		6,53
36″	39,47,28,14,27,32,55,13,27, 6		2,54,32,37,13	
		1,34, 3,11,19,17, 0,39		6,53
38″	39,47,29,48,30,44,14,30,27,45		2,54,32,44, 6	
		1,34, 3, 8,24,44,16,33		6,53
40″	39,47,31,22,33,52,39,14,44,18		2,54,32,50,59	
		1,34, 3, 5,30,11,25,34		6,53
42″	39,47,32,56,36,58, 9,26, 9,52		2,54,32,57,52	
		1,34, 3, 2,35,38,27,42		6,53
44″	39,47,34,30,40, 0,45, 4,37,34		2,54,33, 4,45	
		1,34, 2,59,41, 5,22,57		6,53
46″	39,47,36, 4,43, 0,26,10, 0,31		2,54,33,11,38	
		1,34, 2,56,46,32,11,19		6,53
48″	39,47,37,38,45,57,12,42,11,50		2,54,33,18,31	
		1,34, 2,53,51,58,52,48		6,53
50″	39,47,39,12,48,51, 4,41, 4,38		2,54,33,25,24	
		1,34, 2,50,57,25,27,24		6,53
52″	39,47,40,46,51,42, 2, 6,32, 2		2,54,33,32,17	
		1,34, 2,48, 2,51,55, 7		6,53
54″	39,47,42,20,54,30, 4,58,27, 9		2,54,33,39,10	
		1,34, 2,45, 8,18,15,57		6,53
56″	39,47,43,54,57,15,13,16,43, 6		2,54,33,46, 3	
		1,34, 2,42,13,44,29,54		6,53
58″	39,47,45,28,59,57,27, 1,13, 0		2,54,33,52,56	
		1,34, 2,39,19,10,36,58		
60″	39,47,47, 3, 2,36,46,11,49,58			
exact	39,47,47, 3, 2,36,46,12,18,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°33′ 0″	39,47,47, 3, 2,36,46,12,18,58			
		1,34, 2,36,24,36,40,15		
2″	39,47,48,37, 5,13,10,48,59,13		2,54,34, 6,29	
		1,34, 2,33,30, 2,33,46		6,53
4″	39,47,50,11, 7,46,40,51,32,59		2,54,34,13,22	
		1,34, 2,30,35,28,20,24		6,53
6″	39,47,51,45,10,17,16,19,53,23		2,54,34,20,15	
		1,34, 2,27,40,54, 0, 9		6,53
8″	39,47,53,19,12,44,57,13,53,32		2,54,34,27, 8	
		1,34, 2,24,46,19,33, 1		6,53
10″	39,47,54,53,15, 9,43,33,26,33		2,54,34,34, 1	
		1,34, 2,21,51,44,59, 0		6,53
12″	39,47,56,27,17,31,35,18,25,33		2,54,34,40,54	
		1,34, 2,18,57,10,18, 6		6,53
14″	39,47,58, 1,19,50,32,28,43,39		2,54,34,47,47	
		1,34, 2,16, 2,35,30,19		6,53
16″	39,47,59,35,22, 6,35, 4,13,58		2,54,34,54,40	
		1,34, 2,13, 8, 0,35,39		6,53
18″	39,48, 1, 9,24,19,43, 4,49,37		2,54,35, 1,33	
		1,34, 2,10,13,25,34, 6		6,53
20″	39,48, 2,43,26,29,56,30,23,43		2,54,35, 8,26	
		1,34, 2, 7,18,50,25,40		6,53
22″	39,48, 4,17,28,37,15,20,49,23		2,54,35,15,19	
		1,34, 2, 4,24,15,10,21		6,53
24″	39,48, 5,51,30,41,39,35,59,44		2,54,35,22,12	
		1,34, 2, 1,29,39,48, 9		6,53
26″	39,48, 7,25,32,43, 9,15,47,53		2,54,35,29, 5	
		1,34, 1,58,35, 4,19, 4		6,53
28″	39,48, 8,59,34,41,44,20, 6,57		2,54,35,35,58	
		1,34, 1,55,40,28,43, 6		6,53
30″	39,48,10,33,36,37,24,48,50, 3		2,54,35,42,51	
		1,34, 1,52,45,53, 0,15		6,53
32″	39,48,12, 7,38,30,10,41,50,18		2,54,35,49,44	
		1,34, 1,49,51,17,10,31		6,53
34″	39,48,13,41,40,20, 1,59, 0,49		2,54,35,56,37	
		1,34, 1,46,56,41,13,54		6,53
36″	39,48,15,15,42, 6,58,40,14,43		2,54,36, 3,30	
		1,34, 1,44, 2, 5,10,24		6,53
38″	39,48,16,49,43,51, 0,45,25, 7		2,54,36,10,23	
		1,34, 1,41, 7,29, 0, 1		6,53
40″	39,48,18,23,45,32, 8,14,25, 8		2,54,36,17,16	
		1,34, 1,38,12,52,42,45		6,53
42″	39,48,19,57,47,10,21, 7, 7,53		2,54,36,24, 9	
		1,34, 1,35,18,16,18,36		6,53
44″	39,48,21,31,48,45,39,23,26,29		2,54,36,31, 2	
		1,34, 1,32,23,39,47,34		6,53
46″	39,48,23, 5,50,18, 3, 3,14, 3		2,54,36,37,55	
		1,34, 1,29,29, 3, 9,39		6,53
48″	39,48,24,39,51,47,32, 6,23,42		2,54,36,44,48	
		1,34, 1,26,34,26,24,51		6,53
50″	39,48,26,13,53,14, 6,32,48,33		2,54,36,51,41	
		1,34, 1,23,39,49,33,10		6,53
52″	39,48,27,47,54,37,46,22,21,43		2,54,36,58,34	
		1,34, 1,20,45,12,34,36		6,53
54″	39,48,29,21,55,58,31,34,56,19		2,54,37, 5,27	
		1,34, 1,17,50,35,29, 9		6,53
56″	39,48,30,55,57,16,22,10,25,28		2,54,37,12,20	
		1,34, 1,14,55,58,16,49		6,53
58″	39,48,32,29,58,31,18, 8,42,17		2,54,37,19,13	
		1,34, 1,12, 1,20,57,36		
60″	39,48,34, 3,59,43,19,29,39,53			
exact	39,48,34, 3,59,43,19,30,14,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°34′ 0″	39,48,34, 3,59,43,19,30,14,52			
		1,34, 1, 9, 6,43,35,17		
2″	39,48,35,38, 0,52,26,13,50, 9		2,54,37,32,43	
		1,34, 1, 6,12, 6, 2,34		6,52
4″	39,48,37,12, 1,58,38,19,52,43		2,54,37,39,35	
		1,34, 1, 3,17,28,22,59		6,52
6″	39,48,38,46, 3, 1,55,48,15,42		2,54,37,46,27	
		1,34, 1, 0,22,50,36,32		6,52
8″	39,48,40,20, 4, 2,18,38,52,14		2,54,37,53,19	
		1,34, 0,57,28,12,43,13		6,52
10″	39,48,41,54, 4,59,46,51,35,27		2,54,38, 0,11	
		1,34, 0,54,33,34,43, 2		6,52
12″	39,48,43,28, 5,54,20,26,18,29		2,54,38, 7, 3	
		1,34, 0,51,38,56,35,59		6,52
14″	39,48,45, 2, 6,45,59,22,54,28		2,54,38,13,55	
		1,34, 0,48,44,18,22, 4		6,52
16″	39,48,46,36, 7,34,43,41,16,32		2,54,38,20,47	
		1,34, 0,45,49,40, 1,17		6,52
18″	39,48,48,10, 8,20,33,21,17,49		2,54,38,27,39	
		1,34, 0,42,55, 1,33,38		6,52
20″	39,48,49,44, 9, 3,28,22,51,27		2,54,38,34,31	
		1,34, 0,40, 0,22,59, 7		6,52
22″	39,48,51,18, 9,43,28,45,50,34		2,54,38,41,23	
		1,34, 0,37, 5,44,17,44		6,52
24″	39,48,52,52,10,20,34,30, 8,18		2,54,38,48,15	
		1,34, 0,34,11, 5,29,29		6,52
26″	39,48,54,26,10,54,45,35,37,47		2,54,38,55, 7	
		1,34, 0,31,16,26,34,22		6,52
28″	39,48,56, 0,11,26, 2, 2,12, 9		2,54,39, 1,59	
		1,34, 0,28,21,47,32,23		6,52
30″	39,48,57,34,11,54,23,49,44,32		2,54,39, 8,51	
		1,34, 0,25,27, 8,23,32		6,52
32″	39,48,59, 8,12,19,50,58, 8, 4		2,54,39,15,43	
		1,34, 0,22,32,29, 7,49		6,52
34″	39,49, 0,42,12,42,23,27,15,53		2,54,39,22,35	
		1,34, 0,19,37,49,45,14		6,52
36″	39,49, 2,16,13, 2, 1,17, 1, 7		2,54,39,29,27	
		1,34, 0,16,43,10,15,47		6,52
38″	39,49, 3,50,13,18,44,27,16,54		2,54,39,36,19	
		1,34, 0,13,48,30,39,28		6,52
40″	39,49, 5,24,13,32,32,57,56,22		2,54,39,43,11	
		1,34, 0,10,53,50,56,17		6,52
42″	39,49, 6,58,13,43,26,48,52,39		2,54,39,50, 3	
		1,34, 0, 7,59,11, 6,14		6,52
44″	39,49, 8,32,13,51,25,59,58,53		2,54,39,56,55	
		1,34, 0, 5, 4,31, 9,19		6,52
46″	39,49,10, 6,13,56,30,31, 8,12		2,54,40, 3,47	
		1,34, 0, 2, 9,51, 5,32		6,52
48″	39,49,11,40,13,58,40,22,13,44		2,54,40,10,39	
		1,33,59,59,15,10,54,53		6,52
50″	39,49,13,14,13,57,55,33, 8,37		2,54,40,17,31	
		1,33,59,56,20,30,37,22		6,52
52″	39,49,14,48,13,54,16, 3,45,59		2,54,40,24,23	
		1,33,59,53,25,50,12,59		6,52
54″	39,49,16,22,13,47,41,53,58,58		2,54,40,31,15	
		1,33,59,50,31, 9,41,44		6,52
56″	39,49,17,56,13,38,13, 3,40,42		2,54,40,38, 7	
		1,33,59,47,36,29, 3,37		6,52
58″	39,49,19,30,13,25,49,32,44,19		2,54,40,44,59	
		1,33,59,44,41,48,18,38		
60″	39,49,21, 4,13,10,31,21, 2,57			
exact	39,49,21, 4,13,10,31,20,37,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°35′ 0″	39,49,21, 4,13,10,31,20,37,49	1,33,59,41,47, 7,24, 7		
2″	39,49,22,38,12,52,18,28, 1,56	1,33,59,38,52,26,25,13	2,54,40,58,54	6,52
4″	39,49,24,12,12,31,10,54,27, 9	1,33,59,35,57,45,19,27	2,54,41, 5,46	6,52
6″	39,49,25,46,12, 7, 8,39,46,36	1,33,59,33, 3, 4, 6,49	2,54,41,12,38	6,52
8″	39,49,27,20,11,40,11,43,53,25	1,33,59,30, 8,22,47,19	2,54,41,19,30	6,52
10″	39,49,28,54,11,10,20, 6,40,44	1,33,59,27,13,41,20,57	2,54,41,26,22	6,52
12″	39,49,30,28,10,37,33,48, 1,41	1,33,59,24,18,59,47,43	2,54,41,33,14	6,52
14″	39,49,32, 2,10, 1,52,47,49,24	1,33,59,21,24,18, 7,37	2,54,41,40, 6	6,52
16″	39,49,33,36, 9,23,17, 5,57, 1	1,33,59,18,29,36,20,39	2,54,41,46,58	6,52
18″	39,49,35,10, 8,41,46,42,17,40	1,33,59,15,34,54,26,49	2,54,41,53,50	6,52
20″	39,49,36,44, 7,57,21,36,44,29	1,33,59,12,40,12,26, 7	2,54,42, 0,42	6,52
22″	39,49,38,18, 7,10, 1,49,10,36	1,33,59, 9,45,30,18,33	2,54,42, 7,34	6,52
24″	39,49,39,52, 6,19,47,19,29, 9	1,33,59, 6,50,48, 4, 7	2,54,42,14,26	6,52
26″	39,49,41,26, 5,26,38, 7,33,16	1,33,59, 3,56, 5,42,49	2,54,42,21,18	6,52
28″	39,49,43, 0, 4,30,34,13,16, 5	1,33,59, 1, 1,23,14,39	2,54,42,28,10	6,52
30″	39,49,44,34, 3,31,35,36,30,44	1,33,58,58, 6,40,39,37	2,54,42,35, 2	6,52
32″	39,49,46, 8, 2,29,42,17,10,21	1,33,58,55,11,57,57,43	2,54,42,41,54	6,52
34″	39,49,47,42, 1,24,54,15, 8, 4	1,33,58,52,17,15, 8,57	2,54,42,48,46	6,52
36″	39,49,49,16, 0,17,11,30,17, 1	1,33,58,49,22,32,13,19	2,54,42,55,38	6,52
38″	39,49,50,49,59, 6,34, 2,30,20	1,33,58,46,27,49,10,49	2,54,43, 2,30	6,52
40″	39,49,52,23,57,53, 1,51,41, 9	1,33,58,43,33, 6, 1,27	2,54,43, 9,22	6,52
42″	39,49,53,57,56,36,34,57,42,36	1,33,58,40,38,22,45,13	2,54,43,16,14	6,52
44″	39,49,55,31,55,17,13,20,27,49	1,33,58,37,43,39,22, 7	2,54,43,23, 6	6,52
46″	39,49,57, 5,53,54,56,59,49,56	1,33,58,34,48,55,52, 9	2,54,43,29,58	6,52
48″	39,49,58,39,52,29,45,55,42, 5	1,33,58,31,54,12,15,19	2,54,43,36,50	6,52
50″	39,50, 0,13,51, 1,40, 7,57,24	1,33,58,28,59,28,31,37	2,54,43,43,42	6,52
52″	39,50, 1,47,49,30,39,36,29, 1	1,33,58,26, 4,44,41, 3	2,54,43,50,34	6,52
54″	39,50, 3,21,47,56,44,21,10, 4	1,33,58,23,10, 0,43,37	2,54,43,57,26	6,52
56″	39,50, 4,55,46,19,54,21,53,41	1,33,58,20,15,16,39,19	2,54,44, 4,18	6,52
58″	39,50, 6,29,44,40, 9,38,33, 0	1,33,58,17,20,32,28, 9	2,54,44,11,10	
60″	39,50, 8, 3,42,57,30,11, 1, 9			
exact	39,50, 8, 3,42,57,30,10,44,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°36′ 0″	39,50, 8, 3,42,57,30,10,44,31			
		1,33,58,14,25,48, 8,19		
2″	39,50, 9,37,41,11,55,58,52,50		2,54,44,25, 1	
		1,33,58,11,31, 3,43,18		6,52
4″	39,50,11,11,39,23,27, 2,36, 8		2,54,44,31,53	
		1,33,58, 8,36,19,11,25		6,52
6″	39,50,12,45,37,32, 3,21,47,33		2,54,44,38,45	
		1,33,58, 5,41,34,32,40		6,52
8″	39,50,14,19,35,37,44,56,20,13		2,54,44,45,37	
		1,33,58, 2,46,49,47, 3		6,52
10″	39,50,15,53,33,40,31,46, 7,16		2,54,44,52,29	
		1,33,57,59,52, 4,54,34		6,52
12″	39,50,17,27,31,40,23,51, 1,50		2,54,44,59,21	
		1,33,57,56,57,19,55,13		6,52
14″	39,50,19, 1,29,37,21,10,57, 3		2,54,45, 6,13	
		1,33,57,54, 2,34,49, 0		6,52
16″	39,50,20,35,27,31,23,45,46, 3		2,54,45,13, 5	
		1,33,57,51, 7,49,35,55		6,52
18″	39,50,22, 9,25,22,31,35,21,58		2,54,45,19,57	
		1,33,57,48,13, 4,15,58		6,52
20″	39,50,23,43,23,10,44,39,37,56		2,54,45,26,49	
		1,33,57,45,18,18,49, 9		6,52
22″	39,50,25,17,20,56, 2,58,27, 5		2,54,45,33,41	
		1,33,57,42,23,33,15,28		6,52
24″	39,50,26,51,18,38,26,31,42,33		2,54,45,40,33	
		1,33,57,39,28,47,34,55		6,52
26″	39,50,28,25,16,17,55,19,17,28		2,54,45,47,25	
		1,33,57,36,34, 1,47,30		6,52
28″	39,50,29,59,13,54,29,21, 4,58		2,54,45,54,17	
		1,33,57,33,39,15,53,13		6,52
30″	39,50,31,33,11,28, 8,36,58,11		2,54,46, 1, 9	
		1,33,57,30,44,29,52, 4		6,52
32″	39,50,33, 7, 8,58,53, 6,50,15		2,54,46, 8, 1	
		1,33,57,27,49,43,44, 3		6,52
34″	39,50,34,41, 6,26,42,50,34,18		2,54,46,14,53	
		1,33,57,24,54,57,29,10		6,52
36″	39,50,36,15, 3,51,37,48, 3,28		2,54,46,21,45	
		1,33,57,22, 0,11, 7,25		6,52
38″	39,50,37,49, 1,13,37,59,10,53		2,54,46,28,37	
		1,33,57,19, 5,24,38,48		6,52
40″	39,50,39,22,58,32,43,23,49,41		2,54,46,35,29	
		1,33,57,16,10,38, 3,19		6,52
42″	39,50,40,56,55,48,54, 1,53, 0		2,54,46,42,21	
		1,33,57,13,15,51,20,58		6,52
44″	39,50,42,30,53, 2, 9,53,13,58		2,54,46,49,13	
		1,33,57,10,21, 4,31,45		6,52
46″	39,50,44, 4,50,12,30,57,45,43		2,54,46,56, 5	
		1,33,57, 7,26,17,35,40		6,52
48″	39,50,45,38,47,19,57,15,21,23		2,54,47, 2,57	
		1,33,57, 4,31,30,32,43		6,52
50″	39,50,47,12,44,24,28,45,54, 6		2,54,47, 9,49	
		1,33,57, 1,36,43,22,54		6,52
52″	39,50,48,46,41,26, 5,29,17, 0		2,54,47,16,41	
		1,33,56,58,41,56, 6,13		6,52
54″	39,50,50,20,38,24,47,25,23,13		2,54,47,23,33	
		1,33,56,55,47, 8,42,40		6,52
56″	39,50,51,54,35,20,34,34, 5,53		2,54,47,30,25	
		1,33,56,52,52,21,12,15		6,52
58″	39,50,53,28,32,13,26,55,18, 8		2,54,47,37,17	
		1,33,56,49,57,33,34,58		
60″	39,50,55, 2,29, 3,24,28,53, 6			
exact	39,50,55, 2,29, 3,24,28,39,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°37′ 0″	39,50,55, 2,29, 3,24,28,39,31			
		1,33,56,47, 2,45,49,30		
2″	39,50,56,36,25,50,27,14,29, 1		2,54,47,51, 6	
		1,33,56,44, 7,57,58,24		6,52
4″	39,50,58,10,22,34,35,12,27,25		2,54,47,57,58	
		1,33,56,41,13,10, 0,26		6,52
6″	39,50,59,44,19,15,48,22,27,51		2,54,48, 4,50	
		1,33,56,38,18,21,55,36		6,52
8″	39,51, 1,18,15,54, 6,44,23,27		2,54,48,11,42	
		1,33,56,35,23,33,43,54		6,52
10″	39,51, 2,52,12,29,30,18, 7,21		2,54,48,18,34	
		1,33,56,32,28,45,25,20		6,52
12″	39,51, 4,26, 9, 1,59, 3,32,41		2,54,48,25,26	
		1,33,56,29,33,56,59,54		6,52
14″	39,51, 6, 0, 5,31,33, 0,32,35		2,54,48,32,18	
		1,33,56,26,39, 8,27,36		6,52
16″	39,51, 7,34, 1,58,12, 9, 0,11		2,54,48,39,10	
		1,33,56,23,44,19,48,26		6,52
18″	39,51, 9, 7,58,21,56,28,48,37		2,54,48,46, 2	
		1,33,56,20,49,31, 2,24		6,52
20″	39,51,10,41,54,42,45,59,51, 1		2,54,48,52,54	
		1,33,56,17,54,42, 9,30		6,52
22″	39,51,12,15,51, 0,40,42, 0,31		2,54,48,59,46	
		1,33,56,14,59,53, 9,44		6,52
24″	39,51,13,49,47,15,40,35,10,15		2,54,49, 6,38	
		1,33,56,12, 5, 4, 3, 6		6,52
26″	39,51,15,23,43,27,45,39,13,21		2,54,49,13,30	
		1,33,56, 9,10,14,49,36		6,52
28″	39,51,16,57,39,36,55,54, 2,57		2,54,49,20,22	
		1,33,56, 6,15,25,29,14		6,52
30″	39,51,18,31,35,43,11,19,32,11		2,54,49,27,14	
		1,33,56, 3,20,36, 2, 0		6,52
32″	39,51,20, 5,31,46,31,55,34,11		2,54,49,34, 6	
		1,33,56, 0,25,46,27,54		6,52
34″	39,51,21,39,27,46,57,42, 2, 5		2,54,49,40,58	
		1,33,55,57,30,56,46,56		6,52
36″	39,51,23,13,23,44,28,38,49, 1		2,54,49,47,50	
		1,33,55,54,36, 6,59, 6		6,52
38″	39,51,24,47,19,39, 4,45,48, 7		2,54,49,54,42	
		1,33,55,51,41,17, 4,24		6,52
40″	39,51,26,21,15,30,46, 2,52,31		2,54,50, 1,34	
		1,33,55,48,46,27, 2,50		6,52
42″	39,51,27,55,11,19,32,29,55,21		2,54,50, 8,26	
		1,33,55,45,51,36,54,24		6,52
44″	39,51,29,29, 7, 5,24, 6,49,45		2,54,50,15,18	
		1,33,55,42,56,46,39, 6		6,52
46″	39,51,31, 3, 2,48,20,53,28,51		2,54,50,22,10	
		1,33,55,40, 1,56,16,56		6,52
48″	39,51,32,36,58,28,22,49,45,47		2,54,50,29, 2	
		1,33,55,37, 7, 5,47,54		6,52
50″	39,51,34,10,54, 5,29,55,33,41		2,54,50,35,54	
		1,33,55,34,12,15,12, 0		6,52
52″	39,51,35,44,49,39,42,10,45,41		2,54,50,42,46	
		1,33,55,31,17,24,29,14		6,52
54″	39,51,37,18,45,10,59,35,14,55		2,54,50,49,38	
		1,33,55,28,22,33,39,36		6,52
56″	39,51,38,52,40,39,22, 8,54,31		2,54,50,56,30	
		1,33,55,25,27,42,43, 6		6,52
58″	39,51,40,26,36, 4,49,51,37,37		2,54,51, 3,22	
		1,33,55,22,32,51,39,44		
60″	39,51,42, 0,31,27,22,43,17,21			
exact	39,51,42, 0,31,27,22,43,15,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°38′ 0″	39,51,42, 0,31,27,22,43,15,18			
		1,33,55,19,38, 0,29,15		
2″	39,51,43,34,26,47, 0,43,44,33		2,54,51,17, 7	
		1,33,55,16,43, 9,12, 8		6,52
4″	39,51,45, 8,22, 3,43,52,56,41		2,54,51,23,59	
		1,33,55,13,48,17,48, 9		6,52
6″	39,51,46,42,17,17,32,10,44,50		2,54,51,30,51	
		1,33,55,10,53,26,17,18		6,52
8″	39,51,48,16,12,28,25,37, 2, 8		2,54,51,37,43	
		1,33,55, 7,58,34,39,35		6,52
10″	39,51,49,50, 7,36,24,11,41,43		2,54,51,44,35	
		1,33,55, 5, 3,42,55, 0		6,52
12″	39,51,51,24, 2,41,27,54,36,43		2,54,51,51,27	
		1,33,55, 2, 8,51, 3,33		6,52
14″	39,51,52,57,57,43,36,45,40,16		2,54,51,58,19	
		1,33,54,59,13,59, 5,14		6,52
16″	39,51,54,31,52,42,50,44,45,30		2,54,52, 5,11	
		1,33,54,56,19, 7, 0, 3		6,52
18″	39,51,56, 5,47,39, 9,51,45,33		2,54,52,12, 3	
		1,33,54,53,24,14,48, 0		6,52
20″	39,51,57,39,42,32,34, 6,33,33		2,54,52,18,55	
		1,33,54,50,29,22,29, 5		6,52
22″	39,51,59,13,37,23, 3,29, 2,38		2,54,52,25,47	
		1,33,54,47,34,30, 3,18		6,52
24″	39,52, 0,47,32,10,37,59, 5,56		2,54,52,32,39	
		1,33,54,44,39,37,30,39		6,52
26″	39,52, 2,21,26,55,17,36,36,35		2,54,52,39,31	
		1,33,54,41,44,44,51, 8		6,52
28″	39,52, 3,55,21,37, 2,21,27,43		2,54,52,46,23	
		1,33,54,38,49,52, 4,45		6,52
30″	39,52, 5,29,16,15,52,13,32,28		2,54,52,53,15	
		1,33,54,35,54,59,11,30		6,52
32″	39,52, 7, 3,10,51,47,12,43,58		2,54,53, 0, 7	
		1,33,54,33, 0, 6,11,23		6,52
34″	39,52, 8,37, 5,24,47,18,55,21		2,54,53, 6,59	
		1,33,54,30, 5,13, 4,24		6,52
36″	39,52,10,10,59,54,52,31,59,45		2,54,53,13,51	
		1,33,54,27,10,19,50,33		6,52
38″	39,52,11,44,54,22, 2,51,50,18		2,54,53,20,43	
		1,33,54,24,15,26,29,50		6,52
40″	39,52,13,18,48,46,18,18,20, 8		2,54,53,27,35	
		1,33,54,21,20,33, 2,15		6,52
42″	39,52,14,52,43, 7,38,51,22,23		2,54,53,34,27	
		1,33,54,18,25,39,27,48		6,52
44″	39,52,16,26,37,26, 4,30,50,11		2,54,53,41,19	
		1,33,54,15,30,45,46,29		6,52
46″	39,52,18, 0,31,41,35,16,36,40		2,54,53,48,11	
		1,33,54,12,35,51,58,18		6,52
48″	39,52,19,34,25,54,11, 8,34,58		2,54,53,55, 3	
		1,33,54, 9,40,58, 3,15		6,52
50″	39,52,21, 8,20, 3,52, 6,38,13		2,54,54, 1,55	
		1,33,54, 6,46, 4, 1,20		6,52
52″	39,52,22,42,14,10,38,10,39,33		2,54,54, 8,47	
		1,33,54, 3,51, 9,52,33		6,52
54″	39,52,24,16, 8,14,29,20,32, 6		2,54,54,15,39	
		1,33,54, 0,56,15,36,54		6,52
56″	39,52,25,50, 2,15,25,36, 9, 0		2,54,54,22,31	
		1,33,53,58, 1,21,14,23		6,52
58″	39,52,27,23,56,13,26,57,23,23		2,54,54,29,23	
		1,33,53,55, 6,26,45, 0		
60″	39,52,28,57,50, 8,33,24, 8,23			
exact	39,52,28,57,50, 8,33,24,12,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°39′ 0″	39,52,28,57,50, 8,33,24,12,17			
		1,33,53,52,11,32, 9,11		
2″	39,52,30,31,44, 0,44,56,21,28		2,54,54,43, 5	
		1,33,53,49,16,37,26, 6		6,52
4″	39,52,32, 5,37,50, 1,33,47,34		2,54,54,49,57	
		1,33,53,46,21,42,36, 9		6,52
6″	39,52,33,39,31,36,23,16,23,43		2,54,54,56,49	
		1,33,53,43,26,47,39,20		6,52
8″	39,52,35,13,25,19,50, 4, 3, 3		2,54,55, 3,41	
		1,33,53,40,31,52,35,39		6,52
10″	39,52,36,47,19, 0,21,56,38,42		2,54,55,10,33	
		1,33,53,37,36,57,25, 6		6,52
12″	39,52,38,21,12,37,58,54, 3,48		2,54,55,17,25	
		1,33,53,34,42, 2, 7,41		6,52
14″	39,52,39,55, 6,12,40,56,11,29		2,54,55,24,17	
		1,33,53,31,47, 6,43,24		6,52
16″	39,52,41,28,59,44,28, 2,54,53		2,54,55,31, 9	
		1,33,53,28,52,11,12,15		6,52
18″	39,52,43, 2,53,13,20,14, 7, 8		2,54,55,38, 1	
		1,33,53,25,57,15,34,14		6,52
20″	39,52,44,36,46,39,17,29,41,22		2,54,55,44,53	
		1,33,53,23, 2,19,49,21		6,52
22″	39,52,46,10,40, 2,19,49,30,43		2,54,55,51,45	
		1,33,53,20, 7,23,57,36		6,52
24″	39,52,47,44,33,22,27,13,28,19		2,54,55,58,37	
		1,33,53,17,12,27,58,59		6,52
26″	39,52,49,18,26,39,39,41,27,18		2,54,56, 5,29	
		1,33,53,14,17,31,53,30		6,52
28″	39,52,50,52,19,53,57,13,20,48		2,54,56,12,21	
		1,33,53,11,22,35,41, 9		6,52
30″	39,52,52,26,13, 5,19,49, 1,57		2,54,56,19,13	
		1,33,53, 8,27,39,21,56		6,52
32″	39,52,54, 0, 6,13,47,28,23,53		2,54,56,26, 5	
		1,33,53, 5,32,42,55,51		6,52
34″	39,52,55,33,59,19,20,11,19,44		2,54,56,32,57	
		1,33,53, 2,37,46,22,54		6,52
36″	39,52,57, 7,52,21,57,57,42,38		2,54,56,39,49	
		1,33,52,59,42,49,43, 5		6,52
38″	39,52,58,41,45,21,40,47,25,43		2,54,56,46,41	
		1,33,52,56,47,52,56,24		6,52
40″	39,53, 0,15,38,18,28,40,22, 7		2,54,56,53,33	
		1,33,52,53,52,56, 2,51		6,52
42″	39,53, 1,49,31,12,21,36,24,58		2,54,57, 0,25	
		1,33,52,50,57,59, 2,26		6,52
44″	39,53, 3,23,24, 3,19,35,27,24		2,54,57, 7,17	
		1,33,52,48, 3, 1,55, 9		6,52
46″	39,53, 4,57,16,51,22,37,22,33		2,54,57,14, 9	
		1,33,52,45, 8, 4,41, 0		6,52
48″	39,53, 6,31, 9,36,30,42, 3,33		2,54,57,21, 1	
		1,33,52,42,13, 7,19,59		6,52
50″	39,53, 8, 5, 2,18,43,49,23,32		2,54,57,27,53	
		1,33,52,39,18, 9,52, 6		6,52
52″	39,53, 9,38,54,58, 1,59,15,38		2,54,57,34,45	
		1,33,52,36,23,12,17,21		6,52
54″	39,53,11,12,47,34,25,11,32,59		2,54,57,41,37	
		1,33,52,33,28,14,35,44		6,52
56″	39,53,12,46,40, 7,53,26, 8,43		2,54,57,48,29	
		1,33,52,30,33,16,47,15		6,52
58″	39,53,14,20,32,38,26,42,55,58		2,54,57,55,21	
		1,33,52,27,38,18,51,54		
60″	39,53,15,54,25, 6, 5, 1,47,52			
exact	39,53,15,54,25, 6, 5, 1,58,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°40′ 0″	39,53,15,54,25, 6, 5, 1,58,48			
		1,33,52,24,43,20,50,53		
2″	39,53,17,28,17,30,48,22,49,41		2,54,58, 9, 0	
		1,33,52,21,48,22,41,53		6,52
4″	39,53,19, 2, 9,52,36,45,31,34		2,54,58,15,52	
		1,33,52,18,53,24,26, 1		6,52
6″	39,53,20,36, 2,11,30, 9,57,35		2,54,58,22,44	
		1,33,52,15,58,26, 3,17		6,52
8″	39,53,22, 9,54,27,28,36, 0,52		2,54,58,29,36	
		1,33,52,13, 3,27,33,41		6,52
10″	39,53,23,43,46,40,32, 3,34,33		2,54,58,36,28	
		1,33,52,10, 8,28,57,13		6,52
12″	39,53,25,17,38,50,40,32,31,46		2,54,58,43,20	
		1,33,52, 7,13,30,13,53		6,52
14″	39,53,26,51,30,57,54, 2,45,39		2,54,58,50,12	
		1,33,52, 4,18,31,23,41		6,52
16″	39,53,28,25,23, 2,12,34, 9,20		2,54,58,57, 4	
		1,33,52, 1,23,32,26,37		6,52
18″	39,53,29,59,15, 3,36, 6,35,57		2,54,59, 3,56	
		1,33,51,58,28,33,22,41		6,52
20″	39,53,31,33, 7, 2, 4,39,58,38		2,54,59,10,48	
		1,33,51,55,33,34,11,53		6,52
22″	39,53,33, 6,58,57,38,14,10,31		2,54,59,17,40	
		1,33,51,52,38,34,54,13		6,52
24″	39,53,34,40,50,50,16,49, 4,44		2,54,59,24,32	
		1,33,51,49,43,35,29,41		6,52
26″	39,53,36,14,42,40, 0,24,34,25		2,54,59,31,24	
		1,33,51,46,48,35,58,17		6,52
28″	39,53,37,48,34,26,49, 0,32,42		2,54,59,38,16	
		1,33,51,43,53,36,20, 1		6,52
30″	39,53,39,22,26,10,42,36,52,43		2,54,59,45, 8	
		1,33,51,40,58,36,34,53		6,52
32″	39,53,40,56,17,51,41,13,27,36		2,54,59,52, 0	
		1,33,51,38, 3,36,42,53		6,52
34″	39,53,42,30, 9,29,44,50,10,29		2,54,59,58,52	
		1,33,51,35, 8,36,44, 1		6,52
36″	39,53,44, 4, 1, 4,53,26,54,30		2,55, 0, 5,44	
		1,33,51,32,13,36,38,17		6,52
38″	39,53,45,37,52,37, 7, 3,32,47		2,55, 0,12,36	
		1,33,51,29,18,36,25,41		6,52
40″	39,53,47,11,44, 6,25,39,58,28		2,55, 0,19,28	
		1,33,51,26,23,36, 6,13		6,52
42″	39,53,48,45,35,32,49,16, 4,41		2,55, 0,26,20	
		1,33,51,23,28,35,39,53		6,52
44″	39,53,50,19,26,56,17,51,44,34		2,55, 0,33,12	
		1,33,51,20,33,35, 6,41		6,52
46″	39,53,51,53,18,16,51,26,51,15		2,55, 0,40, 4	
		1,33,51,17,38,34,26,37		6,52
48″	39,53,53,27, 9,34,30, 1,17,52		2,55, 0,46,56	
		1,33,51,14,43,33,39,41		6,52
50″	39,53,55, 1, 0,49,13,34,57,33		2,55, 0,53,48	
		1,33,51,11,48,32,45,53		6,52
52″	39,53,56,34,52, 1, 2, 7,43,26		2,55, 1, 0,40	
		1,33,51, 8,53,31,45,13		6,52
54″	39,53,58, 8,43, 9,55,39,28,39		2,55, 1, 7,32	
		1,33,51, 5,58,30,37,41		6,52
56″	39,53,59,42,34,15,54,10, 6,20		2,55, 1,14,24	
		1,33,51, 3, 3,29,23,17		6,52
58″	39,54, 1,16,25,18,57,39,29,37		2,55, 1,21,16	
		1,33,51, 0, 8,28, 2, 1		
60″	39,54, 2,50,16,19, 6, 7,31,38			
exact	39,54, 2,50,16,19, 6, 7,51, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°41′ 0″	39,54, 2,50,16,19, 6, 7,51, 8			
		1,33,50,57,13,26,35,57		
2″	39,54, 4,24, 7,16,19,34,27, 5		2,55, 1,34,51	
		1,33,50,54,18,25, 1, 6		6,52
4″	39,54, 5,57,58,10,37,59,28,11		2,55, 1,41,43	
		1,33,50,51,23,23,19,23		6,52
6″	39,54, 7,31,49, 2, 1,22,47,34		2,55, 1,48,35	
		1,33,50,48,28,21,30,48		6,52
8″	39,54, 9, 5,39,50,29,44,18,22		2,55, 1,55,27	
		1,33,50,45,33,19,35,21		6,52
10″	39,54,10,39,30,36, 3, 3,53,43		2,55, 2, 2,19	
		1,33,50,42,38,17,33, 2		6,52
12″	39,54,12,13,21,18,41,21,26,45		2,55, 2, 9,11	
		1,33,50,39,43,15,23,51		6,52
14″	39,54,13,47,11,58,24,36,50,36		2,55, 2,16, 3	
		1,33,50,36,48,13, 7,48		6,52
16″	39,54,15,21, 2,35,12,49,58,24		2,55, 2,22,55	
		1,33,50,33,53,10,44,53		6,52
18″	39,54,16,54,53, 9, 6, 0,43,17		2,55, 2,29,47	
		1,33,50,30,58, 8,15, 6		6,52
20″	39,54,18,28,43,40, 4, 8,58,23		2,55, 2,36,39	
		1,33,50,28, 3, 5,38,27		6,52
22″	39,54,20, 2,34, 8, 7,14,36,50		2,55, 2,43,31	
		1,33,50,25, 8, 2,54,56		6,52
24″	39,54,21,36,24,33,15,17,31,46		2,55, 2,50,23	
		1,33,50,22,13, 0, 4,33		6,52
26″	39,54,23,10,14,55,28,17,36,19		2,55, 2,57,15	
		1,33,50,19,17,57, 7,18		6,52
28″	39,54,24,44, 5,14,46,14,43,37		2,55, 3, 4, 7	
		1,33,50,16,22,54, 3,11		6,52
30″	39,54,26,17,55,31, 9, 8,46,48		2,55, 3,10,59	
		1,33,50,13,27,50,52,12		6,52
32″	39,54,27,51,45,44,36,59,39, 0		2,55, 3,17,51	
		1,33,50,10,32,47,34,21		6,52
34″	39,54,29,25,35,55, 9,47,13,21		2,55, 3,24,43	
		1,33,50, 7,37,44, 9,38		6,52
36″	39,54,30,59,26, 2,47,31,22,59		2,55, 3,31,35	
		1,33,50, 4,42,40,38, 3		6,52
38″	39,54,32,33,16, 7,30,12, 1, 2		2,55, 3,38,27	
		1,33,50, 1,47,36,59,36		6,52
40″	39,54,34, 7, 6, 9,17,49, 0,38		2,55, 3,45,19	
		1,33,49,58,52,33,14,17		6,52
42″	39,54,35,40,56, 8,10,22,14,55		2,55, 3,52,11	
		1,33,49,55,57,29,22, 6		6,52
44″	39,54,37,14,46, 4, 7,51,37, 1		2,55, 3,59, 3	
		1,33,49,53, 2,25,23, 3		6,52
46″	39,54,38,48,35,57,10,17, 0, 4		2,55, 4, 5,55	
		1,33,49,50, 7,21,17, 8		6,52
48″	39,54,40,22,25,47,17,38,17,12		2,55, 4,12,47	
		1,33,49,47,12,17, 4,21		6,52
50″	39,54,41,56,15,34,29,55,21,33		2,55, 4,19,39	
		1,33,49,44,17,12,44,42		6,52
52″	39,54,43,30, 5,18,47, 8, 6,15		2,55, 4,26,31	
		1,33,49,41,22, 8,18,11		6,52
54″	39,54,45, 3,55, 0, 9,16,24,26		2,55, 4,33,23	
		1,33,49,38,27, 3,44,48		6,52
56″	39,54,46,37,44,38,36,20, 9,14		2,55, 4,40,15	
		1,33,49,35,31,59, 4,33		6,52
58″	39,54,48,11,34,14, 8,19,13,47		2,55, 4,47, 7	
		1,33,49,32,36,54,17,26		
60″	39,54,49,45,23,46,45,13,31,13			
exact	39,54,49,45,23,46,45,13,53,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°42′ 0″	39,54,49,45,23,46,45,13,53,34			
		1,33,49,29,41,49,25,59		
2″	39,54,51,19,13,16,27, 3,19,33		2,55, 5, 0,40	
		1,33,49,26,46,44,25,19		6,52
4″	39,54,52,53, 2,43,13,47,44,52		2,55, 5, 7,32	
		1,33,49,23,51,39,17,47		6,52
6″	39,54,54,26,52, 7, 5,27, 2,39		2,55, 5,14,24	
		1,33,49,20,56,34, 3,23		6,52
8″	39,54,56, 0,41,28, 2, 1, 6, 2		2,55, 5,21,16	
		1,33,49,18, 1,28,42, 7		6,52
10″	39,54,57,34,30,46, 3,29,48, 9		2,55, 5,28, 8	
		1,33,49,15, 6,23,13,59		6,52
12″	39,54,59, 8,20, 1, 9,53, 2, 8		2,55, 5,35, 0	
		1,33,49,12,11,17,38,59		6,52
14″	39,55, 0,42, 9,13,21,10,41, 7		2,55, 5,41,52	
		1,33,49, 9,16,11,57, 7		6,52
16″	39,55, 2,15,58,22,37,22,38,14		2,55, 5,48,44	
		1,33,49, 6,21, 6, 8,23		6,52
18″	39,55, 3,49,47,28,58,28,46,37		2,55, 5,55,36	
		1,33,49, 3,26, 0,12,47		6,52
20″	39,55, 5,23,36,32,24,28,59,24		2,55, 6, 2,28	
		1,33,49, 0,30,54,10,19		6,52
22″	39,55, 6,57,25,32,55,23, 9,43		2,55, 6, 9,20	
		1,33,48,57,35,48, 0,59		6,52
24″	39,55, 8,31,14,30,31,11,10,42		2,55, 6,16,12	
		1,33,48,54,40,41,44,47		6,52
26″	39,55,10, 5, 3,25,11,52,55,29		2,55, 6,23, 4	
		1,33,48,51,45,35,21,43		6,52
28″	39,55,11,38,52,16,57,28,17,12		2,55, 6,29,56	
		1,33,48,48,50,28,51,47		6,52
30″	39,55,13,12,41, 5,47,57, 8,59		2,55, 6,36,48	
		1,33,48,45,55,22,14,59		6,52
32″	39,55,14,46,29,51,43,19,23,58		2,55, 6,43,40	
		1,33,48,43, 0,15,31,19		6,52
34″	39,55,16,20,18,34,43,34,55,17		2,55, 6,50,32	
		1,33,48,40, 5, 8,40,47		6,52
36″	39,55,17,54, 7,14,48,43,36, 4		2,55, 6,57,24	
		1,33,48,37,10, 1,43,23		6,52
38″	39,55,19,27,55,51,58,45,19,27		2,55, 7, 4,16	
		1,33,48,34,14,54,39, 7		6,52
40″	39,55,21, 1,44,26,13,39,58,34		2,55, 7,11, 8	
		1,33,48,31,19,47,27,59		6,52
42″	39,55,22,35,32,57,33,27,26,33		2,55, 7,18, 0	
		1,33,48,28,24,40, 9,59		6,52
44″	39,55,24, 9,21,25,58, 7,36,32		2,55, 7,24,52	
		1,33,48,25,29,32,45, 7		6,52
46″	39,55,25,43, 9,51,27,40,21,39		2,55, 7,31,44	
		1,33,48,22,34,25,13,23		6,52
48″	39,55,27,16,58,14, 2, 5,35, 2		2,55, 7,38,36	
		1,33,48,19,39,17,34,47		6,52
50″	39,55,28,50,46,33,41,23, 9,49		2,55, 7,45,28	
		1,33,48,16,44, 9,49,19		6,52
52″	39,55,30,24,34,50,25,32,59, 8		2,55, 7,52,20	
		1,33,48,13,49, 1,56,59		6,52
54″	39,55,31,58,23, 4,14,34,56, 7		2,55, 7,59,12	
		1,33,48,10,53,53,57,47		6,52
56″	39,55,33,32,11,15, 8,28,53,54		2,55, 8, 6, 4	
		1,33,48, 7,58,45,51,43		6,52
58″	39,55,35, 5,59,23, 7,14,45,37		2,55, 8,12,56	
		1,33,48, 5, 3,37,38,47		
60″	39,55,36,39,47,28,10,52,24,24			
exact	39,55,36,39,47,28,10,52,58,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°43′ 0″	39,55,36,39,47,28,10,52,58,19			
		1,33,48, 2, 8,29,22,35		
2″	39,55,38,13,35,30,19,22,20,54		2,55, 8,26,25	
		1,33,47,59,13,20,56,10		6,51
4″	39,55,39,47,23,29,32,43,17, 4		2,55, 8,33,16	
		1,33,47,56,18,12,22,54		6,51
6″	39,55,41,21,11,25,50,55,39,58		2,55, 8,40, 7	
		1,33,47,53,23, 3,42,47		6,51
8″	39,55,42,54,59,19,13,59,22,45		2,55, 8,46,58	
		1,33,47,50,27,54,55,49		6,51
10″	39,55,44,28,47, 9,41,54,18,34		2,55, 8,53,49	
		1,33,47,47,32,46, 2, 0		6,51
12″	39,55,46, 2,34,57,14,40,20,34		2,55, 9, 0,40	
		1,33,47,44,37,37, 1,20		6,51
14″	39,55,47,36,22,41,52,17,21,54		2,55, 9, 7,31	
		1,33,47,41,42,27,53,49		6,51
16″	39,55,49,10,10,23,34,45,15,43		2,55, 9,14,22	
		1,33,47,38,47,18,39,27		6,51
18″	39,55,50,43,58, 2,22, 3,55,10		2,55, 9,21,13	
		1,33,47,35,52, 9,18,14		6,51
20″	39,55,52,17,45,38,14,13,13,24		2,55, 9,28, 4	
		1,33,47,32,56,59,50,10		6,51
22″	39,55,53,51,33,11,11,13, 3,34		2,55, 9,34,55	
		1,33,47,30, 1,50,15,15		6,51
24″	39,55,55,25,20,41,13, 3,18,49		2,55, 9,41,46	
		1,33,47,27, 6,40,33,29		6,51
26″	39,55,56,59, 8, 8,19,43,52,18		2,55, 9,48,37	
		1,33,47,24,11,30,44,52		6,51
28″	39,55,58,32,55,32,31,14,37,10		2,55, 9,55,28	
		1,33,47,21,16,20,49,24		6,51
30″	39,56, 0, 6,42,53,47,35,26,34		2,55,10, 2,19	
		1,33,47,18,21,10,47, 5		6,51
32″	39,56, 1,40,30,12, 8,46,13,39		2,55,10, 9,10	
		1,33,47,15,26, 0,37,55		6,51
34″	39,56, 3,14,17,27,34,46,51,34		2,55,10,16, 1	
		1,33,47,12,30,50,21,54		6,51
36″	39,56, 4,48, 4,40, 5,37,13,28		2,55,10,22,52	
		1,33,47, 9,35,39,59, 2		6,51
38″	39,56, 6,21,51,49,41,17,12,30		2,55,10,29,43	
		1,33,47, 6,40,29,29,19		6,51
40″	39,56, 7,55,38,56,21,46,41,49		2,55,10,36,34	
		1,33,47, 3,45,18,52,45		6,51
42″	39,56, 9,29,26, 0, 7, 5,34,34		2,55,10,43,25	
		1,33,47, 0,50, 8, 9,20		6,51
44″	39,56,11, 3,13, 0,57,13,43,54		2,55,10,50,16	
		1,33,46,57,54,57,19, 4		6,51
46″	39,56,12,36,59,58,52,11, 2,58		2,55,10,57, 7	
		1,33,46,54,59,46,21,57		6,51
48″	39,56,14,10,46,53,51,57,24,55		2,55,11, 3,58	
		1,33,46,52, 4,35,17,59		6,51
50″	39,56,15,44,33,45,56,32,42,54		2,55,11,10,49	
		1,33,46,49, 9,24, 7,10		6,51
52″	39,56,17,18,20,35, 5,56,50, 4		2,55,11,17,40	
		1,33,46,46,14,12,49,30		6,51
54″	39,56,18,52, 7,21,20, 9,39,34		2,55,11,24,31	
		1,33,46,43,19, 1,24,59		6,51
56″	39,56,20,25,54, 4,39,11, 4,33		2,55,11,31,22	
		1,33,46,40,23,49,53,37		6,51
58″	39,56,21,59,40,45, 3, 0,58,10		2,55,11,38,13	
		1,33,46,37,28,38,15,24		
60″	39,56,23,33,27,22,31,39,13,34			
exact	39,56,23,33,27,22,31,38,45,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°44′ 0″	39,56,23,33,27,22,31,38,45,38	1,33,46,34,33,26,27,22		
2″	39,56,25, 7,13,57, 5, 5,13, 0	1,33,46,31,38,14,35,15	2,55,11,52, 7	6,51
4″	39,56,26,41, 0,28,43,19,48,15	1,33,46,28,43, 2,36,17	2,55,11,58,58	6,51
6″	39,56,28,14,46,57,26,22,24,32	1,33,46,25,47,50,30,28	2,55,12, 5,49	6,51
8″	39,56,29,48,33,23,14,12,55, 0	1,33,46,22,52,38,17,48	2,55,12,12,40	6,51
10″	39,56,31,22,19,46, 6,51,12,48	1,33,46,19,57,25,58,17	2,55,12,19,31	6,51
12″	39,56,32,56, 6, 6, 4,17,11, 5	1,33,46,17, 2,13,31,55	2,55,12,26,22	6,51
14″	39,56,34,29,52,23, 6,30,43, 0	1,33,46,14, 7, 0,58,42	2,55,12,33,13	6,51
16″	39,56,36, 3,38,37,13,31,41,42	1,33,46,11,11,48,18,38	2,55,12,40, 4	6,51
18″	39,56,37,37,24,48,25,20, 0,20	1,33,46, 8,16,35,31,43	2,55,12,46,55	6,51
20″	39,56,39,11,10,56,41,55,32, 3	1,33,46, 5,21,22,37,57	2,55,12,53,46	6,51
22″	39,56,40,44,57, 2, 3,18,10, 0	1,33,46, 2,26, 9,37,20	2,55,13, 0,37	6,51
24″	39,56,42,18,43, 4,29,27,47,20	1,33,45,59,30,56,29,52	2,55,13, 7,28	6,51
26″	39,56,43,52,29, 4, 0,24,17,12	1,33,45,56,35,43,15,33	2,55,13,14,19	6,51
28″	39,56,45,26,15, 0,36, 7,32,45	1,33,45,53,40,29,54,23	2,55,13,21,10	6,51
30″	39,56,47, 0, 0,54,16,37,27, 8	1,33,45,50,45,16,26,22	2,55,13,28, 1	6,51
32″	39,56,48,33,46,45, 1,53,53,30	1,33,45,47,50, 2,51,30	2,55,13,34,52	6,51
34″	39,56,50, 7,32,32,51,56,45, 0	1,33,45,44,54,49, 9,47	2,55,13,41,43	6,51
36″	39,56,51,41,18,17,46,45,54,47	1,33,45,41,59,35,21,13	2,55,13,48,34	6,51
38″	39,56,53,15, 3,59,46,21,16, 0	1,33,45,39, 4,21,25,48	2,55,13,55,25	6,51
40″	39,56,54,48,49,38,50,42,41,48	1,33,45,36, 9, 7,23,32	2,55,14, 2,16	6,51
42″	39,56,56,22,35,14,59,50, 5,20	1,33,45,33,13,53,14,25	2,55,14, 9, 7	6,51
44″	39,56,57,56,20,48,13,43,19,45	1,33,45,30,18,38,58,27	2,55,14,15,58	6,51
46″	39,56,59,30, 6,18,32,22,18,12	1,33,45,27,23,24,35,38	2,55,14,22,49	6,51
48″	39,57, 1, 3,51,45,55,46,53,50	1,33,45,24,28,10, 5,58	2,55,14,29,40	6,51
50″	39,57, 2,37,37,10,23,56,59,48	1,33,45,21,32,55,29,27	2,55,14,36,31	6,51
52″	39,57, 4,11,22,31,56,52,29,15	1,33,45,18,37,40,46, 5	2,55,14,43,22	6,51
54″	39,57, 5,45, 7,50,34,33,15,20	1,33,45,15,42,25,55,52	2,55,14,50,13	6,51
56″	39,57, 7,18,53, 6,16,59,11,12	1,33,45,12,47,10,58,48	2,55,14,57, 4	6,51
58″	39,57, 8,52,38,19, 4,10,10, 0	1,33,45, 9,51,55,54,53	2,55,15, 3,55	
60″	39,57,10,26,23,28,56, 6, 4,53			
exact	39,57,10,26,23,28,56, 5,43,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°45′ 0″	39,57,10,26,23,28,56, 5,43,46			
		1,33,45, 6,56,40,41,54		
2″	39,57,12, 0, 8,35,52,46,25,40		2,55,15,17,46	
		1,33,45, 4, 1,25,24, 8		6,51
4″	39,57,13,33,53,39,54,11,49,48		2,55,15,24,37	
		1,33,45, 1, 6, 9,59,31		6,51
6″	39,57,15, 7,38,41, 0,21,49,19		2,55,15,31,28	
		1,33,44,58,10,54,28, 3		6,51
8″	39,57,16,41,23,39,11,16,17,22		2,55,15,38,19	
		1,33,44,55,15,38,49,44		6,51
10″	39,57,18,15, 8,34,26,55, 7, 6		2,55,15,45,10	
		1,33,44,52,20,23, 4,34		6,51
12″	39,57,19,48,53,26,47,18,11,40		2,55,15,52, 1	
		1,33,44,49,25, 7,12,33		6,51
14″	39,57,21,22,38,16,12,25,24,13		2,55,15,58,52	
		1,33,44,46,29,51,13,41		6,51
16″	39,57,22,56,23, 2,42,16,37,54		2,55,16, 5,43	
		1,33,44,43,34,35, 7,58		6,51
18″	39,57,24,30, 7,46,16,51,45,52		2,55,16,12,34	
		1,33,44,40,39,18,55,24		6,51
20″	39,57,26, 3,52,26,56,10,41,16		2,55,16,19,25	
		1,33,44,37,44, 2,35,59		6,51
22″	39,57,27,37,37, 4,40,13,17,15		2,55,16,26,16	
		1,33,44,34,48,46, 9,43		6,51
24″	39,57,29,11,21,39,28,59,26,58		2,55,16,33, 7	
		1,33,44,31,53,29,36,36		6,51
26″	39,57,30,45, 6,11,22,29, 3,34		2,55,16,39,58	
		1,33,44,28,58,12,56,38		6,51
28″	39,57,32,18,50,40,20,42, 0,12		2,55,16,46,49	
		1,33,44,26, 2,56, 9,49		6,51
30″	39,57,33,52,35, 6,23,38,10, 1		2,55,16,53,40	
		1,33,44,23, 7,39,16, 9		6,51
32″	39,57,35,26,19,29,31,17,26,10		2,55,17, 0,31	
		1,33,44,20,12,22,15,38		6,51
34″	39,57,37, 0, 3,49,43,39,41,48		2,55,17, 7,22	
		1,33,44,17,17, 5, 8,16		6,51
36″	39,57,38,33,48, 7, 0,44,50, 4		2,55,17,14,13	
		1,33,44,14,21,47,54, 3		6,51
38″	39,57,40, 7,32,21,22,32,44, 7		2,55,17,21, 4	
		1,33,44,11,26,30,32,59		6,51
40″	39,57,41,41,16,32,49, 3,17, 6		2,55,17,27,55	
		1,33,44, 8,31,13, 5, 4		6,51
42″	39,57,43,15, 0,41,20,16,22,10		2,55,17,34,46	
		1,33,44, 5,35,55,30,18		6,51
44″	39,57,44,48,44,46,56,11,52,28		2,55,17,41,37	
		1,33,44, 2,40,37,48,41		6,51
46″	39,57,46,22,28,49,36,49,41, 9		2,55,17,48,28	
		1,33,43,59,45,20, 0,13		6,51
48″	39,57,47,56,12,49,22, 9,41,22		2,55,17,55,19	
		1,33,43,56,50, 2, 4,54		6,51
50″	39,57,49,29,56,46,12,11,46,16		2,55,18, 2,10	
		1,33,43,53,54,44, 2,44		6,51
52″	39,57,51, 3,40,40, 6,55,49, 0		2,55,18, 9, 1	
		1,33,43,50,59,25,53,43		6,51
54″	39,57,52,37,24,31, 6,21,42,43		2,55,18,15,52	
		1,33,43,48, 4, 7,37,51		6,51
56″	39,57,54,11, 8,19,10,29,20,34		2,55,18,22,43	
		1,33,43,45, 8,49,15, 8		6,51
58″	39,57,55,44,52, 4,19,18,35,42		2,55,18,29,34	
		1,33,43,42,13,30,45,34		
60″	39,57,57,18,35,46,32,49,21,16			
exact	39,57,57,18,35,46,32,49, 9, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°46′ 0″	39,57,57,18,35,46,32,49, 9, 2			
		1,33,43,39,18,12, 7,49		
2″	39,57,58,52,19,25,51, 1,16,51		2,55,18,43,21	
		1,33,43,36,22,53,24,28		6,51
4″	39,58, 0,26, 3, 2,13,54,41,19		2,55,18,50,12	
		1,33,43,33,27,34,34,16		6,51
6″	39,58, 1,59,46,35,41,29,15,35		2,55,18,57, 3	
		1,33,43,30,32,15,37,13		6,51
8″	39,58, 3,33,30, 6,13,44,52,48		2,55,19, 3,54	
		1,33,43,27,36,56,33,19		6,51
10″	39,58, 5, 7,13,33,50,41,26, 7		2,55,19,10,45	
		1,33,43,24,41,37,22,34		6,51
12″	39,58, 6,40,56,58,32,18,48,41		2,55,19,17,36	
		1,33,43,21,46,18, 4,58		6,51
14″	39,58, 8,14,40,20,18,36,53,39		2,55,19,24,27	
		1,33,43,18,50,58,40,31		6,51
16″	39,58, 9,48,23,39, 9,35,34,10		2,55,19,31,18	
		1,33,43,15,55,39, 9,13		6,51
18″	39,58,11,22, 6,55, 5,14,43,23		2,55,19,38, 9	
		1,33,43,13, 0,19,31, 4		6,51
20″	39,58,12,55,50, 8, 5,34,14,27		2,55,19,45, 0	
		1,33,43,10, 4,59,46, 4		6,51
22″	39,58,14,29,33,18,10,34, 0,31		2,55,19,51,51	
		1,33,43, 7, 9,39,54,13		6,51
24″	39,58,16, 3,16,25,20,13,54,44		2,55,19,58,42	
		1,33,43, 4,14,19,55,31		6,51
26″	39,58,17,36,59,29,34,33,50,15		2,55,20, 5,33	
		1,33,43, 1,18,59,49,58		6,51
28″	39,58,19,10,42,30,53,33,40,13		2,55,20,12,24	
		1,33,42,58,23,39,37,34		6,51
30″	39,58,20,44,25,29,17,13,17,47		2,55,20,19,15	
		1,33,42,55,28,19,18,19		6,51
32″	39,58,22,18, 8,24,45,32,36, 6		2,55,20,26, 6	
		1,33,42,52,32,58,52,13		6,51
34″	39,58,23,51,51,17,18,31,28,19		2,55,20,32,57	
		1,33,42,49,37,38,19,16		6,51
36″	39,58,25,25,34, 6,56, 9,47,35		2,55,20,39,48	
		1,33,42,46,42,17,39,28		6,51
38″	39,58,26,59,16,53,38,27,27, 3		2,55,20,46,39	
		1,33,42,43,46,56,52,49		6,51
40″	39,58,28,32,59,37,25,24,19,52		2,55,20,53,30	
		1,33,42,40,51,35,59,19		6,51
42″	39,58,30, 6,42,18,17, 0,19,11		2,55,21, 0,21	
		1,33,42,37,56,14,58,58		6,51
44″	39,58,31,40,24,56,13,15,18, 9		2,55,21, 7,12	
		1,33,42,35, 0,53,51,46		6,51
46″	39,58,33,14, 7,31,14, 9, 9,55		2,55,21,14, 3	
		1,33,42,32, 5,32,37,43		6,51
48″	39,58,34,47,50, 3,19,41,47,38		2,55,21,20,54	
		1,33,42,29,10,11,16,49		6,51
50″	39,58,36,21,32,32,29,53, 4,27		2,55,21,27,45	
		1,33,42,26,14,49,49, 4		6,51
52″	39,58,37,55,14,58,44,42,53,31		2,55,21,34,36	
		1,33,42,23,19,28,14,28		6,51
54″	39,58,39,28,57,22, 4,11, 7,59		2,55,21,41,27	
		1,33,42,20,24, 6,33, 1		6,51
56″	39,58,41, 2,39,42,28,17,41, 0		2,55,21,48,18	
		1,33,42,17,28,44,44,43		6,51
58″	39,58,42,36,21,59,57, 2,25,43		2,55,21,55, 9	
		1,33,42,14,33,22,49,34		
60″	39,58,44,10, 4,14,30,25,15,17			
exact	39,58,44,10, 4,14,30,25, 5,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°47′ 0″	39,58,44,10, 4,14,30,25, 5,45			
		1,33,42,11,38, 0,46,42		
2″	39,58,45,43,46,26, 8,25,52,27		2,55,22, 8,54	
		1,33,42, 8,42,38,37,48		6,51
4″	39,58,47,17,28,34,51, 4,30,15		2,55,22,15,45	
		1,33,42, 5,47,16,22, 3		6,51
6″	39,58,48,51,10,40,38,20,52,18		2,55,22,22,36	
		1,33,42, 2,51,53,59,27		6,51
8″	39,58,50,24,52,43,30,14,51,45		2,55,22,29,27	
		1,33,41,59,56,31,30, 0		6,51
10″	39,58,51,58,34,43,26,46,21,45		2,55,22,36,18	
		1,33,41,57, 1, 8,53,42		6,51
12″	39,58,53,32,16,40,27,55,15,27		2,55,22,43, 9	
		1,33,41,54, 5,46,10,33		6,51
14″	39,58,55, 5,58,34,33,41,26, 0		2,55,22,50, 0	
		1,33,41,51,10,23,20,33		6,51
16″	39,58,56,39,40,25,44, 4,46,33		2,55,22,56,51	
		1,33,41,48,15, 0,23,42		6,51
18″	39,58,58,13,22,13,59, 5,10,15		2,55,23, 3,42	
		1,33,41,45,19,37,20, 0		6,51
20″	39,58,59,47, 3,59,18,42,30,15		2,55,23,10,33	
		1,33,41,42,24,14, 9,27		6,51
22″	39,59, 1,20,45,41,42,56,39,42		2,55,23,17,24	
		1,33,41,39,28,50,52, 3		6,51
24″	39,59, 2,54,27,21,11,47,31,45		2,55,23,24,15	
		1,33,41,36,33,27,27,48		6,51
26″	39,59, 4,28, 8,57,45,14,59,33		2,55,23,31, 6	
		1,33,41,33,38, 3,56,42		6,51
28″	39,59, 6, 1,50,31,23,18,56,15		2,55,23,37,57	
		1,33,41,30,42,40,18,45		6,51
30″	39,59, 7,35,32, 2, 5,59,15, 0		2,55,23,44,48	
		1,33,41,27,47,16,33,57		6,51
32″	39,59, 9, 9,13,29,53,15,48,57		2,55,23,51,39	
		1,33,41,24,51,52,42,18		6,51
34″	39,59,10,42,54,54,45, 8,31,15		2,55,23,58,30	
		1,33,41,21,56,28,43,48		6,51
36″	39,59,12,16,36,16,41,37,15, 3		2,55,24, 5,21	
		1,33,41,19, 1, 4,38,27		6,51
38″	39,59,13,50,17,35,42,41,53,30		2,55,24,12,12	
		1,33,41,16, 5,40,26,15		6,51
40″	39,59,15,23,58,51,48,22,19,45		2,55,24,19, 3	
		1,33,41,13,10,16, 7,12		6,51
42″	39,59,16,57,40, 4,58,38,26,57		2,55,24,25,54	
		1,33,41,10,14,51,41,18		6,51
44″	39,59,18,31,21,15,13,30, 8,15		2,55,24,32,45	
		1,33,41, 7,19,27, 8,33		6,51
46″	39,59,20, 5, 2,22,32,57,16,48		2,55,24,39,36	
		1,33,41, 4,24, 2,28,57		6,51
48″	39,59,21,38,43,26,56,59,45,45		2,55,24,46,27	
		1,33,41, 1,28,37,42,30		6,51
50″	39,59,23,12,24,28,25,37,28,15		2,55,24,53,18	
		1,33,40,58,33,12,49,12		6,51
52″	39,59,24,46, 5,26,58,50,17,27		2,55,25, 0, 9	
		1,33,40,55,37,47,49, 3		6,51
54″	39,59,26,19,46,22,36,38, 6,30		2,55,25, 7, 0	
		1,33,40,52,42,22,42, 3		6,51
56″	39,59,27,53,27,15,19, 0,48,33		2,55,25,13,51	
		1,33,40,49,46,57,28,12		6,51
58″	39,59,29,27, 8, 5, 5,58,16,45		2,55,25,20,42	
		1,33,40,46,51,32, 7,30		
60″	39,59,31, 0,48,51,57,30,24,15			
exact	39,59,31, 0,48,51,57,30,26,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°48′ 0″	39,59,31, 0,48,51,57,30,26,19	1,33,40,43,56, 6,40, 9		
2″	39,59,32,34,29,35,53,37, 6,28	1,33,40,41, 0,41, 5,46	2,55,25,34,23	6,51
4″	39,59,34, 8,10,16,54,18,12,14	1,33,40,38, 5,15,24,32	2,55,25,41,14	6,51
6″	39,59,35,41,50,54,59,33,36,46	1,33,40,35, 9,49,36,27	2,55,25,48, 5	6,51
8″	39,59,37,15,31,30, 9,23,13,13	1,33,40,32,14,23,41,31	2,55,25,54,56	6,51
10″	39,59,38,49,12, 2,23,46,54,44	1,33,40,29,18,57,39,44	2,55,26, 1,47	6,51
12″	39,59,40,22,52,31,42,44,34,28	1,33,40,26,23,31,31, 6	2,55,26, 8,38	6,51
14″	39,59,41,56,32,58, 6,16, 5,34	1,33,40,23,28, 5,15,37	2,55,26,15,29	6,51
16″	39,59,43,30,13,21,34,21,21,11	1,33,40,20,32,38,53,17	2,55,26,22,20	6,51
18″	39,59,45, 3,53,42, 7, 0,14,28	1,33,40,17,37,12,24, 6	2,55,26,29,11	6,51
20″	39,59,46,37,33,59,44,12,38,34	1,33,40,14,41,45,48, 4	2,55,26,36, 2	6,51
22″	39,59,48,11,14,14,25,58,26,38	1,33,40,11,46,19, 5,11	2,55,26,42,53	6,51
24″	39,59,49,44,54,26,12,17,31,49	1,33,40, 8,50,52,15,27	2,55,26,49,44	6,51
26″	39,59,51,18,34,35, 3, 9,47,16	1,33,40, 5,55,25,18,52	2,55,26,56,35	6,51
28″	39,59,52,52,14,40,58,35, 6, 8	1,33,40, 2,59,58,15,26	2,55,27, 3,26	6,51
30″	39,59,54,25,54,43,58,33,21,34	1,33,40, 0, 4,31, 5, 9	2,55,27,10,17	6,51
32″	39,59,55,59,34,44, 3, 4,26,43	1,33,39,57, 9, 3,48, 1	2,55,27,17, 8	6,51
34″	39,59,57,33,14,41,12, 8,14,44	1,33,39,54,13,36,24, 2	2,55,27,23,59	6,51
36″	39,59,59, 6,54,35,25,44,38,46	1,33,39,51,18, 8,53,12	2,55,27,30,50	6,51
38″	40, 0, 0,40,34,26,43,53,31,58	1,33,39,48,22,41,15,31	2,55,27,37,41	6,51
40″	40, 0, 2,14,14,15, 6,34,47,29	1,33,39,45,27,13,30,59	2,55,27,44,32	6,51
42″	40, 0, 3,47,54, 0,33,48,18,28	1,33,39,42,31,45,39,36	2,55,27,51,23	6,51
44″	40, 0, 5,21,33,43, 5,33,58, 4	1,33,39,39,36,17,41,22	2,55,27,58,14	6,51
46″	40, 0, 6,55,13,22,41,51,39,26	1,33,39,36,40,49,36,17	2,55,28, 5, 5	6,51
48″	40, 0, 8,28,52,59,22,41,15,43	1,33,39,33,45,21,24,21	2,55,28,11,56	6,51
50″	40, 0,10, 2,32,33, 8, 2,40, 4	1,33,39,30,49,53, 5,34	2,55,28,18,47	6,51
52″	40, 0,11,36,12, 3,57,55,45,38	1,33,39,27,54,24,39,56	2,55,28,25,38	6,51
54″	40, 0,13, 9,51,31,52,20,25,34	1,33,39,24,58,56, 7,27	2,55,28,32,29	6,51
56″	40, 0,14,43,30,56,51,16,33, 1	1,33,39,22, 3,27,28, 7	2,55,28,39,20	6,51
58″	40, 0,16,17,10,18,54,44, 1, 8	1,33,39,19, 7,58,41,56	2,55,28,46,11	
60″	40, 0,17,50,49,38, 2,42,43, 4			
exact	40, 0,17,50,49,38, 2,42,51,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°49′ 0″	40, 0,17,50,49,38, 2,42,51,13			
		1,33,39,16,12,29,49,48		
2″	40, 0,19,24,28,54,15,12,41, 1		2,55,28,59,49	
		1,33,39,13,17, 0,49,59		6,51
4″	40, 0,20,58, 8, 7,32,13,31, 0		2,55,29, 6,40	
		1,33,39,10,21,31,43,19		6,51
6″	40, 0,22,31,47,17,53,45,14,19		2,55,29,13,31	
		1,33,39, 7,26, 2,29,48		6,51
8″	40, 0,24, 5,26,25,19,47,44, 7		2,55,29,20,22	
		1,33,39, 4,30,33, 9,26		6,51
10″	40, 0,25,39, 5,29,50,20,53,33		2,55,29,27,13	
		1,33,39, 1,35, 3,42,13		6,51
12″	40, 0,27,12,44,31,25,24,35,46		2,55,29,34, 4	
		1,33,38,58,39,34, 8, 9		6,51
14″	40, 0,28,46,23,30, 4,58,43,55		2,55,29,40,55	
		1,33,38,55,44, 4,27,14		6,51
16″	40, 0,30,20, 2,25,49, 3,11, 9		2,55,29,47,46	
		1,33,38,52,48,34,39,28		6,51
18″	40, 0,31,53,41,18,37,37,50,37		2,55,29,54,37	
		1,33,38,49,53, 4,44,51		6,51
20″	40, 0,33,27,20, 8,30,42,35,28		2,55,30, 1,28	
		1,33,38,46,57,34,43,23		6,51
22″	40, 0,35, 0,58,55,28,17,18,51		2,55,30, 8,19	
		1,33,38,44, 2, 4,35, 4		6,51
24″	40, 0,36,34,37,39,30,21,53,55		2,55,30,15,10	
		1,33,38,41, 6,34,19,54		6,51
26″	40, 0,38, 8,16,20,36,56,13,49		2,55,30,22, 1	
		1,33,38,38,11, 3,57,53		6,51
28″	40, 0,39,41,54,58,48, 0,11,42		2,55,30,28,52	
		1,33,38,35,15,33,29, 1		6,51
30″	40, 0,41,15,33,34, 3,33,40,43		2,55,30,35,43	
		1,33,38,32,20, 2,53,18		6,51
32″	40, 0,42,49,12, 6,23,36,34, 1		2,55,30,42,34	
		1,33,38,29,24,32,10,44		6,51
34″	40, 0,44,22,50,35,48, 8,44,45		2,55,30,49,25	
		1,33,38,26,29, 1,21,19		6,51
36″	40, 0,45,56,29, 2,17,10, 6, 4		2,55,30,56,16	
		1,33,38,23,33,30,25, 3		6,51
38″	40, 0,47,30, 7,25,50,40,31, 7		2,55,31, 3, 7	
		1,33,38,20,37,59,21,56		6,51
40″	40, 0,49, 3,45,46,28,39,53, 3		2,55,31, 9,58	
		1,33,38,17,42,28,11,58		6,51
42″	40, 0,50,37,24, 4,11, 8, 5, 1		2,55,31,16,49	
		1,33,38,14,46,56,55, 9		6,51
44″	40, 0,52,11, 2,18,58, 5, 0,10		2,55,31,23,40	
		1,33,38,11,51,25,31,29		6,51
46″	40, 0,53,44,40,30,49,30,31,39		2,55,31,30,31	
		1,33,38, 8,55,54, 0,58		6,51
48″	40, 0,55,18,18,39,45,24,32,37		2,55,31,37,22	
		1,33,38, 6, 0,22,23,36		6,51
50″	40, 0,56,51,56,45,45,46,56,13		2,55,31,44,13	
		1,33,38, 3, 4,50,39,23		6,51
52″	40, 0,58,25,34,48,50,37,35,36		2,55,31,51, 4	
		1,33,38, 0, 9,18,48,19		6,51
54″	40, 0,59,59,12,48,59,56,23,55		2,55,31,57,55	
		1,33,37,57,13,46,50,24		6,51
56″	40, 1, 1,32,50,46,13,43,14,19		2,55,32, 4,46	
		1,33,37,54,18,14,45,38		6,51
58″	40, 1, 3, 6,28,40,31,57,59,57		2,55,32,11,37	
		1,33,37,51,22,42,34, 1		
60″	40, 1, 4,40, 6,31,54,40,33,58			
exact	40, 1, 4,40, 6,31,54,40,49, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°50′ 0″	40, 1, 4,40, 6,31,54,40,49, 1	1,33,37,48,27,10,17,13		
2″	40, 1, 6,13,44,20,21,51, 6,14	1,33,37,45,31,37,52, 1	2,55,32,25,12	6,51
4″	40, 1, 7,47,22, 5,53,28,58,15	1,33,37,42,36, 5,19,58	2,55,32,32, 3	6,51
6″	40, 1, 9,20,59,48,29,34,18,13	1,33,37,39,40,32,41, 4	2,55,32,38,54	6,51
8″	40, 1,10,54,37,28,10, 6,59,17	1,33,37,36,44,59,55,19	2,55,32,45,45	6,51
10″	40, 1,12,28,15, 4,55, 6,54,36	1,33,37,33,49,27, 2,43	2,55,32,52,36	6,51
12″	40, 1,14, 1,52,38,44,33,57,19	1,33,37,30,53,54, 3,16	2,55,32,59,27	6,51
14″	40, 1,15,35,30, 9,38,28, 0,35	1,33,37,27,58,20,56,58	2,55,33, 6,18	6,51
16″	40, 1,17, 9, 7,37,36,48,57,33	1,33,37,25, 2,47,43,49	2,55,33,13, 9	6,51
18″	40, 1,18,42,45, 2,39,36,41,22	1,33,37,22, 7,14,23,49	2,55,33,20, 0	6,51
20″	40, 1,20,16,22,24,46,51, 5,11	1,33,37,19,11,40,56,58	2,55,33,26,51	6,51
22″	40, 1,21,49,59,43,58,32, 2, 9	1,33,37,16,16, 7,23,16	2,55,33,33,42	6,51
24″	40, 1,23,23,37, 0,14,39,25,25	1,33,37,13,20,33,42,43	2,55,33,40,33	6,51
26″	40, 1,24,57,14,13,35,13, 8, 8	1,33,37,10,24,59,55,19	2,55,33,47,24	6,51
28″	40, 1,26,30,51,24, 0,13, 3,27	1,33,37, 7,29,26, 1, 4	2,55,33,54,15	6,51
30″	40, 1,28, 4,28,31,29,39, 4,31	1,33,37, 4,33,51,59,58	2,55,34, 1, 6	6,51
32″	40, 1,29,38, 5,36, 3,31, 4,29	1,33,37, 1,38,17,52, 1	2,55,34, 7,57	6,51
34″	40, 1,31,11,42,37,41,48,56,30	1,33,36,58,42,43,37,13	2,55,34,14,48	6,51
36″	40, 1,32,45,19,36,24,32,33,43	1,33,36,55,47, 9,15,34	2,55,34,21,39	6,51
38″	40, 1,34,18,56,32,11,41,49,17	1,33,36,52,51,34,47, 4	2,55,34,28,30	6,51
40″	40, 1,35,52,33,25, 3,16,36,21	1,33,36,49,56, 0,11,43	2,55,34,35,21	6,51
42″	40, 1,37,26,10,14,59,16,48, 4	1,33,36,47, 0,25,29,31	2,55,34,42,12	6,51
44″	40, 1,38,59,47, 1,59,42,17,35	1,33,36,44, 4,50,40,28	2,55,34,49, 3	6,51
46″	40, 1,40,33,23,46, 4,32,58, 3	1,33,36,41, 9,15,44,34	2,55,34,55,54	6,51
48″	40, 1,42, 7, 0,27,13,48,42,37	1,33,36,38,13,40,41,49	2,55,35, 2,45	6,51
50″	40, 1,43,40,37, 5,27,29,24,26	1,33,36,35,18, 5,32,13	2,55,35, 9,36	6,51
52″	40, 1,45,14,13,40,45,34,56,39	1,33,36,32,22,30,15,46	2,55,35,16,27	6,51
54″	40, 1,46,47,50,13, 8, 5,12,25	1,33,36,29,26,54,52,28	2,55,35,23,18	6,51
56″	40, 1,48,21,26,42,35, 0, 4,53	1,33,36,26,31,19,22,19	2,55,35,30, 9	6,51
58″	40, 1,49,55, 3, 9, 6,19,27,12	1,33,36,23,35,43,45,19	2,55,35,37, 0	
60″	40, 1,51,28,39,32,42, 3,12,31			
exact	40, 1,51,28,39,32,42, 3,36,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°51′ 0″	40, 1,51,28,39,32,42, 3,36,24	1,33,36,20,40, 8, 4, 1		
2″	40, 1,53, 2,15,53,22,11,40,25	1,33,36,17,44,32,13,30	2,55,35,50,31	6,51
4″	40, 1,54,35,52,11, 6,43,53,55	1,33,36,14,48,56,16, 8	2,55,35,57,22	6,51
6″	40, 1,56, 9,28,25,55,40,10, 3	1,33,36,11,53,20,11,55	2,55,36, 4,13	6,51
8″	40, 1,57,43, 4,37,49, 0,21,58	1,33,36, 8,57,44, 0,51	2,55,36,11, 4	6,51
10″	40, 1,59,16,40,46,46,44,22,49	1,33,36, 6, 2, 7,42,56	2,55,36,17,55	6,51
12″	40, 2, 0,50,16,52,48,52, 5,45	1,33,36, 3, 6,31,18,10	2,55,36,24,46	6,51
14″	40, 2, 2,23,52,55,55,23,23,55	1,33,36, 0,10,54,46,33	2,55,36,31,37	6,51
16″	40, 2, 3,57,28,56, 6,18,10,28	1,33,35,57,15,18, 8, 5	2,55,36,38,28	6,51
18″	40, 2, 5,31, 4,53,21,36,18,33	1,33,35,54,19,41,22,46	2,55,36,45,19	6,51
20″	40, 2, 7, 4,40,47,41,17,41,19	1,33,35,51,24, 4,30,36	2,55,36,52,10	6,51
22″	40, 2, 8,38,16,39, 5,22,11,55	1,33,35,48,28,27,31,35	2,55,36,59, 1	6,51
24″	40, 2,10,11,52,27,33,49,43,30	1,33,35,45,32,50,25,43	2,55,37, 5,52	6,51
26″	40, 2,11,45,28,13, 6,40, 9,13	1,33,35,42,37,13,13, 0	2,55,37,12,43	6,51
28″	40, 2,13,19, 3,55,43,53,22,13	1,33,35,39,41,35,53,26	2,55,37,19,34	6,51
30″	40, 2,14,52,39,35,25,29,15,39	1,33,35,36,45,58,27, 1	2,55,37,26,25	6,51
32″	40, 2,16,26,15,12,11,27,42,40	1,33,35,33,50,20,53,45	2,55,37,33,16	6,51
34″	40, 2,17,59,50,46, 1,48,36,25	1,33,35,30,54,43,13,38	2,55,37,40, 7	6,51
36″	40, 2,19,33,26,16,56,31,50, 3	1,33,35,27,59, 5,26,40	2,55,37,46,58	6,51
38″	40, 2,21, 7, 1,44,55,37,16,43	1,33,35,25, 3,27,32,51	2,55,37,53,49	6,51
40″	40, 2,22,40,37, 9,59, 4,49,34	1,33,35,22, 7,49,32,11	2,55,38, 0,40	6,51
42″	40, 2,24,14,12,32, 6,54,21,45	1,33,35,19,12,11,24,40	2,55,38, 7,31	6,51
44″	40, 2,25,47,47,51,19, 5,46,25	1,33,35,16,16,33,10,18	2,55,38,14,22	6,51
46″	40, 2,27,21,23, 7,35,38,56,43	1,33,35,13,20,54,49, 5	2,55,38,21,13	6,51
48″	40, 2,28,54,58,20,56,33,45,48	1,33,35,10,25,16,21, 1	2,55,38,28, 4	6,51
50″	40, 2,30,28,33,31,21,50, 6,49	1,33,35, 7,29,37,46, 6	2,55,38,34,55	6,51
52″	40, 2,32, 2, 8,38,51,27,52,55	1,33,35, 4,33,59, 4,20	2,55,38,41,46	6,51
54″	40, 2,33,35,43,43,25,26,57,15	1,33,35, 1,38,20,15,43	2,55,38,48,37	6,51
56″	40, 2,35, 9,18,45, 3,47,12,58	1,33,34,58,42,41,20,15	2,55,38,55,28	6,51
58″	40, 2,36,42,53,43,46,28,33,13	1,33,34,55,47, 2,17,56	2,55,39, 2,19	
60″	40, 2,38,16,28,39,33,30,51, 9			
exact	40, 2,38,16,28,39,33,31,18, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°52′ 0″	40, 2,38,16,28,39,33,31,18, 9	1,33,34,52,51,23,11,48		
2″	40, 2,39,50, 3,32,24,54,29,57	1,33,34,49,55,43,56, 0	2,55,39,15,48	6,50
4″	40, 2,41,23,38,22,20,38,25,57	1,33,34,47, 0, 4,33,22	2,55,39,22,38	6,50
6″	40, 2,42,57,13, 9,20,42,59,19	1,33,34,44, 4,25, 3,54	2,55,39,29,28	6,50
8″	40, 2,44,30,47,53,25, 8, 3,13	1,33,34,41, 8,45,27,36	2,55,39,36,18	6,50
10″	40, 2,46, 4,22,34,33,53,30,49	1,33,34,38,13, 5,44,28	2,55,39,43, 8	6,50
12″	40, 2,47,37,57,12,46,59,15,17	1,33,34,35,17,25,54,30	2,55,39,49,58	6,50
14″	40, 2,49,11,31,48, 4,25, 9,47	1,33,34,32,21,45,57,42	2,55,39,56,48	6,50
16″	40, 2,50,45, 6,20,26,11, 7,29	1,33,34,29,26, 5,54, 4	2,55,40, 3,38	6,50
18″	40, 2,52,18,40,49,52,17, 1,33	1,33,34,26,30,25,43,36	2,55,40,10,28	6,50
20″	40, 2,53,52,15,16,22,42,45, 9	1,33,34,23,34,45,26,18	2,55,40,17,18	6,50
22″	40, 2,55,25,49,39,57,28,11,27	1,33,34,20,39, 5, 2,10	2,55,40,24, 8	6,50
24″	40, 2,56,59,24, 0,36,33,13,37	1,33,34,17,43,24,31,12	2,55,40,30,58	6,50
26″	40, 2,58,32,58,18,19,57,44,49	1,33,34,14,47,43,53,24	2,55,40,37,48	6,50
28″	40, 3, 0, 6,32,33, 7,41,38,13	1,33,34,11,52, 3, 8,46	2,55,40,44,38	6,50
30″	40, 3, 1,40, 6,44,59,44,46,59	1,33,34, 8,56,22,17,18	2,55,40,51,28	6,50
32″	40, 3, 3,13,40,53,56, 7, 4,17	1,33,34, 6, 0,41,19, 0	2,55,40,58,18	6,50
34″	40, 3, 4,47,14,59,56,48,23,17	1,33,34, 3, 5, 0,13,52	2,55,41, 5, 8	6,50
36″	40, 3, 6,20,49, 3, 1,48,37, 9	1,33,34, 0, 9,19, 1,54	2,55,41,11,58	6,50
38″	40, 3, 7,54,23, 3,11, 7,39, 3	1,33,33,57,13,37,43, 6	2,55,41,18,48	6,50
40″	40, 3, 9,27,57, 0,24,45,22, 9	1,33,33,54,17,56,17,28	2,55,41,25,38	6,50
42″	40, 3,11, 1,30,54,42,41,39,37	1,33,33,51,22,14,45, 0	2,55,41,32,28	6,50
44″	40, 3,12,35, 4,46, 4,56,24,37	1,33,33,48,26,33, 5,42	2,55,41,39,18	6,50
46″	40, 3,14, 8,38,34,31,29,30,19	1,33,33,45,30,51,19,34	2,55,41,46, 8	6,50
48″	40, 3,15,42,12,20, 2,20,49,53	1,33,33,42,35, 9,26,36	2,55,41,52,58	6,50
50″	40, 3,17,15,46, 2,37,30,16,29	1,33,33,39,39,27,26,48	2,55,41,59,48	6,50
52″	40, 3,18,49,19,42,16,57,43,17	1,33,33,36,43,45,20,10	2,55,42, 6,38	6,50
54″	40, 3,20,22,53,19, 0,43, 3,27	1,33,33,33,48, 3, 6,42	2,55,42,13,28	6,50
56″	40, 3,21,56,26,52,48,46,10, 9	1,33,33,30,52,20,46,24	2,55,42,20,18	6,50
58″	40, 3,23,30, 0,23,41, 6,56,33	1,33,33,27,56,38,19,16	2,55,42,27, 8	
60″	40, 3,25, 3,33,51,37,45,15,49			
exact	40, 3,25, 3,33,51,37,44,47,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°53′ 0″	40, 3,25, 3,33,51,37,44,47,14	1,33,33,25, 0,55,42,11		
2″	40, 3,26,37, 7,16,38,40,29,25	1,33,33,22, 5,13, 1,10	2,55,42,41, 1	
4″	40, 3,28,10,40,38,43,53,30,35	1,33,33,19, 9,30,13,19	2,55,42,47,51	6,50
6″	40, 3,29,44,13,57,53,23,43,54	1,33,33,16,13,47,18,38	2,55,42,54,41	6,50
8″	40, 3,31,17,47,14, 7,11, 2,32	1,33,33,13,18, 4,17, 7	2,55,43, 1,31	6,50
10″	40, 3,32,51,20,27,25,15,19,39	1,33,33,10,22,21, 8,46	2,55,43, 8,21	6,50
12″	40, 3,34,24,53,37,47,36,28,25	1,33,33, 7,26,37,53,35	2,55,43,15,11	6,50
14″	40, 3,35,58,26,45,14,14,22, 0	1,33,33, 4,30,54,31,34	2,55,43,22, 1	6,50
16″	40, 3,37,31,59,49,45, 8,53,34	1,33,33, 1,35,11, 2,43	2,55,43,28,51	6,50
18″	40, 3,39, 5,32,51,20,19,56,17	1,33,32,58,39,27,27, 2	2,55,43,35,41	6,50
20″	40, 3,40,39, 5,49,59,47,23,19	1,33,32,55,43,43,44,31	2,55,43,42,31	6,50
22″	40, 3,42,12,38,45,43,31, 7,50	1,33,32,52,47,59,55,10	2,55,43,49,21	6,50
24″	40, 3,43,46,11,38,31,31, 3, 0	1,33,32,49,52,15,58,59	2,55,43,56,11	6,50
26″	40, 3,45,19,44,28,23,47, 1,59	1,33,32,46,56,31,55,58	2,55,44, 3, 1	6,50
28″	40, 3,46,53,17,15,20,18,57,57	1,33,32,44, 0,47,46, 7	2,55,44, 9,51	6,50
30″	40, 3,48,26,49,59,21, 6,44, 4	1,33,32,41, 5, 3,29,26	2,55,44,16,41	6,50
32″	40, 3,50, 0,22,40,26,10,13,30	1,33,32,38, 9,19, 5,55	2,55,44,23,31	6,50
34″	40, 3,51,33,55,18,35,29,19,25	1,33,32,35,13,34,35,34	2,55,44,30,21	6,50
36″	40, 3,53, 7,27,53,49, 3,54,59	1,33,32,32,17,49,58,23	2,55,44,37,11	6,50
38″	40, 3,54,41, 0,26, 6,53,53,22	1,33,32,29,22, 5,14,22	2,55,44,44, 1	6,50
40″	40, 3,56,14,32,55,28,59, 7,44	1,33,32,26,26,20,23,31	2,55,44,50,51	6,50
42″	40, 3,57,48, 5,21,55,19,31,15	1,33,32,23,30,35,25,50	2,55,44,57,41	6,50
44″	40, 3,59,21,37,45,25,54,57, 5	1,33,32,20,34,50,21,19	2,55,45, 4,31	6,50
46″	40, 4, 0,55,10, 6, 0,45,18,24	1,33,32,17,39, 5, 9,58	2,55,45,11,21	6,50
48″	40, 4, 2,28,42,23,39,50,28,22	1,33,32,14,43,19,51,47	2,55,45,18,11	6,50
50″	40, 4, 4, 2,14,38,23,10,20, 9	1,33,32,11,47,34,26,46	2,55,45,25, 1	6,50
52″	40, 4, 5,35,46,50,10,44,46,55	1,33,32, 8,51,48,54,55	2,55,45,31,51	6,50
54″	40, 4, 7, 9,18,59, 2,33,41,50	1,33,32, 5,56, 3,16,14	2,55,45,38,41	6,50
56″	40, 4, 8,42,51, 4,58,36,58, 4	1,33,32, 3, 0,17,30,43	2,55,45,45,31	6,50
58″	40, 4,10,16,23, 7,58,54,28,47	1,33,32, 0, 4,31,38,22	2,55,45,52,21	
60″	40, 4,11,49,55, 8, 3,26, 7, 9			
exact	40, 4,11,49,55, 8, 3,25,44,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°54′ 0″	40, 4,11,49,55, 8, 3,25,44,44			
		1,33,31,57, 8,45,36,46		
2″	40, 4,13,23,27, 5,12,11,21,30		2,55,46, 6,11	
		1,33,31,54,12,59,30,35		6,50
4″	40, 4,14,56,58,59,25,10,52, 5		2,55,46,13, 1	
		1,33,31,51,17,13,17,34		6,50
6″	40, 4,16,30,30,50,42,24, 9,39		2,55,46,19,51	
		1,33,31,48,21,26,57,43		6,50
8″	40, 4,18, 4, 2,39, 3,51, 7,22		2,55,46,26,41	
		1,33,31,45,25,40,31, 2		6,50
10″	40, 4,19,37,34,24,29,31,38,24		2,55,46,33,31	
		1,33,31,42,29,53,57,31		6,50
12″	40, 4,21,11, 6, 6,59,25,35,55		2,55,46,40,21	
		1,33,31,39,34, 7,17,10		6,50
14″	40, 4,22,44,37,46,33,32,53, 5		2,55,46,47,11	
		1,33,31,36,38,20,29,59		6,50
16″	40, 4,24,18, 9,23,11,53,23, 4		2,55,46,54, 1	
		1,33,31,33,42,33,35,58		6,50
18″	40, 4,25,51,40,56,54,26,59, 2		2,55,47, 0,51	
		1,33,31,30,46,46,35, 7		6,50
20″	40, 4,27,25,12,27,41,13,34, 9		2,55,47, 7,41	
		1,33,31,27,50,59,27,26		6,50
22″	40, 4,28,58,43,55,32,13, 1,35		2,55,47,14,31	
		1,33,31,24,55,12,12,55		6,50
24″	40, 4,30,32,15,20,27,25,14,30		2,55,47,21,21	
		1,33,31,21,59,24,51,34		6,50
26″	40, 4,32, 5,46,42,26,50, 6, 4		2,55,47,28,11	
		1,33,31,19, 3,37,23,23		6,50
28″	40, 4,33,39,18, 1,30,27,29,27		2,55,47,35, 1	
		1,33,31,16, 7,49,48,22		6,50
30″	40, 4,35,12,49,17,38,17,17,49		2,55,47,41,51	
		1,33,31,13,12, 2, 6,31		6,50
32″	40, 4,36,46,20,30,50,19,24,20		2,55,47,48,41	
		1,33,31,10,16,14,17,50		6,50
34″	40, 4,38,19,51,41, 6,33,42,10		2,55,47,55,31	
		1,33,31, 7,20,26,22,19		6,50
36″	40, 4,39,53,22,48,27, 0, 4,29		2,55,48, 2,21	
		1,33,31, 4,24,38,19,58		6,50
38″	40, 4,41,26,53,52,51,38,24,27		2,55,48, 9,11	
		1,33,31, 1,28,50,10,47		6,50
40″	40, 4,43, 0,24,54,20,28,35,14		2,55,48,16, 1	
		1,33,30,58,33, 1,54,46		6,50
42″	40, 4,44,33,55,52,53,30,30, 0		2,55,48,22,51	
		1,33,30,55,37,13,31,55		6,50
44″	40, 4,46, 7,26,48,30,44, 1,55		2,55,48,29,41	
		1,33,30,52,41,25, 2,14		6,50
46″	40, 4,47,40,57,41,12, 9, 4, 9		2,55,48,36,31	
		1,33,30,49,45,36,25,43		6,50
48″	40, 4,49,14,28,30,57,45,29,52		2,55,48,43,21	
		1,33,30,46,49,47,42,22		6,50
50″	40, 4,50,47,59,17,47,33,12,14		2,55,48,50,11	
		1,33,30,43,53,58,52,11		6,50
52″	40, 4,52,21,30, 1,41,32, 4,25		2,55,48,57, 1	
		1,33,30,40,58, 9,55,10		6,50
54″	40, 4,53,55, 0,42,39,41,59,35		2,55,49, 3,51	
		1,33,30,38, 2,20,51,19		6,50
56″	40, 4,55,28,31,20,42, 2,50,54		2,55,49,10,41	
		1,33,30,35, 6,31,40,38		6,50
58″	40, 4,57, 2, 1,55,48,34,31,32		2,55,49,17,31	
		1,33,30,32,10,42,23, 7		
60″	40, 4,58,35,32,27,59,16,54,39			
exact	40, 4,58,35,32,27,59,16,39,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°55′ 0″	40, 4,58,35,32,27,59,16,39,57	1,33,30,29,14,52,57,10		
2″	40, 5, 0, 9, 2,57,14, 9,37, 7	1,33,30,26,19, 3,25,53	2,55,49,31,17	6,50
4″	40, 5, 1,42,33,23,33,13, 3, 0	1,33,30,23,23,13,47,46	2,55,49,38, 7	6,50
6″	40, 5, 3,16, 3,46,56,26,50,46	1,33,30,20,27,24, 2,49	2,55,49,44,57	6,50
8″	40, 5, 4,49,34, 7,23,50,53,35	1,33,30,17,31,34,11, 2	2,55,49,51,47	6,50
10″	40, 5, 6,23, 4,24,55,25, 4,37	1,33,30,14,35,44,12,25	2,55,49,58,37	6,50
12″	40, 5, 7,56,34,39,31, 9,17, 2	1,33,30,11,39,54, 6,58	2,55,50, 5,27	6,50
14″	40, 5, 9,30, 4,51,11, 3,24, 0	1,33,30, 8,44, 3,54,41	2,55,50,12,17	6,50
16″	40, 5,11, 3,34,59,55, 7,18,41	1,33,30, 5,48,13,35,34	2,55,50,19, 7	6,50
18″	40, 5,12,37, 5, 5,43,20,54,15	1,33,30, 2,52,23, 9,37	2,55,50,25,57	6,50
20″	40, 5,14,10,35, 8,35,44, 3,52	1,33,29,59,56,32,36,50	2,55,50,32,47	6,50
22″	40, 5,15,44, 5, 8,32,16,40,42	1,33,29,57, 0,41,57,13	2,55,50,39,37	6,50
24″	40, 5,17,17,35, 5,32,58,37,55	1,33,29,54, 4,51,10,46	2,55,50,46,27	6,50
26″	40, 5,18,51, 4,59,37,49,48,41	1,33,29,51, 9, 0,17,29	2,55,50,53,17	6,50
28″	40, 5,20,24,34,50,46,50, 6,10	1,33,29,48,13, 9,17,22	2,55,51, 0, 7	6,50
30″	40, 5,21,58, 4,38,59,59,23,32	1,33,29,45,17,18,10,25	2,55,51, 6,57	6,50
32″	40, 5,23,31,34,24,17,17,33,57	1,33,29,42,21,26,56,38	2,55,51,13,47	6,50
34″	40, 5,25, 5, 4, 6,38,44,30,35	1,33,29,39,25,35,36, 1	2,55,51,20,37	6,50
36″	40, 5,26,38,33,46, 4,20, 6,36	1,33,29,36,29,44, 8,34	2,55,51,27,27	6,50
38″	40, 5,28,12, 3,22,34, 4,15,10	1,33,29,33,33,52,34,17	2,55,51,34,17	6,50
40″	40, 5,29,45,32,56, 7,56,49,27	1,33,29,30,38, 0,53,10	2,55,51,41, 7	6,50
42″	40, 5,31,19, 2,26,45,57,42,37	1,33,29,27,42, 9, 5,13	2,55,51,47,57	6,50
44″	40, 5,32,52,31,54,28, 6,47,50	1,33,29,24,46,17,10,26	2,55,51,54,47	6,50
46″	40, 5,34,26, 1,19,14,23,58,16	1,33,29,21,50,25, 8,49	2,55,52, 1,37	6,50
48″	40, 5,35,59,30,41, 4,49, 7, 5	1,33,29,18,54,33, 0,22	2,55,52, 8,27	6,50
50″	40, 5,37,32,59,59,59,22, 7,27	1,33,29,15,58,40,45, 5	2,55,52,15,17	6,50
52″	40, 5,39, 6,29,15,58, 2,52,32	1,33,29,13, 2,48,22,58	2,55,52,22, 7	6,50
54″	40, 5,40,39,58,29, 0,51,15,30	1,33,29,10, 6,55,54, 1	2,55,52,28,57	6,50
56″	40, 5,42,13,27,39, 7,47, 9,31	1,33,29, 7,11, 3,18,14	2,55,52,35,47	6,50
58″	40, 5,43,46,56,46,18,50,27,45	1,33,29, 4,15,10,35,37	2,55,52,42,37	
60″	40, 5,45,20,25,50,34, 1, 3,22			
exact	40, 5,45,20,25,50,34, 0,50,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°56′ 0″	40, 5,45,20,25,50,34, 0,50,19	1,33,29, 1,19,17,44,58		
2″	40, 5,46,53,54,51,53,18,35,17	1,33,28,58,23,24,48,37	2,55,52,56,21	6,50
4″	40, 5,48,27,23,50,16,43,23,54	1,33,28,55,27,31,45,26	2,55,53, 3,11	6,50
6″	40, 5,50, 0,52,45,44,15, 9,20	1,33,28,52,31,38,35,25	2,55,53,10, 1	6,50
8″	40, 5,51,34,21,38,15,53,44,45	1,33,28,49,35,45,18,34	2,55,53,16,51	6,50
10″	40, 5,53, 7,50,27,51,39, 3,19	1,33,28,46,39,51,54,53	2,55,53,23,41	6,50
12″	40, 5,54,41,19,14,31,30,58,12	1,33,28,43,43,58,24,22	2,55,53,30,31	6,50
14″	40, 5,56,14,47,58,15,29,22,34	1,33,28,40,48, 4,47, 1	2,55,53,37,21	6,50
16″	40, 5,57,48,16,39, 3,34, 9,35	1,33,28,37,52,11, 2,50	2,55,53,44,11	6,50
18″	40, 5,59,21,45,16,55,45,12,25	1,33,28,34,56,17,11,49	2,55,53,51, 1	6,50
20″	40, 6, 0,55,13,51,52, 2,24,14	1,33,28,32, 0,23,13,58	2,55,53,57,51	6,50
22″	40, 6, 2,28,42,23,52,25,38,12	1,33,28,29, 4,29, 9,17	2,55,54, 4,41	6,50
24″	40, 6, 4, 2,10,52,56,54,47,29	1,33,28,26, 8,34,57,46	2,55,54,11,31	6,50
26″	40, 6, 5,35,39,19, 5,29,45,15	1,33,28,23,12,40,39,25	2,55,54,18,21	6,50
28″	40, 6, 7, 9, 7,42,18,10,24,40	1,33,28,20,16,46,14,14	2,55,54,25,11	6,50
30″	40, 6, 8,42,36, 2,34,56,38,54	1,33,28,17,20,51,42,13	2,55,54,32, 1	6,50
32″	40, 6,10,16, 4,19,55,48,21, 7	1,33,28,14,24,57, 3,22	2,55,54,38,51	6,50
34″	40, 6,11,49,32,34,20,45,24,29	1,33,28,11,29, 2,17,41	2,55,54,45,41	6,50
36″	40, 6,13,23, 0,45,49,47,42,10	1,33,28, 8,33, 7,25,10	2,55,54,52,31	6,50
38″	40, 6,14,56,28,54,22,55, 7,20	1,33,28, 5,37,12,25,49	2,55,54,59,21	6,50
40″	40, 6,16,29,57, 0, 0, 7,33, 9	1,33,28, 2,41,17,19,38	2,55,55, 6,11	6,50
42″	40, 6,18, 3,25, 2,41,24,52,47	1,33,27,59,45,22, 6,37	2,55,55,13, 1	6,50
44″	40, 6,19,36,53, 2,26,46,59,24	1,33,27,56,49,26,46,46	2,55,55,19,51	6,50
46″	40, 6,21,10,20,59,16,13,46,10	1,33,27,53,53,31,20, 5	2,55,55,26,41	6,50
48″	40, 6,22,43,48,53, 9,45, 6,15	1,33,27,50,57,35,46,34	2,55,55,33,31	6,50
50″	40, 6,24,17,16,44, 7,20,52,49	1,33,27,48, 1,40, 6,13	2,55,55,40,21	6,50
52″	40, 6,25,50,44,32, 9, 0,59, 2	1,33,27,45, 5,44,19, 2	2,55,55,47,11	6,50
54″	40, 6,27,24,12,17,14,45,18, 4	1,33,27,42, 9,48,25, 1	2,55,55,54, 1	6,50
56″	40, 6,28,57,39,59,24,33,43, 5	1,33,27,39,13,52,24,10	2,55,56, 0,51	6,50
58″	40, 6,30,31, 7,38,38,26, 7,15	1,33,27,36,17,56,16,29	2,55,56, 7,41	
60″	40, 6,32, 4,35,14,56,22,23,44			
exact	40, 6,32, 4,35,14,56,22,21,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°57′ 0″	40, 6,32, 4,35,14,56,22,21,30			
		1,33,27,33,22, 0, 1,47		
2″	40, 6,33,38, 2,48,18,22,23,17		2,55,56,21,21	
		1,33,27,30,26, 3,40,26		6,50
4″	40, 6,35,11,30,18,44,26, 3,43		2,55,56,28,11	
		1,33,27,27,30, 7,12,15		6,50
6″	40, 6,36,44,57,46,14,33,15,58		2,55,56,35, 1	
		1,33,27,24,34,10,37,14		6,50
8″	40, 6,38,18,25,10,48,43,53,12		2,55,56,41,51	
		1,33,27,21,38,13,55,23		6,50
10″	40, 6,39,51,52,32,26,57,48,35		2,55,56,48,41	
		1,33,27,18,42,17, 6,42		6,50
12″	40, 6,41,25,19,51, 9,14,55,17		2,55,56,55,31	
		1,33,27,15,46,20,11,11		6,50
14″	40, 6,42,58,47, 6,55,35, 6,28		2,55,57, 2,21	
		1,33,27,12,50,23, 8,50		6,50
16″	40, 6,44,32,14,19,45,58,15,18		2,55,57, 9,11	
		1,33,27, 9,54,25,59,39		6,50
18″	40, 6,46, 5,41,29,40,24,14,57		2,55,57,16, 1	
		1,33,27, 6,58,28,43,38		6,50
20″	40, 6,47,39, 8,36,38,52,58,35		2,55,57,22,51	
		1,33,27, 4, 2,31,20,47		6,50
22″	40, 6,49,12,35,40,41,24,19,22		2,55,57,29,41	
		1,33,27, 1, 6,33,51, 6		6,50
24″	40, 6,50,46, 2,41,47,58,10,28		2,55,57,36,31	
		1,33,26,58,10,36,14,35		6,50
26″	40, 6,52,19,29,39,58,34,25, 3		2,55,57,43,21	
		1,33,26,55,14,38,31,14		6,50
28″	40, 6,53,52,56,35,13,12,56,17		2,55,57,50,11	
		1,33,26,52,18,40,41, 3		6,50
30″	40, 6,55,26,23,27,31,53,37,20		2,55,57,57, 1	
		1,33,26,49,22,42,44, 2		6,50
32″	40, 6,56,59,50,16,54,36,21,22		2,55,58, 3,51	
		1,33,26,46,26,44,40,11		6,50
34″	40, 6,58,33,17, 3,21,21, 1,33		2,55,58,10,41	
		1,33,26,43,30,46,29,30		6,50
36″	40, 7, 0, 6,43,46,52, 7,31, 3		2,55,58,17,31	
		1,33,26,40,34,48,11,59		6,50
38″	40, 7, 1,40,10,27,26,55,43, 2		2,55,58,24,21	
		1,33,26,37,38,49,47,38		6,50
40″	40, 7, 3,13,37, 5, 5,45,30,40		2,55,58,31,11	
		1,33,26,34,42,51,16,27		6,50
42″	40, 7, 4,47, 3,39,48,36,47, 7		2,55,58,38, 1	
		1,33,26,31,46,52,38,26		6,50
44″	40, 7, 6,20,30,11,35,29,25,33		2,55,58,44,51	
		1,33,26,28,50,53,53,35		6,50
46″	40, 7, 7,53,56,40,26,23,19, 8		2,55,58,51,41	
		1,33,26,25,54,55, 1,54		6,50
48″	40, 7, 9,27,23, 6,21,18,21, 2		2,55,58,58,31	
		1,33,26,22,58,56, 3,23		6,50
50″	40, 7,11, 0,49,29,20,14,24,25		2,55,59, 5,21	
		1,33,26,20, 2,56,58, 2		6,50
52″	40, 7,12,34,15,49,23,11,22,27		2,55,59,12,11	
		1,33,26,17, 6,57,45,51		6,50
54″	40, 7,14, 7,42, 6,30, 9, 8,18		2,55,59,19, 1	
		1,33,26,14,10,58,26,50		6,50
56″	40, 7,15,41, 8,20,41, 7,35, 8		2,55,59,25,51	
		1,33,26,11,14,59, 0,59		6,50
58″	40, 7,17,14,34,31,56, 6,36, 7		2,55,59,32,41	
		1,33,26, 8,18,59,28,18		
60″	40, 7,18,48, 0,40,15, 6, 4,25			
exact	40, 7,18,48, 0,40,15, 6, 7,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°58′ 0″	40, 7,18,48, 0,40,15, 6, 7,23	1,33,26, 5,22,59,49,14		
2″	40, 7,20,21,26,45,38, 5,56,37	1,33,26, 2,27, 0, 2,56	2,55,59,46,18	
4″	40, 7,21,54,52,48, 5, 5,59,33	1,33,25,59,31, 0, 9,48	2,55,59,53, 8	6,50
6″	40, 7,23,28,18,47,36, 6, 9,21	1,33,25,56,35, 0, 9,50	2,55,59,59,58	6,50
8″	40, 7,25, 1,44,44,11, 6,19,11	1,33,25,53,39, 0, 3, 2	2,56, 0, 6,48	6,50
10″	40, 7,26,35,10,37,50, 6,22,13	1,33,25,50,42,59,49,24	2,56, 0,13,38	6,50
12″	40, 7,28, 8,36,28,33, 6,11,37	1,33,25,47,46,59,28,56	2,56, 0,20,28	6,50
14″	40, 7,29,42, 2,16,20, 5,40,33	1,33,25,44,50,59, 1,38	2,56, 0,27,18	6,50
16″	40, 7,31,15,28, 1,11, 4,42,11	1,33,25,41,54,58,27,30	2,56, 0,34, 8	6,50
18″	40, 7,32,48,53,43, 6, 3, 9,41	1,33,25,38,58,57,46,32	2,56, 0,40,58	6,50
20″	40, 7,34,22,19,22, 5, 0,56,13	1,33,25,36, 2,56,58,44	2,56, 0,47,48	6,50
22″	40, 7,35,55,44,58, 7,57,54,57	1,33,25,33, 6,56, 4, 6	2,56, 0,54,38	6,50
24″	40, 7,37,29,10,31,14,53,59, 3	1,33,25,30,10,55, 2,38	2,56, 1, 1,28	6,50
26″	40, 7,39, 2,36, 1,25,49, 1,41	1,33,25,27,14,53,54,20	2,56, 1, 8,18	6,50
28″	40, 7,40,36, 1,28,40,42,56, 1	1,33,25,24,18,52,39,12	2,56, 1,15, 8	6,50
30″	40, 7,42, 9,26,52,59,35,35,13	1,33,25,21,22,51,17,14	2,56, 1,21,58	6,50
32″	40, 7,43,42,52,14,22,26,52,27	1,33,25,18,26,49,48,26	2,56, 1,28,48	6,50
34″	40, 7,45,16,17,32,49,16,40,53	1,33,25,15,30,48,12,48	2,56, 1,35,38	6,50
36″	40, 7,46,49,42,48,20, 4,53,41	1,33,25,12,34,46,30,20	2,56, 1,42,28	6,50
38″	40, 7,48,23, 8, 0,54,51,24, 1	1,33,25, 9,38,44,41, 2	2,56, 1,49,18	6,50
40″	40, 7,49,56,33,10,33,36, 5, 3	1,33,25, 6,42,42,44,54	2,56, 1,56, 8	6,50
42″	40, 7,51,29,58,17,16,18,49,57	1,33,25, 3,46,40,41,56	2,56, 2, 2,58	6,50
44″	40, 7,53, 3,23,21, 2,59,31,53	1,33,25, 0,50,38,32, 8	2,56, 2, 9,48	6,50
46″	40, 7,54,36,48,21,53,38, 4, 1	1,33,24,57,54,36,15,30	2,56, 2,16,38	6,50
48″	40, 7,56,10,13,19,48,14,19,31	1,33,24,54,58,33,52, 2	2,56, 2,23,28	6,50
50″	40, 7,57,43,38,14,46,48,11,33	1,33,24,52, 2,31,21,44	2,56, 2,30,18	6,50
52″	40, 7,59,17, 3, 6,49,19,33,17	1,33,24,49, 6,28,44,36	2,56, 2,37, 8	6,50
54″	40, 8, 0,50,27,55,55,48,17,53	1,33,24,46,10,26, 0,38	2,56, 2,43,58	6,50
56″	40, 8, 2,23,52,42, 6,14,18,31	1,33,24,43,14,23, 9,50	2,56, 2,50,48	6,50
58″	40, 8, 3,57,17,25,20,37,28,21	1,33,24,40,18,20,12,12	2,56, 2,57,38	
60″	40, 8, 5,30,42, 5,38,57,40,33			
exact	40, 8, 5,30,42, 5,38,57,50, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
41°59′ 0″	40, 8, 5,30,42, 5,38,57,50, 6			
		1,33,24,37,22,17, 8,55		
2″	40, 8, 7, 4, 6,43, 1,14,59, 1		2,56, 3,11,12	
		1,33,24,34,26,13,57,43		6,50
4″	40, 8, 8,37,31,17,27,28,56,44		2,56, 3,18, 2	
		1,33,24,31,30,10,39,41		6,50
6″	40, 8,10,10,55,48,57,39,36,25		2,56, 3,24,52	
		1,33,24,28,34, 7,14,49		6,50
8″	40, 8,11,44,20,17,31,46,51,14		2,56, 3,31,42	
		1,33,24,25,38, 3,43, 7		6,50
10″	40, 8,13,17,44,43, 9,50,34,21		2,56, 3,38,32	
		1,33,24,22,42, 0, 4,35		6,50
12″	40, 8,14,51, 9, 5,51,50,38,56		2,56, 3,45,22	
		1,33,24,19,45,56,19,13		6,50
14″	40, 8,16,24,33,25,37,46,58, 9		2,56, 3,52,12	
		1,33,24,16,49,52,27, 1		6,50
16″	40, 8,17,57,57,42,27,39,25,10		2,56, 3,59, 2	
		1,33,24,13,53,48,27,59		6,50
18″	40, 8,19,31,21,56,21,27,53, 9		2,56, 4, 5,52	
		1,33,24,10,57,44,22, 7		6,50
20″	40, 8,21, 4,46, 7,19,12,15,16		2,56, 4,12,42	
		1,33,24, 8, 1,40, 9,25		6,50
22″	40, 8,22,38,10,15,20,52,24,41		2,56, 4,19,32	
		1,33,24, 5, 5,35,49,53		6,50
24″	40, 8,24,11,34,20,26,28,14,34		2,56, 4,26,22	
		1,33,24, 2, 9,31,23,31		6,50
26″	40, 8,25,44,58,22,35,59,38, 5		2,56, 4,33,12	
		1,33,23,59,13,26,50,19		6,50
28″	40, 8,27,18,22,21,49,26,28,24		2,56, 4,40, 2	
		1,33,23,56,17,22,10,17		6,50
30″	40, 8,28,51,46,18, 6,48,38,41		2,56, 4,46,52	
		1,33,23,53,21,17,23,25		6,50
32″	40, 8,30,25,10,11,28, 6, 2, 6		2,56, 4,53,42	
		1,33,23,50,25,12,29,43		6,50
34″	40, 8,31,58,34, 1,53,18,31,49		2,56, 5, 0,32	
		1,33,23,47,29, 7,29,11		6,50
36″	40, 8,33,31,57,49,22,26, 1, 0		2,56, 5, 7,22	
		1,33,23,44,33, 2,21,49		6,50
38″	40, 8,35, 5,21,33,55,28,22,49		2,56, 5,14,12	
		1,33,23,41,36,57, 7,37		6,50
40″	40, 8,36,38,45,15,32,25,30,26		2,56, 5,21, 2	
		1,33,23,38,40,51,46,35		6,50
42″	40, 8,38,12, 8,54,13,17,17, 1		2,56, 5,27,52	
		1,33,23,35,44,46,18,43		6,50
44″	40, 8,39,45,32,29,58, 3,35,44		2,56, 5,34,42	
		1,33,23,32,48,40,44, 1		6,50
46″	40, 8,41,18,56, 2,46,44,19,45		2,56, 5,41,32	
		1,33,23,29,52,35, 2,29		6,50
48″	40, 8,42,52,19,32,39,19,22,14		2,56, 5,48,22	
		1,33,23,26,56,29,14, 7		6,50
50″	40, 8,44,25,42,59,35,48,36,21		2,56, 5,55,12	
		1,33,23,24, 0,23,18,55		6,50
52″	40, 8,45,59, 6,23,36,11,55,16		2,56, 6, 2, 2	
		1,33,23,21, 4,17,16,53		6,50
54″	40, 8,47,32,29,44,40,29,12, 9		2,56, 6, 8,52	
		1,33,23,18, 8,11, 8, 1		6,50
56″	40, 8,49, 5,53, 2,48,40,20,10		2,56, 6,15,42	
		1,33,23,15,12, 4,52,19		6,50
58″	40, 8,50,39,16,18, 0,45,12,29		2,56, 6,22,32	
		1,33,23,12,15,58,29,47		
60″	40, 8,52,12,39,30,16,43,42,16			
exact	40, 8,52,12,39,30,16,43,59,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42° 0′ 0″	40, 8,52,12,39,30,16,43,59,59			
		1,33,23, 9,19,52, 2,26		
2″	40, 8,53,46, 2,39,36,36, 2,25		2,56, 6,36, 3	
		1,33,23, 6,23,45,26,23		6,50
4″	40, 8,55,19,25,46, 0,21,28,48		2,56, 6,42,53	
		1,33,23, 3,27,38,43,30		6,50
6″	40, 8,56,52,48,49,28, 0,12,18		2,56, 6,49,43	
		1,33,23, 0,31,31,53,47		6,50
8″	40, 8,58,26,11,49,59,32, 6, 5		2,56, 6,56,33	
		1,33,22,57,35,24,57,14		6,50
10″	40, 8,59,59,34,47,34,57, 3,19		2,56, 7, 3,23	
		1,33,22,54,39,17,53,51		6,50
12″	40, 9, 1,32,57,42,14,14,57,10		2,56, 7,10,13	
		1,33,22,51,43,10,43,38		6,50
14″	40, 9, 3, 6,20,33,57,25,40,48		2,56, 7,17, 3	
		1,33,22,48,47, 3,26,35		6,50
16″	40, 9, 4,39,43,22,44,29, 7,23		2,56, 7,23,53	
		1,33,22,45,50,56, 2,42		6,50
18″	40, 9, 6,13, 6, 8,35,25,10, 5		2,56, 7,30,43	
		1,33,22,42,54,48,31,59		6,50
20″	40, 9, 7,46,28,51,30,13,42, 4		2,56, 7,37,33	
		1,33,22,39,58,40,54,26		6,50
22″	40, 9, 9,19,51,31,28,54,36,30		2,56, 7,44,23	
		1,33,22,37, 2,33,10, 3		6,50
24″	40, 9,10,53,14, 8,31,27,46,33		2,56, 7,51,13	
		1,33,22,34, 6,25,18,50		6,50
26″	40, 9,12,26,36,42,37,53, 5,23		2,56, 7,58, 3	
		1,33,22,31,10,17,20,47		6,50
28″	40, 9,13,59,59,13,48,10,26,10		2,56, 8, 4,53	
		1,33,22,28,14, 9,15,54		6,50
30″	40, 9,15,33,21,42, 2,19,42, 4		2,56, 8,11,43	
		1,33,22,25,18, 1, 4,11		6,50
32″	40, 9,17, 6,44, 7,20,20,46,15		2,56, 8,18,33	
		1,33,22,22,21,52,45,38		6,50
34″	40, 9,18,40, 6,29,42,13,31,53		2,56, 8,25,23	
		1,33,22,19,25,44,20,15		6,50
36″	40, 9,20,13,28,49, 7,57,52, 8		2,56, 8,32,13	
		1,33,22,16,29,35,48, 2		6,50
38″	40, 9,21,46,51, 5,37,33,40,10		2,56, 8,39, 3	
		1,33,22,13,33,27, 8,59		6,50
40″	40, 9,23,20,13,19,11, 0,49, 9		2,56, 8,45,53	
		1,33,22,10,37,18,23, 6		6,50
42″	40, 9,24,53,35,29,48,19,12,15		2,56, 8,52,43	
		1,33,22, 7,41, 9,30,23		6,50
44″	40, 9,26,26,57,37,29,28,42,38		2,56, 8,59,33	
		1,33,22, 4,45, 0,30,50		6,50
46″	40, 9,28, 0,19,42,14,29,13,28		2,56, 9, 6,23	
		1,33,22, 1,48,51,24,27		6,50
48″	40, 9,29,33,41,44, 3,20,37,55		2,56, 9,13,13	
		1,33,21,58,52,42,11,14		6,50
50″	40, 9,31, 7, 3,42,56, 2,49, 9		2,56, 9,20, 3	
		1,33,21,55,56,32,51,11		6,50
52″	40, 9,32,40,25,38,52,35,40,20		2,56, 9,26,53	
		1,33,21,53, 0,23,24,18		6,50
54″	40, 9,34,13,47,31,52,59, 4,38		2,56, 9,33,43	
		1,33,21,50, 4,13,50,35		6,50
56″	40, 9,35,47, 9,21,57,12,55,13		2,56, 9,40,33	
		1,33,21,47, 8, 4,10, 2		6,50
58″	40, 9,37,20,31, 9, 5,17, 5,15		2,56, 9,47,23	
		1,33,21,44,11,54,22,39		
60″	40, 9,38,53,52,53,17,11,27,54			
exact	40, 9,38,53,52,53,17,11,55,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42° 1′ 0″	40, 9,38,53,52,53,17,11,55,41	1,33,21,41,15,44,31,25		
2″	40, 9,40,27,14,34,32,56,27, 6	1,33,21,38,19,34,30,35	2,56,10, 0,50	6,50
4″	40, 9,42, 0,36,12,52,30,57,41	1,33,21,35,23,24,22,55	2,56,10, 7,40	6,50
6″	40, 9,43,33,57,48,15,55,20,36	1,33,21,32,27,14, 8,25	2,56,10,14,30	6,50
8″	40, 9,45, 7,19,20,43, 9,29, 1	1,33,21,29,31, 3,47, 5	2,56,10,21,20	6,50
10″	40, 9,46,40,40,50,14,13,16, 6	1,33,21,26,34,53,18,55	2,56,10,28,10	6,50
12″	40, 9,48,14, 2,16,49, 6,35, 1	1,33,21,23,38,42,43,55	2,56,10,35, 0	6,50
14″	40, 9,49,47,23,40,27,49,18,56	1,33,21,20,42,32, 2, 5	2,56,10,41,50	6,50
16″	40, 9,51,20,45, 1,10,21,21, 1	1,33,21,17,46,21,13,25	2,56,10,48,40	6,50
18″	40, 9,52,54, 6,18,56,42,34,26	1,33,21,14,50,10,17,55	2,56,10,55,30	6,50
20″	40, 9,54,27,27,33,46,52,52,21	1,33,21,11,53,59,15,35	2,56,11, 2,20	6,50
22″	40, 9,56, 0,48,45,40,52, 7,56	1,33,21, 8,57,48, 6,25	2,56,11, 9,10	6,50
24″	40, 9,57,34, 9,54,38,40,14,21	1,33,21, 6, 1,36,50,25	2,56,11,16, 0	6,50
26″	40, 9,59, 7,31, 0,40,17, 4,46	1,33,21, 3, 5,25,27,35	2,56,11,22,50	6,50
28″	40,10, 0,40,52, 3,45,42,32,21	1,33,21, 0, 9,13,57,55	2,56,11,29,40	6,50
30″	40,10, 2,14,13, 3,54,56,30,16	1,33,20,57,13, 2,21,25	2,56,11,36,30	6,50
32″	40,10, 3,47,34, 1, 7,58,51,41	1,33,20,54,16,50,38, 5	2,56,11,43,20	6,50
34″	40,10, 5,20,54,55,24,49,29,46	1,33,20,51,20,38,47,55	2,56,11,50,10	6,50
36″	40,10, 6,54,15,46,45,28,17,41	1,33,20,48,24,26,50,55	2,56,11,57, 0	6,50
38″	40,10, 8,27,36,35, 9,55, 8,36	1,33,20,45,28,14,47, 5	2,56,12, 3,50	6,50
40″	40,10,10, 0,57,20,38, 9,55,41	1,33,20,42,32, 2,36,25	2,56,12,10,40	6,50
42″	40,10,11,34,18, 3,10,12,32, 6	1,33,20,39,35,50,18,55	2,56,12,17,30	6,50
44″	40,10,13, 7,38,42,46, 2,51, 1	1,33,20,36,39,37,54,35	2,56,12,24,20	6,50
46″	40,10,14,40,59,19,25,40,45,36	1,33,20,33,43,25,23,25	2,56,12,31,10	6,50
48″	40,10,16,14,19,53, 9, 6, 9, 1	1,33,20,30,47,12,45,25	2,56,12,38, 0	6,50
50″	40,10,17,47,40,23,56,18,54,26	1,33,20,27,51, 0, 0,35	2,56,12,44,50	6,50
52″	40,10,19,21, 0,51,47,18,55, 1	1,33,20,24,54,47, 8,55	2,56,12,51,40	6,50
54″	40,10,20,54,21,16,42, 6, 3,56	1,33,20,21,58,34,10,25	2,56,12,58,30	6,50
56″	40,10,22,27,41,38,40,40,14,21	1,33,20,19, 2,21, 5, 5	2,56,13, 5,20	6,50
58″	40,10,24, 1, 1,57,43, 1,19,26	1,33,20,16, 6, 7,52,55	2,56,13,12,10	
60″	40,10,25,34,22,13,49, 9,12,21			
exact	40,10,25,34,22,13,49, 9,44, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42° 2′ 0″	40,10,25,34,22,13,49, 9,44, 7			
		1,33,20,13, 9,54,37,28		
2″	40,10,27, 7,42,26,59, 4,21,35		2,56,13,25,34	
		1,33,20,10,13,41,11,54		6,49
4″	40,10,28,41, 2,37,12,45,33,29		2,56,13,32,23	
		1,33,20, 7,17,27,39,31		6,49
6″	40,10,30,14,22,44,30,13,13, 0		2,56,13,39,12	
		1,33,20, 4,21,14, 0,19		6,49
8″	40,10,31,47,42,48,51,27,13,19		2,56,13,46, 1	
		1,33,20, 1,25, 0,14,18		6,49
10″	40,10,33,21, 2,50,16,27,27,37		2,56,13,52,50	
		1,33,19,58,28,46,21,28		6,49
12″	40,10,34,54,22,48,45,13,49, 5		2,56,13,59,39	
		1,33,19,55,32,32,21,49		6,49
14″	40,10,36,27,42,44,17,46,10,54		2,56,14, 6,28	
		1,33,19,52,36,18,15,21		6,49
16″	40,10,38, 1, 2,36,54, 4,26,15		2,56,14,13,17	
		1,33,19,49,40, 4, 2, 4		6,49
18″	40,10,39,34,22,26,34, 8,28,19		2,56,14,20, 6	
		1,33,19,46,43,49,41,58		6,49
20″	40,10,41, 7,42,13,17,58,10,17		2,56,14,26,55	
		1,33,19,43,47,35,15, 3		6,49
22″	40,10,42,41, 1,57, 5,33,25,20		2,56,14,33,44	
		1,33,19,40,51,20,41,19		6,49
24″	40,10,44,14,21,37,56,54, 6,39		2,56,14,40,33	
		1,33,19,37,55, 6, 0,46		6,49
26″	40,10,45,47,41,15,52, 0, 7,25		2,56,14,47,22	
		1,33,19,34,58,51,13,24		6,49
28″	40,10,47,21, 0,50,50,51,20,49		2,56,14,54,11	
		1,33,19,32, 2,36,19,13		6,49
30″	40,10,48,54,20,22,53,27,40, 2		2,56,15, 1, 0	
		1,33,19,29, 6,21,18,13		6,49
32″	40,10,50,27,39,51,59,48,58,15		2,56,15, 7,49	
		1,33,19,26,10, 6,10,24		6,49
34″	40,10,52, 0,59,18, 9,55, 8,39		2,56,15,14,38	
		1,33,19,23,13,50,55,46		6,49
36″	40,10,53,34,18,41,23,46, 4,25		2,56,15,21,27	
		1,33,19,20,17,35,34,19		6,49
38″	40,10,55, 7,38, 1,41,21,38,44		2,56,15,28,16	
		1,33,19,17,21,20, 6, 3		6,49
40″	40,10,56,40,57,19, 2,41,44,47		2,56,15,35, 5	
		1,33,19,14,25, 4,30,58		6,49
42″	40,10,58,14,16,33,27,46,15,45		2,56,15,41,54	
		1,33,19,11,28,48,49, 4		6,49
44″	40,10,59,47,35,44,56,35, 4,49		2,56,15,48,43	
		1,33,19, 8,32,33, 0,21		6,49
46″	40,11, 1,20,54,53,29, 8, 5,10		2,56,15,55,32	
		1,33,19, 5,36,17, 4,49		6,49
48″	40,11, 2,54,13,59, 5,25, 9,59		2,56,16, 2,21	
		1,33,19, 2,40, 1, 2,28		6,49
50″	40,11, 4,27,33, 1,45,26,12,27		2,56,16, 9,10	
		1,33,18,59,43,44,53,18		6,49
52″	40,11, 6, 0,52, 1,29,11, 5,45		2,56,16,15,59	
		1,33,18,56,47,28,37,19		6,49
54″	40,11, 7,34,10,58,16,39,43, 4		2,56,16,22,48	
		1,33,18,53,51,12,14,31		6,49
56″	40,11, 9, 7,29,52, 7,51,57,35		2,56,16,29,37	
		1,33,18,50,54,55,44,54		6,49
58″	40,11,10,40,48,43, 2,47,42,29		2,56,16,36,26	
		1,33,18,47,58,39, 8,28		
60″	40,11,12,14, 7,31, 1,26,50,57			
exact	40,11,12,14, 7,31, 1,26,20,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42° 3′ 0″	40,11,12,14, 7,31, 1,26,20,29			
		1,33,18,45, 2,22,22,10		
2″	40,11,13,47,26,16, 3,48,42,39		2,56,16,50,15	
		1,33,18,42, 6, 5,31,55		6,49
4″	40,11,15,20,44,58, 9,54,14,34		2,56,16,57, 4	
		1,33,18,39, 9,48,34,51		6,49
6″	40,11,16,54, 3,37,19,42,49,25		2,56,17, 3,53	
		1,33,18,36,13,31,30,58		6,49
8″	40,11,18,27,22,13,33,14,20,23		2,56,17,10,42	
		1,33,18,33,17,14,20,16		6,49
10″	40,11,20, 0,40,46,50,28,40,39		2,56,17,17,31	
		1,33,18,30,20,57, 2,45		6,49
12″	40,11,21,33,59,17,11,25,43,24		2,56,17,24,20	
		1,33,18,27,24,39,38,25		6,49
14″	40,11,23, 7,17,44,36, 5,21,49		2,56,17,31, 9	
		1,33,18,24,28,22, 7,16		6,49
16″	40,11,24,40,36, 9, 4,27,29, 5		2,56,17,37,58	
		1,33,18,21,32, 4,29,18		6,49
18″	40,11,26,13,54,30,36,31,58,23		2,56,17,44,47	
		1,33,18,18,35,46,44,31		6,49
20″	40,11,27,47,12,49,12,18,42,54		2,56,17,51,36	
		1,33,18,15,39,28,52,55		6,49
22″	40,11,29,20,31, 4,51,47,35,49		2,56,17,58,25	
		1,33,18,12,43,10,54,30		6,49
24″	40,11,30,53,49,17,34,58,30,19		2,56,18, 5,14	
		1,33,18, 9,46,52,49,16		6,49
26″	40,11,32,27, 7,27,21,51,19,35		2,56,18,12, 3	
		1,33,18, 6,50,34,37,13		6,49
28″	40,11,34, 0,25,34,12,25,56,48		2,56,18,18,52	
		1,33,18, 3,54,16,18,21		6,49
30″	40,11,35,33,43,38, 6,42,15, 9		2,56,18,25,41	
		1,33,18, 0,57,57,52,40		6,49
32″	40,11,37, 7, 1,39, 4,40, 7,49		2,56,18,32,30	
		1,33,17,58, 1,39,20,10		6,49
34″	40,11,38,40,19,37, 6,19,27,59		2,56,18,39,19	
		1,33,17,55, 5,20,40,51		6,49
36″	40,11,40,13,37,32,11,40, 8,50		2,56,18,46, 8	
		1,33,17,52, 9, 1,54,43		6,49
38″	40,11,41,46,55,24,20,42, 3,33		2,56,18,52,57	
		1,33,17,49,12,43, 1,46		6,49
40″	40,11,43,20,13,13,33,25, 5,19		2,56,18,59,46	
		1,33,17,46,16,24, 2, 0		6,49
42″	40,11,44,53,30,59,49,49, 7,19		2,56,19, 6,35	
		1,33,17,43,20, 4,55,25		6,49
44″	40,11,46,26,48,43, 9,54, 2,44		2,56,19,13,24	
		1,33,17,40,23,45,42, 1		6,49
46″	40,11,48, 0, 6,23,33,39,44,45		2,56,19,20,13	
		1,33,17,37,27,26,21,48		6,49
48″	40,11,49,33,24, 1, 1, 6, 6,33		2,56,19,27, 2	
		1,33,17,34,31, 6,54,46		6,49
50″	40,11,51, 6,41,35,32,13, 1,19		2,56,19,33,51	
		1,33,17,31,34,47,20,55		6,49
52″	40,11,52,39,59, 7, 7, 0,22,14		2,56,19,40,40	
		1,33,17,28,38,27,40,15		6,49
54″	40,11,54,13,16,35,45,28, 2,29		2,56,19,47,29	
		1,33,17,25,42, 7,52,46		6,49
56″	40,11,55,46,34, 1,27,35,55,15		2,56,19,54,18	
		1,33,17,22,45,47,58,28		6,49
58″	40,11,57,19,51,24,13,23,53,43		2,56,20, 1, 7	
		1,33,17,19,49,27,57,21		
60″	40,11,58,53, 8,44, 2,51,51, 4			
exact	40,11,58,53, 8,44, 2,51,28,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42° 4′ 0″	40,11,58,53, 8,44, 2,51,28,18			
		1,33,17,16,53, 7,47,10		
2″	40,12, 0,26,26, 0,55,59,15,28		2,56,20,14,53	
		1,33,17,13,56,47,32,17		6,49
4″	40,12, 1,59,43,14,52,46,47,45		2,56,20,21,42	
		1,33,17,11, 0,27,10,35		6,49
6″	40,12, 3,33, 0,25,53,13,58,20		2,56,20,28,31	
		1,33,17, 8, 4, 6,42, 4		6,49
8″	40,12, 5, 6,17,33,57,20,40,24		2,56,20,35,20	
		1,33,17, 5, 7,46, 6,44		6,49
10″	40,12, 6,39,34,39, 5, 6,47, 8		2,56,20,42, 9	
		1,33,17, 2,11,25,24,35		6,49
12″	40,12, 8,12,51,41,16,32,11,43		2,56,20,48,58	
		1,33,16,59,15, 4,35,37		6,49
14″	40,12, 9,46, 8,40,31,36,47,20		2,56,20,55,47	
		1,33,16,56,18,43,39,50		6,49
16″	40,12,11,19,25,36,50,20,27,10		2,56,21, 2,36	
		1,33,16,53,22,22,37,14		6,49
18″	40,12,12,52,42,30,12,43, 4,24		2,56,21, 9,25	
		1,33,16,50,26, 1,27,49		6,49
20″	40,12,14,25,59,20,38,44,32,13		2,56,21,16,14	
		1,33,16,47,29,40,11,35		6,49
22″	40,12,15,59,16, 8, 8,24,43,48		2,56,21,23, 3	
		1,33,16,44,33,18,48,32		6,49
24″	40,12,17,32,32,52,41,43,32,20		2,56,21,29,52	
		1,33,16,41,36,57,18,40		6,49
26″	40,12,19, 5,49,34,18,40,51, 0		2,56,21,36,41	
		1,33,16,38,40,35,41,59		6,49
28″	40,12,20,39, 6,12,59,16,32,59		2,56,21,43,30	
		1,33,16,35,44,13,58,29		6,49
30″	40,12,22,12,22,48,43,30,31,28		2,56,21,50,19	
		1,33,16,32,47,52, 8,10		6,49
32″	40,12,23,45,39,21,31,22,39,38		2,56,21,57, 8	
		1,33,16,29,51,30,11, 2		6,49
34″	40,12,25,18,55,51,22,52,50,40		2,56,22, 3,57	
		1,33,16,26,55, 8, 7, 5		6,49
36″	40,12,26,52,12,18,18, 0,57,45		2,56,22,10,46	
		1,33,16,23,58,45,56,19		6,49
38″	40,12,28,25,28,42,16,46,54, 4		2,56,22,17,35	
		1,33,16,21, 2,23,38,44		6,49
40″	40,12,29,58,45, 3,19,10,32,48		2,56,22,24,24	
		1,33,16,18, 6, 1,14,20		6,49
42″	40,12,31,32, 1,21,25,11,47, 8		2,56,22,31,13	
		1,33,16,15, 9,38,43, 7		6,49
44″	40,12,33, 5,17,36,34,50,30,15		2,56,22,38, 2	
		1,33,16,12,13,16, 5, 5		6,49
46″	40,12,34,38,33,48,48, 6,35,20		2,56,22,44,51	
		1,33,16, 9,16,53,20,14		6,49
48″	40,12,36,11,49,58, 4,59,55,34		2,56,22,51,40	
		1,33,16, 6,20,30,28,34		6,49
50″	40,12,37,45, 6, 4,25,30,24, 8		2,56,22,58,29	
		1,33,16, 3,24, 7,30, 5		6,49
52″	40,12,39,18,22, 7,49,37,54,13		2,56,23, 5,18	
		1,33,16, 0,27,44,24,47		6,49
54″	40,12,40,51,38, 8,17,22,19, 0		2,56,23,12, 7	
		1,33,15,57,31,21,12,40		6,49
56″	40,12,42,24,54, 5,48,43,31,40		2,56,23,18,56	
		1,33,15,54,34,57,53,44		6,49
58″	40,12,43,58,10, 0,23,41,25,24		2,56,23,25,45	
		1,33,15,51,38,34,27,59		
60″	40,12,45,31,25,52, 2,15,53,23			
exact	40,12,45,31,25,52, 2,15,39,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42° 5′ 0″	40,12,45,31,25,52, 2,15,39,26			
		1,33,15,48,42,10,54, 3		
2″	40,12,47, 4,41,40,44,26,33,29		2,56,23,39,28	
		1,33,15,45,45,47,14,35		6,49
4″	40,12,48,37,57,26,30,13,48, 4		2,56,23,46,17	
		1,33,15,42,49,23,28,18		6,49
6″	40,12,50,11,13, 9,19,37,16,22		2,56,23,53, 6	
		1,33,15,39,52,59,35,12		6,49
8″	40,12,51,44,28,49,12,36,51,34		2,56,23,59,55	
		1,33,15,36,56,35,35,17		6,49
10″	40,12,53,17,44,26, 9,12,26,51		2,56,24, 6,44	
		1,33,15,34, 0,11,28,33		6,49
12″	40,12,54,51, 0, 0, 9,23,55,24		2,56,24,13,33	
		1,33,15,31, 3,47,15, 0		6,49
14″	40,12,56,24,15,31,13,11,10,24		2,56,24,20,22	
		1,33,15,28, 7,22,54,38		6,49
16″	40,12,57,57,30,59,20,34, 5, 2		2,56,24,27,11	
		1,33,15,25,10,58,27,27		6,49
18″	40,12,59,30,46,24,31,32,32,29		2,56,24,34, 0	
		1,33,15,22,14,33,53,27		6,49
20″	40,13, 1, 4, 1,46,46, 6,25,56		2,56,24,40,49	
		1,33,15,19,18, 9,12,38		6,49
22″	40,13, 2,37,17, 6, 4,15,38,34		2,56,24,47,38	
		1,33,15,16,21,44,25, 0		6,49
24″	40,13, 4,10,32,22,26, 0, 3,34		2,56,24,54,27	
		1,33,15,13,25,19,30,33		6,49
26″	40,13, 5,43,47,35,51,19,34, 7		2,56,25, 1,16	
		1,33,15,10,28,54,29,17		6,49
28″	40,13, 7,17, 2,46,20,14, 3,24		2,56,25, 8, 5	
		1,33,15, 7,32,29,21,12		6,49
30″	40,13, 8,50,17,53,52,43,24,36		2,56,25,14,54	
		1,33,15, 4,36, 4, 6,18		6,49
32″	40,13,10,23,32,58,28,47,30,54		2,56,25,21,43	
		1,33,15, 1,39,38,44,35		6,49
34″	40,13,11,56,48, 0, 8,26,15,29		2,56,25,28,32	
		1,33,14,58,43,13,16, 3		6,49
36″	40,13,13,30, 2,58,51,39,31,32		2,56,25,35,21	
		1,33,14,55,46,47,40,42		6,49
38″	40,13,15, 3,17,54,38,27,12,14		2,56,25,42,10	
		1,33,14,52,50,21,58,32		6,49
40″	40,13,16,36,32,47,28,49,10,46		2,56,25,48,59	
		1,33,14,49,53,56, 9,33		6,49
42″	40,13,18, 9,47,37,22,45,20,19		2,56,25,55,48	
		1,33,14,46,57,30,13,45		6,49
44″	40,13,19,43, 2,24,20,15,34, 4		2,56,26, 2,37	
		1,33,14,44, 1, 4,11, 8		6,49
46″	40,13,21,16,17, 8,21,19,45,12		2,56,26, 9,26	
		1,33,14,41, 4,38, 1,42		6,49
48″	40,13,22,49,31,49,25,57,46,54		2,56,26,16,15	
		1,33,14,38, 8,11,45,27		6,49
50″	40,13,24,22,46,27,34, 9,32,21		2,56,26,23, 4	
		1,33,14,35,11,45,22,23		6,49
52″	40,13,25,56, 1, 2,45,54,54,44		2,56,26,29,53	
		1,33,14,32,15,18,52,30		6,49
54″	40,13,27,29,15,35, 1,13,47,14		2,56,26,36,42	
		1,33,14,29,18,52,15,48		6,49
56″	40,13,29, 2,30, 4,20, 6, 3, 2		2,56,26,43,31	
		1,33,14,26,22,25,32,17		6,49
58″	40,13,30,35,44,30,42,31,35,19		2,56,26,50,20	
		1,33,14,23,25,58,41,57		
60″	40,13,32, 8,58,54, 8,30,17,16			
exact	40,13,32, 8,58,54, 8,30,14, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42° 6′ 0″	40,13,32, 8,58,54, 8,30,14, 3			
		1,33,14,20,29,31,44,27		
2″	40,13,33,42,13,14,38, 1,58,30		2,56,27, 3,59	
		1,33,14,17,33, 4,40,28		6,49
4″	40,13,35,15,27,32,11, 6,38,58		2,56,27,10,48	
		1,33,14,14,36,37,29,40		6,49
6″	40,13,36,48,41,46,47,44, 8,38		2,56,27,17,37	
		1,33,14,11,40,10,12, 3		6,49
8″	40,13,38,21,55,58,27,54,20,41		2,56,27,24,26	
		1,33,14, 8,43,42,47,37		6,49
10″	40,13,39,55,10, 7,11,37, 8,18		2,56,27,31,15	
		1,33,14, 5,47,15,16,22		6,49
12″	40,13,41,28,24,12,58,52,24,40		2,56,27,38, 4	
		1,33,14, 2,50,47,38,18		6,49
14″	40,13,43, 1,38,15,49,40, 2,58		2,56,27,44,53	
		1,33,13,59,54,19,53,25		6,49
16″	40,13,44,34,52,15,43,59,56,23		2,56,27,51,42	
		1,33,13,56,57,52, 1,43		6,49
18″	40,13,46, 8, 6,12,41,51,58, 6		2,56,27,58,31	
		1,33,13,54, 1,24, 3,12		6,49
20″	40,13,47,41,20, 6,43,16, 1,18		2,56,28, 5,20	
		1,33,13,51, 4,55,57,52		6,49
22″	40,13,49,14,33,57,48,11,59,10		2,56,28,12, 9	
		1,33,13,48, 8,27,45,43		6,49
24″	40,13,50,47,47,45,56,39,44,53		2,56,28,18,58	
		1,33,13,45,11,59,26,45		6,49
26″	40,13,52,21, 1,31, 8,39,11,38		2,56,28,25,47	
		1,33,13,42,15,31, 0,58		6,49
28″	40,13,53,54,15,13,24,10,12,36		2,56,28,32,36	
		1,33,13,39,19, 2,28,22		6,49
30″	40,13,55,27,28,52,43,12,40,58		2,56,28,39,25	
		1,33,13,36,22,33,48,57		6,49
32″	40,13,57, 0,42,29, 5,46,29,55		2,56,28,46,14	
		1,33,13,33,26, 5, 2,43		6,49
34″	40,13,58,33,56, 2,31,51,32,38		2,56,28,53, 3	
		1,33,13,30,29,36, 9,40		6,49
36″	40,14, 0, 7, 9,33, 1,27,42,18		2,56,28,59,52	
		1,33,13,27,33, 7, 9,48		6,49
38″	40,14, 1,40,23, 0,34,34,52, 6		2,56,29, 6,41	
		1,33,13,24,36,38, 3, 7		6,49
40″	40,14, 3,13,36,25,11,12,55,13		2,56,29,13,30	
		1,33,13,21,40, 8,49,37		6,49
42″	40,14, 4,46,49,46,51,21,44,50		2,56,29,20,19	
		1,33,13,18,43,39,29,18		6,49
44″	40,14, 6,20, 3, 5,35, 1,14, 8		2,56,29,27, 8	
		1,33,13,15,47,10, 2,10		6,49
46″	40,14, 7,53,16,21,22,11,16,18		2,56,29,33,57	
		1,33,13,12,50,40,28,13		6,49
48″	40,14, 9,26,29,34,12,51,44,31		2,56,29,40,46	
		1,33,13, 9,54,10,47,27		6,49
50″	40,14,10,59,42,44, 7, 2,31,58		2,56,29,47,35	
		1,33,13, 6,57,40,59,52		6,49
52″	40,14,12,32,55,51, 4,43,31,50		2,56,29,54,24	
		1,33,13, 4, 1,11, 5,28		6,49
54″	40,14,14, 6, 8,55, 5,54,37,18		2,56,30, 1,13	
		1,33,13, 1, 4,41, 4,15		6,49
56″	40,14,15,39,21,56,10,35,41,33		2,56,30, 8, 2	
		1,33,12,58, 8,10,56,13		6,49
58″	40,14,17,12,34,54,18,46,37,46		2,56,30,14,51	
		1,33,12,55,11,40,41,22		
60″	40,14,18,45,47,49,30,27,19, 8			
exact	40,14,18,45,47,49,30,27,20,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42° 7′ 0″	40,14,18,45,47,49,30,27,20,43			
		1,33,12,52,15,10,19,58		
2″	40,14,20,19, 0,41,45,37,40,41		2,56,30,28,27	
		1,33,12,49,18,39,51,31		6,49
4″	40,14,21,52,13,31, 4,17,32,12		2,56,30,35,16	
		1,33,12,46,22, 9,16,15		6,49
6″	40,14,23,25,26,17,26,26,48,27		2,56,30,42, 5	
		1,33,12,43,25,38,34,10		6,49
8″	40,14,24,58,39, 0,52, 5,22,37		2,56,30,48,54	
		1,33,12,40,29, 7,45,16		6,49
10″	40,14,26,31,51,41,21,13, 7,53		2,56,30,55,43	
		1,33,12,37,32,36,49,33		6,49
12″	40,14,28, 5, 4,18,53,49,57,26		2,56,31, 2,32	
		1,33,12,34,36, 5,47, 1		6,49
14″	40,14,29,38,16,53,29,55,44,27		2,56,31, 9,21	
		1,33,12,31,39,34,37,40		6,49
16″	40,14,31,11,29,25, 9,30,22, 7		2,56,31,16,10	
		1,33,12,28,43, 3,21,30		6,49
18″	40,14,32,44,41,53,52,33,43,37		2,56,31,22,59	
		1,33,12,25,46,31,58,31		6,49
20″	40,14,34,17,54,19,39, 5,42, 8		2,56,31,29,48	
		1,33,12,22,50, 0,28,43		6,49
22″	40,14,35,51, 6,42,29, 6,10,51		2,56,31,36,37	
		1,33,12,19,53,28,52, 6		6,49
24″	40,14,37,24,19, 2,22,35, 2,57		2,56,31,43,26	
		1,33,12,16,56,57, 8,40		6,49
26″	40,14,38,57,31,19,19,32,11,37		2,56,31,50,15	
		1,33,12,14, 0,25,18,25		6,49
28″	40,14,40,30,43,33,19,57,30, 2		2,56,31,57, 4	
		1,33,12,11, 3,53,21,21		6,49
30″	40,14,42, 3,55,44,23,50,51,23		2,56,32, 3,53	
		1,33,12, 8, 7,21,17,28		6,49
32″	40,14,43,37, 7,52,31,12, 8,51		2,56,32,10,42	
		1,33,12, 5,10,49, 6,46		6,49
34″	40,14,45,10,19,57,42, 1,15,37		2,56,32,17,31	
		1,33,12, 2,14,16,49,15		6,49
36″	40,14,46,43,31,59,56,18, 4,52		2,56,32,24,20	
		1,33,11,59,17,44,24,55		6,49
38″	40,14,48,16,43,59,14, 2,29,47		2,56,32,31, 9	
		1,33,11,56,21,11,53,46		6,49
40″	40,14,49,49,55,55,35,14,23,33		2,56,32,37,58	
		1,33,11,53,24,39,15,48		6,49
42″	40,14,51,23, 7,48,59,53,39,21		2,56,32,44,47	
		1,33,11,50,28, 6,31, 1		6,49
44″	40,14,52,56,19,39,28, 0,10,22		2,56,32,51,36	
		1,33,11,47,31,33,39,25		6,49
46″	40,14,54,29,31,26,59,33,49,47		2,56,32,58,25	
		1,33,11,44,35, 0,41, 0		6,49
48″	40,14,56, 2,43,11,34,34,30,47		2,56,33, 5,14	
		1,33,11,41,38,27,35,46		6,49
50″	40,14,57,35,54,53,13, 2, 6,33		2,56,33,12, 3	
		1,33,11,38,41,54,23,43		6,49
52″	40,14,59, 9, 6,31,54,56,30,16		2,56,33,18,52	
		1,33,11,35,45,21, 4,51		6,49
54″	40,15, 0,42,18, 7,40,17,35, 7		2,56,33,25,41	
		1,33,11,32,48,47,39,10		6,49
56″	40,15, 2,15,29,40,29, 5,14,17		2,56,33,32,30	
		1,33,11,29,52,14, 6,40		6,49
58″	40,15, 3,48,41,10,21,19,20,57		2,56,33,39,19	
		1,33,11,26,55,40,27,21		
60″	40,15, 5,21,52,37,16,59,48,18			
exact	40,15, 5,21,52,37,16,59,56,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42° 8′ 0″	40,15, 5,21,52,37,16,59,56,21	1,33,11,23,59, 6,42,13		
2″	40,15, 6,55, 4, 1,16, 6,38,34	1,33,11,21, 2,32,49,21	2,56,33,52,52	6,49
4″	40,15, 8,28,15,22,18,39,27,55	1,33,11,18, 5,58,49,40	2,56,33,59,41	6,49
6″	40,15,10, 1,26,40,24,38,17,35	1,33,11,15, 9,24,43,10	2,56,34, 6,30	6,49
8″	40,15,11,34,37,55,34, 3, 0,45	1,33,11,12,12,50,29,51	2,56,34,13,19	6,49
10″	40,15,13, 7,49, 7,46,53,30,36	1,33,11, 9,16,16, 9,43	2,56,34,20, 8	6,49
12″	40,15,14,41, 0,17, 3, 9,40,19	1,33,11, 6,19,41,42,46	2,56,34,26,57	6,49
14″	40,15,16,14,11,23,22,51,23, 5	1,33,11, 3,23, 7, 9, 0	2,56,34,33,46	6,49
16″	40,15,17,47,22,26,45,58,32, 5	1,33,11, 0,26,32,28,25	2,56,34,40,35	6,49
18″	40,15,19,20,33,27,12,31, 0,30	1,33,10,57,29,57,41, 1	2,56,34,47,24	6,49
20″	40,15,20,53,44,24,42,28,41,31	1,33,10,54,33,22,46,48	2,56,34,54,13	6,49
22″	40,15,22,26,55,19,15,51,28,19	1,33,10,51,36,47,45,46	2,56,35, 1, 2	6,49
24″	40,15,24, 0, 6,10,52,39,14, 5	1,33,10,48,40,12,37,55	2,56,35, 7,51	6,49
26″	40,15,25,33,16,59,32,51,52, 0	1,33,10,45,43,37,23,15	2,56,35,14,40	6,49
28″	40,15,27, 6,27,45,16,29,15,15	1,33,10,42,47, 2, 1,46	2,56,35,21,29	6,49
30″	40,15,28,39,38,28, 3,31,17, 1	1,33,10,39,50,26,33,28	2,56,35,28,18	6,49
32″	40,15,30,12,49, 7,53,57,50,29	1,33,10,36,53,50,58,21	2,56,35,35, 7	6,49
34″	40,15,31,45,59,44,47,48,48,50	1,33,10,33,57,15,16,25	2,56,35,41,56	6,49
36″	40,15,33,19,10,18,45, 4, 5,15	1,33,10,31, 0,39,27,40	2,56,35,48,45	6,49
38″	40,15,34,52,20,49,45,43,32,55	1,33,10,28, 4, 3,32, 6	2,56,35,55,34	6,49
40″	40,15,36,25,31,17,49,47, 5, 1	1,33,10,25, 7,27,29,43	2,56,36, 2,23	6,49
42″	40,15,37,58,41,42,57,14,34,44	1,33,10,22,10,51,20,31	2,56,36, 9,12	6,49
44″	40,15,39,31,52, 5, 8, 5,55,15	1,33,10,19,14,15, 4,30	2,56,36,16, 1	6,49
46″	40,15,41, 5, 2,24,22,20,59,45	1,33,10,16,17,38,41,40	2,56,36,22,50	6,49
48″	40,15,42,38,12,40,39,59,41,25	1,33,10,13,21, 2,12, 1	2,56,36,29,39	6,49
50″	40,15,44,11,22,54, 1, 1,53,26	1,33,10,10,24,25,35,33	2,56,36,36,28	6,49
52″	40,15,45,44,33, 4,25,27,28,59	1,33,10, 7,27,48,52,16	2,56,36,43,17	6,49
54″	40,15,47,17,43,11,53,16,21,15	1,33,10, 4,31,12, 2,10	2,56,36,50, 6	6,49
56″	40,15,48,50,53,16,24,28,23,25	1,33,10, 1,34,35, 5,15	2,56,36,56,55	6,49
58″	40,15,50,24, 3,17,59, 3,28,40	1,33, 9,58,37,58, 1,31	2,56,37, 3,44	
60″	40,15,51,57,13,16,37, 1,30,11			
exact	40,15,51,57,13,16,37, 1,46,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42° 9′ 0″	40,15,51,57,13,16,37, 1,46,16			
		1,33, 9,55,41,20,52,48		
2″	40,15,53,30,23,12,18,22,39, 4		2,56,37,17,14	
		1,33, 9,52,44,43,35,34		6,49
4″	40,15,55, 3,33, 5, 3, 6,14,38		2,56,37,24, 3	
		1,33, 9,49,48, 6,11,31		6,49
6″	40,15,56,36,42,54,51,12,26, 9		2,56,37,30,52	
		1,33, 9,46,51,28,40,39		6,49
8″	40,15,58, 9,52,41,42,41, 6,48		2,56,37,37,41	
		1,33, 9,43,54,51, 2,58		6,49
10″	40,15,59,43, 2,25,37,32, 9,46		2,56,37,44,30	
		1,33, 9,40,58,13,18,28		6,49
12″	40,16, 1,16,12, 6,35,45,28,14		2,56,37,51,19	
		1,33, 9,38, 1,35,27, 9		6,49
14″	40,16, 2,49,21,44,37,20,55,23		2,56,37,58, 8	
		1,33, 9,35, 4,57,29, 1		6,49
16″	40,16, 4,22,31,19,42,18,24,24		2,56,38, 4,57	
		1,33, 9,32, 8,19,24, 4		6,49
18″	40,16, 5,55,40,51,50,37,48,28		2,56,38,11,46	
		1,33, 9,29,11,41,12,18		6,49
20″	40,16, 7,28,50,21, 2,19, 0,46		2,56,38,18,35	
		1,33, 9,26,15, 2,53,43		6,49
22″	40,16, 9, 1,59,47,17,21,54,29		2,56,38,25,24	
		1,33, 9,23,18,24,28,19		6,49
24″	40,16,10,35, 9,10,35,46,22,48		2,56,38,32,13	
		1,33, 9,20,21,45,56, 6		6,49
26″	40,16,12, 8,18,30,57,32,18,54		2,56,38,39, 2	
		1,33, 9,17,25, 7,17, 4		6,49
28″	40,16,13,41,27,48,22,39,35,58		2,56,38,45,51	
		1,33, 9,14,28,28,31,13		6,49
30″	40,16,15,14,37, 2,51, 8, 7,11		2,56,38,52,40	
		1,33, 9,11,31,49,38,33		6,49
32″	40,16,16,47,46,14,22,57,45,44		2,56,38,59,29	
		1,33, 9, 8,35,10,39, 4		6,49
34″	40,16,18,20,55,22,58, 8,24,48		2,56,39, 6,18	
		1,33, 9, 5,38,31,32,46		6,49
36″	40,16,19,54, 4,28,36,39,57,34		2,56,39,13, 7	
		1,33, 9, 2,41,52,19,39		6,49
38″	40,16,21,27,13,31,18,32,17,13		2,56,39,19,56	
		1,33, 8,59,45,12,59,43		6,49
40″	40,16,23, 0,22,31, 3,45,16,56		2,56,39,26,45	
		1,33, 8,56,48,33,32,58		6,49
42″	40,16,24,33,31,27,52,18,49,54		2,56,39,33,34	
		1,33, 8,53,51,53,59,24		6,49
44″	40,16,26, 6,40,21,44,12,49,18		2,56,39,40,23	
		1,33, 8,50,55,14,19, 1		6,49
46″	40,16,27,39,49,12,39,27, 8,19		2,56,39,47,12	
		1,33, 8,47,58,34,31,49		6,49
48″	40,16,29,12,58, 0,38, 1,40, 8		2,56,39,54, 1	
		1,33, 8,45, 1,54,37,48		6,49
50″	40,16,30,46, 6,45,39,56,17,56		2,56,40, 0,50	
		1,33, 8,42, 5,14,36,58		6,49
52″	40,16,32,19,15,27,45,10,54,54		2,56,40, 7,39	
		1,33, 8,39, 8,34,29,19		6,49
54″	40,16,33,52,24, 6,53,45,24,13		2,56,40,14,28	
		1,33, 8,36,11,54,14,51		6,49
56″	40,16,35,25,32,43, 5,39,39, 4		2,56,40,21,17	
		1,33, 8,33,15,13,53,34		6,49
58″	40,16,36,58,41,16,20,53,32,38		2,56,40,28, 6	
		1,33, 8,30,18,33,25,28		
60″	40,16,38,31,49,46,39,26,58, 6			
exact	40,16,38,31,49,46,39,27,24,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°10′ 0″	40,16,38,31,49,46,39,27,24,12			
		1,33, 8,27,21,52,53,21		
2″	40,16,40, 4,58,14, 1,20,17,33		2,56,40,41,32	
		1,33, 8,24,25,12,11,49		6,49
4″	40,16,41,38, 6,38,26,32,29,22		2,56,40,48,21	
		1,33, 8,21,28,31,23,28		6,49
6″	40,16,43,11,14,59,55, 3,52,50		2,56,40,55,10	
		1,33, 8,18,31,50,28,18		6,49
8″	40,16,44,44,23,18,26,54,21, 8		2,56,41, 1,59	
		1,33, 8,15,35, 9,26,19		6,49
10″	40,16,46,17,31,34, 2, 3,47,27		2,56,41, 8,48	
		1,33, 8,12,38,28,17,31		6,49
12″	40,16,47,50,39,46,40,32, 4,58		2,56,41,15,37	
		1,33, 8, 9,41,47, 1,54		6,49
14″	40,16,49,23,47,56,22,19, 6,52		2,56,41,22,26	
		1,33, 8, 6,45, 5,39,28		6,49
16″	40,16,50,56,56, 3, 7,24,46,20		2,56,41,29,15	
		1,33, 8, 3,48,24,10,13		6,49
18″	40,16,52,30, 4, 6,55,48,56,33		2,56,41,36, 4	
		1,33, 8, 0,51,42,34, 9		6,49
20″	40,16,54, 3,12, 7,47,31,30,42		2,56,41,42,53	
		1,33, 7,57,55, 0,51,16		6,49
22″	40,16,55,36,20, 5,42,32,21,58		2,56,41,49,42	
		1,33, 7,54,58,19, 1,34		6,49
24″	40,16,57, 9,28, 0,40,51,23,32		2,56,41,56,31	
		1,33, 7,52, 1,37, 5, 3		6,49
26″	40,16,58,42,35,52,42,28,28,35		2,56,42, 3,20	
		1,33, 7,49, 4,55, 1,43		6,49
28″	40,17, 0,15,43,41,47,23,30,18		2,56,42,10, 9	
		1,33, 7,46, 8,12,51,34		6,49
30″	40,17, 1,48,51,27,55,36,21,52		2,56,42,16,58	
		1,33, 7,43,11,30,34,36		6,49
32″	40,17, 3,21,59,11, 7, 6,56,28		2,56,42,23,47	
		1,33, 7,40,14,48,10,49		6,49
34″	40,17, 4,55, 6,51,21,55, 7,17		2,56,42,30,36	
		1,33, 7,37,18, 5,40,13		6,49
36″	40,17, 6,28,14,28,40, 0,47,30		2,56,42,37,25	
		1,33, 7,34,21,23, 2,48		6,49
38″	40,17, 8, 1,22, 3, 1,23,50,18		2,56,42,44,14	
		1,33, 7,31,24,40,18,34		6,49
40″	40,17, 9,34,29,34,26, 4, 8,52		2,56,42,51, 3	
		1,33, 7,28,27,57,27,31		6,49
42″	40,17,11, 7,37, 2,54, 1,36,23		2,56,42,57,52	
		1,33, 7,25,31,14,29,39		6,49
44″	40,17,12,40,44,28,25,16, 6, 2		2,56,43, 4,41	
		1,33, 7,22,34,31,24,58		6,49
46″	40,17,14,13,51,50,59,47,31, 0		2,56,43,11,30	
		1,33, 7,19,37,48,13,28		6,49
48″	40,17,15,46,59,10,37,35,44,28		2,56,43,18,19	
		1,33, 7,16,41, 4,55, 9		6,49
50″	40,17,17,20, 6,27,18,40,39,37		2,56,43,25, 8	
		1,33, 7,13,44,21,30, 1		6,49
52″	40,17,18,53,13,41, 3, 2, 9,38		2,56,43,31,57	
		1,33, 7,10,47,37,58, 4		6,49
54″	40,17,20,26,20,51,50,40, 7,42		2,56,43,38,46	
		1,33, 7, 7,50,54,19,18		6,49
56″	40,17,21,59,27,59,41,34,27, 0		2,56,43,45,35	
		1,33, 7, 4,54,10,33,43		6,49
58″	40,17,23,32,35, 4,35,45, 0,43		2,56,43,52,24	
		1,33, 7, 1,57,26,41,19		
60″	40,17,25, 5,42, 6,33,11,42, 2			
exact	40,17,25, 5,42, 6,33,12,12,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°11′ 0″	40,17,25, 5,42, 6,33,12,12,17	1,33, 6,59, 0,42,45,28		
2″	40,17,26,38,49, 5,33,54,57,45	1,33, 6,56, 3,58,39,41	2,56,44, 5,47	6,48
4″	40,17,28,11,56, 1,37,53,37,26	1,33, 6,53, 7,14,27, 6	2,56,44,12,35	6,48
6″	40,17,29,45, 2,54,45, 8, 4,32	1,33, 6,50,10,30, 7,43	2,56,44,19,23	6,48
8″	40,17,31,18, 9,44,55,38,12,15	1,33, 6,47,13,45,41,32	2,56,44,26,11	6,48
10″	40,17,32,51,16,32, 9,23,53,47	1,33, 6,44,17, 1, 8,33	2,56,44,32,59	6,48
12″	40,17,34,24,23,16,26,25, 2,20	1,33, 6,41,20,16,28,46	2,56,44,39,47	6,48
14″	40,17,35,57,29,57,46,41,31, 6	1,33, 6,38,23,31,42,11	2,56,44,46,35	6,48
16″	40,17,37,30,36,36,10,13,13,17	1,33, 6,35,26,46,48,48	2,56,44,53,23	6,48
18″	40,17,39, 3,43,11,37, 0, 2, 5	1,33, 6,32,30, 1,48,37	2,56,45, 0,11	6,48
20″	40,17,40,36,49,44, 7, 1,50,42	1,33, 6,29,33,16,41,38	2,56,45, 6,59	6,48
22″	40,17,42, 9,56,13,40,18,32,20	1,33, 6,26,36,31,27,51	2,56,45,13,47	6,48
24″	40,17,43,43, 2,40,16,50, 0,11	1,33, 6,23,39,46, 7,16	2,56,45,20,35	6,48
26″	40,17,45,16, 9, 3,56,36, 7,27	1,33, 6,20,43, 0,39,53	2,56,45,27,23	6,48
28″	40,17,46,49,15,24,39,36,47,20	1,33, 6,17,46,15, 5,42	2,56,45,34,11	6,48
30″	40,17,48,22,21,42,25,51,53, 2	1,33, 6,14,49,29,24,43	2,56,45,40,59	6,48
32″	40,17,49,55,27,57,15,21,17,45	1,33, 6,11,52,43,36,56	2,56,45,47,47	6,48
34″	40,17,51,28,34, 9, 8, 4,54,41	1,33, 6, 8,55,57,42,21	2,56,45,54,35	6,48
36″	40,17,53, 1,40,18, 4, 2,37, 2	1,33, 6, 5,59,11,40,58	2,56,46, 1,23	6,48
38″	40,17,54,34,46,24, 3,14,18, 0	1,33, 6, 3, 2,25,32,47	2,56,46, 8,11	6,48
40″	40,17,56, 7,52,27, 5,39,50,47	1,33, 6, 0, 5,39,17,48	2,56,46,14,59	6,48
42″	40,17,57,40,58,27,11,19, 8,35	1,33, 5,57, 8,52,56, 1	2,56,46,21,47	6,48
44″	40,17,59,14, 4,24,20,12, 4,36	1,33, 5,54,12, 6,27,26	2,56,46,28,35	6,48
46″	40,18, 0,47,10,18,32,18,32, 2	1,33, 5,51,15,19,52, 3	2,56,46,35,23	6,48
48″	40,18, 2,20,16, 9,47,38,24, 5	1,33, 5,48,18,33, 9,52	2,56,46,42,11	6,48
50″	40,18, 3,53,21,58, 6,11,33,57	1,33, 5,45,21,46,20,53	2,56,46,48,59	6,48
52″	40,18, 5,26,27,43,27,57,54,50	1,33, 5,42,24,59,25, 6	2,56,46,55,47	6,48
54″	40,18, 6,59,33,25,52,57,19,56	1,33, 5,39,28,12,22,31	2,56,47, 2,35	6,48
56″	40,18, 8,32,39, 5,21, 9,42,27	1,33, 5,36,31,25,13, 8	2,56,47, 9,23	6,48
58″	40,18,10, 5,44,41,52,34,55,35	1,33, 5,33,34,37,56,57	2,56,47,16,11	
60″	40,18,11,38,50,15,27,12,52,32			
exact	40,18,11,38,50,15,27,12,21, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°12′ 0″	40,18,11,38,50,15,27,12,21, 6			
		1,33, 5,30,37,50,30,46		
2″	40,18,13,11,55,46, 5, 2,51,52		2,56,47,29,59	
		1,33, 5,27,41, 3, 0,47		6,48
4″	40,18,14,45, 1,13,46, 5,52,39		2,56,47,36,47	
		1,33, 5,24,44,15,24, 0		6,48
6″	40,18,16,18, 6,38,30,21,16,39		2,56,47,43,35	
		1,33, 5,21,47,27,40,25		6,48
8″	40,18,17,51,12, 0,17,48,57, 4		2,56,47,50,23	
		1,33, 5,18,50,39,50, 2		6,48
10″	40,18,19,24,17,19, 8,28,47, 6		2,56,47,57,11	
		1,33, 5,15,53,51,52,51		6,48
12″	40,18,20,57,22,35, 2,20,39,57		2,56,48, 3,59	
		1,33, 5,12,57, 3,48,52		6,48
14″	40,18,22,30,27,47,59,24,28,49		2,56,48,10,47	
		1,33, 5,10, 0,15,38, 5		6,48
16″	40,18,24, 3,32,57,59,40, 6,54		2,56,48,17,35	
		1,33, 5, 7, 3,27,20,30		6,48
18″	40,18,25,36,38, 5, 3, 7,27,24		2,56,48,24,23	
		1,33, 5, 4, 6,38,56, 7		6,48
20″	40,18,27, 9,43, 9, 9,46,23,31		2,56,48,31,11	
		1,33, 5, 1, 9,50,24,56		6,48
22″	40,18,28,42,48,10,19,36,48,27		2,56,48,37,59	
		1,33, 4,58,13, 1,46,57		6,48
24″	40,18,30,15,53, 8,32,38,35,24		2,56,48,44,47	
		1,33, 4,55,16,13, 2,10		6,48
26″	40,18,31,48,58, 3,48,51,37,34		2,56,48,51,35	
		1,33, 4,52,19,24,10,35		6,48
28″	40,18,33,22, 2,56, 8,15,48, 9		2,56,48,58,23	
		1,33, 4,49,22,35,12,12		6,48
30″	40,18,34,55, 7,45,30,51, 0,21		2,56,49, 5,11	
		1,33, 4,46,25,46, 7, 1		6,48
32″	40,18,36,28,12,31,56,37, 7,22		2,56,49,11,59	
		1,33, 4,43,28,56,55, 2		6,48
34″	40,18,38, 1,17,15,25,34, 2,24		2,56,49,18,47	
		1,33, 4,40,32, 7,36,15		6,48
36″	40,18,39,34,21,55,57,41,38,39		2,56,49,25,35	
		1,33, 4,37,35,18,10,40		6,48
38″	40,18,41, 7,26,33,32,59,49,19		2,56,49,32,23	
		1,33, 4,34,38,28,38,17		6,48
40″	40,18,42,40,31, 8,11,28,27,36		2,56,49,39,11	
		1,33, 4,31,41,38,59, 6		6,48
42″	40,18,44,13,35,39,53, 7,26,42		2,56,49,45,59	
		1,33, 4,28,44,49,13, 7		6,48
44″	40,18,45,46,40, 8,37,56,39,49		2,56,49,52,47	
		1,33, 4,25,47,59,20,20		6,48
46″	40,18,47,19,44,34,25,56, 0, 9		2,56,49,59,35	
		1,33, 4,22,51, 9,20,45		6,48
48″	40,18,48,52,48,57,17, 5,20,54		2,56,50, 6,23	
		1,33, 4,19,54,19,14,22		6,48
50″	40,18,50,25,53,17,11,24,35,16		2,56,50,13,11	
		1,33, 4,16,57,29, 1,11		6,48
52″	40,18,51,58,57,34, 8,53,36,27		2,56,50,19,59	
		1,33, 4,14, 0,38,41,12		6,48
54″	40,18,53,32, 1,48, 9,32,17,39		2,56,50,26,47	
		1,33, 4,11, 3,48,14,25		6,48
56″	40,18,55, 5, 5,59,13,20,32, 4		2,56,50,33,35	
		1,33, 4, 8, 6,57,40,50		6,48
58″	40,18,56,38,10, 7,20,18,12,54		2,56,50,40,23	
		1,33, 4, 5,10, 7, 0,27		
60″	40,18,58,11,14,12,30,25,13,21			
exact	40,18,58,11,14,12,30,24,49,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°13′ 0″	40,18,58,11,14,12,30,24,49,41			
		1,33, 4, 2,13,16,10,53		
2″	40,18,59,44,18,14,43,41, 0,34		2,56,50,54, 8	
		1,33, 3,59,16,25,16,45		6,48
4″	40,19, 1,17,22,14, 0, 6,17,19		2,56,51, 0,56	
		1,33, 3,56,19,34,15,49		6,48
6″	40,19, 2,50,26,10,19,40,33, 8		2,56,51, 7,44	
		1,33, 3,53,22,43, 8, 5		6,48
8″	40,19, 4,23,30, 3,42,23,41,13		2,56,51,14,32	
		1,33, 3,50,25,51,53,33		6,48
10″	40,19, 5,56,33,54, 8,15,34,46		2,56,51,21,20	
		1,33, 3,47,29, 0,32,13		6,48
12″	40,19, 7,29,37,41,37,16, 6,59		2,56,51,28, 8	
		1,33, 3,44,32, 9, 4, 5		6,48
14″	40,19, 9, 2,41,26, 9,25,11, 4		2,56,51,34,56	
		1,33, 3,41,35,17,29, 9		6,48
16″	40,19,10,35,45, 7,44,42,40,13		2,56,51,41,44	
		1,33, 3,38,38,25,47,25		6,48
18″	40,19,12, 8,48,46,23, 8,27,38		2,56,51,48,32	
		1,33, 3,35,41,33,58,53		6,48
20″	40,19,13,41,52,22, 4,42,26,31		2,56,51,55,20	
		1,33, 3,32,44,42, 3,33		6,48
22″	40,19,15,14,55,54,49,24,30, 4		2,56,52, 2, 8	
		1,33, 3,29,47,50, 1,25		6,48
24″	40,19,16,47,59,24,37,14,31,29		2,56,52, 8,56	
		1,33, 3,26,50,57,52,29		6,48
26″	40,19,18,21, 2,51,28,12,23,58		2,56,52,15,44	
		1,33, 3,23,54, 5,36,45		6,48
28″	40,19,19,54, 6,15,22,18, 0,43		2,56,52,22,32	
		1,33, 3,20,57,13,14,13		6,48
30″	40,19,21,27, 9,36,19,31,14,56		2,56,52,29,20	
		1,33, 3,18, 0,20,44,53		6,48
32″	40,19,23, 0,12,54,19,51,59,49		2,56,52,36, 8	
		1,33, 3,15, 3,28, 8,45		6,48
34″	40,19,24,33,16, 9,23,20, 8,34		2,56,52,42,56	
		1,33, 3,12, 6,35,25,49		6,48
36″	40,19,26, 6,19,21,29,55,34,23		2,56,52,49,44	
		1,33, 3, 9, 9,42,36, 5		6,48
38″	40,19,27,39,22,30,39,38,10,28		2,56,52,56,32	
		1,33, 3, 6,12,49,39,33		6,48
40″	40,19,29,12,25,36,52,27,50, 1		2,56,53, 3,20	
		1,33, 3, 3,15,56,36,13		6,48
42″	40,19,30,45,28,40, 8,24,26,14		2,56,53,10, 8	
		1,33, 3, 0,19, 3,26, 5		6,48
44″	40,19,32,18,31,40,27,27,52,19		2,56,53,16,56	
		1,33, 2,57,22,10, 9, 9		6,48
46″	40,19,33,51,34,37,49,38, 1,28		2,56,53,23,44	
		1,33, 2,54,25,16,45,25		6,48
48″	40,19,35,24,37,32,14,54,46,53		2,56,53,30,32	
		1,33, 2,51,28,23,14,53		6,48
50″	40,19,36,57,40,23,43,18, 1,46		2,56,53,37,20	
		1,33, 2,48,31,29,37,33		6,48
52″	40,19,38,30,43,12,14,47,39,19		2,56,53,44, 8	
		1,33, 2,45,34,35,53,25		6,48
54″	40,19,40, 3,45,57,49,23,32,44		2,56,53,50,56	
		1,33, 2,42,37,42, 2,29		6,48
56″	40,19,41,36,48,40,27, 5,35,13		2,56,53,57,44	
		1,33, 2,39,40,48, 4,45		6,48
58″	40,19,43, 9,51,20, 7,53,39,58		2,56,54, 4,32	
		1,33, 2,36,43,54, 0,13		
60″	40,19,44,42,53,56,51,47,40,11			
exact	40,19,44,42,53,56,51,47,25,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°14′ 0″	40,19,44,42,53,56,51,47,25,31	1,33, 2,33,46,59,47,24		
2″	40,19,46,15,56,30,38,47,12,55	1,33, 2,30,50, 5,29,10	2,56,54,18,14	6,48
4″	40,19,47,48,59, 1,28,52,42, 5	1,33, 2,27,53,11, 4, 8	2,56,54,25, 2	6,48
6″	40,19,49,22, 1,29,22, 3,46,13	1,33, 2,24,56,16,32,18	2,56,54,31,50	6,48
8″	40,19,50,55, 3,54,18,20,18,31	1,33, 2,21,59,21,53,40	2,56,54,38,38	6,48
10″	40,19,52,28, 6,16,17,42,12,11	1,33, 2,19, 2,27, 8,14	2,56,54,45,26	6,48
12″	40,19,54, 1, 8,35,20, 9,20,25	1,33, 2,16, 5,32,16, 0	2,56,54,52,14	6,48
14″	40,19,55,34,10,51,25,41,36,25	1,33, 2,13, 8,37,16,58	2,56,54,59, 2	6,48
16″	40,19,57, 7,13, 4,34,18,53,23	1,33, 2,10,11,42,11, 8	2,56,55, 5,50	6,48
18″	40,19,58,40,15,14,46, 1, 4,31	1,33, 2, 7,14,46,58,30	2,56,55,12,38	6,48
20″	40,20, 0,13,17,22, 0,48, 3, 1	1,33, 2, 4,17,51,39, 4	2,56,55,19,26	6,48
22″	40,20, 1,46,19,26,18,39,42, 5	1,33, 2, 1,20,56,12,50	2,56,55,26,14	6,48
24″	40,20, 3,19,21,27,39,35,54,55	1,33, 1,58,24, 0,39,48	2,56,55,33, 2	6,48
26″	40,20, 4,52,23,26, 3,36,34,43	1,33, 1,55,27, 4,59,58	2,56,55,39,50	6,48
28″	40,20, 6,25,25,21,30,41,34,41	1,33, 1,52,30, 9,13,20	2,56,55,46,38	6,48
30″	40,20, 7,58,27,14, 0,50,48, 1	1,33, 1,49,33,13,19,54	2,56,55,53,26	6,48
32″	40,20, 9,31,29, 3,34, 4, 7,55	1,33, 1,46,36,17,19,40	2,56,56, 0,14	6,48
34″	40,20,11, 4,30,50,10,21,27,35	1,33, 1,43,39,21,12,38	2,56,56, 7, 2	6,48
36″	40,20,12,37,32,33,49,42,40,13	1,33, 1,40,42,24,58,48	2,56,56,13,50	6,48
38″	40,20,14,10,34,14,32, 7,39, 1	1,33, 1,37,45,28,38,10	2,56,56,20,38	6,48
40″	40,20,15,43,35,52,17,36,17,11	1,33, 1,34,48,32,10,44	2,56,56,27,26	6,48
42″	40,20,17,16,37,27, 6, 8,27,55	1,33, 1,31,51,35,36,30	2,56,56,34,14	6,48
44″	40,20,18,49,38,58,57,44, 4,25	1,33, 1,28,54,38,55,28	2,56,56,41, 2	6,48
46″	40,20,20,22,40,27,52,22,59,53	1,33, 1,25,57,42, 7,38	2,56,56,47,50	6,48
48″	40,20,21,55,41,53,50, 5, 7,31	1,33, 1,23, 0,45,13, 0	2,56,56,54,38	6,48
50″	40,20,23,28,43,16,50,50,20,31	1,33, 1,20, 3,48,11,34	2,56,57, 1,26	6,48
52″	40,20,25, 1,44,36,54,38,32, 5	1,33, 1,17, 6,51, 3,20	2,56,57, 8,14	6,48
54″	40,20,26,34,45,54, 1,29,35,25	1,33, 1,14, 9,53,48,18	2,56,57,15, 2	6,48
56″	40,20,28, 7,47, 8,11,23,23,43	1,33, 1,11,12,56,26,28	2,56,57,21,50	6,48
58″	40,20,29,40,48,19,24,19,50,11	1,33, 1, 8,15,58,57,50	2,56,57,28,38	
60″	40,20,31,13,49,27,40,18,48, 1			
exact	40,20,31,13,49,27,40,18,44,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°15′ 0″	40,20,31,13,49,27,40,18,44,36			
		1,33, 1, 5,19, 1,21,58		
2″	40,20,32,46,50,32,59,20, 6,34		2,56,57,42,16	
		1,33, 1, 2,22, 3,39,42		6,48
4″	40,20,34,19,51,35,21,23,46,16		2,56,57,49, 4	
		1,33, 0,59,25, 5,50,38		6,48
6″	40,20,35,52,52,34,46,29,36,54		2,56,57,55,52	
		1,33, 0,56,28, 7,54,46		6,48
8″	40,20,37,25,53,31,14,37,31,40		2,56,58, 2,40	
		1,33, 0,53,31, 9,52, 6		6,48
10″	40,20,38,58,54,24,45,47,23,46		2,56,58, 9,28	
		1,33, 0,50,34,11,42,38		6,48
12″	40,20,40,31,55,15,19,59, 6,24		2,56,58,16,16	
		1,33, 0,47,37,13,26,22		6,48
14″	40,20,42, 4,56, 2,57,12,32,46		2,56,58,23, 4	
		1,33, 0,44,40,15, 3,18		6,48
16″	40,20,43,37,56,47,37,27,36, 4		2,56,58,29,52	
		1,33, 0,41,43,16,33,26		6,48
18″	40,20,45,10,57,29,20,44, 9,30		2,56,58,36,40	
		1,33, 0,38,46,17,56,46		6,48
20″	40,20,46,43,58, 8, 7, 2, 6,16		2,56,58,43,28	
		1,33, 0,35,49,19,13,18		6,48
22″	40,20,48,16,58,43,56,21,19,34		2,56,58,50,16	
		1,33, 0,32,52,20,23, 2		6,48
24″	40,20,49,49,59,16,48,41,42,36		2,56,58,57, 4	
		1,33, 0,29,55,21,25,58		6,48
26″	40,20,51,22,59,46,44, 3, 8,34		2,56,59, 3,52	
		1,33, 0,26,58,22,22, 6		6,48
28″	40,20,52,56, 0,13,42,25,30,40		2,56,59,10,40	
		1,33, 0,24, 1,23,11,26		6,48
30″	40,20,54,29, 0,37,43,48,42, 6		2,56,59,17,28	
		1,33, 0,21, 4,23,53,58		6,48
32″	40,20,56, 2, 0,58,48,12,36, 4		2,56,59,24,16	
		1,33, 0,18, 7,24,29,42		6,48
34″	40,20,57,35, 1,16,55,37, 5,46		2,56,59,31, 4	
		1,33, 0,15,10,24,58,38		6,48
36″	40,20,59, 8, 1,32, 6, 2, 4,24		2,56,59,37,52	
		1,33, 0,12,13,25,20,46		6,48
38″	40,21, 0,41, 1,44,19,27,25,10		2,56,59,44,40	
		1,33, 0, 9,16,25,36, 6		6,48
40″	40,21, 2,14, 1,53,35,53, 1,16		2,56,59,51,28	
		1,33, 0, 6,19,25,44,38		6,48
42″	40,21, 3,47, 1,59,55,18,45,54		2,56,59,58,16	
		1,33, 0, 3,22,25,46,22		6,48
44″	40,21, 5,20, 2, 3,17,44,32,16		2,57, 0, 5, 4	
		1,33, 0, 0,25,25,41,18		6,48
46″	40,21, 6,53, 2, 3,43,10,13,34		2,57, 0,11,52	
		1,32,59,57,28,25,29,26		6,48
48″	40,21, 8,26, 2, 1,11,35,43, 0		2,57, 0,18,40	
		1,32,59,54,31,25,10,46		6,48
50″	40,21, 9,59, 1,55,43, 0,53,46		2,57, 0,25,28	
		1,32,59,51,34,24,45,18		6,48
52″	40,21,11,32, 1,47,17,25,39, 4		2,57, 0,32,16	
		1,32,59,48,37,24,13, 2		6,48
54″	40,21,13, 5, 1,35,54,49,52, 6		2,57, 0,39, 4	
		1,32,59,45,40,23,33,58		6,48
56″	40,21,14,38, 1,21,35,13,26, 4		2,57, 0,45,52	
		1,32,59,42,43,22,48, 6		6,48
58″	40,21,16,11, 1, 4,18,36,14,10		2,57, 0,52,40	
		1,32,59,39,46,21,55,26		
60″	40,21,17,44, 0,44, 4,58, 9,36			
exact	40,21,17,44, 0,44, 4,58,11,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°16′ 0″	40,21,17,44, 0,44, 4,58,11,25			
		1,32,59,36,49,20,56,10		
2″	40,21,19,17, 0,20,54,19, 7,35		2,57, 1, 6,15	
		1,32,59,33,52,19,49,55		6,48
4″	40,21,20,49,59,54,46,38,57,30		2,57, 1,13, 3	
		1,32,59,30,55,18,36,52		6,48
6″	40,21,22,22,59,25,41,57,34,22		2,57, 1,19,51	
		1,32,59,27,58,17,17, 1		6,48
8″	40,21,23,55,58,53,40,14,51,23		2,57, 1,26,39	
		1,32,59,25, 1,15,50,22		6,48
10″	40,21,25,28,58,18,41,30,41,45		2,57, 1,33,27	
		1,32,59,22, 4,14,16,55		6,48
12″	40,21,27, 1,57,40,45,44,58,40		2,57, 1,40,15	
		1,32,59,19, 7,12,36,40		6,48
14″	40,21,28,34,56,59,52,57,35,20		2,57, 1,47, 3	
		1,32,59,16,10,10,49,37		6,48
16″	40,21,30, 7,56,16, 3, 8,24,57		2,57, 1,53,51	
		1,32,59,13,13, 8,55,46		6,48
18″	40,21,31,40,55,29,16,17,20,43		2,57, 2, 0,39	
		1,32,59,10,16, 6,55, 7		6,48
20″	40,21,33,13,54,39,32,24,15,50		2,57, 2, 7,27	
		1,32,59, 7,19, 4,47,40		6,48
22″	40,21,34,46,53,46,51,29, 3,30		2,57, 2,14,15	
		1,32,59, 4,22, 2,33,25		6,48
24″	40,21,36,19,52,51,13,31,36,55		2,57, 2,21, 3	
		1,32,59, 1,25, 0,12,22		6,48
26″	40,21,37,52,51,52,38,31,49,17		2,57, 2,27,51	
		1,32,58,58,27,57,44,31		6,48
28″	40,21,39,25,50,51, 6,29,33,48		2,57, 2,34,39	
		1,32,58,55,30,55, 9,52		6,48
30″	40,21,40,58,49,46,37,24,43,40		2,57, 2,41,27	
		1,32,58,52,33,52,28,25		6,48
32″	40,21,42,31,48,39,11,17,12, 5		2,57, 2,48,15	
		1,32,58,49,36,49,40,10		6,48
34″	40,21,44, 4,47,28,48, 6,52,15		2,57, 2,55, 3	
		1,32,58,46,39,46,45, 7		6,48
36″	40,21,45,37,46,15,27,53,37,22		2,57, 3, 1,51	
		1,32,58,43,42,43,43,16		6,48
38″	40,21,47,10,44,59,10,37,20,38		2,57, 3, 8,39	
		1,32,58,40,45,40,34,37		6,48
40″	40,21,48,43,43,39,56,17,55,15		2,57, 3,15,27	
		1,32,58,37,48,37,19,10		6,48
42″	40,21,50,16,42,17,44,55,14,25		2,57, 3,22,15	
		1,32,58,34,51,33,56,55		6,48
44″	40,21,51,49,40,52,36,29,11,20		2,57, 3,29, 3	
		1,32,58,31,54,30,27,52		6,48
46″	40,21,53,22,39,24,30,59,39,12		2,57, 3,35,51	
		1,32,58,28,57,26,52, 1		6,48
48″	40,21,54,55,37,53,28,26,31,13		2,57, 3,42,39	
		1,32,58,26, 0,23, 9,22		6,48
50″	40,21,56,28,36,19,28,49,40,35		2,57, 3,49,27	
		1,32,58,23, 3,19,19,55		6,48
52″	40,21,58, 1,34,42,32, 9, 0,30		2,57, 3,56,15	
		1,32,58,20, 6,15,23,40		6,48
54″	40,21,59,34,33, 2,38,24,24,10		2,57, 4, 3, 3	
		1,32,58,17, 9,11,20,37		6,48
56″	40,22, 1, 7,31,19,47,35,44,47		2,57, 4, 9,51	
		1,32,58,14,12, 7,10,46		6,48
58″	40,22, 2,40,29,33,59,42,55,33		2,57, 4,16,39	
		1,32,58,11,15, 2,54, 7		
60″	40,22, 4,13,27,45,14,45,49,40			
exact	40,22, 4,13,27,45,14,45,58,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°17′ 0″	40,22, 4,13,27,45,14,45,58,57			
		1,32,58, 8,17,58,31,39		
2″	40,22, 5,46,25,53,32,44,30,36		2,57, 4,30,11	
		1,32,58, 5,20,54, 1,28		6,48
4″	40,22, 7,19,23,58,53,38,32, 4		2,57, 4,36,59	
		1,32,58, 2,23,49,24,29		6,48
6″	40,22, 8,52,22, 1,17,27,56,33		2,57, 4,43,47	
		1,32,57,59,26,44,40,42		6,48
8″	40,22,10,25,20, 0,44,12,37,15		2,57, 4,50,35	
		1,32,57,56,29,39,50, 7		6,48
10″	40,22,11,58,17,57,13,52,27,22		2,57, 4,57,23	
		1,32,57,53,32,34,52,44		6,48
12″	40,22,13,31,15,50,46,27,20, 6		2,57, 5, 4,11	
		1,32,57,50,35,29,48,33		6,48
14″	40,22,15, 4,13,41,21,57, 8,39		2,57, 5,10,59	
		1,32,57,47,38,24,37,34		6,48
16″	40,22,16,37,11,29, 0,21,46,13		2,57, 5,17,47	
		1,32,57,44,41,19,19,47		6,48
18″	40,22,18,10, 9,13,41,41, 6, 0		2,57, 5,24,35	
		1,32,57,41,44,13,55,12		6,48
20″	40,22,19,43, 6,55,25,55, 1,12		2,57, 5,31,23	
		1,32,57,38,47, 8,23,49		6,48
22″	40,22,21,16, 4,34,13, 3,25, 1		2,57, 5,38,11	
		1,32,57,35,50, 2,45,38		6,48
24″	40,22,22,49, 2,10, 3, 6,10,39		2,57, 5,44,59	
		1,32,57,32,52,57, 0,39		6,48
26″	40,22,24,21,59,42,56, 3,11,18		2,57, 5,51,47	
		1,32,57,29,55,51, 8,52		6,48
28″	40,22,25,54,57,12,51,54,20,10		2,57, 5,58,35	
		1,32,57,26,58,45,10,17		6,48
30″	40,22,27,27,54,39,50,39,30,27		2,57, 6, 5,23	
		1,32,57,24, 1,39, 4,54		6,48
32″	40,22,29, 0,52, 3,52,18,35,21		2,57, 6,12,11	
		1,32,57,21, 4,32,52,43		6,48
34″	40,22,30,33,49,24,56,51,28, 4		2,57, 6,18,59	
		1,32,57,18, 7,26,33,44		6,48
36″	40,22,32, 6,46,43, 4,18, 1,48		2,57, 6,25,47	
		1,32,57,15,10,20, 7,57		6,48
38″	40,22,33,39,43,58,14,38, 9,45		2,57, 6,32,35	
		1,32,57,12,13,13,35,22		6,48
40″	40,22,35,12,41,10,27,51,45, 7		2,57, 6,39,23	
		1,32,57, 9,16, 6,55,59		6,48
42″	40,22,36,45,38,19,43,58,41, 6		2,57, 6,46,11	
		1,32,57, 6,19, 0, 9,48		6,48
44″	40,22,38,18,35,26, 2,58,50,54		2,57, 6,52,59	
		1,32,57, 3,21,53,16,49		6,48
46″	40,22,39,51,32,29,24,52, 7,43		2,57, 6,59,47	
		1,32,57, 0,24,46,17, 2		6,48
48″	40,22,41,24,29,29,49,38,24,45		2,57, 7, 6,35	
		1,32,56,57,27,39,10,27		6,48
50″	40,22,42,57,26,27,17,17,35,12		2,57, 7,13,23	
		1,32,56,54,30,31,57, 4		6,48
52″	40,22,44,30,23,21,47,49,32,16		2,57, 7,20,11	
		1,32,56,51,33,24,36,53		6,48
54″	40,22,46, 3,20,13,21,14, 9, 9		2,57, 7,26,59	
		1,32,56,48,36,17, 9,54		6,48
56″	40,22,47,36,17, 1,57,31,19, 3		2,57, 7,33,47	
		1,32,56,45,39, 9,36, 7		6,48
58″	40,22,49, 9,13,47,36,40,55,10		2,57, 7,40,35	
		1,32,56,42,42, 1,55,32		
60″	40,22,50,42,10,30,18,42,50,42			
exact	40,22,50,42,10,30,18,43, 8,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°18′ 0″	40,22,50,42,10,30,18,43, 8,44	1,32,56,39,44,54,10, 1		
2″	40,22,52,15, 7,10, 3,37,18,45	1,32,56,36,47,46,15,58	2,57, 7,54, 3	6,48
4″	40,22,53,48, 3,46,51,23,34,43	1,32,56,33,50,38,15, 7	2,57, 8, 0,51	6,48
6″	40,22,55,21, 0,20,42, 1,49,50	1,32,56,30,53,30, 7,28	2,57, 8, 7,39	6,48
8″	40,22,56,53,56,51,35,31,57,18	1,32,56,27,56,21,53, 1	2,57, 8,14,27	6,48
10″	40,22,58,26,53,19,31,53,50,19	1,32,56,24,59,13,31,46	2,57, 8,21,15	6,48
12″	40,22,59,59,49,44,31, 7,22, 5	1,32,56,22, 2, 5, 3,43	2,57, 8,28, 3	6,48
14″	40,23, 1,32,46, 6,33,12,25,48	1,32,56,19, 4,56,28,52	2,57, 8,34,51	6,48
16″	40,23, 3, 5,42,25,38, 8,54,40	1,32,56,16, 7,47,47,13	2,57, 8,41,39	6,48
18″	40,23, 4,38,38,41,45,56,41,53	1,32,56,13,10,38,58,46	2,57, 8,48,27	6,48
20″	40,23, 6,11,34,54,56,35,40,39	1,32,56,10,13,30, 3,31	2,57, 8,55,15	6,48
22″	40,23, 7,44,31, 5,10, 5,44,10	1,32,56, 7,16,21, 1,28	2,57, 9, 2, 3	6,48
24″	40,23, 9,17,27,12,26,26,45,38	1,32,56, 4,19,11,52,37	2,57, 9, 8,51	6,48
26″	40,23,10,50,23,16,45,38,38,15	1,32,56, 1,22, 2,36,58	2,57, 9,15,39	6,48
28″	40,23,12,23,19,18, 7,41,15,13	1,32,55,58,24,53,14,31	2,57, 9,22,27	6,48
30″	40,23,13,56,15,16,32,34,29,44	1,32,55,55,27,43,45,16	2,57, 9,29,15	6,48
32″	40,23,15,29,11,12, 0,18,15, 0	1,32,55,52,30,34, 9,13	2,57, 9,36, 3	6,48
34″	40,23,17, 2, 7, 4,30,52,24,13	1,32,55,49,33,24,26,22	2,57, 9,42,51	6,48
36″	40,23,18,35, 2,54, 4,16,50,35	1,32,55,46,36,14,36,43	2,57, 9,49,39	6,48
38″	40,23,20, 7,58,40,40,31,27,18	1,32,55,43,39, 4,40,16	2,57, 9,56,27	6,48
40″	40,23,21,40,54,24,19,36, 7,34	1,32,55,40,41,54,37, 1	2,57,10, 3,15	6,48
42″	40,23,23,13,50, 5, 1,30,44,35	1,32,55,37,44,44,26,58	2,57,10,10, 3	6,48
44″	40,23,24,46,45,42,46,15,11,33	1,32,55,34,47,34,10, 7	2,57,10,16,51	6,48
46″	40,23,26,19,41,17,33,49,21,40	1,32,55,31,50,23,46,28	2,57,10,23,39	6,48
48″	40,23,27,52,36,49,24,13, 8, 8	1,32,55,28,53,13,16, 1	2,57,10,30,27	6,48
50″	40,23,29,25,32,18,17,26,24, 9	1,32,55,25,56, 2,38,46	2,57,10,37,15	6,48
52″	40,23,30,58,27,44,13,29, 2,55	1,32,55,22,58,51,54,43	2,57,10,44, 3	6,48
54″	40,23,32,31,23, 7,12,20,57,38	1,32,55,20, 1,41, 3,52	2,57,10,50,51	6,48
56″	40,23,34, 4,18,27,14, 2, 1,30	1,32,55,17, 4,30, 6,13	2,57,10,57,39	6,48
58″	40,23,35,37,13,44,18,32, 7,43	1,32,55,14, 7,19, 1,46	2,57,11, 4,27	
60″	40,23,37,10, 8,58,25,51, 9,29			
exact	40,23,37,10, 8,58,25,51,30,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°19′ 0″	40,23,37,10, 8,58,25,51,30,51			
		1,32,55,11,10, 7,52,54		
2″	40,23,38,43, 4, 9,35,59,23,45		2,57,11,17,52	
		1,32,55, 8,12,56,35, 2		6,48
4″	40,23,40,15,59,17,48,55,58,47		2,57,11,24,40	
		1,32,55, 5,15,45,10,22		6,48
6″	40,23,41,48,54,23, 4,41, 9, 9		2,57,11,31,28	
		1,32,55, 2,18,33,38,54		6,48
8″	40,23,43,21,49,25,23,14,48, 3		2,57,11,38,16	
		1,32,54,59,21,22, 0,38		6,48
10″	40,23,44,54,44,24,44,36,48,41		2,57,11,45, 4	
		1,32,54,56,24,10,15,34		6,48
12″	40,23,46,27,39,21, 8,47, 4,15		2,57,11,51,52	
		1,32,54,53,26,58,23,42		6,48
14″	40,23,48, 0,34,14,35,45,27,57		2,57,11,58,40	
		1,32,54,50,29,46,25, 2		6,48
16″	40,23,49,33,29, 5, 5,31,52,59		2,57,12, 5,28	
		1,32,54,47,32,34,19,34		6,48
18″	40,23,51, 6,23,52,38, 6,12,33		2,57,12,12,16	
		1,32,54,44,35,22, 7,18		6,48
20″	40,23,52,39,18,37,13,28,19,51		2,57,12,19, 4	
		1,32,54,41,38, 9,48,14		6,48
22″	40,23,54,12,13,18,51,38, 8, 5		2,57,12,25,52	
		1,32,54,38,40,57,22,22		6,48
24″	40,23,55,45, 7,57,32,35,30,27		2,57,12,32,40	
		1,32,54,35,43,44,49,42		6,48
26″	40,23,57,18, 2,33,16,20,20, 9		2,57,12,39,28	
		1,32,54,32,46,32,10,14		6,48
28″	40,23,58,50,57, 6, 2,52,30,23		2,57,12,46,16	
		1,32,54,29,49,19,23,58		6,48
30″	40,24, 0,23,51,35,52,11,54,21		2,57,12,53, 4	
		1,32,54,26,52, 6,30,54		6,48
32″	40,24, 1,56,46, 2,44,18,25,15		2,57,12,59,52	
		1,32,54,23,54,53,31, 2		6,48
34″	40,24, 3,29,40,26,39,11,56,17		2,57,13, 6,40	
		1,32,54,20,57,40,24,22		6,48
36″	40,24, 5, 2,34,47,36,52,20,39		2,57,13,13,28	
		1,32,54,18, 0,27,10,54		6,48
38″	40,24, 6,35,29, 5,37,19,31,33		2,57,13,20,16	
		1,32,54,15, 3,13,50,38		6,48
40″	40,24, 8, 8,23,20,40,33,22,11		2,57,13,27, 4	
		1,32,54,12, 6, 0,23,34		6,48
42″	40,24, 9,41,17,32,46,33,45,45		2,57,13,33,52	
		1,32,54, 9, 8,46,49,42		6,48
44″	40,24,11,14,11,41,55,20,35,27		2,57,13,40,40	
		1,32,54, 6,11,33, 9, 2		6,48
46″	40,24,12,47, 5,48, 6,53,44,29		2,57,13,47,28	
		1,32,54, 3,14,19,21,34		6,48
48″	40,24,14,19,59,51,21,13, 6, 3		2,57,13,54,16	
		1,32,54, 0,17, 5,27,18		6,48
50″	40,24,15,52,53,51,38,18,33,21		2,57,14, 1, 4	
		1,32,53,57,19,51,26,14		6,48
52″	40,24,17,25,47,48,58, 9,59,35		2,57,14, 7,52	
		1,32,53,54,22,37,18,22		6,48
54″	40,24,18,58,41,43,20,47,17,57		2,57,14,14,40	
		1,32,53,51,25,23, 3,42		6,48
56″	40,24,20,31,35,34,46,10,21,39		2,57,14,21,28	
		1,32,53,48,28, 8,42,14		6,48
58″	40,24,22, 4,29,23,14,19, 3,53		2,57,14,28,16	
		1,32,53,45,30,54,13,58		
60″	40,24,23,37,23, 8,45,13,17,51			
exact	40,24,23,37,23, 8,45,13,43,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°20′ 0″	40,24,23,37,23, 8,45,13,43,55	1,32,53,42,33,39,41,54		
2″	40,24,25,10,16,51,18,53,25,49	1,32,53,39,36,25, 0,15	2,57,14,41,39	6,47
4″	40,24,26,43,10,30,55,18,26, 4	1,32,53,36,39,10,11,49	2,57,14,48,26	6,47
6″	40,24,28,16, 4, 7,34,28,37,53	1,32,53,33,41,55,16,36	2,57,14,55,13	6,47
8″	40,24,29,48,57,41,16,23,54,29	1,32,53,30,44,40,14,36	2,57,15, 2, 0	6,47
10″	40,24,31,21,51,12, 1, 4, 9, 5	1,32,53,27,47,25, 5,49	2,57,15, 8,47	6,47
12″	40,24,32,54,44,39,48,29,14,54	1,32,53,24,50, 9,50,15	2,57,15,15,34	6,47
14″	40,24,34,27,38, 4,38,39, 5, 9	1,32,53,21,52,54,27,54	2,57,15,22,21	6,47
16″	40,24,36, 0,31,26,31,33,33, 3	1,32,53,18,55,38,58,46	2,57,15,29, 8	6,47
18″	40,24,37,33,24,45,27,12,31,49	1,32,53,15,58,23,22,51	2,57,15,35,55	6,47
20″	40,24,39, 6,18, 1,25,35,54,40	1,32,53,13, 1, 7,40, 9	2,57,15,42,42	6,47
22″	40,24,40,39,11,14,26,43,34,49	1,32,53,10, 3,51,50,40	2,57,15,49,29	6,47
24″	40,24,42,12, 4,24,30,35,25,29	1,32,53, 7, 6,35,54,24	2,57,15,56,16	6,47
26″	40,24,43,44,57,31,37,11,19,53	1,32,53, 4, 9,19,51,21	2,57,16, 3, 3	6,47
28″	40,24,45,17,50,35,46,31,11,14	1,32,53, 1,12, 3,41,31	2,57,16, 9,50	6,47
30″	40,24,46,50,43,36,58,34,52,45	1,32,52,58,14,47,24,54	2,57,16,16,37	6,47
32″	40,24,48,23,36,35,13,22,17,39	1,32,52,55,17,31, 1,30	2,57,16,23,24	6,47
34″	40,24,49,56,29,30,30,53,19, 9	1,32,52,52,20,14,31,19	2,57,16,30,11	6,47
36″	40,24,51,29,22,22,51, 7,50,28	1,32,52,49,22,57,54,21	2,57,16,36,58	6,47
38″	40,24,53, 2,15,12,14, 5,44,49	1,32,52,46,25,41,10,36	2,57,16,43,45	6,47
40″	40,24,54,35, 7,58,39,46,55,25	1,32,52,43,28,24,20, 4	2,57,16,50,32	6,47
42″	40,24,56, 8, 0,42, 8,11,15,29	1,32,52,40,31, 7,22,45	2,57,16,57,19	6,47
44″	40,24,57,40,53,22,39,18,38,14	1,32,52,37,33,50,18,39	2,57,17, 4, 6	6,47
46″	40,24,59,13,46, 0,13, 8,56,53	1,32,52,34,36,33, 7,46	2,57,17,10,53	6,47
48″	40,25, 0,46,38,34,49,42, 4,39	1,32,52,31,39,15,50, 6	2,57,17,17,40	6,47
50″	40,25, 2,19,31, 6,28,57,54,45	1,32,52,28,41,58,25,39	2,57,17,24,27	6,47
52″	40,25, 3,52,23,35,10,56,20,24	1,32,52,25,44,40,54,25	2,57,17,31,14	6,47
54″	40,25, 5,25,16, 0,55,37,14,49	1,32,52,22,47,23,16,24	2,57,17,38, 1	6,47
56″	40,25, 6,58, 8,23,43, 0,31,13	1,32,52,19,50, 5,31,36	2,57,17,44,48	6,47
58″	40,25, 8,31, 0,43,33, 6, 2,49	1,32,52,16,52,47,40, 1	2,57,17,51,35	
60″	40,25,10, 3,53, 0,25,53,42,50			
exact	40,25,10, 3,53, 0,25,53,15, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°21′ 0″	40,25,10, 3,53, 0,25,53,15, 8			
		1,32,52,13,55,29,38,38		
2″	40,25,11,36,45,14,21,22,53,46		2,57,18, 5,21	
		1,32,52,10,58,11,33,17		6,47
4″	40,25,13, 9,37,25,19,34,27, 3		2,57,18,12, 8	
		1,32,52, 8, 0,53,21, 9		6,47
6″	40,25,14,42,29,33,20,27,48,12		2,57,18,18,55	
		1,32,52, 5, 3,35, 2,14		6,47
8″	40,25,16,15,21,38,24, 2,50,26		2,57,18,25,42	
		1,32,52, 2, 6,16,36,32		6,47
10″	40,25,17,48,13,40,30,19,26,58		2,57,18,32,29	
		1,32,51,59, 8,58, 4, 3		6,47
12″	40,25,19,21, 5,39,39,17,31, 1		2,57,18,39,16	
		1,32,51,56,11,39,24,47		6,47
14″	40,25,20,53,57,35,50,56,55,48		2,57,18,46, 3	
		1,32,51,53,14,20,38,44		6,47
16″	40,25,22,26,49,29, 5,17,34,32		2,57,18,52,50	
		1,32,51,50,17, 1,45,54		6,47
18″	40,25,23,59,41,19,22,19,20,26		2,57,18,59,37	
		1,32,51,47,19,42,46,17		6,47
20″	40,25,25,32,33, 6,42, 2, 6,43		2,57,19, 6,24	
		1,32,51,44,22,23,39,53		6,47
22″	40,25,27, 5,24,51, 4,25,46,36		2,57,19,13,11	
		1,32,51,41,25, 4,26,42		6,47
24″	40,25,28,38,16,32,29,30,13,18		2,57,19,19,58	
		1,32,51,38,27,45, 6,44		6,47
26″	40,25,30,11, 8,10,57,15,20, 2		2,57,19,26,45	
		1,32,51,35,30,25,39,59		6,47
28″	40,25,31,43,59,46,27,41, 0, 1		2,57,19,33,32	
		1,32,51,32,33, 6, 6,27		6,47
30″	40,25,33,16,51,19, 0,47, 6,28		2,57,19,40,19	
		1,32,51,29,35,46,26, 8		6,47
32″	40,25,34,49,42,48,36,33,32,36		2,57,19,47, 6	
		1,32,51,26,38,26,39, 2		6,47
34″	40,25,36,22,34,15,15, 0,11,38		2,57,19,53,53	
		1,32,51,23,41, 6,45, 9		6,47
36″	40,25,37,55,25,38,56, 6,56,47		2,57,20, 0,40	
		1,32,51,20,43,46,44,29		6,47
38″	40,25,39,28,16,59,39,53,41,16		2,57,20, 7,27	
		1,32,51,17,46,26,37, 2		6,47
40″	40,25,41, 1, 8,17,26,20,18,18		2,57,20,14,14	
		1,32,51,14,49, 6,22,48		6,47
42″	40,25,42,33,59,32,15,26,41, 6		2,57,20,21, 1	
		1,32,51,11,51,46, 1,47		6,47
44″	40,25,44, 6,50,44, 7,12,42,53		2,57,20,27,48	
		1,32,51, 8,54,25,33,59		6,47
46″	40,25,45,39,41,53, 1,38,16,52		2,57,20,34,35	
		1,32,51, 5,57, 4,59,24		6,47
48″	40,25,47,12,32,58,58,43,16,16		2,57,20,41,22	
		1,32,51, 2,59,44,18, 2		6,47
50″	40,25,48,45,24, 1,58,27,34,18		2,57,20,48, 9	
		1,32,51, 0, 2,23,29,53		6,47
52″	40,25,50,18,15, 2, 0,51, 4,11		2,57,20,54,56	
		1,32,50,57, 5, 2,34,57		6,47
54″	40,25,51,51, 5,59, 5,53,39, 8		2,57,21, 1,43	
		1,32,50,54, 7,41,33,14		6,47
56″	40,25,53,23,56,53,13,35,12,22		2,57,21, 8,30	
		1,32,50,51,10,20,24,44		6,47
58″	40,25,54,56,47,44,23,55,37, 6		2,57,21,15,17	
		1,32,50,48,12,59, 9,27		
60″	40,25,56,29,38,32,36,54,46,33			
exact	40,25,56,29,38,32,36,54,20,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°22′ 0″	40,25,56,29,38,32,36,54,20,20			
		1,32,50,45,15,37,44,44		
2″	40,25,58, 2,29,17,52,32, 5, 4		2,57,21,29, 1	
		1,32,50,42,18,16,15,43		6,47
4″	40,25,59,35,20, 0,10,48,20,47		2,57,21,35,48	
		1,32,50,39,20,54,39,55		6,47
6″	40,26, 1, 8,10,39,31,43, 0,42		2,57,21,42,35	
		1,32,50,36,23,32,57,20		6,47
8″	40,26, 2,41, 1,15,55,15,58, 2		2,57,21,49,22	
		1,32,50,33,26,11, 7,58		6,47
10″	40,26, 4,13,51,49,21,27, 6, 0		2,57,21,56, 9	
		1,32,50,30,28,49,11,49		6,47
12″	40,26, 5,46,42,19,50,16,17,49		2,57,22, 2,56	
		1,32,50,27,31,27, 8,53		6,47
14″	40,26, 7,19,32,47,21,43,26,42		2,57,22, 9,43	
		1,32,50,24,34, 4,59,10		6,47
16″	40,26, 8,52,23,11,55,48,25,52		2,57,22,16,30	
		1,32,50,21,36,42,42,40		6,47
18″	40,26,10,25,13,33,32,31, 8,32		2,57,22,23,17	
		1,32,50,18,39,20,19,23		6,47
20″	40,26,11,58, 3,52,11,51,27,55		2,57,22,30, 4	
		1,32,50,15,41,57,49,19		6,47
22″	40,26,13,30,54, 7,53,49,17,14		2,57,22,36,51	
		1,32,50,12,44,35,12,28		6,47
24″	40,26,15, 3,44,20,38,24,29,42		2,57,22,43,38	
		1,32,50, 9,47,12,28,50		6,47
26″	40,26,16,36,34,30,25,36,58,32		2,57,22,50,25	
		1,32,50, 6,49,49,38,25		6,47
28″	40,26,18, 9,24,37,15,26,36,57		2,57,22,57,12	
		1,32,50, 3,52,26,41,13		6,47
30″	40,26,19,42,14,41, 7,53,18,10		2,57,23, 3,59	
		1,32,50, 0,55, 3,37,14		6,47
32″	40,26,21,15, 4,42, 2,56,55,24		2,57,23,10,46	
		1,32,49,57,57,40,26,28		6,47
34″	40,26,22,47,54,40, 0,37,21,52		2,57,23,17,33	
		1,32,49,55, 0,17, 8,55		6,47
36″	40,26,24,20,44,35, 0,54,30,47		2,57,23,24,20	
		1,32,49,52, 2,53,44,35		6,47
38″	40,26,25,53,34,27, 3,48,15,22		2,57,23,31, 7	
		1,32,49,49, 5,30,13,28		6,47
40″	40,26,27,26,24,16, 9,18,28,50		2,57,23,37,54	
		1,32,49,46, 8, 6,35,34		6,47
42″	40,26,28,59,14, 2,17,25, 4,24		2,57,23,44,41	
		1,32,49,43,10,42,50,53		6,47
44″	40,26,30,32, 3,45,28, 7,55,17		2,57,23,51,28	
		1,32,49,40,13,18,59,25		6,47
46″	40,26,32, 4,53,25,41,26,54,42		2,57,23,58,15	
		1,32,49,37,15,55, 1,10		6,47
48″	40,26,33,37,43, 2,57,21,55,52		2,57,24, 5, 2	
		1,32,49,34,18,30,56, 8		6,47
50″	40,26,35,10,32,37,15,52,52, 0		2,57,24,11,49	
		1,32,49,31,21, 6,44,19		6,47
52″	40,26,36,43,22, 8,36,59,36,19		2,57,24,18,36	
		1,32,49,28,23,42,25,43		6,47
54″	40,26,38,16,11,37, 0,42, 2, 2		2,57,24,25,23	
		1,32,49,25,26,18, 0,20		6,47
56″	40,26,39,49, 1, 2,27, 0, 2,22		2,57,24,32,10	
		1,32,49,22,28,53,28,10		6,47
58″	40,26,41,21,50,24,55,53,30,32		2,57,24,38,57	
		1,32,49,19,31,28,49,13		
60″	40,26,42,54,39,44,27,22,19,45			
exact	40,26,42,54,39,44,27,22, 3,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°23′ 0″	40,26,42,54,39,44,27,22, 3,55			
		1,32,49,16,34, 4, 1,50		
2″	40,26,44,27,29, 1, 1,26, 5,45		2,57,24,52,37	
		1,32,49,13,36,39, 9,13		6,47
4″	40,26,46, 0,18,14,38, 5,14,58		2,57,24,59,24	
		1,32,49,10,39,14, 9,49		6,47
6″	40,26,47,33, 7,25,17,19,24,47		2,57,25, 6,11	
		1,32,49, 7,41,49, 3,38		6,47
8″	40,26,49, 5,56,32,59, 8,28,25		2,57,25,12,58	
		1,32,49, 4,44,23,50,40		6,47
10″	40,26,50,38,45,37,43,32,19, 5		2,57,25,19,45	
		1,32,49, 1,46,58,30,55		6,47
12″	40,26,52,11,34,39,30,30,50, 0		2,57,25,26,32	
		1,32,48,58,49,33, 4,23		6,47
14″	40,26,53,44,23,38,20, 3,54,23		2,57,25,33,19	
		1,32,48,55,52, 7,31, 4		6,47
16″	40,26,55,17,12,34,12,11,25,27		2,57,25,40, 6	
		1,32,48,52,54,41,50,58		6,47
18″	40,26,56,50, 1,27, 6,53,16,25		2,57,25,46,53	
		1,32,48,49,57,16, 4, 5		6,47
20″	40,26,58,22,50,17, 4, 9,20,30		2,57,25,53,40	
		1,32,48,46,59,50,10,25		6,47
22″	40,26,59,55,39, 4, 3,59,30,55		2,57,26, 0,27	
		1,32,48,44, 2,24, 9,58		6,47
24″	40,27, 1,28,27,48, 6,23,40,53		2,57,26, 7,14	
		1,32,48,41, 4,58, 2,44		6,47
26″	40,27, 3, 1,16,29,11,21,43,37		2,57,26,14, 1	
		1,32,48,38, 7,31,48,43		6,47
28″	40,27, 4,34, 5, 7,18,53,32,20		2,57,26,20,48	
		1,32,48,35,10, 5,27,55		6,47
30″	40,27, 6, 6,53,42,28,59, 0,15		2,57,26,27,35	
		1,32,48,32,12,39, 0,20		6,47
32″	40,27, 7,39,42,14,41,38, 0,35		2,57,26,34,22	
		1,32,48,29,15,12,25,58		6,47
34″	40,27, 9,12,30,43,56,50,26,33		2,57,26,41, 9	
		1,32,48,26,17,45,44,49		6,47
36″	40,27,10,45,19,10,14,36,11,22		2,57,26,47,56	
		1,32,48,23,20,18,56,53		6,47
38″	40,27,12,18, 7,33,34,55, 8,15		2,57,26,54,43	
		1,32,48,20,22,52, 2,10		6,47
40″	40,27,13,50,55,53,57,47,10,25		2,57,27, 1,30	
		1,32,48,17,25,25, 0,40		6,47
42″	40,27,15,23,44,11,23,12,11, 5		2,57,27, 8,17	
		1,32,48,14,27,57,52,23		6,47
44″	40,27,16,56,32,25,51,10, 3,28		2,57,27,15, 4	
		1,32,48,11,30,30,37,19		6,47
46″	40,27,18,29,20,37,21,40,40,47		2,57,27,21,51	
		1,32,48, 8,33, 3,15,28		6,47
48″	40,27,20, 2, 8,45,54,43,56,15		2,57,27,28,38	
		1,32,48, 5,35,35,46,50		6,47
50″	40,27,21,34,56,51,30,19,43, 5		2,57,27,35,25	
		1,32,48, 2,38, 8,11,25		6,47
52″	40,27,23, 7,44,54, 8,27,54,30		2,57,27,42,12	
		1,32,47,59,40,40,29,13		6,47
54″	40,27,24,40,32,53,49, 8,23,43		2,57,27,48,59	
		1,32,47,56,43,12,40,14		6,47
56″	40,27,26,13,20,50,32,21, 3,57		2,57,27,55,46	
		1,32,47,53,45,44,44,28		6,47
58″	40,27,27,46, 8,44,18, 5,48,25		2,57,28, 2,33	
		1,32,47,50,48,16,41,55		
60″	40,27,29,18,56,35, 6,22,30,20			
exact	40,27,29,18,56,35, 6,22,18,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°24′ 0″	40,27,29,18,56,35, 6,22,18,54			
		1,32,47,47,50,48,31,32		
2″	40,27,30,51,44,22,57,10,50,26		2,57,28,16,10	
		1,32,47,44,53,20,15,22		6,47
4″	40,27,32,24,32, 7,50,31, 5,48		2,57,28,22,57	
		1,32,47,41,55,51,52,25		6,47
6″	40,27,33,57,19,49,46,22,58,13		2,57,28,29,44	
		1,32,47,38,58,23,22,41		6,47
8″	40,27,35,30, 7,28,44,46,20,54		2,57,28,36,31	
		1,32,47,36, 0,54,46,10		6,47
10″	40,27,37, 2,55, 4,45,41, 7, 4		2,57,28,43,18	
		1,32,47,33, 3,26, 2,52		6,47
12″	40,27,38,35,42,37,49, 7, 9,56		2,57,28,50, 5	
		1,32,47,30, 5,57,12,47		6,47
14″	40,27,40, 8,30, 7,55, 4,22,43		2,57,28,56,52	
		1,32,47,27, 8,28,15,55		6,47
16″	40,27,41,41,17,35, 3,32,38,38		2,57,29, 3,39	
		1,32,47,24,10,59,12,16		6,47
18″	40,27,43,14, 4,59,14,31,50,54		2,57,29,10,26	
		1,32,47,21,13,30, 1,50		6,47
20″	40,27,44,46,52,20,28, 1,52,44		2,57,29,17,13	
		1,32,47,18,16, 0,44,37		6,47
22″	40,27,46,19,39,38,44, 2,37,21		2,57,29,24, 0	
		1,32,47,15,18,31,20,37		6,47
24″	40,27,47,52,26,54, 2,33,57,58		2,57,29,30,47	
		1,32,47,12,21, 1,49,50		6,47
26″	40,27,49,25,14, 6,23,35,47,48		2,57,29,37,34	
		1,32,47, 9,23,32,12,16		6,47
28″	40,27,50,58, 1,15,47, 8, 0, 4		2,57,29,44,21	
		1,32,47, 6,26, 2,27,55		6,47
30″	40,27,52,30,48,22,13,10,27,59		2,57,29,51, 8	
		1,32,47, 3,28,32,36,47		6,47
32″	40,27,54, 3,35,25,41,43, 4,46		2,57,29,57,55	
		1,32,47, 0,31, 2,38,52		6,47
34″	40,27,55,36,22,26,12,45,43,38		2,57,30, 4,42	
		1,32,46,57,33,32,34,10		6,47
36″	40,27,57, 9, 9,23,46,18,17,48		2,57,30,11,29	
		1,32,46,54,36, 2,22,41		6,47
38″	40,27,58,41,56,18,22,20,40,29		2,57,30,18,16	
		1,32,46,51,38,32, 4,25		6,47
40″	40,28, 0,14,43,10, 0,52,44,54		2,57,30,25, 3	
		1,32,46,48,41, 1,39,22		6,47
42″	40,28, 1,47,29,58,41,54,24,16		2,57,30,31,50	
		1,32,46,45,43,31, 7,32		6,47
44″	40,28, 3,20,16,44,25,25,31,48		2,57,30,38,37	
		1,32,46,42,46, 0,28,55		6,47
46″	40,28, 4,53, 3,27,11,26, 0,43		2,57,30,45,24	
		1,32,46,39,48,29,43,31		6,47
48″	40,28, 6,25,50, 6,59,55,44,14		2,57,30,52,11	
		1,32,46,36,50,58,51,20		6,47
50″	40,28, 7,58,36,43,50,54,35,34		2,57,30,58,58	
		1,32,46,33,53,27,52,22		6,47
52″	40,28, 9,31,23,17,44,22,27,56		2,57,31, 5,45	
		1,32,46,30,55,56,46,37		6,47
54″	40,28,11, 4, 9,48,40,19,14,33		2,57,31,12,32	
		1,32,46,27,58,25,34, 5		6,47
56″	40,28,12,36,56,16,38,44,48,38		2,57,31,19,19	
		1,32,46,25, 0,54,14,46		6,47
58″	40,28,14, 9,42,41,39,39, 3,24		2,57,31,26, 6	
		1,32,46,22, 3,22,48,40		
60″	40,28,15,42,29, 3,43, 1,52, 4			
exact	40,28,15,42,29, 3,43, 1,46,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°25′ 0″	40,28,15,42,29, 3,43, 1,46,59			
		1,32,46,19, 5,51,15,27		
2″	40,28,17,15,15,22,48,53, 2,26		2,57,31,39,40	
		1,32,46,16, 8,19,35,47		6,47
4″	40,28,18,48, 1,38,57,12,38,13		2,57,31,46,27	
		1,32,46,13,10,47,49,20		6,47
6″	40,28,20,20,47,52, 8, 0,27,33		2,57,31,53,14	
		1,32,46,10,13,15,56, 6		6,47
8″	40,28,21,53,34, 2,21,16,23,39		2,57,32, 0, 1	
		1,32,46, 7,15,43,56, 5		6,47
10″	40,28,23,26,20, 9,37, 0,19,44		2,57,32, 6,48	
		1,32,46, 4,18,11,49,17		6,47
12″	40,28,24,59, 6,13,55,12, 9, 1		2,57,32,13,35	
		1,32,46, 1,20,39,35,42		6,47
14″	40,28,26,31,52,15,15,51,44,43		2,57,32,20,22	
		1,32,45,58,23, 7,15,20		6,47
16″	40,28,28, 4,38,13,38,59, 0, 3		2,57,32,27, 9	
		1,32,45,55,25,34,48,11		6,47
18″	40,28,29,37,24, 9, 4,33,48,14		2,57,32,33,56	
		1,32,45,52,28, 2,14,15		6,47
20″	40,28,31,10,10, 1,32,36, 2,29		2,57,32,40,43	
		1,32,45,49,30,29,33,32		6,47
22″	40,28,32,42,55,51, 3, 5,36, 1		2,57,32,47,30	
		1,32,45,46,32,56,46, 2		6,47
24″	40,28,34,15,41,37,36, 2,22, 3		2,57,32,54,17	
		1,32,45,43,35,23,51,45		6,47
26″	40,28,35,48,27,21,11,26,13,48		2,57,33, 1, 4	
		1,32,45,40,37,50,50,41		6,47
28″	40,28,37,21,13, 1,49,17, 4,29		2,57,33, 7,51	
		1,32,45,37,40,17,42,50		6,47
30″	40,28,38,53,58,39,29,34,47,19		2,57,33,14,38	
		1,32,45,34,42,44,28,12		6,47
32″	40,28,40,26,44,14,12,19,15,31		2,57,33,21,25	
		1,32,45,31,45,11, 6,47		6,47
34″	40,28,41,59,29,45,57,30,22,18		2,57,33,28,12	
		1,32,45,28,47,37,38,35		6,47
36″	40,28,43,32,15,14,45, 8, 0,53		2,57,33,34,59	
		1,32,45,25,50, 4, 3,36		6,47
38″	40,28,45, 5, 0,40,35,12, 4,29		2,57,33,41,46	
		1,32,45,22,52,30,21,50		6,47
40″	40,28,46,37,46, 3,27,42,26,19		2,57,33,48,33	
		1,32,45,19,54,56,33,17		6,47
42″	40,28,48,10,31,23,22,38,59,36		2,57,33,55,20	
		1,32,45,16,57,22,37,57		6,47
44″	40,28,49,43,16,40,20, 1,37,33		2,57,34, 2, 7	
		1,32,45,13,59,48,35,50		6,47
46″	40,28,51,16, 1,54,19,50,13,23		2,57,34, 8,54	
		1,32,45,11, 2,14,26,56		6,47
48″	40,28,52,48,47, 5,22, 4,40,19		2,57,34,15,41	
		1,32,45, 8, 4,40,11,15		6,47
50″	40,28,54,21,32,13,26,44,51,34		2,57,34,22,28	
		1,32,45, 5, 7, 5,48,47		6,47
52″	40,28,55,54,17,18,33,50,40,21		2,57,34,29,15	
		1,32,45, 2, 9,31,19,32		6,47
54″	40,28,57,27, 2,20,43,21,59,53		2,57,34,36, 2	
		1,32,44,59,11,56,43,30		6,47
56″	40,28,58,59,47,19,55,18,43,23		2,57,34,42,49	
		1,32,44,56,14,22, 0,41		6,47
58″	40,29, 0,32,32,16, 9,40,44, 4		2,57,34,49,36	
		1,32,44,53,16,47,11, 5		
60″	40,29, 2, 5,17, 9,26,27,55, 9			
exact	40,29, 2, 5,17, 9,26,27,58,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°26′ 0″	40,29, 2, 5,17, 9,26,27,58,28			
		1,32,44,50,19,12,15,13		
2″	40,29, 3,38, 1,59,45,40,13,41		2,57,35, 3, 7	
		1,32,44,47,21,37,12, 6		6,47
4″	40,29, 5,10,46,47, 7,17,25,47		2,57,35, 9,54	
		1,32,44,44,24, 2, 2,12		6,47
6″	40,29, 6,43,31,31,31,19,27,59		2,57,35,16,41	
		1,32,44,41,26,26,45,31		6,47
8″	40,29, 8,16,16,12,57,46,13,30		2,57,35,23,28	
		1,32,44,38,28,51,22, 3		6,47
10″	40,29, 9,49, 0,51,26,37,35,33		2,57,35,30,15	
		1,32,44,35,31,15,51,48		6,47
12″	40,29,11,21,45,26,57,53,27,21		2,57,35,37, 2	
		1,32,44,32,33,40,14,46		6,47
14″	40,29,12,54,29,59,31,33,42, 7		2,57,35,43,49	
		1,32,44,29,36, 4,30,57		6,47
16″	40,29,14,27,14,29, 7,38,13, 4		2,57,35,50,36	
		1,32,44,26,38,28,40,21		6,47
18″	40,29,15,59,58,55,46, 6,53,25		2,57,35,57,23	
		1,32,44,23,40,52,42,58		6,47
20″	40,29,17,32,43,19,26,59,36,23		2,57,36, 4,10	
		1,32,44,20,43,16,38,48		6,47
22″	40,29,19, 5,27,40,10,16,15,11		2,57,36,10,57	
		1,32,44,17,45,40,27,51		6,47
24″	40,29,20,38,11,57,55,56,43, 2		2,57,36,17,44	
		1,32,44,14,48, 4,10, 7		6,47
26″	40,29,22,10,56,12,44, 0,53, 9		2,57,36,24,31	
		1,32,44,11,50,27,45,36		6,47
28″	40,29,23,43,40,24,34,28,38,45		2,57,36,31,18	
		1,32,44, 8,52,51,14,18		6,47
30″	40,29,25,16,24,33,27,19,53, 3		2,57,36,38, 5	
		1,32,44, 5,55,14,36,13		6,47
32″	40,29,26,49, 8,39,22,34,29,16		2,57,36,44,52	
		1,32,44, 2,57,37,51,21		6,47
34″	40,29,28,21,52,42,20,12,20,37		2,57,36,51,39	
		1,32,44, 0, 0, 0,59,42		6,47
36″	40,29,29,54,36,42,20,13,20,19		2,57,36,58,26	
		1,32,43,57, 2,24, 1,16		6,47
38″	40,29,31,27,20,39,22,37,21,35		2,57,37, 5,13	
		1,32,43,54, 4,46,56, 3		6,47
40″	40,29,33, 0, 4,33,27,24,17,38		2,57,37,12, 0	
		1,32,43,51, 7, 9,44, 3		6,47
42″	40,29,34,32,48,24,34,34, 1,41		2,57,37,18,47	
		1,32,43,48, 9,32,25,16		6,47
44″	40,29,36, 5,32,12,44, 6,26,57		2,57,37,25,34	
		1,32,43,45,11,54,59,42		6,47
46″	40,29,37,38,15,57,56, 1,26,39		2,57,37,32,21	
		1,32,43,42,14,17,27,21		6,47
48″	40,29,39,10,59,40,10,18,54, 0		2,57,37,39, 8	
		1,32,43,39,16,39,48,13		6,47
50″	40,29,40,43,43,19,26,58,42,13		2,57,37,45,55	
		1,32,43,36,19, 2, 2,18		6,47
52″	40,29,42,16,26,55,46, 0,44,31		2,57,37,52,42	
		1,32,43,33,21,24, 9,36		6,47
54″	40,29,43,49,10,29, 7,24,54, 7		2,57,37,59,29	
		1,32,43,30,23,46,10, 7		6,47
56″	40,29,45,21,53,59,31,11, 4,14		2,57,38, 6,16	
		1,32,43,27,26, 8, 3,51		6,47
58″	40,29,46,54,37,26,57,19, 8, 5		2,57,38,13, 3	
		1,32,43,24,28,29,50,48		
60″	40,29,48,27,20,51,25,48,58,53			
exact	40,29,48,27,20,51,25,49,12,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°27′ 0″	40,29,48,27,20,51,25,49,12,21			
		1,32,43,21,30,51,32,28		
2″	40,29,50, 0, 4,12,56,40,44,49		2,57,38,26,30	
		1,32,43,18,33,13, 5,58		6,47
4″	40,29,51,32,47,31,29,53,50,47		2,57,38,33,17	
		1,32,43,15,35,34,32,41		6,47
6″	40,29,53, 5,30,47, 5,28,23,28		2,57,38,40, 4	
		1,32,43,12,37,55,52,37		6,47
8″	40,29,54,38,13,59,43,24,16, 5		2,57,38,46,51	
		1,32,43, 9,40,17, 5,46		6,47
10″	40,29,56,10,57, 9,23,41,21,51		2,57,38,53,38	
		1,32,43, 6,42,38,12, 8		6,47
12″	40,29,57,43,40,16, 6,19,33,59		2,57,39, 0,25	
		1,32,43, 3,44,59,11,43		6,47
14″	40,29,59,16,23,19,51,18,45,42		2,57,39, 7,12	
		1,32,43, 0,47,20, 4,31		6,47
16″	40,30, 0,49, 6,20,38,38,50,13		2,57,39,13,59	
		1,32,42,57,49,40,50,32		6,47
18″	40,30, 2,21,49,18,28,19,40,45		2,57,39,20,46	
		1,32,42,54,52, 1,29,46		6,47
20″	40,30, 3,54,32,13,20,21,10,31		2,57,39,27,33	
		1,32,42,51,54,22, 2,13		6,47
22″	40,30, 5,27,15, 5,14,43,12,44		2,57,39,34,20	
		1,32,42,48,56,42,27,53		6,47
24″	40,30, 6,59,57,54,11,25,40,37		2,57,39,41, 7	
		1,32,42,45,59, 2,46,46		6,47
26″	40,30, 8,32,40,40,10,28,27,23		2,57,39,47,54	
		1,32,42,43, 1,22,58,52		6,47
28″	40,30,10, 5,23,23,11,51,26,15		2,57,39,54,41	
		1,32,42,40, 3,43, 4,11		6,47
30″	40,30,11,38, 6, 3,15,34,30,26		2,57,40, 1,28	
		1,32,42,37, 6, 3, 2,43		6,47
32″	40,30,13,10,48,40,21,37,33, 9		2,57,40, 8,15	
		1,32,42,34, 8,22,54,28		6,47
34″	40,30,14,43,31,14,30, 0,27,37		2,57,40,15, 2	
		1,32,42,31,10,42,39,26		6,47
36″	40,30,16,16,13,45,40,43, 7, 3		2,57,40,21,49	
		1,32,42,28,13, 2,17,37		6,47
38″	40,30,17,48,56,13,53,45,24,40		2,57,40,28,36	
		1,32,42,25,15,21,49, 1		6,47
40″	40,30,19,21,38,39, 9, 7,13,41		2,57,40,35,23	
		1,32,42,22,17,41,13,38		6,47
42″	40,30,20,54,21, 1,26,48,27,19		2,57,40,42,10	
		1,32,42,19,20, 0,31,28		6,47
44″	40,30,22,27, 3,20,46,48,58,47		2,57,40,48,57	
		1,32,42,16,22,19,42,31		6,47
46″	40,30,23,59,45,37, 9, 8,41,18		2,57,40,55,44	
		1,32,42,13,24,38,46,47		6,47
48″	40,30,25,32,27,50,33,47,28, 5		2,57,41, 2,31	
		1,32,42,10,26,57,44,16		6,47
50″	40,30,27, 5,10, 1, 0,45,12,21		2,57,41, 9,18	
		1,32,42, 7,29,16,34,58		6,47
52″	40,30,28,37,52, 8,30, 1,47,19		2,57,41,16, 5	
		1,32,42, 4,31,35,18,53		6,47
54″	40,30,30,10,34,13, 1,37, 6,12		2,57,41,22,52	
		1,32,42, 1,33,53,56, 1		6,47
56″	40,30,31,43,16,14,35,31, 2,13		2,57,41,29,39	
		1,32,41,58,36,12,26,22		6,47
58″	40,30,33,15,58,13,11,43,28,35		2,57,41,36,26	
		1,32,41,55,38,30,49,56		
60″	40,30,34,48,40, 8,50,14,18,31			
exact	40,30,34,48,40, 8,50,14,36,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°28′ 0″	40,30,34,48,40, 8,50,14,36,20			
		1,32,41,52,40,49, 8,48		
2″	40,30,36,21,22, 1,31, 3,45, 8		2,57,41,49,50	
		1,32,41,49,43, 7,18,58		6,47
4″	40,30,37,54, 3,51,14,11, 4, 6		2,57,41,56,37	
		1,32,41,46,45,25,22,21		6,47
6″	40,30,39,26,45,37,59,36,26,27		2,57,42, 3,24	
		1,32,41,43,47,43,18,57		6,47
8″	40,30,40,59,27,21,47,19,45,24		2,57,42,10,11	
		1,32,41,40,50, 1, 8,46		6,47
10″	40,30,42,32, 9, 2,37,20,54,10		2,57,42,16,58	
		1,32,41,37,52,18,51,48		6,47
12″	40,30,44, 4,50,40,29,39,45,58		2,57,42,23,45	
		1,32,41,34,54,36,28, 3		6,47
14″	40,30,45,37,32,15,24,16,14, 1		2,57,42,30,32	
		1,32,41,31,56,53,57,31		6,47
16″	40,30,47,10,13,47,21,10,11,32		2,57,42,37,19	
		1,32,41,28,59,11,20,12		6,47
18″	40,30,48,42,55,16,20,21,31,44		2,57,42,44, 6	
		1,32,41,26, 1,28,36, 6		6,47
20″	40,30,50,15,36,42,21,50, 7,50		2,57,42,50,53	
		1,32,41,23, 3,45,45,13		6,47
22″	40,30,51,48,18, 5,25,35,53, 3		2,57,42,57,40	
		1,32,41,20, 6, 2,47,33		6,47
24″	40,30,53,20,59,25,31,38,40,36		2,57,43, 4,27	
		1,32,41,17, 8,19,43, 6		6,47
26″	40,30,54,53,40,42,39,58,23,42		2,57,43,11,14	
		1,32,41,14,10,36,31,52		6,47
28″	40,30,56,26,21,56,50,34,55,34		2,57,43,18, 1	
		1,32,41,11,12,53,13,51		6,47
30″	40,30,57,59, 3, 8, 3,28, 9,25		2,57,43,24,48	
		1,32,41, 8,15, 9,49, 3		6,47
32″	40,30,59,31,44,16,18,37,58,28		2,57,43,31,35	
		1,32,41, 5,17,26,17,28		6,47
34″	40,31, 1, 4,25,21,36, 4,15,56		2,57,43,38,22	
		1,32,41, 2,19,42,39, 6		6,47
36″	40,31, 2,37, 6,23,55,46,55, 2		2,57,43,45, 9	
		1,32,40,59,21,58,53,57		6,47
38″	40,31, 4, 9,47,23,17,45,48,59		2,57,43,51,56	
		1,32,40,56,24,15, 2, 1		6,47
40″	40,31, 5,42,28,19,42, 0,51, 0		2,57,43,58,43	
		1,32,40,53,26,31, 3,18		6,47
42″	40,31, 7,15, 9,13, 8,31,54,18		2,57,44, 5,30	
		1,32,40,50,28,46,57,48		6,47
44″	40,31, 8,47,50, 3,37,18,52, 6		2,57,44,12,17	
		1,32,40,47,31, 2,45,31		6,47
46″	40,31,10,20,30,51, 8,21,37,37		2,57,44,19, 4	
		1,32,40,44,33,18,26,27		6,47
48″	40,31,11,53,11,35,41,40, 4, 4		2,57,44,25,51	
		1,32,40,41,35,34, 0,36		6,47
50″	40,31,13,25,52,17,17,14, 4,40		2,57,44,32,38	
		1,32,40,38,37,49,27,58		6,47
52″	40,31,14,58,32,55,55, 3,32,38		2,57,44,39,25	
		1,32,40,35,40, 4,48,33		6,47
54″	40,31,16,31,13,31,35, 8,21,11		2,57,44,46,12	
		1,32,40,32,42,20, 2,21		6,47
56″	40,31,18, 3,54, 4,17,28,23,32		2,57,44,52,59	
		1,32,40,29,44,35, 9,22		6,47
58″	40,31,19,36,34,34, 2, 3,32,54		2,57,44,59,46	
		1,32,40,26,46,50, 9,36		
60″	40,31,21, 9,15, 0,48,53,42,30			
exact	40,31,21, 9,15, 0,48,54, 6,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°29′ 0″	40,31,21, 9,15, 0,48,54, 6,46			
		1,32,40,23,49, 5, 5,51		
2″	40,31,22,41,55,24,37,59,12,37		2,57,45,13, 7	
		1,32,40,20,51,19,52,44		6,47
4″	40,31,24,14,35,45,29,19, 5,21		2,57,45,19,54	
		1,32,40,17,53,34,32,50		6,47
6″	40,31,25,47,16, 3,22,53,38,11		2,57,45,26,41	
		1,32,40,14,55,49, 6, 9		6,47
8″	40,31,27,19,56,18,18,42,44,20		2,57,45,33,28	
		1,32,40,11,58, 3,32,41		6,47
10″	40,31,28,52,36,30,16,46,17, 1		2,57,45,40,15	
		1,32,40, 9, 0,17,52,26		6,47
12″	40,31,30,25,16,39,17, 4, 9,27		2,57,45,47, 2	
		1,32,40, 6, 2,32, 5,24		6,47
14″	40,31,31,57,56,45,19,36,14,51		2,57,45,53,49	
		1,32,40, 3, 4,46,11,35		6,47
16″	40,31,33,30,36,48,24,22,26,26		2,57,46, 0,36	
		1,32,40, 0, 7, 0,10,59		6,47
18″	40,31,35, 3,16,48,31,22,37,25		2,57,46, 7,23	
		1,32,39,57, 9,14, 3,36		6,47
20″	40,31,36,35,56,45,40,36,41, 1		2,57,46,14,10	
		1,32,39,54,11,27,49,26		6,47
22″	40,31,38, 8,36,39,52, 4,30,27		2,57,46,20,57	
		1,32,39,51,13,41,28,29		6,47
24″	40,31,39,41,16,31, 5,45,58,56		2,57,46,27,44	
		1,32,39,48,15,55, 0,45		6,47
26″	40,31,41,13,56,19,21,40,59,41		2,57,46,34,31	
		1,32,39,45,18, 8,26,14		6,47
28″	40,31,42,46,36, 4,39,49,25,55		2,57,46,41,18	
		1,32,39,42,20,21,44,56		6,47
30″	40,31,44,19,15,47, 0,11,10,51		2,57,46,48, 5	
		1,32,39,39,22,34,56,51		6,47
32″	40,31,45,51,55,26,22,46, 7,42		2,57,46,54,52	
		1,32,39,36,24,48, 1,59		6,47
34″	40,31,47,24,35, 2,47,34, 9,41		2,57,47, 1,39	
		1,32,39,33,27, 1, 0,20		6,47
36″	40,31,48,57,14,36,14,35,10, 1		2,57,47, 8,26	
		1,32,39,30,29,13,51,54		6,47
38″	40,31,50,29,54, 6,43,49, 1,55		2,57,47,15,13	
		1,32,39,27,31,26,36,41		6,47
40″	40,31,52, 2,33,34,15,15,38,36		2,57,47,22, 0	
		1,32,39,24,33,39,14,41		6,47
42″	40,31,53,35,12,58,48,54,53,17		2,57,47,28,47	
		1,32,39,21,35,51,45,54		6,47
44″	40,31,55, 7,52,20,24,46,39,11		2,57,47,35,34	
		1,32,39,18,38, 4,10,20		6,47
46″	40,31,56,40,31,39, 2,50,49,31		2,57,47,42,21	
		1,32,39,15,40,16,27,59		6,47
48″	40,31,58,13,10,54,43, 7,17,30		2,57,47,49, 8	
		1,32,39,12,42,28,38,51		6,47
50″	40,31,59,45,50, 7,25,35,56,21		2,57,47,55,55	
		1,32,39, 9,44,40,42,56		6,47
52″	40,32, 1,18,29,17,10,16,39,17		2,57,48, 2,42	
		1,32,39, 6,46,52,40,14		6,47
54″	40,32, 2,51, 8,23,57, 9,19,31		2,57,48, 9,29	
		1,32,39, 3,49, 4,30,45		6,47
56″	40,32, 4,23,47,27,46,13,50,16		2,57,48,16,16	
		1,32,39, 0,51,16,14,29		6,47
58″	40,32, 5,56,26,28,37,30, 4,45		2,57,48,23, 3	
		1,32,38,57,53,27,51,26		
60″	40,32, 7,29, 5,26,30,57,56,11			
exact	40,32, 7,29, 5,26,30,58,28,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°30′ 0″	40,32, 7,29, 5,26,30,58,28,47	1,32,38,54,55,39,25,15		
2″	40,32, 9, 1,44,21,26,37,54, 2	1,32,38,51,57,50,48,54	2,57,48,36,21	6,46
4″	40,32,10,34,23,13,24,28,42,56	1,32,38,49, 0, 2, 5,47	2,57,48,43, 7	6,46
6″	40,32,12, 7, 2, 2,24,30,48,43	1,32,38,46, 2,13,15,54	2,57,48,49,53	6,46
8″	40,32,13,39,40,48,26,44, 4,37	1,32,38,43, 4,24,19,15	2,57,48,56,39	6,46
10″	40,32,15,12,19,31,31, 8,23,52	1,32,38,40, 6,35,15,50	2,57,49, 3,25	6,46
12″	40,32,16,44,58,11,37,43,39,42	1,32,38,37, 8,46, 5,39	2,57,49,10,11	6,46
14″	40,32,18,17,36,48,46,29,45,21	1,32,38,34,10,56,48,42	2,57,49,16,57	6,46
16″	40,32,19,50,15,22,57,26,34, 3	1,32,38,31,13, 7,24,59	2,57,49,23,43	6,46
18″	40,32,21,22,53,54,10,33,59, 2	1,32,38,28,15,17,54,30	2,57,49,30,29	6,46
20″	40,32,22,55,32,22,25,51,53,32	1,32,38,25,17,28,17,15	2,57,49,37,15	6,46
22″	40,32,24,28,10,47,43,20,10,47	1,32,38,22,19,38,33,14	2,57,49,44, 1	6,46
24″	40,32,26, 0,49,10, 2,58,44, 1	1,32,38,19,21,48,42,27	2,57,49,50,47	6,46
26″	40,32,27,33,27,29,24,47,26,28	1,32,38,16,23,58,44,54	2,57,49,57,33	6,46
28″	40,32,29, 6, 5,45,48,46,11,22	1,32,38,13,26, 8,40,35	2,57,50, 4,19	6,46
30″	40,32,30,38,43,59,14,54,51,57	1,32,38,10,28,18,29,30	2,57,50,11, 5	6,46
32″	40,32,32,11,22, 9,43,13,21,27	1,32,38, 7,30,28,11,39	2,57,50,17,51	6,46
34″	40,32,33,44, 0,17,13,41,33, 6	1,32,38, 4,32,37,47, 2	2,57,50,24,37	6,46
36″	40,32,35,16,38,21,46,19,20, 8	1,32,38, 1,34,47,15,39	2,57,50,31,23	6,46
38″	40,32,36,49,16,23,21, 6,35,47	1,32,37,58,36,56,37,30	2,57,50,38, 9	6,46
40″	40,32,38,21,54,21,58, 3,13,17	1,32,37,55,39, 5,52,35	2,57,50,44,55	6,46
42″	40,32,39,54,32,17,37, 9, 5,52	1,32,37,52,41,15, 0,54	2,57,50,51,41	6,46
44″	40,32,41,27,10,10,18,24, 6,46	1,32,37,49,43,24, 2,27	2,57,50,58,27	6,46
46″	40,32,42,59,48, 0, 1,48, 9,13	1,32,37,46,45,32,57,14	2,57,51, 5,13	6,46
48″	40,32,44,32,25,46,47,21, 6,27	1,32,37,43,47,41,45,15	2,57,51,11,59	6,46
50″	40,32,46, 5, 3,30,35, 2,51,42	1,32,37,40,49,50,26,30	2,57,51,18,45	6,46
52″	40,32,47,37,41,11,24,53,18,12	1,32,37,37,51,59, 0,59	2,57,51,25,31	6,46
54″	40,32,49,10,18,49,16,52,19,11	1,32,37,34,54, 7,28,42	2,57,51,32,17	6,46
56″	40,32,50,42,56,24,10,59,47,53	1,32,37,31,56,15,49,39	2,57,51,39, 3	6,46
58″	40,32,52,15,33,56, 7,15,37,32	1,32,37,28,58,24, 3,50	2,57,51,45,49	
60″	40,32,53,48,11,25, 5,39,41,22			
exact	40,32,53,48,11,25, 5,39,16,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°31′ 0″	40,32,53,48,11,25, 5,39,16,11			
		1,32,37,26, 0,32, 8,37		
2″	40,32,55,20,48,51, 6,11,24,48		2,57,51,59,31	
		1,32,37,23, 2,40, 9, 6		6,46
4″	40,32,56,53,26,14, 8,51,33,54		2,57,52, 6,17	
		1,32,37,20, 4,48, 2,49		6,46
6″	40,32,58,26, 3,34,13,39,36,43		2,57,52,13, 3	
		1,32,37,17, 6,55,49,46		6,46
8″	40,32,59,58,40,51,20,35,26,29		2,57,52,19,49	
		1,32,37,14, 9, 3,29,57		6,46
10″	40,33, 1,31,18, 5,29,38,56,26		2,57,52,26,35	
		1,32,37,11,11,11, 3,22		6,46
12″	40,33, 3, 3,55,16,40,49,59,48		2,57,52,33,21	
		1,32,37, 8,13,18,30, 1		6,46
14″	40,33, 4,36,32,24,54, 8,29,49		2,57,52,40, 7	
		1,32,37, 5,15,25,49,54		6,46
16″	40,33, 6, 9, 9,30, 9,34,19,43		2,57,52,46,53	
		1,32,37, 2,17,33, 3, 1		6,46
18″	40,33, 7,41,46,32,27, 7,22,44		2,57,52,53,39	
		1,32,36,59,19,40, 9,22		6,46
20″	40,33, 9,14,23,31,46,47,32, 6		2,57,53, 0,25	
		1,32,36,56,21,47, 8,57		6,46
22″	40,33,10,47, 0,28, 8,34,41, 3		2,57,53, 7,11	
		1,32,36,53,23,54, 1,46		6,46
24″	40,33,12,19,37,21,32,28,42,49		2,57,53,13,57	
		1,32,36,50,26, 0,47,49		6,46
26″	40,33,13,52,14,11,58,29,30,38		2,57,53,20,43	
		1,32,36,47,28, 7,27, 6		6,46
28″	40,33,15,24,50,59,26,36,57,44		2,57,53,27,29	
		1,32,36,44,30,13,59,37		6,46
30″	40,33,16,57,27,43,56,50,57,21		2,57,53,34,15	
		1,32,36,41,32,20,25,22		6,46
32″	40,33,18,30, 4,25,29,11,22,43		2,57,53,41, 1	
		1,32,36,38,34,26,44,21		6,46
34″	40,33,20, 2,41, 4, 3,38, 7, 4		2,57,53,47,47	
		1,32,36,35,36,32,56,34		6,46
36″	40,33,21,35,17,39,40,11, 3,38		2,57,53,54,33	
		1,32,36,32,38,39, 2, 1		6,46
38″	40,33,23, 7,54,12,18,50, 5,39		2,57,54, 1,19	
		1,32,36,29,40,45, 0,42		6,46
40″	40,33,24,40,30,41,59,35, 6,21		2,57,54, 8, 5	
		1,32,36,26,42,50,52,37		6,46
42″	40,33,26,13, 7, 8,42,25,58,58		2,57,54,14,51	
		1,32,36,23,44,56,37,46		6,46
44″	40,33,27,45,43,32,27,22,36,44		2,57,54,21,37	
		1,32,36,20,47, 2,16, 9		6,46
46″	40,33,29,18,19,53,14,24,52,53		2,57,54,28,23	
		1,32,36,17,49, 7,47,46		6,46
48″	40,33,30,50,56,11, 3,32,40,39		2,57,54,35, 9	
		1,32,36,14,51,13,12,37		6,46
50″	40,33,32,23,32,25,54,45,53,16		2,57,54,41,55	
		1,32,36,11,53,18,30,42		6,46
52″	40,33,33,56, 8,37,48, 4,23,58		2,57,54,48,41	
		1,32,36, 8,55,23,42, 1		6,46
54″	40,33,35,28,44,46,43,28, 5,59		2,57,54,55,27	
		1,32,36, 5,57,28,46,34		6,46
56″	40,33,37, 1,20,52,40,56,52,33		2,57,55, 2,13	
		1,32,36, 2,59,33,44,21		6,46
58″	40,33,38,33,56,55,40,30,36,54		2,57,55, 8,59	
		1,32,36, 0, 1,38,35,22		
60″	40,33,40, 6,32,55,42, 9,12,16			
exact	40,33,40, 6,32,55,42, 8,51,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°32′ 0″	40,33,40, 6,32,55,42, 8,51,34			
		1,32,35,57, 3,43,17,34		
2″	40,33,41,39, 8,52,45,52, 9, 8		2,57,55,22,39	
		1,32,35,54, 5,47,54,55		6,46
4″	40,33,43,11,44,46,51,40, 4, 3		2,57,55,29,25	
		1,32,35,51, 7,52,25,30		6,46
6″	40,33,44,44,20,37,59,32,29,33		2,57,55,36,11	
		1,32,35,48, 9,56,49,19		6,46
8″	40,33,46,16,56,26, 9,29,18,52		2,57,55,42,57	
		1,32,35,45,12, 1, 6,22		6,46
10″	40,33,47,49,32,11,21,30,25,14		2,57,55,49,43	
		1,32,35,42,14, 5,16,39		6,46
12″	40,33,49,22, 7,53,35,35,41,53		2,57,55,56,29	
		1,32,35,39,16, 9,20,10		6,46
14″	40,33,50,54,43,32,51,45, 2, 3		2,57,56, 3,15	
		1,32,35,36,18,13,16,55		6,46
16″	40,33,52,27,19, 9, 9,58,18,58		2,57,56,10, 1	
		1,32,35,33,20,17, 6,54		6,46
18″	40,33,53,59,54,42,30,15,25,52		2,57,56,16,47	
		1,32,35,30,22,20,50, 7		6,46
20″	40,33,55,32,30,12,52,36,15,59		2,57,56,23,33	
		1,32,35,27,24,24,26,34		6,46
22″	40,33,57, 5, 5,40,17, 0,42,33		2,57,56,30,19	
		1,32,35,24,26,27,56,15		6,46
24″	40,33,58,37,41, 4,43,28,38,48		2,57,56,37, 5	
		1,32,35,21,28,31,19,10		6,46
26″	40,34, 0,10,16,26,11,59,57,58		2,57,56,43,51	
		1,32,35,18,30,34,35,19		6,46
28″	40,34, 1,42,51,44,42,34,33,17		2,57,56,50,37	
		1,32,35,15,32,37,44,42		6,46
30″	40,34, 3,15,27, 0,15,12,17,59		2,57,56,57,23	
		1,32,35,12,34,40,47,19		6,46
32″	40,34, 4,48, 2,12,49,53, 5,18		2,57,57, 4, 9	
		1,32,35, 9,36,43,43,10		6,46
34″	40,34, 6,20,37,22,26,36,48,28		2,57,57,10,55	
		1,32,35, 6,38,46,32,15		6,46
36″	40,34, 7,53,12,29, 5,23,20,43		2,57,57,17,41	
		1,32,35, 3,40,49,14,34		6,46
38″	40,34, 9,25,47,32,46,12,35,17		2,57,57,24,27	
		1,32,35, 0,42,51,50, 7		6,46
40″	40,34,10,58,22,33,29, 4,25,24		2,57,57,31,13	
		1,32,34,57,44,54,18,54		6,46
42″	40,34,12,30,57,31,13,58,44,18		2,57,57,37,59	
		1,32,34,54,46,56,40,55		6,46
44″	40,34,14, 3,32,26, 0,55,25,13		2,57,57,44,45	
		1,32,34,51,48,58,56,10		6,46
46″	40,34,15,36, 7,17,49,54,21,23		2,57,57,51,31	
		1,32,34,48,51, 1, 4,39		6,46
48″	40,34,17, 8,42, 6,40,55,26, 2		2,57,57,58,17	
		1,32,34,45,53, 3, 6,22		6,46
50″	40,34,18,41,16,52,33,58,32,24		2,57,58, 5, 3	
		1,32,34,42,55, 5, 1,19		6,46
52″	40,34,20,13,51,35,29, 3,33,43		2,57,58,11,49	
		1,32,34,39,57, 6,49,30		6,46
54″	40,34,21,46,26,15,26,10,23,13		2,57,58,18,35	
		1,32,34,36,59, 8,30,55		6,46
56″	40,34,23,19, 0,52,25,18,54, 8		2,57,58,25,21	
		1,32,34,34, 1,10, 5,34		6,46
58″	40,34,24,51,35,26,26,28,59,42		2,57,58,32, 7	
		1,32,34,31, 3,11,33,27		
60″	40,34,26,24, 9,57,29,40,33, 9			
exact	40,34,26,24, 9,57,29,40,26,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°33′ 0″	40,34,26,24, 9,57,29,40,26,15			
		1,32,34,28, 5,12,53,45		
2″	40,34,27,56,44,25,34,53,20, 0		2,57,58,45,42	
		1,32,34,25, 7,14, 8, 3		6,46
4″	40,34,29,29,18,50,42, 7,28, 3		2,57,58,52,28	
		1,32,34,22, 9,15,15,35		6,46
6″	40,34,31, 1,53,12,51,22,43,38		2,57,58,59,14	
		1,32,34,19,11,16,16,21		6,46
8″	40,34,32,34,27,32, 2,38,59,59		2,57,59, 6, 0	
		1,32,34,16,13,17,10,21		6,46
10″	40,34,34, 7, 1,48,15,56,10,20		2,57,59,12,46	
		1,32,34,13,15,17,57,35		6,46
12″	40,34,35,39,36, 1,31,14, 7,55		2,57,59,19,32	
		1,32,34,10,17,18,38, 3		6,46
14″	40,34,37,12,10,11,48,32,45,58		2,57,59,26,18	
		1,32,34, 7,19,19,11,45		6,46
16″	40,34,38,44,44,19, 7,51,57,43		2,57,59,33, 4	
		1,32,34, 4,21,19,38,41		6,46
18″	40,34,40,17,18,23,29,11,36,24		2,57,59,39,50	
		1,32,34, 1,23,19,58,51		6,46
20″	40,34,41,49,52,24,52,31,35,15		2,57,59,46,36	
		1,32,33,58,25,20,12,15		6,46
22″	40,34,43,22,26,23,17,51,47,30		2,57,59,53,22	
		1,32,33,55,27,20,18,53		6,46
24″	40,34,44,55, 0,18,45,12, 6,23		2,58, 0, 0, 8	
		1,32,33,52,29,20,18,45		6,46
26″	40,34,46,27,34,11,14,32,25, 8		2,58, 0, 6,54	
		1,32,33,49,31,20,11,51		6,46
28″	40,34,48, 0, 8, 0,45,52,36,59		2,58, 0,13,40	
		1,32,33,46,33,19,58,11		6,46
30″	40,34,49,32,41,47,19,12,35,10		2,58, 0,20,26	
		1,32,33,43,35,19,37,45		6,46
32″	40,34,51, 5,15,30,54,32,12,55		2,58, 0,27,12	
		1,32,33,40,37,19,10,33		6,46
34″	40,34,52,37,49,11,31,51,23,28		2,58, 0,33,58	
		1,32,33,37,39,18,36,35		6,46
36″	40,34,54,10,22,49,11,10, 0, 3		2,58, 0,40,44	
		1,32,33,34,41,17,55,51		6,46
38″	40,34,55,42,56,23,52,27,55,54		2,58, 0,47,30	
		1,32,33,31,43,17, 8,21		6,46
40″	40,34,57,15,29,55,35,45, 4,15		2,58, 0,54,16	
		1,32,33,28,45,16,14, 5		6,46
42″	40,34,58,48, 3,24,21, 1,18,20		2,58, 1, 1, 2	
		1,32,33,25,47,15,13, 3		6,46
44″	40,35, 0,20,36,50, 8,16,31,23		2,58, 1, 7,48	
		1,32,33,22,49,14, 5,15		6,46
46″	40,35, 1,53,10,12,57,30,36,38		2,58, 1,14,34	
		1,32,33,19,51,12,50,41		6,46
48″	40,35, 3,25,43,32,48,43,27,19		2,58, 1,21,20	
		1,32,33,16,53,11,29,21		6,46
50″	40,35, 4,58,16,49,41,54,56,40		2,58, 1,28, 6	
		1,32,33,13,55,10, 1,15		6,46
52″	40,35, 6,30,50, 3,37, 4,57,55		2,58, 1,34,52	
		1,32,33,10,57, 8,26,23		6,46
54″	40,35, 8, 3,23,14,34,13,24,18		2,58, 1,41,38	
		1,32,33, 7,59, 6,44,45		6,46
56″	40,35, 9,35,56,22,33,20, 9, 3		2,58, 1,48,24	
		1,32,33, 5, 1, 4,56,21		6,46
58″	40,35,11, 8,29,27,34,25, 5,24		2,58, 1,55,10	
		1,32,33, 2, 3, 3, 1,11		
60″	40,35,12,41, 2,29,37,28, 6,35			
exact	40,35,12,41, 2,29,37,28, 0,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°34′ 0″	40,35,12,41, 2,29,37,28, 0,23			
		1,32,32,59, 5, 0,58,46		
2″	40,35,14,13,35,28,42,28,59, 9		2,58, 2, 8,43	
		1,32,32,56, 6,58,50, 3		6,46
4″	40,35,15,46, 8,24,49,27,49,12		2,58, 2,15,29	
		1,32,32,53, 8,56,34,34		6,46
6″	40,35,17,18,41,17,58,24,23,46		2,58, 2,22,15	
		1,32,32,50,10,54,12,19		6,46
8″	40,35,18,51,14, 8, 9,18,36, 5		2,58, 2,29, 1	
		1,32,32,47,12,51,43,18		6,46
10″	40,35,20,23,46,55,22,10,19,23		2,58, 2,35,47	
		1,32,32,44,14,49, 7,31		6,46
12″	40,35,21,56,19,39,36,59,26,54		2,58, 2,42,33	
		1,32,32,41,16,46,24,58		6,46
14″	40,35,23,28,52,20,53,45,51,52		2,58, 2,49,19	
		1,32,32,38,18,43,35,39		6,46
16″	40,35,25, 1,24,59,12,29,27,31		2,58, 2,56, 5	
		1,32,32,35,20,40,39,34		6,46
18″	40,35,26,33,57,34,33,10, 7, 5		2,58, 3, 2,51	
		1,32,32,32,22,37,36,43		6,46
20″	40,35,28, 6,30, 6,55,47,43,48		2,58, 3, 9,37	
		1,32,32,29,24,34,27, 6		6,46
22″	40,35,29,39, 2,36,20,22,10,54		2,58, 3,16,23	
		1,32,32,26,26,31,10,43		6,46
24″	40,35,31,11,35, 2,46,53,21,37		2,58, 3,23, 9	
		1,32,32,23,28,27,47,34		6,46
26″	40,35,32,44, 7,26,15,21, 9,11		2,58, 3,29,55	
		1,32,32,20,30,24,17,39		6,46
28″	40,35,34,16,39,46,45,45,26,50		2,58, 3,36,41	
		1,32,32,17,32,20,40,58		6,46
30″	40,35,35,49,12, 4,18, 6, 7,48		2,58, 3,43,27	
		1,32,32,14,34,16,57,31		6,46
32″	40,35,37,21,44,18,52,23, 5,19		2,58, 3,50,13	
		1,32,32,11,36,13, 7,18		6,46
34″	40,35,38,54,16,30,28,36,12,37		2,58, 3,56,59	
		1,32,32, 8,38, 9,10,19		6,46
36″	40,35,40,26,48,39, 6,45,22,56		2,58, 4, 3,45	
		1,32,32, 5,40, 5, 6,34		6,46
38″	40,35,41,59,20,44,46,50,29,30		2,58, 4,10,31	
		1,32,32, 2,42, 0,56, 3		6,46
40″	40,35,43,31,52,47,28,51,25,33		2,58, 4,17,17	
		1,32,31,59,43,56,38,46		6,46
42″	40,35,45, 4,24,47,12,48, 4,19		2,58, 4,24, 3	
		1,32,31,56,45,52,14,43		6,46
44″	40,35,46,36,56,43,58,40,19, 2		2,58, 4,30,49	
		1,32,31,53,47,47,43,54		6,46
46″	40,35,48, 9,28,37,46,28, 2,56		2,58, 4,37,35	
		1,32,31,50,49,43, 6,19		6,46
48″	40,35,49,42, 0,28,36,11, 9,15		2,58, 4,44,21	
		1,32,31,47,51,38,21,58		6,46
50″	40,35,51,14,32,16,27,49,31,13		2,58, 4,51, 7	
		1,32,31,44,53,33,30,51		6,46
52″	40,35,52,47, 4, 1,21,23, 2, 4		2,58, 4,57,53	
		1,32,31,41,55,28,32,58		6,46
54″	40,35,54,19,35,43,16,51,35, 2		2,58, 5, 4,39	
		1,32,31,38,57,23,28,19		6,46
56″	40,35,55,52, 7,22,14,15, 3,21		2,58, 5,11,25	
		1,32,31,35,59,18,16,54		6,46
58″	40,35,57,24,38,58,13,33,20,15		2,58, 5,18,11	
		1,32,31,33, 1,12,58,43		
60″	40,35,58,57,10,31,14,46,18,58			
exact	40,35,58,57,10,31,14,46,22,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°35′ 0″	40,35,58,57,10,31,14,46,22,50			
		1,32,31,30, 3, 7,34,15		
2″	40,36, 0,29,42, 1,17,53,57, 5		2,58, 5,31,40	
		1,32,31,27, 5, 2, 2,35		6,46
4″	40,36, 2, 2,13,28,22,55,59,40		2,58, 5,38,26	
		1,32,31,24, 6,56,24, 9		6,46
6″	40,36, 3,34,44,52,29,52,23,49		2,58, 5,45,12	
		1,32,31,21, 8,50,38,57		6,46
8″	40,36, 5, 7,16,13,38,43, 2,46		2,58, 5,51,58	
		1,32,31,18,10,44,46,59		6,46
10″	40,36, 6,39,47,31,49,27,49,45		2,58, 5,58,44	
		1,32,31,15,12,38,48,15		6,46
12″	40,36, 8,12,18,47, 2, 6,38, 0		2,58, 6, 5,30	
		1,32,31,12,14,32,42,45		6,46
14″	40,36, 9,44,49,59,16,39,20,45		2,58, 6,12,16	
		1,32,31, 9,16,26,30,29		6,46
16″	40,36,11,17,21, 8,33, 5,51,14		2,58, 6,19, 2	
		1,32,31, 6,18,20,11,27		6,46
18″	40,36,12,49,52,14,51,26, 2,41		2,58, 6,25,48	
		1,32,31, 3,20,13,45,39		6,46
20″	40,36,14,22,23,18,11,39,48,20		2,58, 6,32,34	
		1,32,31, 0,22, 7,13, 5		6,46
22″	40,36,15,54,54,18,33,47, 1,25		2,58, 6,39,20	
		1,32,30,57,24, 0,33,45		6,46
24″	40,36,17,27,25,15,57,47,35,10		2,58, 6,46, 6	
		1,32,30,54,25,53,47,39		6,46
26″	40,36,18,59,56,10,23,41,22,49		2,58, 6,52,52	
		1,32,30,51,27,46,54,47		6,46
28″	40,36,20,32,27, 1,51,28,17,36		2,58, 6,59,38	
		1,32,30,48,29,39,55, 9		6,46
30″	40,36,22, 4,57,50,21, 8,12,45		2,58, 7, 6,24	
		1,32,30,45,31,32,48,45		6,46
32″	40,36,23,37,28,35,52,41, 1,30		2,58, 7,13,10	
		1,32,30,42,33,25,35,35		6,46
34″	40,36,25, 9,59,18,26, 6,37, 5		2,58, 7,19,56	
		1,32,30,39,35,18,15,39		6,46
36″	40,36,26,42,29,58, 1,24,52,44		2,58, 7,26,42	
		1,32,30,36,37,10,48,57		6,46
38″	40,36,28,15, 0,34,38,35,41,41		2,58, 7,33,28	
		1,32,30,33,39, 3,15,29		6,46
40″	40,36,29,47,31, 8,17,38,57,10		2,58, 7,40,14	
		1,32,30,30,40,55,35,15		6,46
42″	40,36,31,20, 1,38,58,34,32,25		2,58, 7,47, 0	
		1,32,30,27,42,47,48,15		6,46
44″	40,36,32,52,32, 6,41,22,20,40		2,58, 7,53,46	
		1,32,30,24,44,39,54,29		6,46
46″	40,36,34,25, 2,31,26, 2,15, 9		2,58, 8, 0,32	
		1,32,30,21,46,31,53,57		6,46
48″	40,36,35,57,32,53,12,34, 9, 6		2,58, 8, 7,18	
		1,32,30,18,48,23,46,39		6,46
50″	40,36,37,30, 3,12, 0,57,55,45		2,58, 8,14, 4	
		1,32,30,15,50,15,32,35		6,46
52″	40,36,39, 2,33,27,51,13,28,20		2,58, 8,20,50	
		1,32,30,12,52, 7,11,45		6,46
54″	40,36,40,35, 3,40,43,20,40, 5		2,58, 8,27,36	
		1,32,30, 9,53,58,44, 9		6,46
56″	40,36,42, 7,33,50,37,19,24,14		2,58, 8,34,22	
		1,32,30, 6,55,50, 9,47		6,46
58″	40,36,43,40, 3,57,33, 9,34, 1		2,58, 8,41, 8	
		1,32,30, 3,57,41,28,39		
60″	40,36,45,12,34, 1,30,51, 2,40			
exact	40,36,45,12,34, 1,30,51,11,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°36′ 0″	40,36,45,12,34, 1,30,51,11,21			
		1,32,30, 0,59,32,41,51		
2″	40,36,46,45, 4, 2,30,23,53,12		2,58, 8,54,35	
		1,32,29,58, 1,23,47,16		6,46
4″	40,36,48,17,34, 0,31,47,40,28		2,58, 9, 1,21	
		1,32,29,55, 3,14,45,55		6,46
6″	40,36,49,50, 3,55,35, 2,26,23		2,58, 9, 8, 7	
		1,32,29,52, 5, 5,37,48		6,46
8″	40,36,51,22,33,47,40, 8, 4,11		2,58, 9,14,53	
		1,32,29,49, 6,56,22,55		6,46
10″	40,36,52,55, 3,36,47, 4,27, 6		2,58, 9,21,39	
		1,32,29,46, 8,47, 1,16		6,46
12″	40,36,54,27,33,22,55,51,28,22		2,58, 9,28,25	
		1,32,29,43,10,37,32,51		6,46
14″	40,36,56, 0, 3, 6, 6,29, 1,13		2,58, 9,35,11	
		1,32,29,40,12,27,57,40		6,46
16″	40,36,57,32,32,46,18,56,58,53		2,58, 9,41,57	
		1,32,29,37,14,18,15,43		6,46
18″	40,36,59, 5, 2,23,33,15,14,36		2,58, 9,48,43	
		1,32,29,34,16, 8,27, 0		6,46
20″	40,37, 0,37,31,57,49,23,41,36		2,58, 9,55,29	
		1,32,29,31,17,58,31,31		6,46
22″	40,37, 2,10, 1,29, 7,22,13, 7		2,58,10, 2,15	
		1,32,29,28,19,48,29,16		6,46
24″	40,37, 3,42,30,57,27,10,42,23		2,58,10, 9, 1	
		1,32,29,25,21,38,20,15		6,46
26″	40,37, 5,15, 0,22,48,49, 2,38		2,58,10,15,47	
		1,32,29,22,23,28, 4,28		6,46
28″	40,37, 6,47,29,45,12,17, 7, 6		2,58,10,22,33	
		1,32,29,19,25,17,41,55		6,46
30″	40,37, 8,19,59, 4,37,34,49, 1		2,58,10,29,19	
		1,32,29,16,27, 7,12,36		6,46
32″	40,37, 9,52,28,21, 4,42, 1,37		2,58,10,36, 5	
		1,32,29,13,28,56,36,31		6,46
34″	40,37,11,24,57,34,33,38,38, 8		2,58,10,42,51	
		1,32,29,10,30,45,53,40		6,46
36″	40,37,12,57,26,45, 4,24,31,48		2,58,10,49,37	
		1,32,29, 7,32,35, 4, 3		6,46
38″	40,37,14,29,55,52,36,59,35,51		2,58,10,56,23	
		1,32,29, 4,34,24, 7,40		6,46
40″	40,37,16, 2,24,57,11,23,43,31		2,58,11, 3, 9	
		1,32,29, 1,36,13, 4,31		6,46
42″	40,37,17,34,53,58,47,36,48, 2		2,58,11, 9,55	
		1,32,28,58,38, 1,54,36		6,46
44″	40,37,19, 7,22,57,25,38,42,38		2,58,11,16,41	
		1,32,28,55,39,50,37,55		6,46
46″	40,37,20,39,51,53, 5,29,20,33		2,58,11,23,27	
		1,32,28,52,41,39,14,28		6,46
48″	40,37,22,12,20,45,47, 8,35, 1		2,58,11,30,13	
		1,32,28,49,43,27,44,15		6,46
50″	40,37,23,44,49,35,30,36,19,16		2,58,11,36,59	
		1,32,28,46,45,16, 7,16		6,46
52″	40,37,25,17,18,22,15,52,26,32		2,58,11,43,45	
		1,32,28,43,47, 4,23,31		6,46
54″	40,37,26,49,47, 6, 2,56,50, 3		2,58,11,50,31	
		1,32,28,40,48,52,33, 0		6,46
56″	40,37,28,22,15,46,51,49,23, 3		2,58,11,57,17	
		1,32,28,37,50,40,35,43		6,46
58″	40,37,29,54,44,24,42,29,58,46		2,58,12, 4, 3	
		1,32,28,34,52,28,31,40		
60″	40,37,31,27,12,59,34,58,30,26			
exact	40,37,31,27,12,59,34,58,52,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°37′ 0″	40,37,31,27,12,59,34,58,52,29			
		1,32,28,31,54,16,23, 9		
2″	40,37,32,59,41,31,29,15,15,38		2,58,12,17,25	
		1,32,28,28,56, 4, 5,44		6,46
4″	40,37,34,32,10, 0,25,19,21,22		2,58,12,24,11	
		1,32,28,25,57,51,41,33		6,46
6″	40,37,36, 4,38,26,23,11, 2,55		2,58,12,30,57	
		1,32,28,22,59,39,10,36		6,46
8″	40,37,37,37, 6,49,22,50,13,31		2,58,12,37,43	
		1,32,28,20, 1,26,32,53		6,46
10″	40,37,39, 9,35, 9,24,16,46,24		2,58,12,44,29	
		1,32,28,17, 3,13,48,24		6,46
12″	40,37,40,42, 3,26,27,30,34,48		2,58,12,51,15	
		1,32,28,14, 5, 0,57, 9		6,46
14″	40,37,42,14,31,40,32,31,31,57		2,58,12,58, 1	
		1,32,28,11, 6,47,59, 8		6,46
16″	40,37,43,46,59,51,39,19,31, 5		2,58,13, 4,47	
		1,32,28, 8, 8,34,54,21		6,46
18″	40,37,45,19,27,59,47,54,25,26		2,58,13,11,33	
		1,32,28, 5,10,21,42,48		6,46
20″	40,37,46,51,56, 4,58,16, 8,14		2,58,13,18,19	
		1,32,28, 2,12, 8,24,29		6,46
22″	40,37,48,24,24, 7,10,24,32,43		2,58,13,25, 5	
		1,32,27,59,13,54,59,24		6,46
24″	40,37,49,56,52, 6,24,19,32, 7		2,58,13,31,51	
		1,32,27,56,15,41,27,33		6,46
26″	40,37,51,29,20, 2,40, 0,59,40		2,58,13,38,37	
		1,32,27,53,17,27,48,56		6,46
28″	40,37,53, 1,47,55,57,28,48,36		2,58,13,45,23	
		1,32,27,50,19,14, 3,33		6,46
30″	40,37,54,34,15,46,16,42,52, 9		2,58,13,52, 9	
		1,32,27,47,21, 0,11,24		6,46
32″	40,37,56, 6,43,33,37,43, 3,33		2,58,13,58,55	
		1,32,27,44,22,46,12,29		6,46
34″	40,37,57,39,11,18, 0,29,16, 2		2,58,14, 5,41	
		1,32,27,41,24,32, 6,48		6,46
36″	40,37,59,11,38,59,25, 1,22,50		2,58,14,12,27	
		1,32,27,38,26,17,54,21		6,46
38″	40,38, 0,44, 6,37,51,19,17,11		2,58,14,19,13	
		1,32,27,35,28, 3,35, 8		6,46
40″	40,38, 2,16,34,13,19,22,52,19		2,58,14,25,59	
		1,32,27,32,29,49, 9, 9		6,46
42″	40,38, 3,49, 1,45,49,12, 1,28		2,58,14,32,45	
		1,32,27,29,31,34,36,24		6,46
44″	40,38, 5,21,29,15,20,46,37,52		2,58,14,39,31	
		1,32,27,26,33,19,56,53		6,46
46″	40,38, 6,53,56,41,54, 6,34,45		2,58,14,46,17	
		1,32,27,23,35, 5,10,36		6,46
48″	40,38, 8,26,24, 5,29,11,45,21		2,58,14,53, 3	
		1,32,27,20,36,50,17,33		6,46
50″	40,38, 9,58,51,26, 6, 2, 2,54		2,58,14,59,49	
		1,32,27,17,38,35,17,44		6,46
52″	40,38,11,31,18,43,44,37,20,38		2,58,15, 6,35	
		1,32,27,14,40,20,11, 9		6,46
54″	40,38,13, 3,45,58,24,57,31,47		2,58,15,13,21	
		1,32,27,11,42, 4,57,48		6,46
56″	40,38,14,36,13,10, 7, 2,29,35		2,58,15,20, 7	
		1,32,27, 8,43,49,37,41		6,46
58″	40,38,16, 8,40,18,50,52, 7,16		2,58,15,26,53	
		1,32,27, 5,45,34,10,48		
60″	40,38,17,41, 7,24,36,26,18, 4			
exact	40,38,17,41, 7,24,36,26,41,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°38′ 0″	40,38,17,41, 7,24,36,26,41,36			
		1,32,27, 2,47,18,39,50		
2″	40,38,19,13,34,27,23,45,21,26		2,58,15,40,13	
		1,32,26,59,49, 2,59,37		6,46
4″	40,38,20,46, 1,27,12,48,21, 3		2,58,15,46,59	
		1,32,26,56,50,47,12,38		6,46
6″	40,38,22,18,28,24, 3,35,33,41		2,58,15,53,45	
		1,32,26,53,52,31,18,53		6,46
8″	40,38,23,50,55,17,56, 6,52,34		2,58,16, 0,31	
		1,32,26,50,54,15,18,22		6,46
10″	40,38,25,23,22, 8,50,22,10,56		2,58,16, 7,17	
		1,32,26,47,55,59,11, 5		6,46
12″	40,38,26,55,48,56,46,21,22, 1		2,58,16,14, 3	
		1,32,26,44,57,42,57, 2		6,46
14″	40,38,28,28,15,41,44, 4,19, 3		2,58,16,20,49	
		1,32,26,41,59,26,36,13		6,46
16″	40,38,30, 0,42,23,43,30,55,16		2,58,16,27,35	
		1,32,26,39, 1,10, 8,38		6,46
18″	40,38,31,33, 9, 2,44,41, 3,54		2,58,16,34,21	
		1,32,26,36, 2,53,34,17		6,46
20″	40,38,33, 5,35,38,47,34,38,11		2,58,16,41, 7	
		1,32,26,33, 4,36,53,10		6,46
22″	40,38,34,38, 2,11,52,11,31,21		2,58,16,47,53	
		1,32,26,30, 6,20, 5,17		6,46
24″	40,38,36,10,28,41,58,31,36,38		2,58,16,54,39	
		1,32,26,27, 8, 3,10,38		6,46
26″	40,38,37,42,55, 9, 6,34,47,16		2,58,17, 1,25	
		1,32,26,24, 9,46, 9,13		6,46
28″	40,38,39,15,21,33,16,20,56,29		2,58,17, 8,11	
		1,32,26,21,11,29, 1, 2		6,46
30″	40,38,40,47,47,54,27,49,57,31		2,58,17,14,57	
		1,32,26,18,13,11,46, 5		6,46
32″	40,38,42,20,14,12,41, 1,43,36		2,58,17,21,43	
		1,32,26,15,14,54,24,22		6,46
34″	40,38,43,52,40,27,55,56, 7,58		2,58,17,28,29	
		1,32,26,12,16,36,55,53		6,46
36″	40,38,45,25, 6,40,12,33, 3,51		2,58,17,35,15	
		1,32,26, 9,18,19,20,38		6,46
38″	40,38,46,57,32,49,30,52,24,29		2,58,17,42, 1	
		1,32,26, 6,20, 1,38,37		6,46
40″	40,38,48,29,58,55,50,54, 3, 6		2,58,17,48,47	
		1,32,26, 3,21,43,49,50		6,46
42″	40,38,50, 2,24,59,12,37,52,56		2,58,17,55,33	
		1,32,26, 0,23,25,54,17		6,46
44″	40,38,51,34,50,59,36, 3,47,13		2,58,18, 2,19	
		1,32,25,57,25, 7,51,58		6,46
46″	40,38,53, 7,16,57, 1,11,39,11		2,58,18, 9, 5	
		1,32,25,54,26,49,42,53		6,46
48″	40,38,54,39,42,51,28, 1,22, 4		2,58,18,15,51	
		1,32,25,51,28,31,27, 2		6,46
50″	40,38,56,12, 8,42,56,32,49, 6		2,58,18,22,37	
		1,32,25,48,30,13, 4,25		6,46
52″	40,38,57,44,34,31,26,45,53,31		2,58,18,29,23	
		1,32,25,45,31,54,35, 2		6,46
54″	40,38,59,17, 0,16,58,40,28,33		2,58,18,36, 9	
		1,32,25,42,33,35,58,53		6,46
56″	40,39, 0,49,25,59,32,16,27,26		2,58,18,42,55	
		1,32,25,39,35,17,15,58		6,46
58″	40,39, 2,21,51,39, 7,33,43,24		2,58,18,49,41	
		1,32,25,36,36,58,26,17		
60″	40,39, 3,54,17,15,44,32, 9,41			
exact	40,39, 3,54,17,15,44,32,42,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°39′ 0″	40,39, 3,54,17,15,44,32,42,56			
		1,32,25,33,38,39,33,29		
2″	40,39, 5,26,42,49,23,12,16,25		2,58,19, 2,57	
		1,32,25,30,40,20,30,32		6,45
4″	40,39, 6,59, 8,20, 3,32,46,57		2,58,19, 9,42	
		1,32,25,27,42, 1,20,50		6,45
6″	40,39, 8,31,33,47,45,34, 7,47		2,58,19,16,27	
		1,32,25,24,43,42, 4,23		6,45
8″	40,39,10, 3,59,12,29,16,12,10		2,58,19,23,12	
		1,32,25,21,45,22,41,11		6,45
10″	40,39,11,36,24,34,14,38,53,21		2,58,19,29,57	
		1,32,25,18,47, 3,11,14		6,45
12″	40,39,13, 8,49,53, 1,42, 4,35		2,58,19,36,42	
		1,32,25,15,48,43,34,32		6,45
14″	40,39,14,41,15, 8,50,25,39, 7		2,58,19,43,27	
		1,32,25,12,50,23,51, 5		6,45
16″	40,39,16,13,40,21,40,49,30,12		2,58,19,50,12	
		1,32,25, 9,52, 4, 0,53		6,45
18″	40,39,17,46, 5,31,32,53,31, 5		2,58,19,56,57	
		1,32,25, 6,53,44, 3,56		6,45
20″	40,39,19,18,30,38,26,37,35, 1		2,58,20, 3,42	
		1,32,25, 3,55,24, 0,14		6,45
22″	40,39,20,50,55,42,22, 1,35,15		2,58,20,10,27	
		1,32,25, 0,57, 3,49,47		6,45
24″	40,39,22,23,20,43,19, 5,25, 2		2,58,20,17,12	
		1,32,24,57,58,43,32,35		6,45
26″	40,39,23,55,45,41,17,48,57,37		2,58,20,23,57	
		1,32,24,55, 0,23, 8,38		6,45
28″	40,39,25,28,10,36,18,12, 6,15		2,58,20,30,42	
		1,32,24,52, 2, 2,37,56		6,45
30″	40,39,27, 0,35,28,20,14,44,11		2,58,20,37,27	
		1,32,24,49, 3,42, 0,29		6,45
32″	40,39,28,33, 0,17,23,56,44,40		2,58,20,44,12	
		1,32,24,46, 5,21,16,17		6,45
34″	40,39,30, 5,25, 3,29,18, 0,57		2,58,20,50,57	
		1,32,24,43, 7, 0,25,20		6,45
36″	40,39,31,37,49,46,36,18,26,17		2,58,20,57,42	
		1,32,24,40, 8,39,27,38		6,45
38″	40,39,33,10,14,26,44,57,53,55		2,58,21, 4,27	
		1,32,24,37,10,18,23,11		6,45
40″	40,39,34,42,39, 3,55,16,17, 6		2,58,21,11,12	
		1,32,24,34,11,57,11,59		6,45
42″	40,39,36,15, 3,38, 7,13,29, 5		2,58,21,17,57	
		1,32,24,31,13,35,54, 2		6,45
44″	40,39,37,47,28, 9,20,49,23, 7		2,58,21,24,42	
		1,32,24,28,15,14,29,20		6,45
46″	40,39,39,19,52,37,36, 3,52,27		2,58,21,31,27	
		1,32,24,25,16,52,57,53		6,45
48″	40,39,40,52,17, 2,52,56,50,20		2,58,21,38,12	
		1,32,24,22,18,31,19,41		6,45
50″	40,39,42,24,41,25,11,28,10, 1		2,58,21,44,57	
		1,32,24,19,20, 9,34,44		6,45
52″	40,39,43,57, 5,44,31,37,44,45		2,58,21,51,42	
		1,32,24,16,21,47,43, 2		6,45
54″	40,39,45,29,30, 0,53,25,27,47		2,58,21,58,27	
		1,32,24,13,23,25,44,35		6,45
56″	40,39,47, 1,54,14,16,51,12,22		2,58,22, 5,12	
		1,32,24,10,25, 3,39,23		6,45
58″	40,39,48,34,18,24,41,54,51,45		2,58,22,11,57	
		1,32,24, 7,26,41,27,26		
60″	40,39,50, 6,42,32, 8,36,19,11			
exact	40,39,50, 6,42,32, 8,35,49,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°40′ 0″	40,39,50, 6,42,32, 8,35,49,37			
		1,32,24, 4,28,19, 5,44		
2″	40,39,51,39, 6,36,36,54,55,21		2,58,22,25,38	
		1,32,24, 1,29,56,40, 6		6,45
4″	40,39,53,11,30,38, 6,51,35,27		2,58,22,32,23	
		1,32,23,58,31,34, 7,43		6,45
6″	40,39,54,43,54,36,38,25,43,10		2,58,22,39, 8	
		1,32,23,55,33,11,28,35		6,45
8″	40,39,56,16,18,32,11,37,11,45		2,58,22,45,53	
		1,32,23,52,34,48,42,42		6,45
10″	40,39,57,48,42,24,46,25,54,27		2,58,22,52,38	
		1,32,23,49,36,25,50, 4		6,45
12″	40,39,59,21, 6,14,22,51,44,31		2,58,22,59,23	
		1,32,23,46,38, 2,50,41		6,45
14″	40,40, 0,53,30, 1, 0,54,35,12		2,58,23, 6, 8	
		1,32,23,43,39,39,44,33		6,45
16″	40,40, 2,25,53,44,40,34,19,45		2,58,23,12,53	
		1,32,23,40,41,16,31,40		6,45
18″	40,40, 3,58,17,25,21,50,51,25		2,58,23,19,38	
		1,32,23,37,42,53,12, 2		6,45
20″	40,40, 5,30,41, 3, 4,44, 3,27		2,58,23,26,23	
		1,32,23,34,44,29,45,39		6,45
22″	40,40, 7, 3, 4,37,49,13,49, 6		2,58,23,33, 8	
		1,32,23,31,46, 6,12,31		6,45
24″	40,40, 8,35,28, 9,35,20, 1,37		2,58,23,39,53	
		1,32,23,28,47,42,32,38		6,45
26″	40,40,10, 7,51,38,23, 2,34,15		2,58,23,46,38	
		1,32,23,25,49,18,46, 0		6,45
28″	40,40,11,40,15, 4,12,21,20,15		2,58,23,53,23	
		1,32,23,22,50,54,52,37		6,45
30″	40,40,13,12,38,27, 3,16,12,52		2,58,24, 0, 8	
		1,32,23,19,52,30,52,29		6,45
32″	40,40,14,45, 1,46,55,47, 5,21		2,58,24, 6,53	
		1,32,23,16,54, 6,45,36		6,45
34″	40,40,16,17,25, 3,49,53,50,57		2,58,24,13,38	
		1,32,23,13,55,42,31,58		6,45
36″	40,40,17,49,48,17,45,36,22,55		2,58,24,20,23	
		1,32,23,10,57,18,11,35		6,45
38″	40,40,19,22,11,28,42,54,34,30		2,58,24,27, 8	
		1,32,23, 7,58,53,44,27		6,45
40″	40,40,20,54,34,36,41,48,18,57		2,58,24,33,53	
		1,32,23, 5, 0,29,10,34		6,45
42″	40,40,22,26,57,41,42,17,29,31		2,58,24,40,38	
		1,32,23, 2, 2, 4,29,56		6,45
44″	40,40,23,59,20,43,44,21,59,27		2,58,24,47,23	
		1,32,22,59, 3,39,42,33		6,45
46″	40,40,25,31,43,42,48, 1,42, 0		2,58,24,54, 8	
		1,32,22,56, 5,14,48,25		6,45
48″	40,40,27, 4, 6,38,53,16,30,25		2,58,25, 0,53	
		1,32,22,53, 6,49,47,32		6,45
50″	40,40,28,36,29,32, 0, 6,17,57		2,58,25, 7,38	
		1,32,22,50, 8,24,39,54		6,45
52″	40,40,30, 8,52,22, 8,30,57,51		2,58,25,14,23	
		1,32,22,47, 9,59,25,31		6,45
54″	40,40,31,41,15, 9,18,30,23,22		2,58,25,21, 8	
		1,32,22,44,11,34, 4,23		6,45
56″	40,40,33,13,37,53,30, 4,27,45		2,58,25,27,53	
		1,32,22,41,13, 8,36,30		6,45
58″	40,40,34,46, 0,34,43,13, 4,15		2,58,25,34,38	
		1,32,22,38,14,43, 1,52		
60″	40,40,36,18,23,12,57,56, 6, 7			
exact	40,40,36,18,23,12,57,55,43,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°41′ 0″	40,40,36,18,23,12,57,55,43,38			
		1,32,22,35,16,17,18,15		
2″	40,40,37,50,45,48,14,13, 1,53		2,58,25,48,16	
		1,32,22,32,17,51,29,59		6,45
4″	40,40,39,23, 8,20,32, 4,31,52		2,58,25,55, 1	
		1,32,22,29,19,25,34,58		6,45
6″	40,40,40,55,30,49,51,30, 6,50		2,58,26, 1,46	
		1,32,22,26,20,59,33,12		6,45
8″	40,40,42,27,53,16,12,29,40, 2		2,58,26, 8,31	
		1,32,22,23,22,33,24,41		6,45
10″	40,40,44, 0,15,39,35, 3, 4,43		2,58,26,15,16	
		1,32,22,20,24, 7, 9,25		6,45
12″	40,40,45,32,37,59,59,10,14, 8		2,58,26,22, 1	
		1,32,22,17,25,40,47,24		6,45
14″	40,40,47, 5, 0,17,24,51, 1,32		2,58,26,28,46	
		1,32,22,14,27,14,18,38		6,45
16″	40,40,48,37,22,31,52, 5,20,10		2,58,26,35,31	
		1,32,22,11,28,47,43, 7		6,45
18″	40,40,50, 9,44,43,20,53, 3,17		2,58,26,42,16	
		1,32,22, 8,30,21, 0,51		6,45
20″	40,40,51,42, 6,51,51,14, 4, 8		2,58,26,49, 1	
		1,32,22, 5,31,54,11,50		6,45
22″	40,40,53,14,28,57,23, 8,15,58		2,58,26,55,46	
		1,32,22, 2,33,27,16, 4		6,45
24″	40,40,54,46,50,59,56,35,32, 2		2,58,27, 2,31	
		1,32,21,59,35, 0,13,33		6,45
26″	40,40,56,19,12,59,31,35,45,35		2,58,27, 9,16	
		1,32,21,56,36,33, 4,17		6,45
28″	40,40,57,51,34,56, 8, 8,49,52		2,58,27,16, 1	
		1,32,21,53,38, 5,48,16		6,45
30″	40,40,59,23,56,49,46,14,38, 8		2,58,27,22,46	
		1,32,21,50,39,38,25,30		6,45
32″	40,41, 0,56,18,40,25,53, 3,38		2,58,27,29,31	
		1,32,21,47,41,10,55,59		6,45
34″	40,41, 2,28,40,28, 7, 3,59,37		2,58,27,36,16	
		1,32,21,44,42,43,19,43		6,45
36″	40,41, 4, 1, 2,12,49,47,19,20		2,58,27,43, 1	
		1,32,21,41,44,15,36,42		6,45
38″	40,41, 5,33,23,54,34, 2,56, 2		2,58,27,49,46	
		1,32,21,38,45,47,46,56		6,45
40″	40,41, 7, 5,45,33,19,50,42,58		2,58,27,56,31	
		1,32,21,35,47,19,50,25		6,45
42″	40,41, 8,38, 7, 9, 7,10,33,23		2,58,28, 3,16	
		1,32,21,32,48,51,47, 9		6,45
44″	40,41,10,10,28,41,56, 2,20,32		2,58,28,10, 1	
		1,32,21,29,50,23,37, 8		6,45
46″	40,41,11,42,50,11,46,25,57,40		2,58,28,16,46	
		1,32,21,26,51,55,20,22		6,45
48″	40,41,13,15,11,38,38,21,18, 2		2,58,28,23,31	
		1,32,21,23,53,26,56,51		6,45
50″	40,41,14,47,33, 2,31,48,14,53		2,58,28,30,16	
		1,32,21,20,54,58,26,35		6,45
52″	40,41,16,19,54,23,26,46,41,28		2,58,28,37, 1	
		1,32,21,17,56,29,49,34		6,45
54″	40,41,17,52,15,41,23,16,31, 2		2,58,28,43,46	
		1,32,21,14,58, 1, 5,48		6,45
56″	40,41,19,24,36,56,21,17,36,50		2,58,28,50,31	
		1,32,21,11,59,32,15,17		6,45
58″	40,41,20,56,58, 8,20,49,52, 7		2,58,28,57,16	
		1,32,21, 9, 1, 3,18, 1		
60″	40,41,22,29,19,17,21,53,10, 8			
exact	40,41,22,29,19,17,21,52,55,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°42′ 0″	40,41,22,29,19,17,21,52,55,53			
		1,32,21, 6, 2,34,12,37		
2″	40,41,24, 1,40,23,24,27, 8,30		2,58,29,10,51	
		1,32,21, 3, 4, 5, 1,46		6,45
4″	40,41,25,34, 1,26,28,32,10,16		2,58,29,17,36	
		1,32,21, 0, 5,35,44,10		6,45
6″	40,41,27, 6,22,26,34, 7,54,26		2,58,29,24,21	
		1,32,20,57, 7, 6,19,49		6,45
8″	40,41,28,38,43,23,41,14,14,15		2,58,29,31, 6	
		1,32,20,54, 8,36,48,43		6,45
10″	40,41,30,11, 4,17,49,51, 2,58		2,58,29,37,51	
		1,32,20,51,10, 7,10,52		6,45
12″	40,41,31,43,25, 8,59,58,13,50		2,58,29,44,36	
		1,32,20,48,11,37,26,16		6,45
14″	40,41,33,15,45,57,11,35,40, 6		2,58,29,51,21	
		1,32,20,45,13, 7,34,55		6,45
16″	40,41,34,48, 6,42,24,43,15, 1		2,58,29,58, 6	
		1,32,20,42,14,37,36,49		6,45
18″	40,41,36,20,27,24,39,20,51,50		2,58,30, 4,51	
		1,32,20,39,16, 7,31,58		6,45
20″	40,41,37,52,48, 3,55,28,23,48		2,58,30,11,36	
		1,32,20,36,17,37,20,22		6,45
22″	40,41,39,25, 8,40,13, 5,44,10		2,58,30,18,21	
		1,32,20,33,19, 7, 2, 1		6,45
24″	40,41,40,57,29,13,32,12,46,11		2,58,30,25, 6	
		1,32,20,30,20,36,36,55		6,45
26″	40,41,42,29,49,43,52,49,23, 6		2,58,30,31,51	
		1,32,20,27,22, 6, 5, 4		6,45
28″	40,41,44, 2,10,11,14,55,28,10		2,58,30,38,36	
		1,32,20,24,23,35,26,28		6,45
30″	40,41,45,34,30,35,38,30,54,38		2,58,30,45,21	
		1,32,20,21,25, 4,41, 7		6,45
32″	40,41,47, 6,50,57, 3,35,35,45		2,58,30,52, 6	
		1,32,20,18,26,33,49, 1		6,45
34″	40,41,48,39,11,15,30, 9,24,46		2,58,30,58,51	
		1,32,20,15,28, 2,50,10		6,45
36″	40,41,50,11,31,30,58,12,14,56		2,58,31, 5,36	
		1,32,20,12,29,31,44,34		6,45
38″	40,41,51,43,51,43,27,43,59,30		2,58,31,12,21	
		1,32,20, 9,31, 0,32,13		6,45
40″	40,41,53,16,11,52,58,44,31,43		2,58,31,19, 6	
		1,32,20, 6,32,29,13, 7		6,45
42″	40,41,54,48,31,59,31,13,44,50		2,58,31,25,51	
		1,32,20, 3,33,57,47,16		6,45
44″	40,41,56,20,52, 3, 5,11,32, 6		2,58,31,32,36	
		1,32,20, 0,35,26,14,40		6,45
46″	40,41,57,53,12, 3,40,37,46,46		2,58,31,39,21	
		1,32,19,57,36,54,35,19		6,45
48″	40,41,59,25,32, 1,17,32,22, 5		2,58,31,46, 6	
		1,32,19,54,38,22,49,13		6,45
50″	40,42, 0,57,51,55,55,55,11,18		2,58,31,52,51	
		1,32,19,51,39,50,56,22		6,45
52″	40,42, 2,30,11,47,35,46, 7,40		2,58,31,59,36	
		1,32,19,48,41,18,56,46		6,45
54″	40,42, 4, 2,31,36,17, 5, 4,26		2,58,32, 6,21	
		1,32,19,45,42,46,50,25		6,45
56″	40,42, 5,34,51,21,59,51,54,51		2,58,32,13, 6	
		1,32,19,42,44,14,37,19		6,45
58″	40,42, 7, 7,11, 4,44, 6,32,10		2,58,32,19,51	
		1,32,19,39,45,42,17,28		
60″	40,42, 8,39,30,44,29,48,49,38			
exact	40,42, 8,39,30,44,29,48,46,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°43′ 0″	40,42, 8,39,30,44,29,48,46,11			
		1,32,19,36,47, 9,50,30		
2″	40,42,10,11,50,21,16,58,36,41		2,58,32,33,22	
		1,32,19,33,48,37,17, 8		6,45
4″	40,42,11,44, 9,55, 5,35,53,49		2,58,32,40, 7	
		1,32,19,30,50, 4,37, 1		6,45
6″	40,42,13,16,29,25,55,40,30,50		2,58,32,46,52	
		1,32,19,27,51,31,50, 9		6,45
8″	40,42,14,48,48,53,47,12,20,59		2,58,32,53,37	
		1,32,19,24,52,58,56,32		6,45
10″	40,42,16,21, 8,18,40,11,17,31		2,58,33, 0,22	
		1,32,19,21,54,25,56,10		6,45
12″	40,42,17,53,27,40,34,37,13,41		2,58,33, 7, 7	
		1,32,19,18,55,52,49, 3		6,45
14″	40,42,19,25,46,59,30,30, 2,44		2,58,33,13,52	
		1,32,19,15,57,19,35,11		6,45
16″	40,42,20,58, 6,15,27,49,37,55		2,58,33,20,37	
		1,32,19,12,58,46,14,34		6,45
18″	40,42,22,30,25,28,26,35,52,29		2,58,33,27,22	
		1,32,19,10, 0,12,47,12		6,45
20″	40,42,24, 2,44,38,26,48,39,41		2,58,33,34, 7	
		1,32,19, 7, 1,39,13, 5		6,45
22″	40,42,25,35, 3,45,28,27,52,46		2,58,33,40,52	
		1,32,19, 4, 3, 5,32,13		6,45
24″	40,42,27, 7,22,49,31,33,24,59		2,58,33,47,37	
		1,32,19, 1, 4,31,44,36		6,45
26″	40,42,28,39,41,50,36, 5, 9,35		2,58,33,54,22	
		1,32,18,58, 5,57,50,14		6,45
28″	40,42,30,12, 0,48,42, 2,59,49		2,58,34, 1, 7	
		1,32,18,55, 7,23,49, 7		6,45
30″	40,42,31,44,19,43,49,26,48,56		2,58,34, 7,52	
		1,32,18,52, 8,49,41,15		6,45
32″	40,42,33,16,38,35,58,16,30,11		2,58,34,14,37	
		1,32,18,49,10,15,26,38		6,45
34″	40,42,34,48,57,25, 8,31,56,49		2,58,34,21,22	
		1,32,18,46,11,41, 5,16		6,45
36″	40,42,36,21,16,11,20,13, 2, 5		2,58,34,28, 7	
		1,32,18,43,13, 6,37, 9		6,45
38″	40,42,37,53,34,54,33,19,39,14		2,58,34,34,52	
		1,32,18,40,14,32, 2,17		6,45
40″	40,42,39,25,53,34,47,51,41,31		2,58,34,41,37	
		1,32,18,37,15,57,20,40		6,45
42″	40,42,40,58,12,12, 3,49, 2,11		2,58,34,48,22	
		1,32,18,34,17,22,32,18		6,45
44″	40,42,42,30,30,46,21,11,34,29		2,58,34,55, 7	
		1,32,18,31,18,47,37,11		6,45
46″	40,42,44, 2,49,17,39,59,11,40		2,58,35, 1,52	
		1,32,18,28,20,12,35,19		6,45
48″	40,42,45,35, 7,46, 0,11,46,59		2,58,35, 8,37	
		1,32,18,25,21,37,26,42		6,45
50″	40,42,47, 7,26,11,21,49,13,41		2,58,35,15,22	
		1,32,18,22,23, 2,11,20		6,45
52″	40,42,48,39,44,33,44,51,25, 1		2,58,35,22, 7	
		1,32,18,19,24,26,49,13		6,45
54″	40,42,50,12, 2,53, 9,18,14,14		2,58,35,28,52	
		1,32,18,16,25,51,20,21		6,45
56″	40,42,51,44,21, 9,35, 9,34,35		2,58,35,35,37	
		1,32,18,13,27,15,44,44		6,45
58″	40,42,53,16,39,23, 2,25,19,19		2,58,35,42,22	
		1,32,18,10,28,40, 2,22		
60″	40,42,54,48,57,33,31, 5,21,41			
exact	40,42,54,48,57,33,31, 5,23,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°44′ 0″	40,42,54,48,57,33,31, 5,23,16			
		1,32,18, 7,30, 4,13,31		
2″	40,42,56,21,15,41, 1, 9,36,47		2,58,35,55,50	
		1,32,18, 4,31,28,17,41		6,45
4″	40,42,57,53,33,45,32,37,54,28		2,58,36, 2,35	
		1,32,18, 1,32,52,15, 6		6,45
6″	40,42,59,25,51,47, 5,30, 9,34		2,58,36, 9,20	
		1,32,17,58,34,16, 5,46		6,45
8″	40,43, 0,58, 9,45,39,46,15,20		2,58,36,16, 5	
		1,32,17,55,35,39,49,41		6,45
10″	40,43, 2,30,27,41,15,26, 5, 1		2,58,36,22,50	
		1,32,17,52,37, 3,26,51		6,45
12″	40,43, 4, 2,45,33,52,29,31,52		2,58,36,29,35	
		1,32,17,49,38,26,57,16		6,45
14″	40,43, 5,35, 3,23,30,56,29, 8		2,58,36,36,20	
		1,32,17,46,39,50,20,56		6,45
16″	40,43, 7, 7,21,10,10,46,50, 4		2,58,36,43, 5	
		1,32,17,43,41,13,37,51		6,45
18″	40,43, 8,39,38,53,52, 0,27,55		2,58,36,49,50	
		1,32,17,40,42,36,48, 1		6,45
20″	40,43,10,11,56,34,34,37,15,56		2,58,36,56,35	
		1,32,17,37,43,59,51,26		6,45
22″	40,43,11,44,14,12,18,37, 7,22		2,58,37, 3,20	
		1,32,17,34,45,22,48, 6		6,45
24″	40,43,13,16,31,47, 3,59,55,28		2,58,37,10, 5	
		1,32,17,31,46,45,38, 1		6,45
26″	40,43,14,48,49,18,50,45,33,29		2,58,37,16,50	
		1,32,17,28,48, 8,21,11		6,45
28″	40,43,16,21, 6,47,38,53,54,40		2,58,37,23,35	
		1,32,17,25,49,30,57,36		6,45
30″	40,43,17,53,24,13,28,24,52,16		2,58,37,30,20	
		1,32,17,22,50,53,27,16		6,45
32″	40,43,19,25,41,36,19,18,19,32		2,58,37,37, 5	
		1,32,17,19,52,15,50,11		6,45
34″	40,43,20,57,58,56,11,34, 9,43		2,58,37,43,50	
		1,32,17,16,53,38, 6,21		6,45
36″	40,43,22,30,16,13, 5,12,16, 4		2,58,37,50,35	
		1,32,17,13,55, 0,15,46		6,45
38″	40,43,24, 2,33,27, 0,12,31,50		2,58,37,57,20	
		1,32,17,10,56,22,18,26		6,45
40″	40,43,25,34,50,37,56,34,50,16		2,58,38, 4, 5	
		1,32,17, 7,57,44,14,21		6,45
42″	40,43,27, 7, 7,45,54,19, 4,37		2,58,38,10,50	
		1,32,17, 4,59, 6, 3,31		6,45
44″	40,43,28,39,24,50,53,25, 8, 8		2,58,38,17,35	
		1,32,17, 2, 0,27,45,56		6,45
46″	40,43,30,11,41,52,53,52,54, 4		2,58,38,24,20	
		1,32,16,59, 1,49,21,36		6,45
48″	40,43,31,43,58,51,55,42,15,40		2,58,38,31, 5	
		1,32,16,56, 3,10,50,31		6,45
50″	40,43,33,16,15,47,58,53, 6,11		2,58,38,37,50	
		1,32,16,53, 4,32,12,41		6,45
52″	40,43,34,48,32,41, 3,25,18,52		2,58,38,44,35	
		1,32,16,50, 5,53,28, 6		6,45
54″	40,43,36,20,49,31, 9,18,46,58		2,58,38,51,20	
		1,32,16,47, 7,14,36,46		6,45
56″	40,43,37,53, 6,18,16,33,23,44		2,58,38,58, 5	
		1,32,16,44, 8,35,38,41		6,45
58″	40,43,39,25,23, 2,25, 9, 2,25		2,58,39, 4,50	
		1,32,16,41, 9,56,33,51		
60″	40,43,40,57,39,43,35, 5,36,16			
exact	40,43,40,57,39,43,35, 5,44,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°45′ 0″	40,43,40,57,39,43,35, 5,44,51			
		1,32,16,38,11,17,23,18		
2″	40,43,42,29,56,21,46,23, 8, 9		2,58,39,18,15	
		1,32,16,35,12,38, 5, 3		6,45
4″	40,43,44, 2,12,56,59, 1,13,12		2,58,39,25, 0	
		1,32,16,32,13,58,40, 3		6,45
6″	40,43,45,34,29,29,12,59,53,15		2,58,39,31,45	
		1,32,16,29,15,19, 8,18		6,45
8″	40,43,47, 6,45,58,28,19, 1,33		2,58,39,38,30	
		1,32,16,26,16,39,29,48		6,45
10″	40,43,48,39, 2,24,44,58,31,21		2,58,39,45,15	
		1,32,16,23,17,59,44,33		6,45
12″	40,43,50,11,18,48, 2,58,15,54		2,58,39,52, 0	
		1,32,16,20,19,19,52,33		6,45
14″	40,43,51,43,35, 8,22,18, 8,27		2,58,39,58,45	
		1,32,16,17,20,39,53,48		6,45
16″	40,43,53,15,51,25,42,58, 2,15		2,58,40, 5,30	
		1,32,16,14,21,59,48,18		6,45
18″	40,43,54,48, 7,40, 4,57,50,33		2,58,40,12,15	
		1,32,16,11,23,19,36, 3		6,45
20″	40,43,56,20,23,51,28,17,26,36		2,58,40,19, 0	
		1,32,16, 8,24,39,17, 3		6,45
22″	40,43,57,52,39,59,52,56,43,39		2,58,40,25,45	
		1,32,16, 5,25,58,51,18		6,45
24″	40,43,59,24,56, 5,18,55,34,57		2,58,40,32,30	
		1,32,16, 2,27,18,18,48		6,45
26″	40,44, 0,57,12, 7,46,13,53,45		2,58,40,39,15	
		1,32,15,59,28,37,39,33		6,45
28″	40,44, 2,29,28, 7,14,51,33,18		2,58,40,46, 0	
		1,32,15,56,29,56,53,33		6,45
30″	40,44, 4, 1,44, 3,44,48,26,51		2,58,40,52,45	
		1,32,15,53,31,16, 0,48		6,45
32″	40,44, 5,33,59,57,16, 4,27,39		2,58,40,59,30	
		1,32,15,50,32,35, 1,18		6,45
34″	40,44, 7, 6,15,47,48,39,28,57		2,58,41, 6,15	
		1,32,15,47,33,53,55, 3		6,45
36″	40,44, 8,38,31,35,22,33,24, 0		2,58,41,13, 0	
		1,32,15,44,35,12,42, 3		6,45
38″	40,44,10,10,47,19,57,46, 6, 3		2,58,41,19,45	
		1,32,15,41,36,31,22,18		6,45
40″	40,44,11,43, 3, 1,34,17,28,21		2,58,41,26,30	
		1,32,15,38,37,49,55,48		6,45
42″	40,44,13,15,18,40,12, 7,24, 9		2,58,41,33,15	
		1,32,15,35,39, 8,22,33		6,45
44″	40,44,14,47,34,15,51,15,46,42		2,58,41,40, 0	
		1,32,15,32,40,26,42,33		6,45
46″	40,44,16,19,49,48,31,42,29,15		2,58,41,46,45	
		1,32,15,29,41,44,55,48		6,45
48″	40,44,17,52, 5,18,13,27,25, 3		2,58,41,53,30	
		1,32,15,26,43, 3, 2,18		6,45
50″	40,44,19,24,20,44,56,30,27,21		2,58,42, 0,15	
		1,32,15,23,44,21, 2, 3		6,45
52″	40,44,20,56,36, 8,40,51,29,24		2,58,42, 7, 0	
		1,32,15,20,45,38,55, 3		6,45
54″	40,44,22,28,51,29,26,30,24,27		2,58,42,13,45	
		1,32,15,17,46,56,41,18		6,45
56″	40,44,24, 1, 6,47,13,27, 5,45		2,58,42,20,30	
		1,32,15,14,48,14,20,48		6,45
58″	40,44,25,33,22, 2, 1,41,26,33		2,58,42,27,15	
		1,32,15,11,49,31,53,33		
60″	40,44,27, 5,37,13,51,13,20, 6			
exact	40,44,27, 5,37,13,51,13,37,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°46′ 0″	40,44,27, 5,37,13,51,13,37,36	1,32,15, 8,50,49,21,29		
2″	40,44,28,37,52,22,42, 2,59, 5	1,32,15, 5,52, 6,40,53	2,58,42,40,36	6,45
4″	40,44,30,10, 7,28,34, 9,39,58	1,32,15, 2,53,23,53,32	2,58,42,47,21	6,45
6″	40,44,31,42,22,31,27,33,33,30	1,32,14,59,54,40,59,26	2,58,42,54, 6	6,45
8″	40,44,33,14,37,31,22,14,32,56	1,32,14,56,55,57,58,35	2,58,43, 0,51	6,45
10″	40,44,34,46,52,28,18,12,31,31	1,32,14,53,57,14,50,59	2,58,43, 7,36	6,45
12″	40,44,36,19, 7,22,15,27,22,30	1,32,14,50,58,31,36,38	2,58,43,14,21	6,45
14″	40,44,37,51,22,13,13,58,59, 8	1,32,14,47,59,48,15,32	2,58,43,21, 6	6,45
16″	40,44,39,23,37, 1,13,47,14,40	1,32,14,45, 1, 4,47,41	2,58,43,27,51	6,45
18″	40,44,40,55,51,46,14,52, 2,21	1,32,14,42, 2,21,13, 5	2,58,43,34,36	6,45
20″	40,44,42,28, 6,28,17,13,15,26	1,32,14,39, 3,37,31,44	2,58,43,41,21	6,45
22″	40,44,44, 0,21, 7,20,50,47,10	1,32,14,36, 4,53,43,38	2,58,43,48, 6	6,45
24″	40,44,45,32,35,43,25,44,30,48	1,32,14,33, 6, 9,48,47	2,58,43,54,51	6,45
26″	40,44,47, 4,50,16,31,54,19,35	1,32,14,30, 7,25,47,11	2,58,44, 1,36	6,45
28″	40,44,48,37, 4,46,39,20, 6,46	1,32,14,27, 8,41,38,50	2,58,44, 8,21	6,45
30″	40,44,50, 9,19,13,48, 1,45,36	1,32,14,24, 9,57,23,44	2,58,44,15, 6	6,45
32″	40,44,51,41,33,37,57,59, 9,20	1,32,14,21,11,13, 1,53	2,58,44,21,51	6,45
34″	40,44,53,13,47,59, 9,12,11,13	1,32,14,18,12,28,33,17	2,58,44,28,36	6,45
36″	40,44,54,46, 2,17,21,40,44,30	1,32,14,15,13,43,57,56	2,58,44,35,21	6,45
38″	40,44,56,18,16,32,35,24,42,26	1,32,14,12,14,59,15,50	2,58,44,42, 6	6,45
40″	40,44,57,50,30,44,50,23,58,16	1,32,14, 9,16,14,26,59	2,58,44,48,51	6,45
42″	40,44,59,22,44,54, 6,38,25,15	1,32,14, 6,17,29,31,23	2,58,44,55,36	6,45
44″	40,45, 0,54,59, 0,24, 7,56,38	1,32,14, 3,18,44,29, 2	2,58,45, 2,21	6,45
46″	40,45, 2,27,13, 3,42,52,25,40	1,32,14, 0,19,59,19,56	2,58,45, 9, 6	6,45
48″	40,45, 3,59,27, 4, 2,51,45,36	1,32,13,57,21,14, 4, 5	2,58,45,15,51	6,45
50″	40,45, 5,31,41, 1,24, 5,49,41	1,32,13,54,22,28,41,29	2,58,45,22,36	6,45
52″	40,45, 7, 3,54,55,46,34,31,10	1,32,13,51,23,43,12, 8	2,58,45,29,21	6,45
54″	40,45, 8,36, 8,47,10,17,43,18	1,32,13,48,24,57,36, 2	2,58,45,36, 6	6,45
56″	40,45,10, 8,22,35,35,15,19,20	1,32,13,45,26,11,53,11	2,58,45,42,51	6,45
58″	40,45,11,40,36,21, 1,27,12,31	1,32,13,42,27,26, 3,35	2,58,45,49,36	
60″	40,45,13,12,50, 3,28,53,16, 6			
exact	40,45,13,12,50, 3,28,53,37, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°47′ 0″	40,45,13,12,50, 3,28,53,37, 7			
		1,32,13,39,28,40, 9,42		
2″	40,45,14,45, 3,42,57,33,46,49		2,58,46, 2,55	
		1,32,13,36,29,54, 6,47		6,45
4″	40,45,16,17,17,19,27,27,53,36		2,58,46, 9,40	
		1,32,13,33,31, 7,57, 7		6,45
6″	40,45,17,49,30,52,58,35,50,43		2,58,46,16,25	
		1,32,13,30,32,21,40,42		6,45
8″	40,45,19,21,44,23,30,57,31,25		2,58,46,23,10	
		1,32,13,27,33,35,17,32		6,45
10″	40,45,20,53,57,51, 4,32,48,57		2,58,46,29,55	
		1,32,13,24,34,48,47,37		6,45
12″	40,45,22,26,11,15,39,21,36,34		2,58,46,36,40	
		1,32,13,21,36, 2,10,57		6,45
14″	40,45,23,58,24,37,15,23,47,31		2,58,46,43,25	
		1,32,13,18,37,15,27,32		6,45
16″	40,45,25,30,37,55,52,39,15, 3		2,58,46,50,10	
		1,32,13,15,38,28,37,22		6,45
18″	40,45,27, 2,51,11,31, 7,52,25		2,58,46,56,55	
		1,32,13,12,39,41,40,27		6,45
20″	40,45,28,35, 4,24,10,49,32,52		2,58,47, 3,40	
		1,32,13, 9,40,54,36,47		6,45
22″	40,45,30, 7,17,33,51,44, 9,39		2,58,47,10,25	
		1,32,13, 6,42, 7,26,22		6,45
24″	40,45,31,39,30,40,33,51,36, 1		2,58,47,17,10	
		1,32,13, 3,43,20, 9,12		6,45
26″	40,45,33,11,43,44,17,11,45,13		2,58,47,23,55	
		1,32,13, 0,44,32,45,17		6,45
28″	40,45,34,43,56,45, 1,44,30,30		2,58,47,30,40	
		1,32,12,57,45,45,14,37		6,45
30″	40,45,36,16, 9,42,47,29,45, 7		2,58,47,37,25	
		1,32,12,54,46,57,37,12		6,45
32″	40,45,37,48,22,37,34,27,22,19		2,58,47,44,10	
		1,32,12,51,48, 9,53, 2		6,45
34″	40,45,39,20,35,29,22,37,15,21		2,58,47,50,55	
		1,32,12,48,49,22, 2, 7		6,45
36″	40,45,40,52,48,18,11,59,17,28		2,58,47,57,40	
		1,32,12,45,50,34, 4,27		6,45
38″	40,45,42,25, 1, 4, 2,33,21,55		2,58,48, 4,25	
		1,32,12,42,51,46, 0, 2		6,45
40″	40,45,43,57,13,46,54,19,21,57		2,58,48,11,10	
		1,32,12,39,52,57,48,52		6,45
42″	40,45,45,29,26,26,47,17,10,49		2,58,48,17,55	
		1,32,12,36,54, 9,30,57		6,45
44″	40,45,47, 1,39, 3,41,26,41,46		2,58,48,24,40	
		1,32,12,33,55,21, 6,17		6,45
46″	40,45,48,33,51,37,36,47,48, 3		2,58,48,31,25	
		1,32,12,30,56,32,34,52		6,45
48″	40,45,50, 6, 4, 8,33,20,22,55		2,58,48,38,10	
		1,32,12,27,57,43,56,42		6,45
50″	40,45,51,38,16,36,31, 4,19,37		2,58,48,44,55	
		1,32,12,24,58,55,11,47		6,45
52″	40,45,53,10,29, 1,29,59,31,24		2,58,48,51,40	
		1,32,12,22, 0, 6,20, 7		6,45
54″	40,45,54,42,41,23,30, 5,51,31		2,58,48,58,25	
		1,32,12,19, 1,17,21,42		6,45
56″	40,45,56,14,53,42,31,23,13,13		2,58,49, 5,10	
		1,32,12,16, 2,28,16,32		6,45
58″	40,45,57,47, 5,58,33,51,29,45		2,58,49,11,55	
		1,32,12,13, 3,39, 4,37		
60″	40,45,59,19,18,11,37,30,34,22			
exact	40,45,59,19,18,11,37,31, 8, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°48′ 0″	40,45,59,19,18,11,37,31, 8, 4			
		1,32,12,10, 4,49,49,34		
2″	40,46, 0,51,30,21,42,20,57,38		2,58,49,25,10	
		1,32,12, 7, 6, 0,24,24		6,44
4″	40,46, 2,23,42,28,48,21,22, 2		2,58,49,31,54	
		1,32,12, 4, 7,10,52,30		6,44
6″	40,46, 3,55,54,32,55,32,14,32		2,58,49,38,38	
		1,32,12, 1, 8,21,13,52		6,44
8″	40,46, 5,28, 6,34, 3,53,28,24		2,58,49,45,22	
		1,32,11,58, 9,31,28,30		6,44
10″	40,46, 7, 0,18,32,13,24,56,54		2,58,49,52, 6	
		1,32,11,55,10,41,36,24		6,44
12″	40,46, 8,32,30,27,24, 6,33,18		2,58,49,58,50	
		1,32,11,52,11,51,37,34		6,44
14″	40,46,10, 4,42,19,35,58,10,52		2,58,50, 5,34	
		1,32,11,49,13, 1,32, 0		6,44
16″	40,46,11,36,54, 8,48,59,42,52		2,58,50,12,18	
		1,32,11,46,14,11,19,42		6,44
18″	40,46,13, 9, 5,55, 3,11, 2,34		2,58,50,19, 2	
		1,32,11,43,15,21, 0,40		6,44
20″	40,46,14,41,17,38,18,32, 3,14		2,58,50,25,46	
		1,32,11,40,16,30,34,54		6,44
22″	40,46,16,13,29,18,35, 2,38, 8		2,58,50,32,30	
		1,32,11,37,17,40, 2,24		6,44
24″	40,46,17,45,40,55,52,42,40,32		2,58,50,39,14	
		1,32,11,34,18,49,23,10		6,44
26″	40,46,19,17,52,30,11,32, 3,42		2,58,50,45,58	
		1,32,11,31,19,58,37,12		6,44
28″	40,46,20,50, 4, 1,31,30,40,54		2,58,50,52,42	
		1,32,11,28,21, 7,44,30		6,44
30″	40,46,22,22,15,29,52,38,25,24		2,58,50,59,26	
		1,32,11,25,22,16,45, 4		6,44
32″	40,46,23,54,26,55,14,55,10,28		2,58,51, 6,10	
		1,32,11,22,23,25,38,54		6,44
34″	40,46,25,26,38,17,38,20,49,22		2,58,51,12,54	
		1,32,11,19,24,34,26, 0		6,44
36″	40,46,26,58,49,37, 2,55,15,22		2,58,51,19,38	
		1,32,11,16,25,43, 6,22		6,44
38″	40,46,28,31, 0,53,28,38,21,44		2,58,51,26,22	
		1,32,11,13,26,51,40, 0		6,44
40″	40,46,30, 3,12, 6,55,30, 1,44		2,58,51,33, 6	
		1,32,11,10,28, 0, 6,54		6,44
42″	40,46,31,35,23,17,23,30, 8,38		2,58,51,39,50	
		1,32,11, 7,29, 8,27, 4		6,44
44″	40,46,33, 7,34,24,52,38,35,42		2,58,51,46,34	
		1,32,11, 4,30,16,40,30		6,44
46″	40,46,34,39,45,29,22,55,16,12		2,58,51,53,18	
		1,32,11, 1,31,24,47,12		6,44
48″	40,46,36,11,56,30,54,20, 3,24		2,58,52, 0, 2	
		1,32,10,58,32,32,47,10		6,44
50″	40,46,37,44, 7,29,26,52,50,34		2,58,52, 6,46	
		1,32,10,55,33,40,40,24		6,44
52″	40,46,39,16,18,25, 0,33,30,58		2,58,52,13,30	
		1,32,10,52,34,48,26,54		6,44
54″	40,46,40,48,29,17,35,21,57,52		2,58,52,20,14	
		1,32,10,49,35,56, 6,40		6,44
56″	40,46,42,20,40, 7,11,18, 4,32		2,58,52,26,58	
		1,32,10,46,37, 3,39,42		6,44
58″	40,46,43,52,50,53,48,21,44,14		2,58,52,33,42	
		1,32,10,43,38,11, 6, 0		
60″	40,46,45,25, 1,37,26,32,50,14			
exact	40,46,45,25, 1,37,26,32,24, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°49′ 0″	40,46,45,25, 1,37,26,32,24, 5			
		1,32,10,40,39,18,22,45		
2″	40,46,46,57,12,18, 5,50,46,50		2,58,52,47,21	
		1,32,10,37,40,25,35,24		6,44
4″	40,46,48,29,22,55,46,16,22,14		2,58,52,54, 5	
		1,32,10,34,41,32,41,19		6,44
6″	40,46,50, 1,33,30,27,49, 3,33		2,58,53, 0,49	
		1,32,10,31,42,39,40,30		6,44
8″	40,46,51,33,44, 2,10,28,44, 3		2,58,53, 7,33	
		1,32,10,28,43,46,32,57		6,44
10″	40,46,53, 5,54,30,54,15,17, 0		2,58,53,14,17	
		1,32,10,25,44,53,18,40		6,44
12″	40,46,54,38, 4,56,39, 8,35,40		2,58,53,21, 1	
		1,32,10,22,45,59,57,39		6,44
14″	40,46,56,10,15,19,25, 8,33,19		2,58,53,27,45	
		1,32,10,19,47, 6,29,54		6,44
16″	40,46,57,42,25,39,12,15, 3,13		2,58,53,34,29	
		1,32,10,16,48,12,55,25		6,44
18″	40,46,59,14,35,56, 0,27,58,38		2,58,53,41,13	
		1,32,10,13,49,19,14,12		6,44
20″	40,47, 0,46,46, 9,49,47,12,50		2,58,53,47,57	
		1,32,10,10,50,25,26,15		6,44
22″	40,47, 2,18,56,20,40,12,39, 5		2,58,53,54,41	
		1,32,10, 7,51,31,31,34		6,44
24″	40,47, 3,51, 6,28,31,44,10,39		2,58,54, 1,25	
		1,32,10, 4,52,37,30, 9		6,44
26″	40,47, 5,23,16,33,24,21,40,48		2,58,54, 8, 9	
		1,32,10, 1,53,43,22, 0		6,44
28″	40,47, 6,55,26,35,18, 5, 2,48		2,58,54,14,53	
		1,32, 9,58,54,49, 7, 7		6,44
30″	40,47, 8,27,36,34,12,54, 9,55		2,58,54,21,37	
		1,32, 9,55,55,54,45,30		6,44
32″	40,47, 9,59,46,30, 8,48,55,25		2,58,54,28,21	
		1,32, 9,52,57, 0,17, 9		6,44
34″	40,47,11,31,56,23, 5,49,12,34		2,58,54,35, 5	
		1,32, 9,49,58, 5,42, 4		6,44
36″	40,47,13, 4, 6,13, 3,54,54,38		2,58,54,41,49	
		1,32, 9,46,59,11, 0,15		6,44
38″	40,47,14,36,16, 0, 3, 5,54,53		2,58,54,48,33	
		1,32, 9,44, 0,16,11,42		6,44
40″	40,47,16, 8,25,44, 3,22, 6,35		2,58,54,55,17	
		1,32, 9,41, 1,21,16,25		6,44
42″	40,47,17,40,35,25, 4,43,23, 0		2,58,55, 2, 1	
		1,32, 9,38, 2,26,14,24		6,44
44″	40,47,19,12,45, 3, 7, 9,37,24		2,58,55, 8,45	
		1,32, 9,35, 3,31, 5,39		6,44
46″	40,47,20,44,54,38,10,40,43, 3		2,58,55,15,29	
		1,32, 9,32, 4,35,50,10		6,44
48″	40,47,22,17, 4,10,15,16,33,13		2,58,55,22,13	
		1,32, 9,29, 5,40,27,57		6,44
50″	40,47,23,49,13,39,20,57, 1,10		2,58,55,28,57	
		1,32, 9,26, 6,44,59, 0		6,44
52″	40,47,25,21,23, 5,27,42, 0,10		2,58,55,35,41	
		1,32, 9,23, 7,49,23,19		6,44
54″	40,47,26,53,32,28,35,31,23,29		2,58,55,42,25	
		1,32, 9,20, 8,53,40,54		6,44
56″	40,47,28,25,41,48,44,25, 4,23		2,58,55,49, 9	
		1,32, 9,17, 9,57,51,45		6,44
58″	40,47,29,57,51, 5,54,22,56, 8		2,58,55,55,53	
		1,32, 9,14,11, 1,55,52		
60″	40,47,31,30, 0,20, 5,24,52, 0			
exact	40,47,31,30, 0,20, 5,24,27,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°50′ 0″	40,47,31,30, 0,20, 5,24,27,50			
		1,32, 9,11,12, 5,50,51		
2″	40,47,33, 2, 9,31,17,30,18,41		2,58,56, 9,30	
		1,32, 9, 8,13, 9,41,21		6,44
4″	40,47,34,34,18,39,30,40, 0, 2		2,58,56,16,14	
		1,32, 9, 5,14,13,25, 7		6,44
6″	40,47,36, 6,27,44,44,53,25, 9		2,58,56,22,58	
		1,32, 9, 2,15,17, 2, 9		6,44
8″	40,47,37,38,36,47, 0,10,27,18		2,58,56,29,42	
		1,32, 8,59,16,20,32,27		6,44
10″	40,47,39,10,45,46,16,30,59,45		2,58,56,36,26	
		1,32, 8,56,17,23,56, 1		6,44
12″	40,47,40,42,54,42,33,54,55,46		2,58,56,43,10	
		1,32, 8,53,18,27,12,51		6,44
14″	40,47,42,15, 3,35,52,22, 8,37		2,58,56,49,54	
		1,32, 8,50,19,30,22,57		6,44
16″	40,47,43,47,12,26,11,52,31,34		2,58,56,56,38	
		1,32, 8,47,20,33,26,19		6,44
18″	40,47,45,19,21,13,32,25,57,53		2,58,57, 3,22	
		1,32, 8,44,21,36,22,57		6,44
20″	40,47,46,51,29,57,54, 2,20,50		2,58,57,10, 6	
		1,32, 8,41,22,39,12,51		6,44
22″	40,47,48,23,38,39,16,41,33,41		2,58,57,16,50	
		1,32, 8,38,23,41,56, 1		6,44
24″	40,47,49,55,47,17,40,23,29,42		2,58,57,23,34	
		1,32, 8,35,24,44,32,27		6,44
26″	40,47,51,27,55,53, 5, 8, 2, 9		2,58,57,30,18	
		1,32, 8,32,25,47, 2, 9		6,44
28″	40,47,53, 0, 4,25,30,55, 4,18		2,58,57,37, 2	
		1,32, 8,29,26,49,25, 7		6,44
30″	40,47,54,32,12,54,57,44,29,25		2,58,57,43,46	
		1,32, 8,26,27,51,41,21		6,44
32″	40,47,56, 4,21,21,25,36,10,46		2,58,57,50,30	
		1,32, 8,23,28,53,50,51		6,44
34″	40,47,57,36,29,44,54,30, 1,37		2,58,57,57,14	
		1,32, 8,20,29,55,53,37		6,44
36″	40,47,59, 8,38, 5,24,25,55,14		2,58,58, 3,58	
		1,32, 8,17,30,57,49,39		6,44
38″	40,48, 0,40,46,22,55,23,44,53		2,58,58,10,42	
		1,32, 8,14,31,59,38,57		6,44
40″	40,48, 2,12,54,37,27,23,23,50		2,58,58,17,26	
		1,32, 8,11,33, 1,21,31		6,44
42″	40,48, 3,45, 2,49, 0,24,45,21		2,58,58,24,10	
		1,32, 8, 8,34, 2,57,21		6,44
44″	40,48, 5,17,10,57,34,27,42,42		2,58,58,30,54	
		1,32, 8, 5,35, 4,26,27		6,44
46″	40,48, 6,49,19, 3, 9,32, 9, 9		2,58,58,37,38	
		1,32, 8, 2,36, 5,48,49		6,44
48″	40,48, 8,21,27, 5,45,37,57,58		2,58,58,44,22	
		1,32, 7,59,37, 7, 4,27		6,44
50″	40,48, 9,53,35, 5,22,45, 2,25		2,58,58,51, 6	
		1,32, 7,56,38, 8,13,21		6,44
52″	40,48,11,25,43, 2, 0,53,15,46		2,58,58,57,50	
		1,32, 7,53,39, 9,15,31		6,44
54″	40,48,12,57,50,55,40, 2,31,17		2,58,59, 4,34	
		1,32, 7,50,40,10,10,57		6,44
56″	40,48,14,29,58,46,20,12,42,14		2,58,59,11,18	
		1,32, 7,47,41,10,59,39		6,44
58″	40,48,16, 2, 6,34, 1,23,41,53		2,58,59,18, 2	
		1,32, 7,44,42,11,41,37		
60″	40,48,17,34,14,18,43,35,23,30			
exact	40,48,17,34,14,18,43,35,11, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°51′ 0″	40,48,17,34,14,18,43,35,11, 1			
		1,32, 7,41,43,12,15,32		
2″	40,48,19, 6,22, 0,26,47,26,33		2,58,59,31,35	
		1,32, 7,38,44,12,43,57		6,44
4″	40,48,20,38,29,39,11, 0,10,30		2,58,59,38,19	
		1,32, 7,35,45,13, 5,38		6,44
6″	40,48,22,10,37,14,56,13,16, 8		2,58,59,45, 3	
		1,32, 7,32,46,13,20,35		6,44
8″	40,48,23,42,44,47,42,26,36,43		2,58,59,51,47	
		1,32, 7,29,47,13,28,48		6,44
10″	40,48,25,14,52,17,29,40, 5,31		2,58,59,58,31	
		1,32, 7,26,48,13,30,17		6,44
12″	40,48,26,46,59,44,17,53,35,48		2,59, 0, 5,15	
		1,32, 7,23,49,13,25, 2		6,44
14″	40,48,28,19, 7, 8, 7, 7, 0,50		2,59, 0,11,59	
		1,32, 7,20,50,13,13, 3		6,44
16″	40,48,29,51,14,28,57,20,13,53		2,59, 0,18,43	
		1,32, 7,17,51,12,54,20		6,44
18″	40,48,31,23,21,46,48,33, 8,13		2,59, 0,25,27	
		1,32, 7,14,52,12,28,53		6,44
20″	40,48,32,55,29, 1,40,45,37, 6		2,59, 0,32,11	
		1,32, 7,11,53,11,56,42		6,44
22″	40,48,34,27,36,13,33,57,33,48		2,59, 0,38,55	
		1,32, 7, 8,54,11,17,47		6,44
24″	40,48,35,59,43,22,28, 8,51,35		2,59, 0,45,39	
		1,32, 7, 5,55,10,32, 8		6,44
26″	40,48,37,31,50,28,23,19,23,43		2,59, 0,52,23	
		1,32, 7, 2,56, 9,39,45		6,44
28″	40,48,39, 3,57,31,19,29, 3,28		2,59, 0,59, 7	
		1,32, 6,59,57, 8,40,38		6,44
30″	40,48,40,36, 4,31,16,37,44, 6		2,59, 1, 5,51	
		1,32, 6,56,58, 7,34,47		6,44
32″	40,48,42, 8,11,28,14,45,18,53		2,59, 1,12,35	
		1,32, 6,53,59, 6,22,12		6,44
34″	40,48,43,40,18,22,13,51,41, 5		2,59, 1,19,19	
		1,32, 6,51, 0, 5, 2,53		6,44
36″	40,48,45,12,25,13,13,56,43,58		2,59, 1,26, 3	
		1,32, 6,48, 1, 3,36,50		6,44
38″	40,48,46,44,32, 1,15, 0,20,48		2,59, 1,32,47	
		1,32, 6,45, 2, 2, 4, 3		6,44
40″	40,48,48,16,38,46,17, 2,24,51		2,59, 1,39,31	
		1,32, 6,42, 3, 0,24,32		6,44
42″	40,48,49,48,45,28,20, 2,49,23		2,59, 1,46,15	
		1,32, 6,39, 3,58,38,17		6,44
44″	40,48,51,20,52, 7,24, 1,27,40		2,59, 1,52,59	
		1,32, 6,36, 4,56,45,18		6,44
46″	40,48,52,52,58,43,28,58,12,58		2,59, 1,59,43	
		1,32, 6,33, 5,54,45,35		6,44
48″	40,48,54,25, 5,16,34,52,58,33		2,59, 2, 6,27	
		1,32, 6,30, 6,52,39, 8		6,44
50″	40,48,55,57,11,46,41,45,37,41		2,59, 2,13,11	
		1,32, 6,27, 7,50,25,57		6,44
52″	40,48,57,29,18,13,49,36, 3,38		2,59, 2,19,55	
		1,32, 6,24, 8,48, 6, 2		6,44
54″	40,48,59, 1,24,37,58,24, 9,40		2,59, 2,26,39	
		1,32, 6,21, 9,45,39,23		6,44
56″	40,49, 0,33,30,59, 8, 9,49, 3		2,59, 2,33,23	
		1,32, 6,18,10,43, 6, 0		6,44
58″	40,49, 2, 5,37,17,18,52,55, 3		2,59, 2,40, 7	
		1,32, 6,15,11,40,25,53		
60″	40,49, 3,37,43,32,30,33,20,56			
exact	40,49, 3,37,43,32,30,33,14,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°52′ 0″	40,49, 3,37,43,32,30,33,14,24			
		1,32, 6,12,12,37,38,25		
2″	40,49, 5, 9,49,44,43,10,52,49		2,59, 2,53,37	
		1,32, 6, 9,13,34,44,48		6,44
4″	40,49, 6,41,55,53,56,45,37,37		2,59, 3, 0,21	
		1,32, 6, 6,14,31,44,27		6,44
6″	40,49, 8,14, 2, 0,11,17,22, 4		2,59, 3, 7, 5	
		1,32, 6, 3,15,28,37,22		6,44
8″	40,49, 9,46, 8, 3,26,45,59,26		2,59, 3,13,49	
		1,32, 6, 0,16,25,23,33		6,44
10″	40,49,11,18,14, 3,43,11,22,59		2,59, 3,20,33	
		1,32, 5,57,17,22, 3, 0		6,44
12″	40,49,12,50,20, 1, 0,33,25,59		2,59, 3,27,17	
		1,32, 5,54,18,18,35,43		6,44
14″	40,49,14,22,25,55,18,52, 1,42		2,59, 3,34, 1	
		1,32, 5,51,19,15, 1,42		6,44
16″	40,49,15,54,31,46,38, 7, 3,24		2,59, 3,40,45	
		1,32, 5,48,20,11,20,57		6,44
18″	40,49,17,26,37,34,58,18,24,21		2,59, 3,47,29	
		1,32, 5,45,21, 7,33,28		6,44
20″	40,49,18,58,43,20,19,25,57,49		2,59, 3,54,13	
		1,32, 5,42,22, 3,39,15		6,44
22″	40,49,20,30,49, 2,41,29,37, 4		2,59, 4, 0,57	
		1,32, 5,39,22,59,38,18		6,44
24″	40,49,22, 2,54,42, 4,29,15,22		2,59, 4, 7,41	
		1,32, 5,36,23,55,30,37		6,44
26″	40,49,23,35, 0,18,28,24,45,59		2,59, 4,14,25	
		1,32, 5,33,24,51,16,12		6,44
28″	40,49,25, 7, 5,51,53,16, 2,11		2,59, 4,21, 9	
		1,32, 5,30,25,46,55, 3		6,44
30″	40,49,26,39,11,22,19, 2,57,14		2,59, 4,27,53	
		1,32, 5,27,26,42,27,10		6,44
32″	40,49,28,11,16,49,45,45,24,24		2,59, 4,34,37	
		1,32, 5,24,27,37,52,33		6,44
34″	40,49,29,43,22,14,13,23,16,57		2,59, 4,41,21	
		1,32, 5,21,28,33,11,12		6,44
36″	40,49,31,15,27,35,41,56,28, 9		2,59, 4,48, 5	
		1,32, 5,18,29,28,23, 7		6,44
38″	40,49,32,47,32,54,11,24,51,16		2,59, 4,54,49	
		1,32, 5,15,30,23,28,18		6,44
40″	40,49,34,19,38, 9,41,48,19,34		2,59, 5, 1,33	
		1,32, 5,12,31,18,26,45		6,44
42″	40,49,35,51,43,22,13, 6,46,19		2,59, 5, 8,17	
		1,32, 5, 9,32,13,18,28		6,44
44″	40,49,37,23,48,31,45,20, 4,47		2,59, 5,15, 1	
		1,32, 5, 6,33, 8, 3,27		6,44
46″	40,49,38,55,53,38,18,28, 8,14		2,59, 5,21,45	
		1,32, 5, 3,34, 2,41,42		6,44
48″	40,49,40,27,58,41,52,30,49,56		2,59, 5,28,29	
		1,32, 5, 0,34,57,13,13		6,44
50″	40,49,42, 0, 3,42,27,28, 3, 9		2,59, 5,35,13	
		1,32, 4,57,35,51,38, 0		6,44
52″	40,49,43,32, 8,40, 3,19,41, 9		2,59, 5,41,57	
		1,32, 4,54,36,45,56, 3		6,44
54″	40,49,45, 4,13,34,40, 5,37,12		2,59, 5,48,41	
		1,32, 4,51,37,40, 7,22		6,44
56″	40,49,46,36,18,26,17,45,44,34		2,59, 5,55,25	
		1,32, 4,48,38,34,11,57		6,44
58″	40,49,48, 8,23,14,56,19,56,31		2,59, 6, 2, 9	
		1,32, 4,45,39,28, 9,48		
60″	40,49,49,40,28, 0,35,48, 6,19			
exact	40,49,49,40,28, 0,35,48, 7,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°53′ 0″	40,49,49,40,28, 0,35,48, 7,49			
		1,32, 4,42,40,22, 1, 8		
2″	40,49,51,12,32,43,16,10, 8,57		2,59, 6,15,36	
		1,32, 4,39,41,15,45,32		6,44
4″	40,49,52,44,37,22,57,25,54,29		2,59, 6,22,20	
		1,32, 4,36,42, 9,23,12		6,44
6″	40,49,54,16,41,59,39,35,17,41		2,59, 6,29, 4	
		1,32, 4,33,43, 2,54, 8		6,44
8″	40,49,55,48,46,33,22,38,11,49		2,59, 6,35,48	
		1,32, 4,30,43,56,18,20		6,44
10″	40,49,57,20,51, 4, 6,34,30, 9		2,59, 6,42,32	
		1,32, 4,27,44,49,35,48		6,44
12″	40,49,58,52,55,31,51,24, 5,57		2,59, 6,49,16	
		1,32, 4,24,45,42,46,32		6,44
14″	40,50, 0,24,59,56,37, 6,52,29		2,59, 6,56, 0	
		1,32, 4,21,46,35,50,32		6,44
16″	40,50, 1,57, 4,18,23,42,43, 1		2,59, 7, 2,44	
		1,32, 4,18,47,28,47,48		6,44
18″	40,50, 3,29, 8,37,11,11,30,49		2,59, 7, 9,28	
		1,32, 4,15,48,21,38,20		6,44
20″	40,50, 5, 1,12,52,59,33, 9, 9		2,59, 7,16,12	
		1,32, 4,12,49,14,22, 8		6,44
22″	40,50, 6,33,17, 5,48,47,31,17		2,59, 7,22,56	
		1,32, 4, 9,50, 6,59,12		6,44
24″	40,50, 8, 5,21,15,38,54,30,29		2,59, 7,29,40	
		1,32, 4, 6,50,59,29,32		6,44
26″	40,50, 9,37,25,22,29,54, 0, 1		2,59, 7,36,24	
		1,32, 4, 3,51,51,53, 8		6,44
28″	40,50,11, 9,29,26,21,45,53, 9		2,59, 7,43, 8	
		1,32, 4, 0,52,44,10, 0		6,44
30″	40,50,12,41,33,27,14,30, 3, 9		2,59, 7,49,52	
		1,32, 3,57,53,36,20, 8		6,44
32″	40,50,14,13,37,25, 8, 6,23,17		2,59, 7,56,36	
		1,32, 3,54,54,28,23,32		6,44
34″	40,50,15,45,41,20, 2,34,46,49		2,59, 8, 3,20	
		1,32, 3,51,55,20,20,12		6,44
36″	40,50,17,17,45,11,57,55, 7, 1		2,59, 8,10, 4	
		1,32, 3,48,56,12,10, 8		6,44
38″	40,50,18,49,49, 0,54, 7,17, 9		2,59, 8,16,48	
		1,32, 3,45,57, 3,53,20		6,44
40″	40,50,20,21,52,46,51,11,10,29		2,59, 8,23,32	
		1,32, 3,42,57,55,29,48		6,44
42″	40,50,21,53,56,29,49, 6,40,17		2,59, 8,30,16	
		1,32, 3,39,58,46,59,32		6,44
44″	40,50,23,26, 0, 9,47,53,39,49		2,59, 8,37, 0	
		1,32, 3,36,59,38,22,32		6,44
46″	40,50,24,58, 3,46,47,32, 2,21		2,59, 8,43,44	
		1,32, 3,34, 0,29,38,48		6,44
48″	40,50,26,30, 7,20,48, 1,41, 9		2,59, 8,50,28	
		1,32, 3,31, 1,20,48,20		6,44
50″	40,50,28, 2,10,51,49,22,29,29		2,59, 8,57,12	
		1,32, 3,28, 2,11,51, 8		6,44
52″	40,50,29,34,14,19,51,34,20,37		2,59, 9, 3,56	
		1,32, 3,25, 3, 2,47,12		6,44
54″	40,50,31, 6,17,44,54,37, 7,49		2,59, 9,10,40	
		1,32, 3,22, 3,53,36,32		6,44
56″	40,50,32,38,21, 6,58,30,44,21		2,59, 9,17,24	
		1,32, 3,19, 4,44,19, 8		6,44
58″	40,50,34,10,24,26, 3,15, 3,29		2,59, 9,24, 8	
		1,32, 3,16, 5,34,55, 0		
60″	40,50,35,42,27,42, 8,49,58,29			
exact	40,50,35,42,27,42, 8,50,10,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°54′ 0″	40,50,35,42,27,42, 8,50,10,12			
		1,32, 3,13, 6,25,25,20		
2″	40,50,37,14,30,55,15,15,35,32		2,59, 9,37,31	
		1,32, 3,10, 7,15,47,49		6,44
4″	40,50,38,46,34, 5,22,31,23,21		2,59, 9,44,15	
		1,32, 3, 7, 8, 6, 3,34		6,44
6″	40,50,40,18,37,12,30,37,26,55		2,59, 9,50,59	
		1,32, 3, 4, 8,56,12,35		6,44
8″	40,50,41,50,40,16,39,33,39,30		2,59, 9,57,43	
		1,32, 3, 1, 9,46,14,52		6,44
10″	40,50,43,22,43,17,49,19,54,22		2,59,10, 4,27	
		1,32, 2,58,10,36,10,25		6,44
12″	40,50,44,54,46,15,59,56, 4,47		2,59,10,11,11	
		1,32, 2,55,11,25,59,14		6,44
14″	40,50,46,26,49,11,11,22, 4, 1		2,59,10,17,55	
		1,32, 2,52,12,15,41,19		6,44
16″	40,50,47,58,52, 3,23,37,45,20		2,59,10,24,39	
		1,32, 2,49,13, 5,16,40		6,44
18″	40,50,49,30,54,52,36,43, 2, 0		2,59,10,31,23	
		1,32, 2,46,13,54,45,17		6,44
20″	40,50,51, 2,57,38,50,37,47,17		2,59,10,38, 7	
		1,32, 2,43,14,44, 7,10		6,44
22″	40,50,52,35, 0,22, 5,21,54,27		2,59,10,44,51	
		1,32, 2,40,15,33,22,19		6,44
24″	40,50,54, 7, 3, 2,20,55,16,46		2,59,10,51,35	
		1,32, 2,37,16,22,30,44		6,44
26″	40,50,55,39, 5,39,37,17,47,30		2,59,10,58,19	
		1,32, 2,34,17,11,32,25		6,44
28″	40,50,57,11, 8,13,54,29,19,55		2,59,11, 5, 3	
		1,32, 2,31,18, 0,27,22		6,44
30″	40,50,58,43,10,45,12,29,47,17		2,59,11,11,47	
		1,32, 2,28,18,49,15,35		6,44
32″	40,51, 0,15,13,13,31,19, 2,52		2,59,11,18,31	
		1,32, 2,25,19,37,57, 4		6,44
34″	40,51, 1,47,15,38,50,56,59,56		2,59,11,25,15	
		1,32, 2,22,20,26,31,49		6,44
36″	40,51, 3,19,18, 1,11,23,31,45		2,59,11,31,59	
		1,32, 2,19,21,14,59,50		6,44
38″	40,51, 4,51,20,20,32,38,31,35		2,59,11,38,43	
		1,32, 2,16,22, 3,21, 7		6,44
40″	40,51, 6,23,22,36,54,41,52,42		2,59,11,45,27	
		1,32, 2,13,22,51,35,40		6,44
42″	40,51, 7,55,24,50,17,33,28,22		2,59,11,52,11	
		1,32, 2,10,23,39,43,29		6,44
44″	40,51, 9,27,27, 0,41,13,11,51		2,59,11,58,55	
		1,32, 2, 7,24,27,44,34		6,44
46″	40,51,10,59,29, 8, 5,40,56,25		2,59,12, 5,39	
		1,32, 2, 4,25,15,38,55		6,44
48″	40,51,12,31,31,12,30,56,35,20		2,59,12,12,23	
		1,32, 2, 1,26, 3,26,32		6,44
50″	40,51,14, 3,33,13,57, 0, 1,52		2,59,12,19, 7	
		1,32, 1,58,26,51, 7,25		6,44
52″	40,51,15,35,35,12,23,51, 9,17		2,59,12,25,51	
		1,32, 1,55,27,38,41,34		6,44
54″	40,51,17, 7,37, 7,51,29,50,51		2,59,12,32,35	
		1,32, 1,52,28,26, 8,59		6,44
56″	40,51,18,39,39, 0,19,55,59,50		2,59,12,39,19	
		1,32, 1,49,29,13,29,40		6,44
58″	40,51,20,11,40,49,49, 9,29,30		2,59,12,46, 3	
		1,32, 1,46,30, 0,43,37		
60″	40,51,21,43,42,36,19,10,13, 7			
exact	40,51,21,43,42,36,19,10,29,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°55′ 0″	40,51,21,43,42,36,19,10,29,33			
		1,32, 1,43,30,47,52,39		
2″	40,51,23,15,44,19,49,58,22,12		2,59,12,59,23	
		1,32, 1,40,31,34,53,16		6,44
4″	40,51,24,47,46, 0,21,33,15,28		2,59,13, 6, 7	
		1,32, 1,37,32,21,47, 9		6,44
6″	40,51,26,19,47,37,53,55, 2,37		2,59,13,12,51	
		1,32, 1,34,33, 8,34,18		6,44
8″	40,51,27,51,49,12,27, 3,36,55		2,59,13,19,35	
		1,32, 1,31,33,55,14,43		6,44
10″	40,51,29,23,50,44, 0,58,51,38		2,59,13,26,19	
		1,32, 1,28,34,41,48,24		6,44
12″	40,51,30,55,52,12,35,40,40, 2		2,59,13,33, 3	
		1,32, 1,25,35,28,15,21		6,44
14″	40,51,32,27,53,38,11, 8,55,23		2,59,13,39,47	
		1,32, 1,22,36,14,35,34		6,44
16″	40,51,33,59,55, 0,47,23,30,57		2,59,13,46,31	
		1,32, 1,19,37, 0,49, 3		6,44
18″	40,51,35,31,56,20,24,24,20, 0		2,59,13,53,15	
		1,32, 1,16,37,46,55,48		6,44
20″	40,51,37, 3,57,37, 2,11,15,48		2,59,13,59,59	
		1,32, 1,13,38,32,55,49		6,44
22″	40,51,38,35,58,50,40,44,11,37		2,59,14, 6,43	
		1,32, 1,10,39,18,49, 6		6,44
24″	40,51,40, 8, 0, 1,20, 3, 0,43		2,59,14,13,27	
		1,32, 1, 7,40, 4,35,39		6,44
26″	40,51,41,40, 1, 9, 0, 7,36,22		2,59,14,20,11	
		1,32, 1, 4,40,50,15,28		6,44
28″	40,51,43,12, 2,13,40,57,51,50		2,59,14,26,55	
		1,32, 1, 1,41,35,48,33		6,44
30″	40,51,44,44, 3,15,22,33,40,23		2,59,14,33,39	
		1,32, 0,58,42,21,14,54		6,44
32″	40,51,46,16, 4,14, 4,54,55,17		2,59,14,40,23	
		1,32, 0,55,43, 6,34,31		6,44
34″	40,51,47,48, 5, 9,48, 1,29,48		2,59,14,47, 7	
		1,32, 0,52,43,51,47,24		6,44
36″	40,51,49,20, 6, 2,31,53,17,12		2,59,14,53,51	
		1,32, 0,49,44,36,53,33		6,44
38″	40,51,50,52, 6,52,16,30,10,45		2,59,15, 0,35	
		1,32, 0,46,45,21,52,58		6,44
40″	40,51,52,24, 7,39, 1,52, 3,43		2,59,15, 7,19	
		1,32, 0,43,46, 6,45,39		6,44
42″	40,51,53,56, 8,22,47,58,49,22		2,59,15,14, 3	
		1,32, 0,40,46,51,31,36		6,44
44″	40,51,55,28, 9, 3,34,50,20,58		2,59,15,20,47	
		1,32, 0,37,47,36,10,49		6,44
46″	40,51,57, 0, 9,41,22,26,31,47		2,59,15,27,31	
		1,32, 0,34,48,20,43,18		6,44
48″	40,51,58,32,10,16,10,47,15, 5		2,59,15,34,15	
		1,32, 0,31,49, 5, 9, 3		6,44
50″	40,52, 0, 4,10,47,59,52,24, 8		2,59,15,40,59	
		1,32, 0,28,49,49,28, 4		6,44
52″	40,52, 1,36,11,16,49,41,52,12		2,59,15,47,43	
		1,32, 0,25,50,33,40,21		6,44
54″	40,52, 3, 8,11,42,40,15,32,33		2,59,15,54,27	
		1,32, 0,22,51,17,45,54		6,44
56″	40,52, 4,40,12, 5,31,33,18,27		2,59,16, 1,11	
		1,32, 0,19,52, 1,44,43		6,44
58″	40,52, 6,12,12,25,23,35, 3,10		2,59,16, 7,55	
		1,32, 0,16,52,45,36,48		
60″	40,52, 7,44,12,42,16,20,39,58			
exact	40,52, 7,44,12,42,16,21, 3, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°56′ 0″	40,52, 7,44,12,42,16,21, 3, 2			
		1,32, 0,13,53,29,24,42		
2″	40,52, 9,16,12,56, 9,50,27,44		2,59,16,21,12	
		1,32, 0,10,54,13, 3,30		6,44
4″	40,52,10,48,13, 7, 4, 3,31,14		2,59,16,27,56	
		1,32, 0, 7,54,56,35,34		6,44
6″	40,52,12,20,13,14,59, 0, 6,48		2,59,16,34,40	
		1,32, 0, 4,55,40, 0,54		6,44
8″	40,52,13,52,13,19,54,40, 7,42		2,59,16,41,24	
		1,32, 0, 1,56,23,19,30		6,44
10″	40,52,15,24,13,21,51, 3,27,12		2,59,16,48, 8	
		1,31,59,58,57, 6,31,22		6,44
12″	40,52,16,56,13,20,48, 9,58,34		2,59,16,54,52	
		1,31,59,55,57,49,36,30		6,44
14″	40,52,18,28,13,16,45,59,35, 4		2,59,17, 1,36	
		1,31,59,52,58,32,34,54		6,44
16″	40,52,20, 0,13, 9,44,32, 9,58		2,59,17, 8,20	
		1,31,59,49,59,15,26,34		6,44
18″	40,52,21,32,12,59,43,47,36,32		2,59,17,15, 4	
		1,31,59,46,59,58,11,30		6,44
20″	40,52,23, 4,12,46,43,45,48, 2		2,59,17,21,48	
		1,31,59,44, 0,40,49,42		6,44
22″	40,52,24,36,12,30,44,26,37,44		2,59,17,28,32	
		1,31,59,41, 1,23,21,10		6,44
24″	40,52,26, 8,12,11,45,49,58,54		2,59,17,35,16	
		1,31,59,38, 2, 5,45,54		6,44
26″	40,52,27,40,11,49,47,55,44,48		2,59,17,42, 0	
		1,31,59,35, 2,48, 3,54		6,44
28″	40,52,29,12,11,24,50,43,48,42		2,59,17,48,44	
		1,31,59,32, 3,30,15,10		6,44
30″	40,52,30,44,10,56,54,14, 3,52		2,59,17,55,28	
		1,31,59,29, 4,12,19,42		6,44
32″	40,52,32,16,10,25,58,26,23,34		2,59,18, 2,12	
		1,31,59,26, 4,54,17,30		6,44
34″	40,52,33,48, 9,52, 3,20,41, 4		2,59,18, 8,56	
		1,31,59,23, 5,36, 8,34		6,44
36″	40,52,35,20, 9,15, 8,56,49,38		2,59,18,15,40	
		1,31,59,20, 6,17,52,54		6,44
38″	40,52,36,52, 8,35,15,14,42,32		2,59,18,22,24	
		1,31,59,17, 6,59,30,30		6,44
40″	40,52,38,24, 7,52,22,14,13, 2		2,59,18,29, 8	
		1,31,59,14, 7,41, 1,22		6,44
42″	40,52,39,56, 7, 6,29,55,14,24		2,59,18,35,52	
		1,31,59,11, 8,22,25,30		6,44
44″	40,52,41,28, 6,17,38,17,39,54		2,59,18,42,36	
		1,31,59, 8, 9, 3,42,54		6,44
46″	40,52,43, 0, 5,25,47,21,22,48		2,59,18,49,20	
		1,31,59, 5, 9,44,53,34		6,44
48″	40,52,44,32, 4,30,57, 6,16,22		2,59,18,56, 4	
		1,31,59, 2,10,25,57,30		6,44
50″	40,52,46, 4, 3,33, 7,32,13,52		2,59,19, 2,48	
		1,31,58,59,11, 6,54,42		6,44
52″	40,52,47,36, 2,32,18,39, 8,34		2,59,19, 9,32	
		1,31,58,56,11,47,45,10		6,44
54″	40,52,49, 8, 1,28,30,26,53,44		2,59,19,16,16	
		1,31,58,53,12,28,28,54		6,44
56″	40,52,50,40, 0,21,42,55,22,38		2,59,19,23, 0	
		1,31,58,50,13, 9, 5,54		6,44
58″	40,52,52,11,59,11,56, 4,28,32		2,59,19,29,44	
		1,31,58,47,13,49,36,10		
60″	40,52,53,43,57,59, 9,54, 4,42			
exact	40,52,53,43,57,59, 9,54,36,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°57′ 0″	40,52,53,43,57,59, 9,54,36,54			
		1,31,58,44,14,30, 3, 9		
2″	40,52,55,15,56,43,24,24,40, 3		2,59,19,42,57	
		1,31,58,41,15,10,20,12		6,43
4″	40,52,56,47,55,24,39,35, 0,15		2,59,19,49,40	
		1,31,58,38,15,50,30,32		6,43
6″	40,52,58,19,54, 2,55,25,30,47		2,59,19,56,23	
		1,31,58,35,16,30,34, 9		6,43
8″	40,52,59,51,52,38,11,56, 4,56		2,59,20, 3, 6	
		1,31,58,32,17,10,31, 3		6,43
10″	40,53, 1,23,51,10,29, 6,35,59		2,59,20, 9,49	
		1,31,58,29,17,50,21,14		6,43
12″	40,53, 2,55,49,39,46,56,57,13		2,59,20,16,32	
		1,31,58,26,18,30, 4,42		6,43
14″	40,53, 4,27,48, 6, 5,27, 1,55		2,59,20,23,15	
		1,31,58,23,19, 9,41,27		6,43
16″	40,53, 5,59,46,29,24,36,43,22		2,59,20,29,58	
		1,31,58,20,19,49,11,29		6,43
18″	40,53, 7,31,44,49,44,25,54,51		2,59,20,36,41	
		1,31,58,17,20,28,34,48		6,43
20″	40,53, 9, 3,43, 7, 4,54,29,39		2,59,20,43,24	
		1,31,58,14,21, 7,51,24		6,43
22″	40,53,10,35,41,21,26, 2,21, 3		2,59,20,50, 7	
		1,31,58,11,21,47, 1,17		6,43
24″	40,53,12, 7,39,32,47,49,22,20		2,59,20,56,50	
		1,31,58, 8,22,26, 4,27		6,43
26″	40,53,13,39,37,41,10,15,26,47		2,59,21, 3,33	
		1,31,58, 5,23, 5, 0,54		6,43
28″	40,53,15,11,35,46,33,20,27,41		2,59,21,10,16	
		1,31,58, 2,23,43,50,38		6,43
30″	40,53,16,43,33,48,57, 4,18,19		2,59,21,16,59	
		1,31,57,59,24,22,33,39		6,43
32″	40,53,18,15,31,48,21,26,51,58		2,59,21,23,42	
		1,31,57,56,25, 1, 9,57		6,43
34″	40,53,19,47,29,44,46,28, 1,55		2,59,21,30,25	
		1,31,57,53,25,39,39,32		6,43
36″	40,53,21,19,27,38,12, 7,41,27		2,59,21,37, 8	
		1,31,57,50,26,18, 2,24		6,43
38″	40,53,22,51,25,28,38,25,43,51		2,59,21,43,51	
		1,31,57,47,26,56,18,33		6,43
40″	40,53,24,23,23,16, 5,22, 2,24		2,59,21,50,34	
		1,31,57,44,27,34,27,59		6,43
42″	40,53,25,55,21, 0,32,56,30,23		2,59,21,57,17	
		1,31,57,41,28,12,30,42		6,43
44″	40,53,27,27,18,42, 1, 9, 1, 5		2,59,22, 4, 0	
		1,31,57,38,28,50,26,42		6,43
46″	40,53,28,59,16,20,29,59,27,47		2,59,22,10,43	
		1,31,57,35,29,28,15,59		6,43
48″	40,53,30,31,13,55,59,27,43,46		2,59,22,17,26	
		1,31,57,32,30, 5,58,33		6,43
50″	40,53,32, 3,11,28,29,33,42,19		2,59,22,24, 9	
		1,31,57,29,30,43,34,24		6,43
52″	40,53,33,35, 8,58, 0,17,16,43		2,59,22,30,52	
		1,31,57,26,31,21, 3,32		6,43
54″	40,53,35, 7, 6,24,31,38,20,15		2,59,22,37,35	
		1,31,57,23,31,58,25,57		6,43
56″	40,53,36,39, 3,48, 3,36,46,12		2,59,22,44,18	
		1,31,57,20,32,35,41,39		6,43
58″	40,53,38,11, 1, 8,36,12,27,51		2,59,22,51, 1	
		1,31,57,17,33,12,50,38		
60″	40,53,39,42,58,26, 9,25,18,29			
exact	40,53,39,42,58,26, 9,24,46,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°58′ 0″	40,53,39,42,58,26, 9,24,46,34			
		1,31,57,14,33,49,49,38		
2″	40,53,41,14,55,40,43,14,36,12		2,59,23, 4,40	
		1,31,57,11,34,26,44,58		6,43
4″	40,53,42,46,52,52,17,41,21,10		2,59,23,11,23	
		1,31,57, 8,35, 3,33,35		6,43
6″	40,53,44,18,50, 0,52,44,54,45		2,59,23,18, 6	
		1,31,57, 5,35,40,15,29		6,43
8″	40,53,45,50,47, 6,28,25,10,14		2,59,23,24,49	
		1,31,57, 2,36,16,50,40		6,43
10″	40,53,47,22,44, 9, 4,42, 0,54		2,59,23,31,32	
		1,31,56,59,36,53,19, 8		6,43
12″	40,53,48,54,41, 8,41,35,20, 2		2,59,23,38,15	
		1,31,56,56,37,29,40,53		6,43
14″	40,53,50,26,38, 5,19, 5, 0,55		2,59,23,44,58	
		1,31,56,53,38, 5,55,55		6,43
16″	40,53,51,58,34,58,57,10,56,50		2,59,23,51,41	
		1,31,56,50,38,42, 4,14		6,43
18″	40,53,53,30,31,49,35,53, 1, 4		2,59,23,58,24	
		1,31,56,47,39,18, 5,50		6,43
20″	40,53,55, 2,28,37,15,11, 6,54		2,59,24, 5, 7	
		1,31,56,44,39,54, 0,43		6,43
22″	40,53,56,34,25,21,55, 5, 7,37		2,59,24,11,50	
		1,31,56,41,40,29,48,53		6,43
24″	40,53,58, 6,22, 3,35,34,56,30		2,59,24,18,33	
		1,31,56,38,41, 5,30,20		6,43
26″	40,53,59,38,18,42,16,40,26,50		2,59,24,25,16	
		1,31,56,35,41,41, 5, 4		6,43
28″	40,54, 1,10,15,17,58,21,31,54		2,59,24,31,59	
		1,31,56,32,42,16,33, 5		6,43
30″	40,54, 2,42,11,50,40,38, 4,59		2,59,24,38,42	
		1,31,56,29,42,51,54,23		6,43
32″	40,54, 4,14, 8,20,23,29,59,22		2,59,24,45,25	
		1,31,56,26,43,27, 8,58		6,43
34″	40,54, 5,46, 4,47, 6,57, 8,20		2,59,24,52, 8	
		1,31,56,23,44, 2,16,50		6,43
36″	40,54, 7,18, 1,10,50,59,25,10		2,59,24,58,51	
		1,31,56,20,44,37,17,59		6,43
38″	40,54, 8,49,57,31,35,36,43, 9		2,59,25, 5,34	
		1,31,56,17,45,12,12,25		6,43
40″	40,54,10,21,53,49,20,48,55,34		2,59,25,12,17	
		1,31,56,14,45,47, 0, 8		6,43
42″	40,54,11,53,50, 4, 6,35,55,42		2,59,25,19, 0	
		1,31,56,11,46,21,41, 8		6,43
44″	40,54,13,25,46,15,52,57,36,50		2,59,25,25,43	
		1,31,56, 8,46,56,15,25		6,43
46″	40,54,14,57,42,24,39,53,52,15		2,59,25,32,26	
		1,31,56, 5,47,30,42,59		6,43
48″	40,54,16,29,38,30,27,24,35,14		2,59,25,39, 9	
		1,31,56, 2,48, 5, 3,50		6,43
50″	40,54,18, 1,34,33,15,29,39, 4		2,59,25,45,52	
		1,31,55,59,48,39,17,58		6,43
52″	40,54,19,33,30,33, 4, 8,57, 2		2,59,25,52,35	
		1,31,55,56,49,13,25,23		6,43
54″	40,54,21, 5,26,29,53,22,22,25		2,59,25,59,18	
		1,31,55,53,49,47,26, 5		6,43
56″	40,54,22,37,22,23,43, 9,48,30		2,59,26, 6, 1	
		1,31,55,50,50,21,20, 4		6,43
58″	40,54,24, 9,18,14,33,31, 8,34		2,59,26,12,44	
		1,31,55,47,50,55, 7,20		
60″	40,54,25,41,14, 2,24,26,15,54			
exact	40,54,25,41,14, 2,24,25,56,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
42°59′ 0″	40,54,25,41,14, 2,24,25,56,39			
		1,31,55,44,51,28,45,47		
2″	40,54,27,13, 9,47,15,54,42,26		2,59,26,26,19	
		1,31,55,41,52, 2,19,28		6,43
4″	40,54,28,45, 5,29, 7,57, 1,54		2,59,26,33, 2	
		1,31,55,38,52,35,46,26		6,43
6″	40,54,30,17, 1, 8, 0,32,48,20		2,59,26,39,45	
		1,31,55,35,53, 9, 6,41		6,43
8″	40,54,31,48,56,43,53,41,55, 1		2,59,26,46,28	
		1,31,55,32,53,42,20,13		6,43
10″	40,54,33,20,52,16,47,24,15,14		2,59,26,53,11	
		1,31,55,29,54,15,27, 2		6,43
12″	40,54,34,52,47,46,41,39,42,16		2,59,26,59,54	
		1,31,55,26,54,48,27, 8		6,43
14″	40,54,36,24,43,13,36,28, 9,24		2,59,27, 6,37	
		1,31,55,23,55,21,20,31		6,43
16″	40,54,37,56,38,37,31,49,29,55		2,59,27,13,20	
		1,31,55,20,55,54, 7,11		6,43
18″	40,54,39,28,33,58,27,43,37, 6		2,59,27,20, 3	
		1,31,55,17,56,26,47, 8		6,43
20″	40,54,41, 0,29,16,24,10,24,14		2,59,27,26,46	
		1,31,55,14,56,59,20,22		6,43
22″	40,54,42,32,24,31,21, 9,44,36		2,59,27,33,29	
		1,31,55,11,57,31,46,53		6,43
24″	40,54,44, 4,19,43,18,41,31,29		2,59,27,40,12	
		1,31,55, 8,58, 4, 6,41		6,43
26″	40,54,45,36,14,52,16,45,38,10		2,59,27,46,55	
		1,31,55, 5,58,36,19,46		6,43
28″	40,54,47, 8, 9,58,15,21,57,56		2,59,27,53,38	
		1,31,55, 2,59, 8,26, 8		6,43
30″	40,54,48,40, 5, 1,14,30,24, 4		2,59,28, 0,21	
		1,31,54,59,59,40,25,47		6,43
32″	40,54,50,12, 0, 1,14,10,49,51		2,59,28, 7, 4	
		1,31,54,57, 0,12,18,43		6,43
34″	40,54,51,43,54,58,14,23, 8,34		2,59,28,13,47	
		1,31,54,54, 0,44, 4,56		6,43
36″	40,54,53,15,49,52,15, 7,13,30		2,59,28,20,30	
		1,31,54,51, 1,15,44,26		6,43
38″	40,54,54,47,44,43,16,22,57,56		2,59,28,27,13	
		1,31,54,48, 1,47,17,13		6,43
40″	40,54,56,19,39,31,18,10,15, 9		2,59,28,33,56	
		1,31,54,45, 2,18,43,17		6,43
42″	40,54,57,51,34,16,20,28,58,26		2,59,28,40,39	
		1,31,54,42, 2,50, 2,38		6,43
44″	40,54,59,23,28,58,23,19, 1, 4		2,59,28,47,22	
		1,31,54,39, 3,21,15,16		6,43
46″	40,55, 0,55,23,37,26,40,16,20		2,59,28,54, 5	
		1,31,54,36, 3,52,21,11		6,43
48″	40,55, 2,27,18,13,30,32,37,31		2,59,29, 0,48	
		1,31,54,33, 4,23,20,23		6,43
50″	40,55, 3,59,12,46,34,55,57,54		2,59,29, 7,31	
		1,31,54,30, 4,54,12,52		6,43
52″	40,55, 5,31, 7,16,39,50,10,46		2,59,29,14,14	
		1,31,54,27, 5,24,58,38		6,43
54″	40,55, 7, 3, 1,43,45,15, 9,24		2,59,29,20,57	
		1,31,54,24, 5,55,37,41		6,43
56″	40,55, 8,34,56, 7,51,10,47, 5		2,59,29,27,40	
		1,31,54,21, 6,26,10, 1		6,43
58″	40,55,10, 6,50,28,57,36,57, 6		2,59,29,34,23	
		1,31,54,18, 6,56,35,38		
60″	40,55,11,38,44,47, 4,33,32,44			
exact	40,55,11,38,44,47, 4,33,20,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43° 0′ 0″	40,55,11,38,44,47, 4,33,20,53			
		1,31,54,15, 7,26,53,14		
2″	40,55,13,10,39, 2,12, 0,14, 7		2,59,29,47,54	
		1,31,54,12, 7,57, 5,20		6,43
4″	40,55,14,42,33,14,19,57,19,27		2,59,29,54,37	
		1,31,54, 9, 8,27,10,43		6,43
6″	40,55,16,14,27,23,28,24,30,10		2,59,30, 1,20	
		1,31,54, 6, 8,57, 9,23		6,43
8″	40,55,17,46,21,29,37,21,39,33		2,59,30, 8, 3	
		1,31,54, 3, 9,27, 1,20		6,43
10″	40,55,19,18,15,32,46,48,40,53		2,59,30,14,46	
		1,31,54, 0, 9,56,46,34		6,43
12″	40,55,20,50, 9,32,56,45,27,27		2,59,30,21,29	
		1,31,53,57,10,26,25, 5		6,43
14″	40,55,22,22, 3,30, 7,11,52,32		2,59,30,28,12	
		1,31,53,54,10,55,56,53		6,43
16″	40,55,23,53,57,24,18, 7,49,25		2,59,30,34,55	
		1,31,53,51,11,25,21,58		6,43
18″	40,55,25,25,51,15,29,33,11,23		2,59,30,41,38	
		1,31,53,48,11,54,40,20		6,43
20″	40,55,26,57,45, 3,41,27,51,43		2,59,30,48,21	
		1,31,53,45,12,23,51,59		6,43
22″	40,55,28,29,38,48,53,51,43,42		2,59,30,55, 4	
		1,31,53,42,12,52,56,55		6,43
24″	40,55,30, 1,32,31, 6,44,40,37		2,59,31, 1,47	
		1,31,53,39,13,21,55, 8		6,43
26″	40,55,31,33,26,10,20, 6,35,45		2,59,31, 8,30	
		1,31,53,36,13,50,46,38		6,43
28″	40,55,33, 5,19,46,33,57,22,23		2,59,31,15,13	
		1,31,53,33,14,19,31,25		6,43
30″	40,55,34,37,13,19,48,16,53,48		2,59,31,21,56	
		1,31,53,30,14,48, 9,29		6,43
32″	40,55,36, 9, 6,50, 3, 5, 3,17		2,59,31,28,39	
		1,31,53,27,15,16,40,50		6,43
34″	40,55,37,41, 0,17,18,21,44, 7		2,59,31,35,22	
		1,31,53,24,15,45, 5,28		6,43
36″	40,55,39,12,53,41,34, 6,49,35		2,59,31,42, 5	
		1,31,53,21,16,13,23,23		6,43
38″	40,55,40,44,47, 2,50,20,12,58		2,59,31,48,48	
		1,31,53,18,16,41,34,35		6,43
40″	40,55,42,16,40,21, 7, 1,47,33		2,59,31,55,31	
		1,31,53,15,17, 9,39, 4		6,43
42″	40,55,43,48,33,36,24,11,26,37		2,59,32, 2,14	
		1,31,53,12,17,37,36,50		6,43
44″	40,55,45,20,26,48,41,49, 3,27		2,59,32, 8,57	
		1,31,53, 9,18, 5,27,53		6,43
46″	40,55,46,52,19,57,59,54,31,20		2,59,32,15,40	
		1,31,53, 6,18,33,12,13		6,43
48″	40,55,48,24,13, 4,18,27,43,33		2,59,32,22,23	
		1,31,53, 3,19, 0,49,50		6,43
50″	40,55,49,56, 6, 7,37,28,33,23		2,59,32,29, 6	
		1,31,53, 0,19,28,20,44		6,43
52″	40,55,51,27,59, 7,56,56,54, 7		2,59,32,35,49	
		1,31,52,57,19,55,44,55		6,43
54″	40,55,52,59,52, 5,16,52,39, 2		2,59,32,42,32	
		1,31,52,54,20,23, 2,23		6,43
56″	40,55,54,31,44,59,37,15,41,25		2,59,32,49,15	
		1,31,52,51,20,50,13, 8		6,43
58″	40,55,56, 3,37,50,58, 5,54,33		2,59,32,55,58	
		1,31,52,48,21,17,17,10		
60″	40,55,57,35,30,39,19,23,11,43			
exact	40,55,57,35,30,39,19,23, 2,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43° 1′ 0″	40,55,57,35,30,39,19,23, 2,15			
		1,31,52,45,21,44,13,37		
2″	40,55,59, 7,23,24,41, 7,15,52		2,59,33, 9,27	
		1,31,52,42,22,11, 4,10		6,43
4″	40,56, 0,39,16, 7, 3,18,20, 2		2,59,33,16,10	
		1,31,52,39,22,37,48, 0		6,43
6″	40,56, 2,11, 8,46,25,56, 8, 2		2,59,33,22,53	
		1,31,52,36,23, 4,25, 7		6,43
8″	40,56, 3,43, 1,22,49, 0,33, 9		2,59,33,29,36	
		1,31,52,33,23,30,55,31		6,43
10″	40,56, 5,14,53,56,12,31,28,40		2,59,33,36,19	
		1,31,52,30,23,57,19,12		6,43
12″	40,56, 6,46,46,26,36,28,47,52		2,59,33,43, 2	
		1,31,52,27,24,23,36,10		6,43
14″	40,56, 8,18,38,54, 0,52,24, 2		2,59,33,49,45	
		1,31,52,24,24,49,46,25		6,43
16″	40,56, 9,50,31,18,25,42,10,27		2,59,33,56,28	
		1,31,52,21,25,15,49,57		6,43
18″	40,56,11,22,23,39,50,58, 0,24		2,59,34, 3,11	
		1,31,52,18,25,41,46,46		6,43
20″	40,56,12,54,15,58,16,39,47,10		2,59,34, 9,54	
		1,31,52,15,26, 7,36,52		6,43
22″	40,56,14,26, 8,13,42,47,24, 2		2,59,34,16,37	
		1,31,52,12,26,33,20,15		6,43
24″	40,56,15,58, 0,26, 9,20,44,17		2,59,34,23,20	
		1,31,52, 9,26,58,56,55		6,43
26″	40,56,17,29,52,35,36,19,41,12		2,59,34,30, 3	
		1,31,52, 6,27,24,26,52		6,43
28″	40,56,19, 1,44,42, 3,44, 8, 4		2,59,34,36,46	
		1,31,52, 3,27,49,50, 6		6,43
30″	40,56,20,33,36,45,31,33,58,10		2,59,34,43,29	
		1,31,52, 0,28,15, 6,37		6,43
32″	40,56,22, 5,28,45,59,49, 4,47		2,59,34,50,12	
		1,31,51,57,28,40,16,25		6,43
34″	40,56,23,37,20,43,28,29,21,12		2,59,34,56,55	
		1,31,51,54,29, 5,19,30		6,43
36″	40,56,25, 9,12,37,57,34,40,42		2,59,35, 3,38	
		1,31,51,51,29,30,15,52		6,43
38″	40,56,26,41, 4,29,27, 4,56,34		2,59,35,10,21	
		1,31,51,48,29,55, 5,31		6,43
40″	40,56,28,12,56,17,57, 0, 2, 5		2,59,35,17, 4	
		1,31,51,45,30,19,48,27		6,43
42″	40,56,29,44,48, 3,27,19,50,32		2,59,35,23,47	
		1,31,51,42,30,44,24,40		6,43
44″	40,56,31,16,39,45,58, 4,15,12		2,59,35,30,30	
		1,31,51,39,31, 8,54,10		6,43
46″	40,56,32,48,31,25,29,13, 9,22		2,59,35,37,13	
		1,31,51,36,31,33,16,57		6,43
48″	40,56,34,20,23, 2, 0,46,26,19		2,59,35,43,56	
		1,31,51,33,31,57,33, 1		6,43
50″	40,56,35,52,14,35,32,43,59,20		2,59,35,50,39	
		1,31,51,30,32,21,42,22		6,43
52″	40,56,37,24, 6, 6, 5, 5,41,42		2,59,35,57,22	
		1,31,51,27,32,45,45, 0		6,43
54″	40,56,38,55,57,33,37,51,26,42		2,59,36, 4, 5	
		1,31,51,24,33, 9,40,55		6,43
56″	40,56,40,27,48,58,11, 1, 7,37		2,59,36,10,48	
		1,31,51,21,33,33,30, 7		6,43
58″	40,56,41,59,40,19,44,34,37,44		2,59,36,17,31	
		1,31,51,18,33,57,12,36		
60″	40,56,43,31,31,38,18,31,50,20			
exact	40,56,43,31,31,38,18,31,52,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43° 2′ 0″	40,56,43,31,31,38,18,31,52,53			
		1,31,51,15,34,20,48,36		
2″	40,56,45, 3,22,53,52,52,41,29		2,59,36,30,56	
		1,31,51,12,34,44,17,40		6,43
4″	40,56,46,35,14, 6,27,36,59, 9		2,59,36,37,39	
		1,31,51, 9,35, 7,40, 1		6,43
6″	40,56,48, 7, 5,16, 2,44,39,10		2,59,36,44,22	
		1,31,51, 6,35,30,55,39		6,43
8″	40,56,49,38,56,22,38,15,34,49		2,59,36,51, 5	
		1,31,51, 3,35,54, 4,34		6,43
10″	40,56,51,10,47,26,14, 9,39,23		2,59,36,57,48	
		1,31,51, 0,36,17, 6,46		6,43
12″	40,56,52,42,38,26,50,26,46, 9		2,59,37, 4,31	
		1,31,50,57,36,40, 2,15		6,43
14″	40,56,54,14,29,24,27, 6,48,24		2,59,37,11,14	
		1,31,50,54,37, 2,51, 1		6,43
16″	40,56,55,46,20,19, 4, 9,39,25		2,59,37,17,57	
		1,31,50,51,37,25,33, 4		6,43
18″	40,56,57,18,11,10,41,35,12,29		2,59,37,24,40	
		1,31,50,48,37,48, 8,24		6,43
20″	40,56,58,50, 1,59,19,23,20,53		2,59,37,31,23	
		1,31,50,45,38,10,37, 1		6,43
22″	40,57, 0,21,52,44,57,33,57,54		2,59,37,38, 6	
		1,31,50,42,38,32,58,55		6,43
24″	40,57, 1,53,43,27,36, 6,56,49		2,59,37,44,49	
		1,31,50,39,38,55,14, 6		6,43
26″	40,57, 3,25,34, 7,15, 2,10,55		2,59,37,51,32	
		1,31,50,36,39,17,22,34		6,43
28″	40,57, 4,57,24,43,54,19,33,29		2,59,37,58,15	
		1,31,50,33,39,39,24,19		6,43
30″	40,57, 6,29,15,17,33,58,57,48		2,59,38, 4,58	
		1,31,50,30,40, 1,19,21		6,43
32″	40,57, 8, 1, 5,48,14, 0,17, 9		2,59,38,11,41	
		1,31,50,27,40,23, 7,40		6,43
34″	40,57, 9,32,56,15,54,23,24,49		2,59,38,18,24	
		1,31,50,24,40,44,49,16		6,43
36″	40,57,11, 4,46,40,35, 8,14, 5		2,59,38,25, 7	
		1,31,50,21,41, 6,24, 9		6,43
38″	40,57,12,36,37, 2,16,14,38,14		2,59,38,31,50	
		1,31,50,18,41,27,52,19		6,43
40″	40,57,14, 8,27,20,57,42,30,33		2,59,38,38,33	
		1,31,50,15,41,49,13,46		6,43
42″	40,57,15,40,17,36,39,31,44,19		2,59,38,45,16	
		1,31,50,12,42,10,28,30		6,43
44″	40,57,17,12, 7,49,21,42,12,49		2,59,38,51,59	
		1,31,50, 9,42,31,36,31		6,43
46″	40,57,18,43,57,59, 4,13,49,20		2,59,38,58,42	
		1,31,50, 6,42,52,37,49		6,43
48″	40,57,20,15,48, 5,47, 6,27, 9		2,59,39, 5,25	
		1,31,50, 3,43,13,32,24		6,43
50″	40,57,21,47,38, 9,30,19,59,33		2,59,39,12, 8	
		1,31,50, 0,43,34,20,16		6,43
52″	40,57,23,19,28,10,13,54,19,49		2,59,39,18,51	
		1,31,49,57,43,55, 1,25		6,43
54″	40,57,24,51,18, 7,57,49,21,14		2,59,39,25,34	
		1,31,49,54,44,15,35,51		6,43
56″	40,57,26,23, 8, 2,42, 4,57, 5		2,59,39,32,17	
		1,31,49,51,44,36, 3,34		6,43
58″	40,57,27,54,57,54,26,41, 0,39		2,59,39,39, 0	
		1,31,49,48,44,56,24,34		
60″	40,57,29,26,47,43,11,37,25,13			
exact	40,57,29,26,47,43,11,37,34,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43° 3′ 0″	40,57,29,26,47,43,11,37,34,12			
		1,31,49,45,45,16,39,49		
2″	40,57,30,58,37,28,56,54,14, 1		2,59,39,52,22	
		1,31,49,42,45,36,47,27		6,43
4″	40,57,32,30,27,11,42,31, 1,28		2,59,39,59, 5	
		1,31,49,39,45,56,48,22		6,43
6″	40,57,34, 2,16,51,28,27,49,50		2,59,40, 5,48	
		1,31,49,36,46,16,42,34		6,43
8″	40,57,35,34, 6,28,14,44,32,24		2,59,40,12,31	
		1,31,49,33,46,36,30, 3		6,43
10″	40,57,37, 5,56, 2, 1,21, 2,27		2,59,40,19,14	
		1,31,49,30,46,56,10,49		6,43
12″	40,57,38,37,45,32,48,17,13,16		2,59,40,25,57	
		1,31,49,27,47,15,44,52		6,43
14″	40,57,40, 9,35, 0,35,32,58, 8		2,59,40,32,40	
		1,31,49,24,47,35,12,12		6,43
16″	40,57,41,41,24,25,23, 8,10,20		2,59,40,39,23	
		1,31,49,21,47,54,32,49		6,43
18″	40,57,43,13,13,47,11, 2,43, 9		2,59,40,46, 6	
		1,31,49,18,48,13,46,43		6,43
20″	40,57,44,45, 3, 5,59,16,29,52		2,59,40,52,49	
		1,31,49,15,48,32,53,54		6,43
22″	40,57,46,16,52,21,47,49,23,46		2,59,40,59,32	
		1,31,49,12,48,51,54,22		6,43
24″	40,57,47,48,41,34,36,41,18, 8		2,59,41, 6,15	
		1,31,49, 9,49,10,48, 7		6,43
26″	40,57,49,20,30,44,25,52, 6,15		2,59,41,12,58	
		1,31,49, 6,49,29,35, 9		6,43
28″	40,57,50,52,19,51,15,21,41,24		2,59,41,19,41	
		1,31,49, 3,49,48,15,28		6,43
30″	40,57,52,24, 8,55, 5, 9,56,52		2,59,41,26,24	
		1,31,49, 0,50, 6,49, 4		6,43
32″	40,57,53,55,57,55,55,16,45,56		2,59,41,33, 7	
		1,31,48,57,50,25,15,57		6,43
34″	40,57,55,27,46,53,45,42, 1,53		2,59,41,39,50	
		1,31,48,54,50,43,36, 7		6,43
36″	40,57,56,59,35,48,36,25,38, 0		2,59,41,46,33	
		1,31,48,51,51, 1,49,34		6,43
38″	40,57,58,31,24,40,27,27,27,34		2,59,41,53,16	
		1,31,48,48,51,19,56,18		6,43
40″	40,58, 0, 3,13,29,18,47,23,52		2,59,41,59,59	
		1,31,48,45,51,37,56,19		6,43
42″	40,58, 1,35, 2,15,10,25,20,11		2,59,42, 6,42	
		1,31,48,42,51,55,49,37		6,43
44″	40,58, 3, 6,50,58, 2,21, 9,48		2,59,42,13,25	
		1,31,48,39,52,13,36,12		6,43
46″	40,58, 4,38,39,37,54,34,46, 0		2,59,42,20, 8	
		1,31,48,36,52,31,16, 4		6,43
48″	40,58, 6,10,28,14,47, 6, 2, 4		2,59,42,26,51	
		1,31,48,33,52,48,49,13		6,43
50″	40,58, 7,42,16,48,39,54,51,17		2,59,42,33,34	
		1,31,48,30,53, 6,15,39		6,43
52″	40,58, 9,14, 5,19,33, 1, 6,56		2,59,42,40,17	
		1,31,48,27,53,23,35,22		6,43
54″	40,58,10,45,53,47,26,24,42,18		2,59,42,47, 0	
		1,31,48,24,53,40,48,22		6,43
56″	40,58,12,17,42,12,20, 5,30,40		2,59,42,53,43	
		1,31,48,21,53,57,54,39		6,43
58″	40,58,13,49,30,34,14, 3,25,19		2,59,43, 0,26	
		1,31,48,18,54,14,54,13		
60″	40,58,15,21,18,53, 8,18,19,32			
exact	40,58,15,21,18,53, 8,18,36,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43° 4′ 0″	40,58,15,21,18,53, 8,18,36,49	1,31,48,15,54,31,48,54		
2″	40,58,16,53, 7, 9, 2,50,25,43	1,31,48,12,54,48,35,10	2,59,43,13,44	6,43
4″	40,58,18,24,55,21,57,39, 0,53	1,31,48, 9,55, 5,14,43	2,59,43,20,27	6,43
6″	40,58,19,56,43,31,52,44,15,36	1,31,48, 6,55,21,47,33	2,59,43,27,10	6,43
8″	40,58,21,28,31,38,48, 6, 3, 9	1,31,48, 3,55,38,13,40	2,59,43,33,53	6,43
10″	40,58,23, 0,19,42,43,44,16,49	1,31,48, 0,55,54,33, 4	2,59,43,40,36	6,43
12″	40,58,24,32, 7,43,39,38,49,53	1,31,47,57,56,10,45,45	2,59,43,47,19	6,43
14″	40,58,26, 3,55,41,35,49,35,38	1,31,47,54,56,26,51,43	2,59,43,54, 2	6,43
16″	40,58,27,35,43,36,32,16,27,21	1,31,47,51,56,42,50,58	2,59,44, 0,45	6,43
18″	40,58,29, 7,31,28,28,59,18,19	1,31,47,48,56,58,43,30	2,59,44, 7,28	6,43
20″	40,58,30,39,19,17,25,58, 1,49	1,31,47,45,57,14,29,19	2,59,44,14,11	6,43
22″	40,58,32,11, 7, 3,23,12,31, 8	1,31,47,42,57,30, 8,25	2,59,44,20,54	6,43
24″	40,58,33,42,54,46,20,42,39,33	1,31,47,39,57,45,40,48	2,59,44,27,37	6,43
26″	40,58,35,14,42,26,18,28,20,21	1,31,47,36,58, 1, 6,28	2,59,44,34,20	6,43
28″	40,58,36,46,30, 3,16,29,26,49	1,31,47,33,58,16,25,25	2,59,44,41, 3	6,43
30″	40,58,38,18,17,37,14,45,52,14	1,31,47,30,58,31,37,39	2,59,44,47,46	6,43
32″	40,58,39,50, 5, 8,13,17,29,53	1,31,47,27,58,46,43,10	2,59,44,54,29	6,43
34″	40,58,41,21,52,36,12, 4,13, 3	1,31,47,24,59, 1,41,58	2,59,45, 1,12	6,43
36″	40,58,42,53,40, 1,11, 5,55, 1	1,31,47,21,59,16,34, 3	2,59,45, 7,55	6,43
38″	40,58,44,25,27,23,10,22,29, 4	1,31,47,18,59,31,19,25	2,59,45,14,38	6,43
40″	40,58,45,57,14,42, 9,53,48,29	1,31,47,15,59,45,58, 4	2,59,45,21,21	6,43
42″	40,58,47,29, 1,58, 9,39,46,33	1,31,47,13, 0, 0,30, 0	2,59,45,28, 4	6,43
44″	40,58,49, 0,49,11, 9,40,16,33	1,31,47,10, 0,14,55,13	2,59,45,34,47	6,43
46″	40,58,50,32,36,21, 9,55,11,46	1,31,47, 7, 0,29,13,43	2,59,45,41,30	6,43
48″	40,58,52, 4,23,28,10,24,25,29	1,31,47, 4, 0,43,25,30	2,59,45,48,13	6,43
50″	40,58,53,36,10,32,11, 7,50,59	1,31,47, 1, 0,57,30,34	2,59,45,54,56	6,43
52″	40,58,55, 7,57,33,12, 5,21,33	1,31,46,58, 1,11,28,55	2,59,46, 1,39	6,43
54″	40,58,56,39,44,31,13,16,50,28	1,31,46,55, 1,25,20,33	2,59,46, 8,22	6,43
56″	40,58,58,11,31,26,14,42,11, 1	1,31,46,52, 1,39, 5,28	2,59,46,15, 5	6,43
58″	40,58,59,43,18,18,16,21,16,29	1,31,46,49, 1,52,43,40	2,59,46,21,48	
60″	40,59, 1,15, 5, 7,18,14, 0, 9			
exact	40,59, 1,15, 5, 7,18,14,20,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43° 5′ 0″	40,59, 1,15, 5, 7,18,14,20,38			
		1,31,46,46, 2, 6,17,29		
2″	40,59, 2,46,51,53,20,20,38, 7		2,59,46,35, 4	
		1,31,46,43, 2,19,42,25		6,43
4″	40,59, 4,18,38,36,22,40,20,32		2,59,46,41,47	
		1,31,46,40, 2,33, 0,38		6,43
6″	40,59, 5,50,25,16,25,13,21,10		2,59,46,48,30	
		1,31,46,37, 2,46,12, 8		6,43
8″	40,59, 7,22,11,53,27,59,33,18		2,59,46,55,13	
		1,31,46,34, 2,59,16,55		6,43
10″	40,59, 8,53,58,27,30,58,50,13		2,59,47, 1,56	
		1,31,46,31, 3,12,14,59		6,43
12″	40,59,10,25,44,58,34,11, 5,12		2,59,47, 8,39	
		1,31,46,28, 3,25, 6,20		6,43
14″	40,59,11,57,31,26,37,36,11,32		2,59,47,15,22	
		1,31,46,25, 3,37,50,58		6,43
16″	40,59,13,29,17,51,41,14, 2,30		2,59,47,22, 5	
		1,31,46,22, 3,50,28,53		6,43
18″	40,59,15, 1, 4,13,45, 4,31,23		2,59,47,28,48	
		1,31,46,19, 4, 3, 0, 5		6,43
20″	40,59,16,32,50,32,49, 7,31,28		2,59,47,35,31	
		1,31,46,16, 4,15,24,34		6,43
22″	40,59,18, 4,36,48,53,22,56, 2		2,59,47,42,14	
		1,31,46,13, 4,27,42,20		6,43
24″	40,59,19,36,23, 1,57,50,38,22		2,59,47,48,57	
		1,31,46,10, 4,39,53,23		6,43
26″	40,59,21, 8, 9,12, 2,30,31,45		2,59,47,55,40	
		1,31,46, 7, 4,51,57,43		6,43
28″	40,59,22,39,55,19, 7,22,29,28		2,59,48, 2,23	
		1,31,46, 4, 5, 3,55,20		6,43
30″	40,59,24,11,41,23,12,26,24,48		2,59,48, 9, 6	
		1,31,46, 1, 5,15,46,14		6,43
32″	40,59,25,43,27,24,17,42,11, 2		2,59,48,15,49	
		1,31,45,58, 5,27,30,25		6,43
34″	40,59,27,15,13,22,23, 9,41,27		2,59,48,22,32	
		1,31,45,55, 5,39, 7,53		6,43
36″	40,59,28,46,59,17,28,48,49,20		2,59,48,29,15	
		1,31,45,52, 5,50,38,38		6,43
38″	40,59,30,18,45, 9,34,39,27,58		2,59,48,35,58	
		1,31,45,49, 6, 2, 2,40		6,43
40″	40,59,31,50,30,58,40,41,30,38		2,59,48,42,41	
		1,31,45,46, 6,13,19,59		6,43
42″	40,59,33,22,16,44,46,54,50,37		2,59,48,49,24	
		1,31,45,43, 6,24,30,35		6,43
44″	40,59,34,54, 2,27,53,19,21,12		2,59,48,56, 7	
		1,31,45,40, 6,35,34,28		6,43
46″	40,59,36,25,48, 7,59,54,55,40		2,59,49, 2,50	
		1,31,45,37, 6,46,31,38		6,43
48″	40,59,37,57,33,45, 6,41,27,18		2,59,49, 9,33	
		1,31,45,34, 6,57,22, 5		6,43
50″	40,59,39,29,19,19,13,38,49,23		2,59,49,16,16	
		1,31,45,31, 7, 8, 5,49		6,43
52″	40,59,41, 1, 4,50,20,46,55,12		2,59,49,22,59	
		1,31,45,28, 7,18,42,50		6,43
54″	40,59,42,32,50,18,28, 5,38, 2		2,59,49,29,42	
		1,31,45,25, 7,29,13, 8		6,43
56″	40,59,44, 4,35,43,35,34,51,10		2,59,49,36,25	
		1,31,45,22, 7,39,36,43		6,43
58″	40,59,45,36,21, 5,43,14,27,53		2,59,49,43, 8	
		1,31,45,19, 7,49,53,35		
60″	40,59,47, 8, 6,24,51, 4,21,28			
exact	40,59,47, 8, 6,24,51, 4,54,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43° 6′ 0″	40,59,47, 8, 6,24,51, 4,54,49			
		1,31,45,16, 8, 0, 7,14		
2″	40,59,48,39,51,40,59, 5, 2, 3		2,59,49,56,20	
		1,31,45,13, 8,10,10,54		6,42
4″	40,59,50,11,36,54, 7,15,12,57		2,59,50, 3, 2	
		1,31,45,10, 8,20, 7,52		6,42
6″	40,59,51,43,22, 4,15,35,20,49		2,59,50, 9,44	
		1,31,45, 7, 8,29,58, 8		6,42
8″	40,59,53,15, 7,11,24, 5,18,57		2,59,50,16,26	
		1,31,45, 4, 8,39,41,42		6,42
10″	40,59,54,46,52,15,32,45, 0,39		2,59,50,23, 8	
		1,31,45, 1, 8,49,18,34		6,42
12″	40,59,56,18,37,16,41,34,19,13		2,59,50,29,50	
		1,31,44,58, 8,58,48,44		6,42
14″	40,59,57,50,22,14,50,33, 7,57		2,59,50,36,32	
		1,31,44,55, 9, 8,12,12		6,42
16″	40,59,59,22, 7, 9,59,41,20, 9		2,59,50,43,14	
		1,31,44,52, 9,17,28,58		6,42
18″	41, 0, 0,53,52, 2, 8,58,49, 7		2,59,50,49,56	
		1,31,44,49, 9,26,39, 2		6,42
20″	41, 0, 2,25,36,51,18,25,28, 9		2,59,50,56,38	
		1,31,44,46, 9,35,42,24		6,42
22″	41, 0, 3,57,21,37,28, 1,10,33		2,59,51, 3,20	
		1,31,44,43, 9,44,39, 4		6,42
24″	41, 0, 5,29, 6,20,37,45,49,37		2,59,51,10, 2	
		1,31,44,40, 9,53,29, 2		6,42
26″	41, 0, 7, 0,51, 0,47,39,18,39		2,59,51,16,44	
		1,31,44,37,10, 2,12,18		6,42
28″	41, 0, 8,32,35,37,57,41,30,57		2,59,51,23,26	
		1,31,44,34,10,10,48,52		6,42
30″	41, 0,10, 4,20,12, 7,52,19,49		2,59,51,30, 8	
		1,31,44,31,10,19,18,44		6,42
32″	41, 0,11,36, 4,43,18,11,38,33		2,59,51,36,50	
		1,31,44,28,10,27,41,54		6,42
34″	41, 0,13, 7,49,11,28,39,20,27		2,59,51,43,32	
		1,31,44,25,10,35,58,22		6,42
36″	41, 0,14,39,33,36,39,15,18,49		2,59,51,50,14	
		1,31,44,22,10,44, 8, 8		6,42
38″	41, 0,16,11,17,58,49,59,26,57		2,59,51,56,56	
		1,31,44,19,10,52,11,12		6,42
40″	41, 0,17,43, 2,18, 0,51,38, 9		2,59,52, 3,38	
		1,31,44,16,11, 0, 7,34		6,42
42″	41, 0,19,14,46,34,11,51,45,43		2,59,52,10,20	
		1,31,44,13,11, 7,57,14		6,42
44″	41, 0,20,46,30,47,22,59,42,57		2,59,52,17, 2	
		1,31,44,10,11,15,40,12		6,42
46″	41, 0,22,18,14,57,34,15,23, 9		2,59,52,23,44	
		1,31,44, 7,11,23,16,28		6,42
48″	41, 0,23,49,59, 4,45,38,39,37		2,59,52,30,26	
		1,31,44, 4,11,30,46, 2		6,42
50″	41, 0,25,21,43, 8,57, 9,25,39		2,59,52,37, 8	
		1,31,44, 1,11,38, 8,54		6,42
52″	41, 0,26,53,27,10, 8,47,34,33		2,59,52,43,50	
		1,31,43,58,11,45,25, 4		6,42
54″	41, 0,28,25,11, 8,20,32,59,37		2,59,52,50,32	
		1,31,43,55,11,52,34,32		6,42
56″	41, 0,29,56,55, 3,32,25,34, 9		2,59,52,57,14	
		1,31,43,52,11,59,37,18		6,42
58″	41, 0,31,28,38,55,44,25,11,27		2,59,53, 3,56	
		1,31,43,49,12, 6,33,22		
60″	41, 0,33, 0,22,44,56,31,44,49			
exact	41, 0,33, 0,22,44,56,31,17,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43° 7′ 0″	41, 0,33, 0,22,44,56,31,17,47	1,31,43,46,12,13,19,46		
2″	41, 0,34,32, 6,31, 8,44,37,33	1,31,43,43,12,20, 2,14	2,59,53,17,32	6,42
4″	41, 0,36, 3,50,14,21, 4,39,47	1,31,43,40,12,26,38, 0	2,59,53,24,14	6,42
6″	41, 0,37,35,33,54,33,31,17,47	1,31,43,37,12,33, 7, 4	2,59,53,30,56	6,42
8″	41, 0,39, 7,17,31,46, 4,24,51	1,31,43,34,12,39,29,26	2,59,53,37,38	6,42
10″	41, 0,40,39, 1, 5,58,43,54,17	1,31,43,31,12,45,45, 6	2,59,53,44,20	6,42
12″	41, 0,42,10,44,37,11,29,39,23	1,31,43,28,12,51,54, 4	2,59,53,51, 2	6,42
14″	41, 0,43,42,28, 5,24,21,33,27	1,31,43,25,12,57,56,20	2,59,53,57,44	6,42
16″	41, 0,45,14,11,30,37,19,29,47	1,31,43,22,13, 3,51,54	2,59,54, 4,26	6,42
18″	41, 0,46,45,54,52,50,23,21,41	1,31,43,19,13, 9,40,46	2,59,54,11, 8	6,42
20″	41, 0,48,17,38,12, 3,33, 2,27	1,31,43,16,13,15,22,56	2,59,54,17,50	6,42
22″	41, 0,49,49,21,28,16,48,25,23	1,31,43,13,13,20,58,24	2,59,54,24,32	6,42
24″	41, 0,51,21, 4,41,30, 9,23,47	1,31,43,10,13,26,27,10	2,59,54,31,14	6,42
26″	41, 0,52,52,47,51,43,35,50,57	1,31,43, 7,13,31,49,14	2,59,54,37,56	6,42
28″	41, 0,54,24,30,58,57, 7,40,11	1,31,43, 4,13,37, 4,36	2,59,54,44,38	6,42
30″	41, 0,55,56,14, 3,10,44,44,47	1,31,43, 1,13,42,13,16	2,59,54,51,20	6,42
32″	41, 0,57,27,57, 4,24,26,58, 3	1,31,42,58,13,47,15,14	2,59,54,58, 2	6,42
34″	41, 0,58,59,40, 2,38,14,13,17	1,31,42,55,13,52,10,30	2,59,55, 4,44	6,42
36″	41, 1, 0,31,22,57,52, 6,23,47	1,31,42,52,13,56,59, 4	2,59,55,11,26	6,42
38″	41, 1, 2, 3, 5,50, 6, 3,22,51	1,31,42,49,14, 1,40,56	2,59,55,18, 8	6,42
40″	41, 1, 3,34,48,39,20, 5, 3,47	1,31,42,46,14, 6,16, 6	2,59,55,24,50	6,42
42″	41, 1, 5, 6,31,25,34,11,19,53	1,31,42,43,14,10,44,34	2,59,55,31,32	6,42
44″	41, 1, 6,38,14, 8,48,22, 4,27	1,31,42,40,14,15, 6,20	2,59,55,38,14	6,42
46″	41, 1, 8, 9,56,49, 2,37,10,47	1,31,42,37,14,19,21,24	2,59,55,44,56	6,42
48″	41, 1, 9,41,39,26,16,56,32,11	1,31,42,34,14,23,29,46	2,59,55,51,38	6,42
50″	41, 1,11,13,22, 0,31,20, 1,57	1,31,42,31,14,27,31,26	2,59,55,58,20	6,42
52″	41, 1,12,45, 4,31,45,47,33,23	1,31,42,28,14,31,26,24	2,59,56, 5, 2	6,42
54″	41, 1,14,16,47, 0, 0,18,59,47	1,31,42,25,14,35,14,40	2,59,56,11,44	6,42
56″	41, 1,15,48,29,25,14,54,14,27	1,31,42,22,14,38,56,14	2,59,56,18,26	6,42
58″	41, 1,17,20,11,47,29,33,10,41	1,31,42,19,14,42,31, 6	2,59,56,25, 8	
60″	41, 1,18,51,54, 6,44,15,41,47			
exact	41, 1,18,51,54, 6,44,15,17,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43° 8′ 0″	41, 1,18,51,54, 6,44,15,17,18	1,31,42,16,14,45,56,45		
2″	41, 1,20,23,36,22,59, 1,14, 3	1,31,42,13,14,49,18, 3	2,59,56,38,42	6,42
4″	41, 1,21,55,18,36,13,50,32, 6	1,31,42,10,14,52,32,39	2,59,56,45,24	6,42
6″	41, 1,23,27, 0,46,28,43, 4,45	1,31,42, 7,14,55,40,33	2,59,56,52, 6	6,42
8″	41, 1,24,58,42,53,43,38,45,18	1,31,42, 4,14,58,41,45	2,59,56,58,48	6,42
10″	41, 1,26,30,24,57,58,37,27, 3	1,31,42, 1,15, 1,36,15	2,59,57, 5,30	6,42
12″	41, 1,28, 2, 6,59,13,39, 3,18	1,31,41,58,15, 4,24, 3	2,59,57,12,12	6,42
14″	41, 1,29,33,48,57,28,43,27,21	1,31,41,55,15, 7, 5, 9	2,59,57,18,54	6,42
16″	41, 1,31, 5,30,52,43,50,32,30	1,31,41,52,15, 9,39,33	2,59,57,25,36	6,42
18″	41, 1,32,37,12,44,59, 0,12, 3	1,31,41,49,15,12, 7,15	2,59,57,32,18	6,42
20″	41, 1,34, 8,54,34,14,12,19,18	1,31,41,46,15,14,28,15	2,59,57,39, 0	6,42
22″	41, 1,35,40,36,20,29,26,47,33	1,31,41,43,15,16,42,33	2,59,57,45,42	6,42
24″	41, 1,37,12,18, 3,44,43,30, 6	1,31,41,40,15,18,50, 9	2,59,57,52,24	6,42
26″	41, 1,38,43,59,44, 0, 2,20,15	1,31,41,37,15,20,51, 3	2,59,57,59, 6	6,42
28″	41, 1,40,15,41,21,15,23,11,18	1,31,41,34,15,22,45,15	2,59,58, 5,48	6,42
30″	41, 1,41,47,22,55,30,45,56,33	1,31,41,31,15,24,32,45	2,59,58,12,30	6,42
32″	41, 1,43,19, 4,26,46,10,29,18	1,31,41,28,15,26,13,33	2,59,58,19,12	6,42
34″	41, 1,44,50,45,55, 1,36,42,51	1,31,41,25,15,27,47,39	2,59,58,25,54	6,42
36″	41, 1,46,22,27,20,17, 4,30,30	1,31,41,22,15,29,15, 3	2,59,58,32,36	6,42
38″	41, 1,47,54, 8,42,32,33,45,33	1,31,41,19,15,30,35,45	2,59,58,39,18	6,42
40″	41, 1,49,25,50, 1,48, 4,21,18	1,31,41,16,15,31,49,45	2,59,58,46, 0	6,42
42″	41, 1,50,57,31,18, 3,36,11, 3	1,31,41,13,15,32,57, 3	2,59,58,52,42	6,42
44″	41, 1,52,29,12,31,19, 9, 8, 6	1,31,41,10,15,33,57,39	2,59,58,59,24	6,42
46″	41, 1,54, 0,53,41,34,43, 5,45	1,31,41, 7,15,34,51,33	2,59,59, 6, 6	6,42
48″	41, 1,55,32,34,48,50,17,57,18	1,31,41, 4,15,35,38,45	2,59,59,12,48	6,42
50″	41, 1,57, 4,15,53, 5,53,36, 3	1,31,41, 1,15,36,19,15	2,59,59,19,30	6,42
52″	41, 1,58,35,56,54,21,29,55,18	1,31,40,58,15,36,53, 3	2,59,59,26,12	6,42
54″	41, 2, 0, 7,37,52,37, 6,48,21	1,31,40,55,15,37,20, 9	2,59,59,32,54	6,42
56″	41, 2, 1,39,18,47,52,44, 8,30	1,31,40,52,15,37,40,33	2,59,59,39,36	6,42
58″	41, 2, 3,10,59,40, 8,21,49, 3	1,31,40,49,15,37,54,15	2,59,59,46,18	
60″	41, 2, 4,42,40,29,23,59,43,18			
exact	41, 2, 4,42,40,29,23,59,30,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43° 9′ 0″	41, 2, 4,42,40,29,23,59,30,25	1,31,40,46,15,37,59,49		
2″	41, 2, 6,14,21,15,39,37,30,14	1,31,40,43,15,38, 0, 1	2,59,59,59,48	6,42
4″	41, 2, 7,46, 1,58,55,15,30,15	1,31,40,40,15,37,53,31	3, 0, 0, 6,30	6,42
6″	41, 2, 9,17,42,39,10,53,23,46	1,31,40,37,15,37,40,19	3, 0, 0,13,12	6,42
8″	41, 2,10,49,23,16,26,31, 4, 5	1,31,40,34,15,37,20,25	3, 0, 0,19,54	6,42
10″	41, 2,12,21, 3,50,42, 8,24,30	1,31,40,31,15,36,53,49	3, 0, 0,26,36	6,42
12″	41, 2,13,52,44,21,57,45,18,19	1,31,40,28,15,36,20,31	3, 0, 0,33,18	6,42
14″	41, 2,15,24,24,50,13,21,38,50	1,31,40,25,15,35,40,31	3, 0, 0,40, 0	6,42
16″	41, 2,16,56, 5,15,28,57,19,21	1,31,40,22,15,34,53,49	3, 0, 0,46,42	6,42
18″	41, 2,18,27,45,37,44,32,13,10	1,31,40,19,15,34, 0,25	3, 0, 0,53,24	6,42
20″	41, 2,19,59,25,57, 0, 6,13,35	1,31,40,16,15,33, 0,19	3, 0, 1, 0, 6	6,42
22″	41, 2,21,31, 6,13,15,39,13,54	1,31,40,13,15,31,53,31	3, 0, 1, 6,48	6,42
24″	41, 2,23, 2,46,26,31,11, 7,25	1,31,40,10,15,30,40, 1	3, 0, 1,13,30	6,42
26″	41, 2,24,34,26,36,46,41,47,26	1,31,40, 7,15,29,19,49	3, 0, 1,20,12	6,42
28″	41, 2,26, 6, 6,44, 2,11, 7,15	1,31,40, 4,15,27,52,55	3, 0, 1,26,54	6,42
30″	41, 2,27,37,46,48,17,39, 0,10	1,31,40, 1,15,26,19,19	3, 0, 1,33,36	6,42
32″	41, 2,29, 9,26,49,33, 5,19,29	1,31,39,58,15,24,39, 1	3, 0, 1,40,18	6,42
34″	41, 2,30,41, 6,47,48,29,58,30	1,31,39,55,15,22,52, 1	3, 0, 1,47, 0	6,42
36″	41, 2,32,12,46,43, 3,52,50,31	1,31,39,52,15,20,58,19	3, 0, 1,53,42	6,42
38″	41, 2,33,44,26,35,19,13,48,50	1,31,39,49,15,18,57,55	3, 0, 2, 0,24	6,42
40″	41, 2,35,16, 6,24,34,32,46,45	1,31,39,46,15,16,50,49	3, 0, 2, 7, 6	6,42
42″	41, 2,36,47,46,10,49,49,37,34	1,31,39,43,15,14,37, 1	3, 0, 2,13,48	6,42
44″	41, 2,38,19,25,54, 5, 4,14,35	1,31,39,40,15,12,16,31	3, 0, 2,20,30	6,42
46″	41, 2,39,51, 5,34,20,16,31, 6	1,31,39,37,15, 9,49,19	3, 0, 2,27,12	6,42
48″	41, 2,41,22,45,11,35,26,20,25	1,31,39,34,15, 7,15,25	3, 0, 2,33,54	6,42
50″	41, 2,42,54,24,45,50,33,35,50	1,31,39,31,15, 4,34,49	3, 0, 2,40,36	6,42
52″	41, 2,44,26, 4,17, 5,38,10,39	1,31,39,28,15, 1,47,31	3, 0, 2,47,18	6,42
54″	41, 2,45,57,43,45,20,39,58,10	1,31,39,25,14,58,53,31	3, 0, 2,54, 0	6,42
56″	41, 2,47,29,23,10,35,38,51,41	1,31,39,22,14,55,52,49	3, 0, 3, 0,42	6,42
58″	41, 2,49, 1, 2,32,50,34,44,30	1,31,39,19,14,52,45,25	3, 0, 3, 7,24	
60″	41, 2,50,32,41,52, 5,27,29,55			
exact	41, 2,50,32,41,52, 5,27,23,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°10′ 0″	41, 2,50,32,41,52, 5,27,23,33	1,31,39,16,14,49,30,37		
2″	41, 2,52, 4,21, 8,20,16,54,10	1,31,39,13,14,46, 9,46	3, 0, 3,20,51	6,42
4″	41, 2,53,36, 0,21,35, 3, 3,56	1,31,39,10,14,42,42,13	3, 0, 3,27,33	6,42
6″	41, 2,55, 7,39,31,49,45,46, 9	1,31,39, 7,14,39, 7,58	3, 0, 3,34,15	6,42
8″	41, 2,56,39,18,39, 4,24,54, 7	1,31,39, 4,14,35,27, 1	3, 0, 3,40,57	6,42
10″	41, 2,58,10,57,43,19, 0,21, 8	1,31,39, 1,14,31,39,22	3, 0, 3,47,39	6,42
12″	41, 2,59,42,36,44,33,32, 0,30	1,31,38,58,14,27,45, 1	3, 0, 3,54,21	6,42
14″	41, 3, 1,14,15,42,47,59,45,31	1,31,38,55,14,23,43,58	3, 0, 4, 1, 3	6,42
16″	41, 3, 2,45,54,38, 2,23,29,29	1,31,38,52,14,19,36,13	3, 0, 4, 7,45	6,42
18″	41, 3, 4,17,33,30,16,43, 5,42	1,31,38,49,14,15,21,46	3, 0, 4,14,27	6,42
20″	41, 3, 5,49,12,19,30,58,27,28	1,31,38,46,14,11, 0,37	3, 0, 4,21, 9	6,42
22″	41, 3, 7,20,51, 5,45, 9,28, 5	1,31,38,43,14, 6,32,46	3, 0, 4,27,51	6,42
24″	41, 3, 8,52,29,48,59,16, 0,51	1,31,38,40,14, 1,58,13	3, 0, 4,34,33	6,42
26″	41, 3,10,24, 8,29,13,17,59, 4	1,31,38,37,13,57,16,58	3, 0, 4,41,15	6,42
28″	41, 3,11,55,47, 6,27,15,16, 2	1,31,38,34,13,52,29, 1	3, 0, 4,47,57	6,42
30″	41, 3,13,27,25,40,41, 7,45, 3	1,31,38,31,13,47,34,22	3, 0, 4,54,39	6,42
32″	41, 3,14,59, 4,11,54,55,19,25	1,31,38,28,13,42,33, 1	3, 0, 5, 1,21	6,42
34″	41, 3,16,30,42,40, 8,37,52,26	1,31,38,25,13,37,24,58	3, 0, 5, 8, 3	6,42
36″	41, 3,18, 2,21, 5,22,15,17,24	1,31,38,22,13,32,10,13	3, 0, 5,14,45	6,42
38″	41, 3,19,33,59,27,35,47,27,37	1,31,38,19,13,26,48,46	3, 0, 5,21,27	6,42
40″	41, 3,21, 5,37,46,49,14,16,23	1,31,38,16,13,21,20,37	3, 0, 5,28, 9	6,42
42″	41, 3,22,37,16, 3, 2,35,37, 0	1,31,38,13,13,15,45,46	3, 0, 5,34,51	6,42
44″	41, 3,24, 8,54,16,15,51,22,46	1,31,38,10,13,10, 4,13	3, 0, 5,41,33	6,42
46″	41, 3,25,40,32,26,29, 1,26,59	1,31,38, 7,13, 4,15,58	3, 0, 5,48,15	6,42
48″	41, 3,27,12,10,33,42, 5,42,57	1,31,38, 4,12,58,21, 1	3, 0, 5,54,57	6,42
50″	41, 3,28,43,48,37,55, 4, 3,58	1,31,38, 1,12,52,19,22	3, 0, 6, 1,39	6,42
52″	41, 3,30,15,26,39, 7,56,23,20	1,31,37,58,12,46,11, 1	3, 0, 6, 8,21	6,42
54″	41, 3,31,47, 4,37,20,42,34,21	1,31,37,55,12,39,55,58	3, 0, 6,15, 3	6,42
56″	41, 3,33,18,42,32,33,22,30,19	1,31,37,52,12,33,34,13	3, 0, 6,21,45	6,42
58″	41, 3,34,50,20,24,45,56, 4,32	1,31,37,49,12,27, 5,46	3, 0, 6,28,27	
60″	41, 3,36,21,58,13,58,23,10,18			
exact	41, 3,36,21,58,13,58,23,12,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°11′ 0″	41, 3,36,21,58,13,58,23,12,25	1,31,37,46,12,20,30,48		
2″	41, 3,37,53,36, 0,10,43,43,13	1,31,37,43,12,13,48,58	3, 0, 6,41,50	6,42
4″	41, 3,39,25,13,43,22,57,32,11	1,31,37,40,12, 7, 0,26	3, 0, 6,48,32	6,42
6″	41, 3,40,56,51,23,35, 4,32,37	1,31,37,37,12, 0, 5,12	3, 0, 6,55,14	6,42
8″	41, 3,42,28,29, 0,47, 4,37,49	1,31,37,34,11,53, 3,16	3, 0, 7, 1,56	6,42
10″	41, 3,44, 0, 6,34,58,57,41, 5	1,31,37,31,11,45,54,38	3, 0, 7, 8,38	6,42
12″	41, 3,45,31,44, 6,10,43,35,43	1,31,37,28,11,38,39,18	3, 0, 7,15,20	6,42
14″	41, 3,47, 3,21,34,22,22,15, 1	1,31,37,25,11,31,17,16	3, 0, 7,22, 2	6,42
16″	41, 3,48,34,58,59,33,53,32,17	1,31,37,22,11,23,48,32	3, 0, 7,28,44	6,42
18″	41, 3,50, 6,36,21,45,17,20,49	1,31,37,19,11,16,13, 6	3, 0, 7,35,26	6,42
20″	41, 3,51,38,13,40,56,33,33,55	1,31,37,16,11, 8,30,58	3, 0, 7,42, 8	6,42
22″	41, 3,53, 9,50,57, 7,42, 4,53	1,31,37,13,11, 0,42, 8	3, 0, 7,48,50	6,42
24″	41, 3,54,41,28,10,18,42,47, 1	1,31,37,10,10,52,46,36	3, 0, 7,55,32	6,42
26″	41, 3,56,13, 5,20,29,35,33,37	1,31,37, 7,10,44,44,22	3, 0, 8, 2,14	6,42
28″	41, 3,57,44,42,27,40,20,17,59	1,31,37, 4,10,36,35,26	3, 0, 8, 8,56	6,42
30″	41, 3,59,16,19,31,50,56,53,25	1,31,37, 1,10,28,19,48	3, 0, 8,15,38	6,42
32″	41, 4, 0,47,56,33, 1,25,13,13	1,31,36,58,10,19,57,28	3, 0, 8,22,20	6,42
34″	41, 4, 2,19,33,31,11,45,10,41	1,31,36,55,10,11,28,26	3, 0, 8,29, 2	6,42
36″	41, 4, 3,51,10,26,21,56,39, 7	1,31,36,52,10, 2,52,42	3, 0, 8,35,44	6,42
38″	41, 4, 5,22,47,18,31,59,31,49	1,31,36,49, 9,54,10,16	3, 0, 8,42,26	6,42
40″	41, 4, 6,54,24, 7,41,53,42, 5	1,31,36,46, 9,45,21, 8	3, 0, 8,49, 8	6,42
42″	41, 4, 8,26, 0,53,51,39, 3,13	1,31,36,43, 9,36,25,18	3, 0, 8,55,50	6,42
44″	41, 4, 9,57,37,37, 1,15,28,31	1,31,36,40, 9,27,22,46	3, 0, 9, 2,32	6,42
46″	41, 4,11,29,14,17,10,42,51,17	1,31,36,37, 9,18,13,32	3, 0, 9, 9,14	6,42
48″	41, 4,13, 0,50,54,20, 1, 4,49	1,31,36,34, 9, 8,57,36	3, 0, 9,15,56	6,42
50″	41, 4,14,32,27,28,29,10, 2,25	1,31,36,31, 8,59,34,58	3, 0, 9,22,38	6,42
52″	41, 4,16, 4, 3,59,38, 9,37,23	1,31,36,28, 8,50, 5,38	3, 0, 9,29,20	6,42
54″	41, 4,17,35,40,27,46,59,43, 1	1,31,36,25, 8,40,29,36	3, 0, 9,36, 2	6,42
56″	41, 4,19, 7,16,52,55,40,12,37	1,31,36,22, 8,30,46,52	3, 0, 9,42,44	6,42
58″	41, 4,20,38,53,15, 4,10,59,29	1,31,36,19, 8,20,57,26	3, 0, 9,49,26	
60″	41, 4,22,10,29,34,12,31,56,55			
exact	41, 4,22,10,29,34,12,32, 2, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°12′ 0″	41, 4,22,10,29,34,12,32, 2, 8			
		1,31,36,16, 8,11, 1,59		
2″	41, 4,23,42, 5,50,20,43, 4, 7		3, 0,10, 2,46	
		1,31,36,13, 8, 0,59,13		6,42
4″	41, 4,25,13,42, 3,28,44, 3,20		3, 0,10, 9,28	
		1,31,36,10, 7,50,49,45		6,42
6″	41, 4,26,45,18,13,36,34,53, 5		3, 0,10,16,10	
		1,31,36, 7, 7,40,33,35		6,42
8″	41, 4,28,16,54,20,44,15,26,40		3, 0,10,22,52	
		1,31,36, 4, 7,30,10,43		6,42
10″	41, 4,29,48,30,24,51,45,37,23		3, 0,10,29,34	
		1,31,36, 1, 7,19,41, 9		6,42
12″	41, 4,31,20, 6,25,59, 5,18,32		3, 0,10,36,16	
		1,31,35,58, 7, 9, 4,53		6,42
14″	41, 4,32,51,42,24, 6,14,23,25		3, 0,10,42,58	
		1,31,35,55, 6,58,21,55		6,42
16″	41, 4,34,23,18,19,13,12,45,20		3, 0,10,49,40	
		1,31,35,52, 6,47,32,15		6,42
18″	41, 4,35,54,54,11,20, 0,17,35		3, 0,10,56,22	
		1,31,35,49, 6,36,35,53		6,42
20″	41, 4,37,26,30, 0,26,36,53,28		3, 0,11, 3, 4	
		1,31,35,46, 6,25,32,49		6,42
22″	41, 4,38,58, 5,46,33, 2,26,17		3, 0,11, 9,46	
		1,31,35,43, 6,14,23, 3		6,42
24″	41, 4,40,29,41,29,39,16,49,20		3, 0,11,16,28	
		1,31,35,40, 6, 3, 6,35		6,42
26″	41, 4,42, 1,17, 9,45,19,55,55		3, 0,11,23,10	
		1,31,35,37, 5,51,43,25		6,42
28″	41, 4,43,32,52,46,51,11,39,20		3, 0,11,29,52	
		1,31,35,34, 5,40,13,33		6,42
30″	41, 4,45, 4,28,20,56,51,52,53		3, 0,11,36,34	
		1,31,35,31, 5,28,36,59		6,42
32″	41, 4,46,36, 3,52, 2,20,29,52		3, 0,11,43,16	
		1,31,35,28, 5,16,53,43		6,42
34″	41, 4,48, 7,39,20, 7,37,23,35		3, 0,11,49,58	
		1,31,35,25, 5, 5, 3,45		6,42
36″	41, 4,49,39,14,45,12,42,27,20		3, 0,11,56,40	
		1,31,35,22, 4,53, 7, 5		6,42
38″	41, 4,51,10,50, 7,17,35,34,25		3, 0,12, 3,22	
		1,31,35,19, 4,41, 3,43		6,42
40″	41, 4,52,42,25,26,22,16,38, 8		3, 0,12,10, 4	
		1,31,35,16, 4,28,53,39		6,42
42″	41, 4,54,14, 0,42,26,45,31,47		3, 0,12,16,46	
		1,31,35,13, 4,16,36,53		6,42
44″	41, 4,55,45,35,55,31, 2, 8,40		3, 0,12,23,28	
		1,31,35,10, 4, 4,13,25		6,42
46″	41, 4,57,17,11, 5,35, 6,22, 5		3, 0,12,30,10	
		1,31,35, 7, 3,51,43,15		6,42
48″	41, 4,58,48,46,12,38,58, 5,20		3, 0,12,36,52	
		1,31,35, 4, 3,39, 6,23		6,42
50″	41, 5, 0,20,21,16,42,37,11,43		3, 0,12,43,34	
		1,31,35, 1, 3,26,22,49		6,42
52″	41, 5, 1,51,56,17,46, 3,34,32		3, 0,12,50,16	
		1,31,34,58, 3,13,32,33		6,42
54″	41, 5, 3,23,31,15,49,17, 7, 5		3, 0,12,56,58	
		1,31,34,55, 3, 0,35,35		6,42
56″	41, 5, 4,55, 6,10,52,17,42,40		3, 0,13, 3,40	
		1,31,34,52, 2,47,31,55		6,42
58″	41, 5, 6,26,41, 2,55, 5,14,35		3, 0,13,10,22	
		1,31,34,49, 2,34,21,33		
60″	41, 5, 7,58,15,51,57,39,36, 8			
exact	41, 5, 7,58,15,51,57,39,47,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°13′ 0″	41, 5, 7,58,15,51,57,39,47,11	1,31,34,46, 2,21, 5,51		
2″	41, 5, 9,29,50,38, 0, 0,53, 2	1,31,34,43, 2, 7,42,12	3, 0,13,23,39	6,42
4″	41, 5,11, 1,25,21, 2, 8,35,14	1,31,34,40, 1,54,11,51	3, 0,13,30,21	6,42
6″	41, 5,12,33, 0, 1, 4, 2,47, 5	1,31,34,37, 1,40,34,48	3, 0,13,37, 3	6,42
8″	41, 5,14, 4,34,38, 5,43,21,53	1,31,34,34, 1,26,51, 3	3, 0,13,43,45	6,42
10″	41, 5,15,36, 9,12, 7,10,12,56	1,31,34,31, 1,13, 0,36	3, 0,13,50,27	6,42
12″	41, 5,17, 7,43,43, 8,23,13,32	1,31,34,28, 0,59, 3,27	3, 0,13,57, 9	6,42
14″	41, 5,18,39,18,11, 9,22,16,59	1,31,34,25, 0,44,59,36	3, 0,14, 3,51	6,42
16″	41, 5,20,10,52,36,10, 7,16,35	1,31,34,22, 0,30,49, 3	3, 0,14,10,33	6,42
18″	41, 5,21,42,26,58,10,38, 5,38	1,31,34,19, 0,16,31,48	3, 0,14,17,15	6,42
20″	41, 5,23,14, 1,17,10,54,37,26	1,31,34,16, 0, 2, 7,51	3, 0,14,23,57	6,42
22″	41, 5,24,45,35,33,10,56,45,17	1,31,34,12,59,47,37,12	3, 0,14,30,39	6,42
24″	41, 5,26,17, 9,46,10,44,22,29	1,31,34, 9,59,32,59,51	3, 0,14,37,21	6,42
26″	41, 5,27,48,43,56,10,17,22,20	1,31,34, 6,59,18,15,48	3, 0,14,44, 3	6,42
28″	41, 5,29,20,18, 3, 9,35,38, 8	1,31,34, 3,59, 3,25, 3	3, 0,14,50,45	6,42
30″	41, 5,30,51,52, 7, 8,39, 3,11	1,31,34, 0,58,48,27,36	3, 0,14,57,27	6,42
32″	41, 5,32,23,26, 8, 7,27,30,47	1,31,33,57,58,33,23,27	3, 0,15, 4, 9	6,42
34″	41, 5,33,55, 0, 6, 6, 0,54,14	1,31,33,54,58,18,12,36	3, 0,15,10,51	6,42
36″	41, 5,35,26,34, 1, 4,19, 6,50	1,31,33,51,58, 2,55, 3	3, 0,15,17,33	6,42
38″	41, 5,36,58, 7,53, 2,22, 1,53	1,31,33,48,57,47,30,48	3, 0,15,24,15	6,42
40″	41, 5,38,29,41,42, 0, 9,32,41	1,31,33,45,57,31,59,51	3, 0,15,30,57	6,42
42″	41, 5,40, 1,15,27,57,41,32,32	1,31,33,42,57,16,22,12	3, 0,15,37,39	6,42
44″	41, 5,41,32,49,10,54,57,54,44	1,31,33,39,57, 0,37,51	3, 0,15,44,21	6,42
46″	41, 5,43, 4,22,50,51,58,32,35	1,31,33,36,56,44,46,48	3, 0,15,51, 3	6,42
48″	41, 5,44,35,56,27,48,43,19,23	1,31,33,33,56,28,49, 3	3, 0,15,57,45	6,42
50″	41, 5,46, 7,30, 1,45,12, 8,26	1,31,33,30,56,12,44,36	3, 0,16, 4,27	6,42
52″	41, 5,47,39, 3,32,41,24,53, 2	1,31,33,27,55,56,33,27	3, 0,16,11, 9	6,42
54″	41, 5,49,10,37, 0,37,21,26,29	1,31,33,24,55,40,15,36	3, 0,16,17,51	6,42
56″	41, 5,50,42,10,25,33, 1,42, 5	1,31,33,21,55,23,51, 3	3, 0,16,24,33	6,42
58″	41, 5,52,13,43,47,28,25,33, 8	1,31,33,18,55, 7,19,48	3, 0,16,31,15	
60″	41, 5,53,45,17, 6,23,32,52,56			
exact	41, 5,53,45,17, 6,23,33,11,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°14′ 0″	41, 5,53,45,17, 6,23,33,11,27			
		1,31,33,15,54,50,44, 1		
2″	41, 5,55,16,50,22,18,23,55,28		3, 0,16,44,29	
		1,31,33,12,54,33,59,32		6,42
4″	41, 5,56,48,23,35,12,57,55, 0		3, 0,16,51,11	
		1,31,33, 9,54,17, 8,21		6,42
6″	41, 5,58,19,56,45, 7,15, 3,21		3, 0,16,57,53	
		1,31,33, 6,54, 0,10,28		6,42
8″	41, 5,59,51,29,52, 1,15,13,49		3, 0,17, 4,35	
		1,31,33, 3,53,43, 5,53		6,42
10″	41, 6, 1,23, 2,55,54,58,19,42		3, 0,17,11,17	
		1,31,33, 0,53,25,54,36		6,42
12″	41, 6, 2,54,35,56,48,24,14,18		3, 0,17,17,59	
		1,31,32,57,53, 8,36,37		6,42
14″	41, 6, 4,26, 8,54,41,32,50,55		3, 0,17,24,41	
		1,31,32,54,52,51,11,56		6,42
16″	41, 6, 5,57,41,49,34,24, 2,51		3, 0,17,31,23	
		1,31,32,51,52,33,40,33		6,42
18″	41, 6, 7,29,14,41,26,57,43,24		3, 0,17,38, 5	
		1,31,32,48,52,16, 2,28		6,42
20″	41, 6, 9, 0,47,30,19,13,45,52		3, 0,17,44,47	
		1,31,32,45,51,58,17,41		6,42
22″	41, 6,10,32,20,16,11,12, 3,33		3, 0,17,51,29	
		1,31,32,42,51,40,26,12		6,42
24″	41, 6,12, 3,52,59, 2,52,29,45		3, 0,17,58,11	
		1,31,32,39,51,22,28, 1		6,42
26″	41, 6,13,35,25,38,54,14,57,46		3, 0,18, 4,53	
		1,31,32,36,51, 4,23, 8		6,42
28″	41, 6,15, 6,58,15,45,19,20,54		3, 0,18,11,35	
		1,31,32,33,50,46,11,33		6,42
30″	41, 6,16,38,30,49,36, 5,32,27		3, 0,18,18,17	
		1,31,32,30,50,27,53,16		6,42
32″	41, 6,18,10, 3,20,26,33,25,43		3, 0,18,24,59	
		1,31,32,27,50, 9,28,17		6,42
34″	41, 6,19,41,35,48,16,42,54, 0		3, 0,18,31,41	
		1,31,32,24,49,50,56,36		6,42
36″	41, 6,21,13, 8,13, 6,33,50,36		3, 0,18,38,23	
		1,31,32,21,49,32,18,13		6,42
38″	41, 6,22,44,40,34,56, 6, 8,49		3, 0,18,45, 5	
		1,31,32,18,49,13,33, 8		6,42
40″	41, 6,24,16,12,53,45,19,41,57		3, 0,18,51,47	
		1,31,32,15,48,54,41,21		6,42
42″	41, 6,25,47,45, 9,34,14,23,18		3, 0,18,58,29	
		1,31,32,12,48,35,42,52		6,42
44″	41, 6,27,19,17,22,22,50, 6,10		3, 0,19, 5,11	
		1,31,32, 9,48,16,37,41		6,42
46″	41, 6,28,50,49,32,11, 6,43,51		3, 0,19,11,53	
		1,31,32, 6,47,57,25,48		6,42
48″	41, 6,30,22,21,38,59, 4, 9,39		3, 0,19,18,35	
		1,31,32, 3,47,38, 7,13		6,42
50″	41, 6,31,53,53,42,46,42,16,52		3, 0,19,25,17	
		1,31,32, 0,47,18,41,56		6,42
52″	41, 6,33,25,25,43,34, 0,58,48		3, 0,19,31,59	
		1,31,31,57,46,59, 9,57		6,42
54″	41, 6,34,56,57,41,21, 0, 8,45		3, 0,19,38,41	
		1,31,31,54,46,39,31,16		6,42
56″	41, 6,36,28,29,36, 7,39,40, 1		3, 0,19,45,23	
		1,31,31,51,46,19,45,53		6,42
58″	41, 6,38, 0, 1,27,53,59,25,54		3, 0,19,52, 5	
		1,31,31,48,45,59,53,48		
60″	41, 6,39,31,33,16,39,59,19,42			
exact	41, 6,39,31,33,16,39,59,48,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°15′ 0″	41, 6,39,31,33,16,39,59,48,12	1,31,31,45,45,39,58, 9		
2″	41, 6,41, 3, 5, 2,25,39,46,21	1,31,31,42,45,19,52,54	3, 0,20, 5,15	6,41
4″	41, 6,42,34,36,45,10,59,39,15	1,31,31,39,44,59,40,58	3, 0,20,11,56	6,41
6″	41, 6,44, 6, 8,24,55,59,20,13	1,31,31,36,44,39,22,21	3, 0,20,18,37	6,41
8″	41, 6,45,37,40, 1,40,38,42,34	1,31,31,33,44,18,57, 3	3, 0,20,25,18	6,41
10″	41, 6,47, 9,11,35,24,57,39,37	1,31,31,30,43,58,25, 4	3, 0,20,31,59	6,41
12″	41, 6,48,40,43, 6, 8,56, 4,41	1,31,31,27,43,37,46,24	3, 0,20,38,40	6,41
14″	41, 6,50,12,14,33,52,33,51, 5	1,31,31,24,43,17, 1, 3	3, 0,20,45,21	6,41
16″	41, 6,51,43,45,58,35,50,52, 8	1,31,31,21,42,56, 9, 1	3, 0,20,52, 2	6,41
18″	41, 6,53,15,17,20,18,47, 1, 9	1,31,31,18,42,35,10,18	3, 0,20,58,43	6,41
20″	41, 6,54,46,48,39, 1,22,11,27	1,31,31,15,42,14, 4,54	3, 0,21, 5,24	6,41
22″	41, 6,56,18,19,54,43,36,16,21	1,31,31,12,41,52,52,49	3, 0,21,12, 5	6,41
24″	41, 6,57,49,51, 7,25,29, 9,10	1,31,31, 9,41,31,34, 3	3, 0,21,18,46	6,41
26″	41, 6,59,21,22,17, 7, 0,43,13	1,31,31, 6,41,10, 8,36	3, 0,21,25,27	6,41
28″	41, 7, 0,52,53,23,48,10,51,49	1,31,31, 3,40,48,36,28	3, 0,21,32, 8	6,41
30″	41, 7, 2,24,24,27,28,59,28,17	1,31,31, 0,40,26,57,39	3, 0,21,38,49	6,41
32″	41, 7, 3,55,55,28, 9,26,25,56	1,31,30,57,40, 5,12, 9	3, 0,21,45,30	6,41
34″	41, 7, 5,27,26,25,49,31,38, 5	1,31,30,54,39,43,19,58	3, 0,21,52,11	6,41
36″	41, 7, 6,58,57,20,29,14,58, 3	1,31,30,51,39,21,21, 6	3, 0,21,58,52	6,41
38″	41, 7, 8,30,28,12, 8,36,19, 9	1,31,30,48,38,59,15,33	3, 0,22, 5,33	6,41
40″	41, 7,10, 1,59, 0,47,35,34,42	1,31,30,45,38,37, 3,19	3, 0,22,12,14	6,41
42″	41, 7,11,33,29,46,26,12,38, 1	1,31,30,42,38,14,44,24	3, 0,22,18,55	6,41
44″	41, 7,13, 5, 0,29, 4,27,22,25	1,31,30,39,37,52,18,48	3, 0,22,25,36	6,41
46″	41, 7,14,36,31, 8,42,19,41,13	1,31,30,36,37,29,46,31	3, 0,22,32,17	6,41
48″	41, 7,16, 8, 1,45,19,49,27,44	1,31,30,33,37, 7, 7,33	3, 0,22,38,58	6,41
50″	41, 7,17,39,32,18,56,56,35,17	1,31,30,30,36,44,21,54	3, 0,22,45,39	6,41
52″	41, 7,19,11, 2,49,33,40,57,11	1,31,30,27,36,21,29,34	3, 0,22,52,20	6,41
54″	41, 7,20,42,33,17,10, 2,26,45	1,31,30,24,35,58,30,33	3, 0,22,59, 1	6,41
56″	41, 7,22,14, 3,41,46, 0,57,18	1,31,30,21,35,35,24,51	3, 0,23, 5,42	6,41
58″	41, 7,23,45,34, 3,21,36,22, 9	1,31,30,18,35,12,12,28	3, 0,23,12,23	
60″	41, 7,25,17, 4,21,56,48,34,37			
exact	41, 7,25,17, 4,21,56,48, 0,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°16′ 0″	41, 7,25,17, 4,21,56,48, 0,10	1,31,30,15,34,48,49,54		
2″	41, 7,26,48,34,37,31,36,50, 4	1,31,30,12,34,25,23,55	3, 0,23,25,59	6,41
4″	41, 7,28,20, 4,50, 6, 2,13,59	1,31,30, 9,34, 1,51,15	3, 0,23,32,40	6,41
6″	41, 7,29,51,34,59,40, 4, 5,14	1,31,30, 6,33,38,11,54	3, 0,23,39,21	6,41
8″	41, 7,31,23, 5, 6,13,42,17, 8	1,31,30, 3,33,14,25,52	3, 0,23,46, 2	6,41
10″	41, 7,32,54,35, 9,46,56,43, 0	1,31,30, 0,32,50,33, 9	3, 0,23,52,43	6,41
12″	41, 7,34,26, 5,10,19,47,16, 9	1,31,29,57,32,26,33,45	3, 0,23,59,24	6,41
14″	41, 7,35,57,35, 7,52,13,49,54	1,31,29,54,32, 2,27,40	3, 0,24, 6, 5	6,41
16″	41, 7,37,29, 5, 2,24,16,17,34	1,31,29,51,31,38,14,54	3, 0,24,12,46	6,41
18″	41, 7,39, 0,34,53,55,54,32,28	1,31,29,48,31,13,55,27	3, 0,24,19,27	6,41
20″	41, 7,40,32, 4,42,27, 8,27,55	1,31,29,45,30,49,29,19	3, 0,24,26, 8	6,41
22″	41, 7,42, 3,34,27,57,57,57,14	1,31,29,42,30,24,56,30	3, 0,24,32,49	6,41
24″	41, 7,43,35, 4,10,28,22,53,44	1,31,29,39,30, 0,17, 0	3, 0,24,39,30	6,41
26″	41, 7,45, 6,33,49,58,23,10,44	1,31,29,36,29,35,30,49	3, 0,24,46,11	6,41
28″	41, 7,46,38, 3,26,27,58,41,33	1,31,29,33,29,10,37,57	3, 0,24,52,52	6,41
30″	41, 7,48, 9,32,59,57, 9,19,30	1,31,29,30,28,45,38,24	3, 0,24,59,33	6,41
32″	41, 7,49,41, 2,30,25,54,57,54	1,31,29,27,28,20,32,10	3, 0,25, 6,14	6,41
34″	41, 7,51,12,31,57,54,15,30, 4	1,31,29,24,27,55,19,15	3, 0,25,12,55	6,41
36″	41, 7,52,44, 1,22,22,10,49,19	1,31,29,21,27,29,59,39	3, 0,25,19,36	6,41
38″	41, 7,54,15,30,43,49,40,48,58	1,31,29,18,27, 4,33,22	3, 0,25,26,17	6,41
40″	41, 7,55,47, 0, 2,16,45,22,20	1,31,29,15,26,39, 0,24	3, 0,25,32,58	6,41
42″	41, 7,57,18,29,17,43,24,22,44	1,31,29,12,26,13,20,45	3, 0,25,39,39	6,41
44″	41, 7,58,49,58,30, 9,37,43,29	1,31,29, 9,25,47,34,25	3, 0,25,46,20	6,41
46″	41, 8, 0,21,27,39,35,25,17,54	1,31,29, 6,25,21,41,24	3, 0,25,53, 1	6,41
48″	41, 8, 1,52,56,46, 0,46,59,18	1,31,29, 3,24,55,41,42	3, 0,25,59,42	6,41
50″	41, 8, 3,24,25,49,25,42,41, 0	1,31,29, 0,24,29,35,19	3, 0,26, 6,23	6,41
52″	41, 8, 4,55,54,49,50,12,16,19	1,31,28,57,24, 3,22,15	3, 0,26,13, 4	6,41
54″	41, 8, 6,27,23,47,14,15,38,34	1,31,28,54,23,37, 2,30	3, 0,26,19,45	6,41
56″	41, 8, 7,58,52,41,37,52,41, 4	1,31,28,51,23,10,36, 4	3, 0,26,26,26	6,41
58″	41, 8, 9,30,21,33, 1, 3,17, 8	1,31,28,48,22,44, 2,57	3, 0,26,33, 7	
60″	41, 8,11, 1,50,21,23,47,20, 5			
exact	41, 8,11, 1,50,21,23,46,59,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°17′ 0″	41, 8,11, 1,50,21,23,46,59,30			
		1,31,28,45,22,17,20,53		
2″	41, 8,12,33,19, 6,46, 4,20,23		3, 0,26,46,38	
		1,31,28,42,21,50,34,15		6,41
4″	41, 8,14, 4,47,49, 7,54,54,38		3, 0,26,53,19	
		1,31,28,39,21,23,40,56		6,41
6″	41, 8,15,36,16,28,29,18,35,34		3, 0,27, 0, 0	
		1,31,28,36,20,56,40,56		6,41
8″	41, 8,17, 7,45, 4,50,15,16,30		3, 0,27, 6,41	
		1,31,28,33,20,29,34,15		6,41
10″	41, 8,18,39,13,38,10,44,50,45		3, 0,27,13,22	
		1,31,28,30,20, 2,20,53		6,41
12″	41, 8,20,10,42, 8,30,47,11,38		3, 0,27,20, 3	
		1,31,28,27,19,35, 0,50		6,41
14″	41, 8,21,42,10,35,50,22,12,28		3, 0,27,26,44	
		1,31,28,24,19, 7,34, 6		6,41
16″	41, 8,23,13,39, 0, 9,29,46,34		3, 0,27,33,25	
		1,31,28,21,18,40, 0,41		6,41
18″	41, 8,24,45, 7,21,28, 9,47,15		3, 0,27,40, 6	
		1,31,28,18,18,12,20,35		6,41
20″	41, 8,26,16,35,39,46,22, 7,50		3, 0,27,46,47	
		1,31,28,15,17,44,33,48		6,41
22″	41, 8,27,48, 3,55, 4, 6,41,38		3, 0,27,53,28	
		1,31,28,12,17,16,40,20		6,41
24″	41, 8,29,19,32, 7,21,23,21,58		3, 0,28, 0, 9	
		1,31,28, 9,16,48,40,11		6,41
26″	41, 8,30,51, 0,16,38,12, 2, 9		3, 0,28, 6,50	
		1,31,28, 6,16,20,33,21		6,41
28″	41, 8,32,22,28,22,54,32,35,30		3, 0,28,13,31	
		1,31,28, 3,15,52,19,50		6,41
30″	41, 8,33,53,56,26,10,24,55,20		3, 0,28,20,12	
		1,31,28, 0,15,23,59,38		6,41
32″	41, 8,35,25,24,26,25,48,54,58		3, 0,28,26,53	
		1,31,27,57,14,55,32,45		6,41
34″	41, 8,36,56,52,23,40,44,27,43		3, 0,28,33,34	
		1,31,27,54,14,26,59,11		6,41
36″	41, 8,38,28,20,17,55,11,26,54		3, 0,28,40,15	
		1,31,27,51,13,58,18,56		6,41
38″	41, 8,39,59,48, 9, 9, 9,45,50		3, 0,28,46,56	
		1,31,27,48,13,29,32, 0		6,41
40″	41, 8,41,31,15,57,22,39,17,50		3, 0,28,53,37	
		1,31,27,45,13, 0,38,23		6,41
42″	41, 8,43, 2,43,42,35,39,56,13		3, 0,29, 0,18	
		1,31,27,42,12,31,38, 5		6,41
44″	41, 8,44,34,11,24,48,11,34,18		3, 0,29, 6,59	
		1,31,27,39,12, 2,31, 6		6,41
46″	41, 8,46, 5,39, 4, 0,14, 5,24		3, 0,29,13,40	
		1,31,27,36,11,33,17,26		6,41
48″	41, 8,47,37, 6,40,11,47,22,50		3, 0,29,20,21	
		1,31,27,33,11, 3,57, 5		6,41
50″	41, 8,49, 8,34,13,22,51,19,55		3, 0,29,27, 2	
		1,31,27,30,10,34,30, 3		6,41
52″	41, 8,50,40, 1,43,33,25,49,58		3, 0,29,33,43	
		1,31,27,27,10, 4,56,20		6,41
54″	41, 8,52,11,29,10,43,30,46,18		3, 0,29,40,24	
		1,31,27,24, 9,35,15,56		6,41
56″	41, 8,53,42,56,34,53, 6, 2,14		3, 0,29,47, 5	
		1,31,27,21, 9, 5,28,51		6,41
58″	41, 8,55,14,23,56, 2,11,31, 5		3, 0,29,53,46	
		1,31,27,18, 8,35,35, 5		
60″	41, 8,56,45,51,14,10,47, 6,10			
exact	41, 8,56,45,51,14,10,46,47,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°18′ 0″	41, 8,56,45,51,14,10,46,47,46	1,31,27,15, 8, 5,32,48		
2″	41, 8,58,17,18,29,18,52,20,34	1,31,27,12, 7,35,25,33	3, 0,30, 7,15	6,41
4″	41, 8,59,48,45,41,26,27,46, 7	1,31,27, 9, 7, 5,11,37	3, 0,30,13,56	6,41
6″	41, 9, 1,20,12,50,33,32,57,44	1,31,27, 6, 6,34,51, 0	3, 0,30,20,37	6,41
8″	41, 9, 2,51,39,56,40, 7,48,44	1,31,27, 3, 6, 4,23,42	3, 0,30,27,18	6,41
10″	41, 9, 4,23, 6,59,46,12,12,26	1,31,27, 0, 5,33,49,43	3, 0,30,33,59	6,41
12″	41, 9, 5,54,33,59,51,46, 2, 9	1,31,26,57, 5, 3, 9, 3	3, 0,30,40,40	6,41
14″	41, 9, 7,26, 0,56,56,49,11,12	1,31,26,54, 4,32,21,42	3, 0,30,47,21	6,41
16″	41, 9, 8,57,27,51, 1,21,32,54	1,31,26,51, 4, 1,27,40	3, 0,30,54, 2	6,41
18″	41, 9,10,28,54,42, 5,23, 0,34	1,31,26,48, 3,30,26,57	3, 0,31, 0,43	6,41
20″	41, 9,12, 0,21,30, 8,53,27,31	1,31,26,45, 2,59,19,33	3, 0,31, 7,24	6,41
22″	41, 9,13,31,48,15,11,52,47, 4	1,31,26,42, 2,28, 5,28	3, 0,31,14, 5	6,41
24″	41, 9,15, 3,14,57,14,20,52,32	1,31,26,39, 1,56,44,42	3, 0,31,20,46	6,41
26″	41, 9,16,34,41,36,16,17,37,14	1,31,26,36, 1,25,17,15	3, 0,31,27,27	6,41
28″	41, 9,18, 6, 8,12,17,42,54,29	1,31,26,33, 0,53,43, 7	3, 0,31,34, 8	6,41
30″	41, 9,19,37,34,45,18,36,37,36	1,31,26,30, 0,22, 2,18	3, 0,31,40,49	6,41
32″	41, 9,21, 9, 1,15,18,58,39,54	1,31,26,26,59,50,14,48	3, 0,31,47,30	6,41
34″	41, 9,22,40,27,42,18,48,54,42	1,31,26,23,59,18,20,37	3, 0,31,54,11	6,41
36″	41, 9,24,11,54, 6,18, 7,15,19	1,31,26,20,58,46,19,45	3, 0,32, 0,52	6,41
38″	41, 9,25,43,20,27,16,53,35, 4	1,31,26,17,58,14,12,12	3, 0,32, 7,33	6,41
40″	41, 9,27,14,46,45,15, 7,47,16	1,31,26,14,57,41,57,58	3, 0,32,14,14	6,41
42″	41, 9,28,46,13, 0,12,49,45,14	1,31,26,11,57, 9,37, 3	3, 0,32,20,55	6,41
44″	41, 9,30,17,39,12, 9,59,22,17	1,31,26, 8,56,37, 9,27	3, 0,32,27,36	6,41
46″	41, 9,31,49, 5,21, 6,36,31,44	1,31,26, 5,56, 4,35,10	3, 0,32,34,17	6,41
48″	41, 9,33,20,31,27, 2,41, 6,54	1,31,26, 2,55,31,54,12	3, 0,32,40,58	6,41
50″	41, 9,34,51,57,29,58,13, 1, 6	1,31,25,59,54,59, 6,33	3, 0,32,47,39	6,41
52″	41, 9,36,23,23,29,53,12, 7,39	1,31,25,56,54,26,12,13	3, 0,32,54,20	6,41
54″	41, 9,37,54,49,26,47,38,19,52	1,31,25,53,53,53,11,12	3, 0,33, 1, 1	6,41
56″	41, 9,39,26,15,20,41,31,31, 4	1,31,25,50,53,20, 3,30	3, 0,33, 7,42	6,41
58″	41, 9,40,57,41,11,34,51,34,34	1,31,25,47,52,46,49, 7	3, 0,33,14,23	
60″	41, 9,42,29, 6,59,27,38,23,41			
exact	41, 9,42,29, 6,59,27,38,16, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°19′ 0″	41, 9,42,29, 6,59,27,38,16, 5			
		1,31,25,44,52,13,27,15		
2″	41, 9,44, 0,32,44,19,51,43,20		3, 0,33,27,48	
		1,31,25,41,51,39,59,27		6,41
4″	41, 9,45,31,58,26,11,31,42,47		3, 0,33,34,29	
		1,31,25,38,51, 6,24,58		6,41
6″	41, 9,47, 3,24, 5, 2,38, 7,45		3, 0,33,41,10	
		1,31,25,35,50,32,43,48		6,41
8″	41, 9,48,34,49,40,53,10,51,33		3, 0,33,47,51	
		1,31,25,32,49,58,55,57		6,41
10″	41, 9,50, 6,15,13,43, 9,47,30		3, 0,33,54,32	
		1,31,25,29,49,25, 1,25		6,41
12″	41, 9,51,37,40,43,32,34,48,55		3, 0,34, 1,13	
		1,31,25,26,48,51, 0,12		6,41
14″	41, 9,53, 9, 6,10,21,25,49, 7		3, 0,34, 7,54	
		1,31,25,23,48,16,52,18		6,41
16″	41, 9,54,40,31,34, 9,42,41,25		3, 0,34,14,35	
		1,31,25,20,47,42,37,43		6,41
18″	41, 9,56,11,56,54,57,25,19, 8		3, 0,34,21,16	
		1,31,25,17,47, 8,16,27		6,41
20″	41, 9,57,43,22,12,44,33,35,35		3, 0,34,27,57	
		1,31,25,14,46,33,48,30		6,41
22″	41, 9,59,14,47,27,31, 7,24, 5		3, 0,34,34,38	
		1,31,25,11,45,59,13,52		6,41
24″	41,10, 0,46,12,39,17, 6,37,57		3, 0,34,41,19	
		1,31,25, 8,45,24,32,33		6,41
26″	41,10, 2,17,37,48, 2,31,10,30		3, 0,34,48, 0	
		1,31,25, 5,44,49,44,33		6,41
28″	41,10, 3,49, 2,53,47,20,55, 3		3, 0,34,54,41	
		1,31,25, 2,44,14,49,52		6,41
30″	41,10, 5,20,27,56,31,35,44,55		3, 0,35, 1,22	
		1,31,24,59,43,39,48,30		6,41
32″	41,10, 6,51,52,56,15,15,33,25		3, 0,35, 8, 3	
		1,31,24,56,43, 4,40,27		6,41
34″	41,10, 8,23,17,52,58,20,13,52		3, 0,35,14,44	
		1,31,24,53,42,29,25,43		6,41
36″	41,10, 9,54,42,46,40,49,39,35		3, 0,35,21,25	
		1,31,24,50,41,54, 4,18		6,41
38″	41,10,11,26, 7,37,22,43,43,53		3, 0,35,28, 6	
		1,31,24,47,41,18,36,12		6,41
40″	41,10,12,57,32,25, 4, 2,20, 5		3, 0,35,34,47	
		1,31,24,44,40,43, 1,25		6,41
42″	41,10,14,28,57, 9,44,45,21,30		3, 0,35,41,28	
		1,31,24,41,40, 7,19,57		6,41
44″	41,10,16, 0,21,51,24,52,41,27		3, 0,35,48, 9	
		1,31,24,38,39,31,31,48		6,41
46″	41,10,17,31,46,30, 4,24,13,15		3, 0,35,54,50	
		1,31,24,35,38,55,36,58		6,41
48″	41,10,19, 3,11, 5,43,19,50,13		3, 0,36, 1,31	
		1,31,24,32,38,19,35,27		6,41
50″	41,10,20,34,35,38,21,39,25,40		3, 0,36, 8,12	
		1,31,24,29,37,43,27,15		6,41
52″	41,10,22, 6, 0, 7,59,22,52,55		3, 0,36,14,53	
		1,31,24,26,37, 7,12,22		6,41
54″	41,10,23,37,24,34,36,30, 5,17		3, 0,36,21,34	
		1,31,24,23,36,30,50,48		6,41
56″	41,10,25, 8,48,58,13, 0,56, 5		3, 0,36,28,15	
		1,31,24,20,35,54,22,33		6,41
58″	41,10,26,40,13,18,48,55,18,38		3, 0,36,34,56	
		1,31,24,17,35,17,47,37		
60″	41,10,28,11,37,36,24,13, 6,15			
exact	41,10,28,11,37,36,24,13, 4,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°20′ 0″	41,10,28,11,37,36,24,13, 4,59			
		1,31,24,14,34,41, 5,55		
2″	41,10,29,43, 1,50,58,54,10,54		3, 0,36,48,18	
		1,31,24,11,34, 4,17,37		6,41
4″	41,10,31,14,26, 2,32,58,28,31		3, 0,36,54,59	
		1,31,24, 8,33,27,22,38		6,41
6″	41,10,32,45,50,11, 6,25,51, 9		3, 0,37, 1,40	
		1,31,24, 5,32,50,20,58		6,41
8″	41,10,34,17,14,16,39,16,12, 7		3, 0,37, 8,21	
		1,31,24, 2,32,13,12,37		6,41
10″	41,10,35,48,38,19,11,29,24,44		3, 0,37,15, 2	
		1,31,23,59,31,35,57,35		6,41
12″	41,10,37,20, 2,18,43, 5,22,19		3, 0,37,21,43	
		1,31,23,56,30,58,35,52		6,41
14″	41,10,38,51,26,15,14, 3,58,11		3, 0,37,28,24	
		1,31,23,53,30,21, 7,28		6,41
16″	41,10,40,22,50, 8,44,25, 5,39		3, 0,37,35, 5	
		1,31,23,50,29,43,32,23		6,41
18″	41,10,41,54,13,59,14, 8,38, 2		3, 0,37,41,46	
		1,31,23,47,29, 5,50,37		6,41
20″	41,10,43,25,37,46,43,14,28,39		3, 0,37,48,27	
		1,31,23,44,28,28, 2,10		6,41
22″	41,10,44,57, 1,31,11,42,30,49		3, 0,37,55, 8	
		1,31,23,41,27,50, 7, 2		6,41
24″	41,10,46,28,25,12,39,32,37,51		3, 0,38, 1,49	
		1,31,23,38,27,12, 5,13		6,41
26″	41,10,47,59,48,51, 6,44,43, 4		3, 0,38, 8,30	
		1,31,23,35,26,33,56,43		6,41
28″	41,10,49,31,12,26,33,18,39,47		3, 0,38,15,11	
		1,31,23,32,25,55,41,32		6,41
30″	41,10,51, 2,35,58,59,14,21,19		3, 0,38,21,52	
		1,31,23,29,25,17,19,40		6,41
32″	41,10,52,33,59,28,24,31,40,59		3, 0,38,28,33	
		1,31,23,26,24,38,51, 7		6,41
34″	41,10,54, 5,22,54,49,10,32, 6		3, 0,38,35,14	
		1,31,23,23,24, 0,15,53		6,41
36″	41,10,55,36,46,18,13,10,47,59		3, 0,38,41,55	
		1,31,23,20,23,21,33,58		6,41
38″	41,10,57, 8, 9,38,36,32,21,57		3, 0,38,48,36	
		1,31,23,17,22,42,45,22		6,41
40″	41,10,58,39,32,55,59,15, 7,19		3, 0,38,55,17	
		1,31,23,14,22, 3,50, 5		6,41
42″	41,11, 0,10,56,10,21,18,57,24		3, 0,39, 1,58	
		1,31,23,11,21,24,48, 7		6,41
44″	41,11, 1,42,19,21,42,43,45,31		3, 0,39, 8,39	
		1,31,23, 8,20,45,39,28		6,41
46″	41,11, 3,13,42,30, 3,29,24,59		3, 0,39,15,20	
		1,31,23, 5,20, 6,24, 8		6,41
48″	41,11, 4,45, 5,35,23,35,49, 7		3, 0,39,22, 1	
		1,31,23, 2,19,27, 2, 7		6,41
50″	41,11, 6,16,28,37,43, 2,51,14		3, 0,39,28,42	
		1,31,22,59,18,47,33,25		6,41
52″	41,11, 7,47,51,37, 1,50,24,39		3, 0,39,35,23	
		1,31,22,56,18, 7,58, 2		6,41
54″	41,11, 9,19,14,33,19,58,22,41		3, 0,39,42, 4	
		1,31,22,53,17,28,15,58		6,41
56″	41,11,10,50,37,26,37,26,38,39		3, 0,39,48,45	
		1,31,22,50,16,48,27,13		6,41
58″	41,11,12,22, 0,16,54,15, 5,52		3, 0,39,55,26	
		1,31,22,47,16, 8,31,47		
60″	41,11,13,53,23, 4,10,23,37,39			
exact	41,11,13,53,23, 4,10,23,44,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°21′ 0″	41,11,13,53,23, 4,10,23,44,32			
		1,31,22,44,15,28,30,26		
2″	41,11,15,24,45,48,25,52,14,58		3, 0,40, 8,44	
		1,31,22,41,14,48,21,42		6,41
4″	41,11,16,56, 8,29,40,40,36,40		3, 0,40,15,25	
		1,31,22,38,14, 8, 6,17		6,41
6″	41,11,18,27,31, 7,54,48,42,57		3, 0,40,22, 6	
		1,31,22,35,13,27,44,11		6,41
8″	41,11,19,58,53,43, 8,16,27, 8		3, 0,40,28,47	
		1,31,22,32,12,47,15,24		6,41
10″	41,11,21,30,16,15,21, 3,42,32		3, 0,40,35,28	
		1,31,22,29,12, 6,39,56		6,41
12″	41,11,23, 1,38,44,33,10,22,28		3, 0,40,42, 9	
		1,31,22,26,11,25,57,47		6,41
14″	41,11,24,33, 1,10,44,36,20,15		3, 0,40,48,50	
		1,31,22,23,10,45, 8,57		6,41
16″	41,11,26, 4,23,33,55,21,29,12		3, 0,40,55,31	
		1,31,22,20,10, 4,13,26		6,41
18″	41,11,27,35,45,54, 5,25,42,38		3, 0,41, 2,12	
		1,31,22,17, 9,23,11,14		6,41
20″	41,11,29, 7, 8,11,14,48,53,52		3, 0,41, 8,53	
		1,31,22,14, 8,42, 2,21		6,41
22″	41,11,30,38,30,25,23,30,56,13		3, 0,41,15,34	
		1,31,22,11, 8, 0,46,47		6,41
24″	41,11,32, 9,52,36,31,31,43, 0		3, 0,41,22,15	
		1,31,22, 8, 7,19,24,32		6,41
26″	41,11,33,41,14,44,38,51, 7,32		3, 0,41,28,56	
		1,31,22, 5, 6,37,55,36		6,41
28″	41,11,35,12,36,49,45,29, 3, 8		3, 0,41,35,37	
		1,31,22, 2, 5,56,19,59		6,41
30″	41,11,36,43,58,51,51,25,23, 7		3, 0,41,42,18	
		1,31,21,59, 5,14,37,41		6,41
32″	41,11,38,15,20,50,56,40, 0,48		3, 0,41,48,59	
		1,31,21,56, 4,32,48,42		6,41
34″	41,11,39,46,42,47, 1,12,49,30		3, 0,41,55,40	
		1,31,21,53, 3,50,53, 2		6,41
36″	41,11,41,18, 4,40, 5, 3,42,32		3, 0,42, 2,21	
		1,31,21,50, 3, 8,50,41		6,41
38″	41,11,42,49,26,30, 8,12,33,13		3, 0,42, 9, 2	
		1,31,21,47, 2,26,41,39		6,41
40″	41,11,44,20,48,17,10,39,14,52		3, 0,42,15,43	
		1,31,21,44, 1,44,25,56		6,41
42″	41,11,45,52,10, 1,12,23,40,48		3, 0,42,22,24	
		1,31,21,41, 1, 2, 3,32		6,41
44″	41,11,47,23,31,42,13,25,44,20		3, 0,42,29, 5	
		1,31,21,38, 0,19,34,27		6,41
46″	41,11,48,54,53,20,13,45,18,47		3, 0,42,35,46	
		1,31,21,34,59,36,58,41		6,41
48″	41,11,50,26,14,55,13,22,17,28		3, 0,42,42,27	
		1,31,21,31,58,54,16,14		6,41
50″	41,11,51,57,36,27,12,16,33,42		3, 0,42,49, 8	
		1,31,21,28,58,11,27, 6		6,41
52″	41,11,53,28,57,56,10,28, 0,48		3, 0,42,55,49	
		1,31,21,25,57,28,31,17		6,41
54″	41,11,55, 0,19,22, 7,56,32, 5		3, 0,43, 2,30	
		1,31,21,22,56,45,28,47		6,41
56″	41,11,56,31,40,45, 4,42, 0,52		3, 0,43, 9,11	
		1,31,21,19,56, 2,19,36		6,41
58″	41,11,58, 3, 2, 5, 0,44,20,28		3, 0,43,15,52	
		1,31,21,16,55,19, 3,44		
60″	41,11,59,34,23,21,56, 3,24,12			
exact	41,11,59,34,23,21,56, 3,34,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°22′ 0″	41,11,59,34,23,21,56, 3,34,18			
		1,31,21,13,54,35,42,27		
2″	41,12, 1, 5,44,35,50,39,16,45		3, 0,43,29, 8	
		1,31,21,10,53,52,13,19		6,41
4″	41,12, 2,37, 5,46,44,31,30, 4		3, 0,43,35,49	
		1,31,21, 7,53, 8,37,30		6,41
6″	41,12, 4, 8,26,54,37,40, 7,34		3, 0,43,42,30	
		1,31,21, 4,52,24,55, 0		6,41
8″	41,12, 5,39,47,59,30, 5, 2,34		3, 0,43,49,11	
		1,31,21, 1,51,41, 5,49		6,41
10″	41,12, 7,11, 9, 1,21,46, 8,23		3, 0,43,55,52	
		1,31,20,58,50,57, 9,57		6,41
12″	41,12, 8,42,30, 0,12,43,18,20		3, 0,44, 2,33	
		1,31,20,55,50,13, 7,24		6,41
14″	41,12,10,13,50,56, 2,56,25,44		3, 0,44, 9,14	
		1,31,20,52,49,28,58,10		6,41
16″	41,12,11,45,11,48,52,25,23,54		3, 0,44,15,55	
		1,31,20,49,48,44,42,15		6,41
18″	41,12,13,16,32,38,41,10, 6, 9		3, 0,44,22,36	
		1,31,20,46,48, 0,19,39		6,41
20″	41,12,14,47,53,25,29,10,25,48		3, 0,44,29,17	
		1,31,20,43,47,15,50,22		6,41
22″	41,12,16,19,14, 9,16,26,16,10		3, 0,44,35,58	
		1,31,20,40,46,31,14,24		6,41
24″	41,12,17,50,34,50, 2,57,30,34		3, 0,44,42,39	
		1,31,20,37,45,46,31,45		6,41
26″	41,12,19,21,55,27,48,44, 2,19		3, 0,44,49,20	
		1,31,20,34,45, 1,42,25		6,41
28″	41,12,20,53,16, 2,33,45,44,44		3, 0,44,56, 1	
		1,31,20,31,44,16,46,24		6,41
30″	41,12,22,24,36,34,18, 2,31, 8		3, 0,45, 2,42	
		1,31,20,28,43,31,43,42		6,41
32″	41,12,23,55,57, 3, 1,34,14,50		3, 0,45, 9,23	
		1,31,20,25,42,46,34,19		6,41
34″	41,12,25,27,17,28,44,20,49, 9		3, 0,45,16, 4	
		1,31,20,22,42, 1,18,15		6,41
36″	41,12,26,58,37,51,26,22, 7,24		3, 0,45,22,45	
		1,31,20,19,41,15,55,30		6,41
38″	41,12,28,29,58,11, 7,38, 2,54		3, 0,45,29,26	
		1,31,20,16,40,30,26, 4		6,41
40″	41,12,30, 1,18,27,48, 8,28,58		3, 0,45,36, 7	
		1,31,20,13,39,44,49,57		6,41
42″	41,12,31,32,38,41,27,53,18,55		3, 0,45,42,48	
		1,31,20,10,38,59, 7, 9		6,41
44″	41,12,33, 3,58,52, 6,52,26, 4		3, 0,45,49,29	
		1,31,20, 7,38,13,17,40		6,41
46″	41,12,34,35,18,59,45, 5,43,44		3, 0,45,56,10	
		1,31,20, 4,37,27,21,30		6,41
48″	41,12,36, 6,39, 4,22,33, 5,14		3, 0,46, 2,51	
		1,31,20, 1,36,41,18,39		6,41
50″	41,12,37,37,59, 5,59,14,23,53		3, 0,46, 9,32	
		1,31,19,58,35,55, 9, 7		6,41
52″	41,12,39, 9,19, 4,35, 9,33, 0		3, 0,46,16,13	
		1,31,19,55,35, 8,52,54		6,41
54″	41,12,40,40,39, 0,10,18,25,54		3, 0,46,22,54	
		1,31,19,52,34,22,30, 0		6,41
56″	41,12,42,11,58,52,44,40,55,54		3, 0,46,29,35	
		1,31,19,49,33,36, 0,25		6,41
58″	41,12,43,43,18,42,18,16,56,19		3, 0,46,36,16	
		1,31,19,46,32,49,24, 9		
60″	41,12,45,14,38,28,51, 6,20,28			
exact	41,12,45,14,38,28,51, 6,43,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°23′ 0″	41,12,45,14,38,28,51, 6,43,24			
		1,31,19,43,32, 2,43,38		
2″	41,12,46,45,58,12,23, 9,27, 2		3, 0,46,49,28	
		1,31,19,40,31,15,54,10		6,41
4″	41,12,48,17,17,52,54,25,21,12		3, 0,46,56, 9	
		1,31,19,37,30,28,58, 1		6,41
6″	41,12,49,48,37,30,24,54,19,13		3, 0,47, 2,50	
		1,31,19,34,29,41,55,11		6,41
8″	41,12,51,19,57, 4,54,36,14,24		3, 0,47, 9,31	
		1,31,19,31,28,54,45,40		6,41
10″	41,12,52,51,16,36,23,31, 0, 4		3, 0,47,16,12	
		1,31,19,28,28, 7,29,28		6,41
12″	41,12,54,22,36, 4,51,38,29,32		3, 0,47,22,53	
		1,31,19,25,27,20, 6,35		6,41
14″	41,12,55,53,55,30,18,58,36, 7		3, 0,47,29,34	
		1,31,19,22,26,32,37, 1		6,41
16″	41,12,57,25,14,52,45,31,13, 8		3, 0,47,36,15	
		1,31,19,19,25,45, 0,46		6,41
18″	41,12,58,56,34,12,11,16,13,54		3, 0,47,42,56	
		1,31,19,16,24,57,17,50		6,41
20″	41,13, 0,27,53,28,36,13,31,44		3, 0,47,49,37	
		1,31,19,13,24, 9,28,13		6,41
22″	41,13, 1,59,12,42, 0,22,59,57		3, 0,47,56,18	
		1,31,19,10,23,21,31,55		6,41
24″	41,13, 3,30,31,52,23,44,31,52		3, 0,48, 2,59	
		1,31,19, 7,22,33,28,56		6,41
26″	41,13, 5, 1,50,59,46,18, 0,48		3, 0,48, 9,40	
		1,31,19, 4,21,45,19,16		6,41
28″	41,13, 6,33,10, 4, 8, 3,20, 4		3, 0,48,16,21	
		1,31,19, 1,20,57, 2,55		6,41
30″	41,13, 8, 4,29, 5,29, 0,22,59		3, 0,48,23, 2	
		1,31,18,58,20, 8,39,53		6,41
32″	41,13, 9,35,48, 3,49, 9, 2,52		3, 0,48,29,43	
		1,31,18,55,19,20,10,10		6,41
34″	41,13,11, 7, 6,59, 8,29,13, 2		3, 0,48,36,24	
		1,31,18,52,18,31,33,46		6,41
36″	41,13,12,38,25,51,27, 0,46,48		3, 0,48,43, 5	
		1,31,18,49,17,42,50,41		6,41
38″	41,13,14, 9,44,40,44,43,37,29		3, 0,48,49,46	
		1,31,18,46,16,54, 0,55		6,41
40″	41,13,15,41, 3,27, 1,37,38,24		3, 0,48,56,27	
		1,31,18,43,16, 5, 4,28		6,41
42″	41,13,17,12,22,10,17,42,42,52		3, 0,49, 3, 8	
		1,31,18,40,15,16, 1,20		6,41
44″	41,13,18,43,40,50,32,58,44,12		3, 0,49, 9,49	
		1,31,18,37,14,26,51,31		6,41
46″	41,13,20,14,59,27,47,25,35,43		3, 0,49,16,30	
		1,31,18,34,13,37,35, 1		6,41
48″	41,13,21,46,18, 2, 1, 3,10,44		3, 0,49,23,11	
		1,31,18,31,12,48,11,50		6,41
50″	41,13,23,17,36,33,13,51,22,34		3, 0,49,29,52	
		1,31,18,28,11,58,41,58		6,41
52″	41,13,24,48,55, 1,25,50, 4,32		3, 0,49,36,33	
		1,31,18,25,11, 9, 5,25		6,41
54″	41,13,26,20,13,26,36,59, 9,57		3, 0,49,43,14	
		1,31,18,22,10,19,22,11		6,41
56″	41,13,27,51,31,48,47,18,32, 8		3, 0,49,49,55	
		1,31,18,19, 9,29,32,16		6,41
58″	41,13,29,22,50, 7,56,48, 4,24		3, 0,49,56,36	
		1,31,18,16, 8,39,35,40		
60″	41,13,30,54, 8,24, 5,27,40, 4			
exact	41,13,30,54, 8,24, 5,28,10,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°24′ 0″	41,13,30,54, 8,24, 5,28,10,29			
		1,31,18,13, 7,49,35,37		
2″	41,13,32,25,26,37,13,17,46, 6		3, 0,50, 9,44	
		1,31,18,10, 6,59,25,53		6,40
4″	41,13,33,56,44,47,20,17,11,59		3, 0,50,16,24	
		1,31,18, 7, 6, 9, 9,29		6,40
6″	41,13,35,28, 2,54,26,26,21,28		3, 0,50,23, 4	
		1,31,18, 4, 5,18,46,25		6,40
8″	41,13,36,59,20,58,31,45, 7,53		3, 0,50,29,44	
		1,31,18, 1, 4,28,16,41		6,40
10″	41,13,38,30,38,59,36,13,24,34		3, 0,50,36,24	
		1,31,17,58, 3,37,40,17		6,40
12″	41,13,40, 1,56,57,39,51, 4,51		3, 0,50,43, 4	
		1,31,17,55, 2,46,57,13		6,40
14″	41,13,41,33,14,52,42,38, 2, 4		3, 0,50,49,44	
		1,31,17,52, 1,56, 7,29		6,40
16″	41,13,43, 4,32,44,44,34, 9,33		3, 0,50,56,24	
		1,31,17,49, 1, 5,11, 5		6,40
18″	41,13,44,35,50,33,45,39,20,38		3, 0,51, 3, 4	
		1,31,17,46, 0,14, 8, 1		6,40
20″	41,13,46, 7, 8,19,45,53,28,39		3, 0,51, 9,44	
		1,31,17,42,59,22,58,17		6,40
22″	41,13,47,38,26, 2,45,16,26,56		3, 0,51,16,24	
		1,31,17,39,58,31,41,53		6,40
24″	41,13,49, 9,43,42,43,48, 8,49		3, 0,51,23, 4	
		1,31,17,36,57,40,18,49		6,40
26″	41,13,50,41, 1,19,41,28,27,38		3, 0,51,29,44	
		1,31,17,33,56,48,49, 5		6,40
28″	41,13,52,12,18,53,38,17,16,43		3, 0,51,36,24	
		1,31,17,30,55,57,12,41		6,40
30″	41,13,53,43,36,24,34,14,29,24		3, 0,51,43, 4	
		1,31,17,27,55, 5,29,37		6,40
32″	41,13,55,14,53,52,29,19,59, 1		3, 0,51,49,44	
		1,31,17,24,54,13,39,53		6,40
34″	41,13,56,46,11,17,23,33,38,54		3, 0,51,56,24	
		1,31,17,21,53,21,43,29		6,40
36″	41,13,58,17,28,39,16,55,22,23		3, 0,52, 3, 4	
		1,31,17,18,52,29,40,25		6,40
38″	41,13,59,48,45,58, 9,25, 2,48		3, 0,52, 9,44	
		1,31,17,15,51,37,30,41		6,40
40″	41,14, 1,20, 3,14, 1, 2,33,29		3, 0,52,16,24	
		1,31,17,12,50,45,14,17		6,40
42″	41,14, 2,51,20,26,51,47,47,46		3, 0,52,23, 4	
		1,31,17, 9,49,52,51,13		6,40
44″	41,14, 4,22,37,36,41,40,38,59		3, 0,52,29,44	
		1,31,17, 6,49, 0,21,29		6,40
46″	41,14, 5,53,54,43,30,41, 0,28		3, 0,52,36,24	
		1,31,17, 3,48, 7,45, 5		6,40
48″	41,14, 7,25,11,47,18,48,45,33		3, 0,52,43, 4	
		1,31,17, 0,47,15, 2, 1		6,40
50″	41,14, 8,56,28,48, 6, 3,47,34		3, 0,52,49,44	
		1,31,16,57,46,22,12,17		6,40
52″	41,14,10,27,45,45,52,25,59,51		3, 0,52,56,24	
		1,31,16,54,45,29,15,53		6,40
54″	41,14,11,59, 2,40,37,55,15,44		3, 0,53, 3, 4	
		1,31,16,51,44,36,12,49		6,40
56″	41,14,13,30,19,32,22,31,28,33		3, 0,53, 9,44	
		1,31,16,48,43,43, 3, 5		6,40
58″	41,14,15, 1,36,21, 6,14,31,38		3, 0,53,16,24	
		1,31,16,45,42,49,46,41		
60″	41,14,16,32,53, 6,49, 4,18,19			
exact	41,14,16,32,53, 6,49, 3,43,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°25′ 0″	41,14,16,32,53, 6,49, 3,43,46			
		1,31,16,42,41,56,20, 4		
2″	41,14,18, 4, 9,49,31, 0, 3,50		3, 0,53,29,58	
		1,31,16,39,41, 2,50, 6		6,40
4″	41,14,19,35,26,29,12, 2,53,56		3, 0,53,36,38	
		1,31,16,36,40, 9,13,28		6,40
6″	41,14,21, 6,43, 5,52,12, 7,24		3, 0,53,43,18	
		1,31,16,33,39,15,30,10		6,40
8″	41,14,22,37,59,39,31,27,37,34		3, 0,53,49,58	
		1,31,16,30,38,21,40,12		6,40
10″	41,14,24, 9,16,10, 9,49,17,46		3, 0,53,56,38	
		1,31,16,27,37,27,43,34		6,40
12″	41,14,25,40,32,37,47,17, 1,20		3, 0,54, 3,18	
		1,31,16,24,36,33,40,16		6,40
14″	41,14,27,11,49, 2,23,50,41,36		3, 0,54, 9,58	
		1,31,16,21,35,39,30,18		6,40
16″	41,14,28,43, 5,23,59,30,11,54		3, 0,54,16,38	
		1,31,16,18,34,45,13,40		6,40
18″	41,14,30,14,21,42,34,15,25,34		3, 0,54,23,18	
		1,31,16,15,33,50,50,22		6,40
20″	41,14,31,45,37,58, 8, 6,15,56		3, 0,54,29,58	
		1,31,16,12,32,56,20,24		6,40
22″	41,14,33,16,54,10,41, 2,36,20		3, 0,54,36,38	
		1,31,16, 9,32, 1,43,46		6,40
24″	41,14,34,48,10,20,13, 4,20, 6		3, 0,54,43,18	
		1,31,16, 6,31, 7, 0,28		6,40
26″	41,14,36,19,26,26,44,11,20,34		3, 0,54,49,58	
		1,31,16, 3,30,12,10,30		6,40
28″	41,14,37,50,42,30,14,23,31, 4		3, 0,54,56,38	
		1,31,16, 0,29,17,13,52		6,40
30″	41,14,39,21,58,30,43,40,44,56		3, 0,55, 3,18	
		1,31,15,57,28,22,10,34		6,40
32″	41,14,40,53,14,28,12, 2,55,30		3, 0,55, 9,58	
		1,31,15,54,27,27, 0,36		6,40
34″	41,14,42,24,30,22,39,29,56, 6		3, 0,55,16,38	
		1,31,15,51,26,31,43,58		6,40
36″	41,14,43,55,46,14, 6, 1,40, 4		3, 0,55,23,18	
		1,31,15,48,25,36,20,40		6,40
38″	41,14,45,27, 2, 2,31,38, 0,44		3, 0,55,29,58	
		1,31,15,45,24,40,50,42		6,40
40″	41,14,46,58,17,47,56,18,51,26		3, 0,55,36,38	
		1,31,15,42,23,45,14, 4		6,40
42″	41,14,48,29,33,30,20, 4, 5,30		3, 0,55,43,18	
		1,31,15,39,22,49,30,46		6,40
44″	41,14,50, 0,49, 9,42,53,36,16		3, 0,55,49,58	
		1,31,15,36,21,53,40,48		6,40
46″	41,14,51,32, 4,46, 4,47,17, 4		3, 0,55,56,38	
		1,31,15,33,20,57,44,10		6,40
48″	41,14,53, 3,20,19,25,45, 1,14		3, 0,56, 3,18	
		1,31,15,30,20, 1,40,52		6,40
50″	41,14,54,34,35,49,45,46,42, 6		3, 0,56, 9,58	
		1,31,15,27,19, 5,30,54		6,40
52″	41,14,56, 5,51,17, 4,52,13, 0		3, 0,56,16,38	
		1,31,15,24,18, 9,14,16		6,40
54″	41,14,57,37, 6,41,23, 1,27,16		3, 0,56,23,18	
		1,31,15,21,17,12,50,58		6,40
56″	41,14,59, 8,22, 2,40,14,18,14		3, 0,56,29,58	
		1,31,15,18,16,16,21, 0		6,40
58″	41,15, 0,39,37,20,56,30,39,14		3, 0,56,36,38	
		1,31,15,15,15,19,44,22		
60″	41,15, 2,10,52,36,11,50,23,36			
exact	41,15, 2,10,52,36,11,50, 1, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°26′ 0″	41,15, 2,10,52,36,11,50, 1, 2			
		1,31,15,12,14,22,58,38		
2″	41,15, 3,42, 7,48,26,12,59,40		3, 0,56,50, 8	
		1,31,15, 9,13,26, 8,30		6,40
4″	41,15, 5,13,22,57,39,39, 8,10		3, 0,56,56,48	
		1,31,15, 6,12,29,11,42		6,40
6″	41,15, 6,44,38, 3,52, 8,19,52		3, 0,57, 3,28	
		1,31,15, 3,11,32, 8,14		6,40
8″	41,15, 8,15,53, 7, 3,40,28, 6		3, 0,57,10, 8	
		1,31,15, 0,10,34,58, 6		6,40
10″	41,15, 9,47, 8, 7,14,15,26,12		3, 0,57,16,48	
		1,31,14,57, 9,37,41,18		6,40
12″	41,15,11,18,23, 4,23,53, 7,30		3, 0,57,23,28	
		1,31,14,54, 8,40,17,50		6,40
14″	41,15,12,49,37,58,32,33,25,20		3, 0,57,30, 8	
		1,31,14,51, 7,42,47,42		6,40
16″	41,15,14,20,52,49,40,16,13, 2		3, 0,57,36,48	
		1,31,14,48, 6,45,10,54		6,40
18″	41,15,15,52, 7,37,47, 1,23,56		3, 0,57,43,28	
		1,31,14,45, 5,47,27,26		6,40
20″	41,15,17,23,22,22,52,48,51,22		3, 0,57,50, 8	
		1,31,14,42, 4,49,37,18		6,40
22″	41,15,18,54,37, 4,57,38,28,40		3, 0,57,56,48	
		1,31,14,39, 3,51,40,30		6,40
24″	41,15,20,25,51,44, 1,30, 9,10		3, 0,58, 3,28	
		1,31,14,36, 2,53,37, 2		6,40
26″	41,15,21,57, 6,20, 4,23,46,12		3, 0,58,10, 8	
		1,31,14,33, 1,55,26,54		6,40
28″	41,15,23,28,20,53, 6,19,13, 6		3, 0,58,16,48	
		1,31,14,30, 0,57,10, 6		6,40
30″	41,15,24,59,35,23, 7,16,23,12		3, 0,58,23,28	
		1,31,14,26,59,58,46,38		6,40
32″	41,15,26,30,49,50, 7,15, 9,50		3, 0,58,30, 8	
		1,31,14,23,59, 0,16,30		6,40
34″	41,15,28, 2, 4,14, 6,15,26,20		3, 0,58,36,48	
		1,31,14,20,58, 1,39,42		6,40
36″	41,15,29,33,18,35, 4,17, 6, 2		3, 0,58,43,28	
		1,31,14,17,57, 2,56,14		6,40
38″	41,15,31, 4,32,53, 1,20, 2,16		3, 0,58,50, 8	
		1,31,14,14,56, 4, 6, 6		6,40
40″	41,15,32,35,47, 7,57,24, 8,22		3, 0,58,56,48	
		1,31,14,11,55, 5, 9,18		6,40
42″	41,15,34, 7, 1,19,52,29,17,40		3, 0,59, 3,28	
		1,31,14, 8,54, 6, 5,50		6,40
44″	41,15,35,38,15,28,46,35,23,30		3, 0,59,10, 8	
		1,31,14, 5,53, 6,55,42		6,40
46″	41,15,37, 9,29,34,39,42,19,12		3, 0,59,16,48	
		1,31,14, 2,52, 7,38,54		6,40
48″	41,15,38,40,43,37,31,49,58, 6		3, 0,59,23,28	
		1,31,13,59,51, 8,15,26		6,40
50″	41,15,40,11,57,37,22,58,13,32		3, 0,59,30, 8	
		1,31,13,56,50, 8,45,18		6,40
52″	41,15,41,43,11,34,13, 6,58,50		3, 0,59,36,48	
		1,31,13,53,49, 9, 8,30		6,40
54″	41,15,43,14,25,28, 2,16, 7,20		3, 0,59,43,28	
		1,31,13,50,48, 9,25, 2		6,40
56″	41,15,44,45,39,18,50,25,32,22		3, 0,59,50, 8	
		1,31,13,47,47, 9,34,54		6,40
58″	41,15,46,16,53, 6,37,35, 7,16		3, 0,59,56,48	
		1,31,13,44,46, 9,38, 6		
60″	41,15,47,48, 6,51,23,44,45,22			
exact	41,15,47,48, 6,51,23,44,29,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°27′ 0″	41,15,47,48, 6,51,23,44,29,39			
		1,31,13,41,45, 9,32,58		
2″	41,15,49,19,20,33, 8,54, 2,37		3, 1, 0,10,15	
		1,31,13,38,44, 9,22,43		6,40
4″	41,15,50,50,34,11,53, 3,25,20		3, 1, 0,16,55	
		1,31,13,35,43, 9, 5,48		6,40
6″	41,15,52,21,47,47,36,12,31, 8		3, 1, 0,23,35	
		1,31,13,32,42, 8,42,13		6,40
8″	41,15,53,53, 1,20,18,21,13,21		3, 1, 0,30,15	
		1,31,13,29,41, 8,11,58		6,40
10″	41,15,55,24,14,49,59,29,25,19		3, 1, 0,36,55	
		1,31,13,26,40, 7,35, 3		6,40
12″	41,15,56,55,28,16,39,37, 0,22		3, 1, 0,43,35	
		1,31,13,23,39, 6,51,28		6,40
14″	41,15,58,26,41,40,18,43,51,50		3, 1, 0,50,15	
		1,31,13,20,38, 6, 1,13		6,40
16″	41,15,59,57,55, 0,56,49,53, 3		3, 1, 0,56,55	
		1,31,13,17,37, 5, 4,18		6,40
18″	41,16, 1,29, 8,18,33,54,57,21		3, 1, 1, 3,35	
		1,31,13,14,36, 4, 0,43		6,40
20″	41,16, 3, 0,21,33, 9,58,58, 4		3, 1, 1,10,15	
		1,31,13,11,35, 2,50,28		6,40
22″	41,16, 4,31,34,44,45, 1,48,32		3, 1, 1,16,55	
		1,31,13, 8,34, 1,33,33		6,40
24″	41,16, 6, 2,47,53,19, 3,22, 5		3, 1, 1,23,35	
		1,31,13, 5,33, 0, 9,58		6,40
26″	41,16, 7,34, 0,58,52, 3,32, 3		3, 1, 1,30,15	
		1,31,13, 2,31,58,39,43		6,40
28″	41,16, 9, 5,14, 1,24, 2,11,46		3, 1, 1,36,55	
		1,31,12,59,30,57, 2,48		6,40
30″	41,16,10,36,27, 0,54,59,14,34		3, 1, 1,43,35	
		1,31,12,56,29,55,19,13		6,40
32″	41,16,12, 7,39,57,24,54,33,47		3, 1, 1,50,15	
		1,31,12,53,28,53,28,58		6,40
34″	41,16,13,38,52,50,53,48, 2,45		3, 1, 1,56,55	
		1,31,12,50,27,51,32, 3		6,40
36″	41,16,15,10, 5,41,21,39,34,48		3, 1, 2, 3,35	
		1,31,12,47,26,49,28,28		6,40
38″	41,16,16,41,18,28,48,29, 3,16		3, 1, 2,10,15	
		1,31,12,44,25,47,18,13		6,40
40″	41,16,18,12,31,13,14,16,21,29		3, 1, 2,16,55	
		1,31,12,41,24,45, 1,18		6,40
42″	41,16,19,43,43,54,39, 1,22,47		3, 1, 2,23,35	
		1,31,12,38,23,42,37,43		6,40
44″	41,16,21,14,56,33, 2,44, 0,30		3, 1, 2,30,15	
		1,31,12,35,22,40, 7,28		6,40
46″	41,16,22,46, 9, 8,25,24, 7,58		3, 1, 2,36,55	
		1,31,12,32,21,37,30,33		6,40
48″	41,16,24,17,21,40,47, 1,38,31		3, 1, 2,43,35	
		1,31,12,29,20,34,46,58		6,40
50″	41,16,25,48,34,10, 7,36,25,29		3, 1, 2,50,15	
		1,31,12,26,19,31,56,43		6,40
52″	41,16,27,19,46,36,27, 8,22,12		3, 1, 2,56,55	
		1,31,12,23,18,28,59,48		6,40
54″	41,16,28,50,58,59,45,37,22, 0		3, 1, 3, 3,35	
		1,31,12,20,17,25,56,13		6,40
56″	41,16,30,22,11,20, 3, 3,18,13		3, 1, 3,10,15	
		1,31,12,17,16,22,45,58		6,40
58″	41,16,31,53,23,37,19,26, 4,11		3, 1, 3,16,55	
		1,31,12,14,15,19,29, 3		
60″	41,16,33,24,35,51,34,45,33,14			
exact	41,16,33,24,35,51,34,45,26,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°28′ 0″	41,16,33,24,35,51,34,45,26,38			
		1,31,12,11,14,16, 4,43		
2″	41,16,34,55,48, 2,49, 1,31,21		3, 1, 3,30,18	
		1,31,12, 8,13,12,34,25		6,40
4″	41,16,36,27, 0,11, 2,14, 5,46		3, 1, 3,36,58	
		1,31,12, 5,12, 8,57,27		6,40
6″	41,16,37,58,12,16,14,23, 3,13		3, 1, 3,43,38	
		1,31,12, 2,11, 5,13,49		6,40
8″	41,16,39,29,24,18,25,28,17, 2		3, 1, 3,50,18	
		1,31,11,59,10, 1,23,31		6,40
10″	41,16,41, 0,36,17,35,29,40,33		3, 1, 3,56,58	
		1,31,11,56, 8,57,26,33		6,40
12″	41,16,42,31,48,13,44,27, 7, 6		3, 1, 4, 3,38	
		1,31,11,53, 7,53,22,55		6,40
14″	41,16,44, 3, 0, 6,52,20,30, 1		3, 1, 4,10,18	
		1,31,11,50, 6,49,12,37		6,40
16″	41,16,45,34,11,56,59, 9,42,38		3, 1, 4,16,58	
		1,31,11,47, 5,44,55,39		6,40
18″	41,16,47, 5,23,44, 4,54,38,17		3, 1, 4,23,38	
		1,31,11,44, 4,40,32, 1		6,40
20″	41,16,48,36,35,28, 9,35,10,18		3, 1, 4,30,18	
		1,31,11,41, 3,36, 1,43		6,40
22″	41,16,50, 7,47, 9,13,11,12, 1		3, 1, 4,36,58	
		1,31,11,38, 2,31,24,45		6,40
24″	41,16,51,38,58,47,15,42,36,46		3, 1, 4,43,38	
		1,31,11,35, 1,26,41, 7		6,40
26″	41,16,53,10,10,22,17, 9,17,53		3, 1, 4,50,18	
		1,31,11,32, 0,21,50,49		6,40
28″	41,16,54,41,21,54,17,31, 8,42		3, 1, 4,56,58	
		1,31,11,28,59,16,53,51		6,40
30″	41,16,56,12,33,23,16,48, 2,33		3, 1, 5, 3,38	
		1,31,11,25,58,11,50,13		6,40
32″	41,16,57,43,44,49,14,59,52,46		3, 1, 5,10,18	
		1,31,11,22,57, 6,39,55		6,40
34″	41,16,59,14,56,12,12, 6,32,41		3, 1, 5,16,58	
		1,31,11,19,56, 1,22,57		6,40
36″	41,17, 0,46, 7,32, 8, 7,55,38		3, 1, 5,23,38	
		1,31,11,16,54,55,59,19		6,40
38″	41,17, 2,17,18,49, 3, 3,54,57		3, 1, 5,30,18	
		1,31,11,13,53,50,29, 1		6,40
40″	41,17, 3,48,30, 2,56,54,23,58		3, 1, 5,36,58	
		1,31,11,10,52,44,52, 3		6,40
42″	41,17, 5,19,41,13,49,39,16, 1		3, 1, 5,43,38	
		1,31,11, 7,51,39, 8,25		6,40
44″	41,17, 6,50,52,21,41,18,24,26		3, 1, 5,50,18	
		1,31,11, 4,50,33,18, 7		6,40
46″	41,17, 8,22, 3,26,31,51,42,33		3, 1, 5,56,58	
		1,31,11, 1,49,27,21, 9		6,40
48″	41,17, 9,53,14,28,21,19, 3,42		3, 1, 6, 3,38	
		1,31,10,58,48,21,17,31		6,40
50″	41,17,11,24,25,27, 9,40,21,13		3, 1, 6,10,18	
		1,31,10,55,47,15, 7,13		6,40
52″	41,17,12,55,36,22,56,55,28,26		3, 1, 6,16,58	
		1,31,10,52,46, 8,50,15		6,40
54″	41,17,14,26,47,15,43, 4,18,41		3, 1, 6,23,38	
		1,31,10,49,45, 2,26,37		6,40
56″	41,17,15,57,58, 5,28, 6,45,18		3, 1, 6,30,18	
		1,31,10,46,43,55,56,19		6,40
58″	41,17,17,29, 8,52,12, 2,41,37		3, 1, 6,36,58	
		1,31,10,43,42,49,19,21		
60″	41,17,19, 0,19,35,54,52, 0,58			
exact	41,17,19, 0,19,35,54,51,58,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°29′ 0″	41,17,19, 0,19,35,54,51,58,35			
		1,31,10,40,41,42,35,32		
2″	41,17,20,31,30,16,36,34,34, 7		3, 1, 6,50,18	
		1,31,10,37,40,35,45,14		6,40
4″	41,17,22, 2,40,54,17,10,19,21		3, 1, 6,56,58	
		1,31,10,34,39,28,48,16		6,40
6″	41,17,23,33,51,28,56,39, 7,37		3, 1, 7, 3,38	
		1,31,10,31,38,21,44,38		6,40
8″	41,17,25, 5, 2, 0,35, 0,52,15		3, 1, 7,10,18	
		1,31,10,28,37,14,34,20		6,40
10″	41,17,26,36,12,29,12,15,26,35		3, 1, 7,16,58	
		1,31,10,25,36, 7,17,22		6,40
12″	41,17,28, 7,22,54,48,22,43,57		3, 1, 7,23,38	
		1,31,10,22,34,59,53,44		6,40
14″	41,17,29,38,33,17,23,22,37,41		3, 1, 7,30,18	
		1,31,10,19,33,52,23,26		6,40
16″	41,17,31, 9,43,36,57,15, 1, 7		3, 1, 7,36,58	
		1,31,10,16,32,44,46,28		6,40
18″	41,17,32,40,53,53,29,59,47,35		3, 1, 7,43,38	
		1,31,10,13,31,37, 2,50		6,40
20″	41,17,34,12, 4, 7, 1,36,50,25		3, 1, 7,50,18	
		1,31,10,10,30,29,12,32		6,40
22″	41,17,35,43,14,17,32, 6, 2,57		3, 1, 7,56,58	
		1,31,10, 7,29,21,15,34		6,40
24″	41,17,37,14,24,25, 1,27,18,31		3, 1, 8, 3,38	
		1,31,10, 4,28,13,11,56		6,40
26″	41,17,38,45,34,29,29,40,30,27		3, 1, 8,10,18	
		1,31,10, 1,27, 5, 1,38		6,40
28″	41,17,40,16,44,30,56,45,32, 5		3, 1, 8,16,58	
		1,31, 9,58,25,56,44,40		6,40
30″	41,17,41,47,54,29,22,42,16,45		3, 1, 8,23,38	
		1,31, 9,55,24,48,21, 2		6,40
32″	41,17,43,19, 4,24,47,30,37,47		3, 1, 8,30,18	
		1,31, 9,52,23,39,50,44		6,40
34″	41,17,44,50,14,17,11,10,28,31		3, 1, 8,36,58	
		1,31, 9,49,22,31,13,46		6,40
36″	41,17,46,21,24, 6,33,41,42,17		3, 1, 8,43,38	
		1,31, 9,46,21,22,30, 8		6,40
38″	41,17,47,52,33,52,55, 4,12,25		3, 1, 8,50,18	
		1,31, 9,43,20,13,39,50		6,40
40″	41,17,49,23,43,36,15,17,52,15		3, 1, 8,56,58	
		1,31, 9,40,19, 4,42,52		6,40
42″	41,17,50,54,53,16,34,22,35, 7		3, 1, 9, 3,38	
		1,31, 9,37,17,55,39,14		6,40
44″	41,17,52,26, 2,53,52,18,14,21		3, 1, 9,10,18	
		1,31, 9,34,16,46,28,56		6,40
46″	41,17,53,57,12,28, 9, 4,43,17		3, 1, 9,16,58	
		1,31, 9,31,15,37,11,58		6,40
48″	41,17,55,28,21,59,24,41,55,15		3, 1, 9,23,38	
		1,31, 9,28,14,27,48,20		6,40
50″	41,17,56,59,31,27,39, 9,43,35		3, 1, 9,30,18	
		1,31, 9,25,13,18,18, 2		6,40
52″	41,17,58,30,40,52,52,28, 1,37		3, 1, 9,36,58	
		1,31, 9,22,12, 8,41, 4		6,40
54″	41,18, 0, 1,50,15, 4,36,42,41		3, 1, 9,43,38	
		1,31, 9,19,10,58,57,26		6,40
56″	41,18, 1,32,59,34,15,35,40, 7		3, 1, 9,50,18	
		1,31, 9,16, 9,49, 7, 8		6,40
58″	41,18, 3, 4, 8,50,25,24,47,15		3, 1, 9,56,58	
		1,31, 9,13, 8,39,10,10		
60″	41,18, 4,35,18, 3,34, 3,57,25			
exact	41,18, 4,35,18, 3,34, 4, 1,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°30′ 0″	41,18, 4,35,18, 3,34, 4, 1,45			
		1,31, 9,10, 7,29, 7, 6		
2″	41,18, 6, 6,27,13,41,33, 8,51		3, 1,10,10,15	
		1,31, 9, 7, 6,18,56,51		6,40
4″	41,18, 7,37,36,20,47,52, 5,42		3, 1,10,16,55	
		1,31, 9, 4, 5, 8,39,56		6,40
6″	41,18, 9, 8,45,24,53, 0,45,38		3, 1,10,23,35	
		1,31, 9, 1, 3,58,16,21		6,40
8″	41,18,10,39,54,25,56,59, 1,59		3, 1,10,30,15	
		1,31, 8,58, 2,47,46, 6		6,40
10″	41,18,12,11, 3,23,59,46,48, 5		3, 1,10,36,55	
		1,31, 8,55, 1,37, 9,11		6,40
12″	41,18,13,42,12,19, 1,23,57,16		3, 1,10,43,35	
		1,31, 8,52, 0,26,25,36		6,40
14″	41,18,15,13,21,11, 1,50,22,52		3, 1,10,50,15	
		1,31, 8,48,59,15,35,21		6,40
16″	41,18,16,44,30, 0, 1, 5,58,13		3, 1,10,56,55	
		1,31, 8,45,58, 4,38,26		6,40
18″	41,18,18,15,38,45,59,10,36,39		3, 1,11, 3,35	
		1,31, 8,42,56,53,34,51		6,40
20″	41,18,19,46,47,28,56, 4,11,30		3, 1,11,10,15	
		1,31, 8,39,55,42,24,36		6,40
22″	41,18,21,17,56, 8,51,46,36, 6		3, 1,11,16,55	
		1,31, 8,36,54,31, 7,41		6,40
24″	41,18,22,49, 4,45,46,17,43,47		3, 1,11,23,35	
		1,31, 8,33,53,19,44, 6		6,40
26″	41,18,24,20,13,19,39,37,27,53		3, 1,11,30,15	
		1,31, 8,30,52, 8,13,51		6,40
28″	41,18,25,51,21,50,31,45,41,44		3, 1,11,36,55	
		1,31, 8,27,50,56,36,56		6,40
30″	41,18,27,22,30,18,22,42,18,40		3, 1,11,43,35	
		1,31, 8,24,49,44,53,21		6,40
32″	41,18,28,53,38,43,12,27,12, 1		3, 1,11,50,15	
		1,31, 8,21,48,33, 3, 6		6,40
34″	41,18,30,24,47, 5, 1, 0,15, 7		3, 1,11,56,55	
		1,31, 8,18,47,21, 6,11		6,40
36″	41,18,31,55,55,23,48,21,21,18		3, 1,12, 3,35	
		1,31, 8,15,46, 9, 2,36		6,40
38″	41,18,33,27, 3,39,34,30,23,54		3, 1,12,10,15	
		1,31, 8,12,44,56,52,21		6,40
40″	41,18,34,58,11,52,19,27,16,15		3, 1,12,16,55	
		1,31, 8, 9,43,44,35,26		6,40
42″	41,18,36,29,20, 2, 3,11,51,41		3, 1,12,23,35	
		1,31, 8, 6,42,32,11,51		6,40
44″	41,18,38, 0,28, 8,45,44, 3,32		3, 1,12,30,15	
		1,31, 8, 3,41,19,41,36		6,40
46″	41,18,39,31,36,12,27, 3,45, 8		3, 1,12,36,55	
		1,31, 8, 0,40, 7, 4,41		6,40
48″	41,18,41, 2,44,13, 7,10,49,49		3, 1,12,43,35	
		1,31, 7,57,38,54,21, 6		6,40
50″	41,18,42,33,52,10,46, 5,10,55		3, 1,12,50,15	
		1,31, 7,54,37,41,30,51		6,40
52″	41,18,44, 5, 0, 5,23,46,41,46		3, 1,12,56,55	
		1,31, 7,51,36,28,33,56		6,40
54″	41,18,45,36, 7,57, 0,15,15,42		3, 1,13, 3,35	
		1,31, 7,48,35,15,30,21		6,40
56″	41,18,47, 7,15,45,35,30,46, 3		3, 1,13,10,15	
		1,31, 7,45,34, 2,20, 6		6,40
58″	41,18,48,38,23,31, 9,33, 6, 9		3, 1,13,16,55	
		1,31, 7,42,32,49, 3,11		
60″	41,18,50, 9,31,13,42,22, 9,20			
exact	41,18,50, 9,31,13,42,22,22, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°31′ 0″	41,18,50, 9,31,13,42,22,22, 2			
		1,31, 7,39,31,35,41, 2		
2″	41,18,51,40,38,53,13,58, 3, 4		3, 1,13,30, 8	
		1,31, 7,36,30,22,10,54		6,40
4″	41,18,53,11,46,29,44,20,13,58		3, 1,13,36,48	
		1,31, 7,33,29, 8,34, 6		6,40
6″	41,18,54,42,54, 3,13,28,48, 4		3, 1,13,43,28	
		1,31, 7,30,27,54,50,38		6,40
8″	41,18,56,14, 1,33,41,23,38,42		3, 1,13,50, 8	
		1,31, 7,27,26,41, 0,30		6,40
10″	41,18,57,45, 9, 1, 8, 4,39,12		3, 1,13,56,48	
		1,31, 7,24,25,27, 3,42		6,40
12″	41,18,59,16,16,25,33,31,42,54		3, 1,14, 3,28	
		1,31, 7,21,24,13, 0,14		6,40
14″	41,19, 0,47,23,46,57,44,43, 8		3, 1,14,10, 8	
		1,31, 7,18,22,58,50, 6		6,40
16″	41,19, 2,18,31, 5,20,43,33,14		3, 1,14,16,48	
		1,31, 7,15,21,44,33,18		6,40
18″	41,19, 3,49,38,20,42,28, 6,32		3, 1,14,23,28	
		1,31, 7,12,20,30, 9,50		6,40
20″	41,19, 5,20,45,33, 2,58,16,22		3, 1,14,30, 8	
		1,31, 7, 9,19,15,39,42		6,40
22″	41,19, 6,51,52,42,22,13,56, 4		3, 1,14,36,48	
		1,31, 7, 6,18, 1, 2,54		6,40
24″	41,19, 8,22,59,48,40,14,58,58		3, 1,14,43,28	
		1,31, 7, 3,16,46,19,26		6,40
26″	41,19, 9,54, 6,51,57, 1,18,24		3, 1,14,50, 8	
		1,31, 7, 0,15,31,29,18		6,40
28″	41,19,11,25,13,52,12,32,47,42		3, 1,14,56,48	
		1,31, 6,57,14,16,32,30		6,40
30″	41,19,12,56,20,49,26,49,20,12		3, 1,15, 3,28	
		1,31, 6,54,13, 1,29, 2		6,40
32″	41,19,14,27,27,43,39,50,49,14		3, 1,15,10, 8	
		1,31, 6,51,11,46,18,54		6,40
34″	41,19,15,58,34,34,51,37, 8, 8		3, 1,15,16,48	
		1,31, 6,48,10,31, 2, 6		6,40
36″	41,19,17,29,41,23, 2, 8,10,14		3, 1,15,23,28	
		1,31, 6,45, 9,15,38,38		6,40
38″	41,19,19, 0,48, 8,11,23,48,52		3, 1,15,30, 8	
		1,31, 6,42, 8, 0, 8,30		6,40
40″	41,19,20,31,54,50,19,23,57,22		3, 1,15,36,48	
		1,31, 6,39, 6,44,31,42		6,40
42″	41,19,22, 3, 1,29,26, 8,29, 4		3, 1,15,43,28	
		1,31, 6,36, 5,28,48,14		6,40
44″	41,19,23,34, 8, 5,31,37,17,18		3, 1,15,50, 8	
		1,31, 6,33, 4,12,58, 6		6,40
46″	41,19,25, 5,14,38,35,50,15,24		3, 1,15,56,48	
		1,31, 6,30, 2,57, 1,18		6,40
48″	41,19,26,36,21, 8,38,47,16,42		3, 1,16, 3,28	
		1,31, 6,27, 1,40,57,50		6,40
50″	41,19,28, 7,27,35,40,28,14,32		3, 1,16,10, 8	
		1,31, 6,24, 0,24,47,42		6,40
52″	41,19,29,38,33,59,40,53, 2,14		3, 1,16,16,48	
		1,31, 6,20,59, 8,30,54		6,40
54″	41,19,31, 9,40,20,40, 1,33, 8		3, 1,16,23,28	
		1,31, 6,17,57,52, 7,26		6,40
56″	41,19,32,40,46,38,37,53,40,34		3, 1,16,30, 8	
		1,31, 6,14,56,35,37,18		6,40
58″	41,19,34,11,52,53,34,29,17,52		3, 1,16,36,48	
		1,31, 6,11,55,19, 0,30		
60″	41,19,35,42,59, 5,29,48,18,22			
exact	41,19,35,42,59, 5,29,48,35, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°32′ 0″	41,19,35,42,59, 5,29,48,35, 1			
		1,31, 6, 8,54, 2,19, 1		
2″	41,19,37,14, 5,14,23,50,54, 2		3, 1,16,49,59	
		1,31, 6, 5,52,45,29, 2		6,40
4″	41,19,38,45,11,20,16,36,23, 4		3, 1,16,56,39	
		1,31, 6, 2,51,28,32,23		6,40
6″	41,19,40,16,17,23, 8, 4,55,27		3, 1,17, 3,19	
		1,31, 5,59,50,11,29, 4		6,40
8″	41,19,41,47,23,22,58,16,24,31		3, 1,17, 9,59	
		1,31, 5,56,48,54,19, 5		6,40
10″	41,19,43,18,29,19,47,10,43,36		3, 1,17,16,39	
		1,31, 5,53,47,37, 2,26		6,40
12″	41,19,44,49,35,13,34,47,46, 2		3, 1,17,23,19	
		1,31, 5,50,46,19,39, 7		6,40
14″	41,19,46,20,41, 4,21, 7,25, 9		3, 1,17,29,59	
		1,31, 5,47,45, 2, 9, 8		6,40
16″	41,19,47,51,46,52, 6, 9,34,17		3, 1,17,36,39	
		1,31, 5,44,43,44,32,29		6,40
18″	41,19,49,22,52,36,49,54, 6,46		3, 1,17,43,19	
		1,31, 5,41,42,26,49,10		6,40
20″	41,19,50,53,58,18,32,20,55,56		3, 1,17,49,59	
		1,31, 5,38,41, 8,59,11		6,40
22″	41,19,52,25, 3,57,13,29,55, 7		3, 1,17,56,39	
		1,31, 5,35,39,51, 2,32		6,40
24″	41,19,53,56, 9,32,53,20,57,39		3, 1,18, 3,19	
		1,31, 5,32,38,32,59,13		6,40
26″	41,19,55,27,15, 5,31,53,56,52		3, 1,18, 9,59	
		1,31, 5,29,37,14,49,14		6,40
28″	41,19,56,58,20,35, 9, 8,46, 6		3, 1,18,16,39	
		1,31, 5,26,35,56,32,35		6,40
30″	41,19,58,29,26, 1,45, 5,18,41		3, 1,18,23,19	
		1,31, 5,23,34,38, 9,16		6,40
32″	41,20, 0, 0,31,25,19,43,27,57		3, 1,18,29,59	
		1,31, 5,20,33,19,39,17		6,40
34″	41,20, 1,31,36,45,53, 3, 7,14		3, 1,18,36,39	
		1,31, 5,17,32, 1, 2,38		6,40
36″	41,20, 3, 2,42, 3,25, 4, 9,52		3, 1,18,43,19	
		1,31, 5,14,30,42,19,19		6,40
38″	41,20, 4,33,47,17,55,46,29,11		3, 1,18,49,59	
		1,31, 5,11,29,23,29,20		6,40
40″	41,20, 6, 4,52,29,25, 9,58,31		3, 1,18,56,39	
		1,31, 5, 8,28, 4,32,41		6,40
42″	41,20, 7,35,57,37,53,14,31,12		3, 1,19, 3,19	
		1,31, 5, 5,26,45,29,22		6,40
44″	41,20, 9, 7, 2,43,20, 0, 0,34		3, 1,19, 9,59	
		1,31, 5, 2,25,26,19,23		6,40
46″	41,20,10,38, 7,45,45,26,19,57		3, 1,19,16,39	
		1,31, 4,59,24, 7, 2,44		6,40
48″	41,20,12, 9,12,45, 9,33,22,41		3, 1,19,23,19	
		1,31, 4,56,22,47,39,25		6,40
50″	41,20,13,40,17,41,32,21, 2, 6		3, 1,19,29,59	
		1,31, 4,53,21,28, 9,26		6,40
52″	41,20,15,11,22,34,53,49,11,32		3, 1,19,36,39	
		1,31, 4,50,20, 8,32,47		6,40
54″	41,20,16,42,27,25,13,57,44,19		3, 1,19,43,19	
		1,31, 4,47,18,48,49,28		6,40
56″	41,20,18,13,32,12,32,46,33,47		3, 1,19,49,59	
		1,31, 4,44,17,28,59,29		6,40
58″	41,20,19,44,36,56,50,15,33,16		3, 1,19,56,39	
		1,31, 4,41,16, 9, 2,50		
60″	41,20,21,15,41,38, 6,24,36, 6			
exact	41,20,21,15,41,38, 6,25, 5,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°33′ 0″	41,20,21,15,41,38, 6,25, 5,56			
		1,31, 4,38,14,49, 2,42		
2″	41,20,22,46,46,16,21,14, 8,38		3, 1,20, 9,46	
		1,31, 4,35,13,28,52,56		6,40
4″	41,20,24,17,50,51,34,43, 1,34		3, 1,20,16,26	
		1,31, 4,32,12, 8,36,30		6,40
6″	41,20,25,48,55,23,46,51,38, 4		3, 1,20,23, 6	
		1,31, 4,29,10,48,13,24		6,40
8″	41,20,27,19,59,52,57,39,51,28		3, 1,20,29,46	
		1,31, 4,26, 9,27,43,38		6,40
10″	41,20,28,51, 4,19, 7, 7,35, 6		3, 1,20,36,26	
		1,31, 4,23, 8, 7, 7,12		6,40
12″	41,20,30,22, 8,42,15,14,42,18		3, 1,20,43, 6	
		1,31, 4,20, 6,46,24, 6		6,40
14″	41,20,31,53,13, 2,22, 1, 6,24		3, 1,20,49,46	
		1,31, 4,17, 5,25,34,20		6,40
16″	41,20,33,24,17,19,27,26,40,44		3, 1,20,56,26	
		1,31, 4,14, 4, 4,37,54		6,40
18″	41,20,34,55,21,33,31,31,18,38		3, 1,21, 3, 6	
		1,31, 4,11, 2,43,34,48		6,40
20″	41,20,36,26,25,44,34,14,53,26		3, 1,21, 9,46	
		1,31, 4, 8, 1,22,25, 2		6,40
22″	41,20,37,57,29,52,35,37,18,28		3, 1,21,16,26	
		1,31, 4, 5, 0, 1, 8,36		6,40
24″	41,20,39,28,33,57,35,38,27, 4		3, 1,21,23, 6	
		1,31, 4, 1,58,39,45,30		6,40
26″	41,20,40,59,37,59,34,18,12,34		3, 1,21,29,46	
		1,31, 3,58,57,18,15,44		6,40
28″	41,20,42,30,41,58,31,36,28,18		3, 1,21,36,26	
		1,31, 3,55,55,56,39,18		6,40
30″	41,20,44, 1,45,54,27,33, 7,36		3, 1,21,43, 6	
		1,31, 3,52,54,34,56,12		6,40
32″	41,20,45,32,49,47,22, 8, 3,48		3, 1,21,49,46	
		1,31, 3,49,53,13, 6,26		6,40
34″	41,20,47, 3,53,37,15,21,10,14		3, 1,21,56,26	
		1,31, 3,46,51,51,10, 0		6,40
36″	41,20,48,34,57,24, 7,12,20,14		3, 1,22, 3, 6	
		1,31, 3,43,50,29, 6,54		6,40
38″	41,20,50, 6, 1, 7,57,41,27, 8		3, 1,22, 9,46	
		1,31, 3,40,49, 6,57, 8		6,40
40″	41,20,51,37, 4,48,46,48,24,16		3, 1,22,16,26	
		1,31, 3,37,47,44,40,42		6,40
42″	41,20,53, 8, 8,26,34,33, 4,58		3, 1,22,23, 6	
		1,31, 3,34,46,22,17,36		6,40
44″	41,20,54,39,12, 1,20,55,22,34		3, 1,22,29,46	
		1,31, 3,31,44,59,47,50		6,40
46″	41,20,56,10,15,33, 5,55,10,24		3, 1,22,36,26	
		1,31, 3,28,43,37,11,24		6,40
48″	41,20,57,41,19, 1,49,32,21,48		3, 1,22,43, 6	
		1,31, 3,25,42,14,28,18		6,40
50″	41,20,59,12,22,27,31,46,50, 6		3, 1,22,49,46	
		1,31, 3,22,40,51,38,32		6,40
52″	41,21, 0,43,25,50,12,38,28,38		3, 1,22,56,26	
		1,31, 3,19,39,28,42, 6		6,40
54″	41,21, 2,14,29, 9,52, 7,10,44		3, 1,23, 3, 6	
		1,31, 3,16,38, 5,39, 0		6,40
56″	41,21, 3,45,32,26,30,12,49,44		3, 1,23, 9,46	
		1,31, 3,13,36,42,29,14		6,40
58″	41,21, 5,16,35,40, 6,55,18,58		3, 1,23,16,26	
		1,31, 3,10,35,19,12,48		
60″	41,21, 6,47,38,50,42,14,31,46			
exact	41,21, 6,47,38,50,42,15, 9,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°34′ 0″	41,21, 6,47,38,50,42,15, 9,44			
		1,31, 3, 7,33,55,53,44		
2″	41,21, 8,18,41,58,16,11, 3,28		3, 1,23,29,29	
		1,31, 3, 4,32,32,24,15		6,39
4″	41,21, 9,49,45, 2,48,43,27,43		3, 1,23,36, 8	
		1,31, 3, 1,31, 8,48, 7		6,39
6″	41,21,11,20,48, 4,19,52,15,50		3, 1,23,42,47	
		1,31, 2,58,29,45, 5,20		6,39
8″	41,21,12,51,51, 2,49,37,21,10		3, 1,23,49,26	
		1,31, 2,55,28,21,15,54		6,39
10″	41,21,14,22,53,58,17,58,37, 4		3, 1,23,56, 5	
		1,31, 2,52,26,57,19,49		6,39
12″	41,21,15,53,56,50,44,55,56,53		3, 1,24, 2,44	
		1,31, 2,49,25,33,17, 5		6,39
14″	41,21,17,24,59,40,10,29,13,58		3, 1,24, 9,23	
		1,31, 2,46,24, 9, 7,42		6,39
16″	41,21,18,56, 2,26,34,38,21,40		3, 1,24,16, 2	
		1,31, 2,43,22,44,51,40		6,39
18″	41,21,20,27, 5, 9,57,23,13,20		3, 1,24,22,41	
		1,31, 2,40,21,20,28,59		6,39
20″	41,21,21,58, 7,50,18,43,42,19		3, 1,24,29,20	
		1,31, 2,37,19,55,59,39		6,39
22″	41,21,23,29,10,27,38,39,41,58		3, 1,24,35,59	
		1,31, 2,34,18,31,23,40		6,39
24″	41,21,25, 0,13, 1,57,11, 5,38		3, 1,24,42,38	
		1,31, 2,31,17, 6,41, 2		6,39
26″	41,21,26,31,15,33,14,17,46,40		3, 1,24,49,17	
		1,31, 2,28,15,41,51,45		6,39
28″	41,21,28, 2,18, 1,29,59,38,25		3, 1,24,55,56	
		1,31, 2,25,14,16,55,49		6,39
30″	41,21,29,33,20,26,44,16,34,14		3, 1,25, 2,35	
		1,31, 2,22,12,51,53,14		6,39
32″	41,21,31, 4,22,48,57, 8,27,28		3, 1,25, 9,14	
		1,31, 2,19,11,26,44, 0		6,39
34″	41,21,32,35,25, 8, 8,35,11,28		3, 1,25,15,53	
		1,31, 2,16,10, 1,28, 7		6,39
36″	41,21,34, 6,27,24,18,36,39,35		3, 1,25,22,32	
		1,31, 2,13, 8,36, 5,35		6,39
38″	41,21,35,37,29,37,27,12,45,10		3, 1,25,29,11	
		1,31, 2,10, 7,10,36,24		6,39
40″	41,21,37, 8,31,47,34,23,21,34		3, 1,25,35,50	
		1,31, 2, 7, 5,45, 0,34		6,39
42″	41,21,38,39,33,54,40, 8,22, 8		3, 1,25,42,29	
		1,31, 2, 4, 4,19,18, 5		6,39
44″	41,21,40,10,35,58,44,27,40,13		3, 1,25,49, 8	
		1,31, 2, 1, 2,53,28,57		6,39
46″	41,21,41,41,37,59,47,21, 9,10		3, 1,25,55,47	
		1,31, 1,58, 1,27,33,10		6,39
48″	41,21,43,12,39,57,48,48,42,20		3, 1,26, 2,26	
		1,31, 1,55, 0, 1,30,44		6,39
50″	41,21,44,43,41,52,48,50,13, 4		3, 1,26, 9, 5	
		1,31, 1,51,58,35,21,39		6,39
52″	41,21,46,14,43,44,47,25,34,43		3, 1,26,15,44	
		1,31, 1,48,57, 9, 5,55		6,39
54″	41,21,47,45,45,33,44,34,40,38		3, 1,26,22,23	
		1,31, 1,45,55,42,43,32		6,39
56″	41,21,49,16,47,19,40,17,24,10		3, 1,26,29, 2	
		1,31, 1,42,54,16,14,30		6,39
58″	41,21,50,47,49, 2,34,33,38,40		3, 1,26,35,41	
		1,31, 1,39,52,49,38,49		
60″	41,21,52,18,50,42,27,23,17,29			
exact	41,21,52,18,50,42,27,22,51, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°35′ 0″	41,21,52,18,50,42,27,22,51, 6			
		1,31, 1,36,51,22,53,47		
2″	41,21,53,49,52,19,18,45,44,53		3, 1,26,49, 9	
		1,31, 1,33,49,56, 4,38		6,39
4″	41,21,55,20,53,53, 8,41,49,31		3, 1,26,55,48	
		1,31, 1,30,48,29, 8,50		6,39
6″	41,21,56,51,55,23,57,10,58,21		3, 1,27, 2,27	
		1,31, 1,27,47, 2, 6,23		6,39
8″	41,21,58,22,56,51,44,13, 4,44		3, 1,27, 9, 6	
		1,31, 1,24,45,34,57,17		6,39
10″	41,21,59,53,58,16,29,48, 2, 1		3, 1,27,15,45	
		1,31, 1,21,44, 7,41,32		6,39
12″	41,22, 1,24,59,38,13,55,43,33		3, 1,27,22,24	
		1,31, 1,18,42,40,19, 8		6,39
14″	41,22, 2,56, 0,56,56,36, 2,41		3, 1,27,29, 3	
		1,31, 1,15,41,12,50, 5		6,39
16″	41,22, 4,27, 2,12,37,48,52,46		3, 1,27,35,42	
		1,31, 1,12,39,45,14,23		6,39
18″	41,22, 5,58, 3,25,17,34, 7, 9		3, 1,27,42,21	
		1,31, 1, 9,38,17,32, 2		6,39
20″	41,22, 7,29, 4,34,55,51,39,11		3, 1,27,49, 0	
		1,31, 1, 6,36,49,43, 2		6,39
22″	41,22, 9, 0, 5,41,32,41,22,13		3, 1,27,55,39	
		1,31, 1, 3,35,21,47,23		6,39
24″	41,22,10,31, 6,45, 8, 3, 9,36		3, 1,28, 2,18	
		1,31, 1, 0,33,53,45, 5		6,39
26″	41,22,12, 2, 7,45,41,56,54,41		3, 1,28, 8,57	
		1,31, 0,57,32,25,36, 8		6,39
28″	41,22,13,33, 8,43,14,22,30,49		3, 1,28,15,36	
		1,31, 0,54,30,57,20,32		6,39
30″	41,22,15, 4, 9,37,45,19,51,21		3, 1,28,22,15	
		1,31, 0,51,29,28,58,17		6,39
32″	41,22,16,35,10,29,14,48,49,38		3, 1,28,28,54	
		1,31, 0,48,28, 0,29,23		6,39
34″	41,22,18, 6,11,17,42,49,19, 1		3, 1,28,35,33	
		1,31, 0,45,26,31,53,50		6,39
36″	41,22,19,37,12, 3, 9,21,12,51		3, 1,28,42,12	
		1,31, 0,42,25, 3,11,38		6,39
38″	41,22,21, 8,12,45,34,24,24,29		3, 1,28,48,51	
		1,31, 0,39,23,34,22,47		6,39
40″	41,22,22,39,13,24,57,58,47,16		3, 1,28,55,30	
		1,31, 0,36,22, 5,27,17		6,39
42″	41,22,24,10,14, 1,20, 4,14,33		3, 1,29, 2, 9	
		1,31, 0,33,20,36,25, 8		6,39
44″	41,22,25,41,14,34,40,40,39,41		3, 1,29, 8,48	
		1,31, 0,30,19, 7,16,20		6,39
46″	41,22,27,12,15, 4,59,47,56, 1		3, 1,29,15,27	
		1,31, 0,27,17,38, 0,53		6,39
48″	41,22,28,43,15,32,17,25,56,54		3, 1,29,22, 6	
		1,31, 0,24,16, 8,38,47		6,39
50″	41,22,30,14,15,56,33,34,35,41		3, 1,29,28,45	
		1,31, 0,21,14,39,10, 2		6,39
52″	41,22,31,45,16,17,48,13,45,43		3, 1,29,35,24	
		1,31, 0,18,13, 9,34,38		6,39
54″	41,22,33,16,16,36, 1,23,20,21		3, 1,29,42, 3	
		1,31, 0,15,11,39,52,35		6,39
56″	41,22,34,47,16,51,13, 3,12,56		3, 1,29,48,42	
		1,31, 0,12,10,10, 3,53		6,39
58″	41,22,36,18,17, 3,23,13,16,49		3, 1,29,55,21	
		1,31, 0, 9, 8,40, 8,32		
60″	41,22,37,49,17,12,31,53,25,21			
exact	41,22,37,49,17,12,31,53, 4,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°36′ 0″	41,22,37,49,17,12,31,53, 4,26			
		1,31, 0, 6, 7,10, 4,30		
2″	41,22,39,20,17,18,39, 3, 8,56		3, 1,30, 8,46	
		1,31, 0, 3, 5,39,55,44		6,39
4″	41,22,40,51,17,21,44,43, 4,40		3, 1,30,15,25	
		1,31, 0, 0, 4, 9,40,19		6,39
6″	41,22,42,22,17,21,48,52,44,59		3, 1,30,22, 4	
		1,30,59,57, 2,39,18,15		6,39
8″	41,22,43,53,17,18,51,32, 3,14		3, 1,30,28,43	
		1,30,59,54, 1, 8,49,32		6,39
10″	41,22,45,24,17,12,52,40,52,46		3, 1,30,35,22	
		1,30,59,50,59,38,14,10		6,39
12″	41,22,46,55,17, 3,52,19, 6,56		3, 1,30,42, 1	
		1,30,59,47,58, 7,32, 9		6,39
14″	41,22,48,26,16,51,50,26,39, 5		3, 1,30,48,40	
		1,30,59,44,56,36,43,29		6,39
16″	41,22,49,57,16,36,47, 3,22,34		3, 1,30,55,19	
		1,30,59,41,55, 5,48,10		6,39
18″	41,22,51,28,16,18,42, 9,10,44		3, 1,31, 1,58	
		1,30,59,38,53,34,46,12		6,39
20″	41,22,52,59,15,57,35,43,56,56		3, 1,31, 8,37	
		1,30,59,35,52, 3,37,35		6,39
22″	41,22,54,30,15,33,27,47,34,31		3, 1,31,15,16	
		1,30,59,32,50,32,22,19		6,39
24″	41,22,56, 1,15, 6,18,19,56,50		3, 1,31,21,55	
		1,30,59,29,49, 1, 0,24		6,39
26″	41,22,57,32,14,36, 7,20,57,14		3, 1,31,28,34	
		1,30,59,26,47,29,31,50		6,39
28″	41,22,59, 3,14, 2,54,50,29, 4		3, 1,31,35,13	
		1,30,59,23,45,57,56,37		6,39
30″	41,23, 0,34,13,26,40,48,25,41		3, 1,31,41,52	
		1,30,59,20,44,26,14,45		6,39
32″	41,23, 2, 5,12,47,25,14,40,26		3, 1,31,48,31	
		1,30,59,17,42,54,26,14		6,39
34″	41,23, 3,36,12, 5, 8, 9, 6,40		3, 1,31,55,10	
		1,30,59,14,41,22,31, 4		6,39
36″	41,23, 5, 7,11,19,49,31,37,44		3, 1,32, 1,49	
		1,30,59,11,39,50,29,15		6,39
38″	41,23, 6,38,10,31,29,22, 6,59		3, 1,32, 8,28	
		1,30,59, 8,38,18,20,47		6,39
40″	41,23, 8, 9, 9,40, 7,40,27,46		3, 1,32,15, 7	
		1,30,59, 5,36,46, 5,40		6,39
42″	41,23, 9,40, 8,45,44,26,33,26		3, 1,32,21,46	
		1,30,59, 2,35,13,43,54		6,39
44″	41,23,11,11, 7,48,19,40,17,20		3, 1,32,28,25	
		1,30,58,59,33,41,15,29		6,39
46″	41,23,12,42, 6,47,53,21,32,49		3, 1,32,35, 4	
		1,30,58,56,32, 8,40,25		6,39
48″	41,23,14,13, 5,44,25,30,13,14		3, 1,32,41,43	
		1,30,58,53,30,35,58,42		6,39
50″	41,23,15,44, 4,37,56, 6,11,56		3, 1,32,48,22	
		1,30,58,50,29, 3,10,20		6,39
52″	41,23,17,15, 3,28,25, 9,22,16		3, 1,32,55, 1	
		1,30,58,47,27,30,15,19		6,39
54″	41,23,18,46, 2,15,52,39,37,35		3, 1,33, 1,40	
		1,30,58,44,25,57,13,39		6,39
56″	41,23,20,17, 1, 0,18,36,51,14		3, 1,33, 8,19	
		1,30,58,41,24,24, 5,20		6,39
58″	41,23,21,47,59,41,43, 0,56,34		3, 1,33,14,58	
		1,30,58,38,22,50,50,22		
60″	41,23,23,18,58,20, 5,51,46,56			
exact	41,23,23,18,58,20, 5,51,33,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°37′ 0″	41,23,23,18,58,20, 5,51,33,51			
		1,30,58,35,21,17,27,32		
2″	41,23,24,49,56,55,27, 9, 1,23		3, 1,33,28,20	
		1,30,58,32,19,43,59,12		6,39
4″	41,23,26,20,55,27,46,53, 0,35		3, 1,33,34,59	
		1,30,58,29,18,10,24,13		6,39
6″	41,23,27,51,53,57, 5, 3,24,48		3, 1,33,41,38	
		1,30,58,26,16,36,42,35		6,39
8″	41,23,29,22,52,23,21,40, 7,23		3, 1,33,48,17	
		1,30,58,23,15, 2,54,18		6,39
10″	41,23,30,53,50,46,36,43, 1,41		3, 1,33,54,56	
		1,30,58,20,13,28,59,22		6,39
12″	41,23,32,24,49, 6,50,12, 1, 3		3, 1,34, 1,35	
		1,30,58,17,11,54,57,47		6,39
14″	41,23,33,55,47,24, 2, 6,58,50		3, 1,34, 8,14	
		1,30,58,14,10,20,49,33		6,39
16″	41,23,35,26,45,38,12,27,48,23		3, 1,34,14,53	
		1,30,58,11, 8,46,34,40		6,39
18″	41,23,36,57,43,49,21,14,23, 3		3, 1,34,21,32	
		1,30,58, 8, 7,12,13, 8		6,39
20″	41,23,38,28,41,57,28,26,36,11		3, 1,34,28,11	
		1,30,58, 5, 5,37,44,57		6,39
22″	41,23,39,59,40, 2,34, 4,21, 8		3, 1,34,34,50	
		1,30,58, 2, 4, 3,10, 7		6,39
24″	41,23,41,30,38, 4,38, 7,31,15		3, 1,34,41,29	
		1,30,57,59, 2,28,28,38		6,39
26″	41,23,43, 1,36, 3,40,35,59,53		3, 1,34,48, 8	
		1,30,57,56, 0,53,40,30		6,39
28″	41,23,44,32,33,59,41,29,40,23		3, 1,34,54,47	
		1,30,57,52,59,18,45,43		6,39
30″	41,23,46, 3,31,52,40,48,26, 6		3, 1,35, 1,26	
		1,30,57,49,57,43,44,17		6,39
32″	41,23,47,34,29,42,38,32,10,23		3, 1,35, 8, 5	
		1,30,57,46,56, 8,36,12		6,39
34″	41,23,49, 5,27,29,34,40,46,35		3, 1,35,14,44	
		1,30,57,43,54,33,21,28		6,39
36″	41,23,50,36,25,13,29,14, 8, 3		3, 1,35,21,23	
		1,30,57,40,52,58, 0, 5		6,39
38″	41,23,52, 7,22,54,22,12, 8, 8		3, 1,35,28, 2	
		1,30,57,37,51,22,32, 3		6,39
40″	41,23,53,38,20,32,13,34,40,11		3, 1,35,34,41	
		1,30,57,34,49,46,57,22		6,39
42″	41,23,55, 9,18, 7, 3,21,37,33		3, 1,35,41,20	
		1,30,57,31,48,11,16, 2		6,39
44″	41,23,56,40,15,38,51,32,53,35		3, 1,35,47,59	
		1,30,57,28,46,35,28, 3		6,39
46″	41,23,58,11,13, 7,38, 8,21,38		3, 1,35,54,38	
		1,30,57,25,44,59,33,25		6,39
48″	41,23,59,42,10,33,23, 7,55, 3		3, 1,36, 1,17	
		1,30,57,22,43,23,32, 8		6,39
50″	41,24, 1,13, 7,56, 6,31,27,11		3, 1,36, 7,56	
		1,30,57,19,41,47,24,12		6,39
52″	41,24, 2,44, 5,15,48,18,51,23		3, 1,36,14,35	
		1,30,57,16,40,11, 9,37		6,39
54″	41,24, 4,15, 2,32,28,30, 1, 0		3, 1,36,21,14	
		1,30,57,13,38,34,48,23		6,39
56″	41,24, 5,45,59,46, 7, 4,49,23		3, 1,36,27,53	
		1,30,57,10,36,58,20,30		6,39
58″	41,24, 7,16,56,56,44, 3, 9,53		3, 1,36,34,32	
		1,30,57, 7,35,21,45,58		
60″	41,24, 8,47,54, 4,19,24,55,51			
exact	41,24, 8,47,54, 4,19,24,53,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°38′ 0″	41,24, 8,47,54, 4,19,24,53,16			
		1,30,57, 4,33,45, 4,34		
2″	41,24,10,18,51, 8,53, 9,57,50		3, 1,36,47,50	
		1,30,57, 1,32, 8,16,44		6,39
4″	41,24,11,49,48,10,25,18,14,34		3, 1,36,54,29	
		1,30,56,58,30,31,22,15		6,39
6″	41,24,13,20,45, 8,55,49,36,49		3, 1,37, 1, 8	
		1,30,56,55,28,54,21, 7		6,39
8″	41,24,14,51,42, 4,24,43,57,56		3, 1,37, 7,47	
		1,30,56,52,27,17,13,20		6,39
10″	41,24,16,22,38,56,52, 1,11,16		3, 1,37,14,26	
		1,30,56,49,25,39,58,54		6,39
12″	41,24,17,53,35,46,17,41,10,10		3, 1,37,21, 5	
		1,30,56,46,24, 2,37,49		6,39
14″	41,24,19,24,32,32,41,43,47,59		3, 1,37,27,44	
		1,30,56,43,22,25,10, 5		6,39
16″	41,24,20,55,29,16, 4, 8,58, 4		3, 1,37,34,23	
		1,30,56,40,20,47,35,42		6,39
18″	41,24,22,26,25,56,24,56,33,46		3, 1,37,41, 2	
		1,30,56,37,19, 9,54,40		6,39
20″	41,24,23,57,22,33,44, 6,28,26		3, 1,37,47,41	
		1,30,56,34,17,32, 6,59		6,39
22″	41,24,25,28,19, 8, 1,38,35,25		3, 1,37,54,20	
		1,30,56,31,15,54,12,39		6,39
24″	41,24,26,59,15,39,17,32,48, 4		3, 1,38, 0,59	
		1,30,56,28,14,16,11,40		6,39
26″	41,24,28,30,12, 7,31,48,59,44		3, 1,38, 7,38	
		1,30,56,25,12,38, 4, 2		6,39
28″	41,24,30, 1, 8,32,44,27, 3,46		3, 1,38,14,17	
		1,30,56,22,10,59,49,45		6,39
30″	41,24,31,32, 4,54,55,26,53,31		3, 1,38,20,56	
		1,30,56,19, 9,21,28,49		6,39
32″	41,24,33, 3, 1,14, 4,48,22,20		3, 1,38,27,35	
		1,30,56,16, 7,43, 1,14		6,39
34″	41,24,34,33,57,30,12,31,23,34		3, 1,38,34,14	
		1,30,56,13, 6, 4,27, 0		6,39
36″	41,24,36, 4,53,43,18,35,50,34		3, 1,38,40,53	
		1,30,56,10, 4,25,46, 7		6,39
38″	41,24,37,35,49,53,23, 1,36,41		3, 1,38,47,32	
		1,30,56, 7, 2,46,58,35		6,39
40″	41,24,39, 6,46, 0,25,48,35,16		3, 1,38,54,11	
		1,30,56, 4, 1, 8, 4,24		6,39
42″	41,24,40,37,42, 4,26,56,39,40		3, 1,39, 0,50	
		1,30,56, 0,59,29, 3,34		6,39
44″	41,24,42, 8,38, 5,26,25,43,14		3, 1,39, 7,29	
		1,30,55,57,57,49,56, 5		6,39
46″	41,24,43,39,34, 3,24,15,39,19		3, 1,39,14, 8	
		1,30,55,54,56,10,41,57		6,39
48″	41,24,45,10,29,58,20,26,21,16		3, 1,39,20,47	
		1,30,55,51,54,31,21,10		6,39
50″	41,24,46,41,25,50,14,57,42,26		3, 1,39,27,26	
		1,30,55,48,52,51,53,44		6,39
52″	41,24,48,12,21,39, 7,49,36,10		3, 1,39,34, 5	
		1,30,55,45,51,12,19,39		6,39
54″	41,24,49,43,17,24,59, 1,55,49		3, 1,39,40,44	
		1,30,55,42,49,32,38,55		6,39
56″	41,24,51,14,13, 7,48,34,34,44		3, 1,39,47,23	
		1,30,55,39,47,52,51,32		6,39
58″	41,24,52,45, 8,47,36,27,26,16		3, 1,39,54, 2	
		1,30,55,36,46,12,57,30		
60″	41,24,54,16, 4,24,22,40,23,46			
exact	41,24,54,16, 4,24,22,40,26,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°39′ 0″	41,24,54,16, 4,24,22,40,26,21			
		1,30,55,33,44,32,57,15		
2″	41,24,55,46,59,58, 7,13,23,36		3, 1,40, 7,17	
		1,30,55,30,42,52,49,58		6,39
4″	41,24,57,17,55,28,50, 6,13,34		3, 1,40,13,56	
		1,30,55,27,41,12,36, 2		6,39
6″	41,24,58,48,50,56,31,18,49,36		3, 1,40,20,35	
		1,30,55,24,39,32,15,27		6,39
8″	41,25, 0,19,46,21,10,51, 5, 3		3, 1,40,27,14	
		1,30,55,21,37,51,48,13		6,39
10″	41,25, 1,50,41,42,48,42,53,16		3, 1,40,33,53	
		1,30,55,18,36,11,14,20		6,39
12″	41,25, 3,21,37, 1,24,54, 7,36		3, 1,40,40,32	
		1,30,55,15,34,30,33,48		6,39
14″	41,25, 4,52,32,16,59,24,41,24		3, 1,40,47,11	
		1,30,55,12,32,49,46,37		6,39
16″	41,25, 6,23,27,29,32,14,28, 1		3, 1,40,53,50	
		1,30,55, 9,31, 8,52,47		6,39
18″	41,25, 7,54,22,39, 3,23,20,48		3, 1,41, 0,29	
		1,30,55, 6,29,27,52,18		6,39
20″	41,25, 9,25,17,45,32,51,13, 6		3, 1,41, 7, 8	
		1,30,55, 3,27,46,45,10		6,39
22″	41,25,10,56,12,49, 0,37,58,16		3, 1,41,13,47	
		1,30,55, 0,26, 5,31,23		6,39
24″	41,25,12,27, 7,49,26,43,29,39		3, 1,41,20,26	
		1,30,54,57,24,24,10,57		6,39
26″	41,25,13,58, 2,46,51, 7,40,36		3, 1,41,27, 5	
		1,30,54,54,22,42,43,52		6,39
28″	41,25,15,28,57,41,13,50,24,28		3, 1,41,33,44	
		1,30,54,51,21, 1,10, 8		6,39
30″	41,25,16,59,52,32,34,51,34,36		3, 1,41,40,23	
		1,30,54,48,19,19,29,45		6,39
32″	41,25,18,30,47,20,54,11, 4,21		3, 1,41,47, 2	
		1,30,54,45,17,37,42,43		6,39
34″	41,25,20, 1,42, 6,11,48,47, 4		3, 1,41,53,41	
		1,30,54,42,15,55,49, 2		6,39
36″	41,25,21,32,36,48,27,44,36, 6		3, 1,42, 0,20	
		1,30,54,39,14,13,48,42		6,39
38″	41,25,23, 3,31,27,41,58,24,48		3, 1,42, 6,59	
		1,30,54,36,12,31,41,43		6,39
40″	41,25,24,34,26, 3,54,30, 6,31		3, 1,42,13,38	
		1,30,54,33,10,49,28, 5		6,39
42″	41,25,26, 5,20,37, 5,19,34,36		3, 1,42,20,17	
		1,30,54,30, 9, 7, 7,48		6,39
44″	41,25,27,36,15, 7,14,26,42,24		3, 1,42,26,56	
		1,30,54,27, 7,24,40,52		6,39
46″	41,25,29, 7, 9,34,21,51,23,16		3, 1,42,33,35	
		1,30,54,24, 5,42, 7,17		6,39
48″	41,25,30,38, 3,58,27,33,30,33		3, 1,42,40,14	
		1,30,54,21, 3,59,27, 3		6,39
50″	41,25,32, 8,58,19,31,32,57,36		3, 1,42,46,53	
		1,30,54,18, 2,16,40,10		6,39
52″	41,25,33,39,52,37,33,49,37,46		3, 1,42,53,32	
		1,30,54,15, 0,33,46,38		6,39
54″	41,25,35,10,46,52,34,23,24,24		3, 1,43, 0,11	
		1,30,54,11,58,50,46,27		6,39
56″	41,25,36,41,41, 4,33,14,10,51		3, 1,43, 6,50	
		1,30,54, 8,57, 7,39,37		6,39
58″	41,25,38,12,35,13,30,21,50,28		3, 1,43,13,29	
		1,30,54, 5,55,24,26, 8		
60″	41,25,39,43,29,19,25,46,16,36			
exact	41,25,39,43,29,19,25,46,26,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°40′ 0″	41,25,39,43,29,19,25,46,26,34			
		1,30,54, 2,53,41, 7,14		
2″	41,25,41,14,23,22,19,27,33,48		3, 1,43,26,41	
		1,30,53,59,51,57,40,33		6,39
4″	41,25,42,45,17,22,11,25,14,21		3, 1,43,33,20	
		1,30,53,56,50,14, 7,13		6,39
6″	41,25,44,16,11,19, 1,39,21,34		3, 1,43,39,59	
		1,30,53,53,48,30,27,14		6,39
8″	41,25,45,47, 5,12,50, 9,48,48		3, 1,43,46,38	
		1,30,53,50,46,46,40,36		6,39
10″	41,25,47,17,59, 3,36,56,29,24		3, 1,43,53,17	
		1,30,53,47,45, 2,47,19		6,39
12″	41,25,48,48,52,51,21,59,16,43		3, 1,43,59,56	
		1,30,53,44,43,18,47,23		6,39
14″	41,25,50,19,46,36, 5,18, 4, 6		3, 1,44, 6,35	
		1,30,53,41,41,34,40,48		6,39
16″	41,25,51,50,40,17,46,52,44,54		3, 1,44,13,14	
		1,30,53,38,39,50,27,34		6,39
18″	41,25,53,21,33,56,26,43,12,28		3, 1,44,19,53	
		1,30,53,35,38, 6, 7,41		6,39
20″	41,25,54,52,27,32, 4,49,20, 9		3, 1,44,26,32	
		1,30,53,32,36,21,41, 9		6,39
22″	41,25,56,23,21, 4,41,11, 1,18		3, 1,44,33,11	
		1,30,53,29,34,37, 7,58		6,39
24″	41,25,57,54,14,34,15,48, 9,16		3, 1,44,39,50	
		1,30,53,26,32,52,28, 8		6,39
26″	41,25,59,25, 8, 0,48,40,37,24		3, 1,44,46,29	
		1,30,53,23,31, 7,41,39		6,39
28″	41,26, 0,56, 1,24,19,48,19, 3		3, 1,44,53, 8	
		1,30,53,20,29,22,48,31		6,39
30″	41,26, 2,26,54,44,49,11, 7,34		3, 1,44,59,47	
		1,30,53,17,27,37,48,44		6,39
32″	41,26, 3,57,48, 2,16,48,56,18		3, 1,45, 6,26	
		1,30,53,14,25,52,42,18		6,39
34″	41,26, 5,28,41,16,42,41,38,36		3, 1,45,13, 5	
		1,30,53,11,24, 7,29,13		6,39
36″	41,26, 6,59,34,28, 6,49, 7,49		3, 1,45,19,44	
		1,30,53, 8,22,22, 9,29		6,39
38″	41,26, 8,30,27,36,29,11,17,18		3, 1,45,26,23	
		1,30,53, 5,20,36,43, 6		6,39
40″	41,26,10, 1,20,41,49,48, 0,24		3, 1,45,33, 2	
		1,30,53, 2,18,51,10, 4		6,39
42″	41,26,11,32,13,44, 8,39,10,28		3, 1,45,39,41	
		1,30,52,59,17, 5,30,23		6,39
44″	41,26,13, 3, 6,43,25,44,40,51		3, 1,45,46,20	
		1,30,52,56,15,19,44, 3		6,39
46″	41,26,14,33,59,39,41, 4,24,54		3, 1,45,52,59	
		1,30,52,53,13,33,51, 4		6,39
48″	41,26,16, 4,52,32,54,38,15,58		3, 1,45,59,38	
		1,30,52,50,11,47,51,26		6,39
50″	41,26,17,35,45,23, 6,26, 7,24		3, 1,46, 6,17	
		1,30,52,47,10, 1,45, 9		6,39
52″	41,26,19, 6,38,10,16,27,52,33		3, 1,46,12,56	
		1,30,52,44, 8,15,32,13		6,39
54″	41,26,20,37,30,54,24,43,24,46		3, 1,46,19,35	
		1,30,52,41, 6,29,12,38		6,39
56″	41,26,22, 8,23,35,31,12,37,24		3, 1,46,26,14	
		1,30,52,38, 4,42,46,24		6,39
58″	41,26,23,39,16,13,35,55,23,48		3, 1,46,32,53	
		1,30,52,35, 2,56,13,31		
60″	41,26,25,10, 8,48,38,51,37,19			
exact	41,26,25,10, 8,48,38,51,57,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°41′ 0″	41,26,25,10, 8,48,38,51,57,10			
		1,30,52,32, 1, 9,36,11		
2″	41,26,26,41, 1,20,40, 1,33,21		3, 1,46,46, 1	
		1,30,52,28,59,22,50,10		6,39
4″	41,26,28,11,53,49,39,24,23,31		3, 1,46,52,40	
		1,30,52,25,57,35,57,30		6,39
6″	41,26,29,42,46,15,37, 0,21, 1		3, 1,46,59,19	
		1,30,52,22,55,48,58,11		6,39
8″	41,26,31,13,38,38,32,49,19,12		3, 1,47, 5,58	
		1,30,52,19,54, 1,52,13		6,39
10″	41,26,32,44,30,58,26,51,11,25		3, 1,47,12,37	
		1,30,52,16,52,14,39,36		6,39
12″	41,26,34,15,23,15,19, 5,51, 1		3, 1,47,19,16	
		1,30,52,13,50,27,20,20		6,39
14″	41,26,35,46,15,29, 9,33,11,21		3, 1,47,25,55	
		1,30,52,10,48,39,54,25		6,39
16″	41,26,37,17, 7,39,58,13, 5,46		3, 1,47,32,34	
		1,30,52, 7,46,52,21,51		6,39
18″	41,26,38,47,59,47,45, 5,27,37		3, 1,47,39,13	
		1,30,52, 4,45, 4,42,38		6,39
20″	41,26,40,18,51,52,30,10,10,15		3, 1,47,45,52	
		1,30,52, 1,43,16,56,46		6,39
22″	41,26,41,49,43,54,13,27, 7, 1		3, 1,47,52,31	
		1,30,51,58,41,29, 4,15		6,39
24″	41,26,43,20,35,52,54,56,11,16		3, 1,47,59,10	
		1,30,51,55,39,41, 5, 5		6,39
26″	41,26,44,51,27,48,34,37,16,21		3, 1,48, 5,49	
		1,30,51,52,37,52,59,16		6,39
28″	41,26,46,22,19,41,12,30,15,37		3, 1,48,12,28	
		1,30,51,49,36, 4,46,48		6,39
30″	41,26,47,53,11,30,48,35, 2,25		3, 1,48,19, 7	
		1,30,51,46,34,16,27,41		6,39
32″	41,26,49,24, 3,17,22,51,30, 6		3, 1,48,25,46	
		1,30,51,43,32,28, 1,55		6,39
34″	41,26,50,54,55, 0,55,19,32, 1		3, 1,48,32,25	
		1,30,51,40,30,39,29,30		6,39
36″	41,26,52,25,46,41,25,59, 1,31		3, 1,48,39, 4	
		1,30,51,37,28,50,50,26		6,39
38″	41,26,53,56,38,18,54,49,51,57		3, 1,48,45,43	
		1,30,51,34,27, 2, 4,43		6,39
40″	41,26,55,27,29,53,21,51,56,40		3, 1,48,52,22	
		1,30,51,31,25,13,12,21		6,39
42″	41,26,56,58,21,24,47, 5, 9, 1		3, 1,48,59, 1	
		1,30,51,28,23,24,13,20		6,39
44″	41,26,58,29,12,53,10,29,22,21		3, 1,49, 5,40	
		1,30,51,25,21,35, 7,40		6,39
46″	41,27, 0, 0, 4,18,32, 4,30, 1		3, 1,49,12,19	
		1,30,51,22,19,45,55,21		6,39
48″	41,27, 1,30,55,40,51,50,25,22		3, 1,49,18,58	
		1,30,51,19,17,56,36,23		6,39
50″	41,27, 3, 1,47, 0, 9,47, 1,45		3, 1,49,25,37	
		1,30,51,16,16, 7,10,46		6,39
52″	41,27, 4,32,38,16,25,54,12,31		3, 1,49,32,16	
		1,30,51,13,14,17,38,30		6,39
54″	41,27, 6, 3,29,29,40,11,51, 1		3, 1,49,38,55	
		1,30,51,10,12,27,59,35		6,39
56″	41,27, 7,34,20,39,52,39,50,36		3, 1,49,45,34	
		1,30,51, 7,10,38,14, 1		6,39
58″	41,27, 9, 5,11,47, 3,18, 4,37		3, 1,49,52,13	
		1,30,51, 4, 8,48,21,48		
60″	41,27,10,36, 2,51,12, 6,26,25			
exact	41,27,10,36, 2,51,12, 6,51,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°42′ 0″	41,27,10,36, 2,51,12, 6,51,16			
		1,30,51, 1, 6,58,25,46		
2″	41,27,12, 6,53,52,19, 5,17, 2		3, 1,50, 5,18	
		1,30,50,58, 5, 8,20,28		6,39
4″	41,27,13,37,44,50,24,13,37,30		3, 1,50,11,57	
		1,30,50,55, 3,18, 8,31		6,39
6″	41,27,15, 8,35,45,27,31,46, 1		3, 1,50,18,36	
		1,30,50,52, 1,27,49,55		6,39
8″	41,27,16,39,26,37,28,59,35,56		3, 1,50,25,15	
		1,30,50,48,59,37,24,40		6,39
10″	41,27,18,10,17,26,28,37, 0,36		3, 1,50,31,54	
		1,30,50,45,57,46,52,46		6,39
12″	41,27,19,41, 8,12,26,23,53,22		3, 1,50,38,33	
		1,30,50,42,55,56,14,13		6,39
14″	41,27,21,11,58,55,22,20, 7,35		3, 1,50,45,12	
		1,30,50,39,54, 5,29, 1		6,39
16″	41,27,22,42,49,35,16,25,36,36		3, 1,50,51,51	
		1,30,50,36,52,14,37,10		6,39
18″	41,27,24,13,40,12, 8,40,13,46		3, 1,50,58,30	
		1,30,50,33,50,23,38,40		6,39
20″	41,27,25,44,30,45,59, 3,52,26		3, 1,51, 5, 9	
		1,30,50,30,48,32,33,31		6,39
22″	41,27,27,15,21,16,47,36,25,57		3, 1,51,11,48	
		1,30,50,27,46,41,21,43		6,39
24″	41,27,28,46,11,44,34,17,47,40		3, 1,51,18,27	
		1,30,50,24,44,50, 3,16		6,39
26″	41,27,30,17, 2, 9,19, 7,50,56		3, 1,51,25, 6	
		1,30,50,21,42,58,38,10		6,39
28″	41,27,31,47,52,31, 2, 6,29, 6		3, 1,51,31,45	
		1,30,50,18,41, 7, 6,25		6,39
30″	41,27,33,18,42,49,43,13,35,31		3, 1,51,38,24	
		1,30,50,15,39,15,28, 1		6,39
32″	41,27,34,49,33, 5,22,29, 3,32		3, 1,51,45, 3	
		1,30,50,12,37,23,42,58		6,39
34″	41,27,36,20,23,17,59,52,46,30		3, 1,51,51,42	
		1,30,50, 9,35,31,51,16		6,39
36″	41,27,37,51,13,27,35,24,37,46		3, 1,51,58,21	
		1,30,50, 6,33,39,52,55		6,39
38″	41,27,39,22, 3,34, 9, 4,30,41		3, 1,52, 5, 0	
		1,30,50, 3,31,47,47,55		6,39
40″	41,27,40,52,53,37,40,52,18,36		3, 1,52,11,39	
		1,30,50, 0,29,55,36,16		6,39
42″	41,27,42,23,43,38,10,47,54,52		3, 1,52,18,18	
		1,30,49,57,28, 3,17,58		6,39
44″	41,27,43,54,33,35,38,51,12,50		3, 1,52,24,57	
		1,30,49,54,26,10,53, 1		6,39
46″	41,27,45,25,23,30, 5, 2, 5,51		3, 1,52,31,36	
		1,30,49,51,24,18,21,25		6,39
48″	41,27,46,56,13,21,29,20,27,16		3, 1,52,38,15	
		1,30,49,48,22,25,43,10		6,39
50″	41,27,48,27, 3, 9,51,46,10,26		3, 1,52,44,54	
		1,30,49,45,20,32,58,16		6,39
52″	41,27,49,57,52,55,12,19, 8,42		3, 1,52,51,33	
		1,30,49,42,18,40, 6,43		6,39
54″	41,27,51,28,42,37,30,59,15,25		3, 1,52,58,12	
		1,30,49,39,16,47, 8,31		6,39
56″	41,27,52,59,32,16,47,46,23,56		3, 1,53, 4,51	
		1,30,49,36,14,54, 3,40		6,39
58″	41,27,54,30,21,53, 2,40,27,36		3, 1,53,11,30	
		1,30,49,33,13, 0,52,10		
60″	41,27,56, 1,11,26,15,41,19,46			
exact	41,27,56, 1,11,26,15,41,51,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°43′ 0″	41,27,56, 1,11,26,15,41,51,46			
		1,30,49,30,11, 7,37,38		
2″	41,27,57,32, 0,56,26,49,29,24		3, 1,53,24,32	
		1,30,49,27, 9,14,13, 6		6,38
4″	41,27,59, 2,50,23,36, 3,42,30		3, 1,53,31,10	
		1,30,49,24, 7,20,41,56		6,38
6″	41,28, 0,33,39,47,43,24,24,26		3, 1,53,37,48	
		1,30,49,21, 5,27, 4, 8		6,38
8″	41,28, 2, 4,29, 8,48,51,28,34		3, 1,53,44,26	
		1,30,49,18, 3,33,19,42		6,38
10″	41,28, 3,35,18,26,52,24,48,16		3, 1,53,51, 4	
		1,30,49,15, 1,39,28,38		6,38
12″	41,28, 5, 6, 7,41,54, 4,16,54		3, 1,53,57,42	
		1,30,49,11,59,45,30,56		6,38
14″	41,28, 6,36,56,53,53,49,47,50		3, 1,54, 4,20	
		1,30,49, 8,57,51,26,36		6,38
16″	41,28, 8, 7,46, 2,51,41,14,26		3, 1,54,10,58	
		1,30,49, 5,55,57,15,38		6,38
18″	41,28, 9,38,35, 8,47,38,30, 4		3, 1,54,17,36	
		1,30,49, 2,54, 2,58, 2		6,38
20″	41,28,11, 9,24,11,41,41,28, 6		3, 1,54,24,14	
		1,30,48,59,52, 8,33,48		6,38
22″	41,28,12,40,13,11,33,50, 1,54		3, 1,54,30,52	
		1,30,48,56,50,14, 2,56		6,38
24″	41,28,14,11, 2, 8,24, 4, 4,50		3, 1,54,37,30	
		1,30,48,53,48,19,25,26		6,38
26″	41,28,15,41,51, 2,12,23,30,16		3, 1,54,44, 8	
		1,30,48,50,46,24,41,18		6,38
28″	41,28,17,12,39,52,58,48,11,34		3, 1,54,50,46	
		1,30,48,47,44,29,50,32		6,38
30″	41,28,18,43,28,40,43,18, 2, 6		3, 1,54,57,24	
		1,30,48,44,42,34,53, 8		6,38
32″	41,28,20,14,17,25,25,52,55,14		3, 1,55, 4, 2	
		1,30,48,41,40,39,49, 6		6,38
34″	41,28,21,45, 6, 7, 6,32,44,20		3, 1,55,10,40	
		1,30,48,38,38,44,38,26		6,38
36″	41,28,23,15,54,45,45,17,22,46		3, 1,55,17,18	
		1,30,48,35,36,49,21, 8		6,38
38″	41,28,24,46,43,21,22, 6,43,54		3, 1,55,23,56	
		1,30,48,32,34,53,57,12		6,38
40″	41,28,26,17,31,53,57, 0,41, 6		3, 1,55,30,34	
		1,30,48,29,32,58,26,38		6,38
42″	41,28,27,48,20,23,29,59, 7,44		3, 1,55,37,12	
		1,30,48,26,31, 2,49,26		6,38
44″	41,28,29,19, 8,50, 1, 1,57,10		3, 1,55,43,50	
		1,30,48,23,29, 7, 5,36		6,38
46″	41,28,30,49,57,13,30, 9, 2,46		3, 1,55,50,28	
		1,30,48,20,27,11,15, 8		6,38
48″	41,28,32,20,45,33,57,20,17,54		3, 1,55,57, 6	
		1,30,48,17,25,15,18, 2		6,38
50″	41,28,33,51,33,51,22,35,35,56		3, 1,56, 3,44	
		1,30,48,14,23,19,14,18		6,38
52″	41,28,35,22,22, 5,45,54,50,14		3, 1,56,10,22	
		1,30,48,11,21,23, 3,56		6,38
54″	41,28,36,53,10,17, 7,17,54,10		3, 1,56,17, 0	
		1,30,48, 8,19,26,46,56		6,38
56″	41,28,38,23,58,25,26,44,41, 6		3, 1,56,23,38	
		1,30,48, 5,17,30,23,18		6,38
58″	41,28,39,54,46,30,44,15, 4,24		3, 1,56,30,16	
		1,30,48, 2,15,33,53, 2		
60″	41,28,41,25,34,32,59,48,57,26			
exact	41,28,41,25,34,32,59,48,31,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°44′ 0″	41,28,41,25,34,32,59,48,31,28			
		1,30,47,59,13,37,13,27		
2″	41,28,42,56,22,32,13,25,44,55		3, 1,56,43,42	
		1,30,47,56,11,40,29,45		6,38
4″	41,28,44,27,10,28,25, 6,14,40		3, 1,56,50,20	
		1,30,47,53, 9,43,39,25		6,38
6″	41,28,45,57,58,21,34,49,54, 5		3, 1,56,56,58	
		1,30,47,50, 7,46,42,27		6,38
8″	41,28,47,28,46,11,42,36,36,32		3, 1,57, 3,36	
		1,30,47,47, 5,49,38,51		6,38
10″	41,28,48,59,33,58,48,26,15,23		3, 1,57,10,14	
		1,30,47,44, 3,52,28,37		6,38
12″	41,28,50,30,21,42,52,18,44, 0		3, 1,57,16,52	
		1,30,47,41, 1,55,11,45		6,38
14″	41,28,52, 1, 9,23,54,13,55,45		3, 1,57,23,30	
		1,30,47,37,59,57,48,15		6,38
16″	41,28,53,31,57, 1,54,11,44, 0		3, 1,57,30, 8	
		1,30,47,34,58, 0,18, 7		6,38
18″	41,28,55, 2,44,36,52,12, 2, 7		3, 1,57,36,46	
		1,30,47,31,56, 2,41,21		6,38
20″	41,28,56,33,32, 8,48,14,43,28		3, 1,57,43,24	
		1,30,47,28,54, 4,57,57		6,38
22″	41,28,58, 4,19,37,42,19,41,25		3, 1,57,50, 2	
		1,30,47,25,52, 7, 7,55		6,38
24″	41,28,59,35, 7, 3,34,26,49,20		3, 1,57,56,40	
		1,30,47,22,50, 9,11,15		6,38
26″	41,29, 1, 5,54,26,24,36, 0,35		3, 1,58, 3,18	
		1,30,47,19,48,11, 7,57		6,38
28″	41,29, 2,36,41,46,12,47, 8,32		3, 1,58, 9,56	
		1,30,47,16,46,12,58, 1		6,38
30″	41,29, 4, 7,29, 2,59, 0, 6,33		3, 1,58,16,34	
		1,30,47,13,44,14,41,27		6,38
32″	41,29, 5,38,16,16,43,14,48, 0		3, 1,58,23,12	
		1,30,47,10,42,16,18,15		6,38
34″	41,29, 7, 9, 3,27,25,31, 6,15		3, 1,58,29,50	
		1,30,47, 7,40,17,48,25		6,38
36″	41,29, 8,39,50,35, 5,48,54,40		3, 1,58,36,28	
		1,30,47, 4,38,19,11,57		6,38
38″	41,29,10,10,37,39,44, 8, 6,37		3, 1,58,43, 6	
		1,30,47, 1,36,20,28,51		6,38
40″	41,29,11,41,24,41,20,28,35,28		3, 1,58,49,44	
		1,30,46,58,34,21,39, 7		6,38
42″	41,29,13,12,11,39,54,50,14,35		3, 1,58,56,22	
		1,30,46,55,32,22,42,45		6,38
44″	41,29,14,42,58,35,27,12,57,20		3, 1,59, 3, 0	
		1,30,46,52,30,23,39,45		6,38
46″	41,29,16,13,45,27,57,36,37, 5		3, 1,59, 9,38	
		1,30,46,49,28,24,30, 7		6,38
48″	41,29,17,44,32,17,26, 1, 7,12		3, 1,59,16,16	
		1,30,46,46,26,25,13,51		6,38
50″	41,29,19,15,19, 3,52,26,21, 3		3, 1,59,22,54	
		1,30,46,43,24,25,50,57		6,38
52″	41,29,20,46, 5,47,16,52,12, 0		3, 1,59,29,32	
		1,30,46,40,22,26,21,25		6,38
54″	41,29,22,16,52,27,39,18,33,25		3, 1,59,36,10	
		1,30,46,37,20,26,45,15		6,38
56″	41,29,23,47,39, 4,59,45,18,40		3, 1,59,42,48	
		1,30,46,34,18,27, 2,27		6,38
58″	41,29,25,18,25,39,18,12,21, 7		3, 1,59,49,26	
		1,30,46,31,16,27,13, 1		
60″	41,29,26,49,12,10,34,39,34, 8			
exact	41,29,26,49,12,10,34,39,12,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°45′ 0″	41,29,26,49,12,10,34,39,12,59			
		1,30,46,28,14,27,14,53		
2″	41,29,28,19,58,38,49, 6,27,52		3, 2, 0, 2,50	
		1,30,46,25,12,27,12, 3		6,38
4″	41,29,29,50,45, 4, 1,33,39,55		3, 2, 0, 9,28	
		1,30,46,22,10,27, 2,35		6,38
6″	41,29,31,21,31,26,12, 0,42,30		3, 2, 0,16, 6	
		1,30,46,19, 8,26,46,29		6,38
8″	41,29,32,52,17,45,20,27,28,59		3, 2, 0,22,44	
		1,30,46,16, 6,26,23,45		6,38
10″	41,29,34,23, 4, 1,26,53,52,44		3, 2, 0,29,22	
		1,30,46,13, 4,25,54,23		6,38
12″	41,29,35,53,50,14,31,19,47, 7		3, 2, 0,36, 0	
		1,30,46,10, 2,25,18,23		6,38
14″	41,29,37,24,36,24,33,45, 5,30		3, 2, 0,42,38	
		1,30,46, 7, 0,24,35,45		6,38
16″	41,29,38,55,22,31,34, 9,41,15		3, 2, 0,49,16	
		1,30,46, 3,58,23,46,29		6,38
18″	41,29,40,26, 8,35,32,33,27,44		3, 2, 0,55,54	
		1,30,46, 0,56,22,50,35		6,38
20″	41,29,41,56,54,36,28,56,18,19		3, 2, 1, 2,32	
		1,30,45,57,54,21,48, 3		6,38
22″	41,29,43,27,40,34,23,18, 6,22		3, 2, 1, 9,10	
		1,30,45,54,52,20,38,53		6,38
24″	41,29,44,58,26,29,15,38,45,15		3, 2, 1,15,48	
		1,30,45,51,50,19,23, 5		6,38
26″	41,29,46,29,12,21, 5,58, 8,20		3, 2, 1,22,26	
		1,30,45,48,48,18, 0,39		6,38
28″	41,29,47,59,58, 9,54,16, 8,59		3, 2, 1,29, 4	
		1,30,45,45,46,16,31,35		6,38
30″	41,29,49,30,43,55,40,32,40,34		3, 2, 1,35,42	
		1,30,45,42,44,14,55,53		6,38
32″	41,29,51, 1,29,38,24,47,36,27		3, 2, 1,42,20	
		1,30,45,39,42,13,13,33		6,38
34″	41,29,52,32,15,18, 7, 0,50, 0		3, 2, 1,48,58	
		1,30,45,36,40,11,24,35		6,38
36″	41,29,54, 3, 0,54,47,12,14,35		3, 2, 1,55,36	
		1,30,45,33,38, 9,28,59		6,38
38″	41,29,55,33,46,28,25,21,43,34		3, 2, 2, 2,14	
		1,30,45,30,36, 7,26,45		6,38
40″	41,29,57, 4,31,59, 1,29,10,19		3, 2, 2, 8,52	
		1,30,45,27,34, 5,17,53		6,38
42″	41,29,58,35,17,26,35,34,28,12		3, 2, 2,15,30	
		1,30,45,24,32, 3, 2,23		6,38
44″	41,30, 0, 6, 2,51, 7,37,30,35		3, 2, 2,22, 8	
		1,30,45,21,30, 0,40,15		6,38
46″	41,30, 1,36,48,12,37,38,10,50		3, 2, 2,28,46	
		1,30,45,18,27,58,11,29		6,38
48″	41,30, 3, 7,33,31, 5,36,22,19		3, 2, 2,35,24	
		1,30,45,15,25,55,36, 5		6,38
50″	41,30, 4,38,18,46,31,31,58,24		3, 2, 2,42, 2	
		1,30,45,12,23,52,54, 3		6,38
52″	41,30, 6, 9, 3,58,55,24,52,27		3, 2, 2,48,40	
		1,30,45, 9,21,50, 5,23		6,38
54″	41,30, 7,39,49, 8,17,14,57,50		3, 2, 2,55,18	
		1,30,45, 6,19,47,10, 5		6,38
56″	41,30, 9,10,34,14,37, 2, 7,55		3, 2, 3, 1,56	
		1,30,45, 3,17,44, 8, 9		6,38
58″	41,30,10,41,19,17,54,46,16, 4		3, 2, 3, 8,34	
		1,30,45, 0,15,40,59,35		
60″	41,30,12,12, 4,18,10,27,15,39			
exact	41,30,12,12, 4,18,10,27, 8,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°46′ 0″	41,30,12,12, 4,18,10,27, 8,50			
		1,30,44,57,13,37,43,35		
2″	41,30,13,42,49,15,24, 4,52,25		3, 2, 3,21,53	
		1,30,44,54,11,34,21,42		6,38
4″	41,30,15,13,34, 9,35,39,14, 7		3, 2, 3,28,31	
		1,30,44,51, 9,30,53,11		6,38
6″	41,30,16,44,19, 0,45,10, 7,18		3, 2, 3,35, 9	
		1,30,44,48, 7,27,18, 2		6,38
8″	41,30,18,15, 3,48,52,37,25,20		3, 2, 3,41,47	
		1,30,44,45, 5,23,36,15		6,38
10″	41,30,19,45,48,33,58, 1, 1,35		3, 2, 3,48,25	
		1,30,44,42, 3,19,47,50		6,38
12″	41,30,21,16,33,16, 1,20,49,25		3, 2, 3,55, 3	
		1,30,44,39, 1,15,52,47		6,38
14″	41,30,22,47,17,55, 2,36,42,12		3, 2, 4, 1,41	
		1,30,44,35,59,11,51, 6		6,38
16″	41,30,24,18, 2,31, 1,48,33,18		3, 2, 4, 8,19	
		1,30,44,32,57, 7,42,47		6,38
18″	41,30,25,48,47, 3,58,56,16, 5		3, 2, 4,14,57	
		1,30,44,29,55, 3,27,50		6,38
20″	41,30,27,19,31,33,53,59,43,55		3, 2, 4,21,35	
		1,30,44,26,52,59, 6,15		6,38
22″	41,30,28,50,16, 0,46,58,50,10		3, 2, 4,28,13	
		1,30,44,23,50,54,38, 2		6,38
24″	41,30,30,21, 0,24,37,53,28,12		3, 2, 4,34,51	
		1,30,44,20,48,50, 3,11		6,38
26″	41,30,31,51,44,45,26,43,31,23		3, 2, 4,41,29	
		1,30,44,17,46,45,21,42		6,38
28″	41,30,33,22,29, 3,13,28,53, 5		3, 2, 4,48, 7	
		1,30,44,14,44,40,33,35		6,38
30″	41,30,34,53,13,17,58, 9,26,40		3, 2, 4,54,45	
		1,30,44,11,42,35,38,50		6,38
32″	41,30,36,23,57,29,40,45, 5,30		3, 2, 5, 1,23	
		1,30,44, 8,40,30,37,27		6,38
34″	41,30,37,54,41,38,21,15,42,57		3, 2, 5, 8, 1	
		1,30,44, 5,38,25,29,26		6,38
36″	41,30,39,25,25,43,59,41,12,23		3, 2, 5,14,39	
		1,30,44, 2,36,20,14,47		6,38
38″	41,30,40,56, 9,46,36, 1,27,10		3, 2, 5,21,17	
		1,30,43,59,34,14,53,30		6,38
40″	41,30,42,26,53,46,10,16,20,40		3, 2, 5,27,55	
		1,30,43,56,32, 9,25,35		6,38
42″	41,30,43,57,37,42,42,25,46,15		3, 2, 5,34,33	
		1,30,43,53,30, 3,51, 2		6,38
44″	41,30,45,28,21,36,12,29,37,17		3, 2, 5,41,11	
		1,30,43,50,27,58, 9,51		6,38
46″	41,30,46,59, 5,26,40,27,47, 8		3, 2, 5,47,49	
		1,30,43,47,25,52,22, 2		6,38
48″	41,30,48,29,49,14, 6,20, 9,10		3, 2, 5,54,27	
		1,30,43,44,23,46,27,35		6,38
50″	41,30,50, 0,32,58,30, 6,36,45		3, 2, 6, 1, 5	
		1,30,43,41,21,40,26,30		6,38
52″	41,30,51,31,16,39,51,47, 3,15		3, 2, 6, 7,43	
		1,30,43,38,19,34,18,47		6,38
54″	41,30,53, 2, 0,18,11,21,22, 2		3, 2, 6,14,21	
		1,30,43,35,17,28, 4,26		6,38
56″	41,30,54,32,43,53,28,49,26,28		3, 2, 6,20,59	
		1,30,43,32,15,21,43,27		6,38
58″	41,30,56, 3,27,25,44,11, 9,55		3, 2, 6,27,37	
		1,30,43,29,13,15,15,50		
60″	41,30,57,34,10,54,57,26,25,45			
exact	41,30,57,34,10,54,57,26,21,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°47′ 0″	41,30,57,34,10,54,57,26,21,28			
		1,30,43,26,11, 8,41,14		
2″	41,30,59, 4,54,21, 8,35, 2,42		3, 2, 6,40,54	
		1,30,43,23, 9, 2, 0,20		6,38
4″	41,31, 0,35,37,44,17,37, 3, 2		3, 2, 6,47,32	
		1,30,43,20, 6,55,12,48		6,38
6″	41,31, 2, 6,21, 4,24,32,15,50		3, 2, 6,54,10	
		1,30,43,17, 4,48,18,38		6,38
8″	41,31, 3,37, 4,21,29,20,34,28		3, 2, 7, 0,48	
		1,30,43,14, 2,41,17,50		6,38
10″	41,31, 5, 7,47,35,32, 1,52,18		3, 2, 7, 7,26	
		1,30,43,11, 0,34,10,24		6,38
12″	41,31, 6,38,30,46,32,36, 2,42		3, 2, 7,14, 4	
		1,30,43, 7,58,26,56,20		6,38
14″	41,31, 8, 9,13,54,31, 2,59, 2		3, 2, 7,20,42	
		1,30,43, 4,56,19,35,38		6,38
16″	41,31, 9,39,56,59,27,22,34,40		3, 2, 7,27,20	
		1,30,43, 1,54,12, 8,18		6,38
18″	41,31,11,10,40, 1,21,34,42,58		3, 2, 7,33,58	
		1,30,42,58,52, 4,34,20		6,38
20″	41,31,12,41,23, 0,13,39,17,18		3, 2, 7,40,36	
		1,30,42,55,49,56,53,44		6,38
22″	41,31,14,12, 5,56, 3,36,11, 2		3, 2, 7,47,14	
		1,30,42,52,47,49, 6,30		6,38
24″	41,31,15,42,48,48,51,25,17,32		3, 2, 7,53,52	
		1,30,42,49,45,41,12,38		6,38
26″	41,31,17,13,31,38,37, 6,30,10		3, 2, 8, 0,30	
		1,30,42,46,43,33,12, 8		6,38
28″	41,31,18,44,14,25,20,39,42,18		3, 2, 8, 7, 8	
		1,30,42,43,41,25, 5, 0		6,38
30″	41,31,20,14,57, 9, 2, 4,47,18		3, 2, 8,13,46	
		1,30,42,40,39,16,51,14		6,38
32″	41,31,21,45,39,49,41,21,38,32		3, 2, 8,20,24	
		1,30,42,37,37, 8,30,50		6,38
34″	41,31,23,16,22,27,18,30, 9,22		3, 2, 8,27, 2	
		1,30,42,34,35, 0, 3,48		6,38
36″	41,31,24,47, 5, 1,53,30,13,10		3, 2, 8,33,40	
		1,30,42,31,32,51,30, 8		6,38
38″	41,31,26,17,47,33,26,21,43,18		3, 2, 8,40,18	
		1,30,42,28,30,42,49,50		6,38
40″	41,31,27,48,30, 1,57, 4,33, 8		3, 2, 8,46,56	
		1,30,42,25,28,34, 2,54		6,38
42″	41,31,29,19,12,27,25,38,36, 2		3, 2, 8,53,34	
		1,30,42,22,26,25, 9,20		6,38
44″	41,31,30,49,54,49,52, 3,45,22		3, 2, 9, 0,12	
		1,30,42,19,24,16, 9, 8		6,38
46″	41,31,32,20,37, 9,16,19,54,30		3, 2, 9, 6,50	
		1,30,42,16,22, 7, 2,18		6,38
48″	41,31,33,51,19,25,38,26,56,48		3, 2, 9,13,28	
		1,30,42,13,19,57,48,50		6,38
50″	41,31,35,22, 1,38,58,24,45,38		3, 2, 9,20, 6	
		1,30,42,10,17,48,28,44		6,38
52″	41,31,36,52,43,49,16,13,14,22		3, 2, 9,26,44	
		1,30,42, 7,15,39, 2, 0		6,38
54″	41,31,38,23,25,56,31,52,16,22		3, 2, 9,33,22	
		1,30,42, 4,13,29,28,38		6,38
56″	41,31,39,54, 8, 0,45,21,45, 0		3, 2, 9,40, 0	
		1,30,42, 1,11,19,48,38		6,38
58″	41,31,41,24,50, 1,56,41,33,38		3, 2, 9,46,38	
		1,30,41,58, 9,10, 2, 0		
60″	41,31,42,55,32, 0, 5,51,35,38			
exact	41,31,42,55,32, 0, 5,51,43,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°48′ 0″	41,31,42,55,32, 0, 5,51,43,11	1,30,41,55, 7, 0, 9,30		
2″	41,31,44,26,13,55,12,51,52,41	1,30,41,52, 4,50, 9,39	3, 2, 9,59,51	6,38
4″	41,31,45,56,55,47,17,42, 2,20	1,30,41,49, 2,40, 3,10	3, 2,10, 6,29	6,38
6″	41,31,47,27,37,36,20,22, 5,30	1,30,41,46, 0,29,50, 3	3, 2,10,13, 7	6,38
8″	41,31,48,58,19,22,20,51,55,33	1,30,41,42,58,19,30,18	3, 2,10,19,45	6,38
10″	41,31,50,29, 1, 5,19,11,25,51	1,30,41,39,56, 9, 3,55	3, 2,10,26,23	6,38
12″	41,31,51,59,42,45,15,20,29,46	1,30,41,36,53,58,30,54	3, 2,10,33, 1	6,38
14″	41,31,53,30,24,22, 9,19, 0,40	1,30,41,33,51,47,51,15	3, 2,10,39,39	6,38
16″	41,31,55, 1, 5,56, 1, 6,51,55	1,30,41,30,49,37, 4,58	3, 2,10,46,17	6,38
18″	41,31,56,31,47,26,50,43,56,53	1,30,41,27,47,26,12, 3	3, 2,10,52,55	6,38
20″	41,31,58, 2,28,54,38,10, 8,56	1,30,41,24,45,15,12,30	3, 2,10,59,33	6,38
22″	41,31,59,33,10,19,23,25,21,26	1,30,41,21,43, 4, 6,19	3, 2,11, 6,11	6,38
24″	41,32, 1, 3,51,41, 6,29,27,45	1,30,41,18,40,52,53,30	3, 2,11,12,49	6,38
26″	41,32, 2,34,32,59,47,22,21,15	1,30,41,15,38,41,34, 3	3, 2,11,19,27	6,38
28″	41,32, 4, 5,14,15,26, 3,55,18	1,30,41,12,36,30, 7,58	3, 2,11,26, 5	6,38
30″	41,32, 5,35,55,28, 2,34, 3,16	1,30,41, 9,34,18,35,15	3, 2,11,32,43	6,38
32″	41,32, 7, 6,36,37,36,52,38,31	1,30,41, 6,32, 6,55,54	3, 2,11,39,21	6,38
34″	41,32, 8,37,17,44, 8,59,34,25	1,30,41, 3,29,55, 9,55	3, 2,11,45,59	6,38
36″	41,32,10, 7,58,47,38,54,44,20	1,30,41, 0,27,43,17,18	3, 2,11,52,37	6,38
38″	41,32,11,38,39,48, 6,38, 1,38	1,30,40,57,25,31,18, 3	3, 2,11,59,15	6,38
40″	41,32,13, 9,20,45,32, 9,19,41	1,30,40,54,23,19,12,10	3, 2,12, 5,53	6,38
42″	41,32,14,40, 1,39,55,28,31,51	1,30,40,51,21, 6,59,39	3, 2,12,12,31	6,38
44″	41,32,16,10,42,31,16,35,31,30	1,30,40,48,18,54,40,30	3, 2,12,19, 9	6,38
46″	41,32,17,41,23,19,35,30,12, 0	1,30,40,45,16,42,14,43	3, 2,12,25,47	6,38
48″	41,32,19,12, 4, 4,52,12,26,43	1,30,40,42,14,29,42,18	3, 2,12,32,25	6,38
50″	41,32,20,42,44,47, 6,42, 9, 1	1,30,40,39,12,17, 3,15	3, 2,12,39, 3	6,38
52″	41,32,22,13,25,26,18,59,12,16	1,30,40,36,10, 4,17,34	3, 2,12,45,41	6,38
54″	41,32,23,44, 6, 2,29, 3,29,50	1,30,40,33, 7,51,25,15	3, 2,12,52,19	6,38
56″	41,32,25,14,46,35,36,54,55, 5	1,30,40,30, 5,38,26,18	3, 2,12,58,57	6,38
58″	41,32,26,45,27, 5,42,33,21,23	1,30,40,27, 3,25,20,43	3, 2,13, 5,35	
60″	41,32,28,16, 7,32,45,58,42, 6			
exact	41,32,28,16, 7,32,45,58,56,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°49′ 0″	41,32,28,16, 7,32,45,58,56,14			
		1,30,40,24, 1,12,10, 1		
2″	41,32,29,46,47,56,47,11, 6,15		3, 2,13,18,44	
		1,30,40,20,58,58,51,17		6,38
4″	41,32,31,17,28,17,46, 9,57,32		3, 2,13,25,22	
		1,30,40,17,56,45,25,55		6,38
6″	41,32,32,48, 8,35,42,55,23,27		3, 2,13,32, 0	
		1,30,40,14,54,31,53,55		6,38
8″	41,32,34,18,48,50,37,27,17,22		3, 2,13,38,38	
		1,30,40,11,52,18,15,17		6,38
10″	41,32,35,49,29, 2,29,45,32,39		3, 2,13,45,16	
		1,30,40, 8,50, 4,30, 1		6,38
12″	41,32,37,20, 9,11,19,50, 2,40		3, 2,13,51,54	
		1,30,40, 5,47,50,38, 7		6,38
14″	41,32,38,50,49,17, 7,40,40,47		3, 2,13,58,32	
		1,30,40, 2,45,36,39,35		6,38
16″	41,32,40,21,29,19,53,17,20,22		3, 2,14, 5,10	
		1,30,39,59,43,22,34,25		6,38
18″	41,32,41,52, 9,19,36,39,54,47		3, 2,14,11,48	
		1,30,39,56,41, 8,22,37		6,38
20″	41,32,43,22,49,16,17,48,17,24		3, 2,14,18,26	
		1,30,39,53,38,54, 4,11		6,38
22″	41,32,44,53,29, 9,56,42,21,35		3, 2,14,25, 4	
		1,30,39,50,36,39,39, 7		6,38
24″	41,32,46,24, 9, 0,33,22, 0,42		3, 2,14,31,42	
		1,30,39,47,34,25, 7,25		6,38
26″	41,32,47,54,48,48, 7,47, 8, 7		3, 2,14,38,20	
		1,30,39,44,32,10,29, 5		6,38
28″	41,32,49,25,28,32,39,57,37,12		3, 2,14,44,58	
		1,30,39,41,29,55,44, 7		6,38
30″	41,32,50,56, 8,14, 9,53,21,19		3, 2,14,51,36	
		1,30,39,38,27,40,52,31		6,38
32″	41,32,52,26,47,52,37,34,13,50		3, 2,14,58,14	
		1,30,39,35,25,25,54,17		6,38
34″	41,32,53,57,27,28, 3, 0, 8, 7		3, 2,15, 4,52	
		1,30,39,32,23,10,49,25		6,38
36″	41,32,55,28, 7, 0,26,10,57,32		3, 2,15,11,30	
		1,30,39,29,20,55,37,55		6,38
38″	41,32,56,58,46,29,47, 6,35,27		3, 2,15,18, 8	
		1,30,39,26,18,40,19,47		6,38
40″	41,32,58,29,25,56, 5,46,55,14		3, 2,15,24,46	
		1,30,39,23,16,24,55, 1		6,38
42″	41,33, 0, 0, 5,19,22,11,50,15		3, 2,15,31,24	
		1,30,39,20,14, 9,23,37		6,38
44″	41,33, 1,30,44,39,36,21,13,52		3, 2,15,38, 2	
		1,30,39,17,11,53,45,35		6,38
46″	41,33, 3, 1,23,56,48,14,59,27		3, 2,15,44,40	
		1,30,39,14, 9,38, 0,55		6,38
48″	41,33, 4,32, 3,10,57,53, 0,22		3, 2,15,51,18	
		1,30,39,11, 7,22, 9,37		6,38
50″	41,33, 6, 2,42,22, 5,15, 9,59		3, 2,15,57,56	
		1,30,39, 8, 5, 6,11,41		6,38
52″	41,33, 7,33,21,30,10,21,21,40		3, 2,16, 4,34	
		1,30,39, 5, 2,50, 7, 7		6,38
54″	41,33, 9, 4, 0,35,13,11,28,47		3, 2,16,11,12	
		1,30,39, 2, 0,33,55,55		6,38
56″	41,33,10,34,39,37,13,45,24,42		3, 2,16,17,50	
		1,30,38,58,58,17,38, 5		6,38
58″	41,33,12, 5,18,36,12, 3, 2,47		3, 2,16,24,28	
		1,30,38,55,56, 1,13,37		
60″	41,33,13,35,57,32, 8, 4,16,24			
exact	41,33,13,35,57,32, 8, 4,32,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°50′ 0″	41,33,13,35,57,32, 8, 4,32,50			
		1,30,38,52,53,44,44,28		
2″	41,33,15, 6,36,25, 1,49,17,18		3, 2,16,37,35	
		1,30,38,49,51,28, 6,53		6,38
4″	41,33,16,37,15,14,53,17,24,11		3, 2,16,44,13	
		1,30,38,46,49,11,22,40		6,38
6″	41,33,18, 7,54, 1,42,28,46,51		3, 2,16,50,51	
		1,30,38,43,46,54,31,49		6,38
8″	41,33,19,38,32,45,29,23,18,40		3, 2,16,57,29	
		1,30,38,40,44,37,34,20		6,38
10″	41,33,21, 9,11,26,14, 0,53, 0		3, 2,17, 4, 7	
		1,30,38,37,42,20,30,13		6,38
12″	41,33,22,39,50, 3,56,21,23,13		3, 2,17,10,45	
		1,30,38,34,40, 3,19,28		6,38
14″	41,33,24,10,28,38,36,24,42,41		3, 2,17,17,23	
		1,30,38,31,37,46, 2, 5		6,38
16″	41,33,25,41, 7,10,14,10,44,46		3, 2,17,24, 1	
		1,30,38,28,35,28,38, 4		6,38
18″	41,33,27,11,45,38,49,39,22,50		3, 2,17,30,39	
		1,30,38,25,33,11, 7,25		6,38
20″	41,33,28,42,24, 4,22,50,30,15		3, 2,17,37,17	
		1,30,38,22,30,53,30, 8		6,38
22″	41,33,30,13, 2,26,53,44, 0,23		3, 2,17,43,55	
		1,30,38,19,28,35,46,13		6,38
24″	41,33,31,43,40,46,22,19,46,36		3, 2,17,50,33	
		1,30,38,16,26,17,55,40		6,38
26″	41,33,33,14,19, 2,48,37,42,16		3, 2,17,57,11	
		1,30,38,13,23,59,58,29		6,38
28″	41,33,34,44,57,16,12,37,40,45		3, 2,18, 3,49	
		1,30,38,10,21,41,54,40		6,38
30″	41,33,36,15,35,26,34,19,35,25		3, 2,18,10,27	
		1,30,38, 7,19,23,44,13		6,38
32″	41,33,37,46,13,33,53,43,19,38		3, 2,18,17, 5	
		1,30,38, 4,17, 5,27, 8		6,38
34″	41,33,39,16,51,38,10,48,46,46		3, 2,18,23,43	
		1,30,38, 1,14,47, 3,25		6,38
36″	41,33,40,47,29,39,25,35,50,11		3, 2,18,30,21	
		1,30,37,58,12,28,33, 4		6,38
38″	41,33,42,18, 7,37,38, 4,23,15		3, 2,18,36,59	
		1,30,37,55,10, 9,56, 5		6,38
40″	41,33,43,48,45,32,48,14,19,20		3, 2,18,43,37	
		1,30,37,52, 7,51,12,28		6,38
42″	41,33,45,19,23,24,56, 5,31,48		3, 2,18,50,15	
		1,30,37,49, 5,32,22,13		6,38
44″	41,33,46,50, 1,14, 1,37,54, 1		3, 2,18,56,53	
		1,30,37,46, 3,13,25,20		6,38
46″	41,33,48,20,39, 0, 4,51,19,21		3, 2,19, 3,31	
		1,30,37,43, 0,54,21,49		6,38
48″	41,33,49,51,16,43, 5,45,41,10		3, 2,19,10, 9	
		1,30,37,39,58,35,11,40		6,38
50″	41,33,51,21,54,23, 4,20,52,50		3, 2,19,16,47	
		1,30,37,36,56,15,54,53		6,38
52″	41,33,52,52,32, 0, 0,36,47,43		3, 2,19,23,25	
		1,30,37,33,53,56,31,28		6,38
54″	41,33,54,23, 9,33,54,33,19,11		3, 2,19,30, 3	
		1,30,37,30,51,37, 1,25		6,38
56″	41,33,55,53,47, 4,46,10,20,36		3, 2,19,36,41	
		1,30,37,27,49,17,24,44		6,38
58″	41,33,57,24,24,32,35,27,45,20		3, 2,19,43,19	
		1,30,37,24,46,57,41,25		
60″	41,33,58,55, 1,57,22,25,26,45			
exact	41,33,58,55, 1,57,22,25,55, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°51′ 0″	41,33,58,55, 1,57,22,25,55, 7			
		1,30,37,21,44,37,54,32		
2″	41,34, 0,25,39,19, 7, 3,49,39		3, 2,19,56,22	
		1,30,37,18,42,17,58,10		6,38
4″	41,34, 1,56,16,37,49,21,47,49		3, 2,20, 3, 0	
		1,30,37,15,39,57,55,10		6,38
6″	41,34, 3,26,53,53,29,19,42,59		3, 2,20, 9,38	
		1,30,37,12,37,37,45,32		6,38
8″	41,34, 4,57,31, 6, 6,57,28,31		3, 2,20,16,16	
		1,30,37, 9,35,17,29,16		6,38
10″	41,34, 6,28, 8,15,42,14,57,47		3, 2,20,22,54	
		1,30,37, 6,32,57, 6,22		6,38
12″	41,34, 7,58,45,22,15,12, 4, 9		3, 2,20,29,32	
		1,30,37, 3,30,36,36,50		6,38
14″	41,34, 9,29,22,25,45,48,40,59		3, 2,20,36,10	
		1,30,37, 0,28,16, 0,40		6,38
16″	41,34,10,59,59,26,14, 4,41,39		3, 2,20,42,48	
		1,30,36,57,25,55,17,52		6,38
18″	41,34,12,30,36,23,39,59,59,31		3, 2,20,49,26	
		1,30,36,54,23,34,28,26		6,38
20″	41,34,14, 1,13,18, 3,34,27,57		3, 2,20,56, 4	
		1,30,36,51,21,13,32,22		6,38
22″	41,34,15,31,50, 9,24,48, 0,19		3, 2,21, 2,42	
		1,30,36,48,18,52,29,40		6,38
24″	41,34,17, 2,26,57,43,40,29,59		3, 2,21, 9,20	
		1,30,36,45,16,31,20,20		6,38
26″	41,34,18,33, 3,43, 0,11,50,19		3, 2,21,15,58	
		1,30,36,42,14,10, 4,22		6,38
28″	41,34,20, 3,40,25,14,21,54,41		3, 2,21,22,36	
		1,30,36,39,11,48,41,46		6,38
30″	41,34,21,34,17, 4,26,10,36,27		3, 2,21,29,14	
		1,30,36,36, 9,27,12,32		6,38
32″	41,34,23, 4,53,40,35,37,48,59		3, 2,21,35,52	
		1,30,36,33, 7, 5,36,40		6,38
34″	41,34,24,35,30,13,42,43,25,39		3, 2,21,42,30	
		1,30,36,30, 4,43,54,10		6,38
36″	41,34,26, 6, 6,43,47,27,19,49		3, 2,21,49, 8	
		1,30,36,27, 2,22, 5, 2		6,38
38″	41,34,27,36,43,10,49,49,24,51		3, 2,21,55,46	
		1,30,36,24, 0, 0, 9,16		6,38
40″	41,34,29, 7,19,34,49,49,34, 7		3, 2,22, 2,24	
		1,30,36,20,57,38, 6,52		6,38
42″	41,34,30,37,55,55,47,27,40,59		3, 2,22, 9, 2	
		1,30,36,17,55,15,57,50		6,38
44″	41,34,32, 8,32,13,42,43,38,49		3, 2,22,15,40	
		1,30,36,14,52,53,42,10		6,38
46″	41,34,33,39, 8,28,35,37,20,59		3, 2,22,22,18	
		1,30,36,11,50,31,19,52		6,38
48″	41,34,35, 9,44,40,26, 8,40,51		3, 2,22,28,56	
		1,30,36, 8,48, 8,50,56		6,38
50″	41,34,36,40,20,49,14,17,31,47		3, 2,22,35,34	
		1,30,36, 5,45,46,15,22		6,38
52″	41,34,38,10,56,55, 0, 3,47, 9		3, 2,22,42,12	
		1,30,36, 2,43,23,33,10		6,38
54″	41,34,39,41,32,57,43,27,20,19		3, 2,22,48,50	
		1,30,35,59,41, 0,44,20		6,38
56″	41,34,41,12, 8,57,24,28, 4,39		3, 2,22,55,28	
		1,30,35,56,38,37,48,52		6,38
58″	41,34,42,42,44,54, 3, 5,53,31		3, 2,23, 2, 6	
		1,30,35,53,36,14,46,46		
60″	41,34,44,13,20,47,39,20,40,17			
exact	41,34,44,13,20,47,39,21,15,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°52′ 0″	41,34,44,13,20,47,39,21,15,14			
		1,30,35,50,33,51,41,51		
2″	41,34,45,43,56,38,13,12,57, 5		3, 2,23,15, 6	
		1,30,35,47,31,28,26,45		6,37
4″	41,34,47,14,32,25,44,41,23,50		3, 2,23,21,43	
		1,30,35,44,29, 5, 5, 2		6,37
6″	41,34,48,45, 8,10,13,46,28,52		3, 2,23,28,20	
		1,30,35,41,26,41,36,42		6,37
8″	41,34,50,15,43,51,40,28, 5,34		3, 2,23,34,57	
		1,30,35,38,24,18, 1,45		6,37
10″	41,34,51,46,19,30, 4,46, 7,19		3, 2,23,41,34	
		1,30,35,35,21,54,20,11		6,37
12″	41,34,53,16,55, 5,26,40,27,30		3, 2,23,48,11	
		1,30,35,32,19,30,32, 0		6,37
14″	41,34,54,47,30,37,46,10,59,30		3, 2,23,54,48	
		1,30,35,29,17, 6,37,12		6,37
16″	41,34,56,18, 6, 7, 3,17,36,42		3, 2,24, 1,25	
		1,30,35,26,14,42,35,47		6,37
18″	41,34,57,48,41,33,18, 0,12,29		3, 2,24, 8, 2	
		1,30,35,23,12,18,27,45		6,37
20″	41,34,59,19,16,56,30,18,40,14		3, 2,24,14,39	
		1,30,35,20, 9,54,13, 6		6,37
22″	41,35, 0,49,52,16,40,12,53,20		3, 2,24,21,16	
		1,30,35,17, 7,29,51,50		6,37
24″	41,35, 2,20,27,33,47,42,45,10		3, 2,24,27,53	
		1,30,35,14, 5, 5,23,57		6,37
26″	41,35, 3,51, 2,47,52,48, 9, 7		3, 2,24,34,30	
		1,30,35,11, 2,40,49,27		6,37
28″	41,35, 5,21,37,58,55,28,58,34		3, 2,24,41, 7	
		1,30,35, 8, 0,16, 8,20		6,37
30″	41,35, 6,52,13, 6,55,45, 6,54		3, 2,24,47,44	
		1,30,35, 4,57,51,20,36		6,37
32″	41,35, 8,22,48,11,53,36,27,30		3, 2,24,54,21	
		1,30,35, 1,55,26,26,15		6,37
34″	41,35, 9,53,23,13,49, 2,53,45		3, 2,25, 0,58	
		1,30,34,58,53, 1,25,17		6,37
36″	41,35,11,23,58,12,42, 4,19, 2		3, 2,25, 7,35	
		1,30,34,55,50,36,17,42		6,37
38″	41,35,12,54,33, 8,32,40,36,44		3, 2,25,14,12	
		1,30,34,52,48,11, 3,30		6,37
40″	41,35,14,25, 8, 1,20,51,40,14		3, 2,25,20,49	
		1,30,34,49,45,45,42,41		6,37
42″	41,35,15,55,42,51, 6,37,22,55		3, 2,25,27,26	
		1,30,34,46,43,20,15,15		6,37
44″	41,35,17,26,17,37,49,57,38,10		3, 2,25,34, 3	
		1,30,34,43,40,54,41,12		6,37
46″	41,35,18,56,52,21,30,52,19,22		3, 2,25,40,40	
		1,30,34,40,38,29, 0,32		6,37
48″	41,35,20,27,27, 2, 9,21,19,54		3, 2,25,47,17	
		1,30,34,37,36, 3,13,15		6,37
50″	41,35,21,58, 1,39,45,24,33, 9		3, 2,25,53,54	
		1,30,34,34,33,37,19,21		6,37
52″	41,35,23,28,36,14,19, 1,52,30		3, 2,26, 0,31	
		1,30,34,31,31,11,18,50		6,37
54″	41,35,24,59,10,45,50,13,11,20		3, 2,26, 7, 8	
		1,30,34,28,28,45,11,42		6,37
56″	41,35,26,29,45,14,18,58,23, 2		3, 2,26,13,45	
		1,30,34,25,26,18,57,57		6,37
58″	41,35,28, 0,19,39,45,17,20,59		3, 2,26,20,22	
		1,30,34,22,23,52,37,35		
60″	41,35,29,30,54, 2, 9, 9,58,34			
exact	41,35,29,30,54, 2, 9, 9,35,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°53′ 0″	41,35,29,30,54, 2, 9, 9,35,16			
		1,30,34,19,21,26, 8, 6		
2″	41,35,31, 1,28,21,30,35,43,22		3, 2,26,33,46	
		1,30,34,16,18,59,34,20		6,37
4″	41,35,32,32, 2,37,49,35,17,42		3, 2,26,40,23	
		1,30,34,13,16,32,53,57		6,37
6″	41,35,34, 2,36,51, 6, 8,11,39		3, 2,26,47, 0	
		1,30,34,10,14, 6, 6,57		6,37
8″	41,35,35,33,11, 1,20,14,18,36		3, 2,26,53,37	
		1,30,34, 7,11,39,13,20		6,37
10″	41,35,37, 3,45, 8,31,53,31,56		3, 2,27, 0,14	
		1,30,34, 4, 9,12,13, 6		6,37
12″	41,35,38,34,19,12,41, 5,45, 2		3, 2,27, 6,51	
		1,30,34, 1, 6,45, 6,15		6,37
14″	41,35,40, 4,53,13,47,50,51,17		3, 2,27,13,28	
		1,30,33,58, 4,17,52,47		6,37
16″	41,35,41,35,27,11,52, 8,44, 4		3, 2,27,20, 5	
		1,30,33,55, 1,50,32,42		6,37
18″	41,35,43, 6, 1, 6,53,59,16,46		3, 2,27,26,42	
		1,30,33,51,59,23, 6, 0		6,37
20″	41,35,44,36,34,58,53,22,22,46		3, 2,27,33,19	
		1,30,33,48,56,55,32,41		6,37
22″	41,35,46, 7, 8,47,50,17,55,27		3, 2,27,39,56	
		1,30,33,45,54,27,52,45		6,37
24″	41,35,47,37,42,33,44,45,48,12		3, 2,27,46,33	
		1,30,33,42,52, 0, 6,12		6,37
26″	41,35,49, 8,16,16,36,45,54,24		3, 2,27,53,10	
		1,30,33,39,49,32,13, 2		6,37
28″	41,35,50,38,49,56,26,18, 7,26		3, 2,27,59,47	
		1,30,33,36,47, 4,13,15		6,37
30″	41,35,52, 9,23,33,13,22,20,41		3, 2,28, 6,24	
		1,30,33,33,44,36, 6,51		6,37
32″	41,35,53,39,57, 6,57,58,27,32		3, 2,28,13, 1	
		1,30,33,30,42, 7,53,50		6,37
34″	41,35,55,10,30,37,40, 6,21,22		3, 2,28,19,38	
		1,30,33,27,39,39,34,12		6,37
36″	41,35,56,41, 4, 5,19,45,55,34		3, 2,28,26,15	
		1,30,33,24,37,11, 7,57		6,37
38″	41,35,58,11,37,29,56,57, 3,31		3, 2,28,32,52	
		1,30,33,21,34,42,35, 5		6,37
40″	41,35,59,42,10,51,31,39,38,36		3, 2,28,39,29	
		1,30,33,18,32,13,55,36		6,37
42″	41,36, 1,12,44,10, 3,53,34,12		3, 2,28,46, 6	
		1,30,33,15,29,45, 9,30		6,37
44″	41,36, 2,43,17,25,33,38,43,42		3, 2,28,52,43	
		1,30,33,12,27,16,16,47		6,37
46″	41,36, 4,13,50,38, 0,55, 0,29		3, 2,28,59,20	
		1,30,33, 9,24,47,17,27		6,37
48″	41,36, 5,44,23,47,25,42,17,56		3, 2,29, 5,57	
		1,30,33, 6,22,18,11,30		6,37
50″	41,36, 7,14,56,53,48, 0,29,26		3, 2,29,12,34	
		1,30,33, 3,19,48,58,56		6,37
52″	41,36, 8,45,29,57, 7,49,28,22		3, 2,29,19,11	
		1,30,33, 0,17,19,39,45		6,37
54″	41,36,10,16, 2,57,25, 9, 8, 7		3, 2,29,25,48	
		1,30,32,57,14,50,13,57		6,37
56″	41,36,11,46,35,54,39,59,22, 4		3, 2,29,32,25	
		1,30,32,54,12,20,41,32		6,37
58″	41,36,13,17, 8,48,52,20, 3,36		3, 2,29,39, 2	
		1,30,32,51, 9,51, 2,30		
60″	41,36,14,47,41,40, 2,11, 6, 6			
exact	41,36,14,47,41,40, 2,10,47,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°54′ 0″	41,36,14,47,41,40, 2,10,47,21			
		1,30,32,48, 7,21,14,57		
2″	41,36,16,18,14,28, 9,32, 2,18		3, 2,29,52,23	
		1,30,32,45, 4,51,22,34		6,37
4″	41,36,17,48,47,13,14,23,24,52		3, 2,29,59, 0	
		1,30,32,42, 2,21,23,34		6,37
6″	41,36,19,19,19,55,16,44,48,26		3, 2,30, 5,37	
		1,30,32,38,59,51,17,57		6,37
8″	41,36,20,49,52,34,16,36, 6,23		3, 2,30,12,14	
		1,30,32,35,57,21, 5,43		6,37
10″	41,36,22,20,25,10,13,57,12, 6		3, 2,30,18,51	
		1,30,32,32,54,50,46,52		6,37
12″	41,36,23,50,57,43, 8,47,58,58		3, 2,30,25,28	
		1,30,32,29,52,20,21,24		6,37
14″	41,36,25,21,30,13, 1, 8,20,22		3, 2,30,32, 5	
		1,30,32,26,49,49,49,19		6,37
16″	41,36,26,52, 2,39,50,58, 9,41		3, 2,30,38,42	
		1,30,32,23,47,19,10,37		6,37
18″	41,36,28,22,35, 3,38,17,20,18		3, 2,30,45,19	
		1,30,32,20,44,48,25,18		6,37
20″	41,36,29,53, 7,24,23, 5,45,36		3, 2,30,51,56	
		1,30,32,17,42,17,33,22		6,37
22″	41,36,31,23,39,42, 5,23,18,58		3, 2,30,58,33	
		1,30,32,14,39,46,34,49		6,37
24″	41,36,32,54,11,56,45, 9,53,47		3, 2,31, 5,10	
		1,30,32,11,37,15,29,39		6,37
26″	41,36,34,24,44, 8,22,25,23,26		3, 2,31,11,47	
		1,30,32, 8,34,44,17,52		6,37
28″	41,36,35,55,16,16,57, 9,41,18		3, 2,31,18,24	
		1,30,32, 5,32,12,59,28		6,37
30″	41,36,37,25,48,22,29,22,40,46		3, 2,31,25, 1	
		1,30,32, 2,29,41,34,27		6,37
32″	41,36,38,56,20,24,59, 4,15,13		3, 2,31,31,38	
		1,30,31,59,27,10, 2,49		6,37
34″	41,36,40,26,52,24,26,14,18, 2		3, 2,31,38,15	
		1,30,31,56,24,38,24,34		6,37
36″	41,36,41,57,24,20,50,52,42,36		3, 2,31,44,52	
		1,30,31,53,22, 6,39,42		6,37
38″	41,36,43,27,56,14,12,59,22,18		3, 2,31,51,29	
		1,30,31,50,19,34,48,13		6,37
40″	41,36,44,58,28, 4,32,34,10,31		3, 2,31,58, 6	
		1,30,31,47,17, 2,50, 7		6,37
42″	41,36,46,28,59,51,49,37, 0,38		3, 2,32, 4,43	
		1,30,31,44,14,30,45,24		6,37
44″	41,36,47,59,31,36, 4, 7,46, 2		3, 2,32,11,20	
		1,30,31,41,11,58,34, 4		6,37
46″	41,36,49,30, 3,17,16, 6,20, 6		3, 2,32,17,57	
		1,30,31,38, 9,26,16, 7		6,37
48″	41,36,51, 0,34,55,25,32,36,13		3, 2,32,24,34	
		1,30,31,35, 6,53,51,33		6,37
50″	41,36,52,31, 6,30,32,26,27,46		3, 2,32,31,11	
		1,30,31,32, 4,21,20,22		6,37
52″	41,36,54, 1,38, 2,36,47,48, 8		3, 2,32,37,48	
		1,30,31,29, 1,48,42,34		6,37
54″	41,36,55,32, 9,31,38,36,30,42		3, 2,32,44,25	
		1,30,31,25,59,15,58, 9		6,37
56″	41,36,57, 2,40,57,37,52,28,51		3, 2,32,51, 2	
		1,30,31,22,56,43, 7, 7		6,37
58″	41,36,58,33,12,20,34,35,35,58		3, 2,32,57,39	
		1,30,31,19,54,10, 9,28		
60″	41,37, 0, 3,43,40,28,45,45,26			
exact	41,37, 0, 3,43,40,28,45,33,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°55′ 0″	41,37, 0, 3,43,40,28,45,33,36			
		1,30,31,16,51,37, 4, 4		
2″	41,37, 1,34,14,57,20,22,37,40		3, 2,33,10,57	
		1,30,31,13,49, 3,53, 7		6,37
4″	41,37, 3, 4,46,11, 9,26,30,47		3, 2,33,17,34	
		1,30,31,10,46,30,35,33		6,37
6″	41,37, 4,35,17,21,55,57, 6,20		3, 2,33,24,11	
		1,30,31, 7,43,57,11,22		6,37
8″	41,37, 6, 5,48,29,39,54,17,42		3, 2,33,30,48	
		1,30,31, 4,41,23,40,34		6,37
10″	41,37, 7,36,19,34,21,17,58,16		3, 2,33,37,25	
		1,30,31, 1,38,50, 3, 9		6,37
12″	41,37, 9, 6,50,36, 0, 8, 1,25		3, 2,33,44, 2	
		1,30,30,58,36,16,19, 7		6,37
14″	41,37,10,37,21,34,36,24,20,32		3, 2,33,50,39	
		1,30,30,55,33,42,28,28		6,37
16″	41,37,12, 7,52,30,10, 6,49, 0		3, 2,33,57,16	
		1,30,30,52,31, 8,31,12		6,37
18″	41,37,13,38,23,22,41,15,20,12		3, 2,34, 3,53	
		1,30,30,49,28,34,27,19		6,37
20″	41,37,15, 8,54,12, 9,49,47,31		3, 2,34,10,30	
		1,30,30,46,26, 0,16,49		6,37
22″	41,37,16,39,24,58,35,50, 4,20		3, 2,34,17, 7	
		1,30,30,43,23,25,59,42		6,37
24″	41,37,18, 9,55,41,59,16, 4, 2		3, 2,34,23,44	
		1,30,30,40,20,51,35,58		6,37
26″	41,37,19,40,26,22,20, 7,40, 0		3, 2,34,30,21	
		1,30,30,37,18,17, 5,37		6,37
28″	41,37,21,10,56,59,38,24,45,37		3, 2,34,36,58	
		1,30,30,34,15,42,28,39		6,37
30″	41,37,22,41,27,33,54, 7,14,16		3, 2,34,43,35	
		1,30,30,31,13, 7,45, 4		6,37
32″	41,37,24,11,58, 5, 7,14,59,20		3, 2,34,50,12	
		1,30,30,28,10,32,54,52		6,37
34″	41,37,25,42,28,33,17,47,54,12		3, 2,34,56,49	
		1,30,30,25, 7,57,58, 3		6,37
36″	41,37,27,12,58,58,25,45,52,15		3, 2,35, 3,26	
		1,30,30,22, 5,22,54,37		6,37
38″	41,37,28,43,29,20,31, 8,46,52		3, 2,35,10, 3	
		1,30,30,19, 2,47,44,34		6,37
40″	41,37,30,13,59,39,33,56,31,26		3, 2,35,16,40	
		1,30,30,16, 0,12,27,54		6,37
42″	41,37,31,44,29,55,34, 8,59,20		3, 2,35,23,17	
		1,30,30,12,57,37, 4,37		6,37
44″	41,37,33,15, 0, 8,31,46, 3,57		3, 2,35,29,54	
		1,30,30, 9,55, 1,34,43		6,37
46″	41,37,34,45,30,18,26,47,38,40		3, 2,35,36,31	
		1,30,30, 6,52,25,58,12		6,37
48″	41,37,36,16, 0,25,19,13,36,52		3, 2,35,43, 8	
		1,30,30, 3,49,50,15, 4		6,37
50″	41,37,37,46,30,29, 9, 3,51,56		3, 2,35,49,45	
		1,30,30, 0,47,14,25,19		6,37
52″	41,37,39,17, 0,29,56,18,17,15		3, 2,35,56,22	
		1,30,29,57,44,38,28,57		6,37
54″	41,37,40,47,30,27,40,56,46,12		3, 2,36, 2,59	
		1,30,29,54,42, 2,25,58		6,37
56″	41,37,42,18, 0,22,22,59,12,10		3, 2,36, 9,36	
		1,30,29,51,39,26,16,22		6,37
58″	41,37,43,48,30,14, 2,25,28,32		3, 2,36,16,13	
		1,30,29,48,36,50, 0, 9		
60″	41,37,45,19, 0, 2,39,15,28,41			
exact	41,37,45,19, 0, 2,39,15,26,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°56′ 0″	41,37,45,19, 0, 2,39,15,26,11			
		1,30,29,45,34,13,37, 7		
2″	41,37,46,49,29,48,13,29, 3,18		3, 2,36,29,27	
		1,30,29,42,31,37, 7,40		6,37
4″	41,37,48,19,59,30,45, 6,10,58		3, 2,36,36, 4	
		1,30,29,39,29, 0,31,36		6,37
6″	41,37,49,50,29,10,14, 6,42,34		3, 2,36,42,41	
		1,30,29,36,26,23,48,55		6,37
8″	41,37,51,20,58,46,40,30,31,29		3, 2,36,49,18	
		1,30,29,33,23,46,59,37		6,37
10″	41,37,52,51,28,20, 4,17,31, 6		3, 2,36,55,55	
		1,30,29,30,21,10, 3,42		6,37
12″	41,37,54,21,57,50,25,27,34,48		3, 2,37, 2,32	
		1,30,29,27,18,33, 1,10		6,37
14″	41,37,55,52,27,17,44, 0,35,58		3, 2,37, 9, 9	
		1,30,29,24,15,55,52, 1		6,37
16″	41,37,57,22,56,41,59,56,27,59		3, 2,37,15,46	
		1,30,29,21,13,18,36,15		6,37
18″	41,37,58,53,26, 3,13,15, 4,14		3, 2,37,22,23	
		1,30,29,18,10,41,13,52		6,37
20″	41,38, 0,23,55,21,23,56,18, 6		3, 2,37,29, 0	
		1,30,29,15, 8, 3,44,52		6,37
22″	41,38, 1,54,24,36,32, 0, 2,58		3, 2,37,35,37	
		1,30,29,12, 5,26, 9,15		6,37
24″	41,38, 3,24,53,48,37,26,12,13		3, 2,37,42,14	
		1,30,29, 9, 2,48,27, 1		6,37
26″	41,38, 4,55,22,57,40,14,39,14		3, 2,37,48,51	
		1,30,29, 6, 0,10,38,10		6,37
28″	41,38, 6,25,52, 3,40,25,17,24		3, 2,37,55,28	
		1,30,29, 2,57,32,42,42		6,37
30″	41,38, 7,56,21, 6,37,58, 0, 6		3, 2,38, 2, 5	
		1,30,28,59,54,54,40,37		6,37
32″	41,38, 9,26,50, 6,32,52,40,43		3, 2,38, 8,42	
		1,30,28,56,52,16,31,55		6,37
34″	41,38,10,57,19, 3,25, 9,12,38		3, 2,38,15,19	
		1,30,28,53,49,38,16,36		6,37
36″	41,38,12,27,47,57,14,47,29,14		3, 2,38,21,56	
		1,30,28,50,46,59,54,40		6,37
38″	41,38,13,58,16,48, 1,47,23,54		3, 2,38,28,33	
		1,30,28,47,44,21,26, 7		6,37
40″	41,38,15,28,45,35,46, 8,50, 1		3, 2,38,35,10	
		1,30,28,44,41,42,50,57		6,37
42″	41,38,16,59,14,20,27,51,40,58		3, 2,38,41,47	
		1,30,28,41,39, 4, 9,10		6,37
44″	41,38,18,29,43, 2, 6,55,50, 8		3, 2,38,48,24	
		1,30,28,38,36,25,20,46		6,37
46″	41,38,20, 0,11,40,43,21,10,54		3, 2,38,55, 1	
		1,30,28,35,33,46,25,45		6,37
48″	41,38,21,30,40,16,17, 7,36,39		3, 2,39, 1,38	
		1,30,28,32,31, 7,24, 7		6,37
50″	41,38,23, 1, 8,48,48,15, 0,46		3, 2,39, 8,15	
		1,30,28,29,28,28,15,52		6,37
52″	41,38,24,31,37,18,16,43,16,38		3, 2,39,14,52	
		1,30,28,26,25,49, 1, 0		6,37
54″	41,38,26, 2, 5,44,42,32,17,38		3, 2,39,21,29	
		1,30,28,23,23, 9,39,31		6,37
56″	41,38,27,32,34, 8, 5,41,57, 9		3, 2,39,28, 6	
		1,30,28,20,20,30,11,25		6,37
58″	41,38,29, 3, 2,28,26,12, 8,34		3, 2,39,34,43	
		1,30,28,17,17,50,36,42		
60″	41,38,30,33,30,45,44, 2,45,16			
exact	41,38,30,33,30,45,44, 2,47,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°57′ 0″	41,38,30,33,30,45,44, 2,47,19			
		1,30,28,14,15,10,55,46		
2″	41,38,32, 3,58,59,59,13,43, 5		3, 2,39,47,54	
		1,30,28,11,12,31, 7,52		6,37
4″	41,38,33,34,27,11,11,44,50,57		3, 2,39,54,31	
		1,30,28, 8, 9,51,13,21		6,37
6″	41,38,35, 4,55,19,21,36, 4,18		3, 2,40, 1, 8	
		1,30,28, 5, 7,11,12,13		6,37
8″	41,38,36,35,23,24,28,47,16,31		3, 2,40, 7,45	
		1,30,28, 2, 4,31, 4,28		6,37
10″	41,38,38, 5,51,26,33,18,20,59		3, 2,40,14,22	
		1,30,27,59, 1,50,50, 6		6,37
12″	41,38,39,36,19,25,35, 9,11, 5		3, 2,40,20,59	
		1,30,27,55,59,10,29, 7		6,37
14″	41,38,41, 6,47,21,34,19,40,12		3, 2,40,27,36	
		1,30,27,52,56,30, 1,31		6,37
16″	41,38,42,37,15,14,30,49,41,43		3, 2,40,34,13	
		1,30,27,49,53,49,27,18		6,37
18″	41,38,44, 7,43, 4,24,39, 9, 1		3, 2,40,40,50	
		1,30,27,46,51, 8,46,28		6,37
20″	41,38,45,38,10,51,15,47,55,29		3, 2,40,47,27	
		1,30,27,43,48,27,59, 1		6,37
22″	41,38,47, 8,38,35, 4,15,54,30		3, 2,40,54, 4	
		1,30,27,40,45,47, 4,57		6,37
24″	41,38,48,39, 6,15,50, 2,59,27		3, 2,41, 0,41	
		1,30,27,37,43, 6, 4,16		6,37
26″	41,38,50, 9,33,53,33, 9, 3,43		3, 2,41, 7,18	
		1,30,27,34,40,24,56,58		6,37
28″	41,38,51,40, 1,28,13,34, 0,41		3, 2,41,13,55	
		1,30,27,31,37,43,43, 3		6,37
30″	41,38,53,10,28,59,51,17,43,44		3, 2,41,20,32	
		1,30,27,28,35, 2,22,31		6,37
32″	41,38,54,40,56,28,26,20, 6,15		3, 2,41,27, 9	
		1,30,27,25,32,20,55,22		6,37
34″	41,38,56,11,23,53,58,41, 1,37		3, 2,41,33,46	
		1,30,27,22,29,39,21,36		6,37
36″	41,38,57,41,51,16,28,20,23,13		3, 2,41,40,23	
		1,30,27,19,26,57,41,13		6,37
38″	41,38,59,12,18,35,55,18, 4,26		3, 2,41,47, 0	
		1,30,27,16,24,15,54,13		6,37
40″	41,39, 0,42,45,52,19,33,58,39		3, 2,41,53,37	
		1,30,27,13,21,34, 0,36		6,37
42″	41,39, 2,13,13, 5,41, 7,59,15		3, 2,42, 0,14	
		1,30,27,10,18,52, 0,22		6,37
44″	41,39, 3,43,40,15,59,59,59,37		3, 2,42, 6,51	
		1,30,27, 7,16, 9,53,31		6,37
46″	41,39, 5,14, 7,23,16, 9,53, 8		3, 2,42,13,28	
		1,30,27, 4,13,27,40, 3		6,37
48″	41,39, 6,44,34,27,29,37,33,11		3, 2,42,20, 5	
		1,30,27, 1,10,45,19,58		6,37
50″	41,39, 8,15, 1,28,40,22,53, 9		3, 2,42,26,42	
		1,30,26,58, 8, 2,53,16		6,37
52″	41,39, 9,45,28,26,48,25,46,25		3, 2,42,33,19	
		1,30,26,55, 5,20,19,57		6,37
54″	41,39,11,15,55,21,53,46, 6,22		3, 2,42,39,56	
		1,30,26,52, 2,37,40, 1		6,37
56″	41,39,12,46,22,13,56,23,46,23		3, 2,42,46,33	
		1,30,26,48,59,54,53,28		6,37
58″	41,39,14,16,49, 2,56,18,39,51		3, 2,42,53,10	
		1,30,26,45,57,12, 0,18		
60″	41,39,15,47,15,48,53,30,40, 9			
exact	41,39,15,47,15,48,53,30,49,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°58′ 0″	41,39,15,47,15,48,53,30,49,16			
		1,30,26,42,54,29, 1,41		
2″	41,39,17,17,42,31,47,59,50,57		3, 2,43, 6,18	
		1,30,26,39,51,45,55,23		6,37
4″	41,39,18,48, 9,11,39,45,46,20		3, 2,43,12,55	
		1,30,26,36,49, 2,42,28		6,37
6″	41,39,20,18,35,48,28,48,28,48		3, 2,43,19,32	
		1,30,26,33,46,19,22,56		6,37
8″	41,39,21,49, 2,22,15, 7,51,44		3, 2,43,26, 9	
		1,30,26,30,43,35,56,47		6,37
10″	41,39,23,19,28,52,58,43,48,31		3, 2,43,32,46	
		1,30,26,27,40,52,24, 1		6,37
12″	41,39,24,49,55,20,39,36,12,32		3, 2,43,39,23	
		1,30,26,24,38, 8,44,38		6,37
14″	41,39,26,20,21,45,17,44,57,10		3, 2,43,46, 0	
		1,30,26,21,35,24,58,38		6,37
16″	41,39,27,50,48, 6,53, 9,55,48		3, 2,43,52,37	
		1,30,26,18,32,41, 6, 1		6,37
18″	41,39,29,21,14,25,25,51, 1,49		3, 2,43,59,14	
		1,30,26,15,29,57, 6,47		6,37
20″	41,39,30,51,40,40,55,48, 8,36		3, 2,44, 5,51	
		1,30,26,12,27,13, 0,56		6,37
22″	41,39,32,22, 6,53,23, 1, 9,32		3, 2,44,12,28	
		1,30,26, 9,24,28,48,28		6,37
24″	41,39,33,52,33, 2,47,29,58, 0		3, 2,44,19, 5	
		1,30,26, 6,21,44,29,23		6,37
26″	41,39,35,22,59, 9, 9,14,27,23		3, 2,44,25,42	
		1,30,26, 3,19, 0, 3,41		6,37
28″	41,39,36,53,25,12,28,14,31, 4		3, 2,44,32,19	
		1,30,26, 0,16,15,31,22		6,37
30″	41,39,38,23,51,12,44,30, 2,26		3, 2,44,38,56	
		1,30,25,57,13,30,52,26		6,37
32″	41,39,39,54,17, 9,58, 0,54,52		3, 2,44,45,33	
		1,30,25,54,10,46, 6,53		6,37
34″	41,39,41,24,43, 4, 8,47, 1,45		3, 2,44,52,10	
		1,30,25,51, 8, 1,14,43		6,37
36″	41,39,42,55, 8,55,16,48,16,28		3, 2,44,58,47	
		1,30,25,48, 5,16,15,56		6,37
38″	41,39,44,25,34,43,22, 4,32,24		3, 2,45, 5,24	
		1,30,25,45, 2,31,10,32		6,37
40″	41,39,45,56, 0,28,24,35,42,56		3, 2,45,12, 1	
		1,30,25,41,59,45,58,31		6,37
42″	41,39,47,26,26,10,24,21,41,27		3, 2,45,18,38	
		1,30,25,38,57, 0,39,53		6,37
44″	41,39,48,56,51,49,21,22,21,20		3, 2,45,25,15	
		1,30,25,35,54,15,14,38		6,37
46″	41,39,50,27,17,25,15,37,35,58		3, 2,45,31,52	
		1,30,25,32,51,29,42,46		6,37
48″	41,39,51,57,42,58, 7, 7,18,44		3, 2,45,38,29	
		1,30,25,29,48,44, 4,17		6,37
50″	41,39,53,28, 8,27,55,51,23, 1		3, 2,45,45, 6	
		1,30,25,26,45,58,19,11		6,37
52″	41,39,54,58,33,54,41,49,42,12		3, 2,45,51,43	
		1,30,25,23,43,12,27,28		6,37
54″	41,39,56,28,59,18,25, 2, 9,40		3, 2,45,58,20	
		1,30,25,20,40,26,29, 8		6,37
56″	41,39,57,59,24,39, 5,28,38,48		3, 2,46, 4,57	
		1,30,25,17,37,40,24,11		6,37
58″	41,39,59,29,49,56,43, 9, 2,59		3, 2,46,11,34	
		1,30,25,14,34,54,12,37		
60″	41,40, 1, 0,15,11,18, 3,15,36			
exact	41,40, 1, 0,15,11,18, 3,34,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
43°59′ 0″	41,40, 1, 0,15,11,18, 3,34,23			
		1,30,25,11,32, 7,56,33		
2″	41,40, 2,30,40,22,50,11,30,56		3, 2,46,24,39	
		1,30,25, 8,29,21,31,54		6,37
4″	41,40, 4, 1, 5,31,19,33, 2,50		3, 2,46,31,16	
		1,30,25, 5,26,35, 0,38		6,37
6″	41,40, 5,31,30,36,46, 8, 3,28		3, 2,46,37,53	
		1,30,25, 2,23,48,22,45		6,37
8″	41,40, 7, 1,55,39, 9,56,26,13		3, 2,46,44,30	
		1,30,24,59,21, 1,38,15		6,37
10″	41,40, 8,32,20,38,30,58, 4,28		3, 2,46,51, 7	
		1,30,24,56,18,14,47, 8		6,37
12″	41,40,10, 2,45,34,49,12,51,36		3, 2,46,57,44	
		1,30,24,53,15,27,49,24		6,37
14″	41,40,11,33,10,28, 4,40,41, 0		3, 2,47, 4,21	
		1,30,24,50,12,40,45, 3		6,37
16″	41,40,13, 3,35,18,17,21,26, 3		3, 2,47,10,58	
		1,30,24,47, 9,53,34, 5		6,37
18″	41,40,14,34, 0, 5,27,15, 0, 8		3, 2,47,17,35	
		1,30,24,44, 7, 6,16,30		6,37
20″	41,40,16, 4,24,49,34,21,16,38		3, 2,47,24,12	
		1,30,24,41, 4,18,52,18		6,37
22″	41,40,17,34,49,30,38,40, 8,56		3, 2,47,30,49	
		1,30,24,38, 1,31,21,29		6,37
24″	41,40,19, 5,14, 8,40,11,30,25		3, 2,47,37,26	
		1,30,24,34,58,43,44, 3		6,37
26″	41,40,20,35,38,43,38,55,14,28		3, 2,47,44, 3	
		1,30,24,31,55,56, 0, 0		6,37
28″	41,40,22, 6, 3,15,34,51,14,28		3, 2,47,50,40	
		1,30,24,28,53, 8, 9,20		6,37
30″	41,40,23,36,27,44,27,59,23,48		3, 2,47,57,17	
		1,30,24,25,50,20,12, 3		6,37
32″	41,40,25, 6,52,10,18,19,35,51		3, 2,48, 3,54	
		1,30,24,22,47,32, 8, 9		6,37
34″	41,40,26,37,16,33, 5,51,44, 0		3, 2,48,10,31	
		1,30,24,19,44,43,57,38		6,37
36″	41,40,28, 7,40,52,50,35,41,38		3, 2,48,17, 8	
		1,30,24,16,41,55,40,30		6,37
38″	41,40,29,38, 5, 9,32,31,22, 8		3, 2,48,23,45	
		1,30,24,13,39, 7,16,45		6,37
40″	41,40,31, 8,29,23,11,38,38,53		3, 2,48,30,22	
		1,30,24,10,36,18,46,23		6,37
42″	41,40,32,38,53,33,47,57,25,16		3, 2,48,36,59	
		1,30,24, 7,33,30, 9,24		6,37
44″	41,40,34, 9,17,41,21,27,34,40		3, 2,48,43,36	
		1,30,24, 4,30,41,25,48		6,37
46″	41,40,35,39,41,45,52, 9, 0,28		3, 2,48,50,13	
		1,30,24, 1,27,52,35,35		6,37
48″	41,40,37,10, 5,47,20, 1,36, 3		3, 2,48,56,50	
		1,30,23,58,25, 3,38,45		6,37
50″	41,40,38,40,29,45,45, 5,14,48		3, 2,49, 3,27	
		1,30,23,55,22,14,35,18		6,37
52″	41,40,40,10,53,41, 7,19,50, 6		3, 2,49,10, 4	
		1,30,23,52,19,25,25,14		6,37
54″	41,40,41,41,17,33,26,45,15,20		3, 2,49,16,41	
		1,30,23,49,16,36, 8,33		6,37
56″	41,40,43,11,41,22,43,21,23,53		3, 2,49,23,18	
		1,30,23,46,13,46,45,15		6,37
58″	41,40,44,42, 5, 8,57, 8, 9, 8		3, 2,49,29,55	
		1,30,23,43,10,57,15,20		
60″	41,40,46,12,28,52, 8, 5,24,28			
exact	41,40,46,12,28,52, 8, 5,55, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44° 0′ 0″	41,40,46,12,28,52, 8, 5,55, 7			
		1,30,23,40, 8, 7,42, 1		
2″	41,40,47,42,52,32,16,13,37, 8		3, 2,49,42,56	
		1,30,23,37, 5,17,59, 5		6,37
4″	41,40,49,13,16, 9,21,31,36,13		3, 2,49,49,33	
		1,30,23,34, 2,28, 9,32		6,37
6″	41,40,50,43,39,43,23,59,45,45		3, 2,49,56,10	
		1,30,23,30,59,38,13,22		6,37
8″	41,40,52,14, 3,14,23,37,59, 7		3, 2,50, 2,47	
		1,30,23,27,56,48,10,35		6,37
10″	41,40,53,44,26,42,20,26, 9,42		3, 2,50, 9,24	
		1,30,23,24,53,58, 1,11		6,37
12″	41,40,55,14,50, 7,14,24,10,53		3, 2,50,16, 1	
		1,30,23,21,51, 7,45,10		6,37
14″	41,40,56,45,13,29, 5,31,56, 3		3, 2,50,22,38	
		1,30,23,18,48,17,22,32		6,37
16″	41,40,58,15,36,47,53,49,18,35		3, 2,50,29,15	
		1,30,23,15,45,26,53,17		6,37
18″	41,40,59,46, 0, 3,39,16,11,52		3, 2,50,35,52	
		1,30,23,12,42,36,17,25		6,37
20″	41,41, 1,16,23,16,21,52,29,17		3, 2,50,42,29	
		1,30,23, 9,39,45,34,56		6,37
22″	41,41, 2,46,46,26, 1,38, 4,13		3, 2,50,49, 6	
		1,30,23, 6,36,54,45,50		6,37
24″	41,41, 4,17, 9,32,38,32,50, 3		3, 2,50,55,43	
		1,30,23, 3,34, 3,50, 7		6,37
26″	41,41, 5,47,32,36,12,36,40,10		3, 2,51, 2,20	
		1,30,23, 0,31,12,47,47		6,37
28″	41,41, 7,17,55,36,43,49,27,57		3, 2,51, 8,57	
		1,30,22,57,28,21,38,50		6,37
30″	41,41, 8,48,18,34,12,11, 6,47		3, 2,51,15,34	
		1,30,22,54,25,30,23,16		6,37
32″	41,41,10,18,41,28,37,41,30, 3		3, 2,51,22,11	
		1,30,22,51,22,39, 1, 5		6,37
34″	41,41,11,49, 4,20, 0,20,31, 8		3, 2,51,28,48	
		1,30,22,48,19,47,32,17		6,37
36″	41,41,13,19,27, 8,20, 8, 3,25		3, 2,51,35,25	
		1,30,22,45,16,55,56,52		6,37
38″	41,41,14,49,49,53,37, 4, 0,17		3, 2,51,42, 2	
		1,30,22,42,14, 4,14,50		6,37
40″	41,41,16,20,12,35,51, 8,15, 7		3, 2,51,48,39	
		1,30,22,39,11,12,26,11		6,37
42″	41,41,17,50,35,15, 2,20,41,18		3, 2,51,55,16	
		1,30,22,36, 8,20,30,55		6,37
44″	41,41,19,20,57,51,10,41,12,13		3, 2,52, 1,53	
		1,30,22,33, 5,28,29, 2		6,37
46″	41,41,20,51,20,24,16, 9,41,15		3, 2,52, 8,30	
		1,30,22,30, 2,36,20,32		6,37
48″	41,41,22,21,42,54,18,46, 1,47		3, 2,52,15, 7	
		1,30,22,26,59,44, 5,25		6,37
50″	41,41,23,52, 5,21,18,30, 7,12		3, 2,52,21,44	
		1,30,22,23,56,51,43,41		6,37
52″	41,41,25,22,27,45,15,21,50,53		3, 2,52,28,21	
		1,30,22,20,53,59,15,20		6,37
54″	41,41,26,52,50, 6, 9,21, 6,13		3, 2,52,34,58	
		1,30,22,17,51, 6,40,22		6,37
56″	41,41,28,23,12,24, 0,27,46,35		3, 2,52,41,35	
		1,30,22,14,48,13,58,47		6,37
58″	41,41,29,53,34,38,48,41,45,22		3, 2,52,48,12	
		1,30,22,11,45,21,10,35		
60″	41,41,31,23,56,50,34, 2,55,57			
exact	41,41,31,23,56,50,34, 3,34, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44° 1′ 0″	41,41,31,23,56,50,34, 3,34, 1			
		1,30,22, 8,42,28,19,47		
2″	41,41,32,54,18,59,16,31,53,48		3, 2,53, 1, 9	
		1,30,22, 5,39,35,18,38		6,36
4″	41,41,34,24,41, 4,56, 7,12,26		3, 2,53, 7,45	
		1,30,22, 2,36,42,10,53		6,36
6″	41,41,35,55, 3, 7,32,49,23,19		3, 2,53,14,21	
		1,30,21,59,33,48,56,32		6,36
8″	41,41,37,25,25, 7, 6,38,19,51		3, 2,53,20,57	
		1,30,21,56,30,55,35,35		6,36
10″	41,41,38,55,47, 3,37,33,55,26		3, 2,53,27,33	
		1,30,21,53,28, 2, 8, 2		6,36
12″	41,41,40,26, 8,57, 5,36, 3,28		3, 2,53,34, 9	
		1,30,21,50,25, 8,33,53		6,36
14″	41,41,41,56,30,47,30,44,37,21		3, 2,53,40,45	
		1,30,21,47,22,14,53, 8		6,36
16″	41,41,43,26,52,34,52,59,30,29		3, 2,53,47,21	
		1,30,21,44,19,21, 5,47		6,36
18″	41,41,44,57,14,19,12,20,36,16		3, 2,53,53,57	
		1,30,21,41,16,27,11,50		6,36
20″	41,41,46,27,36, 0,28,47,48, 6		3, 2,54, 0,33	
		1,30,21,38,13,33,11,17		6,36
22″	41,41,47,57,57,38,42,20,59,23		3, 2,54, 7, 9	
		1,30,21,35,10,39, 4, 8		6,36
24″	41,41,49,28,19,13,53, 0, 3,31		3, 2,54,13,45	
		1,30,21,32, 7,44,50,23		6,36
26″	41,41,50,58,40,46, 0,44,53,54		3, 2,54,20,21	
		1,30,21,29, 4,50,30, 2		6,36
28″	41,41,52,29, 2,15, 5,35,23,56		3, 2,54,26,57	
		1,30,21,26, 1,56, 3, 5		6,36
30″	41,41,53,59,23,41, 7,31,27, 1		3, 2,54,33,33	
		1,30,21,22,59, 1,29,32		6,36
32″	41,41,55,29,45, 4, 6,32,56,33		3, 2,54,40, 9	
		1,30,21,19,56, 6,49,23		6,36
34″	41,41,57, 0, 6,24, 2,39,45,56		3, 2,54,46,45	
		1,30,21,16,53,12, 2,38		6,36
36″	41,41,58,30,27,40,55,51,48,34		3, 2,54,53,21	
		1,30,21,13,50,17, 9,17		6,36
38″	41,42, 0, 0,48,54,46, 8,57,51		3, 2,54,59,57	
		1,30,21,10,47,22, 9,20		6,36
40″	41,42, 1,31,10, 5,33,31, 7,11		3, 2,55, 6,33	
		1,30,21, 7,44,27, 2,47		6,36
42″	41,42, 3, 1,31,13,17,58, 9,58		3, 2,55,13, 9	
		1,30,21, 4,41,31,49,38		6,36
44″	41,42, 4,31,52,17,59,29,59,36		3, 2,55,19,45	
		1,30,21, 1,38,36,29,53		6,36
46″	41,42, 6, 2,13,19,38, 6,29,29		3, 2,55,26,21	
		1,30,20,58,35,41, 3,32		6,36
48″	41,42, 7,32,34,18,13,47,33, 1		3, 2,55,32,57	
		1,30,20,55,32,45,30,35		6,36
50″	41,42, 9, 2,55,13,46,33, 3,36		3, 2,55,39,33	
		1,30,20,52,29,49,51, 2		6,36
52″	41,42,10,33,16, 6,16,22,54,38		3, 2,55,46, 9	
		1,30,20,49,26,54, 4,53		6,36
54″	41,42,12, 3,36,55,43,16,59,31		3, 2,55,52,45	
		1,30,20,46,23,58,12, 8		6,36
56″	41,42,13,33,57,42, 7,15,11,39		3, 2,55,59,21	
		1,30,20,43,21, 2,12,47		6,36
58″	41,42,15, 4,18,25,28,17,24,26		3, 2,56, 5,57	
		1,30,20,40,18, 6, 6,50		
60″	41,42,16,34,39, 5,46,23,31,16			
exact	41,42,16,34,39, 5,46,23, 3,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44° 2′ 0″	41,42,16,34,39, 5,46,23, 3,45			
		1,30,20,37,15, 9,51,29		
2″	41,42,18, 4,59,43, 1,32,55,14		3, 2,56,19,20	
		1,30,20,34,12,13,32, 9		6,36
4″	41,42,19,35,20,17,13,46,27,23		3, 2,56,25,56	
		1,30,20,31, 9,17, 6,13		6,36
6″	41,42,21, 5,40,48,23, 3,33,36		3, 2,56,32,32	
		1,30,20,28, 6,20,33,41		6,36
8″	41,42,22,36, 1,16,29,24, 7,17		3, 2,56,39, 8	
		1,30,20,25, 3,23,54,33		6,36
10″	41,42,24, 6,21,41,32,48, 1,50		3, 2,56,45,44	
		1,30,20,22, 0,27, 8,49		6,36
12″	41,42,25,36,42, 3,33,15,10,39		3, 2,56,52,20	
		1,30,20,18,57,30,16,29		6,36
14″	41,42,27, 7, 2,22,30,45,27, 8		3, 2,56,58,56	
		1,30,20,15,54,33,17,33		6,36
16″	41,42,28,37,22,38,25,18,44,41		3, 2,57, 5,32	
		1,30,20,12,51,36,12, 1		6,36
18″	41,42,30, 7,42,51,16,54,56,42		3, 2,57,12, 8	
		1,30,20, 9,48,38,59,53		6,36
20″	41,42,31,38, 3, 1, 5,33,56,35		3, 2,57,18,44	
		1,30,20, 6,45,41,41, 9		6,36
22″	41,42,33, 8,23, 7,51,15,37,44		3, 2,57,25,20	
		1,30,20, 3,42,44,15,49		6,36
24″	41,42,34,38,43,11,33,59,53,33		3, 2,57,31,56	
		1,30,20, 0,39,46,43,53		6,36
26″	41,42,36, 9, 3,12,13,46,37,26		3, 2,57,38,32	
		1,30,19,57,36,49, 5,21		6,36
28″	41,42,37,39,23, 9,50,35,42,47		3, 2,57,45, 8	
		1,30,19,54,33,51,20,13		6,36
30″	41,42,39, 9,43, 4,24,27, 3, 0		3, 2,57,51,44	
		1,30,19,51,30,53,28,29		6,36
32″	41,42,40,40, 2,55,55,20,31,29		3, 2,57,58,20	
		1,30,19,48,27,55,30, 9		6,36
34″	41,42,42,10,22,44,23,16, 1,38		3, 2,58, 4,56	
		1,30,19,45,24,57,25,13		6,36
36″	41,42,43,40,42,29,48,13,26,51		3, 2,58,11,32	
		1,30,19,42,21,59,13,41		6,36
38″	41,42,45,11, 2,12,10,12,40,32		3, 2,58,18, 8	
		1,30,19,39,19, 0,55,33		6,36
40″	41,42,46,41,21,51,29,13,36, 5		3, 2,58,24,44	
		1,30,19,36,16, 2,30,49		6,36
42″	41,42,48,11,41,27,45,16, 6,54		3, 2,58,31,20	
		1,30,19,33,13, 3,59,29		6,36
44″	41,42,49,42, 1, 0,58,20, 6,23		3, 2,58,37,56	
		1,30,19,30,10, 5,21,33		6,36
46″	41,42,51,12,20,31, 8,25,27,56		3, 2,58,44,32	
		1,30,19,27, 7, 6,37, 1		6,36
48″	41,42,52,42,39,58,15,32, 4,57		3, 2,58,51, 8	
		1,30,19,24, 4, 7,45,53		6,36
50″	41,42,54,12,59,22,19,39,50,50		3, 2,58,57,44	
		1,30,19,21, 1, 8,48, 9		6,36
52″	41,42,55,43,18,43,20,48,38,59		3, 2,59, 4,20	
		1,30,19,17,58, 9,43,49		6,36
54″	41,42,57,13,38, 1,18,58,22,48		3, 2,59,10,56	
		1,30,19,14,55,10,32,53		6,36
56″	41,42,58,43,57,16,14, 8,55,41		3, 2,59,17,32	
		1,30,19,11,52,11,15,21		6,36
58″	41,43, 0,14,16,28, 6,20,11, 2		3, 2,59,24, 8	
		1,30,19, 8,49,11,51,13		
60″	41,43, 1,44,35,36,55,32, 2,15			
exact	41,43, 1,44,35,36,55,31,47, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44° 3′ 0″	41,43, 1,44,35,36,55,31,47, 8			
		1,30,19, 5,46,12,18,49		
2″	41,43, 3,14,54,42,41,44, 5,57		3, 2,59,37,27	
		1,30,19, 2,43,12,41,22		6,36
4″	41,43, 4,45,13,45,24,56,47,19		3, 2,59,44, 3	
		1,30,18,59,40,12,57,19		6,36
6″	41,43, 6,15,32,45, 5, 9,44,38		3, 2,59,50,39	
		1,30,18,56,37,13, 6,40		6,36
8″	41,43, 7,45,51,41,42,22,51,18		3, 2,59,57,15	
		1,30,18,53,34,13, 9,25		6,36
10″	41,43, 9,16,10,35,16,36, 0,43		3, 3, 0, 3,51	
		1,30,18,50,31,13, 5,34		6,36
12″	41,43,10,46,29,25,47,49, 6,17		3, 3, 0,10,27	
		1,30,18,47,28,12,55, 7		6,36
14″	41,43,12,16,48,13,16, 2, 1,24		3, 3, 0,17, 3	
		1,30,18,44,25,12,38, 4		6,36
16″	41,43,13,47, 6,57,41,14,39,28		3, 3, 0,23,39	
		1,30,18,41,22,12,14,25		6,36
18″	41,43,15,17,25,39, 3,26,53,53		3, 3, 0,30,15	
		1,30,18,38,19,11,44,10		6,36
20″	41,43,16,47,44,17,22,38,38, 3		3, 3, 0,36,51	
		1,30,18,35,16,11, 7,19		6,36
22″	41,43,18,18, 2,52,38,49,45,22		3, 3, 0,43,27	
		1,30,18,32,13,10,23,52		6,36
24″	41,43,19,48,21,24,52, 0, 9,14		3, 3, 0,50, 3	
		1,30,18,29,10, 9,33,49		6,36
26″	41,43,21,18,39,54, 2, 9,43, 3		3, 3, 0,56,39	
		1,30,18,26, 7, 8,37,10		6,36
28″	41,43,22,48,58,20, 9,18,20,13		3, 3, 1, 3,15	
		1,30,18,23, 4, 7,33,55		6,36
30″	41,43,24,19,16,43,13,25,54, 8		3, 3, 1, 9,51	
		1,30,18,20, 1, 6,24, 4		6,36
32″	41,43,25,49,35, 3,14,32,18,12		3, 3, 1,16,27	
		1,30,18,16,58, 5, 7,37		6,36
34″	41,43,27,19,53,20,12,37,25,49		3, 3, 1,23, 3	
		1,30,18,13,55, 3,44,34		6,36
36″	41,43,28,50,11,34, 7,41,10,23		3, 3, 1,29,39	
		1,30,18,10,52, 2,14,55		6,36
38″	41,43,30,20,29,44,59,43,25,18		3, 3, 1,36,15	
		1,30,18, 7,49, 0,38,40		6,36
40″	41,43,31,50,47,52,48,44, 3,58		3, 3, 1,42,51	
		1,30,18, 4,45,58,55,49		6,36
42″	41,43,33,21, 5,57,34,42,59,47		3, 3, 1,49,27	
		1,30,18, 1,42,57, 6,22		6,36
44″	41,43,34,51,23,59,17,40, 6, 9		3, 3, 1,56, 3	
		1,30,17,58,39,55,10,19		6,36
46″	41,43,36,21,41,57,57,35,16,28		3, 3, 2, 2,39	
		1,30,17,55,36,53, 7,40		6,36
48″	41,43,37,51,59,53,34,28,24, 8		3, 3, 2, 9,15	
		1,30,17,52,33,50,58,25		6,36
50″	41,43,39,22,17,46, 8,19,22,33		3, 3, 2,15,51	
		1,30,17,49,30,48,42,34		6,36
52″	41,43,40,52,35,35,39, 8, 5, 7		3, 3, 2,22,27	
		1,30,17,46,27,46,20, 7		6,36
54″	41,43,42,22,53,22, 6,54,25,14		3, 3, 2,29, 3	
		1,30,17,43,24,43,51, 4		6,36
56″	41,43,43,53,11, 5,31,38,16,18		3, 3, 2,35,39	
		1,30,17,40,21,41,15,25		6,36
58″	41,43,45,23,28,45,53,19,31,43		3, 3, 2,42,15	
		1,30,17,37,18,38,33,10		
60″	41,43,46,53,46,23,11,58, 4,53			
exact	41,43,46,53,46,23,11,57,57, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44° 4′ 0″	41,43,46,53,46,23,11,57,57, 8			
		1,30,17,34,15,35,43,27		
2″	41,43,48,24, 3,57,27,33,40,35		3, 3, 2,55,30	
		1,30,17,31,12,32,47,57		6,36
4″	41,43,49,54,21,28,40, 6,28,32		3, 3, 3, 2, 6	
		1,30,17,28, 9,29,45,51		6,36
6″	41,43,51,24,38,56,49,36,14,23		3, 3, 3, 8,42	
		1,30,17,25, 6,26,37, 9		6,36
8″	41,43,52,54,56,21,56, 2,51,32		3, 3, 3,15,18	
		1,30,17,22, 3,23,21,51		6,36
10″	41,43,54,25,13,43,59,26,13,23		3, 3, 3,21,54	
		1,30,17,19, 0,19,59,57		6,36
12″	41,43,55,55,31, 2,59,46,13,20		3, 3, 3,28,30	
		1,30,17,15,57,16,31,27		6,36
14″	41,43,57,25,48,18,57, 2,44,47		3, 3, 3,35, 6	
		1,30,17,12,54,12,56,21		6,36
16″	41,43,58,56, 5,31,51,15,41, 8		3, 3, 3,41,42	
		1,30,17, 9,51, 9,14,39		6,36
18″	41,44, 0,26,22,41,42,24,55,47		3, 3, 3,48,18	
		1,30,17, 6,48, 5,26,21		6,36
20″	41,44, 1,56,39,48,30,30,22, 8		3, 3, 3,54,54	
		1,30,17, 3,45, 1,31,27		6,36
22″	41,44, 3,26,56,52,15,31,53,35		3, 3, 4, 1,30	
		1,30,17, 0,41,57,29,57		6,36
24″	41,44, 4,57,13,52,57,29,23,32		3, 3, 4, 8, 6	
		1,30,16,57,38,53,21,51		6,36
26″	41,44, 6,27,30,50,36,22,45,23		3, 3, 4,14,42	
		1,30,16,54,35,49, 7, 9		6,36
28″	41,44, 7,57,47,45,12,11,52,32		3, 3, 4,21,18	
		1,30,16,51,32,44,45,51		6,36
30″	41,44, 9,28, 4,36,44,56,38,23		3, 3, 4,27,54	
		1,30,16,48,29,40,17,57		6,36
32″	41,44,10,58,21,25,14,36,56,20		3, 3, 4,34,30	
		1,30,16,45,26,35,43,27		6,36
34″	41,44,12,28,38,10,41,12,39,47		3, 3, 4,41, 6	
		1,30,16,42,23,31, 2,21		6,36
36″	41,44,13,58,54,53, 4,43,42, 8		3, 3, 4,47,42	
		1,30,16,39,20,26,14,39		6,36
38″	41,44,15,29,11,32,25, 9,56,47		3, 3, 4,54,18	
		1,30,16,36,17,21,20,21		6,36
40″	41,44,16,59,28, 8,42,31,17, 8		3, 3, 5, 0,54	
		1,30,16,33,14,16,19,27		6,36
42″	41,44,18,29,44,41,56,47,36,35		3, 3, 5, 7,30	
		1,30,16,30,11,11,11,57		6,36
44″	41,44,20, 0, 1,12, 7,58,48,32		3, 3, 5,14, 6	
		1,30,16,27, 8, 5,57,51		6,36
46″	41,44,21,30,17,39,16, 4,46,23		3, 3, 5,20,42	
		1,30,16,24, 5, 0,37, 9		6,36
48″	41,44,23, 0,34, 3,21, 5,23,32		3, 3, 5,27,18	
		1,30,16,21, 1,55, 9,51		6,36
50″	41,44,24,30,50,24,23, 0,33,23		3, 3, 5,33,54	
		1,30,16,17,58,49,35,57		6,36
52″	41,44,26, 1, 6,42,21,50, 9,20		3, 3, 5,40,30	
		1,30,16,14,55,43,55,27		6,36
54″	41,44,27,31,22,57,17,34, 4,47		3, 3, 5,47, 6	
		1,30,16,11,52,38, 8,21		6,36
56″	41,44,29, 1,39, 9,10,12,13, 8		3, 3, 5,53,42	
		1,30,16, 8,49,32,14,39		6,36
58″	41,44,30,31,55,17,59,44,27,47		3, 3, 6, 0,18	
		1,30,16, 5,46,26,14,21		
60″	41,44,32, 2,11,23,46,10,42, 8			
exact	41,44,32, 2,11,23,46,10,36,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44° 5′ 0″	41,44,32, 2,11,23,46,10,36,53			
		1,30,16, 2,43,20, 7, 3		
2″	41,44,33,32,27,26,29,30,43,56		3, 3, 6,13,31	
		1,30,15,59,40,13,53,32		6,36
4″	41,44,35, 2,43,26, 9,44,37,28		3, 3, 6,20, 7	
		1,30,15,56,37, 7,33,25		6,36
6″	41,44,36,32,59,22,46,52,10,53		3, 3, 6,26,43	
		1,30,15,53,34, 1, 6,42		6,36
8″	41,44,38, 3,15,16,20,53,17,35		3, 3, 6,33,19	
		1,30,15,50,30,54,33,23		6,36
10″	41,44,39,33,31, 6,51,47,50,58		3, 3, 6,39,55	
		1,30,15,47,27,47,53,28		6,36
12″	41,44,41, 3,46,54,19,35,44,26		3, 3, 6,46,31	
		1,30,15,44,24,41, 6,57		6,36
14″	41,44,42,34, 2,38,44,16,51,23		3, 3, 6,53, 7	
		1,30,15,41,21,34,13,50		6,36
16″	41,44,44, 4,18,20, 5,51, 5,13		3, 3, 6,59,43	
		1,30,15,38,18,27,14, 7		6,36
18″	41,44,45,34,33,58,24,18,19,20		3, 3, 7, 6,19	
		1,30,15,35,15,20, 7,48		6,36
20″	41,44,47, 4,49,33,39,38,27, 8		3, 3, 7,12,55	
		1,30,15,32,12,12,54,53		6,36
22″	41,44,48,35, 5, 5,51,51,22, 1		3, 3, 7,19,31	
		1,30,15,29, 9, 5,35,22		6,36
24″	41,44,50, 5,20,35, 0,56,57,23		3, 3, 7,26, 7	
		1,30,15,26, 5,58, 9,15		6,36
26″	41,44,51,35,36, 1, 6,55, 6,38		3, 3, 7,32,43	
		1,30,15,23, 2,50,36,32		6,36
28″	41,44,53, 5,51,24, 9,45,43,10		3, 3, 7,39,19	
		1,30,15,19,59,42,57,13		6,36
30″	41,44,54,36, 6,44, 9,28,40,23		3, 3, 7,45,55	
		1,30,15,16,56,35,11,18		6,36
32″	41,44,56, 6,22, 1, 6, 3,51,41		3, 3, 7,52,31	
		1,30,15,13,53,27,18,47		6,36
34″	41,44,57,36,37,14,59,31,10,28		3, 3, 7,59, 7	
		1,30,15,10,50,19,19,40		6,36
36″	41,44,59, 6,52,25,49,50,30, 8		3, 3, 8, 5,43	
		1,30,15, 7,47,11,13,57		6,36
38″	41,45, 0,37, 7,33,37, 1,44, 5		3, 3, 8,12,19	
		1,30,15, 4,44, 3, 1,38		6,36
40″	41,45, 2, 7,22,38,21, 4,45,43		3, 3, 8,18,55	
		1,30,15, 1,40,54,42,43		6,36
42″	41,45, 3,37,37,40, 1,59,28,26		3, 3, 8,25,31	
		1,30,14,58,37,46,17,12		6,36
44″	41,45, 5, 7,52,38,39,45,45,38		3, 3, 8,32, 7	
		1,30,14,55,34,37,45, 5		6,36
46″	41,45, 6,38, 7,34,14,23,30,43		3, 3, 8,38,43	
		1,30,14,52,31,29, 6,22		6,36
48″	41,45, 8, 8,22,26,45,52,37, 5		3, 3, 8,45,19	
		1,30,14,49,28,20,21, 3		6,36
50″	41,45, 9,38,37,16,14,12,58, 8		3, 3, 8,51,55	
		1,30,14,46,25,11,29, 8		6,36
52″	41,45,11, 8,52, 2,39,24,27,16		3, 3, 8,58,31	
		1,30,14,43,22, 2,30,37		6,36
54″	41,45,12,39, 6,46, 1,26,57,53		3, 3, 9, 5, 7	
		1,30,14,40,18,53,25,30		6,36
56″	41,45,14, 9,21,26,20,20,23,23		3, 3, 9,11,43	
		1,30,14,37,15,44,13,47		6,36
58″	41,45,15,39,36, 3,36, 4,37,10		3, 3, 9,18,19	
		1,30,14,34,12,34,55,28		
60″	41,45,17, 9,50,37,48,39,32,38			
exact	41,45,17, 9,50,37,48,39,39,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44° 6′ 0″	41,45,17, 9,50,37,48,39,39,43			
		1,30,14,31, 9,25,31,17		
2″	41,45,18,40, 5, 8,58, 5,11, 0		3, 3, 9,31,28	
		1,30,14,28, 6,15,59,49		6,36
4″	41,45,20,10,19,37, 4,21,10,49		3, 3, 9,38, 4	
		1,30,14,25, 3, 6,21,45		6,36
6″	41,45,21,40,34, 2, 7,27,32,34		3, 3, 9,44,40	
		1,30,14,21,59,56,37, 5		6,36
8″	41,45,23,10,48,24, 7,24, 9,39		3, 3, 9,51,16	
		1,30,14,18,56,46,45,49		6,36
10″	41,45,24,41, 2,43, 4,10,55,28		3, 3, 9,57,52	
		1,30,14,15,53,36,47,57		6,36
12″	41,45,26,11,16,58,57,47,43,25		3, 3,10, 4,28	
		1,30,14,12,50,26,43,29		6,36
14″	41,45,27,41,31,11,48,14,26,54		3, 3,10,11, 4	
		1,30,14, 9,47,16,32,25		6,36
16″	41,45,29,11,45,21,35,30,59,19		3, 3,10,17,40	
		1,30,14, 6,44, 6,14,45		6,36
18″	41,45,30,41,59,28,19,37,14, 4		3, 3,10,24,16	
		1,30,14, 3,40,55,50,29		6,36
20″	41,45,32,12,13,32, 0,33, 4,33		3, 3,10,30,52	
		1,30,14, 0,37,45,19,37		6,36
22″	41,45,33,42,27,32,38,18,24,10		3, 3,10,37,28	
		1,30,13,57,34,34,42, 9		6,36
24″	41,45,35,12,41,30,12,53, 6,19		3, 3,10,44, 4	
		1,30,13,54,31,23,58, 5		6,36
26″	41,45,36,42,55,24,44,17, 4,24		3, 3,10,50,40	
		1,30,13,51,28,13, 7,25		6,36
28″	41,45,38,13, 9,16,12,30,11,49		3, 3,10,57,16	
		1,30,13,48,25, 2,10, 9		6,36
30″	41,45,39,43,23, 4,37,32,21,58		3, 3,11, 3,52	
		1,30,13,45,21,51, 6,17		6,36
32″	41,45,41,13,36,49,59,23,28,15		3, 3,11,10,28	
		1,30,13,42,18,39,55,49		6,36
34″	41,45,42,43,50,32,18, 3,24, 4		3, 3,11,17, 4	
		1,30,13,39,15,28,38,45		6,36
36″	41,45,44,14, 4,11,33,32, 2,49		3, 3,11,23,40	
		1,30,13,36,12,17,15, 5		6,36
38″	41,45,45,44,17,47,45,49,17,54		3, 3,11,30,16	
		1,30,13,33, 9, 5,44,49		6,36
40″	41,45,47,14,31,20,54,55, 2,43		3, 3,11,36,52	
		1,30,13,30, 5,54, 7,57		6,36
42″	41,45,48,44,44,51, 0,49,10,40		3, 3,11,43,28	
		1,30,13,27, 2,42,24,29		6,36
44″	41,45,50,14,58,18, 3,31,35, 9		3, 3,11,50, 4	
		1,30,13,23,59,30,34,25		6,36
46″	41,45,51,45,11,42, 3, 2, 9,34		3, 3,11,56,40	
		1,30,13,20,56,18,37,45		6,36
48″	41,45,53,15,25, 2,59,20,47,19		3, 3,12, 3,16	
		1,30,13,17,53, 6,34,29		6,36
50″	41,45,54,45,38,20,52,27,21,48		3, 3,12, 9,52	
		1,30,13,14,49,54,24,37		6,36
52″	41,45,56,15,51,35,42,21,46,25		3, 3,12,16,28	
		1,30,13,11,46,42, 8, 9		6,36
54″	41,45,57,46, 4,47,29, 3,54,34		3, 3,12,23, 4	
		1,30,13, 8,43,29,45, 5		6,36
56″	41,45,59,16,17,56,12,33,39,39		3, 3,12,29,40	
		1,30,13, 5,40,17,15,25		6,36
58″	41,46, 0,46,31, 1,52,50,55, 4		3, 3,12,36,16	
		1,30,13, 2,37, 4,39, 9		
60″	41,46, 2,16,44, 4,29,55,34,13			
exact	41,46, 2,16,44, 4,29,55,49, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44° 7′ 0″	41,46, 2,16,44, 4,29,55,49, 7			
		1,30,12,59,33,51,57,51		
2″	41,46, 3,46,57, 4, 3,47,46,58		3, 3,12,49,21	
		1,30,12,56,30,39, 8,30		6,36
4″	41,46, 5,17,10, 0,34,26,55,28		3, 3,12,55,57	
		1,30,12,53,27,26,12,33		6,36
6″	41,46, 6,47,22,54, 1,53, 8, 1		3, 3,13, 2,33	
		1,30,12,50,24,13,10, 0		6,36
8″	41,46, 8,17,35,44,26, 6,18, 1		3, 3,13, 9, 9	
		1,30,12,47,21, 0, 0,51		6,36
10″	41,46, 9,47,48,31,47, 6,18,52		3, 3,13,15,45	
		1,30,12,44,17,46,45, 6		6,36
12″	41,46,11,18, 1,16, 4,53, 3,58		3, 3,13,22,21	
		1,30,12,41,14,33,22,45		6,36
14″	41,46,12,48,13,57,19,26,26,43		3, 3,13,28,57	
		1,30,12,38,11,19,53,48		6,36
16″	41,46,14,18,26,35,30,46,20,31		3, 3,13,35,33	
		1,30,12,35, 8, 6,18,15		6,36
18″	41,46,15,48,39,10,38,52,38,46		3, 3,13,42, 9	
		1,30,12,32, 4,52,36, 6		6,36
20″	41,46,17,18,51,42,43,45,14,52		3, 3,13,48,45	
		1,30,12,29, 1,38,47,21		6,36
22″	41,46,18,49, 4,11,45,24, 2,13		3, 3,13,55,21	
		1,30,12,25,58,24,52, 0		6,36
24″	41,46,20,19,16,37,43,48,54,13		3, 3,14, 1,57	
		1,30,12,22,55,10,50, 3		6,36
26″	41,46,21,49,29, 0,38,59,44,16		3, 3,14, 8,33	
		1,30,12,19,51,56,41,30		6,36
28″	41,46,23,19,41,20,30,56,25,46		3, 3,14,15, 9	
		1,30,12,16,48,42,26,21		6,36
30″	41,46,24,49,53,37,19,38,52, 7		3, 3,14,21,45	
		1,30,12,13,45,28, 4,36		6,36
32″	41,46,26,20, 5,51, 5, 6,56,43		3, 3,14,28,21	
		1,30,12,10,42,13,36,15		6,36
34″	41,46,27,50,18, 1,47,20,32,58		3, 3,14,34,57	
		1,30,12, 7,38,59, 1,18		6,36
36″	41,46,29,20,30, 9,26,19,34,16		3, 3,14,41,33	
		1,30,12, 4,35,44,19,45		6,36
38″	41,46,30,50,42,14, 2, 3,54, 1		3, 3,14,48, 9	
		1,30,12, 1,32,29,31,36		6,36
40″	41,46,32,20,54,15,34,33,25,37		3, 3,14,54,45	
		1,30,11,58,29,14,36,51		6,36
42″	41,46,33,51, 6,14, 3,48, 2,28		3, 3,15, 1,21	
		1,30,11,55,25,59,35,30		6,36
44″	41,46,35,21,18, 9,29,47,37,58		3, 3,15, 7,57	
		1,30,11,52,22,44,27,33		6,36
46″	41,46,36,51,30, 1,52,32, 5,31		3, 3,15,14,33	
		1,30,11,49,19,29,13, 0		6,36
48″	41,46,38,21,41,51,12, 1,18,31		3, 3,15,21, 9	
		1,30,11,46,16,13,51,51		6,36
50″	41,46,39,51,53,37,28,15,10,22		3, 3,15,27,45	
		1,30,11,43,12,58,24, 6		6,36
52″	41,46,41,22, 5,20,41,13,34,28		3, 3,15,34,21	
		1,30,11,40, 9,42,49,45		6,36
54″	41,46,42,52,17, 0,50,56,24,13		3, 3,15,40,57	
		1,30,11,37, 6,27, 8,48		6,36
56″	41,46,44,22,28,37,57,23,33, 1		3, 3,15,47,33	
		1,30,11,34, 3,11,21,15		6,36
58″	41,46,45,52,40,12, 0,34,54,16		3, 3,15,54, 9	
		1,30,11,30,59,55,27, 6		
60″	41,46,47,22,51,43, 0,30,21,22			
exact	41,46,47,22,51,43, 0,30,38,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44° 8′ 0″	41,46,47,22,51,43, 0,30,38,49			
		1,30,11,27,56,39,28,23		
2″	41,46,48,53, 3,10,57,10, 7,12		3, 3,16, 7,12	
		1,30,11,24,53,23,21,11		6,36
4″	41,46,50,23,14,35,50,33,28,23		3, 3,16,13,48	
		1,30,11,21,50, 7, 7,23		6,36
6″	41,46,51,53,25,57,40,40,35,46		3, 3,16,20,24	
		1,30,11,18,46,50,46,59		6,36
8″	41,46,53,23,37,16,27,31,22,45		3, 3,16,27, 0	
		1,30,11,15,43,34,19,59		6,36
10″	41,46,54,53,48,32,11, 5,42,44		3, 3,16,33,36	
		1,30,11,12,40,17,46,23		6,36
12″	41,46,56,23,59,44,51,23,29, 7		3, 3,16,40,12	
		1,30,11, 9,37, 1, 6,11		6,36
14″	41,46,57,54,10,54,28,24,35,18		3, 3,16,46,48	
		1,30,11, 6,33,44,19,23		6,36
16″	41,46,59,24,22, 1, 2, 8,54,41		3, 3,16,53,24	
		1,30,11, 3,30,27,25,59		6,36
18″	41,47, 0,54,33, 4,32,36,20,40		3, 3,17, 0, 0	
		1,30,11, 0,27,10,25,59		6,36
20″	41,47, 2,24,44, 4,59,46,46,39		3, 3,17, 6,36	
		1,30,10,57,23,53,19,23		6,36
22″	41,47, 3,54,55, 2,23,40, 6, 2		3, 3,17,13,12	
		1,30,10,54,20,36, 6,11		6,36
24″	41,47, 5,25, 5,56,44,16,12,13		3, 3,17,19,48	
		1,30,10,51,17,18,46,23		6,36
26″	41,47, 6,55,16,48, 1,34,58,36		3, 3,17,26,24	
		1,30,10,48,14, 1,19,59		6,36
28″	41,47, 8,25,27,36,15,36,18,35		3, 3,17,33, 0	
		1,30,10,45,10,43,46,59		6,36
30″	41,47, 9,55,38,21,26,20, 5,34		3, 3,17,39,36	
		1,30,10,42, 7,26, 7,23		6,36
32″	41,47,11,25,49, 3,33,46,12,57		3, 3,17,46,12	
		1,30,10,39, 4, 8,21,11		6,36
34″	41,47,12,55,59,42,37,54,34, 8		3, 3,17,52,48	
		1,30,10,36, 0,50,28,23		6,36
36″	41,47,14,26,10,18,38,45, 2,31		3, 3,17,59,24	
		1,30,10,32,57,32,28,59		6,36
38″	41,47,15,56,20,51,36,17,31,30		3, 3,18, 6, 0	
		1,30,10,29,54,14,22,59		6,36
40″	41,47,17,26,31,21,30,31,54,29		3, 3,18,12,36	
		1,30,10,26,50,56,10,23		6,36
42″	41,47,18,56,41,48,21,28, 4,52		3, 3,18,19,12	
		1,30,10,23,47,37,51,11		6,36
44″	41,47,20,26,52,12, 9, 5,56, 3		3, 3,18,25,48	
		1,30,10,20,44,19,25,23		6,36
46″	41,47,21,57, 2,32,53,25,21,26		3, 3,18,32,24	
		1,30,10,17,41, 0,52,59		6,36
48″	41,47,23,27,12,50,34,26,14,25		3, 3,18,39, 0	
		1,30,10,14,37,42,13,59		6,36
50″	41,47,24,57,23, 5,12, 8,28,24		3, 3,18,45,36	
		1,30,10,11,34,23,28,23		6,36
52″	41,47,26,27,33,16,46,31,56,47		3, 3,18,52,12	
		1,30,10, 8,31, 4,36,11		6,36
54″	41,47,27,57,43,25,17,36,32,58		3, 3,18,58,48	
		1,30,10, 5,27,45,37,23		6,36
56″	41,47,29,27,53,30,45,22,10,21		3, 3,19, 5,24	
		1,30,10, 2,24,26,31,59		6,36
58″	41,47,30,58, 3,33, 9,48,42,20		3, 3,19,12, 0	
		1,30, 9,59,21, 7,19,59		
60″	41,47,32,28,13,32,30,56, 2,19			
exact	41,47,32,28,13,32,30,56,32,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44° 9′ 0″	41,47,32,28,13,32,30,56,32,48			
		1,30, 9,56,17,48, 4,36		
2″	41,47,33,58,23,28,48,44,37,24		3, 3,19,24,59	
		1,30, 9,53,14,28,39,37		6,36
4″	41,47,35,28,33,22, 3,13,17, 1		3, 3,19,31,35	
		1,30, 9,50,11, 9, 8, 2		6,36
6″	41,47,36,58,43,12,14,22,25, 3		3, 3,19,38,11	
		1,30, 9,47, 7,49,29,51		6,36
8″	41,47,38,28,52,59,22,11,54,54		3, 3,19,44,47	
		1,30, 9,44, 4,29,45, 4		6,36
10″	41,47,39,59, 2,43,26,41,39,58		3, 3,19,51,23	
		1,30, 9,41, 1, 9,53,41		6,36
12″	41,47,41,29,12,24,27,51,33,39		3, 3,19,57,59	
		1,30, 9,37,57,49,55,42		6,36
14″	41,47,42,59,22, 2,25,41,29,21		3, 3,20, 4,35	
		1,30, 9,34,54,29,51, 7		6,36
16″	41,47,44,29,31,37,20,11,20,28		3, 3,20,11,11	
		1,30, 9,31,51, 9,39,56		6,36
18″	41,47,45,59,41, 9,11,21, 0,24		3, 3,20,17,47	
		1,30, 9,28,47,49,22, 9		6,36
20″	41,47,47,29,50,37,59,10,22,33		3, 3,20,24,23	
		1,30, 9,25,44,28,57,46		6,36
22″	41,47,49, 0, 0, 3,43,39,20,19		3, 3,20,30,59	
		1,30, 9,22,41, 8,26,47		6,36
24″	41,47,50,30, 9,26,24,47,47, 6		3, 3,20,37,35	
		1,30, 9,19,37,47,49,12		6,36
26″	41,47,52, 0,18,46, 2,35,36,18		3, 3,20,44,11	
		1,30, 9,16,34,27, 5, 1		6,36
28″	41,47,53,30,28, 2,37, 2,41,19		3, 3,20,50,47	
		1,30, 9,13,31, 6,14,14		6,36
30″	41,47,55, 0,37,16, 8, 8,55,33		3, 3,20,57,23	
		1,30, 9,10,27,45,16,51		6,36
32″	41,47,56,30,46,26,35,54,12,24		3, 3,21, 3,59	
		1,30, 9, 7,24,24,12,52		6,36
34″	41,47,58, 0,55,34, 0,18,25,16		3, 3,21,10,35	
		1,30, 9, 4,21, 3, 2,17		6,36
36″	41,47,59,31, 4,38,21,21,27,33		3, 3,21,17,11	
		1,30, 9, 1,17,41,45, 6		6,36
38″	41,48, 1, 1,13,39,39, 3,12,39		3, 3,21,23,47	
		1,30, 8,58,14,20,21,19		6,36
40″	41,48, 2,31,22,37,53,23,33,58		3, 3,21,30,23	
		1,30, 8,55,10,58,50,56		6,36
42″	41,48, 4, 1,31,33, 4,22,24,54		3, 3,21,36,59	
		1,30, 8,52, 7,37,13,57		6,36
44″	41,48, 5,31,40,25,11,59,38,51		3, 3,21,43,35	
		1,30, 8,49, 4,15,30,22		6,36
46″	41,48, 7, 1,49,14,16,15, 9,13		3, 3,21,50,11	
		1,30, 8,46, 0,53,40,11		6,36
48″	41,48, 8,31,58, 0,17, 8,49,24		3, 3,21,56,47	
		1,30, 8,42,57,31,43,24		6,36
50″	41,48,10, 2, 6,43,14,40,32,48		3, 3,22, 3,23	
		1,30, 8,39,54, 9,40, 1		6,36
52″	41,48,11,32,15,23, 8,50,12,49		3, 3,22, 9,59	
		1,30, 8,36,50,47,30, 2		6,36
54″	41,48,13, 2,23,59,59,37,42,51		3, 3,22,16,35	
		1,30, 8,33,47,25,13,27		6,36
56″	41,48,14,32,32,33,47, 2,56,18		3, 3,22,23,11	
		1,30, 8,30,44, 2,50,16		6,36
58″	41,48,16, 2,41, 4,31, 5,46,34		3, 3,22,29,47	
		1,30, 8,27,40,40,20,29		
60″	41,48,17,32,49,32,11,46, 7, 3			
exact	41,48,17,32,49,32,11,46,45,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°10′ 0″	41,48,17,32,49,32,11,46,45,15			
		1,30, 8,24,37,17,48, 9		
2″	41,48,19, 2,57,56,49, 4,33,24		3, 3,22,42,42	
		1,30, 8,21,33,55, 5,27		6,35
4″	41,48,20,33, 6,18,22,59,38,51		3, 3,22,49,17	
		1,30, 8,18,30,32,16,10		6,35
6″	41,48,22, 3,14,36,53,31,55, 1		3, 3,22,55,52	
		1,30, 8,15,27, 9,20,18		6,35
8″	41,48,23,33,22,52,20,41,15,19		3, 3,23, 2,27	
		1,30, 8,12,23,46,17,51		6,35
10″	41,48,25, 3,31, 4,44,27,33,10		3, 3,23, 9, 2	
		1,30, 8, 9,20,23, 8,49		6,35
12″	41,48,26,33,39,14, 4,50,41,59		3, 3,23,15,37	
		1,30, 8, 6,16,59,53,12		6,35
14″	41,48,28, 3,47,20,21,50,35,11		3, 3,23,22,12	
		1,30, 8, 3,13,36,31, 0		6,35
16″	41,48,29,33,55,23,35,27, 6,11		3, 3,23,28,47	
		1,30, 8, 0,10,13, 2,13		6,35
18″	41,48,31, 4, 3,23,45,40, 8,24		3, 3,23,35,22	
		1,30, 7,57, 6,49,26,51		6,35
20″	41,48,32,34,11,20,52,29,35,15		3, 3,23,41,57	
		1,30, 7,54, 3,25,44,54		6,35
22″	41,48,34, 4,19,14,55,55,20, 9		3, 3,23,48,32	
		1,30, 7,51, 0, 1,56,22		6,35
24″	41,48,35,34,27, 5,55,57,16,31		3, 3,23,55, 7	
		1,30, 7,47,56,38, 1,15		6,35
26″	41,48,37, 4,34,53,52,35,17,46		3, 3,24, 1,42	
		1,30, 7,44,53,13,59,33		6,35
28″	41,48,38,34,42,38,45,49,17,19		3, 3,24, 8,17	
		1,30, 7,41,49,49,51,16		6,35
30″	41,48,40, 4,50,20,35,39, 8,35		3, 3,24,14,52	
		1,30, 7,38,46,25,36,24		6,35
32″	41,48,41,34,57,59,22, 4,44,59		3, 3,24,21,27	
		1,30, 7,35,43, 1,14,57		6,35
34″	41,48,43, 5, 5,35, 5, 5,59,56		3, 3,24,28, 2	
		1,30, 7,32,39,36,46,55		6,35
36″	41,48,44,35,13, 7,44,42,46,51		3, 3,24,34,37	
		1,30, 7,29,36,12,12,18		6,35
38″	41,48,46, 5,20,37,20,54,59, 9		3, 3,24,41,12	
		1,30, 7,26,32,47,31, 6		6,35
40″	41,48,47,35,28, 3,53,42,30,15		3, 3,24,47,47	
		1,30, 7,23,29,22,43,19		6,35
42″	41,48,49, 5,35,27,23, 5,13,34		3, 3,24,54,22	
		1,30, 7,20,25,57,48,57		6,35
44″	41,48,50,35,42,47,49, 3, 2,31		3, 3,25, 0,57	
		1,30, 7,17,22,32,48, 0		6,35
46″	41,48,52, 5,50, 5,11,35,50,31		3, 3,25, 7,32	
		1,30, 7,14,19, 7,40,28		6,35
48″	41,48,53,35,57,19,30,43,30,59		3, 3,25,14, 7	
		1,30, 7,11,15,42,26,21		6,35
50″	41,48,55, 6, 4,30,46,25,57,20		3, 3,25,20,42	
		1,30, 7, 8,12,17, 5,39		6,35
52″	41,48,56,36,11,38,58,43, 2,59		3, 3,25,27,17	
		1,30, 7, 5, 8,51,38,22		6,35
54″	41,48,58, 6,18,44, 7,34,41,21		3, 3,25,33,52	
		1,30, 7, 2, 5,26, 4,30		6,35
56″	41,48,59,36,25,46,13, 0,45,51		3, 3,25,40,27	
		1,30, 6,59, 2, 0,24, 3		6,35
58″	41,49, 1, 6,32,45,15, 1, 9,54		3, 3,25,47, 2	
		1,30, 6,55,58,34,37, 1		
60″	41,49, 2,36,39,41,13,35,46,55			
exact	41,49, 2,36,39,41,13,35,20,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°11′ 0″	41,49, 2,36,39,41,13,35,20,38			
		1,30, 6,52,55, 8,40,42		
2″	41,49, 4, 6,46,34, 8,44, 1,20		3, 3,26, 0,22	
		1,30, 6,49,51,42,40,20		6,35
4″	41,49, 5,36,53,24, 0,26,41,40		3, 3,26, 6,57	
		1,30, 6,46,48,16,33,23		6,35
6″	41,49, 7, 7, 0,10,48,43,15, 3		3, 3,26,13,32	
		1,30, 6,43,44,50,19,51		6,35
8″	41,49, 8,37, 6,54,33,33,34,54		3, 3,26,20, 7	
		1,30, 6,40,41,23,59,44		6,35
10″	41,49,10, 7,13,35,14,57,34,38		3, 3,26,26,42	
		1,30, 6,37,37,57,33, 2		6,35
12″	41,49,11,37,20,12,52,55, 7,40		3, 3,26,33,17	
		1,30, 6,34,34,30,59,45		6,35
14″	41,49,13, 7,26,47,27,26, 7,25		3, 3,26,39,52	
		1,30, 6,31,31, 4,19,53		6,35
16″	41,49,14,37,33,18,58,30,27,18		3, 3,26,46,27	
		1,30, 6,28,27,37,33,26		6,35
18″	41,49,16, 7,39,47,26, 8, 0,44		3, 3,26,53, 2	
		1,30, 6,25,24,10,40,24		6,35
20″	41,49,17,37,46,12,50,18,41, 8		3, 3,26,59,37	
		1,30, 6,22,20,43,40,47		6,35
22″	41,49,19, 7,52,35,11, 2,21,55		3, 3,27, 6,12	
		1,30, 6,19,17,16,34,35		6,35
24″	41,49,20,37,58,54,28,18,56,30		3, 3,27,12,47	
		1,30, 6,16,13,49,21,48		6,35
26″	41,49,22, 8, 5,10,42, 8,18,18		3, 3,27,19,22	
		1,30, 6,13,10,22, 2,26		6,35
28″	41,49,23,38,11,23,52,30,20,44		3, 3,27,25,57	
		1,30, 6,10, 6,54,36,29		6,35
30″	41,49,25, 8,17,33,59,24,57,13		3, 3,27,32,32	
		1,30, 6, 7, 3,27, 3,57		6,35
32″	41,49,26,38,23,41, 2,52, 1,10		3, 3,27,39, 7	
		1,30, 6, 3,59,59,24,50		6,35
34″	41,49,28, 8,29,45, 2,51,26, 0		3, 3,27,45,42	
		1,30, 6, 0,56,31,39, 8		6,35
36″	41,49,29,38,35,45,59,23, 5, 8		3, 3,27,52,17	
		1,30, 5,57,53, 3,46,51		6,35
38″	41,49,31, 8,41,43,52,26,51,59		3, 3,27,58,52	
		1,30, 5,54,49,35,47,59		6,35
40″	41,49,32,38,47,38,42, 2,39,58		3, 3,28, 5,27	
		1,30, 5,51,46, 7,42,32		6,35
42″	41,49,34, 8,53,30,28,10,22,30		3, 3,28,12, 2	
		1,30, 5,48,42,39,30,30		6,35
44″	41,49,35,38,59,19,10,49,53, 0		3, 3,28,18,37	
		1,30, 5,45,39,11,11,53		6,35
46″	41,49,37, 9, 5, 4,50, 1, 4,53		3, 3,28,25,12	
		1,30, 5,42,35,42,46,41		6,35
48″	41,49,38,39,10,47,25,43,51,34		3, 3,28,31,47	
		1,30, 5,39,32,14,14,54		6,35
50″	41,49,40, 9,16,26,57,58, 6,28		3, 3,28,38,22	
		1,30, 5,36,28,45,36,32		6,35
52″	41,49,41,39,22, 3,26,43,43, 0		3, 3,28,44,57	
		1,30, 5,33,25,16,51,35		6,35
54″	41,49,43, 9,27,36,52, 0,34,35		3, 3,28,51,32	
		1,30, 5,30,21,48, 0, 3		6,35
56″	41,49,44,39,33, 7,13,48,34,38		3, 3,28,58, 7	
		1,30, 5,27,18,19, 1,56		6,35
58″	41,49,46, 9,38,34,32, 7,36,34		3, 3,29, 4,42	
		1,30, 5,24,14,49,57,14		
60″	41,49,47,39,43,58,46,57,33,48			
exact	41,49,47,39,43,58,46,57,13,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°12′ 0″	41,49,47,39,43,58,46,57,13,41			
		1,30, 5,21,11,20,43,57		
2″	41,49,49, 9,49,19,58,17,57,38		3, 3,29,17,59	
		1,30, 5,18, 7,51,25,58		6,35
4″	41,49,50,39,54,38, 6, 9,23,36		3, 3,29,24,34	
		1,30, 5,15, 4,22, 1,24		6,35
6″	41,49,52, 9,59,53,10,31,25, 0		3, 3,29,31, 9	
		1,30, 5,12, 0,52,30,15		6,35
8″	41,49,53,40, 5, 5,11,23,55,15		3, 3,29,37,44	
		1,30, 5, 8,57,22,52,31		6,35
10″	41,49,55,10,10,14, 8,46,47,46		3, 3,29,44,19	
		1,30, 5, 5,53,53, 8,12		6,35
12″	41,49,56,40,15,20, 2,39,55,58		3, 3,29,50,54	
		1,30, 5, 2,50,23,17,18		6,35
14″	41,49,58,10,20,22,53, 3,13,16		3, 3,29,57,29	
		1,30, 4,59,46,53,19,49		6,35
16″	41,49,59,40,25,22,39,56,33, 5		3, 3,30, 4, 4	
		1,30, 4,56,43,23,15,45		6,35
18″	41,50, 1,10,30,19,23,19,48,50		3, 3,30,10,39	
		1,30, 4,53,39,53, 5, 6		6,35
20″	41,50, 2,40,35,13, 3,12,53,56		3, 3,30,17,14	
		1,30, 4,50,36,22,47,52		6,35
22″	41,50, 4,10,40, 3,39,35,41,48		3, 3,30,23,49	
		1,30, 4,47,32,52,24, 3		6,35
24″	41,50, 5,40,44,51,12,28, 5,51		3, 3,30,30,24	
		1,30, 4,44,29,21,53,39		6,35
26″	41,50, 7,10,49,35,41,49,59,30		3, 3,30,36,59	
		1,30, 4,41,25,51,16,40		6,35
28″	41,50, 8,40,54,17, 7,41,16,10		3, 3,30,43,34	
		1,30, 4,38,22,20,33, 6		6,35
30″	41,50,10,10,58,55,30, 1,49,16		3, 3,30,50, 9	
		1,30, 4,35,18,49,42,57		6,35
32″	41,50,11,41, 3,30,48,51,32,13		3, 3,30,56,44	
		1,30, 4,32,15,18,46,13		6,35
34″	41,50,13,11, 8, 3, 4,10,18,26		3, 3,31, 3,19	
		1,30, 4,29,11,47,42,54		6,35
36″	41,50,14,41,12,32,15,58, 1,20		3, 3,31, 9,54	
		1,30, 4,26, 8,16,33, 0		6,35
38″	41,50,16,11,16,58,24,14,34,20		3, 3,31,16,29	
		1,30, 4,23, 4,45,16,31		6,35
40″	41,50,17,41,21,21,28,59,50,51		3, 3,31,23, 4	
		1,30, 4,20, 1,13,53,27		6,35
42″	41,50,19,11,25,41,30,13,44,18		3, 3,31,29,39	
		1,30, 4,16,57,42,23,48		6,35
44″	41,50,20,41,29,58,27,56, 8, 6		3, 3,31,36,14	
		1,30, 4,13,54,10,47,34		6,35
46″	41,50,22,11,34,12,22, 6,55,40		3, 3,31,42,49	
		1,30, 4,10,50,39, 4,45		6,35
48″	41,50,23,41,38,23,12,46, 0,25		3, 3,31,49,24	
		1,30, 4, 7,47, 7,15,21		6,35
50″	41,50,25,11,42,30,59,53,15,46		3, 3,31,55,59	
		1,30, 4, 4,43,35,19,22		6,35
52″	41,50,26,41,46,35,43,28,35, 8		3, 3,32, 2,34	
		1,30, 4, 1,40, 3,16,48		6,35
54″	41,50,28,11,50,37,23,31,51,56		3, 3,32, 9, 9	
		1,30, 3,58,36,31, 7,39		6,35
56″	41,50,29,41,54,36, 0, 2,59,35		3, 3,32,15,44	
		1,30, 3,55,32,58,51,55		6,35
58″	41,50,31,11,58,31,33, 1,51,30		3, 3,32,22,19	
		1,30, 3,52,29,26,29,36		
60″	41,50,32,42, 2,24, 2,28,21, 6			
exact	41,50,32,42, 2,24, 2,28, 9,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°13′ 0″	41,50,32,42, 2,24, 2,28, 9,25			
		1,30, 3,49,25,53,59,35		
2″	41,50,34,12, 6,13,28,22, 9, 0		3, 3,32,35,33	
		1,30, 3,46,22,21,24, 2		6,35
4″	41,50,35,42, 9,59,50,43,33, 2		3, 3,32,42, 8	
		1,30, 3,43,18,48,41,54		6,35
6″	41,50,37,12,13,43, 9,32,14,56		3, 3,32,48,43	
		1,30, 3,40,15,15,53,11		6,35
8″	41,50,38,42,17,23,24,48, 8, 7		3, 3,32,55,18	
		1,30, 3,37,11,42,57,53		6,35
10″	41,50,40,12,21, 0,36,31, 6, 0		3, 3,33, 1,53	
		1,30, 3,34, 8, 9,56, 0		6,35
12″	41,50,41,42,24,34,44,41, 2, 0		3, 3,33, 8,28	
		1,30, 3,31, 4,36,47,32		6,35
14″	41,50,43,12,28, 5,49,17,49,32		3, 3,33,15, 3	
		1,30, 3,28, 1, 3,32,29		6,35
16″	41,50,44,42,31,33,50,21,22, 1		3, 3,33,21,38	
		1,30, 3,24,57,30,10,51		6,35
18″	41,50,46,12,34,58,47,51,32,52		3, 3,33,28,13	
		1,30, 3,21,53,56,42,38		6,35
20″	41,50,47,42,38,20,41,48,15,30		3, 3,33,34,48	
		1,30, 3,18,50,23, 7,50		6,35
22″	41,50,49,12,41,39,32,11,23,20		3, 3,33,41,23	
		1,30, 3,15,46,49,26,27		6,35
24″	41,50,50,42,44,55,19, 0,49,47		3, 3,33,47,58	
		1,30, 3,12,43,15,38,29		6,35
26″	41,50,52,12,48, 8, 2,16,28,16		3, 3,33,54,33	
		1,30, 3, 9,39,41,43,56		6,35
28″	41,50,53,42,51,17,41,58,12,12		3, 3,34, 1, 8	
		1,30, 3, 6,36, 7,42,48		6,35
30″	41,50,55,12,54,24,18, 5,55, 0		3, 3,34, 7,43	
		1,30, 3, 3,32,33,35, 5		6,35
32″	41,50,56,42,57,27,50,39,30, 5		3, 3,34,14,18	
		1,30, 3, 0,28,59,20,47		6,35
34″	41,50,58,13, 0,28,19,38,50,52		3, 3,34,20,53	
		1,30, 2,57,25,24,59,54		6,35
36″	41,50,59,43, 3,25,45, 3,50,46		3, 3,34,27,28	
		1,30, 2,54,21,50,32,26		6,35
38″	41,51, 1,13, 6,20, 6,54,23,12		3, 3,34,34, 3	
		1,30, 2,51,18,15,58,23		6,35
40″	41,51, 2,43, 9,11,25,10,21,35		3, 3,34,40,38	
		1,30, 2,48,14,41,17,45		6,35
42″	41,51, 4,13,11,59,39,51,39,20		3, 3,34,47,13	
		1,30, 2,45,11, 6,30,32		6,35
44″	41,51, 5,43,14,44,50,58, 9,52		3, 3,34,53,48	
		1,30, 2,42, 7,31,36,44		6,35
46″	41,51, 7,13,17,26,58,29,46,36		3, 3,35, 0,23	
		1,30, 2,39, 3,56,36,21		6,35
48″	41,51, 8,43,20, 6, 2,26,22,57		3, 3,35, 6,58	
		1,30, 2,36, 0,21,29,23		6,35
50″	41,51,10,13,22,42, 2,47,52,20		3, 3,35,13,33	
		1,30, 2,32,56,46,15,50		6,35
52″	41,51,11,43,25,14,59,34, 8,10		3, 3,35,20, 8	
		1,30, 2,29,53,10,55,42		6,35
54″	41,51,13,13,27,44,52,45, 3,52		3, 3,35,26,43	
		1,30, 2,26,49,35,28,59		6,35
56″	41,51,14,43,30,11,42,20,32,51		3, 3,35,33,18	
		1,30, 2,23,45,59,55,41		6,35
58″	41,51,16,13,32,35,28,20,28,32		3, 3,35,39,53	
		1,30, 2,20,42,24,15,48		
60″	41,51,17,43,34,56,10,44,44,20			
exact	41,51,17,43,34,56,10,44,43,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°14′ 0″	41,51,17,43,34,56,10,44,43,10			
		1,30, 2,17,38,48,29,14		
2″	41,51,19,13,37,13,49,33,12,24		3, 3,35,53, 3	
		1,30, 2,14,35,12,36,11		6,35
4″	41,51,20,43,39,28,24,45,48,35		3, 3,35,59,38	
		1,30, 2,11,31,36,36,33		6,35
6″	41,51,22,13,41,39,56,22,25, 8		3, 3,36, 6,13	
		1,30, 2, 8,28, 0,30,20		6,35
8″	41,51,23,43,43,48,24,22,55,28		3, 3,36,12,48	
		1,30, 2, 5,24,24,17,32		6,35
10″	41,51,25,13,45,53,48,47,13, 0		3, 3,36,19,23	
		1,30, 2, 2,20,47,58, 9		6,35
12″	41,51,26,43,47,56, 9,35,11, 9		3, 3,36,25,58	
		1,30, 1,59,17,11,32,11		6,35
14″	41,51,28,13,49,55,26,46,43,20		3, 3,36,32,33	
		1,30, 1,56,13,34,59,38		6,35
16″	41,51,29,43,51,51,40,21,42,58		3, 3,36,39, 8	
		1,30, 1,53, 9,58,20,30		6,35
18″	41,51,31,13,53,44,50,20, 3,28		3, 3,36,45,43	
		1,30, 1,50, 6,21,34,47		6,35
20″	41,51,32,43,55,34,56,41,38,15		3, 3,36,52,18	
		1,30, 1,47, 2,44,42,29		6,35
22″	41,51,34,13,57,21,59,26,20,44		3, 3,36,58,53	
		1,30, 1,43,59, 7,43,36		6,35
24″	41,51,35,43,59, 5,58,34, 4,20		3, 3,37, 5,28	
		1,30, 1,40,55,30,38, 8		6,35
26″	41,51,37,14, 0,46,54, 4,42,28		3, 3,37,12, 3	
		1,30, 1,37,51,53,26, 5		6,35
28″	41,51,38,44, 2,24,45,58, 8,33		3, 3,37,18,38	
		1,30, 1,34,48,16, 7,27		6,35
30″	41,51,40,14, 3,59,34,14,16, 0		3, 3,37,25,13	
		1,30, 1,31,44,38,42,14		6,35
32″	41,51,41,44, 5,31,18,52,58,14		3, 3,37,31,48	
		1,30, 1,28,41, 1,10,26		6,35
34″	41,51,43,14, 6,59,59,54, 8,40		3, 3,37,38,23	
		1,30, 1,25,37,23,32, 3		6,35
36″	41,51,44,44, 8,25,37,17,40,43		3, 3,37,44,58	
		1,30, 1,22,33,45,47, 5		6,35
38″	41,51,46,14, 9,48,11, 3,27,48		3, 3,37,51,33	
		1,30, 1,19,30, 7,55,32		6,35
40″	41,51,47,44,11, 7,41,11,23,20		3, 3,37,58, 8	
		1,30, 1,16,26,29,57,24		6,35
42″	41,51,49,14,12,24, 7,41,20,44		3, 3,38, 4,43	
		1,30, 1,13,22,51,52,41		6,35
44″	41,51,50,44,13,37,30,33,13,25		3, 3,38,11,18	
		1,30, 1,10,19,13,41,23		6,35
46″	41,51,52,14,14,47,49,46,54,48		3, 3,38,17,53	
		1,30, 1, 7,15,35,23,30		6,35
48″	41,51,53,44,15,55, 5,22,18,18		3, 3,38,24,28	
		1,30, 1, 4,11,56,59, 2		6,35
50″	41,51,55,14,16,59,17,19,17,20		3, 3,38,31, 3	
		1,30, 1, 1, 8,18,27,59		6,35
52″	41,51,56,44,18, 0,25,37,45,19		3, 3,38,37,38	
		1,30, 0,58, 4,39,50,21		6,35
54″	41,51,58,14,18,58,30,17,35,40		3, 3,38,44,13	
		1,30, 0,55, 1, 1, 6, 8		6,35
56″	41,51,59,44,19,53,31,18,41,48		3, 3,38,50,48	
		1,30, 0,51,57,22,15,20		6,35
58″	41,52, 1,14,20,45,28,40,57, 8		3, 3,38,57,23	
		1,30, 0,48,53,43,17,57		
60″	41,52, 2,44,21,34,22,24,15, 5			
exact	41,52, 2,44,21,34,22,24,20,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°15′ 0″	41,52, 2,44,21,34,22,24,20,35	1,30, 0,45,50, 4,14,37		
2″	41,52, 4,14,22,20,12,28,35,12	1,30, 0,42,46,25, 4, 7	3, 3,39,10,30	6,35
4″	41,52, 5,44,23, 2,58,53,39,19	1,30, 0,39,42,45,47, 2	3, 3,39,17, 5	6,35
6″	41,52, 7,14,23,42,41,39,26,21	1,30, 0,36,39, 6,23,22	3, 3,39,23,40	6,35
8″	41,52, 8,44,24,19,20,45,49,43	1,30, 0,33,35,26,53, 7	3, 3,39,30,15	6,35
10″	41,52,10,14,24,52,56,12,42,50	1,30, 0,30,31,47,16,17	3, 3,39,36,50	6,35
12″	41,52,11,44,25,23,27,59,59, 7	1,30, 0,27,28, 7,32,52	3, 3,39,43,25	6,35
14″	41,52,13,14,25,50,56, 7,31,59	1,30, 0,24,24,27,42,52	3, 3,39,50, 0	6,35
16″	41,52,14,44,26,15,20,35,14,51	1,30, 0,21,20,47,46,17	3, 3,39,56,35	6,35
18″	41,52,16,14,26,36,41,23, 1, 8	1,30, 0,18,17, 7,43, 7	3, 3,40, 3,10	6,35
20″	41,52,17,44,26,54,58,30,44,15	1,30, 0,15,13,27,33,22	3, 3,40, 9,45	6,35
22″	41,52,19,14,27,10,11,58,17,37	1,30, 0,12, 9,47,17, 2	3, 3,40,16,20	6,35
24″	41,52,20,44,27,22,21,45,34,39	1,30, 0, 9, 6, 6,54, 7	3, 3,40,22,55	6,35
26″	41,52,22,14,27,31,27,52,28,46	1,30, 0, 6, 2,26,24,37	3, 3,40,29,30	6,35
28″	41,52,23,44,27,37,30,18,53,23	1,30, 0, 2,58,45,48,32	3, 3,40,36, 5	6,35
30″	41,52,25,14,27,40,29, 4,41,55	1,29,59,59,55, 5, 5,52	3, 3,40,42,40	6,35
32″	41,52,26,44,27,40,24, 9,47,47	1,29,59,56,51,24,16,37	3, 3,40,49,15	6,35
34″	41,52,28,14,27,37,15,34, 4,24	1,29,59,53,47,43,20,47	3, 3,40,55,50	6,35
36″	41,52,29,44,27,31, 3,17,25,11	1,29,59,50,44, 2,18,22	3, 3,41, 2,25	6,35
38″	41,52,31,14,27,21,47,19,43,33	1,29,59,47,40,21, 9,22	3, 3,41, 9, 0	6,35
40″	41,52,32,44,27, 9,27,40,52,55	1,29,59,44,36,39,53,47	3, 3,41,15,35	6,35
42″	41,52,34,14,26,54, 4,20,46,42	1,29,59,41,32,58,31,37	3, 3,41,22,10	6,35
44″	41,52,35,44,26,35,37,19,18,19	1,29,59,38,29,17, 2,52	3, 3,41,28,45	6,35
46″	41,52,37,14,26,14, 6,36,21,11	1,29,59,35,25,35,27,32	3, 3,41,35,20	6,35
48″	41,52,38,44,25,49,32,11,48,43	1,29,59,32,21,53,45,37	3, 3,41,41,55	6,35
50″	41,52,40,14,25,21,54, 5,34,20	1,29,59,29,18,11,57, 7	3, 3,41,48,30	6,35
52″	41,52,41,44,24,51,12,17,31,27	1,29,59,26,14,30, 2, 2	3, 3,41,55, 5	6,35
54″	41,52,43,14,24,17,26,47,33,29	1,29,59,23,10,48, 0,22	3, 3,42, 1,40	6,35
56″	41,52,44,44,23,40,37,35,33,51	1,29,59,20, 7, 5,52, 7	3, 3,42, 8,15	6,35
58″	41,52,46,14,23, 0,44,41,25,58	1,29,59,17, 3,23,37,17	3, 3,42,14,50	
60″	41,52,47,44,22,17,48, 5, 3,15			
exact	41,52,47,44,22,17,48, 5,17,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°16′ 0″	41,52,47,44,22,17,48, 5,17,37			
		1,29,59,13,59,41,17,24		
2″	41,52,49,14,21,31,47,46,35, 1		3, 3,42,27,53	
		1,29,59,10,55,58,49,31		6,35
4″	41,52,50,44,20,42,43,45,24,32		3, 3,42,34,28	
		1,29,59, 7,52,16,15, 3		6,35
6″	41,52,52,14,19,50,36, 1,39,35		3, 3,42,41, 3	
		1,29,59, 4,48,33,34, 0		6,35
8″	41,52,53,44,18,55,24,35,13,35		3, 3,42,47,38	
		1,29,59, 1,44,50,46,22		6,35
10″	41,52,55,14,17,57, 9,25,59,57		3, 3,42,54,13	
		1,29,58,58,41, 7,52, 9		6,35
12″	41,52,56,44,16,55,50,33,52, 6		3, 3,43, 0,48	
		1,29,58,55,37,24,51,21		6,35
14″	41,52,58,14,15,51,27,58,43,27		3, 3,43, 7,23	
		1,29,58,52,33,41,43,58		6,35
16″	41,52,59,44,14,44, 1,40,27,25		3, 3,43,13,58	
		1,29,58,49,29,58,30, 0		6,35
18″	41,53, 1,14,13,33,31,38,57,25		3, 3,43,20,33	
		1,29,58,46,26,15, 9,27		6,35
20″	41,53, 2,44,12,19,57,54, 6,52		3, 3,43,27, 8	
		1,29,58,43,22,31,42,19		6,35
22″	41,53, 4,14,11, 3,20,25,49,11		3, 3,43,33,43	
		1,29,58,40,18,48, 8,36		6,35
24″	41,53, 5,44, 9,43,39,13,57,47		3, 3,43,40,18	
		1,29,58,37,15, 4,28,18		6,35
26″	41,53, 7,14, 8,20,54,18,26, 5		3, 3,43,46,53	
		1,29,58,34,11,20,41,25		6,35
28″	41,53, 8,44, 6,55, 5,39, 7,30		3, 3,43,53,28	
		1,29,58,31, 7,36,47,57		6,35
30″	41,53,10,14, 5,26,13,15,55,27		3, 3,44, 0, 3	
		1,29,58,28, 3,52,47,54		6,35
32″	41,53,11,44, 3,54,17, 8,43,21		3, 3,44, 6,38	
		1,29,58,25, 0, 8,41,16		6,35
34″	41,53,13,14, 2,19,17,17,24,37		3, 3,44,13,13	
		1,29,58,21,56,24,28, 3		6,35
36″	41,53,14,44, 0,41,13,41,52,40		3, 3,44,19,48	
		1,29,58,18,52,40, 8,15		6,35
38″	41,53,16,13,59, 0, 6,22, 0,55		3, 3,44,26,23	
		1,29,58,15,48,55,41,52		6,35
40″	41,53,17,43,57,15,55,17,42,47		3, 3,44,32,58	
		1,29,58,12,45,11, 8,54		6,35
42″	41,53,19,13,55,28,40,28,51,41		3, 3,44,39,33	
		1,29,58, 9,41,26,29,21		6,35
44″	41,53,20,43,53,38,21,55,21, 2		3, 3,44,46, 8	
		1,29,58, 6,37,41,43,13		6,35
46″	41,53,22,13,51,44,59,37, 4,15		3, 3,44,52,43	
		1,29,58, 3,33,56,50,30		6,35
48″	41,53,23,43,49,48,33,33,54,45		3, 3,44,59,18	
		1,29,58, 0,30,11,51,12		6,35
50″	41,53,25,13,47,49, 3,45,45,57		3, 3,45, 5,53	
		1,29,57,57,26,26,45,19		6,35
52″	41,53,26,43,45,46,30,12,31,16		3, 3,45,12,28	
		1,29,57,54,22,41,32,51		6,35
54″	41,53,28,13,43,40,52,54, 4, 7		3, 3,45,19, 3	
		1,29,57,51,18,56,13,48		6,35
56″	41,53,29,43,41,32,11,50,17,55		3, 3,45,25,38	
		1,29,57,48,15,10,48,10		6,35
58″	41,53,31,13,39,20,27, 1, 6, 5		3, 3,45,32,13	
		1,29,57,45,11,25,15,57		
60″	41,53,32,43,37, 5,38,26,22, 2			
exact	41,53,32,43,37, 5,38,26,40,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°17′ 0″	41,53,32,43,37, 5,38,26,40,38			
		1,29,57,42, 7,39,39,16		
2″	41,53,34,13,34,47,46, 6,19,54		3, 3,45,45,13	
		1,29,57,39, 3,53,54, 3		6,35
4″	41,53,35,43,32,26,50, 0,13,57		3, 3,45,51,48	
		1,29,57,36, 0, 8, 2,15		6,35
6″	41,53,37,13,30, 2,50, 8,16,12		3, 3,45,58,23	
		1,29,57,32,56,22, 3,52		6,35
8″	41,53,38,43,27,35,46,30,20, 4		3, 3,46, 4,58	
		1,29,57,29,52,35,58,54		6,35
10″	41,53,40,13,25, 5,39, 6,18,58		3, 3,46,11,33	
		1,29,57,26,48,49,47,21		6,35
12″	41,53,41,43,22,32,27,56, 6,19		3, 3,46,18, 8	
		1,29,57,23,45, 3,29,13		6,35
14″	41,53,43,13,19,56,12,59,35,32		3, 3,46,24,43	
		1,29,57,20,41,17, 4,30		6,35
16″	41,53,44,43,17,16,54,16,40, 2		3, 3,46,31,18	
		1,29,57,17,37,30,33,12		6,35
18″	41,53,46,13,14,34,31,47,13,14		3, 3,46,37,53	
		1,29,57,14,33,43,55,19		6,35
20″	41,53,47,43,11,49, 5,31, 8,33		3, 3,46,44,28	
		1,29,57,11,29,57,10,51		6,35
22″	41,53,49,13, 9, 0,35,28,19,24		3, 3,46,51, 3	
		1,29,57, 8,26,10,19,48		6,35
24″	41,53,50,43, 6, 9, 1,38,39,12		3, 3,46,57,38	
		1,29,57, 5,22,23,22,10		6,35
26″	41,53,52,13, 3,14,24, 2, 1,22		3, 3,47, 4,13	
		1,29,57, 2,18,36,17,57		6,35
28″	41,53,53,43, 0,16,42,38,19,19		3, 3,47,10,48	
		1,29,56,59,14,49, 7, 9		6,35
30″	41,53,55,12,57,15,57,27,26,28		3, 3,47,17,23	
		1,29,56,56,11, 1,49,46		6,35
32″	41,53,56,42,54,12, 8,29,16,14		3, 3,47,23,58	
		1,29,56,53, 7,14,25,48		6,35
34″	41,53,58,12,51, 5,15,43,42, 2		3, 3,47,30,33	
		1,29,56,50, 3,26,55,15		6,35
36″	41,53,59,42,47,55,19,10,37,17		3, 3,47,37, 8	
		1,29,56,46,59,39,18, 7		6,35
38″	41,54, 1,12,44,42,18,49,55,24		3, 3,47,43,43	
		1,29,56,43,55,51,34,24		6,35
40″	41,54, 2,42,41,26,14,41,29,48		3, 3,47,50,18	
		1,29,56,40,52, 3,44, 6		6,35
42″	41,54, 4,12,38, 7, 6,45,13,54		3, 3,47,56,53	
		1,29,56,37,48,15,47,13		6,35
44″	41,54, 5,42,34,44,55, 1, 1, 7		3, 3,48, 3,28	
		1,29,56,34,44,27,43,45		6,35
46″	41,54, 7,12,31,19,39,28,44,52		3, 3,48,10, 3	
		1,29,56,31,40,39,33,42		6,35
48″	41,54, 8,42,27,51,20, 8,18,34		3, 3,48,16,38	
		1,29,56,28,36,51,17, 4		6,35
50″	41,54,10,12,24,19,56,59,35,38		3, 3,48,23,13	
		1,29,56,25,33, 2,53,51		6,35
52″	41,54,11,42,20,45,30, 2,29,29		3, 3,48,29,48	
		1,29,56,22,29,14,24, 3		6,35
54″	41,54,13,12,17, 7,59,16,53,32		3, 3,48,36,23	
		1,29,56,19,25,25,47,40		6,35
56″	41,54,14,42,13,27,24,42,41,12		3, 3,48,42,58	
		1,29,56,16,21,37, 4,42		6,35
58″	41,54,16,12, 9,43,46,19,45,54		3, 3,48,49,33	
		1,29,56,13,17,48,15, 9		
60″	41,54,17,42, 5,57, 4, 8, 1, 3			
exact	41,54,17,42, 5,57, 4, 8,26,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°18′ 0″	41,54,17,42, 5,57, 4, 8,26,18			
		1,29,56,10,13,59,21,53		
2″	41,54,19,12, 2, 7,18, 7,48,11		3, 3,49, 2,30	
		1,29,56, 7,10,10,19,23		6,35
4″	41,54,20,41,58,14,28,18, 7,34		3, 3,49, 9, 5	
		1,29,56, 4, 6,21,10,18		6,35
6″	41,54,22,11,54,18,34,39,17,52		3, 3,49,15,40	
		1,29,56, 1, 2,31,54,38		6,35
8″	41,54,23,41,50,19,37,11,12,30		3, 3,49,22,15	
		1,29,55,57,58,42,32,23		6,35
10″	41,54,25,11,46,17,35,53,44,53		3, 3,49,28,50	
		1,29,55,54,54,53, 3,33		6,35
12″	41,54,26,41,42,12,30,46,48,26		3, 3,49,35,25	
		1,29,55,51,51, 3,28, 8		6,35
14″	41,54,28,11,38, 4,21,50,16,34		3, 3,49,42, 0	
		1,29,55,48,47,13,46, 8		6,35
16″	41,54,29,41,33,53, 9, 4, 2,42		3, 3,49,48,35	
		1,29,55,45,43,23,57,33		6,35
18″	41,54,31,11,29,38,52,28, 0,15		3, 3,49,55,10	
		1,29,55,42,39,34, 2,23		6,35
20″	41,54,32,41,25,21,32, 2, 2,38		3, 3,50, 1,45	
		1,29,55,39,35,44, 0,38		6,35
22″	41,54,34,11,21, 1, 7,46, 3,16		3, 3,50, 8,20	
		1,29,55,36,31,53,52,18		6,35
24″	41,54,35,41,16,37,39,39,55,34		3, 3,50,14,55	
		1,29,55,33,28, 3,37,23		6,35
26″	41,54,37,11,12,11, 7,43,32,57		3, 3,50,21,30	
		1,29,55,30,24,13,15,53		6,35
28″	41,54,38,41, 7,41,31,56,48,50		3, 3,50,28, 5	
		1,29,55,27,20,22,47,48		6,35
30″	41,54,40,11, 3, 8,52,19,36,38		3, 3,50,34,40	
		1,29,55,24,16,32,13, 8		6,35
32″	41,54,41,40,58,33, 8,51,49,46		3, 3,50,41,15	
		1,29,55,21,12,41,31,53		6,35
34″	41,54,43,10,53,54,21,33,21,39		3, 3,50,47,50	
		1,29,55,18, 8,50,44, 3		6,35
36″	41,54,44,40,49,12,30,24, 5,42		3, 3,50,54,25	
		1,29,55,15, 4,59,49,38		6,35
38″	41,54,46,10,44,27,35,23,55,20		3, 3,51, 1, 0	
		1,29,55,12, 1, 8,48,38		6,35
40″	41,54,47,40,39,39,36,32,43,58		3, 3,51, 7,35	
		1,29,55, 8,57,17,41, 3		6,35
42″	41,54,49,10,34,48,33,50,25, 1		3, 3,51,14,10	
		1,29,55, 5,53,26,26,53		6,35
44″	41,54,50,40,29,54,27,16,51,54		3, 3,51,20,45	
		1,29,55, 2,49,35, 6, 8		6,35
46″	41,54,52,10,24,57,16,51,58, 2		3, 3,51,27,20	
		1,29,54,59,45,43,38,48		6,35
48″	41,54,53,40,19,57, 2,35,36,50		3, 3,51,33,55	
		1,29,54,56,41,52, 4,53		6,35
50″	41,54,55,10,14,53,44,27,41,43		3, 3,51,40,30	
		1,29,54,53,38, 0,24,23		6,35
52″	41,54,56,40, 9,47,22,28, 6, 6		3, 3,51,47, 5	
		1,29,54,50,34, 8,37,18		6,35
54″	41,54,58,10, 4,37,56,36,43,24		3, 3,51,53,40	
		1,29,54,47,30,16,43,38		6,35
56″	41,54,59,39,59,25,26,53,27, 2		3, 3,52, 0,15	
		1,29,54,44,26,24,43,23		6,35
58″	41,55, 1, 9,54, 9,53,18,10,25		3, 3,52, 6,50	
		1,29,54,41,22,32,36,33		
60″	41,55, 2,39,48,51,15,50,46,58			
exact	41,55, 2,39,48,51,15,51,21,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°19′ 0″	41,55, 2,39,48,51,15,51,21,42			
		1,29,54,38,18,40,26,57		
2″	41,55, 4, 9,43,29,34,31,48,39		3, 3,52,19,44	
		1,29,54,35,14,48, 7,13		6,34
4″	41,55, 5,39,38, 4,49,19,55,52		3, 3,52,26,18	
		1,29,54,32,10,55,40,55		6,34
6″	41,55, 7, 9,32,37, 0,15,36,47		3, 3,52,32,52	
		1,29,54,29, 7, 3, 8, 3		6,34
8″	41,55, 8,39,27, 6, 7,18,44,50		3, 3,52,39,26	
		1,29,54,26, 3,10,28,37		6,34
10″	41,55,10, 9,21,32,10,29,13,27		3, 3,52,46, 0	
		1,29,54,22,59,17,42,37		6,34
12″	41,55,11,39,15,55, 9,46,56, 4		3, 3,52,52,34	
		1,29,54,19,55,24,50, 3		6,34
14″	41,55,13, 9,10,15, 5,11,46, 7		3, 3,52,59, 8	
		1,29,54,16,51,31,50,55		6,34
16″	41,55,14,39, 4,31,56,43,37, 2		3, 3,53, 5,42	
		1,29,54,13,47,38,45,13		6,34
18″	41,55,16, 8,58,45,44,22,22,15		3, 3,53,12,16	
		1,29,54,10,43,45,32,57		6,34
20″	41,55,17,38,52,56,28, 7,55,12		3, 3,53,18,50	
		1,29,54, 7,39,52,14, 7		6,34
22″	41,55,19, 8,47, 4, 8, 0, 9,19		3, 3,53,25,24	
		1,29,54, 4,35,58,48,43		6,34
24″	41,55,20,38,41, 8,43,58,58, 2		3, 3,53,31,58	
		1,29,54, 1,32, 5,16,45		6,34
26″	41,55,22, 8,35,10,16, 4,14,47		3, 3,53,38,32	
		1,29,53,58,28,11,38,13		6,34
28″	41,55,23,38,29, 8,44,15,53, 0		3, 3,53,45, 6	
		1,29,53,55,24,17,53, 7		6,34
30″	41,55,25, 8,23, 4, 8,33,46, 7		3, 3,53,51,40	
		1,29,53,52,20,24, 1,27		6,34
32″	41,55,26,38,16,56,28,57,47,34		3, 3,53,58,14	
		1,29,53,49,16,30, 3,13		6,34
34″	41,55,28, 8,10,45,45,27,50,47		3, 3,54, 4,48	
		1,29,53,46,12,35,58,25		6,34
36″	41,55,29,38, 4,31,58, 3,49,12		3, 3,54,11,22	
		1,29,53,43, 8,41,47, 3		6,34
38″	41,55,31, 7,58,15, 6,45,36,15		3, 3,54,17,56	
		1,29,53,40, 4,47,29, 7		6,34
40″	41,55,32,37,51,55,11,33, 5,22		3, 3,54,24,30	
		1,29,53,37, 0,53, 4,37		6,34
42″	41,55,34, 7,45,32,12,26, 9,59		3, 3,54,31, 4	
		1,29,53,33,56,58,33,33		6,34
44″	41,55,35,37,39, 6, 9,24,43,32		3, 3,54,37,38	
		1,29,53,30,53, 3,55,55		6,34
46″	41,55,37, 7,32,37, 2,28,39,27		3, 3,54,44,12	
		1,29,53,27,49, 9,11,43		6,34
48″	41,55,38,37,26, 4,51,37,51,10		3, 3,54,50,46	
		1,29,53,24,45,14,20,57		6,34
50″	41,55,40, 7,19,29,36,52,12, 7		3, 3,54,57,20	
		1,29,53,21,41,19,23,37		6,34
52″	41,55,41,37,12,51,18,11,35,44		3, 3,55, 3,54	
		1,29,53,18,37,24,19,43		6,34
54″	41,55,43, 7, 6, 9,55,35,55,27		3, 3,55,10,28	
		1,29,53,15,33,29, 9,15		6,34
56″	41,55,44,36,59,25,29, 5, 4,42		3, 3,55,17, 2	
		1,29,53,12,29,33,52,13		6,34
58″	41,55,46, 6,52,37,58,38,56,55		3, 3,55,23,36	
		1,29,53, 9,25,38,28,37		
60″	41,55,47,36,45,47,24,17,25,32			
exact	41,55,47,36,45,47,24,17, 4,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°20′ 0″	41,55,47,36,45,47,24,17, 4,18			
		1,29,53, 6,21,42,56, 7		
2″	41,55,49, 6,38,53,46, 0, 0,25		3, 3,55,36,54	
		1,29,53, 3,17,47,19,13		6,34
4″	41,55,50,36,31,57, 3,47,19,38		3, 3,55,43,28	
		1,29,53, 0,13,51,35,45		6,34
6″	41,55,52, 6,24,57,17,38,55,23		3, 3,55,50, 2	
		1,29,52,57, 9,55,45,43		6,34
8″	41,55,53,36,17,54,27,34,41, 6		3, 3,55,56,36	
		1,29,52,54, 5,59,49, 7		6,34
10″	41,55,55, 6,10,48,33,34,30,13		3, 3,56, 3,10	
		1,29,52,51, 2, 3,45,57		6,34
12″	41,55,56,36, 3,39,35,38,16,10		3, 3,56, 9,44	
		1,29,52,47,58, 7,36,13		6,34
14″	41,55,58, 5,56,27,33,45,52,23		3, 3,56,16,18	
		1,29,52,44,54,11,19,55		6,34
16″	41,55,59,35,49,12,27,57,12,18		3, 3,56,22,52	
		1,29,52,41,50,14,57, 3		6,34
18″	41,56, 1, 5,41,54,18,12, 9,21		3, 3,56,29,26	
		1,29,52,38,46,18,27,37		6,34
20″	41,56, 2,35,34,33, 4,30,36,58		3, 3,56,36, 0	
		1,29,52,35,42,21,51,37		6,34
22″	41,56, 4, 5,27, 8,46,52,28,35		3, 3,56,42,34	
		1,29,52,32,38,25, 9, 3		6,34
24″	41,56, 5,35,19,41,25,17,37,38		3, 3,56,49, 8	
		1,29,52,29,34,28,19,55		6,34
26″	41,56, 7, 5,12,10,59,45,57,33		3, 3,56,55,42	
		1,29,52,26,30,31,24,13		6,34
28″	41,56, 8,35, 4,37,30,17,21,46		3, 3,57, 2,16	
		1,29,52,23,26,34,21,57		6,34
30″	41,56,10, 4,57, 0,56,51,43,43		3, 3,57, 8,50	
		1,29,52,20,22,37,13, 7		6,34
32″	41,56,11,34,49,21,19,28,56,50		3, 3,57,15,24	
		1,29,52,17,18,39,57,43		6,34
34″	41,56,13, 4,41,38,38, 8,54,33		3, 3,57,21,58	
		1,29,52,14,14,42,35,45		6,34
36″	41,56,14,34,33,52,52,51,30,18		3, 3,57,28,32	
		1,29,52,11,10,45, 7,13		6,34
38″	41,56,16, 4,26, 4, 3,36,37,31		3, 3,57,35, 6	
		1,29,52, 8, 6,47,32, 7		6,34
40″	41,56,17,34,18,12,10,24, 9,38		3, 3,57,41,40	
		1,29,52, 5, 2,49,50,27		6,34
42″	41,56,19, 4,10,17,13,14, 0, 5		3, 3,57,48,14	
		1,29,52, 1,58,52, 2,13		6,34
44″	41,56,20,34, 2,19,12, 6, 2,18		3, 3,57,54,48	
		1,29,51,58,54,54, 7,25		6,34
46″	41,56,22, 3,54,18, 7, 0, 9,43		3, 3,58, 1,22	
		1,29,51,55,50,56, 6, 3		6,34
48″	41,56,23,33,46,13,57,56,15,46		3, 3,58, 7,56	
		1,29,51,52,46,57,58, 7		6,34
50″	41,56,25, 3,38, 6,44,54,13,53		3, 3,58,14,30	
		1,29,51,49,42,59,43,37		6,34
52″	41,56,26,33,29,56,27,53,57,30		3, 3,58,21, 4	
		1,29,51,46,39, 1,22,33		6,34
54″	41,56,28, 3,21,43, 6,55,20, 3		3, 3,58,27,38	
		1,29,51,43,35, 2,54,55		6,34
56″	41,56,29,33,13,26,41,58,14,58		3, 3,58,34,12	
		1,29,51,40,31, 4,20,43		6,34
58″	41,56,31, 3, 5, 7,13, 2,35,41		3, 3,58,40,46	
		1,29,51,37,27, 5,39,57		
60″	41,56,32,32,56,44,40, 8,15,38			
exact	41,56,32,32,56,44,40, 8, 1,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°21′ 0″	41,56,32,32,56,44,40, 8, 1,58			
		1,29,51,34,23, 6,51, 5		
2″	41,56,34, 2,48,19, 3,14,53, 3		3, 3,58,54, 0	
		1,29,51,31,19, 7,57, 5		6,34
4″	41,56,35,32,39,50,22,22,50, 8		3, 3,59, 0,34	
		1,29,51,28,15, 8,56,31		6,34
6″	41,56,37, 2,31,18,37,31,46,39		3, 3,59, 7, 8	
		1,29,51,25,11, 9,49,23		6,34
8″	41,56,38,32,22,43,48,41,36, 2		3, 3,59,13,42	
		1,29,51,22, 7,10,35,41		6,34
10″	41,56,40, 2,14, 5,55,52,11,43		3, 3,59,20,16	
		1,29,51,19, 3,11,15,25		6,34
12″	41,56,41,32, 5,24,59, 3,27, 8		3, 3,59,26,50	
		1,29,51,15,59,11,48,35		6,34
14″	41,56,43, 1,56,40,58,15,15,43		3, 3,59,33,24	
		1,29,51,12,55,12,15,11		6,34
16″	41,56,44,31,47,53,53,27,30,54		3, 3,59,39,58	
		1,29,51, 9,51,12,35,13		6,34
18″	41,56,46, 1,39, 3,44,40, 6, 7		3, 3,59,46,32	
		1,29,51, 6,47,12,48,41		6,34
20″	41,56,47,31,30,10,31,52,54,48		3, 3,59,53, 6	
		1,29,51, 3,43,12,55,35		6,34
22″	41,56,49, 1,21,14,15, 5,50,23		3, 3,59,59,40	
		1,29,51, 0,39,12,55,55		6,34
24″	41,56,50,31,12,14,54,18,46,18		3, 4, 0, 6,14	
		1,29,50,57,35,12,49,41		6,34
26″	41,56,52, 1, 3,12,29,31,35,59		3, 4, 0,12,48	
		1,29,50,54,31,12,36,53		6,34
28″	41,56,53,30,54, 7, 0,44,12,52		3, 4, 0,19,22	
		1,29,50,51,27,12,17,31		6,34
30″	41,56,55, 0,44,58,27,56,30,23		3, 4, 0,25,56	
		1,29,50,48,23,11,51,35		6,34
32″	41,56,56,30,35,46,51, 8,21,58		3, 4, 0,32,30	
		1,29,50,45,19,11,19, 5		6,34
34″	41,56,58, 0,26,32,10,19,41, 3		3, 4, 0,39, 4	
		1,29,50,42,15,10,40, 1		6,34
36″	41,56,59,30,17,14,25,30,21, 4		3, 4, 0,45,38	
		1,29,50,39,11, 9,54,23		6,34
38″	41,57, 1, 0, 7,53,36,40,15,27		3, 4, 0,52,12	
		1,29,50,36, 7, 9, 2,11		6,34
40″	41,57, 2,29,58,29,43,49,17,38		3, 4, 0,58,46	
		1,29,50,33, 3, 8, 3,25		6,34
42″	41,57, 3,59,49, 2,46,57,21, 3		3, 4, 1, 5,20	
		1,29,50,29,59, 6,58, 5		6,34
44″	41,57, 5,29,39,32,46, 4,19, 8		3, 4, 1,11,54	
		1,29,50,26,55, 5,46,11		6,34
46″	41,57, 6,59,29,59,41,10, 5,19		3, 4, 1,18,28	
		1,29,50,23,51, 4,27,43		6,34
48″	41,57, 8,29,20,23,32,14,33, 2		3, 4, 1,25, 2	
		1,29,50,20,47, 3, 2,41		6,34
50″	41,57, 9,59,10,44,19,17,35,43		3, 4, 1,31,36	
		1,29,50,17,43, 1,31, 5		6,34
52″	41,57,11,29, 1, 2, 2,19, 6,48		3, 4, 1,38,10	
		1,29,50,14,38,59,52,55		6,34
54″	41,57,12,58,51,16,41,18,59,43		3, 4, 1,44,44	
		1,29,50,11,34,58, 8,11		6,34
56″	41,57,14,28,41,28,16,17, 7,54		3, 4, 1,51,18	
		1,29,50, 8,30,56,16,53		6,34
58″	41,57,15,58,31,36,47,13,24,47		3, 4, 1,57,52	
		1,29,50, 5,26,54,19, 1		
60″	41,57,17,28,21,42,14, 7,43,48			
exact	41,57,17,28,21,42,14, 7,33, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°22′ 0″	41,57,17,28,21,42,14, 7,33, 0			
		1,29,50, 2,22,52,13,32		
2″	41,57,18,58,11,44,36,59,46,32		3, 4, 2,11, 4	
		1,29,49,59,18,50, 2,28		6,34
4″	41,57,20,28, 1,43,55,49,49, 0		3, 4, 2,17,38	
		1,29,49,56,14,47,44,50		6,34
6″	41,57,21,57,51,40,10,37,33,50		3, 4, 2,24,12	
		1,29,49,53,10,45,20,38		6,34
8″	41,57,23,27,41,33,21,22,54,28		3, 4, 2,30,46	
		1,29,49,50, 6,42,49,52		6,34
10″	41,57,24,57,31,23,28, 5,44,20		3, 4, 2,37,20	
		1,29,49,47, 2,40,12,32		6,34
12″	41,57,26,27,21,10,30,45,56,52		3, 4, 2,43,54	
		1,29,49,43,58,37,28,38		6,34
14″	41,57,27,57,10,54,29,23,25,30		3, 4, 2,50,28	
		1,29,49,40,54,34,38,10		6,34
16″	41,57,29,27, 0,35,23,58, 3,40		3, 4, 2,57, 2	
		1,29,49,37,50,31,41, 8		6,34
18″	41,57,30,56,50,13,14,29,44,48		3, 4, 3, 3,36	
		1,29,49,34,46,28,37,32		6,34
20″	41,57,32,26,39,48, 0,58,22,20		3, 4, 3,10,10	
		1,29,49,31,42,25,27,22		6,34
22″	41,57,33,56,29,19,43,23,49,42		3, 4, 3,16,44	
		1,29,49,28,38,22,10,38		6,34
24″	41,57,35,26,18,48,21,46, 0,20		3, 4, 3,23,18	
		1,29,49,25,34,18,47,20		6,34
26″	41,57,36,56, 8,13,56, 4,47,40		3, 4, 3,29,52	
		1,29,49,22,30,15,17,28		6,34
28″	41,57,38,25,57,36,26,20, 5, 8		3, 4, 3,36,26	
		1,29,49,19,26,11,41, 2		6,34
30″	41,57,39,55,46,55,52,31,46,10		3, 4, 3,43, 0	
		1,29,49,16,22, 7,58, 2		6,34
32″	41,57,41,25,36,12,14,39,44,12		3, 4, 3,49,34	
		1,29,49,13,18, 4, 8,28		6,34
34″	41,57,42,55,25,25,32,43,52,40		3, 4, 3,56, 8	
		1,29,49,10,14, 0,12,20		6,34
36″	41,57,44,25,14,35,46,44, 5, 0		3, 4, 4, 2,42	
		1,29,49, 7, 9,56, 9,38		6,34
38″	41,57,45,55, 3,42,56,40,14,38		3, 4, 4, 9,16	
		1,29,49, 4, 5,52, 0,22		6,34
40″	41,57,47,24,52,47, 2,32,15, 0		3, 4, 4,15,50	
		1,29,49, 1, 1,47,44,32		6,34
42″	41,57,48,54,41,48, 4,19,59,32		3, 4, 4,22,24	
		1,29,48,57,57,43,22, 8		6,34
44″	41,57,50,24,30,46, 2, 3,21,40		3, 4, 4,28,58	
		1,29,48,54,53,38,53,10		6,34
46″	41,57,51,54,19,40,55,42,14,50		3, 4, 4,35,32	
		1,29,48,51,49,34,17,38		6,34
48″	41,57,53,24, 8,32,45,16,32,28		3, 4, 4,42, 6	
		1,29,48,48,45,29,35,32		6,34
50″	41,57,54,53,57,21,30,46, 8, 0		3, 4, 4,48,40	
		1,29,48,45,41,24,46,52		6,34
52″	41,57,56,23,46, 7,12,10,54,52		3, 4, 4,55,14	
		1,29,48,42,37,19,51,38		6,34
54″	41,57,57,53,34,49,49,30,46,30		3, 4, 5, 1,48	
		1,29,48,39,33,14,49,50		6,34
56″	41,57,59,23,23,29,22,45,36,20		3, 4, 5, 8,22	
		1,29,48,36,29, 9,41,28		6,34
58″	41,58, 0,53,12, 5,51,55,17,48		3, 4, 5,14,56	
		1,29,48,33,25, 4,26,32		
60″	41,58, 2,23, 0,39,16,59,44,20			
exact	41,58, 2,23, 0,39,16,59,46, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°23′ 0″	41,58, 2,23, 0,39,16,59,46, 8			
		1,29,48,30,20,59, 5, 9		
2″	41,58, 3,52,49, 9,37,58,51,17		3, 4, 5,28, 3	
		1,29,48,27,16,53,37, 6		6,34
4″	41,58, 5,22,37,36,54,52,28,23		3, 4, 5,34,37	
		1,29,48,24,12,48, 2,29		6,34
6″	41,58, 6,52,26, 1, 7,40,30,52		3, 4, 5,41,11	
		1,29,48,21, 8,42,21,18		6,34
8″	41,58, 8,22,14,22,16,22,52,10		3, 4, 5,47,45	
		1,29,48,18, 4,36,33,33		6,34
10″	41,58, 9,52, 2,40,20,59,25,43		3, 4, 5,54,19	
		1,29,48,15, 0,30,39,14		6,34
12″	41,58,11,21,50,55,21,30, 4,57		3, 4, 6, 0,53	
		1,29,48,11,56,24,38,21		6,34
14″	41,58,12,51,39, 7,17,54,43,18		3, 4, 6, 7,27	
		1,29,48, 8,52,18,30,54		6,34
16″	41,58,14,21,27,16,10,13,14,12		3, 4, 6,14, 1	
		1,29,48, 5,48,12,16,53		6,34
18″	41,58,15,51,15,21,58,25,31, 5		3, 4, 6,20,35	
		1,29,48, 2,44, 5,56,18		6,34
20″	41,58,17,21, 3,24,42,31,27,23		3, 4, 6,27, 9	
		1,29,47,59,39,59,29, 9		6,34
22″	41,58,18,50,51,24,22,30,56,32		3, 4, 6,33,43	
		1,29,47,56,35,52,55,26		6,34
24″	41,58,20,20,39,20,58,23,51,58		3, 4, 6,40,17	
		1,29,47,53,31,46,15, 9		6,34
26″	41,58,21,50,27,14,30,10, 7, 7		3, 4, 6,46,51	
		1,29,47,50,27,39,28,18		6,34
28″	41,58,23,20,15, 4,57,49,35,25		3, 4, 6,53,25	
		1,29,47,47,23,32,34,53		6,34
30″	41,58,24,50, 2,52,21,22,10,18		3, 4, 6,59,59	
		1,29,47,44,19,25,34,54		6,34
32″	41,58,26,19,50,36,40,47,45,12		3, 4, 7, 6,33	
		1,29,47,41,15,18,28,21		6,34
34″	41,58,27,49,38,17,56, 6,13,33		3, 4, 7,13, 7	
		1,29,47,38,11,11,15,14		6,34
36″	41,58,29,19,25,56, 7,17,28,47		3, 4, 7,19,41	
		1,29,47,35, 7, 3,55,33		6,34
38″	41,58,30,49,13,31,14,21,24,20		3, 4, 7,26,15	
		1,29,47,32, 2,56,29,18		6,34
40″	41,58,32,19, 1, 3,17,17,53,38		3, 4, 7,32,49	
		1,29,47,28,58,48,56,29		6,34
42″	41,58,33,48,48,32,16, 6,50, 7		3, 4, 7,39,23	
		1,29,47,25,54,41,17, 6		6,34
44″	41,58,35,18,35,58,10,48, 7,13		3, 4, 7,45,57	
		1,29,47,22,50,33,31, 9		6,34
46″	41,58,36,48,23,21, 1,21,38,22		3, 4, 7,52,31	
		1,29,47,19,46,25,38,38		6,34
48″	41,58,38,18,10,40,47,47,17, 0		3, 4, 7,59, 5	
		1,29,47,16,42,17,39,33		6,34
50″	41,58,39,47,57,57,30, 4,56,33		3, 4, 8, 5,39	
		1,29,47,13,38, 9,33,54		6,34
52″	41,58,41,17,45,11, 8,14,30,27		3, 4, 8,12,13	
		1,29,47,10,34, 1,21,41		6,34
54″	41,58,42,47,32,21,42,15,52, 8		3, 4, 8,18,47	
		1,29,47, 7,29,53, 2,54		6,34
56″	41,58,44,17,19,29,12, 8,55, 2		3, 4, 8,25,21	
		1,29,47, 4,25,44,37,33		6,34
58″	41,58,45,47, 6,33,37,53,32,35		3, 4, 8,31,55	
		1,29,47, 1,21,36, 5,38		
60″	41,58,47,16,53,34,59,29,38,13			
exact	41,58,47,16,53,34,59,29,40,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°24′ 0″	41,58,47,16,53,34,59,29,40,35			
		1,29,46,58,17,27,27,36		
2″	41,58,48,46,40,33,16,57, 8,11		3, 4, 8,45, 0	
		1,29,46,55,13,18,42,36		6,34
4″	41,58,50,16,27,28,30,15,50,47		3, 4, 8,51,34	
		1,29,46,52, 9, 9,51, 2		6,34
6″	41,58,51,46,14,20,39,25,41,49		3, 4, 8,58, 8	
		1,29,46,49, 5, 0,52,54		6,34
8″	41,58,53,16, 1, 9,44,26,34,43		3, 4, 9, 4,42	
		1,29,46,46, 0,51,48,12		6,34
10″	41,58,54,45,47,55,45,18,22,55		3, 4, 9,11,16	
		1,29,46,42,56,42,36,56		6,34
12″	41,58,56,15,34,38,42, 0,59,51		3, 4, 9,17,50	
		1,29,46,39,52,33,19, 6		6,34
14″	41,58,57,45,21,18,34,34,18,57		3, 4, 9,24,24	
		1,29,46,36,48,23,54,42		6,34
16″	41,58,59,15, 7,55,22,58,13,39		3, 4, 9,30,58	
		1,29,46,33,44,14,23,44		6,34
18″	41,59, 0,44,54,29, 7,12,37,23		3, 4, 9,37,32	
		1,29,46,30,40, 4,46,12		6,34
20″	41,59, 2,14,40,59,47,17,23,35		3, 4, 9,44, 6	
		1,29,46,27,35,55, 2, 6		6,34
22″	41,59, 3,44,27,27,23,12,25,41		3, 4, 9,50,40	
		1,29,46,24,31,45,11,26		6,34
24″	41,59, 5,14,13,51,54,57,37, 7		3, 4, 9,57,14	
		1,29,46,21,27,35,14,12		6,34
26″	41,59, 6,44, 0,13,22,32,51,19		3, 4,10, 3,48	
		1,29,46,18,23,25,10,24		6,34
28″	41,59, 8,13,46,31,45,58, 1,43		3, 4,10,10,22	
		1,29,46,15,19,15, 0, 2		6,34
30″	41,59, 9,43,32,47, 5,13, 1,45		3, 4,10,16,56	
		1,29,46,12,15, 4,43, 6		6,34
32″	41,59,11,13,18,59,20,17,44,51		3, 4,10,23,30	
		1,29,46, 9,10,54,19,36		6,34
34″	41,59,12,43, 5, 8,31,12, 4,27		3, 4,10,30, 4	
		1,29,46, 6, 6,43,49,32		6,34
36″	41,59,14,12,51,14,37,55,53,59		3, 4,10,36,38	
		1,29,46, 3, 2,33,12,54		6,34
38″	41,59,15,42,37,17,40,29, 6,53		3, 4,10,43,12	
		1,29,45,59,58,22,29,42		6,34
40″	41,59,17,12,23,17,38,51,36,35		3, 4,10,49,46	
		1,29,45,56,54,11,39,56		6,34
42″	41,59,18,42, 9,14,33, 3,16,31		3, 4,10,56,20	
		1,29,45,53,50, 0,43,36		6,34
44″	41,59,20,11,55, 8,23, 4, 0, 7		3, 4,11, 2,54	
		1,29,45,50,45,49,40,42		6,34
46″	41,59,21,41,40,59, 8,53,40,49		3, 4,11, 9,28	
		1,29,45,47,41,38,31,14		6,34
48″	41,59,23,11,26,46,50,32,12, 3		3, 4,11,16, 2	
		1,29,45,44,37,27,15,12		6,34
50″	41,59,24,41,12,31,27,59,27,15		3, 4,11,22,36	
		1,29,45,41,33,15,52,36		6,34
52″	41,59,26,10,58,13, 1,15,19,51		3, 4,11,29,10	
		1,29,45,38,29, 4,23,26		6,34
54″	41,59,27,40,43,51,30,19,43,17		3, 4,11,35,44	
		1,29,45,35,24,52,47,42		6,34
56″	41,59,29,10,29,26,55,12,30,59		3, 4,11,42,18	
		1,29,45,32,20,41, 5,24		6,34
58″	41,59,30,40,14,59,15,53,36,23		3, 4,11,48,52	
		1,29,45,29,16,29,16,32		
60″	41,59,32,10, 0,28,32,22,52,55			
exact	41,59,32,10, 0,28,32,23, 5,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°25′ 0″	41,59,32,10, 0,28,32,23, 5,58			
		1,29,45,26,12,17,22,35		
2″	41,59,33,39,45,54,44,40,28,33		3, 4,12, 1,53	
		1,29,45,23, 8, 5,20,42		6,34
4″	41,59,35, 9,31,17,52,45,49,15		3, 4,12, 8,27	
		1,29,45,20, 3,53,12,15		6,34
6″	41,59,36,39,16,37,56,39, 1,30		3, 4,12,15, 1	
		1,29,45,16,59,40,57,14		6,34
8″	41,59,38, 9, 1,54,56,19,58,44		3, 4,12,21,35	
		1,29,45,13,55,28,35,39		6,34
10″	41,59,39,38,47, 8,51,48,34,23		3, 4,12,28, 9	
		1,29,45,10,51,16, 7,30		6,34
12″	41,59,41, 8,32,19,43, 4,41,53		3, 4,12,34,43	
		1,29,45, 7,47, 3,32,47		6,34
14″	41,59,42,38,17,27,30, 8,14,40		3, 4,12,41,17	
		1,29,45, 4,42,50,51,30		6,34
16″	41,59,44, 8, 2,32,12,59, 6,10		3, 4,12,47,51	
		1,29,45, 1,38,38, 3,39		6,34
18″	41,59,45,37,47,33,51,37, 9,49		3, 4,12,54,25	
		1,29,44,58,34,25, 9,14		6,34
20″	41,59,47, 7,32,32,26, 2,19, 3		3, 4,13, 0,59	
		1,29,44,55,30,12, 8,15		6,34
22″	41,59,48,37,17,27,56,14,27,18		3, 4,13, 7,33	
		1,29,44,52,25,59, 0,42		6,34
24″	41,59,50, 7, 2,20,22,13,28, 0		3, 4,13,14, 7	
		1,29,44,49,21,45,46,35		6,34
26″	41,59,51,36,47, 9,43,59,14,35		3, 4,13,20,41	
		1,29,44,46,17,32,25,54		6,34
28″	41,59,53, 6,31,56, 1,31,40,29		3, 4,13,27,15	
		1,29,44,43,13,18,58,39		6,34
30″	41,59,54,36,16,39,14,50,39, 8		3, 4,13,33,49	
		1,29,44,40, 9, 5,24,50		6,34
32″	41,59,56, 6, 1,19,23,56, 3,58		3, 4,13,40,23	
		1,29,44,37, 4,51,44,27		6,34
34″	41,59,57,35,45,56,28,47,48,25		3, 4,13,46,57	
		1,29,44,34, 0,37,57,30		6,34
36″	41,59,59, 5,30,30,29,25,45,55		3, 4,13,53,31	
		1,29,44,30,56,24, 3,59		6,34
38″	42, 0, 0,35,15, 1,25,49,49,54		3, 4,14, 0, 5	
		1,29,44,27,52,10, 3,54		6,34
40″	42, 0, 2, 4,59,29,17,59,53,48		3, 4,14, 6,39	
		1,29,44,24,47,55,57,15		6,34
42″	42, 0, 3,34,43,54, 5,55,51, 3		3, 4,14,13,13	
		1,29,44,21,43,41,44, 2		6,34
44″	42, 0, 5, 4,28,15,49,37,35, 5		3, 4,14,19,47	
		1,29,44,18,39,27,24,15		6,34
46″	42, 0, 6,34,12,34,29, 4,59,20		3, 4,14,26,21	
		1,29,44,15,35,12,57,54		6,34
48″	42, 0, 8, 3,56,50, 4,17,57,14		3, 4,14,32,55	
		1,29,44,12,30,58,24,59		6,34
50″	42, 0, 9,33,41, 2,35,16,22,13		3, 4,14,39,29	
		1,29,44, 9,26,43,45,30		6,34
52″	42, 0,11, 3,25,12, 2, 0, 7,43		3, 4,14,46, 3	
		1,29,44, 6,22,28,59,27		6,34
54″	42, 0,12,33, 9,18,24,29, 7,10		3, 4,14,52,37	
		1,29,44, 3,18,14, 6,50		6,34
56″	42, 0,14, 2,53,21,42,43,14, 0		3, 4,14,59,11	
		1,29,44, 0,13,59, 7,39		6,34
58″	42, 0,15,32,37,21,56,42,21,39		3, 4,15, 5,45	
		1,29,43,57, 9,44, 1,54		
60″	42, 0,17, 2,21,19, 6,26,23,33			
exact	42, 0,17, 2,21,19, 6,26,42,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°26′ 0″	42, 0,17, 2,21,19, 6,26,42,29			
		1,29,43,54, 5,28,51,46		
2″	42, 0,18,32, 5,13,11,55,34,15		3, 4,15,18,43	
		1,29,43,51, 1,13,33, 3		6,34
4″	42, 0,20, 1,49, 4,13, 9, 7,18		3, 4,15,25,17	
		1,29,43,47,56,58, 7,46		6,34
6″	42, 0,21,31,32,52,10, 7,15, 4		3, 4,15,31,51	
		1,29,43,44,52,42,35,55		6,34
8″	42, 0,23, 1,16,37, 2,49,50,59		3, 4,15,38,25	
		1,29,43,41,48,26,57,30		6,34
10″	42, 0,24,31, 0,18,51,16,48,29		3, 4,15,44,59	
		1,29,43,38,44,11,12,31		6,34
12″	42, 0,26, 0,43,57,35,28, 1, 0		3, 4,15,51,33	
		1,29,43,35,39,55,20,58		6,34
14″	42, 0,27,30,27,33,15,23,21,58		3, 4,15,58, 7	
		1,29,43,32,35,39,22,51		6,34
16″	42, 0,29, 0,11, 5,51, 2,44,49		3, 4,16, 4,41	
		1,29,43,29,31,23,18,10		6,34
18″	42, 0,30,29,54,35,22,26, 2,59		3, 4,16,11,15	
		1,29,43,26,27, 7, 6,55		6,34
20″	42, 0,31,59,38, 1,49,33, 9,54		3, 4,16,17,49	
		1,29,43,23,22,50,49, 6		6,34
22″	42, 0,33,29,21,25,12,23,59, 0		3, 4,16,24,23	
		1,29,43,20,18,34,24,43		6,34
24″	42, 0,34,59, 4,45,30,58,23,43		3, 4,16,30,57	
		1,29,43,17,14,17,53,46		6,34
26″	42, 0,36,28,48, 2,45,16,17,29		3, 4,16,37,31	
		1,29,43,14,10, 1,16,15		6,34
28″	42, 0,37,58,31,16,55,17,33,44		3, 4,16,44, 5	
		1,29,43,11, 5,44,32,10		6,34
30″	42, 0,39,28,14,28, 1, 2, 5,54		3, 4,16,50,39	
		1,29,43, 8, 1,27,41,31		6,34
32″	42, 0,40,57,57,36, 2,29,47,25		3, 4,16,57,13	
		1,29,43, 4,57,10,44,18		6,34
34″	42, 0,42,27,40,40,59,40,31,43		3, 4,17, 3,47	
		1,29,43, 1,52,53,40,31		6,34
36″	42, 0,43,57,23,42,52,34,12,14		3, 4,17,10,21	
		1,29,42,58,48,36,30,10		6,34
38″	42, 0,45,27, 6,41,41,10,42,24		3, 4,17,16,55	
		1,29,42,55,44,19,13,15		6,34
40″	42, 0,46,56,49,37,25,29,55,39		3, 4,17,23,29	
		1,29,42,52,40, 1,49,46		6,34
42″	42, 0,48,26,32,30, 5,31,45,25		3, 4,17,30, 3	
		1,29,42,49,35,44,19,43		6,34
44″	42, 0,49,56,15,19,41,16, 5, 8		3, 4,17,36,37	
		1,29,42,46,31,26,43, 6		6,34
46″	42, 0,51,25,58, 6,12,42,48,14		3, 4,17,43,11	
		1,29,42,43,27, 8,59,55		6,34
48″	42, 0,52,55,40,49,39,51,48, 9		3, 4,17,49,45	
		1,29,42,40,22,51,10,10		6,34
50″	42, 0,54,25,23,30, 2,42,58,19		3, 4,17,56,19	
		1,29,42,37,18,33,13,51		6,34
52″	42, 0,55,55, 6, 7,21,16,12,10		3, 4,18, 2,53	
		1,29,42,34,14,15,10,58		6,34
54″	42, 0,57,24,48,41,35,31,23, 8		3, 4,18, 9,27	
		1,29,42,31, 9,57, 1,31		6,34
56″	42, 0,58,54,31,12,45,28,24,39		3, 4,18,16, 1	
		1,29,42,28, 5,38,45,30		6,34
58″	42, 1, 0,24,13,40,51, 7,10, 9		3, 4,18,22,35	
		1,29,42,25, 1,20,22,55		
60″	42, 1, 1,53,56, 5,52,27,33, 4			
exact	42, 1, 1,53,56, 5,52,28, 0,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°27′ 0″	42, 1, 1,53,56, 5,52,28, 0,44	1,29,42,21,57, 1,56,50		
2″	42, 1, 3,23,38,27,49,29,57,34	1,29,42,18,52,43,21,20	3, 4,18,35,30	6,33
4″	42, 1, 4,53,20,46,42,13,18,54	1,29,42,15,48,24,39,17	3, 4,18,42, 3	6,33
6″	42, 1, 6,23, 3, 2,30,37,58,11	1,29,42,12,44, 5,50,41	3, 4,18,48,36	6,33
8″	42, 1, 7,52,45,15,14,43,48,52	1,29,42, 9,39,46,55,32	3, 4,18,55, 9	6,33
10″	42, 1, 9,22,27,24,54,30,44,24	1,29,42, 6,35,27,53,50	3, 4,19, 1,42	6,33
12″	42, 1,10,52, 9,31,29,58,38,14	1,29,42, 3,31, 8,45,35	3, 4,19, 8,15	6,33
14″	42, 1,12,21,51,35, 1, 7,23,49	1,29,42, 0,26,49,30,47	3, 4,19,14,48	6,33
16″	42, 1,13,51,33,35,27,56,54,36	1,29,41,57,22,30, 9,26	3, 4,19,21,21	6,33
18″	42, 1,15,21,15,32,50,27, 4, 2	1,29,41,54,18,10,41,32	3, 4,19,27,54	6,33
20″	42, 1,16,50,57,27, 8,37,45,34	1,29,41,51,13,51, 7, 5	3, 4,19,34,27	6,33
22″	42, 1,18,20,39,18,22,28,52,39	1,29,41,48, 9,31,26, 5	3, 4,19,41, 0	6,33
24″	42, 1,19,50,21, 6,32, 0,18,44	1,29,41,45, 5,11,38,32	3, 4,19,47,33	6,33
26″	42, 1,21,20, 2,51,37,11,57,16	1,29,41,42, 0,51,44,26	3, 4,19,54, 6	6,33
28″	42, 1,22,49,44,33,38, 3,41,42	1,29,41,38,56,31,43,47	3, 4,20, 0,39	6,33
30″	42, 1,24,19,26,12,34,35,25,29	1,29,41,35,52,11,36,35	3, 4,20, 7,12	6,33
32″	42, 1,25,49, 7,48,26,47, 2, 4	1,29,41,32,47,51,22,50	3, 4,20,13,45	6,33
34″	42, 1,27,18,49,21,14,38,24,54	1,29,41,29,43,31, 2,32	3, 4,20,20,18	6,33
36″	42, 1,28,48,30,50,58, 9,27,26	1,29,41,26,39,10,35,41	3, 4,20,26,51	6,33
38″	42, 1,30,18,12,17,37,20, 3, 7	1,29,41,23,34,50, 2,17	3, 4,20,33,24	6,33
40″	42, 1,31,47,53,41,12,10, 5,24	1,29,41,20,30,29,22,20	3, 4,20,39,57	6,33
42″	42, 1,33,17,35, 1,42,39,27,44	1,29,41,17,26, 8,35,50	3, 4,20,46,30	6,33
44″	42, 1,34,47,16,19, 8,48, 3,34	1,29,41,14,21,47,42,47	3, 4,20,53, 3	6,33
46″	42, 1,36,16,57,33,30,35,46,21	1,29,41,11,17,26,43,11	3, 4,20,59,36	6,33
48″	42, 1,37,46,38,44,48, 2,29,32	1,29,41, 8,13, 5,37, 2	3, 4,21, 6, 9	6,33
50″	42, 1,39,16,19,53, 1, 8, 6,34	1,29,41, 5, 8,44,24,20	3, 4,21,12,42	6,33
52″	42, 1,40,46, 0,58, 9,52,30,54	1,29,41, 2, 4,23, 5, 5	3, 4,21,19,15	6,33
54″	42, 1,42,15,42, 0,14,15,35,59	1,29,40,59, 0, 1,39,17	3, 4,21,25,48	6,33
56″	42, 1,43,45,22,59,14,17,15,16	1,29,40,55,55,40, 6,56	3, 4,21,32,21	6,33
58″	42, 1,45,15, 3,55, 9,57,22,12	1,29,40,52,51,18,28, 2	3, 4,21,38,54	
60″	42, 1,46,44,44,48, 1,15,50,14			
exact	42, 1,46,44,44,48, 1,15,21,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°28′ 0″	42, 1,46,44,44,48, 1,15,21,53			
		1,29,40,49,46,56,39,29		
2″	42, 1,48,14,25,37,48,12, 1,22		3, 4,21,52,13	
		1,29,40,46,42,34,47,16		6,33
4″	42, 1,49,44, 6,24,30,46,48,38		3, 4,21,58,46	
		1,29,40,43,38,12,48,30		6,33
6″	42, 1,51,13,47, 8, 8,59,37, 8		3, 4,22, 5,19	
		1,29,40,40,33,50,43,11		6,33
8″	42, 1,52,43,27,48,42,50,20,19		3, 4,22,11,52	
		1,29,40,37,29,28,31,19		6,33
10″	42, 1,54,13, 8,26,12,18,51,38		3, 4,22,18,25	
		1,29,40,34,25, 6,12,54		6,33
12″	42, 1,55,42,49, 0,37,25, 4,32		3, 4,22,24,58	
		1,29,40,31,20,43,47,56		6,33
14″	42, 1,57,12,29,31,58, 8,52,28		3, 4,22,31,31	
		1,29,40,28,16,21,16,25		6,33
16″	42, 1,58,42,10, 0,14,30, 8,53		3, 4,22,38, 4	
		1,29,40,25,11,58,38,21		6,33
18″	42, 2, 0,11,50,25,26,28,47,14		3, 4,22,44,37	
		1,29,40,22, 7,35,53,44		6,33
20″	42, 2, 1,41,30,47,34, 4,40,58		3, 4,22,51,10	
		1,29,40,19, 3,13, 2,34		6,33
22″	42, 2, 3,11,11, 6,37,17,43,32		3, 4,22,57,43	
		1,29,40,15,58,50, 4,51		6,33
24″	42, 2, 4,40,51,22,36, 7,48,23		3, 4,23, 4,16	
		1,29,40,12,54,27, 0,35		6,33
26″	42, 2, 6,10,31,35,30,34,48,58		3, 4,23,10,49	
		1,29,40, 9,50, 3,49,46		6,33
28″	42, 2, 7,40,11,45,20,38,38,44		3, 4,23,17,22	
		1,29,40, 6,45,40,32,24		6,33
30″	42, 2, 9, 9,51,52, 6,19,11, 8		3, 4,23,23,55	
		1,29,40, 3,41,17, 8,29		6,33
32″	42, 2,10,39,31,55,47,36,19,37		3, 4,23,30,28	
		1,29,40, 0,36,53,38, 1		6,33
34″	42, 2,12, 9,11,56,24,29,57,38		3, 4,23,37, 1	
		1,29,39,57,32,30, 1, 0		6,33
36″	42, 2,13,38,51,53,56,59,58,38		3, 4,23,43,34	
		1,29,39,54,28, 6,17,26		6,33
38″	42, 2,15, 8,31,48,25, 6,16, 4		3, 4,23,50, 7	
		1,29,39,51,23,42,27,19		6,33
40″	42, 2,16,38,11,39,48,48,43,23		3, 4,23,56,40	
		1,29,39,48,19,18,30,39		6,33
42″	42, 2,18, 7,51,28, 8, 7,14, 2		3, 4,24, 3,13	
		1,29,39,45,14,54,27,26		6,33
44″	42, 2,19,37,31,13,23, 1,41,28		3, 4,24, 9,46	
		1,29,39,42,10,30,17,40		6,33
46″	42, 2,21, 7,10,55,33,31,59, 8		3, 4,24,16,19	
		1,29,39,39, 6, 6, 1,21		6,33
48″	42, 2,22,36,50,34,39,38, 0,29		3, 4,24,22,52	
		1,29,39,36, 1,41,38,29		6,33
50″	42, 2,24, 6,30,10,41,19,38,58		3, 4,24,29,25	
		1,29,39,32,57,17, 9, 4		6,33
52″	42, 2,25,36, 9,43,38,36,48, 2		3, 4,24,35,58	
		1,29,39,29,52,52,33, 6		6,33
54″	42, 2,27, 5,49,13,31,29,21, 8		3, 4,24,42,31	
		1,29,39,26,48,27,50,35		6,33
56″	42, 2,28,35,28,40,19,57,11,43		3, 4,24,49, 4	
		1,29,39,23,44, 3, 1,31		6,33
58″	42, 2,30, 5, 8, 4, 4, 0,13,14		3, 4,24,55,37	
		1,29,39,20,39,38, 5,54		
60″	42, 2,31,34,47,24,43,38,19, 8			
exact	42, 2,31,34,47,24,43,37,57,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°29′ 0″	42, 2,31,34,47,24,43,37,57,38			
		1,29,39,17,35,13, 1,24		
2″	42, 2,33, 4,26,42,18,50,59, 2		3, 4,25, 8,52	
		1,29,39,14,30,47,52,32		6,33
4″	42, 2,34,34, 5,56,49,38,51,34		3, 4,25,15,25	
		1,29,39,11,26,22,37, 7		6,33
6″	42, 2,36, 3,45, 8,16, 1,28,41		3, 4,25,21,58	
		1,29,39, 8,21,57,15, 9		6,33
8″	42, 2,37,33,24,16,37,58,43,50		3, 4,25,28,31	
		1,29,39, 5,17,31,46,38		6,33
10″	42, 2,39, 3, 3,21,55,30,30,28		3, 4,25,35, 4	
		1,29,39, 2,13, 6,11,34		6,33
12″	42, 2,40,32,42,24, 8,36,42, 2		3, 4,25,41,37	
		1,29,38,59, 8,40,29,57		6,33
14″	42, 2,42, 2,21,23,17,17,11,59		3, 4,25,48,10	
		1,29,38,56, 4,14,41,47		6,33
16″	42, 2,43,32, 0,19,21,31,53,46		3, 4,25,54,43	
		1,29,38,52,59,48,47, 4		6,33
18″	42, 2,45, 1,39,12,21,20,40,50		3, 4,26, 1,16	
		1,29,38,49,55,22,45,48		6,33
20″	42, 2,46,31,18, 2,16,43,26,38		3, 4,26, 7,49	
		1,29,38,46,50,56,37,59		6,33
22″	42, 2,48, 0,56,49, 7,40, 4,37		3, 4,26,14,22	
		1,29,38,43,46,30,23,37		6,33
24″	42, 2,49,30,35,32,54,10,28,14		3, 4,26,20,55	
		1,29,38,40,42, 4, 2,42		6,33
26″	42, 2,51, 0,14,13,36,14,30,56		3, 4,26,27,28	
		1,29,38,37,37,37,35,14		6,33
28″	42, 2,52,29,52,51,13,52, 6,10		3, 4,26,34, 1	
		1,29,38,34,33,11, 1,13		6,33
30″	42, 2,53,59,31,25,47, 3, 7,23		3, 4,26,40,34	
		1,29,38,31,28,44,20,39		6,33
32″	42, 2,55,29, 9,57,15,47,28, 2		3, 4,26,47, 7	
		1,29,38,28,24,17,33,32		6,33
34″	42, 2,56,58,48,25,40, 5, 1,34		3, 4,26,53,40	
		1,29,38,25,19,50,39,52		6,33
36″	42, 2,58,28,26,50,59,55,41,26		3, 4,27, 0,13	
		1,29,38,22,15,23,39,39		6,33
38″	42, 2,59,58, 5,13,15,19,21, 5		3, 4,27, 6,46	
		1,29,38,19,10,56,32,53		6,33
40″	42, 3, 1,27,43,32,26,15,53,58		3, 4,27,13,19	
		1,29,38,16, 6,29,19,34		6,33
42″	42, 3, 2,57,21,48,32,45,13,32		3, 4,27,19,52	
		1,29,38,13, 2, 1,59,42		6,33
44″	42, 3, 4,27, 0, 1,34,47,13,14		3, 4,27,26,25	
		1,29,38, 9,57,34,33,17		6,33
46″	42, 3, 5,56,38,11,32,21,46,31		3, 4,27,32,58	
		1,29,38, 6,53, 7, 0,19		6,33
48″	42, 3, 7,26,16,18,25,28,46,50		3, 4,27,39,31	
		1,29,38, 3,48,39,20,48		6,33
50″	42, 3, 8,55,54,22,14, 8, 7,38		3, 4,27,46, 4	
		1,29,38, 0,44,11,34,44		6,33
52″	42, 3,10,25,32,22,58,19,42,22		3, 4,27,52,37	
		1,29,37,57,39,43,42, 7		6,33
54″	42, 3,11,55,10,20,38, 3,24,29		3, 4,27,59,10	
		1,29,37,54,35,15,42,57		6,33
56″	42, 3,13,24,48,15,13,19, 7,26		3, 4,28, 5,43	
		1,29,37,51,30,47,37,14		6,33
58″	42, 3,14,54,26, 6,44, 6,44,40		3, 4,28,12,16	
		1,29,37,48,26,19,24,58		
60″	42, 3,16,24, 3,55,10,26, 9,38			
exact	42, 3,16,24, 3,55,10,25,50,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°30′ 0″	42, 3,16,24, 3,55,10,25,50,13			
		1,29,37,45,21,51, 4,15		
2″	42, 3,17,53,41,40,32,16,54,28		3, 4,28,25,29	
		1,29,37,42,17,22,38,46		6,33
4″	42, 3,19,23,19,22,49,39,33,14		3, 4,28,32, 2	
		1,29,37,39,12,54, 6,44		6,33
6″	42, 3,20,52,57, 2, 2,33,39,58		3, 4,28,38,35	
		1,29,37,36, 8,25,28, 9		6,33
8″	42, 3,22,22,34,38,10,59, 8, 7		3, 4,28,45, 8	
		1,29,37,33, 3,56,43, 1		6,33
10″	42, 3,23,52,12,11,14,55,51, 8		3, 4,28,51,41	
		1,29,37,29,59,27,51,20		6,33
12″	42, 3,25,21,49,41,14,23,42,28		3, 4,28,58,14	
		1,29,37,26,54,58,53, 6		6,33
14″	42, 3,26,51,27, 8, 9,22,35,34		3, 4,29, 4,47	
		1,29,37,23,50,29,48,19		6,33
16″	42, 3,28,21, 4,31,59,52,23,53		3, 4,29,11,20	
		1,29,37,20,46, 0,36,59		6,33
18″	42, 3,29,50,41,52,45,53, 0,52		3, 4,29,17,53	
		1,29,37,17,41,31,19, 6		6,33
20″	42, 3,31,20,19,10,27,24,19,58		3, 4,29,24,26	
		1,29,37,14,37, 1,54,40		6,33
22″	42, 3,32,49,56,25, 4,26,14,38		3, 4,29,30,59	
		1,29,37,11,32,32,23,41		6,33
24″	42, 3,34,19,33,36,36,58,38,19		3, 4,29,37,32	
		1,29,37, 8,28, 2,46, 9		6,33
26″	42, 3,35,49,10,45, 5, 1,24,28		3, 4,29,44, 5	
		1,29,37, 5,23,33, 2, 4		6,33
28″	42, 3,37,18,47,50,28,34,26,32		3, 4,29,50,38	
		1,29,37, 2,19, 3,11,26		6,33
30″	42, 3,38,48,24,52,47,37,37,58		3, 4,29,57,11	
		1,29,36,59,14,33,14,15		6,33
32″	42, 3,40,18, 1,52, 2,10,52,13		3, 4,30, 3,44	
		1,29,36,56,10, 3,10,31		6,33
34″	42, 3,41,47,38,48,12,14, 2,44		3, 4,30,10,17	
		1,29,36,53, 5,33, 0,14		6,33
36″	42, 3,43,17,15,41,17,47, 2,58		3, 4,30,16,50	
		1,29,36,50, 1, 2,43,24		6,33
38″	42, 3,44,46,52,31,18,49,46,22		3, 4,30,23,23	
		1,29,36,46,56,32,20, 1		6,33
40″	42, 3,46,16,29,18,15,22, 6,23		3, 4,30,29,56	
		1,29,36,43,52, 1,50, 5		6,33
42″	42, 3,47,46, 6, 2, 7,23,56,28		3, 4,30,36,29	
		1,29,36,40,47,31,13,36		6,33
44″	42, 3,49,15,42,42,54,55,10, 4		3, 4,30,43, 2	
		1,29,36,37,43, 0,30,34		6,33
46″	42, 3,50,45,19,20,37,55,40,38		3, 4,30,49,35	
		1,29,36,34,38,29,40,59		6,33
48″	42, 3,52,14,55,55,16,25,21,37		3, 4,30,56, 8	
		1,29,36,31,33,58,44,51		6,33
50″	42, 3,53,44,32,26,50,24, 6,28		3, 4,31, 2,41	
		1,29,36,28,29,27,42,10		6,33
52″	42, 3,55,14, 8,55,19,51,48,38		3, 4,31, 9,14	
		1,29,36,25,24,56,32,56		6,33
54″	42, 3,56,43,45,20,44,48,21,34		3, 4,31,15,47	
		1,29,36,22,20,25,17, 9		6,33
56″	42, 3,58,13,21,43, 5,13,38,43		3, 4,31,22,20	
		1,29,36,19,15,53,54,49		6,33
58″	42, 3,59,42,58, 2,21, 7,33,32		3, 4,31,28,53	
		1,29,36,16,11,22,25,56		
60″	42, 4, 1,12,34,18,32,29,59,28			
exact	42, 4, 1,12,34,18,32,29,52,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°31′ 0″	42, 4, 1,12,34,18,32,29,52,25			
		1,29,36,13, 6,50,49,45		
2″	42, 4, 2,42,10,31,39,20,42,10		3, 4,31,42, 2	
		1,29,36,10, 2,19, 7,43		6,33
4″	42, 4, 4,11,46,41,41,39,49,53		3, 4,31,48,35	
		1,29,36, 6,57,47,19, 8		6,33
6″	42, 4, 5,41,22,48,39,27, 9, 1		3, 4,31,55, 8	
		1,29,36, 3,53,15,24, 0		6,33
8″	42, 4, 7,10,58,52,32,42,33, 1		3, 4,32, 1,41	
		1,29,36, 0,48,43,22,19		6,33
10″	42, 4, 8,40,34,53,21,25,55,20		3, 4,32, 8,14	
		1,29,35,57,44,11,14, 5		6,33
12″	42, 4,10,10,10,51, 5,37, 9,25		3, 4,32,14,47	
		1,29,35,54,39,38,59,18		6,33
14″	42, 4,11,39,46,45,45,16, 8,43		3, 4,32,21,20	
		1,29,35,51,35, 6,37,58		6,33
16″	42, 4,13, 9,22,37,20,22,46,41		3, 4,32,27,53	
		1,29,35,48,30,34,10, 5		6,33
18″	42, 4,14,38,58,25,50,56,56,46		3, 4,32,34,26	
		1,29,35,45,26, 1,35,39		6,33
20″	42, 4,16, 8,34,11,16,58,32,25		3, 4,32,40,59	
		1,29,35,42,21,28,54,40		6,33
22″	42, 4,17,38, 9,53,38,27,27, 5		3, 4,32,47,32	
		1,29,35,39,16,56, 7, 8		6,33
24″	42, 4,19, 7,45,32,55,23,34,13		3, 4,32,54, 5	
		1,29,35,36,12,23,13, 3		6,33
26″	42, 4,20,37,21, 9, 7,46,47,16		3, 4,33, 0,38	
		1,29,35,33, 7,50,12,25		6,33
28″	42, 4,22, 6,56,42,15,36,59,41		3, 4,33, 7,11	
		1,29,35,30, 3,17, 5,14		6,33
30″	42, 4,23,36,32,12,18,54, 4,55		3, 4,33,13,44	
		1,29,35,26,58,43,51,30		6,33
32″	42, 4,25, 6, 7,39,17,37,56,25		3, 4,33,20,17	
		1,29,35,23,54,10,31,13		6,33
34″	42, 4,26,35,43, 3,11,48,27,38		3, 4,33,26,50	
		1,29,35,20,49,37, 4,23		6,33
36″	42, 4,28, 5,18,24, 1,25,32, 1		3, 4,33,33,23	
		1,29,35,17,45, 3,31, 0		6,33
38″	42, 4,29,34,53,41,46,29, 3, 1		3, 4,33,39,56	
		1,29,35,14,40,29,51, 4		6,33
40″	42, 4,31, 4,28,56,26,58,54, 5		3, 4,33,46,29	
		1,29,35,11,35,56, 4,35		6,33
42″	42, 4,32,34, 4, 8, 2,54,58,40		3, 4,33,53, 2	
		1,29,35, 8,31,22,11,33		6,33
44″	42, 4,34, 3,39,16,34,17,10,13		3, 4,33,59,35	
		1,29,35, 5,26,48,11,58		6,33
46″	42, 4,35,33,14,22, 1, 5,22,11		3, 4,34, 6, 8	
		1,29,35, 2,22,14, 5,50		6,33
48″	42, 4,37, 2,49,24,23,19,28, 1		3, 4,34,12,41	
		1,29,34,59,17,39,53, 9		6,33
50″	42, 4,38,32,24,23,40,59,21,10		3, 4,34,19,14	
		1,29,34,56,13, 5,33,55		6,33
52″	42, 4,40, 1,59,19,54, 4,55, 5		3, 4,34,25,47	
		1,29,34,53, 8,31, 8, 8		6,33
54″	42, 4,41,31,34,13, 2,36, 3,13		3, 4,34,32,20	
		1,29,34,50, 3,56,35,48		6,33
56″	42, 4,43, 1, 9, 3, 6,32,39, 1		3, 4,34,38,53	
		1,29,34,46,59,21,56,55		6,33
58″	42, 4,44,30,43,50, 5,54,35,56		3, 4,34,45,26	
		1,29,34,43,54,47,11,29		
60″	42, 4,46, 0,18,34, 0,41,47,25			
exact	42, 4,46, 0,18,34, 0,41,47,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°32′ 0″	42, 4,46, 0,18,34, 0,41,47,35			
		1,29,34,40,50,12,19,33		
2″	42, 4,47,29,53,14,50,54, 7, 8		3, 4,34,58,31	
		1,29,34,37,45,37,21, 2		6,33
4″	42, 4,48,59,27,52,36,31,28,10		3, 4,35, 5, 4	
		1,29,34,34,41, 2,15,58		6,33
6″	42, 4,50,29, 2,27,17,33,44, 8		3, 4,35,11,37	
		1,29,34,31,36,27, 4,21		6,33
8″	42, 4,51,58,36,58,54, 0,48,29		3, 4,35,18,10	
		1,29,34,28,31,51,46,11		6,33
10″	42, 4,53,28,11,27,25,52,34,40		3, 4,35,24,43	
		1,29,34,25,27,16,21,28		6,33
12″	42, 4,54,57,45,52,53, 8,56, 8		3, 4,35,31,16	
		1,29,34,22,22,40,50,12		6,33
14″	42, 4,56,27,20,15,15,49,46,20		3, 4,35,37,49	
		1,29,34,19,18, 5,12,23		6,33
16″	42, 4,57,56,54,34,33,54,58,43		3, 4,35,44,22	
		1,29,34,16,13,29,28, 1		6,33
18″	42, 4,59,26,28,50,47,24,26,44		3, 4,35,50,55	
		1,29,34,13, 8,53,37, 6		6,33
20″	42, 5, 0,56, 3, 3,56,18, 3,50		3, 4,35,57,28	
		1,29,34,10, 4,17,39,38		6,33
22″	42, 5, 2,25,37,14, 0,35,43,28		3, 4,36, 4, 1	
		1,29,34, 6,59,41,35,37		6,33
24″	42, 5, 3,55,11,21, 0,17,19, 5		3, 4,36,10,34	
		1,29,34, 3,55, 5,25, 3		6,33
26″	42, 5, 5,24,45,24,55,22,44, 8		3, 4,36,17, 7	
		1,29,34, 0,50,29, 7,56		6,33
28″	42, 5, 6,54,19,25,45,51,52, 4		3, 4,36,23,40	
		1,29,33,57,45,52,44,16		6,33
30″	42, 5, 8,23,53,23,31,44,36,20		3, 4,36,30,13	
		1,29,33,54,41,16,14, 3		6,33
32″	42, 5, 9,53,27,18,13, 0,50,23		3, 4,36,36,46	
		1,29,33,51,36,39,37,17		6,33
34″	42, 5,11,23, 1, 9,49,40,27,40		3, 4,36,43,19	
		1,29,33,48,32, 2,53,58		6,33
36″	42, 5,12,52,34,58,21,43,21,38		3, 4,36,49,52	
		1,29,33,45,27,26, 4, 6		6,33
38″	42, 5,14,22, 8,43,49, 9,25,44		3, 4,36,56,25	
		1,29,33,42,22,49, 7,41		6,33
40″	42, 5,15,51,42,26,11,58,33,25		3, 4,37, 2,58	
		1,29,33,39,18,12, 4,43		6,33
42″	42, 5,17,21,16, 5,30,10,38, 8		3, 4,37, 9,31	
		1,29,33,36,13,34,55,12		6,33
44″	42, 5,18,50,49,41,43,45,33,20		3, 4,37,16, 4	
		1,29,33,33, 8,57,39, 8		6,33
46″	42, 5,20,20,23,14,52,43,12,28		3, 4,37,22,37	
		1,29,33,30, 4,20,16,31		6,33
48″	42, 5,21,49,56,44,57, 3,28,59		3, 4,37,29,10	
		1,29,33,26,59,42,47,21		6,33
50″	42, 5,23,19,30,11,56,46,16,20		3, 4,37,35,43	
		1,29,33,23,55, 5,11,38		6,33
52″	42, 5,24,49, 3,35,51,51,27,58		3, 4,37,42,16	
		1,29,33,20,50,27,29,22		6,33
54″	42, 5,26,18,36,56,42,18,57,20		3, 4,37,48,49	
		1,29,33,17,45,49,40,33		6,33
56″	42, 5,27,48,10,14,28, 8,37,53		3, 4,37,55,22	
		1,29,33,14,41,11,45,11		6,33
58″	42, 5,29,17,43,29, 9,20,23, 4		3, 4,38, 1,55	
		1,29,33,11,36,33,43,16		
60″	42, 5,30,47,16,40,45,54, 6,20			
exact	42, 5,30,47,16,40,45,54, 9,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°33′ 0″	42, 5,30,47,16,40,45,54, 9,42	1,29,33, 8,31,55,35,21		
2″	42, 5,32,16,49,49,17,49,45, 3	1,29,33, 5,27,17,20,23	3, 4,38,14,58	6,33
4″	42, 5,33,46,22,54,45, 7, 5,26	1,29,33, 2,22,38,58,52	3, 4,38,21,31	6,33
6″	42, 5,35,15,55,57, 7,46, 4,18	1,29,32,59,18, 0,30,48	3, 4,38,28, 4	6,33
8″	42, 5,36,45,28,56,25,46,35, 6	1,29,32,56,13,21,56,11	3, 4,38,34,37	6,33
10″	42, 5,38,15, 1,52,39, 8,31,17	1,29,32,53, 8,43,15, 1	3, 4,38,41,10	6,33
12″	42, 5,39,44,34,45,47,51,46,18	1,29,32,50, 4, 4,27,18	3, 4,38,47,43	6,33
14″	42, 5,41,14, 7,35,51,56,13,36	1,29,32,46,59,25,33, 2	3, 4,38,54,16	6,33
16″	42, 5,42,43,40,22,51,21,46,38	1,29,32,43,54,46,32,13	3, 4,39, 0,49	6,33
18″	42, 5,44,13,13, 6,46, 8,18,51	1,29,32,40,50, 7,24,51	3, 4,39, 7,22	6,33
20″	42, 5,45,42,45,47,36,15,43,42	1,29,32,37,45,28,10,56	3, 4,39,13,55	6,33
22″	42, 5,47,12,18,25,21,43,54,38	1,29,32,34,40,48,50,28	3, 4,39,20,28	6,33
24″	42, 5,48,41,51, 0, 2,32,45, 6	1,29,32,31,36, 9,23,27	3, 4,39,27, 1	6,33
26″	42, 5,50,11,23,31,38,42, 8,33	1,29,32,28,31,29,49,53	3, 4,39,33,34	6,33
28″	42, 5,51,40,56, 0,10,11,58,26	1,29,32,25,26,50, 9,46	3, 4,39,40, 7	6,33
30″	42, 5,53,10,28,25,37, 2, 8,12	1,29,32,22,22,10,23, 6	3, 4,39,46,40	6,33
32″	42, 5,54,40, 0,47,59,12,31,18	1,29,32,19,17,30,29,53	3, 4,39,53,13	6,33
34″	42, 5,56, 9,33, 7,16,43, 1,11	1,29,32,16,12,50,30, 7	3, 4,39,59,46	6,33
36″	42, 5,57,39, 5,23,29,33,31,18	1,29,32,13, 8,10,23,48	3, 4,40, 6,19	6,33
38″	42, 5,59, 8,37,36,37,43,55, 6	1,29,32,10, 3,30,10,56	3, 4,40,12,52	6,33
40″	42, 6, 0,38, 9,46,41,14, 6, 2	1,29,32, 6,58,49,51,31	3, 4,40,19,25	6,33
42″	42, 6, 2, 7,41,53,40, 3,57,33	1,29,32, 3,54, 9,25,33	3, 4,40,25,58	6,33
44″	42, 6, 3,37,13,57,34,13,23, 6	1,29,32, 0,49,28,53, 2	3, 4,40,32,31	6,33
46″	42, 6, 5, 6,45,58,23,42,16, 8	1,29,31,57,44,48,13,58	3, 4,40,39, 4	6,33
48″	42, 6, 6,36,17,56, 8,30,30, 6	1,29,31,54,40, 7,28,21	3, 4,40,45,37	6,33
50″	42, 6, 8, 5,49,50,48,37,58,27	1,29,31,51,35,26,36,11	3, 4,40,52,10	6,33
52″	42, 6, 9,35,21,42,24, 4,34,38	1,29,31,48,30,45,37,28	3, 4,40,58,43	6,33
54″	42, 6,11, 4,53,30,54,50,12, 6	1,29,31,45,26, 4,32,12	3, 4,41, 5,16	6,33
56″	42, 6,12,34,25,16,20,54,44,18	1,29,31,42,21,23,20,23	3, 4,41,11,49	6,33
58″	42, 6,14, 3,56,58,42,18, 4,41	1,29,31,39,16,42, 2, 1	3, 4,41,18,22	
60″	42, 6,15,33,28,37,59, 0, 6,42			
exact	42, 6,15,33,28,37,59, 0,23,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°34′ 0″	42, 6,15,33,28,37,59, 0,23,18			
		1,29,31,36,12, 0,38,51		
2″	42, 6,17, 3, 0,14,11, 1, 2, 9		3, 4,41,31,21	
		1,29,31,33, 7,19, 7,30		6,33
4″	42, 6,18,32,31,47,18,20, 9,39		3, 4,41,37,54	
		1,29,31,30, 2,37,29,36		6,33
6″	42, 6,20, 2, 3,17,20,57,39,15		3, 4,41,44,27	
		1,29,31,26,57,55,45, 9		6,33
8″	42, 6,21,31,34,44,18,53,24,24		3, 4,41,51, 0	
		1,29,31,23,53,13,54, 9		6,33
10″	42, 6,23, 1, 6, 8,12, 7,18,33		3, 4,41,57,33	
		1,29,31,20,48,31,56,36		6,33
12″	42, 6,24,30,37,29, 0,39,15, 9		3, 4,42, 4, 6	
		1,29,31,17,43,49,52,30		6,33
14″	42, 6,26, 0, 8,46,44,29, 7,39		3, 4,42,10,39	
		1,29,31,14,39, 7,41,51		6,33
16″	42, 6,27,29,40, 1,23,36,49,30		3, 4,42,17,12	
		1,29,31,11,34,25,24,39		6,33
18″	42, 6,28,59,11,12,58, 2,14, 9		3, 4,42,23,45	
		1,29,31, 8,29,43, 0,54		6,33
20″	42, 6,30,28,42,21,27,45,15, 3		3, 4,42,30,18	
		1,29,31, 5,25, 0,30,36		6,33
22″	42, 6,31,58,13,26,52,45,45,39		3, 4,42,36,51	
		1,29,31, 2,20,17,53,45		6,33
24″	42, 6,33,27,44,29,13, 3,39,24		3, 4,42,43,24	
		1,29,30,59,15,35,10,21		6,33
26″	42, 6,34,57,15,28,28,38,49,45		3, 4,42,49,57	
		1,29,30,56,10,52,20,24		6,33
28″	42, 6,36,26,46,24,39,31,10, 9		3, 4,42,56,30	
		1,29,30,53, 6, 9,23,54		6,33
30″	42, 6,37,56,17,17,45,40,34, 3		3, 4,43, 3, 3	
		1,29,30,50, 1,26,20,51		6,33
32″	42, 6,39,25,48, 7,47, 6,54,54		3, 4,43, 9,36	
		1,29,30,46,56,43,11,15		6,33
34″	42, 6,40,55,18,54,43,50, 6, 9		3, 4,43,16, 9	
		1,29,30,43,51,59,55, 6		6,33
36″	42, 6,42,24,49,38,35,50, 1,15		3, 4,43,22,42	
		1,29,30,40,47,16,32,24		6,33
38″	42, 6,43,54,20,19,23, 6,33,39		3, 4,43,29,15	
		1,29,30,37,42,33, 3, 9		6,33
40″	42, 6,45,23,50,57, 5,39,36,48		3, 4,43,35,48	
		1,29,30,34,37,49,27,21		6,33
42″	42, 6,46,53,21,31,43,29, 4, 9		3, 4,43,42,21	
		1,29,30,31,33, 5,45, 0		6,33
44″	42, 6,48,22,52, 3,16,34,49, 9		3, 4,43,48,54	
		1,29,30,28,28,21,56, 6		6,33
46″	42, 6,49,52,22,31,44,56,45,15		3, 4,43,55,27	
		1,29,30,25,23,38, 0,39		6,33
48″	42, 6,51,21,52,57, 8,34,45,54		3, 4,44, 2, 0	
		1,29,30,22,18,53,58,39		6,33
50″	42, 6,52,51,23,19,27,28,44,33		3, 4,44, 8,33	
		1,29,30,19,14, 9,50, 6		6,33
52″	42, 6,54,20,53,38,41,38,34,39		3, 4,44,15, 6	
		1,29,30,16, 9,25,35, 0		6,33
54″	42, 6,55,50,23,54,51, 4, 9,39		3, 4,44,21,39	
		1,29,30,13, 4,41,13,21		6,33
56″	42, 6,57,19,54, 7,55,45,23, 0		3, 4,44,28,12	
		1,29,30, 9,59,56,45, 9		6,33
58″	42, 6,58,49,24,17,55,42, 8, 9		3, 4,44,34,45	
		1,29,30, 6,55,12,10,24		
60″	42, 7, 0,18,54,24,50,54,18,33			
exact	42, 7, 0,18,54,24,50,54,43,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°35′ 0″	42, 7, 0,18,54,24,50,54,43,35			
		1,29,30, 3,50,27,31,43		
2″	42, 7, 1,48,24,28,41,22,15,18		3, 4,44,47,40	
		1,29,30, 0,45,42,44, 3		6,33
4″	42, 7, 3,17,54,29,27, 4,59,21		3, 4,44,54,13	
		1,29,29,57,40,57,49,50		6,33
6″	42, 7, 4,47,24,27, 8, 2,49,11		3, 4,45, 0,46	
		1,29,29,54,36,12,49, 4		6,33
8″	42, 7, 6,16,54,21,44,15,38,15		3, 4,45, 7,19	
		1,29,29,51,31,27,41,45		6,33
10″	42, 7, 7,46,24,13,15,43,20, 0		3, 4,45,13,52	
		1,29,29,48,26,42,27,53		6,33
12″	42, 7, 9,15,54, 1,42,25,47,53		3, 4,45,20,25	
		1,29,29,45,21,57, 7,28		6,33
14″	42, 7,10,45,23,47, 4,22,55,21		3, 4,45,26,58	
		1,29,29,42,17,11,40,30		6,33
16″	42, 7,12,14,53,29,21,34,35,51		3, 4,45,33,31	
		1,29,29,39,12,26, 6,59		6,33
18″	42, 7,13,44,23, 8,34, 0,42,50		3, 4,45,40, 4	
		1,29,29,36, 7,40,26,55		6,33
20″	42, 7,15,13,52,44,41,41, 9,45		3, 4,45,46,37	
		1,29,29,33, 2,54,40,18		6,33
22″	42, 7,16,43,22,17,44,35,50, 3		3, 4,45,53,10	
		1,29,29,29,58, 8,47, 8		6,33
24″	42, 7,18,12,51,47,42,44,37,11		3, 4,45,59,43	
		1,29,29,26,53,22,47,25		6,33
26″	42, 7,19,42,21,14,36, 7,24,36		3, 4,46, 6,16	
		1,29,29,23,48,36,41, 9		6,33
28″	42, 7,21,11,50,38,24,44, 5,45		3, 4,46,12,49	
		1,29,29,20,43,50,28,20		6,33
30″	42, 7,22,41,19,59, 8,34,34, 5		3, 4,46,19,22	
		1,29,29,17,39, 4, 8,58		6,33
32″	42, 7,24,10,49,16,47,38,43, 3		3, 4,46,25,55	
		1,29,29,14,34,17,43, 3		6,33
34″	42, 7,25,40,18,31,21,56,26, 6		3, 4,46,32,28	
		1,29,29,11,29,31,10,35		6,33
36″	42, 7,27, 9,47,42,51,27,36,41		3, 4,46,39, 1	
		1,29,29, 8,24,44,31,34		6,33
38″	42, 7,28,39,16,51,16,12, 8,15		3, 4,46,45,34	
		1,29,29, 5,19,57,46, 0		6,33
40″	42, 7,30, 8,45,56,36, 9,54,15		3, 4,46,52, 7	
		1,29,29, 2,15,10,53,53		6,33
42″	42, 7,31,38,14,58,51,20,48, 8		3, 4,46,58,40	
		1,29,28,59,10,23,55,13		6,33
44″	42, 7,33, 7,43,58, 1,44,43,21		3, 4,47, 5,13	
		1,29,28,56, 5,36,50, 0		6,33
46″	42, 7,34,37,12,54, 7,21,33,21		3, 4,47,11,46	
		1,29,28,53, 0,49,38,14		6,33
48″	42, 7,36, 6,41,47, 8,11,11,35		3, 4,47,18,19	
		1,29,28,49,56, 2,19,55		6,33
50″	42, 7,37,36,10,37, 4,13,31,30		3, 4,47,24,52	
		1,29,28,46,51,14,55, 3		6,33
52″	42, 7,39, 5,39,23,55,28,26,33		3, 4,47,31,25	
		1,29,28,43,46,27,23,38		6,33
54″	42, 7,40,35, 8, 7,41,55,50,11		3, 4,47,37,58	
		1,29,28,40,41,39,45,40		6,33
56″	42, 7,42, 4,36,48,23,35,35,51		3, 4,47,44,31	
		1,29,28,37,36,52, 1, 9		6,33
58″	42, 7,43,34, 5,26, 0,27,37, 0		3, 4,47,51, 4	
		1,29,28,34,32, 4,10, 5		
60″	42, 7,45, 3,34, 0,32,31,47, 5			
exact	42, 7,45, 3,34, 0,32,32,16,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°36′ 0″	42, 7,45, 3,34, 0,32,32,16,20	1,29,28,31,27,16,15,40		
2″	42, 7,46,33, 2,31,59,48,32, 0	1,29,28,28,22,28,11,44	3, 4,48, 3,56	6,32
4″	42, 7,48, 2,31, 0,22,16,43,44	1,29,28,25,17,40, 1,16	3, 4,48,10,28	6,32
6″	42, 7,49,31,59,25,39,56,45, 0	1,29,28,22,12,51,44,16	3, 4,48,17, 0	6,32
8″	42, 7,51, 1,27,47,52,48,29,16	1,29,28,19, 8, 3,20,44	3, 4,48,23,32	6,32
10″	42, 7,52,30,56, 7, 0,51,50, 0	1,29,28,16, 3,14,50,40	3, 4,48,30, 4	6,32
12″	42, 7,54, 0,24,23, 4, 6,40,40	1,29,28,12,58,26,14, 4	3, 4,48,36,36	6,32
14″	42, 7,55,29,52,36, 2,32,54,44	1,29,28, 9,53,37,30,56	3, 4,48,43, 8	6,32
16″	42, 7,56,59,20,45,56,10,25,40	1,29,28, 6,48,48,41,16	3, 4,48,49,40	6,32
18″	42, 7,58,28,48,52,44,59, 6,56	1,29,28, 3,43,59,45, 4	3, 4,48,56,12	6,32
20″	42, 7,59,58,16,56,28,58,52, 0	1,29,28, 0,39,10,42,20	3, 4,49, 2,44	6,32
22″	42, 8, 1,27,44,57, 8, 9,34,20	1,29,27,57,34,21,33, 4	3, 4,49, 9,16	6,32
24″	42, 8, 2,57,12,54,42,31, 7,24	1,29,27,54,29,32,17,16	3, 4,49,15,48	6,32
26″	42, 8, 4,26,40,49,12, 3,24,40	1,29,27,51,24,42,54,56	3, 4,49,22,20	6,32
28″	42, 8, 5,56, 8,40,36,46,19,36	1,29,27,48,19,53,26, 4	3, 4,49,28,52	6,32
30″	42, 8, 7,25,36,28,56,39,45,40	1,29,27,45,15, 3,50,40	3, 4,49,35,24	6,32
32″	42, 8, 8,55, 4,14,11,43,36,20	1,29,27,42,10,14, 8,44	3, 4,49,41,56	6,32
34″	42, 8,10,24,31,56,21,57,45, 4	1,29,27,39, 5,24,20,16	3, 4,49,48,28	6,32
36″	42, 8,11,53,59,35,27,22, 5,20	1,29,27,36, 0,34,25,16	3, 4,49,55, 0	6,32
38″	42, 8,13,23,27,11,27,56,30,36	1,29,27,32,55,44,23,44	3, 4,50, 1,32	6,32
40″	42, 8,14,52,54,44,23,40,54,20	1,29,27,29,50,54,15,40	3, 4,50, 8, 4	6,32
42″	42, 8,16,22,22,14,14,35,10, 0	1,29,27,26,46, 4, 1, 4	3, 4,50,14,36	6,32
44″	42, 8,17,51,49,41, 0,39,11, 4	1,29,27,23,41,13,39,56	3, 4,50,21, 8	6,32
46″	42, 8,19,21,17, 4,41,52,51, 0	1,29,27,20,36,23,12,16	3, 4,50,27,40	6,32
48″	42, 8,20,50,44,25,18,16, 3,16	1,29,27,17,31,32,38, 4	3, 4,50,34,12	6,32
50″	42, 8,22,20,11,42,49,48,41,20	1,29,27,14,26,41,57,20	3, 4,50,40,44	6,32
52″	42, 8,23,49,38,57,16,30,38,40	1,29,27,11,21,51,10, 4	3, 4,50,47,16	6,32
54″	42, 8,25,19, 6, 8,38,21,48,44	1,29,27, 8,17, 0,16,16	3, 4,50,53,48	6,32
56″	42, 8,26,48,33,16,55,22, 5, 0	1,29,27, 5,12, 9,15,56	3, 4,51, 0,20	6,32
58″	42, 8,28,18, 0,22, 7,31,20,56	1,29,27, 2, 7,18, 9, 4	3, 4,51, 6,52	
60″	42, 8,29,47,27,24,14,49,30, 0			
exact	42, 8,29,47,27,24,14,48,58, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°37′ 0″	42, 8,29,47,27,24,14,48,58, 1	1,29,26,59, 2,26,52,22		
2″	42, 8,31,16,54,23,17,15,50,23	1,29,26,55,57,35,32,13	3, 4,51,20, 9	6,32
4″	42, 8,32,46,21,19,14,51,22,36	1,29,26,52,52,44, 5,32	3, 4,51,26,41	6,32
6″	42, 8,34,15,48,12, 7,35,28, 8	1,29,26,49,47,52,32,19	3, 4,51,33,13	6,32
8″	42, 8,35,45,15, 1,55,28, 0,27	1,29,26,46,43, 0,52,34	3, 4,51,39,45	6,32
10″	42, 8,37,14,41,48,38,28,53, 1	1,29,26,43,38, 9, 6,17	3, 4,51,46,17	6,32
12″	42, 8,38,44, 8,32,16,37,59,18	1,29,26,40,33,17,13,28	3, 4,51,52,49	6,32
14″	42, 8,40,13,35,12,49,55,12,46	1,29,26,37,28,25,14, 7	3, 4,51,59,21	6,32
16″	42, 8,41,43, 1,50,18,20,26,53	1,29,26,34,23,33, 8,14	3, 4,52, 5,53	6,32
18″	42, 8,43,12,28,24,41,53,35, 7	1,29,26,31,18,40,55,49	3, 4,52,12,25	6,32
20″	42, 8,44,41,54,56, 0,34,30,56	1,29,26,28,13,48,36,52	3, 4,52,18,57	6,32
22″	42, 8,46,11,21,24,14,23, 7,48	1,29,26,25, 8,56,11,23	3, 4,52,25,29	6,32
24″	42, 8,47,40,47,49,23,19,19,11	1,29,26,22, 4, 3,39,22	3, 4,52,32, 1	6,32
26″	42, 8,49,10,14,11,27,22,58,33	1,29,26,18,59,11, 0,49	3, 4,52,38,33	6,32
28″	42, 8,50,39,40,30,26,33,59,22	1,29,26,15,54,18,15,44	3, 4,52,45, 5	6,32
30″	42, 8,52, 9, 6,46,20,52,15, 6	1,29,26,12,49,25,24, 7	3, 4,52,51,37	6,32
32″	42, 8,53,38,32,59,10,17,39,13	1,29,26, 9,44,32,25,58	3, 4,52,58, 9	6,32
34″	42, 8,55, 7,59, 8,54,50, 5,11	1,29,26, 6,39,39,21,17	3, 4,53, 4,41	6,32
36″	42, 8,56,37,25,15,34,29,26,28	1,29,26, 3,34,46,10, 4	3, 4,53,11,13	6,32
38″	42, 8,58, 6,51,19, 9,15,36,32	1,29,26, 0,29,52,52,19	3, 4,53,17,45	6,32
40″	42, 8,59,36,17,19,39, 8,28,51	1,29,25,57,24,59,28, 2	3, 4,53,24,17	6,32
42″	42, 9, 1, 5,43,17, 4, 7,56,53	1,29,25,54,20, 5,57,13	3, 4,53,30,49	6,32
44″	42, 9, 2,35, 9,11,24,13,54, 6	1,29,25,51,15,12,19,52	3, 4,53,37,21	6,32
46″	42, 9, 4, 4,35, 2,39,26,13,58	1,29,25,48,10,18,35,59	3, 4,53,43,53	6,32
48″	42, 9, 5,34, 0,50,49,44,49,57	1,29,25,45, 5,24,45,34	3, 4,53,50,25	6,32
50″	42, 9, 7, 3,26,35,55, 9,35,31	1,29,25,42, 0,30,48,37	3, 4,53,56,57	6,32
52″	42, 9, 8,32,52,17,55,40,24, 8	1,29,25,38,55,36,45, 8	3, 4,54, 3,29	6,32
54″	42, 9,10, 2,17,56,51,17, 9,16	1,29,25,35,50,42,35, 7	3, 4,54,10, 1	6,32
56″	42, 9,11,31,43,32,41,59,44,23	1,29,25,32,45,48,18,34	3, 4,54,16,33	6,32
58″	42, 9,13, 1, 9, 5,27,48, 2,57	1,29,25,29,40,53,55,29	3, 4,54,23, 5	
60″	42, 9,14,30,34,35, 8,41,58,26			
exact	42, 9,14,30,34,35, 8,41,35,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°38′ 0″	42, 9,14,30,34,35, 8,41,35,46			
		1,29,25,26,35,59,23,30		
2″	42, 9,16, 0, 0, 1,44,40,59,16		3, 4,54,36,18	
		1,29,25,23,31, 4,47,12		6,32
4″	42, 9,17,29,25,25,15,45,46,28		3, 4,54,42,50	
		1,29,25,20,26,10, 4,22		6,32
6″	42, 9,18,58,50,45,41,55,50,50		3, 4,54,49,22	
		1,29,25,17,21,15,15, 0		6,32
8″	42, 9,20,28,16, 3, 3,11, 5,50		3, 4,54,55,54	
		1,29,25,14,16,20,19, 6		6,32
10″	42, 9,21,57,41,17,19,31,24,56		3, 4,55, 2,26	
		1,29,25,11,11,25,16,40		6,32
12″	42, 9,23,27, 6,28,30,56,41,36		3, 4,55, 8,58	
		1,29,25, 8, 6,30, 7,42		6,32
14″	42, 9,24,56,31,36,37,26,49,18		3, 4,55,15,30	
		1,29,25, 5, 1,34,52,12		6,32
16″	42, 9,26,25,56,41,39, 1,41,30		3, 4,55,22, 2	
		1,29,25, 1,56,39,30,10		6,32
18″	42, 9,27,55,21,43,35,41,11,40		3, 4,55,28,34	
		1,29,24,58,51,44, 1,36		6,32
20″	42, 9,29,24,46,42,27,25,13,16		3, 4,55,35, 6	
		1,29,24,55,46,48,26,30		6,32
22″	42, 9,30,54,11,38,14,13,39,46		3, 4,55,41,38	
		1,29,24,52,41,52,44,52		6,32
24″	42, 9,32,23,36,30,56, 6,24,38		3, 4,55,48,10	
		1,29,24,49,36,56,56,42		6,32
26″	42, 9,33,53, 1,20,33, 3,21,20		3, 4,55,54,42	
		1,29,24,46,32, 1, 2, 0		6,32
28″	42, 9,35,22,26, 7, 5, 4,23,20		3, 4,56, 1,14	
		1,29,24,43,27, 5, 0,46		6,32
30″	42, 9,36,51,50,50,32, 9,24, 6		3, 4,56, 7,46	
		1,29,24,40,22, 8,53, 0		6,32
32″	42, 9,38,21,15,30,54,18,17, 6		3, 4,56,14,18	
		1,29,24,37,17,12,38,42		6,32
34″	42, 9,39,50,40, 8,11,30,55,48		3, 4,56,20,50	
		1,29,24,34,12,16,17,52		6,32
36″	42, 9,41,20, 4,42,23,47,13,40		3, 4,56,27,22	
		1,29,24,31, 7,19,50,30		6,32
38″	42, 9,42,49,29,13,31, 7, 4,10		3, 4,56,33,54	
		1,29,24,28, 2,23,16,36		6,32
40″	42, 9,44,18,53,41,33,30,20,46		3, 4,56,40,26	
		1,29,24,24,57,26,36,10		6,32
42″	42, 9,45,48,18, 6,30,56,56,56		3, 4,56,46,58	
		1,29,24,21,52,29,49,12		6,32
44″	42, 9,47,17,42,28,23,26,46, 8		3, 4,56,53,30	
		1,29,24,18,47,32,55,42		6,32
46″	42, 9,48,47, 6,47,10,59,41,50		3, 4,57, 0, 2	
		1,29,24,15,42,35,55,40		6,32
48″	42, 9,50,16,31, 2,53,35,37,30		3, 4,57, 6,34	
		1,29,24,12,37,38,49, 6		6,32
50″	42, 9,51,45,55,15,31,14,26,36		3, 4,57,13, 6	
		1,29,24, 9,32,41,36, 0		6,32
52″	42, 9,53,15,19,25, 3,56, 2,36		3, 4,57,19,38	
		1,29,24, 6,27,44,16,22		6,32
54″	42, 9,54,44,43,31,31,40,18,58		3, 4,57,26,10	
		1,29,24, 3,22,46,50,12		6,32
56″	42, 9,56,14, 7,34,54,27, 9,10		3, 4,57,32,42	
		1,29,24, 0,17,49,17,30		6,32
58″	42, 9,57,43,31,35,12,16,26,40		3, 4,57,39,14	
		1,29,23,57,12,51,38,16		
60″	42, 9,59,12,55,32,25, 8, 4,56			
exact	42, 9,59,12,55,32,25, 7,47,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°39′ 0″	42, 9,59,12,55,32,25, 7,47,23			
		1,29,23,54, 7,53,50,46		
2″	42,10, 0,42,19,26,33, 1,38, 9		3, 4,57,52,24	
		1,29,23,51, 2,55,58,22		6,32
4″	42,10, 2,11,43,17,35,57,36,31		3, 4,57,58,56	
		1,29,23,47,57,57,59,26		6,32
6″	42,10, 3,41, 7, 5,33,55,35,57		3, 4,58, 5,28	
		1,29,23,44,52,59,53,58		6,32
8″	42,10, 5,10,30,50,26,55,29,55		3, 4,58,12, 0	
		1,29,23,41,48, 1,41,58		6,32
10″	42,10, 6,39,54,32,14,57,11,53		3, 4,58,18,32	
		1,29,23,38,43, 3,23,26		6,32
12″	42,10, 8, 9,18,10,58, 0,35,19		3, 4,58,25, 4	
		1,29,23,35,38, 4,58,22		6,32
14″	42,10, 9,38,41,46,36, 5,33,41		3, 4,58,31,36	
		1,29,23,32,33, 6,26,46		6,32
16″	42,10,11, 8, 5,19, 9,12, 0,27		3, 4,58,38, 8	
		1,29,23,29,28, 7,48,38		6,32
18″	42,10,12,37,28,48,37,19,49, 5		3, 4,58,44,40	
		1,29,23,26,23, 9, 3,58		6,32
20″	42,10,14, 6,52,15, 0,28,53, 3		3, 4,58,51,12	
		1,29,23,23,18,10,12,46		6,32
22″	42,10,15,36,15,38,18,39, 5,49		3, 4,58,57,44	
		1,29,23,20,13,11,15, 2		6,32
24″	42,10,17, 5,38,58,31,50,20,51		3, 4,59, 4,16	
		1,29,23,17, 8,12,10,46		6,32
26″	42,10,18,35, 2,15,40, 2,31,37		3, 4,59,10,48	
		1,29,23,14, 3,12,59,58		6,32
28″	42,10,20, 4,25,29,43,15,31,35		3, 4,59,17,20	
		1,29,23,10,58,13,42,38		6,32
30″	42,10,21,33,48,40,41,29,14,13		3, 4,59,23,52	
		1,29,23, 7,53,14,18,46		6,32
32″	42,10,23, 3,11,48,34,43,32,59		3, 4,59,30,24	
		1,29,23, 4,48,14,48,22		6,32
34″	42,10,24,32,34,53,22,58,21,21		3, 4,59,36,56	
		1,29,23, 1,43,15,11,26		6,32
36″	42,10,26, 1,57,55, 6,13,32,47		3, 4,59,43,28	
		1,29,22,58,38,15,27,58		6,32
38″	42,10,27,31,20,53,44,29, 0,45		3, 4,59,50, 0	
		1,29,22,55,33,15,37,58		6,32
40″	42,10,29, 0,43,49,17,44,38,43		3, 4,59,56,32	
		1,29,22,52,28,15,41,26		6,32
42″	42,10,30,30, 6,41,46, 0,20, 9		3, 5, 0, 3, 4	
		1,29,22,49,23,15,38,22		6,32
44″	42,10,31,59,29,31, 9,15,58,31		3, 5, 0, 9,36	
		1,29,22,46,18,15,28,46		6,32
46″	42,10,33,28,52,17,27,31,27,17		3, 5, 0,16, 8	
		1,29,22,43,13,15,12,38		6,32
48″	42,10,34,58,15, 0,40,46,39,55		3, 5, 0,22,40	
		1,29,22,40, 8,14,49,58		6,32
50″	42,10,36,27,37,40,49, 1,29,53		3, 5, 0,29,12	
		1,29,22,37, 3,14,20,46		6,32
52″	42,10,37,57, 0,17,52,15,50,39		3, 5, 0,35,44	
		1,29,22,33,58,13,45, 2		6,32
54″	42,10,39,26,22,51,50,29,35,41		3, 5, 0,42,16	
		1,29,22,30,53,13, 2,46		6,32
56″	42,10,40,55,45,22,43,42,38,27		3, 5, 0,48,48	
		1,29,22,27,48,12,13,58		6,32
58″	42,10,42,25, 7,50,31,54,52,25		3, 5, 0,55,20	
		1,29,22,24,43,11,18,38		
60″	42,10,43,54,30,15,15, 6,11, 3			
exact	42,10,43,54,30,15,15, 6, 1,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°40′ 0″	42,10,43,54,30,15,15, 6, 1,21			
		1,29,22,21,38,10,15,52		
2″	42,10,45,23,52,36,53,16,17,13		3, 5, 1, 8,27	
		1,29,22,18,33, 9, 7,25		6,32
4″	42,10,46,53,14,55,26,25,24,38		3, 5, 1,14,59	
		1,29,22,15,28, 7,52,26		6,32
6″	42,10,48,22,37,10,54,33,17, 4		3, 5, 1,21,31	
		1,29,22,12,23, 6,30,55		6,32
8″	42,10,49,51,59,23,17,39,47,59		3, 5, 1,28, 3	
		1,29,22, 9,18, 5, 2,52		6,32
10″	42,10,51,21,21,32,35,44,50,51		3, 5, 1,34,35	
		1,29,22, 6,13, 3,28,17		6,32
12″	42,10,52,50,43,38,48,48,19, 8		3, 5, 1,41, 7	
		1,29,22, 3, 8, 1,47,10		6,32
14″	42,10,54,20, 5,41,56,50, 6,18		3, 5, 1,47,39	
		1,29,22, 0, 2,59,59,31		6,32
16″	42,10,55,49,27,41,59,50, 5,49		3, 5, 1,54,11	
		1,29,21,56,57,58, 5,20		6,32
18″	42,10,57,18,49,38,57,48,11, 9		3, 5, 2, 0,43	
		1,29,21,53,52,56, 4,37		6,32
20″	42,10,58,48,11,32,50,44,15,46		3, 5, 2, 7,15	
		1,29,21,50,47,53,57,22		6,32
22″	42,11, 0,17,33,23,38,38,13, 8		3, 5, 2,13,47	
		1,29,21,47,42,51,43,35		6,32
24″	42,11, 1,46,55,11,21,29,56,43		3, 5, 2,20,19	
		1,29,21,44,37,49,23,16		6,32
26″	42,11, 3,16,16,55,59,19,19,59		3, 5, 2,26,51	
		1,29,21,41,32,46,56,25		6,32
28″	42,11, 4,45,38,37,32, 6,16,24		3, 5, 2,33,23	
		1,29,21,38,27,44,23, 2		6,32
30″	42,11, 6,15, 0,15,59,50,39,26		3, 5, 2,39,55	
		1,29,21,35,22,41,43, 7		6,32
32″	42,11, 7,44,21,51,22,32,22,33		3, 5, 2,46,27	
		1,29,21,32,17,38,56,40		6,32
34″	42,11, 9,13,43,23,40,11,19,13		3, 5, 2,52,59	
		1,29,21,29,12,36, 3,41		6,32
36″	42,11,10,43, 4,52,52,47,22,54		3, 5, 2,59,31	
		1,29,21,26, 7,33, 4,10		6,32
38″	42,11,12,12,26,19, 0,20,27, 4		3, 5, 3, 6, 3	
		1,29,21,23, 2,29,58, 7		6,32
40″	42,11,13,41,47,42, 2,50,25,11		3, 5, 3,12,35	
		1,29,21,19,57,26,45,32		6,32
42″	42,11,15,11, 9, 2, 0,17,10,43		3, 5, 3,19, 7	
		1,29,21,16,52,23,26,25		6,32
44″	42,11,16,40,30,18,52,40,37, 8		3, 5, 3,25,39	
		1,29,21,13,47,20, 0,46		6,32
46″	42,11,18, 9,51,32,40, 0,37,54		3, 5, 3,32,11	
		1,29,21,10,42,16,28,35		6,32
48″	42,11,19,39,12,43,22,17, 6,29		3, 5, 3,38,43	
		1,29,21, 7,37,12,49,52		6,32
50″	42,11,21, 8,33,50,59,29,56,21		3, 5, 3,45,15	
		1,29,21, 4,32, 9, 4,37		6,32
52″	42,11,22,37,54,55,31,39, 0,58		3, 5, 3,51,47	
		1,29,21, 1,27, 5,12,50		6,32
54″	42,11,24, 7,15,56,58,44,13,48		3, 5, 3,58,19	
		1,29,20,58,22, 1,14,31		6,32
56″	42,11,25,36,36,55,20,45,28,19		3, 5, 4, 4,51	
		1,29,20,55,16,57, 9,40		6,32
58″	42,11,27, 5,57,50,37,42,37,59		3, 5, 4,11,23	
		1,29,20,52,11,52,58,17		
60″	42,11,28,35,18,42,49,35,36,16			
exact	42,11,28,35,18,42,49,35,36,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°41′ 0″	42,11,28,35,18,42,49,35,36,53			
		1,29,20,49, 6,48,40,28		
2″	42,11,30, 4,39,31,56,24,17,21		3, 5, 4,24,26	
		1,29,20,46, 1,44,16, 2		6,32
4″	42,11,31,34, 0,17,58, 8,33,23		3, 5, 4,30,58	
		1,29,20,42,56,39,45, 4		6,32
6″	42,11,33, 3,21, 0,54,48,18,27		3, 5, 4,37,30	
		1,29,20,39,51,35, 7,34		6,32
8″	42,11,34,32,41,40,46,23,26, 1		3, 5, 4,44, 2	
		1,29,20,36,46,30,23,32		6,32
10″	42,11,36, 2, 2,17,32,53,49,33		3, 5, 4,50,34	
		1,29,20,33,41,25,32,58		6,32
12″	42,11,37,31,22,51,14,19,22,31		3, 5, 4,57, 6	
		1,29,20,30,36,20,35,52		6,32
14″	42,11,39, 0,43,21,50,39,58,23		3, 5, 5, 3,38	
		1,29,20,27,31,15,32,14		6,32
16″	42,11,40,30, 3,49,21,55,30,37		3, 5, 5,10,10	
		1,29,20,24,26,10,22, 4		6,32
18″	42,11,41,59,24,13,48, 5,52,41		3, 5, 5,16,42	
		1,29,20,21,21, 5, 5,22		6,32
20″	42,11,43,28,44,35, 9,10,58, 3		3, 5, 5,23,14	
		1,29,20,18,15,59,42, 8		6,32
22″	42,11,44,58, 4,53,25,10,40,11		3, 5, 5,29,46	
		1,29,20,15,10,54,12,22		6,32
24″	42,11,46,27,25, 8,36, 4,52,33		3, 5, 5,36,18	
		1,29,20,12, 5,48,36, 4		6,32
26″	42,11,47,56,45,20,41,53,28,37		3, 5, 5,42,50	
		1,29,20, 9, 0,42,53,14		6,32
28″	42,11,49,26, 5,29,42,36,21,51		3, 5, 5,49,22	
		1,29,20, 5,55,37, 3,52		6,32
30″	42,11,50,55,25,35,38,13,25,43		3, 5, 5,55,54	
		1,29,20, 2,50,31, 7,58		6,32
32″	42,11,52,24,45,38,28,44,33,41		3, 5, 6, 2,26	
		1,29,19,59,45,25, 5,32		6,32
34″	42,11,53,54, 5,38,14, 9,39,13		3, 5, 6, 8,58	
		1,29,19,56,40,18,56,34		6,32
36″	42,11,55,23,25,34,54,28,35,47		3, 5, 6,15,30	
		1,29,19,53,35,12,41, 4		6,32
38″	42,11,56,52,45,28,29,41,16,51		3, 5, 6,22, 2	
		1,29,19,50,30, 6,19, 2		6,32
40″	42,11,58,22, 5,18,59,47,35,53		3, 5, 6,28,34	
		1,29,19,47,24,59,50,28		6,32
42″	42,11,59,51,25, 6,24,47,26,21		3, 5, 6,35, 6	
		1,29,19,44,19,53,15,22		6,32
44″	42,12, 1,20,44,50,44,40,41,43		3, 5, 6,41,38	
		1,29,19,41,14,46,33,44		6,32
46″	42,12, 2,50, 4,31,59,27,15,27		3, 5, 6,48,10	
		1,29,19,38, 9,39,45,34		6,32
48″	42,12, 4,19,24,10, 9, 7, 1, 1		3, 5, 6,54,42	
		1,29,19,35, 4,32,50,52		6,32
50″	42,12, 5,48,43,45,13,39,51,53		3, 5, 7, 1,14	
		1,29,19,31,59,25,49,38		6,32
52″	42,12, 7,18, 3,17,13, 5,41,31		3, 5, 7, 7,46	
		1,29,19,28,54,18,41,52		6,32
54″	42,12, 8,47,22,46, 7,24,23,23		3, 5, 7,14,18	
		1,29,19,25,49,11,27,34		6,32
56″	42,12,10,16,42,11,56,35,50,57		3, 5, 7,20,50	
		1,29,19,22,44, 4, 6,44		6,32
58″	42,12,11,46, 1,34,40,39,57,41		3, 5, 7,27,22	
		1,29,19,19,38,56,39,22		
60″	42,12,13,15,20,54,19,36,37, 3			
exact	42,12,13,15,20,54,19,36,43,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°42′ 0″	42,12,13,15,20,54,19,36,43,55			
		1,29,19,16,33,49, 6,17		
2″	42,12,14,44,40,10,53,25,50,12		3, 5, 7,40,22	
		1,29,19,13,28,41,25,55		6,32
4″	42,12,16,13,59,24,22, 7,16, 7		3, 5, 7,46,54	
		1,29,19,10,23,33,39, 1		6,32
6″	42,12,17,43,18,34,45,40,55, 8		3, 5, 7,53,26	
		1,29,19, 7,18,25,45,35		6,32
8″	42,12,19,12,37,42, 4, 6,40,43		3, 5, 7,59,58	
		1,29,19, 4,13,17,45,37		6,32
10″	42,12,20,41,56,46,17,24,26,20		3, 5, 8, 6,30	
		1,29,19, 1, 8, 9,39, 7		6,32
12″	42,12,22,11,15,47,25,34, 5,27		3, 5, 8,13, 2	
		1,29,18,58, 3, 1,26, 5		6,32
14″	42,12,23,40,34,45,28,35,31,32		3, 5, 8,19,34	
		1,29,18,54,57,53, 6,31		6,32
16″	42,12,25, 9,53,40,26,28,38, 3		3, 5, 8,26, 6	
		1,29,18,51,52,44,40,25		6,32
18″	42,12,26,39,12,32,19,13,18,28		3, 5, 8,32,38	
		1,29,18,48,47,36, 7,47		6,32
20″	42,12,28, 8,31,21, 6,49,26,15		3, 5, 8,39,10	
		1,29,18,45,42,27,28,37		6,32
22″	42,12,29,37,50, 6,49,16,54,52		3, 5, 8,45,42	
		1,29,18,42,37,18,42,55		6,32
24″	42,12,31, 7, 8,49,26,35,37,47		3, 5, 8,52,14	
		1,29,18,39,32, 9,50,41		6,32
26″	42,12,32,36,27,28,58,45,28,28		3, 5, 8,58,46	
		1,29,18,36,27, 0,51,55		6,32
28″	42,12,34, 5,46, 5,25,46,20,23		3, 5, 9, 5,18	
		1,29,18,33,21,51,46,37		6,32
30″	42,12,35,35, 4,38,47,38, 7, 0		3, 5, 9,11,50	
		1,29,18,30,16,42,34,47		6,32
32″	42,12,37, 4,23, 9, 4,20,41,47		3, 5, 9,18,22	
		1,29,18,27,11,33,16,25		6,32
34″	42,12,38,33,41,36,15,53,58,12		3, 5, 9,24,54	
		1,29,18,24, 6,23,51,31		6,32
36″	42,12,40, 3, 0, 0,22,17,49,43		3, 5, 9,31,26	
		1,29,18,21, 1,14,20, 5		6,32
38″	42,12,41,32,18,21,23,32, 9,48		3, 5, 9,37,58	
		1,29,18,17,56, 4,42, 7		6,32
40″	42,12,43, 1,36,39,19,36,51,55		3, 5, 9,44,30	
		1,29,18,14,50,54,57,37		6,32
42″	42,12,44,30,54,54,10,31,49,32		3, 5, 9,51, 2	
		1,29,18,11,45,45, 6,35		6,32
44″	42,12,46, 0,13, 5,56,16,56, 7		3, 5, 9,57,34	
		1,29,18, 8,40,35, 9, 1		6,32
46″	42,12,47,29,31,14,36,52, 5, 8		3, 5,10, 4, 6	
		1,29,18, 5,35,25, 4,55		6,32
48″	42,12,48,58,49,20,12,17,10, 3		3, 5,10,10,38	
		1,29,18, 2,30,14,54,17		6,32
50″	42,12,50,28, 7,22,42,32, 4,20		3, 5,10,17,10	
		1,29,17,59,25, 4,37, 7		6,32
52″	42,12,51,57,25,22, 7,36,41,27		3, 5,10,23,42	
		1,29,17,56,19,54,13,25		6,32
54″	42,12,53,26,43,18,27,30,54,52		3, 5,10,30,14	
		1,29,17,53,14,43,43,11		6,32
56″	42,12,54,56, 1,11,42,14,38, 3		3, 5,10,36,46	
		1,29,17,50, 9,33, 6,25		6,32
58″	42,12,56,25,19, 1,51,47,44,28		3, 5,10,43,18	
		1,29,17,47, 4,22,23, 7		
60″	42,12,57,54,36,48,56,10, 7,35			
exact	42,12,57,54,36,48,56,10,23, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°43′ 0″	42,12,57,54,36,48,56,10,23, 5			
		1,29,17,43,59,11,35, 0		
2″	42,12,59,23,54,32,55,21,58, 5		3, 5,10,56,14	
		1,29,17,40,54, 0,38,46		6,32
4″	42,13, 0,53,12,13,49,22,36,51		3, 5,11, 2,46	
		1,29,17,37,48,49,36, 0		6,32
6″	42,13, 2,22,29,51,38,12,12,51		3, 5,11, 9,18	
		1,29,17,34,43,38,26,42		6,32
8″	42,13, 3,51,47,26,21,50,39,33		3, 5,11,15,50	
		1,29,17,31,38,27,10,52		6,32
10″	42,13, 5,21, 4,58, 0,17,50,25		3, 5,11,22,22	
		1,29,17,28,33,15,48,30		6,32
12″	42,13, 6,50,22,26,33,33,38,55		3, 5,11,28,54	
		1,29,17,25,28, 4,19,36		6,32
14″	42,13, 8,19,39,52, 1,37,58,31		3, 5,11,35,26	
		1,29,17,22,22,52,44,10		6,32
16″	42,13, 9,48,57,14,24,30,42,41		3, 5,11,41,58	
		1,29,17,19,17,41, 2,12		6,32
18″	42,13,11,18,14,33,42,11,44,53		3, 5,11,48,30	
		1,29,17,16,12,29,13,42		6,32
20″	42,13,12,47,31,49,54,40,58,35		3, 5,11,55, 2	
		1,29,17,13, 7,17,18,40		6,32
22″	42,13,14,16,49, 3, 1,58,17,15		3, 5,12, 1,34	
		1,29,17,10, 2, 5,17, 6		6,32
24″	42,13,15,46, 6,13, 4, 3,34,21		3, 5,12, 8, 6	
		1,29,17, 6,56,53, 9, 0		6,32
26″	42,13,17,15,23,20, 0,56,43,21		3, 5,12,14,38	
		1,29,17, 3,51,40,54,22		6,32
28″	42,13,18,44,40,23,52,37,37,43		3, 5,12,21,10	
		1,29,17, 0,46,28,33,12		6,32
30″	42,13,20,13,57,24,39, 6,10,55		3, 5,12,27,42	
		1,29,16,57,41,16, 5,30		6,32
32″	42,13,21,43,14,22,20,22,16,25		3, 5,12,34,14	
		1,29,16,54,36, 3,31,16		6,32
34″	42,13,23,12,31,16,56,25,47,41		3, 5,12,40,46	
		1,29,16,51,30,50,50,30		6,32
36″	42,13,24,41,48, 8,27,16,38,11		3, 5,12,47,18	
		1,29,16,48,25,38, 3,12		6,32
38″	42,13,26,11, 4,56,52,54,41,23		3, 5,12,53,50	
		1,29,16,45,20,25, 9,22		6,32
40″	42,13,27,40,21,42,13,19,50,45		3, 5,13, 0,22	
		1,29,16,42,15,12, 9, 0		6,32
42″	42,13,29, 9,38,24,28,31,59,45		3, 5,13, 6,54	
		1,29,16,39, 9,59, 2, 6		6,32
44″	42,13,30,38,55, 3,38,31, 1,51		3, 5,13,13,26	
		1,29,16,36, 4,45,48,40		6,32
46″	42,13,32, 8,11,39,43,16,50,31		3, 5,13,19,58	
		1,29,16,32,59,32,28,42		6,32
48″	42,13,33,37,28,12,42,49,19,13		3, 5,13,26,30	
		1,29,16,29,54,19, 2,12		6,32
50″	42,13,35, 6,44,42,37, 8,21,25		3, 5,13,33, 2	
		1,29,16,26,49, 5,29,10		6,32
52″	42,13,36,36, 1, 9,26,13,50,35		3, 5,13,39,34	
		1,29,16,23,43,51,49,36		6,32
54″	42,13,38, 5,17,33,10, 5,40,11		3, 5,13,46, 6	
		1,29,16,20,38,38, 3,30		6,32
56″	42,13,39,34,33,53,48,43,43,41		3, 5,13,52,38	
		1,29,16,17,33,24,10,52		6,32
58″	42,13,41, 3,50,11,22, 7,54,33		3, 5,13,59,10	
		1,29,16,14,28,10,11,42		
60″	42,13,42,33, 6,25,50,18, 6,15			
exact	42,13,42,33, 6,25,50,18,25,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°44′ 0″	42,13,42,33, 6,25,50,18,25,51			
		1,29,16,11,22,56, 8,18		
2″	42,13,44, 2,22,37,13,14,34, 9		3, 5,14,12, 3	
		1,29,16, 8,17,41,56,15		6,32
4″	42,13,45,31,38,45,30,56,30,24		3, 5,14,18,35	
		1,29,16, 5,12,27,37,40		6,32
6″	42,13,47, 0,54,50,43,24, 8, 4		3, 5,14,25, 7	
		1,29,16, 2, 7,13,12,33		6,32
8″	42,13,48,30,10,52,50,37,20,37		3, 5,14,31,39	
		1,29,15,59, 1,58,40,54		6,32
10″	42,13,49,59,26,51,52,36, 1,31		3, 5,14,38,11	
		1,29,15,55,56,44, 2,43		6,32
12″	42,13,51,28,42,47,49,20, 4,14		3, 5,14,44,43	
		1,29,15,52,51,29,18, 0		6,32
14″	42,13,52,57,58,40,40,49,22,14		3, 5,14,51,15	
		1,29,15,49,46,14,26,45		6,32
16″	42,13,54,27,14,30,27, 3,48,59		3, 5,14,57,47	
		1,29,15,46,40,59,28,58		6,32
18″	42,13,55,56,30,17, 8, 3,17,57		3, 5,15, 4,19	
		1,29,15,43,35,44,24,39		6,32
20″	42,13,57,25,46, 0,43,47,42,36		3, 5,15,10,51	
		1,29,15,40,30,29,13,48		6,32
22″	42,13,58,55, 1,41,14,16,56,24		3, 5,15,17,23	
		1,29,15,37,25,13,56,25		6,32
24″	42,14, 0,24,17,18,39,30,52,49		3, 5,15,23,55	
		1,29,15,34,19,58,32,30		6,32
26″	42,14, 1,53,32,52,59,29,25,19		3, 5,15,30,27	
		1,29,15,31,14,43, 2, 3		6,32
28″	42,14, 3,22,48,24,14,12,27,22		3, 5,15,36,59	
		1,29,15,28, 9,27,25, 4		6,32
30″	42,14, 4,52, 3,52,23,39,52,26		3, 5,15,43,31	
		1,29,15,25, 4,11,41,33		6,32
32″	42,14, 6,21,19,17,27,51,33,59		3, 5,15,50, 3	
		1,29,15,21,58,55,51,30		6,32
34″	42,14, 7,50,34,39,26,47,25,29		3, 5,15,56,35	
		1,29,15,18,53,39,54,55		6,32
36″	42,14, 9,19,49,58,20,27,20,24		3, 5,16, 3, 7	
		1,29,15,15,48,23,51,48		6,32
38″	42,14,10,49, 5,14, 8,51,12,12		3, 5,16, 9,39	
		1,29,15,12,43, 7,42, 9		6,32
40″	42,14,12,18,20,26,51,58,54,21		3, 5,16,16,11	
		1,29,15, 9,37,51,25,58		6,32
42″	42,14,13,47,35,36,29,50,20,19		3, 5,16,22,43	
		1,29,15, 6,32,35, 3,15		6,32
44″	42,14,15,16,50,43, 2,25,23,34		3, 5,16,29,15	
		1,29,15, 3,27,18,34, 0		6,32
46″	42,14,16,46, 5,46,29,43,57,34		3, 5,16,35,47	
		1,29,15, 0,22, 1,58,13		6,32
48″	42,14,18,15,20,46,51,45,55,47		3, 5,16,42,19	
		1,29,14,57,16,45,15,54		6,32
50″	42,14,19,44,35,44, 8,31,11,41		3, 5,16,48,51	
		1,29,14,54,11,28,27, 3		6,32
52″	42,14,21,13,50,38,19,59,38,44		3, 5,16,55,23	
		1,29,14,51, 6,11,31,40		6,32
54″	42,14,22,43, 5,29,26,11,10,24		3, 5,17, 1,55	
		1,29,14,48, 0,54,29,45		6,32
56″	42,14,24,12,20,17,27, 5,40, 9		3, 5,17, 8,27	
		1,29,14,44,55,37,21,18		6,32
58″	42,14,25,41,35, 2,22,43, 1,27		3, 5,17,14,59	
		1,29,14,41,50,20, 6,19		
60″	42,14,27,10,49,44,13, 3, 7,46			
exact	42,14,27,10,49,44,13, 3,34,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°45′ 0″	42,14,27,10,49,44,13, 3,34,22			
		1,29,14,38,45, 2,47,52		
2″	42,14,28,40, 4,22,58, 6,22,14		3, 5,17,27,49	
		1,29,14,35,39,45,20, 3		6,31
4″	42,14,30, 9,18,58,37,51,42,17		3, 5,17,34,20	
		1,29,14,32,34,27,45,43		6,31
6″	42,14,31,38,33,31,12,19,28, 0		3, 5,17,40,51	
		1,29,14,29,29,10, 4,52		6,31
8″	42,14,33, 7,48, 0,41,29,32,52		3, 5,17,47,22	
		1,29,14,26,23,52,17,30		6,31
10″	42,14,34,37, 2,27, 5,21,50,22		3, 5,17,53,53	
		1,29,14,23,18,34,23,37		6,31
12″	42,14,36, 6,16,50,23,56,13,59		3, 5,18, 0,24	
		1,29,14,20,13,16,23,13		6,31
14″	42,14,37,35,31,10,37,12,37,12		3, 5,18, 6,55	
		1,29,14,17, 7,58,16,18		6,31
16″	42,14,39, 4,45,27,45,10,53,30		3, 5,18,13,26	
		1,29,14,14, 2,40, 2,52		6,31
18″	42,14,40,33,59,41,47,50,56,22		3, 5,18,19,57	
		1,29,14,10,57,21,42,55		6,31
20″	42,14,42, 3,13,52,45,12,39,17		3, 5,18,26,28	
		1,29,14, 7,52, 3,16,27		6,31
22″	42,14,43,32,28, 0,37,15,55,44		3, 5,18,32,59	
		1,29,14, 4,46,44,43,28		6,31
24″	42,14,45, 1,42, 5,24, 0,39,12		3, 5,18,39,30	
		1,29,14, 1,41,26, 3,58		6,31
26″	42,14,46,30,56, 7, 5,26,43,10		3, 5,18,46, 1	
		1,29,13,58,36, 7,17,57		6,31
28″	42,14,48, 0,10, 5,41,34, 1, 7		3, 5,18,52,32	
		1,29,13,55,30,48,25,25		6,31
30″	42,14,49,29,24, 1,12,22,26,32		3, 5,18,59, 3	
		1,29,13,52,25,29,26,22		6,31
32″	42,14,50,58,37,53,37,51,52,54		3, 5,19, 5,34	
		1,29,13,49,20,10,20,48		6,31
34″	42,14,52,27,51,42,58, 2,13,42		3, 5,19,12, 5	
		1,29,13,46,14,51, 8,43		6,31
36″	42,14,53,57, 5,29,12,53,22,25		3, 5,19,18,36	
		1,29,13,43, 9,31,50, 7		6,31
38″	42,14,55,26,19,12,22,25,12,32		3, 5,19,25, 7	
		1,29,13,40, 4,12,25, 0		6,31
40″	42,14,56,55,32,52,26,37,37,32		3, 5,19,31,38	
		1,29,13,36,58,52,53,22		6,31
42″	42,14,58,24,46,29,25,30,30,54		3, 5,19,38, 9	
		1,29,13,33,53,33,15,13		6,31
44″	42,14,59,54, 0, 3,19, 3,46, 7		3, 5,19,44,40	
		1,29,13,30,48,13,30,33		6,31
46″	42,15, 1,23,13,34, 7,17,16,40		3, 5,19,51,11	
		1,29,13,27,42,53,39,22		6,31
48″	42,15, 2,52,27, 1,50,10,56, 2		3, 5,19,57,42	
		1,29,13,24,37,33,41,40		6,31
50″	42,15, 4,21,40,26,27,44,37,42		3, 5,20, 4,13	
		1,29,13,21,32,13,37,27		6,31
52″	42,15, 5,50,53,47,59,58,15, 9		3, 5,20,10,44	
		1,29,13,18,26,53,26,43		6,31
54″	42,15, 7,20, 7, 6,26,51,41,52		3, 5,20,17,15	
		1,29,13,15,21,33, 9,28		6,31
56″	42,15, 8,49,20,21,48,24,51,20		3, 5,20,23,46	
		1,29,13,12,16,12,45,42		6,31
58″	42,15,10,18,33,34, 4,37,37, 2		3, 5,20,30,17	
		1,29,13, 9,10,52,15,25		
60″	42,15,11,47,46,43,15,29,52,27			
exact	42,15,11,47,46,43,15,29,21,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°46′ 0″	42,15,11,47,46,43,15,29,21,37			
		1,29,13, 6, 5,31,35,25		
2″	42,15,13,16,59,49,21, 0,57, 2		3, 5,20,43,31	
		1,29,13, 3, 0,10,51,54		6,31
4″	42,15,14,46,12,52,21,11,48,56		3, 5,20,50, 2	
		1,29,12,59,54,50, 1,52		6,31
6″	42,15,16,15,25,52,16, 1,50,48		3, 5,20,56,33	
		1,29,12,56,49,29, 5,19		6,31
8″	42,15,17,44,38,49, 5,30,56, 7		3, 5,21, 3, 4	
		1,29,12,53,44, 8, 2,15		6,31
10″	42,15,19,13,51,42,49,38,58,22		3, 5,21, 9,35	
		1,29,12,50,38,46,52,40		6,31
12″	42,15,20,43, 4,33,28,25,51, 2		3, 5,21,16, 6	
		1,29,12,47,33,25,36,34		6,31
14″	42,15,22,12,17,21, 1,51,27,36		3, 5,21,22,37	
		1,29,12,44,28, 4,13,57		6,31
16″	42,15,23,41,30, 5,29,55,41,33		3, 5,21,29, 8	
		1,29,12,41,22,42,44,49		6,31
18″	42,15,25,10,42,46,52,38,26,22		3, 5,21,35,39	
		1,29,12,38,17,21, 9,10		6,31
20″	42,15,26,39,55,25, 9,59,35,32		3, 5,21,42,10	
		1,29,12,35,11,59,27, 0		6,31
22″	42,15,28, 9, 8, 0,21,59, 2,32		3, 5,21,48,41	
		1,29,12,32, 6,37,38,19		6,31
24″	42,15,29,38,20,32,28,36,40,51		3, 5,21,55,12	
		1,29,12,29, 1,15,43, 7		6,31
26″	42,15,31, 7,33, 1,29,52,23,58		3, 5,22, 1,43	
		1,29,12,25,55,53,41,24		6,31
28″	42,15,32,36,45,27,25,46, 5,22		3, 5,22, 8,14	
		1,29,12,22,50,31,33,10		6,31
30″	42,15,34, 5,57,50,16,17,38,32		3, 5,22,14,45	
		1,29,12,19,45, 9,18,25		6,31
32″	42,15,35,35,10,10, 1,26,56,57		3, 5,22,21,16	
		1,29,12,16,39,46,57, 9		6,31
34″	42,15,37, 4,22,26,41,13,54, 6		3, 5,22,27,47	
		1,29,12,13,34,24,29,22		6,31
36″	42,15,38,33,34,40,15,38,23,28		3, 5,22,34,18	
		1,29,12,10,29, 1,55, 4		6,31
38″	42,15,40, 2,46,50,44,40,18,32		3, 5,22,40,49	
		1,29,12, 7,23,39,14,15		6,31
40″	42,15,41,31,58,58, 8,19,32,47		3, 5,22,47,20	
		1,29,12, 4,18,16,26,55		6,31
42″	42,15,43, 1,11, 2,26,35,59,42		3, 5,22,53,51	
		1,29,12, 1,12,53,33, 4		6,31
44″	42,15,44,30,23, 3,39,29,32,46		3, 5,23, 0,22	
		1,29,11,58, 7,30,32,42		6,31
46″	42,15,45,59,35, 1,47, 0, 5,28		3, 5,23, 6,53	
		1,29,11,55, 2, 7,25,49		6,31
48″	42,15,47,28,46,56,49, 7,31,17		3, 5,23,13,24	
		1,29,11,51,56,44,12,25		6,31
50″	42,15,48,57,58,48,45,51,43,42		3, 5,23,19,55	
		1,29,11,48,51,20,52,30		6,31
52″	42,15,50,27,10,37,37,12,36,12		3, 5,23,26,26	
		1,29,11,45,45,57,26, 4		6,31
54″	42,15,51,56,22,23,23,10, 2,16		3, 5,23,32,57	
		1,29,11,42,40,33,53, 7		6,31
56″	42,15,53,25,34, 6, 3,43,55,23		3, 5,23,39,28	
		1,29,11,39,35,10,13,39		6,31
58″	42,15,54,54,45,45,38,54, 9, 2		3, 5,23,45,59	
		1,29,11,36,29,46,27,40		
60″	42,15,56,23,57,22, 8,40,36,42			
exact	42,15,56,23,57,22, 8,40,11,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°47′ 0″	42,15,56,23,57,22, 8,40,11,22			
		1,29,11,33,24,22,32,38		
2″	42,15,57,53, 8,55,33, 2,44, 0		3, 5,23,59,10	
		1,29,11,30,18,58,33,28		6,31
4″	42,15,59,22,20,25,52, 1,17,28		3, 5,24, 5,41	
		1,29,11,27,13,34,27,47		6,31
6″	42,16, 0,51,31,53, 5,35,45,15		3, 5,24,12,12	
		1,29,11,24, 8,10,15,35		6,31
8″	42,16, 2,20,43,17,13,46, 0,50		3, 5,24,18,43	
		1,29,11,21, 2,45,56,52		6,31
10″	42,16, 3,49,54,38,16,31,57,42		3, 5,24,25,14	
		1,29,11,17,57,21,31,38		6,31
12″	42,16, 5,19, 5,56,13,53,29,20		3, 5,24,31,45	
		1,29,11,14,51,56,59,53		6,31
14″	42,16, 6,48,17,11, 5,50,29,13		3, 5,24,38,16	
		1,29,11,11,46,32,21,37		6,31
16″	42,16, 8,17,28,22,52,22,50,50		3, 5,24,44,47	
		1,29,11, 8,41, 7,36,50		6,31
18″	42,16, 9,46,39,31,33,30,27,40		3, 5,24,51,18	
		1,29,11, 5,35,42,45,32		6,31
20″	42,16,11,15,50,37, 9,13,13,12		3, 5,24,57,49	
		1,29,11, 2,30,17,47,43		6,31
22″	42,16,12,45, 1,39,39,31, 0,55		3, 5,25, 4,20	
		1,29,10,59,24,52,43,23		6,31
24″	42,16,14,14,12,39, 4,23,44,18		3, 5,25,10,51	
		1,29,10,56,19,27,32,32		6,31
26″	42,16,15,43,23,35,23,51,16,50		3, 5,25,17,22	
		1,29,10,53,14, 2,15,10		6,31
28″	42,16,17,12,34,28,37,53,32, 0		3, 5,25,23,53	
		1,29,10,50, 8,36,51,17		6,31
30″	42,16,18,41,45,18,46,30,23,17		3, 5,25,30,24	
		1,29,10,47, 3,11,20,53		6,31
32″	42,16,20,10,56, 5,49,41,44,10		3, 5,25,36,55	
		1,29,10,43,57,45,43,58		6,31
34″	42,16,21,40, 6,49,47,27,28, 8		3, 5,25,43,26	
		1,29,10,40,52,20, 0,32		6,31
36″	42,16,23, 9,17,30,39,47,28,40		3, 5,25,49,57	
		1,29,10,37,46,54,10,35		6,31
38″	42,16,24,38,28, 8,26,41,39,15		3, 5,25,56,28	
		1,29,10,34,41,28,14, 7		6,31
40″	42,16,26, 7,38,43, 8, 9,53,22		3, 5,26, 2,59	
		1,29,10,31,36, 2,11, 8		6,31
42″	42,16,27,36,49,14,44,12, 4,30		3, 5,26, 9,30	
		1,29,10,28,30,36, 1,38		6,31
44″	42,16,29, 5,59,43,14,48, 6, 8		3, 5,26,16, 1	
		1,29,10,25,25, 9,45,37		6,31
46″	42,16,30,35,10, 8,39,57,51,45		3, 5,26,22,32	
		1,29,10,22,19,43,23, 5		6,31
48″	42,16,32, 4,20,30,59,41,14,50		3, 5,26,29, 3	
		1,29,10,19,14,16,54, 2		6,31
50″	42,16,33,33,30,50,13,58, 8,52		3, 5,26,35,34	
		1,29,10,16, 8,50,18,28		6,31
52″	42,16,35, 2,41, 6,22,48,27,20		3, 5,26,42, 5	
		1,29,10,13, 3,23,36,23		6,31
54″	42,16,36,31,51,19,26,12, 3,43		3, 5,26,48,36	
		1,29,10, 9,57,56,47,47		6,31
56″	42,16,38, 1, 1,29,24, 8,51,30		3, 5,26,55, 7	
		1,29,10, 6,52,29,52,40		6,31
58″	42,16,39,30,11,36,16,38,44,10		3, 5,27, 1,38	
		1,29,10, 3,47, 2,51, 2		
60″	42,16,40,59,21,40, 3,41,35,12			
exact	42,16,40,59,21,40, 3,41,18,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°48′ 0″	42,16,40,59,21,40, 3,41,18,12			
		1,29,10, 0,41,35,41,13		
2″	42,16,42,28,31,40,45,16,59,25		3, 5,27,14,46	
		1,29, 9,57,36, 8,26,27		6,31
4″	42,16,43,57,41,38,21,25,25,52		3, 5,27,21,17	
		1,29, 9,54,30,41, 5,10		6,31
6″	42,16,45,26,51,32,52, 6,31, 2		3, 5,27,27,48	
		1,29, 9,51,25,13,37,22		6,31
8″	42,16,46,56, 1,24,17,20, 8,24		3, 5,27,34,19	
		1,29, 9,48,19,46, 3, 3		6,31
10″	42,16,48,25,11,12,37, 6,11,27		3, 5,27,40,50	
		1,29, 9,45,14,18,22,13		6,31
12″	42,16,49,54,20,57,51,24,33,40		3, 5,27,47,21	
		1,29, 9,42, 8,50,34,52		6,31
14″	42,16,51,23,30,40, 0,15, 8,32		3, 5,27,53,52	
		1,29, 9,39, 3,22,41, 0		6,31
16″	42,16,52,52,40,19, 3,37,49,32		3, 5,28, 0,23	
		1,29, 9,35,57,54,40,37		6,31
18″	42,16,54,21,49,55, 1,32,30, 9		3, 5,28, 6,54	
		1,29, 9,32,52,26,33,43		6,31
20″	42,16,55,50,59,27,53,59, 3,52		3, 5,28,13,25	
		1,29, 9,29,46,58,20,18		6,31
22″	42,16,57,20, 8,57,40,57,24,10		3, 5,28,19,56	
		1,29, 9,26,41,30, 0,22		6,31
24″	42,16,58,49,18,24,22,27,24,32		3, 5,28,26,27	
		1,29, 9,23,36, 1,33,55		6,31
26″	42,17, 0,18,27,47,58,28,58,27		3, 5,28,32,58	
		1,29, 9,20,30,33, 0,57		6,31
28″	42,17, 1,47,37, 8,29, 1,59,24		3, 5,28,39,29	
		1,29, 9,17,25, 4,21,28		6,31
30″	42,17, 3,16,46,25,54, 6,20,52		3, 5,28,46, 0	
		1,29, 9,14,19,35,35,28		6,31
32″	42,17, 4,45,55,40,13,41,56,20		3, 5,28,52,31	
		1,29, 9,11,14, 6,42,57		6,31
34″	42,17, 6,15, 4,51,27,48,39,17		3, 5,28,59, 2	
		1,29, 9, 8, 8,37,43,55		6,31
36″	42,17, 7,44,13,59,36,26,23,12		3, 5,29, 5,33	
		1,29, 9, 5, 3, 8,38,22		6,31
38″	42,17, 9,13,23, 4,39,35, 1,34		3, 5,29,12, 4	
		1,29, 9, 1,57,39,26,18		6,31
40″	42,17,10,42,32, 6,37,14,27,52		3, 5,29,18,35	
		1,29, 8,58,52,10, 7,43		6,31
42″	42,17,12,11,41, 5,29,24,35,35		3, 5,29,25, 6	
		1,29, 8,55,46,40,42,37		6,31
44″	42,17,13,40,50, 1,16, 5,18,12		3, 5,29,31,37	
		1,29, 8,52,41,11,11, 0		6,31
46″	42,17,15, 9,58,53,57,16,29,12		3, 5,29,38, 8	
		1,29, 8,49,35,41,32,52		6,31
48″	42,17,16,39, 7,43,32,58, 2, 4		3, 5,29,44,39	
		1,29, 8,46,30,11,48,13		6,31
50″	42,17,18, 8,16,30, 3, 9,50,17		3, 5,29,51,10	
		1,29, 8,43,24,41,57, 3		6,31
52″	42,17,19,37,25,13,27,51,47,20		3, 5,29,57,41	
		1,29, 8,40,19,11,59,22		6,31
54″	42,17,21, 6,33,53,47, 3,46,42		3, 5,30, 4,12	
		1,29, 8,37,13,41,55,10		6,31
56″	42,17,22,35,42,31, 0,45,41,52		3, 5,30,10,43	
		1,29, 8,34, 8,11,44,27		6,31
58″	42,17,24, 4,51, 5, 8,57,26,19		3, 5,30,17,14	
		1,29, 8,31, 2,41,27,13		
60″	42,17,25,33,59,36,11,38,53,32			
exact	42,17,25,33,59,36,11,38,47,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°49′ 0″	42,17,25,33,59,36,11,38,47,31			
		1,29, 8,27,57,11, 2,51		
2″	42,17,27, 3, 8, 4, 8,49,50,22		3, 5,30,30,18	
		1,29, 8,24,51,40,32,33		6,31
4″	42,17,28,32,16,29, 0,30,22,55		3, 5,30,36,49	
		1,29, 8,21,46, 9,55,44		6,31
6″	42,17,30, 1,24,50,46,40,18,39		3, 5,30,43,20	
		1,29, 8,18,40,39,12,24		6,31
8″	42,17,31,30,33, 9,27,19,31, 3		3, 5,30,49,51	
		1,29, 8,15,35, 8,22,33		6,31
10″	42,17,32,59,41,25, 2,27,53,36		3, 5,30,56,22	
		1,29, 8,12,29,37,26,11		6,31
12″	42,17,34,28,49,37,32, 5,19,47		3, 5,31, 2,53	
		1,29, 8, 9,24, 6,23,18		6,31
14″	42,17,35,57,57,46,56,11,43, 5		3, 5,31, 9,24	
		1,29, 8, 6,18,35,13,54		6,31
16″	42,17,37,27, 5,53,14,46,56,59		3, 5,31,15,55	
		1,29, 8, 3,13, 3,57,59		6,31
18″	42,17,38,56,13,56,27,50,54,58		3, 5,31,22,26	
		1,29, 8, 0, 7,32,35,33		6,31
20″	42,17,40,25,21,56,35,23,30,31		3, 5,31,28,57	
		1,29, 7,57, 2, 1, 6,36		6,31
22″	42,17,41,54,29,53,37,24,37, 7		3, 5,31,35,28	
		1,29, 7,53,56,29,31, 8		6,31
24″	42,17,43,23,37,47,33,54, 8,15		3, 5,31,41,59	
		1,29, 7,50,50,57,49, 9		6,31
26″	42,17,44,52,45,38,24,51,57,24		3, 5,31,48,30	
		1,29, 7,47,45,26, 0,39		6,31
28″	42,17,46,21,53,26,10,17,58, 3		3, 5,31,55, 1	
		1,29, 7,44,39,54, 5,38		6,31
30″	42,17,47,51, 1,10,50,12, 3,41		3, 5,32, 1,32	
		1,29, 7,41,34,22, 4, 6		6,31
32″	42,17,49,20, 8,52,24,34, 7,47		3, 5,32, 8, 3	
		1,29, 7,38,28,49,56, 3		6,31
34″	42,17,50,49,16,30,53,24, 3,50		3, 5,32,14,34	
		1,29, 7,35,23,17,41,29		6,31
36″	42,17,52,18,24, 6,16,41,45,19		3, 5,32,21, 5	
		1,29, 7,32,17,45,20,24		6,31
38″	42,17,53,47,31,38,34,27, 5,43		3, 5,32,27,36	
		1,29, 7,29,12,12,52,48		6,31
40″	42,17,55,16,39, 7,46,39,58,31		3, 5,32,34, 7	
		1,29, 7,26, 6,40,18,41		6,31
42″	42,17,56,45,46,33,53,20,17,12		3, 5,32,40,38	
		1,29, 7,23, 1, 7,38, 3		6,31
44″	42,17,58,14,53,56,54,27,55,15		3, 5,32,47, 9	
		1,29, 7,19,55,34,50,54		6,31
46″	42,17,59,44, 1,16,50, 2,46, 9		3, 5,32,53,40	
		1,29, 7,16,50, 1,57,14		6,31
48″	42,18, 1,13, 8,33,40, 4,43,23		3, 5,33, 0,11	
		1,29, 7,13,44,28,57, 3		6,31
50″	42,18, 2,42,15,47,24,33,40,26		3, 5,33, 6,42	
		1,29, 7,10,38,55,50,21		6,31
52″	42,18, 4,11,22,58, 3,29,30,47		3, 5,33,13,13	
		1,29, 7, 7,33,22,37, 8		6,31
54″	42,18, 5,40,30, 5,36,52, 7,55		3, 5,33,19,44	
		1,29, 7, 4,27,49,17,24		6,31
56″	42,18, 7, 9,37,10, 4,41,25,19		3, 5,33,26,15	
		1,29, 7, 1,22,15,51, 9		6,31
58″	42,18, 8,38,44,11,26,57,16,28		3, 5,33,32,46	
		1,29, 6,58,16,42,18,23		
60″	42,18,10, 7,51, 9,43,39,34,51			
exact	42,18,10, 7,51, 9,43,39,35,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°50′ 0″	42,18,10, 7,51, 9,43,39,35,35			
		1,29, 6,55,11, 8,39,15		
2″	42,18,11,36,58, 4,54,48,14,50		3, 5,33,45,47	
		1,29, 6,52, 5,34,53,28		6,31
4″	42,18,13, 6, 4,57, 0,23, 8,18		3, 5,33,52,18	
		1,29, 6,49, 0, 1, 1,10		6,31
6″	42,18,14,35,11,46, 0,24, 9,28		3, 5,33,58,49	
		1,29, 6,45,54,27, 2,21		6,31
8″	42,18,16, 4,18,31,54,51,11,49		3, 5,34, 5,20	
		1,29, 6,42,48,52,57, 1		6,31
10″	42,18,17,33,25,14,43,44, 8,50		3, 5,34,11,51	
		1,29, 6,39,43,18,45,10		6,31
12″	42,18,19, 2,31,54,27, 2,54, 0		3, 5,34,18,22	
		1,29, 6,36,37,44,26,48		6,31
14″	42,18,20,31,38,31, 4,47,20,48		3, 5,34,24,53	
		1,29, 6,33,32,10, 1,55		6,31
16″	42,18,22, 0,45, 4,36,57,22,43		3, 5,34,31,24	
		1,29, 6,30,26,35,30,31		6,31
18″	42,18,23,29,51,35, 3,32,53,14		3, 5,34,37,55	
		1,29, 6,27,21, 0,52,36		6,31
20″	42,18,24,58,58, 2,24,33,45,50		3, 5,34,44,26	
		1,29, 6,24,15,26, 8,10		6,31
22″	42,18,26,28, 4,26,39,59,54, 0		3, 5,34,50,57	
		1,29, 6,21, 9,51,17,13		6,31
24″	42,18,27,57,10,47,49,51,11,13		3, 5,34,57,28	
		1,29, 6,18, 4,16,19,45		6,31
26″	42,18,29,26,17, 5,54, 7,30,58		3, 5,35, 3,59	
		1,29, 6,14,58,41,15,46		6,31
28″	42,18,30,55,23,20,52,48,46,44		3, 5,35,10,30	
		1,29, 6,11,53, 6, 5,16		6,31
30″	42,18,32,24,29,32,45,54,52, 0		3, 5,35,17, 1	
		1,29, 6, 8,47,30,48,15		6,31
32″	42,18,33,53,35,41,33,25,40,15		3, 5,35,23,32	
		1,29, 6, 5,41,55,24,43		6,31
34″	42,18,35,22,41,47,15,21, 4,58		3, 5,35,30, 3	
		1,29, 6, 2,36,19,54,40		6,31
36″	42,18,36,51,47,49,51,40,59,38		3, 5,35,36,34	
		1,29, 5,59,30,44,18, 6		6,31
38″	42,18,38,20,53,49,22,25,17,44		3, 5,35,43, 5	
		1,29, 5,56,25, 8,35, 1		6,31
40″	42,18,39,49,59,45,47,33,52,45		3, 5,35,49,36	
		1,29, 5,53,19,32,45,25		6,31
42″	42,18,41,19, 5,39, 7, 6,38,10		3, 5,35,56, 7	
		1,29, 5,50,13,56,49,18		6,31
44″	42,18,42,48,11,29,21, 3,27,28		3, 5,36, 2,38	
		1,29, 5,47, 8,20,46,40		6,31
46″	42,18,44,17,17,16,29,24,14, 8		3, 5,36, 9, 9	
		1,29, 5,44, 2,44,37,31		6,31
48″	42,18,45,46,23, 0,32, 8,51,39		3, 5,36,15,40	
		1,29, 5,40,57, 8,21,51		6,31
50″	42,18,47,15,28,41,29,17,13,30		3, 5,36,22,11	
		1,29, 5,37,51,31,59,40		6,31
52″	42,18,48,44,34,19,20,49,13,10		3, 5,36,28,42	
		1,29, 5,34,45,55,30,58		6,31
54″	42,18,50,13,39,54, 6,44,44, 8		3, 5,36,35,13	
		1,29, 5,31,40,18,55,45		6,31
56″	42,18,51,42,45,25,47, 3,39,53		3, 5,36,41,44	
		1,29, 5,28,34,42,14, 1		6,31
58″	42,18,53,11,50,54,21,45,53,54		3, 5,36,48,15	
		1,29, 5,25,29, 5,25,46		
60″	42,18,54,40,56,19,50,51,19,40			
exact	42,18,54,40,56,19,50,51,29,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°51′ 0″	42,18,54,40,56,19,50,51,29,31			
		1,29, 5,22,23,28,32, 5		
2″	42,18,56,10, 1,42,14,20, 1,36		3, 5,37, 1,12	
		1,29, 5,19,17,51,30,53		6,31
4″	42,18,57,39, 7, 1,32,11,32,29		3, 5,37, 7,43	
		1,29, 5,16,12,14,23,10		6,31
6″	42,18,59, 8,12,17,44,25,55,39		3, 5,37,14,14	
		1,29, 5,13, 6,37, 8,56		6,31
8″	42,19, 0,37,17,30,51, 3, 4,35		3, 5,37,20,45	
		1,29, 5,10, 0,59,48,11		6,31
10″	42,19, 2, 6,22,40,52, 2,52,46		3, 5,37,27,16	
		1,29, 5, 6,55,22,20,55		6,31
12″	42,19, 3,35,27,47,47,25,13,41		3, 5,37,33,47	
		1,29, 5, 3,49,44,47, 8		6,31
14″	42,19, 5, 4,32,51,37,10, 0,49		3, 5,37,40,18	
		1,29, 5, 0,44, 7, 6,50		6,31
16″	42,19, 6,33,37,52,21,17, 7,39		3, 5,37,46,49	
		1,29, 4,57,38,29,20, 1		6,31
18″	42,19, 8, 2,42,49,59,46,27,40		3, 5,37,53,20	
		1,29, 4,54,32,51,26,41		6,31
20″	42,19, 9,31,47,44,32,37,54,21		3, 5,37,59,51	
		1,29, 4,51,27,13,26,50		6,31
22″	42,19,11, 0,52,35,59,51,21,11		3, 5,38, 6,22	
		1,29, 4,48,21,35,20,28		6,31
24″	42,19,12,29,57,24,21,26,41,39		3, 5,38,12,53	
		1,29, 4,45,15,57, 7,35		6,31
26″	42,19,13,59, 2, 9,37,23,49,14		3, 5,38,19,24	
		1,29, 4,42,10,18,48,11		6,31
28″	42,19,15,28, 6,51,47,42,37,25		3, 5,38,25,55	
		1,29, 4,39, 4,40,22,16		6,31
30″	42,19,16,57,11,30,52,22,59,41		3, 5,38,32,26	
		1,29, 4,35,59, 1,49,50		6,31
32″	42,19,18,26,16, 6,51,24,49,31		3, 5,38,38,57	
		1,29, 4,32,53,23,10,53		6,31
34″	42,19,19,55,20,39,44,48, 0,24		3, 5,38,45,28	
		1,29, 4,29,47,44,25,25		6,31
36″	42,19,21,24,25, 9,32,32,25,49		3, 5,38,51,59	
		1,29, 4,26,42, 5,33,26		6,31
38″	42,19,22,53,29,36,14,37,59,15		3, 5,38,58,30	
		1,29, 4,23,36,26,34,56		6,31
40″	42,19,24,22,33,59,51, 4,34,11		3, 5,39, 5, 1	
		1,29, 4,20,30,47,29,55		6,31
42″	42,19,25,51,38,20,21,52, 4, 6		3, 5,39,11,32	
		1,29, 4,17,25, 8,18,23		6,31
44″	42,19,27,20,42,37,47, 0,22,29		3, 5,39,18, 3	
		1,29, 4,14,19,29, 0,20		6,31
46″	42,19,28,49,46,52, 6,29,22,49		3, 5,39,24,34	
		1,29, 4,11,13,49,35,46		6,31
48″	42,19,30,18,51, 3,20,18,58,35		3, 5,39,31, 5	
		1,29, 4, 8, 8,10, 4,41		6,31
50″	42,19,31,47,55,11,28,29, 3,16		3, 5,39,37,36	
		1,29, 4, 5, 2,30,27, 5		6,31
52″	42,19,33,16,59,16,30,59,30,21		3, 5,39,44, 7	
		1,29, 4, 1,56,50,42,58		6,31
54″	42,19,34,46, 3,18,27,50,13,19		3, 5,39,50,38	
		1,29, 3,58,51,10,52,20		6,31
56″	42,19,36,15, 7,17,19, 1, 5,39		3, 5,39,57, 9	
		1,29, 3,55,45,30,55,11		6,31
58″	42,19,37,44,11,13, 4,32, 0,50		3, 5,40, 3,40	
		1,29, 3,52,39,50,51,31		
60″	42,19,39,13,15, 5,44,22,52,21			
exact	42,19,39,13,15, 5,44,23, 7,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°52′ 0″	42,19,39,13,15, 5,44,23, 7,17			
		1,29, 3,49,34,10,43, 3		
2″	42,19,40,42,18,55,18,33,50,20		3, 5,40,16,34	
		1,29, 3,46,28,30,26,29		6,31
4″	42,19,42,11,22,41,47, 4,16,49		3, 5,40,23, 5	
		1,29, 3,43,22,50, 3,24		6,31
6″	42,19,43,40,26,25, 9,54,20,13		3, 5,40,29,36	
		1,29, 3,40,17, 9,33,48		6,31
8″	42,19,45, 9,30, 5,27, 3,54, 1		3, 5,40,36, 7	
		1,29, 3,37,11,28,57,41		6,31
10″	42,19,46,38,33,42,38,32,51,42		3, 5,40,42,38	
		1,29, 3,34, 5,48,15, 3		6,31
12″	42,19,48, 7,37,16,44,21, 6,45		3, 5,40,49, 9	
		1,29, 3,31, 0, 7,25,54		6,31
14″	42,19,49,36,40,47,44,28,32,39		3, 5,40,55,40	
		1,29, 3,27,54,26,30,14		6,31
16″	42,19,51, 5,44,15,38,55, 2,53		3, 5,41, 2,11	
		1,29, 3,24,48,45,28, 3		6,31
18″	42,19,52,34,47,40,27,40,30,56		3, 5,41, 8,42	
		1,29, 3,21,43, 4,19,21		6,31
20″	42,19,54, 3,51, 2,10,44,50,17		3, 5,41,15,13	
		1,29, 3,18,37,23, 4, 8		6,31
22″	42,19,55,32,54,20,48, 7,54,25		3, 5,41,21,44	
		1,29, 3,15,31,41,42,24		6,31
24″	42,19,57, 1,57,36,19,49,36,49		3, 5,41,28,15	
		1,29, 3,12,26, 0,14, 9		6,31
26″	42,19,58,31, 0,48,45,49,50,58		3, 5,41,34,46	
		1,29, 3, 9,20,18,39,23		6,31
28″	42,20, 0, 0, 3,58, 6, 8,30,21		3, 5,41,41,17	
		1,29, 3, 6,14,36,58, 6		6,31
30″	42,20, 1,29, 7, 4,20,45,28,27		3, 5,41,47,48	
		1,29, 3, 3, 8,55,10,18		6,31
32″	42,20, 2,58,10, 7,29,40,38,45		3, 5,41,54,19	
		1,29, 3, 0, 3,13,15,59		6,31
34″	42,20, 4,27,13, 7,32,53,54,44		3, 5,42, 0,50	
		1,29, 2,56,57,31,15, 9		6,31
36″	42,20, 5,56,16, 4,30,25, 9,53		3, 5,42, 7,21	
		1,29, 2,53,51,49, 7,48		6,31
38″	42,20, 7,25,18,58,22,14,17,41		3, 5,42,13,52	
		1,29, 2,50,46, 6,53,56		6,31
40″	42,20, 8,54,21,49, 8,21,11,37		3, 5,42,20,23	
		1,29, 2,47,40,24,33,33		6,31
42″	42,20,10,23,24,36,48,45,45,10		3, 5,42,26,54	
		1,29, 2,44,34,42, 6,39		6,31
44″	42,20,11,52,27,21,23,27,51,49		3, 5,42,33,25	
		1,29, 2,41,28,59,33,14		6,31
46″	42,20,13,21,30, 2,52,27,25, 3		3, 5,42,39,56	
		1,29, 2,38,23,16,53,18		6,31
48″	42,20,14,50,32,41,15,44,18,21		3, 5,42,46,27	
		1,29, 2,35,17,34, 6,51		6,31
50″	42,20,16,19,35,16,33,18,25,12		3, 5,42,52,58	
		1,29, 2,32,11,51,13,53		6,31
52″	42,20,17,48,37,48,45, 9,39, 5		3, 5,42,59,29	
		1,29, 2,29, 6, 8,14,24		6,31
54″	42,20,19,17,40,17,51,17,53,29		3, 5,43, 6, 0	
		1,29, 2,26, 0,25, 8,24		6,31
56″	42,20,20,46,42,43,51,43, 1,53		3, 5,43,12,31	
		1,29, 2,22,54,41,55,53		6,31
58″	42,20,22,15,45, 6,46,24,57,46		3, 5,43,19, 2	
		1,29, 2,19,48,58,36,51		
60″	42,20,23,44,47,26,35,23,34,37			
exact	42,20,23,44,47,26,35,23,57,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°53′ 0″	42,20,23,44,47,26,35,23,57,45			
		1,29, 2,16,43,15,13,52		
2″	42,20,25,13,49,43,18,39,11,37		3, 5,43,31,53	
		1,29, 2,13,37,31,41,59		6,31
4″	42,20,26,42,51,56,56,10,53,36		3, 5,43,38,24	
		1,29, 2,10,31,48, 3,35		6,31
6″	42,20,28,11,54, 7,27,58,57,11		3, 5,43,44,55	
		1,29, 2, 7,26, 4,18,40		6,31
8″	42,20,29,40,56,14,54, 3,15,51		3, 5,43,51,26	
		1,29, 2, 4,20,20,27,14		6,31
10″	42,20,31, 9,58,19,14,23,43, 5		3, 5,43,57,57	
		1,29, 2, 1,14,36,29,17		6,31
12″	42,20,32,39, 0,20,29, 0,12,22		3, 5,44, 4,28	
		1,29, 1,58, 8,52,24,49		6,31
14″	42,20,34, 8, 2,18,37,52,37,11		3, 5,44,10,59	
		1,29, 1,55, 3, 8,13,50		6,31
16″	42,20,35,37, 4,13,41, 0,51, 1		3, 5,44,17,30	
		1,29, 1,51,57,23,56,20		6,31
18″	42,20,37, 6, 6, 5,38,24,47,21		3, 5,44,24, 1	
		1,29, 1,48,51,39,32,19		6,31
20″	42,20,38,35, 7,54,30, 4,19,40		3, 5,44,30,32	
		1,29, 1,45,45,55, 1,47		6,31
22″	42,20,40, 4, 9,40,15,59,21,27		3, 5,44,37, 3	
		1,29, 1,42,40,10,24,44		6,31
24″	42,20,41,33,11,22,56, 9,46,11		3, 5,44,43,34	
		1,29, 1,39,34,25,41,10		6,31
26″	42,20,43, 2,13, 2,30,35,27,21		3, 5,44,50, 5	
		1,29, 1,36,28,40,51, 5		6,31
28″	42,20,44,31,14,38,59,16,18,26		3, 5,44,56,36	
		1,29, 1,33,22,55,54,29		6,31
30″	42,20,46, 0,16,12,22,12,12,55		3, 5,45, 3, 7	
		1,29, 1,30,17,10,51,22		6,31
32″	42,20,47,29,17,42,39,23, 4,17		3, 5,45, 9,38	
		1,29, 1,27,11,25,41,44		6,31
34″	42,20,48,58,19, 9,50,48,46, 1		3, 5,45,16, 9	
		1,29, 1,24, 5,40,25,35		6,31
36″	42,20,50,27,20,33,56,29,11,36		3, 5,45,22,40	
		1,29, 1,20,59,55, 2,55		6,31
38″	42,20,51,56,21,54,56,24,14,31		3, 5,45,29,11	
		1,29, 1,17,54, 9,33,44		6,31
40″	42,20,53,25,23,12,50,33,48,15		3, 5,45,35,42	
		1,29, 1,14,48,23,58, 2		6,31
42″	42,20,54,54,24,27,38,57,46,17		3, 5,45,42,13	
		1,29, 1,11,42,38,15,49		6,31
44″	42,20,56,23,25,39,21,36, 2, 6		3, 5,45,48,44	
		1,29, 1, 8,36,52,27, 5		6,31
46″	42,20,57,52,26,47,58,28,29,11		3, 5,45,55,15	
		1,29, 1, 5,31, 6,31,50		6,31
48″	42,20,59,21,27,53,29,35, 1, 1		3, 5,46, 1,46	
		1,29, 1, 2,25,20,30, 4		6,31
50″	42,21, 0,50,28,55,54,55,31, 5		3, 5,46, 8,17	
		1,29, 0,59,19,34,21,47		6,31
52″	42,21, 2,19,29,55,14,29,52,52		3, 5,46,14,48	
		1,29, 0,56,13,48, 6,59		6,31
54″	42,21, 3,48,30,51,28,17,59,51		3, 5,46,21,19	
		1,29, 0,53, 8, 1,45,40		6,31
56″	42,21, 5,17,31,44,36,19,45,31		3, 5,46,27,50	
		1,29, 0,50, 2,15,17,50		6,31
58″	42,21, 6,46,32,34,38,35, 3,21		3, 5,46,34,21	
		1,29, 0,46,56,28,43,29		
60″	42,21, 8,15,33,21,35, 3,46,50			
exact	42,21, 8,15,33,21,35, 4,20,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°54′ 0″	42,21, 8,15,33,21,35, 4,20,43			
		1,29, 0,43,50,42, 6,13		
2″	42,21, 9,44,34, 5,25,46,26,56		3, 5,46,47, 8	
		1,29, 0,40,44,55,19, 5		6,30
4″	42,21,11,13,34,46,10,41,46, 1		3, 5,46,53,38	
		1,29, 0,37,39, 8,25,27		6,30
6″	42,21,12,42,35,23,49,50,11,28		3, 5,47, 0, 8	
		1,29, 0,34,33,21,25,19		6,30
8″	42,21,14,11,35,58,23,11,36,47		3, 5,47, 6,38	
		1,29, 0,31,27,34,18,41		6,30
10″	42,21,15,40,36,29,50,45,55,28		3, 5,47,13, 8	
		1,29, 0,28,21,47, 5,33		6,30
12″	42,21,17, 9,36,58,12,33, 1, 1		3, 5,47,19,38	
		1,29, 0,25,15,59,45,55		6,30
14″	42,21,18,38,37,23,28,32,46,56		3, 5,47,26, 8	
		1,29, 0,22,10,12,19,47		6,30
16″	42,21,20, 7,37,45,38,45, 6,43		3, 5,47,32,38	
		1,29, 0,19, 4,24,47, 9		6,30
18″	42,21,21,36,38, 4,43, 9,53,52		3, 5,47,39, 8	
		1,29, 0,15,58,37, 8, 1		6,30
20″	42,21,23, 5,38,20,41,47, 1,53		3, 5,47,45,38	
		1,29, 0,12,52,49,22,23		6,30
22″	42,21,24,34,38,33,34,36,24,16		3, 5,47,52, 8	
		1,29, 0, 9,47, 1,30,15		6,30
24″	42,21,26, 3,38,43,21,37,54,31		3, 5,47,58,38	
		1,29, 0, 6,41,13,31,37		6,30
26″	42,21,27,32,38,50, 2,51,26, 8		3, 5,48, 5, 8	
		1,29, 0, 3,35,25,26,29		6,30
28″	42,21,29, 1,38,53,38,16,52,37		3, 5,48,11,38	
		1,29, 0, 0,29,37,14,51		6,30
30″	42,21,30,30,38,54, 7,54, 7,28		3, 5,48,18, 8	
		1,28,59,57,23,48,56,43		6,30
32″	42,21,31,59,38,51,31,43, 4,11		3, 5,48,24,38	
		1,28,59,54,18, 0,32, 5		6,30
34″	42,21,33,28,38,45,49,43,36,16		3, 5,48,31, 8	
		1,28,59,51,12,12, 0,57		6,30
36″	42,21,34,57,38,37, 1,55,37,13		3, 5,48,37,38	
		1,28,59,48, 6,23,23,19		6,30
38″	42,21,36,26,38,25, 8,19, 0,32		3, 5,48,44, 8	
		1,28,59,45, 0,34,39,11		6,30
40″	42,21,37,55,38,10, 8,53,39,43		3, 5,48,50,38	
		1,28,59,41,54,45,48,33		6,30
42″	42,21,39,24,37,52, 3,39,28,16		3, 5,48,57, 8	
		1,28,59,38,48,56,51,25		6,30
44″	42,21,40,53,37,30,52,36,19,41		3, 5,49, 3,38	
		1,28,59,35,43, 7,47,47		6,30
46″	42,21,42,22,37, 6,35,44, 7,28		3, 5,49,10, 8	
		1,28,59,32,37,18,37,39		6,30
48″	42,21,43,51,36,39,13, 2,45, 7		3, 5,49,16,38	
		1,28,59,29,31,29,21, 1		6,30
50″	42,21,45,20,36, 8,44,32, 6, 8		3, 5,49,23, 8	
		1,28,59,26,25,39,57,53		6,30
52″	42,21,46,49,35,35,10,12, 4, 1		3, 5,49,29,38	
		1,28,59,23,19,50,28,15		6,30
54″	42,21,48,18,34,58,30, 2,32,16		3, 5,49,36, 8	
		1,28,59,20,14, 0,52, 7		6,30
56″	42,21,49,47,34,18,44, 3,24,23		3, 5,49,42,38	
		1,28,59,17, 8,11, 9,29		6,30
58″	42,21,51,16,33,35,52,14,33,52		3, 5,49,49, 8	
		1,28,59,14, 2,21,20,21		
60″	42,21,52,45,32,49,54,35,54,13			
exact	42,21,52,45,32,49,54,35,26,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°55′ 0″	42,21,52,45,32,49,54,35,26,50			
		1,28,59,10,56,31,21,48		
2″	42,21,54,14,32, 0,51, 6,48,38		3, 5,50, 2,20	
		1,28,59, 7,50,41,19,28		6,30
4″	42,21,55,43,31, 8,41,48, 8, 6		3, 5,50, 8,50	
		1,28,59, 4,44,51,10,38		6,30
6″	42,21,57,12,30,13,26,39,18,44		3, 5,50,15,20	
		1,28,59, 1,39, 0,55,18		6,30
8″	42,21,58,41,29,15, 5,40,14, 2		3, 5,50,21,50	
		1,28,58,58,33,10,33,28		6,30
10″	42,22, 0,10,28,13,38,50,47,30		3, 5,50,28,20	
		1,28,58,55,27,20, 5, 8		6,30
12″	42,22, 1,39,27, 9, 6,10,52,38		3, 5,50,34,50	
		1,28,58,52,21,29,30,18		6,30
14″	42,22, 3, 8,26, 1,27,40,22,56		3, 5,50,41,20	
		1,28,58,49,15,38,48,58		6,30
16″	42,22, 4,37,24,50,43,19,11,54		3, 5,50,47,50	
		1,28,58,46, 9,48, 1, 8		6,30
18″	42,22, 6, 6,23,36,53, 7,13, 2		3, 5,50,54,20	
		1,28,58,43, 3,57, 6,48		6,30
20″	42,22, 7,35,22,19,57, 4,19,50		3, 5,51, 0,50	
		1,28,58,39,58, 6, 5,58		6,30
22″	42,22, 9, 4,20,59,55,10,25,48		3, 5,51, 7,20	
		1,28,58,36,52,14,58,38		6,30
24″	42,22,10,33,19,36,47,25,24,26		3, 5,51,13,50	
		1,28,58,33,46,23,44,48		6,30
26″	42,22,12, 2,18,10,33,49, 9,14		3, 5,51,20,20	
		1,28,58,30,40,32,24,28		6,30
28″	42,22,13,31,16,41,14,21,33,42		3, 5,51,26,50	
		1,28,58,27,34,40,57,38		6,30
30″	42,22,15, 0,15, 8,49, 2,31,20		3, 5,51,33,20	
		1,28,58,24,28,49,24,18		6,30
32″	42,22,16,29,13,33,17,51,55,38		3, 5,51,39,50	
		1,28,58,21,22,57,44,28		6,30
34″	42,22,17,58,11,54,40,49,40, 6		3, 5,51,46,20	
		1,28,58,18,17, 5,58, 8		6,30
36″	42,22,19,27,10,12,57,55,38,14		3, 5,51,52,50	
		1,28,58,15,11,14, 5,18		6,30
38″	42,22,20,56, 8,28, 9, 9,43,32		3, 5,51,59,20	
		1,28,58,12, 5,22, 5,58		6,30
40″	42,22,22,25, 6,40,14,31,49,30		3, 5,52, 5,50	
		1,28,58, 8,59,30, 0, 8		6,30
42″	42,22,23,54, 4,49,14, 1,49,38		3, 5,52,12,20	
		1,28,58, 5,53,37,47,48		6,30
44″	42,22,25,23, 2,55, 7,39,37,26		3, 5,52,18,50	
		1,28,58, 2,47,45,28,58		6,30
46″	42,22,26,52, 0,57,55,25, 6,24		3, 5,52,25,20	
		1,28,57,59,41,53, 3,38		6,30
48″	42,22,28,20,58,57,37,18,10, 2		3, 5,52,31,50	
		1,28,57,56,36, 0,31,48		6,30
50″	42,22,29,49,56,54,13,18,41,50		3, 5,52,38,20	
		1,28,57,53,30, 7,53,28		6,30
52″	42,22,31,18,54,47,43,26,35,18		3, 5,52,44,50	
		1,28,57,50,24,15, 8,38		6,30
54″	42,22,32,47,52,38, 7,41,43,56		3, 5,52,51,20	
		1,28,57,47,18,22,17,18		6,30
56″	42,22,34,16,50,25,26, 4, 1,14		3, 5,52,57,50	
		1,28,57,44,12,29,19,28		6,30
58″	42,22,35,45,48, 9,38,33,20,42		3, 5,53, 4,20	
		1,28,57,41, 6,36,15, 8		
60″	42,22,37,14,45,50,45, 9,35,50			
exact	42,22,37,14,45,50,45, 9,17,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°56′ 0″	42,22,37,14,45,50,45, 9,17,45			
		1,28,57,38, 0,43, 2,19		
2″	42,22,38,43,43,28,45,52,20, 4		3, 5,53,17,28	
		1,28,57,34,54,49,44,51		6,30
4″	42,22,40,12,41, 3,40,42, 4,55		3, 5,53,23,58	
		1,28,57,31,48,56,20,53		6,30
6″	42,22,41,41,38,35,29,38,25,48		3, 5,53,30,28	
		1,28,57,28,43, 2,50,25		6,30
8″	42,22,43,10,36, 4,12,41,16,13		3, 5,53,36,58	
		1,28,57,25,37, 9,13,27		6,30
10″	42,22,44,39,33,29,49,50,29,40		3, 5,53,43,28	
		1,28,57,22,31,15,29,59		6,30
12″	42,22,46, 8,30,52,21, 5,59,39		3, 5,53,49,58	
		1,28,57,19,25,21,40, 1		6,30
14″	42,22,47,37,28,11,46,27,39,40		3, 5,53,56,28	
		1,28,57,16,19,27,43,33		6,30
16″	42,22,49, 6,25,28, 5,55,23,13		3, 5,54, 2,58	
		1,28,57,13,13,33,40,35		6,30
18″	42,22,50,35,22,41,19,29, 3,48		3, 5,54, 9,28	
		1,28,57,10, 7,39,31, 7		6,30
20″	42,22,52, 4,19,51,27, 8,34,55		3, 5,54,15,58	
		1,28,57, 7, 1,45,15, 9		6,30
22″	42,22,53,33,16,58,28,53,50, 4		3, 5,54,22,28	
		1,28,57, 3,55,50,52,41		6,30
24″	42,22,55, 2,14, 2,24,44,42,45		3, 5,54,28,58	
		1,28,57, 0,49,56,23,43		6,30
26″	42,22,56,31,11, 3,14,41, 6,28		3, 5,54,35,28	
		1,28,56,57,44, 1,48,15		6,30
28″	42,22,58, 0, 8, 0,58,42,54,43		3, 5,54,41,58	
		1,28,56,54,38, 7, 6,17		6,30
30″	42,22,59,29, 4,55,36,50, 1, 0		3, 5,54,48,28	
		1,28,56,51,32,12,17,49		6,30
32″	42,23, 0,58, 1,47, 9, 2,18,49		3, 5,54,54,58	
		1,28,56,48,26,17,22,51		6,30
34″	42,23, 2,26,58,35,35,19,41,40		3, 5,55, 1,28	
		1,28,56,45,20,22,21,23		6,30
36″	42,23, 3,55,55,20,55,42, 3, 3		3, 5,55, 7,58	
		1,28,56,42,14,27,13,25		6,30
38″	42,23, 5,24,52, 3,10, 9,16,28		3, 5,55,14,28	
		1,28,56,39, 8,31,58,57		6,30
40″	42,23, 6,53,48,42,18,41,15,25		3, 5,55,20,58	
		1,28,56,36, 2,36,37,59		6,30
42″	42,23, 8,22,45,18,21,17,53,24		3, 5,55,27,28	
		1,28,56,32,56,41,10,31		6,30
44″	42,23, 9,51,41,51,17,59, 3,55		3, 5,55,33,58	
		1,28,56,29,50,45,36,33		6,30
46″	42,23,11,20,38,21, 8,44,40,28		3, 5,55,40,28	
		1,28,56,26,44,49,56, 5		6,30
48″	42,23,12,49,34,47,53,34,36,33		3, 5,55,46,58	
		1,28,56,23,38,54, 9, 7		6,30
50″	42,23,14,18,31,11,32,28,45,40		3, 5,55,53,28	
		1,28,56,20,32,58,15,39		6,30
52″	42,23,15,47,27,32, 5,27, 1,19		3, 5,55,59,58	
		1,28,56,17,27, 2,15,41		6,30
54″	42,23,17,16,23,49,32,29,17, 0		3, 5,56, 6,28	
		1,28,56,14,21, 6, 9,13		6,30
56″	42,23,18,45,20, 3,53,35,26,13		3, 5,56,12,58	
		1,28,56,11,15, 9,56,15		6,30
58″	42,23,20,14,16,15, 8,45,22,28		3, 5,56,19,28	
		1,28,56, 8, 9,13,36,47		
60″	42,23,21,43,12,23,17,58,59,15			
exact	42,23,21,43,12,23,17,58,46, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°57′ 0″	42,23,21,43,12,23,17,58,46, 2			
		1,28,56, 5, 3,17, 9,28		
2″	42,23,23,12, 8,28,21,15,55,30		3, 5,56,32,33	
		1,28,56, 1,57,20,36,55		6,30
4″	42,23,24,41, 4,30,18,36,32,25		3, 5,56,39, 3	
		1,28,55,58,51,23,57,52		6,30
6″	42,23,26,10, 0,29,10, 0,30,17		3, 5,56,45,33	
		1,28,55,55,45,27,12,19		6,30
8″	42,23,27,38,56,24,55,27,42,36		3, 5,56,52, 3	
		1,28,55,52,39,30,20,16		6,30
10″	42,23,29, 7,52,17,34,58, 2,52		3, 5,56,58,33	
		1,28,55,49,33,33,21,43		6,30
12″	42,23,30,36,48, 7, 8,31,24,35		3, 5,57, 5, 3	
		1,28,55,46,27,36,16,40		6,30
14″	42,23,32, 5,43,53,36, 7,41,15		3, 5,57,11,33	
		1,28,55,43,21,39, 5, 7		6,30
16″	42,23,33,34,39,36,57,46,46,22		3, 5,57,18, 3	
		1,28,55,40,15,41,47, 4		6,30
18″	42,23,35, 3,35,17,13,28,33,26		3, 5,57,24,33	
		1,28,55,37, 9,44,22,31		6,30
20″	42,23,36,32,30,54,23,12,55,57		3, 5,57,31, 3	
		1,28,55,34, 3,46,51,28		6,30
22″	42,23,38, 1,26,28,26,59,47,25		3, 5,57,37,33	
		1,28,55,30,57,49,13,55		6,30
24″	42,23,39,30,21,59,24,49, 1,20		3, 5,57,44, 3	
		1,28,55,27,51,51,29,52		6,30
26″	42,23,40,59,17,27,16,40,31,12		3, 5,57,50,33	
		1,28,55,24,45,53,39,19		6,30
28″	42,23,42,28,12,52, 2,34,10,31		3, 5,57,57, 3	
		1,28,55,21,39,55,42,16		6,30
30″	42,23,43,57, 8,13,42,29,52,47		3, 5,58, 3,33	
		1,28,55,18,33,57,38,43		6,30
32″	42,23,45,26, 3,32,16,27,31,30		3, 5,58,10, 3	
		1,28,55,15,27,59,28,40		6,30
34″	42,23,46,54,58,47,44,27, 0,10		3, 5,58,16,33	
		1,28,55,12,22, 1,12, 7		6,30
36″	42,23,48,23,54, 0, 6,28,12,17		3, 5,58,23, 3	
		1,28,55, 9,16, 2,49, 4		6,30
38″	42,23,49,52,49, 9,22,31, 1,21		3, 5,58,29,33	
		1,28,55, 6,10, 4,19,31		6,30
40″	42,23,51,21,44,15,32,35,20,52		3, 5,58,36, 3	
		1,28,55, 3, 4, 5,43,28		6,30
42″	42,23,52,50,39,18,36,41, 4,20		3, 5,58,42,33	
		1,28,54,59,58, 7, 0,55		6,30
44″	42,23,54,19,34,18,34,48, 5,15		3, 5,58,49, 3	
		1,28,54,56,52, 8,11,52		6,30
46″	42,23,55,48,29,15,26,56,17, 7		3, 5,58,55,33	
		1,28,54,53,46, 9,16,19		6,30
48″	42,23,57,17,24, 9,13, 5,33,26		3, 5,59, 2, 3	
		1,28,54,50,40,10,14,16		6,30
50″	42,23,58,46,18,59,53,15,47,42		3, 5,59, 8,33	
		1,28,54,47,34,11, 5,43		6,30
52″	42,24, 0,15,13,47,27,26,53,25		3, 5,59,15, 3	
		1,28,54,44,28,11,50,40		6,30
54″	42,24, 1,44, 8,31,55,38,44, 5		3, 5,59,21,33	
		1,28,54,41,22,12,29, 7		6,30
56″	42,24, 3,13, 3,13,17,51,13,12		3, 5,59,28, 3	
		1,28,54,38,16,13, 1, 4		6,30
58″	42,24, 4,41,57,51,34, 4,14,16		3, 5,59,34,33	
		1,28,54,35,10,13,26,31		
60″	42,24, 6,10,52,26,44,17,40,47			
exact	42,24, 6,10,52,26,44,17,35,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°58′ 0″	42,24, 6,10,52,26,44,17,35,12			
		1,28,54,32, 4,13,44,56		
2″	42,24, 7,39,46,58,48,31,20, 8		3, 5,59,47,35	
		1,28,54,28,58,13,57,21		6,30
4″	42,24, 9, 8,41,27,46,45,17,29		3, 5,59,54, 5	
		1,28,54,25,52,14, 3,16		6,30
6″	42,24,10,37,35,53,38,59,20,45		3, 6, 0, 0,35	
		1,28,54,22,46,14, 2,41		6,30
8″	42,24,12, 6,30,16,25,13,23,26		3, 6, 0, 7, 5	
		1,28,54,19,40,13,55,36		6,30
10″	42,24,13,35,24,36, 5,27,19, 2		3, 6, 0,13,35	
		1,28,54,16,34,13,42, 1		6,30
12″	42,24,15, 4,18,52,39,41, 1, 3		3, 6, 0,20, 5	
		1,28,54,13,28,13,21,56		6,30
14″	42,24,16,33,13, 6, 7,54,22,59		3, 6, 0,26,35	
		1,28,54,10,22,12,55,21		6,30
16″	42,24,18, 2, 7,16,30, 7,18,20		3, 6, 0,33, 5	
		1,28,54, 7,16,12,22,16		6,30
18″	42,24,19,31, 1,23,46,19,40,36		3, 6, 0,39,35	
		1,28,54, 4,10,11,42,41		6,30
20″	42,24,20,59,55,27,56,31,23,17		3, 6, 0,46, 5	
		1,28,54, 1, 4,10,56,36		6,30
22″	42,24,22,28,49,29, 0,42,19,53		3, 6, 0,52,35	
		1,28,53,57,58,10, 4, 1		6,30
24″	42,24,23,57,43,26,58,52,23,54		3, 6, 0,59, 5	
		1,28,53,54,52, 9, 4,56		6,30
26″	42,24,25,26,37,21,51, 1,28,50		3, 6, 1, 5,35	
		1,28,53,51,46, 7,59,21		6,30
28″	42,24,26,55,31,13,37, 9,28,11		3, 6, 1,12, 5	
		1,28,53,48,40, 6,47,16		6,30
30″	42,24,28,24,25, 2,17,16,15,27		3, 6, 1,18,35	
		1,28,53,45,34, 5,28,41		6,30
32″	42,24,29,53,18,47,51,21,44, 8		3, 6, 1,25, 5	
		1,28,53,42,28, 4, 3,36		6,30
34″	42,24,31,22,12,30,19,25,47,44		3, 6, 1,31,35	
		1,28,53,39,22, 2,32, 1		6,30
36″	42,24,32,51, 6, 9,41,28,19,45		3, 6, 1,38, 5	
		1,28,53,36,16, 0,53,56		6,30
38″	42,24,34,19,59,45,57,29,13,41		3, 6, 1,44,35	
		1,28,53,33, 9,59, 9,21		6,30
40″	42,24,35,48,53,19, 7,28,23, 2		3, 6, 1,51, 5	
		1,28,53,30, 3,57,18,16		6,30
42″	42,24,37,17,46,49,11,25,41,18		3, 6, 1,57,35	
		1,28,53,26,57,55,20,41		6,30
44″	42,24,38,46,40,16, 9,21, 1,59		3, 6, 2, 4, 5	
		1,28,53,23,51,53,16,36		6,30
46″	42,24,40,15,33,40, 1,14,18,35		3, 6, 2,10,35	
		1,28,53,20,45,51, 6, 1		6,30
48″	42,24,41,44,27, 0,47, 5,24,36		3, 6, 2,17, 5	
		1,28,53,17,39,48,48,56		6,30
50″	42,24,43,13,20,18,26,54,13,32		3, 6, 2,23,35	
		1,28,53,14,33,46,25,21		6,30
52″	42,24,44,42,13,33, 0,40,38,53		3, 6, 2,30, 5	
		1,28,53,11,27,43,55,16		6,30
54″	42,24,46,11, 6,44,28,24,34, 9		3, 6, 2,36,35	
		1,28,53, 8,21,41,18,41		6,30
56″	42,24,47,39,59,52,50, 5,52,50		3, 6, 2,43, 5	
		1,28,53, 5,15,38,35,36		6,30
58″	42,24,49, 8,52,58, 5,44,28,26		3, 6, 2,49,35	
		1,28,53, 2, 9,35,46, 1		
60″	42,24,50,37,46, 0,15,20,14,27			
exact	42,24,50,37,46, 0,15,20,19,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
44°59′ 0″	42,24,50,37,46, 0,15,20,19,46			
		1,28,52,59, 3,32,50,27		
2″	42,24,52, 6,38,59,18,53,10,13		3, 6, 3, 2,33	
		1,28,52,55,57,29,47,54		6,30
4″	42,24,53,35,31,55,16,22,58, 7		3, 6, 3, 9, 3	
		1,28,52,52,51,26,38,51		6,30
6″	42,24,55, 4,24,48, 7,49,36,58		3, 6, 3,15,33	
		1,28,52,49,45,23,23,18		6,30
8″	42,24,56,33,17,37,53,13, 0,16		3, 6, 3,22, 3	
		1,28,52,46,39,20, 1,15		6,30
10″	42,24,58, 2,10,24,32,33, 1,31		3, 6, 3,28,33	
		1,28,52,43,33,16,32,42		6,30
12″	42,24,59,31, 3, 8, 5,49,34,13		3, 6, 3,35, 3	
		1,28,52,40,27,12,57,39		6,30
14″	42,25, 0,59,55,48,33, 2,31,52		3, 6, 3,41,33	
		1,28,52,37,21, 9,16, 6		6,30
16″	42,25, 2,28,48,25,54,11,47,58		3, 6, 3,48, 3	
		1,28,52,34,15, 5,28, 3		6,30
18″	42,25, 3,57,41, 0, 9,17,16, 1		3, 6, 3,54,33	
		1,28,52,31, 9, 1,33,30		6,30
20″	42,25, 5,26,33,31,18,18,49,31		3, 6, 4, 1, 3	
		1,28,52,28, 2,57,32,27		6,30
22″	42,25, 6,55,25,59,21,16,21,58		3, 6, 4, 7,33	
		1,28,52,24,56,53,24,54		6,30
24″	42,25, 8,24,18,24,18, 9,46,52		3, 6, 4,14, 3	
		1,28,52,21,50,49,10,51		6,30
26″	42,25, 9,53,10,46, 8,58,57,43		3, 6, 4,20,33	
		1,28,52,18,44,44,50,18		6,30
28″	42,25,11,22, 3, 4,53,43,48, 1		3, 6, 4,27, 3	
		1,28,52,15,38,40,23,15		6,30
30″	42,25,12,50,55,20,32,24,11,16		3, 6, 4,33,33	
		1,28,52,12,32,35,49,42		6,30
32″	42,25,14,19,47,33, 5, 0, 0,58		3, 6, 4,40, 3	
		1,28,52, 9,26,31, 9,39		6,30
34″	42,25,15,48,39,42,31,31,10,37		3, 6, 4,46,33	
		1,28,52, 6,20,26,23, 6		6,30
36″	42,25,17,17,31,48,51,57,33,43		3, 6, 4,53, 3	
		1,28,52, 3,14,21,30, 3		6,30
38″	42,25,18,46,23,52, 6,19, 3,46		3, 6, 4,59,33	
		1,28,52, 0, 8,16,30,30		6,30
40″	42,25,20,15,15,52,14,35,34,16		3, 6, 5, 6, 3	
		1,28,51,57, 2,11,24,27		6,30
42″	42,25,21,44, 7,49,16,46,58,43		3, 6, 5,12,33	
		1,28,51,53,56, 6,11,54		6,30
44″	42,25,23,12,59,43,12,53,10,37		3, 6, 5,19, 3	
		1,28,51,50,50, 0,52,51		6,30
46″	42,25,24,41,51,34, 2,54, 3,28		3, 6, 5,25,33	
		1,28,51,47,43,55,27,18		6,30
48″	42,25,26,10,43,21,46,49,30,46		3, 6, 5,32, 3	
		1,28,51,44,37,49,55,15		6,30
50″	42,25,27,39,35, 6,24,39,26, 1		3, 6, 5,38,33	
		1,28,51,41,31,44,16,42		6,30
52″	42,25,29, 8,26,47,56,23,42,43		3, 6, 5,45, 3	
		1,28,51,38,25,38,31,39		6,30
54″	42,25,30,37,18,26,22, 2,14,22		3, 6, 5,51,33	
		1,28,51,35,19,32,40, 6		6,30
56″	42,25,32, 6,10, 1,41,34,54,28		3, 6, 5,58, 3	
		1,28,51,32,13,26,42, 3		6,30
58″	42,25,33,35, 1,33,55, 1,36,31		3, 6, 6, 4,33	
		1,28,51,29, 7,20,37,30		
60″	42,25,35, 3,53, 3, 2,22,14, 1			
exact	42,25,35, 3,53, 3, 2,22,25,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45° 0′ 0″	42,25,35, 3,53, 3, 2,22,25,14			
		1,28,51,26, 1,14,27,40		
2″	42,25,36,32,44,29, 3,36,52,54		3, 6, 6,17,28	
		1,28,51,22,55, 8,10,12		6,30
4″	42,25,38, 1,35,51,58,45, 3, 6		3, 6, 6,23,58	
		1,28,51,19,49, 1,46,14		6,30
6″	42,25,39,30,27,11,47,46,49,20		3, 6, 6,30,28	
		1,28,51,16,42,55,15,46		6,30
8″	42,25,40,59,18,28,30,42, 5, 6		3, 6, 6,36,58	
		1,28,51,13,36,48,38,48		6,30
10″	42,25,42,28, 9,42, 7,30,43,54		3, 6, 6,43,28	
		1,28,51,10,30,41,55,20		6,30
12″	42,25,43,57, 0,52,38,12,39,14		3, 6, 6,49,58	
		1,28,51, 7,24,35, 5,22		6,30
14″	42,25,45,25,52, 0, 2,47,44,36		3, 6, 6,56,28	
		1,28,51, 4,18,28, 8,54		6,30
16″	42,25,46,54,43, 4,21,15,53,30		3, 6, 7, 2,58	
		1,28,51, 1,12,21, 5,56		6,30
18″	42,25,48,23,34, 5,33,36,59,26		3, 6, 7, 9,28	
		1,28,50,58, 6,13,56,28		6,30
20″	42,25,49,52,25, 3,39,50,55,54		3, 6, 7,15,58	
		1,28,50,55, 0, 6,40,30		6,30
22″	42,25,51,21,15,58,39,57,36,24		3, 6, 7,22,28	
		1,28,50,51,53,59,18, 2		6,30
24″	42,25,52,50, 6,50,33,56,54,26		3, 6, 7,28,58	
		1,28,50,48,47,51,49, 4		6,30
26″	42,25,54,18,57,39,21,48,43,30		3, 6, 7,35,28	
		1,28,50,45,41,44,13,36		6,30
28″	42,25,55,47,48,25, 3,32,57, 6		3, 6, 7,41,58	
		1,28,50,42,35,36,31,38		6,30
30″	42,25,57,16,39, 7,39, 9,28,44		3, 6, 7,48,28	
		1,28,50,39,29,28,43,10		6,30
32″	42,25,58,45,29,47, 8,38,11,54		3, 6, 7,54,58	
		1,28,50,36,23,20,48,12		6,30
34″	42,26, 0,14,20,23,31,59, 0, 6		3, 6, 8, 1,28	
		1,28,50,33,17,12,46,44		6,30
36″	42,26, 1,43,10,56,49,11,46,50		3, 6, 8, 7,58	
		1,28,50,30,11, 4,38,46		6,30
38″	42,26, 3,12, 1,27, 0,16,25,36		3, 6, 8,14,28	
		1,28,50,27, 4,56,24,18		6,30
40″	42,26, 4,40,51,54, 5,12,49,54		3, 6, 8,20,58	
		1,28,50,23,58,48, 3,20		6,30
42″	42,26, 6, 9,42,18, 4, 0,53,14		3, 6, 8,27,28	
		1,28,50,20,52,39,35,52		6,30
44″	42,26, 7,38,32,38,56,40,29, 6		3, 6, 8,33,58	
		1,28,50,17,46,31, 1,54		6,30
46″	42,26, 9, 7,22,56,43,11,31, 0		3, 6, 8,40,28	
		1,28,50,14,40,22,21,26		6,30
48″	42,26,10,36,13,11,23,33,52,26		3, 6, 8,46,58	
		1,28,50,11,34,13,34,28		6,30
50″	42,26,12, 5, 3,22,57,47,26,54		3, 6, 8,53,28	
		1,28,50, 8,28, 4,41, 0		6,30
52″	42,26,13,33,53,31,25,52, 7,54		3, 6, 8,59,58	
		1,28,50, 5,21,55,41, 2		6,30
54″	42,26,15, 2,43,36,47,47,48,56		3, 6, 9, 6,28	
		1,28,50, 2,15,46,34,34		6,30
56″	42,26,16,31,33,39, 3,34,23,30		3, 6, 9,12,58	
		1,28,49,59, 9,37,21,36		6,30
58″	42,26,18, 0,23,38,13,11,45, 6		3, 6, 9,19,28	
		1,28,49,56, 3,28, 2, 8		
60″	42,26,19,29,13,34,16,39,47,14			
exact	42,26,19,29,13,34,16,40, 8, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45° 1′ 0″	42,26,19,29,13,34,16,40, 8, 7			
		1,28,49,52,57,18,38,20		
2″	42,26,20,58, 3,27,13,58,46,27		3, 6, 9,32,19	
		1,28,49,49,51, 9, 6, 1		6,30
4″	42,26,22,26,53,17, 5, 7,52,28		3, 6, 9,38,49	
		1,28,49,46,44,59,27,12		6,30
6″	42,26,23,55,43, 3,50, 7,19,40		3, 6, 9,45,19	
		1,28,49,43,38,49,41,53		6,30
8″	42,26,25,24,32,47,28,57, 1,33		3, 6, 9,51,49	
		1,28,49,40,32,39,50, 4		6,30
10″	42,26,26,53,22,28, 1,36,51,37		3, 6, 9,58,19	
		1,28,49,37,26,29,51,45		6,30
12″	42,26,28,22,12, 5,28, 6,43,22		3, 6,10, 4,49	
		1,28,49,34,20,19,46,56		6,30
14″	42,26,29,51, 1,39,48,26,30,18		3, 6,10,11,19	
		1,28,49,31,14, 9,35,37		6,30
16″	42,26,31,19,51,11, 2,36, 5,55		3, 6,10,17,49	
		1,28,49,28, 7,59,17,48		6,30
18″	42,26,32,48,40,39,10,35,23,43		3, 6,10,24,19	
		1,28,49,25, 1,48,53,29		6,30
20″	42,26,34,17,30, 4,12,24,17,12		3, 6,10,30,49	
		1,28,49,21,55,38,22,40		6,30
22″	42,26,35,46,19,26, 8, 2,39,52		3, 6,10,37,19	
		1,28,49,18,49,27,45,21		6,30
24″	42,26,37,15, 8,44,57,30,25,13		3, 6,10,43,49	
		1,28,49,15,43,17, 1,32		6,30
26″	42,26,38,43,58, 0,40,47,26,45		3, 6,10,50,19	
		1,28,49,12,37, 6,11,13		6,30
28″	42,26,40,12,47,13,17,53,37,58		3, 6,10,56,49	
		1,28,49, 9,30,55,14,24		6,30
30″	42,26,41,41,36,22,48,48,52,22		3, 6,11, 3,19	
		1,28,49, 6,24,44,11, 5		6,30
32″	42,26,43,10,25,29,13,33, 3,27		3, 6,11, 9,49	
		1,28,49, 3,18,33, 1,16		6,30
34″	42,26,44,39,14,32,32, 6, 4,43		3, 6,11,16,19	
		1,28,49, 0,12,21,44,57		6,30
36″	42,26,46, 8, 3,32,44,27,49,40		3, 6,11,22,49	
		1,28,48,57, 6,10,22, 8		6,30
38″	42,26,47,36,52,29,50,38,11,48		3, 6,11,29,19	
		1,28,48,53,59,58,52,49		6,30
40″	42,26,49, 5,41,23,50,37, 4,37		3, 6,11,35,49	
		1,28,48,50,53,47,17, 0		6,30
42″	42,26,50,34,30,14,44,24,21,37		3, 6,11,42,19	
		1,28,48,47,47,35,34,41		6,30
44″	42,26,52, 3,19, 2,31,59,56,18		3, 6,11,48,49	
		1,28,48,44,41,23,45,52		6,30
46″	42,26,53,32, 7,47,13,23,42,10		3, 6,11,55,19	
		1,28,48,41,35,11,50,33		6,30
48″	42,26,55, 0,56,28,48,35,32,43		3, 6,12, 1,49	
		1,28,48,38,28,59,48,44		6,30
50″	42,26,56,29,45, 7,17,35,21,27		3, 6,12, 8,19	
		1,28,48,35,22,47,40,25		6,30
52″	42,26,57,58,33,42,40,23, 1,52		3, 6,12,14,49	
		1,28,48,32,16,35,25,36		6,30
54″	42,26,59,27,22,14,56,58,27,28		3, 6,12,21,19	
		1,28,48,29,10,23, 4,17		6,30
56″	42,27, 0,56,10,44, 7,21,31,45		3, 6,12,27,49	
		1,28,48,26, 4,10,36,28		6,30
58″	42,27, 2,24,59,10,11,32, 8,13		3, 6,12,34,19	
		1,28,48,22,57,58, 2, 9		
60″	42,27, 3,53,47,33, 9,30,10,22			
exact	42,27, 3,53,47,33, 9,30,35,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45° 2′ 0″	42,27, 3,53,47,33, 9,30,35,55			
		1,28,48,19,51,45,24, 7		
2″	42,27, 5,22,35,53, 1,16, 0, 2		3, 6,12,47, 7	
		1,28,48,16,45,32,37, 0		6,30
4″	42,27, 6,51,24, 9,46,48,37, 2		3, 6,12,53,37	
		1,28,48,13,39,19,43,23		6,30
6″	42,27, 8,20,12,23,26, 8,20,25		3, 6,13, 0, 7	
		1,28,48,10,33, 6,43,16		6,30
8″	42,27, 9,49, 0,33,59,15, 3,41		3, 6,13, 6,37	
		1,28,48, 7,26,53,36,39		6,30
10″	42,27,11,17,48,41,26, 8,40,20		3, 6,13,13, 7	
		1,28,48, 4,20,40,23,32		6,30
12″	42,27,12,46,36,45,46,49, 3,52		3, 6,13,19,37	
		1,28,48, 1,14,27, 3,55		6,30
14″	42,27,14,15,24,47, 1,16, 7,47		3, 6,13,26, 7	
		1,28,47,58, 8,13,37,48		6,30
16″	42,27,15,44,12,45, 9,29,45,35		3, 6,13,32,37	
		1,28,47,55, 2, 0, 5,11		6,30
18″	42,27,17,13, 0,40,11,29,50,46		3, 6,13,39, 7	
		1,28,47,51,55,46,26, 4		6,30
20″	42,27,18,41,48,32, 7,16,16,50		3, 6,13,45,37	
		1,28,47,48,49,32,40,27		6,30
22″	42,27,20,10,36,20,56,48,57,17		3, 6,13,52, 7	
		1,28,47,45,43,18,48,20		6,30
24″	42,27,21,39,24, 6,40, 7,45,37		3, 6,13,58,37	
		1,28,47,42,37, 4,49,43		6,30
26″	42,27,23, 8,11,49,17,12,35,20		3, 6,14, 5, 7	
		1,28,47,39,30,50,44,36		6,30
28″	42,27,24,36,59,28,48, 3,19,56		3, 6,14,11,37	
		1,28,47,36,24,36,32,59		6,30
30″	42,27,26, 5,47, 5,12,39,52,55		3, 6,14,18, 7	
		1,28,47,33,18,22,14,52		6,30
32″	42,27,27,34,34,38,31, 2, 7,47		3, 6,14,24,37	
		1,28,47,30,12, 7,50,15		6,30
34″	42,27,29, 3,22, 8,43, 9,58, 2		3, 6,14,31, 7	
		1,28,47,27, 5,53,19, 8		6,30
36″	42,27,30,32, 9,35,49, 3,17,10		3, 6,14,37,37	
		1,28,47,23,59,38,41,31		6,30
38″	42,27,32, 0,56,59,48,41,58,41		3, 6,14,44, 7	
		1,28,47,20,53,23,57,24		6,30
40″	42,27,33,29,44,20,42, 5,56, 5		3, 6,14,50,37	
		1,28,47,17,47, 9, 6,47		6,30
42″	42,27,34,58,31,38,29,15, 2,52		3, 6,14,57, 7	
		1,28,47,14,40,54, 9,40		6,30
44″	42,27,36,27,18,53,10, 9,12,32		3, 6,15, 3,37	
		1,28,47,11,34,39, 6, 3		6,30
46″	42,27,37,56, 6, 4,44,48,18,35		3, 6,15,10, 7	
		1,28,47, 8,28,23,55,56		6,30
48″	42,27,39,24,53,13,13,12,14,31		3, 6,15,16,37	
		1,28,47, 5,22, 8,39,19		6,30
50″	42,27,40,53,40,18,35,20,53,50		3, 6,15,23, 7	
		1,28,47, 2,15,53,16,12		6,30
52″	42,27,42,22,27,20,51,14,10, 2		3, 6,15,29,37	
		1,28,46,59, 9,37,46,35		6,30
54″	42,27,43,51,14,20, 0,51,56,37		3, 6,15,36, 7	
		1,28,46,56, 3,22,10,28		6,30
56″	42,27,45,20, 1,16, 4,14, 7, 5		3, 6,15,42,37	
		1,28,46,52,57, 6,27,51		6,30
58″	42,27,46,48,48, 9, 1,20,34,56		3, 6,15,49, 7	
		1,28,46,49,50,50,38,44		
60″	42,27,48,17,34,58,52,11,13,40			
exact	42,27,48,17,34,58,52,11,47,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45° 3′ 0″	42,27,48,17,34,58,52,11,47,12			
		1,28,46,46,44,34,46,45		
2″	42,27,49,46,21,45,36,46,33,57		3, 6,16, 1,52	
		1,28,46,43,38,18,44,53		6,29
4″	42,27,51,15, 8,29,15, 5,18,50		3, 6,16, 8,21	
		1,28,46,40,32, 2,36,32		6,29
6″	42,27,52,43,55, 9,47, 7,55,22		3, 6,16,14,50	
		1,28,46,37,25,46,21,42		6,29
8″	42,27,54,12,41,47,12,54,17, 4		3, 6,16,21,19	
		1,28,46,34,19,30, 0,23		6,29
10″	42,27,55,41,28,21,32,24,17,27		3, 6,16,27,48	
		1,28,46,31,13,13,32,35		6,29
12″	42,27,57,10,14,52,45,37,50, 2		3, 6,16,34,17	
		1,28,46,28, 6,56,58,18		6,29
14″	42,27,58,39, 1,20,52,34,48,20		3, 6,16,40,46	
		1,28,46,25, 0,40,17,32		6,29
16″	42,28, 0, 7,47,45,53,15, 5,52		3, 6,16,47,15	
		1,28,46,21,54,23,30,17		6,29
18″	42,28, 1,36,34, 7,47,38,36, 9		3, 6,16,53,44	
		1,28,46,18,48, 6,36,33		6,29
20″	42,28, 3, 5,20,26,35,45,12,42		3, 6,17, 0,13	
		1,28,46,15,41,49,36,20		6,29
22″	42,28, 4,34, 6,42,17,34,49, 2		3, 6,17, 6,42	
		1,28,46,12,35,32,29,38		6,29
24″	42,28, 6, 2,52,54,53, 7,18,40		3, 6,17,13,11	
		1,28,46, 9,29,15,16,27		6,29
26″	42,28, 7,31,39, 4,22,22,35, 7		3, 6,17,19,40	
		1,28,46, 6,22,57,56,47		6,29
28″	42,28, 9, 0,25,10,45,20,31,54		3, 6,17,26, 9	
		1,28,46, 3,16,40,30,38		6,29
30″	42,28,10,29,11,14, 2, 1, 2,32		3, 6,17,32,38	
		1,28,46, 0,10,22,58, 0		6,29
32″	42,28,11,57,57,14,12,24, 0,32		3, 6,17,39, 7	
		1,28,45,57, 4, 5,18,53		6,29
34″	42,28,13,26,43,11,16,29,19,25		3, 6,17,45,36	
		1,28,45,53,57,47,33,17		6,29
36″	42,28,14,55,29, 5,14,16,52,42		3, 6,17,52, 5	
		1,28,45,50,51,29,41,12		6,29
38″	42,28,16,24,14,56, 5,46,33,54		3, 6,17,58,34	
		1,28,45,47,45,11,42,38		6,29
40″	42,28,17,53, 0,43,50,58,16,32		3, 6,18, 5, 3	
		1,28,45,44,38,53,37,35		6,29
42″	42,28,19,21,46,28,29,51,54, 7		3, 6,18,11,32	
		1,28,45,41,32,35,26, 3		6,29
44″	42,28,20,50,32,10, 2,27,20,10		3, 6,18,18, 1	
		1,28,45,38,26,17, 8, 2		6,29
46″	42,28,22,19,17,48,28,44,28,12		3, 6,18,24,30	
		1,28,45,35,19,58,43,32		6,29
48″	42,28,23,48, 3,23,48,43,11,44		3, 6,18,30,59	
		1,28,45,32,13,40,12,33		6,29
50″	42,28,25,16,48,56, 2,23,24,17		3, 6,18,37,28	
		1,28,45,29, 7,21,35, 5		6,29
52″	42,28,26,45,34,25, 9,44,59,22		3, 6,18,43,57	
		1,28,45,26, 1, 2,51, 8		6,29
54″	42,28,28,14,19,51,10,47,50,30		3, 6,18,50,26	
		1,28,45,22,54,44, 0,42		6,29
56″	42,28,29,43, 5,14, 5,31,51,12		3, 6,18,56,55	
		1,28,45,19,48,25, 3,47		6,29
58″	42,28,31,11,50,33,53,56,54,59		3, 6,19, 3,24	
		1,28,45,16,42, 6, 0,23		
60″	42,28,32,40,35,50,36, 2,55,22			
exact	42,28,32,40,35,50,36, 2,31,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45° 4′ 0″	42,28,32,40,35,50,36, 2,31,36			
		1,28,45,13,35,46,47,54		
2″	42,28,34, 9,21, 4,11,49,19,30		3, 6,19,16,33	
		1,28,45,10,29,27,31,21		6,29
4″	42,28,35,38, 6,14,41,16,50,51		3, 6,19,23, 2	
		1,28,45, 7,23, 8, 8,19		6,29
6″	42,28,37, 6,51,22, 4,24,59,10		3, 6,19,29,31	
		1,28,45, 4,16,48,38,48		6,29
8″	42,28,38,35,36,26,21,13,37,58		3, 6,19,36, 0	
		1,28,45, 1,10,29, 2,48		6,29
10″	42,28,40, 4,21,27,31,42,40,46		3, 6,19,42,29	
		1,28,44,58, 4, 9,20,19		6,29
12″	42,28,41,33, 6,25,35,52, 1, 5		3, 6,19,48,58	
		1,28,44,54,57,49,31,21		6,29
14″	42,28,43, 1,51,20,33,41,32,26		3, 6,19,55,27	
		1,28,44,51,51,29,35,54		6,29
16″	42,28,44,30,36,12,25,11, 8,20		3, 6,20, 1,56	
		1,28,44,48,45, 9,33,58		6,29
18″	42,28,45,59,21, 1,10,20,42,18		3, 6,20, 8,25	
		1,28,44,45,38,49,25,33		6,29
20″	42,28,47,28, 5,46,49,10, 7,51		3, 6,20,14,54	
		1,28,44,42,32,29,10,39		6,29
22″	42,28,48,56,50,29,21,39,18,30		3, 6,20,21,23	
		1,28,44,39,26, 8,49,16		6,29
24″	42,28,50,25,35, 8,47,48, 7,46		3, 6,20,27,52	
		1,28,44,36,19,48,21,24		6,29
26″	42,28,51,54,19,45, 7,36,29,10		3, 6,20,34,21	
		1,28,44,33,13,27,47, 3		6,29
28″	42,28,53,23, 4,18,21, 4,16,13		3, 6,20,40,50	
		1,28,44,30, 7, 7, 6,13		6,29
30″	42,28,54,51,48,48,28,11,22,26		3, 6,20,47,19	
		1,28,44,27, 0,46,18,54		6,29
32″	42,28,56,20,33,15,28,57,41,20		3, 6,20,53,48	
		1,28,44,23,54,25,25, 6		6,29
34″	42,28,57,49,17,39,23,23, 6,26		3, 6,21, 0,17	
		1,28,44,20,48, 4,24,49		6,29
36″	42,28,59,18, 2, 0,11,27,31,15		3, 6,21, 6,46	
		1,28,44,17,41,43,18, 3		6,29
38″	42,29, 0,46,46,17,53,10,49,18		3, 6,21,13,15	
		1,28,44,14,35,22, 4,48		6,29
40″	42,29, 2,15,30,32,28,32,54, 6		3, 6,21,19,44	
		1,28,44,11,29, 0,45, 4		6,29
42″	42,29, 3,44,14,43,57,33,39,10		3, 6,21,26,13	
		1,28,44, 8,22,39,18,51		6,29
44″	42,29, 5,12,58,52,20,12,58, 1		3, 6,21,32,42	
		1,28,44, 5,16,17,46, 9		6,29
46″	42,29, 6,41,42,57,36,30,44,10		3, 6,21,39,11	
		1,28,44, 2, 9,56, 6,58		6,29
48″	42,29, 8,10,26,59,46,26,51, 8		3, 6,21,45,40	
		1,28,43,59, 3,34,21,18		6,29
50″	42,29, 9,39,10,58,50, 1,12,26		3, 6,21,52, 9	
		1,28,43,55,57,12,29, 9		6,29
52″	42,29,11, 7,54,54,47,13,41,35		3, 6,21,58,38	
		1,28,43,52,50,50,30,31		6,29
54″	42,29,12,36,38,47,38, 4,12, 6		3, 6,22, 5, 7	
		1,28,43,49,44,28,25,24		6,29
56″	42,29,14, 5,22,37,22,32,37,30		3, 6,22,11,36	
		1,28,43,46,38, 6,13,48		6,29
58″	42,29,15,34, 6,24, 0,38,51,18		3, 6,22,18, 5	
		1,28,43,43,31,43,55,43		
60″	42,29,17, 2,50, 7,32,22,47, 1			
exact	42,29,17, 2,50, 7,32,22,29,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45° 5′ 0″	42,29,17, 2,50, 7,32,22,29,47			
		1,28,43,40,25,21,29,17		
2″	42,29,18,31,33,47,57,43,59, 4		3, 6,22,31,10	
		1,28,43,37,18,58,58, 7		6,29
4″	42,29,20, 0,17,25,16,42,57,11		3, 6,22,37,39	
		1,28,43,34,12,36,20,28		6,29
6″	42,29,21,29, 0,59,29,19,17,39		3, 6,22,44, 8	
		1,28,43,31, 6,13,36,20		6,29
8″	42,29,22,57,44,30,35,32,53,59		3, 6,22,50,37	
		1,28,43,27,59,50,45,43		6,29
10″	42,29,24,26,27,58,35,23,39,42		3, 6,22,57, 6	
		1,28,43,24,53,27,48,37		6,29
12″	42,29,25,55,11,23,28,51,28,19		3, 6,23, 3,35	
		1,28,43,21,47, 4,45, 2		6,29
14″	42,29,27,23,54,45,15,56,13,21		3, 6,23,10, 4	
		1,28,43,18,40,41,34,58		6,29
16″	42,29,28,52,38, 3,56,37,48,19		3, 6,23,16,33	
		1,28,43,15,34,18,18,25		6,29
18″	42,29,30,21,21,19,30,56, 6,44		3, 6,23,23, 2	
		1,28,43,12,27,54,55,23		6,29
20″	42,29,31,50, 4,31,58,51, 2, 7		3, 6,23,29,31	
		1,28,43, 9,21,31,25,52		6,29
22″	42,29,33,18,47,41,20,22,27,59		3, 6,23,36, 0	
		1,28,43, 6,15, 7,49,52		6,29
24″	42,29,34,47,30,47,35,30,17,51		3, 6,23,42,29	
		1,28,43, 3, 8,44, 7,23		6,29
26″	42,29,36,16,13,50,44,14,25,14		3, 6,23,48,58	
		1,28,43, 0, 2,20,18,25		6,29
28″	42,29,37,44,56,50,46,34,43,39		3, 6,23,55,27	
		1,28,42,56,55,56,22,58		6,29
30″	42,29,39,13,39,47,42,31, 6,37		3, 6,24, 1,56	
		1,28,42,53,49,32,21, 2		6,29
32″	42,29,40,42,22,41,32, 3,27,39		3, 6,24, 8,25	
		1,28,42,50,43, 8,12,37		6,29
34″	42,29,42,11, 5,32,15,11,40,16		3, 6,24,14,54	
		1,28,42,47,36,43,57,43		6,29
36″	42,29,43,39,48,19,51,55,37,59		3, 6,24,21,23	
		1,28,42,44,30,19,36,20		6,29
38″	42,29,45, 8,31, 4,22,15,14,19		3, 6,24,27,52	
		1,28,42,41,23,55, 8,28		6,29
40″	42,29,46,37,13,45,46,10,22,47		3, 6,24,34,21	
		1,28,42,38,17,30,34, 7		6,29
42″	42,29,48, 5,56,24, 3,40,56,54		3, 6,24,40,50	
		1,28,42,35,11, 5,53,17		6,29
44″	42,29,49,34,38,59,14,46,50,11		3, 6,24,47,19	
		1,28,42,32, 4,41, 5,58		6,29
46″	42,29,51, 3,21,31,19,27,56, 9		3, 6,24,53,48	
		1,28,42,28,58,16,12,10		6,29
48″	42,29,52,32, 4, 0,17,44, 8,19		3, 6,25, 0,17	
		1,28,42,25,51,51,11,53		6,29
50″	42,29,54, 0,46,26, 9,35,20,12		3, 6,25, 6,46	
		1,28,42,22,45,26, 5, 7		6,29
52″	42,29,55,29,28,48,55, 1,25,19		3, 6,25,13,15	
		1,28,42,19,39, 0,51,52		6,29
54″	42,29,56,58,11, 8,34, 2,17,11		3, 6,25,19,44	
		1,28,42,16,32,35,32, 8		6,29
56″	42,29,58,26,53,25, 6,37,49,19		3, 6,25,26,13	
		1,28,42,13,26,10, 5,55		6,29
58″	42,29,59,55,35,38,32,47,55,14		3, 6,25,32,42	
		1,28,42,10,19,44,33,13		
60″	42,30, 1,24,17,48,52,32,28,27			
exact	42,30, 1,24,17,48,52,32,13,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45° 6′ 0″	42,30, 1,24,17,48,52,32,13,30			
		1,28,42, 7,13,18,52,37		
2″	42,30, 2,52,59,56, 5,51, 6, 7		3, 6,25,45,45	
		1,28,42, 4, 6,53, 6,52		6,29
4″	42,30, 4,21,42, 0,12,44,12,59		3, 6,25,52,14	
		1,28,42, 1, 0,27,14,38		6,29
6″	42,30, 5,50,24, 1,13,11,27,37		3, 6,25,58,43	
		1,28,41,57,54, 1,15,55		6,29
8″	42,30, 7,19, 5,59, 7,12,43,32		3, 6,26, 5,12	
		1,28,41,54,47,35,10,43		6,29
10″	42,30, 8,47,47,53,54,47,54,15		3, 6,26,11,41	
		1,28,41,51,41, 8,59, 2		6,29
12″	42,30,10,16,29,45,35,56,53,17		3, 6,26,18,10	
		1,28,41,48,34,42,40,52		6,29
14″	42,30,11,45,11,34,10,39,34, 9		3, 6,26,24,39	
		1,28,41,45,28,16,16,13		6,29
16″	42,30,13,13,53,19,38,55,50,22		3, 6,26,31, 8	
		1,28,41,42,21,49,45, 5		6,29
18″	42,30,14,42,35, 2, 0,45,35,27		3, 6,26,37,37	
		1,28,41,39,15,23, 7,28		6,29
20″	42,30,16,11,16,41,16, 8,42,55		3, 6,26,44, 6	
		1,28,41,36, 8,56,23,22		6,29
22″	42,30,17,39,58,17,25, 5, 6,17		3, 6,26,50,35	
		1,28,41,33, 2,29,32,47		6,29
24″	42,30,19, 8,39,50,27,34,39, 4		3, 6,26,57, 4	
		1,28,41,29,56, 2,35,43		6,29
26″	42,30,20,37,21,20,23,37,14,47		3, 6,27, 3,33	
		1,28,41,26,49,35,32,10		6,29
28″	42,30,22, 6, 2,47,13,12,46,57		3, 6,27,10, 2	
		1,28,41,23,43, 8,22, 8		6,29
30″	42,30,23,34,44,10,56,21, 9, 5		3, 6,27,16,31	
		1,28,41,20,36,41, 5,37		6,29
32″	42,30,25, 3,25,31,33, 2,14,42		3, 6,27,23, 0	
		1,28,41,17,30,13,42,37		6,29
34″	42,30,26,32, 6,49, 3,15,57,19		3, 6,27,29,29	
		1,28,41,14,23,46,13, 8		6,29
36″	42,30,28, 0,48, 3,27, 2,10,27		3, 6,27,35,58	
		1,28,41,11,17,18,37,10		6,29
38″	42,30,29,29,29,14,44,20,47,37		3, 6,27,42,27	
		1,28,41, 8,10,50,54,43		6,29
40″	42,30,30,58,10,22,55,11,42,20		3, 6,27,48,56	
		1,28,41, 5, 4,23, 5,47		6,29
42″	42,30,32,26,51,27,59,34,48, 7		3, 6,27,55,25	
		1,28,41, 1,57,55,10,22		6,29
44″	42,30,33,55,32,29,57,29,58,29		3, 6,28, 1,54	
		1,28,40,58,51,27, 8,28		6,29
46″	42,30,35,24,13,28,48,57, 6,57		3, 6,28, 8,23	
		1,28,40,55,44,59, 0, 5		6,29
48″	42,30,36,52,54,24,33,56, 7, 2		3, 6,28,14,52	
		1,28,40,52,38,30,45,13		6,29
50″	42,30,38,21,35,17,12,26,52,15		3, 6,28,21,21	
		1,28,40,49,32, 2,23,52		6,29
52″	42,30,39,50,16, 6,44,29,16, 7		3, 6,28,27,50	
		1,28,40,46,25,33,56, 2		6,29
54″	42,30,41,18,56,53,10, 3,12, 9		3, 6,28,34,19	
		1,28,40,43,19, 5,21,43		6,29
56″	42,30,42,47,37,36,29, 8,33,52		3, 6,28,40,48	
		1,28,40,40,12,36,40,55		6,29
58″	42,30,44,16,18,16,41,45,14,47		3, 6,28,47,17	
		1,28,40,37, 6, 7,53,38		
60″	42,30,45,44,58,53,47,53, 8,25			
exact	42,30,45,44,58,53,47,53, 5,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45° 7′ 0″	42,30,45,44,58,53,47,53, 5,38			
		1,28,40,33,59,38,59,35		
2″	42,30,47,13,39,27,47,32, 5,13		3, 6,29, 0,16	
		1,28,40,30,53, 9,59,19		6,29
4″	42,30,48,42,19,58,40,42, 4,32		3, 6,29, 6,45	
		1,28,40,27,46,40,52,34		6,29
6″	42,30,50,11, 0,26,27,22,57, 6		3, 6,29,13,14	
		1,28,40,24,40,11,39,20		6,29
8″	42,30,51,39,40,51, 7,34,36,26		3, 6,29,19,43	
		1,28,40,21,33,42,19,37		6,29
10″	42,30,53, 8,21,12,41,16,56, 3		3, 6,29,26,12	
		1,28,40,18,27,12,53,25		6,29
12″	42,30,54,37, 1,31, 8,29,49,28		3, 6,29,32,41	
		1,28,40,15,20,43,20,44		6,29
14″	42,30,56, 5,41,46,29,13,10,12		3, 6,29,39,10	
		1,28,40,12,14,13,41,34		6,29
16″	42,30,57,34,21,58,43,26,51,46		3, 6,29,45,39	
		1,28,40, 9, 7,43,55,55		6,29
18″	42,30,59, 3, 2, 7,51,10,47,41		3, 6,29,52, 8	
		1,28,40, 6, 1,14, 3,47		6,29
20″	42,31, 0,31,42,13,52,24,51,28		3, 6,29,58,37	
		1,28,40, 2,54,44, 5,10		6,29
22″	42,31, 2, 0,22,16,47, 8,56,38		3, 6,30, 5, 6	
		1,28,39,59,48,14, 0, 4		6,29
24″	42,31, 3,29, 2,16,35,22,56,42		3, 6,30,11,35	
		1,28,39,56,41,43,48,29		6,29
26″	42,31, 4,57,42,13,17, 6,45,11		3, 6,30,18, 4	
		1,28,39,53,35,13,30,25		6,29
28″	42,31, 6,26,22, 6,52,20,15,36		3, 6,30,24,33	
		1,28,39,50,28,43, 5,52		6,29
30″	42,31, 7,55, 1,57,21, 3,21,28		3, 6,30,31, 2	
		1,28,39,47,22,12,34,50		6,29
32″	42,31, 9,23,41,44,43,15,56,18		3, 6,30,37,31	
		1,28,39,44,15,41,57,19		6,29
34″	42,31,10,52,21,28,58,57,53,37		3, 6,30,44, 0	
		1,28,39,41, 9,11,13,19		6,29
36″	42,31,12,21, 1,10, 8, 9, 6,56		3, 6,30,50,29	
		1,28,39,38, 2,40,22,50		6,29
38″	42,31,13,49,40,48,10,49,29,46		3, 6,30,56,58	
		1,28,39,34,56, 9,25,52		6,29
40″	42,31,15,18,20,23, 6,58,55,38		3, 6,31, 3,27	
		1,28,39,31,49,38,22,25		6,29
42″	42,31,16,46,59,54,56,37,18, 3		3, 6,31, 9,56	
		1,28,39,28,43, 7,12,29		6,29
44″	42,31,18,15,39,23,39,44,30,32		3, 6,31,16,25	
		1,28,39,25,36,35,56, 4		6,29
46″	42,31,19,44,18,49,16,20,26,36		3, 6,31,22,54	
		1,28,39,22,30, 4,33,10		6,29
48″	42,31,21,12,58,11,46,24,59,46		3, 6,31,29,23	
		1,28,39,19,23,33, 3,47		6,29
50″	42,31,22,41,37,31, 9,58, 3,33		3, 6,31,35,52	
		1,28,39,16,17, 1,27,55		6,29
52″	42,31,24,10,16,47,26,59,31,28		3, 6,31,42,21	
		1,28,39,13,10,29,45,34		6,29
54″	42,31,25,38,56, 0,37,29,17, 2		3, 6,31,48,50	
		1,28,39,10, 3,57,56,44		6,29
56″	42,31,27, 7,35,10,41,27,13,46		3, 6,31,55,19	
		1,28,39, 6,57,26, 1,25		6,29
58″	42,31,28,36,14,17,38,53,15,11		3, 6,32, 1,48	
		1,28,39, 3,50,53,59,37		
60″	42,31,30, 4,53,21,29,47,14,48			
exact	42,31,30, 4,53,21,29,47,20, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45° 8′ 0″	42,31,30, 4,53,21,29,47,20, 7			
		1,28,39, 0,44,21,51,54		
2″	42,31,31,33,32,22,14, 9,12, 1		3, 6,32,14,43	
		1,28,38,57,37,49,37,11		6,29
4″	42,31,33, 2,11,19,51,58,49,12		3, 6,32,21,12	
		1,28,38,54,31,17,15,59		6,29
6″	42,31,34,30,50,14,23,16, 5,11		3, 6,32,27,41	
		1,28,38,51,24,44,48,18		6,29
8″	42,31,35,59,29, 5,48, 0,53,29		3, 6,32,34,10	
		1,28,38,48,18,12,14, 8		6,29
10″	42,31,37,28, 7,54, 6,13, 7,37		3, 6,32,40,39	
		1,28,38,45,11,39,33,29		6,29
12″	42,31,38,56,46,39,17,52,41, 6		3, 6,32,47, 8	
		1,28,38,42, 5, 6,46,21		6,29
14″	42,31,40,25,25,21,22,59,27,27		3, 6,32,53,37	
		1,28,38,38,58,33,52,44		6,29
16″	42,31,41,54, 4, 0,21,33,20,11		3, 6,33, 0, 6	
		1,28,38,35,52, 0,52,38		6,29
18″	42,31,43,22,42,36,13,34,12,49		3, 6,33, 6,35	
		1,28,38,32,45,27,46, 3		6,29
20″	42,31,44,51,21, 8,59, 1,58,52		3, 6,33,13, 4	
		1,28,38,29,38,54,32,59		6,29
22″	42,31,46,19,59,38,37,56,31,51		3, 6,33,19,33	
		1,28,38,26,32,21,13,26		6,29
24″	42,31,47,48,38, 5,10,17,45,17		3, 6,33,26, 2	
		1,28,38,23,25,47,47,24		6,29
26″	42,31,49,17,16,28,36, 5,32,41		3, 6,33,32,31	
		1,28,38,20,19,14,14,53		6,29
28″	42,31,50,45,54,48,55,19,47,34		3, 6,33,39, 0	
		1,28,38,17,12,40,35,53		6,29
30″	42,31,52,14,33, 6, 8, 0,23,27		3, 6,33,45,29	
		1,28,38,14, 6, 6,50,24		6,29
32″	42,31,53,43,11,20,14, 7,13,51		3, 6,33,51,58	
		1,28,38,10,59,32,58,26		6,29
34″	42,31,55,11,49,31,13,40,12,17		3, 6,33,58,27	
		1,28,38, 7,52,58,59,59		6,29
36″	42,31,56,40,27,39, 6,39,12,16		3, 6,34, 4,56	
		1,28,38, 4,46,24,55, 3		6,29
38″	42,31,58, 9, 5,43,53, 4, 7,19		3, 6,34,11,25	
		1,28,38, 1,39,50,43,38		6,29
40″	42,31,59,37,43,45,32,54,50,57		3, 6,34,17,54	
		1,28,37,58,33,16,25,44		6,29
42″	42,32, 1, 6,21,44, 6,11,16,41		3, 6,34,24,23	
		1,28,37,55,26,42, 1,21		6,29
44″	42,32, 2,34,59,39,32,53,18, 2		3, 6,34,30,52	
		1,28,37,52,20, 7,30,29		6,29
46″	42,32, 4, 3,37,31,53, 0,48,31		3, 6,34,37,21	
		1,28,37,49,13,32,53, 8		6,29
48″	42,32, 5,32,15,21, 6,33,41,39		3, 6,34,43,50	
		1,28,37,46, 6,58, 9,18		6,29
50″	42,32, 7, 0,53, 7,13,31,50,57		3, 6,34,50,19	
		1,28,37,43, 0,23,18,59		6,29
52″	42,32, 8,29,30,50,13,55, 9,56		3, 6,34,56,48	
		1,28,37,39,53,48,22,11		6,29
54″	42,32, 9,58, 8,30, 7,43,32, 7		3, 6,35, 3,17	
		1,28,37,36,47,13,18,54		6,29
56″	42,32,11,26,46, 6,54,56,51, 1		3, 6,35, 9,46	
		1,28,37,33,40,38, 9, 8		6,29
58″	42,32,12,55,23,40,35,35, 0, 9		3, 6,35,16,15	
		1,28,37,30,34, 2,52,53		
60″	42,32,14,24, 1,11, 9,37,53, 2			
exact	42,32,14,24, 1,11, 9,38, 2, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45° 9′ 0″	42,32,14,24, 1,11, 9,38, 2, 3			
		1,28,37,27,27,27,31,16		
2″	42,32,15,52,38,38,37, 5,33,19		3, 6,35,29, 7	
		1,28,37,24,20,52, 2, 9		6,29
4″	42,32,17,21,16, 2,57,57,35,28		3, 6,35,35,36	
		1,28,37,21,14,16,26,33		6,29
6″	42,32,18,49,53,24,12,14, 2, 1		3, 6,35,42, 5	
		1,28,37,18, 7,40,44,28		6,29
8″	42,32,20,18,30,42,19,54,46,29		3, 6,35,48,34	
		1,28,37,15, 1, 4,55,54		6,29
10″	42,32,21,47, 7,57,20,59,42,23		3, 6,35,55, 3	
		1,28,37,11,54,29, 0,51		6,29
12″	42,32,23,15,45, 9,15,28,43,14		3, 6,36, 1,32	
		1,28,37, 8,47,52,59,19		6,29
14″	42,32,24,44,22,18, 3,21,42,33		3, 6,36, 8, 1	
		1,28,37, 5,41,16,51,18		6,29
16″	42,32,26,12,59,23,44,38,33,51		3, 6,36,14,30	
		1,28,37, 2,34,40,36,48		6,29
18″	42,32,27,41,36,26,19,19,10,39		3, 6,36,20,59	
		1,28,36,59,28, 4,15,49		6,29
20″	42,32,29,10,13,25,47,23,26,28		3, 6,36,27,28	
		1,28,36,56,21,27,48,21		6,29
22″	42,32,30,38,50,22, 8,51,14,49		3, 6,36,33,57	
		1,28,36,53,14,51,14,24		6,29
24″	42,32,32, 7,27,15,23,42,29,13		3, 6,36,40,26	
		1,28,36,50, 8,14,33,58		6,29
26″	42,32,33,36, 4, 5,31,57, 3,11		3, 6,36,46,55	
		1,28,36,47, 1,37,47, 3		6,29
28″	42,32,35, 4,40,52,33,34,50,14		3, 6,36,53,24	
		1,28,36,43,55, 0,53,39		6,29
30″	42,32,36,33,17,36,28,35,43,53		3, 6,36,59,53	
		1,28,36,40,48,23,53,46		6,29
32″	42,32,38, 1,54,17,16,59,37,39		3, 6,37, 6,22	
		1,28,36,37,41,46,47,24		6,29
34″	42,32,39,30,30,54,58,46,25, 3		3, 6,37,12,51	
		1,28,36,34,35, 9,34,33		6,29
36″	42,32,40,59, 7,29,33,55,59,36		3, 6,37,19,20	
		1,28,36,31,28,32,15,13		6,29
38″	42,32,42,27,44, 1, 2,28,14,49		3, 6,37,25,49	
		1,28,36,28,21,54,49,24		6,29
40″	42,32,43,56,20,29,24,23, 4,13		3, 6,37,32,18	
		1,28,36,25,15,17,17, 6		6,29
42″	42,32,45,24,56,54,39,40,21,19		3, 6,37,38,47	
		1,28,36,22, 8,39,38,19		6,29
44″	42,32,46,53,33,16,48,19,59,38		3, 6,37,45,16	
		1,28,36,19, 2, 1,53, 3		6,29
46″	42,32,48,22, 9,35,50,21,52,41		3, 6,37,51,45	
		1,28,36,15,55,24, 1,18		6,29
48″	42,32,49,50,45,51,45,45,53,59		3, 6,37,58,14	
		1,28,36,12,48,46, 3, 4		6,29
50″	42,32,51,19,22, 4,34,31,57, 3		3, 6,38, 4,43	
		1,28,36, 9,42, 7,58,21		6,29
52″	42,32,52,47,58,14,16,39,55,24		3, 6,38,11,12	
		1,28,36, 6,35,29,47, 9		6,29
54″	42,32,54,16,34,20,52, 9,42,33		3, 6,38,17,41	
		1,28,36, 3,28,51,29,28		6,29
56″	42,32,55,45,10,24,21, 1,12, 1		3, 6,38,24,10	
		1,28,36, 0,22,13, 5,18		6,29
58″	42,32,57,13,46,24,43,14,17,19		3, 6,38,30,39	
		1,28,35,57,15,34,34,39		
60″	42,32,58,42,22,21,58,48,51,58			
exact	42,32,58,42,22,21,58,49, 7,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°10′ 0″	42,32,58,42,22,21,58,49, 7,40			
		1,28,35,54, 8,55,59,23		
2″	42,33, 0,10,58,16, 7,45, 7, 3		3, 6,38,43,28	
		1,28,35,51, 2,17,15,55		6,29
4″	42,33, 1,39,34, 7,10, 2,22,58		3, 6,38,49,57	
		1,28,35,47,55,38,25,58		6,29
6″	42,33, 3, 8, 9,55, 5,40,48,56		3, 6,38,56,26	
		1,28,35,44,48,59,29,32		6,29
8″	42,33, 4,36,45,39,54,40,18,28		3, 6,39, 2,55	
		1,28,35,41,42,20,26,37		6,29
10″	42,33, 6, 5,21,21,37, 0,45, 5		3, 6,39, 9,24	
		1,28,35,38,35,41,17,13		6,29
12″	42,33, 7,33,57, 0,12,42, 2,18		3, 6,39,15,53	
		1,28,35,35,29, 2, 1,20		6,29
14″	42,33, 9, 2,32,35,41,44, 3,38		3, 6,39,22,22	
		1,28,35,32,22,22,38,58		6,29
16″	42,33,10,31, 8, 8, 4, 6,42,36		3, 6,39,28,51	
		1,28,35,29,15,43,10, 7		6,29
18″	42,33,11,59,43,37,19,49,52,43		3, 6,39,35,20	
		1,28,35,26, 9, 3,34,47		6,29
20″	42,33,13,28,19, 3,28,53,27,30		3, 6,39,41,49	
		1,28,35,23, 2,23,52,58		6,29
22″	42,33,14,56,54,26,31,17,20,28		3, 6,39,48,18	
		1,28,35,19,55,44, 4,40		6,29
24″	42,33,16,25,29,46,27, 1,25, 8		3, 6,39,54,47	
		1,28,35,16,49, 4, 9,53		6,29
26″	42,33,17,54, 5, 3,16, 5,35, 1		3, 6,40, 1,16	
		1,28,35,13,42,24, 8,37		6,29
28″	42,33,19,22,40,16,58,29,43,38		3, 6,40, 7,45	
		1,28,35,10,35,44, 0,52		6,29
30″	42,33,20,51,15,27,34,13,44,30		3, 6,40,14,14	
		1,28,35, 7,29, 3,46,38		6,29
32″	42,33,22,19,50,35, 3,17,31, 8		3, 6,40,20,43	
		1,28,35, 4,22,23,25,55		6,29
34″	42,33,23,48,25,39,25,40,57, 3		3, 6,40,27,12	
		1,28,35, 1,15,42,58,43		6,29
36″	42,33,25,17, 0,40,41,23,55,46		3, 6,40,33,41	
		1,28,34,58, 9, 2,25, 2		6,29
38″	42,33,26,45,35,38,50,26,20,48		3, 6,40,40,10	
		1,28,34,55, 2,21,44,52		6,29
40″	42,33,28,14,10,33,52,48, 5,40		3, 6,40,46,39	
		1,28,34,51,55,40,58,13		6,29
42″	42,33,29,42,45,25,48,29, 3,53		3, 6,40,53, 8	
		1,28,34,48,49, 0, 5, 5		6,29
44″	42,33,31,11,20,14,37,29, 8,58		3, 6,40,59,37	
		1,28,34,45,42,19, 5,28		6,29
46″	42,33,32,39,55, 0,19,48,14,26		3, 6,41, 6, 6	
		1,28,34,42,35,37,59,22		6,29
48″	42,33,34, 8,29,42,55,26,13,48		3, 6,41,12,35	
		1,28,34,39,28,56,46,47		6,29
50″	42,33,35,37, 4,22,24,23, 0,35		3, 6,41,19, 4	
		1,28,34,36,22,15,27,43		6,29
52″	42,33,37, 5,38,58,46,38,28,18		3, 6,41,25,33	
		1,28,34,33,15,34, 2,10		6,29
54″	42,33,38,34,13,32, 2,12,30,28		3, 6,41,32, 2	
		1,28,34,30, 8,52,30, 8		6,29
56″	42,33,40, 2,48, 2,11, 5, 0,36		3, 6,41,38,31	
		1,28,34,27, 2,10,51,37		6,29
58″	42,33,41,31,22,29,13,15,52,13		3, 6,41,45, 0	
		1,28,34,23,55,29, 6,37		
60″	42,33,42,59,56,53, 8,44,58,50			
exact	42,33,42,59,56,53, 8,45,24,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°11′ 0″	42,33,42,59,56,53, 8,45,24,22			
		1,28,34,20,48,47,17,58		
2″	42,33,44,28,31,13,57,32,42,20		3, 6,41,57,45	
		1,28,34,17,42, 5,20,13		6,29
4″	42,33,45,57, 5,31,39,38, 2,33		3, 6,42, 4,14	
		1,28,34,14,35,23,15,59		6,29
6″	42,33,47,25,39,46,15, 1,18,32		3, 6,42,10,43	
		1,28,34,11,28,41, 5,16		6,29
8″	42,33,48,54,13,57,43,42,23,48		3, 6,42,17,12	
		1,28,34, 8,21,58,48, 4		6,29
10″	42,33,50,22,48, 6, 5,41,11,52		3, 6,42,23,41	
		1,28,34, 5,15,16,24,23		6,29
12″	42,33,51,51,22,11,20,57,36,15		3, 6,42,30,10	
		1,28,34, 2, 8,33,54,13		6,29
14″	42,33,53,19,56,13,29,31,30,28		3, 6,42,36,39	
		1,28,33,59, 1,51,17,34		6,29
16″	42,33,54,48,30,12,31,22,48, 2		3, 6,42,43, 8	
		1,28,33,55,55, 8,34,26		6,29
18″	42,33,56,17, 4, 8,26,31,22,28		3, 6,42,49,37	
		1,28,33,52,48,25,44,49		6,29
20″	42,33,57,45,38, 1,14,57, 7,17		3, 6,42,56, 6	
		1,28,33,49,41,42,48,43		6,29
22″	42,33,59,14,11,50,56,39,56, 0		3, 6,43, 2,35	
		1,28,33,46,34,59,46, 8		6,29
24″	42,34, 0,42,45,37,31,39,42, 8		3, 6,43, 9, 4	
		1,28,33,43,28,16,37, 4		6,29
26″	42,34, 2,11,19,20,59,56,19,12		3, 6,43,15,33	
		1,28,33,40,21,33,21,31		6,29
28″	42,34, 3,39,53, 1,21,29,40,43		3, 6,43,22, 2	
		1,28,33,37,14,49,59,29		6,29
30″	42,34, 5, 8,26,38,36,19,40,12		3, 6,43,28,31	
		1,28,33,34, 8, 6,30,58		6,29
32″	42,34, 6,37, 0,12,44,26,11,10		3, 6,43,35, 0	
		1,28,33,31, 1,22,55,58		6,29
34″	42,34, 8, 5,33,43,45,49, 7, 8		3, 6,43,41,29	
		1,28,33,27,54,39,14,29		6,29
36″	42,34, 9,34, 7,11,40,28,21,37		3, 6,43,47,58	
		1,28,33,24,47,55,26,31		6,29
38″	42,34,11, 2,40,36,28,23,48, 8		3, 6,43,54,27	
		1,28,33,21,41,11,32, 4		6,29
40″	42,34,12,31,13,58, 9,35,20,12		3, 6,44, 0,56	
		1,28,33,18,34,27,31, 8		6,29
42″	42,34,13,59,47,16,44, 2,51,20		3, 6,44, 7,25	
		1,28,33,15,27,43,23,43		6,29
44″	42,34,15,28,20,32,11,46,15, 3		3, 6,44,13,54	
		1,28,33,12,20,59, 9,49		6,29
46″	42,34,16,56,53,44,32,45,24,52		3, 6,44,20,23	
		1,28,33, 9,14,14,49,26		6,29
48″	42,34,18,25,26,53,47, 0,14,18		3, 6,44,26,52	
		1,28,33, 6, 7,30,22,34		6,29
50″	42,34,19,53,59,59,54,30,36,52		3, 6,44,33,21	
		1,28,33, 3, 0,45,49,13		6,29
52″	42,34,21,22,33, 2,55,16,26, 5		3, 6,44,39,50	
		1,28,32,59,54, 1, 9,23		6,29
54″	42,34,22,51, 6, 2,49,17,35,28		3, 6,44,46,19	
		1,28,32,56,47,16,23, 4		6,29
56″	42,34,24,19,38,59,36,33,58,32		3, 6,44,52,48	
		1,28,32,53,40,31,30,16		6,29
58″	42,34,25,48,11,53,17, 5,28,48		3, 6,44,59,17	
		1,28,32,50,33,46,30,59		
60″	42,34,27,16,44,43,50,51,59,47			
exact	42,34,27,16,44,43,50,52,30,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°12′ 0″	42,34,27,16,44,43,50,52,30,40			
		1,28,32,47,27, 1,28,43		
2″	42,34,28,45,17,31,17,53,59,23		3, 6,45,11,59	
		1,28,32,44,20,16,16,44		6,28
4″	42,34,30,13,50,15,38,10,16, 7		3, 6,45,18,27	
		1,28,32,41,13,30,58,17		6,28
6″	42,34,31,42,22,56,51,41,14,24		3, 6,45,24,55	
		1,28,32,38, 6,45,33,22		6,28
8″	42,34,33,10,55,34,58,26,47,46		3, 6,45,31,23	
		1,28,32,35, 0, 0, 1,59		6,28
10″	42,34,34,39,28, 9,58,26,49,45		3, 6,45,37,51	
		1,28,32,31,53,14,24, 8		6,28
12″	42,34,36, 8, 0,41,51,41,13,53		3, 6,45,44,19	
		1,28,32,28,46,28,39,49		6,28
14″	42,34,37,36,33,10,38, 9,53,42		3, 6,45,50,47	
		1,28,32,25,39,42,49, 2		6,28
16″	42,34,39, 5, 5,36,17,52,42,44		3, 6,45,57,15	
		1,28,32,22,32,56,51,47		6,28
18″	42,34,40,33,37,58,50,49,34,31		3, 6,46, 3,43	
		1,28,32,19,26,10,48, 4		6,28
20″	42,34,42, 2,10,18,17, 0,22,35		3, 6,46,10,11	
		1,28,32,16,19,24,37,53		6,28
22″	42,34,43,30,42,34,36,25, 0,28		3, 6,46,16,39	
		1,28,32,13,12,38,21,14		6,28
24″	42,34,44,59,14,47,49, 3,21,42		3, 6,46,23, 7	
		1,28,32,10, 5,51,58, 7		6,28
26″	42,34,46,27,46,57,54,55,19,49		3, 6,46,29,35	
		1,28,32, 6,59, 5,28,32		6,28
28″	42,34,47,56,19, 4,54, 0,48,21		3, 6,46,36, 3	
		1,28,32, 3,52,18,52,29		6,28
30″	42,34,49,24,51, 8,46,19,40,50		3, 6,46,42,31	
		1,28,32, 0,45,32, 9,58		6,28
32″	42,34,50,53,23, 9,31,51,50,48		3, 6,46,48,59	
		1,28,31,57,38,45,20,59		6,28
34″	42,34,52,21,55, 7,10,37,11,47		3, 6,46,55,27	
		1,28,31,54,31,58,25,32		6,28
36″	42,34,53,50,27, 1,42,35,37,19		3, 6,47, 1,55	
		1,28,31,51,25,11,23,37		6,28
38″	42,34,55,18,58,53, 7,47, 0,56		3, 6,47, 8,23	
		1,28,31,48,18,24,15,14		6,28
40″	42,34,56,47,30,41,26,11,16,10		3, 6,47,14,51	
		1,28,31,45,11,37, 0,23		6,28
42″	42,34,58,16, 2,26,37,48,16,33		3, 6,47,21,19	
		1,28,31,42, 4,49,39, 4		6,28
44″	42,34,59,44,34, 8,42,37,55,37		3, 6,47,27,47	
		1,28,31,38,58, 2,11,17		6,28
46″	42,35, 1,13, 5,47,40,40, 6,54		3, 6,47,34,15	
		1,28,31,35,51,14,37, 2		6,28
48″	42,35, 2,41,37,23,31,54,43,56		3, 6,47,40,43	
		1,28,31,32,44,26,56,19		6,28
50″	42,35, 4,10, 8,56,16,21,40,15		3, 6,47,47,11	
		1,28,31,29,37,39, 9, 8		6,28
52″	42,35, 5,38,40,25,54, 0,49,23		3, 6,47,53,39	
		1,28,31,26,30,51,15,29		6,28
54″	42,35, 7, 7,11,52,24,52, 4,52		3, 6,48, 0, 7	
		1,28,31,23,24, 3,15,22		6,28
56″	42,35, 8,35,43,15,48,55,20,14		3, 6,48, 6,35	
		1,28,31,20,17,15, 8,47		6,28
58″	42,35,10, 4,14,36, 6,10,29, 1		3, 6,48,13, 3	
		1,28,31,17,10,26,55,44		
60″	42,35,11,32,45,53,16,37,24,45			
exact	42,35,11,32,45,53,16,36,56,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°13′ 0″	42,35,11,32,45,53,16,36,56,20			
		1,28,31,14, 3,38,33,21		
2″	42,35,13, 1,17, 7,20,15,29,41		3, 6,48,26,10	
		1,28,31,10,56,50, 7,11		6,28
4″	42,35,14,29,48,18,17, 5,36,52		3, 6,48,32,38	
		1,28,31, 7,50, 1,34,33		6,28
6″	42,35,15,58,19,26, 7, 7,11,25		3, 6,48,39, 6	
		1,28,31, 4,43,12,55,27		6,28
8″	42,35,17,26,50,30,50,20, 6,52		3, 6,48,45,34	
		1,28,31, 1,36,24, 9,53		6,28
10″	42,35,18,55,21,32,26,44,16,45		3, 6,48,52, 2	
		1,28,30,58,29,35,17,51		6,28
12″	42,35,20,23,52,30,56,19,34,36		3, 6,48,58,30	
		1,28,30,55,22,46,19,21		6,28
14″	42,35,21,52,23,26,19, 5,53,57		3, 6,49, 4,58	
		1,28,30,52,15,57,14,23		6,28
16″	42,35,23,20,54,18,35, 3, 8,20		3, 6,49,11,26	
		1,28,30,49, 9, 8, 2,57		6,28
18″	42,35,24,49,25, 7,44,11,11,17		3, 6,49,17,54	
		1,28,30,46, 2,18,45, 3		6,28
20″	42,35,26,17,55,53,46,29,56,20		3, 6,49,24,22	
		1,28,30,42,55,29,20,41		6,28
22″	42,35,27,46,26,36,41,59,17, 1		3, 6,49,30,50	
		1,28,30,39,48,39,49,51		6,28
24″	42,35,29,14,57,16,30,39, 6,52		3, 6,49,37,18	
		1,28,30,36,41,50,12,33		6,28
26″	42,35,30,43,27,53,12,29,19,25		3, 6,49,43,46	
		1,28,30,33,35, 0,28,47		6,28
28″	42,35,32,11,58,26,47,29,48,12		3, 6,49,50,14	
		1,28,30,30,28,10,38,33		6,28
30″	42,35,33,40,28,57,15,40,26,45		3, 6,49,56,42	
		1,28,30,27,21,20,41,51		6,28
32″	42,35,35, 8,59,24,37, 1, 8,36		3, 6,50, 3,10	
		1,28,30,24,14,30,38,41		6,28
34″	42,35,36,37,29,48,51,31,47,17		3, 6,50, 9,38	
		1,28,30,21, 7,40,29, 3		6,28
36″	42,35,38, 6, 0, 9,59,12,16,20		3, 6,50,16, 6	
		1,28,30,18, 0,50,12,57		6,28
38″	42,35,39,34,30,28, 0, 2,29,17		3, 6,50,22,34	
		1,28,30,14,53,59,50,23		6,28
40″	42,35,41, 3, 0,42,54, 2,19,40		3, 6,50,29, 2	
		1,28,30,11,47, 9,21,21		6,28
42″	42,35,42,31,30,54,41,11,41, 1		3, 6,50,35,30	
		1,28,30, 8,40,18,45,51		6,28
44″	42,35,44, 0, 1, 3,21,30,26,52		3, 6,50,41,58	
		1,28,30, 5,33,28, 3,53		6,28
46″	42,35,45,28,31, 8,54,58,30,45		3, 6,50,48,26	
		1,28,30, 2,26,37,15,27		6,28
48″	42,35,46,57, 1,11,21,35,46,12		3, 6,50,54,54	
		1,28,29,59,19,46,20,33		6,28
50″	42,35,48,25,31,10,41,22, 6,45		3, 6,51, 1,22	
		1,28,29,56,12,55,19,11		6,28
52″	42,35,49,54, 1, 6,54,17,25,56		3, 6,51, 7,50	
		1,28,29,53, 6, 4,11,21		6,28
54″	42,35,51,22,31, 0, 0,21,37,17		3, 6,51,14,18	
		1,28,29,49,59,12,57, 3		6,28
56″	42,35,52,51, 0,49,59,34,34,20		3, 6,51,20,46	
		1,28,29,46,52,21,36,17		6,28
58″	42,35,54,19,30,36,51,56,10,37		3, 6,51,27,14	
		1,28,29,43,45,30, 9, 3		
60″	42,35,55,48, 0,20,37,26,19,40			
exact	42,35,55,48, 0,20,37,26, 2,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°14′ 0″	42,35,55,48, 0,20,37,26, 2,18			
		1,28,29,40,38,38,33,33		
2″	42,35,57,16,30, 1,16, 4,35,51		3, 6,51,40,17	
		1,28,29,37,31,46,53,16		6,28
4″	42,35,58,44,59,38,47,51,29, 7		3, 6,51,46,45	
		1,28,29,34,24,55, 6,31		6,28
6″	42,36, 0,13,29,13,12,46,35,38		3, 6,51,53,13	
		1,28,29,31,18, 3,13,18		6,28
8″	42,36, 1,41,58,44,30,49,48,56		3, 6,51,59,41	
		1,28,29,28,11,11,13,37		6,28
10″	42,36, 3,10,28,12,42, 1, 2,33		3, 6,52, 6, 9	
		1,28,29,25, 4,19, 7,28		6,28
12″	42,36, 4,38,57,37,46,20,10, 1		3, 6,52,12,37	
		1,28,29,21,57,26,54,51		6,28
14″	42,36, 6, 7,26,59,43,47, 4,52		3, 6,52,19, 5	
		1,28,29,18,50,34,35,46		6,28
16″	42,36, 7,35,56,18,34,21,40,38		3, 6,52,25,33	
		1,28,29,15,43,42,10,13		6,28
18″	42,36, 9, 4,25,34,18, 3,50,51		3, 6,52,32, 1	
		1,28,29,12,36,49,38,12		6,28
20″	42,36,10,32,54,46,54,53,29, 3		3, 6,52,38,29	
		1,28,29, 9,29,56,59,43		6,28
22″	42,36,12, 1,23,56,24,50,28,46		3, 6,52,44,57	
		1,28,29, 6,23, 4,14,46		6,28
24″	42,36,13,29,53, 2,47,54,43,32		3, 6,52,51,25	
		1,28,29, 3,16,11,23,21		6,28
26″	42,36,14,58,22, 6, 4, 6, 6,53		3, 6,52,57,53	
		1,28,29, 0, 9,18,25,28		6,28
28″	42,36,16,26,51, 6,13,24,32,21		3, 6,53, 4,21	
		1,28,28,57, 2,25,21, 7		6,28
30″	42,36,17,55,20, 3,15,49,53,28		3, 6,53,10,49	
		1,28,28,53,55,32,10,18		6,28
32″	42,36,19,23,48,57,11,22, 3,46		3, 6,53,17,17	
		1,28,28,50,48,38,53, 1		6,28
34″	42,36,20,52,17,48, 0, 0,56,47		3, 6,53,23,45	
		1,28,28,47,41,45,29,16		6,28
36″	42,36,22,20,46,35,41,46,26, 3		3, 6,53,30,13	
		1,28,28,44,34,51,59, 3		6,28
38″	42,36,23,49,15,20,16,38,25, 6		3, 6,53,36,41	
		1,28,28,41,27,58,22,22		6,28
40″	42,36,25,17,44, 1,44,36,47,28		3, 6,53,43, 9	
		1,28,28,38,21, 4,39,13		6,28
42″	42,36,26,46,12,40, 5,41,26,41		3, 6,53,49,37	
		1,28,28,35,14,10,49,36		6,28
44″	42,36,28,14,41,15,19,52,16,17		3, 6,53,56, 5	
		1,28,28,32, 7,16,53,31		6,28
46″	42,36,29,43, 9,47,27, 9, 9,48		3, 6,54, 2,33	
		1,28,28,29, 0,22,50,58		6,28
48″	42,36,31,11,38,16,27,32, 0,46		3, 6,54, 9, 1	
		1,28,28,25,53,28,41,57		6,28
50″	42,36,32,40, 6,42,21, 0,42,43		3, 6,54,15,29	
		1,28,28,22,46,34,26,28		6,28
52″	42,36,34, 8,35, 5, 7,35, 9,11		3, 6,54,21,57	
		1,28,28,19,39,40, 4,31		6,28
54″	42,36,35,37, 3,24,47,15,13,42		3, 6,54,28,25	
		1,28,28,16,32,45,36, 6		6,28
56″	42,36,37, 5,31,41,20, 0,49,48		3, 6,54,34,53	
		1,28,28,13,25,51, 1,13		6,28
58″	42,36,38,33,59,54,45,51,51, 1		3, 6,54,41,21	
		1,28,28,10,18,56,19,52		
60″	42,36,40, 2,28, 5, 4,48,10,53			
exact	42,36,40, 2,28, 5, 4,48, 0,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°15′ 0″	42,36,40, 2,28, 5, 4,48, 0,43			
		1,28,28, 7,12, 1,31, 2		
2″	42,36,41,30,56,12,16,49,31,45		3, 6,54,54,21	
		1,28,28, 4, 5, 6,36,41		6,28
4″	42,36,42,59,24,16,21,56, 8,26		3, 6,55, 0,49	
		1,28,28, 0,58,11,35,52		6,28
6″	42,36,44,27,52,17,20, 7,44,18		3, 6,55, 7,17	
		1,28,27,57,51,16,28,35		6,28
8″	42,36,45,56,20,15,11,24,12,53		3, 6,55,13,45	
		1,28,27,54,44,21,14,50		6,28
10″	42,36,47,24,48, 9,55,45,27,43		3, 6,55,20,13	
		1,28,27,51,37,25,54,37		6,28
12″	42,36,48,53,16, 1,33,11,22,20		3, 6,55,26,41	
		1,28,27,48,30,30,27,56		6,28
14″	42,36,50,21,43,50, 3,41,50,16		3, 6,55,33, 9	
		1,28,27,45,23,34,54,47		6,28
16″	42,36,51,50,11,35,27,16,45, 3		3, 6,55,39,37	
		1,28,27,42,16,39,15,10		6,28
18″	42,36,53,18,39,17,43,56, 0,13		3, 6,55,46, 5	
		1,28,27,39, 9,43,29, 5		6,28
20″	42,36,54,47, 6,56,53,39,29,18		3, 6,55,52,33	
		1,28,27,36, 2,47,36,32		6,28
22″	42,36,56,15,34,32,56,27, 5,50		3, 6,55,59, 1	
		1,28,27,32,55,51,37,31		6,28
24″	42,36,57,44, 2, 5,52,18,43,21		3, 6,56, 5,29	
		1,28,27,29,48,55,32, 2		6,28
26″	42,36,59,12,29,35,41,14,15,23		3, 6,56,11,57	
		1,28,27,26,41,59,20, 5		6,28
28″	42,37, 0,40,57, 2,23,13,35,28		3, 6,56,18,25	
		1,28,27,23,35, 3, 1,40		6,28
30″	42,37, 2, 9,24,25,58,16,37, 8		3, 6,56,24,53	
		1,28,27,20,28, 6,36,47		6,28
32″	42,37, 3,37,51,46,26,23,13,55		3, 6,56,31,21	
		1,28,27,17,21,10, 5,26		6,28
34″	42,37, 5, 6,19, 3,47,33,19,21		3, 6,56,37,49	
		1,28,27,14,14,13,27,37		6,28
36″	42,37, 6,34,46,18, 1,46,46,58		3, 6,56,44,17	
		1,28,27,11, 7,16,43,20		6,28
38″	42,37, 8, 3,13,29, 9, 3,30,18		3, 6,56,50,45	
		1,28,27, 8, 0,19,52,35		6,28
40″	42,37, 9,31,40,37, 9,23,22,53		3, 6,56,57,13	
		1,28,27, 4,53,22,55,22		6,28
42″	42,37,11, 0, 7,42, 2,46,18,15		3, 6,57, 3,41	
		1,28,27, 1,46,25,51,41		6,28
44″	42,37,12,28,34,43,49,12, 9,56		3, 6,57,10, 9	
		1,28,26,58,39,28,41,32		6,28
46″	42,37,13,57, 1,42,28,40,51,28		3, 6,57,16,37	
		1,28,26,55,32,31,24,55		6,28
48″	42,37,15,25,28,38, 1,12,16,23		3, 6,57,23, 5	
		1,28,26,52,25,34, 1,50		6,28
50″	42,37,16,53,55,30,26,46,18,13		3, 6,57,29,33	
		1,28,26,49,18,36,32,17		6,28
52″	42,37,18,22,22,19,45,22,50,30		3, 6,57,36, 1	
		1,28,26,46,11,38,56,16		6,28
54″	42,37,19,50,49, 5,57, 1,46,46		3, 6,57,42,29	
		1,28,26,43, 4,41,13,47		6,28
56″	42,37,21,19,15,49, 1,43, 0,33		3, 6,57,48,57	
		1,28,26,39,57,43,24,50		6,28
58″	42,37,22,47,42,28,59,26,25,23		3, 6,57,55,25	
		1,28,26,36,50,45,29,25		
60″	42,37,24,16, 9, 5,50,11,54,48			
exact	42,37,24,16, 9, 5,50,11,54,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°16′ 0″	42,37,24,16, 9, 5,50,11,54,57			
		1,28,26,33,43,47,27,31		
2″	42,37,25,44,35,39,33,59,22,28		3, 6,58, 8,21	
		1,28,26,30,36,49,19,10		6,28
4″	42,37,27,13, 2,10,10,48,41,38		3, 6,58,14,49	
		1,28,26,27,29,51, 4,21		6,28
6″	42,37,28,41,28,37,40,39,45,59		3, 6,58,21,17	
		1,28,26,24,22,52,43, 4		6,28
8″	42,37,30, 9,55, 2, 3,32,29, 3		3, 6,58,27,45	
		1,28,26,21,15,54,15,19		6,28
10″	42,37,31,38,21,23,19,26,44,22		3, 6,58,34,13	
		1,28,26,18, 8,55,41, 6		6,28
12″	42,37,33, 6,47,41,28,22,25,28		3, 6,58,40,41	
		1,28,26,15, 1,57, 0,25		6,28
14″	42,37,34,35,13,56,30,19,25,53		3, 6,58,47, 9	
		1,28,26,11,54,58,13,16		6,28
16″	42,37,36, 3,40, 8,25,17,39, 9		3, 6,58,53,37	
		1,28,26, 8,47,59,19,39		6,28
18″	42,37,37,32, 6,17,13,16,58,48		3, 6,59, 0, 5	
		1,28,26, 5,41, 0,19,34		6,28
20″	42,37,39, 0,32,22,54,17,18,22		3, 6,59, 6,33	
		1,28,26, 2,34, 1,13, 1		6,28
22″	42,37,40,28,58,25,28,18,31,23		3, 6,59,13, 1	
		1,28,25,59,27, 2, 0, 0		6,28
24″	42,37,41,57,24,24,55,20,31,23		3, 6,59,19,29	
		1,28,25,56,20, 2,40,31		6,28
26″	42,37,43,25,50,21,15,23,11,54		3, 6,59,25,57	
		1,28,25,53,13, 3,14,34		6,28
28″	42,37,44,54,16,14,28,26,26,28		3, 6,59,32,25	
		1,28,25,50, 6, 3,42, 9		6,28
30″	42,37,46,22,42, 4,34,30, 8,37		3, 6,59,38,53	
		1,28,25,46,59, 4, 3,16		6,28
32″	42,37,47,51, 7,51,33,34,11,53		3, 6,59,45,21	
		1,28,25,43,52, 4,17,55		6,28
34″	42,37,49,19,33,35,25,38,29,48		3, 6,59,51,49	
		1,28,25,40,45, 4,26, 6		6,28
36″	42,37,50,47,59,16,10,42,55,54		3, 6,59,58,17	
		1,28,25,37,38, 4,27,49		6,28
38″	42,37,52,16,24,53,48,47,23,43		3, 7, 0, 4,45	
		1,28,25,34,31, 4,23, 4		6,28
40″	42,37,53,44,50,28,19,51,46,47		3, 7, 0,11,13	
		1,28,25,31,24, 4,11,51		6,28
42″	42,37,55,13,15,59,43,55,58,38		3, 7, 0,17,41	
		1,28,25,28,17, 3,54,10		6,28
44″	42,37,56,41,41,28, 0,59,52,48		3, 7, 0,24, 9	
		1,28,25,25,10, 3,30, 1		6,28
46″	42,37,58,10, 6,53,11, 3,22,49		3, 7, 0,30,37	
		1,28,25,22, 3, 2,59,24		6,28
48″	42,37,59,38,32,15,14, 6,22,13		3, 7, 0,37, 5	
		1,28,25,18,56, 2,22,19		6,28
50″	42,38, 1, 6,57,34,10, 8,44,32		3, 7, 0,43,33	
		1,28,25,15,49, 1,38,46		6,28
52″	42,38, 2,35,22,49,59,10,23,18		3, 7, 0,50, 1	
		1,28,25,12,42, 0,48,45		6,28
54″	42,38, 4, 3,48, 2,41,11,12, 3		3, 7, 0,56,29	
		1,28,25, 9,34,59,52,16		6,28
56″	42,38, 5,32,13,12,16,11, 4,19		3, 7, 1, 2,57	
		1,28,25, 6,27,58,49,19		6,28
58″	42,38, 7, 0,38,18,44, 9,53,38		3, 7, 1, 9,25	
		1,28,25, 3,20,57,39,54		
60″	42,38, 8,29, 3,22, 5, 7,33,32			
exact	42,38, 8,29, 3,22, 5, 7,39,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°17′ 0″	42,38, 8,29, 3,22, 5, 7,39,39			
		1,28,25, 0,13,56,24,42		
2″	42,38, 9,57,28,22,19, 4, 4,21		3, 7, 1,22,18	
		1,28,24,57, 6,55, 2,24		6,28
4″	42,38,11,25,53,19,25,59, 6,45		3, 7, 1,28,46	
		1,28,24,53,59,53,33,38		6,28
6″	42,38,12,54,18,13,25,52,40,23		3, 7, 1,35,14	
		1,28,24,50,52,51,58,24		6,28
8″	42,38,14,22,43, 4,18,44,38,47		3, 7, 1,41,42	
		1,28,24,47,45,50,16,42		6,28
10″	42,38,15,51, 7,52, 4,34,55,29		3, 7, 1,48,10	
		1,28,24,44,38,48,28,32		6,28
12″	42,38,17,19,32,36,43,23,24, 1		3, 7, 1,54,38	
		1,28,24,41,31,46,33,54		6,28
14″	42,38,18,47,57,18,15, 9,57,55		3, 7, 2, 1, 6	
		1,28,24,38,24,44,32,48		6,28
16″	42,38,20,16,21,56,39,54,30,43		3, 7, 2, 7,34	
		1,28,24,35,17,42,25,14		6,28
18″	42,38,21,44,46,31,57,36,55,57		3, 7, 2,14, 2	
		1,28,24,32,10,40,11,12		6,28
20″	42,38,23,13,11, 4, 8,17, 7, 9		3, 7, 2,20,30	
		1,28,24,29, 3,37,50,42		6,28
22″	42,38,24,41,35,33,11,54,57,51		3, 7, 2,26,58	
		1,28,24,25,56,35,23,44		6,28
24″	42,38,26, 9,59,59, 8,30,21,35		3, 7, 2,33,26	
		1,28,24,22,49,32,50,18		6,28
26″	42,38,27,38,24,21,58, 3,11,53		3, 7, 2,39,54	
		1,28,24,19,42,30,10,24		6,28
28″	42,38,29, 6,48,41,40,33,22,17		3, 7, 2,46,22	
		1,28,24,16,35,27,24, 2		6,28
30″	42,38,30,35,12,58,16, 0,46,19		3, 7, 2,52,50	
		1,28,24,13,28,24,31,12		6,28
32″	42,38,32, 3,37,11,44,25,17,31		3, 7, 2,59,18	
		1,28,24,10,21,21,31,54		6,28
34″	42,38,33,32, 1,22, 5,46,49,25		3, 7, 3, 5,46	
		1,28,24, 7,14,18,26, 8		6,28
36″	42,38,35, 0,25,29,20, 5,15,33		3, 7, 3,12,14	
		1,28,24, 4, 7,15,13,54		6,28
38″	42,38,36,28,49,33,27,20,29,27		3, 7, 3,18,42	
		1,28,24, 1, 0,11,55,12		6,28
40″	42,38,37,57,13,34,27,32,24,39		3, 7, 3,25,10	
		1,28,23,57,53, 8,30, 2		6,28
42″	42,38,39,25,37,32,20,40,54,41		3, 7, 3,31,38	
		1,28,23,54,46, 4,58,24		6,28
44″	42,38,40,54, 1,27, 6,45,53, 5		3, 7, 3,38, 6	
		1,28,23,51,39, 1,20,18		6,28
46″	42,38,42,22,25,18,45,47,13,23		3, 7, 3,44,34	
		1,28,23,48,31,57,35,44		6,28
48″	42,38,43,50,49, 7,17,44,49, 7		3, 7, 3,51, 2	
		1,28,23,45,24,53,44,42		6,28
50″	42,38,45,19,12,52,42,38,33,49		3, 7, 3,57,30	
		1,28,23,42,17,49,47,12		6,28
52″	42,38,46,47,36,35, 0,28,21, 1		3, 7, 4, 3,58	
		1,28,23,39,10,45,43,14		6,28
54″	42,38,48,16, 0,14,11,14, 4,15		3, 7, 4,10,26	
		1,28,23,36, 3,41,32,48		6,28
56″	42,38,49,44,23,50,14,55,37, 3		3, 7, 4,16,54	
		1,28,23,32,56,37,15,54		6,28
58″	42,38,51,12,47,23,11,32,52,57		3, 7, 4,23,22	
		1,28,23,29,49,32,52,32		
60″	42,38,52,41,10,53, 1, 5,45,29			
exact	42,38,52,41,10,53, 1, 6, 0,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°18′ 0″	42,38,52,41,10,53, 1, 6, 0,40			
		1,28,23,26,42,28,24,18		
2″	42,38,54, 9,34,19,43,34,24,58		3, 7, 4,36,11	
		1,28,23,23,35,23,48, 7		6,28
4″	42,38,55,37,57,43,18,58,13, 5		3, 7, 4,42,39	
		1,28,23,20,28,19, 5,28		6,28
6″	42,38,57, 6,21, 3,47,17,18,33		3, 7, 4,49, 7	
		1,28,23,17,21,14,16,21		6,28
8″	42,38,58,34,44,21, 8,31,34,54		3, 7, 4,55,35	
		1,28,23,14,14, 9,20,46		6,28
10″	42,39, 0, 3, 7,35,22,40,55,40		3, 7, 5, 2, 3	
		1,28,23,11, 7, 4,18,43		6,28
12″	42,39, 1,31,30,46,29,45,14,23		3, 7, 5, 8,31	
		1,28,23, 7,59,59,10,12		6,28
14″	42,39, 2,59,53,54,29,44,24,35		3, 7, 5,14,59	
		1,28,23, 4,52,53,55,13		6,28
16″	42,39, 4,28,16,59,22,38,19,48		3, 7, 5,21,27	
		1,28,23, 1,45,48,33,46		6,28
18″	42,39, 5,56,40, 1, 8,26,53,34		3, 7, 5,27,55	
		1,28,22,58,38,43, 5,51		6,28
20″	42,39, 7,25, 2,59,47, 9,59,25		3, 7, 5,34,23	
		1,28,22,55,31,37,31,28		6,28
22″	42,39, 8,53,25,55,18,47,30,53		3, 7, 5,40,51	
		1,28,22,52,24,31,50,37		6,28
24″	42,39,10,21,48,47,43,19,21,30		3, 7, 5,47,19	
		1,28,22,49,17,26, 3,18		6,28
26″	42,39,11,50,11,37, 0,45,24,48		3, 7, 5,53,47	
		1,28,22,46,10,20, 9,31		6,28
28″	42,39,13,18,34,23,11, 5,34,19		3, 7, 6, 0,15	
		1,28,22,43, 3,14, 9,16		6,28
30″	42,39,14,46,57, 6,14,19,43,35		3, 7, 6, 6,43	
		1,28,22,39,56, 8, 2,33		6,28
32″	42,39,16,15,19,46,10,27,46, 8		3, 7, 6,13,11	
		1,28,22,36,49, 1,49,22		6,28
34″	42,39,17,43,42,22,59,29,35,30		3, 7, 6,19,39	
		1,28,22,33,41,55,29,43		6,28
36″	42,39,19,12, 4,56,41,25, 5,13		3, 7, 6,26, 7	
		1,28,22,30,34,49, 3,36		6,28
38″	42,39,20,40,27,27,16,14, 8,49		3, 7, 6,32,35	
		1,28,22,27,27,42,31, 1		6,28
40″	42,39,22, 8,49,54,43,56,39,50		3, 7, 6,39, 3	
		1,28,22,24,20,35,51,58		6,28
42″	42,39,23,37,12,19, 4,32,31,48		3, 7, 6,45,31	
		1,28,22,21,13,29, 6,27		6,28
44″	42,39,25, 5,34,40,18, 1,38,15		3, 7, 6,51,59	
		1,28,22,18, 6,22,14,28		6,28
46″	42,39,26,33,56,58,24,23,52,43		3, 7, 6,58,27	
		1,28,22,14,59,15,16, 1		6,28
48″	42,39,28, 2,19,13,23,39, 8,44		3, 7, 7, 4,55	
		1,28,22,11,52, 8,11, 6		6,28
50″	42,39,29,30,41,25,15,47,19,50		3, 7, 7,11,23	
		1,28,22, 8,45, 0,59,43		6,28
52″	42,39,30,59, 3,34, 0,48,19,33		3, 7, 7,17,51	
		1,28,22, 5,37,53,41,52		6,28
54″	42,39,32,27,25,39,38,42, 1,25		3, 7, 7,24,19	
		1,28,22, 2,30,46,17,33		6,28
56″	42,39,33,55,47,42, 9,28,18,58		3, 7, 7,30,47	
		1,28,21,59,23,38,46,46		6,28
58″	42,39,35,24, 9,41,33, 7, 5,44		3, 7, 7,37,15	
		1,28,21,56,16,31, 9,31		
60″	42,39,36,52,31,37,49,38,15,15			
exact	42,39,36,52,31,37,49,38,35,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°19′ 0″	42,39,36,52,31,37,49,38,35,10			
		1,28,21,53, 9,23,28, 2		
2″	42,39,38,20,53,30,59, 2, 3,12		3, 7, 7,50, 1	
		1,28,21,50, 2,15,38, 1		6,28
4″	42,39,39,49,15,21, 1,17,41,13		3, 7, 7,56,29	
		1,28,21,46,55, 7,41,32		6,28
6″	42,39,41,17,37, 7,56,25,22,45		3, 7, 8, 2,57	
		1,28,21,43,47,59,38,35		6,28
8″	42,39,42,45,58,51,44,25, 1,20		3, 7, 8, 9,25	
		1,28,21,40,40,51,29,10		6,28
10″	42,39,44,14,20,32,25,16,30,30		3, 7, 8,15,53	
		1,28,21,37,33,43,13,17		6,28
12″	42,39,45,42,42, 9,58,59,43,47		3, 7, 8,22,21	
		1,28,21,34,26,34,50,56		6,28
14″	42,39,47,11, 3,44,25,34,34,43		3, 7, 8,28,49	
		1,28,21,31,19,26,22, 7		6,28
16″	42,39,48,39,25,15,45, 0,56,50		3, 7, 8,35,17	
		1,28,21,28,12,17,46,50		6,28
18″	42,39,50, 7,46,43,57,18,43,40		3, 7, 8,41,45	
		1,28,21,25, 5, 9, 5, 5		6,28
20″	42,39,51,36, 8, 9, 2,27,48,45		3, 7, 8,48,13	
		1,28,21,21,58, 0,16,52		6,28
22″	42,39,53, 4,29,31, 0,28, 5,37		3, 7, 8,54,41	
		1,28,21,18,50,51,22,11		6,28
24″	42,39,54,32,50,49,51,19,27,48		3, 7, 9, 1, 9	
		1,28,21,15,43,42,21, 2		6,28
26″	42,39,56, 1,12, 5,35, 1,48,50		3, 7, 9, 7,37	
		1,28,21,12,36,33,13,25		6,28
28″	42,39,57,29,33,18,11,35, 2,15		3, 7, 9,14, 5	
		1,28,21, 9,29,23,59,20		6,28
30″	42,39,58,57,54,27,40,59, 1,35		3, 7, 9,20,33	
		1,28,21, 6,22,14,38,47		6,28
32″	42,40, 0,26,15,34, 3,13,40,22		3, 7, 9,27, 1	
		1,28,21, 3,15, 5,11,46		6,28
34″	42,40, 1,54,36,37,18,18,52, 8		3, 7, 9,33,29	
		1,28,21, 0, 7,55,38,17		6,28
36″	42,40, 3,22,57,37,26,14,30,25		3, 7, 9,39,57	
		1,28,20,57, 0,45,58,20		6,28
38″	42,40, 4,51,18,34,27, 0,28,45		3, 7, 9,46,25	
		1,28,20,53,53,36,11,55		6,28
40″	42,40, 6,19,39,28,20,36,40,40		3, 7, 9,52,53	
		1,28,20,50,46,26,19, 2		6,28
42″	42,40, 7,48, 0,19, 7, 2,59,42		3, 7, 9,59,21	
		1,28,20,47,39,16,19,41		6,28
44″	42,40, 9,16,21, 6,46,19,19,23		3, 7,10, 5,49	
		1,28,20,44,32, 6,13,52		6,28
46″	42,40,10,44,41,51,18,25,33,15		3, 7,10,12,17	
		1,28,20,41,24,56, 1,35		6,28
48″	42,40,12,13, 2,32,43,21,34,50		3, 7,10,18,45	
		1,28,20,38,17,45,42,50		6,28
50″	42,40,13,41,23,11, 1, 7,17,40		3, 7,10,25,13	
		1,28,20,35,10,35,17,37		6,28
52″	42,40,15, 9,43,46,11,42,35,17		3, 7,10,31,41	
		1,28,20,32, 3,24,45,56		6,28
54″	42,40,16,38, 4,18,15, 7,21,13		3, 7,10,38, 9	
		1,28,20,28,56,14, 7,47		6,28
56″	42,40,18, 6,24,47,11,21,29, 0		3, 7,10,44,37	
		1,28,20,25,49, 3,23,10		6,28
58″	42,40,19,34,45,13, 0,24,52,10		3, 7,10,51, 5	
		1,28,20,22,41,52,32, 5		
60″	42,40,21, 3, 5,35,42,17,24,15			
exact	42,40,21, 3, 5,35,42,17,51,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°20′ 0″	42,40,21, 3, 5,35,42,17,51,36			
		1,28,20,19,34,41,37,35		
2″	42,40,22,31,25,55,16,59,29,11		3, 7,11, 3,48	
		1,28,20,16,27,30,33,47		6,27
4″	42,40,23,59,46,11,44,30, 2,58		3, 7,11,10,15	
		1,28,20,13,20,19,23,32		6,27
6″	42,40,25,28, 6,25, 4,49,26,30		3, 7,11,16,42	
		1,28,20,10,13, 8, 6,50		6,27
8″	42,40,26,56,26,35,17,57,33,20		3, 7,11,23, 9	
		1,28,20, 7, 5,56,43,41		6,27
10″	42,40,28,24,46,42,23,54,17, 1		3, 7,11,29,36	
		1,28,20, 3,58,45,14, 5		6,27
12″	42,40,29,53, 6,46,22,39,31, 6		3, 7,11,36, 3	
		1,28,20, 0,51,33,38, 2		6,27
14″	42,40,31,21,26,47,14,13, 9, 8		3, 7,11,42,30	
		1,28,19,57,44,21,55,32		6,27
16″	42,40,32,49,46,44,58,35, 4,40		3, 7,11,48,57	
		1,28,19,54,37,10, 6,35		6,27
18″	42,40,34,18, 6,39,35,45,11,15		3, 7,11,55,24	
		1,28,19,51,29,58,11,11		6,27
20″	42,40,35,46,26,31, 5,43,22,26		3, 7,12, 1,51	
		1,28,19,48,22,46, 9,20		6,27
22″	42,40,37,14,46,19,28,29,31,46		3, 7,12, 8,18	
		1,28,19,45,15,34, 1, 2		6,27
24″	42,40,38,43, 6, 4,44, 3,32,48		3, 7,12,14,45	
		1,28,19,42, 8,21,46,17		6,27
26″	42,40,40,11,25,46,52,25,19, 5		3, 7,12,21,12	
		1,28,19,39, 1, 9,25, 5		6,27
28″	42,40,41,39,45,25,53,34,44,10		3, 7,12,27,39	
		1,28,19,35,53,56,57,26		6,27
30″	42,40,43, 8, 5, 1,47,31,41,36		3, 7,12,34, 6	
		1,28,19,32,46,44,23,20		6,27
32″	42,40,44,36,24,34,34,16, 4,56		3, 7,12,40,33	
		1,28,19,29,39,31,42,47		6,27
34″	42,40,46, 4,44, 4,13,47,47,43		3, 7,12,47, 0	
		1,28,19,26,32,18,55,47		6,27
36″	42,40,47,33, 3,30,46, 6,43,30		3, 7,12,53,27	
		1,28,19,23,25, 6, 2,20		6,27
38″	42,40,49, 1,22,54,11,12,45,50		3, 7,12,59,54	
		1,28,19,20,17,53, 2,26		6,27
40″	42,40,50,29,42,14,29, 5,48,16		3, 7,13, 6,21	
		1,28,19,17,10,39,56, 5		6,27
42″	42,40,51,58, 1,31,39,45,44,21		3, 7,13,12,48	
		1,28,19,14, 3,26,43,17		6,27
44″	42,40,53,26,20,45,43,12,27,38		3, 7,13,19,15	
		1,28,19,10,56,13,24, 2		6,27
46″	42,40,54,54,39,56,39,25,51,40		3, 7,13,25,42	
		1,28,19, 7,48,59,58,20		6,27
48″	42,40,56,22,59, 4,28,25,50, 0		3, 7,13,32, 9	
		1,28,19, 4,41,46,26,11		6,27
50″	42,40,57,51,18, 9,10,12,16,11		3, 7,13,38,36	
		1,28,19, 1,34,32,47,35		6,27
52″	42,40,59,19,37,10,44,45, 3,46		3, 7,13,45, 3	
		1,28,18,58,27,19, 2,32		6,27
54″	42,41, 0,47,56, 9,12, 4, 6,18		3, 7,13,51,30	
		1,28,18,55,20, 5,11, 2		6,27
56″	42,41, 2,16,15, 4,32, 9,17,20		3, 7,13,57,57	
		1,28,18,52,12,51,13, 5		6,27
58″	42,41, 3,44,33,56,45, 0,30,25		3, 7,14, 4,24	
		1,28,18,49, 5,37, 8,41		
60″	42,41, 5,12,52,45,50,37,39, 6			
exact	42,41, 5,12,52,45,50,37, 9,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°21′ 0″	42,41, 5,12,52,45,50,37, 9,41			
		1,28,18,45,58,22,54,40		
2″	42,41, 6,41,11,31,49, 0, 4,21		3, 7,14,17,31	
		1,28,18,42,51, 8,37, 9		6,27
4″	42,41, 8, 9,30,14,40, 8,41,30		3, 7,14,23,58	
		1,28,18,39,43,54,13,11		6,27
6″	42,41, 9,37,48,54,24, 2,54,41		3, 7,14,30,25	
		1,28,18,36,36,39,42,46		6,27
8″	42,41,11, 6, 7,31, 0,42,37,27		3, 7,14,36,52	
		1,28,18,33,29,25, 5,54		6,27
10″	42,41,12,34,26, 4,30, 7,43,21		3, 7,14,43,19	
		1,28,18,30,22,10,22,35		6,27
12″	42,41,14, 2,44,34,52,18, 5,56		3, 7,14,49,46	
		1,28,18,27,14,55,32,49		6,27
14″	42,41,15,31, 3, 2, 7,13,38,45		3, 7,14,56,13	
		1,28,18,24, 7,40,36,36		6,27
16″	42,41,16,59,21,26,14,54,15,21		3, 7,15, 2,40	
		1,28,18,21, 0,25,33,56		6,27
18″	42,41,18,27,39,47,15,19,49,17		3, 7,15, 9, 7	
		1,28,18,17,53,10,24,49		6,27
20″	42,41,19,55,58, 5, 8,30,14, 6		3, 7,15,15,34	
		1,28,18,14,45,55, 9,15		6,27
22″	42,41,21,24,16,19,54,25,23,21		3, 7,15,22, 1	
		1,28,18,11,38,39,47,14		6,27
24″	42,41,22,52,34,31,33, 5,10,35		3, 7,15,28,28	
		1,28,18, 8,31,24,18,46		6,27
26″	42,41,24,20,52,40, 4,29,29,21		3, 7,15,34,55	
		1,28,18, 5,24, 8,43,51		6,27
28″	42,41,25,49,10,45,28,38,13,12		3, 7,15,41,22	
		1,28,18, 2,16,53, 2,29		6,27
30″	42,41,27,17,28,47,45,31,15,41		3, 7,15,47,49	
		1,28,17,59, 9,37,14,40		6,27
32″	42,41,28,45,46,46,55, 8,30,21		3, 7,15,54,16	
		1,28,17,56, 2,21,20,24		6,27
34″	42,41,30,14, 4,42,57,29,50,45		3, 7,16, 0,43	
		1,28,17,52,55, 5,19,41		6,27
36″	42,41,31,42,22,35,52,35,10,26		3, 7,16, 7,10	
		1,28,17,49,47,49,12,31		6,27
38″	42,41,33,10,40,25,40,24,22,57		3, 7,16,13,37	
		1,28,17,46,40,32,58,54		6,27
40″	42,41,34,38,58,12,20,57,21,51		3, 7,16,20, 4	
		1,28,17,43,33,16,38,50		6,27
42″	42,41,36, 7,15,55,54,14, 0,41		3, 7,16,26,31	
		1,28,17,40,26, 0,12,19		6,27
44″	42,41,37,35,33,36,20,14,13, 0		3, 7,16,32,58	
		1,28,17,37,18,43,39,21		6,27
46″	42,41,39, 3,51,13,38,57,52,21		3, 7,16,39,25	
		1,28,17,34,11,26,59,56		6,27
48″	42,41,40,32, 8,47,50,24,52,17		3, 7,16,45,52	
		1,28,17,31, 4,10,14, 4		6,27
50″	42,41,42, 0,26,18,54,35, 6,21		3, 7,16,52,19	
		1,28,17,27,56,53,21,45		6,27
52″	42,41,43,28,43,46,51,28,28, 6		3, 7,16,58,46	
		1,28,17,24,49,36,22,59		6,27
54″	42,41,44,57, 1,11,41, 4,51, 5		3, 7,17, 5,13	
		1,28,17,21,42,19,17,46		6,27
56″	42,41,46,25,18,33,23,24, 8,51		3, 7,17,11,40	
		1,28,17,18,35, 2, 6, 6		6,27
58″	42,41,47,53,35,51,58,26,14,57		3, 7,17,18, 7	
		1,28,17,15,27,44,47,59		
60″	42,41,49,21,53, 7,26,11, 2,56			
exact	42,41,49,21,53, 7,26,10,40,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°22′ 0″	42,41,49,21,53, 7,26,10,40,31			
		1,28,17,12,20,27,21, 1		
2″	42,41,50,50,10,19,46,38, 1,32		3, 7,17,31,11	
		1,28,17, 9,13, 9,49,50		6,27
4″	42,41,52,18,27,28,59,47,51,22		3, 7,17,37,38	
		1,28,17, 6, 5,52,12,12		6,27
6″	42,41,53,46,44,35, 5,40, 3,34		3, 7,17,44, 5	
		1,28,17, 2,58,34,28, 7		6,27
8″	42,41,55,15, 1,38, 4,14,31,41		3, 7,17,50,32	
		1,28,16,59,51,16,37,35		6,27
10″	42,41,56,43,18,37,55,31, 9,16		3, 7,17,56,59	
		1,28,16,56,43,58,40,36		6,27
12″	42,41,58,11,35,34,39,29,49,52		3, 7,18, 3,26	
		1,28,16,53,36,40,37,10		6,27
14″	42,41,59,39,52,28,16,10,27, 2		3, 7,18, 9,53	
		1,28,16,50,29,22,27,17		6,27
16″	42,42, 1, 8, 9,18,45,32,54,19		3, 7,18,16,20	
		1,28,16,47,22, 4,10,57		6,27
18″	42,42, 2,36,26, 6, 7,37, 5,16		3, 7,18,22,47	
		1,28,16,44,14,45,48,10		6,27
20″	42,42, 4, 4,42,50,22,22,53,26		3, 7,18,29,14	
		1,28,16,41, 7,27,18,56		6,27
22″	42,42, 5,32,59,31,29,50,12,22		3, 7,18,35,41	
		1,28,16,38, 0, 8,43,15		6,27
24″	42,42, 7, 1,16, 9,29,58,55,37		3, 7,18,42, 8	
		1,28,16,34,52,50, 1, 7		6,27
26″	42,42, 8,29,32,44,22,48,56,44		3, 7,18,48,35	
		1,28,16,31,45,31,12,32		6,27
28″	42,42, 9,57,49,16, 8,20, 9,16		3, 7,18,55, 2	
		1,28,16,28,38,12,17,30		6,27
30″	42,42,11,26, 5,44,46,32,26,46		3, 7,19, 1,29	
		1,28,16,25,30,53,16, 1		6,27
32″	42,42,12,54,22,10,17,25,42,47		3, 7,19, 7,56	
		1,28,16,22,23,34, 8, 5		6,27
34″	42,42,14,22,38,32,40,59,50,52		3, 7,19,14,23	
		1,28,16,19,16,14,53,42		6,27
36″	42,42,15,50,54,51,57,14,44,34		3, 7,19,20,50	
		1,28,16,16, 8,55,32,52		6,27
38″	42,42,17,19,11, 8, 6,10,17,26		3, 7,19,27,17	
		1,28,16,13, 1,36, 5,35		6,27
40″	42,42,18,47,27,21, 7,46,23, 1		3, 7,19,33,44	
		1,28,16, 9,54,16,31,51		6,27
42″	42,42,20,15,43,31, 2, 2,54,52		3, 7,19,40,11	
		1,28,16, 6,46,56,51,40		6,27
44″	42,42,21,43,59,37,48,59,46,32		3, 7,19,46,38	
		1,28,16, 3,39,37, 5, 2		6,27
46″	42,42,23,12,15,41,28,36,51,34		3, 7,19,53, 5	
		1,28,16, 0,32,17,11,57		6,27
48″	42,42,24,40,31,42, 0,54, 3,31		3, 7,19,59,32	
		1,28,15,57,24,57,12,25		6,27
50″	42,42,26, 8,47,39,25,51,15,56		3, 7,20, 5,59	
		1,28,15,54,17,37, 6,26		6,27
52″	42,42,27,37, 3,33,43,28,22,22		3, 7,20,12,26	
		1,28,15,51,10,16,54, 0		6,27
54″	42,42,29, 5,19,24,53,45,16,22		3, 7,20,18,53	
		1,28,15,48, 2,56,35, 7		6,27
56″	42,42,30,33,35,12,56,41,51,29		3, 7,20,25,20	
		1,28,15,44,55,36, 9,47		6,27
58″	42,42,32, 1,50,57,52,18, 1,16		3, 7,20,31,47	
		1,28,15,41,48,15,38, 0		
60″	42,42,33,30, 6,39,40,33,39,16			
exact	42,42,33,30, 6,39,40,33,26,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°23′ 0″	42,42,33,30, 6,39,40,33,26,28			
		1,28,15,38,40,54,58,20		
2″	42,42,34,58,22,18,21,28,24,48		3, 7,20,44,47	
		1,28,15,35,33,34,13,33		6,27
4″	42,42,36,26,37,53,55, 2,38,21		3, 7,20,51,14	
		1,28,15,32,26,13,22,19		6,27
6″	42,42,37,54,53,26,21,16, 0,40		3, 7,20,57,41	
		1,28,15,29,18,52,24,38		6,27
8″	42,42,39,23, 8,55,40, 8,25,18		3, 7,21, 4, 8	
		1,28,15,26,11,31,20,30		6,27
10″	42,42,40,51,24,21,51,39,45,48		3, 7,21,10,35	
		1,28,15,23, 4,10, 9,55		6,27
12″	42,42,42,19,39,44,55,49,55,43		3, 7,21,17, 2	
		1,28,15,19,56,48,52,53		6,27
14″	42,42,43,47,55, 4,52,38,48,36		3, 7,21,23,29	
		1,28,15,16,49,27,29,24		6,27
16″	42,42,45,16,10,21,42, 6,18, 0		3, 7,21,29,56	
		1,28,15,13,42, 5,59,28		6,27
18″	42,42,46,44,25,35,24,12,17,28		3, 7,21,36,23	
		1,28,15,10,34,44,23, 5		6,27
20″	42,42,48,12,40,45,58,56,40,33		3, 7,21,42,50	
		1,28,15, 7,27,22,40,15		6,27
22″	42,42,49,40,55,53,26,19,20,48		3, 7,21,49,17	
		1,28,15, 4,20, 0,50,58		6,27
24″	42,42,51, 9,10,57,46,20,11,46		3, 7,21,55,44	
		1,28,15, 1,12,38,55,14		6,27
26″	42,42,52,37,25,58,58,59, 7, 0		3, 7,22, 2,11	
		1,28,14,58, 5,16,53, 3		6,27
28″	42,42,54, 5,40,57, 4,16, 0, 3		3, 7,22, 8,38	
		1,28,14,54,57,54,44,25		6,27
30″	42,42,55,33,55,52, 2,10,44,28		3, 7,22,15, 5	
		1,28,14,51,50,32,29,20		6,27
32″	42,42,57, 2,10,43,52,43,13,48		3, 7,22,21,32	
		1,28,14,48,43,10, 7,48		6,27
34″	42,42,58,30,25,32,35,53,21,36		3, 7,22,27,59	
		1,28,14,45,35,47,39,49		6,27
36″	42,42,59,58,40,18,11,41, 1,25		3, 7,22,34,26	
		1,28,14,42,28,25, 5,23		6,27
38″	42,43, 1,26,55, 0,40, 6, 6,48		3, 7,22,40,53	
		1,28,14,39,21, 2,24,30		6,27
40″	42,43, 2,55, 9,40, 1, 8,31,18		3, 7,22,47,20	
		1,28,14,36,13,39,37,10		6,27
42″	42,43, 4,23,24,16,14,48, 8,28		3, 7,22,53,47	
		1,28,14,33, 6,16,43,23		6,27
44″	42,43, 5,51,38,49,21, 4,51,51		3, 7,23, 0,14	
		1,28,14,29,58,53,43, 9		6,27
46″	42,43, 7,19,53,19,19,58,35, 0		3, 7,23, 6,41	
		1,28,14,26,51,30,36,28		6,27
48″	42,43, 8,48, 7,46,11,29,11,28		3, 7,23,13, 8	
		1,28,14,23,44, 7,23,20		6,27
50″	42,43,10,16,22, 9,55,36,34,48		3, 7,23,19,35	
		1,28,14,20,36,44, 3,45		6,27
52″	42,43,11,44,36,30,32,20,38,33		3, 7,23,26, 2	
		1,28,14,17,29,20,37,43		6,27
54″	42,43,13,12,50,48, 1,41,16,16		3, 7,23,32,29	
		1,28,14,14,21,57, 5,14		6,27
56″	42,43,14,41, 5, 2,23,38,21,30		3, 7,23,38,56	
		1,28,14,11,14,33,26,18		6,27
58″	42,43,16, 9,19,13,38,11,47,48		3, 7,23,45,23	
		1,28,14, 8, 7, 9,40,55		
60″	42,43,17,37,33,21,45,21,28,43			
exact	42,43,17,37,33,21,45,21,21,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°24′ 0″	42,43,17,37,33,21,45,21,21,16			
		1,28,14, 4,59,45,48,19		
2″	42,43,19, 5,47,26,45, 7, 9,35		3, 7,23,58,20	
		1,28,14, 1,52,21,49,59		6,27
4″	42,43,20,34, 1,28,37,28,59,34		3, 7,24, 4,47	
		1,28,13,58,44,57,45,12		6,27
6″	42,43,22, 2,15,27,22,26,44,46		3, 7,24,11,14	
		1,28,13,55,37,33,33,58		6,27
8″	42,43,23,30,29,23, 0, 0,18,44		3, 7,24,17,41	
		1,28,13,52,30, 9,16,17		6,27
10″	42,43,24,58,43,15,30, 9,35, 1		3, 7,24,24, 8	
		1,28,13,49,22,44,52, 9		6,27
12″	42,43,26,26,57, 4,52,54,27,10		3, 7,24,30,35	
		1,28,13,46,15,20,21,34		6,27
14″	42,43,27,55,10,51, 8,14,48,44		3, 7,24,37, 2	
		1,28,13,43, 7,55,44,32		6,27
16″	42,43,29,23,24,34,16,10,33,16		3, 7,24,43,29	
		1,28,13,40, 0,31, 1, 3		6,27
18″	42,43,30,51,38,14,16,41,34,19		3, 7,24,49,56	
		1,28,13,36,53, 6,11, 7		6,27
20″	42,43,32,19,51,51, 9,47,45,26		3, 7,24,56,23	
		1,28,13,33,45,41,14,44		6,27
22″	42,43,33,48, 5,24,55,29, 0,10		3, 7,25, 2,50	
		1,28,13,30,38,16,11,54		6,27
24″	42,43,35,16,18,55,33,45,12, 4		3, 7,25, 9,17	
		1,28,13,27,30,51, 2,37		6,27
26″	42,43,36,44,32,23, 4,36,14,41		3, 7,25,15,44	
		1,28,13,24,23,25,46,53		6,27
28″	42,43,38,12,45,47,28, 2, 1,34		3, 7,25,22,11	
		1,28,13,21,16, 0,24,42		6,27
30″	42,43,39,40,59, 8,44, 2,26,16		3, 7,25,28,38	
		1,28,13,18, 8,34,56, 4		6,27
32″	42,43,41, 9,12,26,52,37,22,20		3, 7,25,35, 5	
		1,28,13,15, 1, 9,20,59		6,27
34″	42,43,42,37,25,41,53,46,43,19		3, 7,25,41,32	
		1,28,13,11,53,43,39,27		6,27
36″	42,43,44, 5,38,53,47,30,22,46		3, 7,25,47,59	
		1,28,13, 8,46,17,51,28		6,27
38″	42,43,45,33,52, 2,33,48,14,14		3, 7,25,54,26	
		1,28,13, 5,38,51,57, 2		6,27
40″	42,43,47, 2, 5, 8,12,40,11,16		3, 7,26, 0,53	
		1,28,13, 2,31,25,56, 9		6,27
42″	42,43,48,30,18,10,44, 6, 7,25		3, 7,26, 7,20	
		1,28,12,59,23,59,48,49		6,27
44″	42,43,49,58,31,10, 8, 5,56,14		3, 7,26,13,47	
		1,28,12,56,16,33,35, 2		6,27
46″	42,43,51,26,44, 6,24,39,31,16		3, 7,26,20,14	
		1,28,12,53, 9, 7,14,48		6,27
48″	42,43,52,54,56,59,33,46,46, 4		3, 7,26,26,41	
		1,28,12,50, 1,40,48, 7		6,27
50″	42,43,54,23, 9,49,35,27,34,11		3, 7,26,33, 8	
		1,28,12,46,54,14,14,59		6,27
52″	42,43,55,51,22,36,29,41,49,10		3, 7,26,39,35	
		1,28,12,43,46,47,35,24		6,27
54″	42,43,57,19,35,20,16,29,24,34		3, 7,26,46, 2	
		1,28,12,40,39,20,49,22		6,27
56″	42,43,58,47,48, 0,55,50,13,56		3, 7,26,52,29	
		1,28,12,37,31,53,56,53		6,27
58″	42,44, 0,16, 0,38,27,44,10,49		3, 7,26,58,56	
		1,28,12,34,24,26,57,57		
60″	42,44, 1,44,13,12,52,11, 8,46			
exact	42,44, 1,44,13,12,52,11,10, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°25′ 0″	42,44, 1,44,13,12,52,11,10, 3			
		1,28,12,31,16,59,52,42		
2″	42,44, 3,12,25,44, 9,11, 2,45		3, 7,27,11,49	
		1,28,12,28, 9,32,40,53		6,27
4″	42,44, 4,40,38,12,18,43,43,38		3, 7,27,18,16	
		1,28,12,25, 2, 5,22,37		6,27
6″	42,44, 6, 8,50,37,20,49, 6,15		3, 7,27,24,43	
		1,28,12,21,54,37,57,54		6,27
8″	42,44, 7,37, 2,59,15,27, 4, 9		3, 7,27,31,10	
		1,28,12,18,47,10,26,44		6,27
10″	42,44, 9, 5,15,18, 2,37,30,53		3, 7,27,37,37	
		1,28,12,15,39,42,49, 7		6,27
12″	42,44,10,33,27,33,42,20,20, 0		3, 7,27,44, 4	
		1,28,12,12,32,15, 5, 3		6,27
14″	42,44,12, 1,39,46,14,35,25, 3		3, 7,27,50,31	
		1,28,12, 9,24,47,14,32		6,27
16″	42,44,13,29,51,55,39,22,39,35		3, 7,27,56,58	
		1,28,12, 6,17,19,17,34		6,27
18″	42,44,14,58, 4, 1,56,41,57, 9		3, 7,28, 3,25	
		1,28,12, 3, 9,51,14, 9		6,27
20″	42,44,16,26,16, 5, 6,33,11,18		3, 7,28, 9,52	
		1,28,12, 0, 2,23, 4,17		6,27
22″	42,44,17,54,28, 5, 8,56,15,35		3, 7,28,16,19	
		1,28,11,56,54,54,47,58		6,27
24″	42,44,19,22,40, 2, 3,51, 3,33		3, 7,28,22,46	
		1,28,11,53,47,26,25,12		6,27
26″	42,44,20,50,51,55,51,17,28,45		3, 7,28,29,13	
		1,28,11,50,39,57,55,59		6,27
28″	42,44,22,19, 3,46,31,15,24,44		3, 7,28,35,40	
		1,28,11,47,32,29,20,19		6,27
30″	42,44,23,47,15,34, 3,44,45, 3		3, 7,28,42, 7	
		1,28,11,44,25, 0,38,12		6,27
32″	42,44,25,15,27,18,28,45,23,15		3, 7,28,48,34	
		1,28,11,41,17,31,49,38		6,27
34″	42,44,26,43,38,59,46,17,12,53		3, 7,28,55, 1	
		1,28,11,38,10, 2,54,37		6,27
36″	42,44,28,11,50,37,56,20, 7,30		3, 7,29, 1,28	
		1,28,11,35, 2,33,53, 9		6,27
38″	42,44,29,40, 2,12,58,54, 0,39		3, 7,29, 7,55	
		1,28,11,31,55, 4,45,14		6,27
40″	42,44,31, 8,13,44,53,58,45,53		3, 7,29,14,22	
		1,28,11,28,47,35,30,52		6,27
42″	42,44,32,36,25,13,41,34,16,45		3, 7,29,20,49	
		1,28,11,25,40, 6,10, 3		6,27
44″	42,44,34, 4,36,39,21,40,26,48		3, 7,29,27,16	
		1,28,11,22,32,36,42,47		6,27
46″	42,44,35,32,48, 1,54,17, 9,35		3, 7,29,33,43	
		1,28,11,19,25, 7, 9, 4		6,27
48″	42,44,37, 0,59,21,19,24,18,39		3, 7,29,40,10	
		1,28,11,16,17,37,28,54		6,27
50″	42,44,38,29,10,37,37, 1,47,33		3, 7,29,46,37	
		1,28,11,13,10, 7,42,17		6,27
52″	42,44,39,57,21,50,47, 9,29,50		3, 7,29,53, 4	
		1,28,11,10, 2,37,49,13		6,27
54″	42,44,41,25,33, 0,49,47,19, 3		3, 7,29,59,31	
		1,28,11, 6,55, 7,49,42		6,27
56″	42,44,42,53,44, 7,44,55, 8,45		3, 7,30, 5,58	
		1,28,11, 3,47,37,43,44		6,27
58″	42,44,44,21,55,11,32,32,52,29		3, 7,30,12,25	
		1,28,11, 0,40, 7,31,19		
60″	42,44,45,50, 6,12,12,40,23,48			
exact	42,44,45,50, 6,12,12,40,29,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°26′ 0″	42,44,45,50, 6,12,12,40,29,15			
		1,28,10,57,32,37,13,10		
2″	42,44,47,18,17, 9,45,17,42,25		3, 7,30,25,15	
		1,28,10,54,25, 6,47,55		6,27
4″	42,44,48,46,28, 4,10,24,30,20		3, 7,30,31,42	
		1,28,10,51,17,36,16,13		6,27
6″	42,44,50,14,38,55,28, 0,46,33		3, 7,30,38, 9	
		1,28,10,48,10, 5,38, 4		6,27
8″	42,44,51,42,49,43,38, 6,24,37		3, 7,30,44,36	
		1,28,10,45, 2,34,53,28		6,27
10″	42,44,53,11, 0,28,40,41,18, 5		3, 7,30,51, 3	
		1,28,10,41,55, 4, 2,25		6,27
12″	42,44,54,39,11,10,35,45,20,30		3, 7,30,57,30	
		1,28,10,38,47,33, 4,55		6,27
14″	42,44,56, 7,21,49,23,18,25,25		3, 7,31, 3,57	
		1,28,10,35,40, 2, 0,58		6,27
16″	42,44,57,35,32,25, 3,20,26,23		3, 7,31,10,24	
		1,28,10,32,32,30,50,34		6,27
18″	42,44,59, 3,42,57,35,51,16,57		3, 7,31,16,51	
		1,28,10,29,24,59,33,43		6,27
20″	42,45, 0,31,53,27, 0,50,50,40		3, 7,31,23,18	
		1,28,10,26,17,28,10,25		6,27
22″	42,45, 2, 0, 3,53,18,19, 1, 5		3, 7,31,29,45	
		1,28,10,23, 9,56,40,40		6,27
24″	42,45, 3,28,14,16,28,15,41,45		3, 7,31,36,12	
		1,28,10,20, 2,25, 4,28		6,27
26″	42,45, 4,56,24,36,30,40,46,13		3, 7,31,42,39	
		1,28,10,16,54,53,21,49		6,27
28″	42,45, 6,24,34,53,25,34, 8, 2		3, 7,31,49, 6	
		1,28,10,13,47,21,32,43		6,27
30″	42,45, 7,52,45, 7,12,55,40,45		3, 7,31,55,33	
		1,28,10,10,39,49,37,10		6,27
32″	42,45, 9,20,55,17,52,45,17,55		3, 7,32, 2, 0	
		1,28,10, 7,32,17,35,10		6,27
34″	42,45,10,49, 5,25,25, 2,53, 5		3, 7,32, 8,27	
		1,28,10, 4,24,45,26,43		6,27
36″	42,45,12,17,15,29,49,48,19,48		3, 7,32,14,54	
		1,28,10, 1,17,13,11,49		6,27
38″	42,45,13,45,25,31, 7, 1,31,37		3, 7,32,21,21	
		1,28, 9,58, 9,40,50,28		6,27
40″	42,45,15,13,35,29,16,42,22, 5		3, 7,32,27,48	
		1,28, 9,55, 2, 8,22,40		6,27
42″	42,45,16,41,45,24,18,50,44,45		3, 7,32,34,15	
		1,28, 9,51,54,35,48,25		6,27
44″	42,45,18, 9,55,16,13,26,33,10		3, 7,32,40,42	
		1,28, 9,48,47, 3, 7,43		6,27
46″	42,45,19,38, 5, 5, 0,29,40,53		3, 7,32,47, 9	
		1,28, 9,45,39,30,20,34		6,27
48″	42,45,21, 6,14,50,40, 0, 1,27		3, 7,32,53,36	
		1,28, 9,42,31,57,26,58		6,27
50″	42,45,22,34,24,33,11,57,28,25		3, 7,33, 0, 3	
		1,28, 9,39,24,24,26,55		6,27
52″	42,45,24, 2,34,12,36,21,55,20		3, 7,33, 6,30	
		1,28, 9,36,16,51,20,25		6,27
54″	42,45,25,30,43,48,53,13,15,45		3, 7,33,12,57	
		1,28, 9,33, 9,18, 7,28		6,27
56″	42,45,26,58,53,22, 2,31,23,13		3, 7,33,19,24	
		1,28, 9,30, 1,44,48, 4		6,27
58″	42,45,28,27, 2,52, 4,16,11,17		3, 7,33,25,51	
		1,28, 9,26,54,11,22,13		
60″	42,45,29,55,12,18,58,27,33,30			
exact	42,45,29,55,12,18,58,27,46,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°27′ 0″	42,45,29,55,12,18,58,27,46,47			
		1,28, 9,23,46,37,51,28		
2″	42,45,31,23,21,42,45, 5,38,15		3, 7,33,38,38	
		1,28, 9,20,39, 4,12,50		6,27
4″	42,45,32,51,31, 3,24, 9,51, 5		3, 7,33,45, 5	
		1,28, 9,17,31,30,27,45		6,27
6″	42,45,34,19,40,20,55,40,18,50		3, 7,33,51,32	
		1,28, 9,14,23,56,36,13		6,27
8″	42,45,35,47,49,35,19,36,55, 3		3, 7,33,57,59	
		1,28, 9,11,16,22,38,14		6,27
10″	42,45,37,15,58,46,35,59,33,17		3, 7,34, 4,26	
		1,28, 9, 8, 8,48,33,48		6,27
12″	42,45,38,44, 7,54,44,48, 7, 5		3, 7,34,10,53	
		1,28, 9, 5, 1,14,22,55		6,27
14″	42,45,40,12,16,59,46, 2,30, 0		3, 7,34,17,20	
		1,28, 9, 1,53,40, 5,35		6,27
16″	42,45,41,40,26, 1,39,42,35,35		3, 7,34,23,47	
		1,28, 8,58,46, 5,41,48		6,27
18″	42,45,43, 8,35, 0,25,48,17,23		3, 7,34,30,14	
		1,28, 8,55,38,31,11,34		6,27
20″	42,45,44,36,43,56, 4,19,28,57		3, 7,34,36,41	
		1,28, 8,52,30,56,34,53		6,27
22″	42,45,46, 4,52,48,35,16, 3,50		3, 7,34,43, 8	
		1,28, 8,49,23,21,51,45		6,27
24″	42,45,47,33, 1,37,58,37,55,35		3, 7,34,49,35	
		1,28, 8,46,15,47, 2,10		6,27
26″	42,45,49, 1,10,24,14,24,57,45		3, 7,34,56, 2	
		1,28, 8,43, 8,12, 6, 8		6,27
28″	42,45,50,29,19, 7,22,37, 3,53		3, 7,35, 2,29	
		1,28, 8,40, 0,37, 3,39		6,27
30″	42,45,51,57,27,47,23,14, 7,32		3, 7,35, 8,56	
		1,28, 8,36,53, 1,54,43		6,27
32″	42,45,53,25,36,24,16,16, 2,15		3, 7,35,15,23	
		1,28, 8,33,45,26,39,20		6,27
34″	42,45,54,53,44,58, 1,42,41,35		3, 7,35,21,50	
		1,28, 8,30,37,51,17,30		6,27
36″	42,45,56,21,53,28,39,33,59, 5		3, 7,35,28,17	
		1,28, 8,27,30,15,49,13		6,27
38″	42,45,57,50, 1,56, 9,49,48,18		3, 7,35,34,44	
		1,28, 8,24,22,40,14,29		6,27
40″	42,45,59,18,10,20,32,30, 2,47		3, 7,35,41,11	
		1,28, 8,21,15, 4,33,18		6,27
42″	42,46, 0,46,18,41,47,34,36, 5		3, 7,35,47,38	
		1,28, 8,18, 7,28,45,40		6,27
44″	42,46, 2,14,26,59,55, 3,21,45		3, 7,35,54, 5	
		1,28, 8,14,59,52,51,35		6,27
46″	42,46, 3,42,35,14,54,56,13,20		3, 7,36, 0,32	
		1,28, 8,11,52,16,51, 3		6,27
48″	42,46, 5,10,43,26,47,13, 4,23		3, 7,36, 6,59	
		1,28, 8, 8,44,40,44, 4		6,27
50″	42,46, 6,38,51,35,31,53,48,27		3, 7,36,13,26	
		1,28, 8, 5,37, 4,30,38		6,27
52″	42,46, 8, 6,59,41, 8,58,19, 5		3, 7,36,19,53	
		1,28, 8, 2,29,28,10,45		6,27
54″	42,46, 9,35, 7,43,38,26,29,50		3, 7,36,26,20	
		1,28, 7,59,21,51,44,25		6,27
56″	42,46,11, 3,15,43, 0,18,14,15		3, 7,36,32,47	
		1,28, 7,56,14,15,11,38		6,27
58″	42,46,12,31,23,39,14,33,25,53		3, 7,36,39,14	
		1,28, 7,53, 6,38,32,24		
60″	42,46,13,59,31,32,21,11,58,17			
exact	42,46,13,59,31,32,21,12,21,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°28′ 0″	42,46,13,59,31,32,21,12,21,53			
		1,28, 7,49,59, 1,49,17		
2″	42,46,15,27,39,22,20,14,11,10		3, 7,36,51,57	
		1,28, 7,46,51,24,57,20		6,27
4″	42,46,16,55,47, 9,11,39, 8,30		3, 7,36,58,24	
		1,28, 7,43,43,47,58,56		6,27
6″	42,46,18,23,54,52,55,27, 7,26		3, 7,37, 4,51	
		1,28, 7,40,36,10,54, 5		6,27
8″	42,46,19,52, 2,33,31,38, 1,31		3, 7,37,11,18	
		1,28, 7,37,28,33,42,47		6,27
10″	42,46,21,20,10,11, 0,11,44,18		3, 7,37,17,45	
		1,28, 7,34,20,56,25, 2		6,27
12″	42,46,22,48,17,45,21, 8, 9,20		3, 7,37,24,12	
		1,28, 7,31,13,19, 0,50		6,27
14″	42,46,24,16,25,16,34,27,10,10		3, 7,37,30,39	
		1,28, 7,28, 5,41,30,11		6,27
16″	42,46,25,44,32,44,40, 8,40,21		3, 7,37,37, 6	
		1,28, 7,24,58, 3,53, 5		6,27
18″	42,46,27,12,40, 9,38,12,33,26		3, 7,37,43,33	
		1,28, 7,21,50,26, 9,32		6,27
20″	42,46,28,40,47,31,28,38,42,58		3, 7,37,50, 0	
		1,28, 7,18,42,48,19,32		6,27
22″	42,46,30, 8,54,50,11,27, 2,30		3, 7,37,56,27	
		1,28, 7,15,35,10,23, 5		6,27
24″	42,46,31,37, 2, 5,46,37,25,35		3, 7,38, 2,54	
		1,28, 7,12,27,32,20,11		6,27
26″	42,46,33, 5, 9,18,14, 9,45,46		3, 7,38, 9,21	
		1,28, 7, 9,19,54,10,50		6,27
28″	42,46,34,33,16,27,34, 3,56,36		3, 7,38,15,48	
		1,28, 7, 6,12,15,55, 2		6,27
30″	42,46,36, 1,23,33,46,19,51,38		3, 7,38,22,15	
		1,28, 7, 3, 4,37,32,47		6,27
32″	42,46,37,29,30,36,50,57,24,25		3, 7,38,28,42	
		1,28, 6,59,56,59, 4, 5		6,27
34″	42,46,38,57,37,36,47,56,28,30		3, 7,38,35, 9	
		1,28, 6,56,49,20,28,56		6,27
36″	42,46,40,25,44,33,37,16,57,26		3, 7,38,41,36	
		1,28, 6,53,41,41,47,20		6,27
38″	42,46,41,53,51,27,18,58,44,46		3, 7,38,48, 3	
		1,28, 6,50,34, 2,59,17		6,27
40″	42,46,43,21,58,17,53, 1,44, 3		3, 7,38,54,30	
		1,28, 6,47,26,24, 4,47		6,27
42″	42,46,44,50, 5, 5,19,25,48,50		3, 7,39, 0,57	
		1,28, 6,44,18,45, 3,50		6,27
44″	42,46,46,18,11,49,38,10,52,40		3, 7,39, 7,24	
		1,28, 6,41,11, 5,56,26		6,27
46″	42,46,47,46,18,30,49,16,49, 6		3, 7,39,13,51	
		1,28, 6,38, 3,26,42,35		6,27
48″	42,46,49,14,25, 8,52,43,31,41		3, 7,39,20,18	
		1,28, 6,34,55,47,22,17		6,27
50″	42,46,50,42,31,43,48,30,53,58		3, 7,39,26,45	
		1,28, 6,31,48, 7,55,32		6,27
52″	42,46,52,10,38,15,36,38,49,30		3, 7,39,33,12	
		1,28, 6,28,40,28,22,20		6,27
54″	42,46,53,38,44,44,17, 7,11,50		3, 7,39,39,39	
		1,28, 6,25,32,48,42,41		6,27
56″	42,46,55, 6,51, 9,49,55,54,31		3, 7,39,46, 6	
		1,28, 6,22,25, 8,56,35		6,27
58″	42,46,56,34,57,32,15, 4,51, 6		3, 7,39,52,33	
		1,28, 6,19,17,29, 4, 2		
60″	42,46,58, 3, 3,51,32,33,55, 8			
exact	42,46,58, 3, 3,51,32,34,25,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°29′ 0″	42,46,58, 3, 3,51,32,34,25,16			
		1,28, 6,16, 9,49, 8,20		
2″	42,46,59,31,10, 7,42,23,33,36		3, 7,40, 5,13	
		1,28, 6,13, 2, 9, 3, 7		6,26
4″	42,47, 0,59,16,20,44,32,36,43		3, 7,40,11,39	
		1,28, 6, 9,54,28,51,28		6,26
6″	42,47, 2,27,22,30,39, 1,28,11		3, 7,40,18, 5	
		1,28, 6, 6,46,48,33,23		6,26
8″	42,47, 3,55,28,37,25,50, 1,34		3, 7,40,24,31	
		1,28, 6, 3,39, 8, 8,52		6,26
10″	42,47, 5,23,34,41, 4,58,10,26		3, 7,40,30,57	
		1,28, 6, 0,31,27,37,55		6,26
12″	42,47, 6,51,40,41,36,25,48,21		3, 7,40,37,23	
		1,28, 5,57,23,47, 0,32		6,26
14″	42,47, 8,19,46,39, 0,12,48,53		3, 7,40,43,49	
		1,28, 5,54,16, 6,16,43		6,26
16″	42,47, 9,47,52,33,16,19, 5,36		3, 7,40,50,15	
		1,28, 5,51, 8,25,26,28		6,26
18″	42,47,11,15,58,24,24,44,32, 4		3, 7,40,56,41	
		1,28, 5,48, 0,44,29,47		6,26
20″	42,47,12,44, 4,12,25,29, 1,51		3, 7,41, 3, 7	
		1,28, 5,44,53, 3,26,40		6,26
22″	42,47,14,12, 9,57,18,32,28,31		3, 7,41, 9,33	
		1,28, 5,41,45,22,17, 7		6,26
24″	42,47,15,40,15,39, 3,54,45,38		3, 7,41,15,59	
		1,28, 5,38,37,41, 1, 8		6,26
26″	42,47,17, 8,21,17,41,35,46,46		3, 7,41,22,25	
		1,28, 5,35,29,59,38,43		6,26
28″	42,47,18,36,26,53,11,35,25,29		3, 7,41,28,51	
		1,28, 5,32,22,18, 9,52		6,26
30″	42,47,20, 4,32,25,33,53,35,21		3, 7,41,35,17	
		1,28, 5,29,14,36,34,35		6,26
32″	42,47,21,32,37,54,48,30, 9,56		3, 7,41,41,43	
		1,28, 5,26, 6,54,52,52		6,26
34″	42,47,23, 0,43,20,55,25, 2,48		3, 7,41,48, 9	
		1,28, 5,22,59,13, 4,43		6,26
36″	42,47,24,28,48,43,54,38, 7,31		3, 7,41,54,35	
		1,28, 5,19,51,31,10, 8		6,26
38″	42,47,25,56,54, 3,46, 9,17,39		3, 7,42, 1, 1	
		1,28, 5,16,43,49, 9, 7		6,26
40″	42,47,27,24,59,20,29,58,26,46		3, 7,42, 7,27	
		1,28, 5,13,36, 7, 1,40		6,26
42″	42,47,28,53, 4,34, 6, 5,28,26		3, 7,42,13,53	
		1,28, 5,10,28,24,47,47		6,26
44″	42,47,30,21, 9,44,34,30,16,13		3, 7,42,20,19	
		1,28, 5, 7,20,42,27,28		6,26
46″	42,47,31,49,14,51,55,12,43,41		3, 7,42,26,45	
		1,28, 5, 4,13, 0, 0,43		6,26
48″	42,47,33,17,19,56, 8,12,44,24		3, 7,42,33,11	
		1,28, 5, 1, 5,17,27,32		6,26
50″	42,47,34,45,24,57,13,30,11,56		3, 7,42,39,37	
		1,28, 4,57,57,34,47,55		6,26
52″	42,47,36,13,29,55,11, 4,59,51		3, 7,42,46, 3	
		1,28, 4,54,49,52, 1,52		6,26
54″	42,47,37,41,34,50, 0,57, 1,43		3, 7,42,52,29	
		1,28, 4,51,42, 9, 9,23		6,26
56″	42,47,39, 9,39,41,43, 6,11, 6		3, 7,42,58,55	
		1,28, 4,48,34,26,10,28		6,26
58″	42,47,40,37,44,30,17,32,21,34		3, 7,43, 5,21	
		1,28, 4,45,26,43, 5, 7		
60″	42,47,42, 5,49,15,44,15,26,41			
exact	42,47,42, 5,49,15,44,14,59, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°30′ 0″	42,47,42, 5,49,15,44,14,59, 3			
		1,28, 4,42,18,59,50,21		
2″	42,47,43,33,53,58, 3,14,49,24		3, 7,43,18,25	
		1,28, 4,39,11,16,31,56		6,26
4″	42,47,45, 1,58,37,14,31,21,20		3, 7,43,24,51	
		1,28, 4,36, 3,33, 7, 5		6,26
6″	42,47,46,30, 3,13,18, 4,28,25		3, 7,43,31,17	
		1,28, 4,32,55,49,35,48		6,26
8″	42,47,47,58, 7,46,13,54, 4,13		3, 7,43,37,43	
		1,28, 4,29,48, 5,58, 5		6,26
10″	42,47,49,26,12,16, 2, 0, 2,18		3, 7,43,44, 9	
		1,28, 4,26,40,22,13,56		6,26
12″	42,47,50,54,16,42,42,22,16,14		3, 7,43,50,35	
		1,28, 4,23,32,38,23,21		6,26
14″	42,47,52,22,21, 6,15, 0,39,35		3, 7,43,57, 1	
		1,28, 4,20,24,54,26,20		6,26
16″	42,47,53,50,25,26,39,55, 5,55		3, 7,44, 3,27	
		1,28, 4,17,17,10,22,53		6,26
18″	42,47,55,18,29,43,57, 5,28,48		3, 7,44, 9,53	
		1,28, 4,14, 9,26,13, 0		6,26
20″	42,47,56,46,33,58, 6,31,41,48		3, 7,44,16,19	
		1,28, 4,11, 1,41,56,41		6,26
22″	42,47,58,14,38, 9, 8,13,38,29		3, 7,44,22,45	
		1,28, 4, 7,53,57,33,56		6,26
24″	42,47,59,42,42,17, 2,11,12,25		3, 7,44,29,11	
		1,28, 4, 4,46,13, 4,45		6,26
26″	42,48, 1,10,46,21,48,24,17,10		3, 7,44,35,37	
		1,28, 4, 1,38,28,29, 8		6,26
28″	42,48, 2,38,50,23,26,52,46,18		3, 7,44,42, 3	
		1,28, 3,58,30,43,47, 5		6,26
30″	42,48, 4, 6,54,21,57,36,33,23		3, 7,44,48,29	
		1,28, 3,55,22,58,58,36		6,26
32″	42,48, 5,34,58,17,20,35,31,59		3, 7,44,54,55	
		1,28, 3,52,15,14, 3,41		6,26
34″	42,48, 7, 3, 2, 9,35,49,35,40		3, 7,45, 1,21	
		1,28, 3,49, 7,29, 2,20		6,26
36″	42,48, 8,31, 5,58,43,18,38, 0		3, 7,45, 7,47	
		1,28, 3,45,59,43,54,33		6,26
38″	42,48, 9,59, 9,44,43, 2,32,33		3, 7,45,14,13	
		1,28, 3,42,51,58,40,20		6,26
40″	42,48,11,27,13,27,35, 1,12,53		3, 7,45,20,39	
		1,28, 3,39,44,13,19,41		6,26
42″	42,48,12,55,17, 7,19,14,32,34		3, 7,45,27, 5	
		1,28, 3,36,36,27,52,36		6,26
44″	42,48,14,23,20,43,55,42,25,10		3, 7,45,33,31	
		1,28, 3,33,28,42,19, 5		6,26
46″	42,48,15,51,24,17,24,24,44,15		3, 7,45,39,57	
		1,28, 3,30,20,56,39, 8		6,26
48″	42,48,17,19,27,47,45,21,23,23		3, 7,45,46,23	
		1,28, 3,27,13,10,52,45		6,26
50″	42,48,18,47,31,14,58,32,16, 8		3, 7,45,52,49	
		1,28, 3,24, 5,24,59,56		6,26
52″	42,48,20,15,34,39, 3,57,16, 4		3, 7,45,59,15	
		1,28, 3,20,57,39, 0,41		6,26
54″	42,48,21,43,38, 0, 1,36,16,45		3, 7,46, 5,41	
		1,28, 3,17,49,52,55, 0		6,26
56″	42,48,23,11,41,17,51,29,11,45		3, 7,46,12, 7	
		1,28, 3,14,42, 6,42,53		6,26
58″	42,48,24,39,44,32,33,35,54,38		3, 7,46,18,33	
		1,28, 3,11,34,20,24,20		
60″	42,48,26, 7,47,44, 7,56,18,58			
exact	42,48,26, 7,47,44, 7,55,56,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°31′ 0″	42,48,26, 7,47,44, 7,55,56,49			
		1,28, 3, 8,26,33,57, 3		
2″	42,48,27,35,50,52,34,29,53,52		3, 7,46,31,34	
		1,28, 3, 5,18,47,25,29		6,26
4″	42,48,29, 3,53,57,53,17,19,21		3, 7,46,38, 0	
		1,28, 3, 2,11, 0,47,29		6,26
6″	42,48,30,31,57, 0, 4,18, 6,50		3, 7,46,44,26	
		1,28, 2,59, 3,14, 3, 3		6,26
8″	42,48,31,59,59,59, 7,32, 9,53		3, 7,46,50,52	
		1,28, 2,55,55,27,12,11		6,26
10″	42,48,33,28, 2,55, 2,59,22, 4		3, 7,46,57,18	
		1,28, 2,52,47,40,14,53		6,26
12″	42,48,34,56, 5,47,50,39,36,57		3, 7,47, 3,44	
		1,28, 2,49,39,53,11, 9		6,26
14″	42,48,36,24, 8,37,30,32,48, 6		3, 7,47,10,10	
		1,28, 2,46,32, 6, 0,59		6,26
16″	42,48,37,52,11,24, 2,38,49, 5		3, 7,47,16,36	
		1,28, 2,43,24,18,44,23		6,26
18″	42,48,39,20,14, 7,26,57,33,28		3, 7,47,23, 2	
		1,28, 2,40,16,31,21,21		6,26
20″	42,48,40,48,16,47,43,28,54,49		3, 7,47,29,28	
		1,28, 2,37, 8,43,51,53		6,26
22″	42,48,42,16,19,24,52,12,46,42		3, 7,47,35,54	
		1,28, 2,34, 0,56,15,59		6,26
24″	42,48,43,44,21,58,53, 9, 2,41		3, 7,47,42,20	
		1,28, 2,30,53, 8,33,39		6,26
26″	42,48,45,12,24,29,46,17,36,20		3, 7,47,48,46	
		1,28, 2,27,45,20,44,53		6,26
28″	42,48,46,40,26,57,31,38,21,13		3, 7,47,55,12	
		1,28, 2,24,37,32,49,41		6,26
30″	42,48,48, 8,29,22, 9,11,10,54		3, 7,48, 1,38	
		1,28, 2,21,29,44,48, 3		6,26
32″	42,48,49,36,31,43,38,55,58,57		3, 7,48, 8, 4	
		1,28, 2,18,21,56,39,59		6,26
34″	42,48,51, 4,34, 2, 0,52,38,56		3, 7,48,14,30	
		1,28, 2,15,14, 8,25,29		6,26
36″	42,48,52,32,36,17,15, 1, 4,25		3, 7,48,20,56	
		1,28, 2,12, 6,20, 4,33		6,26
38″	42,48,54, 0,38,29,21,21, 8,58		3, 7,48,27,22	
		1,28, 2, 8,58,31,37,11		6,26
40″	42,48,55,28,40,38,19,52,46, 9		3, 7,48,33,48	
		1,28, 2, 5,50,43, 3,23		6,26
42″	42,48,56,56,42,44,10,35,49,32		3, 7,48,40,14	
		1,28, 2, 2,42,54,23, 9		6,26
44″	42,48,58,24,44,46,53,30,12,41		3, 7,48,46,40	
		1,28, 1,59,35, 5,36,29		6,26
46″	42,48,59,52,46,46,28,35,49,10		3, 7,48,53, 6	
		1,28, 1,56,27,16,43,23		6,26
48″	42,49, 1,20,48,42,55,52,32,33		3, 7,48,59,32	
		1,28, 1,53,19,27,43,51		6,26
50″	42,49, 2,48,50,36,15,20,16,24		3, 7,49, 5,58	
		1,28, 1,50,11,38,37,53		6,26
52″	42,49, 4,16,52,26,26,58,54,17		3, 7,49,12,24	
		1,28, 1,47, 3,49,25,29		6,26
54″	42,49, 5,44,54,13,30,48,19,46		3, 7,49,18,50	
		1,28, 1,43,56, 0, 6,39		6,26
56″	42,49, 7,12,55,57,26,48,26,25		3, 7,49,25,16	
		1,28, 1,40,48,10,41,23		6,26
58″	42,49, 8,40,57,38,14,59, 7,48		3, 7,49,31,42	
		1,28, 1,37,40,21, 9,41		
60″	42,49,10, 8,59,15,55,20,17,29			
exact	42,49,10, 8,59,15,55,20, 3,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°32′ 0″	42,49,10, 8,59,15,55,20, 3,36			
		1,28, 1,34,32,31,30, 7		
2″	42,49,11,37, 0,50,27,51,33,43		3, 7,49,44,39	
		1,28, 1,31,24,41,45,28		6,26
4″	42,49,13, 5, 2,21,52,33,19,11		3, 7,49,51, 5	
		1,28, 1,28,16,51,54,23		6,26
6″	42,49,14,33, 3,50, 9,25,13,34		3, 7,49,57,31	
		1,28, 1,25, 9, 1,56,52		6,26
8″	42,49,16, 1, 5,15,18,27,10,26		3, 7,50, 3,57	
		1,28, 1,22, 1,11,52,55		6,26
10″	42,49,17,29, 6,37,19,39, 3,21		3, 7,50,10,23	
		1,28, 1,18,53,21,42,32		6,26
12″	42,49,18,57, 7,56,13, 0,45,53		3, 7,50,16,49	
		1,28, 1,15,45,31,25,43		6,26
14″	42,49,20,25, 9,11,58,32,11,36		3, 7,50,23,15	
		1,28, 1,12,37,41, 2,28		6,26
16″	42,49,21,53,10,24,36,13,14, 4		3, 7,50,29,41	
		1,28, 1, 9,29,50,32,47		6,26
18″	42,49,23,21,11,34, 6, 3,46,51		3, 7,50,36, 7	
		1,28, 1, 6,21,59,56,40		6,26
20″	42,49,24,49,12,40,28, 3,43,31		3, 7,50,42,33	
		1,28, 1, 3,14, 9,14, 7		6,26
22″	42,49,26,17,13,43,42,12,57,38		3, 7,50,48,59	
		1,28, 1, 0, 6,18,25, 8		6,26
24″	42,49,27,45,14,43,48,31,22,46		3, 7,50,55,25	
		1,28, 0,56,58,27,29,43		6,26
26″	42,49,29,13,15,40,46,58,52,29		3, 7,51, 1,51	
		1,28, 0,53,50,36,27,52		6,26
28″	42,49,30,41,16,34,37,35,20,21		3, 7,51, 8,17	
		1,28, 0,50,42,45,19,35		6,26
30″	42,49,32, 9,17,25,20,20,39,56		3, 7,51,14,43	
		1,28, 0,47,34,54, 4,52		6,26
32″	42,49,33,37,18,12,55,14,44,48		3, 7,51,21, 9	
		1,28, 0,44,27, 2,43,43		6,26
34″	42,49,35, 5,18,57,22,17,28,31		3, 7,51,27,35	
		1,28, 0,41,19,11,16, 8		6,26
36″	42,49,36,33,19,38,41,28,44,39		3, 7,51,34, 1	
		1,28, 0,38,11,19,42, 7		6,26
38″	42,49,38, 1,20,16,52,48,26,46		3, 7,51,40,27	
		1,28, 0,35, 3,28, 1,40		6,26
40″	42,49,39,29,20,51,56,16,28,26		3, 7,51,46,53	
		1,28, 0,31,55,36,14,47		6,26
42″	42,49,40,57,21,23,51,52,43,13		3, 7,51,53,19	
		1,28, 0,28,47,44,21,28		6,26
44″	42,49,42,25,21,52,39,37, 4,41		3, 7,51,59,45	
		1,28, 0,25,39,52,21,43		6,26
46″	42,49,43,53,22,18,19,29,26,24		3, 7,52, 6,11	
		1,28, 0,22,32, 0,15,32		6,26
48″	42,49,45,21,22,40,51,29,41,56		3, 7,52,12,37	
		1,28, 0,19,24, 8, 2,55		6,26
50″	42,49,46,49,23, 0,15,37,44,51		3, 7,52,19, 3	
		1,28, 0,16,16,15,43,52		6,26
52″	42,49,48,17,23,16,31,53,28,43		3, 7,52,25,29	
		1,28, 0,13, 8,23,18,23		6,26
54″	42,49,49,45,23,29,40,16,47, 6		3, 7,52,31,55	
		1,28, 0,10, 0,30,46,28		6,26
56″	42,49,51,13,23,39,40,47,33,34		3, 7,52,38,21	
		1,28, 0, 6,52,38, 8, 7		6,26
58″	42,49,52,41,23,46,33,25,41,41		3, 7,52,44,47	
		1,28, 0, 3,44,45,23,20		
60″	42,49,54, 9,23,50,18,11, 5, 1			
exact	42,49,54, 9,23,50,18,10,55,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°33′ 0″	42,49,54, 9,23,50,18,10,55,57			
		1,28, 0, 0,36,52,31,18		
2″	42,49,55,37,23,50,55, 3,27,15		3, 7,52,57,41	
		1,27,59,57,28,59,33,37		6,26
4″	42,49,57, 5,23,48,24, 3, 0,52		3, 7,53, 4, 7	
		1,27,59,54,21, 6,29,30		6,26
6″	42,49,58,33,23,42,45, 9,30,22		3, 7,53,10,33	
		1,27,59,51,13,13,18,57		6,26
8″	42,50, 0, 1,23,33,58,22,49,19		3, 7,53,16,59	
		1,27,59,48, 5,20, 1,58		6,26
10″	42,50, 1,29,23,22, 3,42,51,17		3, 7,53,23,25	
		1,27,59,44,57,26,38,33		6,26
12″	42,50, 2,57,23, 7, 1, 9,29,50		3, 7,53,29,51	
		1,27,59,41,49,33, 8,42		6,26
14″	42,50, 4,25,22,48,50,42,38,32		3, 7,53,36,17	
		1,27,59,38,41,39,32,25		6,26
16″	42,50, 5,53,22,27,32,22,10,57		3, 7,53,42,43	
		1,27,59,35,33,45,49,42		6,26
18″	42,50, 7,21,22, 3, 6, 8, 0,39		3, 7,53,49, 9	
		1,27,59,32,25,52, 0,33		6,26
20″	42,50, 8,49,21,35,32, 0, 1,12		3, 7,53,55,35	
		1,27,59,29,17,58, 4,58		6,26
22″	42,50,10,17,21, 4,49,58, 6,10		3, 7,54, 2, 1	
		1,27,59,26,10, 4, 2,57		6,26
24″	42,50,11,45,20,31, 0, 2, 9, 7		3, 7,54, 8,27	
		1,27,59,23, 2, 9,54,30		6,26
26″	42,50,13,13,19,54, 2,12, 3,37		3, 7,54,14,53	
		1,27,59,19,54,15,39,37		6,26
28″	42,50,14,41,19,13,56,27,43,14		3, 7,54,21,19	
		1,27,59,16,46,21,18,18		6,26
30″	42,50,16, 9,18,30,42,49, 1,32		3, 7,54,27,45	
		1,27,59,13,38,26,50,33		6,26
32″	42,50,17,37,17,44,21,15,52, 5		3, 7,54,34,11	
		1,27,59,10,30,32,16,22		6,26
34″	42,50,19, 5,16,54,51,48, 8,27		3, 7,54,40,37	
		1,27,59, 7,22,37,35,45		6,26
36″	42,50,20,33,16, 2,14,25,44,12		3, 7,54,47, 3	
		1,27,59, 4,14,42,48,42		6,26
38″	42,50,22, 1,15, 6,29, 8,32,54		3, 7,54,53,29	
		1,27,59, 1, 6,47,55,13		6,26
40″	42,50,23,29,14, 7,35,56,28, 7		3, 7,54,59,55	
		1,27,58,57,58,52,55,18		6,26
42″	42,50,24,57,13, 5,34,49,23,25		3, 7,55, 6,21	
		1,27,58,54,50,57,48,57		6,26
44″	42,50,26,25,12, 0,25,47,12,22		3, 7,55,12,47	
		1,27,58,51,43, 2,36,10		6,26
46″	42,50,27,53,10,52, 8,49,48,32		3, 7,55,19,13	
		1,27,58,48,35, 7,16,57		6,26
48″	42,50,29,21, 9,40,43,57, 5,29		3, 7,55,25,39	
		1,27,58,45,27,11,51,18		6,26
50″	42,50,30,49, 8,26,11, 8,56,47		3, 7,55,32, 5	
		1,27,58,42,19,16,19,13		6,26
52″	42,50,32,17, 7, 8,30,25,16, 0		3, 7,55,38,31	
		1,27,58,39,11,20,40,42		6,26
54″	42,50,33,45, 5,47,41,45,56,42		3, 7,55,44,57	
		1,27,58,36, 3,24,55,45		6,26
56″	42,50,35,13, 4,23,45,10,52,27		3, 7,55,51,23	
		1,27,58,32,55,29, 4,22		6,26
58″	42,50,36,41, 2,56,40,39,56,49		3, 7,55,57,49	
		1,27,58,29,47,33, 6,33		
60″	42,50,38, 9, 1,26,28,13, 3,22			
exact	42,50,38, 9, 1,26,28,13, 1,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°34′ 0″	42,50,38, 9, 1,26,28,13, 1,51			
		1,27,58,26,39,37, 2,18		
2″	42,50,39,36,59,53, 7,50, 4, 9		3, 7,56,10,40	
		1,27,58,23,31,40,51,38		6,26
4″	42,50,41, 4,58,16,39,30,55,47		3, 7,56,17, 6	
		1,27,58,20,23,44,34,32		6,26
6″	42,50,42,32,56,37, 3,15,30,19		3, 7,56,23,32	
		1,27,58,17,15,48,11, 0		6,26
8″	42,50,44, 0,54,54,19, 3,41,19		3, 7,56,29,58	
		1,27,58,14, 7,51,41, 2		6,26
10″	42,50,45,28,53, 8,26,55,22,21		3, 7,56,36,24	
		1,27,58,10,59,55, 4,38		6,26
12″	42,50,46,56,51,19,26,50,26,59		3, 7,56,42,50	
		1,27,58, 7,51,58,21,48		6,26
14″	42,50,48,24,49,27,18,48,48,47		3, 7,56,49,16	
		1,27,58, 4,44, 1,32,32		6,26
16″	42,50,49,52,47,32, 2,50,21,19		3, 7,56,55,42	
		1,27,58, 1,36, 4,36,50		6,26
18″	42,50,51,20,45,33,38,54,58, 9		3, 7,57, 2, 8	
		1,27,57,58,28, 7,34,42		6,26
20″	42,50,52,48,43,32, 7, 2,32,51		3, 7,57, 8,34	
		1,27,57,55,20,10,26, 8		6,26
22″	42,50,54,16,41,27,27,12,58,59		3, 7,57,15, 0	
		1,27,57,52,12,13,11, 8		6,26
24″	42,50,55,44,39,19,39,26,10, 7		3, 7,57,21,26	
		1,27,57,49, 4,15,49,42		6,26
26″	42,50,57,12,37, 8,43,41,59,49		3, 7,57,27,52	
		1,27,57,45,56,18,21,50		6,26
28″	42,50,58,40,34,54,40, 0,21,39		3, 7,57,34,18	
		1,27,57,42,48,20,47,32		6,26
30″	42,51, 0, 8,32,37,28,21, 9,11		3, 7,57,40,44	
		1,27,57,39,40,23, 6,48		6,26
32″	42,51, 1,36,30,17, 8,44,15,59		3, 7,57,47,10	
		1,27,57,36,32,25,19,38		6,26
34″	42,51, 3, 4,27,53,41, 9,35,37		3, 7,57,53,36	
		1,27,57,33,24,27,26, 2		6,26
36″	42,51, 4,32,25,27, 5,37, 1,39		3, 7,58, 0, 2	
		1,27,57,30,16,29,26, 0		6,26
38″	42,51, 6, 0,22,57,22, 6,27,39		3, 7,58, 6,28	
		1,27,57,27, 8,31,19,32		6,26
40″	42,51, 7,28,20,24,30,37,47,11		3, 7,58,12,54	
		1,27,57,24, 0,33, 6,38		6,26
42″	42,51, 8,56,17,48,31,10,53,49		3, 7,58,19,20	
		1,27,57,20,52,34,47,18		6,26
44″	42,51,10,24,15, 9,23,45,41, 7		3, 7,58,25,46	
		1,27,57,17,44,36,21,32		6,26
46″	42,51,11,52,12,27, 8,22, 2,39		3, 7,58,32,12	
		1,27,57,14,36,37,49,20		6,26
48″	42,51,13,20, 9,41,44,59,51,59		3, 7,58,38,38	
		1,27,57,11,28,39,10,42		6,26
50″	42,51,14,48, 6,53,13,39, 2,41		3, 7,58,45, 4	
		1,27,57, 8,20,40,25,38		6,26
52″	42,51,16,16, 4, 1,34,19,28,19		3, 7,58,51,30	
		1,27,57, 5,12,41,34, 8		6,26
54″	42,51,17,44, 1, 6,47, 1, 2,27		3, 7,58,57,56	
		1,27,57, 2, 4,42,36,12		6,26
56″	42,51,19,11,58, 8,51,43,38,39		3, 7,59, 4,22	
		1,27,56,58,56,43,31,50		6,26
58″	42,51,20,39,55, 7,48,27,10,29		3, 7,59,10,48	
		1,27,56,55,48,44,21, 2		
60″	42,51,22, 7,52, 3,37,11,31,31			
exact	42,51,22, 7,52, 3,37,11,40,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°35′ 0″	42,51,22, 7,52, 3,37,11,40,51	1,27,56,52,40,45, 4,51		
2″	42,51,23,35,48,56,17,56,45,42	1,27,56,49,32,45,41,16	3, 7,59,23,35	6,26
4″	42,51,25, 3,45,45,50,42,26,58	1,27,56,46,24,46,11,15	3, 7,59,30, 1	6,26
6″	42,51,26,31,42,32,15,28,38,13	1,27,56,43,16,46,34,48	3, 7,59,36,27	6,26
8″	42,51,27,59,39,15,32,15,13, 1	1,27,56,40, 8,46,51,55	3, 7,59,42,53	6,26
10″	42,51,29,27,35,55,41, 2, 4,56	1,27,56,37, 0,47, 2,36	3, 7,59,49,19	6,26
12″	42,51,30,55,32,32,41,49, 7,32	1,27,56,33,52,47, 6,51	3, 7,59,55,45	6,26
14″	42,51,32,23,29, 6,34,36,14,23	1,27,56,30,44,47, 4,40	3, 8, 0, 2,11	6,26
16″	42,51,33,51,25,37,19,23,19, 3	1,27,56,27,36,46,56, 3	3, 8, 0, 8,37	6,26
18″	42,51,35,19,22, 4,56,10,15, 6	1,27,56,24,28,46,41, 0	3, 8, 0,15, 3	6,26
20″	42,51,36,47,18,29,24,56,56, 6	1,27,56,21,20,46,19,31	3, 8, 0,21,29	6,26
22″	42,51,38,15,14,50,45,43,15,37	1,27,56,18,12,45,51,36	3, 8, 0,27,55	6,26
24″	42,51,39,43,11, 8,58,29, 7,13	1,27,56,15, 4,45,17,15	3, 8, 0,34,21	6,26
26″	42,51,41,11, 7,24, 3,14,24,28	1,27,56,11,56,44,36,28	3, 8, 0,40,47	6,26
28″	42,51,42,39, 3,35,59,59, 0,56	1,27,56, 8,48,43,49,15	3, 8, 0,47,13	6,26
30″	42,51,44, 6,59,44,48,42,50,11	1,27,56, 5,40,42,55,36	3, 8, 0,53,39	6,26
32″	42,51,45,34,55,50,29,25,45,47	1,27,56, 2,32,41,55,31	3, 8, 1, 0, 5	6,26
34″	42,51,47, 2,51,53, 2, 7,41,18	1,27,55,59,24,40,49, 0	3, 8, 1, 6,31	6,26
36″	42,51,48,30,47,52,26,48,30,18	1,27,55,56,16,39,36, 3	3, 8, 1,12,57	6,26
38″	42,51,49,58,43,48,43,28, 6,21	1,27,55,53, 8,38,16,40	3, 8, 1,19,23	6,26
40″	42,51,51,26,39,41,52, 6,23, 1	1,27,55,50, 0,36,50,51	3, 8, 1,25,49	6,26
42″	42,51,52,54,35,31,52,43,13,52	1,27,55,46,52,35,18,36	3, 8, 1,32,15	6,26
44″	42,51,54,22,31,18,45,18,32,28	1,27,55,43,44,33,39,55	3, 8, 1,38,41	6,26
46″	42,51,55,50,27, 2,29,52,12,23	1,27,55,40,36,31,54,48	3, 8, 1,45, 7	6,26
48″	42,51,57,18,22,43, 6,24, 7,11	1,27,55,37,28,30, 3,15	3, 8, 1,51,33	6,26
50″	42,51,58,46,18,20,34,54,10,26	1,27,55,34,20,28, 5,16	3, 8, 1,57,59	6,26
52″	42,52, 0,14,13,54,55,22,15,42	1,27,55,31,12,26, 0,51	3, 8, 2, 4,25	6,26
54″	42,52, 1,42, 9,26, 7,48,16,33	1,27,55,28, 4,23,50, 0	3, 8, 2,10,51	6,26
56″	42,52, 3,10, 4,54,12,12, 6,33	1,27,55,24,56,21,32,43	3, 8, 2,17,17	6,26
58″	42,52, 4,38, 0,19, 8,33,39,16	1,27,55,21,48,19, 9, 0	3, 8, 2,23,43	
60″	42,52, 6, 5,55,40,56,52,48,16			
exact	42,52, 6, 5,55,40,56,53, 4, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°36′ 0″	42,52, 6, 5,55,40,56,53, 4, 0			
		1,27,55,18,40,16,40,39		
2″	42,52, 7,33,50,59,37, 9,44,39		3, 8, 2,36,27	
		1,27,55,15,32,14, 4,12		6,26
4″	42,52, 9, 1,46,15, 9,23,48,51		3, 8, 2,42,53	
		1,27,55,12,24,11,21,19		6,26
6″	42,52,10,29,41,27,33,35,10,10		3, 8, 2,49,19	
		1,27,55, 9,16, 8,32, 0		6,26
8″	42,52,11,57,36,36,49,43,42,10		3, 8, 2,55,45	
		1,27,55, 6, 8, 5,36,15		6,26
10″	42,52,13,25,31,42,57,49,18,25		3, 8, 3, 2,11	
		1,27,55, 3, 0, 2,34, 4		6,26
12″	42,52,14,53,26,45,57,51,52,29		3, 8, 3, 8,37	
		1,27,54,59,51,59,25,27		6,26
14″	42,52,16,21,21,45,49,51,17,56		3, 8, 3,15, 3	
		1,27,54,56,43,56,10,24		6,26
16″	42,52,17,49,16,42,33,47,28,20		3, 8, 3,21,29	
		1,27,54,53,35,52,48,55		6,26
18″	42,52,19,17,11,36, 9,40,17,15		3, 8, 3,27,55	
		1,27,54,50,27,49,21, 0		6,26
20″	42,52,20,45, 6,26,37,29,38,15		3, 8, 3,34,21	
		1,27,54,47,19,45,46,39		6,26
22″	42,52,22,13, 1,13,57,15,24,54		3, 8, 3,40,47	
		1,27,54,44,11,42, 5,52		6,26
24″	42,52,23,40,55,58, 8,57,30,46		3, 8, 3,47,13	
		1,27,54,41, 3,38,18,39		6,26
26″	42,52,25, 8,50,39,12,35,49,25		3, 8, 3,53,39	
		1,27,54,37,55,34,25, 0		6,26
28″	42,52,26,36,45,17, 8,10,14,25		3, 8, 4, 0, 5	
		1,27,54,34,47,30,24,55		6,26
30″	42,52,28, 4,39,51,55,40,39,20		3, 8, 4, 6,31	
		1,27,54,31,39,26,18,24		6,26
32″	42,52,29,32,34,23,35, 6,57,44		3, 8, 4,12,57	
		1,27,54,28,31,22, 5,27		6,26
34″	42,52,31, 0,28,52, 6,29, 3,11		3, 8, 4,19,23	
		1,27,54,25,23,17,46, 4		6,26
36″	42,52,32,28,23,17,29,46,49,15		3, 8, 4,25,49	
		1,27,54,22,15,13,20,15		6,26
38″	42,52,33,56,17,39,45, 0, 9,30		3, 8, 4,32,15	
		1,27,54,19, 7, 8,48, 0		6,26
40″	42,52,35,24,11,58,52, 8,57,30		3, 8, 4,38,41	
		1,27,54,15,59, 4, 9,19		6,26
42″	42,52,36,52, 6,14,51,13, 6,49		3, 8, 4,45, 7	
		1,27,54,12,50,59,24,12		6,26
44″	42,52,38,20, 0,27,42,12,31, 1		3, 8, 4,51,33	
		1,27,54, 9,42,54,32,39		6,26
46″	42,52,39,47,54,37,25, 7, 3,40		3, 8, 4,57,59	
		1,27,54, 6,34,49,34,40		6,26
48″	42,52,41,15,48,43,59,56,38,20		3, 8, 5, 4,25	
		1,27,54, 3,26,44,30,15		6,26
50″	42,52,42,43,42,47,26,41, 8,35		3, 8, 5,10,51	
		1,27,54, 0,18,39,19,24		6,26
52″	42,52,44,11,36,47,45,20,27,59		3, 8, 5,17,17	
		1,27,53,57,10,34, 2, 7		6,26
54″	42,52,45,39,30,44,55,54,30, 6		3, 8, 5,23,43	
		1,27,53,54, 2,28,38,24		6,26
56″	42,52,47, 7,24,38,58,23, 8,30		3, 8, 5,30, 9	
		1,27,53,50,54,23, 8,15		6,26
58″	42,52,48,35,18,29,52,46,16,45		3, 8, 5,36,35	
		1,27,53,47,46,17,31,40		
60″	42,52,50, 3,12,17,39, 3,48,25			
exact	42,52,50, 3,12,17,39, 4,13,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°37′ 0″	42,52,50, 3,12,17,39, 4,13,51			
		1,27,53,44,38,11,51,25		
2″	42,52,51,31, 6, 2,17,16, 5,16		3, 8, 5,49,15	
		1,27,53,41,30, 6, 2,10		6,26
4″	42,52,52,58,59,43,47,22, 7,26		3, 8, 5,55,41	
		1,27,53,38,22, 0, 6,29		6,26
6″	42,52,54,26,53,22, 9,22,13,55		3, 8, 6, 2, 7	
		1,27,53,35,13,54, 4,22		6,26
8″	42,52,55,54,46,57,23,16,18,17		3, 8, 6, 8,33	
		1,27,53,32, 5,47,55,49		6,26
10″	42,52,57,22,40,29,29, 4,14, 6		3, 8, 6,14,59	
		1,27,53,28,57,41,40,50		6,26
12″	42,52,58,50,33,58,26,45,54,56		3, 8, 6,21,25	
		1,27,53,25,49,35,19,25		6,26
14″	42,53, 0,18,27,24,16,21,14,21		3, 8, 6,27,51	
		1,27,53,22,41,28,51,34		6,26
16″	42,53, 1,46,20,46,57,50, 5,55		3, 8, 6,34,17	
		1,27,53,19,33,22,17,17		6,26
18″	42,53, 3,14,14, 6,31,12,23,12		3, 8, 6,40,43	
		1,27,53,16,25,15,36,34		6,26
20″	42,53, 4,42, 7,22,56,27,59,46		3, 8, 6,47, 9	
		1,27,53,13,17, 8,49,25		6,26
22″	42,53, 6,10, 0,36,13,36,49,11		3, 8, 6,53,35	
		1,27,53,10, 9, 1,55,50		6,26
24″	42,53, 7,37,53,46,22,38,45, 1		3, 8, 7, 0, 1	
		1,27,53, 7, 0,54,55,49		6,26
26″	42,53, 9, 5,46,53,23,33,40,50		3, 8, 7, 6,27	
		1,27,53, 3,52,47,49,22		6,26
28″	42,53,10,33,39,57,16,21,30,12		3, 8, 7,12,53	
		1,27,53, 0,44,40,36,29		6,26
30″	42,53,12, 1,32,58, 1, 2, 6,41		3, 8, 7,19,19	
		1,27,52,57,36,33,17,10		6,26
32″	42,53,13,29,25,55,37,35,23,51		3, 8, 7,25,45	
		1,27,52,54,28,25,51,25		6,26
34″	42,53,14,57,18,50, 6, 1,15,16		3, 8, 7,32,11	
		1,27,52,51,20,18,19,14		6,26
36″	42,53,16,25,11,41,26,19,34,30		3, 8, 7,38,37	
		1,27,52,48,12,10,40,37		6,26
38″	42,53,17,53, 4,29,38,30,15, 7		3, 8, 7,45, 3	
		1,27,52,45, 4, 2,55,34		6,26
40″	42,53,19,20,57,14,42,33,10,41		3, 8, 7,51,29	
		1,27,52,41,55,55, 4, 5		6,26
42″	42,53,20,48,49,56,38,28,14,46		3, 8, 7,57,55	
		1,27,52,38,47,47, 6,10		6,26
44″	42,53,22,16,42,35,26,15,20,56		3, 8, 8, 4,21	
		1,27,52,35,39,39, 1,49		6,26
46″	42,53,23,44,35,11, 5,54,22,45		3, 8, 8,10,47	
		1,27,52,32,31,30,51, 2		6,26
48″	42,53,25,12,27,43,37,25,13,47		3, 8, 8,17,13	
		1,27,52,29,23,22,33,49		6,26
50″	42,53,26,40,20,13, 0,47,47,36		3, 8, 8,23,39	
		1,27,52,26,15,14,10,10		6,26
52″	42,53,28, 8,12,39,16, 1,57,46		3, 8, 8,30, 5	
		1,27,52,23, 7, 5,40, 5		6,26
54″	42,53,29,36, 5, 2,23, 7,37,51		3, 8, 8,36,31	
		1,27,52,19,58,57, 3,34		6,26
56″	42,53,31, 3,57,22,22, 4,41,25		3, 8, 8,42,57	
		1,27,52,16,50,48,20,37		6,26
58″	42,53,32,31,49,39,12,53, 2, 2		3, 8, 8,49,23	
		1,27,52,13,42,39,31,14		
60″	42,53,33,59,41,52,55,32,33,16			
exact	42,53,33,59,41,52,55,33, 4,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°38′ 0″	42,53,33,59,41,52,55,33, 4,35			
		1,27,52,10,34,30,38,53		
2″	42,53,35,27,34, 3,30, 3,43,28		3, 8, 9, 2, 0	
		1,27,52, 7,26,21,36,53		6,25
4″	42,53,36,55,26,10,56,25,20,21		3, 8, 9, 8,25	
		1,27,52, 4,18,12,28,28		6,25
6″	42,53,38,23,18,15,14,37,48,49		3, 8, 9,14,50	
		1,27,52, 1,10, 3,13,38		6,25
8″	42,53,39,51,10,16,24,41, 2,27		3, 8, 9,21,15	
		1,27,51,58, 1,53,52,23		6,25
10″	42,53,41,19, 2,14,26,34,54,50		3, 8, 9,27,40	
		1,27,51,54,53,44,24,43		6,25
12″	42,53,42,46,54, 9,20,19,19,33		3, 8, 9,34, 5	
		1,27,51,51,45,34,50,38		6,25
14″	42,53,44,14,46, 1, 5,54,10,11		3, 8, 9,40,30	
		1,27,51,48,37,25,10, 8		6,25
16″	42,53,45,42,37,49,43,19,20,19		3, 8, 9,46,55	
		1,27,51,45,29,15,23,13		6,25
18″	42,53,47,10,29,35,12,34,43,32		3, 8, 9,53,20	
		1,27,51,42,21, 5,29,53		6,25
20″	42,53,48,38,21,17,33,40,13,25		3, 8, 9,59,45	
		1,27,51,39,12,55,30, 8		6,25
22″	42,53,50, 6,12,56,46,35,43,33		3, 8,10, 6,10	
		1,27,51,36, 4,45,23,58		6,25
24″	42,53,51,34, 4,32,51,21, 7,31		3, 8,10,12,35	
		1,27,51,32,56,35,11,23		6,25
26″	42,53,53, 1,56, 5,47,56,18,54		3, 8,10,19, 0	
		1,27,51,29,48,24,52,23		6,25
28″	42,53,54,29,47,35,36,21,11,17		3, 8,10,25,25	
		1,27,51,26,40,14,26,58		6,25
30″	42,53,55,57,39, 2,16,35,38,15		3, 8,10,31,50	
		1,27,51,23,32, 3,55, 8		6,25
32″	42,53,57,25,30,25,48,39,33,23		3, 8,10,38,15	
		1,27,51,20,23,53,16,53		6,25
34″	42,53,58,53,21,46,12,32,50,16		3, 8,10,44,40	
		1,27,51,17,15,42,32,13		6,25
36″	42,54, 0,21,13, 3,28,15,22,29		3, 8,10,51, 5	
		1,27,51,14, 7,31,41, 8		6,25
38″	42,54, 1,49, 4,17,35,47, 3,37		3, 8,10,57,30	
		1,27,51,10,59,20,43,38		6,25
40″	42,54, 3,16,55,28,35, 7,47,15		3, 8,11, 3,55	
		1,27,51, 7,51, 9,39,43		6,25
42″	42,54, 4,44,46,36,26,17,26,58		3, 8,11,10,20	
		1,27,51, 4,42,58,29,23		6,25
44″	42,54, 6,12,37,41, 9,15,56,21		3, 8,11,16,45	
		1,27,51, 1,34,47,12,38		6,25
46″	42,54, 7,40,28,42,44, 3, 8,59		3, 8,11,23,10	
		1,27,50,58,26,35,49,28		6,25
48″	42,54, 9, 8,19,41,10,38,58,27		3, 8,11,29,35	
		1,27,50,55,18,24,19,53		6,25
50″	42,54,10,36,10,36,29, 3,18,20		3, 8,11,36, 0	
		1,27,50,52,10,12,43,53		6,25
52″	42,54,12, 4, 1,28,39,16, 2,13		3, 8,11,42,25	
		1,27,50,49, 2, 1, 1,28		6,25
54″	42,54,13,31,52,17,41,17, 3,41		3, 8,11,48,50	
		1,27,50,45,53,49,12,38		6,25
56″	42,54,14,59,43, 3,35, 6,16,19		3, 8,11,55,15	
		1,27,50,42,45,37,17,23		6,25
58″	42,54,16,27,33,46,20,43,33,42		3, 8,12, 1,40	
		1,27,50,39,37,25,15,43		
60″	42,54,17,55,24,25,58, 8,49,25			
exact	42,54,17,55,24,25,58, 8,21,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°39′ 0″	42,54,17,55,24,25,58, 8,21,53			
		1,27,50,36,29,13, 4,45		
2″	42,54,19,23,15, 2,27,21,26,38		3, 8,12,14,41	
		1,27,50,33,21, 0,50, 4		6,25
4″	42,54,20,51, 5,35,48,22,16,42		3, 8,12,21, 6	
		1,27,50,30,12,48,28,58		6,25
6″	42,54,22,18,56, 6, 1,10,45,40		3, 8,12,27,31	
		1,27,50,27, 4,36, 1,27		6,25
8″	42,54,23,46,46,33, 5,46,47, 7		3, 8,12,33,56	
		1,27,50,23,56,23,27,31		6,25
10″	42,54,25,14,36,57, 2,10,14,38		3, 8,12,40,21	
		1,27,50,20,48,10,47,10		6,25
12″	42,54,26,42,27,17,50,21, 1,48		3, 8,12,46,46	
		1,27,50,17,39,58, 0,24		6,25
14″	42,54,28,10,17,35,30,19, 2,12		3, 8,12,53,11	
		1,27,50,14,31,45, 7,13		6,25
16″	42,54,29,38, 7,50, 2, 4, 9,25		3, 8,12,59,36	
		1,27,50,11,23,32, 7,37		6,25
18″	42,54,31, 5,58, 1,25,36,17, 2		3, 8,13, 6, 1	
		1,27,50, 8,15,19, 1,36		6,25
20″	42,54,32,33,48, 9,40,55,18,38		3, 8,13,12,26	
		1,27,50, 5, 7, 5,49,10		6,25
22″	42,54,34, 1,38,14,48, 1, 7,48		3, 8,13,18,51	
		1,27,50, 1,58,52,30,19		6,25
24″	42,54,35,29,28,16,46,53,38, 7		3, 8,13,25,16	
		1,27,49,58,50,39, 5, 3		6,25
26″	42,54,36,57,18,15,37,32,43,10		3, 8,13,31,41	
		1,27,49,55,42,25,33,22		6,25
28″	42,54,38,25, 8,11,19,58,16,32		3, 8,13,38, 6	
		1,27,49,52,34,11,55,16		6,25
30″	42,54,39,52,58, 3,54,10,11,48		3, 8,13,44,31	
		1,27,49,49,25,58,10,45		6,25
32″	42,54,41,20,47,53,20, 8,22,33		3, 8,13,50,56	
		1,27,49,46,17,44,19,49		6,25
34″	42,54,42,48,37,39,37,52,42,22		3, 8,13,57,21	
		1,27,49,43, 9,30,22,28		6,25
36″	42,54,44,16,27,22,47,23, 4,50		3, 8,14, 3,46	
		1,27,49,40, 1,16,18,42		6,25
38″	42,54,45,44,17, 2,48,39,23,32		3, 8,14,10,11	
		1,27,49,36,53, 2, 8,31		6,25
40″	42,54,47,12, 6,39,41,41,32, 3		3, 8,14,16,36	
		1,27,49,33,44,47,51,55		6,25
42″	42,54,48,39,56,13,26,29,23,58		3, 8,14,23, 1	
		1,27,49,30,36,33,28,54		6,25
44″	42,54,50, 7,45,44, 3, 2,52,52		3, 8,14,29,26	
		1,27,49,27,28,18,59,28		6,25
46″	42,54,51,35,35,11,31,21,52,20		3, 8,14,35,51	
		1,27,49,24,20, 4,23,37		6,25
48″	42,54,53, 3,24,35,51,26,15,57		3, 8,14,42,16	
		1,27,49,21,11,49,41,21		6,25
50″	42,54,54,31,13,57, 3,15,57,18		3, 8,14,48,41	
		1,27,49,18, 3,34,52,40		6,25
52″	42,54,55,59, 3,15, 6,50,49,58		3, 8,14,55, 6	
		1,27,49,14,55,19,57,34		6,25
54″	42,54,57,26,52,30, 2,10,47,32		3, 8,15, 1,31	
		1,27,49,11,47, 4,56, 3		6,25
56″	42,54,58,54,41,41,49,15,43,35		3, 8,15, 7,56	
		1,27,49, 8,38,49,48, 7		6,25
58″	42,55, 0,22,30,50,28, 5,31,42		3, 8,15,14,21	
		1,27,49, 5,30,34,33,46		
60″	42,55, 1,50,19,55,58,40, 5,28			
exact	42,55, 1,50,19,55,58,39,43, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°40′ 0″	42,55, 1,50,19,55,58,39,43, 3			
		1,27,49, 2,22,19,10,46		
2″	42,55, 3,18, 8,58,20,58,53,49		3, 8,15,27,19	
		1,27,48,59,14, 3,43,27		6,25
4″	42,55, 4,45,57,57,35, 2,37,16		3, 8,15,33,44	
		1,27,48,56, 5,48, 9,43		6,25
6″	42,55, 6,13,46,53,40,50,46,59		3, 8,15,40, 9	
		1,27,48,52,57,32,29,34		6,25
8″	42,55, 7,41,35,46,38,23,16,33		3, 8,15,46,34	
		1,27,48,49,49,16,43, 0		6,25
10″	42,55, 9, 9,24,36,27,39,59,33		3, 8,15,52,59	
		1,27,48,46,41, 0,50, 1		6,25
12″	42,55,10,37,13,23, 8,40,49,34		3, 8,15,59,24	
		1,27,48,43,32,44,50,37		6,25
14″	42,55,12, 5, 2, 6,41,25,40,11		3, 8,16, 5,49	
		1,27,48,40,24,28,44,48		6,25
16″	42,55,13,32,50,47, 5,54,24,59		3, 8,16,12,14	
		1,27,48,37,16,12,32,34		6,25
18″	42,55,15, 0,39,24,22, 6,57,33		3, 8,16,18,39	
		1,27,48,34, 7,56,13,55		6,25
20″	42,55,16,28,27,58,30, 3,11,28		3, 8,16,25, 4	
		1,27,48,30,59,39,48,51		6,25
22″	42,55,17,56,16,29,29,43, 0,19		3, 8,16,31,29	
		1,27,48,27,51,23,17,22		6,25
24″	42,55,19,24, 4,57,21, 6,17,41		3, 8,16,37,54	
		1,27,48,24,43, 6,39,28		6,25
26″	42,55,20,51,53,22, 4,12,57, 9		3, 8,16,44,19	
		1,27,48,21,34,49,55, 9		6,25
28″	42,55,22,19,41,43,39, 2,52,18		3, 8,16,50,44	
		1,27,48,18,26,33, 4,25		6,25
30″	42,55,23,47,30, 2, 5,35,56,43		3, 8,16,57, 9	
		1,27,48,15,18,16, 7,16		6,25
32″	42,55,25,15,18,17,23,52, 3,59		3, 8,17, 3,34	
		1,27,48,12, 9,59, 3,42		6,25
34″	42,55,26,43, 6,29,33,51, 7,41		3, 8,17, 9,59	
		1,27,48, 9, 1,41,53,43		6,25
36″	42,55,28,10,54,38,35,33, 1,24		3, 8,17,16,24	
		1,27,48, 5,53,24,37,19		6,25
38″	42,55,29,38,42,44,28,57,38,43		3, 8,17,22,49	
		1,27,48, 2,45, 7,14,30		6,25
40″	42,55,31, 6,30,47,14, 4,53,13		3, 8,17,29,14	
		1,27,47,59,36,49,45,16		6,25
42″	42,55,32,34,18,46,50,54,38,29		3, 8,17,35,39	
		1,27,47,56,28,32, 9,37		6,25
44″	42,55,34, 2, 6,43,19,26,48, 6		3, 8,17,42, 4	
		1,27,47,53,20,14,27,33		6,25
46″	42,55,35,29,54,36,39,41,15,39		3, 8,17,48,29	
		1,27,47,50,11,56,39, 4		6,25
48″	42,55,36,57,42,26,51,37,54,43		3, 8,17,54,54	
		1,27,47,47, 3,38,44,10		6,25
50″	42,55,38,25,30,13,55,16,38,53		3, 8,18, 1,19	
		1,27,47,43,55,20,42,51		6,25
52″	42,55,39,53,17,57,50,37,21,44		3, 8,18, 7,44	
		1,27,47,40,47, 2,35, 7		6,25
54″	42,55,41,21, 5,38,37,39,56,51		3, 8,18,14, 9	
		1,27,47,37,38,44,20,58		6,25
56″	42,55,42,48,53,16,16,24,17,49		3, 8,18,20,34	
		1,27,47,34,30,26, 0,24		6,25
58″	42,55,44,16,40,50,46,50,18,13		3, 8,18,26,59	
		1,27,47,31,22, 7,33,25		
60″	42,55,45,44,28,22, 8,57,51,38			
exact	42,55,45,44,28,22, 8,57,36,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°41′ 0″	42,55,45,44,28,22, 8,57,36,57			
		1,27,47,28,13,48,58,37		
2″	42,55,47,12,15,50,22,46,35,34		3, 8,18,39,54	
		1,27,47,25, 5,30,18,43		6,25
4″	42,55,48,40, 3,15,28,16,54,17		3, 8,18,46,19	
		1,27,47,21,57,11,32,24		6,25
6″	42,55,50, 7,50,37,25,28,26,41		3, 8,18,52,44	
		1,27,47,18,48,52,39,40		6,25
8″	42,55,51,35,37,56,14,21, 6,21		3, 8,18,59, 9	
		1,27,47,15,40,33,40,31		6,25
10″	42,55,53, 3,25,11,54,54,46,52		3, 8,19, 5,34	
		1,27,47,12,32,14,34,57		6,25
12″	42,55,54,31,12,24,27, 9,21,49		3, 8,19,11,59	
		1,27,47, 9,23,55,22,58		6,25
14″	42,55,55,58,59,33,51, 4,44,47		3, 8,19,18,24	
		1,27,47, 6,15,36, 4,34		6,25
16″	42,55,57,26,46,40, 6,40,49,21		3, 8,19,24,49	
		1,27,47, 3, 7,16,39,45		6,25
18″	42,55,58,54,33,43,13,57,29, 6		3, 8,19,31,14	
		1,27,46,59,58,57, 8,31		6,25
20″	42,56, 0,22,20,43,12,54,37,37		3, 8,19,37,39	
		1,27,46,56,50,37,30,52		6,25
22″	42,56, 1,50, 7,40, 3,32, 8,29		3, 8,19,44, 4	
		1,27,46,53,42,17,46,48		6,25
24″	42,56, 3,17,54,33,45,49,55,17		3, 8,19,50,29	
		1,27,46,50,33,57,56,19		6,25
26″	42,56, 4,45,41,24,19,47,51,36		3, 8,19,56,54	
		1,27,46,47,25,37,59,25		6,25
28″	42,56, 6,13,28,11,45,25,51, 1		3, 8,20, 3,19	
		1,27,46,44,17,17,56, 6		6,25
30″	42,56, 7,41,14,56, 2,43,47, 7		3, 8,20, 9,44	
		1,27,46,41, 8,57,46,22		6,25
32″	42,56, 9, 9, 1,37,11,41,33,29		3, 8,20,16, 9	
		1,27,46,38, 0,37,30,13		6,25
34″	42,56,10,36,48,15,12,19, 3,42		3, 8,20,22,34	
		1,27,46,34,52,17, 7,39		6,25
36″	42,56,12, 4,34,50, 4,36,11,21		3, 8,20,28,59	
		1,27,46,31,43,56,38,40		6,25
38″	42,56,13,32,21,21,48,32,50, 1		3, 8,20,35,24	
		1,27,46,28,35,36, 3,16		6,25
40″	42,56,15, 0, 7,50,24, 8,53,17		3, 8,20,41,49	
		1,27,46,25,27,15,21,27		6,25
42″	42,56,16,27,54,15,51,24,14,44		3, 8,20,48,14	
		1,27,46,22,18,54,33,13		6,25
44″	42,56,17,55,40,38,10,18,47,57		3, 8,20,54,39	
		1,27,46,19,10,33,38,34		6,25
46″	42,56,19,23,26,57,20,52,26,31		3, 8,21, 1, 4	
		1,27,46,16, 2,12,37,30		6,25
48″	42,56,20,51,13,13,23, 5, 4, 1		3, 8,21, 7,29	
		1,27,46,12,53,51,30, 1		6,25
50″	42,56,22,18,59,26,16,56,34, 2		3, 8,21,13,54	
		1,27,46, 9,45,30,16, 7		6,25
52″	42,56,23,46,45,36, 2,26,50, 9		3, 8,21,20,19	
		1,27,46, 6,37, 8,55,48		6,25
54″	42,56,25,14,31,42,39,35,45,57		3, 8,21,26,44	
		1,27,46, 3,28,47,29, 4		6,25
56″	42,56,26,42,17,46, 8,23,15, 1		3, 8,21,33, 9	
		1,27,46, 0,20,25,55,55		6,25
58″	42,56,28,10, 3,46,28,49,10,56		3, 8,21,39,34	
		1,27,45,57,12, 4,16,21		
60″	42,56,29,37,49,43,40,53,27,17			
exact	42,56,29,37,49,43,40,53,24, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°42′ 0″	42,56,29,37,49,43,40,53,24, 6			
		1,27,45,54, 3,42,30, 3		
2″	42,56,31, 5,35,37,44,35,54, 9		3, 8,21,52,25	
		1,27,45,50,55,20,37,38		6,25
4″	42,56,32,33,21,28,39,56,31,47		3, 8,21,58,50	
		1,27,45,47,46,58,38,48		6,25
6″	42,56,34, 1, 7,16,26,55,10,35		3, 8,22, 5,15	
		1,27,45,44,38,36,33,33		6,25
8″	42,56,35,28,53, 1, 5,31,44, 8		3, 8,22,11,40	
		1,27,45,41,30,14,21,53		6,25
10″	42,56,36,56,38,42,35,46, 6, 1		3, 8,22,18, 5	
		1,27,45,38,21,52, 3,48		6,25
12″	42,56,38,24,24,20,57,38, 9,49		3, 8,22,24,30	
		1,27,45,35,13,29,39,18		6,25
14″	42,56,39,52, 9,56,11, 7,49, 7		3, 8,22,30,55	
		1,27,45,32, 5, 7, 8,23		6,25
16″	42,56,41,19,55,28,16,14,57,30		3, 8,22,37,20	
		1,27,45,28,56,44,31, 3		6,25
18″	42,56,42,47,40,57,12,59,28,33		3, 8,22,43,45	
		1,27,45,25,48,21,47,18		6,25
20″	42,56,44,15,26,23, 1,21,15,51		3, 8,22,50,10	
		1,27,45,22,39,58,57, 8		6,25
22″	42,56,45,43,11,45,41,20,12,59		3, 8,22,56,35	
		1,27,45,19,31,36, 0,33		6,25
24″	42,56,47,10,57, 5,12,56,13,32		3, 8,23, 3, 0	
		1,27,45,16,23,12,57,33		6,25
26″	42,56,48,38,42,21,36, 9,11, 5		3, 8,23, 9,25	
		1,27,45,13,14,49,48, 8		6,25
28″	42,56,50, 6,27,34,50,58,59,13		3, 8,23,15,50	
		1,27,45,10, 6,26,32,18		6,25
30″	42,56,51,34,12,44,57,25,31,31		3, 8,23,22,15	
		1,27,45, 6,58, 3,10, 3		6,25
32″	42,56,53, 1,57,51,55,28,41,34		3, 8,23,28,40	
		1,27,45, 3,49,39,41,23		6,25
34″	42,56,54,29,42,55,45, 8,22,57		3, 8,23,35, 5	
		1,27,45, 0,41,16, 6,18		6,25
36″	42,56,55,57,27,56,26,24,29,15		3, 8,23,41,30	
		1,27,44,57,32,52,24,48		6,25
38″	42,56,57,25,12,53,59,16,54, 3		3, 8,23,47,55	
		1,27,44,54,24,28,36,53		6,25
40″	42,56,58,52,57,48,23,45,30,56		3, 8,23,54,20	
		1,27,44,51,16, 4,42,33		6,25
42″	42,57, 0,20,42,39,39,50,13,29		3, 8,24, 0,45	
		1,27,44,48, 7,40,41,48		6,25
44″	42,57, 1,48,27,27,47,30,55,17		3, 8,24, 7,10	
		1,27,44,44,59,16,34,38		6,25
46″	42,57, 3,16,12,12,46,47,29,55		3, 8,24,13,35	
		1,27,44,41,50,52,21, 3		6,25
48″	42,57, 4,43,56,54,37,39,50,58		3, 8,24,20, 0	
		1,27,44,38,42,28, 1, 3		6,25
50″	42,57, 6,11,41,33,20, 7,52, 1		3, 8,24,26,25	
		1,27,44,35,34, 3,34,38		6,25
52″	42,57, 7,39,26, 8,54,11,26,39		3, 8,24,32,50	
		1,27,44,32,25,39, 1,48		6,25
54″	42,57, 9, 7,10,41,19,50,28,27		3, 8,24,39,15	
		1,27,44,29,17,14,22,33		6,25
56″	42,57,10,34,55,10,37, 4,51, 0		3, 8,24,45,40	
		1,27,44,26, 8,49,36,53		6,25
58″	42,57,12, 2,39,36,45,54,27,53		3, 8,24,52, 5	
		1,27,44,23, 0,24,44,48		
60″	42,57,13,30,23,59,46,19,12,41			
exact	42,57,13,30,23,59,46,19,16,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°43′ 0″	42,57,13,30,23,59,46,19,16,36			
		1,27,44,19,51,59,46,46		
2″	42,57,14,58, 8,19,38,19, 3,22		3, 8,25, 4,53	
		1,27,44,16,43,34,41,53		6,25
4″	42,57,16,25,52,36,21,53,45,15		3, 8,25,11,18	
		1,27,44,13,35, 9,30,35		6,25
6″	42,57,17,53,36,49,57, 3,15,50		3, 8,25,17,43	
		1,27,44,10,26,44,12,52		6,25
8″	42,57,19,21,21, 0,23,47,28,42		3, 8,25,24, 8	
		1,27,44, 7,18,18,48,44		6,25
10″	42,57,20,49, 5, 7,42, 6,17,26		3, 8,25,30,33	
		1,27,44, 4, 9,53,18,11		6,25
12″	42,57,22,16,49,11,51,59,35,37		3, 8,25,36,58	
		1,27,44, 1, 1,27,41,13		6,25
14″	42,57,23,44,33,12,53,27,16,50		3, 8,25,43,23	
		1,27,43,57,53, 1,57,50		6,25
16″	42,57,25,12,17,10,46,29,14,40		3, 8,25,49,48	
		1,27,43,54,44,36, 8, 2		6,25
18″	42,57,26,40, 1, 5,31, 5,22,42		3, 8,25,56,13	
		1,27,43,51,36,10,11,49		6,25
20″	42,57,28, 7,44,57, 7,15,34,31		3, 8,26, 2,38	
		1,27,43,48,27,44, 9,11		6,25
22″	42,57,29,35,28,45,34,59,43,42		3, 8,26, 9, 3	
		1,27,43,45,19,18, 0, 8		6,25
24″	42,57,31, 3,12,30,54,17,43,50		3, 8,26,15,28	
		1,27,43,42,10,51,44,40		6,25
26″	42,57,32,30,56,13, 5, 9,28,30		3, 8,26,21,53	
		1,27,43,39, 2,25,22,47		6,25
28″	42,57,33,58,39,52, 7,34,51,17		3, 8,26,28,18	
		1,27,43,35,53,58,54,29		6,25
30″	42,57,35,26,23,28, 1,33,45,46		3, 8,26,34,43	
		1,27,43,32,45,32,19,46		6,25
32″	42,57,36,54, 7, 0,47, 6, 5,32		3, 8,26,41, 8	
		1,27,43,29,37, 5,38,38		6,25
34″	42,57,38,21,50,30,24,11,44,10		3, 8,26,47,33	
		1,27,43,26,28,38,51, 5		6,25
36″	42,57,39,49,33,56,52,50,35,15		3, 8,26,53,58	
		1,27,43,23,20,11,57, 7		6,25
38″	42,57,41,17,17,20,13, 2,32,22		3, 8,27, 0,23	
		1,27,43,20,11,44,56,44		6,25
40″	42,57,42,45, 0,40,24,47,29, 6		3, 8,27, 6,48	
		1,27,43,17, 3,17,49,56		6,25
42″	42,57,44,12,43,57,28, 5,19, 2		3, 8,27,13,13	
		1,27,43,13,54,50,36,43		6,25
44″	42,57,45,40,27,11,22,55,55,45		3, 8,27,19,38	
		1,27,43,10,46,23,17, 5		6,25
46″	42,57,47, 8,10,22, 9,19,12,50		3, 8,27,26, 3	
		1,27,43, 7,37,55,51, 2		6,25
48″	42,57,48,35,53,29,47,15, 3,52		3, 8,27,32,28	
		1,27,43, 4,29,28,18,34		6,25
50″	42,57,50, 3,36,34,16,43,22,26		3, 8,27,38,53	
		1,27,43, 1,21, 0,39,41		6,25
52″	42,57,51,31,19,35,37,44, 2, 7		3, 8,27,45,18	
		1,27,42,58,12,32,54,23		6,25
54″	42,57,52,59, 2,33,50,16,56,30		3, 8,27,51,43	
		1,27,42,55, 4, 5, 2,40		6,25
56″	42,57,54,26,45,28,54,21,59,10		3, 8,27,58, 8	
		1,27,42,51,55,37, 4,32		6,25
58″	42,57,55,54,28,20,49,59, 3,42		3, 8,28, 4,33	
		1,27,42,48,47, 8,59,59		
60″	42,57,57,22,11, 9,37, 8, 3,41			
exact	42,57,57,22,11, 9,37, 8,18,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°44′ 0″	42,57,57,22,11, 9,37, 8,18,14			
		1,27,42,45,38,40,50,31		
2″	42,57,58,49,53,55,15,49, 8,45		3, 8,28,17,17	
		1,27,42,42,30,12,33,14		6,25
4″	42,58, 0,17,36,37,46, 1,41,59		3, 8,28,23,42	
		1,27,42,39,21,44, 9,32		6,25
6″	42,58, 1,45,19,17, 7,45,51,31		3, 8,28,30, 7	
		1,27,42,36,13,15,39,25		6,25
8″	42,58, 3,13, 1,53,21, 1,30,56		3, 8,28,36,32	
		1,27,42,33, 4,47, 2,53		6,25
10″	42,58, 4,40,44,26,25,48,33,49		3, 8,28,42,57	
		1,27,42,29,56,18,19,56		6,25
12″	42,58, 6, 8,26,56,22, 6,53,45		3, 8,28,49,22	
		1,27,42,26,47,49,30,34		6,25
14″	42,58, 7,36, 9,23, 9,56,24,19		3, 8,28,55,47	
		1,27,42,23,39,20,34,47		6,25
16″	42,58, 9, 3,51,46,49,16,59, 6		3, 8,29, 2,12	
		1,27,42,20,30,51,32,35		6,25
18″	42,58,10,31,34, 7,20, 8,31,41		3, 8,29, 8,37	
		1,27,42,17,22,22,23,58		6,25
20″	42,58,11,59,16,24,42,30,55,39		3, 8,29,15, 2	
		1,27,42,14,13,53, 8,56		6,25
22″	42,58,13,26,58,38,56,24, 4,35		3, 8,29,21,27	
		1,27,42,11, 5,23,47,29		6,25
24″	42,58,14,54,40,50, 1,47,52, 4		3, 8,29,27,52	
		1,27,42, 7,56,54,19,37		6,25
26″	42,58,16,22,22,57,58,42,11,41		3, 8,29,34,17	
		1,27,42, 4,48,24,45,20		6,25
28″	42,58,17,50, 5, 2,47, 6,57, 1		3, 8,29,40,42	
		1,27,42, 1,39,55, 4,38		6,25
30″	42,58,19,17,47, 4,27, 2, 1,39		3, 8,29,47, 7	
		1,27,41,58,31,25,17,31		6,25
32″	42,58,20,45,29, 2,58,27,19,10		3, 8,29,53,32	
		1,27,41,55,22,55,23,59		6,25
34″	42,58,22,13,10,58,21,22,43, 9		3, 8,29,59,57	
		1,27,41,52,14,25,24, 2		6,25
36″	42,58,23,40,52,50,35,48, 7,11		3, 8,30, 6,22	
		1,27,41,49, 5,55,17,40		6,25
38″	42,58,25, 8,34,39,41,43,24,51		3, 8,30,12,47	
		1,27,41,45,57,25, 4,53		6,25
40″	42,58,26,36,16,25,39, 8,29,44		3, 8,30,19,12	
		1,27,41,42,48,54,45,41		6,25
42″	42,58,28, 3,58, 8,28, 3,15,25		3, 8,30,25,37	
		1,27,41,39,40,24,20, 4		6,25
44″	42,58,29,31,39,48, 8,27,35,29		3, 8,30,32, 2	
		1,27,41,36,31,53,48, 2		6,25
46″	42,58,30,59,21,24,40,21,23,31		3, 8,30,38,27	
		1,27,41,33,23,23, 9,35		6,25
48″	42,58,32,27, 2,58, 3,44,33, 6		3, 8,30,44,52	
		1,27,41,30,14,52,24,43		6,25
50″	42,58,33,54,44,28,18,36,57,49		3, 8,30,51,17	
		1,27,41,27, 6,21,33,26		6,25
52″	42,58,35,22,25,55,24,58,31,15		3, 8,30,57,42	
		1,27,41,23,57,50,35,44		6,25
54″	42,58,36,50, 7,19,22,49, 6,59		3, 8,31, 4, 7	
		1,27,41,20,49,19,31,37		6,25
56″	42,58,38,17,48,40,12, 8,38,36		3, 8,31,10,32	
		1,27,41,17,40,48,21, 5		6,25
58″	42,58,39,45,29,57,52,56,59,41		3, 8,31,16,57	
		1,27,41,14,32,17, 4, 8		
60″	42,58,41,13,11,12,25,14, 3,49			
exact	42,58,41,13,11,12,25,14,24,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°45′ 0″	42,58,41,13,11,12,25,14,24,26			
		1,27,41,11,23,45,42,59		
2″	42,58,42,40,52,23,49, 0, 7,25		3, 8,31,29,37	
		1,27,41, 8,15,14,13,22		6,25
4″	42,58,44, 8,33,32, 4,14,20,47		3, 8,31,36, 2	
		1,27,41, 5, 6,42,37,20		6,25
6″	42,58,45,36,14,37,10,56,58, 7		3, 8,31,42,27	
		1,27,41, 1,58,10,54,53		6,25
8″	42,58,47, 3,55,39, 9, 7,53, 0		3, 8,31,48,52	
		1,27,40,58,49,39, 6, 1		6,25
10″	42,58,48,31,36,37,58,46,59, 1		3, 8,31,55,17	
		1,27,40,55,41, 7,10,44		6,25
12″	42,58,49,59,17,33,39,54, 9,45		3, 8,32, 1,42	
		1,27,40,52,32,35, 9, 2		6,25
14″	42,58,51,26,58,26,12,29,18,47		3, 8,32, 8, 7	
		1,27,40,49,24, 3, 0,55		6,25
16″	42,58,52,54,39,15,36,32,19,42		3, 8,32,14,32	
		1,27,40,46,15,30,46,23		6,25
18″	42,58,54,22,20, 1,52, 3, 6, 5		3, 8,32,20,57	
		1,27,40,43, 6,58,25,26		6,25
20″	42,58,55,50, 0,44,59, 1,31,31		3, 8,32,27,22	
		1,27,40,39,58,25,58, 4		6,25
22″	42,58,57,17,41,24,57,27,29,35		3, 8,32,33,47	
		1,27,40,36,49,53,24,17		6,25
24″	42,58,58,45,22, 1,47,20,53,52		3, 8,32,40,12	
		1,27,40,33,41,20,44, 5		6,25
26″	42,59, 0,13, 2,35,28,41,37,57		3, 8,32,46,37	
		1,27,40,30,32,47,57,28		6,25
28″	42,59, 1,40,43, 6, 1,29,35,25		3, 8,32,53, 2	
		1,27,40,27,24,15, 4,26		6,25
30″	42,59, 3, 8,23,33,25,44,39,51		3, 8,32,59,27	
		1,27,40,24,15,42, 4,59		6,25
32″	42,59, 4,36, 3,57,41,26,44,50		3, 8,33, 5,52	
		1,27,40,21, 7, 8,59, 7		6,25
34″	42,59, 6, 3,44,18,48,35,43,57		3, 8,33,12,17	
		1,27,40,17,58,35,46,50		6,25
36″	42,59, 7,31,24,36,47,11,30,47		3, 8,33,18,42	
		1,27,40,14,50, 2,28, 8		6,25
38″	42,59, 8,59, 4,51,37,13,58,55		3, 8,33,25, 7	
		1,27,40,11,41,29, 3, 1		6,25
40″	42,59,10,26,45, 3,18,43, 1,56		3, 8,33,31,32	
		1,27,40, 8,32,55,31,29		6,25
42″	42,59,11,54,25,11,51,38,33,25		3, 8,33,37,57	
		1,27,40, 5,24,21,53,32		6,25
44″	42,59,13,22, 5,17,16, 0,26,57		3, 8,33,44,22	
		1,27,40, 2,15,48, 9,10		6,25
46″	42,59,14,49,45,19,31,48,36, 7		3, 8,33,50,47	
		1,27,39,59, 7,14,18,23		6,25
48″	42,59,16,17,25,18,39, 2,54,30		3, 8,33,57,12	
		1,27,39,55,58,40,21,11		6,25
50″	42,59,17,45, 5,14,37,43,15,41		3, 8,34, 3,37	
		1,27,39,52,50, 6,17,34		6,25
52″	42,59,19,12,45, 7,27,49,33,15		3, 8,34,10, 2	
		1,27,39,49,41,32, 7,32		6,25
54″	42,59,20,40,24,57, 9,21,40,47		3, 8,34,16,27	
		1,27,39,46,32,57,51, 5		6,25
56″	42,59,22, 8, 4,43,42,19,31,52		3, 8,34,22,52	
		1,27,39,43,24,23,28,13		6,25
58″	42,59,23,35,44,27, 6,43, 0, 5		3, 8,34,29,17	
		1,27,39,40,15,48,58,56		
60″	42,59,25, 3,24, 7,22,31,59, 1			
exact	42,59,25, 3,24, 7,22,32,22,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°46′ 0″	42,59,25, 3,24, 7,22,32,22,15			
		1,27,39,37, 7,14,25,55		
2″	42,59,26,31, 3,44,29,46,48,10		3, 8,34,41,55	
		1,27,39,33,58,39,44, 0		6,25
4″	42,59,27,58,43,18,28,26,32,10		3, 8,34,48,20	
		1,27,39,30,50, 4,55,40		6,25
6″	42,59,29,26,22,49,18,31,27,50		3, 8,34,54,45	
		1,27,39,27,41,30, 0,55		6,25
8″	42,59,30,54, 2,17, 0, 1,28,45		3, 8,35, 1,10	
		1,27,39,24,32,54,59,45		6,25
10″	42,59,32,21,41,41,32,56,28,30		3, 8,35, 7,35	
		1,27,39,21,24,19,52,10		6,25
12″	42,59,33,49,21, 2,57,16,20,40		3, 8,35,14, 0	
		1,27,39,18,15,44,38,10		6,25
14″	42,59,35,17, 0,21,13, 0,58,50		3, 8,35,20,25	
		1,27,39,15, 7, 9,17,45		6,25
16″	42,59,36,44,39,36,20,10,16,35		3, 8,35,26,50	
		1,27,39,11,58,33,50,55		6,25
18″	42,59,38,12,18,48,18,44, 7,30		3, 8,35,33,15	
		1,27,39, 8,49,58,17,40		6,25
20″	42,59,39,39,57,57, 8,42,25,10		3, 8,35,39,40	
		1,27,39, 5,41,22,38, 0		6,25
22″	42,59,41, 7,37, 2,50, 5, 3,10		3, 8,35,46, 5	
		1,27,39, 2,32,46,51,55		6,25
24″	42,59,42,35,16, 5,22,51,55, 5		3, 8,35,52,30	
		1,27,38,59,24,10,59,25		6,25
26″	42,59,44, 2,55, 4,47, 2,54,30		3, 8,35,58,55	
		1,27,38,56,15,35, 0,30		6,25
28″	42,59,45,30,34, 1, 2,37,55, 0		3, 8,36, 5,20	
		1,27,38,53, 6,58,55,10		6,25
30″	42,59,46,58,12,54, 9,36,50,10		3, 8,36,11,45	
		1,27,38,49,58,22,43,25		6,25
32″	42,59,48,25,51,44, 7,59,33,35		3, 8,36,18,10	
		1,27,38,46,49,46,25,15		6,25
34″	42,59,49,53,30,30,57,45,58,50		3, 8,36,24,35	
		1,27,38,43,41,10, 0,40		6,25
36″	42,59,51,21, 9,14,38,55,59,30		3, 8,36,31, 0	
		1,27,38,40,32,33,29,40		6,25
38″	42,59,52,48,47,55,11,29,29,10		3, 8,36,37,25	
		1,27,38,37,23,56,52,15		6,25
40″	42,59,54,16,26,32,35,26,21,25		3, 8,36,43,50	
		1,27,38,34,15,20, 8,25		6,25
42″	42,59,55,44, 5, 6,50,46,29,50		3, 8,36,50,15	
		1,27,38,31, 6,43,18,10		6,25
44″	42,59,57,11,43,37,57,29,48, 0		3, 8,36,56,40	
		1,27,38,27,58, 6,21,30		6,25
46″	42,59,58,39,22, 5,55,36, 9,30		3, 8,37, 3, 5	
		1,27,38,24,49,29,18,25		6,25
48″	43, 0, 0, 7, 0,30,45, 5,27,55		3, 8,37, 9,30	
		1,27,38,21,40,52, 8,55		6,25
50″	43, 0, 1,34,38,52,25,57,36,50		3, 8,37,15,55	
		1,27,38,18,32,14,53, 0		6,25
52″	43, 0, 3, 2,17,10,58,12,29,50		3, 8,37,22,20	
		1,27,38,15,23,37,30,40		6,25
54″	43, 0, 4,29,55,26,21,50, 0,30		3, 8,37,28,45	
		1,27,38,12,15, 0, 1,55		6,25
56″	43, 0, 5,57,33,38,36,50, 2,25		3, 8,37,35,10	
		1,27,38, 9, 6,22,26,45		6,25
58″	43, 0, 7,25,11,47,43,12,29,10		3, 8,37,41,35	
		1,27,38, 5,57,44,45,10		
60″	43, 0, 8,52,49,53,40,57,14,20			
exact	43, 0, 8,52,49,53,40,57,50,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°47′ 0″	43, 0, 8,52,49,53,40,57,50,28	1,27,38, 2,49, 7, 1, 2		
2″	43, 0,10,20,27,56,30, 4,51,30	1,27,37,59,40,29, 6,53	3, 8,37,54, 9	6,24
4″	43, 0,11,48, 5,56,10,33,58,23	1,27,37,56,31,51, 6,20	3, 8,38, 0,33	6,24
6″	43, 0,13,15,43,52,42,25, 4,43	1,27,37,53,23,12,59,23	3, 8,38, 6,57	6,24
8″	43, 0,14,43,21,46, 5,38, 4, 6	1,27,37,50,14,34,46, 2	3, 8,38,13,21	6,24
10″	43, 0,16,10,59,36,20,12,50, 8	1,27,37,47, 5,56,26,17	3, 8,38,19,45	6,24
12″	43, 0,17,38,37,23,26, 9,16,25	1,27,37,43,57,18, 0, 8	3, 8,38,26, 9	6,24
14″	43, 0,19, 6,15, 7,23,27,16,33	1,27,37,40,48,39,27,35	3, 8,38,32,33	6,24
16″	43, 0,20,33,52,48,12, 6,44, 8	1,27,37,37,40, 0,48,38	3, 8,38,38,57	6,24
18″	43, 0,22, 1,30,25,52, 7,32,46	1,27,37,34,31,22, 3,17	3, 8,38,45,21	6,24
20″	43, 0,23,29, 8, 0,23,29,36, 3	1,27,37,31,22,43,11,32	3, 8,38,51,45	6,24
22″	43, 0,24,56,45,31,46,12,47,35	1,27,37,28,14, 4,13,23	3, 8,38,58, 9	6,24
24″	43, 0,26,24,23, 0, 0,17, 0,58	1,27,37,25, 5,25, 8,50	3, 8,39, 4,33	6,24
26″	43, 0,27,52, 0,25, 5,42, 9,48	1,27,37,21,56,45,57,53	3, 8,39,10,57	6,24
28″	43, 0,29,19,37,47, 2,28, 7,41	1,27,37,18,48, 6,40,32	3, 8,39,17,21	6,24
30″	43, 0,30,47,15, 5,50,34,48,13	1,27,37,15,39,27,16,47	3, 8,39,23,45	6,24
32″	43, 0,32,14,52,21,30, 2, 5, 0	1,27,37,12,30,47,46,38	3, 8,39,30, 9	6,24
34″	43, 0,33,42,29,34, 0,49,51,38	1,27,37, 9,22, 8,10, 5	3, 8,39,36,33	6,24
36″	43, 0,35,10, 6,43,22,58, 1,43	1,27,37, 6,13,28,27, 8	3, 8,39,42,57	6,24
38″	43, 0,36,37,43,49,36,26,28,51	1,27,37, 3, 4,48,37,47	3, 8,39,49,21	6,24
40″	43, 0,38, 5,20,52,41,15, 6,38	1,27,36,59,56, 8,42, 2	3, 8,39,55,45	6,24
42″	43, 0,39,32,57,52,37,23,48,40	1,27,36,56,47,28,39,53	3, 8,40, 2, 9	6,24
44″	43, 0,41, 0,34,49,24,52,28,33	1,27,36,53,38,48,31,20	3, 8,40, 8,33	6,24
46″	43, 0,42,28,11,43, 3,40,59,53	1,27,36,50,30, 8,16,23	3, 8,40,14,57	6,24
48″	43, 0,43,55,48,33,33,49,16,16	1,27,36,47,21,27,55, 2	3, 8,40,21,21	6,24
50″	43, 0,45,23,25,20,55,17,11,18	1,27,36,44,12,47,27,17	3, 8,40,27,45	6,24
52″	43, 0,46,51, 2, 5, 8, 4,38,35	1,27,36,41, 4, 6,53, 8	3, 8,40,34, 9	6,24
54″	43, 0,48,18,38,46,12,11,31,43	1,27,36,37,55,26,12,35	3, 8,40,40,33	6,24
56″	43, 0,49,46,15,24, 7,37,44,18	1,27,36,34,46,45,25,38	3, 8,40,46,57	6,24
58″	43, 0,51,13,51,58,54,23, 9,56	1,27,36,31,38, 4,32,17	3, 8,40,53,21	
60″	43, 0,52,41,28,30,32,27,42,13			
exact	43, 0,52,41,28,30,32,27,19,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°48′ 0″	43, 0,52,41,28,30,32,27,19,35			
		1,27,36,28,29,23,30, 4		
2″	43, 0,54, 9, 4,59, 1,50,49,39		3, 8,41, 6,19	
		1,27,36,25,20,42,23,45		6,24
4″	43, 0,55,36,41,24,22,33,13,24		3, 8,41,12,43	
		1,27,36,22,12, 1,11, 2		6,24
6″	43, 0,57, 4,17,46,34,34,24,26		3, 8,41,19, 7	
		1,27,36,19, 3,19,51,55		6,24
8″	43, 0,58,31,54, 5,37,54,16,21		3, 8,41,25,31	
		1,27,36,15,54,38,26,24		6,24
10″	43, 0,59,59,30,21,32,32,42,45		3, 8,41,31,55	
		1,27,36,12,45,56,54,29		6,24
12″	43, 1, 1,27, 6,34,18,29,37,14		3, 8,41,38,19	
		1,27,36, 9,37,15,16,10		6,24
14″	43, 1, 2,54,42,43,55,44,53,24		3, 8,41,44,43	
		1,27,36, 6,28,33,31,27		6,24
16″	43, 1, 4,22,18,50,24,18,24,51		3, 8,41,51, 7	
		1,27,36, 3,19,51,40,20		6,24
18″	43, 1, 5,49,54,53,44,10, 5,11		3, 8,41,57,31	
		1,27,36, 0,11, 9,42,49		6,24
20″	43, 1, 7,17,30,53,55,19,48, 0		3, 8,42, 3,55	
		1,27,35,57, 2,27,38,54		6,24
22″	43, 1, 8,45, 6,50,57,47,26,54		3, 8,42,10,19	
		1,27,35,53,53,45,28,35		6,24
24″	43, 1,10,12,42,44,51,32,55,29		3, 8,42,16,43	
		1,27,35,50,45, 3,11,52		6,24
26″	43, 1,11,40,18,35,36,36, 7,21		3, 8,42,23, 7	
		1,27,35,47,36,20,48,45		6,24
28″	43, 1,13, 7,54,23,12,56,56, 6		3, 8,42,29,31	
		1,27,35,44,27,38,19,14		6,24
30″	43, 1,14,35,30, 7,40,35,15,20		3, 8,42,35,55	
		1,27,35,41,18,55,43,19		6,24
32″	43, 1,16, 3, 5,48,59,30,58,39		3, 8,42,42,19	
		1,27,35,38,10,13, 1, 0		6,24
34″	43, 1,17,30,41,27, 9,43,59,39		3, 8,42,48,43	
		1,27,35,35, 1,30,12,17		6,24
36″	43, 1,18,58,17, 2,11,14,11,56		3, 8,42,55, 7	
		1,27,35,31,52,47,17,10		6,24
38″	43, 1,20,25,52,34, 4, 1,29, 6		3, 8,43, 1,31	
		1,27,35,28,44, 4,15,39		6,24
40″	43, 1,21,53,28, 2,48, 5,44,45		3, 8,43, 7,55	
		1,27,35,25,35,21, 7,44		6,24
42″	43, 1,23,21, 3,28,23,26,52,29		3, 8,43,14,19	
		1,27,35,22,26,37,53,25		6,24
44″	43, 1,24,48,38,50,50, 4,45,54		3, 8,43,20,43	
		1,27,35,19,17,54,32,42		6,24
46″	43, 1,26,16,14,10, 7,59,18,36		3, 8,43,27, 7	
		1,27,35,16, 9,11, 5,35		6,24
48″	43, 1,27,43,49,26,17,10,24,11		3, 8,43,33,31	
		1,27,35,13, 0,27,32, 4		6,24
50″	43, 1,29,11,24,39,17,37,56,15		3, 8,43,39,55	
		1,27,35, 9,51,43,52, 9		6,24
52″	43, 1,30,38,59,49, 9,21,48,24		3, 8,43,46,19	
		1,27,35, 6,43, 0, 5,50		6,24
54″	43, 1,32, 6,34,55,52,21,54,14		3, 8,43,52,43	
		1,27,35, 3,34,16,13, 7		6,24
56″	43, 1,33,34, 9,59,26,38, 7,21		3, 8,43,59, 7	
		1,27,35, 0,25,32,14, 0		6,24
58″	43, 1,35, 1,44,59,52,10,21,21		3, 8,44, 5,31	
		1,27,34,57,16,48, 8,29		
60″	43, 1,36,29,19,57, 8,58,29,50			
exact	43, 1,36,29,19,57, 8,58,11,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°49′ 0″	43, 1,36,29,19,57, 8,58,11,45			
		1,27,34,54, 8, 3,54,43		
2″	43, 1,37,56,54,51,17, 2, 6,28		3, 8,44,18,26	
		1,27,34,50,59,19,36,17		6,24
4″	43, 1,39,24,29,42,16,21,42,45		3, 8,44,24,50	
		1,27,34,47,50,35,11,27		6,24
6″	43, 1,40,52, 4,30, 6,56,54,12		3, 8,44,31,14	
		1,27,34,44,41,50,40,13		6,24
8″	43, 1,42,19,39,14,48,47,34,25		3, 8,44,37,38	
		1,27,34,41,33, 6, 2,35		6,24
10″	43, 1,43,47,13,56,21,53,37, 0		3, 8,44,44, 2	
		1,27,34,38,24,21,18,33		6,24
12″	43, 1,45,14,48,34,46,14,55,33		3, 8,44,50,26	
		1,27,34,35,15,36,28, 7		6,24
14″	43, 1,46,42,23,10, 1,51,23,40		3, 8,44,56,50	
		1,27,34,32, 6,51,31,17		6,24
16″	43, 1,48, 9,57,42, 8,42,54,57		3, 8,45, 3,14	
		1,27,34,28,58, 6,28, 3		6,24
18″	43, 1,49,37,32,11, 6,49,23, 0		3, 8,45, 9,38	
		1,27,34,25,49,21,18,25		6,24
20″	43, 1,51, 5, 6,36,56,10,41,25		3, 8,45,16, 2	
		1,27,34,22,40,36, 2,23		6,24
22″	43, 1,52,32,40,59,36,46,43,48		3, 8,45,22,26	
		1,27,34,19,31,50,39,57		6,24
24″	43, 1,54, 0,15,19, 8,37,23,45		3, 8,45,28,50	
		1,27,34,16,23, 5,11, 7		6,24
26″	43, 1,55,27,49,35,31,42,34,52		3, 8,45,35,14	
		1,27,34,13,14,19,35,53		6,24
28″	43, 1,56,55,23,48,46, 2,10,45		3, 8,45,41,38	
		1,27,34,10, 5,33,54,15		6,24
30″	43, 1,58,22,57,58,51,36, 5, 0		3, 8,45,48, 2	
		1,27,34, 6,56,48, 6,13		6,24
32″	43, 1,59,50,32, 5,48,24,11,13		3, 8,45,54,26	
		1,27,34, 3,48, 2,11,47		6,24
34″	43, 2, 1,18, 6, 9,36,26,23, 0		3, 8,46, 0,50	
		1,27,34, 0,39,16,10,57		6,24
36″	43, 2, 2,45,40,10,15,42,33,57		3, 8,46, 7,14	
		1,27,33,57,30,30, 3,43		6,24
38″	43, 2, 4,13,14, 7,46,12,37,40		3, 8,46,13,38	
		1,27,33,54,21,43,50, 5		6,24
40″	43, 2, 5,40,48, 2, 7,56,27,45		3, 8,46,20, 2	
		1,27,33,51,12,57,30, 3		6,24
42″	43, 2, 7, 8,21,53,20,53,57,48		3, 8,46,26,26	
		1,27,33,48, 4,11, 3,37		6,24
44″	43, 2, 8,35,55,41,25, 5, 1,25		3, 8,46,32,50	
		1,27,33,44,55,24,30,47		6,24
46″	43, 2,10, 3,29,26,20,29,32,12		3, 8,46,39,14	
		1,27,33,41,46,37,51,33		6,24
48″	43, 2,11,31, 3, 8, 7, 7,23,45		3, 8,46,45,38	
		1,27,33,38,37,51, 5,55		6,24
50″	43, 2,12,58,36,46,44,58,29,40		3, 8,46,52, 2	
		1,27,33,35,29, 4,13,53		6,24
52″	43, 2,14,26,10,22,14, 2,43,33		3, 8,46,58,26	
		1,27,33,32,20,17,15,27		6,24
54″	43, 2,15,53,43,54,34,19,59, 0		3, 8,47, 4,50	
		1,27,33,29,11,30,10,37		6,24
56″	43, 2,17,21,17,23,45,50, 9,37		3, 8,47,11,14	
		1,27,33,26, 2,42,59,23		6,24
58″	43, 2,18,48,50,49,48,33, 9, 0		3, 8,47,17,38	
		1,27,33,22,53,55,41,45		
60″	43, 2,20,16,24,12,42,28,50,45			
exact	43, 2,20,16,24,12,42,28,40,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°50′ 0″	43, 2,20,16,24,12,42,28,40,55	1,27,33,19,45, 8,16,44		
2″	43, 2,21,43,57,32,27,36,57,39	1,27,33,16,36,20,46,14	3, 8,47,30,30	6,24
4″	43, 2,23,11,30,49, 3,57,43,53	1,27,33,13,27,33, 9,20	3, 8,47,36,54	6,24
6″	43, 2,24,39, 4, 2,31,30,53,13	1,27,33,10,18,45,26, 2	3, 8,47,43,18	6,24
8″	43, 2,26, 6,37,12,50,16,19,15	1,27,33, 7, 9,57,36,20	3, 8,47,49,42	6,24
10″	43, 2,27,34,10,20, 0,13,55,35	1,27,33, 4, 1, 9,40,14	3, 8,47,56, 6	6,24
12″	43, 2,29, 1,43,24, 1,23,35,49	1,27,33, 0,52,21,37,44	3, 8,48, 2,30	6,24
14″	43, 2,30,29,16,24,53,45,13,33	1,27,32,57,43,33,28,50	3, 8,48, 8,54	6,24
16″	43, 2,31,56,49,22,37,18,42,23	1,27,32,54,34,45,13,32	3, 8,48,15,18	6,24
18″	43, 2,33,24,22,17,12, 3,55,55	1,27,32,51,25,56,51,50	3, 8,48,21,42	6,24
20″	43, 2,34,51,55, 8,38, 0,47,45	1,27,32,48,17, 8,23,44	3, 8,48,28, 6	6,24
22″	43, 2,36,19,27,56,55, 9,11,29	1,27,32,45, 8,19,49,14	3, 8,48,34,30	6,24
24″	43, 2,37,47, 0,42, 3,29, 0,43	1,27,32,41,59,31, 8,20	3, 8,48,40,54	6,24
26″	43, 2,39,14,33,24, 3, 0, 9, 3	1,27,32,38,50,42,21, 2	3, 8,48,47,18	6,24
28″	43, 2,40,42, 6, 2,53,42,30, 5	1,27,32,35,41,53,27,20	3, 8,48,53,42	6,24
30″	43, 2,42, 9,38,38,35,35,57,25	1,27,32,32,33, 4,27,14	3, 8,49, 0, 6	6,24
32″	43, 2,43,37,11,11, 8,40,24,39	1,27,32,29,24,15,20,44	3, 8,49, 6,30	6,24
34″	43, 2,45, 4,43,40,32,55,45,23	1,27,32,26,15,26, 7,50	3, 8,49,12,54	6,24
36″	43, 2,46,32,16, 6,48,21,53,13	1,27,32,23, 6,36,48,32	3, 8,49,19,18	6,24
38″	43, 2,47,59,48,29,54,58,41,45	1,27,32,19,57,47,22,50	3, 8,49,25,42	6,24
40″	43, 2,49,27,20,49,52,46, 4,35	1,27,32,16,48,57,50,44	3, 8,49,32, 6	6,24
42″	43, 2,50,54,53, 6,41,43,55,19	1,27,32,13,40, 8,12,14	3, 8,49,38,30	6,24
44″	43, 2,52,22,25,20,21,52, 7,33	1,27,32,10,31,18,27,20	3, 8,49,44,54	6,24
46″	43, 2,53,49,57,30,53,10,34,53	1,27,32, 7,22,28,36, 2	3, 8,49,51,18	6,24
48″	43, 2,55,17,29,38,15,39,10,55	1,27,32, 4,13,38,38,20	3, 8,49,57,42	6,24
50″	43, 2,56,45, 1,42,29,17,49,15	1,27,32, 1, 4,48,34,14	3, 8,50, 4, 6	6,24
52″	43, 2,58,12,33,43,34, 6,23,29	1,27,31,57,55,58,23,44	3, 8,50,10,30	6,24
54″	43, 2,59,40, 5,41,30, 4,47,13	1,27,31,54,47, 8, 6,50	3, 8,50,16,54	6,24
56″	43, 3, 1, 7,37,36,17,12,54, 3	1,27,31,51,38,17,43,32	3, 8,50,23,18	6,24
58″	43, 3, 2,35, 9,27,55,30,37,35	1,27,31,48,29,27,13,50	3, 8,50,29,42	
60″	43, 3, 4, 2,41,16,24,57,51,25			
exact	43, 3, 4, 2,41,16,24,57,52,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°51′ 0″	43, 3, 4, 2,41,16,24,57,52,43			
		1,27,31,45,20,36,37,49		
2″	43, 3, 5,30,13, 1,45,34,30,32		3, 8,50,42,30	
		1,27,31,42,11,45,55,19		6,24
4″	43, 3, 6,57,44,43,57,20,25,51		3, 8,50,48,54	
		1,27,31,39, 2,55, 6,25		6,24
6″	43, 3, 8,25,16,23, 0,15,32,16		3, 8,50,55,18	
		1,27,31,35,54, 4,11, 7		6,24
8″	43, 3, 9,52,47,58,54,19,43,23		3, 8,51, 1,42	
		1,27,31,32,45,13, 9,25		6,24
10″	43, 3,11,20,19,31,39,32,52,48		3, 8,51, 8, 6	
		1,27,31,29,36,22, 1,19		6,24
12″	43, 3,12,47,51, 1,15,54,54, 7		3, 8,51,14,30	
		1,27,31,26,27,30,46,49		6,24
14″	43, 3,14,15,22,27,43,25,40,56		3, 8,51,20,54	
		1,27,31,23,18,39,25,55		6,24
16″	43, 3,15,42,53,51, 2, 5, 6,51		3, 8,51,27,18	
		1,27,31,20, 9,47,58,37		6,24
18″	43, 3,17,10,25,11,11,53, 5,28		3, 8,51,33,42	
		1,27,31,17, 0,56,24,55		6,24
20″	43, 3,18,37,56,28,12,49,30,23		3, 8,51,40, 6	
		1,27,31,13,52, 4,44,49		6,24
22″	43, 3,20, 5,27,42, 4,54,15,12		3, 8,51,46,30	
		1,27,31,10,43,12,58,19		6,24
24″	43, 3,21,32,58,52,48, 7,13,31		3, 8,51,52,54	
		1,27,31, 7,34,21, 5,25		6,24
26″	43, 3,23, 0,30, 0,22,28,18,56		3, 8,51,59,18	
		1,27,31, 4,25,29, 6, 7		6,24
28″	43, 3,24,28, 1, 4,47,57,25, 3		3, 8,52, 5,42	
		1,27,31, 1,16,37, 0,25		6,24
30″	43, 3,25,55,32, 6, 4,34,25,28		3, 8,52,12, 6	
		1,27,30,58, 7,44,48,19		6,24
32″	43, 3,27,23, 3, 4,12,19,13,47		3, 8,52,18,30	
		1,27,30,54,58,52,29,49		6,24
34″	43, 3,28,50,33,59,11,11,43,36		3, 8,52,24,54	
		1,27,30,51,50, 0, 4,55		6,24
36″	43, 3,30,18, 4,51, 1,11,48,31		3, 8,52,31,18	
		1,27,30,48,41, 7,33,37		6,24
38″	43, 3,31,45,35,39,42,19,22, 8		3, 8,52,37,42	
		1,27,30,45,32,14,55,55		6,24
40″	43, 3,33,13, 6,25,14,34,18, 3		3, 8,52,44, 6	
		1,27,30,42,23,22,11,49		6,24
42″	43, 3,34,40,37, 7,37,56,29,52		3, 8,52,50,30	
		1,27,30,39,14,29,21,19		6,24
44″	43, 3,36, 8, 7,46,52,25,51,11		3, 8,52,56,54	
		1,27,30,36, 5,36,24,25		6,24
46″	43, 3,37,35,38,22,58, 2,15,36		3, 8,53, 3,18	
		1,27,30,32,56,43,21, 7		6,24
48″	43, 3,39, 3, 8,55,54,45,36,43		3, 8,53, 9,42	
		1,27,30,29,47,50,11,25		6,24
50″	43, 3,40,30,39,25,42,35,48, 8		3, 8,53,16, 6	
		1,27,30,26,38,56,55,19		6,24
52″	43, 3,41,58, 9,52,21,32,43,27		3, 8,53,22,30	
		1,27,30,23,30, 3,32,49		6,24
54″	43, 3,43,25,40,15,51,36,16,16		3, 8,53,28,54	
		1,27,30,20,21,10, 3,55		6,24
56″	43, 3,44,53,10,36,12,46,20,11		3, 8,53,35,18	
		1,27,30,17,12,16,28,37		6,24
58″	43, 3,46,20,40,53,25, 2,48,48		3, 8,53,41,42	
		1,27,30,14, 3,22,46,55		
60″	43, 3,47,48,11, 7,28,25,35,43			
exact	43, 3,47,48,11, 7,28,25,44,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°52′ 0″	43, 3,47,48,11, 7,28,25,44,35			
		1,27,30,10,54,28,59,43		
2″	43, 3,49,15,41,18,22,54,44,18		3, 8,53,54,26	
		1,27,30, 7,45,35, 5,17		6,24
4″	43, 3,50,43,11,26, 8,29,49,35		3, 8,54, 0,50	
		1,27,30, 4,36,41, 4,27		6,24
6″	43, 3,52,10,41,30,45,10,54, 2		3, 8,54, 7,14	
		1,27,30, 1,27,46,57,13		6,24
8″	43, 3,53,38,11,32,12,57,51,15		3, 8,54,13,38	
		1,27,29,58,18,52,43,35		6,24
10″	43, 3,55, 5,41,30,31,50,34,50		3, 8,54,20, 2	
		1,27,29,55, 9,58,23,33		6,24
12″	43, 3,56,33,11,25,41,48,58,23		3, 8,54,26,26	
		1,27,29,52, 1, 3,57, 7		6,24
14″	43, 3,58, 0,41,17,42,52,55,30		3, 8,54,32,50	
		1,27,29,48,52, 9,24,17		6,24
16″	43, 3,59,28,11, 6,35, 2,19,47		3, 8,54,39,14	
		1,27,29,45,43,14,45, 3		6,24
18″	43, 4, 0,55,40,52,18,17, 4,50		3, 8,54,45,38	
		1,27,29,42,34,19,59,25		6,24
20″	43, 4, 2,23,10,34,52,37, 4,15		3, 8,54,52, 2	
		1,27,29,39,25,25, 7,23		6,24
22″	43, 4, 3,50,40,14,18, 2,11,38		3, 8,54,58,26	
		1,27,29,36,16,30, 8,57		6,24
24″	43, 4, 5,18, 9,50,34,32,20,35		3, 8,55, 4,50	
		1,27,29,33, 7,35, 4, 7		6,24
26″	43, 4, 6,45,39,23,42, 7,24,42		3, 8,55,11,14	
		1,27,29,29,58,39,52,53		6,24
28″	43, 4, 8,13, 8,53,40,47,17,35		3, 8,55,17,38	
		1,27,29,26,49,44,35,15		6,24
30″	43, 4, 9,40,38,20,30,31,52,50		3, 8,55,24, 2	
		1,27,29,23,40,49,11,13		6,24
32″	43, 4,11, 8, 7,44,11,21, 4, 3		3, 8,55,30,26	
		1,27,29,20,31,53,40,47		6,24
34″	43, 4,12,35,37, 4,43,14,44,50		3, 8,55,36,50	
		1,27,29,17,22,58, 3,57		6,24
36″	43, 4,14, 3, 6,22, 6,12,48,47		3, 8,55,43,14	
		1,27,29,14,14, 2,20,43		6,24
38″	43, 4,15,30,35,36,20,15, 9,30		3, 8,55,49,38	
		1,27,29,11, 5, 6,31, 5		6,24
40″	43, 4,16,58, 4,47,25,21,40,35		3, 8,55,56, 2	
		1,27,29, 7,56,10,35, 3		6,24
42″	43, 4,18,25,33,55,21,32,15,38		3, 8,56, 2,26	
		1,27,29, 4,47,14,32,37		6,24
44″	43, 4,19,53, 3, 0, 8,46,48,15		3, 8,56, 8,50	
		1,27,29, 1,38,18,23,47		6,24
46″	43, 4,21,20,32, 1,47, 5,12, 2		3, 8,56,15,14	
		1,27,28,58,29,22, 8,33		6,24
48″	43, 4,22,48, 1, 0,16,27,20,35		3, 8,56,21,38	
		1,27,28,55,20,25,46,55		6,24
50″	43, 4,24,15,29,55,36,53, 7,30		3, 8,56,28, 2	
		1,27,28,52,11,29,18,53		6,24
52″	43, 4,25,42,58,47,48,22,26,23		3, 8,56,34,26	
		1,27,28,49, 2,32,44,27		6,24
54″	43, 4,27,10,27,36,50,55,10,50		3, 8,56,40,50	
		1,27,28,45,53,36, 3,37		6,24
56″	43, 4,28,37,56,22,44,31,14,27		3, 8,56,47,14	
		1,27,28,42,44,39,16,23		6,24
58″	43, 4,30, 5,25, 5,29,10,30,50		3, 8,56,53,38	
		1,27,28,39,35,42,22,45		
60″	43, 4,31,32,53,45, 4,52,53,35			
exact	43, 4,31,32,53,45, 4,53, 5,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°53′ 0″	43, 4,31,32,53,45, 4,53, 5,41			
		1,27,28,36,26,45,24, 8		
2″	43, 4,33, 0,22,21,31,38,29,49		3, 8,57, 6,19	
		1,27,28,33,17,48,17,49		6,24
4″	43, 4,34,27,50,54,49,26,47,38		3, 8,57,12,43	
		1,27,28,30, 8,51, 5, 6		6,24
6″	43, 4,35,55,19,24,58,17,52,44		3, 8,57,19, 7	
		1,27,28,26,59,53,45,59		6,24
8″	43, 4,37,22,47,51,58,11,38,43		3, 8,57,25,31	
		1,27,28,23,50,56,20,28		6,24
10″	43, 4,38,50,16,15,49, 7,59,11		3, 8,57,31,55	
		1,27,28,20,41,58,48,33		6,24
12″	43, 4,40,17,44,36,31, 6,47,44		3, 8,57,38,19	
		1,27,28,17,33, 1,10,14		6,24
14″	43, 4,41,45,12,54, 4, 7,57,58		3, 8,57,44,43	
		1,27,28,14,24, 3,25,31		6,24
16″	43, 4,43,12,41, 8,28,11,23,29		3, 8,57,51, 7	
		1,27,28,11,15, 5,34,24		6,24
18″	43, 4,44,40, 9,19,43,16,57,53		3, 8,57,57,31	
		1,27,28, 8, 6, 7,36,53		6,24
20″	43, 4,46, 7,37,27,49,24,34,46		3, 8,58, 3,55	
		1,27,28, 4,57, 9,32,58		6,24
22″	43, 4,47,35, 5,32,46,34, 7,44		3, 8,58,10,19	
		1,27,28, 1,48,11,22,39		6,24
24″	43, 4,49, 2,33,34,34,45,30,23		3, 8,58,16,43	
		1,27,27,58,39,13, 5,56		6,24
26″	43, 4,50,30, 1,33,13,58,36,19		3, 8,58,23, 7	
		1,27,27,55,30,14,42,49		6,24
28″	43, 4,51,57,29,28,44,13,19, 8		3, 8,58,29,31	
		1,27,27,52,21,16,13,18		6,24
30″	43, 4,53,24,57,21, 5,29,32,26		3, 8,58,35,55	
		1,27,27,49,12,17,37,23		6,24
32″	43, 4,54,52,25,10,17,47, 9,49		3, 8,58,42,19	
		1,27,27,46, 3,18,55, 4		6,24
34″	43, 4,56,19,52,56,21, 6, 4,53		3, 8,58,48,43	
		1,27,27,42,54,20, 6,21		6,24
36″	43, 4,57,47,20,39,15,26,11,14		3, 8,58,55, 7	
		1,27,27,39,45,21,11,14		6,24
38″	43, 4,59,14,48,19, 0,47,22,28		3, 8,59, 1,31	
		1,27,27,36,36,22, 9,43		6,24
40″	43, 5, 0,42,15,55,37, 9,32,11		3, 8,59, 7,55	
		1,27,27,33,27,23, 1,48		6,24
42″	43, 5, 2, 9,43,29, 4,32,33,59		3, 8,59,14,19	
		1,27,27,30,18,23,47,29		6,24
44″	43, 5, 3,37,10,59,22,56,21,28		3, 8,59,20,43	
		1,27,27,27, 9,24,26,46		6,24
46″	43, 5, 5, 4,38,26,32,20,48,14		3, 8,59,27, 7	
		1,27,27,24, 0,24,59,39		6,24
48″	43, 5, 6,32, 5,50,32,45,47,53		3, 8,59,33,31	
		1,27,27,20,51,25,26, 8		6,24
50″	43, 5, 7,59,33,11,24,11,14, 1		3, 8,59,39,55	
		1,27,27,17,42,25,46,13		6,24
52″	43, 5, 9,27, 0,29, 6,37, 0,14		3, 8,59,46,19	
		1,27,27,14,33,25,59,54		6,24
54″	43, 5,10,54,27,43,40, 3, 0, 8		3, 8,59,52,43	
		1,27,27,11,24,26, 7,11		6,24
56″	43, 5,12,21,54,55, 4,29, 7,19		3, 8,59,59, 7	
		1,27,27, 8,15,26, 8, 4		6,24
58″	43, 5,13,49,22, 3,19,55,15,23		3, 9, 0, 5,31	
		1,27,27, 5, 6,26, 2,33		
60″	43, 5,15,16,49, 8,26,21,17,56			
exact	43, 5,15,16,49, 8,26,21,37, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°54′ 0″	43, 5,15,16,49, 8,26,21,37, 1			
		1,27,27, 1,57,25,52,49		
2″	43, 5,16,44,16,10,23,47,29,50		3, 9, 0,18, 9	
		1,27,26,58,48,25,34,40		6,24
4″	43, 5,18,11,43, 9,12,13, 4,30		3, 9, 0,24,33	
		1,27,26,55,39,25,10, 7		6,24
6″	43, 5,19,39,10, 4,51,38,14,37		3, 9, 0,30,57	
		1,27,26,52,30,24,39,10		6,24
8″	43, 5,21, 6,36,57,22, 2,53,47		3, 9, 0,37,21	
		1,27,26,49,21,24, 1,49		6,24
10″	43, 5,22,34, 3,46,43,26,55,36		3, 9, 0,43,45	
		1,27,26,46,12,23,18, 4		6,24
12″	43, 5,24, 1,30,32,55,50,13,40		3, 9, 0,50, 9	
		1,27,26,43, 3,22,27,55		6,24
14″	43, 5,25,28,57,15,59,12,41,35		3, 9, 0,56,33	
		1,27,26,39,54,21,31,22		6,24
16″	43, 5,26,56,23,55,53,34,12,57		3, 9, 1, 2,57	
		1,27,26,36,45,20,28,25		6,24
18″	43, 5,28,23,50,32,38,54,41,22		3, 9, 1, 9,21	
		1,27,26,33,36,19,19, 4		6,24
20″	43, 5,29,51,17, 6,15,14, 0,26		3, 9, 1,15,45	
		1,27,26,30,27,18, 3,19		6,24
22″	43, 5,31,18,43,36,42,32, 3,45		3, 9, 1,22, 9	
		1,27,26,27,18,16,41,10		6,24
24″	43, 5,32,46,10, 4, 0,48,44,55		3, 9, 1,28,33	
		1,27,26,24, 9,15,12,37		6,24
26″	43, 5,34,13,36,28,10, 3,57,32		3, 9, 1,34,57	
		1,27,26,21, 0,13,37,40		6,24
28″	43, 5,35,41, 2,49,10,17,35,12		3, 9, 1,41,21	
		1,27,26,17,51,11,56,19		6,24
30″	43, 5,37, 8,29, 7, 1,29,31,31		3, 9, 1,47,45	
		1,27,26,14,42,10, 8,34		6,24
32″	43, 5,38,35,55,21,43,39,40, 5		3, 9, 1,54, 9	
		1,27,26,11,33, 8,14,25		6,24
34″	43, 5,40, 3,21,33,16,47,54,30		3, 9, 2, 0,33	
		1,27,26, 8,24, 6,13,52		6,24
36″	43, 5,41,30,47,41,40,54, 8,22		3, 9, 2, 6,57	
		1,27,26, 5,15, 4, 6,55		6,24
38″	43, 5,42,58,13,46,55,58,15,17		3, 9, 2,13,21	
		1,27,26, 2, 6, 1,53,34		6,24
40″	43, 5,44,25,39,49, 2, 0, 8,51		3, 9, 2,19,45	
		1,27,25,58,56,59,33,49		6,24
42″	43, 5,45,53, 5,47,58,59,42,40		3, 9, 2,26, 9	
		1,27,25,55,47,57, 7,40		6,24
44″	43, 5,47,20,31,43,46,56,50,20		3, 9, 2,32,33	
		1,27,25,52,38,54,35, 7		6,24
46″	43, 5,48,47,57,36,25,51,25,27		3, 9, 2,38,57	
		1,27,25,49,29,51,56,10		6,24
48″	43, 5,50,15,23,25,55,43,21,37		3, 9, 2,45,21	
		1,27,25,46,20,49,10,49		6,24
50″	43, 5,51,42,49,12,16,32,32,26		3, 9, 2,51,45	
		1,27,25,43,11,46,19, 4		6,24
52″	43, 5,53,10,14,55,28,18,51,30		3, 9, 2,58, 9	
		1,27,25,40, 2,43,20,55		6,24
54″	43, 5,54,37,40,35,31, 2,12,25		3, 9, 3, 4,33	
		1,27,25,36,53,40,16,22		6,24
56″	43, 5,56, 5, 6,12,24,42,28,47		3, 9, 3,10,57	
		1,27,25,33,44,37, 5,25		6,24
58″	43, 5,57,32,31,46, 9,19,34,12		3, 9, 3,17,21	
		1,27,25,30,35,33,48, 4		
60″	43, 5,58,59,57,16,44,53,22,16			
exact	43, 5,58,59,57,16,44,53,51,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°55′ 0″	43, 5,58,59,57,16,44,53,51,21	1,27,25,27,26,30,27,30		
2″	43, 6, 0,27,22,44,11,24,18,51	1,27,25,24,17,26,57,35	3, 9, 3,29,55	6,23
4″	43, 6, 1,54,48, 8,28,51,16,26	1,27,25,21, 8,23,21,17	3, 9, 3,36,18	6,23
6″	43, 6, 3,22,13,29,37,14,37,43	1,27,25,17,59,19,38,36	3, 9, 3,42,41	6,23
8″	43, 6, 4,49,38,47,36,34,16,19	1,27,25,14,50,15,49,32	3, 9, 3,49, 4	6,23
10″	43, 6, 6,17, 4, 2,26,50, 5,51	1,27,25,11,41,11,54, 5	3, 9, 3,55,27	6,23
12″	43, 6, 7,44,29,14, 8, 1,59,56	1,27,25, 8,32, 7,52,15	3, 9, 4, 1,50	6,23
14″	43, 6, 9,11,54,22,40, 9,52,11	1,27,25, 5,23, 3,44, 2	3, 9, 4, 8,13	6,23
16″	43, 6,10,39,19,28, 3,13,36,13	1,27,25, 2,13,59,29,26	3, 9, 4,14,36	6,23
18″	43, 6,12, 6,44,30,17,13, 5,39	1,27,24,59, 4,55, 8,27	3, 9, 4,20,59	6,23
20″	43, 6,13,34, 9,29,22, 8,14, 6	1,27,24,55,55,50,41, 5	3, 9, 4,27,22	6,23
22″	43, 6,15, 1,34,25,17,58,55,11	1,27,24,52,46,46, 7,20	3, 9, 4,33,45	6,23
24″	43, 6,16,28,59,18, 4,45, 2,31	1,27,24,49,37,41,27,12	3, 9, 4,40, 8	6,23
26″	43, 6,17,56,24, 7,42,26,29,43	1,27,24,46,28,36,40,41	3, 9, 4,46,31	6,23
28″	43, 6,19,23,48,54,11, 3,10,24	1,27,24,43,19,31,47,47	3, 9, 4,52,54	6,23
30″	43, 6,20,51,13,37,30,34,58,11	1,27,24,40,10,26,48,30	3, 9, 4,59,17	6,23
32″	43, 6,22,18,38,17,41, 1,46,41	1,27,24,37, 1,21,42,50	3, 9, 5, 5,40	6,23
34″	43, 6,23,46, 2,54,42,23,29,31	1,27,24,33,52,16,30,47	3, 9, 5,12, 3	6,23
36″	43, 6,25,13,27,28,34,40, 0,18	1,27,24,30,43,11,12,21	3, 9, 5,18,26	6,23
38″	43, 6,26,40,51,59,17,51,12,39	1,27,24,27,34, 5,47,32	3, 9, 5,24,49	6,23
40″	43, 6,28, 8,16,26,51,57, 0,11	1,27,24,24,25, 0,16,20	3, 9, 5,31,12	6,23
42″	43, 6,29,35,40,51,16,57,16,31	1,27,24,21,15,54,38,45	3, 9, 5,37,35	6,23
44″	43, 6,31, 3, 5,12,32,51,55,16	1,27,24,18, 6,48,54,47	3, 9, 5,43,58	6,23
46″	43, 6,32,30,29,30,39,40,50, 3	1,27,24,14,57,43, 4,26	3, 9, 5,50,21	6,23
48″	43, 6,33,57,53,45,37,23,54,29	1,27,24,11,48,37, 7,42	3, 9, 5,56,44	6,23
50″	43, 6,35,25,17,57,26, 1, 2,11	1,27,24, 8,39,31, 4,35	3, 9, 6, 3, 7	6,23
52″	43, 6,36,52,42, 6, 5,32, 6,46	1,27,24, 5,30,24,55, 5	3, 9, 6, 9,30	6,23
54″	43, 6,38,20, 6,11,35,57, 1,51	1,27,24, 2,21,18,39,12	3, 9, 6,15,53	6,23
56″	43, 6,39,47,30,13,57,15,41, 3	1,27,23,59,12,12,16,56	3, 9, 6,22,16	6,23
58″	43, 6,41,14,54,13, 9,27,57,59	1,27,23,56, 3, 5,48,17	3, 9, 6,28,39	
60″	43, 6,42,42,18, 9,12,33,46,16			
exact	43, 6,42,42,18, 9,12,33,13,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°56′ 0″	43, 6,42,42,18, 9,12,33,13,17			
		1,27,23,52,53,59, 9,53		
2″	43, 6,44, 9,42, 2, 6,32,23,10		3, 9, 6,41,38	
		1,27,23,49,44,52,28,15		6,23
4″	43, 6,45,37, 5,51,51,24,51,25		3, 9, 6,48, 1	
		1,27,23,46,35,45,40,14		6,23
6″	43, 6,47, 4,29,38,27,10,31,39		3, 9, 6,54,24	
		1,27,23,43,26,38,45,50		6,23
8″	43, 6,48,31,53,21,53,49,17,29		3, 9, 7, 0,47	
		1,27,23,40,17,31,45, 3		6,23
10″	43, 6,49,59,17, 2,11,21, 2,32		3, 9, 7, 7,10	
		1,27,23,37, 8,24,37,53		6,23
12″	43, 6,51,26,40,39,19,45,40,25		3, 9, 7,13,33	
		1,27,23,33,59,17,24,20		6,23
14″	43, 6,52,54, 4,13,19, 3, 4,45		3, 9, 7,19,56	
		1,27,23,30,50,10, 4,24		6,23
16″	43, 6,54,21,27,44, 9,13, 9, 9		3, 9, 7,26,19	
		1,27,23,27,41, 2,38, 5		6,23
18″	43, 6,55,48,51,11,50,15,47,14		3, 9, 7,32,42	
		1,27,23,24,31,55, 5,23		6,23
20″	43, 6,57,16,14,36,22,10,52,37		3, 9, 7,39, 5	
		1,27,23,21,22,47,26,18		6,23
22″	43, 6,58,43,37,57,44,58,18,55		3, 9, 7,45,28	
		1,27,23,18,13,39,40,50		6,23
24″	43, 7, 0,11, 1,15,58,37,59,45		3, 9, 7,51,51	
		1,27,23,15, 4,31,48,59		6,23
26″	43, 7, 1,38,24,31, 3, 9,48,44		3, 9, 7,58,14	
		1,27,23,11,55,23,50,45		6,23
28″	43, 7, 3, 5,47,42,58,33,39,29		3, 9, 8, 4,37	
		1,27,23, 8,46,15,46, 8		6,23
30″	43, 7, 4,33,10,51,44,49,25,37		3, 9, 8,11, 0	
		1,27,23, 5,37, 7,35, 8		6,23
32″	43, 7, 6, 0,33,57,21,57, 0,45		3, 9, 8,17,23	
		1,27,23, 2,27,59,17,45		6,23
34″	43, 7, 7,27,56,59,49,56,18,30		3, 9, 8,23,46	
		1,27,22,59,18,50,53,59		6,23
36″	43, 7, 8,55,19,59, 8,47,12,29		3, 9, 8,30, 9	
		1,27,22,56, 9,42,23,50		6,23
38″	43, 7,10,22,42,55,18,29,36,19		3, 9, 8,36,32	
		1,27,22,53, 0,33,47,18		6,23
40″	43, 7,11,50, 5,48,19, 3,23,37		3, 9, 8,42,55	
		1,27,22,49,51,25, 4,23		6,23
42″	43, 7,13,17,28,38,10,28,28, 0		3, 9, 8,49,18	
		1,27,22,46,42,16,15, 5		6,23
44″	43, 7,14,44,51,24,52,44,43, 5		3, 9, 8,55,41	
		1,27,22,43,33, 7,19,24		6,23
46″	43, 7,16,12,14, 8,25,52, 2,29		3, 9, 9, 2, 4	
		1,27,22,40,23,58,17,20		6,23
48″	43, 7,17,39,36,48,49,50,19,49		3, 9, 9, 8,27	
		1,27,22,37,14,49, 8,53		6,23
50″	43, 7,19, 6,59,26, 4,39,28,42		3, 9, 9,14,50	
		1,27,22,34, 5,39,54, 3		6,23
52″	43, 7,20,34,22, 0,10,19,22,45		3, 9, 9,21,13	
		1,27,22,30,56,30,32,50		6,23
54″	43, 7,22, 1,44,31, 6,49,55,35		3, 9, 9,27,36	
		1,27,22,27,47,21, 5,14		6,23
56″	43, 7,23,29, 6,58,54,11, 0,49		3, 9, 9,33,59	
		1,27,22,24,38,11,31,15		6,23
58″	43, 7,24,56,29,23,32,22,32, 4		3, 9, 9,40,22	
		1,27,22,21,29, 1,50,53		
60″	43, 7,26,23,51,45, 1,24,22,57			
exact	43, 7,26,23,51,45, 1,23,59,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°57′ 0″	43, 7,26,23,51,45, 1,23,59,14			
		1,27,22,18,19,52, 1,42		
2″	43, 7,27,51,14, 3,21,16, 0,56		3, 9, 9,53,17	
		1,27,22,15,10,42, 8,25		6,23
4″	43, 7,29,18,36,18,31,58, 9,21		3, 9, 9,59,40	
		1,27,22,12, 1,32, 8,45		6,23
6″	43, 7,30,45,58,30,33,30,18, 6		3, 9,10, 6, 3	
		1,27,22, 8,52,22, 2,42		6,23
8″	43, 7,32,13,20,39,25,52,20,48		3, 9,10,12,26	
		1,27,22, 5,43,11,50,16		6,23
10″	43, 7,33,40,42,45, 9, 4,11, 4		3, 9,10,18,49	
		1,27,22, 2,34, 1,31,27		6,23
12″	43, 7,35, 8, 4,47,43, 5,42,31		3, 9,10,25,12	
		1,27,21,59,24,51, 6,15		6,23
14″	43, 7,36,35,26,47, 7,56,48,46		3, 9,10,31,35	
		1,27,21,56,15,40,34,40		6,23
16″	43, 7,38, 2,48,43,23,37,23,26		3, 9,10,37,58	
		1,27,21,53, 6,29,56,42		6,23
18″	43, 7,39,30,10,36,30, 7,20, 8		3, 9,10,44,21	
		1,27,21,49,57,19,12,21		6,23
20″	43, 7,40,57,32,26,27,26,32,29		3, 9,10,50,44	
		1,27,21,46,48, 8,21,37		6,23
22″	43, 7,42,24,54,13,15,34,54, 6		3, 9,10,57, 7	
		1,27,21,43,38,57,24,30		6,23
24″	43, 7,43,52,15,56,54,32,18,36		3, 9,11, 3,30	
		1,27,21,40,29,46,21, 0		6,23
26″	43, 7,45,19,37,37,24,18,39,36		3, 9,11, 9,53	
		1,27,21,37,20,35,11, 7		6,23
28″	43, 7,46,46,59,14,44,53,50,43		3, 9,11,16,16	
		1,27,21,34,11,23,54,51		6,23
30″	43, 7,48,14,20,48,56,17,45,34		3, 9,11,22,39	
		1,27,21,31, 2,12,32,12		6,23
32″	43, 7,49,41,42,19,58,30,17,46		3, 9,11,29, 2	
		1,27,21,27,53, 1, 3,10		6,23
34″	43, 7,51, 9, 3,47,51,31,20,56		3, 9,11,35,25	
		1,27,21,24,43,49,27,45		6,23
36″	43, 7,52,36,25,12,35,20,48,41		3, 9,11,41,48	
		1,27,21,21,34,37,45,57		6,23
38″	43, 7,54, 3,46,34, 9,58,34,38		3, 9,11,48,11	
		1,27,21,18,25,25,57,46		6,23
40″	43, 7,55,31, 7,52,35,24,32,24		3, 9,11,54,34	
		1,27,21,15,16,14, 3,12		6,23
42″	43, 7,56,58,29, 7,51,38,35,36		3, 9,12, 0,57	
		1,27,21,12, 7, 2, 2,15		6,23
44″	43, 7,58,25,50,19,58,40,37,51		3, 9,12, 7,20	
		1,27,21, 8,57,49,54,55		6,23
46″	43, 7,59,53,11,28,56,30,32,46		3, 9,12,13,43	
		1,27,21, 5,48,37,41,12		6,23
48″	43, 8, 1,20,32,34,45, 8,13,58		3, 9,12,20, 6	
		1,27,21, 2,39,25,21, 6		6,23
50″	43, 8, 2,47,53,37,24,33,35, 4		3, 9,12,26,29	
		1,27,20,59,30,12,54,37		6,23
52″	43, 8, 4,15,14,36,54,46,29,41		3, 9,12,32,52	
		1,27,20,56,21, 0,21,45		6,23
54″	43, 8, 5,42,35,33,15,46,51,26		3, 9,12,39,15	
		1,27,20,53,11,47,42,30		6,23
56″	43, 8, 7, 9,56,26,27,34,33,56		3, 9,12,45,38	
		1,27,20,50, 2,34,56,52		6,23
58″	43, 8, 8,37,17,16,30, 9,30,48		3, 9,12,52, 1	
		1,27,20,46,53,22, 4,51		
60″	43, 8,10, 4,38, 3,23,31,35,39			
exact	43, 8,10, 4,38, 3,23,31,17,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°58′ 0″	43, 8,10, 4,38, 3,23,31,17,29	1,27,20,43,44, 9, 4,41		
2″	43, 8,11,31,58,47, 7,40,22,10	1,27,20,40,34,55,59,48	3, 9,13, 4,53	6,23
4″	43, 8,12,59,19,27,42,36,21,58	1,27,20,37,25,42,48,32	3, 9,13,11,16	6,23
6″	43, 8,14,26,40, 5, 8,19,10,30	1,27,20,34,16,29,30,53	3, 9,13,17,39	6,23
8″	43, 8,15,54, 0,39,24,48,41,23	1,27,20,31, 7,16, 6,51	3, 9,13,24, 2	6,23
10″	43, 8,17,21,21,10,32, 4,48,14	1,27,20,27,58, 2,36,26	3, 9,13,30,25	6,23
12″	43, 8,18,48,41,38,30, 7,24,40	1,27,20,24,48,48,59,38	3, 9,13,36,48	6,23
14″	43, 8,20,16, 2, 3,18,56,24,18	1,27,20,21,39,35,16,27	3, 9,13,43,11	6,23
16″	43, 8,21,43,22,24,58,31,40,45	1,27,20,18,30,21,26,53	3, 9,13,49,34	6,23
18″	43, 8,23,10,42,43,28,53, 7,38	1,27,20,15,21, 7,30,56	3, 9,13,55,57	6,23
20″	43, 8,24,38, 2,58,50, 0,38,34	1,27,20,12,11,53,28,36	3, 9,14, 2,20	6,23
22″	43, 8,26, 5,23,11, 1,54, 7,10	1,27,20, 9, 2,39,19,53	3, 9,14, 8,43	6,23
24″	43, 8,27,32,43,20, 4,33,27, 3	1,27,20, 5,53,25, 4,47	3, 9,14,15, 6	6,23
26″	43, 8,29, 0, 3,25,57,58,31,50	1,27,20, 2,44,10,43,18	3, 9,14,21,29	6,23
28″	43, 8,30,27,23,28,42, 9,15, 8	1,27,19,59,34,56,15,26	3, 9,14,27,52	6,23
30″	43, 8,31,54,43,28,17, 5,30,34	1,27,19,56,25,41,41,11	3, 9,14,34,15	6,23
32″	43, 8,33,22, 3,24,42,47,11,45	1,27,19,53,16,27, 0,33	3, 9,14,40,38	6,23
34″	43, 8,34,49,23,17,59,14,12,18	1,27,19,50, 7,12,13,32	3, 9,14,47, 1	6,23
36″	43, 8,36,16,43, 8, 6,26,25,50	1,27,19,46,57,57,20, 8	3, 9,14,53,24	6,23
38″	43, 8,37,44, 2,55, 4,23,45,58	1,27,19,43,48,42,20,21	3, 9,14,59,47	6,23
40″	43, 8,39,11,22,38,53, 6, 6,19	1,27,19,40,39,27,14,11	3, 9,15, 6,10	6,23
42″	43, 8,40,38,42,19,32,33,20,30	1,27,19,37,30,12, 1,38	3, 9,15,12,33	6,23
44″	43, 8,42, 6, 1,57, 2,45,22, 8	1,27,19,34,20,56,42,42	3, 9,15,18,56	6,23
46″	43, 8,43,33,21,31,23,42, 4,50	1,27,19,31,11,41,17,23	3, 9,15,25,19	6,23
48″	43, 8,45, 0,41, 2,35,23,22,13	1,27,19,28, 2,25,45,41	3, 9,15,31,42	6,23
50″	43, 8,46,28, 0,30,37,49, 7,54	1,27,19,24,53,10, 7,36	3, 9,15,38, 5	6,23
52″	43, 8,47,55,19,55,30,59,15,30	1,27,19,21,43,54,23, 8	3, 9,15,44,28	6,23
54″	43, 8,49,22,39,17,14,53,38,38	1,27,19,18,34,38,32,17	3, 9,15,50,51	6,23
56″	43, 8,50,49,58,35,49,32,10,55	1,27,19,15,25,22,35, 3	3, 9,15,57,14	6,23
58″	43, 8,52,17,17,51,14,54,45,58	1,27,19,12,16, 6,31,26	3, 9,16, 3,37	
60″	43, 8,53,44,37, 3,31, 1,17,24			
exact	43, 8,53,44,37, 3,31, 1, 8, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
45°59′ 0″	43, 8,53,44,37, 3,31, 1, 8, 9			
		1,27,19, 9, 6,50,20,35		
2″	43, 8,55,11,56,12,37,51,28,44		3, 9,16,16,26	
		1,27,19, 5,57,34, 4, 9		6,23
4″	43, 8,56,39,15,18,35,25,32,53		3, 9,16,22,49	
		1,27,19, 2,48,17,41,20		6,23
6″	43, 8,58, 6,34,21,23,43,14,13		3, 9,16,29,12	
		1,27,18,59,39, 1,12, 8		6,23
8″	43, 8,59,33,53,21, 2,44,26,21		3, 9,16,35,35	
		1,27,18,56,29,44,36,33		6,23
10″	43, 9, 1, 1,12,17,32,29, 2,54		3, 9,16,41,58	
		1,27,18,53,20,27,54,35		6,23
12″	43, 9, 2,28,31,10,52,56,57,29		3, 9,16,48,21	
		1,27,18,50,11,11, 6,14		6,23
14″	43, 9, 3,55,50, 1, 4, 8, 3,43		3, 9,16,54,44	
		1,27,18,47, 1,54,11,30		6,23
16″	43, 9, 5,23, 8,48, 6, 2,15,13		3, 9,17, 1, 7	
		1,27,18,43,52,37,10,23		6,23
18″	43, 9, 6,50,27,31,58,39,25,36		3, 9,17, 7,30	
		1,27,18,40,43,20, 2,53		6,23
20″	43, 9, 8,17,46,12,41,59,28,29		3, 9,17,13,53	
		1,27,18,37,34, 2,49, 0		6,23
22″	43, 9, 9,45, 4,50,16, 2,17,29		3, 9,17,20,16	
		1,27,18,34,24,45,28,44		6,23
24″	43, 9,11,12,23,24,40,47,46,13		3, 9,17,26,39	
		1,27,18,31,15,28, 2, 5		6,23
26″	43, 9,12,39,41,55,56,15,48,18		3, 9,17,33, 2	
		1,27,18,28, 6,10,29, 3		6,23
28″	43, 9,14, 7, 0,24, 2,26,17,21		3, 9,17,39,25	
		1,27,18,24,56,52,49,38		6,23
30″	43, 9,15,34,18,48,59,19, 6,59		3, 9,17,45,48	
		1,27,18,21,47,35, 3,50		6,23
32″	43, 9,17, 1,37,10,46,54,10,49		3, 9,17,52,11	
		1,27,18,18,38,17,11,39		6,23
34″	43, 9,18,28,55,29,25,11,22,28		3, 9,17,58,34	
		1,27,18,15,28,59,13, 5		6,23
36″	43, 9,19,56,13,44,54,10,35,33		3, 9,18, 4,57	
		1,27,18,12,19,41, 8, 8		6,23
38″	43, 9,21,23,31,57,13,51,43,41		3, 9,18,11,20	
		1,27,18, 9,10,22,56,48		6,23
40″	43, 9,22,50,50, 6,24,14,40,29		3, 9,18,17,43	
		1,27,18, 6, 1, 4,39, 5		6,23
42″	43, 9,24,18, 8,12,25,19,19,34		3, 9,18,24, 6	
		1,27,18, 2,51,46,14,59		6,23
44″	43, 9,25,45,26,15,17, 5,34,33		3, 9,18,30,29	
		1,27,17,59,42,27,44,30		6,23
46″	43, 9,27,12,44,14,59,33,19, 3		3, 9,18,36,52	
		1,27,17,56,33, 9, 7,38		6,23
48″	43, 9,28,40, 2,11,32,42,26,41		3, 9,18,43,15	
		1,27,17,53,23,50,24,23		6,23
50″	43, 9,30, 7,20, 4,56,32,51, 4		3, 9,18,49,38	
		1,27,17,50,14,31,34,45		6,23
52″	43, 9,31,34,37,55,11, 4,25,49		3, 9,18,56, 1	
		1,27,17,47, 5,12,38,44		6,23
54″	43, 9,33, 1,55,42,16,17, 4,33		3, 9,19, 2,24	
		1,27,17,43,55,53,36,20		6,23
56″	43, 9,34,29,13,26,12,10,40,53		3, 9,19, 8,47	
		1,27,17,40,46,34,27,33		6,23
58″	43, 9,35,56,31, 6,58,45, 8,26		3, 9,19,15,10	
		1,27,17,37,37,15,12,23		
60″	43, 9,37,23,48,44,36, 0,20,49			
exact	43, 9,37,23,48,44,36, 0,23,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46° 0′ 0″	43, 9,37,23,48,44,36, 0,23,14	1,27,17,34,27,55,51, 6		
2″	43, 9,38,51, 6,19, 3,56,14,20	1,27,17,31,18,36,23,11	3, 9,19,27,55	6,23
4″	43, 9,40,18,23,50,22,32,37,31	1,27,17,28, 9,16,48,53	3, 9,19,34,18	6,23
6″	43, 9,41,45,41,18,31,49,26,24	1,27,17,24,59,57, 8,12	3, 9,19,40,41	6,23
8″	43, 9,43,12,58,43,31,46,34,36	1,27,17,21,50,37,21, 8	3, 9,19,47, 4	6,23
10″	43, 9,44,40,16, 5,22,23,55,44	1,27,17,18,41,17,27,41	3, 9,19,53,27	6,23
12″	43, 9,46, 7,33,24, 3,41,23,25	1,27,17,15,31,57,27,51	3, 9,19,59,50	6,23
14″	43, 9,47,34,50,39,35,38,51,16	1,27,17,12,22,37,21,38	3, 9,20, 6,13	6,23
16″	43, 9,49, 2, 7,51,58,16,12,54	1,27,17, 9,13,17, 9, 2	3, 9,20,12,36	6,23
18″	43, 9,50,29,25, 1,11,33,21,56	1,27,17, 6, 3,56,50, 3	3, 9,20,18,59	6,23
20″	43, 9,51,56,42, 7,15,30,11,59	1,27,17, 2,54,36,24,41	3, 9,20,25,22	6,23
22″	43, 9,53,23,59,10,10, 6,36,40	1,27,16,59,45,15,52,56	3, 9,20,31,45	6,23
24″	43, 9,54,51,16, 9,55,22,29,36	1,27,16,56,35,55,14,48	3, 9,20,38, 8	6,23
26″	43, 9,56,18,33, 6,31,17,44,24	1,27,16,53,26,34,30,17	3, 9,20,44,31	6,23
28″	43, 9,57,45,49,59,57,52,14,41	1,27,16,50,17,13,39,23	3, 9,20,50,54	6,23
30″	43, 9,59,13, 6,50,15, 5,54, 4	1,27,16,47, 7,52,42, 6	3, 9,20,57,17	6,23
32″	43,10, 0,40,23,37,22,58,36,10	1,27,16,43,58,31,38,26	3, 9,21, 3,40	6,23
34″	43,10, 2, 7,40,21,21,30,14,36	1,27,16,40,49,10,28,23	3, 9,21,10, 3	6,23
36″	43,10, 3,34,57, 2,10,40,42,59	1,27,16,37,39,49,11,57	3, 9,21,16,26	6,23
38″	43,10, 5, 2,13,39,50,29,54,56	1,27,16,34,30,27,49, 8	3, 9,21,22,49	6,23
40″	43,10, 6,29,30,14,20,57,44, 4	1,27,16,31,21, 6,19,56	3, 9,21,29,12	6,23
42″	43,10, 7,56,46,45,42, 4, 4, 0	1,27,16,28,11,44,44,21	3, 9,21,35,35	6,23
44″	43,10, 9,24, 3,13,53,48,48,21	1,27,16,25, 2,23, 2,23	3, 9,21,41,58	6,23
46″	43,10,10,51,19,38,56,11,50,44	1,27,16,21,53, 1,14, 2	3, 9,21,48,21	6,23
48″	43,10,12,18,36, 0,49,13, 4,46	1,27,16,18,43,39,19,18	3, 9,21,54,44	6,23
50″	43,10,13,45,52,19,32,52,24, 4	1,27,16,15,34,17,18,11	3, 9,22, 1, 7	6,23
52″	43,10,15,13, 8,35, 7, 9,42,15	1,27,16,12,24,55,10,41	3, 9,22, 7,30	6,23
54″	43,10,16,40,24,47,32, 4,52,56	1,27,16, 9,15,32,56,48	3, 9,22,13,53	6,23
56″	43,10,18, 7,40,56,47,37,49,44	1,27,16, 6, 6,10,36,32	3, 9,22,20,16	6,23
58″	43,10,19,34,57, 2,53,48,26,16	1,27,16, 2,56,48, 9,53	3, 9,22,26,39	
60″	43,10,21, 2,13, 5,50,36,36, 9			
exact	43,10,21, 2,13, 5,50,36,46,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46° 1′ 0″	43,10,21, 2,13, 5,50,36,46,39			
		1,27,15,59,47,25,37,58		
2″	43,10,22,29,29, 5,38, 2,24,37		3, 9,22,39,20	
		1,27,15,56,38, 2,58,38		6,23
4″	43,10,23,56,45, 2,16, 5,23,15		3, 9,22,45,43	
		1,27,15,53,28,40,12,55		6,23
6″	43,10,25,24, 0,55,44,45,36,10		3, 9,22,52, 6	
		1,27,15,50,19,17,20,49		6,23
8″	43,10,26,51,16,46, 4, 2,56,59		3, 9,22,58,29	
		1,27,15,47, 9,54,22,20		6,23
10″	43,10,28,18,32,33,13,57,19,19		3, 9,23, 4,52	
		1,27,15,44, 0,31,17,28		6,23
12″	43,10,29,45,48,17,14,28,36,47		3, 9,23,11,15	
		1,27,15,40,51, 8, 6,13		6,23
14″	43,10,31,13, 3,58, 5,36,43, 0		3, 9,23,17,38	
		1,27,15,37,41,44,48,35		6,23
16″	43,10,32,40,19,35,47,21,31,35		3, 9,23,24, 1	
		1,27,15,34,32,21,24,34		6,23
18″	43,10,34, 7,35,10,19,42,56, 9		3, 9,23,30,24	
		1,27,15,31,22,57,54,10		6,23
20″	43,10,35,34,50,41,42,40,50,19		3, 9,23,36,47	
		1,27,15,28,13,34,17,23		6,23
22″	43,10,37, 2, 6, 9,56,15, 7,42		3, 9,23,43,10	
		1,27,15,25, 4,10,34,13		6,23
24″	43,10,38,29,21,35, 0,25,41,55		3, 9,23,49,33	
		1,27,15,21,54,46,44,40		6,23
26″	43,10,39,56,36,56,55,12,26,35		3, 9,23,55,56	
		1,27,15,18,45,22,48,44		6,23
28″	43,10,41,23,52,15,40,35,15,19		3, 9,24, 2,19	
		1,27,15,15,35,58,46,25		6,23
30″	43,10,42,51, 7,31,16,34, 1,44		3, 9,24, 8,42	
		1,27,15,12,26,34,37,43		6,23
32″	43,10,44,18,22,43,43, 8,39,27		3, 9,24,15, 5	
		1,27,15, 9,17,10,22,38		6,23
34″	43,10,45,45,37,53, 0,19, 2, 5		3, 9,24,21,28	
		1,27,15, 6, 7,46, 1,10		6,23
36″	43,10,47,12,52,59, 8, 5, 3,15		3, 9,24,27,51	
		1,27,15, 2,58,21,33,19		6,23
38″	43,10,48,40, 8, 2, 6,26,36,34		3, 9,24,34,14	
		1,27,14,59,48,56,59, 5		6,23
40″	43,10,50, 7,23, 1,55,23,35,39		3, 9,24,40,37	
		1,27,14,56,39,32,18,28		6,23
42″	43,10,51,34,37,58,34,55,54, 7		3, 9,24,47, 0	
		1,27,14,53,30, 7,31,28		6,23
44″	43,10,53, 1,52,52, 5, 3,25,35		3, 9,24,53,23	
		1,27,14,50,20,42,38, 5		6,23
46″	43,10,54,29, 7,42,25,46, 3,40		3, 9,24,59,46	
		1,27,14,47,11,17,38,19		6,23
48″	43,10,55,56,22,29,37, 3,41,59		3, 9,25, 6, 9	
		1,27,14,44, 1,52,32,10		6,23
50″	43,10,57,23,37,13,38,56,14, 9		3, 9,25,12,32	
		1,27,14,40,52,27,19,38		6,23
52″	43,10,58,50,51,54,31,23,33,47		3, 9,25,18,55	
		1,27,14,37,43, 2, 0,43		6,23
54″	43,11, 0,18, 6,32,14,25,34,30		3, 9,25,25,18	
		1,27,14,34,33,36,35,25		6,23
56″	43,11, 1,45,21, 6,48, 2, 9,55		3, 9,25,31,41	
		1,27,14,31,24,11, 3,44		6,23
58″	43,11, 3,12,35,38,12,13,13,39		3, 9,25,38, 4	
		1,27,14,28,14,45,25,40		
60″	43,11, 4,39,50, 6,26,58,39,19			
exact	43,11, 4,39,50, 6,26,58,54,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46° 2′ 0″	43,11, 4,39,50, 6,26,58,54,11	1,27,14,25, 5,19,42,55		
2″	43,11, 6, 7, 4,31,32,18,37, 6	1,27,14,21,55,53,52,13	3, 9,25,50,42	6,23
4″	43,11, 7,34,18,53,28,12,29,19	1,27,14,18,46,27,55, 8	3, 9,25,57, 5	6,23
6″	43,11, 9, 1,33,12,14,40,24,27	1,27,14,15,37, 1,51,40	3, 9,26, 3,28	6,23
8″	43,11,10,28,47,27,51,42,16, 7	1,27,14,12,27,35,41,49	3, 9,26, 9,51	6,23
10″	43,11,11,56, 1,40,19,17,57,56	1,27,14, 9,18, 9,25,35	3, 9,26,16,14	6,23
12″	43,11,13,23,15,49,37,27,23,31	1,27,14, 6, 8,43, 2,58	3, 9,26,22,37	6,23
14″	43,11,14,50,29,55,46,10,26,29	1,27,14, 2,59,16,33,58	3, 9,26,29, 0	6,23
16″	43,11,16,17,43,58,45,27, 0,27	1,27,13,59,49,49,58,35	3, 9,26,35,23	6,23
18″	43,11,17,44,57,58,35,16,59, 2	1,27,13,56,40,23,16,49	3, 9,26,41,46	6,23
20″	43,11,19,12,11,55,15,40,15,51	1,27,13,53,30,56,28,40	3, 9,26,48, 9	6,23
22″	43,11,20,39,25,48,46,36,44,31	1,27,13,50,21,29,34, 8	3, 9,26,54,32	6,23
24″	43,11,22, 6,39,39, 8, 6,18,39	1,27,13,47,12, 2,33,13	3, 9,27, 0,55	6,23
26″	43,11,23,33,53,26,20, 8,51,52	1,27,13,44, 2,35,25,55	3, 9,27, 7,18	6,23
28″	43,11,25, 1, 7,10,22,44,17,47	1,27,13,40,53, 8,12,14	3, 9,27,13,41	6,23
30″	43,11,26,28,20,51,15,52,30, 1	1,27,13,37,43,40,52,10	3, 9,27,20, 4	6,23
32″	43,11,27,55,34,28,59,33,22,11	1,27,13,34,34,13,25,43	3, 9,27,26,27	6,23
34″	43,11,29,22,48, 3,33,46,47,54	1,27,13,31,24,45,52,53	3, 9,27,32,50	6,23
36″	43,11,30,50, 1,34,58,32,40,47	1,27,13,28,15,18,13,40	3, 9,27,39,13	6,23
38″	43,11,32,17,15, 3,13,50,54,27	1,27,13,25, 5,50,28, 4	3, 9,27,45,36	6,23
40″	43,11,33,44,28,28,19,41,22,31	1,27,13,21,56,22,36, 5	3, 9,27,51,59	6,23
42″	43,11,35,11,41,50,16, 3,58,36	1,27,13,18,46,54,37,43	3, 9,27,58,22	6,23
44″	43,11,36,38,55, 9, 2,58,36,19	1,27,13,15,37,26,32,58	3, 9,28, 4,45	6,23
46″	43,11,38, 6, 8,24,40,25, 9,17	1,27,13,12,27,58,21,50	3, 9,28,11, 8	6,23
48″	43,11,39,33,21,37, 8,23,31, 7	1,27,13, 9,18,30, 4,19	3, 9,28,17,31	6,23
50″	43,11,41, 0,34,46,26,53,35,26	1,27,13, 6, 9, 1,40,25	3, 9,28,23,54	6,23
52″	43,11,42,27,47,52,35,55,15,51	1,27,13, 2,59,33,10, 8	3, 9,28,30,17	6,23
54″	43,11,43,55, 0,55,35,28,25,59	1,27,12,59,50, 4,33,28	3, 9,28,36,40	6,23
56″	43,11,45,22,13,55,25,32,59,27	1,27,12,56,40,35,50,25	3, 9,28,43, 3	6,23
58″	43,11,46,49,26,52, 6, 8,49,52	1,27,12,53,31, 7, 0,59	3, 9,28,49,26	
60″	43,11,48,16,39,45,37,15,50,51			
exact	43,11,48,16,39,45,37,16,13,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46° 3′ 0″	43,11,48,16,39,45,37,16,13,33	1,27,12,50,21,38, 7,42		
2″	43,11,49,43,52,35,58,54,21,15	1,27,12,47,12, 9, 5,41	3, 9,29, 2, 1	6,23
4″	43,11,51,11, 5,23,11, 3,26,56	1,27,12,44, 2,39,57,17	3, 9,29, 8,24	6,23
6″	43,11,52,38,18, 7,13,43,24,13	1,27,12,40,53,10,42,30	3, 9,29,14,47	6,23
8″	43,11,54, 5,30,48, 6,54, 6,43	1,27,12,37,43,41,21,20	3, 9,29,21,10	6,23
10″	43,11,55,32,43,25,50,35,28, 3	1,27,12,34,34,11,53,47	3, 9,29,27,33	6,23
12″	43,11,56,59,56, 0,24,47,21,50	1,27,12,31,24,42,19,51	3, 9,29,33,56	6,23
14″	43,11,58,27, 8,31,49,29,41,41	1,27,12,28,15,12,39,32	3, 9,29,40,19	6,23
16″	43,11,59,54,21, 0, 4,42,21,13	1,27,12,25, 5,42,52,50	3, 9,29,46,42	6,23
18″	43,12, 1,21,33,25,10,25,14, 3	1,27,12,21,56,12,59,45	3, 9,29,53, 5	6,23
20″	43,12, 2,48,45,47, 6,38,13,48	1,27,12,18,46,43, 0,17	3, 9,29,59,28	6,23
22″	43,12, 4,15,58, 5,53,21,14, 5	1,27,12,15,37,12,54,26	3, 9,30, 5,51	6,23
24″	43,12, 5,43,10,21,30,34, 8,31	1,27,12,12,27,42,42,12	3, 9,30,12,14	6,23
26″	43,12, 7,10,22,33,58,16,50,43	1,27,12, 9,18,12,23,35	3, 9,30,18,37	6,23
28″	43,12, 8,37,34,43,16,29,14,18	1,27,12, 6, 8,41,58,35	3, 9,30,25, 0	6,23
30″	43,12,10, 4,46,49,25,11,12,53	1,27,12, 2,59,11,27,12	3, 9,30,31,23	6,23
32″	43,12,11,31,58,52,24,22,40, 5	1,27,11,59,49,40,49,26	3, 9,30,37,46	6,23
34″	43,12,12,59,10,52,14, 3,29,31	1,27,11,56,40,10, 5,17	3, 9,30,44, 9	6,23
36″	43,12,14,26,22,48,54,13,34,48	1,27,11,53,30,39,14,45	3, 9,30,50,32	6,23
38″	43,12,15,53,34,42,24,52,49,33	1,27,11,50,21, 8,17,50	3, 9,30,56,55	6,23
40″	43,12,17,20,46,32,46, 1, 7,23	1,27,11,47,11,37,14,32	3, 9,31, 3,18	6,23
42″	43,12,18,47,58,19,57,38,21,55	1,27,11,44, 2, 6, 4,51	3, 9,31, 9,41	6,23
44″	43,12,20,15,10, 3,59,44,26,46	1,27,11,40,52,34,48,47	3, 9,31,16, 4	6,23
46″	43,12,21,42,21,44,52,19,15,33	1,27,11,37,43, 3,26,20	3, 9,31,22,27	6,23
48″	43,12,23, 9,33,22,35,22,41,53	1,27,11,34,33,31,57,30	3, 9,31,28,50	6,23
50″	43,12,24,36,44,57, 8,54,39,23	1,27,11,31,24, 0,22,17	3, 9,31,35,13	6,23
52″	43,12,26, 3,56,28,32,55, 1,40	1,27,11,28,14,28,40,41	3, 9,31,41,36	6,23
54″	43,12,27,31, 7,56,47,23,42,21	1,27,11,25, 4,56,52,42	3, 9,31,47,59	6,23
56″	43,12,28,58,19,21,52,20,35, 3	1,27,11,21,55,24,58,20	3, 9,31,54,22	6,23
58″	43,12,30,25,30,43,47,45,33,23	1,27,11,18,45,52,57,35	3, 9,32, 0,45	
60″	43,12,31,52,42, 2,33,38,30,58			
exact	43,12,31,52,42, 2,33,39, 4,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46° 4′ 0″	43,12,31,52,42, 2,33,39, 4,24			
		1,27,11,15,36,20,54, 2		
2″	43,12,33,19,53,18, 9,59,58,26		3, 9,32,13,16	
		1,27,11,12,26,48,40,46		6,22
4″	43,12,34,47, 4,30,36,48,39,12		3, 9,32,19,38	
		1,27,11, 9,17,16,21, 8		6,22
6″	43,12,36,14,15,39,54, 5, 0,20		3, 9,32,26, 0	
		1,27,11, 6, 7,43,55, 8		6,22
8″	43,12,37,41,26,46, 1,48,55,28		3, 9,32,32,22	
		1,27,11, 2,58,11,22,46		6,22
10″	43,12,39, 8,37,49, 0, 0,18,14		3, 9,32,38,44	
		1,27,10,59,48,38,44, 2		6,22
12″	43,12,40,35,48,48,48,39, 2,16		3, 9,32,45, 6	
		1,27,10,56,39, 5,58,56		6,22
14″	43,12,42, 2,59,45,27,45, 1,12		3, 9,32,51,28	
		1,27,10,53,29,33, 7,28		6,22
16″	43,12,43,30,10,38,57,18, 8,40		3, 9,32,57,50	
		1,27,10,50,20, 0, 9,38		6,22
18″	43,12,44,57,21,29,17,18,18,18		3, 9,33, 4,12	
		1,27,10,47,10,27, 5,26		6,22
20″	43,12,46,24,32,16,27,45,23,44		3, 9,33,10,34	
		1,27,10,44, 0,53,54,52		6,22
22″	43,12,47,51,43, 0,28,39,18,36		3, 9,33,16,56	
		1,27,10,40,51,20,37,56		6,22
24″	43,12,49,18,53,41,19,59,56,32		3, 9,33,23,18	
		1,27,10,37,41,47,14,38		6,22
26″	43,12,50,46, 4,19, 1,47,11,10		3, 9,33,29,40	
		1,27,10,34,32,13,44,58		6,22
28″	43,12,52,13,14,53,34, 0,56, 8		3, 9,33,36, 2	
		1,27,10,31,22,40, 8,56		6,22
30″	43,12,53,40,25,24,56,41, 5, 4		3, 9,33,42,24	
		1,27,10,28,13, 6,26,32		6,22
32″	43,12,55, 7,35,53, 9,47,31,36		3, 9,33,48,46	
		1,27,10,25, 3,32,37,46		6,22
34″	43,12,56,34,46,18,13,20, 9,22		3, 9,33,55, 8	
		1,27,10,21,53,58,42,38		6,22
36″	43,12,58, 1,56,40, 7,18,52, 0		3, 9,34, 1,30	
		1,27,10,18,44,24,41, 8		6,22
38″	43,12,59,29, 6,58,51,43,33, 8		3, 9,34, 7,52	
		1,27,10,15,34,50,33,16		6,22
40″	43,13, 0,56,17,14,26,34, 6,24		3, 9,34,14,14	
		1,27,10,12,25,16,19, 2		6,22
42″	43,13, 2,23,27,26,51,50,25,26		3, 9,34,20,36	
		1,27,10, 9,15,41,58,26		6,22
44″	43,13, 3,50,37,36, 7,32,23,52		3, 9,34,26,58	
		1,27,10, 6, 6, 7,31,28		6,22
46″	43,13, 5,17,47,42,13,39,55,20		3, 9,34,33,20	
		1,27,10, 2,56,32,58, 8		6,22
48″	43,13, 6,44,57,45,10,12,53,28		3, 9,34,39,42	
		1,27, 9,59,46,58,18,26		6,22
50″	43,13, 8,12, 7,44,57,11,11,54		3, 9,34,46, 4	
		1,27, 9,56,37,23,32,22		6,22
52″	43,13, 9,39,17,41,34,34,44,16		3, 9,34,52,26	
		1,27, 9,53,27,48,39,56		6,22
54″	43,13,11, 6,27,35, 2,23,24,12		3, 9,34,58,48	
		1,27, 9,50,18,13,41, 8		6,22
56″	43,13,12,33,37,25,20,37, 5,20		3, 9,35, 5,10	
		1,27, 9,47, 8,38,35,58		6,22
58″	43,13,14, 0,47,12,29,15,41,18		3, 9,35,11,32	
		1,27, 9,43,59, 3,24,26		
60″	43,13,15,27,56,56,28,19, 5,44			
exact	43,13,15,27,56,56,28,18,38,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46° 5′ 0″	43,13,15,27,56,56,28,18,38,21	1,27, 9,40,49,28, 3,38		
2″	43,13,16,55, 6,37,17,46,41,59	1,27, 9,37,39,52,39,10	3, 9,35,24,28	6,22
4″	43,13,18,22,16,14,57,39,21, 9	1,27, 9,34,30,17, 8,20	3, 9,35,30,50	6,22
6″	43,13,19,49,25,49,27,56,29,29	1,27, 9,31,20,41,31, 8	3, 9,35,37,12	6,22
8″	43,13,21,16,35,20,48,38, 0,37	1,27, 9,28,11, 5,47,34	3, 9,35,43,34	6,22
10″	43,13,22,43,44,48,59,43,48,11	1,27, 9,25, 1,29,57,38	3, 9,35,49,56	6,22
12″	43,13,24,10,54,14, 1,13,45,49	1,27, 9,21,51,54, 1,20	3, 9,35,56,18	6,22
14″	43,13,25,38, 3,35,53, 7,47, 9	1,27, 9,18,42,17,58,40	3, 9,36, 2,40	6,22
16″	43,13,27, 5,12,54,35,25,45,49	1,27, 9,15,32,41,49,38	3, 9,36, 9, 2	6,22
18″	43,13,28,32,22,10, 8, 7,35,27	1,27, 9,12,23, 5,34,14	3, 9,36,15,24	6,22
20″	43,13,29,59,31,22,31,13, 9,41	1,27, 9, 9,13,29,12,28	3, 9,36,21,46	6,22
22″	43,13,31,26,40,31,44,42,22, 9	1,27, 9, 6, 3,52,44,20	3, 9,36,28, 8	6,22
24″	43,13,32,53,49,37,48,35, 6,29	1,27, 9, 2,54,16, 9,50	3, 9,36,34,30	6,22
26″	43,13,34,20,58,40,42,51,16,19	1,27, 8,59,44,39,28,58	3, 9,36,40,52	6,22
28″	43,13,35,48, 7,40,27,30,45,17	1,27, 8,56,35, 2,41,44	3, 9,36,47,14	6,22
30″	43,13,37,15,16,37, 2,33,27, 1	1,27, 8,53,25,25,48, 8	3, 9,36,53,36	6,22
32″	43,13,38,42,25,30,27,59,15, 9	1,27, 8,50,15,48,48,10	3, 9,36,59,58	6,22
34″	43,13,40, 9,34,20,43,48, 3,19	1,27, 8,47, 6,11,41,50	3, 9,37, 6,20	6,22
36″	43,13,41,36,43, 7,49,59,45, 9	1,27, 8,43,56,34,29, 8	3, 9,37,12,42	6,22
38″	43,13,43, 3,51,51,46,34,14,17	1,27, 8,40,46,57,10, 4	3, 9,37,19, 4	6,22
40″	43,13,44,31, 0,32,33,31,24,21	1,27, 8,37,37,19,44,38	3, 9,37,25,26	6,22
42″	43,13,45,58, 9,10,10,51, 8,59	1,27, 8,34,27,42,12,50	3, 9,37,31,48	6,22
44″	43,13,47,25,17,44,38,33,21,49	1,27, 8,31,18, 4,34,40	3, 9,37,38,10	6,22
46″	43,13,48,52,26,15,56,37,56,29	1,27, 8,28, 8,26,50, 8	3, 9,37,44,32	6,22
48″	43,13,50,19,34,44, 5, 4,46,37	1,27, 8,24,58,48,59,14	3, 9,37,50,54	6,22
50″	43,13,51,46,43, 9, 3,53,45,51	1,27, 8,21,49,11, 1,58	3, 9,37,57,16	6,22
52″	43,13,53,13,51,30,53, 4,47,49	1,27, 8,18,39,32,58,20	3, 9,38, 3,38	6,22
54″	43,13,54,40,59,49,32,37,46, 9	1,27, 8,15,29,54,48,20	3, 9,38,10, 0	6,22
56″	43,13,56, 8, 8, 5, 2,32,34,29	1,27, 8,12,20,16,31,58	3, 9,38,16,22	6,22
58″	43,13,57,35,16,17,22,49, 6,27	1,27, 8, 9,10,38, 9,14	3, 9,38,22,44	
60″	43,13,59, 2,24,26,33,27,15,41			
exact	43,13,59, 2,24,26,33,26,58,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46° 6′ 0″	43,13,59, 2,24,26,33,26,58,56			
		1,27, 8, 6, 0,59,38,16		
2″	43,14, 0,29,32,32,34,26,37,12		3, 9,38,35,36	
		1,27, 8, 2,51,21, 2,40		6,22
4″	43,14, 1,56,40,35,25,47,39,52		3, 9,38,41,58	
		1,27, 7,59,41,42,20,42		6,22
6″	43,14, 3,23,48,35, 7,30, 0,34		3, 9,38,48,20	
		1,27, 7,56,32, 3,32,22		6,22
8″	43,14, 4,50,56,31,39,33,32,56		3, 9,38,54,42	
		1,27, 7,53,22,24,37,40		6,22
10″	43,14, 6,18, 4,25, 1,58,10,36		3, 9,39, 1, 4	
		1,27, 7,50,12,45,36,36		6,22
12″	43,14, 7,45,12,15,14,43,47,12		3, 9,39, 7,26	
		1,27, 7,47, 3, 6,29,10		6,22
14″	43,14, 9,12,20, 2,17,50,16,22		3, 9,39,13,48	
		1,27, 7,43,53,27,15,22		6,22
16″	43,14,10,39,27,46,11,17,31,44		3, 9,39,20,10	
		1,27, 7,40,43,47,55,12		6,22
18″	43,14,12, 6,35,26,55, 5,26,56		3, 9,39,26,32	
		1,27, 7,37,34, 8,28,40		6,22
20″	43,14,13,33,43, 4,29,13,55,36		3, 9,39,32,54	
		1,27, 7,34,24,28,55,46		6,22
22″	43,14,15, 0,50,38,53,42,51,22		3, 9,39,39,16	
		1,27, 7,31,14,49,16,30		6,22
24″	43,14,16,27,58,10, 8,32, 7,52		3, 9,39,45,38	
		1,27, 7,28, 5, 9,30,52		6,22
26″	43,14,17,55, 5,38,13,41,38,44		3, 9,39,52, 0	
		1,27, 7,24,55,29,38,52		6,22
28″	43,14,19,22,13, 3, 9,11,17,36		3, 9,39,58,22	
		1,27, 7,21,45,49,40,30		6,22
30″	43,14,20,49,20,24,55, 0,58, 6		3, 9,40, 4,44	
		1,27, 7,18,36, 9,35,46		6,22
32″	43,14,22,16,27,43,31,10,33,52		3, 9,40,11, 6	
		1,27, 7,15,26,29,24,40		6,22
34″	43,14,23,43,34,58,57,39,58,32		3, 9,40,17,28	
		1,27, 7,12,16,49, 7,12		6,22
36″	43,14,25,10,42,11,14,29, 5,44		3, 9,40,23,50	
		1,27, 7, 9, 7, 8,43,22		6,22
38″	43,14,26,37,49,20,21,37,49, 6		3, 9,40,30,12	
		1,27, 7, 5,57,28,13,10		6,22
40″	43,14,28, 4,56,26,19, 6, 2,16		3, 9,40,36,34	
		1,27, 7, 2,47,47,36,36		6,22
42″	43,14,29,32, 3,29, 6,53,38,52		3, 9,40,42,56	
		1,27, 6,59,38, 6,53,40		6,22
44″	43,14,30,59,10,28,45, 0,32,32		3, 9,40,49,18	
		1,27, 6,56,28,26, 4,22		6,22
46″	43,14,32,26,17,25,13,26,36,54		3, 9,40,55,40	
		1,27, 6,53,18,45, 8,42		6,22
48″	43,14,33,53,24,18,32,11,45,36		3, 9,41, 2, 2	
		1,27, 6,50, 9, 4, 6,40		6,22
50″	43,14,35,20,31, 8,41,15,52,16		3, 9,41, 8,24	
		1,27, 6,46,59,22,58,16		6,22
52″	43,14,36,47,37,55,40,38,50,32		3, 9,41,14,46	
		1,27, 6,43,49,41,43,30		6,22
54″	43,14,38,14,44,39,30,20,34, 2		3, 9,41,21, 8	
		1,27, 6,40,40, 0,22,22		6,22
56″	43,14,39,41,51,20,10,20,56,24		3, 9,41,27,30	
		1,27, 6,37,30,18,54,52		6,22
58″	43,14,41, 8,57,57,40,39,51,16		3, 9,41,33,52	
		1,27, 6,34,20,37,21, 0		
60″	43,14,42,36, 4,32, 1,17,12,16			
exact	43,14,42,36, 4,32, 1,17, 1,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46° 7′ 0″	43,14,42,36, 4,32, 1,17, 1,42			
		1,27, 6,31,10,55,39,38		
2″	43,14,44, 3,11, 3,12,12,41,20		3, 9,41,46,40	
		1,27, 6,28, 1,13,52,58		6,22
4″	43,14,45,30,17,31,13,26,34,18		3, 9,41,53, 2	
		1,27, 6,24,51,31,59,56		6,22
6″	43,14,46,57,23,56, 4,58,34,14		3, 9,41,59,24	
		1,27, 6,21,41,50, 0,32		6,22
8″	43,14,48,24,30,17,46,48,34,46		3, 9,42, 5,46	
		1,27, 6,18,32, 7,54,46		6,22
10″	43,14,49,51,36,36,18,56,29,32		3, 9,42,12, 8	
		1,27, 6,15,22,25,42,38		6,22
12″	43,14,51,18,42,51,41,22,12,10		3, 9,42,18,30	
		1,27, 6,12,12,43,24, 8		6,22
14″	43,14,52,45,49, 3,54, 5,36,18		3, 9,42,24,52	
		1,27, 6, 9, 3, 0,59,16		6,22
16″	43,14,54,12,55,12,57, 6,35,34		3, 9,42,31,14	
		1,27, 6, 5,53,18,28, 2		6,22
18″	43,14,55,40, 1,18,50,25, 3,36		3, 9,42,37,36	
		1,27, 6, 2,43,35,50,26		6,22
20″	43,14,57, 7, 7,21,34, 0,54, 2		3, 9,42,43,58	
		1,27, 5,59,33,53, 6,28		6,22
22″	43,14,58,34,13,21, 7,54, 0,30		3, 9,42,50,20	
		1,27, 5,56,24,10,16, 8		6,22
24″	43,15, 0, 1,19,17,32, 4,16,38		3, 9,42,56,42	
		1,27, 5,53,14,27,19,26		6,22
26″	43,15, 1,28,25,10,46,31,36, 4		3, 9,43, 3, 4	
		1,27, 5,50, 4,44,16,22		6,22
28″	43,15, 2,55,31, 0,51,15,52,26		3, 9,43, 9,26	
		1,27, 5,46,55, 1, 6,56		6,22
30″	43,15, 4,22,36,47,46,16,59,22		3, 9,43,15,48	
		1,27, 5,43,45,17,51, 8		6,22
32″	43,15, 5,49,42,31,31,34,50,30		3, 9,43,22,10	
		1,27, 5,40,35,34,28,58		6,22
34″	43,15, 7,16,48,12, 7, 9,19,28		3, 9,43,28,32	
		1,27, 5,37,25,51, 0,26		6,22
36″	43,15, 8,43,53,49,33, 0,19,54		3, 9,43,34,54	
		1,27, 5,34,16, 7,25,32		6,22
38″	43,15,10,10,59,23,49, 7,45,26		3, 9,43,41,16	
		1,27, 5,31, 6,23,44,16		6,22
40″	43,15,11,38, 4,54,55,31,29,42		3, 9,43,47,38	
		1,27, 5,27,56,39,56,38		6,22
42″	43,15,13, 5,10,22,52,11,26,20		3, 9,43,54, 0	
		1,27, 5,24,46,56, 2,38		6,22
44″	43,15,14,32,15,47,39, 7,28,58		3, 9,44, 0,22	
		1,27, 5,21,37,12, 2,16		6,22
46″	43,15,15,59,21, 9,16,19,31,14		3, 9,44, 6,44	
		1,27, 5,18,27,27,55,32		6,22
48″	43,15,17,26,26,27,43,47,26,46		3, 9,44,13, 6	
		1,27, 5,15,17,43,42,26		6,22
50″	43,15,18,53,31,43, 1,31, 9,12		3, 9,44,19,28	
		1,27, 5,12, 7,59,22,58		6,22
52″	43,15,20,20,36,55, 9,30,32,10		3, 9,44,25,50	
		1,27, 5, 8,58,14,57, 8		6,22
54″	43,15,21,47,42, 4, 7,45,29,18		3, 9,44,32,12	
		1,27, 5, 5,48,30,24,56		6,22
56″	43,15,23,14,47, 9,56,15,54,14		3, 9,44,38,34	
		1,27, 5, 2,38,45,46,22		6,22
58″	43,15,24,41,52,12,35, 1,40,36		3, 9,44,44,56	
		1,27, 4,59,29, 1, 1,26		
60″	43,15,26, 8,57,12, 4, 2,42, 2			
exact	43,15,26, 8,57,12, 4, 2,34,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46° 8′ 0″	43,15,26, 8,57,12, 4, 2,34,10			
		1,27, 4,56,19,16, 9,29		
2″	43,15,27,36, 2, 8,23,18,43,39		3, 9,44,57,42	
		1,27, 4,53, 9,31,11,47		6,22
4″	43,15,29, 3, 7, 1,32,49,55,26		3, 9,45, 4, 4	
		1,27, 4,49,59,46, 7,43		6,22
6″	43,15,30,30,11,51,32,36, 3, 9		3, 9,45,10,26	
		1,27, 4,46,50, 0,57,17		6,22
8″	43,15,31,57,16,38,22,37, 0,26		3, 9,45,16,48	
		1,27, 4,43,40,15,40,29		6,22
10″	43,15,33,24,21,22, 2,52,40,55		3, 9,45,23,10	
		1,27, 4,40,30,30,17,19		6,22
12″	43,15,34,51,26, 2,33,22,58,14		3, 9,45,29,32	
		1,27, 4,37,20,44,47,47		6,22
14″	43,15,36,18,30,39,54, 7,46, 1		3, 9,45,35,54	
		1,27, 4,34,10,59,11,53		6,22
16″	43,15,37,45,35,14, 5, 6,57,54		3, 9,45,42,16	
		1,27, 4,31, 1,13,29,37		6,22
18″	43,15,39,12,39,45, 6,20,27,31		3, 9,45,48,38	
		1,27, 4,27,51,27,40,59		6,22
20″	43,15,40,39,44,12,57,48, 8,30		3, 9,45,55, 0	
		1,27, 4,24,41,41,45,59		6,22
22″	43,15,42, 6,48,37,39,29,54,29		3, 9,46, 1,22	
		1,27, 4,21,31,55,44,37		6,22
24″	43,15,43,33,52,59,11,25,39, 6		3, 9,46, 7,44	
		1,27, 4,18,22, 9,36,53		6,22
26″	43,15,45, 0,57,17,33,35,15,59		3, 9,46,14, 6	
		1,27, 4,15,12,23,22,47		6,22
28″	43,15,46,28, 1,32,45,58,38,46		3, 9,46,20,28	
		1,27, 4,12, 2,37, 2,19		6,22
30″	43,15,47,55, 5,44,48,35,41, 5		3, 9,46,26,50	
		1,27, 4, 8,52,50,35,29		6,22
32″	43,15,49,22, 9,53,41,26,16,34		3, 9,46,33,12	
		1,27, 4, 5,43, 4, 2,17		6,22
34″	43,15,50,49,13,59,24,30,18,51		3, 9,46,39,34	
		1,27, 4, 2,33,17,22,43		6,22
36″	43,15,52,16,18, 1,57,47,41,34		3, 9,46,45,56	
		1,27, 3,59,23,30,36,47		6,22
38″	43,15,53,43,22, 1,21,18,18,21		3, 9,46,52,18	
		1,27, 3,56,13,43,44,29		6,22
40″	43,15,55,10,25,57,35, 2, 2,50		3, 9,46,58,40	
		1,27, 3,53, 3,56,45,49		6,22
42″	43,15,56,37,29,50,38,58,48,39		3, 9,47, 5, 2	
		1,27, 3,49,54, 9,40,47		6,22
44″	43,15,58, 4,33,40,33, 8,29,26		3, 9,47,11,24	
		1,27, 3,46,44,22,29,23		6,22
46″	43,15,59,31,37,27,17,30,58,49		3, 9,47,17,46	
		1,27, 3,43,34,35,11,37		6,22
48″	43,16, 0,58,41,10,52, 6,10,26		3, 9,47,24, 8	
		1,27, 3,40,24,47,47,29		6,22
50″	43,16, 2,25,44,51,16,53,57,55		3, 9,47,30,30	
		1,27, 3,37,15, 0,16,59		6,22
52″	43,16, 3,52,48,28,31,54,14,54		3, 9,47,36,52	
		1,27, 3,34, 5,12,40, 7		6,22
54″	43,16, 5,19,52, 2,37, 6,55, 1		3, 9,47,43,14	
		1,27, 3,30,55,24,56,53		6,22
56″	43,16, 6,46,55,33,32,31,51,54		3, 9,47,49,36	
		1,27, 3,27,45,37, 7,17		6,22
58″	43,16, 8,13,59, 1,18, 8,59,11		3, 9,47,55,58	
		1,27, 3,24,35,49,11,19		
60″	43,16, 9,41, 2,25,53,58,10,30			
exact	43,16, 9,41, 2,25,53,58,15,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46° 9′ 0″	43,16, 9,41, 2,25,53,58,15,53			
		1,27, 3,21,26, 1, 9,33		
2″	43,16,11, 8, 5,47,19,59,25,26		3, 9,48, 8,39	
		1,27, 3,18,16,13, 0,54		6,22
4″	43,16,12,35, 9, 5,36,12,26,20		3, 9,48,15, 1	
		1,27, 3,15, 6,24,45,53		6,22
6″	43,16,14, 2,12,20,42,37,12,13		3, 9,48,21,23	
		1,27, 3,11,56,36,24,30		6,22
8″	43,16,15,29,15,32,39,13,36,43		3, 9,48,27,45	
		1,27, 3, 8,46,47,56,45		6,22
10″	43,16,16,56,18,41,26, 1,33,28		3, 9,48,34, 7	
		1,27, 3, 5,36,59,22,38		6,22
12″	43,16,18,23,21,47, 3, 0,56, 6		3, 9,48,40,29	
		1,27, 3, 2,27,10,42, 9		6,22
14″	43,16,19,50,24,49,30,11,38,15		3, 9,48,46,51	
		1,27, 2,59,17,21,55,18		6,22
16″	43,16,21,17,27,48,47,33,33,33		3, 9,48,53,13	
		1,27, 2,56, 7,33, 2, 5		6,22
18″	43,16,22,44,30,44,55, 6,35,38		3, 9,48,59,35	
		1,27, 2,52,57,44, 2,30		6,22
20″	43,16,24,11,33,37,52,50,38, 8		3, 9,49, 5,57	
		1,27, 2,49,47,54,56,33		6,22
22″	43,16,25,38,36,27,40,45,34,41		3, 9,49,12,19	
		1,27, 2,46,38, 5,44,14		6,22
24″	43,16,27, 5,39,14,18,51,18,55		3, 9,49,18,41	
		1,27, 2,43,28,16,25,33		6,22
26″	43,16,28,32,41,57,47, 7,44,28		3, 9,49,25, 3	
		1,27, 2,40,18,27, 0,30		6,22
28″	43,16,29,59,44,38, 5,34,44,58		3, 9,49,31,25	
		1,27, 2,37, 8,37,29, 5		6,22
30″	43,16,31,26,47,15,14,12,14, 3		3, 9,49,37,47	
		1,27, 2,33,58,47,51,18		6,22
32″	43,16,32,53,49,49,13, 0, 5,21		3, 9,49,44, 9	
		1,27, 2,30,48,58, 7, 9		6,22
34″	43,16,34,20,52,20, 1,58,12,30		3, 9,49,50,31	
		1,27, 2,27,39, 8,16,38		6,22
36″	43,16,35,47,54,47,41, 6,29, 8		3, 9,49,56,53	
		1,27, 2,24,29,18,19,45		6,22
38″	43,16,37,14,57,12,10,24,48,53		3, 9,50, 3,15	
		1,27, 2,21,19,28,16,30		6,22
40″	43,16,38,41,59,33,29,53, 5,23		3, 9,50, 9,37	
		1,27, 2,18, 9,38, 6,53		6,22
42″	43,16,40, 9, 1,51,39,31,12,16		3, 9,50,15,59	
		1,27, 2,14,59,47,50,54		6,22
44″	43,16,41,36, 4, 6,39,19, 3,10		3, 9,50,22,21	
		1,27, 2,11,49,57,28,33		6,22
46″	43,16,43, 3, 6,18,29,16,31,43		3, 9,50,28,43	
		1,27, 2, 8,40, 6,59,50		6,22
48″	43,16,44,30, 8,27, 9,23,31,33		3, 9,50,35, 5	
		1,27, 2, 5,30,16,24,45		6,22
50″	43,16,45,57,10,32,39,39,56,18		3, 9,50,41,27	
		1,27, 2, 2,20,25,43,18		6,22
52″	43,16,47,24,12,35, 0, 5,39,36		3, 9,50,47,49	
		1,27, 1,59,10,34,55,29		6,22
54″	43,16,48,51,14,34,10,40,35, 5		3, 9,50,54,11	
		1,27, 1,56, 0,44, 1,18		6,22
56″	43,16,50,18,16,30,11,24,36,23		3, 9,51, 0,33	
		1,27, 1,52,50,53, 0,45		6,22
58″	43,16,51,45,18,23, 2,17,37, 8		3, 9,51, 6,55	
		1,27, 1,49,41, 1,53,50		
60″	43,16,53,12,20,12,43,19,30,58			
exact	43,16,53,12,20,12,43,19,38,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°10′ 0″	43,16,53,12,20,12,43,19,38,24			
		1,27, 1,46,31,10,41,33		
2″	43,16,54,39,21,59,14,30,19,57		3, 9,51,19,34	
		1,27, 1,43,21,19,21,59		6,22
4″	43,16,56, 6,23,42,35,49,41,56		3, 9,51,25,56	
		1,27, 1,40,11,27,56, 3		6,22
6″	43,16,57,33,25,22,47,17,37,59		3, 9,51,32,18	
		1,27, 1,37, 1,36,23,45		6,22
8″	43,16,59, 0,26,59,48,54, 1,44		3, 9,51,38,40	
		1,27, 1,33,51,44,45, 5		6,22
10″	43,17, 0,27,28,33,40,38,46,49		3, 9,51,45, 2	
		1,27, 1,30,41,53, 0, 3		6,22
12″	43,17, 1,54,30, 4,22,31,46,52		3, 9,51,51,24	
		1,27, 1,27,32, 1, 8,39		6,22
14″	43,17, 3,21,31,31,54,32,55,31		3, 9,51,57,46	
		1,27, 1,24,22, 9,10,53		6,22
16″	43,17, 4,48,32,56,16,42, 6,24		3, 9,52, 4, 8	
		1,27, 1,21,12,17, 6,45		6,22
18″	43,17, 6,15,34,17,28,59,13, 9		3, 9,52,10,30	
		1,27, 1,18, 2,24,56,15		6,22
20″	43,17, 7,42,35,35,31,24, 9,24		3, 9,52,16,52	
		1,27, 1,14,52,32,39,23		6,22
22″	43,17, 9, 9,36,50,23,56,48,47		3, 9,52,23,14	
		1,27, 1,11,42,40,16, 9		6,22
24″	43,17,10,36,38, 2, 6,37, 4,56		3, 9,52,29,36	
		1,27, 1, 8,32,47,46,33		6,22
26″	43,17,12, 3,39,10,39,24,51,29		3, 9,52,35,58	
		1,27, 1, 5,22,55,10,35		6,22
28″	43,17,13,30,40,16, 2,20, 2, 4		3, 9,52,42,20	
		1,27, 1, 2,13, 2,28,15		6,22
30″	43,17,14,57,41,18,15,22,30,19		3, 9,52,48,42	
		1,27, 0,59, 3, 9,39,33		6,22
32″	43,17,16,24,42,17,18,32, 9,52		3, 9,52,55, 4	
		1,27, 0,55,53,16,44,29		6,22
34″	43,17,17,51,43,13,11,48,54,21		3, 9,53, 1,26	
		1,27, 0,52,43,23,43, 3		6,22
36″	43,17,19,18,44, 5,55,12,37,24		3, 9,53, 7,48	
		1,27, 0,49,33,30,35,15		6,22
38″	43,17,20,45,44,55,28,43,12,39		3, 9,53,14,10	
		1,27, 0,46,23,37,21, 5		6,22
40″	43,17,22,12,45,41,52,20,33,44		3, 9,53,20,32	
		1,27, 0,43,13,44, 0,33		6,22
42″	43,17,23,39,46,25, 6, 4,34,17		3, 9,53,26,54	
		1,27, 0,40, 3,50,33,39		6,22
44″	43,17,25, 6,47, 5, 9,55, 7,56		3, 9,53,33,16	
		1,27, 0,36,53,57, 0,23		6,22
46″	43,17,26,33,47,42, 3,52, 8,19		3, 9,53,39,38	
		1,27, 0,33,44, 3,20,45		6,22
48″	43,17,28, 0,48,15,47,55,29, 4		3, 9,53,46, 0	
		1,27, 0,30,34, 9,34,45		6,22
50″	43,17,29,27,48,46,22, 5, 3,49		3, 9,53,52,22	
		1,27, 0,27,24,15,42,23		6,22
52″	43,17,30,54,49,13,46,20,46,12		3, 9,53,58,44	
		1,27, 0,24,14,21,43,39		6,22
54″	43,17,32,21,49,38, 0,42,29,51		3, 9,54, 5, 6	
		1,27, 0,21, 4,27,38,33		6,22
56″	43,17,33,48,49,59, 5,10, 8,24		3, 9,54,11,28	
		1,27, 0,17,54,33,27, 5		6,22
58″	43,17,35,15,50,16,59,43,35,29		3, 9,54,17,50	
		1,27, 0,14,44,39, 9,15		
60″	43,17,36,42,50,31,44,22,44,44			
exact	43,17,36,42,50,31,44,23, 5,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°11′ 0″	43,17,36,42,50,31,44,23, 5,18	1,27, 0,11,34,44,47,15		
2″	43,17,38, 9,50,43,19, 7,52,33	1,27, 0, 8,24,50,16,50	3, 9,54,30,25	6,22
4″	43,17,39,36,50,51,43,58, 9,23	1,27, 0, 5,14,55,40, 3	3, 9,54,36,47	6,22
6″	43,17,41, 3,50,56,58,53,49,26	1,27, 0, 2, 5, 0,56,54	3, 9,54,43, 9	6,22
8″	43,17,42,30,50,59, 3,54,46,20	1,26,59,58,55, 6, 7,23	3, 9,54,49,31	6,22
10″	43,17,43,57,50,57,59, 0,53,43	1,26,59,55,45,11,11,30	3, 9,54,55,53	6,22
12″	43,17,45,24,50,53,44,12, 5,13	1,26,59,52,35,16, 9,15	3, 9,55, 2,15	6,22
14″	43,17,46,51,50,46,19,28,14,28	1,26,59,49,25,21, 0,38	3, 9,55, 8,37	6,22
16″	43,17,48,18,50,35,44,49,15, 6	1,26,59,46,15,25,45,39	3, 9,55,14,59	6,22
18″	43,17,49,45,50,22, 0,15, 0,45	1,26,59,43, 5,30,24,18	3, 9,55,21,21	6,22
20″	43,17,51,12,50, 5, 5,45,25, 3	1,26,59,39,55,34,56,35	3, 9,55,27,43	6,22
22″	43,17,52,39,49,45, 1,20,21,38	1,26,59,36,45,39,22,30	3, 9,55,34, 5	6,22
24″	43,17,54, 6,49,21,46,59,44, 8	1,26,59,33,35,43,42, 3	3, 9,55,40,27	6,22
26″	43,17,55,33,48,55,22,43,26,11	1,26,59,30,25,47,55,14	3, 9,55,46,49	6,22
28″	43,17,57, 0,48,25,48,31,21,25	1,26,59,27,15,52, 2, 3	3, 9,55,53,11	6,22
30″	43,17,58,27,47,53, 4,23,23,28	1,26,59,24, 5,56, 2,30	3, 9,55,59,33	6,22
32″	43,17,59,54,47,17,10,19,25,58	1,26,59,20,55,59,56,35	3, 9,56, 5,55	6,22
34″	43,18, 1,21,46,38, 6,19,22,33	1,26,59,17,46, 3,44,18	3, 9,56,12,17	6,22
36″	43,18, 2,48,45,55,52,23, 6,51	1,26,59,14,36, 7,25,39	3, 9,56,18,39	6,22
38″	43,18, 4,15,45,10,28,30,32,30	1,26,59,11,26,11, 0,38	3, 9,56,25, 1	6,22
40″	43,18, 5,42,44,21,54,41,33, 8	1,26,59, 8,16,14,29,15	3, 9,56,31,23	6,22
42″	43,18, 7, 9,43,30,10,56, 2,23	1,26,59, 5, 6,17,51,30	3, 9,56,37,45	6,22
44″	43,18, 8,36,42,35,17,13,53,53	1,26,59, 1,56,21, 7,23	3, 9,56,44, 7	6,22
46″	43,18,10, 3,41,37,13,35, 1,16	1,26,58,58,46,24,16,54	3, 9,56,50,29	6,22
48″	43,18,11,30,40,35,59,59,18,10	1,26,58,55,36,27,20, 3	3, 9,56,56,51	6,22
50″	43,18,12,57,39,31,36,26,38,13	1,26,58,52,26,30,16,50	3, 9,57, 3,13	6,22
52″	43,18,14,24,38,24, 2,56,55, 3	1,26,58,49,16,33, 7,15	3, 9,57, 9,35	6,22
54″	43,18,15,51,37,13,19,30, 2,18	1,26,58,46, 6,35,51,18	3, 9,57,15,57	6,22
56″	43,18,17,18,35,59,26, 5,53,36	1,26,58,42,56,38,28,59	3, 9,57,22,19	6,22
58″	43,18,18,45,34,42,22,44,22,35	1,26,58,39,46,41, 0,18	3, 9,57,28,41	
60″	43,18,20,12,33,22, 9,25,22,53			
exact	43,18,20,12,33,22, 9,25,52,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°12′ 0″	43,18,20,12,33,22, 9,25,52,14			
		1,26,58,36,36,43,28,22		
2″	43,18,21,39,31,58,46, 9,20,36		3, 9,57,41,12	
		1,26,58,33,26,45,47,10		6,22
4″	43,18,23, 6,30,32,12,55, 7,46		3, 9,57,47,34	
		1,26,58,30,16,47,59,36		6,22
6″	43,18,24,33,29, 2,29,43, 7,22		3, 9,57,53,56	
		1,26,58,27, 6,50, 5,40		6,22
8″	43,18,26, 0,27,29,36,33,13, 2		3, 9,58, 0,18	
		1,26,58,23,56,52, 5,22		6,22
10″	43,18,27,27,25,53,33,25,18,24		3, 9,58, 6,40	
		1,26,58,20,46,53,58,42		6,22
12″	43,18,28,54,24,14,20,19,17, 6		3, 9,58,13, 2	
		1,26,58,17,36,55,45,40		6,22
14″	43,18,30,21,22,31,57,15, 2,46		3, 9,58,19,24	
		1,26,58,14,26,57,26,16		6,22
16″	43,18,31,48,20,46,24,12,29, 2		3, 9,58,25,46	
		1,26,58,11,16,59, 0,30		6,22
18″	43,18,33,15,18,57,41,11,29,32		3, 9,58,32, 8	
		1,26,58, 8, 7, 0,28,22		6,22
20″	43,18,34,42,17, 5,48,11,57,54		3, 9,58,38,30	
		1,26,58, 4,57, 1,49,52		6,22
22″	43,18,36, 9,15,10,45,13,47,46		3, 9,58,44,52	
		1,26,58, 1,47, 3, 5, 0		6,22
24″	43,18,37,36,13,12,32,16,52,46		3, 9,58,51,14	
		1,26,57,58,37, 4,13,46		6,22
26″	43,18,39, 3,11,11, 9,21, 6,32		3, 9,58,57,36	
		1,26,57,55,27, 5,16,10		6,22
28″	43,18,40,30, 9, 6,36,26,22,42		3, 9,59, 3,58	
		1,26,57,52,17, 6,12,12		6,22
30″	43,18,41,57, 6,58,53,32,34,54		3, 9,59,10,20	
		1,26,57,49, 7, 7, 1,52		6,22
32″	43,18,43,24, 4,48, 0,39,36,46		3, 9,59,16,42	
		1,26,57,45,57, 7,45,10		6,22
34″	43,18,44,51, 2,33,57,47,21,56		3, 9,59,23, 4	
		1,26,57,42,47, 8,22, 6		6,22
36″	43,18,46,18, 0,16,44,55,44, 2		3, 9,59,29,26	
		1,26,57,39,37, 8,52,40		6,22
38″	43,18,47,44,57,56,22, 4,36,42		3, 9,59,35,48	
		1,26,57,36,27, 9,16,52		6,22
40″	43,18,49,11,55,32,49,13,53,34		3, 9,59,42,10	
		1,26,57,33,17, 9,34,42		6,22
42″	43,18,50,38,53, 6, 6,23,28,16		3, 9,59,48,32	
		1,26,57,30, 7, 9,46,10		6,22
44″	43,18,52, 5,50,36,13,33,14,26		3, 9,59,54,54	
		1,26,57,26,57, 9,51,16		6,22
46″	43,18,53,32,48, 3,10,43, 5,42		3,10, 0, 1,16	
		1,26,57,23,47, 9,50, 0		6,22
48″	43,18,54,59,45,26,57,52,55,42		3,10, 0, 7,38	
		1,26,57,20,37, 9,42,22		6,22
50″	43,18,56,26,42,47,35, 2,38, 4		3,10, 0,14, 0	
		1,26,57,17,27, 9,28,22		6,22
52″	43,18,57,53,40, 5, 2,12, 6,26		3,10, 0,20,22	
		1,26,57,14,17, 9, 8, 0		6,22
54″	43,18,59,20,37,19,19,21,14,26		3,10, 0,26,44	
		1,26,57,11, 7, 8,41,16		6,22
56″	43,19, 0,47,34,30,26,29,55,42		3,10, 0,33, 6	
		1,26,57, 7,57, 8, 8,10		6,22
58″	43,19, 2,14,31,38,23,38, 3,52		3,10, 0,39,28	
		1,26,57, 4,47, 7,28,42		
60″	43,19, 3,41,28,43,10,45,32,34			
exact	43,19, 3,41,28,43,10,46, 6,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°13′ 0″	43,19, 3,41,28,43,10,46, 6,53			
		1,26,57, 1,37, 6,46,37		
2″	43,19, 5, 8,25,44,47,52,53,30		3,10, 0,51,56	
		1,26,56,58,27, 5,54,41		6,21
4″	43,19, 6,35,22,43,14,58,48,11		3,10, 0,58,17	
		1,26,56,55,17, 4,56,24		6,21
6″	43,19, 8, 2,19,38,32, 3,44,35		3,10, 1, 4,38	
		1,26,56,52, 7, 3,51,46		6,21
8″	43,19, 9,29,16,30,39, 7,36,21		3,10, 1,10,59	
		1,26,56,48,57, 2,40,47		6,21
10″	43,19,10,56,13,19,36,10,17, 8		3,10, 1,17,20	
		1,26,56,45,47, 1,23,27		6,21
12″	43,19,12,23,10, 5,23,11,40,35		3,10, 1,23,41	
		1,26,56,42,36,59,59,46		6,21
14″	43,19,13,50, 6,48, 0,11,40,21		3,10, 1,30, 2	
		1,26,56,39,26,58,29,44		6,21
16″	43,19,15,17, 3,27,27,10,10, 5		3,10, 1,36,23	
		1,26,56,36,16,56,53,21		6,21
18″	43,19,16,44, 0, 3,44, 7, 3,26		3,10, 1,42,44	
		1,26,56,33, 6,55,10,37		6,21
20″	43,19,18,10,56,36,51, 2,14, 3		3,10, 1,49, 5	
		1,26,56,29,56,53,21,32		6,21
22″	43,19,19,37,53, 6,47,55,35,35		3,10, 1,55,26	
		1,26,56,26,46,51,26, 6		6,21
24″	43,19,21, 4,49,33,34,47, 1,41		3,10, 2, 1,47	
		1,26,56,23,36,49,24,19		6,21
26″	43,19,22,31,45,57,11,36,26, 0		3,10, 2, 8, 8	
		1,26,56,20,26,47,16,11		6,21
28″	43,19,23,58,42,17,38,23,42,11		3,10, 2,14,29	
		1,26,56,17,16,45, 1,42		6,21
30″	43,19,25,25,38,34,55, 8,43,53		3,10, 2,20,50	
		1,26,56,14, 6,42,40,52		6,21
32″	43,19,26,52,34,49, 1,51,24,45		3,10, 2,27,11	
		1,26,56,10,56,40,13,41		6,21
34″	43,19,28,19,30,59,58,31,38,26		3,10, 2,33,32	
		1,26,56, 7,46,37,40, 9		6,21
36″	43,19,29,46,27, 7,45, 9,18,35		3,10, 2,39,53	
		1,26,56, 4,36,35, 0,16		6,21
38″	43,19,31,13,23,12,21,44,18,51		3,10, 2,46,14	
		1,26,56, 1,26,32,14, 2		6,21
40″	43,19,32,40,19,13,48,16,32,53		3,10, 2,52,35	
		1,26,55,58,16,29,21,27		6,21
42″	43,19,34, 7,15,12, 4,45,54,20		3,10, 2,58,56	
		1,26,55,55, 6,26,22,31		6,21
44″	43,19,35,34,11, 7,11,12,16,51		3,10, 3, 5,17	
		1,26,55,51,56,23,17,14		6,21
46″	43,19,37, 1, 6,59, 7,35,34, 5		3,10, 3,11,38	
		1,26,55,48,46,20, 5,36		6,21
48″	43,19,38,28, 2,47,53,55,39,41		3,10, 3,17,59	
		1,26,55,45,36,16,47,37		6,21
50″	43,19,39,54,58,33,30,12,27,18		3,10, 3,24,20	
		1,26,55,42,26,13,23,17		6,21
52″	43,19,41,21,54,15,56,25,50,35		3,10, 3,30,41	
		1,26,55,39,16, 9,52,36		6,21
54″	43,19,42,48,49,55,12,35,43,11		3,10, 3,37, 2	
		1,26,55,36, 6, 6,15,34		6,21
56″	43,19,44,15,45,31,18,41,58,45		3,10, 3,43,23	
		1,26,55,32,56, 2,32,11		6,21
58″	43,19,45,42,41, 4,14,44,30,56		3,10, 3,49,44	
		1,26,55,29,45,58,42,27		
60″	43,19,47, 9,36,34, 0,43,13,23			
exact	43,19,47, 9,36,34, 0,42,49, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°14′ 0″	43,19,47, 9,36,34, 0,42,49, 2			
		1,26,55,26,35,54,43,47		
2″	43,19,48,36,32, 0,36,37,32,49		3,10, 4, 2,36	
		1,26,55,23,25,50,41,11		6,21
4″	43,19,50, 3,27,24, 2,28,14, 0		3,10, 4, 8,57	
		1,26,55,20,15,46,32,14		6,21
6″	43,19,51,30,22,44,18,14,46,14		3,10, 4,15,18	
		1,26,55,17, 5,42,16,56		6,21
8″	43,19,52,57,18, 1,23,57, 3,10		3,10, 4,21,39	
		1,26,55,13,55,37,55,17		6,21
10″	43,19,54,24,13,15,19,34,58,27		3,10, 4,28, 0	
		1,26,55,10,45,33,27,17		6,21
12″	43,19,55,51, 8,26, 5, 8,25,44		3,10, 4,34,21	
		1,26,55, 7,35,28,52,56		6,21
14″	43,19,57,18, 3,33,40,37,18,40		3,10, 4,40,42	
		1,26,55, 4,25,24,12,14		6,21
16″	43,19,58,44,58,38, 6, 1,30,54		3,10, 4,47, 3	
		1,26,55, 1,15,19,25,11		6,21
18″	43,20, 0,11,53,39,21,20,56, 5		3,10, 4,53,24	
		1,26,54,58, 5,14,31,47		6,21
20″	43,20, 1,38,48,37,26,35,27,52		3,10, 4,59,45	
		1,26,54,54,55, 9,32, 2		6,21
22″	43,20, 3, 5,43,32,21,44,59,54		3,10, 5, 6, 6	
		1,26,54,51,45, 4,25,56		6,21
24″	43,20, 4,32,38,24, 6,49,25,50		3,10, 5,12,27	
		1,26,54,48,34,59,13,29		6,21
26″	43,20, 5,59,33,12,41,48,39,19		3,10, 5,18,48	
		1,26,54,45,24,53,54,41		6,21
28″	43,20, 7,26,27,58, 6,42,34, 0		3,10, 5,25, 9	
		1,26,54,42,14,48,29,32		6,21
30″	43,20, 8,53,22,40,21,31, 3,32		3,10, 5,31,30	
		1,26,54,39, 4,42,58, 2		6,21
32″	43,20,10,20,17,19,26,14, 1,34		3,10, 5,37,51	
		1,26,54,35,54,37,20,11		6,21
34″	43,20,11,47,11,55,20,51,21,45		3,10, 5,44,12	
		1,26,54,32,44,31,35,59		6,21
36″	43,20,13,14, 6,28, 5,22,57,44		3,10, 5,50,33	
		1,26,54,29,34,25,45,26		6,21
38″	43,20,14,41, 0,57,39,48,43,10		3,10, 5,56,54	
		1,26,54,26,24,19,48,32		6,21
40″	43,20,16, 7,55,24, 4, 8,31,42		3,10, 6, 3,15	
		1,26,54,23,14,13,45,17		6,21
42″	43,20,17,34,49,47,18,22,16,59		3,10, 6, 9,36	
		1,26,54,20, 4, 7,35,41		6,21
44″	43,20,19, 1,44, 7,22,29,52,40		3,10, 6,15,57	
		1,26,54,16,54, 1,19,44		6,21
46″	43,20,20,28,38,24,16,31,12,24		3,10, 6,22,18	
		1,26,54,13,43,54,57,26		6,21
48″	43,20,21,55,32,38, 0,26, 9,50		3,10, 6,28,39	
		1,26,54,10,33,48,28,47		6,21
50″	43,20,23,22,26,48,34,14,38,37		3,10, 6,35, 0	
		1,26,54, 7,23,41,53,47		6,21
52″	43,20,24,49,20,55,57,56,32,24		3,10, 6,41,21	
		1,26,54, 4,13,35,12,26		6,21
54″	43,20,26,16,15, 0,11,31,44,50		3,10, 6,47,42	
		1,26,54, 1, 3,28,24,44		6,21
56″	43,20,27,43, 9, 1,15, 0, 9,34		3,10, 6,54, 3	
		1,26,53,57,53,21,30,41		6,21
58″	43,20,29,10, 2,59, 8,21,40,15		3,10, 7, 0,24	
		1,26,53,54,43,14,30,17		
60″	43,20,30,36,56,53,51,36,10,32			
exact	43,20,30,36,56,53,51,35,50,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°15′ 0″	43,20,30,36,56,53,51,35,50,35			
		1,26,53,51,33, 7,21,34		
2″	43,20,32, 3,50,45,24,43,12, 9		3,10, 7,13,13	
		1,26,53,48,23, 0, 8,21		6,21
4″	43,20,33,30,44,33,47,43,20,30		3,10, 7,19,34	
		1,26,53,45,12,52,48,47		6,21
6″	43,20,34,57,38,19, 0,36, 9,17		3,10, 7,25,55	
		1,26,53,42, 2,45,22,52		6,21
8″	43,20,36,24,32, 1, 3,21,32, 9		3,10, 7,32,16	
		1,26,53,38,52,37,50,36		6,21
10″	43,20,37,51,25,39,55,59,22,45		3,10, 7,38,37	
		1,26,53,35,42,30,11,59		6,21
12″	43,20,39,18,19,15,38,29,34,44		3,10, 7,44,58	
		1,26,53,32,32,22,27, 1		6,21
14″	43,20,40,45,12,48,10,52, 1,45		3,10, 7,51,19	
		1,26,53,29,22,14,35,42		6,21
16″	43,20,42,12, 6,17,33, 6,37,27		3,10, 7,57,40	
		1,26,53,26,12, 6,38, 2		6,21
18″	43,20,43,38,59,43,45,13,15,29		3,10, 8, 4, 1	
		1,26,53,23, 1,58,34, 1		6,21
20″	43,20,45, 5,53, 6,47,11,49,30		3,10, 8,10,22	
		1,26,53,19,51,50,23,39		6,21
22″	43,20,46,32,46,26,39, 2,13, 9		3,10, 8,16,43	
		1,26,53,16,41,42, 6,56		6,21
24″	43,20,47,59,39,43,20,44,20, 5		3,10, 8,23, 4	
		1,26,53,13,31,33,43,52		6,21
26″	43,20,49,26,32,56,52,18, 3,57		3,10, 8,29,25	
		1,26,53,10,21,25,14,27		6,21
28″	43,20,50,53,26, 7,13,43,18,24		3,10, 8,35,46	
		1,26,53, 7,11,16,38,41		6,21
30″	43,20,52,20,19,14,24,59,57, 5		3,10, 8,42, 7	
		1,26,53, 4, 1, 7,56,34		6,21
32″	43,20,53,47,12,18,26, 7,53,39		3,10, 8,48,28	
		1,26,53, 0,50,59, 8, 6		6,21
34″	43,20,55,14, 5,19,17, 7, 1,45		3,10, 8,54,49	
		1,26,52,57,40,50,13,17		6,21
36″	43,20,56,40,58,16,57,57,15, 2		3,10, 9, 1,10	
		1,26,52,54,30,41,12, 7		6,21
38″	43,20,58, 7,51,11,28,38,27, 9		3,10, 9, 7,31	
		1,26,52,51,20,32, 4,36		6,21
40″	43,20,59,34,44, 2,49,10,31,45		3,10, 9,13,52	
		1,26,52,48,10,22,50,44		6,21
42″	43,21, 1, 1,36,50,59,33,22,29		3,10, 9,20,13	
		1,26,52,45, 0,13,30,31		6,21
44″	43,21, 2,28,29,35,59,46,53, 0		3,10, 9,26,34	
		1,26,52,41,50, 4, 3,57		6,21
46″	43,21, 3,55,22,17,49,50,56,57		3,10, 9,32,55	
		1,26,52,38,39,54,31, 2		6,21
48″	43,21, 5,22,14,56,29,45,27,59		3,10, 9,39,16	
		1,26,52,35,29,44,51,46		6,21
50″	43,21, 6,49, 7,31,59,30,19,45		3,10, 9,45,37	
		1,26,52,32,19,35, 6, 9		6,21
52″	43,21, 8,16, 0, 4,19, 5,25,54		3,10, 9,51,58	
		1,26,52,29, 9,25,14,11		6,21
54″	43,21, 9,42,52,33,28,30,40, 5		3,10, 9,58,19	
		1,26,52,25,59,15,15,52		6,21
56″	43,21,11, 9,44,59,27,45,55,57		3,10,10, 4,40	
		1,26,52,22,49, 5,11,12		6,21
58″	43,21,12,36,37,22,16,51, 7, 9		3,10,10,11, 1	
		1,26,52,19,38,55, 0,11		
60″	43,21,14, 3,29,41,55,46, 7,20			
exact	43,21,14, 3,29,41,55,45,55,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°16′ 0″	43,21,14, 3,29,41,55,45,55,29			
		1,26,52,16,28,44,41,42		
2″	43,21,15,30,21,58,24,30,37,11		3,10,10,23,47	
		1,26,52,13,18,34,17,55		6,21
4″	43,21,16,57,14,11,43, 4,55, 6		3,10,10,30, 8	
		1,26,52,10, 8,23,47,47		6,21
6″	43,21,18,24, 6,21,51,28,42,53		3,10,10,36,29	
		1,26,52, 6,58,13,11,18		6,21
8″	43,21,19,50,58,28,49,41,54,11		3,10,10,42,50	
		1,26,52, 3,48, 2,28,28		6,21
10″	43,21,21,17,50,32,37,44,22,39		3,10,10,49,11	
		1,26,52, 0,37,51,39,17		6,21
12″	43,21,22,44,42,33,15,36, 1,56		3,10,10,55,32	
		1,26,51,57,27,40,43,45		6,21
14″	43,21,24,11,34,30,43,16,45,41		3,10,11, 1,53	
		1,26,51,54,17,29,41,52		6,21
16″	43,21,25,38,26,25, 0,46,27,33		3,10,11, 8,14	
		1,26,51,51, 7,18,33,38		6,21
18″	43,21,27, 5,18,16, 8, 5, 1,11		3,10,11,14,35	
		1,26,51,47,57, 7,19, 3		6,21
20″	43,21,28,32,10, 4, 5,12,20,14		3,10,11,20,56	
		1,26,51,44,46,55,58, 7		6,21
22″	43,21,29,59, 1,48,52, 8,18,21		3,10,11,27,17	
		1,26,51,41,36,44,30,50		6,21
24″	43,21,31,25,53,30,28,52,49,11		3,10,11,33,38	
		1,26,51,38,26,32,57,12		6,21
26″	43,21,32,52,45, 8,55,25,46,23		3,10,11,39,59	
		1,26,51,35,16,21,17,13		6,21
28″	43,21,34,19,36,44,11,47, 3,36		3,10,11,46,20	
		1,26,51,32, 6, 9,30,53		6,21
30″	43,21,35,46,28,16,17,56,34,29		3,10,11,52,41	
		1,26,51,28,55,57,38,12		6,21
32″	43,21,37,13,19,45,13,54,12,41		3,10,11,59, 2	
		1,26,51,25,45,45,39,10		6,21
34″	43,21,38,40,11,10,59,39,51,51		3,10,12, 5,23	
		1,26,51,22,35,33,33,47		6,21
36″	43,21,40, 7, 2,33,35,13,25,38		3,10,12,11,44	
		1,26,51,19,25,21,22, 3		6,21
38″	43,21,41,33,53,53, 0,34,47,41		3,10,12,18, 5	
		1,26,51,16,15, 9, 3,58		6,21
40″	43,21,43, 0,45, 9,15,43,51,39		3,10,12,24,26	
		1,26,51,13, 4,56,39,32		6,21
42″	43,21,44,27,36,22,20,40,31,11		3,10,12,30,47	
		1,26,51, 9,54,44, 8,45		6,21
44″	43,21,45,54,27,32,15,24,39,56		3,10,12,37, 8	
		1,26,51, 6,44,31,31,37		6,21
46″	43,21,47,21,18,38,59,56,11,33		3,10,12,43,29	
		1,26,51, 3,34,18,48, 8		6,21
48″	43,21,48,48, 9,42,34,14,59,41		3,10,12,49,50	
		1,26,51, 0,24, 5,58,18		6,21
50″	43,21,50,15, 0,42,58,20,57,59		3,10,12,56,11	
		1,26,50,57,13,53, 2, 7		6,21
52″	43,21,51,41,51,40,12,14, 0, 6		3,10,13, 2,32	
		1,26,50,54, 3,39,59,35		6,21
54″	43,21,53, 8,42,34,15,53,59,41		3,10,13, 8,53	
		1,26,50,50,53,26,50,42		6,21
56″	43,21,54,35,33,25, 9,20,50,23		3,10,13,15,14	
		1,26,50,47,43,13,35,28		6,21
58″	43,21,56, 2,24,12,52,34,25,51		3,10,13,21,35	
		1,26,50,44,33, 0,13,53		
60″	43,21,57,29,14,57,25,34,39,44			
exact	43,21,57,29,14,57,25,34,39,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°17′ 0″	43,21,57,29,14,57,25,34,39,51	1,26,50,41,22,46,45,57		
2″	43,21,58,56, 5,38,48,21,25,48	1,26,50,38,12,33,11,40	3,10,13,34,17	
4″	43,22, 0,22,56,17, 0,54,37,28	1,26,50,35, 2,19,31, 2	3,10,13,40,38	6,21
6″	43,22, 1,49,46,52, 3,14, 8,30	1,26,50,31,52, 5,44, 3	3,10,13,46,59	6,21
8″	43,22, 3,16,37,23,55,19,52,33	1,26,50,28,41,51,50,43	3,10,13,53,20	6,21
10″	43,22, 4,43,27,52,37,11,43,16	1,26,50,25,31,37,51, 2	3,10,13,59,41	6,21
12″	43,22, 6,10,18,18, 8,49,34,18	1,26,50,22,21,23,45, 0	3,10,14, 6, 2	6,21
14″	43,22, 7,37, 8,40,30,13,19,18	1,26,50,19,11, 9,32,37	3,10,14,12,23	6,21
16″	43,22, 9, 3,58,59,41,22,51,55	1,26,50,16, 0,55,13,53	3,10,14,18,44	6,21
18″	43,22,10,30,49,15,42,18, 5,48	1,26,50,12,50,40,48,48	3,10,14,25, 5	6,21
20″	43,22,11,57,39,28,32,58,54,36	1,26,50, 9,40,26,17,22	3,10,14,31,26	6,21
22″	43,22,13,24,29,38,13,25,11,58	1,26,50, 6,30,11,39,35	3,10,14,37,47	6,21
24″	43,22,14,51,19,44,43,36,51,33	1,26,50, 3,19,56,55,27	3,10,14,44, 8	6,21
26″	43,22,16,18, 9,48, 3,33,47, 0	1,26,50, 0, 9,42, 4,58	3,10,14,50,29	6,21
28″	43,22,17,44,59,48,13,15,51,58	1,26,49,56,59,27, 8, 8	3,10,14,56,50	6,21
30″	43,22,19,11,49,45,12,43, 0, 6	1,26,49,53,49,12, 4,57	3,10,15, 3,11	6,21
32″	43,22,20,38,39,39, 1,55, 5, 3	1,26,49,50,38,56,55,25	3,10,15, 9,32	6,21
34″	43,22,22, 5,29,29,40,52, 0,28	1,26,49,47,28,41,39,32	3,10,15,15,53	6,21
36″	43,22,23,32,19,17, 9,33,40, 0	1,26,49,44,18,26,17,18	3,10,15,22,14	6,21
38″	43,22,24,59, 9, 1,27,59,57,18	1,26,49,41, 8,10,48,43	3,10,15,28,35	6,21
40″	43,22,26,25,58,42,36,10,46, 1	1,26,49,37,57,55,13,47	3,10,15,34,56	6,21
42″	43,22,27,52,48,20,34, 5,59,48	1,26,49,34,47,39,32,30	3,10,15,41,17	6,21
44″	43,22,29,19,37,55,21,45,32,18	1,26,49,31,37,23,44,52	3,10,15,47,38	6,21
46″	43,22,30,46,27,26,59, 9,17,10	1,26,49,28,27, 7,50,53	3,10,15,53,59	6,21
48″	43,22,32,13,16,55,26,17, 8, 3	1,26,49,25,16,51,50,33	3,10,16, 0,20	6,21
50″	43,22,33,40, 6,20,43, 8,58,36	1,26,49,22, 6,35,43,52	3,10,16, 6,41	6,21
52″	43,22,35, 6,55,42,49,44,42,28	1,26,49,18,56,19,30,50	3,10,16,13, 2	6,21
54″	43,22,36,33,45, 1,46, 4,13,18	1,26,49,15,46, 3,11,27	3,10,16,19,23	6,21
56″	43,22,38, 0,34,17,32, 7,24,45	1,26,49,12,35,46,45,43	3,10,16,25,44	6,21
58″	43,22,39,27,23,30, 7,54,10,28	1,26,49, 9,25,30,13,38	3,10,16,32, 5	
60″	43,22,40,54,12,39,33,24,24, 6			
exact	43,22,40,54,12,39,33,24,31,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°18′ 0″	43,22,40,54,12,39,33,24,31,55			
		1,26,49, 6,15,13,36, 2		
2″	43,22,42,21, 1,45,48,38, 7,57		3,10,16,44,43	
		1,26,49, 3, 4,56,51,19		6,21
4″	43,22,43,47,50,48,53,34,59,16		3,10,16,51, 4	
		1,26,48,59,54,40, 0,15		6,21
6″	43,22,45,14,39,48,48,14,59,31		3,10,16,57,25	
		1,26,48,56,44,23, 2,50		6,21
8″	43,22,46,41,28,45,32,38, 2,21		3,10,17, 3,46	
		1,26,48,53,34, 5,59, 4		6,21
10″	43,22,48, 8,17,39, 6,44, 1,25		3,10,17,10, 7	
		1,26,48,50,23,48,48,57		6,21
12″	43,22,49,35, 6,29,30,32,50,22		3,10,17,16,28	
		1,26,48,47,13,31,32,29		6,21
14″	43,22,51, 1,55,16,44, 4,22,51		3,10,17,22,49	
		1,26,48,44, 3,14, 9,40		6,21
16″	43,22,52,28,44, 0,47,18,32,31		3,10,17,29,10	
		1,26,48,40,52,56,40,30		6,21
18″	43,22,53,55,32,41,40,15,13, 1		3,10,17,35,31	
		1,26,48,37,42,39, 4,59		6,21
20″	43,22,55,22,21,19,22,54,18, 0		3,10,17,41,52	
		1,26,48,34,32,21,23, 7		6,21
22″	43,22,56,49, 9,53,55,15,41, 7		3,10,17,48,13	
		1,26,48,31,22, 3,34,54		6,21
24″	43,22,58,15,58,25,17,19,16, 1		3,10,17,54,34	
		1,26,48,28,11,45,40,20		6,21
26″	43,22,59,42,46,53,29, 4,56,21		3,10,18, 0,55	
		1,26,48,25, 1,27,39,25		6,21
28″	43,23, 1, 9,35,18,30,32,35,46		3,10,18, 7,16	
		1,26,48,21,51, 9,32, 9		6,21
30″	43,23, 2,36,23,40,21,42, 7,55		3,10,18,13,37	
		1,26,48,18,40,51,18,32		6,21
32″	43,23, 4, 3,11,59, 2,33,26,27		3,10,18,19,58	
		1,26,48,15,30,32,58,34		6,21
34″	43,23, 5,30, 0,14,33, 6,25, 1		3,10,18,26,19	
		1,26,48,12,20,14,32,15		6,21
36″	43,23, 6,56,48,26,53,20,57,16		3,10,18,32,40	
		1,26,48, 9, 9,55,59,35		6,21
38″	43,23, 8,23,36,36, 3,16,56,51		3,10,18,39, 1	
		1,26,48, 5,59,37,20,34		6,21
40″	43,23, 9,50,24,42, 2,54,17,25		3,10,18,45,22	
		1,26,48, 2,49,18,35,12		6,21
42″	43,23,11,17,12,44,52,12,52,37		3,10,18,51,43	
		1,26,47,59,38,59,43,29		6,21
44″	43,23,12,44, 0,44,31,12,36, 6		3,10,18,58, 4	
		1,26,47,56,28,40,45,25		6,21
46″	43,23,14,10,48,40,59,53,21,31		3,10,19, 4,25	
		1,26,47,53,18,21,41, 0		6,21
48″	43,23,15,37,36,34,18,15, 2,31		3,10,19,10,46	
		1,26,47,50, 8, 2,30,14		6,21
50″	43,23,17, 4,24,24,26,17,32,45		3,10,19,17, 7	
		1,26,47,46,57,43,13, 7		6,21
52″	43,23,18,31,12,11,24, 0,45,52		3,10,19,23,28	
		1,26,47,43,47,23,49,39		6,21
54″	43,23,19,57,59,55,11,24,35,31		3,10,19,29,49	
		1,26,47,40,37, 4,19,50		6,21
56″	43,23,21,24,47,35,48,28,55,21		3,10,19,36,10	
		1,26,47,37,26,44,43,40		6,21
58″	43,23,22,51,35,13,15,13,39, 1		3,10,19,42,31	
		1,26,47,34,16,25, 1, 9		
60″	43,23,24,18,22,47,31,38,40,10			
exact	43,23,24,18,22,47,31,38,52, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°19′ 0″	43,23,24,18,22,47,31,38,52, 5			
		1,26,47,31, 6, 5,13,42		
2″	43,23,25,45,10,18,37,44, 5,47		3,10,19,55, 6	
		1,26,47,27,55,45,18,36		6,21
4″	43,23,27,11,57,46,33,29,24,23		3,10,20, 1,27	
		1,26,47,24,45,25,17, 9		6,21
6″	43,23,28,38,45,11,18,54,41,32		3,10,20, 7,48	
		1,26,47,21,35, 5, 9,21		6,21
8″	43,23,30, 5,32,32,53,59,50,53		3,10,20,14, 9	
		1,26,47,18,24,44,55,12		6,21
10″	43,23,31,32,19,51,18,44,46, 5		3,10,20,20,30	
		1,26,47,15,14,24,34,42		6,21
12″	43,23,32,59, 7, 6,33, 9,20,47		3,10,20,26,51	
		1,26,47,12, 4, 4, 7,51		6,21
14″	43,23,34,25,54,18,37,13,28,38		3,10,20,33,12	
		1,26,47, 8,53,43,34,39		6,21
16″	43,23,35,52,41,27,30,57, 3,17		3,10,20,39,33	
		1,26,47, 5,43,22,55, 6		6,21
18″	43,23,37,19,28,33,14,19,58,23		3,10,20,45,54	
		1,26,47, 2,33, 2, 9,12		6,21
20″	43,23,38,46,15,35,47,22, 7,35		3,10,20,52,15	
		1,26,46,59,22,41,16,57		6,21
22″	43,23,40,13, 2,35,10, 3,24,32		3,10,20,58,36	
		1,26,46,56,12,20,18,21		6,21
24″	43,23,41,39,49,31,22,23,42,53		3,10,21, 4,57	
		1,26,46,53, 1,59,13,24		6,21
26″	43,23,43, 6,36,24,24,22,56,17		3,10,21,11,18	
		1,26,46,49,51,38, 2, 6		6,21
28″	43,23,44,33,23,14,16, 0,58,23		3,10,21,17,39	
		1,26,46,46,41,16,44,27		6,21
30″	43,23,46, 0,10, 0,57,17,42,50		3,10,21,24, 0	
		1,26,46,43,30,55,20,27		6,21
32″	43,23,47,26,56,44,28,13, 3,17		3,10,21,30,21	
		1,26,46,40,20,33,50, 6		6,21
34″	43,23,48,53,43,24,48,46,53,23		3,10,21,36,42	
		1,26,46,37,10,12,13,24		6,21
36″	43,23,50,20,30, 1,58,59, 6,47		3,10,21,43, 3	
		1,26,46,33,59,50,30,21		6,21
38″	43,23,51,47,16,35,58,49,37, 8		3,10,21,49,24	
		1,26,46,30,49,28,40,57		6,21
40″	43,23,53,14, 3, 6,48,18,18, 5		3,10,21,55,45	
		1,26,46,27,39, 6,45,12		6,21
42″	43,23,54,40,49,34,27,25, 3,17		3,10,22, 2, 6	
		1,26,46,24,28,44,43, 6		6,21
44″	43,23,56, 7,35,58,56, 9,46,23		3,10,22, 8,27	
		1,26,46,21,18,22,34,39		6,21
46″	43,23,57,34,22,20,14,32,21, 2		3,10,22,14,48	
		1,26,46,18, 8, 0,19,51		6,21
48″	43,23,59, 1, 8,38,22,32,40,53		3,10,22,21, 9	
		1,26,46,14,57,37,58,42		6,21
50″	43,24, 0,27,54,53,20,10,39,35		3,10,22,27,30	
		1,26,46,11,47,15,31,12		6,21
52″	43,24, 1,54,41, 5, 7,26,10,47		3,10,22,33,51	
		1,26,46, 8,36,52,57,21		6,21
54″	43,24, 3,21,27,13,44,19, 8, 8		3,10,22,40,12	
		1,26,46, 5,26,30,17, 9		6,21
56″	43,24, 4,48,13,19,10,49,25,17		3,10,22,46,33	
		1,26,46, 2,16, 7,30,36		6,21
58″	43,24, 6,14,59,21,26,56,55,53		3,10,22,52,54	
		1,26,45,59, 5,44,37,42		
60″	43,24, 7,41,45,20,32,41,33,35			
exact	43,24, 7,41,45,20,32,41,52,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°20′ 0″	43,24, 7,41,45,20,32,41,52,55			
		1,26,45,55,55,21,40,41		
2″	43,24, 9, 8,31,16,28, 3,33,36		3,10,23, 5,26	
		1,26,45,52,44,58,35,15		6,21
4″	43,24,10,35,17, 9,13, 2, 8,51		3,10,23,11,47	
		1,26,45,49,34,35,23,28		6,21
6″	43,24,12, 2, 2,58,47,37,32,19		3,10,23,18, 8	
		1,26,45,46,24,12, 5,20		6,21
8″	43,24,13,28,48,45,11,49,37,39		3,10,23,24,29	
		1,26,45,43,13,48,40,51		6,21
10″	43,24,14,55,34,28,25,38,18,30		3,10,23,30,50	
		1,26,45,40, 3,25,10, 1		6,21
12″	43,24,16,22,20, 8,29, 3,28,31		3,10,23,37,11	
		1,26,45,36,53, 1,32,50		6,21
14″	43,24,17,49, 5,45,22, 5, 1,21		3,10,23,43,32	
		1,26,45,33,42,37,49,18		6,21
16″	43,24,19,15,51,19, 4,42,50,39		3,10,23,49,53	
		1,26,45,30,32,13,59,25		6,21
18″	43,24,20,42,36,49,36,56,50, 4		3,10,23,56,14	
		1,26,45,27,21,50, 3,11		6,21
20″	43,24,22, 9,22,16,58,46,53,15		3,10,24, 2,35	
		1,26,45,24,11,26, 0,36		6,21
22″	43,24,23,36, 7,41,10,12,53,51		3,10,24, 8,56	
		1,26,45,21, 1, 1,51,40		6,21
24″	43,24,25, 2,53, 2,11,14,45,31		3,10,24,15,17	
		1,26,45,17,50,37,36,23		6,21
26″	43,24,26,29,38,20, 1,52,21,54		3,10,24,21,38	
		1,26,45,14,40,13,14,45		6,21
28″	43,24,27,56,23,34,42, 5,36,39		3,10,24,27,59	
		1,26,45,11,29,48,46,46		6,21
30″	43,24,29,23, 8,46,11,54,23,25		3,10,24,34,20	
		1,26,45, 8,19,24,12,26		6,21
32″	43,24,30,49,53,54,31,18,35,51		3,10,24,40,41	
		1,26,45, 5, 8,59,31,45		6,21
34″	43,24,32,16,38,59,40,18, 7,36		3,10,24,47, 2	
		1,26,45, 1,58,34,44,43		6,21
36″	43,24,33,43,24, 1,38,52,52,19		3,10,24,53,23	
		1,26,44,58,48, 9,51,20		6,21
38″	43,24,35,10, 9, 0,27, 2,43,39		3,10,24,59,44	
		1,26,44,55,37,44,51,36		6,21
40″	43,24,36,36,53,56, 4,47,35,15		3,10,25, 6, 5	
		1,26,44,52,27,19,45,31		6,21
42″	43,24,38, 3,38,48,32, 7,20,46		3,10,25,12,26	
		1,26,44,49,16,54,33, 5		6,21
44″	43,24,39,30,23,37,49, 1,53,51		3,10,25,18,47	
		1,26,44,46, 6,29,14,18		6,21
46″	43,24,40,57, 8,23,55,31, 8, 9		3,10,25,25, 8	
		1,26,44,42,56, 3,49,10		6,21
48″	43,24,42,23,53, 6,51,34,57,19		3,10,25,31,29	
		1,26,44,39,45,38,17,41		6,21
50″	43,24,43,50,37,46,37,13,15, 0		3,10,25,37,50	
		1,26,44,36,35,12,39,51		6,21
52″	43,24,45,17,22,23,12,25,54,51		3,10,25,44,11	
		1,26,44,33,24,46,55,40		6,21
54″	43,24,46,44, 6,56,37,12,50,31		3,10,25,50,32	
		1,26,44,30,14,21, 5, 8		6,21
56″	43,24,48,10,51,26,51,33,55,39		3,10,25,56,53	
		1,26,44,27, 3,55, 8,15		6,21
58″	43,24,49,37,35,53,55,29, 3,54		3,10,26, 3,14	
		1,26,44,23,53,29, 5, 1		
60″	43,24,51, 4,20,17,48,58, 8,55			
exact	43,24,51, 4,20,17,48,58,39, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°21′ 0″	43,24,51, 4,20,17,48,58,39, 7			
		1,26,44,20,43, 2,58,43		
2″	43,24,52,31, 4,38,32, 1,37,50		3,10,26,15,42	
		1,26,44,17,32,36,43, 1		6,20
4″	43,24,53,57,48,56, 4,38,20,51		3,10,26,22, 2	
		1,26,44,14,22,10,20,59		6,20
6″	43,24,55,24,33,10,26,48,41,50		3,10,26,28,22	
		1,26,44,11,11,43,52,37		6,20
8″	43,24,56,51,17,21,38,32,34,27		3,10,26,34,42	
		1,26,44, 8, 1,17,17,55		6,20
10″	43,24,58,18, 1,29,39,49,52,22		3,10,26,41, 2	
		1,26,44, 4,50,50,36,53		6,20
12″	43,24,59,44,45,34,30,40,29,15		3,10,26,47,22	
		1,26,44, 1,40,23,49,31		6,20
14″	43,25, 1,11,29,36,11, 4,18,46		3,10,26,53,42	
		1,26,43,58,29,56,55,49		6,20
16″	43,25, 2,38,13,34,41, 1,14,35		3,10,27, 0, 2	
		1,26,43,55,19,29,55,47		6,20
18″	43,25, 4, 4,57,30, 0,31,10,22		3,10,27, 6,22	
		1,26,43,52, 9, 2,49,25		6,20
20″	43,25, 5,31,41,22, 9,33,59,47		3,10,27,12,42	
		1,26,43,48,58,35,36,43		6,20
22″	43,25, 6,58,25,11, 8, 9,36,30		3,10,27,19, 2	
		1,26,43,45,48, 8,17,41		6,20
24″	43,25, 8,25, 8,56,56,17,54,11		3,10,27,25,22	
		1,26,43,42,37,40,52,19		6,20
26″	43,25, 9,51,52,39,33,58,46,30		3,10,27,31,42	
		1,26,43,39,27,13,20,37		6,20
28″	43,25,11,18,36,19, 1,12, 7, 7		3,10,27,38, 2	
		1,26,43,36,16,45,42,35		6,20
30″	43,25,12,45,19,55,17,57,49,42		3,10,27,44,22	
		1,26,43,33, 6,17,58,13		6,20
32″	43,25,14,12, 3,28,24,15,47,55		3,10,27,50,42	
		1,26,43,29,55,50, 7,31		6,20
34″	43,25,15,38,46,58,20, 5,55,26		3,10,27,57, 2	
		1,26,43,26,45,22,10,29		6,20
36″	43,25,17, 5,30,25, 5,28, 5,55		3,10,28, 3,22	
		1,26,43,23,34,54, 7, 7		6,20
38″	43,25,18,32,13,48,40,22,13, 2		3,10,28, 9,42	
		1,26,43,20,24,25,57,25		6,20
40″	43,25,19,58,57, 9, 4,48,10,27		3,10,28,16, 2	
		1,26,43,17,13,57,41,23		6,20
42″	43,25,21,25,40,26,18,45,51,50		3,10,28,22,22	
		1,26,43,14, 3,29,19, 1		6,20
44″	43,25,22,52,23,40,22,15,10,51		3,10,28,28,42	
		1,26,43,10,53, 0,50,19		6,20
46″	43,25,24,19, 6,51,15,16, 1,10		3,10,28,35, 2	
		1,26,43, 7,42,32,15,17		6,20
48″	43,25,25,45,49,58,57,48,16,27		3,10,28,41,22	
		1,26,43, 4,32, 3,33,55		6,20
50″	43,25,27,12,33, 3,29,51,50,22		3,10,28,47,42	
		1,26,43, 1,21,34,46,13		6,20
52″	43,25,28,39,16, 4,51,26,36,35		3,10,28,54, 2	
		1,26,42,58,11, 5,52,11		6,20
54″	43,25,30, 5,59, 3, 2,32,28,46		3,10,29, 0,22	
		1,26,42,55, 0,36,51,49		6,20
56″	43,25,31,32,41,58, 3, 9,20,35		3,10,29, 6,42	
		1,26,42,51,50, 7,45, 7		6,20
58″	43,25,32,59,24,49,53,17, 5,42		3,10,29,13, 2	
		1,26,42,48,39,38,32, 5		
60″	43,25,34,26, 7,38,32,55,37,47			
exact	43,25,34,26, 7,38,32,55, 7,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°22′ 0″	43,25,34,26, 7,38,32,55, 7,40			
		1,26,42,45,29, 9, 9,33		
2″	43,25,35,52,50,24, 2, 4,17,13		3,10,29,25,55	
		1,26,42,42,18,39,43,38		6,20
4″	43,25,37,19,33, 6,20,44, 0,51		3,10,29,32,15	
		1,26,42,39, 8,10,11,23		6,20
6″	43,25,38,46,15,45,28,54,12,14		3,10,29,38,35	
		1,26,42,35,57,40,32,48		6,20
8″	43,25,40,12,58,21,26,34,45, 2		3,10,29,44,55	
		1,26,42,32,47,10,47,53		6,20
10″	43,25,41,39,40,54,13,45,32,55		3,10,29,51,15	
		1,26,42,29,36,40,56,38		6,20
12″	43,25,43, 6,23,23,50,26,29,33		3,10,29,57,35	
		1,26,42,26,26,10,59, 3		6,20
14″	43,25,44,33, 5,50,16,37,28,36		3,10,30, 3,55	
		1,26,42,23,15,40,55, 8		6,20
16″	43,25,45,59,48,13,32,18,23,44		3,10,30,10,15	
		1,26,42,20, 5,10,44,53		6,20
18″	43,25,47,26,30,33,37,29, 8,37		3,10,30,16,35	
		1,26,42,16,54,40,28,18		6,20
20″	43,25,48,53,12,50,32, 9,36,55		3,10,30,22,55	
		1,26,42,13,44,10, 5,23		6,20
22″	43,25,50,19,55, 4,16,19,42,18		3,10,30,29,15	
		1,26,42,10,33,39,36, 8		6,20
24″	43,25,51,46,37,14,49,59,18,26		3,10,30,35,35	
		1,26,42, 7,23, 9, 0,33		6,20
26″	43,25,53,13,19,22,13, 8,18,59		3,10,30,41,55	
		1,26,42, 4,12,38,18,38		6,20
28″	43,25,54,40, 1,26,25,46,37,37		3,10,30,48,15	
		1,26,42, 1, 2, 7,30,23		6,20
30″	43,25,56, 6,43,27,27,54, 8, 0		3,10,30,54,35	
		1,26,41,57,51,36,35,48		6,20
32″	43,25,57,33,25,25,19,30,43,48		3,10,31, 0,55	
		1,26,41,54,41, 5,34,53		6,20
34″	43,25,59, 0, 7,20, 0,36,18,41		3,10,31, 7,15	
		1,26,41,51,30,34,27,38		6,20
36″	43,26, 0,26,49,11,31,10,46,19		3,10,31,13,35	
		1,26,41,48,20, 3,14, 3		6,20
38″	43,26, 1,53,30,59,51,14, 0,22		3,10,31,19,55	
		1,26,41,45, 9,31,54, 8		6,20
40″	43,26, 3,20,12,45, 0,45,54,30		3,10,31,26,15	
		1,26,41,41,59, 0,27,53		6,20
42″	43,26, 4,46,54,26,59,46,22,23		3,10,31,32,35	
		1,26,41,38,48,28,55,18		6,20
44″	43,26, 6,13,36, 5,48,15,17,41		3,10,31,38,55	
		1,26,41,35,37,57,16,23		6,20
46″	43,26, 7,40,17,41,26,12,34, 4		3,10,31,45,15	
		1,26,41,32,27,25,31, 8		6,20
48″	43,26, 9, 6,59,13,53,38, 5,12		3,10,31,51,35	
		1,26,41,29,16,53,39,33		6,20
50″	43,26,10,33,40,43,10,31,44,45		3,10,31,57,55	
		1,26,41,26, 6,21,41,38		6,20
52″	43,26,12, 0,22, 9,16,53,26,23		3,10,32, 4,15	
		1,26,41,22,55,49,37,23		6,20
54″	43,26,13,27, 3,32,12,43, 3,46		3,10,32,10,35	
		1,26,41,19,45,17,26,48		6,20
56″	43,26,14,53,44,51,58, 0,30,34		3,10,32,16,55	
		1,26,41,16,34,45, 9,53		6,20
58″	43,26,16,20,26, 8,32,45,40,27		3,10,32,23,15	
		1,26,41,13,24,12,46,38		
60″	43,26,17,47, 7,21,56,58,27, 5			
exact	43,26,17,47, 7,21,56,58, 7,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°23′ 0″	43,26,17,47, 7,21,56,58, 7,40			
		1,26,41,10,13,40,14,55		
2″	43,26,19,13,48,32,10,38,22,35		3,10,32,36, 4	
		1,26,41, 7, 3, 7,38,51		6,20
4″	43,26,20,40,29,39,13,46, 1,26		3,10,32,42,24	
		1,26,41, 3,52,34,56,27		6,20
6″	43,26,22, 7,10,43, 6,20,57,53		3,10,32,48,44	
		1,26,41, 0,42, 2, 7,43		6,20
8″	43,26,23,33,51,43,48,23, 5,36		3,10,32,55, 4	
		1,26,40,57,31,29,12,39		6,20
10″	43,26,25, 0,32,41,19,52,18,15		3,10,33, 1,24	
		1,26,40,54,20,56,11,15		6,20
12″	43,26,26,27,13,35,40,48,29,30		3,10,33, 7,44	
		1,26,40,51,10,23, 3,31		6,20
14″	43,26,27,53,54,26,51,11,33, 1		3,10,33,14, 4	
		1,26,40,47,59,49,49,27		6,20
16″	43,26,29,20,35,14,51, 1,22,28		3,10,33,20,24	
		1,26,40,44,49,16,29, 3		6,20
18″	43,26,30,47,15,59,40,17,51,31		3,10,33,26,44	
		1,26,40,41,38,43, 2,19		6,20
20″	43,26,32,13,56,41,19, 0,53,50		3,10,33,33, 4	
		1,26,40,38,28, 9,29,15		6,20
22″	43,26,33,40,37,19,47,10,23, 5		3,10,33,39,24	
		1,26,40,35,17,35,49,51		6,20
24″	43,26,35, 7,17,55, 4,46,12,56		3,10,33,45,44	
		1,26,40,32, 7, 2, 4, 7		6,20
26″	43,26,36,33,58,27,11,48,17, 3		3,10,33,52, 4	
		1,26,40,28,56,28,12, 3		6,20
28″	43,26,38, 0,38,56, 8,16,29, 6		3,10,33,58,24	
		1,26,40,25,45,54,13,39		6,20
30″	43,26,39,27,19,21,54,10,42,45		3,10,34, 4,44	
		1,26,40,22,35,20, 8,55		6,20
32″	43,26,40,53,59,44,29,30,51,40		3,10,34,11, 4	
		1,26,40,19,24,45,57,51		6,20
34″	43,26,42,20,40, 3,54,16,49,31		3,10,34,17,24	
		1,26,40,16,14,11,40,27		6,20
36″	43,26,43,47,20,20, 8,28,29,58		3,10,34,23,44	
		1,26,40,13, 3,37,16,43		6,20
38″	43,26,45,14, 0,33,12, 5,46,41		3,10,34,30, 4	
		1,26,40, 9,53, 2,46,39		6,20
40″	43,26,46,40,40,43, 5, 8,33,20		3,10,34,36,24	
		1,26,40, 6,42,28,10,15		6,20
42″	43,26,48, 7,20,49,47,36,43,35		3,10,34,42,44	
		1,26,40, 3,31,53,27,31		6,20
44″	43,26,49,34, 0,53,19,30,11, 6		3,10,34,49, 4	
		1,26,40, 0,21,18,38,27		6,20
46″	43,26,51, 0,40,53,40,48,49,33		3,10,34,55,24	
		1,26,39,57,10,43,43, 3		6,20
48″	43,26,52,27,20,50,51,32,32,36		3,10,35, 1,44	
		1,26,39,54, 0, 8,41,19		6,20
50″	43,26,53,54, 0,44,51,41,13,55		3,10,35, 8, 4	
		1,26,39,50,49,33,33,15		6,20
52″	43,26,55,20,40,35,41,14,47,10		3,10,35,14,24	
		1,26,39,47,38,58,18,51		6,20
54″	43,26,56,47,20,23,20,13, 6, 1		3,10,35,20,44	
		1,26,39,44,28,22,58, 7		6,20
56″	43,26,58,14, 0, 7,48,36, 4, 8		3,10,35,27, 4	
		1,26,39,41,17,47,31, 3		6,20
58″	43,26,59,40,39,49, 6,23,35,11		3,10,35,33,24	
		1,26,39,38, 7,11,57,39		
60″	43,27, 1, 7,19,27,13,35,32,50			
exact	43,27, 1, 7,19,27,13,35,20,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°24′ 0″	43,27, 1, 7,19,27,13,35,20,30			
		1,26,39,34,56,36,16,34		
2″	43,27, 2,33,59, 2,10,11,37, 4		3,10,35,46, 9	
		1,26,39,31,46, 0,30,25		6,20
4″	43,27, 4, 0,38,33,56,12, 7,29		3,10,35,52,29	
		1,26,39,28,35,24,37,56		6,20
6″	43,27, 5,27,18, 2,31,36,45,25		3,10,35,58,49	
		1,26,39,25,24,48,39, 7		6,20
8″	43,27, 6,53,57,27,56,25,24,32		3,10,36, 5, 9	
		1,26,39,22,14,12,33,58		6,20
10″	43,27, 8,20,36,50,10,37,58,30		3,10,36,11,29	
		1,26,39,19, 3,36,22,29		6,20
12″	43,27, 9,47,16, 9,14,14,20,59		3,10,36,17,49	
		1,26,39,15,53, 0, 4,40		6,20
14″	43,27,11,13,55,25, 7,14,25,39		3,10,36,24, 9	
		1,26,39,12,42,23,40,31		6,20
16″	43,27,12,40,34,37,49,38, 6,10		3,10,36,30,29	
		1,26,39, 9,31,47,10, 2		6,20
18″	43,27,14, 7,13,47,21,25,16,12		3,10,36,36,49	
		1,26,39, 6,21,10,33,13		6,20
20″	43,27,15,33,52,53,42,35,49,25		3,10,36,43, 9	
		1,26,39, 3,10,33,50, 4		6,20
22″	43,27,17, 0,31,56,53, 9,39,29		3,10,36,49,29	
		1,26,38,59,59,57, 0,35		6,20
24″	43,27,18,27,10,56,53, 6,40, 4		3,10,36,55,49	
		1,26,38,56,49,20, 4,46		6,20
26″	43,27,19,53,49,53,42,26,44,50		3,10,37, 2, 9	
		1,26,38,53,38,43, 2,37		6,20
28″	43,27,21,20,28,47,21, 9,47,27		3,10,37, 8,29	
		1,26,38,50,28, 5,54, 8		6,20
30″	43,27,22,47, 7,37,49,15,41,35		3,10,37,14,49	
		1,26,38,47,17,28,39,19		6,20
32″	43,27,24,13,46,25, 6,44,20,54		3,10,37,21, 9	
		1,26,38,44, 6,51,18,10		6,20
34″	43,27,25,40,25, 9,13,35,39, 4		3,10,37,27,29	
		1,26,38,40,56,13,50,41		6,20
36″	43,27,27, 7, 3,50, 9,49,29,45		3,10,37,33,49	
		1,26,38,37,45,36,16,52		6,20
38″	43,27,28,33,42,27,55,25,46,37		3,10,37,40, 9	
		1,26,38,34,34,58,36,43		6,20
40″	43,27,30, 0,21, 2,30,24,23,20		3,10,37,46,29	
		1,26,38,31,24,20,50,14		6,20
42″	43,27,31,26,59,33,54,45,13,34		3,10,37,52,49	
		1,26,38,28,13,42,57,25		6,20
44″	43,27,32,53,38, 2, 8,28,10,59		3,10,37,59, 9	
		1,26,38,25, 3, 4,58,16		6,20
46″	43,27,34,20,16,27,11,33, 9,15		3,10,38, 5,29	
		1,26,38,21,52,26,52,47		6,20
48″	43,27,35,46,54,49, 4, 0, 2, 2		3,10,38,11,49	
		1,26,38,18,41,48,40,58		6,20
50″	43,27,37,13,33, 7,45,48,43, 0		3,10,38,18, 9	
		1,26,38,15,31,10,22,49		6,20
52″	43,27,38,40,11,23,16,59, 5,49		3,10,38,24,29	
		1,26,38,12,20,31,58,20		6,20
54″	43,27,40, 6,49,35,37,31, 4, 9		3,10,38,30,49	
		1,26,38, 9, 9,53,27,31		6,20
56″	43,27,41,33,27,44,47,24,31,40		3,10,38,37, 9	
		1,26,38, 5,59,14,50,22		6,20
58″	43,27,43, 0, 5,50,46,39,22, 2		3,10,38,43,29	
		1,26,38, 2,48,36, 6,53		
60″	43,27,44,26,43,53,35,15,28,55			
exact	43,27,44,26,43,53,35,15,19,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°25′ 0″	43,27,44,26,43,53,35,15,19,45			
		1,26,37,59,37,57,16,14		
2″	43,27,45,53,21,53,13,12,35,59		3,10,38,56,11	
		1,26,37,56,27,18,20, 3		6,20
4″	43,27,47,19,59,49,40,30,56, 2		3,10,39, 2,31	
		1,26,37,53,16,39,17,32		6,20
6″	43,27,48,46,37,42,57,10,13,34		3,10,39, 8,51	
		1,26,37,50, 6, 0, 8,41		6,20
8″	43,27,50,13,15,33, 3,10,22,15		3,10,39,15,11	
		1,26,37,46,55,20,53,30		6,20
10″	43,27,51,39,53,19,58,31,15,45		3,10,39,21,31	
		1,26,37,43,44,41,31,59		6,20
12″	43,27,53, 6,31, 3,43,12,47,44		3,10,39,27,51	
		1,26,37,40,34, 2, 4, 8		6,20
14″	43,27,54,33, 8,44,17,14,51,52		3,10,39,34,11	
		1,26,37,37,23,22,29,57		6,20
16″	43,27,55,59,46,21,40,37,21,49		3,10,39,40,31	
		1,26,37,34,12,42,49,26		6,20
18″	43,27,57,26,23,55,53,20,11,15		3,10,39,46,51	
		1,26,37,31, 2, 3, 2,35		6,20
20″	43,27,58,53, 1,26,55,23,13,50		3,10,39,53,11	
		1,26,37,27,51,23, 9,24		6,20
22″	43,28, 0,19,38,54,46,46,23,14		3,10,39,59,31	
		1,26,37,24,40,43, 9,53		6,20
24″	43,28, 1,46,16,19,27,29,33, 7		3,10,40, 5,51	
		1,26,37,21,30, 3, 4, 2		6,20
26″	43,28, 3,12,53,40,57,32,37, 9		3,10,40,12,11	
		1,26,37,18,19,22,51,51		6,20
28″	43,28, 4,39,30,59,16,55,29, 0		3,10,40,18,31	
		1,26,37,15, 8,42,33,20		6,20
30″	43,28, 6, 6, 8,14,25,38, 2,20		3,10,40,24,51	
		1,26,37,11,58, 2, 8,29		6,20
32″	43,28, 7,32,45,26,23,40,10,49		3,10,40,31,11	
		1,26,37, 8,47,21,37,18		6,20
34″	43,28, 8,59,22,35,11, 1,48, 7		3,10,40,37,31	
		1,26,37, 5,36,40,59,47		6,20
36″	43,28,10,25,59,40,47,42,47,54		3,10,40,43,51	
		1,26,37, 2,26, 0,15,56		6,20
38″	43,28,11,52,36,43,13,43, 3,50		3,10,40,50,11	
		1,26,36,59,15,19,25,45		6,20
40″	43,28,13,19,13,42,29, 2,29,35		3,10,40,56,31	
		1,26,36,56, 4,38,29,14		6,20
42″	43,28,14,45,50,38,33,40,58,49		3,10,41, 2,51	
		1,26,36,52,53,57,26,23		6,20
44″	43,28,16,12,27,31,27,38,25,12		3,10,41, 9,11	
		1,26,36,49,43,16,17,12		6,20
46″	43,28,17,39, 4,21,10,54,42,24		3,10,41,15,31	
		1,26,36,46,32,35, 1,41		6,20
48″	43,28,19, 5,41, 7,43,29,44, 5		3,10,41,21,51	
		1,26,36,43,21,53,39,50		6,20
50″	43,28,20,32,17,51, 5,23,23,55		3,10,41,28,11	
		1,26,36,40,11,12,11,39		6,20
52″	43,28,21,58,54,31,16,35,35,34		3,10,41,34,31	
		1,26,36,37, 0,30,37, 8		6,20
54″	43,28,23,25,31, 8,17, 6,12,42		3,10,41,40,51	
		1,26,36,33,49,48,56,17		6,20
56″	43,28,24,52, 7,42, 6,55, 8,59		3,10,41,47,11	
		1,26,36,30,39, 7, 9, 6		6,20
58″	43,28,26,18,44,12,46, 2,18, 5		3,10,41,53,31	
		1,26,36,27,28,25,15,35		
60″	43,28,27,45,20,40,14,27,33,40			
exact	43,28,27,45,20,40,14,27,31,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°26′ 0″	43,28,27,45,20,40,14,27,31,18			
		1,26,36,24,17,43,15,40		
2″	43,28,29,11,57, 4,32,10,46,58		3,10,42, 6,10	
		1,26,36,21, 7, 1, 9,30		6,20
4″	43,28,30,38,33,25,39,11,56,28		3,10,42,12,30	
		1,26,36,17,56,18,57, 0		6,20
6″	43,28,32, 5, 9,43,35,30,53,28		3,10,42,18,50	
		1,26,36,14,45,36,38,10		6,20
8″	43,28,33,31,45,58,21, 7,31,38		3,10,42,25,10	
		1,26,36,11,34,54,13, 0		6,20
10″	43,28,34,58,22, 9,56, 1,44,38		3,10,42,31,30	
		1,26,36, 8,24,11,41,30		6,20
12″	43,28,36,24,58,18,20,13,26, 8		3,10,42,37,50	
		1,26,36, 5,13,29, 3,40		6,20
14″	43,28,37,51,34,23,33,42,29,48		3,10,42,44,10	
		1,26,36, 2, 2,46,19,30		6,20
16″	43,28,39,18,10,25,36,28,49,18		3,10,42,50,30	
		1,26,35,58,52, 3,29, 0		6,20
18″	43,28,40,44,46,24,28,32,18,18		3,10,42,56,50	
		1,26,35,55,41,20,32,10		6,20
20″	43,28,42,11,22,20, 9,52,50,28		3,10,43, 3,10	
		1,26,35,52,30,37,29, 0		6,20
22″	43,28,43,37,58,12,40,30,19,28		3,10,43, 9,30	
		1,26,35,49,19,54,19,30		6,20
24″	43,28,45, 4,34, 2, 0,24,38,58		3,10,43,15,50	
		1,26,35,46, 9,11, 3,40		6,20
26″	43,28,46,31, 9,48, 9,35,42,38		3,10,43,22,10	
		1,26,35,42,58,27,41,30		6,20
28″	43,28,47,57,45,31, 8, 3,24, 8		3,10,43,28,30	
		1,26,35,39,47,44,13, 0		6,20
30″	43,28,49,24,21,10,55,47,37, 8		3,10,43,34,50	
		1,26,35,36,37, 0,38,10		6,20
32″	43,28,50,50,56,47,32,48,15,18		3,10,43,41,10	
		1,26,35,33,26,16,57, 0		6,20
34″	43,28,52,17,32,20,59, 5,12,18		3,10,43,47,30	
		1,26,35,30,15,33, 9,30		6,20
36″	43,28,53,44, 7,51,14,38,21,48		3,10,43,53,50	
		1,26,35,27, 4,49,15,40		6,20
38″	43,28,55,10,43,18,19,27,37,28		3,10,44, 0,10	
		1,26,35,23,54, 5,15,30		6,20
40″	43,28,56,37,18,42,13,32,52,58		3,10,44, 6,30	
		1,26,35,20,43,21, 9, 0		6,20
42″	43,28,58, 3,54, 2,56,54, 1,58		3,10,44,12,50	
		1,26,35,17,32,36,56,10		6,20
44″	43,28,59,30,29,20,29,30,58, 8		3,10,44,19,10	
		1,26,35,14,21,52,37, 0		6,20
46″	43,29, 0,57, 4,34,51,23,35, 8		3,10,44,25,30	
		1,26,35,11,11, 8,11,30		6,20
48″	43,29, 2,23,39,46, 2,31,46,38		3,10,44,31,50	
		1,26,35, 8, 0,23,39,40		6,20
50″	43,29, 3,50,14,54, 2,55,26,18		3,10,44,38,10	
		1,26,35, 4,49,39, 1,30		6,20
52″	43,29, 5,16,49,58,52,34,27,48		3,10,44,44,30	
		1,26,35, 1,38,54,17, 0		6,20
54″	43,29, 6,43,25, 0,31,28,44,48		3,10,44,50,50	
		1,26,34,58,28, 9,26,10		6,20
56″	43,29, 8, 9,59,58,59,38,10,58		3,10,44,57,10	
		1,26,34,55,17,24,29, 0		6,20
58″	43,29, 9,36,34,54,17, 2,39,58		3,10,45, 3,30	
		1,26,34,52, 6,39,25,30		
60″	43,29,11, 3, 9,46,23,42, 5,28			
exact	43,29,11, 3, 9,46,23,42,13,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°27′ 0″	43,29,11, 3, 9,46,23,42,13,15			
		1,26,34,48,55,54,16,36		
2″	43,29,12,29,44,35,19,36,29,51		3,10,45,16, 5	
		1,26,34,45,45, 9, 0,31		6,20
4″	43,29,13,56,19,21, 4,45,30,22		3,10,45,22,25	
		1,26,34,42,34,23,38, 6		6,20
6″	43,29,15,22,54, 3,39, 9, 8,28		3,10,45,28,45	
		1,26,34,39,23,38, 9,21		6,20
8″	43,29,16,49,28,43, 2,47,17,49		3,10,45,35, 5	
		1,26,34,36,12,52,34,16		6,20
10″	43,29,18,16, 3,19,15,39,52, 5		3,10,45,41,25	
		1,26,34,33, 2, 6,52,51		6,20
12″	43,29,19,42,37,52,17,46,44,56		3,10,45,47,45	
		1,26,34,29,51,21, 5, 6		6,20
14″	43,29,21, 9,12,22, 9, 7,50, 2		3,10,45,54, 5	
		1,26,34,26,40,35,11, 1		6,20
16″	43,29,22,35,46,48,49,43, 1, 3		3,10,46, 0,25	
		1,26,34,23,29,49,10,36		6,20
18″	43,29,24, 2,21,12,19,32,11,39		3,10,46, 6,45	
		1,26,34,20,19, 3, 3,51		6,20
20″	43,29,25,28,55,32,38,35,15,30		3,10,46,13, 5	
		1,26,34,17, 8,16,50,46		6,20
22″	43,29,26,55,29,49,46,52, 6,16		3,10,46,19,25	
		1,26,34,13,57,30,31,21		6,20
24″	43,29,28,22, 4, 3,44,22,37,37		3,10,46,25,45	
		1,26,34,10,46,44, 5,36		6,20
26″	43,29,29,48,38,14,31, 6,43,13		3,10,46,32, 5	
		1,26,34, 7,35,57,33,31		6,20
28″	43,29,31,15,12,22, 7, 4,16,44		3,10,46,38,25	
		1,26,34, 4,25,10,55, 6		6,20
30″	43,29,32,41,46,26,32,15,11,50		3,10,46,44,45	
		1,26,34, 1,14,24,10,21		6,20
32″	43,29,34, 8,20,27,46,39,22,11		3,10,46,51, 5	
		1,26,33,58, 3,37,19,16		6,20
34″	43,29,35,34,54,25,50,16,41,27		3,10,46,57,25	
		1,26,33,54,52,50,21,51		6,20
36″	43,29,37, 1,28,20,43, 7, 3,18		3,10,47, 3,45	
		1,26,33,51,42, 3,18, 6		6,20
38″	43,29,38,28, 2,12,25,10,21,24		3,10,47,10, 5	
		1,26,33,48,31,16, 8, 1		6,20
40″	43,29,39,54,36, 0,56,26,29,25		3,10,47,16,25	
		1,26,33,45,20,28,51,36		6,20
42″	43,29,41,21, 9,46,16,55,21, 1		3,10,47,22,45	
		1,26,33,42, 9,41,28,51		6,20
44″	43,29,42,47,43,28,26,36,49,52		3,10,47,29, 5	
		1,26,33,38,58,53,59,46		6,20
46″	43,29,44,14,17, 7,25,30,49,38		3,10,47,35,25	
		1,26,33,35,48, 6,24,21		6,20
48″	43,29,45,40,50,43,13,37,13,59		3,10,47,41,45	
		1,26,33,32,37,18,42,36		6,20
50″	43,29,47, 7,24,15,50,55,56,35		3,10,47,48, 5	
		1,26,33,29,26,30,54,31		6,20
52″	43,29,48,33,57,45,17,26,51, 6		3,10,47,54,25	
		1,26,33,26,15,43, 0, 6		6,20
54″	43,29,50, 0,31,11,33, 9,51,12		3,10,48, 0,45	
		1,26,33,23, 4,54,59,21		6,20
56″	43,29,51,27, 4,34,38, 4,50,33		3,10,48, 7, 5	
		1,26,33,19,54, 6,52,16		6,20
58″	43,29,52,53,37,54,32,11,42,49		3,10,48,13,25	
		1,26,33,16,43,18,38,51		
60″	43,29,54,20,11,11,15,30,21,40			
exact	43,29,54,20,11,11,15,30,36, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°28′ 0″	43,29,54,20,11,11,15,30,36, 1			
		1,26,33,13,32,30,20,47		
2″	43,29,55,46,44,24,48, 0,56,48		3,10,48,25,57	
		1,26,33,10,21,41,54,50		6,20
4″	43,29,57,13,17,35, 9,42,51,38		3,10,48,32,17	
		1,26,33, 7,10,53,22,33		6,20
6″	43,29,58,39,50,42,20,36,14,11		3,10,48,38,37	
		1,26,33, 4, 0, 4,43,56		6,20
8″	43,30, 0, 6,23,46,20,40,58, 7		3,10,48,44,57	
		1,26,33, 0,49,15,58,59		6,20
10″	43,30, 1,32,56,47, 9,56,57, 6		3,10,48,51,17	
		1,26,32,57,38,27, 7,42		6,20
12″	43,30, 2,59,29,44,48,24, 4,48		3,10,48,57,37	
		1,26,32,54,27,38,10, 5		6,20
14″	43,30, 4,26, 2,39,16, 2,14,53		3,10,49, 3,57	
		1,26,32,51,16,49, 6, 8		6,20
16″	43,30, 5,52,35,30,32,51,21, 1		3,10,49,10,17	
		1,26,32,48, 5,59,55,51		6,20
18″	43,30, 7,19, 8,18,38,51,16,52		3,10,49,16,37	
		1,26,32,44,55,10,39,14		6,20
20″	43,30, 8,45,41, 3,34, 1,56, 6		3,10,49,22,57	
		1,26,32,41,44,21,16,17		6,20
22″	43,30,10,12,13,45,18,23,12,23		3,10,49,29,17	
		1,26,32,38,33,31,47, 0		6,20
24″	43,30,11,38,46,23,51,54,59,23		3,10,49,35,37	
		1,26,32,35,22,42,11,23		6,20
26″	43,30,13, 5,18,59,14,37,10,46		3,10,49,41,57	
		1,26,32,32,11,52,29,26		6,20
28″	43,30,14,31,51,31,26,29,40,12		3,10,49,48,17	
		1,26,32,29, 1, 2,41, 9		6,20
30″	43,30,15,58,24, 0,27,32,21,21		3,10,49,54,37	
		1,26,32,25,50,12,46,32		6,20
32″	43,30,17,24,56,26,17,45, 7,53		3,10,50, 0,57	
		1,26,32,22,39,22,45,35		6,20
34″	43,30,18,51,28,48,57, 7,53,28		3,10,50, 7,17	
		1,26,32,19,28,32,38,18		6,20
36″	43,30,20,18, 1, 8,25,40,31,46		3,10,50,13,37	
		1,26,32,16,17,42,24,41		6,20
38″	43,30,21,44,33,24,43,22,56,27		3,10,50,19,57	
		1,26,32,13, 6,52, 4,44		6,20
40″	43,30,23,11, 5,37,50,15, 1,11		3,10,50,26,17	
		1,26,32, 9,56, 1,38,27		6,20
42″	43,30,24,37,37,47,46,16,39,38		3,10,50,32,37	
		1,26,32, 6,45,11, 5,50		6,20
44″	43,30,26, 4, 9,54,31,27,45,28		3,10,50,38,57	
		1,26,32, 3,34,20,26,53		6,20
46″	43,30,27,30,41,58, 5,48,12,21		3,10,50,45,17	
		1,26,32, 0,23,29,41,36		6,20
48″	43,30,28,57,13,58,29,17,53,57		3,10,50,51,37	
		1,26,31,57,12,38,49,59		6,20
50″	43,30,30,23,45,55,41,56,43,56		3,10,50,57,57	
		1,26,31,54, 1,47,52, 2		6,20
52″	43,30,31,50,17,49,43,44,35,58		3,10,51, 4,17	
		1,26,31,50,50,56,47,45		6,20
54″	43,30,33,16,49,40,34,41,23,43		3,10,51,10,37	
		1,26,31,47,40, 5,37, 8		6,20
56″	43,30,34,43,21,28,14,47, 0,51		3,10,51,16,57	
		1,26,31,44,29,14,20,11		6,20
58″	43,30,36, 9,53,12,44, 1,21, 2		3,10,51,23,17	
		1,26,31,41,18,22,56,54		
60″	43,30,37,36,24,54, 2,24,17,56			
exact	43,30,37,36,24,54, 2,24,42,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°29′ 0″	43,30,37,36,24,54, 2,24,42,17			
		1,26,31,38, 7,31,29,58		
2″	43,30,39, 2,56,32, 9,56,12,15		3,10,51,35,45	
		1,26,31,34,56,39,54,13		6,20
4″	43,30,40,29,28, 7, 6,36, 6,28		3,10,51,42, 5	
		1,26,31,31,45,48,12, 8		6,20
6″	43,30,41,55,59,38,52,24,18,36		3,10,51,48,25	
		1,26,31,28,34,56,23,43		6,20
8″	43,30,43,22,31, 7,27,20,42,19		3,10,51,54,45	
		1,26,31,25,24, 4,28,58		6,20
10″	43,30,44,49, 2,32,51,25,11,17		3,10,52, 1, 5	
		1,26,31,22,13,12,27,53		6,20
12″	43,30,46,15,33,55, 4,37,39,10		3,10,52, 7,25	
		1,26,31,19, 2,20,20,28		6,20
14″	43,30,47,42, 5,14, 6,57,59,38		3,10,52,13,45	
		1,26,31,15,51,28, 6,43		6,20
16″	43,30,49, 8,36,29,58,26, 6,21		3,10,52,20, 5	
		1,26,31,12,40,35,46,38		6,20
18″	43,30,50,35, 7,42,39, 1,52,59		3,10,52,26,25	
		1,26,31, 9,29,43,20,13		6,20
20″	43,30,52, 1,38,52, 8,45,13,12		3,10,52,32,45	
		1,26,31, 6,18,50,47,28		6,20
22″	43,30,53,28, 9,58,27,36, 0,40		3,10,52,39, 5	
		1,26,31, 3, 7,58, 8,23		6,20
24″	43,30,54,54,41, 1,35,34, 9, 3		3,10,52,45,25	
		1,26,30,59,57, 5,22,58		6,20
26″	43,30,56,21,12, 1,32,39,32, 1		3,10,52,51,45	
		1,26,30,56,46,12,31,13		6,20
28″	43,30,57,47,42,58,18,52, 3,14		3,10,52,58, 5	
		1,26,30,53,35,19,33, 8		6,20
30″	43,30,59,14,13,51,54,11,36,22		3,10,53, 4,25	
		1,26,30,50,24,26,28,43		6,20
32″	43,31, 0,40,44,42,18,38, 5, 5		3,10,53,10,45	
		1,26,30,47,13,33,17,58		6,20
34″	43,31, 2, 7,15,29,32,11,23, 3		3,10,53,17, 5	
		1,26,30,44, 2,40, 0,53		6,20
36″	43,31, 3,33,46,13,34,51,23,56		3,10,53,23,25	
		1,26,30,40,51,46,37,28		6,20
38″	43,31, 5, 0,16,54,26,38, 1,24		3,10,53,29,45	
		1,26,30,37,40,53, 7,43		6,20
40″	43,31, 6,26,47,32, 7,31, 9, 7		3,10,53,36, 5	
		1,26,30,34,29,59,31,38		6,20
42″	43,31, 7,53,18, 6,37,30,40,45		3,10,53,42,25	
		1,26,30,31,19, 5,49,13		6,20
44″	43,31, 9,19,48,37,56,36,29,58		3,10,53,48,45	
		1,26,30,28, 8,12, 0,28		6,20
46″	43,31,10,46,19, 6, 4,48,30,26		3,10,53,55, 5	
		1,26,30,24,57,18, 5,23		6,20
48″	43,31,12,12,49,31, 2, 6,35,49		3,10,54, 1,25	
		1,26,30,21,46,24, 3,58		6,20
50″	43,31,13,39,19,52,48,30,39,47		3,10,54, 7,45	
		1,26,30,18,35,29,56,13		6,20
52″	43,31,15, 5,50,11,24, 0,36, 0		3,10,54,14, 5	
		1,26,30,15,24,35,42, 8		6,20
54″	43,31,16,32,20,26,48,36,18, 8		3,10,54,20,25	
		1,26,30,12,13,41,21,43		6,20
56″	43,31,17,58,50,39, 2,17,39,51		3,10,54,26,45	
		1,26,30, 9, 2,46,54,58		6,20
58″	43,31,19,25,20,48, 5, 4,34,49		3,10,54,33, 5	
		1,26,30, 5,51,52,21,53		
60″	43,31,20,51,50,53,56,56,56,42			
exact	43,31,20,51,50,53,56,57,27, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°30′ 0″	43,31,20,51,50,53,56,57,27, 5			
		1,26,30, 2,40,57,45,52		
2″	43,31,22,18,20,56,37,55,12,57		3,10,54,45,30	
		1,26,29,59,30, 3, 0,22		6,19
4″	43,31,23,44,50,56, 7,58,13,19		3,10,54,51,49	
		1,26,29,56,19, 8, 8,33		6,19
6″	43,31,25,11,20,52,27, 6,21,52		3,10,54,58, 8	
		1,26,29,53, 8,13,10,25		6,19
8″	43,31,26,37,50,45,35,19,32,17		3,10,55, 4,27	
		1,26,29,49,57,18, 5,58		6,19
10″	43,31,28, 4,20,35,32,37,38,15		3,10,55,10,46	
		1,26,29,46,46,22,55,12		6,19
12″	43,31,29,30,50,22,19, 0,33,27		3,10,55,17, 5	
		1,26,29,43,35,27,38, 7		6,19
14″	43,31,30,57,20, 5,54,28,11,34		3,10,55,23,24	
		1,26,29,40,24,32,14,43		6,19
16″	43,31,32,23,49,46,19, 0,26,17		3,10,55,29,43	
		1,26,29,37,13,36,45, 0		6,19
18″	43,31,33,50,19,23,32,37,11,17		3,10,55,36, 2	
		1,26,29,34, 2,41, 8,58		6,19
20″	43,31,35,16,48,57,35,18,20,15		3,10,55,42,21	
		1,26,29,30,51,45,26,37		6,19
22″	43,31,36,43,18,28,27, 3,46,52		3,10,55,48,40	
		1,26,29,27,40,49,37,57		6,19
24″	43,31,38, 9,47,56, 7,53,24,49		3,10,55,54,59	
		1,26,29,24,29,53,42,58		6,19
26″	43,31,39,36,17,20,37,47, 7,47		3,10,56, 1,18	
		1,26,29,21,18,57,41,40		6,19
28″	43,31,41, 2,46,41,56,44,49,27		3,10,56, 7,37	
		1,26,29,18, 8, 1,34, 3		6,19
30″	43,31,42,29,16, 0, 4,46,23,30		3,10,56,13,56	
		1,26,29,14,57, 5,20, 7		6,19
32″	43,31,43,55,45,15, 1,51,43,37		3,10,56,20,15	
		1,26,29,11,46, 8,59,52		6,19
34″	43,31,45,22,14,26,48, 0,43,29		3,10,56,26,34	
		1,26,29, 8,35,12,33,18		6,19
36″	43,31,46,48,43,35,23,13,16,47		3,10,56,32,53	
		1,26,29, 5,24,16, 0,25		6,19
38″	43,31,48,15,12,40,47,29,17,12		3,10,56,39,12	
		1,26,29, 2,13,19,21,13		6,19
40″	43,31,49,41,41,43, 0,48,38,25		3,10,56,45,31	
		1,26,28,59, 2,22,35,42		6,19
42″	43,31,51, 8,10,42, 3,11,14, 7		3,10,56,51,50	
		1,26,28,55,51,25,43,52		6,19
44″	43,31,52,34,39,37,54,36,57,59		3,10,56,58, 9	
		1,26,28,52,40,28,45,43		6,19
46″	43,31,54, 1, 8,30,35, 5,43,42		3,10,57, 4,28	
		1,26,28,49,29,31,41,15		6,19
48″	43,31,55,27,37,20, 4,37,24,57		3,10,57,10,47	
		1,26,28,46,18,34,30,28		6,19
50″	43,31,56,54, 6, 6,23,11,55,25		3,10,57,17, 6	
		1,26,28,43, 7,37,13,22		6,19
52″	43,31,58,20,34,49,30,49, 8,47		3,10,57,23,25	
		1,26,28,39,56,39,49,57		6,19
54″	43,31,59,47, 3,29,27,28,58,44		3,10,57,29,44	
		1,26,28,36,45,42,20,13		6,19
56″	43,32, 1,13,32, 6,13,11,18,57		3,10,57,36, 3	
		1,26,28,33,34,44,44,10		6,19
58″	43,32, 2,40, 0,39,47,56, 3, 7		3,10,57,42,22	
		1,26,28,30,23,47, 1,48		
60″	43,32, 4, 6,29,10,11,43, 4,55			
exact	43,32, 4, 6,29,10,11,42,37,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°31′ 0″	43,32, 4, 6,29,10,11,42,37,44			
		1,26,28,27,12,49,10,16		
2″	43,32, 5,32,57,37,24,31,48, 0		3,10,57,55,11	
		1,26,28,24, 1,51,15, 5		6,19
4″	43,32, 6,59,26, 1,26,23, 3, 5		3,10,58, 1,30	
		1,26,28,20,50,53,13,35		6,19
6″	43,32, 8,25,54,22,17,16,16,40		3,10,58, 7,49	
		1,26,28,17,39,55, 5,46		6,19
8″	43,32, 9,52,22,39,57,11,22,26		3,10,58,14, 8	
		1,26,28,14,28,56,51,38		6,19
10″	43,32,11,18,50,54,26, 8,14, 4		3,10,58,20,27	
		1,26,28,11,17,58,31,11		6,19
12″	43,32,12,45,19, 5,44, 6,45,15		3,10,58,26,46	
		1,26,28, 8, 7, 0, 4,25		6,19
14″	43,32,14,11,47,13,51, 6,49,40		3,10,58,33, 5	
		1,26,28, 4,56, 1,31,20		6,19
16″	43,32,15,38,15,18,47, 8,21, 0		3,10,58,39,24	
		1,26,28, 1,45, 2,51,56		6,19
18″	43,32,17, 4,43,20,32,11,12,56		3,10,58,45,43	
		1,26,27,58,34, 4, 6,13		6,19
20″	43,32,18,31,11,19, 6,15,19, 9		3,10,58,52, 2	
		1,26,27,55,23, 5,14,11		6,19
22″	43,32,19,57,39,14,29,20,33,20		3,10,58,58,21	
		1,26,27,52,12, 6,15,50		6,19
24″	43,32,21,24, 7, 6,41,26,49,10		3,10,59, 4,40	
		1,26,27,49, 1, 7,11,10		6,19
26″	43,32,22,50,34,55,42,34, 0,20		3,10,59,10,59	
		1,26,27,45,50, 8, 0,11		6,19
28″	43,32,24,17, 2,41,32,42, 0,31		3,10,59,17,18	
		1,26,27,42,39, 8,42,53		6,19
30″	43,32,25,43,30,24,11,50,43,24		3,10,59,23,37	
		1,26,27,39,28, 9,19,16		6,19
32″	43,32,27, 9,58, 3,40, 0, 2,40		3,10,59,29,56	
		1,26,27,36,17, 9,49,20		6,19
34″	43,32,28,36,25,39,57, 9,52, 0		3,10,59,36,15	
		1,26,27,33, 6,10,13, 5		6,19
36″	43,32,30, 2,53,13, 3,20, 5, 5		3,10,59,42,34	
		1,26,27,29,55,10,30,31		6,19
38″	43,32,31,29,20,42,58,30,35,36		3,10,59,48,53	
		1,26,27,26,44,10,41,38		6,19
40″	43,32,32,55,48, 9,42,41,17,14		3,10,59,55,12	
		1,26,27,23,33,10,46,26		6,19
42″	43,32,34,22,15,33,15,52, 3,40		3,11, 0, 1,31	
		1,26,27,20,22,10,44,55		6,19
44″	43,32,35,48,42,53,38, 2,48,35		3,11, 0, 7,50	
		1,26,27,17,11,10,37, 5		6,19
46″	43,32,37,15,10,10,49,13,25,40		3,11, 0,14, 9	
		1,26,27,14, 0,10,22,56		6,19
48″	43,32,38,41,37,24,49,23,48,36		3,11, 0,20,28	
		1,26,27,10,49,10, 2,28		6,19
50″	43,32,40, 8, 4,35,38,33,51, 4		3,11, 0,26,47	
		1,26,27, 7,38, 9,35,41		6,19
52″	43,32,41,34,31,43,16,43,26,45		3,11, 0,33, 6	
		1,26,27, 4,27, 9, 2,35		6,19
54″	43,32,43, 0,58,47,43,52,29,20		3,11, 0,39,25	
		1,26,27, 1,16, 8,23,10		6,19
56″	43,32,44,27,25,49, 0, 0,52,30		3,11, 0,45,44	
		1,26,26,58, 5, 7,37,26		6,19
58″	43,32,45,53,52,47, 5, 8,29,56		3,11, 0,52, 3	
		1,26,26,54,54, 6,45,23		
60″	43,32,47,20,19,41,59,15,15,19			
exact	43,32,47,20,19,41,59,14,53,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°32′ 0″	43,32,47,20,19,41,59,14,53,54			
		1,26,26,51,43, 5,44,52		
2″	43,32,48,46,46,33,42,20,38,46		3,11, 1, 4,49	
		1,26,26,48,32, 4,40, 3		6,19
4″	43,32,50,13,13,22,14,25,18,49		3,11, 1,11, 8	
		1,26,26,45,21, 3,28,55		6,19
6″	43,32,51,39,40, 7,35,28,47,44		3,11, 1,17,27	
		1,26,26,42,10, 2,11,28		6,19
8″	43,32,53, 6, 6,49,45,30,59,12		3,11, 1,23,46	
		1,26,26,38,59, 0,47,42		6,19
10″	43,32,54,32,33,28,44,31,46,54		3,11, 1,30, 5	
		1,26,26,35,47,59,17,37		6,19
12″	43,32,55,59, 0, 4,32,31, 4,31		3,11, 1,36,24	
		1,26,26,32,36,57,41,13		6,19
14″	43,32,57,25,26,37, 9,28,45,44		3,11, 1,42,43	
		1,26,26,29,25,55,58,30		6,19
16″	43,32,58,51,53, 6,35,24,44,14		3,11, 1,49, 2	
		1,26,26,26,14,54, 9,28		6,19
18″	43,33, 0,18,19,32,50,18,53,42		3,11, 1,55,21	
		1,26,26,23, 3,52,14, 7		6,19
20″	43,33, 1,44,45,55,54,11, 7,49		3,11, 2, 1,40	
		1,26,26,19,52,50,12,27		6,19
22″	43,33, 3,11,12,15,47, 1,20,16		3,11, 2, 7,59	
		1,26,26,16,41,48, 4,28		6,19
24″	43,33, 4,37,38,32,28,49,24,44		3,11, 2,14,18	
		1,26,26,13,30,45,50,10		6,19
26″	43,33, 6, 4, 4,45,59,35,14,54		3,11, 2,20,37	
		1,26,26,10,19,43,29,33		6,19
28″	43,33, 7,30,30,56,19,18,44,27		3,11, 2,26,56	
		1,26,26, 7, 8,41, 2,37		6,19
30″	43,33, 8,56,57, 3,27,59,47, 4		3,11, 2,33,15	
		1,26,26, 3,57,38,29,22		6,19
32″	43,33,10,23,23, 7,25,38,16,26		3,11, 2,39,34	
		1,26,26, 0,46,35,49,48		6,19
34″	43,33,11,49,49, 8,12,14, 6,14		3,11, 2,45,53	
		1,26,25,57,35,33, 3,55		6,19
36″	43,33,13,16,15, 5,47,47,10, 9		3,11, 2,52,12	
		1,26,25,54,24,30,11,43		6,19
38″	43,33,14,42,41, 0,12,17,21,52		3,11, 2,58,31	
		1,26,25,51,13,27,13,12		6,19
40″	43,33,16, 9, 6,51,25,44,35, 4		3,11, 3, 4,50	
		1,26,25,48, 2,24, 8,22		6,19
42″	43,33,17,35,32,39,28, 8,43,26		3,11, 3,11, 9	
		1,26,25,44,51,20,57,13		6,19
44″	43,33,19, 1,58,24,19,29,40,39		3,11, 3,17,28	
		1,26,25,41,40,17,39,45		6,19
46″	43,33,20,28,24, 5,59,47,20,24		3,11, 3,23,47	
		1,26,25,38,29,14,15,58		6,19
48″	43,33,21,54,49,44,29, 1,36,22		3,11, 3,30, 6	
		1,26,25,35,18,10,45,52		6,19
50″	43,33,23,21,15,19,47,12,22,14		3,11, 3,36,25	
		1,26,25,32, 7, 7, 9,27		6,19
52″	43,33,24,47,40,51,54,19,31,41		3,11, 3,42,44	
		1,26,25,28,56, 3,26,43		6,19
54″	43,33,26,14, 6,20,50,22,58,24		3,11, 3,49, 3	
		1,26,25,25,44,59,37,40		6,19
56″	43,33,27,40,31,46,35,22,36, 4		3,11, 3,55,22	
		1,26,25,22,33,55,42,18		6,19
58″	43,33,29, 6,57, 9, 9,18,18,22		3,11, 4, 1,41	
		1,26,25,19,22,51,40,37		
60″	43,33,30,33,22,28,32, 9,58,59			
exact	43,33,30,33,22,28,32, 9,47,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°33′ 0″	43,33,30,33,22,28,32, 9,47,38			
		1,26,25,16,11,47,31,27		
2″	43,33,31,59,47,44,43,57,19, 5		3,11, 4,14,23	
		1,26,25,13, 0,43,17, 4		6,19
4″	43,33,33,26,12,57,44,40,36, 9		3,11, 4,20,42	
		1,26,25, 9,49,38,56,22		6,19
6″	43,33,34,52,38, 7,34,19,32,31		3,11, 4,27, 1	
		1,26,25, 6,38,34,29,21		6,19
8″	43,33,36,19, 3,14,12,54, 1,52		3,11, 4,33,20	
		1,26,25, 3,27,29,56, 1		6,19
10″	43,33,37,45,28,17,40,23,57,53		3,11, 4,39,39	
		1,26,25, 0,16,25,16,22		6,19
12″	43,33,39,11,53,17,56,49,14,15		3,11, 4,45,58	
		1,26,24,57, 5,20,30,24		6,19
14″	43,33,40,38,18,15, 2, 9,44,39		3,11, 4,52,17	
		1,26,24,53,54,15,38, 7		6,19
16″	43,33,42, 4,43, 8,56,25,22,46		3,11, 4,58,36	
		1,26,24,50,43,10,39,31		6,19
18″	43,33,43,31, 7,59,39,36, 2,17		3,11, 5, 4,55	
		1,26,24,47,32, 5,34,36		6,19
20″	43,33,44,57,32,47,11,41,36,53		3,11, 5,11,14	
		1,26,24,44,21, 0,23,22		6,19
22″	43,33,46,23,57,31,32,42, 0,15		3,11, 5,17,33	
		1,26,24,41, 9,55, 5,49		6,19
24″	43,33,47,50,22,12,42,37, 6, 4		3,11, 5,23,52	
		1,26,24,37,58,49,41,57		6,19
26″	43,33,49,16,46,50,41,26,48, 1		3,11, 5,30,11	
		1,26,24,34,47,44,11,46		6,19
28″	43,33,50,43,11,25,29,10,59,47		3,11, 5,36,30	
		1,26,24,31,36,38,35,16		6,19
30″	43,33,52, 9,35,57, 5,49,35, 3		3,11, 5,42,49	
		1,26,24,28,25,32,52,27		6,19
32″	43,33,53,36, 0,25,31,22,27,30		3,11, 5,49, 8	
		1,26,24,25,14,27, 3,19		6,19
34″	43,33,55, 2,24,50,45,49,30,49		3,11, 5,55,27	
		1,26,24,22, 3,21, 7,52		6,19
36″	43,33,56,28,49,12,49,10,38,41		3,11, 6, 1,46	
		1,26,24,18,52,15, 6, 6		6,19
38″	43,33,57,55,13,31,41,25,44,47		3,11, 6, 8, 5	
		1,26,24,15,41, 8,58, 1		6,19
40″	43,33,59,21,37,47,22,34,42,48		3,11, 6,14,24	
		1,26,24,12,30, 2,43,37		6,19
42″	43,34, 0,48, 1,59,52,37,26,25		3,11, 6,20,43	
		1,26,24, 9,18,56,22,54		6,19
44″	43,34, 2,14,26, 9,11,33,49,19		3,11, 6,27, 2	
		1,26,24, 6, 7,49,55,52		6,19
46″	43,34, 3,40,50,15,19,23,45,11		3,11, 6,33,21	
		1,26,24, 2,56,43,22,31		6,19
48″	43,34, 5, 7,14,18,16, 7, 7,42		3,11, 6,39,40	
		1,26,23,59,45,36,42,51		6,19
50″	43,34, 6,33,38,18, 1,43,50,33		3,11, 6,45,59	
		1,26,23,56,34,29,56,52		6,19
52″	43,34, 8, 0, 2,14,36,13,47,25		3,11, 6,52,18	
		1,26,23,53,23,23, 4,34		6,19
54″	43,34, 9,26,26, 7,59,36,51,59		3,11, 6,58,37	
		1,26,23,50,12,16, 5,57		6,19
56″	43,34,10,52,49,58,11,52,57,56		3,11, 7, 4,56	
		1,26,23,47, 1, 9, 1, 1		6,19
58″	43,34,12,19,13,45,13, 1,58,57		3,11, 7,11,15	
		1,26,23,43,50, 1,49,46		
60″	43,34,13,45,37,29, 3, 3,48,43			
exact	43,34,13,45,37,29, 3, 3,43,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°34′ 0″	43,34,13,45,37,29, 3, 3,43,18			
		1,26,23,40,38,54,31,45		
2″	43,34,15,12, 1, 9,41,58,15, 3		3,11, 7,23,54	
		1,26,23,37,27,47, 7,51		6,19
4″	43,34,16,38,24,47, 9,45,22,54		3,11, 7,30,13	
		1,26,23,34,16,39,37,38		6,19
6″	43,34,18, 4,48,21,26,25, 0,32		3,11, 7,36,32	
		1,26,23,31, 5,32, 1, 6		6,19
8″	43,34,19,31,11,52,31,57, 1,38		3,11, 7,42,51	
		1,26,23,27,54,24,18,15		6,19
10″	43,34,20,57,35,20,26,21,19,53		3,11, 7,49,10	
		1,26,23,24,43,16,29, 5		6,19
12″	43,34,22,23,58,45, 9,37,48,58		3,11, 7,55,29	
		1,26,23,21,32, 8,33,36		6,19
14″	43,34,23,50,22, 6,41,46,22,34		3,11, 8, 1,48	
		1,26,23,18,21, 0,31,48		6,19
16″	43,34,25,16,45,25, 2,46,54,22		3,11, 8, 8, 7	
		1,26,23,15, 9,52,23,41		6,19
18″	43,34,26,43, 8,40,12,39,18, 3		3,11, 8,14,26	
		1,26,23,11,58,44, 9,15		6,19
20″	43,34,28, 9,31,52,11,23,27,18		3,11, 8,20,45	
		1,26,23, 8,47,35,48,30		6,19
22″	43,34,29,35,55, 0,58,59,15,48		3,11, 8,27, 4	
		1,26,23, 5,36,27,21,26		6,19
24″	43,34,31, 2,18, 6,35,26,37,14		3,11, 8,33,23	
		1,26,23, 2,25,18,48, 3		6,19
26″	43,34,32,28,41, 9, 0,45,25,17		3,11, 8,39,42	
		1,26,22,59,14,10, 8,21		6,19
28″	43,34,33,55, 4, 8,14,55,33,38		3,11, 8,46, 1	
		1,26,22,56, 3, 1,22,20		6,19
30″	43,34,35,21,27, 4,17,56,55,58		3,11, 8,52,20	
		1,26,22,52,51,52,30, 0		6,19
32″	43,34,36,47,49,57, 9,49,25,58		3,11, 8,58,39	
		1,26,22,49,40,43,31,21		6,19
34″	43,34,38,14,12,46,50,32,57,19		3,11, 9, 4,58	
		1,26,22,46,29,34,26,23		6,19
36″	43,34,39,40,35,33,20, 7,23,42		3,11, 9,11,17	
		1,26,22,43,18,25,15, 6		6,19
38″	43,34,41, 6,58,16,38,32,38,48		3,11, 9,17,36	
		1,26,22,40, 7,15,57,30		6,19
40″	43,34,42,33,20,56,45,48,36,18		3,11, 9,23,55	
		1,26,22,36,56, 6,33,35		6,19
42″	43,34,43,59,43,33,41,55, 9,53		3,11, 9,30,14	
		1,26,22,33,44,57, 3,21		6,19
44″	43,34,45,26, 6, 7,26,52,13,14		3,11, 9,36,33	
		1,26,22,30,33,47,26,48		6,19
46″	43,34,46,52,28,38, 0,39,40, 2		3,11, 9,42,52	
		1,26,22,27,22,37,43,56		6,19
48″	43,34,48,18,51, 5,23,17,23,58		3,11, 9,49,11	
		1,26,22,24,11,27,54,45		6,19
50″	43,34,49,45,13,29,34,45,18,43		3,11, 9,55,30	
		1,26,22,21, 0,17,59,15		6,19
52″	43,34,51,11,35,50,35, 3,17,58		3,11,10, 1,49	
		1,26,22,17,49, 7,57,26		6,19
54″	43,34,52,37,58, 8,24,11,15,24		3,11,10, 8, 8	
		1,26,22,14,37,57,49,18		6,19
56″	43,34,54, 4,20,23, 2, 9, 4,42		3,11,10,14,27	
		1,26,22,11,26,47,34,51		6,19
58″	43,34,55,30,42,34,28,56,39,33		3,11,10,20,46	
		1,26,22, 8,15,37,14, 5		
60″	43,34,56,57, 4,42,44,33,53,38			
exact	43,34,56,57, 4,42,44,33,57,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°35′ 0″	43,34,56,57, 4,42,44,33,57,43			
		1,26,22, 5, 4,26,47,31		
2″	43,34,58,23,26,47,49, 0,45,14		3,11,10,33,21	
		1,26,22, 1,53,16,14,10		6,19
4″	43,34,59,49,48,49,42,16,59,24		3,11,10,39,40	
		1,26,21,58,42, 5,34,30		6,19
6″	43,35, 1,16,10,48,24,22,33,54		3,11,10,45,59	
		1,26,21,55,30,54,48,31		6,19
8″	43,35, 2,42,32,43,55,17,22,25		3,11,10,52,18	
		1,26,21,52,19,43,56,13		6,19
10″	43,35, 4, 8,54,36,15, 1,18,38		3,11,10,58,37	
		1,26,21,49, 8,32,57,36		6,19
12″	43,35, 5,35,16,25,23,34,16,14		3,11,11, 4,56	
		1,26,21,45,57,21,52,40		6,19
14″	43,35, 7, 1,38,11,20,56, 8,54		3,11,11,11,15	
		1,26,21,42,46,10,41,25		6,19
16″	43,35, 8,27,59,54, 7, 6,50,19		3,11,11,17,34	
		1,26,21,39,34,59,23,51		6,19
18″	43,35, 9,54,21,33,42, 6,14,10		3,11,11,23,53	
		1,26,21,36,23,47,59,58		6,19
20″	43,35,11,20,43,10, 5,54,14, 8		3,11,11,30,12	
		1,26,21,33,12,36,29,46		6,19
22″	43,35,12,47, 4,43,18,30,43,54		3,11,11,36,31	
		1,26,21,30, 1,24,53,15		6,19
24″	43,35,14,13,26,13,19,55,37, 9		3,11,11,42,50	
		1,26,21,26,50,13,10,25		6,19
26″	43,35,15,39,47,40,10, 8,47,34		3,11,11,49, 9	
		1,26,21,23,39, 1,21,16		6,19
28″	43,35,17, 6, 9, 3,49,10, 8,50		3,11,11,55,28	
		1,26,21,20,27,49,25,48		6,19
30″	43,35,18,32,30,24,16,59,34,38		3,11,12, 1,47	
		1,26,21,17,16,37,24, 1		6,19
32″	43,35,19,58,51,41,33,36,58,39		3,11,12, 8, 6	
		1,26,21,14, 5,25,15,55		6,19
34″	43,35,21,25,12,55,39, 2,14,34		3,11,12,14,25	
		1,26,21,10,54,13, 1,30		6,19
36″	43,35,22,51,34, 6,33,15,16, 4		3,11,12,20,44	
		1,26,21, 7,43, 0,40,46		6,19
38″	43,35,24,17,55,14,16,15,56,50		3,11,12,27, 3	
		1,26,21, 4,31,48,13,43		6,19
40″	43,35,25,44,16,18,48, 4,10,33		3,11,12,33,22	
		1,26,21, 1,20,35,40,21		6,19
42″	43,35,27,10,37,20, 8,39,50,54		3,11,12,39,41	
		1,26,20,58, 9,23, 0,40		6,19
44″	43,35,28,36,58,18,18, 2,51,34		3,11,12,46, 0	
		1,26,20,54,58,10,14,40		6,19
46″	43,35,30, 3,19,13,16,13, 6,14		3,11,12,52,19	
		1,26,20,51,46,57,22,21		6,19
48″	43,35,31,29,40, 5, 3,10,28,35		3,11,12,58,38	
		1,26,20,48,35,44,23,43		6,19
50″	43,35,32,56, 0,53,38,54,52,18		3,11,13, 4,57	
		1,26,20,45,24,31,18,46		6,19
52″	43,35,34,22,21,39, 3,26,11, 4		3,11,13,11,16	
		1,26,20,42,13,18, 7,30		6,19
54″	43,35,35,48,42,21,16,44,18,34		3,11,13,17,35	
		1,26,20,39, 2, 4,49,55		6,19
56″	43,35,37,15, 3, 0,18,49, 8,29		3,11,13,23,54	
		1,26,20,35,50,51,26, 1		6,19
58″	43,35,38,41,23,36, 9,40,34,30		3,11,13,30,13	
		1,26,20,32,39,37,55,48		
60″	43,35,40, 7,44, 8,49,18,30,18			
exact	43,35,40, 7,44, 8,49,18,40, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°36′ 0″	43,35,40, 7,44, 8,49,18,40, 2			
		1,26,20,29,28,24,20,29		
2″	43,35,41,34, 4,38,17,43, 0,31		3,11,13,42,45	
		1,26,20,26,17,10,37,44		6,19
4″	43,35,43, 0,25, 4,34,53,38,15		3,11,13,49, 4	
		1,26,20,23, 5,56,48,40		6,19
6″	43,35,44,26,45,27,40,50,26,55		3,11,13,55,23	
		1,26,20,19,54,42,53,17		6,19
8″	43,35,45,53, 5,47,35,33,20,12		3,11,14, 1,42	
		1,26,20,16,43,28,51,35		6,19
10″	43,35,47,19,26, 4,19, 2,11,47		3,11,14, 8, 1	
		1,26,20,13,32,14,43,34		6,19
12″	43,35,48,45,46,17,51,16,55,21		3,11,14,14,20	
		1,26,20,10,21, 0,29,14		6,19
14″	43,35,50,12, 6,28,12,17,24,35		3,11,14,20,39	
		1,26,20, 7, 9,46, 8,35		6,19
16″	43,35,51,38,26,35,22, 3,33,10		3,11,14,26,58	
		1,26,20, 3,58,31,41,37		6,19
18″	43,35,53, 4,46,39,20,35,14,47		3,11,14,33,17	
		1,26,20, 0,47,17, 8,20		6,19
20″	43,35,54,31, 6,40, 7,52,23, 7		3,11,14,39,36	
		1,26,19,57,36, 2,28,44		6,19
22″	43,35,55,57,26,37,43,54,51,51		3,11,14,45,55	
		1,26,19,54,24,47,42,49		6,19
24″	43,35,57,23,46,32, 8,42,34,40		3,11,14,52,14	
		1,26,19,51,13,32,50,35		6,19
26″	43,35,58,50, 6,23,22,15,25,15		3,11,14,58,33	
		1,26,19,48, 2,17,52, 2		6,19
28″	43,36, 0,16,26,11,24,33,17,17		3,11,15, 4,52	
		1,26,19,44,51, 2,47,10		6,19
30″	43,36, 1,42,45,56,15,36, 4,27		3,11,15,11,11	
		1,26,19,41,39,47,35,59		6,19
32″	43,36, 3, 9, 5,37,55,23,40,26		3,11,15,17,30	
		1,26,19,38,28,32,18,29		6,19
34″	43,36, 4,35,25,16,23,55,58,55		3,11,15,23,49	
		1,26,19,35,17,16,54,40		6,19
36″	43,36, 6, 1,44,51,41,12,53,35		3,11,15,30, 8	
		1,26,19,32, 6, 1,24,32		6,19
38″	43,36, 7,28, 4,23,47,14,18, 7		3,11,15,36,27	
		1,26,19,28,54,45,48, 5		6,19
40″	43,36, 8,54,23,52,42, 0, 6,12		3,11,15,42,46	
		1,26,19,25,43,30, 5,19		6,19
42″	43,36,10,20,43,18,25,30,11,31		3,11,15,49, 5	
		1,26,19,22,32,14,16,14		6,19
44″	43,36,11,47, 2,40,57,44,27,45		3,11,15,55,24	
		1,26,19,19,20,58,20,50		6,19
46″	43,36,13,13,22, 0,18,42,48,35		3,11,16, 1,43	
		1,26,19,16, 9,42,19, 7		6,19
48″	43,36,14,39,41,16,28,25, 7,42		3,11,16, 8, 2	
		1,26,19,12,58,26,11, 5		6,19
50″	43,36,16, 6, 0,29,26,51,18,47		3,11,16,14,21	
		1,26,19, 9,47, 9,56,44		6,19
52″	43,36,17,32,19,39,14, 1,15,31		3,11,16,20,40	
		1,26,19, 6,35,53,36, 4		6,19
54″	43,36,18,58,38,45,49,54,51,35		3,11,16,26,59	
		1,26,19, 3,24,37, 9, 5		6,19
56″	43,36,20,24,57,49,14,32, 0,40		3,11,16,33,18	
		1,26,19, 0,13,20,35,47		6,19
58″	43,36,21,51,16,49,27,52,36,27		3,11,16,39,37	
		1,26,18,57, 2, 3,56,10		
60″	43,36,23,17,35,46,29,56,32,37			
exact	43,36,23,17,35,46,29,56,51,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°37′ 0″	43,36,23,17,35,46,29,56,51,50			
		1,26,18,53,50,47,12,24		
2″	43,36,24,43,54,40,20,44, 4,14		3,11,16,52, 5	
		1,26,18,50,39,30,20,19		6,19
4″	43,36,26,10,13,31, 0,14,24,33		3,11,16,58,24	
		1,26,18,47,28,13,21,55		6,19
6″	43,36,27,36,32,18,28,27,46,28		3,11,17, 4,43	
		1,26,18,44,16,56,17,12		6,19
8″	43,36,29, 2,51, 2,45,24, 3,40		3,11,17,11, 2	
		1,26,18,41, 5,39, 6,10		6,19
10″	43,36,30,29, 9,43,51, 3, 9,50		3,11,17,17,21	
		1,26,18,37,54,21,48,49		6,19
12″	43,36,31,55,28,21,45,24,58,39		3,11,17,23,40	
		1,26,18,34,43, 4,25, 9		6,19
14″	43,36,33,21,46,56,28,29,23,48		3,11,17,29,59	
		1,26,18,31,31,46,55,10		6,19
16″	43,36,34,48, 5,28, 0,16,18,58		3,11,17,36,18	
		1,26,18,28,20,29,18,52		6,19
18″	43,36,36,14,23,56,20,45,37,50		3,11,17,42,37	
		1,26,18,25, 9,11,36,15		6,19
20″	43,36,37,40,42,21,29,57,14, 5		3,11,17,48,56	
		1,26,18,21,57,53,47,19		6,19
22″	43,36,39, 7, 0,43,27,51, 1,24		3,11,17,55,15	
		1,26,18,18,46,35,52, 4		6,19
24″	43,36,40,33,19, 2,14,26,53,28		3,11,18, 1,34	
		1,26,18,15,35,17,50,30		6,19
26″	43,36,41,59,37,17,49,44,43,58		3,11,18, 7,53	
		1,26,18,12,23,59,42,37		6,19
28″	43,36,43,25,55,30,13,44,26,35		3,11,18,14,12	
		1,26,18, 9,12,41,28,25		6,19
30″	43,36,44,52,13,39,26,25,55, 0		3,11,18,20,31	
		1,26,18, 6, 1,23, 7,54		6,19
32″	43,36,46,18,31,45,27,49, 2,54		3,11,18,26,50	
		1,26,18, 2,50, 4,41, 4		6,19
34″	43,36,47,44,49,48,17,53,43,58		3,11,18,33, 9	
		1,26,17,59,38,46, 7,55		6,19
36″	43,36,49,11, 7,47,56,39,51,53		3,11,18,39,28	
		1,26,17,56,27,27,28,27		6,19
38″	43,36,50,37,25,44,24, 7,20,20		3,11,18,45,47	
		1,26,17,53,16, 8,42,40		6,19
40″	43,36,52, 3,43,37,40,16, 3, 0		3,11,18,52, 6	
		1,26,17,50, 4,49,50,34		6,19
42″	43,36,53,30, 1,27,45, 5,53,34		3,11,18,58,25	
		1,26,17,46,53,30,52, 9		6,19
44″	43,36,54,56,19,14,38,36,45,43		3,11,19, 4,44	
		1,26,17,43,42,11,47,25		6,19
46″	43,36,56,22,36,58,20,48,33, 8		3,11,19,11, 3	
		1,26,17,40,30,52,36,22		6,19
48″	43,36,57,48,54,38,51,41, 9,30		3,11,19,17,22	
		1,26,17,37,19,33,19, 0		6,19
50″	43,36,59,15,12,16,11,14,28,30		3,11,19,23,41	
		1,26,17,34, 8,13,55,19		6,19
52″	43,37, 0,41,29,50,19,28,23,49		3,11,19,30, 0	
		1,26,17,30,56,54,25,19		6,19
54″	43,37, 2, 7,47,21,16,22,49, 8		3,11,19,36,19	
		1,26,17,27,45,34,49, 0		6,19
56″	43,37, 3,34, 4,49, 1,57,38, 8		3,11,19,42,38	
		1,26,17,24,34,15, 6,22		6,19
58″	43,37, 5, 0,22,13,36,12,44,30		3,11,19,48,57	
		1,26,17,21,22,55,17,25		
60″	43,37, 6,26,39,34,59, 8, 1,55			
exact	43,37, 6,26,39,34,59, 8,27, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°38′ 0″	43,37, 6,26,39,34,59, 8,27, 9			
		1,26,17,18,11,35,25, 1		
2″	43,37, 7,52,56,53,10,43,52,10		3,11,20, 1,22	
		1,26,17,15, 0,15,23,39		6,18
4″	43,37, 9,19,14, 8,10,59,15,49		3,11,20, 7,40	
		1,26,17,11,48,55,15,59		6,18
6″	43,37,10,45,31,19,59,54,31,48		3,11,20,13,58	
		1,26,17, 8,37,35, 2, 1		6,18
8″	43,37,12,11,48,28,37,29,33,49		3,11,20,20,16	
		1,26,17, 5,26,14,41,45		6,18
10″	43,37,13,38, 5,34, 3,44,15,34		3,11,20,26,34	
		1,26,17, 2,14,54,15,11		6,18
12″	43,37,15, 4,22,36,18,38,30,45		3,11,20,32,52	
		1,26,16,59, 3,33,42,19		6,18
14″	43,37,16,30,39,35,22,12,13, 4		3,11,20,39,10	
		1,26,16,55,52,13, 3, 9		6,18
16″	43,37,17,56,56,31,14,25,16,13		3,11,20,45,28	
		1,26,16,52,40,52,17,41		6,18
18″	43,37,19,23,13,23,55,17,33,54		3,11,20,51,46	
		1,26,16,49,29,31,25,55		6,18
20″	43,37,20,49,30,13,24,48,59,49		3,11,20,58, 4	
		1,26,16,46,18,10,27,51		6,18
22″	43,37,22,15,46,59,42,59,27,40		3,11,21, 4,22	
		1,26,16,43, 6,49,23,29		6,18
24″	43,37,23,42, 3,42,49,48,51, 9		3,11,21,10,40	
		1,26,16,39,55,28,12,49		6,18
26″	43,37,25, 8,20,22,45,17, 3,58		3,11,21,16,58	
		1,26,16,36,44, 6,55,51		6,18
28″	43,37,26,34,36,59,29,23,59,49		3,11,21,23,16	
		1,26,16,33,32,45,32,35		6,18
30″	43,37,28, 0,53,33, 2, 9,32,24		3,11,21,29,34	
		1,26,16,30,21,24, 3, 1		6,18
32″	43,37,29,27,10, 3,23,33,35,25		3,11,21,35,52	
		1,26,16,27,10, 2,27, 9		6,18
34″	43,37,30,53,26,30,33,36, 2,34		3,11,21,42,10	
		1,26,16,23,58,40,44,59		6,18
36″	43,37,32,19,42,54,32,16,47,33		3,11,21,48,28	
		1,26,16,20,47,18,56,31		6,18
38″	43,37,33,45,59,15,19,35,44, 4		3,11,21,54,46	
		1,26,16,17,35,57, 1,45		6,18
40″	43,37,35,12,15,32,55,32,45,49		3,11,22, 1, 4	
		1,26,16,14,24,35, 0,41		6,18
42″	43,37,36,38,31,47,20, 7,46,30		3,11,22, 7,22	
		1,26,16,11,13,12,53,19		6,18
44″	43,37,38, 4,47,58,33,20,39,49		3,11,22,13,40	
		1,26,16, 8, 1,50,39,39		6,18
46″	43,37,39,31, 4, 6,35,11,19,28		3,11,22,19,58	
		1,26,16, 4,50,28,19,41		6,18
48″	43,37,40,57,20,11,25,39,39, 9		3,11,22,26,16	
		1,26,16, 1,39, 5,53,25		6,18
50″	43,37,42,23,36,13, 4,45,32,34		3,11,22,32,34	
		1,26,15,58,27,43,20,51		6,18
52″	43,37,43,49,52,11,32,28,53,25		3,11,22,38,52	
		1,26,15,55,16,20,41,59		6,18
54″	43,37,45,16, 8, 6,48,49,35,24		3,11,22,45,10	
		1,26,15,52, 4,57,56,49		6,18
56″	43,37,46,42,23,58,53,47,32,13		3,11,22,51,28	
		1,26,15,48,53,35, 5,21		6,18
58″	43,37,48, 8,39,47,47,22,37,34		3,11,22,57,46	
		1,26,15,45,42,12, 7,35		
60″	43,37,49,34,55,33,29,34,45, 9			
exact	43,37,49,34,55,33,29,34,12,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°39′ 0″	43,37,49,34,55,33,29,34,12,25			
		1,26,15,42,30,49, 0, 6		
2″	43,37,51, 1,11,16, 0,23,12,31		3,11,23,10,35	
		1,26,15,39,19,25,49,31		6,18
4″	43,37,52,27,26,55,19,49, 2, 2		3,11,23,16,53	
		1,26,15,36, 8, 2,32,38		6,18
6″	43,37,53,53,42,31,27,51,34,40		3,11,23,23,11	
		1,26,15,32,56,39, 9,27		6,18
8″	43,37,55,19,58, 4,24,30,44, 7		3,11,23,29,29	
		1,26,15,29,45,15,39,58		6,18
10″	43,37,56,46,13,34, 9,46,24, 5		3,11,23,35,47	
		1,26,15,26,33,52, 4,11		6,18
12″	43,37,58,12,29, 0,43,38,28,16		3,11,23,42, 5	
		1,26,15,23,22,28,22, 6		6,18
14″	43,37,59,38,44,24, 6, 6,50,22		3,11,23,48,23	
		1,26,15,20,11, 4,33,43		6,18
16″	43,38, 1, 4,59,44,17,11,24, 5		3,11,23,54,41	
		1,26,15,16,59,40,39, 2		6,18
18″	43,38, 2,31,15, 1,16,52, 3, 7		3,11,24, 0,59	
		1,26,15,13,48,16,38, 3		6,18
20″	43,38, 3,57,30,15, 5, 8,41,10		3,11,24, 7,17	
		1,26,15,10,36,52,30,46		6,18
22″	43,38, 5,23,45,25,42, 1,11,56		3,11,24,13,35	
		1,26,15, 7,25,28,17,11		6,18
24″	43,38, 6,50, 0,33, 7,29,29, 7		3,11,24,19,53	
		1,26,15, 4,14, 3,57,18		6,18
26″	43,38, 8,16,15,37,21,33,26,25		3,11,24,26,11	
		1,26,15, 1, 2,39,31, 7		6,18
28″	43,38, 9,42,30,38,24,12,57,32		3,11,24,32,29	
		1,26,14,57,51,14,58,38		6,18
30″	43,38,11, 8,45,36,15,27,56,10		3,11,24,38,47	
		1,26,14,54,39,50,19,51		6,18
32″	43,38,12,35, 0,30,55,18,16, 1		3,11,24,45, 5	
		1,26,14,51,28,25,34,46		6,18
34″	43,38,14, 1,15,22,23,43,50,47		3,11,24,51,23	
		1,26,14,48,17, 0,43,23		6,18
36″	43,38,15,27,30,10,40,44,34,10		3,11,24,57,41	
		1,26,14,45, 5,35,45,42		6,18
38″	43,38,16,53,44,55,46,20,19,52		3,11,25, 3,59	
		1,26,14,41,54,10,41,43		6,18
40″	43,38,18,19,59,37,40,31, 1,35		3,11,25,10,17	
		1,26,14,38,42,45,31,26		6,18
42″	43,38,19,46,14,16,23,16,33, 1		3,11,25,16,35	
		1,26,14,35,31,20,14,51		6,18
44″	43,38,21,12,28,51,54,36,47,52		3,11,25,22,53	
		1,26,14,32,19,54,51,58		6,18
46″	43,38,22,38,43,24,14,31,39,50		3,11,25,29,11	
		1,26,14,29, 8,29,22,47		6,18
48″	43,38,24, 4,57,53,23, 1, 2,37		3,11,25,35,29	
		1,26,14,25,57, 3,47,18		6,18
50″	43,38,25,31,12,19,20, 4,49,55		3,11,25,41,47	
		1,26,14,22,45,38, 5,31		6,18
52″	43,38,26,57,26,42, 5,42,55,26		3,11,25,48, 5	
		1,26,14,19,34,12,17,26		6,18
54″	43,38,28,23,41, 1,39,55,12,52		3,11,25,54,23	
		1,26,14,16,22,46,23, 3		6,18
56″	43,38,29,49,55,18, 2,41,35,55		3,11,26, 0,41	
		1,26,14,13,11,20,22,22		6,18
58″	43,38,31,16, 9,31,14, 1,58,17		3,11,26, 6,59	
		1,26,14, 9,59,54,15,23		
60″	43,38,32,42,23,41,13,56,13,40			
exact	43,38,32,42,23,41,13,55,46,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°40′ 0″	43,38,32,42,23,41,13,55,46,33			
		1,26,14, 6,48,27,59,23		
2″	43,38,34, 8,37,48, 2,23,45,56		3,11,26,19,45	
		1,26,14, 3,37, 1,39,38		6,18
4″	43,38,35,34,51,51,39,25,25,34		3,11,26,26, 3	
		1,26,14, 0,25,35,13,35		6,18
6″	43,38,37, 1, 5,52, 5, 0,39, 9		3,11,26,32,21	
		1,26,13,57,14, 8,41,14		6,18
8″	43,38,38,27,19,49,19, 9,20,23		3,11,26,38,39	
		1,26,13,54, 2,42, 2,35		6,18
10″	43,38,39,53,33,43,21,51,22,58		3,11,26,44,57	
		1,26,13,50,51,15,17,38		6,18
12″	43,38,41,19,47,34,13, 6,40,36		3,11,26,51,15	
		1,26,13,47,39,48,26,23		6,18
14″	43,38,42,46, 1,21,52,55, 6,59		3,11,26,57,33	
		1,26,13,44,28,21,28,50		6,18
16″	43,38,44,12,15, 6,21,16,35,49		3,11,27, 3,51	
		1,26,13,41,16,54,24,59		6,18
18″	43,38,45,38,28,47,38,11, 0,48		3,11,27,10, 9	
		1,26,13,38, 5,27,14,50		6,18
20″	43,38,47, 4,42,25,43,38,15,38		3,11,27,16,27	
		1,26,13,34,53,59,58,23		6,18
22″	43,38,48,30,56, 0,37,38,14, 1		3,11,27,22,45	
		1,26,13,31,42,32,35,38		6,18
24″	43,38,49,57, 9,32,20,10,49,39		3,11,27,29, 3	
		1,26,13,28,31, 5, 6,35		6,18
26″	43,38,51,23,23, 0,51,15,56,14		3,11,27,35,21	
		1,26,13,25,19,37,31,14		6,18
28″	43,38,52,49,36,26,10,53,27,28		3,11,27,41,39	
		1,26,13,22, 8, 9,49,35		6,18
30″	43,38,54,15,49,48,19, 3,17, 3		3,11,27,47,57	
		1,26,13,18,56,42, 1,38		6,18
32″	43,38,55,42, 3, 7,15,45,18,41		3,11,27,54,15	
		1,26,13,15,45,14, 7,23		6,18
34″	43,38,57, 8,16,23, 0,59,26, 4		3,11,28, 0,33	
		1,26,13,12,33,46, 6,50		6,18
36″	43,38,58,34,29,35,34,45,32,54		3,11,28, 6,51	
		1,26,13, 9,22,17,59,59		6,18
38″	43,39, 0, 0,42,44,57, 3,32,53		3,11,28,13, 9	
		1,26,13, 6,10,49,46,50		6,18
40″	43,39, 1,26,55,51, 7,53,19,43		3,11,28,19,27	
		1,26,13, 2,59,21,27,23		6,18
42″	43,39, 2,53, 8,54, 7,14,47, 6		3,11,28,25,45	
		1,26,12,59,47,53, 1,38		6,18
44″	43,39, 4,19,21,53,55, 7,48,44		3,11,28,32, 3	
		1,26,12,56,36,24,29,35		6,18
46″	43,39, 5,45,34,50,31,32,18,19		3,11,28,38,21	
		1,26,12,53,24,55,51,14		6,18
48″	43,39, 7,11,47,43,56,28, 9,33		3,11,28,44,39	
		1,26,12,50,13,27, 6,35		6,18
50″	43,39, 8,38, 0,34, 9,55,16, 8		3,11,28,50,57	
		1,26,12,47, 1,58,15,38		6,18
52″	43,39,10, 4,13,21,11,53,31,46		3,11,28,57,15	
		1,26,12,43,50,29,18,23		6,18
54″	43,39,11,30,26, 5, 2,22,50, 9		3,11,29, 3,33	
		1,26,12,40,39, 0,14,50		6,18
56″	43,39,12,56,38,45,41,23, 4,59		3,11,29, 9,51	
		1,26,12,37,27,31, 4,59		6,18
58″	43,39,14,22,51,23, 8,54, 9,58		3,11,29,16, 9	
		1,26,12,34,16, 1,48,50		
60″	43,39,15,49, 3,57,24,55,58,48			
exact	43,39,15,49, 3,57,24,55,40,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°41′ 0″	43,39,15,49, 3,57,24,55,40,56			
		1,26,12,31, 4,32,24,36		
2″	43,39,17,15,16,28,29,28, 5,32		3,11,29,28,52	
		1,26,12,27,53, 2,55,44		6,18
4″	43,39,18,41,28,56,22,31, 1,16		3,11,29,35,10	
		1,26,12,24,41,33,20,34		6,18
6″	43,39,20, 7,41,21, 4, 4,21,50		3,11,29,41,28	
		1,26,12,21,30, 3,39, 6		6,18
8″	43,39,21,33,53,42,34, 8, 0,56		3,11,29,47,46	
		1,26,12,18,18,33,51,20		6,18
10″	43,39,23, 0, 6, 0,52,41,52,16		3,11,29,54, 4	
		1,26,12,15, 7, 3,57,16		6,18
12″	43,39,24,26,18,15,59,45,49,32		3,11,30, 0,22	
		1,26,12,11,55,33,56,54		6,18
14″	43,39,25,52,30,27,55,19,46,26		3,11,30, 6,40	
		1,26,12, 8,44, 3,50,14		6,18
16″	43,39,27,18,42,36,39,23,36,40		3,11,30,12,58	
		1,26,12, 5,32,33,37,16		6,18
18″	43,39,28,44,54,42,11,57,13,56		3,11,30,19,16	
		1,26,12, 2,21, 3,18, 0		6,18
20″	43,39,30,11, 6,44,33, 0,31,56		3,11,30,25,34	
		1,26,11,59, 9,32,52,26		6,18
22″	43,39,31,37,18,43,42,33,24,22		3,11,30,31,52	
		1,26,11,55,58, 2,20,34		6,18
24″	43,39,33, 3,30,39,40,35,44,56		3,11,30,38,10	
		1,26,11,52,46,31,42,24		6,18
26″	43,39,34,29,42,32,27, 7,27,20		3,11,30,44,28	
		1,26,11,49,35, 0,57,56		6,18
28″	43,39,35,55,54,22, 2, 8,25,16		3,11,30,50,46	
		1,26,11,46,23,30, 7,10		6,18
30″	43,39,37,22, 6, 8,25,38,32,26		3,11,30,57, 4	
		1,26,11,43,11,59,10, 6		6,18
32″	43,39,38,48,17,51,37,37,42,32		3,11,31, 3,22	
		1,26,11,40, 0,28, 6,44		6,18
34″	43,39,40,14,29,31,38, 5,49,16		3,11,31, 9,40	
		1,26,11,36,48,56,57, 4		6,18
36″	43,39,41,40,41, 8,27, 2,46,20		3,11,31,15,58	
		1,26,11,33,37,25,41, 6		6,18
38″	43,39,43, 6,52,42, 4,28,27,26		3,11,31,22,16	
		1,26,11,30,25,54,18,50		6,18
40″	43,39,44,33, 4,12,30,22,46,16		3,11,31,28,34	
		1,26,11,27,14,22,50,16		6,18
42″	43,39,45,59,15,39,44,45,36,32		3,11,31,34,52	
		1,26,11,24, 2,51,15,24		6,18
44″	43,39,47,25,27, 3,47,36,51,56		3,11,31,41,10	
		1,26,11,20,51,19,34,14		6,18
46″	43,39,48,51,38,24,38,56,26,10		3,11,31,47,28	
		1,26,11,17,39,47,46,46		6,18
48″	43,39,50,17,49,42,18,44,12,56		3,11,31,53,46	
		1,26,11,14,28,15,53, 0		6,18
50″	43,39,51,44, 0,56,47, 0, 5,56		3,11,32, 0, 4	
		1,26,11,11,16,43,52,56		6,18
52″	43,39,53,10,12, 8, 3,43,58,52		3,11,32, 6,22	
		1,26,11, 8, 5,11,46,34		6,18
54″	43,39,54,36,23,16, 8,55,45,26		3,11,32,12,40	
		1,26,11, 4,53,39,33,54		6,18
56″	43,39,56, 2,34,21, 2,35,19,20		3,11,32,18,58	
		1,26,11, 1,42, 7,14,56		6,18
58″	43,39,57,28,45,22,44,42,34,16		3,11,32,25,16	
		1,26,10,58,30,34,49,40		
60″	43,39,58,54,56,21,15,17,23,56			
exact	43,39,58,54,56,21,15,17,19,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°42′ 0″	43,39,58,54,56,21,15,17,19,25			
		1,26,10,55,19, 2,17,32		
2″	43,40, 0,21, 7,16,34,19,36,57		3,11,32,37,54	
		1,26,10,52, 7,29,39,38		6,18
4″	43,40, 1,47,18, 8,41,49,16,35		3,11,32,44,12	
		1,26,10,48,55,56,55,26		6,18
6″	43,40, 3,13,28,57,37,46,12, 1		3,11,32,50,30	
		1,26,10,45,44,24, 4,56		6,18
8″	43,40, 4,39,39,43,22,10,16,57		3,11,32,56,48	
		1,26,10,42,32,51, 8, 8		6,18
10″	43,40, 6, 5,50,25,55, 1,25, 5		3,11,33, 3, 6	
		1,26,10,39,21,18, 5, 2		6,18
12″	43,40, 7,32, 1, 5,16,19,30, 7		3,11,33, 9,24	
		1,26,10,36, 9,44,55,38		6,18
14″	43,40, 8,58,11,41,26, 4,25,45		3,11,33,15,42	
		1,26,10,32,58,11,39,56		6,18
16″	43,40,10,24,22,14,24,16, 5,41		3,11,33,22, 0	
		1,26,10,29,46,38,17,56		6,18
18″	43,40,11,50,32,44,10,54,23,37		3,11,33,28,18	
		1,26,10,26,35, 4,49,38		6,18
20″	43,40,13,16,43,10,45,59,13,15		3,11,33,34,36	
		1,26,10,23,23,31,15, 2		6,18
22″	43,40,14,42,53,34, 9,30,28,17		3,11,33,40,54	
		1,26,10,20,11,57,34, 8		6,18
24″	43,40,16, 9, 3,54,21,28, 2,25		3,11,33,47,12	
		1,26,10,17, 0,23,46,56		6,18
26″	43,40,17,35,14,11,21,51,49,21		3,11,33,53,30	
		1,26,10,13,48,49,53,26		6,18
28″	43,40,19, 1,24,25,10,41,42,47		3,11,33,59,48	
		1,26,10,10,37,15,53,38		6,18
30″	43,40,20,27,34,35,47,57,36,25		3,11,34, 6, 6	
		1,26,10, 7,25,41,47,32		6,18
32″	43,40,21,53,44,43,13,39,23,57		3,11,34,12,24	
		1,26,10, 4,14, 7,35, 8		6,18
34″	43,40,23,19,54,47,27,46,59, 5		3,11,34,18,42	
		1,26,10, 1, 2,33,16,26		6,18
36″	43,40,24,46, 4,48,30,20,15,31		3,11,34,25, 0	
		1,26, 9,57,50,58,51,26		6,18
38″	43,40,26,12,14,46,21,19, 6,57		3,11,34,31,18	
		1,26, 9,54,39,24,20, 8		6,18
40″	43,40,27,38,24,41, 0,43,27, 5		3,11,34,37,36	
		1,26, 9,51,27,49,42,32		6,18
42″	43,40,29, 4,34,32,28,33, 9,37		3,11,34,43,54	
		1,26, 9,48,16,14,58,38		6,18
44″	43,40,30,30,44,20,44,48, 8,15		3,11,34,50,12	
		1,26, 9,45, 4,40, 8,26		6,18
46″	43,40,31,56,54, 5,49,28,16,41		3,11,34,56,30	
		1,26, 9,41,53, 5,11,56		6,18
48″	43,40,33,23, 3,47,42,33,28,37		3,11,35, 2,48	
		1,26, 9,38,41,30, 9, 8		6,18
50″	43,40,34,49,13,26,24, 3,37,45		3,11,35, 9, 6	
		1,26, 9,35,29,55, 0, 2		6,18
52″	43,40,36,15,23, 1,53,58,37,47		3,11,35,15,24	
		1,26, 9,32,18,19,44,38		6,18
54″	43,40,37,41,32,34,12,18,22,25		3,11,35,21,42	
		1,26, 9,29, 6,44,22,56		6,18
56″	43,40,39, 7,42, 3,19, 2,45,21		3,11,35,28, 0	
		1,26, 9,25,55, 8,54,56		6,18
58″	43,40,40,33,51,29,14,11,40,17		3,11,35,34,18	
		1,26, 9,22,43,33,20,38		
60″	43,40,42, 0, 0,51,57,45, 0,55			
exact	43,40,42, 0, 0,51,57,44,58,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°43′ 0″	43,40,42, 0, 0,51,57,44,58,21			
		1,26, 9,19,31,57,39,55		
2″	43,40,43,26,10,11,29,42,38,16		3,11,35,46,54	
		1,26, 9,16,20,21,53, 1		6,18
4″	43,40,44,52,19,27,50, 4,31,17		3,11,35,53,12	
		1,26, 9,13, 8,45,59,49		6,18
6″	43,40,46,18,28,40,58,50,31, 6		3,11,35,59,30	
		1,26, 9, 9,57,10, 0,19		6,18
8″	43,40,47,44,37,50,56, 0,31,25		3,11,36, 5,48	
		1,26, 9, 6,45,33,54,31		6,18
10″	43,40,49,10,46,57,41,34,25,56		3,11,36,12, 6	
		1,26, 9, 3,33,57,42,25		6,18
12″	43,40,50,36,56, 1,15,32, 8,21		3,11,36,18,24	
		1,26, 9, 0,22,21,24, 1		6,18
14″	43,40,52, 3, 5, 1,37,53,32,22		3,11,36,24,42	
		1,26, 8,57,10,44,59,19		6,18
16″	43,40,53,29,13,58,48,38,31,41		3,11,36,31, 0	
		1,26, 8,53,59, 8,28,19		6,18
18″	43,40,54,55,22,52,47,47, 0, 0		3,11,36,37,18	
		1,26, 8,50,47,31,51, 1		6,18
20″	43,40,56,21,31,43,35,18,51, 1		3,11,36,43,36	
		1,26, 8,47,35,55, 7,25		6,18
22″	43,40,57,47,40,31,11,13,58,26		3,11,36,49,54	
		1,26, 8,44,24,18,17,31		6,18
24″	43,40,59,13,49,15,35,32,15,57		3,11,36,56,12	
		1,26, 8,41,12,41,21,19		6,18
26″	43,41, 0,39,57,56,48,13,37,16		3,11,37, 2,30	
		1,26, 8,38, 1, 4,18,49		6,18
28″	43,41, 2, 6, 6,34,49,17,56, 5		3,11,37, 8,48	
		1,26, 8,34,49,27,10, 1		6,18
30″	43,41, 3,32,15, 9,38,45, 6, 6		3,11,37,15, 6	
		1,26, 8,31,37,49,54,55		6,18
32″	43,41, 4,58,23,41,16,35, 1, 1		3,11,37,21,24	
		1,26, 8,28,26,12,33,31		6,18
34″	43,41, 6,24,32, 9,42,47,34,32		3,11,37,27,42	
		1,26, 8,25,14,35, 5,49		6,18
36″	43,41, 7,50,40,34,57,22,40,21		3,11,37,34, 0	
		1,26, 8,22, 2,57,31,49		6,18
38″	43,41, 9,16,48,57, 0,20,12,10		3,11,37,40,18	
		1,26, 8,18,51,19,51,31		6,18
40″	43,41,10,42,57,15,51,40, 3,41		3,11,37,46,36	
		1,26, 8,15,39,42, 4,55		6,18
42″	43,41,12, 9, 5,31,31,22, 8,36		3,11,37,52,54	
		1,26, 8,12,28, 4,12, 1		6,18
44″	43,41,13,35,13,43,59,26,20,37		3,11,37,59,12	
		1,26, 8, 9,16,26,12,49		6,18
46″	43,41,15, 1,21,53,15,52,33,26		3,11,38, 5,30	
		1,26, 8, 6, 4,48, 7,19		6,18
48″	43,41,16,27,29,59,20,40,40,45		3,11,38,11,48	
		1,26, 8, 2,53, 9,55,31		6,18
50″	43,41,17,53,38, 2,13,50,36,16		3,11,38,18, 6	
		1,26, 7,59,41,31,37,25		6,18
52″	43,41,19,19,46, 1,55,22,13,41		3,11,38,24,24	
		1,26, 7,56,29,53,13, 1		6,18
54″	43,41,20,45,53,58,25,15,26,42		3,11,38,30,42	
		1,26, 7,53,18,14,42,19		6,18
56″	43,41,22,12, 1,51,43,30, 9, 1		3,11,38,37, 0	
		1,26, 7,50, 6,36, 5,19		6,18
58″	43,41,23,38, 9,41,50, 6,14,20		3,11,38,43,18	
		1,26, 7,46,54,57,22, 1		
60″	43,41,25, 4,17,28,45, 3,36,21			
exact	43,41,25, 4,17,28,45, 3,46,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°44′ 0″	43,41,25, 4,17,28,45, 3,46,38			
		1,26, 7,43,43,18,33,29		
2″	43,41,26,30,25,12,28,22,20, 7		3,11,38,55,49	
		1,26, 7,40,31,39,37,40		6,18
4″	43,41,27,56,32,53, 0, 1,57,47		3,11,39, 2, 7	
		1,26, 7,37,20, 0,35,33		6,18
6″	43,41,29,22,40,30,20, 2,33,20		3,11,39, 8,25	
		1,26, 7,34, 8,21,27, 8		6,18
8″	43,41,30,48,48, 4,28,24, 0,28		3,11,39,14,43	
		1,26, 7,30,56,42,12,25		6,18
10″	43,41,32,14,55,35,25, 6,12,53		3,11,39,21, 1	
		1,26, 7,27,45, 2,51,24		6,18
12″	43,41,33,41, 3, 3,10, 9, 4,17		3,11,39,27,19	
		1,26, 7,24,33,23,24, 5		6,18
14″	43,41,35, 7,10,27,43,32,28,22		3,11,39,33,37	
		1,26, 7,21,21,43,50,28		6,18
16″	43,41,36,33,17,49, 5,16,18,50		3,11,39,39,55	
		1,26, 7,18,10, 4,10,33		6,18
18″	43,41,37,59,25, 7,15,20,29,23		3,11,39,46,13	
		1,26, 7,14,58,24,24,20		6,18
20″	43,41,39,25,32,22,13,44,53,43		3,11,39,52,31	
		1,26, 7,11,46,44,31,49		6,18
22″	43,41,40,51,39,34, 0,29,25,32		3,11,39,58,49	
		1,26, 7, 8,35, 4,33, 0		6,18
24″	43,41,42,17,46,42,35,33,58,32		3,11,40, 5, 7	
		1,26, 7, 5,23,24,27,53		6,18
26″	43,41,43,43,53,47,58,58,26,25		3,11,40,11,25	
		1,26, 7, 2,11,44,16,28		6,18
28″	43,41,45,10, 0,50,10,42,42,53		3,11,40,17,43	
		1,26, 6,59, 0, 3,58,45		6,18
30″	43,41,46,36, 7,49,10,46,41,38		3,11,40,24, 1	
		1,26, 6,55,48,23,34,44		6,18
32″	43,41,48, 2,14,44,59,10,16,22		3,11,40,30,19	
		1,26, 6,52,36,43, 4,25		6,18
34″	43,41,49,28,21,37,35,53,20,47		3,11,40,36,37	
		1,26, 6,49,25, 2,27,48		6,18
36″	43,41,50,54,28,27, 0,55,48,35		3,11,40,42,55	
		1,26, 6,46,13,21,44,53		6,18
38″	43,41,52,20,35,13,14,17,33,28		3,11,40,49,13	
		1,26, 6,43, 1,40,55,40		6,18
40″	43,41,53,46,41,56,15,58,29, 8		3,11,40,55,31	
		1,26, 6,39,50, 0, 0, 9		6,18
42″	43,41,55,12,48,36, 5,58,29,17		3,11,41, 1,49	
		1,26, 6,36,38,18,58,20		6,18
44″	43,41,56,38,55,12,44,17,27,37		3,11,41, 8, 7	
		1,26, 6,33,26,37,50,13		6,18
46″	43,41,58, 5, 1,46,10,55,17,50		3,11,41,14,25	
		1,26, 6,30,14,56,35,48		6,18
48″	43,41,59,31, 8,16,25,51,53,38		3,11,41,20,43	
		1,26, 6,27, 3,15,15, 5		6,18
50″	43,42, 0,57,14,43,29, 7, 8,43		3,11,41,27, 1	
		1,26, 6,23,51,33,48, 4		6,18
52″	43,42, 2,23,21, 7,20,40,56,47		3,11,41,33,19	
		1,26, 6,20,39,52,14,45		6,18
54″	43,42, 3,49,27,28, 0,33,11,32		3,11,41,39,37	
		1,26, 6,17,28,10,35, 8		6,18
56″	43,42, 5,15,33,45,28,43,46,40		3,11,41,45,55	
		1,26, 6,14,16,28,49,13		6,18
58″	43,42, 6,41,39,59,45,12,35,53		3,11,41,52,13	
		1,26, 6,11, 4,46,57, 0		
60″	43,42, 8, 7,46,10,49,59,32,53			
exact	43,42, 8, 7,46,10,49,59,45,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°45′ 0″	43,42, 8, 7,46,10,49,59,45,38	1,26, 6, 7,53, 5, 0, 1		
2″	43,42, 9,33,52,18,43, 4,45,39	1,26, 6, 4,41,22,55,19	3,11,42, 4,42	6,18
4″	43,42,10,59,58,23,24,27,40,58	1,26, 6, 1,29,40,44,19	3,11,42,11, 0	6,18
6″	43,42,12,26, 4,24,54, 8,25,17	1,26, 5,58,17,58,27, 1	3,11,42,17,18	6,18
8″	43,42,13,52,10,23,12, 6,52,18	1,26, 5,55, 6,16, 3,25	3,11,42,23,36	6,18
10″	43,42,15,18,16,18,18,22,55,43	1,26, 5,51,54,33,33,31	3,11,42,29,54	6,18
12″	43,42,16,44,22,10,12,56,29,14	1,26, 5,48,42,50,57,19	3,11,42,36,12	6,18
14″	43,42,18,10,27,58,55,47,26,33	1,26, 5,45,31, 8,14,49	3,11,42,42,30	6,18
16″	43,42,19,36,33,44,26,55,41,22	1,26, 5,42,19,25,26, 1	3,11,42,48,48	6,18
18″	43,42,21, 2,39,26,46,21, 7,23	1,26, 5,39, 7,42,30,55	3,11,42,55, 6	6,18
20″	43,42,22,28,45, 5,54, 3,38,18	1,26, 5,35,55,59,29,31	3,11,43, 1,24	6,18
22″	43,42,23,54,50,41,50, 3, 7,49	1,26, 5,32,44,16,21,49	3,11,43, 7,42	6,18
24″	43,42,25,20,56,14,34,19,29,38	1,26, 5,29,32,33, 7,49	3,11,43,14, 0	6,18
26″	43,42,26,47, 1,44, 6,52,37,27	1,26, 5,26,20,49,47,31	3,11,43,20,18	6,18
28″	43,42,28,13, 7,10,27,42,24,58	1,26, 5,23, 9, 6,20,55	3,11,43,26,36	6,18
30″	43,42,29,39,12,33,36,48,45,53	1,26, 5,19,57,22,48, 1	3,11,43,32,54	6,18
32″	43,42,31, 5,17,53,34,11,33,54	1,26, 5,16,45,39, 8,49	3,11,43,39,12	6,18
34″	43,42,32,31,23,10,19,50,42,43	1,26, 5,13,33,55,23,19	3,11,43,45,30	6,18
36″	43,42,33,57,28,23,53,46, 6, 2	1,26, 5,10,22,11,31,31	3,11,43,51,48	6,18
38″	43,42,35,23,33,34,15,57,37,33	1,26, 5, 7,10,27,33,25	3,11,43,58, 6	6,18
40″	43,42,36,49,38,41,26,25,10,58	1,26, 5, 3,58,43,29, 1	3,11,44, 4,24	6,18
42″	43,42,38,15,43,45,25, 8,39,59	1,26, 5, 0,46,59,18,19	3,11,44,10,42	6,18
44″	43,42,39,41,48,46,12, 7,58,18	1,26, 4,57,35,15, 1,19	3,11,44,17, 0	6,18
46″	43,42,41, 7,53,43,47,22,59,37	1,26, 4,54,23,30,38, 1	3,11,44,23,18	6,18
48″	43,42,42,33,58,38,10,53,37,38	1,26, 4,51,11,46, 8,25	3,11,44,29,36	6,18
50″	43,42,44, 0, 3,29,22,39,46, 3	1,26, 4,48, 0, 1,32,31	3,11,44,35,54	6,18
52″	43,42,45,26, 8,17,22,41,18,34	1,26, 4,44,48,16,50,19	3,11,44,42,12	6,18
54″	43,42,46,52,13, 2,10,58, 8,53	1,26, 4,41,36,32, 1,49	3,11,44,48,30	6,18
56″	43,42,48,18,17,43,47,30,10,42	1,26, 4,38,24,47, 7, 1	3,11,44,54,48	6,18
58″	43,42,49,44,22,22,12,17,17,43	1,26, 4,35,13, 2, 5,55	3,11,45, 1, 6	
60″	43,42,51,10,26,57,25,19,23,38			
exact	43,42,51,10,26,57,25,19,49,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°46′ 0″	43,42,51,10,26,57,25,19,49,19	1,26, 4,32, 1,17, 1,15		
2″	43,42,52,36,31,29,26,36,50,34	1,26, 4,28,49,31,47,45	3,11,45,13,30	6,18
4″	43,42,54, 2,35,58,16, 8,38,19	1,26, 4,25,37,46,27,57	3,11,45,19,48	6,18
6″	43,42,55,28,40,23,53,55, 6,16	1,26, 4,22,26, 1, 1,51	3,11,45,26, 6	6,18
8″	43,42,56,54,44,46,19,56, 8, 7	1,26, 4,19,14,15,29,27	3,11,45,32,24	6,18
10″	43,42,58,20,49, 5,34,11,37,34	1,26, 4,16, 2,29,50,45	3,11,45,38,42	6,18
12″	43,42,59,46,53,21,36,41,28,19	1,26, 4,12,50,44, 5,45	3,11,45,45, 0	6,18
14″	43,43, 1,12,57,34,27,25,34, 4	1,26, 4, 9,38,58,14,27	3,11,45,51,18	6,18
16″	43,43, 2,39, 1,44, 6,23,48,31	1,26, 4, 6,27,12,16,51	3,11,45,57,36	6,18
18″	43,43, 4, 5, 5,50,33,36, 5,22	1,26, 4, 3,15,26,12,57	3,11,46, 3,54	6,18
20″	43,43, 5,31, 9,53,49, 2,18,19	1,26, 4, 0, 3,40, 2,45	3,11,46,10,12	6,18
22″	43,43, 6,57,13,53,52,42,21, 4	1,26, 3,56,51,53,46,15	3,11,46,16,30	6,18
24″	43,43, 8,23,17,50,44,36, 7,19	1,26, 3,53,40, 7,23,27	3,11,46,22,48	6,18
26″	43,43, 9,49,21,44,24,43,30,46	1,26, 3,50,28,20,54,21	3,11,46,29, 6	6,18
28″	43,43,11,15,25,34,53, 4,25, 7	1,26, 3,47,16,34,18,57	3,11,46,35,24	6,18
30″	43,43,12,41,29,22, 9,38,44, 4	1,26, 3,44, 4,47,37,15	3,11,46,41,42	6,18
32″	43,43,14, 7,33, 6,14,26,21,19	1,26, 3,40,53, 0,49,15	3,11,46,48, 0	6,18
34″	43,43,15,33,36,47, 7,27,10,34	1,26, 3,37,41,13,54,57	3,11,46,54,18	6,18
36″	43,43,16,59,40,24,48,41, 5,31	1,26, 3,34,29,26,54,21	3,11,47, 0,36	6,18
38″	43,43,18,25,43,59,18, 7,59,52	1,26, 3,31,17,39,47,27	3,11,47, 6,54	6,18
40″	43,43,19,51,47,30,35,47,47,19	1,26, 3,28, 5,52,34,15	3,11,47,13,12	6,18
42″	43,43,21,17,50,58,41,40,21,34	1,26, 3,24,54, 5,14,45	3,11,47,19,30	6,18
44″	43,43,22,43,54,23,35,45,36,19	1,26, 3,21,42,17,48,57	3,11,47,25,48	6,18
46″	43,43,24, 9,57,45,18, 3,25,16	1,26, 3,18,30,30,16,51	3,11,47,32, 6	6,18
48″	43,43,25,36, 1, 3,48,33,42, 7	1,26, 3,15,18,42,38,27	3,11,47,38,24	6,18
50″	43,43,27, 2, 4,19, 7,16,20,34	1,26, 3,12, 6,54,53,45	3,11,47,44,42	6,18
52″	43,43,28,28, 7,31,14,11,14,19	1,26, 3, 8,55, 7, 2,45	3,11,47,51, 0	6,18
54″	43,43,29,54,10,40, 9,18,17, 4	1,26, 3, 5,43,19, 5,27	3,11,47,57,18	6,18
56″	43,43,31,20,13,45,52,37,22,31	1,26, 3, 2,31,31, 1,51	3,11,48, 3,36	6,18
58″	43,43,32,46,16,48,24, 8,24,22	1,26, 2,59,19,42,51,57	3,11,48, 9,54	
60″	43,43,34,12,19,47,43,51,16,19			
exact	43,43,34,12,19,47,43,51,44, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°47′ 0″	43,43,34,12,19,47,43,51,44, 9			
		1,26, 2,56, 7,54,38,56		
2″	43,43,35,38,22,43,51,46,23, 5		3,11,48,22,16	
		1,26, 2,52,56, 6,16,40		6,17
4″	43,43,37, 4,25,36,47,52,39,45		3,11,48,28,33	
		1,26, 2,49,44,17,48, 7		6,17
6″	43,43,38,30,28,26,32,10,27,52		3,11,48,34,50	
		1,26, 2,46,32,29,13,17		6,17
8″	43,43,39,56,31,13, 4,39,41, 9		3,11,48,41, 7	
		1,26, 2,43,20,40,32,10		6,17
10″	43,43,41,22,33,56,25,20,13,19		3,11,48,47,24	
		1,26, 2,40, 8,51,44,46		6,17
12″	43,43,42,48,36,36,34,11,58, 5		3,11,48,53,41	
		1,26, 2,36,57, 2,51, 5		6,17
14″	43,43,44,14,39,13,31,14,49,10		3,11,48,59,58	
		1,26, 2,33,45,13,51, 7		6,17
16″	43,43,45,40,41,47,16,28,40,17		3,11,49, 6,15	
		1,26, 2,30,33,24,44,52		6,17
18″	43,43,47, 6,44,17,49,53,25, 9		3,11,49,12,32	
		1,26, 2,27,21,35,32,20		6,17
20″	43,43,48,32,46,45,11,28,57,29		3,11,49,18,49	
		1,26, 2,24, 9,46,13,31		6,17
22″	43,43,49,58,49, 9,21,15,11, 0		3,11,49,25, 6	
		1,26, 2,20,57,56,48,25		6,17
24″	43,43,51,24,51,30,19,11,59,25		3,11,49,31,23	
		1,26, 2,17,46, 7,17, 2		6,17
26″	43,43,52,50,53,48, 5,19,16,27		3,11,49,37,40	
		1,26, 2,14,34,17,39,22		6,17
28″	43,43,54,16,56, 2,39,36,55,49		3,11,49,43,57	
		1,26, 2,11,22,27,55,25		6,17
30″	43,43,55,42,58,14, 2, 4,51,14		3,11,49,50,14	
		1,26, 2, 8,10,38, 5,11		6,17
32″	43,43,57, 9, 0,22,12,42,56,25		3,11,49,56,31	
		1,26, 2, 4,58,48, 8,40		6,17
34″	43,43,58,35, 2,27,11,31, 5, 5		3,11,50, 2,48	
		1,26, 2, 1,46,58, 5,52		6,17
36″	43,44, 0, 1, 4,28,58,29,10,57		3,11,50, 9, 5	
		1,26, 1,58,35, 7,56,47		6,17
38″	43,44, 1,27, 6,27,33,37, 7,44		3,11,50,15,22	
		1,26, 1,55,23,17,41,25		6,17
40″	43,44, 2,53, 8,22,56,54,49, 9		3,11,50,21,39	
		1,26, 1,52,11,27,19,46		6,17
42″	43,44, 4,19,10,15, 8,22, 8,55		3,11,50,27,56	
		1,26, 1,48,59,36,51,50		6,17
44″	43,44, 5,45,12, 4, 7,59, 0,45		3,11,50,34,13	
		1,26, 1,45,47,46,17,37		6,17
46″	43,44, 7,11,13,49,55,45,18,22		3,11,50,40,30	
		1,26, 1,42,35,55,37, 7		6,17
48″	43,44, 8,37,15,32,31,40,55,29		3,11,50,46,47	
		1,26, 1,39,24, 4,50,20		6,17
50″	43,44,10, 3,17,11,55,45,45,49		3,11,50,53, 4	
		1,26, 1,36,12,13,57,16		6,17
52″	43,44,11,29,18,48, 7,59,43, 5		3,11,50,59,21	
		1,26, 1,33, 0,22,57,55		6,17
54″	43,44,12,55,20,21, 8,22,41, 0		3,11,51, 5,38	
		1,26, 1,29,48,31,52,17		6,17
56″	43,44,14,21,21,50,56,54,33,17		3,11,51,11,55	
		1,26, 1,26,36,40,40,22		6,17
58″	43,44,15,47,23,17,33,35,13,39		3,11,51,18,12	
		1,26, 1,23,24,49,22,10		
60″	43,44,17,13,24,40,58,24,35,49			
exact	43,44,17,13,24,40,58,24, 9,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°48′ 0″	43,44,17,13,24,40,58,24, 9,13			
		1,26, 1,20,12,57,54,50		
2″	43,44,18,39,26, 1,11,22, 4, 3		3,11,51,30,58	
		1,26, 1,17, 1, 6,23,52		6,17
4″	43,44,20, 5,27,18,12,28,27,55		3,11,51,37,15	
		1,26, 1,13,49,14,46,37		6,17
6″	43,44,21,31,28,32, 1,43,14,32		3,11,51,43,32	
		1,26, 1,10,37,23, 3, 5		6,17
8″	43,44,22,57,29,42,39, 6,17,37		3,11,51,49,49	
		1,26, 1, 7,25,31,13,16		6,17
10″	43,44,24,23,30,50, 4,37,30,53		3,11,51,56, 6	
		1,26, 1, 4,13,39,17,10		6,17
12″	43,44,25,49,31,54,18,16,48, 3		3,11,52, 2,23	
		1,26, 1, 1, 1,47,14,47		6,17
14″	43,44,27,15,32,55,20, 4, 2,50		3,11,52, 8,40	
		1,26, 0,57,49,55, 6, 7		6,17
16″	43,44,28,41,33,53, 9,59, 8,57		3,11,52,14,57	
		1,26, 0,54,38, 2,51,10		6,17
18″	43,44,30, 7,34,47,48, 2, 0, 7		3,11,52,21,14	
		1,26, 0,51,26,10,29,56		6,17
20″	43,44,31,33,35,39,14,12,30, 3		3,11,52,27,31	
		1,26, 0,48,14,18, 2,25		6,17
22″	43,44,32,59,36,27,28,30,32,28		3,11,52,33,48	
		1,26, 0,45, 2,25,28,37		6,17
24″	43,44,34,25,37,12,30,56, 1, 5		3,11,52,40, 5	
		1,26, 0,41,50,32,48,32		6,17
26″	43,44,35,51,37,54,21,28,49,37		3,11,52,46,22	
		1,26, 0,38,38,40, 2,10		6,17
28″	43,44,37,17,38,33, 0, 8,51,47		3,11,52,52,39	
		1,26, 0,35,26,47, 9,31		6,17
30″	43,44,38,43,39, 8,26,56, 1,18		3,11,52,58,56	
		1,26, 0,32,14,54,10,35		6,17
32″	43,44,40, 9,39,40,41,50,11,53		3,11,53, 5,13	
		1,26, 0,29, 3, 1, 5,22		6,17
34″	43,44,41,35,40, 9,44,51,17,15		3,11,53,11,30	
		1,26, 0,25,51, 7,53,52		6,17
36″	43,44,43, 1,40,35,35,59,11, 7		3,11,53,17,47	
		1,26, 0,22,39,14,36, 5		6,17
38″	43,44,44,27,40,58,15,13,47,12		3,11,53,24, 4	
		1,26, 0,19,27,21,12, 1		6,17
40″	43,44,45,53,41,17,42,34,59,13		3,11,53,30,21	
		1,26, 0,16,15,27,41,40		6,17
42″	43,44,47,19,41,33,58, 2,40,53		3,11,53,36,38	
		1,26, 0,13, 3,34, 5, 2		6,17
44″	43,44,48,45,41,47, 1,36,45,55		3,11,53,42,55	
		1,26, 0, 9,51,40,22, 7		6,17
46″	43,44,50,11,41,56,53,17, 8, 2		3,11,53,49,12	
		1,26, 0, 6,39,46,32,55		6,17
48″	43,44,51,37,42, 3,33, 3,40,57		3,11,53,55,29	
		1,26, 0, 3,27,52,37,26		6,17
50″	43,44,53, 3,42, 7, 0,56,18,23		3,11,54, 1,46	
		1,26, 0, 0,15,58,35,40		6,17
52″	43,44,54,29,42, 7,16,54,54, 3		3,11,54, 8, 3	
		1,25,59,57, 4, 4,27,37		6,17
54″	43,44,55,55,42, 4,20,59,21,40		3,11,54,14,20	
		1,25,59,53,52,10,13,17		6,17
56″	43,44,57,21,41,58,13, 9,34,57		3,11,54,20,37	
		1,25,59,50,40,15,52,40		6,17
58″	43,44,58,47,41,48,53,25,27,37		3,11,54,26,54	
		1,25,59,47,28,21,25,46		
60″	43,45, 0,13,41,36,21,46,53,23			
exact	43,45, 0,13,41,36,21,46,36,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°49′ 0″	43,45, 0,13,41,36,21,46,36,10	1,25,59,44,16,26,50,41		
2″	43,45, 1,39,41,20,38,13,26,51	1,25,59,41, 4,32,11, 5	3,11,54,39,36	6,17
4″	43,45, 3, 5,41, 1,42,45,37,56	1,25,59,37,52,37,25,12	3,11,54,45,53	6,17
6″	43,45, 4,31,40,39,35,23, 3, 8	1,25,59,34,40,42,33, 2	3,11,54,52,10	6,17
8″	43,45, 5,57,40,14,16, 5,36,10	1,25,59,31,28,47,34,35	3,11,54,58,27	6,17
10″	43,45, 7,23,39,45,44,53,10,45	1,25,59,28,16,52,29,51	3,11,55, 4,44	6,17
12″	43,45, 8,49,39,14, 1,45,40,36	1,25,59,25, 4,57,18,50	3,11,55,11, 1	6,17
14″	43,45,10,15,38,39, 6,42,59,26	1,25,59,21,53, 2, 1,32	3,11,55,17,18	6,17
16″	43,45,11,41,38, 0,59,45, 0,58	1,25,59,18,41, 6,37,57	3,11,55,23,35	6,17
18″	43,45,13, 7,37,19,40,51,38,55	1,25,59,15,29,11, 8, 5	3,11,55,29,52	6,17
20″	43,45,14,33,36,35,10, 2,47, 0	1,25,59,12,17,15,31,56	3,11,55,36, 9	6,17
22″	43,45,15,59,35,47,27,18,18,56	1,25,59, 9, 5,19,49,30	3,11,55,42,26	6,17
24″	43,45,17,25,34,56,32,38, 8,26	1,25,59, 5,53,24, 0,47	3,11,55,48,43	6,17
26″	43,45,18,51,34, 2,26, 2, 9,13	1,25,59, 2,41,28, 5,47	3,11,55,55, 0	6,17
28″	43,45,20,17,33, 5, 7,30,15, 0	1,25,58,59,29,32, 4,30	3,11,56, 1,17	6,17
30″	43,45,21,43,32, 4,37, 2,19,30	1,25,58,56,17,35,56,56	3,11,56, 7,34	6,17
32″	43,45,23, 9,31, 0,54,38,16,26	1,25,58,53, 5,39,43, 5	3,11,56,13,51	6,17
34″	43,45,24,35,29,54, 0,17,59,31	1,25,58,49,53,43,22,57	3,11,56,20, 8	6,17
36″	43,45,26, 1,28,43,54, 1,22,28	1,25,58,46,41,46,56,32	3,11,56,26,25	6,17
38″	43,45,27,27,27,30,35,48,19, 0	1,25,58,43,29,50,23,50	3,11,56,32,42	6,17
40″	43,45,28,53,26,14, 5,38,42,50	1,25,58,40,17,53,44,51	3,11,56,38,59	6,17
42″	43,45,30,19,24,54,23,32,27,41	1,25,58,37, 5,56,59,35	3,11,56,45,16	6,17
44″	43,45,31,45,23,31,29,29,27,16	1,25,58,33,54, 0, 8, 2	3,11,56,51,33	6,17
46″	43,45,33,11,22, 5,23,29,35,18	1,25,58,30,42, 3,10,12	3,11,56,57,50	6,17
48″	43,45,34,37,20,36, 5,32,45,30	1,25,58,27,30, 6, 6, 5	3,11,57, 4, 7	6,17
50″	43,45,36, 3,19, 3,35,38,51,35	1,25,58,24,18, 8,55,41	3,11,57,10,24	6,17
52″	43,45,37,29,17,27,53,47,47,16	1,25,58,21, 6,11,39, 0	3,11,57,16,41	6,17
54″	43,45,38,55,15,48,59,59,26,16	1,25,58,17,54,14,16, 2	3,11,57,22,58	6,17
56″	43,45,40,21,14, 6,54,13,42,18	1,25,58,14,42,16,46,47	3,11,57,29,15	6,17
58″	43,45,41,47,12,21,36,30,29, 5	1,25,58,11,30,19,11,15	3,11,57,35,32	
60″	43,45,43,13,10,33, 6,49,40,20			
exact	43,45,43,13,10,33, 6,49,29,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°50′ 0″	43,45,43,13,10,33, 6,49,29,14			
		1,25,58, 8,18,21,28,15		
2″	43,45,44,39, 8,41,25,10,57,29		3,11,57,48,11	
		1,25,58, 5, 6,23,40, 4		6,17
4″	43,45,46, 5, 6,46,31,34,37,33		3,11,57,54,28	
		1,25,58, 1,54,25,45,36		6,17
6″	43,45,47,31, 4,48,26, 0,23, 9		3,11,58, 0,45	
		1,25,57,58,42,27,44,51		6,17
8″	43,45,48,57, 2,47, 8,28, 8, 0		3,11,58, 7, 2	
		1,25,57,55,30,29,37,49		6,17
10″	43,45,50,23, 0,42,38,57,45,49		3,11,58,13,19	
		1,25,57,52,18,31,24,30		6,17
12″	43,45,51,48,58,34,57,29,10,19		3,11,58,19,36	
		1,25,57,49, 6,33, 4,54		6,17
14″	43,45,53,14,56,24, 4, 2,15,13		3,11,58,25,53	
		1,25,57,45,54,34,39, 1		6,17
16″	43,45,54,40,54, 9,58,36,54,14		3,11,58,32,10	
		1,25,57,42,42,36, 6,51		6,17
18″	43,45,56, 6,51,52,41,13, 1, 5		3,11,58,38,27	
		1,25,57,39,30,37,28,24		6,17
20″	43,45,57,32,49,32,11,50,29,29		3,11,58,44,44	
		1,25,57,36,18,38,43,40		6,17
22″	43,45,58,58,47, 8,30,29,13, 9		3,11,58,51, 1	
		1,25,57,33, 6,39,52,39		6,17
24″	43,46, 0,24,44,41,37, 9, 5,48		3,11,58,57,18	
		1,25,57,29,54,40,55,21		6,17
26″	43,46, 1,50,42,11,31,50, 1, 9		3,11,59, 3,35	
		1,25,57,26,42,41,51,46		6,17
28″	43,46, 3,16,39,38,14,31,52,55		3,11,59, 9,52	
		1,25,57,23,30,42,41,54		6,17
30″	43,46, 4,42,37, 1,45,14,34,49		3,11,59,16, 9	
		1,25,57,20,18,43,25,45		6,17
32″	43,46, 6, 8,34,22, 3,58, 0,34		3,11,59,22,26	
		1,25,57,17, 6,44, 3,19		6,17
34″	43,46, 7,34,31,39,10,42, 3,53		3,11,59,28,43	
		1,25,57,13,54,44,34,36		6,17
36″	43,46, 9, 0,28,53, 5,26,38,29		3,11,59,35, 0	
		1,25,57,10,42,44,59,36		6,17
38″	43,46,10,26,26, 3,48,11,38, 5		3,11,59,41,17	
		1,25,57, 7,30,45,18,19		6,17
40″	43,46,11,52,23,11,18,56,56,24		3,11,59,47,34	
		1,25,57, 4,18,45,30,45		6,17
42″	43,46,13,18,20,15,37,42,27, 9		3,11,59,53,51	
		1,25,57, 1, 6,45,36,54		6,17
44″	43,46,14,44,17,16,44,28, 4, 3		3,12, 0, 0, 8	
		1,25,56,57,54,45,36,46		6,17
46″	43,46,16,10,14,14,39,13,40,49		3,12, 0, 6,25	
		1,25,56,54,42,45,30,21		6,17
48″	43,46,17,36,11, 9,21,59,11,10		3,12, 0,12,42	
		1,25,56,51,30,45,17,39		6,17
50″	43,46,19, 2, 8, 0,52,44,28,49		3,12, 0,18,59	
		1,25,56,48,18,44,58,40		6,17
52″	43,46,20,28, 4,49,11,29,27,29		3,12, 0,25,16	
		1,25,56,45, 6,44,33,24		6,17
54″	43,46,21,54, 1,34,18,14, 0,53		3,12, 0,31,33	
		1,25,56,41,54,44, 1,51		6,17
56″	43,46,23,19,58,16,12,58, 2,44		3,12, 0,37,50	
		1,25,56,38,42,43,24, 1		6,17
58″	43,46,24,45,54,54,55,41,26,45		3,12, 0,44, 7	
		1,25,56,35,30,42,39,54		
60″	43,46,26,11,51,30,26,24, 6,39			
exact	43,46,26,11,51,30,26,24, 5,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°51′ 0″	43,46,26,11,51,30,26,24, 5,17			
		1,25,56,32,18,41,49,17		
2″	43,46,27,37,48, 2,45, 5,54,34		3,12, 0,56,42	
		1,25,56,29, 6,40,52,35		6,17
4″	43,46,29, 3,44,31,51,46,47, 9		3,12, 1, 2,59	
		1,25,56,25,54,39,49,36		6,17
6″	43,46,30,29,40,57,46,26,36,45		3,12, 1, 9,16	
		1,25,56,22,42,38,40,20		6,17
8″	43,46,31,55,37,20,29, 5,17, 5		3,12, 1,15,33	
		1,25,56,19,30,37,24,47		6,17
10″	43,46,33,21,33,39,59,42,41,52		3,12, 1,21,50	
		1,25,56,16,18,36, 2,57		6,17
12″	43,46,34,47,29,56,18,18,44,49		3,12, 1,28, 7	
		1,25,56,13, 6,34,34,50		6,17
14″	43,46,36,13,26, 9,24,53,19,39		3,12, 1,34,24	
		1,25,56, 9,54,33, 0,26		6,17
16″	43,46,37,39,22,19,19,26,20, 5		3,12, 1,40,41	
		1,25,56, 6,42,31,19,45		6,17
18″	43,46,39, 5,18,26, 1,57,39,50		3,12, 1,46,58	
		1,25,56, 3,30,29,32,47		6,17
20″	43,46,40,31,14,29,32,27,12,37		3,12, 1,53,15	
		1,25,56, 0,18,27,39,32		6,17
22″	43,46,41,57,10,29,50,54,52, 9		3,12, 1,59,32	
		1,25,55,57, 6,25,40, 0		6,17
24″	43,46,43,23, 6,26,57,20,32, 9		3,12, 2, 5,49	
		1,25,55,53,54,23,34,11		6,17
26″	43,46,44,49, 2,20,51,44, 6,20		3,12, 2,12, 6	
		1,25,55,50,42,21,22, 5		6,17
28″	43,46,46,14,58,11,34, 5,28,25		3,12, 2,18,23	
		1,25,55,47,30,19, 3,42		6,17
30″	43,46,47,40,53,59, 4,24,32, 7		3,12, 2,24,40	
		1,25,55,44,18,16,39, 2		6,17
32″	43,46,49, 6,49,43,22,41,11, 9		3,12, 2,30,57	
		1,25,55,41, 6,14, 8, 5		6,17
34″	43,46,50,32,45,24,28,55,19,14		3,12, 2,37,14	
		1,25,55,37,54,11,30,51		6,17
36″	43,46,51,58,41, 2,23, 6,50, 5		3,12, 2,43,31	
		1,25,55,34,42, 8,47,20		6,17
38″	43,46,53,24,36,37, 5,15,37,25		3,12, 2,49,48	
		1,25,55,31,30, 5,57,32		6,17
40″	43,46,54,50,32, 8,35,21,34,57		3,12, 2,56, 5	
		1,25,55,28,18, 3, 1,27		6,17
42″	43,46,56,16,27,36,53,24,36,24		3,12, 3, 2,22	
		1,25,55,25, 5,59,59, 5		6,17
44″	43,46,57,42,23, 1,59,24,35,29		3,12, 3, 8,39	
		1,25,55,21,53,56,50,26		6,17
46″	43,46,59, 8,18,23,53,21,25,55		3,12, 3,14,56	
		1,25,55,18,41,53,35,30		6,17
48″	43,47, 0,34,13,42,35,15, 1,25		3,12, 3,21,13	
		1,25,55,15,29,50,14,17		6,17
50″	43,47, 2, 0, 8,58, 5, 5,15,42		3,12, 3,27,30	
		1,25,55,12,17,46,46,47		6,17
52″	43,47, 3,26, 4,10,22,52, 2,29		3,12, 3,33,47	
		1,25,55, 9, 5,43,13, 0		6,17
54″	43,47, 4,51,59,19,28,35,15,29		3,12, 3,40, 4	
		1,25,55, 5,53,39,32,56		6,17
56″	43,47, 6,17,54,25,22,14,48,25		3,12, 3,46,21	
		1,25,55, 2,41,35,46,35		6,17
58″	43,47, 7,43,49,28, 3,50,35, 0		3,12, 3,52,38	
		1,25,54,59,29,31,53,57		
60″	43,47, 9, 9,44,27,33,22,28,57			
exact	43,47, 9, 9,44,27,33,22,33,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°52′ 0″	43,47, 9, 9,44,27,33,22,33,49			
		1,25,54,56,17,27,55,33		
2″	43,47,10,35,39,23,50,50,29,22		3,12, 4, 5,10	
		1,25,54,53, 5,23,50,23		6,17
4″	43,47,12, 1,34,16,56,14,19,45		3,12, 4,11,27	
		1,25,54,49,53,19,38,56		6,17
6″	43,47,13,27,29, 6,49,33,58,41		3,12, 4,17,44	
		1,25,54,46,41,15,21,12		6,17
8″	43,47,14,53,23,53,30,49,19,53		3,12, 4,24, 1	
		1,25,54,43,29,10,57,11		6,17
10″	43,47,16,19,18,37, 0, 0,17, 4		3,12, 4,30,18	
		1,25,54,40,17, 6,26,53		6,17
12″	43,47,17,45,13,17,17, 6,43,57		3,12, 4,36,35	
		1,25,54,37, 5, 1,50,18		6,17
14″	43,47,19,11, 7,54,22, 8,34,15		3,12, 4,42,52	
		1,25,54,33,52,57, 7,26		6,17
16″	43,47,20,37, 2,28,15, 5,41,41		3,12, 4,49, 9	
		1,25,54,30,40,52,18,17		6,17
18″	43,47,22, 2,56,58,55,57,59,58		3,12, 4,55,26	
		1,25,54,27,28,47,22,51		6,17
20″	43,47,23,28,51,26,24,45,22,49		3,12, 5, 1,43	
		1,25,54,24,16,42,21, 8		6,17
22″	43,47,24,54,45,50,41,27,43,57		3,12, 5, 8, 0	
		1,25,54,21, 4,37,13, 8		6,17
24″	43,47,26,20,40,11,46, 4,57, 5		3,12, 5,14,17	
		1,25,54,17,52,31,58,51		6,17
26″	43,47,27,46,34,29,38,36,55,56		3,12, 5,20,34	
		1,25,54,14,40,26,38,17		6,17
28″	43,47,29,12,28,44,19, 3,34,13		3,12, 5,26,51	
		1,25,54,11,28,21,11,26		6,17
30″	43,47,30,38,22,55,47,24,45,39		3,12, 5,33, 8	
		1,25,54, 8,16,15,38,18		6,17
32″	43,47,32, 4,17, 4, 3,40,23,57		3,12, 5,39,25	
		1,25,54, 5, 4, 9,58,53		6,17
34″	43,47,33,30,11, 9, 7,50,22,50		3,12, 5,45,42	
		1,25,54, 1,52, 4,13,11		6,17
36″	43,47,34,56, 5,10,59,54,36, 1		3,12, 5,51,59	
		1,25,53,58,39,58,21,12		6,17
38″	43,47,36,21,59, 9,39,52,57,13		3,12, 5,58,16	
		1,25,53,55,27,52,22,56		6,17
40″	43,47,37,47,53, 5, 7,45,20, 9		3,12, 6, 4,33	
		1,25,53,52,15,46,18,23		6,17
42″	43,47,39,13,46,57,23,31,38,32		3,12, 6,10,50	
		1,25,53,49, 3,40, 7,33		6,17
44″	43,47,40,39,40,46,27,11,46, 5		3,12, 6,17, 7	
		1,25,53,45,51,33,50,26		6,17
46″	43,47,42, 5,34,32,18,45,36,31		3,12, 6,23,24	
		1,25,53,42,39,27,27, 2		6,17
48″	43,47,43,31,28,14,58,13, 3,33		3,12, 6,29,41	
		1,25,53,39,27,20,57,21		6,17
50″	43,47,44,57,21,54,25,34, 0,54		3,12, 6,35,58	
		1,25,53,36,15,14,21,23		6,17
52″	43,47,46,23,15,30,40,48,22,17		3,12, 6,42,15	
		1,25,53,33, 3, 7,39, 8		6,17
54″	43,47,47,49, 9, 3,43,56, 1,25		3,12, 6,48,32	
		1,25,53,29,51, 0,50,36		6,17
56″	43,47,49,15, 2,33,34,56,52, 1		3,12, 6,54,49	
		1,25,53,26,38,53,55,47		6,17
58″	43,47,50,40,56, 0,13,50,47,48		3,12, 7, 1, 6	
		1,25,53,23,26,46,54,41		
60″	43,47,52, 6,49,23,40,37,42,29			
exact	43,47,52, 6,49,23,40,37,56,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°53′ 0″	43,47,52, 6,49,23,40,37,56,56			
		1,25,53,20,14,39,48,47		
2″	43,47,53,32,42,43,55,17,45,43		3,12, 7,13,34	
		1,25,53,17, 2,32,35,13		6,17
4″	43,47,54,58,36, 0,57,50,20,56		3,12, 7,19,51	
		1,25,53,13,50,25,15,22		6,17
6″	43,47,56,24,29,14,48,15,36,18		3,12, 7,26, 8	
		1,25,53,10,38,17,49,14		6,17
8″	43,47,57,50,22,25,26,33,25,32		3,12, 7,32,25	
		1,25,53, 7,26,10,16,49		6,17
10″	43,47,59,16,15,32,52,43,42,21		3,12, 7,38,42	
		1,25,53, 4,14, 2,38, 7		6,17
12″	43,48, 0,42, 8,37, 6,46,20,28		3,12, 7,44,59	
		1,25,53, 1, 1,54,53, 8		6,17
14″	43,48, 2, 8, 1,38, 8,41,13,36		3,12, 7,51,16	
		1,25,52,57,49,47, 1,52		6,17
16″	43,48, 3,33,54,35,58,28,15,28		3,12, 7,57,33	
		1,25,52,54,37,39, 4,19		6,17
18″	43,48, 4,59,47,30,36, 7,19,47		3,12, 8, 3,50	
		1,25,52,51,25,31, 0,29		6,17
20″	43,48, 6,25,40,22, 1,38,20,16		3,12, 8,10, 7	
		1,25,52,48,13,22,50,22		6,17
22″	43,48, 7,51,33,10,15, 1,10,38		3,12, 8,16,24	
		1,25,52,45, 1,14,33,58		6,17
24″	43,48, 9,17,25,55,16,15,44,36		3,12, 8,22,41	
		1,25,52,41,49, 6,11,17		6,17
26″	43,48,10,43,18,37, 5,21,55,53		3,12, 8,28,58	
		1,25,52,38,36,57,42,19		6,17
28″	43,48,12, 9,11,15,42,19,38,12		3,12, 8,35,15	
		1,25,52,35,24,49, 7, 4		6,17
30″	43,48,13,35, 3,51, 7, 8,45,16		3,12, 8,41,32	
		1,25,52,32,12,40,25,32		6,17
32″	43,48,15, 0,56,23,19,49,10,48		3,12, 8,47,49	
		1,25,52,29, 0,31,37,43		6,17
34″	43,48,16,26,48,52,20,20,48,31		3,12, 8,54, 6	
		1,25,52,25,48,22,43,37		6,17
36″	43,48,17,52,41,18, 8,43,32, 8		3,12, 9, 0,23	
		1,25,52,22,36,13,43,14		6,17
38″	43,48,19,18,33,40,44,57,15,22		3,12, 9, 6,40	
		1,25,52,19,24, 4,36,34		6,17
40″	43,48,20,44,26, 0, 9, 1,51,56		3,12, 9,12,57	
		1,25,52,16,11,55,23,37		6,17
42″	43,48,22,10,18,16,20,57,15,33		3,12, 9,19,14	
		1,25,52,12,59,46, 4,23		6,17
44″	43,48,23,36,10,29,20,43,19,56		3,12, 9,25,31	
		1,25,52, 9,47,36,38,52		6,17
46″	43,48,25, 2, 2,39, 8,19,58,48		3,12, 9,31,48	
		1,25,52, 6,35,27, 7, 4		6,17
48″	43,48,26,27,54,45,43,47, 5,52		3,12, 9,38, 5	
		1,25,52, 3,23,17,28,59		6,17
50″	43,48,27,53,46,49, 7, 4,34,51		3,12, 9,44,22	
		1,25,52, 0,11, 7,44,37		6,17
52″	43,48,29,19,38,49,18,12,19,28		3,12, 9,50,39	
		1,25,51,56,58,57,53,58		6,17
54″	43,48,30,45,30,46,17,10,13,26		3,12, 9,56,56	
		1,25,51,53,46,47,57, 2		6,17
56″	43,48,32,11,22,40, 3,58,10,28		3,12,10, 3,13	
		1,25,51,50,34,37,53,49		6,17
58″	43,48,33,37,14,30,38,36, 4,17		3,12,10, 9,30	
		1,25,51,47,22,27,44,19		
60″	43,48,35, 3, 6,18, 1, 3,48,36			
exact	43,48,35, 3, 6,18, 1, 4, 9,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°54′ 0″	43,48,35, 3, 6,18, 1, 4, 9,27			
		1,25,51,44,10,17,30,46		
2″	43,48,36,28,58, 2,11,21,40,13		3,12,10,21,54	
		1,25,51,40,58, 7, 8,52		6,17
4″	43,48,37,54,49,43, 9,28,49, 5		3,12,10,28,11	
		1,25,51,37,45,56,40,41		6,17
6″	43,48,39,20,41,20,55,25,29,46		3,12,10,34,28	
		1,25,51,34,33,46, 6,13		6,17
8″	43,48,40,46,32,55,29,11,35,59		3,12,10,40,45	
		1,25,51,31,21,35,25,28		6,17
10″	43,48,42,12,24,26,50,47, 1,27		3,12,10,47, 2	
		1,25,51,28, 9,24,38,26		6,17
12″	43,48,43,38,15,55, 0,11,39,53		3,12,10,53,19	
		1,25,51,24,57,13,45, 7		6,17
14″	43,48,45, 4, 7,19,57,25,25, 0		3,12,10,59,36	
		1,25,51,21,45, 2,45,31		6,17
16″	43,48,46,29,58,41,42,28,10,31		3,12,11, 5,53	
		1,25,51,18,32,51,39,38		6,17
18″	43,48,47,55,50, 0,15,19,50, 9		3,12,11,12,10	
		1,25,51,15,20,40,27,28		6,17
20″	43,48,49,21,41,15,36, 0,17,37		3,12,11,18,27	
		1,25,51,12, 8,29, 9, 1		6,17
22″	43,48,50,47,32,27,44,29,26,38		3,12,11,24,44	
		1,25,51, 8,56,17,44,17		6,17
24″	43,48,52,13,23,36,40,47,10,55		3,12,11,31, 1	
		1,25,51, 5,44, 6,13,16		6,17
26″	43,48,53,39,14,42,24,53,24,11		3,12,11,37,18	
		1,25,51, 2,31,54,35,58		6,17
28″	43,48,55, 5, 5,44,56,48, 0, 9		3,12,11,43,35	
		1,25,50,59,19,42,52,23		6,17
30″	43,48,56,30,56,44,16,30,52,32		3,12,11,49,52	
		1,25,50,56, 7,31, 2,31		6,17
32″	43,48,57,56,47,40,24, 1,55, 3		3,12,11,56, 9	
		1,25,50,52,55,19, 6,22		6,17
34″	43,48,59,22,38,33,19,21, 1,25		3,12,12, 2,26	
		1,25,50,49,43, 7, 3,56		6,17
36″	43,49, 0,48,29,23, 2,28, 5,21		3,12,12, 8,43	
		1,25,50,46,30,54,55,13		6,17
38″	43,49, 2,14,20, 9,33,23, 0,34		3,12,12,15, 0	
		1,25,50,43,18,42,40,13		6,17
40″	43,49, 3,40,10,52,52, 5,40,47		3,12,12,21,17	
		1,25,50,40, 6,30,18,56		6,17
42″	43,49, 5, 6, 1,32,58,35,59,43		3,12,12,27,34	
		1,25,50,36,54,17,51,22		6,17
44″	43,49, 6,31,52, 9,52,53,51, 5		3,12,12,33,51	
		1,25,50,33,42, 5,17,31		6,17
46″	43,49, 7,57,42,43,34,59, 8,36		3,12,12,40, 8	
		1,25,50,30,29,52,37,23		6,17
48″	43,49, 9,23,33,14, 4,51,45,59		3,12,12,46,25	
		1,25,50,27,17,39,50,58		6,17
50″	43,49,10,49,23,41,22,31,36,57		3,12,12,52,42	
		1,25,50,24, 5,26,58,16		6,17
52″	43,49,12,15,14, 5,27,58,35,13		3,12,12,58,59	
		1,25,50,20,53,13,59,17		6,17
54″	43,49,13,41, 4,26,21,12,34,30		3,12,13, 5,16	
		1,25,50,17,41, 0,54, 1		6,17
56″	43,49,15, 6,54,44, 2,13,28,31		3,12,13,11,33	
		1,25,50,14,28,47,42,28		6,17
58″	43,49,16,32,44,58,31, 1,10,59		3,12,13,17,50	
		1,25,50,11,16,34,24,38		
60″	43,49,17,58,35, 9,47,35,35,37			
exact	43,49,17,58,35, 9,47,35,58,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°55′ 0″	43,49,17,58,35, 9,47,35,58,48			
		1,25,50, 8, 4,21, 3,13		
2″	43,49,19,24,25,17,51,57, 2, 1		3,12,13,30,12	
		1,25,50, 4,52, 7,33, 1		6,17
4″	43,49,20,50,15,22,44, 4,35, 2		3,12,13,36,29	
		1,25,50, 1,39,53,56,32		6,17
6″	43,49,22,16, 5,24,23,58,31,34		3,12,13,42,46	
		1,25,49,58,27,40,13,46		6,17
8″	43,49,23,41,55,22,51,38,45,20		3,12,13,49, 3	
		1,25,49,55,15,26,24,43		6,17
10″	43,49,25, 7,45,18, 7, 5,10, 3		3,12,13,55,20	
		1,25,49,52, 3,12,29,23		6,17
12″	43,49,26,33,35,10,10,17,39,26		3,12,14, 1,37	
		1,25,49,48,50,58,27,46		6,17
14″	43,49,27,59,24,59, 1,16, 7,12		3,12,14, 7,54	
		1,25,49,45,38,44,19,52		6,17
16″	43,49,29,25,14,44,40, 0,27, 4		3,12,14,14,11	
		1,25,49,42,26,30, 5,41		6,17
18″	43,49,30,51, 4,27, 6,30,32,45		3,12,14,20,28	
		1,25,49,39,14,15,45,13		6,17
20″	43,49,32,16,54, 6,20,46,17,58		3,12,14,26,45	
		1,25,49,36, 2, 1,18,28		6,17
22″	43,49,33,42,43,42,22,47,36,26		3,12,14,33, 2	
		1,25,49,32,49,46,45,26		6,17
24″	43,49,35, 8,33,15,12,34,21,52		3,12,14,39,19	
		1,25,49,29,37,32, 6, 7		6,17
26″	43,49,36,34,22,44,50, 6,27,59		3,12,14,45,36	
		1,25,49,26,25,17,20,31		6,17
28″	43,49,38, 0,12,11,15,23,48,30		3,12,14,51,53	
		1,25,49,23,13, 2,28,38		6,17
30″	43,49,39,26, 1,34,28,26,17, 8		3,12,14,58,10	
		1,25,49,20, 0,47,30,28		6,17
32″	43,49,40,51,50,54,29,13,47,36		3,12,15, 4,27	
		1,25,49,16,48,32,26, 1		6,17
34″	43,49,42,17,40,11,17,46,13,37		3,12,15,10,44	
		1,25,49,13,36,17,15,17		6,17
36″	43,49,43,43,29,24,54, 3,28,54		3,12,15,17, 1	
		1,25,49,10,24, 1,58,16		6,17
38″	43,49,45, 9,18,35,18, 5,27,10		3,12,15,23,18	
		1,25,49, 7,11,46,34,58		6,17
40″	43,49,46,35, 7,42,29,52, 2, 8		3,12,15,29,35	
		1,25,49, 3,59,31, 5,23		6,17
42″	43,49,48, 0,56,46,29,23, 7,31		3,12,15,35,52	
		1,25,49, 0,47,15,29,31		6,17
44″	43,49,49,26,45,47,16,38,37, 2		3,12,15,42, 9	
		1,25,48,57,34,59,47,22		6,17
46″	43,49,50,52,34,44,51,38,24,24		3,12,15,48,26	
		1,25,48,54,22,43,58,56		6,17
48″	43,49,52,18,23,39,14,22,23,20		3,12,15,54,43	
		1,25,48,51,10,28, 4,13		6,17
50″	43,49,53,44,12,30,24,50,27,33		3,12,16, 1, 0	
		1,25,48,47,58,12, 3,13		6,17
52″	43,49,55,10, 1,18,23, 2,30,46		3,12,16, 7,17	
		1,25,48,44,45,55,55,56		6,17
54″	43,49,56,35,50, 3, 8,58,26,42		3,12,16,13,34	
		1,25,48,41,33,39,42,22		6,17
56″	43,49,58, 1,38,44,42,38, 9, 4		3,12,16,19,51	
		1,25,48,38,21,23,22,31		6,17
58″	43,49,59,27,27,23, 4, 1,31,35		3,12,16,26, 8	
		1,25,48,35, 9, 6,56,23		
60″	43,50, 0,53,15,58,13, 8,27,58			
exact	43,50, 0,53,15,58,13, 9, 5, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°56′ 0″	43,50, 0,53,15,58,13, 9, 5, 9			
		1,25,48,31,56,50,27,56		
2″	43,50, 2,19, 4,30, 9,59,33, 5		3,12,16,38,25	
		1,25,48,28,44,33,49,31		6,16
4″	43,50, 3,44,52,58,54,33,22,36		3,12,16,44,41	
		1,25,48,25,32,17, 4,50		6,16
6″	43,50, 5,10,41,24,26,50,27,26		3,12,16,50,57	
		1,25,48,22,20, 0,13,53		6,16
8″	43,50, 6,36,29,46,46,50,41,19		3,12,16,57,13	
		1,25,48,19, 7,43,16,40		6,16
10″	43,50, 8, 2,18, 5,54,33,57,59		3,12,17, 3,29	
		1,25,48,15,55,26,13,11		6,16
12″	43,50, 9,28, 6,21,50, 0,11,10		3,12,17, 9,45	
		1,25,48,12,43, 9, 3,26		6,16
14″	43,50,10,53,54,34,33, 9,14,36		3,12,17,16, 1	
		1,25,48, 9,30,51,47,25		6,16
16″	43,50,12,19,42,44, 4, 1, 2, 1		3,12,17,22,17	
		1,25,48, 6,18,34,25, 8		6,16
18″	43,50,13,45,30,50,22,35,27, 9		3,12,17,28,33	
		1,25,48, 3, 6,16,56,35		6,16
20″	43,50,15,11,18,53,28,52,23,44		3,12,17,34,49	
		1,25,47,59,53,59,21,46		6,16
22″	43,50,16,37, 6,53,22,51,45,30		3,12,17,41, 5	
		1,25,47,56,41,41,40,41		6,16
24″	43,50,18, 2,54,50, 4,33,26,11		3,12,17,47,21	
		1,25,47,53,29,23,53,20		6,16
26″	43,50,19,28,42,43,33,57,19,31		3,12,17,53,37	
		1,25,47,50,17, 5,59,43		6,16
28″	43,50,20,54,30,33,51, 3,19,14		3,12,17,59,53	
		1,25,47,47, 4,47,59,50		6,16
30″	43,50,22,20,18,20,55,51,19, 4		3,12,18, 6, 9	
		1,25,47,43,52,29,53,41		6,16
32″	43,50,23,46, 6, 4,48,21,12,45		3,12,18,12,25	
		1,25,47,40,40,11,41,16		6,16
34″	43,50,25,11,53,45,28,32,54, 1		3,12,18,18,41	
		1,25,47,37,27,53,22,35		6,16
36″	43,50,26,37,41,22,56,26,16,36		3,12,18,24,57	
		1,25,47,34,15,34,57,38		6,16
38″	43,50,28, 3,28,57,12, 1,14,14		3,12,18,31,13	
		1,25,47,31, 3,16,26,25		6,16
40″	43,50,29,29,16,28,15,17,40,39		3,12,18,37,29	
		1,25,47,27,50,57,48,56		6,16
42″	43,50,30,55, 3,56, 6,15,29,35		3,12,18,43,45	
		1,25,47,24,38,39, 5,11		6,16
44″	43,50,32,20,51,20,44,54,34,46		3,12,18,50, 1	
		1,25,47,21,26,20,15,10		6,16
46″	43,50,33,46,38,42,11,14,49,56		3,12,18,56,17	
		1,25,47,18,14, 1,18,53		6,16
48″	43,50,35,12,26, 0,25,16, 8,49		3,12,19, 2,33	
		1,25,47,15, 1,42,16,20		6,16
50″	43,50,36,38,13,15,26,58,25, 9		3,12,19, 8,49	
		1,25,47,11,49,23, 7,31		6,16
52″	43,50,38, 4, 0,27,16,21,32,40		3,12,19,15, 5	
		1,25,47, 8,37, 3,52,26		6,16
54″	43,50,39,29,47,35,53,25,25, 6		3,12,19,21,21	
		1,25,47, 5,24,44,31, 5		6,16
56″	43,50,40,55,34,41,18, 9,56,11		3,12,19,27,37	
		1,25,47, 2,12,25, 3,28		6,16
58″	43,50,42,21,21,43,30,34,59,39		3,12,19,33,53	
		1,25,46,59, 0, 5,29,35		
60″	43,50,43,47, 8,42,30,40,29,14			
exact	43,50,43,47, 8,42,30,40, 1,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°57′ 0″	43,50,43,47, 8,42,30,40, 1,18			
		1,25,46,55,47,45,46,38		
2″	43,50,45,12,55,38,18,25,47,56		3,12,19,46,36	
		1,25,46,52,35,26, 0, 2		6,16
4″	43,50,46,38,42,30,53,51,47,58		3,12,19,52,52	
		1,25,46,49,23, 6, 7,10		6,16
6″	43,50,48, 4,29,20,16,57,55, 8		3,12,19,59, 8	
		1,25,46,46,10,46, 8, 2		6,16
8″	43,50,49,30,16, 6,27,44, 3,10		3,12,20, 5,24	
		1,25,46,42,58,26, 2,38		6,16
10″	43,50,50,56, 2,49,26,10, 5,48		3,12,20,11,40	
		1,25,46,39,46, 5,50,58		6,16
12″	43,50,52,21,49,29,12,15,56,46		3,12,20,17,56	
		1,25,46,36,33,45,33, 2		6,16
14″	43,50,53,47,36, 5,46, 1,29,48		3,12,20,24,12	
		1,25,46,33,21,25, 8,50		6,16
16″	43,50,55,13,22,39, 7,26,38,38		3,12,20,30,28	
		1,25,46,30, 9, 4,38,22		6,16
18″	43,50,56,39, 9, 9,16,31,17, 0		3,12,20,36,44	
		1,25,46,26,56,44, 1,38		6,16
20″	43,50,58, 4,55,36,13,15,18,38		3,12,20,43, 0	
		1,25,46,23,44,23,18,38		6,16
22″	43,50,59,30,41,59,57,38,37,16		3,12,20,49,16	
		1,25,46,20,32, 2,29,22		6,16
24″	43,51, 0,56,28,20,29,41, 6,38		3,12,20,55,32	
		1,25,46,17,19,41,33,50		6,16
26″	43,51, 2,22,14,37,49,22,40,28		3,12,21, 1,48	
		1,25,46,14, 7,20,32, 2		6,16
28″	43,51, 3,48, 0,51,56,43,12,30		3,12,21, 8, 4	
		1,25,46,10,54,59,23,58		6,16
30″	43,51, 5,13,47, 2,51,42,36,28		3,12,21,14,20	
		1,25,46, 7,42,38, 9,38		6,16
32″	43,51, 6,39,33,10,34,20,46, 6		3,12,21,20,36	
		1,25,46, 4,30,16,49, 2		6,16
34″	43,51, 8, 5,19,15, 4,37,35, 8		3,12,21,26,52	
		1,25,46, 1,17,55,22,10		6,16
36″	43,51, 9,31, 5,16,22,32,57,18		3,12,21,33, 8	
		1,25,45,58, 5,33,49, 2		6,16
38″	43,51,10,56,51,14,28, 6,46,20		3,12,21,39,24	
		1,25,45,54,53,12, 9,38		6,16
40″	43,51,12,22,37, 9,21,18,55,58		3,12,21,45,40	
		1,25,45,51,40,50,23,58		6,16
42″	43,51,13,48,23, 1, 2, 9,19,56		3,12,21,51,56	
		1,25,45,48,28,28,32, 2		6,16
44″	43,51,15,14, 8,49,30,37,51,58		3,12,21,58,12	
		1,25,45,45,16, 6,33,50		6,16
46″	43,51,16,39,54,34,46,44,25,48		3,12,22, 4,28	
		1,25,45,42, 3,44,29,22		6,16
48″	43,51,18, 5,40,16,50,28,55,10		3,12,22,10,44	
		1,25,45,38,51,22,18,38		6,16
50″	43,51,19,31,25,55,41,51,13,48		3,12,22,17, 0	
		1,25,45,35,39, 0, 1,38		6,16
52″	43,51,20,57,11,31,20,51,15,26		3,12,22,23,16	
		1,25,45,32,26,37,38,22		6,16
54″	43,51,22,22,57, 3,47,28,53,48		3,12,22,29,32	
		1,25,45,29,14,15, 8,50		6,16
56″	43,51,23,48,42,33, 1,44, 2,38		3,12,22,35,48	
		1,25,45,26, 1,52,33, 2		6,16
58″	43,51,25,14,27,59, 3,36,35,40		3,12,22,42, 4	
		1,25,45,22,49,29,50,58		
60″	43,51,26,40,13,21,53, 6,26,38			
exact	43,51,26,40,13,21,53, 6,12,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°58′ 0″	43,51,26,40,13,21,53, 6,12,50			
		1,25,45,19,37, 7, 1, 6		
2″	43,51,28, 5,58,41,30,13,13,56		3,12,22,54,42	
		1,25,45,16,24,44, 6,24		6,16
4″	43,51,29,31,43,57,54,57,20,20		3,12,23, 0,58	
		1,25,45,13,12,21, 5,26		6,16
6″	43,51,30,57,29,11, 7,18,25,46		3,12,23, 7,14	
		1,25,45, 9,59,57,58,12		6,16
8″	43,51,32,23,14,21, 7,16,23,58		3,12,23,13,30	
		1,25,45, 6,47,34,44,42		6,16
10″	43,51,33,48,59,27,54,51, 8,40		3,12,23,19,46	
		1,25,45, 3,35,11,24,56		6,16
12″	43,51,35,14,44,31,30, 2,33,36		3,12,23,26, 2	
		1,25,45, 0,22,47,58,54		6,16
14″	43,51,36,40,29,31,52,50,32,30		3,12,23,32,18	
		1,25,44,57,10,24,26,36		6,16
16″	43,51,38, 6,14,29, 3,14,59, 6		3,12,23,38,34	
		1,25,44,53,58, 0,48, 2		6,16
18″	43,51,39,31,59,23, 1,15,47, 8		3,12,23,44,50	
		1,25,44,50,45,37, 3,12		6,16
20″	43,51,40,57,44,13,46,52,50,20		3,12,23,51, 6	
		1,25,44,47,33,13,12, 6		6,16
22″	43,51,42,23,29, 1,20, 6, 2,26		3,12,23,57,22	
		1,25,44,44,20,49,14,44		6,16
24″	43,51,43,49,13,45,40,55,17,10		3,12,24, 3,38	
		1,25,44,41, 8,25,11, 6		6,16
26″	43,51,45,14,58,26,49,20,28,16		3,12,24, 9,54	
		1,25,44,37,56, 1, 1,12		6,16
28″	43,51,46,40,43, 4,45,21,29,28		3,12,24,16,10	
		1,25,44,34,43,36,45, 2		6,16
30″	43,51,48, 6,27,39,28,58,14,30		3,12,24,22,26	
		1,25,44,31,31,12,22,36		6,16
32″	43,51,49,32,12,11, 0,10,37, 6		3,12,24,28,42	
		1,25,44,28,18,47,53,54		6,16
34″	43,51,50,57,56,39,18,58,31, 0		3,12,24,34,58	
		1,25,44,25, 6,23,18,56		6,16
36″	43,51,52,23,41, 4,25,21,49,56		3,12,24,41,14	
		1,25,44,21,53,58,37,42		6,16
38″	43,51,53,49,25,26,19,20,27,38		3,12,24,47,30	
		1,25,44,18,41,33,50,12		6,16
40″	43,51,55,15, 9,45, 0,54,17,50		3,12,24,53,46	
		1,25,44,15,29, 8,56,26		6,16
42″	43,51,56,40,54, 0,30, 3,14,16		3,12,25, 0, 2	
		1,25,44,12,16,43,56,24		6,16
44″	43,51,58, 6,38,12,46,47,10,40		3,12,25, 6,18	
		1,25,44, 9, 4,18,50, 6		6,16
46″	43,51,59,32,22,21,51, 6, 0,46		3,12,25,12,34	
		1,25,44, 5,51,53,37,32		6,16
48″	43,52, 0,58, 6,27,42,59,38,18		3,12,25,18,50	
		1,25,44, 2,39,28,18,42		6,16
50″	43,52, 2,23,50,30,22,27,57, 0		3,12,25,25, 6	
		1,25,43,59,27, 2,53,36		6,16
52″	43,52, 3,49,34,29,49,30,50,36		3,12,25,31,22	
		1,25,43,56,14,37,22,14		6,16
54″	43,52, 5,15,18,26, 4, 8,12,50		3,12,25,37,38	
		1,25,43,53, 2,11,44,36		6,16
56″	43,52, 6,41, 2,19, 6,19,57,26		3,12,25,43,54	
		1,25,43,49,49,46, 0,42		6,16
58″	43,52, 8, 6,46, 8,56, 5,58, 8		3,12,25,50,10	
		1,25,43,46,37,20,10,32		
60″	43,52, 9,32,29,55,33,26, 8,40			
exact	43,52, 9,32,29,55,33,25,58, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
46°59′ 0″	43,52, 9,32,29,55,33,25,58, 2			
		1,25,43,43,24,54,13, 5		
2″	43,52,10,58,13,38,58,20,11, 7		3,12,26, 2,45	
		1,25,43,40,12,28,10,20		6,16
4″	43,52,12,23,57,19,10,48,21,27		3,12,26, 9, 1	
		1,25,43,37, 0, 2, 1,19		6,16
6″	43,52,13,49,40,56,10,50,22,46		3,12,26,15,17	
		1,25,43,33,47,35,46, 2		6,16
8″	43,52,15,15,24,29,58,26, 8,48		3,12,26,21,33	
		1,25,43,30,35, 9,24,29		6,16
10″	43,52,16,41, 8, 0,33,35,33,17		3,12,26,27,49	
		1,25,43,27,22,42,56,40		6,16
12″	43,52,18, 6,51,27,56,18,29,57		3,12,26,34, 5	
		1,25,43,24,10,16,22,35		6,16
14″	43,52,19,32,34,52, 6,34,52,32		3,12,26,40,21	
		1,25,43,20,57,49,42,14		6,16
16″	43,52,20,58,18,13, 4,24,34,46		3,12,26,46,37	
		1,25,43,17,45,22,55,37		6,16
18″	43,52,22,24, 1,30,49,47,30,23		3,12,26,52,53	
		1,25,43,14,32,56, 2,44		6,16
20″	43,52,23,49,44,45,22,43,33, 7		3,12,26,59, 9	
		1,25,43,11,20,29, 3,35		6,16
22″	43,52,25,15,27,56,43,12,36,42		3,12,27, 5,25	
		1,25,43, 8, 8, 1,58,10		6,16
24″	43,52,26,41,11, 4,51,14,34,52		3,12,27,11,41	
		1,25,43, 4,55,34,46,29		6,16
26″	43,52,28, 6,54, 9,46,49,21,21		3,12,27,17,57	
		1,25,43, 1,43, 7,28,32		6,16
28″	43,52,29,32,37,11,29,56,49,53		3,12,27,24,13	
		1,25,42,58,30,40, 4,19		6,16
30″	43,52,30,58,20,10, 0,36,54,12		3,12,27,30,29	
		1,25,42,55,18,12,33,50		6,16
32″	43,52,32,24, 3, 5,18,49,28, 2		3,12,27,36,45	
		1,25,42,52, 5,44,57, 5		6,16
34″	43,52,33,49,45,57,24,34,25, 7		3,12,27,43, 1	
		1,25,42,48,53,17,14, 4		6,16
36″	43,52,35,15,28,46,17,51,39,11		3,12,27,49,17	
		1,25,42,45,40,49,24,47		6,16
38″	43,52,36,41,11,31,58,41, 3,58		3,12,27,55,33	
		1,25,42,42,28,21,29,14		6,16
40″	43,52,38, 6,54,14,27, 2,33,12		3,12,28, 1,49	
		1,25,42,39,15,53,27,25		6,16
42″	43,52,39,32,36,53,42,56, 0,37		3,12,28, 8, 5	
		1,25,42,36, 3,25,19,20		6,16
44″	43,52,40,58,19,29,46,21,19,57		3,12,28,14,21	
		1,25,42,32,50,57, 4,59		6,16
46″	43,52,42,24, 2, 2,37,18,24,56		3,12,28,20,37	
		1,25,42,29,38,28,44,22		6,16
48″	43,52,43,49,44,32,15,47, 9,18		3,12,28,26,53	
		1,25,42,26,26, 0,17,29		6,16
50″	43,52,45,15,26,58,41,47,26,47		3,12,28,33, 9	
		1,25,42,23,13,31,44,20		6,16
52″	43,52,46,41, 9,21,55,19,11, 7		3,12,28,39,25	
		1,25,42,20, 1, 3, 4,55		6,16
54″	43,52,48, 6,51,41,56,22,16, 2		3,12,28,45,41	
		1,25,42,16,48,34,19,14		6,16
56″	43,52,49,32,33,58,44,56,35,16		3,12,28,51,57	
		1,25,42,13,36, 5,27,17		6,16
58″	43,52,50,58,16,12,21, 2, 2,33		3,12,28,58,13	
		1,25,42,10,23,36,29, 4		
60″	43,52,52,23,58,22,44,38,31,37			
exact	43,52,52,23,58,22,44,38,27,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47° 0′ 0″	43,52,52,23,58,22,44,38,27,54	1,25,42, 7,11, 7,24,21		
2″	43,52,53,49,40,29,55,45,52,15	1,25,42, 3,58,38,13,36	3,12,29,10,45	6,16
4″	43,52,55,15,22,33,54,24, 5,51	1,25,42, 0,46, 8,56,35	3,12,29,17, 1	6,16
6″	43,52,56,41, 4,34,40,33, 2,26	1,25,41,57,33,39,33,18	3,12,29,23,17	6,16
8″	43,52,58, 6,46,32,14,12,35,44	1,25,41,54,21,10, 3,45	3,12,29,29,33	6,16
10″	43,52,59,32,28,26,35,22,39,29	1,25,41,51, 8,40,27,56	3,12,29,35,49	6,16
12″	43,53, 0,58,10,17,44, 3, 7,25	1,25,41,47,56,10,45,51	3,12,29,42, 5	6,16
14″	43,53, 2,23,52, 5,40,13,53,16	1,25,41,44,43,40,57,30	3,12,29,48,21	6,16
16″	43,53, 3,49,33,50,23,54,50,46	1,25,41,41,31,11, 2,53	3,12,29,54,37	6,16
18″	43,53, 5,15,15,31,55, 5,53,39	1,25,41,38,18,41, 2, 0	3,12,30, 0,53	6,16
20″	43,53, 6,40,57,10,13,46,55,39	1,25,41,35, 6,10,54,51	3,12,30, 7, 9	6,16
22″	43,53, 8, 6,38,45,19,57,50,30	1,25,41,31,53,40,41,26	3,12,30,13,25	6,16
24″	43,53, 9,32,20,17,13,38,31,56	1,25,41,28,41,10,21,45	3,12,30,19,41	6,16
26″	43,53,10,58, 1,45,54,48,53,41	1,25,41,25,28,39,55,48	3,12,30,25,57	6,16
28″	43,53,12,23,43,11,23,28,49,29	1,25,41,22,16, 9,23,35	3,12,30,32,13	6,16
30″	43,53,13,49,24,33,39,38,13, 4	1,25,41,19, 3,38,45, 6	3,12,30,38,29	6,16
32″	43,53,15,15, 5,52,43,16,58,10	1,25,41,15,51, 8, 0,21	3,12,30,44,45	6,16
34″	43,53,16,40,47, 8,34,24,58,31	1,25,41,12,38,37, 9,20	3,12,30,51, 1	6,16
36″	43,53,18, 6,28,21,13, 2, 7,51	1,25,41, 9,26, 6,12, 3	3,12,30,57,17	6,16
38″	43,53,19,32, 9,30,39, 8,19,54	1,25,41, 6,13,35, 8,30	3,12,31, 3,33	6,16
40″	43,53,20,57,50,36,52,43,28,24	1,25,41, 3, 1, 3,58,41	3,12,31, 9,49	6,16
42″	43,53,22,23,31,39,53,47,27, 5	1,25,40,59,48,32,42,36	3,12,31,16, 5	6,16
44″	43,53,23,49,12,39,42,20, 9,41	1,25,40,56,36, 1,20,15	3,12,31,22,21	6,16
46″	43,53,25,14,53,36,18,21,29,56	1,25,40,53,23,29,51,38	3,12,31,28,37	6,16
48″	43,53,26,40,34,29,41,51,21,34	1,25,40,50,10,58,16,45	3,12,31,34,53	6,16
50″	43,53,28, 6,15,19,52,49,38,19	1,25,40,46,58,26,35,36	3,12,31,41, 9	6,16
52″	43,53,29,31,56, 6,51,16,13,55	1,25,40,43,45,54,48,11	3,12,31,47,25	6,16
54″	43,53,30,57,36,50,37,11, 2, 6	1,25,40,40,33,22,54,30	3,12,31,53,41	6,16
56″	43,53,32,23,17,31,10,33,56,36	1,25,40,37,20,50,54,33	3,12,31,59,57	6,16
58″	43,53,33,48,58, 8,31,24,51, 9	1,25,40,34, 8,18,48,20	3,12,32, 6,13	
60″	43,53,35,14,38,42,39,43,39,29			
exact	43,53,35,14,38,42,39,43,46,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47° 1′ 0″	43,53,35,14,38,42,39,43,46,14			
		1,25,40,30,55,46,36,39		
2″	43,53,36,40,19,13,35,30,22,53		3,12,32,18,41	
		1,25,40,27,43,14,17,58		6,16
4″	43,53,38, 5,59,41,18,44,40,51		3,12,32,24,57	
		1,25,40,24,30,41,53, 1		6,16
6″	43,53,39,31,40, 5,49,26,33,52		3,12,32,31,13	
		1,25,40,21,18, 9,21,48		6,16
8″	43,53,40,57,20,27, 7,35,55,40		3,12,32,37,29	
		1,25,40,18, 5,36,44,19		6,16
10″	43,53,42,23, 0,45,13,12,39,59		3,12,32,43,45	
		1,25,40,14,53, 4, 0,34		6,16
12″	43,53,43,48,41, 0, 6,16,40,33		3,12,32,50, 1	
		1,25,40,11,40,31,10,33		6,16
14″	43,53,45,14,21,11,46,47,51, 6		3,12,32,56,17	
		1,25,40, 8,27,58,14,16		6,16
16″	43,53,46,40, 1,20,14,46, 5,22		3,12,33, 2,33	
		1,25,40, 5,15,25,11,43		6,16
18″	43,53,48, 5,41,25,30,11,17, 5		3,12,33, 8,49	
		1,25,40, 2, 2,52, 2,54		6,16
20″	43,53,49,31,21,27,33, 3,19,59		3,12,33,15, 5	
		1,25,39,58,50,18,47,49		6,16
22″	43,53,50,57, 1,26,23,22, 7,48		3,12,33,21,21	
		1,25,39,55,37,45,26,28		6,16
24″	43,53,52,22,41,22, 1, 7,34,16		3,12,33,27,37	
		1,25,39,52,25,11,58,51		6,16
26″	43,53,53,48,21,14,26,19,33, 7		3,12,33,33,53	
		1,25,39,49,12,38,24,58		6,16
28″	43,53,55,14, 1, 3,38,57,58, 5		3,12,33,40, 9	
		1,25,39,46, 0, 4,44,49		6,16
30″	43,53,56,39,40,49,39, 2,42,54		3,12,33,46,25	
		1,25,39,42,47,30,58,24		6,16
32″	43,53,58, 5,20,32,26,33,41,18		3,12,33,52,41	
		1,25,39,39,34,57, 5,43		6,16
34″	43,53,59,31, 0,12, 1,30,47, 1		3,12,33,58,57	
		1,25,39,36,22,23, 6,46		6,16
36″	43,54, 0,56,39,48,23,53,53,47		3,12,34, 5,13	
		1,25,39,33, 9,49, 1,33		6,16
38″	43,54, 2,22,19,21,33,42,55,20		3,12,34,11,29	
		1,25,39,29,57,14,50, 4		6,16
40″	43,54, 3,47,58,51,30,57,45,24		3,12,34,17,45	
		1,25,39,26,44,40,32,19		6,16
42″	43,54, 5,13,38,18,15,38,17,43		3,12,34,24, 1	
		1,25,39,23,32, 6, 8,18		6,16
44″	43,54, 6,39,17,41,47,44,26, 1		3,12,34,30,17	
		1,25,39,20,19,31,38, 1		6,16
46″	43,54, 8, 4,57, 2, 7,16, 4, 2		3,12,34,36,33	
		1,25,39,17, 6,57, 1,28		6,16
48″	43,54, 9,30,36,19,14,13, 5,30		3,12,34,42,49	
		1,25,39,13,54,22,18,39		6,16
50″	43,54,10,56,15,33, 8,35,24, 9		3,12,34,49, 5	
		1,25,39,10,41,47,29,34		6,16
52″	43,54,12,21,54,43,50,22,53,43		3,12,34,55,21	
		1,25,39, 7,29,12,34,13		6,16
54″	43,54,13,47,33,51,19,35,27,56		3,12,35, 1,37	
		1,25,39, 4,16,37,32,36		6,16
56″	43,54,15,13,12,55,36,13, 0,32		3,12,35, 7,53	
		1,25,39, 1, 4, 2,24,43		6,16
58″	43,54,16,38,51,56,40,15,25,15		3,12,35,14, 9	
		1,25,38,57,51,27,10,34		
60″	43,54,18, 4,30,54,31,42,35,49			
exact	43,54,18, 4,30,54,31,42,49,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47° 2′ 0″	43,54,18, 4,30,54,31,42,49,34			
		1,25,38,54,38,51,51,44		
2″	43,54,19,30, 9,49,10,34,41,18		3,12,35,26,34	
		1,25,38,51,26,16,25,10		6,16
4″	43,54,20,55,48,40,36,51, 6,28		3,12,35,32,50	
		1,25,38,48,13,40,52,20		6,16
6″	43,54,22,21,27,28,50,31,58,48		3,12,35,39, 6	
		1,25,38,45, 1, 5,13,14		6,16
8″	43,54,23,47, 6,13,51,37,12, 2		3,12,35,45,22	
		1,25,38,41,48,29,27,52		6,16
10″	43,54,25,12,44,55,40, 6,39,54		3,12,35,51,38	
		1,25,38,38,35,53,36,14		6,16
12″	43,54,26,38,23,34,16, 0,16, 8		3,12,35,57,54	
		1,25,38,35,23,17,38,20		6,16
14″	43,54,28, 4, 2, 9,39,17,54,28		3,12,36, 4,10	
		1,25,38,32,10,41,34,10		6,16
16″	43,54,29,29,40,41,49,59,28,38		3,12,36,10,26	
		1,25,38,28,58, 5,23,44		6,16
18″	43,54,30,55,19,10,48, 4,52,22		3,12,36,16,42	
		1,25,38,25,45,29, 7, 2		6,16
20″	43,54,32,20,57,36,33,33,59,24		3,12,36,22,58	
		1,25,38,22,32,52,44, 4		6,16
22″	43,54,33,46,35,59, 6,26,43,28		3,12,36,29,14	
		1,25,38,19,20,16,14,50		6,16
24″	43,54,35,12,14,18,26,42,58,18		3,12,36,35,30	
		1,25,38,16, 7,39,39,20		6,16
26″	43,54,36,37,52,34,34,22,37,38		3,12,36,41,46	
		1,25,38,12,55, 2,57,34		6,16
28″	43,54,38, 3,30,47,29,25,35,12		3,12,36,48, 2	
		1,25,38, 9,42,26, 9,32		6,16
30″	43,54,39,29, 8,57,11,51,44,44		3,12,36,54,18	
		1,25,38, 6,29,49,15,14		6,16
32″	43,54,40,54,47, 3,41,40,59,58		3,12,37, 0,34	
		1,25,38, 3,17,12,14,40		6,16
34″	43,54,42,20,25, 6,58,53,14,38		3,12,37, 6,50	
		1,25,38, 0, 4,35, 7,50		6,16
36″	43,54,43,46, 3, 7, 3,28,22,28		3,12,37,13, 6	
		1,25,37,56,51,57,54,44		6,16
38″	43,54,45,11,41, 3,55,26,17,12		3,12,37,19,22	
		1,25,37,53,39,20,35,22		6,16
40″	43,54,46,37,18,57,34,46,52,34		3,12,37,25,38	
		1,25,37,50,26,43, 9,44		6,16
42″	43,54,48, 2,56,48, 1,30, 2,18		3,12,37,31,54	
		1,25,37,47,14, 5,37,50		6,16
44″	43,54,49,28,34,35,15,35,40, 8		3,12,37,38,10	
		1,25,37,44, 1,27,59,40		6,16
46″	43,54,50,54,12,19,17, 3,39,48		3,12,37,44,26	
		1,25,37,40,48,50,15,14		6,16
48″	43,54,52,19,50, 0, 5,53,55, 2		3,12,37,50,42	
		1,25,37,37,36,12,24,32		6,16
50″	43,54,53,45,27,37,42, 6,19,34		3,12,37,56,58	
		1,25,37,34,23,34,27,34		6,16
52″	43,54,55,11, 5,12, 5,40,47, 8		3,12,38, 3,14	
		1,25,37,31,10,56,24,20		6,16
54″	43,54,56,36,42,43,16,37,11,28		3,12,38, 9,30	
		1,25,37,27,58,18,14,50		6,16
56″	43,54,58, 2,20,11,14,55,26,18		3,12,38,15,46	
		1,25,37,24,45,39,59, 4		6,16
58″	43,54,59,27,57,36, 0,35,25,22		3,12,38,22, 2	
		1,25,37,21,33, 1,37, 2		
60″	43,55, 0,53,34,57,33,37, 2,24			
exact	43,55, 0,53,34,57,33,37,27,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47° 3′ 0″	43,55, 0,53,34,57,33,37,27,15			
		1,25,37,18,20,23,11,23		
2″	43,55, 2,19,12,15,54, 0,38,38		3,12,38,34,23	
		1,25,37,15, 7,44,37, 0		6,16
4″	43,55, 3,44,49,31, 1,45,15,38		3,12,38,40,39	
		1,25,37,11,55, 5,56,21		6,16
6″	43,55, 5,10,26,42,56,51,11,59		3,12,38,46,55	
		1,25,37, 8,42,27, 9,26		6,16
8″	43,55, 6,36, 3,51,39,18,21,25		3,12,38,53,11	
		1,25,37, 5,29,48,16,15		6,16
10″	43,55, 8, 1,40,57, 9, 6,37,40		3,12,38,59,27	
		1,25,37, 2,17, 9,16,48		6,16
12″	43,55, 9,27,17,59,26,15,54,28		3,12,39, 5,43	
		1,25,36,59, 4,30,11, 5		6,16
14″	43,55,10,52,54,58,30,46, 5,33		3,12,39,11,59	
		1,25,36,55,51,50,59, 6		6,16
16″	43,55,12,18,31,54,22,37, 4,39		3,12,39,18,15	
		1,25,36,52,39,11,40,51		6,16
18″	43,55,13,44, 8,47, 1,48,45,30		3,12,39,24,31	
		1,25,36,49,26,32,16,20		6,16
20″	43,55,15, 9,45,36,28,21, 1,50		3,12,39,30,47	
		1,25,36,46,13,52,45,33		6,16
22″	43,55,16,35,22,22,42,13,47,23		3,12,39,37, 3	
		1,25,36,43, 1,13, 8,30		6,16
24″	43,55,18, 0,59, 5,43,26,55,53		3,12,39,43,19	
		1,25,36,39,48,33,25,11		6,16
26″	43,55,19,26,35,45,32, 0,21, 4		3,12,39,49,35	
		1,25,36,36,35,53,35,36		6,16
28″	43,55,20,52,12,22, 7,53,56,40		3,12,39,55,51	
		1,25,36,33,23,13,39,45		6,16
30″	43,55,22,17,48,55,31, 7,36,25		3,12,40, 2, 7	
		1,25,36,30,10,33,37,38		6,16
32″	43,55,23,43,25,25,41,41,14, 3		3,12,40, 8,23	
		1,25,36,26,57,53,29,15		6,16
34″	43,55,25, 9, 1,52,39,34,43,18		3,12,40,14,39	
		1,25,36,23,45,13,14,36		6,16
36″	43,55,26,34,38,16,24,47,57,54		3,12,40,20,55	
		1,25,36,20,32,32,53,41		6,16
38″	43,55,28, 0,14,36,57,20,51,35		3,12,40,27,11	
		1,25,36,17,19,52,26,30		6,16
40″	43,55,29,25,50,54,17,13,18, 5		3,12,40,33,27	
		1,25,36,14, 7,11,53, 3		6,16
42″	43,55,30,51,27, 8,24,25,11, 8		3,12,40,39,43	
		1,25,36,10,54,31,13,20		6,16
44″	43,55,32,17, 3,19,18,56,24,28		3,12,40,45,59	
		1,25,36, 7,41,50,27,21		6,16
46″	43,55,33,42,39,27, 0,46,51,49		3,12,40,52,15	
		1,25,36, 4,29, 9,35, 6		6,16
48″	43,55,35, 8,15,31,29,56,26,55		3,12,40,58,31	
		1,25,36, 1,16,28,36,35		6,16
50″	43,55,36,33,51,32,46,25, 3,30		3,12,41, 4,47	
		1,25,35,58, 3,47,31,48		6,16
52″	43,55,37,59,27,30,50,12,35,18		3,12,41,11, 3	
		1,25,35,54,51, 6,20,45		6,16
54″	43,55,39,25, 3,25,41,18,56, 3		3,12,41,17,19	
		1,25,35,51,38,25, 3,26		6,16
56″	43,55,40,50,39,17,19,43,59,29		3,12,41,23,35	
		1,25,35,48,25,43,39,51		6,16
58″	43,55,42,16,15, 5,45,27,39,20		3,12,41,29,51	
		1,25,35,45,13, 2,10, 0		
60″	43,55,43,41,50,50,58,29,49,20			
exact	43,55,43,41,50,50,58,30,21,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47° 4′ 0″	43,55,43,41,50,50,58,30,21,25			
		1,25,35,42, 0,20,37,20		
2″	43,55,45, 7,26,32,58,50,58,45		3,12,41,42, 8	
		1,25,35,38,47,38,55,12		6,15
4″	43,55,46,33, 2,11,46,29,53,57		3,12,41,48,23	
		1,25,35,35,34,57, 6,49		6,15
6″	43,55,47,58,37,47,21,27, 0,46		3,12,41,54,38	
		1,25,35,32,22,15,12,11		6,15
8″	43,55,49,24,13,19,43,42,12,57		3,12,42, 0,53	
		1,25,35,29, 9,33,11,18		6,15
10″	43,55,50,49,48,48,53,15,24,15		3,12,42, 7, 8	
		1,25,35,25,56,51, 4,10		6,15
12″	43,55,52,15,24,14,50, 6,28,25		3,12,42,13,23	
		1,25,35,22,44, 8,50,47		6,15
14″	43,55,53,40,59,37,34,15,19,12		3,12,42,19,38	
		1,25,35,19,31,26,31, 9		6,15
16″	43,55,55, 6,34,57, 5,41,50,21		3,12,42,25,53	
		1,25,35,16,18,44, 5,16		6,15
18″	43,55,56,32,10,13,24,25,55,37		3,12,42,32, 8	
		1,25,35,13, 6, 1,33, 8		6,15
20″	43,55,57,57,45,26,30,27,28,45		3,12,42,38,23	
		1,25,35, 9,53,18,54,45		6,15
22″	43,55,59,23,20,36,23,46,23,30		3,12,42,44,38	
		1,25,35, 6,40,36,10, 7		6,15
24″	43,56, 0,48,55,43, 4,22,33,37		3,12,42,50,53	
		1,25,35, 3,27,53,19,14		6,15
26″	43,56, 2,14,30,46,32,15,52,51		3,12,42,57, 8	
		1,25,35, 0,15,10,22, 6		6,15
28″	43,56, 3,40, 5,46,47,26,14,57		3,12,43, 3,23	
		1,25,34,57, 2,27,18,43		6,15
30″	43,56, 5, 5,40,43,49,53,33,40		3,12,43, 9,38	
		1,25,34,53,49,44, 9, 5		6,15
32″	43,56, 6,31,15,37,39,37,42,45		3,12,43,15,53	
		1,25,34,50,37, 0,53,12		6,15
34″	43,56, 7,56,50,28,16,38,35,57		3,12,43,22, 8	
		1,25,34,47,24,17,31, 4		6,15
36″	43,56, 9,22,25,15,40,56, 7, 1		3,12,43,28,23	
		1,25,34,44,11,34, 2,41		6,15
38″	43,56,10,47,59,59,52,30, 9,42		3,12,43,34,38	
		1,25,34,40,58,50,28, 3		6,15
40″	43,56,12,13,34,40,51,20,37,45		3,12,43,40,53	
		1,25,34,37,46, 6,47,10		6,15
42″	43,56,13,39, 9,18,37,27,24,55		3,12,43,47, 8	
		1,25,34,34,33,23, 0, 2		6,15
44″	43,56,15, 4,43,53,10,50,24,57		3,12,43,53,23	
		1,25,34,31,20,39, 6,39		6,15
46″	43,56,16,30,18,24,31,29,31,36		3,12,43,59,38	
		1,25,34,28, 7,55, 7, 1		6,15
48″	43,56,17,55,52,52,39,24,38,37		3,12,44, 5,53	
		1,25,34,24,55,11, 1, 8		6,15
50″	43,56,19,21,27,17,34,35,39,45		3,12,44,12, 8	
		1,25,34,21,42,26,49, 0		6,15
52″	43,56,20,47, 1,39,17, 2,28,45		3,12,44,18,23	
		1,25,34,18,29,42,30,37		6,15
54″	43,56,22,12,35,57,46,44,59,22		3,12,44,24,38	
		1,25,34,15,16,58, 5,59		6,15
56″	43,56,23,38,10,13, 3,43, 5,21		3,12,44,30,53	
		1,25,34,12, 4,13,35, 6		6,15
58″	43,56,25, 3,44,25, 7,56,40,27		3,12,44,37, 8	
		1,25,34, 8,51,28,57,58		
60″	43,56,26,29,18,33,59,25,38,25			
exact	43,56,26,29,18,33,59,25, 7, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47° 5′ 0″	43,56,26,29,18,33,59,25, 7, 0			
		1,25,34, 5,38,44,11,22		
2″	43,56,27,54,52,39,38, 9,18,22		3,12,44,49,50	
		1,25,34, 2,25,59,21,32		6,15
4″	43,56,29,20,26,42, 4, 8,39,54		3,12,44,56, 5	
		1,25,33,59,13,14,25,27		6,15
6″	43,56,30,46, 0,41,17,23, 5,21		3,12,45, 2,20	
		1,25,33,56, 0,29,23, 7		6,15
8″	43,56,32,11,34,37,17,52,28,28		3,12,45, 8,35	
		1,25,33,52,47,44,14,32		6,15
10″	43,56,33,37, 8,30, 5,36,43, 0		3,12,45,14,50	
		1,25,33,49,34,58,59,42		6,15
12″	43,56,35, 2,42,19,40,35,42,42		3,12,45,21, 5	
		1,25,33,46,22,13,38,37		6,15
14″	43,56,36,28,16, 6, 2,49,21,19		3,12,45,27,20	
		1,25,33,43, 9,28,11,17		6,15
16″	43,56,37,53,49,49,12,17,32,36		3,12,45,33,35	
		1,25,33,39,56,42,37,42		6,15
18″	43,56,39,19,23,29, 9, 0,10,18		3,12,45,39,50	
		1,25,33,36,43,56,57,52		6,15
20″	43,56,40,44,57, 5,52,57, 8,10		3,12,45,46, 5	
		1,25,33,33,31,11,11,47		6,15
22″	43,56,42,10,30,39,24, 8,19,57		3,12,45,52,20	
		1,25,33,30,18,25,19,27		6,15
24″	43,56,43,36, 4, 9,42,33,39,24		3,12,45,58,35	
		1,25,33,27, 5,39,20,52		6,15
26″	43,56,45, 1,37,36,48,13, 0,16		3,12,46, 4,50	
		1,25,33,23,52,53,16, 2		6,15
28″	43,56,46,27,11, 0,41, 6,16,18		3,12,46,11, 5	
		1,25,33,20,40, 7, 4,57		6,15
30″	43,56,47,52,44,21,21,13,21,15		3,12,46,17,20	
		1,25,33,17,27,20,47,37		6,15
32″	43,56,49,18,17,38,48,34, 8,52		3,12,46,23,35	
		1,25,33,14,14,34,24, 2		6,15
34″	43,56,50,43,50,53, 3, 8,32,54		3,12,46,29,50	
		1,25,33,11, 1,47,54,12		6,15
36″	43,56,52, 9,24, 4, 4,56,27, 6		3,12,46,36, 5	
		1,25,33, 7,49, 1,18, 7		6,15
38″	43,56,53,34,57,11,53,57,45,13		3,12,46,42,20	
		1,25,33, 4,36,14,35,47		6,15
40″	43,56,55, 0,30,16,30,12,21, 0		3,12,46,48,35	
		1,25,33, 1,23,27,47,12		6,15
42″	43,56,56,26, 3,17,53,40, 8,12		3,12,46,54,50	
		1,25,32,58,10,40,52,22		6,15
44″	43,56,57,51,36,16, 4,21, 0,34		3,12,47, 1, 5	
		1,25,32,54,57,53,51,17		6,15
46″	43,56,59,17, 9,11, 2,14,51,51		3,12,47, 7,20	
		1,25,32,51,45, 6,43,57		6,15
48″	43,57, 0,42,42, 2,47,21,35,48		3,12,47,13,35	
		1,25,32,48,32,19,30,22		6,15
50″	43,57, 2, 8,14,51,19,41, 6,10		3,12,47,19,50	
		1,25,32,45,19,32,10,32		6,15
52″	43,57, 3,33,47,36,39,13,16,42		3,12,47,26, 5	
		1,25,32,42, 6,44,44,27		6,15
54″	43,57, 4,59,20,18,45,58, 1, 9		3,12,47,32,20	
		1,25,32,38,53,57,12, 7		6,15
56″	43,57, 6,24,52,57,39,55,13,16		3,12,47,38,35	
		1,25,32,35,41, 9,33,32		6,15
58″	43,57, 7,50,25,33,21, 4,46,48		3,12,47,44,50	
		1,25,32,32,28,21,48,42		
60″	43,57, 9,15,58, 5,49,26,35,30			
exact	43,57, 9,15,58, 5,49,26,11,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47° 6′ 0″	43,57, 9,15,58, 5,49,26,11,48			
		1,25,32,29,15,33,55,14		
2″	43,57,10,41,30,35, 5, 0, 7, 2		3,12,47,57,29	
		1,25,32,26, 2,45,57,45		6,15
4″	43,57,12, 7, 3, 1, 7,46, 4,47		3,12,48, 3,44	
		1,25,32,22,49,57,54, 1		6,15
6″	43,57,13,32,35,23,57,43,58,48		3,12,48, 9,59	
		1,25,32,19,37, 9,44, 2		6,15
8″	43,57,14,58, 7,43,34,53,42,50		3,12,48,16,14	
		1,25,32,16,24,21,27,48		6,15
10″	43,57,16,23,39,59,59,15,10,38		3,12,48,22,29	
		1,25,32,13,11,33, 5,19		6,15
12″	43,57,17,49,12,13,10,48,15,57		3,12,48,28,44	
		1,25,32, 9,58,44,36,35		6,15
14″	43,57,19,14,44,23, 9,32,52,32		3,12,48,34,59	
		1,25,32, 6,45,56, 1,36		6,15
16″	43,57,20,40,16,29,55,28,54, 8		3,12,48,41,14	
		1,25,32, 3,33, 7,20,22		6,15
18″	43,57,22, 5,48,33,28,36,14,30		3,12,48,47,29	
		1,25,32, 0,20,18,32,53		6,15
20″	43,57,23,31,20,33,48,54,47,23		3,12,48,53,44	
		1,25,31,57, 7,29,39, 9		6,15
22″	43,57,24,56,52,30,56,24,26,32		3,12,48,59,59	
		1,25,31,53,54,40,39,10		6,15
24″	43,57,26,22,24,24,51, 5, 5,42		3,12,49, 6,14	
		1,25,31,50,41,51,32,56		6,15
26″	43,57,27,47,56,15,32,56,38,38		3,12,49,12,29	
		1,25,31,47,29, 2,20,27		6,15
28″	43,57,29,13,28, 3, 1,58,59, 5		3,12,49,18,44	
		1,25,31,44,16,13, 1,43		6,15
30″	43,57,30,38,59,47,18,12, 0,48		3,12,49,24,59	
		1,25,31,41, 3,23,36,44		6,15
32″	43,57,32, 4,31,28,21,35,37,32		3,12,49,31,14	
		1,25,31,37,50,34, 5,30		6,15
34″	43,57,33,30, 3, 6,12, 9,43, 2		3,12,49,37,29	
		1,25,31,34,37,44,28, 1		6,15
36″	43,57,34,55,34,40,49,54,11, 3		3,12,49,43,44	
		1,25,31,31,24,54,44,17		6,15
38″	43,57,36,21, 6,12,14,48,55,20		3,12,49,49,59	
		1,25,31,28,12, 4,54,18		6,15
40″	43,57,37,46,37,40,26,53,49,38		3,12,49,56,14	
		1,25,31,24,59,14,58, 4		6,15
42″	43,57,39,12, 9, 5,26, 8,47,42		3,12,50, 2,29	
		1,25,31,21,46,24,55,35		6,15
44″	43,57,40,37,40,27,12,33,43,17		3,12,50, 8,44	
		1,25,31,18,33,34,46,51		6,15
46″	43,57,42, 3,11,45,46, 8,30, 8		3,12,50,14,59	
		1,25,31,15,20,44,31,52		6,15
48″	43,57,43,28,43, 1, 6,53, 2, 0		3,12,50,21,14	
		1,25,31,12, 7,54,10,38		6,15
50″	43,57,44,54,14,13,14,47,12,38		3,12,50,27,29	
		1,25,31, 8,55, 3,43, 9		6,15
52″	43,57,46,19,45,22, 9,50,55,47		3,12,50,33,44	
		1,25,31, 5,42,13, 9,25		6,15
54″	43,57,47,45,16,27,52, 4, 5,12		3,12,50,39,59	
		1,25,31, 2,29,22,29,26		6,15
56″	43,57,49,10,47,30,21,26,34,38		3,12,50,46,14	
		1,25,30,59,16,31,43,12		6,15
58″	43,57,50,36,18,29,37,58,17,50		3,12,50,52,29	
		1,25,30,56, 3,40,50,43		
60″	43,57,52, 1,49,25,41,39, 8,33			
exact	43,57,52, 1,49,25,41,38,56,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47° 7′ 0″	43,57,52, 1,49,25,41,38,56,25			
		1,25,30,52,50,49,50,42		
2″	43,57,53,27,20,18,32,28,47, 7		3,12,51, 5, 4	
		1,25,30,49,37,58,45,38		6,15
4″	43,57,54,52,51, 8,10,27,32,45		3,12,51,11,19	
		1,25,30,46,25, 7,34,19		6,15
6″	43,57,56,18,21,54,35,35, 7, 4		3,12,51,17,34	
		1,25,30,43,12,16,16,45		6,15
8″	43,57,57,43,52,37,47,51,23,49		3,12,51,23,49	
		1,25,30,39,59,24,52,56		6,15
10″	43,57,59, 9,23,17,47,16,16,45		3,12,51,30, 4	
		1,25,30,36,46,33,22,52		6,15
12″	43,58, 0,34,53,54,33,49,39,37		3,12,51,36,19	
		1,25,30,33,33,41,46,33		6,15
14″	43,58, 2, 0,24,28, 7,31,26,10		3,12,51,42,34	
		1,25,30,30,20,50, 3,59		6,15
16″	43,58, 3,25,54,58,28,21,30, 9		3,12,51,48,49	
		1,25,30,27, 7,58,15,10		6,15
18″	43,58, 4,51,25,25,36,19,45,19		3,12,51,55, 4	
		1,25,30,23,55, 6,20, 6		6,15
20″	43,58, 6,16,55,49,31,26, 5,25		3,12,52, 1,19	
		1,25,30,20,42,14,18,47		6,15
22″	43,58, 7,42,26,10,13,40,24,12		3,12,52, 7,34	
		1,25,30,17,29,22,11,13		6,15
24″	43,58, 9, 7,56,27,43, 2,35,25		3,12,52,13,49	
		1,25,30,14,16,29,57,24		6,15
26″	43,58,10,33,26,41,59,32,32,49		3,12,52,20, 4	
		1,25,30,11, 3,37,37,20		6,15
28″	43,58,11,58,56,53, 3,10,10, 9		3,12,52,26,19	
		1,25,30, 7,50,45,11, 1		6,15
30″	43,58,13,24,27, 0,53,55,21,10		3,12,52,32,34	
		1,25,30, 4,37,52,38,27		6,15
32″	43,58,14,49,57, 5,31,47,59,37		3,12,52,38,49	
		1,25,30, 1,24,59,59,38		6,15
34″	43,58,16,15,27, 6,56,47,59,15		3,12,52,45, 4	
		1,25,29,58,12, 7,14,34		6,15
36″	43,58,17,40,57, 5, 8,55,13,49		3,12,52,51,19	
		1,25,29,54,59,14,23,15		6,15
38″	43,58,19, 6,27, 0, 8, 9,37, 4		3,12,52,57,34	
		1,25,29,51,46,21,25,41		6,15
40″	43,58,20,31,56,51,54,31, 2,45		3,12,53, 3,49	
		1,25,29,48,33,28,21,52		6,15
42″	43,58,21,57,26,40,27,59,24,37		3,12,53,10, 4	
		1,25,29,45,20,35,11,48		6,15
44″	43,58,23,22,56,25,48,34,36,25		3,12,53,16,19	
		1,25,29,42, 7,41,55,29		6,15
46″	43,58,24,48,26, 7,56,16,31,54		3,12,53,22,34	
		1,25,29,38,54,48,32,55		6,15
48″	43,58,26,13,55,46,51, 5, 4,49		3,12,53,28,49	
		1,25,29,35,41,55, 4, 6		6,15
50″	43,58,27,39,25,22,33, 0, 8,55		3,12,53,35, 4	
		1,25,29,32,29, 1,29, 2		6,15
52″	43,58,29, 4,54,55, 2, 1,37,57		3,12,53,41,19	
		1,25,29,29,16, 7,47,43		6,15
54″	43,58,30,30,24,24,18, 9,25,40		3,12,53,47,34	
		1,25,29,26, 3,14, 0, 9		6,15
56″	43,58,31,55,53,50,21,23,25,49		3,12,53,53,49	
		1,25,29,22,50,20, 6,20		6,15
58″	43,58,33,21,23,13,11,43,32, 9		3,12,54, 0, 4	
		1,25,29,19,37,26, 6,16		
60″	43,58,34,46,52,32,49, 9,38,25			
exact	43,58,34,46,52,32,49, 9,34,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47° 8′ 0″	43,58,34,46,52,32,49, 9,34,19			
		1,25,29,16,24,31,59,32		
2″	43,58,36,12,21,49,13,41,33,51		3,12,54,12,35	
		1,25,29,13,11,37,46,57		6,15
4″	43,58,37,37,51, 2,25,19,20,48		3,12,54,18,50	
		1,25,29, 9,58,43,28, 7		6,15
6″	43,58,39, 3,20,12,24, 2,48,55		3,12,54,25, 5	
		1,25,29, 6,45,49, 3, 2		6,15
8″	43,58,40,28,49,19, 9,51,51,57		3,12,54,31,20	
		1,25,29, 3,32,54,31,42		6,15
10″	43,58,41,54,18,22,42,46,23,39		3,12,54,37,35	
		1,25,29, 0,19,59,54, 7		6,15
12″	43,58,43,19,47,23, 2,46,17,46		3,12,54,43,50	
		1,25,28,57, 7, 5,10,17		6,15
14″	43,58,44,45,16,20, 9,51,28, 3		3,12,54,50, 5	
		1,25,28,53,54,10,20,12		6,15
16″	43,58,46,10,45,14, 4, 1,48,15		3,12,54,56,20	
		1,25,28,50,41,15,23,52		6,15
18″	43,58,47,36,14, 4,45,17,12, 7		3,12,55, 2,35	
		1,25,28,47,28,20,21,17		6,15
20″	43,58,49, 1,42,52,13,37,33,24		3,12,55, 8,50	
		1,25,28,44,15,25,12,27		6,15
22″	43,58,50,27,11,36,29, 2,45,51		3,12,55,15, 5	
		1,25,28,41, 2,29,57,22		6,15
24″	43,58,51,52,40,17,31,32,43,13		3,12,55,21,20	
		1,25,28,37,49,34,36, 2		6,15
26″	43,58,53,18, 8,55,21, 7,19,15		3,12,55,27,35	
		1,25,28,34,36,39, 8,27		6,15
28″	43,58,54,43,37,29,57,46,27,42		3,12,55,33,50	
		1,25,28,31,23,43,34,37		6,15
30″	43,58,56, 9, 6, 1,21,30, 2,19		3,12,55,40, 5	
		1,25,28,28,10,47,54,32		6,15
32″	43,58,57,34,34,29,32,17,56,51		3,12,55,46,20	
		1,25,28,24,57,52, 8,12		6,15
34″	43,58,59, 0, 2,54,30,10, 5, 3		3,12,55,52,35	
		1,25,28,21,44,56,15,37		6,15
36″	43,59, 0,25,31,16,15, 6,20,40		3,12,55,58,50	
		1,25,28,18,32, 0,16,47		6,15
38″	43,59, 1,50,59,34,47, 6,37,27		3,12,56, 5, 5	
		1,25,28,15,19, 4,11,42		6,15
40″	43,59, 3,16,27,50, 6,10,49, 9		3,12,56,11,20	
		1,25,28,12, 6, 8, 0,22		6,15
42″	43,59, 4,41,56, 2,12,18,49,31		3,12,56,17,35	
		1,25,28, 8,53,11,42,47		6,15
44″	43,59, 6, 7,24,11, 5,30,32,18		3,12,56,23,50	
		1,25,28, 5,40,15,18,57		6,15
46″	43,59, 7,32,52,16,45,45,51,15		3,12,56,30, 5	
		1,25,28, 2,27,18,48,52		6,15
48″	43,59, 8,58,20,19,13, 4,40, 7		3,12,56,36,20	
		1,25,27,59,14,22,12,32		6,15
50″	43,59,10,23,48,18,27,26,52,39		3,12,56,42,35	
		1,25,27,56, 1,25,29,57		6,15
52″	43,59,11,49,16,14,28,52,22,36		3,12,56,48,50	
		1,25,27,52,48,28,41, 7		6,15
54″	43,59,13,14,44, 7,17,21, 3,43		3,12,56,55, 5	
		1,25,27,49,35,31,46, 2		6,15
56″	43,59,14,40,11,56,52,52,49,45		3,12,57, 1,20	
		1,25,27,46,22,34,44,42		6,15
58″	43,59,16, 5,39,43,15,27,34,27		3,12,57, 7,35	
		1,25,27,43, 9,37,37, 7		
60″	43,59,17,31, 7,26,25, 5,11,34			
exact	43,59,17,31, 7,26,25, 5,11,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47° 9′ 0″	43,59,17,31, 7,26,25, 5,11,53			
		1,25,27,39,56,40,23,29		
2″	43,59,18,56,35, 6,21,45,35,22		3,12,57,20, 3	
		1,25,27,36,43,43, 3,26		6,15
4″	43,59,20,22, 2,43, 5,28,38,48		3,12,57,26,18	
		1,25,27,33,30,45,37, 8		6,15
6″	43,59,21,47,30,16,36,14,15,56		3,12,57,32,33	
		1,25,27,30,17,48, 4,35		6,15
8″	43,59,23,12,57,46,54, 2,20,31		3,12,57,38,48	
		1,25,27,27, 4,50,25,47		6,15
10″	43,59,24,38,25,13,58,52,46,18		3,12,57,45, 3	
		1,25,27,23,51,52,40,44		6,15
12″	43,59,26, 3,52,37,50,45,27, 2		3,12,57,51,18	
		1,25,27,20,38,54,49,26		6,15
14″	43,59,27,29,19,58,29,40,16,28		3,12,57,57,33	
		1,25,27,17,25,56,51,53		6,15
16″	43,59,28,54,47,15,55,37, 8,21		3,12,58, 3,48	
		1,25,27,14,12,58,48, 5		6,15
18″	43,59,30,20,14,30, 8,35,56,26		3,12,58,10, 3	
		1,25,27,11, 0, 0,38, 2		6,15
20″	43,59,31,45,41,41, 8,36,34,28		3,12,58,16,18	
		1,25,27, 7,47, 2,21,44		6,15
22″	43,59,33,11, 8,48,55,38,56,12		3,12,58,22,33	
		1,25,27, 4,34, 3,59,11		6,15
24″	43,59,34,36,35,53,29,42,55,23		3,12,58,28,48	
		1,25,27, 1,21, 5,30,23		6,15
26″	43,59,36, 2, 2,54,50,48,25,46		3,12,58,35, 3	
		1,25,26,58, 8, 6,55,20		6,15
28″	43,59,37,27,29,52,58,55,21, 6		3,12,58,41,18	
		1,25,26,54,55, 8,14, 2		6,15
30″	43,59,38,52,56,47,54, 3,35, 8		3,12,58,47,33	
		1,25,26,51,42, 9,26,29		6,15
32″	43,59,40,18,23,39,36,13, 1,37		3,12,58,53,48	
		1,25,26,48,29,10,32,41		6,15
34″	43,59,41,43,50,28, 5,23,34,18		3,12,59, 0, 3	
		1,25,26,45,16,11,32,38		6,15
36″	43,59,43, 9,17,13,21,35, 6,56		3,12,59, 6,18	
		1,25,26,42, 3,12,26,20		6,15
38″	43,59,44,34,43,55,24,47,33,16		3,12,59,12,33	
		1,25,26,38,50,13,13,47		6,15
40″	43,59,46, 0,10,34,15, 0,47, 3		3,12,59,18,48	
		1,25,26,35,37,13,54,59		6,15
42″	43,59,47,25,37, 9,52,14,42, 2		3,12,59,25, 3	
		1,25,26,32,24,14,29,56		6,15
44″	43,59,48,51, 3,42,16,29,11,58		3,12,59,31,18	
		1,25,26,29,11,14,58,38		6,15
46″	43,59,50,16,30,11,27,44,10,36		3,12,59,37,33	
		1,25,26,25,58,15,21, 5		6,15
48″	43,59,51,41,56,37,25,59,31,41		3,12,59,43,48	
		1,25,26,22,45,15,37,17		6,15
50″	43,59,53, 7,23, 0,11,15, 8,58		3,12,59,50, 3	
		1,25,26,19,32,15,47,14		6,15
52″	43,59,54,32,49,19,43,30,56,12		3,12,59,56,18	
		1,25,26,16,19,15,50,56		6,15
54″	43,59,55,58,15,36, 2,46,47, 8		3,13, 0, 2,33	
		1,25,26,13, 6,15,48,23		6,15
56″	43,59,57,23,41,49, 9, 2,35,31		3,13, 0, 8,48	
		1,25,26, 9,53,15,39,35		6,15
58″	43,59,58,49, 7,59, 2,18,15, 6		3,13, 0,15, 3	
		1,25,26, 6,40,15,24,32		
60″	44, 0, 0,14,34, 5,42,33,39,38			
exact	44, 0, 0,14,34, 5,42,33,48,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°10′ 0″	44, 0, 0,14,34, 5,42,33,48,18	1,25,26, 3,27,15, 4,19		
2″	44, 0, 1,40, 0, 9, 9,48,52,37	1,25,26, 0,14,14,36,51	3,13, 0,27,28	6,15
4″	44, 0, 3, 5,26, 9,24, 3,29,28	1,25,25,57, 1,14, 3, 8	3,13, 0,33,43	6,15
6″	44, 0, 4,30,52, 6,25,17,32,36	1,25,25,53,48,13,23,10	3,13, 0,39,58	6,15
8″	44, 0, 5,56,18, 0,13,30,55,46	1,25,25,50,35,12,36,57	3,13, 0,46,13	6,15
10″	44, 0, 7,21,43,50,48,43,32,43	1,25,25,47,22,11,44,29	3,13, 0,52,28	6,15
12″	44, 0, 8,47, 9,38,10,55,17,12	1,25,25,44, 9,10,45,46	3,13, 0,58,43	6,15
14″	44, 0,10,12,35,22,20, 6, 2,58	1,25,25,40,56, 9,40,48	3,13, 1, 4,58	6,15
16″	44, 0,11,38, 1, 3,16,15,43,46	1,25,25,37,43, 8,29,35	3,13, 1,11,13	6,15
18″	44, 0,13, 3,26,40,59,24,13,21	1,25,25,34,30, 7,12, 7	3,13, 1,17,28	6,15
20″	44, 0,14,28,52,15,29,31,25,28	1,25,25,31,17, 5,48,24	3,13, 1,23,43	6,15
22″	44, 0,15,54,17,46,46,37,13,52	1,25,25,28, 4, 4,18,26	3,13, 1,29,58	6,15
24″	44, 0,17,19,43,14,50,41,32,18	1,25,25,24,51, 2,42,13	3,13, 1,36,13	6,15
26″	44, 0,18,45, 8,39,41,44,14,31	1,25,25,21,38, 0,59,45	3,13, 1,42,28	6,15
28″	44, 0,20,10,34, 1,19,45,14,16	1,25,25,18,24,59,11, 2	3,13, 1,48,43	6,15
30″	44, 0,21,35,59,19,44,44,25,18	1,25,25,15,11,57,16, 4	3,13, 1,54,58	6,15
32″	44, 0,23, 1,24,34,56,41,41,22	1,25,25,11,58,55,14,51	3,13, 2, 1,13	6,15
34″	44, 0,24,26,49,46,55,36,56,13	1,25,25, 8,45,53, 7,23	3,13, 2, 7,28	6,15
36″	44, 0,25,52,14,55,41,30, 3,36	1,25,25, 5,32,50,53,40	3,13, 2,13,43	6,15
38″	44, 0,27,17,40, 1,14,20,57,16	1,25,25, 2,19,48,33,42	3,13, 2,19,58	6,15
40″	44, 0,28,43, 5, 3,34, 9,30,58	1,25,24,59, 6,46, 7,29	3,13, 2,26,13	6,15
42″	44, 0,30, 8,30, 2,40,55,38,27	1,25,24,55,53,43,35, 1	3,13, 2,32,28	6,15
44″	44, 0,31,33,54,58,34,39,13,28	1,25,24,52,40,40,56,18	3,13, 2,38,43	6,15
46″	44, 0,32,59,19,51,15,20, 9,46	1,25,24,49,27,38,11,20	3,13, 2,44,58	6,15
48″	44, 0,34,24,44,40,42,58,21, 6	1,25,24,46,14,35,20, 7	3,13, 2,51,13	6,15
50″	44, 0,35,50, 9,26,57,33,41,13	1,25,24,43, 1,32,22,39	3,13, 2,57,28	6,15
52″	44, 0,37,15,34, 9,59, 6, 3,52	1,25,24,39,48,29,18,56	3,13, 3, 3,43	6,15
54″	44, 0,38,40,58,49,47,35,22,48	1,25,24,36,35,26, 8,58	3,13, 3, 9,58	6,15
56″	44, 0,40, 6,23,26,23, 1,31,46	1,25,24,33,22,22,52,45	3,13, 3,16,13	6,15
58″	44, 0,41,31,47,59,45,24,24,31	1,25,24,30, 9,19,30,17	3,13, 3,22,28	
60″	44, 0,42,57,12,29,54,43,54,48			
exact	44, 0,42,57,12,29,54,44,15,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°11′ 0″	44, 0,42,57,12,29,54,44,15,44			
		1,25,24,26,56,16, 3,48		
2″	44, 0,44,22,36,56,51, 0,19,32		3,13, 3,34,49	
		1,25,24,23,43,12,28,59		6,15
4″	44, 0,45,48, 1,20,34,12,48,31		3,13, 3,41, 4	
		1,25,24,20,30, 8,47,55		6,15
6″	44, 0,47,13,25,41, 4,21,36,26		3,13, 3,47,19	
		1,25,24,17,17, 5, 0,36		6,15
8″	44, 0,48,38,49,58,21,26,37, 2		3,13, 3,53,34	
		1,25,24,14, 4, 1, 7, 2		6,15
10″	44, 0,50, 4,14,12,25,27,44, 4		3,13, 3,59,49	
		1,25,24,10,50,57, 7,13		6,15
12″	44, 0,51,29,38,23,16,24,51,17		3,13, 4, 6, 4	
		1,25,24, 7,37,53, 1, 9		6,15
14″	44, 0,52,55, 2,30,54,17,52,26		3,13, 4,12,19	
		1,25,24, 4,24,48,48,50		6,15
16″	44, 0,54,20,26,35,19, 6,41,16		3,13, 4,18,34	
		1,25,24, 1,11,44,30,16		6,15
18″	44, 0,55,45,50,36,30,51,11,32		3,13, 4,24,49	
		1,25,23,57,58,40, 5,27		6,15
20″	44, 0,57,11,14,34,29,31,16,59		3,13, 4,31, 4	
		1,25,23,54,45,35,34,23		6,15
22″	44, 0,58,36,38,29,15, 6,51,22		3,13, 4,37,19	
		1,25,23,51,32,30,57, 4		6,15
24″	44, 1, 0, 2, 2,20,47,37,48,26		3,13, 4,43,34	
		1,25,23,48,19,26,13,30		6,15
26″	44, 1, 1,27,26, 9, 7, 4, 1,56		3,13, 4,49,49	
		1,25,23,45, 6,21,23,41		6,15
28″	44, 1, 2,52,49,54,13,25,25,37		3,13, 4,56, 4	
		1,25,23,41,53,16,27,37		6,15
30″	44, 1, 4,18,13,36, 6,41,53,14		3,13, 5, 2,19	
		1,25,23,38,40,11,25,18		6,15
32″	44, 1, 5,43,37,14,46,53,18,32		3,13, 5, 8,34	
		1,25,23,35,27, 6,16,44		6,15
34″	44, 1, 7, 9, 0,50,13,59,35,16		3,13, 5,14,49	
		1,25,23,32,14, 1, 1,55		6,15
36″	44, 1, 8,34,24,22,28, 0,37,11		3,13, 5,21, 4	
		1,25,23,29, 0,55,40,51		6,15
38″	44, 1, 9,59,47,51,28,56,18, 2		3,13, 5,27,19	
		1,25,23,25,47,50,13,32		6,15
40″	44, 1,11,25,11,17,16,46,31,34		3,13, 5,33,34	
		1,25,23,22,34,44,39,58		6,15
42″	44, 1,12,50,34,39,51,31,11,32		3,13, 5,39,49	
		1,25,23,19,21,39, 0, 9		6,15
44″	44, 1,14,15,57,59,13,10,11,41		3,13, 5,46, 4	
		1,25,23,16, 8,33,14, 5		6,15
46″	44, 1,15,41,21,15,21,43,25,46		3,13, 5,52,19	
		1,25,23,12,55,27,21,46		6,15
48″	44, 1,17, 6,44,28,17,10,47,32		3,13, 5,58,34	
		1,25,23, 9,42,21,23,12		6,15
50″	44, 1,18,32, 7,37,59,32,10,44		3,13, 6, 4,49	
		1,25,23, 6,29,15,18,23		6,15
52″	44, 1,19,57,30,44,28,47,29, 7		3,13, 6,11, 4	
		1,25,23, 3,16, 9, 7,19		6,15
54″	44, 1,21,22,53,47,44,56,36,26		3,13, 6,17,19	
		1,25,23, 0, 3, 2,50, 0		6,15
56″	44, 1,22,48,16,47,47,59,26,26		3,13, 6,23,34	
		1,25,22,56,49,56,26,26		6,15
58″	44, 1,24,13,39,44,37,55,52,52		3,13, 6,29,49	
		1,25,22,53,36,49,56,37		
60″	44, 1,25,39, 2,38,14,45,49,29			
exact	44, 1,25,39, 2,38,14,46,19,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°12′ 0″	44, 1,25,39, 2,38,14,46,19,13			
		1,25,22,50,23,43,23,41		
2″	44, 1,27, 4,25,28,38,29,42,54		3,13, 6,42, 6	
		1,25,22,47,10,36,41,35		6,15
4″	44, 1,28,29,48,15,49, 6,24,29		3,13, 6,48,21	
		1,25,22,43,57,29,53,14		6,15
6″	44, 1,29,55,10,59,46,36,17,43		3,13, 6,54,36	
		1,25,22,40,44,22,58,38		6,15
8″	44, 1,31,20,33,40,30,59,16,21		3,13, 7, 0,51	
		1,25,22,37,31,15,57,47		6,15
10″	44, 1,32,45,56,18, 2,15,14, 8		3,13, 7, 7, 6	
		1,25,22,34,18, 8,50,41		6,15
12″	44, 1,34,11,18,52,20,24, 4,49		3,13, 7,13,21	
		1,25,22,31, 5, 1,37,20		6,15
14″	44, 1,35,36,41,23,25,25,42, 9		3,13, 7,19,36	
		1,25,22,27,51,54,17,44		6,15
16″	44, 1,37, 2, 3,51,17,19,59,53		3,13, 7,25,51	
		1,25,22,24,38,46,51,53		6,15
18″	44, 1,38,27,26,15,56, 6,51,46		3,13, 7,32, 6	
		1,25,22,21,25,39,19,47		6,15
20″	44, 1,39,52,48,37,21,46,11,33		3,13, 7,38,21	
		1,25,22,18,12,31,41,26		6,15
22″	44, 1,41,18,10,55,34,17,52,59		3,13, 7,44,36	
		1,25,22,14,59,23,56,50		6,15
24″	44, 1,42,43,33,10,33,41,49,49		3,13, 7,50,51	
		1,25,22,11,46,16, 5,59		6,15
26″	44, 1,44, 8,55,22,19,57,55,48		3,13, 7,57, 6	
		1,25,22, 8,33, 8, 8,53		6,15
28″	44, 1,45,34,17,30,53, 6, 4,41		3,13, 8, 3,21	
		1,25,22, 5,20, 0, 5,32		6,15
30″	44, 1,46,59,39,36,13, 6,10,13		3,13, 8, 9,36	
		1,25,22, 2, 6,51,55,56		6,15
32″	44, 1,48,25, 1,38,19,58, 6, 9		3,13, 8,15,51	
		1,25,21,58,53,43,40, 5		6,15
34″	44, 1,49,50,23,37,13,41,46,14		3,13, 8,22, 6	
		1,25,21,55,40,35,17,59		6,15
36″	44, 1,51,15,45,32,54,17, 4,13		3,13, 8,28,21	
		1,25,21,52,27,26,49,38		6,15
38″	44, 1,52,41, 7,25,21,43,53,51		3,13, 8,34,36	
		1,25,21,49,14,18,15, 2		6,15
40″	44, 1,54, 6,29,14,36, 2, 8,53		3,13, 8,40,51	
		1,25,21,46, 1, 9,34,11		6,15
42″	44, 1,55,31,51, 0,37,11,43, 4		3,13, 8,47, 6	
		1,25,21,42,48, 0,47, 5		6,15
44″	44, 1,56,57,12,43,25,12,30, 9		3,13, 8,53,21	
		1,25,21,39,34,51,53,44		6,15
46″	44, 1,58,22,34,23, 0, 4,23,53		3,13, 8,59,36	
		1,25,21,36,21,42,54, 8		6,15
48″	44, 1,59,47,55,59,21,47,18, 1		3,13, 9, 5,51	
		1,25,21,33, 8,33,48,17		6,15
50″	44, 2, 1,13,17,32,30,21, 6,18		3,13, 9,12, 6	
		1,25,21,29,55,24,36,11		6,15
52″	44, 2, 2,38,39, 2,25,45,42,29		3,13, 9,18,21	
		1,25,21,26,42,15,17,50		6,15
54″	44, 2, 4, 4, 0,29, 8, 1, 0,19		3,13, 9,24,36	
		1,25,21,23,29, 5,53,14		6,15
56″	44, 2, 5,29,21,52,37, 6,53,33		3,13, 9,30,51	
		1,25,21,20,15,56,22,23		6,15
58″	44, 2, 6,54,43,12,53, 3,15,56		3,13, 9,37, 6	
		1,25,21,17, 2,46,45,17		
60″	44, 2, 8,20, 4,29,55,50, 1,13			
exact	44, 2, 8,20, 4,29,55,50,36,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°13′ 0″	44, 2, 8,20, 4,29,55,50,36,43			
		1,25,21,13,49,37, 5,46		
2″	44, 2, 9,45,25,43,45,27,42,29		3,13, 9,49,20	
		1,25,21,10,36,27,16,26		6,14
4″	44, 2,11,10,46,54,21,54,58,55		3,13, 9,55,34	
		1,25,21, 7,23,17,20,52		6,14
6″	44, 2,12,36, 8, 1,45,12,19,47		3,13,10, 1,48	
		1,25,21, 4,10, 7,19, 4		6,14
8″	44, 2,14, 1,29, 5,55,19,38,51		3,13,10, 8, 2	
		1,25,21, 0,56,57,11, 2		6,14
10″	44, 2,15,26,50, 6,52,16,49,53		3,13,10,14,16	
		1,25,20,57,43,46,56,46		6,14
12″	44, 2,16,52,11, 4,36, 3,46,39		3,13,10,20,30	
		1,25,20,54,30,36,36,16		6,14
14″	44, 2,18,17,31,59, 6,40,22,55		3,13,10,26,44	
		1,25,20,51,17,26, 9,32		6,14
16″	44, 2,19,42,52,50,24, 6,32,27		3,13,10,32,58	
		1,25,20,48, 4,15,36,34		6,14
18″	44, 2,21, 8,13,38,28,22, 9, 1		3,13,10,39,12	
		1,25,20,44,51, 4,57,22		6,14
20″	44, 2,22,33,34,23,19,27, 6,23		3,13,10,45,26	
		1,25,20,41,37,54,11,56		6,14
22″	44, 2,23,58,55, 4,57,21,18,19		3,13,10,51,40	
		1,25,20,38,24,43,20,16		6,14
24″	44, 2,25,24,15,43,22, 4,38,35		3,13,10,57,54	
		1,25,20,35,11,32,22,22		6,14
26″	44, 2,26,49,36,18,33,37, 0,57		3,13,11, 4, 8	
		1,25,20,31,58,21,18,14		6,14
28″	44, 2,28,14,56,50,31,58,19,11		3,13,11,10,22	
		1,25,20,28,45,10, 7,52		6,14
30″	44, 2,29,40,17,19,17, 8,27, 3		3,13,11,16,36	
		1,25,20,25,31,58,51,16		6,14
32″	44, 2,31, 5,37,44,49, 7,18,19		3,13,11,22,50	
		1,25,20,22,18,47,28,26		6,14
34″	44, 2,32,30,58, 7, 7,54,46,45		3,13,11,29, 4	
		1,25,20,19, 5,35,59,22		6,14
36″	44, 2,33,56,18,26,13,30,46, 7		3,13,11,35,18	
		1,25,20,15,52,24,24, 4		6,14
38″	44, 2,35,21,38,42, 5,55,10,11		3,13,11,41,32	
		1,25,20,12,39,12,42,32		6,14
40″	44, 2,36,46,58,54,45, 7,52,43		3,13,11,47,46	
		1,25,20, 9,26, 0,54,46		6,14
42″	44, 2,38,12,19, 4,11, 8,47,29		3,13,11,54, 0	
		1,25,20, 6,12,49, 0,46		6,14
44″	44, 2,39,37,39,10,23,57,48,15		3,13,12, 0,14	
		1,25,20, 2,59,37, 0,32		6,14
46″	44, 2,41, 2,59,13,23,34,48,47		3,13,12, 6,28	
		1,25,19,59,46,24,54, 4		6,14
48″	44, 2,42,28,19,13, 9,59,42,51		3,13,12,12,42	
		1,25,19,56,33,12,41,22		6,14
50″	44, 2,43,53,39, 9,43,12,24,13		3,13,12,18,56	
		1,25,19,53,20, 0,22,26		6,14
52″	44, 2,45,18,59, 3, 3,12,46,39		3,13,12,25,10	
		1,25,19,50, 6,47,57,16		6,14
54″	44, 2,46,44,18,53,10, 0,43,55		3,13,12,31,24	
		1,25,19,46,53,35,25,52		6,14
56″	44, 2,48, 9,38,40, 3,36, 9,47		3,13,12,37,38	
		1,25,19,43,40,22,48,14		6,14
58″	44, 2,49,34,58,23,43,58,58, 1		3,13,12,43,52	
		1,25,19,40,27,10, 4,22		
60″	44, 2,51, 0,18, 4,11, 9, 2,23			
exact	44, 2,51, 0,18, 4,11, 8,39, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°14′ 0″	44, 2,51, 0,18, 4,11, 8,39, 9	1,25,19,37,13,57,11,47		
2″	44, 2,52,25,37,41,25, 5,50,56	1,25,19,34, 0,44,15,17	3,13,12,56,30	6,14
4″	44, 2,53,50,57,15,25,50, 6,13	1,25,19,30,47,31,12,33	3,13,13, 2,44	6,14
6″	44, 2,55,16,16,46,13,21,18,46	1,25,19,27,34,18, 3,35	3,13,13, 8,58	6,14
8″	44, 2,56,41,36,13,47,39,22,21	1,25,19,24,21, 4,48,23	3,13,13,15,12	6,14
10″	44, 2,58, 6,55,38, 8,44,10,44	1,25,19,21, 7,51,26,57	3,13,13,21,26	6,14
12″	44, 2,59,32,14,59,16,35,37,41	1,25,19,17,54,37,59,17	3,13,13,27,40	6,14
14″	44, 3, 0,57,34,17,11,13,36,58	1,25,19,14,41,24,25,23	3,13,13,33,54	6,14
16″	44, 3, 2,22,53,31,52,38, 2,21	1,25,19,11,28,10,45,15	3,13,13,40, 8	6,14
18″	44, 3, 3,48,12,43,20,48,47,36	1,25,19, 8,14,56,58,53	3,13,13,46,22	6,14
20″	44, 3, 5,13,31,51,35,45,46,29	1,25,19, 5, 1,43, 6,17	3,13,13,52,36	6,14
22″	44, 3, 6,38,50,56,37,28,52,46	1,25,19, 1,48,29, 7,27	3,13,13,58,50	6,14
24″	44, 3, 8, 4, 9,58,25,58, 0,13	1,25,18,58,35,15, 2,23	3,13,14, 5, 4	6,14
26″	44, 3, 9,29,28,57, 1,13, 2,36	1,25,18,55,22, 0,51, 5	3,13,14,11,18	6,14
28″	44, 3,10,54,47,52,23,13,53,41	1,25,18,52, 8,46,33,33	3,13,14,17,32	6,14
30″	44, 3,12,20, 6,44,32, 0,27,14	1,25,18,48,55,32, 9,47	3,13,14,23,46	6,14
32″	44, 3,13,45,25,33,27,32,37, 1	1,25,18,45,42,17,39,47	3,13,14,30, 0	6,14
34″	44, 3,15,10,44,19, 9,50,16,48	1,25,18,42,29, 3, 3,33	3,13,14,36,14	6,14
36″	44, 3,16,36, 3, 1,38,53,20,21	1,25,18,39,15,48,21, 5	3,13,14,42,28	6,14
38″	44, 3,18, 1,21,40,54,41,41,26	1,25,18,36, 2,33,32,23	3,13,14,48,42	6,14
40″	44, 3,19,26,40,16,57,15,13,49	1,25,18,32,49,18,37,27	3,13,14,54,56	6,14
42″	44, 3,20,51,58,49,46,33,51,16	1,25,18,29,36, 3,36,17	3,13,15, 1,10	6,14
44″	44, 3,22,17,17,19,22,37,27,33	1,25,18,26,22,48,28,53	3,13,15, 7,24	6,14
46″	44, 3,23,42,35,45,45,25,56,26	1,25,18,23, 9,33,15,15	3,13,15,13,38	6,14
48″	44, 3,25, 7,54, 8,54,59,11,41	1,25,18,19,56,17,55,23	3,13,15,19,52	6,14
50″	44, 3,26,33,12,28,51,17, 7, 4	1,25,18,16,43, 2,29,17	3,13,15,26, 6	6,14
52″	44, 3,27,58,30,45,34,19,36,21	1,25,18,13,29,46,56,57	3,13,15,32,20	6,14
54″	44, 3,29,23,48,59, 4, 6,33,18	1,25,18,10,16,31,18,23	3,13,15,38,34	6,14
56″	44, 3,30,49, 7, 9,20,37,51,41	1,25,18, 7, 3,15,33,35	3,13,15,44,48	6,14
58″	44, 3,32,14,25,16,23,53,25,16	1,25,18, 3,49,59,42,33	3,13,15,51, 2	
60″	44, 3,33,39,43,20,13,53, 7,49			
exact	44, 3,33,39,43,20,13,52,50,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°15′ 0″	44, 3,33,39,43,20,13,52,50,23	1,25,18, 0,36,43,43,30		
2″	44, 3,35, 5, 1,20,50,36,33,53	1,25,17,57,23,27,39,53	3,13,16, 3,37	
4″	44, 3,36,30,19,18,14, 4,13,46	1,25,17,54,10,11,30, 2	3,13,16, 9,51	6,14
6″	44, 3,37,55,37,12,24,15,43,48	1,25,17,50,56,55,13,57	3,13,16,16, 5	6,14
8″	44, 3,39,20,55, 3,21,10,57,45	1,25,17,47,43,38,51,38	3,13,16,22,19	6,14
10″	44, 3,40,46,12,51, 4,49,49,23	1,25,17,44,30,22,23, 5	3,13,16,28,33	6,14
12″	44, 3,42,11,30,35,35,12,12,28	1,25,17,41,17, 5,48,18	3,13,16,34,47	6,14
14″	44, 3,43,36,48,16,52,18, 0,46	1,25,17,38, 3,49, 7,17	3,13,16,41, 1	6,14
16″	44, 3,45, 2, 5,54,56, 7, 8, 3	1,25,17,34,50,32,20, 2	3,13,16,47,15	6,14
18″	44, 3,46,27,23,29,46,39,28, 5	1,25,17,31,37,15,26,33	3,13,16,53,29	6,14
20″	44, 3,47,52,41, 1,23,54,54,38	1,25,17,28,23,58,26,50	3,13,16,59,43	6,14
22″	44, 3,49,17,58,29,47,53,21,28	1,25,17,25,10,41,20,53	3,13,17, 5,57	6,14
24″	44, 3,50,43,15,54,58,34,42,21	1,25,17,21,57,24, 8,42	3,13,17,12,11	6,14
26″	44, 3,52, 8,33,16,55,58,51, 3	1,25,17,18,44, 6,50,17	3,13,17,18,25	6,14
28″	44, 3,53,33,50,35,40, 5,41,20	1,25,17,15,30,49,25,38	3,13,17,24,39	6,14
30″	44, 3,54,59, 7,51,10,55, 6,58	1,25,17,12,17,31,54,45	3,13,17,30,53	6,14
32″	44, 3,56,24,25, 3,28,27, 1,43	1,25,17, 9, 4,14,17,38	3,13,17,37, 7	6,14
34″	44, 3,57,49,42,12,32,41,19,21	1,25,17, 5,50,56,34,17	3,13,17,43,21	6,14
36″	44, 3,59,14,59,18,23,37,53,38	1,25,17, 2,37,38,44,42	3,13,17,49,35	6,14
38″	44, 4, 0,40,16,21, 1,16,38,20	1,25,16,59,24,20,48,53	3,13,17,55,49	6,14
40″	44, 4, 2, 5,33,20,25,37,27,13	1,25,16,56,11, 2,46,50	3,13,18, 2, 3	6,14
42″	44, 4, 3,30,50,16,36,40,14, 3	1,25,16,52,57,44,38,33	3,13,18, 8,17	6,14
44″	44, 4, 4,56, 7, 9,34,24,52,36	1,25,16,49,44,26,24, 2	3,13,18,14,31	6,14
46″	44, 4, 6,21,23,59,18,51,16,38	1,25,16,46,31, 8, 3,17	3,13,18,20,45	6,14
48″	44, 4, 7,46,40,45,49,59,19,55	1,25,16,43,17,49,36,18	3,13,18,26,59	6,14
50″	44, 4, 9,11,57,29, 7,48,56,13	1,25,16,40, 4,31, 3, 5	3,13,18,33,13	6,14
52″	44, 4,10,37,14, 9,12,19,59,18	1,25,16,36,51,12,23,38	3,13,18,39,27	6,14
54″	44, 4,12, 2,30,46, 3,32,22,56	1,25,16,33,37,53,37,57	3,13,18,45,41	6,14
56″	44, 4,13,27,47,19,41,26, 0,53	1,25,16,30,24,34,46, 2	3,13,18,51,55	6,14
58″	44, 4,14,53, 3,50, 6, 0,46,55	1,25,16,27,11,15,47,53	3,13,18,58, 9	
60″	44, 4,16,18,20,17,17,16,34,48			
exact	44, 4,16,18,20,17,17,16,27,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°16′ 0″	44, 4,16,18,20,17,17,16,27,16	1,25,16,23,57,56,42,42		
2″	44, 4,17,43,36,41,15,13, 9,58	1,25,16,20,44,37,32, 2	3,13,19,10,40	
4″	44, 4,19, 8,53, 1,59,50,42, 0	1,25,16,17,31,18,15, 8	3,13,19,16,54	6,14
6″	44, 4,20,34, 9,19,31, 8,57, 8	1,25,16,14,17,58,52, 0	3,13,19,23, 8	6,14
8″	44, 4,21,59,25,33,49, 7,49, 8	1,25,16,11, 4,39,22,38	3,13,19,29,22	6,14
10″	44, 4,23,24,41,44,53,47,11,46	1,25,16, 7,51,19,47, 2	3,13,19,35,36	6,14
12″	44, 4,24,49,57,52,45, 6,58,48	1,25,16, 4,38, 0, 5,12	3,13,19,41,50	6,14
14″	44, 4,26,15,13,57,23, 7, 4, 0	1,25,16, 1,24,40,17, 8	3,13,19,48, 4	6,14
16″	44, 4,27,40,29,58,47,47,21, 8	1,25,15,58,11,20,22,50	3,13,19,54,18	6,14
18″	44, 4,29, 5,45,56,59, 7,43,58	1,25,15,54,58, 0,22,18	3,13,20, 0,32	6,14
20″	44, 4,30,31, 1,51,57, 8, 6,16	1,25,15,51,44,40,15,32	3,13,20, 6,46	6,14
22″	44, 4,31,56,17,43,41,48,21,48	1,25,15,48,31,20, 2,32	3,13,20,13, 0	6,14
24″	44, 4,33,21,33,32,13, 8,24,20	1,25,15,45,17,59,43,18	3,13,20,19,14	6,14
26″	44, 4,34,46,49,17,31, 8, 7,38	1,25,15,42, 4,39,17,50	3,13,20,25,28	6,14
28″	44, 4,36,12, 4,59,35,47,25,28	1,25,15,38,51,18,46, 8	3,13,20,31,42	6,14
30″	44, 4,37,37,20,38,27, 6,11,36	1,25,15,35,37,58, 8,12	3,13,20,37,56	6,14
32″	44, 4,39, 2,36,14, 5, 4,19,48	1,25,15,32,24,37,24, 2	3,13,20,44,10	6,14
34″	44, 4,40,27,51,46,29,41,43,50	1,25,15,29,11,16,33,38	3,13,20,50,24	6,14
36″	44, 4,41,53, 7,15,40,58,17,28	1,25,15,25,57,55,37, 0	3,13,20,56,38	6,14
38″	44, 4,43,18,22,41,38,53,54,28	1,25,15,22,44,34,34, 8	3,13,21, 2,52	6,14
40″	44, 4,44,43,38, 4,23,28,28,36	1,25,15,19,31,13,25, 2	3,13,21, 9, 6	6,14
42″	44, 4,46, 8,53,23,54,41,53,38	1,25,15,16,17,52, 9,42	3,13,21,15,20	6,14
44″	44, 4,47,34, 8,40,12,34, 3,20	1,25,15,13, 4,30,48, 8	3,13,21,21,34	6,14
46″	44, 4,48,59,23,53,17, 4,51,28	1,25,15, 9,51, 9,20,20	3,13,21,27,48	6,14
48″	44, 4,50,24,39, 3, 8,14,11,48	1,25,15, 6,37,47,46,18	3,13,21,34, 2	6,14
50″	44, 4,51,49,54, 9,46, 1,58, 6	1,25,15, 3,24,26, 6, 2	3,13,21,40,16	6,14
52″	44, 4,53,15, 9,13,10,28, 4, 8	1,25,15, 0,11, 4,19,32	3,13,21,46,30	6,14
54″	44, 4,54,40,24,13,21,32,23,40	1,25,14,56,57,42,26,48	3,13,21,52,44	6,14
56″	44, 4,56, 5,39,10,19,14,50,28	1,25,14,53,44,20,27,50	3,13,21,58,58	6,14
58″	44, 4,57,30,54, 4, 3,35,18,18	1,25,14,50,30,58,22,38	3,13,22, 5,12	
60″	44, 4,58,56, 8,54,34,33,40,56			
exact	44, 4,58,56, 8,54,34,33,39,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°17′ 0″	44, 4,58,56, 8,54,34,33,39,37	1,25,14,47,17,36,11, 8		
2″	44, 5, 0,21,23,41,52, 9,50,45	1,25,14,44, 4,13,53,28	3,13,22,17,40	
4″	44, 5, 1,46,38,25,56,23,44,13	1,25,14,40,50,51,29,34	3,13,22,23,54	6,14
6″	44, 5, 3,11,53, 6,47,15,13,47	1,25,14,37,37,28,59,26	3,13,22,30, 8	6,14
8″	44, 5, 4,37, 7,44,24,44,13,13	1,25,14,34,24, 6,23, 4	3,13,22,36,22	6,14
10″	44, 5, 6, 2,22,18,48,50,36,17	1,25,14,31,10,43,40,28	3,13,22,42,36	6,14
12″	44, 5, 7,27,36,49,59,34,16,45	1,25,14,27,57,20,51,38	3,13,22,48,50	6,14
14″	44, 5, 8,52,51,17,56,55, 8,23	1,25,14,24,43,57,56,34	3,13,22,55, 4	6,14
16″	44, 5,10,18, 5,42,40,53, 4,57	1,25,14,21,30,34,55,16	3,13,23, 1,18	6,14
18″	44, 5,11,43,20, 4,11,28, 0,13	1,25,14,18,17,11,47,44	3,13,23, 7,32	6,14
20″	44, 5,13, 8,34,22,28,39,47,57	1,25,14,15, 3,48,33,58	3,13,23,13,46	6,14
22″	44, 5,14,33,48,37,32,28,21,55	1,25,14,11,50,25,13,58	3,13,23,20, 0	6,14
24″	44, 5,15,59, 2,49,22,53,35,53	1,25,14, 8,37, 1,47,44	3,13,23,26,14	6,14
26″	44, 5,17,24,16,57,59,55,23,37	1,25,14, 5,23,38,15,16	3,13,23,32,28	6,14
28″	44, 5,18,49,31, 3,23,33,38,53	1,25,14, 2,10,14,36,34	3,13,23,38,42	6,14
30″	44, 5,20,14,45, 5,33,48,15,27	1,25,13,58,56,50,51,38	3,13,23,44,56	6,14
32″	44, 5,21,39,59, 4,30,39, 7, 5	1,25,13,55,43,27, 0,28	3,13,23,51,10	6,14
34″	44, 5,23, 5,13, 0,14, 6, 7,33	1,25,13,52,30, 3, 3, 4	3,13,23,57,24	6,14
36″	44, 5,24,30,26,52,44, 9,10,37	1,25,13,49,16,38,59,26	3,13,24, 3,38	6,14
38″	44, 5,25,55,40,42, 0,48,10, 3	1,25,13,46, 3,14,49,34	3,13,24, 9,52	6,14
40″	44, 5,27,20,54,28, 4, 2,59,37	1,25,13,42,49,50,33,28	3,13,24,16, 6	6,14
42″	44, 5,28,46, 8,10,53,53,33, 5	1,25,13,39,36,26,11, 8	3,13,24,22,20	6,14
44″	44, 5,30,11,21,50,30,19,44,13	1,25,13,36,23, 1,42,34	3,13,24,28,34	6,14
46″	44, 5,31,36,35,26,53,21,26,47	1,25,13,33, 9,37, 7,46	3,13,24,34,48	6,14
48″	44, 5,33, 1,49, 0, 2,58,34,33	1,25,13,29,56,12,26,44	3,13,24,41, 2	6,14
50″	44, 5,34,27, 2,29,59,11, 1,17	1,25,13,26,42,47,39,28	3,13,24,47,16	6,14
52″	44, 5,35,52,15,56,41,58,40,45	1,25,13,23,29,22,45,58	3,13,24,53,30	6,14
54″	44, 5,37,17,29,20,11,21,26,43	1,25,13,20,15,57,46,14	3,13,24,59,44	6,14
56″	44, 5,38,42,42,40,27,19,12,57	1,25,13,17, 2,32,40,16	3,13,25, 5,58	6,14
58″	44, 5,40, 7,55,57,29,51,53,13	1,25,13,13,49, 7,28, 4	3,13,25,12,12	
60″	44, 5,41,33, 9,11,18,59,21,17			
exact	44, 5,41,33, 9,11,18,59,30,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°18′ 0″	44, 5,41,33, 9,11,18,59,30,16			
		1,25,13,10,35,42,10,35		
2″	44, 5,42,58,22,21,54,41,40,51		3,13,25,24,36	
		1,25,13, 7,22,16,45,59		6,14
4″	44, 5,44,23,35,29,16,58,26,50		3,13,25,30,50	
		1,25,13, 4, 8,51,15, 9		6,14
6″	44, 5,45,48,48,33,25,49,41,59		3,13,25,37, 4	
		1,25,13, 0,55,25,38, 5		6,14
8″	44, 5,47,14, 1,34,21,15,20, 4		3,13,25,43,18	
		1,25,12,57,41,59,54,47		6,14
10″	44, 5,48,39,14,32, 3,15,14,51		3,13,25,49,32	
		1,25,12,54,28,34, 5,15		6,14
12″	44, 5,50, 4,27,26,31,49,20, 6		3,13,25,55,46	
		1,25,12,51,15, 8, 9,29		6,14
14″	44, 5,51,29,40,17,46,57,29,35		3,13,26, 2, 0	
		1,25,12,48, 1,42, 7,29		6,14
16″	44, 5,52,54,53, 5,48,39,37, 4		3,13,26, 8,14	
		1,25,12,44,48,15,59,15		6,14
18″	44, 5,54,20, 5,50,36,55,36,19		3,13,26,14,28	
		1,25,12,41,34,49,44,47		6,14
20″	44, 5,55,45,18,32,11,45,21, 6		3,13,26,20,42	
		1,25,12,38,21,23,24, 5		6,14
22″	44, 5,57,10,31,10,33, 8,45,11		3,13,26,26,56	
		1,25,12,35, 7,56,57, 9		6,14
24″	44, 5,58,35,43,45,41, 5,42,20		3,13,26,33,10	
		1,25,12,31,54,30,23,59		6,14
26″	44, 6, 0, 0,56,17,35,36, 6,19		3,13,26,39,24	
		1,25,12,28,41, 3,44,35		6,14
28″	44, 6, 1,26, 8,46,16,39,50,54		3,13,26,45,38	
		1,25,12,25,27,36,58,57		6,14
30″	44, 6, 2,51,21,11,44,16,49,51		3,13,26,51,52	
		1,25,12,22,14,10, 7, 5		6,14
32″	44, 6, 4,16,33,33,58,26,56,56		3,13,26,58, 6	
		1,25,12,19, 0,43, 8,59		6,14
34″	44, 6, 5,41,45,52,59,10, 5,55		3,13,27, 4,20	
		1,25,12,15,47,16, 4,39		6,14
36″	44, 6, 7, 6,58, 8,46,26,10,34		3,13,27,10,34	
		1,25,12,12,33,48,54, 5		6,14
38″	44, 6, 8,32,10,21,20,15, 4,39		3,13,27,16,48	
		1,25,12, 9,20,21,37,17		6,14
40″	44, 6, 9,57,22,30,40,36,41,56		3,13,27,23, 2	
		1,25,12, 6, 6,54,14,15		6,14
42″	44, 6,11,22,34,36,47,30,56,11		3,13,27,29,16	
		1,25,12, 2,53,26,44,59		6,14
44″	44, 6,12,47,46,39,40,57,41,10		3,13,27,35,30	
		1,25,11,59,39,59, 9,29		6,14
46″	44, 6,14,12,58,39,20,56,50,39		3,13,27,41,44	
		1,25,11,56,26,31,27,45		6,14
48″	44, 6,15,38,10,35,47,28,18,24		3,13,27,47,58	
		1,25,11,53,13, 3,39,47		6,14
50″	44, 6,17, 3,22,29, 0,31,58,11		3,13,27,54,12	
		1,25,11,49,59,35,45,35		6,14
52″	44, 6,18,28,34,19, 0, 7,43,46		3,13,28, 0,26	
		1,25,11,46,46, 7,45, 9		6,14
54″	44, 6,19,53,46, 5,46,15,28,55		3,13,28, 6,40	
		1,25,11,43,32,39,38,29		6,14
56″	44, 6,21,18,57,49,18,55, 7,24		3,13,28,12,54	
		1,25,11,40,19,11,25,35		6,14
58″	44, 6,22,44, 9,29,38, 6,32,59		3,13,28,19, 8	
		1,25,11,37, 5,43, 6,27		
60″	44, 6,24, 9,21, 6,43,49,39,26			
exact	44, 6,24, 9,21, 6,43,49,55, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°19′ 0″	44, 6,24, 9,21, 6,43,49,55, 3	1,25,11,33,52,14,42,48		
2″	44, 6,25,34,32,40,36, 4,37,51	1,25,11,30,38,46,11,20	3,13,28,31,28	
4″	44, 6,26,59,44,11,14,50,49,11	1,25,11,27,25,17,33,38	3,13,28,37,42	6,14
6″	44, 6,28,24,55,38,40, 8,22,49	1,25,11,24,11,48,49,42	3,13,28,43,56	6,14
8″	44, 6,29,50, 7, 2,51,57,12,31	1,25,11,20,58,19,59,32	3,13,28,50,10	6,14
10″	44, 6,31,15,18,23,50,17,12, 3	1,25,11,17,44,51, 3, 8	3,13,28,56,24	6,14
12″	44, 6,32,40,29,41,35, 8,15,11	1,25,11,14,31,22, 0,30	3,13,29, 2,38	6,14
14″	44, 6,34, 5,40,56, 6,30,15,41	1,25,11,11,17,52,51,38	3,13,29, 8,52	6,14
16″	44, 6,35,30,52, 7,24,23, 7,19	1,25,11, 8, 4,23,36,32	3,13,29,15, 6	6,14
18″	44, 6,36,56, 3,15,28,46,43,51	1,25,11, 4,50,54,15,12	3,13,29,21,20	6,14
20″	44, 6,38,21,14,20,19,40,59, 3	1,25,11, 1,37,24,47,38	3,13,29,27,34	6,14
22″	44, 6,39,46,25,21,57, 5,46,41	1,25,10,58,23,55,13,50	3,13,29,33,48	6,14
24″	44, 6,41,11,36,20,21, 1, 0,31	1,25,10,55,10,25,33,48	3,13,29,40, 2	6,14
26″	44, 6,42,36,47,15,31,26,34,19	1,25,10,51,56,55,47,32	3,13,29,46,16	6,14
28″	44, 6,44, 1,58, 7,28,22,21,51	1,25,10,48,43,25,55, 2	3,13,29,52,30	6,14
30″	44, 6,45,27, 8,56,11,48,16,53	1,25,10,45,29,55,56,18	3,13,29,58,44	6,14
32″	44, 6,46,52,19,41,41,44,13,11	1,25,10,42,16,25,51,20	3,13,30, 4,58	6,14
34″	44, 6,48,17,30,23,58,10, 4,31	1,25,10,39, 2,55,40, 8	3,13,30,11,12	6,14
36″	44, 6,49,42,41, 3, 1, 5,44,39	1,25,10,35,49,25,22,42	3,13,30,17,26	6,14
38″	44, 6,51, 7,51,38,50,31, 7,21	1,25,10,32,35,54,59, 2	3,13,30,23,40	6,14
40″	44, 6,52,33, 2,11,26,26, 6,23	1,25,10,29,22,24,29, 8	3,13,30,29,54	6,14
42″	44, 6,53,58,12,40,48,50,35,31	1,25,10,26, 8,53,53, 0	3,13,30,36, 8	6,14
44″	44, 6,55,23,23, 6,57,44,28,31	1,25,10,22,55,23,10,38	3,13,30,42,22	6,14
46″	44, 6,56,48,33,29,53, 7,39, 9	1,25,10,19,41,52,22, 2	3,13,30,48,36	6,14
48″	44, 6,58,13,43,49,35, 0, 1,11	1,25,10,16,28,21,27,12	3,13,30,54,50	6,14
50″	44, 6,59,38,54, 6, 3,21,28,23	1,25,10,13,14,50,26, 8	3,13,31, 1, 4	6,14
52″	44, 7, 1, 4, 4,19,18,11,54,31	1,25,10,10, 1,19,18,50	3,13,31, 7,18	6,14
54″	44, 7, 2,29,14,29,19,31,13,21	1,25,10, 6,47,48, 5,18	3,13,31,13,32	6,14
56″	44, 7, 3,54,24,36, 7,19,18,39	1,25,10, 3,34,16,45,32	3,13,31,19,46	6,14
58″	44, 7, 5,19,34,39,41,36, 4,11	1,25,10, 0,20,45,19,32	3,13,31,26, 0	
60″	44, 7, 6,44,44,40, 2,21,23,43			
exact	44, 7, 6,44,44,40, 2,21,42,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°20′ 0″	44, 7, 6,44,44,40, 2,21,42,51	1,25, 9,57, 7,13,49,33		
2″	44, 7, 8, 9,54,37, 9,35,32,24	1,25, 9,53,53,42,11,15	3,13,31,38,18	
4″	44, 7, 9,35, 4,31, 3,17,43,39	1,25, 9,50,40,10,26,43	3,13,31,44,32	6,14
6″	44, 7,11, 0,14,21,43,28,10,22	1,25, 9,47,26,38,35,57	3,13,31,50,46	6,14
8″	44, 7,12,25,24, 9,10, 6,46,19	1,25, 9,44,13, 6,38,57	3,13,31,57, 0	6,14
10″	44, 7,13,50,33,53,23,13,25,16	1,25, 9,40,59,34,35,43	3,13,32, 3,14	6,14
12″	44, 7,15,15,43,34,22,48, 0,59	1,25, 9,37,46, 2,26,15	3,13,32, 9,28	6,14
14″	44, 7,16,40,53,12, 8,50,27,14	1,25, 9,34,32,30,10,33	3,13,32,15,42	6,14
16″	44, 7,18, 6, 2,46,41,20,37,47	1,25, 9,31,18,57,48,37	3,13,32,21,56	6,14
18″	44, 7,19,31,12,18, 0,18,26,24	1,25, 9,28, 5,25,20,27	3,13,32,28,10	6,14
20″	44, 7,20,56,21,46, 5,43,46,51	1,25, 9,24,51,52,46, 3	3,13,32,34,24	6,14
22″	44, 7,22,21,31,10,57,36,32,54	1,25, 9,21,38,20, 5,25	3,13,32,40,38	6,14
24″	44, 7,23,46,40,32,35,56,38,19	1,25, 9,18,24,47,18,33	3,13,32,46,52	6,14
26″	44, 7,25,11,49,51, 0,43,56,52	1,25, 9,15,11,14,25,27	3,13,32,53, 6	6,14
28″	44, 7,26,36,59, 6,11,58,22,19	1,25, 9,11,57,41,26, 7	3,13,32,59,20	6,14
30″	44, 7,28, 2, 8,18, 9,39,48,26	1,25, 9, 8,44, 8,20,33	3,13,33, 5,34	6,14
32″	44, 7,29,27,17,26,53,48, 8,59	1,25, 9, 5,30,35, 8,45	3,13,33,11,48	6,14
34″	44, 7,30,52,26,32,24,23,17,44	1,25, 9, 2,17, 1,50,43	3,13,33,18, 2	6,14
36″	44, 7,32,17,35,34,41,25, 8,27	1,25, 8,59, 3,28,26,27	3,13,33,24,16	6,14
38″	44, 7,33,42,44,33,44,53,34,54	1,25, 8,55,49,54,55,57	3,13,33,30,30	6,14
40″	44, 7,35, 7,53,29,34,48,30,51	1,25, 8,52,36,21,19,13	3,13,33,36,44	6,14
42″	44, 7,36,33, 2,22,11, 9,50, 4	1,25, 8,49,22,47,36,15	3,13,33,42,58	6,14
44″	44, 7,37,58,11,11,33,57,26,19	1,25, 8,46, 9,13,47, 3	3,13,33,49,12	6,14
46″	44, 7,39,23,19,57,43,11,13,22	1,25, 8,42,55,39,51,37	3,13,33,55,26	6,14
48″	44, 7,40,48,28,40,38,51, 4,59	1,25, 8,39,42, 5,49,57	3,13,34, 1,40	6,14
50″	44, 7,42,13,37,20,20,56,54,56	1,25, 8,36,28,31,42, 3	3,13,34, 7,54	6,14
52″	44, 7,43,38,45,56,49,28,36,59	1,25, 8,33,14,57,27,55	3,13,34,14, 8	6,14
54″	44, 7,45, 3,54,30, 4,26, 4,54	1,25, 8,30, 1,23, 7,33	3,13,34,20,22	6,14
56″	44, 7,46,29, 3, 0, 5,49,12,27	1,25, 8,26,47,48,40,57	3,13,34,26,36	6,14
58″	44, 7,47,54,11,26,53,37,53,24	1,25, 8,23,34,14, 8, 7	3,13,34,32,50	
60″	44, 7,49,19,19,50,27,52, 1,31			
exact	44, 7,49,19,19,50,27,52,35,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°21′ 0″	44, 7,49,19,19,50,27,52,35,33			
		1,25, 8,20,20,39,32,38		
2″	44, 7,50,44,28,10,48,32, 8,11		3,13,34,45, 3	
		1,25, 8,17, 7, 4,47,35		6,13
4″	44, 7,52, 9,36,27,55,36,55,46		3,13,34,51,16	
		1,25, 8,13,53,29,56,19		6,13
6″	44, 7,53,34,44,41,49, 6,52, 5		3,13,34,57,29	
		1,25, 8,10,39,54,58,50		6,13
8″	44, 7,54,59,52,52,29, 1,50,55		3,13,35, 3,42	
		1,25, 8, 7,26,19,55, 8		6,13
10″	44, 7,56,25, 0,59,55,21,46, 3		3,13,35, 9,55	
		1,25, 8, 4,12,44,45,13		6,13
12″	44, 7,57,50, 9, 4, 8, 6,31,16		3,13,35,16, 8	
		1,25, 8, 0,59, 9,29, 5		6,13
14″	44, 7,59,15,17, 5, 7,16, 0,21		3,13,35,22,21	
		1,25, 7,57,45,34, 6,44		6,13
16″	44, 8, 0,40,25, 2,52,50, 7, 5		3,13,35,28,34	
		1,25, 7,54,31,58,38,10		6,13
18″	44, 8, 2, 5,32,57,24,48,45,15		3,13,35,34,47	
		1,25, 7,51,18,23, 3,23		6,13
20″	44, 8, 3,30,40,48,43,11,48,38		3,13,35,41, 0	
		1,25, 7,48, 4,47,22,23		6,13
22″	44, 8, 4,55,48,36,47,59,11, 1		3,13,35,47,13	
		1,25, 7,44,51,11,35,10		6,13
24″	44, 8, 6,20,56,21,39,10,46,11		3,13,35,53,26	
		1,25, 7,41,37,35,41,44		6,13
26″	44, 8, 7,46, 4, 3,16,46,27,55		3,13,35,59,39	
		1,25, 7,38,23,59,42, 5		6,13
28″	44, 8, 9,11,11,41,40,46,10, 0		3,13,36, 5,52	
		1,25, 7,35,10,23,36,13		6,13
30″	44, 8,10,36,19,16,51, 9,46,13		3,13,36,12, 5	
		1,25, 7,31,56,47,24, 8		6,13
32″	44, 8,12, 1,26,48,47,57,10,21		3,13,36,18,18	
		1,25, 7,28,43,11, 5,50		6,13
34″	44, 8,13,26,34,17,31, 8,16,11		3,13,36,24,31	
		1,25, 7,25,29,34,41,19		6,13
36″	44, 8,14,51,41,43, 0,42,57,30		3,13,36,30,44	
		1,25, 7,22,15,58,10,35		6,13
38″	44, 8,16,16,49, 5,16,41, 8, 5		3,13,36,36,57	
		1,25, 7,19, 2,21,33,38		6,13
40″	44, 8,17,41,56,24,19, 2,41,43		3,13,36,43,10	
		1,25, 7,15,48,44,50,28		6,13
42″	44, 8,19, 7, 3,40, 7,47,32,11		3,13,36,49,23	
		1,25, 7,12,35, 8, 1, 5		6,13
44″	44, 8,20,32,10,52,42,55,33,16		3,13,36,55,36	
		1,25, 7, 9,21,31, 5,29		6,13
46″	44, 8,21,57,18, 2, 4,26,38,45		3,13,37, 1,49	
		1,25, 7, 6, 7,54, 3,40		6,13
48″	44, 8,23,22,25, 8,12,20,42,25		3,13,37, 8, 2	
		1,25, 7, 2,54,16,55,38		6,13
50″	44, 8,24,47,32,11, 6,37,38, 3		3,13,37,14,15	
		1,25, 6,59,40,39,41,23		6,13
52″	44, 8,26,12,39,10,47,17,19,26		3,13,37,20,28	
		1,25, 6,56,27, 2,20,55		6,13
54″	44, 8,27,37,46, 7,14,19,40,21		3,13,37,26,41	
		1,25, 6,53,13,24,54,14		6,13
56″	44, 8,29, 2,53, 0,27,44,34,35		3,13,37,32,54	
		1,25, 6,49,59,47,21,20		6,13
58″	44, 8,30,27,59,50,27,31,55,55		3,13,37,39, 7	
		1,25, 6,46,46, 9,42,13		
60″	44, 8,31,53, 6,37,13,41,38, 8			
exact	44, 8,31,53, 6,37,13,41, 8, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°22′ 0″	44, 8,31,53, 6,37,13,41, 8, 8			
		1,25, 6,43,32,31,53,47		
2″	44, 8,33,18,13,20,46,13, 1,55		3,13,37,51,45	
		1,25, 6,40,18,54, 2, 2		6,13
4″	44, 8,34,43,20, 1, 5, 7, 3,57		3,13,37,57,58	
		1,25, 6,37, 5,16, 4, 4		6,13
6″	44, 8,36, 8,26,38,10,23, 8, 1		3,13,38, 4,11	
		1,25, 6,33,51,37,59,53		6,13
8″	44, 8,37,33,33,12, 2, 1, 7,54		3,13,38,10,24	
		1,25, 6,30,37,59,49,29		6,13
10″	44, 8,38,58,39,42,40, 0,57,23		3,13,38,16,37	
		1,25, 6,27,24,21,32,52		6,13
12″	44, 8,40,23,46,10, 4,22,30,15		3,13,38,22,50	
		1,25, 6,24,10,43,10, 2		6,13
14″	44, 8,41,48,52,34,15, 5,40,17		3,13,38,29, 3	
		1,25, 6,20,57, 4,40,59		6,13
16″	44, 8,43,13,58,55,12,10,21,16		3,13,38,35,16	
		1,25, 6,17,43,26, 5,43		6,13
18″	44, 8,44,39, 5,12,55,36,26,59		3,13,38,41,29	
		1,25, 6,14,29,47,24,14		6,13
20″	44, 8,46, 4,11,27,25,23,51,13		3,13,38,47,42	
		1,25, 6,11,16, 8,36,32		6,13
22″	44, 8,47,29,17,38,41,32,27,45		3,13,38,53,55	
		1,25, 6, 8, 2,29,42,37		6,13
24″	44, 8,48,54,23,46,44, 2,10,22		3,13,39, 0, 8	
		1,25, 6, 4,48,50,42,29		6,13
26″	44, 8,50,19,29,51,32,52,52,51		3,13,39, 6,21	
		1,25, 6, 1,35,11,36, 8		6,13
28″	44, 8,51,44,35,53, 8, 4,28,59		3,13,39,12,34	
		1,25, 5,58,21,32,23,34		6,13
30″	44, 8,53, 9,41,51,29,36,52,33		3,13,39,18,47	
		1,25, 5,55, 7,53, 4,47		6,13
32″	44, 8,54,34,47,46,37,29,57,20		3,13,39,25, 0	
		1,25, 5,51,54,13,39,47		6,13
34″	44, 8,55,59,53,38,31,43,37, 7		3,13,39,31,13	
		1,25, 5,48,40,34, 8,34		6,13
36″	44, 8,57,24,59,27,12,17,45,41		3,13,39,37,26	
		1,25, 5,45,26,54,31, 8		6,13
38″	44, 8,58,50, 5,12,39,12,16,49		3,13,39,43,39	
		1,25, 5,42,13,14,47,29		6,13
40″	44, 9, 0,15,10,54,52,27, 4,18		3,13,39,49,52	
		1,25, 5,38,59,34,57,37		6,13
42″	44, 9, 1,40,16,33,52, 2, 1,55		3,13,39,56, 5	
		1,25, 5,35,45,55, 1,32		6,13
44″	44, 9, 3, 5,22, 9,37,57, 3,27		3,13,40, 2,18	
		1,25, 5,32,32,14,59,14		6,13
46″	44, 9, 4,30,27,42,10,12, 2,41		3,13,40, 8,31	
		1,25, 5,29,18,34,50,43		6,13
48″	44, 9, 5,55,33,11,28,46,53,24		3,13,40,14,44	
		1,25, 5,26, 4,54,35,59		6,13
50″	44, 9, 7,20,38,37,33,41,29,23		3,13,40,20,57	
		1,25, 5,22,51,14,15, 2		6,13
52″	44, 9, 8,45,44, 0,24,55,44,25		3,13,40,27,10	
		1,25, 5,19,37,33,47,52		6,13
54″	44, 9,10,10,49,20, 2,29,32,17		3,13,40,33,23	
		1,25, 5,16,23,53,14,29		6,13
56″	44, 9,11,35,54,36,26,22,46,46		3,13,40,39,36	
		1,25, 5,13,10,12,34,53		6,13
58″	44, 9,13, 0,59,49,36,35,21,39		3,13,40,45,49	
		1,25, 5, 9,56,31,49, 4		
60″	44, 9,14,26, 4,59,33, 7,10,43			
exact	44, 9,14,26, 4,59,33, 6,48,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°23′ 0″	44, 9,14,26, 4,59,33, 6,48,37	1,25, 5, 6,42,50,54,47		
2″	44, 9,15,51,10, 6,15,57,43,24	1,25, 5, 3,29, 9,56,23	3,13,40,58,24	
4″	44, 9,17,16,15, 9,45, 7,39,47	1,25, 5, 0,15,28,51,46	3,13,41, 4,37	6,13
6″	44, 9,18,41,20,10, 0,36,31,33	1,25, 4,57, 1,47,40,56	3,13,41,10,50	6,13
8″	44, 9,20, 6,25, 7, 2,24,12,29	1,25, 4,53,48, 6,23,53	3,13,41,17, 3	6,13
10″	44, 9,21,31,30, 0,50,30,36,22	1,25, 4,50,34,25, 0,37	3,13,41,23,16	6,13
12″	44, 9,22,56,34,51,24,55,36,59	1,25, 4,47,20,43,31, 8	3,13,41,29,29	6,13
14″	44, 9,24,21,39,38,45,39, 8, 7	1,25, 4,44, 7, 1,55,26	3,13,41,35,42	6,13
16″	44, 9,25,46,44,22,52,41, 3,33	1,25, 4,40,53,20,13,31	3,13,41,41,55	6,13
18″	44, 9,27,11,49, 3,46, 1,17, 4	1,25, 4,37,39,38,25,23	3,13,41,48, 8	6,13
20″	44, 9,28,36,53,41,25,39,42,27	1,25, 4,34,25,56,31, 2	3,13,41,54,21	6,13
22″	44, 9,30, 1,58,15,51,36,13,29	1,25, 4,31,12,14,30,28	3,13,42, 0,34	6,13
24″	44, 9,31,27, 2,47, 3,50,43,57	1,25, 4,27,58,32,23,41	3,13,42, 6,47	6,13
26″	44, 9,32,52, 7,15, 2,23, 7,38	1,25, 4,24,44,50,10,41	3,13,42,13, 0	6,13
28″	44, 9,34,17,11,39,47,13,18,19	1,25, 4,21,31, 7,51,28	3,13,42,19,13	6,13
30″	44, 9,35,42,16, 1,18,21, 9,47	1,25, 4,18,17,25,26, 2	3,13,42,25,26	6,13
32″	44, 9,37, 7,20,19,35,46,35,49	1,25, 4,15, 3,42,54,23	3,13,42,31,39	6,13
34″	44, 9,38,32,24,34,39,29,30,12	1,25, 4,11,50, 0,16,31	3,13,42,37,52	6,13
36″	44, 9,39,57,28,46,29,29,46,43	1,25, 4, 8,36,17,32,26	3,13,42,44, 5	6,13
38″	44, 9,41,22,32,55, 5,47,19, 9	1,25, 4, 5,22,34,42, 8	3,13,42,50,18	6,13
40″	44, 9,42,47,37, 0,28,22, 1,17	1,25, 4, 2, 8,51,45,37	3,13,42,56,31	6,13
42″	44, 9,44,12,41, 2,37,13,46,54	1,25, 3,58,55, 8,42,53	3,13,43, 2,44	6,13
44″	44, 9,45,37,45, 1,32,22,29,47	1,25, 3,55,41,25,33,56	3,13,43, 8,57	6,13
46″	44, 9,47, 2,48,57,13,48, 3,43	1,25, 3,52,27,42,18,46	3,13,43,15,10	6,13
48″	44, 9,48,27,52,49,41,30,22,29	1,25, 3,49,13,58,57,23	3,13,43,21,23	6,13
50″	44, 9,49,52,56,38,55,29,19,52	1,25, 3,46, 0,15,29,47	3,13,43,27,36	6,13
52″	44, 9,51,18, 0,24,55,44,49,39	1,25, 3,42,46,31,55,58	3,13,43,33,49	6,13
54″	44, 9,52,43, 4, 7,42,16,45,37	1,25, 3,39,32,48,15,56	3,13,43,40, 2	6,13
56″	44, 9,54, 8, 7,47,15, 5, 1,33	1,25, 3,36,19, 4,29,41	3,13,43,46,15	6,13
58″	44, 9,55,33,11,23,34, 9,31,14	1,25, 3,33, 5,20,37,13	3,13,43,52,28	
60″	44, 9,56,58,14,56,39,30, 8,27			
exact	44, 9,56,58,14,56,39,29,58, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°24′ 0″	44, 9,56,58,14,56,39,29,58, 8			
		1,25, 3,29,51,36,37,24		
2″	44, 9,58,23,18,26,31, 6,35,32		3,13,44, 4,59	
		1,25, 3,26,37,52,32,25		6,13
4″	44, 9,59,48,21,53, 8,59, 7,57		3,13,44,11,12	
		1,25, 3,23,24, 8,21,13		6,13
6″	44,10, 1,13,25,16,33, 7,29,10		3,13,44,17,25	
		1,25, 3,20,10,24, 3,48		6,13
8″	44,10, 2,38,28,36,43,31,32,58		3,13,44,23,38	
		1,25, 3,16,56,39,40,10		6,13
10″	44,10, 4, 3,31,53,40,11,13, 8		3,13,44,29,51	
		1,25, 3,13,42,55,10,19		6,13
12″	44,10, 5,28,35, 7,23, 6,23,27		3,13,44,36, 4	
		1,25, 3,10,29,10,34,15		6,13
14″	44,10, 6,53,38,17,52,16,57,42		3,13,44,42,17	
		1,25, 3, 7,15,25,51,58		6,13
16″	44,10, 8,18,41,25, 7,42,49,40		3,13,44,48,30	
		1,25, 3, 4, 1,41, 3,28		6,13
18″	44,10, 9,43,44,29, 9,23,53, 8		3,13,44,54,43	
		1,25, 3, 0,47,56, 8,45		6,13
20″	44,10,11, 8,47,29,57,20, 1,53		3,13,45, 0,56	
		1,25, 2,57,34,11, 7,49		6,13
22″	44,10,12,33,50,27,31,31, 9,42		3,13,45, 7, 9	
		1,25, 2,54,20,26, 0,40		6,13
24″	44,10,13,58,53,21,51,57,10,22		3,13,45,13,22	
		1,25, 2,51, 6,40,47,18		6,13
26″	44,10,15,23,56,12,58,37,57,40		3,13,45,19,35	
		1,25, 2,47,52,55,27,43		6,13
28″	44,10,16,48,59, 0,51,33,25,23		3,13,45,25,48	
		1,25, 2,44,39,10, 1,55		6,13
30″	44,10,18,14, 1,45,30,43,27,18		3,13,45,32, 1	
		1,25, 2,41,25,24,29,54		6,13
32″	44,10,19,39, 4,26,56, 7,57,12		3,13,45,38,14	
		1,25, 2,38,11,38,51,40		6,13
34″	44,10,21, 4, 7, 5, 7,46,48,52		3,13,45,44,27	
		1,25, 2,34,57,53, 7,13		6,13
36″	44,10,22,29, 9,40, 5,39,56, 5		3,13,45,50,40	
		1,25, 2,31,44, 7,16,33		6,13
38″	44,10,23,54,12,11,49,47,12,38		3,13,45,56,53	
		1,25, 2,28,30,21,19,40		6,13
40″	44,10,25,19,14,40,20, 8,32,18		3,13,46, 3, 6	
		1,25, 2,25,16,35,16,34		6,13
42″	44,10,26,44,17, 5,36,43,48,52		3,13,46, 9,19	
		1,25, 2,22, 2,49, 7,15		6,13
44″	44,10,28, 9,19,27,39,32,56, 7		3,13,46,15,32	
		1,25, 2,18,49, 2,51,43		6,13
46″	44,10,29,34,21,46,28,35,47,50		3,13,46,21,45	
		1,25, 2,15,35,16,29,58		6,13
48″	44,10,30,59,24, 2, 3,52,17,48		3,13,46,27,58	
		1,25, 2,12,21,30, 2, 0		6,13
50″	44,10,32,24,26,14,25,22,19,48		3,13,46,34,11	
		1,25, 2, 9, 7,43,27,49		6,13
52″	44,10,33,49,28,23,33, 5,47,37		3,13,46,40,24	
		1,25, 2, 5,53,56,47,25		6,13
54″	44,10,35,14,30,29,27, 2,35, 2		3,13,46,46,37	
		1,25, 2, 2,40,10, 0,48		6,13
56″	44,10,36,39,32,32, 7,12,35,50		3,13,46,52,50	
		1,25, 1,59,26,23, 7,58		6,13
58″	44,10,38, 4,34,31,33,35,43,48		3,13,46,59, 3	
		1,25, 1,56,12,36, 8,55		
60″	44,10,39,29,36,27,46,11,52,43			
exact	44,10,39,29,36,27,46,11,50,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°25′ 0″	44,10,39,29,36,27,46,11,50,54			
		1,25, 1,52,58,49, 3,24		
2″	44,10,40,54,38,20,45, 0,54,18		3,13,47,11,30	
		1,25, 1,49,45, 1,51,54		6,13
4″	44,10,42,19,40,10,30, 2,46,12		3,13,47,17,43	
		1,25, 1,46,31,14,34,11		6,13
6″	44,10,43,44,41,57, 1,17,20,23		3,13,47,23,56	
		1,25, 1,43,17,27,10,15		6,13
8″	44,10,45, 9,43,40,18,44,30,38		3,13,47,30, 9	
		1,25, 1,40, 3,39,40, 6		6,13
10″	44,10,46,34,45,20,22,24,10,44		3,13,47,36,22	
		1,25, 1,36,49,52, 3,44		6,13
12″	44,10,47,59,46,57,12,16,14,28		3,13,47,42,35	
		1,25, 1,33,36, 4,21, 9		6,13
14″	44,10,49,24,48,30,48,20,35,37		3,13,47,48,48	
		1,25, 1,30,22,16,32,21		6,13
16″	44,10,50,49,50, 1,10,37, 7,58		3,13,47,55, 1	
		1,25, 1,27, 8,28,37,20		6,13
18″	44,10,52,14,51,28,19, 5,45,18		3,13,48, 1,14	
		1,25, 1,23,54,40,36, 6		6,13
20″	44,10,53,39,52,52,13,46,21,24		3,13,48, 7,27	
		1,25, 1,20,40,52,28,39		6,13
22″	44,10,55, 4,54,12,54,38,50, 3		3,13,48,13,40	
		1,25, 1,17,27, 4,14,59		6,13
24″	44,10,56,29,55,30,21,43, 5, 2		3,13,48,19,53	
		1,25, 1,14,13,15,55, 6		6,13
26″	44,10,57,54,56,44,34,59, 0, 8		3,13,48,26, 6	
		1,25, 1,10,59,27,29, 0		6,13
28″	44,10,59,19,57,55,34,26,29, 8		3,13,48,32,19	
		1,25, 1, 7,45,38,56,41		6,13
30″	44,11, 0,44,59, 3,20, 5,25,49		3,13,48,38,32	
		1,25, 1, 4,31,50,18, 9		6,13
32″	44,11, 2,10, 0, 7,51,55,43,58		3,13,48,44,45	
		1,25, 1, 1,18, 1,33,24		6,13
34″	44,11, 3,35, 1, 9, 9,57,17,22		3,13,48,50,58	
		1,25, 0,58, 4,12,42,26		6,13
36″	44,11, 5, 0, 2, 7,14, 9,59,48		3,13,48,57,11	
		1,25, 0,54,50,23,45,15		6,13
38″	44,11, 6,25, 3, 2, 4,33,45, 3		3,13,49, 3,24	
		1,25, 0,51,36,34,41,51		6,13
40″	44,11, 7,50, 3,53,41, 8,26,54		3,13,49, 9,37	
		1,25, 0,48,22,45,32,14		6,13
42″	44,11, 9,15, 4,42, 3,53,59, 8		3,13,49,15,50	
		1,25, 0,45, 8,56,16,24		6,13
44″	44,11,10,40, 5,27,12,50,15,32		3,13,49,22, 3	
		1,25, 0,41,55, 6,54,21		6,13
46″	44,11,12, 5, 6, 9, 7,57, 9,53		3,13,49,28,16	
		1,25, 0,38,41,17,26, 5		6,13
48″	44,11,13,30, 6,47,49,14,35,58		3,13,49,34,29	
		1,25, 0,35,27,27,51,36		6,13
50″	44,11,14,55, 7,23,16,42,27,34		3,13,49,40,42	
		1,25, 0,32,13,38,10,54		6,13
52″	44,11,16,20, 7,55,30,20,38,28		3,13,49,46,55	
		1,25, 0,28,59,48,23,59		6,13
54″	44,11,17,45, 8,24,30, 9, 2,27		3,13,49,53, 8	
		1,25, 0,25,45,58,30,51		6,13
56″	44,11,19,10, 8,50,16, 7,33,18		3,13,49,59,21	
		1,25, 0,22,32, 8,31,30		6,13
58″	44,11,20,35, 9,12,48,16, 4,48		3,13,50, 5,34	
		1,25, 0,19,18,18,25,56		
60″	44,11,22, 0, 9,32, 6,34,30,44			
exact	44,11,22, 0, 9,32, 6,34,34,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°26′ 0″	44,11,22, 0, 9,32, 6,34,34,15			
		1,25, 0,16, 4,28,14,34		
2″	44,11,23,25, 9,48,11, 2,48,49		3,13,50,17,58	
		1,25, 0,12,50,37,56,36		6,13
4″	44,11,24,50,10, 1, 1,40,45,25		3,13,50,24,11	
		1,25, 0, 9,36,47,32,25		6,13
6″	44,11,26,15,10,10,38,28,17,50		3,13,50,30,24	
		1,25, 0, 6,22,57, 2, 1		6,13
8″	44,11,27,40,10,17, 1,25,19,51		3,13,50,36,37	
		1,25, 0, 3, 9, 6,25,24		6,13
10″	44,11,29, 5,10,20,10,31,45,15		3,13,50,42,50	
		1,24,59,59,55,15,42,34		6,13
12″	44,11,30,30,10,20, 5,47,27,49		3,13,50,49, 3	
		1,24,59,56,41,24,53,31		6,13
14″	44,11,31,55,10,16,47,12,21,20		3,13,50,55,16	
		1,24,59,53,27,33,58,15		6,13
16″	44,11,33,20,10,10,14,46,19,35		3,13,51, 1,29	
		1,24,59,50,13,42,56,46		6,13
18″	44,11,34,45,10, 0,28,29,16,21		3,13,51, 7,42	
		1,24,59,46,59,51,49, 4		6,13
20″	44,11,36,10, 9,47,28,21, 5,25		3,13,51,13,55	
		1,24,59,43,46, 0,35, 9		6,13
22″	44,11,37,35, 9,31,14,21,40,34		3,13,51,20, 8	
		1,24,59,40,32, 9,15, 1		6,13
24″	44,11,39, 0, 9,11,46,30,55,35		3,13,51,26,21	
		1,24,59,37,18,17,48,40		6,13
26″	44,11,40,25, 8,49, 4,48,44,15		3,13,51,32,34	
		1,24,59,34, 4,26,16, 6		6,13
28″	44,11,41,50, 8,23, 9,15, 0,21		3,13,51,38,47	
		1,24,59,30,50,34,37,19		6,13
30″	44,11,43,15, 7,53,59,49,37,40		3,13,51,45, 0	
		1,24,59,27,36,42,52,19		6,13
32″	44,11,44,40, 7,21,36,32,29,59		3,13,51,51,13	
		1,24,59,24,22,51, 1, 6		6,13
34″	44,11,46, 5, 6,45,59,23,31, 5		3,13,51,57,26	
		1,24,59,21, 8,59, 3,40		6,13
36″	44,11,47,30, 6, 7, 8,22,34,45		3,13,52, 3,39	
		1,24,59,17,55, 7, 0, 1		6,13
38″	44,11,48,55, 5,25, 3,29,34,46		3,13,52, 9,52	
		1,24,59,14,41,14,50, 9		6,13
40″	44,11,50,20, 4,39,44,44,24,55		3,13,52,16, 5	
		1,24,59,11,27,22,34, 4		6,13
42″	44,11,51,45, 3,51,12, 6,58,59		3,13,52,22,18	
		1,24,59, 8,13,30,11,46		6,13
44″	44,11,53,10, 2,59,25,37,10,45		3,13,52,28,31	
		1,24,59, 4,59,37,43,15		6,13
46″	44,11,54,35, 2, 4,25,14,54, 0		3,13,52,34,44	
		1,24,59, 1,45,45, 8,31		6,13
48″	44,11,56, 0, 1, 6,11, 0, 2,31		3,13,52,40,57	
		1,24,58,58,31,52,27,34		6,13
50″	44,11,57,25, 0, 4,42,52,30, 5		3,13,52,47,10	
		1,24,58,55,17,59,40,24		6,13
52″	44,11,58,49,59, 0, 0,52,10,29		3,13,52,53,23	
		1,24,58,52, 4, 6,47, 1		6,13
54″	44,12, 0,14,57,52, 4,58,57,30		3,13,52,59,36	
		1,24,58,48,50,13,47,25		6,13
56″	44,12, 1,39,56,40,55,12,44,55		3,13,53, 5,49	
		1,24,58,45,36,20,41,36		6,13
58″	44,12, 3, 4,55,26,31,33,26,31		3,13,53,12, 2	
		1,24,58,42,22,27,29,34		
60″	44,12, 4,29,54, 8,54, 0,56, 5			
exact	44,12, 4,29,54, 8,54, 1, 8,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°27′ 0″	44,12, 4,29,54, 8,54, 1, 8,38			
		1,24,58,39, 8,34,12,40		
2″	44,12, 5,54,52,48, 2,35,21,18		3,13,53,24,22	
		1,24,58,35,54,40,48,18		6,13
4″	44,12, 7,19,51,23,57,16, 9,36		3,13,53,30,35	
		1,24,58,32,40,47,17,43		6,13
6″	44,12, 8,44,49,56,38, 3,27,19		3,13,53,36,48	
		1,24,58,29,26,53,40,55		6,13
8″	44,12,10, 9,48,26, 4,57, 8,14		3,13,53,43, 1	
		1,24,58,26,12,59,57,54		6,13
10″	44,12,11,34,46,52,17,57, 6, 8		3,13,53,49,14	
		1,24,58,22,59, 6, 8,40		6,13
12″	44,12,12,59,45,15,17, 3,14,48		3,13,53,55,27	
		1,24,58,19,45,12,13,13		6,13
14″	44,12,14,24,43,35, 2,15,28, 1		3,13,54, 1,40	
		1,24,58,16,31,18,11,33		6,13
16″	44,12,15,49,41,51,33,33,39,34		3,13,54, 7,53	
		1,24,58,13,17,24, 3,40		6,13
18″	44,12,17,14,40, 4,50,57,43,14		3,13,54,14, 6	
		1,24,58,10, 3,29,49,34		6,13
20″	44,12,18,39,38,14,54,27,32,48		3,13,54,20,19	
		1,24,58, 6,49,35,29,15		6,13
22″	44,12,20, 4,36,21,44, 3, 2, 3		3,13,54,26,32	
		1,24,58, 3,35,41, 2,43		6,13
24″	44,12,21,29,34,25,19,44, 4,46		3,13,54,32,45	
		1,24,58, 0,21,46,29,58		6,13
26″	44,12,22,54,32,25,41,30,34,44		3,13,54,38,58	
		1,24,57,57, 7,51,51, 0		6,13
28″	44,12,24,19,30,22,49,22,25,44		3,13,54,45,11	
		1,24,57,53,53,57, 5,49		6,13
30″	44,12,25,44,28,16,43,19,31,33		3,13,54,51,24	
		1,24,57,50,40, 2,14,25		6,13
32″	44,12,27, 9,26, 7,23,21,45,58		3,13,54,57,37	
		1,24,57,47,26, 7,16,48		6,13
34″	44,12,28,34,23,54,49,29, 2,46		3,13,55, 3,50	
		1,24,57,44,12,12,12,58		6,13
36″	44,12,29,59,21,39, 1,41,15,44		3,13,55,10, 3	
		1,24,57,40,58,17, 2,55		6,13
38″	44,12,31,24,19,19,59,58,18,39		3,13,55,16,16	
		1,24,57,37,44,21,46,39		6,13
40″	44,12,32,49,16,57,44,20, 5,18		3,13,55,22,29	
		1,24,57,34,30,26,24,10		6,13
42″	44,12,34,14,14,32,14,46,29,28		3,13,55,28,42	
		1,24,57,31,16,30,55,28		6,13
44″	44,12,35,39,12, 3,31,17,24,56		3,13,55,34,55	
		1,24,57,28, 2,35,20,33		6,13
46″	44,12,37, 4, 9,31,33,52,45,29		3,13,55,41, 8	
		1,24,57,24,48,39,39,25		6,13
48″	44,12,38,29, 6,56,22,32,24,54		3,13,55,47,21	
		1,24,57,21,34,43,52, 4		6,13
50″	44,12,39,54, 4,17,57,16,16,58		3,13,55,53,34	
		1,24,57,18,20,47,58,30		6,13
52″	44,12,41,19, 1,36,18, 4,15,28		3,13,55,59,47	
		1,24,57,15, 6,51,58,43		6,13
54″	44,12,42,43,58,51,24,56,14,11		3,13,56, 6, 0	
		1,24,57,11,52,55,52,43		6,13
56″	44,12,44, 8,56, 3,17,52, 6,54		3,13,56,12,13	
		1,24,57, 8,38,59,40,30		6,13
58″	44,12,45,33,53,11,56,51,47,24		3,13,56,18,26	
		1,24,57, 5,25, 3,22, 4		
60″	44,12,46,58,50,17,21,55, 9,28			
exact	44,12,46,58,50,17,21,55,27,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°28′ 0″	44,12,46,58,50,17,21,55,27,39			
		1,24,57, 2,11, 6,59,28		
2″	44,12,48,23,47,19,33, 2,27, 7		3,13,56,30,43	
		1,24,56,58,57,10,28,45		6,13
4″	44,12,49,48,44,18,30,12,55,52		3,13,56,36,56	
		1,24,56,55,43,13,51,49		6,13
6″	44,12,51,13,41,14,13,26,47,41		3,13,56,43, 9	
		1,24,56,52,29,17, 8,40		6,13
8″	44,12,52,38,38, 6,42,43,56,21		3,13,56,49,22	
		1,24,56,49,15,20,19,18		6,13
10″	44,12,54, 3,34,55,58, 4,15,39		3,13,56,55,35	
		1,24,56,46, 1,23,23,43		6,13
12″	44,12,55,28,31,41,59,27,39,22		3,13,57, 1,48	
		1,24,56,42,47,26,21,55		6,13
14″	44,12,56,53,28,24,46,54, 1,17		3,13,57, 8, 1	
		1,24,56,39,33,29,13,54		6,13
16″	44,12,58,18,25, 4,20,23,15,11		3,13,57,14,14	
		1,24,56,36,19,31,59,40		6,13
18″	44,12,59,43,21,40,39,55,14,51		3,13,57,20,27	
		1,24,56,33, 5,34,39,13		6,13
20″	44,13, 1, 8,18,13,45,29,54, 4		3,13,57,26,40	
		1,24,56,29,51,37,12,33		6,13
22″	44,13, 2,33,14,43,37, 7, 6,37		3,13,57,32,53	
		1,24,56,26,37,39,39,40		6,13
24″	44,13, 3,58,11,10,14,46,46,17		3,13,57,39, 6	
		1,24,56,23,23,42, 0,34		6,13
26″	44,13, 5,23, 7,33,38,28,46,51		3,13,57,45,19	
		1,24,56,20, 9,44,15,15		6,13
28″	44,13, 6,48, 3,53,48,13, 2, 6		3,13,57,51,32	
		1,24,56,16,55,46,23,43		6,13
30″	44,13, 8,13, 0,10,43,59,25,49		3,13,57,57,45	
		1,24,56,13,41,48,25,58		6,13
32″	44,13, 9,37,56,24,25,47,51,47		3,13,58, 3,58	
		1,24,56,10,27,50,22, 0		6,13
34″	44,13,11, 2,52,34,53,38,13,47		3,13,58,10,11	
		1,24,56, 7,13,52,11,49		6,13
36″	44,13,12,27,48,42, 7,30,25,36		3,13,58,16,24	
		1,24,56, 3,59,53,55,25		6,13
38″	44,13,13,52,44,46, 7,24,21, 1		3,13,58,22,37	
		1,24,56, 0,45,55,32,48		6,13
40″	44,13,15,17,40,46,53,19,53,49		3,13,58,28,50	
		1,24,55,57,31,57, 3,58		6,13
42″	44,13,16,42,36,44,25,16,57,47		3,13,58,35, 3	
		1,24,55,54,17,58,28,55		6,13
44″	44,13,18, 7,32,38,43,15,26,42		3,13,58,41,16	
		1,24,55,51, 3,59,47,39		6,13
46″	44,13,19,32,28,29,47,15,14,21		3,13,58,47,29	
		1,24,55,47,50, 1, 0,10		6,13
48″	44,13,20,57,24,17,37,16,14,31		3,13,58,53,42	
		1,24,55,44,36, 2, 6,28		6,13
50″	44,13,22,22,20, 2,13,18,20,59		3,13,58,59,55	
		1,24,55,41,22, 3, 6,33		6,13
52″	44,13,23,47,15,43,35,21,27,32		3,13,59, 6, 8	
		1,24,55,38, 8, 4, 0,25		6,13
54″	44,13,25,12,11,21,43,25,27,57		3,13,59,12,21	
		1,24,55,34,54, 4,48, 4		6,13
56″	44,13,26,37, 6,56,37,30,16, 1		3,13,59,18,34	
		1,24,55,31,40, 5,29,30		6,13
58″	44,13,28, 2, 2,28,17,35,45,31		3,13,59,24,47	
		1,24,55,28,26, 6, 4,43		
60″	44,13,29,26,57,56,43,41,50,14			
exact	44,13,29,26,57,56,43,42,18, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°29′ 0″	44,13,29,26,57,56,43,42,18, 4			
		1,24,55,25,12, 6,36,44		
2″	44,13,30,51,53,21,55,48,54,48		3,13,59,37, 0	
		1,24,55,21,58, 6,59,44		6,13
4″	44,13,32,16,48,43,53,55,54,32		3,13,59,43,13	
		1,24,55,18,44, 7,16,31		6,13
6″	44,13,33,41,44, 2,38, 3,11, 3		3,13,59,49,26	
		1,24,55,15,30, 7,27, 5		6,13
8″	44,13,35, 6,39,18, 8,10,38, 8		3,13,59,55,39	
		1,24,55,12,16, 7,31,26		6,13
10″	44,13,36,31,34,30,24,18, 9,34		3,14, 0, 1,52	
		1,24,55, 9, 2, 7,29,34		6,13
12″	44,13,37,56,29,39,26,25,39, 8		3,14, 0, 8, 5	
		1,24,55, 5,48, 7,21,29		6,13
14″	44,13,39,21,24,45,14,33, 0,37		3,14, 0,14,18	
		1,24,55, 2,34, 7, 7,11		6,13
16″	44,13,40,46,19,47,48,40, 7,48		3,14, 0,20,31	
		1,24,54,59,20, 6,46,40		6,13
18″	44,13,42,11,14,47, 8,46,54,28		3,14, 0,26,44	
		1,24,54,56, 6, 6,19,56		6,13
20″	44,13,43,36, 9,43,14,53,14,24		3,14, 0,32,57	
		1,24,54,52,52, 5,46,59		6,13
22″	44,13,45, 1, 4,36, 6,59, 1,23		3,14, 0,39,10	
		1,24,54,49,38, 5, 7,49		6,13
24″	44,13,46,25,59,25,45, 4, 9,12		3,14, 0,45,23	
		1,24,54,46,24, 4,22,26		6,13
26″	44,13,47,50,54,12, 9, 8,31,38		3,14, 0,51,36	
		1,24,54,43,10, 3,30,50		6,13
28″	44,13,49,15,48,55,19,12, 2,28		3,14, 0,57,49	
		1,24,54,39,56, 2,33, 1		6,13
30″	44,13,50,40,43,35,15,14,35,29		3,14, 1, 4, 2	
		1,24,54,36,42, 1,28,59		6,13
32″	44,13,52, 5,38,11,57,16, 4,28		3,14, 1,10,15	
		1,24,54,33,28, 0,18,44		6,13
34″	44,13,53,30,32,45,25,16,23,12		3,14, 1,16,28	
		1,24,54,30,13,59, 2,16		6,13
36″	44,13,54,55,27,15,39,15,25,28		3,14, 1,22,41	
		1,24,54,26,59,57,39,35		6,13
38″	44,13,56,20,21,42,39,13, 5, 3		3,14, 1,28,54	
		1,24,54,23,45,56,10,41		6,13
40″	44,13,57,45,16, 6,25, 9,15,44		3,14, 1,35, 7	
		1,24,54,20,31,54,35,34		6,13
42″	44,13,59,10,10,26,57, 3,51,18		3,14, 1,41,20	
		1,24,54,17,17,52,54,14		6,13
44″	44,14, 0,35, 4,44,14,56,45,32		3,14, 1,47,33	
		1,24,54,14, 3,51, 6,41		6,13
46″	44,14, 1,59,58,58,18,47,52,13		3,14, 1,53,46	
		1,24,54,10,49,49,12,55		6,13
48″	44,14, 3,24,53, 9, 8,37, 5, 8		3,14, 1,59,59	
		1,24,54, 7,35,47,12,56		6,13
50″	44,14, 4,49,47,16,44,24,18, 4		3,14, 2, 6,12	
		1,24,54, 4,21,45, 6,44		6,13
52″	44,14, 6,14,41,21, 6, 9,24,48		3,14, 2,12,25	
		1,24,54, 1, 7,42,54,19		6,13
54″	44,14, 7,39,35,22,13,52,19, 7		3,14, 2,18,38	
		1,24,53,57,53,40,35,41		6,13
56″	44,14, 9, 4,29,20, 7,32,54,48		3,14, 2,24,51	
		1,24,53,54,39,38,10,50		6,13
58″	44,14,10,29,23,14,47,11, 5,38		3,14, 2,31, 4	
		1,24,53,51,25,35,39,46		
60″	44,14,11,54,17, 6,12,46,45,24			
exact	44,14,11,54,17, 6,12,47,19,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°30′ 0″	44,14,11,54,17, 6,12,47,19,49			
		1,24,53,48,11,33, 6,15		
2″	44,14,13,19,10,54,24,20,26, 4		3,14, 2,43,14	
		1,24,53,44,57,30,23, 1		6,12
4″	44,14,14,44, 4,39,21,50,49, 5		3,14, 2,49,26	
		1,24,53,41,43,27,33,35		6,12
6″	44,14,16, 8,58,21, 5,18,22,40		3,14, 2,55,38	
		1,24,53,38,29,24,37,57		6,12
8″	44,14,17,33,51,59,34,43, 0,37		3,14, 3, 1,50	
		1,24,53,35,15,21,36, 7		6,12
10″	44,14,18,58,45,34,50, 4,36,44		3,14, 3, 8, 2	
		1,24,53,32, 1,18,28, 5		6,12
12″	44,14,20,23,39, 6,51,23, 4,49		3,14, 3,14,14	
		1,24,53,28,47,15,13,51		6,12
14″	44,14,21,48,32,35,38,38,18,40		3,14, 3,20,26	
		1,24,53,25,33,11,53,25		6,12
16″	44,14,23,13,26, 1,11,50,12, 5		3,14, 3,26,38	
		1,24,53,22,19, 8,26,47		6,12
18″	44,14,24,38,19,23,30,58,38,52		3,14, 3,32,50	
		1,24,53,19, 5, 4,53,57		6,12
20″	44,14,26, 3,12,42,36, 3,32,49		3,14, 3,39, 2	
		1,24,53,15,51, 1,14,55		6,12
22″	44,14,27,28, 5,58,27, 4,47,44		3,14, 3,45,14	
		1,24,53,12,36,57,29,41		6,12
24″	44,14,28,52,59,11, 4, 2,17,25		3,14, 3,51,26	
		1,24,53, 9,22,53,38,15		6,12
26″	44,14,30,17,52,20,26,55,55,40		3,14, 3,57,38	
		1,24,53, 6, 8,49,40,37		6,12
28″	44,14,31,42,45,26,35,45,36,17		3,14, 4, 3,50	
		1,24,53, 2,54,45,36,47		6,12
30″	44,14,33, 7,38,29,30,31,13, 4		3,14, 4,10, 2	
		1,24,52,59,40,41,26,45		6,12
32″	44,14,34,32,31,29,11,12,39,49		3,14, 4,16,14	
		1,24,52,56,26,37,10,31		6,12
34″	44,14,35,57,24,25,37,49,50,20		3,14, 4,22,26	
		1,24,52,53,12,32,48, 5		6,12
36″	44,14,37,22,17,18,50,22,38,25		3,14, 4,28,38	
		1,24,52,49,58,28,19,27		6,12
38″	44,14,38,47,10, 8,48,50,57,52		3,14, 4,34,50	
		1,24,52,46,44,23,44,37		6,12
40″	44,14,40,12, 2,55,33,14,42,29		3,14, 4,41, 2	
		1,24,52,43,30,19, 3,35		6,12
42″	44,14,41,36,55,39, 3,33,46, 4		3,14, 4,47,14	
		1,24,52,40,16,14,16,21		6,12
44″	44,14,43, 1,48,19,19,48, 2,25		3,14, 4,53,26	
		1,24,52,37, 2, 9,22,55		6,12
46″	44,14,44,26,40,56,21,57,25,20		3,14, 4,59,38	
		1,24,52,33,48, 4,23,17		6,12
48″	44,14,45,51,33,30,10, 1,48,37		3,14, 5, 5,50	
		1,24,52,30,33,59,17,27		6,12
50″	44,14,47,16,26, 0,44, 1, 6, 4		3,14, 5,12, 2	
		1,24,52,27,19,54, 5,25		6,12
52″	44,14,48,41,18,28, 3,55,11,29		3,14, 5,18,14	
		1,24,52,24, 5,48,47,11		6,12
54″	44,14,50, 6,10,52, 9,43,58,40		3,14, 5,24,26	
		1,24,52,20,51,43,22,45		6,12
56″	44,14,51,31, 3,13, 1,27,21,25		3,14, 5,30,38	
		1,24,52,17,37,37,52, 7		6,12
58″	44,14,52,55,55,30,39, 5,13,32		3,14, 5,36,50	
		1,24,52,14,23,32,15,17		
60″	44,14,54,20,47,45, 2,37,28,49			
exact	44,14,54,20,47,45, 2,37, 5,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°31′ 0″	44,14,54,20,47,45, 2,37, 5,59			
		1,24,52,11, 9,26,29,48		
2″	44,14,55,45,39,56,12, 3,35,47		3,14, 5,49,24	
		1,24,52, 7,55,20,40,24		6,12
4″	44,14,57,10,32, 4, 7,24,16,11		3,14, 5,55,36	
		1,24,52, 4,41,14,44,48		6,12
6″	44,14,58,35,24, 8,48,39, 0,59		3,14, 6, 1,48	
		1,24,52, 1,27, 8,43, 0		6,12
8″	44,15, 0, 0,16,10,15,47,43,59		3,14, 6, 8, 0	
		1,24,51,58,13, 2,35, 0		6,12
10″	44,15, 1,25, 8, 8,28,50,18,59		3,14, 6,14,12	
		1,24,51,54,58,56,20,48		6,12
12″	44,15, 2,50, 0, 3,27,46,39,47		3,14, 6,20,24	
		1,24,51,51,44,50, 0,24		6,12
14″	44,15, 4,14,51,55,12,36,40,11		3,14, 6,26,36	
		1,24,51,48,30,43,33,48		6,12
16″	44,15, 5,39,43,43,43,20,13,59		3,14, 6,32,48	
		1,24,51,45,16,37, 1, 0		6,12
18″	44,15, 7, 4,35,28,59,57,14,59		3,14, 6,39, 0	
		1,24,51,42, 2,30,22, 0		6,12
20″	44,15, 8,29,27,11, 2,27,36,59		3,14, 6,45,12	
		1,24,51,38,48,23,36,48		6,12
22″	44,15, 9,54,18,49,50,51,13,47		3,14, 6,51,24	
		1,24,51,35,34,16,45,24		6,12
24″	44,15,11,19,10,25,25, 7,59,11		3,14, 6,57,36	
		1,24,51,32,20, 9,47,48		6,12
26″	44,15,12,44, 1,57,45,17,46,59		3,14, 7, 3,48	
		1,24,51,29, 6, 2,44, 0		6,12
28″	44,15,14, 8,53,26,51,20,30,59		3,14, 7,10, 0	
		1,24,51,25,51,55,34, 0		6,12
30″	44,15,15,33,44,52,43,16, 4,59		3,14, 7,16,12	
		1,24,51,22,37,48,17,48		6,12
32″	44,15,16,58,36,15,21, 4,22,47		3,14, 7,22,24	
		1,24,51,19,23,40,55,24		6,12
34″	44,15,18,23,27,34,44,45,18,11		3,14, 7,28,36	
		1,24,51,16, 9,33,26,48		6,12
36″	44,15,19,48,18,50,54,18,44,59		3,14, 7,34,48	
		1,24,51,12,55,25,52, 0		6,12
38″	44,15,21,13,10, 3,49,44,36,59		3,14, 7,41, 0	
		1,24,51, 9,41,18,11, 0		6,12
40″	44,15,22,38, 1,13,31, 2,47,59		3,14, 7,47,12	
		1,24,51, 6,27,10,23,48		6,12
42″	44,15,24, 2,52,19,58,13,11,47		3,14, 7,53,24	
		1,24,51, 3,13, 2,30,24		6,12
44″	44,15,25,27,43,23,11,15,42,11		3,14, 7,59,36	
		1,24,50,59,58,54,30,48		6,12
46″	44,15,26,52,34,23,10,10,12,59		3,14, 8, 5,48	
		1,24,50,56,44,46,25, 0		6,12
48″	44,15,28,17,25,19,54,56,37,59		3,14, 8,12, 0	
		1,24,50,53,30,38,13, 0		6,12
50″	44,15,29,42,16,13,25,34,50,59		3,14, 8,18,12	
		1,24,50,50,16,29,54,48		6,12
52″	44,15,31, 7, 7, 3,42, 4,45,47		3,14, 8,24,24	
		1,24,50,47, 2,21,30,24		6,12
54″	44,15,32,31,57,50,44,26,16,11		3,14, 8,30,36	
		1,24,50,43,48,12,59,48		6,12
56″	44,15,33,56,48,34,32,39,15,59		3,14, 8,36,48	
		1,24,50,40,34, 4,23, 0		6,12
58″	44,15,35,21,39,15, 6,43,38,59		3,14, 8,43, 0	
		1,24,50,37,19,55,40, 0		
60″	44,15,36,46,29,52,26,39,18,59			
exact	44,15,36,46,29,52,26,39, 2,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°32′ 0″	44,15,36,46,29,52,26,39, 2,53			
		1,24,50,34, 5,46,49, 8		
2″	44,15,38,11,20,26,32,25,52, 1		3,14, 8,55,30	
		1,24,50,30,51,37,53,38		6,12
4″	44,15,39,36,10,57,24, 3,45,39		3,14, 9, 1,42	
		1,24,50,27,37,28,51,56		6,12
6″	44,15,41, 1, 1,25, 1,32,37,35		3,14, 9, 7,54	
		1,24,50,24,23,19,44, 2		6,12
8″	44,15,42,25,51,49,24,52,21,37		3,14, 9,14, 6	
		1,24,50,21, 9,10,29,56		6,12
10″	44,15,43,50,42,10,34, 2,51,33		3,14, 9,20,18	
		1,24,50,17,55, 1, 9,38		6,12
12″	44,15,45,15,32,28,29, 4, 1,11		3,14, 9,26,30	
		1,24,50,14,40,51,43, 8		6,12
14″	44,15,46,40,22,43, 9,55,44,19		3,14, 9,32,42	
		1,24,50,11,26,42,10,26		6,12
16″	44,15,48, 5,12,54,36,37,54,45		3,14, 9,38,54	
		1,24,50, 8,12,32,31,32		6,12
18″	44,15,49,30, 3, 2,49,10,26,17		3,14, 9,45, 6	
		1,24,50, 4,58,22,46,26		6,12
20″	44,15,50,54,53, 7,47,33,12,43		3,14, 9,51,18	
		1,24,50, 1,44,12,55, 8		6,12
22″	44,15,52,19,43, 9,31,46, 7,51		3,14, 9,57,30	
		1,24,49,58,30, 2,57,38		6,12
24″	44,15,53,44,33, 8, 1,49, 5,29		3,14,10, 3,42	
		1,24,49,55,15,52,53,56		6,12
26″	44,15,55, 9,23, 3,17,41,59,25		3,14,10, 9,54	
		1,24,49,52, 1,42,44, 2		6,12
28″	44,15,56,34,12,55,19,24,43,27		3,14,10,16, 6	
		1,24,49,48,47,32,27,56		6,12
30″	44,15,57,59, 2,44, 6,57,11,23		3,14,10,22,18	
		1,24,49,45,33,22, 5,38		6,12
32″	44,15,59,23,52,29,40,19,17, 1		3,14,10,28,30	
		1,24,49,42,19,11,37, 8		6,12
34″	44,16, 0,48,42,11,59,30,54, 9		3,14,10,34,42	
		1,24,49,39, 5, 1, 2,26		6,12
36″	44,16, 2,13,31,51, 4,31,56,35		3,14,10,40,54	
		1,24,49,35,50,50,21,32		6,12
38″	44,16, 3,38,21,26,55,22,18, 7		3,14,10,47, 6	
		1,24,49,32,36,39,34,26		6,12
40″	44,16, 5, 3,10,59,32, 1,52,33		3,14,10,53,18	
		1,24,49,29,22,28,41, 8		6,12
42″	44,16, 6,28, 0,28,54,30,33,41		3,14,10,59,30	
		1,24,49,26, 8,17,41,38		6,12
44″	44,16, 7,52,49,55, 2,48,15,19		3,14,11, 5,42	
		1,24,49,22,54, 6,35,56		6,12
46″	44,16, 9,17,39,17,56,54,51,15		3,14,11,11,54	
		1,24,49,19,39,55,24, 2		6,12
48″	44,16,10,42,28,37,36,50,15,17		3,14,11,18, 6	
		1,24,49,16,25,44, 5,56		6,12
50″	44,16,12, 7,17,54, 2,34,21,13		3,14,11,24,18	
		1,24,49,13,11,32,41,38		6,12
52″	44,16,13,32, 7, 7,14, 7, 2,51		3,14,11,30,30	
		1,24,49, 9,57,21,11, 8		6,12
54″	44,16,14,56,56,17,11,28,13,59		3,14,11,36,42	
		1,24,49, 6,43, 9,34,26		6,12
56″	44,16,16,21,45,23,54,37,48,25		3,14,11,42,54	
		1,24,49, 3,28,57,51,32		6,12
58″	44,16,17,46,34,27,23,35,39,57		3,14,11,49, 6	
		1,24,49, 0,14,46, 2,26		
60″	44,16,19,11,23,27,38,21,42,23			
exact	44,16,19,11,23,27,38,21,30, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°33′ 0″	44,16,19,11,23,27,38,21,30, 2			
		1,24,48,57, 0,34, 6, 1		
2″	44,16,20,36,12,24,38,55,36, 3		3,14,12, 1,33	
		1,24,48,53,46,22, 4,28		6,12
4″	44,16,22, 1, 1,18,25,17,40,31		3,14,12, 7,45	
		1,24,48,50,32, 9,56,43		6,12
6″	44,16,23,25,50, 8,57,27,37,14		3,14,12,13,57	
		1,24,48,47,17,57,42,46		6,12
8″	44,16,24,50,38,56,15,25,20, 0		3,14,12,20, 9	
		1,24,48,44, 3,45,22,37		6,12
10″	44,16,26,15,27,40,19,10,42,37		3,14,12,26,21	
		1,24,48,40,49,32,56,16		6,12
12″	44,16,27,40,16,21, 8,43,38,53		3,14,12,32,33	
		1,24,48,37,35,20,23,43		6,12
14″	44,16,29, 5, 4,58,44, 4, 2,36		3,14,12,38,45	
		1,24,48,34,21, 7,44,58		6,12
16″	44,16,30,29,53,33, 5,11,47,34		3,14,12,44,57	
		1,24,48,31, 6,55, 0, 1		6,12
18″	44,16,31,54,42, 4,12, 6,47,35		3,14,12,51, 9	
		1,24,48,27,52,42, 8,52		6,12
20″	44,16,33,19,30,32, 4,48,56,27		3,14,12,57,21	
		1,24,48,24,38,29,11,31		6,12
22″	44,16,34,44,18,56,43,18, 7,58		3,14,13, 3,33	
		1,24,48,21,24,16, 7,58		6,12
24″	44,16,36, 9, 7,18, 7,34,15,56		3,14,13, 9,45	
		1,24,48,18,10, 2,58,13		6,12
26″	44,16,37,33,55,36,17,37,14, 9		3,14,13,15,57	
		1,24,48,14,55,49,42,16		6,12
28″	44,16,38,58,43,51,13,26,56,25		3,14,13,22, 9	
		1,24,48,11,41,36,20, 7		6,12
30″	44,16,40,23,32, 2,55, 3,16,32		3,14,13,28,21	
		1,24,48, 8,27,22,51,46		6,12
32″	44,16,41,48,20,11,22,26, 8,18		3,14,13,34,33	
		1,24,48, 5,13, 9,17,13		6,12
34″	44,16,43,13, 8,16,35,35,25,31		3,14,13,40,45	
		1,24,48, 1,58,55,36,28		6,12
36″	44,16,44,37,56,18,34,31, 1,59		3,14,13,46,57	
		1,24,47,58,44,41,49,31		6,12
38″	44,16,46, 2,44,17,19,12,51,30		3,14,13,53, 9	
		1,24,47,55,30,27,56,22		6,12
40″	44,16,47,27,32,12,49,40,47,52		3,14,13,59,21	
		1,24,47,52,16,13,57, 1		6,12
42″	44,16,48,52,20, 5, 5,54,44,53		3,14,14, 5,33	
		1,24,47,49, 1,59,51,28		6,12
44″	44,16,50,17, 7,54, 7,54,36,21		3,14,14,11,45	
		1,24,47,45,47,45,39,43		6,12
46″	44,16,51,41,55,39,55,40,16, 4		3,14,14,17,57	
		1,24,47,42,33,31,21,46		6,12
48″	44,16,53, 6,43,22,29,11,37,50		3,14,14,24, 9	
		1,24,47,39,19,16,57,37		6,12
50″	44,16,54,31,31, 1,48,28,35,27		3,14,14,30,21	
		1,24,47,36, 5, 2,27,16		6,12
52″	44,16,55,56,18,37,53,31, 2,43		3,14,14,36,33	
		1,24,47,32,50,47,50,43		6,12
54″	44,16,57,21, 6,10,44,18,53,26		3,14,14,42,45	
		1,24,47,29,36,33, 7,58		6,12
56″	44,16,58,45,53,40,20,52, 1,24		3,14,14,48,57	
		1,24,47,26,22,18,19, 1		6,12
58″	44,17, 0,10,41, 6,43,10,20,25		3,14,14,55, 9	
		1,24,47,23, 8, 3,23,52		
60″	44,17, 1,35,28,29,51,13,44,17			
exact	44,17, 1,35,28,29,51,13,40,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°34′ 0″	44,17, 1,35,28,29,51,13,40,11			
		1,24,47,19,53,48,22,16		
2″	44,17, 3, 0,15,49,45, 2, 2,27		3,14,15, 7,33	
		1,24,47,16,39,33,14,43		6,12
4″	44,17, 4,25, 3, 6,24,35,17,10		3,14,15,13,45	
		1,24,47,13,25,18, 0,58		6,12
6″	44,17, 5,49,50,19,49,53,18, 8		3,14,15,19,57	
		1,24,47,10,11, 2,41, 1		6,12
8″	44,17, 7,14,37,30, 0,55,59, 9		3,14,15,26, 9	
		1,24,47, 6,56,47,14,52		6,12
10″	44,17, 8,39,24,36,57,43,14, 1		3,14,15,32,21	
		1,24,47, 3,42,31,42,31		6,12
12″	44,17,10, 4,11,40,40,14,56,32		3,14,15,38,33	
		1,24,47, 0,28,16, 3,58		6,12
14″	44,17,11,28,58,41, 8,31, 0,30		3,14,15,44,45	
		1,24,46,57,14, 0,19,13		6,12
16″	44,17,12,53,45,38,22,31,19,43		3,14,15,50,57	
		1,24,46,53,59,44,28,16		6,12
18″	44,17,14,18,32,32,22,15,47,59		3,14,15,57, 9	
		1,24,46,50,45,28,31, 7		6,12
20″	44,17,15,43,19,23, 7,44,19, 6		3,14,16, 3,21	
		1,24,46,47,31,12,27,46		6,12
22″	44,17,17, 8, 6,10,38,56,46,52		3,14,16, 9,33	
		1,24,46,44,16,56,18,13		6,12
24″	44,17,18,32,52,54,55,53, 5, 5		3,14,16,15,45	
		1,24,46,41, 2,40, 2,28		6,12
26″	44,17,19,57,39,35,58,33, 7,33		3,14,16,21,57	
		1,24,46,37,48,23,40,31		6,12
28″	44,17,21,22,26,13,46,56,48, 4		3,14,16,28, 9	
		1,24,46,34,34, 7,12,22		6,12
30″	44,17,22,47,12,48,21, 4, 0,26		3,14,16,34,21	
		1,24,46,31,19,50,38, 1		6,12
32″	44,17,24,11,59,19,40,54,38,27		3,14,16,40,33	
		1,24,46,28, 5,33,57,28		6,12
34″	44,17,25,36,45,47,46,28,35,55		3,14,16,46,45	
		1,24,46,24,51,17,10,43		6,12
36″	44,17,27, 1,32,12,37,45,46,38		3,14,16,52,57	
		1,24,46,21,37, 0,17,46		6,12
38″	44,17,28,26,18,34,14,46, 4,24		3,14,16,59, 9	
		1,24,46,18,22,43,18,37		6,12
40″	44,17,29,51, 4,52,37,29,23, 1		3,14,17, 5,21	
		1,24,46,15, 8,26,13,16		6,12
42″	44,17,31,15,51, 7,45,55,36,17		3,14,17,11,33	
		1,24,46,11,54, 9, 1,43		6,12
44″	44,17,32,40,37,19,40, 4,38, 0		3,14,17,17,45	
		1,24,46, 8,39,51,43,58		6,12
46″	44,17,34, 5,23,28,19,56,21,58		3,14,17,23,57	
		1,24,46, 5,25,34,20, 1		6,12
48″	44,17,35,30, 9,33,45,30,41,59		3,14,17,30, 9	
		1,24,46, 2,11,16,49,52		6,12
50″	44,17,36,54,55,35,56,47,31,51		3,14,17,36,21	
		1,24,45,58,56,59,13,31		6,12
52″	44,17,38,19,41,34,53,46,45,22		3,14,17,42,33	
		1,24,45,55,42,41,30,58		6,12
54″	44,17,39,44,27,30,36,28,16,20		3,14,17,48,45	
		1,24,45,52,28,23,42,13		6,12
56″	44,17,41, 9,13,23, 4,51,58,33		3,14,17,54,57	
		1,24,45,49,14, 5,47,16		6,12
58″	44,17,42,33,59,12,18,57,45,49		3,14,18, 1, 9	
		1,24,45,45,59,47,46, 7		
60″	44,17,43,58,44,58,18,45,31,56			
exact	44,17,43,58,44,58,18,45,39,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°35′ 0″	44,17,43,58,44,58,18,45,39,20			
		1,24,45,42,45,29,39,37		
2″	44,17,45,23,30,41, 4,15,18,57		3,14,18,13,29	
		1,24,45,39,31,11,26, 8		6,12
4″	44,17,46,48,16,20,35,26,45, 5		3,14,18,19,41	
		1,24,45,36,16,53, 6,27		6,12
6″	44,17,48,13, 1,56,52,19,51,32		3,14,18,25,53	
		1,24,45,33, 2,34,40,34		6,12
8″	44,17,49,37,47,29,54,54,32, 6		3,14,18,32, 5	
		1,24,45,29,48,16, 8,29		6,12
10″	44,17,51, 2,32,59,43,10,40,35		3,14,18,38,17	
		1,24,45,26,33,57,30,12		6,12
12″	44,17,52,27,18,26,17, 8,10,47		3,14,18,44,29	
		1,24,45,23,19,38,45,43		6,12
14″	44,17,53,52, 3,49,36,46,56,30		3,14,18,50,41	
		1,24,45,20, 5,19,55, 2		6,12
16″	44,17,55,16,49, 9,42, 6,51,32		3,14,18,56,53	
		1,24,45,16,51, 0,58, 9		6,12
18″	44,17,56,41,34,26,33, 7,49,41		3,14,19, 3, 5	
		1,24,45,13,36,41,55, 4		6,12
20″	44,17,58, 6,19,40, 9,49,44,45		3,14,19, 9,17	
		1,24,45,10,22,22,45,47		6,12
22″	44,17,59,31, 4,50,32,12,30,32		3,14,19,15,29	
		1,24,45, 7, 8, 3,30,18		6,12
24″	44,18, 0,55,49,57,40,16, 0,50		3,14,19,21,41	
		1,24,45, 3,53,44, 8,37		6,12
26″	44,18, 2,20,35, 1,34, 0, 9,27		3,14,19,27,53	
		1,24,45, 0,39,24,40,44		6,12
28″	44,18, 3,45,20, 2,13,24,50,11		3,14,19,34, 5	
		1,24,44,57,25, 5, 6,39		6,12
30″	44,18, 5,10, 4,59,38,29,56,50		3,14,19,40,17	
		1,24,44,54,10,45,26,22		6,12
32″	44,18, 6,34,49,53,49,15,23,12		3,14,19,46,29	
		1,24,44,50,56,25,39,53		6,12
34″	44,18, 7,59,34,44,45,41, 3, 5		3,14,19,52,41	
		1,24,44,47,42, 5,47,12		6,12
36″	44,18, 9,24,19,32,27,46,50,17		3,14,19,58,53	
		1,24,44,44,27,45,48,19		6,12
38″	44,18,10,49, 4,16,55,32,38,36		3,14,20, 5, 5	
		1,24,44,41,13,25,43,14		6,12
40″	44,18,12,13,48,58, 8,58,21,50		3,14,20,11,17	
		1,24,44,37,59, 5,31,57		6,12
42″	44,18,13,38,33,36, 8, 3,53,47		3,14,20,17,29	
		1,24,44,34,44,45,14,28		6,12
44″	44,18,15, 3,18,10,52,49, 8,15		3,14,20,23,41	
		1,24,44,31,30,24,50,47		6,12
46″	44,18,16,28, 2,42,23,13,59, 2		3,14,20,29,53	
		1,24,44,28,16, 4,20,54		6,12
48″	44,18,17,52,47,10,39,18,19,56		3,14,20,36, 5	
		1,24,44,25, 1,43,44,49		6,12
50″	44,18,19,17,31,35,41, 2, 4,45		3,14,20,42,17	
		1,24,44,21,47,23, 2,32		6,12
52″	44,18,20,42,15,57,28,25, 7,17		3,14,20,48,29	
		1,24,44,18,33, 2,14, 3		6,12
54″	44,18,22, 7, 0,16, 1,27,21,20		3,14,20,54,41	
		1,24,44,15,18,41,19,22		6,12
56″	44,18,23,31,44,31,20, 8,40,42		3,14,21, 0,53	
		1,24,44,12, 4,20,18,29		6,12
58″	44,18,24,56,28,43,24,28,59,11		3,14,21, 7, 5	
		1,24,44, 8,49,59,11,24		
60″	44,18,26,21,12,52,14,28,10,35			
exact	44,18,26,21,12,52,14,28,26,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°36′ 0″	44,18,26,21,12,52,14,28,26,43			
		1,24,44, 5,35,37,59,52		
2″	44,18,27,45,56,57,50, 6,26,35		3,14,21,19,21	
		1,24,44, 2,21,16,40,31		6,12
4″	44,18,29,10,41, 0,11,23, 7, 6		3,14,21,25,33	
		1,24,43,59, 6,55,14,58		6,12
6″	44,18,30,35,24,59,18,18,22, 4		3,14,21,31,45	
		1,24,43,55,52,33,43,13		6,12
8″	44,18,32, 0, 8,55,10,52, 5,17		3,14,21,37,57	
		1,24,43,52,38,12, 5,16		6,12
10″	44,18,33,24,52,47,49, 4,10,33		3,14,21,44, 9	
		1,24,43,49,23,50,21, 7		6,12
12″	44,18,34,49,36,37,12,54,31,40		3,14,21,50,21	
		1,24,43,46, 9,28,30,46		6,12
14″	44,18,36,14,20,23,22,23, 2,26		3,14,21,56,33	
		1,24,43,42,55, 6,34,13		6,12
16″	44,18,37,39, 4, 6,17,29,36,39		3,14,22, 2,45	
		1,24,43,39,40,44,31,28		6,12
18″	44,18,39, 3,47,45,58,14, 8, 7		3,14,22, 8,57	
		1,24,43,36,26,22,22,31		6,12
20″	44,18,40,28,31,22,24,36,30,38		3,14,22,15, 9	
		1,24,43,33,12, 0, 7,22		6,12
22″	44,18,41,53,14,55,36,36,38, 0		3,14,22,21,21	
		1,24,43,29,57,37,46, 1		6,12
24″	44,18,43,17,58,25,34,14,24, 1		3,14,22,27,33	
		1,24,43,26,43,15,18,28		6,12
26″	44,18,44,42,41,52,17,29,42,29		3,14,22,33,45	
		1,24,43,23,28,52,44,43		6,12
28″	44,18,46, 7,25,15,46,22,27,12		3,14,22,39,57	
		1,24,43,20,14,30, 4,46		6,12
30″	44,18,47,32, 8,36, 0,52,31,58		3,14,22,46, 9	
		1,24,43,17, 0, 7,18,37		6,12
32″	44,18,48,56,51,53, 0,59,50,35		3,14,22,52,21	
		1,24,43,13,45,44,26,16		6,12
34″	44,18,50,21,35, 6,46,44,16,51		3,14,22,58,33	
		1,24,43,10,31,21,27,43		6,12
36″	44,18,51,46,18,17,18, 5,44,34		3,14,23, 4,45	
		1,24,43, 7,16,58,22,58		6,12
38″	44,18,53,11, 1,24,35, 4, 7,32		3,14,23,10,57	
		1,24,43, 4, 2,35,12, 1		6,12
40″	44,18,54,35,44,28,37,39,19,33		3,14,23,17, 9	
		1,24,43, 0,48,11,54,52		6,12
42″	44,18,56, 0,27,29,25,51,14,25		3,14,23,23,21	
		1,24,42,57,33,48,31,31		6,12
44″	44,18,57,25,10,26,59,39,45,56		3,14,23,29,33	
		1,24,42,54,19,25, 1,58		6,12
46″	44,18,58,49,53,21,19, 4,47,54		3,14,23,35,45	
		1,24,42,51, 5, 1,26,13		6,12
48″	44,19, 0,14,36,12,24, 6,14, 7		3,14,23,41,57	
		1,24,42,47,50,37,44,16		6,12
50″	44,19, 1,39,19, 0,14,43,58,23		3,14,23,48, 9	
		1,24,42,44,36,13,56, 7		6,12
52″	44,19, 3, 4, 1,44,50,57,54,30		3,14,23,54,21	
		1,24,42,41,21,50, 1,46		6,12
54″	44,19, 4,28,44,26,12,47,56,16		3,14,24, 0,33	
		1,24,42,38, 7,26, 1,13		6,12
56″	44,19, 5,53,27, 4,20,13,57,29		3,14,24, 6,45	
		1,24,42,34,53, 1,54,28		6,12
58″	44,19, 7,18, 9,39,13,15,51,57		3,14,24,12,57	
		1,24,42,31,38,37,41,31		
60″	44,19, 8,42,52,10,51,53,33,28			
exact	44,19, 8,42,52,10,51,53,54,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°37′ 0″	44,19, 8,42,52,10,51,53,54,50			
		1,24,42,28,24,13,24,47		
2″	44,19,10, 7,34,39,16, 7,19,37		3,14,24,25,10	
		1,24,42,25, 9,48,59,37		6,12
4″	44,19,11,32,17, 4,25,56,19,14		3,14,24,31,22	
		1,24,42,21,55,24,28,15		6,12
6″	44,19,12,56,59,26,21,20,47,29		3,14,24,37,34	
		1,24,42,18,40,59,50,41		6,12
8″	44,19,14,21,41,45, 2,20,38,10		3,14,24,43,46	
		1,24,42,15,26,35, 6,55		6,12
10″	44,19,15,46,24, 0,28,55,45, 5		3,14,24,49,58	
		1,24,42,12,12,10,16,57		6,12
12″	44,19,17,11, 6,12,41, 6, 2, 2		3,14,24,56,10	
		1,24,42, 8,57,45,20,47		6,12
14″	44,19,18,35,48,21,38,51,22,49		3,14,25, 2,22	
		1,24,42, 5,43,20,18,25		6,12
16″	44,19,20, 0,30,27,22,11,41,14		3,14,25, 8,34	
		1,24,42, 2,28,55, 9,51		6,12
18″	44,19,21,25,12,29,51, 6,51, 5		3,14,25,14,46	
		1,24,41,59,14,29,55, 5		6,12
20″	44,19,22,49,54,29, 5,36,46,10		3,14,25,20,58	
		1,24,41,56, 0, 4,34, 7		6,12
22″	44,19,24,14,36,25, 5,41,20,17		3,14,25,27,10	
		1,24,41,52,45,39, 6,57		6,12
24″	44,19,25,39,18,17,51,20,27,14		3,14,25,33,22	
		1,24,41,49,31,13,33,35		6,12
26″	44,19,27, 4, 0, 7,22,34, 0,49		3,14,25,39,34	
		1,24,41,46,16,47,54, 1		6,12
28″	44,19,28,28,41,53,39,21,54,50		3,14,25,45,46	
		1,24,41,43, 2,22, 8,15		6,12
30″	44,19,29,53,23,36,41,44, 3, 5		3,14,25,51,58	
		1,24,41,39,47,56,16,17		6,12
32″	44,19,31,18, 5,16,29,40,19,22		3,14,25,58,10	
		1,24,41,36,33,30,18, 7		6,12
34″	44,19,32,42,46,53, 3,10,37,29		3,14,26, 4,22	
		1,24,41,33,19, 4,13,45		6,12
36″	44,19,34, 7,28,26,22,14,51,14		3,14,26,10,34	
		1,24,41,30, 4,38, 3,11		6,12
38″	44,19,35,32, 9,56,26,52,54,25		3,14,26,16,46	
		1,24,41,26,50,11,46,25		6,12
40″	44,19,36,56,51,23,17, 4,40,50		3,14,26,22,58	
		1,24,41,23,35,45,23,27		6,12
42″	44,19,38,21,32,46,52,50, 4,17		3,14,26,29,10	
		1,24,41,20,21,18,54,17		6,12
44″	44,19,39,46,14, 7,14, 8,58,34		3,14,26,35,22	
		1,24,41,17, 6,52,18,55		6,12
46″	44,19,41,10,55,24,21, 1,17,29		3,14,26,41,34	
		1,24,41,13,52,25,37,21		6,12
48″	44,19,42,35,36,38,13,26,54,50		3,14,26,47,46	
		1,24,41,10,37,58,49,35		6,12
50″	44,19,44, 0,17,48,51,25,44,25		3,14,26,53,58	
		1,24,41, 7,23,31,55,37		6,12
52″	44,19,45,24,58,56,14,57,40, 2		3,14,27, 0,10	
		1,24,41, 4, 9, 4,55,27		6,12
54″	44,19,46,49,40, 0,24, 2,35,29		3,14,27, 6,22	
		1,24,41, 0,54,37,49, 5		6,12
56″	44,19,48,14,21, 1,18,40,24,34		3,14,27,12,34	
		1,24,40,57,40,10,36,31		6,12
58″	44,19,49,39, 1,58,58,51, 1, 5		3,14,27,18,46	
		1,24,40,54,25,43,17,45		
60″	44,19,51, 3,42,53,24,34,18,50			
exact	44,19,51, 3,42,53,24,34,49,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°38′ 0″	44,19,51, 3,42,53,24,34,49,29			
		1,24,40,51,11,15,56, 9		
2″	44,19,52,28,23,44,35,50,45,38		3,14,27,30,55	
		1,24,40,47,56,48,25,14		6,11
4″	44,19,53,53, 4,32,32,39,10,52		3,14,27,37, 6	
		1,24,40,44,42,20,48, 8		6,11
6″	44,19,55,17,45,17,14,59,59, 0		3,14,27,43,17	
		1,24,40,41,27,53, 4,51		6,11
8″	44,19,56,42,25,58,42,53, 3,51		3,14,27,49,28	
		1,24,40,38,13,25,15,23		6,11
10″	44,19,58, 7, 6,36,56,18,19,14		3,14,27,55,39	
		1,24,40,34,58,57,19,44		6,11
12″	44,19,59,31,47,11,55,15,38,58		3,14,28, 1,50	
		1,24,40,31,44,29,17,54		6,11
14″	44,20, 0,56,27,43,39,44,56,52		3,14,28, 8, 1	
		1,24,40,28,30, 1, 9,53		6,11
16″	44,20, 2,21, 8,12, 9,46, 6,45		3,14,28,14,12	
		1,24,40,25,15,32,55,41		6,11
18″	44,20, 3,45,48,37,25,19, 2,26		3,14,28,20,23	
		1,24,40,22, 1, 4,35,18		6,11
20″	44,20, 5,10,28,59,26,23,37,44		3,14,28,26,34	
		1,24,40,18,46,36, 8,44		6,11
22″	44,20, 6,35, 9,18,12,59,46,28		3,14,28,32,45	
		1,24,40,15,32, 7,35,59		6,11
24″	44,20, 7,59,49,33,45, 7,22,27		3,14,28,38,56	
		1,24,40,12,17,38,57, 3		6,11
26″	44,20, 9,24,29,46, 2,46,19,30		3,14,28,45, 7	
		1,24,40, 9, 3,10,11,56		6,11
28″	44,20,10,49, 9,55, 5,56,31,26		3,14,28,51,18	
		1,24,40, 5,48,41,20,38		6,11
30″	44,20,12,13,50, 0,54,37,52, 4		3,14,28,57,29	
		1,24,40, 2,34,12,23, 9		6,11
32″	44,20,13,38,30, 3,28,50,15,13		3,14,29, 3,40	
		1,24,39,59,19,43,19,29		6,11
34″	44,20,15, 3,10, 2,48,33,34,42		3,14,29, 9,51	
		1,24,39,56, 5,14, 9,38		6,11
36″	44,20,16,27,49,58,53,47,44,20		3,14,29,16, 2	
		1,24,39,52,50,44,53,36		6,11
38″	44,20,17,52,29,51,44,32,37,56		3,14,29,22,13	
		1,24,39,49,36,15,31,23		6,11
40″	44,20,19,17, 9,41,20,48, 9,19		3,14,29,28,24	
		1,24,39,46,21,46, 2,59		6,11
42″	44,20,20,41,49,27,42,34,12,18		3,14,29,34,35	
		1,24,39,43, 7,16,28,24		6,11
44″	44,20,22, 6,29,10,49,50,40,42		3,14,29,40,46	
		1,24,39,39,52,46,47,38		6,11
46″	44,20,23,31, 8,50,42,37,28,20		3,14,29,46,57	
		1,24,39,36,38,17, 0,41		6,11
48″	44,20,24,55,48,27,20,54,29, 1		3,14,29,53, 8	
		1,24,39,33,23,47, 7,33		6,11
50″	44,20,26,20,28, 0,44,41,36,34		3,14,29,59,19	
		1,24,39,30, 9,17, 8,14		6,11
52″	44,20,27,45, 7,30,53,58,44,48		3,14,30, 5,30	
		1,24,39,26,54,47, 2,44		6,11
54″	44,20,29, 9,46,57,48,45,47,32		3,14,30,11,41	
		1,24,39,23,40,16,51, 3		6,11
56″	44,20,30,34,26,21,29, 2,38,35		3,14,30,17,52	
		1,24,39,20,25,46,33,11		6,11
58″	44,20,31,59, 5,41,54,49,11,46		3,14,30,24, 3	
		1,24,39,17,11,16, 9, 8		
60″	44,20,33,23,44,59, 6, 5,20,54			
exact	44,20,33,23,44,59, 6, 4,49,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°39′ 0″	44,20,33,23,44,59, 6, 4,49,46			
		1,24,39,13,56,45,35,44		
2″	44,20,34,48,24,13, 2,50,25,30		3,14,30,36,37	
		1,24,39,10,42,14,59, 7		6,11
4″	44,20,36,13, 3,23,45, 5,24,37		3,14,30,42,48	
		1,24,39, 7,27,44,16,19		6,11
6″	44,20,37,37,42,31,12,49,40,56		3,14,30,48,59	
		1,24,39, 4,13,13,27,20		6,11
8″	44,20,39, 2,21,35,26, 3, 8,16		3,14,30,55,10	
		1,24,39, 0,58,42,32,10		6,11
10″	44,20,40,27, 0,36,24,45,40,26		3,14,31, 1,21	
		1,24,38,57,44,11,30,49		6,11
12″	44,20,41,51,39,34, 8,57,11,15		3,14,31, 7,32	
		1,24,38,54,29,40,23,17		6,11
14″	44,20,43,16,18,28,38,37,34,32		3,14,31,13,43	
		1,24,38,51,15, 9, 9,34		6,11
16″	44,20,44,40,57,19,53,46,44, 6		3,14,31,19,54	
		1,24,38,48, 0,37,49,40		6,11
18″	44,20,46, 5,36, 7,54,24,33,46		3,14,31,26, 5	
		1,24,38,44,46, 6,23,35		6,11
20″	44,20,47,30,14,52,40,30,57,21		3,14,31,32,16	
		1,24,38,41,31,34,51,19		6,11
22″	44,20,48,54,53,34,12, 5,48,40		3,14,31,38,27	
		1,24,38,38,17, 3,12,52		6,11
24″	44,20,50,19,32,12,29, 9, 1,32		3,14,31,44,38	
		1,24,38,35, 2,31,28,14		6,11
26″	44,20,51,44,10,47,31,40,29,46		3,14,31,50,49	
		1,24,38,31,47,59,37,25		6,11
28″	44,20,53, 8,49,19,19,40, 7,11		3,14,31,57, 0	
		1,24,38,28,33,27,40,25		6,11
30″	44,20,54,33,27,47,53, 7,47,36		3,14,32, 3,11	
		1,24,38,25,18,55,37,14		6,11
32″	44,20,55,58, 6,13,12, 3,24,50		3,14,32, 9,22	
		1,24,38,22, 4,23,27,52		6,11
34″	44,20,57,22,44,35,16,26,52,42		3,14,32,15,33	
		1,24,38,18,49,51,12,19		6,11
36″	44,20,58,47,22,54, 6,18, 5, 1		3,14,32,21,44	
		1,24,38,15,35,18,50,35		6,11
38″	44,21, 0,12, 1, 9,41,36,55,36		3,14,32,27,55	
		1,24,38,12,20,46,22,40		6,11
40″	44,21, 1,36,39,22, 2,23,18,16		3,14,32,34, 6	
		1,24,38, 9, 6,13,48,34		6,11
42″	44,21, 3, 1,17,31, 8,37, 6,50		3,14,32,40,17	
		1,24,38, 5,51,41, 8,17		6,11
44″	44,21, 4,25,55,37, 0,18,15, 7		3,14,32,46,28	
		1,24,38, 2,37, 8,21,49		6,11
46″	44,21, 5,50,33,39,37,26,36,56		3,14,32,52,39	
		1,24,37,59,22,35,29,10		6,11
48″	44,21, 7,15,11,39, 0, 2, 6, 6		3,14,32,58,50	
		1,24,37,56, 8, 2,30,20		6,11
50″	44,21, 8,39,49,35, 8, 4,36,26		3,14,33, 5, 1	
		1,24,37,52,53,29,25,19		6,11
52″	44,21,10, 4,27,28, 1,34, 1,45		3,14,33,11,12	
		1,24,37,49,38,56,14, 7		6,11
54″	44,21,11,29, 5,17,40,30,15,52		3,14,33,17,23	
		1,24,37,46,24,22,56,44		6,11
56″	44,21,12,53,43, 4, 4,53,12,36		3,14,33,23,34	
		1,24,37,43, 9,49,33,10		6,11
58″	44,21,14,18,20,47,14,42,45,46		3,14,33,29,45	
		1,24,37,39,55,16, 3,25		
60″	44,21,15,42,58,27, 9,58,49,11			
exact	44,21,15,42,58,27, 9,58,28, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°40′ 0″	44,21,15,42,58,27, 9,58,28, 4			
		1,24,37,36,40,42,25,19		
2″	44,21,17, 7,36, 3,50,40,53,23		3,14,33,42,15	
		1,24,37,33,26, 8,43, 4		6,11
4″	44,21,18,32,13,37,16,49,36,27		3,14,33,48,26	
		1,24,37,30,11,34,54,38		6,11
6″	44,21,19,56,51, 7,28,24,31, 5		3,14,33,54,37	
		1,24,37,26,57, 1, 0, 1		6,11
8″	44,21,21,21,28,34,25,25,31, 6		3,14,34, 0,48	
		1,24,37,23,42,26,59,13		6,11
10″	44,21,22,46, 5,58, 7,52,30,19		3,14,34, 6,59	
		1,24,37,20,27,52,52,14		6,11
12″	44,21,24,10,43,18,35,45,22,33		3,14,34,13,10	
		1,24,37,17,13,18,39, 4		6,11
14″	44,21,25,35,20,35,49, 4, 1,37		3,14,34,19,21	
		1,24,37,13,58,44,19,43		6,11
16″	44,21,26,59,57,49,47,48,21,20		3,14,34,25,32	
		1,24,37,10,44, 9,54,11		6,11
18″	44,21,28,24,35, 0,31,58,15,31		3,14,34,31,43	
		1,24,37, 7,29,35,22,28		6,11
20″	44,21,29,49,12, 8, 1,33,37,59		3,14,34,37,54	
		1,24,37, 4,15, 0,44,34		6,11
22″	44,21,31,13,49,12,16,34,22,33		3,14,34,44, 5	
		1,24,37, 1, 0,26, 0,29		6,11
24″	44,21,32,38,26,13,17, 0,23, 2		3,14,34,50,16	
		1,24,36,57,45,51,10,13		6,11
26″	44,21,34, 3, 3,11, 2,51,33,15		3,14,34,56,27	
		1,24,36,54,31,16,13,46		6,11
28″	44,21,35,27,40, 5,34, 7,47, 1		3,14,35, 2,38	
		1,24,36,51,16,41,11, 8		6,11
30″	44,21,36,52,16,56,50,48,58, 9		3,14,35, 8,49	
		1,24,36,48, 2, 6, 2,19		6,11
32″	44,21,38,16,53,44,52,55, 0,28		3,14,35,15, 0	
		1,24,36,44,47,30,47,19		6,11
34″	44,21,39,41,30,29,40,25,47,47		3,14,35,21,11	
		1,24,36,41,32,55,26, 8		6,11
36″	44,21,41, 6, 7,11,13,21,13,55		3,14,35,27,22	
		1,24,36,38,18,19,58,46		6,11
38″	44,21,42,30,43,49,31,41,12,41		3,14,35,33,33	
		1,24,36,35, 3,44,25,13		6,11
40″	44,21,43,55,20,24,35,25,37,54		3,14,35,39,44	
		1,24,36,31,49, 8,45,29		6,11
42″	44,21,45,19,56,56,24,34,23,23		3,14,35,45,55	
		1,24,36,28,34,32,59,34		6,11
44″	44,21,46,44,33,24,59, 7,22,57		3,14,35,52, 6	
		1,24,36,25,19,57, 7,28		6,11
46″	44,21,48, 9, 9,50,19, 4,30,25		3,14,35,58,17	
		1,24,36,22, 5,21, 9,11		6,11
48″	44,21,49,33,46,12,24,25,39,36		3,14,36, 4,28	
		1,24,36,18,50,45, 4,43		6,11
50″	44,21,50,58,22,31,15,10,44,19		3,14,36,10,39	
		1,24,36,15,36, 8,54, 4		6,11
52″	44,21,52,22,58,46,51,19,38,23		3,14,36,16,50	
		1,24,36,12,21,32,37,14		6,11
54″	44,21,53,47,34,59,12,52,15,37		3,14,36,23, 1	
		1,24,36, 9, 6,56,14,13		6,11
56″	44,21,55,12,11, 8,19,48,29,50		3,14,36,29,12	
		1,24,36, 5,52,19,45, 1		6,11
58″	44,21,56,36,47,14,12, 8,14,51		3,14,36,35,23	
		1,24,36, 2,37,43, 9,38		
60″	44,21,58, 1,23,16,49,51,24,29			
exact	44,21,58, 1,23,16,49,51,10, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°41′ 0″	44,21,58, 1,23,16,49,51,10, 8			
		1,24,35,59,23, 6,26,40		
2″	44,21,59,25,59,16,12,57,36,48		3,14,36,47,50	
		1,24,35,56, 8,29,38,50		6,11
4″	44,22, 0,50,35,12,21,27,15,38		3,14,36,54, 1	
		1,24,35,52,53,52,44,49		6,11
6″	44,22, 2,15,11, 5,15,20, 0,27		3,14,37, 0,12	
		1,24,35,49,39,15,44,37		6,11
8″	44,22, 3,39,46,54,54,35,45, 4		3,14,37, 6,23	
		1,24,35,46,24,38,38,14		6,11
10″	44,22, 5, 4,22,41,19,14,23,18		3,14,37,12,34	
		1,24,35,43,10, 1,25,40		6,11
12″	44,22, 6,28,58,24,29,15,48,58		3,14,37,18,45	
		1,24,35,39,55,24, 6,55		6,11
14″	44,22, 7,53,34, 4,24,39,55,53		3,14,37,24,56	
		1,24,35,36,40,46,41,59		6,11
16″	44,22, 9,18, 9,41, 5,26,37,52		3,14,37,31, 7	
		1,24,35,33,26, 9,10,52		6,11
18″	44,22,10,42,45,14,31,35,48,44		3,14,37,37,18	
		1,24,35,30,11,31,33,34		6,11
20″	44,22,12, 7,20,44,43, 7,22,18		3,14,37,43,29	
		1,24,35,26,56,53,50, 5		6,11
22″	44,22,13,31,56,11,40, 1,12,23		3,14,37,49,40	
		1,24,35,23,42,16, 0,25		6,11
24″	44,22,14,56,31,35,22,17,12,48		3,14,37,55,51	
		1,24,35,20,27,38, 4,34		6,11
26″	44,22,16,21, 6,55,49,55,17,22		3,14,38, 2, 2	
		1,24,35,17,13, 0, 2,32		6,11
28″	44,22,17,45,42,13, 2,55,19,54		3,14,38, 8,13	
		1,24,35,13,58,21,54,19		6,11
30″	44,22,19,10,17,27, 1,17,14,13		3,14,38,14,24	
		1,24,35,10,43,43,39,55		6,11
32″	44,22,20,34,52,37,45, 0,54, 8		3,14,38,20,35	
		1,24,35, 7,29, 5,19,20		6,11
34″	44,22,21,59,27,45,14, 6,13,28		3,14,38,26,46	
		1,24,35, 4,14,26,52,34		6,11
36″	44,22,23,24, 2,49,28,33, 6, 2		3,14,38,32,57	
		1,24,35, 0,59,48,19,37		6,11
38″	44,22,24,48,37,50,28,21,25,39		3,14,38,39, 8	
		1,24,34,57,45, 9,40,29		6,11
40″	44,22,26,13,12,48,13,31, 6, 8		3,14,38,45,19	
		1,24,34,54,30,30,55,10		6,11
42″	44,22,27,37,47,42,44, 2, 1,18		3,14,38,51,30	
		1,24,34,51,15,52, 3,40		6,11
44″	44,22,29, 2,22,33,59,54, 4,58		3,14,38,57,41	
		1,24,34,48, 1,13, 5,59		6,11
46″	44,22,30,26,57,22, 1, 7,10,57		3,14,39, 3,52	
		1,24,34,44,46,34, 2, 7		6,11
48″	44,22,31,51,32, 6,47,41,13, 4		3,14,39,10, 3	
		1,24,34,41,31,54,52, 4		6,11
50″	44,22,33,16, 6,48,19,36, 5, 8		3,14,39,16,14	
		1,24,34,38,17,15,35,50		6,11
52″	44,22,34,40,41,26,36,51,40,58		3,14,39,22,25	
		1,24,34,35, 2,36,13,25		6,11
54″	44,22,36, 5,16, 1,39,27,54,23		3,14,39,28,36	
		1,24,34,31,47,56,44,49		6,11
56″	44,22,37,29,50,33,27,24,39,12		3,14,39,34,47	
		1,24,34,28,33,17,10, 2		6,11
58″	44,22,38,54,25, 2, 0,41,49,14		3,14,39,40,58	
		1,24,34,25,18,37,29, 4		
60″	44,22,40,18,59,27,19,19,18,18			
exact	44,22,40,18,59,27,19,19,15, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°42′ 0″	44,22,40,18,59,27,19,19,15, 2			
		1,24,34,22, 3,57,41,35		
2″	44,22,41,43,33,49,23,16,56,37		3,14,39,53,21	
		1,24,34,18,49,17,48,14		6,11
4″	44,22,43, 8, 8, 8,12,34,44,51		3,14,39,59,32	
		1,24,34,15,34,37,48,42		6,11
6″	44,22,44,32,42,23,47,12,33,33		3,14,40, 5,43	
		1,24,34,12,19,57,42,59		6,11
8″	44,22,45,57,16,36, 7,10,16,32		3,14,40,11,54	
		1,24,34, 9, 5,17,31, 5		6,11
10″	44,22,47,21,50,45,12,27,47,37		3,14,40,18, 5	
		1,24,34, 5,50,37,13, 0		6,11
12″	44,22,48,46,24,51, 3, 5, 0,37		3,14,40,24,16	
		1,24,34, 2,35,56,48,44		6,11
14″	44,22,50,10,58,53,39, 1,49,21		3,14,40,30,27	
		1,24,33,59,21,16,18,17		6,11
16″	44,22,51,35,32,53, 0,18, 7,38		3,14,40,36,38	
		1,24,33,56, 6,35,41,39		6,11
18″	44,22,53, 0, 6,49, 6,53,49,17		3,14,40,42,49	
		1,24,33,52,51,54,58,50		6,11
20″	44,22,54,24,40,41,58,48,48, 7		3,14,40,49, 0	
		1,24,33,49,37,14, 9,50		6,11
22″	44,22,55,49,14,31,36, 2,57,57		3,14,40,55,11	
		1,24,33,46,22,33,14,39		6,11
24″	44,22,57,13,48,17,58,36,12,36		3,14,41, 1,22	
		1,24,33,43, 7,52,13,17		6,11
26″	44,22,58,38,22, 1, 6,28,25,53		3,14,41, 7,33	
		1,24,33,39,53,11, 5,44		6,11
28″	44,23, 0, 2,55,40,59,39,31,37		3,14,41,13,44	
		1,24,33,36,38,29,52, 0		6,11
30″	44,23, 1,27,29,17,38, 9,23,37		3,14,41,19,55	
		1,24,33,33,23,48,32, 5		6,11
32″	44,23, 2,52, 2,51, 1,57,55,42		3,14,41,26, 6	
		1,24,33,30, 9, 7, 5,59		6,11
34″	44,23, 4,16,36,21,11, 5, 1,41		3,14,41,32,17	
		1,24,33,26,54,25,33,42		6,11
36″	44,23, 5,41, 9,48, 5,30,35,23		3,14,41,38,28	
		1,24,33,23,39,43,55,14		6,11
38″	44,23, 7, 5,43,11,45,14,30,37		3,14,41,44,39	
		1,24,33,20,25, 2,10,35		6,11
40″	44,23, 8,30,16,32,10,16,41,12		3,14,41,50,50	
		1,24,33,17,10,20,19,45		6,11
42″	44,23, 9,54,49,49,20,37, 0,57		3,14,41,57, 1	
		1,24,33,13,55,38,22,44		6,11
44″	44,23,11,19,23, 3,16,15,23,41		3,14,42, 3,12	
		1,24,33,10,40,56,19,32		6,11
46″	44,23,12,43,56,13,57,11,43,13		3,14,42, 9,23	
		1,24,33, 7,26,14,10, 9		6,11
48″	44,23,14, 8,29,21,23,25,53,22		3,14,42,15,34	
		1,24,33, 4,11,31,54,35		6,11
50″	44,23,15,33, 2,25,34,57,47,57		3,14,42,21,45	
		1,24,33, 0,56,49,32,50		6,11
52″	44,23,16,57,35,26,31,47,20,47		3,14,42,27,56	
		1,24,32,57,42, 7, 4,54		6,11
54″	44,23,18,22, 8,24,13,54,25,41		3,14,42,34, 7	
		1,24,32,54,27,24,30,47		6,11
56″	44,23,19,46,41,18,41,18,56,28		3,14,42,40,18	
		1,24,32,51,12,41,50,29		6,11
58″	44,23,21,11,14, 9,54, 0,46,57		3,14,42,46,29	
		1,24,32,47,57,59, 4, 0		
60″	44,23,22,35,46,57,51,59,50,57			
exact	44,23,22,35,46,57,51,59,55,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°43′ 0″	44,23,22,35,46,57,51,59,55,10			
		1,24,32,44,43,16,11,50		
2″	44,23,24, 0,19,42,35,16, 7, 0		3,14,42,58,48	
		1,24,32,41,28,33,13, 2		6,11
4″	44,23,25,24,52,24, 3,49,20, 2		3,14,43, 4,59	
		1,24,32,38,13,50, 8, 3		6,11
6″	44,23,26,49,25, 2,17,39,28, 5		3,14,43,11,10	
		1,24,32,34,59, 6,56,53		6,11
8″	44,23,28,13,57,37,16,46,24,58		3,14,43,17,21	
		1,24,32,31,44,23,39,32		6,11
10″	44,23,29,38,30, 9, 1,10, 4,30		3,14,43,23,32	
		1,24,32,28,29,40,16, 0		6,11
12″	44,23,31, 3, 2,37,30,50,20,30		3,14,43,29,43	
		1,24,32,25,14,56,46,17		6,11
14″	44,23,32,27,35, 2,45,47, 6,47		3,14,43,35,54	
		1,24,32,22, 0,13,10,23		6,11
16″	44,23,33,52, 7,24,46, 0,17,10		3,14,43,42, 5	
		1,24,32,18,45,29,28,18		6,11
18″	44,23,35,16,39,43,31,29,45,28		3,14,43,48,16	
		1,24,32,15,30,45,40, 2		6,11
20″	44,23,36,41,11,59, 2,15,25,30		3,14,43,54,27	
		1,24,32,12,16, 1,45,35		6,11
22″	44,23,38, 5,44,11,18,17,11, 5		3,14,44, 0,38	
		1,24,32, 9, 1,17,44,57		6,11
24″	44,23,39,30,16,20,19,34,56, 2		3,14,44, 6,49	
		1,24,32, 5,46,33,38, 8		6,11
26″	44,23,40,54,48,26, 6, 8,34,10		3,14,44,13, 0	
		1,24,32, 2,31,49,25, 8		6,11
28″	44,23,42,19,20,28,37,57,59,18		3,14,44,19,11	
		1,24,31,59,17, 5, 5,57		6,11
30″	44,23,43,43,52,27,55, 3, 5,15		3,14,44,25,22	
		1,24,31,56, 2,20,40,35		6,11
32″	44,23,45, 8,24,23,57,23,45,50		3,14,44,31,33	
		1,24,31,52,47,36, 9, 2		6,11
34″	44,23,46,32,56,16,44,59,54,52		3,14,44,37,44	
		1,24,31,49,32,51,31,18		6,11
36″	44,23,47,57,28, 6,17,51,26,10		3,14,44,43,55	
		1,24,31,46,18, 6,47,23		6,11
38″	44,23,49,21,59,52,35,58,13,33		3,14,44,50, 6	
		1,24,31,43, 3,21,57,17		6,11
40″	44,23,50,46,31,35,39,20,10,50		3,14,44,56,17	
		1,24,31,39,48,37, 1, 0		6,11
42″	44,23,52,11, 3,15,27,57,11,50		3,14,45, 2,28	
		1,24,31,36,33,51,58,32		6,11
44″	44,23,53,35,34,52, 1,49,10,22		3,14,45, 8,39	
		1,24,31,33,19, 6,49,53		6,11
46″	44,23,55, 0, 6,25,20,56, 0,15		3,14,45,14,50	
		1,24,31,30, 4,21,35, 3		6,11
48″	44,23,56,24,37,55,25,17,35,18		3,14,45,21, 1	
		1,24,31,26,49,36,14, 2		6,11
50″	44,23,57,49, 9,22,14,53,49,20		3,14,45,27,12	
		1,24,31,23,34,50,46,50		6,11
52″	44,23,59,13,40,45,49,44,36,10		3,14,45,33,23	
		1,24,31,20,20, 5,13,27		6,11
54″	44,24, 0,38,12, 6, 9,49,49,37		3,14,45,39,34	
		1,24,31,17, 5,19,33,53		6,11
56″	44,24, 2, 2,43,23,15, 9,23,30		3,14,45,45,45	
		1,24,31,13,50,33,48, 8		6,11
58″	44,24, 3,27,14,37, 5,43,11,38		3,14,45,51,56	
		1,24,31,10,35,47,56,12		
60″	44,24, 4,51,45,47,41,31, 7,50			
exact	44,24, 4,51,45,47,41,31,16,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°44′ 0″	44,24, 4,51,45,47,41,31,16,21			
		1,24,31, 7,21, 1,59,11		
2″	44,24, 6,16,16,55, 2,33,15,32		3,14,46, 4,12	
		1,24,31, 4, 6,15,54,59		6,11
4″	44,24, 7,40,47,59, 8,49,10,31		3,14,46,10,23	
		1,24,31, 0,51,29,44,36		6,11
6″	44,24, 9, 5,19, 0, 0,18,55, 7		3,14,46,16,34	
		1,24,30,57,36,43,28, 2		6,11
8″	44,24,10,29,49,57,37, 2,23, 9		3,14,46,22,45	
		1,24,30,54,21,57, 5,17		6,11
10″	44,24,11,54,20,51,58,59,28,26		3,14,46,28,56	
		1,24,30,51, 7,10,36,21		6,11
12″	44,24,13,18,51,43, 6,10, 4,47		3,14,46,35, 7	
		1,24,30,47,52,24, 1,14		6,11
14″	44,24,14,43,22,30,58,34, 6, 1		3,14,46,41,18	
		1,24,30,44,37,37,19,56		6,11
16″	44,24,16, 7,53,15,36,11,25,57		3,14,46,47,29	
		1,24,30,41,22,50,32,27		6,11
18″	44,24,17,32,23,56,59, 1,58,24		3,14,46,53,40	
		1,24,30,38, 8, 3,38,47		6,11
20″	44,24,18,56,54,35, 7, 5,37,11		3,14,46,59,51	
		1,24,30,34,53,16,38,56		6,11
22″	44,24,20,21,25,10, 0,22,16, 7		3,14,47, 6, 2	
		1,24,30,31,38,29,32,54		6,11
24″	44,24,21,45,55,41,38,51,49, 1		3,14,47,12,13	
		1,24,30,28,23,42,20,41		6,11
26″	44,24,23,10,26,10, 2,34, 9,42		3,14,47,18,24	
		1,24,30,25, 8,55, 2,17		6,11
28″	44,24,24,34,56,35,11,29,11,59		3,14,47,24,35	
		1,24,30,21,54, 7,37,42		6,11
30″	44,24,25,59,26,57, 5,36,49,41		3,14,47,30,46	
		1,24,30,18,39,20, 6,56		6,11
32″	44,24,27,23,57,15,44,56,56,37		3,14,47,36,57	
		1,24,30,15,24,32,29,59		6,11
34″	44,24,28,48,27,31, 9,29,26,36		3,14,47,43, 8	
		1,24,30,12, 9,44,46,51		6,11
36″	44,24,30,12,57,43,19,14,13,27		3,14,47,49,19	
		1,24,30, 8,54,56,57,32		6,11
38″	44,24,31,37,27,52,14,11,10,59		3,14,47,55,30	
		1,24,30, 5,40, 9, 2, 2		6,11
40″	44,24,33, 1,57,57,54,20,13, 1		3,14,48, 1,41	
		1,24,30, 2,25,21, 0,21		6,11
42″	44,24,34,26,28, 0,19,41,13,22		3,14,48, 7,52	
		1,24,29,59,10,32,52,29		6,11
44″	44,24,35,50,57,59,30,14, 5,51		3,14,48,14, 3	
		1,24,29,55,55,44,38,26		6,11
46″	44,24,37,15,27,55,25,58,44,17		3,14,48,20,14	
		1,24,29,52,40,56,18,12		6,11
48″	44,24,38,39,57,48, 6,55, 2,29		3,14,48,26,25	
		1,24,29,49,26, 7,51,47		6,11
50″	44,24,40, 4,27,37,33, 2,54,16		3,14,48,32,36	
		1,24,29,46,11,19,19,11		6,11
52″	44,24,41,28,57,23,44,22,13,27		3,14,48,38,47	
		1,24,29,42,56,30,40,24		6,11
54″	44,24,42,53,27, 6,40,52,53,51		3,14,48,44,58	
		1,24,29,39,41,41,55,26		6,11
56″	44,24,44,17,56,46,22,34,49,17		3,14,48,51, 9	
		1,24,29,36,26,53, 4,17		6,11
58″	44,24,45,42,26,22,49,27,53,34		3,14,48,57,20	
		1,24,29,33,12, 4, 6,57		
60″	44,24,47, 6,55,56, 1,32, 0,31			
exact	44,24,47, 6,55,56, 1,32,17,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°45′ 0″	44,24,47, 6,55,56, 1,32,17,44			
		1,24,29,29,57,15, 5,26		
2″	44,24,48,31,25,25,58,47,23,10		3,14,49, 9,33	
		1,24,29,26,42,25,55,53		6,11
4″	44,24,49,55,54,52,41,13,19, 3		3,14,49,15,44	
		1,24,29,23,27,36,40, 9		6,11
6″	44,24,51,20,24,16, 8,49,59,12		3,14,49,21,55	
		1,24,29,20,12,47,18,14		6,11
8″	44,24,52,44,53,36,21,37,17,26		3,14,49,28, 6	
		1,24,29,16,57,57,50, 8		6,11
10″	44,24,54, 9,22,53,19,35, 7,34		3,14,49,34,17	
		1,24,29,13,43, 8,15,51		6,11
12″	44,24,55,33,52, 7, 2,43,23,25		3,14,49,40,28	
		1,24,29,10,28,18,35,23		6,11
14″	44,24,56,58,21,17,31, 1,58,48		3,14,49,46,39	
		1,24,29, 7,13,28,48,44		6,11
16″	44,24,58,22,50,24,44,30,47,32		3,14,49,52,50	
		1,24,29, 3,58,38,55,54		6,11
18″	44,24,59,47,19,28,43, 9,43,26		3,14,49,59, 1	
		1,24,29, 0,43,48,56,53		6,11
20″	44,25, 1,11,48,29,26,58,40,19		3,14,50, 5,12	
		1,24,28,57,28,58,51,41		6,11
22″	44,25, 2,36,17,26,55,57,32, 0		3,14,50,11,23	
		1,24,28,54,14, 8,40,18		6,11
24″	44,25, 4, 0,46,21,10, 6,12,18		3,14,50,17,34	
		1,24,28,50,59,18,22,44		6,11
26″	44,25, 5,25,15,12, 9,24,35, 2		3,14,50,23,45	
		1,24,28,47,44,27,58,59		6,11
28″	44,25, 6,49,43,59,53,52,34, 1		3,14,50,29,56	
		1,24,28,44,29,37,29, 3		6,11
30″	44,25, 8,14,12,44,23,30, 3, 4		3,14,50,36, 7	
		1,24,28,41,14,46,52,56		6,11
32″	44,25, 9,38,41,25,38,16,56, 0		3,14,50,42,18	
		1,24,28,37,59,56,10,38		6,11
34″	44,25,11, 3,10, 3,38,13, 6,38		3,14,50,48,29	
		1,24,28,34,45, 5,22, 9		6,11
36″	44,25,12,27,38,38,23,18,28,47		3,14,50,54,40	
		1,24,28,31,30,14,27,29		6,11
38″	44,25,13,52, 7, 9,53,32,56,16		3,14,51, 0,51	
		1,24,28,28,15,23,26,38		6,11
40″	44,25,15,16,35,38, 8,56,22,54		3,14,51, 7, 2	
		1,24,28,25, 0,32,19,36		6,11
42″	44,25,16,41, 4, 3, 9,28,42,30		3,14,51,13,13	
		1,24,28,21,45,41, 6,23		6,11
44″	44,25,18, 5,32,24,55, 9,48,53		3,14,51,19,24	
		1,24,28,18,30,49,46,59		6,11
46″	44,25,19,30, 0,43,25,59,35,52		3,14,51,25,35	
		1,24,28,15,15,58,21,24		6,11
48″	44,25,20,54,28,58,41,57,57,16		3,14,51,31,46	
		1,24,28,12, 1, 6,49,38		6,11
50″	44,25,22,18,57,10,43, 4,46,54		3,14,51,37,57	
		1,24,28, 8,46,15,11,41		6,11
52″	44,25,23,43,25,19,29,19,58,35		3,14,51,44, 8	
		1,24,28, 5,31,23,27,33		6,11
54″	44,25,25, 7,53,25, 0,43,26, 8		3,14,51,50,19	
		1,24,28, 2,16,31,37,14		6,11
56″	44,25,26,32,21,27,17,15, 3,22		3,14,51,56,30	
		1,24,27,59, 1,39,40,44		6,11
58″	44,25,27,56,49,26,18,54,44, 6		3,14,52, 2,41	
		1,24,27,55,46,47,38, 3		
60″	44,25,29,21,17,22, 5,42,22, 9			
exact	44,25,29,21,17,22, 5,42,51,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°46′ 0″	44,25,29,21,17,22, 5,42,51,54			
		1,24,27,52,31,55,32,22		
2″	44,25,30,45,45,14,37,38,24,16		3,14,52,14,50	
		1,24,27,49,17, 3,17,32		6,10
4″	44,25,32,10,13, 3,54,41,41,48		3,14,52,21, 0	
		1,24,27,46, 2,10,56,32		6,10
6″	44,25,33,34,40,49,56,52,38,20		3,14,52,27,10	
		1,24,27,42,47,18,29,22		6,10
8″	44,25,34,59, 8,32,44,11, 7,42		3,14,52,33,20	
		1,24,27,39,32,25,56, 2		6,10
10″	44,25,36,23,36,12,16,37, 3,44		3,14,52,39,30	
		1,24,27,36,17,33,16,32		6,10
12″	44,25,37,48, 3,48,34,10,20,16		3,14,52,45,40	
		1,24,27,33, 2,40,30,52		6,10
14″	44,25,39,12,31,21,36,50,51, 8		3,14,52,51,50	
		1,24,27,29,47,47,39, 2		6,10
16″	44,25,40,36,58,51,24,38,30,10		3,14,52,58, 0	
		1,24,27,26,32,54,41, 2		6,10
18″	44,25,42, 1,26,17,57,33,11,12		3,14,53, 4,10	
		1,24,27,23,18, 1,36,52		6,10
20″	44,25,43,25,53,41,15,34,48, 4		3,14,53,10,20	
		1,24,27,20, 3, 8,26,32		6,10
22″	44,25,44,50,21, 1,18,43,14,36		3,14,53,16,30	
		1,24,27,16,48,15,10, 2		6,10
24″	44,25,46,14,48,18, 6,58,24,38		3,14,53,22,40	
		1,24,27,13,33,21,47,22		6,10
26″	44,25,47,39,15,31,40,20,12, 0		3,14,53,28,50	
		1,24,27,10,18,28,18,32		6,10
28″	44,25,49, 3,42,41,58,48,30,32		3,14,53,35, 0	
		1,24,27, 7, 3,34,43,32		6,10
30″	44,25,50,28, 9,49, 2,23,14, 4		3,14,53,41,10	
		1,24,27, 3,48,41, 2,22		6,10
32″	44,25,51,52,36,52,51, 4,16,26		3,14,53,47,20	
		1,24,27, 0,33,47,15, 2		6,10
34″	44,25,53,17, 3,53,24,51,31,28		3,14,53,53,30	
		1,24,26,57,18,53,21,32		6,10
36″	44,25,54,41,30,50,43,44,53, 0		3,14,53,59,40	
		1,24,26,54, 3,59,21,52		6,10
38″	44,25,56, 5,57,44,47,44,14,52		3,14,54, 5,50	
		1,24,26,50,49, 5,16, 2		6,10
40″	44,25,57,30,24,35,36,49,30,54		3,14,54,12, 0	
		1,24,26,47,34,11, 4, 2		6,10
42″	44,25,58,54,51,23,11, 0,34,56		3,14,54,18,10	
		1,24,26,44,19,16,45,52		6,10
44″	44,26, 0,19,18, 7,30,17,20,48		3,14,54,24,20	
		1,24,26,41, 4,22,21,32		6,10
46″	44,26, 1,43,44,48,34,39,42,20		3,14,54,30,30	
		1,24,26,37,49,27,51, 2		6,10
48″	44,26, 3, 8,11,26,24, 7,33,22		3,14,54,36,40	
		1,24,26,34,34,33,14,22		6,10
50″	44,26, 4,32,38, 0,58,40,47,44		3,14,54,42,50	
		1,24,26,31,19,38,31,32		6,10
52″	44,26, 5,57, 4,32,18,19,19,16		3,14,54,49, 0	
		1,24,26,28, 4,43,42,32		6,10
54″	44,26, 7,21,31, 0,23, 3, 1,48		3,14,54,55,10	
		1,24,26,24,49,48,47,22		6,10
56″	44,26, 8,45,57,25,12,51,49,10		3,14,55, 1,20	
		1,24,26,21,34,53,46, 2		6,10
58″	44,26,10,10,23,46,47,45,35,12		3,14,55, 7,30	
		1,24,26,18,19,58,38,32		
60″	44,26,11,34,50, 5, 7,44,13,44			
exact	44,26,11,34,50, 5, 7,43,44,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°47′ 0″	44,26,11,34,50, 5, 7,43,44,49			
		1,24,26,15, 5, 3,21,44		
2″	44,26,12,59,16,20,12,47, 6,33		3,14,55,20, 3	
		1,24,26,11,50, 8, 1,41		6,10
4″	44,26,14,23,42,32, 2,55, 8,14		3,14,55,26,13	
		1,24,26, 8,35,12,35,28		6,10
6″	44,26,15,48, 8,40,38, 7,43,42		3,14,55,32,23	
		1,24,26, 5,20,17, 3, 5		6,10
8″	44,26,17,12,34,45,58,24,46,47		3,14,55,38,33	
		1,24,26, 2, 5,21,24,32		6,10
10″	44,26,18,37, 0,48, 3,46,11,19		3,14,55,44,43	
		1,24,25,58,50,25,39,49		6,10
12″	44,26,20, 1,26,46,54,11,51, 8		3,14,55,50,53	
		1,24,25,55,35,29,48,56		6,10
14″	44,26,21,25,52,42,29,41,40, 4		3,14,55,57, 3	
		1,24,25,52,20,33,51,53		6,10
16″	44,26,22,50,18,34,50,15,31,57		3,14,56, 3,13	
		1,24,25,49, 5,37,48,40		6,10
18″	44,26,24,14,44,23,55,53,20,37		3,14,56, 9,23	
		1,24,25,45,50,41,39,17		6,10
20″	44,26,25,39,10, 9,46,34,59,54		3,14,56,15,33	
		1,24,25,42,35,45,23,44		6,10
22″	44,26,27, 3,35,52,22,20,23,38		3,14,56,21,43	
		1,24,25,39,20,49, 2, 1		6,10
24″	44,26,28,28, 1,31,43, 9,25,39		3,14,56,27,53	
		1,24,25,36, 5,52,34, 8		6,10
26″	44,26,29,52,27, 7,49, 1,59,47		3,14,56,34, 3	
		1,24,25,32,50,56, 0, 5		6,10
28″	44,26,31,16,52,40,39,57,59,52		3,14,56,40,13	
		1,24,25,29,35,59,19,52		6,10
30″	44,26,32,41,18,10,15,57,19,44		3,14,56,46,23	
		1,24,25,26,21, 2,33,29		6,10
32″	44,26,34, 5,43,36,36,59,53,13		3,14,56,52,33	
		1,24,25,23, 6, 5,40,56		6,10
34″	44,26,35,30, 8,59,43, 5,34, 9		3,14,56,58,43	
		1,24,25,19,51, 8,42,13		6,10
36″	44,26,36,54,34,19,34,14,16,22		3,14,57, 4,53	
		1,24,25,16,36,11,37,20		6,10
38″	44,26,38,18,59,36,10,25,53,42		3,14,57,11, 3	
		1,24,25,13,21,14,26,17		6,10
40″	44,26,39,43,24,49,31,40,19,59		3,14,57,17,13	
		1,24,25,10, 6,17, 9, 4		6,10
42″	44,26,41, 7,49,59,37,57,29, 3		3,14,57,23,23	
		1,24,25, 6,51,19,45,41		6,10
44″	44,26,42,32,15, 6,29,17,14,44		3,14,57,29,33	
		1,24,25, 3,36,22,16, 8		6,10
46″	44,26,43,56,40,10, 5,39,30,52		3,14,57,35,43	
		1,24,25, 0,21,24,40,25		6,10
48″	44,26,45,21, 5,10,27, 4,11,17		3,14,57,41,53	
		1,24,24,57, 6,26,58,32		6,10
50″	44,26,46,45,30, 7,33,31, 9,49		3,14,57,48, 3	
		1,24,24,53,51,29,10,29		6,10
52″	44,26,48, 9,55, 1,25, 0,20,18		3,14,57,54,13	
		1,24,24,50,36,31,16,16		6,10
54″	44,26,49,34,19,52, 1,31,36,34		3,14,58, 0,23	
		1,24,24,47,21,33,15,53		6,10
56″	44,26,50,58,44,39,23, 4,52,27		3,14,58, 6,33	
		1,24,24,44, 6,35, 9,20		6,10
58″	44,26,52,23, 9,23,29,40, 1,47		3,14,58,12,43	
		1,24,24,40,51,36,56,37		
60″	44,26,53,47,34, 4,21,16,58,24			
exact	44,26,53,47,34, 4,21,16,35,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°48′ 0″	44,26,53,47,34, 4,21,16,35,54			
		1,24,24,37,36,38,35,20		
2″	44,26,55,11,58,41,57,55,11,14		3,14,58,25,12	
		1,24,24,34,21,40,10, 8		6,10
4″	44,26,56,36,23,16,19,35,21,22		3,14,58,31,22	
		1,24,24,31, 6,41,38,46		6,10
6″	44,26,58, 0,47,47,26,17, 0, 8		3,14,58,37,32	
		1,24,24,27,51,43, 1,14		6,10
8″	44,26,59,25,12,15,18, 0, 1,22		3,14,58,43,42	
		1,24,24,24,36,44,17,32		6,10
10″	44,27, 0,49,36,39,54,44,18,54		3,14,58,49,52	
		1,24,24,21,21,45,27,40		6,10
12″	44,27, 2,14, 1, 1,16,29,46,34		3,14,58,56, 2	
		1,24,24,18, 6,46,31,38		6,10
14″	44,27, 3,38,25,19,23,16,18,12		3,14,59, 2,12	
		1,24,24,14,51,47,29,26		6,10
16″	44,27, 5, 2,49,34,15, 3,47,38		3,14,59, 8,22	
		1,24,24,11,36,48,21, 4		6,10
18″	44,27, 6,27,13,45,51,52, 8,42		3,14,59,14,32	
		1,24,24, 8,21,49, 6,32		6,10
20″	44,27, 7,51,37,54,13,41,15,14		3,14,59,20,42	
		1,24,24, 5, 6,49,45,50		6,10
22″	44,27, 9,16, 1,59,20,31, 1, 4		3,14,59,26,52	
		1,24,24, 1,51,50,18,58		6,10
24″	44,27,10,40,26, 1,12,21,20, 2		3,14,59,33, 2	
		1,24,23,58,36,50,45,56		6,10
26″	44,27,12, 4,49,59,49,12, 5,58		3,14,59,39,12	
		1,24,23,55,21,51, 6,44		6,10
28″	44,27,13,29,13,55,11, 3,12,42		3,14,59,45,22	
		1,24,23,52, 6,51,21,22		6,10
30″	44,27,14,53,37,47,17,54,34, 4		3,14,59,51,32	
		1,24,23,48,51,51,29,50		6,10
32″	44,27,16,18, 1,36, 9,46, 3,54		3,14,59,57,42	
		1,24,23,45,36,51,32, 8		6,10
34″	44,27,17,42,25,21,46,37,36, 2		3,15, 0, 3,52	
		1,24,23,42,21,51,28,16		6,10
36″	44,27,19, 6,49, 4, 8,29, 4,18		3,15, 0,10, 2	
		1,24,23,39, 6,51,18,14		6,10
38″	44,27,20,31,12,43,15,20,22,32		3,15, 0,16,12	
		1,24,23,35,51,51, 2, 2		6,10
40″	44,27,21,55,36,19, 7,11,24,34		3,15, 0,22,22	
		1,24,23,32,36,50,39,40		6,10
42″	44,27,23,19,59,51,44, 2, 4,14		3,15, 0,28,32	
		1,24,23,29,21,50,11, 8		6,10
44″	44,27,24,44,23,21, 5,52,15,22		3,15, 0,34,42	
		1,24,23,26, 6,49,36,26		6,10
46″	44,27,26, 8,46,47,12,41,51,48		3,15, 0,40,52	
		1,24,23,22,51,48,55,34		6,10
48″	44,27,27,33,10,10, 4,30,47,22		3,15, 0,47, 2	
		1,24,23,19,36,48, 8,32		6,10
50″	44,27,28,57,33,29,41,18,55,54		3,15, 0,53,12	
		1,24,23,16,21,47,15,20		6,10
52″	44,27,30,21,56,46, 3, 6,11,14		3,15, 0,59,22	
		1,24,23,13, 6,46,15,58		6,10
54″	44,27,31,46,19,59, 9,52,27,12		3,15, 1, 5,32	
		1,24,23, 9,51,45,10,26		6,10
56″	44,27,33,10,43, 9, 1,37,37,38		3,15, 1,11,42	
		1,24,23, 6,36,43,58,44		6,10
58″	44,27,34,35, 6,15,38,21,36,22		3,15, 1,17,52	
		1,24,23, 3,21,42,40,52		
60″	44,27,35,59,29,19, 0, 4,17,14			
exact	44,27,35,59,29,19, 0, 3,57,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°49′ 0″	44,27,35,59,29,19, 0, 3,57,59			
		1,24,23, 0, 6,41,14,58		
2″	44,27,37,23,52,19, 6,45,12,57		3,15, 1,30,19	
		1,24,22,56,51,39,44,39		6,10
4″	44,27,38,48,15,15,58,24,57,36		3,15, 1,36,29	
		1,24,22,53,36,38, 8,10		6,10
6″	44,27,40,12,38, 9,35, 3, 5,46		3,15, 1,42,39	
		1,24,22,50,21,36,25,31		6,10
8″	44,27,41,37, 0,59,56,39,31,17		3,15, 1,48,49	
		1,24,22,47, 6,34,36,42		6,10
10″	44,27,43, 1,23,47, 3,14, 7,59		3,15, 1,54,59	
		1,24,22,43,51,32,41,43		6,10
12″	44,27,44,25,46,30,54,46,49,42		3,15, 2, 1, 9	
		1,24,22,40,36,30,40,34		6,10
14″	44,27,45,50, 9,11,31,17,30,16		3,15, 2, 7,19	
		1,24,22,37,21,28,33,15		6,10
16″	44,27,47,14,31,48,52,46, 3,31		3,15, 2,13,29	
		1,24,22,34, 6,26,19,46		6,10
18″	44,27,48,38,54,22,59,12,23,17		3,15, 2,19,39	
		1,24,22,30,51,24, 0, 7		6,10
20″	44,27,50, 3,16,53,50,36,23,24		3,15, 2,25,49	
		1,24,22,27,36,21,34,18		6,10
22″	44,27,51,27,39,21,26,57,57,42		3,15, 2,31,59	
		1,24,22,24,21,19, 2,19		6,10
24″	44,27,52,52, 1,45,48,17, 0, 1		3,15, 2,38, 9	
		1,24,22,21, 6,16,24,10		6,10
26″	44,27,54,16,24, 6,54,33,24,11		3,15, 2,44,19	
		1,24,22,17,51,13,39,51		6,10
28″	44,27,55,40,46,24,45,47, 4, 2		3,15, 2,50,29	
		1,24,22,14,36,10,49,22		6,10
30″	44,27,57, 5, 8,39,21,57,53,24		3,15, 2,56,39	
		1,24,22,11,21, 7,52,43		6,10
32″	44,27,58,29,30,50,43, 5,46, 7		3,15, 3, 2,49	
		1,24,22, 8, 6, 4,49,54		6,10
34″	44,27,59,53,52,58,49,10,36, 1		3,15, 3, 8,59	
		1,24,22, 4,51, 1,40,55		6,10
36″	44,28, 1,18,15, 3,40,12,16,56		3,15, 3,15, 9	
		1,24,22, 1,35,58,25,46		6,10
38″	44,28, 2,42,37, 5,16,10,42,42		3,15, 3,21,19	
		1,24,21,58,20,55, 4,27		6,10
40″	44,28, 4, 6,59, 3,37, 5,47, 9		3,15, 3,27,29	
		1,24,21,55, 5,51,36,58		6,10
42″	44,28, 5,31,20,58,42,57,24, 7		3,15, 3,33,39	
		1,24,21,51,50,48, 3,19		6,10
44″	44,28, 6,55,42,50,33,45,27,26		3,15, 3,39,49	
		1,24,21,48,35,44,23,30		6,10
46″	44,28, 8,20, 4,39, 9,29,50,56		3,15, 3,45,59	
		1,24,21,45,20,40,37,31		6,10
48″	44,28, 9,44,26,24,30,10,28,27		3,15, 3,52, 9	
		1,24,21,42, 5,36,45,22		6,10
50″	44,28,11, 8,48, 6,35,47,13,49		3,15, 3,58,19	
		1,24,21,38,50,32,47, 3		6,10
52″	44,28,12,33, 9,45,26,20, 0,52		3,15, 4, 4,29	
		1,24,21,35,35,28,42,34		6,10
54″	44,28,13,57,31,21, 1,48,43,26		3,15, 4,10,39	
		1,24,21,32,20,24,31,55		6,10
56″	44,28,15,21,52,53,22,13,15,21		3,15, 4,16,49	
		1,24,21,29, 5,20,15, 6		6,10
58″	44,28,16,46,14,22,27,33,30,27		3,15, 4,22,59	
		1,24,21,25,50,15,52, 7		
60″	44,28,18,10,35,48,17,49,22,34			
exact	44,28,18,10,35,48,17,49,17,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°50′ 0″	44,28,18,10,35,48,17,49,17,22			
		1,24,21,22,35,11,22,23		
2″	44,28,19,34,57,10,53, 0,39,45		3,15, 4,35,21	
		1,24,21,19,20, 6,47, 2		6,10
4″	44,28,20,59,18,30,13, 7,26,47		3,15, 4,41,31	
		1,24,21,16, 5, 2, 5,31		6,10
6″	44,28,22,23,39,46,18, 9,32,18		3,15, 4,47,41	
		1,24,21,12,49,57,17,50		6,10
8″	44,28,23,48, 0,59, 8, 6,50, 8		3,15, 4,53,51	
		1,24,21, 9,34,52,23,59		6,10
10″	44,28,25,12,22, 8,42,59,14, 7		3,15, 5, 0, 1	
		1,24,21, 6,19,47,23,58		6,10
12″	44,28,26,36,43,15, 2,46,38, 5		3,15, 5, 6,11	
		1,24,21, 3, 4,42,17,47		6,10
14″	44,28,28, 1, 4,18, 7,28,55,52		3,15, 5,12,21	
		1,24,20,59,49,37, 5,26		6,10
16″	44,28,29,25,25,17,57, 6, 1,18		3,15, 5,18,31	
		1,24,20,56,34,31,46,55		6,10
18″	44,28,30,49,46,14,31,37,48,13		3,15, 5,24,41	
		1,24,20,53,19,26,22,14		6,10
20″	44,28,32,14, 7, 7,51, 4,10,27		3,15, 5,30,51	
		1,24,20,50, 4,20,51,23		6,10
22″	44,28,33,38,27,57,55,25, 1,50		3,15, 5,37, 1	
		1,24,20,46,49,15,14,22		6,10
24″	44,28,35, 2,48,44,44,40,16,12		3,15, 5,43,11	
		1,24,20,43,34, 9,31,11		6,10
26″	44,28,36,27, 9,28,18,49,47,23		3,15, 5,49,21	
		1,24,20,40,19, 3,41,50		6,10
28″	44,28,37,51,30, 8,37,53,29,13		3,15, 5,55,31	
		1,24,20,37, 3,57,46,19		6,10
30″	44,28,39,15,50,45,41,51,15,32		3,15, 6, 1,41	
		1,24,20,33,48,51,44,38		6,10
32″	44,28,40,40,11,19,30,43, 0,10		3,15, 6, 7,51	
		1,24,20,30,33,45,36,47		6,10
34″	44,28,42, 4,31,50, 4,28,36,57		3,15, 6,14, 1	
		1,24,20,27,18,39,22,46		6,10
36″	44,28,43,28,52,17,23, 7,59,43		3,15, 6,20,11	
		1,24,20,24, 3,33, 2,35		6,10
38″	44,28,44,53,12,41,26,41, 2,18		3,15, 6,26,21	
		1,24,20,20,48,26,36,14		6,10
40″	44,28,46,17,33, 2,15, 7,38,32		3,15, 6,32,31	
		1,24,20,17,33,20, 3,43		6,10
42″	44,28,47,41,53,19,48,27,42,15		3,15, 6,38,41	
		1,24,20,14,18,13,25, 2		6,10
44″	44,28,49, 6,13,34, 6,41, 7,17		3,15, 6,44,51	
		1,24,20,11, 3, 6,40,11		6,10
46″	44,28,50,30,33,45, 9,47,47,28		3,15, 6,51, 1	
		1,24,20, 7,47,59,49,10		6,10
48″	44,28,51,54,53,52,57,47,36,38		3,15, 6,57,11	
		1,24,20, 4,32,52,51,59		6,10
50″	44,28,53,19,13,57,30,40,28,37		3,15, 7, 3,21	
		1,24,20, 1,17,45,48,38		6,10
52″	44,28,54,43,33,58,48,26,17,15		3,15, 7, 9,31	
		1,24,19,58, 2,38,39, 7		6,10
54″	44,28,56, 7,53,56,51, 4,56,22		3,15, 7,15,41	
		1,24,19,54,47,31,23,26		6,10
56″	44,28,57,32,13,51,38,36,19,48		3,15, 7,21,51	
		1,24,19,51,32,24, 1,35		6,10
58″	44,28,58,56,33,43,11, 0,21,23		3,15, 7,28, 1	
		1,24,19,48,17,16,33,34		
60″	44,29, 0,20,53,31,28,16,54,57			
exact	44,29, 0,20,53,31,28,16,53,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°51′ 0″	44,29, 0,20,53,31,28,16,53,47	1,24,19,45, 2, 8,59,23		
2″	44,29, 1,45,13,16,30,25,53,10	1,24,19,41,47, 1,19, 3	3,15, 7,40,20	6,10
4″	44,29, 3, 9,32,58,17,27,12,13	1,24,19,38,31,53,32,33	3,15, 7,46,30	6,10
6″	44,29, 4,33,52,36,49,20,44,46	1,24,19,35,16,45,39,53	3,15, 7,52,40	6,10
8″	44,29, 5,58,12,12, 6, 6,24,39	1,24,19,32, 1,37,41, 3	3,15, 7,58,50	6,10
10″	44,29, 7,22,31,44, 7,44, 5,42	1,24,19,28,46,29,36, 3	3,15, 8, 5, 0	6,10
12″	44,29, 8,46,51,12,54,13,41,45	1,24,19,25,31,21,24,53	3,15, 8,11,10	6,10
14″	44,29,10,11,10,38,25,35, 6,38	1,24,19,22,16,13, 7,33	3,15, 8,17,20	6,10
16″	44,29,11,35,30, 0,41,48,14,11	1,24,19,19, 1, 4,44, 3	3,15, 8,23,30	6,10
18″	44,29,12,59,49,19,42,52,58,14	1,24,19,15,45,56,14,23	3,15, 8,29,40	6,10
20″	44,29,14,24, 8,35,28,49,12,37	1,24,19,12,30,47,38,33	3,15, 8,35,50	6,10
22″	44,29,15,48,27,47,59,36,51,10	1,24,19, 9,15,38,56,33	3,15, 8,42, 0	6,10
24″	44,29,17,12,46,57,15,15,47,43	1,24,19, 6, 0,30, 8,23	3,15, 8,48,10	6,10
26″	44,29,18,37, 6, 3,15,45,56, 6	1,24,19, 2,45,21,14, 3	3,15, 8,54,20	6,10
28″	44,29,20, 1,25, 6, 1, 7,10, 9	1,24,18,59,30,12,13,33	3,15, 9, 0,30	6,10
30″	44,29,21,25,44, 5,31,19,23,42	1,24,18,56,15, 3, 6,53	3,15, 9, 6,40	6,10
32″	44,29,22,50, 3, 1,46,22,30,35	1,24,18,52,59,53,54, 3	3,15, 9,12,50	6,10
34″	44,29,24,14,21,54,46,16,24,38	1,24,18,49,44,44,35, 3	3,15, 9,19, 0	6,10
36″	44,29,25,38,40,44,31, 0,59,41	1,24,18,46,29,35, 9,53	3,15, 9,25,10	6,10
38″	44,29,27, 2,59,31, 0,36, 9,34	1,24,18,43,14,25,38,33	3,15, 9,31,20	6,10
40″	44,29,28,27,18,14,15, 1,48, 7	1,24,18,39,59,16, 1, 3	3,15, 9,37,30	6,10
42″	44,29,29,51,36,54,14,17,49,10	1,24,18,36,44, 6,17,23	3,15, 9,43,40	6,10
44″	44,29,31,15,55,30,58,24, 6,33	1,24,18,33,28,56,27,33	3,15, 9,49,50	6,10
46″	44,29,32,40,14, 4,27,20,34, 6	1,24,18,30,13,46,31,33	3,15, 9,56, 0	6,10
48″	44,29,34, 4,32,34,41, 7, 5,39	1,24,18,26,58,36,29,23	3,15,10, 2,10	6,10
50″	44,29,35,28,51, 1,39,43,35, 2	1,24,18,23,43,26,21, 3	3,15,10, 8,20	6,10
52″	44,29,36,53, 9,25,23, 9,56, 5	1,24,18,20,28,16, 6,33	3,15,10,14,30	6,10
54″	44,29,38,17,27,45,51,26, 2,38	1,24,18,17,13, 5,45,53	3,15,10,20,40	6,10
56″	44,29,39,41,46, 3, 4,31,48,31	1,24,18,13,57,55,19, 3	3,15,10,26,50	6,10
58″	44,29,41, 6, 4,17, 2,27, 7,34	1,24,18,10,42,44,46, 3	3,15,10,33, 0	
60″	44,29,42,30,22,27,45,11,53,37			
exact	44,29,42,30,22,27,45,12, 0,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°52′ 0″	44,29,42,30,22,27,45,12, 0,31			
		1,24,18, 7,27,34, 7,45		
2″	44,29,43,54,40,35,12,46, 8,16		3,15,10,45,16	
		1,24,18, 4,12,23,22,29		6,10
4″	44,29,45,18,58,39,25, 9,30,45		3,15,10,51,26	
		1,24,18, 0,57,12,31, 3		6,10
6″	44,29,46,43,16,40,22,22, 1,48		3,15,10,57,36	
		1,24,17,57,42, 1,33,27		6,10
8″	44,29,48, 7,34,38, 4,23,35,15		3,15,11, 3,46	
		1,24,17,54,26,50,29,41		6,10
10″	44,29,49,31,52,32,31,14, 4,56		3,15,11, 9,56	
		1,24,17,51,11,39,19,45		6,10
12″	44,29,50,56,10,23,42,53,24,41		3,15,11,16, 6	
		1,24,17,47,56,28, 3,39		6,10
14″	44,29,52,20,28,11,39,21,28,20		3,15,11,22,16	
		1,24,17,44,41,16,41,23		6,10
16″	44,29,53,44,45,56,20,38, 9,43		3,15,11,28,26	
		1,24,17,41,26, 5,12,57		6,10
18″	44,29,55, 9, 3,37,46,43,22,40		3,15,11,34,36	
		1,24,17,38,10,53,38,21		6,10
20″	44,29,56,33,21,15,57,37, 1, 1		3,15,11,40,46	
		1,24,17,34,55,41,57,35		6,10
22″	44,29,57,57,38,50,53,18,58,36		3,15,11,46,56	
		1,24,17,31,40,30,10,39		6,10
24″	44,29,59,21,56,22,33,49, 9,15		3,15,11,53, 6	
		1,24,17,28,25,18,17,33		6,10
26″	44,30, 0,46,13,50,59, 7,26,48		3,15,11,59,16	
		1,24,17,25,10, 6,18,17		6,10
28″	44,30, 2,10,31,16, 9,13,45, 5		3,15,12, 5,26	
		1,24,17,21,54,54,12,51		6,10
30″	44,30, 3,34,48,38, 4, 7,57,56		3,15,12,11,36	
		1,24,17,18,39,42, 1,15		6,10
32″	44,30, 4,59, 5,56,43,49,59,11		3,15,12,17,46	
		1,24,17,15,24,29,43,29		6,10
34″	44,30, 6,23,23,12, 8,19,42,40		3,15,12,23,56	
		1,24,17,12, 9,17,19,33		6,10
36″	44,30, 7,47,40,24,17,37, 2,13		3,15,12,30, 6	
		1,24,17, 8,54, 4,49,27		6,10
38″	44,30, 9,11,57,33,11,41,51,40		3,15,12,36,16	
		1,24,17, 5,38,52,13,11		6,10
40″	44,30,10,36,14,38,50,34, 4,51		3,15,12,42,26	
		1,24,17, 2,23,39,30,45		6,10
42″	44,30,12, 0,31,41,14,13,35,36		3,15,12,48,36	
		1,24,16,59, 8,26,42, 9		6,10
44″	44,30,13,24,48,40,22,40,17,45		3,15,12,54,46	
		1,24,16,55,53,13,47,23		6,10
46″	44,30,14,49, 5,36,15,54, 5, 8		3,15,13, 0,56	
		1,24,16,52,38, 0,46,27		6,10
48″	44,30,16,13,22,28,53,54,51,35		3,15,13, 7, 6	
		1,24,16,49,22,47,39,21		6,10
50″	44,30,17,37,39,18,16,42,30,56		3,15,13,13,16	
		1,24,16,46, 7,34,26, 5		6,10
52″	44,30,19, 1,56, 4,24,16,57, 1		3,15,13,19,26	
		1,24,16,42,52,21, 6,39		6,10
54″	44,30,20,26,12,47,16,38, 3,40		3,15,13,25,36	
		1,24,16,39,37, 7,41, 3		6,10
56″	44,30,21,50,29,26,53,45,44,43		3,15,13,31,46	
		1,24,16,36,21,54, 9,17		6,10
58″	44,30,23,14,46, 3,15,39,54, 0		3,15,13,37,56	
		1,24,16,33, 6,40,31,21		
60″	44,30,24,39, 2,36,22,20,25,21			
exact	44,30,24,39, 2,36,22,20,44,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°53′ 0″	44,30,24,39, 2,36,22,20,44,17			
		1,24,16,29,51,26,49,15		
2″	44,30,26, 3,19, 6,13,47,33,32		3,15,13,50, 7	
		1,24,16,26,36,12,59, 8		6,10
4″	44,30,27,27,35,32,50, 0,32,40		3,15,13,56,17	
		1,24,16,23,20,59, 2,51		6,10
6″	44,30,28,51,51,56,10,59,35,31		3,15,14, 2,27	
		1,24,16,20, 5,45, 0,24		6,10
8″	44,30,30,16, 8,16,16,44,35,55		3,15,14, 8,37	
		1,24,16,16,50,30,51,47		6,10
10″	44,30,31,40,24,33, 7,15,27,42		3,15,14,14,47	
		1,24,16,13,35,16,37, 0		6,10
12″	44,30,33, 4,40,46,42,32, 4,42		3,15,14,20,57	
		1,24,16,10,20, 2,16, 3		6,10
14″	44,30,34,28,56,57, 2,34,20,45		3,15,14,27, 7	
		1,24,16, 7, 4,47,48,56		6,10
16″	44,30,35,53,13, 4, 7,22, 9,41		3,15,14,33,17	
		1,24,16, 3,49,33,15,39		6,10
18″	44,30,37,17,29, 7,56,55,25,20		3,15,14,39,27	
		1,24,16, 0,34,18,36,12		6,10
20″	44,30,38,41,45, 8,31,14, 1,32		3,15,14,45,37	
		1,24,15,57,19, 3,50,35		6,10
22″	44,30,40, 6, 1, 5,50,17,52, 7		3,15,14,51,47	
		1,24,15,54, 3,48,58,48		6,10
24″	44,30,41,30,16,59,54, 6,50,55		3,15,14,57,57	
		1,24,15,50,48,34, 0,51		6,10
26″	44,30,42,54,32,50,42,40,51,46		3,15,15, 4, 7	
		1,24,15,47,33,18,56,44		6,10
28″	44,30,44,18,48,38,15,59,48,30		3,15,15,10,17	
		1,24,15,44,18, 3,46,27		6,10
30″	44,30,45,43, 4,22,34, 3,34,57		3,15,15,16,27	
		1,24,15,41, 2,48,30, 0		6,10
32″	44,30,47, 7,20, 3,36,52, 4,57		3,15,15,22,37	
		1,24,15,37,47,33, 7,23		6,10
34″	44,30,48,31,35,41,24,25,12,20		3,15,15,28,47	
		1,24,15,34,32,17,38,36		6,10
36″	44,30,49,55,51,15,56,42,50,56		3,15,15,34,57	
		1,24,15,31,17, 2, 3,39		6,10
38″	44,30,51,20, 6,47,13,44,54,35		3,15,15,41, 7	
		1,24,15,28, 1,46,22,32		6,10
40″	44,30,52,44,22,15,15,31,17, 7		3,15,15,47,17	
		1,24,15,24,46,30,35,15		6,10
42″	44,30,54, 8,37,40, 2, 1,52,22		3,15,15,53,27	
		1,24,15,21,31,14,41,48		6,10
44″	44,30,55,32,53, 1,33,16,34,10		3,15,15,59,37	
		1,24,15,18,15,58,42,11		6,10
46″	44,30,56,57, 8,19,49,15,16,21		3,15,16, 5,47	
		1,24,15,15, 0,42,36,24		6,10
48″	44,30,58,21,23,34,49,57,52,45		3,15,16,11,57	
		1,24,15,11,45,26,24,27		6,10
50″	44,30,59,45,38,46,35,24,17,12		3,15,16,18, 7	
		1,24,15, 8,30,10, 6,20		6,10
52″	44,31, 1, 9,53,55, 5,34,23,32		3,15,16,24,17	
		1,24,15, 5,14,53,42, 3		6,10
54″	44,31, 2,34, 9, 0,20,28, 5,35		3,15,16,30,27	
		1,24,15, 1,59,37,11,36		6,10
56″	44,31, 3,58,24, 2,20, 5,17,11		3,15,16,36,37	
		1,24,14,58,44,20,34,59		6,10
58″	44,31, 5,22,39, 1, 4,25,52,10		3,15,16,42,47	
		1,24,14,55,29, 3,52,12		
60″	44,31, 6,46,53,56,33,29,44,22			
exact	44,31, 6,46,53,56,33,30, 5,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°54′ 0″	44,31, 6,46,53,56,33,30, 5,20			
		1,24,14,52,13,47, 5,42		
2″	44,31, 8,11, 8,48,47,17,11, 2		3,15,16,54,56	
		1,24,14,48,58,30,10,46		6,10
4″	44,31, 9,35,23,37,45,47,21,48		3,15,17, 1, 6	
		1,24,14,45,43,13, 9,40		6,10
6″	44,31,10,59,38,23,29, 0,31,28		3,15,17, 7,16	
		1,24,14,42,27,56, 2,24		6,10
8″	44,31,12,23,53, 5,56,56,33,52		3,15,17,13,26	
		1,24,14,39,12,38,48,58		6,10
10″	44,31,13,48, 7,45, 9,35,22,50		3,15,17,19,36	
		1,24,14,35,57,21,29,22		6,10
12″	44,31,15,12,22,21, 6,56,52,12		3,15,17,25,46	
		1,24,14,32,42, 4, 3,36		6,10
14″	44,31,16,36,36,53,49, 0,55,48		3,15,17,31,56	
		1,24,14,29,26,46,31,40		6,10
16″	44,31,18, 0,51,23,15,47,27,28		3,15,17,38, 6	
		1,24,14,26,11,28,53,34		6,10
18″	44,31,19,25, 5,49,27,16,21, 2		3,15,17,44,16	
		1,24,14,22,56,11, 9,18		6,10
20″	44,31,20,49,20,12,23,27,30,20		3,15,17,50,26	
		1,24,14,19,40,53,18,52		6,10
22″	44,31,22,13,34,32, 4,20,49,12		3,15,17,56,36	
		1,24,14,16,25,35,22,16		6,10
24″	44,31,23,37,48,48,29,56,11,28		3,15,18, 2,46	
		1,24,14,13,10,17,19,30		6,10
26″	44,31,25, 2, 3, 1,40,13,30,58		3,15,18, 8,56	
		1,24,14, 9,54,59,10,34		6,10
28″	44,31,26,26,17,11,35,12,41,32		3,15,18,15, 6	
		1,24,14, 6,39,40,55,28		6,10
30″	44,31,27,50,31,18,14,53,37, 0		3,15,18,21,16	
		1,24,14, 3,24,22,34,12		6,10
32″	44,31,29,14,45,21,39,16,11,12		3,15,18,27,26	
		1,24,14, 0, 9, 4, 6,46		6,10
34″	44,31,30,38,59,21,48,20,17,58		3,15,18,33,36	
		1,24,13,56,53,45,33,10		6,10
36″	44,31,32, 3,13,18,42, 5,51, 8		3,15,18,39,46	
		1,24,13,53,38,26,53,24		6,10
38″	44,31,33,27,27,12,20,32,44,32		3,15,18,45,56	
		1,24,13,50,23, 8, 7,28		6,10
40″	44,31,34,51,41, 2,43,40,52, 0		3,15,18,52, 6	
		1,24,13,47, 7,49,15,22		6,10
42″	44,31,36,15,54,49,51,30, 7,22		3,15,18,58,16	
		1,24,13,43,52,30,17, 6		6,10
44″	44,31,37,40, 8,33,44, 0,24,28		3,15,19, 4,26	
		1,24,13,40,37,11,12,40		6,10
46″	44,31,39, 4,22,14,21,11,37, 8		3,15,19,10,36	
		1,24,13,37,21,52, 2, 4		6,10
48″	44,31,40,28,35,51,43, 3,39,12		3,15,19,16,46	
		1,24,13,34, 6,32,45,18		6,10
50″	44,31,41,52,49,25,49,36,24,30		3,15,19,22,56	
		1,24,13,30,51,13,22,22		6,10
52″	44,31,43,17, 2,56,40,49,46,52		3,15,19,29, 6	
		1,24,13,27,35,53,53,16		6,10
54″	44,31,44,41,16,24,16,43,40, 8		3,15,19,35,16	
		1,24,13,24,20,34,18, 0		6,10
56″	44,31,46, 5,29,48,37,17,58, 8		3,15,19,41,26	
		1,24,13,21, 5,14,36,34		6,10
58″	44,31,47,29,43, 9,42,32,34,42		3,15,19,47,36	
		1,24,13,17,49,54,48,58		
60″	44,31,48,53,56,27,32,27,23,40			
exact	44,31,48,53,56,27,32,27,57,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°55′ 0″	44,31,48,53,56,27,32,27,57,26			
		1,24,13,14,34,34,58,51		
2″	44,31,50,18, 9,42, 7, 2,56,17		3,15,19,59,41	
		1,24,13,11,19,14,59,10		6, 9
4″	44,31,51,42,22,53,26,17,55,27		3,15,20, 5,50	
		1,24,13, 8, 3,54,53,20		6, 9
6″	44,31,53, 6,36, 1,30,12,48,47		3,15,20,11,59	
		1,24,13, 4,48,34,41,21		6, 9
8″	44,31,54,30,49, 6,18,47,30, 8		3,15,20,18, 8	
		1,24,13, 1,33,14,23,13		6, 9
10″	44,31,55,55, 2, 7,52, 1,53,21		3,15,20,24,17	
		1,24,12,58,17,53,58,56		6, 9
12″	44,31,57,19,15, 6, 9,55,52,17		3,15,20,30,26	
		1,24,12,55, 2,33,28,30		6, 9
14″	44,31,58,43,28, 1,12,29,20,47		3,15,20,36,35	
		1,24,12,51,47,12,51,55		6, 9
16″	44,32, 0, 7,40,52,59,42,12,42		3,15,20,42,44	
		1,24,12,48,31,52, 9,11		6, 9
18″	44,32, 1,31,53,41,31,34,21,53		3,15,20,48,53	
		1,24,12,45,16,31,20,18		6, 9
20″	44,32, 2,56, 6,26,48, 5,42,11		3,15,20,55, 2	
		1,24,12,42, 1,10,25,16		6, 9
22″	44,32, 4,20,19, 8,49,16, 7,27		3,15,21, 1,11	
		1,24,12,38,45,49,24, 5		6, 9
24″	44,32, 5,44,31,47,35, 5,31,32		3,15,21, 7,20	
		1,24,12,35,30,28,16,45		6, 9
26″	44,32, 7, 8,44,23, 5,33,48,17		3,15,21,13,29	
		1,24,12,32,15, 7, 3,16		6, 9
28″	44,32, 8,32,56,55,20,40,51,33		3,15,21,19,38	
		1,24,12,28,59,45,43,38		6, 9
30″	44,32, 9,57, 9,24,20,26,35,11		3,15,21,25,47	
		1,24,12,25,44,24,17,51		6, 9
32″	44,32,11,21,21,50, 4,50,53, 2		3,15,21,31,56	
		1,24,12,22,29, 2,45,55		6, 9
34″	44,32,12,45,34,12,33,53,38,57		3,15,21,38, 5	
		1,24,12,19,13,41, 7,50		6, 9
36″	44,32,14, 9,46,31,47,34,46,47		3,15,21,44,14	
		1,24,12,15,58,19,23,36		6, 9
38″	44,32,15,33,58,47,45,54,10,23		3,15,21,50,23	
		1,24,12,12,42,57,33,13		6, 9
40″	44,32,16,58,11, 0,28,51,43,36		3,15,21,56,32	
		1,24,12, 9,27,35,36,41		6, 9
42″	44,32,18,22,23, 9,56,27,20,17		3,15,22, 2,41	
		1,24,12, 6,12,13,34, 0		6, 9
44″	44,32,19,46,35,16, 8,40,54,17		3,15,22, 8,50	
		1,24,12, 2,56,51,25,10		6, 9
46″	44,32,21,10,47,19, 5,32,19,27		3,15,22,14,59	
		1,24,11,59,41,29,10,11		6, 9
48″	44,32,22,34,59,18,47, 1,29,38		3,15,22,21, 8	
		1,24,11,56,26, 6,49, 3		6, 9
50″	44,32,23,59,11,15,13, 8,18,41		3,15,22,27,17	
		1,24,11,53,10,44,21,46		6, 9
52″	44,32,25,23,23, 8,23,52,40,27		3,15,22,33,26	
		1,24,11,49,55,21,48,20		6, 9
54″	44,32,26,47,34,58,19,14,28,47		3,15,22,39,35	
		1,24,11,46,39,59, 8,45		6, 9
56″	44,32,28,11,46,44,59,13,37,32		3,15,22,45,44	
		1,24,11,43,24,36,23, 1		6, 9
58″	44,32,29,35,58,28,23,50, 0,33		3,15,22,51,53	
		1,24,11,40, 9,13,31, 8		
60″	44,32,31, 0,10, 8,33, 3,31,41			
exact	44,32,31, 0,10, 8,33, 3, 7,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°56′ 0″	44,32,31, 0,10, 8,33, 3, 7,53			
		1,24,11,36,53,50,30,30		
2″	44,32,32,24,21,45,26,53,38,23		3,15,23, 4,22	
		1,24,11,33,38,27,26, 8		6, 9
4″	44,32,33,48,33,19, 5,21, 4,31		3,15,23,10,31	
		1,24,11,30,23, 4,15,37		6, 9
6″	44,32,35,12,44,49,28,25,20, 8		3,15,23,16,40	
		1,24,11,27, 7,40,58,57		6, 9
8″	44,32,36,36,56,16,36, 6,19, 5		3,15,23,22,49	
		1,24,11,23,52,17,36, 8		6, 9
10″	44,32,38, 1, 7,40,28,23,55,13		3,15,23,28,58	
		1,24,11,20,36,54, 7,10		6, 9
12″	44,32,39,25,19, 1, 5,18, 2,23		3,15,23,35, 7	
		1,24,11,17,21,30,32, 3		6, 9
14″	44,32,40,49,30,18,26,48,34,26		3,15,23,41,16	
		1,24,11,14, 6, 6,50,47		6, 9
16″	44,32,42,13,41,32,32,55,25,13		3,15,23,47,25	
		1,24,11,10,50,43, 3,22		6, 9
18″	44,32,43,37,52,43,23,38,28,35		3,15,23,53,34	
		1,24,11, 7,35,19, 9,48		6, 9
20″	44,32,45, 2, 3,50,58,57,38,23		3,15,23,59,43	
		1,24,11, 4,19,55,10, 5		6, 9
22″	44,32,46,26,14,55,18,52,48,28		3,15,24, 5,52	
		1,24,11, 1, 4,31, 4,13		6, 9
24″	44,32,47,50,25,56,23,23,52,41		3,15,24,12, 1	
		1,24,10,57,49, 6,52,12		6, 9
26″	44,32,49,14,36,54,12,30,44,53		3,15,24,18,10	
		1,24,10,54,33,42,34, 2		6, 9
28″	44,32,50,38,47,48,46,13,18,55		3,15,24,24,19	
		1,24,10,51,18,18, 9,43		6, 9
30″	44,32,52, 2,58,40, 4,31,28,38		3,15,24,30,28	
		1,24,10,48, 2,53,39,15		6, 9
32″	44,32,53,27, 9,28, 7,25, 7,53		3,15,24,36,37	
		1,24,10,44,47,29, 2,38		6, 9
34″	44,32,54,51,20,12,54,54,10,31		3,15,24,42,46	
		1,24,10,41,32, 4,19,52		6, 9
36″	44,32,56,15,30,54,26,58,30,23		3,15,24,48,55	
		1,24,10,38,16,39,30,57		6, 9
38″	44,32,57,39,41,32,43,38, 1,20		3,15,24,55, 4	
		1,24,10,35, 1,14,35,53		6, 9
40″	44,32,59, 3,52, 7,44,52,37,13		3,15,25, 1,13	
		1,24,10,31,45,49,34,40		6, 9
42″	44,33, 0,28, 2,39,30,42,11,53		3,15,25, 7,22	
		1,24,10,28,30,24,27,18		6, 9
44″	44,33, 1,52,13, 8, 1, 6,39,11		3,15,25,13,31	
		1,24,10,25,14,59,13,47		6, 9
46″	44,33, 3,16,23,33,16, 5,52,58		3,15,25,19,40	
		1,24,10,21,59,33,54, 7		6, 9
48″	44,33, 4,40,33,55,15,39,47, 5		3,15,25,25,49	
		1,24,10,18,44, 8,28,18		6, 9
50″	44,33, 6, 4,44,13,59,48,15,23		3,15,25,31,58	
		1,24,10,15,28,42,56,20		6, 9
52″	44,33, 7,28,54,29,28,31,11,43		3,15,25,38, 7	
		1,24,10,12,13,17,18,13		6, 9
54″	44,33, 8,53, 4,41,41,48,29,56		3,15,25,44,16	
		1,24,10, 8,57,51,33,57		6, 9
56″	44,33,10,17,14,50,39,40, 3,53		3,15,25,50,25	
		1,24,10, 5,42,25,43,32		6, 9
58″	44,33,11,41,24,56,22, 5,47,25		3,15,25,56,34	
		1,24,10, 2,26,59,46,58		
60″	44,33,13, 5,34,58,49, 5,34,23			
exact	44,33,13, 5,34,58,49, 5,17,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°57′ 0″	44,33,13, 5,34,58,49, 5,17,33			
		1,24, 9,59,11,33,42,26		
2″	44,33,14,29,44,58, 0,38,59,59		3,15,26, 8,59	
		1,24, 9,55,56, 7,33,27		6, 9
4″	44,33,15,53,54,53,56,46,33,26		3,15,26,15, 8	
		1,24, 9,52,40,41,18,19		6, 9
6″	44,33,17,18, 4,46,37,27,51,45		3,15,26,21,17	
		1,24, 9,49,25,14,57, 2		6, 9
8″	44,33,18,42,14,36, 2,42,48,47		3,15,26,27,26	
		1,24, 9,46, 9,48,29,36		6, 9
10″	44,33,20, 6,24,22,12,31,18,23		3,15,26,33,35	
		1,24, 9,42,54,21,56, 1		6, 9
12″	44,33,21,30,34, 5, 6,53,14,24		3,15,26,39,44	
		1,24, 9,39,38,55,16,17		6, 9
14″	44,33,22,54,43,44,45,48,30,41		3,15,26,45,53	
		1,24, 9,36,23,28,30,24		6, 9
16″	44,33,24,18,53,21, 9,17, 1, 5		3,15,26,52, 2	
		1,24, 9,33, 8, 1,38,22		6, 9
18″	44,33,25,43, 2,54,17,18,39,27		3,15,26,58,11	
		1,24, 9,29,52,34,40,11		6, 9
20″	44,33,27, 7,12,24, 9,53,19,38		3,15,27, 4,20	
		1,24, 9,26,37, 7,35,51		6, 9
22″	44,33,28,31,21,50,47, 0,55,29		3,15,27,10,29	
		1,24, 9,23,21,40,25,22		6, 9
24″	44,33,29,55,31,14, 8,41,20,51		3,15,27,16,38	
		1,24, 9,20, 6,13, 8,44		6, 9
26″	44,33,31,19,40,34,14,54,29,35		3,15,27,22,47	
		1,24, 9,16,50,45,45,57		6, 9
28″	44,33,32,43,49,51, 5,40,15,32		3,15,27,28,56	
		1,24, 9,13,35,18,17, 1		6, 9
30″	44,33,34, 7,59, 4,40,58,32,33		3,15,27,35, 5	
		1,24, 9,10,19,50,41,56		6, 9
32″	44,33,35,32, 8,15, 0,49,14,29		3,15,27,41,14	
		1,24, 9, 7, 4,23, 0,42		6, 9
34″	44,33,36,56,17,22, 5,12,15,11		3,15,27,47,23	
		1,24, 9, 3,48,55,13,19		6, 9
36″	44,33,38,20,26,25,54, 7,28,30		3,15,27,53,32	
		1,24, 9, 0,33,27,19,47		6, 9
38″	44,33,39,44,35,26,27,34,48,17		3,15,27,59,41	
		1,24, 8,57,17,59,20, 6		6, 9
40″	44,33,41, 8,44,23,45,34, 8,23		3,15,28, 5,50	
		1,24, 8,54, 2,31,14,16		6, 9
42″	44,33,42,32,53,17,48, 5,22,39		3,15,28,11,59	
		1,24, 8,50,47, 3, 2,17		6, 9
44″	44,33,43,57, 2, 8,35, 8,24,56		3,15,28,18, 8	
		1,24, 8,47,31,34,44, 9		6, 9
46″	44,33,45,21,10,56, 6,43, 9, 5		3,15,28,24,17	
		1,24, 8,44,16, 6,19,52		6, 9
48″	44,33,46,45,19,40,22,49,28,57		3,15,28,30,26	
		1,24, 8,41, 0,37,49,26		6, 9
50″	44,33,48, 9,28,21,23,27,18,23		3,15,28,36,35	
		1,24, 8,37,45, 9,12,51		6, 9
52″	44,33,49,33,36,59, 8,36,31,14		3,15,28,42,44	
		1,24, 8,34,29,40,30, 7		6, 9
54″	44,33,50,57,45,33,38,17, 1,21		3,15,28,48,53	
		1,24, 8,31,14,11,41,14		6, 9
56″	44,33,52,21,54, 4,52,28,42,35		3,15,28,55, 2	
		1,24, 8,27,58,42,46,12		6, 9
58″	44,33,53,46, 2,32,51,11,28,47		3,15,29, 1,11	
		1,24, 8,24,43,13,45, 1		
60″	44,33,55,10,10,57,34,25,13,48			
exact	44,33,55,10,10,57,34,25, 0,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°58′ 0″	44,33,55,10,10,57,34,25, 0,51			
		1,24, 8,21,27,44,36,26		
2″	44,33,56,34,19,19, 2, 9,37,17		3,15,29,13,33	
		1,24, 8,18,12,15,22,53		6, 9
4″	44,33,57,58,27,37,14,25, 0,10		3,15,29,19,42	
		1,24, 8,14,56,46, 3,11		6, 9
6″	44,33,59,22,35,52,11,11, 3,21		3,15,29,25,51	
		1,24, 8,11,41,16,37,20		6, 9
8″	44,34, 0,46,44, 3,52,27,40,41		3,15,29,32, 0	
		1,24, 8, 8,25,47, 5,20		6, 9
10″	44,34, 2,10,52,12,18,14,46, 1		3,15,29,38, 9	
		1,24, 8, 5,10,17,27,11		6, 9
12″	44,34, 3,35, 0,17,28,32,13,12		3,15,29,44,18	
		1,24, 8, 1,54,47,42,53		6, 9
14″	44,34, 4,59, 8,19,23,19,56, 5		3,15,29,50,27	
		1,24, 7,58,39,17,52,26		6, 9
16″	44,34, 6,23,16,18, 2,37,48,31		3,15,29,56,36	
		1,24, 7,55,23,47,55,50		6, 9
18″	44,34, 7,47,24,13,26,25,44,21		3,15,30, 2,45	
		1,24, 7,52, 8,17,53, 5		6, 9
20″	44,34, 9,11,32, 5,34,43,37,26		3,15,30, 8,54	
		1,24, 7,48,52,47,44,11		6, 9
22″	44,34,10,35,39,54,27,31,21,37		3,15,30,15, 3	
		1,24, 7,45,37,17,29, 8		6, 9
24″	44,34,11,59,47,40, 4,48,50,45		3,15,30,21,12	
		1,24, 7,42,21,47, 7,56		6, 9
26″	44,34,13,23,55,22,26,35,58,41		3,15,30,27,21	
		1,24, 7,39, 6,16,40,35		6, 9
28″	44,34,14,48, 3, 1,32,52,39,16		3,15,30,33,30	
		1,24, 7,35,50,46, 7, 5		6, 9
30″	44,34,16,12,10,37,23,38,46,21		3,15,30,39,39	
		1,24, 7,32,35,15,27,26		6, 9
32″	44,34,17,36,18, 9,58,54,13,47		3,15,30,45,48	
		1,24, 7,29,19,44,41,38		6, 9
34″	44,34,19, 0,25,39,18,38,55,25		3,15,30,51,57	
		1,24, 7,26, 4,13,49,41		6, 9
36″	44,34,20,24,33, 5,22,52,45, 6		3,15,30,58, 6	
		1,24, 7,22,48,42,51,35		6, 9
38″	44,34,21,48,40,28,11,35,36,41		3,15,31, 4,15	
		1,24, 7,19,33,11,47,20		6, 9
40″	44,34,23,12,47,47,44,47,24, 1		3,15,31,10,24	
		1,24, 7,16,17,40,36,56		6, 9
42″	44,34,24,36,55, 4, 2,28, 0,57		3,15,31,16,33	
		1,24, 7,13, 2, 9,20,23		6, 9
44″	44,34,26, 1, 2,17, 4,37,21,20		3,15,31,22,42	
		1,24, 7, 9,46,37,57,41		6, 9
46″	44,34,27,25, 9,26,51,15,19, 1		3,15,31,28,51	
		1,24, 7, 6,31, 6,28,50		6, 9
48″	44,34,28,49,16,33,22,21,47,51		3,15,31,35, 0	
		1,24, 7, 3,15,34,53,50		6, 9
50″	44,34,30,13,23,36,37,56,41,41		3,15,31,41, 9	
		1,24, 7, 0, 0, 3,12,41		6, 9
52″	44,34,31,37,30,36,37,59,54,22		3,15,31,47,18	
		1,24, 6,56,44,31,25,23		6, 9
54″	44,34,33, 1,37,33,22,31,19,45		3,15,31,53,27	
		1,24, 6,53,28,59,31,56		6, 9
56″	44,34,34,25,44,26,51,30,51,41		3,15,31,59,36	
		1,24, 6,50,13,27,32,20		6, 9
58″	44,34,35,49,51,17, 4,58,24, 1		3,15,32, 5,45	
		1,24, 6,46,57,55,26,35		
60″	44,34,37,13,58, 4, 2,53,50,36			
exact	44,34,37,13,58, 4, 2,53,45,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
47°59′ 0″	44,34,37,13,58, 4, 2,53,45,48			
		1,24, 6,43,42,23,14,18		
2″	44,34,38,38, 4,47,45,17, 0, 6		3,15,32,18, 4	
		1,24, 6,40,26,50,56,14		6, 9
4″	44,34,40, 2,11,28,12, 7,56,20		3,15,32,24,13	
		1,24, 6,37,11,18,32, 1		6, 9
6″	44,34,41,26,18, 5,23,26,28,21		3,15,32,30,22	
		1,24, 6,33,55,46, 1,39		6, 9
8″	44,34,42,50,24,39,19,12,30, 0		3,15,32,36,31	
		1,24, 6,30,40,13,25, 8		6, 9
10″	44,34,44,14,31, 9,59,25,55, 8		3,15,32,42,40	
		1,24, 6,27,24,40,42,28		6, 9
12″	44,34,45,38,37,37,24, 6,37,36		3,15,32,48,49	
		1,24, 6,24, 9, 7,53,39		6, 9
14″	44,34,47, 2,44, 1,33,14,31,15		3,15,32,54,58	
		1,24, 6,20,53,34,58,41		6, 9
16″	44,34,48,26,50,22,26,49,29,56		3,15,33, 1, 7	
		1,24, 6,17,38, 1,57,34		6, 9
18″	44,34,49,50,56,40, 4,51,27,30		3,15,33, 7,16	
		1,24, 6,14,22,28,50,18		6, 9
20″	44,34,51,15, 2,54,27,20,17,48		3,15,33,13,25	
		1,24, 6,11, 6,55,36,53		6, 9
22″	44,34,52,39, 9, 5,34,15,54,41		3,15,33,19,34	
		1,24, 6, 7,51,22,17,19		6, 9
24″	44,34,54, 3,15,13,25,38,12, 0		3,15,33,25,43	
		1,24, 6, 4,35,48,51,36		6, 9
26″	44,34,55,27,21,18, 1,27, 3,36		3,15,33,31,52	
		1,24, 6, 1,20,15,19,44		6, 9
28″	44,34,56,51,27,19,21,42,23,20		3,15,33,38, 1	
		1,24, 5,58, 4,41,41,43		6, 9
30″	44,34,58,15,33,17,26,24, 5, 3		3,15,33,44,10	
		1,24, 5,54,49, 7,57,33		6, 9
32″	44,34,59,39,39,12,15,32, 2,36		3,15,33,50,19	
		1,24, 5,51,33,34, 7,14		6, 9
34″	44,35, 1, 3,45, 3,49, 6, 9,50		3,15,33,56,28	
		1,24, 5,48,18, 0,10,46		6, 9
36″	44,35, 2,27,50,52, 7, 6,20,36		3,15,34, 2,37	
		1,24, 5,45, 2,26, 8, 9		6, 9
38″	44,35, 3,51,56,37, 9,32,28,45		3,15,34, 8,46	
		1,24, 5,41,46,51,59,23		6, 9
40″	44,35, 5,16, 2,18,56,24,28, 8		3,15,34,14,55	
		1,24, 5,38,31,17,44,28		6, 9
42″	44,35, 6,40, 7,57,27,42,12,36		3,15,34,21, 4	
		1,24, 5,35,15,43,23,24		6, 9
44″	44,35, 8, 4,13,32,43,25,36, 0		3,15,34,27,13	
		1,24, 5,32, 0, 8,56,11		6, 9
46″	44,35, 9,28,19, 4,43,34,32,11		3,15,34,33,22	
		1,24, 5,28,44,34,22,49		6, 9
48″	44,35,10,52,24,33,28, 8,55, 0		3,15,34,39,31	
		1,24, 5,25,28,59,43,18		6, 9
50″	44,35,12,16,29,58,57, 8,38,18		3,15,34,45,40	
		1,24, 5,22,13,24,57,38		6, 9
52″	44,35,13,40,35,21,10,33,35,56		3,15,34,51,49	
		1,24, 5,18,57,50, 5,49		6, 9
54″	44,35,15, 4,40,40, 8,23,41,45		3,15,34,57,58	
		1,24, 5,15,42,15, 7,51		6, 9
56″	44,35,16,28,45,55,50,38,49,36		3,15,35, 4, 7	
		1,24, 5,12,26,40, 3,44		6, 9
58″	44,35,17,52,51, 8,17,18,53,20		3,15,35,10,16	
		1,24, 5, 9,11, 4,53,28		
60″	44,35,19,16,56,17,28,23,46,48			
exact	44,35,19,16,56,17,28,23,53,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48° 0′ 0″	44,35,19,16,56,17,28,23,53,58			
		1,24, 5, 5,55,29,37,48		
2″	44,35,20,41, 1,23,23,53,31,46		3,15,35,22,31	
		1,24, 5, 2,39,54,15,17		6, 9
4″	44,35,22, 5, 6,26, 3,47,47, 3		3,15,35,28,40	
		1,24, 4,59,24,18,46,37		6, 9
6″	44,35,23,29,11,25,28, 6,33,40		3,15,35,34,49	
		1,24, 4,56, 8,43,11,48		6, 9
8″	44,35,24,53,16,21,36,49,45,28		3,15,35,40,58	
		1,24, 4,52,53, 7,30,50		6, 9
10″	44,35,26,17,21,14,29,57,16,18		3,15,35,47, 7	
		1,24, 4,49,37,31,43,43		6, 9
12″	44,35,27,41,26, 4, 7,29, 0, 1		3,15,35,53,16	
		1,24, 4,46,21,55,50,27		6, 9
14″	44,35,29, 5,30,50,29,24,50,28		3,15,35,59,25	
		1,24, 4,43, 6,19,51, 2		6, 9
16″	44,35,30,29,35,33,35,44,41,30		3,15,36, 5,34	
		1,24, 4,39,50,43,45,28		6, 9
18″	44,35,31,53,40,13,26,28,26,58		3,15,36,11,43	
		1,24, 4,36,35, 7,33,45		6, 9
20″	44,35,33,17,44,50, 1,36, 0,43		3,15,36,17,52	
		1,24, 4,33,19,31,15,53		6, 9
22″	44,35,34,41,49,23,21, 7,16,36		3,15,36,24, 1	
		1,24, 4,30, 3,54,51,52		6, 9
24″	44,35,36, 5,53,53,25, 2, 8,28		3,15,36,30,10	
		1,24, 4,26,48,18,21,42		6, 9
26″	44,35,37,29,58,20,13,20,30,10		3,15,36,36,19	
		1,24, 4,23,32,41,45,23		6, 9
28″	44,35,38,54, 2,43,46, 2,15,33		3,15,36,42,28	
		1,24, 4,20,17, 5, 2,55		6, 9
30″	44,35,40,18, 7, 4, 3, 7,18,28		3,15,36,48,37	
		1,24, 4,17, 1,28,14,18		6, 9
32″	44,35,41,42,11,21, 4,35,32,46		3,15,36,54,46	
		1,24, 4,13,45,51,19,32		6, 9
34″	44,35,43, 6,15,34,50,26,52,18		3,15,37, 0,55	
		1,24, 4,10,30,14,18,37		6, 9
36″	44,35,44,30,19,45,20,41,10,55		3,15,37, 7, 4	
		1,24, 4, 7,14,37,11,33		6, 9
38″	44,35,45,54,23,52,35,18,22,28		3,15,37,13,13	
		1,24, 4, 3,58,59,58,20		6, 9
40″	44,35,47,18,27,56,34,18,20,48		3,15,37,19,22	
		1,24, 4, 0,43,22,38,58		6, 9
42″	44,35,48,42,31,57,17,40,59,46		3,15,37,25,31	
		1,24, 3,57,27,45,13,27		6, 9
44″	44,35,50, 6,35,54,45,26,13,13		3,15,37,31,40	
		1,24, 3,54,12, 7,41,47		6, 9
46″	44,35,51,30,39,48,57,33,55, 0		3,15,37,37,49	
		1,24, 3,50,56,30, 3,58		6, 9
48″	44,35,52,54,43,39,54, 3,58,58		3,15,37,43,58	
		1,24, 3,47,40,52,20, 0		6, 9
50″	44,35,54,18,47,27,34,56,18,58		3,15,37,50, 7	
		1,24, 3,44,25,14,29,53		6, 9
52″	44,35,55,42,51,12, 0,10,48,51		3,15,37,56,16	
		1,24, 3,41, 9,36,33,37		6, 9
54″	44,35,57, 6,54,53, 9,47,22,28		3,15,38, 2,25	
		1,24, 3,37,53,58,31,12		6, 9
56″	44,35,58,30,58,31, 3,45,53,40		3,15,38, 8,34	
		1,24, 3,34,38,20,22,38		6, 9
58″	44,35,59,55, 2, 5,42, 6,16,18		3,15,38,14,43	
		1,24, 3,31,22,42, 7,55		
60″	44,36, 1,19, 5,37, 4,48,24,13			
exact	44,36, 1,19, 5,37, 4,48,40,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48° 1′ 0″	44,36, 1,19, 5,37, 4,48,40,35			
		1,24, 3,28, 7, 3,48,45		
2″	44,36, 2,43, 9, 5,11,52,29,20		3,15,38,26,54	
		1,24, 3,24,51,25,21,51		6, 9
4″	44,36, 4, 7,12,30, 3,17,51,11		3,15,38,33, 3	
		1,24, 3,21,35,46,48,48		6, 9
6″	44,36, 5,31,15,51,39, 4,39,59		3,15,38,39,12	
		1,24, 3,18,20, 8, 9,36		6, 9
8″	44,36, 6,55,19, 9,59,12,49,35		3,15,38,45,21	
		1,24, 3,15, 4,29,24,15		6, 9
10″	44,36, 8,19,22,25, 3,42,13,50		3,15,38,51,30	
		1,24, 3,11,48,50,32,45		6, 9
12″	44,36, 9,43,25,36,52,32,46,35		3,15,38,57,39	
		1,24, 3, 8,33,11,35, 6		6, 9
14″	44,36,11, 7,28,45,25,44,21,41		3,15,39, 3,48	
		1,24, 3, 5,17,32,31,18		6, 9
16″	44,36,12,31,31,50,43,16,52,59		3,15,39, 9,57	
		1,24, 3, 2, 1,53,21,21		6, 9
18″	44,36,13,55,34,52,45,10,14,20		3,15,39,16, 6	
		1,24, 2,58,46,14, 5,15		6, 9
20″	44,36,15,19,37,51,31,24,19,35		3,15,39,22,15	
		1,24, 2,55,30,34,43, 0		6, 9
22″	44,36,16,43,40,47, 1,59, 2,35		3,15,39,28,24	
		1,24, 2,52,14,55,14,36		6, 9
24″	44,36,18, 7,43,39,16,54,17,11		3,15,39,34,33	
		1,24, 2,48,59,15,40, 3		6, 9
26″	44,36,19,31,46,28,16, 9,57,14		3,15,39,40,42	
		1,24, 2,45,43,35,59,21		6, 9
28″	44,36,20,55,49,13,59,45,56,35		3,15,39,46,51	
		1,24, 2,42,27,56,12,30		6, 9
30″	44,36,22,19,51,56,27,42, 9, 5		3,15,39,53, 0	
		1,24, 2,39,12,16,19,30		6, 9
32″	44,36,23,43,54,35,39,58,28,35		3,15,39,59, 9	
		1,24, 2,35,56,36,20,21		6, 9
34″	44,36,25, 7,57,11,36,34,48,56		3,15,40, 5,18	
		1,24, 2,32,40,56,15, 3		6, 9
36″	44,36,26,31,59,44,17,31, 3,59		3,15,40,11,27	
		1,24, 2,29,25,16, 3,36		6, 9
38″	44,36,27,56, 2,13,42,47, 7,35		3,15,40,17,36	
		1,24, 2,26, 9,35,46, 0		6, 9
40″	44,36,29,20, 4,39,52,22,53,35		3,15,40,23,45	
		1,24, 2,22,53,55,22,15		6, 9
42″	44,36,30,44, 7, 2,46,18,15,50		3,15,40,29,54	
		1,24, 2,19,38,14,52,21		6, 9
44″	44,36,32, 8, 9,22,24,33, 8,11		3,15,40,36, 3	
		1,24, 2,16,22,34,16,18		6, 9
46″	44,36,33,32,11,38,47, 7,24,29		3,15,40,42,12	
		1,24, 2,13, 6,53,34, 6		6, 9
48″	44,36,34,56,13,51,54, 0,58,35		3,15,40,48,21	
		1,24, 2, 9,51,12,45,45		6, 9
50″	44,36,36,20,16, 1,45,13,44,20		3,15,40,54,30	
		1,24, 2, 6,35,31,51,15		6, 9
52″	44,36,37,44,18, 8,20,45,35,35		3,15,41, 0,39	
		1,24, 2, 3,19,50,50,36		6, 9
54″	44,36,39, 8,20,11,40,36,26,11		3,15,41, 6,48	
		1,24, 2, 0, 4, 9,43,48		6, 9
56″	44,36,40,32,22,11,44,46, 9,59		3,15,41,12,57	
		1,24, 1,56,48,28,30,51		6, 9
58″	44,36,41,56,24, 8,33,14,40,50		3,15,41,19, 6	
		1,24, 1,53,32,47,11,45		
60″	44,36,43,20,26, 2, 6, 1,52,35			
exact	44,36,43,20,26, 2, 6, 2,14,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48° 2′ 0″	44,36,43,20,26, 2, 6, 2,14,28			
		1,24, 1,50,17, 5,48,54		
2″	44,36,44,44,27,52,23, 8, 3,22		3,15,41,31,14	
		1,24, 1,47, 1,24,17,40		6, 9
4″	44,36,46, 8,29,39,24,32,21, 2		3,15,41,37,23	
		1,24, 1,43,45,42,40,17		6, 9
6″	44,36,47,32,31,23,10,15, 1,19		3,15,41,43,32	
		1,24, 1,40,30, 0,56,45		6, 9
8″	44,36,48,56,33, 3,40,15,58, 4		3,15,41,49,41	
		1,24, 1,37,14,19, 7, 4		6, 9
10″	44,36,50,20,34,40,54,35, 5, 8		3,15,41,55,50	
		1,24, 1,33,58,37,11,14		6, 9
12″	44,36,51,44,36,14,53,12,16,22		3,15,42, 1,59	
		1,24, 1,30,42,55, 9,15		6, 9
14″	44,36,53, 8,37,45,36, 7,25,37		3,15,42, 8, 8	
		1,24, 1,27,27,13, 1, 7		6, 9
16″	44,36,54,32,39,13, 3,20,26,44		3,15,42,14,17	
		1,24, 1,24,11,30,46,50		6, 9
18″	44,36,55,56,40,37,14,51,13,34		3,15,42,20,26	
		1,24, 1,20,55,48,26,24		6, 9
20″	44,36,57,20,41,58,10,39,39,58		3,15,42,26,35	
		1,24, 1,17,40, 5,59,49		6, 9
22″	44,36,58,44,43,15,50,45,39,47		3,15,42,32,44	
		1,24, 1,14,24,23,27, 5		6, 9
24″	44,37, 0, 8,44,30,15, 9, 6,52		3,15,42,38,53	
		1,24, 1,11, 8,40,48,12		6, 9
26″	44,37, 1,32,45,41,23,49,55, 4		3,15,42,45, 2	
		1,24, 1, 7,52,58, 3,10		6, 9
28″	44,37, 2,56,46,49,16,47,58,14		3,15,42,51,11	
		1,24, 1, 4,37,15,11,59		6, 9
30″	44,37, 4,20,47,53,54, 3,10,13		3,15,42,57,20	
		1,24, 1, 1,21,32,14,39		6, 9
32″	44,37, 5,44,48,55,15,35,24,52		3,15,43, 3,29	
		1,24, 0,58, 5,49,11,10		6, 9
34″	44,37, 7, 8,49,53,21,24,36, 2		3,15,43, 9,38	
		1,24, 0,54,50, 6, 1,32		6, 9
36″	44,37, 8,32,50,48,11,30,37,34		3,15,43,15,47	
		1,24, 0,51,34,22,45,45		6, 9
38″	44,37, 9,56,51,39,45,53,23,19		3,15,43,21,56	
		1,24, 0,48,18,39,23,49		6, 9
40″	44,37,11,20,52,28, 4,32,47, 8		3,15,43,28, 5	
		1,24, 0,45, 2,55,55,44		6, 9
42″	44,37,12,44,53,13, 7,28,42,52		3,15,43,34,14	
		1,24, 0,41,47,12,21,30		6, 9
44″	44,37,14, 8,53,54,54,41, 4,22		3,15,43,40,23	
		1,24, 0,38,31,28,41, 7		6, 9
46″	44,37,15,32,54,33,26, 9,45,29		3,15,43,46,32	
		1,24, 0,35,15,44,54,35		6, 9
48″	44,37,16,56,55, 8,41,54,40, 4		3,15,43,52,41	
		1,24, 0,32, 0, 1, 1,54		6, 9
50″	44,37,18,20,55,40,41,55,41,58		3,15,43,58,50	
		1,24, 0,28,44,17, 3, 4		6, 9
52″	44,37,19,44,56, 9,26,12,45, 2		3,15,44, 4,59	
		1,24, 0,25,28,32,58, 5		6, 9
54″	44,37,21, 8,56,34,54,45,43, 7		3,15,44,11, 8	
		1,24, 0,22,12,48,46,57		6, 9
56″	44,37,22,32,56,57, 7,34,30, 4		3,15,44,17,17	
		1,24, 0,18,57, 4,29,40		6, 9
58″	44,37,23,56,57,16, 4,38,59,44		3,15,44,23,26	
		1,24, 0,15,41,20, 6,14		
60″	44,37,25,20,57,31,45,59, 5,58			
exact	44,37,25,20,57,31,45,59,38, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48° 3′ 0″	44,37,25,20,57,31,45,59,38, 3			
		1,24, 0,12,25,35,40, 3		
2″	44,37,26,44,57,44,11,35,18, 6		3,15,44,35,30	
		1,24, 0, 9, 9,51, 4,33		6, 8
4″	44,37,28, 8,57,53,21,26,22,39		3,15,44,41,38	
		1,24, 0, 5,54, 6,22,55		6, 8
6″	44,37,29,32,57,59,15,32,45,34		3,15,44,47,46	
		1,24, 0, 2,38,21,35, 9		6, 8
8″	44,37,30,56,58, 1,53,54,20,43		3,15,44,53,54	
		1,23,59,59,22,36,41,15		6, 8
10″	44,37,32,20,58, 1,16,31, 1,58		3,15,45, 0, 2	
		1,23,59,56, 6,51,41,13		6, 8
12″	44,37,33,44,57,57,23,22,43,11		3,15,45, 6,10	
		1,23,59,52,51, 6,35, 3		6, 8
14″	44,37,35, 8,57,50,14,29,18,14		3,15,45,12,18	
		1,23,59,49,35,21,22,45		6, 8
16″	44,37,36,32,57,39,49,50,40,59		3,15,45,18,26	
		1,23,59,46,19,36, 4,19		6, 8
18″	44,37,37,56,57,26, 9,26,45,18		3,15,45,24,34	
		1,23,59,43, 3,50,39,45		6, 8
20″	44,37,39,20,57, 9,13,17,25, 3		3,15,45,30,42	
		1,23,59,39,48, 5, 9, 3		6, 8
22″	44,37,40,44,56,49, 1,22,34, 6		3,15,45,36,50	
		1,23,59,36,32,19,32,13		6, 8
24″	44,37,42, 8,56,25,33,42, 6,19		3,15,45,42,58	
		1,23,59,33,16,33,49,15		6, 8
26″	44,37,43,32,55,58,50,15,55,34		3,15,45,49, 6	
		1,23,59,30, 0,48, 0, 9		6, 8
28″	44,37,44,56,55,28,51, 3,55,43		3,15,45,55,14	
		1,23,59,26,45, 2, 4,55		6, 8
30″	44,37,46,20,54,55,36, 6, 0,38		3,15,46, 1,22	
		1,23,59,23,29,16, 3,33		6, 8
32″	44,37,47,44,54,19, 5,22, 4,11		3,15,46, 7,30	
		1,23,59,20,13,29,56, 3		6, 8
34″	44,37,49, 8,53,39,18,52, 0,14		3,15,46,13,38	
		1,23,59,16,57,43,42,25		6, 8
36″	44,37,50,32,52,56,16,35,42,39		3,15,46,19,46	
		1,23,59,13,41,57,22,39		6, 8
38″	44,37,51,56,52, 9,58,33, 5,18		3,15,46,25,54	
		1,23,59,10,26,10,56,45		6, 8
40″	44,37,53,20,51,20,24,44, 2, 3		3,15,46,32, 2	
		1,23,59, 7,10,24,24,43		6, 8
42″	44,37,54,44,50,27,35, 8,26,46		3,15,46,38,10	
		1,23,59, 3,54,37,46,33		6, 8
44″	44,37,56, 8,49,31,29,46,13,19		3,15,46,44,18	
		1,23,59, 0,38,51, 2,15		6, 8
46″	44,37,57,32,48,32, 8,37,15,34		3,15,46,50,26	
		1,23,58,57,23, 4,11,49		6, 8
48″	44,37,58,56,47,29,31,41,27,23		3,15,46,56,34	
		1,23,58,54, 7,17,15,15		6, 8
50″	44,38, 0,20,46,23,38,58,42,38		3,15,47, 2,42	
		1,23,58,50,51,30,12,33		6, 8
52″	44,38, 1,44,45,14,30,28,55,11		3,15,47, 8,50	
		1,23,58,47,35,43, 3,43		6, 8
54″	44,38, 3, 8,44, 2, 6,11,58,54		3,15,47,14,58	
		1,23,58,44,19,55,48,45		6, 8
56″	44,38, 4,32,42,46,26, 7,47,39		3,15,47,21, 6	
		1,23,58,41, 4, 8,27,39		6, 8
58″	44,38, 5,56,41,27,30,16,15,18		3,15,47,27,14	
		1,23,58,37,48,21, 0,25		
60″	44,38, 7,20,40, 5,18,37,15,43			
exact	44,38, 7,20,40, 5,18,36,47,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48° 4′ 0″	44,38, 7,20,40, 5,18,36,47,29			
		1,23,58,34,32,33,24, 1		
2″	44,38, 8,44,38,39,51,10,11,30		3,15,47,39,42	
		1,23,58,31,16,45,44,19		6, 8
4″	44,38,10, 8,37,11, 7,55,55,49		3,15,47,45,50	
		1,23,58,28, 0,57,58,29		6, 8
6″	44,38,11,32,35,39, 8,53,54,18		3,15,47,51,58	
		1,23,58,24,45,10, 6,31		6, 8
8″	44,38,12,56,34, 3,54, 4, 0,49		3,15,47,58, 6	
		1,23,58,21,29,22, 8,25		6, 8
10″	44,38,14,20,32,25,23,26, 9,14		3,15,48, 4,14	
		1,23,58,18,13,34, 4,11		6, 8
12″	44,38,15,44,30,43,37, 0,13,25		3,15,48,10,22	
		1,23,58,14,57,45,53,49		6, 8
14″	44,38,17, 8,28,58,34,46, 7,14		3,15,48,16,30	
		1,23,58,11,41,57,37,19		6, 8
16″	44,38,18,32,27,10,16,43,44,33		3,15,48,22,38	
		1,23,58, 8,26, 9,14,41		6, 8
18″	44,38,19,56,25,18,42,52,59,14		3,15,48,28,46	
		1,23,58, 5,10,20,45,55		6, 8
20″	44,38,21,20,23,23,53,13,45, 9		3,15,48,34,54	
		1,23,58, 1,54,32,11, 1		6, 8
22″	44,38,22,44,21,25,47,45,56,10		3,15,48,41, 2	
		1,23,57,58,38,43,29,59		6, 8
24″	44,38,24, 8,19,24,26,29,26, 9		3,15,48,47,10	
		1,23,57,55,22,54,42,49		6, 8
26″	44,38,25,32,17,19,49,24, 8,58		3,15,48,53,18	
		1,23,57,52, 7, 5,49,31		6, 8
28″	44,38,26,56,15,11,56,29,58,29		3,15,48,59,26	
		1,23,57,48,51,16,50, 5		6, 8
30″	44,38,28,20,13, 0,47,46,48,34		3,15,49, 5,34	
		1,23,57,45,35,27,44,31		6, 8
32″	44,38,29,44,10,46,23,14,33, 5		3,15,49,11,42	
		1,23,57,42,19,38,32,49		6, 8
34″	44,38,31, 8, 8,28,42,53, 5,54		3,15,49,17,50	
		1,23,57,39, 3,49,14,59		6, 8
36″	44,38,32,32, 6, 7,46,42,20,53		3,15,49,23,58	
		1,23,57,35,47,59,51, 1		6, 8
38″	44,38,33,56, 3,43,34,42,11,54		3,15,49,30, 6	
		1,23,57,32,32,10,20,55		6, 8
40″	44,38,35,20, 1,16, 6,52,32,49		3,15,49,36,14	
		1,23,57,29,16,20,44,41		6, 8
42″	44,38,36,43,58,45,23,13,17,30		3,15,49,42,22	
		1,23,57,26, 0,31, 2,19		6, 8
44″	44,38,38, 7,56,11,23,44,19,49		3,15,49,48,30	
		1,23,57,22,44,41,13,49		6, 8
46″	44,38,39,31,53,34, 8,25,33,38		3,15,49,54,38	
		1,23,57,19,28,51,19,11		6, 8
48″	44,38,40,55,50,53,37,16,52,49		3,15,50, 0,46	
		1,23,57,16,13, 1,18,25		6, 8
50″	44,38,42,19,48, 9,50,18,11,14		3,15,50, 6,54	
		1,23,57,12,57,11,11,31		6, 8
52″	44,38,43,43,45,22,47,29,22,45		3,15,50,13, 2	
		1,23,57, 9,41,20,58,29		6, 8
54″	44,38,45, 7,42,32,28,50,21,14		3,15,50,19,10	
		1,23,57, 6,25,30,39,19		6, 8
56″	44,38,46,31,39,38,54,21, 0,33		3,15,50,25,18	
		1,23,57, 3, 9,40,14, 1		6, 8
58″	44,38,47,55,36,42, 4, 1,14,34		3,15,50,31,26	
		1,23,56,59,53,49,42,35		
60″	44,38,49,19,33,41,57,50,57, 9			
exact	44,38,49,19,33,41,57,50,32,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48° 5′ 0″	44,38,49,19,33,41,57,50,32,31			
		1,23,56,56,37,59, 2,33		
2″	44,38,50,43,30,38,35,49,35, 4		3,15,50,43,51	
		1,23,56,53,22, 8,18,42		6, 8
4″	44,38,52, 7,27,31,57,57,53,46		3,15,50,49,59	
		1,23,56,50, 6,17,28,43		6, 8
6″	44,38,53,31,24,22, 4,15,22,29		3,15,50,56, 7	
		1,23,56,46,50,26,32,36		6, 8
8″	44,38,54,55,21, 8,54,41,55, 5		3,15,51, 2,15	
		1,23,56,43,34,35,30,21		6, 8
10″	44,38,56,19,17,52,29,17,25,26		3,15,51, 8,23	
		1,23,56,40,18,44,21,58		6, 8
12″	44,38,57,43,14,32,48, 1,47,24		3,15,51,14,31	
		1,23,56,37, 2,53, 7,27		6, 8
14″	44,38,59, 7,11, 9,50,54,54,51		3,15,51,20,39	
		1,23,56,33,47, 1,46,48		6, 8
16″	44,39, 0,31, 7,43,37,56,41,39		3,15,51,26,47	
		1,23,56,30,31,10,20, 1		6, 8
18″	44,39, 1,55, 4,14, 9, 7, 1,40		3,15,51,32,55	
		1,23,56,27,15,18,47, 6		6, 8
20″	44,39, 3,19, 0,41,24,25,48,46		3,15,51,39, 3	
		1,23,56,23,59,27, 8, 3		6, 8
22″	44,39, 4,42,57, 5,23,52,56,49		3,15,51,45,11	
		1,23,56,20,43,35,22,52		6, 8
24″	44,39, 6, 6,53,26, 7,28,19,41		3,15,51,51,19	
		1,23,56,17,27,43,31,33		6, 8
26″	44,39, 7,30,49,43,35,11,51,14		3,15,51,57,27	
		1,23,56,14,11,51,34, 6		6, 8
28″	44,39, 8,54,45,57,47, 3,25,20		3,15,52, 3,35	
		1,23,56,10,55,59,30,31		6, 8
30″	44,39,10,18,42, 8,43, 2,55,51		3,15,52, 9,43	
		1,23,56, 7,40, 7,20,48		6, 8
32″	44,39,11,42,38,16,23,10,16,39		3,15,52,15,51	
		1,23,56, 4,24,15, 4,57		6, 8
34″	44,39,13, 6,34,20,47,25,21,36		3,15,52,21,59	
		1,23,56, 1, 8,22,42,58		6, 8
36″	44,39,14,30,30,21,55,48, 4,34		3,15,52,28, 7	
		1,23,55,57,52,30,14,51		6, 8
38″	44,39,15,54,26,19,48,18,19,25		3,15,52,34,15	
		1,23,55,54,36,37,40,36		6, 8
40″	44,39,17,18,22,14,24,56, 0, 1		3,15,52,40,23	
		1,23,55,51,20,45, 0,13		6, 8
42″	44,39,18,42,18, 5,45,41, 0,14		3,15,52,46,31	
		1,23,55,48, 4,52,13,42		6, 8
44″	44,39,20, 6,13,53,50,33,13,56		3,15,52,52,39	
		1,23,55,44,48,59,21, 3		6, 8
46″	44,39,21,30, 9,38,39,32,34,59		3,15,52,58,47	
		1,23,55,41,33, 6,22,16		6, 8
48″	44,39,22,54, 5,20,12,38,57,15		3,15,53, 4,55	
		1,23,55,38,17,13,17,21		6, 8
50″	44,39,24,18, 0,58,29,52,14,36		3,15,53,11, 3	
		1,23,55,35, 1,20, 6,18		6, 8
52″	44,39,25,41,56,33,31,12,20,54		3,15,53,17,11	
		1,23,55,31,45,26,49, 7		6, 8
54″	44,39,27, 5,52, 5,16,39,10, 1		3,15,53,23,19	
		1,23,55,28,29,33,25,48		6, 8
56″	44,39,28,29,47,33,46,12,35,49		3,15,53,29,27	
		1,23,55,25,13,39,56,21		6, 8
58″	44,39,29,53,42,58,59,52,32,10		3,15,53,35,35	
		1,23,55,21,57,46,20,46		
60″	44,39,31,17,38,20,57,38,52,56			
exact	44,39,31,17,38,20,57,38,36,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48° 6′ 0″	44,39,31,17,38,20,57,38,36,36			
		1,23,55,18,41,52,37,27		
2″	44,39,32,41,33,39,39,31,14, 3		3,15,53,47,57	
		1,23,55,15,25,58,49,30		6, 8
4″	44,39,34, 5,28,55, 5,30, 3,33		3,15,53,54, 5	
		1,23,55,12,10, 4,55,25		6, 8
6″	44,39,35,29,24, 7,15,34,58,58		3,15,54, 0,13	
		1,23,55, 8,54,10,55,12		6, 8
8″	44,39,36,53,19,16, 9,45,54,10		3,15,54, 6,21	
		1,23,55, 5,38,16,48,51		6, 8
10″	44,39,38,17,14,21,48, 2,43, 1		3,15,54,12,29	
		1,23,55, 2,22,22,36,22		6, 8
12″	44,39,39,41, 9,24,10,25,19,23		3,15,54,18,37	
		1,23,54,59, 6,28,17,45		6, 8
14″	44,39,41, 5, 4,23,16,53,37, 8		3,15,54,24,45	
		1,23,54,55,50,33,53, 0		6, 8
16″	44,39,42,28,59,19, 7,27,30, 8		3,15,54,30,53	
		1,23,54,52,34,39,22, 7		6, 8
18″	44,39,43,52,54,11,42, 6,52,15		3,15,54,37, 1	
		1,23,54,49,18,44,45, 6		6, 8
20″	44,39,45,16,49, 1, 0,51,37,21		3,15,54,43, 9	
		1,23,54,46, 2,50, 1,57		6, 8
22″	44,39,46,40,43,47, 3,41,39,18		3,15,54,49,17	
		1,23,54,42,46,55,12,40		6, 8
24″	44,39,48, 4,38,29,50,36,51,58		3,15,54,55,25	
		1,23,54,39,31, 0,17,15		6, 8
26″	44,39,49,28,33, 9,21,37, 9,13		3,15,55, 1,33	
		1,23,54,36,15, 5,15,42		6, 8
28″	44,39,50,52,27,45,36,42,24,55		3,15,55, 7,41	
		1,23,54,32,59,10, 8, 1		6, 8
30″	44,39,52,16,22,18,35,52,32,56		3,15,55,13,49	
		1,23,54,29,43,14,54,12		6, 8
32″	44,39,53,40,16,48,19, 7,27, 8		3,15,55,19,57	
		1,23,54,26,27,19,34,15		6, 8
34″	44,39,55, 4,11,14,46,27, 1,23		3,15,55,26, 5	
		1,23,54,23,11,24, 8,10		6, 8
36″	44,39,56,28, 5,37,57,51, 9,33		3,15,55,32,13	
		1,23,54,19,55,28,35,57		6, 8
38″	44,39,57,51,59,57,53,19,45,30		3,15,55,38,21	
		1,23,54,16,39,32,57,36		6, 8
40″	44,39,59,15,54,14,32,52,43, 6		3,15,55,44,29	
		1,23,54,13,23,37,13, 7		6, 8
42″	44,40, 0,39,48,27,56,29,56,13		3,15,55,50,37	
		1,23,54,10, 7,41,22,30		6, 8
44″	44,40, 2, 3,42,38, 4,11,18,43		3,15,55,56,45	
		1,23,54, 6,51,45,25,45		6, 8
46″	44,40, 3,27,36,44,55,56,44,28		3,15,56, 2,53	
		1,23,54, 3,35,49,22,52		6, 8
48″	44,40, 4,51,30,48,31,46, 7,20		3,15,56, 9, 1	
		1,23,54, 0,19,53,13,51		6, 8
50″	44,40, 6,15,24,48,51,39,21,11		3,15,56,15, 9	
		1,23,53,57, 3,56,58,42		6, 8
52″	44,40, 7,39,18,45,55,36,19,53		3,15,56,21,17	
		1,23,53,53,48, 0,37,25		6, 8
54″	44,40, 9, 3,12,39,43,36,57,18		3,15,56,27,25	
		1,23,53,50,32, 4,10, 0		6, 8
56″	44,40,10,27, 6,30,15,41, 7,18		3,15,56,33,33	
		1,23,53,47,16, 7,36,27		6, 8
58″	44,40,11,51, 0,17,31,48,43,45		3,15,56,39,41	
		1,23,53,44, 0,10,56,46		
60″	44,40,13,14,54, 1,31,59,40,31			
exact	44,40,13,14,54, 1,31,59,36,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48° 7′ 0″	44,40,13,14,54, 1,31,59,36,53			
		1,23,53,40,44,14,10,32		
2″	44,40,14,38,47,42,16,13,47,25		3,15,56,51,58	
		1,23,53,37,28,17,18,34		6, 8
4″	44,40,16, 2,41,19,44,31, 5,59		3,15,56,58, 6	
		1,23,53,34,12,20,20,28		6, 8
6″	44,40,17,26,34,53,56,51,26,27		3,15,57, 4,14	
		1,23,53,30,56,23,16,14		6, 8
8″	44,40,18,50,28,24,53,14,42,41		3,15,57,10,22	
		1,23,53,27,40,26, 5,52		6, 8
10″	44,40,20,14,21,52,33,40,48,33		3,15,57,16,30	
		1,23,53,24,24,28,49,22		6, 8
12″	44,40,21,38,15,16,58, 9,37,55		3,15,57,22,38	
		1,23,53,21, 8,31,26,44		6, 8
14″	44,40,23, 2, 8,38, 6,41, 4,39		3,15,57,28,46	
		1,23,53,17,52,33,57,58		6, 8
16″	44,40,24,26, 1,55,59,15, 2,37		3,15,57,34,54	
		1,23,53,14,36,36,23, 4		6, 8
18″	44,40,25,49,55,10,35,51,25,41		3,15,57,41, 2	
		1,23,53,11,20,38,42, 2		6, 8
20″	44,40,27,13,48,21,56,30, 7,43		3,15,57,47,10	
		1,23,53, 8, 4,40,54,52		6, 8
22″	44,40,28,37,41,30, 1,11, 2,35		3,15,57,53,18	
		1,23,53, 4,48,43, 1,34		6, 8
24″	44,40,30, 1,34,34,49,54, 4, 9		3,15,57,59,26	
		1,23,53, 1,32,45, 2, 8		6, 8
26″	44,40,31,25,27,36,22,39, 6,17		3,15,58, 5,34	
		1,23,52,58,16,46,56,34		6, 8
28″	44,40,32,49,20,34,39,26, 2,51		3,15,58,11,42	
		1,23,52,55, 0,48,44,52		6, 8
30″	44,40,34,13,13,29,40,14,47,43		3,15,58,17,50	
		1,23,52,51,44,50,27, 2		6, 8
32″	44,40,35,37, 6,21,25, 5,14,45		3,15,58,23,58	
		1,23,52,48,28,52, 3, 4		6, 8
34″	44,40,37, 0,59, 9,53,57,17,49		3,15,58,30, 6	
		1,23,52,45,12,53,32,58		6, 8
36″	44,40,38,24,51,55, 6,50,50,47		3,15,58,36,14	
		1,23,52,41,56,54,56,44		6, 8
38″	44,40,39,48,44,37, 3,45,47,31		3,15,58,42,22	
		1,23,52,38,40,56,14,22		6, 8
40″	44,40,41,12,37,15,44,42, 1,53		3,15,58,48,30	
		1,23,52,35,24,57,25,52		6, 8
42″	44,40,42,36,29,51, 9,39,27,45		3,15,58,54,38	
		1,23,52,32, 8,58,31,14		6, 8
44″	44,40,44, 0,22,23,18,37,58,59		3,15,59, 0,46	
		1,23,52,28,52,59,30,28		6, 8
46″	44,40,45,24,14,52,11,37,29,27		3,15,59, 6,54	
		1,23,52,25,37, 0,23,34		6, 8
48″	44,40,46,48, 7,17,48,37,53, 1		3,15,59,13, 2	
		1,23,52,22,21, 1,10,32		6, 8
50″	44,40,48,11,59,40, 9,39, 3,33		3,15,59,19,10	
		1,23,52,19, 5, 1,51,22		6, 8
52″	44,40,49,35,51,59,14,40,54,55		3,15,59,25,18	
		1,23,52,15,49, 2,26, 4		6, 8
54″	44,40,50,59,44,15, 3,43,20,59		3,15,59,31,26	
		1,23,52,12,33, 2,54,38		6, 8
56″	44,40,52,23,36,27,36,46,15,37		3,15,59,37,34	
		1,23,52, 9,17, 3,17, 4		6, 8
58″	44,40,53,47,28,36,53,49,32,41		3,15,59,43,42	
		1,23,52, 6, 1, 3,33,22		
60″	44,40,55,11,20,42,54,53, 6, 3			
exact	44,40,55,11,20,42,54,53, 4,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48° 8′ 0″	44,40,55,11,20,42,54,53, 4,13			
		1,23,52, 2,45, 3,43,33		
2″	44,40,56,35,12,45,39,56,47,46		3,15,59,55,57	
		1,23,51,59,29, 3,47,36		6, 8
4″	44,40,57,59, 4,45, 9, 0,35,22		3,16, 0, 2, 5	
		1,23,51,56,13, 3,45,31		6, 8
6″	44,40,59,22,56,41,22, 4,20,53		3,16, 0, 8,13	
		1,23,51,52,57, 3,37,18		6, 8
8″	44,41, 0,46,48,34,19, 7,58,11		3,16, 0,14,21	
		1,23,51,49,41, 3,22,57		6, 8
10″	44,41, 2,10,40,24, 0,11,21, 8		3,16, 0,20,29	
		1,23,51,46,25, 3, 2,28		6, 8
12″	44,41, 3,34,32,10,25,14,23,36		3,16, 0,26,37	
		1,23,51,43, 9, 2,35,51		6, 8
14″	44,41, 4,58,23,53,34,16,59,27		3,16, 0,32,45	
		1,23,51,39,53, 2, 3, 6		6, 8
16″	44,41, 6,22,15,33,27,19, 2,33		3,16, 0,38,53	
		1,23,51,36,37, 1,24,13		6, 8
18″	44,41, 7,46, 7,10, 4,20,26,46		3,16, 0,45, 1	
		1,23,51,33,21, 0,39,12		6, 8
20″	44,41, 9, 9,58,43,25,21, 5,58		3,16, 0,51, 9	
		1,23,51,30, 4,59,48, 3		6, 8
22″	44,41,10,33,50,13,30,20,54, 1		3,16, 0,57,17	
		1,23,51,26,48,58,50,46		6, 8
24″	44,41,11,57,41,40,19,19,44,47		3,16, 1, 3,25	
		1,23,51,23,32,57,47,21		6, 8
26″	44,41,13,21,33, 3,52,17,32, 8		3,16, 1, 9,33	
		1,23,51,20,16,56,37,48		6, 8
28″	44,41,14,45,24,24, 9,14, 9,56		3,16, 1,15,41	
		1,23,51,17, 0,55,22, 7		6, 8
30″	44,41,16, 9,15,41,10, 9,32, 3		3,16, 1,21,49	
		1,23,51,13,44,54, 0,18		6, 8
32″	44,41,17,33, 6,54,55, 3,32,21		3,16, 1,27,57	
		1,23,51,10,28,52,32,21		6, 8
34″	44,41,18,56,58, 5,23,56, 4,42		3,16, 1,34, 5	
		1,23,51, 7,12,50,58,16		6, 8
36″	44,41,20,20,49,12,36,47, 2,58		3,16, 1,40,13	
		1,23,51, 3,56,49,18, 3		6, 8
38″	44,41,21,44,40,16,33,36,21, 1		3,16, 1,46,21	
		1,23,51, 0,40,47,31,42		6, 8
40″	44,41,23, 8,31,17,14,23,52,43		3,16, 1,52,29	
		1,23,50,57,24,45,39,13		6, 8
42″	44,41,24,32,22,14,39, 9,31,56		3,16, 1,58,37	
		1,23,50,54, 8,43,40,36		6, 8
44″	44,41,25,56,13, 8,47,53,12,32		3,16, 2, 4,45	
		1,23,50,50,52,41,35,51		6, 8
46″	44,41,27,20, 3,59,40,34,48,23		3,16, 2,10,53	
		1,23,50,47,36,39,24,58		6, 8
48″	44,41,28,43,54,47,17,14,13,21		3,16, 2,17, 1	
		1,23,50,44,20,37, 7,57		6, 8
50″	44,41,30, 7,45,31,37,51,21,18		3,16, 2,23, 9	
		1,23,50,41, 4,34,44,48		6, 8
52″	44,41,31,31,36,12,42,26, 6, 6		3,16, 2,29,17	
		1,23,50,37,48,32,15,31		6, 8
54″	44,41,32,55,26,50,30,58,21,37		3,16, 2,35,25	
		1,23,50,34,32,29,40, 6		6, 8
56″	44,41,34,19,17,25, 3,28, 1,43		3,16, 2,41,33	
		1,23,50,31,16,26,58,33		6, 8
58″	44,41,35,43, 7,56,19,55, 0,16		3,16, 2,47,41	
		1,23,50,28, 0,24,10,52		
60″	44,41,37, 6,58,24,20,19,11, 8			
exact	44,41,37, 6,58,24,20,19,23,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48° 9′ 0″	44,41,37, 6,58,24,20,19,23,10			
		1,23,50,24,44,21,18,20		
2″	44,41,38,30,48,49, 4,40,41,30		3,16, 2,59,51	
		1,23,50,21,28,18,18,29		6, 8
4″	44,41,39,54,39,10,32,58,59,59		3,16, 3, 5,59	
		1,23,50,18,12,15,12,30		6, 8
6″	44,41,41,18,29,28,45,14,12,29		3,16, 3,12, 7	
		1,23,50,14,56,12, 0,23		6, 8
8″	44,41,42,42,19,43,41,26,12,52		3,16, 3,18,15	
		1,23,50,11,40, 8,42, 8		6, 8
10″	44,41,44, 6, 9,55,21,34,55, 0		3,16, 3,24,23	
		1,23,50, 8,24, 5,17,45		6, 8
12″	44,41,45,30, 0, 3,45,40,12,45		3,16, 3,30,31	
		1,23,50, 5, 8, 1,47,14		6, 8
14″	44,41,46,53,50, 8,53,41,59,59		3,16, 3,36,39	
		1,23,50, 1,51,58,10,35		6, 8
16″	44,41,48,17,40,10,45,40,10,34		3,16, 3,42,47	
		1,23,49,58,35,54,27,48		6, 8
18″	44,41,49,41,30, 9,21,34,38,22		3,16, 3,48,55	
		1,23,49,55,19,50,38,53		6, 8
20″	44,41,51, 5,20, 4,41,25,17,15		3,16, 3,55, 3	
		1,23,49,52, 3,46,43,50		6, 8
22″	44,41,52,29, 9,56,45,12, 1, 5		3,16, 4, 1,11	
		1,23,49,48,47,42,42,39		6, 8
24″	44,41,53,52,59,45,32,54,43,44		3,16, 4, 7,19	
		1,23,49,45,31,38,35,20		6, 8
26″	44,41,55,16,49,31, 4,33,19, 4		3,16, 4,13,27	
		1,23,49,42,15,34,21,53		6, 8
28″	44,41,56,40,39,13,20, 7,40,57		3,16, 4,19,35	
		1,23,49,38,59,30, 2,18		6, 8
30″	44,41,58, 4,28,52,19,37,43,15		3,16, 4,25,43	
		1,23,49,35,43,25,36,35		6, 8
32″	44,41,59,28,18,28, 3, 3,19,50		3,16, 4,31,51	
		1,23,49,32,27,21, 4,44		6, 8
34″	44,42, 0,52, 8, 0,30,24,24,34		3,16, 4,37,59	
		1,23,49,29,11,16,26,45		6, 8
36″	44,42, 2,15,57,29,41,40,51,19		3,16, 4,44, 7	
		1,23,49,25,55,11,42,38		6, 8
38″	44,42, 3,39,46,55,36,52,33,57		3,16, 4,50,15	
		1,23,49,22,39, 6,52,23		6, 8
40″	44,42, 5, 3,36,18,15,59,26,20		3,16, 4,56,23	
		1,23,49,19,23, 1,56, 0		6, 8
42″	44,42, 6,27,25,37,39, 1,22,20		3,16, 5, 2,31	
		1,23,49,16, 6,56,53,29		6, 8
44″	44,42, 7,51,14,53,45,58,15,49		3,16, 5, 8,39	
		1,23,49,12,50,51,44,50		6, 8
46″	44,42, 9,15, 4, 6,36,50, 0,39		3,16, 5,14,47	
		1,23,49, 9,34,46,30, 3		6, 8
48″	44,42,10,38,53,16,11,36,30,42		3,16, 5,20,55	
		1,23,49, 6,18,41, 9, 8		6, 8
50″	44,42,12, 2,42,22,30,17,39,50		3,16, 5,27, 3	
		1,23,49, 3, 2,35,42, 5		6, 8
52″	44,42,13,26,31,25,32,53,21,55		3,16, 5,33,11	
		1,23,48,59,46,30, 8,54		6, 8
54″	44,42,14,50,20,25,19,23,30,49		3,16, 5,39,19	
		1,23,48,56,30,24,29,35		6, 8
56″	44,42,16,14, 9,21,49,48, 0,24		3,16, 5,45,27	
		1,23,48,53,14,18,44, 8		6, 8
58″	44,42,17,37,58,15, 4, 6,44,32		3,16, 5,51,35	
		1,23,48,49,58,12,52,33		
60″	44,42,19, 1,47, 5, 2,19,37, 5			
exact	44,42,19, 1,47, 5, 2,19,52, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°10′ 0″	44,42,19, 1,47, 5, 2,19,52, 2			
		1,23,48,46,42, 6,56,38		
2″	44,42,20,25,35,51,44,26,48,40		3,16, 6, 3,42	
		1,23,48,43,26, 0,52,56		6, 8
4″	44,42,21,49,24,35,10,27,41,36		3,16, 6, 9,50	
		1,23,48,40, 9,54,43, 6		6, 8
6″	44,42,23,13,13,15,20,22,24,42		3,16, 6,15,58	
		1,23,48,36,53,48,27, 8		6, 8
8″	44,42,24,37, 1,52,14,10,51,50		3,16, 6,22, 6	
		1,23,48,33,37,42, 5, 2		6, 8
10″	44,42,26, 0,50,25,51,52,56,52		3,16, 6,28,14	
		1,23,48,30,21,35,36,48		6, 8
12″	44,42,27,24,38,56,13,28,33,40		3,16, 6,34,22	
		1,23,48,27, 5,29, 2,26		6, 8
14″	44,42,28,48,27,23,18,57,36, 6		3,16, 6,40,30	
		1,23,48,23,49,22,21,56		6, 8
16″	44,42,30,12,15,47, 8,19,58, 2		3,16, 6,46,38	
		1,23,48,20,33,15,35,18		6, 8
18″	44,42,31,36, 4, 7,41,35,33,20		3,16, 6,52,46	
		1,23,48,17,17, 8,42,32		6, 8
20″	44,42,32,59,52,24,58,44,15,52		3,16, 6,58,54	
		1,23,48,14, 1, 1,43,38		6, 8
22″	44,42,34,23,40,38,59,45,59,30		3,16, 7, 5, 2	
		1,23,48,10,44,54,38,36		6, 8
24″	44,42,35,47,28,49,44,40,38, 6		3,16, 7,11,10	
		1,23,48, 7,28,47,27,26		6, 8
26″	44,42,37,11,16,57,13,28, 5,32		3,16, 7,17,18	
		1,23,48, 4,12,40,10, 8		6, 8
28″	44,42,38,35, 5, 1,26, 8,15,40		3,16, 7,23,26	
		1,23,48, 0,56,32,46,42		6, 8
30″	44,42,39,58,53, 2,22,41, 2,22		3,16, 7,29,34	
		1,23,47,57,40,25,17, 8		6, 8
32″	44,42,41,22,41, 0, 3, 6,19,30		3,16, 7,35,42	
		1,23,47,54,24,17,41,26		6, 8
34″	44,42,42,46,28,54,27,24, 0,56		3,16, 7,41,50	
		1,23,47,51, 8, 9,59,36		6, 8
36″	44,42,44,10,16,45,35,34, 0,32		3,16, 7,47,58	
		1,23,47,47,52, 2,11,38		6, 8
38″	44,42,45,34, 4,33,27,36,12,10		3,16, 7,54, 6	
		1,23,47,44,35,54,17,32		6, 8
40″	44,42,46,57,52,18, 3,30,29,42		3,16, 8, 0,14	
		1,23,47,41,19,46,17,18		6, 8
42″	44,42,48,21,39,59,23,16,47, 0		3,16, 8, 6,22	
		1,23,47,38, 3,38,10,56		6, 8
44″	44,42,49,45,27,37,26,54,57,56		3,16, 8,12,30	
		1,23,47,34,47,29,58,26		6, 8
46″	44,42,51, 9,15,12,14,24,56,22		3,16, 8,18,38	
		1,23,47,31,31,21,39,48		6, 8
48″	44,42,52,33, 2,43,45,46,36,10		3,16, 8,24,46	
		1,23,47,28,15,13,15, 2		6, 8
50″	44,42,53,56,50,12, 0,59,51,12		3,16, 8,30,54	
		1,23,47,24,59, 4,44, 8		6, 8
52″	44,42,55,20,37,37, 0, 4,35,20		3,16, 8,37, 2	
		1,23,47,21,42,56, 7, 6		6, 8
54″	44,42,56,44,24,58,43, 0,42,26		3,16, 8,43,10	
		1,23,47,18,26,47,23,56		6, 8
56″	44,42,58, 8,12,17, 9,48, 6,22		3,16, 8,49,18	
		1,23,47,15,10,38,34,38		6, 8
58″	44,42,59,31,59,32,20,26,41, 0		3,16, 8,55,26	
		1,23,47,11,54,29,39,12		
60″	44,43, 0,55,46,44,14,56,20,12			
exact	44,43, 0,55,46,44,14,56,42,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°11′ 0″	44,43, 0,55,46,44,14,56,42,52			
		1,23,47, 8,38,20,40,16		
2″	44,43, 2,19,33,52,53,17,23, 8		3,16, 9, 7,30	
		1,23,47, 5,22,11,32,46		6, 8
4″	44,43, 3,43,20,58,15,28,55,54		3,16, 9,13,38	
		1,23,47, 2, 6, 2,19, 8		6, 8
6″	44,43, 5, 7, 8, 0,21,31,15, 2		3,16, 9,19,46	
		1,23,46,58,49,52,59,22		6, 8
8″	44,43, 6,30,54,59,11,24,14,24		3,16, 9,25,54	
		1,23,46,55,33,43,33,28		6, 8
10″	44,43, 7,54,41,54,45, 7,47,52		3,16, 9,32, 2	
		1,23,46,52,17,34, 1,26		6, 8
12″	44,43, 9,18,28,47, 2,41,49,18		3,16, 9,38,10	
		1,23,46,49, 1,24,23,16		6, 8
14″	44,43,10,42,15,36, 4, 6,12,34		3,16, 9,44,18	
		1,23,46,45,45,14,38,58		6, 8
16″	44,43,12, 6, 2,21,49,20,51,32		3,16, 9,50,26	
		1,23,46,42,29, 4,48,32		6, 8
18″	44,43,13,29,49, 4,18,25,40, 4		3,16, 9,56,34	
		1,23,46,39,12,54,51,58		6, 8
20″	44,43,14,53,35,43,31,20,32, 2		3,16,10, 2,42	
		1,23,46,35,56,44,49,16		6, 8
22″	44,43,16,17,22,19,28, 5,21,18		3,16,10, 8,50	
		1,23,46,32,40,34,40,26		6, 8
24″	44,43,17,41, 8,52, 8,40, 1,44		3,16,10,14,58	
		1,23,46,29,24,24,25,28		6, 8
26″	44,43,19, 4,55,21,33, 4,27,12		3,16,10,21, 6	
		1,23,46,26, 8,14, 4,22		6, 8
28″	44,43,20,28,41,47,41,18,31,34		3,16,10,27,14	
		1,23,46,22,52, 3,37, 8		6, 8
30″	44,43,21,52,28,10,33,22, 8,42		3,16,10,33,22	
		1,23,46,19,35,53, 3,46		6, 8
32″	44,43,23,16,14,30, 9,15,12,28		3,16,10,39,30	
		1,23,46,16,19,42,24,16		6, 8
34″	44,43,24,40, 0,46,28,57,36,44		3,16,10,45,38	
		1,23,46,13, 3,31,38,38		6, 8
36″	44,43,26, 3,46,59,32,29,15,22		3,16,10,51,46	
		1,23,46, 9,47,20,46,52		6, 8
38″	44,43,27,27,33, 9,19,50, 2,14		3,16,10,57,54	
		1,23,46, 6,31, 9,48,58		6, 8
40″	44,43,28,51,19,15,50,59,51,12		3,16,11, 4, 2	
		1,23,46, 3,14,58,44,56		6, 8
42″	44,43,30,15, 5,19, 5,58,36, 8		3,16,11,10,10	
		1,23,45,59,58,47,34,46		6, 8
44″	44,43,31,38,51,19, 4,46,10,54		3,16,11,16,18	
		1,23,45,56,42,36,18,28		6, 8
46″	44,43,33, 2,37,15,47,22,29,22		3,16,11,22,26	
		1,23,45,53,26,24,56, 2		6, 8
48″	44,43,34,26,23, 9,13,47,25,24		3,16,11,28,34	
		1,23,45,50,10,13,27,28		6, 8
50″	44,43,35,50, 8,59,24, 0,52,52		3,16,11,34,42	
		1,23,45,46,54, 1,52,46		6, 8
52″	44,43,37,13,54,46,18, 2,45,38		3,16,11,40,50	
		1,23,45,43,37,50,11,56		6, 8
54″	44,43,38,37,40,29,55,52,57,34		3,16,11,46,58	
		1,23,45,40,21,38,24,58		6, 8
56″	44,43,40, 1,26,10,17,31,22,32		3,16,11,53, 6	
		1,23,45,37, 5,26,31,52		6, 8
58″	44,43,41,25,11,47,22,57,54,24		3,16,11,59,14	
		1,23,45,33,49,14,32,38		
60″	44,43,42,48,57,21,12,12,27, 2			
exact	44,43,42,48,57,21,12,13, 1,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°12′ 0″	44,43,42,48,57,21,12,13, 1,29			
		1,23,45,30,33, 2,31, 1		
2″	44,43,44,12,42,51,45,15,32,30		3,16,12,11,14	
		1,23,45,27,16,50,19,47		6, 7
4″	44,43,45,36,28,19, 2, 5,52,17		3,16,12,17,21	
		1,23,45,24, 0,38, 2,26		6, 7
6″	44,43,47, 0,13,43, 2,43,54,43		3,16,12,23,28	
		1,23,45,20,44,25,38,58		6, 7
8″	44,43,48,23,59, 3,47, 9,33,41		3,16,12,29,35	
		1,23,45,17,28,13, 9,23		6, 7
10″	44,43,49,47,44,21,15,22,43, 4		3,16,12,35,42	
		1,23,45,14,12, 0,33,41		6, 7
12″	44,43,51,11,29,35,27,23,16,45		3,16,12,41,49	
		1,23,45,10,55,47,51,52		6, 7
14″	44,43,52,35,14,46,23,11, 8,37		3,16,12,47,56	
		1,23,45, 7,39,35, 3,56		6, 7
16″	44,43,53,58,59,54, 2,46,12,33		3,16,12,54, 3	
		1,23,45, 4,23,22, 9,53		6, 7
18″	44,43,55,22,44,58,26, 8,22,26		3,16,13, 0,10	
		1,23,45, 1, 7, 9, 9,43		6, 7
20″	44,43,56,46,29,59,33,17,32, 9		3,16,13, 6,17	
		1,23,44,57,50,56, 3,26		6, 7
22″	44,43,58,10,14,57,24,13,35,35		3,16,13,12,24	
		1,23,44,54,34,42,51, 2		6, 7
24″	44,43,59,33,59,51,58,56,26,37		3,16,13,18,31	
		1,23,44,51,18,29,32,31		6, 7
26″	44,44, 0,57,44,43,17,25,59, 8		3,16,13,24,38	
		1,23,44,48, 2,16, 7,53		6, 7
28″	44,44, 2,21,29,31,19,42, 7, 1		3,16,13,30,45	
		1,23,44,44,46, 2,37, 8		6, 7
30″	44,44, 3,45,14,16, 5,44,44, 9		3,16,13,36,52	
		1,23,44,41,29,49, 0,16		6, 7
32″	44,44, 5, 8,58,57,35,33,44,25		3,16,13,42,59	
		1,23,44,38,13,35,17,17		6, 7
34″	44,44, 6,32,43,35,49, 9, 1,42		3,16,13,49, 6	
		1,23,44,34,57,21,28,11		6, 7
36″	44,44, 7,56,28,10,46,30,29,53		3,16,13,55,13	
		1,23,44,31,41, 7,32,58		6, 7
38″	44,44, 9,20,12,42,27,38, 2,51		3,16,14, 1,20	
		1,23,44,28,24,53,31,38		6, 7
40″	44,44,10,43,57,10,52,31,34,29		3,16,14, 7,27	
		1,23,44,25, 8,39,24,11		6, 7
42″	44,44,12, 7,41,36, 1,10,58,40		3,16,14,13,34	
		1,23,44,21,52,25,10,37		6, 7
44″	44,44,13,31,25,57,53,36, 9,17		3,16,14,19,41	
		1,23,44,18,36,10,50,56		6, 7
46″	44,44,14,55,10,16,29,47, 0,13		3,16,14,25,48	
		1,23,44,15,19,56,25, 8		6, 7
48″	44,44,16,18,54,31,49,43,25,21		3,16,14,31,55	
		1,23,44,12, 3,41,53,13		6, 7
50″	44,44,17,42,38,43,53,25,18,34		3,16,14,38, 2	
		1,23,44, 8,47,27,15,11		6, 7
52″	44,44,19, 6,22,52,40,52,33,45		3,16,14,44, 9	
		1,23,44, 5,31,12,31, 2		6, 7
54″	44,44,20,30, 6,58,12, 5, 4,47		3,16,14,50,16	
		1,23,44, 2,14,57,40,46		6, 7
56″	44,44,21,53,51, 0,27, 2,45,33		3,16,14,56,23	
		1,23,43,58,58,42,44,23		6, 7
58″	44,44,23,17,34,59,25,45,29,56		3,16,15, 2,30	
		1,23,43,55,42,27,41,53		
60″	44,44,24,41,18,55, 8,13,11,49			
exact	44,44,24,41,18,55, 8,12,47,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°13′ 0″	44,44,24,41,18,55, 8,12,47,27			
		1,23,43,52,26,12,30,41		
2″	44,44,26, 5, 2,47,34,25,18, 8		3,16,15,14,54	
		1,23,43,49, 9,57,15,47		6, 7
4″	44,44,27,28,46,36,44,22,33,55		3,16,15,21, 1	
		1,23,43,45,53,41,54,46		6, 7
6″	44,44,28,52,30,22,38, 4,28,41		3,16,15,27, 8	
		1,23,43,42,37,26,27,38		6, 7
8″	44,44,30,16,14, 5,15,30,56,19		3,16,15,33,15	
		1,23,43,39,21,10,54,23		6, 7
10″	44,44,31,39,57,44,36,41,50,42		3,16,15,39,22	
		1,23,43,36, 4,55,15, 1		6, 7
12″	44,44,33, 3,41,20,41,37, 5,43		3,16,15,45,29	
		1,23,43,32,48,39,29,32		6, 7
14″	44,44,34,27,24,53,30,16,35,15		3,16,15,51,36	
		1,23,43,29,32,23,37,56		6, 7
16″	44,44,35,51, 8,23, 2,40,13,11		3,16,15,57,43	
		1,23,43,26,16, 7,40,13		6, 7
18″	44,44,37,14,51,49,18,47,53,24		3,16,16, 3,50	
		1,23,43,22,59,51,36,23		6, 7
20″	44,44,38,38,35,12,18,39,29,47		3,16,16, 9,57	
		1,23,43,19,43,35,26,26		6, 7
22″	44,44,40, 2,18,32, 2,14,56,13		3,16,16,16, 4	
		1,23,43,16,27,19,10,22		6, 7
24″	44,44,41,26, 1,48,29,34, 6,35		3,16,16,22,11	
		1,23,43,13,11, 2,48,11		6, 7
26″	44,44,42,49,45, 1,40,36,54,46		3,16,16,28,18	
		1,23,43, 9,54,46,19,53		6, 7
28″	44,44,44,13,28,11,35,23,14,39		3,16,16,34,25	
		1,23,43, 6,38,29,45,28		6, 7
30″	44,44,45,37,11,18,13,53, 0, 7		3,16,16,40,32	
		1,23,43, 3,22,13, 4,56		6, 7
32″	44,44,47, 0,54,21,36, 6, 5, 3		3,16,16,46,39	
		1,23,43, 0, 5,56,18,17		6, 7
34″	44,44,48,24,37,21,42, 2,23,20		3,16,16,52,46	
		1,23,42,56,49,39,25,31		6, 7
36″	44,44,49,48,20,18,31,41,48,51		3,16,16,58,53	
		1,23,42,53,33,22,26,38		6, 7
38″	44,44,51,12, 3,12, 5, 4,15,29		3,16,17, 5, 0	
		1,23,42,50,17, 5,21,38		6, 7
40″	44,44,52,35,46, 2,22, 9,37, 7		3,16,17,11, 7	
		1,23,42,47, 0,48,10,31		6, 7
42″	44,44,53,59,28,49,22,57,47,38		3,16,17,17,14	
		1,23,42,43,44,30,53,17		6, 7
44″	44,44,55,23,11,33, 7,28,40,55		3,16,17,23,21	
		1,23,42,40,28,13,29,56		6, 7
46″	44,44,56,46,54,13,35,42,10,51		3,16,17,29,28	
		1,23,42,37,11,56, 0,28		6, 7
48″	44,44,58,10,36,50,47,38,11,19		3,16,17,35,35	
		1,23,42,33,55,38,24,53		6, 7
50″	44,44,59,34,19,24,43,16,36,12		3,16,17,41,42	
		1,23,42,30,39,20,43,11		6, 7
52″	44,45, 0,58, 1,55,22,37,19,23		3,16,17,47,49	
		1,23,42,27,23, 2,55,22		6, 7
54″	44,45, 2,21,44,22,45,40,14,45		3,16,17,53,56	
		1,23,42,24, 6,45, 1,26		6, 7
56″	44,45, 3,45,26,46,52,25,16,11		3,16,18, 0, 3	
		1,23,42,20,50,27, 1,23		6, 7
58″	44,45, 5, 9, 9, 7,42,52,17,34		3,16,18, 6,10	
		1,23,42,17,34, 8,55,13		
60″	44,45, 6,32,51,25,17, 1,12,47			
exact	44,45, 6,32,51,25,17, 0,54,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°14′ 0″	44,45, 6,32,51,25,17, 0,54,10			
		1,23,42,14,17,50,41, 4		
2″	44,45, 7,56,33,39,34,51,35,14		3,16,18,18,31	
		1,23,42,11, 1,32,22,33		6, 7
4″	44,45, 9,20,15,50,36,23,57,47		3,16,18,24,38	
		1,23,42, 7,45,13,57,55		6, 7
6″	44,45,10,43,57,58,21,37,55,42		3,16,18,30,45	
		1,23,42, 4,28,55,27,10		6, 7
8″	44,45,12, 7,40, 2,50,33,22,52		3,16,18,36,52	
		1,23,42, 1,12,36,50,18		6, 7
10″	44,45,13,31,22, 4, 3,10,13,10		3,16,18,42,59	
		1,23,41,57,56,18, 7,19		6, 7
12″	44,45,14,55, 4, 1,59,28,20,29		3,16,18,49, 6	
		1,23,41,54,39,59,18,13		6, 7
14″	44,45,16,18,45,56,39,27,38,42		3,16,18,55,13	
		1,23,41,51,23,40,23, 0		6, 7
16″	44,45,17,42,27,48, 3, 8, 1,42		3,16,19, 1,20	
		1,23,41,48, 7,21,21,40		6, 7
18″	44,45,19, 6, 9,36,10,29,23,22		3,16,19, 7,27	
		1,23,41,44,51, 2,14,13		6, 7
20″	44,45,20,29,51,21, 1,31,37,35		3,16,19,13,34	
		1,23,41,41,34,43, 0,39		6, 7
22″	44,45,21,53,33, 2,36,14,38,14		3,16,19,19,41	
		1,23,41,38,18,23,40,58		6, 7
24″	44,45,23,17,14,40,54,38,19,12		3,16,19,25,48	
		1,23,41,35, 2, 4,15,10		6, 7
26″	44,45,24,40,56,15,56,42,34,22		3,16,19,31,55	
		1,23,41,31,45,44,43,15		6, 7
28″	44,45,26, 4,37,47,42,27,17,37		3,16,19,38, 2	
		1,23,41,28,29,25, 5,13		6, 7
30″	44,45,27,28,19,16,11,52,22,50		3,16,19,44, 9	
		1,23,41,25,13, 5,21, 4		6, 7
32″	44,45,28,52, 0,41,24,57,43,54		3,16,19,50,16	
		1,23,41,21,56,45,30,48		6, 7
34″	44,45,30,15,42, 3,21,43,14,42		3,16,19,56,23	
		1,23,41,18,40,25,34,25		6, 7
36″	44,45,31,39,23,22, 2, 8,49, 7		3,16,20, 2,30	
		1,23,41,15,24, 5,31,55		6, 7
38″	44,45,33, 3, 4,37,26,14,21, 2		3,16,20, 8,37	
		1,23,41,12, 7,45,23,18		6, 7
40″	44,45,34,26,45,49,33,59,44,20		3,16,20,14,44	
		1,23,41, 8,51,25, 8,34		6, 7
42″	44,45,35,50,26,58,25,24,52,54		3,16,20,20,51	
		1,23,41, 5,35, 4,47,43		6, 7
44″	44,45,37,14, 8, 4, 0,29,40,37		3,16,20,26,58	
		1,23,41, 2,18,44,20,45		6, 7
46″	44,45,38,37,49, 6,19,14, 1,22		3,16,20,33, 5	
		1,23,40,59, 2,23,47,40		6, 7
48″	44,45,40, 1,30, 5,21,37,49, 2		3,16,20,39,12	
		1,23,40,55,46, 3, 8,28		6, 7
50″	44,45,41,25,11, 1, 7,40,57,30		3,16,20,45,19	
		1,23,40,52,29,42,23, 9		6, 7
52″	44,45,42,48,51,53,37,23,20,39		3,16,20,51,26	
		1,23,40,49,13,21,31,43		6, 7
54″	44,45,44,12,32,42,50,44,52,22		3,16,20,57,33	
		1,23,40,45,57, 0,34,10		6, 7
56″	44,45,45,36,13,28,47,45,26,32		3,16,21, 3,40	
		1,23,40,42,40,39,30,30		6, 7
58″	44,45,46,59,54,11,28,24,57, 2		3,16,21, 9,47	
		1,23,40,39,24,18,20,43		
60″	44,45,48,23,34,50,52,43,17,45			
exact	44,45,48,23,34,50,52,43, 8,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°15′ 0″	44,45,48,23,34,50,52,43, 8,49			
		1,23,40,36, 7,57, 3,56		
2″	44,45,49,47,15,27, 0,40,12,45		3,16,21,22, 4	
		1,23,40,32,51,35,41,52		6, 7
4″	44,45,51,10,55,59,52,15,54,37		3,16,21,28,11	
		1,23,40,29,35,14,13,41		6, 7
6″	44,45,52,34,36,29,27,30, 8,18		3,16,21,34,18	
		1,23,40,26,18,52,39,23		6, 7
8″	44,45,53,58,16,55,46,22,47,41		3,16,21,40,25	
		1,23,40,23, 2,30,58,58		6, 7
10″	44,45,55,21,57,18,48,53,46,39		3,16,21,46,32	
		1,23,40,19,46, 9,12,26		6, 7
12″	44,45,56,45,37,38,35, 2,59, 5		3,16,21,52,39	
		1,23,40,16,29,47,19,47		6, 7
14″	44,45,58, 9,17,55, 4,50,18,52		3,16,21,58,46	
		1,23,40,13,13,25,21, 1		6, 7
16″	44,45,59,32,58, 8,18,15,39,53		3,16,22, 4,53	
		1,23,40, 9,57, 3,16, 8		6, 7
18″	44,46, 0,56,38,18,15,18,56, 1		3,16,22,11, 0	
		1,23,40, 6,40,41, 5, 8		6, 7
20″	44,46, 2,20,18,24,56, 0, 1, 9		3,16,22,17, 7	
		1,23,40, 3,24,18,48, 1		6, 7
22″	44,46, 3,43,58,28,20,18,49,10		3,16,22,23,14	
		1,23,40, 0, 7,56,24,47		6, 7
24″	44,46, 5, 7,38,28,28,15,13,57		3,16,22,29,21	
		1,23,39,56,51,33,55,26		6, 7
26″	44,46, 6,31,18,25,19,49, 9,23		3,16,22,35,28	
		1,23,39,53,35,11,19,58		6, 7
28″	44,46, 7,54,58,18,55, 0,29,21		3,16,22,41,35	
		1,23,39,50,18,48,38,23		6, 7
30″	44,46, 9,18,38, 9,13,49, 7,44		3,16,22,47,42	
		1,23,39,47, 2,25,50,41		6, 7
32″	44,46,10,42,17,56,16,14,58,25		3,16,22,53,49	
		1,23,39,43,46, 2,56,52		6, 7
34″	44,46,12, 5,57,40, 2,17,55,17		3,16,22,59,56	
		1,23,39,40,29,39,56,56		6, 7
36″	44,46,13,29,37,20,31,57,52,13		3,16,23, 6, 3	
		1,23,39,37,13,16,50,53		6, 7
38″	44,46,14,53,16,57,45,14,43, 6		3,16,23,12,10	
		1,23,39,33,56,53,38,43		6, 7
40″	44,46,16,16,56,31,42, 8,21,49		3,16,23,18,17	
		1,23,39,30,40,30,20,26		6, 7
42″	44,46,17,40,36, 2,22,38,42,15		3,16,23,24,24	
		1,23,39,27,24, 6,56, 2		6, 7
44″	44,46,19, 4,15,29,46,45,38,17		3,16,23,30,31	
		1,23,39,24, 7,43,25,31		6, 7
46″	44,46,20,27,54,53,54,29, 3,48		3,16,23,36,38	
		1,23,39,20,51,19,48,53		6, 7
48″	44,46,21,51,34,14,45,48,52,41		3,16,23,42,45	
		1,23,39,17,34,56, 6, 8		6, 7
50″	44,46,23,15,13,32,20,44,58,49		3,16,23,48,52	
		1,23,39,14,18,32,17,16		6, 7
52″	44,46,24,38,52,46,39,17,16, 5		3,16,23,54,59	
		1,23,39,11, 2, 8,22,17		6, 7
54″	44,46,26, 2,31,57,41,25,38,22		3,16,24, 1, 6	
		1,23,39, 7,45,44,21,11		6, 7
56″	44,46,27,26,11, 5,27, 9,59,33		3,16,24, 7,13	
		1,23,39, 4,29,20,13,58		6, 7
58″	44,46,28,49,50, 9,56,30,13,31		3,16,24,13,20	
		1,23,39, 1,12,56, 0,38		
60″	44,46,30,13,29,11, 9,26,14, 9			
exact	44,46,30,13,29,11, 9,26,12,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°16′ 0″	44,46,30,13,29,11, 9,26,12,22			
		1,23,38,57,56,31,41, 6		
2″	44,46,31,37, 8, 9, 5,57,53,28		3,16,24,25,34	
		1,23,38,54,40, 7,15,32		6, 7
4″	44,46,33, 0,47, 3,46, 5, 9, 0		3,16,24,31,41	
		1,23,38,51,23,42,43,51		6, 7
6″	44,46,34,24,25,55, 9,47,52,51		3,16,24,37,48	
		1,23,38,48, 7,18, 6, 3		6, 7
8″	44,46,35,48, 4,43,17, 5,58,54		3,16,24,43,55	
		1,23,38,44,50,53,22, 8		6, 7
10″	44,46,37,11,43,28, 7,59,21, 2		3,16,24,50, 2	
		1,23,38,41,34,28,32, 6		6, 7
12″	44,46,38,35,22, 9,42,27,53, 8		3,16,24,56, 9	
		1,23,38,38,18, 3,35,57		6, 7
14″	44,46,39,59, 0,48, 0,31,29, 5		3,16,25, 2,16	
		1,23,38,35, 1,38,33,41		6, 7
16″	44,46,41,22,39,23, 2,10, 2,46		3,16,25, 8,23	
		1,23,38,31,45,13,25,18		6, 7
18″	44,46,42,46,17,54,47,23,28, 4		3,16,25,14,30	
		1,23,38,28,28,48,10,48		6, 7
20″	44,46,44, 9,56,23,16,11,38,52		3,16,25,20,37	
		1,23,38,25,12,22,50,11		6, 7
22″	44,46,45,33,34,48,28,34,29, 3		3,16,25,26,44	
		1,23,38,21,55,57,23,27		6, 7
24″	44,46,46,57,13,10,24,31,52,30		3,16,25,32,51	
		1,23,38,18,39,31,50,36		6, 7
26″	44,46,48,20,51,29, 4, 3,43, 6		3,16,25,38,58	
		1,23,38,15,23, 6,11,38		6, 7
28″	44,46,49,44,29,44,27, 9,54,44		3,16,25,45, 5	
		1,23,38,12, 6,40,26,33		6, 7
30″	44,46,51, 8, 7,56,33,50,21,17		3,16,25,51,12	
		1,23,38, 8,50,14,35,21		6, 7
32″	44,46,52,31,46, 5,24, 4,56,38		3,16,25,57,19	
		1,23,38, 5,33,48,38, 2		6, 7
34″	44,46,53,55,24,10,57,53,34,40		3,16,26, 3,26	
		1,23,38, 2,17,22,34,36		6, 7
36″	44,46,55,19, 2,13,15,16, 9,16		3,16,26, 9,33	
		1,23,37,59, 0,56,25, 3		6, 7
38″	44,46,56,42,40,12,16,12,34,19		3,16,26,15,40	
		1,23,37,55,44,30, 9,23		6, 7
40″	44,46,58, 6,18, 8, 0,42,43,42		3,16,26,21,47	
		1,23,37,52,28, 3,47,36		6, 7
42″	44,46,59,29,56, 0,28,46,31,18		3,16,26,27,54	
		1,23,37,49,11,37,19,42		6, 7
44″	44,47, 0,53,33,49,40,23,51, 0		3,16,26,34, 1	
		1,23,37,45,55,10,45,41		6, 7
46″	44,47, 2,17,11,35,35,34,36,41		3,16,26,40, 8	
		1,23,37,42,38,44, 5,33		6, 7
48″	44,47, 3,40,49,18,14,18,42,14		3,16,26,46,15	
		1,23,37,39,22,17,19,18		6, 7
50″	44,47, 5, 4,26,57,36,36, 1,32		3,16,26,52,22	
		1,23,37,36, 5,50,26,56		6, 7
52″	44,47, 6,28, 4,33,42,26,28,28		3,16,26,58,29	
		1,23,37,32,49,23,28,27		6, 7
54″	44,47, 7,51,42, 6,31,49,56,55		3,16,27, 4,36	
		1,23,37,29,32,56,23,51		6, 7
56″	44,47, 9,15,19,36, 4,46,20,46		3,16,27,10,43	
		1,23,37,26,16,29,13, 8		6, 7
58″	44,47,10,38,57, 2,21,15,33,54		3,16,27,16,50	
		1,23,37,23, 0, 1,56,18		
60″	44,47,12, 2,34,25,21,17,30,12			
exact	44,47,12, 2,34,25,21,17,39,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°17′ 0″	44,47,12, 2,34,25,21,17,39,41			
		1,23,37,19,43,34,34,21		
2″	44,47,13,26,11,45, 4,52,14, 2		3,16,27,29, 0	
		1,23,37,16,27, 7, 5,21		6, 7
4″	44,47,14,49,49, 1,31,59,19,23		3,16,27,35, 7	
		1,23,37,13,10,39,30,14		6, 7
6″	44,47,16,13,26,14,42,38,49,37		3,16,27,41,14	
		1,23,37, 9,54,11,49, 0		6, 7
8″	44,47,17,37, 3,24,36,50,38,37		3,16,27,47,21	
		1,23,37, 6,37,44, 1,39		6, 7
10″	44,47,19, 0,40,31,14,34,40,16		3,16,27,53,28	
		1,23,37, 3,21,16, 8,11		6, 7
12″	44,47,20,24,17,34,35,50,48,27		3,16,27,59,35	
		1,23,37, 0, 4,48, 8,36		6, 7
14″	44,47,21,47,54,34,40,38,57, 3		3,16,28, 5,42	
		1,23,36,56,48,20, 2,54		6, 7
16″	44,47,23,11,31,31,28,58,59,57		3,16,28,11,49	
		1,23,36,53,31,51,51, 5		6, 7
18″	44,47,24,35, 8,25, 0,50,51, 2		3,16,28,17,56	
		1,23,36,50,15,23,33, 9		6, 7
20″	44,47,25,58,45,15,16,14,24,11		3,16,28,24, 3	
		1,23,36,46,58,55, 9, 6		6, 7
22″	44,47,27,22,22, 2,15, 9,33,17		3,16,28,30,10	
		1,23,36,43,42,26,38,56		6, 7
24″	44,47,28,45,58,45,57,36,12,13		3,16,28,36,17	
		1,23,36,40,25,58, 2,39		6, 7
26″	44,47,30, 9,35,26,23,34,14,52		3,16,28,42,24	
		1,23,36,37, 9,29,20,15		6, 7
28″	44,47,31,33,12, 3,33, 3,35, 7		3,16,28,48,31	
		1,23,36,33,53, 0,31,44		6, 7
30″	44,47,32,56,48,37,26, 4, 6,51		3,16,28,54,38	
		1,23,36,30,36,31,37, 6		6, 7
32″	44,47,34,20,25, 8, 2,35,43,57		3,16,29, 0,45	
		1,23,36,27,20, 2,36,21		6, 7
34″	44,47,35,44, 1,35,22,38,20,18		3,16,29, 6,52	
		1,23,36,24, 3,33,29,29		6, 7
36″	44,47,37, 7,37,59,26,11,49,47		3,16,29,12,59	
		1,23,36,20,47, 4,16,30		6, 7
38″	44,47,38,31,14,20,13,16, 6,17		3,16,29,19, 6	
		1,23,36,17,30,34,57,24		6, 7
40″	44,47,39,54,50,37,43,51, 3,41		3,16,29,25,13	
		1,23,36,14,14, 5,32,11		6, 7
42″	44,47,41,18,26,51,57,56,35,52		3,16,29,31,20	
		1,23,36,10,57,36, 0,51		6, 7
44″	44,47,42,42, 3, 2,55,32,36,43		3,16,29,37,27	
		1,23,36, 7,41, 6,23,24		6, 7
46″	44,47,44, 5,39,10,36,39, 0, 7		3,16,29,43,34	
		1,23,36, 4,24,36,39,50		6, 7
48″	44,47,45,29,15,15, 1,15,39,57		3,16,29,49,41	
		1,23,36, 1, 8, 6,50, 9		6, 7
50″	44,47,46,52,51,16, 9,22,30, 6		3,16,29,55,48	
		1,23,35,57,51,36,54,21		6, 7
52″	44,47,48,16,27,14, 0,59,24,27		3,16,30, 1,55	
		1,23,35,54,35, 6,52,26		6, 7
54″	44,47,49,40, 3, 8,36, 6,16,53		3,16,30, 8, 2	
		1,23,35,51,18,36,44,24		6, 7
56″	44,47,51, 3,38,59,54,43, 1,17		3,16,30,14, 9	
		1,23,35,48, 2, 6,30,15		6, 7
58″	44,47,52,27,14,47,56,49,31,32		3,16,30,20,16	
		1,23,35,44,45,36, 9,59		
60″	44,47,53,50,50,32,42,25,41,31			
exact	44,47,53,50,50,32,42,25,59,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°18′ 0″	44,47,53,50,50,32,42,25,59,25			
		1,23,35,41,29, 5,45,29		
2″	44,47,55,14,26,14,11,31,44,54		3,16,30,32,22	
		1,23,35,38,12,35,13, 7		6, 7
4″	44,47,56,38, 1,52,24, 6,58, 1		3,16,30,38,29	
		1,23,35,34,56, 4,34,38		6, 7
6″	44,47,58, 1,37,27,20,11,32,39		3,16,30,44,36	
		1,23,35,31,39,33,50, 2		6, 7
8″	44,47,59,25,12,58,59,45,22,41		3,16,30,50,43	
		1,23,35,28,23, 2,59,19		6, 7
10″	44,48, 0,48,48,27,22,48,22, 0		3,16,30,56,50	
		1,23,35,25, 6,32, 2,29		6, 7
12″	44,48, 2,12,23,52,29,20,24,29		3,16,31, 2,57	
		1,23,35,21,50, 0,59,32		6, 7
14″	44,48, 3,35,59,14,19,21,24, 1		3,16,31, 9, 4	
		1,23,35,18,33,29,50,28		6, 7
16″	44,48, 4,59,34,32,52,51,14,29		3,16,31,15,11	
		1,23,35,15,16,58,35,17		6, 7
18″	44,48, 6,23, 9,48, 9,49,49,46		3,16,31,21,18	
		1,23,35,12, 0,27,13,59		6, 7
20″	44,48, 7,46,45, 0,10,17, 3,45		3,16,31,27,25	
		1,23,35, 8,43,55,46,34		6, 7
22″	44,48, 9,10,20, 8,54,12,50,19		3,16,31,33,32	
		1,23,35, 5,27,24,13, 2		6, 7
24″	44,48,10,33,55,14,21,37, 3,21		3,16,31,39,39	
		1,23,35, 2,10,52,33,23		6, 7
26″	44,48,11,57,30,16,32,29,36,44		3,16,31,45,46	
		1,23,34,58,54,20,47,37		6, 7
28″	44,48,13,21, 5,15,26,50,24,21		3,16,31,51,53	
		1,23,34,55,37,48,55,44		6, 7
30″	44,48,14,44,40,11, 4,39,20, 5		3,16,31,58, 0	
		1,23,34,52,21,16,57,44		6, 7
32″	44,48,16, 8,15, 3,25,56,17,49		3,16,32, 4, 7	
		1,23,34,49, 4,44,53,37		6, 7
34″	44,48,17,31,49,52,30,41,11,26		3,16,32,10,14	
		1,23,34,45,48,12,43,23		6, 7
36″	44,48,18,55,24,38,18,53,54,49		3,16,32,16,21	
		1,23,34,42,31,40,27, 2		6, 7
38″	44,48,20,18,59,20,50,34,21,51		3,16,32,22,28	
		1,23,34,39,15, 8, 4,34		6, 7
40″	44,48,21,42,34, 0, 5,42,26,25		3,16,32,28,35	
		1,23,34,35,58,35,35,59		6, 7
42″	44,48,23, 6, 8,36, 4,18, 2,24		3,16,32,34,42	
		1,23,34,32,42, 3, 1,17		6, 7
44″	44,48,24,29,43, 8,46,21, 3,41		3,16,32,40,49	
		1,23,34,29,25,30,20,28		6, 7
46″	44,48,25,53,17,38,11,51,24, 9		3,16,32,46,56	
		1,23,34,26, 8,57,33,32		6, 7
48″	44,48,27,16,52, 4,20,48,57,41		3,16,32,53, 3	
		1,23,34,22,52,24,40,29		6, 7
50″	44,48,28,40,26,27,13,13,38,10		3,16,32,59,10	
		1,23,34,19,35,51,41,19		6, 7
52″	44,48,30, 4, 0,46,49, 5,19,29		3,16,33, 5,17	
		1,23,34,16,19,18,36, 2		6, 7
54″	44,48,31,27,35, 3, 8,23,55,31		3,16,33,11,24	
		1,23,34,13, 2,45,24,38		6, 7
56″	44,48,32,51, 9,16,11, 9,20, 9		3,16,33,17,31	
		1,23,34, 9,46,12, 7, 7		6, 7
58″	44,48,34,14,43,25,57,21,27,16		3,16,33,23,38	
		1,23,34, 6,29,38,43,29		
60″	44,48,35,38,17,32,27, 0,10,45			
exact	44,48,35,38,17,32,27, 0,34, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°19′ 0″	44,48,35,38,17,32,27, 0,34, 7			
		1,23,34, 3,13, 5,16,18		
2″	44,48,37, 1,51,35,40, 5,50,25		3,16,33,35,41	
		1,23,33,59,56,31,40,37		6, 7
4″	44,48,38,25,25,35,36,37,31, 2		3,16,33,41,48	
		1,23,33,56,39,57,58,49		6, 7
6″	44,48,39,48,59,32,16,35,29,51		3,16,33,47,55	
		1,23,33,53,23,24,10,54		6, 7
8″	44,48,41,12,33,25,39,59,40,45		3,16,33,54, 2	
		1,23,33,50, 6,50,16,52		6, 7
10″	44,48,42,36, 7,15,46,49,57,37		3,16,34, 0, 9	
		1,23,33,46,50,16,16,43		6, 7
12″	44,48,43,59,41, 2,37, 6,14,20		3,16,34, 6,16	
		1,23,33,43,33,42,10,27		6, 7
14″	44,48,45,23,14,46,10,48,24,47		3,16,34,12,23	
		1,23,33,40,17, 7,58, 4		6, 7
16″	44,48,46,46,48,26,27,56,22,51		3,16,34,18,30	
		1,23,33,37, 0,33,39,34		6, 7
18″	44,48,48,10,22, 3,28,30, 2,25		3,16,34,24,37	
		1,23,33,33,43,59,14,57		6, 7
20″	44,48,49,33,55,37,12,29,17,22		3,16,34,30,44	
		1,23,33,30,27,24,44,13		6, 7
22″	44,48,50,57,29, 7,39,54, 1,35		3,16,34,36,51	
		1,23,33,27,10,50, 7,22		6, 7
24″	44,48,52,21, 2,34,50,44, 8,57		3,16,34,42,58	
		1,23,33,23,54,15,24,24		6, 7
26″	44,48,53,44,35,58,44,59,33,21		3,16,34,49, 5	
		1,23,33,20,37,40,35,19		6, 7
28″	44,48,55, 8, 9,19,22,40, 8,40		3,16,34,55,12	
		1,23,33,17,21, 5,40, 7		6, 7
30″	44,48,56,31,42,36,43,45,48,47		3,16,35, 1,19	
		1,23,33,14, 4,30,38,48		6, 7
32″	44,48,57,55,15,50,48,16,27,35		3,16,35, 7,26	
		1,23,33,10,47,55,31,22		6, 7
34″	44,48,59,18,49, 1,36,11,58,57		3,16,35,13,33	
		1,23,33, 7,31,20,17,49		6, 7
36″	44,49, 0,42,22, 9, 7,32,16,46		3,16,35,19,40	
		1,23,33, 4,14,44,58, 9		6, 7
38″	44,49, 2, 5,55,13,22,17,14,55		3,16,35,25,47	
		1,23,33, 0,58, 9,32,22		6, 7
40″	44,49, 3,29,28,14,20,26,47,17		3,16,35,31,54	
		1,23,32,57,41,34, 0,28		6, 7
42″	44,49, 4,53, 1,12, 2, 0,47,45		3,16,35,38, 1	
		1,23,32,54,24,58,22,27		6, 7
44″	44,49, 6,16,34, 6,26,59,10,12		3,16,35,44, 8	
		1,23,32,51, 8,22,38,19		6, 7
46″	44,49, 7,40, 6,57,35,21,48,31		3,16,35,50,15	
		1,23,32,47,51,46,48, 4		6, 7
48″	44,49, 9, 3,39,45,27, 8,36,35		3,16,35,56,22	
		1,23,32,44,35,10,51,42		6, 7
50″	44,49,10,27,12,30, 2,19,28,17		3,16,36, 2,29	
		1,23,32,41,18,34,49,13		6, 7
52″	44,49,11,50,45,11,20,54,17,30		3,16,36, 8,36	
		1,23,32,38, 1,58,40,37		6, 7
54″	44,49,13,14,17,49,22,52,58, 7		3,16,36,14,43	
		1,23,32,34,45,22,25,54		6, 7
56″	44,49,14,37,50,24, 8,15,24, 1		3,16,36,20,50	
		1,23,32,31,28,46, 5, 4		6, 7
58″	44,49,16, 1,22,55,37, 1,29, 5		3,16,36,26,57	
		1,23,32,28,12, 9,38, 7		
60″	44,49,17,24,55,23,49,11, 7,12			
exact	44,49,17,24,55,23,49,11,40,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°20′ 0″	44,49,17,24,55,23,49,11,40,12			
		1,23,32,24,55,33, 8,36		
2″	44,49,18,48,27,48,44,44,48,48		3,16,36,38,56	
		1,23,32,21,38,56,29,40		6, 6
4″	44,49,20,12, 0,10,23,41,18,28		3,16,36,45, 2	
		1,23,32,18,22,19,44,38		6, 6
6″	44,49,21,35,32,28,46, 1, 3, 6		3,16,36,51, 8	
		1,23,32,15, 5,42,53,30		6, 6
8″	44,49,22,59, 4,43,51,43,56,36		3,16,36,57,14	
		1,23,32,11,49, 5,56,16		6, 6
10″	44,49,24,22,36,55,40,49,52,52		3,16,37, 3,20	
		1,23,32, 8,32,28,52,56		6, 6
12″	44,49,25,46, 9, 4,13,18,45,48		3,16,37, 9,26	
		1,23,32, 5,15,51,43,30		6, 6
14″	44,49,27, 9,41, 9,29,10,29,18		3,16,37,15,32	
		1,23,32, 1,59,14,27,58		6, 6
16″	44,49,28,33,13,11,28,24,57,16		3,16,37,21,38	
		1,23,31,58,42,37, 6,20		6, 6
18″	44,49,29,56,45,10,11, 2, 3,36		3,16,37,27,44	
		1,23,31,55,25,59,38,36		6, 6
20″	44,49,31,20,17, 5,37, 1,42,12		3,16,37,33,50	
		1,23,31,52, 9,22, 4,46		6, 6
22″	44,49,32,43,48,57,46,23,46,58		3,16,37,39,56	
		1,23,31,48,52,44,24,50		6, 6
24″	44,49,34, 7,20,46,39, 8,11,48		3,16,37,46, 2	
		1,23,31,45,36, 6,38,48		6, 6
26″	44,49,35,30,52,32,15,14,50,36		3,16,37,52, 8	
		1,23,31,42,19,28,46,40		6, 6
28″	44,49,36,54,24,14,34,43,37,16		3,16,37,58,14	
		1,23,31,39, 2,50,48,26		6, 6
30″	44,49,38,17,55,53,37,34,25,42		3,16,38, 4,20	
		1,23,31,35,46,12,44, 6		6, 6
32″	44,49,39,41,27,29,23,47, 9,48		3,16,38,10,26	
		1,23,31,32,29,34,33,40		6, 6
34″	44,49,41, 4,59, 1,53,21,43,28		3,16,38,16,32	
		1,23,31,29,12,56,17, 8		6, 6
36″	44,49,42,28,30,31, 6,18, 0,36		3,16,38,22,38	
		1,23,31,25,56,17,54,30		6, 6
38″	44,49,43,52, 1,57, 2,35,55, 6		3,16,38,28,44	
		1,23,31,22,39,39,25,46		6, 6
40″	44,49,45,15,33,19,42,15,20,52		3,16,38,34,50	
		1,23,31,19,23, 0,50,56		6, 6
42″	44,49,46,39, 4,39, 5,16,11,48		3,16,38,40,56	
		1,23,31,16, 6,22,10, 0		6, 6
44″	44,49,48, 2,35,55,11,38,21,48		3,16,38,47, 2	
		1,23,31,12,49,43,22,58		6, 6
46″	44,49,49,26, 7, 8, 1,21,44,46		3,16,38,53, 8	
		1,23,31, 9,33, 4,29,50		6, 6
48″	44,49,50,49,38,17,34,26,14,36		3,16,38,59,14	
		1,23,31, 6,16,25,30,36		6, 6
50″	44,49,52,13, 9,23,50,51,45,12		3,16,39, 5,20	
		1,23,31, 2,59,46,25,16		6, 6
52″	44,49,53,36,40,26,50,38,10,28		3,16,39,11,26	
		1,23,30,59,43, 7,13,50		6, 6
54″	44,49,55, 0,11,26,33,45,24,18		3,16,39,17,32	
		1,23,30,56,26,27,56,18		6, 6
56″	44,49,56,23,42,23, 0,13,20,36		3,16,39,23,38	
		1,23,30,53, 9,48,32,40		6, 6
58″	44,49,57,47,13,16,10, 1,53,16		3,16,39,29,44	
		1,23,30,49,53, 9, 2,56		
60″	44,49,59,10,44, 6, 3,10,56,12			
exact	44,49,59,10,44, 6, 3,10,27,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°21′ 0″	44,49,59,10,44, 6, 3,10,27,56			
		1,23,30,46,36,29,24, 9		
2″	44,50, 0,34,14,52,39,39,52, 5		3,16,39,42, 8	
		1,23,30,43,19,49,42, 1		6, 6
4″	44,50, 1,57,45,35,59,29,34, 6		3,16,39,48,14	
		1,23,30,40, 3, 9,53,47		6, 6
6″	44,50, 3,21,16,16, 2,39,27,53		3,16,39,54,20	
		1,23,30,36,46,29,59,27		6, 6
8″	44,50, 4,44,46,52,49, 9,27,20		3,16,40, 0,26	
		1,23,30,33,29,49,59, 1		6, 6
10″	44,50, 6, 8,17,26,18,59,26,21		3,16,40, 6,32	
		1,23,30,30,13, 9,52,29		6, 6
12″	44,50, 7,31,47,56,32, 9,18,50		3,16,40,12,38	
		1,23,30,26,56,29,39,51		6, 6
14″	44,50, 8,55,18,23,28,38,58,41		3,16,40,18,44	
		1,23,30,23,39,49,21, 7		6, 6
16″	44,50,10,18,48,47, 8,28,19,48		3,16,40,24,50	
		1,23,30,20,23, 8,56,17		6, 6
18″	44,50,11,42,19, 7,31,37,16, 5		3,16,40,30,56	
		1,23,30,17, 6,28,25,21		6, 6
20″	44,50,13, 5,49,24,38, 5,41,26		3,16,40,37, 2	
		1,23,30,13,49,47,48,19		6, 6
22″	44,50,14,29,19,38,27,53,29,45		3,16,40,43, 8	
		1,23,30,10,33, 7, 5,11		6, 6
24″	44,50,15,52,49,49, 1, 0,34,56		3,16,40,49,14	
		1,23,30, 7,16,26,15,57		6, 6
26″	44,50,17,16,19,56,17,26,50,53		3,16,40,55,20	
		1,23,30, 3,59,45,20,37		6, 6
28″	44,50,18,39,50, 0,17,12,11,30		3,16,41, 1,26	
		1,23,30, 0,43, 4,19,11		6, 6
30″	44,50,20, 3,20, 1, 0,16,30,41		3,16,41, 7,32	
		1,23,29,57,26,23,11,39		6, 6
32″	44,50,21,26,49,58,26,39,42,20		3,16,41,13,38	
		1,23,29,54, 9,41,58, 1		6, 6
34″	44,50,22,50,19,52,36,21,40,21		3,16,41,19,44	
		1,23,29,50,53, 0,38,17		6, 6
36″	44,50,24,13,49,43,29,22,18,38		3,16,41,25,50	
		1,23,29,47,36,19,12,27		6, 6
38″	44,50,25,37,19,31, 5,41,31, 5		3,16,41,31,56	
		1,23,29,44,19,37,40,31		6, 6
40″	44,50,27, 0,49,15,25,19,11,36		3,16,41,38, 2	
		1,23,29,41, 2,56, 2,29		6, 6
42″	44,50,28,24,18,56,28,15,14, 5		3,16,41,44, 8	
		1,23,29,37,46,14,18,21		6, 6
44″	44,50,29,47,48,34,14,29,32,26		3,16,41,50,14	
		1,23,29,34,29,32,28, 7		6, 6
46″	44,50,31,11,18, 8,44, 2, 0,33		3,16,41,56,20	
		1,23,29,31,12,50,31,47		6, 6
48″	44,50,32,34,47,39,56,52,32,20		3,16,42, 2,26	
		1,23,29,27,56, 8,29,21		6, 6
50″	44,50,33,58,17, 7,53, 1, 1,41		3,16,42, 8,32	
		1,23,29,24,39,26,20,49		6, 6
52″	44,50,35,21,46,32,32,27,22,30		3,16,42,14,38	
		1,23,29,21,22,44, 6,11		6, 6
54″	44,50,36,45,15,53,55,11,28,41		3,16,42,20,44	
		1,23,29,18, 6, 1,45,27		6, 6
56″	44,50,38, 8,45,12, 1,13,14, 8		3,16,42,26,50	
		1,23,29,14,49,19,18,37		6, 6
58″	44,50,39,32,14,26,50,32,32,45		3,16,42,32,56	
		1,23,29,11,32,36,45,41		
60″	44,50,40,55,43,38,23, 9,18,26			
exact	44,50,40,55,43,38,23, 9, 1,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°22′ 0″	44,50,40,55,43,38,23, 9, 1,32			
		1,23,29, 8,15,54, 4,47		
2″	44,50,42,19,12,46,39, 3, 6,19		3,16,42,45,16	
		1,23,29, 4,59,11,19,31		6, 6
4″	44,50,43,42,41,51,38,14,25,50		3,16,42,51,22	
		1,23,29, 1,42,28,28, 9		6, 6
6″	44,50,45, 6,10,53,20,42,53,59		3,16,42,57,28	
		1,23,28,58,25,45,30,41		6, 6
8″	44,50,46,29,39,51,46,28,24,40		3,16,43, 3,34	
		1,23,28,55, 9, 2,27, 7		6, 6
10″	44,50,47,53, 8,46,55,30,51,47		3,16,43, 9,40	
		1,23,28,51,52,19,17,27		6, 6
12″	44,50,49,16,37,38,47,50, 9,14		3,16,43,15,46	
		1,23,28,48,35,36, 1,41		6, 6
14″	44,50,50,40, 6,27,23,26,10,55		3,16,43,21,52	
		1,23,28,45,18,52,39,49		6, 6
16″	44,50,52, 3,35,12,42,18,50,44		3,16,43,27,58	
		1,23,28,42, 2, 9,11,51		6, 6
18″	44,50,53,27, 3,54,44,28, 2,35		3,16,43,34, 4	
		1,23,28,38,45,25,37,47		6, 6
20″	44,50,54,50,32,33,29,53,40,22		3,16,43,40,10	
		1,23,28,35,28,41,57,37		6, 6
22″	44,50,56,14, 1, 8,58,35,37,59		3,16,43,46,16	
		1,23,28,32,11,58,11,21		6, 6
24″	44,50,57,37,29,41,10,33,49,20		3,16,43,52,22	
		1,23,28,28,55,14,18,59		6, 6
26″	44,50,59, 0,58,10, 5,48, 8,19		3,16,43,58,28	
		1,23,28,25,38,30,20,31		6, 6
28″	44,51, 0,24,26,35,44,18,28,50		3,16,44, 4,34	
		1,23,28,22,21,46,15,57		6, 6
30″	44,51, 1,47,54,58, 6, 4,44,47		3,16,44,10,40	
		1,23,28,19, 5, 2, 5,17		6, 6
32″	44,51, 3,11,23,17,11, 6,50, 4		3,16,44,16,46	
		1,23,28,15,48,17,48,31		6, 6
34″	44,51, 4,34,51,32,59,24,38,35		3,16,44,22,52	
		1,23,28,12,31,33,25,39		6, 6
36″	44,51, 5,58,19,45,30,58, 4,14		3,16,44,28,58	
		1,23,28, 9,14,48,56,41		6, 6
38″	44,51, 7,21,47,54,45,47, 0,55		3,16,44,35, 4	
		1,23,28, 5,58, 4,21,37		6, 6
40″	44,51, 8,45,16, 0,43,51,22,32		3,16,44,41,10	
		1,23,28, 2,41,19,40,27		6, 6
42″	44,51,10, 8,44, 3,25,11, 2,59		3,16,44,47,16	
		1,23,27,59,24,34,53,11		6, 6
44″	44,51,11,32,12, 2,49,45,56,10		3,16,44,53,22	
		1,23,27,56, 7,49,59,49		6, 6
46″	44,51,12,55,39,58,57,35,55,59		3,16,44,59,28	
		1,23,27,52,51, 5, 0,21		6, 6
48″	44,51,14,19, 7,51,48,40,56,20		3,16,45, 5,34	
		1,23,27,49,34,19,54,47		6, 6
50″	44,51,15,42,35,41,23, 0,51, 7		3,16,45,11,40	
		1,23,27,46,17,34,43, 7		6, 6
52″	44,51,17, 6, 3,27,40,35,34,14		3,16,45,17,46	
		1,23,27,43, 0,49,25,21		6, 6
54″	44,51,18,29,31,10,41,24,59,35		3,16,45,23,52	
		1,23,27,39,44, 4, 1,29		6, 6
56″	44,51,19,52,58,50,25,29, 1, 4		3,16,45,29,58	
		1,23,27,36,27,18,31,31		6, 6
58″	44,51,21,16,26,26,52,47,32,35		3,16,45,36, 4	
		1,23,27,33,10,32,55,27		
60″	44,51,22,39,54, 0, 3,20,28, 2			
exact	44,51,22,39,54, 0, 3,20,19, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°23′ 0″	44,51,22,39,54, 0, 3,20,19, 7			
		1,23,27,29,53,47,12,17		
2″	44,51,24, 3,21,29,57, 7,31,24		3,16,45,48,20	
		1,23,27,26,37, 1,23,57		6, 6
4″	44,51,25,26,48,56,34, 8,55,21		3,16,45,54,26	
		1,23,27,23,20,15,29,31		6, 6
6″	44,51,26,50,16,19,54,24,24,52		3,16,46, 0,32	
		1,23,27,20, 3,29,28,59		6, 6
8″	44,51,28,13,43,39,57,53,53,51		3,16,46, 6,38	
		1,23,27,16,46,43,22,21		6, 6
10″	44,51,29,37,10,56,44,37,16,12		3,16,46,12,44	
		1,23,27,13,29,57, 9,37		6, 6
12″	44,51,31, 0,38,10,14,34,25,49		3,16,46,18,50	
		1,23,27,10,13,10,50,47		6, 6
14″	44,51,32,24, 5,20,27,45,16,36		3,16,46,24,56	
		1,23,27, 6,56,24,25,51		6, 6
16″	44,51,33,47,32,27,24, 9,42,27		3,16,46,31, 2	
		1,23,27, 3,39,37,54,49		6, 6
18″	44,51,35,10,59,31, 3,47,37,16		3,16,46,37, 8	
		1,23,27, 0,22,51,17,41		6, 6
20″	44,51,36,34,26,31,26,38,54,57		3,16,46,43,14	
		1,23,26,57, 6, 4,34,27		6, 6
22″	44,51,37,57,53,28,32,43,29,24		3,16,46,49,20	
		1,23,26,53,49,17,45, 7		6, 6
24″	44,51,39,21,20,22,22, 1,14,31		3,16,46,55,26	
		1,23,26,50,32,30,49,41		6, 6
26″	44,51,40,44,47,12,54,32, 4,12		3,16,47, 1,32	
		1,23,26,47,15,43,48, 9		6, 6
28″	44,51,42, 8,14, 0,10,15,52,21		3,16,47, 7,38	
		1,23,26,43,58,56,40,31		6, 6
30″	44,51,43,31,40,44, 9,12,32,52		3,16,47,13,44	
		1,23,26,40,42, 9,26,47		6, 6
32″	44,51,44,55, 7,24,51,21,59,39		3,16,47,19,50	
		1,23,26,37,25,22, 6,57		6, 6
34″	44,51,46,18,34, 2,16,44, 6,36		3,16,47,25,56	
		1,23,26,34, 8,34,41, 1		6, 6
36″	44,51,47,42, 0,36,25,18,47,37		3,16,47,32, 2	
		1,23,26,30,51,47, 8,59		6, 6
38″	44,51,49, 5,27, 7,17, 5,56,36		3,16,47,38, 8	
		1,23,26,27,34,59,30,51		6, 6
40″	44,51,50,28,53,34,52, 5,27,27		3,16,47,44,14	
		1,23,26,24,18,11,46,37		6, 6
42″	44,51,51,52,19,59,10,17,14, 4		3,16,47,50,20	
		1,23,26,21, 1,23,56,17		6, 6
44″	44,51,53,15,46,20,11,41,10,21		3,16,47,56,26	
		1,23,26,17,44,35,59,51		6, 6
46″	44,51,54,39,12,37,56,17,10,12		3,16,48, 2,32	
		1,23,26,14,27,47,57,19		6, 6
48″	44,51,56, 2,38,52,24, 5, 7,31		3,16,48, 8,38	
		1,23,26,11,10,59,48,41		6, 6
50″	44,51,57,26, 5, 3,35, 4,56,12		3,16,48,14,44	
		1,23,26, 7,54,11,33,57		6, 6
52″	44,51,58,49,31,11,29,16,30, 9		3,16,48,20,50	
		1,23,26, 4,37,23,13, 7		6, 6
54″	44,52, 0,12,57,16, 6,39,43,16		3,16,48,26,56	
		1,23,26, 1,20,34,46,11		6, 6
56″	44,52, 1,36,23,17,27,14,29,27		3,16,48,33, 2	
		1,23,25,58, 3,46,13, 9		6, 6
58″	44,52, 2,59,49,15,31, 0,42,36		3,16,48,39, 8	
		1,23,25,54,46,57,34, 1		
60″	44,52, 4,23,15,10,17,58,16,37			
exact	44,52, 4,23,15,10,17,58,12,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°24′ 0″	44,52, 4,23,15,10,17,58,12,43			
		1,23,25,51,30, 8,48,26		
2″	44,52, 5,46,41, 1,48, 7, 1, 9		3,16,48,51,21	
		1,23,25,48,13,19,57, 5		6, 6
4″	44,52, 7,10, 6,50, 1,26,58,14		3,16,48,57,27	
		1,23,25,44,56,30,59,38		6, 6
6″	44,52, 8,33,32,34,57,57,57,52		3,16,49, 3,33	
		1,23,25,41,39,41,56, 5		6, 6
8″	44,52, 9,56,58,16,37,39,53,57		3,16,49, 9,39	
		1,23,25,38,22,52,46,26		6, 6
10″	44,52,11,20,23,55, 0,32,40,23		3,16,49,15,45	
		1,23,25,35, 6, 3,30,41		6, 6
12″	44,52,12,43,49,30, 6,36,11, 4		3,16,49,21,51	
		1,23,25,31,49,14, 8,50		6, 6
14″	44,52,14, 7,15, 1,55,50,19,54		3,16,49,27,57	
		1,23,25,28,32,24,40,53		6, 6
16″	44,52,15,30,40,30,28,15, 0,47		3,16,49,34, 3	
		1,23,25,25,15,35, 6,50		6, 6
18″	44,52,16,54, 5,55,43,50, 7,37		3,16,49,40, 9	
		1,23,25,21,58,45,26,41		6, 6
20″	44,52,18,17,31,17,42,35,34,18		3,16,49,46,15	
		1,23,25,18,41,55,40,26		6, 6
22″	44,52,19,40,56,36,24,31,14,44		3,16,49,52,21	
		1,23,25,15,25, 5,48, 5		6, 6
24″	44,52,21, 4,21,51,49,37, 2,49		3,16,49,58,27	
		1,23,25,12, 8,15,49,38		6, 6
26″	44,52,22,27,47, 3,57,52,52,27		3,16,50, 4,33	
		1,23,25, 8,51,25,45, 5		6, 6
28″	44,52,23,51,12,12,49,18,37,32		3,16,50,10,39	
		1,23,25, 5,34,35,34,26		6, 6
30″	44,52,25,14,37,18,23,54,11,58		3,16,50,16,45	
		1,23,25, 2,17,45,17,41		6, 6
32″	44,52,26,38, 2,20,41,39,29,39		3,16,50,22,51	
		1,23,24,59, 0,54,54,50		6, 6
34″	44,52,28, 1,27,19,42,34,24,29		3,16,50,28,57	
		1,23,24,55,44, 4,25,53		6, 6
36″	44,52,29,24,52,15,26,38,50,22		3,16,50,35, 3	
		1,23,24,52,27,13,50,50		6, 6
38″	44,52,30,48,17, 7,53,52,41,12		3,16,50,41, 9	
		1,23,24,49,10,23, 9,41		6, 6
40″	44,52,32,11,41,57, 4,15,50,53		3,16,50,47,15	
		1,23,24,45,53,32,22,26		6, 6
42″	44,52,33,35, 6,42,57,48,13,19		3,16,50,53,21	
		1,23,24,42,36,41,29, 5		6, 6
44″	44,52,34,58,31,25,34,29,42,24		3,16,50,59,27	
		1,23,24,39,19,50,29,38		6, 6
46″	44,52,36,21,56, 4,54,20,12, 2		3,16,51, 5,33	
		1,23,24,36, 2,59,24, 5		6, 6
48″	44,52,37,45,20,40,57,19,36, 7		3,16,51,11,39	
		1,23,24,32,46, 8,12,26		6, 6
50″	44,52,39, 8,45,13,43,27,48,33		3,16,51,17,45	
		1,23,24,29,29,16,54,41		6, 6
52″	44,52,40,32, 9,43,12,44,43,14		3,16,51,23,51	
		1,23,24,26,12,25,30,50		6, 6
54″	44,52,41,55,34, 9,25,10,14, 4		3,16,51,29,57	
		1,23,24,22,55,34, 0,53		6, 6
56″	44,52,43,18,58,32,20,44,14,57		3,16,51,36, 3	
		1,23,24,19,38,42,24,50		6, 6
58″	44,52,44,42,22,51,59,26,39,47		3,16,51,42, 9	
		1,23,24,16,21,50,42,41		
60″	44,52,46, 5,47, 8,21,17,22,28			
exact	44,52,46, 5,47, 8,21,17,28,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°25′ 0″	44,52,46, 5,47, 8,21,17,28,19			
		1,23,24,13, 4,58,55, 4		
2″	44,52,47,29,11,21,26,16,23,23		3,16,51,54,18	
		1,23,24, 9,48, 7, 0,46		6, 6
4″	44,52,48,52,35,31,14,23,24, 9		3,16,52, 0,24	
		1,23,24, 6,31,15, 0,22		6, 6
6″	44,52,50,15,59,37,45,38,24,31		3,16,52, 6,30	
		1,23,24, 3,14,22,53,52		6, 6
8″	44,52,51,39,23,41, 0, 1,18,23		3,16,52,12,36	
		1,23,23,59,57,30,41,16		6, 6
10″	44,52,53, 2,47,40,57,31,59,39		3,16,52,18,42	
		1,23,23,56,40,38,22,34		6, 6
12″	44,52,54,26,11,37,38,10,22,13		3,16,52,24,48	
		1,23,23,53,23,45,57,46		6, 6
14″	44,52,55,49,35,31, 1,56,19,59		3,16,52,30,54	
		1,23,23,50, 6,53,26,52		6, 6
16″	44,52,57,12,59,21, 8,49,46,51		3,16,52,37, 0	
		1,23,23,46,50, 0,49,52		6, 6
18″	44,52,58,36,23, 7,58,50,36,43		3,16,52,43, 6	
		1,23,23,43,33, 8, 6,46		6, 6
20″	44,52,59,59,46,51,31,58,43,29		3,16,52,49,12	
		1,23,23,40,16,15,17,34		6, 6
22″	44,53, 1,23,10,31,48,14, 1, 3		3,16,52,55,18	
		1,23,23,36,59,22,22,16		6, 6
24″	44,53, 2,46,34, 8,47,36,23,19		3,16,53, 1,24	
		1,23,23,33,42,29,20,52		6, 6
26″	44,53, 4, 9,57,42,30, 5,44,11		3,16,53, 7,30	
		1,23,23,30,25,36,13,22		6, 6
28″	44,53, 5,33,21,12,55,41,57,33		3,16,53,13,36	
		1,23,23,27, 8,42,59,46		6, 6
30″	44,53, 6,56,44,40, 4,24,57,19		3,16,53,19,42	
		1,23,23,23,51,49,40, 4		6, 6
32″	44,53, 8,20, 8, 3,56,14,37,23		3,16,53,25,48	
		1,23,23,20,34,56,14,16		6, 6
34″	44,53, 9,43,31,24,31,10,51,39		3,16,53,31,54	
		1,23,23,17,18, 2,42,22		6, 6
36″	44,53,11, 6,54,41,49,13,34, 1		3,16,53,38, 0	
		1,23,23,14, 1, 9, 4,22		6, 6
38″	44,53,12,30,17,55,50,22,38,23		3,16,53,44, 6	
		1,23,23,10,44,15,20,16		6, 6
40″	44,53,13,53,41, 6,34,37,58,39		3,16,53,50,12	
		1,23,23, 7,27,21,30, 4		6, 6
42″	44,53,15,17, 4,14, 1,59,28,43		3,16,53,56,18	
		1,23,23, 4,10,27,33,46		6, 6
44″	44,53,16,40,27,18,12,27, 2,29		3,16,54, 2,24	
		1,23,23, 0,53,33,31,22		6, 6
46″	44,53,18, 3,50,19, 6, 0,33,51		3,16,54, 8,30	
		1,23,22,57,36,39,22,52		6, 6
48″	44,53,19,27,13,16,42,39,56,43		3,16,54,14,36	
		1,23,22,54,19,45, 8,16		6, 6
50″	44,53,20,50,36,11, 2,25, 4,59		3,16,54,20,42	
		1,23,22,51, 2,50,47,34		6, 6
52″	44,53,22,13,59, 2, 5,15,52,33		3,16,54,26,48	
		1,23,22,47,45,56,20,46		6, 6
54″	44,53,23,37,21,49,51,12,13,19		3,16,54,32,54	
		1,23,22,44,29, 1,47,52		6, 6
56″	44,53,25, 0,44,34,20,14, 1,11		3,16,54,39, 0	
		1,23,22,41,12, 7, 8,52		6, 6
58″	44,53,26,24, 7,15,32,21,10, 3		3,16,54,45, 6	
		1,23,22,37,55,12,23,46		
60″	44,53,27,47,29,53,27,33,33,49			
exact	44,53,27,47,29,53,27,33,45,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°26′ 0″	44,53,27,47,29,53,27,33,45,53			
		1,23,22,34,38,17,33,57		
2″	44,53,29,10,52,28, 5,51,19,50		3,16,54,57,12	
		1,23,22,31,21,22,36,45		6, 6
4″	44,53,30,34,14,59,27,13,56,35		3,16,55, 3,18	
		1,23,22,28, 4,27,33,27		6, 6
6″	44,53,31,57,37,27,31,41,30, 2		3,16,55, 9,24	
		1,23,22,24,47,32,24, 3		6, 6
8″	44,53,33,20,59,52,19,13,54, 5		3,16,55,15,30	
		1,23,22,21,30,37, 8,33		6, 6
10″	44,53,34,44,22,13,49,51, 2,38		3,16,55,21,36	
		1,23,22,18,13,41,46,57		6, 6
12″	44,53,36, 7,44,32, 3,32,49,35		3,16,55,27,42	
		1,23,22,14,56,46,19,15		6, 6
14″	44,53,37,31, 6,47, 0,19, 8,50		3,16,55,33,48	
		1,23,22,11,39,50,45,27		6, 6
16″	44,53,38,54,28,58,40, 9,54,17		3,16,55,39,54	
		1,23,22, 8,22,55, 5,33		6, 6
18″	44,53,40,17,51, 7, 3, 4,59,50		3,16,55,46, 0	
		1,23,22, 5, 5,59,19,33		6, 6
20″	44,53,41,41,13,12, 9, 4,19,23		3,16,55,52, 6	
		1,23,22, 1,49, 3,27,27		6, 6
22″	44,53,43, 4,35,13,58, 7,46,50		3,16,55,58,12	
		1,23,21,58,32, 7,29,15		6, 6
24″	44,53,44,27,57,12,30,15,16, 5		3,16,56, 4,18	
		1,23,21,55,15,11,24,57		6, 6
26″	44,53,45,51,19, 7,45,26,41, 2		3,16,56,10,24	
		1,23,21,51,58,15,14,33		6, 6
28″	44,53,47,14,40,59,43,41,55,35		3,16,56,16,30	
		1,23,21,48,41,18,58, 3		6, 6
30″	44,53,48,38, 2,48,25, 0,53,38		3,16,56,22,36	
		1,23,21,45,24,22,35,27		6, 6
32″	44,53,50, 1,24,33,49,23,29, 5		3,16,56,28,42	
		1,23,21,42, 7,26, 6,45		6, 6
34″	44,53,51,24,46,15,56,49,35,50		3,16,56,34,48	
		1,23,21,38,50,29,31,57		6, 6
36″	44,53,52,48, 7,54,47,19, 7,47		3,16,56,40,54	
		1,23,21,35,33,32,51, 3		6, 6
38″	44,53,54,11,29,30,20,51,58,50		3,16,56,47, 0	
		1,23,21,32,16,36, 4, 3		6, 6
40″	44,53,55,34,51, 2,37,28, 2,53		3,16,56,53, 6	
		1,23,21,28,59,39,10,57		6, 6
42″	44,53,56,58,12,31,37, 7,13,50		3,16,56,59,12	
		1,23,21,25,42,42,11,45		6, 6
44″	44,53,58,21,33,57,19,49,25,35		3,16,57, 5,18	
		1,23,21,22,25,45, 6,27		6, 6
46″	44,53,59,44,55,19,45,34,32, 2		3,16,57,11,24	
		1,23,21,19, 8,47,55, 3		6, 6
48″	44,54, 1, 8,16,38,54,22,27, 5		3,16,57,17,30	
		1,23,21,15,51,50,37,33		6, 6
50″	44,54, 2,31,37,54,46,13, 4,38		3,16,57,23,36	
		1,23,21,12,34,53,13,57		6, 6
52″	44,54, 3,54,59, 7,21, 6,18,35		3,16,57,29,42	
		1,23,21, 9,17,55,44,15		6, 6
54″	44,54, 5,18,20,16,39, 2, 2,50		3,16,57,35,48	
		1,23,21, 6, 0,58, 8,27		6, 6
56″	44,54, 6,41,41,22,40, 0,11,17		3,16,57,41,54	
		1,23,21, 2,44, 0,26,33		6, 6
58″	44,54, 8, 5, 2,25,24, 0,37,50		3,16,57,48, 0	
		1,23,20,59,27, 2,38,33		
60″	44,54, 9,28,23,24,51, 3,16,23			
exact	44,54, 9,28,23,24,51, 3,39,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°27′ 0″	44,54, 9,28,23,24,51, 3,39,18			
		1,23,20,56,10, 4,46,53		
2″	44,54,10,51,44,21, 1, 8,26,11		3,16,58, 0, 2	
		1,23,20,52,53, 6,46,51		6, 6
4″	44,54,12,15, 5,13,54,15,13, 2		3,16,58, 6, 8	
		1,23,20,49,36, 8,40,43		6, 6
6″	44,54,13,38,26, 3,30,23,53,45		3,16,58,12,14	
		1,23,20,46,19,10,28,29		6, 6
8″	44,54,15, 1,46,49,49,34,22,14		3,16,58,18,20	
		1,23,20,43, 2,12,10, 9		6, 6
10″	44,54,16,25, 7,32,51,46,32,23		3,16,58,24,26	
		1,23,20,39,45,13,45,43		6, 6
12″	44,54,17,48,28,12,37, 0,18, 6		3,16,58,30,32	
		1,23,20,36,28,15,15,11		6, 6
14″	44,54,19,11,48,49, 5,15,33,17		3,16,58,36,38	
		1,23,20,33,11,16,38,33		6, 6
16″	44,54,20,35, 9,22,16,32,11,50		3,16,58,42,44	
		1,23,20,29,54,17,55,49		6, 6
18″	44,54,21,58,29,52,10,50, 7,39		3,16,58,48,50	
		1,23,20,26,37,19, 6,59		6, 6
20″	44,54,23,21,50,18,48, 9,14,38		3,16,58,54,56	
		1,23,20,23,20,20,12, 3		6, 6
22″	44,54,24,45,10,42, 8,29,26,41		3,16,59, 1, 2	
		1,23,20,20, 3,21,11, 1		6, 6
24″	44,54,26, 8,31, 2,11,50,37,42		3,16,59, 7, 8	
		1,23,20,16,46,22, 3,53		6, 6
26″	44,54,27,31,51,18,58,12,41,35		3,16,59,13,14	
		1,23,20,13,29,22,50,39		6, 6
28″	44,54,28,55,11,32,27,35,32,14		3,16,59,19,20	
		1,23,20,10,12,23,31,19		6, 6
30″	44,54,30,18,31,42,39,59, 3,33		3,16,59,25,26	
		1,23,20, 6,55,24, 5,53		6, 6
32″	44,54,31,41,51,49,35,23, 9,26		3,16,59,31,32	
		1,23,20, 3,38,24,34,21		6, 6
34″	44,54,33, 5,11,53,13,47,43,47		3,16,59,37,38	
		1,23,20, 0,21,24,56,43		6, 6
36″	44,54,34,28,31,53,35,12,40,30		3,16,59,43,44	
		1,23,19,57, 4,25,12,59		6, 6
38″	44,54,35,51,51,50,39,37,53,29		3,16,59,49,50	
		1,23,19,53,47,25,23, 9		6, 6
40″	44,54,37,15,11,44,27, 3,16,38		3,16,59,55,56	
		1,23,19,50,30,25,27,13		6, 6
42″	44,54,38,38,31,34,57,28,43,51		3,17, 0, 2, 2	
		1,23,19,47,13,25,25,11		6, 6
44″	44,54,40, 1,51,22,10,54, 9, 2		3,17, 0, 8, 8	
		1,23,19,43,56,25,17, 3		6, 6
46″	44,54,41,25,11, 6, 7,19,26, 5		3,17, 0,14,14	
		1,23,19,40,39,25, 2,49		6, 6
48″	44,54,42,48,30,46,46,44,28,54		3,17, 0,20,20	
		1,23,19,37,22,24,42,29		6, 6
50″	44,54,44,11,50,24, 9, 9,11,23		3,17, 0,26,26	
		1,23,19,34, 5,24,16, 3		6, 6
52″	44,54,45,35, 9,58,14,33,27,26		3,17, 0,32,32	
		1,23,19,30,48,23,43,31		6, 6
54″	44,54,46,58,29,29, 2,57,10,57		3,17, 0,38,38	
		1,23,19,27,31,23, 4,53		6, 6
56″	44,54,48,21,48,56,34,20,15,50		3,17, 0,44,44	
		1,23,19,24,14,22,20, 9		6, 6
58″	44,54,49,45, 8,20,48,42,35,59		3,17, 0,50,50	
		1,23,19,20,57,21,29,19		
60″	44,54,51, 8,27,41,46, 4, 5,18			
exact	44,54,51, 8,27,41,46, 4,36,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°28′ 0″	44,54,51, 8,27,41,46, 4,36,29			
		1,23,19,17,40,20,35,42		
2″	44,54,52,31,46,59,26,25,12,11		3,17, 1, 2,48	
		1,23,19,14,23,19,32,54		6, 5
4″	44,54,53,55, 6,13,49,44,45, 5		3,17, 1, 8,53	
		1,23,19,11, 6,18,24, 1		6, 5
6″	44,54,55,18,25,24,56, 3, 9, 6		3,17, 1,14,58	
		1,23,19, 7,49,17, 9, 3		6, 5
8″	44,54,56,41,44,32,45,20,18, 9		3,17, 1,21, 3	
		1,23,19, 4,32,15,48, 0		6, 5
10″	44,54,58, 5, 3,37,17,36, 6, 9		3,17, 1,27, 8	
		1,23,19, 1,15,14,20,52		6, 5
12″	44,54,59,28,22,38,32,50,27, 1		3,17, 1,33,13	
		1,23,18,57,58,12,47,39		6, 5
14″	44,55, 0,51,41,36,31, 3,14,40		3,17, 1,39,18	
		1,23,18,54,41,11, 8,21		6, 5
16″	44,55, 2,15, 0,31,12,14,23, 1		3,17, 1,45,23	
		1,23,18,51,24, 9,22,58		6, 5
18″	44,55, 3,38,19,22,36,23,45,59		3,17, 1,51,28	
		1,23,18,48, 7, 7,31,30		6, 5
20″	44,55, 5, 1,38,10,43,31,17,29		3,17, 1,57,33	
		1,23,18,44,50, 5,33,57		6, 5
22″	44,55, 6,24,56,55,33,36,51,26		3,17, 2, 3,38	
		1,23,18,41,33, 3,30,19		6, 5
24″	44,55, 7,48,15,37, 6,40,21,45		3,17, 2, 9,43	
		1,23,18,38,16, 1,20,36		6, 5
26″	44,55, 9,11,34,15,22,41,42,21		3,17, 2,15,48	
		1,23,18,34,58,59, 4,48		6, 5
28″	44,55,10,34,52,50,21,40,47, 9		3,17, 2,21,53	
		1,23,18,31,41,56,42,55		6, 5
30″	44,55,11,58,11,22, 3,37,30, 4		3,17, 2,27,58	
		1,23,18,28,24,54,14,57		6, 5
32″	44,55,13,21,29,50,28,31,45, 1		3,17, 2,34, 3	
		1,23,18,25, 7,51,40,54		6, 5
34″	44,55,14,44,48,15,36,23,25,55		3,17, 2,40, 8	
		1,23,18,21,50,49, 0,46		6, 5
36″	44,55,16, 8, 6,37,27,12,26,41		3,17, 2,46,13	
		1,23,18,18,33,46,14,33		6, 5
38″	44,55,17,31,24,56, 0,58,41,14		3,17, 2,52,18	
		1,23,18,15,16,43,22,15		6, 5
40″	44,55,18,54,43,11,17,42, 3,29		3,17, 2,58,23	
		1,23,18,11,59,40,23,52		6, 5
42″	44,55,20,18, 1,23,17,22,27,21		3,17, 3, 4,28	
		1,23,18, 8,42,37,19,24		6, 5
44″	44,55,21,41,19,31,59,59,46,45		3,17, 3,10,33	
		1,23,18, 5,25,34, 8,51		6, 5
46″	44,55,23, 4,37,37,25,33,55,36		3,17, 3,16,38	
		1,23,18, 2, 8,30,52,13		6, 5
48″	44,55,24,27,55,39,34, 4,47,49		3,17, 3,22,43	
		1,23,17,58,51,27,29,30		6, 5
50″	44,55,25,51,13,38,25,32,17,19		3,17, 3,28,48	
		1,23,17,55,34,24, 0,42		6, 5
52″	44,55,27,14,31,33,59,56,18, 1		3,17, 3,34,53	
		1,23,17,52,17,20,25,49		6, 5
54″	44,55,28,37,49,26,17,16,43,50		3,17, 3,40,58	
		1,23,17,49, 0,16,44,51		6, 5
56″	44,55,30, 1, 7,15,17,33,28,41		3,17, 3,47, 3	
		1,23,17,45,43,12,57,48		6, 5
58″	44,55,31,24,25, 1, 0,46,26,29		3,17, 3,53, 8	
		1,23,17,42,26, 9, 4,40		
60″	44,55,32,47,42,43,26,55,31, 9			
exact	44,55,32,47,42,43,26,54,59,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°29′ 0″	44,55,32,47,42,43,26,54,59,20			
		1,23,17,39, 9, 5, 2, 9		
2″	44,55,34,11, 0,22,36, 0, 1,29		3,17, 4, 5,31	
		1,23,17,35,52, 0,56,38		6, 5
4″	44,55,35,34,17,58,28, 0,58, 7		3,17, 4,11,36	
		1,23,17,32,34,56,45, 2		6, 5
6″	44,55,36,57,35,31, 2,57,43, 9		3,17, 4,17,41	
		1,23,17,29,17,52,27,21		6, 5
8″	44,55,38,20,53, 0,20,50,10,30		3,17, 4,23,46	
		1,23,17,26, 0,48, 3,35		6, 5
10″	44,55,39,44,10,26,21,38,14, 5		3,17, 4,29,51	
		1,23,17,22,43,43,33,44		6, 5
12″	44,55,41, 7,27,49, 5,21,47,49		3,17, 4,35,56	
		1,23,17,19,26,38,57,48		6, 5
14″	44,55,42,30,45, 8,32, 0,45,37		3,17, 4,42, 1	
		1,23,17,16, 9,34,15,47		6, 5
16″	44,55,43,54, 2,24,41,35, 1,24		3,17, 4,48, 6	
		1,23,17,12,52,29,27,41		6, 5
18″	44,55,45,17,19,37,34, 4,29, 5		3,17, 4,54,11	
		1,23,17, 9,35,24,33,30		6, 5
20″	44,55,46,40,36,47, 9,29, 2,35		3,17, 5, 0,16	
		1,23,17, 6,18,19,33,14		6, 5
22″	44,55,48, 3,53,53,27,48,35,49		3,17, 5, 6,21	
		1,23,17, 3, 1,14,26,53		6, 5
24″	44,55,49,27,10,56,29, 3, 2,42		3,17, 5,12,26	
		1,23,16,59,44, 9,14,27		6, 5
26″	44,55,50,50,27,56,13,12,17, 9		3,17, 5,18,31	
		1,23,16,56,27, 3,55,56		6, 5
28″	44,55,52,13,44,52,40,16,13, 5		3,17, 5,24,36	
		1,23,16,53, 9,58,31,20		6, 5
30″	44,55,53,37, 1,45,50,14,44,25		3,17, 5,30,41	
		1,23,16,49,52,53, 0,39		6, 5
32″	44,55,55, 0,18,35,43, 7,45, 4		3,17, 5,36,46	
		1,23,16,46,35,47,23,53		6, 5
34″	44,55,56,23,35,22,18,55, 8,57		3,17, 5,42,51	
		1,23,16,43,18,41,41, 2		6, 5
36″	44,55,57,46,52, 5,37,36,49,59		3,17, 5,48,56	
		1,23,16,40, 1,35,52, 6		6, 5
38″	44,55,59,10, 8,45,39,12,42, 5		3,17, 5,55, 1	
		1,23,16,36,44,29,57, 5		6, 5
40″	44,56, 0,33,25,22,23,42,39,10		3,17, 6, 1, 6	
		1,23,16,33,27,23,55,59		6, 5
42″	44,56, 1,56,41,55,51, 6,35, 9		3,17, 6, 7,11	
		1,23,16,30,10,17,48,48		6, 5
44″	44,56, 3,19,58,26, 1,24,23,57		3,17, 6,13,16	
		1,23,16,26,53,11,35,32		6, 5
46″	44,56, 4,43,14,52,54,35,59,29		3,17, 6,19,21	
		1,23,16,23,36, 5,16,11		6, 5
48″	44,56, 6, 6,31,16,30,41,15,40		3,17, 6,25,26	
		1,23,16,20,18,58,50,45		6, 5
50″	44,56, 7,29,47,36,49,40, 6,25		3,17, 6,31,31	
		1,23,16,17, 1,52,19,14		6, 5
52″	44,56, 8,53, 3,53,51,32,25,39		3,17, 6,37,36	
		1,23,16,13,44,45,41,38		6, 5
54″	44,56,10,16,20, 7,36,18, 7,17		3,17, 6,43,41	
		1,23,16,10,27,38,57,57		6, 5
56″	44,56,11,39,36,18, 3,57, 5,14		3,17, 6,49,46	
		1,23,16, 7,10,32, 8,11		6, 5
58″	44,56,13, 2,52,25,14,29,13,25		3,17, 6,55,51	
		1,23,16, 3,53,25,12,20		
60″	44,56,14,26, 8,29, 7,54,25,45			
exact	44,56,14,26, 8,29, 7,54, 3,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°30′ 0″	44,56,14,26, 8,29, 7,54, 3,46			
		1,23,16, 0,36,18, 8, 5		
2″	44,56,15,49,24,29,44,12,11,51		3,17, 7, 8,10	
		1,23,15,57,19,10,59,55		6, 5
4″	44,56,17,12,40,27, 3,23,11,46		3,17, 7,14,15	
		1,23,15,54, 2, 3,45,40		6, 5
6″	44,56,18,35,56,21, 5,26,57,26		3,17, 7,20,20	
		1,23,15,50,44,56,25,20		6, 5
8″	44,56,19,59,12,11,50,23,22,46		3,17, 7,26,25	
		1,23,15,47,27,48,58,55		6, 5
10″	44,56,21,22,27,59,18,12,21,41		3,17, 7,32,30	
		1,23,15,44,10,41,26,25		6, 5
12″	44,56,22,45,43,43,28,53,48, 6		3,17, 7,38,35	
		1,23,15,40,53,33,47,50		6, 5
14″	44,56,24, 8,59,24,22,27,35,56		3,17, 7,44,40	
		1,23,15,37,36,26, 3,10		6, 5
16″	44,56,25,32,15, 1,58,53,39, 6		3,17, 7,50,45	
		1,23,15,34,19,18,12,25		6, 5
18″	44,56,26,55,30,36,18,11,51,31		3,17, 7,56,50	
		1,23,15,31, 2,10,15,35		6, 5
20″	44,56,28,18,46, 7,20,22, 7, 6		3,17, 8, 2,55	
		1,23,15,27,45, 2,12,40		6, 5
22″	44,56,29,42, 1,35, 5,24,19,46		3,17, 8, 9, 0	
		1,23,15,24,27,54, 3,40		6, 5
24″	44,56,31, 5,16,59,33,18,23,26		3,17, 8,15, 5	
		1,23,15,21,10,45,48,35		6, 5
26″	44,56,32,28,32,20,44, 4,12, 1		3,17, 8,21,10	
		1,23,15,17,53,37,27,25		6, 5
28″	44,56,33,51,47,38,37,41,39,26		3,17, 8,27,15	
		1,23,15,14,36,29, 0,10		6, 5
30″	44,56,35,15, 2,53,14,10,39,36		3,17, 8,33,20	
		1,23,15,11,19,20,26,50		6, 5
32″	44,56,36,38,18, 4,33,31, 6,26		3,17, 8,39,25	
		1,23,15, 8, 2,11,47,25		6, 5
34″	44,56,38, 1,33,12,35,42,53,51		3,17, 8,45,30	
		1,23,15, 4,45, 3, 1,55		6, 5
36″	44,56,39,24,48,17,20,45,55,46		3,17, 8,51,35	
		1,23,15, 1,27,54,10,20		6, 5
38″	44,56,40,48, 3,18,48,40, 6, 6		3,17, 8,57,40	
		1,23,14,58,10,45,12,40		6, 5
40″	44,56,42,11,18,16,59,25,18,46		3,17, 9, 3,45	
		1,23,14,54,53,36, 8,55		6, 5
42″	44,56,43,34,33,11,53, 1,27,41		3,17, 9, 9,50	
		1,23,14,51,36,26,59, 5		6, 5
44″	44,56,44,57,48, 3,29,28,26,46		3,17, 9,15,55	
		1,23,14,48,19,17,43,10		6, 5
46″	44,56,46,21, 2,51,48,46, 9,56		3,17, 9,22, 0	
		1,23,14,45, 2, 8,21,10		6, 5
48″	44,56,47,44,17,36,50,54,31, 6		3,17, 9,28, 5	
		1,23,14,41,44,58,53, 5		6, 5
50″	44,56,49, 7,32,18,35,53,24,11		3,17, 9,34,10	
		1,23,14,38,27,49,18,55		6, 5
52″	44,56,50,30,46,57, 3,42,43, 6		3,17, 9,40,15	
		1,23,14,35,10,39,38,40		6, 5
54″	44,56,51,54, 1,32,14,22,21,46		3,17, 9,46,20	
		1,23,14,31,53,29,52,20		6, 5
56″	44,56,53,17,16, 4, 7,52,14, 6		3,17, 9,52,25	
		1,23,14,28,36,19,59,55		6, 5
58″	44,56,54,40,30,32,44,12,14, 1		3,17, 9,58,30	
		1,23,14,25,19,10, 1,25		
60″	44,56,56, 3,44,58, 3,22,15,26			
exact	44,56,56, 3,44,58, 3,21,59,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°31′ 0″	44,56,56, 3,44,58, 3,21,59,42			
		1,23,14,22, 1,59,55,16		
2″	44,56,57,26,59,20, 5,21,54,58		3,17,10,10,46	
		1,23,14,18,44,49,44,30		6, 5
4″	44,56,58,50,13,38,50,11,39,28		3,17,10,16,51	
		1,23,14,15,27,39,27,39		6, 5
6″	44,57, 0,13,27,54,17,51, 7, 7		3,17,10,22,56	
		1,23,14,12,10,29, 4,43		6, 5
8″	44,57, 1,36,42, 6,28,20,11,50		3,17,10,29, 1	
		1,23,14, 8,53,18,35,42		6, 5
10″	44,57, 2,59,56,15,21,38,47,32		3,17,10,35, 6	
		1,23,14, 5,36, 8, 0,36		6, 5
12″	44,57, 4,23,10,20,57,46,48, 8		3,17,10,41,11	
		1,23,14, 2,18,57,19,25		6, 5
14″	44,57, 5,46,24,23,16,44, 7,33		3,17,10,47,16	
		1,23,13,59, 1,46,32, 9		6, 5
16″	44,57, 7, 9,38,22,18,30,39,42		3,17,10,53,21	
		1,23,13,55,44,35,38,48		6, 5
18″	44,57, 8,32,52,18, 3, 6,18,30		3,17,10,59,26	
		1,23,13,52,27,24,39,22		6, 5
20″	44,57, 9,56, 6,10,30,30,57,52		3,17,11, 5,31	
		1,23,13,49,10,13,33,51		6, 5
22″	44,57,11,19,19,59,40,44,31,43		3,17,11,11,36	
		1,23,13,45,53, 2,22,15		6, 5
24″	44,57,12,42,33,45,33,46,53,58		3,17,11,17,41	
		1,23,13,42,35,51, 4,34		6, 5
26″	44,57,14, 5,47,28, 9,37,58,32		3,17,11,23,46	
		1,23,13,39,18,39,40,48		6, 5
28″	44,57,15,29, 1, 7,28,17,39,20		3,17,11,29,51	
		1,23,13,36, 1,28,10,57		6, 5
30″	44,57,16,52,14,43,29,45,50,17		3,17,11,35,56	
		1,23,13,32,44,16,35, 1		6, 5
32″	44,57,18,15,28,16,14, 2,25,18		3,17,11,42, 1	
		1,23,13,29,27, 4,53, 0		6, 5
34″	44,57,19,38,41,45,41, 7,18,18		3,17,11,48, 6	
		1,23,13,26, 9,53, 4,54		6, 5
36″	44,57,21, 1,55,11,51, 0,23,12		3,17,11,54,11	
		1,23,13,22,52,41,10,43		6, 5
38″	44,57,22,25, 8,34,43,41,33,55		3,17,12, 0,16	
		1,23,13,19,35,29,10,27		6, 5
40″	44,57,23,48,21,54,19,10,44,22		3,17,12, 6,21	
		1,23,13,16,18,17, 4, 6		6, 5
42″	44,57,25,11,35,10,37,27,48,28		3,17,12,12,26	
		1,23,13,13, 1, 4,51,40		6, 5
44″	44,57,26,34,48,23,38,32,40, 8		3,17,12,18,31	
		1,23,13, 9,43,52,33, 9		6, 5
46″	44,57,27,58, 1,33,22,25,13,17		3,17,12,24,36	
		1,23,13, 6,26,40, 8,33		6, 5
48″	44,57,29,21,14,39,49, 5,21,50		3,17,12,30,41	
		1,23,13, 3, 9,27,37,52		6, 5
50″	44,57,30,44,27,42,58,32,59,42		3,17,12,36,46	
		1,23,12,59,52,15, 1, 6		6, 5
52″	44,57,32, 7,40,42,50,48, 0,48		3,17,12,42,51	
		1,23,12,56,35, 2,18,15		6, 5
54″	44,57,33,30,53,39,25,50,19, 3		3,17,12,48,56	
		1,23,12,53,17,49,29,19		6, 5
56″	44,57,34,54, 6,32,43,39,48,22		3,17,12,55, 1	
		1,23,12,50, 0,36,34,18		6, 5
58″	44,57,36,17,19,22,44,16,22,40		3,17,13, 1, 6	
		1,23,12,46,43,23,33,12		
60″	44,57,37,40,32, 9,27,39,55,52			
exact	44,57,37,40,32, 9,27,39,51, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°32′ 0″	44,57,37,40,32, 9,27,39,51, 8			
		1,23,12,43,26,10,25,31		
2″	44,57,39, 3,44,52,53,50,16,39		3,17,13,13,18	
		1,23,12,40, 8,57,12,13		6, 5
4″	44,57,40,26,57,33, 2,47,28,52		3,17,13,19,23	
		1,23,12,36,51,43,52,50		6, 5
6″	44,57,41,50,10, 9,54,31,21,42		3,17,13,25,28	
		1,23,12,33,34,30,27,22		6, 5
8″	44,57,43,13,22,43,29, 1,49, 4		3,17,13,31,33	
		1,23,12,30,17,16,55,49		6, 5
10″	44,57,44,36,35,13,46,18,44,53		3,17,13,37,38	
		1,23,12,27, 0, 3,18,11		6, 5
12″	44,57,45,59,47,40,46,22, 3, 4		3,17,13,43,43	
		1,23,12,23,42,49,34,28		6, 5
14″	44,57,47,23, 0, 4,29,11,37,32		3,17,13,49,48	
		1,23,12,20,25,35,44,40		6, 5
16″	44,57,48,46,12,24,54,47,22,12		3,17,13,55,53	
		1,23,12,17, 8,21,48,47		6, 5
18″	44,57,50, 9,24,42, 3, 9,10,59		3,17,14, 1,58	
		1,23,12,13,51, 7,46,49		6, 5
20″	44,57,51,32,36,55,54,16,57,48		3,17,14, 8, 3	
		1,23,12,10,33,53,38,46		6, 5
22″	44,57,52,55,49, 6,28,10,36,34		3,17,14,14, 8	
		1,23,12, 7,16,39,24,38		6, 5
24″	44,57,54,19, 1,13,44,50, 1,12		3,17,14,20,13	
		1,23,12, 3,59,25, 4,25		6, 5
26″	44,57,55,42,13,17,44,15, 5,37		3,17,14,26,18	
		1,23,12, 0,42,10,38, 7		6, 5
28″	44,57,57, 5,25,18,26,25,43,44		3,17,14,32,23	
		1,23,11,57,24,56, 5,44		6, 5
30″	44,57,58,28,37,15,51,21,49,28		3,17,14,38,28	
		1,23,11,54, 7,41,27,16		6, 5
32″	44,57,59,51,49, 9,59, 3,16,44		3,17,14,44,33	
		1,23,11,50,50,26,42,43		6, 5
34″	44,58, 1,15, 1, 0,49,29,59,27		3,17,14,50,38	
		1,23,11,47,33,11,52, 5		6, 5
36″	44,58, 2,38,12,48,22,41,51,32		3,17,14,56,43	
		1,23,11,44,15,56,55,22		6, 5
38″	44,58, 4, 1,24,32,38,38,46,54		3,17,15, 2,48	
		1,23,11,40,58,41,52,34		6, 5
40″	44,58, 5,24,36,13,37,20,39,28		3,17,15, 8,53	
		1,23,11,37,41,26,43,41		6, 5
42″	44,58, 6,47,47,51,18,47,23, 9		3,17,15,14,58	
		1,23,11,34,24,11,28,43		6, 5
44″	44,58, 8,10,59,25,42,58,51,52		3,17,15,21, 3	
		1,23,11,31, 6,56, 7,40		6, 5
46″	44,58, 9,34,10,56,49,54,59,32		3,17,15,27, 8	
		1,23,11,27,49,40,40,32		6, 5
48″	44,58,10,57,22,24,39,35,40, 4		3,17,15,33,13	
		1,23,11,24,32,25, 7,19		6, 5
50″	44,58,12,20,33,49,12, 0,47,23		3,17,15,39,18	
		1,23,11,21,15, 9,28, 1		6, 5
52″	44,58,13,43,45,10,27,10,15,24		3,17,15,45,23	
		1,23,11,17,57,53,42,38		6, 5
54″	44,58,15, 6,56,28,25, 3,58, 2		3,17,15,51,28	
		1,23,11,14,40,37,51,10		6, 5
56″	44,58,16,30, 7,43, 5,41,49,12		3,17,15,57,33	
		1,23,11,11,23,21,53,37		6, 5
58″	44,58,17,53,18,54,29, 3,42,49		3,17,16, 3,38	
		1,23,11, 8, 6, 5,49,59		
60″	44,58,19,16,30, 2,35, 9,32,48			
exact	44,58,19,16,30, 2,35, 9,36, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°33′ 0″	44,58,19,16,30, 2,35, 9,36, 6			
		1,23,11, 4,48,49,40,38		
2″	44,58,20,39,41, 7,23,59,16,44		3,17,16,15,46	
		1,23,11, 1,31,33,24,52		6, 5
4″	44,58,22, 2,52, 8,55,32,41,36		3,17,16,21,51	
		1,23,10,58,14,17, 3, 1		6, 5
6″	44,58,23,26, 3, 7, 9,49,44,37		3,17,16,27,56	
		1,23,10,54,57, 0,35, 5		6, 5
8″	44,58,24,49,14, 2, 6,50,19,42		3,17,16,34, 1	
		1,23,10,51,39,44, 1, 4		6, 5
10″	44,58,26,12,24,53,46,34,20,46		3,17,16,40, 6	
		1,23,10,48,22,27,20,58		6, 5
12″	44,58,27,35,35,42, 9, 1,41,44		3,17,16,46,11	
		1,23,10,45, 5,10,34,47		6, 5
14″	44,58,28,58,46,27,14,12,16,31		3,17,16,52,16	
		1,23,10,41,47,53,42,31		6, 5
16″	44,58,30,21,57, 9, 2, 5,59, 2		3,17,16,58,21	
		1,23,10,38,30,36,44,10		6, 5
18″	44,58,31,45, 7,47,32,42,43,12		3,17,17, 4,26	
		1,23,10,35,13,19,39,44		6, 5
20″	44,58,33, 8,18,22,46, 2,22,56		3,17,17,10,31	
		1,23,10,31,56, 2,29,13		6, 5
22″	44,58,34,31,28,54,42, 4,52, 9		3,17,17,16,36	
		1,23,10,28,38,45,12,37		6, 5
24″	44,58,35,54,39,23,20,50, 4,46		3,17,17,22,41	
		1,23,10,25,21,27,49,56		6, 5
26″	44,58,37,17,49,48,42,17,54,42		3,17,17,28,46	
		1,23,10,22, 4,10,21,10		6, 5
28″	44,58,38,41, 0,10,46,28,15,52		3,17,17,34,51	
		1,23,10,18,46,52,46,19		6, 5
30″	44,58,40, 4,10,29,33,21, 2,11		3,17,17,40,56	
		1,23,10,15,29,35, 5,23		6, 5
32″	44,58,41,27,20,45, 2,56, 7,34		3,17,17,47, 1	
		1,23,10,12,12,17,18,22		6, 5
34″	44,58,42,50,30,57,15,13,25,56		3,17,17,53, 6	
		1,23,10, 8,54,59,25,16		6, 5
36″	44,58,44,13,41, 6,10,12,51,12		3,17,17,59,11	
		1,23,10, 5,37,41,26, 5		6, 5
38″	44,58,45,36,51,11,47,54,17,17		3,17,18, 5,16	
		1,23,10, 2,20,23,20,49		6, 5
40″	44,58,47, 0, 1,14, 8,17,38, 6		3,17,18,11,21	
		1,23, 9,59, 3, 5, 9,28		6, 5
42″	44,58,48,23,11,13,11,22,47,34		3,17,18,17,26	
		1,23, 9,55,45,46,52, 2		6, 5
44″	44,58,49,46,21, 8,57, 9,39,36		3,17,18,23,31	
		1,23, 9,52,28,28,28,31		6, 5
46″	44,58,51, 9,31, 1,25,38, 8, 7		3,17,18,29,36	
		1,23, 9,49,11, 9,58,55		6, 5
48″	44,58,52,32,40,50,36,48, 7, 2		3,17,18,35,41	
		1,23, 9,45,53,51,23,14		6, 5
50″	44,58,53,55,50,36,30,39,30,16		3,17,18,41,46	
		1,23, 9,42,36,32,41,28		6, 5
52″	44,58,55,19, 0,19, 7,12,11,44		3,17,18,47,51	
		1,23, 9,39,19,13,53,37		6, 5
54″	44,58,56,42, 9,58,26,26, 5,21		3,17,18,53,56	
		1,23, 9,36, 1,54,59,41		6, 5
56″	44,58,58, 5,19,34,28,21, 5, 2		3,17,19, 0, 1	
		1,23, 9,32,44,35,59,40		6, 5
58″	44,58,59,28,29, 7,12,57, 4,42		3,17,19, 6, 6	
		1,23, 9,29,27,16,53,34		
60″	44,59, 0,51,38,36,40,13,58,16			
exact	44,59, 0,51,38,36,40,14, 6,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°34′ 0″	44,59, 0,51,38,36,40,14, 6,41	1,23, 9,26, 9,57,42,25		
2″	44,59, 2,14,48, 2,50,11,49, 6	1,23, 9,22,52,38,24,14	3,17,19,18,11	
4″	44,59, 3,37,57,25,42,50,13,20	1,23, 9,19,35,18,59,58	3,17,19,24,16	6, 5
6″	44,59, 5, 1, 6,45,18, 9,13,18	1,23, 9,16,17,59,29,37	3,17,19,30,21	6, 5
8″	44,59, 6,24,16, 1,36, 8,42,55	1,23, 9,13, 0,39,53,11	3,17,19,36,26	6, 5
10″	44,59, 7,47,25,14,36,48,36, 6	1,23, 9, 9,43,20,10,40	3,17,19,42,31	6, 5
12″	44,59, 9,10,34,24,20, 8,46,46	1,23, 9, 6,26, 0,22, 4	3,17,19,48,36	6, 5
14″	44,59,10,33,43,30,46, 9, 8,50	1,23, 9, 3, 8,40,27,23	3,17,19,54,41	6, 5
16″	44,59,11,56,52,33,54,49,36,13	1,23, 8,59,51,20,26,37	3,17,20, 0,46	6, 5
18″	44,59,13,20, 1,33,46,10, 2,50	1,23, 8,56,34, 0,19,46	3,17,20, 6,51	6, 5
20″	44,59,14,43,10,30,20,10,22,36	1,23, 8,53,16,40, 6,50	3,17,20,12,56	6, 5
22″	44,59,16, 6,19,23,36,50,29,26	1,23, 8,49,59,19,47,49	3,17,20,19, 1	6, 5
24″	44,59,17,29,28,13,36,10,17,15	1,23, 8,46,41,59,22,43	3,17,20,25, 6	6, 5
26″	44,59,18,52,37, 0,18, 9,39,58	1,23, 8,43,24,38,51,32	3,17,20,31,11	6, 5
28″	44,59,20,15,45,43,42,48,31,30	1,23, 8,40, 7,18,14,16	3,17,20,37,16	6, 5
30″	44,59,21,38,54,23,50, 6,45,46	1,23, 8,36,49,57,30,55	3,17,20,43,21	6, 5
32″	44,59,23, 2, 3, 0,40, 4,16,41	1,23, 8,33,32,36,41,29	3,17,20,49,26	6, 5
34″	44,59,24,25,11,34,12,40,58,10	1,23, 8,30,15,15,45,58	3,17,20,55,31	6, 5
36″	44,59,25,48,20, 4,27,56,44, 8	1,23, 8,26,57,54,44,22	3,17,21, 1,36	6, 5
38″	44,59,27,11,28,31,25,51,28,30	1,23, 8,23,40,33,36,41	3,17,21, 7,41	6, 5
40″	44,59,28,34,36,55, 6,25, 5,11	1,23, 8,20,23,12,22,55	3,17,21,13,46	6, 5
42″	44,59,29,57,45,15,29,37,28, 6	1,23, 8,17, 5,51, 3, 4	3,17,21,19,51	6, 5
44″	44,59,31,20,53,32,35,28,31,10	1,23, 8,13,48,29,37, 8	3,17,21,25,56	6, 5
46″	44,59,32,44, 1,46,23,58, 8,18	1,23, 8,10,31, 8, 5, 7	3,17,21,32, 1	6, 5
48″	44,59,34, 7, 9,56,55, 6,13,25	1,23, 8, 7,13,46,27, 1	3,17,21,38, 6	6, 5
50″	44,59,35,30,18, 4, 8,52,40,26	1,23, 8, 3,56,24,42,50	3,17,21,44,11	6, 5
52″	44,59,36,53,26, 8, 5,17,23,16	1,23, 8, 0,39, 2,52,34	3,17,21,50,16	6, 5
54″	44,59,38,16,34, 8,44,20,15,50	1,23, 7,57,21,40,56,13	3,17,21,56,21	6, 5
56″	44,59,39,39,42, 6, 6, 1,12, 3	1,23, 7,54, 4,18,53,47	3,17,22, 2,26	6, 5
58″	44,59,41, 2,50, 0,10,20, 5,50	1,23, 7,50,46,56,45,16	3,17,22, 8,31	
60″	44,59,42,25,57,50,57,16,51, 6			
exact	44,59,42,25,57,50,57,17, 9, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°35′ 0″	44,59,42,25,57,50,57,17, 9, 6			
		1,23, 7,47,29,34,32,40		
2″	44,59,43,49, 5,38,26,51,41,46		3,17,22,20,32	
		1,23, 7,44,12,12,12, 8		6, 5
4″	44,59,45,12,13,22,39, 3,53,54		3,17,22,26,37	
		1,23, 7,40,54,49,45,31		6, 5
6″	44,59,46,35,21, 3,33,53,39,25		3,17,22,32,42	
		1,23, 7,37,37,27,12,49		6, 5
8″	44,59,47,58,28,41,11,20,52,14		3,17,22,38,47	
		1,23, 7,34,20, 4,34, 2		6, 5
10″	44,59,49,21,36,15,31,25,26,16		3,17,22,44,52	
		1,23, 7,31, 2,41,49,10		6, 5
12″	44,59,50,44,43,46,34, 7,15,26		3,17,22,50,57	
		1,23, 7,27,45,18,58,13		6, 5
14″	44,59,52, 7,51,14,19,26,13,39		3,17,22,57, 2	
		1,23, 7,24,27,56, 1,11		6, 5
16″	44,59,53,30,58,38,47,22,14,50		3,17,23, 3, 7	
		1,23, 7,21,10,32,58, 4		6, 5
18″	44,59,54,54, 5,59,57,55,12,54		3,17,23, 9,12	
		1,23, 7,17,53, 9,48,52		6, 5
20″	44,59,56,17,13,17,51, 5, 1,46		3,17,23,15,17	
		1,23, 7,14,35,46,33,35		6, 5
22″	44,59,57,40,20,32,26,51,35,21		3,17,23,21,22	
		1,23, 7,11,18,23,12,13		6, 5
24″	44,59,59, 3,27,43,45,14,47,34		3,17,23,27,27	
		1,23, 7, 8, 0,59,44,46		6, 5
26″	45, 0, 0,26,34,51,46,14,32,20		3,17,23,33,32	
		1,23, 7, 4,43,36,11,14		6, 5
28″	45, 0, 1,49,41,56,29,50,43,34		3,17,23,39,37	
		1,23, 7, 1,26,12,31,37		6, 5
30″	45, 0, 3,12,48,57,56, 3,15,11		3,17,23,45,42	
		1,23, 6,58, 8,48,45,55		6, 5
32″	45, 0, 4,35,55,56, 4,52, 1, 6		3,17,23,51,47	
		1,23, 6,54,51,24,54, 8		6, 5
34″	45, 0, 5,59, 2,50,56,16,55,14		3,17,23,57,52	
		1,23, 6,51,34, 0,56,16		6, 5
36″	45, 0, 7,22, 9,42,30,17,51,30		3,17,24, 3,57	
		1,23, 6,48,16,36,52,19		6, 5
38″	45, 0, 8,45,16,30,46,54,43,49		3,17,24,10, 2	
		1,23, 6,44,59,12,42,17		6, 5
40″	45, 0,10, 8,23,15,46, 7,26, 6		3,17,24,16, 7	
		1,23, 6,41,41,48,26,10		6, 5
42″	45, 0,11,31,29,57,27,55,52,16		3,17,24,22,12	
		1,23, 6,38,24,24, 3,58		6, 5
44″	45, 0,12,54,36,35,52,19,56,14		3,17,24,28,17	
		1,23, 6,35, 6,59,35,41		6, 5
46″	45, 0,14,17,43,10,59,19,31,55		3,17,24,34,22	
		1,23, 6,31,49,35, 1,19		6, 5
48″	45, 0,15,40,49,42,48,54,33,14		3,17,24,40,27	
		1,23, 6,28,32,10,20,52		6, 5
50″	45, 0,17, 3,56,11,21, 4,54, 6		3,17,24,46,32	
		1,23, 6,25,14,45,34,20		6, 5
52″	45, 0,18,27, 2,36,35,50,28,26		3,17,24,52,37	
		1,23, 6,21,57,20,41,43		6, 5
54″	45, 0,19,50, 8,58,33,11,10, 9		3,17,24,58,42	
		1,23, 6,18,39,55,43, 1		6, 5
56″	45, 0,21,13,15,17,13, 6,53,10		3,17,25, 4,47	
		1,23, 6,15,22,30,38,14		6, 5
58″	45, 0,22,36,21,32,35,37,31,24		3,17,25,10,52	
		1,23, 6,12, 5, 5,27,22		
60″	45, 0,23,59,27,44,40,42,58,46			
exact	45, 0,23,59,27,44,40,43,23,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°36′ 0″	45, 0,23,59,27,44,40,43,23,36	1,23, 6, 8,47,40,13,12		
2″	45, 0,25,22,33,53,28,23,36,48	1,23, 6, 5,30,14,50,22	3,17,25,22,50	6, 5
4″	45, 0,26,45,39,58,58,38,27,10	1,23, 6, 2,12,49,21,27	3,17,25,28,55	6, 5
6″	45, 0,28, 8,46, 1,11,27,48,37	1,23, 5,58,55,23,46,27	3,17,25,35, 0	6, 5
8″	45, 0,29,31,52, 0, 6,51,35, 4	1,23, 5,55,37,58, 5,22	3,17,25,41, 5	6, 5
10″	45, 0,30,54,57,55,44,49,40,26	1,23, 5,52,20,32,18,12	3,17,25,47,10	6, 5
12″	45, 0,32,18, 3,48, 5,21,58,38	1,23, 5,49, 3, 6,24,57	3,17,25,53,15	6, 5
14″	45, 0,33,41, 9,37, 8,28,23,35	1,23, 5,45,45,40,25,37	3,17,25,59,20	6, 5
16″	45, 0,35, 4,15,22,54, 8,49,12	1,23, 5,42,28,14,20,12	3,17,26, 5,25	6, 5
18″	45, 0,36,27,21, 5,22,23, 9,24	1,23, 5,39,10,48, 8,42	3,17,26,11,30	6, 5
20″	45, 0,37,50,26,44,33,11,18, 6	1,23, 5,35,53,21,51, 7	3,17,26,17,35	6, 5
22″	45, 0,39,13,32,20,26,33, 9,13	1,23, 5,32,35,55,27,27	3,17,26,23,40	6, 5
24″	45, 0,40,36,37,53, 2,28,36,40	1,23, 5,29,18,28,57,42	3,17,26,29,45	6, 5
26″	45, 0,41,59,43,22,20,57,34,22	1,23, 5,26, 1, 2,21,52	3,17,26,35,50	6, 5
28″	45, 0,43,22,48,48,21,59,56,14	1,23, 5,22,43,35,39,57	3,17,26,41,55	6, 5
30″	45, 0,44,45,54,11, 5,35,36,11	1,23, 5,19,26, 8,51,57	3,17,26,48, 0	6, 5
32″	45, 0,46, 8,59,30,31,44,28, 8	1,23, 5,16, 8,41,57,52	3,17,26,54, 5	6, 5
34″	45, 0,47,32, 4,46,40,26,26, 0	1,23, 5,12,51,14,57,42	3,17,27, 0,10	6, 5
36″	45, 0,48,55, 9,59,31,41,23,42	1,23, 5, 9,33,47,51,27	3,17,27, 6,15	6, 5
38″	45, 0,50,18,15, 9, 5,29,15, 9	1,23, 5, 6,16,20,39, 7	3,17,27,12,20	6, 5
40″	45, 0,51,41,20,15,21,49,54,16	1,23, 5, 2,58,53,20,42	3,17,27,18,25	6, 5
42″	45, 0,53, 4,25,18,20,43,14,58	1,23, 4,59,41,25,56,12	3,17,27,24,30	6, 5
44″	45, 0,54,27,30,18, 2, 9,11,10	1,23, 4,56,23,58,25,37	3,17,27,30,35	6, 5
46″	45, 0,55,50,35,14,26, 7,36,47	1,23, 4,53, 6,30,48,57	3,17,27,36,40	6, 5
48″	45, 0,57,13,40, 7,32,38,25,44	1,23, 4,49,49, 3, 6,12	3,17,27,42,45	6, 5
50″	45, 0,58,36,44,57,21,41,31,56	1,23, 4,46,31,35,17,22	3,17,27,48,50	6, 5
52″	45, 0,59,59,49,43,53,16,49,18	1,23, 4,43,14, 7,22,27	3,17,27,54,55	6, 5
54″	45, 1, 1,22,54,27, 7,24,11,45	1,23, 4,39,56,39,21,27	3,17,28, 1, 0	6, 5
56″	45, 1, 2,45,59, 7, 4, 3,33,12	1,23, 4,36,39,11,14,22	3,17,28, 7, 5	6, 5
58″	45, 1, 4, 9, 3,43,43,14,47,34	1,23, 4,33,21,43, 1,12	3,17,28,13,10	
60″	45, 1, 5,32, 8,17, 4,57,48,46			
exact	45, 1, 5,32, 8,17, 4,58,24,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°37′ 0″	45, 1, 5,32, 8,17, 4,58,24,36	1,23, 4,30, 4,14,45,48		
2″	45, 1, 6,55,12,47, 9,13,10,24	1,23, 4,26,46,46,20,44	3,17,28,25, 4	6, 4
4″	45, 1, 8,18,17,13,55,59,31, 8	1,23, 4,23,29,17,49,36	3,17,28,31, 8	6, 4
6″	45, 1, 9,41,21,37,25,17,20,44	1,23, 4,20,11,49,12,24	3,17,28,37,12	6, 4
8″	45, 1,11, 4,25,57,37, 6,33, 8	1,23, 4,16,54,20,29, 8	3,17,28,43,16	6, 4
10″	45, 1,12,27,30,14,31,27, 2,16	1,23, 4,13,36,51,39,48	3,17,28,49,20	6, 4
12″	45, 1,13,50,34,28, 8,18,42, 4	1,23, 4,10,19,22,44,24	3,17,28,55,24	6, 4
14″	45, 1,15,13,38,38,27,41,26,28	1,23, 4, 7, 1,53,42,56	3,17,29, 1,28	6, 4
16″	45, 1,16,36,42,45,29,35, 9,24	1,23, 4, 3,44,24,35,24	3,17,29, 7,32	6, 4
18″	45, 1,17,59,46,49,13,59,44,48	1,23, 4, 0,26,55,21,48	3,17,29,13,36	6, 4
20″	45, 1,19,22,50,49,40,55, 6,36	1,23, 3,57, 9,26, 2, 8	3,17,29,19,40	6, 4
22″	45, 1,20,45,54,46,50,21, 8,44	1,23, 3,53,51,56,36,24	3,17,29,25,44	6, 4
24″	45, 1,22, 8,58,40,42,17,45, 8	1,23, 3,50,34,27, 4,36	3,17,29,31,48	6, 4
26″	45, 1,23,32, 2,31,16,44,49,44	1,23, 3,47,16,57,26,44	3,17,29,37,52	6, 4
28″	45, 1,24,55, 6,18,33,42,16,28	1,23, 3,43,59,27,42,48	3,17,29,43,56	6, 4
30″	45, 1,26,18,10, 2,33, 9,59,16	1,23, 3,40,41,57,52,48	3,17,29,50, 0	6, 4
32″	45, 1,27,41,13,43,15, 7,52, 4	1,23, 3,37,24,27,56,44	3,17,29,56, 4	6, 4
34″	45, 1,29, 4,17,20,39,35,48,48	1,23, 3,34, 6,57,54,36	3,17,30, 2, 8	6, 4
36″	45, 1,30,27,20,54,46,33,43,24	1,23, 3,30,49,27,46,24	3,17,30, 8,12	6, 4
38″	45, 1,31,50,24,25,36, 1,29,48	1,23, 3,27,31,57,32, 8	3,17,30,14,16	6, 4
40″	45, 1,33,13,27,53, 7,59, 1,56	1,23, 3,24,14,27,11,48	3,17,30,20,20	6, 4
42″	45, 1,34,36,31,17,22,26,13,44	1,23, 3,20,56,56,45,24	3,17,30,26,24	6, 4
44″	45, 1,35,59,34,38,19,22,59, 8	1,23, 3,17,39,26,12,56	3,17,30,32,28	6, 4
46″	45, 1,37,22,37,55,58,49,12, 4	1,23, 3,14,21,55,34,24	3,17,30,38,32	6, 4
48″	45, 1,38,45,41,10,20,44,46,28	1,23, 3,11, 4,24,49,48	3,17,30,44,36	6, 4
50″	45, 1,40, 8,44,21,25, 9,36,16	1,23, 3, 7,46,53,59, 8	3,17,30,50,40	6, 4
52″	45, 1,41,31,47,29,12, 3,35,24	1,23, 3, 4,29,23, 2,24	3,17,30,56,44	6, 4
54″	45, 1,42,54,50,33,41,26,37,48	1,23, 3, 1,11,51,59,36	3,17,31, 2,48	6, 4
56″	45, 1,44,17,53,34,53,18,37,24	1,23, 2,57,54,20,50,44	3,17,31, 8,52	6, 4
58″	45, 1,45,40,56,32,47,39,28, 8	1,23, 2,54,36,49,35,48	3,17,31,14,56	
60″	45, 1,47, 3,59,27,24,29, 3,56			
exact	45, 1,47, 3,59,27,24,28,40,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°38′ 0″	45, 1,47, 3,59,27,24,28,40,36			
		1,23, 2,51,19,18,12,17		
2″	45, 1,48,27, 2,18,43,46,52,53		3,17,31,27,14	
		1,23, 2,48, 1,46,45, 3		6, 4
4″	45, 1,49,50, 5, 6,45,33,37,56		3,17,31,33,18	
		1,23, 2,44,44,15,11,45		6, 4
6″	45, 1,51,13, 7,51,29,48,49,41		3,17,31,39,22	
		1,23, 2,41,26,43,32,23		6, 4
8″	45, 1,52,36,10,32,56,32,22, 4		3,17,31,45,26	
		1,23, 2,38, 9,11,46,57		6, 4
10″	45, 1,53,59,13,11, 5,44, 9, 1		3,17,31,51,30	
		1,23, 2,34,51,39,55,27		6, 4
12″	45, 1,55,22,15,45,57,24, 4,28		3,17,31,57,34	
		1,23, 2,31,34, 7,57,53		6, 4
14″	45, 1,56,45,18,17,31,32, 2,21		3,17,32, 3,38	
		1,23, 2,28,16,35,54,15		6, 4
16″	45, 1,58, 8,20,45,48, 7,56,36		3,17,32, 9,42	
		1,23, 2,24,59, 3,44,33		6, 4
18″	45, 1,59,31,23,10,47,11,41, 9		3,17,32,15,46	
		1,23, 2,21,41,31,28,47		6, 4
20″	45, 2, 0,54,25,32,28,43, 9,56		3,17,32,21,50	
		1,23, 2,18,23,59, 6,57		6, 4
22″	45, 2, 2,17,27,50,52,42,16,53		3,17,32,27,54	
		1,23, 2,15, 6,26,39, 3		6, 4
24″	45, 2, 3,40,30, 5,59, 8,55,56		3,17,32,33,58	
		1,23, 2,11,48,54, 5, 5		6, 4
26″	45, 2, 5, 3,32,17,48, 3, 1, 1		3,17,32,40, 2	
		1,23, 2, 8,31,21,25, 3		6, 4
28″	45, 2, 6,26,34,26,19,24,26, 4		3,17,32,46, 6	
		1,23, 2, 5,13,48,38,57		6, 4
30″	45, 2, 7,49,36,31,33,13, 5, 1		3,17,32,52,10	
		1,23, 2, 1,56,15,46,47		6, 4
32″	45, 2, 9,12,38,33,29,28,51,48		3,17,32,58,14	
		1,23, 1,58,38,42,48,33		6, 4
34″	45, 2,10,35,40,32, 8,11,40,21		3,17,33, 4,18	
		1,23, 1,55,21, 9,44,15		6, 4
36″	45, 2,11,58,42,27,29,21,24,36		3,17,33,10,22	
		1,23, 1,52, 3,36,33,53		6, 4
38″	45, 2,13,21,44,19,32,57,58,29		3,17,33,16,26	
		1,23, 1,48,46, 3,17,27		6, 4
40″	45, 2,14,44,46, 8,19, 1,15,56		3,17,33,22,30	
		1,23, 1,45,28,29,54,57		6, 4
42″	45, 2,16, 7,47,53,47,31,10,53		3,17,33,28,34	
		1,23, 1,42,10,56,26,23		6, 4
44″	45, 2,17,30,49,35,58,27,37,16		3,17,33,34,38	
		1,23, 1,38,53,22,51,45		6, 4
46″	45, 2,18,53,51,14,51,50,29, 1		3,17,33,40,42	
		1,23, 1,35,35,49,11, 3		6, 4
48″	45, 2,20,16,52,50,27,39,40, 4		3,17,33,46,46	
		1,23, 1,32,18,15,24,17		6, 4
50″	45, 2,21,39,54,22,45,55, 4,21		3,17,33,52,50	
		1,23, 1,29, 0,41,31,27		6, 4
52″	45, 2,23, 2,55,51,46,36,35,48		3,17,33,58,54	
		1,23, 1,25,43, 7,32,33		6, 4
54″	45, 2,24,25,57,17,29,44, 8,21		3,17,34, 4,58	
		1,23, 1,22,25,33,27,35		6, 4
56″	45, 2,25,48,58,39,55,17,35,56		3,17,34,11, 2	
		1,23, 1,19, 7,59,16,33		6, 4
58″	45, 2,27,11,59,59, 3,16,52,29		3,17,34,17, 6	
		1,23, 1,15,50,24,59,27		
60″	45, 2,28,35, 1,14,53,41,51,56			
exact	45, 2,28,35, 1,14,53,41,34,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°39′ 0″	45, 2,28,35, 1,14,53,41,34,15			
		1,23, 1,12,32,50,34,28		
2″	45, 2,29,58, 2,27,26,32, 8,43		3,17,34,29,21	
		1,23, 1, 9,15,16, 5, 7		6, 4
4″	45, 2,31,21, 3,36,41,48,13,50		3,17,34,35,25	
		1,23, 1, 5,57,41,29,42		6, 4
6″	45, 2,32,44, 4,42,39,29,43,32		3,17,34,41,29	
		1,23, 1, 2,40, 6,48,13		6, 4
8″	45, 2,34, 7, 5,45,19,36,31,45		3,17,34,47,33	
		1,23, 0,59,22,32, 0,40		6, 4
10″	45, 2,35,30, 6,44,42, 8,32,25		3,17,34,53,37	
		1,23, 0,56, 4,57, 7, 3		6, 4
12″	45, 2,36,53, 7,40,47, 5,39,28		3,17,34,59,41	
		1,23, 0,52,47,22, 7,22		6, 4
14″	45, 2,38,16, 8,33,34,27,46,50		3,17,35, 5,45	
		1,23, 0,49,29,47, 1,37		6, 4
16″	45, 2,39,39, 9,23, 4,14,48,27		3,17,35,11,49	
		1,23, 0,46,12,11,49,48		6, 4
18″	45, 2,41, 2,10, 9,16,26,38,15		3,17,35,17,53	
		1,23, 0,42,54,36,31,55		6, 4
20″	45, 2,42,25,10,52,11, 3,10,10		3,17,35,23,57	
		1,23, 0,39,37, 1, 7,58		6, 4
22″	45, 2,43,48,11,31,48, 4,18, 8		3,17,35,30, 1	
		1,23, 0,36,19,25,37,57		6, 4
24″	45, 2,45,11,12, 8, 7,29,56, 5		3,17,35,36, 5	
		1,23, 0,33, 1,50, 1,52		6, 4
26″	45, 2,46,34,12,41, 9,19,57,57		3,17,35,42, 9	
		1,23, 0,29,44,14,19,43		6, 4
28″	45, 2,47,57,13,10,53,34,17,40		3,17,35,48,13	
		1,23, 0,26,26,38,31,30		6, 4
30″	45, 2,49,20,13,37,20,12,49,10		3,17,35,54,17	
		1,23, 0,23, 9, 2,37,13		6, 4
32″	45, 2,50,43,14, 0,29,15,26,23		3,17,36, 0,21	
		1,23, 0,19,51,26,36,52		6, 4
34″	45, 2,52, 6,14,20,20,42, 3,15		3,17,36, 6,25	
		1,23, 0,16,33,50,30,27		6, 4
36″	45, 2,53,29,14,36,54,32,33,42		3,17,36,12,29	
		1,23, 0,13,16,14,17,58		6, 4
38″	45, 2,54,52,14,50,10,46,51,40		3,17,36,18,33	
		1,23, 0, 9,58,37,59,25		6, 4
40″	45, 2,56,15,15, 0, 9,24,51, 5		3,17,36,24,37	
		1,23, 0, 6,41, 1,34,48		6, 4
42″	45, 2,57,38,15, 6,50,26,25,53		3,17,36,30,41	
		1,23, 0, 3,23,25, 4, 7		6, 4
44″	45, 2,59, 1,15,10,13,51,30, 0		3,17,36,36,45	
		1,23, 0, 0, 5,48,27,22		6, 4
46″	45, 3, 0,24,15,10,19,39,57,22		3,17,36,42,49	
		1,22,59,56,48,11,44,33		6, 4
48″	45, 3, 1,47,15, 7, 7,51,41,55		3,17,36,48,53	
		1,22,59,53,30,34,55,40		6, 4
50″	45, 3, 3,10,15, 0,38,26,37,35		3,17,36,54,57	
		1,22,59,50,12,58, 0,43		6, 4
52″	45, 3, 4,33,14,50,51,24,38,18		3,17,37, 1, 1	
		1,22,59,46,55,20,59,42		6, 4
54″	45, 3, 5,56,14,37,46,45,38, 0		3,17,37, 7, 5	
		1,22,59,43,37,43,52,37		6, 4
56″	45, 3, 7,19,14,21,24,29,30,37		3,17,37,13, 9	
		1,22,59,40,20, 6,39,28		6, 4
58″	45, 3, 8,42,14, 1,44,36,10, 5		3,17,37,19,13	
		1,22,59,37, 2,29,20,15		
60″	45, 3,10, 5,13,38,47, 5,30,20			
exact	45, 3,10, 5,13,38,47, 5,22,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°40′ 0″	45, 3,10, 5,13,38,47, 5,22,23	1,22,59,33,44,51,54, 8		
2″	45, 3,11,28,13,12,31,57,16,31	1,22,59,30,27,14,22,44	3,17,37,31,24	6, 4
4″	45, 3,12,51,12,42,59,11,39,15	1,22,59,27, 9,36,45,16	3,17,37,37,28	6, 4
6″	45, 3,14,14,12,10, 8,48,24,31	1,22,59,23,51,59, 1,44	3,17,37,43,32	6, 4
8″	45, 3,15,37,11,34, 0,47,26,15	1,22,59,20,34,21,12, 8	3,17,37,49,36	6, 4
10″	45, 3,17, 0,10,54,35, 8,38,23	1,22,59,17,16,43,16,28	3,17,37,55,40	6, 4
12″	45, 3,18,23,10,11,51,51,54,51	1,22,59,13,59, 5,14,44	3,17,38, 1,44	6, 4
14″	45, 3,19,46, 9,25,50,57, 9,35	1,22,59,10,41,27, 6,56	3,17,38, 7,48	6, 4
16″	45, 3,21, 9, 8,36,32,24,16,31	1,22,59, 7,23,48,53, 4	3,17,38,13,52	6, 4
18″	45, 3,22,32, 7,43,56,13, 9,35	1,22,59, 4, 6,10,33, 8	3,17,38,19,56	6, 4
20″	45, 3,23,55, 6,48, 2,23,42,43	1,22,59, 0,48,32, 7, 8	3,17,38,26, 0	6, 4
22″	45, 3,25,18, 5,48,50,55,49,51	1,22,58,57,30,53,35, 4	3,17,38,32, 4	6, 4
24″	45, 3,26,41, 4,46,21,49,24,55	1,22,58,54,13,14,56,56	3,17,38,38, 8	6, 4
26″	45, 3,28, 4, 3,40,35, 4,21,51	1,22,58,50,55,36,12,44	3,17,38,44,12	6, 4
28″	45, 3,29,27, 2,31,30,40,34,35	1,22,58,47,37,57,22,28	3,17,38,50,16	6, 4
30″	45, 3,30,50, 1,19, 8,37,57, 3	1,22,58,44,20,18,26, 8	3,17,38,56,20	6, 4
32″	45, 3,32,13, 0, 3,28,56,23,11	1,22,58,41, 2,39,23,44	3,17,39, 2,24	6, 4
34″	45, 3,33,35,58,44,31,35,46,55	1,22,58,37,45, 0,15,16	3,17,39, 8,28	6, 4
36″	45, 3,34,58,57,22,16,36, 2,11	1,22,58,34,27,21, 0,44	3,17,39,14,32	6, 4
38″	45, 3,36,21,55,56,43,57, 2,55	1,22,58,31, 9,41,40, 8	3,17,39,20,36	6, 4
40″	45, 3,37,44,54,27,53,38,43, 3	1,22,58,27,52, 2,13,28	3,17,39,26,40	6, 4
42″	45, 3,39, 7,52,55,45,40,56,31	1,22,58,24,34,22,40,44	3,17,39,32,44	6, 4
44″	45, 3,40,30,51,20,20, 3,37,15	1,22,58,21,16,43, 1,56	3,17,39,38,48	6, 4
46″	45, 3,41,53,49,41,36,46,39,11	1,22,58,17,59, 3,17, 4	3,17,39,44,52	6, 4
48″	45, 3,43,16,47,59,35,49,56,15	1,22,58,14,41,23,26, 8	3,17,39,50,56	6, 4
50″	45, 3,44,39,46,14,17,13,22,23	1,22,58,11,23,43,29, 8	3,17,39,57, 0	6, 4
52″	45, 3,46, 2,44,25,40,56,51,31	1,22,58, 8, 6, 3,26, 4	3,17,40, 3, 4	6, 4
54″	45, 3,47,25,42,33,47, 0,17,35	1,22,58, 4,48,23,16,56	3,17,40, 9, 8	6, 4
56″	45, 3,48,48,40,38,35,23,34,31	1,22,58, 1,30,43, 1,44	3,17,40,15,12	6, 4
58″	45, 3,50,11,38,40, 6, 6,36,15	1,22,57,58,13, 2,40,28	3,17,40,21,16	
60″	45, 3,51,34,36,38,19, 9,16,43			
exact	45, 3,51,34,36,38,19, 9,15,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°41′ 0″	45, 3,51,34,36,38,19, 9,15,56	1,22,57,54,55,22,13, 7		
2″	45, 3,52,57,34,33,14,31,29, 3	1,22,57,51,37,41,39,43	3,17,40,33,24	6, 4
4″	45, 3,54,20,32,24,52,13, 8,46	1,22,57,48,20, 1, 0,15	3,17,40,39,28	6, 4
6″	45, 3,55,43,30,13,12,14, 9, 1	1,22,57,45, 2,20,14,43	3,17,40,45,32	6, 4
8″	45, 3,57, 6,27,58,14,34,23,44	1,22,57,41,44,39,23, 7	3,17,40,51,36	6, 4
10″	45, 3,58,29,25,39,59,13,46,51	1,22,57,38,26,58,25,27	3,17,40,57,40	6, 4
12″	45, 3,59,52,23,18,26,12,12,18	1,22,57,35, 9,17,21,43	3,17,41, 3,44	6, 4
14″	45, 4, 1,15,20,53,35,29,34, 1	1,22,57,31,51,36,11,55	3,17,41, 9,48	6, 4
16″	45, 4, 2,38,18,25,27, 5,45,56	1,22,57,28,33,54,56, 3	3,17,41,15,52	6, 4
18″	45, 4, 4, 1,15,54, 1, 0,41,59	1,22,57,25,16,13,34, 7	3,17,41,21,56	6, 4
20″	45, 4, 5,24,13,19,17,14,16, 6	1,22,57,21,58,32, 6, 7	3,17,41,28, 0	6, 4
22″	45, 4, 6,47,10,41,15,46,22,13	1,22,57,18,40,50,32, 3	3,17,41,34, 4	6, 4
24″	45, 4, 8,10, 7,59,56,36,54,16	1,22,57,15,23, 8,51,55	3,17,41,40, 8	6, 4
26″	45, 4, 9,33, 5,15,19,45,46,11	1,22,57,12, 5,27, 5,43	3,17,41,46,12	6, 4
28″	45, 4,10,56, 2,27,25,12,51,54	1,22,57, 8,47,45,13,27	3,17,41,52,16	6, 4
30″	45, 4,12,18,59,36,12,58, 5,21	1,22,57, 5,30, 3,15, 7	3,17,41,58,20	6, 4
32″	45, 4,13,41,56,41,43, 1,20,28	1,22,57, 2,12,21,10,43	3,17,42, 4,24	6, 4
34″	45, 4,15, 4,53,43,55,22,31,11	1,22,56,58,54,39, 0,15	3,17,42,10,28	6, 4
36″	45, 4,16,27,50,42,50, 1,31,26	1,22,56,55,36,56,43,43	3,17,42,16,32	6, 4
38″	45, 4,17,50,47,38,26,58,15, 9	1,22,56,52,19,14,21, 7	3,17,42,22,36	6, 4
40″	45, 4,19,13,44,30,46,12,36,16	1,22,56,49, 1,31,52,27	3,17,42,28,40	6, 4
42″	45, 4,20,36,41,19,47,44,28,43	1,22,56,45,43,49,17,43	3,17,42,34,44	6, 4
44″	45, 4,21,59,38, 5,31,33,46,26	1,22,56,42,26, 6,36,55	3,17,42,40,48	6, 4
46″	45, 4,23,22,34,47,57,40,23,21	1,22,56,39, 8,23,50, 3	3,17,42,46,52	6, 4
48″	45, 4,24,45,31,27, 6, 4,13,24	1,22,56,35,50,40,57, 7	3,17,42,52,56	6, 4
50″	45, 4,26, 8,28, 2,56,45,10,31	1,22,56,32,32,57,58, 7	3,17,42,59, 0	6, 4
52″	45, 4,27,31,24,35,29,43, 8,38	1,22,56,29,15,14,53, 3	3,17,43, 5, 4	6, 4
54″	45, 4,28,54,21, 4,44,58, 1,41	1,22,56,25,57,31,41,55	3,17,43,11, 8	6, 4
56″	45, 4,30,17,17,30,42,29,43,36	1,22,56,22,39,48,24,43	3,17,43,17,12	6, 4
58″	45, 4,31,40,13,53,22,18, 8,19	1,22,56,19,22, 5, 1,27	3,17,43,23,16	
60″	45, 4,33, 3,10,12,44,23, 9,46			
exact	45, 4,33, 3,10,12,44,23,20, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°42′ 0″	45, 4,33, 3,10,12,44,23,20, 6	1,22,56,16, 4,21,33,11		
2″	45, 4,34,26, 6,28,48,44,53,17	1,22,56,12,46,37,57,52	3,17,43,35,19	
4″	45, 4,35,49, 2,41,35,22,51, 9	1,22,56, 9,28,54,16,29	3,17,43,41,23	6, 4
6″	45, 4,37,11,58,51, 4,17, 7,38	1,22,56, 6,11,10,29, 2	3,17,43,47,27	6, 4
8″	45, 4,38,34,54,57,15,27,36,40	1,22,56, 2,53,26,35,31	3,17,43,53,31	6, 4
10″	45, 4,39,57,51, 0, 8,54,12,11	1,22,55,59,35,42,35,56	3,17,43,59,35	6, 4
12″	45, 4,41,20,46,59,44,36,48, 7	1,22,55,56,17,58,30,17	3,17,44, 5,39	6, 4
14″	45, 4,42,43,42,56, 2,35,18,24	1,22,55,53, 0,14,18,34	3,17,44,11,43	6, 4
16″	45, 4,44, 6,38,49, 2,49,36,58	1,22,55,49,42,30, 0,47	3,17,44,17,47	6, 4
18″	45, 4,45,29,34,38,45,19,37,45	1,22,55,46,24,45,36,56	3,17,44,23,51	6, 4
20″	45, 4,46,52,30,25,10, 5,14,41	1,22,55,43, 7, 1, 7, 1	3,17,44,29,55	6, 4
22″	45, 4,48,15,26, 8,17, 6,21,42	1,22,55,39,49,16,31, 2	3,17,44,35,59	6, 4
24″	45, 4,49,38,21,48, 6,22,52,44	1,22,55,36,31,31,48,59	3,17,44,42, 3	6, 4
26″	45, 4,51, 1,17,24,37,54,41,43	1,22,55,33,13,47, 0,52	3,17,44,48, 7	6, 4
28″	45, 4,52,24,12,57,51,41,42,35	1,22,55,29,56, 2, 6,41	3,17,44,54,11	6, 4
30″	45, 4,53,47, 8,27,47,43,49,16	1,22,55,26,38,17, 6,26	3,17,45, 0,15	6, 4
32″	45, 4,55,10, 3,54,26, 0,55,42	1,22,55,23,20,32, 0, 7	3,17,45, 6,19	6, 4
34″	45, 4,56,32,59,17,46,32,55,49	1,22,55,20, 2,46,47,44	3,17,45,12,23	6, 4
36″	45, 4,57,55,54,37,49,19,43,33	1,22,55,16,45, 1,29,17	3,17,45,18,27	6, 4
38″	45, 4,59,18,49,54,34,21,12,50	1,22,55,13,27,16, 4,46	3,17,45,24,31	6, 4
40″	45, 5, 0,41,45, 8, 1,37,17,36	1,22,55,10, 9,30,34,11	3,17,45,30,35	6, 4
42″	45, 5, 2, 4,40,18,11, 7,51,47	1,22,55, 6,51,44,57,32	3,17,45,36,39	6, 4
44″	45, 5, 3,27,35,25, 2,52,49,19	1,22,55, 3,33,59,14,49	3,17,45,42,43	6, 4
46″	45, 5, 4,50,30,28,36,52, 4, 8	1,22,55, 0,16,13,26, 2	3,17,45,48,47	6, 4
48″	45, 5, 6,13,25,28,53, 5,30,10	1,22,54,56,58,27,31,11	3,17,45,54,51	6, 4
50″	45, 5, 7,36,20,25,51,33, 1,21	1,22,54,53,40,41,30,16	3,17,46, 0,55	6, 4
52″	45, 5, 8,59,15,19,32,14,31,37	1,22,54,50,22,55,23,17	3,17,46, 6,59	6, 4
54″	45, 5,10,22,10, 9,55, 9,54,54	1,22,54,47, 5, 9,10,14	3,17,46,13, 3	6, 4
56″	45, 5,11,45, 4,57, 0,19, 5, 8	1,22,54,43,47,22,51, 7	3,17,46,19, 7	6, 4
58″	45, 5,13, 7,59,40,47,41,56,15	1,22,54,40,29,36,25,56	3,17,46,25,11	
60″	45, 5,14,30,54,21,17,18,22,11			
exact	45, 5,14,30,54,21,17,18,34,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°43′ 0″	45, 5,14,30,54,21,17,18,34,11	1,22,54,37,11,49,56,10		
2″	45, 5,15,53,48,58,29, 8,30,21	1,22,54,33,54, 3,18,58	3,17,46,37,12	
4″	45, 5,17,16,43,32,23,11,49,19	1,22,54,30,36,16,35,42	3,17,46,43,16	6, 4
6″	45, 5,18,39,38, 2,59,28,25, 1	1,22,54,27,18,29,46,22	3,17,46,49,20	6, 4
8″	45, 5,20, 2,32,30,17,58,11,23	1,22,54,24, 0,42,50,58	3,17,46,55,24	6, 4
10″	45, 5,21,25,26,54,18,41, 2,21	1,22,54,20,42,55,49,30	3,17,47, 1,28	6, 4
12″	45, 5,22,48,21,15, 1,36,51,51	1,22,54,17,25, 8,41,58	3,17,47, 7,32	6, 4
14″	45, 5,24,11,15,32,26,45,33,49	1,22,54,14, 7,21,28,22	3,17,47,13,36	6, 4
16″	45, 5,25,34, 9,46,34, 7, 2,11	1,22,54,10,49,34, 8,42	3,17,47,19,40	6, 4
18″	45, 5,26,57, 3,57,23,41,10,53	1,22,54, 7,31,46,42,58	3,17,47,25,44	6, 4
20″	45, 5,28,19,58, 4,55,27,53,51	1,22,54, 4,13,59,11,10	3,17,47,31,48	6, 4
22″	45, 5,29,42,52, 9, 9,27, 5, 1	1,22,54, 0,56,11,33,18	3,17,47,37,52	6, 4
24″	45, 5,31, 5,46,10, 5,38,38,19	1,22,53,57,38,23,49,22	3,17,47,43,56	6, 4
26″	45, 5,32,28,40, 7,44, 2,27,41	1,22,53,54,20,35,59,22	3,17,47,50, 0	6, 4
28″	45, 5,33,51,34, 2, 4,38,27, 3	1,22,53,51, 2,48, 3,18	3,17,47,56, 4	6, 4
30″	45, 5,35,14,27,53, 7,26,30,21	1,22,53,47,45, 0, 1,10	3,17,48, 2, 8	6, 4
32″	45, 5,36,37,21,40,52,26,31,31	1,22,53,44,27,11,52,58	3,17,48, 8,12	6, 4
34″	45, 5,38, 0,15,25,19,38,24,29	1,22,53,41, 9,23,38,42	3,17,48,14,16	6, 4
36″	45, 5,39,23, 9, 6,29, 2, 3,11	1,22,53,37,51,35,18,22	3,17,48,20,20	6, 4
38″	45, 5,40,46, 2,44,20,37,21,33	1,22,53,34,33,46,51,58	3,17,48,26,24	6, 4
40″	45, 5,42, 8,56,18,54,24,13,31	1,22,53,31,15,58,19,30	3,17,48,32,28	6, 4
42″	45, 5,43,31,49,50,10,22,33, 1	1,22,53,27,58, 9,40,58	3,17,48,38,32	6, 4
44″	45, 5,44,54,43,18, 8,32,13,59	1,22,53,24,40,20,56,22	3,17,48,44,36	6, 4
46″	45, 5,46,17,36,42,48,53,10,21	1,22,53,21,22,32, 5,42	3,17,48,50,40	6, 4
48″	45, 5,47,40,30, 4,11,25,16, 3	1,22,53,18, 4,43, 8,58	3,17,48,56,44	6, 4
50″	45, 5,49, 3,23,22,16, 8,25, 1	1,22,53,14,46,54, 6,10	3,17,49, 2,48	6, 4
52″	45, 5,50,26,16,37, 3, 2,31,11	1,22,53,11,29, 4,57,18	3,17,49, 8,52	6, 4
54″	45, 5,51,49, 9,48,32, 7,28,29	1,22,53, 8,11,15,42,22	3,17,49,14,56	6, 4
56″	45, 5,53,12, 2,56,43,23,10,51	1,22,53, 4,53,26,21,22	3,17,49,21, 0	6, 4
58″	45, 5,54,34,56, 1,36,49,32,13	1,22,53, 1,35,36,54,18	3,17,49,27, 4	
60″	45, 5,55,57,49, 3,12,26,26,31			
exact	45, 5,55,57,49, 3,12,26,51,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°44′ 0″	45, 5,55,57,49, 3,12,26,51,45			
		1,22,52,58,17,47,23,52		
2″	45, 5,57,20,42, 1,30,14,15,37		3,17,49,39, 0	
		1,22,52,54,59,57,44,52		6, 4
4″	45, 5,58,43,34,56,30,12, 0,29		3,17,49,45, 4	
		1,22,52,51,42, 7,59,48		6, 4
6″	45, 6, 0, 6,27,48,12,20, 0,17		3,17,49,51, 8	
		1,22,52,48,24,18, 8,40		6, 4
8″	45, 6, 1,29,20,36,36,38, 8,57		3,17,49,57,12	
		1,22,52,45, 6,28,11,28		6, 4
10″	45, 6, 2,52,13,21,43, 6,20,25		3,17,50, 3,16	
		1,22,52,41,48,38, 8,12		6, 4
12″	45, 6, 4,15, 6, 3,31,44,28,37		3,17,50, 9,20	
		1,22,52,38,30,47,58,52		6, 4
14″	45, 6, 5,37,58,42, 2,32,27,29		3,17,50,15,24	
		1,22,52,35,12,57,43,28		6, 4
16″	45, 6, 7, 0,51,17,15,30,10,57		3,17,50,21,28	
		1,22,52,31,55, 7,22, 0		6, 4
18″	45, 6, 8,23,43,49,10,37,32,57		3,17,50,27,32	
		1,22,52,28,37,16,54,28		6, 4
20″	45, 6, 9,46,36,17,47,54,27,25		3,17,50,33,36	
		1,22,52,25,19,26,20,52		6, 4
22″	45, 6,11, 9,28,43, 7,20,48,17		3,17,50,39,40	
		1,22,52,22, 1,35,41,12		6, 4
24″	45, 6,12,32,21, 5, 8,56,29,29		3,17,50,45,44	
		1,22,52,18,43,44,55,28		6, 4
26″	45, 6,13,55,13,23,52,41,24,57		3,17,50,51,48	
		1,22,52,15,25,54, 3,40		6, 4
28″	45, 6,15,18, 5,39,18,35,28,37		3,17,50,57,52	
		1,22,52,12, 8, 3, 5,48		6, 4
30″	45, 6,16,40,57,51,26,38,34,25		3,17,51, 3,56	
		1,22,52, 8,50,12, 1,52		6, 4
32″	45, 6,18, 3,50, 0,16,50,36,17		3,17,51,10, 0	
		1,22,52, 5,32,20,51,52		6, 4
34″	45, 6,19,26,42, 5,49,11,28, 9		3,17,51,16, 4	
		1,22,52, 2,14,29,35,48		6, 4
36″	45, 6,20,49,34, 8, 3,41, 3,57		3,17,51,22, 8	
		1,22,51,58,56,38,13,40		6, 4
38″	45, 6,22,12,26, 7, 0,19,17,37		3,17,51,28,12	
		1,22,51,55,38,46,45,28		6, 4
40″	45, 6,23,35,18, 2,39, 6, 3, 5		3,17,51,34,16	
		1,22,51,52,20,55,11,12		6, 4
42″	45, 6,24,58, 9,55, 0, 1,14,17		3,17,51,40,20	
		1,22,51,49, 3, 3,30,52		6, 4
44″	45, 6,26,21, 1,44, 3, 4,45, 9		3,17,51,46,24	
		1,22,51,45,45,11,44,28		6, 4
46″	45, 6,27,43,53,29,48,16,29,37		3,17,51,52,28	
		1,22,51,42,27,19,52, 0		6, 4
48″	45, 6,29, 6,45,12,15,36,21,37		3,17,51,58,32	
		1,22,51,39, 9,27,53,28		6, 4
50″	45, 6,30,29,36,51,25, 4,15, 5		3,17,52, 4,36	
		1,22,51,35,51,35,48,52		6, 4
52″	45, 6,31,52,28,27,16,40, 3,57		3,17,52,10,40	
		1,22,51,32,33,43,38,12		6, 4
54″	45, 6,33,15,19,59,50,23,42, 9		3,17,52,16,44	
		1,22,51,29,15,51,21,28		6, 4
56″	45, 6,34,38,11,29, 6,15, 3,37		3,17,52,22,48	
		1,22,51,25,57,58,58,40		6, 4
58″	45, 6,36, 1, 2,55, 4,14, 2,17		3,17,52,28,52	
		1,22,51,22,40, 6,29,48		
60″	45, 6,37,23,54,17,44,20,32, 5			
exact	45, 6,37,23,54,17,44,21, 0,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°45′ 0″	45, 6,37,23,54,17,44,21, 0,36			
		1,22,51,19,22,13,58, 6		
2″	45, 6,38,46,45,37, 6,34,58,42		3,17,52,40,46	
		1,22,51,16, 4,21,17,20		6, 3
4″	45, 6,40, 9,36,53,10,56,16, 2		3,17,52,46,49	
		1,22,51,12,46,28,30,31		6, 3
6″	45, 6,41,32,28, 5,57,24,46,33		3,17,52,52,52	
		1,22,51, 9,28,35,37,39		6, 3
8″	45, 6,42,55,19,15,26, 0,24,12		3,17,52,58,55	
		1,22,51, 6,10,42,38,44		6, 3
10″	45, 6,44,18,10,21,36,43, 2,56		3,17,53, 4,58	
		1,22,51, 2,52,49,33,46		6, 3
12″	45, 6,45,41, 1,24,29,32,36,42		3,17,53,11, 1	
		1,22,50,59,34,56,22,45		6, 3
14″	45, 6,47, 3,52,24, 4,28,59,27		3,17,53,17, 4	
		1,22,50,56,17, 3, 5,41		6, 3
16″	45, 6,48,26,43,20,21,32, 5, 8		3,17,53,23, 7	
		1,22,50,52,59, 9,42,34		6, 3
18″	45, 6,49,49,34,13,20,41,47,42		3,17,53,29,10	
		1,22,50,49,41,16,13,24		6, 3
20″	45, 6,51,12,25, 3, 1,58, 1, 6		3,17,53,35,13	
		1,22,50,46,23,22,38,11		6, 3
22″	45, 6,52,35,15,49,25,20,39,17		3,17,53,41,16	
		1,22,50,43, 5,28,56,55		6, 3
24″	45, 6,53,58, 6,32,30,49,36,12		3,17,53,47,19	
		1,22,50,39,47,35, 9,36		6, 3
26″	45, 6,55,20,57,12,18,24,45,48		3,17,53,53,22	
		1,22,50,36,29,41,16,14		6, 3
28″	45, 6,56,43,47,48,48, 6, 2, 2		3,17,53,59,25	
		1,22,50,33,11,47,16,49		6, 3
30″	45, 6,58, 6,38,21,59,53,18,51		3,17,54, 5,28	
		1,22,50,29,53,53,11,21		6, 3
32″	45, 6,59,29,28,51,53,46,30,12		3,17,54,11,31	
		1,22,50,26,35,58,59,50		6, 3
34″	45, 7, 0,52,19,18,29,45,30, 2		3,17,54,17,34	
		1,22,50,23,18, 4,42,16		6, 3
36″	45, 7, 2,15, 9,41,47,50,12,18		3,17,54,23,37	
		1,22,50,20, 0,10,18,39		6, 3
38″	45, 7, 3,38, 0, 1,48, 0,30,57		3,17,54,29,40	
		1,22,50,16,42,15,48,59		6, 3
40″	45, 7, 5, 0,50,18,30,16,19,56		3,17,54,35,43	
		1,22,50,13,24,21,13,16		6, 3
42″	45, 7, 6,23,40,31,54,37,33,12		3,17,54,41,46	
		1,22,50,10, 6,26,31,30		6, 3
44″	45, 7, 7,46,30,42, 1, 4, 4,42		3,17,54,47,49	
		1,22,50, 6,48,31,43,41		6, 3
46″	45, 7, 9, 9,20,48,49,35,48,23		3,17,54,53,52	
		1,22,50, 3,30,36,49,49		6, 3
48″	45, 7,10,32,10,52,20,12,38,12		3,17,54,59,55	
		1,22,50, 0,12,41,49,54		6, 3
50″	45, 7,11,55, 0,52,32,54,28, 6		3,17,55, 5,58	
		1,22,49,56,54,46,43,56		6, 3
52″	45, 7,13,17,50,49,27,41,12, 2		3,17,55,12, 1	
		1,22,49,53,36,51,31,55		6, 3
54″	45, 7,14,40,40,43, 4,32,43,57		3,17,55,18, 4	
		1,22,49,50,18,56,13,51		6, 3
56″	45, 7,16, 3,30,33,23,28,57,48		3,17,55,24, 7	
		1,22,49,47, 1, 0,49,44		6, 3
58″	45, 7,17,26,20,20,24,29,47,32		3,17,55,30,10	
		1,22,49,43,43, 5,19,34		
60″	45, 7,18,49,10, 4, 7,35, 7, 6			
exact	45, 7,18,49,10, 4, 7,34,42,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°46′ 0″	45, 7,18,49,10, 4, 7,34,42,42	1,22,49,40,25, 9,40,40		
2″	45, 7,20,11,59,44,32,44,23,22	1,22,49,37, 7,13,58,13	3,17,55,42,27	6, 3
4″	45, 7,21,34,49,21,39,58,21,35	1,22,49,33,49,18, 9,43	3,17,55,48,30	6, 3
6″	45, 7,22,57,38,55,29,16,31,18	1,22,49,30,31,22,15,10	3,17,55,54,33	6, 3
8″	45, 7,24,20,28,26, 0,38,46,28	1,22,49,27,13,26,14,34	3,17,56, 0,36	6, 3
10″	45, 7,25,43,17,53,14, 5, 1, 2	1,22,49,23,55,30, 7,55	3,17,56, 6,39	6, 3
12″	45, 7,27, 6, 7,17, 9,35, 8,57	1,22,49,20,37,33,55,13	3,17,56,12,42	6, 3
14″	45, 7,28,28,56,37,47, 9, 4,10	1,22,49,17,19,37,36,28	3,17,56,18,45	6, 3
16″	45, 7,29,51,45,55, 6,46,40,38	1,22,49,14, 1,41,11,40	3,17,56,24,48	6, 3
18″	45, 7,31,14,35, 9, 8,27,52,18	1,22,49,10,43,44,40,49	3,17,56,30,51	6, 3
20″	45, 7,32,37,24,19,52,12,33, 7	1,22,49, 7,25,48, 3,55	3,17,56,36,54	6, 3
22″	45, 7,34, 0,13,27,18, 0,37, 2	1,22,49, 4, 7,51,20,58	3,17,56,42,57	6, 3
24″	45, 7,35,23, 2,31,25,51,58, 0	1,22,49, 0,49,54,31,58	3,17,56,49, 0	6, 3
26″	45, 7,36,45,51,32,15,46,29,58	1,22,48,57,31,57,36,55	3,17,56,55, 3	6, 3
28″	45, 7,38, 8,40,29,47,44, 6,53	1,22,48,54,14, 0,35,49	3,17,57, 1, 6	6, 3
30″	45, 7,39,31,29,24, 1,44,42,42	1,22,48,50,56, 3,28,40	3,17,57, 7, 9	6, 3
32″	45, 7,40,54,18,14,57,48,11,22	1,22,48,47,38, 6,15,28	3,17,57,13,12	6, 3
34″	45, 7,42,17, 7, 2,35,54,26,50	1,22,48,44,20, 8,56,13	3,17,57,19,15	6, 3
36″	45, 7,43,39,55,46,56, 3,23, 3	1,22,48,41, 2,11,30,55	3,17,57,25,18	6, 3
38″	45, 7,45, 2,44,27,58,14,53,58	1,22,48,37,44,13,59,34	3,17,57,31,21	6, 3
40″	45, 7,46,25,33, 5,42,28,53,32	1,22,48,34,26,16,22,10	3,17,57,37,24	6, 3
42″	45, 7,47,48,21,40, 8,45,15,42	1,22,48,31, 8,18,38,43	3,17,57,43,27	6, 3
44″	45, 7,49,11,10,11,17, 3,54,25	1,22,48,27,50,20,49,13	3,17,57,49,30	6, 3
46″	45, 7,50,33,58,39, 7,24,43,38	1,22,48,24,32,22,53,40	3,17,57,55,33	6, 3
48″	45, 7,51,56,47, 3,39,47,37,18	1,22,48,21,14,24,52, 4	3,17,58, 1,36	6, 3
50″	45, 7,53,19,35,24,54,12,29,22	1,22,48,17,56,26,44,25	3,17,58, 7,39	6, 3
52″	45, 7,54,42,23,42,50,39,13,47	1,22,48,14,38,28,30,43	3,17,58,13,42	6, 3
54″	45, 7,56, 5,11,57,29, 7,44,30	1,22,48,11,20,30,10,58	3,17,58,19,45	6, 3
56″	45, 7,57,28, 0, 8,49,37,55,28	1,22,48, 8, 2,31,45,10	3,17,58,25,48	6, 3
58″	45, 7,58,50,48,16,52, 9,40,38	1,22,48, 4,44,33,13,19	3,17,58,31,51	
60″	45, 8, 0,13,36,21,36,42,53,57			
exact	45, 8, 0,13,36,21,36,42,34,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°47′ 0″	45, 8, 0,13,36,21,36,42,34,20			
		1,22,48, 1,26,34,33,23		
2″	45, 8, 1,36,24,23, 3,17, 7,43		3,17,58,44, 5	
		1,22,47,58, 8,35,49,18		6, 3
4″	45, 8, 2,59,12,21,11,52,57, 1		3,17,58,50, 8	
		1,22,47,54,50,36,59,10		6, 3
6″	45, 8, 4,22, 0,16, 2,29,56,11		3,17,58,56,11	
		1,22,47,51,32,38, 2,59		6, 3
8″	45, 8, 5,44,48, 7,35, 7,59,10		3,17,59, 2,14	
		1,22,47,48,14,39, 0,45		6, 3
10″	45, 8, 7, 7,35,55,49,46,59,55		3,17,59, 8,17	
		1,22,47,44,56,39,52,28		6, 3
12″	45, 8, 8,30,23,40,46,26,52,23		3,17,59,14,20	
		1,22,47,41,38,40,38, 8		6, 3
14″	45, 8, 9,53,11,22,25, 7,30,31		3,17,59,20,23	
		1,22,47,38,20,41,17,45		6, 3
16″	45, 8,11,15,59, 0,45,48,48,16		3,17,59,26,26	
		1,22,47,35, 2,41,51,19		6, 3
18″	45, 8,12,38,46,35,48,30,39,35		3,17,59,32,29	
		1,22,47,31,44,42,18,50		6, 3
20″	45, 8,14, 1,34, 7,33,12,58,25		3,17,59,38,32	
		1,22,47,28,26,42,40,18		6, 3
22″	45, 8,15,24,21,35,59,55,38,43		3,17,59,44,35	
		1,22,47,25, 8,42,55,43		6, 3
24″	45, 8,16,47, 9, 1, 8,38,34,26		3,17,59,50,38	
		1,22,47,21,50,43, 5, 5		6, 3
26″	45, 8,18, 9,56,22,59,21,39,31		3,17,59,56,41	
		1,22,47,18,32,43, 8,24		6, 3
28″	45, 8,19,32,43,41,32, 4,47,55		3,18, 0, 2,44	
		1,22,47,15,14,43, 5,40		6, 3
30″	45, 8,20,55,30,56,46,47,53,35		3,18, 0, 8,47	
		1,22,47,11,56,42,56,53		6, 3
32″	45, 8,22,18,18, 8,43,30,50,28		3,18, 0,14,50	
		1,22,47, 8,38,42,42, 3		6, 3
34″	45, 8,23,41, 5,17,22,13,32,31		3,18, 0,20,53	
		1,22,47, 5,20,42,21,10		6, 3
36″	45, 8,25, 3,52,22,42,55,53,41		3,18, 0,26,56	
		1,22,47, 2, 2,41,54,14		6, 3
38″	45, 8,26,26,39,24,45,37,47,55		3,18, 0,32,59	
		1,22,46,58,44,41,21,15		6, 3
40″	45, 8,27,49,26,23,30,19, 9,10		3,18, 0,39, 2	
		1,22,46,55,26,40,42,13		6, 3
42″	45, 8,29,12,13,18,56,59,51,23		3,18, 0,45, 5	
		1,22,46,52, 8,39,57, 8		6, 3
44″	45, 8,30,35, 0,11, 5,39,48,31		3,18, 0,51, 8	
		1,22,46,48,50,39, 6, 0		6, 3
46″	45, 8,31,57,46,59,56,18,54,31		3,18, 0,57,11	
		1,22,46,45,32,38, 8,49		6, 3
48″	45, 8,33,20,33,45,28,57, 3,20		3,18, 1, 3,14	
		1,22,46,42,14,37, 5,35		6, 3
50″	45, 8,34,43,20,27,43,34, 8,55		3,18, 1, 9,17	
		1,22,46,38,56,35,56,18		6, 3
52″	45, 8,36, 6, 7, 6,40,10, 5,13		3,18, 1,15,20	
		1,22,46,35,38,34,40,58		6, 3
54″	45, 8,37,28,53,42,18,44,46,11		3,18, 1,21,23	
		1,22,46,32,20,33,19,35		6, 3
56″	45, 8,38,51,40,14,39,18, 5,46		3,18, 1,27,26	
		1,22,46,29, 2,31,52, 9		6, 3
58″	45, 8,40,14,26,43,41,49,57,55		3,18, 1,33,29	
		1,22,46,25,44,30,18,40		
60″	45, 8,41,37,13, 9,26,20,16,35			
exact	45, 8,41,37,13, 9,26,20, 6, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°48′ 0″	45, 8,41,37,13, 9,26,20, 6, 1			
		1,22,46,22,26,28,38, 2		
2″	45, 8,42,59,59,31,52,48,44, 3		3,18, 1,45,39	
		1,22,46,19, 8,26,52,23		6, 3
4″	45, 8,44,22,45,51, 1,15,36,26		3,18, 1,51,42	
		1,22,46,15,50,25, 0,41		6, 3
6″	45, 8,45,45,32, 6,51,40,37, 7		3,18, 1,57,45	
		1,22,46,12,32,23, 2,56		6, 3
8″	45, 8,47, 8,18,19,24, 3,40, 3		3,18, 2, 3,48	
		1,22,46, 9,14,20,59, 8		6, 3
10″	45, 8,48,31, 4,28,38,24,39,11		3,18, 2, 9,51	
		1,22,46, 5,56,18,49,17		6, 3
12″	45, 8,49,53,50,34,34,43,28,28		3,18, 2,15,54	
		1,22,46, 2,38,16,33,23		6, 3
14″	45, 8,51,16,36,37,13, 0, 1,51		3,18, 2,21,57	
		1,22,45,59,20,14,11,26		6, 3
16″	45, 8,52,39,22,36,33,14,13,17		3,18, 2,28, 0	
		1,22,45,56, 2,11,43,26		6, 3
18″	45, 8,54, 2, 8,32,35,25,56,43		3,18, 2,34, 3	
		1,22,45,52,44, 9, 9,23		6, 3
20″	45, 8,55,24,54,25,19,35, 6, 6		3,18, 2,40, 6	
		1,22,45,49,26, 6,29,17		6, 3
22″	45, 8,56,47,40,14,45,41,35,23		3,18, 2,46, 9	
		1,22,45,46, 8, 3,43, 8		6, 3
24″	45, 8,58,10,26, 0,53,45,18,31		3,18, 2,52,12	
		1,22,45,42,50, 0,50,56		6, 3
26″	45, 8,59,33,11,43,43,46, 9,27		3,18, 2,58,15	
		1,22,45,39,31,57,52,41		6, 3
28″	45, 9, 0,55,57,23,15,44, 2, 8		3,18, 3, 4,18	
		1,22,45,36,13,54,48,23		6, 3
30″	45, 9, 2,18,42,59,29,38,50,31		3,18, 3,10,21	
		1,22,45,32,55,51,38, 2		6, 3
32″	45, 9, 3,41,28,32,25,30,28,33		3,18, 3,16,24	
		1,22,45,29,37,48,21,38		6, 3
34″	45, 9, 5, 4,14, 2, 3,18,50,11		3,18, 3,22,27	
		1,22,45,26,19,44,59,11		6, 3
36″	45, 9, 6,26,59,28,23, 3,49,22		3,18, 3,28,30	
		1,22,45,23, 1,41,30,41		6, 3
38″	45, 9, 7,49,44,51,24,45,20, 3		3,18, 3,34,33	
		1,22,45,19,43,37,56, 8		6, 3
40″	45, 9, 9,12,30,11, 8,23,16,11		3,18, 3,40,36	
		1,22,45,16,25,34,15,32		6, 3
42″	45, 9,10,35,15,27,33,57,31,43		3,18, 3,46,39	
		1,22,45,13, 7,30,28,53		6, 3
44″	45, 9,11,58, 0,40,41,28, 0,36		3,18, 3,52,42	
		1,22,45, 9,49,26,36,11		6, 3
46″	45, 9,13,20,45,50,30,54,36,47		3,18, 3,58,45	
		1,22,45, 6,31,22,37,26		6, 3
48″	45, 9,14,43,30,57, 2,17,14,13		3,18, 4, 4,48	
		1,22,45, 3,13,18,32,38		6, 3
50″	45, 9,16, 6,16, 0,15,35,46,51		3,18, 4,10,51	
		1,22,44,59,55,14,21,47		6, 3
52″	45, 9,17,29, 1, 0,10,50, 8,38		3,18, 4,16,54	
		1,22,44,56,37,10, 4,53		6, 3
54″	45, 9,18,51,45,56,48, 0,13,31		3,18, 4,22,57	
		1,22,44,53,19, 5,41,56		6, 3
56″	45, 9,20,14,30,50, 7, 5,55,27		3,18, 4,29, 0	
		1,22,44,50, 1, 1,12,56		6, 3
58″	45, 9,21,37,15,40, 8, 7, 8,23		3,18, 4,35, 3	
		1,22,44,46,42,56,37,53		
60″	45, 9,23, 0, 0,26,51, 3,46,16			
exact	45, 9,23, 0, 0,26,51, 3,42,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°49′ 0″	45, 9,23, 0, 0,26,51, 3,42,33			
		1,22,44,43,24,51,56,28		
2″	45, 9,24,22,45,10,15,55,39, 1		3,18, 4,47,10	
		1,22,44,40, 6,47, 9,18		6, 3
4″	45, 9,25,45,29,50,22,42,48,19		3,18, 4,53,13	
		1,22,44,36,48,42,16, 5		6, 3
6″	45, 9,27, 8,14,27,11,25, 4,24		3,18, 4,59,16	
		1,22,44,33,30,37,16,49		6, 3
8″	45, 9,28,30,59, 0,42, 2,21,13		3,18, 5, 5,19	
		1,22,44,30,12,32,11,30		6, 3
10″	45, 9,29,53,43,30,54,34,32,43		3,18, 5,11,22	
		1,22,44,26,54,27, 0, 8		6, 3
12″	45, 9,31,16,27,57,49, 1,32,51		3,18, 5,17,25	
		1,22,44,23,36,21,42,43		6, 3
14″	45, 9,32,39,12,21,25,23,15,34		3,18, 5,23,28	
		1,22,44,20,18,16,19,15		6, 3
16″	45, 9,34, 1,56,41,43,39,34,49		3,18, 5,29,31	
		1,22,44,17, 0,10,49,44		6, 3
18″	45, 9,35,24,40,58,43,50,24,33		3,18, 5,35,34	
		1,22,44,13,42, 5,14,10		6, 3
20″	45, 9,36,47,25,12,25,55,38,43		3,18, 5,41,37	
		1,22,44,10,23,59,32,33		6, 3
22″	45, 9,38,10, 9,22,49,55,11,16		3,18, 5,47,40	
		1,22,44, 7, 5,53,44,53		6, 3
24″	45, 9,39,32,53,29,55,48,56, 9		3,18, 5,53,43	
		1,22,44, 3,47,47,51,10		6, 3
26″	45, 9,40,55,37,33,43,36,47,19		3,18, 5,59,46	
		1,22,44, 0,29,41,51,24		6, 3
28″	45, 9,42,18,21,34,13,18,38,43		3,18, 6, 5,49	
		1,22,43,57,11,35,45,35		6, 3
30″	45, 9,43,41, 5,31,24,54,24,18		3,18, 6,11,52	
		1,22,43,53,53,29,33,43		6, 3
32″	45, 9,45, 3,49,25,18,23,58, 1		3,18, 6,17,55	
		1,22,43,50,35,23,15,48		6, 3
34″	45, 9,46,26,33,15,53,47,13,49		3,18, 6,23,58	
		1,22,43,47,17,16,51,50		6, 3
36″	45, 9,47,49,17, 3,11, 4, 5,39		3,18, 6,30, 1	
		1,22,43,43,59,10,21,49		6, 3
38″	45, 9,49,12, 0,47,10,14,27,28		3,18, 6,36, 4	
		1,22,43,40,41, 3,45,45		6, 3
40″	45, 9,50,34,44,27,51,18,13,13		3,18, 6,42, 7	
		1,22,43,37,22,57, 3,38		6, 3
42″	45, 9,51,57,28, 5,14,15,16,51		3,18, 6,48,10	
		1,22,43,34, 4,50,15,28		6, 3
44″	45, 9,53,20,11,39,19, 5,32,19		3,18, 6,54,13	
		1,22,43,30,46,43,21,15		6, 3
46″	45, 9,54,42,55,10, 5,48,53,34		3,18, 7, 0,16	
		1,22,43,27,28,36,20,59		6, 3
48″	45, 9,56, 5,38,37,34,25,14,33		3,18, 7, 6,19	
		1,22,43,24,10,29,14,40		6, 3
50″	45, 9,57,28,22, 1,44,54,29,13		3,18, 7,12,22	
		1,22,43,20,52,22, 2,18		6, 3
52″	45, 9,58,51, 5,22,37,16,31,31		3,18, 7,18,25	
		1,22,43,17,34,14,43,53		6, 3
54″	45,10, 0,13,48,40,11,31,15,24		3,18, 7,24,28	
		1,22,43,14,16, 7,19,25		6, 3
56″	45,10, 1,36,31,54,27,38,34,49		3,18, 7,30,31	
		1,22,43,10,57,59,48,54		6, 3
58″	45,10, 2,59,15, 5,25,38,23,43		3,18, 7,36,34	
		1,22,43, 7,39,52,12,20		
60″	45,10, 4,21,58,13, 5,30,36, 3			
exact	45,10, 4,21,58,13, 5,30,43, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°50′ 0″	45,10, 4,21,58,13, 5,30,43, 0			
		1,22,43, 4,21,44,30,27		
2″	45,10, 5,44,41,17,27,15,13,27		3,18, 7,48,37	
		1,22,43, 1, 3,36,41,50		6, 3
4″	45,10, 7, 7,24,18,30,51,55,17		3,18, 7,54,40	
		1,22,42,57,45,28,47,10		6, 3
6″	45,10, 8,30, 7,16,16,20,42,27		3,18, 8, 0,43	
		1,22,42,54,27,20,46,27		6, 3
8″	45,10, 9,52,50,10,43,41,28,54		3,18, 8, 6,46	
		1,22,42,51, 9,12,39,41		6, 3
10″	45,10,11,15,33, 1,52,54, 8,35		3,18, 8,12,49	
		1,22,42,47,51, 4,26,52		6, 3
12″	45,10,12,38,15,49,43,58,35,27		3,18, 8,18,52	
		1,22,42,44,32,56, 8, 0		6, 3
14″	45,10,14, 0,58,34,16,54,43,27		3,18, 8,24,55	
		1,22,42,41,14,47,43, 5		6, 3
16″	45,10,15,23,41,15,31,42,26,32		3,18, 8,30,58	
		1,22,42,37,56,39,12, 7		6, 3
18″	45,10,16,46,23,53,28,21,38,39		3,18, 8,37, 1	
		1,22,42,34,38,30,35, 6		6, 3
20″	45,10,18, 9, 6,28, 6,52,13,45		3,18, 8,43, 4	
		1,22,42,31,20,21,52, 2		6, 3
22″	45,10,19,31,48,59,27,14, 5,47		3,18, 8,49, 7	
		1,22,42,28, 2,13, 2,55		6, 3
24″	45,10,20,54,31,27,29,27, 8,42		3,18, 8,55,10	
		1,22,42,24,44, 4, 7,45		6, 3
26″	45,10,22,17,13,52,13,31,16,27		3,18, 9, 1,13	
		1,22,42,21,25,55, 6,32		6, 3
28″	45,10,23,39,56,13,39,26,22,59		3,18, 9, 7,16	
		1,22,42,18, 7,45,59,16		6, 3
30″	45,10,25, 2,38,31,47,12,22,15		3,18, 9,13,19	
		1,22,42,14,49,36,45,57		6, 3
32″	45,10,26,25,20,46,36,49, 8,12		3,18, 9,19,22	
		1,22,42,11,31,27,26,35		6, 3
34″	45,10,27,48, 2,58, 8,16,34,47		3,18, 9,25,25	
		1,22,42, 8,13,18, 1,10		6, 3
36″	45,10,29,10,45, 6,21,34,35,57		3,18, 9,31,28	
		1,22,42, 4,55, 8,29,42		6, 3
38″	45,10,30,33,27,11,16,43, 5,39		3,18, 9,37,31	
		1,22,42, 1,36,58,52,11		6, 3
40″	45,10,31,56, 9,12,53,41,57,50		3,18, 9,43,34	
		1,22,41,58,18,49, 8,37		6, 3
42″	45,10,33,18,51,11,12,31, 6,27		3,18, 9,49,37	
		1,22,41,55, 0,39,19, 0		6, 3
44″	45,10,34,41,33, 6,13,10,25,27		3,18, 9,55,40	
		1,22,41,51,42,29,23,20		6, 3
46″	45,10,36, 4,14,57,55,39,48,47		3,18,10, 1,43	
		1,22,41,48,24,19,21,37		6, 3
48″	45,10,37,26,56,46,19,59,10,24		3,18,10, 7,46	
		1,22,41,45, 6, 9,13,51		6, 3
50″	45,10,38,49,38,31,26, 8,24,15		3,18,10,13,49	
		1,22,41,41,47,59, 0, 2		6, 3
52″	45,10,40,12,20,13,14, 7,24,17		3,18,10,19,52	
		1,22,41,38,29,48,40,10		6, 3
54″	45,10,41,35, 1,51,43,56, 4,27		3,18,10,25,55	
		1,22,41,35,11,38,14,15		6, 3
56″	45,10,42,57,43,26,55,34,18,42		3,18,10,31,58	
		1,22,41,31,53,27,42,17		6, 3
58″	45,10,44,20,24,58,49, 2, 0,59		3,18,10,38, 1	
		1,22,41,28,35,17, 4,16		
60″	45,10,45,43, 6,27,24,19, 5,15			
exact	45,10,45,43, 6,27,24,19,20,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°51′ 0″	45,10,45,43, 6,27,24,19,20,47			
		1,22,41,25,17, 6,21,50		
2″	45,10,47, 5,47,52,41,25,42,37		3,18,10,50, 0	
		1,22,41,21,58,55,31,50		6, 3
4″	45,10,48,28,29,14,40,21,14,27		3,18,10,56, 3	
		1,22,41,18,40,44,35,47		6, 3
6″	45,10,49,51,10,33,21, 5,50,14		3,18,11, 2, 6	
		1,22,41,15,22,33,33,41		6, 3
8″	45,10,51,13,51,48,43,39,23,55		3,18,11, 8, 9	
		1,22,41,12, 4,22,25,32		6, 3
10″	45,10,52,36,33, 0,48, 1,49,27		3,18,11,14,12	
		1,22,41, 8,46,11,11,20		6, 3
12″	45,10,53,59,14, 9,34,13, 0,47		3,18,11,20,15	
		1,22,41, 5,27,59,51, 5		6, 3
14″	45,10,55,21,55,15, 2,12,51,52		3,18,11,26,18	
		1,22,41, 2, 9,48,24,47		6, 3
16″	45,10,56,44,36,17,12, 1,16,39		3,18,11,32,21	
		1,22,40,58,51,36,52,26		6, 3
18″	45,10,58, 7,17,16, 3,38, 9, 5		3,18,11,38,24	
		1,22,40,55,33,25,14, 2		6, 3
20″	45,10,59,29,58,11,37, 3,23, 7		3,18,11,44,27	
		1,22,40,52,15,13,29,35		6, 3
22″	45,11, 0,52,39, 3,52,16,52,42		3,18,11,50,30	
		1,22,40,48,57, 1,39, 5		6, 3
24″	45,11, 2,15,19,52,49,18,31,47		3,18,11,56,33	
		1,22,40,45,38,49,42,32		6, 3
26″	45,11, 3,38, 0,38,28, 8,14,19		3,18,12, 2,36	
		1,22,40,42,20,37,39,56		6, 3
28″	45,11, 5, 0,41,20,48,45,54,15		3,18,12, 8,39	
		1,22,40,39, 2,25,31,17		6, 3
30″	45,11, 6,23,21,59,51,11,25,32		3,18,12,14,42	
		1,22,40,35,44,13,16,35		6, 3
32″	45,11, 7,46, 2,35,35,24,42, 7		3,18,12,20,45	
		1,22,40,32,26, 0,55,50		6, 3
34″	45,11, 9, 8,43, 8, 1,25,37,57		3,18,12,26,48	
		1,22,40,29, 7,48,29, 2		6, 3
36″	45,11,10,31,23,37, 9,14, 6,59		3,18,12,32,51	
		1,22,40,25,49,35,56,11		6, 3
38″	45,11,11,54, 4, 2,58,50, 3,10		3,18,12,38,54	
		1,22,40,22,31,23,17,17		6, 3
40″	45,11,13,16,44,25,30,13,20,27		3,18,12,44,57	
		1,22,40,19,13,10,32,20		6, 3
42″	45,11,14,39,24,44,43,23,52,47		3,18,12,51, 0	
		1,22,40,15,54,57,41,20		6, 3
44″	45,11,16, 2, 5, 0,38,21,34, 7		3,18,12,57, 3	
		1,22,40,12,36,44,44,17		6, 3
46″	45,11,17,24,45,13,15, 6,18,24		3,18,13, 3, 6	
		1,22,40, 9,18,31,41,11		6, 3
48″	45,11,18,47,25,22,33,37,59,35		3,18,13, 9, 9	
		1,22,40, 6, 0,18,32, 2		6, 3
50″	45,11,20,10, 5,28,33,56,31,37		3,18,13,15,12	
		1,22,40, 2,42, 5,16,50		6, 3
52″	45,11,21,32,45,31,16, 1,48,27		3,18,13,21,15	
		1,22,39,59,23,51,55,35		6, 3
54″	45,11,22,55,25,30,39,53,44, 2		3,18,13,27,18	
		1,22,39,56, 5,38,28,17		6, 3
56″	45,11,24,18, 5,26,45,32,12,19		3,18,13,33,21	
		1,22,39,52,47,24,54,56		6, 3
58″	45,11,25,40,45,19,32,57, 7,15		3,18,13,39,24	
		1,22,39,49,29,11,15,32		
60″	45,11,27, 3,25, 9, 2, 8,22,47			
exact	45,11,27, 3,25, 9, 2, 8,43,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°52′ 0″	45,11,27, 3,25, 9, 2, 8,43,37			
		1,22,39,46,10,57,32,24		
2″	45,11,28,26, 4,55,13, 6,16, 1		3,18,13,51,20	
		1,22,39,42,52,43,41, 4		6, 3
4″	45,11,29,48,44,38, 5,49,57, 5		3,18,13,57,23	
		1,22,39,39,34,29,43,41		6, 3
6″	45,11,31,11,24,17,40,19,40,46		3,18,14, 3,26	
		1,22,39,36,16,15,40,15		6, 3
8″	45,11,32,34, 3,53,56,35,21, 1		3,18,14, 9,29	
		1,22,39,32,58, 1,30,46		6, 3
10″	45,11,33,56,43,26,54,36,51,47		3,18,14,15,32	
		1,22,39,29,39,47,15,14		6, 3
12″	45,11,35,19,22,56,34,24, 7, 1		3,18,14,21,35	
		1,22,39,26,21,32,53,39		6, 3
14″	45,11,36,42, 2,22,55,57, 0,40		3,18,14,27,38	
		1,22,39,23, 3,18,26, 1		6, 3
16″	45,11,38, 4,41,45,59,15,26,41		3,18,14,33,41	
		1,22,39,19,45, 3,52,20		6, 3
18″	45,11,39,27,21, 5,44,19,19, 1		3,18,14,39,44	
		1,22,39,16,26,49,12,36		6, 3
20″	45,11,40,50, 0,22,11, 8,31,37		3,18,14,45,47	
		1,22,39,13, 8,34,26,49		6, 3
22″	45,11,42,12,39,35,19,42,58,26		3,18,14,51,50	
		1,22,39, 9,50,19,34,59		6, 3
24″	45,11,43,35,18,45,10, 2,33,25		3,18,14,57,53	
		1,22,39, 6,32, 4,37, 6		6, 3
26″	45,11,44,57,57,51,42, 7,10,31		3,18,15, 3,56	
		1,22,39, 3,13,49,33,10		6, 3
28″	45,11,46,20,36,54,55,56,43,41		3,18,15, 9,59	
		1,22,38,59,55,34,23,11		6, 3
30″	45,11,47,43,15,54,51,31, 6,52		3,18,15,16, 2	
		1,22,38,56,37,19, 7, 9		6, 3
32″	45,11,49, 5,54,51,28,50,14, 1		3,18,15,22, 5	
		1,22,38,53,19, 3,45, 4		6, 3
34″	45,11,50,28,33,44,47,53,59, 5		3,18,15,28, 8	
		1,22,38,50, 0,48,16,56		6, 3
36″	45,11,51,51,12,34,48,42,16, 1		3,18,15,34,11	
		1,22,38,46,42,32,42,45		6, 3
38″	45,11,53,13,51,21,31,14,58,46		3,18,15,40,14	
		1,22,38,43,24,17, 2,31		6, 3
40″	45,11,54,36,30, 4,55,32, 1,17		3,18,15,46,17	
		1,22,38,40, 6, 1,16,14		6, 3
42″	45,11,55,59, 8,45, 1,33,17,31		3,18,15,52,20	
		1,22,38,36,47,45,23,54		6, 3
44″	45,11,57,21,47,21,49,18,41,25		3,18,15,58,23	
		1,22,38,33,29,29,25,31		6, 3
46″	45,11,58,44,25,55,18,48, 6,56		3,18,16, 4,26	
		1,22,38,30,11,13,21, 5		6, 3
48″	45,12, 0, 7, 4,25,30, 1,28, 1		3,18,16,10,29	
		1,22,38,26,52,57,10,36		6, 3
50″	45,12, 1,29,42,52,22,58,38,37		3,18,16,16,32	
		1,22,38,23,34,40,54, 4		6, 3
52″	45,12, 2,52,21,15,57,39,32,41		3,18,16,22,35	
		1,22,38,20,16,24,31,29		6, 3
54″	45,12, 4,14,59,36,14, 4, 4,10		3,18,16,28,38	
		1,22,38,16,58, 8, 2,51		6, 3
56″	45,12, 5,37,37,53,12,12, 7, 1		3,18,16,34,41	
		1,22,38,13,39,51,28,10		6, 3
58″	45,12, 7, 0,16, 6,52, 3,35,11		3,18,16,40,44	
		1,22,38,10,21,34,47,26		
60″	45,12, 8,22,54,17,13,38,22,37			
exact	45,12, 8,22,54,17,13,38,53,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°53′ 0″	45,12, 8,22,54,17,13,38,53,30			
		1,22,38, 7, 3,18, 3,58		
2″	45,12, 9,45,32,24,16,56,57,28		3,18,16,52,36	
		1,22,38, 3,45, 1,11,22		6, 2
4″	45,12,11, 8,10,28, 1,58, 8,50		3,18,16,58,38	
		1,22,38, 0,26,44,12,44		6, 2
6″	45,12,12,30,48,28,28,42,21,34		3,18,17, 4,40	
		1,22,37,57, 8,27, 8, 4		6, 2
8″	45,12,13,53,26,25,37, 9,29,38		3,18,17,10,42	
		1,22,37,53,50, 9,57,22		6, 2
10″	45,12,15,16, 4,19,27,19,27, 0		3,18,17,16,44	
		1,22,37,50,31,52,40,38		6, 2
12″	45,12,16,38,42, 9,59,12, 7,38		3,18,17,22,46	
		1,22,37,47,13,35,17,52		6, 2
14″	45,12,18, 1,19,57,12,47,25,30		3,18,17,28,48	
		1,22,37,43,55,17,49, 4		6, 2
16″	45,12,19,23,57,41, 8, 5,14,34		3,18,17,34,50	
		1,22,37,40,37, 0,14,14		6, 2
18″	45,12,20,46,35,21,45, 5,28,48		3,18,17,40,52	
		1,22,37,37,18,42,33,22		6, 2
20″	45,12,22, 9,12,59, 3,48, 2,10		3,18,17,46,54	
		1,22,37,34, 0,24,46,28		6, 2
22″	45,12,23,31,50,33, 4,12,48,38		3,18,17,52,56	
		1,22,37,30,42, 6,53,32		6, 2
24″	45,12,24,54,28, 3,46,19,42,10		3,18,17,58,58	
		1,22,37,27,23,48,54,34		6, 2
26″	45,12,26,17, 5,31,10, 8,36,44		3,18,18, 5, 0	
		1,22,37,24, 5,30,49,34		6, 2
28″	45,12,27,39,42,55,15,39,26,18		3,18,18,11, 2	
		1,22,37,20,47,12,38,32		6, 2
30″	45,12,29, 2,20,16, 2,52, 4,50		3,18,18,17, 4	
		1,22,37,17,28,54,21,28		6, 2
32″	45,12,30,24,57,33,31,46,26,18		3,18,18,23, 6	
		1,22,37,14,10,35,58,22		6, 2
34″	45,12,31,47,34,47,42,22,24,40		3,18,18,29, 8	
		1,22,37,10,52,17,29,14		6, 2
36″	45,12,33,10,11,58,34,39,53,54		3,18,18,35,10	
		1,22,37, 7,33,58,54, 4		6, 2
38″	45,12,34,32,49, 6, 8,38,47,58		3,18,18,41,12	
		1,22,37, 4,15,40,12,52		6, 2
40″	45,12,35,55,26,10,24,19, 0,50		3,18,18,47,14	
		1,22,37, 0,57,21,25,38		6, 2
42″	45,12,37,18, 3,11,21,40,26,28		3,18,18,53,16	
		1,22,36,57,39, 2,32,22		6, 2
44″	45,12,38,40,40, 9, 0,42,58,50		3,18,18,59,18	
		1,22,36,54,20,43,33, 4		6, 2
46″	45,12,40, 3,17, 3,21,26,31,54		3,18,19, 5,20	
		1,22,36,51, 2,24,27,44		6, 2
48″	45,12,41,25,53,54,23,50,59,38		3,18,19,11,22	
		1,22,36,47,44, 5,16,22		6, 2
50″	45,12,42,48,30,42, 7,56,16, 0		3,18,19,17,24	
		1,22,36,44,25,45,58,58		6, 2
52″	45,12,44,11, 7,26,33,42,14,58		3,18,19,23,26	
		1,22,36,41, 7,26,35,32		6, 2
54″	45,12,45,33,44, 7,41, 8,50,30		3,18,19,29,28	
		1,22,36,37,49, 7, 6, 4		6, 2
56″	45,12,46,56,20,45,30,15,56,34		3,18,19,35,30	
		1,22,36,34,30,47,30,34		6, 2
58″	45,12,48,18,57,20, 1, 3,27, 8		3,18,19,41,32	
		1,22,36,31,12,27,49, 2		
60″	45,12,49,41,33,51,13,31,16,10			
exact	45,12,49,41,33,51,13,30,46,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°54′ 0″	45,12,49,41,33,51,13,30,46,52			
		1,22,36,27,54, 7,58,22		
2″	45,12,51, 4,10,19, 7,38,45,14		3,18,19,53,48	
		1,22,36,24,35,48, 4,34		6, 2
4″	45,12,52,26,46,43,43,26,49,48		3,18,19,59,50	
		1,22,36,21,17,28, 4,44		6, 2
6″	45,12,53,49,23, 5, 0,54,54,32		3,18,20, 5,52	
		1,22,36,17,59, 7,58,52		6, 2
8″	45,12,55,11,59,23, 0, 2,53,24		3,18,20,11,54	
		1,22,36,14,40,47,46,58		6, 2
10″	45,12,56,34,35,37,40,50,40,22		3,18,20,17,56	
		1,22,36,11,22,27,29, 2		6, 2
12″	45,12,57,57,11,49, 3,18, 9,24		3,18,20,23,58	
		1,22,36, 8, 4, 7, 5, 4		6, 2
14″	45,12,59,19,47,57, 7,25,14,28		3,18,20,30, 0	
		1,22,36, 4,45,46,35, 4		6, 2
16″	45,13, 0,42,24, 1,53,11,49,32		3,18,20,36, 2	
		1,22,36, 1,27,25,59, 2		6, 2
18″	45,13, 2, 5, 0, 3,20,37,48,34		3,18,20,42, 4	
		1,22,35,58, 9, 5,16,58		6, 2
20″	45,13, 3,27,36, 1,29,43, 5,32		3,18,20,48, 6	
		1,22,35,54,50,44,28,52		6, 2
22″	45,13, 4,50,11,56,20,27,34,24		3,18,20,54, 8	
		1,22,35,51,32,23,34,44		6, 2
24″	45,13, 6,12,47,47,52,51, 9, 8		3,18,21, 0,10	
		1,22,35,48,14, 2,34,34		6, 2
26″	45,13, 7,35,23,36, 6,53,43,42		3,18,21, 6,12	
		1,22,35,44,55,41,28,22		6, 2
28″	45,13, 8,57,59,21, 2,35,12, 4		3,18,21,12,14	
		1,22,35,41,37,20,16, 8		6, 2
30″	45,13,10,20,35, 2,39,55,28,12		3,18,21,18,16	
		1,22,35,38,18,58,57,52		6, 2
32″	45,13,11,43,10,40,58,54,26, 4		3,18,21,24,18	
		1,22,35,35, 0,37,33,34		6, 2
34″	45,13,13, 5,46,15,59,31,59,38		3,18,21,30,20	
		1,22,35,31,42,16, 3,14		6, 2
36″	45,13,14,28,21,47,41,48, 2,52		3,18,21,36,22	
		1,22,35,28,23,54,26,52		6, 2
38″	45,13,15,50,57,16, 5,42,29,44		3,18,21,42,24	
		1,22,35,25, 5,32,44,28		6, 2
40″	45,13,17,13,32,41,11,15,14,12		3,18,21,48,26	
		1,22,35,21,47,10,56, 2		6, 2
42″	45,13,18,36, 8, 2,58,26,10,14		3,18,21,54,28	
		1,22,35,18,28,49, 1,34		6, 2
44″	45,13,19,58,43,21,27,15,11,48		3,18,22, 0,30	
		1,22,35,15,10,27, 1, 4		6, 2
46″	45,13,21,21,18,36,37,42,12,52		3,18,22, 6,32	
		1,22,35,11,52, 4,54,32		6, 2
48″	45,13,22,43,53,48,29,47, 7,24		3,18,22,12,34	
		1,22,35, 8,33,42,41,58		6, 2
50″	45,13,24, 6,28,57, 3,29,49,22		3,18,22,18,36	
		1,22,35, 5,15,20,23,22		6, 2
52″	45,13,25,29, 4, 2,18,50,12,44		3,18,22,24,38	
		1,22,35, 1,56,57,58,44		6, 2
54″	45,13,26,51,39, 4,15,48,11,28		3,18,22,30,40	
		1,22,34,58,38,35,28, 4		6, 2
56″	45,13,28,14,14, 2,54,23,39,32		3,18,22,36,42	
		1,22,34,55,20,12,51,22		6, 2
58″	45,13,29,36,48,58,14,36,30,54		3,18,22,42,44	
		1,22,34,52, 1,50, 8,38		
60″	45,13,30,59,23,50,16,26,39,32			
exact	45,13,30,59,23,50,16,26,14,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°55′ 0″	45,13,30,59,23,50,16,26,14,26			
		1,22,34,48,43,27,17,22		
2″	45,13,32,21,58,38,59,53,31,48		3,18,22,54,57	
		1,22,34,45,25, 4,22,25		6, 2
4″	45,13,33,44,33,24,24,57,54,13		3,18,23, 0,59	
		1,22,34,42, 6,41,21,26		6, 2
6″	45,13,35, 7, 8, 6,31,39,15,39		3,18,23, 7, 1	
		1,22,34,38,48,18,14,25		6, 2
8″	45,13,36,29,42,45,19,57,30, 4		3,18,23,13, 3	
		1,22,34,35,29,55, 1,22		6, 2
10″	45,13,37,52,17,20,49,52,31,26		3,18,23,19, 5	
		1,22,34,32,11,31,42,17		6, 2
12″	45,13,39,14,51,53, 1,24,13,43		3,18,23,25, 7	
		1,22,34,28,53, 8,17,10		6, 2
14″	45,13,40,37,26,21,54,32,30,53		3,18,23,31, 9	
		1,22,34,25,34,44,46, 1		6, 2
16″	45,13,42, 0, 0,47,29,17,16,54		3,18,23,37,11	
		1,22,34,22,16,21, 8,50		6, 2
18″	45,13,43,22,35, 9,45,38,25,44		3,18,23,43,13	
		1,22,34,18,57,57,25,37		6, 2
20″	45,13,44,45, 9,28,43,35,51,21		3,18,23,49,15	
		1,22,34,15,39,33,36,22		6, 2
22″	45,13,46, 7,43,44,23, 9,27,43		3,18,23,55,17	
		1,22,34,12,21, 9,41, 5		6, 2
24″	45,13,47,30,17,56,44,19, 8,48		3,18,24, 1,19	
		1,22,34, 9, 2,45,39,46		6, 2
26″	45,13,48,52,52, 5,47, 4,48,34		3,18,24, 7,21	
		1,22,34, 5,44,21,32,25		6, 2
28″	45,13,50,15,26,11,31,26,20,59		3,18,24,13,23	
		1,22,34, 2,25,57,19, 2		6, 2
30″	45,13,51,38, 0,13,57,23,40, 1		3,18,24,19,25	
		1,22,33,59, 7,32,59,37		6, 2
32″	45,13,53, 0,34,13, 4,56,39,38		3,18,24,25,27	
		1,22,33,55,49, 8,34,10		6, 2
34″	45,13,54,23, 8, 8,54, 5,13,48		3,18,24,31,29	
		1,22,33,52,30,44, 2,41		6, 2
36″	45,13,55,45,42, 1,24,49,16,29		3,18,24,37,31	
		1,22,33,49,12,19,25,10		6, 2
38″	45,13,57, 8,15,50,37, 8,41,39		3,18,24,43,33	
		1,22,33,45,53,54,41,37		6, 2
40″	45,13,58,30,49,36,31, 3,23,16		3,18,24,49,35	
		1,22,33,42,35,29,52, 2		6, 2
42″	45,13,59,53,23,19, 6,33,15,18		3,18,24,55,37	
		1,22,33,39,17, 4,56,25		6, 2
44″	45,14, 1,15,56,58,23,38,11,43		3,18,25, 1,39	
		1,22,33,35,58,39,54,46		6, 2
46″	45,14, 2,38,30,34,22,18, 6,29		3,18,25, 7,41	
		1,22,33,32,40,14,47, 5		6, 2
48″	45,14, 4, 1, 4, 7, 2,32,53,34		3,18,25,13,43	
		1,22,33,29,21,49,33,22		6, 2
50″	45,14, 5,23,37,36,24,22,26,56		3,18,25,19,45	
		1,22,33,26, 3,24,13,37		6, 2
52″	45,14, 6,46,11, 2,27,46,40,33		3,18,25,25,47	
		1,22,33,22,44,58,47,50		6, 2
54″	45,14, 8, 8,44,25,12,45,28,23		3,18,25,31,49	
		1,22,33,19,26,33,16, 1		6, 2
56″	45,14, 9,31,17,44,39,18,44,24		3,18,25,37,51	
		1,22,33,16, 8, 7,38,10		6, 2
58″	45,14,10,53,51, 0,47,26,22,34		3,18,25,43,53	
		1,22,33,12,49,41,54,17		
60″	45,14,12,16,24,13,37, 8,16,51			
exact	45,14,12,16,24,13,37, 8, 1,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°56′ 0″	45,14,12,16,24,13,37, 8, 1,20			
		1,22,33, 9,31,16, 2,50		
2″	45,14,13,38,57,23, 8,24, 4,10		3,18,25,56, 2	
		1,22,33, 6,12,50, 6,48		6, 2
4″	45,14,15, 1,30,29,21,14,10,58		3,18,26, 2, 4	
		1,22,33, 2,54,24, 4,44		6, 2
6″	45,14,16,24, 3,32,15,38,15,42		3,18,26, 8, 6	
		1,22,32,59,35,57,56,38		6, 2
8″	45,14,17,46,36,31,51,36,12,20		3,18,26,14, 8	
		1,22,32,56,17,31,42,30		6, 2
10″	45,14,19, 9, 9,28, 9, 7,54,50		3,18,26,20,10	
		1,22,32,52,59, 5,22,20		6, 2
12″	45,14,20,31,42,21, 8,13,17,10		3,18,26,26,12	
		1,22,32,49,40,38,56, 8		6, 2
14″	45,14,21,54,15,10,48,52,13,18		3,18,26,32,14	
		1,22,32,46,22,12,23,54		6, 2
16″	45,14,23,16,47,57,11, 4,37,12		3,18,26,38,16	
		1,22,32,43, 3,45,45,38		6, 2
18″	45,14,24,39,20,40,14,50,22,50		3,18,26,44,18	
		1,22,32,39,45,19, 1,20		6, 2
20″	45,14,26, 1,53,20, 0, 9,24,10		3,18,26,50,20	
		1,22,32,36,26,52,11, 0		6, 2
22″	45,14,27,24,25,56,27, 1,35,10		3,18,26,56,22	
		1,22,32,33, 8,25,14,38		6, 2
24″	45,14,28,46,58,29,35,26,49,48		3,18,27, 2,24	
		1,22,32,29,49,58,12,14		6, 2
26″	45,14,30, 9,30,59,25,25, 2, 2		3,18,27, 8,26	
		1,22,32,26,31,31, 3,48		6, 2
28″	45,14,31,32, 3,25,56,56, 5,50		3,18,27,14,28	
		1,22,32,23,13, 3,49,20		6, 2
30″	45,14,32,54,35,49, 9,59,55,10		3,18,27,20,30	
		1,22,32,19,54,36,28,50		6, 2
32″	45,14,34,17, 8, 9, 4,36,24, 0		3,18,27,26,32	
		1,22,32,16,36, 9, 2,18		6, 2
34″	45,14,35,39,40,25,40,45,26,18		3,18,27,32,34	
		1,22,32,13,17,41,29,44		6, 2
36″	45,14,37, 2,12,38,58,26,56, 2		3,18,27,38,36	
		1,22,32, 9,59,13,51, 8		6, 2
38″	45,14,38,24,44,48,57,40,47,10		3,18,27,44,38	
		1,22,32, 6,40,46, 6,30		6, 2
40″	45,14,39,47,16,55,38,26,53,40		3,18,27,50,40	
		1,22,32, 3,22,18,15,50		6, 2
42″	45,14,41, 9,48,59, 0,45, 9,30		3,18,27,56,42	
		1,22,32, 0, 3,50,19, 8		6, 2
44″	45,14,42,32,20,59, 4,35,28,38		3,18,28, 2,44	
		1,22,31,56,45,22,16,24		6, 2
46″	45,14,43,54,52,55,49,57,45, 2		3,18,28, 8,46	
		1,22,31,53,26,54, 7,38		6, 2
48″	45,14,45,17,24,49,16,51,52,40		3,18,28,14,48	
		1,22,31,50, 8,25,52,50		6, 2
50″	45,14,46,39,56,39,25,17,45,30		3,18,28,20,50	
		1,22,31,46,49,57,32, 0		6, 2
52″	45,14,48, 2,28,26,15,15,17,30		3,18,28,26,52	
		1,22,31,43,31,29, 5, 8		6, 2
54″	45,14,49,25, 0, 9,46,44,22,38		3,18,28,32,54	
		1,22,31,40,13, 0,32,14		6, 2
56″	45,14,50,47,31,49,59,44,54,52		3,18,28,38,56	
		1,22,31,36,54,31,53,18		6, 2
58″	45,14,52,10, 3,26,54,16,48,10		3,18,28,44,58	
		1,22,31,33,36, 3, 8,20		
60″	45,14,53,32,35, 0,30,19,56,30			
exact	45,14,53,32,35, 0,30,19,47, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°57′ 0″	45,14,53,32,35, 0,30,19,47, 4			
		1,22,31,30,17,34,16,32		
2″	45,14,54,55, 6,30,47,54, 3,36		3,18,28,57, 4	
		1,22,31,26,59, 5,19,28		6, 2
4″	45,14,56,17,37,57,46,59,23, 4		3,18,29, 3, 6	
		1,22,31,23,40,36,16,22		6, 2
6″	45,14,57,40, 9,21,27,35,39,26		3,18,29, 9, 8	
		1,22,31,20,22, 7, 7,14		6, 2
8″	45,14,59, 2,40,41,49,42,46,40		3,18,29,15,10	
		1,22,31,17, 3,37,52, 4		6, 2
10″	45,15, 0,25,11,58,53,20,38,44		3,18,29,21,12	
		1,22,31,13,45, 8,30,52		6, 2
12″	45,15, 1,47,43,12,38,29, 9,36		3,18,29,27,14	
		1,22,31,10,26,39, 3,38		6, 2
14″	45,15, 3,10,14,23, 5, 8,13,14		3,18,29,33,16	
		1,22,31, 7, 8, 9,30,22		6, 2
16″	45,15, 4,32,45,30,13,17,43,36		3,18,29,39,18	
		1,22,31, 3,49,39,51, 4		6, 2
18″	45,15, 5,55,16,34, 2,57,34,40		3,18,29,45,20	
		1,22,31, 0,31,10, 5,44		6, 2
20″	45,15, 7,17,47,34,34, 7,40,24		3,18,29,51,22	
		1,22,30,57,12,40,14,22		6, 2
22″	45,15, 8,40,18,31,46,47,54,46		3,18,29,57,24	
		1,22,30,53,54,10,16,58		6, 2
24″	45,15,10, 2,49,25,40,58,11,44		3,18,30, 3,26	
		1,22,30,50,35,40,13,32		6, 2
26″	45,15,11,25,20,16,16,38,25,16		3,18,30, 9,28	
		1,22,30,47,17,10, 4, 4		6, 2
28″	45,15,12,47,51, 3,33,48,29,20		3,18,30,15,30	
		1,22,30,43,58,39,48,34		6, 2
30″	45,15,14,10,21,47,32,28,17,54		3,18,30,21,32	
		1,22,30,40,40, 9,27, 2		6, 2
32″	45,15,15,32,52,28,12,37,44,56		3,18,30,27,34	
		1,22,30,37,21,38,59,28		6, 2
34″	45,15,16,55,23, 5,34,16,44,24		3,18,30,33,36	
		1,22,30,34, 3, 8,25,52		6, 2
36″	45,15,18,17,53,39,37,25,10,16		3,18,30,39,38	
		1,22,30,30,44,37,46,14		6, 2
38″	45,15,19,40,24,10,22, 2,56,30		3,18,30,45,40	
		1,22,30,27,26, 7, 0,34		6, 2
40″	45,15,21, 2,54,37,48, 9,57, 4		3,18,30,51,42	
		1,22,30,24, 7,36, 8,52		6, 2
42″	45,15,22,25,25, 1,55,46, 5,56		3,18,30,57,44	
		1,22,30,20,49, 5,11, 8		6, 2
44″	45,15,23,47,55,22,44,51,17, 4		3,18,31, 3,46	
		1,22,30,17,30,34, 7,22		6, 2
46″	45,15,25,10,25,40,15,25,24,26		3,18,31, 9,48	
		1,22,30,14,12, 2,57,34		6, 2
48″	45,15,26,32,55,54,27,28,22, 0		3,18,31,15,50	
		1,22,30,10,53,31,41,44		6, 2
50″	45,15,27,55,26, 5,21, 0, 3,44		3,18,31,21,52	
		1,22,30, 7,35, 0,19,52		6, 2
52″	45,15,29,17,56,12,56, 0,23,36		3,18,31,27,54	
		1,22,30, 4,16,28,51,58		6, 2
54″	45,15,30,40,26,17,12,29,15,34		3,18,31,33,56	
		1,22,30, 0,57,57,18, 2		6, 2
56″	45,15,32, 2,56,18,10,26,33,36		3,18,31,39,58	
		1,22,29,57,39,25,38, 4		6, 2
58″	45,15,33,25,26,15,49,52,11,40		3,18,31,46, 0	
		1,22,29,54,20,53,52, 4		
60″	45,15,34,47,56,10,10,46, 3,44			
exact	45,15,34,47,56,10,10,46, 5,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°58′ 0″	45,15,34,47,56,10,10,46, 5,33	1,22,29,51, 2,22, 0,19		
2″	45,15,36,10,26, 1,13, 8, 5,52	1,22,29,47,43,50, 2,17	3,18,31,58, 2	6, 2
4″	45,15,37,32,55,48,56,58, 8, 9	1,22,29,44,25,17,58,13	3,18,32, 4, 4	6, 2
6″	45,15,38,55,25,33,22,16, 6,22	1,22,29,41, 6,45,48, 7	3,18,32,10, 6	6, 2
8″	45,15,40,17,55,14,29, 1,54,29	1,22,29,37,48,13,31,59	3,18,32,16, 8	6, 2
10″	45,15,41,40,24,52,17,15,26,28	1,22,29,34,29,41, 9,49	3,18,32,22,10	6, 2
12″	45,15,43, 2,54,26,46,56,36,17	1,22,29,31,11, 8,41,37	3,18,32,28,12	6, 2
14″	45,15,44,25,23,57,58, 5,17,54	1,22,29,27,52,36, 7,23	3,18,32,34,14	6, 2
16″	45,15,45,47,53,25,50,41,25,17	1,22,29,24,34, 3,27, 7	3,18,32,40,16	6, 2
18″	45,15,47,10,22,50,24,44,52,24	1,22,29,21,15,30,40,49	3,18,32,46,18	6, 2
20″	45,15,48,32,52,11,40,15,33,13	1,22,29,17,56,57,48,29	3,18,32,52,20	6, 2
22″	45,15,49,55,21,29,37,13,21,42	1,22,29,14,38,24,50, 7	3,18,32,58,22	6, 2
24″	45,15,51,17,50,44,15,38,11,49	1,22,29,11,19,51,45,43	3,18,33, 4,24	6, 2
26″	45,15,52,40,19,55,35,29,57,32	1,22,29, 8, 1,18,35,17	3,18,33,10,26	6, 2
28″	45,15,54, 2,49, 3,36,48,32,49	1,22,29, 4,42,45,18,49	3,18,33,16,28	6, 2
30″	45,15,55,25,18, 8,19,33,51,38	1,22,29, 1,24,11,56,19	3,18,33,22,30	6, 2
32″	45,15,56,47,47, 9,43,45,47,57	1,22,28,58, 5,38,27,47	3,18,33,28,32	6, 2
34″	45,15,58,10,16, 7,49,24,15,44	1,22,28,54,47, 4,53,13	3,18,33,34,34	6, 2
36″	45,15,59,32,45, 2,36,29, 8,57	1,22,28,51,28,31,12,37	3,18,33,40,36	6, 2
38″	45,16, 0,55,13,54, 5, 0,21,34	1,22,28,48, 9,57,25,59	3,18,33,46,38	6, 2
40″	45,16, 2,17,42,42,14,57,47,33	1,22,28,44,51,23,33,19	3,18,33,52,40	6, 2
42″	45,16, 3,40,11,27, 6,21,20,52	1,22,28,41,32,49,34,37	3,18,33,58,42	6, 2
44″	45,16, 5, 2,40, 8,39,10,55,29	1,22,28,38,14,15,29,53	3,18,34, 4,44	6, 2
46″	45,16, 6,25, 8,46,53,26,25,22	1,22,28,34,55,41,19, 7	3,18,34,10,46	6, 2
48″	45,16, 7,47,37,21,49, 7,44,29	1,22,28,31,37, 7, 2,19	3,18,34,16,48	6, 2
50″	45,16, 9,10, 5,53,26,14,46,48	1,22,28,28,18,32,39,29	3,18,34,22,50	6, 2
52″	45,16,10,32,34,21,44,47,26,17	1,22,28,24,59,58,10,37	3,18,34,28,52	6, 2
54″	45,16,11,55, 2,46,44,45,36,54	1,22,28,21,41,23,35,43	3,18,34,34,54	6, 2
56″	45,16,13,17,31, 8,26, 9,12,37	1,22,28,18,22,48,54,47	3,18,34,40,56	6, 2
58″	45,16,14,39,59,26,48,58, 7,24	1,22,28,15, 4,14, 7,49	3,18,34,46,58	
60″	45,16,16, 2,27,41,53,12,15,13			
exact	45,16,16, 2,27,41,53,12,25, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
48°59′ 0″	45,16,16, 2,27,41,53,12,25, 6			
		1,22,28,11,45,39,15,59		
2″	45,16,17,24,55,53,38,51,41, 5		3,18,34,58,56	
		1,22,28, 8,27, 4,17, 3		6, 2
4″	45,16,18,47,24, 2, 5,55,58, 8		3,18,35, 4,58	
		1,22,28, 5, 8,29,12, 5		6, 2
6″	45,16,20, 9,52, 7,14,25,10,13		3,18,35,11, 0	
		1,22,28, 1,49,54, 1, 5		6, 2
8″	45,16,21,32,20, 9, 4,19,11,18		3,18,35,17, 2	
		1,22,27,58,31,18,44, 3		6, 2
10″	45,16,22,54,48, 7,35,37,55,21		3,18,35,23, 4	
		1,22,27,55,12,43,20,59		6, 2
12″	45,16,24,17,16, 2,48,21,16,20		3,18,35,29, 6	
		1,22,27,51,54, 7,51,53		6, 2
14″	45,16,25,39,43,54,42,29, 8,13		3,18,35,35, 8	
		1,22,27,48,35,32,16,45		6, 2
16″	45,16,27, 2,11,43,18, 1,24,58		3,18,35,41,10	
		1,22,27,45,16,56,35,35		6, 2
18″	45,16,28,24,39,28,34,58, 0,33		3,18,35,47,12	
		1,22,27,41,58,20,48,23		6, 2
20″	45,16,29,47, 7,10,33,18,48,56		3,18,35,53,14	
		1,22,27,38,39,44,55, 9		6, 2
22″	45,16,31, 9,34,49,13, 3,44, 5		3,18,35,59,16	
		1,22,27,35,21, 8,55,53		6, 2
24″	45,16,32,32, 2,24,34,12,39,58		3,18,36, 5,18	
		1,22,27,32, 2,32,50,35		6, 2
26″	45,16,33,54,29,56,36,45,30,33		3,18,36,11,20	
		1,22,27,28,43,56,39,15		6, 2
28″	45,16,35,16,57,25,20,42, 9,48		3,18,36,17,22	
		1,22,27,25,25,20,21,53		6, 2
30″	45,16,36,39,24,50,46, 2,31,41		3,18,36,23,24	
		1,22,27,22, 6,43,58,29		6, 2
32″	45,16,38, 1,52,12,52,46,30,10		3,18,36,29,26	
		1,22,27,18,48, 7,29, 3		6, 2
34″	45,16,39,24,19,31,40,53,59,13		3,18,36,35,28	
		1,22,27,15,29,30,53,35		6, 2
36″	45,16,40,46,46,47,10,24,52,48		3,18,36,41,30	
		1,22,27,12,10,54,12, 5		6, 2
38″	45,16,42, 9,13,59,21,19, 4,53		3,18,36,47,32	
		1,22,27, 8,52,17,24,33		6, 2
40″	45,16,43,31,41, 8,13,36,29,26		3,18,36,53,34	
		1,22,27, 5,33,40,30,59		6, 2
42″	45,16,44,54, 8,13,47,17, 0,25		3,18,36,59,36	
		1,22,27, 2,15, 3,31,23		6, 2
44″	45,16,46,16,35,16, 2,20,31,48		3,18,37, 5,38	
		1,22,26,58,56,26,25,45		6, 2
46″	45,16,47,39, 2,14,58,46,57,33		3,18,37,11,40	
		1,22,26,55,37,49,14, 5		6, 2
48″	45,16,49, 1,29,10,36,36,11,38		3,18,37,17,42	
		1,22,26,52,19,11,56,23		6, 2
50″	45,16,50,23,56, 2,55,48, 8, 1		3,18,37,23,44	
		1,22,26,49, 0,34,32,39		6, 2
52″	45,16,51,46,22,51,56,22,40,40		3,18,37,29,46	
		1,22,26,45,41,57, 2,53		6, 2
54″	45,16,53, 8,49,37,38,19,43,33		3,18,37,35,48	
		1,22,26,42,23,19,27, 5		6, 2
56″	45,16,54,31,16,20, 1,39,10,38		3,18,37,41,50	
		1,22,26,39, 4,41,45,15		6, 2
58″	45,16,55,53,42,59, 6,20,55,53		3,18,37,47,52	
		1,22,26,35,46, 3,57,23		
60″	45,16,57,16, 9,34,52,24,53,16			
exact	45,16,57,16, 9,34,52,25, 8,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49° 0′ 0″	45,16,57,16, 9,34,52,25, 8,28	1,22,26,32,27,26, 5,20		
2″	45,16,58,38,36, 7,19,51,13,48	1,22,26,29, 8,48, 5,33	3,18,37,59,47	
4″	45,17, 0, 1, 2,36,28,39,19,21	1,22,26,25,50, 9,59,44	3,18,38, 5,49	6, 2
6″	45,17, 1,23,29, 2,18,49,19, 5	1,22,26,22,31,31,47,53	3,18,38,11,51	6, 2
8″	45,17, 2,45,55,24,50,21, 6,58	1,22,26,19,12,53,30, 0	3,18,38,17,53	6, 2
10″	45,17, 4, 8,21,44, 3,14,36,58	1,22,26,15,54,15, 6, 5	3,18,38,23,55	6, 2
12″	45,17, 5,30,47,59,57,29,43, 3	1,22,26,12,35,36,36, 8	3,18,38,29,57	6, 2
14″	45,17, 6,53,14,12,33, 6,19,11	1,22,26, 9,16,58, 0, 9	3,18,38,35,59	6, 2
16″	45,17, 8,15,40,21,50, 4,19,20	1,22,26, 5,58,19,18, 8	3,18,38,42, 1	6, 2
18″	45,17, 9,38, 6,27,48,23,37,28	1,22,26, 2,39,40,30, 5	3,18,38,48, 3	6, 2
20″	45,17,11, 0,32,30,28, 4, 7,33	1,22,25,59,21, 1,36, 0	3,18,38,54, 5	6, 2
22″	45,17,12,22,58,29,49, 5,43,33	1,22,25,56, 2,22,35,53	3,18,39, 0, 7	6, 2
24″	45,17,13,45,24,25,51,28,19,26	1,22,25,52,43,43,29,44	3,18,39, 6, 9	6, 2
26″	45,17,15, 7,50,18,35,11,49,10	1,22,25,49,25, 4,17,33	3,18,39,12,11	6, 2
28″	45,17,16,30,16, 8, 0,16, 6,43	1,22,25,46, 6,24,59,20	3,18,39,18,13	6, 2
30″	45,17,17,52,41,54, 6,41, 6, 3	1,22,25,42,47,45,35, 5	3,18,39,24,15	6, 2
32″	45,17,19,15, 7,36,54,26,41, 8	1,22,25,39,29, 6, 4,48	3,18,39,30,17	6, 2
34″	45,17,20,37,33,16,23,32,45,56	1,22,25,36,10,26,28,29	3,18,39,36,19	6, 2
36″	45,17,21,59,58,52,33,59,14,25	1,22,25,32,51,46,46, 8	3,18,39,42,21	6, 2
38″	45,17,23,22,24,25,25,46, 0,33	1,22,25,29,33, 6,57,45	3,18,39,48,23	6, 2
40″	45,17,24,44,49,54,58,52,58,18	1,22,25,26,14,27, 3,20	3,18,39,54,25	6, 2
42″	45,17,26, 7,15,21,13,20, 1,38	1,22,25,22,55,47, 2,53	3,18,40, 0,27	6, 2
44″	45,17,27,29,40,44, 9, 7, 4,31	1,22,25,19,37, 6,56,24	3,18,40, 6,29	6, 2
46″	45,17,28,52, 6, 3,46,14, 0,55	1,22,25,16,18,26,43,53	3,18,40,12,31	6, 2
48″	45,17,30,14,31,20, 4,40,44,48	1,22,25,12,59,46,25,20	3,18,40,18,33	6, 2
50″	45,17,31,36,56,33, 4,27,10, 8	1,22,25, 9,41, 6, 0,45	3,18,40,24,35	6, 2
52″	45,17,32,59,21,42,45,33,10,53	1,22,25, 6,22,25,30, 8	3,18,40,30,37	6, 2
54″	45,17,34,21,46,49, 7,58,41, 1	1,22,25, 3, 3,44,53,29	3,18,40,36,39	6, 2
56″	45,17,35,44,11,52,11,43,34,30	1,22,24,59,45, 4,10,48	3,18,40,42,41	6, 2
58″	45,17,37, 6,36,51,56,47,45,18	1,22,24,56,26,23,22, 5	3,18,40,48,43	
60″	45,17,38,29, 1,48,23,11, 7,23			
exact	45,17,38,29, 1,48,23,11,32,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49° 1′ 0″	45,17,38,29, 1,48,23,11,32,51			
		1,22,24,53, 7,42,30,12		
2″	45,17,39,51,26,41,30,54, 3, 3		3,18,41, 0,34	
		1,22,24,49,49, 1,29,38		6, 2
4″	45,17,41,13,51,31,19,55,32,41		3,18,41, 6,36	
		1,22,24,46,30,20,23, 2		6, 2
6″	45,17,42,36,16,17,50,15,55,43		3,18,41,12,38	
		1,22,24,43,11,39,10,24		6, 2
8″	45,17,43,58,41, 1, 1,55, 6, 7		3,18,41,18,40	
		1,22,24,39,52,57,51,44		6, 2
10″	45,17,45,21, 5,40,54,52,57,51		3,18,41,24,42	
		1,22,24,36,34,16,27, 2		6, 2
12″	45,17,46,43,30,17,29, 9,24,53		3,18,41,30,44	
		1,22,24,33,15,34,56,18		6, 2
14″	45,17,48, 5,54,50,44,44,21,11		3,18,41,36,46	
		1,22,24,29,56,53,19,32		6, 2
16″	45,17,49,28,19,20,41,37,40,43		3,18,41,42,48	
		1,22,24,26,38,11,36,44		6, 2
18″	45,17,50,50,43,47,19,49,17,27		3,18,41,48,50	
		1,22,24,23,19,29,47,54		6, 2
20″	45,17,52,13, 8,10,39,19, 5,21		3,18,41,54,52	
		1,22,24,20, 0,47,53, 2		6, 2
22″	45,17,53,35,32,30,40, 6,58,23		3,18,42, 0,54	
		1,22,24,16,42, 5,52, 8		6, 2
24″	45,17,54,57,56,47,22,12,50,31		3,18,42, 6,56	
		1,22,24,13,23,23,45,12		6, 2
26″	45,17,56,20,21, 0,45,36,35,43		3,18,42,12,58	
		1,22,24,10, 4,41,32,14		6, 2
28″	45,17,57,42,45,10,50,18, 7,57		3,18,42,19, 0	
		1,22,24, 6,45,59,13,14		6, 2
30″	45,17,59, 5, 9,17,36,17,21,11		3,18,42,25, 2	
		1,22,24, 3,27,16,48,12		6, 2
32″	45,18, 0,27,33,21, 3,34, 9,23		3,18,42,31, 4	
		1,22,24, 0, 8,34,17, 8		6, 2
34″	45,18, 1,49,57,21,12, 8,26,31		3,18,42,37, 6	
		1,22,23,56,49,51,40, 2		6, 2
36″	45,18, 3,12,21,18, 2, 0, 6,33		3,18,42,43, 8	
		1,22,23,53,31, 8,56,54		6, 2
38″	45,18, 4,34,45,11,33, 9, 3,27		3,18,42,49,10	
		1,22,23,50,12,26, 7,44		6, 2
40″	45,18, 5,57, 9, 1,45,35,11,11		3,18,42,55,12	
		1,22,23,46,53,43,12,32		6, 2
42″	45,18, 7,19,32,48,39,18,23,43		3,18,43, 1,14	
		1,22,23,43,35, 0,11,18		6, 2
44″	45,18, 8,41,56,32,14,18,35, 1		3,18,43, 7,16	
		1,22,23,40,16,17, 4, 2		6, 2
46″	45,18,10, 4,20,12,30,35,39, 3		3,18,43,13,18	
		1,22,23,36,57,33,50,44		6, 2
48″	45,18,11,26,43,49,28, 9,29,47		3,18,43,19,20	
		1,22,23,33,38,50,31,24		6, 2
50″	45,18,12,49, 7,23, 7, 0, 1,11		3,18,43,25,22	
		1,22,23,30,20, 7, 6, 2		6, 2
52″	45,18,14,11,30,53,27, 7, 7,13		3,18,43,31,24	
		1,22,23,27, 1,23,34,38		6, 2
54″	45,18,15,33,54,20,28,30,41,51		3,18,43,37,26	
		1,22,23,23,42,39,57,12		6, 2
56″	45,18,16,56,17,44,11,10,39, 3		3,18,43,43,28	
		1,22,23,20,23,56,13,44		6, 2
58″	45,18,18,18,41, 4,35, 6,52,47		3,18,43,49,30	
		1,22,23,17, 5,12,24,14		
60″	45,18,19,41, 4,21,40,19,17, 1			
exact	45,18,19,41, 4,21,40,19,49,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49° 2′ 0″	45,18,19,41, 4,21,40,19,49,54			
		1,22,23,13,46,28,32,23		
2″	45,18,21, 3,27,35,26,48,22,17		3,18,44, 1,18	
		1,22,23,10,27,44,31, 5		6, 1
4″	45,18,22,25,50,45,54,32,53,22		3,18,44, 7,19	
		1,22,23, 7, 9, 0,23,46		6, 1
6″	45,18,23,48,13,53, 3,33,17, 8		3,18,44,13,20	
		1,22,23, 3,50,16,10,26		6, 1
8″	45,18,25,10,36,56,53,49,27,34		3,18,44,19,21	
		1,22,23, 0,31,31,51, 5		6, 1
10″	45,18,26,32,59,57,25,21,18,39		3,18,44,25,22	
		1,22,22,57,12,47,25,43		6, 1
12″	45,18,27,55,22,54,38, 8,44,22		3,18,44,31,23	
		1,22,22,53,54, 2,54,20		6, 1
14″	45,18,29,17,45,48,32,11,38,42		3,18,44,37,24	
		1,22,22,50,35,18,16,56		6, 1
16″	45,18,30,40, 8,39, 7,29,55,38		3,18,44,43,25	
		1,22,22,47,16,33,33,31		6, 1
18″	45,18,32, 2,31,26,24, 3,29, 9		3,18,44,49,26	
		1,22,22,43,57,48,44, 5		6, 1
20″	45,18,33,24,54,10,21,52,13,14		3,18,44,55,27	
		1,22,22,40,39, 3,48,38		6, 1
22″	45,18,34,47,16,51, 0,56, 1,52		3,18,45, 1,28	
		1,22,22,37,20,18,47,10		6, 1
24″	45,18,36, 9,39,28,21,14,49, 2		3,18,45, 7,29	
		1,22,22,34, 1,33,39,41		6, 1
26″	45,18,37,32, 2, 2,22,48,28,43		3,18,45,13,30	
		1,22,22,30,42,48,26,11		6, 1
28″	45,18,38,54,24,33, 5,36,54,54		3,18,45,19,31	
		1,22,22,27,24, 3, 6,40		6, 1
30″	45,18,40,16,47, 0,29,40, 1,34		3,18,45,25,32	
		1,22,22,24, 5,17,41, 8		6, 1
32″	45,18,41,39, 9,24,34,57,42,42		3,18,45,31,33	
		1,22,22,20,46,32, 9,35		6, 1
34″	45,18,43, 1,31,45,21,29,52,17		3,18,45,37,34	
		1,22,22,17,27,46,32, 1		6, 1
36″	45,18,44,23,54, 2,49,16,24,18		3,18,45,43,35	
		1,22,22,14, 9, 0,48,26		6, 1
38″	45,18,45,46,16,16,58,17,12,44		3,18,45,49,36	
		1,22,22,10,50,14,58,50		6, 1
40″	45,18,47, 8,38,27,48,32,11,34		3,18,45,55,37	
		1,22,22, 7,31,29, 3,13		6, 1
42″	45,18,48,31, 0,35,20, 1,14,47		3,18,46, 1,38	
		1,22,22, 4,12,43, 1,35		6, 1
44″	45,18,49,53,22,39,32,44,16,22		3,18,46, 7,39	
		1,22,22, 0,53,56,53,56		6, 1
46″	45,18,51,15,44,40,26,41,10,18		3,18,46,13,40	
		1,22,21,57,35,10,40,16		6, 1
48″	45,18,52,38, 6,38, 1,51,50,34		3,18,46,19,41	
		1,22,21,54,16,24,20,35		6, 1
50″	45,18,54, 0,28,32,18,16,11, 9		3,18,46,25,42	
		1,22,21,50,57,37,54,53		6, 1
52″	45,18,55,22,50,23,15,54, 6, 2		3,18,46,31,43	
		1,22,21,47,38,51,23,10		6, 1
54″	45,18,56,45,12,10,54,45,29,12		3,18,46,37,44	
		1,22,21,44,20, 4,45,26		6, 1
56″	45,18,58, 7,33,55,14,50,14,38		3,18,46,43,45	
		1,22,21,41, 1,18, 1,41		6, 1
58″	45,18,59,29,55,36,16, 8,16,19		3,18,46,49,46	
		1,22,21,37,42,31,11,55		
60″	45,19, 0,52,17,13,58,39,28,14			
exact	45,19, 0,52,17,13,58,39, 5,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49° 3′ 0″	45,19, 0,52,17,13,58,39, 5,43			
		1,22,21,34,23,44,13,43		
2″	45,19, 2,14,38,48,22,23,19,26		3,18,47, 1,58	
		1,22,21,31, 4,57,11,45		6, 1
4″	45,19, 3,37, 0,19,27,20,31,11		3,18,47, 7,59	
		1,22,21,27,46,10, 3,46		6, 1
6″	45,19, 4,59,21,47,13,30,34,57		3,18,47,14, 0	
		1,22,21,24,27,22,49,46		6, 1
8″	45,19, 6,21,43,11,40,53,24,43		3,18,47,20, 1	
		1,22,21,21, 8,35,29,45		6, 1
10″	45,19, 7,44, 4,32,49,28,54,28		3,18,47,26, 2	
		1,22,21,17,49,48, 3,43		6, 1
12″	45,19, 9, 6,25,50,39,16,58,11		3,18,47,32, 3	
		1,22,21,14,31, 0,31,40		6, 1
14″	45,19,10,28,47, 5,10,17,29,51		3,18,47,38, 4	
		1,22,21,11,12,12,53,36		6, 1
16″	45,19,11,51, 8,16,22,30,23,27		3,18,47,44, 5	
		1,22,21, 7,53,25, 9,31		6, 1
18″	45,19,13,13,29,24,15,55,32,58		3,18,47,50, 6	
		1,22,21, 4,34,37,19,25		6, 1
20″	45,19,14,35,50,28,50,32,52,23		3,18,47,56, 7	
		1,22,21, 1,15,49,23,18		6, 1
22″	45,19,15,58,11,30, 6,22,15,41		3,18,48, 2, 8	
		1,22,20,57,57, 1,21,10		6, 1
24″	45,19,17,20,32,28, 3,23,36,51		3,18,48, 8, 9	
		1,22,20,54,38,13,13, 1		6, 1
26″	45,19,18,42,53,22,41,36,49,52		3,18,48,14,10	
		1,22,20,51,19,24,58,51		6, 1
28″	45,19,20, 5,14,14, 1, 1,48,43		3,18,48,20,11	
		1,22,20,48, 0,36,38,40		6, 1
30″	45,19,21,27,35, 2, 1,38,27,23		3,18,48,26,12	
		1,22,20,44,41,48,12,28		6, 1
32″	45,19,22,49,55,46,43,26,39,51		3,18,48,32,13	
		1,22,20,41,22,59,40,15		6, 1
34″	45,19,24,12,16,28, 6,26,20, 6		3,18,48,38,14	
		1,22,20,38, 4,11, 2, 1		6, 1
36″	45,19,25,34,37, 6,10,37,22, 7		3,18,48,44,15	
		1,22,20,34,45,22,17,46		6, 1
38″	45,19,26,56,57,40,55,59,39,53		3,18,48,50,16	
		1,22,20,31,26,33,27,30		6, 1
40″	45,19,28,19,18,12,22,33, 7,23		3,18,48,56,17	
		1,22,20,28, 7,44,31,13		6, 1
42″	45,19,29,41,38,40,30,17,38,36		3,18,49, 2,18	
		1,22,20,24,48,55,28,55		6, 1
44″	45,19,31, 3,59, 5,19,13, 7,31		3,18,49, 8,19	
		1,22,20,21,30, 6,20,36		6, 1
46″	45,19,32,26,19,26,49,19,28, 7		3,18,49,14,20	
		1,22,20,18,11,17, 6,16		6, 1
48″	45,19,33,48,39,45, 0,36,34,23		3,18,49,20,21	
		1,22,20,14,52,27,45,55		6, 1
50″	45,19,35,10,59,59,53, 4,20,18		3,18,49,26,22	
		1,22,20,11,33,38,19,33		6, 1
52″	45,19,36,33,20,11,26,42,39,51		3,18,49,32,23	
		1,22,20, 8,14,48,47,10		6, 1
54″	45,19,37,55,40,19,41,31,27, 1		3,18,49,38,24	
		1,22,20, 4,55,59, 8,46		6, 1
56″	45,19,39,18, 0,24,37,30,35,47		3,18,49,44,25	
		1,22,20, 1,37, 9,24,21		6, 1
58″	45,19,40,40,20,26,14,40, 0, 8		3,18,49,50,26	
		1,22,19,58,18,19,33,55		
60″	45,19,42, 2,40,24,32,59,34, 3			
exact	45,19,42, 2,40,24,32,59,20,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49° 4′ 0″	45,19,42, 2,40,24,32,59,20,56			
		1,22,19,54,59,29,36, 1		
2″	45,19,43,25, 0,19,32,28,56,57		3,18,50, 2,34	
		1,22,19,51,40,39,33,27		6, 1
4″	45,19,44,47,20,11,13, 8,30,24		3,18,50, 8,35	
		1,22,19,48,21,49,24,52		6, 1
6″	45,19,46, 9,39,59,34,57,55,16		3,18,50,14,36	
		1,22,19,45, 2,59,10,16		6, 1
8″	45,19,47,31,59,44,37,57, 5,32		3,18,50,20,37	
		1,22,19,41,44, 8,49,39		6, 1
10″	45,19,48,54,19,26,22, 5,55,11		3,18,50,26,38	
		1,22,19,38,25,18,23, 1		6, 1
12″	45,19,50,16,39, 4,47,24,18,12		3,18,50,32,39	
		1,22,19,35, 6,27,50,22		6, 1
14″	45,19,51,38,58,39,53,52, 8,34		3,18,50,38,40	
		1,22,19,31,47,37,11,42		6, 1
16″	45,19,53, 1,18,11,41,29,20,16		3,18,50,44,41	
		1,22,19,28,28,46,27, 1		6, 1
18″	45,19,54,23,37,40,10,15,47,17		3,18,50,50,42	
		1,22,19,25, 9,55,36,19		6, 1
20″	45,19,55,45,57, 5,20,11,23,36		3,18,50,56,43	
		1,22,19,21,51, 4,39,36		6, 1
22″	45,19,57, 8,16,27,11,16, 3,12		3,18,51, 2,44	
		1,22,19,18,32,13,36,52		6, 1
24″	45,19,58,30,35,45,43,29,40, 4		3,18,51, 8,45	
		1,22,19,15,13,22,28, 7		6, 1
26″	45,19,59,52,55, 0,56,52, 8,11		3,18,51,14,46	
		1,22,19,11,54,31,13,21		6, 1
28″	45,20, 1,15,14,12,51,23,21,32		3,18,51,20,47	
		1,22,19, 8,35,39,52,34		6, 1
30″	45,20, 2,37,33,21,27, 3,14, 6		3,18,51,26,48	
		1,22,19, 5,16,48,25,46		6, 1
32″	45,20, 3,59,52,26,43,51,39,52		3,18,51,32,49	
		1,22,19, 1,57,56,52,57		6, 1
34″	45,20, 5,22,11,28,41,48,32,49		3,18,51,38,50	
		1,22,18,58,39, 5,14, 7		6, 1
36″	45,20, 6,44,30,27,20,53,46,56		3,18,51,44,51	
		1,22,18,55,20,13,29,16		6, 1
38″	45,20, 8, 6,49,22,41, 7,16,12		3,18,51,50,52	
		1,22,18,52, 1,21,38,24		6, 1
40″	45,20, 9,29, 8,14,42,28,54,36		3,18,51,56,53	
		1,22,18,48,42,29,41,31		6, 1
42″	45,20,10,51,27, 3,24,58,36, 7		3,18,52, 2,54	
		1,22,18,45,23,37,38,37		6, 1
44″	45,20,12,13,45,48,48,36,14,44		3,18,52, 8,55	
		1,22,18,42, 4,45,29,42		6, 1
46″	45,20,13,36, 4,30,53,21,44,26		3,18,52,14,56	
		1,22,18,38,45,53,14,46		6, 1
48″	45,20,14,58,23, 9,39,14,59,12		3,18,52,20,57	
		1,22,18,35,27, 0,53,49		6, 1
50″	45,20,16,20,41,45, 6,15,53, 1		3,18,52,26,58	
		1,22,18,32, 8, 8,26,51		6, 1
52″	45,20,17,43, 0,17,14,24,19,52		3,18,52,32,59	
		1,22,18,28,49,15,53,52		6, 1
54″	45,20,19, 5,18,46, 3,40,13,44		3,18,52,39, 0	
		1,22,18,25,30,23,14,52		6, 1
56″	45,20,20,27,37,11,34, 3,28,36		3,18,52,45, 1	
		1,22,18,22,11,30,29,51		6, 1
58″	45,20,21,49,55,33,45,33,58,27		3,18,52,51, 2	
		1,22,18,18,52,37,38,49		
60″	45,20,23,12,13,52,38,11,37,16			
exact	45,20,23,12,13,52,38,11,30,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49° 5′ 0″	45,20,23,12,13,52,38,11,30,37			
		1,22,18,15,33,44,41, 5		
2″	45,20,24,34,32, 8,11,56,11,42		3,18,53, 3, 6	
		1,22,18,12,14,51,37,59		6, 1
4″	45,20,25,56,50,20,26,47,49,41		3,18,53, 9, 7	
		1,22,18, 8,55,58,28,52		6, 1
6″	45,20,27,19, 8,29,22,46,18,33		3,18,53,15, 8	
		1,22,18, 5,37, 5,13,44		6, 1
8″	45,20,28,41,26,34,59,51,32,17		3,18,53,21, 9	
		1,22,18, 2,18,11,52,35		6, 1
10″	45,20,30, 3,44,37,18, 3,24,52		3,18,53,27,10	
		1,22,17,58,59,18,25,25		6, 1
12″	45,20,31,26, 2,36,17,21,50,17		3,18,53,33,11	
		1,22,17,55,40,24,52,14		6, 1
14″	45,20,32,48,20,31,57,46,42,31		3,18,53,39,12	
		1,22,17,52,21,31,13, 2		6, 1
16″	45,20,34,10,38,24,19,17,55,33		3,18,53,45,13	
		1,22,17,49, 2,37,27,49		6, 1
18″	45,20,35,32,56,13,21,55,23,22		3,18,53,51,14	
		1,22,17,45,43,43,36,35		6, 1
20″	45,20,36,55,13,59, 5,38,59,57		3,18,53,57,15	
		1,22,17,42,24,49,39,20		6, 1
22″	45,20,38,17,31,41,30,28,39,17		3,18,54, 3,16	
		1,22,17,39, 5,55,36, 4		6, 1
24″	45,20,39,39,49,20,36,24,15,21		3,18,54, 9,17	
		1,22,17,35,47, 1,26,47		6, 1
26″	45,20,41, 2, 6,56,23,25,42, 8		3,18,54,15,18	
		1,22,17,32,28, 7,11,29		6, 1
28″	45,20,42,24,24,28,51,32,53,37		3,18,54,21,19	
		1,22,17,29, 9,12,50,10		6, 1
30″	45,20,43,46,41,58, 0,45,43,47		3,18,54,27,20	
		1,22,17,25,50,18,22,50		6, 1
32″	45,20,45, 8,59,23,51, 4, 6,37		3,18,54,33,21	
		1,22,17,22,31,23,49,29		6, 1
34″	45,20,46,31,16,46,22,27,56, 6		3,18,54,39,22	
		1,22,17,19,12,29,10, 7		6, 1
36″	45,20,47,53,34, 5,34,57, 6,13		3,18,54,45,23	
		1,22,17,15,53,34,24,44		6, 1
38″	45,20,49,15,51,21,28,31,30,57		3,18,54,51,24	
		1,22,17,12,34,39,33,20		6, 1
40″	45,20,50,38, 8,34, 3,11, 4,17		3,18,54,57,25	
		1,22,17, 9,15,44,35,55		6, 1
42″	45,20,52, 0,25,43,18,55,40,12		3,18,55, 3,26	
		1,22,17, 5,56,49,32,29		6, 1
44″	45,20,53,22,42,49,15,45,12,41		3,18,55, 9,27	
		1,22,17, 2,37,54,23, 2		6, 1
46″	45,20,54,44,59,51,53,39,35,43		3,18,55,15,28	
		1,22,16,59,18,59, 7,34		6, 1
48″	45,20,56, 7,16,51,12,38,43,17		3,18,55,21,29	
		1,22,16,56, 0, 3,46, 5		6, 1
50″	45,20,57,29,33,47,12,42,29,22		3,18,55,27,30	
		1,22,16,52,41, 8,18,35		6, 1
52″	45,20,58,51,50,39,53,50,47,57		3,18,55,33,31	
		1,22,16,49,22,12,45, 4		6, 1
54″	45,21, 0,14, 7,29,16, 3,33, 1		3,18,55,39,32	
		1,22,16,46, 3,17, 5,32		6, 1
56″	45,21, 1,36,24,15,19,20,38,33		3,18,55,45,33	
		1,22,16,42,44,21,19,59		6, 1
58″	45,21, 2,58,40,58, 3,41,58,32		3,18,55,51,34	
		1,22,16,39,25,25,28,25		
60″	45,21, 4,20,57,37,29, 7,26,57			
exact	45,21, 4,20,57,37,29, 7,24,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49° 6′ 0″	45,21, 4,20,57,37,29, 7,24,24			
		1,22,16,36, 6,29,30,45		
2″	45,21, 5,43,14,13,35,36,55, 9		3,18,56, 3,35	
		1,22,16,32,47,33,27,10		6, 1
4″	45,21, 7, 5,30,46,23,10,22,19		3,18,56, 9,36	
		1,22,16,29,28,37,17,34		6, 1
6″	45,21, 8,27,47,15,51,47,39,53		3,18,56,15,37	
		1,22,16,26, 9,41, 1,57		6, 1
8″	45,21, 9,50, 3,42, 1,28,41,50		3,18,56,21,38	
		1,22,16,22,50,44,40,19		6, 1
10″	45,21,11,12,20, 4,52,13,22, 9		3,18,56,27,39	
		1,22,16,19,31,48,12,40		6, 1
12″	45,21,12,34,36,24,24, 1,34,49		3,18,56,33,40	
		1,22,16,16,12,51,39, 0		6, 1
14″	45,21,13,56,52,40,36,53,13,49		3,18,56,39,41	
		1,22,16,12,53,54,59,19		6, 1
16″	45,21,15,19, 8,53,30,48,13, 8		3,18,56,45,42	
		1,22,16, 9,34,58,13,37		6, 1
18″	45,21,16,41,25, 3, 5,46,26,45		3,18,56,51,43	
		1,22,16, 6,16, 1,21,54		6, 1
20″	45,21,18, 3,41, 9,21,47,48,39		3,18,56,57,44	
		1,22,16, 2,57, 4,24,10		6, 1
22″	45,21,19,25,57,12,18,52,12,49		3,18,57, 3,45	
		1,22,15,59,38, 7,20,25		6, 1
24″	45,21,20,48,13,11,56,59,33,14		3,18,57, 9,46	
		1,22,15,56,19,10,10,39		6, 1
26″	45,21,22,10,29, 8,16, 9,43,53		3,18,57,15,47	
		1,22,15,53, 0,12,54,52		6, 1
28″	45,21,23,32,45, 1,16,22,38,45		3,18,57,21,48	
		1,22,15,49,41,15,33, 4		6, 1
30″	45,21,24,55, 0,50,57,38,11,49		3,18,57,27,49	
		1,22,15,46,22,18, 5,15		6, 1
32″	45,21,26,17,16,37,19,56,17, 4		3,18,57,33,50	
		1,22,15,43, 3,20,31,25		6, 1
34″	45,21,27,39,32,20,23,16,48,29		3,18,57,39,51	
		1,22,15,39,44,22,51,34		6, 1
36″	45,21,29, 1,48, 0, 7,39,40, 3		3,18,57,45,52	
		1,22,15,36,25,25, 5,42		6, 1
38″	45,21,30,24, 3,36,33, 4,45,45		3,18,57,51,53	
		1,22,15,33, 6,27,13,49		6, 1
40″	45,21,31,46,19, 9,39,31,59,34		3,18,57,57,54	
		1,22,15,29,47,29,15,55		6, 1
42″	45,21,33, 8,34,39,27, 1,15,29		3,18,58, 3,55	
		1,22,15,26,28,31,12, 0		6, 1
44″	45,21,34,30,50, 5,55,32,27,29		3,18,58, 9,56	
		1,22,15,23, 9,33, 2, 4		6, 1
46″	45,21,35,53, 5,29, 5, 5,29,33		3,18,58,15,57	
		1,22,15,19,50,34,46, 7		6, 1
48″	45,21,37,15,20,48,55,40,15,40		3,18,58,21,58	
		1,22,15,16,31,36,24, 9		6, 1
50″	45,21,38,37,36, 5,27,16,39,49		3,18,58,27,59	
		1,22,15,13,12,37,56,10		6, 1
52″	45,21,39,59,51,18,39,54,35,59		3,18,58,34, 0	
		1,22,15, 9,53,39,22,10		6, 1
54″	45,21,41,22, 6,28,33,33,58, 9		3,18,58,40, 1	
		1,22,15, 6,34,40,42, 9		6, 1
56″	45,21,42,44,21,35, 8,14,40,18		3,18,58,46, 2	
		1,22,15, 3,15,41,56, 7		6, 1
58″	45,21,44, 6,36,38,23,56,36,25		3,18,58,52, 3	
		1,22,14,59,56,43, 4, 4		
60″	45,21,45,28,51,38,20,39,40,29			
exact	45,21,45,28,51,38,20,39,46,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49° 7′ 0″	45,21,45,28,51,38,20,39,46,25			
		1,22,14,56,37,44, 6,49		
2″	45,21,46,51, 6,34,58,23,53,14		3,18,59, 4, 1	
		1,22,14,53,18,45, 2,48		6, 1
4″	45,21,48,13,21,28,17, 8,56, 2		3,18,59,10, 2	
		1,22,14,49,59,45,52,46		6, 1
6″	45,21,49,35,36,18,16,54,48,48		3,18,59,16, 3	
		1,22,14,46,40,46,36,43		6, 1
8″	45,21,50,57,51, 4,57,41,25,31		3,18,59,22, 4	
		1,22,14,43,21,47,14,39		6, 1
10″	45,21,52,20, 5,48,19,28,40,10		3,18,59,28, 5	
		1,22,14,40, 2,47,46,34		6, 1
12″	45,21,53,42,20,28,22,16,26,44		3,18,59,34, 6	
		1,22,14,36,43,48,12,28		6, 1
14″	45,21,55, 4,35, 5, 6, 4,39,12		3,18,59,40, 7	
		1,22,14,33,24,48,32,21		6, 1
16″	45,21,56,26,49,38,30,53,11,33		3,18,59,46, 8	
		1,22,14,30, 5,48,46,13		6, 1
18″	45,21,57,49, 4, 8,36,41,57,46		3,18,59,52, 9	
		1,22,14,26,46,48,54, 4		6, 1
20″	45,21,59,11,18,35,23,30,51,50		3,18,59,58,10	
		1,22,14,23,27,48,55,54		6, 1
22″	45,22, 0,33,32,58,51,19,47,44		3,19, 0, 4,11	
		1,22,14,20, 8,48,51,43		6, 1
24″	45,22, 1,55,47,19, 0, 8,39,27		3,19, 0,10,12	
		1,22,14,16,49,48,41,31		6, 1
26″	45,22, 3,18, 1,35,49,57,20,58		3,19, 0,16,13	
		1,22,14,13,30,48,25,18		6, 1
28″	45,22, 4,40,15,49,20,45,46,16		3,19, 0,22,14	
		1,22,14,10,11,48, 3, 4		6, 1
30″	45,22, 6, 2,29,59,32,33,49,20		3,19, 0,28,15	
		1,22,14, 6,52,47,34,49		6, 1
32″	45,22, 7,24,44, 6,25,21,24, 9		3,19, 0,34,16	
		1,22,14, 3,33,47, 0,33		6, 1
34″	45,22, 8,46,58, 9,59, 8,24,42		3,19, 0,40,17	
		1,22,14, 0,14,46,20,16		6, 1
36″	45,22,10, 9,12,10,13,54,44,58		3,19, 0,46,18	
		1,22,13,56,55,45,33,58		6, 1
38″	45,22,11,31,26, 7, 9,40,18,56		3,19, 0,52,19	
		1,22,13,53,36,44,41,39		6, 1
40″	45,22,12,53,40, 0,46,25, 0,35		3,19, 0,58,20	
		1,22,13,50,17,43,43,19		6, 1
42″	45,22,14,15,53,51, 4, 8,43,54		3,19, 1, 4,21	
		1,22,13,46,58,42,38,58		6, 1
44″	45,22,15,38, 7,38, 2,51,22,52		3,19, 1,10,22	
		1,22,13,43,39,41,28,36		6, 1
46″	45,22,17, 0,21,21,42,32,51,28		3,19, 1,16,23	
		1,22,13,40,20,40,12,13		6, 1
48″	45,22,18,22,35, 2, 3,13, 3,41		3,19, 1,22,24	
		1,22,13,37, 1,38,49,49		6, 1
50″	45,22,19,44,48,39, 4,51,53,30		3,19, 1,28,25	
		1,22,13,33,42,37,21,24		6, 1
52″	45,22,21, 7, 2,12,47,29,14,54		3,19, 1,34,26	
		1,22,13,30,23,35,46,58		6, 1
54″	45,22,22,29,15,43,11, 5, 1,52		3,19, 1,40,27	
		1,22,13,27, 4,34, 6,31		6, 1
56″	45,22,23,51,29,10,15,39, 8,23		3,19, 1,46,28	
		1,22,13,23,45,32,20, 3		6, 1
58″	45,22,25,13,42,34, 1,11,28,26		3,19, 1,52,29	
		1,22,13,20,26,30,27,34		
60″	45,22,26,35,55,54,27,41,56, 0			
exact	45,22,26,35,55,54,27,42,15,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49° 8′ 0″	45,22,26,35,55,54,27,42,15,19			
		1,22,13,17, 7,28,31, 7		
2″	45,22,27,58, 9,11,35,10,46,26		3,19, 2, 4,22	
		1,22,13,13,48,26,26,45		6, 1
4″	45,22,29,20,22,25,23,37,13,11		3,19, 2,10,23	
		1,22,13,10,29,24,16,22		6, 1
6″	45,22,30,42,35,35,53, 1,29,33		3,19, 2,16,24	
		1,22,13, 7,10,21,59,58		6, 1
8″	45,22,32, 4,48,43, 3,23,29,31		3,19, 2,22,25	
		1,22,13, 3,51,19,37,33		6, 1
10″	45,22,33,27, 1,46,54,43, 7, 4		3,19, 2,28,26	
		1,22,13, 0,32,17, 9, 7		6, 1
12″	45,22,34,49,14,47,27, 0,16,11		3,19, 2,34,27	
		1,22,12,57,13,14,34,40		6, 1
14″	45,22,36,11,27,44,40,14,50,51		3,19, 2,40,28	
		1,22,12,53,54,11,54,12		6, 1
16″	45,22,37,33,40,38,34,26,45, 3		3,19, 2,46,29	
		1,22,12,50,35, 9, 7,43		6, 1
18″	45,22,38,55,53,29, 9,35,52,46		3,19, 2,52,30	
		1,22,12,47,16, 6,15,13		6, 1
20″	45,22,40,18, 6,16,25,42, 7,59		3,19, 2,58,31	
		1,22,12,43,57, 3,16,42		6, 1
22″	45,22,41,40,19, 0,22,45,24,41		3,19, 3, 4,32	
		1,22,12,40,38, 0,12,10		6, 1
24″	45,22,43, 2,31,41, 0,45,36,51		3,19, 3,10,33	
		1,22,12,37,18,57, 1,37		6, 1
26″	45,22,44,24,44,18,19,42,38,28		3,19, 3,16,34	
		1,22,12,33,59,53,45, 3		6, 1
28″	45,22,45,46,56,52,19,36,23,31		3,19, 3,22,35	
		1,22,12,30,40,50,22,28		6, 1
30″	45,22,47, 9, 9,23, 0,26,45,59		3,19, 3,28,36	
		1,22,12,27,21,46,53,52		6, 1
32″	45,22,48,31,21,50,22,13,39,51		3,19, 3,34,37	
		1,22,12,24, 2,43,19,15		6, 1
34″	45,22,49,53,34,14,24,56,59, 6		3,19, 3,40,38	
		1,22,12,20,43,39,38,37		6, 1
36″	45,22,51,15,46,35, 8,36,37,43		3,19, 3,46,39	
		1,22,12,17,24,35,51,58		6, 1
38″	45,22,52,37,58,52,33,12,29,41		3,19, 3,52,40	
		1,22,12,14, 5,31,59,18		6, 1
40″	45,22,54, 0,11, 6,38,44,28,59		3,19, 3,58,41	
		1,22,12,10,46,28, 0,37		6, 1
42″	45,22,55,22,23,17,25,12,29,36		3,19, 4, 4,42	
		1,22,12, 7,27,23,55,55		6, 1
44″	45,22,56,44,35,24,52,36,25,31		3,19, 4,10,43	
		1,22,12, 4, 8,19,45,12		6, 1
46″	45,22,58, 6,47,29, 0,56,10,43		3,19, 4,16,44	
		1,22,12, 0,49,15,28,28		6, 1
48″	45,22,59,28,59,29,50,11,39,11		3,19, 4,22,45	
		1,22,11,57,30,11, 5,43		6, 1
50″	45,23, 0,51,11,27,20,22,44,54		3,19, 4,28,46	
		1,22,11,54,11, 6,36,57		6, 1
52″	45,23, 2,13,23,21,31,29,21,51		3,19, 4,34,47	
		1,22,11,50,52, 2, 2,10		6, 1
54″	45,23, 3,35,35,12,23,31,24, 1		3,19, 4,40,48	
		1,22,11,47,32,57,21,22		6, 1
56″	45,23, 4,57,46,59,56,28,45,23		3,19, 4,46,49	
		1,22,11,44,13,52,34,33		6, 1
58″	45,23, 6,19,58,44,10,21,19,56		3,19, 4,52,50	
		1,22,11,40,54,47,41,43		
60″	45,23, 7,42,10,25, 5, 9, 1,39			
exact	45,23, 7,42,10,25, 5, 9,24,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49° 9′ 0″	45,23, 7,42,10,25, 5, 9,24,22			
		1,22,11,37,35,42,45,28		
2″	45,23, 9, 4,22, 2,40,52, 9,50		3,19, 5, 4,40	
		1,22,11,34,16,37,40,48		6, 1
4″	45,23,10,26,33,36,57,29,50,38		3,19, 5,10,41	
		1,22,11,30,57,32,30, 7		6, 1
6″	45,23,11,48,45, 7,55, 2,20,45		3,19, 5,16,42	
		1,22,11,27,38,27,13,25		6, 1
8″	45,23,13,10,56,35,33,29,34,10		3,19, 5,22,43	
		1,22,11,24,19,21,50,42		6, 1
10″	45,23,14,33, 7,59,52,51,24,52		3,19, 5,28,44	
		1,22,11,21, 0,16,21,58		6, 1
12″	45,23,15,55,19,20,53, 7,46,50		3,19, 5,34,45	
		1,22,11,17,41,10,47,13		6, 1
14″	45,23,17,17,30,38,34,18,34, 3		3,19, 5,40,46	
		1,22,11,14,22, 5, 6,27		6, 1
16″	45,23,18,39,41,52,56,23,40,30		3,19, 5,46,47	
		1,22,11,11, 2,59,19,40		6, 1
18″	45,23,20, 1,53, 3,59,23, 0,10		3,19, 5,52,48	
		1,22,11, 7,43,53,26,52		6, 1
20″	45,23,21,24, 4,11,43,16,27, 2		3,19, 5,58,49	
		1,22,11, 4,24,47,28, 3		6, 1
22″	45,23,22,46,15,16, 8, 3,55, 5		3,19, 6, 4,50	
		1,22,11, 1, 5,41,23,13		6, 1
24″	45,23,24, 8,26,17,13,45,18,18		3,19, 6,10,51	
		1,22,10,57,46,35,12,22		6, 1
26″	45,23,25,30,37,15, 0,20,30,40		3,19, 6,16,52	
		1,22,10,54,27,28,55,30		6, 1
28″	45,23,26,52,48, 9,27,49,26,10		3,19, 6,22,53	
		1,22,10,51, 8,22,32,37		6, 1
30″	45,23,28,14,59, 0,36,11,58,47		3,19, 6,28,54	
		1,22,10,47,49,16, 3,43		6, 1
32″	45,23,29,37, 9,48,25,28, 2,30		3,19, 6,34,55	
		1,22,10,44,30, 9,28,48		6, 1
34″	45,23,30,59,20,32,55,37,31,18		3,19, 6,40,56	
		1,22,10,41,11, 2,47,52		6, 1
36″	45,23,32,21,31,14, 6,40,19,10		3,19, 6,46,57	
		1,22,10,37,51,56, 0,55		6, 1
38″	45,23,33,43,41,51,58,36,20, 5		3,19, 6,52,58	
		1,22,10,34,32,49, 7,57		6, 1
40″	45,23,35, 5,52,26,31,25,28, 2		3,19, 6,58,59	
		1,22,10,31,13,42, 8,58		6, 1
42″	45,23,36,28, 2,57,45, 7,37, 0		3,19, 7, 5, 0	
		1,22,10,27,54,35, 3,58		6, 1
44″	45,23,37,50,13,25,39,42,40,58		3,19, 7,11, 1	
		1,22,10,24,35,27,52,57		6, 1
46″	45,23,39,12,23,50,15,10,33,55		3,19, 7,17, 2	
		1,22,10,21,16,20,35,55		6, 1
48″	45,23,40,34,34,11,31,31, 9,50		3,19, 7,23, 3	
		1,22,10,17,57,13,12,52		6, 1
50″	45,23,41,56,44,29,28,44,22,42		3,19, 7,29, 4	
		1,22,10,14,38, 5,43,48		6, 1
52″	45,23,43,18,54,44, 6,50, 6,30		3,19, 7,35, 5	
		1,22,10,11,18,58, 8,43		6, 1
54″	45,23,44,41, 4,55,25,48,15,13		3,19, 7,41, 6	
		1,22,10, 7,59,50,27,37		6, 1
56″	45,23,46, 3,15, 3,25,38,42,50		3,19, 7,47, 7	
		1,22,10, 4,40,42,40,30		6, 1
58″	45,23,47,25,25, 8, 6,21,23,20		3,19, 7,53, 8	
		1,22,10, 1,21,34,47,22		
60″	45,23,48,47,35, 9,27,56,10,42			
exact	45,23,48,47,35, 9,27,56,41,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°10′ 0″	45,23,48,47,35, 9,27,56,41,20			
		1,22, 9,58, 2,26,51,40		
2″	45,23,50, 9,45, 7,30,23,33, 0		3,19, 8, 4,55	
		1,22, 9,54,43,18,46,45		6, 0
4″	45,23,51,31,55, 2,13,42,19,45		3,19, 8,10,55	
		1,22, 9,51,24,10,35,50		6, 0
6″	45,23,52,54, 4,53,37,52,55,35		3,19, 8,16,55	
		1,22, 9,48, 5, 2,18,55		6, 0
8″	45,23,54,16,14,41,42,55,14,30		3,19, 8,22,55	
		1,22, 9,44,45,53,56, 0		6, 0
10″	45,23,55,38,24,26,28,49,10,30		3,19, 8,28,55	
		1,22, 9,41,26,45,27, 5		6, 0
12″	45,23,57, 0,34, 7,55,34,37,35		3,19, 8,34,55	
		1,22, 9,38, 7,36,52,10		6, 0
14″	45,23,58,22,43,46, 3,11,29,45		3,19, 8,40,55	
		1,22, 9,34,48,28,11,15		6, 0
16″	45,23,59,44,53,20,51,39,41, 0		3,19, 8,46,55	
		1,22, 9,31,29,19,24,20		6, 0
18″	45,24, 1, 7, 2,52,20,59, 5,20		3,19, 8,52,55	
		1,22, 9,28,10,10,31,25		6, 0
20″	45,24, 2,29,12,20,31, 9,36,45		3,19, 8,58,55	
		1,22, 9,24,51, 1,32,30		6, 0
22″	45,24, 3,51,21,45,22,11, 9,15		3,19, 9, 4,55	
		1,22, 9,21,31,52,27,35		6, 0
24″	45,24, 5,13,31, 6,54, 3,36,50		3,19, 9,10,55	
		1,22, 9,18,12,43,16,40		6, 0
26″	45,24, 6,35,40,25, 6,46,53,30		3,19, 9,16,55	
		1,22, 9,14,53,33,59,45		6, 0
28″	45,24, 7,57,49,40, 0,20,53,15		3,19, 9,22,55	
		1,22, 9,11,34,24,36,50		6, 0
30″	45,24, 9,19,58,51,34,45,30, 5		3,19, 9,28,55	
		1,22, 9, 8,15,15, 7,55		6, 0
32″	45,24,10,42, 7,59,50, 0,38, 0		3,19, 9,34,55	
		1,22, 9, 4,56, 5,33, 0		6, 0
34″	45,24,12, 4,17, 4,46, 6,11, 0		3,19, 9,40,55	
		1,22, 9, 1,36,55,52, 5		6, 0
36″	45,24,13,26,26, 6,23, 2, 3, 5		3,19, 9,46,55	
		1,22, 8,58,17,46, 5,10		6, 0
38″	45,24,14,48,35, 4,40,48, 8,15		3,19, 9,52,55	
		1,22, 8,54,58,36,12,15		6, 0
40″	45,24,16,10,43,59,39,24,20,30		3,19, 9,58,55	
		1,22, 8,51,39,26,13,20		6, 0
42″	45,24,17,32,52,51,18,50,33,50		3,19,10, 4,55	
		1,22, 8,48,20,16, 8,25		6, 0
44″	45,24,18,55, 1,39,39, 6,42,15		3,19,10,10,55	
		1,22, 8,45, 1, 5,57,30		6, 0
46″	45,24,20,17,10,24,40,12,39,45		3,19,10,16,55	
		1,22, 8,41,41,55,40,35		6, 0
48″	45,24,21,39,19, 6,22, 8,20,20		3,19,10,22,55	
		1,22, 8,38,22,45,17,40		6, 0
50″	45,24,23, 1,27,44,44,53,38, 0		3,19,10,28,55	
		1,22, 8,35, 3,34,48,45		6, 0
52″	45,24,24,23,36,19,48,28,26,45		3,19,10,34,55	
		1,22, 8,31,44,24,13,50		6, 0
54″	45,24,25,45,44,51,32,52,40,35		3,19,10,40,55	
		1,22, 8,28,25,13,32,55		6, 0
56″	45,24,27, 7,53,19,58, 6,13,30		3,19,10,46,55	
		1,22, 8,25, 6, 2,46, 0		6, 0
58″	45,24,28,30, 1,45, 4, 8,59,30		3,19,10,52,55	
		1,22, 8,21,46,51,53, 5		
60″	45,24,29,52,10, 6,51, 0,52,35			
exact	45,24,29,52,10, 6,51, 0,28,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°11′ 0″	45,24,29,52,10, 6,51, 0,28,36			
		1,22, 8,18,27,40,51,34		
2″	45,24,31,14,18,25,18,41,20,10		3,19,11, 5, 5	
		1,22, 8,15, 8,29,46,29		6, 0
4″	45,24,32,36,26,40,27,11, 6,39		3,19,11,11, 5	
		1,22, 8,11,49,18,35,24		6, 0
6″	45,24,33,58,34,52,16,29,42, 3		3,19,11,17, 5	
		1,22, 8, 8,30, 7,18,19		6, 0
8″	45,24,35,20,43, 0,46,37, 0,22		3,19,11,23, 5	
		1,22, 8, 5,10,55,55,14		6, 0
10″	45,24,36,42,51, 5,57,32,55,36		3,19,11,29, 5	
		1,22, 8, 1,51,44,26, 9		6, 0
12″	45,24,38, 4,59, 7,49,17,21,45		3,19,11,35, 5	
		1,22, 7,58,32,32,51, 4		6, 0
14″	45,24,39,27, 7, 6,21,50,12,49		3,19,11,41, 5	
		1,22, 7,55,13,21, 9,59		6, 0
16″	45,24,40,49,15, 1,35,11,22,48		3,19,11,47, 5	
		1,22, 7,51,54, 9,22,54		6, 0
18″	45,24,42,11,22,53,29,20,45,42		3,19,11,53, 5	
		1,22, 7,48,34,57,29,49		6, 0
20″	45,24,43,33,30,42, 4,18,15,31		3,19,11,59, 5	
		1,22, 7,45,15,45,30,44		6, 0
22″	45,24,44,55,38,27,20, 3,46,15		3,19,12, 5, 5	
		1,22, 7,41,56,33,25,39		6, 0
24″	45,24,46,17,46, 9,16,37,11,54		3,19,12,11, 5	
		1,22, 7,38,37,21,14,34		6, 0
26″	45,24,47,39,53,47,53,58,26,28		3,19,12,17, 5	
		1,22, 7,35,18, 8,57,29		6, 0
28″	45,24,49, 2, 1,23,12, 7,23,57		3,19,12,23, 5	
		1,22, 7,31,58,56,34,24		6, 0
30″	45,24,50,24, 8,55,11, 3,58,21		3,19,12,29, 5	
		1,22, 7,28,39,44, 5,19		6, 0
32″	45,24,51,46,16,23,50,48, 3,40		3,19,12,35, 5	
		1,22, 7,25,20,31,30,14		6, 0
34″	45,24,53, 8,23,49,11,19,33,54		3,19,12,41, 5	
		1,22, 7,22, 1,18,49, 9		6, 0
36″	45,24,54,30,31,11,12,38,23, 3		3,19,12,47, 5	
		1,22, 7,18,42, 6, 2, 4		6, 0
38″	45,24,55,52,38,29,54,44,25, 7		3,19,12,53, 5	
		1,22, 7,15,22,53, 8,59		6, 0
40″	45,24,57,14,45,45,17,37,34, 6		3,19,12,59, 5	
		1,22, 7,12, 3,40, 9,54		6, 0
42″	45,24,58,36,52,57,21,17,44, 0		3,19,13, 5, 5	
		1,22, 7, 8,44,27, 4,49		6, 0
44″	45,24,59,59, 0, 6, 5,44,48,49		3,19,13,11, 5	
		1,22, 7, 5,25,13,53,44		6, 0
46″	45,25, 1,21, 7,11,30,58,42,33		3,19,13,17, 5	
		1,22, 7, 2, 6, 0,36,39		6, 0
48″	45,25, 2,43,14,13,36,59,19,12		3,19,13,23, 5	
		1,22, 6,58,46,47,13,34		6, 0
50″	45,25, 4, 5,21,12,23,46,32,46		3,19,13,29, 5	
		1,22, 6,55,27,33,44,29		6, 0
52″	45,25, 5,27,28, 7,51,20,17,15		3,19,13,35, 5	
		1,22, 6,52, 8,20, 9,24		6, 0
54″	45,25, 6,49,34,59,59,40,26,39		3,19,13,41, 5	
		1,22, 6,48,49, 6,28,19		6, 0
56″	45,25, 8,11,41,48,48,46,54,58		3,19,13,47, 5	
		1,22, 6,45,29,52,41,14		6, 0
58″	45,25, 9,33,48,34,18,39,36,12		3,19,13,53, 5	
		1,22, 6,42,10,38,48, 9		
60″	45,25,10,55,55,16,29,18,24,21			
exact	45,25,10,55,55,16,29,18, 3, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°12′ 0″	45,25,10,55,55,16,29,18, 3, 7	1,22, 6,38,51,24,46,59		
2″	45,25,12,18, 1,55,20,42,50, 6	1,22, 6,35,32,10,41,46	3,19,14, 5,13	6, 0
4″	45,25,13,40, 8,30,52,53,31,52	1,22, 6,32,12,56,30,33	3,19,14,11,13	6, 0
6″	45,25,15, 2,15, 3, 5,50, 2,25	1,22, 6,28,53,42,13,20	3,19,14,17,13	6, 0
8″	45,25,16,24,21,31,59,32,15,45	1,22, 6,25,34,27,50, 7	3,19,14,23,13	6, 0
10″	45,25,17,46,27,57,34, 0, 5,52	1,22, 6,22,15,13,20,54	3,19,14,29,13	6, 0
12″	45,25,19, 8,34,19,49,13,26,46	1,22, 6,18,55,58,45,41	3,19,14,35,13	6, 0
14″	45,25,20,30,40,38,45,12,12,27	1,22, 6,15,36,44, 4,28	3,19,14,41,13	6, 0
16″	45,25,21,52,46,54,21,56,16,55	1,22, 6,12,17,29,17,15	3,19,14,47,13	6, 0
18″	45,25,23,14,53, 6,39,25,34,10	1,22, 6, 8,58,14,24, 2	3,19,14,53,13	6, 0
20″	45,25,24,36,59,15,37,39,58,12	1,22, 6, 5,38,59,24,49	3,19,14,59,13	6, 0
22″	45,25,25,59, 5,21,16,39,23, 1	1,22, 6, 2,19,44,19,36	3,19,15, 5,13	6, 0
24″	45,25,27,21,11,23,36,23,42,37	1,22, 5,59, 0,29, 8,23	3,19,15,11,13	6, 0
26″	45,25,28,43,17,22,36,52,51, 0	1,22, 5,55,41,13,51,10	3,19,15,17,13	6, 0
28″	45,25,30, 5,23,18,18, 6,42,10	1,22, 5,52,21,58,27,57	3,19,15,23,13	6, 0
30″	45,25,31,27,29,10,40, 5,10, 7	1,22, 5,49, 2,42,58,44	3,19,15,29,13	6, 0
32″	45,25,32,49,34,59,42,48, 8,51	1,22, 5,45,43,27,23,31	3,19,15,35,13	6, 0
34″	45,25,34,11,40,45,26,15,32,22	1,22, 5,42,24,11,42,18	3,19,15,41,13	6, 0
36″	45,25,35,33,46,27,50,27,14,40	1,22, 5,39, 4,55,55, 5	3,19,15,47,13	6, 0
38″	45,25,36,55,52, 6,55,23, 9,45	1,22, 5,35,45,40, 1,52	3,19,15,53,13	6, 0
40″	45,25,38,17,57,42,41, 3,11,37	1,22, 5,32,26,24, 2,39	3,19,15,59,13	6, 0
42″	45,25,39,40, 3,15, 7,27,14,16	1,22, 5,29, 7, 7,57,26	3,19,16, 5,13	6, 0
44″	45,25,41, 2, 8,44,14,35,11,42	1,22, 5,25,47,51,46,13	3,19,16,11,13	6, 0
46″	45,25,42,24,14,10, 2,26,57,55	1,22, 5,22,28,35,29, 0	3,19,16,17,13	6, 0
48″	45,25,43,46,19,32,31, 2,26,55	1,22, 5,19, 9,19, 5,47	3,19,16,23,13	6, 0
50″	45,25,45, 8,24,51,40,21,32,42	1,22, 5,15,50, 2,36,34	3,19,16,29,13	6, 0
52″	45,25,46,30,30, 7,30,24, 9,16	1,22, 5,12,30,46, 1,21	3,19,16,35,13	6, 0
54″	45,25,47,52,35,20, 1,10,10,37	1,22, 5, 9,11,29,20, 8	3,19,16,41,13	6, 0
56″	45,25,49,14,40,29,12,39,30,45	1,22, 5, 5,52,12,32,55	3,19,16,47,13	6, 0
58″	45,25,50,36,45,35, 4,52, 3,40	1,22, 5, 2,32,55,39,42	3,19,16,53,13	
60″	45,25,51,58,50,37,37,47,43,22			
exact	45,25,51,58,50,37,37,47,36,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°13′ 0″	45,25,51,58,50,37,37,47,36,28			
		1,22, 4,59,13,38,39,43		
2″	45,25,53,20,55,36,51,26,16,11		3,19,17, 5,16	
		1,22, 4,55,54,21,34,27		6, 0
4″	45,25,54,43, 0,32,45,47,50,38		3,19,17,11,16	
		1,22, 4,52,35, 4,23,11		6, 0
6″	45,25,56, 5, 5,25,20,52,13,49		3,19,17,17,16	
		1,22, 4,49,15,47, 5,55		6, 0
8″	45,25,57,27,10,14,36,39,19,44		3,19,17,23,16	
		1,22, 4,45,56,29,42,39		6, 0
10″	45,25,58,49,15, 0,33, 9, 2,23		3,19,17,29,16	
		1,22, 4,42,37,12,13,23		6, 0
12″	45,26, 0,11,19,43,10,21,15,46		3,19,17,35,16	
		1,22, 4,39,17,54,38, 7		6, 0
14″	45,26, 1,33,24,22,28,15,53,53		3,19,17,41,16	
		1,22, 4,35,58,36,56,51		6, 0
16″	45,26, 2,55,28,58,26,52,50,44		3,19,17,47,16	
		1,22, 4,32,39,19, 9,35		6, 0
18″	45,26, 4,17,33,31, 6,12, 0,19		3,19,17,53,16	
		1,22, 4,29,20, 1,16,19		6, 0
20″	45,26, 5,39,38, 0,26,13,16,38		3,19,17,59,16	
		1,22, 4,26, 0,43,17, 3		6, 0
22″	45,26, 7, 1,42,26,26,56,33,41		3,19,18, 5,16	
		1,22, 4,22,41,25,11,47		6, 0
24″	45,26, 8,23,46,49, 8,21,45,28		3,19,18,11,16	
		1,22, 4,19,22, 7, 0,31		6, 0
26″	45,26, 9,45,51, 8,30,28,45,59		3,19,18,17,16	
		1,22, 4,16, 2,48,43,15		6, 0
28″	45,26,11, 7,55,24,33,17,29,14		3,19,18,23,16	
		1,22, 4,12,43,30,19,59		6, 0
30″	45,26,12,29,59,37,16,47,49,13		3,19,18,29,16	
		1,22, 4, 9,24,11,50,43		6, 0
32″	45,26,13,52, 3,46,40,59,39,56		3,19,18,35,16	
		1,22, 4, 6, 4,53,15,27		6, 0
34″	45,26,15,14, 7,52,45,52,55,23		3,19,18,41,16	
		1,22, 4, 2,45,34,34,11		6, 0
36″	45,26,16,36,11,55,31,27,29,34		3,19,18,47,16	
		1,22, 3,59,26,15,46,55		6, 0
38″	45,26,17,58,15,54,57,43,16,29		3,19,18,53,16	
		1,22, 3,56, 6,56,53,39		6, 0
40″	45,26,19,20,19,51, 4,40,10, 8		3,19,18,59,16	
		1,22, 3,52,47,37,54,23		6, 0
42″	45,26,20,42,23,43,52,18, 4,31		3,19,19, 5,16	
		1,22, 3,49,28,18,49, 7		6, 0
44″	45,26,22, 4,27,33,20,36,53,38		3,19,19,11,16	
		1,22, 3,46, 8,59,37,51		6, 0
46″	45,26,23,26,31,19,29,36,31,29		3,19,19,17,16	
		1,22, 3,42,49,40,20,35		6, 0
48″	45,26,24,48,35, 2,19,16,52, 4		3,19,19,23,16	
		1,22, 3,39,30,20,57,19		6, 0
50″	45,26,26,10,38,41,49,37,49,23		3,19,19,29,16	
		1,22, 3,36,11, 1,28, 3		6, 0
52″	45,26,27,32,42,18, 0,39,17,26		3,19,19,35,16	
		1,22, 3,32,51,41,52,47		6, 0
54″	45,26,28,54,45,50,52,21,10,13		3,19,19,41,16	
		1,22, 3,29,32,22,11,31		6, 0
56″	45,26,30,16,49,20,24,43,21,44		3,19,19,47,16	
		1,22, 3,26,13, 2,24,15		6, 0
58″	45,26,31,38,52,46,37,45,45,59		3,19,19,53,16	
		1,22, 3,22,53,42,30,59		
60″	45,26,33, 0,56, 9,31,28,16,58			
exact	45,26,33, 0,56, 9,31,28,14,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°14′ 0″	45,26,33, 0,56, 9,31,28,14,51			
		1,22, 3,19,34,22,31,35		
2″	45,26,34,22,59,29, 5,50,46,26		3,19,20, 5,16	
		1,22, 3,16,15, 2,26,19		6, 0
4″	45,26,35,45, 2,45,20,53,12,45		3,19,20,11,16	
		1,22, 3,12,55,42,15, 3		6, 0
6″	45,26,37, 7, 5,58,16,35,27,48		3,19,20,17,16	
		1,22, 3, 9,36,21,57,47		6, 0
8″	45,26,38,29, 9, 7,52,57,25,35		3,19,20,23,16	
		1,22, 3, 6,17, 1,34,31		6, 0
10″	45,26,39,51,12,14, 9,59, 0, 6		3,19,20,29,16	
		1,22, 3, 2,57,41, 5,15		6, 0
12″	45,26,41,13,15,17, 7,40, 5,21		3,19,20,35,16	
		1,22, 2,59,38,20,29,59		6, 0
14″	45,26,42,35,18,16,46, 0,35,20		3,19,20,41,16	
		1,22, 2,56,18,59,48,43		6, 0
16″	45,26,43,57,21,13, 5, 0,24, 3		3,19,20,47,16	
		1,22, 2,52,59,39, 1,27		6, 0
18″	45,26,45,19,24, 6, 4,39,25,30		3,19,20,53,16	
		1,22, 2,49,40,18, 8,11		6, 0
20″	45,26,46,41,26,55,44,57,33,41		3,19,20,59,16	
		1,22, 2,46,20,57, 8,55		6, 0
22″	45,26,48, 3,29,42, 5,54,42,36		3,19,21, 5,16	
		1,22, 2,43, 1,36, 3,39		6, 0
24″	45,26,49,25,32,25, 7,30,46,15		3,19,21,11,16	
		1,22, 2,39,42,14,52,23		6, 0
26″	45,26,50,47,35, 4,49,45,38,38		3,19,21,17,16	
		1,22, 2,36,22,53,35, 7		6, 0
28″	45,26,52, 9,37,41,12,39,13,45		3,19,21,23,16	
		1,22, 2,33, 3,32,11,51		6, 0
30″	45,26,53,31,40,14,16,11,25,36		3,19,21,29,16	
		1,22, 2,29,44,10,42,35		6, 0
32″	45,26,54,53,42,44, 0,22, 8,11		3,19,21,35,16	
		1,22, 2,26,24,49, 7,19		6, 0
34″	45,26,56,15,45,10,25,11,15,30		3,19,21,41,16	
		1,22, 2,23, 5,27,26, 3		6, 0
36″	45,26,57,37,47,33,30,38,41,33		3,19,21,47,16	
		1,22, 2,19,46, 5,38,47		6, 0
38″	45,26,58,59,49,53,16,44,20,20		3,19,21,53,16	
		1,22, 2,16,26,43,45,31		6, 0
40″	45,27, 0,21,52, 9,43,28, 5,51		3,19,21,59,16	
		1,22, 2,13, 7,21,46,15		6, 0
42″	45,27, 1,43,54,22,50,49,52, 6		3,19,22, 5,16	
		1,22, 2, 9,47,59,40,59		6, 0
44″	45,27, 3, 5,56,32,38,49,33, 5		3,19,22,11,16	
		1,22, 2, 6,28,37,29,43		6, 0
46″	45,27, 4,27,58,39, 7,27, 2,48		3,19,22,17,16	
		1,22, 2, 3, 9,15,12,27		6, 0
48″	45,27, 5,50, 0,42,16,42,15,15		3,19,22,23,16	
		1,22, 1,59,49,52,49,11		6, 0
50″	45,27, 7,12, 2,42, 6,35, 4,26		3,19,22,29,16	
		1,22, 1,56,30,30,19,55		6, 0
52″	45,27, 8,34, 4,38,37, 5,24,21		3,19,22,35,16	
		1,22, 1,53,11, 7,44,39		6, 0
54″	45,27, 9,56, 6,31,48,13, 9, 0		3,19,22,41,16	
		1,22, 1,49,51,45, 3,23		6, 0
56″	45,27,11,18, 8,21,39,58,12,23		3,19,22,47,16	
		1,22, 1,46,32,22,16, 7		6, 0
58″	45,27,12,40,10, 8,12,20,28,30		3,19,22,53,16	
		1,22, 1,43,12,59,22,51		
60″	45,27,14, 2,11,51,25,19,51,21			
exact	45,27,14, 2,11,51,25,19,59, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°15′ 0″	45,27,14, 2,11,51,25,19,59, 5			
		1,22, 1,39,53,36,24,26		
2″	45,27,15,24,13,31,18,56,23,31		3,19,23, 5,12	
		1,22, 1,36,34,13,19,14		6, 0
4″	45,27,16,46,15, 7,53, 9,42,45		3,19,23,11,12	
		1,22, 1,33,14,50, 8, 2		6, 0
6″	45,27,18, 8,16,41, 7,59,50,47		3,19,23,17,12	
		1,22, 1,29,55,26,50,50		6, 0
8″	45,27,19,30,18,11, 3,26,41,37		3,19,23,23,12	
		1,22, 1,26,36, 3,27,38		6, 0
10″	45,27,20,52,19,37,39,30, 9,15		3,19,23,29,12	
		1,22, 1,23,16,39,58,26		6, 0
12″	45,27,22,14,21, 0,56,10, 7,41		3,19,23,35,12	
		1,22, 1,19,57,16,23,14		6, 0
14″	45,27,23,36,22,20,53,26,30,55		3,19,23,41,12	
		1,22, 1,16,37,52,42, 2		6, 0
16″	45,27,24,58,23,37,31,19,12,57		3,19,23,47,12	
		1,22, 1,13,18,28,54,50		6, 0
18″	45,27,26,20,24,50,49,48, 7,47		3,19,23,53,12	
		1,22, 1, 9,59, 5, 1,38		6, 0
20″	45,27,27,42,26, 0,48,53, 9,25		3,19,23,59,12	
		1,22, 1, 6,39,41, 2,26		6, 0
22″	45,27,29, 4,27, 7,28,34,11,51		3,19,24, 5,12	
		1,22, 1, 3,20,16,57,14		6, 0
24″	45,27,30,26,28,10,48,51, 9, 5		3,19,24,11,12	
		1,22, 1, 0, 0,52,46, 2		6, 0
26″	45,27,31,48,29,10,49,43,55, 7		3,19,24,17,12	
		1,22, 0,56,41,28,28,50		6, 0
28″	45,27,33,10,30, 7,31,12,23,57		3,19,24,23,12	
		1,22, 0,53,22, 4, 5,38		6, 0
30″	45,27,34,32,31, 0,53,16,29,35		3,19,24,29,12	
		1,22, 0,50, 2,39,36,26		6, 0
32″	45,27,35,54,31,50,55,56, 6, 1		3,19,24,35,12	
		1,22, 0,46,43,15, 1,14		6, 0
34″	45,27,37,16,32,37,39,11, 7,15		3,19,24,41,12	
		1,22, 0,43,23,50,20, 2		6, 0
36″	45,27,38,38,33,21, 3, 1,27,17		3,19,24,47,12	
		1,22, 0,40, 4,25,32,50		6, 0
38″	45,27,40, 0,34, 1, 7,27, 0, 7		3,19,24,53,12	
		1,22, 0,36,45, 0,39,38		6, 0
40″	45,27,41,22,34,37,52,27,39,45		3,19,24,59,12	
		1,22, 0,33,25,35,40,26		6, 0
42″	45,27,42,44,35,11,18, 3,20,11		3,19,25, 5,12	
		1,22, 0,30, 6,10,35,14		6, 0
44″	45,27,44, 6,35,41,24,13,55,25		3,19,25,11,12	
		1,22, 0,26,46,45,24, 2		6, 0
46″	45,27,45,28,36, 8,10,59,19,27		3,19,25,17,12	
		1,22, 0,23,27,20, 6,50		6, 0
48″	45,27,46,50,36,31,38,19,26,17		3,19,25,23,12	
		1,22, 0,20, 7,54,43,38		6, 0
50″	45,27,48,12,36,51,46,14, 9,55		3,19,25,29,12	
		1,22, 0,16,48,29,14,26		6, 0
52″	45,27,49,34,37, 8,34,43,24,21		3,19,25,35,12	
		1,22, 0,13,29, 3,39,14		6, 0
54″	45,27,50,56,37,22, 3,47, 3,35		3,19,25,41,12	
		1,22, 0,10, 9,37,58, 2		6, 0
56″	45,27,52,18,37,32,13,25, 1,37		3,19,25,47,12	
		1,22, 0, 6,50,12,10,50		6, 0
58″	45,27,53,40,37,39, 3,37,12,27		3,19,25,53,12	
		1,22, 0, 3,30,46,17,38		
60″	45,27,55, 2,37,42,34,23,30, 5			
exact	45,27,55, 2,37,42,34,23,44,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°16′ 0″	45,27,55, 2,37,42,34,23,44,39			
		1,22, 0, 0,11,20,20, 4		
2″	45,27,56,24,37,42,45,44, 4,43		3,19,26, 5, 5	
		1,21,59,56,51,54,14,59		6, 0
4″	45,27,57,46,37,39,37,38,19,42		3,19,26,11, 5	
		1,21,59,53,32,28, 3,54		6, 0
6″	45,27,59, 8,37,33,10, 6,23,36		3,19,26,17, 5	
		1,21,59,50,13, 1,46,49		6, 0
8″	45,28, 0,30,37,23,23, 8,10,25		3,19,26,23, 5	
		1,21,59,46,53,35,23,44		6, 0
10″	45,28, 1,52,37,10,16,43,34, 9		3,19,26,29, 5	
		1,21,59,43,34, 8,54,39		6, 0
12″	45,28, 3,14,36,53,50,52,28,48		3,19,26,35, 5	
		1,21,59,40,14,42,19,34		6, 0
14″	45,28, 4,36,36,34, 5,34,48,22		3,19,26,41, 5	
		1,21,59,36,55,15,38,29		6, 0
16″	45,28, 5,58,36,11, 0,50,26,51		3,19,26,47, 5	
		1,21,59,33,35,48,51,24		6, 0
18″	45,28, 7,20,35,44,36,39,18,15		3,19,26,53, 5	
		1,21,59,30,16,21,58,19		6, 0
20″	45,28, 8,42,35,14,53, 1,16,34		3,19,26,59, 5	
		1,21,59,26,56,54,59,14		6, 0
22″	45,28,10, 4,34,41,49,56,15,48		3,19,27, 5, 5	
		1,21,59,23,37,27,54, 9		6, 0
24″	45,28,11,26,34, 5,27,24, 9,57		3,19,27,11, 5	
		1,21,59,20,18, 0,43, 4		6, 0
26″	45,28,12,48,33,25,45,24,53, 1		3,19,27,17, 5	
		1,21,59,16,58,33,25,59		6, 0
28″	45,28,14,10,32,42,43,58,19, 0		3,19,27,23, 5	
		1,21,59,13,39, 6, 2,54		6, 0
30″	45,28,15,32,31,56,23, 4,21,54		3,19,27,29, 5	
		1,21,59,10,19,38,33,49		6, 0
32″	45,28,16,54,31, 6,42,42,55,43		3,19,27,35, 5	
		1,21,59, 7, 0,10,58,44		6, 0
34″	45,28,18,16,30,13,42,53,54,27		3,19,27,41, 5	
		1,21,59, 3,40,43,17,39		6, 0
36″	45,28,19,38,29,17,23,37,12, 6		3,19,27,47, 5	
		1,21,59, 0,21,15,30,34		6, 0
38″	45,28,21, 0,28,17,44,52,42,40		3,19,27,53, 5	
		1,21,58,57, 1,47,37,29		6, 0
40″	45,28,22,22,27,14,46,40,20, 9		3,19,27,59, 5	
		1,21,58,53,42,19,38,24		6, 0
42″	45,28,23,44,26, 8,28,59,58,33		3,19,28, 5, 5	
		1,21,58,50,22,51,33,19		6, 0
44″	45,28,25, 6,24,58,51,51,31,52		3,19,28,11, 5	
		1,21,58,47, 3,23,22,14		6, 0
46″	45,28,26,28,23,45,55,14,54, 6		3,19,28,17, 5	
		1,21,58,43,43,55, 5, 9		6, 0
48″	45,28,27,50,22,29,39, 9,59,15		3,19,28,23, 5	
		1,21,58,40,24,26,42, 4		6, 0
50″	45,28,29,12,21,10, 3,36,41,19		3,19,28,29, 5	
		1,21,58,37, 4,58,12,59		6, 0
52″	45,28,30,34,19,47, 8,34,54,18		3,19,28,35, 5	
		1,21,58,33,45,29,37,54		6, 0
54″	45,28,31,56,18,20,54, 4,32,12		3,19,28,41, 5	
		1,21,58,30,26, 0,56,49		6, 0
56″	45,28,33,18,16,51,20, 5,29, 1		3,19,28,47, 5	
		1,21,58,27, 6,32, 9,44		6, 0
58″	45,28,34,40,15,18,26,37,38,45		3,19,28,53, 5	
		1,21,58,23,47, 3,16,39		
60″	45,28,36, 2,13,42,13,40,55,24			
exact	45,28,36, 2,13,42,13,41,21,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°17′ 0″	45,28,36, 2,13,42,13,41,21,41			
		1,21,58,20,27,34,20,19		
2″	45,28,37,24,12, 2,41,15,42, 0		3,19,29, 4,53	
		1,21,58,17, 8, 5,15,26		6, 0
4″	45,28,38,46,10,19,49,20,57,26		3,19,29,10,53	
		1,21,58,13,48,36, 4,33		6, 0
6″	45,28,40, 8, 8,33,37,57, 1,59		3,19,29,16,53	
		1,21,58,10,29, 6,47,40		6, 0
8″	45,28,41,30, 6,44, 7, 3,49,39		3,19,29,22,53	
		1,21,58, 7, 9,37,24,47		6, 0
10″	45,28,42,52, 4,51,16,41,14,26		3,19,29,28,53	
		1,21,58, 3,50, 7,55,54		6, 0
12″	45,28,44,14, 2,55, 6,49,10,20		3,19,29,34,53	
		1,21,58, 0,30,38,21, 1		6, 0
14″	45,28,45,36, 0,55,37,27,31,21		3,19,29,40,53	
		1,21,57,57,11, 8,40, 8		6, 0
16″	45,28,46,57,58,52,48,36,11,29		3,19,29,46,53	
		1,21,57,53,51,38,53,15		6, 0
18″	45,28,48,19,56,46,40,15, 4,44		3,19,29,52,53	
		1,21,57,50,32, 9, 0,22		6, 0
20″	45,28,49,41,54,37,12,24, 5, 6		3,19,29,58,53	
		1,21,57,47,12,39, 1,29		6, 0
22″	45,28,51, 3,52,24,25, 3, 6,35		3,19,30, 4,53	
		1,21,57,43,53, 8,56,36		6, 0
24″	45,28,52,25,50, 8,18,12, 3,11		3,19,30,10,53	
		1,21,57,40,33,38,45,43		6, 0
26″	45,28,53,47,47,48,51,50,48,54		3,19,30,16,53	
		1,21,57,37,14, 8,28,50		6, 0
28″	45,28,55, 9,45,26, 5,59,17,44		3,19,30,22,53	
		1,21,57,33,54,38, 5,57		6, 0
30″	45,28,56,31,43, 0, 0,37,23,41		3,19,30,28,53	
		1,21,57,30,35, 7,37, 4		6, 0
32″	45,28,57,53,40,30,35,45, 0,45		3,19,30,34,53	
		1,21,57,27,15,37, 2,11		6, 0
34″	45,28,59,15,37,57,51,22, 2,56		3,19,30,40,53	
		1,21,57,23,56, 6,21,18		6, 0
36″	45,29, 0,37,35,21,47,28,24,14		3,19,30,46,53	
		1,21,57,20,36,35,34,25		6, 0
38″	45,29, 1,59,32,42,24, 3,58,39		3,19,30,52,53	
		1,21,57,17,17, 4,41,32		6, 0
40″	45,29, 3,21,29,59,41, 8,40,11		3,19,30,58,53	
		1,21,57,13,57,33,42,39		6, 0
42″	45,29, 4,43,27,13,38,42,22,50		3,19,31, 4,53	
		1,21,57,10,38, 2,37,46		6, 0
44″	45,29, 6, 5,24,24,16,45, 0,36		3,19,31,10,53	
		1,21,57, 7,18,31,26,53		6, 0
46″	45,29, 7,27,21,31,35,16,27,29		3,19,31,16,53	
		1,21,57, 3,59, 0,10, 0		6, 0
48″	45,29, 8,49,18,35,34,16,37,29		3,19,31,22,53	
		1,21,57, 0,39,28,47, 7		6, 0
50″	45,29,10,11,15,36,13,45,24,36		3,19,31,28,53	
		1,21,56,57,19,57,18,14		6, 0
52″	45,29,11,33,12,33,33,42,42,50		3,19,31,34,53	
		1,21,56,54, 0,25,43,21		6, 0
54″	45,29,12,55, 9,27,34, 8,26,11		3,19,31,40,53	
		1,21,56,50,40,54, 2,28		6, 0
56″	45,29,14,17, 6,18,15, 2,28,39		3,19,31,46,53	
		1,21,56,47,21,22,15,35		6, 0
58″	45,29,15,39, 3, 5,36,24,44,14		3,19,31,52,53	
		1,21,56,44, 1,50,22,42		
60″	45,29,17, 0,59,49,38,15, 6,56			
exact	45,29,17, 0,59,49,38,15,35, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°18′ 0″	45,29,17, 0,59,49,38,15,35, 0			
		1,21,56,40,42,18,27, 1		
2″	45,29,18,22,56,30,20,34, 2, 1		3,19,32, 4,39	
		1,21,56,37,22,46,22,22		5,59
4″	45,29,19,44,53, 7,43,20,24,23		3,19,32,10,38	
		1,21,56,34, 3,14,11,44		5,59
6″	45,29,21, 6,49,41,46,34,36, 7		3,19,32,16,37	
		1,21,56,30,43,41,55, 7		5,59
8″	45,29,22,28,46,12,30,16,31,14		3,19,32,22,36	
		1,21,56,27,24, 9,32,31		5,59
10″	45,29,23,50,42,39,54,26, 3,45		3,19,32,28,35	
		1,21,56,24, 4,37, 3,56		5,59
12″	45,29,25,12,39, 3,59, 3, 7,41		3,19,32,34,34	
		1,21,56,20,45, 4,29,22		5,59
14″	45,29,26,34,35,24,44, 7,37, 3		3,19,32,40,33	
		1,21,56,17,25,31,48,49		5,59
16″	45,29,27,56,31,42, 9,39,25,52		3,19,32,46,32	
		1,21,56,14, 5,59, 2,17		5,59
18″	45,29,29,18,27,56,15,38,28, 9		3,19,32,52,31	
		1,21,56,10,46,26, 9,46		5,59
20″	45,29,30,40,24, 7, 2, 4,37,55		3,19,32,58,30	
		1,21,56, 7,26,53,11,16		5,59
22″	45,29,32, 2,20,14,28,57,49,11		3,19,33, 4,29	
		1,21,56, 4, 7,20, 6,47		5,59
24″	45,29,33,24,16,18,36,17,55,58		3,19,33,10,28	
		1,21,56, 0,47,46,56,19		5,59
26″	45,29,34,46,12,19,24, 4,52,17		3,19,33,16,27	
		1,21,55,57,28,13,39,52		5,59
28″	45,29,36, 8, 8,16,52,18,32, 9		3,19,33,22,26	
		1,21,55,54, 8,40,17,26		5,59
30″	45,29,37,30, 4,11, 0,58,49,35		3,19,33,28,25	
		1,21,55,50,49, 6,49, 1		5,59
32″	45,29,38,52, 0, 1,50, 5,38,36		3,19,33,34,24	
		1,21,55,47,29,33,14,37		5,59
34″	45,29,40,13,55,49,19,38,53,13		3,19,33,40,23	
		1,21,55,44, 9,59,34,14		5,59
36″	45,29,41,35,51,33,29,38,27,27		3,19,33,46,22	
		1,21,55,40,50,25,47,52		5,59
38″	45,29,42,57,47,14,20, 4,15,19		3,19,33,52,21	
		1,21,55,37,30,51,55,31		5,59
40″	45,29,44,19,42,51,50,56,10,50		3,19,33,58,20	
		1,21,55,34,11,17,57,11		5,59
42″	45,29,45,41,38,26, 2,14, 8, 1		3,19,34, 4,19	
		1,21,55,30,51,43,52,52		5,59
44″	45,29,47, 3,33,56,53,58, 0,53		3,19,34,10,18	
		1,21,55,27,32, 9,42,34		5,59
46″	45,29,48,25,29,24,26, 7,43,27		3,19,34,16,17	
		1,21,55,24,12,35,26,17		5,59
48″	45,29,49,47,24,48,38,43, 9,44		3,19,34,22,16	
		1,21,55,20,53, 1, 4, 1		5,59
50″	45,29,51, 9,20, 9,31,44,13,45		3,19,34,28,15	
		1,21,55,17,33,26,35,46		5,59
52″	45,29,52,31,15,27, 5,10,49,31		3,19,34,34,14	
		1,21,55,14,13,52, 1,32		5,59
54″	45,29,53,53,10,41,19, 2,51, 3		3,19,34,40,13	
		1,21,55,10,54,17,21,19		5,59
56″	45,29,55,15, 5,52,13,20,12,22		3,19,34,46,12	
		1,21,55, 7,34,42,35, 7		5,59
58″	45,29,56,37, 0,59,48, 2,47,29		3,19,34,52,11	
		1,21,55, 4,15, 7,42,56		
60″	45,29,57,58,56, 4, 3,10,30,25			
exact	45,29,57,58,56, 4, 3,10, 4, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°19′ 0″	45,29,57,58,56, 4, 3,10, 4, 6			
		1,21,55, 0,55,32,41,57		
2″	45,29,59,20,51, 4,58,42,46, 3		3,19,35, 4,20	
		1,21,54,57,35,57,37,37		5,59
4″	45,30, 0,42,46, 2,34,40,23,40		3,19,35,10,19	
		1,21,54,54,16,22,27,18		5,59
6″	45,30, 2, 4,40,56,51, 2,50,58		3,19,35,16,18	
		1,21,54,50,56,47,11, 0		5,59
8″	45,30, 3,26,35,47,47,50, 1,58		3,19,35,22,17	
		1,21,54,47,37,11,48,43		5,59
10″	45,30, 4,48,30,35,25, 1,50,41		3,19,35,28,16	
		1,21,54,44,17,36,20,27		5,59
12″	45,30, 6,10,25,19,42,38,11, 8		3,19,35,34,15	
		1,21,54,40,58, 0,46,12		5,59
14″	45,30, 7,32,20, 0,40,38,57,20		3,19,35,40,14	
		1,21,54,37,38,25, 5,58		5,59
16″	45,30, 8,54,14,38,19, 4, 3,18		3,19,35,46,13	
		1,21,54,34,18,49,19,45		5,59
18″	45,30,10,16, 9,12,37,53,23, 3		3,19,35,52,12	
		1,21,54,30,59,13,27,33		5,59
20″	45,30,11,38, 3,43,37, 6,50,36		3,19,35,58,11	
		1,21,54,27,39,37,29,22		5,59
22″	45,30,12,59,58,11,16,44,19,58		3,19,36, 4,10	
		1,21,54,24,20, 1,25,12		5,59
24″	45,30,14,21,52,35,36,45,45,10		3,19,36,10, 9	
		1,21,54,21, 0,25,15, 3		5,59
26″	45,30,15,43,46,56,37,11, 0,13		3,19,36,16, 8	
		1,21,54,17,40,48,58,55		5,59
28″	45,30,17, 5,41,14,17,59,59, 8		3,19,36,22, 7	
		1,21,54,14,21,12,36,48		5,59
30″	45,30,18,27,35,28,39,12,35,56		3,19,36,28, 6	
		1,21,54,11, 1,36, 8,42		5,59
32″	45,30,19,49,29,39,40,48,44,38		3,19,36,34, 5	
		1,21,54, 7,41,59,34,37		5,59
34″	45,30,21,11,23,47,22,48,19,15		3,19,36,40, 4	
		1,21,54, 4,22,22,54,33		5,59
36″	45,30,22,33,17,51,45,11,13,48		3,19,36,46, 3	
		1,21,54, 1, 2,46, 8,30		5,59
38″	45,30,23,55,11,52,47,57,22,18		3,19,36,52, 2	
		1,21,53,57,43, 9,16,28		5,59
40″	45,30,25,17, 5,50,31, 6,38,46		3,19,36,58, 1	
		1,21,53,54,23,32,18,27		5,59
42″	45,30,26,38,59,44,54,38,57,13		3,19,37, 4, 0	
		1,21,53,51, 3,55,14,27		5,59
44″	45,30,28, 0,53,35,58,34,11,40		3,19,37, 9,59	
		1,21,53,47,44,18, 4,28		5,59
46″	45,30,29,22,47,23,42,52,16, 8		3,19,37,15,58	
		1,21,53,44,24,40,48,30		5,59
48″	45,30,30,44,41, 8, 7,33, 4,38		3,19,37,21,57	
		1,21,53,41, 5, 3,26,33		5,59
50″	45,30,32, 6,34,49,12,36,31,11		3,19,37,27,56	
		1,21,53,37,45,25,58,37		5,59
52″	45,30,33,28,28,26,58, 2,29,48		3,19,37,33,55	
		1,21,53,34,25,48,24,42		5,59
54″	45,30,34,50,22, 1,23,50,54,30		3,19,37,39,54	
		1,21,53,31, 6,10,44,48		5,59
56″	45,30,36,12,15,32,30, 1,39,18		3,19,37,45,53	
		1,21,53,27,46,32,58,55		5,59
58″	45,30,37,34, 9, 0,16,34,38,13		3,19,37,51,52	
		1,21,53,24,26,55, 7, 3		
60″	45,30,38,56, 2,24,43,29,45,16			
exact	45,30,38,56, 2,24,43,29,23,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°20′ 0″	45,30,38,56, 2,24,43,29,23,12			
		1,21,53,21, 7,17, 6,59		
2″	45,30,40,17,55,45,50,46,30,11		3,19,38, 3,58	
		1,21,53,17,47,39, 3, 1		5,59
4″	45,30,41,39,49, 3,38,25,33,12		3,19,38, 9,57	
		1,21,53,14,28, 0,53, 4		5,59
6″	45,30,43, 1,42,18, 6,26,26,16		3,19,38,15,56	
		1,21,53,11, 8,22,37, 8		5,59
8″	45,30,44,23,35,29,14,49, 3,24		3,19,38,21,55	
		1,21,53, 7,48,44,15,13		5,59
10″	45,30,45,45,28,37, 3,33,18,37		3,19,38,27,54	
		1,21,53, 4,29, 5,47,19		5,59
12″	45,30,47, 7,21,41,32,39, 5,56		3,19,38,33,53	
		1,21,53, 1, 9,27,13,26		5,59
14″	45,30,48,29,14,42,42, 6,19,22		3,19,38,39,52	
		1,21,52,57,49,48,33,34		5,59
16″	45,30,49,51, 7,40,31,54,52,56		3,19,38,45,51	
		1,21,52,54,30, 9,47,43		5,59
18″	45,30,51,13, 0,35, 2, 4,40,39		3,19,38,51,50	
		1,21,52,51,10,30,55,53		5,59
20″	45,30,52,34,53,26,12,35,36,32		3,19,38,57,49	
		1,21,52,47,50,51,58, 4		5,59
22″	45,30,53,56,46,14, 3,27,34,36		3,19,39, 3,48	
		1,21,52,44,31,12,54,16		5,59
24″	45,30,55,18,38,58,34,40,28,52		3,19,39, 9,47	
		1,21,52,41,11,33,44,29		5,59
26″	45,30,56,40,31,39,46,14,13,21		3,19,39,15,46	
		1,21,52,37,51,54,28,43		5,59
28″	45,30,58, 2,24,17,38, 8,42, 4		3,19,39,21,45	
		1,21,52,34,32,15, 6,58		5,59
30″	45,30,59,24,16,52,10,23,49, 2		3,19,39,27,44	
		1,21,52,31,12,35,39,14		5,59
32″	45,31, 0,46, 9,23,22,59,28,16		3,19,39,33,43	
		1,21,52,27,52,56, 5,31		5,59
34″	45,31, 2, 8, 1,51,15,55,33,47		3,19,39,39,42	
		1,21,52,24,33,16,25,49		5,59
36″	45,31, 3,29,54,15,49,11,59,36		3,19,39,45,41	
		1,21,52,21,13,36,40, 8		5,59
38″	45,31, 4,51,46,37, 2,48,39,44		3,19,39,51,40	
		1,21,52,17,53,56,48,28		5,59
40″	45,31, 6,13,38,54,56,45,28,12		3,19,39,57,39	
		1,21,52,14,34,16,50,49		5,59
42″	45,31, 7,35,31, 9,31, 2,19, 1		3,19,40, 3,38	
		1,21,52,11,14,36,47,11		5,59
44″	45,31, 8,57,23,20,45,39, 6,12		3,19,40, 9,37	
		1,21,52, 7,54,56,37,34		5,59
46″	45,31,10,19,15,28,40,35,43,46		3,19,40,15,36	
		1,21,52, 4,35,16,21,58		5,59
48″	45,31,11,41, 7,33,15,52, 5,44		3,19,40,21,35	
		1,21,52, 1,15,36, 0,23		5,59
50″	45,31,13, 2,59,34,31,28, 6, 7		3,19,40,27,34	
		1,21,51,57,55,55,32,49		5,59
52″	45,31,14,24,51,32,27,23,38,56		3,19,40,33,33	
		1,21,51,54,36,14,59,16		5,59
54″	45,31,15,46,43,27, 3,38,38,12		3,19,40,39,32	
		1,21,51,51,16,34,19,44		5,59
56″	45,31,17, 8,35,18,20,12,57,56		3,19,40,45,31	
		1,21,51,47,56,53,34,13		5,59
58″	45,31,18,30,27, 6,17, 6,32, 9		3,19,40,51,30	
		1,21,51,44,37,12,42,43		
60″	45,31,19,52,18,50,54,19,14,52			
exact	45,31,19,52,18,50,54,19, 1,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°21′ 0″	45,31,19,52,18,50,54,19, 1,13			
		1,21,51,41,17,31,43,55		
2″	45,31,21,14,10,32,11,50,45, 8		3,19,41, 3,33	
		1,21,51,37,57,50,40,22		5,59
4″	45,31,22,36, 2,10, 9,41,25,30		3,19,41, 9,32	
		1,21,51,34,38, 9,30,50		5,59
6″	45,31,23,57,53,44,47,50,56,20		3,19,41,15,31	
		1,21,51,31,18,28,15,19		5,59
8″	45,31,25,19,45,16, 6,19,11,39		3,19,41,21,30	
		1,21,51,27,58,46,53,49		5,59
10″	45,31,26,41,36,44, 5, 6, 5,28		3,19,41,27,29	
		1,21,51,24,39, 5,26,20		5,59
12″	45,31,28, 3,28, 8,44,11,31,48		3,19,41,33,28	
		1,21,51,21,19,23,52,52		5,59
14″	45,31,29,25,19,30, 3,35,24,40		3,19,41,39,27	
		1,21,51,17,59,42,13,25		5,59
16″	45,31,30,47,10,48, 3,17,38, 5		3,19,41,45,26	
		1,21,51,14,40, 0,27,59		5,59
18″	45,31,32, 9, 2, 2,43,18, 6, 4		3,19,41,51,25	
		1,21,51,11,20,18,36,34		5,59
20″	45,31,33,30,53,14, 3,36,42,38		3,19,41,57,24	
		1,21,51, 8, 0,36,39,10		5,59
22″	45,31,34,52,44,22, 4,13,21,48		3,19,42, 3,23	
		1,21,51, 4,40,54,35,47		5,59
24″	45,31,36,14,35,26,45, 7,57,35		3,19,42, 9,22	
		1,21,51, 1,21,12,26,25		5,59
26″	45,31,37,36,26,28, 6,20,24, 0		3,19,42,15,21	
		1,21,50,58, 1,30,11, 4		5,59
28″	45,31,38,58,17,26, 7,50,35, 4		3,19,42,21,20	
		1,21,50,54,41,47,49,44		5,59
30″	45,31,40,20, 8,20,49,38,24,48		3,19,42,27,19	
		1,21,50,51,22, 5,22,25		5,59
32″	45,31,41,41,59,12,11,43,47,13		3,19,42,33,18	
		1,21,50,48, 2,22,49, 7		5,59
34″	45,31,43, 3,50, 0,14, 6,36,20		3,19,42,39,17	
		1,21,50,44,42,40, 9,50		5,59
36″	45,31,44,25,40,44,56,46,46,10		3,19,42,45,16	
		1,21,50,41,22,57,24,34		5,59
38″	45,31,45,47,31,26,19,44,10,44		3,19,42,51,15	
		1,21,50,38, 3,14,33,19		5,59
40″	45,31,47, 9,22, 4,22,58,44, 3		3,19,42,57,14	
		1,21,50,34,43,31,36, 5		5,59
42″	45,31,48,31,12,39, 6,30,20, 8		3,19,43, 3,13	
		1,21,50,31,23,48,32,52		5,59
44″	45,31,49,53, 3,10,30,18,53, 0		3,19,43, 9,12	
		1,21,50,28, 4, 5,23,40		5,59
46″	45,31,51,14,53,38,34,24,16,40		3,19,43,15,11	
		1,21,50,24,44,22, 8,29		5,59
48″	45,31,52,36,44, 3,18,46,25, 9		3,19,43,21,10	
		1,21,50,21,24,38,47,19		5,59
50″	45,31,53,58,34,24,43,25,12,28		3,19,43,27, 9	
		1,21,50,18, 4,55,20,10		5,59
52″	45,31,55,20,24,42,48,20,32,38		3,19,43,33, 8	
		1,21,50,14,45,11,47, 2		5,59
54″	45,31,56,42,14,57,33,32,19,40		3,19,43,39, 7	
		1,21,50,11,25,28, 7,55		5,59
56″	45,31,58, 4, 5, 8,59, 0,27,35		3,19,43,45, 6	
		1,21,50, 8, 5,44,22,49		5,59
58″	45,31,59,25,55,17, 4,44,50,24		3,19,43,51, 5	
		1,21,50, 4,46, 0,31,44		
60″	45,32, 0,47,45,21,50,45,22, 8			
exact	45,32, 0,47,45,21,50,45,21,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°22′ 0″	45,32, 0,47,45,21,50,45,21,48	1,21,50, 1,26,16,34,35		
2″	45,32, 2, 9,35,23,17, 1,56,23	1,21,49,58, 6,32,31,32	3,19,44, 3, 3	5,59
4″	45,32, 3,31,25,21,23,34,27,55	1,21,49,54,46,48,22,30	3,19,44, 9, 2	5,59
6″	45,32, 4,53,15,16,10,22,50,25	1,21,49,51,27, 4, 7,29	3,19,44,15, 1	5,59
8″	45,32, 6,15, 5, 7,37,26,57,54	1,21,49,48, 7,19,46,29	3,19,44,21, 0	5,59
10″	45,32, 7,36,54,55,44,46,44,23	1,21,49,44,47,35,19,30	3,19,44,26,59	5,59
12″	45,32, 8,58,44,40,32,22, 3,53	1,21,49,41,27,50,46,32	3,19,44,32,58	5,59
14″	45,32,10,20,34,22, 0,12,50,25	1,21,49,38, 8, 6, 7,35	3,19,44,38,57	5,59
16″	45,32,11,42,24, 0, 8,18,58, 0	1,21,49,34,48,21,22,39	3,19,44,44,56	5,59
18″	45,32,13, 4,13,34,56,40,20,39	1,21,49,31,28,36,31,44	3,19,44,50,55	5,59
20″	45,32,14,26, 3, 6,25,16,52,23	1,21,49,28, 8,51,34,50	3,19,44,56,54	5,59
22″	45,32,15,47,52,34,34, 8,27,13	1,21,49,24,49, 6,31,57	3,19,45, 2,53	5,59
24″	45,32,17, 9,41,59,23,14,59,10	1,21,49,21,29,21,23, 5	3,19,45, 8,52	5,59
26″	45,32,18,31,31,20,52,36,22,15	1,21,49,18, 9,36, 8,14	3,19,45,14,51	5,59
28″	45,32,19,53,20,39, 2,12,30,29	1,21,49,14,49,50,47,24	3,19,45,20,50	5,59
30″	45,32,21,15, 9,53,52, 3,17,53	1,21,49,11,30, 5,20,35	3,19,45,26,49	5,59
32″	45,32,22,36,59, 5,22, 8,38,28	1,21,49, 8,10,19,47,47	3,19,45,32,48	5,59
34″	45,32,23,58,48,13,32,28,26,15	1,21,49, 4,50,34, 9, 0	3,19,45,38,47	5,59
36″	45,32,25,20,37,18,23, 2,35,15	1,21,49, 1,30,48,24,14	3,19,45,44,46	5,59
38″	45,32,26,42,26,19,53,50,59,29	1,21,48,58,11, 2,33,29	3,19,45,50,45	5,59
40″	45,32,28, 4,15,18, 4,53,32,58	1,21,48,54,51,16,36,45	3,19,45,56,44	5,59
42″	45,32,29,26, 4,12,56,10, 9,43	1,21,48,51,31,30,34, 2	3,19,46, 2,43	5,59
44″	45,32,30,47,53, 4,27,40,43,45	1,21,48,48,11,44,25,20	3,19,46, 8,42	5,59
46″	45,32,32, 9,41,52,39,25, 9, 5	1,21,48,44,51,58,10,39	3,19,46,14,41	5,59
48″	45,32,33,31,30,37,31,23,19,44	1,21,48,41,32,11,49,59	3,19,46,20,40	5,59
50″	45,32,34,53,19,19, 3,35, 9,43	1,21,48,38,12,25,23,20	3,19,46,26,39	5,59
52″	45,32,36,15, 7,57,16, 0,33, 3	1,21,48,34,52,38,50,42	3,19,46,32,38	5,59
54″	45,32,37,36,56,32, 8,39,23,45	1,21,48,31,32,52,12, 5	3,19,46,38,37	5,59
56″	45,32,38,58,45, 3,41,31,35,50	1,21,48,28,13, 5,27,29	3,19,46,44,36	5,59
58″	45,32,40,20,33,31,54,37, 3,19	1,21,48,24,53,18,36,54	3,19,46,50,35	
60″	45,32,41,42,21,56,47,55,40,13			
exact	45,32,41,42,21,56,47,55,43,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°23′ 0″	45,32,41,42,21,56,47,55,43,21			
		1,21,48,21,33,31,40,48		
2″	45,32,43, 4,10,18,21,27,24, 9		3,19,47, 2,30	
		1,21,48,18,13,44,38,18		5,59
4″	45,32,44,25,58,36,35,12, 2,27		3,19,47, 8,29	
		1,21,48,14,53,57,29,49		5,59
6″	45,32,45,47,46,51,29, 9,32,16		3,19,47,14,28	
		1,21,48,11,34,10,15,21		5,59
8″	45,32,47, 9,35, 3, 3,19,47,37		3,19,47,20,27	
		1,21,48, 8,14,22,54,54		5,59
10″	45,32,48,31,23,11,17,42,42,31		3,19,47,26,26	
		1,21,48, 4,54,35,28,28		5,59
12″	45,32,49,53,11,16,12,18,10,59		3,19,47,32,25	
		1,21,48, 1,34,47,56, 3		5,59
14″	45,32,51,14,59,17,47, 6, 7, 2		3,19,47,38,24	
		1,21,47,58,15, 0,17,39		5,59
16″	45,32,52,36,47,16, 2, 6,24,41		3,19,47,44,23	
		1,21,47,54,55,12,33,16		5,59
18″	45,32,53,58,35,10,57,18,57,57		3,19,47,50,22	
		1,21,47,51,35,24,42,54		5,59
20″	45,32,55,20,23, 2,32,43,40,51		3,19,47,56,21	
		1,21,47,48,15,36,46,33		5,59
22″	45,32,56,42,10,50,48,20,27,24		3,19,48, 2,20	
		1,21,47,44,55,48,44,13		5,59
24″	45,32,58, 3,58,35,44, 9,11,37		3,19,48, 8,19	
		1,21,47,41,36, 0,35,54		5,59
26″	45,32,59,25,46,17,20, 9,47,31		3,19,48,14,18	
		1,21,47,38,16,12,21,36		5,59
28″	45,33, 0,47,33,55,36,22, 9, 7		3,19,48,20,17	
		1,21,47,34,56,24, 1,19		5,59
30″	45,33, 2, 9,21,30,32,46,10,26		3,19,48,26,16	
		1,21,47,31,36,35,35, 3		5,59
32″	45,33, 3,31, 9, 2, 9,21,45,29		3,19,48,32,15	
		1,21,47,28,16,47, 2,48		5,59
34″	45,33, 4,52,56,30,26, 8,48,17		3,19,48,38,14	
		1,21,47,24,56,58,24,34		5,59
36″	45,33, 6,14,43,55,23, 7,12,51		3,19,48,44,13	
		1,21,47,21,37, 9,40,21		5,59
38″	45,33, 7,36,31,17, 0,16,53,12		3,19,48,50,12	
		1,21,47,18,17,20,50, 9		5,59
40″	45,33, 8,58,18,35,17,37,43,21		3,19,48,56,11	
		1,21,47,14,57,31,53,58		5,59
42″	45,33,10,20, 5,50,15, 9,37,19		3,19,49, 2,10	
		1,21,47,11,37,42,51,48		5,59
44″	45,33,11,41,53, 1,52,52,29, 7		3,19,49, 8, 9	
		1,21,47, 8,17,53,43,39		5,59
46″	45,33,13, 3,40,10,10,46,12,46		3,19,49,14, 8	
		1,21,47, 4,58, 4,29,31		5,59
48″	45,33,14,25,27,15, 8,50,42,17		3,19,49,20, 7	
		1,21,47, 1,38,15, 9,24		5,59
50″	45,33,15,47,14,16,47, 5,51,41		3,19,49,26, 6	
		1,21,46,58,18,25,43,18		5,59
52″	45,33,17, 9, 1,15, 5,31,34,59		3,19,49,32, 5	
		1,21,46,54,58,36,11,13		5,59
54″	45,33,18,30,48,10, 4, 7,46,12		3,19,49,38, 4	
		1,21,46,51,38,46,33, 9		5,59
56″	45,33,19,52,35, 1,42,54,19,21		3,19,49,44, 3	
		1,21,46,48,18,56,49, 6		5,59
58″	45,33,21,14,21,50, 1,51, 8,27		3,19,49,50, 2	
		1,21,46,44,59, 6,59, 4		
60″	45,33,22,36, 8,35, 0,58, 7,31			
exact	45,33,22,36, 8,35, 0,58,19, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°24′ 0″	45,33,22,36, 8,35, 0,58,19, 2			
		1,21,46,41,39,17, 4,24		
2″	45,33,23,57,55,16,40,15,23,26		3,19,50, 1,54	
		1,21,46,38,19,27, 2,30		5,59
4″	45,33,25,19,41,54,59,42,25,56		3,19,50, 7,53	
		1,21,46,34,59,36,54,37		5,59
6″	45,33,26,41,28,29,59,19,20,33		3,19,50,13,52	
		1,21,46,31,39,46,40,45		5,59
8″	45,33,28, 3,15, 1,39, 6, 1,18		3,19,50,19,51	
		1,21,46,28,19,56,20,54		5,59
10″	45,33,29,25, 1,29,59, 2,22,12		3,19,50,25,50	
		1,21,46,25, 0, 5,55, 4		5,59
12″	45,33,30,46,47,54,59, 8,17,16		3,19,50,31,49	
		1,21,46,21,40,15,23,15		5,59
14″	45,33,32, 8,34,16,39,23,40,31		3,19,50,37,48	
		1,21,46,18,20,24,45,27		5,59
16″	45,33,33,30,20,34,59,48,25,58		3,19,50,43,47	
		1,21,46,15, 0,34, 1,40		5,59
18″	45,33,34,52, 6,50, 0,22,27,38		3,19,50,49,46	
		1,21,46,11,40,43,11,54		5,59
20″	45,33,36,13,53, 1,41, 5,39,32		3,19,50,55,45	
		1,21,46, 8,20,52,16, 9		5,59
22″	45,33,37,35,39,10, 1,57,55,41		3,19,51, 1,44	
		1,21,46, 5, 1, 1,14,25		5,59
24″	45,33,38,57,25,15, 2,59,10, 6		3,19,51, 7,43	
		1,21,46, 1,41,10, 6,42		5,59
26″	45,33,40,19,11,16,44, 9,16,48		3,19,51,13,42	
		1,21,45,58,21,18,53, 0		5,59
28″	45,33,41,40,57,15, 5,28, 9,48		3,19,51,19,41	
		1,21,45,55, 1,27,33,19		5,59
30″	45,33,43, 2,43,10, 6,55,43, 7		3,19,51,25,40	
		1,21,45,51,41,36, 7,39		5,59
32″	45,33,44,24,29, 1,48,31,50,46		3,19,51,31,39	
		1,21,45,48,21,44,36, 0		5,59
34″	45,33,45,46,14,50,10,16,26,46		3,19,51,37,38	
		1,21,45,45, 1,52,58,22		5,59
36″	45,33,47, 8, 0,35,12, 9,25, 8		3,19,51,43,37	
		1,21,45,41,42, 1,14,45		5,59
38″	45,33,48,29,46,16,54,10,39,53		3,19,51,49,36	
		1,21,45,38,22, 9,25, 9		5,59
40″	45,33,49,51,31,55,16,20, 5, 2		3,19,51,55,35	
		1,21,45,35, 2,17,29,34		5,59
42″	45,33,51,13,17,30,18,37,34,36		3,19,52, 1,34	
		1,21,45,31,42,25,28, 0		5,59
44″	45,33,52,35, 3, 2, 1, 3, 2,36		3,19,52, 7,33	
		1,21,45,28,22,33,20,27		5,59
46″	45,33,53,56,48,30,23,36,23, 3		3,19,52,13,32	
		1,21,45,25, 2,41, 6,55		5,59
48″	45,33,55,18,33,55,26,17,29,58		3,19,52,19,31	
		1,21,45,21,42,48,47,24		5,59
50″	45,33,56,40,19,17, 9, 6,17,22		3,19,52,25,30	
		1,21,45,18,22,56,21,54		5,59
52″	45,33,58, 2, 4,35,32, 2,39,16		3,19,52,31,29	
		1,21,45,15, 3, 3,50,25		5,59
54″	45,33,59,23,49,50,35, 6,29,41		3,19,52,37,28	
		1,21,45,11,43,11,12,57		5,59
56″	45,34, 0,45,35, 2,18,17,42,38		3,19,52,43,27	
		1,21,45, 8,23,18,29,30		5,59
58″	45,34, 2, 7,20,10,41,36,12, 8		3,19,52,49,26	
		1,21,45, 5, 3,25,40, 4		
60″	45,34, 3,29, 5,15,45, 1,52,12			
exact	45,34, 3,29, 5,15,45, 2,16,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°25′ 0″	45,34, 3,29, 5,15,45, 2,16,46			
		1,21,45, 1,43,32,47,13		
2″	45,34, 4,50,50,17,28,35, 3,59		3,19,53, 1,13	
		1,21,44,58,23,39,46, 0		5,59
4″	45,34, 6,12,35,15,52,14,49,59		3,19,53, 7,12	
		1,21,44,55, 3,46,38,48		5,59
6″	45,34, 7,34,20,10,56, 1,28,47		3,19,53,13,11	
		1,21,44,51,43,53,25,37		5,59
8″	45,34, 8,56, 5, 2,39,54,54,24		3,19,53,19,10	
		1,21,44,48,24, 0, 6,27		5,59
10″	45,34,10,17,49,51, 3,55, 0,51		3,19,53,25, 9	
		1,21,44,45, 4, 6,41,18		5,59
12″	45,34,11,39,34,36, 8, 1,42, 9		3,19,53,31, 8	
		1,21,44,41,44,13,10,10		5,59
14″	45,34,13, 1,19,17,52,14,52,19		3,19,53,37, 7	
		1,21,44,38,24,19,33, 3		5,59
16″	45,34,14,23, 3,56,16,34,25,22		3,19,53,43, 6	
		1,21,44,35, 4,25,49,57		5,59
18″	45,34,15,44,48,31,21, 0,15,19		3,19,53,49, 5	
		1,21,44,31,44,32, 0,52		5,59
20″	45,34,17, 6,33, 3, 5,32,16,11		3,19,53,55, 4	
		1,21,44,28,24,38, 5,48		5,59
22″	45,34,18,28,17,31,30,10,21,59		3,19,54, 1, 3	
		1,21,44,25, 4,44, 4,45		5,59
24″	45,34,19,50, 1,56,34,54,26,44		3,19,54, 7, 2	
		1,21,44,21,44,49,57,43		5,59
26″	45,34,21,11,46,18,19,44,24,27		3,19,54,13, 1	
		1,21,44,18,24,55,44,42		5,59
28″	45,34,22,33,30,36,44,40, 9, 9		3,19,54,19, 0	
		1,21,44,15, 5, 1,25,42		5,59
30″	45,34,23,55,14,51,49,41,34,51		3,19,54,24,59	
		1,21,44,11,45, 7, 0,43		5,59
32″	45,34,25,16,59, 3,34,48,35,34		3,19,54,30,58	
		1,21,44, 8,25,12,29,45		5,59
34″	45,34,26,38,43,12, 0, 1, 5,19		3,19,54,36,57	
		1,21,44, 5, 5,17,52,48		5,59
36″	45,34,28, 0,27,17, 5,18,58, 7		3,19,54,42,56	
		1,21,44, 1,45,23, 9,52		5,59
38″	45,34,29,22,11,18,50,42, 7,59		3,19,54,48,55	
		1,21,43,58,25,28,20,57		5,59
40″	45,34,30,43,55,17,16,10,28,56		3,19,54,54,54	
		1,21,43,55, 5,33,26, 3		5,59
42″	45,34,32, 5,39,12,21,43,54,59		3,19,55, 0,53	
		1,21,43,51,45,38,25,10		5,59
44″	45,34,33,27,23, 4, 7,22,20, 9		3,19,55, 6,52	
		1,21,43,48,25,43,18,18		5,59
46″	45,34,34,49, 6,52,33, 5,38,27		3,19,55,12,51	
		1,21,43,45, 5,48, 5,27		5,59
48″	45,34,36,10,50,37,38,53,43,54		3,19,55,18,50	
		1,21,43,41,45,52,46,37		5,59
50″	45,34,37,32,34,19,24,46,30,31		3,19,55,24,49	
		1,21,43,38,25,57,21,48		5,59
52″	45,34,38,54,17,57,50,43,52,19		3,19,55,30,48	
		1,21,43,35, 6, 1,51, 0		5,59
54″	45,34,40,16, 1,32,56,45,43,19		3,19,55,36,47	
		1,21,43,31,46, 6,14,13		5,59
56″	45,34,41,37,45, 4,42,51,57,32		3,19,55,42,46	
		1,21,43,28,26,10,31,27		5,59
58″	45,34,42,59,28,33, 9, 2,28,59		3,19,55,48,45	
		1,21,43,25, 6,14,42,42		
60″	45,34,44,21,11,58,15,17,11,41			
exact	45,34,44,21,11,58,15,17,39,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°26′ 0″	45,34,44,21,11,58,15,17,39,15			
		1,21,43,21,46,18,51, 4		
2″	45,34,45,42,55,20, 1,36,30,19		3,19,56, 0,29	
		1,21,43,18,26,22,50,35		5,58
4″	45,34,47, 4,38,38,27,59,20,54		3,19,56, 6,27	
		1,21,43,15, 6,26,44, 8		5,58
6″	45,34,48,26,21,53,34,26, 5, 2		3,19,56,12,25	
		1,21,43,11,46,30,31,43		5,58
8″	45,34,49,48, 5, 5,20,56,36,45		3,19,56,18,23	
		1,21,43, 8,26,34,13,20		5,58
10″	45,34,51, 9,48,13,47,30,50, 5		3,19,56,24,21	
		1,21,43, 5, 6,37,48,59		5,58
12″	45,34,52,31,31,18,54, 8,39, 4		3,19,56,30,19	
		1,21,43, 1,46,41,18,40		5,58
14″	45,34,53,53,14,20,40,49,57,44		3,19,56,36,17	
		1,21,42,58,26,44,42,23		5,58
16″	45,34,55,14,57,19, 7,34,40, 7		3,19,56,42,15	
		1,21,42,55, 6,48, 0, 8		5,58
18″	45,34,56,36,40,14,14,22,40,15		3,19,56,48,13	
		1,21,42,51,46,51,11,55		5,58
20″	45,34,57,58,23, 6, 1,13,52,10		3,19,56,54,11	
		1,21,42,48,26,54,17,44		5,58
22″	45,34,59,20, 5,54,28, 8, 9,54		3,19,57, 0, 9	
		1,21,42,45, 6,57,17,35		5,58
24″	45,35, 0,41,48,39,35, 5,27,29		3,19,57, 6, 7	
		1,21,42,41,47, 0,11,28		5,58
26″	45,35, 2, 3,31,21,22, 5,38,57		3,19,57,12, 5	
		1,21,42,38,27, 2,59,23		5,58
28″	45,35, 3,25,13,59,49, 8,38,20		3,19,57,18, 3	
		1,21,42,35, 7, 5,41,20		5,58
30″	45,35, 4,46,56,34,56,14,19,40		3,19,57,24, 1	
		1,21,42,31,47, 8,17,19		5,58
32″	45,35, 6, 8,39, 6,43,22,36,59		3,19,57,29,59	
		1,21,42,28,27,10,47,20		5,58
34″	45,35, 7,30,21,35,10,33,24,19		3,19,57,35,57	
		1,21,42,25, 7,13,11,23		5,58
36″	45,35, 8,52, 4, 0,17,46,35,42		3,19,57,41,55	
		1,21,42,21,47,15,29,28		5,58
38″	45,35,10,13,46,22, 5, 2, 5,10		3,19,57,47,53	
		1,21,42,18,27,17,41,35		5,58
40″	45,35,11,35,28,40,32,19,46,45		3,19,57,53,51	
		1,21,42,15, 7,19,47,44		5,58
42″	45,35,12,57,10,55,39,39,34,29		3,19,57,59,49	
		1,21,42,11,47,21,47,55		5,58
44″	45,35,14,18,53, 7,27, 1,22,24		3,19,58, 5,47	
		1,21,42, 8,27,23,42, 8		5,58
46″	45,35,15,40,35,15,54,25, 4,32		3,19,58,11,45	
		1,21,42, 5, 7,25,30,23		5,58
48″	45,35,17, 2,17,21, 1,50,34,55		3,19,58,17,43	
		1,21,42, 1,47,27,12,40		5,58
50″	45,35,18,23,59,22,49,17,47,35		3,19,58,23,41	
		1,21,41,58,27,28,48,59		5,58
52″	45,35,19,45,41,21,16,46,36,34		3,19,58,29,39	
		1,21,41,55, 7,30,19,20		5,58
54″	45,35,21, 7,23,16,24,16,55,54		3,19,58,35,37	
		1,21,41,51,47,31,43,43		5,58
56″	45,35,22,29, 5, 8,11,48,39,37		3,19,58,41,35	
		1,21,41,48,27,33, 2, 8		5,58
58″	45,35,23,50,46,56,39,21,41,45		3,19,58,47,33	
		1,21,41,45, 7,34,14,35		
60″	45,35,25,12,28,41,46,55,56,20			
exact	45,35,25,12,28,41,46,55,24, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°27′ 0″	45,35,25,12,28,41,46,55,24, 2			
		1,21,41,41,47,35,17,46		
2″	45,35,26,34,10,23,34,30,41,48		3,19,58,59,42	
		1,21,41,38,27,36,18, 4		5,58
4″	45,35,27,55,52, 2, 2, 6,59,52		3,19,59, 5,40	
		1,21,41,35, 7,37,12,24		5,58
6″	45,35,29,17,33,37, 9,44,12,16		3,19,59,11,38	
		1,21,41,31,47,38, 0,46		5,58
8″	45,35,30,39,15, 8,57,22,13, 2		3,19,59,17,36	
		1,21,41,28,27,38,43,10		5,58
10″	45,35,32, 0,56,37,25, 0,56,12		3,19,59,23,34	
		1,21,41,25, 7,39,19,36		5,58
12″	45,35,33,22,38, 2,32,40,15,48		3,19,59,29,32	
		1,21,41,21,47,39,50, 4		5,58
14″	45,35,34,44,19,24,20,20, 5,52		3,19,59,35,30	
		1,21,41,18,27,40,14,34		5,58
16″	45,35,36, 6, 0,42,48, 0,20,26		3,19,59,41,28	
		1,21,41,15, 7,40,33, 6		5,58
18″	45,35,37,27,41,57,55,40,53,32		3,19,59,47,26	
		1,21,41,11,47,40,45,40		5,58
20″	45,35,38,49,23, 9,43,21,39,12		3,19,59,53,24	
		1,21,41, 8,27,40,52,16		5,58
22″	45,35,40,11, 4,18,11, 2,31,28		3,19,59,59,22	
		1,21,41, 5, 7,40,52,54		5,58
24″	45,35,41,32,45,23,18,43,24,22		3,20, 0, 5,20	
		1,21,41, 1,47,40,47,34		5,58
26″	45,35,42,54,26,25, 6,24,11,56		3,20, 0,11,18	
		1,21,40,58,27,40,36,16		5,58
28″	45,35,44,16, 7,23,34, 4,48,12		3,20, 0,17,16	
		1,21,40,55, 7,40,19, 0		5,58
30″	45,35,45,37,48,18,41,45, 7,12		3,20, 0,23,14	
		1,21,40,51,47,39,55,46		5,58
32″	45,35,46,59,29,10,29,25, 2,58		3,20, 0,29,12	
		1,21,40,48,27,39,26,34		5,58
34″	45,35,48,21, 9,58,57, 4,29,32		3,20, 0,35,10	
		1,21,40,45, 7,38,51,24		5,58
36″	45,35,49,42,50,44, 4,43,20,56		3,20, 0,41, 8	
		1,21,40,41,47,38,10,16		5,58
38″	45,35,51, 4,31,25,52,21,31,12		3,20, 0,47, 6	
		1,21,40,38,27,37,23,10		5,58
40″	45,35,52,26,12, 4,19,58,54,22		3,20, 0,53, 4	
		1,21,40,35, 7,36,30, 6		5,58
42″	45,35,53,47,52,39,27,35,24,28		3,20, 0,59, 2	
		1,21,40,31,47,35,31, 4		5,58
44″	45,35,55, 9,33,11,15,10,55,32		3,20, 1, 5, 0	
		1,21,40,28,27,34,26, 4		5,58
46″	45,35,56,31,13,39,42,45,21,36		3,20, 1,10,58	
		1,21,40,25, 7,33,15, 6		5,58
48″	45,35,57,52,54, 4,50,18,36,42		3,20, 1,16,56	
		1,21,40,21,47,31,58,10		5,58
50″	45,35,59,14,34,26,37,50,34,52		3,20, 1,22,54	
		1,21,40,18,27,30,35,16		5,58
52″	45,36, 0,36,14,45, 5,21,10, 8		3,20, 1,28,52	
		1,21,40,15, 7,29, 6,24		5,58
54″	45,36, 1,57,55, 0,12,50,16,32		3,20, 1,34,50	
		1,21,40,11,47,27,31,34		5,58
56″	45,36, 3,19,35,12, 0,17,48, 6		3,20, 1,40,48	
		1,21,40, 8,27,25,50,46		5,58
58″	45,36, 4,41,15,20,27,43,38,52		3,20, 1,46,46	
		1,21,40, 5, 7,24, 4, 0		
60″	45,36, 6, 2,55,25,35, 7,42,52			
exact	45,36, 6, 2,55,25,35, 7,23,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°28′ 0″	45,36, 6, 2,55,25,35, 7,23,24			
		1,21,40, 1,47,22, 9,10		
2″	45,36, 7,24,35,27,22,29,32,34		3,20, 1,58,50	
		1,21,39,58,27,20,10,20		5,58
4″	45,36, 8,46,15,25,49,49,42,54		3,20, 2, 4,48	
		1,21,39,55, 7,18, 5,32		5,58
6″	45,36,10, 7,55,20,57, 7,48,26		3,20, 2,10,46	
		1,21,39,51,47,15,54,46		5,58
8″	45,36,11,29,35,12,44,23,43,12		3,20, 2,16,44	
		1,21,39,48,27,13,38, 2		5,58
10″	45,36,12,51,15, 1,11,37,21,14		3,20, 2,22,42	
		1,21,39,45, 7,11,15,20		5,58
12″	45,36,14,12,54,46,18,48,36,34		3,20, 2,28,40	
		1,21,39,41,47, 8,46,40		5,58
14″	45,36,15,34,34,28, 5,57,23,14		3,20, 2,34,38	
		1,21,39,38,27, 6,12, 2		5,58
16″	45,36,16,56,14, 6,33, 3,35,16		3,20, 2,40,36	
		1,21,39,35, 7, 3,31,26		5,58
18″	45,36,18,17,53,41,40, 7, 6,42		3,20, 2,46,34	
		1,21,39,31,47, 0,44,52		5,58
20″	45,36,19,39,33,13,27, 7,51,34		3,20, 2,52,32	
		1,21,39,28,26,57,52,20		5,58
22″	45,36,21, 1,12,41,54, 5,43,54		3,20, 2,58,30	
		1,21,39,25, 6,54,53,50		5,58
24″	45,36,22,22,52, 7, 1, 0,37,44		3,20, 3, 4,28	
		1,21,39,21,46,51,49,22		5,58
26″	45,36,23,44,31,28,47,52,27, 6		3,20, 3,10,26	
		1,21,39,18,26,48,38,56		5,58
28″	45,36,25, 6,10,47,14,41, 6, 2		3,20, 3,16,24	
		1,21,39,15, 6,45,22,32		5,58
30″	45,36,26,27,50, 2,21,26,28,34		3,20, 3,22,22	
		1,21,39,11,46,42, 0,10		5,58
32″	45,36,27,49,29,14, 8, 8,28,44		3,20, 3,28,20	
		1,21,39, 8,26,38,31,50		5,58
34″	45,36,29,11, 8,22,34,47, 0,34		3,20, 3,34,18	
		1,21,39, 5, 6,34,57,32		5,58
36″	45,36,30,32,47,27,41,21,58, 6		3,20, 3,40,16	
		1,21,39, 1,46,31,17,16		5,58
38″	45,36,31,54,26,29,27,53,15,22		3,20, 3,46,14	
		1,21,38,58,26,27,31, 2		5,58
40″	45,36,33,16, 5,27,54,20,46,24		3,20, 3,52,12	
		1,21,38,55, 6,23,38,50		5,58
42″	45,36,34,37,44,23, 0,44,25,14		3,20, 3,58,10	
		1,21,38,51,46,19,40,40		5,58
44″	45,36,35,59,23,14,47, 4, 5,54		3,20, 4, 4, 8	
		1,21,38,48,26,15,36,32		5,58
46″	45,36,37,21, 2, 3,13,19,42,26		3,20, 4,10, 6	
		1,21,38,45, 6,11,26,26		5,58
48″	45,36,38,42,40,48,19,31, 8,52		3,20, 4,16, 4	
		1,21,38,41,46, 7,10,22		5,58
50″	45,36,40, 4,19,30, 5,38,19,14		3,20, 4,22, 2	
		1,21,38,38,26, 2,48,20		5,58
52″	45,36,41,25,58, 8,31,41, 7,34		3,20, 4,28, 0	
		1,21,38,35, 5,58,20,20		5,58
54″	45,36,42,47,36,43,37,39,27,54		3,20, 4,33,58	
		1,21,38,31,45,53,46,22		5,58
56″	45,36,44, 9,15,15,23,33,14,16		3,20, 4,39,56	
		1,21,38,28,25,49, 6,26		5,58
58″	45,36,45,30,53,43,49,22,20,42		3,20, 4,45,54	
		1,21,38,25, 5,44,20,32		
60″	45,36,46,52,32, 8,55, 6,41,14			
exact	45,36,46,52,32, 8,55, 6,24,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°29′ 0″	45,36,46,52,32, 8,55, 6,24,31			
		1,21,38,21,45,39,27, 4		
2″	45,36,48,14,10,30,40,45,51,35		3,20, 4,57,55	
		1,21,38,18,25,34,29, 9		5,58
4″	45,36,49,35,48,49, 6,20,20,44		3,20, 5, 3,53	
		1,21,38,15, 5,29,25,16		5,58
6″	45,36,50,57,27, 4,11,49,46, 0		3,20, 5, 9,51	
		1,21,38,11,45,24,15,25		5,58
8″	45,36,52,19, 5,15,57,14, 1,25		3,20, 5,15,49	
		1,21,38, 8,25,18,59,36		5,58
10″	45,36,53,40,43,24,22,33, 1, 1		3,20, 5,21,47	
		1,21,38, 5, 5,13,37,49		5,58
12″	45,36,55, 2,21,29,27,46,38,50		3,20, 5,27,45	
		1,21,38, 1,45, 8,10, 4		5,58
14″	45,36,56,23,59,31,12,54,48,54		3,20, 5,33,43	
		1,21,37,58,25, 2,36,21		5,58
16″	45,36,57,45,37,29,37,57,25,15		3,20, 5,39,41	
		1,21,37,55, 4,56,56,40		5,58
18″	45,36,59, 7,15,24,42,54,21,55		3,20, 5,45,39	
		1,21,37,51,44,51,11, 1		5,58
20″	45,37, 0,28,53,16,27,45,32,56		3,20, 5,51,37	
		1,21,37,48,24,45,19,24		5,58
22″	45,37, 1,50,31, 4,52,30,52,20		3,20, 5,57,35	
		1,21,37,45, 4,39,21,49		5,58
24″	45,37, 3,12, 8,49,57,10,14, 9		3,20, 6, 3,33	
		1,21,37,41,44,33,18,16		5,58
26″	45,37, 4,33,46,31,41,43,32,25		3,20, 6, 9,31	
		1,21,37,38,24,27, 8,45		5,58
28″	45,37, 5,55,24,10, 6,10,41,10		3,20, 6,15,29	
		1,21,37,35, 4,20,53,16		5,58
30″	45,37, 7,17, 1,45,10,31,34,26		3,20, 6,21,27	
		1,21,37,31,44,14,31,49		5,58
32″	45,37, 8,38,39,16,54,46, 6,15		3,20, 6,27,25	
		1,21,37,28,24, 8, 4,24		5,58
34″	45,37,10, 0,16,45,18,54,10,39		3,20, 6,33,23	
		1,21,37,25, 4, 1,31, 1		5,58
36″	45,37,11,21,54,10,22,55,41,40		3,20, 6,39,21	
		1,21,37,21,43,54,51,40		5,58
38″	45,37,12,43,31,32, 6,50,33,20		3,20, 6,45,19	
		1,21,37,18,23,48, 6,21		5,58
40″	45,37,14, 5, 8,50,30,38,39,41		3,20, 6,51,17	
		1,21,37,15, 3,41,15, 4		5,58
42″	45,37,15,26,46, 5,34,19,54,45		3,20, 6,57,15	
		1,21,37,11,43,34,17,49		5,58
44″	45,37,16,48,23,17,17,54,12,34		3,20, 7, 3,13	
		1,21,37, 8,23,27,14,36		5,58
46″	45,37,18,10, 0,25,41,21,27,10		3,20, 7, 9,11	
		1,21,37, 5, 3,20, 5,25		5,58
48″	45,37,19,31,37,30,44,41,32,35		3,20, 7,15, 9	
		1,21,37, 1,43,12,50,16		5,58
50″	45,37,20,53,14,32,27,54,22,51		3,20, 7,21, 7	
		1,21,36,58,23, 5,29, 9		5,58
52″	45,37,22,14,51,30,50,59,52, 0		3,20, 7,27, 5	
		1,21,36,55, 2,58, 2, 4		5,58
54″	45,37,23,36,28,25,53,57,54, 4		3,20, 7,33, 3	
		1,21,36,51,42,50,29, 1		5,58
56″	45,37,24,58, 5,17,36,48,23, 5		3,20, 7,39, 1	
		1,21,36,48,22,42,50, 0		5,58
58″	45,37,26,19,42, 5,59,31,13, 5		3,20, 7,44,59	
		1,21,36,45, 2,35, 5, 1		
60″	45,37,27,41,18,51, 2, 6,18, 6			
exact	45,37,27,41,18,51, 2, 6, 9,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°30′ 0″	45,37,27,41,18,51, 2, 6, 9,23			
		1,21,36,41,42,27,13,20		
2″	45,37,29, 2,55,32,44,33,22,43		3,20, 7,56,57	
		1,21,36,38,22,19,16,23		5,58
4″	45,37,30,24,32,11, 6,52,39, 6		3,20, 8, 2,55	
		1,21,36,35, 2,11,13,28		5,58
6″	45,37,31,46, 8,46, 9, 3,52,34		3,20, 8, 8,53	
		1,21,36,31,42, 3, 4,35		5,58
8″	45,37,33, 7,45,17,51, 6,57, 9		3,20, 8,14,51	
		1,21,36,28,21,54,49,44		5,58
10″	45,37,34,29,21,46,13, 1,46,53		3,20, 8,20,49	
		1,21,36,25, 1,46,28,55		5,58
12″	45,37,35,50,58,11,14,48,15,48		3,20, 8,26,47	
		1,21,36,21,41,38, 2, 8		5,58
14″	45,37,37,12,34,32,56,26,17,56		3,20, 8,32,45	
		1,21,36,18,21,29,29,23		5,58
16″	45,37,38,34,10,51,17,55,47,19		3,20, 8,38,43	
		1,21,36,15, 1,20,50,40		5,58
18″	45,37,39,55,47, 6,19,16,37,59		3,20, 8,44,41	
		1,21,36,11,41,12, 5,59		5,58
20″	45,37,41,17,23,18, 0,28,43,58		3,20, 8,50,39	
		1,21,36, 8,21, 3,15,20		5,58
22″	45,37,42,38,59,26,21,31,59,18		3,20, 8,56,37	
		1,21,36, 5, 0,54,18,43		5,58
24″	45,37,44, 0,35,31,22,26,18, 1		3,20, 9, 2,35	
		1,21,36, 1,40,45,16, 8		5,58
26″	45,37,45,22,11,33, 3,11,34, 9		3,20, 9, 8,33	
		1,21,35,58,20,36, 7,35		5,58
28″	45,37,46,43,47,31,23,47,41,44		3,20, 9,14,31	
		1,21,35,55, 0,26,53, 4		5,58
30″	45,37,48, 5,23,26,24,14,34,48		3,20, 9,20,29	
		1,21,35,51,40,17,32,35		5,58
32″	45,37,49,26,59,18, 4,32, 7,23		3,20, 9,26,27	
		1,21,35,48,20, 8, 6, 8		5,58
34″	45,37,50,48,35, 6,24,40,13,31		3,20, 9,32,25	
		1,21,35,44,59,58,33,43		5,58
36″	45,37,52,10,10,51,24,38,47,14		3,20, 9,38,23	
		1,21,35,41,39,48,55,20		5,58
38″	45,37,53,31,46,33, 4,27,42,34		3,20, 9,44,21	
		1,21,35,38,19,39,10,59		5,58
40″	45,37,54,53,22,11,24, 6,53,33		3,20, 9,50,19	
		1,21,35,34,59,29,20,40		5,58
42″	45,37,56,14,57,46,23,36,14,13		3,20, 9,56,17	
		1,21,35,31,39,19,24,23		5,58
44″	45,37,57,36,33,18, 2,55,38,36		3,20,10, 2,15	
		1,21,35,28,19, 9,22, 8		5,58
46″	45,37,58,58, 8,46,22, 5, 0,44		3,20,10, 8,13	
		1,21,35,24,58,59,13,55		5,58
48″	45,38, 0,19,44,11,21, 4,14,39		3,20,10,14,11	
		1,21,35,21,38,48,59,44		5,58
50″	45,38, 1,41,19,32,59,53,14,23		3,20,10,20, 9	
		1,21,35,18,18,38,39,35		5,58
52″	45,38, 3, 2,54,51,18,31,53,58		3,20,10,26, 7	
		1,21,35,14,58,28,13,28		5,58
54″	45,38, 4,24,30, 6,17, 0, 7,26		3,20,10,32, 5	
		1,21,35,11,38,17,41,23		5,58
56″	45,38, 5,46, 5,17,55,17,48,49		3,20,10,38, 3	
		1,21,35, 8,18, 7, 3,20		5,58
58″	45,38, 7, 7,40,26,13,24,52, 9		3,20,10,44, 1	
		1,21,35, 4,57,56,19,19		
60″	45,38, 8,29,15,31,11,21,11,28			
exact	45,38, 8,29,15,31,11,21,14,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°31′ 0″	45,38, 8,29,15,31,11,21,14,50			
		1,21,35, 1,37,45,29,45		
2″	45,38, 9,50,50,32,49, 6,44,35		3,20,10,55,55	
		1,21,34,58,17,34,33,50		5,58
4″	45,38,11,12,25,31, 6,41,18,25		3,20,11, 1,53	
		1,21,34,54,57,23,31,57		5,58
6″	45,38,12,34, 0,26, 4, 4,50,22		3,20,11, 7,51	
		1,21,34,51,37,12,24, 6		5,58
8″	45,38,13,55,35,17,41,17,14,28		3,20,11,13,49	
		1,21,34,48,17, 1,10,17		5,58
10″	45,38,15,17,10, 5,58,18,24,45		3,20,11,19,47	
		1,21,34,44,56,49,50,30		5,58
12″	45,38,16,38,44,50,55, 8,15,15		3,20,11,25,45	
		1,21,34,41,36,38,24,45		5,58
14″	45,38,18, 0,19,32,31,46,40, 0		3,20,11,31,43	
		1,21,34,38,16,26,53, 2		5,58
16″	45,38,19,21,54,10,48,13,33, 2		3,20,11,37,41	
		1,21,34,34,56,15,15,21		5,58
18″	45,38,20,43,28,45,44,28,48,23		3,20,11,43,39	
		1,21,34,31,36, 3,31,42		5,58
20″	45,38,22, 5, 3,17,20,32,20, 5		3,20,11,49,37	
		1,21,34,28,15,51,42, 5		5,58
22″	45,38,23,26,37,45,36,24, 2,10		3,20,11,55,35	
		1,21,34,24,55,39,46,30		5,58
24″	45,38,24,48,12,10,32, 3,48,40		3,20,12, 1,33	
		1,21,34,21,35,27,44,57		5,58
26″	45,38,26, 9,46,32, 7,31,33,37		3,20,12, 7,31	
		1,21,34,18,15,15,37,26		5,58
28″	45,38,27,31,20,50,22,47,11, 3		3,20,12,13,29	
		1,21,34,14,55, 3,23,57		5,58
30″	45,38,28,52,55, 5,17,50,35, 0		3,20,12,19,27	
		1,21,34,11,34,51, 4,30		5,58
32″	45,38,30,14,29,16,52,41,39,30		3,20,12,25,25	
		1,21,34, 8,14,38,39, 5		5,58
34″	45,38,31,36, 3,25, 7,20,18,35		3,20,12,31,23	
		1,21,34, 4,54,26, 7,42		5,58
36″	45,38,32,57,37,30, 1,46,26,17		3,20,12,37,21	
		1,21,34, 1,34,13,30,21		5,58
38″	45,38,34,19,11,31,35,59,56,38		3,20,12,43,19	
		1,21,33,58,14, 0,47, 2		5,58
40″	45,38,35,40,45,29,50, 0,43,40		3,20,12,49,17	
		1,21,33,54,53,47,57,45		5,58
42″	45,38,37, 2,19,24,43,48,41,25		3,20,12,55,15	
		1,21,33,51,33,35, 2,30		5,58
44″	45,38,38,23,53,16,17,23,43,55		3,20,13, 1,13	
		1,21,33,48,13,22, 1,17		5,58
46″	45,38,39,45,27, 4,30,45,45,12		3,20,13, 7,11	
		1,21,33,44,53, 8,54, 6		5,58
48″	45,38,41, 7, 0,49,23,54,39,18		3,20,13,13, 9	
		1,21,33,41,32,55,40,57		5,58
50″	45,38,42,28,34,30,56,50,20,15		3,20,13,19, 7	
		1,21,33,38,12,42,21,50		5,58
52″	45,38,43,50, 8, 9, 9,32,42, 5		3,20,13,25, 5	
		1,21,33,34,52,28,56,45		5,58
54″	45,38,45,11,41,44, 2, 1,38,50		3,20,13,31, 3	
		1,21,33,31,32,15,25,42		5,58
56″	45,38,46,33,15,15,34,17, 4,32		3,20,13,37, 1	
		1,21,33,28,12, 1,48,41		5,58
58″	45,38,47,54,48,43,46,18,53,13		3,20,13,42,59	
		1,21,33,24,51,48, 5,42		
60″	45,38,49,16,22, 8,38, 6,58,55			
exact	45,38,49,16,22, 8,38, 7,12,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°32′ 0″	45,38,49,16,22, 8,38, 7,12,34			
		1,21,33,21,31,34,18,11		
2″	45,38,50,37,55,30, 9,41,30,45		3,20,13,54,49	
		1,21,33,18,11,20,23,22		5,58
4″	45,38,51,59,28,48,21, 1,54, 7		3,20,14, 0,47	
		1,21,33,14,51, 6,22,35		5,58
6″	45,38,53,21, 2, 3,12, 8,16,42		3,20,14, 6,45	
		1,21,33,11,30,52,15,50		5,58
8″	45,38,54,42,35,14,43, 0,32,32		3,20,14,12,43	
		1,21,33, 8,10,38, 3, 7		5,58
10″	45,38,56, 4, 8,22,53,38,35,39		3,20,14,18,41	
		1,21,33, 4,50,23,44,26		5,58
12″	45,38,57,25,41,27,44, 2,20, 5		3,20,14,24,39	
		1,21,33, 1,30, 9,19,47		5,58
14″	45,38,58,47,14,29,14,11,39,52		3,20,14,30,37	
		1,21,32,58, 9,54,49,10		5,58
16″	45,39, 0, 8,47,27,24, 6,29, 2		3,20,14,36,35	
		1,21,32,54,49,40,12,35		5,58
18″	45,39, 1,30,20,22,13,46,41,37		3,20,14,42,33	
		1,21,32,51,29,25,30, 2		5,58
20″	45,39, 2,51,53,13,43,12,11,39		3,20,14,48,31	
		1,21,32,48, 9,10,41,31		5,58
22″	45,39, 4,13,26, 1,52,22,53,10		3,20,14,54,29	
		1,21,32,44,48,55,47, 2		5,58
24″	45,39, 5,34,58,46,41,18,40,12		3,20,15, 0,27	
		1,21,32,41,28,40,46,35		5,58
26″	45,39, 6,56,31,28, 9,59,26,47		3,20,15, 6,25	
		1,21,32,38, 8,25,40,10		5,58
28″	45,39, 8,18, 4, 6,18,25, 6,57		3,20,15,12,23	
		1,21,32,34,48,10,27,47		5,58
30″	45,39, 9,39,36,41, 6,35,34,44		3,20,15,18,21	
		1,21,32,31,27,55, 9,26		5,58
32″	45,39,11, 1, 9,12,34,30,44,10		3,20,15,24,19	
		1,21,32,28, 7,39,45, 7		5,58
34″	45,39,12,22,41,40,42,10,29,17		3,20,15,30,17	
		1,21,32,24,47,24,14,50		5,58
36″	45,39,13,44,14, 5,29,34,44, 7		3,20,15,36,15	
		1,21,32,21,27, 8,38,35		5,58
38″	45,39,15, 5,46,26,56,43,22,42		3,20,15,42,13	
		1,21,32,18, 6,52,56,22		5,58
40″	45,39,16,27,18,45, 3,36,19, 4		3,20,15,48,11	
		1,21,32,14,46,37, 8,11		5,58
42″	45,39,17,48,50,59,50,13,27,15		3,20,15,54, 9	
		1,21,32,11,26,21,14, 2		5,58
44″	45,39,19,10,23,11,16,34,41,17		3,20,16, 0, 7	
		1,21,32, 8, 6, 5,13,55		5,58
46″	45,39,20,31,55,19,22,39,55,12		3,20,16, 6, 5	
		1,21,32, 4,45,49, 7,50		5,58
48″	45,39,21,53,27,24, 8,29, 3, 2		3,20,16,12, 3	
		1,21,32, 1,25,32,55,47		5,58
50″	45,39,23,14,59,25,34, 1,58,49		3,20,16,18, 1	
		1,21,31,58, 5,16,37,46		5,58
52″	45,39,24,36,31,23,39,18,36,35		3,20,16,23,59	
		1,21,31,54,45, 0,13,47		5,58
54″	45,39,25,58, 3,18,24,18,50,22		3,20,16,29,57	
		1,21,31,51,24,43,43,50		5,58
56″	45,39,27,19,35, 9,49, 2,34,12		3,20,16,35,55	
		1,21,31,48, 4,27, 7,55		5,58
58″	45,39,28,41, 6,57,53,29,42, 7		3,20,16,41,53	
		1,21,31,44,44,10,26, 2		
60″	45,39,30, 2,38,42,37,40, 8, 9			
exact	45,39,30, 2,38,42,37,40,29,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°33′ 0″	45,39,30, 2,38,42,37,40,29,11			
		1,21,31,41,23,53,40,27		
2″	45,39,31,24,10,24, 1,34, 9,38		3,20,16,53,39	
		1,21,31,38, 3,36,46,48		5,58
4″	45,39,32,45,42, 2, 5,10,56,26		3,20,16,59,37	
		1,21,31,34,43,19,47,11		5,58
6″	45,39,34, 7,13,36,48,30,43,37		3,20,17, 5,35	
		1,21,31,31,23, 2,41,36		5,58
8″	45,39,35,28,45, 8,11,33,25,13		3,20,17,11,33	
		1,21,31,28, 2,45,30, 3		5,58
10″	45,39,36,50,16,36,14,18,55,16		3,20,17,17,31	
		1,21,31,24,42,28,12,32		5,58
12″	45,39,38,11,48, 0,56,47, 7,48		3,20,17,23,29	
		1,21,31,21,22,10,49, 3		5,58
14″	45,39,39,33,19,22,18,57,56,51		3,20,17,29,27	
		1,21,31,18, 1,53,19,36		5,58
16″	45,39,40,54,50,40,20,51,16,27		3,20,17,35,25	
		1,21,31,14,41,35,44,11		5,58
18″	45,39,42,16,21,55, 2,27, 0,38		3,20,17,41,23	
		1,21,31,11,21,18, 2,48		5,58
20″	45,39,43,37,53, 6,23,45, 3,26		3,20,17,47,21	
		1,21,31, 8, 1, 0,15,27		5,58
22″	45,39,44,59,24,14,24,45,18,53		3,20,17,53,19	
		1,21,31, 4,40,42,22, 8		5,58
24″	45,39,46,20,55,19, 5,27,41, 1		3,20,17,59,17	
		1,21,31, 1,20,24,22,51		5,58
26″	45,39,47,42,26,20,25,52, 3,52		3,20,18, 5,15	
		1,21,30,58, 0, 6,17,36		5,58
28″	45,39,49, 3,57,18,25,58,21,28		3,20,18,11,13	
		1,21,30,54,39,48, 6,23		5,58
30″	45,39,50,25,28,13, 5,46,27,51		3,20,18,17,11	
		1,21,30,51,19,29,49,12		5,58
32″	45,39,51,46,59, 4,25,16,17, 3		3,20,18,23, 9	
		1,21,30,47,59,11,26, 3		5,58
34″	45,39,53, 8,29,52,24,27,43, 6		3,20,18,29, 7	
		1,21,30,44,38,52,56,56		5,58
36″	45,39,54,30, 0,37, 3,20,40, 2		3,20,18,35, 5	
		1,21,30,41,18,34,21,51		5,58
38″	45,39,55,51,31,18,21,55, 1,53		3,20,18,41, 3	
		1,21,30,37,58,15,40,48		5,58
40″	45,39,57,13, 1,56,20,10,42,41		3,20,18,47, 1	
		1,21,30,34,37,56,53,47		5,58
42″	45,39,58,34,32,30,58, 7,36,28		3,20,18,52,59	
		1,21,30,31,17,38, 0,48		5,58
44″	45,39,59,56, 3, 2,15,45,37,16		3,20,18,58,57	
		1,21,30,27,57,19, 1,51		5,58
46″	45,40, 1,17,33,30,13, 4,39, 7		3,20,19, 4,55	
		1,21,30,24,36,59,56,56		5,58
48″	45,40, 2,39, 3,54,50, 4,36, 3		3,20,19,10,53	
		1,21,30,21,16,40,46, 3		5,58
50″	45,40, 4, 0,34,16, 6,45,22, 6		3,20,19,16,51	
		1,21,30,17,56,21,29,12		5,58
52″	45,40, 5,22, 4,34, 3, 6,51,18		3,20,19,22,49	
		1,21,30,14,36, 2, 6,23		5,58
54″	45,40, 6,43,34,48,39, 8,57,41		3,20,19,28,47	
		1,21,30,11,15,42,37,36		5,58
56″	45,40, 8, 5, 4,59,54,51,35,17		3,20,19,34,45	
		1,21,30, 7,55,23, 2,51		5,58
58″	45,40, 9,26,35, 7,50,14,38, 8		3,20,19,40,43	
		1,21,30, 4,35, 3,22, 8		
60″	45,40,10,48, 5,12,25,18, 0,16			
exact	45,40,10,48, 5,12,25,18,26,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°34′ 0″	45,40,10,48, 5,12,25,18,26,10			
		1,21,30, 1,14,43,38,22		
2″	45,40,12, 9,35,13,40, 2, 4,32		3,20,19,52,26	
		1,21,29,57,54,23,45,56		5,57
4″	45,40,13,31, 5,11,34,25,50,28		3,20,19,58,23	
		1,21,29,54,34, 3,47,33		5,57
6″	45,40,14,52,35, 6, 8,29,38, 1		3,20,20, 4,20	
		1,21,29,51,13,43,43,13		5,57
8″	45,40,16,14, 4,57,22,13,21,14		3,20,20,10,17	
		1,21,29,47,53,23,32,56		5,57
10″	45,40,17,35,34,45,15,36,54,10		3,20,20,16,14	
		1,21,29,44,33, 3,16,42		5,57
12″	45,40,18,57, 4,29,48,40,10,52		3,20,20,22,11	
		1,21,29,41,12,42,54,31		5,57
14″	45,40,20,18,34,11, 1,23, 5,23		3,20,20,28, 8	
		1,21,29,37,52,22,26,23		5,57
16″	45,40,21,40, 3,48,53,45,31,46		3,20,20,34, 5	
		1,21,29,34,32, 1,52,18		5,57
18″	45,40,23, 1,33,23,25,47,24, 4		3,20,20,40, 2	
		1,21,29,31,11,41,12,16		5,57
20″	45,40,24,23, 2,54,37,28,36,20		3,20,20,45,59	
		1,21,29,27,51,20,26,17		5,57
22″	45,40,25,44,32,22,28,49, 2,37		3,20,20,51,56	
		1,21,29,24,30,59,34,21		5,57
24″	45,40,27, 6, 1,46,59,48,36,58		3,20,20,57,53	
		1,21,29,21,10,38,36,28		5,57
26″	45,40,28,27,31, 8,10,27,13,26		3,20,21, 3,50	
		1,21,29,17,50,17,32,38		5,57
28″	45,40,29,49, 0,26, 0,44,46, 4		3,20,21, 9,47	
		1,21,29,14,29,56,22,51		5,57
30″	45,40,31,10,29,40,30,41, 8,55		3,20,21,15,44	
		1,21,29,11, 9,35, 7, 7		5,57
32″	45,40,32,31,58,51,40,16,16, 2		3,20,21,21,41	
		1,21,29, 7,49,13,45,26		5,57
34″	45,40,33,53,27,59,29,30, 1,28		3,20,21,27,38	
		1,21,29, 4,28,52,17,48		5,57
36″	45,40,35,14,57, 3,58,22,19,16		3,20,21,33,35	
		1,21,29, 1, 8,30,44,13		5,57
38″	45,40,36,36,26, 5, 6,53, 3,29		3,20,21,39,32	
		1,21,28,57,48, 9, 4,41		5,57
40″	45,40,37,57,55, 2,55, 2, 8,10		3,20,21,45,29	
		1,21,28,54,27,47,19,12		5,57
42″	45,40,39,19,23,57,22,49,27,22		3,20,21,51,26	
		1,21,28,51, 7,25,27,46		5,57
44″	45,40,40,40,52,48,30,14,55, 8		3,20,21,57,23	
		1,21,28,47,47, 3,30,23		5,57
46″	45,40,42, 2,21,36,17,18,25,31		3,20,22, 3,20	
		1,21,28,44,26,41,27, 3		5,57
48″	45,40,43,23,50,20,43,59,52,34		3,20,22, 9,17	
		1,21,28,41, 6,19,17,46		5,57
50″	45,40,44,45,19, 1,50,19,10,20		3,20,22,15,14	
		1,21,28,37,45,57, 2,32		5,57
52″	45,40,46, 6,47,39,36,16,12,52		3,20,22,21,11	
		1,21,28,34,25,34,41,21		5,57
54″	45,40,47,28,16,14, 1,50,54,13		3,20,22,27, 8	
		1,21,28,31, 5,12,14,13		5,57
56″	45,40,48,49,44,45, 7, 3, 8,26		3,20,22,33, 5	
		1,21,28,27,44,49,41, 8		5,57
58″	45,40,50,11,13,12,51,52,49,34		3,20,22,39, 2	
		1,21,28,24,24,27, 2, 6		
60″	45,40,51,32,41,37,16,19,51,40			
exact	45,40,51,32,41,37,16,19,19,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°35′ 0″	45,40,51,32,41,37,16,19,19,55			
		1,21,28,21, 4, 4,13,47		
2″	45,40,52,54, 9,58,20,23,33,42		3,20,22,51, 9	
		1,21,28,17,43,41,22,38		5,57
4″	45,40,54,15,38,16, 4, 4,56,20		3,20,22,57, 6	
		1,21,28,14,23,18,25,32		5,57
6″	45,40,55,37, 6,30,27,23,21,52		3,20,23, 3, 3	
		1,21,28,11, 2,55,22,29		5,57
8″	45,40,56,58,34,41,30,18,44,21		3,20,23, 9, 0	
		1,21,28, 7,42,32,13,29		5,57
10″	45,40,58,20, 2,49,12,50,57,50		3,20,23,14,57	
		1,21,28, 4,22, 8,58,32		5,57
12″	45,40,59,41,30,53,34,59,56,22		3,20,23,20,54	
		1,21,28, 1, 1,45,37,38		5,57
14″	45,41, 1, 2,58,54,36,45,34, 0		3,20,23,26,51	
		1,21,27,57,41,22,10,47		5,57
16″	45,41, 2,24,26,52,18, 7,44,47		3,20,23,32,48	
		1,21,27,54,20,58,37,59		5,57
18″	45,41, 3,45,54,46,39, 6,22,46		3,20,23,38,45	
		1,21,27,51, 0,34,59,14		5,57
20″	45,41, 5, 7,22,37,39,41,22, 0		3,20,23,44,42	
		1,21,27,47,40,11,14,32		5,57
22″	45,41, 6,28,50,25,19,52,36,32		3,20,23,50,39	
		1,21,27,44,19,47,23,53		5,57
24″	45,41, 7,50,18, 9,39,40, 0,25		3,20,23,56,36	
		1,21,27,40,59,23,27,17		5,57
26″	45,41, 9,11,45,50,39, 3,27,42		3,20,24, 2,33	
		1,21,27,37,38,59,24,44		5,57
28″	45,41,10,33,13,28,18, 2,52,26		3,20,24, 8,30	
		1,21,27,34,18,35,16,14		5,57
30″	45,41,11,54,41, 2,36,38, 8,40		3,20,24,14,27	
		1,21,27,30,58,11, 1,47		5,57
32″	45,41,13,16, 8,33,34,49,10,27		3,20,24,20,24	
		1,21,27,27,37,46,41,23		5,57
34″	45,41,14,37,36, 1,12,35,51,50		3,20,24,26,21	
		1,21,27,24,17,22,15, 2		5,57
36″	45,41,15,59, 3,25,29,58, 6,52		3,20,24,32,18	
		1,21,27,20,56,57,42,44		5,57
38″	45,41,17,20,30,46,26,55,49,36		3,20,24,38,15	
		1,21,27,17,36,33, 4,29		5,57
40″	45,41,18,41,58, 4, 3,28,54, 5		3,20,24,44,12	
		1,21,27,14,16, 8,20,17		5,57
42″	45,41,20, 3,25,18,19,37,14,22		3,20,24,50, 9	
		1,21,27,10,55,43,30, 8		5,57
44″	45,41,21,24,52,29,15,20,44,30		3,20,24,56, 6	
		1,21,27, 7,35,18,34, 2		5,57
46″	45,41,22,46,19,36,50,39,18,32		3,20,25, 2, 3	
		1,21,27, 4,14,53,31,59		5,57
48″	45,41,24, 7,46,41, 5,32,50,31		3,20,25, 8, 0	
		1,21,27, 0,54,28,23,59		5,57
50″	45,41,25,29,13,42, 0, 1,14,30		3,20,25,13,57	
		1,21,26,57,34, 3,10, 2		5,57
52″	45,41,26,50,40,39,34, 4,24,32		3,20,25,19,54	
		1,21,26,54,13,37,50, 8		5,57
54″	45,41,28,12, 7,33,47,42,14,40		3,20,25,25,51	
		1,21,26,50,53,12,24,17		5,57
56″	45,41,29,33,34,24,40,54,38,57		3,20,25,31,48	
		1,21,26,47,32,46,52,29		5,57
58″	45,41,30,55, 1,12,13,41,31,26		3,20,25,37,45	
		1,21,26,44,12,21,14,44		
60″	45,41,32,16,27,56,26, 2,46,10			
exact	45,41,32,16,27,56,26, 2,21,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°36′ 0″	45,41,32,16,27,56,26, 2,21,44			
		1,21,26,40,51,55,28,32		
2″	45,41,33,37,54,37,17,57,50,16		3,20,25,49,49	
		1,21,26,37,31,29,38,43		5,57
4″	45,41,34,59,21,14,49,27,28,59		3,20,25,55,46	
		1,21,26,34,11, 3,42,57		5,57
6″	45,41,36,20,47,49, 0,31,11,56		3,20,26, 1,43	
		1,21,26,30,50,37,41,14		5,57
8″	45,41,37,42,14,19,51, 8,53,10		3,20,26, 7,40	
		1,21,26,27,30,11,33,34		5,57
10″	45,41,39, 3,40,47,21,20,26,44		3,20,26,13,37	
		1,21,26,24, 9,45,19,57		5,57
12″	45,41,40,25, 7,11,31, 5,46,41		3,20,26,19,34	
		1,21,26,20,49,19, 0,23		5,57
14″	45,41,41,46,33,32,20,24,47, 4		3,20,26,25,31	
		1,21,26,17,28,52,34,52		5,57
16″	45,41,43, 7,59,49,49,17,21,56		3,20,26,31,28	
		1,21,26,14, 8,26, 3,24		5,57
18″	45,41,44,29,26, 3,57,43,25,20		3,20,26,37,25	
		1,21,26,10,47,59,25,59		5,57
20″	45,41,45,50,52,14,45,42,51,19		3,20,26,43,22	
		1,21,26, 7,27,32,42,37		5,57
22″	45,41,47,12,18,22,13,15,33,56		3,20,26,49,19	
		1,21,26, 4, 7, 5,53,18		5,57
24″	45,41,48,33,44,26,20,21,27,14		3,20,26,55,16	
		1,21,26, 0,46,38,58, 2		5,57
26″	45,41,49,55,10,27, 7, 0,25,16		3,20,27, 1,13	
		1,21,25,57,26,11,56,49		5,57
28″	45,41,51,16,36,24,33,12,22, 5		3,20,27, 7,10	
		1,21,25,54, 5,44,49,39		5,57
30″	45,41,52,38, 2,18,38,57,11,44		3,20,27,13, 7	
		1,21,25,50,45,17,36,32		5,57
32″	45,41,53,59,28, 9,24,14,48,16		3,20,27,19, 4	
		1,21,25,47,24,50,17,28		5,57
34″	45,41,55,20,53,56,49, 5, 5,44		3,20,27,25, 1	
		1,21,25,44, 4,22,52,27		5,57
36″	45,41,56,42,19,40,53,27,58,11		3,20,27,30,58	
		1,21,25,40,43,55,21,29		5,57
38″	45,41,58, 3,45,21,37,23,19,40		3,20,27,36,55	
		1,21,25,37,23,27,44,34		5,57
40″	45,41,59,25,10,59, 0,51, 4,14		3,20,27,42,52	
		1,21,25,34, 3, 0, 1,42		5,57
42″	45,42, 0,46,36,33, 3,51, 5,56		3,20,27,48,49	
		1,21,25,30,42,32,12,53		5,57
44″	45,42, 2, 8, 2, 3,46,23,18,49		3,20,27,54,46	
		1,21,25,27,22, 4,18, 7		5,57
46″	45,42, 3,29,27,31, 8,27,36,56		3,20,28, 0,43	
		1,21,25,24, 1,36,17,24		5,57
48″	45,42, 4,50,52,55,10, 3,54,20		3,20,28, 6,40	
		1,21,25,20,41, 8,10,44		5,57
50″	45,42, 6,12,18,15,51,12, 5, 4		3,20,28,12,37	
		1,21,25,17,20,39,58, 7		5,57
52″	45,42, 7,33,43,33,11,52, 3,11		3,20,28,18,34	
		1,21,25,14, 0,11,39,33		5,57
54″	45,42, 8,55, 8,47,12, 3,42,44		3,20,28,24,31	
		1,21,25,10,39,43,15, 2		5,57
56″	45,42,10,16,33,57,51,46,57,46		3,20,28,30,28	
		1,21,25, 7,19,14,44,34		5,57
58″	45,42,11,37,59, 5,11, 1,42,20		3,20,28,36,25	
		1,21,25, 3,58,46, 8, 9		
60″	45,42,12,59,24, 9, 9,47,50,29			
exact	45,42,12,59,24, 9, 9,47,37,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°37′ 0″	45,42,12,59,24, 9, 9,47,37,53			
		1,21,25, 0,38,17,24,25		
2″	45,42,14,20,49, 9,48, 5, 2,18		3,20,28,48,24	
		1,21,24,57,17,48,36, 1		5,57
4″	45,42,15,42,14, 7, 5,53,38,19		3,20,28,54,21	
		1,21,24,53,57,19,41,40		5,57
6″	45,42,17, 3,39, 1, 3,13,19,59		3,20,29, 0,18	
		1,21,24,50,36,50,41,22		5,57
8″	45,42,18,25, 3,51,40, 4, 1,21		3,20,29, 6,15	
		1,21,24,47,16,21,35, 7		5,57
10″	45,42,19,46,28,38,56,25,36,28		3,20,29,12,12	
		1,21,24,43,55,52,22,55		5,57
12″	45,42,21, 7,53,22,52,17,59,23		3,20,29,18, 9	
		1,21,24,40,35,23, 4,46		5,57
14″	45,42,22,29,18, 3,27,41, 4, 9		3,20,29,24, 6	
		1,21,24,37,14,53,40,40		5,57
16″	45,42,23,50,42,40,42,34,44,49		3,20,29,30, 3	
		1,21,24,33,54,24,10,37		5,57
18″	45,42,25,12, 7,14,36,58,55,26		3,20,29,36, 0	
		1,21,24,30,33,54,34,37		5,57
20″	45,42,26,33,31,45,10,53,30, 3		3,20,29,41,57	
		1,21,24,27,13,24,52,40		5,57
22″	45,42,27,54,56,12,24,18,22,43		3,20,29,47,54	
		1,21,24,23,52,55, 4,46		5,57
24″	45,42,29,16,20,36,17,13,27,29		3,20,29,53,51	
		1,21,24,20,32,25,10,55		5,57
26″	45,42,30,37,44,56,49,38,38,24		3,20,29,59,48	
		1,21,24,17,11,55,11, 7		5,57
28″	45,42,31,59, 9,14, 1,33,49,31		3,20,30, 5,45	
		1,21,24,13,51,25, 5,22		5,57
30″	45,42,33,20,33,27,52,58,54,53		3,20,30,11,42	
		1,21,24,10,30,54,53,40		5,57
32″	45,42,34,41,57,38,23,53,48,33		3,20,30,17,39	
		1,21,24, 7,10,24,36, 1		5,57
34″	45,42,36, 3,21,45,34,18,24,34		3,20,30,23,36	
		1,21,24, 3,49,54,12,25		5,57
36″	45,42,37,24,45,49,24,12,36,59		3,20,30,29,33	
		1,21,24, 0,29,23,42,52		5,57
38″	45,42,38,46, 9,49,53,36,19,51		3,20,30,35,30	
		1,21,23,57, 8,53, 7,22		5,57
40″	45,42,40, 7,33,47, 2,29,27,13		3,20,30,41,27	
		1,21,23,53,48,22,25,55		5,57
42″	45,42,41,28,57,40,50,51,53, 8		3,20,30,47,24	
		1,21,23,50,27,51,38,31		5,57
44″	45,42,42,50,21,31,18,43,31,39		3,20,30,53,21	
		1,21,23,47, 7,20,45,10		5,57
46″	45,42,44,11,45,18,26, 4,16,49		3,20,30,59,18	
		1,21,23,43,46,49,45,52		5,57
48″	45,42,45,33, 9, 2,12,54, 2,41		3,20,31, 5,15	
		1,21,23,40,26,18,40,37		5,57
50″	45,42,46,54,32,42,39,12,43,18		3,20,31,11,12	
		1,21,23,37, 5,47,29,25		5,57
52″	45,42,48,15,56,19,45, 0,12,43		3,20,31,17, 9	
		1,21,23,33,45,16,12,16		5,57
54″	45,42,49,37,19,53,30,16,24,59		3,20,31,23, 6	
		1,21,23,30,24,44,49,10		5,57
56″	45,42,50,58,43,23,55, 1,14, 9		3,20,31,29, 3	
		1,21,23,27, 4,13,20, 7		5,57
58″	45,42,52,20, 6,50,59,14,34,16		3,20,31,35, 0	
		1,21,23,23,43,41,45, 7		
60″	45,42,53,41,30,14,42,56,19,23			
exact	45,42,53,41,30,14,42,56, 9,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°38′ 0″	45,42,53,41,30,14,42,56, 9,32			
		1,21,23,20,23,10, 3,18		
2″	45,42,55, 2,53,35, 6, 6,12,50		3,20,31,46,57	
		1,21,23,17, 2,38,16,21		5,57
4″	45,42,56,24,16,52, 8,44,29,11		3,20,31,52,54	
		1,21,23,13,42, 6,23,27		5,57
6″	45,42,57,45,40, 5,50,50,52,38		3,20,31,58,51	
		1,21,23,10,21,34,24,36		5,57
8″	45,42,59, 7, 3,16,12,25,17,14		3,20,32, 4,48	
		1,21,23, 7, 1, 2,19,48		5,57
10″	45,43, 0,28,26,23,13,27,37, 2		3,20,32,10,45	
		1,21,23, 3,40,30, 9, 3		5,57
12″	45,43, 1,49,49,26,53,57,46, 5		3,20,32,16,42	
		1,21,23, 0,19,57,52,21		5,57
14″	45,43, 3,11,12,27,13,55,38,26		3,20,32,22,39	
		1,21,22,56,59,25,29,42		5,57
16″	45,43, 4,32,35,24,13,21, 8, 8		3,20,32,28,36	
		1,21,22,53,38,53, 1, 6		5,57
18″	45,43, 5,53,58,17,52,14, 9,14		3,20,32,34,33	
		1,21,22,50,18,20,26,33		5,57
20″	45,43, 7,15,21, 8,10,34,35,47		3,20,32,40,30	
		1,21,22,46,57,47,46, 3		5,57
22″	45,43, 8,36,43,55, 8,22,21,50		3,20,32,46,27	
		1,21,22,43,37,14,59,36		5,57
24″	45,43, 9,58, 6,38,45,37,21,26		3,20,32,52,24	
		1,21,22,40,16,42, 7,12		5,57
26″	45,43,11,19,29,19, 2,19,28,38		3,20,32,58,21	
		1,21,22,36,56, 9, 8,51		5,57
28″	45,43,12,40,51,55,58,28,37,29		3,20,33, 4,18	
		1,21,22,33,35,36, 4,33		5,57
30″	45,43,14, 2,14,29,34, 4,42, 2		3,20,33,10,15	
		1,21,22,30,15, 2,54,18		5,57
32″	45,43,15,23,36,59,49, 7,36,20		3,20,33,16,12	
		1,21,22,26,54,29,38, 6		5,57
34″	45,43,16,44,59,26,43,37,14,26		3,20,33,22, 9	
		1,21,22,23,33,56,15,57		5,57
36″	45,43,18, 6,21,50,17,33,30,23		3,20,33,28, 6	
		1,21,22,20,13,22,47,51		5,57
38″	45,43,19,27,44,10,30,56,18,14		3,20,33,34, 3	
		1,21,22,16,52,49,13,48		5,57
40″	45,43,20,49, 6,27,23,45,32, 2		3,20,33,40, 0	
		1,21,22,13,32,15,33,48		5,57
42″	45,43,22,10,28,40,56, 1, 5,50		3,20,33,45,57	
		1,21,22,10,11,41,47,51		5,57
44″	45,43,23,31,50,51, 7,42,53,41		3,20,33,51,54	
		1,21,22, 6,51, 7,55,57		5,57
46″	45,43,24,53,12,57,58,50,49,38		3,20,33,57,51	
		1,21,22, 3,30,33,58, 6		5,57
48″	45,43,26,14,35, 1,29,24,47,44		3,20,34, 3,48	
		1,21,22, 0, 9,59,54,18		5,57
50″	45,43,27,35,57, 1,39,24,42, 2		3,20,34, 9,45	
		1,21,21,56,49,25,44,33		5,57
52″	45,43,28,57,18,58,28,50,26,35		3,20,34,15,42	
		1,21,21,53,28,51,28,51		5,57
54″	45,43,30,18,40,51,57,41,55,26		3,20,34,21,39	
		1,21,21,50, 8,17, 7,12		5,57
56″	45,43,31,40, 2,42, 5,59, 2,38		3,20,34,27,36	
		1,21,21,46,47,42,39,36		5,57
58″	45,43,33, 1,24,28,53,41,42,14		3,20,34,33,33	
		1,21,21,43,27, 8, 6, 3		
60″	45,43,34,22,46,12,20,49,48,17			
exact	45,43,34,22,46,12,20,49,52,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°39′ 0″	45,43,34,22,46,12,20,49,52,53			
		1,21,21,40, 6,33,27, 0		
2″	45,43,35,44, 7,52,27,23,19,53		3,20,34,45,25	
		1,21,21,36,45,58,41,35		5,57
4″	45,43,37, 5,29,29,13,22, 1,28		3,20,34,51,22	
		1,21,21,33,25,23,50,13		5,57
6″	45,43,38,26,51, 2,38,45,51,41		3,20,34,57,19	
		1,21,21,30, 4,48,52,54		5,57
8″	45,43,39,48,12,32,43,34,44,35		3,20,35, 3,16	
		1,21,21,26,44,13,49,38		5,57
10″	45,43,41, 9,33,59,27,48,34,13		3,20,35, 9,13	
		1,21,21,23,23,38,40,25		5,57
12″	45,43,42,30,55,22,51,27,14,38		3,20,35,15,10	
		1,21,21,20, 3, 3,25,15		5,57
14″	45,43,43,52,16,42,54,30,39,53		3,20,35,21, 7	
		1,21,21,16,42,28, 4, 8		5,57
16″	45,43,45,13,37,59,36,58,44, 1		3,20,35,27, 4	
		1,21,21,13,21,52,37, 4		5,57
18″	45,43,46,34,59,12,58,51,21, 5		3,20,35,33, 1	
		1,21,21,10, 1,17, 4, 3		5,57
20″	45,43,47,56,20,23, 0, 8,25, 8		3,20,35,38,58	
		1,21,21, 6,40,41,25, 5		5,57
22″	45,43,49,17,41,29,40,49,50,13		3,20,35,44,55	
		1,21,21, 3,20, 5,40,10		5,57
24″	45,43,50,39, 2,33, 0,55,30,23		3,20,35,50,52	
		1,21,20,59,59,29,49,18		5,57
26″	45,43,52, 0,23,33, 0,25,19,41		3,20,35,56,49	
		1,21,20,56,38,53,52,29		5,57
28″	45,43,53,21,44,29,39,19,12,10		3,20,36, 2,46	
		1,21,20,53,18,17,49,43		5,57
30″	45,43,54,43, 5,22,57,37, 1,53		3,20,36, 8,43	
		1,21,20,49,57,41,41, 0		5,57
32″	45,43,56, 4,26,12,55,18,42,53		3,20,36,14,40	
		1,21,20,46,37, 5,26,20		5,57
34″	45,43,57,25,46,59,32,24, 9,13		3,20,36,20,37	
		1,21,20,43,16,29, 5,43		5,57
36″	45,43,58,47, 7,42,48,53,14,56		3,20,36,26,34	
		1,21,20,39,55,52,39, 9		5,57
38″	45,44, 0, 8,28,22,44,45,54, 5		3,20,36,32,31	
		1,21,20,36,35,16, 6,38		5,57
40″	45,44, 1,29,48,59,20, 2, 0,43		3,20,36,38,28	
		1,21,20,33,14,39,28,10		5,57
42″	45,44, 2,51, 9,32,34,41,28,53		3,20,36,44,25	
		1,21,20,29,54, 2,43,45		5,57
44″	45,44, 4,12,30, 2,28,44,12,38		3,20,36,50,22	
		1,21,20,26,33,25,53,23		5,57
46″	45,44, 5,33,50,29, 2,10, 6, 1		3,20,36,56,19	
		1,21,20,23,12,48,57, 4		5,57
48″	45,44, 6,55,10,52,14,59, 3, 5		3,20,37, 2,16	
		1,21,20,19,52,11,54,48		5,57
50″	45,44, 8,16,31,12, 7,10,57,53		3,20,37, 8,13	
		1,21,20,16,31,34,46,35		5,57
52″	45,44, 9,37,51,28,38,45,44,28		3,20,37,14,10	
		1,21,20,13,10,57,32,25		5,57
54″	45,44,10,59,11,41,49,43,16,53		3,20,37,20, 7	
		1,21,20, 9,50,20,12,18		5,57
56″	45,44,12,20,31,51,40, 3,29,11		3,20,37,26, 4	
		1,21,20, 6,29,42,46,14		5,57
58″	45,44,13,41,51,58, 9,46,15,25		3,20,37,32, 1	
		1,21,20, 3, 9, 5,14,13		
60″	45,44,15, 3,12, 1,18,51,29,38			
exact	45,44,15, 3,12, 1,18,51,39, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°40′ 0″	45,44,15, 3,12, 1,18,51,39, 3			
		1,21,19,59,48,27,37,21		
2″	45,44,16,24,32, 1, 7,19,16,24		3,20,37,43,50	
		1,21,19,56,27,49,53,31		5,57
4″	45,44,17,45,51,57,35, 9, 9,55		3,20,37,49,47	
		1,21,19,53, 7,12, 3,44		5,57
6″	45,44,19, 7,11,50,42,21,13,39		3,20,37,55,44	
		1,21,19,49,46,34, 8, 0		5,57
8″	45,44,20,28,31,40,28,55,21,39		3,20,38, 1,41	
		1,21,19,46,25,56, 6,19		5,57
10″	45,44,21,49,51,26,54,51,27,58		3,20,38, 7,38	
		1,21,19,43, 5,17,58,41		5,57
12″	45,44,23,11,11,10, 0, 9,26,39		3,20,38,13,35	
		1,21,19,39,44,39,45, 6		5,57
14″	45,44,24,32,30,49,44,49,11,45		3,20,38,19,32	
		1,21,19,36,24, 1,25,34		5,57
16″	45,44,25,53,50,26, 8,50,37,19		3,20,38,25,29	
		1,21,19,33, 3,23, 0, 5		5,57
18″	45,44,27,15, 9,59,12,13,37,24		3,20,38,31,26	
		1,21,19,29,42,44,28,39		5,57
20″	45,44,28,36,29,28,54,58, 6, 3		3,20,38,37,23	
		1,21,19,26,22, 5,51,16		5,57
22″	45,44,29,57,48,55,17, 3,57,19		3,20,38,43,20	
		1,21,19,23, 1,27, 7,56		5,57
24″	45,44,31,19, 8,18,18,31, 5,15		3,20,38,49,17	
		1,21,19,19,40,48,18,39		5,57
26″	45,44,32,40,27,37,59,19,23,54		3,20,38,55,14	
		1,21,19,16,20, 9,23,25		5,57
28″	45,44,34, 1,46,54,19,28,47,19		3,20,39, 1,11	
		1,21,19,12,59,30,22,14		5,57
30″	45,44,35,23, 6, 7,18,59, 9,33		3,20,39, 7, 8	
		1,21,19, 9,38,51,15, 6		5,57
32″	45,44,36,44,25,16,57,50,24,39		3,20,39,13, 5	
		1,21,19, 6,18,12, 2, 1		5,57
34″	45,44,38, 5,44,23,16, 2,26,40		3,20,39,19, 2	
		1,21,19, 2,57,32,42,59		5,57
36″	45,44,39,27, 3,26,13,35, 9,39		3,20,39,24,59	
		1,21,18,59,36,53,18, 0		5,57
38″	45,44,40,48,22,25,50,28,27,39		3,20,39,30,56	
		1,21,18,56,16,13,47, 4		5,57
40″	45,44,42, 9,41,22, 6,42,14,43		3,20,39,36,53	
		1,21,18,52,55,34,10,11		5,57
42″	45,44,43,31, 0,15, 2,16,24,54		3,20,39,42,50	
		1,21,18,49,34,54,27,21		5,57
44″	45,44,44,52,19, 4,37,10,52,15		3,20,39,48,47	
		1,21,18,46,14,14,38,34		5,57
46″	45,44,46,13,37,50,51,25,30,49		3,20,39,54,44	
		1,21,18,42,53,34,43,50		5,57
48″	45,44,47,34,56,33,45, 0,14,39		3,20,40, 0,41	
		1,21,18,39,32,54,43, 9		5,57
50″	45,44,48,56,15,13,17,54,57,48		3,20,40, 6,38	
		1,21,18,36,12,14,36,31		5,57
52″	45,44,50,17,33,49,30, 9,34,19		3,20,40,12,35	
		1,21,18,32,51,34,23,56		5,57
54″	45,44,51,38,52,22,21,43,58,15		3,20,40,18,32	
		1,21,18,29,30,54, 5,24		5,57
56″	45,44,53, 0,10,51,52,38, 3,39		3,20,40,24,29	
		1,21,18,26,10,13,40,55		5,57
58″	45,44,54,21,29,18, 2,51,44,34		3,20,40,30,26	
		1,21,18,22,49,33,10,29		
60″	45,44,55,42,47,40,52,24,55, 3			
exact	45,44,55,42,47,40,52,25,14, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°41′ 0″	45,44,55,42,47,40,52,25,14, 9			
		1,21,18,19,28,52,36,11		
2″	45,44,57, 4, 6, 0,21,17,50,20		3,20,40,42,11	
		1,21,18,16, 8,11,54, 0		5,57
4″	45,44,58,25,24,16,29,29,44,20		3,20,40,48, 8	
		1,21,18,12,47,31, 5,52		5,57
6″	45,44,59,46,42,29,17, 0,50,12		3,20,40,54, 5	
		1,21,18, 9,26,50,11,47		5,57
8″	45,45, 1, 8, 0,38,43,51, 1,59		3,20,41, 0, 2	
		1,21,18, 6, 6, 9,11,45		5,57
10″	45,45, 2,29,18,44,50, 0,13,44		3,20,41, 5,59	
		1,21,18, 2,45,28, 5,46		5,57
12″	45,45, 3,50,36,47,35,28,19,30		3,20,41,11,56	
		1,21,17,59,24,46,53,50		5,57
14″	45,45, 5,11,54,47, 0,15,13,20		3,20,41,17,53	
		1,21,17,56, 4, 5,35,57		5,57
16″	45,45, 6,33,12,43, 4,20,49,17		3,20,41,23,50	
		1,21,17,52,43,24,12, 7		5,57
18″	45,45, 7,54,30,35,47,45, 1,24		3,20,41,29,47	
		1,21,17,49,22,42,42,20		5,57
20″	45,45, 9,15,48,25,10,27,43,44		3,20,41,35,44	
		1,21,17,46, 2, 1, 6,36		5,57
22″	45,45,10,37, 6,11,12,28,50,20		3,20,41,41,41	
		1,21,17,42,41,19,24,55		5,57
24″	45,45,11,58,23,53,53,48,15,15		3,20,41,47,38	
		1,21,17,39,20,37,37,17		5,57
26″	45,45,13,19,41,33,14,25,52,32		3,20,41,53,35	
		1,21,17,35,59,55,43,42		5,57
28″	45,45,14,40,59, 9,14,21,36,14		3,20,41,59,32	
		1,21,17,32,39,13,44,10		5,57
30″	45,45,16, 2,16,41,53,35,20,24		3,20,42, 5,29	
		1,21,17,29,18,31,38,41		5,57
32″	45,45,17,23,34,11,12, 6,59, 5		3,20,42,11,26	
		1,21,17,25,57,49,27,15		5,57
34″	45,45,18,44,51,37, 9,56,26,20		3,20,42,17,23	
		1,21,17,22,37, 7, 9,52		5,57
36″	45,45,20, 6, 8,59,47, 3,36,12		3,20,42,23,20	
		1,21,17,19,16,24,46,32		5,57
38″	45,45,21,27,26,19, 3,28,22,44		3,20,42,29,17	
		1,21,17,15,55,42,17,15		5,57
40″	45,45,22,48,43,34,59,10,39,59		3,20,42,35,14	
		1,21,17,12,34,59,42, 1		5,57
42″	45,45,24,10, 0,47,34,10,22, 0		3,20,42,41,11	
		1,21,17, 9,14,17, 0,50		5,57
44″	45,45,25,31,17,56,48,27,22,50		3,20,42,47, 8	
		1,21,17, 5,53,34,13,42		5,57
46″	45,45,26,52,35, 2,42, 1,36,32		3,20,42,53, 5	
		1,21,17, 2,32,51,20,37		5,57
48″	45,45,28,13,52, 5,14,52,57, 9		3,20,42,59, 2	
		1,21,16,59,12, 8,21,35		5,57
50″	45,45,29,35, 9, 4,27, 1,18,44		3,20,43, 4,59	
		1,21,16,55,51,25,16,36		5,57
52″	45,45,30,56,26, 0,18,26,35,20		3,20,43,10,56	
		1,21,16,52,30,42, 5,40		5,57
54″	45,45,32,17,42,52,49, 8,41, 0		3,20,43,16,53	
		1,21,16,49, 9,58,48,47		5,57
56″	45,45,33,38,59,41,59, 7,29,47		3,20,43,22,50	
		1,21,16,45,49,15,25,57		5,57
58″	45,45,35, 0,16,27,48,22,55,44		3,20,43,28,47	
		1,21,16,42,28,31,57,10		
60″	45,45,36,21,33,10,16,54,52,54			
exact	45,45,36,21,33,10,16,55,19,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°42′ 0″	45,45,36,21,33,10,16,55,19,20			
		1,21,16,39, 7,48,25,20		
2″	45,45,37,42,49,49,24,43,44,40		3,20,43,40,28	
		1,21,16,35,47, 4,44,52		5,57
4″	45,45,39, 4, 6,25,11,48,29,32		3,20,43,46,25	
		1,21,16,32,26,20,58,27		5,57
6″	45,45,40,25,22,57,38, 9,27,59		3,20,43,52,22	
		1,21,16,29, 5,37, 6, 5		5,57
8″	45,45,41,46,39,26,43,46,34, 4		3,20,43,58,19	
		1,21,16,25,44,53, 7,46		5,57
10″	45,45,43, 7,55,52,28,39,41,50		3,20,44, 4,16	
		1,21,16,22,24, 9, 3,30		5,57
12″	45,45,44,29,12,14,52,48,45,20		3,20,44,10,13	
		1,21,16,19, 3,24,53,17		5,57
14″	45,45,45,50,28,33,56,13,38,37		3,20,44,16,10	
		1,21,16,15,42,40,37, 7		5,57
16″	45,45,47,11,44,49,38,54,15,44		3,20,44,22, 7	
		1,21,16,12,21,56,15, 0		5,57
18″	45,45,48,33, 1, 2, 0,50,30,44		3,20,44,28, 4	
		1,21,16, 9, 1,11,46,56		5,57
20″	45,45,49,54,17,11, 2, 2,17,40		3,20,44,34, 1	
		1,21,16, 5,40,27,12,55		5,57
22″	45,45,51,15,33,16,42,29,30,35		3,20,44,39,58	
		1,21,16, 2,19,42,32,57		5,57
24″	45,45,52,36,49,19, 2,12, 3,32		3,20,44,45,55	
		1,21,15,58,58,57,47, 2		5,57
26″	45,45,53,58, 5,18, 1, 9,50,34		3,20,44,51,52	
		1,21,15,55,38,12,55,10		5,57
28″	45,45,55,19,21,13,39,22,45,44		3,20,44,57,49	
		1,21,15,52,17,27,57,21		5,57
30″	45,45,56,40,37, 5,56,50,43, 5		3,20,45, 3,46	
		1,21,15,48,56,42,53,35		5,57
32″	45,45,58, 1,52,54,53,33,36,40		3,20,45, 9,43	
		1,21,15,45,35,57,43,52		5,57
34″	45,45,59,23, 8,40,29,31,20,32		3,20,45,15,40	
		1,21,15,42,15,12,28,12		5,57
36″	45,46, 0,44,24,22,44,43,48,44		3,20,45,21,37	
		1,21,15,38,54,27, 6,35		5,57
38″	45,46, 2, 5,40, 1,39,10,55,19		3,20,45,27,34	
		1,21,15,35,33,41,39, 1		5,57
40″	45,46, 3,26,55,37,12,52,34,20		3,20,45,33,31	
		1,21,15,32,12,56, 5,30		5,57
42″	45,46, 4,48,11, 9,25,48,39,50		3,20,45,39,28	
		1,21,15,28,52,10,26, 2		5,57
44″	45,46, 6, 9,26,38,17,59, 5,52		3,20,45,45,25	
		1,21,15,25,31,24,40,37		5,57
46″	45,46, 7,30,42, 3,49,23,46,29		3,20,45,51,22	
		1,21,15,22,10,38,49,15		5,57
48″	45,46, 8,51,57,26, 0, 2,35,44		3,20,45,57,19	
		1,21,15,18,49,52,51,56		5,57
50″	45,46,10,13,12,44,49,55,27,40		3,20,46, 3,16	
		1,21,15,15,29, 6,48,40		5,57
52″	45,46,11,34,28, 0,19, 2,16,20		3,20,46, 9,13	
		1,21,15,12, 8,20,39,27		5,57
54″	45,46,12,55,43,12,27,22,55,47		3,20,46,15,10	
		1,21,15, 8,47,34,24,17		5,57
56″	45,46,14,16,58,21,14,57,20, 4		3,20,46,21, 7	
		1,21,15, 5,26,48, 3,10		5,57
58″	45,46,15,38,13,26,41,45,23,14		3,20,46,27, 4	
		1,21,15, 2, 6, 1,36, 6		
60″	45,46,16,59,28,28,47,46,59,20			
exact	45,46,16,59,28,28,47,47,30,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°43′ 0″	45,46,16,59,28,28,47,47,30,44			
		1,21,14,58,45,15, 6,38		
2″	45,46,18,20,43,27,33, 2,37,22		3,20,46,38,42	
		1,21,14,55,24,28,27,56		5,56
4″	45,46,19,41,58,22,57,31, 5,18		3,20,46,44,38	
		1,21,14,52, 3,41,43,18		5,56
6″	45,46,21, 3,13,15, 1,12,48,36		3,20,46,50,34	
		1,21,14,48,42,54,52,44		5,56
8″	45,46,22,24,28, 3,44, 7,41,20		3,20,46,56,30	
		1,21,14,45,22, 7,56,14		5,56
10″	45,46,23,45,42,49, 6,15,37,34		3,20,47, 2,26	
		1,21,14,42, 1,20,53,48		5,56
12″	45,46,25, 6,57,31, 7,36,31,22		3,20,47, 8,22	
		1,21,14,38,40,33,45,26		5,56
14″	45,46,26,28,12, 9,48,10,16,48		3,20,47,14,18	
		1,21,14,35,19,46,31, 8		5,56
16″	45,46,27,49,26,45, 7,56,47,56		3,20,47,20,14	
		1,21,14,31,58,59,10,54		5,56
18″	45,46,29,10,41,17, 6,55,58,50		3,20,47,26,10	
		1,21,14,28,38,11,44,44		5,56
20″	45,46,30,31,55,45,45, 7,43,34		3,20,47,32, 6	
		1,21,14,25,17,24,12,38		5,56
22″	45,46,31,53,10,11, 2,31,56,12		3,20,47,38, 2	
		1,21,14,21,56,36,34,36		5,56
24″	45,46,33,14,24,32,59, 8,30,48		3,20,47,43,58	
		1,21,14,18,35,48,50,38		5,56
26″	45,46,34,35,38,51,34,57,21,26		3,20,47,49,54	
		1,21,14,15,15, 1, 0,44		5,56
28″	45,46,35,56,53, 6,49,58,22,10		3,20,47,55,50	
		1,21,14,11,54,13, 4,54		5,56
30″	45,46,37,18, 7,18,44,11,27, 4		3,20,48, 1,46	
		1,21,14, 8,33,25, 3, 8		5,56
32″	45,46,38,39,21,27,17,36,30,12		3,20,48, 7,42	
		1,21,14, 5,12,36,55,26		5,56
34″	45,46,40, 0,35,32,30,13,25,38		3,20,48,13,38	
		1,21,14, 1,51,48,41,48		5,56
36″	45,46,41,21,49,34,22, 2, 7,26		3,20,48,19,34	
		1,21,13,58,31, 0,22,14		5,56
38″	45,46,42,43, 3,32,53, 2,29,40		3,20,48,25,30	
		1,21,13,55,10,11,56,44		5,56
40″	45,46,44, 4,17,28, 3,14,26,24		3,20,48,31,26	
		1,21,13,51,49,23,25,18		5,56
42″	45,46,45,25,31,19,52,37,51,42		3,20,48,37,22	
		1,21,13,48,28,34,47,56		5,56
44″	45,46,46,46,45, 8,21,12,39,38		3,20,48,43,18	
		1,21,13,45, 7,46, 4,38		5,56
46″	45,46,48, 7,58,53,28,58,44,16		3,20,48,49,14	
		1,21,13,41,46,57,15,24		5,56
48″	45,46,49,29,12,35,15,55,59,40		3,20,48,55,10	
		1,21,13,38,26, 8,20,14		5,56
50″	45,46,50,50,26,13,42, 4,19,54		3,20,49, 1, 6	
		1,21,13,35, 5,19,19, 8		5,56
52″	45,46,52,11,39,48,47,23,39, 2		3,20,49, 7, 2	
		1,21,13,31,44,30,12, 6		5,56
54″	45,46,53,32,53,20,31,53,51, 8		3,20,49,12,58	
		1,21,13,28,23,40,59, 8		5,56
56″	45,46,54,54, 6,48,55,34,50,16		3,20,49,18,54	
		1,21,13,25, 2,51,40,14		5,56
58″	45,46,56,15,20,13,58,26,30,30		3,20,49,24,50	
		1,21,13,21,42, 2,15,24		
60″	45,46,57,36,33,35,40,28,45,54			
exact	45,46,57,36,33,35,40,28,19,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°44′ 0″	45,46,57,36,33,35,40,28,19,31			
		1,21,13,18,21,12,41,56		
2″	45,46,58,57,46,54, 1,41, 1,27		3,20,49,36,52	
		1,21,13,15, 0,23, 5, 4		5,56
4″	45,47, 0,19, 0, 9, 2, 4, 6,31		3,20,49,42,48	
		1,21,13,11,39,33,22,16		5,56
6″	45,47, 1,40,13,20,41,37,28,47		3,20,49,48,44	
		1,21,13, 8,18,43,33,32		5,56
8″	45,47, 3, 1,26,29, 0,21, 2,19		3,20,49,54,40	
		1,21,13, 4,57,53,38,52		5,56
10″	45,47, 4,22,39,33,58,14,41,11		3,20,50, 0,36	
		1,21,13, 1,37, 3,38,16		5,56
12″	45,47, 5,43,52,35,35,18,19,27		3,20,50, 6,32	
		1,21,12,58,16,13,31,44		5,56
14″	45,47, 7, 5, 5,33,51,31,51,11		3,20,50,12,28	
		1,21,12,54,55,23,19,16		5,56
16″	45,47, 8,26,18,28,46,55,10,27		3,20,50,18,24	
		1,21,12,51,34,33, 0,52		5,56
18″	45,47, 9,47,31,20,21,28,11,19		3,20,50,24,20	
		1,21,12,48,13,42,36,32		5,56
20″	45,47,11, 8,44, 8,35,10,47,51		3,20,50,30,16	
		1,21,12,44,52,52, 6,16		5,56
22″	45,47,12,29,56,53,28, 2,54, 7		3,20,50,36,12	
		1,21,12,41,32, 1,30, 4		5,56
24″	45,47,13,51, 9,35, 0, 4,24,11		3,20,50,42, 8	
		1,21,12,38,11,10,47,56		5,56
26″	45,47,15,12,22,13,11,15,12, 7		3,20,50,48, 4	
		1,21,12,34,50,19,59,52		5,56
28″	45,47,16,33,34,48, 1,35,11,59		3,20,50,54, 0	
		1,21,12,31,29,29, 5,52		5,56
30″	45,47,17,54,47,19,31, 4,17,51		3,20,50,59,56	
		1,21,12,28, 8,38, 5,56		5,56
32″	45,47,19,15,59,47,39,42,23,47		3,20,51, 5,52	
		1,21,12,24,47,47, 0, 4		5,56
34″	45,47,20,37,12,12,27,29,23,51		3,20,51,11,48	
		1,21,12,21,26,55,48,16		5,56
36″	45,47,21,58,24,33,54,25,12, 7		3,20,51,17,44	
		1,21,12,18, 6, 4,30,32		5,56
38″	45,47,23,19,36,52, 0,29,42,39		3,20,51,23,40	
		1,21,12,14,45,13, 6,52		5,56
40″	45,47,24,40,49, 6,45,42,49,31		3,20,51,29,36	
		1,21,12,11,24,21,37,16		5,56
42″	45,47,26, 2, 1,18,10, 4,26,47		3,20,51,35,32	
		1,21,12, 8, 3,30, 1,44		5,56
44″	45,47,27,23,13,26,13,34,28,31		3,20,51,41,28	
		1,21,12, 4,42,38,20,16		5,56
46″	45,47,28,44,25,30,56,12,48,47		3,20,51,47,24	
		1,21,12, 1,21,46,32,52		5,56
48″	45,47,30, 5,37,32,17,59,21,39		3,20,51,53,20	
		1,21,11,58, 0,54,39,32		5,56
50″	45,47,31,26,49,30,18,54, 1,11		3,20,51,59,16	
		1,21,11,54,40, 2,40,16		5,56
52″	45,47,32,48, 1,24,58,56,41,27		3,20,52, 5,12	
		1,21,11,51,19,10,35, 4		5,56
54″	45,47,34, 9,13,16,18, 7,16,31		3,20,52,11, 8	
		1,21,11,47,58,18,23,56		5,56
56″	45,47,35,30,25, 4,16,25,40,27		3,20,52,17, 4	
		1,21,11,44,37,26, 6,52		5,56
58″	45,47,36,51,36,48,53,51,47,19		3,20,52,23, 0	
		1,21,11,41,16,33,43,52		
60″	45,47,38,12,48,30,10,25,31,11			
exact	45,47,38,12,48,30,10,25,11,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°45′ 0″	45,47,38,12,48,30,10,25,11,56			
		1,21,11,37,55,41,13, 3		
2″	45,47,39,34, 0, 8, 6, 6,24,59		3,20,52,34,59	
		1,21,11,34,34,48,38, 4		5,56
4″	45,47,40,55,11,42,40,55, 3, 3		3,20,52,40,55	
		1,21,11,31,13,55,57, 9		5,56
6″	45,47,42,16,23,13,54,51, 0,12		3,20,52,46,51	
		1,21,11,27,53, 3,10,18		5,56
8″	45,47,43,37,34,41,47,54,10,30		3,20,52,52,47	
		1,21,11,24,32,10,17,31		5,56
10″	45,47,44,58,46, 6,20, 4,28, 1		3,20,52,58,43	
		1,21,11,21,11,17,18,48		5,56
12″	45,47,46,19,57,27,31,21,46,49		3,20,53, 4,39	
		1,21,11,17,50,24,14, 9		5,56
14″	45,47,47,41, 8,45,21,46, 0,58		3,20,53,10,35	
		1,21,11,14,29,31, 3,34		5,56
16″	45,47,49, 2,19,59,51,17, 4,32		3,20,53,16,31	
		1,21,11,11, 8,37,47, 3		5,56
18″	45,47,50,23,31,10,59,54,51,35		3,20,53,22,27	
		1,21,11, 7,47,44,24,36		5,56
20″	45,47,51,44,42,18,47,39,16,11		3,20,53,28,23	
		1,21,11, 4,26,50,56,13		5,56
22″	45,47,53, 5,53,23,14,30,12,24		3,20,53,34,19	
		1,21,11, 1, 5,57,21,54		5,56
24″	45,47,54,27, 4,24,20,27,34,18		3,20,53,40,15	
		1,21,10,57,45, 3,41,39		5,56
26″	45,47,55,48,15,22, 5,31,15,57		3,20,53,46,11	
		1,21,10,54,24, 9,55,28		5,56
28″	45,47,57, 9,26,16,29,41,11,25		3,20,53,52, 7	
		1,21,10,51, 3,16, 3,21		5,56
30″	45,47,58,30,37, 7,32,57,14,46		3,20,53,58, 3	
		1,21,10,47,42,22, 5,18		5,56
32″	45,47,59,51,47,55,15,19,20, 4		3,20,54, 3,59	
		1,21,10,44,21,28, 1,19		5,56
34″	45,48, 1,12,58,39,36,47,21,23		3,20,54, 9,55	
		1,21,10,41, 0,33,51,24		5,56
36″	45,48, 2,34, 9,20,37,21,12,47		3,20,54,15,51	
		1,21,10,37,39,39,35,33		5,56
38″	45,48, 3,55,19,58,17, 0,48,20		3,20,54,21,47	
		1,21,10,34,18,45,13,46		5,56
40″	45,48, 5,16,30,32,35,46, 2, 6		3,20,54,27,43	
		1,21,10,30,57,50,46, 3		5,56
42″	45,48, 6,37,41, 3,33,36,48, 9		3,20,54,33,39	
		1,21,10,27,36,56,12,24		5,56
44″	45,48, 7,58,51,31,10,33, 0,33		3,20,54,39,35	
		1,21,10,24,16, 1,32,49		5,56
46″	45,48, 9,20, 1,55,26,34,33,22		3,20,54,45,31	
		1,21,10,20,55, 6,47,18		5,56
48″	45,48,10,41,12,16,21,41,20,40		3,20,54,51,27	
		1,21,10,17,34,11,55,51		5,56
50″	45,48,12, 2,22,33,55,53,16,31		3,20,54,57,23	
		1,21,10,14,13,16,58,28		5,56
52″	45,48,13,23,32,48, 9,10,14,59		3,20,55, 3,19	
		1,21,10,10,52,21,55, 9		5,56
54″	45,48,14,44,42,59, 1,32,10, 8		3,20,55, 9,15	
		1,21,10, 7,31,26,45,54		5,56
56″	45,48,16, 5,53, 6,32,58,56, 2		3,20,55,15,11	
		1,21,10, 4,10,31,30,43		5,56
58″	45,48,17,27, 3,10,43,30,26,45		3,20,55,21, 7	
		1,21,10, 0,49,36, 9,36		
60″	45,48,18,48,13,11,33, 6,36,21			
exact	45,48,18,48,13,11,33, 6,29,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°46′ 0″	45,48,18,48,13,11,33, 6,29,13			
		1,21, 9,57,28,40,41,49		
2″	45,48,20, 9,23, 9, 1,47,11, 2		3,20,55,33, 2	
		1,21, 9,54, 7,45, 8,47		5,56
4″	45,48,21,30,33, 3, 9,32,19,49		3,20,55,38,58	
		1,21, 9,50,46,49,29,49		5,56
6″	45,48,22,51,42,53,56,21,49,38		3,20,55,44,54	
		1,21, 9,47,25,53,44,55		5,56
8″	45,48,24,12,52,41,22,15,34,33		3,20,55,50,50	
		1,21, 9,44, 4,57,54, 5		5,56
10″	45,48,25,34, 2,25,27,13,28,38		3,20,55,56,46	
		1,21, 9,40,44, 1,57,19		5,56
12″	45,48,26,55,12, 6,11,15,25,57		3,20,56, 2,42	
		1,21, 9,37,23, 5,54,37		5,56
14″	45,48,28,16,21,43,34,21,20,34		3,20,56, 8,38	
		1,21, 9,34, 2, 9,45,59		5,56
16″	45,48,29,37,31,17,36,31, 6,33		3,20,56,14,34	
		1,21, 9,30,41,13,31,25		5,56
18″	45,48,30,58,40,48,17,44,37,58		3,20,56,20,30	
		1,21, 9,27,20,17,10,55		5,56
20″	45,48,32,19,50,15,38, 1,48,53		3,20,56,26,26	
		1,21, 9,23,59,20,44,29		5,56
22″	45,48,33,40,59,39,37,22,33,22		3,20,56,32,22	
		1,21, 9,20,38,24,12, 7		5,56
24″	45,48,35, 2, 9, 0,15,46,45,29		3,20,56,38,18	
		1,21, 9,17,17,27,33,49		5,56
26″	45,48,36,23,18,17,33,14,19,18		3,20,56,44,14	
		1,21, 9,13,56,30,49,35		5,56
28″	45,48,37,44,27,31,29,45, 8,53		3,20,56,50,10	
		1,21, 9,10,35,33,59,25		5,56
30″	45,48,39, 5,36,42, 5,19, 8,18		3,20,56,56, 6	
		1,21, 9, 7,14,37, 3,19		5,56
32″	45,48,40,26,45,49,19,56,11,37		3,20,57, 2, 2	
		1,21, 9, 3,53,40, 1,17		5,56
34″	45,48,41,47,54,53,13,36,12,54		3,20,57, 7,58	
		1,21, 9, 0,32,42,53,19		5,56
36″	45,48,43, 9, 3,53,46,19, 6,13		3,20,57,13,54	
		1,21, 8,57,11,45,39,25		5,56
38″	45,48,44,30,12,50,58, 4,45,38		3,20,57,19,50	
		1,21, 8,53,50,48,19,35		5,56
40″	45,48,45,51,21,44,48,53, 5,13		3,20,57,25,46	
		1,21, 8,50,29,50,53,49		5,56
42″	45,48,47,12,30,35,18,43,59, 2		3,20,57,31,42	
		1,21, 8,47, 8,53,22, 7		5,56
44″	45,48,48,33,39,22,27,37,21, 9		3,20,57,37,38	
		1,21, 8,43,47,55,44,29		5,56
46″	45,48,49,54,48, 6,15,33, 5,38		3,20,57,43,34	
		1,21, 8,40,26,58, 0,55		5,56
48″	45,48,51,15,56,46,42,31, 6,33		3,20,57,49,30	
		1,21, 8,37, 6, 0,11,25		5,56
50″	45,48,52,37, 5,23,48,31,17,58		3,20,57,55,26	
		1,21, 8,33,45, 2,15,59		5,56
52″	45,48,53,58,13,57,33,33,33,57		3,20,58, 1,22	
		1,21, 8,30,24, 4,14,37		5,56
54″	45,48,55,19,22,27,57,37,48,34		3,20,58, 7,18	
		1,21, 8,27, 3, 6, 7,19		5,56
56″	45,48,56,40,30,55, 0,43,55,53		3,20,58,13,14	
		1,21, 8,23,42, 7,54, 5		5,56
58″	45,48,58, 1,39,18,42,51,49,58		3,20,58,19,10	
		1,21, 8,20,21, 9,34,55		
60″	45,48,59,22,47,39, 4, 1,24,53			
exact	45,48,59,22,47,39, 4, 1,27,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°47′ 0″	45,48,59,22,47,39, 4, 1,27,45			
		1,21, 8,17, 0,11,10, 5		
2″	45,49, 0,43,55,56, 4,12,37,50		3,20,58,31, 1	
		1,21, 8,13,39,12,39, 4		5,56
4″	45,49, 2, 5, 4, 9,43,25,16,54		3,20,58,36,57	
		1,21, 8,10,18,14, 2, 7		5,56
6″	45,49, 3,26,12,20, 1,39,19, 1		3,20,58,42,53	
		1,21, 8, 6,57,15,19,14		5,56
8″	45,49, 4,47,20,26,58,54,38,15		3,20,58,48,49	
		1,21, 8, 3,36,16,30,25		5,56
10″	45,49, 6, 8,28,30,35,11, 8,40		3,20,58,54,45	
		1,21, 8, 0,15,17,35,40		5,56
12″	45,49, 7,29,36,30,50,28,44,20		3,20,59, 0,41	
		1,21, 7,56,54,18,34,59		5,56
14″	45,49, 8,50,44,27,44,47,19,19		3,20,59, 6,37	
		1,21, 7,53,33,19,28,22		5,56
16″	45,49,10,11,52,21,18, 6,47,41		3,20,59,12,33	
		1,21, 7,50,12,20,15,49		5,56
18″	45,49,11,33, 0,11,30,27, 3,30		3,20,59,18,29	
		1,21, 7,46,51,20,57,20		5,56
20″	45,49,12,54, 7,58,21,48, 0,50		3,20,59,24,25	
		1,21, 7,43,30,21,32,55		5,56
22″	45,49,14,15,15,41,52, 9,33,45		3,20,59,30,21	
		1,21, 7,40, 9,22, 2,34		5,56
24″	45,49,15,36,23,22, 1,31,36,19		3,20,59,36,17	
		1,21, 7,36,48,22,26,17		5,56
26″	45,49,16,57,30,58,49,54, 2,36		3,20,59,42,13	
		1,21, 7,33,27,22,44, 4		5,56
28″	45,49,18,18,38,32,17,16,46,40		3,20,59,48, 9	
		1,21, 7,30, 6,22,55,55		5,56
30″	45,49,19,39,46, 2,23,39,42,35		3,20,59,54, 5	
		1,21, 7,26,45,23, 1,50		5,56
32″	45,49,21, 0,53,29, 9, 2,44,25		3,21, 0, 0, 1	
		1,21, 7,23,24,23, 1,49		5,56
34″	45,49,22,22, 0,52,33,25,46,14		3,21, 0, 5,57	
		1,21, 7,20, 3,22,55,52		5,56
36″	45,49,23,43, 8,12,36,48,42, 6		3,21, 0,11,53	
		1,21, 7,16,42,22,43,59		5,56
38″	45,49,25, 4,15,29,19,11,26, 5		3,21, 0,17,49	
		1,21, 7,13,21,22,26,10		5,56
40″	45,49,26,25,22,42,40,33,52,15		3,21, 0,23,45	
		1,21, 7,10, 0,22, 2,25		5,56
42″	45,49,27,46,29,52,40,55,54,40		3,21, 0,29,41	
		1,21, 7, 6,39,21,32,44		5,56
44″	45,49,29, 7,36,59,20,17,27,24		3,21, 0,35,37	
		1,21, 7, 3,18,20,57, 7		5,56
46″	45,49,30,28,44, 2,38,38,24,31		3,21, 0,41,33	
		1,21, 6,59,57,20,15,34		5,56
48″	45,49,31,49,51, 2,35,58,40, 5		3,21, 0,47,29	
		1,21, 6,56,36,19,28, 5		5,56
50″	45,49,33,10,57,59,12,18, 8,10		3,21, 0,53,25	
		1,21, 6,53,15,18,34,40		5,56
52″	45,49,34,32, 4,52,27,36,42,50		3,21, 0,59,21	
		1,21, 6,49,54,17,35,19		5,56
54″	45,49,35,53,11,42,21,54,18, 9		3,21, 1, 5,17	
		1,21, 6,46,33,16,30, 2		5,56
56″	45,49,37,14,18,28,55,10,48,11		3,21, 1,11,13	
		1,21, 6,43,12,15,18,49		5,56
58″	45,49,38,35,25,12, 7,26, 7, 0		3,21, 1,17, 9	
		1,21, 6,39,51,14, 1,40		
60″	45,49,39,56,31,51,58,40, 8,40			
exact	45,49,39,56,31,51,58,40,18,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°48′ 0″	45,49,39,56,31,51,58,40,18,57	1,21, 6,36,30,12,39,41		
2″	45,49,41,17,38,28,28,52,58,38	1,21, 6,33, 9,11,10,45	3,21, 1,28,56	5,56
4″	45,49,42,38,45, 1,38, 4, 9,23	1,21, 6,29,48, 9,35,53	3,21, 1,34,52	5,56
6″	45,49,43,59,51,31,26,13,45,16	1,21, 6,26,27, 7,55, 5	3,21, 1,40,48	5,56
8″	45,49,45,20,57,57,53,21,40,21	1,21, 6,23, 6, 6, 8,21	3,21, 1,46,44	5,56
10″	45,49,46,42, 4,20,59,27,48,42	1,21, 6,19,45, 4,15,41	3,21, 1,52,40	5,56
12″	45,49,48, 3,10,40,44,32, 4,23	1,21, 6,16,24, 2,17, 5	3,21, 1,58,36	5,56
14″	45,49,49,24,16,57, 8,34,21,28	1,21, 6,13, 3, 0,12,33	3,21, 2, 4,32	5,56
16″	45,49,50,45,23,10,11,34,34, 1	1,21, 6, 9,41,58, 2, 5	3,21, 2,10,28	5,56
18″	45,49,52, 6,29,19,53,32,36, 6	1,21, 6, 6,20,55,45,41	3,21, 2,16,24	5,56
20″	45,49,53,27,35,26,14,28,21,47	1,21, 6, 2,59,53,23,21	3,21, 2,22,20	5,56
22″	45,49,54,48,41,29,14,21,45, 8	1,21, 5,59,38,50,55, 5	3,21, 2,28,16	5,56
24″	45,49,56, 9,47,28,53,12,40,13	1,21, 5,56,17,48,20,53	3,21, 2,34,12	5,56
26″	45,49,57,30,53,25,11, 1, 1, 6	1,21, 5,52,56,45,40,45	3,21, 2,40, 8	5,56
28″	45,49,58,51,59,18, 7,46,41,51	1,21, 5,49,35,42,54,41	3,21, 2,46, 4	5,56
30″	45,50, 0,13, 5, 7,43,29,36,32	1,21, 5,46,14,40, 2,41	3,21, 2,52, 0	5,56
32″	45,50, 1,34,10,53,58, 9,39,13	1,21, 5,42,53,37, 4,45	3,21, 2,57,56	5,56
34″	45,50, 2,55,16,36,51,46,43,58	1,21, 5,39,32,34, 0,53	3,21, 3, 3,52	5,56
36″	45,50, 4,16,22,16,24,20,44,51	1,21, 5,36,11,30,51, 5	3,21, 3, 9,48	5,56
38″	45,50, 5,37,27,52,35,51,35,56	1,21, 5,32,50,27,35,21	3,21, 3,15,44	5,56
40″	45,50, 6,58,33,25,26,19,11,17	1,21, 5,29,29,24,13,41	3,21, 3,21,40	5,56
42″	45,50, 8,19,38,54,55,43,24,58	1,21, 5,26, 8,20,46, 5	3,21, 3,27,36	5,56
44″	45,50, 9,40,44,21, 4, 4,11, 3	1,21, 5,22,47,17,12,33	3,21, 3,33,32	5,56
46″	45,50,11, 1,49,43,51,21,23,36	1,21, 5,19,26,13,33, 5	3,21, 3,39,28	5,56
48″	45,50,12,22,55, 3,17,34,56,41	1,21, 5,16, 5, 9,47,41	3,21, 3,45,24	5,56
50″	45,50,13,44, 0,19,22,44,44,22	1,21, 5,12,44, 5,56,21	3,21, 3,51,20	5,56
52″	45,50,15, 5, 5,32, 6,50,40,43	1,21, 5, 9,23, 1,59, 5	3,21, 3,57,16	5,56
54″	45,50,16,26,10,41,29,52,39,48	1,21, 5, 6, 1,57,55,53	3,21, 4, 3,12	5,56
56″	45,50,17,47,15,47,31,50,35,41	1,21, 5, 2,40,53,46,45	3,21, 4, 9, 8	5,56
58″	45,50,19, 8,20,50,12,44,22,26	1,21, 4,59,19,49,31,41	3,21, 4,15, 4	
60″	45,50,20,29,25,49,32,33,54, 7			
exact	45,50,20,29,25,49,32,34, 9,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°49′ 0″	45,50,20,29,25,49,32,34, 9,21			
		1,21, 4,55,58,45,12,27		
2″	45,50,21,50,30,45,31,19,21,48		3,21, 4,26,48	
		1,21, 4,52,37,40,45,39		5,56
4″	45,50,23,11,35,38, 9, 0, 7,27		3,21, 4,32,44	
		1,21, 4,49,16,36,12,55		5,56
6″	45,50,24,32,40,27,25,36,20,22		3,21, 4,38,40	
		1,21, 4,45,55,31,34,15		5,56
8″	45,50,25,53,45,13,21, 7,54,37		3,21, 4,44,36	
		1,21, 4,42,34,26,49,39		5,56
10″	45,50,27,14,49,55,55,34,44,16		3,21, 4,50,32	
		1,21, 4,39,13,21,59, 7		5,56
12″	45,50,28,35,54,35, 8,56,43,23		3,21, 4,56,28	
		1,21, 4,35,52,17, 2,39		5,56
14″	45,50,29,56,59,11, 1,13,46, 2		3,21, 5, 2,24	
		1,21, 4,32,31,12, 0,15		5,56
16″	45,50,31,18, 3,43,32,25,46,17		3,21, 5, 8,20	
		1,21, 4,29,10, 6,51,55		5,56
18″	45,50,32,39, 8,12,42,32,38,12		3,21, 5,14,16	
		1,21, 4,25,49, 1,37,39		5,56
20″	45,50,34, 0,12,38,31,34,15,51		3,21, 5,20,12	
		1,21, 4,22,27,56,17,27		5,56
22″	45,50,35,21,17, 0,59,30,33,18		3,21, 5,26, 8	
		1,21, 4,19, 6,50,51,19		5,56
24″	45,50,36,42,21,20, 6,21,24,37		3,21, 5,32, 4	
		1,21, 4,15,45,45,19,15		5,56
26″	45,50,38, 3,25,35,52, 6,43,52		3,21, 5,38, 0	
		1,21, 4,12,24,39,41,15		5,56
28″	45,50,39,24,29,48,16,46,25, 7		3,21, 5,43,56	
		1,21, 4, 9, 3,33,57,19		5,56
30″	45,50,40,45,33,57,20,20,22,26		3,21, 5,49,52	
		1,21, 4, 5,42,28, 7,27		5,56
32″	45,50,42, 6,38, 3, 2,48,29,53		3,21, 5,55,48	
		1,21, 4, 2,21,22,11,39		5,56
34″	45,50,43,27,42, 5,24,10,41,32		3,21, 6, 1,44	
		1,21, 3,59, 0,16, 9,55		5,56
36″	45,50,44,48,46, 4,24,26,51,27		3,21, 6, 7,40	
		1,21, 3,55,39,10, 2,15		5,56
38″	45,50,46, 9,50, 0, 3,36,53,42		3,21, 6,13,36	
		1,21, 3,52,18, 3,48,39		5,56
40″	45,50,47,30,53,52,21,40,42,21		3,21, 6,19,32	
		1,21, 3,48,56,57,29, 7		5,56
42″	45,50,48,51,57,41,18,38,11,28		3,21, 6,25,28	
		1,21, 3,45,35,51, 3,39		5,56
44″	45,50,50,13, 1,26,54,29,15, 7		3,21, 6,31,24	
		1,21, 3,42,14,44,32,15		5,56
46″	45,50,51,34, 5, 9, 9,13,47,22		3,21, 6,37,20	
		1,21, 3,38,53,37,54,55		5,56
48″	45,50,52,55, 8,48, 2,51,42,17		3,21, 6,43,16	
		1,21, 3,35,32,31,11,39		5,56
50″	45,50,54,16,12,23,35,22,53,56		3,21, 6,49,12	
		1,21, 3,32,11,24,22,27		5,56
52″	45,50,55,37,15,55,46,47,16,23		3,21, 6,55, 8	
		1,21, 3,28,50,17,27,19		5,56
54″	45,50,56,58,19,24,37, 4,43,42		3,21, 7, 1, 4	
		1,21, 3,25,29,10,26,15		5,56
56″	45,50,58,19,22,50, 6,15, 9,57		3,21, 7, 7, 0	
		1,21, 3,22, 8, 3,19,15		5,56
58″	45,50,59,40,26,12,14,18,29,12		3,21, 7,12,56	
		1,21, 3,18,46,56, 6,19		
60″	45,51, 1, 1,29,31, 1,14,35,31			
exact	45,51, 1, 1,29,31, 1,15, 0,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°50′ 0″	45,51, 1, 1,29,31, 1,15, 0,36	1,21, 3,15,25,48,50,12		
2″	45,51, 2,22,32,46,27, 3,50,48	1,21, 3,12, 4,41,25,36	3,21, 7,24,36	5,56
4″	45,51, 3,43,35,58,31,45,16,24	1,21, 3, 8,43,33,55, 4	3,21, 7,30,32	5,56
6″	45,51, 5, 4,39, 7,15,19,11,28	1,21, 3, 5,22,26,18,36	3,21, 7,36,28	5,56
8″	45,51, 6,25,42,12,37,45,30, 4	1,21, 3, 2, 1,18,36,12	3,21, 7,42,24	5,56
10″	45,51, 7,46,45,14,39, 4, 6,16	1,21, 2,58,40,10,47,52	3,21, 7,48,20	5,56
12″	45,51, 9, 7,48,13,19,14,54, 8	1,21, 2,55,19, 2,53,36	3,21, 7,54,16	5,56
14″	45,51,10,28,51, 8,38,17,47,44	1,21, 2,51,57,54,53,24	3,21, 8, 0,12	5,56
16″	45,51,11,49,54, 0,36,12,41, 8	1,21, 2,48,36,46,47,16	3,21, 8, 6, 8	5,56
18″	45,51,13,10,56,49,12,59,28,24	1,21, 2,45,15,38,35,12	3,21, 8,12, 4	5,56
20″	45,51,14,31,59,34,28,38, 3,36	1,21, 2,41,54,30,17,12	3,21, 8,18, 0	5,56
22″	45,51,15,53, 2,16,23, 8,20,48	1,21, 2,38,33,21,53,16	3,21, 8,23,56	5,56
24″	45,51,17,14, 4,54,56,30,14, 4	1,21, 2,35,12,13,23,24	3,21, 8,29,52	5,56
26″	45,51,18,35, 7,30, 8,43,37,28	1,21, 2,31,51, 4,47,36	3,21, 8,35,48	5,56
28″	45,51,19,56,10, 1,59,48,25, 4	1,21, 2,28,29,56, 5,52	3,21, 8,41,44	5,56
30″	45,51,21,17,12,30,29,44,30,56	1,21, 2,25, 8,47,18,12	3,21, 8,47,40	5,56
32″	45,51,22,38,14,55,38,31,49, 8	1,21, 2,21,47,38,24,36	3,21, 8,53,36	5,56
34″	45,51,23,59,17,17,26,10,13,44	1,21, 2,18,26,29,25, 4	3,21, 8,59,32	5,56
36″	45,51,25,20,19,35,52,39,38,48	1,21, 2,15, 5,20,19,36	3,21, 9, 5,28	5,56
38″	45,51,26,41,21,50,57,59,58,24	1,21, 2,11,44,11, 8,12	3,21, 9,11,24	5,56
40″	45,51,28, 2,24, 2,42,11, 6,36	1,21, 2, 8,23, 1,50,52	3,21, 9,17,20	5,56
42″	45,51,29,23,26,11, 5,12,57,28	1,21, 2, 5, 1,52,27,36	3,21, 9,23,16	5,56
44″	45,51,30,44,28,16, 7, 5,25, 4	1,21, 2, 1,40,42,58,24	3,21, 9,29,12	5,56
46″	45,51,32, 5,30,17,47,48,23,28	1,21, 1,58,19,33,23,16	3,21, 9,35, 8	5,56
48″	45,51,33,26,32,16, 7,21,46,44	1,21, 1,54,58,23,42,12	3,21, 9,41, 4	5,56
50″	45,51,34,47,34,11, 5,45,28,56	1,21, 1,51,37,13,55,12	3,21, 9,47, 0	5,56
52″	45,51,36, 8,36, 2,42,59,24, 8	1,21, 1,48,16, 4, 2,16	3,21, 9,52,56	5,56
54″	45,51,37,29,37,50,59, 3,26,24	1,21, 1,44,54,54, 3,24	3,21, 9,58,52	5,56
56″	45,51,38,50,39,35,53,57,29,48	1,21, 1,41,33,43,58,36	3,21,10, 4,48	5,56
58″	45,51,40,11,41,17,27,41,28,24	1,21, 1,38,12,33,47,52	3,21,10,10,44	
60″	45,51,41,32,42,55,40,15,16,16			
exact	45,51,41,32,42,55,40,15,49,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°51′ 0″	45,51,41,32,42,55,40,15,49,27			
		1,21, 1,34,51,23,34,49		
2″	45,51,42,53,44,30,31,39,24,16		3,21,10,22,20	
		1,21, 1,31,30,13,12,29		5,55
4″	45,51,44,14,46, 2, 1,52,36,45		3,21,10,28,15	
		1,21, 1,28, 9, 2,44,14		5,55
6″	45,51,45,35,47,30,10,55,20,59		3,21,10,34,10	
		1,21, 1,24,47,52,10, 4		5,55
8″	45,51,46,56,48,54,58,47,31, 3		3,21,10,40, 5	
		1,21, 1,21,26,41,29,59		5,55
10″	45,51,48,17,50,16,25,29, 1, 2		3,21,10,46, 0	
		1,21, 1,18, 5,30,43,59		5,55
12″	45,51,49,38,51,34,30,59,45, 1		3,21,10,51,55	
		1,21, 1,14,44,19,52, 4		5,55
14″	45,51,50,59,52,49,15,19,37, 5		3,21,10,57,50	
		1,21, 1,11,23, 8,54,14		5,55
16″	45,51,52,20,54, 0,38,28,31,19		3,21,11, 3,45	
		1,21, 1, 8, 1,57,50,29		5,55
18″	45,51,53,41,55, 8,40,26,21,48		3,21,11, 9,40	
		1,21, 1, 4,40,46,40,49		5,55
20″	45,51,55, 2,56,13,21,13, 2,37		3,21,11,15,35	
		1,21, 1, 1,19,35,25,14		5,55
22″	45,51,56,23,57,14,40,48,27,51		3,21,11,21,30	
		1,21, 0,57,58,24, 3,44		5,55
24″	45,51,57,44,58,12,39,12,31,35		3,21,11,27,25	
		1,21, 0,54,37,12,36,19		5,55
26″	45,51,59, 5,59, 7,16,25, 7,54		3,21,11,33,20	
		1,21, 0,51,16, 1, 2,59		5,55
28″	45,52, 0,26,59,58,32,26,10,53		3,21,11,39,15	
		1,21, 0,47,54,49,23,44		5,55
30″	45,52, 1,48, 0,46,27,15,34,37		3,21,11,45,10	
		1,21, 0,44,33,37,38,34		5,55
32″	45,52, 3, 9, 1,31, 0,53,13,11		3,21,11,51, 5	
		1,21, 0,41,12,25,47,29		5,55
34″	45,52, 4,30, 2,12,13,19, 0,40		3,21,11,57, 0	
		1,21, 0,37,51,13,50,29		5,55
36″	45,52, 5,51, 2,50, 4,32,51, 9		3,21,12, 2,55	
		1,21, 0,34,30, 1,47,34		5,55
38″	45,52, 7,12, 3,24,34,34,38,43		3,21,12, 8,50	
		1,21, 0,31, 8,49,38,44		5,55
40″	45,52, 8,33, 3,55,43,24,17,27		3,21,12,14,45	
		1,21, 0,27,47,37,23,59		5,55
42″	45,52, 9,54, 4,23,31, 1,41,26		3,21,12,20,40	
		1,21, 0,24,26,25, 3,19		5,55
44″	45,52,11,15, 4,47,57,26,44,45		3,21,12,26,35	
		1,21, 0,21, 5,12,36,44		5,55
46″	45,52,12,36, 5, 9, 2,39,21,29		3,21,12,32,30	
		1,21, 0,17,44, 0, 4,14		5,55
48″	45,52,13,57, 5,26,46,39,25,43		3,21,12,38,25	
		1,21, 0,14,22,47,25,49		5,55
50″	45,52,15,18, 5,41, 9,26,51,32		3,21,12,44,20	
		1,21, 0,11, 1,34,41,29		5,55
52″	45,52,16,39, 5,52,11, 1,33, 1		3,21,12,50,15	
		1,21, 0, 7,40,21,51,14		5,55
54″	45,52,18, 0, 5,59,51,23,24,15		3,21,12,56,10	
		1,21, 0, 4,19, 8,55, 4		5,55
56″	45,52,19,21, 6, 4,10,32,19,19		3,21,13, 2, 5	
		1,21, 0, 0,57,55,52,59		5,55
58″	45,52,20,42, 6, 5, 8,28,12,18		3,21,13, 8, 0	
		1,20,59,57,36,42,44,59		
60″	45,52,22, 3, 6, 2,45,10,57,17			
exact	45,52,22, 3, 6, 2,45,10,27,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°52′ 0″	45,52,22, 3, 6, 2,45,10,27,49			
		1,20,59,54,15,29,28, 6		
2″	45,52,23,24, 5,57, 0,39,55,55		3,21,13,20, 1	
		1,20,59,50,54,16, 8, 5		5,55
4″	45,52,24,45, 5,47,54,56, 4, 0		3,21,13,25,56	
		1,20,59,47,33, 2,42, 9		5,55
6″	45,52,26, 6, 5,35,27,58,46, 9		3,21,13,31,51	
		1,20,59,44,11,49,10,18		5,55
8″	45,52,27,27, 5,19,39,47,56,27		3,21,13,37,46	
		1,20,59,40,50,35,32,32		5,55
10″	45,52,28,48, 5, 0,30,23,28,59		3,21,13,43,41	
		1,20,59,37,29,21,48,51		5,55
12″	45,52,30, 9, 4,37,59,45,17,50		3,21,13,49,36	
		1,20,59,34, 8, 7,59,15		5,55
14″	45,52,31,30, 4,12, 7,53,17, 5		3,21,13,55,31	
		1,20,59,30,46,54, 3,44		5,55
16″	45,52,32,51, 3,42,54,47,20,49		3,21,14, 1,26	
		1,20,59,27,25,40, 2,18		5,55
18″	45,52,34,12, 3,10,20,27,23, 7		3,21,14, 7,21	
		1,20,59,24, 4,25,54,57		5,55
20″	45,52,35,33, 2,34,24,53,18, 4		3,21,14,13,16	
		1,20,59,20,43,11,41,41		5,55
22″	45,52,36,54, 1,55, 8, 4,59,45		3,21,14,19,11	
		1,20,59,17,21,57,22,30		5,55
24″	45,52,38,15, 1,12,30, 2,22,15		3,21,14,25, 6	
		1,20,59,14, 0,42,57,24		5,55
26″	45,52,39,36, 0,26,30,45,19,39		3,21,14,31, 1	
		1,20,59,10,39,28,26,23		5,55
28″	45,52,40,56,59,37,10,13,46, 2		3,21,14,36,56	
		1,20,59, 7,18,13,49,27		5,55
30″	45,52,42,17,58,44,28,27,35,29		3,21,14,42,51	
		1,20,59, 3,56,59, 6,36		5,55
32″	45,52,43,38,57,48,25,26,42, 5		3,21,14,48,46	
		1,20,59, 0,35,44,17,50		5,55
34″	45,52,44,59,56,49, 1,10,59,55		3,21,14,54,41	
		1,20,58,57,14,29,23, 9		5,55
36″	45,52,46,20,55,46,15,40,23, 4		3,21,15, 0,36	
		1,20,58,53,53,14,22,33		5,55
38″	45,52,47,41,54,40, 8,54,45,37		3,21,15, 6,31	
		1,20,58,50,31,59,16, 2		5,55
40″	45,52,49, 2,53,30,40,54, 1,39		3,21,15,12,26	
		1,20,58,47,10,44, 3,36		5,55
42″	45,52,50,23,52,17,51,38, 5,15		3,21,15,18,21	
		1,20,58,43,49,28,45,15		5,55
44″	45,52,51,44,51, 1,41, 6,50,30		3,21,15,24,16	
		1,20,58,40,28,13,20,59		5,55
46″	45,52,53, 5,49,42, 9,20,11,29		3,21,15,30,11	
		1,20,58,37, 6,57,50,48		5,55
48″	45,52,54,26,48,19,16,18, 2,17		3,21,15,36, 6	
		1,20,58,33,45,42,14,42		5,55
50″	45,52,55,47,46,53, 2, 0,16,59		3,21,15,42, 1	
		1,20,58,30,24,26,32,41		5,55
52″	45,52,57, 8,45,23,26,26,49,40		3,21,15,47,56	
		1,20,58,27, 3,10,44,45		5,55
54″	45,52,58,29,43,50,29,37,34,25		3,21,15,53,51	
		1,20,58,23,41,54,50,54		5,55
56″	45,52,59,50,42,14,11,32,25,19		3,21,15,59,46	
		1,20,58,20,20,38,51, 8		5,55
58″	45,53, 1,11,40,34,32,11,16,27		3,21,16, 5,41	
		1,20,58,16,59,22,45,27		
60″	45,53, 2,32,38,51,31,34, 1,54			
exact	45,53, 2,32,38,51,31,33,42,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°53′ 0″	45,53, 2,32,38,51,31,33,42,45	1,20,58,13,38, 6,31,55		
2″	45,53, 3,53,37, 5, 9,40,14,40	1,20,58,10,16,50,14,17	3,21,16,17,38	5,55
4″	45,53, 5,14,35,15,26,30,28,57	1,20,58, 6,55,33,50,44	3,21,16,23,33	5,55
6″	45,53, 6,35,33,22,22, 4,19,41	1,20,58, 3,34,17,21,16	3,21,16,29,28	5,55
8″	45,53, 7,56,31,25,56,21,40,57	1,20,58, 0,13, 0,45,53	3,21,16,35,23	5,55
10″	45,53, 9,17,29,26, 9,22,26,50	1,20,57,56,51,44, 4,35	3,21,16,41,18	5,55
12″	45,53,10,38,27,23, 1, 6,31,25	1,20,57,53,30,27,17,22	3,21,16,47,13	5,55
14″	45,53,11,59,25,16,31,33,48,47	1,20,57,50, 9,10,24,14	3,21,16,53, 8	5,55
16″	45,53,13,20,23, 6,40,44,13, 1	1,20,57,46,47,53,25,11	3,21,16,59, 3	5,55
18″	45,53,14,41,20,53,28,37,38,12	1,20,57,43,26,36,20,13	3,21,17, 4,58	5,55
20″	45,53,16, 2,18,36,55,13,58,25	1,20,57,40, 5,19, 9,20	3,21,17,10,53	5,55
22″	45,53,17,23,16,17, 0,33, 7,45	1,20,57,36,44, 1,52,32	3,21,17,16,48	5,55
24″	45,53,18,44,13,53,44,35, 0,17	1,20,57,33,22,44,29,49	3,21,17,22,43	5,55
26″	45,53,20, 5,11,27, 7,19,30, 6	1,20,57,30, 1,27, 1,11	3,21,17,28,38	5,55
28″	45,53,21,26, 8,57, 8,46,31,17	1,20,57,26,40, 9,26,38	3,21,17,34,33	5,55
30″	45,53,22,47, 6,23,48,55,57,55	1,20,57,23,18,51,46,10	3,21,17,40,28	5,55
32″	45,53,24, 8, 3,47, 7,47,44, 5	1,20,57,19,57,33,59,47	3,21,17,46,23	5,55
34″	45,53,25,29, 1, 7, 5,21,43,52	1,20,57,16,36,16, 7,29	3,21,17,52,18	5,55
36″	45,53,26,49,58,23,41,37,51,21	1,20,57,13,14,58, 9,16	3,21,17,58,13	5,55
38″	45,53,28,10,55,36,56,36, 0,37	1,20,57, 9,53,40, 5, 8	3,21,18, 4, 8	5,55
40″	45,53,29,31,52,46,50,16, 5,45	1,20,57, 6,32,21,55, 5	3,21,18,10, 3	5,55
42″	45,53,30,52,49,53,22,38, 0,50	1,20,57, 3,11, 3,39, 7	3,21,18,15,58	5,55
44″	45,53,32,13,46,56,33,41,39,57	1,20,56,59,49,45,17,14	3,21,18,21,53	5,55
46″	45,53,33,34,43,56,23,26,57,11	1,20,56,56,28,26,49,26	3,21,18,27,48	5,55
48″	45,53,34,55,40,52,51,53,46,37	1,20,56,53, 7, 8,15,43	3,21,18,33,43	5,55
50″	45,53,36,16,37,45,59, 2, 2,20	1,20,56,49,45,49,36, 5	3,21,18,39,38	5,55
52″	45,53,37,37,34,35,44,51,38,25	1,20,56,46,24,30,50,32	3,21,18,45,33	5,55
54″	45,53,38,58,31,22, 9,22,28,57	1,20,56,43, 3,11,59, 4	3,21,18,51,28	5,55
56″	45,53,40,19,28, 5,12,34,28, 1	1,20,56,39,41,53, 1,41	3,21,18,57,23	5,55
58″	45,53,41,40,24,44,54,27,29,42	1,20,56,36,20,33,58,23	3,21,19, 3,18	
60″	45,53,43, 1,21,21,15, 1,28, 5			
exact	45,53,43, 1,21,21,15, 1,16,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°54′ 0″	45,53,43, 1,21,21,15, 1,16,29			
		1,20,56,32,59,14,48, 5		
2″	45,53,44,22,17,54,14,16, 4,34		3,21,19,15,12	
		1,20,56,29,37,55,32,53		5,55
4″	45,53,45,43,14,23,52,11,37,27		3,21,19,21, 7	
		1,20,56,26,16,36,11,46		5,55
6″	45,53,47, 4,10,50, 8,47,49,13		3,21,19,27, 2	
		1,20,56,22,55,16,44,44		5,55
8″	45,53,48,25, 7,13, 4, 4,33,57		3,21,19,32,57	
		1,20,56,19,33,57,11,47		5,55
10″	45,53,49,46, 3,32,38, 1,45,44		3,21,19,38,52	
		1,20,56,16,12,37,32,55		5,55
12″	45,53,51, 6,59,48,50,39,18,39		3,21,19,44,47	
		1,20,56,12,51,17,48, 8		5,55
14″	45,53,52,27,56, 1,41,57, 6,47		3,21,19,50,42	
		1,20,56, 9,29,57,57,26		5,55
16″	45,53,53,48,52,11,11,55, 4,13		3,21,19,56,37	
		1,20,56, 6, 8,38, 0,49		5,55
18″	45,53,55, 9,48,17,20,33, 5, 2		3,21,20, 2,32	
		1,20,56, 2,47,17,58,17		5,55
20″	45,53,56,30,44,20, 7,51, 3,19		3,21,20, 8,27	
		1,20,55,59,25,57,49,50		5,55
22″	45,53,57,51,40,19,33,48,53, 9		3,21,20,14,22	
		1,20,55,56, 4,37,35,28		5,55
24″	45,53,59,12,36,15,38,26,28,37		3,21,20,20,17	
		1,20,55,52,43,17,15,11		5,55
26″	45,54, 0,33,32, 8,21,43,43,48		3,21,20,26,12	
		1,20,55,49,21,56,48,59		5,55
28″	45,54, 1,54,27,57,43,40,32,47		3,21,20,32, 7	
		1,20,55,46, 0,36,16,52		5,55
30″	45,54, 3,15,23,43,44,16,49,39		3,21,20,38, 2	
		1,20,55,42,39,15,38,50		5,55
32″	45,54, 4,36,19,26,23,32,28,29		3,21,20,43,57	
		1,20,55,39,17,54,54,53		5,55
34″	45,54, 5,57,15, 5,41,27,23,22		3,21,20,49,52	
		1,20,55,35,56,34, 5, 1		5,55
36″	45,54, 7,18,10,41,38, 1,28,23		3,21,20,55,47	
		1,20,55,32,35,13, 9,14		5,55
38″	45,54, 8,39, 6,14,13,14,37,37		3,21,21, 1,42	
		1,20,55,29,13,52, 7,32		5,55
40″	45,54,10, 0, 1,43,27, 6,45, 9		3,21,21, 7,37	
		1,20,55,25,52,30,59,55		5,55
42″	45,54,11,20,57, 9,19,37,45, 4		3,21,21,13,32	
		1,20,55,22,31, 9,46,23		5,55
44″	45,54,12,41,52,31,50,47,31,27		3,21,21,19,27	
		1,20,55,19, 9,48,26,56		5,55
46″	45,54,14, 2,47,51, 0,35,58,23		3,21,21,25,22	
		1,20,55,15,48,27, 1,34		5,55
48″	45,54,15,23,43, 6,49, 2,59,57		3,21,21,31,17	
		1,20,55,12,27, 5,30,17		5,55
50″	45,54,16,44,38,19,16, 8,30,14		3,21,21,37,12	
		1,20,55, 9, 5,43,53, 5		5,55
52″	45,54,18, 5,33,28,21,52,23,19		3,21,21,43, 7	
		1,20,55, 5,44,22, 9,58		5,55
54″	45,54,19,26,28,34, 6,14,33,17		3,21,21,49, 2	
		1,20,55, 2,23, 0,20,56		5,55
56″	45,54,20,47,23,36,29,14,54,13		3,21,21,54,57	
		1,20,54,59, 1,38,25,59		5,55
58″	45,54,22, 8,18,35,30,53,20,12		3,21,22, 0,52	
		1,20,54,55,40,16,25, 7		
60″	45,54,23,29,13,31,11, 9,45,19			
exact	45,54,23,29,13,31,11, 9,46,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°55′ 0″	45,54,23,29,13,31,11, 9,46,25			
		1,20,54,52,18,54,18,26		
2″	45,54,24,50, 8,23,30, 4, 4,51		3,21,22,12,41	
		1,20,54,48,57,32, 5,45		5,55
4″	45,54,26,11, 3,12,27,36,10,36		3,21,22,18,36	
		1,20,54,45,36, 9,47, 9		5,55
6″	45,54,27,31,57,58, 3,45,57,45		3,21,22,24,31	
		1,20,54,42,14,47,22,38		5,55
8″	45,54,28,52,52,40,18,33,20,23		3,21,22,30,26	
		1,20,54,38,53,24,52,12		5,55
10″	45,54,30,13,47,19,11,58,12,35		3,21,22,36,21	
		1,20,54,35,32, 2,15,51		5,55
12″	45,54,31,34,41,54,44, 0,28,26		3,21,22,42,16	
		1,20,54,32,10,39,33,35		5,55
14″	45,54,32,55,36,26,54,40, 2, 1		3,21,22,48,11	
		1,20,54,28,49,16,45,24		5,55
16″	45,54,34,16,30,55,43,56,47,25		3,21,22,54, 6	
		1,20,54,25,27,53,51,18		5,55
18″	45,54,35,37,25,21,11,50,38,43		3,21,23, 0, 1	
		1,20,54,22, 6,30,51,17		5,55
20″	45,54,36,58,19,43,18,21,30, 0		3,21,23, 5,56	
		1,20,54,18,45, 7,45,21		5,55
22″	45,54,38,19,14, 2, 3,29,15,21		3,21,23,11,51	
		1,20,54,15,23,44,33,30		5,55
24″	45,54,39,40, 8,17,27,13,48,51		3,21,23,17,46	
		1,20,54,12, 2,21,15,44		5,55
26″	45,54,41, 1, 2,29,29,35, 4,35		3,21,23,23,41	
		1,20,54, 8,40,57,52, 3		5,55
28″	45,54,42,21,56,38,10,32,56,38		3,21,23,29,36	
		1,20,54, 5,19,34,22,27		5,55
30″	45,54,43,42,50,43,30, 7,19, 5		3,21,23,35,31	
		1,20,54, 1,58,10,46,56		5,55
32″	45,54,45, 3,44,45,28,18, 6, 1		3,21,23,41,26	
		1,20,53,58,36,47, 5,30		5,55
34″	45,54,46,24,38,44, 5, 5,11,31		3,21,23,47,21	
		1,20,53,55,15,23,18, 9		5,55
36″	45,54,47,45,32,39,20,28,29,40		3,21,23,53,16	
		1,20,53,51,53,59,24,53		5,55
38″	45,54,49, 6,26,31,14,27,54,33		3,21,23,59,11	
		1,20,53,48,32,35,25,42		5,55
40″	45,54,50,27,20,19,47, 3,20,15		3,21,24, 5, 6	
		1,20,53,45,11,11,20,36		5,55
42″	45,54,51,48,14, 4,58,14,40,51		3,21,24,11, 1	
		1,20,53,41,49,47, 9,35		5,55
44″	45,54,53, 9, 7,46,48, 1,50,26		3,21,24,16,56	
		1,20,53,38,28,22,52,39		5,55
46″	45,54,54,30, 1,25,16,24,43, 5		3,21,24,22,51	
		1,20,53,35, 6,58,29,48		5,55
48″	45,54,55,50,55, 0,23,23,12,53		3,21,24,28,46	
		1,20,53,31,45,34, 1, 2		5,55
50″	45,54,57,11,48,32, 8,57,13,55		3,21,24,34,41	
		1,20,53,28,24, 9,26,21		5,55
52″	45,54,58,32,42, 0,33, 6,40,16		3,21,24,40,36	
		1,20,53,25, 2,44,45,45		5,55
54″	45,54,59,53,35,25,35,51,26, 1		3,21,24,46,31	
		1,20,53,21,41,19,59,14		5,55
56″	45,55, 1,14,28,47,17,11,25,15		3,21,24,52,26	
		1,20,53,18,19,55, 6,48		5,55
58″	45,55, 2,35,22, 5,37, 6,32, 3		3,21,24,58,21	
		1,20,53,14,58,30, 8,27		
60″	45,55, 3,56,15,20,35,36,40,30			
exact	45,55, 3,56,15,20,35,36,45, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°56′ 0″	45,55, 3,56,15,20,35,36,45, 9			
		1,20,53,11,37, 5, 4,50		
2″	45,55, 5,17, 8,32,12,41,49,59		3,21,25,10, 7	
		1,20,53, 8,15,39,54,43		5,55
4″	45,55, 6,38, 1,40,28,21,44,42		3,21,25,16, 2	
		1,20,53, 4,54,14,38,41		5,55
6″	45,55, 7,58,54,45,22,36,23,23		3,21,25,21,57	
		1,20,53, 1,32,49,16,44		5,55
8″	45,55, 9,19,47,46,55,25,40, 7		3,21,25,27,52	
		1,20,52,58,11,23,48,52		5,55
10″	45,55,10,40,40,45, 6,49,28,59		3,21,25,33,47	
		1,20,52,54,49,58,15, 5		5,55
12″	45,55,12, 1,33,39,56,47,44, 4		3,21,25,39,42	
		1,20,52,51,28,32,35,23		5,55
14″	45,55,13,22,26,31,25,20,19,27		3,21,25,45,37	
		1,20,52,48, 7, 6,49,46		5,55
16″	45,55,14,43,19,19,32,27, 9,13		3,21,25,51,32	
		1,20,52,44,45,40,58,14		5,55
18″	45,55,16, 4,12, 4,18, 8, 7,27		3,21,25,57,27	
		1,20,52,41,24,15, 0,47		5,55
20″	45,55,17,25, 4,45,42,23, 8,14		3,21,26, 3,22	
		1,20,52,38, 2,48,57,25		5,55
22″	45,55,18,45,57,23,45,12, 5,39		3,21,26, 9,17	
		1,20,52,34,41,22,48, 8		5,55
24″	45,55,20, 6,49,58,26,34,53,47		3,21,26,15,12	
		1,20,52,31,19,56,32,56		5,55
26″	45,55,21,27,42,29,46,31,26,43		3,21,26,21, 7	
		1,20,52,27,58,30,11,49		5,55
28″	45,55,22,48,34,57,45, 1,38,32		3,21,26,27, 2	
		1,20,52,24,37, 3,44,47		5,55
30″	45,55,24, 9,27,22,22, 5,23,19		3,21,26,32,57	
		1,20,52,21,15,37,11,50		5,55
32″	45,55,25,30,19,43,37,42,35, 9		3,21,26,38,52	
		1,20,52,17,54,10,32,58		5,55
34″	45,55,26,51,12, 1,31,53, 8, 7		3,21,26,44,47	
		1,20,52,14,32,43,48,11		5,55
36″	45,55,28,12, 4,16, 4,36,56,18		3,21,26,50,42	
		1,20,52,11,11,16,57,29		5,55
38″	45,55,29,32,56,27,15,53,53,47		3,21,26,56,37	
		1,20,52, 7,49,50, 0,52		5,55
40″	45,55,30,53,48,35, 5,43,54,39		3,21,27, 2,32	
		1,20,52, 4,28,22,58,20		5,55
42″	45,55,32,14,40,39,34, 6,52,59		3,21,27, 8,27	
		1,20,52, 1, 6,55,49,53		5,55
44″	45,55,33,35,32,40,41, 2,42,52		3,21,27,14,22	
		1,20,51,57,45,28,35,31		5,55
46″	45,55,34,56,24,38,26,31,18,23		3,21,27,20,17	
		1,20,51,54,24, 1,15,14		5,55
48″	45,55,36,17,16,32,50,32,33,37		3,21,27,26,12	
		1,20,51,51, 2,33,49, 2		5,55
50″	45,55,37,38, 8,23,53, 6,22,39		3,21,27,32, 7	
		1,20,51,47,41, 6,16,55		5,55
52″	45,55,38,59, 0,11,34,12,39,34		3,21,27,38, 2	
		1,20,51,44,19,38,38,53		5,55
54″	45,55,40,19,51,55,53,51,18,27		3,21,27,43,57	
		1,20,51,40,58,10,54,56		5,55
56″	45,55,41,40,43,36,52, 2,13,23		3,21,27,49,52	
		1,20,51,37,36,43, 5, 4		5,55
58″	45,55,43, 1,35,14,28,45,18,27		3,21,27,55,47	
		1,20,51,34,15,15, 9,17		
60″	45,55,44,22,26,48,44, 0,27,44			
exact	45,55,44,22,26,48,44, 0,40,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°57′ 0″	45,55,44,22,26,48,44, 0,40,29			
		1,20,51,30,53,47, 9, 7		
2″	45,55,45,43,18,19,37,47,49,36		3,21,28, 7,30	
		1,20,51,27,32,19, 1,37		5,55
4″	45,55,47, 4, 9,47,10, 6,51,13		3,21,28,13,25	
		1,20,51,24,10,50,48,12		5,55
6″	45,55,48,25, 1,11,20,57,39,25		3,21,28,19,20	
		1,20,51,20,49,22,28,52		5,55
8″	45,55,49,45,52,32,10,20, 8,17		3,21,28,25,15	
		1,20,51,17,27,54, 3,37		5,55
10″	45,55,51, 6,43,49,38,14,11,54		3,21,28,31,10	
		1,20,51,14, 6,25,32,27		5,55
12″	45,55,52,27,35, 3,44,39,44,21		3,21,28,37, 5	
		1,20,51,10,44,56,55,22		5,55
14″	45,55,53,48,26,14,29,36,39,43		3,21,28,43, 0	
		1,20,51, 7,23,28,12,22		5,55
16″	45,55,55, 9,17,21,53, 4,52, 5		3,21,28,48,55	
		1,20,51, 4, 1,59,23,27		5,55
18″	45,55,56,30, 8,25,55, 4,15,32		3,21,28,54,50	
		1,20,51, 0,40,30,28,37		5,55
20″	45,55,57,50,59,26,35,34,44, 9		3,21,29, 0,45	
		1,20,50,57,19, 1,27,52		5,55
22″	45,55,59,11,50,23,54,36,12, 1		3,21,29, 6,40	
		1,20,50,53,57,32,21,12		5,55
24″	45,56, 0,32,41,17,52, 8,33,13		3,21,29,12,35	
		1,20,50,50,36, 3, 8,37		5,55
26″	45,56, 1,53,32, 8,28,11,41,50		3,21,29,18,30	
		1,20,50,47,14,33,50, 7		5,55
28″	45,56, 3,14,22,55,42,45,31,57		3,21,29,24,25	
		1,20,50,43,53, 4,25,42		5,55
30″	45,56, 4,35,13,39,35,49,57,39		3,21,29,30,20	
		1,20,50,40,31,34,55,22		5,55
32″	45,56, 5,56, 4,20, 7,24,53, 1		3,21,29,36,15	
		1,20,50,37,10, 5,19, 7		5,55
34″	45,56, 7,16,54,57,17,30,12, 8		3,21,29,42,10	
		1,20,50,33,48,35,36,57		5,55
36″	45,56, 8,37,45,31, 6, 5,49, 5		3,21,29,48, 5	
		1,20,50,30,27, 5,48,52		5,55
38″	45,56, 9,58,36, 1,33,11,37,57		3,21,29,54, 0	
		1,20,50,27, 5,35,54,52		5,55
40″	45,56,11,19,26,28,38,47,32,49		3,21,29,59,55	
		1,20,50,23,44, 5,54,57		5,55
42″	45,56,12,40,16,52,22,53,27,46		3,21,30, 5,50	
		1,20,50,20,22,35,49, 7		5,55
44″	45,56,14, 1, 7,12,45,29,16,53		3,21,30,11,45	
		1,20,50,17, 1, 5,37,22		5,55
46″	45,56,15,21,57,29,46,34,54,15		3,21,30,17,40	
		1,20,50,13,39,35,19,42		5,55
48″	45,56,16,42,47,43,26,10,13,57		3,21,30,23,35	
		1,20,50,10,18, 4,56, 7		5,55
50″	45,56,18, 3,37,53,44,15,10, 4		3,21,30,29,30	
		1,20,50, 6,56,34,26,37		5,55
52″	45,56,19,24,28, 0,40,49,36,41		3,21,30,35,25	
		1,20,50, 3,35, 3,51,12		5,55
54″	45,56,20,45,18, 4,15,53,27,53		3,21,30,41,20	
		1,20,50, 0,13,33, 9,52		5,55
56″	45,56,22, 6, 8, 4,29,26,37,45		3,21,30,47,15	
		1,20,49,56,52, 2,22,37		5,55
58″	45,56,23,26,58, 1,21,29, 0,22		3,21,30,53,10	
		1,20,49,53,30,31,29,27		
60″	45,56,24,47,47,54,52, 0,29,49			
exact	45,56,24,47,47,54,52, 0,55,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°58′ 0″	45,56,24,47,47,54,52, 0,55,26			
		1,20,49,50, 9, 0,33, 7		
2″	45,56,26, 8,37,45, 1, 1,28,33		3,21,31, 4,48	
		1,20,49,46,47,29,28,19		5,55
4″	45,56,27,29,27,31,48,30,56,52		3,21,31,10,43	
		1,20,49,43,25,58,17,36		5,55
6″	45,56,28,50,17,15,14,29,14,28		3,21,31,16,38	
		1,20,49,40, 4,27, 0,58		5,55
8″	45,56,30,11, 6,55,18,56,15,26		3,21,31,22,33	
		1,20,49,36,42,55,38,25		5,55
10″	45,56,31,31,56,32, 1,51,53,51		3,21,31,28,28	
		1,20,49,33,21,24, 9,57		5,55
12″	45,56,32,52,46, 5,23,16, 3,48		3,21,31,34,23	
		1,20,49,29,59,52,35,34		5,55
14″	45,56,34,13,35,35,23, 8,39,22		3,21,31,40,18	
		1,20,49,26,38,20,55,16		5,55
16″	45,56,35,34,25, 2, 1,29,34,38		3,21,31,46,13	
		1,20,49,23,16,49, 9, 3		5,55
18″	45,56,36,55,14,25,18,18,43,41		3,21,31,52, 8	
		1,20,49,19,55,17,16,55		5,55
20″	45,56,38,16, 3,45,13,36, 0,36		3,21,31,58, 3	
		1,20,49,16,33,45,18,52		5,55
22″	45,56,39,36,53, 1,47,21,19,28		3,21,32, 3,58	
		1,20,49,13,12,13,14,54		5,55
24″	45,56,40,57,42,14,59,34,34,22		3,21,32, 9,53	
		1,20,49, 9,50,41, 5, 1		5,55
26″	45,56,42,18,31,24,50,15,39,23		3,21,32,15,48	
		1,20,49, 6,29, 8,49,13		5,55
28″	45,56,43,39,20,31,19,24,28,36		3,21,32,21,43	
		1,20,49, 3, 7,36,27,30		5,55
30″	45,56,45, 0, 9,34,27, 0,56, 6		3,21,32,27,38	
		1,20,48,59,46, 3,59,52		5,55
32″	45,56,46,20,58,34,13, 4,55,58		3,21,32,33,33	
		1,20,48,56,24,31,26,19		5,55
34″	45,56,47,41,47,30,37,36,22,17		3,21,32,39,28	
		1,20,48,53, 2,58,46,51		5,55
36″	45,56,49, 2,36,23,40,35, 9, 8		3,21,32,45,23	
		1,20,48,49,41,26, 1,28		5,55
38″	45,56,50,23,25,13,22, 1,10,36		3,21,32,51,18	
		1,20,48,46,19,53,10,10		5,55
40″	45,56,51,44,13,59,41,54,20,46		3,21,32,57,13	
		1,20,48,42,58,20,12,57		5,55
42″	45,56,53, 5, 2,42,40,14,33,43		3,21,33, 3, 8	
		1,20,48,39,36,47, 9,49		5,55
44″	45,56,54,25,51,22,17, 1,43,32		3,21,33, 9, 3	
		1,20,48,36,15,14, 0,46		5,55
46″	45,56,55,46,39,58,32,15,44,18		3,21,33,14,58	
		1,20,48,32,53,40,45,48		5,55
48″	45,56,57, 7,28,31,25,56,30, 6		3,21,33,20,53	
		1,20,48,29,32, 7,24,55		5,55
50″	45,56,58,28,17, 0,58, 3,55, 1		3,21,33,26,48	
		1,20,48,26,10,33,58, 7		5,55
52″	45,56,59,49, 5,27, 8,37,53, 8		3,21,33,32,43	
		1,20,48,22,49, 0,25,24		5,55
54″	45,57, 1, 9,53,49,57,38,18,32		3,21,33,38,38	
		1,20,48,19,27,26,46,46		5,55
56″	45,57, 2,30,42, 9,25, 5, 5,18		3,21,33,44,33	
		1,20,48,16, 5,53, 2,13		5,55
58″	45,57, 3,51,30,25,30,58, 7,31		3,21,33,50,28	
		1,20,48,12,44,19,11,45		
60″	45,57, 5,12,18,38,15,17,19,16			
exact	45,57, 5,12,18,38,15,17,48,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
49°59′ 0″	45,57, 5,12,18,38,15,17,48,16	1,20,48, 9,22,45,18,40		
2″	45,57, 6,33, 6,47,38, 3, 6,56	1,20,48, 6, 1,11,16,37	3,21,34, 2, 3	5,54
4″	45,57, 7,53,54,53,39,14,23,33	1,20,48, 2,39,37, 8,40	3,21,34, 7,57	5,54
6″	45,57, 9,14,42,56,18,51,32,13	1,20,47,59,18, 2,54,49	3,21,34,13,51	5,54
8″	45,57,10,35,30,55,36,54,27, 2	1,20,47,55,56,28,35, 4	3,21,34,19,45	5,54
10″	45,57,11,56,18,51,33,23, 2, 6	1,20,47,52,34,54, 9,25	3,21,34,25,39	5,54
12″	45,57,13,17, 6,44, 8,17,11,31	1,20,47,49,13,19,37,52	3,21,34,31,33	5,54
14″	45,57,14,37,54,33,21,36,49,23	1,20,47,45,51,45, 0,25	3,21,34,37,27	5,54
16″	45,57,15,58,42,19,13,21,49,48	1,20,47,42,30,10,17, 4	3,21,34,43,21	5,54
18″	45,57,17,19,30, 1,43,32, 6,52	1,20,47,39, 8,35,27,49	3,21,34,49,15	5,54
20″	45,57,18,40,17,40,52, 7,34,41	1,20,47,35,47, 0,32,40	3,21,34,55, 9	5,54
22″	45,57,20, 1, 5,16,39, 8, 7,21	1,20,47,32,25,25,31,37	3,21,35, 1, 3	5,54
24″	45,57,21,21,52,49, 4,33,38,58	1,20,47,29, 3,50,24,40	3,21,35, 6,57	5,54
26″	45,57,22,42,40,18, 8,24, 3,38	1,20,47,25,42,15,11,49	3,21,35,12,51	5,54
28″	45,57,24, 3,27,43,50,39,15,27	1,20,47,22,20,39,53, 4	3,21,35,18,45	5,54
30″	45,57,25,24,15, 6,11,19, 8,31	1,20,47,18,59, 4,28,25	3,21,35,24,39	5,54
32″	45,57,26,45, 2,25,10,23,36,56	1,20,47,15,37,28,57,52	3,21,35,30,33	5,54
34″	45,57,28, 5,49,40,47,52,34,48	1,20,47,12,15,53,21,25	3,21,35,36,27	5,54
36″	45,57,29,26,36,53, 3,45,56,13	1,20,47, 8,54,17,39, 4	3,21,35,42,21	5,54
38″	45,57,30,47,24, 1,58, 3,35,17	1,20,47, 5,32,41,50,49	3,21,35,48,15	5,54
40″	45,57,32, 8,11, 7,30,45,26, 6	1,20,47, 2,11, 5,56,40	3,21,35,54, 9	5,54
42″	45,57,33,28,58, 9,41,51,22,46	1,20,46,58,49,29,56,37	3,21,36, 0, 3	5,54
44″	45,57,34,49,45, 8,31,21,19,23	1,20,46,55,27,53,50,40	3,21,36, 5,57	5,54
46″	45,57,36,10,32, 3,59,15,10, 3	1,20,46,52, 6,17,38,49	3,21,36,11,51	5,54
48″	45,57,37,31,18,56, 5,32,48,52	1,20,46,48,44,41,21, 4	3,21,36,17,45	5,54
50″	45,57,38,52, 5,44,50,14, 9,56	1,20,46,45,23, 4,57,25	3,21,36,23,39	5,54
52″	45,57,40,12,52,30,13,19, 7,21	1,20,46,42, 1,28,27,52	3,21,36,29,33	5,54
54″	45,57,41,33,39,12,14,47,35,13	1,20,46,38,39,51,52,25	3,21,36,35,27	5,54
56″	45,57,42,54,25,50,54,39,27,38	1,20,46,35,18,15,11, 4	3,21,36,41,21	5,54
58″	45,57,44,15,12,26,12,54,38,42	1,20,46,31,56,38,23,49	3,21,36,47,15	
60″	45,57,45,35,58,58, 9,33, 2,31			
exact	45,57,45,35,58,58, 9,32,32,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50° 0′ 0″	45,57,45,35,58,58, 9,32,32,28			
		1,20,46,28,35, 1,27,37		
2″	45,57,46,56,45,26,44,34, 0, 5		3,21,36,59,15	
		1,20,46,25,13,24,28,22		5,54
4″	45,57,48,17,31,51,57,58,28,27		3,21,37, 5, 9	
		1,20,46,21,51,47,23,13		5,54
6″	45,57,49,38,18,13,49,45,51,40		3,21,37,11, 3	
		1,20,46,18,30,10,12,10		5,54
8″	45,57,50,59, 4,32,19,56, 3,50		3,21,37,16,57	
		1,20,46,15, 8,32,55,13		5,54
10″	45,57,52,19,50,47,28,28,59, 3		3,21,37,22,51	
		1,20,46,11,46,55,32,22		5,54
12″	45,57,53,40,36,59,15,24,31,25		3,21,37,28,45	
		1,20,46, 8,25,18, 3,37		5,54
14″	45,57,55, 1,23, 7,40,42,35, 2		3,21,37,34,39	
		1,20,46, 5, 3,40,28,58		5,54
16″	45,57,56,22, 9,12,44,23, 4, 0		3,21,37,40,33	
		1,20,46, 1,42, 2,48,25		5,54
18″	45,57,57,42,55,14,26,25,52,25		3,21,37,46,27	
		1,20,45,58,20,25, 1,58		5,54
20″	45,57,59, 3,41,12,46,50,54,23		3,21,37,52,21	
		1,20,45,54,58,47, 9,37		5,54
22″	45,58, 0,24,27, 7,45,38, 4, 0		3,21,37,58,15	
		1,20,45,51,37, 9,11,22		5,54
24″	45,58, 1,45,12,59,22,47,15,22		3,21,38, 4, 9	
		1,20,45,48,15,31, 7,13		5,54
26″	45,58, 3, 5,58,47,38,18,22,35		3,21,38,10, 3	
		1,20,45,44,53,52,57,10		5,54
28″	45,58, 4,26,44,32,32,11,19,45		3,21,38,15,57	
		1,20,45,41,32,14,41,13		5,54
30″	45,58, 5,47,30,14, 4,26, 0,58		3,21,38,21,51	
		1,20,45,38,10,36,19,22		5,54
32″	45,58, 7, 8,15,52,15, 2,20,20		3,21,38,27,45	
		1,20,45,34,48,57,51,37		5,54
34″	45,58, 8,29, 1,27, 4, 0,11,57		3,21,38,33,39	
		1,20,45,31,27,19,17,58		5,54
36″	45,58, 9,49,46,58,31,19,29,55		3,21,38,39,33	
		1,20,45,28, 5,40,38,25		5,54
38″	45,58,11,10,32,26,37, 0, 8,20		3,21,38,45,27	
		1,20,45,24,44, 1,52,58		5,54
40″	45,58,12,31,17,51,21, 2, 1,18		3,21,38,51,21	
		1,20,45,21,22,23, 1,37		5,54
42″	45,58,13,52, 3,12,43,25, 2,55		3,21,38,57,15	
		1,20,45,18, 0,44, 4,22		5,54
44″	45,58,15,12,48,30,44, 9, 7,17		3,21,39, 3, 9	
		1,20,45,14,39, 5, 1,13		5,54
46″	45,58,16,33,33,45,23,14, 8,30		3,21,39, 9, 3	
		1,20,45,11,17,25,52,10		5,54
48″	45,58,17,54,18,56,40,40, 0,40		3,21,39,14,57	
		1,20,45, 7,55,46,37,13		5,54
50″	45,58,19,15, 4, 4,36,26,37,53		3,21,39,20,51	
		1,20,45, 4,34, 7,16,22		5,54
52″	45,58,20,35,49, 9,10,33,54,15		3,21,39,26,45	
		1,20,45, 1,12,27,49,37		5,54
54″	45,58,21,56,34,10,23, 1,43,52		3,21,39,32,39	
		1,20,44,57,50,48,16,58		5,54
56″	45,58,23,17,19, 8,13,50, 0,50		3,21,39,38,33	
		1,20,44,54,29, 8,38,25		5,54
58″	45,58,24,38, 4, 2,42,58,39,15		3,21,39,44,27	
		1,20,44,51, 7,28,53,58		
60″	45,58,25,58,48,53,50,27,33,13			
exact	45,58,25,58,48,53,50,27,16,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50° 1′ 0″	45,58,25,58,48,53,50,27,16,49			
		1,20,44,47,45,49, 1,49		
2″	45,58,27,19,33,41,36,16,18,38		3,21,39,56,22	
		1,20,44,44,24, 9, 5,27		5,54
4″	45,58,28,40,18,26, 0,25,24, 5		3,21,40, 2,16	
		1,20,44,41, 2,29, 3,11		5,54
6″	45,58,30, 1, 3, 7, 2,54,27,16		3,21,40, 8,10	
		1,20,44,37,40,48,55, 1		5,54
8″	45,58,31,21,47,44,43,43,22,17		3,21,40,14, 4	
		1,20,44,34,19, 8,40,57		5,54
10″	45,58,32,42,32,19, 2,52, 3,14		3,21,40,19,58	
		1,20,44,30,57,28,20,59		5,54
12″	45,58,34, 3,16,50, 0,20,24,13		3,21,40,25,52	
		1,20,44,27,35,47,55, 7		5,54
14″	45,58,35,24, 1,17,36, 8,19,20		3,21,40,31,46	
		1,20,44,24,14, 7,23,21		5,54
16″	45,58,36,44,45,41,50,15,42,41		3,21,40,37,40	
		1,20,44,20,52,26,45,41		5,54
18″	45,58,38, 5,30, 2,42,42,28,22		3,21,40,43,34	
		1,20,44,17,30,46, 2, 7		5,54
20″	45,58,39,26,14,20,13,28,30,29		3,21,40,49,28	
		1,20,44,14, 9, 5,12,39		5,54
22″	45,58,40,46,58,34,22,33,43, 8		3,21,40,55,22	
		1,20,44,10,47,24,17,17		5,54
24″	45,58,42, 7,42,45, 9,58, 0,25		3,21,41, 1,16	
		1,20,44, 7,25,43,16, 1		5,54
26″	45,58,43,28,26,52,35,41,16,26		3,21,41, 7,10	
		1,20,44, 4, 4, 2, 8,51		5,54
28″	45,58,44,49,10,56,39,43,25,17		3,21,41,13, 4	
		1,20,44, 0,42,20,55,47		5,54
30″	45,58,46, 9,54,57,22, 4,21, 4		3,21,41,18,58	
		1,20,43,57,20,39,36,49		5,54
32″	45,58,47,30,38,54,42,43,57,53		3,21,41,24,52	
		1,20,43,53,58,58,11,57		5,54
34″	45,58,48,51,22,48,41,42, 9,50		3,21,41,30,46	
		1,20,43,50,37,16,41,11		5,54
36″	45,58,50,12, 6,39,18,58,51, 1		3,21,41,36,40	
		1,20,43,47,15,35, 4,31		5,54
38″	45,58,51,32,50,26,34,33,55,32		3,21,41,42,34	
		1,20,43,43,53,53,21,57		5,54
40″	45,58,52,53,34,10,28,27,17,29		3,21,41,48,28	
		1,20,43,40,32,11,33,29		5,54
42″	45,58,54,14,17,51, 0,38,50,58		3,21,41,54,22	
		1,20,43,37,10,29,39, 7		5,54
44″	45,58,55,35, 1,28,11, 8,30, 5		3,21,42, 0,16	
		1,20,43,33,48,47,38,51		5,54
46″	45,58,56,55,45, 1,59,56, 8,56		3,21,42, 6,10	
		1,20,43,30,27, 5,32,41		5,54
48″	45,58,58,16,28,32,27, 1,41,37		3,21,42,12, 4	
		1,20,43,27, 5,23,20,37		5,54
50″	45,58,59,37,11,59,32,25, 2,14		3,21,42,17,58	
		1,20,43,23,43,41, 2,39		5,54
52″	45,59, 0,57,55,23,16, 6, 4,53		3,21,42,23,52	
		1,20,43,20,21,58,38,47		5,54
54″	45,59, 2,18,38,43,38, 4,43,40		3,21,42,29,46	
		1,20,43,17, 0,16, 9, 1		5,54
56″	45,59, 3,39,22, 0,38,20,52,41		3,21,42,35,40	
		1,20,43,13,38,33,33,21		5,54
58″	45,59, 5, 0, 5,14,16,54,26, 2		3,21,42,41,34	
		1,20,43,10,16,50,51,47		
60″	45,59, 6,20,48,24,33,45,17,49			
exact	45,59, 6,20,48,24,33,45, 5,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50° 2′ 0″	45,59, 6,20,48,24,33,45, 5,20			
		1,20,43, 6,55, 8, 3, 7		
2″	45,59, 7,41,31,31,28,53, 8,27		3,21,42,53,26	
		1,20,43, 3,33,25, 9,41		5,54
4″	45,59, 9, 2,14,35, 2,18,18, 8		3,21,42,59,20	
		1,20,43, 0,11,42,10,21		5,54
6″	45,59,10,22,57,35,14, 0,28,29		3,21,43, 5,14	
		1,20,42,56,49,59, 5, 7		5,54
8″	45,59,11,43,40,32, 3,59,33,36		3,21,43,11, 8	
		1,20,42,53,28,15,53,59		5,54
10″	45,59,13, 4,23,25,32,15,27,35		3,21,43,17, 2	
		1,20,42,50, 6,32,36,57		5,54
12″	45,59,14,25, 6,15,38,48, 4,32		3,21,43,22,56	
		1,20,42,46,44,49,14, 1		5,54
14″	45,59,15,45,49, 2,23,37,18,33		3,21,43,28,50	
		1,20,42,43,23, 5,45,11		5,54
16″	45,59,17, 6,31,45,46,43, 3,44		3,21,43,34,44	
		1,20,42,40, 1,22,10,27		5,54
18″	45,59,18,27,14,25,48, 5,14,11		3,21,43,40,38	
		1,20,42,36,39,38,29,49		5,54
20″	45,59,19,47,57, 2,27,43,44, 0		3,21,43,46,32	
		1,20,42,33,17,54,43,17		5,54
22″	45,59,21, 8,39,35,45,38,27,17		3,21,43,52,26	
		1,20,42,29,56,10,50,51		5,54
24″	45,59,22,29,22, 5,41,49,18, 8		3,21,43,58,20	
		1,20,42,26,34,26,52,31		5,54
26″	45,59,23,50, 4,32,16,16,10,39		3,21,44, 4,14	
		1,20,42,23,12,42,48,17		5,54
28″	45,59,25,10,46,55,28,58,58,56		3,21,44,10, 8	
		1,20,42,19,50,58,38, 9		5,54
30″	45,59,26,31,29,15,19,57,37, 5		3,21,44,16, 2	
		1,20,42,16,29,14,22, 7		5,54
32″	45,59,27,52,11,31,49,11,59,12		3,21,44,21,56	
		1,20,42,13, 7,30, 0,11		5,54
34″	45,59,29,12,53,44,56,41,59,23		3,21,44,27,50	
		1,20,42, 9,45,45,32,21		5,54
36″	45,59,30,33,35,54,42,27,31,44		3,21,44,33,44	
		1,20,42, 6,24, 0,58,37		5,54
38″	45,59,31,54,18, 1, 6,28,30,21		3,21,44,39,38	
		1,20,42, 3, 2,16,18,59		5,54
40″	45,59,33,15, 0, 4, 8,44,49,20		3,21,44,45,32	
		1,20,41,59,40,31,33,27		5,54
42″	45,59,34,35,42, 3,49,16,22,47		3,21,44,51,26	
		1,20,41,56,18,46,42, 1		5,54
44″	45,59,35,56,24, 0, 8, 3, 4,48		3,21,44,57,20	
		1,20,41,52,57, 1,44,41		5,54
46″	45,59,37,17, 5,53, 5, 4,49,29		3,21,45, 3,14	
		1,20,41,49,35,16,41,27		5,54
48″	45,59,38,37,47,42,40,21,30,56		3,21,45, 9, 8	
		1,20,41,46,13,31,32,19		5,54
50″	45,59,39,58,29,28,53,53, 3,15		3,21,45,15, 2	
		1,20,41,42,51,46,17,17		5,54
52″	45,59,41,19,11,11,45,39,20,32		3,21,45,20,56	
		1,20,41,39,30, 0,56,21		5,54
54″	45,59,42,39,52,51,15,40,16,53		3,21,45,26,50	
		1,20,41,36, 8,15,29,31		5,54
56″	45,59,44, 0,34,27,23,55,46,24		3,21,45,32,44	
		1,20,41,32,46,29,56,47		5,54
58″	45,59,45,21,16, 0,10,25,43,11		3,21,45,38,38	
		1,20,41,29,24,44,18, 9		
60″	45,59,46,41,57,29,35,10, 1,20			
exact	45,59,46,41,57,29,35, 9,57,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50° 3′ 0″	45,59,46,41,57,29,35, 9,57,22			
		1,20,41,26, 2,58,33,20		
2″	45,59,48, 2,38,55,38, 8,30,42		3,21,45,50,26	
		1,20,41,22,41,12,42,54		5,54
4″	45,59,49,23,20,18,19,21,13,36		3,21,45,56,20	
		1,20,41,19,19,26,46,34		5,54
6″	45,59,50,44, 1,37,38,48, 0,10		3,21,46, 2,14	
		1,20,41,15,57,40,44,20		5,54
8″	45,59,52, 4,42,53,36,28,44,30		3,21,46, 8, 8	
		1,20,41,12,35,54,36,12		5,54
10″	45,59,53,25,24, 6,12,23,20,42		3,21,46,14, 2	
		1,20,41, 9,14, 8,22,10		5,54
12″	45,59,54,46, 5,15,26,31,42,52		3,21,46,19,56	
		1,20,41, 5,52,22, 2,14		5,54
14″	45,59,56, 6,46,21,18,53,45, 6		3,21,46,25,50	
		1,20,41, 2,30,35,36,24		5,54
16″	45,59,57,27,27,23,49,29,21,30		3,21,46,31,44	
		1,20,40,59, 8,49, 4,40		5,54
18″	45,59,58,48, 8,22,58,18,26,10		3,21,46,37,38	
		1,20,40,55,47, 2,27, 2		5,54
20″	46, 0, 0, 8,49,18,45,20,53,12		3,21,46,43,32	
		1,20,40,52,25,15,43,30		5,54
22″	46, 0, 1,29,30,11,10,36,36,42		3,21,46,49,26	
		1,20,40,49, 3,28,54, 4		5,54
24″	46, 0, 2,50,11, 0,14, 5,30,46		3,21,46,55,20	
		1,20,40,45,41,41,58,44		5,54
26″	46, 0, 4,10,51,45,55,47,29,30		3,21,47, 1,14	
		1,20,40,42,19,54,57,30		5,54
28″	46, 0, 5,31,32,28,15,42,27, 0		3,21,47, 7, 8	
		1,20,40,38,58, 7,50,22		5,54
30″	46, 0, 6,52,13, 7,13,50,17,22		3,21,47,13, 2	
		1,20,40,35,36,20,37,20		5,54
32″	46, 0, 8,12,53,42,50,10,54,42		3,21,47,18,56	
		1,20,40,32,14,33,18,24		5,54
34″	46, 0, 9,33,34,15, 4,44,13, 6		3,21,47,24,50	
		1,20,40,28,52,45,53,34		5,54
36″	46, 0,10,54,14,43,57,30, 6,40		3,21,47,30,44	
		1,20,40,25,30,58,22,50		5,54
38″	46, 0,12,14,55, 9,28,28,29,30		3,21,47,36,38	
		1,20,40,22, 9,10,46,12		5,54
40″	46, 0,13,35,35,31,37,39,15,42		3,21,47,42,32	
		1,20,40,18,47,23, 3,40		5,54
42″	46, 0,14,56,15,50,25, 2,19,22		3,21,47,48,26	
		1,20,40,15,25,35,15,14		5,54
44″	46, 0,16,16,56, 5,50,37,34,36		3,21,47,54,20	
		1,20,40,12, 3,47,20,54		5,54
46″	46, 0,17,37,36,17,54,24,55,30		3,21,48, 0,14	
		1,20,40, 8,41,59,20,40		5,54
48″	46, 0,18,58,16,26,36,24,16,10		3,21,48, 6, 8	
		1,20,40, 5,20,11,14,32		5,54
50″	46, 0,20,18,56,31,56,35,30,42		3,21,48,12, 2	
		1,20,40, 1,58,23, 2,30		5,54
52″	46, 0,21,39,36,33,54,58,33,12		3,21,48,17,56	
		1,20,39,58,36,34,44,34		5,54
54″	46, 0,23, 0,16,32,31,33,17,46		3,21,48,23,50	
		1,20,39,55,14,46,20,44		5,54
56″	46, 0,24,20,56,27,46,19,38,30		3,21,48,29,44	
		1,20,39,51,52,57,51, 0		5,54
58″	46, 0,25,41,36,19,39,17,29,30		3,21,48,35,38	
		1,20,39,48,31, 9,15,22		
60″	46, 0,27, 2,16, 8,10,26,44,52			
exact	46, 0,27, 2,16, 8,10,26,47,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50° 4′ 0″	46, 0,27, 2,16, 8,10,26,47,31	1,20,39,45, 9,20,34,19		
2″	46, 0,28,22,55,53,19,47,21,50	1,20,39,41,47,31,46,56	3,21,48,47,23	5,54
4″	46, 0,29,43,35,35, 7,19, 8,46	1,20,39,38,25,42,53,39	3,21,48,53,17	5,54
6″	46, 0,31, 4,15,13,33, 2, 2,25	1,20,39,35, 3,53,54,28	3,21,48,59,11	5,54
8″	46, 0,32,24,54,48,36,55,56,53	1,20,39,31,42, 4,49,23	3,21,49, 5, 5	5,54
10″	46, 0,33,45,34,20,19, 0,46,16	1,20,39,28,20,15,38,24	3,21,49,10,59	5,54
12″	46, 0,35, 6,13,48,39,16,24,40	1,20,39,24,58,26,21,31	3,21,49,16,53	5,54
14″	46, 0,36,26,53,13,37,42,46,11	1,20,39,21,36,36,58,44	3,21,49,22,47	5,54
16″	46, 0,37,47,32,35,14,19,44,55	1,20,39,18,14,47,30, 3	3,21,49,28,41	5,54
18″	46, 0,39, 8,11,53,29, 7,14,58	1,20,39,14,52,57,55,28	3,21,49,34,35	5,54
20″	46, 0,40,28,51, 8,22, 5,10,26	1,20,39,11,31, 8,14,59	3,21,49,40,29	5,54
22″	46, 0,41,49,30,19,53,13,25,25	1,20,39, 8, 9,18,28,36	3,21,49,46,23	5,54
24″	46, 0,43,10, 9,28, 2,31,54, 1	1,20,39, 4,47,28,36,19	3,21,49,52,17	5,54
26″	46, 0,44,30,48,32,50, 0,30,20	1,20,39, 1,25,38,38, 8	3,21,49,58,11	5,54
28″	46, 0,45,51,27,34,15,39, 8,28	1,20,38,58, 3,48,34, 3	3,21,50, 4, 5	5,54
30″	46, 0,47,12, 6,32,19,27,42,31	1,20,38,54,41,58,24, 4	3,21,50, 9,59	5,54
32″	46, 0,48,32,45,27, 1,26, 6,35	1,20,38,51,20, 8, 8,11	3,21,50,15,53	5,54
34″	46, 0,49,53,24,18,21,34,14,46	1,20,38,47,58,17,46,24	3,21,50,21,47	5,54
36″	46, 0,51,14, 3, 6,19,52, 1,10	1,20,38,44,36,27,18,43	3,21,50,27,41	5,54
38″	46, 0,52,34,41,50,56,19,19,53	1,20,38,41,14,36,45, 8	3,21,50,33,35	5,54
40″	46, 0,53,55,20,32,10,56, 5, 1	1,20,38,37,52,46, 5,39	3,21,50,39,29	5,54
42″	46, 0,55,15,59,10, 3,42,10,40	1,20,38,34,30,55,20,16	3,21,50,45,23	5,54
44″	46, 0,56,36,37,44,34,37,30,56	1,20,38,31, 9, 4,28,59	3,21,50,51,17	5,54
46″	46, 0,57,57,16,15,43,41,59,55	1,20,38,27,47,13,31,48	3,21,50,57,11	5,54
48″	46, 0,59,17,54,43,30,55,31,43	1,20,38,24,25,22,28,43	3,21,51, 3, 5	5,54
50″	46, 1, 0,38,33, 7,56,18, 0,26	1,20,38,21, 3,31,19,44	3,21,51, 8,59	5,54
52″	46, 1, 1,59,11,28,59,49,20,10	1,20,38,17,41,40, 4,51	3,21,51,14,53	5,54
54″	46, 1, 3,19,49,46,41,29,25, 1	1,20,38,14,19,48,44, 4	3,21,51,20,47	5,54
56″	46, 1, 4,40,28, 1, 1,18, 9, 5	1,20,38,10,57,57,17,23	3,21,51,26,41	5,54
58″	46, 1, 6, 1, 6,11,59,15,26,28	1,20,38, 7,36, 5,44,48	3,21,51,32,35	
60″	46, 1, 7,21,44,19,35,21,11,16			
exact	46, 1, 7,21,44,19,35,21,25,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50° 5′ 0″	46, 1, 7,21,44,19,35,21,25,44			
		1,20,38, 4,14,14, 7,55		
2″	46, 1, 8,42,22,23,49,35,33,39		3,21,51,44,16	
		1,20,38, 0,52,22,23,39		5,54
4″	46, 1,10, 3, 0,24,41,57,57,18		3,21,51,50,10	
		1,20,37,57,30,30,33,29		5,54
6″	46, 1,11,23,38,22,12,28,30,47		3,21,51,56, 4	
		1,20,37,54, 8,38,37,25		5,54
8″	46, 1,12,44,16,16,21, 7, 8,12		3,21,52, 1,58	
		1,20,37,50,46,46,35,27		5,54
10″	46, 1,14, 4,54, 7, 7,53,43,39		3,21,52, 7,52	
		1,20,37,47,24,54,27,35		5,54
12″	46, 1,15,25,31,54,32,48,11,14		3,21,52,13,46	
		1,20,37,44, 3, 2,13,49		5,54
14″	46, 1,16,46, 9,38,35,50,25, 3		3,21,52,19,40	
		1,20,37,40,41, 9,54, 9		5,54
16″	46, 1,18, 6,47,19,17, 0,19,12		3,21,52,25,34	
		1,20,37,37,19,17,28,35		5,54
18″	46, 1,19,27,24,56,36,17,47,47		3,21,52,31,28	
		1,20,37,33,57,24,57, 7		5,54
20″	46, 1,20,48, 2,30,33,42,44,54		3,21,52,37,22	
		1,20,37,30,35,32,19,45		5,54
22″	46, 1,22, 8,40, 1, 9,15, 4,39		3,21,52,43,16	
		1,20,37,27,13,39,36,29		5,54
24″	46, 1,23,29,17,28,22,54,41, 8		3,21,52,49,10	
		1,20,37,23,51,46,47,19		5,54
26″	46, 1,24,49,54,52,14,41,28,27		3,21,52,55, 4	
		1,20,37,20,29,53,52,15		5,54
28″	46, 1,26,10,32,12,44,35,20,42		3,21,53, 0,58	
		1,20,37,17, 8, 0,51,17		5,54
30″	46, 1,27,31, 9,29,52,36,11,59		3,21,53, 6,52	
		1,20,37,13,46, 7,44,25		5,54
32″	46, 1,28,51,46,43,38,43,56,24		3,21,53,12,46	
		1,20,37,10,24,14,31,39		5,54
34″	46, 1,30,12,23,54, 2,58,28, 3		3,21,53,18,40	
		1,20,37, 7, 2,21,12,59		5,54
36″	46, 1,31,33, 1, 1, 5,19,41, 2		3,21,53,24,34	
		1,20,37, 3,40,27,48,25		5,54
38″	46, 1,32,53,38, 4,45,47,29,27		3,21,53,30,28	
		1,20,37, 0,18,34,17,57		5,54
40″	46, 1,34,14,15, 5, 4,21,47,24		3,21,53,36,22	
		1,20,36,56,56,40,41,35		5,54
42″	46, 1,35,34,52, 2, 1, 2,28,59		3,21,53,42,16	
		1,20,36,53,34,46,59,19		5,54
44″	46, 1,36,55,28,55,35,49,28,18		3,21,53,48,10	
		1,20,36,50,12,53,11, 9		5,54
46″	46, 1,38,16, 5,45,48,42,39,27		3,21,53,54, 4	
		1,20,36,46,50,59,17, 5		5,54
48″	46, 1,39,36,42,32,39,41,56,32		3,21,53,59,58	
		1,20,36,43,29, 5,17, 7		5,54
50″	46, 1,40,57,19,16, 8,47,13,39		3,21,54, 5,52	
		1,20,36,40, 7,11,11,15		5,54
52″	46, 1,42,17,55,56,15,58,24,54		3,21,54,11,46	
		1,20,36,36,45,16,59,29		5,54
54″	46, 1,43,38,32,33, 1,15,24,23		3,21,54,17,40	
		1,20,36,33,23,22,41,49		5,54
56″	46, 1,44,59, 9, 6,24,38, 6,12		3,21,54,23,34	
		1,20,36,30, 1,28,18,15		5,54
58″	46, 1,46,19,45,36,26, 6,24,27		3,21,54,29,28	
		1,20,36,26,39,33,48,47		
60″	46, 1,47,40,22, 3, 5,40,13,14			
exact	46, 1,47,40,22, 3, 5,40,37,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50° 6′ 0″	46, 1,47,40,22, 3, 5,40,37,17			
		1,20,36,23,17,39,16, 0		
2″	46, 1,49, 0,58,26,23,19,53,17		3,21,54,41, 5	
		1,20,36,19,55,44,34,55		5,54
4″	46, 1,50,21,34,46,19, 4,28,12		3,21,54,46,59	
		1,20,36,16,33,49,47,56		5,54
6″	46, 1,51,42,11, 2,52,54,16, 8		3,21,54,52,53	
		1,20,36,13,11,54,55, 3		5,54
8″	46, 1,53, 2,47,16, 4,49,11,11		3,21,54,58,47	
		1,20,36, 9,49,59,56,16		5,54
10″	46, 1,54,23,23,25,54,49, 7,27		3,21,55, 4,41	
		1,20,36, 6,28, 4,51,35		5,54
12″	46, 1,55,43,59,32,22,53,59, 2		3,21,55,10,35	
		1,20,36, 3, 6, 9,41, 0		5,54
14″	46, 1,57, 4,35,35,29, 3,40, 2		3,21,55,16,29	
		1,20,35,59,44,14,24,31		5,54
16″	46, 1,58,25,11,35,13,18, 4,33		3,21,55,22,23	
		1,20,35,56,22,19, 2, 8		5,54
18″	46, 1,59,45,47,31,35,37, 6,41		3,21,55,28,17	
		1,20,35,53, 0,23,33,51		5,54
20″	46, 2, 1, 6,23,24,36, 0,40,32		3,21,55,34,11	
		1,20,35,49,38,27,59,40		5,54
22″	46, 2, 2,26,59,14,14,28,40,12		3,21,55,40, 5	
		1,20,35,46,16,32,19,35		5,54
24″	46, 2, 3,47,35, 0,31, 0,59,47		3,21,55,45,59	
		1,20,35,42,54,36,33,36		5,54
26″	46, 2, 5, 8,10,43,25,37,33,23		3,21,55,51,53	
		1,20,35,39,32,40,41,43		5,54
28″	46, 2, 6,28,46,22,58,18,15, 6		3,21,55,57,47	
		1,20,35,36,10,44,43,56		5,54
30″	46, 2, 7,49,21,59, 9, 2,59, 2		3,21,56, 3,41	
		1,20,35,32,48,48,40,15		5,54
32″	46, 2, 9, 9,57,31,57,51,39,17		3,21,56, 9,35	
		1,20,35,29,26,52,30,40		5,54
34″	46, 2,10,30,33, 1,24,44, 9,57		3,21,56,15,29	
		1,20,35,26, 4,56,15,11		5,54
36″	46, 2,11,51, 8,27,29,40,25, 8		3,21,56,21,23	
		1,20,35,22,42,59,53,48		5,54
38″	46, 2,13,11,43,50,12,40,18,56		3,21,56,27,17	
		1,20,35,19,21, 3,26,31		5,54
40″	46, 2,14,32,19, 9,33,43,45,27		3,21,56,33,11	
		1,20,35,15,59, 6,53,20		5,54
42″	46, 2,15,52,54,25,32,50,38,47		3,21,56,39, 5	
		1,20,35,12,37,10,14,15		5,54
44″	46, 2,17,13,29,38,10, 0,53, 2		3,21,56,44,59	
		1,20,35, 9,15,13,29,16		5,54
46″	46, 2,18,34, 4,47,25,14,22,18		3,21,56,50,53	
		1,20,35, 5,53,16,38,23		5,54
48″	46, 2,19,54,39,53,18,31, 0,41		3,21,56,56,47	
		1,20,35, 2,31,19,41,36		5,54
50″	46, 2,21,15,14,55,49,50,42,17		3,21,57, 2,41	
		1,20,34,59, 9,22,38,55		5,54
52″	46, 2,22,35,49,54,59,13,21,12		3,21,57, 8,35	
		1,20,34,55,47,25,30,20		5,54
54″	46, 2,23,56,24,50,46,38,51,32		3,21,57,14,29	
		1,20,34,52,25,28,15,51		5,54
56″	46, 2,25,16,59,43,12, 7, 7,23		3,21,57,20,23	
		1,20,34,49, 3,30,55,28		5,54
58″	46, 2,26,37,34,32,15,38, 2,51		3,21,57,26,17	
		1,20,34,45,41,33,29,11		
60″	46, 2,27,58, 9,17,57,11,32, 2			
exact	46, 2,27,58, 9,17,57,12, 2,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50° 7′ 0″	46, 2,27,58, 9,17,57,12, 2,46			
		1,20,34,42,19,36, 0,22		
2″	46, 2,29,18,44, 0,16,48, 3, 8		3,21,57,37,50	
		1,20,34,38,57,38,22,32		5,53
4″	46, 2,30,39,18,39,14,26,25,40		3,21,57,43,43	
		1,20,34,35,35,40,38,49		5,53
6″	46, 2,31,59,53,14,50, 7, 4,29		3,21,57,49,36	
		1,20,34,32,13,42,49,13		5,53
8″	46, 2,33,20,27,47, 3,49,53,42		3,21,57,55,29	
		1,20,34,28,51,44,53,44		5,53
10″	46, 2,34,41, 2,15,55,34,47,26		3,21,58, 1,22	
		1,20,34,25,29,46,52,22		5,53
12″	46, 2,36, 1,36,41,25,21,39,48		3,21,58, 7,15	
		1,20,34,22, 7,48,45, 7		5,53
14″	46, 2,37,22,11, 3,33,10,24,55		3,21,58,13, 8	
		1,20,34,18,45,50,31,59		5,53
16″	46, 2,38,42,45,22,19, 0,56,54		3,21,58,19, 1	
		1,20,34,15,23,52,12,58		5,53
18″	46, 2,40, 3,19,37,42,53, 9,52		3,21,58,24,54	
		1,20,34,12, 1,53,48, 4		5,53
20″	46, 2,41,23,53,49,44,46,57,56		3,21,58,30,47	
		1,20,34, 8,39,55,17,17		5,53
22″	46, 2,42,44,27,58,24,42,15,13		3,21,58,36,40	
		1,20,34, 5,17,56,40,37		5,53
24″	46, 2,44, 5, 2, 3,42,38,55,50		3,21,58,42,33	
		1,20,34, 1,55,57,58, 4		5,53
26″	46, 2,45,25,36, 5,38,36,53,54		3,21,58,48,26	
		1,20,33,58,33,59, 9,38		5,53
28″	46, 2,46,46,10, 4,12,36, 3,32		3,21,58,54,19	
		1,20,33,55,12, 0,15,19		5,53
30″	46, 2,48, 6,43,59,24,36,18,51		3,21,59, 0,12	
		1,20,33,51,50, 1,15, 7		5,53
32″	46, 2,49,27,17,51,14,37,33,58		3,21,59, 6, 5	
		1,20,33,48,28, 2, 9, 2		5,53
34″	46, 2,50,47,51,39,42,39,43, 0		3,21,59,11,58	
		1,20,33,45, 6, 2,57, 4		5,53
36″	46, 2,52, 8,25,24,48,42,40, 4		3,21,59,17,51	
		1,20,33,41,44, 3,39,13		5,53
38″	46, 2,53,28,59, 6,32,46,19,17		3,21,59,23,44	
		1,20,33,38,22, 4,15,29		5,53
40″	46, 2,54,49,32,44,54,50,34,46		3,21,59,29,37	
		1,20,33,35, 0, 4,45,52		5,53
42″	46, 2,56,10, 6,19,54,55,20,38		3,21,59,35,30	
		1,20,33,31,38, 5,10,22		5,53
44″	46, 2,57,30,39,51,33, 0,31, 0		3,21,59,41,23	
		1,20,33,28,16, 5,28,59		5,53
46″	46, 2,58,51,13,19,49, 5,59,59		3,21,59,47,16	
		1,20,33,24,54, 5,41,43		5,53
48″	46, 3, 0,11,46,44,43,11,41,42		3,21,59,53, 9	
		1,20,33,21,32, 5,48,34		5,53
50″	46, 3, 1,32,20, 6,15,17,30,16		3,21,59,59, 2	
		1,20,33,18,10, 5,49,32		5,53
52″	46, 3, 2,52,53,24,25,23,19,48		3,22, 0, 4,55	
		1,20,33,14,48, 5,44,37		5,53
54″	46, 3, 4,13,26,39,13,29, 4,25		3,22, 0,10,48	
		1,20,33,11,26, 5,33,49		5,53
56″	46, 3, 5,33,59,50,39,34,38,14		3,22, 0,16,41	
		1,20,33, 8, 4, 5,17, 8		5,53
58″	46, 3, 6,54,32,58,43,39,55,22		3,22, 0,22,34	
		1,20,33, 4,42, 4,54,34		
60″	46, 3, 8,15, 6, 3,25,44,49,56			
exact	46, 3, 8,15, 6, 3,25,44,18, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50° 8′ 0″	46, 3, 8,15, 6, 3,25,44,18, 9	1,20,33, 1,20, 4,22,54		
2″	46, 3, 9,35,39, 4,45,48,41, 3	1,20,32,57,58, 3,48,22	3,22, 0,34,32	5,53
4″	46, 3,10,56,12, 2,43,52,29,25	1,20,32,54,36, 3, 7,57	3,22, 0,40,25	5,53
6″	46, 3,12,16,44,57,19,55,37,22	1,20,32,51,14, 2,21,39	3,22, 0,46,18	5,53
8″	46, 3,13,37,17,48,33,57,59, 1	1,20,32,47,52, 1,29,28	3,22, 0,52,11	5,53
10″	46, 3,14,57,50,36,25,59,28,29	1,20,32,44,30, 0,31,24	3,22, 0,58, 4	5,53
12″	46, 3,16,18,23,20,55,59,59,53	1,20,32,41, 7,59,27,27	3,22, 1, 3,57	5,53
14″	46, 3,17,38,56, 2, 3,59,27,20	1,20,32,37,45,58,17,37	3,22, 1, 9,50	5,53
16″	46, 3,18,59,28,39,49,57,44,57	1,20,32,34,23,57, 1,54	3,22, 1,15,43	5,53
18″	46, 3,20,20, 1,14,13,54,46,51	1,20,32,31, 1,55,40,18	3,22, 1,21,36	5,53
20″	46, 3,21,40,33,45,15,50,27, 9	1,20,32,27,39,54,12,49	3,22, 1,27,29	5,53
22″	46, 3,23, 1, 6,12,55,44,39,58	1,20,32,24,17,52,39,27	3,22, 1,33,22	5,53
24″	46, 3,24,21,38,37,13,37,19,25	1,20,32,20,55,51, 0,12	3,22, 1,39,15	5,53
26″	46, 3,25,42,10,58, 9,28,19,37	1,20,32,17,33,49,15, 4	3,22, 1,45, 8	5,53
28″	46, 3,27, 2,43,15,43,17,34,41	1,20,32,14,11,47,24, 3	3,22, 1,51, 1	5,53
30″	46, 3,28,23,15,29,55, 4,58,44	1,20,32,10,49,45,27, 9	3,22, 1,56,54	5,53
32″	46, 3,29,43,47,40,44,50,25,53	1,20,32, 7,27,43,24,22	3,22, 2, 2,47	5,53
34″	46, 3,31, 4,19,48,12,33,50,15	1,20,32, 4, 5,41,15,42	3,22, 2, 8,40	5,53
36″	46, 3,32,24,51,52,18,15, 5,57	1,20,32, 0,43,39, 1, 9	3,22, 2,14,33	5,53
38″	46, 3,33,45,23,53, 1,54, 7, 6	1,20,31,57,21,36,40,43	3,22, 2,20,26	5,53
40″	46, 3,35, 5,55,50,23,30,47,49	1,20,31,53,59,34,14,24	3,22, 2,26,19	5,53
42″	46, 3,36,26,27,44,23, 5, 2,13	1,20,31,50,37,31,42,12	3,22, 2,32,12	5,53
44″	46, 3,37,46,59,35, 0,36,44,25	1,20,31,47,15,29, 4, 7	3,22, 2,38, 5	5,53
46″	46, 3,39, 7,31,22,16, 5,48,32	1,20,31,43,53,26,20, 9	3,22, 2,43,58	5,53
48″	46, 3,40,28, 3, 6, 9,32, 8,41	1,20,31,40,31,23,30,18	3,22, 2,49,51	5,53
50″	46, 3,41,48,34,46,40,55,38,59	1,20,31,37, 9,20,34,34	3,22, 2,55,44	5,53
52″	46, 3,43, 9, 6,23,50,16,13,33	1,20,31,33,47,17,32,57	3,22, 3, 1,37	5,53
54″	46, 3,44,29,37,57,37,33,46,30	1,20,31,30,25,14,25,27	3,22, 3, 7,30	5,53
56″	46, 3,45,50, 9,28, 2,48,11,57	1,20,31,27, 3,11,12, 4	3,22, 3,13,23	5,53
58″	46, 3,47,10,40,55, 5,59,24, 1	1,20,31,23,41, 7,52,48	3,22, 3,19,16	
60″	46, 3,48,31,12,18,47, 7,16,49			
exact	46, 3,48,31,12,18,47, 6,54,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50° 9′ 0″	46, 3,48,31,12,18,47, 6,54,47	1,20,31,20,19, 4,25,26		
2″	46, 3,49,51,43,39, 6,11,20,13	1,20,31,16,57, 0,54,16	3,22, 3,31,10	5,53
4″	46, 3,51,12,14,56, 3,12,14,29	1,20,31,13,34,57,17,13	3,22, 3,37, 3	5,53
6″	46, 3,52,32,46, 9,38, 9,31,42	1,20,31,10,12,53,34,17	3,22, 3,42,56	5,53
8″	46, 3,53,53,17,19,51, 3, 5,59	1,20,31, 6,50,49,45,28	3,22, 3,48,49	5,53
10″	46, 3,55,13,48,26,41,52,51,27	1,20,31, 3,28,45,50,46	3,22, 3,54,42	5,53
12″	46, 3,56,34,19,30,10,38,42,13	1,20,31, 0, 6,41,50,11	3,22, 4, 0,35	5,53
14″	46, 3,57,54,50,30,17,20,32,24	1,20,30,56,44,37,43,43	3,22, 4, 6,28	5,53
16″	46, 3,59,15,21,27, 1,58,16, 7	1,20,30,53,22,33,31,22	3,22, 4,12,21	5,53
18″	46, 4, 0,35,52,20,24,31,47,29	1,20,30,50, 0,29,13, 8	3,22, 4,18,14	5,53
20″	46, 4, 1,56,23,10,25, 1, 0,37	1,20,30,46,38,24,49, 1	3,22, 4,24, 7	5,53
22″	46, 4, 3,16,53,57, 3,25,49,38	1,20,30,43,16,20,19, 1	3,22, 4,30, 0	5,53
24″	46, 4, 4,37,24,40,19,46, 8,39	1,20,30,39,54,15,43, 8	3,22, 4,35,53	5,53
26″	46, 4, 5,57,55,20,14, 1,51,47	1,20,30,36,32,11, 1,22	3,22, 4,41,46	5,53
28″	46, 4, 7,18,25,56,46,12,53, 9	1,20,30,33,10, 6,13,43	3,22, 4,47,39	5,53
30″	46, 4, 8,38,56,29,56,19, 6,52	1,20,30,29,48, 1,20,11	3,22, 4,53,32	5,53
32″	46, 4, 9,59,26,59,44,20,27, 3	1,20,30,26,25,56,20,46	3,22, 4,59,25	5,53
34″	46, 4,11,19,57,26,10,16,47,49	1,20,30,23, 3,51,15,28	3,22, 5, 5,18	5,53
36″	46, 4,12,40,27,49,14, 8, 3,17	1,20,30,19,41,46, 4,17	3,22, 5,11,11	5,53
38″	46, 4,14, 0,58, 8,55,54, 7,34	1,20,30,16,19,40,47,13	3,22, 5,17, 4	5,53
40″	46, 4,15,21,28,25,15,34,54,47	1,20,30,12,57,35,24,16	3,22, 5,22,57	5,53
42″	46, 4,16,41,58,38,13,10,19, 3	1,20,30, 9,35,29,55,26	3,22, 5,28,50	5,53
44″	46, 4,18, 2,28,47,48,40,14,29	1,20,30, 6,13,24,20,43	3,22, 5,34,43	5,53
46″	46, 4,19,22,58,54, 2, 4,35,12	1,20,30, 2,51,18,40, 7	3,22, 5,40,36	5,53
48″	46, 4,20,43,28,56,53,23,15,19	1,20,29,59,29,12,53,38	3,22, 5,46,29	5,53
50″	46, 4,22, 3,58,56,22,36, 8,57	1,20,29,56, 7, 7, 1,16	3,22, 5,52,22	5,53
52″	46, 4,23,24,28,52,29,43,10,13	1,20,29,52,45, 1, 3, 1	3,22, 5,58,15	5,53
54″	46, 4,24,44,58,45,14,44,13,14	1,20,29,49,22,54,58,53	3,22, 6, 4, 8	5,53
56″	46, 4,26, 5,28,34,37,39,12, 7	1,20,29,46, 0,48,48,52	3,22, 6,10, 1	5,53
58″	46, 4,27,25,58,20,38,28, 0,59	1,20,29,42,38,42,32,58	3,22, 6,15,54	
60″	46, 4,28,46,28, 3,17,10,33,57			
exact	46, 4,28,46,28, 3,17,10,19,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°10′ 0″	46, 4,28,46,28, 3,17,10,19,21	1,20,29,39,16,36, 9,48		
2″	46, 4,30, 6,57,42,33,46,29, 9	1,20,29,35,54,29,42, 3	3,22, 6,27,45	5,53
4″	46, 4,31,27,27,18,28,16,11,12	1,20,29,32,32,23, 8,25	3,22, 6,33,38	5,53
6″	46, 4,32,47,56,51, 0,39,19,37	1,20,29,29,10,16,28,54	3,22, 6,39,31	5,53
8″	46, 4,34, 8,26,20,10,55,48,31	1,20,29,25,48, 9,43,30	3,22, 6,45,24	5,53
10″	46, 4,35,28,55,45,59, 5,32, 1	1,20,29,22,26, 2,52,13	3,22, 6,51,17	5,53
12″	46, 4,36,49,25, 8,25, 8,24,14	1,20,29,19, 3,55,55, 3	3,22, 6,57,10	5,53
14″	46, 4,38, 9,54,27,29, 4,19,17	1,20,29,15,41,48,52, 0	3,22, 7, 3, 3	5,53
16″	46, 4,39,30,23,43,10,53,11,17	1,20,29,12,19,41,43, 4	3,22, 7, 8,56	5,53
18″	46, 4,40,50,52,55,30,34,54,21	1,20,29, 8,57,34,28,15	3,22, 7,14,49	5,53
20″	46, 4,42,11,22, 4,28, 9,22,36	1,20,29, 5,35,27, 7,33	3,22, 7,20,42	5,53
22″	46, 4,43,31,51,10, 3,36,30, 9	1,20,29, 2,13,19,40,58	3,22, 7,26,35	5,53
24″	46, 4,44,52,20,12,16,56,11, 7	1,20,28,58,51,12, 8,30	3,22, 7,32,28	5,53
26″	46, 4,46,12,49,11, 8, 8,19,37	1,20,28,55,29, 4,30, 9	3,22, 7,38,21	5,53
28″	46, 4,47,33,18, 6,37,12,49,46	1,20,28,52, 6,56,45,55	3,22, 7,44,14	5,53
30″	46, 4,48,53,46,58,44, 9,35,41	1,20,28,48,44,48,55,48	3,22, 7,50, 7	5,53
32″	46, 4,50,14,15,47,28,58,31,29	1,20,28,45,22,40,59,48	3,22, 7,56, 0	5,53
34″	46, 4,51,34,44,32,51,39,31,17	1,20,28,42, 0,32,57,55	3,22, 8, 1,53	5,53
36″	46, 4,52,55,13,14,52,12,29,12	1,20,28,38,38,24,50, 9	3,22, 8, 7,46	5,53
38″	46, 4,54,15,41,53,30,37,19,21	1,20,28,35,16,16,36,30	3,22, 8,13,39	5,53
40″	46, 4,55,36,10,28,46,53,55,51	1,20,28,31,54, 8,16,58	3,22, 8,19,32	5,53
42″	46, 4,56,56,39, 0,41, 2,12,49	1,20,28,28,31,59,51,33	3,22, 8,25,25	5,53
44″	46, 4,58,17, 7,29,13, 2, 4,22	1,20,28,25, 9,51,20,15	3,22, 8,31,18	5,53
46″	46, 4,59,37,35,54,22,53,24,37	1,20,28,21,47,42,43, 4	3,22, 8,37,11	5,53
48″	46, 5, 0,58, 4,16,10,36, 7,41	1,20,28,18,25,34, 0, 0	3,22, 8,43, 4	5,53
50″	46, 5, 2,18,32,34,36,10, 7,41	1,20,28,15, 3,25,11, 3	3,22, 8,48,57	5,53
52″	46, 5, 3,39, 0,49,39,35,18,44	1,20,28,11,41,16,16,13	3,22, 8,54,50	5,53
54″	46, 5, 4,59,29, 1,20,51,34,57	1,20,28, 8,19, 7,15,30	3,22, 9, 0,43	5,53
56″	46, 5, 6,19,57, 9,39,58,50,27	1,20,28, 4,56,58, 8,54	3,22, 9, 6,36	5,53
58″	46, 5, 7,40,25,14,36,56,59,21	1,20,28, 1,34,48,56,25	3,22, 9,12,29	
60″	46, 5, 9, 0,53,16,11,45,55,46			
exact	46, 5, 9, 0,53,16,11,45,53,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°11′ 0″	46, 5, 9, 0,53,16,11,45,53,58	1,20,27,58,12,39,37,52		
2″	46, 5,10,21,21,14,24,25,31,50	1,20,27,54,50,30,13,37	3,22, 9,24,15	5,53
4″	46, 5,11,41,49, 9,14,55,45,27	1,20,27,51,28,20,43,29	3,22, 9,30, 8	5,53
6″	46, 5,13, 2,17, 0,43,16,28,56	1,20,27,48, 6,11, 7,28	3,22, 9,36, 1	5,53
8″	46, 5,14,22,44,48,49,27,36,24	1,20,27,44,44, 1,25,34	3,22, 9,41,54	5,53
10″	46, 5,15,43,12,33,33,29, 1,58	1,20,27,41,21,51,37,47	3,22, 9,47,47	5,53
12″	46, 5,17, 3,40,14,55,20,39,45	1,20,27,37,59,41,44, 7	3,22, 9,53,40	5,53
14″	46, 5,18,24, 7,52,55, 2,23,52	1,20,27,34,37,31,44,34	3,22, 9,59,33	5,53
16″	46, 5,19,44,35,27,32,34, 8,26	1,20,27,31,15,21,39, 8	3,22,10, 5,26	5,53
18″	46, 5,21, 5, 2,58,47,55,47,34	1,20,27,27,53,11,27,49	3,22,10,11,19	5,53
20″	46, 5,22,25,30,26,41, 7,15,23	1,20,27,24,31, 1,10,37	3,22,10,17,12	5,53
22″	46, 5,23,45,57,51,12, 8,26, 0	1,20,27,21, 8,50,47,32	3,22,10,23, 5	5,53
24″	46, 5,25, 6,25,12,20,59,13,32	1,20,27,17,46,40,18,34	3,22,10,28,58	5,53
26″	46, 5,26,26,52,30, 7,39,32, 6	1,20,27,14,24,29,43,43	3,22,10,34,51	5,53
28″	46, 5,27,47,19,44,32, 9,15,49	1,20,27,11, 2,19, 2,59	3,22,10,40,44	5,53
30″	46, 5,29, 7,46,55,34,28,18,48	1,20,27, 7,40, 8,16,22	3,22,10,46,37	5,53
32″	46, 5,30,28,14, 3,14,36,35,10	1,20,27, 4,17,57,23,52	3,22,10,52,30	5,53
34″	46, 5,31,48,41, 7,32,33,59, 2	1,20,27, 0,55,46,25,29	3,22,10,58,23	5,53
36″	46, 5,33, 9, 8, 8,28,20,24,31	1,20,26,57,33,35,21,13	3,22,11, 4,16	5,53
38″	46, 5,34,29,35, 6, 1,55,45,44	1,20,26,54,11,24,11, 4	3,22,11,10, 9	5,53
40″	46, 5,35,50, 2, 0,13,19,56,48	1,20,26,50,49,12,55, 2	3,22,11,16, 2	5,53
42″	46, 5,37,10,28,51, 2,32,51,50	1,20,26,47,27, 1,33, 7	3,22,11,21,55	5,53
44″	46, 5,38,30,55,38,29,34,24,57	1,20,26,44, 4,50, 5,19	3,22,11,27,48	5,53
46″	46, 5,39,51,22,22,34,24,30,16	1,20,26,40,42,38,31,38	3,22,11,33,41	5,53
48″	46, 5,41,11,49, 3,17, 3, 1,54	1,20,26,37,20,26,52, 4	3,22,11,39,34	5,53
50″	46, 5,42,32,15,40,37,29,53,58	1,20,26,33,58,15, 6,37	3,22,11,45,27	5,53
52″	46, 5,43,52,42,14,35,45, 0,35	1,20,26,30,36, 3,15,17	3,22,11,51,20	5,53
54″	46, 5,45,13, 8,45,11,48,15,52	1,20,26,27,13,51,18, 4	3,22,11,57,13	5,53
56″	46, 5,46,33,35,12,25,39,33,56	1,20,26,23,51,39,14,58	3,22,12, 3, 6	5,53
58″	46, 5,47,54, 1,36,17,18,48,54	1,20,26,20,29,27, 5,59	3,22,12, 8,59	
60″	46, 5,49,14,27,56,46,45,54,53			
exact	46, 5,49,14,27,56,46,45,56, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°12′ 0″	46, 5,49,14,27,56,46,45,56, 9			
		1,20,26,17, 7,14,51,28		
2″	46, 5,50,34,54,13,54, 0,47,37		3,22,12,20,42	
		1,20,26,13,45, 2,30,46		5,53
4″	46, 5,51,55,20,27,39, 3,18,23		3,22,12,26,35	
		1,20,26,10,22,50, 4,11		5,53
6″	46, 5,53,15,46,38, 1,53,22,34		3,22,12,32,28	
		1,20,26, 7, 0,37,31,43		5,53
8″	46, 5,54,36,12,45, 2,30,54,17		3,22,12,38,21	
		1,20,26, 3,38,24,53,22		5,53
10″	46, 5,55,56,38,48,40,55,47,39		3,22,12,44,14	
		1,20,26, 0,16,12, 9, 8		5,53
12″	46, 5,57,17, 4,48,57, 7,56,47		3,22,12,50, 7	
		1,20,25,56,53,59,19, 1		5,53
14″	46, 5,58,37,30,45,51, 7,15,48		3,22,12,56, 0	
		1,20,25,53,31,46,23, 1		5,53
16″	46, 5,59,57,56,39,22,53,38,49		3,22,13, 1,53	
		1,20,25,50, 9,33,21, 8		5,53
18″	46, 6, 1,18,22,29,32,26,59,57		3,22,13, 7,46	
		1,20,25,46,47,20,13,22		5,53
20″	46, 6, 2,38,48,16,19,47,13,19		3,22,13,13,39	
		1,20,25,43,25, 6,59,43		5,53
22″	46, 6, 3,59,13,59,44,54,13, 2		3,22,13,19,32	
		1,20,25,40, 2,53,40,11		5,53
24″	46, 6, 5,19,39,39,47,47,53,13		3,22,13,25,25	
		1,20,25,36,40,40,14,46		5,53
26″	46, 6, 6,40, 5,16,28,28, 7,59		3,22,13,31,18	
		1,20,25,33,18,26,43,28		5,53
28″	46, 6, 8, 0,30,49,46,54,51,27		3,22,13,37,11	
		1,20,25,29,56,13, 6,17		5,53
30″	46, 6, 9,20,56,19,43, 7,57,44		3,22,13,43, 4	
		1,20,25,26,33,59,23,13		5,53
32″	46, 6,10,41,21,46,17, 7,20,57		3,22,13,48,57	
		1,20,25,23,11,45,34,16		5,53
34″	46, 6,12, 1,47, 9,28,52,55,13		3,22,13,54,50	
		1,20,25,19,49,31,39,26		5,53
36″	46, 6,13,22,12,29,18,24,34,39		3,22,14, 0,43	
		1,20,25,16,27,17,38,43		5,53
38″	46, 6,14,42,37,45,45,42,13,22		3,22,14, 6,36	
		1,20,25,13, 5, 3,32, 7		5,53
40″	46, 6,16, 3, 2,58,50,45,45,29		3,22,14,12,29	
		1,20,25, 9,42,49,19,38		5,53
42″	46, 6,17,23,28, 8,33,35, 5, 7		3,22,14,18,22	
		1,20,25, 6,20,35, 1,16		5,53
44″	46, 6,18,43,53,14,54,10, 6,23		3,22,14,24,15	
		1,20,25, 2,58,20,37, 1		5,53
46″	46, 6,20, 4,18,17,52,30,43,24		3,22,14,30, 8	
		1,20,24,59,36, 6, 6,53		5,53
48″	46, 6,21,24,43,17,28,36,50,17		3,22,14,36, 1	
		1,20,24,56,13,51,30,52		5,53
50″	46, 6,22,45, 8,13,42,28,21, 9		3,22,14,41,54	
		1,20,24,52,51,36,48,58		5,53
52″	46, 6,24, 5,33, 6,34, 5,10, 7		3,22,14,47,47	
		1,20,24,49,29,22, 1,11		5,53
54″	46, 6,25,25,57,56, 3,27,11,18		3,22,14,53,40	
		1,20,24,46, 7, 7, 7,31		5,53
56″	46, 6,26,46,22,42,10,34,18,49		3,22,14,59,33	
		1,20,24,42,44,52, 7,58		5,53
58″	46, 6,28, 6,47,24,55,26,26,47		3,22,15, 5,26	
		1,20,24,39,22,37, 2,32		
60″	46, 6,29,27,12, 4,18, 3,29,19			
exact	46, 6,29,27,12, 4,18, 3,38,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°13′ 0″	46, 6,29,27,12, 4,18, 3,38,51			
		1,20,24,36, 0,21,52,27		
2″	46, 6,30,47,36,40,18,25,31,18		3,22,15,17, 6	
		1,20,24,32,38, 6,35,21		5,53
4″	46, 6,32, 8, 1,12,56,32, 6,39		3,22,15,22,59	
		1,20,24,29,15,51,12,22		5,53
6″	46, 6,33,28,25,42,12,23,19, 1		3,22,15,28,52	
		1,20,24,25,53,35,43,30		5,53
8″	46, 6,34,48,50, 8, 5,59, 2,31		3,22,15,34,45	
		1,20,24,22,31,20, 8,45		5,53
10″	46, 6,36, 9,14,30,37,19,11,16		3,22,15,40,38	
		1,20,24,19, 9, 4,28, 7		5,53
12″	46, 6,37,29,38,49,46,23,39,23		3,22,15,46,31	
		1,20,24,15,46,48,41,36		5,53
14″	46, 6,38,50, 3, 5,33,12,20,59		3,22,15,52,24	
		1,20,24,12,24,32,49,12		5,53
16″	46, 6,40,10,27,17,57,45,10,11		3,22,15,58,17	
		1,20,24, 9, 2,16,50,55		5,53
18″	46, 6,41,30,51,27, 0, 2, 1, 6		3,22,16, 4,10	
		1,20,24, 5,40, 0,46,45		5,53
20″	46, 6,42,51,15,32,40, 2,47,51		3,22,16,10, 3	
		1,20,24, 2,17,44,36,42		5,53
22″	46, 6,44,11,39,34,57,47,24,33		3,22,16,15,56	
		1,20,23,58,55,28,20,46		5,53
24″	46, 6,45,32, 3,33,53,15,45,19		3,22,16,21,49	
		1,20,23,55,33,11,58,57		5,53
26″	46, 6,46,52,27,29,26,27,44,16		3,22,16,27,42	
		1,20,23,52,10,55,31,15		5,53
28″	46, 6,48,12,51,21,37,23,15,31		3,22,16,33,35	
		1,20,23,48,48,38,57,40		5,53
30″	46, 6,49,33,15,10,26, 2,13,11		3,22,16,39,28	
		1,20,23,45,26,22,18,12		5,53
32″	46, 6,50,53,38,55,52,24,31,23		3,22,16,45,21	
		1,20,23,42, 4, 5,32,51		5,53
34″	46, 6,52,14, 2,37,56,30, 4,14		3,22,16,51,14	
		1,20,23,38,41,48,41,37		5,53
36″	46, 6,53,34,26,16,38,18,45,51		3,22,16,57, 7	
		1,20,23,35,19,31,44,30		5,53
38″	46, 6,54,54,49,51,57,50,30,21		3,22,17, 3, 0	
		1,20,23,31,57,14,41,30		5,53
40″	46, 6,56,15,13,23,55, 5,11,51		3,22,17, 8,53	
		1,20,23,28,34,57,32,37		5,53
42″	46, 6,57,35,36,52,30, 2,44,28		3,22,17,14,46	
		1,20,23,25,12,40,17,51		5,53
44″	46, 6,58,56, 0,17,42,43, 2,19		3,22,17,20,39	
		1,20,23,21,50,22,57,12		5,53
46″	46, 7, 0,16,23,39,33, 5,59,31		3,22,17,26,32	
		1,20,23,18,28, 5,30,40		5,53
48″	46, 7, 1,36,46,58, 1,11,30,11		3,22,17,32,25	
		1,20,23,15, 5,47,58,15		5,53
50″	46, 7, 2,57,10,13, 6,59,28,26		3,22,17,38,18	
		1,20,23,11,43,30,19,57		5,53
52″	46, 7, 4,17,33,24,50,29,48,23		3,22,17,44,11	
		1,20,23, 8,21,12,35,46		5,53
54″	46, 7, 5,37,56,33,11,42,24, 9		3,22,17,50, 4	
		1,20,23, 4,58,54,45,42		5,53
56″	46, 7, 6,58,19,38,10,37, 9,51		3,22,17,55,57	
		1,20,23, 1,36,36,49,45		5,53
58″	46, 7, 8,18,42,39,47,13,59,36		3,22,18, 1,50	
		1,20,22,58,14,18,47,55		
60″	46, 7, 9,39, 5,38, 1,32,47,31			
exact	46, 7, 9,39, 5,38, 1,33,10,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°14′ 0″	46, 7, 9,39, 5,38, 1,33,10,26			
		1,20,22,54,52, 0,42,40		
2″	46, 7,10,59,28,32,53,33,53, 6		3,22,18,13,25	
		1,20,22,51,29,42,29,15		5,53
4″	46, 7,12,19,51,24,23,16,22,21		3,22,18,19,18	
		1,20,22,48, 7,24, 9,57		5,53
6″	46, 7,13,40,14,12,30,40,32,18		3,22,18,25,11	
		1,20,22,44,45, 5,44,46		5,53
8″	46, 7,15, 0,36,57,15,46,17, 4		3,22,18,31, 4	
		1,20,22,41,22,47,13,42		5,53
10″	46, 7,16,20,59,38,38,33,30,46		3,22,18,36,57	
		1,20,22,38, 0,28,36,45		5,53
12″	46, 7,17,41,22,16,39, 2, 7,31		3,22,18,42,50	
		1,20,22,34,38, 9,53,55		5,53
14″	46, 7,19, 1,44,51,17,12, 1,26		3,22,18,48,43	
		1,20,22,31,15,51, 5,12		5,53
16″	46, 7,20,22, 7,22,33, 3, 6,38		3,22,18,54,36	
		1,20,22,27,53,32,10,36		5,53
18″	46, 7,21,42,29,50,26,35,17,14		3,22,19, 0,29	
		1,20,22,24,31,13,10, 7		5,53
20″	46, 7,23, 2,52,14,57,48,27,21		3,22,19, 6,22	
		1,20,22,21, 8,54, 3,45		5,53
22″	46, 7,24,23,14,36, 6,42,31, 6		3,22,19,12,15	
		1,20,22,17,46,34,51,30		5,53
24″	46, 7,25,43,36,53,53,17,22,36		3,22,19,18, 8	
		1,20,22,14,24,15,33,22		5,53
26″	46, 7,27, 3,59, 8,17,32,55,58		3,22,19,24, 1	
		1,20,22,11, 1,56, 9,21		5,53
28″	46, 7,28,24,21,19,19,29, 5,19		3,22,19,29,54	
		1,20,22, 7,39,36,39,27		5,53
30″	46, 7,29,44,43,26,59, 5,44,46		3,22,19,35,47	
		1,20,22, 4,17,17, 3,40		5,53
32″	46, 7,31, 5, 5,31,16,22,48,26		3,22,19,41,40	
		1,20,22, 0,54,57,22, 0		5,53
34″	46, 7,32,25,27,32,11,20,10,26		3,22,19,47,33	
		1,20,21,57,32,37,34,27		5,53
36″	46, 7,33,45,49,29,43,57,44,53		3,22,19,53,26	
		1,20,21,54,10,17,41, 1		5,53
38″	46, 7,35, 6,11,23,54,15,25,54		3,22,19,59,19	
		1,20,21,50,47,57,41,42		5,53
40″	46, 7,36,26,33,14,42,13, 7,36		3,22,20, 5,12	
		1,20,21,47,25,37,36,30		5,53
42″	46, 7,37,46,55, 2, 7,50,44, 6		3,22,20,11, 5	
		1,20,21,44, 3,17,25,25		5,53
44″	46, 7,39, 7,16,46,11, 8, 9,31		3,22,20,16,58	
		1,20,21,40,40,57, 8,27		5,53
46″	46, 7,40,27,38,26,52, 5,17,58		3,22,20,22,51	
		1,20,21,37,18,36,45,36		5,53
48″	46, 7,41,48, 0, 4,10,42, 3,34		3,22,20,28,44	
		1,20,21,33,56,16,16,52		5,53
50″	46, 7,43, 8,21,38, 6,58,20,26		3,22,20,34,37	
		1,20,21,30,33,55,42,15		5,53
52″	46, 7,44,28,43, 8,40,54, 2,41		3,22,20,40,30	
		1,20,21,27,11,35, 1,45		5,53
54″	46, 7,45,49, 4,35,52,29, 4,26		3,22,20,46,23	
		1,20,21,23,49,14,15,22		5,53
56″	46, 7,47, 9,25,59,41,43,19,48		3,22,20,52,16	
		1,20,21,20,26,53,23, 6		5,53
58″	46, 7,48,29,47,20, 8,36,42,54		3,22,20,58, 9	
		1,20,21,17, 4,32,24,57		
60″	46, 7,49,50, 8,37,13, 9, 7,51			
exact	46, 7,49,50, 8,37,13, 9,34,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°15′ 0″	46, 7,49,50, 8,37,13, 9,34,43			
		1,20,21,13,42,11,23,58		
2″	46, 7,51,10,29,50,55,20,58,41		3,22,21, 9,41	
		1,20,21,10,19,50,14,17		5,52
4″	46, 7,52,30,51, 1,15,11,12,58		3,22,21,15,33	
		1,20,21, 6,57,28,58,44		5,52
6″	46, 7,53,51,12, 8,12,40,11,42		3,22,21,21,25	
		1,20,21, 3,35, 7,37,19		5,52
8″	46, 7,55,11,33,11,47,47,49, 1		3,22,21,27,17	
		1,20,21, 0,12,46,10, 2		5,52
10″	46, 7,56,31,54,12, 0,33,59, 3		3,22,21,33, 9	
		1,20,20,56,50,24,36,53		5,52
12″	46, 7,57,52,15, 8,50,58,35,56		3,22,21,39, 1	
		1,20,20,53,28, 2,57,52		5,52
14″	46, 7,59,12,36, 2,19, 1,33,48		3,22,21,44,53	
		1,20,20,50, 5,41,12,59		5,52
16″	46, 8, 0,32,56,52,24,42,46,47		3,22,21,50,45	
		1,20,20,46,43,19,22,14		5,52
18″	46, 8, 1,53,17,39, 8, 2, 9, 1		3,22,21,56,37	
		1,20,20,43,20,57,25,37		5,52
20″	46, 8, 3,13,38,22,28,59,34,38		3,22,22, 2,29	
		1,20,20,39,58,35,23, 8		5,52
22″	46, 8, 4,33,59, 2,27,34,57,46		3,22,22, 8,21	
		1,20,20,36,36,13,14,47		5,52
24″	46, 8, 5,54,19,39, 3,48,12,33		3,22,22,14,13	
		1,20,20,33,13,51, 0,34		5,52
26″	46, 8, 7,14,40,12,17,39,13, 7		3,22,22,20, 5	
		1,20,20,29,51,28,40,29		5,52
28″	46, 8, 8,35, 0,42, 9, 7,53,36		3,22,22,25,57	
		1,20,20,26,29, 6,14,32		5,52
30″	46, 8, 9,55,21, 8,38,14, 8, 8		3,22,22,31,49	
		1,20,20,23, 6,43,42,43		5,52
32″	46, 8,11,15,41,31,44,57,50,51		3,22,22,37,41	
		1,20,20,19,44,21, 5, 2		5,52
34″	46, 8,12,36, 1,51,29,18,55,53		3,22,22,43,33	
		1,20,20,16,21,58,21,29		5,52
36″	46, 8,13,56,22, 7,51,17,17,22		3,22,22,49,25	
		1,20,20,12,59,35,32, 4		5,52
38″	46, 8,15,16,42,20,50,52,49,26		3,22,22,55,17	
		1,20,20, 9,37,12,36,47		5,52
40″	46, 8,16,37, 2,30,28, 5,26,13		3,22,23, 1, 9	
		1,20,20, 6,14,49,35,38		5,52
42″	46, 8,17,57,22,36,42,55, 1,51		3,22,23, 7, 1	
		1,20,20, 2,52,26,28,37		5,52
44″	46, 8,19,17,42,39,35,21,30,28		3,22,23,12,53	
		1,20,19,59,30, 3,15,44		5,52
46″	46, 8,20,38, 2,39, 5,24,46,12		3,22,23,18,45	
		1,20,19,56, 7,39,56,59		5,52
48″	46, 8,21,58,22,35,13, 4,43,11		3,22,23,24,37	
		1,20,19,52,45,16,32,22		5,52
50″	46, 8,23,18,42,27,58,21,15,33		3,22,23,30,29	
		1,20,19,49,22,53, 1,53		5,52
52″	46, 8,24,39, 2,17,21,14,17,26		3,22,23,36,21	
		1,20,19,46, 0,29,25,32		5,52
54″	46, 8,25,59,22, 3,21,43,42,58		3,22,23,42,13	
		1,20,19,42,38, 5,43,19		5,52
56″	46, 8,27,19,41,45,59,49,26,17		3,22,23,48, 5	
		1,20,19,39,15,41,55,14		5,52
58″	46, 8,28,40, 1,25,15,31,21,31		3,22,23,53,57	
		1,20,19,35,53,18, 1,17		
60″	46, 8,30, 0,21, 1, 8,49,22,48			
exact	46, 8,30, 0,21, 1, 8,48,50,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°16′ 0″	46, 8,30, 0,21, 1, 8,48,50,59	1,20,19,32,30,53,58,12		
2″	46, 8,31,20,40,33,39,42,49,11	1,20,19,29, 8,29,52,18	3,22,24, 5,54	
4″	46, 8,32,41, 0, 2,48,12,41,29	1,20,19,25,46, 5,40,32	3,22,24,11,46	5,52
6″	46, 8,34, 1,19,28,34,18,22, 1	1,20,19,22,23,41,22,54	3,22,24,17,38	5,52
8″	46, 8,35,21,38,50,57,59,44,55	1,20,19,19, 1,16,59,24	3,22,24,23,30	5,52
10″	46, 8,36,41,58, 9,59,16,44,19	1,20,19,15,38,52,30, 2	3,22,24,29,22	5,52
12″	46, 8,38, 2,17,25,38, 9,14,21	1,20,19,12,16,27,54,48	3,22,24,35,14	5,52
14″	46, 8,39,22,36,37,54,37, 9, 9	1,20,19, 8,54, 3,13,42	3,22,24,41, 6	5,52
16″	46, 8,40,42,55,46,48,40,22,51	1,20,19, 5,31,38,26,44	3,22,24,46,58	5,52
18″	46, 8,42, 3,14,52,20,18,49,35	1,20,19, 2, 9,13,33,54	3,22,24,52,50	5,52
20″	46, 8,43,23,33,54,29,32,23,29	1,20,18,58,46,48,35,12	3,22,24,58,42	5,52
22″	46, 8,44,43,52,53,16,20,58,41	1,20,18,55,24,23,30,38	3,22,25, 4,34	5,52
24″	46, 8,46, 4,11,48,40,44,29,19	1,20,18,52, 1,58,20,12	3,22,25,10,26	5,52
26″	46, 8,47,24,30,40,42,42,49,31	1,20,18,48,39,33, 3,54	3,22,25,16,18	5,52
28″	46, 8,48,44,49,29,22,15,53,25	1,20,18,45,17, 7,41,44	3,22,25,22,10	5,52
30″	46, 8,50, 5, 8,14,39,23,35, 9	1,20,18,41,54,42,13,42	3,22,25,28, 2	5,52
32″	46, 8,51,25,26,56,34, 5,48,51	1,20,18,38,32,16,39,48	3,22,25,33,54	5,52
34″	46, 8,52,45,45,35, 6,22,28,39	1,20,18,35, 9,51, 0, 2	3,22,25,39,46	5,52
36″	46, 8,54, 6, 4,10,16,13,28,41	1,20,18,31,47,25,14,24	3,22,25,45,38	5,52
38″	46, 8,55,26,22,42, 3,38,43, 5	1,20,18,28,24,59,22,54	3,22,25,51,30	5,52
40″	46, 8,56,46,41,10,28,38, 5,59	1,20,18,25, 2,33,25,32	3,22,25,57,22	5,52
42″	46, 8,58, 6,59,35,31,11,31,31	1,20,18,21,40, 7,22,18	3,22,26, 3,14	5,52
44″	46, 8,59,27,17,57,11,18,53,49	1,20,18,18,17,41,13,12	3,22,26, 9, 6	5,52
46″	46, 9, 0,47,36,15,29, 0, 7, 1	1,20,18,14,55,14,58,14	3,22,26,14,58	5,52
48″	46, 9, 2, 7,54,30,24,15, 5,15	1,20,18,11,32,48,37,24	3,22,26,20,50	5,52
50″	46, 9, 3,28,12,41,57, 3,42,39	1,20,18, 8,10,22,10,42	3,22,26,26,42	5,52
52″	46, 9, 4,48,30,50, 7,25,53,21	1,20,18, 4,47,55,38, 8	3,22,26,32,34	5,52
54″	46, 9, 6, 8,48,54,55,21,31,29	1,20,18, 1,25,28,59,42	3,22,26,38,26	5,52
56″	46, 9, 7,29, 6,56,20,50,31,11	1,20,17,58, 3, 2,15,24	3,22,26,44,18	5,52
58″	46, 9, 8,49,24,54,23,52,46,35	1,20,17,54,40,35,25,14	3,22,26,50,10	
60″	46, 9,10, 9,42,49, 4,28,11,49			
exact	46, 9,10, 9,42,49, 4,27,54, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°17′ 0″	46, 9,10, 9,42,49, 4,27,54, 0			
		1,20,17,51,18, 8,27,13		
2″	46, 9,11,30, 0,40,22,36,21,13		3,22,27, 2, 2	
		1,20,17,47,55,41,25,11		5,52
4″	46, 9,12,50,18,28,18,17,46,24		3,22,27, 7,54	
		1,20,17,44,33,14,17,17		5,52
6″	46, 9,14,10,36,12,51,32, 3,41		3,22,27,13,46	
		1,20,17,41,10,47, 3,31		5,52
8″	46, 9,15,30,53,54, 2,19, 7,12		3,22,27,19,38	
		1,20,17,37,48,19,43,53		5,52
10″	46, 9,16,51,11,31,50,38,51, 5		3,22,27,25,30	
		1,20,17,34,25,52,18,23		5,52
12″	46, 9,18,11,29, 6,16,31, 9,28		3,22,27,31,22	
		1,20,17,31, 3,24,47, 1		5,52
14″	46, 9,19,31,46,37,19,55,56,29		3,22,27,37,14	
		1,20,17,27,40,57, 9,47		5,52
16″	46, 9,20,52, 4, 5, 0,53, 6,16		3,22,27,43, 6	
		1,20,17,24,18,29,26,41		5,52
18″	46, 9,22,12,21,29,19,22,32,57		3,22,27,48,58	
		1,20,17,20,56, 1,37,43		5,52
20″	46, 9,23,32,38,50,15,24,10,40		3,22,27,54,50	
		1,20,17,17,33,33,42,53		5,52
22″	46, 9,24,52,56, 7,48,57,53,33		3,22,28, 0,42	
		1,20,17,14,11, 5,42,11		5,52
24″	46, 9,26,13,13,22, 0, 3,35,44		3,22,28, 6,34	
		1,20,17,10,48,37,35,37		5,52
26″	46, 9,27,33,30,32,48,41,11,21		3,22,28,12,26	
		1,20,17, 7,26, 9,23,11		5,52
28″	46, 9,28,53,47,40,14,50,34,32		3,22,28,18,18	
		1,20,17, 4, 3,41, 4,53		5,52
30″	46, 9,30,14, 4,44,18,31,39,25		3,22,28,24,10	
		1,20,17, 0,41,12,40,43		5,52
32″	46, 9,31,34,21,44,59,44,20, 8		3,22,28,30, 2	
		1,20,16,57,18,44,10,41		5,52
34″	46, 9,32,54,38,42,18,28,30,49		3,22,28,35,54	
		1,20,16,53,56,15,34,47		5,52
36″	46, 9,34,14,55,36,14,44, 5,36		3,22,28,41,46	
		1,20,16,50,33,46,53, 1		5,52
38″	46, 9,35,35,12,26,48,30,58,37		3,22,28,47,38	
		1,20,16,47,11,18, 5,23		5,52
40″	46, 9,36,55,29,13,59,49, 4, 0		3,22,28,53,30	
		1,20,16,43,48,49,11,53		5,52
42″	46, 9,38,15,45,57,48,38,15,53		3,22,28,59,22	
		1,20,16,40,26,20,12,31		5,52
44″	46, 9,39,36, 2,38,14,58,28,24		3,22,29, 5,14	
		1,20,16,37, 3,51, 7,17		5,52
46″	46, 9,40,56,19,15,18,49,35,41		3,22,29,11, 6	
		1,20,16,33,41,21,56,11		5,52
48″	46, 9,42,16,35,49, 0,11,31,52		3,22,29,16,58	
		1,20,16,30,18,52,39,13		5,52
50″	46, 9,43,36,52,19,19, 4,11, 5		3,22,29,22,50	
		1,20,16,26,56,23,16,23		5,52
52″	46, 9,44,57, 8,46,15,27,27,28		3,22,29,28,42	
		1,20,16,23,33,53,47,41		5,52
54″	46, 9,46,17,25, 9,49,21,15, 9		3,22,29,34,34	
		1,20,16,20,11,24,13, 7		5,52
56″	46, 9,47,37,41,30, 0,45,28,16		3,22,29,40,26	
		1,20,16,16,48,54,32,41		5,52
58″	46, 9,48,57,57,46,49,40, 0,57		3,22,29,46,18	
		1,20,16,13,26,24,46,23		
60″	46, 9,50,18,14, 0,16, 4,47,20			
exact	46, 9,50,18,14, 0,16, 4,34, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°18′ 0″	46, 9,50,18,14, 0,16, 4,34, 1	1,20,16,10, 3,54,52,52		
2″	46, 9,51,38,30,10,19,59,26,53	1,20,16, 6,41,24,54,45	3,22,29,58, 7	5,52
4″	46, 9,52,58,46,17, 1,24,21,38	1,20,16, 3,18,54,50,46	3,22,30, 3,59	5,52
6″	46, 9,54,19, 2,20,20,19,12,24	1,20,15,59,56,24,40,55	3,22,30, 9,51	5,52
8″	46, 9,55,39,18,20,16,43,53,19	1,20,15,56,33,54,25,12	3,22,30,15,43	5,52
10″	46, 9,56,59,34,16,50,38,18,31	1,20,15,53,11,24, 3,37	3,22,30,21,35	5,52
12″	46, 9,58,19,50,10, 2, 2,22, 8	1,20,15,49,48,53,36,10	3,22,30,27,27	5,52
14″	46, 9,59,40, 5,59,50,55,58,18	1,20,15,46,26,23, 2,51	3,22,30,33,19	5,52
16″	46,10, 1, 0,21,46,17,19, 1, 9	1,20,15,43, 3,52,23,40	3,22,30,39,11	5,52
18″	46,10, 2,20,37,29,21,11,24,49	1,20,15,39,41,21,38,37	3,22,30,45, 3	5,52
20″	46,10, 3,40,53, 9, 2,33, 3,26	1,20,15,36,18,50,47,42	3,22,30,50,55	5,52
22″	46,10, 5, 1, 8,45,21,23,51, 8	1,20,15,32,56,19,50,55	3,22,30,56,47	5,52
24″	46,10, 6,21,24,18,17,43,42, 3	1,20,15,29,33,48,48,16	3,22,31, 2,39	5,52
26″	46,10, 7,41,39,47,51,32,30,19	1,20,15,26,11,17,39,45	3,22,31, 8,31	5,52
28″	46,10, 9, 1,55,14, 2,50,10, 4	1,20,15,22,48,46,25,22	3,22,31,14,23	5,52
30″	46,10,10,22,10,36,51,36,35,26	1,20,15,19,26,15, 5, 7	3,22,31,20,15	5,52
32″	46,10,11,42,25,56,17,51,40,33	1,20,15,16, 3,43,39, 0	3,22,31,26, 7	5,52
34″	46,10,13, 2,41,12,21,35,19,33	1,20,15,12,41,12, 7, 1	3,22,31,31,59	5,52
36″	46,10,14,22,56,25, 2,47,26,34	1,20,15, 9,18,40,29,10	3,22,31,37,51	5,52
38″	46,10,15,43,11,34,21,27,55,44	1,20,15, 5,56, 8,45,27	3,22,31,43,43	5,52
40″	46,10,17, 3,26,40,17,36,41,11	1,20,15, 2,33,36,55,52	3,22,31,49,35	5,52
42″	46,10,18,23,41,42,51,13,37, 3	1,20,14,59,11, 5, 0,25	3,22,31,55,27	5,52
44″	46,10,19,43,56,42, 2,18,37,28	1,20,14,55,48,32,59, 6	3,22,32, 1,19	5,52
46″	46,10,21, 4,11,37,50,51,36,34	1,20,14,52,26, 0,51,55	3,22,32, 7,11	5,52
48″	46,10,22,24,26,30,16,52,28,29	1,20,14,49, 3,28,38,52	3,22,32,13, 3	5,52
50″	46,10,23,44,41,19,20,21, 7,21	1,20,14,45,40,56,19,57	3,22,32,18,55	5,52
52″	46,10,25, 4,56, 5, 1,17,27,18	1,20,14,42,18,23,55,10	3,22,32,24,47	5,52
54″	46,10,26,25,10,47,19,41,22,28	1,20,14,38,55,51,24,31	3,22,32,30,39	5,52
56″	46,10,27,45,25,26,15,32,46,59	1,20,14,35,33,18,48, 0	3,22,32,36,31	5,52
58″	46,10,29, 5,40, 1,48,51,34,59	1,20,14,32,10,46, 5,37	3,22,32,42,23	
60″	46,10,30,25,54,33,59,37,40,36			
exact	46,10,30,25,54,33,59,37,36,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°19′ 0″	46,10,30,25,54,33,59,37,36,47			
		1,20,14,28,48,13,17, 0		
2″	46,10,31,46, 9, 2,47,50,53,47		3,22,32,54, 8	
		1,20,14,25,25,40,22,52		5,52
4″	46,10,33, 6,23,28,13,31,16,39		3,22,33, 0, 0	
		1,20,14,22, 3, 7,22,52		5,52
6″	46,10,34,26,37,50,16,38,39,31		3,22,33, 5,52	
		1,20,14,18,40,34,17, 0		5,52
8″	46,10,35,46,52, 8,57,12,56,31		3,22,33,11,44	
		1,20,14,15,18, 1, 5,16		5,52
10″	46,10,37, 7, 6,24,15,14, 1,47		3,22,33,17,36	
		1,20,14,11,55,27,47,40		5,52
12″	46,10,38,27,20,36,10,41,49,27		3,22,33,23,28	
		1,20,14, 8,32,54,24,12		5,52
14″	46,10,39,47,34,44,43,36,13,39		3,22,33,29,20	
		1,20,14, 5,10,20,54,52		5,52
16″	46,10,41, 7,48,49,53,57, 8,31		3,22,33,35,12	
		1,20,14, 1,47,47,19,40		5,52
18″	46,10,42,28, 2,51,41,44,28,11		3,22,33,41, 4	
		1,20,13,58,25,13,38,36		5,52
20″	46,10,43,48,16,50, 6,58, 6,47		3,22,33,46,56	
		1,20,13,55, 2,39,51,40		5,52
22″	46,10,45, 8,30,45, 9,37,58,27		3,22,33,52,48	
		1,20,13,51,40, 5,58,52		5,52
24″	46,10,46,28,44,36,49,43,57,19		3,22,33,58,40	
		1,20,13,48,17,32, 0,12		5,52
26″	46,10,47,48,58,25, 7,15,57,31		3,22,34, 4,32	
		1,20,13,44,54,57,55,40		5,52
28″	46,10,49, 9,12,10, 2,13,53,11		3,22,34,10,24	
		1,20,13,41,32,23,45,16		5,52
30″	46,10,50,29,25,51,34,37,38,27		3,22,34,16,16	
		1,20,13,38, 9,49,29, 0		5,52
32″	46,10,51,49,39,29,44,27, 7,27		3,22,34,22, 8	
		1,20,13,34,47,15, 6,52		5,52
34″	46,10,53, 9,53, 4,31,42,14,19		3,22,34,28, 0	
		1,20,13,31,24,40,38,52		5,52
36″	46,10,54,30, 6,35,56,22,53,11		3,22,34,33,52	
		1,20,13,28, 2, 6, 5, 0		5,52
38″	46,10,55,50,20, 3,58,28,58,11		3,22,34,39,44	
		1,20,13,24,39,31,25,16		5,52
40″	46,10,57,10,33,28,38, 0,23,27		3,22,34,45,36	
		1,20,13,21,16,56,39,40		5,52
42″	46,10,58,30,46,49,54,57, 3, 7		3,22,34,51,28	
		1,20,13,17,54,21,48,12		5,52
44″	46,10,59,51, 0, 7,49,18,51,19		3,22,34,57,20	
		1,20,13,14,31,46,50,52		5,52
46″	46,11, 1,11,13,22,21, 5,42,11		3,22,35, 3,12	
		1,20,13,11, 9,11,47,40		5,52
48″	46,11, 2,31,26,33,30,17,29,51		3,22,35, 9, 4	
		1,20,13, 7,46,36,38,36		5,52
50″	46,11, 3,51,39,41,16,54, 8,27		3,22,35,14,56	
		1,20,13, 4,24, 1,23,40		5,52
52″	46,11, 5,11,52,45,40,55,32, 7		3,22,35,20,48	
		1,20,13, 1, 1,26, 2,52		5,52
54″	46,11, 6,32, 5,46,42,21,34,59		3,22,35,26,40	
		1,20,12,57,38,50,36,12		5,52
56″	46,11, 7,52,18,44,21,12,11,11		3,22,35,32,32	
		1,20,12,54,16,15, 3,40		5,52
58″	46,11, 9,12,31,38,37,27,14,51		3,22,35,38,24	
		1,20,12,50,53,39,25,16		
60″	46,11,10,32,44,29,31, 6,40, 7			
exact	46,11,10,32,44,29,31, 6,43,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°20′ 0″	46,11,10,32,44,29,31, 6,43,34			
		1,20,12,47,31, 3,41,27		
2″	46,11,11,52,57,17, 2,10,25, 1		3,22,35,50, 5	
		1,20,12,44, 8,27,51,22		5,52
4″	46,11,13,13,10, 1,10,38,16,23		3,22,35,55,57	
		1,20,12,40,45,51,55,25		5,52
6″	46,11,14,33,22,41,56,30,11,48		3,22,36, 1,49	
		1,20,12,37,23,15,53,36		5,52
8″	46,11,15,53,35,19,19,46, 5,24		3,22,36, 7,41	
		1,20,12,34, 0,39,45,55		5,52
10″	46,11,17,13,47,53,20,25,51,19		3,22,36,13,33	
		1,20,12,30,38, 3,32,22		5,52
12″	46,11,18,34, 0,23,58,29,23,41		3,22,36,19,25	
		1,20,12,27,15,27,12,57		5,52
14″	46,11,19,54,12,51,13,56,36,38		3,22,36,25,17	
		1,20,12,23,52,50,47,40		5,52
16″	46,11,21,14,25,15, 6,47,24,18		3,22,36,31, 9	
		1,20,12,20,30,14,16,31		5,52
18″	46,11,22,34,37,35,37, 1,40,49		3,22,36,37, 1	
		1,20,12,17, 7,37,39,30		5,52
20″	46,11,23,54,49,52,44,39,20,19		3,22,36,42,53	
		1,20,12,13,45, 0,56,37		5,52
22″	46,11,25,15, 2, 6,29,40,16,56		3,22,36,48,45	
		1,20,12,10,22,24, 7,52		5,52
24″	46,11,26,35,14,16,52, 4,24,48		3,22,36,54,37	
		1,20,12, 6,59,47,13,15		5,52
26″	46,11,27,55,26,23,51,51,38, 3		3,22,37, 0,29	
		1,20,12, 3,37,10,12,46		5,52
28″	46,11,29,15,38,27,29, 1,50,49		3,22,37, 6,21	
		1,20,12, 0,14,33, 6,25		5,52
30″	46,11,30,35,50,27,43,34,57,14		3,22,37,12,13	
		1,20,11,56,51,55,54,12		5,52
32″	46,11,31,56, 2,24,35,30,51,26		3,22,37,18, 5	
		1,20,11,53,29,18,36, 7		5,52
34″	46,11,33,16,14,18, 4,49,27,33		3,22,37,23,57	
		1,20,11,50, 6,41,12,10		5,52
36″	46,11,34,36,26, 8,11,30,39,43		3,22,37,29,49	
		1,20,11,46,44, 3,42,21		5,52
38″	46,11,35,56,37,54,55,34,22, 4		3,22,37,35,41	
		1,20,11,43,21,26, 6,40		5,52
40″	46,11,37,16,49,38,17, 0,28,44		3,22,37,41,33	
		1,20,11,39,58,48,25, 7		5,52
42″	46,11,38,37, 1,18,15,48,53,51		3,22,37,47,25	
		1,20,11,36,36,10,37,42		5,52
44″	46,11,39,57,12,54,51,59,31,33		3,22,37,53,17	
		1,20,11,33,13,32,44,25		5,52
46″	46,11,41,17,24,28, 5,32,15,58		3,22,37,59, 9	
		1,20,11,29,50,54,45,16		5,52
48″	46,11,42,37,35,57,56,27, 1,14		3,22,38, 5, 1	
		1,20,11,26,28,16,40,15		5,52
50″	46,11,43,57,47,24,24,43,41,29		3,22,38,10,53	
		1,20,11,23, 5,38,29,22		5,52
52″	46,11,45,17,58,47,30,22,10,51		3,22,38,16,45	
		1,20,11,19,43, 0,12,37		5,52
54″	46,11,46,38,10, 7,13,22,23,28		3,22,38,22,37	
		1,20,11,16,20,21,50, 0		5,52
56″	46,11,47,58,21,23,33,44,13,28		3,22,38,28,29	
		1,20,11,12,57,43,21,31		5,52
58″	46,11,49,18,32,36,31,27,34,59		3,22,38,34,21	
		1,20,11, 9,35, 4,47,10		
60″	46,11,50,38,43,46, 6,32,22, 9			
exact	46,11,50,38,43,46, 6,32,31,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°21′ 0″	46,11,50,38,43,46, 6,32,31,10			
		1,20,11, 6,12,26, 8, 6		
2″	46,11,51,58,54,52,18,58,39,16		3,22,38,45,59	
		1,20,11, 2,49,47,22, 7		5,52
4″	46,11,53,19, 5,55, 8,46, 1,23		3,22,38,51,51	
		1,20,10,59,27, 8,30,16		5,52
6″	46,11,54,39,16,54,35,54,31,39		3,22,38,57,43	
		1,20,10,56, 4,29,32,33		5,52
8″	46,11,55,59,27,50,40,24, 4,12		3,22,39, 3,35	
		1,20,10,52,41,50,28,58		5,52
10″	46,11,57,19,38,43,22,14,33,10		3,22,39, 9,27	
		1,20,10,49,19,11,19,31		5,52
12″	46,11,58,39,49,32,41,25,52,41		3,22,39,15,19	
		1,20,10,45,56,32, 4,12		5,52
14″	46,12, 0, 0, 0,18,37,57,56,53		3,22,39,21,11	
		1,20,10,42,33,52,43, 1		5,52
16″	46,12, 1,20,11, 1,11,50,39,54		3,22,39,27, 3	
		1,20,10,39,11,13,15,58		5,52
18″	46,12, 2,40,21,40,23, 3,55,52		3,22,39,32,55	
		1,20,10,35,48,33,43, 3		5,52
20″	46,12, 4, 0,32,16,11,37,38,55		3,22,39,38,47	
		1,20,10,32,25,54, 4,16		5,52
22″	46,12, 5,20,42,48,37,31,43,11		3,22,39,44,39	
		1,20,10,29, 3,14,19,37		5,52
24″	46,12, 6,40,53,17,40,46, 2,48		3,22,39,50,31	
		1,20,10,25,40,34,29, 6		5,52
26″	46,12, 8, 1, 3,43,21,20,31,54		3,22,39,56,23	
		1,20,10,22,17,54,32,43		5,52
28″	46,12, 9,21,14, 5,39,15, 4,37		3,22,40, 2,15	
		1,20,10,18,55,14,30,28		5,52
30″	46,12,10,41,24,24,34,29,35, 5		3,22,40, 8, 7	
		1,20,10,15,32,34,22,21		5,52
32″	46,12,12, 1,34,40, 7, 3,57,26		3,22,40,13,59	
		1,20,10,12, 9,54, 8,22		5,52
34″	46,12,13,21,44,52,16,58, 5,48		3,22,40,19,51	
		1,20,10, 8,47,13,48,31		5,52
36″	46,12,14,41,55, 1, 4,11,54,19		3,22,40,25,43	
		1,20,10, 5,24,33,22,48		5,52
38″	46,12,16, 2, 5, 6,28,45,17, 7		3,22,40,31,35	
		1,20,10, 2, 1,52,51,13		5,52
40″	46,12,17,22,15, 8,30,38, 8,20		3,22,40,37,27	
		1,20, 9,58,39,12,13,46		5,52
42″	46,12,18,42,25, 7, 9,50,22, 6		3,22,40,43,19	
		1,20, 9,55,16,31,30,27		5,52
44″	46,12,20, 2,35, 2,26,21,52,33		3,22,40,49,11	
		1,20, 9,51,53,50,41,16		5,52
46″	46,12,21,22,44,54,20,12,33,49		3,22,40,55, 3	
		1,20, 9,48,31, 9,46,13		5,52
48″	46,12,22,42,54,42,51,22,20, 2		3,22,41, 0,55	
		1,20, 9,45, 8,28,45,18		5,52
50″	46,12,24, 3, 4,27,59,51, 5,20		3,22,41, 6,47	
		1,20, 9,41,45,47,38,31		5,52
52″	46,12,25,23,14, 9,45,38,43,51		3,22,41,12,39	
		1,20, 9,38,23, 6,25,52		5,52
54″	46,12,26,43,23,48, 8,45, 9,43		3,22,41,18,31	
		1,20, 9,35, 0,25, 7,21		5,52
56″	46,12,28, 3,33,23, 9,10,17, 4		3,22,41,24,23	
		1,20, 9,31,37,43,42,58		5,52
58″	46,12,29,23,42,54,46,54, 0, 2		3,22,41,30,15	
		1,20, 9,28,15, 2,12,43		
60″	46,12,30,43,52,23, 1,56,12,45			
exact	46,12,30,43,52,23, 1,56,31,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°22′ 0″	46,12,30,43,52,23, 1,56,31,55			
		1,20, 9,24,52,20,38,47		
2″	46,12,32, 4, 1,47,54,17,10,42		3,22,41,41,49	
		1,20, 9,21,29,38,56,58		5,52
4″	46,12,33,24,11, 9,23,56, 7,40		3,22,41,47,41	
		1,20, 9,18, 6,57, 9,17		5,52
6″	46,12,34,44,20,27,30,53,16,57		3,22,41,53,33	
		1,20, 9,14,44,15,15,44		5,52
8″	46,12,36, 4,29,42,15, 8,32,41		3,22,41,59,25	
		1,20, 9,11,21,33,16,19		5,52
10″	46,12,37,24,38,53,36,41,49, 0		3,22,42, 5,17	
		1,20, 9, 7,58,51,11, 2		5,52
12″	46,12,38,44,48, 1,35,33, 0, 2		3,22,42,11, 9	
		1,20, 9, 4,36, 8,59,53		5,52
14″	46,12,40, 4,57, 6,11,41,59,55		3,22,42,17, 1	
		1,20, 9, 1,13,26,42,52		5,52
16″	46,12,41,25, 6, 7,25, 8,42,47		3,22,42,22,53	
		1,20, 8,57,50,44,19,59		5,52
18″	46,12,42,45,15, 5,15,53, 2,46		3,22,42,28,45	
		1,20, 8,54,28, 1,51,14		5,52
20″	46,12,44, 5,23,59,43,54,54, 0		3,22,42,34,37	
		1,20, 8,51, 5,19,16,37		5,52
22″	46,12,45,25,32,50,49,14,10,37		3,22,42,40,29	
		1,20, 8,47,42,36,36, 8		5,52
24″	46,12,46,45,41,38,31,50,46,45		3,22,42,46,21	
		1,20, 8,44,19,53,49,47		5,52
26″	46,12,48, 5,50,22,51,44,36,32		3,22,42,52,13	
		1,20, 8,40,57,10,57,34		5,52
28″	46,12,49,25,59, 3,48,55,34, 6		3,22,42,58, 5	
		1,20, 8,37,34,27,59,29		5,52
30″	46,12,50,46, 7,41,23,23,33,35		3,22,43, 3,57	
		1,20, 8,34,11,44,55,32		5,52
32″	46,12,52, 6,16,15,35, 8,29, 7		3,22,43, 9,49	
		1,20, 8,30,49, 1,45,43		5,52
34″	46,12,53,26,24,46,24,10,14,50		3,22,43,15,41	
		1,20, 8,27,26,18,30, 2		5,52
36″	46,12,54,46,33,13,50,28,44,52		3,22,43,21,33	
		1,20, 8,24, 3,35, 8,29		5,52
38″	46,12,56, 6,41,37,54, 3,53,21		3,22,43,27,25	
		1,20, 8,20,40,51,41, 4		5,52
40″	46,12,57,26,49,58,34,55,34,25		3,22,43,33,17	
		1,20, 8,17,18, 8, 7,47		5,52
42″	46,12,58,46,58,15,53, 3,42,12		3,22,43,39, 9	
		1,20, 8,13,55,24,28,38		5,52
44″	46,13, 0, 7, 6,29,48,28,10,50		3,22,43,45, 1	
		1,20, 8,10,32,40,43,37		5,52
46″	46,13, 1,27,14,40,21, 8,54,27		3,22,43,50,53	
		1,20, 8, 7, 9,56,52,44		5,52
48″	46,13, 2,47,22,47,31, 5,47,11		3,22,43,56,45	
		1,20, 8, 3,47,12,55,59		5,52
50″	46,13, 4, 7,30,51,18,18,43,10		3,22,44, 2,37	
		1,20, 8, 0,24,28,53,22		5,52
52″	46,13, 5,27,38,51,42,47,36,32		3,22,44, 8,29	
		1,20, 7,57, 1,44,44,53		5,52
54″	46,13, 6,47,46,48,44,32,21,25		3,22,44,14,21	
		1,20, 7,53,39, 0,30,32		5,52
56″	46,13, 8, 7,54,42,23,32,51,57		3,22,44,20,13	
		1,20, 7,50,16,16,10,19		5,52
58″	46,13, 9,28, 2,32,39,49, 2,16		3,22,44,26, 5	
		1,20, 7,46,53,31,44,14		
60″	46,13,10,48,10,19,33,20,46,30			
exact	46,13,10,48,10,19,33,21,13,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°23′ 0″	46,13,10,48,10,19,33,21,13,43			
		1,20, 7,43,30,47,15,20		
2″	46,13,12, 8,18, 3, 4, 8,29, 3		3,22,44,37,35	
		1,20, 7,40, 8, 2,37,45		5,51
4″	46,13,13,28,25,43,12,11, 6,48		3,22,44,43,26	
		1,20, 7,36,45,17,54,19		5,51
6″	46,13,14,48,33,19,57,29, 1, 7		3,22,44,49,17	
		1,20, 7,33,22,33, 5, 2		5,51
8″	46,13,16, 8,40,53,20, 2, 6, 9		3,22,44,55, 8	
		1,20, 7,29,59,48, 9,54		5,51
10″	46,13,17,28,48,23,19,50,16, 3		3,22,45, 0,59	
		1,20, 7,26,37, 3, 8,55		5,51
12″	46,13,18,48,55,49,56,53,24,58		3,22,45, 6,50	
		1,20, 7,23,14,18, 2, 5		5,51
14″	46,13,20, 9, 3,13,11,11,27, 3		3,22,45,12,41	
		1,20, 7,19,51,32,49,24		5,51
16″	46,13,21,29,10,33, 2,44,16,27		3,22,45,18,32	
		1,20, 7,16,28,47,30,52		5,51
18″	46,13,22,49,17,49,31,31,47,19		3,22,45,24,23	
		1,20, 7,13, 6, 2, 6,29		5,51
20″	46,13,24, 9,25, 2,37,33,53,48		3,22,45,30,14	
		1,20, 7, 9,43,16,36,15		5,51
22″	46,13,25,29,32,12,20,50,30, 3		3,22,45,36, 5	
		1,20, 7, 6,20,31, 0,10		5,51
24″	46,13,26,49,39,18,41,21,30,13		3,22,45,41,56	
		1,20, 7, 2,57,45,18,14		5,51
26″	46,13,28, 9,46,21,39, 6,48,27		3,22,45,47,47	
		1,20, 6,59,34,59,30,27		5,51
28″	46,13,29,29,53,21,14, 6,18,54		3,22,45,53,38	
		1,20, 6,56,12,13,36,49		5,51
30″	46,13,30,50, 0,17,26,19,55,43		3,22,45,59,29	
		1,20, 6,52,49,27,37,20		5,51
32″	46,13,32,10, 7,10,15,47,33, 3		3,22,46, 5,20	
		1,20, 6,49,26,41,32, 0		5,51
34″	46,13,33,30,13,59,42,29, 5, 3		3,22,46,11,11	
		1,20, 6,46, 3,55,20,49		5,51
36″	46,13,34,50,20,45,46,24,25,52		3,22,46,17, 2	
		1,20, 6,42,41, 9, 3,47		5,51
38″	46,13,36,10,27,28,27,33,29,39		3,22,46,22,53	
		1,20, 6,39,18,22,40,54		5,51
40″	46,13,37,30,34, 7,45,56,10,33		3,22,46,28,44	
		1,20, 6,35,55,36,12,10		5,51
42″	46,13,38,50,40,43,41,32,22,43		3,22,46,34,35	
		1,20, 6,32,32,49,37,35		5,51
44″	46,13,40,10,47,16,14,22, 0,18		3,22,46,40,26	
		1,20, 6,29,10, 2,57, 9		5,51
46″	46,13,41,30,53,45,24,24,57,27		3,22,46,46,17	
		1,20, 6,25,47,16,10,52		5,51
48″	46,13,42,51, 0,11,11,41, 8,19		3,22,46,52, 8	
		1,20, 6,22,24,29,18,44		5,51
50″	46,13,44,11, 6,33,36,10,27, 3		3,22,46,57,59	
		1,20, 6,19, 1,42,20,45		5,51
52″	46,13,45,31,12,52,37,52,47,48		3,22,47, 3,50	
		1,20, 6,15,38,55,16,55		5,51
54″	46,13,46,51,19, 8,16,48, 4,43		3,22,47, 9,41	
		1,20, 6,12,16, 8, 7,14		5,51
56″	46,13,48,11,25,20,32,56,11,57		3,22,47,15,32	
		1,20, 6, 8,53,20,51,42		5,51
58″	46,13,49,31,31,29,26,17, 3,39		3,22,47,21,23	
		1,20, 6, 5,30,33,30,19		
60″	46,13,50,51,37,34,56,50,33,58			
exact	46,13,50,51,37,34,56,50, 0, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°24′ 0″	46,13,50,51,37,34,56,50, 0, 2			
		1,20, 6, 2, 7,45,59,39		
2″	46,13,52,11,43,37, 4,35,59,41		3,22,47,33,18	
		1,20, 5,58,44,58,26,21		5,51
4″	46,13,53,31,49,35,49,34,26, 2		3,22,47,39, 9	
		1,20, 5,55,22,10,47,12		5,51
6″	46,13,54,51,55,31,11,45,13,14		3,22,47,45, 0	
		1,20, 5,51,59,23, 2,12		5,51
8″	46,13,56,12, 1,23,11, 8,15,26		3,22,47,50,51	
		1,20, 5,48,36,35,11,21		5,51
10″	46,13,57,32, 7,11,47,43,26,47		3,22,47,56,42	
		1,20, 5,45,13,47,14,39		5,51
12″	46,13,58,52,12,57, 1,30,41,26		3,22,48, 2,33	
		1,20, 5,41,50,59,12, 6		5,51
14″	46,14, 0,12,18,38,52,29,53,32		3,22,48, 8,24	
		1,20, 5,38,28,11, 3,42		5,51
16″	46,14, 1,32,24,17,20,40,57,14		3,22,48,14,15	
		1,20, 5,35, 5,22,49,27		5,51
18″	46,14, 2,52,29,52,26, 3,46,41		3,22,48,20, 6	
		1,20, 5,31,42,34,29,21		5,51
20″	46,14, 4,12,35,24, 8,38,16, 2		3,22,48,25,57	
		1,20, 5,28,19,46, 3,24		5,51
22″	46,14, 5,32,40,52,28,24,19,26		3,22,48,31,48	
		1,20, 5,24,56,57,31,36		5,51
24″	46,14, 6,52,46,17,25,21,51, 2		3,22,48,37,39	
		1,20, 5,21,34, 8,53,57		5,51
26″	46,14, 8,12,51,38,59,30,44,59		3,22,48,43,30	
		1,20, 5,18,11,20,10,27		5,51
28″	46,14, 9,32,56,57,10,50,55,26		3,22,48,49,21	
		1,20, 5,14,48,31,21, 6		5,51
30″	46,14,10,53, 2,11,59,22,16,32		3,22,48,55,12	
		1,20, 5,11,25,42,25,54		5,51
32″	46,14,12,13, 7,23,25, 4,42,26		3,22,49, 1, 3	
		1,20, 5, 8, 2,53,24,51		5,51
34″	46,14,13,33,12,31,27,58, 7,17		3,22,49, 6,54	
		1,20, 5, 4,40, 4,17,57		5,51
36″	46,14,14,53,17,36, 8, 2,25,14		3,22,49,12,45	
		1,20, 5, 1,17,15, 5,12		5,51
38″	46,14,16,13,22,37,25,17,30,26		3,22,49,18,36	
		1,20, 4,57,54,25,46,36		5,51
40″	46,14,17,33,27,35,19,43,17, 2		3,22,49,24,27	
		1,20, 4,54,31,36,22, 9		5,51
42″	46,14,18,53,32,29,51,19,39,11		3,22,49,30,18	
		1,20, 4,51, 8,46,51,51		5,51
44″	46,14,20,13,37,21, 0, 6,31, 2		3,22,49,36, 9	
		1,20, 4,47,45,57,15,42		5,51
46″	46,14,21,33,42, 8,46, 3,46,44		3,22,49,42, 0	
		1,20, 4,44,23, 7,33,42		5,51
48″	46,14,22,53,46,53, 9,11,20,26		3,22,49,47,51	
		1,20, 4,41, 0,17,45,51		5,51
50″	46,14,24,13,51,34, 9,29, 6,17		3,22,49,53,42	
		1,20, 4,37,37,27,52, 9		5,51
52″	46,14,25,33,56,11,46,56,58,26		3,22,49,59,33	
		1,20, 4,34,14,37,52,36		5,51
54″	46,14,26,54, 0,46, 1,34,51, 2		3,22,50, 5,24	
		1,20, 4,30,51,47,47,12		5,51
56″	46,14,28,14, 5,16,53,22,38,14		3,22,50,11,15	
		1,20, 4,27,28,57,35,57		5,51
58″	46,14,29,34, 9,44,22,20,14,11		3,22,50,17, 6	
		1,20, 4,24, 6, 7,18,51		
60″	46,14,30,54,14, 8,28,27,33, 2			
exact	46,14,30,54,14, 8,28,27, 9,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°25′ 0″	46,14,30,54,14, 8,28,27, 9,55			
		1,20, 4,20,43,16,53,32		
2″	46,14,32,14,18,29,11,44, 3,27		3,22,50,28,57	
		1,20, 4,17,20,26,24,35		5,51
4″	46,14,33,34,22,46,32,10,28, 2		3,22,50,34,48	
		1,20, 4,13,57,35,49,47		5,51
6″	46,14,34,54,27, 0,29,46,17,49		3,22,50,40,39	
		1,20, 4,10,34,45, 9, 8		5,51
8″	46,14,36,14,31,11, 4,31,26,57		3,22,50,46,30	
		1,20, 4, 7,11,54,22,38		5,51
10″	46,14,37,34,35,18,16,25,49,35		3,22,50,52,21	
		1,20, 4, 3,49, 3,30,17		5,51
12″	46,14,38,54,39,22, 5,29,19,52		3,22,50,58,12	
		1,20, 4, 0,26,12,32, 5		5,51
14″	46,14,40,14,43,22,31,41,51,57		3,22,51, 4, 3	
		1,20, 3,57, 3,21,28, 2		5,51
16″	46,14,41,34,47,19,35, 3,19,59		3,22,51, 9,54	
		1,20, 3,53,40,30,18, 8		5,51
18″	46,14,42,54,51,13,15,33,38, 7		3,22,51,15,45	
		1,20, 3,50,17,39, 2,23		5,51
20″	46,14,44,14,55, 3,33,12,40,30		3,22,51,21,36	
		1,20, 3,46,54,47,40,47		5,51
22″	46,14,45,34,58,50,28, 0,21,17		3,22,51,27,27	
		1,20, 3,43,31,56,13,20		5,51
24″	46,14,46,55, 2,33,59,56,34,37		3,22,51,33,18	
		1,20, 3,40, 9, 4,40, 2		5,51
26″	46,14,48,15, 6,14, 9, 1,14,39		3,22,51,39, 9	
		1,20, 3,36,46,13, 0,53		5,51
28″	46,14,49,35, 9,50,55,14,15,32		3,22,51,45, 0	
		1,20, 3,33,23,21,15,53		5,51
30″	46,14,50,55,13,24,18,35,31,25		3,22,51,50,51	
		1,20, 3,30, 0,29,25, 2		5,51
32″	46,14,52,15,16,54,19, 4,56,27		3,22,51,56,42	
		1,20, 3,26,37,37,28,20		5,51
34″	46,14,53,35,20,20,56,42,24,47		3,22,52, 2,33	
		1,20, 3,23,14,45,25,47		5,51
36″	46,14,54,55,23,44,11,27,50,34		3,22,52, 8,24	
		1,20, 3,19,51,53,17,23		5,51
38″	46,14,56,15,27, 4, 3,21, 7,57		3,22,52,14,15	
		1,20, 3,16,29, 1, 3, 8		5,51
40″	46,14,57,35,30,20,32,22,11, 5		3,22,52,20, 6	
		1,20, 3,13, 6, 8,43, 2		5,51
42″	46,14,58,55,33,33,38,30,54, 7		3,22,52,25,57	
		1,20, 3, 9,43,16,17, 5		5,51
44″	46,15, 0,15,36,43,21,47,11,12		3,22,52,31,48	
		1,20, 3, 6,20,23,45,17		5,51
46″	46,15, 1,35,39,49,42,10,56,29		3,22,52,37,39	
		1,20, 3, 2,57,31, 7,38		5,51
48″	46,15, 2,55,42,52,39,42, 4, 7		3,22,52,43,30	
		1,20, 2,59,34,38,24, 8		5,51
50″	46,15, 4,15,45,52,14,20,28,15		3,22,52,49,21	
		1,20, 2,56,11,45,34,47		5,51
52″	46,15, 5,35,48,48,26, 6, 3, 2		3,22,52,55,12	
		1,20, 2,52,48,52,39,35		5,51
54″	46,15, 6,55,51,41,14,58,42,37		3,22,53, 1, 3	
		1,20, 2,49,25,59,38,32		5,51
56″	46,15, 8,15,54,30,40,58,21, 9		3,22,53, 6,54	
		1,20, 2,46, 3, 6,31,38		5,51
58″	46,15, 9,35,57,16,44, 4,52,47		3,22,53,12,45	
		1,20, 2,42,40,13,18,53		
60″	46,15,10,55,59,59,24,18,11,40			
exact	46,15,10,55,59,59,24,17,58, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°26′ 0″	46,15,10,55,59,59,24,17,58, 0			
		1,20, 2,39,17,19,58,53		
2″	46,15,12,16, 2,38,41,37,56,53		3,22,53,24,32	
		1,20, 2,35,54,26,34,21		5,51
4″	46,15,13,36, 5,14,36, 4,31,14		3,22,53,30,23	
		1,20, 2,32,31,33, 3,58		5,51
6″	46,15,14,56, 7,47, 7,37,35,12		3,22,53,36,14	
		1,20, 2,29, 8,39,27,44		5,51
8″	46,15,16,16,10,16,16,17, 2,56		3,22,53,42, 5	
		1,20, 2,25,45,45,45,39		5,51
10″	46,15,17,36,12,42, 2, 2,48,35		3,22,53,47,56	
		1,20, 2,22,22,51,57,43		5,51
12″	46,15,18,56,15, 4,24,54,46,18		3,22,53,53,47	
		1,20, 2,18,59,58, 3,56		5,51
14″	46,15,20,16,17,23,24,52,50,14		3,22,53,59,38	
		1,20, 2,15,37, 4, 4,18		5,51
16″	46,15,21,36,19,39, 1,56,54,32		3,22,54, 5,29	
		1,20, 2,12,14, 9,58,49		5,51
18″	46,15,22,56,21,51,16, 6,53,21		3,22,54,11,20	
		1,20, 2, 8,51,15,47,29		5,51
20″	46,15,24,16,24, 0, 7,22,40,50		3,22,54,17,11	
		1,20, 2, 5,28,21,30,18		5,51
22″	46,15,25,36,26, 5,35,44,11, 8		3,22,54,23, 2	
		1,20, 2, 2, 5,27, 7,16		5,51
24″	46,15,26,56,28, 7,41,11,18,24		3,22,54,28,53	
		1,20, 1,58,42,32,38,23		5,51
26″	46,15,28,16,30, 6,23,43,56,47		3,22,54,34,44	
		1,20, 1,55,19,38, 3,39		5,51
28″	46,15,29,36,32, 1,43,22, 0,26		3,22,54,40,35	
		1,20, 1,51,56,43,23, 4		5,51
30″	46,15,30,56,33,53,40, 5,23,30		3,22,54,46,26	
		1,20, 1,48,33,48,36,38		5,51
32″	46,15,32,16,35,42,13,54, 0, 8		3,22,54,52,17	
		1,20, 1,45,10,53,44,21		5,51
34″	46,15,33,36,37,27,24,47,44,29		3,22,54,58, 8	
		1,20, 1,41,47,58,46,13		5,51
36″	46,15,34,56,39, 9,12,46,30,42		3,22,55, 3,59	
		1,20, 1,38,25, 3,42,14		5,51
38″	46,15,36,16,40,47,37,50,12,56		3,22,55, 9,50	
		1,20, 1,35, 2, 8,32,24		5,51
40″	46,15,37,36,42,22,39,58,45,20		3,22,55,15,41	
		1,20, 1,31,39,13,16,43		5,51
42″	46,15,38,56,43,54,19,12, 2, 3		3,22,55,21,32	
		1,20, 1,28,16,17,55,11		5,51
44″	46,15,40,16,45,22,35,29,57,14		3,22,55,27,23	
		1,20, 1,24,53,22,27,48		5,51
46″	46,15,41,36,46,47,28,52,25, 2		3,22,55,33,14	
		1,20, 1,21,30,26,54,34		5,51
48″	46,15,42,56,48, 8,59,19,19,36		3,22,55,39, 5	
		1,20, 1,18, 7,31,15,29		5,51
50″	46,15,44,16,49,27, 6,50,35, 5		3,22,55,44,56	
		1,20, 1,14,44,35,30,33		5,51
52″	46,15,45,36,50,41,51,26, 5,38		3,22,55,50,47	
		1,20, 1,11,21,39,39,46		5,51
54″	46,15,46,56,51,53,13, 5,45,24		3,22,55,56,38	
		1,20, 1, 7,58,43,43, 8		5,51
56″	46,15,48,16,53, 1,11,49,28,32		3,22,56, 2,29	
		1,20, 1, 4,35,47,40,39		5,51
58″	46,15,49,36,54, 5,47,37, 9,11		3,22,56, 8,20	
		1,20, 1, 1,12,51,32,19		
60″	46,15,50,56,55, 7, 0,28,41,30			
exact	46,15,50,56,55, 7, 0,28,34,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°27′ 0″	46,15,50,56,55, 7, 0,28,34,33			
		1,20, 0,57,49,55,17,31		
2″	46,15,52,16,56, 4,50,23,52, 4		3,22,56,20, 4	
		1,20, 0,54,26,58,57,27		5,51
4″	46,15,53,36,56,59,17,22,49,31		3,22,56,25,55	
		1,20, 0,51, 4, 2,31,32		5,51
6″	46,15,54,56,57,50,21,25,21, 3		3,22,56,31,46	
		1,20, 0,47,41, 5,59,46		5,51
8″	46,15,56,16,58,38, 2,31,20,49		3,22,56,37,37	
		1,20, 0,44,18, 9,22, 9		5,51
10″	46,15,57,36,59,22,20,40,42,58		3,22,56,43,28	
		1,20, 0,40,55,12,38,41		5,51
12″	46,15,58,57, 0, 3,15,53,21,39		3,22,56,49,19	
		1,20, 0,37,32,15,49,22		5,51
14″	46,16, 0,17, 0,40,48, 9,11, 1		3,22,56,55,10	
		1,20, 0,34, 9,18,54,12		5,51
16″	46,16, 1,37, 1,14,57,28, 5,13		3,22,57, 1, 1	
		1,20, 0,30,46,21,53,11		5,51
18″	46,16, 2,57, 1,45,43,49,58,24		3,22,57, 6,52	
		1,20, 0,27,23,24,46,19		5,51
20″	46,16, 4,17, 2,13, 7,14,44,43		3,22,57,12,43	
		1,20, 0,24, 0,27,33,36		5,51
22″	46,16, 5,37, 2,37, 7,42,18,19		3,22,57,18,34	
		1,20, 0,20,37,30,15, 2		5,51
24″	46,16, 6,57, 2,57,45,12,33,21		3,22,57,24,25	
		1,20, 0,17,14,32,50,37		5,51
26″	46,16, 8,17, 3,14,59,45,23,58		3,22,57,30,16	
		1,20, 0,13,51,35,20,21		5,51
28″	46,16, 9,37, 3,28,51,20,44,19		3,22,57,36, 7	
		1,20, 0,10,28,37,44,14		5,51
30″	46,16,10,57, 3,39,19,58,28,33		3,22,57,41,58	
		1,20, 0, 7, 5,40, 2,16		5,51
32″	46,16,12,17, 3,46,25,38,30,49		3,22,57,47,49	
		1,20, 0, 3,42,42,14,27		5,51
34″	46,16,13,37, 3,50, 8,20,45,16		3,22,57,53,40	
		1,20, 0, 0,19,44,20,47		5,51
36″	46,16,14,57, 3,50,28, 5, 6, 3		3,22,57,59,31	
		1,19,59,56,56,46,21,16		5,51
38″	46,16,16,17, 3,47,24,51,27,19		3,22,58, 5,22	
		1,19,59,53,33,48,15,54		5,51
40″	46,16,17,37, 3,40,58,39,43,13		3,22,58,11,13	
		1,19,59,50,10,50, 4,41		5,51
42″	46,16,18,57, 3,31, 9,29,47,54		3,22,58,17, 4	
		1,19,59,46,47,51,47,37		5,51
44″	46,16,20,17, 3,17,57,21,35,31		3,22,58,22,55	
		1,19,59,43,24,53,24,42		5,51
46″	46,16,21,37, 3, 1,22,15, 0,13		3,22,58,28,46	
		1,19,59,40, 1,54,55,56		5,51
48″	46,16,22,57, 2,41,24, 9,56, 9		3,22,58,34,37	
		1,19,59,36,38,56,21,19		5,51
50″	46,16,24,17, 2,18, 3, 6,17,28		3,22,58,40,28	
		1,19,59,33,15,57,40,51		5,51
52″	46,16,25,37, 1,51,19, 3,58,19		3,22,58,46,19	
		1,19,59,29,52,58,54,32		5,51
54″	46,16,26,57, 1,21,12, 2,52,51		3,22,58,52,10	
		1,19,59,26,30, 0, 2,22		5,51
56″	46,16,28,17, 0,47,42, 2,55,13		3,22,58,58, 1	
		1,19,59,23, 7, 1, 4,21		5,51
58″	46,16,29,37, 0,10,49, 3,59,34		3,22,59, 3,52	
		1,19,59,19,44, 2, 0,29		
60″	46,16,30,56,59,30,33, 6, 0, 3			
exact	46,16,30,56,59,30,33, 6, 5,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°28′ 0″	46,16,30,56,59,30,33, 6, 5,27			
		1,19,59,16,21, 2,51,19		
2″	46,16,32,16,58,46,54, 8,56,46		3,22,59,15,31	
		1,19,59,12,58, 3,35,48		5,51
4″	46,16,33,36,57,59,52,12,32,34		3,22,59,21,22	
		1,19,59, 9,35, 4,14,26		5,51
6″	46,16,34,56,57, 9,27,16,47, 0		3,22,59,27,13	
		1,19,59, 6,12, 4,47,13		5,51
8″	46,16,36,16,56,15,39,21,34,13		3,22,59,33, 4	
		1,19,59, 2,49, 5,14, 9		5,51
10″	46,16,37,36,55,18,28,26,48,22		3,22,59,38,55	
		1,19,58,59,26, 5,35,14		5,51
12″	46,16,38,56,54,17,54,32,23,36		3,22,59,44,46	
		1,19,58,56, 3, 5,50,28		5,51
14″	46,16,40,16,53,13,57,38,14, 4		3,22,59,50,37	
		1,19,58,52,40, 5,59,51		5,51
16″	46,16,41,36,52, 6,37,44,13,55		3,22,59,56,28	
		1,19,58,49,17, 6, 3,23		5,51
18″	46,16,42,56,50,55,54,50,17,18		3,23, 0, 2,19	
		1,19,58,45,54, 6, 1, 4		5,51
20″	46,16,44,16,49,41,48,56,18,22		3,23, 0, 8,10	
		1,19,58,42,31, 5,52,54		5,51
22″	46,16,45,36,48,24,20, 2,11,16		3,23, 0,14, 1	
		1,19,58,39, 8, 5,38,53		5,51
24″	46,16,46,56,47, 3,28, 7,50, 9		3,23, 0,19,52	
		1,19,58,35,45, 5,19, 1		5,51
26″	46,16,48,16,45,39,13,13, 9,10		3,23, 0,25,43	
		1,19,58,32,22, 4,53,18		5,51
28″	46,16,49,36,44,11,35,18, 2,28		3,23, 0,31,34	
		1,19,58,28,59, 4,21,44		5,51
30″	46,16,50,56,42,40,34,22,24,12		3,23, 0,37,25	
		1,19,58,25,36, 3,44,19		5,51
32″	46,16,52,16,41, 6,10,26, 8,31		3,23, 0,43,16	
		1,19,58,22,13, 3, 1, 3		5,51
34″	46,16,53,36,39,28,23,29, 9,34		3,23, 0,49, 7	
		1,19,58,18,50, 2,11,56		5,51
36″	46,16,54,56,37,47,13,31,21,30		3,23, 0,54,58	
		1,19,58,15,27, 1,16,58		5,51
38″	46,16,56,16,36, 2,40,32,38,28		3,23, 1, 0,49	
		1,19,58,12, 4, 0,16, 9		5,51
40″	46,16,57,36,34,14,44,32,54,37		3,23, 1, 6,40	
		1,19,58, 8,40,59, 9,29		5,51
42″	46,16,58,56,32,23,25,32, 4, 6		3,23, 1,12,31	
		1,19,58, 5,17,57,56,58		5,51
44″	46,17, 0,16,30,28,43,30, 1, 4		3,23, 1,18,22	
		1,19,58, 1,54,56,38,36		5,51
46″	46,17, 1,36,28,30,38,26,39,40		3,23, 1,24,13	
		1,19,57,58,31,55,14,23		5,51
48″	46,17, 2,56,26,29,10,21,54, 3		3,23, 1,30, 4	
		1,19,57,55, 8,53,44,19		5,51
50″	46,17, 4,16,24,24,19,15,38,22		3,23, 1,35,55	
		1,19,57,51,45,52, 8,24		5,51
52″	46,17, 5,36,22,16, 5, 7,46,46		3,23, 1,41,46	
		1,19,57,48,22,50,26,38		5,51
54″	46,17, 6,56,20, 4,27,58,13,24		3,23, 1,47,37	
		1,19,57,44,59,48,39, 1		5,51
56″	46,17, 8,16,17,49,27,46,52,25		3,23, 1,53,28	
		1,19,57,41,36,46,45,33		5,51
58″	46,17, 9,36,15,31, 4,33,37,58		3,23, 1,59,19	
		1,19,57,38,13,44,46,14		
60″	46,17,10,56,13, 9,18,18,24,12			
exact	46,17,10,56,13, 9,18,18,32,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°29′ 0″	46,17,10,56,13, 9,18,18,32,12			
		1,19,57,34,50,42,42, 7		
2″	46,17,12,16,10,44, 9, 1,14,19		3,23, 2,10,56	
		1,19,57,31,27,40,31,11		5,51
4″	46,17,13,36, 8,15,36,41,45,30		3,23, 2,16,47	
		1,19,57,28, 4,38,14,24		5,51
6″	46,17,14,56, 5,43,41,19,59,54		3,23, 2,22,38	
		1,19,57,24,41,35,51,46		5,51
8″	46,17,16,16, 3, 8,22,55,51,40		3,23, 2,28,29	
		1,19,57,21,18,33,23,17		5,51
10″	46,17,17,36, 0,29,41,29,14,57		3,23, 2,34,20	
		1,19,57,17,55,30,48,57		5,51
12″	46,17,18,55,57,47,37, 0, 3,54		3,23, 2,40,11	
		1,19,57,14,32,28, 8,46		5,51
14″	46,17,20,15,55, 2, 9,28,12,40		3,23, 2,46, 2	
		1,19,57,11, 9,25,22,44		5,51
16″	46,17,21,35,52,13,18,53,35,24		3,23, 2,51,53	
		1,19,57, 7,46,22,30,51		5,51
18″	46,17,22,55,49,21, 5,16, 6,15		3,23, 2,57,44	
		1,19,57, 4,23,19,33, 7		5,51
20″	46,17,24,15,46,25,28,35,39,22		3,23, 3, 3,35	
		1,19,57, 1, 0,16,29,32		5,51
22″	46,17,25,35,43,26,28,52, 8,54		3,23, 3, 9,26	
		1,19,56,57,37,13,20, 6		5,51
24″	46,17,26,55,40,24, 6, 5,29, 0		3,23, 3,15,17	
		1,19,56,54,14,10, 4,49		5,51
26″	46,17,28,15,37,18,20,15,33,49		3,23, 3,21, 8	
		1,19,56,50,51, 6,43,41		5,51
28″	46,17,29,35,34, 9,11,22,17,30		3,23, 3,26,59	
		1,19,56,47,28, 3,16,42		5,51
30″	46,17,30,55,30,56,39,25,34,12		3,23, 3,32,50	
		1,19,56,44, 4,59,43,52		5,51
32″	46,17,32,15,27,40,44,25,18, 4		3,23, 3,38,41	
		1,19,56,40,41,56, 5,11		5,51
34″	46,17,33,35,24,21,26,21,23,15		3,23, 3,44,32	
		1,19,56,37,18,52,20,39		5,51
36″	46,17,34,55,20,58,45,13,43,54		3,23, 3,50,23	
		1,19,56,33,55,48,30,16		5,51
38″	46,17,36,15,17,32,41, 2,14,10		3,23, 3,56,14	
		1,19,56,30,32,44,34, 2		5,51
40″	46,17,37,35,14, 3,13,46,48,12		3,23, 4, 2, 5	
		1,19,56,27, 9,40,31,57		5,51
42″	46,17,38,55,10,30,23,27,20, 9		3,23, 4, 7,56	
		1,19,56,23,46,36,24, 1		5,51
44″	46,17,40,15, 6,54,10, 3,44,10		3,23, 4,13,47	
		1,19,56,20,23,32,10,14		5,51
46″	46,17,41,35, 3,14,33,35,54,24		3,23, 4,19,38	
		1,19,56,17, 0,27,50,36		5,51
48″	46,17,42,54,59,31,34, 3,45, 0		3,23, 4,25,29	
		1,19,56,13,37,23,25, 7		5,51
50″	46,17,44,14,55,45,11,27,10, 7		3,23, 4,31,20	
		1,19,56,10,14,18,53,47		5,51
52″	46,17,45,34,51,55,25,46, 3,54		3,23, 4,37,11	
		1,19,56, 6,51,14,16,36		5,51
54″	46,17,46,54,48, 2,17, 0,20,30		3,23, 4,43, 2	
		1,19,56, 3,28, 9,33,34		5,51
56″	46,17,48,14,44, 5,45, 9,54, 4		3,23, 4,48,53	
		1,19,56, 0, 5, 4,44,41		5,51
58″	46,17,49,34,40, 5,50,14,38,45		3,23, 4,54,44	
		1,19,55,56,41,59,49,57		
60″	46,17,50,54,36, 2,32,14,28,42			
exact	46,17,50,54,36, 2,32,14,51,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°30′ 0″	46,17,50,54,36, 2,32,14,51,58			
		1,19,55,53,18,54,51,47		
2″	46,17,52,14,31,55,51, 9,43,45		3,23, 5, 6,16	
		1,19,55,49,55,49,45,31		5,51
4″	46,17,53,34,27,45,46,59,29,16		3,23, 5,12, 7	
		1,19,55,46,32,44,33,24		5,51
6″	46,17,54,54,23,32,19,44, 2,40		3,23, 5,17,58	
		1,19,55,43, 9,39,15,26		5,51
8″	46,17,56,14,19,15,29,23,18, 6		3,23, 5,23,49	
		1,19,55,39,46,33,51,37		5,51
10″	46,17,57,34,14,55,15,57, 9,43		3,23, 5,29,40	
		1,19,55,36,23,28,21,57		5,51
12″	46,17,58,54,10,31,39,25,31,40		3,23, 5,35,31	
		1,19,55,33, 0,22,46,26		5,51
14″	46,18, 0,14, 6, 4,39,48,18, 6		3,23, 5,41,22	
		1,19,55,29,37,17, 5, 4		5,51
16″	46,18, 1,34, 1,34,17, 5,23,10		3,23, 5,47,13	
		1,19,55,26,14,11,17,51		5,51
18″	46,18, 2,53,57, 0,31,16,41, 1		3,23, 5,53, 4	
		1,19,55,22,51, 5,24,47		5,51
20″	46,18, 4,13,52,23,22,22, 5,48		3,23, 5,58,55	
		1,19,55,19,27,59,25,52		5,51
22″	46,18, 5,33,47,42,50,21,31,40		3,23, 6, 4,46	
		1,19,55,16, 4,53,21, 6		5,51
24″	46,18, 6,53,42,58,55,14,52,46		3,23, 6,10,37	
		1,19,55,12,41,47,10,29		5,51
26″	46,18, 8,13,38,11,37, 2, 3,15		3,23, 6,16,28	
		1,19,55, 9,18,40,54, 1		5,51
28″	46,18, 9,33,33,20,55,42,57,16		3,23, 6,22,19	
		1,19,55, 5,55,34,31,42		5,51
30″	46,18,10,53,28,26,51,17,28,58		3,23, 6,28,10	
		1,19,55, 2,32,28, 3,32		5,51
32″	46,18,12,13,23,29,23,45,32,30		3,23, 6,34, 1	
		1,19,54,59, 9,21,29,31		5,51
34″	46,18,13,33,18,28,33, 7, 2, 1		3,23, 6,39,52	
		1,19,54,55,46,14,49,39		5,51
36″	46,18,14,53,13,24,19,21,51,40		3,23, 6,45,43	
		1,19,54,52,23, 8, 3,56		5,51
38″	46,18,16,13, 8,16,42,29,55,36		3,23, 6,51,34	
		1,19,54,49, 0, 1,12,22		5,51
40″	46,18,17,33, 3, 5,42,31, 7,58		3,23, 6,57,25	
		1,19,54,45,36,54,14,57		5,51
42″	46,18,18,52,57,51,19,25,22,55		3,23, 7, 3,16	
		1,19,54,42,13,47,11,41		5,51
44″	46,18,20,12,52,33,33,12,34,36		3,23, 7, 9, 7	
		1,19,54,38,50,40, 2,34		5,51
46″	46,18,21,32,47,12,23,52,37,10		3,23, 7,14,58	
		1,19,54,35,27,32,47,36		5,51
48″	46,18,22,52,41,47,51,25,24,46		3,23, 7,20,49	
		1,19,54,32, 4,25,26,47		5,51
50″	46,18,24,12,36,19,55,50,51,33		3,23, 7,26,40	
		1,19,54,28,41,18, 0, 7		5,51
52″	46,18,25,32,30,48,37, 8,51,40		3,23, 7,32,31	
		1,19,54,25,18,10,27,36		5,51
54″	46,18,26,52,25,13,55,19,19,16		3,23, 7,38,22	
		1,19,54,21,55, 2,49,14		5,51
56″	46,18,28,12,19,35,50,22, 8,30		3,23, 7,44,13	
		1,19,54,18,31,55, 5, 1		5,51
58″	46,18,29,32,13,54,22,17,13,31		3,23, 7,50, 4	
		1,19,54,15, 8,47,14,57		
60″	46,18,30,52, 8, 9,31, 4,28,28			
exact	46,18,30,52, 8, 9,31, 4,57,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°31′ 0″	46,18,30,52, 8, 9,31, 4,57,35			
		1,19,54,11,45,39,22,11		
2″	46,18,32,12, 2,21,16,44,19,46		3,23, 8, 1,33	
		1,19,54, 8,22,31,20,38		5,50
4″	46,18,33,31,56,29,39,15,40,24		3,23, 8, 7,23	
		1,19,54, 4,59,23,13,15		5,50
6″	46,18,34,51,50,34,38,38,53,39		3,23, 8,13,13	
		1,19,54, 1,36,15, 0, 2		5,50
8″	46,18,36,11,44,36,14,53,53,41		3,23, 8,19, 3	
		1,19,53,58,13, 6,40,59		5,50
10″	46,18,37,31,38,34,28, 0,34,40		3,23, 8,24,53	
		1,19,53,54,49,58,16, 6		5,50
12″	46,18,38,51,32,29,17,58,50,46		3,23, 8,30,43	
		1,19,53,51,26,49,45,23		5,50
14″	46,18,40,11,26,20,44,48,36, 9		3,23, 8,36,33	
		1,19,53,48, 3,41, 8,50		5,50
16″	46,18,41,31,20, 8,48,29,44,59		3,23, 8,42,23	
		1,19,53,44,40,32,26,27		5,50
18″	46,18,42,51,13,53,29, 2,11,26		3,23, 8,48,13	
		1,19,53,41,17,23,38,14		5,50
20″	46,18,44,11, 7,34,46,25,49,40		3,23, 8,54, 3	
		1,19,53,37,54,14,44,11		5,50
22″	46,18,45,31, 1,12,40,40,33,51		3,23, 8,59,53	
		1,19,53,34,31, 5,44,18		5,50
24″	46,18,46,50,54,47,11,46,18, 9		3,23, 9, 5,43	
		1,19,53,31, 7,56,38,35		5,50
26″	46,18,48,10,48,18,19,42,56,44		3,23, 9,11,33	
		1,19,53,27,44,47,27, 2		5,50
28″	46,18,49,30,41,46, 4,30,23,46		3,23, 9,17,23	
		1,19,53,24,21,38, 9,39		5,50
30″	46,18,50,50,35,10,26, 8,33,25		3,23, 9,23,13	
		1,19,53,20,58,28,46,26		5,50
32″	46,18,52,10,28,31,24,37,19,51		3,23, 9,29, 3	
		1,19,53,17,35,19,17,23		5,50
34″	46,18,53,30,21,48,59,56,37,14		3,23, 9,34,53	
		1,19,53,14,12, 9,42,30		5,50
36″	46,18,54,50,15, 3,12, 6,19,44		3,23, 9,40,43	
		1,19,53,10,49, 0, 1,47		5,50
38″	46,18,56,10, 8,14, 1, 6,21,31		3,23, 9,46,33	
		1,19,53, 7,25,50,15,14		5,50
40″	46,18,57,30, 1,21,26,56,36,45		3,23, 9,52,23	
		1,19,53, 4, 2,40,22,51		5,50
42″	46,18,58,49,54,25,29,36,59,36		3,23, 9,58,13	
		1,19,53, 0,39,30,24,38		5,50
44″	46,19, 0, 9,47,26, 9, 7,24,14		3,23,10, 4, 3	
		1,19,52,57,16,20,20,35		5,50
46″	46,19, 1,29,40,23,25,27,44,49		3,23,10, 9,53	
		1,19,52,53,53,10,10,42		5,50
48″	46,19, 2,49,33,17,18,37,55,31		3,23,10,15,43	
		1,19,52,50,29,59,54,59		5,50
50″	46,19, 4, 9,26, 7,48,37,50,30		3,23,10,21,33	
		1,19,52,47, 6,49,33,26		5,50
52″	46,19, 5,29,18,54,55,27,23,56		3,23,10,27,23	
		1,19,52,43,43,39, 6, 3		5,50
54″	46,19, 6,49,11,38,39, 6,29,59		3,23,10,33,13	
		1,19,52,40,20,28,32,50		5,50
56″	46,19, 8, 9, 4,18,59,35, 2,49		3,23,10,39, 3	
		1,19,52,36,57,17,53,47		5,50
58″	46,19, 9,28,56,55,56,52,56,36		3,23,10,44,53	
		1,19,52,33,34, 7, 8,54		
60″	46,19,10,48,49,29,31, 0, 5,30			
exact	46,19,10,48,49,29,30,59,37,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°32′ 0″	46,19,10,48,49,29,30,59,37,33			
		1,19,52,30,10,56,15, 9		
2″	46,19,12, 8,41,59,41,55,52,42		3,23,10,56,45	
		1,19,52,26,47,45,18,24		5,50
4″	46,19,13,28,34,26,29,41,11, 6		3,23,11, 2,35	
		1,19,52,23,24,34,15,49		5,50
6″	46,19,14,48,26,49,54,15,26,55		3,23,11, 8,25	
		1,19,52,20, 1,23, 7,24		5,50
8″	46,19,16, 8,19, 9,55,38,34,19		3,23,11,14,15	
		1,19,52,16,38,11,53, 9		5,50
10″	46,19,17,28,11,26,33,50,27,28		3,23,11,20, 5	
		1,19,52,13,15, 0,33, 4		5,50
12″	46,19,18,48, 3,39,48,51, 0,32		3,23,11,25,55	
		1,19,52, 9,51,49, 7, 9		5,50
14″	46,19,20, 7,55,49,40,40, 7,41		3,23,11,31,45	
		1,19,52, 6,28,37,35,24		5,50
16″	46,19,21,27,47,56, 9,17,43, 5		3,23,11,37,35	
		1,19,52, 3, 5,25,57,49		5,50
18″	46,19,22,47,39,59,14,43,40,54		3,23,11,43,25	
		1,19,51,59,42,14,14,24		5,50
20″	46,19,24, 7,31,58,56,57,55,18		3,23,11,49,15	
		1,19,51,56,19, 2,25, 9		5,50
22″	46,19,25,27,23,55,16, 0,20,27		3,23,11,55, 5	
		1,19,51,52,55,50,30, 4		5,50
24″	46,19,26,47,15,48,11,50,50,31		3,23,12, 0,55	
		1,19,51,49,32,38,29, 9		5,50
26″	46,19,28, 7, 7,37,44,29,19,40		3,23,12, 6,45	
		1,19,51,46, 9,26,22,24		5,50
28″	46,19,29,26,59,23,53,55,42, 4		3,23,12,12,35	
		1,19,51,42,46,14, 9,49		5,50
30″	46,19,30,46,51, 6,40, 9,51,53		3,23,12,18,25	
		1,19,51,39,23, 1,51,24		5,50
32″	46,19,32, 6,42,46, 3,11,43,17		3,23,12,24,15	
		1,19,51,35,59,49,27, 9		5,50
34″	46,19,33,26,34,22, 3, 1,10,26		3,23,12,30, 5	
		1,19,51,32,36,36,57, 4		5,50
36″	46,19,34,46,25,54,39,38, 7,30		3,23,12,35,55	
		1,19,51,29,13,24,21, 9		5,50
38″	46,19,36, 6,17,23,53, 2,28,39		3,23,12,41,45	
		1,19,51,25,50,11,39,24		5,50
40″	46,19,37,26, 8,49,43,14, 8, 3		3,23,12,47,35	
		1,19,51,22,26,58,51,49		5,50
42″	46,19,38,46, 0,12,10,12,59,52		3,23,12,53,25	
		1,19,51,19, 3,45,58,24		5,50
44″	46,19,40, 5,51,31,13,58,58,16		3,23,12,59,15	
		1,19,51,15,40,32,59, 9		5,50
46″	46,19,41,25,42,46,54,31,57,25		3,23,13, 5, 5	
		1,19,51,12,17,19,54, 4		5,50
48″	46,19,42,45,33,59,11,51,51,29		3,23,13,10,55	
		1,19,51, 8,54, 6,43, 9		5,50
50″	46,19,44, 5,25, 8, 5,58,34,38		3,23,13,16,45	
		1,19,51, 5,30,53,26,24		5,50
52″	46,19,45,25,16,13,36,52, 1, 2		3,23,13,22,35	
		1,19,51, 2, 7,40, 3,49		5,50
54″	46,19,46,45, 7,15,44,32, 4,51		3,23,13,28,25	
		1,19,50,58,44,26,35,24		5,50
56″	46,19,48, 4,58,14,28,58,40,15		3,23,13,34,15	
		1,19,50,55,21,13, 1, 9		5,50
58″	46,19,49,24,49, 9,50,11,41,24		3,23,13,40, 5	
		1,19,50,51,57,59,21, 4		
60″	46,19,50,44,40, 1,48,11, 2,28			
exact	46,19,50,44,40, 1,48,10,36, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°33′ 0″	46,19,50,44,40, 1,48,10,36, 3			
		1,19,50,48,34,45,32,32		
2″	46,19,52, 4,30,50,22,56, 8,35		3,23,13,51,55	
		1,19,50,45,11,31,40,37		5,50
4″	46,19,53,24,21,35,34,27,49,12		3,23,13,57,45	
		1,19,50,41,48,17,42,52		5,50
6″	46,19,54,44,12,17,22,45,32, 4		3,23,14, 3,35	
		1,19,50,38,25, 3,39,17		5,50
8″	46,19,56, 4, 2,55,47,49,11,21		3,23,14, 9,25	
		1,19,50,35, 1,49,29,52		5,50
10″	46,19,57,23,53,30,49,38,41,13		3,23,14,15,15	
		1,19,50,31,38,35,14,37		5,50
12″	46,19,58,43,44, 2,28,13,55,50		3,23,14,21, 5	
		1,19,50,28,15,20,53,32		5,50
14″	46,20, 0, 3,34,30,43,34,49,22		3,23,14,26,55	
		1,19,50,24,52, 6,26,37		5,50
16″	46,20, 1,23,24,55,35,41,15,59		3,23,14,32,45	
		1,19,50,21,28,51,53,52		5,50
18″	46,20, 2,43,15,17, 4,33, 9,51		3,23,14,38,35	
		1,19,50,18, 5,37,15,17		5,50
20″	46,20, 4, 3, 5,35,10,10,25, 8		3,23,14,44,25	
		1,19,50,14,42,22,30,52		5,50
22″	46,20, 5,22,55,49,52,32,56, 0		3,23,14,50,15	
		1,19,50,11,19, 7,40,37		5,50
24″	46,20, 6,42,46, 1,11,40,36,37		3,23,14,56, 5	
		1,19,50, 7,55,52,44,32		5,50
26″	46,20, 8, 2,36, 9, 7,33,21, 9		3,23,15, 1,55	
		1,19,50, 4,32,37,42,37		5,50
28″	46,20, 9,22,26,13,40,11, 3,46		3,23,15, 7,45	
		1,19,50, 1, 9,22,34,52		5,50
30″	46,20,10,42,16,14,49,33,38,38		3,23,15,13,35	
		1,19,49,57,46, 7,21,17		5,50
32″	46,20,12, 2, 6,12,35,40,59,55		3,23,15,19,25	
		1,19,49,54,22,52, 1,52		5,50
34″	46,20,13,21,56, 6,58,33, 1,47		3,23,15,25,15	
		1,19,49,50,59,36,36,37		5,50
36″	46,20,14,41,45,57,58, 9,38,24		3,23,15,31, 5	
		1,19,49,47,36,21, 5,32		5,50
38″	46,20,16, 1,35,45,34,30,43,56		3,23,15,36,55	
		1,19,49,44,13, 5,28,37		5,50
40″	46,20,17,21,25,29,47,36,12,33		3,23,15,42,45	
		1,19,49,40,49,49,45,52		5,50
42″	46,20,18,41,15,10,37,25,58,25		3,23,15,48,35	
		1,19,49,37,26,33,57,17		5,50
44″	46,20,20, 1, 4,48, 3,59,55,42		3,23,15,54,25	
		1,19,49,34, 3,18, 2,52		5,50
46″	46,20,21,20,54,22, 7,17,58,34		3,23,16, 0,15	
		1,19,49,30,40, 2, 2,37		5,50
48″	46,20,22,40,43,52,47,20, 1,11		3,23,16, 6, 5	
		1,19,49,27,16,45,56,32		5,50
50″	46,20,24, 0,33,20, 4, 5,57,43		3,23,16,11,55	
		1,19,49,23,53,29,44,37		5,50
52″	46,20,25,20,22,43,57,35,42,20		3,23,16,17,45	
		1,19,49,20,30,13,26,52		5,50
54″	46,20,26,40,12, 4,27,49, 9,12		3,23,16,23,35	
		1,19,49,17, 6,57, 3,17		5,50
56″	46,20,28, 0, 1,21,34,46,12,29		3,23,16,29,25	
		1,19,49,13,43,40,33,52		5,50
58″	46,20,29,19,50,35,18,26,46,21		3,23,16,35,15	
		1,19,49,10,20,23,58,37		
60″	46,20,30,39,39,45,38,50,44,58			
exact	46,20,30,39,39,45,38,50,33, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°34′ 0″	46,20,30,39,39,45,38,50,33, 0			
		1,19,49, 6,57, 7,16,13		
2″	46,20,31,59,28,52,35,57,49,13		3,23,16,47, 0	
		1,19,49, 3,33,50,29,13		5,50
4″	46,20,33,19,17,56, 9,48,18,26		3,23,16,52,50	
		1,19,49, 0,10,33,36,23		5,50
6″	46,20,34,39, 6,56,20,21,54,49		3,23,16,58,40	
		1,19,48,56,47,16,37,43		5,50
8″	46,20,35,58,55,53, 7,38,32,32		3,23,17, 4,30	
		1,19,48,53,23,59,33,13		5,50
10″	46,20,37,18,44,46,31,38, 5,45		3,23,17,10,20	
		1,19,48,50, 0,42,22,53		5,50
12″	46,20,38,38,33,36,32,20,28,38		3,23,17,16,10	
		1,19,48,46,37,25, 6,43		5,50
14″	46,20,39,58,22,23, 9,45,35,21		3,23,17,22, 0	
		1,19,48,43,14, 7,44,43		5,50
16″	46,20,41,18,11, 6,23,53,20, 4		3,23,17,27,50	
		1,19,48,39,50,50,16,53		5,50
18″	46,20,42,37,59,46,14,43,36,57		3,23,17,33,40	
		1,19,48,36,27,32,43,13		5,50
20″	46,20,43,57,48,22,42,16,20,10		3,23,17,39,30	
		1,19,48,33, 4,15, 3,43		5,50
22″	46,20,45,17,36,55,46,31,23,53		3,23,17,45,20	
		1,19,48,29,40,57,18,23		5,50
24″	46,20,46,37,25,25,27,28,42,16		3,23,17,51,10	
		1,19,48,26,17,39,27,13		5,50
26″	46,20,47,57,13,51,45, 8, 9,29		3,23,17,57, 0	
		1,19,48,22,54,21,30,13		5,50
28″	46,20,49,17, 2,14,39,29,39,42		3,23,18, 2,50	
		1,19,48,19,31, 3,27,23		5,50
30″	46,20,50,36,50,34,10,33, 7, 5		3,23,18, 8,40	
		1,19,48,16, 7,45,18,43		5,50
32″	46,20,51,56,38,50,18,18,25,48		3,23,18,14,30	
		1,19,48,12,44,27, 4,13		5,50
34″	46,20,53,16,27, 3, 2,45,30, 1		3,23,18,20,20	
		1,19,48, 9,21, 8,43,53		5,50
36″	46,20,54,36,15,12,23,54,13,54		3,23,18,26,10	
		1,19,48, 5,57,50,17,43		5,50
38″	46,20,55,56, 3,18,21,44,31,37		3,23,18,32, 0	
		1,19,48, 2,34,31,45,43		5,50
40″	46,20,57,15,51,20,56,16,17,20		3,23,18,37,50	
		1,19,47,59,11,13, 7,53		5,50
42″	46,20,58,35,39,20, 7,29,25,13		3,23,18,43,40	
		1,19,47,55,47,54,24,13		5,50
44″	46,20,59,55,27,15,55,23,49,26		3,23,18,49,30	
		1,19,47,52,24,35,34,43		5,50
46″	46,21, 1,15,15, 8,19,59,24, 9		3,23,18,55,20	
		1,19,47,49, 1,16,39,23		5,50
48″	46,21, 2,35, 2,57,21,16, 3,32		3,23,19, 1,10	
		1,19,47,45,37,57,38,13		5,50
50″	46,21, 3,54,50,42,59,13,41,45		3,23,19, 7, 0	
		1,19,47,42,14,38,31,13		5,50
52″	46,21, 5,14,38,25,13,52,12,58		3,23,19,12,50	
		1,19,47,38,51,19,18,23		5,50
54″	46,21, 6,34,26, 4, 5,11,31,21		3,23,19,18,40	
		1,19,47,35,27,59,59,43		5,50
56″	46,21, 7,54,13,39,33,11,31, 4		3,23,19,24,30	
		1,19,47,32, 4,40,35,13		5,50
58″	46,21, 9,14, 1,11,37,52, 6,17		3,23,19,30,20	
		1,19,47,28,41,21, 4,53		
60″	46,21,10,33,48,40,19,13,11,10			
exact	46,21,10,33,48,40,19,13, 3,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°35′ 0″	46,21,10,33,48,40,19,13, 3,59			
		1,19,47,25,18, 1,28, 3		
2″	46,21,11,53,36, 5,37,14,32, 2		3,23,19,42, 2	
		1,19,47,21,54,41,46, 1		5,50
4″	46,21,13,13,23,27,31,56,18, 3		3,23,19,47,52	
		1,19,47,18,31,21,58, 9		5,50
6″	46,21,14,33,10,46, 3,18,16,12		3,23,19,53,42	
		1,19,47,15, 8, 2, 4,27		5,50
8″	46,21,15,52,58, 1,11,20,20,39		3,23,19,59,32	
		1,19,47,11,44,42, 4,55		5,50
10″	46,21,17,12,45,12,56, 2,25,34		3,23,20, 5,22	
		1,19,47, 8,21,21,59,33		5,50
12″	46,21,18,32,32,21,17,24,25, 7		3,23,20,11,12	
		1,19,47, 4,58, 1,48,21		5,50
14″	46,21,19,52,19,26,15,26,13,28		3,23,20,17, 2	
		1,19,47, 1,34,41,31,19		5,50
16″	46,21,21,12, 6,27,50, 7,44,47		3,23,20,22,52	
		1,19,46,58,11,21, 8,27		5,50
18″	46,21,22,31,53,26, 1,28,53,14		3,23,20,28,42	
		1,19,46,54,48, 0,39,45		5,50
20″	46,21,23,51,40,20,49,29,32,59		3,23,20,34,32	
		1,19,46,51,24,40, 5,13		5,50
22″	46,21,25,11,27,12,14, 9,38,12		3,23,20,40,22	
		1,19,46,48, 1,19,24,51		5,50
24″	46,21,26,31,14, 0,15,29, 3, 3		3,23,20,46,12	
		1,19,46,44,37,58,38,39		5,50
26″	46,21,27,51, 0,44,53,27,41,42		3,23,20,52, 2	
		1,19,46,41,14,37,46,37		5,50
28″	46,21,29,10,47,26, 8, 5,28,19		3,23,20,57,52	
		1,19,46,37,51,16,48,45		5,50
30″	46,21,30,30,34, 3,59,22,17, 4		3,23,21, 3,42	
		1,19,46,34,27,55,45, 3		5,50
32″	46,21,31,50,20,38,27,18, 2, 7		3,23,21, 9,32	
		1,19,46,31, 4,34,35,31		5,50
34″	46,21,33,10, 7, 9,31,52,37,38		3,23,21,15,22	
		1,19,46,27,41,13,20, 9		5,50
36″	46,21,34,29,53,37,13, 5,57,47		3,23,21,21,12	
		1,19,46,24,17,51,58,57		5,50
38″	46,21,35,49,40, 1,30,57,56,44		3,23,21,27, 2	
		1,19,46,20,54,30,31,55		5,50
40″	46,21,37, 9,26,22,25,28,28,39		3,23,21,32,52	
		1,19,46,17,31, 8,59, 3		5,50
42″	46,21,38,29,12,39,56,37,27,42		3,23,21,38,42	
		1,19,46,14, 7,47,20,21		5,50
44″	46,21,39,48,58,54, 4,24,48, 3		3,23,21,44,32	
		1,19,46,10,44,25,35,49		5,50
46″	46,21,41, 8,45, 4,48,50,23,52		3,23,21,50,22	
		1,19,46, 7,21, 3,45,27		5,50
48″	46,21,42,28,31,12, 9,54, 9,19		3,23,21,56,12	
		1,19,46, 3,57,41,49,15		5,50
50″	46,21,43,48,17,16, 7,35,58,34		3,23,22, 2, 2	
		1,19,46, 0,34,19,47,13		5,50
52″	46,21,45, 8, 3,16,41,55,45,47		3,23,22, 7,52	
		1,19,45,57,10,57,39,21		5,50
54″	46,21,46,27,49,13,52,53,25, 8		3,23,22,13,42	
		1,19,45,53,47,35,25,39		5,50
56″	46,21,47,47,35, 7,40,28,50,47		3,23,22,19,32	
		1,19,45,50,24,13, 6, 7		5,50
58″	46,21,49, 7,20,58, 4,41,56,54		3,23,22,25,22	
		1,19,45,47, 0,50,40,45		
60″	46,21,50,27, 6,45, 5,32,37,39			
exact	46,21,50,27, 6,45, 5,32,40,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°36′ 0″	46,21,50,27, 6,45, 5,32,40,23			
		1,19,45,43,37,28, 9,54		
2″	46,21,51,46,52,28,43, 0,50,17		3,23,22,37, 0	
		1,19,45,40,14, 5,32,54		5,50
4″	46,21,53, 6,38, 8,57, 6,23,11		3,23,22,42,50	
		1,19,45,36,50,42,50, 4		5,50
6″	46,21,54,26,23,45,47,49,13,15		3,23,22,48,40	
		1,19,45,33,27,20, 1,24		5,50
8″	46,21,55,46, 9,19,15, 9,14,39		3,23,22,54,30	
		1,19,45,30, 3,57, 6,54		5,50
10″	46,21,57, 5,54,49,19, 6,21,33		3,23,23, 0,20	
		1,19,45,26,40,34, 6,34		5,50
12″	46,21,58,25,40,15,59,40,28, 7		3,23,23, 6,10	
		1,19,45,23,17,11, 0,24		5,50
14″	46,21,59,45,25,39,16,51,28,31		3,23,23,12, 0	
		1,19,45,19,53,47,48,24		5,50
16″	46,22, 1, 5,10,59,10,39,16,55		3,23,23,17,50	
		1,19,45,16,30,24,30,34		5,50
18″	46,22, 2,24,56,15,41, 3,47,29		3,23,23,23,40	
		1,19,45,13, 7, 1, 6,54		5,50
20″	46,22, 3,44,41,28,48, 4,54,23		3,23,23,29,30	
		1,19,45, 9,43,37,37,24		5,50
22″	46,22, 5, 4,26,38,31,42,31,47		3,23,23,35,20	
		1,19,45, 6,20,14, 2, 4		5,50
24″	46,22, 6,24,11,44,51,56,33,51		3,23,23,41,10	
		1,19,45, 2,56,50,20,54		5,50
26″	46,22, 7,43,56,47,48,46,54,45		3,23,23,47, 0	
		1,19,44,59,33,26,33,54		5,50
28″	46,22, 9, 3,41,47,22,13,28,39		3,23,23,52,50	
		1,19,44,56,10, 2,41, 4		5,50
30″	46,22,10,23,26,43,32,16, 9,43		3,23,23,58,40	
		1,19,44,52,46,38,42,24		5,50
32″	46,22,11,43,11,36,18,54,52, 7		3,23,24, 4,30	
		1,19,44,49,23,14,37,54		5,50
34″	46,22,13, 2,56,25,42, 9,30, 1		3,23,24,10,20	
		1,19,44,45,59,50,27,34		5,50
36″	46,22,14,22,41,11,41,59,57,35		3,23,24,16,10	
		1,19,44,42,36,26,11,24		5,50
38″	46,22,15,42,25,54,18,26, 8,59		3,23,24,22, 0	
		1,19,44,39,13, 1,49,24		5,50
40″	46,22,17, 2,10,33,31,27,58,23		3,23,24,27,50	
		1,19,44,35,49,37,21,34		5,50
42″	46,22,18,21,55, 9,21, 5,19,57		3,23,24,33,40	
		1,19,44,32,26,12,47,54		5,50
44″	46,22,19,41,39,41,47,18, 7,51		3,23,24,39,30	
		1,19,44,29, 2,48, 8,24		5,50
46″	46,22,21, 1,24,10,50, 6,16,15		3,23,24,45,20	
		1,19,44,25,39,23,23, 4		5,50
48″	46,22,22,21, 8,36,29,29,39,19		3,23,24,51,10	
		1,19,44,22,15,58,31,54		5,50
50″	46,22,23,40,52,58,45,28,11,13		3,23,24,57, 0	
		1,19,44,18,52,33,34,54		5,50
52″	46,22,25, 0,37,17,38, 1,46, 7		3,23,25, 2,50	
		1,19,44,15,29, 8,32, 4		5,50
54″	46,22,26,20,21,33, 7,10,18,11		3,23,25, 8,40	
		1,19,44,12, 5,43,23,24		5,50
56″	46,22,27,40, 5,45,12,53,41,35		3,23,25,14,30	
		1,19,44, 8,42,18, 8,54		5,50
58″	46,22,28,59,49,53,55,11,50,29		3,23,25,20,20	
		1,19,44, 5,18,52,48,34		
60″	46,22,30,19,33,59,14, 4,39, 3			
exact	46,22,30,19,33,59,14, 4,49,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°37′ 0″	46,22,30,19,33,59,14, 4,49,15			
		1,19,44, 1,55,27,23,36		
2″	46,22,31,39,18, 1, 9,32,12,51		3,23,25,31,54	
		1,19,43,58,32, 1,51,42		5,50
4″	46,22,32,59, 1,59,41,34, 4,33		3,23,25,37,44	
		1,19,43,55, 8,36,13,58		5,50
6″	46,22,34,18,45,54,50,10,18,31		3,23,25,43,34	
		1,19,43,51,45,10,30,24		5,50
8″	46,22,35,38,29,46,35,20,48,55		3,23,25,49,24	
		1,19,43,48,21,44,41, 0		5,50
10″	46,22,36,58,13,34,57, 5,29,55		3,23,25,55,14	
		1,19,43,44,58,18,45,46		5,50
12″	46,22,38,17,57,19,55,24,15,41		3,23,26, 1, 4	
		1,19,43,41,34,52,44,42		5,50
14″	46,22,39,37,41, 1,30,17, 0,23		3,23,26, 6,54	
		1,19,43,38,11,26,37,48		5,50
16″	46,22,40,57,24,39,41,43,38,11		3,23,26,12,44	
		1,19,43,34,48, 0,25, 4		5,50
18″	46,22,42,17, 8,14,29,44, 3,15		3,23,26,18,34	
		1,19,43,31,24,34, 6,30		5,50
20″	46,22,43,36,51,45,54,18, 9,45		3,23,26,24,24	
		1,19,43,28, 1, 7,42, 6		5,50
22″	46,22,44,56,35,13,55,25,51,51		3,23,26,30,14	
		1,19,43,24,37,41,11,52		5,50
24″	46,22,46,16,18,38,33, 7, 3,43		3,23,26,36, 4	
		1,19,43,21,14,14,35,48		5,50
26″	46,22,47,36, 1,59,47,21,39,31		3,23,26,41,54	
		1,19,43,17,50,47,53,54		5,50
28″	46,22,48,55,45,17,38, 9,33,25		3,23,26,47,44	
		1,19,43,14,27,21, 6,10		5,50
30″	46,22,50,15,28,32, 5,30,39,35		3,23,26,53,34	
		1,19,43,11, 3,54,12,36		5,50
32″	46,22,51,35,11,43, 9,24,52,11		3,23,26,59,24	
		1,19,43, 7,40,27,13,12		5,50
34″	46,22,52,54,54,50,49,52, 5,23		3,23,27, 5,14	
		1,19,43, 4,17, 0, 7,58		5,50
36″	46,22,54,14,37,55, 6,52,13,21		3,23,27,11, 4	
		1,19,43, 0,53,32,56,54		5,50
38″	46,22,55,34,20,56, 0,25,10,15		3,23,27,16,54	
		1,19,42,57,30, 5,40, 0		5,50
40″	46,22,56,54, 3,53,30,30,50,15		3,23,27,22,44	
		1,19,42,54, 6,38,17,16		5,50
42″	46,22,58,13,46,47,37, 9, 7,31		3,23,27,28,34	
		1,19,42,50,43,10,48,42		5,50
44″	46,22,59,33,29,38,20,19,56,13		3,23,27,34,24	
		1,19,42,47,19,43,14,18		5,50
46″	46,23, 0,53,12,25,40, 3,10,31		3,23,27,40,14	
		1,19,42,43,56,15,34, 4		5,50
48″	46,23, 2,12,55, 9,36,18,44,35		3,23,27,46, 4	
		1,19,42,40,32,47,48, 0		5,50
50″	46,23, 3,32,37,50, 9, 6,32,35		3,23,27,51,54	
		1,19,42,37, 9,19,56, 6		5,50
52″	46,23, 4,52,20,27,18,26,28,41		3,23,27,57,44	
		1,19,42,33,45,51,58,22		5,50
54″	46,23, 6,12, 3, 1, 4,18,27, 3		3,23,28, 3,34	
		1,19,42,30,22,23,54,48		5,50
56″	46,23, 7,31,45,31,26,42,21,51		3,23,28, 9,24	
		1,19,42,26,58,55,45,24		5,50
58″	46,23, 8,51,27,58,25,38, 7,15		3,23,28,15,14	
		1,19,42,23,35,27,30,10		
60″	46,23,10,11,10,22, 1, 5,37,25			
exact	46,23,10,11,10,22, 1, 5,53,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°38′ 0″	46,23,10,11,10,22, 1, 5,53,26			
		1,19,42,20,11,59,11, 1		
2″	46,23,11,30,52,42,13, 5, 4,27		3,23,28,26,45	
		1,19,42,16,48,30,44,16		5,50
4″	46,23,12,50,34,59, 1,35,48,43		3,23,28,32,35	
		1,19,42,13,25, 2,11,41		5,50
6″	46,23,14,10,17,12,26,38, 0,24		3,23,28,38,25	
		1,19,42,10, 1,33,33,16		5,50
8″	46,23,15,29,59,22,28,11,33,40		3,23,28,44,15	
		1,19,42, 6,38, 4,49, 1		5,50
10″	46,23,16,49,41,29, 6,16,22,41		3,23,28,50, 5	
		1,19,42, 3,14,35,58,56		5,50
12″	46,23,18, 9,23,32,20,52,21,37		3,23,28,55,55	
		1,19,41,59,51, 7, 3, 1		5,50
14″	46,23,19,29, 5,32,11,59,24,38		3,23,29, 1,45	
		1,19,41,56,27,38, 1,16		5,50
16″	46,23,20,48,47,28,39,37,25,54		3,23,29, 7,35	
		1,19,41,53, 4, 8,53,41		5,50
18″	46,23,22, 8,29,21,43,46,19,35		3,23,29,13,25	
		1,19,41,49,40,39,40,16		5,50
20″	46,23,23,28,11,11,24,25,59,51		3,23,29,19,15	
		1,19,41,46,17,10,21, 1		5,50
22″	46,23,24,47,52,57,41,36,20,52		3,23,29,25, 5	
		1,19,41,42,53,40,55,56		5,50
24″	46,23,26, 7,34,40,35,17,16,48		3,23,29,30,55	
		1,19,41,39,30,11,25, 1		5,50
26″	46,23,27,27,16,20, 5,28,41,49		3,23,29,36,45	
		1,19,41,36, 6,41,48,16		5,50
28″	46,23,28,46,57,56,12,10,30, 5		3,23,29,42,35	
		1,19,41,32,43,12, 5,41		5,50
30″	46,23,30, 6,39,28,55,22,35,46		3,23,29,48,25	
		1,19,41,29,19,42,17,16		5,50
32″	46,23,31,26,20,58,15, 4,53, 2		3,23,29,54,15	
		1,19,41,25,56,12,23, 1		5,50
34″	46,23,32,46, 2,24,11,17,16, 3		3,23,30, 0, 5	
		1,19,41,22,32,42,22,56		5,50
36″	46,23,34, 5,43,46,43,59,38,59		3,23,30, 5,55	
		1,19,41,19, 9,12,17, 1		5,50
38″	46,23,35,25,25, 5,53,11,56, 0		3,23,30,11,45	
		1,19,41,15,45,42, 5,16		5,50
40″	46,23,36,45, 6,21,38,54, 1,16		3,23,30,17,35	
		1,19,41,12,22,11,47,41		5,50
42″	46,23,38, 4,47,34, 1, 5,48,57		3,23,30,23,25	
		1,19,41, 8,58,41,24,16		5,50
44″	46,23,39,24,28,42,59,47,13,13		3,23,30,29,15	
		1,19,41, 5,35,10,55, 1		5,50
46″	46,23,40,44, 9,48,34,58, 8,14		3,23,30,35, 5	
		1,19,41, 2,11,40,19,56		5,50
48″	46,23,42, 3,50,50,46,38,28,10		3,23,30,40,55	
		1,19,40,58,48, 9,39, 1		5,50
50″	46,23,43,23,31,49,34,48, 7,11		3,23,30,46,45	
		1,19,40,55,24,38,52,16		5,50
52″	46,23,44,43,12,44,59,26,59,27		3,23,30,52,35	
		1,19,40,52, 1, 7,59,41		5,50
54″	46,23,46, 2,53,37, 0,34,59, 8		3,23,30,58,25	
		1,19,40,48,37,37, 1,16		5,50
56″	46,23,47,22,34,25,38,12, 0,24		3,23,31, 4,15	
		1,19,40,45,14, 5,57, 1		5,50
58″	46,23,48,42,15,10,52,17,57,25		3,23,31,10, 5	
		1,19,40,41,50,34,46,56		
60″	46,23,50, 1,55,52,42,52,44,21			
exact	46,23,50, 1,55,52,42,53,11,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°39′ 0″	46,23,50, 1,55,52,42,53,11,33			
		1,19,40,38,27, 3,34, 1		
2″	46,23,51,21,36,31, 9,56,45,34		3,23,31,21,32	
		1,19,40,35, 3,32,12,29		5,49
4″	46,23,52,41,17, 6,13,28,58, 3		3,23,31,27,21	
		1,19,40,31,40, 0,45, 8		5,49
6″	46,23,54, 0,57,37,53,29,43,11		3,23,31,33,10	
		1,19,40,28,16,29,11,58		5,49
8″	46,23,55,20,38, 6, 9,58,55, 9		3,23,31,38,59	
		1,19,40,24,52,57,32,59		5,49
10″	46,23,56,40,18,31, 2,56,28, 8		3,23,31,44,48	
		1,19,40,21,29,25,48,11		5,49
12″	46,23,57,59,58,52,32,22,16,19		3,23,31,50,37	
		1,19,40,18, 5,53,57,34		5,49
14″	46,23,59,19,39,10,38,16,13,53		3,23,31,56,26	
		1,19,40,14,42,22, 1, 8		5,49
16″	46,24, 0,39,19,25,20,38,15, 1		3,23,32, 2,15	
		1,19,40,11,18,49,58,53		5,49
18″	46,24, 1,58,59,36,39,28,13,54		3,23,32, 8, 4	
		1,19,40, 7,55,17,50,49		5,49
20″	46,24, 3,18,39,44,34,46, 4,43		3,23,32,13,53	
		1,19,40, 4,31,45,36,56		5,49
22″	46,24, 4,38,19,49, 6,31,41,39		3,23,32,19,42	
		1,19,40, 1, 8,13,17,14		5,49
24″	46,24, 5,57,59,50,14,44,58,53		3,23,32,25,31	
		1,19,39,57,44,40,51,43		5,49
26″	46,24, 7,17,39,47,59,25,50,36		3,23,32,31,20	
		1,19,39,54,21, 8,20,23		5,49
28″	46,24, 8,37,19,42,20,34,10,59		3,23,32,37, 9	
		1,19,39,50,57,35,43,14		5,49
30″	46,24, 9,56,59,33,18, 9,54,13		3,23,32,42,58	
		1,19,39,47,34, 3, 0,16		5,49
32″	46,24,11,16,39,20,52,12,54,29		3,23,32,48,47	
		1,19,39,44,10,30,11,29		5,49
34″	46,24,12,36,19, 5, 2,43, 5,58		3,23,32,54,36	
		1,19,39,40,46,57,16,53		5,49
36″	46,24,13,55,58,45,49,40,22,51		3,23,33, 0,25	
		1,19,39,37,23,24,16,28		5,49
38″	46,24,15,15,38,23,13, 4,39,19		3,23,33, 6,14	
		1,19,39,33,59,51,10,14		5,49
40″	46,24,16,35,17,57,12,55,49,33		3,23,33,12, 3	
		1,19,39,30,36,17,58,11		5,49
42″	46,24,17,54,57,27,49,13,47,44		3,23,33,17,52	
		1,19,39,27,12,44,40,19		5,49
44″	46,24,19,14,36,55, 1,58,28, 3		3,23,33,23,41	
		1,19,39,23,49,11,16,38		5,49
46″	46,24,20,34,16,18,51, 9,44,41		3,23,33,29,30	
		1,19,39,20,25,37,47, 8		5,49
48″	46,24,21,53,55,39,16,47,31,49		3,23,33,35,19	
		1,19,39,17, 2, 4,11,49		5,49
50″	46,24,23,13,34,56,18,51,43,38		3,23,33,41, 8	
		1,19,39,13,38,30,30,41		5,49
52″	46,24,24,33,14, 9,57,22,14,19		3,23,33,46,57	
		1,19,39,10,14,56,43,44		5,49
54″	46,24,25,52,53,20,12,18,58, 3		3,23,33,52,46	
		1,19,39, 6,51,22,50,58		5,49
56″	46,24,27,12,32,27, 3,41,49, 1		3,23,33,58,35	
		1,19,39, 3,27,48,52,23		5,49
58″	46,24,28,32,11,30,31,30,41,24		3,23,34, 4,24	
		1,19,39, 0, 4,14,47,59		
60″	46,24,29,51,50,30,35,45,29,23			
exact	46,24,29,51,50,30,35,44,58, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°40′ 0″	46,24,29,51,50,30,35,44,58, 1			
		1,19,38,56,40,40,34,28		
2″	46,24,31,11,29,27,16,25,32,29		3,23,34,16,15	
		1,19,38,53,17, 6,18,13		5,49
4″	46,24,32,31, 8,20,33,31,50,42		3,23,34,22, 4	
		1,19,38,49,53,31,56, 9		5,49
6″	46,24,33,50,47,10,27, 3,46,51		3,23,34,27,53	
		1,19,38,46,29,57,28,16		5,49
8″	46,24,35,10,25,56,57, 1,15, 7		3,23,34,33,42	
		1,19,38,43, 6,22,54,34		5,49
10″	46,24,36,30, 4,40, 3,24, 9,41		3,23,34,39,31	
		1,19,38,39,42,48,15, 3		5,49
12″	46,24,37,49,43,19,46,12,24,44		3,23,34,45,20	
		1,19,38,36,19,13,29,43		5,49
14″	46,24,39, 9,21,56, 5,25,54,27		3,23,34,51, 9	
		1,19,38,32,55,38,38,34		5,49
16″	46,24,40,29, 0,29, 1, 4,33, 1		3,23,34,56,58	
		1,19,38,29,32, 3,41,36		5,49
18″	46,24,41,48,38,58,33, 8,14,37		3,23,35, 2,47	
		1,19,38,26, 8,28,38,49		5,49
20″	46,24,43, 8,17,24,41,36,53,26		3,23,35, 8,36	
		1,19,38,22,44,53,30,13		5,49
22″	46,24,44,27,55,47,26,30,23,39		3,23,35,14,25	
		1,19,38,19,21,18,15,48		5,49
24″	46,24,45,47,34, 6,47,48,39,27		3,23,35,20,14	
		1,19,38,15,57,42,55,34		5,49
26″	46,24,47, 7,12,22,45,31,35, 1		3,23,35,26, 3	
		1,19,38,12,34, 7,29,31		5,49
28″	46,24,48,26,50,35,19,39, 4,32		3,23,35,31,52	
		1,19,38, 9,10,31,57,39		5,49
30″	46,24,49,46,28,44,30,11, 2,11		3,23,35,37,41	
		1,19,38, 5,46,56,19,58		5,49
32″	46,24,51, 6, 6,50,17, 7,22, 9		3,23,35,43,30	
		1,19,38, 2,23,20,36,28		5,49
34″	46,24,52,25,44,52,40,27,58,37		3,23,35,49,19	
		1,19,37,58,59,44,47, 9		5,49
36″	46,24,53,45,22,51,40,12,45,46		3,23,35,55, 8	
		1,19,37,55,36, 8,52, 1		5,49
38″	46,24,55, 5, 0,47,16,21,37,47		3,23,36, 0,57	
		1,19,37,52,12,32,51, 4		5,49
40″	46,24,56,24,38,39,28,54,28,51		3,23,36, 6,46	
		1,19,37,48,48,56,44,18		5,49
42″	46,24,57,44,16,28,17,51,13, 9		3,23,36,12,35	
		1,19,37,45,25,20,31,43		5,49
44″	46,24,59, 3,54,13,43,11,44,52		3,23,36,18,24	
		1,19,37,42, 1,44,13,19		5,49
46″	46,25, 0,23,31,55,44,55,58,11		3,23,36,24,13	
		1,19,37,38,38, 7,49, 6		5,49
48″	46,25, 1,43, 9,34,23, 3,47,17		3,23,36,30, 2	
		1,19,37,35,14,31,19, 4		5,49
50″	46,25, 3, 2,47, 9,37,35, 6,21		3,23,36,35,51	
		1,19,37,31,50,54,43,13		5,49
52″	46,25, 4,22,24,41,28,29,49,34		3,23,36,41,40	
		1,19,37,28,27,18, 1,33		5,49
54″	46,25, 5,42, 2, 9,55,47,51, 7		3,23,36,47,29	
		1,19,37,25, 3,41,14, 4		5,49
56″	46,25, 7, 1,39,34,59,29, 5,11		3,23,36,53,18	
		1,19,37,21,40, 4,20,46		5,49
58″	46,25, 8,21,16,56,39,33,25,57		3,23,36,59, 7	
		1,19,37,18,16,27,21,39		
60″	46,25, 9,40,54,14,56, 0,47,36			
exact	46,25, 9,40,54,14,56, 0,22,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°41′ 0″	46,25, 9,40,54,14,56, 0,22,59			
		1,19,37,14,52,50,14,12		
2″	46,25,11, 0,31,29,48,50,37,11		3,23,37,10,55	
		1,19,37,11,29,13, 3,17		5,49
4″	46,25,12,20, 8,41,18, 3,40,28		3,23,37,16,44	
		1,19,37, 8, 5,35,46,33		5,49
6″	46,25,13,39,45,49,23,39,27, 1		3,23,37,22,33	
		1,19,37, 4,41,58,24, 0		5,49
8″	46,25,14,59,22,54, 5,37,51, 1		3,23,37,28,22	
		1,19,37, 1,18,20,55,38		5,49
10″	46,25,16,18,59,55,23,58,46,39		3,23,37,34,11	
		1,19,36,57,54,43,21,27		5,49
12″	46,25,17,38,36,53,18,42, 8, 6		3,23,37,40, 0	
		1,19,36,54,31, 5,41,27		5,49
14″	46,25,18,58,13,47,49,47,49,33		3,23,37,45,49	
		1,19,36,51, 7,27,55,38		5,49
16″	46,25,20,17,50,38,57,15,45,11		3,23,37,51,38	
		1,19,36,47,43,50, 4, 0		5,49
18″	46,25,21,37,27,26,41, 5,49,11		3,23,37,57,27	
		1,19,36,44,20,12, 6,33		5,49
20″	46,25,22,57, 4,11, 1,17,55,44		3,23,38, 3,16	
		1,19,36,40,56,34, 3,17		5,49
22″	46,25,24,16,40,51,57,51,59, 1		3,23,38, 9, 5	
		1,19,36,37,32,55,54,12		5,49
24″	46,25,25,36,17,29,30,47,53,13		3,23,38,14,54	
		1,19,36,34, 9,17,39,18		5,49
26″	46,25,26,55,54, 3,40, 5,32,31		3,23,38,20,43	
		1,19,36,30,45,39,18,35		5,49
28″	46,25,28,15,30,34,25,44,51, 6		3,23,38,26,32	
		1,19,36,27,22, 0,52, 3		5,49
30″	46,25,29,35, 7, 1,47,45,43, 9		3,23,38,32,21	
		1,19,36,23,58,22,19,42		5,49
32″	46,25,30,54,43,25,46, 8, 2,51		3,23,38,38,10	
		1,19,36,20,34,43,41,32		5,49
34″	46,25,32,14,19,46,20,51,44,23		3,23,38,43,59	
		1,19,36,17,11, 4,57,33		5,49
36″	46,25,33,33,56, 3,31,56,41,56		3,23,38,49,48	
		1,19,36,13,47,26, 7,45		5,49
38″	46,25,34,53,32,17,19,22,49,41		3,23,38,55,37	
		1,19,36,10,23,47,12, 8		5,49
40″	46,25,36,13, 8,27,43,10, 1,49		3,23,39, 1,26	
		1,19,36, 7, 0, 8,10,42		5,49
42″	46,25,37,32,44,34,43,18,12,31		3,23,39, 7,15	
		1,19,36, 3,36,29, 3,27		5,49
44″	46,25,38,52,20,38,19,47,15,58		3,23,39,13, 4	
		1,19,36, 0,12,49,50,23		5,49
46″	46,25,40,11,56,38,32,37, 6,21		3,23,39,18,53	
		1,19,35,56,49,10,31,30		5,49
48″	46,25,41,31,32,35,21,47,37,51		3,23,39,24,42	
		1,19,35,53,25,31, 6,48		5,49
50″	46,25,42,51, 8,28,47,18,44,39		3,23,39,30,31	
		1,19,35,50, 1,51,36,17		5,49
52″	46,25,44,10,44,18,49,10,20,56		3,23,39,36,20	
		1,19,35,46,38,11,59,57		5,49
54″	46,25,45,30,20, 5,27,22,20,53		3,23,39,42, 9	
		1,19,35,43,14,32,17,48		5,49
56″	46,25,46,49,55,48,41,54,38,41		3,23,39,47,58	
		1,19,35,39,50,52,29,50		5,49
58″	46,25,48, 9,31,28,32,47, 8,31		3,23,39,53,47	
		1,19,35,36,27,12,36, 3		
60″	46,25,49,29, 7, 4,59,59,44,34			
exact	46,25,49,29, 7, 4,59,59,32,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°42′ 0″	46,25,49,29, 7, 4,59,59,32,29			
		1,19,35,33, 3,32,35, 7		
2″	46,25,50,48,42,38, 3,32, 7,36		3,23,40, 5,30	
		1,19,35,29,39,52,29,37		5,49
4″	46,25,52, 8,18, 7,43,24,37,13		3,23,40,11,19	
		1,19,35,26,16,12,18,18		5,49
6″	46,25,53,27,53,33,59,36,55,31		3,23,40,17, 8	
		1,19,35,22,52,32, 1,10		5,49
8″	46,25,54,47,28,56,52, 8,56,41		3,23,40,22,57	
		1,19,35,19,28,51,38,13		5,49
10″	46,25,56, 7, 4,16,21, 0,34,54		3,23,40,28,46	
		1,19,35,16, 5,11, 9,27		5,49
12″	46,25,57,26,39,32,26,11,44,21		3,23,40,34,35	
		1,19,35,12,41,30,34,52		5,49
14″	46,25,58,46,14,45, 7,42,19,13		3,23,40,40,24	
		1,19,35, 9,17,49,54,28		5,49
16″	46,26, 0, 5,49,54,25,32,13,41		3,23,40,46,13	
		1,19,35, 5,54, 9, 8,15		5,49
18″	46,26, 1,25,25, 0,19,41,21,56		3,23,40,52, 2	
		1,19,35, 2,30,28,16,13		5,49
20″	46,26, 2,45, 0, 2,50, 9,38, 9		3,23,40,57,51	
		1,19,34,59, 6,47,18,22		5,49
22″	46,26, 4, 4,35, 1,56,56,56,31		3,23,41, 3,40	
		1,19,34,55,43, 6,14,42		5,49
24″	46,26, 5,24, 9,57,40, 3,11,13		3,23,41, 9,29	
		1,19,34,52,19,25, 5,13		5,49
26″	46,26, 6,43,44,49,59,28,16,26		3,23,41,15,18	
		1,19,34,48,55,43,49,55		5,49
28″	46,26, 8, 3,19,38,55,12, 6,21		3,23,41,21, 7	
		1,19,34,45,32, 2,28,48		5,49
30″	46,26, 9,22,54,24,27,14,35, 9		3,23,41,26,56	
		1,19,34,42, 8,21, 1,52		5,49
32″	46,26,10,42,29, 6,35,35,37, 1		3,23,41,32,45	
		1,19,34,38,44,39,29, 7		5,49
34″	46,26,12, 2, 3,45,20,15, 6, 8		3,23,41,38,34	
		1,19,34,35,20,57,50,33		5,49
36″	46,26,13,21,38,20,41,12,56,41		3,23,41,44,23	
		1,19,34,31,57,16, 6,10		5,49
38″	46,26,14,41,12,52,38,29, 2,51		3,23,41,50,12	
		1,19,34,28,33,34,15,58		5,49
40″	46,26,16, 0,47,21,12, 3,18,49		3,23,41,56, 1	
		1,19,34,25, 9,52,19,57		5,49
42″	46,26,17,20,21,46,21,55,38,46		3,23,42, 1,50	
		1,19,34,21,46,10,18, 7		5,49
44″	46,26,18,39,56, 8, 8, 5,56,53		3,23,42, 7,39	
		1,19,34,18,22,28,10,28		5,49
46″	46,26,19,59,30,26,30,34, 7,21		3,23,42,13,28	
		1,19,34,14,58,45,57, 0		5,49
48″	46,26,21,19, 4,41,29,20, 4,21		3,23,42,19,17	
		1,19,34,11,35, 3,37,43		5,49
50″	46,26,22,38,38,53, 4,23,42, 4		3,23,42,25, 6	
		1,19,34, 8,11,21,12,37		5,49
52″	46,26,23,58,13, 1,15,44,54,41		3,23,42,30,55	
		1,19,34, 4,47,38,41,42		5,49
54″	46,26,25,17,47, 6, 3,23,36,23		3,23,42,36,44	
		1,19,34, 1,23,56, 4,58		5,49
56″	46,26,26,37,21, 7,27,19,41,21		3,23,42,42,33	
		1,19,33,58, 0,13,22,25		5,49
58″	46,26,27,56,55, 5,27,33, 3,46		3,23,42,48,22	
		1,19,33,54,36,30,34, 3		
60″	46,26,29,16,29, 0, 4, 3,37,49			
exact	46,26,29,16,29, 0, 4, 3,28,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°43′ 0″	46,26,29,16,29, 0, 4, 3,28,19			
		1,19,33,51,12,47,39, 2		
2″	46,26,30,36, 2,51,16,51, 7,21		3,23,43, 0, 2	
		1,19,33,47,49, 4,39, 0		5,49
4″	46,26,31,55,36,39, 5,55,46,21		3,23,43, 5,51	
		1,19,33,44,25,21,33, 9		5,49
6″	46,26,33,15,10,23,31,17,19,30		3,23,43,11,40	
		1,19,33,41, 1,38,21,29		5,49
8″	46,26,34,34,44, 4,32,55,40,59		3,23,43,17,29	
		1,19,33,37,37,55, 4, 0		5,49
10″	46,26,35,54,17,42,10,50,44,59		3,23,43,23,18	
		1,19,33,34,14,11,40,42		5,49
12″	46,26,37,13,51,16,25, 2,25,41		3,23,43,29, 7	
		1,19,33,30,50,28,11,35		5,49
14″	46,26,38,33,24,47,15,30,37,16		3,23,43,34,56	
		1,19,33,27,26,44,36,39		5,49
16″	46,26,39,52,58,14,42,15,13,55		3,23,43,40,45	
		1,19,33,24, 3, 0,55,54		5,49
18″	46,26,41,12,31,38,45,16, 9,49		3,23,43,46,34	
		1,19,33,20,39,17, 9,20		5,49
20″	46,26,42,32, 4,59,24,33,19, 9		3,23,43,52,23	
		1,19,33,17,15,33,16,57		5,49
22″	46,26,43,51,38,16,40, 6,36, 6		3,23,43,58,12	
		1,19,33,13,51,49,18,45		5,49
24″	46,26,45,11,11,30,31,55,54,51		3,23,44, 4, 1	
		1,19,33,10,28, 5,14,44		5,49
26″	46,26,46,30,44,41, 0, 1, 9,35		3,23,44, 9,50	
		1,19,33, 7, 4,21, 4,54		5,49
28″	46,26,47,50,17,48, 4,22,14,29		3,23,44,15,39	
		1,19,33, 3,40,36,49,15		5,49
30″	46,26,49, 9,50,51,44,59, 3,44		3,23,44,21,28	
		1,19,33, 0,16,52,27,47		5,49
32″	46,26,50,29,23,52, 1,51,31,31		3,23,44,27,17	
		1,19,32,56,53, 8, 0,30		5,49
34″	46,26,51,48,56,48,54,59,32, 1		3,23,44,33, 6	
		1,19,32,53,29,23,27,24		5,49
36″	46,26,53, 8,29,42,24,22,59,25		3,23,44,38,55	
		1,19,32,50, 5,38,48,29		5,49
38″	46,26,54,28, 2,32,30, 1,47,54		3,23,44,44,44	
		1,19,32,46,41,54, 3,45		5,49
40″	46,26,55,47,35,19,11,55,51,39		3,23,44,50,33	
		1,19,32,43,18, 9,13,12		5,49
42″	46,26,57, 7, 8, 2,30, 5, 4,51		3,23,44,56,22	
		1,19,32,39,54,24,16,50		5,49
44″	46,26,58,26,40,42,24,29,21,41		3,23,45, 2,11	
		1,19,32,36,30,39,14,39		5,49
46″	46,26,59,46,13,18,55, 8,36,20		3,23,45, 8, 0	
		1,19,32,33, 6,54, 6,39		5,49
48″	46,27, 1, 5,45,52, 2, 2,42,59		3,23,45,13,49	
		1,19,32,29,43, 8,52,50		5,49
50″	46,27, 2,25,18,21,45,11,35,49		3,23,45,19,38	
		1,19,32,26,19,23,33,12		5,49
52″	46,27, 3,44,50,48, 4,35, 9, 1		3,23,45,25,27	
		1,19,32,22,55,38, 7,45		5,49
54″	46,27, 5, 4,23,11, 0,13,16,46		3,23,45,31,16	
		1,19,32,19,31,52,36,29		5,49
56″	46,27, 6,23,55,30,32, 5,53,15		3,23,45,37, 5	
		1,19,32,16, 8, 6,59,24		5,49
58″	46,27, 7,43,27,46,40,12,52,39		3,23,45,42,54	
		1,19,32,12,44,21,16,30		
60″	46,27, 9, 2,59,59,24,34, 9, 9			
exact	46,27, 9, 2,59,59,24,34, 8,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°44′ 0″	46,27, 9, 2,59,59,24,34, 8,10			
		1,19,32, 9,20,35,27,51		
2″	46,27,10,22,32, 8,45, 9,36, 1		3,23,45,54,31	
		1,19,32, 5,56,49,33,20		5,49
4″	46,27,11,42, 4,14,41,59, 9,21		3,23,46, 0,20	
		1,19,32, 2,33, 3,33, 0		5,49
6″	46,27,13, 1,36,17,15, 2,42,21		3,23,46, 6, 9	
		1,19,31,59, 9,17,26,51		5,49
8″	46,27,14,21, 8,16,24,20, 9,12		3,23,46,11,58	
		1,19,31,55,45,31,14,53		5,49
10″	46,27,15,40,40,12, 9,51,24, 5		3,23,46,17,47	
		1,19,31,52,21,44,57, 6		5,49
12″	46,27,17, 0,12, 4,31,36,21,11		3,23,46,23,36	
		1,19,31,48,57,58,33,30		5,49
14″	46,27,18,19,43,53,29,34,54,41		3,23,46,29,25	
		1,19,31,45,34,12, 4, 5		5,49
16″	46,27,19,39,15,39, 3,46,58,46		3,23,46,35,14	
		1,19,31,42,10,25,28,51		5,49
18″	46,27,20,58,47,21,14,12,27,37		3,23,46,41, 3	
		1,19,31,38,46,38,47,48		5,49
20″	46,27,22,18,19, 0, 0,51,15,25		3,23,46,46,52	
		1,19,31,35,22,52, 0,56		5,49
22″	46,27,23,37,50,35,23,43,16,21		3,23,46,52,41	
		1,19,31,31,59, 5, 8,15		5,49
24″	46,27,24,57,22, 7,22,48,24,36		3,23,46,58,30	
		1,19,31,28,35,18, 9,45		5,49
26″	46,27,26,16,53,35,58, 6,34,21		3,23,47, 4,19	
		1,19,31,25,11,31, 5,26		5,49
28″	46,27,27,36,25, 1, 9,37,39,47		3,23,47,10, 8	
		1,19,31,21,47,43,55,18		5,49
30″	46,27,28,55,56,22,57,21,35, 5		3,23,47,15,57	
		1,19,31,18,23,56,39,21		5,49
32″	46,27,30,15,27,41,21,18,14,26		3,23,47,21,46	
		1,19,31,15, 0, 9,17,35		5,49
34″	46,27,31,34,58,56,21,27,32, 1		3,23,47,27,35	
		1,19,31,11,36,21,50, 0		5,49
36″	46,27,32,54,30, 7,57,49,22, 1		3,23,47,33,24	
		1,19,31, 8,12,34,16,36		5,49
38″	46,27,34,14, 1,16,10,23,38,37		3,23,47,39,13	
		1,19,31, 4,48,46,37,23		5,49
40″	46,27,35,33,32,20,59,10,16, 0		3,23,47,45, 2	
		1,19,31, 1,24,58,52,21		5,49
42″	46,27,36,53, 3,22,24, 9, 8,21		3,23,47,50,51	
		1,19,30,58, 1,11, 1,30		5,49
44″	46,27,38,12,34,20,25,20, 9,51		3,23,47,56,40	
		1,19,30,54,37,23, 4,50		5,49
46″	46,27,39,32, 5,15, 2,43,14,41		3,23,48, 2,29	
		1,19,30,51,13,35, 2,21		5,49
48″	46,27,40,51,36, 6,16,18,17, 2		3,23,48, 8,18	
		1,19,30,47,49,46,54, 3		5,49
50″	46,27,42,11, 6,54, 6, 5,11, 5		3,23,48,14, 7	
		1,19,30,44,25,58,39,56		5,49
52″	46,27,43,30,37,38,32, 3,51, 1		3,23,48,19,56	
		1,19,30,41, 2,10,20, 0		5,49
54″	46,27,44,50, 8,19,34,14,11, 1		3,23,48,25,45	
		1,19,30,37,38,21,54,15		5,49
56″	46,27,46, 9,38,57,12,36, 5,16		3,23,48,31,34	
		1,19,30,34,14,33,22,41		5,49
58″	46,27,47,29, 9,31,27, 9,27,57		3,23,48,37,23	
		1,19,30,30,50,44,45,18		
60″	46,27,48,48,40, 2,17,54,13,15			
exact	46,27,48,48,40, 2,17,54,25,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°45′ 0″	46,27,48,48,40, 2,17,54,25,32			
		1,19,30,27,26,56, 3,24		
2″	46,27,50, 8,10,29,44,50,28,56		3,23,48,48,55	
		1,19,30,24, 3, 7,14,29		5,49
4″	46,27,51,27,40,53,47,57,43,25		3,23,48,54,44	
		1,19,30,20,39,18,19,45		5,49
6″	46,27,52,47,11,14,27,16, 3,10		3,23,49, 0,33	
		1,19,30,17,15,29,19,12		5,49
8″	46,27,54, 6,41,31,42,45,22,22		3,23,49, 6,22	
		1,19,30,13,51,40,12,50		5,49
10″	46,27,55,26,11,45,34,25,35,12		3,23,49,12,11	
		1,19,30,10,27,51, 0,39		5,49
12″	46,27,56,45,41,56, 2,16,35,51		3,23,49,18, 0	
		1,19,30, 7, 4, 1,42,39		5,49
14″	46,27,58, 5,12, 3, 6,18,18,30		3,23,49,23,49	
		1,19,30, 3,40,12,18,50		5,49
16″	46,27,59,24,42, 6,46,30,37,20		3,23,49,29,38	
		1,19,30, 0,16,22,49,12		5,49
18″	46,28, 0,44,12, 7, 2,53,26,32		3,23,49,35,27	
		1,19,29,56,52,33,13,45		5,49
20″	46,28, 2, 3,42, 3,55,26,40,17		3,23,49,41,16	
		1,19,29,53,28,43,32,29		5,49
22″	46,28, 3,23,11,57,24,10,12,46		3,23,49,47, 5	
		1,19,29,50, 4,53,45,24		5,49
24″	46,28, 4,42,41,47,29, 3,58,10		3,23,49,52,54	
		1,19,29,46,41, 3,52,30		5,49
26″	46,28, 6, 2,11,34,10, 7,50,40		3,23,49,58,43	
		1,19,29,43,17,13,53,47		5,49
28″	46,28, 7,21,41,17,27,21,44,27		3,23,50, 4,32	
		1,19,29,39,53,23,49,15		5,49
30″	46,28, 8,41,10,57,20,45,33,42		3,23,50,10,21	
		1,19,29,36,29,33,38,54		5,49
32″	46,28,10, 0,40,33,50,19,12,36		3,23,50,16,10	
		1,19,29,33, 5,43,22,44		5,49
34″	46,28,11,20,10, 6,56, 2,35,20		3,23,50,21,59	
		1,19,29,29,41,53, 0,45		5,49
36″	46,28,12,39,39,36,37,55,36, 5		3,23,50,27,48	
		1,19,29,26,18, 2,32,57		5,49
38″	46,28,13,59, 9, 2,55,58, 9, 2		3,23,50,33,37	
		1,19,29,22,54,11,59,20		5,49
40″	46,28,15,18,38,25,50,10, 8,22		3,23,50,39,26	
		1,19,29,19,30,21,19,54		5,49
42″	46,28,16,38, 7,45,20,31,28,16		3,23,50,45,15	
		1,19,29,16, 6,30,34,39		5,49
44″	46,28,17,57,37, 1,27, 2, 2,55		3,23,50,51, 4	
		1,19,29,12,42,39,43,35		5,49
46″	46,28,19,17, 6,14, 9,41,46,30		3,23,50,56,53	
		1,19,29, 9,18,48,46,42		5,49
48″	46,28,20,36,35,23,28,30,33,12		3,23,51, 2,42	
		1,19,29, 5,54,57,44, 0		5,49
50″	46,28,21,56, 4,29,23,28,17,12		3,23,51, 8,31	
		1,19,29, 2,31, 6,35,29		5,49
52″	46,28,23,15,33,31,54,34,52,41		3,23,51,14,20	
		1,19,28,59, 7,15,21, 9		5,49
54″	46,28,24,35, 2,31, 1,50,13,50		3,23,51,20, 9	
		1,19,28,55,43,24, 1, 0		5,49
56″	46,28,25,54,31,26,45,14,14,50		3,23,51,25,58	
		1,19,28,52,19,32,35, 2		5,49
58″	46,28,27,14, 0,19, 4,46,49,52		3,23,51,31,47	
		1,19,28,48,55,41, 3,15		
60″	46,28,28,33,29, 8, 0,27,53, 7			
exact	46,28,28,33,29, 8, 0,28, 9,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°46′ 0″	46,28,28,33,29, 8, 0,28, 9,48			
		1,19,28,45,31,49,27,34		
2″	46,28,29,52,57,53,32,17,37,22		3,23,51,43,16	
		1,19,28,42, 7,57,44,18		5,49
4″	46,28,31,12,26,35,40,15,21,40		3,23,51,49, 5	
		1,19,28,38,44, 5,55,13		5,49
6″	46,28,32,31,55,14,24,21,16,53		3,23,51,54,54	
		1,19,28,35,20,14, 0,19		5,49
8″	46,28,33,51,23,49,44,35,17,12		3,23,52, 0,43	
		1,19,28,31,56,21,59,36		5,49
10″	46,28,35,10,52,21,40,57,16,48		3,23,52, 6,32	
		1,19,28,28,32,29,53, 4		5,49
12″	46,28,36,30,20,50,13,27, 9,52		3,23,52,12,21	
		1,19,28,25, 8,37,40,43		5,49
14″	46,28,37,49,49,15,22, 4,50,35		3,23,52,18,10	
		1,19,28,21,44,45,22,33		5,49
16″	46,28,39, 9,17,37, 6,50,13, 8		3,23,52,23,59	
		1,19,28,18,20,52,58,34		5,49
18″	46,28,40,28,45,55,27,43,11,42		3,23,52,29,48	
		1,19,28,14,57, 0,28,46		5,49
20″	46,28,41,48,14,10,24,43,40,28		3,23,52,35,37	
		1,19,28,11,33, 7,53, 9		5,49
22″	46,28,43, 7,42,21,57,51,33,37		3,23,52,41,26	
		1,19,28, 8, 9,15,11,43		5,49
24″	46,28,44,27,10,30, 7, 6,45,20		3,23,52,47,15	
		1,19,28, 4,45,22,24,28		5,49
26″	46,28,45,46,38,34,52,29, 9,48		3,23,52,53, 4	
		1,19,28, 1,21,29,31,24		5,49
28″	46,28,47, 6, 6,36,13,58,41,12		3,23,52,58,53	
		1,19,27,57,57,36,32,31		5,49
30″	46,28,48,25,34,34,11,35,13,43		3,23,53, 4,42	
		1,19,27,54,33,43,27,49		5,49
32″	46,28,49,45, 2,28,45,18,41,32		3,23,53,10,31	
		1,19,27,51, 9,50,17,18		5,49
34″	46,28,51, 4,30,19,55, 8,58,50		3,23,53,16,20	
		1,19,27,47,45,57, 0,58		5,49
36″	46,28,52,23,58, 7,41, 5,59,48		3,23,53,22, 9	
		1,19,27,44,22, 3,38,49		5,49
38″	46,28,53,43,25,52, 3, 9,38,37		3,23,53,27,58	
		1,19,27,40,58,10,10,51		5,49
40″	46,28,55, 2,53,33, 1,19,49,28		3,23,53,33,47	
		1,19,27,37,34,16,37, 4		5,49
42″	46,28,56,22,21,10,35,36,26,32		3,23,53,39,36	
		1,19,27,34,10,22,57,28		5,49
44″	46,28,57,41,48,44,45,59,24, 0		3,23,53,45,25	
		1,19,27,30,46,29,12, 3		5,49
46″	46,28,59, 1,16,15,32,28,36, 3		3,23,53,51,14	
		1,19,27,27,22,35,20,49		5,49
48″	46,29, 0,20,43,42,55, 3,56,52		3,23,53,57, 3	
		1,19,27,23,58,41,23,46		5,49
50″	46,29, 1,40,11, 6,53,45,20,38		3,23,54, 2,52	
		1,19,27,20,34,47,20,54		5,49
52″	46,29, 2,59,38,27,28,32,41,32		3,23,54, 8,41	
		1,19,27,17,10,53,12,13		5,49
54″	46,29, 4,19, 5,44,39,25,53,45		3,23,54,14,30	
		1,19,27,13,46,58,57,43		5,49
56″	46,29, 5,38,32,58,26,24,51,28		3,23,54,20,19	
		1,19,27,10,23, 4,37,24		5,49
58″	46,29, 6,58, 0, 8,49,29,28,52		3,23,54,26, 8	
		1,19,27, 6,59,10,11,16		
60″	46,29, 8,17,27,15,48,39,40, 8			
exact	46,29, 8,17,27,15,48,40, 6,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°47′ 0″	46,29, 8,17,27,15,48,40, 6,12			
		1,19,27, 3,35,15,42,13		
2″	46,29, 9,36,54,19,23,55,48,25		3,23,54,37,33	
		1,19,27, 0,11,21, 4,40		5,49
4″	46,29,10,56,21,19,35,16,53, 5		3,23,54,43,22	
		1,19,26,56,47,26,21,18		5,49
6″	46,29,12,15,48,16,22,43,14,23		3,23,54,49,11	
		1,19,26,53,23,31,32, 7		5,49
8″	46,29,13,35,15, 9,46,14,46,30		3,23,54,55, 0	
		1,19,26,49,59,36,37, 7		5,49
10″	46,29,14,54,41,59,45,51,23,37		3,23,55, 0,49	
		1,19,26,46,35,41,36,18		5,49
12″	46,29,16,14, 8,46,21,32,59,55		3,23,55, 6,38	
		1,19,26,43,11,46,29,40		5,49
14″	46,29,17,33,35,29,33,19,29,35		3,23,55,12,27	
		1,19,26,39,47,51,17,13		5,49
16″	46,29,18,53, 2, 9,21,10,46,48		3,23,55,18,16	
		1,19,26,36,23,55,58,57		5,49
18″	46,29,20,12,28,45,45, 6,45,45		3,23,55,24, 5	
		1,19,26,33, 0, 0,34,52		5,49
20″	46,29,21,31,55,18,45, 7,20,37		3,23,55,29,54	
		1,19,26,29,36, 5, 4,58		5,49
22″	46,29,22,51,21,48,21,12,25,35		3,23,55,35,43	
		1,19,26,26,12, 9,29,15		5,49
24″	46,29,24,10,48,14,33,21,54,50		3,23,55,41,32	
		1,19,26,22,48,13,47,43		5,49
26″	46,29,25,30,14,37,21,35,42,33		3,23,55,47,21	
		1,19,26,19,24,18, 0,22		5,49
28″	46,29,26,49,40,56,45,53,42,55		3,23,55,53,10	
		1,19,26,16, 0,22, 7,12		5,49
30″	46,29,28, 9, 7,12,46,15,50, 7		3,23,55,58,59	
		1,19,26,12,36,26, 8,13		5,49
32″	46,29,29,28,33,25,22,41,58,20		3,23,56, 4,48	
		1,19,26, 9,12,30, 3,25		5,49
34″	46,29,30,47,59,34,35,12, 1,45		3,23,56,10,37	
		1,19,26, 5,48,33,52,48		5,49
36″	46,29,32, 7,25,40,23,45,54,33		3,23,56,16,26	
		1,19,26, 2,24,37,36,22		5,49
38″	46,29,33,26,51,42,48,23,30,55		3,23,56,22,15	
		1,19,25,59, 0,41,14, 7		5,49
40″	46,29,34,46,17,41,49, 4,45, 2		3,23,56,28, 4	
		1,19,25,55,36,44,46, 3		5,49
42″	46,29,36, 5,43,37,25,49,31, 5		3,23,56,33,53	
		1,19,25,52,12,48,12,10		5,49
44″	46,29,37,25, 9,29,38,37,43,15		3,23,56,39,42	
		1,19,25,48,48,51,32,28		5,49
46″	46,29,38,44,35,18,27,29,15,43		3,23,56,45,31	
		1,19,25,45,24,54,46,57		5,49
48″	46,29,40, 4, 1, 3,52,24, 2,40		3,23,56,51,20	
		1,19,25,42, 0,57,55,37		5,49
50″	46,29,41,23,26,45,53,21,58,17		3,23,56,57, 9	
		1,19,25,38,37, 0,58,28		5,49
52″	46,29,42,42,52,24,30,22,56,45		3,23,57, 2,58	
		1,19,25,35,13, 3,55,30		5,49
54″	46,29,44, 2,17,59,43,26,52,15		3,23,57, 8,47	
		1,19,25,31,49, 6,46,43		5,49
56″	46,29,45,21,43,31,32,33,38,58		3,23,57,14,36	
		1,19,25,28,25, 9,32, 7		5,49
58″	46,29,46,41, 8,59,57,43,11, 5		3,23,57,20,25	
		1,19,25,25, 1,12,11,42		
60″	46,29,48, 0,34,24,58,55,22,47			
exact	46,29,48, 0,34,24,58,55,55,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°48′ 0″	46,29,48, 0,34,24,58,55,55,52			
		1,19,25,21,37,14,49,11		
2″	46,29,49,19,59,46,36,10,45, 3		3,23,57,31,47	
		1,19,25,18,13,17,17,24		5,48
4″	46,29,50,39,25, 4,49,28, 2,27		3,23,57,37,35	
		1,19,25,14,49,19,39,49		5,48
6″	46,29,51,58,50,19,38,47,42,16		3,23,57,43,23	
		1,19,25,11,25,21,56,26		5,48
8″	46,29,53,18,15,31, 4, 9,38,42		3,23,57,49,11	
		1,19,25, 8, 1,24, 7,15		5,48
10″	46,29,54,37,40,39, 5,33,45,57		3,23,57,54,59	
		1,19,25, 4,37,26,12,16		5,48
12″	46,29,55,57, 5,43,42,59,58,13		3,23,58, 0,47	
		1,19,25, 1,13,28,11,29		5,48
14″	46,29,57,16,30,44,56,28, 9,42		3,23,58, 6,35	
		1,19,24,57,49,30, 4,54		5,48
16″	46,29,58,35,55,42,45,58,14,36		3,23,58,12,23	
		1,19,24,54,25,31,52,31		5,48
18″	46,29,59,55,20,37,11,30, 7, 7		3,23,58,18,11	
		1,19,24,51, 1,33,34,20		5,48
20″	46,30, 1,14,45,28,13, 3,41,27		3,23,58,23,59	
		1,19,24,47,37,35,10,21		5,48
22″	46,30, 2,34,10,15,50,38,51,48		3,23,58,29,47	
		1,19,24,44,13,36,40,34		5,48
24″	46,30, 3,53,35, 0, 4,15,32,22		3,23,58,35,35	
		1,19,24,40,49,38, 4,59		5,48
26″	46,30, 5,12,59,40,53,53,37,21		3,23,58,41,23	
		1,19,24,37,25,39,23,36		5,48
28″	46,30, 6,32,24,18,19,33, 0,57		3,23,58,47,11	
		1,19,24,34, 1,40,36,25		5,48
30″	46,30, 7,51,48,52,21,13,37,22		3,23,58,52,59	
		1,19,24,30,37,41,43,26		5,48
32″	46,30, 9,11,13,22,58,55,20,48		3,23,58,58,47	
		1,19,24,27,13,42,44,39		5,48
34″	46,30,10,30,37,50,12,38, 5,27		3,23,59, 4,35	
		1,19,24,23,49,43,40, 4		5,48
36″	46,30,11,50, 2,14, 2,21,45,31		3,23,59,10,23	
		1,19,24,20,25,44,29,41		5,48
38″	46,30,13, 9,26,34,28, 6,15,12		3,23,59,16,11	
		1,19,24,17, 1,45,13,30		5,48
40″	46,30,14,28,50,51,29,51,28,42		3,23,59,21,59	
		1,19,24,13,37,45,51,31		5,48
42″	46,30,15,48,15, 5, 7,37,20,13		3,23,59,27,47	
		1,19,24,10,13,46,23,44		5,48
44″	46,30,17, 7,39,15,21,23,43,57		3,23,59,33,35	
		1,19,24, 6,49,46,50, 9		5,48
46″	46,30,18,27, 3,22,11,10,34, 6		3,23,59,39,23	
		1,19,24, 3,25,47,10,46		5,48
48″	46,30,19,46,27,25,36,57,44,52		3,23,59,45,11	
		1,19,24, 0, 1,47,25,35		5,48
50″	46,30,21, 5,51,25,38,45,10,27		3,23,59,50,59	
		1,19,23,56,37,47,34,36		5,48
52″	46,30,22,25,15,22,16,32,45, 3		3,23,59,56,47	
		1,19,23,53,13,47,37,49		5,48
54″	46,30,23,44,39,15,30,20,22,52		3,24, 0, 2,35	
		1,19,23,49,49,47,35,14		5,48
56″	46,30,25, 4, 3, 5,20, 7,58, 6		3,24, 0, 8,23	
		1,19,23,46,25,47,26,51		5,48
58″	46,30,26,23,26,51,45,55,24,57		3,24, 0,14,11	
		1,19,23,43, 1,47,12,40		
60″	46,30,27,42,50,34,47,42,37,37			
exact	46,30,27,42,50,34,47,42,15,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°49′ 0″	46,30,27,42,50,34,47,42,15,52			
		1,19,23,39,37,46,50,21		
2″	46,30,29, 2,14,14,25,29, 6,13		3,24, 0,25,56	
		1,19,23,36,13,46,24,25		5,48
4″	46,30,30,21,37,50,39,15,30,38		3,24, 0,31,44	
		1,19,23,32,49,45,52,41		5,48
6″	46,30,31,41, 1,23,29, 1,23,19		3,24, 0,37,32	
		1,19,23,29,25,45,15, 9		5,48
8″	46,30,33, 0,24,52,54,46,38,28		3,24, 0,43,20	
		1,19,23,26, 1,44,31,49		5,48
10″	46,30,34,19,48,18,56,31,10,17		3,24, 0,49, 8	
		1,19,23,22,37,43,42,41		5,48
12″	46,30,35,39,11,41,34,14,52,58		3,24, 0,54,56	
		1,19,23,19,13,42,47,45		5,48
14″	46,30,36,58,35, 0,47,57,40,43		3,24, 1, 0,44	
		1,19,23,15,49,41,47, 1		5,48
16″	46,30,38,17,58,16,37,39,27,44		3,24, 1, 6,32	
		1,19,23,12,25,40,40,29		5,48
18″	46,30,39,37,21,29, 3,20, 8,13		3,24, 1,12,20	
		1,19,23, 9, 1,39,28, 9		5,48
20″	46,30,40,56,44,38, 4,59,36,22		3,24, 1,18, 8	
		1,19,23, 5,37,38,10, 1		5,48
22″	46,30,42,16, 7,43,42,37,46,23		3,24, 1,23,56	
		1,19,23, 2,13,36,46, 5		5,48
24″	46,30,43,35,30,45,56,14,32,28		3,24, 1,29,44	
		1,19,22,58,49,35,16,21		5,48
26″	46,30,44,54,53,44,45,49,48,49		3,24, 1,35,32	
		1,19,22,55,25,33,40,49		5,48
28″	46,30,46,14,16,40,11,23,29,38		3,24, 1,41,20	
		1,19,22,52, 1,31,59,29		5,48
30″	46,30,47,33,39,32,12,55,29, 7		3,24, 1,47, 8	
		1,19,22,48,37,30,12,21		5,48
32″	46,30,48,53, 2,20,50,25,41,28		3,24, 1,52,56	
		1,19,22,45,13,28,19,25		5,48
34″	46,30,50,12,25, 6, 3,54, 0,53		3,24, 1,58,44	
		1,19,22,41,49,26,20,41		5,48
36″	46,30,51,31,47,47,53,20,21,34		3,24, 2, 4,32	
		1,19,22,38,25,24,16, 9		5,48
38″	46,30,52,51,10,26,18,44,37,43		3,24, 2,10,20	
		1,19,22,35, 1,22, 5,49		5,48
40″	46,30,54,10,33, 1,20, 6,43,32		3,24, 2,16, 8	
		1,19,22,31,37,19,49,41		5,48
42″	46,30,55,29,55,32,57,26,33,13		3,24, 2,21,56	
		1,19,22,28,13,17,27,45		5,48
44″	46,30,56,49,18, 1,10,44, 0,58		3,24, 2,27,44	
		1,19,22,24,49,15, 0, 1		5,48
46″	46,30,58, 8,40,25,59,59, 0,59		3,24, 2,33,32	
		1,19,22,21,25,12,26,29		5,48
48″	46,30,59,28, 2,47,25,11,27,28		3,24, 2,39,20	
		1,19,22,18, 1, 9,47, 9		5,48
50″	46,31, 0,47,25, 5,26,21,14,37		3,24, 2,45, 8	
		1,19,22,14,37, 7, 2, 1		5,48
52″	46,31, 2, 6,47,20, 3,28,16,38		3,24, 2,50,56	
		1,19,22,11,13, 4,11, 5		5,48
54″	46,31, 3,26, 9,31,16,32,27,43		3,24, 2,56,44	
		1,19,22, 7,49, 1,14,21		5,48
56″	46,31, 4,45,31,39, 5,33,42, 4		3,24, 3, 2,32	
		1,19,22, 4,24,58,11,49		5,48
58″	46,31, 6, 4,53,43,30,31,53,53		3,24, 3, 8,20	
		1,19,22, 1, 0,55, 3,29		
60″	46,31, 7,24,15,44,31,26,57,22			
exact	46,31, 7,24,15,44,31,26,39, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°50′ 0″	46,31, 7,24,15,44,31,26,39, 9			
		1,19,21,57,36,51,47,35		
2″	46,31, 8,43,37,42, 8,18,26,44		3,24, 3,20, 2	
		1,19,21,54,12,48,27,33		5,48
4″	46,31,10, 2,59,36,21, 6,54,17		3,24, 3,25,50	
		1,19,21,50,48,45, 1,43		5,48
6″	46,31,11,22,21,27, 9,51,56, 0		3,24, 3,31,38	
		1,19,21,47,24,41,30, 5		5,48
8″	46,31,12,41,43,14,34,33,26, 5		3,24, 3,37,26	
		1,19,21,44, 0,37,52,39		5,48
10″	46,31,14, 1, 4,58,35,11,18,44		3,24, 3,43,14	
		1,19,21,40,36,34, 9,25		5,48
12″	46,31,15,20,26,39,11,45,28, 9		3,24, 3,49, 2	
		1,19,21,37,12,30,20,23		5,48
14″	46,31,16,39,48,16,24,15,48,32		3,24, 3,54,50	
		1,19,21,33,48,26,25,33		5,48
16″	46,31,17,59, 9,50,12,42,14, 5		3,24, 4, 0,38	
		1,19,21,30,24,22,24,55		5,48
18″	46,31,19,18,31,20,37, 4,39, 0		3,24, 4, 6,26	
		1,19,21,27, 0,18,18,29		5,48
20″	46,31,20,37,52,47,37,22,57,29		3,24, 4,12,14	
		1,19,21,23,36,14, 6,15		5,48
22″	46,31,21,57,14,11,13,37, 3,44		3,24, 4,18, 2	
		1,19,21,20,12, 9,48,13		5,48
24″	46,31,23,16,35,31,25,46,51,57		3,24, 4,23,50	
		1,19,21,16,48, 5,24,23		5,48
26″	46,31,24,35,56,48,13,52,16,20		3,24, 4,29,38	
		1,19,21,13,24, 0,54,45		5,48
28″	46,31,25,55,18, 1,37,53,11, 5		3,24, 4,35,26	
		1,19,21, 9,59,56,19,19		5,48
30″	46,31,27,14,39,11,37,49,30,24		3,24, 4,41,14	
		1,19,21, 6,35,51,38, 5		5,48
32″	46,31,28,34, 0,18,13,41, 8,29		3,24, 4,47, 2	
		1,19,21, 3,11,46,51, 3		5,48
34″	46,31,29,53,21,21,25,27,59,32		3,24, 4,52,50	
		1,19,20,59,47,41,58,13		5,48
36″	46,31,31,12,42,21,13, 9,57,45		3,24, 4,58,38	
		1,19,20,56,23,36,59,35		5,48
38″	46,31,32,32, 3,17,36,46,57,20		3,24, 5, 4,26	
		1,19,20,52,59,31,55, 9		5,48
40″	46,31,33,51,24,10,36,18,52,29		3,24, 5,10,14	
		1,19,20,49,35,26,44,55		5,48
42″	46,31,35,10,45, 0,11,45,37,24		3,24, 5,16, 2	
		1,19,20,46,11,21,28,53		5,48
44″	46,31,36,30, 5,46,23, 7, 6,17		3,24, 5,21,50	
		1,19,20,42,47,16, 7, 3		5,48
46″	46,31,37,49,26,29,10,23,13,20		3,24, 5,27,38	
		1,19,20,39,23,10,39,25		5,48
48″	46,31,39, 8,47, 8,33,33,52,45		3,24, 5,33,26	
		1,19,20,35,59, 5, 5,59		5,48
50″	46,31,40,28, 7,44,32,38,58,44		3,24, 5,39,14	
		1,19,20,32,34,59,26,45		5,48
52″	46,31,41,47,28,17, 7,38,25,29		3,24, 5,45, 2	
		1,19,20,29,10,53,41,43		5,48
54″	46,31,43, 6,48,46,18,32, 7,12		3,24, 5,50,50	
		1,19,20,25,46,47,50,53		5,48
56″	46,31,44,26, 9,12, 5,19,58, 5		3,24, 5,56,38	
		1,19,20,22,22,41,54,15		5,48
58″	46,31,45,45,29,34,28, 1,52,20		3,24, 6, 2,26	
		1,19,20,18,58,35,51,49		
60″	46,31,47, 4,49,53,26,37,44, 9			
exact	46,31,47, 4,49,53,26,37,34,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°51′ 0″	46,31,47, 4,49,53,26,37,34,36			
		1,19,20,15,34,29,42,44		
2″	46,31,48,24,10, 9, 1, 7,17,20		3,24, 6,14, 5	
		1,19,20,12,10,23,28,39		5,48
4″	46,31,49,43,30,21,11,30,45,59		3,24, 6,19,53	
		1,19,20, 8,46,17, 8,46		5,48
6″	46,31,51, 2,50,29,57,47,54,45		3,24, 6,25,41	
		1,19,20, 5,22,10,43, 5		5,48
8″	46,31,52,22,10,35,19,58,37,50		3,24, 6,31,29	
		1,19,20, 1,58, 4,11,36		5,48
10″	46,31,53,41,30,37,18, 2,49,26		3,24, 6,37,17	
		1,19,19,58,33,57,34,19		5,48
12″	46,31,55, 0,50,35,52, 0,23,45		3,24, 6,43, 5	
		1,19,19,55, 9,50,51,14		5,48
14″	46,31,56,20,10,31, 1,51,14,59		3,24, 6,48,53	
		1,19,19,51,45,44, 2,21		5,48
16″	46,31,57,39,30,22,47,35,17,20		3,24, 6,54,41	
		1,19,19,48,21,37, 7,40		5,48
18″	46,31,58,58,50,11, 9,12,25, 0		3,24, 7, 0,29	
		1,19,19,44,57,30, 7,11		5,48
20″	46,32, 0,18, 9,56, 6,42,32,11		3,24, 7, 6,17	
		1,19,19,41,33,23, 0,54		5,48
22″	46,32, 1,37,29,37,40, 5,33, 5		3,24, 7,12, 5	
		1,19,19,38, 9,15,48,49		5,48
24″	46,32, 2,56,49,15,49,21,21,54		3,24, 7,17,53	
		1,19,19,34,45, 8,30,56		5,48
26″	46,32, 4,16, 8,50,34,29,52,50		3,24, 7,23,41	
		1,19,19,31,21, 1, 7,15		5,48
28″	46,32, 5,35,28,21,55,31, 0, 5		3,24, 7,29,29	
		1,19,19,27,56,53,37,46		5,48
30″	46,32, 6,54,47,49,52,24,37,51		3,24, 7,35,17	
		1,19,19,24,32,46, 2,29		5,48
32″	46,32, 8,14, 7,14,25,10,40,20		3,24, 7,41, 5	
		1,19,19,21, 8,38,21,24		5,48
34″	46,32, 9,33,26,35,33,49, 1,44		3,24, 7,46,53	
		1,19,19,17,44,30,34,31		5,48
36″	46,32,10,52,45,53,18,19,36,15		3,24, 7,52,41	
		1,19,19,14,20,22,41,50		5,48
38″	46,32,12,12, 5, 7,38,42,18, 5		3,24, 7,58,29	
		1,19,19,10,56,14,43,21		5,48
40″	46,32,13,31,24,18,34,57, 1,26		3,24, 8, 4,17	
		1,19,19, 7,32, 6,39, 4		5,48
42″	46,32,14,50,43,26, 7, 3,40,30		3,24, 8,10, 5	
		1,19,19, 4, 7,58,28,59		5,48
44″	46,32,16,10, 2,30,15, 2, 9,29		3,24, 8,15,53	
		1,19,19, 0,43,50,13, 6		5,48
46″	46,32,17,29,21,30,58,52,22,35		3,24, 8,21,41	
		1,19,18,57,19,41,51,25		5,48
48″	46,32,18,48,40,28,18,34,14, 0		3,24, 8,27,29	
		1,19,18,53,55,33,23,56		5,48
50″	46,32,20, 7,59,22,14, 7,37,56		3,24, 8,33,17	
		1,19,18,50,31,24,50,39		5,48
52″	46,32,21,27,18,12,45,32,28,35		3,24, 8,39, 5	
		1,19,18,47, 7,16,11,34		5,48
54″	46,32,22,46,36,59,52,48,40, 9		3,24, 8,44,53	
		1,19,18,43,43, 7,26,41		5,48
56″	46,32,24, 5,55,43,35,56, 6,50		3,24, 8,50,41	
		1,19,18,40,18,58,36, 0		5,48
58″	46,32,25,25,14,23,54,54,42,50		3,24, 8,56,29	
		1,19,18,36,54,49,39,31		
60″	46,32,26,44,33, 0,49,44,22,21			
exact	46,32,26,44,33, 0,49,44,27, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°52′ 0″	46,32,26,44,33, 0,49,44,27, 3			
		1,19,18,33,30,40,37,41		
2″	46,32,28, 3,51,34,20,25, 4,44		3,24, 9, 8, 3	
		1,19,18,30, 6,31,29,38		5,48
4″	46,32,29,23,10, 4,26,56,34,22		3,24, 9,13,51	
		1,19,18,26,42,22,15,47		5,48
6″	46,32,30,42,28,31, 9,18,50, 9		3,24, 9,19,39	
		1,19,18,23,18,12,56, 8		5,48
8″	46,32,32, 1,46,54,27,31,46,17		3,24, 9,25,27	
		1,19,18,19,54, 3,30,41		5,48
10″	46,32,33,21, 5,14,21,35,16,58		3,24, 9,31,15	
		1,19,18,16,29,53,59,26		5,48
12″	46,32,34,40,23,30,51,29,16,24		3,24, 9,37, 3	
		1,19,18,13, 5,44,22,23		5,48
14″	46,32,35,59,41,43,57,13,38,47		3,24, 9,42,51	
		1,19,18, 9,41,34,39,32		5,48
16″	46,32,37,18,59,53,38,48,18,19		3,24, 9,48,39	
		1,19,18, 6,17,24,50,53		5,48
18″	46,32,38,38,17,59,56,13, 9,12		3,24, 9,54,27	
		1,19,18, 2,53,14,56,26		5,48
20″	46,32,39,57,36, 2,49,28, 5,38		3,24,10, 0,15	
		1,19,17,59,29, 4,56,11		5,48
22″	46,32,41,16,54, 2,18,33, 1,49		3,24,10, 6, 3	
		1,19,17,56, 4,54,50, 8		5,48
24″	46,32,42,36,11,58,23,27,51,57		3,24,10,11,51	
		1,19,17,52,40,44,38,17		5,48
26″	46,32,43,55,29,51, 4,12,30,14		3,24,10,17,39	
		1,19,17,49,16,34,20,38		5,48
28″	46,32,45,14,47,40,20,46,50,52		3,24,10,23,27	
		1,19,17,45,52,23,57,11		5,48
30″	46,32,46,34, 5,26,13,10,48, 3		3,24,10,29,15	
		1,19,17,42,28,13,27,56		5,48
32″	46,32,47,53,23, 8,41,24,15,59		3,24,10,35, 3	
		1,19,17,39, 4, 2,52,53		5,48
34″	46,32,49,12,40,47,45,27, 8,52		3,24,10,40,51	
		1,19,17,35,39,52,12, 2		5,48
36″	46,32,50,31,58,23,25,19,20,54		3,24,10,46,39	
		1,19,17,32,15,41,25,23		5,48
38″	46,32,51,51,15,55,41, 0,46,17		3,24,10,52,27	
		1,19,17,28,51,30,32,56		5,48
40″	46,32,53,10,33,24,32,31,19,13		3,24,10,58,15	
		1,19,17,25,27,19,34,41		5,48
42″	46,32,54,29,50,49,59,50,53,54		3,24,11, 4, 3	
		1,19,17,22, 3, 8,30,38		5,48
44″	46,32,55,49, 8,12, 2,59,24,32		3,24,11, 9,51	
		1,19,17,18,38,57,20,47		5,48
46″	46,32,57, 8,25,30,41,56,45,19		3,24,11,15,39	
		1,19,17,15,14,46, 5, 8		5,48
48″	46,32,58,27,42,45,56,42,50,27		3,24,11,21,27	
		1,19,17,11,50,34,43,41		5,48
50″	46,32,59,46,59,57,47,17,34, 8		3,24,11,27,15	
		1,19,17, 8,26,23,16,26		5,48
52″	46,33, 1, 6,17, 6,13,40,50,34		3,24,11,33, 3	
		1,19,17, 5, 2,11,43,23		5,48
54″	46,33, 2,25,34,11,15,52,33,57		3,24,11,38,51	
		1,19,17, 1,38, 0, 4,32		5,48
56″	46,33, 3,44,51,12,53,52,38,29		3,24,11,44,39	
		1,19,16,58,13,48,19,53		5,48
58″	46,33, 5, 4, 8,11, 7,40,58,22		3,24,11,50,27	
		1,19,16,54,49,36,29,26		
60″	46,33, 6,23,25, 5,57,17,27,48			
exact	46,33, 6,23,25, 5,57,17,37,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°53′ 0″	46,33, 6,23,25, 5,57,17,37,17	1,19,16,51,25,24,34,17		
2″	46,33, 7,42,41,57,22,42,11,34	1,19,16,48, 1,12,32,19	3,24,12, 1,58	5,48
4″	46,33, 9, 1,58,45,23,54,43,53	1,19,16,44,37, 0,24,33	3,24,12, 7,46	5,48
6″	46,33,10,21,15,30, 0,55, 8,26	1,19,16,41,12,48,10,59	3,24,12,13,34	5,48
8″	46,33,11,40,32,11,13,43,19,25	1,19,16,37,48,35,51,37	3,24,12,19,22	5,48
10″	46,33,12,59,48,49, 2,19,11, 2	1,19,16,34,24,23,26,27	3,24,12,25,10	5,48
12″	46,33,14,19, 5,23,26,42,37,29	1,19,16,31, 0,10,55,29	3,24,12,30,58	5,48
14″	46,33,15,38,21,54,26,53,32,58	1,19,16,27,35,58,18,43	3,24,12,36,46	5,48
16″	46,33,16,57,38,22, 2,51,51,41	1,19,16,24,11,45,36, 9	3,24,12,42,34	5,48
18″	46,33,18,16,54,46,14,37,27,50	1,19,16,20,47,32,47,47	3,24,12,48,22	5,48
20″	46,33,19,36,11, 7, 2,10,15,37	1,19,16,17,23,19,53,37	3,24,12,54,10	5,48
22″	46,33,20,55,27,24,25,30, 9,14	1,19,16,13,59, 6,53,39	3,24,12,59,58	5,48
24″	46,33,22,14,43,38,24,37, 2,53	1,19,16,10,34,53,47,53	3,24,13, 5,46	5,48
26″	46,33,23,33,59,48,59,30,50,46	1,19,16, 7,10,40,36,19	3,24,13,11,34	5,48
28″	46,33,24,53,15,56,10,11,27, 5	1,19,16, 3,46,27,18,57	3,24,13,17,22	5,48
30″	46,33,26,12,31,59,56,38,46, 2	1,19,16, 0,22,13,55,47	3,24,13,23,10	5,48
32″	46,33,27,31,48, 0,18,52,41,49	1,19,15,56,58, 0,26,49	3,24,13,28,58	5,48
34″	46,33,28,51, 3,57,16,53, 8,38	1,19,15,53,33,46,52, 3	3,24,13,34,46	5,48
36″	46,33,30,10,19,50,50,40, 0,41	1,19,15,50, 9,33,11,29	3,24,13,40,34	5,48
38″	46,33,31,29,35,41, 0,13,12,10	1,19,15,46,45,19,25, 7	3,24,13,46,22	5,48
40″	46,33,32,48,51,27,45,32,37,17	1,19,15,43,21, 5,32,57	3,24,13,52,10	5,48
42″	46,33,34, 8, 7,11, 6,38,10,14	1,19,15,39,56,51,34,59	3,24,13,57,58	5,48
44″	46,33,35,27,22,51, 3,29,45,13	1,19,15,36,32,37,31,13	3,24,14, 3,46	5,48
46″	46,33,36,46,38,27,36, 7,16,26	1,19,15,33, 8,23,21,39	3,24,14, 9,34	5,48
48″	46,33,38, 5,54, 0,44,30,38, 5	1,19,15,29,44, 9, 6,17	3,24,14,15,22	5,48
50″	46,33,39,25, 9,30,28,39,44,22	1,19,15,26,19,54,45, 7	3,24,14,21,10	5,48
52″	46,33,40,44,24,56,48,34,29,29	1,19,15,22,55,40,18, 9	3,24,14,26,58	5,48
54″	46,33,42, 3,40,19,44,14,47,38	1,19,15,19,31,25,45,23	3,24,14,32,46	5,48
56″	46,33,43,22,55,39,15,40,33, 1	1,19,15,16, 7,11, 6,49	3,24,14,38,34	5,48
58″	46,33,44,42,10,55,22,51,39,50	1,19,15,12,42,56,22,27	3,24,14,44,22	
60″	46,33,46, 1,26, 8, 5,48, 2,17			
exact	46,33,46, 1,26, 8, 5,48,22, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°54′ 0″	46,33,46, 1,26, 8, 5,48,22, 3			
		1,19,15, 9,18,41,34,25		
2″	46,33,47,20,41,17,24,29,56,28		3,24,14,55,49	
		1,19,15, 5,54,26,38,36		5,48
4″	46,33,48,39,56,23,18,56,35, 4		3,24,15, 1,37	
		1,19,15, 2,30,11,36,59		5,48
6″	46,33,49,59,11,25,49, 8,12, 3		3,24,15, 7,25	
		1,19,14,59, 5,56,29,34		5,48
8″	46,33,51,18,26,24,55, 4,41,37		3,24,15,13,13	
		1,19,14,55,41,41,16,21		5,48
10″	46,33,52,37,41,20,36,45,57,58		3,24,15,19, 1	
		1,19,14,52,17,25,57,20		5,48
12″	46,33,53,56,56,12,54,11,55,18		3,24,15,24,49	
		1,19,14,48,53,10,32,31		5,48
14″	46,33,55,16,11, 1,47,22,27,49		3,24,15,30,37	
		1,19,14,45,28,55, 1,54		5,48
16″	46,33,56,35,25,47,16,17,29,43		3,24,15,36,25	
		1,19,14,42, 4,39,25,29		5,48
18″	46,33,57,54,40,29,20,56,55,12		3,24,15,42,13	
		1,19,14,38,40,23,43,16		5,48
20″	46,33,59,13,55, 8, 1,20,38,28		3,24,15,48, 1	
		1,19,14,35,16, 7,55,15		5,48
22″	46,34, 0,33, 9,43,17,28,33,43		3,24,15,53,49	
		1,19,14,31,51,52, 1,26		5,48
24″	46,34, 1,52,24,15, 9,20,35, 9		3,24,15,59,37	
		1,19,14,28,27,36, 1,49		5,48
26″	46,34, 3,11,38,43,36,56,36,58		3,24,16, 5,25	
		1,19,14,25, 3,19,56,24		5,48
28″	46,34, 4,30,53, 8,40,16,33,22		3,24,16,11,13	
		1,19,14,21,39, 3,45,11		5,48
30″	46,34, 5,50, 7,30,19,20,18,33		3,24,16,17, 1	
		1,19,14,18,14,47,28,10		5,48
32″	46,34, 7, 9,21,48,34, 7,46,43		3,24,16,22,49	
		1,19,14,14,50,31, 5,21		5,48
34″	46,34, 8,28,36, 3,24,38,52, 4		3,24,16,28,37	
		1,19,14,11,26,14,36,44		5,48
36″	46,34, 9,47,50,14,50,53,28,48		3,24,16,34,25	
		1,19,14, 8, 1,58, 2,19		5,48
38″	46,34,11, 7, 4,22,52,51,31, 7		3,24,16,40,13	
		1,19,14, 4,37,41,22, 6		5,48
40″	46,34,12,26,18,27,30,32,53,13		3,24,16,46, 1	
		1,19,14, 1,13,24,36, 5		5,48
42″	46,34,13,45,32,28,43,57,29,18		3,24,16,51,49	
		1,19,13,57,49, 7,44,16		5,48
44″	46,34,15, 4,46,26,33, 5,13,34		3,24,16,57,37	
		1,19,13,54,24,50,46,39		5,48
46″	46,34,16,24, 0,20,57,56, 0,13		3,24,17, 3,25	
		1,19,13,51, 0,33,43,14		5,48
48″	46,34,17,43,14,11,58,29,43,27		3,24,17, 9,13	
		1,19,13,47,36,16,34, 1		5,48
50″	46,34,19, 2,27,59,34,46,17,28		3,24,17,15, 1	
		1,19,13,44,11,59,19, 0		5,48
52″	46,34,20,21,41,43,46,45,36,28		3,24,17,20,49	
		1,19,13,40,47,41,58,11		5,48
54″	46,34,21,40,55,24,34,27,34,39		3,24,17,26,37	
		1,19,13,37,23,24,31,34		5,48
56″	46,34,23, 0, 9, 1,57,52, 6,13		3,24,17,32,25	
		1,19,13,33,59, 6,59, 9		5,48
58″	46,34,24,19,22,35,56,59, 5,22		3,24,17,38,13	
		1,19,13,30,34,49,20,56		
60″	46,34,25,38,36, 6,31,48,26,18			
exact	46,34,25,38,36, 6,31,48,54, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°55′ 0″	46,34,25,38,36, 6,31,48,54, 5			
		1,19,13,27,10,31,39,56		
2″	46,34,26,57,49,33,42,20,34, 1		3,24,17,49,36	
		1,19,13,23,46,13,50,20		5,48
4″	46,34,28,17, 2,57,28,34,24,21		3,24,17,55,24	
		1,19,13,20,21,55,54,56		5,48
6″	46,34,29,36,16,17,50,30,19,17		3,24,18, 1,12	
		1,19,13,16,57,37,53,44		5,48
8″	46,34,30,55,29,34,48, 8,13, 1		3,24,18, 7, 0	
		1,19,13,13,33,19,46,44		5,48
10″	46,34,32,14,42,48,21,27,59,45		3,24,18,12,48	
		1,19,13,10, 9, 1,33,56		5,48
12″	46,34,33,33,55,58,30,29,33,41		3,24,18,18,36	
		1,19,13, 6,44,43,15,20		5,48
14″	46,34,34,53, 9, 5,15,12,49, 1		3,24,18,24,24	
		1,19,13, 3,20,24,50,56		5,48
16″	46,34,36,12,22, 8,35,37,39,57		3,24,18,30,12	
		1,19,12,59,56, 6,20,44		5,48
18″	46,34,37,31,35, 8,31,44, 0,41		3,24,18,36, 0	
		1,19,12,56,31,47,44,44		5,48
20″	46,34,38,50,48, 5, 3,31,45,25		3,24,18,41,48	
		1,19,12,53, 7,29, 2,56		5,48
22″	46,34,40,10, 0,58,11, 0,48,21		3,24,18,47,36	
		1,19,12,49,43,10,15,20		5,48
24″	46,34,41,29,13,47,54,11, 3,41		3,24,18,53,24	
		1,19,12,46,18,51,21,56		5,48
26″	46,34,42,48,26,34,13, 2,25,37		3,24,18,59,12	
		1,19,12,42,54,32,22,44		5,48
28″	46,34,44, 7,39,17, 7,34,48,21		3,24,19, 5, 0	
		1,19,12,39,30,13,17,44		5,48
30″	46,34,45,26,51,56,37,48, 6, 5		3,24,19,10,48	
		1,19,12,36, 5,54, 6,56		5,48
32″	46,34,46,46, 4,32,43,42,13, 1		3,24,19,16,36	
		1,19,12,32,41,34,50,20		5,48
34″	46,34,48, 5,17, 5,25,17, 3,21		3,24,19,22,24	
		1,19,12,29,17,15,27,56		5,48
36″	46,34,49,24,29,34,42,32,31,17		3,24,19,28,12	
		1,19,12,25,52,55,59,44		5,48
38″	46,34,50,43,42, 0,35,28,31, 1		3,24,19,34, 0	
		1,19,12,22,28,36,25,44		5,48
40″	46,34,52, 2,54,23, 4, 4,56,45		3,24,19,39,48	
		1,19,12,19, 4,16,45,56		5,48
42″	46,34,53,22, 6,42, 8,21,42,41		3,24,19,45,36	
		1,19,12,15,39,57, 0,20		5,48
44″	46,34,54,41,18,57,48,18,43, 1		3,24,19,51,24	
		1,19,12,12,15,37, 8,56		5,48
46″	46,34,56, 0,31,10, 3,55,51,57		3,24,19,57,12	
		1,19,12, 8,51,17,11,44		5,48
48″	46,34,57,19,43,18,55,13, 3,41		3,24,20, 3, 0	
		1,19,12, 5,26,57, 8,44		5,48
50″	46,34,58,38,55,24,22,10,12,25		3,24,20, 8,48	
		1,19,12, 2, 2,36,59,56		5,48
52″	46,34,59,58, 7,26,24,47,12,21		3,24,20,14,36	
		1,19,11,58,38,16,45,20		5,48
54″	46,35, 1,17,19,25, 3, 3,57,41		3,24,20,20,24	
		1,19,11,55,13,56,24,56		5,48
56″	46,35, 2,36,31,20,17, 0,22,37		3,24,20,26,12	
		1,19,11,51,49,35,58,44		5,48
58″	46,35, 3,55,43,12, 6,36,21,21		3,24,20,32, 0	
		1,19,11,48,25,15,26,44		
60″	46,35, 5,14,55, 0,31,51,48, 5			
exact	46,35, 5,14,55, 0,31,52,22, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°56′ 0″	46,35, 5,14,55, 0,31,52,22, 8			
		1,19,11,45, 0,54,52,42		
2″	46,35, 6,34, 6,45,32,47,14,50		3,24,20,43,20	
		1,19,11,41,36,34, 9,22		5,47
4″	46,35, 7,53,18,27, 9,21,24,12		3,24,20,49, 7	
		1,19,11,38,12,13,20,15		5,47
6″	46,35, 9,12,30, 5,21,34,44,27		3,24,20,54,54	
		1,19,11,34,47,52,25,21		5,47
8″	46,35,10,31,41,40, 9,27, 9,48		3,24,21, 0,41	
		1,19,11,31,23,31,24,40		5,47
10″	46,35,11,50,53,11,32,58,34,28		3,24,21, 6,28	
		1,19,11,27,59,10,18,12		5,47
12″	46,35,13,10, 4,39,32, 8,52,40		3,24,21,12,15	
		1,19,11,24,34,49, 5,57		5,47
14″	46,35,14,29,16, 4, 6,57,58,37		3,24,21,18, 2	
		1,19,11,21,10,27,47,55		5,47
16″	46,35,15,48,27,25,17,25,46,32		3,24,21,23,49	
		1,19,11,17,46, 6,24, 6		5,47
18″	46,35,17, 7,38,43, 3,32,10,38		3,24,21,29,36	
		1,19,11,14,21,44,54,30		5,47
20″	46,35,18,26,49,57,25,17, 5, 8		3,24,21,35,23	
		1,19,11,10,57,23,19, 7		5,47
22″	46,35,19,46, 1, 8,22,40,24,15		3,24,21,41,10	
		1,19,11, 7,33, 1,37,57		5,47
24″	46,35,21, 5,12,15,55,42, 2,12		3,24,21,46,57	
		1,19,11, 4, 8,39,51, 0		5,47
26″	46,35,22,24,23,20, 4,21,53,12		3,24,21,52,44	
		1,19,11, 0,44,17,58,16		5,47
28″	46,35,23,43,34,20,48,39,51,28		3,24,21,58,31	
		1,19,10,57,19,55,59,45		5,47
30″	46,35,25, 2,45,18, 8,35,51,13		3,24,22, 4,18	
		1,19,10,53,55,33,55,27		5,47
32″	46,35,26,21,56,12, 4, 9,46,40		3,24,22,10, 5	
		1,19,10,50,31,11,45,22		5,47
34″	46,35,27,41, 7, 2,35,21,32, 2		3,24,22,15,52	
		1,19,10,47, 6,49,29,30		5,47
36″	46,35,29, 0,17,49,42,11, 1,32		3,24,22,21,39	
		1,19,10,43,42,27, 7,51		5,47
38″	46,35,30,19,28,33,24,38, 9,23		3,24,22,27,26	
		1,19,10,40,18, 4,40,25		5,47
40″	46,35,31,38,39,13,42,42,49,48		3,24,22,33,13	
		1,19,10,36,53,42, 7,12		5,47
42″	46,35,32,57,49,50,36,24,57, 0		3,24,22,39, 0	
		1,19,10,33,29,19,28,12		5,47
44″	46,35,34,17, 0,24, 5,44,25,12		3,24,22,44,47	
		1,19,10,30, 4,56,43,25		5,47
46″	46,35,35,36,10,54,10,41, 8,37		3,24,22,50,34	
		1,19,10,26,40,33,52,51		5,47
48″	46,35,36,55,21,20,51,15, 1,28		3,24,22,56,21	
		1,19,10,23,16,10,56,30		5,47
50″	46,35,38,14,31,44, 7,25,57,58		3,24,23, 2, 8	
		1,19,10,19,51,47,54,22		5,47
52″	46,35,39,33,42, 3,59,13,52,20		3,24,23, 7,55	
		1,19,10,16,27,24,46,27		5,47
54″	46,35,40,52,52,20,26,38,38,47		3,24,23,13,42	
		1,19,10,13, 3, 1,32,45		5,47
56″	46,35,42,12, 2,33,29,40,11,32		3,24,23,19,29	
		1,19,10, 9,38,38,13,16		5,47
58″	46,35,43,31,12,43, 8,18,24,48		3,24,23,25,16	
		1,19,10, 6,14,14,48, 0		
60″	46,35,44,50,22,49,22,33,12,48			
exact	46,35,44,50,22,49,22,32,50,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°57′ 0″	46,35,44,50,22,49,22,32,50,55			
		1,19,10, 2,49,51,14,36		
2″	46,35,46, 9,32,52,12,24, 5,31		3,24,23,36,59	
		1,19, 9,59,25,27,37,37		5,47
4″	46,35,47,28,42,51,37,51,43, 8		3,24,23,42,46	
		1,19, 9,56, 1, 3,54,51		5,47
6″	46,35,48,47,52,47,38,55,37,59		3,24,23,48,33	
		1,19, 9,52,36,40, 6,18		5,47
8″	46,35,50, 7, 2,40,15,35,44,17		3,24,23,54,20	
		1,19, 9,49,12,16,11,58		5,47
10″	46,35,51,26,12,29,27,51,56,15		3,24,24, 0, 7	
		1,19, 9,45,47,52,11,51		5,47
12″	46,35,52,45,22,15,15,44, 8, 6		3,24,24, 5,54	
		1,19, 9,42,23,28, 5,57		5,47
14″	46,35,54, 4,31,57,39,12,14, 3		3,24,24,11,41	
		1,19, 9,38,59, 3,54,16		5,47
16″	46,35,55,23,41,36,38,16, 8,19		3,24,24,17,28	
		1,19, 9,35,34,39,36,48		5,47
18″	46,35,56,42,51,12,12,55,45, 7		3,24,24,23,15	
		1,19, 9,32,10,15,13,33		5,47
20″	46,35,58, 2, 0,44,23,10,58,40		3,24,24,29, 2	
		1,19, 9,28,45,50,44,31		5,47
22″	46,35,59,21,10,13, 9, 1,43,11		3,24,24,34,49	
		1,19, 9,25,21,26, 9,42		5,47
24″	46,36, 0,40,19,38,30,27,52,53		3,24,24,40,36	
		1,19, 9,21,57, 1,29, 6		5,47
26″	46,36, 1,59,29, 0,27,29,21,59		3,24,24,46,23	
		1,19, 9,18,32,36,42,43		5,47
28″	46,36, 3,18,38,19, 0, 6, 4,42		3,24,24,52,10	
		1,19, 9,15, 8,11,50,33		5,47
30″	46,36, 4,37,47,34, 8,17,55,15		3,24,24,57,57	
		1,19, 9,11,43,46,52,36		5,47
32″	46,36, 5,56,56,45,52, 4,47,51		3,24,25, 3,44	
		1,19, 9, 8,19,21,48,52		5,47
34″	46,36, 7,16, 5,54,11,26,36,43		3,24,25, 9,31	
		1,19, 9, 4,54,56,39,21		5,47
36″	46,36, 8,35,14,59, 6,23,16, 4		3,24,25,15,18	
		1,19, 9, 1,30,31,24, 3		5,47
38″	46,36, 9,54,24, 0,36,54,40, 7		3,24,25,21, 5	
		1,19, 8,58, 6, 6, 2,58		5,47
40″	46,36,11,13,32,58,43, 0,43, 5		3,24,25,26,52	
		1,19, 8,54,41,40,36, 6		5,47
42″	46,36,12,32,41,53,24,41,19,11		3,24,25,32,39	
		1,19, 8,51,17,15, 3,27		5,47
44″	46,36,13,51,50,44,41,56,22,38		3,24,25,38,26	
		1,19, 8,47,52,49,25, 1		5,47
46″	46,36,15,10,59,32,34,45,47,39		3,24,25,44,13	
		1,19, 8,44,28,23,40,48		5,47
48″	46,36,16,30, 8,17, 3, 9,28,27		3,24,25,50, 0	
		1,19, 8,41, 3,57,50,48		5,47
50″	46,36,17,49,16,58, 7, 7,19,15		3,24,25,55,47	
		1,19, 8,37,39,31,55, 1		5,47
52″	46,36,19, 8,25,35,46,39,14,16		3,24,26, 1,34	
		1,19, 8,34,15, 5,53,27		5,47
54″	46,36,20,27,34,10, 1,45, 7,43		3,24,26, 7,21	
		1,19, 8,30,50,39,46, 6		5,47
56″	46,36,21,46,42,40,52,24,53,49		3,24,26,13, 8	
		1,19, 8,27,26,13,32,58		5,47
58″	46,36,23, 5,51, 8,18,38,26,47		3,24,26,18,55	
		1,19, 8,24, 1,47,14, 3		
60″	46,36,24,24,59,32,20,25,40,50			
exact	46,36,24,24,59,32,20,25,21,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°58′ 0″	46,36,24,24,59,32,20,25,21,14			
		1,19, 8,20,37,20,47,29		
2″	46,36,25,44, 7,52,57,46, 8,43		3,24,26,30,36	
		1,19, 8,17,12,54,16,53		5,47
4″	46,36,27, 3,16,10,10,40,25,36		3,24,26,36,23	
		1,19, 8,13,48,27,40,30		5,47
6″	46,36,28,22,24,23,59, 8, 6, 6		3,24,26,42,10	
		1,19, 8,10,24, 0,58,20		5,47
8″	46,36,29,41,32,34,23, 9, 4,26		3,24,26,47,57	
		1,19, 8, 6,59,34,10,23		5,47
10″	46,36,31, 0,40,41,22,43,14,49		3,24,26,53,44	
		1,19, 8, 3,35, 7,16,39		5,47
12″	46,36,32,19,48,44,57,50,31,28		3,24,26,59,31	
		1,19, 8, 0,10,40,17, 8		5,47
14″	46,36,33,38,56,45, 8,30,48,36		3,24,27, 5,18	
		1,19, 7,56,46,13,11,50		5,47
16″	46,36,34,58, 4,41,54,44, 0,26		3,24,27,11, 5	
		1,19, 7,53,21,46, 0,45		5,47
18″	46,36,36,17,12,35,16,30, 1,11		3,24,27,16,52	
		1,19, 7,49,57,18,43,53		5,47
20″	46,36,37,36,20,25,13,48,45, 4		3,24,27,22,39	
		1,19, 7,46,32,51,21,14		5,47
22″	46,36,38,55,28,11,46,40, 6,18		3,24,27,28,26	
		1,19, 7,43, 8,23,52,48		5,47
24″	46,36,40,14,35,54,55, 3,59, 6		3,24,27,34,13	
		1,19, 7,39,43,56,18,35		5,47
26″	46,36,41,33,43,34,39, 0,17,41		3,24,27,40, 0	
		1,19, 7,36,19,28,38,35		5,47
28″	46,36,42,52,51,10,58,28,56,16		3,24,27,45,47	
		1,19, 7,32,55, 0,52,48		5,47
30″	46,36,44,11,58,43,53,29,49, 4		3,24,27,51,34	
		1,19, 7,29,30,33, 1,14		5,47
32″	46,36,45,31, 6,13,24, 2,50,18		3,24,27,57,21	
		1,19, 7,26, 6, 5, 3,53		5,47
34″	46,36,46,50,13,39,30, 7,54,11		3,24,28, 3, 8	
		1,19, 7,22,41,37, 0,45		5,47
36″	46,36,48, 9,21, 2,11,44,54,56		3,24,28, 8,55	
		1,19, 7,19,17, 8,51,50		5,47
38″	46,36,49,28,28,21,28,53,46,46		3,24,28,14,42	
		1,19, 7,15,52,40,37, 8		5,47
40″	46,36,50,47,35,37,21,34,23,54		3,24,28,20,29	
		1,19, 7,12,28,12,16,39		5,47
42″	46,36,52, 6,42,49,49,46,40,33		3,24,28,26,16	
		1,19, 7, 9, 3,43,50,23		5,47
44″	46,36,53,25,49,58,53,30,30,56		3,24,28,32, 3	
		1,19, 7, 5,39,15,18,20		5,47
46″	46,36,54,44,57, 4,32,45,49,16		3,24,28,37,50	
		1,19, 7, 2,14,46,40,30		5,47
48″	46,36,56, 4, 4, 6,47,32,29,46		3,24,28,43,37	
		1,19, 6,58,50,17,56,53		5,47
50″	46,36,57,23,11, 5,37,50,26,39		3,24,28,49,24	
		1,19, 6,55,25,49, 7,29		5,47
52″	46,36,58,42,18, 1, 3,39,34, 8		3,24,28,55,11	
		1,19, 6,52, 1,20,12,18		5,47
54″	46,37, 0, 1,24,53, 4,59,46,26		3,24,29, 0,58	
		1,19, 6,48,36,51,11,20		5,47
56″	46,37, 1,20,31,41,41,50,57,46		3,24,29, 6,45	
		1,19, 6,45,12,22, 4,35		5,47
58″	46,37, 2,39,38,26,54,13, 2,21		3,24,29,12,32	
		1,19, 6,41,47,52,52, 3		
60″	46,37, 3,58,45, 8,42, 5,54,24			
exact	46,37, 3,58,45, 8,42, 5,49,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
50°59′ 0″	46,37, 3,58,45, 8,42, 5,49,50			
		1,19, 6,38,23,23,33,13		
2″	46,37, 5,17,51,47, 5,29,23, 3		3,24,29,24, 8	
		1,19, 6,34,58,54, 9, 5		5,47
4″	46,37, 6,36,58,22, 4,23,32, 8		3,24,29,29,55	
		1,19, 6,31,34,24,39,10		5,47
6″	46,37, 7,56, 4,53,38,48,11,18		3,24,29,35,42	
		1,19, 6,28, 9,55, 3,28		5,47
8″	46,37, 9,15,11,21,48,43,14,46		3,24,29,41,29	
		1,19, 6,24,45,25,21,59		5,47
10″	46,37,10,34,17,46,34, 8,36,45		3,24,29,47,16	
		1,19, 6,21,20,55,34,43		5,47
12″	46,37,11,53,24, 7,55, 4,11,28		3,24,29,53, 3	
		1,19, 6,17,56,25,41,40		5,47
14″	46,37,13,12,30,25,51,29,53, 8		3,24,29,58,50	
		1,19, 6,14,31,55,42,50		5,47
16″	46,37,14,31,36,40,23,25,35,58		3,24,30, 4,37	
		1,19, 6,11, 7,25,38,13		5,47
18″	46,37,15,50,42,51,30,51,14,11		3,24,30,10,24	
		1,19, 6, 7,42,55,27,49		5,47
20″	46,37,17, 9,48,59,13,46,42, 0		3,24,30,16,11	
		1,19, 6, 4,18,25,11,38		5,47
22″	46,37,18,28,55, 3,32,11,53,38		3,24,30,21,58	
		1,19, 6, 0,53,54,49,40		5,47
24″	46,37,19,48, 1, 4,26, 6,43,18		3,24,30,27,45	
		1,19, 5,57,29,24,21,55		5,47
26″	46,37,21, 7, 7, 1,55,31, 5,13		3,24,30,33,32	
		1,19, 5,54, 4,53,48,23		5,47
28″	46,37,22,26,12,56, 0,24,53,36		3,24,30,39,19	
		1,19, 5,50,40,23, 9, 4		5,47
30″	46,37,23,45,18,46,40,48, 2,40		3,24,30,45, 6	
		1,19, 5,47,15,52,23,58		5,47
32″	46,37,25, 4,24,33,56,40,26,38		3,24,30,50,53	
		1,19, 5,43,51,21,33, 5		5,47
34″	46,37,26,23,30,17,48, 1,59,43		3,24,30,56,40	
		1,19, 5,40,26,50,36,25		5,47
36″	46,37,27,42,35,58,14,52,36, 8		3,24,31, 2,27	
		1,19, 5,37, 2,19,33,58		5,47
38″	46,37,29, 1,41,35,17,12,10, 6		3,24,31, 8,14	
		1,19, 5,33,37,48,25,44		5,47
40″	46,37,30,20,47, 8,55, 0,35,50		3,24,31,14, 1	
		1,19, 5,30,13,17,11,43		5,47
42″	46,37,31,39,52,39, 8,17,47,33		3,24,31,19,48	
		1,19, 5,26,48,45,51,55		5,47
44″	46,37,32,58,58, 5,57, 3,39,28		3,24,31,25,35	
		1,19, 5,23,24,14,26,20		5,47
46″	46,37,34,18, 3,29,21,18, 5,48		3,24,31,31,22	
		1,19, 5,19,59,42,54,58		5,47
48″	46,37,35,37, 8,49,21, 1, 0,46		3,24,31,37, 9	
		1,19, 5,16,35,11,17,49		5,47
50″	46,37,36,56,14, 5,56,12,18,35		3,24,31,42,56	
		1,19, 5,13,10,39,34,53		5,47
52″	46,37,38,15,19,19, 6,51,53,28		3,24,31,48,43	
		1,19, 5, 9,46, 7,46,10		5,47
54″	46,37,39,34,24,28,52,59,39,38		3,24,31,54,30	
		1,19, 5, 6,21,35,51,40		5,47
56″	46,37,40,53,29,35,14,35,31,18		3,24,32, 0,17	
		1,19, 5, 2,57, 3,51,23		5,47
58″	46,37,42,12,34,38,11,39,22,41		3,24,32, 6, 4	
		1,19, 4,59,32,31,45,19		
60″	46,37,43,31,39,37,44,11, 8, 0			
exact	46,37,43,31,39,37,44,11, 9,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51° 0′ 0″	46,37,43,31,39,37,44,11, 9,37			
		1,19, 4,56, 7,59,33,41		
2″	46,37,44,50,44,33,52,10,43,18		3,24,32,17,37	
		1,19, 4,52,43,27,16, 4		5,47
4″	46,37,46, 9,49,26,35,37,59,22		3,24,32,23,24	
		1,19, 4,49,18,54,52,40		5,47
6″	46,37,47,28,54,15,54,32,52, 2		3,24,32,29,11	
		1,19, 4,45,54,22,23,29		5,47
8″	46,37,48,47,59, 1,48,55,15,31		3,24,32,34,58	
		1,19, 4,42,29,49,48,31		5,47
10″	46,37,50, 7, 3,44,18,45, 4, 2		3,24,32,40,45	
		1,19, 4,39, 5,17, 7,46		5,47
12″	46,37,51,26, 8,23,24, 2,11,48		3,24,32,46,32	
		1,19, 4,35,40,44,21,14		5,47
14″	46,37,52,45,12,59, 4,46,33, 2		3,24,32,52,19	
		1,19, 4,32,16,11,28,55		5,47
16″	46,37,54, 4,17,31,20,58, 1,57		3,24,32,58, 6	
		1,19, 4,28,51,38,30,49		5,47
18″	46,37,55,23,22, 0,12,36,32,46		3,24,33, 3,53	
		1,19, 4,25,27, 5,26,56		5,47
20″	46,37,56,42,26,25,39,41,59,42		3,24,33, 9,40	
		1,19, 4,22, 2,32,17,16		5,47
22″	46,37,58, 1,30,47,42,14,16,58		3,24,33,15,27	
		1,19, 4,18,37,59, 1,49		5,47
24″	46,37,59,20,35, 6,20,13,18,47		3,24,33,21,14	
		1,19, 4,15,13,25,40,35		5,47
26″	46,38, 0,39,39,21,33,38,59,22		3,24,33,27, 1	
		1,19, 4,11,48,52,13,34		5,47
28″	46,38, 1,58,43,33,22,31,12,56		3,24,33,32,48	
		1,19, 4, 8,24,18,40,46		5,47
30″	46,38, 3,17,47,41,46,49,53,42		3,24,33,38,35	
		1,19, 4, 4,59,45, 2,11		5,47
32″	46,38, 4,36,51,46,46,34,55,53		3,24,33,44,22	
		1,19, 4, 1,35,11,17,49		5,47
34″	46,38, 5,55,55,48,21,46,13,42		3,24,33,50, 9	
		1,19, 3,58,10,37,27,40		5,47
36″	46,38, 7,14,59,46,32,23,41,22		3,24,33,55,56	
		1,19, 3,54,46, 3,31,44		5,47
38″	46,38, 8,34, 3,41,18,27,13, 6		3,24,34, 1,43	
		1,19, 3,51,21,29,30, 1		5,47
40″	46,38, 9,53, 7,32,39,56,43, 7		3,24,34, 7,30	
		1,19, 3,47,56,55,22,31		5,47
42″	46,38,11,12,11,20,36,52, 5,38		3,24,34,13,17	
		1,19, 3,44,32,21, 9,14		5,47
44″	46,38,12,31,15, 5, 9,13,14,52		3,24,34,19, 4	
		1,19, 3,41, 7,46,50,10		5,47
46″	46,38,13,50,18,46,17, 0, 5, 2		3,24,34,24,51	
		1,19, 3,37,43,12,25,19		5,47
48″	46,38,15, 9,22,24, 0,12,30,21		3,24,34,30,38	
		1,19, 3,34,18,37,54,41		5,47
50″	46,38,16,28,25,58,18,50,25, 2		3,24,34,36,25	
		1,19, 3,30,54, 3,18,16		5,47
52″	46,38,17,47,29,29,12,53,43,18		3,24,34,42,12	
		1,19, 3,27,29,28,36, 4		5,47
54″	46,38,19, 6,32,56,42,22,19,22		3,24,34,47,59	
		1,19, 3,24, 4,53,48, 5		5,47
56″	46,38,20,25,36,20,47,16, 7,27		3,24,34,53,46	
		1,19, 3,20,40,18,54,19		5,47
58″	46,38,21,44,39,41,27,35, 1,46		3,24,34,59,33	
		1,19, 3,17,15,43,54,46		
60″	46,38,23, 3,42,58,43,18,56,32			
exact	46,38,23, 3,42,58,43,19, 9,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51° 1′ 0″	46,38,23, 3,42,58,43,19, 9,27			
		1,19, 3,13,51, 8,50,45		
2″	46,38,24,22,46,12,34,28, 0,12		3,24,35,11, 1	
		1,19, 3,10,26,33,39,44		5,47
4″	46,38,25,41,49,23, 1, 1,39,56		3,24,35,16,48	
		1,19, 3, 7, 1,58,22,56		5,47
6″	46,38,27, 0,52,30, 3, 0, 2,52		3,24,35,22,35	
		1,19, 3, 3,37,23, 0,21		5,47
8″	46,38,28,19,55,33,40,23, 3,13		3,24,35,28,22	
		1,19, 3, 0,12,47,31,59		5,47
10″	46,38,29,38,58,33,53,10,35,12		3,24,35,34, 9	
		1,19, 2,56,48,11,57,50		5,47
12″	46,38,30,58, 1,30,41,22,33, 2		3,24,35,39,56	
		1,19, 2,53,23,36,17,54		5,47
14″	46,38,32,17, 4,24, 4,58,50,56		3,24,35,45,43	
		1,19, 2,49,59, 0,32,11		5,47
16″	46,38,33,36, 7,14, 3,59,23, 7		3,24,35,51,30	
		1,19, 2,46,34,24,40,41		5,47
18″	46,38,34,55,10, 0,38,24, 3,48		3,24,35,57,17	
		1,19, 2,43, 9,48,43,24		5,47
20″	46,38,36,14,12,43,48,12,47,12		3,24,36, 3, 4	
		1,19, 2,39,45,12,40,20		5,47
22″	46,38,37,33,15,23,33,25,27,32		3,24,36, 8,51	
		1,19, 2,36,20,36,31,29		5,47
24″	46,38,38,52,17,59,54, 1,59, 1		3,24,36,14,38	
		1,19, 2,32,56, 0,16,51		5,47
26″	46,38,40,11,20,32,50, 2,15,52		3,24,36,20,25	
		1,19, 2,29,31,23,56,26		5,47
28″	46,38,41,30,23, 2,21,26,12,18		3,24,36,26,12	
		1,19, 2,26, 6,47,30,14		5,47
30″	46,38,42,49,25,28,28,13,42,32		3,24,36,31,59	
		1,19, 2,22,42,10,58,15		5,47
32″	46,38,44, 8,27,51,10,24,40,47		3,24,36,37,46	
		1,19, 2,19,17,34,20,29		5,47
34″	46,38,45,27,30,10,27,59, 1,16		3,24,36,43,33	
		1,19, 2,15,52,57,36,56		5,47
36″	46,38,46,46,32,26,20,56,38,12		3,24,36,49,20	
		1,19, 2,12,28,20,47,36		5,47
38″	46,38,48, 5,34,38,49,17,25,48		3,24,36,55, 7	
		1,19, 2, 9, 3,43,52,29		5,47
40″	46,38,49,24,36,47,53, 1,18,17		3,24,37, 0,54	
		1,19, 2, 5,39, 6,51,35		5,47
42″	46,38,50,43,38,53,32, 8, 9,52		3,24,37, 6,41	
		1,19, 2, 2,14,29,44,54		5,47
44″	46,38,52, 2,40,55,46,37,54,46		3,24,37,12,28	
		1,19, 1,58,49,52,32,26		5,47
46″	46,38,53,21,42,54,36,30,27,12		3,24,37,18,15	
		1,19, 1,55,25,15,14,11		5,47
48″	46,38,54,40,44,50, 1,45,41,23		3,24,37,24, 2	
		1,19, 1,52, 0,37,50, 9		5,47
50″	46,38,55,59,46,42, 2,23,31,32		3,24,37,29,49	
		1,19, 1,48,36, 0,20,20		5,47
52″	46,38,57,18,48,30,38,23,51,52		3,24,37,35,36	
		1,19, 1,45,11,22,44,44		5,47
54″	46,38,58,37,50,15,49,46,36,36		3,24,37,41,23	
		1,19, 1,41,46,45, 3,21		5,47
56″	46,38,59,56,51,57,36,31,39,57		3,24,37,47,10	
		1,19, 1,38,22, 7,16,11		5,47
58″	46,39, 1,15,53,35,58,38,56, 8		3,24,37,52,57	
		1,19, 1,34,57,29,23,14		
60″	46,39, 2,34,55,10,56, 8,19,22			
exact	46,39, 2,34,55,10,56, 8,34,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51° 2′ 0″	46,39, 2,34,55,10,56, 8,34,20			
		1,19, 1,31,32,51,26,17		
2″	46,39, 3,53,56,42,29, 0, 0,37		3,24,38, 4,23	
		1,19, 1,28, 8,13,21,54		5,47
4″	46,39, 5,12,58,10,37,13,22,31		3,24,38,10,10	
		1,19, 1,24,43,35,11,44		5,47
6″	46,39, 6,31,59,35,20,48,34,15		3,24,38,15,57	
		1,19, 1,21,18,56,55,47		5,47
8″	46,39, 7,51, 0,56,39,45,30, 2		3,24,38,21,44	
		1,19, 1,17,54,18,34, 3		5,47
10″	46,39, 9,10, 2,14,34, 4, 4, 5		3,24,38,27,31	
		1,19, 1,14,29,40, 6,32		5,47
12″	46,39,10,29, 3,29, 3,44,10,37		3,24,38,33,18	
		1,19, 1,11, 5, 1,33,14		5,47
14″	46,39,11,48, 4,40, 8,45,43,51		3,24,38,39, 5	
		1,19, 1, 7,40,22,54, 9		5,47
16″	46,39,13, 7, 5,47,49, 8,38, 0		3,24,38,44,52	
		1,19, 1, 4,15,44, 9,17		5,47
18″	46,39,14,26, 6,52, 4,52,47,17		3,24,38,50,39	
		1,19, 1, 0,51, 5,18,38		5,47
20″	46,39,15,45, 7,52,55,58, 5,55		3,24,38,56,26	
		1,19, 0,57,26,26,22,12		5,47
22″	46,39,17, 4, 8,50,22,24,28, 7		3,24,39, 2,13	
		1,19, 0,54, 1,47,19,59		5,47
24″	46,39,18,23, 9,44,24,11,48, 6		3,24,39, 8, 0	
		1,19, 0,50,37, 8,11,59		5,47
26″	46,39,19,42,10,35, 1,20, 0, 5		3,24,39,13,47	
		1,19, 0,47,12,28,58,12		5,47
28″	46,39,21, 1,11,22,13,48,58,17		3,24,39,19,34	
		1,19, 0,43,47,49,38,38		5,47
30″	46,39,22,20,12, 6, 1,38,36,55		3,24,39,25,21	
		1,19, 0,40,23,10,13,17		5,47
32″	46,39,23,39,12,46,24,48,50,12		3,24,39,31, 8	
		1,19, 0,36,58,30,42, 9		5,47
34″	46,39,24,58,13,23,23,19,32,21		3,24,39,36,55	
		1,19, 0,33,33,51, 5,14		5,47
36″	46,39,26,17,13,56,57,10,37,35		3,24,39,42,42	
		1,19, 0,30, 9,11,22,32		5,47
38″	46,39,27,36,14,27, 6,22, 0, 7		3,24,39,48,29	
		1,19, 0,26,44,31,34, 3		5,47
40″	46,39,28,55,14,53,50,53,34,10		3,24,39,54,16	
		1,19, 0,23,19,51,39,47		5,47
42″	46,39,30,14,15,17,10,45,13,57		3,24,40, 0, 3	
		1,19, 0,19,55,11,39,44		5,47
44″	46,39,31,33,15,37, 5,56,53,41		3,24,40, 5,50	
		1,19, 0,16,30,31,33,54		5,47
46″	46,39,32,52,15,53,36,28,27,35		3,24,40,11,37	
		1,19, 0,13, 5,51,22,17		5,47
48″	46,39,34,11,16, 6,42,19,49,52		3,24,40,17,24	
		1,19, 0, 9,41,11, 4,53		5,47
50″	46,39,35,30,16,16,23,30,54,45		3,24,40,23,11	
		1,19, 0, 6,16,30,41,42		5,47
52″	46,39,36,49,16,22,40, 1,36,27		3,24,40,28,58	
		1,19, 0, 2,51,50,12,44		5,47
54″	46,39,38, 8,16,25,31,51,49,11		3,24,40,34,45	
		1,18,59,59,27, 9,37,59		5,47
56″	46,39,39,27,16,24,59, 1,27,10		3,24,40,40,32	
		1,18,59,56, 2,28,57,27		5,47
58″	46,39,40,46,16,21, 1,30,24,37		3,24,40,46,19	
		1,18,59,52,37,48,11, 8		
60″	46,39,42, 5,16,13,39,18,35,45			
exact	46,39,42, 5,16,13,39,19, 5,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51° 3′ 0″	46,39,42, 5,16,13,39,19, 5,20			
		1,18,59,49,13, 7,22, 9		
2″	46,39,43,24,16, 2,52,26,27,29		3,24,40,57,40	
		1,18,59,45,48,26,24,29		5,47
4″	46,39,44,43,15,48,40,52,51,58		3,24,41, 3,27	
		1,18,59,42,23,45,21, 2		5,47
6″	46,39,46, 2,15,31, 4,38,13, 0		3,24,41, 9,14	
		1,18,59,38,59, 4,11,48		5,47
8″	46,39,47,21,15,10, 3,42,24,48		3,24,41,15, 1	
		1,18,59,35,34,22,56,47		5,47
10″	46,39,48,40,14,45,38, 5,21,35		3,24,41,20,48	
		1,18,59,32, 9,41,35,59		5,47
12″	46,39,49,59,14,17,47,46,57,34		3,24,41,26,35	
		1,18,59,28,45, 0, 9,24		5,47
14″	46,39,51,18,13,46,32,47, 6,58		3,24,41,32,22	
		1,18,59,25,20,18,37, 2		5,47
16″	46,39,52,37,13,11,53, 5,44, 0		3,24,41,38, 9	
		1,18,59,21,55,36,58,53		5,47
18″	46,39,53,56,12,33,48,42,42,53		3,24,41,43,56	
		1,18,59,18,30,55,14,57		5,47
20″	46,39,55,15,11,52,19,37,57,50		3,24,41,49,43	
		1,18,59,15, 6,13,25,14		5,47
22″	46,39,56,34,11, 7,25,51,23, 4		3,24,41,55,30	
		1,18,59,11,41,31,29,44		5,47
24″	46,39,57,53,10,19, 7,22,52,48		3,24,42, 1,17	
		1,18,59, 8,16,49,28,27		5,47
26″	46,39,59,12, 9,27,24,12,21,15		3,24,42, 7, 4	
		1,18,59, 4,52, 7,21,23		5,47
28″	46,40, 0,31, 8,32,16,19,42,38		3,24,42,12,51	
		1,18,59, 1,27,25, 8,32		5,47
30″	46,40, 1,50, 7,33,43,44,51,10		3,24,42,18,38	
		1,18,58,58, 2,42,49,54		5,47
32″	46,40, 3, 9, 6,31,46,27,41, 4		3,24,42,24,25	
		1,18,58,54,38, 0,25,29		5,47
34″	46,40, 4,28, 5,26,24,28, 6,33		3,24,42,30,12	
		1,18,58,51,13,17,55,17		5,47
36″	46,40, 5,47, 4,17,37,46, 1,50		3,24,42,35,59	
		1,18,58,47,48,35,19,18		5,47
38″	46,40, 7, 6, 3, 5,26,21,21, 8		3,24,42,41,46	
		1,18,58,44,23,52,37,32		5,47
40″	46,40, 8,25, 1,49,50,13,58,40		3,24,42,47,33	
		1,18,58,40,59, 9,49,59		5,47
42″	46,40, 9,44, 0,30,49,23,48,39		3,24,42,53,20	
		1,18,58,37,34,26,56,39		5,47
44″	46,40,11, 2,59, 8,23,50,45,18		3,24,42,59, 7	
		1,18,58,34, 9,43,57,32		5,47
46″	46,40,12,21,57,42,33,34,42,50		3,24,43, 4,54	
		1,18,58,30,45, 0,52,38		5,47
48″	46,40,13,40,56,13,18,35,35,28		3,24,43,10,41	
		1,18,58,27,20,17,41,57		5,47
50″	46,40,14,59,54,40,38,53,17,25		3,24,43,16,28	
		1,18,58,23,55,34,25,29		5,47
52″	46,40,16,18,53, 4,34,27,42,54		3,24,43,22,15	
		1,18,58,20,30,51, 3,14		5,47
54″	46,40,17,37,51,25, 5,18,46, 8		3,24,43,28, 2	
		1,18,58,17, 6, 7,35,12		5,47
56″	46,40,18,56,49,42,11,26,21,20		3,24,43,33,49	
		1,18,58,13,41,24, 1,23		5,47
58″	46,40,20,15,47,55,52,50,22,43		3,24,43,39,36	
		1,18,58,10,16,40,21,47		
60″	46,40,21,34,46, 6, 9,30,44,30			
exact	46,40,21,34,46, 6, 9,31,19,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51° 4′ 0″	46,40,21,34,46, 6, 9,31,19,37			
		1,18,58, 6,51,56,40,13		
2″	46,40,22,53,44,13, 1,27,59,50		3,24,43,50,54	
		1,18,58, 3,27,12,49,19		5,46
4″	46,40,24,12,42,16,28,40,49, 9		3,24,43,56,40	
		1,18,58, 0, 2,28,52,39		5,46
6″	46,40,25,31,40,16,31, 9,41,48		3,24,44, 2,26	
		1,18,57,56,37,44,50,13		5,46
8″	46,40,26,50,38,13, 8,54,32, 1		3,24,44, 8,12	
		1,18,57,53,13, 0,42, 1		5,46
10″	46,40,28, 9,36, 6,21,55,14, 2		3,24,44,13,58	
		1,18,57,49,48,16,28, 3		5,46
12″	46,40,29,28,33,56,10,11,42, 5		3,24,44,19,44	
		1,18,57,46,23,32, 8,19		5,46
14″	46,40,30,47,31,42,33,43,50,24		3,24,44,25,30	
		1,18,57,42,58,47,42,49		5,46
16″	46,40,32, 6,29,25,32,31,33,13		3,24,44,31,16	
		1,18,57,39,34, 3,11,33		5,46
18″	46,40,33,25,27, 5, 6,34,44,46		3,24,44,37, 2	
		1,18,57,36, 9,18,34,31		5,46
20″	46,40,34,44,24,41,15,53,19,17		3,24,44,42,48	
		1,18,57,32,44,33,51,43		5,46
22″	46,40,36, 3,22,14, 0,27,11, 0		3,24,44,48,34	
		1,18,57,29,19,49, 3, 9		5,46
24″	46,40,37,22,19,43,20,16,14, 9		3,24,44,54,20	
		1,18,57,25,55, 4, 8,49		5,46
26″	46,40,38,41,17, 9,15,20,22,58		3,24,45, 0, 6	
		1,18,57,22,30,19, 8,43		5,46
28″	46,40,40, 0,14,31,45,39,31,41		3,24,45, 5,52	
		1,18,57,19, 5,34, 2,51		5,46
30″	46,40,41,19,11,50,51,13,34,32		3,24,45,11,38	
		1,18,57,15,40,48,51,13		5,46
32″	46,40,42,38, 9, 6,32, 2,25,45		3,24,45,17,24	
		1,18,57,12,16, 3,33,49		5,46
34″	46,40,43,57, 6,18,48, 5,59,34		3,24,45,23,10	
		1,18,57, 8,51,18,10,39		5,46
36″	46,40,45,16, 3,27,39,24,10,13		3,24,45,28,56	
		1,18,57, 5,26,32,41,43		5,46
38″	46,40,46,35, 0,33, 5,56,51,56		3,24,45,34,42	
		1,18,57, 2, 1,47, 7, 1		5,46
40″	46,40,47,53,57,35, 7,43,58,57		3,24,45,40,28	
		1,18,56,58,37, 1,26,33		5,46
42″	46,40,49,12,54,33,44,45,25,30		3,24,45,46,14	
		1,18,56,55,12,15,40,19		5,46
44″	46,40,50,31,51,28,57, 1, 5,49		3,24,45,52, 0	
		1,18,56,51,47,29,48,19		5,46
46″	46,40,51,50,48,20,44,30,54, 8		3,24,45,57,46	
		1,18,56,48,22,43,50,33		5,46
48″	46,40,53, 9,45, 9, 7,14,44,41		3,24,46, 3,32	
		1,18,56,44,57,57,47, 1		5,46
50″	46,40,54,28,41,54, 5,12,31,42		3,24,46, 9,18	
		1,18,56,41,33,11,37,43		5,46
52″	46,40,55,47,38,35,38,24, 9,25		3,24,46,15, 4	
		1,18,56,38, 8,25,22,39		5,46
54″	46,40,57, 6,35,13,46,49,32, 4		3,24,46,20,50	
		1,18,56,34,43,39, 1,49		5,46
56″	46,40,58,25,31,48,30,28,33,53		3,24,46,26,36	
		1,18,56,31,18,52,35,13		5,46
58″	46,40,59,44,28,19,49,21, 9, 6		3,24,46,32,22	
		1,18,56,27,54, 6, 2,51		
60″	46,41, 1, 3,24,47,43,27,11,57			
exact	46,41, 1, 3,24,47,43,26,50,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51° 5′ 0″	46,41, 1, 3,24,47,43,26,50,30			
		1,18,56,24,29,19,22,22		
2″	46,41, 2,22,21,12,12,46,12,52		3,24,46,44, 4	
		1,18,56,21, 4,32,38,18		5,46
4″	46,41, 3,41,17,33,17,18,51,10		3,24,46,49,50	
		1,18,56,17,39,45,48,28		5,46
6″	46,41, 5, 0,13,50,57, 4,39,38		3,24,46,55,36	
		1,18,56,14,14,58,52,52		5,46
8″	46,41, 6,19,10, 5,12, 3,32,30		3,24,47, 1,22	
		1,18,56,10,50,11,51,30		5,46
10″	46,41, 7,38, 6,16, 2,15,24, 0		3,24,47, 7, 8	
		1,18,56, 7,25,24,44,22		5,46
12″	46,41, 8,57, 2,23,27,40, 8,22		3,24,47,12,54	
		1,18,56, 4, 0,37,31,28		5,46
14″	46,41,10,15,58,27,28,17,39,50		3,24,47,18,40	
		1,18,56, 0,35,50,12,48		5,46
16″	46,41,11,34,54,28, 4, 7,52,38		3,24,47,24,26	
		1,18,55,57,11, 2,48,22		5,46
18″	46,41,12,53,50,25,15,10,41, 0		3,24,47,30,12	
		1,18,55,53,46,15,18,10		5,46
20″	46,41,14,12,46,19, 1,25,59,10		3,24,47,35,58	
		1,18,55,50,21,27,42,12		5,46
22″	46,41,15,31,42, 9,22,53,41,22		3,24,47,41,44	
		1,18,55,46,56,40, 0,28		5,46
24″	46,41,16,50,37,56,19,33,41,50		3,24,47,47,30	
		1,18,55,43,31,52,12,58		5,46
26″	46,41,18, 9,33,39,51,25,54,48		3,24,47,53,16	
		1,18,55,40, 7, 4,19,42		5,46
28″	46,41,19,28,29,19,58,30,14,30		3,24,47,59, 2	
		1,18,55,36,42,16,20,40		5,46
30″	46,41,20,47,24,56,40,46,35,10		3,24,48, 4,48	
		1,18,55,33,17,28,15,52		5,46
32″	46,41,22, 6,20,29,58,14,51, 2		3,24,48,10,34	
		1,18,55,29,52,40, 5,18		5,46
34″	46,41,23,25,15,59,50,54,56,20		3,24,48,16,20	
		1,18,55,26,27,51,48,58		5,46
36″	46,41,24,44,11,26,18,46,45,18		3,24,48,22, 6	
		1,18,55,23, 3, 3,26,52		5,46
38″	46,41,26, 3, 6,49,21,50,12,10		3,24,48,27,52	
		1,18,55,19,38,14,59, 0		5,46
40″	46,41,27,22, 2, 9, 0, 5,11,10		3,24,48,33,38	
		1,18,55,16,13,26,25,22		5,46
42″	46,41,28,40,57,25,13,31,36,32		3,24,48,39,24	
		1,18,55,12,48,37,45,58		5,46
44″	46,41,29,59,52,38, 2, 9,22,30		3,24,48,45,10	
		1,18,55, 9,23,49, 0,48		5,46
46″	46,41,31,18,47,47,25,58,23,18		3,24,48,50,56	
		1,18,55, 5,59, 0, 9,52		5,46
48″	46,41,32,37,42,53,24,58,33,10		3,24,48,56,42	
		1,18,55, 2,34,11,13,10		5,46
50″	46,41,33,56,37,55,59, 9,46,20		3,24,49, 2,28	
		1,18,54,59, 9,22,10,42		5,46
52″	46,41,35,15,32,55, 8,31,57, 2		3,24,49, 8,14	
		1,18,54,55,44,33, 2,28		5,46
54″	46,41,36,34,27,50,53, 4,59,30		3,24,49,14, 0	
		1,18,54,52,19,43,48,28		5,46
56″	46,41,37,53,22,43,12,48,47,58		3,24,49,19,46	
		1,18,54,48,54,54,28,42		5,46
58″	46,41,39,12,17,32, 7,43,16,40		3,24,49,25,32	
		1,18,54,45,30, 5, 3,10		
60″	46,41,40,31,12,17,37,48,19,50			
exact	46,41,40,31,12,17,37,48, 7,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51° 6′ 0″	46,41,40,31,12,17,37,48, 7,22			
		1,18,54,42, 5,15,30,28		
2″	46,41,41,50, 6,59,43, 3,37,50		3,24,49,37,10	
		1,18,54,38,40,25,53,18		5,46
4″	46,41,43, 9, 1,38,23,29,31, 8		3,24,49,42,56	
		1,18,54,35,15,36,10,22		5,46
6″	46,41,44,27,56,13,39, 5,41,30		3,24,49,48,42	
		1,18,54,31,50,46,21,40		5,46
8″	46,41,45,46,50,45,29,52, 3,10		3,24,49,54,28	
		1,18,54,28,25,56,27,12		5,46
10″	46,41,47, 5,45,13,55,48,30,22		3,24,50, 0,14	
		1,18,54,25, 1, 6,26,58		5,46
12″	46,41,48,24,39,38,56,54,57,20		3,24,50, 6, 0	
		1,18,54,21,36,16,20,58		5,46
14″	46,41,49,43,34, 0,33,11,18,18		3,24,50,11,46	
		1,18,54,18,11,26, 9,12		5,46
16″	46,41,51, 2,28,18,44,37,27,30		3,24,50,17,32	
		1,18,54,14,46,35,51,40		5,46
18″	46,41,52,21,22,33,31,13,19,10		3,24,50,23,18	
		1,18,54,11,21,45,28,22		5,46
20″	46,41,53,40,16,44,52,58,47,32		3,24,50,29, 4	
		1,18,54, 7,56,54,59,18		5,46
22″	46,41,54,59,10,52,49,53,46,50		3,24,50,34,50	
		1,18,54, 4,32, 4,24,28		5,46
24″	46,41,56,18, 4,57,21,58,11,18		3,24,50,40,36	
		1,18,54, 1, 7,13,43,52		5,46
26″	46,41,57,36,58,58,29,11,55,10		3,24,50,46,22	
		1,18,53,57,42,22,57,30		5,46
28″	46,41,58,55,52,56,11,34,52,40		3,24,50,52, 8	
		1,18,53,54,17,32, 5,22		5,46
30″	46,42, 0,14,46,50,29, 6,58, 2		3,24,50,57,54	
		1,18,53,50,52,41, 7,28		5,46
32″	46,42, 1,33,40,41,21,48, 5,30		3,24,51, 3,40	
		1,18,53,47,27,50, 3,48		5,46
34″	46,42, 2,52,34,28,49,38, 9,18		3,24,51, 9,26	
		1,18,53,44, 2,58,54,22		5,46
36″	46,42, 4,11,28,12,52,37, 3,40		3,24,51,15,12	
		1,18,53,40,38, 7,39,10		5,46
38″	46,42, 5,30,21,53,30,44,42,50		3,24,51,20,58	
		1,18,53,37,13,16,18,12		5,46
40″	46,42, 6,49,15,30,44, 1, 1, 2		3,24,51,26,44	
		1,18,53,33,48,24,51,28		5,46
42″	46,42, 8, 8, 9, 4,32,25,52,30		3,24,51,32,30	
		1,18,53,30,23,33,18,58		5,46
44″	46,42, 9,27, 2,34,55,59,11,28		3,24,51,38,16	
		1,18,53,26,58,41,40,42		5,46
46″	46,42,10,45,56, 1,54,40,52,10		3,24,51,44, 2	
		1,18,53,23,33,49,56,40		5,46
48″	46,42,12, 4,49,25,28,30,48,50		3,24,51,49,48	
		1,18,53,20, 8,58, 6,52		5,46
50″	46,42,13,23,42,45,37,28,55,42		3,24,51,55,34	
		1,18,53,16,44, 6,11,18		5,46
52″	46,42,14,42,36, 2,21,35, 7, 0		3,24,52, 1,20	
		1,18,53,13,19,14, 9,58		5,46
54″	46,42,16, 1,29,15,40,49,16,58		3,24,52, 7, 6	
		1,18,53, 9,54,22, 2,52		5,46
56″	46,42,17,20,22,25,35,11,19,50		3,24,52,12,52	
		1,18,53, 6,29,29,50, 0		5,46
58″	46,42,18,39,15,32, 4,41, 9,50		3,24,52,18,38	
		1,18,53, 3, 4,37,31,22		
60″	46,42,19,58, 8,35, 9,18,41,12			
exact	46,42,19,58, 8,35, 9,18,35,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51° 7′ 0″	46,42,19,58, 8,35, 9,18,35,47			
		1,18,52,59,39,45, 6,23		
2″	46,42,21,17, 1,34,49, 3,42,10		3,24,52,30,12	
		1,18,52,56,14,52,36,11		5,46
4″	46,42,22,35,54,31, 3,56,18,21		3,24,52,35,58	
		1,18,52,52,50, 0, 0,13		5,46
6″	46,42,23,54,47,23,53,56,18,34		3,24,52,41,44	
		1,18,52,49,25, 7,18,29		5,46
8″	46,42,25,13,40,13,19, 3,37, 3		3,24,52,47,30	
		1,18,52,46, 0,14,30,59		5,46
10″	46,42,26,32,32,59,19,18, 8, 2		3,24,52,53,16	
		1,18,52,42,35,21,37,43		5,46
12″	46,42,27,51,25,41,54,39,45,45		3,24,52,59, 2	
		1,18,52,39,10,28,38,41		5,46
14″	46,42,29,10,18,21, 5, 8,24,26		3,24,53, 4,48	
		1,18,52,35,45,35,33,53		5,46
16″	46,42,30,29,10,56,50,43,58,19		3,24,53,10,34	
		1,18,52,32,20,42,23,19		5,46
18″	46,42,31,48, 3,29,11,26,21,38		3,24,53,16,20	
		1,18,52,28,55,49, 6,59		5,46
20″	46,42,33, 6,55,58, 7,15,28,37		3,24,53,22, 6	
		1,18,52,25,30,55,44,53		5,46
22″	46,42,34,25,48,23,38,11,13,30		3,24,53,27,52	
		1,18,52,22, 6, 2,17, 1		5,46
24″	46,42,35,44,40,45,44,13,30,31		3,24,53,33,38	
		1,18,52,18,41, 8,43,23		5,46
26″	46,42,37, 3,33, 4,25,22,13,54		3,24,53,39,24	
		1,18,52,15,16,15, 3,59		5,46
28″	46,42,38,22,25,19,41,37,17,53		3,24,53,45,10	
		1,18,52,11,51,21,18,49		5,46
30″	46,42,39,41,17,31,32,58,36,42		3,24,53,50,56	
		1,18,52, 8,26,27,27,53		5,46
32″	46,42,41, 0, 9,39,59,26, 4,35		3,24,53,56,42	
		1,18,52, 5, 1,33,31,11		5,46
34″	46,42,42,19, 1,45, 0,59,35,46		3,24,54, 2,28	
		1,18,52, 1,36,39,28,43		5,46
36″	46,42,43,37,53,46,37,39, 4,29		3,24,54, 8,14	
		1,18,51,58,11,45,20,29		5,46
38″	46,42,44,56,45,44,49,24,24,58		3,24,54,14, 0	
		1,18,51,54,46,51, 6,29		5,46
40″	46,42,46,15,37,39,36,15,31,27		3,24,54,19,46	
		1,18,51,51,21,56,46,43		5,46
42″	46,42,47,34,29,30,58,12,18,10		3,24,54,25,32	
		1,18,51,47,57, 2,21,11		5,46
44″	46,42,48,53,21,18,55,14,39,21		3,24,54,31,18	
		1,18,51,44,32, 7,49,53		5,46
46″	46,42,50,12,13, 3,27,22,29,14		3,24,54,37, 4	
		1,18,51,41, 7,13,12,49		5,46
48″	46,42,51,31, 4,44,34,35,42, 3		3,24,54,42,50	
		1,18,51,37,42,18,29,59		5,46
50″	46,42,52,49,56,22,16,54,12, 2		3,24,54,48,36	
		1,18,51,34,17,23,41,23		5,46
52″	46,42,54, 8,47,56,34,17,53,25		3,24,54,54,22	
		1,18,51,30,52,28,47, 1		5,46
54″	46,42,55,27,39,27,26,46,40,26		3,24,55, 0, 8	
		1,18,51,27,27,33,46,53		5,46
56″	46,42,56,46,30,54,54,20,27,19		3,24,55, 5,54	
		1,18,51,24, 2,38,40,59		5,46
58″	46,42,58, 5,22,18,56,59, 8,18		3,24,55,11,40	
		1,18,51,20,37,43,29,19		
60″	46,42,59,24,13,39,34,42,37,37			
exact	46,42,59,24,13,39,34,42,37,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51° 8′ 0″	46,42,59,24,13,39,34,42,37,28			
		1,18,51,17,12,48,11,59		
2″	46,43, 0,43, 4,56,47,30,49,27		3,24,55,23,11	
		1,18,51,13,47,52,48,48		5,46
4″	46,43, 2, 1,56,10,35,23,38,15		3,24,55,28,57	
		1,18,51,10,22,57,19,51		5,46
6″	46,43, 3,20,47,20,58,20,58, 6		3,24,55,34,43	
		1,18,51, 6,58, 1,45, 8		5,46
8″	46,43, 4,39,38,27,56,22,43,14		3,24,55,40,29	
		1,18,51, 3,33, 6, 4,39		5,46
10″	46,43, 5,58,29,31,29,28,47,53		3,24,55,46,15	
		1,18,51, 0, 8,10,18,24		5,46
12″	46,43, 7,17,20,31,37,39, 6,17		3,24,55,52, 1	
		1,18,50,56,43,14,26,23		5,46
14″	46,43, 8,36,11,28,20,53,32,40		3,24,55,57,47	
		1,18,50,53,18,18,28,36		5,46
16″	46,43, 9,55, 2,21,39,12, 1,16		3,24,56, 3,33	
		1,18,50,49,53,22,25, 3		5,46
18″	46,43,11,13,53,11,32,34,26,19		3,24,56, 9,19	
		1,18,50,46,28,26,15,44		5,46
20″	46,43,12,32,43,58, 1, 0,42, 3		3,24,56,15, 5	
		1,18,50,43, 3,30, 0,39		5,46
22″	46,43,13,51,34,41, 4,30,42,42		3,24,56,20,51	
		1,18,50,39,38,33,39,48		5,46
24″	46,43,15,10,25,20,43, 4,22,30		3,24,56,26,37	
		1,18,50,36,13,37,13,11		5,46
26″	46,43,16,29,15,56,56,41,35,41		3,24,56,32,23	
		1,18,50,32,48,40,40,48		5,46
28″	46,43,17,48, 6,29,45,22,16,29		3,24,56,38, 9	
		1,18,50,29,23,44, 2,39		5,46
30″	46,43,19, 6,56,59, 9, 6,19, 8		3,24,56,43,55	
		1,18,50,25,58,47,18,44		5,46
32″	46,43,20,25,47,25, 7,53,37,52		3,24,56,49,41	
		1,18,50,22,33,50,29, 3		5,46
34″	46,43,21,44,37,47,41,44, 6,55		3,24,56,55,27	
		1,18,50,19, 8,53,33,36		5,46
36″	46,43,23, 3,28, 6,50,37,40,31		3,24,57, 1,13	
		1,18,50,15,43,56,32,23		5,46
38″	46,43,24,22,18,22,34,34,12,54		3,24,57, 6,59	
		1,18,50,12,18,59,25,24		5,46
40″	46,43,25,41, 8,34,53,33,38,18		3,24,57,12,45	
		1,18,50, 8,54, 2,12,39		5,46
42″	46,43,26,59,58,43,47,35,50,57		3,24,57,18,31	
		1,18,50, 5,29, 4,54, 8		5,46
44″	46,43,28,18,48,49,16,40,45, 5		3,24,57,24,17	
		1,18,50, 2, 4, 7,29,51		5,46
46″	46,43,29,37,38,51,20,48,14,56		3,24,57,30, 3	
		1,18,49,58,39, 9,59,48		5,46
48″	46,43,30,56,28,49,59,58,14,44		3,24,57,35,49	
		1,18,49,55,14,12,23,59		5,46
50″	46,43,32,15,18,45,14,10,38,43		3,24,57,41,35	
		1,18,49,51,49,14,42,24		5,46
52″	46,43,33,34, 8,37, 3,25,21, 7		3,24,57,47,21	
		1,18,49,48,24,16,55, 3		5,46
54″	46,43,34,52,58,25,27,42,16,10		3,24,57,53, 7	
		1,18,49,44,59,19, 1,56		5,46
56″	46,43,36,11,48,10,27, 1,18, 6		3,24,57,58,53	
		1,18,49,41,34,21, 3, 3		5,46
58″	46,43,37,30,37,52, 1,22,21, 9		3,24,58, 4,39	
		1,18,49,38, 9,22,58,24		
60″	46,43,38,49,27,30,10,45,19,33			
exact	46,43,38,49,27,30,10,45,30,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51° 9′ 0″	46,43,38,49,27,30,10,45,30,17			
		1,18,49,34,44,24,49, 9		
2″	46,43,40, 8,17, 4,55,10,19,26		3,24,58,16, 6	
		1,18,49,31,19,26,33, 3		5,46
4″	46,43,41,27, 6,36,14,36,52,29		3,24,58,21,52	
		1,18,49,27,54,28,11,11		5,46
6″	46,43,42,45,56, 4, 9, 5, 3,40		3,24,58,27,38	
		1,18,49,24,29,29,43,33		5,46
8″	46,43,44, 4,45,28,38,34,47,13		3,24,58,33,24	
		1,18,49,21, 4,31,10, 9		5,46
10″	46,43,45,23,34,49,43, 5,57,22		3,24,58,39,10	
		1,18,49,17,39,32,30,59		5,46
12″	46,43,46,42,24, 7,22,38,28,21		3,24,58,44,56	
		1,18,49,14,14,33,46, 3		5,46
14″	46,43,48, 1,13,21,37,12,14,24		3,24,58,50,42	
		1,18,49,10,49,34,55,21		5,46
16″	46,43,49,20, 2,32,26,47, 9,45		3,24,58,56,28	
		1,18,49, 7,24,35,58,53		5,46
18″	46,43,50,38,51,39,51,23, 8,38		3,24,59, 2,14	
		1,18,49, 3,59,36,56,39		5,46
20″	46,43,51,57,40,43,51, 0, 5,17		3,24,59, 8, 0	
		1,18,49, 0,34,37,48,39		5,46
22″	46,43,53,16,29,44,25,37,53,56		3,24,59,13,46	
		1,18,48,57, 9,38,34,53		5,46
24″	46,43,54,35,18,41,35,16,28,49		3,24,59,19,32	
		1,18,48,53,44,39,15,21		5,46
26″	46,43,55,54, 7,35,19,55,44,10		3,24,59,25,18	
		1,18,48,50,19,39,50, 3		5,46
28″	46,43,57,12,56,25,39,35,34,13		3,24,59,31, 4	
		1,18,48,46,54,40,18,59		5,46
30″	46,43,58,31,45,12,34,15,53,12		3,24,59,36,50	
		1,18,48,43,29,40,42, 9		5,46
32″	46,43,59,50,33,56, 3,56,35,21		3,24,59,42,36	
		1,18,48,40, 4,40,59,33		5,46
34″	46,44, 1, 9,22,36, 8,37,34,54		3,24,59,48,22	
		1,18,48,36,39,41,11,11		5,46
36″	46,44, 2,28,11,12,48,18,46, 5		3,24,59,54, 8	
		1,18,48,33,14,41,17, 3		5,46
38″	46,44, 3,46,59,46, 3, 0, 3, 8		3,24,59,59,54	
		1,18,48,29,49,41,17, 9		5,46
40″	46,44, 5, 5,48,15,52,41,20,17		3,25, 0, 5,40	
		1,18,48,26,24,41,11,29		5,46
42″	46,44, 6,24,36,42,17,22,31,46		3,25, 0,11,26	
		1,18,48,22,59,41, 0, 3		5,46
44″	46,44, 7,43,25, 5,17, 3,31,49		3,25, 0,17,12	
		1,18,48,19,34,40,42,51		5,46
46″	46,44, 9, 2,13,24,51,44,14,40		3,25, 0,22,58	
		1,18,48,16, 9,40,19,53		5,46
48″	46,44,10,21, 1,41, 1,24,34,33		3,25, 0,28,44	
		1,18,48,12,44,39,51, 9		5,46
50″	46,44,11,39,49,53,46, 4,25,42		3,25, 0,34,30	
		1,18,48, 9,19,39,16,39		5,46
52″	46,44,12,58,38, 3, 5,43,42,21		3,25, 0,40,16	
		1,18,48, 5,54,38,36,23		5,46
54″	46,44,14,17,26, 9, 0,22,18,44		3,25, 0,46, 2	
		1,18,48, 2,29,37,50,21		5,46
56″	46,44,15,36,14,11,30, 0, 9, 5		3,25, 0,51,48	
		1,18,47,59, 4,36,58,33		5,46
58″	46,44,16,55, 2,10,34,37, 7,38		3,25, 0,57,34	
		1,18,47,55,39,36, 0,59		
60″	46,44,18,13,50, 6,14,13, 8,37			
exact	46,44,18,13,50, 6,14,13,28,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°10′ 0″	46,44,18,13,50, 6,14,13,28,17			
		1,18,47,52,14,34,59,45		
2″	46,44,19,32,37,58,28,48,28, 2		3,25, 1, 8,57	
		1,18,47,48,49,33,50,48		5,46
4″	46,44,20,51,25,47,18,22,18,50		3,25, 1,14,43	
		1,18,47,45,24,32,36, 5		5,46
6″	46,44,22,10,13,32,42,54,54,55		3,25, 1,20,29	
		1,18,47,41,59,31,15,36		5,46
8″	46,44,23,29, 1,14,42,26,10,31		3,25, 1,26,15	
		1,18,47,38,34,29,49,21		5,46
10″	46,44,24,47,48,53,16,55,59,52		3,25, 1,32, 1	
		1,18,47,35, 9,28,17,20		5,46
12″	46,44,26, 6,36,28,26,24,17,12		3,25, 1,37,47	
		1,18,47,31,44,26,39,33		5,46
14″	46,44,27,25,24, 0,10,50,56,45		3,25, 1,43,33	
		1,18,47,28,19,24,56, 0		5,46
16″	46,44,28,44,11,28,30,15,52,45		3,25, 1,49,19	
		1,18,47,24,54,23, 6,41		5,46
18″	46,44,30, 2,58,53,24,38,59,26		3,25, 1,55, 5	
		1,18,47,21,29,21,11,36		5,46
20″	46,44,31,21,46,14,54, 0,11, 2		3,25, 2, 0,51	
		1,18,47,18, 4,19,10,45		5,46
22″	46,44,32,40,33,32,58,19,21,47		3,25, 2, 6,37	
		1,18,47,14,39,17, 4, 8		5,46
24″	46,44,33,59,20,47,37,36,25,55		3,25, 2,12,23	
		1,18,47,11,14,14,51,45		5,46
26″	46,44,35,18, 7,58,51,51,17,40		3,25, 2,18, 9	
		1,18,47, 7,49,12,33,36		5,46
28″	46,44,36,36,55, 6,41, 3,51,16		3,25, 2,23,55	
		1,18,47, 4,24,10, 9,41		5,46
30″	46,44,37,55,42,11, 5,14, 0,57		3,25, 2,29,41	
		1,18,47, 0,59, 7,40, 0		5,46
32″	46,44,39,14,29,12, 4,21,40,57		3,25, 2,35,27	
		1,18,46,57,34, 5, 4,33		5,46
34″	46,44,40,33,16, 9,38,26,45,30		3,25, 2,41,13	
		1,18,46,54, 9, 2,23,20		5,46
36″	46,44,41,52, 3, 3,47,29, 8,50		3,25, 2,46,59	
		1,18,46,50,43,59,36,21		5,46
38″	46,44,43,10,49,54,31,28,45,11		3,25, 2,52,45	
		1,18,46,47,18,56,43,36		5,46
40″	46,44,44,29,36,41,50,25,28,47		3,25, 2,58,31	
		1,18,46,43,53,53,45, 5		5,46
42″	46,44,45,48,23,25,44,19,13,52		3,25, 3, 4,17	
		1,18,46,40,28,50,40,48		5,46
44″	46,44,47, 7,10, 6,13, 9,54,40		3,25, 3,10, 3	
		1,18,46,37, 3,47,30,45		5,46
46″	46,44,48,25,56,43,16,57,25,25		3,25, 3,15,49	
		1,18,46,33,38,44,14,56		5,46
48″	46,44,49,44,43,16,55,41,40,21		3,25, 3,21,35	
		1,18,46,30,13,40,53,21		5,46
50″	46,44,51, 3,29,47, 9,22,33,42		3,25, 3,27,21	
		1,18,46,26,48,37,26, 0		5,46
52″	46,44,52,22,16,13,57,59,59,42		3,25, 3,33, 7	
		1,18,46,23,23,33,52,53		5,46
54″	46,44,53,41, 2,37,21,33,52,35		3,25, 3,38,53	
		1,18,46,19,58,30,14, 0		5,46
56″	46,44,54,59,48,57,20, 4, 6,35		3,25, 3,44,39	
		1,18,46,16,33,26,29,21		5,46
58″	46,44,56,18,35,13,53,30,35,56		3,25, 3,50,25	
		1,18,46,13, 8,22,38,56		
60″	46,44,57,37,21,27, 1,53,14,52			
exact	46,44,57,37,21,27, 1,53,41,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°11′ 0″	46,44,57,37,21,27, 1,53,41,45			
		1,18,46, 9,43,18,45,40		
2″	46,44,58,56, 7,36,45,12,27,25		3,25, 4, 1,44	
		1,18,46, 6,18,14,43,56		5,46
4″	46,45, 0,14,53,43, 3,27,11,21		3,25, 4, 7,30	
		1,18,46, 2,53,10,36,26		5,46
6″	46,45, 1,33,39,45,56,37,47,47		3,25, 4,13,16	
		1,18,45,59,28, 6,23,10		5,46
8″	46,45, 2,52,25,45,24,44,10,57		3,25, 4,19, 2	
		1,18,45,56, 3, 2, 4, 8		5,46
10″	46,45, 4,11,11,41,27,46,15, 5		3,25, 4,24,48	
		1,18,45,52,37,57,39,20		5,46
12″	46,45, 5,29,57,34, 5,43,54,25		3,25, 4,30,34	
		1,18,45,49,12,53, 8,46		5,46
14″	46,45, 6,48,43,23,18,37, 3,11		3,25, 4,36,20	
		1,18,45,45,47,48,32,26		5,46
16″	46,45, 8, 7,29, 9, 6,25,35,37		3,25, 4,42, 6	
		1,18,45,42,22,43,50,20		5,46
18″	46,45, 9,26,14,51,29, 9,25,57		3,25, 4,47,52	
		1,18,45,38,57,39, 2,28		5,46
20″	46,45,10,45, 0,30,26,48,28,25		3,25, 4,53,38	
		1,18,45,35,32,34, 8,50		5,46
22″	46,45,12, 3,46, 5,59,22,37,15		3,25, 4,59,24	
		1,18,45,32, 7,29, 9,26		5,46
24″	46,45,13,22,31,38, 6,51,46,41		3,25, 5, 5,10	
		1,18,45,28,42,24, 4,16		5,46
26″	46,45,14,41,17, 6,49,15,50,57		3,25, 5,10,56	
		1,18,45,25,17,18,53,20		5,46
28″	46,45,16, 0, 2,32, 6,34,44,17		3,25, 5,16,42	
		1,18,45,21,52,13,36,38		5,46
30″	46,45,17,18,47,53,58,48,20,55		3,25, 5,22,28	
		1,18,45,18,27, 8,14,10		5,46
32″	46,45,18,37,33,12,25,56,35, 5		3,25, 5,28,14	
		1,18,45,15, 2, 2,45,56		5,46
34″	46,45,19,56,18,27,27,59,21, 1		3,25, 5,34, 0	
		1,18,45,11,36,57,11,56		5,46
36″	46,45,21,15, 3,39, 4,56,32,57		3,25, 5,39,46	
		1,18,45, 8,11,51,32,10		5,46
38″	46,45,22,33,48,47,16,48, 5, 7		3,25, 5,45,32	
		1,18,45, 4,46,45,46,38		5,46
40″	46,45,23,52,33,52, 3,33,51,45		3,25, 5,51,18	
		1,18,45, 1,21,39,55,20		5,46
42″	46,45,25,11,18,53,25,13,47, 5		3,25, 5,57, 4	
		1,18,44,57,56,33,58,16		5,46
44″	46,45,26,30, 3,51,21,47,45,21		3,25, 6, 2,50	
		1,18,44,54,31,27,55,26		5,46
46″	46,45,27,48,48,45,53,15,40,47		3,25, 6, 8,36	
		1,18,44,51, 6,21,46,50		5,46
48″	46,45,29, 7,33,36,59,37,27,37		3,25, 6,14,22	
		1,18,44,47,41,15,32,28		5,46
50″	46,45,30,26,18,24,40,53, 0, 5		3,25, 6,20, 8	
		1,18,44,44,16, 9,12,20		5,46
52″	46,45,31,45, 3, 8,57, 2,12,25		3,25, 6,25,54	
		1,18,44,40,51, 2,46,26		5,46
54″	46,45,33, 3,47,49,48, 4,58,51		3,25, 6,31,40	
		1,18,44,37,25,56,14,46		5,46
56″	46,45,34,22,32,27,14, 1,13,37		3,25, 6,37,26	
		1,18,44,34, 0,49,37,20		5,46
58″	46,45,35,41,17, 1,14,50,50,57		3,25, 6,43,12	
		1,18,44,30,35,42,54, 8		
60″	46,45,37, 0, 1,31,50,33,45, 5			
exact	46,45,37, 0, 1,31,50,34,17, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°12′ 0″	46,45,37, 0, 1,31,50,34,17, 6			
		1,18,44,27,10,36, 8,46		
2″	46,45,38,18,45,59, 1,10,25,52		3,25, 6,54,28	
		1,18,44,23,45,29,14,18		5,45
4″	46,45,39,37,30,22,46,39,40,10		3,25, 7, 0,13	
		1,18,44,20,20,22,14, 5		5,45
6″	46,45,40,56,14,43, 7, 1,54,15		3,25, 7, 5,58	
		1,18,44,16,55,15, 8, 7		5,45
8″	46,45,42,14,59, 0, 2,17, 2,22		3,25, 7,11,43	
		1,18,44,13,30, 7,56,24		5,45
10″	46,45,43,33,43,13,32,24,58,46		3,25, 7,17,28	
		1,18,44,10, 5, 0,38,56		5,45
12″	46,45,44,52,27,23,37,25,37,42		3,25, 7,23,13	
		1,18,44, 6,39,53,15,43		5,45
14″	46,45,46,11,11,30,17,18,53,25		3,25, 7,28,58	
		1,18,44, 3,14,45,46,45		5,45
16″	46,45,47,29,55,33,32, 4,40,10		3,25, 7,34,43	
		1,18,43,59,49,38,12, 2		5,45
18″	46,45,48,48,39,33,21,42,52,12		3,25, 7,40,28	
		1,18,43,56,24,30,31,34		5,45
20″	46,45,50, 7,23,29,46,13,23,46		3,25, 7,46,13	
		1,18,43,52,59,22,45,21		5,45
22″	46,45,51,26, 7,22,45,36, 9, 7		3,25, 7,51,58	
		1,18,43,49,34,14,53,23		5,45
24″	46,45,52,44,51,12,19,51, 2,30		3,25, 7,57,43	
		1,18,43,46, 9, 6,55,40		5,45
26″	46,45,54, 3,34,58,28,57,58,10		3,25, 8, 3,28	
		1,18,43,42,43,58,52,12		5,45
28″	46,45,55,22,18,41,12,56,50,22		3,25, 8, 9,13	
		1,18,43,39,18,50,42,59		5,45
30″	46,45,56,41, 2,20,31,47,33,21		3,25, 8,14,58	
		1,18,43,35,53,42,28, 1		5,45
32″	46,45,57,59,45,56,25,30, 1,22		3,25, 8,20,43	
		1,18,43,32,28,34, 7,18		5,45
34″	46,45,59,18,29,28,54, 4, 8,40		3,25, 8,26,28	
		1,18,43,29, 3,25,40,50		5,45
36″	46,46, 0,37,12,57,57,29,49,30		3,25, 8,32,13	
		1,18,43,25,38,17, 8,37		5,45
38″	46,46, 1,55,56,23,35,46,58, 7		3,25, 8,37,58	
		1,18,43,22,13, 8,30,39		5,45
40″	46,46, 3,14,39,45,48,55,28,46		3,25, 8,43,43	
		1,18,43,18,47,59,46,56		5,45
42″	46,46, 4,33,23, 4,36,55,15,42		3,25, 8,49,28	
		1,18,43,15,22,50,57,28		5,45
44″	46,46, 5,52, 6,19,59,46,13,10		3,25, 8,55,13	
		1,18,43,11,57,42, 2,15		5,45
46″	46,46, 7,10,49,31,57,28,15,25		3,25, 9, 0,58	
		1,18,43, 8,32,33, 1,17		5,45
48″	46,46, 8,29,32,40,30, 1,16,42		3,25, 9, 6,43	
		1,18,43, 5, 7,23,54,34		5,45
50″	46,46, 9,48,15,45,37,25,11,16		3,25, 9,12,28	
		1,18,43, 1,42,14,42, 6		5,45
52″	46,46,11, 6,58,47,19,39,53,22		3,25, 9,18,13	
		1,18,42,58,17, 5,23,53		5,45
54″	46,46,12,25,41,45,36,45,17,15		3,25, 9,23,58	
		1,18,42,54,51,55,59,55		5,45
56″	46,46,13,44,24,40,28,41,17,10		3,25, 9,29,43	
		1,18,42,51,26,46,30,12		5,45
58″	46,46,15, 3, 7,31,55,27,47,22		3,25, 9,35,28	
		1,18,42,48, 1,36,54,44		
60″	46,46,16,21,50,19,57, 4,42, 6			
exact	46,46,16,21,50,19,57, 4,17, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°13′ 0″	46,46,16,21,50,19,57, 4,17, 3			
		1,18,42,44,36,27,10,55		
2″	46,46,17,40,33, 4,33,31,27,58		3,25, 9,47, 8	
		1,18,42,41,11,17,23,47		5,45
4″	46,46,18,59,15,45,44,48,51,45		3,25, 9,52,53	
		1,18,42,37,46, 7,30,54		5,45
6″	46,46,20,17,58,23,30,56,22,39		3,25, 9,58,38	
		1,18,42,34,20,57,32,16		5,45
8″	46,46,21,36,40,57,51,53,54,55		3,25,10, 4,23	
		1,18,42,30,55,47,27,53		5,45
10″	46,46,22,55,23,28,47,41,22,48		3,25,10,10, 8	
		1,18,42,27,30,37,17,45		5,45
12″	46,46,24,14, 5,56,18,18,40,33		3,25,10,15,53	
		1,18,42,24, 5,27, 1,52		5,45
14″	46,46,25,32,48,20,23,45,42,25		3,25,10,21,38	
		1,18,42,20,40,16,40,14		5,45
16″	46,46,26,51,30,41, 4, 2,22,39		3,25,10,27,23	
		1,18,42,17,15, 6,12,51		5,45
18″	46,46,28,10,12,58,19, 8,35,30		3,25,10,33, 8	
		1,18,42,13,49,55,39,43		5,45
20″	46,46,29,28,55,12, 9, 4,15,13		3,25,10,38,53	
		1,18,42,10,24,45, 0,50		5,45
22″	46,46,30,47,37,22,33,49,16, 3		3,25,10,44,38	
		1,18,42, 6,59,34,16,12		5,45
24″	46,46,32, 6,19,29,33,23,32,15		3,25,10,50,23	
		1,18,42, 3,34,23,25,49		5,45
26″	46,46,33,25, 1,33, 7,46,58, 4		3,25,10,56, 8	
		1,18,42, 0, 9,12,29,41		5,45
28″	46,46,34,43,43,33,16,59,27,45		3,25,11, 1,53	
		1,18,41,56,44, 1,27,48		5,45
30″	46,46,36, 2,25,30, 1, 0,55,33		3,25,11, 7,38	
		1,18,41,53,18,50,20,10		5,45
32″	46,46,37,21, 7,23,19,51,15,43		3,25,11,13,23	
		1,18,41,49,53,39, 6,47		5,45
34″	46,46,38,39,49,13,13,30,22,30		3,25,11,19, 8	
		1,18,41,46,28,27,47,39		5,45
36″	46,46,39,58,30,59,41,58,10, 9		3,25,11,24,53	
		1,18,41,43, 3,16,22,46		5,45
38″	46,46,41,17,12,42,45,14,32,55		3,25,11,30,38	
		1,18,41,39,38, 4,52, 8		5,45
40″	46,46,42,35,54,22,23,19,25, 3		3,25,11,36,23	
		1,18,41,36,12,53,15,45		5,45
42″	46,46,43,54,35,58,36,12,40,48		3,25,11,42, 8	
		1,18,41,32,47,41,33,37		5,45
44″	46,46,45,13,17,31,23,54,14,25		3,25,11,47,53	
		1,18,41,29,22,29,45,44		5,45
46″	46,46,46,31,59, 0,46,24, 0, 9		3,25,11,53,38	
		1,18,41,25,57,17,52, 6		5,45
48″	46,46,47,50,40,26,43,41,52,15		3,25,11,59,23	
		1,18,41,22,32, 5,52,43		5,45
50″	46,46,49, 9,21,49,15,47,44,58		3,25,12, 5, 8	
		1,18,41,19, 6,53,47,35		5,45
52″	46,46,50,28, 3, 8,22,41,32,33		3,25,12,10,53	
		1,18,41,15,41,41,36,42		5,45
54″	46,46,51,46,44,24, 4,23, 9,15		3,25,12,16,38	
		1,18,41,12,16,29,20, 4		5,45
56″	46,46,53, 5,25,36,20,52,29,19		3,25,12,22,23	
		1,18,41, 8,51,16,57,41		5,45
58″	46,46,54,24, 6,45,12, 9,27, 0		3,25,12,28, 8	
		1,18,41, 5,26, 4,29,33		
60″	46,46,55,42,47,50,38,13,56,33			
exact	46,46,55,42,47,50,38,13,40,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°14′ 0″	46,46,55,42,47,50,38,13,40,28			
		1,18,41, 2, 0,51,54, 1		
2″	46,46,57, 1,28,52,39, 5,34,29		3,25,12,39,44	
		1,18,40,58,35,39,14,17		5,45
4″	46,46,58,20, 9,51,14,44,48,46		3,25,12,45,29	
		1,18,40,55,10,26,28,48		5,45
6″	46,46,59,38,50,46,25,11,17,34		3,25,12,51,14	
		1,18,40,51,45,13,37,34		5,45
8″	46,47, 0,57,31,38,10,24,55, 8		3,25,12,56,59	
		1,18,40,48,20, 0,40,35		5,45
10″	46,47, 2,16,12,26,30,25,35,43		3,25,13, 2,44	
		1,18,40,44,54,47,37,51		5,45
12″	46,47, 3,34,53,11,25,13,13,34		3,25,13, 8,29	
		1,18,40,41,29,34,29,22		5,45
14″	46,47, 4,53,33,52,54,47,42,56		3,25,13,14,14	
		1,18,40,38, 4,21,15, 8		5,45
16″	46,47, 6,12,14,30,59, 8,58, 4		3,25,13,19,59	
		1,18,40,34,39, 7,55, 9		5,45
18″	46,47, 7,30,55, 5,38,16,53,13		3,25,13,25,44	
		1,18,40,31,13,54,29,25		5,45
20″	46,47, 8,49,35,36,52,11,22,38		3,25,13,31,29	
		1,18,40,27,48,40,57,56		5,45
22″	46,47,10, 8,16, 4,40,52,20,34		3,25,13,37,14	
		1,18,40,24,23,27,20,42		5,45
24″	46,47,11,26,56,29, 4,19,41,16		3,25,13,42,59	
		1,18,40,20,58,13,37,43		5,45
26″	46,47,12,45,36,50, 2,33,18,59		3,25,13,48,44	
		1,18,40,17,32,59,48,59		5,45
28″	46,47,14, 4,17, 7,35,33, 7,58		3,25,13,54,29	
		1,18,40,14, 7,45,54,30		5,45
30″	46,47,15,22,57,21,43,19, 2,28		3,25,14, 0,14	
		1,18,40,10,42,31,54,16		5,45
32″	46,47,16,41,37,32,25,50,56,44		3,25,14, 5,59	
		1,18,40, 7,17,17,48,17		5,45
34″	46,47,18, 0,17,39,43, 8,45, 1		3,25,14,11,44	
		1,18,40, 3,52, 3,36,33		5,45
36″	46,47,19,18,57,43,35,12,21,34		3,25,14,17,29	
		1,18,40, 0,26,49,19, 4		5,45
38″	46,47,20,37,37,44, 2, 1,40,38		3,25,14,23,14	
		1,18,39,57, 1,34,55,50		5,45
40″	46,47,21,56,17,41, 3,36,36,28		3,25,14,28,59	
		1,18,39,53,36,20,26,51		5,45
42″	46,47,23,14,57,34,39,57, 3,19		3,25,14,34,44	
		1,18,39,50,11, 5,52, 7		5,45
44″	46,47,24,33,37,24,51, 2,55,26		3,25,14,40,29	
		1,18,39,46,45,51,11,38		5,45
46″	46,47,25,52,17,11,36,54, 7, 4		3,25,14,46,14	
		1,18,39,43,20,36,25,24		5,45
48″	46,47,27,10,56,54,57,30,32,28		3,25,14,51,59	
		1,18,39,39,55,21,33,25		5,45
50″	46,47,28,29,36,34,52,52, 5,53		3,25,14,57,44	
		1,18,39,36,30, 6,35,41		5,45
52″	46,47,29,48,16,11,22,58,41,34		3,25,15, 3,29	
		1,18,39,33, 4,51,32,12		5,45
54″	46,47,31, 6,55,44,27,50,13,46		3,25,15, 9,14	
		1,18,39,29,39,36,22,58		5,45
56″	46,47,32,25,35,14, 7,26,36,44		3,25,15,14,59	
		1,18,39,26,14,21, 7,59		5,45
58″	46,47,33,44,14,40,21,47,44,43		3,25,15,20,44	
		1,18,39,22,49, 5,47,15		
60″	46,47,35, 2,54, 3,10,53,31,58			
exact	46,47,35, 2,54, 3,10,53,22,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°15′ 0″	46,47,35, 2,54, 3,10,53,22,33			
		1,18,39,19,23,50,19,54		
2″	46,47,36,21,33,22,34,43,42,27		3,25,15,32,17	
		1,18,39,15,58,34,47,37		5,45
4″	46,47,37,40,12,38,33,18,30, 4		3,25,15,38, 2	
		1,18,39,12,33,19, 9,35		5,45
6″	46,47,38,58,51,51, 6,37,39,39		3,25,15,43,47	
		1,18,39, 9, 8, 3,25,48		5,45
8″	46,47,40,17,31, 0,14,41, 5,27		3,25,15,49,32	
		1,18,39, 5,42,47,36,16		5,45
10″	46,47,41,36,10, 5,57,28,41,43		3,25,15,55,17	
		1,18,39, 2,17,31,40,59		5,45
12″	46,47,42,54,49, 8,15, 0,22,42		3,25,16, 1, 2	
		1,18,38,58,52,15,39,57		5,45
14″	46,47,44,13,28, 7, 7,16, 2,39		3,25,16, 6,47	
		1,18,38,55,26,59,33,10		5,45
16″	46,47,45,32, 7, 2,34,15,35,49		3,25,16,12,32	
		1,18,38,52, 1,43,20,38		5,45
18″	46,47,46,50,45,54,35,58,56,27		3,25,16,18,17	
		1,18,38,48,36,27, 2,21		5,45
20″	46,47,48, 9,24,43,12,25,58,48		3,25,16,24, 2	
		1,18,38,45,11,10,38,19		5,45
22″	46,47,49,28, 3,28,23,36,37, 7		3,25,16,29,47	
		1,18,38,41,45,54, 8,32		5,45
24″	46,47,50,46,42,10, 9,30,45,39		3,25,16,35,32	
		1,18,38,38,20,37,33, 0		5,45
26″	46,47,52, 5,20,48,30, 8,18,39		3,25,16,41,17	
		1,18,38,34,55,20,51,43		5,45
28″	46,47,53,23,59,23,25,29,10,22		3,25,16,47, 2	
		1,18,38,31,30, 4, 4,41		5,45
30″	46,47,54,42,37,54,55,33,15, 3		3,25,16,52,47	
		1,18,38,28, 4,47,11,54		5,45
32″	46,47,56, 1,16,23, 0,20,26,57		3,25,16,58,32	
		1,18,38,24,39,30,13,22		5,45
34″	46,47,57,19,54,47,39,50,40,19		3,25,17, 4,17	
		1,18,38,21,14,13, 9, 5		5,45
36″	46,47,58,38,33, 8,54, 3,49,24		3,25,17,10, 2	
		1,18,38,17,48,55,59, 3		5,45
38″	46,47,59,57,11,26,42,59,48,27		3,25,17,15,47	
		1,18,38,14,23,38,43,16		5,45
40″	46,48, 1,15,49,41, 6,38,31,43		3,25,17,21,32	
		1,18,38,10,58,21,21,44		5,45
42″	46,48, 2,34,27,52, 4,59,53,27		3,25,17,27,17	
		1,18,38, 7,33, 3,54,27		5,45
44″	46,48, 3,53, 5,59,38, 3,47,54		3,25,17,33, 2	
		1,18,38, 4, 7,46,21,25		5,45
46″	46,48, 5,11,44, 3,45,50, 9,19		3,25,17,38,47	
		1,18,38, 0,42,28,42,38		5,45
48″	46,48, 6,30,22, 4,28,18,51,57		3,25,17,44,32	
		1,18,37,57,17,10,58, 6		5,45
50″	46,48, 7,49, 0, 1,45,29,50, 3		3,25,17,50,17	
		1,18,37,53,51,53, 7,49		5,45
52″	46,48, 9, 7,37,55,37,22,57,52		3,25,17,56, 2	
		1,18,37,50,26,35,11,47		5,45
54″	46,48,10,26,15,46, 3,58, 9,39		3,25,18, 1,47	
		1,18,37,47, 1,17,10, 0		5,45
56″	46,48,11,44,53,33, 5,15,19,39		3,25,18, 7,32	
		1,18,37,43,35,59, 2,28		5,45
58″	46,48,13, 3,31,16,41,14,22, 7		3,25,18,13,17	
		1,18,37,40,10,40,49,11		
60″	46,48,14,22, 8,56,51,55,11,18			
exact	46,48,14,22, 8,56,51,55,14,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°16′ 0″	46,48,14,22, 8,56,51,55,14,42			
		1,18,37,36,45,22,30,29		
2″	46,48,15,40,46,33,37,17,45,11		3,25,18,24,45	
		1,18,37,33,20, 4, 5,44		5,45
4″	46,48,16,59,24, 6,57,21,50,55		3,25,18,30,30	
		1,18,37,29,54,45,35,14		5,45
6″	46,48,18,18, 1,36,52, 7,26, 9		3,25,18,36,15	
		1,18,37,26,29,26,58,59		5,45
8″	46,48,19,36,39, 3,21,34,25, 8		3,25,18,42, 0	
		1,18,37,23, 4, 8,16,59		5,45
10″	46,48,20,55,16,26,25,42,42, 7		3,25,18,47,45	
		1,18,37,19,38,49,29,14		5,45
12″	46,48,22,13,53,46, 4,32,11,21		3,25,18,53,30	
		1,18,37,16,13,30,35,44		5,45
14″	46,48,23,32,31, 2,18, 2,47, 5		3,25,18,59,15	
		1,18,37,12,48,11,36,29		5,45
16″	46,48,24,51, 8,15, 6,14,23,34		3,25,19, 5, 0	
		1,18,37, 9,22,52,31,29		5,45
18″	46,48,26, 9,45,24,29, 6,55, 3		3,25,19,10,45	
		1,18,37, 5,57,33,20,44		5,45
20″	46,48,27,28,22,30,26,40,15,47		3,25,19,16,30	
		1,18,37, 2,32,14, 4,14		5,45
22″	46,48,28,46,59,32,58,54,20, 1		3,25,19,22,15	
		1,18,36,59, 6,54,41,59		5,45
24″	46,48,30, 5,36,32, 5,49, 2, 0		3,25,19,28, 0	
		1,18,36,55,41,35,13,59		5,45
26″	46,48,31,24,13,27,47,24,15,59		3,25,19,33,45	
		1,18,36,52,16,15,40,14		5,45
28″	46,48,32,42,50,20, 3,39,56,13		3,25,19,39,30	
		1,18,36,48,50,56, 0,44		5,45
30″	46,48,34, 1,27, 8,54,35,56,57		3,25,19,45,15	
		1,18,36,45,25,36,15,29		5,45
32″	46,48,35,20, 3,54,20,12,12,26		3,25,19,51, 0	
		1,18,36,42, 0,16,24,29		5,45
34″	46,48,36,38,40,36,20,28,36,55		3,25,19,56,45	
		1,18,36,38,34,56,27,44		5,45
36″	46,48,37,57,17,14,55,25, 4,39		3,25,20, 2,30	
		1,18,36,35, 9,36,25,14		5,45
38″	46,48,39,15,53,50, 5, 1,29,53		3,25,20, 8,15	
		1,18,36,31,44,16,16,59		5,45
40″	46,48,40,34,30,21,49,17,46,52		3,25,20,14, 0	
		1,18,36,28,18,56, 2,59		5,45
42″	46,48,41,53, 6,50, 8,13,49,51		3,25,20,19,45	
		1,18,36,24,53,35,43,14		5,45
44″	46,48,43,11,43,15, 1,49,33, 5		3,25,20,25,30	
		1,18,36,21,28,15,17,44		5,45
46″	46,48,44,30,19,36,30, 4,50,49		3,25,20,31,15	
		1,18,36,18, 2,54,46,29		5,45
48″	46,48,45,48,55,54,32,59,37,18		3,25,20,37, 0	
		1,18,36,14,37,34, 9,29		5,45
50″	46,48,47, 7,32, 9,10,33,46,47		3,25,20,42,45	
		1,18,36,11,12,13,26,44		5,45
52″	46,48,48,26, 8,20,22,47,13,31		3,25,20,48,30	
		1,18,36, 7,46,52,38,14		5,45
54″	46,48,49,44,44,28, 9,39,51,45		3,25,20,54,15	
		1,18,36, 4,21,31,43,59		5,45
56″	46,48,51, 3,20,32,31,11,35,44		3,25,21, 0, 0	
		1,18,36, 0,56,10,43,59		5,45
58″	46,48,52,21,56,33,27,22,19,43		3,25,21, 5,45	
		1,18,35,57,30,49,38,14		
60″	46,48,53,40,32,30,58,11,57,57			
exact	46,48,53,40,32,30,58,12, 4,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°17′ 0″	46,48,53,40,32,30,58,12, 4,36			
		1,18,35,54, 5,28,27,37		
2″	46,48,54,59, 8,25, 3,40,32,13		3,25,21,17,10	
		1,18,35,50,40, 7,10,27		5,45
4″	46,48,56,17,44,15,43,47,42,40		3,25,21,22,55	
		1,18,35,47,14,45,47,32		5,45
6″	46,48,57,36,20, 2,58,33,30,12		3,25,21,28,40	
		1,18,35,43,49,24,18,52		5,45
8″	46,48,58,54,55,46,47,57,49, 4		3,25,21,34,25	
		1,18,35,40,24, 2,44,27		5,45
10″	46,49, 0,13,31,27,12, 0,33,31		3,25,21,40,10	
		1,18,35,36,58,41, 4,17		5,45
12″	46,49, 1,32, 7, 4,10,41,37,48		3,25,21,45,55	
		1,18,35,33,33,19,18,22		5,45
14″	46,49, 2,50,42,37,44, 0,56,10		3,25,21,51,40	
		1,18,35,30, 7,57,26,42		5,45
16″	46,49, 4, 9,18, 7,51,58,22,52		3,25,21,57,25	
		1,18,35,26,42,35,29,17		5,45
18″	46,49, 5,27,53,34,34,33,52, 9		3,25,22, 3,10	
		1,18,35,23,17,13,26, 7		5,45
20″	46,49, 6,46,28,57,51,47,18,16		3,25,22, 8,55	
		1,18,35,19,51,51,17,12		5,45
22″	46,49, 8, 5, 4,17,43,38,35,28		3,25,22,14,40	
		1,18,35,16,26,29, 2,32		5,45
24″	46,49, 9,23,39,34,10, 7,38, 0		3,25,22,20,25	
		1,18,35,13, 1, 6,42, 7		5,45
26″	46,49,10,42,14,47,11,14,20, 7		3,25,22,26,10	
		1,18,35, 9,35,44,15,57		5,45
28″	46,49,12, 0,49,56,46,58,36, 4		3,25,22,31,55	
		1,18,35, 6,10,21,44, 2		5,45
30″	46,49,13,19,25, 2,57,20,20, 6		3,25,22,37,40	
		1,18,35, 2,44,59, 6,22		5,45
32″	46,49,14,38, 0, 5,42,19,26,28		3,25,22,43,25	
		1,18,34,59,19,36,22,57		5,45
34″	46,49,15,56,35, 5, 1,55,49,25		3,25,22,49,10	
		1,18,34,55,54,13,33,47		5,45
36″	46,49,17,15,10, 0,56, 9,23,12		3,25,22,54,55	
		1,18,34,52,28,50,38,52		5,45
38″	46,49,18,33,44,53,25, 0, 2, 4		3,25,23, 0,40	
		1,18,34,49, 3,27,38,12		5,45
40″	46,49,19,52,19,42,28,27,40,16		3,25,23, 6,25	
		1,18,34,45,38, 4,31,47		5,45
42″	46,49,21,10,54,28, 6,32,12, 3		3,25,23,12,10	
		1,18,34,42,12,41,19,37		5,45
44″	46,49,22,29,29,10,19,13,31,40		3,25,23,17,55	
		1,18,34,38,47,18, 1,42		5,45
46″	46,49,23,48, 3,49, 6,31,33,22		3,25,23,23,40	
		1,18,34,35,21,54,38, 2		5,45
48″	46,49,25, 6,38,24,28,26,11,24		3,25,23,29,25	
		1,18,34,31,56,31, 8,37		5,45
50″	46,49,26,25,12,56,24,57,20, 1		3,25,23,35,10	
		1,18,34,28,31, 7,33,27		5,45
52″	46,49,27,43,47,24,56, 4,53,28		3,25,23,40,55	
		1,18,34,25, 5,43,52,32		5,45
54″	46,49,29, 2,21,50, 1,48,46, 0		3,25,23,46,40	
		1,18,34,21,40,20, 5,52		5,45
56″	46,49,30,20,56,11,42, 8,51,52		3,25,23,52,25	
		1,18,34,18,14,56,13,27		5,45
58″	46,49,31,39,30,29,57, 5, 5,19		3,25,23,58,10	
		1,18,34,14,49,32,15,17		
60″	46,49,32,58, 4,44,46,37,20,36			
exact	46,49,32,58, 4,44,46,37,36,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°18′ 0″	46,49,32,58, 4,44,46,37,36,14			
		1,18,34,11,24, 8,13,12		
2″	46,49,34,16,38,56,10,45,49,26		3,25,24, 9,31	
		1,18,34, 7,58,44, 3,41		5,45
4″	46,49,35,35,13, 4, 9,29,53, 7		3,25,24,15,16	
		1,18,34, 4,33,19,48,25		5,45
6″	46,49,36,53,47, 8,42,49,41,32		3,25,24,21, 1	
		1,18,34, 1, 7,55,27,24		5,45
8″	46,49,38,12,21, 9,50,45, 8,56		3,25,24,26,46	
		1,18,33,57,42,31, 0,38		5,45
10″	46,49,39,30,55, 7,33,16, 9,34		3,25,24,32,31	
		1,18,33,54,17, 6,28, 7		5,45
12″	46,49,40,49,29, 1,50,22,37,41		3,25,24,38,16	
		1,18,33,50,51,41,49,51		5,45
14″	46,49,42, 8, 2,52,42, 4,27,32		3,25,24,44, 1	
		1,18,33,47,26,17, 5,50		5,45
16″	46,49,43,26,36,40, 8,21,33,22		3,25,24,49,46	
		1,18,33,44, 0,52,16, 4		5,45
18″	46,49,44,45,10,24, 9,13,49,26		3,25,24,55,31	
		1,18,33,40,35,27,20,33		5,45
20″	46,49,46, 3,44, 4,44,41, 9,59		3,25,25, 1,16	
		1,18,33,37,10, 2,19,17		5,45
22″	46,49,47,22,17,41,54,43,29,16		3,25,25, 7, 1	
		1,18,33,33,44,37,12,16		5,45
24″	46,49,48,40,51,15,39,20,41,32		3,25,25,12,46	
		1,18,33,30,19,11,59,30		5,45
26″	46,49,49,59,24,45,58,32,41, 2		3,25,25,18,31	
		1,18,33,26,53,46,40,59		5,45
28″	46,49,51,17,58,12,52,19,22, 1		3,25,25,24,16	
		1,18,33,23,28,21,16,43		5,45
30″	46,49,52,36,31,36,20,40,38,44		3,25,25,30, 1	
		1,18,33,20, 2,55,46,42		5,45
32″	46,49,53,55, 4,56,23,36,25,26		3,25,25,35,46	
		1,18,33,16,37,30,10,56		5,45
34″	46,49,55,13,38,13, 1, 6,36,22		3,25,25,41,31	
		1,18,33,13,12, 4,29,25		5,45
36″	46,49,56,32,11,26,13,11, 5,47		3,25,25,47,16	
		1,18,33, 9,46,38,42, 9		5,45
38″	46,49,57,50,44,35,59,49,47,56		3,25,25,53, 1	
		1,18,33, 6,21,12,49, 8		5,45
40″	46,49,59, 9,17,42,21, 2,37, 4		3,25,25,58,46	
		1,18,33, 2,55,46,50,22		5,45
42″	46,50, 0,27,50,45,16,49,27,26		3,25,26, 4,31	
		1,18,32,59,30,20,45,51		5,45
44″	46,50, 1,46,23,44,47,10,13,17		3,25,26,10,16	
		1,18,32,56, 4,54,35,35		5,45
46″	46,50, 3, 4,56,40,52, 4,48,52		3,25,26,16, 1	
		1,18,32,52,39,28,19,34		5,45
48″	46,50, 4,23,29,33,31,33, 8,26		3,25,26,21,46	
		1,18,32,49,14, 1,57,48		5,45
50″	46,50, 5,42, 2,22,45,35, 6,14		3,25,26,27,31	
		1,18,32,45,48,35,30,17		5,45
52″	46,50, 7, 0,35, 8,34,10,36,31		3,25,26,33,16	
		1,18,32,42,23, 8,57, 1		5,45
54″	46,50, 8,19, 7,50,57,19,33,32		3,25,26,39, 1	
		1,18,32,38,57,42,18, 0		5,45
56″	46,50, 9,37,40,29,55, 1,51,32		3,25,26,44,46	
		1,18,32,35,32,15,33,14		5,45
58″	46,50,10,56,13, 5,27,17,24,46		3,25,26,50,31	
		1,18,32,32, 6,48,42,43		
60″	46,50,12,14,45,37,34, 6, 7,29			
exact	46,50,12,14,45,37,34, 6,29,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°19′ 0″	46,50,12,14,45,37,34, 6,29,51			
		1,18,32,28,41,21,49, 5		
2″	46,50,13,33,18, 6,15,28,18,56		3,25,27, 1,49	
		1,18,32,25,15,54,47,16		5,45
4″	46,50,14,51,50,31,31,23, 6,12		3,25,27, 7,34	
		1,18,32,21,50,27,39,42		5,45
6″	46,50,16,10,22,53,21,50,45,54		3,25,27,13,19	
		1,18,32,18,25, 0,26,23		5,45
8″	46,50,17,28,55,11,46,51,12,17		3,25,27,19, 4	
		1,18,32,14,59,33, 7,19		5,45
10″	46,50,18,47,27,26,46,24,19,36		3,25,27,24,49	
		1,18,32,11,34, 5,42,30		5,45
12″	46,50,20, 5,59,38,20,30, 2, 6		3,25,27,30,34	
		1,18,32, 8, 8,38,11,56		5,45
14″	46,50,21,24,31,46,29, 8,14, 2		3,25,27,36,19	
		1,18,32, 4,43,10,35,37		5,45
16″	46,50,22,43, 3,51,12,18,49,39		3,25,27,42, 4	
		1,18,32, 1,17,42,53,33		5,45
18″	46,50,24, 1,35,52,30, 1,43,12		3,25,27,47,49	
		1,18,31,57,52,15, 5,44		5,45
20″	46,50,25,20, 7,50,22,16,48,56		3,25,27,53,34	
		1,18,31,54,26,47,12,10		5,45
22″	46,50,26,38,39,44,49, 4, 1, 6		3,25,27,59,19	
		1,18,31,51, 1,19,12,51		5,45
24″	46,50,27,57,11,35,50,23,13,57		3,25,28, 5, 4	
		1,18,31,47,35,51, 7,47		5,45
26″	46,50,29,15,43,23,26,14,21,44		3,25,28,10,49	
		1,18,31,44,10,22,56,58		5,45
28″	46,50,30,34,15, 7,36,37,18,42		3,25,28,16,34	
		1,18,31,40,44,54,40,24		5,45
30″	46,50,31,52,46,48,21,31,59, 6		3,25,28,22,19	
		1,18,31,37,19,26,18, 5		5,45
32″	46,50,33,11,18,25,40,58,17,11		3,25,28,28, 4	
		1,18,31,33,53,57,50, 1		5,45
34″	46,50,34,29,49,59,34,56, 7,12		3,25,28,33,49	
		1,18,31,30,28,29,16,12		5,45
36″	46,50,35,48,21,30, 3,25,23,24		3,25,28,39,34	
		1,18,31,27, 3, 0,36,38		5,45
38″	46,50,37, 6,52,57, 6,26, 0, 2		3,25,28,45,19	
		1,18,31,23,37,31,51,19		5,45
40″	46,50,38,25,24,20,43,57,51,21		3,25,28,51, 4	
		1,18,31,20,12, 3, 0,15		5,45
42″	46,50,39,43,55,40,56, 0,51,36		3,25,28,56,49	
		1,18,31,16,46,34, 3,26		5,45
44″	46,50,41, 2,26,57,42,34,55, 2		3,25,29, 2,34	
		1,18,31,13,21, 5, 0,52		5,45
46″	46,50,42,20,58,11, 3,39,55,54		3,25,29, 8,19	
		1,18,31, 9,55,35,52,33		5,45
48″	46,50,43,39,29,20,59,15,48,27		3,25,29,14, 4	
		1,18,31, 6,30, 6,38,29		5,45
50″	46,50,44,58, 0,27,29,22,26,56		3,25,29,19,49	
		1,18,31, 3, 4,37,18,40		5,45
52″	46,50,46,16,31,30,33,59,45,36		3,25,29,25,34	
		1,18,30,59,39, 7,53, 6		5,45
54″	46,50,47,35, 2,30,13, 7,38,42		3,25,29,31,19	
		1,18,30,56,13,38,21,47		5,45
56″	46,50,48,53,33,26,26,46, 0,29		3,25,29,37, 4	
		1,18,30,52,48, 8,44,43		5,45
58″	46,50,50,12, 4,19,14,54,45,12		3,25,29,42,49	
		1,18,30,49,22,39, 1,54		
60″	46,50,51,30,35, 8,37,33,47, 6			
exact	46,50,51,30,35, 8,37,34,22, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°20′ 0″	46,50,51,30,35, 8,37,34,22, 4			
		1,18,30,45,57, 9,17, 9		
2″	46,50,52,49, 5,54,34,43,39,13		3,25,29,54, 3	
		1,18,30,42,31,39,23, 6		5,44
4″	46,50,54, 7,36,37, 6,23, 2,19		3,25,29,59,47	
		1,18,30,39, 6, 9,23,19		5,44
6″	46,50,55,26, 7,16,12,32,25,38		3,25,30, 5,31	
		1,18,30,35,40,39,17,48		5,44
8″	46,50,56,44,37,51,53,11,43,26		3,25,30,11,15	
		1,18,30,32,15, 9, 6,33		5,44
10″	46,50,58, 3, 8,24, 8,20,49,59		3,25,30,16,59	
		1,18,30,28,49,38,49,34		5,44
12″	46,50,59,21,38,52,57,59,39,33		3,25,30,22,43	
		1,18,30,25,24, 8,26,51		5,44
14″	46,51, 0,40, 9,18,22, 8, 6,24		3,25,30,28,27	
		1,18,30,21,58,37,58,24		5,44
16″	46,51, 1,58,39,40,20,46, 4,48		3,25,30,34,11	
		1,18,30,18,33, 7,24,13		5,44
18″	46,51, 3,17, 9,58,53,53,29, 1		3,25,30,39,55	
		1,18,30,15, 7,36,44,18		5,44
20″	46,51, 4,35,40,14, 1,30,13,19		3,25,30,45,39	
		1,18,30,11,42, 5,58,39		5,44
22″	46,51, 5,54,10,25,43,36,11,58		3,25,30,51,23	
		1,18,30, 8,16,35, 7,16		5,44
24″	46,51, 7,12,40,34, 0,11,19,14		3,25,30,57, 7	
		1,18,30, 4,51, 4,10, 9		5,44
26″	46,51, 8,31,10,38,51,15,29,23		3,25,31, 2,51	
		1,18,30, 1,25,33, 7,18		5,44
28″	46,51, 9,49,40,40,16,48,36,41		3,25,31, 8,35	
		1,18,29,58, 0, 1,58,43		5,44
30″	46,51,11, 8,10,38,16,50,35,24		3,25,31,14,19	
		1,18,29,54,34,30,44,24		5,44
32″	46,51,12,26,40,32,51,21,19,48		3,25,31,20, 3	
		1,18,29,51, 8,59,24,21		5,44
34″	46,51,13,45,10,24, 0,20,44, 9		3,25,31,25,47	
		1,18,29,47,43,27,58,34		5,44
36″	46,51,15, 3,40,11,43,48,42,43		3,25,31,31,31	
		1,18,29,44,17,56,27, 3		5,44
38″	46,51,16,22, 9,56, 1,45, 9,46		3,25,31,37,15	
		1,18,29,40,52,24,49,48		5,44
40″	46,51,17,40,39,36,54, 9,59,34		3,25,31,42,59	
		1,18,29,37,26,53, 6,49		5,44
42″	46,51,18,59, 9,14,21, 3, 6,23		3,25,31,48,43	
		1,18,29,34, 1,21,18, 6		5,44
44″	46,51,20,17,38,48,22,24,24,29		3,25,31,54,27	
		1,18,29,30,35,49,23,39		5,44
46″	46,51,21,36, 8,18,58,13,48, 8		3,25,32, 0,11	
		1,18,29,27,10,17,23,28		5,44
48″	46,51,22,54,37,46, 8,31,11,36		3,25,32, 5,55	
		1,18,29,23,44,45,17,33		5,44
50″	46,51,24,13, 7, 9,53,16,29, 9		3,25,32,11,39	
		1,18,29,20,19,13, 5,54		5,44
52″	46,51,25,31,36,30,12,29,35, 3		3,25,32,17,23	
		1,18,29,16,53,40,48,31		5,44
54″	46,51,26,50, 5,47, 6,10,23,34		3,25,32,23, 7	
		1,18,29,13,28, 8,25,24		5,44
56″	46,51,28, 8,35, 0,34,18,48,58		3,25,32,28,51	
		1,18,29,10, 2,35,56,33		5,44
58″	46,51,29,27, 4,10,36,54,45,31		3,25,32,34,35	
		1,18,29, 6,37, 3,21,58		
60″	46,51,30,45,33,17,13,58, 7,29			
exact	46,51,30,45,33,17,13,57,45,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°21′ 0″	46,51,30,45,33,17,13,57,45,46			
		1,18,29, 3,11,30,39,18		
2″	46,51,32, 4, 2,20,25,28,25, 4		3,25,32,46,13	
		1,18,28,59,45,57,53, 5		5,44
4″	46,51,33,22,31,20,11,26,18, 9		3,25,32,51,57	
		1,18,28,56,20,25, 1, 8		5,44
6″	46,51,34,41, 0,16,31,51,19,17		3,25,32,57,41	
		1,18,28,52,54,52, 3,27		5,44
8″	46,51,35,59,29, 9,26,43,22,44		3,25,33, 3,25	
		1,18,28,49,29,19, 0, 2		5,44
10″	46,51,37,17,57,58,56, 2,22,46		3,25,33, 9, 9	
		1,18,28,46, 3,45,50,53		5,44
12″	46,51,38,36,26,44,59,48,13,39		3,25,33,14,53	
		1,18,28,42,38,12,36, 0		5,44
14″	46,51,39,54,55,27,38, 0,49,39		3,25,33,20,37	
		1,18,28,39,12,39,15,23		5,44
16″	46,51,41,13,24, 6,50,40, 5, 2		3,25,33,26,21	
		1,18,28,35,47, 5,49, 2		5,44
18″	46,51,42,31,52,42,37,45,54, 4		3,25,33,32, 5	
		1,18,28,32,21,32,16,57		5,44
20″	46,51,43,50,21,14,59,18,11, 1		3,25,33,37,49	
		1,18,28,28,55,58,39, 8		5,44
22″	46,51,45, 8,49,43,55,16,50, 9		3,25,33,43,33	
		1,18,28,25,30,24,55,35		5,44
24″	46,51,46,27,18, 9,25,41,45,44		3,25,33,49,17	
		1,18,28,22, 4,51, 6,18		5,44
26″	46,51,47,45,46,31,30,32,52, 2		3,25,33,55, 1	
		1,18,28,18,39,17,11,17		5,44
28″	46,51,49, 4,14,50, 9,50, 3,19		3,25,34, 0,45	
		1,18,28,15,13,43,10,32		5,44
30″	46,51,50,22,43, 5,23,33,13,51		3,25,34, 6,29	
		1,18,28,11,48, 9, 4, 3		5,44
32″	46,51,51,41,11,17,11,42,17,54		3,25,34,12,13	
		1,18,28, 8,22,34,51,50		5,44
34″	46,51,52,59,39,25,34,17, 9,44		3,25,34,17,57	
		1,18,28, 4,57, 0,33,53		5,44
36″	46,51,54,18, 7,30,31,17,43,37		3,25,34,23,41	
		1,18,28, 1,31,26,10,12		5,44
38″	46,51,55,36,35,32, 2,43,53,49		3,25,34,29,25	
		1,18,27,58, 5,51,40,47		5,44
40″	46,51,56,55, 3,30, 8,35,34,36		3,25,34,35, 9	
		1,18,27,54,40,17, 5,38		5,44
42″	46,51,58,13,31,24,48,52,40,14		3,25,34,40,53	
		1,18,27,51,14,42,24,45		5,44
44″	46,51,59,31,59,16, 3,35, 4,59		3,25,34,46,37	
		1,18,27,47,49, 7,38, 8		5,44
46″	46,52, 0,50,27, 3,52,42,43, 7		3,25,34,52,21	
		1,18,27,44,23,32,45,47		5,44
48″	46,52, 2, 8,54,48,16,15,28,54		3,25,34,58, 5	
		1,18,27,40,57,57,47,42		5,44
50″	46,52, 3,27,22,29,14,13,16,36		3,25,35, 3,49	
		1,18,27,37,32,22,43,53		5,44
52″	46,52, 4,45,50, 6,46,36, 0,29		3,25,35, 9,33	
		1,18,27,34, 6,47,34,20		5,44
54″	46,52, 6, 4,17,40,53,23,34,49		3,25,35,15,17	
		1,18,27,30,41,12,19, 3		5,44
56″	46,52, 7,22,45,11,34,35,53,52		3,25,35,21, 1	
		1,18,27,27,15,36,58, 2		5,44
58″	46,52, 8,41,12,38,50,12,51,54		3,25,35,26,45	
		1,18,27,23,50, 1,31,17		
60″	46,52, 9,59,40, 2,40,14,23,11			
exact	46,52, 9,59,40, 2,40,14,10,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°22′ 0″	46,52, 9,59,40, 2,40,14,10,13			
		1,18,27,20,24,25,57,23		
2″	46,52,11,18, 7,23, 4,40, 7,36		3,25,35,38,19	
		1,18,27,16,58,50,19, 4		5,44
4″	46,52,12,36,34,40, 3,30,26,40		3,25,35,44, 3	
		1,18,27,13,33,14,35, 1		5,44
6″	46,52,13,55, 1,53,36,45, 1,41		3,25,35,49,47	
		1,18,27,10, 7,38,45,14		5,44
8″	46,52,15,13,29, 3,44,23,46,55		3,25,35,55,31	
		1,18,27, 6,42, 2,49,43		5,44
10″	46,52,16,31,56,10,26,26,36,38		3,25,36, 1,15	
		1,18,27, 3,16,26,48,28		5,44
12″	46,52,17,50,23,13,42,53,25, 6		3,25,36, 6,59	
		1,18,26,59,50,50,41,29		5,44
14″	46,52,19, 8,50,13,33,44, 6,35		3,25,36,12,43	
		1,18,26,56,25,14,28,46		5,44
16″	46,52,20,27,17, 9,58,58,35,21		3,25,36,18,27	
		1,18,26,52,59,38,10,19		5,44
18″	46,52,21,45,44, 2,58,36,45,40		3,25,36,24,11	
		1,18,26,49,34, 1,46, 8		5,44
20″	46,52,23, 4,10,52,32,38,31,48		3,25,36,29,55	
		1,18,26,46, 8,25,16,13		5,44
22″	46,52,24,22,37,38,41, 3,48, 1		3,25,36,35,39	
		1,18,26,42,42,48,40,34		5,44
24″	46,52,25,41, 4,21,23,52,28,35		3,25,36,41,23	
		1,18,26,39,17,11,59,11		5,44
26″	46,52,26,59,31, 0,41, 4,27,46		3,25,36,47, 7	
		1,18,26,35,51,35,12, 4		5,44
28″	46,52,28,17,57,36,32,39,39,50		3,25,36,52,51	
		1,18,26,32,25,58,19,13		5,44
30″	46,52,29,36,24, 8,58,37,59, 3		3,25,36,58,35	
		1,18,26,29, 0,21,20,38		5,44
32″	46,52,30,54,50,37,58,59,19,41		3,25,37, 4,19	
		1,18,26,25,34,44,16,19		5,44
34″	46,52,32,13,17, 3,33,43,36, 0		3,25,37,10, 3	
		1,18,26,22, 9, 7, 6,16		5,44
36″	46,52,33,31,43,25,42,50,42,16		3,25,37,15,47	
		1,18,26,18,43,29,50,29		5,44
38″	46,52,34,50, 9,44,26,20,32,45		3,25,37,21,31	
		1,18,26,15,17,52,28,58		5,44
40″	46,52,36, 8,35,59,44,13, 1,43		3,25,37,27,15	
		1,18,26,11,52,15, 1,43		5,44
42″	46,52,37,27, 2,11,36,28, 3,26		3,25,37,32,59	
		1,18,26, 8,26,37,28,44		5,44
44″	46,52,38,45,28,20, 3, 5,32,10		3,25,37,38,43	
		1,18,26, 5, 0,59,50, 1		5,44
46″	46,52,40, 3,54,25, 4, 5,22,11		3,25,37,44,27	
		1,18,26, 1,35,22, 5,34		5,44
48″	46,52,41,22,20,26,39,27,27,45		3,25,37,50,11	
		1,18,25,58, 9,44,15,23		5,44
50″	46,52,42,40,46,24,49,11,43, 8		3,25,37,55,55	
		1,18,25,54,44, 6,19,28		5,44
52″	46,52,43,59,12,19,33,18, 2,36		3,25,38, 1,39	
		1,18,25,51,18,28,17,49		5,44
54″	46,52,45,17,38,10,51,46,20,25		3,25,38, 7,23	
		1,18,25,47,52,50,10,26		5,44
56″	46,52,46,36, 3,58,44,36,30,51		3,25,38,13, 7	
		1,18,25,44,27,11,57,19		5,44
58″	46,52,47,54,29,43,11,48,28,10		3,25,38,18,51	
		1,18,25,41, 1,33,38,28		
60″	46,52,49,12,55,24,13,22, 6,38			
exact	46,52,49,12,55,24,13,22, 1, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°23′ 0″	46,52,49,12,55,24,13,22, 1, 1			
		1,18,25,37,35,55,13,17		
2″	46,52,50,31,21, 1,49,17,14,18		3,25,38,30,21	
		1,18,25,34,10,16,42,56		5,44
4″	46,52,51,49,46,35,59,33,57,14		3,25,38,36, 5	
		1,18,25,30,44,38, 6,51		5,44
6″	46,52,53, 8,12, 6,44,12, 4, 5		3,25,38,41,49	
		1,18,25,27,18,59,25, 2		5,44
8″	46,52,54,26,37,34, 3,11,29, 7		3,25,38,47,33	
		1,18,25,23,53,20,37,29		5,44
10″	46,52,55,45, 2,57,56,32, 6,36		3,25,38,53,17	
		1,18,25,20,27,41,44,12		5,44
12″	46,52,57, 3,28,18,24,13,50,48		3,25,38,59, 1	
		1,18,25,17, 2, 2,45,11		5,44
14″	46,52,58,21,53,35,26,16,35,59		3,25,39, 4,45	
		1,18,25,13,36,23,40,26		5,44
16″	46,52,59,40,18,49, 2,40,16,25		3,25,39,10,29	
		1,18,25,10,10,44,29,57		5,44
18″	46,53, 0,58,43,59,13,24,46,22		3,25,39,16,13	
		1,18,25, 6,45, 5,13,44		5,44
20″	46,53, 2,17, 9, 5,58,30, 0, 6		3,25,39,21,57	
		1,18,25, 3,19,25,51,47		5,44
22″	46,53, 3,35,34, 9,17,55,51,53		3,25,39,27,41	
		1,18,24,59,53,46,24, 6		5,44
24″	46,53, 4,53,59, 9,11,42,15,59		3,25,39,33,25	
		1,18,24,56,28, 6,50,41		5,44
26″	46,53, 6,12,24, 5,39,49, 6,40		3,25,39,39, 9	
		1,18,24,53, 2,27,11,32		5,44
28″	46,53, 7,30,48,58,42,16,18,12		3,25,39,44,53	
		1,18,24,49,36,47,26,39		5,44
30″	46,53, 8,49,13,48,19, 3,44,51		3,25,39,50,37	
		1,18,24,46,11, 7,36, 2		5,44
32″	46,53,10, 7,38,34,30,11,20,53		3,25,39,56,21	
		1,18,24,42,45,27,39,41		5,44
34″	46,53,11,26, 3,17,15,39, 0,34		3,25,40, 2, 5	
		1,18,24,39,19,47,37,36		5,44
36″	46,53,12,44,27,56,35,26,38,10		3,25,40, 7,49	
		1,18,24,35,54, 7,29,47		5,44
38″	46,53,14, 2,52,32,29,34, 7,57		3,25,40,13,33	
		1,18,24,32,28,27,16,14		5,44
40″	46,53,15,21,17, 4,58, 1,24,11		3,25,40,19,17	
		1,18,24,29, 2,46,56,57		5,44
42″	46,53,16,39,41,34, 0,48,21, 8		3,25,40,25, 1	
		1,18,24,25,37, 6,31,56		5,44
44″	46,53,17,58, 5,59,37,54,53, 4		3,25,40,30,45	
		1,18,24,22,11,26, 1,11		5,44
46″	46,53,19,16,30,21,49,20,54,15		3,25,40,36,29	
		1,18,24,18,45,45,24,42		5,44
48″	46,53,20,34,54,40,35, 6,18,57		3,25,40,42,13	
		1,18,24,15,20, 4,42,29		5,44
50″	46,53,21,53,18,55,55,11, 1,26		3,25,40,47,57	
		1,18,24,11,54,23,54,32		5,44
52″	46,53,23,11,43, 7,49,34,55,58		3,25,40,53,41	
		1,18,24, 8,28,43, 0,51		5,44
54″	46,53,24,30, 7,16,18,17,56,49		3,25,40,59,25	
		1,18,24, 5, 3, 2, 1,26		5,44
56″	46,53,25,48,31,21,21,19,58,15		3,25,41, 5, 9	
		1,18,24, 1,37,20,56,17		5,44
58″	46,53,27, 6,55,22,58,40,54,32		3,25,41,10,53	
		1,18,23,58,11,39,45,24		
60″	46,53,28,25,19,21,10,20,39,56			
exact	46,53,28,25,19,21,10,20,40, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°24′ 0″	46,53,28,25,19,21,10,20,40, 7			
		1,18,23,54,45,58,28,54		
2″	46,53,29,43,43,15,56,19, 9, 1		3,25,41,22,20	
		1,18,23,51,20,17, 6,34		5,44
4″	46,53,31, 2, 7, 7,16,36,15,35		3,25,41,28, 4	
		1,18,23,47,54,35,38,30		5,44
6″	46,53,32,20,30,55,11,11,54, 5		3,25,41,33,48	
		1,18,23,44,28,54, 4,42		5,44
8″	46,53,33,38,54,39,40, 5,58,47		3,25,41,39,32	
		1,18,23,41, 3,12,25,10		5,44
10″	46,53,34,57,18,20,43,18,23,57		3,25,41,45,16	
		1,18,23,37,37,30,39,54		5,44
12″	46,53,36,15,41,58,20,49, 3,51		3,25,41,51, 0	
		1,18,23,34,11,48,48,54		5,44
14″	46,53,37,34, 5,32,32,37,52,45		3,25,41,56,44	
		1,18,23,30,46, 6,52,10		5,44
16″	46,53,38,52,29, 3,18,44,44,55		3,25,42, 2,28	
		1,18,23,27,20,24,49,42		5,44
18″	46,53,40,10,52,30,39, 9,34,37		3,25,42, 8,12	
		1,18,23,23,54,42,41,30		5,44
20″	46,53,41,29,15,54,33,52,16, 7		3,25,42,13,56	
		1,18,23,20,29, 0,27,34		5,44
22″	46,53,42,47,39,15, 2,52,43,41		3,25,42,19,40	
		1,18,23,17, 3,18, 7,54		5,44
24″	46,53,44, 6, 2,32, 6,10,51,35		3,25,42,25,24	
		1,18,23,13,37,35,42,30		5,44
26″	46,53,45,24,25,45,43,46,34, 5		3,25,42,31, 8	
		1,18,23,10,11,53,11,22		5,44
28″	46,53,46,42,48,55,55,39,45,27		3,25,42,36,52	
		1,18,23, 6,46,10,34,30		5,44
30″	46,53,48, 1,12, 2,41,50,19,57		3,25,42,42,36	
		1,18,23, 3,20,27,51,54		5,44
32″	46,53,49,19,35, 6, 2,18,11,51		3,25,42,48,20	
		1,18,22,59,54,45, 3,34		5,44
34″	46,53,50,37,58, 5,57, 3,15,25		3,25,42,54, 4	
		1,18,22,56,29, 2, 9,30		5,44
36″	46,53,51,56,21, 2,26, 5,24,55		3,25,42,59,48	
		1,18,22,53, 3,19, 9,42		5,44
38″	46,53,53,14,43,55,29,24,34,37		3,25,43, 5,32	
		1,18,22,49,37,36, 4,10		5,44
40″	46,53,54,33, 6,45, 7, 0,38,47		3,25,43,11,16	
		1,18,22,46,11,52,52,54		5,44
42″	46,53,55,51,29,31,18,53,31,41		3,25,43,17, 0	
		1,18,22,42,46, 9,35,54		5,44
44″	46,53,57, 9,52,14, 5, 3, 7,35		3,25,43,22,44	
		1,18,22,39,20,26,13,10		5,44
46″	46,53,58,28,14,53,25,29,20,45		3,25,43,28,28	
		1,18,22,35,54,42,44,42		5,44
48″	46,53,59,46,37,29,20,12, 5,27		3,25,43,34,12	
		1,18,22,32,28,59,10,30		5,44
50″	46,54, 1, 5, 0, 1,49,11,15,57		3,25,43,39,56	
		1,18,22,29, 3,15,30,34		5,44
52″	46,54, 2,23,22,30,52,26,46,31		3,25,43,45,40	
		1,18,22,25,37,31,44,54		5,44
54″	46,54, 3,41,44,56,29,58,31,25		3,25,43,51,24	
		1,18,22,22,11,47,53,30		5,44
56″	46,54, 5, 0, 7,18,41,46,24,55		3,25,43,57, 8	
		1,18,22,18,46, 3,56,22		5,44
58″	46,54, 6,18,29,37,27,50,21,17		3,25,44, 2,52	
		1,18,22,15,20,19,53,30		
60″	46,54, 7,36,51,52,48,10,14,47			
exact	46,54, 7,36,51,52,48,10,25,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°25′ 0″	46,54, 7,36,51,52,48,10,25,52	1,18,22,11,54,35,46, 6		
2″	46,54, 8,55,14, 4,42,46,11,58	1,18,22, 8,28,51,31,51	3,25,44,14,15	5,44
4″	46,54,10,13,36,13,11,37,43,49	1,18,22, 5, 3, 7,11,52	3,25,44,19,59	5,44
6″	46,54,11,31,58,18,14,44,55,41	1,18,22, 1,37,22,46, 9	3,25,44,25,43	5,44
8″	46,54,12,50,20,19,52, 7,41,50	1,18,21,58,11,38,14,42	3,25,44,31,27	5,44
10″	46,54,14, 8,42,18, 3,45,56,32	1,18,21,54,45,53,37,31	3,25,44,37,11	5,44
12″	46,54,15,27, 4,12,49,39,34, 3	1,18,21,51,20, 8,54,36	3,25,44,42,55	5,44
14″	46,54,16,45,26, 4, 9,48,28,39	1,18,21,47,54,24, 5,57	3,25,44,48,39	5,44
16″	46,54,18, 3,47,52, 4,12,34,36	1,18,21,44,28,39,11,34	3,25,44,54,23	5,44
18″	46,54,19,22, 9,36,32,51,46,10	1,18,21,41, 2,54,11,27	3,25,45, 0, 7	5,44
20″	46,54,20,40,31,17,35,45,57,37	1,18,21,37,37, 9, 5,36	3,25,45, 5,51	5,44
22″	46,54,21,58,52,55,12,55, 3,13	1,18,21,34,11,23,54, 1	3,25,45,11,35	5,44
24″	46,54,23,17,14,29,24,18,57,14	1,18,21,30,45,38,36,42	3,25,45,17,19	5,44
26″	46,54,24,35,36, 0, 9,57,33,56	1,18,21,27,19,53,13,39	3,25,45,23, 3	5,44
28″	46,54,25,53,57,27,29,50,47,35	1,18,21,23,54, 7,44,52	3,25,45,28,47	5,44
30″	46,54,27,12,18,51,23,58,32,27	1,18,21,20,28,22,10,21	3,25,45,34,31	5,44
32″	46,54,28,30,40,11,52,20,42,48	1,18,21,17, 2,36,30, 6	3,25,45,40,15	5,44
34″	46,54,29,49, 1,28,54,57,12,54	1,18,21,13,36,50,44, 7	3,25,45,45,59	5,44
36″	46,54,31, 7,22,42,31,47,57, 1	1,18,21,10,11, 4,52,24	3,25,45,51,43	5,44
38″	46,54,32,25,43,52,42,52,49,25	1,18,21, 6,45,18,54,57	3,25,45,57,27	5,44
40″	46,54,33,44, 4,59,28,11,44,22	1,18,21, 3,19,32,51,46	3,25,46, 3,11	5,44
42″	46,54,35, 2,26, 2,47,44,36, 8	1,18,20,59,53,46,42,51	3,25,46, 8,55	5,44
44″	46,54,36,20,47, 2,41,31,18,59	1,18,20,56,28, 0,28,12	3,25,46,14,39	5,44
46″	46,54,37,39, 7,59, 9,31,47,11	1,18,20,53, 2,14, 7,49	3,25,46,20,23	5,44
48″	46,54,38,57,28,52,11,45,55, 0	1,18,20,49,36,27,41,42	3,25,46,26, 7	5,44
50″	46,54,40,15,49,41,48,13,36,42	1,18,20,46,10,41, 9,51	3,25,46,31,51	5,44
52″	46,54,41,34,10,27,58,54,46,33	1,18,20,42,44,54,32,16	3,25,46,37,35	5,44
54″	46,54,42,52,31,10,43,49,18,49	1,18,20,39,19, 7,48,57	3,25,46,43,19	5,44
56″	46,54,44,10,51,50, 2,57, 7,46	1,18,20,35,53,20,59,54	3,25,46,49, 3	5,44
58″	46,54,45,29,12,25,56,18, 7,40	1,18,20,32,27,34, 5, 7	3,25,46,54,47	
60″	46,54,46,47,32,58,23,52,12,47			
exact	46,54,46,47,32,58,23,52,32,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°26′ 0″	46,54,46,47,32,58,23,52,32,59			
		1,18,20,29, 1,47, 6,45		
2″	46,54,48, 5,53,27,25,39,39,44		3,25,47, 6, 6	
		1,18,20,25,36, 0, 0,39		5,44
4″	46,54,49,24,13,53, 1,39,40,23		3,25,47,11,50	
		1,18,20,22,10,12,48,49		5,44
6″	46,54,50,42,34,15,11,52,29,12		3,25,47,17,34	
		1,18,20,18,44,25,31,15		5,44
8″	46,54,52, 0,54,33,56,18, 0,27		3,25,47,23,18	
		1,18,20,15,18,38, 7,57		5,44
10″	46,54,53,19,14,49,14,56, 8,24		3,25,47,29, 2	
		1,18,20,11,52,50,38,55		5,44
12″	46,54,54,37,35, 1, 7,46,47,19		3,25,47,34,46	
		1,18,20, 8,27, 3, 4, 9		5,44
14″	46,54,55,55,55, 9,34,49,51,28		3,25,47,40,30	
		1,18,20, 5, 1,15,23,39		5,44
16″	46,54,57,14,15,14,36, 5,15, 7		3,25,47,46,14	
		1,18,20, 1,35,27,37,25		5,44
18″	46,54,58,32,35,16,11,32,52,32		3,25,47,51,58	
		1,18,19,58, 9,39,45,27		5,44
20″	46,54,59,50,55,14,21,12,37,59		3,25,47,57,42	
		1,18,19,54,43,51,47,45		5,44
22″	46,55, 1, 9,15, 9, 5, 4,25,44		3,25,48, 3,26	
		1,18,19,51,18, 3,44,19		5,44
24″	46,55, 2,27,35, 0,23, 8,10, 3		3,25,48, 9,10	
		1,18,19,47,52,15,35, 9		5,44
26″	46,55, 3,45,54,48,15,23,45,12		3,25,48,14,54	
		1,18,19,44,26,27,20,15		5,44
28″	46,55, 5, 4,14,32,41,51, 5,27		3,25,48,20,38	
		1,18,19,41, 0,38,59,37		5,44
30″	46,55, 6,22,34,13,42,30, 5, 4		3,25,48,26,22	
		1,18,19,37,34,50,33,15		5,44
32″	46,55, 7,40,53,51,17,20,38,19		3,25,48,32, 6	
		1,18,19,34, 9, 2, 1, 9		5,44
34″	46,55, 8,59,13,25,26,22,39,28		3,25,48,37,50	
		1,18,19,30,43,13,23,19		5,44
36″	46,55,10,17,32,56, 9,36, 2,47		3,25,48,43,34	
		1,18,19,27,17,24,39,45		5,44
38″	46,55,11,35,52,23,27, 0,42,32		3,25,48,49,18	
		1,18,19,23,51,35,50,27		5,44
40″	46,55,12,54,11,47,18,36,32,59		3,25,48,55, 2	
		1,18,19,20,25,46,55,25		5,44
42″	46,55,14,12,31, 7,44,23,28,24		3,25,49, 0,46	
		1,18,19,16,59,57,54,39		5,44
44″	46,55,15,30,50,24,44,21,23, 3		3,25,49, 6,30	
		1,18,19,13,34, 8,48, 9		5,44
46″	46,55,16,49, 9,38,18,30,11,12		3,25,49,12,14	
		1,18,19,10, 8,19,35,55		5,44
48″	46,55,18, 7,28,48,26,49,47, 7		3,25,49,17,58	
		1,18,19, 6,42,30,17,57		5,44
50″	46,55,19,25,47,55, 9,20, 5, 4		3,25,49,23,42	
		1,18,19, 3,16,40,54,15		5,44
52″	46,55,20,44, 6,58,26, 0,59,19		3,25,49,29,26	
		1,18,18,59,50,51,24,49		5,44
54″	46,55,22, 2,25,58,16,52,24, 8		3,25,49,35,10	
		1,18,18,56,25, 1,49,39		5,44
56″	46,55,23,20,44,54,41,54,13,47		3,25,49,40,54	
		1,18,18,52,59,12, 8,45		5,44
58″	46,55,24,39, 3,47,41, 6,22,32		3,25,49,46,38	
		1,18,18,49,33,22,22, 7		
60″	46,55,25,57,22,37,14,28,44,39			
exact	46,55,25,57,22,37,14,29,12,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°27′ 0″	46,55,25,57,22,37,14,29,12,37			
		1,18,18,46, 7,32,32,45		
2″	46,55,27,15,41,23,22, 1,45,22		3,25,49,57,53	
		1,18,18,42,41,42,34,52		5,44
4″	46,55,28,34, 0, 6, 3,44,20,14		3,25,50, 3,37	
		1,18,18,39,15,52,31,15		5,44
6″	46,55,29,52,18,45,19,36,51,29		3,25,50, 9,21	
		1,18,18,35,50, 2,21,54		5,44
8″	46,55,31,10,37,21, 9,39,13,23		3,25,50,15, 5	
		1,18,18,32,24,12, 6,49		5,44
10″	46,55,32,28,55,53,33,51,20,12		3,25,50,20,49	
		1,18,18,28,58,21,46, 0		5,44
12″	46,55,33,47,14,22,32,13, 6,12		3,25,50,26,33	
		1,18,18,25,32,31,19,27		5,44
14″	46,55,35, 5,32,48, 4,44,25,39		3,25,50,32,17	
		1,18,18,22, 6,40,47,10		5,44
16″	46,55,36,23,51,10,11,25,12,49		3,25,50,38, 1	
		1,18,18,18,40,50, 9, 9		5,44
18″	46,55,37,42, 9,28,52,15,21,58		3,25,50,43,45	
		1,18,18,15,14,59,25,24		5,44
20″	46,55,39, 0,27,44, 7,14,47,22		3,25,50,49,29	
		1,18,18,11,49, 8,35,55		5,44
22″	46,55,40,18,45,55,56,23,23,17		3,25,50,55,13	
		1,18,18, 8,23,17,40,42		5,44
24″	46,55,41,37, 4, 4,19,41, 3,59		3,25,51, 0,57	
		1,18,18, 4,57,26,39,45		5,44
26″	46,55,42,55,22, 9,17, 7,43,44		3,25,51, 6,41	
		1,18,18, 1,31,35,33, 4		5,44
28″	46,55,44,13,40,10,48,43,16,48		3,25,51,12,25	
		1,18,17,58, 5,44,20,39		5,44
30″	46,55,45,31,58, 8,54,27,37,27		3,25,51,18, 9	
		1,18,17,54,39,53, 2,30		5,44
32″	46,55,46,50,16, 3,34,20,39,57		3,25,51,23,53	
		1,18,17,51,14, 1,38,37		5,44
34″	46,55,48, 8,33,54,48,22,18,34		3,25,51,29,37	
		1,18,17,47,48,10, 9, 0		5,44
36″	46,55,49,26,51,42,36,32,27,34		3,25,51,35,21	
		1,18,17,44,22,18,33,39		5,44
38″	46,55,50,45, 9,26,58,51, 1,13		3,25,51,41, 5	
		1,18,17,40,56,26,52,34		5,44
40″	46,55,52, 3,27, 7,55,17,53,47		3,25,51,46,49	
		1,18,17,37,30,35, 5,45		5,44
42″	46,55,53,21,44,45,25,52,59,32		3,25,51,52,33	
		1,18,17,34, 4,43,13,12		5,44
44″	46,55,54,40, 2,19,30,36,12,44		3,25,51,58,17	
		1,18,17,30,38,51,14,55		5,44
46″	46,55,55,58,19,50, 9,27,27,39		3,25,52, 4, 1	
		1,18,17,27,12,59,10,54		5,44
48″	46,55,57,16,37,17,22,26,38,33		3,25,52, 9,45	
		1,18,17,23,47, 7, 1, 9		5,44
50″	46,55,58,34,54,41, 9,33,39,42		3,25,52,15,29	
		1,18,17,20,21,14,45,40		5,44
52″	46,55,59,53,12, 1,30,48,25,22		3,25,52,21,13	
		1,18,17,16,55,22,24,27		5,44
54″	46,56, 1,11,29,18,26,10,49,49		3,25,52,26,57	
		1,18,17,13,29,29,57,30		5,44
56″	46,56, 2,29,46,31,55,40,47,19		3,25,52,32,41	
		1,18,17,10, 3,37,24,49		5,44
58″	46,56, 3,48, 3,41,59,18,12, 8		3,25,52,38,25	
		1,18,17, 6,37,44,46,24		
60″	46,56, 5, 6,20,48,37, 2,58,32			
exact	46,56, 5, 6,20,48,37, 3,32,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°28′ 0″	46,56, 5, 6,20,48,37, 3,32,19			
		1,18,17, 3,11,52, 5,59		
2″	46,56, 6,24,37,51,48,55,38,18		3,25,52,49,37	
		1,18,16,59,45,59,16,22		5,43
4″	46,56, 7,42,54,51,34,54,54,40		3,25,52,55,20	
		1,18,16,56,20, 6,21, 2		5,43
6″	46,56, 9, 1,11,47,55, 1,15,42		3,25,53, 1, 3	
		1,18,16,52,54,13,19,59		5,43
8″	46,56,10,19,28,40,49,14,35,41		3,25,53, 6,46	
		1,18,16,49,28,20,13,13		5,43
10″	46,56,11,37,45,30,17,34,48,54		3,25,53,12,29	
		1,18,16,46, 2,27, 0,44		5,43
12″	46,56,12,56, 2,16,20, 1,49,38		3,25,53,18,12	
		1,18,16,42,36,33,42,32		5,43
14″	46,56,14,14,18,58,56,35,32,10		3,25,53,23,55	
		1,18,16,39,10,40,18,37		5,43
16″	46,56,15,32,35,38, 7,15,50,47		3,25,53,29,38	
		1,18,16,35,44,46,48,59		5,43
18″	46,56,16,50,52,13,52, 2,39,46		3,25,53,35,21	
		1,18,16,32,18,53,13,38		5,43
20″	46,56,18, 9, 8,46,10,55,53,24		3,25,53,41, 4	
		1,18,16,28,52,59,32,34		5,43
22″	46,56,19,27,25,15, 3,55,25,58		3,25,53,46,47	
		1,18,16,25,27, 5,45,47		5,43
24″	46,56,20,45,41,40,31, 1,11,45		3,25,53,52,30	
		1,18,16,22, 1,11,53,17		5,43
26″	46,56,22, 3,58, 2,32,13, 5, 2		3,25,53,58,13	
		1,18,16,18,35,17,55, 4		5,43
28″	46,56,23,22,14,21, 7,31, 0, 6		3,25,54, 3,56	
		1,18,16,15, 9,23,51, 8		5,43
30″	46,56,24,40,30,36,16,54,51,14		3,25,54, 9,39	
		1,18,16,11,43,29,41,29		5,43
32″	46,56,25,58,46,48, 0,24,32,43		3,25,54,15,22	
		1,18,16, 8,17,35,26, 7		5,43
34″	46,56,27,17, 2,56,17,59,58,50		3,25,54,21, 5	
		1,18,16, 4,51,41, 5, 2		5,43
36″	46,56,28,35,19, 1, 9,41, 3,52		3,25,54,26,48	
		1,18,16, 1,25,46,38,14		5,43
38″	46,56,29,53,35, 2,35,27,42, 6		3,25,54,32,31	
		1,18,15,57,59,52, 5,43		5,43
40″	46,56,31,11,51, 0,35,19,47,49		3,25,54,38,14	
		1,18,15,54,33,57,27,29		5,43
42″	46,56,32,30, 6,55, 9,17,15,18		3,25,54,43,57	
		1,18,15,51, 8, 2,43,32		5,43
44″	46,56,33,48,22,46,17,19,58,50		3,25,54,49,40	
		1,18,15,47,42, 7,53,52		5,43
46″	46,56,35, 6,38,33,59,27,52,42		3,25,54,55,23	
		1,18,15,44,16,12,58,29		5,43
48″	46,56,36,24,54,18,15,40,51,11		3,25,55, 1, 6	
		1,18,15,40,50,17,57,23		5,43
50″	46,56,37,43, 9,59, 5,58,48,34		3,25,55, 6,49	
		1,18,15,37,24,22,50,34		5,43
52″	46,56,39, 1,25,36,30,21,39, 8		3,25,55,12,32	
		1,18,15,33,58,27,38, 2		5,43
54″	46,56,40,19,41,10,28,49,17,10		3,25,55,18,15	
		1,18,15,30,32,32,19,47		5,43
56″	46,56,41,37,56,41, 1,21,36,57		3,25,55,23,58	
		1,18,15,27, 6,36,55,49		5,43
58″	46,56,42,56,12, 8, 7,58,32,46		3,25,55,29,41	
		1,18,15,23,40,41,26, 8		
60″	46,56,44,14,27,31,48,39,58,54			
exact	46,56,44,14,27,31,48,39,36, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°29′ 0″	46,56,44,14,27,31,48,39,36, 4			
		1,18,15,20,14,45,48,19		
2″	46,56,45,32,42,52, 3,25,24,23		3,25,55,41,17	
		1,18,15,16,48,50, 7, 2		5,43
4″	46,56,46,50,58, 8,52,15,31,25		3,25,55,47, 0	
		1,18,15,13,22,54,20, 2		5,43
6″	46,56,48, 9,13,22,15, 9,51,27		3,25,55,52,43	
		1,18,15, 9,56,58,27,19		5,43
8″	46,56,49,27,28,32,12, 8,18,46		3,25,55,58,26	
		1,18,15, 6,31, 2,28,53		5,43
10″	46,56,50,45,43,38,43,10,47,39		3,25,56, 4, 9	
		1,18,15, 3, 5, 6,24,44		5,43
12″	46,56,52, 3,58,41,48,17,12,23		3,25,56, 9,52	
		1,18,14,59,39,10,14,52		5,43
14″	46,56,53,22,13,41,27,27,27,15		3,25,56,15,35	
		1,18,14,56,13,13,59,17		5,43
16″	46,56,54,40,28,37,40,41,26,32		3,25,56,21,18	
		1,18,14,52,47,17,37,59		5,43
18″	46,56,55,58,43,30,27,59, 4,31		3,25,56,27, 1	
		1,18,14,49,21,21,10,58		5,43
20″	46,56,57,16,58,19,49,20,15,29		3,25,56,32,44	
		1,18,14,45,55,24,38,14		5,43
22″	46,56,58,35,13, 5,44,44,53,43		3,25,56,38,27	
		1,18,14,42,29,27,59,47		5,43
24″	46,56,59,53,27,48,14,12,53,30		3,25,56,44,10	
		1,18,14,39, 3,31,15,37		5,43
26″	46,57, 1,11,42,27,17,44, 9, 7		3,25,56,49,53	
		1,18,14,35,37,34,25,44		5,43
28″	46,57, 2,29,57, 2,55,18,34,51		3,25,56,55,36	
		1,18,14,32,11,37,30, 8		5,43
30″	46,57, 3,48,11,35, 6,56, 4,59		3,25,57, 1,19	
		1,18,14,28,45,40,28,49		5,43
32″	46,57, 5, 6,26, 3,52,36,33,48		3,25,57, 7, 2	
		1,18,14,25,19,43,21,47		5,43
34″	46,57, 6,24,40,29,12,19,55,35		3,25,57,12,45	
		1,18,14,21,53,46, 9, 2		5,43
36″	46,57, 7,42,54,51, 6, 6, 4,37		3,25,57,18,28	
		1,18,14,18,27,48,50,34		5,43
38″	46,57, 9, 1, 9, 9,33,54,55,11		3,25,57,24,11	
		1,18,14,15, 1,51,26,23		5,43
40″	46,57,10,19,23,24,35,46,21,34		3,25,57,29,54	
		1,18,14,11,35,53,56,29		5,43
42″	46,57,11,37,37,36,11,40,18, 3		3,25,57,35,37	
		1,18,14, 8, 9,56,20,52		5,43
44″	46,57,12,55,51,44,21,36,38,55		3,25,57,41,20	
		1,18,14, 4,43,58,39,32		5,43
46″	46,57,14,14, 5,49, 5,35,18,27		3,25,57,47, 3	
		1,18,14, 1,18, 0,52,29		5,43
48″	46,57,15,32,19,50,23,36,10,56		3,25,57,52,46	
		1,18,13,57,52, 2,59,43		5,43
50″	46,57,16,50,33,48,15,39,10,39		3,25,57,58,29	
		1,18,13,54,26, 5, 1,14		5,43
52″	46,57,18, 8,47,42,41,44,11,53		3,25,58, 4,12	
		1,18,13,51, 0, 6,57, 2		5,43
54″	46,57,19,27, 1,33,41,51, 8,55		3,25,58, 9,55	
		1,18,13,47,34, 8,47, 7		5,43
56″	46,57,20,45,15,21,15,59,56, 2		3,25,58,15,38	
		1,18,13,44, 8,10,31,29		5,43
58″	46,57,22, 3,29, 5,24,10,27,31		3,25,58,21,21	
		1,18,13,40,42,12,10, 8		
60″	46,57,23,21,42,46, 6,22,37,39			
exact	46,57,23,21,42,46, 6,22,24,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°30′ 0″	46,57,23,21,42,46, 6,22,24,17			
		1,18,13,37,16,13,41,37		
2″	46,57,24,39,56,23,22,36, 5,54		3,25,58,32,53	
		1,18,13,33,50,15, 8,44		5,43
4″	46,57,25,58, 9,57,12,51,14,38		3,25,58,38,36	
		1,18,13,30,24,16,30, 8		5,43
6″	46,57,27,16,23,27,37, 7,44,46		3,25,58,44,19	
		1,18,13,26,58,17,45,49		5,43
8″	46,57,28,34,36,54,35,25,30,35		3,25,58,50, 2	
		1,18,13,23,32,18,55,47		5,43
10″	46,57,29,52,50,18, 7,44,26,22		3,25,58,55,45	
		1,18,13,20, 6,20, 0, 2		5,43
12″	46,57,31,11, 3,38,14, 4,26,24		3,25,59, 1,28	
		1,18,13,16,40,20,58,34		5,43
14″	46,57,32,29,16,54,54,25,24,58		3,25,59, 7,11	
		1,18,13,13,14,21,51,23		5,43
16″	46,57,33,47,30, 8, 8,47,16,21		3,25,59,12,54	
		1,18,13, 9,48,22,38,29		5,43
18″	46,57,35, 5,43,17,57, 9,54,50		3,25,59,18,37	
		1,18,13, 6,22,23,19,52		5,43
20″	46,57,36,23,56,24,19,33,14,42		3,25,59,24,20	
		1,18,13, 2,56,23,55,32		5,43
22″	46,57,37,42, 9,27,15,57,10,14		3,25,59,30, 3	
		1,18,12,59,30,24,25,29		5,43
24″	46,57,39, 0,22,26,46,21,35,43		3,25,59,35,46	
		1,18,12,56, 4,24,49,43		5,43
26″	46,57,40,18,35,22,50,46,25,26		3,25,59,41,29	
		1,18,12,52,38,25, 8,14		5,43
28″	46,57,41,36,48,15,29,11,33,40		3,25,59,47,12	
		1,18,12,49,12,25,21, 2		5,43
30″	46,57,42,55, 1, 4,41,36,54,42		3,25,59,52,55	
		1,18,12,45,46,25,28, 7		5,43
32″	46,57,44,13,13,50,28, 2,22,49		3,25,59,58,38	
		1,18,12,42,20,25,29,29		5,43
34″	46,57,45,31,26,32,48,27,52,18		3,26, 0, 4,21	
		1,18,12,38,54,25,25, 8		5,43
36″	46,57,46,49,39,11,42,53,17,26		3,26, 0,10, 4	
		1,18,12,35,28,25,15, 4		5,43
38″	46,57,48, 7,51,47,11,18,32,30		3,26, 0,15,47	
		1,18,12,32, 2,24,59,17		5,43
40″	46,57,49,26, 4,19,13,43,31,47		3,26, 0,21,30	
		1,18,12,28,36,24,37,47		5,43
42″	46,57,50,44,16,47,50, 8, 9,34		3,26, 0,27,13	
		1,18,12,25,10,24,10,34		5,43
44″	46,57,52, 2,29,13, 0,32,20, 8		3,26, 0,32,56	
		1,18,12,21,44,23,37,38		5,43
46″	46,57,53,20,41,34,44,55,57,46		3,26, 0,38,39	
		1,18,12,18,18,22,58,59		5,43
48″	46,57,54,38,53,53, 3,18,56,45		3,26, 0,44,22	
		1,18,12,14,52,22,14,37		5,43
50″	46,57,55,57, 6, 7,55,41,11,22		3,26, 0,50, 5	
		1,18,12,11,26,21,24,32		5,43
52″	46,57,57,15,18,19,22, 2,35,54		3,26, 0,55,48	
		1,18,12, 8, 0,20,28,44		5,43
54″	46,57,58,33,30,27,22,23, 4,38		3,26, 1, 1,31	
		1,18,12, 4,34,19,27,13		5,43
56″	46,57,59,51,42,31,56,42,31,51		3,26, 1, 7,14	
		1,18,12, 1, 8,18,19,59		5,43
58″	46,58, 1, 9,54,33, 5, 0,51,50		3,26, 1,12,57	
		1,18,11,57,42,17, 7, 2		
60″	46,58, 2,28, 6,30,47,17,58,52			
exact	46,58, 2,28, 6,30,47,17,53,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°31′ 0″	46,58, 2,28, 6,30,47,17,53,51			
		1,18,11,54,16,15,47,48		
2″	46,58, 3,46,18,25, 3,33,41,39		3,26, 1,24,25	
		1,18,11,50,50,14,23,23		5,43
4″	46,58, 5, 4,30,15,53,48, 5, 2		3,26, 1,30, 8	
		1,18,11,47,24,12,53,15		5,43
6″	46,58, 6,22,42, 3,18, 0,58,17		3,26, 1,35,51	
		1,18,11,43,58,11,17,24		5,43
8″	46,58, 7,40,53,47,16,12,15,41		3,26, 1,41,34	
		1,18,11,40,32, 9,35,50		5,43
10″	46,58, 8,59, 5,27,48,21,51,31		3,26, 1,47,17	
		1,18,11,37, 6, 7,48,33		5,43
12″	46,58,10,17,17, 4,54,29,40, 4		3,26, 1,53, 0	
		1,18,11,33,40, 5,55,33		5,43
14″	46,58,11,35,28,38,34,35,35,37		3,26, 1,58,43	
		1,18,11,30,14, 3,56,50		5,43
16″	46,58,12,53,40, 8,48,39,32,27		3,26, 2, 4,26	
		1,18,11,26,48, 1,52,24		5,43
18″	46,58,14,11,51,35,36,41,24,51		3,26, 2,10, 9	
		1,18,11,23,21,59,42,15		5,43
20″	46,58,15,30, 2,58,58,41, 7, 6		3,26, 2,15,52	
		1,18,11,19,55,57,26,23		5,43
22″	46,58,16,48,14,18,54,38,33,29		3,26, 2,21,35	
		1,18,11,16,29,55, 4,48		5,43
24″	46,58,18, 6,25,35,24,33,38,17		3,26, 2,27,18	
		1,18,11,13, 3,52,37,30		5,43
26″	46,58,19,24,36,48,28,26,15,47		3,26, 2,33, 1	
		1,18,11, 9,37,50, 4,29		5,43
28″	46,58,20,42,47,58, 6,16,20,16		3,26, 2,38,44	
		1,18,11, 6,11,47,25,45		5,43
30″	46,58,22, 0,59, 4,18, 3,46, 1		3,26, 2,44,27	
		1,18,11, 2,45,44,41,18		5,43
32″	46,58,23,19,10, 7, 3,48,27,19		3,26, 2,50,10	
		1,18,10,59,19,41,51, 8		5,43
34″	46,58,24,37,21, 6,23,30,18,27		3,26, 2,55,53	
		1,18,10,55,53,38,55,15		5,43
36″	46,58,25,55,32, 2,17, 9,13,42		3,26, 3, 1,36	
		1,18,10,52,27,35,53,39		5,43
38″	46,58,27,13,42,54,44,45, 7,21		3,26, 3, 7,19	
		1,18,10,49, 1,32,46,20		5,43
40″	46,58,28,31,53,43,46,17,53,41		3,26, 3,13, 2	
		1,18,10,45,35,29,33,18		5,43
42″	46,58,29,50, 4,29,21,47,26,59		3,26, 3,18,45	
		1,18,10,42, 9,26,14,33		5,43
44″	46,58,31, 8,15,11,31,13,41,32		3,26, 3,24,28	
		1,18,10,38,43,22,50, 5		5,43
46″	46,58,32,26,25,50,14,36,31,37		3,26, 3,30,11	
		1,18,10,35,17,19,19,54		5,43
48″	46,58,33,44,36,25,31,55,51,31		3,26, 3,35,54	
		1,18,10,31,51,15,44, 0		5,43
50″	46,58,35, 2,46,57,23,11,35,31		3,26, 3,41,37	
		1,18,10,28,25,12, 2,23		5,43
52″	46,58,36,20,57,25,48,23,37,54		3,26, 3,47,20	
		1,18,10,24,59, 8,15, 3		5,43
54″	46,58,37,39, 7,50,47,31,52,57		3,26, 3,53, 3	
		1,18,10,21,33, 4,22, 0		5,43
56″	46,58,38,57,18,12,20,36,14,57		3,26, 3,58,46	
		1,18,10,18, 7, 0,23,14		5,43
58″	46,58,40,15,28,30,27,36,38,11		3,26, 4, 4,29	
		1,18,10,14,40,56,18,45		
60″	46,58,41,33,38,45, 8,32,56,56			
exact	46,58,41,33,38,45, 8,32,58, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°32′ 0″	46,58,41,33,38,45, 8,32,58, 8			
		1,18,10,11,14,52, 8,45		
2″	46,58,42,51,48,56,23,25, 6,53		3,26, 4,15,54	
		1,18,10, 7,48,47,52,51		5,43
4″	46,58,44, 9,59, 4,12,12,59,44		3,26, 4,21,37	
		1,18,10, 4,22,43,31,14		5,43
6″	46,58,45,28, 9, 8,34,56,30,58		3,26, 4,27,20	
		1,18,10, 0,56,39, 3,54		5,43
8″	46,58,46,46,19, 9,31,35,34,52		3,26, 4,33, 3	
		1,18, 9,57,30,34,30,51		5,43
10″	46,58,48, 4,29, 7, 2,10, 5,43		3,26, 4,38,46	
		1,18, 9,54, 4,29,52, 5		5,43
12″	46,58,49,22,39, 1, 6,39,57,48		3,26, 4,44,29	
		1,18, 9,50,38,25, 7,36		5,43
14″	46,58,50,40,48,51,45, 5, 5,24		3,26, 4,50,12	
		1,18, 9,47,12,20,17,24		5,43
16″	46,58,51,58,58,38,57,25,22,48		3,26, 4,55,55	
		1,18, 9,43,46,15,21,29		5,43
18″	46,58,53,17, 8,22,43,40,44,17		3,26, 5, 1,38	
		1,18, 9,40,20,10,19,51		5,43
20″	46,58,54,35,18, 3, 3,51, 4, 8		3,26, 5, 7,21	
		1,18, 9,36,54, 5,12,30		5,43
22″	46,58,55,53,27,39,57,56,16,38		3,26, 5,13, 4	
		1,18, 9,33,27,59,59,26		5,43
24″	46,58,57,11,37,13,25,56,16, 4		3,26, 5,18,47	
		1,18, 9,30, 1,54,40,39		5,43
26″	46,58,58,29,46,43,27,50,56,43		3,26, 5,24,30	
		1,18, 9,26,35,49,16, 9		5,43
28″	46,58,59,47,56,10, 3,40,12,52		3,26, 5,30,13	
		1,18, 9,23, 9,43,45,56		5,43
30″	46,59, 1, 6, 5,33,13,23,58,48		3,26, 5,35,56	
		1,18, 9,19,43,38,10, 0		5,43
32″	46,59, 2,24,14,52,57, 2, 8,48		3,26, 5,41,39	
		1,18, 9,16,17,32,28,21		5,43
34″	46,59, 3,42,24, 9,14,34,37, 9		3,26, 5,47,22	
		1,18, 9,12,51,26,40,59		5,43
36″	46,59, 5, 0,33,22, 6, 1,18, 8		3,26, 5,53, 5	
		1,18, 9, 9,25,20,47,54		5,43
38″	46,59, 6,18,42,31,31,22, 6, 2		3,26, 5,58,48	
		1,18, 9, 5,59,14,49, 6		5,43
40″	46,59, 7,36,51,37,30,36,55, 8		3,26, 6, 4,31	
		1,18, 9, 2,33, 8,44,35		5,43
42″	46,59, 8,55, 0,40, 3,45,39,43		3,26, 6,10,14	
		1,18, 8,59, 7, 2,34,21		5,43
44″	46,59,10,13, 9,39,10,48,14, 4		3,26, 6,15,57	
		1,18, 8,55,40,56,18,24		5,43
46″	46,59,11,31,18,34,51,44,32,28		3,26, 6,21,40	
		1,18, 8,52,14,49,56,44		5,43
48″	46,59,12,49,27,27, 6,34,29,12		3,26, 6,27,23	
		1,18, 8,48,48,43,29,21		5,43
50″	46,59,14, 7,36,15,55,17,58,33		3,26, 6,33, 6	
		1,18, 8,45,22,36,56,15		5,43
52″	46,59,15,25,45, 1,17,54,54,48		3,26, 6,38,49	
		1,18, 8,41,56,30,17,26		5,43
54″	46,59,16,43,53,43,14,25,12,14		3,26, 6,44,32	
		1,18, 8,38,30,23,32,54		5,43
56″	46,59,18, 2, 2,21,44,48,45, 8		3,26, 6,50,15	
		1,18, 8,35, 4,16,42,39		5,43
58″	46,59,19,20,10,56,49, 5,27,47		3,26, 6,55,58	
		1,18, 8,31,38, 9,46,41		
60″	46,59,20,38,19,28,27,15,14,28			
exact	46,59,20,38,19,28,27,15,26,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°33′ 0″	46,59,20,38,19,28,27,15,26,56			
		1,18, 8,28,12, 2,46,19		
2″	46,59,21,56,27,56,39,18,13,15		3,26, 7, 7,18	
		1,18, 8,24,45,55,39, 1		5,43
4″	46,59,23,14,36,21,25,13,52,16		3,26, 7,13, 1	
		1,18, 8,21,19,48,26, 0		5,43
6″	46,59,24,32,44,42,45, 2,18,16		3,26, 7,18,44	
		1,18, 8,17,53,41, 7,16		5,43
8″	46,59,25,50,53, 0,38,43,25,32		3,26, 7,24,27	
		1,18, 8,14,27,33,42,49		5,43
10″	46,59,27, 9, 1,15, 6,17, 8,21		3,26, 7,30,10	
		1,18, 8,11, 1,26,12,39		5,43
12″	46,59,28,27, 9,26, 7,43,21, 0		3,26, 7,35,53	
		1,18, 8, 7,35,18,36,46		5,43
14″	46,59,29,45,17,33,43, 1,57,46		3,26, 7,41,36	
		1,18, 8, 4, 9,10,55,10		5,43
16″	46,59,31, 3,25,37,52,12,52,56		3,26, 7,47,19	
		1,18, 8, 0,43, 3, 7,51		5,43
18″	46,59,32,21,33,38,35,16, 0,47		3,26, 7,53, 2	
		1,18, 7,57,16,55,14,49		5,43
20″	46,59,33,39,41,35,52,11,15,36		3,26, 7,58,45	
		1,18, 7,53,50,47,16, 4		5,43
22″	46,59,34,57,49,29,42,58,31,40		3,26, 8, 4,28	
		1,18, 7,50,24,39,11,36		5,43
24″	46,59,36,15,57,20, 7,37,43,16		3,26, 8,10,11	
		1,18, 7,46,58,31, 1,25		5,43
26″	46,59,37,34, 5, 7, 6, 8,44,41		3,26, 8,15,54	
		1,18, 7,43,32,22,45,31		5,43
28″	46,59,38,52,12,50,38,31,30,12		3,26, 8,21,37	
		1,18, 7,40, 6,14,23,54		5,43
30″	46,59,40,10,20,30,44,45,54, 6		3,26, 8,27,20	
		1,18, 7,36,40, 5,56,34		5,43
32″	46,59,41,28,28, 7,24,51,50,40		3,26, 8,33, 3	
		1,18, 7,33,13,57,23,31		5,43
34″	46,59,42,46,35,40,38,49,14,11		3,26, 8,38,46	
		1,18, 7,29,47,48,44,45		5,43
36″	46,59,44, 4,43,10,26,37,58,56		3,26, 8,44,29	
		1,18, 7,26,21,40, 0,16		5,43
38″	46,59,45,22,50,36,48,17,59,12		3,26, 8,50,12	
		1,18, 7,22,55,31,10, 4		5,43
40″	46,59,46,40,57,59,43,49, 9,16		3,26, 8,55,55	
		1,18, 7,19,29,22,14, 9		5,43
42″	46,59,47,59, 5,19,13,11,23,25		3,26, 9, 1,38	
		1,18, 7,16, 3,13,12,31		5,43
44″	46,59,49,17,12,35,16,24,35,56		3,26, 9, 7,21	
		1,18, 7,12,37, 4, 5,10		5,43
46″	46,59,50,35,19,47,53,28,41, 6		3,26, 9,13, 4	
		1,18, 7, 9,10,54,52, 6		5,43
48″	46,59,51,53,26,57, 4,23,33,12		3,26, 9,18,47	
		1,18, 7, 5,44,45,33,19		5,43
50″	46,59,53,11,34, 2,49, 9, 6,31		3,26, 9,24,30	
		1,18, 7, 2,18,36, 8,49		5,43
52″	46,59,54,29,41, 5, 7,45,15,20		3,26, 9,30,13	
		1,18, 6,58,52,26,38,36		5,43
54″	46,59,55,47,48, 4, 0,11,53,56		3,26, 9,35,56	
		1,18, 6,55,26,17, 2,40		5,43
56″	46,59,57, 5,54,59,26,28,56,36		3,26, 9,41,39	
		1,18, 6,52, 0, 7,21, 1		5,43
58″	46,59,58,24, 1,51,26,36,17,37		3,26, 9,47,22	
		1,18, 6,48,33,57,33,39		
60″	46,59,59,42, 8,40, 0,33,51,16			
exact	46,59,59,42, 8,40, 0,34, 6,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°34′ 0″	46,59,59,42, 8,40, 0,34, 6,35			
		1,18, 6,45, 7,47,42,24		
2″	47, 0, 1, 0,15,25, 8,21,48,59		3,26, 9,58,39	
		1,18, 6,41,41,37,43,45		5,43
4″	47, 0, 2,18,22, 6,49,59,32,44		3,26,10, 4,22	
		1,18, 6,38,15,27,39,23		5,43
6″	47, 0, 3,36,28,45, 5,27,12, 7		3,26,10,10, 5	
		1,18, 6,34,49,17,29,18		5,43
8″	47, 0, 4,54,35,19,54,44,41,25		3,26,10,15,48	
		1,18, 6,31,23, 7,13,30		5,43
10″	47, 0, 6,12,41,51,17,51,54,55		3,26,10,21,31	
		1,18, 6,27,56,56,51,59		5,43
12″	47, 0, 7,30,48,19,14,48,46,54		3,26,10,27,14	
		1,18, 6,24,30,46,24,45		5,43
14″	47, 0, 8,48,54,43,45,35,11,39		3,26,10,32,57	
		1,18, 6,21, 4,35,51,48		5,43
16″	47, 0,10, 7, 1, 4,50,11, 3,27		3,26,10,38,40	
		1,18, 6,17,38,25,13, 8		5,43
18″	47, 0,11,25, 7,22,28,36,16,35		3,26,10,44,23	
		1,18, 6,14,12,14,28,45		5,43
20″	47, 0,12,43,13,36,40,50,45,20		3,26,10,50, 6	
		1,18, 6,10,46, 3,38,39		5,43
22″	47, 0,14, 1,19,47,26,54,23,59		3,26,10,55,49	
		1,18, 6, 7,19,52,42,50		5,43
24″	47, 0,15,19,25,54,46,47, 6,49		3,26,11, 1,32	
		1,18, 6, 3,53,41,41,18		5,43
26″	47, 0,16,37,31,58,40,28,48, 7		3,26,11, 7,15	
		1,18, 6, 0,27,30,34, 3		5,43
28″	47, 0,17,55,37,59, 7,59,22,10		3,26,11,12,58	
		1,18, 5,57, 1,19,21, 5		5,43
30″	47, 0,19,13,43,56, 9,18,43,15		3,26,11,18,41	
		1,18, 5,53,35, 8, 2,24		5,43
32″	47, 0,20,31,49,49,44,26,45,39		3,26,11,24,24	
		1,18, 5,50, 8,56,38, 0		5,43
34″	47, 0,21,49,55,39,53,23,23,39		3,26,11,30, 7	
		1,18, 5,46,42,45, 7,53		5,43
36″	47, 0,23, 8, 1,26,36, 8,31,32		3,26,11,35,50	
		1,18, 5,43,16,33,32, 3		5,43
38″	47, 0,24,26, 7, 9,52,42, 3,35		3,26,11,41,33	
		1,18, 5,39,50,21,50,30		5,43
40″	47, 0,25,44,12,49,43, 3,54, 5		3,26,11,47,16	
		1,18, 5,36,24,10, 3,14		5,43
42″	47, 0,27, 2,18,26, 7,13,57,19		3,26,11,52,59	
		1,18, 5,32,57,58,10,15		5,43
44″	47, 0,28,20,23,59, 5,12, 7,34		3,26,11,58,42	
		1,18, 5,29,31,46,11,33		5,43
46″	47, 0,29,38,29,28,36,58,19, 7		3,26,12, 4,25	
		1,18, 5,26, 5,34, 7, 8		5,43
48″	47, 0,30,56,34,54,42,32,26,15		3,26,12,10, 8	
		1,18, 5,22,39,21,57, 0		5,43
50″	47, 0,32,14,40,17,21,54,23,15		3,26,12,15,51	
		1,18, 5,19,13, 9,41, 9		5,43
52″	47, 0,33,32,45,36,35, 4, 4,24		3,26,12,21,34	
		1,18, 5,15,46,57,19,35		5,43
54″	47, 0,34,50,50,52,22, 1,23,59		3,26,12,27,17	
		1,18, 5,12,20,44,52,18		5,43
56″	47, 0,36, 8,56, 4,42,46,16,17		3,26,12,33, 0	
		1,18, 5, 8,54,32,19,18		5,43
58″	47, 0,37,27, 1,13,37,18,35,35		3,26,12,38,43	
		1,18, 5, 5,28,19,40,35		
60″	47, 0,38,45, 6,19, 5,38,16,10			
exact	47, 0,38,45, 6,19, 5,38,39,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°35′ 0″	47, 0,38,45, 6,19, 5,38,39,56			
		1,18, 5, 2, 2, 6,58,53		
2″	47, 0,40, 3,11,21, 7,45,38,49		3,26,12,49,57	
		1,18, 4,58,35,54, 8,56		5,43
4″	47, 0,41,21,16,19,43,39,47,45		3,26,12,55,40	
		1,18, 4,55, 9,41,13,16		5,43
6″	47, 0,42,39,21,14,53,21, 1, 1		3,26,13, 1,23	
		1,18, 4,51,43,28,11,53		5,43
8″	47, 0,43,57,26, 6,36,49,12,54		3,26,13, 7, 6	
		1,18, 4,48,17,15, 4,47		5,43
10″	47, 0,45,15,30,54,54, 4,17,41		3,26,13,12,49	
		1,18, 4,44,51, 1,51,58		5,43
12″	47, 0,46,33,35,39,45, 6, 9,39		3,26,13,18,32	
		1,18, 4,41,24,48,33,26		5,43
14″	47, 0,47,51,40,21, 9,54,43, 5		3,26,13,24,15	
		1,18, 4,37,58,35, 9,11		5,43
16″	47, 0,49, 9,44,59, 8,29,52,16		3,26,13,29,58	
		1,18, 4,34,32,21,39,13		5,43
18″	47, 0,50,27,49,33,40,51,31,29		3,26,13,35,41	
		1,18, 4,31, 6, 8, 3,32		5,43
20″	47, 0,51,45,54, 4,46,59,35, 1		3,26,13,41,24	
		1,18, 4,27,39,54,22, 8		5,43
22″	47, 0,53, 3,58,32,26,53,57, 9		3,26,13,47, 7	
		1,18, 4,24,13,40,35, 1		5,43
24″	47, 0,54,22, 2,56,40,34,32,10		3,26,13,52,50	
		1,18, 4,20,47,26,42,11		5,43
26″	47, 0,55,40, 7,17,28, 1,14,21		3,26,13,58,33	
		1,18, 4,17,21,12,43,38		5,43
28″	47, 0,56,58,11,34,49,13,57,59		3,26,14, 4,16	
		1,18, 4,13,54,58,39,22		5,43
30″	47, 0,58,16,15,48,44,12,37,21		3,26,14, 9,59	
		1,18, 4,10,28,44,29,23		5,43
32″	47, 0,59,34,19,59,12,57, 6,44		3,26,14,15,42	
		1,18, 4, 7, 2,30,13,41		5,43
34″	47, 1, 0,52,24, 6,15,27,20,25		3,26,14,21,25	
		1,18, 4, 3,36,15,52,16		5,43
36″	47, 1, 2,10,28, 9,51,43,12,41		3,26,14,27, 8	
		1,18, 4, 0,10, 1,25, 8		5,43
38″	47, 1, 3,28,32,10, 1,44,37,49		3,26,14,32,51	
		1,18, 3,56,43,46,52,17		5,43
40″	47, 1, 4,46,36, 6,45,31,30, 6		3,26,14,38,34	
		1,18, 3,53,17,32,13,43		5,43
42″	47, 1, 6, 4,40, 0, 3, 3,43,49		3,26,14,44,17	
		1,18, 3,49,51,17,29,26		5,43
44″	47, 1, 7,22,43,49,54,21,13,15		3,26,14,50, 0	
		1,18, 3,46,25, 2,39,26		5,43
46″	47, 1, 8,40,47,36,19,23,52,41		3,26,14,55,43	
		1,18, 3,42,58,47,43,43		5,43
48″	47, 1, 9,58,51,19,18,11,36,24		3,26,15, 1,26	
		1,18, 3,39,32,32,42,17		5,43
50″	47, 1,11,16,54,58,50,44,18,41		3,26,15, 7, 9	
		1,18, 3,36, 6,17,35, 8		5,43
52″	47, 1,12,34,58,34,57, 1,53,49		3,26,15,12,52	
		1,18, 3,32,40, 2,22,16		5,43
54″	47, 1,13,53, 2, 7,37, 4,16, 5		3,26,15,18,35	
		1,18, 3,29,13,47, 3,41		5,43
56″	47, 1,15,11, 5,36,50,51,19,46		3,26,15,24,18	
		1,18, 3,25,47,31,39,23		5,43
58″	47, 1,16,29, 9, 2,38,22,59, 9		3,26,15,30, 1	
		1,18, 3,22,21,16, 9,22		
60″	47, 1,17,47,12,24,59,39, 8,31			
exact	47, 1,17,47,12,24,59,39,46,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°36′ 0″	47, 1,17,47,12,24,59,39,46,20			
		1,18, 3,18,55, 0,37,39		
2″	47, 1,19, 5,15,43,54,40,23,59		3,26,15,41,10	
		1,18, 3,15,28,44,56,29		5,42
4″	47, 1,20,23,18,59,23,25,20,28		3,26,15,46,52	
		1,18, 3,12, 2,29, 9,37		5,42
6″	47, 1,21,41,22,11,25,54,30, 5		3,26,15,52,34	
		1,18, 3, 8,36,13,17, 3		5,42
8″	47, 1,22,59,25,20, 2, 7,47, 8		3,26,15,58,16	
		1,18, 3, 5, 9,57,18,47		5,42
10″	47, 1,24,17,28,25,12, 5, 5,55		3,26,16, 3,58	
		1,18, 3, 1,43,41,14,49		5,42
12″	47, 1,25,35,31,26,55,46,20,44		3,26,16, 9,40	
		1,18, 2,58,17,25, 5, 9		5,42
14″	47, 1,26,53,34,25,13,11,25,53		3,26,16,15,22	
		1,18, 2,54,51, 8,49,47		5,42
16″	47, 1,28,11,37,20, 4,20,15,40		3,26,16,21, 4	
		1,18, 2,51,24,52,28,43		5,42
18″	47, 1,29,29,40,11,29,12,44,23		3,26,16,26,46	
		1,18, 2,47,58,36, 1,57		5,42
20″	47, 1,30,47,42,59,27,48,46,20		3,26,16,32,28	
		1,18, 2,44,32,19,29,29		5,42
22″	47, 1,32, 5,45,44, 0, 8,15,49		3,26,16,38,10	
		1,18, 2,41, 6, 2,51,19		5,42
24″	47, 1,33,23,48,25, 6,11, 7, 8		3,26,16,43,52	
		1,18, 2,37,39,46, 7,27		5,42
26″	47, 1,34,41,51, 2,45,57,14,35		3,26,16,49,34	
		1,18, 2,34,13,29,17,53		5,42
28″	47, 1,35,59,53,36,59,26,32,28		3,26,16,55,16	
		1,18, 2,30,47,12,22,37		5,42
30″	47, 1,37,17,56, 7,46,38,55, 5		3,26,17, 0,58	
		1,18, 2,27,20,55,21,39		5,42
32″	47, 1,38,35,58,35, 7,34,16,44		3,26,17, 6,40	
		1,18, 2,23,54,38,14,59		5,42
34″	47, 1,39,54, 0,59, 2,12,31,43		3,26,17,12,22	
		1,18, 2,20,28,21, 2,37		5,42
36″	47, 1,41,12, 3,19,30,33,34,20		3,26,17,18, 4	
		1,18, 2,17, 2, 3,44,33		5,42
38″	47, 1,42,30, 5,36,32,37,18,53		3,26,17,23,46	
		1,18, 2,13,35,46,20,47		5,42
40″	47, 1,43,48, 7,50, 8,23,39,40		3,26,17,29,28	
		1,18, 2,10, 9,28,51,19		5,42
42″	47, 1,45, 6,10, 0,17,52,30,59		3,26,17,35,10	
		1,18, 2, 6,43,11,16, 9		5,42
44″	47, 1,46,24,12, 7, 1, 3,47, 8		3,26,17,40,52	
		1,18, 2, 3,16,53,35,17		5,42
46″	47, 1,47,42,14,10,17,57,22,25		3,26,17,46,34	
		1,18, 1,59,50,35,48,43		5,42
48″	47, 1,49, 0,16,10, 8,33,11, 8		3,26,17,52,16	
		1,18, 1,56,24,17,56,27		5,42
50″	47, 1,50,18,18, 6,32,51, 7,35		3,26,17,57,58	
		1,18, 1,52,57,59,58,29		5,42
52″	47, 1,51,36,19,59,30,51, 6, 4		3,26,18, 3,40	
		1,18, 1,49,31,41,54,49		5,42
54″	47, 1,52,54,21,49, 2,33, 0,53		3,26,18, 9,22	
		1,18, 1,46, 5,23,45,27		5,42
56″	47, 1,54,12,23,35, 7,56,46,20		3,26,18,15, 4	
		1,18, 1,42,39, 5,30,23		5,42
58″	47, 1,55,30,25,17,47, 2,16,43		3,26,18,20,46	
		1,18, 1,39,12,47, 9,37		
60″	47, 1,56,48,26,56,59,49,26,20			
exact	47, 1,56,48,26,56,59,49, 1,41			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
51°37′	0″	47, 1,56,48,26,56,59,49, 1,41	1,18, 1,35,46,28,40,36		
	2″	47, 1,58, 6,28,32,46,17,42,17	1,18, 1,32,20,10, 8,16	3,26,18,32,20	
	4″	47, 1,59,24,30, 5, 6,27,50,33	1,18, 1,28,53,51,30,14	3,26,18,38, 2	5,42
	6″	47, 2, 0,42,31,34, 0,19,20,47	1,18, 1,25,27,32,46,30	3,26,18,43,44	5,42
	8″	47, 2, 2, 0,32,59,27,52, 7,17	1,18, 1,22, 1,13,57, 4	3,26,18,49,26	5,42
	10″	47, 2, 3,18,34,21,29, 6, 4,21	1,18, 1,18,34,55, 1,56	3,26,18,55, 8	5,42
	12″	47, 2, 4,36,35,40, 4, 1, 6,17	1,18, 1,15, 8,36, 1, 6	3,26,19, 0,50	5,42
	14″	47, 2, 5,54,36,55,12,37, 7,23	1,18, 1,11,42,16,54,34	3,26,19, 6,32	5,42
	16″	47, 2, 7,12,38, 6,54,54, 1,57	1,18, 1, 8,15,57,42,20	3,26,19,12,14	5,42
	18″	47, 2, 8,30,39,15,10,51,44,17	1,18, 1, 4,49,38,24,24	3,26,19,17,56	5,42
	20″	47, 2, 9,48,40,20, 0,30, 8,41	1,18, 1, 1,23,19, 0,46	3,26,19,23,38	5,42
	22″	47, 2,11, 6,41,21,23,49, 9,27	1,18, 0,57,56,59,31,26	3,26,19,29,20	5,42
	24″	47, 2,12,24,42,19,20,48,40,53	1,18, 0,54,30,39,56,24	3,26,19,35, 2	5,42
	26″	47, 2,13,42,43,13,51,28,37,17	1,18, 0,51, 4,20,15,40	3,26,19,40,44	5,42
	28″	47, 2,15, 0,44, 4,55,48,52,57	1,18, 0,47,38, 0,29,14	3,26,19,46,26	5,42
	30″	47, 2,16,18,44,52,33,49,22,11	1,18, 0,44,11,40,37, 6	3,26,19,52, 8	5,42
	32″	47, 2,17,36,45,36,45,29,59,17	1,18, 0,40,45,20,39,16	3,26,19,57,50	5,42
	34″	47, 2,18,54,46,17,30,50,38,33	1,18, 0,37,19, 0,35,44	3,26,20, 3,32	5,42
	36″	47, 2,20,12,46,54,49,51,14,17	1,18, 0,33,52,40,26,30	3,26,20, 9,14	5,42
	38″	47, 2,21,30,47,28,42,31,40,47	1,18, 0,30,26,20,11,34	3,26,20,14,56	5,42
	40″	47, 2,22,48,47,59, 8,51,52,21	1,18, 0,26,59,59,50,56	3,26,20,20,38	5,42
	42″	47, 2,24, 6,48,26, 8,51,43,17	1,18, 0,23,33,39,24,36	3,26,20,26,20	5,42
	44″	47, 2,25,24,48,49,42,31, 7,53	1,18, 0,20, 7,18,52,34	3,26,20,32, 2	5,42
	46″	47, 2,26,42,49, 9,49,50, 0,27	1,18, 0,16,40,58,14,50	3,26,20,37,44	5,42
	48″	47, 2,28, 0,49,26,30,48,15,17	1,18, 0,13,14,37,31,24	3,26,20,43,26	5,42
	50″	47, 2,29,18,49,39,45,25,46,41	1,18, 0, 9,48,16,42,16	3,26,20,49, 8	5,42
	52″	47, 2,30,36,49,49,33,42,28,57	1,18, 0, 6,21,55,47,26	3,26,20,54,50	5,42
	54″	47, 2,31,54,49,55,55,38,16,23	1,18, 0, 2,55,34,46,54	3,26,21, 0,32	5,42
	56″	47, 2,33,12,49,58,51,13, 3,17	1,17,59,59,29,13,40,40	3,26,21, 6,14	5,42
	58″	47, 2,34,30,49,58,20,26,43,57	1,17,59,56, 2,52,28,44	3,26,21,11,56	
	60″	47, 2,35,48,49,54,23,19,12,41			
	exact	47, 2,35,48,49,54,23,18,58,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°38′ 0″	47, 2,35,48,49,54,23,18,58,24			
		1,17,59,52,36,31, 9,36		
2″	47, 2,37, 6,49,46,59,50, 8, 0		3,26,21,23,26	
		1,17,59,49,10, 9,46,10		5,42
4″	47, 2,38,24,49,36, 9,59,54,10		3,26,21,29, 8	
		1,17,59,45,43,48,17, 2		5,42
6″	47, 2,39,42,49,21,53,48,11,12		3,26,21,34,50	
		1,17,59,42,17,26,42,12		5,42
8″	47, 2,41, 0,49, 4,11,14,53,24		3,26,21,40,32	
		1,17,59,38,51, 5, 1,40		5,42
10″	47, 2,42,18,48,43, 2,19,55, 4		3,26,21,46,14	
		1,17,59,35,24,43,15,26		5,42
12″	47, 2,43,36,48,18,27, 3,10,30		3,26,21,51,56	
		1,17,59,31,58,21,23,30		5,42
14″	47, 2,44,54,47,50,25,24,34, 0		3,26,21,57,38	
		1,17,59,28,31,59,25,52		5,42
16″	47, 2,46,12,47,18,57,23,59,52		3,26,22, 3,20	
		1,17,59,25, 5,37,22,32		5,42
18″	47, 2,47,30,46,44, 3, 1,22,24		3,26,22, 9, 2	
		1,17,59,21,39,15,13,30		5,42
20″	47, 2,48,48,46, 5,42,16,35,54		3,26,22,14,44	
		1,17,59,18,12,52,58,46		5,42
22″	47, 2,50, 6,45,23,55, 9,34,40		3,26,22,20,26	
		1,17,59,14,46,30,38,20		5,42
24″	47, 2,51,24,44,38,41,40,13, 0		3,26,22,26, 8	
		1,17,59,11,20, 8,12,12		5,42
26″	47, 2,52,42,43,50, 1,48,25,12		3,26,22,31,50	
		1,17,59, 7,53,45,40,22		5,42
28″	47, 2,54, 0,42,57,55,34, 5,34		3,26,22,37,32	
		1,17,59, 4,27,23, 2,50		5,42
30″	47, 2,55,18,42, 2,22,57, 8,24		3,26,22,43,14	
		1,17,59, 1, 1, 0,19,36		5,42
32″	47, 2,56,36,41, 3,23,57,28, 0		3,26,22,48,56	
		1,17,58,57,34,37,30,40		5,42
34″	47, 2,57,54,40, 0,58,34,58,40		3,26,22,54,38	
		1,17,58,54, 8,14,36, 2		5,42
36″	47, 2,59,12,38,55, 6,49,34,42		3,26,23, 0,20	
		1,17,58,50,41,51,35,42		5,42
38″	47, 3, 0,30,37,45,48,41,10,24		3,26,23, 6, 2	
		1,17,58,47,15,28,29,40		5,42
40″	47, 3, 1,48,36,33, 4, 9,40, 4		3,26,23,11,44	
		1,17,58,43,49, 5,17,56		5,42
42″	47, 3, 3, 6,35,16,53,14,58, 0		3,26,23,17,26	
		1,17,58,40,22,42, 0,30		5,42
44″	47, 3, 4,24,33,57,15,56,58,30		3,26,23,23, 8	
		1,17,58,36,56,18,37,22		5,42
46″	47, 3, 5,42,32,34,12,15,35,52		3,26,23,28,50	
		1,17,58,33,29,55, 8,32		5,42
48″	47, 3, 7, 0,31, 7,42,10,44,24		3,26,23,34,32	
		1,17,58,30, 3,31,34, 0		5,42
50″	47, 3, 8,18,29,37,45,42,18,24		3,26,23,40,14	
		1,17,58,26,37, 7,53,46		5,42
52″	47, 3, 9,36,28, 4,22,50,12,10		3,26,23,45,56	
		1,17,58,23,10,44, 7,50		5,42
54″	47, 3,10,54,26,27,33,34,20, 0		3,26,23,51,38	
		1,17,58,19,44,20,16,12		5,42
56″	47, 3,12,12,24,47,17,54,36,12		3,26,23,57,20	
		1,17,58,16,17,56,18,52		5,42
58″	47, 3,13,30,23, 3,35,50,55, 4		3,26,24, 3, 2	
		1,17,58,12,51,32,15,50		
60″	47, 3,14,48,21,16,27,23,10,54			
exact	47, 3,14,48,21,16,27,23, 5,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°39′ 0″	47, 3,14,48,21,16,27,23, 5,29			
		1,17,58, 9,25, 8, 6,32		
2″	47, 3,16, 6,19,25,52,31,12, 1		3,26,24,14,28	
		1,17,58, 5,58,43,52, 4		5,42
4″	47, 3,17,24,17,31,51,15, 4, 5		3,26,24,20,10	
		1,17,58, 2,32,19,31,54		5,42
6″	47, 3,18,42,15,34,23,34,35,59		3,26,24,25,52	
		1,17,57,59, 5,55, 6, 2		5,42
8″	47, 3,20, 0,13,33,29,29,42, 1		3,26,24,31,34	
		1,17,57,55,39,30,34,28		5,42
10″	47, 3,21,18,11,29, 9, 0,16,29		3,26,24,37,16	
		1,17,57,52,13, 5,57,12		5,42
12″	47, 3,22,36, 9,21,22, 6,13,41		3,26,24,42,58	
		1,17,57,48,46,41,14,14		5,42
14″	47, 3,23,54, 7,10, 8,47,27,55		3,26,24,48,40	
		1,17,57,45,20,16,25,34		5,42
16″	47, 3,25,12, 4,55,29, 3,53,29		3,26,24,54,22	
		1,17,57,41,53,51,31,12		5,42
18″	47, 3,26,30, 2,37,22,55,24,41		3,26,25, 0, 4	
		1,17,57,38,27,26,31, 8		5,42
20″	47, 3,27,48, 0,15,50,21,55,49		3,26,25, 5,46	
		1,17,57,35, 1, 1,25,22		5,42
22″	47, 3,29, 5,57,50,51,23,21,11		3,26,25,11,28	
		1,17,57,31,34,36,13,54		5,42
24″	47, 3,30,23,55,22,25,59,35, 5		3,26,25,17,10	
		1,17,57,28, 8,10,56,44		5,42
26″	47, 3,31,41,52,50,34,10,31,49		3,26,25,22,52	
		1,17,57,24,41,45,33,52		5,42
28″	47, 3,32,59,50,15,15,56, 5,41		3,26,25,28,34	
		1,17,57,21,15,20, 5,18		5,42
30″	47, 3,34,17,47,36,31,16,10,59		3,26,25,34,16	
		1,17,57,17,48,54,31, 2		5,42
32″	47, 3,35,35,44,54,20,10,42, 1		3,26,25,39,58	
		1,17,57,14,22,28,51, 4		5,42
34″	47, 3,36,53,42, 8,42,39,33, 5		3,26,25,45,40	
		1,17,57,10,56, 3, 5,24		5,42
36″	47, 3,38,11,39,19,38,42,38,29		3,26,25,51,22	
		1,17,57, 7,29,37,14, 2		5,42
38″	47, 3,39,29,36,27, 8,19,52,31		3,26,25,57, 4	
		1,17,57, 4, 3,11,16,58		5,42
40″	47, 3,40,47,33,31,11,31, 9,29		3,26,26, 2,46	
		1,17,57, 0,36,45,14,12		5,42
42″	47, 3,42, 5,30,31,48,16,23,41		3,26,26, 8,28	
		1,17,56,57,10,19, 5,44		5,42
44″	47, 3,43,23,27,28,58,35,29,25		3,26,26,14,10	
		1,17,56,53,43,52,51,34		5,42
46″	47, 3,44,41,24,22,42,28,20,59		3,26,26,19,52	
		1,17,56,50,17,26,31,42		5,42
48″	47, 3,45,59,21,12,59,54,52,41		3,26,26,25,34	
		1,17,56,46,51, 0, 6, 8		5,42
50″	47, 3,47,17,17,59,50,54,58,49		3,26,26,31,16	
		1,17,56,43,24,33,34,52		5,42
52″	47, 3,48,35,14,43,15,28,33,41		3,26,26,36,58	
		1,17,56,39,58, 6,57,54		5,42
54″	47, 3,49,53,11,23,13,35,31,35		3,26,26,42,40	
		1,17,56,36,31,40,15,14		5,42
56″	47, 3,51,11, 7,59,45,15,46,49		3,26,26,48,22	
		1,17,56,33, 5,13,26,52		5,42
58″	47, 3,52,29, 4,32,50,29,13,41		3,26,26,54, 4	
		1,17,56,29,38,46,32,48		
60″	47, 3,53,47, 1, 2,29,15,46,29			
exact	47, 3,53,47, 1, 2,29,15,48,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°40′ 0″	47, 3,53,47, 1, 2,29,15,48,31			
		1,17,56,26,12,19,33,18		
2″	47, 3,55, 4,57,28,41,35,21,49		3,26,27, 5,26	
		1,17,56,22,45,52,27,52		5,42
4″	47, 3,56,22,53,51,27,27,49,41		3,26,27,11, 8	
		1,17,56,19,19,25,16,44		5,42
6″	47, 3,57,40,50,10,46,53, 6,25		3,26,27,16,50	
		1,17,56,15,52,57,59,54		5,42
8″	47, 3,58,58,46,26,39,51, 6,19		3,26,27,22,32	
		1,17,56,12,26,30,37,22		5,42
10″	47, 4, 0,16,42,39, 6,21,43,41		3,26,27,28,14	
		1,17,56, 9, 0, 3, 9, 8		5,42
12″	47, 4, 1,34,38,48, 6,24,52,49		3,26,27,33,56	
		1,17,56, 5,33,35,35,12		5,42
14″	47, 4, 2,52,34,53,40, 0,28, 1		3,26,27,39,38	
		1,17,56, 2, 7, 7,55,34		5,42
16″	47, 4, 4,10,30,55,47, 8,23,35		3,26,27,45,20	
		1,17,55,58,40,40,10,14		5,42
18″	47, 4, 5,28,26,54,27,48,33,49		3,26,27,51, 2	
		1,17,55,55,14,12,19,12		5,42
20″	47, 4, 6,46,22,49,42, 0,53, 1		3,26,27,56,44	
		1,17,55,51,47,44,22,28		5,42
22″	47, 4, 8, 4,18,41,29,45,15,29		3,26,28, 2,26	
		1,17,55,48,21,16,20, 2		5,42
24″	47, 4, 9,22,14,29,51, 1,35,31		3,26,28, 8, 8	
		1,17,55,44,54,48,11,54		5,42
26″	47, 4,10,40,10,14,45,49,47,25		3,26,28,13,50	
		1,17,55,41,28,19,58, 4		5,42
28″	47, 4,11,58, 5,56,14, 9,45,29		3,26,28,19,32	
		1,17,55,38, 1,51,38,32		5,42
30″	47, 4,13,16, 1,34,16, 1,24, 1		3,26,28,25,14	
		1,17,55,34,35,23,13,18		5,42
32″	47, 4,14,33,57, 8,51,24,37,19		3,26,28,30,56	
		1,17,55,31, 8,54,42,22		5,42
34″	47, 4,15,51,52,40, 0,19,19,41		3,26,28,36,38	
		1,17,55,27,42,26, 5,44		5,42
36″	47, 4,17, 9,48, 7,42,45,25,25		3,26,28,42,20	
		1,17,55,24,15,57,23,24		5,42
38″	47, 4,18,27,43,31,58,42,48,49		3,26,28,48, 2	
		1,17,55,20,49,28,35,22		5,42
40″	47, 4,19,45,38,52,48,11,24,11		3,26,28,53,44	
		1,17,55,17,22,59,41,38		5,42
42″	47, 4,21, 3,34,10,11,11, 5,49		3,26,28,59,26	
		1,17,55,13,56,30,42,12		5,42
44″	47, 4,22,21,29,24, 7,41,48, 1		3,26,29, 5, 8	
		1,17,55,10,30, 1,37, 4		5,42
46″	47, 4,23,39,24,34,37,43,25, 5		3,26,29,10,50	
		1,17,55, 7, 3,32,26,14		5,42
48″	47, 4,24,57,19,41,41,15,51,19		3,26,29,16,32	
		1,17,55, 3,37, 3, 9,42		5,42
50″	47, 4,26,15,14,45,18,19, 1, 1		3,26,29,22,14	
		1,17,55, 0,10,33,47,28		5,42
52″	47, 4,27,33, 9,45,28,52,48,29		3,26,29,27,56	
		1,17,54,56,44, 4,19,32		5,42
54″	47, 4,28,51, 4,42,12,57, 8, 1		3,26,29,33,38	
		1,17,54,53,17,34,45,54		5,42
56″	47, 4,30, 8,59,35,30,31,53,55		3,26,29,39,20	
		1,17,54,49,51, 5, 6,34		5,42
58″	47, 4,31,26,54,25,21,37, 0,29		3,26,29,45, 2	
		1,17,54,46,24,35,21,32		
60″	47, 4,32,44,49,11,46,12,22, 1			
exact	47, 4,32,44,49,11,46,12,29,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°41′ 0″	47, 4,32,44,49,11,46,12,29,39	1,17,54,42,58, 5,31,47		
2″	47, 4,34, 2,43,54,44,18, 1,26	1,17,54,39,31,35,35,26	3,26,29,56,21	
4″	47, 4,35,20,38,34,15,53,36,52	1,17,54,36, 5, 5,33,23	3,26,30, 2, 3	5,42
6″	47, 4,36,38,33,10,20,59,10,15	1,17,54,32,38,35,25,38	3,26,30, 7,45	5,42
8″	47, 4,37,56,27,42,59,34,35,53	1,17,54,29,12, 5,12,11	3,26,30,13,27	5,42
10″	47, 4,39,14,22,12,11,39,48, 4	1,17,54,25,45,34,53, 2	3,26,30,19, 9	5,42
12″	47, 4,40,32,16,37,57,14,41, 6	1,17,54,22,19, 4,28,11	3,26,30,24,51	5,42
14″	47, 4,41,50,11, 0,16,19, 9,17	1,17,54,18,52,33,57,38	3,26,30,30,33	5,42
16″	47, 4,43, 8, 5,19, 8,53, 6,55	1,17,54,15,26, 3,21,23	3,26,30,36,15	5,42
18″	47, 4,44,25,59,34,34,56,28,18	1,17,54,11,59,32,39,26	3,26,30,41,57	5,42
20″	47, 4,45,43,53,46,34,29, 7,44	1,17,54, 8,33, 1,51,47	3,26,30,47,39	5,42
22″	47, 4,47, 1,47,55, 7,30,59,31	1,17,54, 5, 6,30,58,26	3,26,30,53,21	5,42
24″	47, 4,48,19,42, 0,14, 1,57,57	1,17,54, 1,39,59,59,23	3,26,30,59, 3	5,42
26″	47, 4,49,37,36, 1,54, 1,57,20	1,17,53,58,13,28,54,38	3,26,31, 4,45	5,42
28″	47, 4,50,55,30, 0, 7,30,51,58	1,17,53,54,46,57,44,11	3,26,31,10,27	5,42
30″	47, 4,52,13,23,54,54,28,36, 9	1,17,53,51,20,26,28, 2	3,26,31,16, 9	5,42
32″	47, 4,53,31,17,46,14,55, 4,11	1,17,53,47,53,55, 6,11	3,26,31,21,51	5,42
34″	47, 4,54,49,11,34, 8,50,10,22	1,17,53,44,27,23,38,38	3,26,31,27,33	5,42
36″	47, 4,56, 7, 5,18,36,13,49, 0	1,17,53,41, 0,52, 5,23	3,26,31,33,15	5,42
38″	47, 4,57,24,58,59,37, 5,54,23	1,17,53,37,34,20,26,26	3,26,31,38,57	5,42
40″	47, 4,58,42,52,37,11,26,20,49	1,17,53,34, 7,48,41,47	3,26,31,44,39	5,42
42″	47, 5, 0, 0,46,11,19,15, 2,36	1,17,53,30,41,16,51,26	3,26,31,50,21	5,42
44″	47, 5, 1,18,39,42, 0,31,54, 2	1,17,53,27,14,44,55,23	3,26,31,56, 3	5,42
46″	47, 5, 2,36,33, 9,15,16,49,25	1,17,53,23,48,12,53,38	3,26,32, 1,45	5,42
48″	47, 5, 3,54,26,33, 3,29,43, 3	1,17,53,20,21,40,46,11	3,26,32, 7,27	5,42
50″	47, 5, 5,12,19,53,25,10,29,14	1,17,53,16,55, 8,33, 2	3,26,32,13, 9	5,42
52″	47, 5, 6,30,13,10,20,19, 2,16	1,17,53,13,28,36,14,11	3,26,32,18,51	5,42
54″	47, 5, 7,48, 6,23,48,55,16,27	1,17,53,10, 2, 3,49,38	3,26,32,24,33	5,42
56″	47, 5, 9, 5,59,33,50,59, 6, 5	1,17,53, 6,35,31,19,23	3,26,32,30,15	5,42
58″	47, 5,10,23,52,40,26,30,25,28	1,17,53, 3, 8,58,43,26	3,26,32,35,57	
60″	47, 5,11,41,45,43,35,29, 8,54			
exact	47, 5,11,41,45,43,35,29,27,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°42′ 0″	47, 5,11,41,45,43,35,29,27,39			
		1,17,52,59,42,26, 3,52		
2″	47, 5,12,59,38,43,17,55,31,31		3,26,32,47,12	
		1,17,52,56,15,53,16,40		5,42
4″	47, 5,14,17,31,39,33,48,48,11		3,26,32,52,54	
		1,17,52,52,49,20,23,46		5,42
6″	47, 5,15,35,24,32,23, 9,11,57		3,26,32,58,36	
		1,17,52,49,22,47,25,10		5,42
8″	47, 5,16,53,17,21,45,56,37, 7		3,26,33, 4,18	
		1,17,52,45,56,14,20,52		5,42
10″	47, 5,18,11,10, 7,42,10,57,59		3,26,33,10, 0	
		1,17,52,42,29,41,10,52		5,42
12″	47, 5,19,29, 2,50,11,52, 8,51		3,26,33,15,42	
		1,17,52,39, 3, 7,55,10		5,42
14″	47, 5,20,46,55,29,15, 0, 4, 1		3,26,33,21,24	
		1,17,52,35,36,34,33,46		5,42
16″	47, 5,22, 4,48, 4,51,34,37,47		3,26,33,27, 6	
		1,17,52,32,10, 1, 6,40		5,42
18″	47, 5,23,22,40,37, 1,35,44,27		3,26,33,32,48	
		1,17,52,28,43,27,33,52		5,42
20″	47, 5,24,40,33, 5,45, 3,18,19		3,26,33,38,30	
		1,17,52,25,16,53,55,22		5,42
22″	47, 5,25,58,25,31, 1,57,13,41		3,26,33,44,12	
		1,17,52,21,50,20,11,10		5,42
24″	47, 5,27,16,17,52,52,17,24,51		3,26,33,49,54	
		1,17,52,18,23,46,21,16		5,42
26″	47, 5,28,34,10,11,16, 3,46, 7		3,26,33,55,36	
		1,17,52,14,57,12,25,40		5,42
28″	47, 5,29,52, 2,26,13,16,11,47		3,26,34, 1,18	
		1,17,52,11,30,38,24,22		5,42
30″	47, 5,31, 9,54,37,43,54,36, 9		3,26,34, 7, 0	
		1,17,52, 8, 4, 4,17,22		5,42
32″	47, 5,32,27,46,45,47,58,53,31		3,26,34,12,42	
		1,17,52, 4,37,30, 4,40		5,42
34″	47, 5,33,45,38,50,25,28,58,11		3,26,34,18,24	
		1,17,52, 1,10,55,46,16		5,42
36″	47, 5,35, 3,30,51,36,24,44,27		3,26,34,24, 6	
		1,17,51,57,44,21,22,10		5,42
38″	47, 5,36,21,22,49,20,46, 6,37		3,26,34,29,48	
		1,17,51,54,17,46,52,22		5,42
40″	47, 5,37,39,14,43,38,32,58,59		3,26,34,35,30	
		1,17,51,50,51,12,16,52		5,42
42″	47, 5,38,57, 6,34,29,45,15,51		3,26,34,41,12	
		1,17,51,47,24,37,35,40		5,42
44″	47, 5,40,14,58,21,54,22,51,31		3,26,34,46,54	
		1,17,51,43,58, 2,48,46		5,42
46″	47, 5,41,32,50, 5,52,25,40,17		3,26,34,52,36	
		1,17,51,40,31,27,56,10		5,42
48″	47, 5,42,50,41,46,23,53,36,27		3,26,34,58,18	
		1,17,51,37, 4,52,57,52		5,42
50″	47, 5,44, 8,33,23,28,46,34,19		3,26,35, 4, 0	
		1,17,51,33,38,17,53,52		5,42
52″	47, 5,45,26,24,57, 7, 4,28,11		3,26,35, 9,42	
		1,17,51,30,11,42,44,10		5,42
54″	47, 5,46,44,16,27,18,47,12,21		3,26,35,15,24	
		1,17,51,26,45, 7,28,46		5,42
56″	47, 5,48, 2, 7,54, 3,54,41, 7		3,26,35,21, 6	
		1,17,51,23,18,32, 7,40		5,42
58″	47, 5,49,19,59,17,22,26,48,47		3,26,35,26,48	
		1,17,51,19,51,56,40,52		
60″	47, 5,50,37,50,37,14,23,29,39			
exact	47, 5,50,37,50,37,14,23,57,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°43′ 0″	47, 5,50,37,50,37,14,23,57,53			
		1,17,51,16,25,21,11,26		
2″	47, 5,51,55,41,53,39,45, 9,19		3,26,35,37,59	
		1,17,51,12,58,45,33,27		5,42
4″	47, 5,53,13,33, 6,38,30,42,46		3,26,35,43,41	
		1,17,51, 9,32, 9,49,46		5,42
6″	47, 5,54,31,24,16,10,40,32,32		3,26,35,49,23	
		1,17,51, 6, 5,34, 0,23		5,42
8″	47, 5,55,49,15,22,16,14,32,55		3,26,35,55, 5	
		1,17,51, 2,38,58, 5,18		5,42
10″	47, 5,57, 7, 6,24,55,12,38,13		3,26,36, 0,47	
		1,17,50,59,12,22, 4,31		5,42
12″	47, 5,58,24,57,24, 7,34,42,44		3,26,36, 6,29	
		1,17,50,55,45,45,58, 2		5,42
14″	47, 5,59,42,48,19,53,20,40,46		3,26,36,12,11	
		1,17,50,52,19, 9,45,51		5,42
16″	47, 6, 1, 0,39,12,12,30,26,37		3,26,36,17,53	
		1,17,50,48,52,33,27,58		5,42
18″	47, 6, 2,18,30, 1, 5, 3,54,35		3,26,36,23,35	
		1,17,50,45,25,57, 4,23		5,42
20″	47, 6, 3,36,20,46,31, 0,58,58		3,26,36,29,17	
		1,17,50,41,59,20,35, 6		5,42
22″	47, 6, 4,54,11,28,30,21,34, 4		3,26,36,34,59	
		1,17,50,38,32,44, 0, 7		5,42
24″	47, 6, 6,12, 2, 7, 3, 5,34,11		3,26,36,40,41	
		1,17,50,35, 6, 7,19,26		5,42
26″	47, 6, 7,29,52,42, 9,12,53,37		3,26,36,46,23	
		1,17,50,31,39,30,33, 3		5,42
28″	47, 6, 8,47,43,13,48,43,26,40		3,26,36,52, 5	
		1,17,50,28,12,53,40,58		5,42
30″	47, 6,10, 5,33,42, 1,37, 7,38		3,26,36,57,47	
		1,17,50,24,46,16,43,11		5,42
32″	47, 6,11,23,24, 6,47,53,50,49		3,26,37, 3,29	
		1,17,50,21,19,39,39,42		5,42
34″	47, 6,12,41,14,28, 7,33,30,31		3,26,37, 9,11	
		1,17,50,17,53, 2,30,31		5,42
36″	47, 6,13,59, 4,46, 0,36, 1, 2		3,26,37,14,53	
		1,17,50,14,26,25,15,38		5,42
38″	47, 6,15,16,55, 0,27, 1,16,40		3,26,37,20,35	
		1,17,50,10,59,47,55, 3		5,42
40″	47, 6,16,34,45,11,26,49,11,43		3,26,37,26,17	
		1,17,50, 7,33,10,28,46		5,42
42″	47, 6,17,52,35,18,59,59,40,29		3,26,37,31,59	
		1,17,50, 4, 6,32,56,47		5,42
44″	47, 6,19,10,25,23, 6,32,37,16		3,26,37,37,41	
		1,17,50, 0,39,55,19, 6		5,42
46″	47, 6,20,28,15,23,46,27,56,22		3,26,37,43,23	
		1,17,49,57,13,17,35,43		5,42
48″	47, 6,21,46, 5,20,59,45,32, 5		3,26,37,49, 5	
		1,17,49,53,46,39,46,38		5,42
50″	47, 6,23, 3,55,14,46,25,18,43		3,26,37,54,47	
		1,17,49,50,20, 1,51,51		5,42
52″	47, 6,24,21,45, 5, 6,27,10,34		3,26,38, 0,29	
		1,17,49,46,53,23,51,22		5,42
54″	47, 6,25,39,34,51,59,51, 1,56		3,26,38, 6,11	
		1,17,49,43,26,45,45,11		5,42
56″	47, 6,26,57,24,35,26,36,47, 7		3,26,38,11,53	
		1,17,49,40, 0, 7,33,18		5,42
58″	47, 6,28,15,14,15,26,44,20,25		3,26,38,17,35	
		1,17,49,36,33,29,15,43		
60″	47, 6,29,33, 3,52, 0,13,36, 8			
exact	47, 6,29,33, 3,52, 0,14,12,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°44′ 0″	47, 6,29,33, 3,52, 0,14,12,20	1,17,49,33, 6,50,56,22		
2″	47, 6,30,50,53,25, 7, 5, 8,42	1,17,49,29,40,12,27,40	3,26,38,28,42	5,41
4″	47, 6,32, 8,42,54,47,17,36,22	1,17,49,26,13,33,53,17	3,26,38,34,23	5,41
6″	47, 6,33,26,32,21, 0,51,29,39	1,17,49,22,46,55,13,13	3,26,38,40, 4	5,41
8″	47, 6,34,44,21,43,47,46,42,52	1,17,49,19,20,16,27,28	3,26,38,45,45	5,41
10″	47, 6,36, 2,11, 3, 8, 3,10,20	1,17,49,15,53,37,36, 2	3,26,38,51,26	5,41
12″	47, 6,37,20, 0,19, 1,40,46,22	1,17,49,12,26,58,38,55	3,26,38,57, 7	5,41
14″	47, 6,38,37,49,31,28,39,25,17	1,17,49, 9, 0,19,36, 7	3,26,39, 2,48	5,41
16″	47, 6,39,55,38,40,28,59, 1,24	1,17,49, 5,33,40,27,38	3,26,39, 8,29	5,41
18″	47, 6,41,13,27,46, 2,39,29, 2	1,17,49, 2, 7, 1,13,28	3,26,39,14,10	5,41
20″	47, 6,42,31,16,48, 9,40,42,30	1,17,48,58,40,21,53,37	3,26,39,19,51	5,41
22″	47, 6,43,49, 5,46,50, 2,36, 7	1,17,48,55,13,42,28, 5	3,26,39,25,32	5,41
24″	47, 6,45, 6,54,42, 3,45, 4,12	1,17,48,51,47, 2,56,52	3,26,39,31,13	5,41
26″	47, 6,46,24,43,33,50,48, 1, 4	1,17,48,48,20,23,19,58	3,26,39,36,54	5,41
28″	47, 6,47,42,32,22,11,11,21, 2	1,17,48,44,53,43,37,23	3,26,39,42,35	5,41
30″	47, 6,49, 0,21, 7, 4,54,58,25	1,17,48,41,27, 3,49, 7	3,26,39,48,16	5,41
32″	47, 6,50,18, 9,48,31,58,47,32	1,17,48,38, 0,23,55,10	3,26,39,53,57	5,41
34″	47, 6,51,35,58,26,32,22,42,42	1,17,48,34,33,43,55,32	3,26,39,59,38	5,41
36″	47, 6,52,53,47, 1, 6, 6,38,14	1,17,48,31, 7, 3,50,13	3,26,40, 5,19	5,41
38″	47, 6,54,11,35,32,13,10,28,27	1,17,48,27,40,23,39,13	3,26,40,11, 0	5,41
40″	47, 6,55,29,23,59,53,34, 7,40	1,17,48,24,13,43,22,32	3,26,40,16,41	5,41
42″	47, 6,56,47,12,24, 7,17,30,12	1,17,48,20,47, 3, 0,10	3,26,40,22,22	5,41
44″	47, 6,58, 5, 0,44,54,20,30,22	1,17,48,17,20,22,32, 7	3,26,40,28, 3	5,41
46″	47, 6,59,22,49, 2,14,43, 2,29	1,17,48,13,53,41,58,23	3,26,40,33,44	5,41
48″	47, 7, 0,40,37,16, 8,25, 0,52	1,17,48,10,27, 1,18,58	3,26,40,39,25	5,41
50″	47, 7, 1,58,25,26,35,26,19,50	1,17,48, 7, 0,20,33,52	3,26,40,45, 6	5,41
52″	47, 7, 3,16,13,33,35,46,53,42	1,17,48, 3,33,39,43, 5	3,26,40,50,47	5,41
54″	47, 7, 4,34, 1,37, 9,26,36,47	1,17,48, 0, 6,58,46,37	3,26,40,56,28	5,41
56″	47, 7, 5,51,49,37,16,25,23,24	1,17,47,56,40,17,44,28	3,26,41, 2, 9	5,41
58″	47, 7, 7, 9,37,33,56,43, 7,52	1,17,47,53,13,36,36,38	3,26,41, 7,50	
60″	47, 7, 8,27,25,27,10,19,44,30			
exact	47, 7, 8,27,25,27,10,19,19,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°45′ 0″	47, 7, 8,27,25,27,10,19,19,38			
		1,17,47,49,46,55,20,34		
2″	47, 7, 9,45,13,16,57,14,40,12		3,26,41,19,22	
		1,17,47,46,20,14, 1,12		5,41
4″	47, 7,11, 3, 1, 3,17,28,41,24		3,26,41,25, 3	
		1,17,47,42,53,32,36, 9		5,41
6″	47, 7,12,20,48,46,11, 1,17,33		3,26,41,30,44	
		1,17,47,39,26,51, 5,25		5,41
8″	47, 7,13,38,36,25,37,52,22,58		3,26,41,36,25	
		1,17,47,36, 0, 9,29, 0		5,41
10″	47, 7,14,56,24, 1,38, 1,51,58		3,26,41,42, 6	
		1,17,47,32,33,27,46,54		5,41
12″	47, 7,16,14,11,34,11,29,38,52		3,26,41,47,47	
		1,17,47,29, 6,45,59, 7		5,41
14″	47, 7,17,31,59, 3,18,15,37,59		3,26,41,53,28	
		1,17,47,25,40, 4, 5,39		5,41
16″	47, 7,18,49,46,28,58,19,43,38		3,26,41,59, 9	
		1,17,47,22,13,22, 6,30		5,41
18″	47, 7,20, 7,33,51,11,41,50, 8		3,26,42, 4,50	
		1,17,47,18,46,40, 1,40		5,41
20″	47, 7,21,25,21, 9,58,21,51,48		3,26,42,10,31	
		1,17,47,15,19,57,51, 9		5,41
22″	47, 7,22,43, 8,25,18,19,42,57		3,26,42,16,12	
		1,17,47,11,53,15,34,57		5,41
24″	47, 7,24, 0,55,37,11,35,17,54		3,26,42,21,53	
		1,17,47, 8,26,33,13, 4		5,41
26″	47, 7,25,18,42,45,38, 8,30,58		3,26,42,27,34	
		1,17,47, 4,59,50,45,30		5,41
28″	47, 7,26,36,29,50,37,59,16,28		3,26,42,33,15	
		1,17,47, 1,33, 8,12,15		5,41
30″	47, 7,27,54,16,52,11, 7,28,43		3,26,42,38,56	
		1,17,46,58, 6,25,33,19		5,41
32″	47, 7,29,12, 3,50,17,33, 2, 2		3,26,42,44,37	
		1,17,46,54,39,42,48,42		5,41
34″	47, 7,30,29,50,44,57,15,50,44		3,26,42,50,18	
		1,17,46,51,12,59,58,24		5,41
36″	47, 7,31,47,37,36,10,15,49, 8		3,26,42,55,59	
		1,17,46,47,46,17, 2,25		5,41
38″	47, 7,33, 5,24,23,56,32,51,33		3,26,43, 1,40	
		1,17,46,44,19,34, 0,45		5,41
40″	47, 7,34,23,11, 8,16, 6,52,18		3,26,43, 7,21	
		1,17,46,40,52,50,53,24		5,41
42″	47, 7,35,40,57,49, 8,57,45,42		3,26,43,13, 2	
		1,17,46,37,26, 7,40,22		5,41
44″	47, 7,36,58,44,26,35, 5,26, 4		3,26,43,18,43	
		1,17,46,33,59,24,21,39		5,41
46″	47, 7,38,16,31, 0,34,29,47,43		3,26,43,24,24	
		1,17,46,30,32,40,57,15		5,41
48″	47, 7,39,34,17,31, 7,10,44,58		3,26,43,30, 5	
		1,17,46,27, 5,57,27,10		5,41
50″	47, 7,40,52, 3,58,13, 8,12, 8		3,26,43,35,46	
		1,17,46,23,39,13,51,24		5,41
52″	47, 7,42, 9,50,21,52,22, 3,32		3,26,43,41,27	
		1,17,46,20,12,30, 9,57		5,41
54″	47, 7,43,27,36,42, 4,52,13,29		3,26,43,47, 8	
		1,17,46,16,45,46,22,49		5,41
56″	47, 7,44,45,22,58,50,38,36,18		3,26,43,52,49	
		1,17,46,13,19, 2,30, 0		5,41
58″	47, 7,46, 3, 9,12, 9,41, 6,18		3,26,43,58,30	
		1,17,46, 9,52,18,31,30		
60″	47, 7,47,20,55,22, 1,59,37,48			
exact	47, 7,47,20,55,22, 1,59,25, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°46′ 0″	47, 7,47,20,55,22, 1,59,25, 5			
		1,17,46, 6,25,34,25,56		
2″	47, 7,48,38,41,28,27,33,51, 1		3,26,44, 9,57	
		1,17,46, 2,58,50,15,59		5,41
4″	47, 7,49,56,27,31,26,24, 7, 0		3,26,44,15,38	
		1,17,45,59,32, 6, 0,21		5,41
6″	47, 7,51,14,13,30,58,30, 7,21		3,26,44,21,19	
		1,17,45,56, 5,21,39, 2		5,41
8″	47, 7,52,31,59,27, 3,51,46,23		3,26,44,27, 0	
		1,17,45,52,38,37,12, 2		5,41
10″	47, 7,53,49,45,19,42,28,58,25		3,26,44,32,41	
		1,17,45,49,11,52,39,21		5,41
12″	47, 7,55, 7,31, 8,54,21,37,46		3,26,44,38,22	
		1,17,45,45,45, 8, 0,59		5,41
14″	47, 7,56,25,16,54,39,29,38,45		3,26,44,44, 3	
		1,17,45,42,18,23,16,56		5,41
16″	47, 7,57,43, 2,36,57,52,55,41		3,26,44,49,44	
		1,17,45,38,51,38,27,12		5,41
18″	47, 7,59, 0,48,15,49,31,22,53		3,26,44,55,25	
		1,17,45,35,24,53,31,47		5,41
20″	47, 8, 0,18,33,51,14,24,54,40		3,26,45, 1, 6	
		1,17,45,31,58, 8,30,41		5,41
22″	47, 8, 1,36,19,23,12,33,25,21		3,26,45, 6,47	
		1,17,45,28,31,23,23,54		5,41
24″	47, 8, 2,54, 4,51,43,56,49,15		3,26,45,12,28	
		1,17,45,25, 4,38,11,26		5,41
26″	47, 8, 4,11,50,16,48,35, 0,41		3,26,45,18, 9	
		1,17,45,21,37,52,53,17		5,41
28″	47, 8, 5,29,35,38,26,27,53,58		3,26,45,23,50	
		1,17,45,18,11, 7,29,27		5,41
30″	47, 8, 6,47,20,56,37,35,23,25		3,26,45,29,31	
		1,17,45,14,44,21,59,56		5,41
32″	47, 8, 8, 5, 6,11,21,57,23,21		3,26,45,35,12	
		1,17,45,11,17,36,24,44		5,41
34″	47, 8, 9,22,51,22,39,33,48, 5		3,26,45,40,53	
		1,17,45, 7,50,50,43,51		5,41
36″	47, 8,10,40,36,30,30,24,31,56		3,26,45,46,34	
		1,17,45, 4,24, 4,57,17		5,41
38″	47, 8,11,58,21,34,54,29,29,13		3,26,45,52,15	
		1,17,45, 0,57,19, 5, 2		5,41
40″	47, 8,13,16, 6,35,51,48,34,15		3,26,45,57,56	
		1,17,44,57,30,33, 7, 6		5,41
42″	47, 8,14,33,51,33,22,21,41,21		3,26,46, 3,37	
		1,17,44,54, 3,47, 3,29		5,41
44″	47, 8,15,51,36,27,26, 8,44,50		3,26,46, 9,18	
		1,17,44,50,37, 0,54,11		5,41
46″	47, 8,17, 9,21,18, 3, 9,39, 1		3,26,46,14,59	
		1,17,44,47,10,14,39,12		5,41
48″	47, 8,18,27, 6, 5,13,24,18,13		3,26,46,20,40	
		1,17,44,43,43,28,18,32		5,41
50″	47, 8,19,44,50,48,56,52,36,45		3,26,46,26,21	
		1,17,44,40,16,41,52,11		5,41
52″	47, 8,21, 2,35,29,13,34,28,56		3,26,46,32, 2	
		1,17,44,36,49,55,20, 9		5,41
54″	47, 8,22,20,20, 6, 3,29,49, 5		3,26,46,37,43	
		1,17,44,33,23, 8,42,26		5,41
56″	47, 8,23,38, 4,39,26,38,31,31		3,26,46,43,24	
		1,17,44,29,56,21,59, 2		5,41
58″	47, 8,24,55,49, 9,23, 0,30,33		3,26,46,49, 5	
		1,17,44,26,29,35, 9,57		
60″	47, 8,26,13,33,35,52,35,40,30			
exact	47, 8,26,13,33,35,52,35,30,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°47′ 0″	47, 8,26,13,33,35,52,35,30,37			
		1,17,44,23, 2,48,14,20		
2″	47, 8,27,31,17,58,55,23,44,57		3,26,47, 0,29	
		1,17,44,19,36, 1,13,51		5,41
4″	47, 8,28,49, 2,18,31,24,58,48		3,26,47, 6,10	
		1,17,44,16, 9,14, 7,41		5,41
6″	47, 8,30, 6,46,34,40,39, 6,29		3,26,47,11,51	
		1,17,44,12,42,26,55,50		5,41
8″	47, 8,31,24,30,47,23, 6, 2,19		3,26,47,17,32	
		1,17,44, 9,15,39,38,18		5,41
10″	47, 8,32,42,14,56,38,45,40,37		3,26,47,23,13	
		1,17,44, 5,48,52,15, 5		5,41
12″	47, 8,33,59,59, 2,27,37,55,42		3,26,47,28,54	
		1,17,44, 2,22, 4,46,11		5,41
14″	47, 8,35,17,43, 4,49,42,41,53		3,26,47,34,35	
		1,17,43,58,55,17,11,36		5,41
16″	47, 8,36,35,27, 3,44,59,53,29		3,26,47,40,16	
		1,17,43,55,28,29,31,20		5,41
18″	47, 8,37,53,10,59,13,29,24,49		3,26,47,45,57	
		1,17,43,52, 1,41,45,23		5,41
20″	47, 8,39,10,54,51,15,11,10,12		3,26,47,51,38	
		1,17,43,48,34,53,53,45		5,41
22″	47, 8,40,28,38,39,50, 5, 3,57		3,26,47,57,19	
		1,17,43,45, 8, 5,56,26		5,41
24″	47, 8,41,46,22,24,58,11, 0,23		3,26,48, 3, 0	
		1,17,43,41,41,17,53,26		5,41
26″	47, 8,43, 4, 6, 6,39,28,53,49		3,26,48, 8,41	
		1,17,43,38,14,29,44,45		5,41
28″	47, 8,44,21,49,44,53,58,38,34		3,26,48,14,22	
		1,17,43,34,47,41,30,23		5,41
30″	47, 8,45,39,33,19,41,40, 8,57		3,26,48,20, 3	
		1,17,43,31,20,53,10,20		5,41
32″	47, 8,46,57,16,51, 2,33,19,17		3,26,48,25,44	
		1,17,43,27,54, 4,44,36		5,41
34″	47, 8,48,15, 0,18,56,38, 3,53		3,26,48,31,25	
		1,17,43,24,27,16,13,11		5,41
36″	47, 8,49,32,43,43,23,54,17, 4		3,26,48,37, 6	
		1,17,43,21, 0,27,36, 5		5,41
38″	47, 8,50,50,27, 4,24,21,53, 9		3,26,48,42,47	
		1,17,43,17,33,38,53,18		5,41
40″	47, 8,52, 8,10,21,58, 0,46,27		3,26,48,48,28	
		1,17,43,14, 6,50, 4,50		5,41
42″	47, 8,53,25,53,36, 4,50,51,17		3,26,48,54, 9	
		1,17,43,10,40, 1,10,41		5,41
44″	47, 8,54,43,36,46,44,52, 1,58		3,26,48,59,50	
		1,17,43, 7,13,12,10,51		5,41
46″	47, 8,56, 1,19,53,58, 4,12,49		3,26,49, 5,31	
		1,17,43, 3,46,23, 5,20		5,41
48″	47, 8,57,19, 2,57,44,27,18, 9		3,26,49,11,12	
		1,17,43, 0,19,33,54, 8		5,41
50″	47, 8,58,36,45,58, 4, 1,12,17		3,26,49,16,53	
		1,17,42,56,52,44,37,15		5,41
52″	47, 8,59,54,28,54,56,45,49,32		3,26,49,22,34	
		1,17,42,53,25,55,14,41		5,41
54″	47, 9, 1,12,11,48,22,41, 4,13		3,26,49,28,15	
		1,17,42,49,59, 5,46,26		5,41
56″	47, 9, 2,29,54,38,21,46,50,39		3,26,49,33,56	
		1,17,42,46,32,16,12,30		5,41
58″	47, 9, 3,47,37,24,54, 3, 3, 9		3,26,49,39,37	
		1,17,42,43, 5,26,32,53		
60″	47, 9, 5, 5,20, 7,59,29,36, 2			
exact	47, 9, 5, 5,20, 7,59,29,34,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°48′ 0″	47, 9, 5, 5,20, 7,59,29,34,53			
		1,17,42,39,38,36,47,39		
2″	47, 9, 6,23, 2,47,38, 6,22,32		3,26,49,50,58	
		1,17,42,36,11,46,56,41		5,41
4″	47, 9, 7,40,45,23,49,53,19,13		3,26,49,56,39	
		1,17,42,32,44,57, 0, 2		5,41
6″	47, 9, 8,58,27,56,34,50,19,15		3,26,50, 2,20	
		1,17,42,29,18, 6,57,42		5,41
8″	47, 9,10,16,10,25,52,57,16,57		3,26,50, 8, 1	
		1,17,42,25,51,16,49,41		5,41
10″	47, 9,11,33,52,51,44,14, 6,38		3,26,50,13,42	
		1,17,42,22,24,26,35,59		5,41
12″	47, 9,12,51,35,14, 8,40,42,37		3,26,50,19,23	
		1,17,42,18,57,36,16,36		5,41
14″	47, 9,14, 9,17,33, 6,16,59,13		3,26,50,25, 4	
		1,17,42,15,30,45,51,32		5,41
16″	47, 9,15,26,59,48,37, 2,50,45		3,26,50,30,45	
		1,17,42,12, 3,55,20,47		5,41
18″	47, 9,16,44,42, 0,40,58,11,32		3,26,50,36,26	
		1,17,42, 8,37, 4,44,21		5,41
20″	47, 9,18, 2,24, 9,18, 2,55,53		3,26,50,42, 7	
		1,17,42, 5,10,14, 2,14		5,41
22″	47, 9,19,20, 6,14,28,16,58, 7		3,26,50,47,48	
		1,17,42, 1,43,23,14,26		5,41
24″	47, 9,20,37,48,16,11,40,12,33		3,26,50,53,29	
		1,17,41,58,16,32,20,57		5,41
26″	47, 9,21,55,30,14,28,12,33,30		3,26,50,59,10	
		1,17,41,54,49,41,21,47		5,41
28″	47, 9,23,13,12, 9,17,53,55,17		3,26,51, 4,51	
		1,17,41,51,22,50,16,56		5,41
30″	47, 9,24,30,54, 0,40,44,12,13		3,26,51,10,32	
		1,17,41,47,55,59, 6,24		5,41
32″	47, 9,25,48,35,48,36,43,18,37		3,26,51,16,13	
		1,17,41,44,29, 7,50,11		5,41
34″	47, 9,27, 6,17,33, 5,51, 8,48		3,26,51,21,54	
		1,17,41,41, 2,16,28,17		5,41
36″	47, 9,28,23,59,14, 8, 7,37, 5		3,26,51,27,35	
		1,17,41,37,35,25, 0,42		5,41
38″	47, 9,29,41,40,51,43,32,37,47		3,26,51,33,16	
		1,17,41,34, 8,33,27,26		5,41
40″	47, 9,30,59,22,25,52, 6, 5,13		3,26,51,38,57	
		1,17,41,30,41,41,48,29		5,41
42″	47, 9,32,17, 3,56,33,47,53,42		3,26,51,44,38	
		1,17,41,27,14,50, 3,51		5,41
44″	47, 9,33,34,45,23,48,37,57,33		3,26,51,50,19	
		1,17,41,23,47,58,13,32		5,41
46″	47, 9,34,52,26,47,36,36,11, 5		3,26,51,56, 0	
		1,17,41,20,21, 6,17,32		5,41
48″	47, 9,36,10, 8, 7,57,42,28,37		3,26,52, 1,41	
		1,17,41,16,54,14,15,51		5,41
50″	47, 9,37,27,49,24,51,56,44,28		3,26,52, 7,22	
		1,17,41,13,27,22, 8,29		5,41
52″	47, 9,38,45,30,38,19,18,52,57		3,26,52,13, 3	
		1,17,41,10, 0,29,55,26		5,41
54″	47, 9,40, 3,11,48,19,48,48,23		3,26,52,18,44	
		1,17,41, 6,33,37,36,42		5,41
56″	47, 9,41,20,52,54,53,26,25, 5		3,26,52,24,25	
		1,17,41, 3, 6,45,12,17		5,41
58″	47, 9,42,38,33,58, 0,11,37,22		3,26,52,30, 6	
		1,17,40,59,39,52,42,11		
60″	47, 9,43,56,14,57,40, 4,19,33			
exact	47, 9,43,56,14,57,40, 4,33,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°49′ 0″	47, 9,43,56,14,57,40, 4,33,10			
		1,17,40,56,13, 0, 7,48		
2″	47, 9,45,13,55,53,53, 4,40,58		3,26,52,41,22	
		1,17,40,52,46, 7,26,26		5,41
4″	47, 9,46,31,36,46,39,12, 7,24		3,26,52,47, 3	
		1,17,40,49,19,14,39,23		5,41
6″	47, 9,47,49,17,35,58,26,46,47		3,26,52,52,44	
		1,17,40,45,52,21,46,39		5,41
8″	47, 9,49, 6,58,21,50,48,33,26		3,26,52,58,25	
		1,17,40,42,25,28,48,14		5,41
10″	47, 9,50,24,39, 4,16,17,21,40		3,26,53, 4, 6	
		1,17,40,38,58,35,44, 8		5,41
12″	47, 9,51,42,19,43,14,53, 5,48		3,26,53, 9,47	
		1,17,40,35,31,42,34,21		5,41
14″	47, 9,53, 0, 0,18,46,35,40, 9		3,26,53,15,28	
		1,17,40,32, 4,49,18,53		5,41
16″	47, 9,54,17,40,50,51,24,59, 2		3,26,53,21, 9	
		1,17,40,28,37,55,57,44		5,41
18″	47, 9,55,35,21,19,29,20,56,46		3,26,53,26,50	
		1,17,40,25,11, 2,30,54		5,41
20″	47, 9,56,53, 1,44,40,23,27,40		3,26,53,32,31	
		1,17,40,21,44, 8,58,23		5,41
22″	47, 9,58,10,42, 6,24,32,26, 3		3,26,53,38,12	
		1,17,40,18,17,15,20,11		5,41
24″	47, 9,59,28,22,24,41,47,46,14		3,26,53,43,53	
		1,17,40,14,50,21,36,18		5,41
26″	47,10, 0,46, 2,39,32, 9,22,32		3,26,53,49,34	
		1,17,40,11,23,27,46,44		5,41
28″	47,10, 2, 3,42,50,55,37, 9,16		3,26,53,55,15	
		1,17,40, 7,56,33,51,29		5,41
30″	47,10, 3,21,22,58,52,11, 0,45		3,26,54, 0,56	
		1,17,40, 4,29,39,50,33		5,41
32″	47,10, 4,39, 3, 3,21,50,51,18		3,26,54, 6,37	
		1,17,40, 1, 2,45,43,56		5,41
34″	47,10, 5,56,43, 4,24,36,35,14		3,26,54,12,18	
		1,17,39,57,35,51,31,38		5,41
36″	47,10, 7,14,23, 2, 0,28, 6,52		3,26,54,17,59	
		1,17,39,54, 8,57,13,39		5,41
38″	47,10, 8,32, 2,56, 9,25,20,31		3,26,54,23,40	
		1,17,39,50,42, 2,49,59		5,41
40″	47,10, 9,49,42,46,51,28,10,30		3,26,54,29,21	
		1,17,39,47,15, 8,20,38		5,41
42″	47,10,11, 7,22,34, 6,36,31, 8		3,26,54,35, 2	
		1,17,39,43,48,13,45,36		5,41
44″	47,10,12,25, 2,17,54,50,16,44		3,26,54,40,43	
		1,17,39,40,21,19, 4,53		5,41
46″	47,10,13,42,41,58,16, 9,21,37		3,26,54,46,24	
		1,17,39,36,54,24,18,29		5,41
48″	47,10,15, 0,21,35,10,33,40, 6		3,26,54,52, 5	
		1,17,39,33,27,29,26,24		5,41
50″	47,10,16,18, 1, 8,38, 3, 6,30		3,26,54,57,46	
		1,17,39,30, 0,34,28,38		5,41
52″	47,10,17,35,40,38,38,37,35, 8		3,26,55, 3,27	
		1,17,39,26,33,39,25,11		5,41
54″	47,10,18,53,20, 5,12,17, 0,19		3,26,55, 9, 8	
		1,17,39,23, 6,44,16, 3		5,41
56″	47,10,20,10,59,28,19, 1,16,22		3,26,55,14,49	
		1,17,39,19,39,49, 1,14		5,41
58″	47,10,21,28,38,47,58,50,17,36		3,26,55,20,30	
		1,17,39,16,12,53,40,44		
60″	47,10,22,46,18, 4,11,43,58,20			
exact	47,10,22,46,18, 4,11,44,17,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°50′ 0″	47,10,22,46,18, 4,11,44,17,31			
		1,17,39,12,45,58,16,40		
2″	47,10,24, 3,57,16,57,42,34,11		3,26,55,31,43	
		1,17,39, 9,19, 2,44,57		5,41
4″	47,10,25,21,36,26,16,45,19, 8		3,26,55,37,24	
		1,17,39, 5,52, 7, 7,33		5,41
6″	47,10,26,39,15,32, 8,52,26,41		3,26,55,43, 5	
		1,17,39, 2,25,11,24,28		5,41
8″	47,10,27,56,54,34,34, 3,51, 9		3,26,55,48,46	
		1,17,38,58,58,15,35,42		5,41
10″	47,10,29,14,33,33,32,19,26,51		3,26,55,54,27	
		1,17,38,55,31,19,41,15		5,41
12″	47,10,30,32,12,29, 3,39, 8, 6		3,26,56, 0, 8	
		1,17,38,52, 4,23,41, 7		5,41
14″	47,10,31,49,51,21, 8, 2,49,13		3,26,56, 5,49	
		1,17,38,48,37,27,35,18		5,41
16″	47,10,33, 7,30, 9,45,30,24,31		3,26,56,11,30	
		1,17,38,45,10,31,23,48		5,41
18″	47,10,34,25, 8,54,56, 1,48,19		3,26,56,17,11	
		1,17,38,41,43,35, 6,37		5,41
20″	47,10,35,42,47,36,39,36,54,56		3,26,56,22,52	
		1,17,38,38,16,38,43,45		5,41
22″	47,10,37, 0,26,14,56,15,38,41		3,26,56,28,33	
		1,17,38,34,49,42,15,12		5,41
24″	47,10,38,18, 4,49,45,57,53,53		3,26,56,34,14	
		1,17,38,31,22,45,40,58		5,41
26″	47,10,39,35,43,21, 8,43,34,51		3,26,56,39,55	
		1,17,38,27,55,49, 1, 3		5,41
28″	47,10,40,53,21,49, 4,32,35,54		3,26,56,45,36	
		1,17,38,24,28,52,15,27		5,41
30″	47,10,42,11, 0,13,33,24,51,21		3,26,56,51,17	
		1,17,38,21, 1,55,24,10		5,41
32″	47,10,43,28,38,34,35,20,15,31		3,26,56,56,58	
		1,17,38,17,34,58,27,12		5,41
34″	47,10,44,46,16,52,10,18,42,43		3,26,57, 2,39	
		1,17,38,14, 8, 1,24,33		5,41
36″	47,10,46, 3,55, 6,18,20, 7,16		3,26,57, 8,20	
		1,17,38,10,41, 4,16,13		5,41
38″	47,10,47,21,33,16,59,24,23,29		3,26,57,14, 1	
		1,17,38, 7,14, 7, 2,12		5,41
40″	47,10,48,39,11,24,13,31,25,41		3,26,57,19,42	
		1,17,38, 3,47, 9,42,30		5,41
42″	47,10,49,56,49,28, 0,41, 8,11		3,26,57,25,23	
		1,17,38, 0,20,12,17, 7		5,41
44″	47,10,51,14,27,28,20,53,25,18		3,26,57,31, 4	
		1,17,37,56,53,14,46, 3		5,41
46″	47,10,52,32, 5,25,14, 8,11,21		3,26,57,36,45	
		1,17,37,53,26,17, 9,18		5,41
48″	47,10,53,49,43,18,40,25,20,39		3,26,57,42,26	
		1,17,37,49,59,19,26,52		5,41
50″	47,10,55, 7,21, 8,39,44,47,31		3,26,57,48, 7	
		1,17,37,46,32,21,38,45		5,41
52″	47,10,56,24,58,55,12, 6,26,16		3,26,57,53,48	
		1,17,37,43, 5,23,44,57		5,41
54″	47,10,57,42,36,38,17,30,11,13		3,26,57,59,29	
		1,17,37,39,38,25,45,28		5,41
56″	47,10,59, 0,14,17,55,55,56,41		3,26,58, 5,10	
		1,17,37,36,11,27,40,18		5,41
58″	47,11, 0,17,51,54, 7,23,36,59		3,26,58,10,51	
		1,17,37,32,44,29,29,27		
60″	47,11, 1,35,29,26,51,53, 6,26			
exact	47,11, 1,35,29,26,51,53,36,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°51′ 0″	47,11, 1,35,29,26,51,53,36,39			
		1,17,37,29,17,31,16, 8		
2″	47,11, 2,53, 6,56, 9,24,52,47		3,26,58,21,59	
		1,17,37,25,50,32,54, 9		5,40
4″	47,11, 4,10,44,21,59,57,46,56		3,26,58,27,39	
		1,17,37,22,23,34,26,30		5,40
6″	47,11, 5,28,21,44,23,32,13,26		3,26,58,33,19	
		1,17,37,18,56,35,53,11		5,40
8″	47,11, 6,45,59, 3,20, 8, 6,37		3,26,58,38,59	
		1,17,37,15,29,37,14,12		5,40
10″	47,11, 8, 3,36,18,49,45,20,49		3,26,58,44,39	
		1,17,37,12, 2,38,29,33		5,40
12″	47,11, 9,21,13,30,52,23,50,22		3,26,58,50,19	
		1,17,37, 8,35,39,39,14		5,40
14″	47,11,10,38,50,39,28, 3,29,36		3,26,58,55,59	
		1,17,37, 5, 8,40,43,15		5,40
16″	47,11,11,56,27,44,36,44,12,51		3,26,59, 1,39	
		1,17,37, 1,41,41,41,36		5,40
18″	47,11,13,14, 4,46,18,25,54,27		3,26,59, 7,19	
		1,17,36,58,14,42,34,17		5,40
20″	47,11,14,31,41,44,33, 8,28,44		3,26,59,12,59	
		1,17,36,54,47,43,21,18		5,40
22″	47,11,15,49,18,39,20,51,50, 2		3,26,59,18,39	
		1,17,36,51,20,44, 2,39		5,40
24″	47,11,17, 6,55,30,41,35,52,41		3,26,59,24,19	
		1,17,36,47,53,44,38,20		5,40
26″	47,11,18,24,32,18,35,20,31, 1		3,26,59,29,59	
		1,17,36,44,26,45, 8,21		5,40
28″	47,11,19,42, 9, 3, 2, 5,39,22		3,26,59,35,39	
		1,17,36,40,59,45,32,42		5,40
30″	47,11,20,59,45,44, 1,51,12, 4		3,26,59,41,19	
		1,17,36,37,32,45,51,23		5,40
32″	47,11,22,17,22,21,34,37, 3,27		3,26,59,46,59	
		1,17,36,34, 5,46, 4,24		5,40
34″	47,11,23,34,58,55,40,23, 7,51		3,26,59,52,39	
		1,17,36,30,38,46,11,45		5,40
36″	47,11,24,52,35,26,19, 9,19,36		3,26,59,58,19	
		1,17,36,27,11,46,13,26		5,40
38″	47,11,26,10,11,53,30,55,33, 2		3,27, 0, 3,59	
		1,17,36,23,44,46, 9,27		5,40
40″	47,11,27,27,48,17,15,41,42,29		3,27, 0, 9,39	
		1,17,36,20,17,45,59,48		5,40
42″	47,11,28,45,24,37,33,27,42,17		3,27, 0,15,19	
		1,17,36,16,50,45,44,29		5,40
44″	47,11,30, 3, 0,54,24,13,26,46		3,27, 0,20,59	
		1,17,36,13,23,45,23,30		5,40
46″	47,11,31,20,37, 7,47,58,50,16		3,27, 0,26,39	
		1,17,36, 9,56,44,56,51		5,40
48″	47,11,32,38,13,17,44,43,47, 7		3,27, 0,32,19	
		1,17,36, 6,29,44,24,32		5,40
50″	47,11,33,55,49,24,14,28,11,39		3,27, 0,37,59	
		1,17,36, 3, 2,43,46,33		5,40
52″	47,11,35,13,25,27,17,11,58,12		3,27, 0,43,39	
		1,17,35,59,35,43, 2,54		5,40
54″	47,11,36,31, 1,26,52,55, 1, 6		3,27, 0,49,19	
		1,17,35,56, 8,42,13,35		5,40
56″	47,11,37,48,37,23, 1,37,14,41		3,27, 0,54,59	
		1,17,35,52,41,41,18,36		5,40
58″	47,11,39, 6,13,15,43,18,33,17		3,27, 1, 0,39	
		1,17,35,49,14,40,17,57		
60″	47,11,40,23,49, 4,57,58,51,14			
exact	47,11,40,23,49, 4,57,58,16, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°52′ 0″	47,11,40,23,49, 4,57,58,16, 3			
		1,17,35,45,47,39, 8, 5		
2″	47,11,41,41,24,50,45,37,24, 8		3,27, 1,12,13	
		1,17,35,42,20,37,55,52		5,40
4″	47,11,42,59, 0,33, 6,15,20, 0		3,27, 1,17,53	
		1,17,35,38,53,36,37,59		5,40
6″	47,11,44,16,36,11,59,51,57,59		3,27, 1,23,33	
		1,17,35,35,26,35,14,26		5,40
8″	47,11,45,34,11,47,26,27,12,25		3,27, 1,29,13	
		1,17,35,31,59,33,45,13		5,40
10″	47,11,46,51,47,19,26, 0,57,38		3,27, 1,34,53	
		1,17,35,28,32,32,10,20		5,40
12″	47,11,48, 9,22,47,58,33, 7,58		3,27, 1,40,33	
		1,17,35,25, 5,30,29,47		5,40
14″	47,11,49,26,58,13, 4, 3,37,45		3,27, 1,46,13	
		1,17,35,21,38,28,43,34		5,40
16″	47,11,50,44,33,34,42,32,21,19		3,27, 1,51,53	
		1,17,35,18,11,26,51,41		5,40
18″	47,11,52, 2, 8,52,53,59,13, 0		3,27, 1,57,33	
		1,17,35,14,44,24,54, 8		5,40
20″	47,11,53,19,44, 7,38,24, 7, 8		3,27, 2, 3,13	
		1,17,35,11,17,22,50,55		5,40
22″	47,11,54,37,19,18,55,46,58, 3		3,27, 2, 8,53	
		1,17,35, 7,50,20,42, 2		5,40
24″	47,11,55,54,54,26,46, 7,40, 5		3,27, 2,14,33	
		1,17,35, 4,23,18,27,29		5,40
26″	47,11,57,12,29,31, 9,26, 7,34		3,27, 2,20,13	
		1,17,35, 0,56,16, 7,16		5,40
28″	47,11,58,30, 4,32, 5,42,14,50		3,27, 2,25,53	
		1,17,34,57,29,13,41,23		5,40
30″	47,11,59,47,39,29,34,55,56,13		3,27, 2,31,33	
		1,17,34,54, 2,11, 9,50		5,40
32″	47,12, 1, 5,14,23,37, 7, 6, 3		3,27, 2,37,13	
		1,17,34,50,35, 8,32,37		5,40
34″	47,12, 2,22,49,14,12,15,38,40		3,27, 2,42,53	
		1,17,34,47, 8, 5,49,44		5,40
36″	47,12, 3,40,24, 1,20,21,28,24		3,27, 2,48,33	
		1,17,34,43,41, 3, 1,11		5,40
38″	47,12, 4,57,58,45, 1,24,29,35		3,27, 2,54,13	
		1,17,34,40,14, 0, 6,58		5,40
40″	47,12, 6,15,33,25,15,24,36,33		3,27, 2,59,53	
		1,17,34,36,46,57, 7, 5		5,40
42″	47,12, 7,33, 8, 2, 2,21,43,38		3,27, 3, 5,33	
		1,17,34,33,19,54, 1,32		5,40
44″	47,12, 8,50,42,35,22,15,45,10		3,27, 3,11,13	
		1,17,34,29,52,50,50,19		5,40
46″	47,12,10, 8,17, 5,15, 6,35,29		3,27, 3,16,53	
		1,17,34,26,25,47,33,26		5,40
48″	47,12,11,25,51,31,40,54, 8,55		3,27, 3,22,33	
		1,17,34,22,58,44,10,53		5,40
50″	47,12,12,43,25,54,39,38,19,48		3,27, 3,28,13	
		1,17,34,19,31,40,42,40		5,40
52″	47,12,14, 1, 0,14,11,19, 2,28		3,27, 3,33,53	
		1,17,34,16, 4,37, 8,47		5,40
54″	47,12,15,18,34,30,15,56,11,15		3,27, 3,39,33	
		1,17,34,12,37,33,29,14		5,40
56″	47,12,16,36, 8,42,53,29,40,29		3,27, 3,45,13	
		1,17,34, 9,10,29,44, 1		5,40
58″	47,12,17,53,42,52, 3,59,24,30		3,27, 3,50,53	
		1,17,34, 5,43,25,53, 8		
60″	47,12,19,11,16,57,47,25,17,38			
exact	47,12,19,11,16,57,47,24,57,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°53′ 0″	47,12,19,11,16,57,47,24,57,55			
		1,17,34, 2,16,21,54,25		
2″	47,12,20,28,51, 0, 3,46,52,20		3,27, 4, 2,22	
		1,17,33,58,49,17,52, 3		5,40
4″	47,12,21,46,24,58,53, 4,44,23		3,27, 4, 8, 2	
		1,17,33,55,22,13,44, 1		5,40
6″	47,12,23, 3,58,54,15,18,28,24		3,27, 4,13,42	
		1,17,33,51,55, 9,30,19		5,40
8″	47,12,24,21,32,46,10,27,58,43		3,27, 4,19,22	
		1,17,33,48,28, 5,10,57		5,40
10″	47,12,25,39, 6,34,38,33, 9,40		3,27, 4,25, 2	
		1,17,33,45, 1, 0,45,55		5,40
12″	47,12,26,56,40,19,39,33,55,35		3,27, 4,30,42	
		1,17,33,41,33,56,15,13		5,40
14″	47,12,28,14,14, 1,13,30,10,48		3,27, 4,36,22	
		1,17,33,38, 6,51,38,51		5,40
16″	47,12,29,31,47,39,20,21,49,39		3,27, 4,42, 2	
		1,17,33,34,39,46,56,49		5,40
18″	47,12,30,49,21,14, 0, 8,46,28		3,27, 4,47,42	
		1,17,33,31,12,42, 9, 7		5,40
20″	47,12,32, 6,54,45,12,50,55,35		3,27, 4,53,22	
		1,17,33,27,45,37,15,45		5,40
22″	47,12,33,24,28,12,58,28,11,20		3,27, 4,59, 2	
		1,17,33,24,18,32,16,43		5,40
24″	47,12,34,42, 1,37,17, 0,28, 3		3,27, 5, 4,42	
		1,17,33,20,51,27,12, 1		5,40
26″	47,12,35,59,34,58, 8,27,40, 4		3,27, 5,10,22	
		1,17,33,17,24,22, 1,39		5,40
28″	47,12,37,17, 8,15,32,49,41,43		3,27, 5,16, 2	
		1,17,33,13,57,16,45,37		5,40
30″	47,12,38,34,41,29,30, 6,27,20		3,27, 5,21,42	
		1,17,33,10,30,11,23,55		5,40
32″	47,12,39,52,14,40, 0,17,51,15		3,27, 5,27,22	
		1,17,33, 7, 3, 5,56,33		5,40
34″	47,12,41, 9,47,47, 3,23,47,48		3,27, 5,33, 2	
		1,17,33, 3,36, 0,23,31		5,40
36″	47,12,42,27,20,50,39,24,11,19		3,27, 5,38,42	
		1,17,33, 0, 8,54,44,49		5,40
38″	47,12,43,44,53,50,48,18,56, 8		3,27, 5,44,22	
		1,17,32,56,41,49, 0,27		5,40
40″	47,12,45, 2,26,47,30, 7,56,35		3,27, 5,50, 2	
		1,17,32,53,14,43,10,25		5,40
42″	47,12,46,19,59,40,44,51, 7, 0		3,27, 5,55,42	
		1,17,32,49,47,37,14,43		5,40
44″	47,12,47,37,32,30,32,28,21,43		3,27, 6, 1,22	
		1,17,32,46,20,31,13,21		5,40
46″	47,12,48,55, 5,16,52,59,35, 4		3,27, 6, 7, 2	
		1,17,32,42,53,25, 6,19		5,40
48″	47,12,50,12,37,59,46,24,41,23		3,27, 6,12,42	
		1,17,32,39,26,18,53,37		5,40
50″	47,12,51,30,10,39,12,43,35, 0		3,27, 6,18,22	
		1,17,32,35,59,12,35,15		5,40
52″	47,12,52,47,43,15,11,56,10,15		3,27, 6,24, 2	
		1,17,32,32,32, 6,11,13		5,40
54″	47,12,54, 5,15,47,44, 2,21,28		3,27, 6,29,42	
		1,17,32,29, 4,59,41,31		5,40
56″	47,12,55,22,48,16,49, 2, 2,59		3,27, 6,35,22	
		1,17,32,25,37,53, 6, 9		5,40
58″	47,12,56,40,20,42,26,55, 9, 8		3,27, 6,41, 2	
		1,17,32,22,10,46,25, 7		
60″	47,12,57,57,53, 4,37,41,34,15			
exact	47,12,57,57,53, 4,37,41,21,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°54′ 0″	47,12,57,57,53, 4,37,41,21,13			
		1,17,32,18,43,39,37, 2		
2″	47,12,59,15,25,23,21,20,58,15		3,27, 6,52,27	
		1,17,32,15,16,32,44,35		5,40
4″	47,13, 0,32,57,38,37,53,42,50		3,27, 6,58, 7	
		1,17,32,11,49,25,46,28		5,40
6″	47,13, 1,50,29,50,27,19,29,18		3,27, 7, 3,47	
		1,17,32, 8,22,18,42,41		5,40
8″	47,13, 3, 8, 1,58,49,38,11,59		3,27, 7, 9,27	
		1,17,32, 4,55,11,33,14		5,40
10″	47,13, 4,25,34, 3,44,49,45,13		3,27, 7,15, 7	
		1,17,32, 1,28, 4,18, 7		5,40
12″	47,13, 5,43, 6, 5,12,54, 3,20		3,27, 7,20,47	
		1,17,31,58, 0,56,57,20		5,40
14″	47,13, 7, 0,38, 3,13,51, 0,40		3,27, 7,26,27	
		1,17,31,54,33,49,30,53		5,40
16″	47,13, 8,18, 9,57,47,40,31,33		3,27, 7,32, 7	
		1,17,31,51, 6,41,58,46		5,40
18″	47,13, 9,35,41,48,54,22,30,19		3,27, 7,37,47	
		1,17,31,47,39,34,20,59		5,40
20″	47,13,10,53,13,36,33,56,51,18		3,27, 7,43,27	
		1,17,31,44,12,26,37,32		5,40
22″	47,13,12,10,45,20,46,23,28,50		3,27, 7,49, 7	
		1,17,31,40,45,18,48,25		5,40
24″	47,13,13,28,17, 1,31,42,17,15		3,27, 7,54,47	
		1,17,31,37,18,10,53,38		5,40
26″	47,13,14,45,48,38,49,53,10,53		3,27, 8, 0,27	
		1,17,31,33,51, 2,53,11		5,40
28″	47,13,16, 3,20,12,40,56, 4, 4		3,27, 8, 6, 7	
		1,17,31,30,23,54,47, 4		5,40
30″	47,13,17,20,51,43, 4,50,51, 8		3,27, 8,11,47	
		1,17,31,26,56,46,35,17		5,40
32″	47,13,18,38,23,10, 1,37,26,25		3,27, 8,17,27	
		1,17,31,23,29,38,17,50		5,40
34″	47,13,19,55,54,33,31,15,44,15		3,27, 8,23, 7	
		1,17,31,20, 2,29,54,43		5,40
36″	47,13,21,13,25,53,33,45,38,58		3,27, 8,28,47	
		1,17,31,16,35,21,25,56		5,40
38″	47,13,22,30,57,10, 9, 7, 4,54		3,27, 8,34,27	
		1,17,31,13, 8,12,51,29		5,40
40″	47,13,23,48,28,23,17,19,56,23		3,27, 8,40, 7	
		1,17,31, 9,41, 4,11,22		5,40
42″	47,13,25, 5,59,32,58,24, 7,45		3,27, 8,45,47	
		1,17,31, 6,13,55,25,35		5,40
44″	47,13,26,23,30,39,12,19,33,20		3,27, 8,51,27	
		1,17,31, 2,46,46,34, 8		5,40
46″	47,13,27,41, 1,41,59, 6, 7,28		3,27, 8,57, 7	
		1,17,30,59,19,37,37, 1		5,40
48″	47,13,28,58,32,41,18,43,44,29		3,27, 9, 2,47	
		1,17,30,55,52,28,34,14		5,40
50″	47,13,30,16, 3,37,11,12,18,43		3,27, 9, 8,27	
		1,17,30,52,25,19,25,47		5,40
52″	47,13,31,33,34,29,36,31,44,30		3,27, 9,14, 7	
		1,17,30,48,58,10,11,40		5,40
54″	47,13,32,51, 5,18,34,41,56,10		3,27, 9,19,47	
		1,17,30,45,31, 0,51,53		5,40
56″	47,13,34, 8,36, 4, 5,42,48, 3		3,27, 9,25,27	
		1,17,30,42, 3,51,26,26		5,40
58″	47,13,35,26, 6,46, 9,34,14,29		3,27, 9,31, 7	
		1,17,30,38,36,41,55,19		
60″	47,13,36,43,37,24,46,16, 9,48			
exact	47,13,36,43,37,24,46,16, 1,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°55′ 0″	47,13,36,43,37,24,46,16, 1,40			
		1,17,30,35, 9,32,17,49		
2″	47,13,38, 1, 7,59,55,48,19,29		3,27, 9,42,29	
		1,17,30,31,42,22,35,20		5,40
4″	47,13,39,18,38,31,38,10,54,49		3,27, 9,48, 9	
		1,17,30,28,15,12,47,11		5,40
6″	47,13,40,36, 8,59,53,23,42, 0		3,27, 9,53,49	
		1,17,30,24,48, 2,53,22		5,40
8″	47,13,41,53,39,24,41,26,35,22		3,27, 9,59,29	
		1,17,30,21,20,52,53,53		5,40
10″	47,13,43,11, 9,46, 2,19,29,15		3,27,10, 5, 9	
		1,17,30,17,53,42,48,44		5,40
12″	47,13,44,28,40, 3,56, 2,17,59		3,27,10,10,49	
		1,17,30,14,26,32,37,55		5,40
14″	47,13,45,46,10,18,22,34,55,54		3,27,10,16,29	
		1,17,30,10,59,22,21,26		5,40
16″	47,13,47, 3,40,29,21,57,17,20		3,27,10,22, 9	
		1,17,30, 7,32,11,59,17		5,40
18″	47,13,48,21,10,36,54, 9,16,37		3,27,10,27,49	
		1,17,30, 4, 5, 1,31,28		5,40
20″	47,13,49,38,40,40,59,10,48, 5		3,27,10,33,29	
		1,17,30, 0,37,50,57,59		5,40
22″	47,13,50,56,10,41,37, 1,46, 4		3,27,10,39, 9	
		1,17,29,57,10,40,18,50		5,40
24″	47,13,52,13,40,38,47,42, 4,54		3,27,10,44,49	
		1,17,29,53,43,29,34, 1		5,40
26″	47,13,53,31,10,32,31,11,38,55		3,27,10,50,29	
		1,17,29,50,16,18,43,32		5,40
28″	47,13,54,48,40,22,47,30,22,27		3,27,10,56, 9	
		1,17,29,46,49, 7,47,23		5,40
30″	47,13,56, 6,10, 9,36,38, 9,50		3,27,11, 1,49	
		1,17,29,43,21,56,45,34		5,40
32″	47,13,57,23,39,52,58,34,55,24		3,27,11, 7,29	
		1,17,29,39,54,45,38, 5		5,40
34″	47,13,58,41, 9,32,53,20,33,29		3,27,11,13, 9	
		1,17,29,36,27,34,24,56		5,40
36″	47,13,59,58,39, 9,20,54,58,25		3,27,11,18,49	
		1,17,29,33, 0,23, 6, 7		5,40
38″	47,14, 1,16, 8,42,21,18, 4,32		3,27,11,24,29	
		1,17,29,29,33,11,41,38		5,40
40″	47,14, 2,33,38,11,54,29,46,10		3,27,11,30, 9	
		1,17,29,26, 6, 0,11,29		5,40
42″	47,14, 3,51, 7,38, 0,29,57,39		3,27,11,35,49	
		1,17,29,22,38,48,35,40		5,40
44″	47,14, 5, 8,37, 0,39,18,33,19		3,27,11,41,29	
		1,17,29,19,11,36,54,11		5,40
46″	47,14, 6,26, 6,19,50,55,27,30		3,27,11,47, 9	
		1,17,29,15,44,25, 7, 2		5,40
48″	47,14, 7,43,35,35,35,20,34,32		3,27,11,52,49	
		1,17,29,12,17,13,14,13		5,40
50″	47,14, 9, 1, 4,47,52,33,48,45		3,27,11,58,29	
		1,17,29, 8,50, 1,15,44		5,40
52″	47,14,10,18,33,56,42,35, 4,29		3,27,12, 4, 9	
		1,17,29, 5,22,49,11,35		5,40
54″	47,14,11,36, 3, 2, 5,24,16, 4		3,27,12, 9,49	
		1,17,29, 1,55,37, 1,46		5,40
56″	47,14,12,53,32, 4, 1, 1,17,50		3,27,12,15,29	
		1,17,28,58,28,24,46,17		5,40
58″	47,14,14,11, 1, 2,29,26, 4, 7		3,27,12,21, 9	
		1,17,28,55, 1,12,25, 8		
60″	47,14,15,28,29,57,30,38,29,15			
exact	47,14,15,28,29,57,30,38,31,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°56′ 0″	47,14,15,28,29,57,30,38,31,48			
		1,17,28,51,33,59,58,40		
2″	47,14,16,45,58,49, 4,38,30,28		3,27,12,32,27	
		1,17,28,48, 6,47,26,13		5,40
4″	47,14,18, 3,27,37,11,25,56,41		3,27,12,38, 7	
		1,17,28,44,39,34,48, 6		5,40
6″	47,14,19,20,56,21,51, 0,44,47		3,27,12,43,47	
		1,17,28,41,12,22, 4,19		5,40
8″	47,14,20,38,25, 3, 3,22,49, 6		3,27,12,49,27	
		1,17,28,37,45, 9,14,52		5,40
10″	47,14,21,55,53,40,48,32, 3,58		3,27,12,55, 7	
		1,17,28,34,17,56,19,45		5,40
12″	47,14,23,13,22,15, 6,28,23,43		3,27,13, 0,47	
		1,17,28,30,50,43,18,58		5,40
14″	47,14,24,30,50,45,57,11,42,41		3,27,13, 6,27	
		1,17,28,27,23,30,12,31		5,40
16″	47,14,25,48,19,13,20,41,55,12		3,27,13,12, 7	
		1,17,28,23,56,17, 0,24		5,40
18″	47,14,27, 5,47,37,16,58,55,36		3,27,13,17,47	
		1,17,28,20,29, 3,42,37		5,40
20″	47,14,28,23,15,57,46, 2,38,13		3,27,13,23,27	
		1,17,28,17, 1,50,19,10		5,40
22″	47,14,29,40,44,14,47,52,57,23		3,27,13,29, 7	
		1,17,28,13,34,36,50, 3		5,40
24″	47,14,30,58,12,28,22,29,47,26		3,27,13,34,47	
		1,17,28,10, 7,23,15,16		5,40
26″	47,14,32,15,40,38,29,53, 2,42		3,27,13,40,27	
		1,17,28, 6,40, 9,34,49		5,40
28″	47,14,33,33, 8,45,10, 2,37,31		3,27,13,46, 7	
		1,17,28, 3,12,55,48,42		5,40
30″	47,14,34,50,36,48,22,58,26,13		3,27,13,51,47	
		1,17,27,59,45,41,56,55		5,40
32″	47,14,36, 8, 4,48, 8,40,23, 8		3,27,13,57,27	
		1,17,27,56,18,27,59,28		5,40
34″	47,14,37,25,32,44,27, 8,22,36		3,27,14, 3, 7	
		1,17,27,52,51,13,56,21		5,40
36″	47,14,38,43, 0,37,18,22,18,57		3,27,14, 8,47	
		1,17,27,49,23,59,47,34		5,40
38″	47,14,40, 0,28,26,42,22, 6,31		3,27,14,14,27	
		1,17,27,45,56,45,33, 7		5,40
40″	47,14,41,17,56,12,39, 7,39,38		3,27,14,20, 7	
		1,17,27,42,29,31,13, 0		5,40
42″	47,14,42,35,23,55, 8,38,52,38		3,27,14,25,47	
		1,17,27,39, 2,16,47,13		5,40
44″	47,14,43,52,51,34,10,55,39,51		3,27,14,31,27	
		1,17,27,35,35, 2,15,46		5,40
46″	47,14,45,10,19, 9,45,57,55,37		3,27,14,37, 7	
		1,17,27,32, 7,47,38,39		5,40
48″	47,14,46,27,46,41,53,45,34,16		3,27,14,42,47	
		1,17,27,28,40,32,55,52		5,40
50″	47,14,47,45,14,10,34,18,30, 8		3,27,14,48,27	
		1,17,27,25,13,18, 7,25		5,40
52″	47,14,49, 2,41,35,47,36,37,33		3,27,14,54, 7	
		1,17,27,21,46, 3,13,18		5,40
54″	47,14,50,20, 8,57,33,39,50,51		3,27,14,59,47	
		1,17,27,18,18,48,13,31		5,40
56″	47,14,51,37,36,15,52,28, 4,22		3,27,15, 5,27	
		1,17,27,14,51,33, 8, 4		5,40
58″	47,14,52,55, 3,30,44, 1,12,26		3,27,15,11, 7	
		1,17,27,11,24,17,56,57		
60″	47,14,54,12,30,42, 8,19, 9,23			
exact	47,14,54,12,30,42, 8,19,20,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°57′ 0″	47,14,54,12,30,42, 8,19,20,55			
		1,17,27, 7,57, 2,41,28		
2″	47,14,55,29,57,50, 5,22, 2,23		3,27,15,22,21	
		1,17,27, 4,29,47,19, 7		5,40
4″	47,14,56,47,24,54,35, 9,21,30		3,27,15,28, 1	
		1,17,27, 1, 2,31,51, 6		5,40
6″	47,14,58, 4,51,55,37,41,12,36		3,27,15,33,41	
		1,17,26,57,35,16,17,25		5,40
8″	47,14,59,22,18,53,12,57,30, 1		3,27,15,39,21	
		1,17,26,54, 8, 0,38, 4		5,40
10″	47,15, 0,39,45,47,20,58, 8, 5		3,27,15,45, 1	
		1,17,26,50,40,44,53, 3		5,40
12″	47,15, 1,57,12,38, 1,43, 1, 8		3,27,15,50,41	
		1,17,26,47,13,29, 2,22		5,40
14″	47,15, 3,14,39,25,15,12, 3,30		3,27,15,56,21	
		1,17,26,43,46,13, 6, 1		5,40
16″	47,15, 4,32, 6, 9, 1,25, 9,31		3,27,16, 2, 1	
		1,17,26,40,18,57, 4, 0		5,40
18″	47,15, 5,49,32,49,20,22,13,31		3,27,16, 7,41	
		1,17,26,36,51,40,56,19		5,40
20″	47,15, 7, 6,59,26,12, 3, 9,50		3,27,16,13,21	
		1,17,26,33,24,24,42,58		5,40
22″	47,15, 8,24,25,59,36,27,52,48		3,27,16,19, 1	
		1,17,26,29,57, 8,23,57		5,40
24″	47,15, 9,41,52,29,33,36,16,45		3,27,16,24,41	
		1,17,26,26,29,51,59,16		5,40
26″	47,15,10,59,18,56, 3,28,16, 1		3,27,16,30,21	
		1,17,26,23, 2,35,28,55		5,40
28″	47,15,12,16,45,19, 6, 3,44,56		3,27,16,36, 1	
		1,17,26,19,35,18,52,54		5,40
30″	47,15,13,34,11,38,41,22,37,50		3,27,16,41,41	
		1,17,26,16, 8, 2,11,13		5,40
32″	47,15,14,51,37,54,49,24,49, 3		3,27,16,47,21	
		1,17,26,12,40,45,23,52		5,40
34″	47,15,16, 9, 4, 7,30,10,12,55		3,27,16,53, 1	
		1,17,26, 9,13,28,30,51		5,40
36″	47,15,17,26,30,16,43,38,43,46		3,27,16,58,41	
		1,17,26, 5,46,11,32,10		5,40
38″	47,15,18,43,56,22,29,50,15,56		3,27,17, 4,21	
		1,17,26, 2,18,54,27,49		5,40
40″	47,15,20, 1,22,24,48,44,43,45		3,27,17,10, 1	
		1,17,25,58,51,37,17,48		5,40
42″	47,15,21,18,48,23,40,22, 1,33		3,27,17,15,41	
		1,17,25,55,24,20, 2, 7		5,40
44″	47,15,22,36,14,19, 4,42, 3,40		3,27,17,21,21	
		1,17,25,51,57, 2,40,46		5,40
46″	47,15,23,53,40,11, 1,44,44,26		3,27,17,27, 1	
		1,17,25,48,29,45,13,45		5,40
48″	47,15,25,11, 5,59,31,29,58,11		3,27,17,32,41	
		1,17,25,45, 2,27,41, 4		5,40
50″	47,15,26,28,31,44,33,57,39,15		3,27,17,38,21	
		1,17,25,41,35,10, 2,43		5,40
52″	47,15,27,45,57,26, 9, 7,41,58		3,27,17,44, 1	
		1,17,25,38, 7,52,18,42		5,40
54″	47,15,29, 3,23, 4,17, 0, 0,40		3,27,17,49,41	
		1,17,25,34,40,34,29, 1		5,40
56″	47,15,30,20,48,38,57,34,29,41		3,27,17,55,21	
		1,17,25,31,13,16,33,40		5,40
58″	47,15,31,38,14,10,10,51, 3,21		3,27,18, 1, 1	
		1,17,25,27,45,58,32,39		
60″	47,15,32,55,39,37,56,49,36, 0			
exact	47,15,32,55,39,37,56,49,55, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°58′ 0″	47,15,32,55,39,37,56,49,55, 8			
		1,17,25,24,18,40,28, 7		
2″	47,15,34,13, 5, 2,15,30,23,15		3,27,18,12,11	
		1,17,25,20,51,22,15,56		5,40
4″	47,15,35,30,30,23, 6,52,39,11		3,27,18,17,51	
		1,17,25,17,24, 3,58, 5		5,40
6″	47,15,36,47,55,40,30,56,37,16		3,27,18,23,31	
		1,17,25,13,56,45,34,34		5,40
8″	47,15,38, 5,20,54,27,42,11,50		3,27,18,29,11	
		1,17,25,10,29,27, 5,23		5,40
10″	47,15,39,22,46, 4,57, 9,17,13		3,27,18,34,51	
		1,17,25, 7, 2, 8,30,32		5,40
12″	47,15,40,40,11,11,59,17,47,45		3,27,18,40,31	
		1,17,25, 3,34,49,50, 1		5,40
14″	47,15,41,57,36,15,34, 7,37,46		3,27,18,46,11	
		1,17,25, 0, 7,31, 3,50		5,40
16″	47,15,43,15, 1,15,41,38,41,36		3,27,18,51,51	
		1,17,24,56,40,12,11,59		5,40
18″	47,15,44,32,26,12,21,50,53,35		3,27,18,57,31	
		1,17,24,53,12,53,14,28		5,40
20″	47,15,45,49,51, 5,34,44, 8, 3		3,27,19, 3,11	
		1,17,24,49,45,34,11,17		5,40
22″	47,15,47, 7,15,55,20,18,19,20		3,27,19, 8,51	
		1,17,24,46,18,15, 2,26		5,40
24″	47,15,48,24,40,41,38,33,21,46		3,27,19,14,31	
		1,17,24,42,50,55,47,55		5,40
26″	47,15,49,42, 5,24,29,29, 9,41		3,27,19,20,11	
		1,17,24,39,23,36,27,44		5,40
28″	47,15,50,59,30, 3,53, 5,37,25		3,27,19,25,51	
		1,17,24,35,56,17, 1,53		5,40
30″	47,15,52,16,54,39,49,22,39,18		3,27,19,31,31	
		1,17,24,32,28,57,30,22		5,40
32″	47,15,53,34,19,12,18,20, 9,40		3,27,19,37,11	
		1,17,24,29, 1,37,53,11		5,40
34″	47,15,54,51,43,41,19,58, 2,51		3,27,19,42,51	
		1,17,24,25,34,18,10,20		5,40
36″	47,15,56, 9, 8, 6,54,16,13,11		3,27,19,48,31	
		1,17,24,22, 6,58,21,49		5,40
38″	47,15,57,26,32,29, 1,14,35, 0		3,27,19,54,11	
		1,17,24,18,39,38,27,38		5,40
40″	47,15,58,43,56,47,40,53, 2,38		3,27,19,59,51	
		1,17,24,15,12,18,27,47		5,40
42″	47,16, 0, 1,21, 2,53,11,30,25		3,27,20, 5,31	
		1,17,24,11,44,58,22,16		5,40
44″	47,16, 1,18,45,14,38, 9,52,41		3,27,20,11,11	
		1,17,24, 8,17,38,11, 5		5,40
46″	47,16, 2,36, 9,22,55,48, 3,46		3,27,20,16,51	
		1,17,24, 4,50,17,54,14		5,40
48″	47,16, 3,53,33,27,46, 5,58, 0		3,27,20,22,31	
		1,17,24, 1,22,57,31,43		5,40
50″	47,16, 5,10,57,29, 9, 3,29,43		3,27,20,28,11	
		1,17,23,57,55,37, 3,32		5,40
52″	47,16, 6,28,21,27, 4,40,33,15		3,27,20,33,51	
		1,17,23,54,28,16,29,41		5,40
54″	47,16, 7,45,45,21,32,57, 2,56		3,27,20,39,31	
		1,17,23,51, 0,55,50,10		5,40
56″	47,16, 9, 3, 9,12,33,52,53, 6		3,27,20,45,11	
		1,17,23,47,33,35, 4,59		5,40
58″	47,16,10,20,33, 0, 7,27,58, 5		3,27,20,50,51	
		1,17,23,44, 6,14,14, 8		
60″	47,16,11,37,56,44,13,42,12,13			
exact	47,16,11,37,56,44,13,42,37,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
51°59′ 0″	47,16,11,37,56,44,13,42,37,23			
		1,17,23,40,38,53,20,30		
2″	47,16,12,55,20,24,52,35,57,53		3,27,21, 1,58	
		1,17,23,37,11,32,18,32		5,39
4″	47,16,14,12,44, 2, 4, 8,16,25		3,27,21, 7,37	
		1,17,23,33,44,11,10,55		5,39
6″	47,16,15,30, 7,35,48,19,27,20		3,27,21,13,16	
		1,17,23,30,16,49,57,39		5,39
8″	47,16,16,47,31, 6, 5, 9,24,59		3,27,21,18,55	
		1,17,23,26,49,28,38,44		5,39
10″	47,16,18, 4,54,32,54,38, 3,43		3,27,21,24,34	
		1,17,23,23,22, 7,14,10		5,39
12″	47,16,19,22,17,56,16,45,17,53		3,27,21,30,13	
		1,17,23,19,54,45,43,57		5,39
14″	47,16,20,39,41,16,11,31, 1,50		3,27,21,35,52	
		1,17,23,16,27,24, 8, 5		5,39
16″	47,16,21,57, 4,32,38,55, 9,55		3,27,21,41,31	
		1,17,23,13, 0, 2,26,34		5,39
18″	47,16,23,14,27,45,38,57,36,29		3,27,21,47,10	
		1,17,23, 9,32,40,39,24		5,39
20″	47,16,24,31,50,55,11,38,15,53		3,27,21,52,49	
		1,17,23, 6, 5,18,46,35		5,39
22″	47,16,25,49,14, 1,16,57, 2,28		3,27,21,58,28	
		1,17,23, 2,37,56,48, 7		5,39
24″	47,16,27, 6,37, 3,54,53,50,35		3,27,22, 4, 7	
		1,17,22,59,10,34,44, 0		5,39
26″	47,16,28,24, 0, 3, 5,28,34,35		3,27,22, 9,46	
		1,17,22,55,43,12,34,14		5,39
28″	47,16,29,41,22,58,48,41, 8,49		3,27,22,15,25	
		1,17,22,52,15,50,18,49		5,39
30″	47,16,30,58,45,51, 4,31,27,38		3,27,22,21, 4	
		1,17,22,48,48,27,57,45		5,39
32″	47,16,32,16, 8,39,52,59,25,23		3,27,22,26,43	
		1,17,22,45,21, 5,31, 2		5,39
34″	47,16,33,33,31,25,14, 4,56,25		3,27,22,32,22	
		1,17,22,41,53,42,58,40		5,39
36″	47,16,34,50,54, 7, 7,47,55, 5		3,27,22,38, 1	
		1,17,22,38,26,20,20,39		5,39
38″	47,16,36, 8,16,45,34, 8,15,44		3,27,22,43,40	
		1,17,22,34,58,57,36,59		5,39
40″	47,16,37,25,39,20,33, 5,52,43		3,27,22,49,19	
		1,17,22,31,31,34,47,40		5,39
42″	47,16,38,43, 1,52, 4,40,40,23		3,27,22,54,58	
		1,17,22,28, 4,11,52,42		5,39
44″	47,16,40, 0,24,20, 8,52,33, 5		3,27,23, 0,37	
		1,17,22,24,36,48,52, 5		5,39
46″	47,16,41,17,46,44,45,41,25,10		3,27,23, 6,16	
		1,17,22,21, 9,25,45,49		5,39
48″	47,16,42,35, 9, 5,55, 7,10,59		3,27,23,11,55	
		1,17,22,17,42, 2,33,54		5,39
50″	47,16,43,52,31,23,37, 9,44,53		3,27,23,17,34	
		1,17,22,14,14,39,16,20		5,39
52″	47,16,45, 9,53,37,51,49, 1,13		3,27,23,23,13	
		1,17,22,10,47,15,53, 7		5,39
54″	47,16,46,27,15,48,39, 4,54,20		3,27,23,28,52	
		1,17,22, 7,19,52,24,15		5,39
56″	47,16,47,44,37,55,58,57,18,35		3,27,23,34,31	
		1,17,22, 3,52,28,49,44		5,39
58″	47,16,49, 1,59,59,51,26, 8,19		3,27,23,40,10	
		1,17,22, 0,25, 5, 9,34		
60″	47,16,50,19,22, 0,16,31,17,53			
exact	47,16,50,19,22, 0,16,30,47,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52° 0′ 0″	47,16,50,19,22, 0,16,30,47,26			
		1,17,21,56,57,41,20,32		
2″	47,16,51,36,43,57,14,12, 7,58		3,27,23,51,41	
		1,17,21,53,30,17,28,51		5,39
4″	47,16,52,54, 5,50,44,29,36,49		3,27,23,57,20	
		1,17,21,50, 2,53,31,31		5,39
6″	47,16,54,11,27,40,47,23, 8,20		3,27,24, 2,59	
		1,17,21,46,35,29,28,32		5,39
8″	47,16,55,28,49,27,22,52,36,52		3,27,24, 8,38	
		1,17,21,43, 8, 5,19,54		5,39
10″	47,16,56,46,11,10,30,57,56,46		3,27,24,14,17	
		1,17,21,39,40,41, 5,37		5,39
12″	47,16,58, 3,32,50,11,39, 2,23		3,27,24,19,56	
		1,17,21,36,13,16,45,41		5,39
14″	47,16,59,20,54,26,24,55,48, 4		3,27,24,25,35	
		1,17,21,32,45,52,20, 6		5,39
16″	47,17, 0,38,15,59,10,48, 8,10		3,27,24,31,14	
		1,17,21,29,18,27,48,52		5,39
18″	47,17, 1,55,37,28,29,15,57, 2		3,27,24,36,53	
		1,17,21,25,51, 3,11,59		5,39
20″	47,17, 3,12,58,54,20,19, 9, 1		3,27,24,42,32	
		1,17,21,22,23,38,29,27		5,39
22″	47,17, 4,30,20,16,43,57,38,28		3,27,24,48,11	
		1,17,21,18,56,13,41,16		5,39
24″	47,17, 5,47,41,35,40,11,19,44		3,27,24,53,50	
		1,17,21,15,28,48,47,26		5,39
26″	47,17, 7, 5, 2,51, 9, 0, 7,10		3,27,24,59,29	
		1,17,21,12, 1,23,47,57		5,39
28″	47,17, 8,22,24, 3,10,23,55, 7		3,27,25, 5, 8	
		1,17,21, 8,33,58,42,49		5,39
30″	47,17, 9,39,45,11,44,22,37,56		3,27,25,10,47	
		1,17,21, 5, 6,33,32, 2		5,39
32″	47,17,10,57, 6,16,50,56, 9,58		3,27,25,16,26	
		1,17,21, 1,39, 8,15,36		5,39
34″	47,17,12,14,27,18,30, 4,25,34		3,27,25,22, 5	
		1,17,20,58,11,42,53,31		5,39
36″	47,17,13,31,48,16,41,47,19, 5		3,27,25,27,44	
		1,17,20,54,44,17,25,47		5,39
38″	47,17,14,49, 9,11,26, 4,44,52		3,27,25,33,23	
		1,17,20,51,16,51,52,24		5,39
40″	47,17,16, 6,30, 2,42,56,37,16		3,27,25,39, 2	
		1,17,20,47,49,26,13,22		5,39
42″	47,17,17,23,50,50,32,22,50,38		3,27,25,44,41	
		1,17,20,44,22, 0,28,41		5,39
44″	47,17,18,41,11,34,54,23,19,19		3,27,25,50,20	
		1,17,20,40,54,34,38,21		5,39
46″	47,17,19,58,32,15,48,57,57,40		3,27,25,55,59	
		1,17,20,37,27, 8,42,22		5,39
48″	47,17,21,15,52,53,16, 6,40, 2		3,27,26, 1,38	
		1,17,20,33,59,42,40,44		5,39
50″	47,17,22,33,13,27,15,49,20,46		3,27,26, 7,17	
		1,17,20,30,32,16,33,27		5,39
52″	47,17,23,50,33,57,48, 5,54,13		3,27,26,12,56	
		1,17,20,27, 4,50,20,31		5,39
54″	47,17,25, 7,54,24,52,56,14,44		3,27,26,18,35	
		1,17,20,23,37,24, 1,56		5,39
56″	47,17,26,25,14,48,30,20,16,40		3,27,26,24,14	
		1,17,20,20, 9,57,37,42		5,39
58″	47,17,27,42,35, 8,40,17,54,22		3,27,26,29,53	
		1,17,20,16,42,31, 7,49		
60″	47,17,28,59,55,25,22,49, 2,11			
exact	47,17,28,59,55,25,22,48,41,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52° 1′ 0″	47,17,28,59,55,25,22,48,41,54			
		1,17,20,13,15, 4,30, 6		
2″	47,17,30,17,15,38,37,53,12, 0		3,27,26,41,20	
		1,17,20, 9,47,37,48,46		5,39
4″	47,17,31,34,35,48,25,31, 0,46		3,27,26,46,59	
		1,17,20, 6,20,11, 1,47		5,39
6″	47,17,32,51,55,54,45,42, 2,33		3,27,26,52,38	
		1,17,20, 2,52,44, 9, 9		5,39
8″	47,17,34, 9,15,57,38,26,11,42		3,27,26,58,17	
		1,17,19,59,25,17,10,52		5,39
10″	47,17,35,26,35,57, 3,43,22,34		3,27,27, 3,56	
		1,17,19,55,57,50, 6,56		5,39
12″	47,17,36,43,55,53, 1,33,29,30		3,27,27, 9,35	
		1,17,19,52,30,22,57,21		5,39
14″	47,17,38, 1,15,45,31,56,26,51		3,27,27,15,14	
		1,17,19,49, 2,55,42, 7		5,39
16″	47,17,39,18,35,34,34,52, 8,58		3,27,27,20,53	
		1,17,19,45,35,28,21,14		5,39
18″	47,17,40,35,55,20,10,20,30,12		3,27,27,26,32	
		1,17,19,42, 8, 0,54,42		5,39
20″	47,17,41,53,15, 2,18,21,24,54		3,27,27,32,11	
		1,17,19,38,40,33,22,31		5,39
22″	47,17,43,10,34,40,58,54,47,25		3,27,27,37,50	
		1,17,19,35,13, 5,44,41		5,39
24″	47,17,44,27,54,16,12, 0,32, 6		3,27,27,43,29	
		1,17,19,31,45,38, 1,12		5,39
26″	47,17,45,45,13,47,57,38,33,18		3,27,27,49, 8	
		1,17,19,28,18,10,12, 4		5,39
28″	47,17,47, 2,33,16,15,48,45,22		3,27,27,54,47	
		1,17,19,24,50,42,17,17		5,39
30″	47,17,48,19,52,41, 6,31, 2,39		3,27,28, 0,26	
		1,17,19,21,23,14,16,51		5,39
32″	47,17,49,37,12, 2,29,45,19,30		3,27,28, 6, 5	
		1,17,19,17,55,46,10,46		5,39
34″	47,17,50,54,31,20,25,31,30,16		3,27,28,11,44	
		1,17,19,14,28,17,59, 2		5,39
36″	47,17,52,11,50,34,53,49,29,18		3,27,28,17,23	
		1,17,19,11, 0,49,41,39		5,39
38″	47,17,53,29, 9,45,54,39,10,57		3,27,28,23, 2	
		1,17,19, 7,33,21,18,37		5,39
40″	47,17,54,46,28,53,28, 0,29,34		3,27,28,28,41	
		1,17,19, 4, 5,52,49,56		5,39
42″	47,17,56, 3,47,57,33,53,19,30		3,27,28,34,20	
		1,17,19, 0,38,24,15,36		5,39
44″	47,17,57,21, 6,58,12,17,35, 6		3,27,28,39,59	
		1,17,18,57,10,55,35,37		5,39
46″	47,17,58,38,25,55,23,13,10,43		3,27,28,45,38	
		1,17,18,53,43,26,49,59		5,39
48″	47,17,59,55,44,49, 6,40, 0,42		3,27,28,51,17	
		1,17,18,50,15,57,58,42		5,39
50″	47,18, 1,13, 3,39,22,37,59,24		3,27,28,56,56	
		1,17,18,46,48,29, 1,46		5,39
52″	47,18, 2,30,22,26,11, 7, 1,10		3,27,29, 2,35	
		1,17,18,43,20,59,59,11		5,39
54″	47,18, 3,47,41, 9,32, 7, 0,21		3,27,29, 8,14	
		1,17,18,39,53,30,50,57		5,39
56″	47,18, 5, 4,59,49,25,37,51,18		3,27,29,13,53	
		1,17,18,36,26, 1,37, 4		5,39
58″	47,18, 6,22,18,25,51,39,28,22		3,27,29,19,32	
		1,17,18,32,58,32,17,32		
60″	47,18, 7,39,36,58,50,11,45,54			
exact	47,18, 7,39,36,58,50,11,34,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52° 2′ 0″	47,18, 7,39,36,58,50,11,34,15			
		1,17,18,29,31, 2,51, 6		
2″	47,18, 8,56,55,28,21,14,25,21		3,27,29,30,55	
		1,17,18,26, 3,33,20,11		5,39
4″	47,18,10,14,13,54,24,47,45,32		3,27,29,36,34	
		1,17,18,22,36, 3,43,37		5,39
6″	47,18,11,31,32,17, 0,51,29, 9		3,27,29,42,13	
		1,17,18,19, 8,34, 1,24		5,39
8″	47,18,12,48,50,36, 9,25,30,33		3,27,29,47,52	
		1,17,18,15,41, 4,13,32		5,39
10″	47,18,14, 6, 8,51,50,29,44, 5		3,27,29,53,31	
		1,17,18,12,13,34,20, 1		5,39
12″	47,18,15,23,27, 4, 4, 4, 4, 6		3,27,29,59,10	
		1,17,18, 8,46, 4,20,51		5,39
14″	47,18,16,40,45,12,50, 8,24,57		3,27,30, 4,49	
		1,17,18, 5,18,34,16, 2		5,39
16″	47,18,17,58, 3,18, 8,42,40,59		3,27,30,10,28	
		1,17,18, 1,51, 4, 5,34		5,39
18″	47,18,19,15,21,19,59,46,46,33		3,27,30,16, 7	
		1,17,17,58,23,33,49,27		5,39
20″	47,18,20,32,39,18,23,20,36, 0		3,27,30,21,46	
		1,17,17,54,56, 3,27,41		5,39
22″	47,18,21,49,57,13,19,24, 3,41		3,27,30,27,25	
		1,17,17,51,28,33, 0,16		5,39
24″	47,18,23, 7,15, 4,47,57, 3,57		3,27,30,33, 4	
		1,17,17,48, 1, 2,27,12		5,39
26″	47,18,24,24,32,52,48,59,31, 9		3,27,30,38,43	
		1,17,17,44,33,31,48,29		5,39
28″	47,18,25,41,50,37,22,31,19,38		3,27,30,44,22	
		1,17,17,41, 6, 1, 4, 7		5,39
30″	47,18,26,59, 8,18,28,32,23,45		3,27,30,50, 1	
		1,17,17,37,38,30,14, 6		5,39
32″	47,18,28,16,25,56, 7, 2,37,51		3,27,30,55,40	
		1,17,17,34,10,59,18,26		5,39
34″	47,18,29,33,43,30,18, 1,56,17		3,27,31, 1,19	
		1,17,17,30,43,28,17, 7		5,39
36″	47,18,30,51, 1, 1, 1,30,13,24		3,27,31, 6,58	
		1,17,17,27,15,57,10, 9		5,39
38″	47,18,32, 8,18,28,17,27,23,33		3,27,31,12,37	
		1,17,17,23,48,25,57,32		5,39
40″	47,18,33,25,35,52, 5,53,21, 5		3,27,31,18,16	
		1,17,17,20,20,54,39,16		5,39
42″	47,18,34,42,53,12,26,48, 0,21		3,27,31,23,55	
		1,17,17,16,53,23,15,21		5,39
44″	47,18,36, 0,10,29,20,11,15,42		3,27,31,29,34	
		1,17,17,13,25,51,45,47		5,39
46″	47,18,37,17,27,42,46, 3, 1,29		3,27,31,35,13	
		1,17,17, 9,58,20,10,34		5,39
48″	47,18,38,34,44,52,44,23,12, 3		3,27,31,40,52	
		1,17,17, 6,30,48,29,42		5,39
50″	47,18,39,52, 1,59,15,11,41,45		3,27,31,46,31	
		1,17,17, 3, 3,16,43,11		5,39
52″	47,18,41, 9,19, 2,18,28,24,56		3,27,31,52,10	
		1,17,16,59,35,44,51, 1		5,39
54″	47,18,42,26,36, 1,54,13,15,57		3,27,31,57,49	
		1,17,16,56, 8,12,53,12		5,39
56″	47,18,43,43,52,58, 2,26, 9, 9		3,27,32, 3,28	
		1,17,16,52,40,40,49,44		5,39
58″	47,18,45, 1, 9,50,43, 6,58,53		3,27,32, 9, 7	
		1,17,16,49,13, 8,40,37		
60″	47,18,46,18,26,39,56,15,39,30			
exact	47,18,46,18,26,39,56,15,34,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52° 3′ 0″	47,18,46,18,26,39,56,15,34,50			
		1,17,16,45,45,36,25,25		
2″	47,18,47,35,43,25,41,52, 0,15		3,27,32,20,26	
		1,17,16,42,18, 4, 4,59		5,39
4″	47,18,48,53, 0, 7,59,56, 5,14		3,27,32,26, 5	
		1,17,16,38,50,31,38,54		5,39
6″	47,18,50,10,16,46,50,27,44, 8		3,27,32,31,44	
		1,17,16,35,22,59, 7,10		5,39
8″	47,18,51,27,33,22,13,26,51,18		3,27,32,37,23	
		1,17,16,31,55,26,29,47		5,39
10″	47,18,52,44,49,54, 8,53,21, 5		3,27,32,43, 2	
		1,17,16,28,27,53,46,45		5,39
12″	47,18,54, 2, 6,22,36,47, 7,50		3,27,32,48,41	
		1,17,16,25, 0,20,58, 4		5,39
14″	47,18,55,19,22,47,37, 8, 5,54		3,27,32,54,20	
		1,17,16,21,32,48, 3,44		5,39
16″	47,18,56,36,39, 9, 9,56, 9,38		3,27,32,59,59	
		1,17,16,18, 5,15, 3,45		5,39
18″	47,18,57,53,55,27,15,11,13,23		3,27,33, 5,38	
		1,17,16,14,37,41,58, 7		5,39
20″	47,18,59,11,11,41,52,53,11,30		3,27,33,11,17	
		1,17,16,11,10, 8,46,50		5,39
22″	47,19, 0,28,27,53, 3, 1,58,20		3,27,33,16,56	
		1,17,16, 7,42,35,29,54		5,39
24″	47,19, 1,45,44, 0,45,37,28,14		3,27,33,22,35	
		1,17,16, 4,15, 2, 7,19		5,39
26″	47,19, 3, 3, 0, 5, 0,39,35,33		3,27,33,28,14	
		1,17,16, 0,47,28,39, 5		5,39
28″	47,19, 4,20,16, 5,48, 8,14,38		3,27,33,33,53	
		1,17,15,57,19,55, 5,12		5,39
30″	47,19, 5,37,32, 3, 8, 3,19,50		3,27,33,39,32	
		1,17,15,53,52,21,25,40		5,39
32″	47,19, 6,54,47,57, 0,24,45,30		3,27,33,45,11	
		1,17,15,50,24,47,40,29		5,39
34″	47,19, 8,12, 3,47,25,12,25,59		3,27,33,50,50	
		1,17,15,46,57,13,49,39		5,39
36″	47,19, 9,29,19,34,22,26,15,38		3,27,33,56,29	
		1,17,15,43,29,39,53,10		5,39
38″	47,19,10,46,35,17,52, 6, 8,48		3,27,34, 2, 8	
		1,17,15,40, 2, 5,51, 2		5,39
40″	47,19,12, 3,50,57,54,11,59,50		3,27,34, 7,47	
		1,17,15,36,34,31,43,15		5,39
42″	47,19,13,21, 6,34,28,43,43, 5		3,27,34,13,26	
		1,17,15,33, 6,57,29,49		5,39
44″	47,19,14,38,22, 7,35,41,12,54		3,27,34,19, 5	
		1,17,15,29,39,23,10,44		5,39
46″	47,19,15,55,37,37,15, 4,23,38		3,27,34,24,44	
		1,17,15,26,11,48,46, 0		5,39
48″	47,19,17,12,53, 3,26,53, 9,38		3,27,34,30,23	
		1,17,15,22,44,14,15,37		5,39
50″	47,19,18,30, 8,26,11, 7,25,15		3,27,34,36, 2	
		1,17,15,19,16,39,39,35		5,39
52″	47,19,19,47,23,45,27,47, 4,50		3,27,34,41,41	
		1,17,15,15,49, 4,57,54		5,39
54″	47,19,21, 4,39, 1,16,52, 2,44		3,27,34,47,20	
		1,17,15,12,21,30,10,34		5,39
56″	47,19,22,21,54,13,38,22,13,18		3,27,34,52,59	
		1,17,15, 8,53,55,17,35		5,39
58″	47,19,23,39, 9,22,32,17,30,53		3,27,34,58,38	
		1,17,15, 5,26,20,18,57		
60″	47,19,24,56,24,27,58,37,49,50			
exact	47,19,24,56,24,27,58,37,50,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52° 4′ 0″	47,19,24,56,24,27,58,37,50,52			
		1,17,15, 1,58,45,14,57		
2″	47,19,26,13,39,29,57,23, 5,49		3,27,35, 9,54	
		1,17,14,58,31,10, 5, 3		5,39
4″	47,19,27,30,54,28,28,33,10,52		3,27,35,15,33	
		1,17,14,55, 3,34,49,30		5,39
6″	47,19,28,48, 9,23,32, 8, 0,22		3,27,35,21,12	
		1,17,14,51,35,59,28,18		5,39
8″	47,19,30, 5,24,15, 8, 7,28,40		3,27,35,26,51	
		1,17,14,48, 8,24, 1,27		5,39
10″	47,19,31,22,39, 3,16,31,30, 7		3,27,35,32,30	
		1,17,14,44,40,48,28,57		5,39
12″	47,19,32,39,53,47,57,19,59, 4		3,27,35,38, 9	
		1,17,14,41,13,12,50,48		5,39
14″	47,19,33,57, 8,29,10,32,49,52		3,27,35,43,48	
		1,17,14,37,45,37, 7, 0		5,39
16″	47,19,35,14,23, 6,56, 9,56,52		3,27,35,49,27	
		1,17,14,34,18, 1,17,33		5,39
18″	47,19,36,31,37,41,14,11,14,25		3,27,35,55, 6	
		1,17,14,30,50,25,22,27		5,39
20″	47,19,37,48,52,12, 4,36,36,52		3,27,36, 0,45	
		1,17,14,27,22,49,21,42		5,39
22″	47,19,39, 6, 6,39,27,25,58,34		3,27,36, 6,24	
		1,17,14,23,55,13,15,18		5,39
24″	47,19,40,23,21, 3,22,39,13,52		3,27,36,12, 3	
		1,17,14,20,27,37, 3,15		5,39
26″	47,19,41,40,35,23,50,16,17, 7		3,27,36,17,42	
		1,17,14,17, 0, 0,45,33		5,39
28″	47,19,42,57,49,40,50,17, 2,40		3,27,36,23,21	
		1,17,14,13,32,24,22,12		5,39
30″	47,19,44,15, 3,54,22,41,24,52		3,27,36,29, 0	
		1,17,14,10, 4,47,53,12		5,39
32″	47,19,45,32,18, 4,27,29,18, 4		3,27,36,34,39	
		1,17,14, 6,37,11,18,33		5,39
34″	47,19,46,49,32,11, 4,40,36,37		3,27,36,40,18	
		1,17,14, 3, 9,34,38,15		5,39
36″	47,19,48, 6,46,14,14,15,14,52		3,27,36,45,57	
		1,17,13,59,41,57,52,18		5,39
38″	47,19,49,24, 0,13,56,13, 7,10		3,27,36,51,36	
		1,17,13,56,14,21, 0,42		5,39
40″	47,19,50,41,14,10,10,34, 7,52		3,27,36,57,15	
		1,17,13,52,46,44, 3,27		5,39
42″	47,19,51,58,28, 2,57,18,11,19		3,27,37, 2,54	
		1,17,13,49,19, 7, 0,33		5,39
44″	47,19,53,15,41,52,16,25,11,52		3,27,37, 8,33	
		1,17,13,45,51,29,52, 0		5,39
46″	47,19,54,32,55,38, 7,55, 3,52		3,27,37,14,12	
		1,17,13,42,23,52,37,48		5,39
48″	47,19,55,50, 9,20,31,47,41,40		3,27,37,19,51	
		1,17,13,38,56,15,17,57		5,39
50″	47,19,57, 7,22,59,28, 2,59,37		3,27,37,25,30	
		1,17,13,35,28,37,52,27		5,39
52″	47,19,58,24,36,34,56,40,52, 4		3,27,37,31, 9	
		1,17,13,32, 1, 0,21,18		5,39
54″	47,19,59,41,50, 6,57,41,13,22		3,27,37,36,48	
		1,17,13,28,33,22,44,30		5,39
56″	47,20, 0,59, 3,35,31, 3,57,52		3,27,37,42,27	
		1,17,13,25, 5,45, 2, 3		5,39
58″	47,20, 2,16,17, 0,36,48,59,55		3,27,37,48, 6	
		1,17,13,21,38, 7,13,57		
60″	47,20, 3,33,30,22,14,56,13,52			
exact	47,20, 3,33,30,22,14,56,26,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52° 5′ 0″	47,20, 3,33,30,22,14,56,26,29			
		1,17,13,18,10,29,21,36		
2″	47,20, 4,50,43,40,25,25,48, 5		3,27,37,59,18	
		1,17,13,14,42,51,22,18		5,39
4″	47,20, 6, 7,56,55, 8,17,10,23		3,27,38, 4,57	
		1,17,13,11,15,13,17,21		5,39
6″	47,20, 7,25,10, 6,23,30,27,44		3,27,38,10,36	
		1,17,13, 7,47,35, 6,45		5,39
8″	47,20, 8,42,23,14,11, 5,34,29		3,27,38,16,15	
		1,17,13, 4,19,56,50,30		5,39
10″	47,20, 9,59,36,18,31, 2,24,59		3,27,38,21,54	
		1,17,13, 0,52,18,28,36		5,39
12″	47,20,11,16,49,19,23,20,53,35		3,27,38,27,33	
		1,17,12,57,24,40, 1, 3		5,39
14″	47,20,12,34, 2,16,48, 0,54,38		3,27,38,33,12	
		1,17,12,53,57, 1,27,51		5,39
16″	47,20,13,51,15,10,45, 2,22,29		3,27,38,38,51	
		1,17,12,50,29,22,49, 0		5,39
18″	47,20,15, 8,28, 1,14,25,11,29		3,27,38,44,30	
		1,17,12,47, 1,44, 4,30		5,39
20″	47,20,16,25,40,48,16, 9,15,59		3,27,38,50, 9	
		1,17,12,43,34, 5,14,21		5,39
22″	47,20,17,42,53,31,50,14,30,20		3,27,38,55,48	
		1,17,12,40, 6,26,18,33		5,39
24″	47,20,19, 0, 6,11,56,40,48,53		3,27,39, 1,27	
		1,17,12,36,38,47,17, 6		5,39
26″	47,20,20,17,18,48,35,28, 5,59		3,27,39, 7, 6	
		1,17,12,33,11, 8,10, 0		5,39
28″	47,20,21,34,31,21,46,36,15,59		3,27,39,12,45	
		1,17,12,29,43,28,57,15		5,39
30″	47,20,22,51,43,51,30, 5,13,14		3,27,39,18,24	
		1,17,12,26,15,49,38,51		5,39
32″	47,20,24, 8,56,17,45,54,52, 5		3,27,39,24, 3	
		1,17,12,22,48,10,14,48		5,39
34″	47,20,25,26, 8,40,34, 5, 6,53		3,27,39,29,42	
		1,17,12,19,20,30,45, 6		5,39
36″	47,20,26,43,20,59,54,35,51,59		3,27,39,35,21	
		1,17,12,15,52,51, 9,45		5,39
38″	47,20,28, 0,33,15,47,27, 1,44		3,27,39,41, 0	
		1,17,12,12,25,11,28,45		5,39
40″	47,20,29,17,45,28,12,38,30,29		3,27,39,46,39	
		1,17,12, 8,57,31,42, 6		5,39
42″	47,20,30,34,57,37,10,10,12,35		3,27,39,52,18	
		1,17,12, 5,29,51,49,48		5,39
44″	47,20,31,52, 9,42,40, 2, 2,23		3,27,39,57,57	
		1,17,12, 2, 2,11,51,51		5,39
46″	47,20,33, 9,21,44,42,13,54,14		3,27,40, 3,36	
		1,17,11,58,34,31,48,15		5,39
48″	47,20,34,26,33,43,16,45,42,29		3,27,40, 9,15	
		1,17,11,55, 6,51,39, 0		5,39
50″	47,20,35,43,45,38,23,37,21,29		3,27,40,14,54	
		1,17,11,51,39,11,24, 6		5,39
52″	47,20,37, 0,57,30, 2,48,45,35		3,27,40,20,33	
		1,17,11,48,11,31, 3,33		5,39
54″	47,20,38,18, 9,18,14,19,49, 8		3,27,40,26,12	
		1,17,11,44,43,50,37,21		5,39
56″	47,20,39,35,21, 2,58,10,26,29		3,27,40,31,51	
		1,17,11,41,16,10, 5,30		5,39
58″	47,20,40,52,32,44,14,20,31,59		3,27,40,37,30	
		1,17,11,37,48,29,28, 0		
60″	47,20,42, 9,44,22, 2,49,59,59			
exact	47,20,42, 9,44,22, 2,50,22,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52° 6′ 0″	47,20,42, 9,44,22, 2,50,22,44			
		1,17,11,34,20,48,47,16		
2″	47,20,43,26,55,56,23,39,10, 0		3,27,40,48,38	
		1,17,11,30,53, 7,58,38		5,39
4″	47,20,44,44, 7,27,16,47, 8,38		3,27,40,54,17	
		1,17,11,27,25,27, 4,21		5,39
6″	47,20,46, 1,18,54,42,14,12,59		3,27,40,59,56	
		1,17,11,23,57,46, 4,25		5,39
8″	47,20,47,18,30,18,40, 0,17,24		3,27,41, 5,35	
		1,17,11,20,30, 4,58,50		5,39
10″	47,20,48,35,41,39,10, 5,16,14		3,27,41,11,14	
		1,17,11,17, 2,23,47,36		5,39
12″	47,20,49,52,52,56,12,29, 3,50		3,27,41,16,53	
		1,17,11,13,34,42,30,43		5,39
14″	47,20,51,10, 4, 9,47,11,34,33		3,27,41,22,32	
		1,17,11,10, 7, 1, 8,11		5,39
16″	47,20,52,27,15,19,54,12,42,44		3,27,41,28,11	
		1,17,11, 6,39,19,40, 0		5,39
18″	47,20,53,44,26,26,33,32,22,44		3,27,41,33,50	
		1,17,11, 3,11,38, 6,10		5,39
20″	47,20,55, 1,37,29,45,10,28,54		3,27,41,39,29	
		1,17,10,59,43,56,26,41		5,39
22″	47,20,56,18,48,29,29, 6,55,35		3,27,41,45, 8	
		1,17,10,56,16,14,41,33		5,39
24″	47,20,57,35,59,25,45,21,37, 8		3,27,41,50,47	
		1,17,10,52,48,32,50,46		5,39
26″	47,20,58,53,10,18,33,54,27,54		3,27,41,56,26	
		1,17,10,49,20,50,54,20		5,39
28″	47,21, 0,10,21, 7,54,45,22,14		3,27,42, 2, 5	
		1,17,10,45,53, 8,52,15		5,39
30″	47,21, 1,27,31,53,47,54,14,29		3,27,42, 7,44	
		1,17,10,42,25,26,44,31		5,39
32″	47,21, 2,44,42,36,13,20,59, 0		3,27,42,13,23	
		1,17,10,38,57,44,31, 8		5,39
34″	47,21, 4, 1,53,15,11, 5,30, 8		3,27,42,19, 2	
		1,17,10,35,30, 2,12, 6		5,39
36″	47,21, 5,19, 3,50,41, 7,42,14		3,27,42,24,41	
		1,17,10,32, 2,19,47,25		5,39
38″	47,21, 6,36,14,22,43,27,29,39		3,27,42,30,20	
		1,17,10,28,34,37,17, 5		5,39
40″	47,21, 7,53,24,51,18, 4,46,44		3,27,42,35,59	
		1,17,10,25, 6,54,41, 6		5,39
42″	47,21, 9,10,35,16,24,59,27,50		3,27,42,41,38	
		1,17,10,21,39,11,59,28		5,39
44″	47,21,10,27,45,38, 4,11,27,18		3,27,42,47,17	
		1,17,10,18,11,29,12,11		5,39
46″	47,21,11,44,55,56,15,40,39,29		3,27,42,52,56	
		1,17,10,14,43,46,19,15		5,39
48″	47,21,13, 2, 6,10,59,26,58,44		3,27,42,58,35	
		1,17,10,11,16, 3,20,40		5,39
50″	47,21,14,19,16,22,15,30,19,24		3,27,43, 4,14	
		1,17,10, 7,48,20,16,26		5,39
52″	47,21,15,36,26,30, 3,50,35,50		3,27,43, 9,53	
		1,17,10, 4,20,37, 6,33		5,39
54″	47,21,16,53,36,34,24,27,42,23		3,27,43,15,32	
		1,17,10, 0,52,53,51, 1		5,39
56″	47,21,18,10,46,35,17,21,33,24		3,27,43,21,11	
		1,17, 9,57,25,10,29,50		5,39
58″	47,21,19,27,56,32,42,32, 3,14		3,27,43,26,50	
		1,17, 9,53,57,27, 3, 0		
60″	47,21,20,45, 6,26,39,59, 6,14			
exact	47,21,20,45, 6,26,39,59,37,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52° 7′ 0″	47,21,20,45, 6,26,39,59,37,34			
		1,17, 9,50,29,43,33,51		
2″	47,21,22, 2,16,17, 9,43,11,25		3,27,43,37,54	
		1,17, 9,47, 1,59,55,57		5,38
4″	47,21,23,19,26, 4,11,43, 7,22		3,27,43,43,32	
		1,17, 9,43,34,16,12,25		5,38
6″	47,21,24,36,35,47,45,59,19,47		3,27,43,49,10	
		1,17, 9,40, 6,32,23,15		5,38
8″	47,21,25,53,45,27,52,31,43, 2		3,27,43,54,48	
		1,17, 9,36,38,48,28,27		5,38
10″	47,21,27,10,55, 4,31,20,11,29		3,27,44, 0,26	
		1,17, 9,33,11, 4,28, 1		5,38
12″	47,21,28,28, 4,37,42,24,39,30		3,27,44, 6, 4	
		1,17, 9,29,43,20,21,57		5,38
14″	47,21,29,45,14, 7,25,45, 1,27		3,27,44,11,42	
		1,17, 9,26,15,36,10,15		5,38
16″	47,21,31, 2,23,33,41,21,11,42		3,27,44,17,20	
		1,17, 9,22,47,51,52,55		5,38
18″	47,21,32,19,32,56,29,13, 4,37		3,27,44,22,58	
		1,17, 9,19,20, 7,29,57		5,38
20″	47,21,33,36,42,15,49,20,34,34		3,27,44,28,36	
		1,17, 9,15,52,23, 1,21		5,38
22″	47,21,34,53,51,31,41,43,35,55		3,27,44,34,14	
		1,17, 9,12,24,38,27, 7		5,38
24″	47,21,36,11, 0,44, 6,22, 3, 2		3,27,44,39,52	
		1,17, 9, 8,56,53,47,15		5,38
26″	47,21,37,28, 9,53, 3,15,50,17		3,27,44,45,30	
		1,17, 9, 5,29, 9, 1,45		5,38
28″	47,21,38,45,18,58,32,24,52, 2		3,27,44,51, 8	
		1,17, 9, 2, 1,24,10,37		5,38
30″	47,21,40, 2,28, 0,33,49, 2,39		3,27,44,56,46	
		1,17, 8,58,33,39,13,51		5,38
32″	47,21,41,19,36,59, 7,28,16,30		3,27,45, 2,24	
		1,17, 8,55, 5,54,11,27		5,38
34″	47,21,42,36,45,54,13,22,27,57		3,27,45, 8, 2	
		1,17, 8,51,38, 9, 3,25		5,38
36″	47,21,43,53,54,45,51,31,31,22		3,27,45,13,40	
		1,17, 8,48,10,23,49,45		5,38
38″	47,21,45,11, 3,34, 1,55,21, 7		3,27,45,19,18	
		1,17, 8,44,42,38,30,27		5,38
40″	47,21,46,28,12,18,44,33,51,34		3,27,45,24,56	
		1,17, 8,41,14,53, 5,31		5,38
42″	47,21,47,45,20,59,59,26,57, 5		3,27,45,30,34	
		1,17, 8,37,47, 7,34,57		5,38
44″	47,21,49, 2,29,37,46,34,32, 2		3,27,45,36,12	
		1,17, 8,34,19,21,58,45		5,38
46″	47,21,50,19,38,12, 5,56,30,47		3,27,45,41,50	
		1,17, 8,30,51,36,16,55		5,38
48″	47,21,51,36,46,42,57,32,47,42		3,27,45,47,28	
		1,17, 8,27,23,50,29,27		5,38
50″	47,21,52,53,55,10,21,23,17, 9		3,27,45,53, 6	
		1,17, 8,23,56, 4,36,21		5,38
52″	47,21,54,11, 3,34,17,27,53,30		3,27,45,58,44	
		1,17, 8,20,28,18,37,37		5,38
54″	47,21,55,28,11,54,45,46,31, 7		3,27,46, 4,22	
		1,17, 8,17, 0,32,33,15		5,38
56″	47,21,56,45,20,11,46,19, 4,22		3,27,46,10, 0	
		1,17, 8,13,32,46,23,15		5,38
58″	47,21,58, 2,28,25,19, 5,27,37		3,27,46,15,38	
		1,17, 8,10, 5, 0, 7,37		
60″	47,21,59,19,36,35,24, 5,35,14			
exact	47,21,59,19,36,35,24, 5, 5,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52° 8′ 0″	47,21,59,19,36,35,24, 5, 5,52			
		1,17, 8, 6,37,13,43,15		
2″	47,22, 0,36,44,42, 1,18,49, 7		3,27,46,27, 6	
		1,17, 8, 3, 9,27,16, 9		5,38
4″	47,22, 1,53,52,45,10,46, 5,16		3,27,46,32,44	
		1,17, 7,59,41,40,43,25		5,38
6″	47,22, 3,11, 0,44,52,26,48,41		3,27,46,38,22	
		1,17, 7,56,13,54, 5, 3		5,38
8″	47,22, 4,28, 8,41, 6,20,53,44		3,27,46,44, 0	
		1,17, 7,52,46, 7,21, 3		5,38
10″	47,22, 5,45,16,33,52,28,14,47		3,27,46,49,38	
		1,17, 7,49,18,20,31,25		5,38
12″	47,22, 7, 2,24,23,10,48,46,12		3,27,46,55,16	
		1,17, 7,45,50,33,36, 9		5,38
14″	47,22, 8,19,32, 9, 1,22,22,21		3,27,47, 0,54	
		1,17, 7,42,22,46,35,15		5,38
16″	47,22, 9,36,39,51,24, 8,57,36		3,27,47, 6,32	
		1,17, 7,38,54,59,28,43		5,38
18″	47,22,10,53,47,30,19, 8,26,19		3,27,47,12,10	
		1,17, 7,35,27,12,16,33		5,38
20″	47,22,12,10,55, 5,46,20,42,52		3,27,47,17,48	
		1,17, 7,31,59,24,58,45		5,38
22″	47,22,13,28, 2,37,45,45,41,37		3,27,47,23,26	
		1,17, 7,28,31,37,35,19		5,38
24″	47,22,14,45,10, 6,17,23,16,56		3,27,47,29, 4	
		1,17, 7,25, 3,50, 6,15		5,38
26″	47,22,16, 2,17,31,21,13,23,11		3,27,47,34,42	
		1,17, 7,21,36, 2,31,33		5,38
28″	47,22,17,19,24,52,57,15,54,44		3,27,47,40,20	
		1,17, 7,18, 8,14,51,13		5,38
30″	47,22,18,36,32,11, 5,30,45,57		3,27,47,45,58	
		1,17, 7,14,40,27, 5,15		5,38
32″	47,22,19,53,39,25,45,57,51,12		3,27,47,51,36	
		1,17, 7,11,12,39,13,39		5,38
34″	47,22,21,10,46,36,58,37, 4,51		3,27,47,57,14	
		1,17, 7, 7,44,51,16,25		5,38
36″	47,22,22,27,53,44,43,28,21,16		3,27,48, 2,52	
		1,17, 7, 4,17, 3,13,33		5,38
38″	47,22,23,45, 0,49, 0,31,34,49		3,27,48, 8,30	
		1,17, 7, 0,49,15, 5, 3		5,38
40″	47,22,25, 2, 7,49,49,46,39,52		3,27,48,14, 8	
		1,17, 6,57,21,26,50,55		5,38
42″	47,22,26,19,14,47,11,13,30,47		3,27,48,19,46	
		1,17, 6,53,53,38,31, 9		5,38
44″	47,22,27,36,21,41, 4,52, 1,56		3,27,48,25,24	
		1,17, 6,50,25,50, 5,45		5,38
46″	47,22,28,53,28,31,30,42, 7,41		3,27,48,31, 2	
		1,17, 6,46,58, 1,34,43		5,38
48″	47,22,30,10,35,18,28,43,42,24		3,27,48,36,40	
		1,17, 6,43,30,12,58, 3		5,38
50″	47,22,31,27,42, 1,58,56,40,27		3,27,48,42,18	
		1,17, 6,40, 2,24,15,45		5,38
52″	47,22,32,44,48,42, 1,20,56,12		3,27,48,47,56	
		1,17, 6,36,34,35,27,49		5,38
54″	47,22,34, 1,55,18,35,56,24, 1		3,27,48,53,34	
		1,17, 6,33, 6,46,34,15		5,38
56″	47,22,35,19, 1,51,42,42,58,16		3,27,48,59,12	
		1,17, 6,29,38,57,35, 3		5,38
58″	47,22,36,36, 8,21,21,40,33,19		3,27,49, 4,50	
		1,17, 6,26,11, 8,30,13		
60″	47,22,37,53,14,47,32,49, 3,32			
exact	47,22,37,53,14,47,32,48,39,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52° 9′ 0″	47,22,37,53,14,47,32,48,39,30			
		1,17, 6,22,43,19,17,21		
2″	47,22,39,10,21,10,16, 7,56,51		3,27,49,16,15	
		1,17, 6,19,15,30, 1, 6		5,38
4″	47,22,40,27,27,29,31,37,57,57		3,27,49,21,53	
		1,17, 6,15,47,40,39,13		5,38
6″	47,22,41,44,33,45,19,18,37,10		3,27,49,27,31	
		1,17, 6,12,19,51,11,42		5,38
8″	47,22,43, 1,39,57,39, 9,48,52		3,27,49,33, 9	
		1,17, 6, 8,52, 1,38,33		5,38
10″	47,22,44,18,46, 6,31,11,27,25		3,27,49,38,47	
		1,17, 6, 5,24,11,59,46		5,38
12″	47,22,45,35,52,11,55,23,27,11		3,27,49,44,25	
		1,17, 6, 1,56,22,15,21		5,38
14″	47,22,46,52,58,13,51,45,42,32		3,27,49,50, 3	
		1,17, 5,58,28,32,25,18		5,38
16″	47,22,48,10, 4,12,20,18, 7,50		3,27,49,55,41	
		1,17, 5,55, 0,42,29,37		5,38
18″	47,22,49,27,10, 7,21, 0,37,27		3,27,50, 1,19	
		1,17, 5,51,32,52,28,18		5,38
20″	47,22,50,44,15,58,53,53, 5,45		3,27,50, 6,57	
		1,17, 5,48, 5, 2,21,21		5,38
22″	47,22,52, 1,21,46,58,55,27, 6		3,27,50,12,35	
		1,17, 5,44,37,12, 8,46		5,38
24″	47,22,53,18,27,31,36, 7,35,52		3,27,50,18,13	
		1,17, 5,41, 9,21,50,33		5,38
26″	47,22,54,35,33,12,45,29,26,25		3,27,50,23,51	
		1,17, 5,37,41,31,26,42		5,38
28″	47,22,55,52,38,50,27, 0,53, 7		3,27,50,29,29	
		1,17, 5,34,13,40,57,13		5,38
30″	47,22,57, 9,44,24,40,41,50,20		3,27,50,35, 7	
		1,17, 5,30,45,50,22, 6		5,38
32″	47,22,58,26,49,55,26,32,12,26		3,27,50,40,45	
		1,17, 5,27,17,59,41,21		5,38
34″	47,22,59,43,55,22,44,31,53,47		3,27,50,46,23	
		1,17, 5,23,50, 8,54,58		5,38
36″	47,23, 1, 1, 0,46,34,40,48,45		3,27,50,52, 1	
		1,17, 5,20,22,18, 2,57		5,38
38″	47,23, 2,18, 6, 6,56,58,51,42		3,27,50,57,39	
		1,17, 5,16,54,27, 5,18		5,38
40″	47,23, 3,35,11,23,51,25,57, 0		3,27,51, 3,17	
		1,17, 5,13,26,36, 2, 1		5,38
42″	47,23, 4,52,16,37,18, 1,59, 1		3,27,51, 8,55	
		1,17, 5, 9,58,44,53, 6		5,38
44″	47,23, 6, 9,21,47,16,46,52, 7		3,27,51,14,33	
		1,17, 5, 6,30,53,38,33		5,38
46″	47,23, 7,26,26,53,47,40,30,40		3,27,51,20,11	
		1,17, 5, 3, 3, 2,18,22		5,38
48″	47,23, 8,43,31,56,50,42,49, 2		3,27,51,25,49	
		1,17, 4,59,35,10,52,33		5,38
50″	47,23,10, 0,36,56,25,53,41,35		3,27,51,31,27	
		1,17, 4,56, 7,19,21, 6		5,38
52″	47,23,11,17,41,52,33,13, 2,41		3,27,51,37, 5	
		1,17, 4,52,39,27,44, 1		5,38
54″	47,23,12,34,46,45,12,40,46,42		3,27,51,42,43	
		1,17, 4,49,11,36, 1,18		5,38
56″	47,23,13,51,51,34,24,16,48, 0		3,27,51,48,21	
		1,17, 4,45,43,44,12,57		5,38
58″	47,23,15, 8,56,20, 8, 1, 0,57		3,27,51,53,59	
		1,17, 4,42,15,52,18,58		
60″	47,23,16,26, 1, 2,23,53,19,55			
exact	47,23,16,26, 1, 2,23,53, 7,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°10′ 0″	47,23,16,26, 1, 2,23,53, 7,15			
		1,17, 4,38,48, 0,18, 3		
2″	47,23,17,43, 5,41,11,53,25,18		3,27,52, 5,20	
		1,17, 4,35,20, 8,12,43		5,38
4″	47,23,19, 0,10,16,32, 1,38, 1		3,27,52,10,58	
		1,17, 4,31,52,16, 1,45		5,38
6″	47,23,20,17,14,48,24,17,39,46		3,27,52,16,36	
		1,17, 4,28,24,23,45, 9		5,38
8″	47,23,21,34,19,16,48,41,24,55		3,27,52,22,14	
		1,17, 4,24,56,31,22,55		5,38
10″	47,23,22,51,23,41,45,12,47,50		3,27,52,27,52	
		1,17, 4,21,28,38,55, 3		5,38
12″	47,23,24, 8,28, 3,13,51,42,53		3,27,52,33,30	
		1,17, 4,18, 0,46,21,33		5,38
14″	47,23,25,25,32,21,14,38, 4,26		3,27,52,39, 8	
		1,17, 4,14,32,53,42,25		5,38
16″	47,23,26,42,36,35,47,31,46,51		3,27,52,44,46	
		1,17, 4,11, 5, 0,57,39		5,38
18″	47,23,27,59,40,46,52,32,44,30		3,27,52,50,24	
		1,17, 4, 7,37, 8, 7,15		5,38
20″	47,23,29,16,44,54,29,40,51,45		3,27,52,56, 2	
		1,17, 4, 4, 9,15,11,13		5,38
22″	47,23,30,33,48,58,38,56, 2,58		3,27,53, 1,40	
		1,17, 4, 0,41,22, 9,33		5,38
24″	47,23,31,50,52,59,20,18,12,31		3,27,53, 7,18	
		1,17, 3,57,13,29, 2,15		5,38
26″	47,23,33, 7,56,56,33,47,14,46		3,27,53,12,56	
		1,17, 3,53,45,35,49,19		5,38
28″	47,23,34,25, 0,50,19,23, 4, 5		3,27,53,18,34	
		1,17, 3,50,17,42,30,45		5,38
30″	47,23,35,42, 4,40,37, 5,34,50		3,27,53,24,12	
		1,17, 3,46,49,49, 6,33		5,38
32″	47,23,36,59, 8,27,26,54,41,23		3,27,53,29,50	
		1,17, 3,43,21,55,36,43		5,38
34″	47,23,38,16,12,10,48,50,18, 6		3,27,53,35,28	
		1,17, 3,39,54, 2, 1,15		5,38
36″	47,23,39,33,15,50,42,52,19,21		3,27,53,41, 6	
		1,17, 3,36,26, 8,20, 9		5,38
38″	47,23,40,50,19,27, 9, 0,39,30		3,27,53,46,44	
		1,17, 3,32,58,14,33,25		5,38
40″	47,23,42, 7,23, 0, 7,15,12,55		3,27,53,52,22	
		1,17, 3,29,30,20,41, 3		5,38
42″	47,23,43,24,26,29,37,35,53,58		3,27,53,58, 0	
		1,17, 3,26, 2,26,43, 3		5,38
44″	47,23,44,41,29,55,40, 2,37, 1		3,27,54, 3,38	
		1,17, 3,22,34,32,39,25		5,38
46″	47,23,45,58,33,18,14,35,16,26		3,27,54, 9,16	
		1,17, 3,19, 6,38,30, 9		5,38
48″	47,23,47,15,36,37,21,13,46,35		3,27,54,14,54	
		1,17, 3,15,38,44,15,15		5,38
50″	47,23,48,32,39,52,59,58, 1,50		3,27,54,20,32	
		1,17, 3,12,10,49,54,43		5,38
52″	47,23,49,49,43, 5,10,47,56,33		3,27,54,26,10	
		1,17, 3, 8,42,55,28,33		5,38
54″	47,23,51, 6,46,13,53,43,25, 6		3,27,54,31,48	
		1,17, 3, 5,15, 0,56,45		5,38
56″	47,23,52,23,49,19, 8,44,21,51		3,27,54,37,26	
		1,17, 3, 1,47, 6,19,19		5,38
58″	47,23,53,40,52,20,55,50,41,10		3,27,54,43, 4	
		1,17, 2,58,19,11,36,15		
60″	47,23,54,57,55,19,15, 2,17,25			
exact	47,23,54,57,55,19,15, 2,14,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°11′ 0″	47,23,54,57,55,19,15, 2,14,56			
		1,17, 2,54,51,16,47,17		
2″	47,23,56,14,58,14, 6,19, 2,13		3,27,54,54,21	
		1,17, 2,51,23,21,52,56		5,38
4″	47,23,57,32, 1, 5,29,40,55, 9		3,27,54,59,59	
		1,17, 2,47,55,26,52,57		5,38
6″	47,23,58,49, 3,53,25, 7,48, 6		3,27,55, 5,37	
		1,17, 2,44,27,31,47,20		5,38
8″	47,24, 0, 6, 6,37,52,39,35,26		3,27,55,11,15	
		1,17, 2,40,59,36,36, 5		5,38
10″	47,24, 1,23, 9,18,52,16,11,31		3,27,55,16,53	
		1,17, 2,37,31,41,19,12		5,38
12″	47,24, 2,40,11,56,23,57,30,43		3,27,55,22,31	
		1,17, 2,34, 3,45,56,41		5,38
14″	47,24, 3,57,14,30,27,43,27,24		3,27,55,28, 9	
		1,17, 2,30,35,50,28,32		5,38
16″	47,24, 5,14,17, 1, 3,33,55,56		3,27,55,33,47	
		1,17, 2,27, 7,54,54,45		5,38
18″	47,24, 6,31,19,28,11,28,50,41		3,27,55,39,25	
		1,17, 2,23,39,59,15,20		5,38
20″	47,24, 7,48,21,51,51,28, 6, 1		3,27,55,45, 3	
		1,17, 2,20,12, 3,30,17		5,38
22″	47,24, 9, 5,24,12, 3,31,36,18		3,27,55,50,41	
		1,17, 2,16,44, 7,39,36		5,38
24″	47,24,10,22,26,28,47,39,15,54		3,27,55,56,19	
		1,17, 2,13,16,11,43,17		5,38
26″	47,24,11,39,28,42, 3,50,59,11		3,27,56, 1,57	
		1,17, 2, 9,48,15,41,20		5,38
28″	47,24,12,56,30,51,52, 6,40,31		3,27,56, 7,35	
		1,17, 2, 6,20,19,33,45		5,38
30″	47,24,14,13,32,58,12,26,14,16		3,27,56,13,13	
		1,17, 2, 2,52,23,20,32		5,38
32″	47,24,15,30,35, 1, 4,49,34,48		3,27,56,18,51	
		1,17, 1,59,24,27, 1,41		5,38
34″	47,24,16,47,37, 0,29,16,36,29		3,27,56,24,29	
		1,17, 1,55,56,30,37,12		5,38
36″	47,24,18, 4,38,56,25,47,13,41		3,27,56,30, 7	
		1,17, 1,52,28,34, 7, 5		5,38
38″	47,24,19,21,40,48,54,21,20,46		3,27,56,35,45	
		1,17, 1,49, 0,37,31,20		5,38
40″	47,24,20,38,42,37,54,58,52, 6		3,27,56,41,23	
		1,17, 1,45,32,40,49,57		5,38
42″	47,24,21,55,44,23,27,39,42, 3		3,27,56,47, 1	
		1,17, 1,42, 4,44, 2,56		5,38
44″	47,24,23,12,46, 5,32,23,44,59		3,27,56,52,39	
		1,17, 1,38,36,47,10,17		5,38
46″	47,24,24,29,47,44, 9,10,55,16		3,27,56,58,17	
		1,17, 1,35, 8,50,12, 0		5,38
48″	47,24,25,46,49,19,18, 1, 7,16		3,27,57, 3,55	
		1,17, 1,31,40,53, 8, 5		5,38
50″	47,24,27, 3,50,50,58,54,15,21		3,27,57, 9,33	
		1,17, 1,28,12,55,58,32		5,38
52″	47,24,28,20,52,19,11,50,13,53		3,27,57,15,11	
		1,17, 1,24,44,58,43,21		5,38
54″	47,24,29,37,53,43,56,48,57,14		3,27,57,20,49	
		1,17, 1,21,17, 1,22,32		5,38
56″	47,24,30,54,55, 5,13,50,19,46		3,27,57,26,27	
		1,17, 1,17,49, 3,56, 5		5,38
58″	47,24,32,11,56,23, 2,54,15,51		3,27,57,32, 5	
		1,17, 1,14,21, 6,24, 0		
60″	47,24,33,28,57,37,24, 0,39,51			
exact	47,24,33,28,57,37,24, 0,45,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°12′ 0″	47,24,33,28,57,37,24, 0,45,17			
		1,17, 1,10,53, 8,46,54		
2″	47,24,34,45,58,48,17, 9,32,11		3,27,57,43,18	
		1,17, 1, 7,25,11, 3,36		5,38
4″	47,24,36, 2,59,55,42,20,35,47		3,27,57,48,56	
		1,17, 1, 3,57,13,14,40		5,38
6″	47,24,37,20, 0,59,39,33,50,27		3,27,57,54,34	
		1,17, 1, 0,29,15,20, 6		5,38
8″	47,24,38,37, 2, 0, 8,49,10,33		3,27,58, 0,12	
		1,17, 0,57, 1,17,19,54		5,38
10″	47,24,39,54, 2,57,10, 6,30,27		3,27,58, 5,50	
		1,17, 0,53,33,19,14, 4		5,38
12″	47,24,41,11, 3,50,43,25,44,31		3,27,58,11,28	
		1,17, 0,50, 5,21, 2,36		5,38
14″	47,24,42,28, 4,40,48,46,47, 7		3,27,58,17, 6	
		1,17, 0,46,37,22,45,30		5,38
16″	47,24,43,45, 5,27,26, 9,32,37		3,27,58,22,44	
		1,17, 0,43, 9,24,22,46		5,38
18″	47,24,45, 2, 6,10,35,33,55,23		3,27,58,28,22	
		1,17, 0,39,41,25,54,24		5,38
20″	47,24,46,19, 6,50,16,59,49,47		3,27,58,34, 0	
		1,17, 0,36,13,27,20,24		5,38
22″	47,24,47,36, 7,26,30,27,10,11		3,27,58,39,38	
		1,17, 0,32,45,28,40,46		5,38
24″	47,24,48,53, 7,59,15,55,50,57		3,27,58,45,16	
		1,17, 0,29,17,29,55,30		5,38
26″	47,24,50,10, 8,28,33,25,46,27		3,27,58,50,54	
		1,17, 0,25,49,31, 4,36		5,38
28″	47,24,51,27, 8,54,22,56,51, 3		3,27,58,56,32	
		1,17, 0,22,21,32, 8, 4		5,38
30″	47,24,52,44, 9,16,44,28,59, 7		3,27,59, 2,10	
		1,17, 0,18,53,33, 5,54		5,38
32″	47,24,54, 1, 9,35,38, 2, 5, 1		3,27,59, 7,48	
		1,17, 0,15,25,33,58, 6		5,38
34″	47,24,55,18, 9,51, 3,36, 3, 7		3,27,59,13,26	
		1,17, 0,11,57,34,44,40		5,38
36″	47,24,56,35,10, 3, 1,10,47,47		3,27,59,19, 4	
		1,17, 0, 8,29,35,25,36		5,38
38″	47,24,57,52,10,11,30,46,13,23		3,27,59,24,42	
		1,17, 0, 5, 1,36, 0,54		5,38
40″	47,24,59, 9,10,16,32,22,14,17		3,27,59,30,20	
		1,17, 0, 1,33,36,30,34		5,38
42″	47,25, 0,26,10,18, 5,58,44,51		3,27,59,35,58	
		1,16,59,58, 5,36,54,36		5,38
44″	47,25, 1,43,10,16,11,35,39,27		3,27,59,41,36	
		1,16,59,54,37,37,13, 0		5,38
46″	47,25, 3, 0,10,10,49,12,52,27		3,27,59,47,14	
		1,16,59,51, 9,37,25,46		5,38
48″	47,25, 4,17,10, 1,58,50,18,13		3,27,59,52,52	
		1,16,59,47,41,37,32,54		5,38
50″	47,25, 5,34, 9,49,40,27,51, 7		3,27,59,58,30	
		1,16,59,44,13,37,34,24		5,38
52″	47,25, 6,51, 9,33,54, 5,25,31		3,28, 0, 4, 8	
		1,16,59,40,45,37,30,16		5,38
54″	47,25, 8, 8, 9,14,39,42,55,47		3,28, 0, 9,46	
		1,16,59,37,17,37,20,30		5,38
56″	47,25, 9,25, 8,51,57,20,16,17		3,28, 0,15,24	
		1,16,59,33,49,37, 5, 6		5,38
58″	47,25,10,42, 8,25,46,57,21,23		3,28, 0,21, 2	
		1,16,59,30,21,36,44, 4		
60″	47,25,11,59, 7,56, 8,34, 5,27			
exact	47,25,11,59, 7,56, 8,34,18, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°13′ 0″	47,25,11,59, 7,56, 8,34,18, 6			
		1,16,59,26,53,36,18,50		
2″	47,25,13,16, 7,23, 2,10,36,56		3,28, 0,32,11	
		1,16,59,23,25,35,46,39		5,38
4″	47,25,14,33, 6,46,27,46,23,35		3,28, 0,37,49	
		1,16,59,19,57,35, 8,50		5,38
6″	47,25,15,50, 6, 6,25,21,32,25		3,28, 0,43,27	
		1,16,59,16,29,34,25,23		5,38
8″	47,25,17, 7, 5,22,54,55,57,48		3,28, 0,49, 5	
		1,16,59,13, 1,33,36,18		5,38
10″	47,25,18,24, 4,35,56,29,34, 6		3,28, 0,54,43	
		1,16,59, 9,33,32,41,35		5,38
12″	47,25,19,41, 3,45,30, 2,15,41		3,28, 1, 0,21	
		1,16,59, 6, 5,31,41,14		5,38
14″	47,25,20,58, 2,51,35,33,56,55		3,28, 1, 5,59	
		1,16,59, 2,37,30,35,15		5,38
16″	47,25,22,15, 1,54,13, 4,32,10		3,28, 1,11,37	
		1,16,58,59, 9,29,23,38		5,38
18″	47,25,23,32, 0,53,22,33,55,48		3,28, 1,17,15	
		1,16,58,55,41,28, 6,23		5,38
20″	47,25,24,48,59,49, 4, 2, 2,11		3,28, 1,22,53	
		1,16,58,52,13,26,43,30		5,38
22″	47,25,26, 5,58,41,17,28,45,41		3,28, 1,28,31	
		1,16,58,48,45,25,14,59		5,38
24″	47,25,27,22,57,30, 2,54, 0,40		3,28, 1,34, 9	
		1,16,58,45,17,23,40,50		5,38
26″	47,25,28,39,56,15,20,17,41,30		3,28, 1,39,47	
		1,16,58,41,49,22, 1, 3		5,38
28″	47,25,29,56,54,57, 9,39,42,33		3,28, 1,45,25	
		1,16,58,38,21,20,15,38		5,38
30″	47,25,31,13,53,35,30,59,58,11		3,28, 1,51, 3	
		1,16,58,34,53,18,24,35		5,38
32″	47,25,32,30,52,10,24,18,22,46		3,28, 1,56,41	
		1,16,58,31,25,16,27,54		5,38
34″	47,25,33,47,50,41,49,34,50,40		3,28, 2, 2,19	
		1,16,58,27,57,14,25,35		5,38
36″	47,25,35, 4,49, 9,46,49,16,15		3,28, 2, 7,57	
		1,16,58,24,29,12,17,38		5,38
38″	47,25,36,21,47,34,16, 1,33,53		3,28, 2,13,35	
		1,16,58,21, 1,10, 4, 3		5,38
40″	47,25,37,38,45,55,17,11,37,56		3,28, 2,19,13	
		1,16,58,17,33, 7,44,50		5,38
42″	47,25,38,55,44,12,50,19,22,46		3,28, 2,24,51	
		1,16,58,14, 5, 5,19,59		5,38
44″	47,25,40,12,42,26,55,24,42,45		3,28, 2,30,29	
		1,16,58,10,37, 2,49,30		5,38
46″	47,25,41,29,40,37,32,27,32,15		3,28, 2,36, 7	
		1,16,58, 7, 9, 0,13,23		5,38
48″	47,25,42,46,38,44,41,27,45,38		3,28, 2,41,45	
		1,16,58, 3,40,57,31,38		5,38
50″	47,25,44, 3,36,48,22,25,17,16		3,28, 2,47,23	
		1,16,58, 0,12,54,44,15		5,38
52″	47,25,45,20,34,48,35,20, 1,31		3,28, 2,53, 1	
		1,16,57,56,44,51,51,14		5,38
54″	47,25,46,37,32,45,20,11,52,45		3,28, 2,58,39	
		1,16,57,53,16,48,52,35		5,38
56″	47,25,47,54,30,38,37, 0,45,20		3,28, 3, 4,17	
		1,16,57,49,48,45,48,18		5,38
58″	47,25,49,11,28,28,25,46,33,38		3,28, 3, 9,55	
		1,16,57,46,20,42,38,23		
60″	47,25,50,28,26,14,46,29,12, 1			
exact	47,25,50,28,26,14,46,29,30, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°14′ 0″	47,25,50,28,26,14,46,29,30, 9			
		1,16,57,42,52,39,24,58		
2″	47,25,51,45,23,57,39, 8,55, 7		3,28, 3,21, 1	
		1,16,57,39,24,36, 3,57		5,38
4″	47,25,53, 2,21,37, 3,44,59, 4		3,28, 3,26,39	
		1,16,57,35,56,32,37,18		5,38
6″	47,25,54,19,19,13, 0,17,36,22		3,28, 3,32,17	
		1,16,57,32,28,29, 5, 1		5,38
8″	47,25,55,36,16,45,28,46,41,23		3,28, 3,37,55	
		1,16,57,29, 0,25,27, 6		5,38
10″	47,25,56,53,14,14,29,12, 8,29		3,28, 3,43,33	
		1,16,57,25,32,21,43,33		5,38
12″	47,25,58,10,11,40, 1,33,52, 2		3,28, 3,49,11	
		1,16,57,22, 4,17,54,22		5,38
14″	47,25,59,27, 9, 2, 5,51,46,24		3,28, 3,54,49	
		1,16,57,18,36,13,59,33		5,38
16″	47,26, 0,44, 6,20,42, 5,45,57		3,28, 4, 0,27	
		1,16,57,15, 8, 9,59, 6		5,38
18″	47,26, 2, 1, 3,35,50,15,45, 3		3,28, 4, 6, 5	
		1,16,57,11,40, 5,53, 1		5,38
20″	47,26, 3,18, 0,47,30,21,38, 4		3,28, 4,11,43	
		1,16,57, 8,12, 1,41,18		5,38
22″	47,26, 4,34,57,55,42,23,19,22		3,28, 4,17,21	
		1,16,57, 4,43,57,23,57		5,38
24″	47,26, 5,51,55, 0,26,20,43,19		3,28, 4,22,59	
		1,16,57, 1,15,53, 0,58		5,38
26″	47,26, 7, 8,52, 1,42,13,44,17		3,28, 4,28,37	
		1,16,56,57,47,48,32,21		5,38
28″	47,26, 8,25,48,59,30, 2,16,38		3,28, 4,34,15	
		1,16,56,54,19,43,58, 6		5,38
30″	47,26, 9,42,45,53,49,46,14,44		3,28, 4,39,53	
		1,16,56,50,51,39,18,13		5,38
32″	47,26,10,59,42,44,41,25,32,57		3,28, 4,45,31	
		1,16,56,47,23,34,32,42		5,38
34″	47,26,12,16,39,32, 5, 0, 5,39		3,28, 4,51, 9	
		1,16,56,43,55,29,41,33		5,38
36″	47,26,13,33,36,16, 0,29,47,12		3,28, 4,56,47	
		1,16,56,40,27,24,44,46		5,38
38″	47,26,14,50,32,56,27,54,31,58		3,28, 5, 2,25	
		1,16,56,36,59,19,42,21		5,38
40″	47,26,16, 7,29,33,27,14,14,19		3,28, 5, 8, 3	
		1,16,56,33,31,14,34,18		5,38
42″	47,26,17,24,26, 6,58,28,48,37		3,28, 5,13,41	
		1,16,56,30, 3, 9,20,37		5,38
44″	47,26,18,41,22,37, 1,38, 9,14		3,28, 5,19,19	
		1,16,56,26,35, 4, 1,18		5,38
46″	47,26,19,58,19, 3,36,42,10,32		3,28, 5,24,57	
		1,16,56,23, 6,58,36,21		5,38
48″	47,26,21,15,15,26,43,40,46,53		3,28, 5,30,35	
		1,16,56,19,38,53, 5,46		5,38
50″	47,26,22,32,11,46,22,33,52,39		3,28, 5,36,13	
		1,16,56,16,10,47,29,33		5,38
52″	47,26,23,49, 8, 2,33,21,22,12		3,28, 5,41,51	
		1,16,56,12,42,41,47,42		5,38
54″	47,26,25, 6, 4,15,16, 3, 9,54		3,28, 5,47,29	
		1,16,56, 9,14,36, 0,13		5,38
56″	47,26,26,23, 0,24,30,39,10, 7		3,28, 5,53, 7	
		1,16,56, 5,46,30, 7, 6		5,38
58″	47,26,27,39,56,30,17, 9,17,13		3,28, 5,58,45	
		1,16,56, 2,18,24, 8,21		
60″	47,26,28,56,52,32,35,33,25,34			
exact	47,26,28,56,52,32,35,33,55,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°15′ 0″	47,26,28,56,52,32,35,33,55,16			
		1,16,55,58,50,18, 7,13		
2″	47,26,30,13,48,31,25,52, 2,29		3,28, 6, 9,47	
		1,16,55,55,22,11,57,26		5,37
4″	47,26,31,30,44,26,48, 3,59,55		3,28, 6,15,24	
		1,16,55,51,54, 5,42, 2		5,37
6″	47,26,32,47,40,18,42, 9,41,57		3,28, 6,21, 1	
		1,16,55,48,25,59,21, 1		5,37
8″	47,26,34, 4,36, 7, 8, 9, 2,58		3,28, 6,26,38	
		1,16,55,44,57,52,54,23		5,37
10″	47,26,35,21,31,52, 6, 1,57,21		3,28, 6,32,15	
		1,16,55,41,29,46,22, 8		5,37
12″	47,26,36,38,27,33,35,48,19,29		3,28, 6,37,52	
		1,16,55,38, 1,39,44,16		5,37
14″	47,26,37,55,23,11,37,28, 3,45		3,28, 6,43,29	
		1,16,55,34,33,33, 0,47		5,37
16″	47,26,39,12,18,46,11, 1, 4,32		3,28, 6,49, 6	
		1,16,55,31, 5,26,11,41		5,37
18″	47,26,40,29,14,17,16,27,16,13		3,28, 6,54,43	
		1,16,55,27,37,19,16,58		5,37
20″	47,26,41,46, 9,44,53,46,33,11		3,28, 7, 0,20	
		1,16,55,24, 9,12,16,38		5,37
22″	47,26,43, 3, 5, 9, 2,58,49,49		3,28, 7, 5,57	
		1,16,55,20,41, 5,10,41		5,37
24″	47,26,44,20, 0,29,44, 4, 0,30		3,28, 7,11,34	
		1,16,55,17,12,57,59, 7		5,37
26″	47,26,45,36,55,46,57, 1,59,37		3,28, 7,17,11	
		1,16,55,13,44,50,41,56		5,37
28″	47,26,46,53,51, 0,41,52,41,33		3,28, 7,22,48	
		1,16,55,10,16,43,19, 8		5,37
30″	47,26,48,10,46,10,58,36, 0,41		3,28, 7,28,25	
		1,16,55, 6,48,35,50,43		5,37
32″	47,26,49,27,41,17,47,11,51,24		3,28, 7,34, 2	
		1,16,55, 3,20,28,16,41		5,37
34″	47,26,50,44,36,21, 7,40, 8, 5		3,28, 7,39,39	
		1,16,54,59,52,20,37, 2		5,37
36″	47,26,52, 1,31,21, 0, 0,45, 7		3,28, 7,45,16	
		1,16,54,56,24,12,51,46		5,37
38″	47,26,53,18,26,17,24,13,36,53		3,28, 7,50,53	
		1,16,54,52,56, 5, 0,53		5,37
40″	47,26,54,35,21,10,20,18,37,46		3,28, 7,56,30	
		1,16,54,49,27,57, 4,23		5,37
42″	47,26,55,52,15,59,48,15,42, 9		3,28, 8, 2, 7	
		1,16,54,45,59,49, 2,16		5,37
44″	47,26,57, 9,10,45,48, 4,44,25		3,28, 8, 7,44	
		1,16,54,42,31,40,54,32		5,37
46″	47,26,58,26, 5,28,19,45,38,57		3,28, 8,13,21	
		1,16,54,39, 3,32,41,11		5,37
48″	47,26,59,43, 0, 7,23,18,20, 8		3,28, 8,18,58	
		1,16,54,35,35,24,22,13		5,37
50″	47,27, 0,59,54,42,58,42,42,21		3,28, 8,24,35	
		1,16,54,32, 7,15,57,38		5,37
52″	47,27, 2,16,49,15, 5,58,39,59		3,28, 8,30,12	
		1,16,54,28,39, 7,27,26		5,37
54″	47,27, 3,33,43,43,45, 6, 7,25		3,28, 8,35,49	
		1,16,54,25,10,58,51,37		5,37
56″	47,27, 4,50,38, 8,56, 4,59, 2		3,28, 8,41,26	
		1,16,54,21,42,50,10,11		5,37
58″	47,27, 6, 7,32,30,38,55, 9,13		3,28, 8,47, 3	
		1,16,54,18,14,41,23, 8		
60″	47,27, 7,24,26,48,53,36,32,21			
exact	47,27, 7,24,26,48,53,36, 4,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°16′ 0″	47,27, 7,24,26,48,53,36, 4,16			
		1,16,54,14,46,32,27,29		
2″	47,27, 8,41,21, 3,40, 8,31,45		3,28, 8,58,29	
		1,16,54,11,18,23,29, 0		5,37
4″	47,27, 9,58,15,14,58,32, 0,45		3,28, 9, 4, 6	
		1,16,54, 7,50,14,24,54		5,37
6″	47,27,11,15, 9,22,48,46,25,39		3,28, 9, 9,43	
		1,16,54, 4,22, 5,15,11		5,37
8″	47,27,12,32, 3,27,10,51,40,50		3,28, 9,15,20	
		1,16,54, 0,53,55,59,51		5,37
10″	47,27,13,48,57,28, 4,47,40,41		3,28, 9,20,57	
		1,16,53,57,25,46,38,54		5,37
12″	47,27,15, 5,51,25,30,34,19,35		3,28, 9,26,34	
		1,16,53,53,57,37,12,20		5,37
14″	47,27,16,22,45,19,28,11,31,55		3,28, 9,32,11	
		1,16,53,50,29,27,40, 9		5,37
16″	47,27,17,39,39, 9,57,39,12, 4		3,28, 9,37,48	
		1,16,53,47, 1,18, 2,21		5,37
18″	47,27,18,56,32,56,58,57,14,25		3,28, 9,43,25	
		1,16,53,43,33, 8,18,56		5,37
20″	47,27,20,13,26,40,32, 5,33,21		3,28, 9,49, 2	
		1,16,53,40, 4,58,29,54		5,37
22″	47,27,21,30,20,20,37, 4, 3,15		3,28, 9,54,39	
		1,16,53,36,36,48,35,15		5,37
24″	47,27,22,47,13,57,13,52,38,30		3,28,10, 0,16	
		1,16,53,33, 8,38,34,59		5,37
26″	47,27,24, 4, 7,30,22,31,13,29		3,28,10, 5,53	
		1,16,53,29,40,28,29, 6		5,37
28″	47,27,25,21, 1, 0, 2,59,42,35		3,28,10,11,30	
		1,16,53,26,12,18,17,36		5,37
30″	47,27,26,37,54,26,15,18, 0,11		3,28,10,17, 7	
		1,16,53,22,44, 8, 0,29		5,37
32″	47,27,27,54,47,48,59,26, 0,40		3,28,10,22,44	
		1,16,53,19,15,57,37,45		5,37
34″	47,27,29,11,41, 8,15,23,38,25		3,28,10,28,21	
		1,16,53,15,47,47, 9,24		5,37
36″	47,27,30,28,34,24, 3,10,47,49		3,28,10,33,58	
		1,16,53,12,19,36,35,26		5,37
38″	47,27,31,45,27,36,22,47,23,15		3,28,10,39,35	
		1,16,53, 8,51,25,55,51		5,37
40″	47,27,33, 2,20,45,14,13,19, 6		3,28,10,45,12	
		1,16,53, 5,23,15,10,39		5,37
42″	47,27,34,19,13,50,37,28,29,45		3,28,10,50,49	
		1,16,53, 1,55, 4,19,50		5,37
44″	47,27,35,36, 6,52,32,32,49,35		3,28,10,56,26	
		1,16,52,58,26,53,23,24		5,37
46″	47,27,36,52,59,50,59,26,12,59		3,28,11, 2, 3	
		1,16,52,54,58,42,21,21		5,37
48″	47,27,38, 9,52,45,58, 8,34,20		3,28,11, 7,40	
		1,16,52,51,30,31,13,41		5,37
50″	47,27,39,26,45,37,28,39,48, 1		3,28,11,13,17	
		1,16,52,48, 2,20, 0,24		5,37
52″	47,27,40,43,38,25,30,59,48,25		3,28,11,18,54	
		1,16,52,44,34, 8,41,30		5,37
54″	47,27,42, 0,31,10, 5, 8,29,55		3,28,11,24,31	
		1,16,52,41, 5,57,16,59		5,37
56″	47,27,43,17,23,51,11, 5,46,54		3,28,11,30, 8	
		1,16,52,37,37,45,46,51		5,37
58″	47,27,44,34,16,28,48,51,33,45		3,28,11,35,45	
		1,16,52,34, 9,34,11, 6		
60″	47,27,45,51, 9, 2,58,25,44,51			
exact	47,27,45,51, 9, 2,58,25,25, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°17′ 0″	47,27,45,51, 9, 2,58,25,25, 4			
		1,16,52,30,41,22,27,39		
2″	47,27,47, 8, 1,33,39,47,52,43		3,28,11,47, 7	
		1,16,52,27,13,10,40,32		5,37
4″	47,27,48,24,54, 0,52,58,33,15		3,28,11,52,44	
		1,16,52,23,44,58,47,48		5,37
6″	47,27,49,41,46,24,37,57,21, 3		3,28,11,58,21	
		1,16,52,20,16,46,49,27		5,37
8″	47,27,50,58,38,44,54,44,10,30		3,28,12, 3,58	
		1,16,52,16,48,34,45,29		5,37
10″	47,27,52,15,31, 1,43,18,55,59		3,28,12, 9,35	
		1,16,52,13,20,22,35,54		5,37
12″	47,27,53,32,23,15, 3,41,31,53		3,28,12,15,12	
		1,16,52, 9,52,10,20,42		5,37
14″	47,27,54,49,15,24,55,51,52,35		3,28,12,20,49	
		1,16,52, 6,23,57,59,53		5,37
16″	47,27,56, 6, 7,31,19,49,52,28		3,28,12,26,26	
		1,16,52, 2,55,45,33,27		5,37
18″	47,27,57,22,59,34,15,35,25,55		3,28,12,32, 3	
		1,16,51,59,27,33, 1,24		5,37
20″	47,27,58,39,51,33,43, 8,27,19		3,28,12,37,40	
		1,16,51,55,59,20,23,44		5,37
22″	47,27,59,56,43,29,42,28,51, 3		3,28,12,43,17	
		1,16,51,52,31, 7,40,27		5,37
24″	47,28, 1,13,35,22,13,36,31,30		3,28,12,48,54	
		1,16,51,49, 2,54,51,33		5,37
26″	47,28, 2,30,27,11,16,31,23, 3		3,28,12,54,31	
		1,16,51,45,34,41,57, 2		5,37
28″	47,28, 3,47,18,56,51,13,20, 5		3,28,13, 0, 8	
		1,16,51,42, 6,28,56,54		5,37
30″	47,28, 5, 4,10,38,57,42,16,59		3,28,13, 5,45	
		1,16,51,38,38,15,51, 9		5,37
32″	47,28, 6,21, 2,17,35,58, 8, 8		3,28,13,11,22	
		1,16,51,35,10, 2,39,47		5,37
34″	47,28, 7,37,53,52,46, 0,47,55		3,28,13,16,59	
		1,16,51,31,41,49,22,48		5,37
36″	47,28, 8,54,45,24,27,50,10,43		3,28,13,22,36	
		1,16,51,28,13,36, 0,12		5,37
38″	47,28,10,11,36,52,41,26,10,55		3,28,13,28,13	
		1,16,51,24,45,22,31,59		5,37
40″	47,28,11,28,28,17,26,48,42,54		3,28,13,33,50	
		1,16,51,21,17, 8,58, 9		5,37
42″	47,28,12,45,19,38,43,57,41, 3		3,28,13,39,27	
		1,16,51,17,48,55,18,42		5,37
44″	47,28,14, 2,10,56,32,52,59,45		3,28,13,45, 4	
		1,16,51,14,20,41,33,38		5,37
46″	47,28,15,19, 2,10,53,34,33,23		3,28,13,50,41	
		1,16,51,10,52,27,42,57		5,37
48″	47,28,16,35,53,21,46, 2,16,20		3,28,13,56,18	
		1,16,51, 7,24,13,46,39		5,37
50″	47,28,17,52,44,29,10,16, 2,59		3,28,14, 1,55	
		1,16,51, 3,55,59,44,44		5,37
52″	47,28,19, 9,35,33, 6,15,47,43		3,28,14, 7,32	
		1,16,51, 0,27,45,37,12		5,37
54″	47,28,20,26,26,33,34, 1,24,55		3,28,14,13, 9	
		1,16,50,56,59,31,24, 3		5,37
56″	47,28,21,43,17,30,33,32,48,58		3,28,14,18,46	
		1,16,50,53,31,17, 5,17		5,37
58″	47,28,23, 0, 8,24, 4,49,54,15		3,28,14,24,23	
		1,16,50,50, 3, 2,40,54		
60″	47,28,24,16,59,14, 7,52,35, 9			
exact	47,28,24,16,59,14, 7,52,22,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°18′ 0″	47,28,24,16,59,14, 7,52,22,39			
		1,16,50,46,34,48, 9,39		
2″	47,28,25,33,50, 0,42,40,32,18		3,28,14,35,41	
		1,16,50,43, 6,33,33,58		5,37
4″	47,28,26,50,40,43,49,14, 6,16		3,28,14,41,18	
		1,16,50,39,38,18,52,40		5,37
6″	47,28,28, 7,31,23,27,32,58,56		3,28,14,46,55	
		1,16,50,36,10, 4, 5,45		5,37
8″	47,28,29,24,21,59,37,37, 4,41		3,28,14,52,32	
		1,16,50,32,41,49,13,13		5,37
10″	47,28,30,41,12,32,19,26,17,54		3,28,14,58, 9	
		1,16,50,29,13,34,15, 4		5,37
12″	47,28,31,58, 3, 1,33, 0,32,58		3,28,15, 3,46	
		1,16,50,25,45,19,11,18		5,37
14″	47,28,33,14,53,27,18,19,44,16		3,28,15, 9,23	
		1,16,50,22,17, 4, 1,55		5,37
16″	47,28,34,31,43,49,35,23,46,11		3,28,15,15, 0	
		1,16,50,18,48,48,46,55		5,37
18″	47,28,35,48,34, 8,24,12,33, 6		3,28,15,20,37	
		1,16,50,15,20,33,26,18		5,37
20″	47,28,37, 5,24,23,44,45,59,24		3,28,15,26,14	
		1,16,50,11,52,18, 0, 4		5,37
22″	47,28,38,22,14,35,37, 3,59,28		3,28,15,31,51	
		1,16,50, 8,24, 2,28,13		5,37
24″	47,28,39,39, 4,44, 1, 6,27,41		3,28,15,37,28	
		1,16,50, 4,55,46,50,45		5,37
26″	47,28,40,55,54,48,56,53,18,26		3,28,15,43, 5	
		1,16,50, 1,27,31, 7,40		5,37
28″	47,28,42,12,44,50,24,24,26, 6		3,28,15,48,42	
		1,16,49,57,59,15,18,58		5,37
30″	47,28,43,29,34,48,23,39,45, 4		3,28,15,54,19	
		1,16,49,54,30,59,24,39		5,37
32″	47,28,44,46,24,42,54,39, 9,43		3,28,15,59,56	
		1,16,49,51, 2,43,24,43		5,37
34″	47,28,46, 3,14,33,57,22,34,26		3,28,16, 5,33	
		1,16,49,47,34,27,19,10		5,37
36″	47,28,47,20, 4,21,31,49,53,36		3,28,16,11,10	
		1,16,49,44, 6,11, 8, 0		5,37
38″	47,28,48,36,54, 5,38, 1, 1,36		3,28,16,16,47	
		1,16,49,40,37,54,51,13		5,37
40″	47,28,49,53,43,46,15,55,52,49		3,28,16,22,24	
		1,16,49,37, 9,38,28,49		5,37
42″	47,28,51,10,33,23,25,34,21,38		3,28,16,28, 1	
		1,16,49,33,41,22, 0,48		5,37
44″	47,28,52,27,22,57, 6,56,22,26		3,28,16,33,38	
		1,16,49,30,13, 5,27,10		5,37
46″	47,28,53,44,12,27,20, 1,49,36		3,28,16,39,15	
		1,16,49,26,44,48,47,55		5,37
48″	47,28,55, 1, 1,54, 4,50,37,31		3,28,16,44,52	
		1,16,49,23,16,32, 3, 3		5,37
50″	47,28,56,17,51,17,21,22,40,34		3,28,16,50,29	
		1,16,49,19,48,15,12,34		5,37
52″	47,28,57,34,40,37, 9,37,53, 8		3,28,16,56, 6	
		1,16,49,16,19,58,16,28		5,37
54″	47,28,58,51,29,53,29,36, 9,36		3,28,17, 1,43	
		1,16,49,12,51,41,14,45		5,37
56″	47,29, 0, 8,19, 6,21,17,24,21		3,28,17, 7,20	
		1,16,49, 9,23,24, 7,25		5,37
58″	47,29, 1,25, 8,15,44,41,31,46		3,28,17,12,57	
		1,16,49, 5,55, 6,54,28		
60″	47,29, 2,41,57,21,39,48,26,14			
exact	47,29, 2,41,57,21,39,48,19, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°19′ 0″	47,29, 2,41,57,21,39,48,19, 2			
		1,16,49, 2,26,49,35,21		
2″	47,29, 3,58,46,24, 6,37,54,23		3,28,17,24,12	
		1,16,48,58,58,32,11, 9		5,37
4″	47,29, 5,15,35,23, 5,10, 5,32		3,28,17,29,49	
		1,16,48,55,30,14,41,20		5,37
6″	47,29, 6,32,24,18,35,24,46,52		3,28,17,35,26	
		1,16,48,52, 1,57, 5,54		5,37
8″	47,29, 7,49,13,10,37,21,52,46		3,28,17,41, 3	
		1,16,48,48,33,39,24,51		5,37
10″	47,29, 9, 6, 1,59,11, 1,17,37		3,28,17,46,40	
		1,16,48,45, 5,21,38,11		5,37
12″	47,29,10,22,50,44,16,22,55,48		3,28,17,52,17	
		1,16,48,41,37, 3,45,54		5,37
14″	47,29,11,39,39,25,53,26,41,42		3,28,17,57,54	
		1,16,48,38, 8,45,48, 0		5,37
16″	47,29,12,56,28, 4, 2,12,29,42		3,28,18, 3,31	
		1,16,48,34,40,27,44,29		5,37
18″	47,29,14,13,16,38,42,40,14,11		3,28,18, 9, 8	
		1,16,48,31,12, 9,35,21		5,37
20″	47,29,15,30, 5, 9,54,49,49,32		3,28,18,14,45	
		1,16,48,27,43,51,20,36		5,37
22″	47,29,16,46,53,37,38,41,10, 8		3,28,18,20,22	
		1,16,48,24,15,33, 0,14		5,37
24″	47,29,18, 3,42, 1,54,14,10,22		3,28,18,25,59	
		1,16,48,20,47,14,34,15		5,37
26″	47,29,19,20,30,22,41,28,44,37		3,28,18,31,36	
		1,16,48,17,18,56, 2,39		5,37
28″	47,29,20,37,18,40, 0,24,47,16		3,28,18,37,13	
		1,16,48,13,50,37,25,26		5,37
30″	47,29,21,54, 6,53,51, 2,12,42		3,28,18,42,50	
		1,16,48,10,22,18,42,36		5,37
32″	47,29,23,10,55, 4,13,20,55,18		3,28,18,48,27	
		1,16,48, 6,53,59,54, 9		5,37
34″	47,29,24,27,43,11, 7,20,49,27		3,28,18,54, 4	
		1,16,48, 3,25,41, 0, 5		5,37
36″	47,29,25,44,31,14,33, 1,49,32		3,28,18,59,41	
		1,16,47,59,57,22, 0,24		5,37
38″	47,29,27, 1,19,14,30,23,49,56		3,28,19, 5,18	
		1,16,47,56,29, 2,55, 6		5,37
40″	47,29,28,18, 7,10,59,26,45, 2		3,28,19,10,55	
		1,16,47,53, 0,43,44,11		5,37
42″	47,29,29,34,55, 4, 0,10,29,13		3,28,19,16,32	
		1,16,47,49,32,24,27,39		5,37
44″	47,29,30,51,42,53,32,34,56,52		3,28,19,22, 9	
		1,16,47,46, 4, 5, 5,30		5,37
46″	47,29,32, 8,30,39,36,40, 2,22		3,28,19,27,46	
		1,16,47,42,35,45,37,44		5,37
48″	47,29,33,25,18,22,12,25,40, 6		3,28,19,33,23	
		1,16,47,39, 7,26, 4,21		5,37
50″	47,29,34,42, 6, 1,19,51,44,27		3,28,19,39, 0	
		1,16,47,35,39, 6,25,21		5,37
52″	47,29,35,58,53,36,58,58, 9,48		3,28,19,44,37	
		1,16,47,32,10,46,40,44		5,37
54″	47,29,37,15,41, 9, 9,44,50,32		3,28,19,50,14	
		1,16,47,28,42,26,50,30		5,37
56″	47,29,38,32,28,37,52,11,41, 2		3,28,19,55,51	
		1,16,47,25,14, 6,54,39		5,37
58″	47,29,39,49,16, 3, 6,18,35,41		3,28,20, 1,28	
		1,16,47,21,45,46,53,11		
60″	47,29,41, 6, 3,24,52, 5,28,52			
exact	47,29,41, 6, 3,24,52, 5,33,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°20′ 0″	47,29,41, 6, 3,24,52, 5,33,23			
		1,16,47,18,17,26,46,41		
2″	47,29,42,22,50,43, 9,32,20, 4		3,28,20,12,39	
		1,16,47,14,49, 6,34, 2		5,37
4″	47,29,43,39,37,57,58,38,54, 6		3,28,20,18,16	
		1,16,47,11,20,46,15,46		5,37
6″	47,29,44,56,25, 9,19,25, 9,52		3,28,20,23,53	
		1,16,47, 7,52,25,51,53		5,37
8″	47,29,46,13,12,17,11,51, 1,45		3,28,20,29,30	
		1,16,47, 4,24, 5,22,23		5,37
10″	47,29,47,29,59,21,35,56,24, 8		3,28,20,35, 7	
		1,16,47, 0,55,44,47,16		5,37
12″	47,29,48,46,46,22,31,41,11,24		3,28,20,40,44	
		1,16,46,57,27,24, 6,32		5,37
14″	47,29,50, 3,33,19,59, 5,17,56		3,28,20,46,21	
		1,16,46,53,59, 3,20,11		5,37
16″	47,29,51,20,20,13,58, 8,38, 7		3,28,20,51,58	
		1,16,46,50,30,42,28,13		5,37
18″	47,29,52,37, 7, 4,28,51, 6,20		3,28,20,57,35	
		1,16,46,47, 2,21,30,38		5,37
20″	47,29,53,53,53,51,31,12,36,58		3,28,21, 3,12	
		1,16,46,43,34, 0,27,26		5,37
22″	47,29,55,10,40,35, 5,13, 4,24		3,28,21, 8,49	
		1,16,46,40, 5,39,18,37		5,37
24″	47,29,56,27,27,15,10,52,23, 1		3,28,21,14,26	
		1,16,46,36,37,18, 4,11		5,37
26″	47,29,57,44,13,51,48,10,27,12		3,28,21,20, 3	
		1,16,46,33, 8,56,44, 8		5,37
28″	47,29,59, 1, 0,24,57, 7,11,20		3,28,21,25,40	
		1,16,46,29,40,35,18,28		5,37
30″	47,30, 0,17,46,54,37,42,29,48		3,28,21,31,17	
		1,16,46,26,12,13,47,11		5,37
32″	47,30, 1,34,33,20,49,56,16,59		3,28,21,36,54	
		1,16,46,22,43,52,10,17		5,37
34″	47,30, 2,51,19,43,33,48,27,16		3,28,21,42,31	
		1,16,46,19,15,30,27,46		5,37
36″	47,30, 4, 8, 6, 2,49,18,55, 2		3,28,21,48, 8	
		1,16,46,15,47, 8,39,38		5,37
38″	47,30, 5,24,52,18,36,27,34,40		3,28,21,53,45	
		1,16,46,12,18,46,45,53		5,37
40″	47,30, 6,41,38,30,55,14,20,33		3,28,21,59,22	
		1,16,46, 8,50,24,46,31		5,37
42″	47,30, 7,58,24,39,45,39, 7, 4		3,28,22, 4,59	
		1,16,46, 5,22, 2,41,32		5,37
44″	47,30, 9,15,10,45, 7,41,48,36		3,28,22,10,36	
		1,16,46, 1,53,40,30,56		5,37
46″	47,30,10,31,56,47, 1,22,19,32		3,28,22,16,13	
		1,16,45,58,25,18,14,43		5,37
48″	47,30,11,48,42,45,26,40,34,15		3,28,22,21,50	
		1,16,45,54,56,55,52,53		5,37
50″	47,30,13, 5,28,40,23,36,27, 8		3,28,22,27,27	
		1,16,45,51,28,33,25,26		5,37
52″	47,30,14,22,14,31,52, 9,52,34		3,28,22,33, 4	
		1,16,45,48, 0,10,52,22		5,37
54″	47,30,15,39, 0,19,52,20,44,56		3,28,22,38,41	
		1,16,45,44,31,48,13,41		5,37
56″	47,30,16,55,46, 4,24, 8,58,37		3,28,22,44,18	
		1,16,45,41, 3,25,29,23		5,37
58″	47,30,18,12,31,45,27,34,28, 0		3,28,22,49,55	
		1,16,45,37,35, 2,39,28		
60″	47,30,19,29,17,23, 2,37, 7,28			
exact	47,30,19,29,17,23, 2,37,21,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°21′ 0″	47,30,19,29,17,23, 2,37,21,55			
		1,16,45,34, 6,39,45,32		
2″	47,30,20,46, 2,57, 9,17, 7,27		3,28,23, 1, 2	
		1,16,45,30,38,16,44,30		5,37
4″	47,30,22, 2,48,27,47,33,51,57		3,28,23, 6,39	
		1,16,45,27, 9,53,37,51		5,37
6″	47,30,23,19,33,54,57,27,29,48		3,28,23,12,16	
		1,16,45,23,41,30,25,35		5,37
8″	47,30,24,36,19,18,38,57,55,23		3,28,23,17,53	
		1,16,45,20,13, 7, 7,42		5,37
10″	47,30,25,53, 4,38,52, 5, 3, 5		3,28,23,23,30	
		1,16,45,16,44,43,44,12		5,37
12″	47,30,27, 9,49,55,36,48,47,17		3,28,23,29, 7	
		1,16,45,13,16,20,15, 5		5,37
14″	47,30,28,26,35, 8,53, 9, 2,22		3,28,23,34,44	
		1,16,45, 9,47,56,40,21		5,37
16″	47,30,29,43,20,18,41, 5,42,43		3,28,23,40,21	
		1,16,45, 6,19,33, 0, 0		5,37
18″	47,30,31, 0, 5,25, 0,38,42,43		3,28,23,45,58	
		1,16,45, 2,51, 9,14, 2		5,37
20″	47,30,32,16,50,27,51,47,56,45		3,28,23,51,35	
		1,16,44,59,22,45,22,27		5,37
22″	47,30,33,33,35,27,14,33,19,12		3,28,23,57,12	
		1,16,44,55,54,21,25,15		5,37
24″	47,30,34,50,20,23, 8,54,44,27		3,28,24, 2,49	
		1,16,44,52,25,57,22,26		5,37
26″	47,30,36, 7, 5,15,34,52, 6,53		3,28,24, 8,26	
		1,16,44,48,57,33,14, 0		5,37
28″	47,30,37,23,50, 4,32,25,20,53		3,28,24,14, 3	
		1,16,44,45,29, 8,59,57		5,37
30″	47,30,38,40,34,50, 1,34,20,50		3,28,24,19,40	
		1,16,44,42, 0,44,40,17		5,37
32″	47,30,39,57,19,32, 2,19, 1, 7		3,28,24,25,17	
		1,16,44,38,32,20,15, 0		5,37
34″	47,30,41,14, 4,10,34,39,16, 7		3,28,24,30,54	
		1,16,44,35, 3,55,44, 6		5,37
36″	47,30,42,30,48,45,38,35, 0,13		3,28,24,36,31	
		1,16,44,31,35,31, 7,35		5,37
38″	47,30,43,47,33,17,14, 6, 7,48		3,28,24,42, 8	
		1,16,44,28, 7, 6,25,27		5,37
40″	47,30,45, 4,17,45,21,12,33,15		3,28,24,47,45	
		1,16,44,24,38,41,37,42		5,37
42″	47,30,46,21, 2, 9,59,54,10,57		3,28,24,53,22	
		1,16,44,21,10,16,44,20		5,37
44″	47,30,47,37,46,31,10,10,55,17		3,28,24,58,59	
		1,16,44,17,41,51,45,21		5,37
46″	47,30,48,54,30,48,52, 2,40,38		3,28,25, 4,36	
		1,16,44,14,13,26,40,45		5,37
48″	47,30,50,11,15, 3, 5,29,21,23		3,28,25,10,13	
		1,16,44,10,45, 1,30,32		5,37
50″	47,30,51,27,59,13,50,30,51,55		3,28,25,15,50	
		1,16,44, 7,16,36,14,42		5,37
52″	47,30,52,44,43,21, 7, 7, 6,37		3,28,25,21,27	
		1,16,44, 3,48,10,53,15		5,37
54″	47,30,54, 1,27,24,55,17,59,52		3,28,25,27, 4	
		1,16,44, 0,19,45,26,11		5,37
56″	47,30,55,18,11,25,15, 3,26, 3		3,28,25,32,41	
		1,16,43,56,51,19,53,30		5,37
58″	47,30,56,34,55,22, 6,23,19,33		3,28,25,38,18	
		1,16,43,53,22,54,15,12		
60″	47,30,57,51,39,15,29,17,34,45			
exact	47,30,57,51,39,15,29,17,58, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°22′ 0″	47,30,57,51,39,15,29,17,58, 0			
		1,16,43,49,54,28,33,49		
2″	47,30,59, 8,23, 5,23,46,31,49		3,28,25,49,21	
		1,16,43,46,26, 2,44,28		5,37
4″	47,31, 0,25, 6,51,49,49,16,17		3,28,25,54,58	
		1,16,43,42,57,36,49,30		5,37
6″	47,31, 1,41,50,34,47,26, 5,47		3,28,26, 0,35	
		1,16,43,39,29,10,48,55		5,37
8″	47,31, 2,58,34,14,16,36,54,42		3,28,26, 6,12	
		1,16,43,36, 0,44,42,43		5,37
10″	47,31, 4,15,17,50,17,21,37,25		3,28,26,11,49	
		1,16,43,32,32,18,30,54		5,37
12″	47,31, 5,32, 1,22,49,40, 8,19		3,28,26,17,26	
		1,16,43,29, 3,52,13,28		5,37
14″	47,31, 6,48,44,51,53,32,21,47		3,28,26,23, 3	
		1,16,43,25,35,25,50,25		5,37
16″	47,31, 8, 5,28,17,28,58,12,12		3,28,26,28,40	
		1,16,43,22, 6,59,21,45		5,37
18″	47,31, 9,22,11,39,35,57,33,57		3,28,26,34,17	
		1,16,43,18,38,32,47,28		5,37
20″	47,31,10,38,54,58,14,30,21,25		3,28,26,39,54	
		1,16,43,15,10, 6, 7,34		5,37
22″	47,31,11,55,38,13,24,36,28,59		3,28,26,45,31	
		1,16,43,11,41,39,22, 3		5,37
24″	47,31,13,12,21,25, 6,15,51, 2		3,28,26,51, 8	
		1,16,43, 8,13,12,30,55		5,37
26″	47,31,14,29, 4,33,19,28,21,57		3,28,26,56,45	
		1,16,43, 4,44,45,34,10		5,37
28″	47,31,15,45,47,38, 4,13,56, 7		3,28,27, 2,22	
		1,16,43, 1,16,18,31,48		5,37
30″	47,31,17, 2,30,39,20,32,27,55		3,28,27, 7,59	
		1,16,42,57,47,51,23,49		5,37
32″	47,31,18,19,13,37, 8,23,51,44		3,28,27,13,36	
		1,16,42,54,19,24,10,13		5,37
34″	47,31,19,35,56,31,27,48, 1,57		3,28,27,19,13	
		1,16,42,50,50,56,51, 0		5,37
36″	47,31,20,52,39,22,18,44,52,57		3,28,27,24,50	
		1,16,42,47,22,29,26,10		5,37
38″	47,31,22, 9,22, 9,41,14,19, 7		3,28,27,30,27	
		1,16,42,43,54, 1,55,43		5,37
40″	47,31,23,26, 4,53,35,16,14,50		3,28,27,36, 4	
		1,16,42,40,25,34,19,39		5,37
42″	47,31,24,42,47,34, 0,50,34,29		3,28,27,41,41	
		1,16,42,36,57, 6,37,58		5,37
44″	47,31,25,59,30,10,57,57,12,27		3,28,27,47,18	
		1,16,42,33,28,38,50,40		5,37
46″	47,31,27,16,12,44,26,36, 3, 7		3,28,27,52,55	
		1,16,42,30, 0,10,57,45		5,37
48″	47,31,28,32,55,14,26,47, 0,52		3,28,27,58,32	
		1,16,42,26,31,42,59,13		5,37
50″	47,31,29,49,37,40,58,30, 0, 5		3,28,28, 4, 9	
		1,16,42,23, 3,14,55, 4		5,37
52″	47,31,31, 6,20, 4, 1,44,55, 9		3,28,28, 9,46	
		1,16,42,19,34,46,45,18		5,37
54″	47,31,32,23, 2,23,36,31,40,27		3,28,28,15,23	
		1,16,42,16, 6,18,29,55		5,37
56″	47,31,33,39,44,39,42,50,10,22		3,28,28,21, 0	
		1,16,42,12,37,50, 8,55		5,37
58″	47,31,34,56,26,52,20,40,19,17		3,28,28,26,37	
		1,16,42, 9, 9,21,42,18		
60″	47,31,36,13, 9, 1,30, 2, 1,35			
exact	47,31,36,13, 9, 1,30, 2,32, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°23′ 0″	47,31,36,13, 9, 1,30, 2,32, 6			
		1,16,42, 5,40,53,13,26		
2″	47,31,37,29,51, 7,10,55,45,32		3,28,28,37,36	
		1,16,42, 2,12,24,35,50		5,36
4″	47,31,38,46,33, 9,23,20,21,22		3,28,28,43,12	
		1,16,41,58,43,55,52,38		5,36
6″	47,31,40, 3,15, 8, 7,16,14, 0		3,28,28,48,48	
		1,16,41,55,15,27, 3,50		5,36
8″	47,31,41,19,57, 3,22,43,17,50		3,28,28,54,24	
		1,16,41,51,46,58, 9,26		5,36
10″	47,31,42,36,38,55, 9,41,27,16		3,28,29, 0, 0	
		1,16,41,48,18,29, 9,26		5,36
12″	47,31,43,53,20,43,28,10,36,42		3,28,29, 5,36	
		1,16,41,44,50, 0, 3,50		5,36
14″	47,31,45,10, 2,28,18,10,40,32		3,28,29,11,12	
		1,16,41,41,21,30,52,38		5,36
16″	47,31,46,26,44, 9,39,41,33,10		3,28,29,16,48	
		1,16,41,37,53, 1,35,50		5,36
18″	47,31,47,43,25,47,32,43, 9, 0		3,28,29,22,24	
		1,16,41,34,24,32,13,26		5,36
20″	47,31,49, 0, 7,21,57,15,22,26		3,28,29,28, 0	
		1,16,41,30,56, 2,45,26		5,36
22″	47,31,50,16,48,52,53,18, 7,52		3,28,29,33,36	
		1,16,41,27,27,33,11,50		5,36
24″	47,31,51,33,30,20,20,51,19,42		3,28,29,39,12	
		1,16,41,23,59, 3,32,38		5,36
26″	47,31,52,50,11,44,19,54,52,20		3,28,29,44,48	
		1,16,41,20,30,33,47,50		5,36
28″	47,31,54, 6,53, 4,50,28,40,10		3,28,29,50,24	
		1,16,41,17, 2, 3,57,26		5,36
30″	47,31,55,23,34,21,52,32,37,36		3,28,29,56, 0	
		1,16,41,13,33,34, 1,26		5,36
32″	47,31,56,40,15,35,26, 6,39, 2		3,28,30, 1,36	
		1,16,41,10, 5, 3,59,50		5,36
34″	47,31,57,56,56,45,31,10,38,52		3,28,30, 7,12	
		1,16,41, 6,36,33,52,38		5,36
36″	47,31,59,13,37,52, 7,44,31,30		3,28,30,12,48	
		1,16,41, 3, 8, 3,39,50		5,36
38″	47,32, 0,30,18,55,15,48,11,20		3,28,30,18,24	
		1,16,40,59,39,33,21,26		5,36
40″	47,32, 1,46,59,54,55,21,32,46		3,28,30,24, 0	
		1,16,40,56,11, 2,57,26		5,36
42″	47,32, 3, 3,40,51, 6,24,30,12		3,28,30,29,36	
		1,16,40,52,42,32,27,50		5,36
44″	47,32, 4,20,21,43,48,56,58, 2		3,28,30,35,12	
		1,16,40,49,14, 1,52,38		5,36
46″	47,32, 5,37, 2,33, 2,58,50,40		3,28,30,40,48	
		1,16,40,45,45,31,11,50		5,36
48″	47,32, 6,53,43,18,48,30, 2,30		3,28,30,46,24	
		1,16,40,42,17, 0,25,26		5,36
50″	47,32, 8,10,24, 1, 5,30,27,56		3,28,30,52, 0	
		1,16,40,38,48,29,33,26		5,36
52″	47,32, 9,27, 4,39,54, 0, 1,22		3,28,30,57,36	
		1,16,40,35,19,58,35,50		5,36
54″	47,32,10,43,45,15,13,58,37,12		3,28,31, 3,12	
		1,16,40,31,51,27,32,38		5,36
56″	47,32,12, 0,25,47, 5,26, 9,50		3,28,31, 8,48	
		1,16,40,28,22,56,23,50		5,36
58″	47,32,13,17, 6,15,28,22,33,40		3,28,31,14,24	
		1,16,40,24,54,25, 9,26		
60″	47,32,14,33,46,40,22,47,43, 6			
exact	47,32,14,33,46,40,22,47,11,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°24′ 0″	47,32,14,33,46,40,22,47,11,52			
		1,16,40,21,25,53,46,17		
2″	47,32,15,50,27, 1,48,40,58, 9		3,28,31,25,48	
		1,16,40,17,57,22,20,29		5,36
4″	47,32,17, 7, 7,19,46, 3,18,38		3,28,31,31,24	
		1,16,40,14,28,50,49, 5		5,36
6″	47,32,18,23,47,34,14,54, 7,43		3,28,31,37, 0	
		1,16,40,11, 0,19,12, 5		5,36
8″	47,32,19,40,27,45,15,13,19,48		3,28,31,42,36	
		1,16,40, 7,31,47,29,29		5,36
10″	47,32,20,57, 7,52,47, 0,49,17		3,28,31,48,12	
		1,16,40, 4, 3,15,41,17		5,36
12″	47,32,22,13,47,56,50,16,30,34		3,28,31,53,48	
		1,16,40, 0,34,43,47,29		5,36
14″	47,32,23,30,27,57,25, 0,18, 3		3,28,31,59,24	
		1,16,39,57, 6,11,48, 5		5,36
16″	47,32,24,47, 7,54,31,12, 6, 8		3,28,32, 5, 0	
		1,16,39,53,37,39,43, 5		5,36
18″	47,32,26, 3,47,48, 8,51,49,13		3,28,32,10,36	
		1,16,39,50, 9, 7,32,29		5,36
20″	47,32,27,20,27,38,17,59,21,42		3,28,32,16,12	
		1,16,39,46,40,35,16,17		5,36
22″	47,32,28,37, 7,24,58,34,37,59		3,28,32,21,48	
		1,16,39,43,12, 2,54,29		5,36
24″	47,32,29,53,47, 8,10,37,32,28		3,28,32,27,24	
		1,16,39,39,43,30,27, 5		5,36
26″	47,32,31,10,26,47,54, 7,59,33		3,28,32,33, 0	
		1,16,39,36,14,57,54, 5		5,36
28″	47,32,32,27, 6,24, 9, 5,53,38		3,28,32,38,36	
		1,16,39,32,46,25,15,29		5,36
30″	47,32,33,43,45,56,55,31, 9, 7		3,28,32,44,12	
		1,16,39,29,17,52,31,17		5,36
32″	47,32,35, 0,25,26,13,23,40,24		3,28,32,49,48	
		1,16,39,25,49,19,41,29		5,36
34″	47,32,36,17, 4,52, 2,43,21,53		3,28,32,55,24	
		1,16,39,22,20,46,46, 5		5,36
36″	47,32,37,33,44,14,23,30, 7,58		3,28,33, 1, 0	
		1,16,39,18,52,13,45, 5		5,36
38″	47,32,38,50,23,33,15,43,53, 3		3,28,33, 6,36	
		1,16,39,15,23,40,38,29		5,36
40″	47,32,40, 7, 2,48,39,24,31,32		3,28,33,12,12	
		1,16,39,11,55, 7,26,17		5,36
42″	47,32,41,23,42, 0,34,31,57,49		3,28,33,17,48	
		1,16,39, 8,26,34, 8,29		5,36
44″	47,32,42,40,21, 9, 1, 6, 6,18		3,28,33,23,24	
		1,16,39, 4,58, 0,45, 5		5,36
46″	47,32,43,57, 0,13,59, 6,51,23		3,28,33,29, 0	
		1,16,39, 1,29,27,16, 5		5,36
48″	47,32,45,13,39,15,28,34, 7,28		3,28,33,34,36	
		1,16,38,58, 0,53,41,29		5,36
50″	47,32,46,30,18,13,29,27,48,57		3,28,33,40,12	
		1,16,38,54,32,20, 1,17		5,36
52″	47,32,47,46,57, 8, 1,47,50,14		3,28,33,45,48	
		1,16,38,51, 3,46,15,29		5,36
54″	47,32,49, 3,35,59, 5,34, 5,43		3,28,33,51,24	
		1,16,38,47,35,12,24, 5		5,36
56″	47,32,50,20,14,46,40,46,29,48		3,28,33,57, 0	
		1,16,38,44, 6,38,27, 5		5,36
58″	47,32,51,36,53,30,47,24,56,53		3,28,34, 2,36	
		1,16,38,40,38, 4,24,29		
60″	47,32,52,53,32,11,25,29,21,22			
exact	47,32,52,53,32,11,25,29, 2, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°25′ 0″	47,32,52,53,32,11,25,29, 2, 4			
		1,16,38,37, 9,30,14,17		
2″	47,32,54,10,10,48,34,59,16,21		3,28,34,13,56	
		1,16,38,33,40,56, 0,21		5,36
4″	47,32,55,26,49,22,15,55,16,42		3,28,34,19,32	
		1,16,38,30,12,21,40,49		5,36
6″	47,32,56,43,27,52,28,16,57,31		3,28,34,25, 8	
		1,16,38,26,43,47,15,41		5,36
8″	47,32,58, 0, 6,19,12, 4,13,12		3,28,34,30,44	
		1,16,38,23,15,12,44,57		5,36
10″	47,32,59,16,44,42,27,16,58, 9		3,28,34,36,20	
		1,16,38,19,46,38, 8,37		5,36
12″	47,33, 0,33,23, 2,13,55, 6,46		3,28,34,41,56	
		1,16,38,16,18, 3,26,41		5,36
14″	47,33, 1,50, 1,18,31,58,33,27		3,28,34,47,32	
		1,16,38,12,49,28,39, 9		5,36
16″	47,33, 3, 6,39,31,21,27,12,36		3,28,34,53, 8	
		1,16,38, 9,20,53,46, 1		5,36
18″	47,33, 4,23,17,40,42,20,58,37		3,28,34,58,44	
		1,16,38, 5,52,18,47,17		5,36
20″	47,33, 5,39,55,46,34,39,45,54		3,28,35, 4,20	
		1,16,38, 2,23,43,42,57		5,36
22″	47,33, 6,56,33,48,58,23,28,51		3,28,35, 9,56	
		1,16,37,58,55, 8,33, 1		5,36
24″	47,33, 8,13,11,47,53,32, 1,52		3,28,35,15,32	
		1,16,37,55,26,33,17,29		5,36
26″	47,33, 9,29,49,43,20, 5,19,21		3,28,35,21, 8	
		1,16,37,51,57,57,56,21		5,36
28″	47,33,10,46,27,35,18, 3,15,42		3,28,35,26,44	
		1,16,37,48,29,22,29,37		5,36
30″	47,33,12, 3, 5,23,47,25,45,19		3,28,35,32,20	
		1,16,37,45, 0,46,57,17		5,36
32″	47,33,13,19,43, 8,48,12,42,36		3,28,35,37,56	
		1,16,37,41,32,11,19,21		5,36
34″	47,33,14,36,20,50,20,24, 1,57		3,28,35,43,32	
		1,16,37,38, 3,35,35,49		5,36
36″	47,33,15,52,58,28,23,59,37,46		3,28,35,49, 8	
		1,16,37,34,34,59,46,41		5,36
38″	47,33,17, 9,36, 2,58,59,24,27		3,28,35,54,44	
		1,16,37,31, 6,23,51,57		5,36
40″	47,33,18,26,13,34, 5,23,16,24		3,28,36, 0,20	
		1,16,37,27,37,47,51,37		5,36
42″	47,33,19,42,51, 1,43,11, 8, 1		3,28,36, 5,56	
		1,16,37,24, 9,11,45,41		5,36
44″	47,33,20,59,28,25,52,22,53,42		3,28,36,11,32	
		1,16,37,20,40,35,34, 9		5,36
46″	47,33,22,16, 5,46,32,58,27,51		3,28,36,17, 8	
		1,16,37,17,11,59,17, 1		5,36
48″	47,33,23,32,43, 3,44,57,44,52		3,28,36,22,44	
		1,16,37,13,43,22,54,17		5,36
50″	47,33,24,49,20,17,28,20,39, 9		3,28,36,28,20	
		1,16,37,10,14,46,25,57		5,36
52″	47,33,26, 5,57,27,43, 7, 5, 6		3,28,36,33,56	
		1,16,37, 6,46, 9,52, 1		5,36
54″	47,33,27,22,34,34,29,16,57, 7		3,28,36,39,32	
		1,16,37, 3,17,33,12,29		5,36
56″	47,33,28,39,11,37,46,50, 9,36		3,28,36,45, 8	
		1,16,36,59,48,56,27,21		5,36
58″	47,33,29,55,48,37,35,46,36,57		3,28,36,50,44	
		1,16,36,56,20,19,36,37		
60″	47,33,31,12,25,33,56, 6,13,34			
exact	47,33,31,12,25,33,56, 6, 4,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°26′ 0″	47,33,31,12,25,33,56, 6, 4,40			
		1,16,36,52,51,42,39,20		
2″	47,33,32,29, 2,26,47,48,44, 0		3,28,37, 2, 0	
		1,16,36,49,23, 5,37,20		5,36
4″	47,33,33,45,39,16,10,54,21,20		3,28,37, 7,36	
		1,16,36,45,54,28,29,44		5,36
6″	47,33,35, 2,16, 2, 5,22,51, 4		3,28,37,13,12	
		1,16,36,42,25,51,16,32		5,36
8″	47,33,36,18,52,44,31,14, 7,36		3,28,37,18,48	
		1,16,36,38,57,13,57,44		5,36
10″	47,33,37,35,29,23,28,28, 5,20		3,28,37,24,24	
		1,16,36,35,28,36,33,20		5,36
12″	47,33,38,52, 5,58,57, 4,38,40		3,28,37,30, 0	
		1,16,36,31,59,59, 3,20		5,36
14″	47,33,40, 8,42,30,57, 3,42, 0		3,28,37,35,36	
		1,16,36,28,31,21,27,44		5,36
16″	47,33,41,25,18,59,28,25, 9,44		3,28,37,41,12	
		1,16,36,25, 2,43,46,32		5,36
18″	47,33,42,41,55,24,31, 8,56,16		3,28,37,46,48	
		1,16,36,21,34, 5,59,44		5,36
20″	47,33,43,58,31,46, 5,14,56, 0		3,28,37,52,24	
		1,16,36,18, 5,28, 7,20		5,36
22″	47,33,45,15, 8, 4,10,43, 3,20		3,28,37,58, 0	
		1,16,36,14,36,50, 9,20		5,36
24″	47,33,46,31,44,18,47,33,12,40		3,28,38, 3,36	
		1,16,36,11, 8,12, 5,44		5,36
26″	47,33,47,48,20,29,55,45,18,24		3,28,38, 9,12	
		1,16,36, 7,39,33,56,32		5,36
28″	47,33,49, 4,56,37,35,19,14,56		3,28,38,14,48	
		1,16,36, 4,10,55,41,44		5,36
30″	47,33,50,21,32,41,46,14,56,40		3,28,38,20,24	
		1,16,36, 0,42,17,21,20		5,36
32″	47,33,51,38, 8,42,28,32,18, 0		3,28,38,26, 0	
		1,16,35,57,13,38,55,20		5,36
34″	47,33,52,54,44,39,42,11,13,20		3,28,38,31,36	
		1,16,35,53,45, 0,23,44		5,36
36″	47,33,54,11,20,33,27,11,37, 4		3,28,38,37,12	
		1,16,35,50,16,21,46,32		5,36
38″	47,33,55,27,56,23,43,33,23,36		3,28,38,42,48	
		1,16,35,46,47,43, 3,44		5,36
40″	47,33,56,44,32,10,31,16,27,20		3,28,38,48,24	
		1,16,35,43,19, 4,15,20		5,36
42″	47,33,58, 1, 7,53,50,20,42,40		3,28,38,54, 0	
		1,16,35,39,50,25,21,20		5,36
44″	47,33,59,17,43,33,40,46, 4, 0		3,28,38,59,36	
		1,16,35,36,21,46,21,44		5,36
46″	47,34, 0,34,19,10, 2,32,25,44		3,28,39, 5,12	
		1,16,35,32,53, 7,16,32		5,36
48″	47,34, 1,50,54,42,55,39,42,16		3,28,39,10,48	
		1,16,35,29,24,28, 5,44		5,36
50″	47,34, 3, 7,30,12,20, 7,48, 0		3,28,39,16,24	
		1,16,35,25,55,48,49,20		5,36
52″	47,34, 4,24, 5,38,15,56,37,20		3,28,39,22, 0	
		1,16,35,22,27, 9,27,20		5,36
54″	47,34, 5,40,41, 0,43, 6, 4,40		3,28,39,27,36	
		1,16,35,18,58,29,59,44		5,36
56″	47,34, 6,57,16,19,41,36, 4,24		3,28,39,33,12	
		1,16,35,15,29,50,26,32		5,36
58″	47,34, 8,13,51,35,11,26,30,56		3,28,39,38,48	
		1,16,35,12, 1,10,47,44		
60″	47,34, 9,30,26,47,12,37,18,40			
exact	47,34, 9,30,26,47,12,37,18,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°27′ 0″	47,34, 9,30,26,47,12,37,18,46			
		1,16,35, 8,32,31, 3,20		
2″	47,34,10,47, 1,55,45, 8,22, 6		3,28,39,50, 0	
		1,16,35, 5, 3,51,13,20		5,36
4″	47,34,12, 3,37, 0,48,59,35,26		3,28,39,55,36	
		1,16,35, 1,35,11,17,44		5,36
6″	47,34,13,20,12, 2,24,10,53,10		3,28,40, 1,12	
		1,16,34,58, 6,31,16,32		5,36
8″	47,34,14,36,47, 0,30,42, 9,42		3,28,40, 6,48	
		1,16,34,54,37,51, 9,44		5,36
10″	47,34,15,53,21,55, 8,33,19,26		3,28,40,12,24	
		1,16,34,51, 9,10,57,20		5,36
12″	47,34,17, 9,56,46,17,44,16,46		3,28,40,18, 0	
		1,16,34,47,40,30,39,20		5,36
14″	47,34,18,26,31,33,58,14,56, 6		3,28,40,23,36	
		1,16,34,44,11,50,15,44		5,36
16″	47,34,19,43, 6,18,10, 5,11,50		3,28,40,29,12	
		1,16,34,40,43, 9,46,32		5,36
18″	47,34,20,59,40,58,53,14,58,22		3,28,40,34,48	
		1,16,34,37,14,29,11,44		5,36
20″	47,34,22,16,15,36, 7,44,10, 6		3,28,40,40,24	
		1,16,34,33,45,48,31,20		5,36
22″	47,34,23,32,50, 9,53,32,41,26		3,28,40,46, 0	
		1,16,34,30,17, 7,45,20		5,36
24″	47,34,24,49,24,40,10,40,26,46		3,28,40,51,36	
		1,16,34,26,48,26,53,44		5,36
26″	47,34,26, 5,59, 6,59, 7,20,30		3,28,40,57,12	
		1,16,34,23,19,45,56,32		5,36
28″	47,34,27,22,33,30,18,53,17, 2		3,28,41, 2,48	
		1,16,34,19,51, 4,53,44		5,36
30″	47,34,28,39, 7,50, 9,58,10,46		3,28,41, 8,24	
		1,16,34,16,22,23,45,20		5,36
32″	47,34,29,55,42, 6,32,21,56, 6		3,28,41,14, 0	
		1,16,34,12,53,42,31,20		5,36
34″	47,34,31,12,16,19,26, 4,27,26		3,28,41,19,36	
		1,16,34, 9,25, 1,11,44		5,36
36″	47,34,32,28,50,28,51, 5,39,10		3,28,41,25,12	
		1,16,34, 5,56,19,46,32		5,36
38″	47,34,33,45,24,34,47,25,25,42		3,28,41,30,48	
		1,16,34, 2,27,38,15,44		5,36
40″	47,34,35, 1,58,37,15, 3,41,26		3,28,41,36,24	
		1,16,33,58,58,56,39,20		5,36
42″	47,34,36,18,32,36,14, 0,20,46		3,28,41,42, 0	
		1,16,33,55,30,14,57,20		5,36
44″	47,34,37,35, 6,31,44,15,18, 6		3,28,41,47,36	
		1,16,33,52, 1,33, 9,44		5,36
46″	47,34,38,51,40,23,45,48,27,50		3,28,41,53,12	
		1,16,33,48,32,51,16,32		5,36
48″	47,34,40, 8,14,12,18,39,44,22		3,28,41,58,48	
		1,16,33,45, 4, 9,17,44		5,36
50″	47,34,41,24,47,57,22,49, 2, 6		3,28,42, 4,24	
		1,16,33,41,35,27,13,20		5,36
52″	47,34,42,41,21,38,58,16,15,26		3,28,42,10, 0	
		1,16,33,38, 6,45, 3,20		5,36
54″	47,34,43,57,55,17, 5, 1,18,46		3,28,42,15,36	
		1,16,33,34,38, 2,47,44		5,36
56″	47,34,45,14,28,51,43, 4, 6,30		3,28,42,21,12	
		1,16,33,31, 9,20,26,32		5,36
58″	47,34,46,31, 2,22,52,24,33, 2		3,28,42,26,48	
		1,16,33,27,40,37,59,44		
60″	47,34,47,47,35,50,33, 2,32,46			
exact	47,34,47,47,35,50,33, 2,40,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°28′ 0″	47,34,47,47,35,50,33, 2,40,43			
		1,16,33,24,11,55,28,12		
2″	47,34,49, 4, 9,14,44,58, 8,55		3,28,42,37,56	
		1,16,33,20,43,12,50,16		5,36
4″	47,34,50,20,42,35,28,10,59,11		3,28,42,43,32	
		1,16,33,17,14,30, 6,44		5,36
6″	47,34,51,37,15,52,42,41, 5,55		3,28,42,49, 8	
		1,16,33,13,45,47,17,36		5,36
8″	47,34,52,53,49, 6,28,28,23,31		3,28,42,54,44	
		1,16,33,10,17, 4,22,52		5,36
10″	47,34,54,10,22,16,45,32,46,23		3,28,43, 0,20	
		1,16,33, 6,48,21,22,32		5,36
12″	47,34,55,26,55,23,33,54, 8,55		3,28,43, 5,56	
		1,16,33, 3,19,38,16,36		5,36
14″	47,34,56,43,28,26,53,32,25,31		3,28,43,11,32	
		1,16,32,59,50,55, 5, 4		5,36
16″	47,34,58, 0, 1,26,44,27,30,35		3,28,43,17, 8	
		1,16,32,56,22,11,47,56		5,36
18″	47,34,59,16,34,23, 6,39,18,31		3,28,43,22,44	
		1,16,32,52,53,28,25,12		5,36
20″	47,35, 0,33, 7,16, 0, 7,43,43		3,28,43,28,20	
		1,16,32,49,24,44,56,52		5,36
22″	47,35, 1,49,40, 5,24,52,40,35		3,28,43,33,56	
		1,16,32,45,56, 1,22,56		5,36
24″	47,35, 3, 6,12,51,20,54, 3,31		3,28,43,39,32	
		1,16,32,42,27,17,43,24		5,36
26″	47,35, 4,22,45,33,48,11,46,55		3,28,43,45, 8	
		1,16,32,38,58,33,58,16		5,36
28″	47,35, 5,39,18,12,46,45,45,11		3,28,43,50,44	
		1,16,32,35,29,50, 7,32		5,36
30″	47,35, 6,55,50,48,16,35,52,43		3,28,43,56,20	
		1,16,32,32, 1, 6,11,12		5,36
32″	47,35, 8,12,23,20,17,42, 3,55		3,28,44, 1,56	
		1,16,32,28,32,22, 9,16		5,36
34″	47,35, 9,28,55,48,50, 4,13,11		3,28,44, 7,32	
		1,16,32,25, 3,38, 1,44		5,36
36″	47,35,10,45,28,13,53,42,14,55		3,28,44,13, 8	
		1,16,32,21,34,53,48,36		5,36
38″	47,35,12, 2, 0,35,28,36, 3,31		3,28,44,18,44	
		1,16,32,18, 6, 9,29,52		5,36
40″	47,35,13,18,32,53,34,45,33,23		3,28,44,24,20	
		1,16,32,14,37,25, 5,32		5,36
42″	47,35,14,35, 5, 8,12,10,38,55		3,28,44,29,56	
		1,16,32,11, 8,40,35,36		5,36
44″	47,35,15,51,37,19,20,51,14,31		3,28,44,35,32	
		1,16,32, 7,39,56, 0, 4		5,36
46″	47,35,17, 8, 9,27, 0,47,14,35		3,28,44,41, 8	
		1,16,32, 4,11,11,18,56		5,36
48″	47,35,18,24,41,31,11,58,33,31		3,28,44,46,44	
		1,16,32, 0,42,26,32,12		5,36
50″	47,35,19,41,13,31,54,25, 5,43		3,28,44,52,20	
		1,16,31,57,13,41,39,52		5,36
52″	47,35,20,57,45,29, 8, 6,45,35		3,28,44,57,56	
		1,16,31,53,44,56,41,56		5,36
54″	47,35,22,14,17,22,53, 3,27,31		3,28,45, 3,32	
		1,16,31,50,16,11,38,24		5,36
56″	47,35,23,30,49,13, 9,15, 5,55		3,28,45, 9, 8	
		1,16,31,46,47,26,29,16		5,36
58″	47,35,24,47,20,59,56,41,35,11		3,28,45,14,44	
		1,16,31,43,18,41,14,32		
60″	47,35,26, 3,52,43,15,22,49,43			
exact	47,35,26, 3,52,43,15,23, 4, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°29′ 0″	47,35,26, 3,52,43,15,23, 4, 2			
		1,16,31,39,49,55,55,50		
2″	47,35,27,20,24,23, 5,18,59,52		3,28,45,25,49	
		1,16,31,36,21,10,30, 1		5,36
4″	47,35,28,36,55,59,26,29,29,53		3,28,45,31,25	
		1,16,31,32,52,24,58,36		5,36
6″	47,35,29,53,27,32,18,54,28,29		3,28,45,37, 1	
		1,16,31,29,23,39,21,35		5,36
8″	47,35,31, 9,59, 1,42,33,50, 4		3,28,45,42,37	
		1,16,31,25,54,53,38,58		5,36
10″	47,35,32,26,30,27,37,27,29, 2		3,28,45,48,13	
		1,16,31,22,26, 7,50,45		5,36
12″	47,35,33,43, 1,50, 3,35,19,47		3,28,45,53,49	
		1,16,31,18,57,21,56,56		5,36
14″	47,35,34,59,33, 9, 0,57,16,43		3,28,45,59,25	
		1,16,31,15,28,35,57,31		5,36
16″	47,35,36,16, 4,24,29,33,14,14		3,28,46, 5, 1	
		1,16,31,11,59,49,52,30		5,36
18″	47,35,37,32,35,36,29,23, 6,44		3,28,46,10,37	
		1,16,31, 8,31, 3,41,53		5,36
20″	47,35,38,49, 6,45, 0,26,48,37		3,28,46,16,13	
		1,16,31, 5, 2,17,25,40		5,36
22″	47,35,40, 5,37,50, 2,44,14,17		3,28,46,21,49	
		1,16,31, 1,33,31, 3,51		5,36
24″	47,35,41,22, 8,51,36,15,18, 8		3,28,46,27,25	
		1,16,30,58, 4,44,36,26		5,36
26″	47,35,42,38,39,49,40,59,54,34		3,28,46,33, 1	
		1,16,30,54,35,58, 3,25		5,36
28″	47,35,43,55,10,44,16,57,57,59		3,28,46,38,37	
		1,16,30,51, 7,11,24,48		5,36
30″	47,35,45,11,41,35,24, 9,22,47		3,28,46,44,13	
		1,16,30,47,38,24,40,35		5,36
32″	47,35,46,28,12,23, 2,34, 3,22		3,28,46,49,49	
		1,16,30,44, 9,37,50,46		5,36
34″	47,35,47,44,43, 7,12,11,54, 8		3,28,46,55,25	
		1,16,30,40,40,50,55,21		5,36
36″	47,35,49, 1,13,47,53, 2,49,29		3,28,47, 1, 1	
		1,16,30,37,12, 3,54,20		5,36
38″	47,35,50,17,44,25, 5, 6,43,49		3,28,47, 6,37	
		1,16,30,33,43,16,47,43		5,36
40″	47,35,51,34,14,58,48,23,31,32		3,28,47,12,13	
		1,16,30,30,14,29,35,30		5,36
42″	47,35,52,50,45,29, 2,53, 7, 2		3,28,47,17,49	
		1,16,30,26,45,42,17,41		5,36
44″	47,35,54, 7,15,55,48,35,24,43		3,28,47,23,25	
		1,16,30,23,16,54,54,16		5,36
46″	47,35,55,23,46,19, 5,30,18,59		3,28,47,29, 1	
		1,16,30,19,48, 7,25,15		5,36
48″	47,35,56,40,16,38,53,37,44,14		3,28,47,34,37	
		1,16,30,16,19,19,50,38		5,36
50″	47,35,57,56,46,55,12,57,34,52		3,28,47,40,13	
		1,16,30,12,50,32,10,25		5,36
52″	47,35,59,13,17, 8, 3,29,45,17		3,28,47,45,49	
		1,16,30, 9,21,44,24,36		5,36
54″	47,36, 0,29,47,17,25,14, 9,53		3,28,47,51,25	
		1,16,30, 5,52,56,33,11		5,36
56″	47,36, 1,46,17,23,18,10,43, 4		3,28,47,57, 1	
		1,16,30, 2,24, 8,36,10		5,36
58″	47,36, 3, 2,47,25,42,19,19,14		3,28,48, 2,37	
		1,16,29,58,55,20,33,33		
60″	47,36, 4,19,17,24,37,39,52,47			
exact	47,36, 4,19,17,24,37,40,19,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°30′ 0″	47,36, 4,19,17,24,37,40,19,27			
		1,16,29,55,26,32,28, 9		
2″	47,36, 5,35,47,20, 4,12,47,36		3,28,48,13,37	
		1,16,29,51,57,44,14,32		5,36
4″	47,36, 6,52,17,12, 1,57, 2, 8		3,28,48,19,13	
		1,16,29,48,28,55,55,19		5,36
6″	47,36, 8, 8,47, 0,30,52,57,27		3,28,48,24,49	
		1,16,29,45, 0, 7,30,30		5,36
8″	47,36, 9,25,16,45,31, 0,27,57		3,28,48,30,25	
		1,16,29,41,31,19, 0, 5		5,36
10″	47,36,10,41,46,27, 2,19,28, 2		3,28,48,36, 1	
		1,16,29,38, 2,30,24, 4		5,36
12″	47,36,11,58,16, 5, 4,49,52, 6		3,28,48,41,37	
		1,16,29,34,33,41,42,27		5,36
14″	47,36,13,14,45,39,38,31,34,33		3,28,48,47,13	
		1,16,29,31, 4,52,55,14		5,36
16″	47,36,14,31,15,10,43,24,29,47		3,28,48,52,49	
		1,16,29,27,36, 4, 2,25		5,36
18″	47,36,15,47,44,38,19,28,32,12		3,28,48,58,25	
		1,16,29,24, 7,15, 4, 0		5,36
20″	47,36,17, 4,14, 2,26,43,36,12		3,28,49, 4, 1	
		1,16,29,20,38,25,59,59		5,36
22″	47,36,18,20,43,23, 5, 9,36,11		3,28,49, 9,37	
		1,16,29,17, 9,36,50,22		5,36
24″	47,36,19,37,12,40,14,46,26,33		3,28,49,15,13	
		1,16,29,13,40,47,35, 9		5,36
26″	47,36,20,53,41,53,55,34, 1,42		3,28,49,20,49	
		1,16,29,10,11,58,14,20		5,36
28″	47,36,22,10,11, 4, 7,32,16, 2		3,28,49,26,25	
		1,16,29, 6,43, 8,47,55		5,36
30″	47,36,23,26,40,10,50,41, 3,57		3,28,49,32, 1	
		1,16,29, 3,14,19,15,54		5,36
32″	47,36,24,43, 9,14, 5, 0,19,51		3,28,49,37,37	
		1,16,28,59,45,29,38,17		5,36
34″	47,36,25,59,38,13,50,29,58, 8		3,28,49,43,13	
		1,16,28,56,16,39,55, 4		5,36
36″	47,36,27,16, 7,10, 7, 9,53,12		3,28,49,48,49	
		1,16,28,52,47,50, 6,15		5,36
38″	47,36,28,32,36, 2,54,59,59,27		3,28,49,54,25	
		1,16,28,49,19, 0,11,50		5,36
40″	47,36,29,49, 4,52,14, 0,11,17		3,28,50, 0, 1	
		1,16,28,45,50,10,11,49		5,36
42″	47,36,31, 5,33,38, 4,10,23, 6		3,28,50, 5,37	
		1,16,28,42,21,20, 6,12		5,36
44″	47,36,32,22, 2,20,25,30,29,18		3,28,50,11,13	
		1,16,28,38,52,29,54,59		5,36
46″	47,36,33,38,30,59,18, 0,24,17		3,28,50,16,49	
		1,16,28,35,23,39,38,10		5,36
48″	47,36,34,54,59,34,41,40, 2,27		3,28,50,22,25	
		1,16,28,31,54,49,15,45		5,36
50″	47,36,36,11,28, 6,36,29,18,12		3,28,50,28, 1	
		1,16,28,28,25,58,47,44		5,36
52″	47,36,37,27,56,35, 2,28, 5,56		3,28,50,33,37	
		1,16,28,24,57, 8,14, 7		5,36
54″	47,36,38,44,24,59,59,36,20, 3		3,28,50,39,13	
		1,16,28,21,28,17,34,54		5,36
56″	47,36,40, 0,53,21,27,53,54,57		3,28,50,44,49	
		1,16,28,17,59,26,50, 5		5,36
58″	47,36,41,17,21,39,27,20,45, 2		3,28,50,50,25	
		1,16,28,14,30,35,59,40		
60″	47,36,42,33,49,53,57,56,44,42			
exact	47,36,42,33,49,53,57,57,14,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°31′ 0″	47,36,42,33,49,53,57,57,14,58			
		1,16,28,11, 1,45, 7, 3		
2″	47,36,43,50,18, 4,59,42,22, 1		3,28,51, 1,22	
		1,16,28, 7,32,54, 5,41		5,35
4″	47,36,45, 6,46,12,32,36,27,42		3,28,51, 6,57	
		1,16,28, 4, 4, 2,58,44		5,35
6″	47,36,46,23,14,16,36,39,26,26		3,28,51,12,32	
		1,16,28, 0,35,11,46,12		5,35
8″	47,36,47,39,42,17,11,51,12,38		3,28,51,18, 7	
		1,16,27,57, 6,20,28, 5		5,35
10″	47,36,48,56,10,14,18,11,40,43		3,28,51,23,42	
		1,16,27,53,37,29, 4,23		5,35
12″	47,36,50,12,38, 7,55,40,45, 6		3,28,51,29,17	
		1,16,27,50, 8,37,35, 6		5,35
14″	47,36,51,29, 5,58, 4,18,20,12		3,28,51,34,52	
		1,16,27,46,39,46, 0,14		5,35
16″	47,36,52,45,33,44,44, 4,20,26		3,28,51,40,27	
		1,16,27,43,10,54,19,47		5,35
18″	47,36,54, 2, 1,27,54,58,40,13		3,28,51,46, 2	
		1,16,27,39,42, 2,33,45		5,35
20″	47,36,55,18,29, 7,37, 1,13,58		3,28,51,51,37	
		1,16,27,36,13,10,42, 8		5,35
22″	47,36,56,34,56,43,50,11,56, 6		3,28,51,57,12	
		1,16,27,32,44,18,44,56		5,35
24″	47,36,57,51,24,16,34,30,41, 2		3,28,52, 2,47	
		1,16,27,29,15,26,42, 9		5,35
26″	47,36,59, 7,51,45,49,57,23,11		3,28,52, 8,22	
		1,16,27,25,46,34,33,47		5,35
28″	47,37, 0,24,19,11,36,31,56,58		3,28,52,13,57	
		1,16,27,22,17,42,19,50		5,35
30″	47,37, 1,40,46,33,54,14,16,48		3,28,52,19,32	
		1,16,27,18,48,50, 0,18		5,35
32″	47,37, 2,57,13,52,43, 4,17, 6		3,28,52,25, 7	
		1,16,27,15,19,57,35,11		5,35
34″	47,37, 4,13,41, 8, 3, 1,52,17		3,28,52,30,42	
		1,16,27,11,51, 5, 4,29		5,35
36″	47,37, 5,30, 8,19,54, 6,56,46		3,28,52,36,17	
		1,16,27, 8,22,12,28,12		5,35
38″	47,37, 6,46,35,28,16,19,24,58		3,28,52,41,52	
		1,16,27, 4,53,19,46,20		5,35
40″	47,37, 8, 3, 2,33, 9,39,11,18		3,28,52,47,27	
		1,16,27, 1,24,26,58,53		5,35
42″	47,37, 9,19,29,34,34, 6,10,11		3,28,52,53, 2	
		1,16,26,57,55,34, 5,51		5,35
44″	47,37,10,35,56,32,29,40,16, 2		3,28,52,58,37	
		1,16,26,54,26,41, 7,14		5,35
46″	47,37,11,52,23,26,56,21,23,16		3,28,53, 4,12	
		1,16,26,50,57,48, 3, 2		5,35
48″	47,37,13, 8,50,17,54, 9,26,18		3,28,53, 9,47	
		1,16,26,47,28,54,53,15		5,35
50″	47,37,14,25,17, 5,23, 4,19,33		3,28,53,15,22	
		1,16,26,44, 0, 1,37,53		5,35
52″	47,37,15,41,43,49,23, 5,57,26		3,28,53,20,57	
		1,16,26,40,31, 8,16,56		5,35
54″	47,37,16,58,10,29,54,14,14,22		3,28,53,26,32	
		1,16,26,37, 2,14,50,24		5,35
56″	47,37,18,14,37, 6,56,29, 4,46		3,28,53,32, 7	
		1,16,26,33,33,21,18,17		5,35
58″	47,37,19,31, 3,40,29,50,23, 3		3,28,53,37,42	
		1,16,26,30, 4,27,40,35		
60″	47,37,20,47,30,10,34,18, 3,38			
exact	47,37,20,47,30,10,34,17,35,48			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
52°32′	0″	47,37,20,47,30,10,34,17,35,48	1,16,26,26,35,33,54,26		
	2″	47,37,22, 3,56,37, 9,51,30,14	1,16,26,23, 6,40, 5,23	3,28,53,49, 3	
	4″	47,37,23,20,23, 0,16,31,35,37	1,16,26,19,37,46,10,45	3,28,53,54,38	5,35
	6″	47,37,24,36,49,19,54,17,46,22	1,16,26,16, 8,52,10,32	3,28,54, 0,13	5,35
	8″	47,37,25,53,15,36, 3, 9,56,54	1,16,26,12,39,58, 4,44	3,28,54, 5,48	5,35
	10″	47,37,27, 9,41,48,43, 8, 1,38	1,16,26, 9,11, 3,53,21	3,28,54,11,23	5,35
	12″	47,37,28,26, 7,57,54,11,54,59	1,16,26, 5,42, 9,36,23	3,28,54,16,58	5,35
	14″	47,37,29,42,34, 3,36,21,31,22	1,16,26, 2,13,15,13,50	3,28,54,22,33	5,35
	16″	47,37,30,59, 0, 5,49,36,45,12	1,16,25,58,44,20,45,42	3,28,54,28, 8	5,35
	18″	47,37,32,15,26, 4,33,57,30,54	1,16,25,55,15,26,11,59	3,28,54,33,43	5,35
	20″	47,37,33,31,51,59,49,23,42,53	1,16,25,51,46,31,32,41	3,28,54,39,18	5,35
	22″	47,37,34,48,17,51,35,55,15,34	1,16,25,48,17,36,47,48	3,28,54,44,53	5,35
	24″	47,37,36, 4,43,39,53,32, 3,22	1,16,25,44,48,41,57,20	3,28,54,50,28	5,35
	26″	47,37,37,21, 9,24,42,14, 0,42	1,16,25,41,19,47, 1,17	3,28,54,56, 3	5,35
	28″	47,37,38,37,35, 6, 2, 1, 1,59	1,16,25,37,50,51,59,39	3,28,55, 1,38	5,35
	30″	47,37,39,54, 0,43,52,53, 1,38	1,16,25,34,21,56,52,26	3,28,55, 7,13	5,35
	32″	47,37,41,10,26,18,14,49,54, 4	1,16,25,30,53, 1,39,38	3,28,55,12,48	5,35
	34″	47,37,42,26,51,49, 7,51,33,42	1,16,25,27,24, 6,21,15	3,28,55,18,23	5,35
	36″	47,37,43,43,17,16,31,57,54,57	1,16,25,23,55,10,57,17	3,28,55,23,58	5,35
	38″	47,37,44,59,42,40,27, 8,52,14	1,16,25,20,26,15,27,44	3,28,55,29,33	5,35
	40″	47,37,46,16, 8, 0,53,24,19,58	1,16,25,16,57,19,52,36	3,28,55,35, 8	5,35
	42″	47,37,47,32,33,17,50,44,12,34	1,16,25,13,28,24,11,53	3,28,55,40,43	5,35
	44″	47,37,48,48,58,31,19, 8,24,27	1,16,25, 9,59,28,25,35	3,28,55,46,18	5,35
	46″	47,37,50, 5,23,41,18,36,50, 2	1,16,25, 6,30,32,33,42	3,28,55,51,53	5,35
	48″	47,37,51,21,48,47,49, 9,23,44	1,16,25, 3, 1,36,36,14	3,28,55,57,28	5,35
	50″	47,37,52,38,13,50,50,45,59,58	1,16,24,59,32,40,33,11	3,28,56, 3, 3	5,35
	52″	47,37,53,54,38,50,23,26,33, 9	1,16,24,56, 3,44,24,33	3,28,56, 8,38	5,35
	54″	47,37,55,11, 3,46,27,10,57,42	1,16,24,52,34,48,10,20	3,28,56,14,13	5,35
	56″	47,37,56,27,28,39, 1,59, 8, 2	1,16,24,49, 5,51,50,32	3,28,56,19,48	5,35
	58″	47,37,57,43,53,28, 7,50,58,34	1,16,24,45,36,55,25, 9	3,28,56,25,23	
	60″	47,37,59, 0,18,13,44,46,23,43			
exact		47,37,59, 0,18,13,44,46, 4,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°33′ 0″	47,37,59, 0,18,13,44,46, 4,26			
		1,16,24,42, 7,58,52,14		
2″	47,38, 0,16,42,55,52,44,56,40		3,28,56,36,40	
		1,16,24,38,39, 2,15,34		5,35
4″	47,38, 1,33, 7,34,31,47,12,14		3,28,56,42,15	
		1,16,24,35,10, 5,33,19		5,35
6″	47,38, 2,49,32, 9,41,52,45,33		3,28,56,47,50	
		1,16,24,31,41, 8,45,29		5,35
8″	47,38, 4, 5,56,41,23, 1,31, 2		3,28,56,53,25	
		1,16,24,28,12,11,52, 4		5,35
10″	47,38, 5,22,21, 9,35,13,23, 6		3,28,56,59, 0	
		1,16,24,24,43,14,53, 4		5,35
12″	47,38, 6,38,45,34,18,28,16,10		3,28,57, 4,35	
		1,16,24,21,14,17,48,29		5,35
14″	47,38, 7,55, 9,55,32,46, 4,39		3,28,57,10,10	
		1,16,24,17,45,20,38,19		5,35
16″	47,38, 9,11,34,13,18, 6,42,58		3,28,57,15,45	
		1,16,24,14,16,23,22,34		5,35
18″	47,38,10,27,58,27,34,30, 5,32		3,28,57,21,20	
		1,16,24,10,47,26, 1,14		5,35
20″	47,38,11,44,22,38,21,56, 6,46		3,28,57,26,55	
		1,16,24, 7,18,28,34,19		5,35
22″	47,38,13, 0,46,45,40,24,41, 5		3,28,57,32,30	
		1,16,24, 3,49,31, 1,49		5,35
24″	47,38,14,17,10,49,29,55,42,54		3,28,57,38, 5	
		1,16,24, 0,20,33,23,44		5,35
26″	47,38,15,33,34,49,50,29, 6,38		3,28,57,43,40	
		1,16,23,56,51,35,40, 4		5,35
28″	47,38,16,49,58,46,42, 4,46,42		3,28,57,49,15	
		1,16,23,53,22,37,50,49		5,35
30″	47,38,18, 6,22,40, 4,42,37,31		3,28,57,54,50	
		1,16,23,49,53,39,55,59		5,35
32″	47,38,19,22,46,29,58,22,33,30		3,28,58, 0,25	
		1,16,23,46,24,41,55,34		5,35
34″	47,38,20,39,10,16,23, 4,29, 4		3,28,58, 6, 0	
		1,16,23,42,55,43,49,34		5,35
36″	47,38,21,55,33,59,18,48,18,38		3,28,58,11,35	
		1,16,23,39,26,45,37,59		5,35
38″	47,38,23,11,57,38,45,33,56,37		3,28,58,17,10	
		1,16,23,35,57,47,20,49		5,35
40″	47,38,24,28,21,14,43,21,17,26		3,28,58,22,45	
		1,16,23,32,28,48,58, 4		5,35
42″	47,38,25,44,44,47,12,10,15,30		3,28,58,28,20	
		1,16,23,28,59,50,29,44		5,35
44″	47,38,27, 1, 8,16,12, 0,45,14		3,28,58,33,55	
		1,16,23,25,30,51,55,49		5,35
46″	47,38,28,17,31,41,42,52,41, 3		3,28,58,39,30	
		1,16,23,22, 1,53,16,19		5,35
48″	47,38,29,33,55, 3,44,45,57,22		3,28,58,45, 5	
		1,16,23,18,32,54,31,14		5,35
50″	47,38,30,50,18,22,17,40,28,36		3,28,58,50,40	
		1,16,23,15, 3,55,40,34		5,35
52″	47,38,32, 6,41,37,21,36, 9,10		3,28,58,56,15	
		1,16,23,11,34,56,44,19		5,35
54″	47,38,33,23, 4,48,56,32,53,29		3,28,59, 1,50	
		1,16,23, 8, 5,57,42,29		5,35
56″	47,38,34,39,27,57, 2,30,35,58		3,28,59, 7,25	
		1,16,23, 4,36,58,35, 4		5,35
58″	47,38,35,55,51, 1,39,29,11, 2		3,28,59,13, 0	
		1,16,23, 1, 7,59,22, 4		
60″	47,38,37,12,14, 2,47,28,33, 6			
exact	47,38,37,12,14, 2,47,28,20,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°34′ 0″	47,38,37,12,14, 2,47,28,20,36			
		1,16,22,57,39, 0, 2,20		
2″	47,38,38,28,37, 0,26,28,22,56		3,28,59,24,14	
		1,16,22,54,10, 0,38, 6		5,35
4″	47,38,39,44,59,54,36,29, 1, 2		3,28,59,29,49	
		1,16,22,50,41, 1, 8,17		5,35
6″	47,38,41, 1,22,45,17,30, 9,19		3,28,59,35,24	
		1,16,22,47,12, 1,32,53		5,35
8″	47,38,42,17,45,32,29,31,42,12		3,28,59,40,59	
		1,16,22,43,43, 1,51,54		5,35
10″	47,38,43,34, 8,16,12,33,34, 6		3,28,59,46,34	
		1,16,22,40,14, 2, 5,20		5,35
12″	47,38,44,50,30,56,26,35,39,26		3,28,59,52, 9	
		1,16,22,36,45, 2,13,11		5,35
14″	47,38,46, 6,53,33,11,37,52,37		3,28,59,57,44	
		1,16,22,33,16, 2,15,27		5,35
16″	47,38,47,23,16, 6,27,40, 8, 4		3,29, 0, 3,19	
		1,16,22,29,47, 2,12, 8		5,35
18″	47,38,48,39,38,36,14,42,20,12		3,29, 0, 8,54	
		1,16,22,26,18, 2, 3,14		5,35
20″	47,38,49,56, 1, 2,32,44,23,26		3,29, 0,14,29	
		1,16,22,22,49, 1,48,45		5,35
22″	47,38,51,12,23,25,21,46,12,11		3,29, 0,20, 4	
		1,16,22,19,20, 1,28,41		5,35
24″	47,38,52,28,45,44,41,47,40,52		3,29, 0,25,39	
		1,16,22,15,51, 1, 3, 2		5,35
26″	47,38,53,45, 8, 0,32,48,43,54		3,29, 0,31,14	
		1,16,22,12,22, 0,31,48		5,35
28″	47,38,55, 1,30,12,54,49,15,42		3,29, 0,36,49	
		1,16,22, 8,52,59,54,59		5,35
30″	47,38,56,17,52,21,47,49,10,41		3,29, 0,42,24	
		1,16,22, 5,23,59,12,35		5,35
32″	47,38,57,34,14,27,11,48,23,16		3,29, 0,47,59	
		1,16,22, 1,54,58,24,36		5,35
34″	47,38,58,50,36,29, 6,46,47,52		3,29, 0,53,34	
		1,16,21,58,25,57,31, 2		5,35
36″	47,39, 0, 6,58,27,32,44,18,54		3,29, 0,59, 9	
		1,16,21,54,56,56,31,53		5,35
38″	47,39, 1,23,20,22,29,40,50,47		3,29, 1, 4,44	
		1,16,21,51,27,55,27, 9		5,35
40″	47,39, 2,39,42,13,57,36,17,56		3,29, 1,10,19	
		1,16,21,47,58,54,16,50		5,35
42″	47,39, 3,56, 4, 1,56,30,34,46		3,29, 1,15,54	
		1,16,21,44,29,53, 0,56		5,35
44″	47,39, 5,12,25,46,26,23,35,42		3,29, 1,21,29	
		1,16,21,41, 0,51,39,27		5,35
46″	47,39, 6,28,47,27,27,15,15, 9		3,29, 1,27, 4	
		1,16,21,37,31,50,12,23		5,35
48″	47,39, 7,45, 9, 4,59, 5,27,32		3,29, 1,32,39	
		1,16,21,34, 2,48,39,44		5,35
50″	47,39, 9, 1,30,39, 1,54, 7,16		3,29, 1,38,14	
		1,16,21,30,33,47, 1,30		5,35
52″	47,39,10,17,52, 9,35,41, 8,46		3,29, 1,43,49	
		1,16,21,27, 4,45,17,41		5,35
54″	47,39,11,34,13,36,40,26,26,27		3,29, 1,49,24	
		1,16,21,23,35,43,28,17		5,35
56″	47,39,12,50,35, 0,16, 9,54,44		3,29, 1,54,59	
		1,16,21,20, 6,41,33,18		5,35
58″	47,39,14, 6,56,20,22,51,28, 2		3,29, 2, 0,34	
		1,16,21,16,37,39,32,44		
60″	47,39,15,23,17,37, 0,31, 0,46			
exact	47,39,15,23,17,37, 0,31, 1,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°35′ 0″	47,39,15,23,17,37, 0,31, 1,21			
		1,16,21,13, 8,37,26,39		
2″	47,39,16,39,38,50, 9, 8,28, 0		3,29, 2,11,43	
		1,16,21, 9,39,35,14,56		5,35
4″	47,39,17,55,59,59,48,43,42,56		3,29, 2,17,18	
		1,16,21, 6,10,32,57,38		5,35
6″	47,39,19,12,21, 5,59,16,40,34		3,29, 2,22,53	
		1,16,21, 2,41,30,34,45		5,35
8″	47,39,20,28,42, 8,40,47,15,19		3,29, 2,28,28	
		1,16,20,59,12,28, 6,17		5,35
10″	47,39,21,45, 3, 7,53,15,21,36		3,29, 2,34, 3	
		1,16,20,55,43,25,32,14		5,35
12″	47,39,23, 1,24, 3,36,40,53,50		3,29, 2,39,38	
		1,16,20,52,14,22,52,36		5,35
14″	47,39,24,17,44,55,51, 3,46,26		3,29, 2,45,13	
		1,16,20,48,45,20, 7,23		5,35
16″	47,39,25,34, 5,44,36,23,53,49		3,29, 2,50,48	
		1,16,20,45,16,17,16,35		5,35
18″	47,39,26,50,26,29,52,41,10,24		3,29, 2,56,23	
		1,16,20,41,47,14,20,12		5,35
20″	47,39,28, 6,47,11,39,55,30,36		3,29, 3, 1,58	
		1,16,20,38,18,11,18,14		5,35
22″	47,39,29,23, 7,49,58, 6,48,50		3,29, 3, 7,33	
		1,16,20,34,49, 8,10,41		5,35
24″	47,39,30,39,28,24,47,14,59,31		3,29, 3,13, 8	
		1,16,20,31,20, 4,57,33		5,35
26″	47,39,31,55,48,56, 7,19,57, 4		3,29, 3,18,43	
		1,16,20,27,51, 1,38,50		5,35
28″	47,39,33,12, 9,23,58,21,35,54		3,29, 3,24,18	
		1,16,20,24,21,58,14,32		5,35
30″	47,39,34,28,29,48,20,19,50,26		3,29, 3,29,53	
		1,16,20,20,52,54,44,39		5,35
32″	47,39,35,44,50, 9,13,14,35, 5		3,29, 3,35,28	
		1,16,20,17,23,51, 9,11		5,35
34″	47,39,37, 1,10,26,37, 5,44,16		3,29, 3,41, 3	
		1,16,20,13,54,47,28, 8		5,35
36″	47,39,38,17,30,40,31,53,12,24		3,29, 3,46,38	
		1,16,20,10,25,43,41,30		5,35
38″	47,39,39,33,50,50,57,36,53,54		3,29, 3,52,13	
		1,16,20, 6,56,39,49,17		5,35
40″	47,39,40,50,10,57,54,16,43,11		3,29, 3,57,48	
		1,16,20, 3,27,35,51,29		5,35
42″	47,39,42, 6,31, 1,21,52,34,40		3,29, 4, 3,23	
		1,16,19,59,58,31,48, 6		5,35
44″	47,39,43,22,51, 1,20,24,22,46		3,29, 4, 8,58	
		1,16,19,56,29,27,39, 8		5,35
46″	47,39,44,39,10,57,49,52, 1,54		3,29, 4,14,33	
		1,16,19,53, 0,23,24,35		5,35
48″	47,39,45,55,30,50,50,15,26,29		3,29, 4,20, 8	
		1,16,19,49,31,19, 4,27		5,35
50″	47,39,47,11,50,40,21,34,30,56		3,29, 4,25,43	
		1,16,19,46, 2,14,38,44		5,35
52″	47,39,48,28,10,26,23,49, 9,40		3,29, 4,31,18	
		1,16,19,42,33,10, 7,26		5,35
54″	47,39,49,44,30, 8,56,59,17, 6		3,29, 4,36,53	
		1,16,19,39, 4, 5,30,33		5,35
56″	47,39,51, 0,49,48, 1, 4,47,39		3,29, 4,42,28	
		1,16,19,35,35, 0,48, 5		5,35
58″	47,39,52,17, 9,23,36, 5,35,44		3,29, 4,48, 3	
		1,16,19,32, 5,56, 0, 2		
60″	47,39,53,33,28,55,42, 1,35,46			
exact	47,39,53,33,28,55,42, 1,41, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°36′ 0″	47,39,53,33,28,55,42, 1,41, 1			
		1,16,19,28,36,51, 7, 7		
2″	47,39,54,49,48,24,18,52,48, 8		3,29, 4,59, 9	
		1,16,19,25, 7,46, 7,58		5,35
4″	47,39,56, 6, 7,49,26,38,56, 6		3,29, 5, 4,44	
		1,16,19,21,38,41, 3,14		5,35
6″	47,39,57,22,27,11, 5,19,59,20		3,29, 5,10,19	
		1,16,19,18, 9,35,52,55		5,35
8″	47,39,58,38,46,29,14,55,52,15		3,29, 5,15,54	
		1,16,19,14,40,30,37, 1		5,35
10″	47,39,59,55, 5,43,55,26,29,16		3,29, 5,21,29	
		1,16,19,11,11,25,15,32		5,35
12″	47,40, 1,11,24,55, 6,51,44,48		3,29, 5,27, 4	
		1,16,19, 7,42,19,48,28		5,35
14″	47,40, 2,27,44, 2,49,11,33,16		3,29, 5,32,39	
		1,16,19, 4,13,14,15,49		5,35
16″	47,40, 3,44, 3, 7, 2,25,49, 5		3,29, 5,38,14	
		1,16,19, 0,44, 8,37,35		5,35
18″	47,40, 5, 0,22, 7,46,34,26,40		3,29, 5,43,49	
		1,16,18,57,15, 2,53,46		5,35
20″	47,40, 6,16,41, 5, 1,37,20,26		3,29, 5,49,24	
		1,16,18,53,45,57, 4,22		5,35
22″	47,40, 7,32,59,58,47,34,24,48		3,29, 5,54,59	
		1,16,18,50,16,51, 9,23		5,35
24″	47,40, 8,49,18,49, 4,25,34,11		3,29, 6, 0,34	
		1,16,18,46,47,45, 8,49		5,35
26″	47,40,10, 5,37,35,52,10,43, 0		3,29, 6, 6, 9	
		1,16,18,43,18,39, 2,40		5,35
28″	47,40,11,21,56,19,10,49,45,40		3,29, 6,11,44	
		1,16,18,39,49,32,50,56		5,35
30″	47,40,12,38,14,59, 0,22,36,36		3,29, 6,17,19	
		1,16,18,36,20,26,33,37		5,35
32″	47,40,13,54,33,35,20,49,10,13		3,29, 6,22,54	
		1,16,18,32,51,20,10,43		5,35
34″	47,40,15,10,52, 8,12, 9,20,56		3,29, 6,28,29	
		1,16,18,29,22,13,42,14		5,35
36″	47,40,16,27,10,37,34,23, 3,10		3,29, 6,34, 4	
		1,16,18,25,53, 7, 8,10		5,35
38″	47,40,17,43,29, 3,27,30,11,20		3,29, 6,39,39	
		1,16,18,22,24, 0,28,31		5,35
40″	47,40,18,59,47,25,51,30,39,51		3,29, 6,45,14	
		1,16,18,18,54,53,43,17		5,35
42″	47,40,20,16, 5,44,46,24,23, 8		3,29, 6,50,49	
		1,16,18,15,25,46,52,28		5,35
44″	47,40,21,32,24, 0,12,11,15,36		3,29, 6,56,24	
		1,16,18,11,56,39,56, 4		5,35
46″	47,40,22,48,42,12, 8,51,11,40		3,29, 7, 1,59	
		1,16,18, 8,27,32,54, 5		5,35
48″	47,40,24, 5, 0,20,36,24, 5,45		3,29, 7, 7,34	
		1,16,18, 4,58,25,46,31		5,35
50″	47,40,25,21,18,25,34,49,52,16		3,29, 7,13, 9	
		1,16,18, 1,29,18,33,22		5,35
52″	47,40,26,37,36,27, 4, 8,25,38		3,29, 7,18,44	
		1,16,17,58, 0,11,14,38		5,35
54″	47,40,27,53,54,25, 4,19,40,16		3,29, 7,24,19	
		1,16,17,54,31, 3,50,19		5,35
56″	47,40,29,10,12,19,35,23,30,35		3,29, 7,29,54	
		1,16,17,51, 1,56,20,25		5,35
58″	47,40,30,26,30,10,37,19,51, 0		3,29, 7,35,29	
		1,16,17,47,32,48,44,56		
60″	47,40,31,42,47,58,10, 8,35,56			
exact	47,40,31,42,47,58,10, 8,51,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°37′ 0″	47,40,31,42,47,58,10, 8,51,13			
		1,16,17,44, 3,41, 5,37		
2″	47,40,32,59, 5,42,13,49,56,50		3,29, 7,46,31	
		1,16,17,40,34,33,19, 6		5,35
4″	47,40,34,15,23,22,48,23,15,56		3,29, 7,52, 6	
		1,16,17,37, 5,25,27, 0		5,35
6″	47,40,35,31,40,59,53,48,42,56		3,29, 7,57,41	
		1,16,17,33,36,17,29,19		5,35
8″	47,40,36,47,58,33,30, 6,12,15		3,29, 8, 3,16	
		1,16,17,30, 7, 9,26, 3		5,35
10″	47,40,38, 4,16, 3,37,15,38,18		3,29, 8, 8,51	
		1,16,17,26,38, 1,17,12		5,35
12″	47,40,39,20,33,30,15,16,55,30		3,29, 8,14,26	
		1,16,17,23, 8,53, 2,46		5,35
14″	47,40,40,36,50,53,24, 9,58,16		3,29, 8,20, 1	
		1,16,17,19,39,44,42,45		5,35
16″	47,40,41,53, 8,13, 3,54,41, 1		3,29, 8,25,36	
		1,16,17,16,10,36,17, 9		5,35
18″	47,40,43, 9,25,29,14,30,58,10		3,29, 8,31,11	
		1,16,17,12,41,27,45,58		5,35
20″	47,40,44,25,42,41,55,58,44, 8		3,29, 8,36,46	
		1,16,17, 9,12,19, 9,12		5,35
22″	47,40,45,41,59,51, 8,17,53,20		3,29, 8,42,21	
		1,16,17, 5,43,10,26,51		5,35
24″	47,40,46,58,16,56,51,28,20,11		3,29, 8,47,56	
		1,16,17, 2,14, 1,38,55		5,35
26″	47,40,48,14,33,59, 5,29,59, 6		3,29, 8,53,31	
		1,16,16,58,44,52,45,24		5,35
28″	47,40,49,30,50,57,50,22,44,30		3,29, 8,59, 6	
		1,16,16,55,15,43,46,18		5,35
30″	47,40,50,47, 7,53, 6, 6,30,48		3,29, 9, 4,41	
		1,16,16,51,46,34,41,37		5,35
32″	47,40,52, 3,24,44,52,41,12,25		3,29, 9,10,16	
		1,16,16,48,17,25,31,21		5,35
34″	47,40,53,19,41,33,10, 6,43,46		3,29, 9,15,51	
		1,16,16,44,48,16,15,30		5,35
36″	47,40,54,35,58,17,58,22,59,16		3,29, 9,21,26	
		1,16,16,41,19, 6,54, 4		5,35
38″	47,40,55,52,14,59,17,29,53,20		3,29, 9,27, 1	
		1,16,16,37,49,57,27, 3		5,35
40″	47,40,57, 8,31,37, 7,27,20,23		3,29, 9,32,36	
		1,16,16,34,20,47,54,27		5,35
42″	47,40,58,24,48,11,28,15,14,50		3,29, 9,38,11	
		1,16,16,30,51,38,16,16		5,35
44″	47,40,59,41, 4,42,19,53,31, 6		3,29, 9,43,46	
		1,16,16,27,22,28,32,30		5,35
46″	47,41, 0,57,21, 9,42,22, 3,36		3,29, 9,49,21	
		1,16,16,23,53,18,43, 9		5,35
48″	47,41, 2,13,37,33,35,40,46,45		3,29, 9,54,56	
		1,16,16,20,24, 8,48,13		5,35
50″	47,41, 3,29,53,53,59,49,34,58		3,29,10, 0,31	
		1,16,16,16,54,58,47,42		5,35
52″	47,41, 4,46,10,10,54,48,22,40		3,29,10, 6, 6	
		1,16,16,13,25,48,41,36		5,35
54″	47,41, 6, 2,26,24,20,37, 4,16		3,29,10,11,41	
		1,16,16, 9,56,38,29,55		5,35
56″	47,41, 7,18,42,34,17,15,34,11		3,29,10,17,16	
		1,16,16, 6,27,28,12,39		5,35
58″	47,41, 8,34,58,40,44,43,46,50		3,29,10,22,51	
		1,16,16, 2,58,17,49,48		
60″	47,41, 9,51,14,43,43, 1,36,38			
exact	47,41, 9,51,14,43,43, 2, 0,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°38′ 0″	47,41, 9,51,14,43,43, 2, 0,55			
		1,16,15,59,29, 7,24, 4		
2″	47,41,11, 7,30,43,12, 9,24,59		3,29,10,33,49	
		1,16,15,55,59,56,50,15		5,35
4″	47,41,12,23,46,39,12, 6,15,14		3,29,10,39,24	
		1,16,15,52,30,46,10,51		5,35
6″	47,41,13,40, 2,31,42,52,26, 5		3,29,10,44,59	
		1,16,15,49, 1,35,25,52		5,35
8″	47,41,14,56,18,20,44,27,51,57		3,29,10,50,34	
		1,16,15,45,32,24,35,18		5,35
10″	47,41,16,12,34, 6,16,52,27,15		3,29,10,56, 9	
		1,16,15,42, 3,13,39, 9		5,35
12″	47,41,17,28,49,48,20, 6, 6,24		3,29,11, 1,44	
		1,16,15,38,34, 2,37,25		5,35
14″	47,41,18,45, 5,26,54, 8,43,49		3,29,11, 7,19	
		1,16,15,35, 4,51,30, 6		5,35
16″	47,41,20, 1,21, 1,59, 0,13,55		3,29,11,12,54	
		1,16,15,31,35,40,17,12		5,35
18″	47,41,21,17,36,33,34,40,31, 7		3,29,11,18,29	
		1,16,15,28, 6,28,58,43		5,35
20″	47,41,22,33,52, 1,41, 9,29,50		3,29,11,24, 4	
		1,16,15,24,37,17,34,39		5,35
22″	47,41,23,50, 7,26,18,27, 4,29		3,29,11,29,39	
		1,16,15,21, 8, 6, 5, 0		5,35
24″	47,41,25, 6,22,47,26,33, 9,29		3,29,11,35,14	
		1,16,15,17,38,54,29,46		5,35
26″	47,41,26,22,38, 5, 5,27,39,15		3,29,11,40,49	
		1,16,15,14, 9,42,48,57		5,35
28″	47,41,27,38,53,19,15,10,28,12		3,29,11,46,24	
		1,16,15,10,40,31, 2,33		5,35
30″	47,41,28,55, 8,29,55,41,30,45		3,29,11,51,59	
		1,16,15, 7,11,19,10,34		5,35
32″	47,41,30,11,23,37, 7, 0,41,19		3,29,11,57,34	
		1,16,15, 3,42, 7,13, 0		5,35
34″	47,41,31,27,38,40,49, 7,54,19		3,29,12, 3, 9	
		1,16,15, 0,12,55, 9,51		5,35
36″	47,41,32,43,53,41, 2, 3, 4,10		3,29,12, 8,44	
		1,16,14,56,43,43, 1, 7		5,35
38″	47,41,34, 0, 8,37,45,46, 5,17		3,29,12,14,19	
		1,16,14,53,14,30,46,48		5,35
40″	47,41,35,16,23,31, 0,16,52, 5		3,29,12,19,54	
		1,16,14,49,45,18,26,54		5,35
42″	47,41,36,32,38,20,45,35,18,59		3,29,12,25,29	
		1,16,14,46,16, 6, 1,25		5,35
44″	47,41,37,48,53, 7, 1,41,20,24		3,29,12,31, 4	
		1,16,14,42,46,53,30,21		5,35
46″	47,41,39, 5, 7,49,48,34,50,45		3,29,12,36,39	
		1,16,14,39,17,40,53,42		5,35
48″	47,41,40,21,22,29, 6,15,44,27		3,29,12,42,14	
		1,16,14,35,48,28,11,28		5,35
50″	47,41,41,37,37, 4,54,43,55,55		3,29,12,47,49	
		1,16,14,32,19,15,23,39		5,35
52″	47,41,42,53,51,37,13,59,19,34		3,29,12,53,24	
		1,16,14,28,50, 2,30,15		5,35
54″	47,41,44,10, 6, 6, 4, 1,49,49		3,29,12,58,59	
		1,16,14,25,20,49,31,16		5,35
56″	47,41,45,26,20,31,24,51,21, 5		3,29,13, 4,34	
		1,16,14,21,51,36,26,42		5,35
58″	47,41,46,42,34,53,16,27,47,47		3,29,13,10, 9	
		1,16,14,18,22,23,16,33		
60″	47,41,47,58,49,11,38,51, 4,20			
exact	47,41,47,58,49,11,38,51,36,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°39′ 0″	47,41,47,58,49,11,38,51,36,24			
		1,16,14,14,53,10, 4,23		
2″	47,41,49,15, 3,26,32, 1,40,47		3,29,13,21, 3	
		1,16,14,11,23,56,43,20		5,34
4″	47,41,50,31,17,37,55,58,24, 7		3,29,13,26,37	
		1,16,14, 7,54,43,16,43		5,34
6″	47,41,51,47,31,45,50,41,40,50		3,29,13,32,11	
		1,16,14, 4,25,29,44,32		5,34
8″	47,41,53, 3,45,50,16,11,25,22		3,29,13,37,45	
		1,16,14, 0,56,16, 6,47		5,34
10″	47,41,54,19,59,51,12,27,32, 9		3,29,13,43,19	
		1,16,13,57,27, 2,23,28		5,34
12″	47,41,55,36,13,48,39,29,55,37		3,29,13,48,53	
		1,16,13,53,57,48,34,35		5,34
14″	47,41,56,52,27,42,37,18,30,12		3,29,13,54,27	
		1,16,13,50,28,34,40, 8		5,34
16″	47,41,58, 8,41,33, 5,53,10,20		3,29,14, 0, 1	
		1,16,13,46,59,20,40, 7		5,34
18″	47,41,59,24,55,20, 5,13,50,27		3,29,14, 5,35	
		1,16,13,43,30, 6,34,32		5,34
20″	47,42, 0,41, 9, 3,35,20,24,59		3,29,14,11, 9	
		1,16,13,40, 0,52,23,23		5,34
22″	47,42, 1,57,22,43,36,12,48,22		3,29,14,16,43	
		1,16,13,36,31,38, 6,40		5,34
24″	47,42, 3,13,36,20, 7,50,55, 2		3,29,14,22,17	
		1,16,13,33, 2,23,44,23		5,34
26″	47,42, 4,29,49,53,10,14,39,25		3,29,14,27,51	
		1,16,13,29,33, 9,16,32		5,34
28″	47,42, 5,46, 3,22,43,23,55,57		3,29,14,33,25	
		1,16,13,26, 3,54,43, 7		5,34
30″	47,42, 7, 2,16,48,47,18,39, 4		3,29,14,38,59	
		1,16,13,22,34,40, 4, 8		5,34
32″	47,42, 8,18,30,11,21,58,43,12		3,29,14,44,33	
		1,16,13,19, 5,25,19,35		5,34
34″	47,42, 9,34,43,30,27,24, 2,47		3,29,14,50, 7	
		1,16,13,15,36,10,29,28		5,34
36″	47,42,10,50,56,46, 3,34,32,15		3,29,14,55,41	
		1,16,13,12, 6,55,33,47		5,34
38″	47,42,12, 7, 9,58,10,30, 6, 2		3,29,15, 1,15	
		1,16,13, 8,37,40,32,32		5,34
40″	47,42,13,23,23, 6,48,10,38,34		3,29,15, 6,49	
		1,16,13, 5, 8,25,25,43		5,34
42″	47,42,14,39,36,11,56,36, 4,17		3,29,15,12,23	
		1,16,13, 1,39,10,13,20		5,34
44″	47,42,15,55,49,13,35,46,17,37		3,29,15,17,57	
		1,16,12,58, 9,54,55,23		5,34
46″	47,42,17,12, 2,11,45,41,13, 0		3,29,15,23,31	
		1,16,12,54,40,39,31,52		5,34
48″	47,42,18,28,15, 6,26,20,44,52		3,29,15,29, 5	
		1,16,12,51,11,24, 2,47		5,34
50″	47,42,19,44,27,57,37,44,47,39		3,29,15,34,39	
		1,16,12,47,42, 8,28, 8		5,34
52″	47,42,21, 0,40,45,19,53,15,47		3,29,15,40,13	
		1,16,12,44,12,52,47,55		5,34
54″	47,42,22,16,53,29,32,46, 3,42		3,29,15,45,47	
		1,16,12,40,43,37, 2, 8		5,34
56″	47,42,23,33, 6,10,16,23, 5,50		3,29,15,51,21	
		1,16,12,37,14,21,10,47		5,34
58″	47,42,24,49,18,47,30,44,16,37		3,29,15,56,55	
		1,16,12,33,45, 5,13,52		
60″	47,42,26, 5,31,21,15,49,30,29			
exact	47,42,26, 5,31,21,15,49, 1,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°40′ 0″	47,42,26, 5,31,21,15,49, 1,19			
		1,16,12,30,15,49, 8,28		
2″	47,42,27,21,43,51,31,38, 9,47		3,29,16, 8,14	
		1,16,12,26,46,33, 0,14		5,34
4″	47,42,28,37,56,18,18,11,10, 1		3,29,16,13,48	
		1,16,12,23,17,16,46,26		5,34
6″	47,42,29,54, 8,41,35,27,56,27		3,29,16,19,22	
		1,16,12,19,48, 0,27, 4		5,34
8″	47,42,31,10,21, 1,23,28,23,31		3,29,16,24,56	
		1,16,12,16,18,44, 2, 8		5,34
10″	47,42,32,26,33,17,42,12,25,39		3,29,16,30,30	
		1,16,12,12,49,27,31,38		5,34
12″	47,42,33,42,45,30,31,39,57,17		3,29,16,36, 4	
		1,16,12, 9,20,10,55,34		5,34
14″	47,42,34,58,57,39,51,50,52,51		3,29,16,41,38	
		1,16,12, 5,50,54,13,56		5,34
16″	47,42,36,15, 9,45,42,45, 6,47		3,29,16,47,12	
		1,16,12, 2,21,37,26,44		5,34
18″	47,42,37,31,21,48, 4,22,33,31		3,29,16,52,46	
		1,16,11,58,52,20,33,58		5,34
20″	47,42,38,47,33,46,56,43, 7,29		3,29,16,58,20	
		1,16,11,55,23, 3,35,38		5,34
22″	47,42,40, 3,45,42,19,46,43, 7		3,29,17, 3,54	
		1,16,11,51,53,46,31,44		5,34
24″	47,42,41,19,57,34,13,33,14,51		3,29,17, 9,28	
		1,16,11,48,24,29,22,16		5,34
26″	47,42,42,36, 9,22,38, 2,37, 7		3,29,17,15, 2	
		1,16,11,44,55,12, 7,14		5,34
28″	47,42,43,52,21, 7,33,14,44,21		3,29,17,20,36	
		1,16,11,41,25,54,46,38		5,34
30″	47,42,45, 8,32,48,59, 9,30,59		3,29,17,26,10	
		1,16,11,37,56,37,20,28		5,34
32″	47,42,46,24,44,26,55,46,51,27		3,29,17,31,44	
		1,16,11,34,27,19,48,44		5,34
34″	47,42,47,40,56, 1,23, 6,40,11		3,29,17,37,18	
		1,16,11,30,58, 2,11,26		5,34
36″	47,42,48,57, 7,32,21, 8,51,37		3,29,17,42,52	
		1,16,11,27,28,44,28,34		5,34
38″	47,42,50,13,18,59,49,53,20,11		3,29,17,48,26	
		1,16,11,23,59,26,40, 8		5,34
40″	47,42,51,29,30,23,49,20, 0,19		3,29,17,54, 0	
		1,16,11,20,30, 8,46, 8		5,34
42″	47,42,52,45,41,44,19,28,46,27		3,29,17,59,34	
		1,16,11,17, 0,50,46,34		5,34
44″	47,42,54, 1,53, 1,20,19,33, 1		3,29,18, 5, 8	
		1,16,11,13,31,32,41,26		5,34
46″	47,42,55,18, 4,14,51,52,14,27		3,29,18,10,42	
		1,16,11,10, 2,14,30,44		5,34
48″	47,42,56,34,15,24,54, 6,45,11		3,29,18,16,16	
		1,16,11, 6,32,56,14,28		5,34
50″	47,42,57,50,26,31,27, 2,59,39		3,29,18,21,50	
		1,16,11, 3, 3,37,52,38		5,34
52″	47,42,59, 6,37,34,30,40,52,17		3,29,18,27,24	
		1,16,10,59,34,19,25,14		5,34
54″	47,43, 0,22,48,34, 5, 0,17,31		3,29,18,32,58	
		1,16,10,56, 5, 0,52,16		5,34
56″	47,43, 1,38,59,30,10, 1, 9,47		3,29,18,38,32	
		1,16,10,52,35,42,13,44		5,34
58″	47,43, 2,55,10,22,45,43,23,31		3,29,18,44, 6	
		1,16,10,49, 6,23,29,38		
60″	47,43, 4,11,21,11,52, 6,53, 9			
exact	47,43, 4,11,21,11,52, 6,36,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°41′ 0″	47,43, 4,11,21,11,52, 6,36,39			
		1,16,10,45,37, 4,38,15		
2″	47,43, 5,27,31,57,29,11,14,54		3,29,18,55,21	
		1,16,10,42, 7,45,42,54		5,34
4″	47,43, 6,43,42,39,36,56,57,48		3,29,19, 0,55	
		1,16,10,38,38,26,41,59		5,34
6″	47,43, 7,59,53,18,15,23,39,47		3,29,19, 6,29	
		1,16,10,35, 9, 7,35,30		5,34
8″	47,43, 9,16, 3,53,24,31,15,17		3,29,19,12, 3	
		1,16,10,31,39,48,23,27		5,34
10″	47,43,10,32,14,25, 4,19,38,44		3,29,19,17,37	
		1,16,10,28,10,29, 5,50		5,34
12″	47,43,11,48,24,53,14,48,44,34		3,29,19,23,11	
		1,16,10,24,41, 9,42,39		5,34
14″	47,43,13, 4,35,17,55,58,27,13		3,29,19,28,45	
		1,16,10,21,11,50,13,54		5,34
16″	47,43,14,20,45,39, 7,48,41, 7		3,29,19,34,19	
		1,16,10,17,42,30,39,35		5,34
18″	47,43,15,36,55,56,50,19,20,42		3,29,19,39,53	
		1,16,10,14,13,10,59,42		5,34
20″	47,43,16,53, 6,11, 3,30,20,24		3,29,19,45,27	
		1,16,10,10,43,51,14,15		5,34
22″	47,43,18, 9,16,21,47,21,34,39		3,29,19,51, 1	
		1,16,10, 7,14,31,23,14		5,34
24″	47,43,19,25,26,29, 1,52,57,53		3,29,19,56,35	
		1,16,10, 3,45,11,26,39		5,34
26″	47,43,20,41,36,32,47, 4,24,32		3,29,20, 2, 9	
		1,16,10, 0,15,51,24,30		5,34
28″	47,43,21,57,46,33, 2,55,49, 2		3,29,20, 7,43	
		1,16, 9,56,46,31,16,47		5,34
30″	47,43,23,13,56,29,49,27, 5,49		3,29,20,13,17	
		1,16, 9,53,17,11, 3,30		5,34
32″	47,43,24,30, 6,23, 6,38, 9,19		3,29,20,18,51	
		1,16, 9,49,47,50,44,39		5,34
34″	47,43,25,46,16,12,54,28,53,58		3,29,20,24,25	
		1,16, 9,46,18,30,20,14		5,34
36″	47,43,27, 2,25,59,12,59,14,12		3,29,20,29,59	
		1,16, 9,42,49, 9,50,15		5,34
38″	47,43,28,18,35,42, 2, 9, 4,27		3,29,20,35,33	
		1,16, 9,39,19,49,14,42		5,34
40″	47,43,29,34,45,21,21,58,19, 9		3,29,20,41, 7	
		1,16, 9,35,50,28,33,35		5,34
42″	47,43,30,50,54,57,12,26,52,44		3,29,20,46,41	
		1,16, 9,32,21, 7,46,54		5,34
44″	47,43,32, 7, 4,29,33,34,39,38		3,29,20,52,15	
		1,16, 9,28,51,46,54,39		5,34
46″	47,43,33,23,13,58,25,21,34,17		3,29,20,57,49	
		1,16, 9,25,22,25,56,50		5,34
48″	47,43,34,39,23,23,47,47,31, 7		3,29,21, 3,23	
		1,16, 9,21,53, 4,53,27		5,34
50″	47,43,35,55,32,45,40,52,24,34		3,29,21, 8,57	
		1,16, 9,18,23,43,44,30		5,34
52″	47,43,37,11,42, 4, 4,36, 9, 4		3,29,21,14,31	
		1,16, 9,14,54,22,29,59		5,34
54″	47,43,38,27,51,18,58,58,39, 3		3,29,21,20, 5	
		1,16, 9,11,25, 1, 9,54		5,34
56″	47,43,39,44, 0,30,23,59,48,57		3,29,21,25,39	
		1,16, 9, 7,55,39,44,15		5,34
58″	47,43,41, 0, 9,38,19,39,33,12		3,29,21,31,13	
		1,16, 9, 4,26,18,13, 2		
60″	47,43,42,16,18,42,45,57,46,14			
exact	47,43,42,16,18,42,45,57,40,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°42′ 0″	47,43,42,16,18,42,45,57,40,47			
		1,16, 9, 0,56,56,35,38		
2″	47,43,43,32,27,43,42,54,16,25		3,29,21,42,23	
		1,16, 8,57,27,34,53,15		5,34
4″	47,43,44,48,36,41,10,29, 9,40		3,29,21,47,57	
		1,16, 8,53,58,13, 5,18		5,34
6″	47,43,46, 4,45,35, 8,42,14,58		3,29,21,53,31	
		1,16, 8,50,28,51,11,47		5,34
8″	47,43,47,20,54,25,37,33,26,45		3,29,21,59, 5	
		1,16, 8,46,59,29,12,42		5,34
10″	47,43,48,37, 3,12,37, 2,39,27		3,29,22, 4,39	
		1,16, 8,43,30, 7, 8, 3		5,34
12″	47,43,49,53,11,56, 7, 9,47,30		3,29,22,10,13	
		1,16, 8,40, 0,44,57,50		5,34
14″	47,43,51, 9,20,36, 7,54,45,20		3,29,22,15,47	
		1,16, 8,36,31,22,42, 3		5,34
16″	47,43,52,25,29,12,39,17,27,23		3,29,22,21,21	
		1,16, 8,33, 2, 0,20,42		5,34
18″	47,43,53,41,37,45,41,17,48, 5		3,29,22,26,55	
		1,16, 8,29,32,37,53,47		5,34
20″	47,43,54,57,46,15,13,55,41,52		3,29,22,32,29	
		1,16, 8,26, 3,15,21,18		5,34
22″	47,43,56,13,54,41,17,11, 3,10		3,29,22,38, 3	
		1,16, 8,22,33,52,43,15		5,34
24″	47,43,57,30, 3, 3,51, 3,46,25		3,29,22,43,37	
		1,16, 8,19, 4,29,59,38		5,34
26″	47,43,58,46,11,22,55,33,46, 3		3,29,22,49,11	
		1,16, 8,15,35, 7,10,27		5,34
28″	47,44, 0, 2,19,38,30,40,56,30		3,29,22,54,45	
		1,16, 8,12, 5,44,15,42		5,34
30″	47,44, 1,18,27,50,36,25,12,12		3,29,23, 0,19	
		1,16, 8, 8,36,21,15,23		5,34
32″	47,44, 2,34,35,59,12,46,27,35		3,29,23, 5,53	
		1,16, 8, 5, 6,58, 9,30		5,34
34″	47,44, 3,50,44, 4,19,44,37, 5		3,29,23,11,27	
		1,16, 8, 1,37,34,58, 3		5,34
36″	47,44, 5, 6,52, 5,57,19,35, 8		3,29,23,17, 1	
		1,16, 7,58, 8,11,41, 2		5,34
38″	47,44, 6,23, 0, 4, 5,31,16,10		3,29,23,22,35	
		1,16, 7,54,38,48,18,27		5,34
40″	47,44, 7,39, 7,58,44,19,34,37		3,29,23,28, 9	
		1,16, 7,51, 9,24,50,18		5,34
42″	47,44, 8,55,15,49,53,44,24,55		3,29,23,33,43	
		1,16, 7,47,40, 1,16,35		5,34
44″	47,44,10,11,23,37,33,45,41,30		3,29,23,39,17	
		1,16, 7,44,10,37,37,18		5,34
46″	47,44,11,27,31,21,44,23,18,48		3,29,23,44,51	
		1,16, 7,40,41,13,52,27		5,34
48″	47,44,12,43,39, 2,25,37,11,15		3,29,23,50,25	
		1,16, 7,37,11,50, 2, 2		5,34
50″	47,44,13,59,46,39,37,27,13,17		3,29,23,55,59	
		1,16, 7,33,42,26, 6, 3		5,34
52″	47,44,15,15,54,13,19,53,19,20		3,29,24, 1,33	
		1,16, 7,30,13, 2, 4,30		5,34
54″	47,44,16,32, 1,43,32,55,23,50		3,29,24, 7, 7	
		1,16, 7,26,43,37,57,23		5,34
56″	47,44,17,48, 9,10,16,33,21,13		3,29,24,12,41	
		1,16, 7,23,14,13,44,42		5,34
58″	47,44,19, 4,16,33,30,47, 5,55		3,29,24,18,15	
		1,16, 7,19,44,49,26,27		
60″	47,44,20,20,23,53,15,36,32,22			
exact	47,44,20,20,23,53,15,36,29,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°43′ 0″	47,44,20,20,23,53,15,36,29,27			
		1,16, 7,16,15,25, 2,31		
2″	47,44,21,36,31, 9,31, 1,31,58		3,29,24,29,22	
		1,16, 7,12,46, 0,33, 9		5,34
4″	47,44,22,52,38,22,17, 2, 5, 7		3,29,24,34,56	
		1,16, 7, 9,16,35,58,13		5,34
6″	47,44,24, 8,45,31,33,38, 3,20		3,29,24,40,30	
		1,16, 7, 5,47,11,17,43		5,34
8″	47,44,25,24,52,37,20,49,21, 3		3,29,24,46, 4	
		1,16, 7, 2,17,46,31,39		5,34
10″	47,44,26,40,59,39,38,35,52,42		3,29,24,51,38	
		1,16, 6,58,48,21,40, 1		5,34
12″	47,44,27,57, 6,38,26,57,32,43		3,29,24,57,12	
		1,16, 6,55,18,56,42,49		5,34
14″	47,44,29,13,13,33,45,54,15,32		3,29,25, 2,46	
		1,16, 6,51,49,31,40, 3		5,34
16″	47,44,30,29,20,25,35,25,55,35		3,29,25, 8,20	
		1,16, 6,48,20, 6,31,43		5,34
18″	47,44,31,45,27,13,55,32,27,18		3,29,25,13,54	
		1,16, 6,44,50,41,17,49		5,34
20″	47,44,33, 1,33,58,46,13,45, 7		3,29,25,19,28	
		1,16, 6,41,21,15,58,21		5,34
22″	47,44,34,17,40,40, 7,29,43,28		3,29,25,25, 2	
		1,16, 6,37,51,50,33,19		5,34
24″	47,44,35,33,47,17,59,20,16,47		3,29,25,30,36	
		1,16, 6,34,22,25, 2,43		5,34
26″	47,44,36,49,53,52,21,45,19,30		3,29,25,36,10	
		1,16, 6,30,52,59,26,33		5,34
28″	47,44,38, 6, 0,23,14,44,46, 3		3,29,25,41,44	
		1,16, 6,27,23,33,44,49		5,34
30″	47,44,39,22, 6,50,38,18,30,52		3,29,25,47,18	
		1,16, 6,23,54, 7,57,31		5,34
32″	47,44,40,38,13,14,32,26,28,23		3,29,25,52,52	
		1,16, 6,20,24,42, 4,39		5,34
34″	47,44,41,54,19,34,57, 8,33, 2		3,29,25,58,26	
		1,16, 6,16,55,16, 6,13		5,34
36″	47,44,43,10,25,51,52,24,39,15		3,29,26, 4, 0	
		1,16, 6,13,25,50, 2,13		5,34
38″	47,44,44,26,32, 5,18,14,41,28		3,29,26, 9,34	
		1,16, 6, 9,56,23,52,39		5,34
40″	47,44,45,42,38,15,14,38,34, 7		3,29,26,15, 8	
		1,16, 6, 6,26,57,37,31		5,34
42″	47,44,46,58,44,21,41,36,11,38		3,29,26,20,42	
		1,16, 6, 2,57,31,16,49		5,34
44″	47,44,48,14,50,24,39, 7,28,27		3,29,26,26,16	
		1,16, 5,59,28, 4,50,33		5,34
46″	47,44,49,30,56,24, 7,12,19, 0		3,29,26,31,50	
		1,16, 5,55,58,38,18,43		5,34
48″	47,44,50,47, 2,20, 5,50,37,43		3,29,26,37,24	
		1,16, 5,52,29,11,41,19		5,34
50″	47,44,52, 3, 8,12,35, 2,19, 2		3,29,26,42,58	
		1,16, 5,48,59,44,58,21		5,34
52″	47,44,53,19,14, 1,34,47,17,23		3,29,26,48,32	
		1,16, 5,45,30,18, 9,49		5,34
54″	47,44,54,35,19,47, 5, 5,27,12		3,29,26,54, 6	
		1,16, 5,42, 0,51,15,43		5,34
56″	47,44,55,51,25,29, 5,56,42,55		3,29,26,59,40	
		1,16, 5,38,31,24,16, 3		5,34
58″	47,44,57, 7,31, 7,37,20,58,58		3,29,27, 5,14	
		1,16, 5,35, 1,57,10,49		
60″	47,44,58,23,36,42,39,18, 9,47			
exact	47,44,58,23,36,42,39,18,15,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°44′ 0″	47,44,58,23,36,42,39,18,15,49			
		1,16, 5,31,32,30, 0,50		
2″	47,44,59,39,42,14,11,48,16,39		3,29,27,16,18	
		1,16, 5,28, 3, 2,44,32		5,34
4″	47,45, 0,55,47,42,14,51, 1,11		3,29,27,21,52	
		1,16, 5,24,33,35,22,40		5,34
6″	47,45, 2,11,53, 6,48,26,23,51		3,29,27,27,26	
		1,16, 5,21, 4, 7,55,14		5,34
8″	47,45, 3,27,58,27,52,34,19, 5		3,29,27,33, 0	
		1,16, 5,17,34,40,22,14		5,34
10″	47,45, 4,44, 3,45,27,14,41,19		3,29,27,38,34	
		1,16, 5,14, 5,12,43,40		5,34
12″	47,45, 6, 0, 8,59,32,27,24,59		3,29,27,44, 8	
		1,16, 5,10,35,44,59,32		5,34
14″	47,45, 7,16,14,10, 8,12,24,31		3,29,27,49,42	
		1,16, 5, 7, 6,17, 9,50		5,34
16″	47,45, 8,32,19,17,14,29,34,21		3,29,27,55,16	
		1,16, 5, 3,36,49,14,34		5,34
18″	47,45, 9,48,24,20,51,18,48,55		3,29,28, 0,50	
		1,16, 5, 0, 7,21,13,44		5,34
20″	47,45,11, 4,29,20,58,40, 2,39		3,29,28, 6,24	
		1,16, 4,56,37,53, 7,20		5,34
22″	47,45,12,20,34,17,36,33, 9,59		3,29,28,11,58	
		1,16, 4,53, 8,24,55,22		5,34
24″	47,45,13,36,39,10,44,58, 5,21		3,29,28,17,32	
		1,16, 4,49,38,56,37,50		5,34
26″	47,45,14,52,44, 0,23,54,43,11		3,29,28,23, 6	
		1,16, 4,46, 9,28,14,44		5,34
28″	47,45,16, 8,48,46,33,22,57,55		3,29,28,28,40	
		1,16, 4,42,39,59,46, 4		5,34
30″	47,45,17,24,53,29,13,22,43,59		3,29,28,34,14	
		1,16, 4,39,10,31,11,50		5,34
32″	47,45,18,40,58, 8,23,53,55,49		3,29,28,39,48	
		1,16, 4,35,41, 2,32, 2		5,34
34″	47,45,19,57, 2,44, 4,56,27,51		3,29,28,45,22	
		1,16, 4,32,11,33,46,40		5,34
36″	47,45,21,13, 7,16,16,30,14,31		3,29,28,50,56	
		1,16, 4,28,42, 4,55,44		5,34
38″	47,45,22,29,11,44,58,35,10,15		3,29,28,56,30	
		1,16, 4,25,12,35,59,14		5,34
40″	47,45,23,45,16,10,11,11, 9,29		3,29,29, 2, 4	
		1,16, 4,21,43, 6,57,10		5,34
42″	47,45,25, 1,20,31,54,18, 6,39		3,29,29, 7,38	
		1,16, 4,18,13,37,49,32		5,34
44″	47,45,26,17,24,50, 7,55,56,11		3,29,29,13,12	
		1,16, 4,14,44, 8,36,20		5,34
46″	47,45,27,33,29, 4,52, 4,32,31		3,29,29,18,46	
		1,16, 4,11,14,39,17,34		5,34
48″	47,45,28,49,33,16, 6,43,50, 5		3,29,29,24,20	
		1,16, 4, 7,45, 9,53,14		5,34
50″	47,45,30, 5,37,23,51,53,43,19		3,29,29,29,54	
		1,16, 4, 4,15,40,23,20		5,34
52″	47,45,31,21,41,28, 7,34, 6,39		3,29,29,35,28	
		1,16, 4, 0,46,10,47,52		5,34
54″	47,45,32,37,45,28,53,44,54,31		3,29,29,41, 2	
		1,16, 3,57,16,41, 6,50		5,34
56″	47,45,33,53,49,26,10,26, 1,21		3,29,29,46,36	
		1,16, 3,53,47,11,20,14		5,34
58″	47,45,35, 9,53,19,57,37,21,35		3,29,29,52,10	
		1,16, 3,50,17,41,28, 4		
60″	47,45,36,25,57,10,15,18,49,39			
exact	47,45,36,25,57,10,15,19,10,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°45′ 0″	47,45,36,25,57,10,15,19,10,25			
		1,16, 3,46,48,11,32,30		
2″	47,45,37,42, 0,57, 3,30,42,55		3,29,30, 3, 9	
		1,16, 3,43,18,41,29,21		5,34
4″	47,45,38,58, 4,40,22,12,12,16		3,29,30, 8,43	
		1,16, 3,39,49,11,20,38		5,34
6″	47,45,40,14, 8,20,11,23,32,54		3,29,30,14,17	
		1,16, 3,36,19,41, 6,21		5,34
8″	47,45,41,30,11,56,31, 4,39,15		3,29,30,19,51	
		1,16, 3,32,50,10,46,30		5,34
10″	47,45,42,46,15,29,21,15,25,45		3,29,30,25,25	
		1,16, 3,29,20,40,21, 5		5,34
12″	47,45,44, 2,18,58,41,55,46,50		3,29,30,30,59	
		1,16, 3,25,51, 9,50, 6		5,34
14″	47,45,45,18,22,24,33, 5,36,56		3,29,30,36,33	
		1,16, 3,22,21,39,13,33		5,34
16″	47,45,46,34,25,46,54,44,50,29		3,29,30,42, 7	
		1,16, 3,18,52, 8,31,26		5,34
18″	47,45,47,50,29, 5,46,53,21,55		3,29,30,47,41	
		1,16, 3,15,22,37,43,45		5,34
20″	47,45,49, 6,32,21, 9,31, 5,40		3,29,30,53,15	
		1,16, 3,11,53, 6,50,30		5,34
22″	47,45,50,22,35,33, 2,37,56,10		3,29,30,58,49	
		1,16, 3, 8,23,35,51,41		5,34
24″	47,45,51,38,38,41,26,13,47,51		3,29,31, 4,23	
		1,16, 3, 4,54, 4,47,18		5,34
26″	47,45,52,54,41,46,20,18,35, 9		3,29,31, 9,57	
		1,16, 3, 1,24,33,37,21		5,34
28″	47,45,54,10,44,47,44,52,12,30		3,29,31,15,31	
		1,16, 2,57,55, 2,21,50		5,34
30″	47,45,55,26,47,45,39,54,34,20		3,29,31,21, 5	
		1,16, 2,54,25,31, 0,45		5,34
32″	47,45,56,42,50,40, 5,25,35, 5		3,29,31,26,39	
		1,16, 2,50,55,59,34, 6		5,34
34″	47,45,57,58,53,31, 1,25, 9,11		3,29,31,32,13	
		1,16, 2,47,26,28, 1,53		5,34
36″	47,45,59,14,56,18,27,53,11, 4		3,29,31,37,47	
		1,16, 2,43,56,56,24, 6		5,34
38″	47,46, 0,30,59, 2,24,49,35,10		3,29,31,43,21	
		1,16, 2,40,27,24,40,45		5,34
40″	47,46, 1,47, 1,42,52,14,15,55		3,29,31,48,55	
		1,16, 2,36,57,52,51,50		5,34
42″	47,46, 3, 3, 4,19,50, 7, 7,45		3,29,31,54,29	
		1,16, 2,33,28,20,57,21		5,34
44″	47,46, 4,19, 6,53,18,28, 5, 6		3,29,32, 0, 3	
		1,16, 2,29,58,48,57,18		5,34
46″	47,46, 5,35, 9,23,17,17, 2,24		3,29,32, 5,37	
		1,16, 2,26,29,16,51,41		5,34
48″	47,46, 6,51,11,49,46,33,54, 5		3,29,32,11,11	
		1,16, 2,22,59,44,40,30		5,34
50″	47,46, 8, 7,14,12,46,18,34,35		3,29,32,16,45	
		1,16, 2,19,30,12,23,45		5,34
52″	47,46, 9,23,16,32,16,30,58,20		3,29,32,22,19	
		1,16, 2,16, 0,40, 1,26		5,34
54″	47,46,10,39,18,48,17,10,59,46		3,29,32,27,53	
		1,16, 2,12,31, 7,33,33		5,34
56″	47,46,11,55,21, 0,48,18,33,19		3,29,32,33,27	
		1,16, 2, 9, 1,35, 0, 6		5,34
58″	47,46,13,11,23, 9,49,53,33,25		3,29,32,39, 1	
		1,16, 2, 5,32, 2,21, 5		
60″	47,46,14,27,25,15,21,55,54,30			
exact	47,46,14,27,25,15,21,56,21,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°46′ 0″	47,46,14,27,25,15,21,56,21,16			
		1,16, 2, 2, 2,29,39,25		
2″	47,46,15,43,27,17,24,26, 0,41		3,29,32,49,56	
		1,16, 1,58,32,56,49,29		5,34
4″	47,46,16,59,29,15,57,22,50,10		3,29,32,55,30	
		1,16, 1,55, 3,23,53,59		5,34
6″	47,46,18,15,31,11, 0,46,44, 9		3,29,33, 1, 4	
		1,16, 1,51,33,50,52,55		5,34
8″	47,46,19,31,33, 2,34,37,37, 4		3,29,33, 6,38	
		1,16, 1,48, 4,17,46,17		5,34
10″	47,46,20,47,34,50,38,55,23,21		3,29,33,12,12	
		1,16, 1,44,34,44,34, 5		5,34
12″	47,46,22, 3,36,35,13,39,57,26		3,29,33,17,46	
		1,16, 1,41, 5,11,16,19		5,34
14″	47,46,23,19,38,16,18,51,13,45		3,29,33,23,20	
		1,16, 1,37,35,37,52,59		5,34
16″	47,46,24,35,39,53,54,29, 6,44		3,29,33,28,54	
		1,16, 1,34, 6, 4,24, 5		5,34
18″	47,46,25,51,41,28, 0,33,30,49		3,29,33,34,28	
		1,16, 1,30,36,30,49,37		5,34
20″	47,46,27, 7,42,58,37, 4,20,26		3,29,33,40, 2	
		1,16, 1,27, 6,57, 9,35		5,34
22″	47,46,28,23,44,25,44, 1,30, 1		3,29,33,45,36	
		1,16, 1,23,37,23,23,59		5,34
24″	47,46,29,39,45,49,21,24,54, 0		3,29,33,51,10	
		1,16, 1,20, 7,49,32,49		5,34
26″	47,46,30,55,47, 9,29,14,26,49		3,29,33,56,44	
		1,16, 1,16,38,15,36, 5		5,34
28″	47,46,32,11,48,26, 7,30, 2,54		3,29,34, 2,18	
		1,16, 1,13, 8,41,33,47		5,34
30″	47,46,33,27,49,39,16,11,36,41		3,29,34, 7,52	
		1,16, 1, 9,39, 7,25,55		5,34
32″	47,46,34,43,50,48,55,19, 2,36		3,29,34,13,26	
		1,16, 1, 6, 9,33,12,29		5,34
34″	47,46,35,59,51,55, 4,52,15, 5		3,29,34,19, 0	
		1,16, 1, 2,39,58,53,29		5,34
36″	47,46,37,15,52,57,44,51, 8,34		3,29,34,24,34	
		1,16, 0,59,10,24,28,55		5,34
38″	47,46,38,31,53,56,55,15,37,29		3,29,34,30, 8	
		1,16, 0,55,40,49,58,47		5,34
40″	47,46,39,47,54,52,36, 5,36,16		3,29,34,35,42	
		1,16, 0,52,11,15,23, 5		5,34
42″	47,46,41, 3,55,44,47,20,59,21		3,29,34,41,16	
		1,16, 0,48,41,40,41,49		5,34
44″	47,46,42,19,56,33,29, 1,41,10		3,29,34,46,50	
		1,16, 0,45,12, 5,54,59		5,34
46″	47,46,43,35,57,18,41, 7,36, 9		3,29,34,52,24	
		1,16, 0,41,42,31, 2,35		5,34
48″	47,46,44,51,58, 0,23,38,38,44		3,29,34,57,58	
		1,16, 0,38,12,56, 4,37		5,34
50″	47,46,46, 7,58,38,36,34,43,21		3,29,35, 3,32	
		1,16, 0,34,43,21, 1, 5		5,34
52″	47,46,47,23,59,13,19,55,44,26		3,29,35, 9, 6	
		1,16, 0,31,13,45,51,59		5,34
54″	47,46,48,39,59,44,33,41,36,25		3,29,35,14,40	
		1,16, 0,27,44,10,37,19		5,34
56″	47,46,49,56, 0,12,17,52,13,44		3,29,35,20,14	
		1,16, 0,24,14,35,17, 5		5,34
58″	47,46,51,12, 0,36,32,27,30,49		3,29,35,25,48	
		1,16, 0,20,44,59,51,17		
60″	47,46,52,28, 0,57,17,27,22, 6			
exact	47,46,52,28, 0,57,17,27,53,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°47′ 0″	47,46,52,28, 0,57,17,27,53,47			
		1,16, 0,17,15,24,23,30		
2″	47,46,53,44, 1,14,32,52,17,17		3,29,35,36,40	
		1,16, 0,13,45,48,46,50		5,33
4″	47,46,55, 0, 1,28,18,41, 4, 7		3,29,35,42,13	
		1,16, 0,10,16,13, 4,37		5,33
6″	47,46,56,16, 1,38,34,54, 8,44		3,29,35,47,46	
		1,16, 0, 6,46,37,16,51		5,33
8″	47,46,57,32, 1,45,21,31,25,35		3,29,35,53,19	
		1,16, 0, 3,17, 1,23,32		5,33
10″	47,46,58,48, 1,48,38,32,49, 7		3,29,35,58,52	
		1,15,59,59,47,25,24,40		5,33
12″	47,47, 0, 4, 1,48,25,58,13,47		3,29,36, 4,25	
		1,15,59,56,17,49,20,15		5,33
14″	47,47, 1,20, 1,44,43,47,34, 2		3,29,36, 9,58	
		1,15,59,52,48,13,10,17		5,33
16″	47,47, 2,36, 1,37,32, 0,44,19		3,29,36,15,31	
		1,15,59,49,18,36,54,46		5,33
18″	47,47, 3,52, 1,26,50,37,39, 5		3,29,36,21, 4	
		1,15,59,45,49, 0,33,42		5,33
20″	47,47, 5, 8, 1,12,39,38,12,47		3,29,36,26,37	
		1,15,59,42,19,24, 7, 5		5,33
22″	47,47, 6,24, 0,54,59, 2,19,52		3,29,36,32,10	
		1,15,59,38,49,47,34,55		5,33
24″	47,47, 7,40, 0,33,48,49,54,47		3,29,36,37,43	
		1,15,59,35,20,10,57,12		5,33
26″	47,47, 8,56, 0, 9, 9, 0,51,59		3,29,36,43,16	
		1,15,59,31,50,34,13,56		5,33
28″	47,47,10,11,59,40,59,35, 5,55		3,29,36,48,49	
		1,15,59,28,20,57,25, 7		5,33
30″	47,47,11,27,59, 9,20,32,31, 2		3,29,36,54,22	
		1,15,59,24,51,20,30,45		5,33
32″	47,47,12,43,58,34,11,53, 1,47		3,29,36,59,55	
		1,15,59,21,21,43,30,50		5,33
34″	47,47,13,59,57,55,33,36,32,37		3,29,37, 5,28	
		1,15,59,17,52, 6,25,22		5,33
36″	47,47,15,15,57,13,25,42,57,59		3,29,37,11, 1	
		1,15,59,14,22,29,14,21		5,33
38″	47,47,16,31,56,27,48,12,12,20		3,29,37,16,34	
		1,15,59,10,52,51,57,47		5,33
40″	47,47,17,47,55,38,41, 4,10, 7		3,29,37,22, 7	
		1,15,59, 7,23,14,35,40		5,33
42″	47,47,19, 3,54,46, 4,18,45,47		3,29,37,27,40	
		1,15,59, 3,53,37, 8, 0		5,33
44″	47,47,20,19,53,49,57,55,53,47		3,29,37,33,13	
		1,15,59, 0,23,59,34,47		5,33
46″	47,47,21,35,52,50,21,55,28,34		3,29,37,38,46	
		1,15,58,56,54,21,56, 1		5,33
48″	47,47,22,51,51,47,16,17,24,35		3,29,37,44,19	
		1,15,58,53,24,44,11,42		5,33
50″	47,47,24, 7,50,40,41, 1,36,17		3,29,37,49,52	
		1,15,58,49,55, 6,21,50		5,33
52″	47,47,25,23,49,30,36, 7,58, 7		3,29,37,55,25	
		1,15,58,46,25,28,26,25		5,33
54″	47,47,26,39,48,17, 1,36,24,32		3,29,38, 0,58	
		1,15,58,42,55,50,25,27		5,33
56″	47,47,27,55,46,59,57,26,49,59		3,29,38, 6,31	
		1,15,58,39,26,12,18,56		5,33
58″	47,47,29,11,45,39,23,39, 8,55		3,29,38,12, 4	
		1,15,58,35,56,34, 6,52		
60″	47,47,30,27,44,15,20,13,15,47			
exact	47,47,30,27,44,15,20,12,50,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°48′ 0″	47,47,30,27,44,15,20,12,50,48			
		1,15,58,32,26,55,46,40		
2″	47,47,31,43,42,47,47, 8,37,28		3,29,38,23,20	
		1,15,58,28,57,17,23,20		5,33
4″	47,47,32,59,41,16,44,26, 0,48		3,29,38,28,53	
		1,15,58,25,27,38,54,27		5,33
6″	47,47,34,15,39,42,12, 4,55,15		3,29,38,34,26	
		1,15,58,21,58, 0,20, 1		5,33
8″	47,47,35,31,38, 4,10, 5,15,16		3,29,38,39,59	
		1,15,58,18,28,21,40, 2		5,33
10″	47,47,36,47,36,22,38,26,55,18		3,29,38,45,32	
		1,15,58,14,58,42,54,30		5,33
12″	47,47,38, 3,34,37,37, 9,49,48		3,29,38,51, 5	
		1,15,58,11,29, 4, 3,25		5,33
14″	47,47,39,19,32,49, 6,13,53,13		3,29,38,56,38	
		1,15,58, 7,59,25, 6,47		5,33
16″	47,47,40,35,30,57, 5,39, 0, 0		3,29,39, 2,11	
		1,15,58, 4,29,46, 4,36		5,33
18″	47,47,41,51,29, 1,35,25, 4,36		3,29,39, 7,44	
		1,15,58, 1, 0, 6,56,52		5,33
20″	47,47,43, 7,27, 2,35,32, 1,28		3,29,39,13,17	
		1,15,57,57,30,27,43,35		5,33
22″	47,47,44,23,25, 0, 5,59,45, 3		3,29,39,18,50	
		1,15,57,54, 0,48,24,45		5,33
24″	47,47,45,39,22,54, 6,48, 9,48		3,29,39,24,23	
		1,15,57,50,31, 9, 0,22		5,33
26″	47,47,46,55,20,44,37,57,10,10		3,29,39,29,56	
		1,15,57,47, 1,29,30,26		5,33
28″	47,47,48,11,18,31,39,26,40,36		3,29,39,35,29	
		1,15,57,43,31,49,54,57		5,33
30″	47,47,49,27,16,15,11,16,35,33		3,29,39,41, 2	
		1,15,57,40, 2,10,13,55		5,33
32″	47,47,50,43,13,55,13,26,49,28		3,29,39,46,35	
		1,15,57,36,32,30,27,20		5,33
34″	47,47,51,59,11,31,45,57,16,48		3,29,39,52, 8	
		1,15,57,33, 2,50,35,12		5,33
36″	47,47,53,15, 9, 4,48,47,52, 0		3,29,39,57,41	
		1,15,57,29,33,10,37,31		5,33
38″	47,47,54,31, 6,34,21,58,29,31		3,29,40, 3,14	
		1,15,57,26, 3,30,34,17		5,33
40″	47,47,55,47, 4, 0,25,29, 3,48		3,29,40, 8,47	
		1,15,57,22,33,50,25,30		5,33
42″	47,47,57, 3, 1,22,59,19,29,18		3,29,40,14,20	
		1,15,57,19, 4,10,11,10		5,33
44″	47,47,58,18,58,42, 3,29,40,28		3,29,40,19,53	
		1,15,57,15,34,29,51,17		5,33
46″	47,47,59,34,55,57,37,59,31,45		3,29,40,25,26	
		1,15,57,12, 4,49,25,51		5,33
48″	47,48, 0,50,53, 9,42,48,57,36		3,29,40,30,59	
		1,15,57, 8,35, 8,54,52		5,33
50″	47,48, 2, 6,50,18,17,57,52,28		3,29,40,36,32	
		1,15,57, 5, 5,28,18,20		5,33
52″	47,48, 3,22,47,23,23,26,10,48		3,29,40,42, 5	
		1,15,57, 1,35,47,36,15		5,33
54″	47,48, 4,38,44,24,59,13,47, 3		3,29,40,47,38	
		1,15,56,58, 6, 6,48,37		5,33
56″	47,48, 5,54,41,23, 5,20,35,40		3,29,40,53,11	
		1,15,56,54,36,25,55,26		5,33
58″	47,48, 7,10,38,17,41,46,31, 6		3,29,40,58,44	
		1,15,56,51, 6,44,56,42		
60″	47,48, 8,26,35, 8,48,31,27,48			
exact	47,48, 8,26,35, 8,48,31,12,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°49′ 0″	47,48, 8,26,35, 8,48,31,12,40			
		1,15,56,47,37, 3,50,51		
2″	47,48, 9,42,31,56,25,35, 3,31		3,29,41, 9,56	
		1,15,56,44, 7,22,40,55		5,33
4″	47,48,10,58,28,40,32,57,44,26		3,29,41,15,29	
		1,15,56,40,37,41,25,26		5,33
6″	47,48,12,14,25,21,10,39, 9,52		3,29,41,21, 2	
		1,15,56,37, 8, 0, 4,24		5,33
8″	47,48,13,30,21,58,18,39,14,16		3,29,41,26,35	
		1,15,56,33,38,18,37,49		5,33
10″	47,48,14,46,18,31,56,57,52, 5		3,29,41,32, 8	
		1,15,56,30, 8,37, 5,41		5,33
12″	47,48,16, 2,15, 2, 5,34,57,46		3,29,41,37,41	
		1,15,56,26,38,55,28, 0		5,33
14″	47,48,17,18,11,28,44,30,25,46		3,29,41,43,14	
		1,15,56,23, 9,13,44,46		5,33
16″	47,48,18,34, 7,51,53,44,10,32		3,29,41,48,47	
		1,15,56,19,39,31,55,59		5,33
18″	47,48,19,50, 4,11,33,16, 6,31		3,29,41,54,20	
		1,15,56,16, 9,50, 1,39		5,33
20″	47,48,21, 6, 0,27,43, 6, 8,10		3,29,41,59,53	
		1,15,56,12,40, 8, 1,46		5,33
22″	47,48,22,21,56,40,23,14, 9,56		3,29,42, 5,26	
		1,15,56, 9,10,25,56,20		5,33
24″	47,48,23,37,52,49,33,40, 6,16		3,29,42,10,59	
		1,15,56, 5,40,43,45,21		5,33
26″	47,48,24,53,48,55,14,23,51,37		3,29,42,16,32	
		1,15,56, 2,11, 1,28,49		5,33
28″	47,48,26, 9,44,57,25,25,20,26		3,29,42,22, 5	
		1,15,55,58,41,19, 6,44		5,33
30″	47,48,27,25,40,56, 6,44,27,10		3,29,42,27,38	
		1,15,55,55,11,36,39, 6		5,33
32″	47,48,28,41,36,51,18,21, 6,16		3,29,42,33,11	
		1,15,55,51,41,54, 5,55		5,33
34″	47,48,29,57,32,43, 0,15,12,11		3,29,42,38,44	
		1,15,55,48,12,11,27,11		5,33
36″	47,48,31,13,28,31,12,26,39,22		3,29,42,44,17	
		1,15,55,44,42,28,42,54		5,33
38″	47,48,32,29,24,15,54,55,22,16		3,29,42,49,50	
		1,15,55,41,12,45,53, 4		5,33
40″	47,48,33,45,19,57, 7,41,15,20		3,29,42,55,23	
		1,15,55,37,43, 2,57,41		5,33
42″	47,48,35, 1,15,34,50,44,13, 1		3,29,43, 0,56	
		1,15,55,34,13,19,56,45		5,33
44″	47,48,36,17,11, 9, 4, 4, 9,46		3,29,43, 6,29	
		1,15,55,30,43,36,50,16		5,33
46″	47,48,37,33, 6,39,47,41, 0, 2		3,29,43,12, 2	
		1,15,55,27,13,53,38,14		5,33
48″	47,48,38,49, 2, 7, 1,34,38,16		3,29,43,17,35	
		1,15,55,23,44,10,20,39		5,33
50″	47,48,40, 4,57,30,45,44,58,55		3,29,43,23, 8	
		1,15,55,20,14,26,57,31		5,33
52″	47,48,41,20,52,51, 0,11,56,26		3,29,43,28,41	
		1,15,55,16,44,43,28,50		5,33
54″	47,48,42,36,48, 7,44,55,25,16		3,29,43,34,14	
		1,15,55,13,14,59,54,36		5,33
56″	47,48,43,52,43,20,59,55,19,52		3,29,43,39,47	
		1,15,55, 9,45,16,14,49		5,33
58″	47,48,45, 8,38,30,45,11,34,41		3,29,43,45,20	
		1,15,55, 6,15,32,29,29		
60″	47,48,46,24,33,37, 0,44, 4,10			
exact	47,48,46,24,33,37, 0,43,57,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°50′ 0″	47,48,46,24,33,37, 0,43,57,11			
		1,15,55, 2,45,48,37,56		
2″	47,48,47,40,28,39,46,32,35, 7		3,29,43,56,28	
		1,15,54,59,16, 4,41,28		5,33
4″	47,48,48,56,23,39, 2,37,16,35		3,29,44, 2, 1	
		1,15,54,55,46,20,39,27		5,33
6″	47,48,50,12,18,34,48,57,56, 2		3,29,44, 7,34	
		1,15,54,52,16,36,31,53		5,33
8″	47,48,51,28,13,27, 5,34,27,55		3,29,44,13, 7	
		1,15,54,48,46,52,18,46		5,33
10″	47,48,52,44, 8,15,52,26,46,41		3,29,44,18,40	
		1,15,54,45,17, 8, 0, 6		5,33
12″	47,48,54, 0, 3, 1, 9,34,46,47		3,29,44,24,13	
		1,15,54,41,47,23,35,53		5,33
14″	47,48,55,15,57,42,56,58,22,40		3,29,44,29,46	
		1,15,54,38,17,39, 6, 7		5,33
16″	47,48,56,31,52,21,14,37,28,47		3,29,44,35,19	
		1,15,54,34,47,54,30,48		5,33
18″	47,48,57,47,46,56, 2,31,59,35		3,29,44,40,52	
		1,15,54,31,18, 9,49,56		5,33
20″	47,48,59, 3,41,27,20,41,49,31		3,29,44,46,25	
		1,15,54,27,48,25, 3,31		5,33
22″	47,49, 0,19,35,55, 9, 6,53, 2		3,29,44,51,58	
		1,15,54,24,18,40,11,33		5,33
24″	47,49, 1,35,30,19,27,47, 4,35		3,29,44,57,31	
		1,15,54,20,48,55,14, 2		5,33
26″	47,49, 2,51,24,40,16,42,18,37		3,29,45, 3, 4	
		1,15,54,17,19,10,10,58		5,33
28″	47,49, 4, 7,18,57,35,52,29,35		3,29,45, 8,37	
		1,15,54,13,49,25, 2,21		5,33
30″	47,49, 5,23,13,11,25,17,31,56		3,29,45,14,10	
		1,15,54,10,19,39,48,11		5,33
32″	47,49, 6,39, 7,21,44,57,20, 7		3,29,45,19,43	
		1,15,54, 6,49,54,28,28		5,33
34″	47,49, 7,55, 1,28,34,51,48,35		3,29,45,25,16	
		1,15,54, 3,20, 9, 3,12		5,33
36″	47,49, 9,10,55,31,55, 0,51,47		3,29,45,30,49	
		1,15,53,59,50,23,32,23		5,33
38″	47,49,10,26,49,31,45,24,24,10		3,29,45,36,22	
		1,15,53,56,20,37,56, 1		5,33
40″	47,49,11,42,43,28, 6, 2,20,11		3,29,45,41,55	
		1,15,53,52,50,52,14, 6		5,33
42″	47,49,12,58,37,20,56,54,34,17		3,29,45,47,28	
		1,15,53,49,21, 6,26,38		5,33
44″	47,49,14,14,31,10,18, 1, 0,55		3,29,45,53, 1	
		1,15,53,45,51,20,33,37		5,33
46″	47,49,15,30,24,56, 9,21,34,32		3,29,45,58,34	
		1,15,53,42,21,34,35, 3		5,33
48″	47,49,16,46,18,38,30,56, 9,35		3,29,46, 4, 7	
		1,15,53,38,51,48,30,56		5,33
50″	47,49,18, 2,12,17,22,44,40,31		3,29,46, 9,40	
		1,15,53,35,22, 2,21,16		5,33
52″	47,49,19,18, 5,52,44,47, 1,47		3,29,46,15,13	
		1,15,53,31,52,16, 6, 3		5,33
54″	47,49,20,33,59,24,37, 3, 7,50		3,29,46,20,46	
		1,15,53,28,22,29,45,17		5,33
56″	47,49,21,49,52,52,59,32,53, 7		3,29,46,26,19	
		1,15,53,24,52,43,18,58		5,33
58″	47,49,23, 5,46,17,52,16,12, 5		3,29,46,31,52	
		1,15,53,21,22,56,47, 6		
60″	47,49,24,21,39,39,15,12,59,11			
exact	47,49,24,21,39,39,15,12,59,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°51′ 0″	47,49,24,21,39,39,15,12,59,38			
		1,15,53,17,53,10, 9,51		
2″	47,49,25,37,32,57, 8,23, 9,29		3,29,46,42,56	
		1,15,53,14,23,23,26,55		5,33
4″	47,49,26,53,26,11,31,46,36,24		3,29,46,48,29	
		1,15,53,10,53,36,38,26		5,33
6″	47,49,28, 9,19,22,25,23,14,50		3,29,46,54, 2	
		1,15,53, 7,23,49,44,24		5,33
8″	47,49,29,25,12,29,49,12,59,14		3,29,46,59,35	
		1,15,53, 3,54, 2,44,49		5,33
10″	47,49,30,41, 5,33,43,15,44, 3		3,29,47, 5, 8	
		1,15,53, 0,24,15,39,41		5,33
12″	47,49,31,56,58,34, 7,31,23,44		3,29,47,10,41	
		1,15,52,56,54,28,29, 0		5,33
14″	47,49,33,12,51,31, 1,59,52,44		3,29,47,16,14	
		1,15,52,53,24,41,12,46		5,33
16″	47,49,34,28,44,24,26,41, 5,30		3,29,47,21,47	
		1,15,52,49,54,53,50,59		5,33
18″	47,49,35,44,37,14,21,34,56,29		3,29,47,27,20	
		1,15,52,46,25, 6,23,39		5,33
20″	47,49,37, 0,30, 0,46,41,20, 8		3,29,47,32,53	
		1,15,52,42,55,18,50,46		5,33
22″	47,49,38,16,22,43,42, 0,10,54		3,29,47,38,26	
		1,15,52,39,25,31,12,20		5,33
24″	47,49,39,32,15,23, 7,31,23,14		3,29,47,43,59	
		1,15,52,35,55,43,28,21		5,33
26″	47,49,40,48, 7,59, 3,14,51,35		3,29,47,49,32	
		1,15,52,32,25,55,38,49		5,33
28″	47,49,42, 4, 0,31,29,10,30,24		3,29,47,55, 5	
		1,15,52,28,56, 7,43,44		5,33
30″	47,49,43,19,53, 0,25,18,14, 8		3,29,48, 0,38	
		1,15,52,25,26,19,43, 6		5,33
32″	47,49,44,35,45,25,51,37,57,14		3,29,48, 6,11	
		1,15,52,21,56,31,36,55		5,33
34″	47,49,45,51,37,47,48, 9,34, 9		3,29,48,11,44	
		1,15,52,18,26,43,25,11		5,33
36″	47,49,47, 7,30, 6,14,52,59,20		3,29,48,17,17	
		1,15,52,14,56,55, 7,54		5,33
38″	47,49,48,23,22,21,11,48, 7,14		3,29,48,22,50	
		1,15,52,11,27, 6,45, 4		5,33
40″	47,49,49,39,14,32,38,54,52,18		3,29,48,28,23	
		1,15,52, 7,57,18,16,41		5,33
42″	47,49,50,55, 6,40,36,13, 8,59		3,29,48,33,56	
		1,15,52, 4,27,29,42,45		5,33
44″	47,49,52,10,58,45, 3,42,51,44		3,29,48,39,29	
		1,15,52, 0,57,41, 3,16		5,33
46″	47,49,53,26,50,46, 1,23,55, 0		3,29,48,45, 2	
		1,15,51,57,27,52,18,14		5,33
48″	47,49,54,42,42,43,29,16,13,14		3,29,48,50,35	
		1,15,51,53,58, 3,27,39		5,33
50″	47,49,55,58,34,37,27,19,40,53		3,29,48,56, 8	
		1,15,51,50,28,14,31,31		5,33
52″	47,49,57,14,26,27,55,34,12,24		3,29,49, 1,41	
		1,15,51,46,58,25,29,50		5,33
54″	47,49,58,30,18,14,53,59,42,14		3,29,49, 7,14	
		1,15,51,43,28,36,22,36		5,33
56″	47,49,59,46, 9,58,22,36, 4,50		3,29,49,12,47	
		1,15,51,39,58,47, 9,49		5,33
58″	47,50, 1, 2, 1,38,21,23,14,39		3,29,49,18,20	
		1,15,51,36,28,57,51,29		
60″	47,50, 2,17,53,14,50,21, 6, 8			
exact	47,50, 2,17,53,14,50,21,12,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°52′ 0″	47,50, 2,17,53,14,50,21,12,48			
		1,15,51,32,59, 8,28,31		
2″	47,50, 3,33,44,47,49,29,41,19		3,29,49,29,21	
		1,15,51,29,29,18,59,10		5,33
4″	47,50, 4,49,36,17,18,48,40,29		3,29,49,34,54	
		1,15,51,25,59,29,24,16		5,33
6″	47,50, 6, 5,27,43,18,18, 4,45		3,29,49,40,27	
		1,15,51,22,29,39,43,49		5,33
8″	47,50, 7,21,19, 5,47,57,48,34		3,29,49,46, 0	
		1,15,51,18,59,49,57,49		5,33
10″	47,50, 8,37,10,24,47,47,46,23		3,29,49,51,33	
		1,15,51,15,30, 0, 6,16		5,33
12″	47,50, 9,53, 1,40,17,47,52,39		3,29,49,57, 6	
		1,15,51,12, 0,10, 9,10		5,33
14″	47,50,11, 8,52,52,17,58, 1,49		3,29,50, 2,39	
		1,15,51, 8,30,20, 6,31		5,33
16″	47,50,12,24,44, 0,48,18, 8,20		3,29,50, 8,12	
		1,15,51, 5, 0,29,58,19		5,33
18″	47,50,13,40,35, 5,48,48, 6,39		3,29,50,13,45	
		1,15,51, 1,30,39,44,34		5,33
20″	47,50,14,56,26, 7,19,27,51,13		3,29,50,19,18	
		1,15,50,58, 0,49,25,16		5,33
22″	47,50,16,12,17, 5,20,17,16,29		3,29,50,24,51	
		1,15,50,54,30,59, 0,25		5,33
24″	47,50,17,28, 7,59,51,16,16,54		3,29,50,30,24	
		1,15,50,51, 1, 8,30, 1		5,33
26″	47,50,18,43,58,50,52,24,46,55		3,29,50,35,57	
		1,15,50,47,31,17,54, 4		5,33
28″	47,50,19,59,49,38,23,42,40,59		3,29,50,41,30	
		1,15,50,44, 1,27,12,34		5,33
30″	47,50,21,15,40,22,25, 9,53,33		3,29,50,47, 3	
		1,15,50,40,31,36,25,31		5,33
32″	47,50,22,31,31, 2,56,46,19, 4		3,29,50,52,36	
		1,15,50,37, 1,45,32,55		5,33
34″	47,50,23,47,21,39,58,31,51,59		3,29,50,58, 9	
		1,15,50,33,31,54,34,46		5,33
36″	47,50,25, 3,12,13,30,26,26,45		3,29,51, 3,42	
		1,15,50,30, 2, 3,31, 4		5,33
38″	47,50,26,19, 2,43,32,29,57,49		3,29,51, 9,15	
		1,15,50,26,32,12,21,49		5,33
40″	47,50,27,34,53,10, 4,42,19,38		3,29,51,14,48	
		1,15,50,23, 2,21, 7, 1		5,33
42″	47,50,28,50,43,33, 7, 3,26,39		3,29,51,20,21	
		1,15,50,19,32,29,46,40		5,33
44″	47,50,30, 6,33,52,39,33,13,19		3,29,51,25,54	
		1,15,50,16, 2,38,20,46		5,33
46″	47,50,31,22,24, 8,42,11,34, 5		3,29,51,31,27	
		1,15,50,12,32,46,49,19		5,33
48″	47,50,32,38,14,21,14,58,23,24		3,29,51,37, 0	
		1,15,50, 9, 2,55,12,19		5,33
50″	47,50,33,54, 4,30,17,53,35,43		3,29,51,42,33	
		1,15,50, 5,33, 3,29,46		5,33
52″	47,50,35, 9,54,35,50,57, 5,29		3,29,51,48, 6	
		1,15,50, 2, 3,11,41,40		5,33
54″	47,50,36,25,44,37,54, 8,47, 9		3,29,51,53,39	
		1,15,49,58,33,19,48, 1		5,33
56″	47,50,37,41,34,36,27,28,35,10		3,29,51,59,12	
		1,15,49,55, 3,27,48,49		5,33
58″	47,50,38,57,24,31,30,56,23,59		3,29,52, 4,45	
		1,15,49,51,33,35,44, 4		
60″	47,50,40,13,14,23, 4,32, 8, 3			
exact	47,50,40,13,14,23, 4,32,26,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°53′ 0″	47,50,40,13,14,23, 4,32,26,59			
		1,15,49,48, 3,43,35,52		
2″	47,50,41,29, 4,11, 8,16, 2,51		3,29,52,15,42	
		1,15,49,44,33,51,20,10		5,33
4″	47,50,42,44,53,55,42, 7,23, 1		3,29,52,21,15	
		1,15,49,41, 3,58,58,55		5,33
6″	47,50,44, 0,43,36,46, 6,21,56		3,29,52,26,48	
		1,15,49,37,34, 6,32, 7		5,33
8″	47,50,45,16,33,14,20,12,54, 3		3,29,52,32,21	
		1,15,49,34, 4,13,59,46		5,33
10″	47,50,46,32,22,48,24,26,53,49		3,29,52,37,54	
		1,15,49,30,34,21,21,52		5,33
12″	47,50,47,48,12,18,58,48,15,41		3,29,52,43,27	
		1,15,49,27, 4,28,38,25		5,33
14″	47,50,49, 4, 1,46, 3,16,54, 6		3,29,52,49, 0	
		1,15,49,23,34,35,49,25		5,33
16″	47,50,50,19,51, 9,37,52,43,31		3,29,52,54,33	
		1,15,49,20, 4,42,54,52		5,33
18″	47,50,51,35,40,29,42,35,38,23		3,29,53, 0, 6	
		1,15,49,16,34,49,54,46		5,33
20″	47,50,52,51,29,46,17,25,33, 9		3,29,53, 5,39	
		1,15,49,13, 4,56,49, 7		5,33
22″	47,50,54, 7,18,59,22,22,22,16		3,29,53,11,12	
		1,15,49, 9,35, 3,37,55		5,33
24″	47,50,55,23, 8, 8,57,26, 0,11		3,29,53,16,45	
		1,15,49, 6, 5,10,21,10		5,33
26″	47,50,56,38,57,15, 2,36,21,21		3,29,53,22,18	
		1,15,49, 2,35,16,58,52		5,33
28″	47,50,57,54,46,17,37,53,20,13		3,29,53,27,51	
		1,15,48,59, 5,23,31, 1		5,33
30″	47,50,59,10,35,16,43,16,51,14		3,29,53,33,24	
		1,15,48,55,35,29,57,37		5,33
32″	47,51, 0,26,24,12,18,46,48,51		3,29,53,38,57	
		1,15,48,52, 5,36,18,40		5,33
34″	47,51, 1,42,13, 4,24,23, 7,31		3,29,53,44,30	
		1,15,48,48,35,42,34,10		5,33
36″	47,51, 2,58, 1,53, 0, 5,41,41		3,29,53,50, 3	
		1,15,48,45, 5,48,44, 7		5,33
38″	47,51, 4,13,50,38, 5,54,25,48		3,29,53,55,36	
		1,15,48,41,35,54,48,31		5,33
40″	47,51, 5,29,39,19,41,49,14,19		3,29,54, 1, 9	
		1,15,48,38, 6, 0,47,22		5,33
42″	47,51, 6,45,27,57,47,50, 1,41		3,29,54, 6,42	
		1,15,48,34,36, 6,40,40		5,33
44″	47,51, 8, 1,16,32,23,56,42,21		3,29,54,12,15	
		1,15,48,31, 6,12,28,25		5,33
46″	47,51, 9,17, 5, 3,30, 9,10,46		3,29,54,17,48	
		1,15,48,27,36,18,10,37		5,33
48″	47,51,10,32,53,31, 6,27,21,23		3,29,54,23,21	
		1,15,48,24, 6,23,47,16		5,33
50″	47,51,11,48,41,55,12,51, 8,39		3,29,54,28,54	
		1,15,48,20,36,29,18,22		5,33
52″	47,51,13, 4,30,15,49,20,27, 1		3,29,54,34,27	
		1,15,48,17, 6,34,43,55		5,33
54″	47,51,14,20,18,32,55,55,10,56		3,29,54,40, 0	
		1,15,48,13,36,40, 3,55		5,33
56″	47,51,15,36, 6,46,32,35,14,51		3,29,54,45,33	
		1,15,48,10, 6,45,18,22		5,33
58″	47,51,16,51,54,56,39,20,33,13		3,29,54,51, 6	
		1,15,48, 6,36,50,27,16		
60″	47,51,18, 7,43, 3,16,11, 0,29			
exact	47,51,18, 7,43, 3,16,11,30, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°54′ 0″	47,51,18, 7,43, 3,16,11,30, 0			
		1,15,48, 3, 6,55,33,47		
2″	47,51,19,23,31, 6,23, 7, 3,47		3,29,55, 1,59	
		1,15,47,59,37, 0,31,48		5,32
4″	47,51,20,39,19, 6, 0, 7,35,35		3,29,55, 7,31	
		1,15,47,56, 7, 5,24,17		5,32
6″	47,51,21,55, 7, 2, 7,12,59,52		3,29,55,13, 3	
		1,15,47,52,37,10,11,14		5,32
8″	47,51,23,10,54,54,44,23,11, 6		3,29,55,18,35	
		1,15,47,49, 7,14,52,39		5,32
10″	47,51,24,26,42,43,51,38, 3,45		3,29,55,24, 7	
		1,15,47,45,37,19,28,32		5,32
12″	47,51,25,42,30,29,28,57,32,17		3,29,55,29,39	
		1,15,47,42, 7,23,58,53		5,32
14″	47,51,26,58,18,11,36,21,31,10		3,29,55,35,11	
		1,15,47,38,37,28,23,42		5,32
16″	47,51,28,14, 5,50,13,49,54,52		3,29,55,40,43	
		1,15,47,35, 7,32,42,59		5,32
18″	47,51,29,29,53,25,21,22,37,51		3,29,55,46,15	
		1,15,47,31,37,36,56,44		5,32
20″	47,51,30,45,40,56,58,59,34,35		3,29,55,51,47	
		1,15,47,28, 7,41, 4,57		5,32
22″	47,51,32, 1,28,25, 6,40,39,32		3,29,55,57,19	
		1,15,47,24,37,45, 7,38		5,32
24″	47,51,33,17,15,49,44,25,47,10		3,29,56, 2,51	
		1,15,47,21, 7,49, 4,47		5,32
26″	47,51,34,33, 3,10,52,14,51,57		3,29,56, 8,23	
		1,15,47,17,37,52,56,24		5,32
28″	47,51,35,48,50,28,30, 7,48,21		3,29,56,13,55	
		1,15,47,14, 7,56,42,29		5,32
30″	47,51,37, 4,37,42,38, 4,30,50		3,29,56,19,27	
		1,15,47,10,38, 0,23, 2		5,32
32″	47,51,38,20,24,53,16, 4,53,52		3,29,56,24,59	
		1,15,47, 7, 8, 3,58, 3		5,32
34″	47,51,39,36,12, 0,24, 8,51,55		3,29,56,30,31	
		1,15,47, 3,38, 7,27,32		5,32
36″	47,51,40,51,59, 4, 2,16,19,27		3,29,56,36, 3	
		1,15,47, 0, 8,10,51,29		5,32
38″	47,51,42, 7,46, 4,10,27,10,56		3,29,56,41,35	
		1,15,46,56,38,14, 9,54		5,32
40″	47,51,43,23,33, 0,48,41,20,50		3,29,56,47, 7	
		1,15,46,53, 8,17,22,47		5,32
42″	47,51,44,39,19,53,56,58,43,37		3,29,56,52,39	
		1,15,46,49,38,20,30, 8		5,32
44″	47,51,45,55, 6,43,35,19,13,45		3,29,56,58,11	
		1,15,46,46, 8,23,31,57		5,32
46″	47,51,47,10,53,29,43,42,45,42		3,29,57, 3,43	
		1,15,46,42,38,26,28,14		5,32
48″	47,51,48,26,40,12,22, 9,13,56		3,29,57, 9,15	
		1,15,46,39, 8,29,18,59		5,32
50″	47,51,49,42,26,51,30,38,32,55		3,29,57,14,47	
		1,15,46,35,38,32, 4,12		5,32
52″	47,51,50,58,13,27, 9,10,37, 7		3,29,57,20,19	
		1,15,46,32, 8,34,43,53		5,32
54″	47,51,52,13,59,59,17,45,21, 0		3,29,57,25,51	
		1,15,46,28,38,37,18, 2		5,32
56″	47,51,53,29,46,27,56,22,39, 2		3,29,57,31,23	
		1,15,46,25, 8,39,46,39		5,32
58″	47,51,54,45,32,53, 5, 2,25,41		3,29,57,36,55	
		1,15,46,21,38,42, 9,44		
60″	47,51,56, 1,19,14,43,44,35,25			
exact	47,51,56, 1,19,14,43,44, 7,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°55′ 0″	47,51,56, 1,19,14,43,44, 7,13			
		1,15,46,18, 8,44,24,13		
2″	47,51,57,17, 5,32,52,28,31,26		3,29,57,48,12	
		1,15,46,14,38,46,36, 1		5,32
4″	47,51,58,32,51,47,31,15, 7,27		3,29,57,53,44	
		1,15,46,11, 8,48,42,17		5,32
6″	47,51,59,48,37,58,40, 3,49,44		3,29,57,59,16	
		1,15,46, 7,38,50,43, 1		5,32
8″	47,52, 1, 4,24, 6,18,54,32,45		3,29,58, 4,48	
		1,15,46, 4, 8,52,38,13		5,32
10″	47,52, 2,20,10,10,27,47,10,58		3,29,58,10,20	
		1,15,46, 0,38,54,27,53		5,32
12″	47,52, 3,35,56,11, 6,41,38,51		3,29,58,15,52	
		1,15,45,57, 8,56,12, 1		5,32
14″	47,52, 4,51,42, 8,15,37,50,52		3,29,58,21,24	
		1,15,45,53,38,57,50,37		5,32
16″	47,52, 6, 7,28, 1,54,35,41,29		3,29,58,26,56	
		1,15,45,50, 8,59,23,41		5,32
18″	47,52, 7,23,13,52, 3,35, 5,10		3,29,58,32,28	
		1,15,45,46,39, 0,51,13		5,32
20″	47,52, 8,38,59,38,42,35,56,23		3,29,58,38, 0	
		1,15,45,43, 9, 2,13,13		5,32
22″	47,52, 9,54,45,21,51,38, 9,36		3,29,58,43,32	
		1,15,45,39,39, 3,29,41		5,32
24″	47,52,11,10,31, 1,30,41,39,17		3,29,58,49, 4	
		1,15,45,36, 9, 4,40,37		5,32
26″	47,52,12,26,16,37,39,46,19,54		3,29,58,54,36	
		1,15,45,32,39, 5,46, 1		5,32
28″	47,52,13,42, 2,10,18,52, 5,55		3,29,59, 0, 8	
		1,15,45,29, 9, 6,45,53		5,32
30″	47,52,14,57,47,39,27,58,51,48		3,29,59, 5,40	
		1,15,45,25,39, 7,40,13		5,32
32″	47,52,16,13,33, 5, 7, 6,32, 1		3,29,59,11,12	
		1,15,45,22, 9, 8,29, 1		5,32
34″	47,52,17,29,18,27,16,15, 1, 2		3,29,59,16,44	
		1,15,45,18,39, 9,12,17		5,32
36″	47,52,18,45, 3,45,55,24,13,19		3,29,59,22,16	
		1,15,45,15, 9, 9,50, 1		5,32
38″	47,52,20, 0,49, 1, 4,34, 3,20		3,29,59,27,48	
		1,15,45,11,39,10,22,13		5,32
40″	47,52,21,16,34,12,43,44,25,33		3,29,59,33,20	
		1,15,45, 8, 9,10,48,53		5,32
42″	47,52,22,32,19,20,52,55,14,26		3,29,59,38,52	
		1,15,45, 4,39,11,10, 1		5,32
44″	47,52,23,48, 4,25,32, 6,24,27		3,29,59,44,24	
		1,15,45, 1, 9,11,25,37		5,32
46″	47,52,25, 3,49,26,41,17,50, 4		3,29,59,49,56	
		1,15,44,57,39,11,35,41		5,32
48″	47,52,26,19,34,24,20,29,25,45		3,29,59,55,28	
		1,15,44,54, 9,11,40,13		5,32
50″	47,52,27,35,19,18,29,41, 5,58		3,30, 0, 1, 0	
		1,15,44,50,39,11,39,13		5,32
52″	47,52,28,51, 4, 9, 8,52,45,11		3,30, 0, 6,32	
		1,15,44,47, 9,11,32,41		5,32
54″	47,52,30, 6,48,56,18, 4,17,52		3,30, 0,12, 4	
		1,15,44,43,39,11,20,37		5,32
56″	47,52,31,22,33,39,57,15,38,29		3,30, 0,17,36	
		1,15,44,40, 9,11, 3, 1		5,32
58″	47,52,32,38,18,20, 6,26,41,30		3,30, 0,23, 8	
		1,15,44,36,39,10,39,53		
60″	47,52,33,54, 2,56,45,37,21,23			
exact	47,52,33,54, 2,56,45,37, 1,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°56′ 0″	47,52,33,54, 2,56,45,37, 1,32			
		1,15,44,33, 9,10, 9, 4		
2″	47,52,35, 9,47,29,54,47,10,36		3,30, 0,34,21	
		1,15,44,29,39, 9,34,43		5,32
4″	47,52,36,25,31,59,33,56,45,19		3,30, 0,39,53	
		1,15,44,26, 9, 8,54,50		5,32
6″	47,52,37,41,16,25,43, 5,40, 9		3,30, 0,45,25	
		1,15,44,22,39, 8, 9,25		5,32
8″	47,52,38,57, 0,48,22,13,49,34		3,30, 0,50,57	
		1,15,44,19, 9, 7,18,28		5,32
10″	47,52,40,12,45, 7,31,21, 8, 2		3,30, 0,56,29	
		1,15,44,15,39, 6,21,59		5,32
12″	47,52,41,28,29,23,10,27,30, 1		3,30, 1, 2, 1	
		1,15,44,12, 9, 5,19,58		5,32
14″	47,52,42,44,13,35,19,32,49,59		3,30, 1, 7,33	
		1,15,44, 8,39, 4,12,25		5,32
16″	47,52,43,59,57,43,58,37, 2,24		3,30, 1,13, 5	
		1,15,44, 5, 9, 2,59,20		5,32
18″	47,52,45,15,41,49, 7,40, 1,44		3,30, 1,18,37	
		1,15,44, 1,39, 1,40,43		5,32
20″	47,52,46,31,25,50,46,41,42,27		3,30, 1,24, 9	
		1,15,43,58, 9, 0,16,34		5,32
22″	47,52,47,47, 9,48,55,41,59, 1		3,30, 1,29,41	
		1,15,43,54,38,58,46,53		5,32
24″	47,52,49, 2,53,43,34,40,45,54		3,30, 1,35,13	
		1,15,43,51, 8,57,11,40		5,32
26″	47,52,50,18,37,34,43,37,57,34		3,30, 1,40,45	
		1,15,43,47,38,55,30,55		5,32
28″	47,52,51,34,21,22,22,33,28,29		3,30, 1,46,17	
		1,15,43,44, 8,53,44,38		5,32
30″	47,52,52,50, 5, 6,31,27,13, 7		3,30, 1,51,49	
		1,15,43,40,38,51,52,49		5,32
32″	47,52,54, 5,48,47,10,19, 5,56		3,30, 1,57,21	
		1,15,43,37, 8,49,55,28		5,32
34″	47,52,55,21,32,24,19, 9, 1,24		3,30, 2, 2,53	
		1,15,43,33,38,47,52,35		5,32
36″	47,52,56,37,15,57,57,56,53,59		3,30, 2, 8,25	
		1,15,43,30, 8,45,44,10		5,32
38″	47,52,57,52,59,28, 6,42,38, 9		3,30, 2,13,57	
		1,15,43,26,38,43,30,13		5,32
40″	47,52,59, 8,42,54,45,26, 8,22		3,30, 2,19,29	
		1,15,43,23, 8,41,10,44		5,32
42″	47,53, 0,24,26,17,54, 7,19, 6		3,30, 2,25, 1	
		1,15,43,19,38,38,45,43		5,32
44″	47,53, 1,40, 9,37,32,46, 4,49		3,30, 2,30,33	
		1,15,43,16, 8,36,15,10		5,32
46″	47,53, 2,55,52,53,41,22,19,59		3,30, 2,36, 5	
		1,15,43,12,38,33,39, 5		5,32
48″	47,53, 4,11,36, 6,19,55,59, 4		3,30, 2,41,37	
		1,15,43, 9, 8,30,57,28		5,32
50″	47,53, 5,27,19,15,28,26,56,32		3,30, 2,47, 9	
		1,15,43, 5,38,28,10,19		5,32
52″	47,53, 6,43, 2,21, 6,55, 6,51		3,30, 2,52,41	
		1,15,43, 2, 8,25,17,38		5,32
54″	47,53, 7,58,45,23,15,20,24,29		3,30, 2,58,13	
		1,15,42,58,38,22,19,25		5,32
56″	47,53, 9,14,28,21,53,42,43,54		3,30, 3, 3,45	
		1,15,42,55, 8,19,15,40		5,32
58″	47,53,10,30,11,17, 2, 1,59,34		3,30, 3, 9,17	
		1,15,42,51,38,16, 6,23		
60″	47,53,11,45,54, 8,40,18, 5,57			
exact	47,53,11,45,54, 8,40,17,53,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°57′ 0″	47,53,11,45,54, 8,40,17,53,25			
		1,15,42,48, 8,12,50,15		
2″	47,53,13, 1,36,56,48,30,43,40		3,30, 3,20,26	
		1,15,42,44,38, 9,29,49		5,32
4″	47,53,14,17,19,41,26,40,13,29		3,30, 3,25,58	
		1,15,42,41, 8, 6, 3,51		5,32
6″	47,53,15,33, 2,22,34,46,17,20		3,30, 3,31,30	
		1,15,42,37,38, 2,32,21		5,32
8″	47,53,16,48,45, 0,12,48,49,41		3,30, 3,37, 2	
		1,15,42,34, 7,58,55,19		5,32
10″	47,53,18, 4,27,34,20,47,45, 0		3,30, 3,42,34	
		1,15,42,30,37,55,12,45		5,32
12″	47,53,19,20,10, 4,58,42,57,45		3,30, 3,48, 6	
		1,15,42,27, 7,51,24,39		5,32
14″	47,53,20,35,52,32, 6,34,22,24		3,30, 3,53,38	
		1,15,42,23,37,47,31, 1		5,32
16″	47,53,21,51,34,55,44,21,53,25		3,30, 3,59,10	
		1,15,42,20, 7,43,31,51		5,32
18″	47,53,23, 7,17,15,52, 5,25,16		3,30, 4, 4,42	
		1,15,42,16,37,39,27, 9		5,32
20″	47,53,24,22,59,32,29,44,52,25		3,30, 4,10,14	
		1,15,42,13, 7,35,16,55		5,32
22″	47,53,25,38,41,45,37,20, 9,20		3,30, 4,15,46	
		1,15,42, 9,37,31, 1, 9		5,32
24″	47,53,26,54,23,55,14,51,10,29		3,30, 4,21,18	
		1,15,42, 6, 7,26,39,51		5,32
26″	47,53,28,10, 6, 1,22,17,50,20		3,30, 4,26,50	
		1,15,42, 2,37,22,13, 1		5,32
28″	47,53,29,25,48, 3,59,40, 3,21		3,30, 4,32,22	
		1,15,41,59, 7,17,40,39		5,32
30″	47,53,30,41,30, 3, 6,57,44, 0		3,30, 4,37,54	
		1,15,41,55,37,13, 2,45		5,32
32″	47,53,31,57,11,58,44,10,46,45		3,30, 4,43,26	
		1,15,41,52, 7, 8,19,19		5,32
34″	47,53,33,12,53,50,51,19, 6, 4		3,30, 4,48,58	
		1,15,41,48,37, 3,30,21		5,32
36″	47,53,34,28,35,39,28,22,36,25		3,30, 4,54,30	
		1,15,41,45, 6,58,35,51		5,32
38″	47,53,35,44,17,24,35,21,12,16		3,30, 5, 0, 2	
		1,15,41,41,36,53,35,49		5,32
40″	47,53,36,59,59, 6,12,14,48, 5		3,30, 5, 5,34	
		1,15,41,38, 6,48,30,15		5,32
42″	47,53,38,15,40,44,19, 3,18,20		3,30, 5,11, 6	
		1,15,41,34,36,43,19, 9		5,32
44″	47,53,39,31,22,18,55,46,37,29		3,30, 5,16,38	
		1,15,41,31, 6,38, 2,31		5,32
46″	47,53,40,47, 3,50, 2,24,40, 0		3,30, 5,22,10	
		1,15,41,27,36,32,40,21		5,32
48″	47,53,42, 2,45,17,38,57,20,21		3,30, 5,27,42	
		1,15,41,24, 6,27,12,39		5,32
50″	47,53,43,18,26,41,45,24,33, 0		3,30, 5,33,14	
		1,15,41,20,36,21,39,25		5,32
52″	47,53,44,34, 8, 2,21,46,12,25		3,30, 5,38,46	
		1,15,41,17, 6,16, 0,39		5,32
54″	47,53,45,49,49,19,28, 2,13, 4		3,30, 5,44,18	
		1,15,41,13,36,10,16,21		5,32
56″	47,53,47, 5,30,33, 4,12,29,25		3,30, 5,49,50	
		1,15,41,10, 6, 4,26,31		5,32
58″	47,53,48,21,11,43,10,16,55,56		3,30, 5,55,22	
		1,15,41, 6,35,58,31, 9		
60″	47,53,49,36,52,49,46,15,27, 5			
exact	47,53,49,36,52,49,46,15,20,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°58′ 0″	47,53,49,36,52,49,46,15,20,56			
		1,15,41, 3, 5,52,29,42		
2″	47,53,50,52,33,52,52, 7,50,38		3,30, 6, 6,28	
		1,15,40,59,35,46,23,14		5,32
4″	47,53,52, 8,14,52,27,54,13,52		3,30, 6,12, 0	
		1,15,40,56, 5,40,11,14		5,32
6″	47,53,53,23,55,48,33,34,25, 6		3,30, 6,17,32	
		1,15,40,52,35,33,53,42		5,32
8″	47,53,54,39,36,41, 9, 8,18,48		3,30, 6,23, 4	
		1,15,40,49, 5,27,30,38		5,32
10″	47,53,55,55,17,30,14,35,49,26		3,30, 6,28,36	
		1,15,40,45,35,21, 2, 2		5,32
12″	47,53,57,10,58,15,49,56,51,28		3,30, 6,34, 8	
		1,15,40,42, 5,14,27,54		5,32
14″	47,53,58,26,38,57,55,11,19,22		3,30, 6,39,40	
		1,15,40,38,35, 7,48,14		5,32
16″	47,53,59,42,19,36,30,19, 7,36		3,30, 6,45,12	
		1,15,40,35, 5, 1, 3, 2		5,32
18″	47,54, 0,58, 0,11,35,20,10,38		3,30, 6,50,44	
		1,15,40,31,34,54,12,18		5,32
20″	47,54, 2,13,40,43,10,14,22,56		3,30, 6,56,16	
		1,15,40,28, 4,47,16, 2		5,32
22″	47,54, 3,29,21,11,15, 1,38,58		3,30, 7, 1,48	
		1,15,40,24,34,40,14,14		5,32
24″	47,54, 4,45, 1,35,49,41,53,12		3,30, 7, 7,20	
		1,15,40,21, 4,33, 6,54		5,32
26″	47,54, 6, 0,41,56,54,15, 0, 6		3,30, 7,12,52	
		1,15,40,17,34,25,54, 2		5,32
28″	47,54, 7,16,22,14,28,40,54, 8		3,30, 7,18,24	
		1,15,40,14, 4,18,35,38		5,32
30″	47,54, 8,32, 2,28,32,59,29,46		3,30, 7,23,56	
		1,15,40,10,34,11,11,42		5,32
32″	47,54, 9,47,42,39, 7,10,41,28		3,30, 7,29,28	
		1,15,40, 7, 4, 3,42,14		5,32
34″	47,54,11, 3,22,46,11,14,23,42		3,30, 7,35, 0	
		1,15,40, 3,33,56, 7,14		5,32
36″	47,54,12,19, 2,49,45,10,30,56		3,30, 7,40,32	
		1,15,40, 0, 3,48,26,42		5,32
38″	47,54,13,34,42,49,48,58,57,38		3,30, 7,46, 4	
		1,15,39,56,33,40,40,38		5,32
40″	47,54,14,50,22,46,22,39,38,16		3,30, 7,51,36	
		1,15,39,53, 3,32,49, 2		5,32
42″	47,54,16, 6, 2,39,26,12,27,18		3,30, 7,57, 8	
		1,15,39,49,33,24,51,54		5,32
44″	47,54,17,21,42,28,59,37,19,12		3,30, 8, 2,40	
		1,15,39,46, 3,16,49,14		5,32
46″	47,54,18,37,22,15, 2,54, 8,26		3,30, 8, 8,12	
		1,15,39,42,33, 8,41, 2		5,32
48″	47,54,19,53, 1,57,36, 2,49,28		3,30, 8,13,44	
		1,15,39,39, 3, 0,27,18		5,32
50″	47,54,21, 8,41,36,39, 3,16,46		3,30, 8,19,16	
		1,15,39,35,32,52, 8, 2		5,32
52″	47,54,22,24,21,12,11,55,24,48		3,30, 8,24,48	
		1,15,39,32, 2,43,43,14		5,32
54″	47,54,23,40, 0,44,14,39, 8, 2		3,30, 8,30,20	
		1,15,39,28,32,35,12,54		5,32
56″	47,54,24,55,40,12,47,14,20,56		3,30, 8,35,52	
		1,15,39,25, 2,26,37, 2		5,32
58″	47,54,26,11,19,37,49,40,57,58		3,30, 8,41,24	
		1,15,39,21,32,17,55,38		
60″	47,54,27,26,58,59,21,58,53,36			
exact	47,54,27,26,58,59,21,58,59,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
52°59′ 0″	47,54,27,26,58,59,21,58,59,41			
		1,15,39,18, 2, 9, 9,19		
2″	47,54,28,42,38,17,24, 8, 9, 0		3,30, 8,52,25	
		1,15,39,14,32, 0,16,54		5,32
4″	47,54,29,58,17,31,56, 8,25,54		3,30, 8,57,57	
		1,15,39,11, 1,51,18,57		5,32
6″	47,54,31,13,56,42,57,59,44,51		3,30, 9, 3,29	
		1,15,39, 7,31,42,15,28		5,32
8″	47,54,32,29,35,50,29,42, 0,19		3,30, 9, 9, 1	
		1,15,39, 4, 1,33, 6,27		5,32
10″	47,54,33,45,14,54,31,15, 6,46		3,30, 9,14,33	
		1,15,39, 0,31,23,51,54		5,32
12″	47,54,35, 0,53,55, 2,38,58,40		3,30, 9,20, 5	
		1,15,38,57, 1,14,31,49		5,32
14″	47,54,36,16,32,52, 3,53,30,29		3,30, 9,25,37	
		1,15,38,53,31, 5, 6,12		5,32
16″	47,54,37,32,11,45,34,58,36,41		3,30, 9,31, 9	
		1,15,38,50, 0,55,35, 3		5,32
18″	47,54,38,47,50,35,35,54,11,44		3,30, 9,36,41	
		1,15,38,46,30,45,58,22		5,32
20″	47,54,40, 3,29,22, 6,40,10, 6		3,30, 9,42,13	
		1,15,38,43, 0,36,16, 9		5,32
22″	47,54,41,19, 8, 5, 7,16,26,15		3,30, 9,47,45	
		1,15,38,39,30,26,28,24		5,32
24″	47,54,42,34,46,44,37,42,54,39		3,30, 9,53,17	
		1,15,38,36, 0,16,35, 7		5,32
26″	47,54,43,50,25,20,37,59,29,46		3,30, 9,58,49	
		1,15,38,32,30, 6,36,18		5,32
28″	47,54,45, 6, 3,53, 8, 6, 6, 4		3,30,10, 4,21	
		1,15,38,28,59,56,31,57		5,32
30″	47,54,46,21,42,22, 8, 2,38, 1		3,30,10, 9,53	
		1,15,38,25,29,46,22, 4		5,32
32″	47,54,47,37,20,47,37,49, 0, 5		3,30,10,15,25	
		1,15,38,21,59,36, 6,39		5,32
34″	47,54,48,52,59, 9,37,25, 6,44		3,30,10,20,57	
		1,15,38,18,29,25,45,42		5,32
36″	47,54,50, 8,37,28, 6,50,52,26		3,30,10,26,29	
		1,15,38,14,59,15,19,13		5,32
38″	47,54,51,24,15,43, 6, 6,11,39		3,30,10,32, 1	
		1,15,38,11,29, 4,47,12		5,32
40″	47,54,52,39,53,54,35,10,58,51		3,30,10,37,33	
		1,15,38, 7,58,54, 9,39		5,32
42″	47,54,53,55,32, 2,34, 5, 8,30		3,30,10,43, 5	
		1,15,38, 4,28,43,26,34		5,32
44″	47,54,55,11,10, 7, 2,48,35, 4		3,30,10,48,37	
		1,15,38, 0,58,32,37,57		5,32
46″	47,54,56,26,48, 8, 1,21,13, 1		3,30,10,54, 9	
		1,15,37,57,28,21,43,48		5,32
48″	47,54,57,42,26, 5,29,42,56,49		3,30,10,59,41	
		1,15,37,53,58,10,44, 7		5,32
50″	47,54,58,58, 3,59,27,53,40,56		3,30,11, 5,13	
		1,15,37,50,27,59,38,54		5,32
52″	47,55, 0,13,41,49,55,53,19,50		3,30,11,10,45	
		1,15,37,46,57,48,28, 9		5,32
54″	47,55, 1,29,19,36,53,41,47,59		3,30,11,16,17	
		1,15,37,43,27,37,11,52		5,32
56″	47,55, 2,44,57,20,21,18,59,51		3,30,11,21,49	
		1,15,37,39,57,25,50, 3		5,32
58″	47,55, 4, 0,35, 0,18,44,49,54		3,30,11,27,21	
		1,15,37,36,27,14,22,42		
60″	47,55, 5,16,12,36,45,59,12,36			
exact	47,55, 5,16,12,36,45,59,22,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53° 0′ 0″	47,55, 5,16,12,36,45,59,22,56			
		1,15,37,32,57, 2,51, 3		
2″	47,55, 6,31,50, 9,43, 2,13,59		3,30,11,38,19	
		1,15,37,29,26,51,12,44		5,32
4″	47,55, 7,47,27,39, 9,53,26,43		3,30,11,43,51	
		1,15,37,25,56,39,28,53		5,32
6″	47,55, 9, 3, 5, 5, 6,32,55,36		3,30,11,49,23	
		1,15,37,22,26,27,39,30		5,32
8″	47,55,10,18,42,27,33, 0,35, 6		3,30,11,54,55	
		1,15,37,18,56,15,44,35		5,32
10″	47,55,11,34,19,46,29,16,19,41		3,30,12, 0,27	
		1,15,37,15,26, 3,44, 8		5,32
12″	47,55,12,49,57, 1,55,20, 3,49		3,30,12, 5,59	
		1,15,37,11,55,51,38, 9		5,32
14″	47,55,14, 5,34,13,51,11,41,58		3,30,12,11,31	
		1,15,37, 8,25,39,26,38		5,32
16″	47,55,15,21,11,22,16,51, 8,36		3,30,12,17, 3	
		1,15,37, 4,55,27, 9,35		5,32
18″	47,55,16,36,48,27,12,18,18,11		3,30,12,22,35	
		1,15,37, 1,25,14,47, 0		5,32
20″	47,55,17,52,25,28,37,33, 5,11		3,30,12,28, 7	
		1,15,36,57,55, 2,18,53		5,32
22″	47,55,19, 8, 2,26,32,35,24, 4		3,30,12,33,39	
		1,15,36,54,24,49,45,14		5,32
24″	47,55,20,23,39,20,57,25, 9,18		3,30,12,39,11	
		1,15,36,50,54,37, 6, 3		5,32
26″	47,55,21,39,16,11,52, 2,15,21		3,30,12,44,43	
		1,15,36,47,24,24,21,20		5,32
28″	47,55,22,54,52,59,16,26,36,41		3,30,12,50,15	
		1,15,36,43,54,11,31, 5		5,32
30″	47,55,24,10,29,43,10,38, 7,46		3,30,12,55,47	
		1,15,36,40,23,58,35,18		5,32
32″	47,55,25,26, 6,23,34,36,43, 4		3,30,13, 1,19	
		1,15,36,36,53,45,33,59		5,32
34″	47,55,26,41,43, 0,28,22,17, 3		3,30,13, 6,51	
		1,15,36,33,23,32,27, 8		5,32
36″	47,55,27,57,19,33,51,54,44,11		3,30,13,12,23	
		1,15,36,29,53,19,14,45		5,32
38″	47,55,29,12,56, 3,45,13,58,56		3,30,13,17,55	
		1,15,36,26,23, 5,56,50		5,32
40″	47,55,30,28,32,30, 8,19,55,46		3,30,13,23,27	
		1,15,36,22,52,52,33,23		5,32
42″	47,55,31,44, 8,53, 1,12,29, 9		3,30,13,28,59	
		1,15,36,19,22,39, 4,24		5,32
44″	47,55,32,59,45,12,23,51,33,33		3,30,13,34,31	
		1,15,36,15,52,25,29,53		5,32
46″	47,55,34,15,21,28,16,17, 3,26		3,30,13,40, 3	
		1,15,36,12,22,11,49,50		5,32
48″	47,55,35,30,57,40,38,28,53,16		3,30,13,45,35	
		1,15,36, 8,51,58, 4,15		5,32
50″	47,55,36,46,33,49,30,26,57,31		3,30,13,51, 7	
		1,15,36, 5,21,44,13, 8		5,32
52″	47,55,38, 2, 9,54,52,11,10,39		3,30,13,56,39	
		1,15,36, 1,51,30,16,29		5,32
54″	47,55,39,17,45,56,43,41,27, 8		3,30,14, 2,11	
		1,15,35,58,21,16,14,18		5,32
56″	47,55,40,33,21,55, 4,57,41,26		3,30,14, 7,43	
		1,15,35,54,51, 2, 6,35		5,32
58″	47,55,41,48,57,49,55,59,48, 1		3,30,14,13,15	
		1,15,35,51,20,47,53,20		
60″	47,55,43, 4,33,41,16,47,41,21			
exact	47,55,43, 4,33,41,16,48, 1,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53° 1′ 0″	47,55,43, 4,33,41,16,48, 1,30			
		1,15,35,47,50,33,36,48		
2″	47,55,44,20, 9,29, 7,21,38,18		3,30,14,24, 9	
		1,15,35,44,20,19,12,39		5,32
4″	47,55,45,35,45,13,27,40,50,57		3,30,14,29,41	
		1,15,35,40,50, 4,42,58		5,32
6″	47,55,46,51,20,54,17,45,33,55		3,30,14,35,13	
		1,15,35,37,19,50, 7,45		5,32
8″	47,55,48, 6,56,31,37,35,41,40		3,30,14,40,45	
		1,15,35,33,49,35,27, 0		5,32
10″	47,55,49,22,32, 5,27,11, 8,40		3,30,14,46,17	
		1,15,35,30,19,20,40,43		5,32
12″	47,55,50,38, 7,35,46,31,49,23		3,30,14,51,49	
		1,15,35,26,49, 5,48,54		5,32
14″	47,55,51,53,43, 2,35,37,38,17		3,30,14,57,21	
		1,15,35,23,18,50,51,33		5,32
16″	47,55,53, 9,18,25,54,28,29,50		3,30,15, 2,53	
		1,15,35,19,48,35,48,40		5,32
18″	47,55,54,24,53,45,43, 4,18,30		3,30,15, 8,25	
		1,15,35,16,18,20,40,15		5,32
20″	47,55,55,40,29, 2, 1,24,58,45		3,30,15,13,57	
		1,15,35,12,48, 5,26,18		5,32
22″	47,55,56,56, 4,14,49,30,25, 3		3,30,15,19,29	
		1,15,35, 9,17,50, 6,49		5,32
24″	47,55,58,11,39,24, 7,20,31,52		3,30,15,25, 1	
		1,15,35, 5,47,34,41,48		5,32
26″	47,55,59,27,14,29,54,55,13,40		3,30,15,30,33	
		1,15,35, 2,17,19,11,15		5,32
28″	47,56, 0,42,49,32,12,14,24,55		3,30,15,36, 5	
		1,15,34,58,47, 3,35,10		5,32
30″	47,56, 1,58,24,30,59,18, 0, 5		3,30,15,41,37	
		1,15,34,55,16,47,53,33		5,32
32″	47,56, 3,13,59,26,16, 5,53,38		3,30,15,47, 9	
		1,15,34,51,46,32, 6,24		5,32
34″	47,56, 4,29,34,18, 2,38, 0, 2		3,30,15,52,41	
		1,15,34,48,16,16,13,43		5,32
36″	47,56, 5,45, 9, 6,18,54,13,45		3,30,15,58,13	
		1,15,34,44,46, 0,15,30		5,32
38″	47,56, 7, 0,43,51, 4,54,29,15		3,30,16, 3,45	
		1,15,34,41,15,44,11,45		5,32
40″	47,56, 8,16,18,32,20,38,41, 0		3,30,16, 9,17	
		1,15,34,37,45,28, 2,28		5,32
42″	47,56, 9,31,53,10, 6, 6,43,28		3,30,16,14,49	
		1,15,34,34,15,11,47,39		5,32
44″	47,56,10,47,27,44,21,18,31, 7		3,30,16,20,21	
		1,15,34,30,44,55,27,18		5,32
46″	47,56,12, 3, 2,15, 6,13,58,25		3,30,16,25,53	
		1,15,34,27,14,39, 1,25		5,32
48″	47,56,13,18,36,42,20,52,59,50		3,30,16,31,25	
		1,15,34,23,44,22,30, 0		5,32
50″	47,56,14,34,11, 6, 5,15,29,50		3,30,16,36,57	
		1,15,34,20,14, 5,53, 3		5,32
52″	47,56,15,49,45,26,19,21,22,53		3,30,16,42,29	
		1,15,34,16,43,49,10,34		5,32
54″	47,56,17, 5,19,43, 3,10,33,27		3,30,16,48, 1	
		1,15,34,13,13,32,22,33		5,32
56″	47,56,18,20,53,56,16,42,56, 0		3,30,16,53,33	
		1,15,34, 9,43,15,29, 0		5,32
58″	47,56,19,36,28, 5,59,58,25, 0		3,30,16,59, 5	
		1,15,34, 6,12,58,29,55		
60″	47,56,20,52, 2,12,12,56,54,55			
exact	47,56,20,52, 2,12,12,57,23,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53° 2′ 0″	47,56,20,52, 2,12,12,57,23,52			
		1,15,34, 2,42,41,28,29		
2″	47,56,22, 7,36,14,55,38,52,21		3,30,17, 9,55	
		1,15,33,59,12,24,18,34		5,31
4″	47,56,23,23,10,14, 8, 3,10,55		3,30,17,15,26	
		1,15,33,55,42, 7, 3, 8		5,31
6″	47,56,24,38,44, 9,50,10,14, 3		3,30,17,20,57	
		1,15,33,52,11,49,42,11		5,31
8″	47,56,25,54,18, 2, 1,59,56,14		3,30,17,26,28	
		1,15,33,48,41,32,15,43		5,31
10″	47,56,27, 9,51,50,43,32,11,57		3,30,17,31,59	
		1,15,33,45,11,14,43,44		5,31
12″	47,56,28,25,25,35,54,46,55,41		3,30,17,37,30	
		1,15,33,41,40,57, 6,14		5,31
14″	47,56,29,40,59,17,35,44, 1,55		3,30,17,43, 1	
		1,15,33,38,10,39,23,13		5,31
16″	47,56,30,56,32,55,46,23,25, 8		3,30,17,48,32	
		1,15,33,34,40,21,34,41		5,31
18″	47,56,32,12, 6,30,26,44,59,49		3,30,17,54, 3	
		1,15,33,31,10, 3,40,38		5,31
20″	47,56,33,27,40, 1,36,48,40,27		3,30,17,59,34	
		1,15,33,27,39,45,41, 4		5,31
22″	47,56,34,43,13,29,16,34,21,31		3,30,18, 5, 5	
		1,15,33,24, 9,27,35,59		5,31
24″	47,56,35,58,46,53,26, 1,57,30		3,30,18,10,36	
		1,15,33,20,39, 9,25,23		5,31
26″	47,56,37,14,20,14, 5,11,22,53		3,30,18,16, 7	
		1,15,33,17, 8,51, 9,16		5,31
28″	47,56,38,29,53,31,14, 2,32, 9		3,30,18,21,38	
		1,15,33,13,38,32,47,38		5,31
30″	47,56,39,45,26,44,52,35,19,47		3,30,18,27, 9	
		1,15,33,10, 8,14,20,29		5,31
32″	47,56,41, 0,59,55, 0,49,40,16		3,30,18,32,40	
		1,15,33, 6,37,55,47,49		5,31
34″	47,56,42,16,33, 1,38,45,28, 5		3,30,18,38,11	
		1,15,33, 3, 7,37, 9,38		5,31
36″	47,56,43,32, 6, 4,46,22,37,43		3,30,18,43,42	
		1,15,32,59,37,18,25,56		5,31
38″	47,56,44,47,39, 4,23,41, 3,39		3,30,18,49,13	
		1,15,32,56, 6,59,36,43		5,31
40″	47,56,46, 3,12, 0,30,40,40,22		3,30,18,54,44	
		1,15,32,52,36,40,41,59		5,31
42″	47,56,47,18,44,53, 7,21,22,21		3,30,19, 0,15	
		1,15,32,49, 6,21,41,44		5,31
44″	47,56,48,34,17,42,13,43, 4, 5		3,30,19, 5,46	
		1,15,32,45,36, 2,35,58		5,31
46″	47,56,49,49,50,27,49,45,40, 3		3,30,19,11,17	
		1,15,32,42, 5,43,24,41		5,31
48″	47,56,51, 5,23, 9,55,29, 4,44		3,30,19,16,48	
		1,15,32,38,35,24, 7,53		5,31
50″	47,56,52,20,55,48,30,53,12,37		3,30,19,22,19	
		1,15,32,35, 5, 4,45,34		5,31
52″	47,56,53,36,28,23,35,57,58,11		3,30,19,27,50	
		1,15,32,31,34,45,17,44		5,31
54″	47,56,54,52, 0,55,10,43,15,55		3,30,19,33,21	
		1,15,32,28, 4,25,44,23		5,31
56″	47,56,56, 7,33,23,15, 9, 0,18		3,30,19,38,52	
		1,15,32,24,34, 6, 5,31		5,31
58″	47,56,57,23, 5,47,49,15, 5,49		3,30,19,44,23	
		1,15,32,21, 3,46,21, 8		
60″	47,56,58,38,38, 8,53, 1,26,57			
exact	47,56,58,38,38, 8,53, 0,56, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53° 3′ 0″	47,56,58,38,38, 8,53, 0,56, 9			
		1,15,32,17,33,26,28, 2		
2″	47,56,59,54,10,26,26,27,24,11		3,30,19,55,37	
		1,15,32,14, 3, 6,32,25		5,31
4″	47,57, 1, 9,42,40,29,33,56,36		3,30,20, 1, 8	
		1,15,32,10,32,46,31,17		5,31
6″	47,57, 2,25,14,51, 2,20,27,53		3,30,20, 6,39	
		1,15,32, 7, 2,26,24,38		5,31
8″	47,57, 3,40,46,58, 4,46,52,31		3,30,20,12,10	
		1,15,32, 3,32, 6,12,28		5,31
10″	47,57, 4,56,19, 1,36,53, 4,59		3,30,20,17,41	
		1,15,32, 0, 1,45,54,47		5,31
12″	47,57, 6,11,51, 1,38,38,59,46		3,30,20,23,12	
		1,15,31,56,31,25,31,35		5,31
14″	47,57, 7,27,22,58,10, 4,31,21		3,30,20,28,43	
		1,15,31,53, 1, 5, 2,52		5,31
16″	47,57, 8,42,54,51,11, 9,34,13		3,30,20,34,14	
		1,15,31,49,30,44,28,38		5,31
18″	47,57, 9,58,26,40,41,54, 2,51		3,30,20,39,45	
		1,15,31,46, 0,23,48,53		5,31
20″	47,57,11,13,58,26,42,17,51,44		3,30,20,45,16	
		1,15,31,42,30, 3, 3,37		5,31
22″	47,57,12,29,30, 9,12,20,55,21		3,30,20,50,47	
		1,15,31,38,59,42,12,50		5,31
24″	47,57,13,45, 1,48,12, 3, 8,11		3,30,20,56,18	
		1,15,31,35,29,21,16,32		5,31
26″	47,57,15, 0,33,23,41,24,24,43		3,30,21, 1,49	
		1,15,31,31,59, 0,14,43		5,31
28″	47,57,16,16, 4,55,40,24,39,26		3,30,21, 7,20	
		1,15,31,28,28,39, 7,23		5,31
30″	47,57,17,31,36,24, 9, 3,46,49		3,30,21,12,51	
		1,15,31,24,58,17,54,32		5,31
32″	47,57,18,47, 7,49, 7,21,41,21		3,30,21,18,22	
		1,15,31,21,27,56,36,10		5,31
34″	47,57,20, 2,39,10,35,18,17,31		3,30,21,23,53	
		1,15,31,17,57,35,12,17		5,31
36″	47,57,21,18,10,28,32,53,29,48		3,30,21,29,24	
		1,15,31,14,27,13,42,53		5,31
38″	47,57,22,33,41,43, 0, 7,12,41		3,30,21,34,55	
		1,15,31,10,56,52, 7,58		5,31
40″	47,57,23,49,12,53,56,59,20,39		3,30,21,40,26	
		1,15,31, 7,26,30,27,32		5,31
42″	47,57,25, 4,44, 1,23,29,48,11		3,30,21,45,57	
		1,15,31, 3,56, 8,41,35		5,31
44″	47,57,26,20,15, 5,19,38,29,46		3,30,21,51,28	
		1,15,31, 0,25,46,50, 7		5,31
46″	47,57,27,35,46, 5,45,25,19,53		3,30,21,56,59	
		1,15,30,56,55,24,53, 8		5,31
48″	47,57,28,51,17, 2,40,50,13, 1		3,30,22, 2,30	
		1,15,30,53,25, 2,50,38		5,31
50″	47,57,30, 6,47,56, 5,53, 3,39		3,30,22, 8, 1	
		1,15,30,49,54,40,42,37		5,31
52″	47,57,31,22,18,46, 0,33,46,16		3,30,22,13,32	
		1,15,30,46,24,18,29, 5		5,31
54″	47,57,32,37,49,32,24,52,15,21		3,30,22,19, 3	
		1,15,30,42,53,56,10, 2		5,31
56″	47,57,33,53,20,15,18,48,25,23		3,30,22,24,34	
		1,15,30,39,23,33,45,28		5,31
58″	47,57,35, 8,50,54,42,22,10,51		3,30,22,30, 5	
		1,15,30,35,53,11,15,23		
60″	47,57,36,24,21,30,35,33,26,14			
exact	47,57,36,24,21,30,35,33, 2, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53° 4′ 0″	47,57,36,24,21,30,35,33, 2, 6			
		1,15,30,32,22,48,37,23		
2″	47,57,37,39,52, 2,58,21,39,29		3,30,22,41,16	
		1,15,30,28,52,25,56, 7		5,31
4″	47,57,38,55,22,31,50,47,35,36		3,30,22,46,47	
		1,15,30,25,22, 3, 9,20		5,31
6″	47,57,40,10,52,57,12,50,44,56		3,30,22,52,18	
		1,15,30,21,51,40,17, 2		5,31
8″	47,57,41,26,23,19, 4,31, 1,58		3,30,22,57,49	
		1,15,30,18,21,17,19,13		5,31
10″	47,57,42,41,53,37,25,48,21,11		3,30,23, 3,20	
		1,15,30,14,50,54,15,53		5,31
12″	47,57,43,57,23,52,16,42,37, 4		3,30,23, 8,51	
		1,15,30,11,20,31, 7, 2		5,31
14″	47,57,45,12,54, 3,37,13,44, 6		3,30,23,14,22	
		1,15,30, 7,50, 7,52,40		5,31
16″	47,57,46,28,24,11,27,21,36,46		3,30,23,19,53	
		1,15,30, 4,19,44,32,47		5,31
18″	47,57,47,43,54,15,47, 6, 9,33		3,30,23,25,24	
		1,15,30, 0,49,21, 7,23		5,31
20″	47,57,48,59,24,16,36,27,16,56		3,30,23,30,55	
		1,15,29,57,18,57,36,28		5,31
22″	47,57,50,14,54,13,55,24,53,24		3,30,23,36,26	
		1,15,29,53,48,34, 0, 2		5,31
24″	47,57,51,30,24, 7,43,58,53,26		3,30,23,41,57	
		1,15,29,50,18,10,18, 5		5,31
26″	47,57,52,45,53,58, 2, 9,11,31		3,30,23,47,28	
		1,15,29,46,47,46,30,37		5,31
28″	47,57,54, 1,23,44,49,55,42, 8		3,30,23,52,59	
		1,15,29,43,17,22,37,38		5,31
30″	47,57,55,16,53,28, 7,18,19,46		3,30,23,58,30	
		1,15,29,39,46,58,39, 8		5,31
32″	47,57,56,32,23, 7,54,16,58,54		3,30,24, 4, 1	
		1,15,29,36,16,34,35, 7		5,31
34″	47,57,57,47,52,44,10,51,34, 1		3,30,24, 9,32	
		1,15,29,32,46,10,25,35		5,31
36″	47,57,59, 3,22,16,57, 1,59,36		3,30,24,15, 3	
		1,15,29,29,15,46,10,32		5,31
38″	47,58, 0,18,51,46,12,48,10, 8		3,30,24,20,34	
		1,15,29,25,45,21,49,58		5,31
40″	47,58, 1,34,21,11,58,10, 0, 6		3,30,24,26, 5	
		1,15,29,22,14,57,23,53		5,31
42″	47,58, 2,49,50,34,13, 7,23,59		3,30,24,31,36	
		1,15,29,18,44,32,52,17		5,31
44″	47,58, 4, 5,19,52,57,40,16,16		3,30,24,37, 7	
		1,15,29,15,14, 8,15,10		5,31
46″	47,58, 5,20,49, 8,11,48,31,26		3,30,24,42,38	
		1,15,29,11,43,43,32,32		5,31
48″	47,58, 6,36,18,19,55,32, 3,58		3,30,24,48, 9	
		1,15,29, 8,13,18,44,23		5,31
50″	47,58, 7,51,47,28, 8,50,48,21		3,30,24,53,40	
		1,15,29, 4,42,53,50,43		5,31
52″	47,58, 9, 7,16,32,51,44,39, 4		3,30,24,59,11	
		1,15,29, 1,12,28,51,32		5,31
54″	47,58,10,22,45,34, 4,13,30,36		3,30,25, 4,42	
		1,15,28,57,42, 3,46,50		5,31
56″	47,58,11,38,14,31,46,17,17,26		3,30,25,10,13	
		1,15,28,54,11,38,36,37		5,31
58″	47,58,12,53,43,25,57,55,54, 3		3,30,25,15,44	
		1,15,28,50,41,13,20,53		
60″	47,58,14, 9,12,16,39, 9,14,56			
exact	47,58,14, 9,12,16,39, 9, 3, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53° 5′ 0″	47,58,14, 9,12,16,39, 9, 3, 9	1,15,28,47,10,47,58,25		
2″	47,58,15,24,41, 3,49,57, 1,34	1,15,28,43,40,22,31,35	3,30,25,26,50	5,31
4″	47,58,16,40, 9,47,30,19,33, 9	1,15,28,40, 9,56,59,14	3,30,25,32,21	5,31
6″	47,58,17,55,38,27,40,16,32,23	1,15,28,36,39,31,21,22	3,30,25,37,52	5,31
8″	47,58,19,11, 7, 4,19,47,53,45	1,15,28,33, 9, 5,37,59	3,30,25,43,23	5,31
10″	47,58,20,26,35,37,28,53,31,44	1,15,28,29,38,39,49, 5	3,30,25,48,54	5,31
12″	47,58,21,42, 4, 7, 7,33,20,49	1,15,28,26, 8,13,54,40	3,30,25,54,25	5,31
14″	47,58,22,57,32,33,15,47,15,29	1,15,28,22,37,47,54,44	3,30,25,59,56	5,31
16″	47,58,24,13, 0,55,53,35,10,13	1,15,28,19, 7,21,49,17	3,30,26, 5,27	5,31
18″	47,58,25,28,29,15, 0,56,59,30	1,15,28,15,36,55,38,19	3,30,26,10,58	5,31
20″	47,58,26,43,57,30,37,52,37,49	1,15,28,12, 6,29,21,50	3,30,26,16,29	5,31
22″	47,58,27,59,25,42,44,21,59,39	1,15,28, 8,36, 2,59,50	3,30,26,22, 0	5,31
24″	47,58,29,14,53,51,20,24,59,29	1,15,28, 5, 5,36,32,19	3,30,26,27,31	5,31
26″	47,58,30,30,21,56,26, 1,31,48	1,15,28, 1,35, 9,59,17	3,30,26,33, 2	5,31
28″	47,58,31,45,49,58, 1,11,31, 5	1,15,27,58, 4,43,20,44	3,30,26,38,33	5,31
30″	47,58,33, 1,17,56, 5,54,51,49	1,15,27,54,34,16,36,40	3,30,26,44, 4	5,31
32″	47,58,34,16,45,50,40,11,28,29	1,15,27,51, 3,49,47, 5	3,30,26,49,35	5,31
34″	47,58,35,32,13,41,44, 1,15,34	1,15,27,47,33,22,51,59	3,30,26,55, 6	5,31
36″	47,58,36,47,41,29,17,24, 7,33	1,15,27,44, 2,55,51,22	3,30,27, 0,37	5,31
38″	47,58,38, 3, 9,13,20,19,58,55	1,15,27,40,32,28,45,14	3,30,27, 6, 8	5,31
40″	47,58,39,18,36,53,52,48,44, 9	1,15,27,37, 2, 1,33,35	3,30,27,11,39	5,31
42″	47,58,40,34, 4,30,54,50,17,44	1,15,27,33,31,34,16,25	3,30,27,17,10	5,31
44″	47,58,41,49,32, 4,26,24,34, 9	1,15,27,30, 1, 6,53,44	3,30,27,22,41	5,31
46″	47,58,43, 4,59,34,27,31,27,53	1,15,27,26,30,39,25,32	3,30,27,28,12	5,31
48″	47,58,44,20,27, 0,58,10,53,25	1,15,27,23, 0,11,51,49	3,30,27,33,43	5,31
50″	47,58,45,35,54,23,58,22,45,14	1,15,27,19,29,44,12,35	3,30,27,39,14	5,31
52″	47,58,46,51,21,43,28, 6,57,49	1,15,27,15,59,16,27,50	3,30,27,44,45	5,31
54″	47,58,48, 6,48,59,27,23,25,39	1,15,27,12,28,48,37,34	3,30,27,50,16	5,31
56″	47,58,49,22,16,11,56,12, 3,13	1,15,27, 8,58,20,41,47	3,30,27,55,47	5,31
58″	47,58,50,37,43,20,54,32,45, 0	1,15,27, 5,27,52,40,29	3,30,28, 1,18	
60″	47,58,51,53,10,26,22,25,25,29			
exact	47,58,51,53,10,26,22,25,18,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53° 6′ 0″	47,58,51,53,10,26,22,25,18,22			
		1,15,27, 1,57,24,33, 6		
2″	47,58,53, 8,37,28,19,49,51,28		3,30,28,12,21	
		1,15,26,58,26,56,20,45		5,31
4″	47,58,54,24, 4,26,46,46,12,13		3,30,28,17,52	
		1,15,26,54,56,28, 2,53		5,31
6″	47,58,55,39,31,21,43,14,15, 6		3,30,28,23,23	
		1,15,26,51,25,59,39,30		5,31
8″	47,58,56,54,58,13, 9,13,54,36		3,30,28,28,54	
		1,15,26,47,55,31,10,36		5,31
10″	47,58,58,10,25, 1, 4,45, 5,12		3,30,28,34,25	
		1,15,26,44,25, 2,36,11		5,31
12″	47,58,59,25,51,45,29,47,41,23		3,30,28,39,56	
		1,15,26,40,54,33,56,15		5,31
14″	47,59, 0,41,18,26,24,21,37,38		3,30,28,45,27	
		1,15,26,37,24, 5,10,48		5,31
16″	47,59, 1,56,45, 3,48,26,48,26		3,30,28,50,58	
		1,15,26,33,53,36,19,50		5,31
18″	47,59, 3,12,11,37,42, 3, 8,16		3,30,28,56,29	
		1,15,26,30,23, 7,23,21		5,31
20″	47,59, 4,27,38, 8, 5,10,31,37		3,30,29, 2, 0	
		1,15,26,26,52,38,21,21		5,31
22″	47,59, 5,43, 4,34,57,48,52,58		3,30,29, 7,31	
		1,15,26,23,22, 9,13,50		5,31
24″	47,59, 6,58,30,58,19,58, 6,48		3,30,29,13, 2	
		1,15,26,19,51,40, 0,48		5,31
26″	47,59, 8,13,57,18,11,38, 7,36		3,30,29,18,33	
		1,15,26,16,21,10,42,15		5,31
28″	47,59, 9,29,23,34,32,48,49,51		3,30,29,24, 4	
		1,15,26,12,50,41,18,11		5,31
30″	47,59,10,44,49,47,23,30, 8, 2		3,30,29,29,35	
		1,15,26, 9,20,11,48,36		5,31
32″	47,59,12, 0,15,56,43,41,56,38		3,30,29,35, 6	
		1,15,26, 5,49,42,13,30		5,31
34″	47,59,13,15,42, 2,33,24,10, 8		3,30,29,40,37	
		1,15,26, 2,19,12,32,53		5,31
36″	47,59,14,31, 8, 4,52,36,43, 1		3,30,29,46, 8	
		1,15,25,58,48,42,46,45		5,31
38″	47,59,15,46,34, 3,41,19,29,46		3,30,29,51,39	
		1,15,25,55,18,12,55, 6		5,31
40″	47,59,17, 1,59,58,59,32,24,52		3,30,29,57,10	
		1,15,25,51,47,42,57,56		5,31
42″	47,59,18,17,25,50,47,15,22,48		3,30,30, 2,41	
		1,15,25,48,17,12,55,15		5,31
44″	47,59,19,32,51,39, 4,28,18, 3		3,30,30, 8,12	
		1,15,25,44,46,42,47, 3		5,31
46″	47,59,20,48,17,23,51,11, 5, 6		3,30,30,13,43	
		1,15,25,41,16,12,33,20		5,31
48″	47,59,22, 3,43, 5, 7,23,38,26		3,30,30,19,14	
		1,15,25,37,45,42,14, 6		5,31
50″	47,59,23,19, 8,42,53, 5,52,32		3,30,30,24,45	
		1,15,25,34,15,11,49,21		5,31
52″	47,59,24,34,34,17, 8,17,41,53		3,30,30,30,16	
		1,15,25,30,44,41,19, 5		5,31
54″	47,59,25,49,59,47,52,59, 0,58		3,30,30,35,47	
		1,15,25,27,14,10,43,18		5,31
56″	47,59,27, 5,25,15, 7, 9,44,16		3,30,30,41,18	
		1,15,25,23,43,40, 2, 0		5,31
58″	47,59,28,20,50,38,50,49,46,16		3,30,30,46,49	
		1,15,25,20,13, 9,15,11		
60″	47,59,29,36,15,59, 3,59, 1,27			
exact	47,59,29,36,15,59, 3,59, 4,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53° 7′ 0″	47,59,29,36,15,59, 3,59, 4,35	1,15,25,16,42,38,23,20		
2″	47,59,30,51,41,15,46,37,27,55	1,15,25,13,12, 7,25,32	3,30,30,57,48	5,31
4″	47,59,32, 7, 6,28,58,44,53,27	1,15,25, 9,41,36,22,13	3,30,31, 3,19	5,31
6″	47,59,33,22,31,38,40,21,15,40	1,15,25, 6,11, 5,13,23	3,30,31, 8,50	5,31
8″	47,59,34,37,56,44,51,26,29, 3	1,15,25, 2,40,33,59, 2	3,30,31,14,21	5,31
10″	47,59,35,53,21,47,32, 0,28, 5	1,15,24,59,10, 2,39,10	3,30,31,19,52	5,31
12″	47,59,37, 8,46,46,42, 3, 7,15	1,15,24,55,39,31,13,47	3,30,31,25,23	5,31
14″	47,59,38,24,11,42,21,34,21, 2	1,15,24,52, 8,59,42,53	3,30,31,30,54	5,31
16″	47,59,39,39,36,34,30,34, 3,55	1,15,24,48,38,28, 6,28	3,30,31,36,25	5,31
18″	47,59,40,55, 1,23, 9, 2,10,23	1,15,24,45, 7,56,24,32	3,30,31,41,56	5,31
20″	47,59,42,10,26, 8,16,58,34,55	1,15,24,41,37,24,37, 5	3,30,31,47,27	5,31
22″	47,59,43,25,50,49,54,23,12, 0	1,15,24,38, 6,52,44, 7	3,30,31,52,58	5,31
24″	47,59,44,41,15,28, 1,15,56, 7	1,15,24,34,36,20,45,38	3,30,31,58,29	5,31
26″	47,59,45,56,40, 2,37,36,41,45	1,15,24,31, 5,48,41,38	3,30,32, 4, 0	5,31
28″	47,59,47,12, 4,33,43,25,23,23	1,15,24,27,35,16,32, 7	3,30,32, 9,31	5,31
30″	47,59,48,27,29, 1,18,41,55,30	1,15,24,24, 4,44,17, 5	3,30,32,15, 2	5,31
32″	47,59,49,42,53,25,23,26,12,35	1,15,24,20,34,11,56,32	3,30,32,20,33	5,31
34″	47,59,50,58,17,45,57,38, 9, 7	1,15,24,17, 3,39,30,28	3,30,32,26, 4	5,31
36″	47,59,52,13,42, 3, 1,17,39,35	1,15,24,13,33, 6,58,53	3,30,32,31,35	5,31
38″	47,59,53,29, 6,16,34,24,38,28	1,15,24,10, 2,34,21,47	3,30,32,37, 6	5,31
40″	47,59,54,44,30,26,36,59, 0,15	1,15,24, 6,32, 1,39,10	3,30,32,42,37	5,31
42″	47,59,55,59,54,33, 9, 0,39,25	1,15,24, 3, 1,28,51, 2	3,30,32,48, 8	5,31
44″	47,59,57,15,18,36,10,29,30,27	1,15,23,59,30,55,57,23	3,30,32,53,39	5,31
46″	47,59,58,30,42,35,41,25,27,50	1,15,23,56, 0,22,58,13	3,30,32,59,10	5,31
48″	47,59,59,46, 6,31,41,48,26, 3	1,15,23,52,29,49,53,32	3,30,33, 4,41	5,31
50″	48, 0, 1, 1,30,24,11,38,19,35	1,15,23,48,59,16,43,20	3,30,33,10,12	5,31
52″	48, 0, 2,16,54,13,10,55, 2,55	1,15,23,45,28,43,27,37	3,30,33,15,43	5,31
54″	48, 0, 3,32,17,58,39,38,30,32	1,15,23,41,58,10, 6,23	3,30,33,21,14	5,31
56″	48, 0, 4,47,41,40,37,48,36,55	1,15,23,38,27,36,39,38	3,30,33,26,45	5,31
58″	48, 0, 6, 3, 5,19, 5,25,16,33	1,15,23,34,57, 3, 7,22	3,30,33,32,16	
60″	48, 0, 7,18,28,54, 2,28,23,55			
exact	48, 0, 7,18,28,54, 2,28,36,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53° 8′ 0″	48, 0, 7,18,28,54, 2,28,36,16	1,15,23,31,26,29,31, 2		
2″	48, 0, 8,33,52,25,28,58, 7,18	1,15,23,27,55,55,47,51	3,30,33,43,11	5,31
4″	48, 0, 9,49,15,53,24,53,55, 9	1,15,23,24,25,21,59, 9	3,30,33,48,42	5,31
6″	48, 0,11, 4,39,17,50,15,54,18	1,15,23,20,54,48, 4,56	3,30,33,54,13	5,31
8″	48, 0,12,20, 2,38,45, 3,59,14	1,15,23,17,24,14, 5,12	3,30,33,59,44	5,31
10″	48, 0,13,35,25,56, 9,18, 4,26	1,15,23,13,53,39,59,57	3,30,34, 5,15	5,31
12″	48, 0,14,50,49,10, 2,58, 4,23	1,15,23,10,23, 5,49,11	3,30,34,10,46	5,31
14″	48, 0,16, 6,12,20,26, 3,53,34	1,15,23, 6,52,31,32,54	3,30,34,16,17	5,31
16″	48, 0,17,21,35,27,18,35,26,28	1,15,23, 3,21,57,11, 6	3,30,34,21,48	5,31
18″	48, 0,18,36,58,30,40,32,37,34	1,15,22,59,51,22,43,47	3,30,34,27,19	5,31
20″	48, 0,19,52,21,30,31,55,21,21	1,15,22,56,20,48,10,57	3,30,34,32,50	5,31
22″	48, 0,21, 7,44,26,52,43,32,18	1,15,22,52,50,13,32,36	3,30,34,38,21	5,31
24″	48, 0,22,23, 7,19,42,57, 4,54	1,15,22,49,19,38,48,44	3,30,34,43,52	5,31
26″	48, 0,23,38,30, 9, 2,35,53,38	1,15,22,45,49, 3,59,21	3,30,34,49,23	5,31
28″	48, 0,24,53,52,54,51,39,52,59	1,15,22,42,18,29, 4,27	3,30,34,54,54	5,31
30″	48, 0,26, 9,15,37,10, 8,57,26	1,15,22,38,47,54, 4, 2	3,30,35, 0,25	5,31
32″	48, 0,27,24,38,15,58, 3, 1,28	1,15,22,35,17,18,58, 6	3,30,35, 5,56	5,31
34″	48, 0,28,40, 0,51,15,21,59,34	1,15,22,31,46,43,46,39	3,30,35,11,27	5,31
36″	48, 0,29,55,23,23, 2, 5,46,13	1,15,22,28,16, 8,29,41	3,30,35,16,58	5,31
38″	48, 0,31,10,45,51,18,14,15,54	1,15,22,24,45,33, 7,12	3,30,35,22,29	5,31
40″	48, 0,32,26, 8,16, 3,47,23, 6	1,15,22,21,14,57,39,12	3,30,35,28, 0	5,31
42″	48, 0,33,41,30,37,18,45, 2,18	1,15,22,17,44,22, 5,41	3,30,35,33,31	5,31
44″	48, 0,34,56,52,55, 3, 7, 7,59	1,15,22,14,13,46,26,39	3,30,35,39, 2	5,31
46″	48, 0,36,12,15, 9,16,53,34,38	1,15,22,10,43,10,42, 6	3,30,35,44,33	5,31
48″	48, 0,37,27,37,20, 0, 4,16,44	1,15,22, 7,12,34,52, 2	3,30,35,50, 4	5,31
50″	48, 0,38,42,59,27,12,39, 8,46	1,15,22, 3,41,58,56,27	3,30,35,55,35	5,31
52″	48, 0,39,58,21,30,54,38, 5,13	1,15,22, 0,11,22,55,21	3,30,36, 1, 6	5,31
54″	48, 0,41,13,43,31, 6, 1, 0,34	1,15,21,56,40,46,48,44	3,30,36, 6,37	5,31
56″	48, 0,42,29, 5,27,46,47,49,18	1,15,21,53,10,10,36,36	3,30,36,12, 8	5,31
58″	48, 0,43,44,27,20,56,58,25,54	1,15,21,49,39,34,18,57	3,30,36,17,39	
60″	48, 0,44,59,49,10,36,32,44,51			
exact	48, 0,44,59,49,10,36,33, 5,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53° 9′ 0″	48, 0,44,59,49,10,36,33, 5,36	1,15,21,46, 8,57,58, 8		
2″	48, 0,46,15,10,56,45,31, 3,44	1,15,21,42,38,21,29,38	3,30,36,28,30	5,31
4″	48, 0,47,30,32,39,23,52,33,22	1,15,21,39, 7,44,55,37	3,30,36,34, 1	5,31
6″	48, 0,48,45,54,18,31,37,28,59	1,15,21,35,37, 8,16, 5	3,30,36,39,32	5,31
8″	48, 0,50, 1,15,54, 8,45,45, 4	1,15,21,32, 6,31,31, 2	3,30,36,45, 3	5,31
10″	48, 0,51,16,37,26,15,17,16, 6	1,15,21,28,35,54,40,28	3,30,36,50,34	5,31
12″	48, 0,52,31,58,54,51,11,56,34	1,15,21,25, 5,17,44,23	3,30,36,56, 5	5,31
14″	48, 0,53,47,20,19,56,29,40,57	1,15,21,21,34,40,42,47	3,30,37, 1,36	5,31
16″	48, 0,55, 2,41,41,31,10,23,44	1,15,21,18, 4, 3,35,40	3,30,37, 7, 7	5,31
18″	48, 0,56,18, 2,59,35,13,59,24	1,15,21,14,33,26,23, 2	3,30,37,12,38	5,31
20″	48, 0,57,33,24,14, 8,40,22,26	1,15,21,11, 2,49, 4,53	3,30,37,18, 9	5,31
22″	48, 0,58,48,45,25,11,29,27,19	1,15,21, 7,32,11,41,13	3,30,37,23,40	5,31
24″	48, 1, 0, 4, 6,32,43,41, 8,32	1,15,21, 4, 1,34,12, 2	3,30,37,29,11	5,31
26″	48, 1, 1,19,27,36,45,15,20,34	1,15,21, 0,30,56,37,20	3,30,37,34,42	5,31
28″	48, 1, 2,34,48,37,16,11,57,54	1,15,20,57, 0,18,57, 7	3,30,37,40,13	5,31
30″	48, 1, 3,50, 9,34,16,30,55, 1	1,15,20,53,29,41,11,23	3,30,37,45,44	5,31
32″	48, 1, 5, 5,30,27,46,12, 6,24	1,15,20,49,59, 3,20, 8	3,30,37,51,15	5,31
34″	48, 1, 6,20,51,17,45,15,26,32	1,15,20,46,28,25,23,22	3,30,37,56,46	5,31
36″	48, 1, 7,36,12, 4,13,40,49,54	1,15,20,42,57,47,21, 5	3,30,38, 2,17	5,31
38″	48, 1, 8,51,32,47,11,28,10,59	1,15,20,39,27, 9,13,17	3,30,38, 7,48	5,31
40″	48, 1,10, 6,53,26,38,37,24,16	1,15,20,35,56,30,59,58	3,30,38,13,19	5,31
42″	48, 1,11,22,14, 2,35, 8,24,14	1,15,20,32,25,52,41, 8	3,30,38,18,50	5,31
44″	48, 1,12,37,34,35, 1, 1, 5,22	1,15,20,28,55,14,16,47	3,30,38,24,21	5,31
46″	48, 1,13,52,55, 3,56,15,22, 9	1,15,20,25,24,35,46,55	3,30,38,29,52	5,31
48″	48, 1,15, 8,15,29,20,51, 9, 4	1,15,20,21,53,57,11,32	3,30,38,35,23	5,31
50″	48, 1,16,23,35,51,14,48,20,36	1,15,20,18,23,18,30,38	3,30,38,40,54	5,31
52″	48, 1,17,38,56, 9,38, 6,51,14	1,15,20,14,52,39,44,13	3,30,38,46,25	5,31
54″	48, 1,18,54,16,24,30,46,35,27	1,15,20,11,22, 0,52,17	3,30,38,51,56	5,31
56″	48, 1,20, 9,36,35,52,47,27,44	1,15,20, 7,51,21,54,50	3,30,38,57,27	5,31
58″	48, 1,21,24,56,43,44, 9,22,34	1,15,20, 4,20,42,51,52	3,30,39, 2,58	
60″	48, 1,22,40,16,48, 4,52,14,26			
exact	48, 1,22,40,16,48, 4,52,42,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°10′ 0″	48, 1,22,40,16,48, 4,52,42,33			
		1,15,20, 0,50, 3,46,34		
2″	48, 1,23,55,36,48,54,56,29, 7		3,30,39,13,46	
		1,15,19,57,19,24,32,48		5,30
4″	48, 1,25,10,56,46,14,21, 1,55		3,30,39,19,16	
		1,15,19,53,48,45,13,32		5,30
6″	48, 1,26,26,16,40, 3, 6,15,27		3,30,39,24,46	
		1,15,19,50,18, 5,48,46		5,30
8″	48, 1,27,41,36,30,21,12, 4,13		3,30,39,30,16	
		1,15,19,46,47,26,18,30		5,30
10″	48, 1,28,56,56,17, 8,38,22,43		3,30,39,35,46	
		1,15,19,43,16,46,42,44		5,30
12″	48, 1,30,12,16, 0,25,25, 5,27		3,30,39,41,16	
		1,15,19,39,46, 7, 1,28		5,30
14″	48, 1,31,27,35,40,11,32, 6,55		3,30,39,46,46	
		1,15,19,36,15,27,14,42		5,30
16″	48, 1,32,42,55,16,26,59,21,37		3,30,39,52,16	
		1,15,19,32,44,47,22,26		5,30
18″	48, 1,33,58,14,49,11,46,44, 3		3,30,39,57,46	
		1,15,19,29,14, 7,24,40		5,30
20″	48, 1,35,13,34,18,25,54, 8,43		3,30,40, 3,16	
		1,15,19,25,43,27,21,24		5,30
22″	48, 1,36,28,53,44, 9,21,30, 7		3,30,40, 8,46	
		1,15,19,22,12,47,12,38		5,30
24″	48, 1,37,44,13, 6,22, 8,42,45		3,30,40,14,16	
		1,15,19,18,42, 6,58,22		5,30
26″	48, 1,38,59,32,25, 4,15,41, 7		3,30,40,19,46	
		1,15,19,15,11,26,38,36		5,30
28″	48, 1,40,14,51,40,15,42,19,43		3,30,40,25,16	
		1,15,19,11,40,46,13,20		5,30
30″	48, 1,41,30,10,51,56,28,33, 3		3,30,40,30,46	
		1,15,19, 8,10, 5,42,34		5,30
32″	48, 1,42,45,30, 0, 6,34,15,37		3,30,40,36,16	
		1,15,19, 4,39,25, 6,18		5,30
34″	48, 1,44, 0,49, 4,45,59,21,55		3,30,40,41,46	
		1,15,19, 1, 8,44,24,32		5,30
36″	48, 1,45,16, 8, 5,54,43,46,27		3,30,40,47,16	
		1,15,18,57,38, 3,37,16		5,30
38″	48, 1,46,31,27, 3,32,47,23,43		3,30,40,52,46	
		1,15,18,54, 7,22,44,30		5,30
40″	48, 1,47,46,45,57,40,10, 8,13		3,30,40,58,16	
		1,15,18,50,36,41,46,14		5,30
42″	48, 1,49, 2, 4,48,16,51,54,27		3,30,41, 3,46	
		1,15,18,47, 6, 0,42,28		5,30
44″	48, 1,50,17,23,35,22,52,36,55		3,30,41, 9,16	
		1,15,18,43,35,19,33,12		5,30
46″	48, 1,51,32,42,18,58,12,10, 7		3,30,41,14,46	
		1,15,18,40, 4,38,18,26		5,30
48″	48, 1,52,48, 0,59, 2,50,28,33		3,30,41,20,16	
		1,15,18,36,33,56,58,10		5,30
50″	48, 1,54, 3,19,35,36,47,26,43		3,30,41,25,46	
		1,15,18,33, 3,15,32,24		5,30
52″	48, 1,55,18,38, 8,40, 2,59, 7		3,30,41,31,16	
		1,15,18,29,32,34, 1, 8		5,30
54″	48, 1,56,33,56,38,12,37, 0,15		3,30,41,36,46	
		1,15,18,26, 1,52,24,22		5,30
56″	48, 1,57,49,15, 4,14,29,24,37		3,30,41,42,16	
		1,15,18,22,31,10,42, 6		5,30
58″	48, 1,59, 4,33,26,45,40, 6,43		3,30,41,47,46	
		1,15,18,19, 0,28,54,20		
60″	48, 2, 0,19,51,45,46, 9, 1, 3			
exact	48, 2, 0,19,51,45,46, 8,34,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°11′ 0″	48, 2, 0,19,51,45,46, 8,34,45	1,15,18,15,29,46,58,15		
2″	48, 2, 1,35,10, 1,15,55,33, 0	1,15,18,11,59, 4,59,18	3,30,41,58,57	5,30
4″	48, 2, 2,50,28,13,15, 0,32,18	1,15,18, 8,28,22,54,51	3,30,42, 4,27	5,30
6″	48, 2, 4, 5,46,21,43,23,27, 9	1,15,18, 4,57,40,44,54	3,30,42, 9,57	5,30
8″	48, 2, 5,21, 4,26,41, 4,12, 3	1,15,18, 1,26,58,29,27	3,30,42,15,27	5,30
10″	48, 2, 6,36,22,28, 8, 2,41,30	1,15,17,57,56,16, 8,30	3,30,42,20,57	5,30
12″	48, 2, 7,51,40,26, 4,18,50, 0	1,15,17,54,25,33,42, 3	3,30,42,26,27	5,30
14″	48, 2, 9, 6,58,20,29,52,32, 3	1,15,17,50,54,51,10, 6	3,30,42,31,57	5,30
16″	48, 2,10,22,16,11,24,43,42, 9	1,15,17,47,24, 8,32,39	3,30,42,37,27	5,30
18″	48, 2,11,37,33,58,48,52,14,48	1,15,17,43,53,25,49,42	3,30,42,42,57	5,30
20″	48, 2,12,52,51,42,42,18, 4,30	1,15,17,40,22,43, 1,15	3,30,42,48,27	5,30
22″	48, 2,14, 8, 9,23, 5, 1, 5,45	1,15,17,36,52, 0, 7,18	3,30,42,53,57	5,30
24″	48, 2,15,23,26,59,57, 1,13, 3	1,15,17,33,21,17, 7,51	3,30,42,59,27	5,30
26″	48, 2,16,38,44,33,18,18,20,54	1,15,17,29,50,34, 2,54	3,30,43, 4,57	5,30
28″	48, 2,17,54, 2, 3, 8,52,23,48	1,15,17,26,19,50,52,27	3,30,43,10,27	5,30
30″	48, 2,19, 9,19,29,28,43,16,15	1,15,17,22,49, 7,36,30	3,30,43,15,57	5,30
32″	48, 2,20,24,36,52,17,50,52,45	1,15,17,19,18,24,15, 3	3,30,43,21,27	5,30
34″	48, 2,21,39,54,11,36,15, 7,48	1,15,17,15,47,40,48, 6	3,30,43,26,57	5,30
36″	48, 2,22,55,11,27,23,55,55,54	1,15,17,12,16,57,15,39	3,30,43,32,27	5,30
38″	48, 2,24,10,28,39,40,53,11,33	1,15,17, 8,46,13,37,42	3,30,43,37,57	5,30
40″	48, 2,25,25,45,48,27, 6,49,15	1,15,17, 5,15,29,54,15	3,30,43,43,27	5,30
42″	48, 2,26,41, 2,53,42,36,43,30	1,15,17, 1,44,46, 5,18	3,30,43,48,57	5,30
44″	48, 2,27,56,19,55,27,22,48,48	1,15,16,58,14, 2,10,51	3,30,43,54,27	5,30
46″	48, 2,29,11,36,53,41,24,59,39	1,15,16,54,43,18,10,54	3,30,43,59,57	5,30
48″	48, 2,30,26,53,48,24,43,10,33	1,15,16,51,12,34, 5,27	3,30,44, 5,27	5,30
50″	48, 2,31,42,10,39,37,17,16, 0	1,15,16,47,41,49,54,30	3,30,44,10,57	5,30
52″	48, 2,32,57,27,27,19, 7,10,30	1,15,16,44,11, 5,38, 3	3,30,44,16,27	5,30
54″	48, 2,34,12,44,11,30,12,48,33	1,15,16,40,40,21,16, 6	3,30,44,21,57	5,30
56″	48, 2,35,28, 0,52,10,34, 4,39	1,15,16,37, 9,36,48,39	3,30,44,27,27	5,30
58″	48, 2,36,43,17,29,20,10,53,18	1,15,16,33,38,52,15,42	3,30,44,32,57	
60″	48, 2,37,58,34, 2,59, 3, 9, 0			
exact	48, 2,37,58,34, 2,59, 2,47,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°12′ 0″	48, 2,37,58,34, 2,59, 2,47,39			
		1,15,16,30, 8, 7,35, 7		
2″	48, 2,39,13,50,33, 7,10,22,46		3,30,44,44, 5	
		1,15,16,26,37,22,51, 2		5,30
4″	48, 2,40,29, 6,59,44,33,13,48		3,30,44,49,35	
		1,15,16,23, 6,38, 1,27		5,30
6″	48, 2,41,44,23,22,51,11,15,15		3,30,44,55, 5	
		1,15,16,19,35,53, 6,22		5,30
8″	48, 2,42,59,39,42,27, 4,21,37		3,30,45, 0,35	
		1,15,16,16, 5, 8, 5,47		5,30
10″	48, 2,44,14,55,58,32,12,27,24		3,30,45, 6, 5	
		1,15,16,12,34,22,59,42		5,30
12″	48, 2,45,30,12,11, 6,35,27, 6		3,30,45,11,35	
		1,15,16, 9, 3,37,48, 7		5,30
14″	48, 2,46,45,28,20,10,13,15,13		3,30,45,17, 5	
		1,15,16, 5,32,52,31, 2		5,30
16″	48, 2,48, 0,44,25,43, 5,46,15		3,30,45,22,35	
		1,15,16, 2, 2, 7, 8,27		5,30
18″	48, 2,49,16, 0,27,45,12,54,42		3,30,45,28, 5	
		1,15,15,58,31,21,40,22		5,30
20″	48, 2,50,31,16,26,16,34,35, 4		3,30,45,33,35	
		1,15,15,55, 0,36, 6,47		5,30
22″	48, 2,51,46,32,21,17,10,41,51		3,30,45,39, 5	
		1,15,15,51,29,50,27,42		5,30
24″	48, 2,53, 1,48,12,47, 1, 9,33		3,30,45,44,35	
		1,15,15,47,59, 4,43, 7		5,30
26″	48, 2,54,17, 4, 0,46, 5,52,40		3,30,45,50, 5	
		1,15,15,44,28,18,53, 2		5,30
28″	48, 2,55,32,19,45,14,24,45,42		3,30,45,55,35	
		1,15,15,40,57,32,57,27		5,30
30″	48, 2,56,47,35,26,11,57,43, 9		3,30,46, 1, 5	
		1,15,15,37,26,46,56,22		5,30
32″	48, 2,58, 2,51, 3,38,44,39,31		3,30,46, 6,35	
		1,15,15,33,56, 0,49,47		5,30
34″	48, 2,59,18, 6,37,34,45,29,18		3,30,46,12, 5	
		1,15,15,30,25,14,37,42		5,30
36″	48, 3, 0,33,22, 8, 0, 0, 7, 0		3,30,46,17,35	
		1,15,15,26,54,28,20, 7		5,30
38″	48, 3, 1,48,37,34,54,28,27, 7		3,30,46,23, 5	
		1,15,15,23,23,41,57, 2		5,30
40″	48, 3, 3, 3,52,58,18,10,24, 9		3,30,46,28,35	
		1,15,15,19,52,55,28,27		5,30
42″	48, 3, 4,19, 8,18,11, 5,52,36		3,30,46,34, 5	
		1,15,15,16,22, 8,54,22		5,30
44″	48, 3, 5,34,23,34,33,14,46,58		3,30,46,39,35	
		1,15,15,12,51,22,14,47		5,30
46″	48, 3, 6,49,38,47,24,37, 1,45		3,30,46,45, 5	
		1,15,15, 9,20,35,29,42		5,30
48″	48, 3, 8, 4,53,56,45,12,31,27		3,30,46,50,35	
		1,15,15, 5,49,48,39, 7		5,30
50″	48, 3, 9,20, 9, 2,35, 1,10,34		3,30,46,56, 5	
		1,15,15, 2,19, 1,43, 2		5,30
52″	48, 3,10,35,24, 4,54, 2,53,36		3,30,47, 1,35	
		1,15,14,58,48,14,41,27		5,30
54″	48, 3,11,50,39, 3,42,17,35, 3		3,30,47, 7, 5	
		1,15,14,55,17,27,34,22		5,30
56″	48, 3,13, 5,53,58,59,45, 9,25		3,30,47,12,35	
		1,15,14,51,46,40,21,47		5,30
58″	48, 3,14,21, 8,50,46,25,31,12		3,30,47,18, 5	
		1,15,14,48,15,53, 3,42		
60″	48, 3,15,36,23,39, 2,18,34,54			
exact	48, 3,15,36,23,39, 2,18,24,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°13′ 0″	48, 3,15,36,23,39, 2,18,24,25			
		1,15,14,44,45, 5,39, 4		
2″	48, 3,16,51,38,23,47,24, 3,29		3,30,47,29, 9	
		1,15,14,41,14,18, 9,55		5,30
4″	48, 3,18, 6,53, 5, 1,42,13,24		3,30,47,34,39	
		1,15,14,37,43,30,35,16		5,30
6″	48, 3,19,22, 7,42,45,12,48,40		3,30,47,40, 9	
		1,15,14,34,12,42,55, 7		5,30
8″	48, 3,20,37,22,16,57,55,43,47		3,30,47,45,39	
		1,15,14,30,41,55, 9,28		5,30
10″	48, 3,21,52,36,47,39,50,53,15		3,30,47,51, 9	
		1,15,14,27,11, 7,18,19		5,30
12″	48, 3,23, 7,51,14,50,58,11,34		3,30,47,56,39	
		1,15,14,23,40,19,21,40		5,30
14″	48, 3,24,23, 5,38,31,17,33,14		3,30,48, 2, 9	
		1,15,14,20, 9,31,19,31		5,30
16″	48, 3,25,38,19,58,40,48,52,45		3,30,48, 7,39	
		1,15,14,16,38,43,11,52		5,30
18″	48, 3,26,53,34,15,19,32, 4,37		3,30,48,13, 9	
		1,15,14,13, 7,54,58,43		5,30
20″	48, 3,28, 8,48,28,27,27, 3,20		3,30,48,18,39	
		1,15,14, 9,37, 6,40, 4		5,30
22″	48, 3,29,24, 2,38, 4,33,43,24		3,30,48,24, 9	
		1,15,14, 6, 6,18,15,55		5,30
24″	48, 3,30,39,16,44,10,51,59,19		3,30,48,29,39	
		1,15,14, 2,35,29,46,16		5,30
26″	48, 3,31,54,30,46,46,21,45,35		3,30,48,35, 9	
		1,15,13,59, 4,41,11, 7		5,30
28″	48, 3,33, 9,44,45,51, 2,56,42		3,30,48,40,39	
		1,15,13,55,33,52,30,28		5,30
30″	48, 3,34,24,58,41,24,55,27,10		3,30,48,46, 9	
		1,15,13,52, 3, 3,44,19		5,30
32″	48, 3,35,40,12,33,27,59,11,29		3,30,48,51,39	
		1,15,13,48,32,14,52,40		5,30
34″	48, 3,36,55,26,22, 0,14, 4, 9		3,30,48,57, 9	
		1,15,13,45, 1,25,55,31		5,30
36″	48, 3,38,10,40, 7, 1,39,59,40		3,30,49, 2,39	
		1,15,13,41,30,36,52,52		5,30
38″	48, 3,39,25,53,48,32,16,52,32		3,30,49, 8, 9	
		1,15,13,37,59,47,44,43		5,30
40″	48, 3,40,41, 7,26,32, 4,37,15		3,30,49,13,39	
		1,15,13,34,28,58,31, 4		5,30
42″	48, 3,41,56,21, 1, 1, 3, 8,19		3,30,49,19, 9	
		1,15,13,30,58, 9,11,55		5,30
44″	48, 3,43,11,34,31,59,12,20,14		3,30,49,24,39	
		1,15,13,27,27,19,47,16		5,30
46″	48, 3,44,26,47,59,26,32, 7,30		3,30,49,30, 9	
		1,15,13,23,56,30,17, 7		5,30
48″	48, 3,45,42, 1,23,23, 2,24,37		3,30,49,35,39	
		1,15,13,20,25,40,41,28		5,30
50″	48, 3,46,57,14,43,48,43, 6, 5		3,30,49,41, 9	
		1,15,13,16,54,51, 0,19		5,30
52″	48, 3,48,12,28, 0,43,34, 6,24		3,30,49,46,39	
		1,15,13,13,24, 1,13,40		5,30
54″	48, 3,49,27,41,14, 7,35,20, 4		3,30,49,52, 9	
		1,15,13, 9,53,11,21,31		5,30
56″	48, 3,50,42,54,24, 0,46,41,35		3,30,49,57,39	
		1,15,13, 6,22,21,23,52		5,30
58″	48, 3,51,58, 7,30,23, 8, 5,27		3,30,50, 3, 9	
		1,15,13, 2,51,31,20,43		
60″	48, 3,53,13,20,33,14,39,26,10			
exact	48, 3,53,13,20,33,14,39,26, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°14′ 0″	48, 3,53,13,20,33,14,39,26, 0	1,15,12,59,20,41,12, 3		
2″	48, 3,54,28,33,32,35,20,38, 3	1,15,12,55,49,50,57,54	3,30,50,14, 9	5,30
4″	48, 3,55,43,46,28,25,11,35,57	1,15,12,52,19, 0,38,15	3,30,50,19,39	5,30
6″	48, 3,56,58,59,20,44,12,14,12	1,15,12,48,48,10,13, 6	3,30,50,25, 9	5,30
8″	48, 3,58,14,12, 9,32,22,27,18	1,15,12,45,17,19,42,27	3,30,50,30,39	5,30
10″	48, 3,59,29,24,54,49,42, 9,45	1,15,12,41,46,29, 6,18	3,30,50,36, 9	5,30
12″	48, 4, 0,44,37,36,36,11,16, 3	1,15,12,38,15,38,24,39	3,30,50,41,39	5,30
14″	48, 4, 1,59,50,14,51,49,40,42	1,15,12,34,44,47,37,30	3,30,50,47, 9	5,30
16″	48, 4, 3,15, 2,49,36,37,18,12	1,15,12,31,13,56,44,51	3,30,50,52,39	5,30
18″	48, 4, 4,30,15,20,50,34, 3, 3	1,15,12,27,43, 5,46,42	3,30,50,58, 9	5,30
20″	48, 4, 5,45,27,48,33,39,49,45	1,15,12,24,12,14,43, 3	3,30,51, 3,39	5,30
22″	48, 4, 7, 0,40,12,45,54,32,48	1,15,12,20,41,23,33,54	3,30,51, 9, 9	5,30
24″	48, 4, 8,15,52,33,27,18, 6,42	1,15,12,17,10,32,19,15	3,30,51,14,39	5,30
26″	48, 4, 9,31, 4,50,37,50,25,57	1,15,12,13,39,40,59, 6	3,30,51,20, 9	5,30
28″	48, 4,10,46,17, 4,17,31,25, 3	1,15,12,10, 8,49,33,27	3,30,51,25,39	5,30
30″	48, 4,12, 1,29,14,26,20,58,30	1,15,12, 6,37,58, 2,18	3,30,51,31, 9	5,30
32″	48, 4,13,16,41,21, 4,19, 0,48	1,15,12, 3, 7, 6,25,39	3,30,51,36,39	5,30
34″	48, 4,14,31,53,24,11,25,26,27	1,15,11,59,36,14,43,30	3,30,51,42, 9	5,30
36″	48, 4,15,47, 5,23,47,40, 9,57	1,15,11,56, 5,22,55,51	3,30,51,47,39	5,30
38″	48, 4,17, 2,17,19,53, 3, 5,48	1,15,11,52,34,31, 2,42	3,30,51,53, 9	5,30
40″	48, 4,18,17,29,12,27,34, 8,30	1,15,11,49, 3,39, 4, 3	3,30,51,58,39	5,30
42″	48, 4,19,32,41, 1,31,13,12,33	1,15,11,45,32,46,59,54	3,30,52, 4, 9	5,30
44″	48, 4,20,47,52,47, 4, 0,12,27	1,15,11,42, 1,54,50,15	3,30,52, 9,39	5,30
46″	48, 4,22, 3, 4,29, 5,55, 2,42	1,15,11,38,31, 2,35, 6	3,30,52,15, 9	5,30
48″	48, 4,23,18,16, 7,36,57,37,48	1,15,11,35, 0,10,14,27	3,30,52,20,39	5,30
50″	48, 4,24,33,27,42,37, 7,52,15	1,15,11,31,29,17,48,18	3,30,52,26, 9	5,30
52″	48, 4,25,48,39,14, 6,25,40,33	1,15,11,27,58,25,16,39	3,30,52,31,39	5,30
54″	48, 4,27, 3,50,42, 4,50,57,12	1,15,11,24,27,32,39,30	3,30,52,37, 9	5,30
56″	48, 4,28,19, 2, 6,32,23,36,42	1,15,11,20,56,39,56,51	3,30,52,42,39	5,30
58″	48, 4,29,34,13,27,29, 3,33,33	1,15,11,17,25,47, 8,42	3,30,52,48, 9	
60″	48, 4,30,49,24,44,54,50,42,15			
exact	48, 4,30,49,24,44,54,50,51,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°15′ 0″	48, 4,30,49,24,44,54,50,51,10			
		1,15,11,13,54,54,16, 0		
2″	48, 4,32, 4,35,58,49,45, 7,10		3,30,52,59, 5	
		1,15,11,10,24, 1,16,55		5,30
4″	48, 4,33,19,47, 9,13,46,24, 5		3,30,53, 4,35	
		1,15,11, 6,53, 8,12,20		5,30
6″	48, 4,34,34,58,16, 6,54,36,25		3,30,53,10, 5	
		1,15,11, 3,22,15, 2,15		5,30
8″	48, 4,35,50, 9,19,29, 9,38,40		3,30,53,15,35	
		1,15,10,59,51,21,46,40		5,30
10″	48, 4,37, 5,20,19,20,31,25,20		3,30,53,21, 5	
		1,15,10,56,20,28,25,35		5,30
12″	48, 4,38,20,31,15,40,59,50,55		3,30,53,26,35	
		1,15,10,52,49,34,59, 0		5,30
14″	48, 4,39,35,42, 8,30,34,49,55		3,30,53,32, 5	
		1,15,10,49,18,41,26,55		5,30
16″	48, 4,40,50,52,57,49,16,16,50		3,30,53,37,35	
		1,15,10,45,47,47,49,20		5,30
18″	48, 4,42, 6, 3,43,37, 4, 6,10		3,30,53,43, 5	
		1,15,10,42,16,54, 6,15		5,30
20″	48, 4,43,21,14,25,53,58,12,25		3,30,53,48,35	
		1,15,10,38,46, 0,17,40		5,30
22″	48, 4,44,36,25, 4,39,58,30, 5		3,30,53,54, 5	
		1,15,10,35,15, 6,23,35		5,30
24″	48, 4,45,51,35,39,55, 4,53,40		3,30,53,59,35	
		1,15,10,31,44,12,24, 0		5,30
26″	48, 4,47, 6,46,11,39,17,17,40		3,30,54, 5, 5	
		1,15,10,28,13,18,18,55		5,30
28″	48, 4,48,21,56,39,52,35,36,35		3,30,54,10,35	
		1,15,10,24,42,24, 8,20		5,30
30″	48, 4,49,37, 7, 4,34,59,44,55		3,30,54,16, 5	
		1,15,10,21,11,29,52,15		5,30
32″	48, 4,50,52,17,25,46,29,37,10		3,30,54,21,35	
		1,15,10,17,40,35,30,40		5,30
34″	48, 4,52, 7,27,43,27, 5, 7,50		3,30,54,27, 5	
		1,15,10,14, 9,41, 3,35		5,30
36″	48, 4,53,22,37,57,36,46,11,25		3,30,54,32,35	
		1,15,10,10,38,46,31, 0		5,30
38″	48, 4,54,37,48, 8,15,32,42,25		3,30,54,38, 5	
		1,15,10, 7, 7,51,52,55		5,30
40″	48, 4,55,52,58,15,23,24,35,20		3,30,54,43,35	
		1,15,10, 3,36,57, 9,20		5,30
42″	48, 4,57, 8, 8,19, 0,21,44,40		3,30,54,49, 5	
		1,15,10, 0, 6, 2,20,15		5,30
44″	48, 4,58,23,18,19, 6,24, 4,55		3,30,54,54,35	
		1,15, 9,56,35, 7,25,40		5,30
46″	48, 4,59,38,28,15,41,31,30,35		3,30,55, 0, 5	
		1,15, 9,53, 4,12,25,35		5,30
48″	48, 5, 0,53,38, 8,45,43,56,10		3,30,55, 5,35	
		1,15, 9,49,33,17,20, 0		5,30
50″	48, 5, 2, 8,47,58,19, 1,16,10		3,30,55,11, 5	
		1,15, 9,46, 2,22, 8,55		5,30
52″	48, 5, 3,23,57,44,21,23,25, 5		3,30,55,16,35	
		1,15, 9,42,31,26,52,20		5,30
54″	48, 5, 4,39, 7,26,52,50,17,25		3,30,55,22, 5	
		1,15, 9,39, 0,31,30,15		5,30
56″	48, 5, 5,54,17, 5,53,21,47,40		3,30,55,27,35	
		1,15, 9,35,29,36, 2,40		5,30
58″	48, 5, 7, 9,26,41,22,57,50,20		3,30,55,33, 5	
		1,15, 9,31,58,40,29,35		
60″	48, 5, 8,24,36,13,21,38,19,55			
exact	48, 5, 8,24,36,13,21,38,36,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°16′ 0″	48, 5, 8,24,36,13,21,38,36,28	1,15, 9,28,27,44,52,49		
2″	48, 5, 9,39,45,41,49,23,29,17	1,15, 9,24,56,49, 8,52	3,30,55,43,57	5,30
4″	48, 5,10,54,55, 6,46,12,38, 9	1,15, 9,21,25,53,19,25	3,30,55,49,27	5,30
6″	48, 5,12,10, 4,28,12, 5,57,34	1,15, 9,17,54,57,24,28	3,30,55,54,57	5,30
8″	48, 5,13,25,13,46, 7, 3,22, 2	1,15, 9,14,24, 1,24, 1	3,30,56, 0,27	5,30
10″	48, 5,14,40,23, 0,31, 4,46, 3	1,15, 9,10,53, 5,18, 4	3,30,56, 5,57	5,30
12″	48, 5,15,55,32,11,24,10, 4, 7	1,15, 9, 7,22, 9, 6,37	3,30,56,11,27	5,30
14″	48, 5,17,10,41,18,46,19,10,44	1,15, 9, 3,51,12,49,40	3,30,56,16,57	5,30
16″	48, 5,18,25,50,22,37,32, 0,24	1,15, 9, 0,20,16,27,13	3,30,56,22,27	5,30
18″	48, 5,19,40,59,22,57,48,27,37	1,15, 8,56,49,19,59,16	3,30,56,27,57	5,30
20″	48, 5,20,56, 8,19,47, 8,26,53	1,15, 8,53,18,23,25,49	3,30,56,33,27	5,30
22″	48, 5,22,11,17,13, 5,31,52,42	1,15, 8,49,47,26,46,52	3,30,56,38,57	5,30
24″	48, 5,23,26,26, 2,52,58,39,34	1,15, 8,46,16,30, 2,25	3,30,56,44,27	5,30
26″	48, 5,24,41,34,49, 9,28,41,59	1,15, 8,42,45,33,12,28	3,30,56,49,57	5,30
28″	48, 5,25,56,43,31,55, 1,54,27	1,15, 8,39,14,36,17, 1	3,30,56,55,27	5,30
30″	48, 5,27,11,52,11, 9,38,11,28	1,15, 8,35,43,39,16, 4	3,30,57, 0,57	5,30
32″	48, 5,28,27, 0,46,53,17,27,32	1,15, 8,32,12,42, 9,37	3,30,57, 6,27	5,30
34″	48, 5,29,42, 9,19, 5,59,37, 9	1,15, 8,28,41,44,57,40	3,30,57,11,57	5,30
36″	48, 5,30,57,17,47,47,44,34,49	1,15, 8,25,10,47,40,13	3,30,57,17,27	5,30
38″	48, 5,32,12,26,12,58,32,15, 2	1,15, 8,21,39,50,17,16	3,30,57,22,57	5,30
40″	48, 5,33,27,34,34,38,22,32,18	1,15, 8,18, 8,52,48,49	3,30,57,28,27	5,30
42″	48, 5,34,42,42,52,47,15,21, 7	1,15, 8,14,37,55,14,52	3,30,57,33,57	5,30
44″	48, 5,35,57,51, 7,25,10,35,59	1,15, 8,11, 6,57,35,25	3,30,57,39,27	5,30
46″	48, 5,37,12,59,18,32, 8,11,24	1,15, 8, 7,35,59,50,28	3,30,57,44,57	5,30
48″	48, 5,38,28, 7,26, 8, 8, 1,52	1,15, 8, 4, 5, 2, 0, 1	3,30,57,50,27	5,30
50″	48, 5,39,43,15,30,13,10, 1,53	1,15, 8, 0,34, 4, 4, 4	3,30,57,55,57	5,30
52″	48, 5,40,58,23,30,47,14, 5,57	1,15, 7,57, 3, 6, 2,37	3,30,58, 1,27	5,30
54″	48, 5,42,13,31,27,50,20, 8,34	1,15, 7,53,32, 7,55,40	3,30,58, 6,57	5,30
56″	48, 5,43,28,39,21,22,28, 4,14	1,15, 7,50, 1, 9,43,13	3,30,58,12,27	5,30
58″	48, 5,44,43,47,11,23,37,47,27	1,15, 7,46,30,11,25,16	3,30,58,17,57	
60″	48, 5,45,58,54,57,53,49,12,43			
exact	48, 5,45,58,54,57,53,49,36,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°17′ 0″	48, 5,45,58,54,57,53,49,36,16	1,15, 7,42,59,13, 4,26		
2″	48, 5,47,14, 2,40,53, 2,40,42	1,15, 7,39,28,14,35,41	3,30,58,28,45	5,30
4″	48, 5,48,29,10,20,21,17,16,23	1,15, 7,35,57,16, 1,26	3,30,58,34,15	5,30
6″	48, 5,49,44,17,56,18,33,17,49	1,15, 7,32,26,17,21,41	3,30,58,39,45	5,30
8″	48, 5,50,59,25,28,44,50,39,30	1,15, 7,28,55,18,36,26	3,30,58,45,15	5,30
10″	48, 5,52,14,32,57,40, 9,15,56	1,15, 7,25,24,19,45,41	3,30,58,50,45	5,30
12″	48, 5,53,29,40,23, 4,29, 1,37	1,15, 7,21,53,20,49,26	3,30,58,56,15	5,30
14″	48, 5,54,44,47,44,57,49,51, 3	1,15, 7,18,22,21,47,41	3,30,59, 1,45	5,30
16″	48, 5,55,59,55, 3,20,11,38,44	1,15, 7,14,51,22,40,26	3,30,59, 7,15	5,30
18″	48, 5,57,15, 2,18,11,34,19,10	1,15, 7,11,20,23,27,41	3,30,59,12,45	5,30
20″	48, 5,58,30, 9,29,31,57,46,51	1,15, 7, 7,49,24, 9,26	3,30,59,18,15	5,30
22″	48, 5,59,45,16,37,21,21,56,17	1,15, 7, 4,18,24,45,41	3,30,59,23,45	5,30
24″	48, 6, 1, 0,23,41,39,46,41,58	1,15, 7, 0,47,25,16,26	3,30,59,29,15	5,30
26″	48, 6, 2,15,30,42,27,11,58,24	1,15, 6,57,16,25,41,41	3,30,59,34,45	5,30
28″	48, 6, 3,30,37,39,43,37,40, 5	1,15, 6,53,45,26, 1,26	3,30,59,40,15	5,30
30″	48, 6, 4,45,44,33,29, 3,41,31	1,15, 6,50,14,26,15,41	3,30,59,45,45	5,30
32″	48, 6, 6, 0,51,23,43,29,57,12	1,15, 6,46,43,26,24,26	3,30,59,51,15	5,30
34″	48, 6, 7,15,58,10,26,56,21,38	1,15, 6,43,12,26,27,41	3,30,59,56,45	5,30
36″	48, 6, 8,31, 4,53,39,22,49,19	1,15, 6,39,41,26,25,26	3,31, 0, 2,15	5,30
38″	48, 6, 9,46,11,33,20,49,14,45	1,15, 6,36,10,26,17,41	3,31, 0, 7,45	5,30
40″	48, 6,11, 1,18, 9,31,15,32,26	1,15, 6,32,39,26, 4,26	3,31, 0,13,15	5,30
42″	48, 6,12,16,24,42,10,41,36,52	1,15, 6,29, 8,25,45,41	3,31, 0,18,45	5,30
44″	48, 6,13,31,31,11,19, 7,22,33	1,15, 6,25,37,25,21,26	3,31, 0,24,15	5,30
46″	48, 6,14,46,37,36,56,32,43,59	1,15, 6,22, 6,24,51,41	3,31, 0,29,45	5,30
48″	48, 6,16, 1,43,59, 2,57,35,40	1,15, 6,18,35,24,16,26	3,31, 0,35,15	5,30
50″	48, 6,17,16,50,17,38,21,52, 6	1,15, 6,15, 4,23,35,41	3,31, 0,40,45	5,30
52″	48, 6,18,31,56,32,42,45,27,47	1,15, 6,11,33,22,49,26	3,31, 0,46,15	5,30
54″	48, 6,19,47, 2,44,16, 8,17,13	1,15, 6, 8, 2,21,57,41	3,31, 0,51,45	5,30
56″	48, 6,21, 2, 8,52,18,30,14,54	1,15, 6, 4,31,21, 0,26	3,31, 0,57,15	5,30
58″	48, 6,22,17,14,56,49,51,15,20	1,15, 6, 1, 0,19,57,41	3,31, 1, 2,45	
60″	48, 6,23,32,20,57,50,11,13, 1			
exact	48, 6,23,32,20,57,50,11,42,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°18′ 0″	48, 6,23,32,20,57,50,11,42,44			
		1,15, 5,57,29,18,52,48		
2″	48, 6,24,47,26,55,19,30,35,32		3,31, 1,13,30	
		1,15, 5,53,58,17,39,18		5,29
4″	48, 6,26, 2,32,49,17,48,14,50		3,31, 1,18,59	
		1,15, 5,50,27,16,20,19		5,29
6″	48, 6,27,17,38,39,45, 4,35, 9		3,31, 1,24,28	
		1,15, 5,46,56,14,55,51		5,29
8″	48, 6,28,32,44,26,41,19,31, 0		3,31, 1,29,57	
		1,15, 5,43,25,13,25,54		5,29
10″	48, 6,29,47,50,10, 6,32,56,54		3,31, 1,35,26	
		1,15, 5,39,54,11,50,28		5,29
12″	48, 6,31, 2,55,50, 0,44,47,22		3,31, 1,40,55	
		1,15, 5,36,23,10, 9,33		5,29
14″	48, 6,32,18, 1,26,23,54,56,55		3,31, 1,46,24	
		1,15, 5,32,52, 8,23, 9		5,29
16″	48, 6,33,33, 6,59,16, 3,20, 4		3,31, 1,51,53	
		1,15, 5,29,21, 6,31,16		5,29
18″	48, 6,34,48,12,28,37, 9,51,20		3,31, 1,57,22	
		1,15, 5,25,50, 4,33,54		5,29
20″	48, 6,36, 3,17,54,27,14,25,14		3,31, 2, 2,51	
		1,15, 5,22,19, 2,31, 3		5,29
22″	48, 6,37,18,23,16,46,16,56,17		3,31, 2, 8,20	
		1,15, 5,18,48, 0,22,43		5,29
24″	48, 6,38,33,28,35,34,17,19, 0		3,31, 2,13,49	
		1,15, 5,15,16,58, 8,54		5,29
26″	48, 6,39,48,33,50,51,15,27,54		3,31, 2,19,18	
		1,15, 5,11,45,55,49,36		5,29
28″	48, 6,41, 3,39, 2,37,11,17,30		3,31, 2,24,47	
		1,15, 5, 8,14,53,24,49		5,29
30″	48, 6,42,18,44,10,52, 4,42,19		3,31, 2,30,16	
		1,15, 5, 4,43,50,54,33		5,29
32″	48, 6,43,33,49,15,35,55,36,52		3,31, 2,35,45	
		1,15, 5, 1,12,48,18,48		5,29
34″	48, 6,44,48,54,16,48,43,55,40		3,31, 2,41,14	
		1,15, 4,57,41,45,37,34		5,29
36″	48, 6,46, 3,59,14,30,29,33,14		3,31, 2,46,43	
		1,15, 4,54,10,42,50,51		5,29
38″	48, 6,47,19, 4, 8,41,12,24, 5		3,31, 2,52,12	
		1,15, 4,50,39,39,58,39		5,29
40″	48, 6,48,34, 8,59,20,52,22,44		3,31, 2,57,41	
		1,15, 4,47, 8,37, 0,58		5,29
42″	48, 6,49,49,13,46,29,29,23,42		3,31, 3, 3,10	
		1,15, 4,43,37,33,57,48		5,29
44″	48, 6,51, 4,18,30, 7, 3,21,30		3,31, 3, 8,39	
		1,15, 4,40, 6,30,49, 9		5,29
46″	48, 6,52,19,23,10,13,34,10,39		3,31, 3,14, 8	
		1,15, 4,36,35,27,35, 1		5,29
48″	48, 6,53,34,27,46,49, 1,45,40		3,31, 3,19,37	
		1,15, 4,33, 4,24,15,24		5,29
50″	48, 6,54,49,32,19,53,26, 1, 4		3,31, 3,25, 6	
		1,15, 4,29,33,20,50,18		5,29
52″	48, 6,56, 4,36,49,26,46,51,22		3,31, 3,30,35	
		1,15, 4,26, 2,17,19,43		5,29
54″	48, 6,57,19,41,15,29, 4,11, 5		3,31, 3,36, 4	
		1,15, 4,22,31,13,43,39		5,29
56″	48, 6,58,34,45,38, 0,17,54,44		3,31, 3,41,33	
		1,15, 4,19, 0,10, 2, 6		5,29
58″	48, 6,59,49,49,57, 0,27,56,50		3,31, 3,47, 2	
		1,15, 4,15,29, 6,15, 4		
60″	48, 7, 1, 4,54,12,29,34,11,54			
exact	48, 7, 1, 4,54,12,29,33,45,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°19′ 0″	48, 7, 1, 4,54,12,29,33,45,56			
		1,15, 4,11,58, 2,19,50		
2″	48, 7, 2,19,58,24,27,36, 5,46		3,31, 3,58,11	
		1,15, 4, 8,26,58,21,39		5,29
4″	48, 7, 3,35, 2,32,54,34,27,25		3,31, 4, 3,40	
		1,15, 4, 4,55,54,17,59		5,29
6″	48, 7, 4,50, 6,37,50,28,45,24		3,31, 4, 9, 9	
		1,15, 4, 1,24,50, 8,50		5,29
8″	48, 7, 6, 5,10,39,15,18,54,14		3,31, 4,14,38	
		1,15, 3,57,53,45,54,12		5,29
10″	48, 7, 7,20,14,37, 9, 4,48,26		3,31, 4,20, 7	
		1,15, 3,54,22,41,34, 5		5,29
12″	48, 7, 8,35,18,31,31,46,22,31		3,31, 4,25,36	
		1,15, 3,50,51,37, 8,29		5,29
14″	48, 7, 9,50,22,22,23,23,31, 0		3,31, 4,31, 5	
		1,15, 3,47,20,32,37,24		5,29
16″	48, 7,11, 5,26, 9,43,56, 8,24		3,31, 4,36,34	
		1,15, 3,43,49,28, 0,50		5,29
18″	48, 7,12,20,29,53,33,24, 9,14		3,31, 4,42, 3	
		1,15, 3,40,18,23,18,47		5,29
20″	48, 7,13,35,33,33,51,47,28, 1		3,31, 4,47,32	
		1,15, 3,36,47,18,31,15		5,29
22″	48, 7,14,50,37,10,39, 5,59,16		3,31, 4,53, 1	
		1,15, 3,33,16,13,38,14		5,29
24″	48, 7,16, 5,40,43,55,19,37,30		3,31, 4,58,30	
		1,15, 3,29,45, 8,39,44		5,29
26″	48, 7,17,20,44,13,40,28,17,14		3,31, 5, 3,59	
		1,15, 3,26,14, 3,35,45		5,29
28″	48, 7,18,35,47,39,54,31,52,59		3,31, 5, 9,28	
		1,15, 3,22,42,58,26,17		5,29
30″	48, 7,19,50,51, 2,37,30,19,16		3,31, 5,14,57	
		1,15, 3,19,11,53,11,20		5,29
32″	48, 7,21, 5,54,21,49,23,30,36		3,31, 5,20,26	
		1,15, 3,15,40,47,50,54		5,29
34″	48, 7,22,20,57,37,30,11,21,30		3,31, 5,25,55	
		1,15, 3,12, 9,42,24,59		5,29
36″	48, 7,23,36, 0,49,39,53,46,29		3,31, 5,31,24	
		1,15, 3, 8,38,36,53,35		5,29
38″	48, 7,24,51, 3,58,18,30,40, 4		3,31, 5,36,53	
		1,15, 3, 5, 7,31,16,42		5,29
40″	48, 7,26, 6, 7, 3,26, 1,56,46		3,31, 5,42,22	
		1,15, 3, 1,36,25,34,20		5,29
42″	48, 7,27,21,10, 5, 2,27,31, 6		3,31, 5,47,51	
		1,15, 2,58, 5,19,46,29		5,29
44″	48, 7,28,36,13, 3, 7,47,17,35		3,31, 5,53,20	
		1,15, 2,54,34,13,53, 9		5,29
46″	48, 7,29,51,15,57,42, 1,10,44		3,31, 5,58,49	
		1,15, 2,51, 3, 7,54,20		5,29
48″	48, 7,31, 6,18,48,45, 9, 5, 4		3,31, 6, 4,18	
		1,15, 2,47,32, 1,50, 2		5,29
50″	48, 7,32,21,21,36,17,10,55, 6		3,31, 6, 9,47	
		1,15, 2,44, 0,55,40,15		5,29
52″	48, 7,33,36,24,20,18, 6,35,21		3,31, 6,15,16	
		1,15, 2,40,29,49,24,59		5,29
54″	48, 7,34,51,27, 0,47,56, 0,20		3,31, 6,20,45	
		1,15, 2,36,58,43, 4,14		5,29
56″	48, 7,36, 6,29,37,46,39, 4,34		3,31, 6,26,14	
		1,15, 2,33,27,36,38, 0		5,29
58″	48, 7,37,21,32,11,14,15,42,34		3,31, 6,31,43	
		1,15, 2,29,56,30, 6,17		
60″	48, 7,38,36,34,41,10,45,48,51			
exact	48, 7,38,36,34,41,10,45,33,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°20′ 0″	48, 7,38,36,34,41,10,45,33,44			
		1,15, 2,26,25,23,27,27		
2″	48, 7,39,51,37, 7,36, 9, 1,11		3,31, 6,42,47	
		1,15, 2,22,54,16,44,40		5,29
4″	48, 7,41, 6,39,30,30,25,45,51		3,31, 6,48,16	
		1,15, 2,19,23, 9,56,24		5,29
6″	48, 7,42,21,41,49,53,35,42,15		3,31, 6,53,45	
		1,15, 2,15,52, 3, 2,39		5,29
8″	48, 7,43,36,44, 5,45,38,44,54		3,31, 6,59,14	
		1,15, 2,12,20,56, 3,25		5,29
10″	48, 7,44,51,46,18, 6,34,48,19		3,31, 7, 4,43	
		1,15, 2, 8,49,48,58,42		5,29
12″	48, 7,46, 6,48,26,56,23,47, 1		3,31, 7,10,12	
		1,15, 2, 5,18,41,48,30		5,29
14″	48, 7,47,21,50,32,15, 5,35,31		3,31, 7,15,41	
		1,15, 2, 1,47,34,32,49		5,29
16″	48, 7,48,36,52,34, 2,40, 8,20		3,31, 7,21,10	
		1,15, 1,58,16,27,11,39		5,29
18″	48, 7,49,51,54,32,19, 7,19,59		3,31, 7,26,39	
		1,15, 1,54,45,19,45, 0		5,29
20″	48, 7,51, 6,56,27, 4,27, 4,59		3,31, 7,32, 8	
		1,15, 1,51,14,12,12,52		5,29
22″	48, 7,52,21,58,18,18,39,17,51		3,31, 7,37,37	
		1,15, 1,47,43, 4,35,15		5,29
24″	48, 7,53,37, 0, 6, 1,43,53, 6		3,31, 7,43, 6	
		1,15, 1,44,11,56,52, 9		5,29
26″	48, 7,54,52, 1,50,13,40,45,15		3,31, 7,48,35	
		1,15, 1,40,40,49, 3,34		5,29
28″	48, 7,56, 7, 3,30,54,29,48,49		3,31, 7,54, 4	
		1,15, 1,37, 9,41, 9,30		5,29
30″	48, 7,57,22, 5, 8, 4,10,58,19		3,31, 7,59,33	
		1,15, 1,33,38,33, 9,57		5,29
32″	48, 7,58,37, 6,41,42,44, 8,16		3,31, 8, 5, 2	
		1,15, 1,30, 7,25, 4,55		5,29
34″	48, 7,59,52, 8,11,50, 9,13,11		3,31, 8,10,31	
		1,15, 1,26,36,16,54,24		5,29
36″	48, 8, 1, 7, 9,38,26,26, 7,35		3,31, 8,16, 0	
		1,15, 1,23, 5, 8,38,24		5,29
38″	48, 8, 2,22,11, 1,31,34,45,59		3,31, 8,21,29	
		1,15, 1,19,34, 0,16,55		5,29
40″	48, 8, 3,37,12,21, 5,35, 2,54		3,31, 8,26,58	
		1,15, 1,16, 2,51,49,57		5,29
42″	48, 8, 4,52,13,37, 8,26,52,51		3,31, 8,32,27	
		1,15, 1,12,31,43,17,30		5,29
44″	48, 8, 6, 7,14,49,40,10,10,21		3,31, 8,37,56	
		1,15, 1, 9, 0,34,39,34		5,29
46″	48, 8, 7,22,15,58,40,44,49,55		3,31, 8,43,25	
		1,15, 1, 5,29,25,56, 9		5,29
48″	48, 8, 8,37,17, 4,10,10,46, 4		3,31, 8,48,54	
		1,15, 1, 1,58,17, 7,15		5,29
50″	48, 8, 9,52,18, 6, 8,27,53,19		3,31, 8,54,23	
		1,15, 0,58,27, 8,12,52		5,29
52″	48, 8,11, 7,19, 4,35,36, 6,11		3,31, 8,59,52	
		1,15, 0,54,55,59,13, 0		5,29
54″	48, 8,12,22,19,59,31,35,19,11		3,31, 9, 5,21	
		1,15, 0,51,24,50, 7,39		5,29
56″	48, 8,13,37,20,50,56,25,26,50		3,31, 9,10,50	
		1,15, 0,47,53,40,56,49		5,29
58″	48, 8,14,52,21,38,50, 6,23,39		3,31, 9,16,19	
		1,15, 0,44,22,31,40,30		
60″	48, 8,16, 7,22,23,12,38, 4, 9			
exact	48, 8,16, 7,22,23,12,37,51,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°21′ 0″	48, 8,16, 7,22,23,12,37,51,53			
		1,15, 0,40,51,22,17,36		
2″	48, 8,17,22,23, 4, 4, 0, 9,29		3,31, 9,27,20	
		1,15, 0,37,20,12,50,16		5,29
4″	48, 8,18,37,23,41,24,12,59,45		3,31, 9,32,49	
		1,15, 0,33,49, 3,17,27		5,29
6″	48, 8,19,52,24,15,13,16,17,12		3,31, 9,38,18	
		1,15, 0,30,17,53,39, 9		5,29
8″	48, 8,21, 7,24,45,31, 9,56,21		3,31, 9,43,47	
		1,15, 0,26,46,43,55,22		5,29
10″	48, 8,22,22,25,12,17,53,51,43		3,31, 9,49,16	
		1,15, 0,23,15,34, 6, 6		5,29
12″	48, 8,23,37,25,35,33,27,57,49		3,31, 9,54,45	
		1,15, 0,19,44,24,11,21		5,29
14″	48, 8,24,52,25,55,17,52, 9,10		3,31,10, 0,14	
		1,15, 0,16,13,14,11, 7		5,29
16″	48, 8,26, 7,26,11,31, 6,20,17		3,31,10, 5,43	
		1,15, 0,12,42, 4, 5,24		5,29
18″	48, 8,27,22,26,24,13,10,25,41		3,31,10,11,12	
		1,15, 0, 9,10,53,54,12		5,29
20″	48, 8,28,37,26,33,24, 4,19,53		3,31,10,16,41	
		1,15, 0, 5,39,43,37,31		5,29
22″	48, 8,29,52,26,39, 3,47,57,24		3,31,10,22,10	
		1,15, 0, 2, 8,33,15,21		5,29
24″	48, 8,31, 7,26,41,12,21,12,45		3,31,10,27,39	
		1,14,59,58,37,22,47,42		5,29
26″	48, 8,32,22,26,39,49,44, 0,27		3,31,10,33, 8	
		1,14,59,55, 6,12,14,34		5,29
28″	48, 8,33,37,26,34,55,56,15, 1		3,31,10,38,37	
		1,14,59,51,35, 1,35,57		5,29
30″	48, 8,34,52,26,26,30,57,50,58		3,31,10,44, 6	
		1,14,59,48, 3,50,51,51		5,29
32″	48, 8,36, 7,26,14,34,48,42,49		3,31,10,49,35	
		1,14,59,44,32,40, 2,16		5,29
34″	48, 8,37,22,25,59, 7,28,45, 5		3,31,10,55, 4	
		1,14,59,41, 1,29, 7,12		5,29
36″	48, 8,38,37,25,40, 8,57,52,17		3,31,11, 0,33	
		1,14,59,37,30,18, 6,39		5,29
38″	48, 8,39,52,25,17,39,15,58,56		3,31,11, 6, 2	
		1,14,59,33,59, 7, 0,37		5,29
40″	48, 8,41, 7,24,51,38,22,59,33		3,31,11,11,31	
		1,14,59,30,27,55,49, 6		5,29
42″	48, 8,42,22,24,22, 6,18,48,39		3,31,11,17, 0	
		1,14,59,26,56,44,32, 6		5,29
44″	48, 8,43,37,23,49, 3, 3,20,45		3,31,11,22,29	
		1,14,59,23,25,33, 9,37		5,29
46″	48, 8,44,52,23,12,28,36,30,22		3,31,11,27,58	
		1,14,59,19,54,21,41,39		5,29
48″	48, 8,46, 7,22,32,22,58,12, 1		3,31,11,33,27	
		1,14,59,16,23,10, 8,12		5,29
50″	48, 8,47,22,21,48,46, 8,20,13		3,31,11,38,56	
		1,14,59,12,51,58,29,16		5,29
52″	48, 8,48,37,21, 1,38, 6,49,29		3,31,11,44,25	
		1,14,59, 9,20,46,44,51		5,29
54″	48, 8,49,52,20,10,58,53,34,20		3,31,11,49,54	
		1,14,59, 5,49,34,54,57		5,29
56″	48, 8,51, 7,19,16,48,28,29,17		3,31,11,55,23	
		1,14,59, 2,18,22,59,34		5,29
58″	48, 8,52,22,18,19, 6,51,28,51		3,31,12, 0,52	
		1,14,58,58,47,10,58,42		
60″	48, 8,53,37,17,17,54, 2,27,33			
exact	48, 8,53,37,17,17,54, 2,24, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°22′ 0″	48, 8,53,37,17,17,54, 2,24, 0	1,14,58,55,15,58,52,11		
2″	48, 8,54,52,16,13,10, 1,16,11	1,14,58,51,44,46,40,21	3,31,12,11,50	5,29
4″	48, 8,56, 7,15, 4,54,47,56,32	1,14,58,48,13,34,23, 2	3,31,12,17,19	5,29
6″	48, 8,57,22,13,53, 8,22,19,34	1,14,58,44,42,22, 0,14	3,31,12,22,48	5,29
8″	48, 8,58,37,12,37,50,44,19,48	1,14,58,41,11, 9,31,57	3,31,12,28,17	5,29
10″	48, 8,59,52,11,19, 1,53,51,45	1,14,58,37,39,56,58,11	3,31,12,33,46	5,29
12″	48, 9, 1, 7, 9,56,41,50,49,56	1,14,58,34, 8,44,18,56	3,31,12,39,15	5,29
14″	48, 9, 2,22, 8,30,50,35, 8,52	1,14,58,30,37,31,34,12	3,31,12,44,44	5,29
16″	48, 9, 3,37, 7, 1,28, 6,43, 4	1,14,58,27, 6,18,43,59	3,31,12,50,13	5,29
18″	48, 9, 4,52, 5,28,34,25,27, 3	1,14,58,23,35, 5,48,17	3,31,12,55,42	5,29
20″	48, 9, 6, 7, 3,52, 9,31,15,20	1,14,58,20, 3,52,47, 6	3,31,13, 1,11	5,29
22″	48, 9, 7,22, 2,12,13,24, 2,26	1,14,58,16,32,39,40,26	3,31,13, 6,40	5,29
24″	48, 9, 8,37, 0,28,46, 3,42,52	1,14,58,13, 1,26,28,17	3,31,13,12, 9	5,29
26″	48, 9, 9,51,58,41,47,30,11, 9	1,14,58, 9,30,13,10,39	3,31,13,17,38	5,29
28″	48, 9,11, 6,56,51,17,43,21,48	1,14,58, 5,58,59,47,32	3,31,13,23, 7	5,29
30″	48, 9,12,21,54,57,16,43, 9,20	1,14,58, 2,27,46,18,56	3,31,13,28,36	5,29
32″	48, 9,13,36,52,59,44,29,28,16	1,14,57,58,56,32,44,51	3,31,13,34, 5	5,29
34″	48, 9,14,51,50,58,41, 2,13, 7	1,14,57,55,25,19, 5,17	3,31,13,39,34	5,29
36″	48, 9,16, 6,48,54, 6,21,18,24	1,14,57,51,54, 5,20,14	3,31,13,45, 3	5,29
38″	48, 9,17,21,46,46, 0,26,38,38	1,14,57,48,22,51,29,42	3,31,13,50,32	5,29
40″	48, 9,18,36,44,34,23,18, 8,20	1,14,57,44,51,37,33,41	3,31,13,56, 1	5,29
42″	48, 9,19,51,42,19,14,55,42, 1	1,14,57,41,20,23,32,11	3,31,14, 1,30	5,29
44″	48, 9,21, 6,40, 0,35,19,14,12	1,14,57,37,49, 9,25,12	3,31,14, 6,59	5,29
46″	48, 9,22,21,37,38,24,28,39,24	1,14,57,34,17,55,12,44	3,31,14,12,28	5,29
48″	48, 9,23,36,35,12,42,23,52, 8	1,14,57,30,46,40,54,47	3,31,14,17,57	5,29
50″	48, 9,24,51,32,43,29, 4,46,55	1,14,57,27,15,26,31,21	3,31,14,23,26	5,29
52″	48, 9,26, 6,30,10,44,31,18,16	1,14,57,23,44,12, 2,26	3,31,14,28,55	5,29
54″	48, 9,27,21,27,34,28,43,20,42	1,14,57,20,12,57,28, 2	3,31,14,34,24	5,29
56″	48, 9,28,36,24,54,41,40,48,44	1,14,57,16,41,42,48, 9	3,31,14,39,53	5,29
58″	48, 9,29,51,22,11,23,23,36,53	1,14,57,13,10,28, 2,47	3,31,14,45,22	
60″	48, 9,31, 6,19,24,33,51,39,40			
exact	48, 9,31, 6,19,24,33,51,51,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°23′ 0″	48, 9,31, 6,19,24,33,51,51,37			
		1,14,57, 9,39,13,13,10		
2″	48, 9,32,21,16,34,13, 5, 4,47		3,31,14,56,15	
		1,14,57, 6, 7,58,16,55		5,29
4″	48, 9,33,36,13,40,21, 3,21,42		3,31,15, 1,44	
		1,14,57, 2,36,43,15,11		5,29
6″	48, 9,34,51,10,42,57,46,36,53		3,31,15, 7,13	
		1,14,56,59, 5,28, 7,58		5,29
8″	48, 9,36, 6, 7,42, 3,14,44,51		3,31,15,12,42	
		1,14,56,55,34,12,55,16		5,29
10″	48, 9,37,21, 4,37,37,27,40, 7		3,31,15,18,11	
		1,14,56,52, 2,57,37, 5		5,29
12″	48, 9,38,36, 1,29,40,25,17,12		3,31,15,23,40	
		1,14,56,48,31,42,13,25		5,29
14″	48, 9,39,50,58,18,12, 7,30,37		3,31,15,29, 9	
		1,14,56,45, 0,26,44,16		5,29
16″	48, 9,41, 5,55, 3,12,34,14,53		3,31,15,34,38	
		1,14,56,41,29,11, 9,38		5,29
18″	48, 9,42,20,51,44,41,45,24,31		3,31,15,40, 7	
		1,14,56,37,57,55,29,31		5,29
20″	48, 9,43,35,48,22,39,40,54, 2		3,31,15,45,36	
		1,14,56,34,26,39,43,55		5,29
22″	48, 9,44,50,44,57, 6,20,37,57		3,31,15,51, 5	
		1,14,56,30,55,23,52,50		5,29
24″	48, 9,46, 5,41,28, 1,44,30,47		3,31,15,56,34	
		1,14,56,27,24, 7,56,16		5,29
26″	48, 9,47,20,37,55,25,52,27, 3		3,31,16, 2, 3	
		1,14,56,23,52,51,54,13		5,29
28″	48, 9,48,35,34,19,18,44,21,16		3,31,16, 7,32	
		1,14,56,20,21,35,46,41		5,29
30″	48, 9,49,50,30,39,40,20, 7,57		3,31,16,13, 1	
		1,14,56,16,50,19,33,40		5,29
32″	48, 9,51, 5,26,56,30,39,41,37		3,31,16,18,30	
		1,14,56,13,19, 3,15,10		5,29
34″	48, 9,52,20,23, 9,49,42,56,47		3,31,16,23,59	
		1,14,56, 9,47,46,51,11		5,29
36″	48, 9,53,35,19,19,37,29,47,58		3,31,16,29,28	
		1,14,56, 6,16,30,21,43		5,29
38″	48, 9,54,50,15,25,54, 0, 9,41		3,31,16,34,57	
		1,14,56, 2,45,13,46,46		5,29
40″	48, 9,56, 5,11,28,39,13,56,27		3,31,16,40,26	
		1,14,55,59,13,57, 6,20		5,29
42″	48, 9,57,20, 7,27,53,11, 2,47		3,31,16,45,55	
		1,14,55,55,42,40,20,25		5,29
44″	48, 9,58,35, 3,23,35,51,23,12		3,31,16,51,24	
		1,14,55,52,11,23,29, 1		5,29
46″	48, 9,59,49,59,15,47,14,52,13		3,31,16,56,53	
		1,14,55,48,40, 6,32, 8		5,29
48″	48,10, 1, 4,55, 4,27,21,24,21		3,31,17, 2,22	
		1,14,55,45, 8,49,29,46		5,29
50″	48,10, 2,19,50,49,36,10,54, 7		3,31,17, 7,51	
		1,14,55,41,37,32,21,55		5,29
52″	48,10, 3,34,46,31,13,43,16, 2		3,31,17,13,20	
		1,14,55,38, 6,15, 8,35		5,29
54″	48,10, 4,49,42, 9,19,58,24,37		3,31,17,18,49	
		1,14,55,34,34,57,49,46		5,29
56″	48,10, 6, 4,37,43,54,56,14,23		3,31,17,24,18	
		1,14,55,31, 3,40,25,28		5,29
58″	48,10, 7,19,33,14,58,36,39,51		3,31,17,29,47	
		1,14,55,27,32,22,55,41		
60″	48,10, 8,34,28,42,30,59,35,32			
exact	48,10, 8,34,28,42,30,59,54, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°24′ 0″	48,10, 8,34,28,42,30,59,54, 9	1,14,55,24, 1, 5,22,27		
2″	48,10, 9,49,24, 6,32, 5,16,36	1,14,55,20,29,47,41,51	3,31,17,40,36	5,29
4″	48,10,11, 4,19,27, 1,52,58,27	1,14,55,16,58,29,55,46	3,31,17,46, 5	5,29
6″	48,10,12,19,14,44, 0,22,54,13	1,14,55,13,27,12, 4,12	3,31,17,51,34	5,29
8″	48,10,13,34, 9,57,27,34,58,25	1,14,55, 9,55,54, 7, 9	3,31,17,57, 3	5,29
10″	48,10,14,49, 5, 7,23,29, 5,34	1,14,55, 6,24,36, 4,37	3,31,18, 2,32	5,29
12″	48,10,16, 4, 0,13,48, 5,10,11	1,14,55, 2,53,17,56,36	3,31,18, 8, 1	5,29
14″	48,10,17,18,55,16,41,23, 6,47	1,14,54,59,21,59,43, 6	3,31,18,13,30	5,29
16″	48,10,18,33,50,16, 3,22,49,53	1,14,54,55,50,41,24, 7	3,31,18,18,59	5,29
18″	48,10,19,48,45,11,54, 4,14, 0	1,14,54,52,19,22,59,39	3,31,18,24,28	5,29
20″	48,10,21, 3,40, 4,13,27,13,39	1,14,54,48,48, 4,29,42	3,31,18,29,57	5,29
22″	48,10,22,18,34,53, 1,31,43,21	1,14,54,45,16,45,54,16	3,31,18,35,26	5,29
24″	48,10,23,33,29,38,18,17,37,37	1,14,54,41,45,27,13,21	3,31,18,40,55	5,29
26″	48,10,24,48,24,20, 3,44,50,58	1,14,54,38,14, 8,26,57	3,31,18,46,24	5,29
28″	48,10,26, 3,18,58,17,53,17,55	1,14,54,34,42,49,35, 4	3,31,18,51,53	5,29
30″	48,10,27,18,13,33, 0,42,52,59	1,14,54,31,11,30,37,42	3,31,18,57,22	5,29
32″	48,10,28,33, 8, 4,12,13,30,41	1,14,54,27,40,11,34,51	3,31,19, 2,51	5,29
34″	48,10,29,48, 2,31,52,25, 5,32	1,14,54,24, 8,52,26,31	3,31,19, 8,20	5,29
36″	48,10,31, 2,56,56, 1,17,32, 3	1,14,54,20,37,33,12,42	3,31,19,13,49	5,29
38″	48,10,32,17,51,16,38,50,44,45	1,14,54,17, 6,13,53,24	3,31,19,19,18	5,29
40″	48,10,33,32,45,33,45, 4,38, 9	1,14,54,13,34,54,28,37	3,31,19,24,47	5,29
42″	48,10,34,47,39,47,19,59, 6,46	1,14,54,10, 3,34,58,21	3,31,19,30,16	5,29
44″	48,10,36, 2,33,57,23,34, 5, 7	1,14,54, 6,32,15,22,36	3,31,19,35,45	5,29
46″	48,10,37,17,28, 3,55,49,27,43	1,14,54, 3, 0,55,41,22	3,31,19,41,14	5,29
48″	48,10,38,32,22, 6,56,45, 9, 5	1,14,53,59,29,35,54,39	3,31,19,46,43	5,29
50″	48,10,39,47,16, 6,26,21, 3,44	1,14,53,55,58,16, 2,27	3,31,19,52,12	5,29
52″	48,10,41, 2,10, 2,24,37, 6,11	1,14,53,52,26,56, 4,46	3,31,19,57,41	5,29
54″	48,10,42,17, 3,54,51,33,10,57	1,14,53,48,55,36, 1,36	3,31,20, 3,10	5,29
56″	48,10,43,31,57,43,47, 9,12,33	1,14,53,45,24,15,52,57	3,31,20, 8,39	5,29
58″	48,10,44,46,51,29,11,25, 5,30	1,14,53,41,52,55,38,49	3,31,20,14, 8	
60″	48,10,46, 1,45,11, 4,20,44,19			
exact	48,10,46, 1,45,11, 4,21, 8,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°25′ 0″	48,10,46, 1,45,11, 4,21, 8,55			
		1,14,53,38,21,35,21,58		
2″	48,10,47,16,38,49,25,56,30,53		3,31,20,24,54	
		1,14,53,34,50,14,57, 4		5,29
4″	48,10,48,31,32,24,16,11,27,57		3,31,20,30,23	
		1,14,53,31,18,54,26,41		5,29
6″	48,10,49,46,25,55,35, 5,54,38		3,31,20,35,52	
		1,14,53,27,47,33,50,49		5,29
8″	48,10,51, 1,19,23,22,39,45,27		3,31,20,41,21	
		1,14,53,24,16,13, 9,28		5,29
10″	48,10,52,16,12,47,38,52,54,55		3,31,20,46,50	
		1,14,53,20,44,52,22,38		5,29
12″	48,10,53,31, 6, 8,23,45,17,33		3,31,20,52,19	
		1,14,53,17,13,31,30,19		5,29
14″	48,10,54,45,59,25,37,16,47,52		3,31,20,57,48	
		1,14,53,13,42,10,32,31		5,29
16″	48,10,56, 0,52,39,19,27,20,23		3,31,21, 3,17	
		1,14,53,10,10,49,29,14		5,29
18″	48,10,57,15,45,49,30,16,49,37		3,31,21, 8,46	
		1,14,53, 6,39,28,20,28		5,29
20″	48,10,58,30,38,56, 9,45,10, 5		3,31,21,14,15	
		1,14,53, 3, 8, 7, 6,13		5,29
22″	48,10,59,45,31,59,17,52,16,18		3,31,21,19,44	
		1,14,52,59,36,45,46,29		5,29
24″	48,11, 1, 0,24,58,54,38, 2,47		3,31,21,25,13	
		1,14,52,56, 5,24,21,16		5,29
26″	48,11, 2,15,17,55, 0, 2,24, 3		3,31,21,30,42	
		1,14,52,52,34, 2,50,34		5,29
28″	48,11, 3,30,10,47,34, 5,14,37		3,31,21,36,11	
		1,14,52,49, 2,41,14,23		5,29
30″	48,11, 4,45, 3,36,36,46,29, 0		3,31,21,41,40	
		1,14,52,45,31,19,32,43		5,29
32″	48,11, 5,59,56,22, 8, 6, 1,43		3,31,21,47, 9	
		1,14,52,41,59,57,45,34		5,29
34″	48,11, 7,14,49, 4, 8, 3,47,17		3,31,21,52,38	
		1,14,52,38,28,35,52,56		5,29
36″	48,11, 8,29,41,42,36,39,40,13		3,31,21,58, 7	
		1,14,52,34,57,13,54,49		5,29
38″	48,11, 9,44,34,17,33,53,35, 2		3,31,22, 3,36	
		1,14,52,31,25,51,51,13		5,29
40″	48,11,10,59,26,48,59,45,26,15		3,31,22, 9, 5	
		1,14,52,27,54,29,42, 8		5,29
42″	48,11,12,14,19,16,54,15, 8,23		3,31,22,14,34	
		1,14,52,24,23, 7,27,34		5,29
44″	48,11,13,29,11,41,17,22,35,57		3,31,22,20, 3	
		1,14,52,20,51,45, 7,31		5,29
46″	48,11,14,44, 4, 2, 9, 7,43,28		3,31,22,25,32	
		1,14,52,17,20,22,41,59		5,29
48″	48,11,15,58,56,19,29,30,25,27		3,31,22,31, 1	
		1,14,52,13,49, 0,10,58		5,29
50″	48,11,17,13,48,33,18,30,36,25		3,31,22,36,30	
		1,14,52,10,17,37,34,28		5,29
52″	48,11,18,28,40,43,36, 8,10,53		3,31,22,41,59	
		1,14,52, 6,46,14,52,29		5,29
54″	48,11,19,43,32,50,22,23, 3,22		3,31,22,47,28	
		1,14,52, 3,14,52, 5, 1		5,29
56″	48,11,20,58,24,53,37,15, 8,23		3,31,22,52,57	
		1,14,51,59,43,29,12, 4		5,29
58″	48,11,22,13,16,53,20,44,20,27		3,31,22,58,26	
		1,14,51,56,12, 6,13,38		
60″	48,11,23,28, 8,49,32,50,34, 5			
exact	48,11,23,28, 8,49,32,51,11,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°26′ 0″	48,11,23,28, 8,49,32,51,11,11			
		1,14,51,52,40,43,13,40		
2″	48,11,24,43, 0,42,13,34,24,51		3,31,23, 9, 7	
		1,14,51,49, 9,20, 4,33		5,28
4″	48,11,25,57,52,31,22,54,29,24		3,31,23,14,35	
		1,14,51,45,37,56,49,58		5,28
6″	48,11,27,12,44,17, 0,51,19,22		3,31,23,20, 3	
		1,14,51,42, 6,33,29,55		5,28
8″	48,11,28,27,35,59, 7,24,49,17		3,31,23,25,31	
		1,14,51,38,35,10, 4,24		5,28
10″	48,11,29,42,27,37,42,34,53,41		3,31,23,30,59	
		1,14,51,35, 3,46,33,25		5,28
12″	48,11,30,57,19,12,46,21,27, 6		3,31,23,36,27	
		1,14,51,31,32,22,56,58		5,28
14″	48,11,32,12,10,44,18,44,24, 4		3,31,23,41,55	
		1,14,51,28, 0,59,15, 3		5,28
16″	48,11,33,27, 2,12,19,43,39, 7		3,31,23,47,23	
		1,14,51,24,29,35,27,40		5,28
18″	48,11,34,41,53,36,49,19, 6,47		3,31,23,52,51	
		1,14,51,20,58,11,34,49		5,28
20″	48,11,35,56,44,57,47,30,41,36		3,31,23,58,19	
		1,14,51,17,26,47,36,30		5,28
22″	48,11,37,11,36,15,14,18,18, 6		3,31,24, 3,47	
		1,14,51,13,55,23,32,43		5,28
24″	48,11,38,26,27,29, 9,41,50,49		3,31,24, 9,15	
		1,14,51,10,23,59,23,28		5,28
26″	48,11,39,41,18,39,33,41,14,17		3,31,24,14,43	
		1,14,51, 6,52,35, 8,45		5,28
28″	48,11,40,56, 9,46,26,16,23, 2		3,31,24,20,11	
		1,14,51, 3,21,10,48,34		5,28
30″	48,11,42,11, 0,49,47,27,11,36		3,31,24,25,39	
		1,14,50,59,49,46,22,55		5,28
32″	48,11,43,25,51,49,37,13,34,31		3,31,24,31, 7	
		1,14,50,56,18,21,51,48		5,28
34″	48,11,44,40,42,45,55,35,26,19		3,31,24,36,35	
		1,14,50,52,46,57,15,13		5,28
36″	48,11,45,55,33,38,42,32,41,32		3,31,24,42, 3	
		1,14,50,49,15,32,33,10		5,28
38″	48,11,47,10,24,27,58, 5,14,42		3,31,24,47,31	
		1,14,50,45,44, 7,45,39		5,28
40″	48,11,48,25,15,13,42,13, 0,21		3,31,24,52,59	
		1,14,50,42,12,42,52,40		5,28
42″	48,11,49,40, 5,55,54,55,53, 1		3,31,24,58,27	
		1,14,50,38,41,17,54,13		5,28
44″	48,11,50,54,56,34,36,13,47,14		3,31,25, 3,55	
		1,14,50,35, 9,52,50,18		5,28
46″	48,11,52, 9,47, 9,46, 6,37,32		3,31,25, 9,23	
		1,14,50,31,38,27,40,55		5,28
48″	48,11,53,24,37,41,24,34,18,27		3,31,25,14,51	
		1,14,50,28, 7, 2,26, 4		5,28
50″	48,11,54,39,28, 9,31,36,44,31		3,31,25,20,19	
		1,14,50,24,35,37, 5,45		5,28
52″	48,11,55,54,18,34, 7,13,50,16		3,31,25,25,47	
		1,14,50,21, 4,11,39,58		5,28
54″	48,11,57, 9, 8,55,11,25,30,14		3,31,25,31,15	
		1,14,50,17,32,46, 8,43		5,28
56″	48,11,58,23,59,12,44,11,38,57		3,31,25,36,43	
		1,14,50,14, 1,20,32, 0		5,28
58″	48,11,59,38,49,26,45,32,10,57		3,31,25,42,11	
		1,14,50,10,29,54,49,49		
60″	48,12, 0,53,39,37,15,27, 0,46			
exact	48,12, 0,53,39,37,15,26,34, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°27′ 0″	48,12, 0,53,39,37,15,26,34, 9			
		1,14,50, 6,58,28,59,29		
2″	48,12, 2, 8,29,44,13,55,33,38		3,31,25,53,17	
		1,14,50, 3,27, 3, 6,12		5,28
4″	48,12, 3,23,19,47,40,58,39,50		3,31,25,58,45	
		1,14,49,59,55,37, 7,27		5,28
6″	48,12, 4,38, 9,47,36,35,47,17		3,31,26, 4,13	
		1,14,49,56,24,11, 3,14		5,28
8″	48,12, 5,52,59,44, 0,46,50,31		3,31,26, 9,41	
		1,14,49,52,52,44,53,33		5,28
10″	48,12, 7, 7,49,36,53,31,44, 4		3,31,26,15, 9	
		1,14,49,49,21,18,38,24		5,28
12″	48,12, 8,22,39,26,14,50,22,28		3,31,26,20,37	
		1,14,49,45,49,52,17,47		5,28
14″	48,12, 9,37,29,12, 4,42,40,15		3,31,26,26, 5	
		1,14,49,42,18,25,51,42		5,28
16″	48,12,10,52,18,54,23, 8,31,57		3,31,26,31,33	
		1,14,49,38,46,59,20, 9		5,28
18″	48,12,12, 7, 8,33,10, 7,52, 6		3,31,26,37, 1	
		1,14,49,35,15,32,43, 8		5,28
20″	48,12,13,21,58, 8,25,40,35,14		3,31,26,42,29	
		1,14,49,31,44, 6, 0,39		5,28
22″	48,12,14,36,47,40, 9,46,35,53		3,31,26,47,57	
		1,14,49,28,12,39,12,42		5,28
24″	48,12,15,51,37, 8,22,25,48,35		3,31,26,53,25	
		1,14,49,24,41,12,19,17		5,28
26″	48,12,17, 6,26,33, 3,38, 7,52		3,31,26,58,53	
		1,14,49,21, 9,45,20,24		5,28
28″	48,12,18,21,15,54,13,23,28,16		3,31,27, 4,21	
		1,14,49,17,38,18,16, 3		5,28
30″	48,12,19,36, 5,11,51,41,44,19		3,31,27, 9,49	
		1,14,49,14, 6,51, 6,14		5,28
32″	48,12,20,50,54,25,58,32,50,33		3,31,27,15,17	
		1,14,49,10,35,23,50,57		5,28
34″	48,12,22, 5,43,36,33,56,41,30		3,31,27,20,45	
		1,14,49, 7, 3,56,30,12		5,28
36″	48,12,23,20,32,43,37,53,11,42		3,31,27,26,13	
		1,14,49, 3,32,29, 3,59		5,28
38″	48,12,24,35,21,47,10,22,15,41		3,31,27,31,41	
		1,14,49, 0, 1, 1,32,18		5,28
40″	48,12,25,50,10,47,11,23,47,59		3,31,27,37, 9	
		1,14,48,56,29,33,55, 9		5,28
42″	48,12,27, 4,59,43,40,57,43, 8		3,31,27,42,37	
		1,14,48,52,58, 6,12,32		5,28
44″	48,12,28,19,48,36,39, 3,55,40		3,31,27,48, 5	
		1,14,48,49,26,38,24,27		5,28
46″	48,12,29,34,37,26, 5,42,20, 7		3,31,27,53,33	
		1,14,48,45,55,10,30,54		5,28
48″	48,12,30,49,26,12, 0,52,51, 1		3,31,27,59, 1	
		1,14,48,42,23,42,31,53		5,28
50″	48,12,32, 4,14,54,24,35,22,54		3,31,28, 4,29	
		1,14,48,38,52,14,27,24		5,28
52″	48,12,33,19, 3,33,16,49,50,18		3,31,28, 9,57	
		1,14,48,35,20,46,17,27		5,28
54″	48,12,34,33,52, 8,37,36, 7,45		3,31,28,15,25	
		1,14,48,31,49,18, 2, 2		5,28
56″	48,12,35,48,40,40,26,54, 9,47		3,31,28,20,53	
		1,14,48,28,17,49,41, 9		5,28
58″	48,12,37, 3,29, 8,44,43,50,56		3,31,28,26,21	
		1,14,48,24,46,21,14,48		
60″	48,12,38,18,17,33,31, 5, 5,44			
exact	48,12,38,18,17,33,31, 4,48,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°28′ 0″	48,12,38,18,17,33,31, 4,48,58			
		1,14,48,21,14,52,41,19		
2″	48,12,39,33, 5,54,45,57,30,17		3,31,28,37,23	
		1,14,48,17,43,24, 3,56		5,28
4″	48,12,40,47,54,12,29,21,34,13		3,31,28,42,51	
		1,14,48,14,11,55,21, 5		5,28
6″	48,12,42, 2,42,26,41,16,55,18		3,31,28,48,19	
		1,14,48,10,40,26,32,46		5,28
8″	48,12,43,17,30,37,21,43,28, 4		3,31,28,53,47	
		1,14,48, 7, 8,57,38,59		5,28
10″	48,12,44,32,18,44,30,41, 7, 3		3,31,28,59,15	
		1,14,48, 3,37,28,39,44		5,28
12″	48,12,45,47, 6,48, 8, 9,46,47		3,31,29, 4,43	
		1,14,48, 0, 5,59,35, 1		5,28
14″	48,12,47, 1,54,48,14, 9,21,48		3,31,29,10,11	
		1,14,47,56,34,30,24,50		5,28
16″	48,12,48,16,42,44,48,39,46,38		3,31,29,15,39	
		1,14,47,53, 3, 1, 9,11		5,28
18″	48,12,49,31,30,37,51,40,55,49		3,31,29,21, 7	
		1,14,47,49,31,31,48, 4		5,28
20″	48,12,50,46,18,27,23,12,43,53		3,31,29,26,35	
		1,14,47,46, 0, 2,21,29		5,28
22″	48,12,52, 1, 6,13,23,15, 5,22		3,31,29,32, 3	
		1,14,47,42,28,32,49,26		5,28
24″	48,12,53,15,53,55,51,47,54,48		3,31,29,37,31	
		1,14,47,38,57, 3,11,55		5,28
26″	48,12,54,30,41,34,48,51, 6,43		3,31,29,42,59	
		1,14,47,35,25,33,28,56		5,28
28″	48,12,55,45,29,10,14,24,35,39		3,31,29,48,27	
		1,14,47,31,54, 3,40,29		5,28
30″	48,12,57, 0,16,42, 8,28,16, 8		3,31,29,53,55	
		1,14,47,28,22,33,46,34		5,28
32″	48,12,58,15, 4,10,31, 2, 2,42		3,31,29,59,23	
		1,14,47,24,51, 3,47,11		5,28
34″	48,12,59,29,51,35,22, 5,49,53		3,31,30, 4,51	
		1,14,47,21,19,33,42,20		5,28
36″	48,13, 0,44,38,56,41,39,32,13		3,31,30,10,19	
		1,14,47,17,48, 3,32, 1		5,28
38″	48,13, 1,59,26,14,29,43, 4,14		3,31,30,15,47	
		1,14,47,14,16,33,16,14		5,28
40″	48,13, 3,14,13,28,46,16,20,28		3,31,30,21,15	
		1,14,47,10,45, 2,54,59		5,28
42″	48,13, 4,29, 0,39,31,19,15,27		3,31,30,26,43	
		1,14,47, 7,13,32,28,16		5,28
44″	48,13, 5,43,47,46,44,51,43,43		3,31,30,32,11	
		1,14,47, 3,42, 1,56, 5		5,28
46″	48,13, 6,58,34,50,26,53,39,48		3,31,30,37,39	
		1,14,47, 0,10,31,18,26		5,28
48″	48,13, 8,13,21,50,37,24,58,14		3,31,30,43, 7	
		1,14,46,56,39, 0,35,19		5,28
50″	48,13, 9,28, 8,47,16,25,33,33		3,31,30,48,35	
		1,14,46,53, 7,29,46,44		5,28
52″	48,13,10,42,55,40,23,55,20,17		3,31,30,54, 3	
		1,14,46,49,35,58,52,41		5,28
54″	48,13,11,57,42,29,59,54,12,58		3,31,30,59,31	
		1,14,46,46, 4,27,53,10		5,28
56″	48,13,13,12,29,16, 4,22, 6, 8		3,31,31, 4,59	
		1,14,46,42,32,56,48,11		5,28
58″	48,13,14,27,15,58,37,18,54,19		3,31,31,10,27	
		1,14,46,39, 1,25,37,44		
60″	48,13,15,42, 2,37,38,44,32, 3			
exact	48,13,15,42, 2,37,38,44,24,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°29′ 0″	48,13,15,42, 2,37,38,44,24,44			
		1,14,46,35,29,54,21, 8		
2″	48,13,16,56,49,13, 8,38,45,52		3,31,31,21,25	
		1,14,46,31,58,22,59,43		5,28
4″	48,13,18,11,35,45, 7, 1,45,35		3,31,31,26,53	
		1,14,46,28,26,51,32,50		5,28
6″	48,13,19,26,22,13,33,53,18,25		3,31,31,32,21	
		1,14,46,24,55,20, 0,29		5,28
8″	48,13,20,41, 8,38,29,13,18,54		3,31,31,37,49	
		1,14,46,21,23,48,22,40		5,28
10″	48,13,21,55,54,59,53, 1,41,34		3,31,31,43,17	
		1,14,46,17,52,16,39,23		5,28
12″	48,13,23,10,41,17,45,18,20,57		3,31,31,48,45	
		1,14,46,14,20,44,50,38		5,28
14″	48,13,24,25,27,32, 6, 3,11,35		3,31,31,54,13	
		1,14,46,10,49,12,56,25		5,28
16″	48,13,25,40,13,42,55,16, 8, 0		3,31,31,59,41	
		1,14,46, 7,17,40,56,44		5,28
18″	48,13,26,54,59,50,12,57, 4,44		3,31,32, 5, 9	
		1,14,46, 3,46, 8,51,35		5,28
20″	48,13,28, 9,45,53,59, 5,56,19		3,31,32,10,37	
		1,14,46, 0,14,36,40,58		5,28
22″	48,13,29,24,31,54,13,42,37,17		3,31,32,16, 5	
		1,14,45,56,43, 4,24,53		5,28
24″	48,13,30,39,17,50,56,47, 2,10		3,31,32,21,33	
		1,14,45,53,11,32, 3,20		5,28
26″	48,13,31,54, 3,44, 8,19, 5,30		3,31,32,27, 1	
		1,14,45,49,39,59,36,19		5,28
28″	48,13,33, 8,49,33,48,18,41,49		3,31,32,32,29	
		1,14,45,46, 8,27, 3,50		5,28
30″	48,13,34,23,35,19,56,45,45,39		3,31,32,37,57	
		1,14,45,42,36,54,25,53		5,28
32″	48,13,35,38,21, 2,33,40,11,32		3,31,32,43,25	
		1,14,45,39, 5,21,42,28		5,28
34″	48,13,36,53, 6,41,39, 1,54, 0		3,31,32,48,53	
		1,14,45,35,33,48,53,35		5,28
36″	48,13,38, 7,52,17,12,50,47,35		3,31,32,54,21	
		1,14,45,32, 2,15,59,14		5,28
38″	48,13,39,22,37,49,15, 6,46,49		3,31,32,59,49	
		1,14,45,28,30,42,59,25		5,28
40″	48,13,40,37,23,17,45,49,46,14		3,31,33, 5,17	
		1,14,45,24,59, 9,54, 8		5,28
42″	48,13,41,52, 8,42,44,59,40,22		3,31,33,10,45	
		1,14,45,21,27,36,43,23		5,28
44″	48,13,43, 6,54, 4,12,36,23,45		3,31,33,16,13	
		1,14,45,17,56, 3,27,10		5,28
46″	48,13,44,21,39,22, 8,39,50,55		3,31,33,21,41	
		1,14,45,14,24,30, 5,29		5,28
48″	48,13,45,36,24,36,33, 9,56,24		3,31,33,27, 9	
		1,14,45,10,52,56,38,20		5,28
50″	48,13,46,51, 9,47,26, 6,34,44		3,31,33,32,37	
		1,14,45, 7,21,23, 5,43		5,28
52″	48,13,48, 5,54,54,47,29,40,27		3,31,33,38, 5	
		1,14,45, 3,49,49,27,38		5,28
54″	48,13,49,20,39,58,37,19, 8, 5		3,31,33,43,33	
		1,14,45, 0,18,15,44, 5		5,28
56″	48,13,50,35,24,58,55,34,52,10		3,31,33,49, 1	
		1,14,44,56,46,41,55, 4		5,28
58″	48,13,51,50, 9,55,42,16,47,14		3,31,33,54,29	
		1,14,44,53,15, 8, 0,35		
60″	48,13,53, 4,54,48,57,24,47,49			
exact	48,13,53, 4,54,48,57,24,48,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°30′ 0″	48,13,53, 4,54,48,57,24,48,35			
		1,14,44,49,43,34, 0,50		
2″	48,13,54,19,39,38,40,58,49,25		3,31,34, 5,23	
		1,14,44,46,11,59,55,27		5,28
4″	48,13,55,34,24,24,52,58,44,52		3,31,34,10,51	
		1,14,44,42,40,25,44,36		5,28
6″	48,13,56,49, 9, 7,33,24,29,28		3,31,34,16,19	
		1,14,44,39, 8,51,28,17		5,28
8″	48,13,58, 3,53,46,42,15,57,45		3,31,34,21,47	
		1,14,44,35,37,17, 6,30		5,28
10″	48,13,59,18,38,22,19,33, 4,15		3,31,34,27,15	
		1,14,44,32, 5,42,39,15		5,28
12″	48,14, 0,33,22,54,25,15,43,30		3,31,34,32,43	
		1,14,44,28,34, 8, 6,32		5,28
14″	48,14, 1,48, 7,22,59,23,50, 2		3,31,34,38,11	
		1,14,44,25, 2,33,28,21		5,28
16″	48,14, 3, 2,51,48, 1,57,18,23		3,31,34,43,39	
		1,14,44,21,30,58,44,42		5,28
18″	48,14, 4,17,36, 9,32,56, 3, 5		3,31,34,49, 7	
		1,14,44,17,59,23,55,35		5,28
20″	48,14, 5,32,20,27,32,19,58,40		3,31,34,54,35	
		1,14,44,14,27,49, 1, 0		5,28
22″	48,14, 6,47, 4,42, 0, 8,59,40		3,31,35, 0, 3	
		1,14,44,10,56,14, 0,57		5,28
24″	48,14, 8, 1,48,52,56,23, 0,37		3,31,35, 5,31	
		1,14,44, 7,24,38,55,26		5,28
26″	48,14, 9,16,33, 0,21, 1,56, 3		3,31,35,10,59	
		1,14,44, 3,53, 3,44,27		5,28
28″	48,14,10,31,17, 4,14, 5,40,30		3,31,35,16,27	
		1,14,44, 0,21,28,28, 0		5,28
30″	48,14,11,46, 1, 4,35,34, 8,30		3,31,35,21,55	
		1,14,43,56,49,53, 6, 5		5,28
32″	48,14,13, 0,45, 1,25,27,14,35		3,31,35,27,23	
		1,14,43,53,18,17,38,42		5,28
34″	48,14,14,15,28,54,43,44,53,17		3,31,35,32,51	
		1,14,43,49,46,42, 5,51		5,28
36″	48,14,15,30,12,44,30,26,59, 8		3,31,35,38,19	
		1,14,43,46,15, 6,27,32		5,28
38″	48,14,16,44,56,30,45,33,26,40		3,31,35,43,47	
		1,14,43,42,43,30,43,45		5,28
40″	48,14,17,59,40,13,29, 4,10,25		3,31,35,49,15	
		1,14,43,39,11,54,54,30		5,28
42″	48,14,19,14,23,52,40,59, 4,55		3,31,35,54,43	
		1,14,43,35,40,18,59,47		5,28
44″	48,14,20,29, 7,28,21,18, 4,42		3,31,36, 0,11	
		1,14,43,32, 8,42,59,36		5,28
46″	48,14,21,43,51, 0,30, 1, 4,18		3,31,36, 5,39	
		1,14,43,28,37, 6,53,57		5,28
48″	48,14,22,58,34,29, 7, 7,58,15		3,31,36,11, 7	
		1,14,43,25, 5,30,42,50		5,28
50″	48,14,24,13,17,54,12,38,41, 5		3,31,36,16,35	
		1,14,43,21,33,54,26,15		5,28
52″	48,14,25,28, 1,15,46,33, 7,20		3,31,36,22, 3	
		1,14,43,18, 2,18, 4,12		5,28
54″	48,14,26,42,44,33,48,51,11,32		3,31,36,27,31	
		1,14,43,14,30,41,36,41		5,28
56″	48,14,27,57,27,48,19,32,48,13		3,31,36,32,59	
		1,14,43,10,59, 5, 3,42		5,28
58″	48,14,29,12,10,59,18,37,51,55		3,31,36,38,27	
		1,14,43, 7,27,28,25,15		
60″	48,14,30,26,54, 6,46, 6,17,10			
exact	48,14,30,26,54, 6,46, 6,25,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°31′ 0″	48,14,30,26,54, 6,46, 6,25,34			
		1,14,43, 3,55,51,42,23		
2″	48,14,31,41,37,10,41,58, 7,57		3,31,36,49,18	
		1,14,43, 0,24,14,53, 5		5,28
4″	48,14,32,56,20,11, 6,13, 1, 2		3,31,36,54,46	
		1,14,42,56,52,37,58,19		5,28
6″	48,14,34,11, 3, 7,58,50,59,21		3,31,37, 0,14	
		1,14,42,53,21, 0,58, 5		5,28
8″	48,14,35,25,46, 1,19,51,57,26		3,31,37, 5,42	
		1,14,42,49,49,23,52,23		5,28
10″	48,14,36,40,28,51, 9,15,49,49		3,31,37,11,10	
		1,14,42,46,17,46,41,13		5,28
12″	48,14,37,55,11,37,27, 2,31, 2		3,31,37,16,38	
		1,14,42,42,46, 9,24,35		5,28
14″	48,14,39, 9,54,20,13,11,55,37		3,31,37,22, 6	
		1,14,42,39,14,32, 2,29		5,28
16″	48,14,40,24,36,59,27,43,58, 6		3,31,37,27,34	
		1,14,42,35,42,54,34,55		5,28
18″	48,14,41,39,19,35,10,38,33, 1		3,31,37,33, 2	
		1,14,42,32,11,17, 1,53		5,28
20″	48,14,42,54, 2, 7,21,55,34,54		3,31,37,38,30	
		1,14,42,28,39,39,23,23		5,28
22″	48,14,44, 8,44,36, 1,34,58,17		3,31,37,43,58	
		1,14,42,25, 8, 1,39,25		5,28
24″	48,14,45,23,27, 1, 9,36,37,42		3,31,37,49,26	
		1,14,42,21,36,23,49,59		5,28
26″	48,14,46,38, 9,22,46, 0,27,41		3,31,37,54,54	
		1,14,42,18, 4,45,55, 5		5,28
28″	48,14,47,52,51,40,50,46,22,46		3,31,38, 0,22	
		1,14,42,14,33, 7,54,43		5,28
30″	48,14,49, 7,33,55,23,54,17,29		3,31,38, 5,50	
		1,14,42,11, 1,29,48,53		5,28
32″	48,14,50,22,16, 6,25,24, 6,22		3,31,38,11,18	
		1,14,42, 7,29,51,37,35		5,28
34″	48,14,51,36,58,13,55,15,43,57		3,31,38,16,46	
		1,14,42, 3,58,13,20,49		5,28
36″	48,14,52,51,40,17,53,29, 4,46		3,31,38,22,14	
		1,14,42, 0,26,34,58,35		5,28
38″	48,14,54, 6,22,18,20, 4, 3,21		3,31,38,27,42	
		1,14,41,56,54,56,30,53		5,28
40″	48,14,55,21, 4,15,15, 0,34,14		3,31,38,33,10	
		1,14,41,53,23,17,57,43		5,28
42″	48,14,56,35,46, 8,38,18,31,57		3,31,38,38,38	
		1,14,41,49,51,39,19, 5		5,28
44″	48,14,57,50,27,58,29,57,51, 2		3,31,38,44, 6	
		1,14,41,46,20, 0,34,59		5,28
46″	48,14,59, 5, 9,44,49,58,26, 1		3,31,38,49,34	
		1,14,41,42,48,21,45,25		5,28
48″	48,15, 0,19,51,27,38,20,11,26		3,31,38,55, 2	
		1,14,41,39,16,42,50,23		5,28
50″	48,15, 1,34,33, 6,55, 3, 1,49		3,31,39, 0,30	
		1,14,41,35,45, 3,49,53		5,28
52″	48,15, 2,49,14,42,40, 6,51,42		3,31,39, 5,58	
		1,14,41,32,13,24,43,55		5,28
54″	48,15, 4, 3,56,14,53,31,35,37		3,31,39,11,26	
		1,14,41,28,41,45,32,29		5,28
56″	48,15, 5,18,37,43,35,17, 8, 6		3,31,39,16,54	
		1,14,41,25,10, 6,15,35		5,28
58″	48,15, 6,33,19, 8,45,23,23,41		3,31,39,22,22	
		1,14,41,21,38,26,53,13		
60″	48,15, 7,48, 0,30,23,50,16,54			
exact	48,15, 7,48, 0,30,23,50,38,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°32′ 0″	48,15, 7,48, 0,30,23,50,38,46			
		1,14,41,18, 6,47,27,42		
2″	48,15, 9, 2,41,48,30,38, 6,28		3,31,39,33, 8	
		1,14,41,14,35, 7,54,34		5,28
4″	48,15,10,17,23, 3, 5,46, 1, 2		3,31,39,38,36	
		1,14,41,11, 3,28,15,58		5,28
6″	48,15,11,32, 4,14, 9,14,17, 0		3,31,39,44, 4	
		1,14,41, 7,31,48,31,54		5,28
8″	48,15,12,46,45,21,41, 2,48,54		3,31,39,49,32	
		1,14,41, 4, 0, 8,42,22		5,28
10″	48,15,14, 1,26,25,41,11,31,16		3,31,39,55, 0	
		1,14,41, 0,28,28,47,22		5,28
12″	48,15,15,16, 7,26, 9,40,18,38		3,31,40, 0,28	
		1,14,40,56,56,48,46,54		5,28
14″	48,15,16,30,48,23, 6,29, 5,32		3,31,40, 5,56	
		1,14,40,53,25, 8,40,58		5,28
16″	48,15,17,45,29,16,31,37,46,30		3,31,40,11,24	
		1,14,40,49,53,28,29,34		5,28
18″	48,15,19, 0,10, 6,25, 6,16, 4		3,31,40,16,52	
		1,14,40,46,21,48,12,42		5,28
20″	48,15,20,14,50,52,46,54,28,46		3,31,40,22,20	
		1,14,40,42,50, 7,50,22		5,28
22″	48,15,21,29,31,35,37, 2,19, 8		3,31,40,27,48	
		1,14,40,39,18,27,22,34		5,28
24″	48,15,22,44,12,14,55,29,41,42		3,31,40,33,16	
		1,14,40,35,46,46,49,18		5,28
26″	48,15,23,58,52,50,42,16,31, 0		3,31,40,38,44	
		1,14,40,32,15, 6,10,34		5,28
28″	48,15,25,13,33,22,57,22,41,34		3,31,40,44,12	
		1,14,40,28,43,25,26,22		5,28
30″	48,15,26,28,13,51,40,48, 7,56		3,31,40,49,40	
		1,14,40,25,11,44,36,42		5,28
32″	48,15,27,42,54,16,52,32,44,38		3,31,40,55, 8	
		1,14,40,21,40, 3,41,34		5,28
34″	48,15,28,57,34,38,32,36,26,12		3,31,41, 0,36	
		1,14,40,18, 8,22,40,58		5,28
36″	48,15,30,12,14,56,40,59, 7,10		3,31,41, 6, 4	
		1,14,40,14,36,41,34,54		5,28
38″	48,15,31,26,55,11,17,40,42, 4		3,31,41,11,32	
		1,14,40,11, 5, 0,23,22		5,28
40″	48,15,32,41,35,22,22,41, 5,26		3,31,41,17, 0	
		1,14,40, 7,33,19, 6,22		5,28
42″	48,15,33,56,15,29,56, 0,11,48		3,31,41,22,28	
		1,14,40, 4, 1,37,43,54		5,28
44″	48,15,35,10,55,33,57,37,55,42		3,31,41,27,56	
		1,14,40, 0,29,56,15,58		5,28
46″	48,15,36,25,35,34,27,34,11,40		3,31,41,33,24	
		1,14,39,56,58,14,42,34		5,28
48″	48,15,37,40,15,31,25,48,54,14		3,31,41,38,52	
		1,14,39,53,26,33, 3,42		5,28
50″	48,15,38,54,55,24,52,21,57,56		3,31,41,44,20	
		1,14,39,49,54,51,19,22		5,28
52″	48,15,40, 9,35,14,47,13,17,18		3,31,41,49,48	
		1,14,39,46,23, 9,29,34		5,28
54″	48,15,41,24,15, 1,10,22,46,52		3,31,41,55,16	
		1,14,39,42,51,27,34,18		5,28
56″	48,15,42,38,54,44, 1,50,21,10		3,31,42, 0,44	
		1,14,39,39,19,45,33,34		5,28
58″	48,15,43,53,34,23,21,35,54,44		3,31,42, 6,12	
		1,14,39,35,48, 3,27,22		
60″	48,15,45, 8,13,59, 9,39,22, 6			
exact	48,15,45, 8,13,59, 9,39,49,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°33′ 0″	48,15,45, 8,13,59, 9,39,49,18			
		1,14,39,32,16,21,18,43		
2″	48,15,46,22,53,31,26, 1, 8, 1		3,31,42,16,55	
		1,14,39,28,44,39, 1,48		5,27
4″	48,15,47,37,33, 0,10,40, 9,49		3,31,42,22,22	
		1,14,39,25,12,56,39,26		5,27
6″	48,15,48,52,12,25,23,36,49,15		3,31,42,27,49	
		1,14,39,21,41,14,11,37		5,27
8″	48,15,50, 6,51,47, 4,51, 0,52		3,31,42,33,16	
		1,14,39,18, 9,31,38,21		5,27
10″	48,15,51,21,31, 5,14,22,39,13		3,31,42,38,43	
		1,14,39,14,37,48,59,38		5,27
12″	48,15,52,36,10,19,52,11,38,51		3,31,42,44,10	
		1,14,39,11, 6, 6,15,28		5,27
14″	48,15,53,50,49,30,58,17,54,19		3,31,42,49,37	
		1,14,39, 7,34,23,25,51		5,27
16″	48,15,55, 5,28,38,32,41,20,10		3,31,42,55, 4	
		1,14,39, 4, 2,40,30,47		5,27
18″	48,15,56,20, 7,42,35,21,50,57		3,31,43, 0,31	
		1,14,39, 0,30,57,30,16		5,27
20″	48,15,57,34,46,43, 6,19,21,13		3,31,43, 5,58	
		1,14,38,56,59,14,24,18		5,27
22″	48,15,58,49,25,40, 5,33,45,31		3,31,43,11,25	
		1,14,38,53,27,31,12,53		5,27
24″	48,16, 0, 4, 4,33,33, 4,58,24		3,31,43,16,52	
		1,14,38,49,55,47,56, 1		5,27
26″	48,16, 1,18,43,23,28,52,54,25		3,31,43,22,19	
		1,14,38,46,24, 4,33,42		5,27
28″	48,16, 2,33,22, 9,52,57,28, 7		3,31,43,27,46	
		1,14,38,42,52,21, 5,56		5,27
30″	48,16, 3,48, 0,52,45,18,34, 3		3,31,43,33,13	
		1,14,38,39,20,37,32,43		5,27
32″	48,16, 5, 2,39,32, 5,56, 6,46		3,31,43,38,40	
		1,14,38,35,48,53,54, 3		5,27
34″	48,16, 6,17,18, 7,54,50, 0,49		3,31,43,44, 7	
		1,14,38,32,17,10, 9,56		5,27
36″	48,16, 7,31,56,40,12, 0,10,45		3,31,43,49,34	
		1,14,38,28,45,26,20,22		5,27
38″	48,16, 8,46,35, 8,57,26,31, 7		3,31,43,55, 1	
		1,14,38,25,13,42,25,21		5,27
40″	48,16,10, 1,13,34,11, 8,56,28		3,31,44, 0,28	
		1,14,38,21,41,58,24,53		5,27
42″	48,16,11,15,51,55,53, 7,21,21		3,31,44, 5,55	
		1,14,38,18,10,14,18,58		5,27
44″	48,16,12,30,30,14, 3,21,40,19		3,31,44,11,22	
		1,14,38,14,38,30, 7,36		5,27
46″	48,16,13,45, 8,28,41,51,47,55		3,31,44,16,49	
		1,14,38,11, 6,45,50,47		5,27
48″	48,16,14,59,46,39,48,37,38,42		3,31,44,22,16	
		1,14,38, 7,35, 1,28,31		5,27
50″	48,16,16,14,24,47,23,39, 7,13		3,31,44,27,43	
		1,14,38, 4, 3,17, 0,48		5,27
52″	48,16,17,29, 2,51,26,56, 8, 1		3,31,44,33,10	
		1,14,38, 0,31,32,27,38		5,27
54″	48,16,18,43,40,51,58,28,35,39		3,31,44,38,37	
		1,14,37,56,59,47,49, 1		5,27
56″	48,16,19,58,18,48,58,16,24,40		3,31,44,44, 4	
		1,14,37,53,28, 3, 4,57		5,27
58″	48,16,21,12,56,42,26,19,29,37		3,31,44,49,31	
		1,14,37,49,56,18,15,26		
60″	48,16,22,27,34,32,22,37,45, 3			
exact	48,16,22,27,34,32,22,37,16,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°34′ 0″	48,16,22,27,34,32,22,37,16,18			
		1,14,37,46,24,33,17,23		
2″	48,16,23,42,12,18,47,10,33,41		3,31,45, 0,37	
		1,14,37,42,52,48,16,46		5,27
4″	48,16,24,56,50, 1,39,58,50,27		3,31,45, 6, 4	
		1,14,37,39,21, 3,10,42		5,27
6″	48,16,26,11,27,41, 1, 2, 1, 9		3,31,45,11,31	
		1,14,37,35,49,17,59,11		5,27
8″	48,16,27,26, 5,16,50,20, 0,20		3,31,45,16,58	
		1,14,37,32,17,32,42,13		5,27
10″	48,16,28,40,42,49, 7,52,42,33		3,31,45,22,25	
		1,14,37,28,45,47,19,48		5,27
12″	48,16,29,55,20,17,53,40, 2,21		3,31,45,27,52	
		1,14,37,25,14, 1,51,56		5,27
14″	48,16,31, 9,57,43, 7,41,54,17		3,31,45,33,19	
		1,14,37,21,42,16,18,37		5,27
16″	48,16,32,24,35, 4,49,58,12,54		3,31,45,38,46	
		1,14,37,18,10,30,39,51		5,27
18″	48,16,33,39,12,23, 0,28,52,45		3,31,45,44,13	
		1,14,37,14,38,44,55,38		5,27
20″	48,16,34,53,49,37,39,13,48,23		3,31,45,49,40	
		1,14,37,11, 6,59, 5,58		5,27
22″	48,16,36, 8,26,48,46,12,54,21		3,31,45,55, 7	
		1,14,37, 7,35,13,10,51		5,27
24″	48,16,37,23, 3,56,21,26, 5,12		3,31,46, 0,34	
		1,14,37, 4, 3,27,10,17		5,27
26″	48,16,38,37,41, 0,24,53,15,29		3,31,46, 6, 1	
		1,14,37, 0,31,41, 4,16		5,27
28″	48,16,39,52,18, 0,56,34,19,45		3,31,46,11,28	
		1,14,36,56,59,54,52,48		5,27
30″	48,16,41, 6,54,57,56,29,12,33		3,31,46,16,55	
		1,14,36,53,28, 8,35,53		5,27
32″	48,16,42,21,31,51,24,37,48,26		3,31,46,22,22	
		1,14,36,49,56,22,13,31		5,27
34″	48,16,43,36, 8,41,21, 0, 1,57		3,31,46,27,49	
		1,14,36,46,24,35,45,42		5,27
36″	48,16,44,50,45,27,45,35,47,39		3,31,46,33,16	
		1,14,36,42,52,49,12,26		5,27
38″	48,16,46, 5,22,10,38,25, 0, 5		3,31,46,38,43	
		1,14,36,39,21, 2,33,43		5,27
40″	48,16,47,19,58,49,59,27,33,48		3,31,46,44,10	
		1,14,36,35,49,15,49,33		5,27
42″	48,16,48,34,35,25,48,43,23,21		3,31,46,49,37	
		1,14,36,32,17,28,59,56		5,27
44″	48,16,49,49,11,58, 6,12,23,17		3,31,46,55, 4	
		1,14,36,28,45,42, 4,52		5,27
46″	48,16,51, 3,48,26,51,54,28, 9		3,31,47, 0,31	
		1,14,36,25,13,55, 4,21		5,27
48″	48,16,52,18,24,52, 5,49,32,30		3,31,47, 5,58	
		1,14,36,21,42, 7,58,23		5,27
50″	48,16,53,33, 1,13,47,57,30,53		3,31,47,11,25	
		1,14,36,18,10,20,46,58		5,27
52″	48,16,54,47,37,31,58,18,17,51		3,31,47,16,52	
		1,14,36,14,38,33,30, 6		5,27
54″	48,16,56, 2,13,46,36,51,47,57		3,31,47,22,19	
		1,14,36,11, 6,46, 7,47		5,27
56″	48,16,57,16,49,57,43,37,55,44		3,31,47,27,46	
		1,14,36, 7,34,58,40, 1		5,27
58″	48,16,58,31,26, 5,18,36,35,45		3,31,47,33,13	
		1,14,36, 4, 3,11, 6,48		
60″	48,16,59,46, 2, 9,21,47,42,33			
exact	48,16,59,46, 2, 9,21,47,16,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°35′ 0″	48,16,59,46, 2, 9,21,47,16,54			
		1,14,36, 0,31,23,25,36		
2″	48,17, 1, 0,38, 9,53,10,42,30		3,31,47,44,16	
		1,14,35,56,59,35,41,20		5,27
4″	48,17, 2,15,14, 6,52,46,23,50		3,31,47,49,43	
		1,14,35,53,27,47,51,37		5,27
6″	48,17, 3,29,50, 0,20,34,15,27		3,31,47,55,10	
		1,14,35,49,55,59,56,27		5,27
8″	48,17, 4,44,25,50,16,34,11,54		3,31,48, 0,37	
		1,14,35,46,24,11,55,50		5,27
10″	48,17, 5,59, 1,36,40,46, 7,44		3,31,48, 6, 4	
		1,14,35,42,52,23,49,46		5,27
12″	48,17, 7,13,37,19,33, 9,57,30		3,31,48,11,31	
		1,14,35,39,20,35,38,15		5,27
14″	48,17, 8,28,12,58,53,45,35,45		3,31,48,16,58	
		1,14,35,35,48,47,21,17		5,27
16″	48,17, 9,42,48,34,42,32,57, 2		3,31,48,22,25	
		1,14,35,32,16,58,58,52		5,27
18″	48,17,10,57,24, 6,59,31,55,54		3,31,48,27,52	
		1,14,35,28,45,10,31, 0		5,27
20″	48,17,12,11,59,35,44,42,26,54		3,31,48,33,19	
		1,14,35,25,13,21,57,41		5,27
22″	48,17,13,26,35, 0,58, 4,24,35		3,31,48,38,46	
		1,14,35,21,41,33,18,55		5,27
24″	48,17,14,41,10,22,39,37,43,30		3,31,48,44,13	
		1,14,35,18, 9,44,34,42		5,27
26″	48,17,15,55,45,40,49,22,18,12		3,31,48,49,40	
		1,14,35,14,37,55,45, 2		5,27
28″	48,17,17,10,20,55,27,18, 3,14		3,31,48,55, 7	
		1,14,35,11, 6, 6,49,55		5,27
30″	48,17,18,24,56, 6,33,24,53, 9		3,31,49, 0,34	
		1,14,35, 7,34,17,49,21		5,27
32″	48,17,19,39,31,14, 7,42,42,30		3,31,49, 6, 1	
		1,14,35, 4, 2,28,43,20		5,27
34″	48,17,20,54, 6,18,10,11,25,50		3,31,49,11,28	
		1,14,35, 0,30,39,31,52		5,27
36″	48,17,22, 8,41,18,40,50,57,42		3,31,49,16,55	
		1,14,34,56,58,50,14,57		5,27
38″	48,17,23,23,16,15,39,41,12,39		3,31,49,22,22	
		1,14,34,53,27, 0,52,35		5,27
40″	48,17,24,37,51, 9, 6,42, 5,14		3,31,49,27,49	
		1,14,34,49,55,11,24,46		5,27
42″	48,17,25,52,25,59, 1,53,30, 0		3,31,49,33,16	
		1,14,34,46,23,21,51,30		5,27
44″	48,17,27, 7, 0,45,25,15,21,30		3,31,49,38,43	
		1,14,34,42,51,32,12,47		5,27
46″	48,17,28,21,35,28,16,47,34,17		3,31,49,44,10	
		1,14,34,39,19,42,28,37		5,27
48″	48,17,29,36,10, 7,36,30, 2,54		3,31,49,49,37	
		1,14,34,35,47,52,39, 0		5,27
50″	48,17,30,50,44,43,24,22,41,54		3,31,49,55, 4	
		1,14,34,32,16, 2,43,56		5,27
52″	48,17,32, 5,19,15,40,25,25,50		3,31,50, 0,31	
		1,14,34,28,44,12,43,25		5,27
54″	48,17,33,19,53,44,24,38, 9,15		3,31,50, 5,58	
		1,14,34,25,12,22,37,27		5,27
56″	48,17,34,34,28, 9,37, 0,46,42		3,31,50,11,25	
		1,14,34,21,40,32,26, 2		5,27
58″	48,17,35,49, 2,31,17,33,12,44		3,31,50,16,52	
		1,14,34,18, 8,42, 9,10		
60″	48,17,37, 3,36,49,26,15,21,54			
exact	48,17,37, 3,36,49,26,15, 6,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°36′ 0″	48,17,37, 3,36,49,26,15, 6,21			
		1,14,34,14,36,51,45,20		
2″	48,17,38,18,11, 4, 3, 6,51,41		3,31,50,27,51	
		1,14,34,11, 5, 1,17,29		5,27
4″	48,17,39,32,45,15, 8, 8, 9,10		3,31,50,33,18	
		1,14,34, 7,33,10,44,11		5,27
6″	48,17,40,47,19,22,41,18,53,21		3,31,50,38,45	
		1,14,34, 4, 1,20, 5,26		5,27
8″	48,17,42, 1,53,26,42,38,58,47		3,31,50,44,12	
		1,14,34, 0,29,29,21,14		5,27
10″	48,17,43,16,27,27,12, 8,20, 1		3,31,50,49,39	
		1,14,33,56,57,38,31,35		5,27
12″	48,17,44,31, 1,24, 9,46,51,36		3,31,50,55, 6	
		1,14,33,53,25,47,36,29		5,27
14″	48,17,45,45,35,17,35,34,28, 5		3,31,51, 0,33	
		1,14,33,49,53,56,35,56		5,27
16″	48,17,47, 0, 9, 7,29,31, 4, 1		3,31,51, 6, 0	
		1,14,33,46,22, 5,29,56		5,27
18″	48,17,48,14,42,53,51,36,33,57		3,31,51,11,27	
		1,14,33,42,50,14,18,29		5,27
20″	48,17,49,29,16,36,41,50,52,26		3,31,51,16,54	
		1,14,33,39,18,23, 1,35		5,27
22″	48,17,50,43,50,16, 0,13,54, 1		3,31,51,22,21	
		1,14,33,35,46,31,39,14		5,27
24″	48,17,51,58,23,51,46,45,33,15		3,31,51,27,48	
		1,14,33,32,14,40,11,26		5,27
26″	48,17,53,12,57,24, 1,25,44,41		3,31,51,33,15	
		1,14,33,28,42,48,38,11		5,27
28″	48,17,54,27,30,52,44,14,22,52		3,31,51,38,42	
		1,14,33,25,10,56,59,29		5,27
30″	48,17,55,42, 4,17,55,11,22,21		3,31,51,44, 9	
		1,14,33,21,39, 5,15,20		5,27
32″	48,17,56,56,37,39,34,16,37,41		3,31,51,49,36	
		1,14,33,18, 7,13,25,44		5,27
34″	48,17,58,11,10,57,41,30, 3,25		3,31,51,55, 3	
		1,14,33,14,35,21,30,41		5,27
36″	48,17,59,25,44,12,16,51,34, 6		3,31,52, 0,30	
		1,14,33,11, 3,29,30,11		5,27
38″	48,18, 0,40,17,23,20,21, 4,17		3,31,52, 5,57	
		1,14,33, 7,31,37,24,14		5,27
40″	48,18, 1,54,50,30,51,58,28,31		3,31,52,11,24	
		1,14,33, 3,59,45,12,50		5,27
42″	48,18, 3, 9,23,34,51,43,41,21		3,31,52,16,51	
		1,14,33, 0,27,52,55,59		5,27
44″	48,18, 4,23,56,35,19,36,37,20		3,31,52,22,18	
		1,14,32,56,56, 0,33,41		5,27
46″	48,18, 5,38,29,32,15,37,11, 1		3,31,52,27,45	
		1,14,32,53,24, 8, 5,56		5,27
48″	48,18, 6,53, 2,25,39,45,16,57		3,31,52,33,12	
		1,14,32,49,52,15,32,44		5,27
50″	48,18, 8, 7,35,15,32, 0,49,41		3,31,52,38,39	
		1,14,32,46,20,22,54, 5		5,27
52″	48,18, 9,22, 8, 1,52,23,43,46		3,31,52,44, 6	
		1,14,32,42,48,30, 9,59		5,27
54″	48,18,10,36,40,44,40,53,53,45		3,31,52,49,33	
		1,14,32,39,16,37,20,26		5,27
56″	48,18,11,51,13,23,57,31,14,11		3,31,52,55, 0	
		1,14,32,35,44,44,25,26		5,27
58″	48,18,13, 5,45,59,42,15,39,37		3,31,53, 0,27	
		1,14,32,32,12,51,24,59		
60″	48,18,14,20,18,31,55, 7, 4,36			
exact	48,18,14,20,18,31,55, 6,57,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°37′ 0″	48,18,14,20,18,31,55, 6,57,55			
		1,14,32,28,40,58,18,31		
2″	48,18,15,34,51, 0,36, 5,16,26		3,31,53,11,22	
		1,14,32,25, 9, 5, 7, 9		5,27
4″	48,18,16,49,23,25,45,10,23,35		3,31,53,16,49	
		1,14,32,21,37,11,50,20		5,27
6″	48,18,18, 3,55,47,22,22,13,55		3,31,53,22,16	
		1,14,32,18, 5,18,28, 4		5,27
8″	48,18,19,18,28, 5,27,40,41,59		3,31,53,27,43	
		1,14,32,14,33,25, 0,21		5,27
10″	48,18,20,33, 0,20, 1, 5,42,20		3,31,53,33,10	
		1,14,32,11, 1,31,27,11		5,27
12″	48,18,21,47,32,31, 2,37, 9,31		3,31,53,38,37	
		1,14,32, 7,29,37,48,34		5,27
14″	48,18,23, 2, 4,38,32,14,58, 5		3,31,53,44, 4	
		1,14,32, 3,57,44, 4,30		5,27
16″	48,18,24,16,36,42,29,59, 2,35		3,31,53,49,31	
		1,14,32, 0,25,50,14,59		5,27
18″	48,18,25,31, 8,42,55,49,17,34		3,31,53,54,58	
		1,14,31,56,53,56,20, 1		5,27
20″	48,18,26,45,40,39,49,45,37,35		3,31,54, 0,25	
		1,14,31,53,22, 2,19,36		5,27
22″	48,18,28, 0,12,33,11,47,57,11		3,31,54, 5,52	
		1,14,31,49,50, 8,13,44		5,27
24″	48,18,29,14,44,23, 1,56,10,55		3,31,54,11,19	
		1,14,31,46,18,14, 2,25		5,27
26″	48,18,30,29,16, 9,20,10,13,20		3,31,54,16,46	
		1,14,31,42,46,19,45,39		5,27
28″	48,18,31,43,47,52, 6,29,58,59		3,31,54,22,13	
		1,14,31,39,14,25,23,26		5,27
30″	48,18,32,58,19,31,20,55,22,25		3,31,54,27,40	
		1,14,31,35,42,30,55,46		5,27
32″	48,18,34,12,51, 7, 3,26,18,11		3,31,54,33, 7	
		1,14,31,32,10,36,22,39		5,27
34″	48,18,35,27,22,39,14, 2,40,50		3,31,54,38,34	
		1,14,31,28,38,41,44, 5		5,27
36″	48,18,36,41,54, 7,52,44,24,55		3,31,54,44, 1	
		1,14,31,25, 6,47, 0, 4		5,27
38″	48,18,37,56,25,32,59,31,24,59		3,31,54,49,28	
		1,14,31,21,34,52,10,36		5,27
40″	48,18,39,10,56,54,34,23,35,35		3,31,54,54,55	
		1,14,31,18, 2,57,15,41		5,27
42″	48,18,40,25,28,12,37,20,51,16		3,31,55, 0,22	
		1,14,31,14,31, 2,15,19		5,27
44″	48,18,41,39,59,27, 8,23, 6,35		3,31,55, 5,49	
		1,14,31,10,59, 7, 9,30		5,27
46″	48,18,42,54,30,38, 7,30,16, 5		3,31,55,11,16	
		1,14,31, 7,27,11,58,14		5,27
48″	48,18,44, 9, 1,45,34,42,14,19		3,31,55,16,43	
		1,14,31, 3,55,16,41,31		5,27
50″	48,18,45,23,32,49,29,58,55,50		3,31,55,22,10	
		1,14,31, 0,23,21,19,21		5,27
52″	48,18,46,38, 3,49,53,20,15,11		3,31,55,27,37	
		1,14,30,56,51,25,51,44		5,27
54″	48,18,47,52,34,46,44,46, 6,55		3,31,55,33, 4	
		1,14,30,53,19,30,18,40		5,27
56″	48,18,49, 7, 5,40, 4,16,25,35		3,31,55,38,31	
		1,14,30,49,47,34,40, 9		5,27
58″	48,18,50,21,36,29,51,51, 5,44		3,31,55,43,58	
		1,14,30,46,15,38,56,11		
60″	48,18,51,36, 7,16, 7,30, 1,55			
exact	48,18,51,36, 7,16, 7,30, 2,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°38′ 0″	48,18,51,36, 7,16, 7,30, 2,58			
		1,14,30,42,43,43, 7, 4		
2″	48,18,52,50,37,58,51,13,10, 2		3,31,55,54,50	
		1,14,30,39,11,47,12,14		5,27
4″	48,18,54, 5, 8,38, 3, 0,22,16		3,31,56, 0,17	
		1,14,30,35,39,51,11,57		5,27
6″	48,18,55,19,39,13,42,51,34,13		3,31,56, 5,44	
		1,14,30,32, 7,55, 6,13		5,27
8″	48,18,56,34, 9,45,50,46,40,26		3,31,56,11,11	
		1,14,30,28,35,58,55, 2		5,27
10″	48,18,57,48,40,14,26,45,35,28		3,31,56,16,38	
		1,14,30,25, 4, 2,38,24		5,27
12″	48,18,59, 3,10,39,30,48,13,52		3,31,56,22, 5	
		1,14,30,21,32, 6,16,19		5,27
14″	48,19, 0,17,41, 1, 2,54,30,11		3,31,56,27,32	
		1,14,30,18, 0, 9,48,47		5,27
16″	48,19, 1,32,11,19, 3, 4,18,58		3,31,56,32,59	
		1,14,30,14,28,13,15,48		5,27
18″	48,19, 2,46,41,33,31,17,34,46		3,31,56,38,26	
		1,14,30,10,56,16,37,22		5,27
20″	48,19, 4, 1,11,44,27,34,12, 8		3,31,56,43,53	
		1,14,30, 7,24,19,53,29		5,27
22″	48,19, 5,15,41,51,51,54, 5,37		3,31,56,49,20	
		1,14,30, 3,52,23, 4, 9		5,27
24″	48,19, 6,30,11,55,44,17, 9,46		3,31,56,54,47	
		1,14,30, 0,20,26, 9,22		5,27
26″	48,19, 7,44,41,56, 4,43,19, 8		3,31,57, 0,14	
		1,14,29,56,48,29, 9, 8		5,27
28″	48,19, 8,59,11,52,53,12,28,16		3,31,57, 5,41	
		1,14,29,53,16,32, 3,27		5,27
30″	48,19,10,13,41,46, 9,44,31,43		3,31,57,11, 8	
		1,14,29,49,44,34,52,19		5,27
32″	48,19,11,28,11,35,54,19,24, 2		3,31,57,16,35	
		1,14,29,46,12,37,35,44		5,27
34″	48,19,12,42,41,22, 6,56,59,46		3,31,57,22, 2	
		1,14,29,42,40,40,13,42		5,27
36″	48,19,13,57,11, 4,47,37,13,28		3,31,57,27,29	
		1,14,29,39, 8,42,46,13		5,27
38″	48,19,15,11,40,43,56,19,59,41		3,31,57,32,56	
		1,14,29,35,36,45,13,17		5,27
40″	48,19,16,26,10,19,33, 5,12,58		3,31,57,38,23	
		1,14,29,32, 4,47,34,54		5,27
42″	48,19,17,40,39,51,37,52,47,52		3,31,57,43,50	
		1,14,29,28,32,49,51, 4		5,27
44″	48,19,18,55, 9,20,10,42,38,56		3,31,57,49,17	
		1,14,29,25, 0,52, 1,47		5,27
46″	48,19,20, 9,38,45,11,34,40,43		3,31,57,54,44	
		1,14,29,21,28,54, 7, 3		5,27
48″	48,19,21,24, 8, 6,40,28,47,46		3,31,58, 0,11	
		1,14,29,17,56,56, 6,52		5,27
50″	48,19,22,38,37,24,37,24,54,38		3,31,58, 5,38	
		1,14,29,14,24,58, 1,14		5,27
52″	48,19,23,53, 6,39, 2,22,55,52		3,31,58,11, 5	
		1,14,29,10,52,59,50, 9		5,27
54″	48,19,25, 7,35,49,55,22,46, 1		3,31,58,16,32	
		1,14,29, 7,21, 1,33,37		5,27
56″	48,19,26,22, 4,57,16,24,19,38		3,31,58,21,59	
		1,14,29, 3,49, 3,11,38		5,27
58″	48,19,27,36,34, 1, 5,27,31,16		3,31,58,27,26	
		1,14,29, 0,17, 4,44,12		
60″	48,19,28,51, 3, 1,22,32,15,28			
exact	48,19,28,51, 3, 1,22,32,30,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°39′ 0″	48,19,28,51, 3, 1,22,32,30,57	1,14,28,56,45, 6,12,57		
2″	48,19,30, 5,31,58, 7,38,43,54	1,14,28,53,13, 7,34,44	3,31,58,38,13	5,27
4″	48,19,31,20, 0,51,20,46,18,38	1,14,28,49,41, 8,51, 4	3,31,58,43,40	5,27
6″	48,19,32,34,29,41, 1,55, 9,42	1,14,28,46, 9,10, 1,57	3,31,58,49, 7	5,27
8″	48,19,33,48,58,27,11, 5,11,39	1,14,28,42,37,11, 7,23	3,31,58,54,34	5,27
10″	48,19,35, 3,27, 9,48,16,19, 2	1,14,28,39, 5,12, 7,22	3,31,59, 0, 1	5,27
12″	48,19,36,17,55,48,53,28,26,24	1,14,28,35,33,13, 1,54	3,31,59, 5,28	5,27
14″	48,19,37,32,24,24,26,41,28,18	1,14,28,32, 1,13,50,59	3,31,59,10,55	5,27
16″	48,19,38,46,52,56,27,55,19,17	1,14,28,28,29,14,34,37	3,31,59,16,22	5,27
18″	48,19,40, 1,21,24,57, 9,53,54	1,14,28,24,57,15,12,48	3,31,59,21,49	5,27
20″	48,19,41,15,49,49,54,25, 6,42	1,14,28,21,25,15,45,32	3,31,59,27,16	5,27
22″	48,19,42,30,18,11,19,40,52,14	1,14,28,17,53,16,12,49	3,31,59,32,43	5,27
24″	48,19,43,44,46,29,12,57, 5, 3	1,14,28,14,21,16,34,39	3,31,59,38,10	5,27
26″	48,19,44,59,14,43,34,13,39,42	1,14,28,10,49,16,51, 2	3,31,59,43,37	5,27
28″	48,19,46,13,42,54,23,30,30,44	1,14,28, 7,17,17, 1,58	3,31,59,49, 4	5,27
30″	48,19,47,28,11, 1,40,47,32,42	1,14,28, 3,45,17, 7,27	3,31,59,54,31	5,27
32″	48,19,48,42,39, 5,26, 4,40, 9	1,14,28, 0,13,17, 7,29	3,31,59,59,58	5,27
34″	48,19,49,57, 7, 5,39,21,47,38	1,14,27,56,41,17, 2, 4	3,32, 0, 5,25	5,27
36″	48,19,51,11,35, 2,20,38,49,42	1,14,27,53, 9,16,51,12	3,32, 0,10,52	5,27
38″	48,19,52,26, 2,55,29,55,40,54	1,14,27,49,37,16,34,53	3,32, 0,16,19	5,27
40″	48,19,53,40,30,45, 7,12,15,47	1,14,27,46, 5,16,13, 7	3,32, 0,21,46	5,27
42″	48,19,54,54,58,31,12,28,28,54	1,14,27,42,33,15,45,54	3,32, 0,27,13	5,27
44″	48,19,56, 9,26,13,45,44,14,48	1,14,27,39, 1,15,13,14	3,32, 0,32,40	5,27
46″	48,19,57,23,53,52,46,59,28, 2	1,14,27,35,29,14,35, 7	3,32, 0,38, 7	5,27
48″	48,19,58,38,21,28,16,14, 3, 9	1,14,27,31,57,13,51,33	3,32, 0,43,34	5,27
50″	48,19,59,52,49, 0,13,27,54,42	1,14,27,28,25,13, 2,32	3,32, 0,49, 1	5,27
52″	48,20, 1, 7,16,28,38,40,57,14	1,14,27,24,53,12, 8, 4	3,32, 0,54,28	5,27
54″	48,20, 2,21,43,53,31,53, 5,18	1,14,27,21,21,11, 8, 9	3,32, 0,59,55	5,27
56″	48,20, 3,36,11,14,53, 4,13,27	1,14,27,17,49,10, 2,47	3,32, 1, 5,22	5,27
58″	48,20, 4,50,38,32,42,14,16,14	1,14,27,14,17, 8,51,58	3,32, 1,10,49	
60″	48,20, 6, 5, 5,46,59,23, 8,12			
exact	48,20, 6, 5, 5,46,59,23,29,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°40′ 0″	48,20, 6, 5, 5,46,59,23,29,25			
		1,14,27,10,45, 7,38, 4		
2″	48,20, 7,19,32,57,44,31, 7,29		3,32, 1,21,32	
		1,14,27, 7,13, 6,16,32		5,27
4″	48,20, 8,34, 0, 4,57,37,24, 1		3,32, 1,26,59	
		1,14,27, 3,41, 4,49,33		5,27
6″	48,20, 9,48,27, 8,38,42,13,34		3,32, 1,32,26	
		1,14,27, 0, 9, 3,17, 7		5,27
8″	48,20,11, 2,54, 8,47,45,30,41		3,32, 1,37,53	
		1,14,26,56,37, 1,39,14		5,27
10″	48,20,12,17,21, 5,24,47, 9,55		3,32, 1,43,20	
		1,14,26,53, 4,59,55,54		5,27
12″	48,20,13,31,47,58,29,47, 5,49		3,32, 1,48,47	
		1,14,26,49,32,58, 7, 7		5,27
14″	48,20,14,46,14,48, 2,45,12,56		3,32, 1,54,14	
		1,14,26,46, 0,56,12,53		5,27
16″	48,20,16, 0,41,34, 3,41,25,49		3,32, 1,59,41	
		1,14,26,42,28,54,13,12		5,27
18″	48,20,17,15, 8,16,32,35,39, 1		3,32, 2, 5, 8	
		1,14,26,38,56,52, 8, 4		5,27
20″	48,20,18,29,34,55,29,27,47, 5		3,32, 2,10,35	
		1,14,26,35,24,49,57,29		5,27
22″	48,20,19,44, 1,30,54,17,44,34		3,32, 2,16, 2	
		1,14,26,31,52,47,41,27		5,27
24″	48,20,20,58,28, 2,47, 5,26, 1		3,32, 2,21,29	
		1,14,26,28,20,45,19,58		5,27
26″	48,20,22,12,54,31, 7,50,45,59		3,32, 2,26,56	
		1,14,26,24,48,42,53, 2		5,27
28″	48,20,23,27,20,55,56,33,39, 1		3,32, 2,32,23	
		1,14,26,21,16,40,20,39		5,27
30″	48,20,24,41,47,17,13,13,59,40		3,32, 2,37,50	
		1,14,26,17,44,37,42,49		5,27
32″	48,20,25,56,13,34,57,51,42,29		3,32, 2,43,17	
		1,14,26,14,12,34,59,32		5,27
34″	48,20,27,10,39,49,10,26,42, 1		3,32, 2,48,44	
		1,14,26,10,40,32,10,48		5,27
36″	48,20,28,25, 5,59,50,58,52,49		3,32, 2,54,11	
		1,14,26, 7, 8,29,16,37		5,27
38″	48,20,29,39,32, 6,59,28, 9,26		3,32, 2,59,38	
		1,14,26, 3,36,26,16,59		5,27
40″	48,20,30,53,58,10,35,54,26,25		3,32, 3, 5, 5	
		1,14,26, 0, 4,23,11,54		5,27
42″	48,20,32, 8,24,10,40,17,38,19		3,32, 3,10,32	
		1,14,25,56,32,20, 1,22		5,27
44″	48,20,33,22,50, 7,12,37,39,41		3,32, 3,15,59	
		1,14,25,53, 0,16,45,23		5,27
46″	48,20,34,37,16, 0,12,54,25, 4		3,32, 3,21,26	
		1,14,25,49,28,13,23,57		5,27
48″	48,20,35,51,41,49,41, 7,49, 1		3,32, 3,26,53	
		1,14,25,45,56, 9,57, 4		5,27
50″	48,20,37, 6, 7,35,37,17,46, 5		3,32, 3,32,20	
		1,14,25,42,24, 6,24,44		5,27
52″	48,20,38,20,33,18, 1,24,10,49		3,32, 3,37,47	
		1,14,25,38,52, 2,46,57		5,27
54″	48,20,39,34,58,56,53,26,57,46		3,32, 3,43,14	
		1,14,25,35,19,59, 3,43		5,27
56″	48,20,40,49,24,32,13,26, 1,29		3,32, 3,48,41	
		1,14,25,31,47,55,15, 2		5,27
58″	48,20,42, 3,50, 4, 1,21,16,31		3,32, 3,54, 8	
		1,14,25,28,15,51,20,54		
60″	48,20,43,18,15,32,17,12,37,25			
exact	48,20,43,18,15,32,17,13, 4, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°41′ 0″	48,20,43,18,15,32,17,13, 4, 2			
		1,14,25,24,43,47,24,23		
2″	48,20,44,32,40,57, 1, 0,28,25		3,32, 4, 4,48	
		1,14,25,21,11,43,19,35		5,26
4″	48,20,45,47, 6,18,12,43,48, 0		3,32, 4,10,14	
		1,14,25,17,39,39, 9,21		5,26
6″	48,20,47, 1,31,35,52,22,57,21		3,32, 4,15,40	
		1,14,25,14, 7,34,53,41		5,26
8″	48,20,48,15,56,49,59,57,51, 2		3,32, 4,21, 6	
		1,14,25,10,35,30,32,35		5,26
10″	48,20,49,30,22, 0,35,28,23,37		3,32, 4,26,32	
		1,14,25, 7, 3,26, 6, 3		5,26
12″	48,20,50,44,47, 7,38,54,29,40		3,32, 4,31,58	
		1,14,25, 3,31,21,34, 5		5,26
14″	48,20,51,59,12,11,10,16, 3,45		3,32, 4,37,24	
		1,14,24,59,59,16,56,41		5,26
16″	48,20,53,13,37,11, 9,33, 0,26		3,32, 4,42,50	
		1,14,24,56,27,12,13,51		5,26
18″	48,20,54,28, 2, 7,36,45,14,17		3,32, 4,48,16	
		1,14,24,52,55, 7,25,35		5,26
20″	48,20,55,42,27, 0,31,52,39,52		3,32, 4,53,42	
		1,14,24,49,23, 2,31,53		5,26
22″	48,20,56,56,51,49,54,55,11,45		3,32, 4,59, 8	
		1,14,24,45,50,57,32,45		5,26
24″	48,20,58,11,16,35,45,52,44,30		3,32, 5, 4,34	
		1,14,24,42,18,52,28,11		5,26
26″	48,20,59,25,41,18, 4,45,12,41		3,32, 5,10, 0	
		1,14,24,38,46,47,18,11		5,26
28″	48,21, 0,40, 5,56,51,32,30,52		3,32, 5,15,26	
		1,14,24,35,14,42, 2,45		5,26
30″	48,21, 1,54,30,32, 6,14,33,37		3,32, 5,20,52	
		1,14,24,31,42,36,41,53		5,26
32″	48,21, 3, 8,55, 3,48,51,15,30		3,32, 5,26,18	
		1,14,24,28,10,31,15,35		5,26
34″	48,21, 4,23,19,31,59,22,31, 5		3,32, 5,31,44	
		1,14,24,24,38,25,43,51		5,26
36″	48,21, 5,37,43,56,37,48,14,56		3,32, 5,37,10	
		1,14,24,21, 6,20, 6,41		5,26
38″	48,21, 6,52, 8,17,44, 8,21,37		3,32, 5,42,36	
		1,14,24,17,34,14,24, 5		5,26
40″	48,21, 8, 6,32,35,18,22,45,42		3,32, 5,48, 2	
		1,14,24,14, 2, 8,36, 3		5,26
42″	48,21, 9,20,56,49,20,31,21,45		3,32, 5,53,28	
		1,14,24,10,30, 2,42,35		5,26
44″	48,21,10,35,20,59,50,34, 4,20		3,32, 5,58,54	
		1,14,24, 6,57,56,43,41		5,26
46″	48,21,11,49,45, 6,48,30,48, 1		3,32, 6, 4,20	
		1,14,24, 3,25,50,39,21		5,26
48″	48,21,13, 4, 9,10,14,21,27,22		3,32, 6, 9,46	
		1,14,23,59,53,44,29,35		5,26
50″	48,21,14,18,33,10, 8, 5,56,57		3,32, 6,15,12	
		1,14,23,56,21,38,14,23		5,26
52″	48,21,15,32,57, 6,29,44,11,20		3,32, 6,20,38	
		1,14,23,52,49,31,53,45		5,26
54″	48,21,16,47,20,59,19,16, 5, 5		3,32, 6,26, 4	
		1,14,23,49,17,25,27,41		5,26
56″	48,21,18, 1,44,48,36,41,32,46		3,32, 6,31,30	
		1,14,23,45,45,18,56,11		5,26
58″	48,21,19,16, 8,34,22, 0,28,57		3,32, 6,36,56	
		1,14,23,42,13,12,19,15		
60″	48,21,20,30,32,16,35,12,48,12			
exact	48,21,20,30,32,16,35,12,18,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°42′ 0″	48,21,20,30,32,16,35,12,18,35			
		1,14,23,38,41, 5,33,49		
2″	48,21,21,44,55,55,16,17,52,24		3,32, 6,48, 0	
		1,14,23,35, 8,58,45,49		5,26
4″	48,21,22,59,19,30,25,16,38,13		3,32, 6,53,26	
		1,14,23,31,36,51,52,23		5,26
6″	48,21,24,13,43, 2, 2, 8,30,36		3,32, 6,58,52	
		1,14,23,28, 4,44,53,31		5,26
8″	48,21,25,28, 6,30, 6,53,24, 7		3,32, 7, 4,18	
		1,14,23,24,32,37,49,13		5,26
10″	48,21,26,42,29,54,39,31,13,20		3,32, 7, 9,44	
		1,14,23,21, 0,30,39,29		5,26
12″	48,21,27,56,53,15,40, 1,52,49		3,32, 7,15,10	
		1,14,23,17,28,23,24,19		5,26
14″	48,21,29,11,16,33, 8,25,17, 8		3,32, 7,20,36	
		1,14,23,13,56,16, 3,43		5,26
16″	48,21,30,25,39,47, 4,41,20,51		3,32, 7,26, 2	
		1,14,23,10,24, 8,37,41		5,26
18″	48,21,31,40, 2,57,28,49,58,32		3,32, 7,31,28	
		1,14,23, 6,52, 1, 6,13		5,26
20″	48,21,32,54,26, 4,20,51, 4,45		3,32, 7,36,54	
		1,14,23, 3,19,53,29,19		5,26
22″	48,21,34, 8,49, 7,40,44,34, 4		3,32, 7,42,20	
		1,14,22,59,47,45,46,59		5,26
24″	48,21,35,23,12, 7,28,30,21, 3		3,32, 7,47,46	
		1,14,22,56,15,37,59,13		5,26
26″	48,21,36,37,35, 3,44, 8,20,16		3,32, 7,53,12	
		1,14,22,52,43,30, 6, 1		5,26
28″	48,21,37,51,57,56,27,38,26,17		3,32, 7,58,38	
		1,14,22,49,11,22, 7,23		5,26
30″	48,21,39, 6,20,45,39, 0,33,40		3,32, 8, 4, 4	
		1,14,22,45,39,14, 3,19		5,26
32″	48,21,40,20,43,31,18,14,36,59		3,32, 8, 9,30	
		1,14,22,42, 7, 5,53,49		5,26
34″	48,21,41,35, 6,13,25,20,30,48		3,32, 8,14,56	
		1,14,22,38,34,57,38,53		5,26
36″	48,21,42,49,28,52, 0,18, 9,41		3,32, 8,20,22	
		1,14,22,35, 2,49,18,31		5,26
38″	48,21,44, 3,51,27, 3, 7,28,12		3,32, 8,25,48	
		1,14,22,31,30,40,52,43		5,26
40″	48,21,45,18,13,58,33,48,20,55		3,32, 8,31,14	
		1,14,22,27,58,32,21,29		5,26
42″	48,21,46,32,36,26,32,20,42,24		3,32, 8,36,40	
		1,14,22,24,26,23,44,49		5,26
44″	48,21,47,46,58,50,58,44,27,13		3,32, 8,42, 6	
		1,14,22,20,54,15, 2,43		5,26
46″	48,21,49, 1,21,11,52,59,29,56		3,32, 8,47,32	
		1,14,22,17,22, 6,15,11		5,26
48″	48,21,50,15,43,29,15, 5,45, 7		3,32, 8,52,58	
		1,14,22,13,49,57,22,13		5,26
50″	48,21,51,30, 5,43, 5, 3, 7,20		3,32, 8,58,24	
		1,14,22,10,17,48,23,49		5,26
52″	48,21,52,44,27,53,22,51,31, 9		3,32, 9, 3,50	
		1,14,22, 6,45,39,19,59		5,26
54″	48,21,53,58,50, 0, 8,30,51, 8		3,32, 9, 9,16	
		1,14,22, 3,13,30,10,43		5,26
56″	48,21,55,13,12, 3,22, 1, 1,51		3,32, 9,14,42	
		1,14,21,59,41,20,56, 1		5,26
58″	48,21,56,27,34, 3, 3,21,57,52		3,32, 9,20, 8	
		1,14,21,56, 9,11,35,53		
60″	48,21,57,41,55,59,12,33,33,45			
exact	48,21,57,41,55,59,12,33,15, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°43′ 0″	48,21,57,41,55,59,12,33,15, 1			
		1,14,21,52,37, 2, 8,20		
2″	48,21,58,56,17,51,49,35,23,21		3,32, 9,31, 8	
		1,14,21,49, 4,52,37,12		5,26
4″	48,22, 0,10,39,40,54,28, 0,33		3,32, 9,36,34	
		1,14,21,45,32,43, 0,38		5,26
6″	48,22, 1,25, 1,26,27,11, 1,11		3,32, 9,42, 0	
		1,14,21,42, 0,33,18,38		5,26
8″	48,22, 2,39,23, 8,27,44,19,49		3,32, 9,47,26	
		1,14,21,38,28,23,31,12		5,26
10″	48,22, 3,53,44,46,56, 7,51, 1		3,32, 9,52,52	
		1,14,21,34,56,13,38,20		5,26
12″	48,22, 5, 8, 6,21,52,21,29,21		3,32, 9,58,18	
		1,14,21,31,24, 3,40, 2		5,26
14″	48,22, 6,22,27,53,16,25, 9,23		3,32,10, 3,44	
		1,14,21,27,51,53,36,18		5,26
16″	48,22, 7,36,49,21, 8,18,45,41		3,32,10, 9,10	
		1,14,21,24,19,43,27, 8		5,26
18″	48,22, 8,51,10,45,28, 2,12,49		3,32,10,14,36	
		1,14,21,20,47,33,12,32		5,26
20″	48,22,10, 5,32, 6,15,35,25,21		3,32,10,20, 2	
		1,14,21,17,15,22,52,30		5,26
22″	48,22,11,19,53,23,30,58,17,51		3,32,10,25,28	
		1,14,21,13,43,12,27, 2		5,26
24″	48,22,12,34,14,37,14,10,44,53		3,32,10,30,54	
		1,14,21,10,11, 1,56, 8		5,26
26″	48,22,13,48,35,47,25,12,41, 1		3,32,10,36,20	
		1,14,21, 6,38,51,19,48		5,26
28″	48,22,15, 2,56,54, 4, 4, 0,49		3,32,10,41,46	
		1,14,21, 3, 6,40,38, 2		5,26
30″	48,22,16,17,17,57,10,44,38,51		3,32,10,47,12	
		1,14,20,59,34,29,50,50		5,26
32″	48,22,17,31,38,56,45,14,29,41		3,32,10,52,38	
		1,14,20,56, 2,18,58,12		5,26
34″	48,22,18,45,59,52,47,33,27,53		3,32,10,58, 4	
		1,14,20,52,30, 8, 0, 8		5,26
36″	48,22,20, 0,20,45,17,41,28, 1		3,32,11, 3,30	
		1,14,20,48,57,56,56,38		5,26
38″	48,22,21,14,41,34,15,38,24,39		3,32,11, 8,56	
		1,14,20,45,25,45,47,42		5,26
40″	48,22,22,29, 2,19,41,24,12,21		3,32,11,14,22	
		1,14,20,41,53,34,33,20		5,26
42″	48,22,23,43,23, 1,34,58,45,41		3,32,11,19,48	
		1,14,20,38,21,23,13,32		5,26
44″	48,22,24,57,43,39,56,21,59,13		3,32,11,25,14	
		1,14,20,34,49,11,48,18		5,26
46″	48,22,26,12, 4,14,45,33,47,31		3,32,11,30,40	
		1,14,20,31,17, 0,17,38		5,26
48″	48,22,27,26,24,46, 2,34, 5, 9		3,32,11,36, 6	
		1,14,20,27,44,48,41,32		5,26
50″	48,22,28,40,45,13,47,22,46,41		3,32,11,41,32	
		1,14,20,24,12,37, 0, 0		5,26
52″	48,22,29,55, 5,37,59,59,46,41		3,32,11,46,58	
		1,14,20,20,40,25,13, 2		5,26
54″	48,22,31, 9,25,58,40,24,59,43		3,32,11,52,24	
		1,14,20,17, 8,13,20,38		5,26
56″	48,22,32,23,46,15,48,38,20,21		3,32,11,57,50	
		1,14,20,13,36, 1,22,48		5,26
58″	48,22,33,38, 6,29,24,39,43, 9		3,32,12, 3,16	
		1,14,20,10, 3,49,19,32		
60″	48,22,34,52,26,39,28,29, 2,41			
exact	48,22,34,52,26,39,28,28,53,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°44′ 0″	48,22,34,52,26,39,28,28,53,24			
		1,14,20, 6,31,37, 9,51		
2″	48,22,36, 6,46,46, 0, 6, 3,15		3,32,12,14,12	
		1,14,20, 2,59,24,55,39		5,26
4″	48,22,37,21, 6,48,59,30,58,54		3,32,12,19,38	
		1,14,19,59,27,12,36, 1		5,26
6″	48,22,38,35,26,48,26,43,34,55		3,32,12,25, 4	
		1,14,19,55,55, 0,10,57		5,26
8″	48,22,39,49,46,44,21,43,45,52		3,32,12,30,30	
		1,14,19,52,22,47,40,27		5,26
10″	48,22,41, 4, 6,36,44,31,26,19		3,32,12,35,56	
		1,14,19,48,50,35, 4,31		5,26
12″	48,22,42,18,26,25,35, 6,30,50		3,32,12,41,22	
		1,14,19,45,18,22,23, 9		5,26
14″	48,22,43,32,46,10,53,28,53,59		3,32,12,46,48	
		1,14,19,41,46, 9,36,21		5,26
16″	48,22,44,47, 5,52,39,38,30,20		3,32,12,52,14	
		1,14,19,38,13,56,44, 7		5,26
18″	48,22,46, 1,25,30,53,35,14,27		3,32,12,57,40	
		1,14,19,34,41,43,46,27		5,26
20″	48,22,47,15,45, 5,35,19, 0,54		3,32,13, 3, 6	
		1,14,19,31, 9,30,43,21		5,26
22″	48,22,48,30, 4,36,44,49,44,15		3,32,13, 8,32	
		1,14,19,27,37,17,34,49		5,26
24″	48,22,49,44,24, 4,22, 7,19, 4		3,32,13,13,58	
		1,14,19,24, 5, 4,20,51		5,26
26″	48,22,50,58,43,28,27,11,39,55		3,32,13,19,24	
		1,14,19,20,32,51, 1,27		5,26
28″	48,22,52,13, 2,49, 0, 2,41,22		3,32,13,24,50	
		1,14,19,17, 0,37,36,37		5,26
30″	48,22,53,27,22, 6, 0,40,17,59		3,32,13,30,16	
		1,14,19,13,28,24, 6,21		5,26
32″	48,22,54,41,41,19,29, 4,24,20		3,32,13,35,42	
		1,14,19, 9,56,10,30,39		5,26
34″	48,22,55,56, 0,29,25,14,54,59		3,32,13,41, 8	
		1,14,19, 6,23,56,49,31		5,26
36″	48,22,57,10,19,35,49,11,44,30		3,32,13,46,34	
		1,14,19, 2,51,43, 2,57		5,26
38″	48,22,58,24,38,38,40,54,47,27		3,32,13,52, 0	
		1,14,18,59,19,29,10,57		5,26
40″	48,22,59,38,57,38, 0,23,58,24		3,32,13,57,26	
		1,14,18,55,47,15,13,31		5,26
42″	48,23, 0,53,16,33,47,39,11,55		3,32,14, 2,52	
		1,14,18,52,15, 1,10,39		5,26
44″	48,23, 2, 7,35,26, 2,40,22,34		3,32,14, 8,18	
		1,14,18,48,42,47, 2,21		5,26
46″	48,23, 3,21,54,14,45,27,24,55		3,32,14,13,44	
		1,14,18,45,10,32,48,37		5,26
48″	48,23, 4,36,12,59,56, 0,13,32		3,32,14,19,10	
		1,14,18,41,38,18,29,27		5,26
50″	48,23, 5,50,31,41,34,18,42,59		3,32,14,24,36	
		1,14,18,38, 6, 4, 4,51		5,26
52″	48,23, 7, 4,50,19,40,22,47,50		3,32,14,30, 2	
		1,14,18,34,33,49,34,49		5,26
54″	48,23, 8,19, 8,54,14,12,22,39		3,32,14,35,28	
		1,14,18,31, 1,34,59,21		5,26
56″	48,23, 9,33,27,25,15,47,22, 0		3,32,14,40,54	
		1,14,18,27,29,20,18,27		5,26
58″	48,23,10,47,45,52,45, 7,40,27		3,32,14,46,20	
		1,14,18,23,57, 5,32, 7		
60″	48,23,12, 2, 4,16,42,13,12,34			
exact	48,23,12, 2, 4,16,42,13,11,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°45′ 0″	48,23,12, 2, 4,16,42,13,11,59			
		1,14,18,20,24,50,40,18		
2″	48,23,13,16,22,37, 7, 3,52,17		3,32,14,57,12	
		1,14,18,16,52,35,43, 6		5,26
4″	48,23,14,30,40,53,59,39,35,23		3,32,15, 2,38	
		1,14,18,13,20,20,40,28		5,26
6″	48,23,15,44,59, 7,20, 0,15,51		3,32,15, 8, 4	
		1,14,18, 9,48, 5,32,24		5,26
8″	48,23,16,59,17,17, 8, 5,48,15		3,32,15,13,30	
		1,14,18, 6,15,50,18,54		5,26
10″	48,23,18,13,35,23,23,56, 7, 9		3,32,15,18,56	
		1,14,18, 2,43,34,59,58		5,26
12″	48,23,19,27,53,26, 7,31, 7, 7		3,32,15,24,22	
		1,14,17,59,11,19,35,36		5,26
14″	48,23,20,42,11,25,18,50,42,43		3,32,15,29,48	
		1,14,17,55,39, 4, 5,48		5,26
16″	48,23,21,56,29,20,57,54,48,31		3,32,15,35,14	
		1,14,17,52, 6,48,30,34		5,26
18″	48,23,23,10,47,13, 4,43,19, 5		3,32,15,40,40	
		1,14,17,48,34,32,49,54		5,26
20″	48,23,24,25, 5, 1,39,16, 8,59		3,32,15,46, 6	
		1,14,17,45, 2,17, 3,48		5,26
22″	48,23,25,39,22,46,41,33,12,47		3,32,15,51,32	
		1,14,17,41,30, 1,12,16		5,26
24″	48,23,26,53,40,28,11,34,25, 3		3,32,15,56,58	
		1,14,17,37,57,45,15,18		5,26
26″	48,23,28, 7,58, 6, 9,19,40,21		3,32,16, 2,24	
		1,14,17,34,25,29,12,54		5,26
28″	48,23,29,22,15,40,34,48,53,15		3,32,16, 7,50	
		1,14,17,30,53,13, 5, 4		5,26
30″	48,23,30,36,33,11,28, 1,58,19		3,32,16,13,16	
		1,14,17,27,20,56,51,48		5,26
32″	48,23,31,50,50,38,48,58,50, 7		3,32,16,18,42	
		1,14,17,23,48,40,33, 6		5,26
34″	48,23,33, 5, 8, 2,37,39,23,13		3,32,16,24, 8	
		1,14,17,20,16,24, 8,58		5,26
36″	48,23,34,19,25,22,54, 3,32,11		3,32,16,29,34	
		1,14,17,16,44, 7,39,24		5,26
38″	48,23,35,33,42,39,38,11,11,35		3,32,16,35, 0	
		1,14,17,13,11,51, 4,24		5,26
40″	48,23,36,47,59,52,50, 2,15,59		3,32,16,40,26	
		1,14,17, 9,39,34,23,58		5,26
42″	48,23,38, 2,17, 2,29,36,39,57		3,32,16,45,52	
		1,14,17, 6, 7,17,38, 6		5,26
44″	48,23,39,16,34, 8,36,54,18, 3		3,32,16,51,18	
		1,14,17, 2,35, 0,46,48		5,26
46″	48,23,40,30,51,11,11,55, 4,51		3,32,16,56,44	
		1,14,16,59, 2,43,50, 4		5,26
48″	48,23,41,45, 8,10,14,38,54,55		3,32,17, 2,10	
		1,14,16,55,30,26,47,54		5,26
50″	48,23,42,59,25, 5,45, 5,42,49		3,32,17, 7,36	
		1,14,16,51,58, 9,40,18		5,26
52″	48,23,44,13,41,57,43,15,23, 7		3,32,17,13, 2	
		1,14,16,48,25,52,27,16		5,26
54″	48,23,45,27,58,46, 9, 7,50,23		3,32,17,18,28	
		1,14,16,44,53,35, 8,48		5,26
56″	48,23,46,42,15,31, 2,42,59,11		3,32,17,23,54	
		1,14,16,41,21,17,44,54		5,26
58″	48,23,47,56,32,12,24, 0,44, 5		3,32,17,29,20	
		1,14,16,37,49, 0,15,34		
60″	48,23,49,10,48,50,13, 0,59,39			
exact	48,23,49,10,48,50,13, 1, 7,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°46′ 0″	48,23,49,10,48,50,13, 1, 7,13			
		1,14,16,34,16,42,41,38		
2″	48,23,50,25, 5,24,29,43,48,51		3,32,17,40, 8	
		1,14,16,30,44,25, 1,30		5,26
4″	48,23,51,39,21,55,14, 8,50,21		3,32,17,45,34	
		1,14,16,27,12, 7,15,56		5,26
6″	48,23,52,53,38,22,26,16, 6,17		3,32,17,51, 0	
		1,14,16,23,39,49,24,56		5,26
8″	48,23,54, 7,54,46, 6, 5,31,13		3,32,17,56,26	
		1,14,16,20, 7,31,28,30		5,26
10″	48,23,55,22,11, 6,13,36,59,43		3,32,18, 1,52	
		1,14,16,16,35,13,26,38		5,26
12″	48,23,56,36,27,22,48,50,26,21		3,32,18, 7,18	
		1,14,16,13, 2,55,19,20		5,26
14″	48,23,57,50,43,35,51,45,45,41		3,32,18,12,44	
		1,14,16, 9,30,37, 6,36		5,26
16″	48,23,59, 4,59,45,22,22,52,17		3,32,18,18,10	
		1,14,16, 5,58,18,48,26		5,26
18″	48,24, 0,19,15,51,20,41,40,43		3,32,18,23,36	
		1,14,16, 2,26, 0,24,50		5,26
20″	48,24, 1,33,31,53,46,42, 5,33		3,32,18,29, 2	
		1,14,15,58,53,41,55,48		5,26
22″	48,24, 2,47,47,52,40,24, 1,21		3,32,18,34,28	
		1,14,15,55,21,23,21,20		5,26
24″	48,24, 4, 2, 3,48, 1,47,22,41		3,32,18,39,54	
		1,14,15,51,49, 4,41,26		5,26
26″	48,24, 5,16,19,39,50,52, 4, 7		3,32,18,45,20	
		1,14,15,48,16,45,56, 6		5,26
28″	48,24, 6,30,35,28, 7,38, 0,13		3,32,18,50,46	
		1,14,15,44,44,27, 5,20		5,26
30″	48,24, 7,44,51,12,52, 5, 5,33		3,32,18,56,12	
		1,14,15,41,12, 8, 9, 8		5,26
32″	48,24, 8,59, 6,54, 4,13,14,41		3,32,19, 1,38	
		1,14,15,37,39,49, 7,30		5,26
34″	48,24,10,13,22,31,44, 2,22,11		3,32,19, 7, 4	
		1,14,15,34, 7,30, 0,26		5,26
36″	48,24,11,27,38, 5,51,32,22,37		3,32,19,12,30	
		1,14,15,30,35,10,47,56		5,26
38″	48,24,12,41,53,36,26,43,10,33		3,32,19,17,56	
		1,14,15,27, 2,51,30, 0		5,26
40″	48,24,13,56, 9, 3,29,34,40,33		3,32,19,23,22	
		1,14,15,23,30,32, 6,38		5,26
42″	48,24,15,10,24,27, 0, 6,47,11		3,32,19,28,48	
		1,14,15,19,58,12,37,50		5,26
44″	48,24,16,24,39,46,58,19,25, 1		3,32,19,34,14	
		1,14,15,16,25,53, 3,36		5,26
46″	48,24,17,38,55, 3,24,12,28,37		3,32,19,39,40	
		1,14,15,12,53,33,23,56		5,26
48″	48,24,18,53,10,16,17,45,52,33		3,32,19,45, 6	
		1,14,15, 9,21,13,38,50		5,26
50″	48,24,20, 7,25,25,38,59,31,23		3,32,19,50,32	
		1,14,15, 5,48,53,48,18		5,26
52″	48,24,21,21,40,31,27,53,19,41		3,32,19,55,58	
		1,14,15, 2,16,33,52,20		5,26
54″	48,24,22,35,55,33,44,27,12, 1		3,32,20, 1,24	
		1,14,14,58,44,13,50,56		5,26
56″	48,24,23,50,10,32,28,41, 2,57		3,32,20, 6,50	
		1,14,14,55,11,53,44, 6		5,26
58″	48,24,25, 4,25,27,40,34,47, 3		3,32,20,12,16	
		1,14,14,51,39,33,31,50		
60″	48,24,26,18,40,19,20, 8,18,53			
exact	48,24,26,18,40,19,20, 8,33,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°47′ 0″	48,24,26,18,40,19,20, 8,33,40			
		1,14,14,48, 7,13,15,48		
2″	48,24,27,32,55, 7,27,21,49,28		3,32,20,23, 0	
		1,14,14,44,34,52,52,48		5,26
4″	48,24,28,47, 9,52, 2,14,42,16		3,32,20,28,26	
		1,14,14,41, 2,32,24,22		5,26
6″	48,24,30, 1,24,33, 4,47, 6,38		3,32,20,33,52	
		1,14,14,37,30,11,50,30		5,26
8″	48,24,31,15,39,10,34,58,57, 8		3,32,20,39,18	
		1,14,14,33,57,51,11,12		5,26
10″	48,24,32,29,53,44,32,50, 8,20		3,32,20,44,44	
		1,14,14,30,25,30,26,28		5,26
12″	48,24,33,44, 8,14,58,20,34,48		3,32,20,50,10	
		1,14,14,26,53, 9,36,18		5,26
14″	48,24,34,58,22,41,51,30,11, 6		3,32,20,55,36	
		1,14,14,23,20,48,40,42		5,26
16″	48,24,36,12,37, 5,12,18,51,48		3,32,21, 1, 2	
		1,14,14,19,48,27,39,40		5,26
18″	48,24,37,26,51,25, 0,46,31,28		3,32,21, 6,28	
		1,14,14,16,16, 6,33,12		5,26
20″	48,24,38,41, 5,41,16,53, 4,40		3,32,21,11,54	
		1,14,14,12,43,45,21,18		5,26
22″	48,24,39,55,19,54, 0,38,25,58		3,32,21,17,20	
		1,14,14, 9,11,24, 3,58		5,26
24″	48,24,41, 9,34, 3,12, 2,29,56		3,32,21,22,46	
		1,14,14, 5,39, 2,41,12		5,26
26″	48,24,42,23,48, 8,51, 5,11, 8		3,32,21,28,12	
		1,14,14, 2, 6,41,13, 0		5,26
28″	48,24,43,38, 2,10,57,46,24, 8		3,32,21,33,38	
		1,14,13,58,34,19,39,22		5,26
30″	48,24,44,52,16, 9,32, 6, 3,30		3,32,21,39, 4	
		1,14,13,55, 1,58, 0,18		5,26
32″	48,24,46, 6,30, 4,34, 4, 3,48		3,32,21,44,30	
		1,14,13,51,29,36,15,48		5,26
34″	48,24,47,20,43,56, 3,40,19,36		3,32,21,49,56	
		1,14,13,47,57,14,25,52		5,26
36″	48,24,48,34,57,44, 0,54,45,28		3,32,21,55,22	
		1,14,13,44,24,52,30,30		5,26
38″	48,24,49,49,11,28,25,47,15,58		3,32,22, 0,48	
		1,14,13,40,52,30,29,42		5,26
40″	48,24,51, 3,25, 9,18,17,45,40		3,32,22, 6,14	
		1,14,13,37,20, 8,23,28		5,26
42″	48,24,52,17,38,46,38,26, 9, 8		3,32,22,11,40	
		1,14,13,33,47,46,11,48		5,26
44″	48,24,53,31,52,20,26,12,20,56		3,32,22,17, 6	
		1,14,13,30,15,23,54,42		5,26
46″	48,24,54,46, 5,50,41,36,15,38		3,32,22,22,32	
		1,14,13,26,43, 1,32,10		5,26
48″	48,24,56, 0,19,17,24,37,47,48		3,32,22,27,58	
		1,14,13,23,10,39, 4,12		5,26
50″	48,24,57,14,32,40,35,16,52, 0		3,32,22,33,24	
		1,14,13,19,38,16,30,48		5,26
52″	48,24,58,28,46, 0,13,33,22,48		3,32,22,38,50	
		1,14,13,16, 5,53,51,58		5,26
54″	48,24,59,42,59,16,19,27,14,46		3,32,22,44,16	
		1,14,13,12,33,31, 7,42		5,26
56″	48,25, 0,57,12,28,52,58,22,28		3,32,22,49,42	
		1,14,13, 9, 1, 8,18, 0		5,26
58″	48,25, 2,11,25,37,54, 6,40,28		3,32,22,55, 8	
		1,14,13, 5,28,45,22,52		
60″	48,25, 3,25,38,43,22,52, 3,20			
exact	48,25, 3,25,38,43,22,52,24,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°48′ 0″	48,25, 3,25,38,43,22,52,24,11			
		1,14,13, 1,56,22,24,43		
2″	48,25, 4,39,51,45,19,14,48,54		3,32,23, 5,49	
		1,14,12,58,23,59,18,54		5,26
4″	48,25, 5,54, 4,43,43,14, 7,48		3,32,23,11,15	
		1,14,12,54,51,36, 7,39		5,26
6″	48,25, 7, 8,17,38,34,50,15,27		3,32,23,16,41	
		1,14,12,51,19,12,50,58		5,26
8″	48,25, 8,22,30,29,54, 3, 6,25		3,32,23,22, 7	
		1,14,12,47,46,49,28,51		5,26
10″	48,25, 9,36,43,17,40,52,35,16		3,32,23,27,33	
		1,14,12,44,14,26, 1,18		5,26
12″	48,25,10,50,56, 1,55,18,36,34		3,32,23,32,59	
		1,14,12,40,42, 2,28,19		5,26
14″	48,25,12, 5, 8,42,37,21, 4,53		3,32,23,38,25	
		1,14,12,37, 9,38,49,54		5,26
16″	48,25,13,19,21,19,46,59,54,47		3,32,23,43,51	
		1,14,12,33,37,15, 6, 3		5,26
18″	48,25,14,33,33,53,24,15, 0,50		3,32,23,49,17	
		1,14,12,30, 4,51,16,46		5,26
20″	48,25,15,47,46,23,29, 6,17,36		3,32,23,54,43	
		1,14,12,26,32,27,22, 3		5,26
22″	48,25,17, 1,58,50, 1,33,39,39		3,32,24, 0, 9	
		1,14,12,23, 0, 3,21,54		5,26
24″	48,25,18,16,11,13, 1,37, 1,33		3,32,24, 5,35	
		1,14,12,19,27,39,16,19		5,26
26″	48,25,19,30,23,32,29,16,17,52		3,32,24,11, 1	
		1,14,12,15,55,15, 5,18		5,26
28″	48,25,20,44,35,48,24,31,23,10		3,32,24,16,27	
		1,14,12,12,22,50,48,51		5,26
30″	48,25,21,58,48, 0,47,22,12, 1		3,32,24,21,53	
		1,14,12, 8,50,26,26,58		5,26
32″	48,25,23,13, 0, 9,37,48,38,59		3,32,24,27,19	
		1,14,12, 5,18, 1,59,39		5,26
34″	48,25,24,27,12,14,55,50,38,38		3,32,24,32,45	
		1,14,12, 1,45,37,26,54		5,26
36″	48,25,25,41,24,16,41,28, 5,32		3,32,24,38,11	
		1,14,11,58,13,12,48,43		5,26
38″	48,25,26,55,36,14,54,40,54,15		3,32,24,43,37	
		1,14,11,54,40,48, 5, 6		5,26
40″	48,25,28, 9,48, 9,35,28,59,21		3,32,24,49, 3	
		1,14,11,51, 8,23,16, 3		5,26
42″	48,25,29,24, 0, 0,43,52,15,24		3,32,24,54,29	
		1,14,11,47,35,58,21,34		5,26
44″	48,25,30,38,11,48,19,50,36,58		3,32,24,59,55	
		1,14,11,44, 3,33,21,39		5,26
46″	48,25,31,52,23,32,23,23,58,37		3,32,25, 5,21	
		1,14,11,40,31, 8,16,18		5,26
48″	48,25,33, 6,35,12,54,32,14,55		3,32,25,10,47	
		1,14,11,36,58,43, 5,31		5,26
50″	48,25,34,20,46,49,53,15,20,26		3,32,25,16,13	
		1,14,11,33,26,17,49,18		5,26
52″	48,25,35,34,58,23,19,33, 9,44		3,32,25,21,39	
		1,14,11,29,53,52,27,39		5,26
54″	48,25,36,49, 9,53,13,25,37,23		3,32,25,27, 5	
		1,14,11,26,21,27, 0,34		5,26
56″	48,25,38, 3,21,19,34,52,37,57		3,32,25,32,31	
		1,14,11,22,49, 1,28, 3		5,26
58″	48,25,39,17,32,42,23,54, 6, 0		3,32,25,37,57	
		1,14,11,19,16,35,50, 6		
60″	48,25,40,31,44, 1,40,29,56, 6			
exact	48,25,40,31,44, 1,40,30,29,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°49′ 0″	48,25,40,31,44, 1,40,30,29,47			
		1,14,11,15,44,10,10,21		
2″	48,25,41,45,55,17,24,40,40, 8		3,32,25,48,33	
		1,14,11,12,11,44,21,48		5,25
4″	48,25,43, 0, 6,29,36,25, 1,56		3,32,25,53,58	
		1,14,11, 8,39,18,27,50		5,25
6″	48,25,44,14,17,38,15,43,29,46		3,32,25,59,23	
		1,14,11, 5, 6,52,28,27		5,25
8″	48,25,45,28,28,43,22,35,58,13		3,32,26, 4,48	
		1,14,11, 1,34,26,23,39		5,25
10″	48,25,46,42,39,44,57, 2,21,52		3,32,26,10,13	
		1,14,10,58, 2, 0,13,26		5,25
12″	48,25,47,56,50,42,59, 2,35,18		3,32,26,15,38	
		1,14,10,54,29,33,57,48		5,25
14″	48,25,49,11, 1,37,28,36,33, 6		3,32,26,21, 3	
		1,14,10,50,57, 7,36,45		5,25
16″	48,25,50,25,12,28,25,44, 9,51		3,32,26,26,28	
		1,14,10,47,24,41,10,17		5,25
18″	48,25,51,39,23,15,50,25,20, 8		3,32,26,31,53	
		1,14,10,43,52,14,38,24		5,25
20″	48,25,52,53,33,59,42,39,58,32		3,32,26,37,18	
		1,14,10,40,19,48, 1, 6		5,25
22″	48,25,54, 7,44,40, 2,27,59,38		3,32,26,42,43	
		1,14,10,36,47,21,18,23		5,25
24″	48,25,55,21,55,16,49,49,18, 1		3,32,26,48, 8	
		1,14,10,33,14,54,30,15		5,25
26″	48,25,56,36, 5,50, 4,43,48,16		3,32,26,53,33	
		1,14,10,29,42,27,36,42		5,25
28″	48,25,57,50,16,19,47,11,24,58		3,32,26,58,58	
		1,14,10,26,10, 0,37,44		5,25
30″	48,25,59, 4,26,45,57,12, 2,42		3,32,27, 4,23	
		1,14,10,22,37,33,33,21		5,25
32″	48,26, 0,18,37, 8,34,45,36, 3		3,32,27, 9,48	
		1,14,10,19, 5, 6,23,33		5,25
34″	48,26, 1,32,47,27,39,51,59,36		3,32,27,15,13	
		1,14,10,15,32,39, 8,20		5,25
36″	48,26, 2,46,57,43,12,31, 7,56		3,32,27,20,38	
		1,14,10,12, 0,11,47,42		5,25
38″	48,26, 4, 1, 7,55,12,42,55,38		3,32,27,26, 3	
		1,14,10, 8,27,44,21,39		5,25
40″	48,26, 5,15,18, 3,40,27,17,17		3,32,27,31,28	
		1,14,10, 4,55,16,50,11		5,25
42″	48,26, 6,29,28, 8,35,44, 7,28		3,32,27,36,53	
		1,14,10, 1,22,49,13,18		5,25
44″	48,26, 7,43,38, 9,58,33,20,46		3,32,27,42,18	
		1,14, 9,57,50,21,31, 0		5,25
46″	48,26, 8,57,48, 7,48,54,51,46		3,32,27,47,43	
		1,14, 9,54,17,53,43,17		5,25
48″	48,26,10,11,58, 2, 6,48,35, 3		3,32,27,53, 8	
		1,14, 9,50,45,25,50, 9		5,25
50″	48,26,11,26, 7,52,52,14,25,12		3,32,27,58,33	
		1,14, 9,47,12,57,51,36		5,25
52″	48,26,12,40,17,40, 5,12,16,48		3,32,28, 3,58	
		1,14, 9,43,40,29,47,38		5,25
54″	48,26,13,54,27,23,45,42, 4,26		3,32,28, 9,23	
		1,14, 9,40, 8, 1,38,15		5,25
56″	48,26,15, 8,37, 3,53,43,42,41		3,32,28,14,48	
		1,14, 9,36,35,33,23,27		5,25
58″	48,26,16,22,46,40,29,17, 6, 8		3,32,28,20,13	
		1,14, 9,33, 3, 5, 3,14		
60″	48,26,17,36,56,13,32,22, 9,22			
exact	48,26,17,36,56,13,32,21,39,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°50′ 0″	48,26,17,36,56,13,32,21,39,44			
		1,14, 9,29,30,36,34,38		
2″	48,26,18,51, 5,43, 2,58,14,22		3,32,28,31,14	
		1,14, 9,25,58, 8, 3,24		5,25
4″	48,26,20, 5,15, 9, 1, 6,17,46		3,32,28,36,39	
		1,14, 9,22,25,39,26,45		5,25
6″	48,26,21,19,24,31,26,45,44,31		3,32,28,42, 4	
		1,14, 9,18,53,10,44,41		5,25
8″	48,26,22,33,33,50,19,56,29,12		3,32,28,47,29	
		1,14, 9,15,20,41,57,12		5,25
10″	48,26,23,47,43, 5,40,38,26,24		3,32,28,52,54	
		1,14, 9,11,48,13, 4,18		5,25
12″	48,26,25, 1,52,17,28,51,30,42		3,32,28,58,19	
		1,14, 9, 8,15,44, 5,59		5,25
14″	48,26,26,16, 1,25,44,35,36,41		3,32,29, 3,44	
		1,14, 9, 4,43,15, 2,15		5,25
16″	48,26,27,30,10,30,27,50,38,56		3,32,29, 9, 9	
		1,14, 9, 1,10,45,53, 6		5,25
18″	48,26,28,44,19,31,38,36,32, 2		3,32,29,14,34	
		1,14, 8,57,38,16,38,32		5,25
20″	48,26,29,58,28,29,16,53,10,34		3,32,29,19,59	
		1,14, 8,54, 5,47,18,33		5,25
22″	48,26,31,12,37,23,22,40,29, 7		3,32,29,25,24	
		1,14, 8,50,33,17,53, 9		5,25
24″	48,26,32,26,46,13,55,58,22,16		3,32,29,30,49	
		1,14, 8,47, 0,48,22,20		5,25
26″	48,26,33,40,55, 0,56,46,44,36		3,32,29,36,14	
		1,14, 8,43,28,18,46, 6		5,25
28″	48,26,34,55, 3,44,25, 5,30,42		3,32,29,41,39	
		1,14, 8,39,55,49, 4,27		5,25
30″	48,26,36, 9,12,24,20,54,35, 9		3,32,29,47, 4	
		1,14, 8,36,23,19,17,23		5,25
32″	48,26,37,23,21, 0,44,13,52,32		3,32,29,52,29	
		1,14, 8,32,50,49,24,54		5,25
34″	48,26,38,37,29,33,35, 3,17,26		3,32,29,57,54	
		1,14, 8,29,18,19,27, 0		5,25
36″	48,26,39,51,38, 2,53,22,44,26		3,32,30, 3,19	
		1,14, 8,25,45,49,23,41		5,25
38″	48,26,41, 5,46,28,39,12, 8, 7		3,32,30, 8,44	
		1,14, 8,22,13,19,14,57		5,25
40″	48,26,42,19,54,50,52,31,23, 4		3,32,30,14, 9	
		1,14, 8,18,40,49, 0,48		5,25
42″	48,26,43,34, 3, 9,33,20,23,52		3,32,30,19,34	
		1,14, 8,15, 8,18,41,14		5,25
44″	48,26,44,48,11,24,41,39, 5, 6		3,32,30,24,59	
		1,14, 8,11,35,48,16,15		5,25
46″	48,26,46, 2,19,36,17,27,21,21		3,32,30,30,24	
		1,14, 8, 8, 3,17,45,51		5,25
48″	48,26,47,16,27,44,20,45, 7,12		3,32,30,35,49	
		1,14, 8, 4,30,47,10, 2		5,25
50″	48,26,48,30,35,48,51,32,17,14		3,32,30,41,14	
		1,14, 8, 0,58,16,28,48		5,25
52″	48,26,49,44,43,49,49,48,46, 2		3,32,30,46,39	
		1,14, 7,57,25,45,42, 9		5,25
54″	48,26,50,58,51,47,15,34,28,11		3,32,30,52, 4	
		1,14, 7,53,53,14,50, 5		5,25
56″	48,26,52,12,59,41, 8,49,18,16		3,32,30,57,29	
		1,14, 7,50,20,43,52,36		5,25
58″	48,26,53,27, 7,31,29,33,10,52		3,32,31, 2,54	
		1,14, 7,46,48,12,49,42		
60″	48,26,54,41,15,18,17,46, 0,34			
exact	48,26,54,41,15,18,17,45,41,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°51′ 0″	48,26,54,41,15,18,17,45,41,30	1,14, 7,43,15,41,39,29		
2″	48,26,55,55,23, 1,33,27,20,59	1,14, 7,39,43,10,25,38	3,32,31,13,51	5,25
4″	48,26,57, 9,30,41,16,37,46,37	1,14, 7,36,10,39, 6,22	3,32,31,19,16	5,25
6″	48,26,58,23,38,17,27,16,52,59	1,14, 7,32,38, 7,41,41	3,32,31,24,41	5,25
8″	48,26,59,37,45,50, 5,24,34,40	1,14, 7,29, 5,36,11,35	3,32,31,30, 6	5,25
10″	48,27, 0,51,53,19,11, 0,46,15	1,14, 7,25,33, 4,36, 4	3,32,31,35,31	5,25
12″	48,27, 2, 6, 0,44,44, 5,22,19	1,14, 7,22, 0,32,55, 8	3,32,31,40,56	5,25
14″	48,27, 3,20, 8, 6,44,38,17,27	1,14, 7,18,28, 1, 8,47	3,32,31,46,21	5,25
16″	48,27, 4,34,15,25,12,39,26,14	1,14, 7,14,55,29,17, 1	3,32,31,51,46	5,25
18″	48,27, 5,48,22,40, 8, 8,43,15	1,14, 7,11,22,57,19,50	3,32,31,57,11	5,25
20″	48,27, 7, 2,29,51,31, 6, 3, 5	1,14, 7, 7,50,25,17,14	3,32,32, 2,36	5,25
22″	48,27, 8,16,36,59,21,31,20,19	1,14, 7, 4,17,53, 9,13	3,32,32, 8, 1	5,25
24″	48,27, 9,30,44, 3,39,24,29,32	1,14, 7, 0,45,20,55,47	3,32,32,13,26	5,25
26″	48,27,10,44,51, 4,24,45,25,19	1,14, 6,57,12,48,36,56	3,32,32,18,51	5,25
28″	48,27,11,58,58, 1,37,34, 2,15	1,14, 6,53,40,16,12,40	3,32,32,24,16	5,25
30″	48,27,13,13, 4,55,17,50,14,55	1,14, 6,50, 7,43,42,59	3,32,32,29,41	5,25
32″	48,27,14,27,11,45,25,33,57,54	1,14, 6,46,35,11, 7,53	3,32,32,35, 6	5,25
34″	48,27,15,41,18,32, 0,45, 5,47	1,14, 6,43, 2,38,27,22	3,32,32,40,31	5,25
36″	48,27,16,55,25,15, 3,23,33, 9	1,14, 6,39,30, 5,41,26	3,32,32,45,56	5,25
38″	48,27,18, 9,31,54,33,29,14,35	1,14, 6,35,57,32,50, 5	3,32,32,51,21	5,25
40″	48,27,19,23,38,30,31, 2, 4,40	1,14, 6,32,24,59,53,19	3,32,32,56,46	5,25
42″	48,27,20,37,45, 2,56, 1,57,59	1,14, 6,28,52,26,51, 8	3,32,33, 2,11	5,25
44″	48,27,21,51,51,31,48,28,49, 7	1,14, 6,25,19,53,43,32	3,32,33, 7,36	5,25
46″	48,27,23, 5,57,57, 8,22,32,39	1,14, 6,21,47,20,30,31	3,32,33,13, 1	5,25
48″	48,27,24,20, 4,18,55,43, 3,10	1,14, 6,18,14,47,12, 5	3,32,33,18,26	5,25
50″	48,27,25,34,10,37,10,30,15,15	1,14, 6,14,42,13,48,14	3,32,33,23,51	5,25
52″	48,27,26,48,16,51,52,44, 3,29	1,14, 6,11, 9,40,18,58	3,32,33,29,16	5,25
54″	48,27,28, 2,23, 3, 2,24,22,27	1,14, 6, 7,37, 6,44,17	3,32,33,34,41	5,25
56″	48,27,29,16,29,10,39,31, 6,44	1,14, 6, 4, 4,33, 4,11	3,32,33,40, 6	5,25
58″	48,27,30,30,35,14,44, 4,10,55	1,14, 6, 0,31,59,18,40	3,32,33,45,31	
60″	48,27,31,44,41,15,16, 3,29,35			
exact	48,27,31,44,41,15,16, 3,20,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°52′ 0″	48,27,31,44,41,15,16, 3,20,51			
		1,14, 5,56,59,25,26,52		
2″	48,27,32,58,47,12,15,28,47,43		3,32,33,56,24	
		1,14, 5,53,26,51,30,28		5,25
4″	48,27,34,12,53, 5,42,20,18,11		3,32,34, 1,49	
		1,14, 5,49,54,17,28,39		5,25
6″	48,27,35,26,58,55,36,37,46,50		3,32,34, 7,14	
		1,14, 5,46,21,43,21,25		5,25
8″	48,27,36,41, 4,41,58,21, 8,15		3,32,34,12,39	
		1,14, 5,42,49, 9, 8,46		5,25
10″	48,27,37,55,10,24,47,30,17, 1		3,32,34,18, 4	
		1,14, 5,39,16,34,50,42		5,25
12″	48,27,39, 9,16, 4, 4, 5, 7,43		3,32,34,23,29	
		1,14, 5,35,44, 0,27,13		5,25
14″	48,27,40,23,21,39,48, 5,34,56		3,32,34,28,54	
		1,14, 5,32,11,25,58,19		5,25
16″	48,27,41,37,27,11,59,31,33,15		3,32,34,34,19	
		1,14, 5,28,38,51,24, 0		5,25
18″	48,27,42,51,32,40,38,22,57,15		3,32,34,39,44	
		1,14, 5,25, 6,16,44,16		5,25
20″	48,27,44, 5,38, 5,44,39,41,31		3,32,34,45, 9	
		1,14, 5,21,33,41,59, 7		5,25
22″	48,27,45,19,43,27,18,21,40,38		3,32,34,50,34	
		1,14, 5,18, 1, 7, 8,33		5,25
24″	48,27,46,33,48,45,19,28,49,11		3,32,34,55,59	
		1,14, 5,14,28,32,12,34		5,25
26″	48,27,47,47,53,59,48, 1, 1,45		3,32,35, 1,24	
		1,14, 5,10,55,57,11,10		5,25
28″	48,27,49, 1,59,10,43,58,12,55		3,32,35, 6,49	
		1,14, 5, 7,23,22, 4,21		5,25
30″	48,27,50,16, 4,18, 7,20,17,16		3,32,35,12,14	
		1,14, 5, 3,50,46,52, 7		5,25
32″	48,27,51,30, 9,21,58, 7, 9,23		3,32,35,17,39	
		1,14, 5, 0,18,11,34,28		5,25
34″	48,27,52,44,14,22,16,18,43,51		3,32,35,23, 4	
		1,14, 4,56,45,36,11,24		5,25
36″	48,27,53,58,19,19, 1,54,55,15		3,32,35,28,29	
		1,14, 4,53,13, 0,42,55		5,25
38″	48,27,55,12,24,12,14,55,38,10		3,32,35,33,54	
		1,14, 4,49,40,25, 9, 1		5,25
40″	48,27,56,26,29, 1,55,20,47,11		3,32,35,39,19	
		1,14, 4,46, 7,49,29,42		5,25
42″	48,27,57,40,33,48, 3,10,16,53		3,32,35,44,44	
		1,14, 4,42,35,13,44,58		5,25
44″	48,27,58,54,38,30,38,24, 1,51		3,32,35,50, 9	
		1,14, 4,39, 2,37,54,49		5,25
46″	48,28, 0, 8,43, 9,41, 1,56,40		3,32,35,55,34	
		1,14, 4,35,30, 1,59,15		5,25
48″	48,28, 1,22,47,45,11, 3,55,55		3,32,36, 0,59	
		1,14, 4,31,57,25,58,16		5,25
50″	48,28, 2,36,52,17, 8,29,54,11		3,32,36, 6,24	
		1,14, 4,28,24,49,51,52		5,25
52″	48,28, 3,50,56,45,33,19,46, 3		3,32,36,11,49	
		1,14, 4,24,52,13,40, 3		5,25
54″	48,28, 5, 5, 1,10,25,33,26, 6		3,32,36,17,14	
		1,14, 4,21,19,37,22,49		5,25
56″	48,28, 6,19, 5,31,45,10,48,55		3,32,36,22,39	
		1,14, 4,17,47, 1, 0,10		5,25
58″	48,28, 7,33, 9,49,32,11,49, 5		3,32,36,28, 4	
		1,14, 4,14,14,24,32, 6		
60″	48,28, 8,47,14, 3,46,36,21,11			
exact	48,28, 8,47,14, 3,46,36,21,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°53′ 0″	48,28, 8,47,14, 3,46,36,21,46			
		1,14, 4,10,41,47,58,44		
2″	48,28,10, 1,18,14,28,24,20,30		3,32,36,38,53	
		1,14, 4, 7, 9,11,19,51		5,25
4″	48,28,11,15,22,21,37,35,40,21		3,32,36,44,18	
		1,14, 4, 3,36,34,35,33		5,25
6″	48,28,12,29,26,25,14,10,15,54		3,32,36,49,43	
		1,14, 4, 0, 3,57,45,50		5,25
8″	48,28,13,43,30,25,18, 8, 1,44		3,32,36,55, 8	
		1,14, 3,56,31,20,50,42		5,25
10″	48,28,14,57,34,21,49,28,52,26		3,32,37, 0,33	
		1,14, 3,52,58,43,50, 9		5,25
12″	48,28,16,11,38,14,48,12,42,35		3,32,37, 5,58	
		1,14, 3,49,26, 6,44,11		5,25
14″	48,28,17,25,42, 4,14,19,26,46		3,32,37,11,23	
		1,14, 3,45,53,29,32,48		5,25
16″	48,28,18,39,45,50, 7,48,59,34		3,32,37,16,48	
		1,14, 3,42,20,52,16, 0		5,25
18″	48,28,19,53,49,32,28,41,15,34		3,32,37,22,13	
		1,14, 3,38,48,14,53,47		5,25
20″	48,28,21, 7,53,11,16,56, 9,21		3,32,37,27,38	
		1,14, 3,35,15,37,26, 9		5,25
22″	48,28,22,21,56,46,32,33,35,30		3,32,37,33, 3	
		1,14, 3,31,42,59,53, 6		5,25
24″	48,28,23,36, 0,18,15,33,28,36		3,32,37,38,28	
		1,14, 3,28,10,22,14,38		5,25
26″	48,28,24,50, 3,46,25,55,43,14		3,32,37,43,53	
		1,14, 3,24,37,44,30,45		5,25
28″	48,28,26, 4, 7,11, 3,40,13,59		3,32,37,49,18	
		1,14, 3,21, 5, 6,41,27		5,25
30″	48,28,27,18,10,32, 8,46,55,26		3,32,37,54,43	
		1,14, 3,17,32,28,46,44		5,25
32″	48,28,28,32,13,49,41,15,42,10		3,32,38, 0, 8	
		1,14, 3,13,59,50,46,36		5,25
34″	48,28,29,46,17, 3,41, 6,28,46		3,32,38, 5,33	
		1,14, 3,10,27,12,41, 3		5,25
36″	48,28,31, 0,20,14, 8,19, 9,49		3,32,38,10,58	
		1,14, 3, 6,54,34,30, 5		5,25
38″	48,28,32,14,23,21, 2,53,39,54		3,32,38,16,23	
		1,14, 3, 3,21,56,13,42		5,25
40″	48,28,33,28,26,24,24,49,53,36		3,32,38,21,48	
		1,14, 2,59,49,17,51,54		5,25
42″	48,28,34,42,29,24,14, 7,45,30		3,32,38,27,13	
		1,14, 2,56,16,39,24,41		5,25
44″	48,28,35,56,32,20,30,47,10,11		3,32,38,32,38	
		1,14, 2,52,44, 0,52, 3		5,25
46″	48,28,37,10,35,13,14,48, 2,14		3,32,38,38, 3	
		1,14, 2,49,11,22,14, 0		5,25
48″	48,28,38,24,38, 2,26,10,16,14		3,32,38,43,28	
		1,14, 2,45,38,43,30,32		5,25
50″	48,28,39,38,40,48, 4,53,46,46		3,32,38,48,53	
		1,14, 2,42, 6, 4,41,39		5,25
52″	48,28,40,52,43,30,10,58,28,25		3,32,38,54,18	
		1,14, 2,38,33,25,47,21		5,25
54″	48,28,42, 6,46, 8,44,24,15,46		3,32,38,59,43	
		1,14, 2,35, 0,46,47,38		5,25
56″	48,28,43,20,48,43,45,11, 3,24		3,32,39, 5, 8	
		1,14, 2,31,28, 7,42,30		5,25
58″	48,28,44,34,51,15,13,18,45,54		3,32,39,10,33	
		1,14, 2,27,55,28,31,57		
60″	48,28,45,48,53,43, 8,47,17,51			
exact	48,28,45,48,53,43, 8,47,26,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°54′ 0″	48,28,45,48,53,43, 8,47,26,34			
		1,14, 2,24,22,49,17, 0		
2″	48,28,47, 2,56, 7,31,36,43,34		3,32,39,21,18	
		1,14, 2,20,50, 9,55,42		5,25
4″	48,28,48,16,58,28,21,46,39,16		3,32,39,26,43	
		1,14, 2,17,17,30,28,59		5,25
6″	48,28,49,31, 0,45,39,17, 8,15		3,32,39,32, 8	
		1,14, 2,13,44,50,56,51		5,25
8″	48,28,50,45, 2,59,24, 8, 5, 6		3,32,39,37,33	
		1,14, 2,10,12,11,19,18		5,25
10″	48,28,51,59, 5, 9,36,19,24,24		3,32,39,42,58	
		1,14, 2, 6,39,31,36,20		5,25
12″	48,28,53,13, 7,16,15,51, 0,44		3,32,39,48,23	
		1,14, 2, 3, 6,51,47,57		5,25
14″	48,28,54,27, 9,19,22,42,48,41		3,32,39,53,48	
		1,14, 1,59,34,11,54, 9		5,25
16″	48,28,55,41,11,18,56,54,42,50		3,32,39,59,13	
		1,14, 1,56, 1,31,54,56		5,25
18″	48,28,56,55,13,14,58,26,37,46		3,32,40, 4,38	
		1,14, 1,52,28,51,50,18		5,25
20″	48,28,58, 9,15, 7,27,18,28, 4		3,32,40,10, 3	
		1,14, 1,48,56,11,40,15		5,25
22″	48,28,59,23,16,56,23,30, 8,19		3,32,40,15,28	
		1,14, 1,45,23,31,24,47		5,25
24″	48,29, 0,37,18,41,47, 1,33, 6		3,32,40,20,53	
		1,14, 1,41,50,51, 3,54		5,25
26″	48,29, 1,51,20,23,37,52,37, 0		3,32,40,26,18	
		1,14, 1,38,18,10,37,36		5,25
28″	48,29, 3, 5,22, 1,56, 3,14,36		3,32,40,31,43	
		1,14, 1,34,45,30, 5,53		5,25
30″	48,29, 4,19,23,36,41,33,20,29		3,32,40,37, 8	
		1,14, 1,31,12,49,28,45		5,25
32″	48,29, 5,33,25, 7,54,22,49,14		3,32,40,42,33	
		1,14, 1,27,40, 8,46,12		5,25
34″	48,29, 6,47,26,35,34,31,35,26		3,32,40,47,58	
		1,14, 1,24, 7,27,58,14		5,25
36″	48,29, 8, 1,27,59,41,59,33,40		3,32,40,53,23	
		1,14, 1,20,34,47, 4,51		5,25
38″	48,29, 9,15,29,20,16,46,38,31		3,32,40,58,48	
		1,14, 1,17, 2, 6, 6, 3		5,25
40″	48,29,10,29,30,37,18,52,44,34		3,32,41, 4,13	
		1,14, 1,13,29,25, 1,50		5,25
42″	48,29,11,43,31,50,48,17,46,24		3,32,41, 9,38	
		1,14, 1, 9,56,43,52,12		5,25
44″	48,29,12,57,33, 0,45, 1,38,36		3,32,41,15, 3	
		1,14, 1, 6,24, 2,37, 9		5,25
46″	48,29,14,11,34, 7, 9, 4,15,45		3,32,41,20,28	
		1,14, 1, 2,51,21,16,41		5,25
48″	48,29,15,25,35,10, 0,25,32,26		3,32,41,25,53	
		1,14, 0,59,18,39,50,48		5,25
50″	48,29,16,39,36, 9,19, 5,23,14		3,32,41,31,18	
		1,14, 0,55,45,58,19,30		5,25
52″	48,29,17,53,37, 5, 5, 3,42,44		3,32,41,36,43	
		1,14, 0,52,13,16,42,47		5,25
54″	48,29,19, 7,37,57,18,20,25,31		3,32,41,42, 8	
		1,14, 0,48,40,35, 0,39		5,25
56″	48,29,20,21,38,45,58,55,26,10		3,32,41,47,33	
		1,14, 0,45, 7,53,13, 6		5,25
58″	48,29,21,35,39,31, 6,48,39,16		3,32,41,52,58	
		1,14, 0,41,35,11,20, 8		
60″	48,29,22,49,40,12,41,59,59,24			
exact	48,29,22,49,40,12,42, 0,15,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°55′ 0″	48,29,22,49,40,12,42, 0,15,47			
		1,14, 0,38, 2,29,23,38		
2″	48,29,24, 3,40,50,44,29,39,25		3,32,42, 3,39	
		1,14, 0,34,29,47,19,59		5,25
4″	48,29,25,17,41,25,14,16,59,24		3,32,42, 9, 4	
		1,14, 0,30,57, 5,10,55		5,25
6″	48,29,26,31,41,56,11,22,10,19		3,32,42,14,29	
		1,14, 0,27,24,22,56,26		5,25
8″	48,29,27,45,42,23,35,45, 6,45		3,32,42,19,54	
		1,14, 0,23,51,40,36,32		5,25
10″	48,29,28,59,42,47,27,25,43,17		3,32,42,25,19	
		1,14, 0,20,18,58,11,13		5,25
12″	48,29,30,13,43, 7,46,23,54,30		3,32,42,30,44	
		1,14, 0,16,46,15,40,29		5,25
14″	48,29,31,27,43,24,32,39,34,59		3,32,42,36, 9	
		1,14, 0,13,13,33, 4,20		5,25
16″	48,29,32,41,43,37,46,12,39,19		3,32,42,41,34	
		1,14, 0, 9,40,50,22,46		5,25
18″	48,29,33,55,43,47,27, 3, 2, 5		3,32,42,46,59	
		1,14, 0, 6, 8, 7,35,47		5,25
20″	48,29,35, 9,43,53,35,10,37,52		3,32,42,52,24	
		1,14, 0, 2,35,24,43,23		5,25
22″	48,29,36,23,43,56,10,35,21,15		3,32,42,57,49	
		1,13,59,59, 2,41,45,34		5,25
24″	48,29,37,37,43,55,13,17, 6,49		3,32,43, 3,14	
		1,13,59,55,29,58,42,20		5,25
26″	48,29,38,51,43,50,43,15,49, 9		3,32,43, 8,39	
		1,13,59,51,57,15,33,41		5,25
28″	48,29,40, 5,43,42,40,31,22,50		3,32,43,14, 4	
		1,13,59,48,24,32,19,37		5,25
30″	48,29,41,19,43,31, 5, 3,42,27		3,32,43,19,29	
		1,13,59,44,51,49, 0, 8		5,25
32″	48,29,42,33,43,15,56,52,42,35		3,32,43,24,54	
		1,13,59,41,19, 5,35,14		5,25
34″	48,29,43,47,42,57,15,58,17,49		3,32,43,30,19	
		1,13,59,37,46,22, 4,55		5,25
36″	48,29,45, 1,42,35, 2,20,22,44		3,32,43,35,44	
		1,13,59,34,13,38,29,11		5,25
38″	48,29,46,15,42, 9,15,58,51,55		3,32,43,41, 9	
		1,13,59,30,40,54,48, 2		5,25
40″	48,29,47,29,41,39,56,53,39,57		3,32,43,46,34	
		1,13,59,27, 8,11, 1,28		5,25
42″	48,29,48,43,41, 7, 5, 4,41,25		3,32,43,51,59	
		1,13,59,23,35,27, 9,29		5,25
44″	48,29,49,57,40,30,40,31,50,54		3,32,43,57,24	
		1,13,59,20, 2,43,12, 5		5,25
46″	48,29,51,11,39,50,43,15, 2,59		3,32,44, 2,49	
		1,13,59,16,29,59, 9,16		5,25
48″	48,29,52,25,39, 7,13,14,12,15		3,32,44, 8,14	
		1,13,59,12,57,15, 1, 2		5,25
50″	48,29,53,39,38,20,10,29,13,17		3,32,44,13,39	
		1,13,59, 9,24,30,47,23		5,25
52″	48,29,54,53,37,29,35, 0, 0,40		3,32,44,19, 4	
		1,13,59, 5,51,46,28,19		5,25
54″	48,29,56, 7,36,35,26,46,28,59		3,32,44,24,29	
		1,13,59, 2,19, 2, 3,50		5,25
56″	48,29,57,21,35,37,45,48,32,49		3,32,44,29,54	
		1,13,58,58,46,17,33,56		5,25
58″	48,29,58,35,34,36,32, 6, 6,45		3,32,44,35,19	
		1,13,58,55,13,32,58,37		
60″	48,29,59,49,33,31,45,39, 5,22			
exact	48,29,59,49,33,31,45,39,28,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°56′ 0″	48,29,59,49,33,31,45,39,28,20			
		1,13,58,51,40,48,20,33		
2″	48,30, 1, 3,32,23,26,27,48,53		3,32,44,45,57	
		1,13,58,48, 8, 3,34,36		5,25
4″	48,30, 2,17,31,11,34,31,23,29		3,32,44,51,22	
		1,13,58,44,35,18,43,14		5,25
6″	48,30, 3,31,29,56, 9,50, 6,43		3,32,44,56,47	
		1,13,58,41, 2,33,46,27		5,25
8″	48,30, 4,45,28,37,12,23,53,10		3,32,45, 2,12	
		1,13,58,37,29,48,44,15		5,25
10″	48,30, 5,59,27,14,42,12,37,25		3,32,45, 7,37	
		1,13,58,33,57, 3,36,38		5,25
12″	48,30, 7,13,25,48,39,16,14, 3		3,32,45,13, 2	
		1,13,58,30,24,18,23,36		5,25
14″	48,30, 8,27,24,19, 3,34,37,39		3,32,45,18,27	
		1,13,58,26,51,33, 5, 9		5,25
16″	48,30, 9,41,22,45,55, 7,42,48		3,32,45,23,52	
		1,13,58,23,18,47,41,17		5,25
18″	48,30,10,55,21, 9,13,55,24, 5		3,32,45,29,17	
		1,13,58,19,46, 2,12, 0		5,25
20″	48,30,12, 9,19,28,59,57,36, 5		3,32,45,34,42	
		1,13,58,16,13,16,37,18		5,25
22″	48,30,13,23,17,45,13,14,13,23		3,32,45,40, 7	
		1,13,58,12,40,30,57,11		5,25
24″	48,30,14,37,15,57,53,45,10,34		3,32,45,45,32	
		1,13,58, 9, 7,45,11,39		5,25
26″	48,30,15,51,14, 7, 1,30,22,13		3,32,45,50,57	
		1,13,58, 5,34,59,20,42		5,25
28″	48,30,17, 5,12,12,36,29,42,55		3,32,45,56,22	
		1,13,58, 2, 2,13,24,20		5,25
30″	48,30,18,19,10,14,38,43, 7,15		3,32,46, 1,47	
		1,13,57,58,29,27,22,33		5,25
32″	48,30,19,33, 8,13, 8,10,29,48		3,32,46, 7,12	
		1,13,57,54,56,41,15,21		5,25
34″	48,30,20,47, 6, 8, 4,51,45, 9		3,32,46,12,37	
		1,13,57,51,23,55, 2,44		5,25
36″	48,30,22, 1, 3,59,28,46,47,53		3,32,46,18, 2	
		1,13,57,47,51, 8,44,42		5,25
38″	48,30,23,15, 1,47,19,55,32,35		3,32,46,23,27	
		1,13,57,44,18,22,21,15		5,25
40″	48,30,24,28,59,31,38,17,53,50		3,32,46,28,52	
		1,13,57,40,45,35,52,23		5,25
42″	48,30,25,42,57,12,23,53,46,13		3,32,46,34,17	
		1,13,57,37,12,49,18, 6		5,25
44″	48,30,26,56,54,49,36,43, 4,19		3,32,46,39,42	
		1,13,57,33,40, 2,38,24		5,25
46″	48,30,28,10,52,23,16,45,42,43		3,32,46,45, 7	
		1,13,57,30, 7,15,53,17		5,25
48″	48,30,29,24,49,53,24, 1,36, 0		3,32,46,50,32	
		1,13,57,26,34,29, 2,45		5,25
50″	48,30,30,38,47,19,58,30,38,45		3,32,46,55,57	
		1,13,57,23, 1,42, 6,48		5,25
52″	48,30,31,52,44,43, 0,12,45,33		3,32,47, 1,22	
		1,13,57,19,28,55, 5,26		5,25
54″	48,30,33, 6,42, 2,29, 7,50,59		3,32,47, 6,47	
		1,13,57,15,56, 7,58,39		5,25
56″	48,30,34,20,39,18,25,15,49,38		3,32,47,12,12	
		1,13,57,12,23,20,46,27		5,25
58″	48,30,35,34,36,30,48,36,36, 5		3,32,47,17,37	
		1,13,57, 8,50,33,28,50		
60″	48,30,36,48,33,39,39,10, 4,55			
exact	48,30,36,48,33,39,39,10,41,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°57′ 0″	48,30,36,48,33,39,39,10,41,21			
		1,13,57, 5,17,46, 9,43		
2″	48,30,38, 2,30,44,56,56,51, 4		3,32,47,28,10	
		1,13,57, 1,44,58,41,33		5,24
4″	48,30,39,16,27,46,41,55,32,37		3,32,47,33,34	
		1,13,56,58,12,11, 7,59		5,24
6″	48,30,40,30,24,44,54, 6,40,36		3,32,47,38,58	
		1,13,56,54,39,23,29, 1		5,24
8″	48,30,41,44,21,39,33,30, 9,37		3,32,47,44,22	
		1,13,56,51, 6,35,44,39		5,24
10″	48,30,42,58,18,30,40, 5,54,16		3,32,47,49,46	
		1,13,56,47,33,47,54,53		5,24
12″	48,30,44,12,15,18,13,53,49, 9		3,32,47,55,10	
		1,13,56,44, 0,59,59,43		5,24
14″	48,30,45,26,12, 2,14,53,48,52		3,32,48, 0,34	
		1,13,56,40,28,11,59, 9		5,24
16″	48,30,46,40, 8,42,43, 5,48, 1		3,32,48, 5,58	
		1,13,56,36,55,23,53,11		5,24
18″	48,30,47,54, 5,19,38,29,41,12		3,32,48,11,22	
		1,13,56,33,22,35,41,49		5,24
20″	48,30,49, 8, 1,53, 1, 5,23, 1		3,32,48,16,46	
		1,13,56,29,49,47,25, 3		5,24
22″	48,30,50,21,58,22,50,52,48, 4		3,32,48,22,10	
		1,13,56,26,16,59, 2,53		5,24
24″	48,30,51,35,54,49, 7,51,50,57		3,32,48,27,34	
		1,13,56,22,44,10,35,19		5,24
26″	48,30,52,49,51,11,52, 2,26,16		3,32,48,32,58	
		1,13,56,19,11,22, 2,21		5,24
28″	48,30,54, 3,47,31, 3,24,28,37		3,32,48,38,22	
		1,13,56,15,38,33,23,59		5,24
30″	48,30,55,17,43,46,41,57,52,36		3,32,48,43,46	
		1,13,56,12, 5,44,40,13		5,24
32″	48,30,56,31,39,58,47,42,32,49		3,32,48,49,10	
		1,13,56, 8,32,55,51, 3		5,24
34″	48,30,57,45,36, 7,20,38,23,52		3,32,48,54,34	
		1,13,56, 5, 0, 6,56,29		5,24
36″	48,30,58,59,32,12,20,45,20,21		3,32,48,59,58	
		1,13,56, 1,27,17,56,31		5,24
38″	48,31, 0,13,28,13,48, 3,16,52		3,32,49, 5,22	
		1,13,55,57,54,28,51, 9		5,24
40″	48,31, 1,27,24,11,42,32, 8, 1		3,32,49,10,46	
		1,13,55,54,21,39,40,23		5,24
42″	48,31, 2,41,20, 6, 4,11,48,24		3,32,49,16,10	
		1,13,55,50,48,50,24,13		5,24
44″	48,31, 3,55,15,56,53, 2,12,37		3,32,49,21,34	
		1,13,55,47,16, 1, 2,39		5,24
46″	48,31, 5, 9,11,44, 9, 3,15,16		3,32,49,26,58	
		1,13,55,43,43,11,35,41		5,24
48″	48,31, 6,23, 7,27,52,14,50,57		3,32,49,32,22	
		1,13,55,40,10,22, 3,19		5,24
50″	48,31, 7,37, 3, 8, 2,36,54,16		3,32,49,37,46	
		1,13,55,36,37,32,25,33		5,24
52″	48,31, 8,50,58,44,40, 9,19,49		3,32,49,43,10	
		1,13,55,33, 4,42,42,23		5,24
54″	48,31,10, 4,54,17,44,52, 2,12		3,32,49,48,34	
		1,13,55,29,31,52,53,49		5,24
56″	48,31,11,18,49,47,16,44,56, 1		3,32,49,53,58	
		1,13,55,25,59, 2,59,51		5,24
58″	48,31,12,32,45,13,15,47,55,52		3,32,49,59,22	
		1,13,55,22,26,13, 0,29		
60″	48,31,13,46,40,35,42, 0,56,21			
exact	48,31,13,46,40,35,42, 0,30,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°58′ 0″	48,31,13,46,40,35,42, 0,30,22			
		1,13,55,18,53,22,53, 5		
2″	48,31,15, 0,35,54,35,23,23,27		3,32,50,10,20	
		1,13,55,15,20,32,42,45		5,24
4″	48,31,16,14,31, 9,55,56, 6,12		3,32,50,15,44	
		1,13,55,11,47,42,27, 1		5,24
6″	48,31,17,28,26,21,43,38,33,13		3,32,50,21, 8	
		1,13,55, 8,14,52, 5,53		5,24
8″	48,31,18,42,21,29,58,30,39, 6		3,32,50,26,32	
		1,13,55, 4,42, 1,39,21		5,24
10″	48,31,19,56,16,34,40,32,18,27		3,32,50,31,56	
		1,13,55, 1, 9,11, 7,25		5,24
12″	48,31,21,10,11,35,49,43,25,52		3,32,50,37,20	
		1,13,54,57,36,20,30, 5		5,24
14″	48,31,22,24, 6,33,26, 3,55,57		3,32,50,42,44	
		1,13,54,54, 3,29,47,21		5,24
16″	48,31,23,38, 1,27,29,33,43,18		3,32,50,48, 8	
		1,13,54,50,30,38,59,13		5,24
18″	48,31,24,51,56,18, 0,12,42,31		3,32,50,53,32	
		1,13,54,46,57,48, 5,41		5,24
20″	48,31,26, 5,51, 4,58, 0,48,12		3,32,50,58,56	
		1,13,54,43,24,57, 6,45		5,24
22″	48,31,27,19,45,48,22,57,54,57		3,32,51, 4,20	
		1,13,54,39,52, 6, 2,25		5,24
24″	48,31,28,33,40,28,15, 3,57,22		3,32,51, 9,44	
		1,13,54,36,19,14,52,41		5,24
26″	48,31,29,47,35, 4,34,18,50, 3		3,32,51,15, 8	
		1,13,54,32,46,23,37,33		5,24
28″	48,31,31, 1,29,37,20,42,27,36		3,32,51,20,32	
		1,13,54,29,13,32,17, 1		5,24
30″	48,31,32,15,24, 6,34,14,44,37		3,32,51,25,56	
		1,13,54,25,40,40,51, 5		5,24
32″	48,31,33,29,18,32,14,55,35,42		3,32,51,31,20	
		1,13,54,22, 7,49,19,45		5,24
34″	48,31,34,43,12,54,22,44,55,27		3,32,51,36,44	
		1,13,54,18,34,57,43, 1		5,24
36″	48,31,35,57, 7,12,57,42,38,28		3,32,51,42, 8	
		1,13,54,15, 2, 6, 0,53		5,24
38″	48,31,37,11, 1,27,59,48,39,21		3,32,51,47,32	
		1,13,54,11,29,14,13,21		5,24
40″	48,31,38,24,55,39,29, 2,52,42		3,32,51,52,56	
		1,13,54, 7,56,22,20,25		5,24
42″	48,31,39,38,49,47,25,25,13, 7		3,32,51,58,20	
		1,13,54, 4,23,30,22, 5		5,24
44″	48,31,40,52,43,51,48,55,35,12		3,32,52, 3,44	
		1,13,54, 0,50,38,18,21		5,24
46″	48,31,42, 6,37,52,39,33,53,33		3,32,52, 9, 8	
		1,13,53,57,17,46, 9,13		5,24
48″	48,31,43,20,31,49,57,20, 2,46		3,32,52,14,32	
		1,13,53,53,44,53,54,41		5,24
50″	48,31,44,34,25,43,42,13,57,27		3,32,52,19,56	
		1,13,53,50,12, 1,34,45		5,24
52″	48,31,45,48,19,33,54,15,32,12		3,32,52,25,20	
		1,13,53,46,39, 9, 9,25		5,24
54″	48,31,47, 2,13,20,33,24,41,37		3,32,52,30,44	
		1,13,53,43, 6,16,38,41		5,24
56″	48,31,48,16, 7, 3,39,41,20,18		3,32,52,36, 8	
		1,13,53,39,33,24, 2,33		5,24
58″	48,31,49,30, 0,43,13, 5,22,51		3,32,52,41,32	
		1,13,53,36, 0,31,21, 1		
60″	48,31,50,43,54,19,13,36,43,52			
exact	48,31,50,43,54,19,13,36,29,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
53°59′ 0″	48,31,50,43,54,19,13,36,29,15			
		1,13,53,32,27,38,32,35		
2″	48,31,51,57,47,51,41,15, 1,50		3,32,52,52,26	
		1,13,53,28,54,45,40, 9		5,24
4″	48,31,53,11,41,20,36, 0,41,59		3,32,52,57,50	
		1,13,53,25,21,52,42,19		5,24
6″	48,31,54,25,34,45,57,53,24,18		3,32,53, 3,14	
		1,13,53,21,48,59,39, 5		5,24
8″	48,31,55,39,28, 7,46,53, 3,23		3,32,53, 8,38	
		1,13,53,18,16, 6,30,27		5,24
10″	48,31,56,53,21,26, 2,59,33,50		3,32,53,14, 2	
		1,13,53,14,43,13,16,25		5,24
12″	48,31,58, 7,14,40,46,12,50,15		3,32,53,19,26	
		1,13,53,11,10,19,56,59		5,24
14″	48,31,59,21, 7,51,56,32,47,14		3,32,53,24,50	
		1,13,53, 7,37,26,32, 9		5,24
16″	48,32, 0,35, 0,59,33,59,19,23		3,32,53,30,14	
		1,13,53, 4, 4,33, 1,55		5,24
18″	48,32, 1,48,54, 3,38,32,21,18		3,32,53,35,38	
		1,13,53, 0,31,39,26,17		5,24
20″	48,32, 3, 2,47, 4,10,11,47,35		3,32,53,41, 2	
		1,13,52,56,58,45,45,15		5,24
22″	48,32, 4,16,40, 1, 8,57,32,50		3,32,53,46,26	
		1,13,52,53,25,51,58,49		5,24
24″	48,32, 5,30,32,54,34,49,31,39		3,32,53,51,50	
		1,13,52,49,52,58, 6,59		5,24
26″	48,32, 6,44,25,44,27,47,38,38		3,32,53,57,14	
		1,13,52,46,20, 4, 9,45		5,24
28″	48,32, 7,58,18,30,47,51,48,23		3,32,54, 2,38	
		1,13,52,42,47,10, 7, 7		5,24
30″	48,32, 9,12,11,13,35, 1,55,30		3,32,54, 8, 2	
		1,13,52,39,14,15,59, 5		5,24
32″	48,32,10,26, 3,52,49,17,54,35		3,32,54,13,26	
		1,13,52,35,41,21,45,39		5,24
34″	48,32,11,39,56,28,30,39,40,14		3,32,54,18,50	
		1,13,52,32, 8,27,26,49		5,24
36″	48,32,12,53,49, 0,39, 7, 7, 3		3,32,54,24,14	
		1,13,52,28,35,33, 2,35		5,24
38″	48,32,14, 7,41,29,14,40, 9,38		3,32,54,29,38	
		1,13,52,25, 2,38,32,57		5,24
40″	48,32,15,21,33,54,17,18,42,35		3,32,54,35, 2	
		1,13,52,21,29,43,57,55		5,24
42″	48,32,16,35,26,15,47, 2,40,30		3,32,54,40,26	
		1,13,52,17,56,49,17,29		5,24
44″	48,32,17,49,18,33,43,51,57,59		3,32,54,45,50	
		1,13,52,14,23,54,31,39		5,24
46″	48,32,19, 3,10,48, 7,46,29,38		3,32,54,51,14	
		1,13,52,10,50,59,40,25		5,24
48″	48,32,20,17, 2,58,58,46,10, 3		3,32,54,56,38	
		1,13,52, 7,18, 4,43,47		5,24
50″	48,32,21,30,55, 6,16,50,53,50		3,32,55, 2, 2	
		1,13,52, 3,45, 9,41,45		5,24
52″	48,32,22,44,47,10, 2, 0,35,35		3,32,55, 7,26	
		1,13,52, 0,12,14,34,19		5,24
54″	48,32,23,58,39,10,14,15, 9,54		3,32,55,12,50	
		1,13,51,56,39,19,21,29		5,24
56″	48,32,25,12,31, 6,53,34,31,23		3,32,55,18,14	
		1,13,51,53, 6,24, 3,15		5,24
58″	48,32,26,26,22,59,59,58,34,38		3,32,55,23,38	
		1,13,51,49,33,28,39,37		
60″	48,32,27,40,14,49,33,27,14,15			
exact	48,32,27,40,14,49,33,27,10, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54° 0′ 0″	48,32,27,40,14,49,33,27,10, 9			
		1,13,51,46, 0,33,10, 9		
2″	48,32,28,54, 6,35,34, 0,20,18		3,32,55,34,27	
		1,13,51,42,27,37,35,42		5,24
4″	48,32,30, 7,58,18, 1,37,56, 0		3,32,55,39,51	
		1,13,51,38,54,41,55,51		5,24
6″	48,32,31,21,49,56,56,19,51,51		3,32,55,45,15	
		1,13,51,35,21,46,10,36		5,24
8″	48,32,32,35,41,32,18, 6, 2,27		3,32,55,50,39	
		1,13,51,31,48,50,19,57		5,24
10″	48,32,33,49,33, 4, 6,56,22,24		3,32,55,56, 3	
		1,13,51,28,15,54,23,54		5,24
12″	48,32,35, 3,24,32,22,50,46,18		3,32,56, 1,27	
		1,13,51,24,42,58,22,27		5,24
14″	48,32,36,17,15,57, 5,49, 8,45		3,32,56, 6,51	
		1,13,51,21,10, 2,15,36		5,24
16″	48,32,37,31, 7,18,15,51,24,21		3,32,56,12,15	
		1,13,51,17,37, 6, 3,21		5,24
18″	48,32,38,44,58,35,52,57,27,42		3,32,56,17,39	
		1,13,51,14, 4, 9,45,42		5,24
20″	48,32,39,58,49,49,57, 7,13,24		3,32,56,23, 3	
		1,13,51,10,31,13,22,39		5,24
22″	48,32,41,12,41, 0,28,20,36, 3		3,32,56,28,27	
		1,13,51, 6,58,16,54,12		5,24
24″	48,32,42,26,32, 7,26,37,30,15		3,32,56,33,51	
		1,13,51, 3,25,20,20,21		5,24
26″	48,32,43,40,23,10,51,57,50,36		3,32,56,39,15	
		1,13,50,59,52,23,41, 6		5,24
28″	48,32,44,54,14,10,44,21,31,42		3,32,56,44,39	
		1,13,50,56,19,26,56,27		5,24
30″	48,32,46, 8, 5, 7, 3,48,28, 9		3,32,56,50, 3	
		1,13,50,52,46,30, 6,24		5,24
32″	48,32,47,21,55,59,50,18,34,33		3,32,56,55,27	
		1,13,50,49,13,33,10,57		5,24
34″	48,32,48,35,46,49, 3,51,45,30		3,32,57, 0,51	
		1,13,50,45,40,36,10, 6		5,24
36″	48,32,49,49,37,34,44,27,55,36		3,32,57, 6,15	
		1,13,50,42, 7,39, 3,51		5,24
38″	48,32,51, 3,28,16,52, 6,59,27		3,32,57,11,39	
		1,13,50,38,34,41,52,12		5,24
40″	48,32,52,17,18,55,26,48,51,39		3,32,57,17, 3	
		1,13,50,35, 1,44,35, 9		5,24
42″	48,32,53,31, 9,30,28,33,26,48		3,32,57,22,27	
		1,13,50,31,28,47,12,42		5,24
44″	48,32,54,45, 0, 1,57,20,39,30		3,32,57,27,51	
		1,13,50,27,55,49,44,51		5,24
46″	48,32,55,58,50,29,53,10,24,21		3,32,57,33,15	
		1,13,50,24,22,52,11,36		5,24
48″	48,32,57,12,40,54,16, 2,35,57		3,32,57,38,39	
		1,13,50,20,49,54,32,57		5,24
50″	48,32,58,26,31,15, 5,57, 8,54		3,32,57,44, 3	
		1,13,50,17,16,56,48,54		5,24
52″	48,32,59,40,21,32,22,53,57,48		3,32,57,49,27	
		1,13,50,13,43,58,59,27		5,24
54″	48,33, 0,54,11,46, 6,52,57,15		3,32,57,54,51	
		1,13,50,10,11, 1, 4,36		5,24
56″	48,33, 2, 8, 1,56,17,54, 1,51		3,32,58, 0,15	
		1,13,50, 6,38, 3, 4,21		5,24
58″	48,33, 3,21,52, 2,55,57, 6,12		3,32,58, 5,39	
		1,13,50, 3, 5, 4,58,42		
60″	48,33, 4,35,42, 6, 1, 2, 4,54			
exact	48,33, 4,35,42, 6, 1, 2, 3,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54° 1′ 0″	48,33, 4,35,42, 6, 1, 2, 3,40			
		1,13,49,59,32, 6,47,44		
2″	48,33, 5,49,32, 5,33, 8,51,24		3,32,58,16,25	
		1,13,49,55,59, 8,31,19		5,24
4″	48,33, 7, 3,22, 1,32,17,22,43		3,32,58,21,49	
		1,13,49,52,26,10, 9,30		5,24
6″	48,33, 8,17,11,53,58,27,32,13		3,32,58,27,13	
		1,13,49,48,53,11,42,17		5,24
8″	48,33, 9,31, 1,42,51,39,14,30		3,32,58,32,37	
		1,13,49,45,20,13, 9,40		5,24
10″	48,33,10,44,51,28,11,52,24,10		3,32,58,38, 1	
		1,13,49,41,47,14,31,39		5,24
12″	48,33,11,58,41, 9,59, 6,55,49		3,32,58,43,25	
		1,13,49,38,14,15,48,14		5,24
14″	48,33,13,12,30,48,13,22,44, 3		3,32,58,48,49	
		1,13,49,34,41,16,59,25		5,24
16″	48,33,14,26,20,22,54,39,43,28		3,32,58,54,13	
		1,13,49,31, 8,18, 5,12		5,24
18″	48,33,15,40, 9,54, 2,57,48,40		3,32,58,59,37	
		1,13,49,27,35,19, 5,35		5,24
20″	48,33,16,53,59,21,38,16,54,15		3,32,59, 5, 1	
		1,13,49,24, 2,20, 0,34		5,24
22″	48,33,18, 7,48,45,40,36,54,49		3,32,59,10,25	
		1,13,49,20,29,20,50, 9		5,24
24″	48,33,19,21,38, 6, 9,57,44,58		3,32,59,15,49	
		1,13,49,16,56,21,34,20		5,24
26″	48,33,20,35,27,23, 6,19,19,18		3,32,59,21,13	
		1,13,49,13,23,22,13, 7		5,24
28″	48,33,21,49,16,36,29,41,32,25		3,32,59,26,37	
		1,13,49, 9,50,22,46,30		5,24
30″	48,33,23, 3, 5,46,20, 4,18,55		3,32,59,32, 1	
		1,13,49, 6,17,23,14,29		5,24
32″	48,33,24,16,54,52,37,27,33,24		3,32,59,37,25	
		1,13,49, 2,44,23,37, 4		5,24
34″	48,33,25,30,43,55,21,51,10,28		3,32,59,42,49	
		1,13,48,59,11,23,54,15		5,24
36″	48,33,26,44,32,54,33,15, 4,43		3,32,59,48,13	
		1,13,48,55,38,24, 6, 2		5,24
38″	48,33,27,58,21,50,11,39,10,45		3,32,59,53,37	
		1,13,48,52, 5,24,12,25		5,24
40″	48,33,29,12,10,42,17, 3,23,10		3,32,59,59, 1	
		1,13,48,48,32,24,13,24		5,24
42″	48,33,30,25,59,30,49,27,36,34		3,33, 0, 4,25	
		1,13,48,44,59,24, 8,59		5,24
44″	48,33,31,39,48,15,48,51,45,33		3,33, 0, 9,49	
		1,13,48,41,26,23,59,10		5,24
46″	48,33,32,53,36,57,15,15,44,43		3,33, 0,15,13	
		1,13,48,37,53,23,43,57		5,24
48″	48,33,34, 7,25,35, 8,39,28,40		3,33, 0,20,37	
		1,13,48,34,20,23,23,20		5,24
50″	48,33,35,21,14, 9,29, 2,52, 0		3,33, 0,26, 1	
		1,13,48,30,47,22,57,19		5,24
52″	48,33,36,35, 2,40,16,25,49,19		3,33, 0,31,25	
		1,13,48,27,14,22,25,54		5,24
54″	48,33,37,48,51, 7,30,48,15,13		3,33, 0,36,49	
		1,13,48,23,41,21,49, 5		5,24
56″	48,33,39, 2,39,31,12,10, 4,18		3,33, 0,42,13	
		1,13,48,20, 8,21, 6,52		5,24
58″	48,33,40,16,27,51,20,31,11,10		3,33, 0,47,37	
		1,13,48,16,35,20,19,15		
60″	48,33,41,30,16, 7,55,51,30,25			
exact	48,33,41,30,16, 7,55,51,38,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54° 2′ 0″	48,33,41,30,16, 7,55,51,38,43			
		1,13,48,13, 2,19,27,18		
2″	48,33,42,44, 4,20,58,11, 6, 1		3,33, 0,58,19	
		1,13,48, 9,29,18,28,59		5,24
4″	48,33,43,57,52,30,27,29,35, 0		3,33, 1, 3,43	
		1,13,48, 5,56,17,25,16		5,24
6″	48,33,45,11,40,36,23,47, 0,16		3,33, 1, 9, 7	
		1,13,48, 2,23,16,16, 9		5,24
8″	48,33,46,25,28,38,47, 3,16,25		3,33, 1,14,31	
		1,13,47,58,50,15, 1,38		5,24
10″	48,33,47,39,16,37,37,18,18, 3		3,33, 1,19,55	
		1,13,47,55,17,13,41,43		5,24
12″	48,33,48,53, 4,32,54,31,59,46		3,33, 1,25,19	
		1,13,47,51,44,12,16,24		5,24
14″	48,33,50, 6,52,24,38,44,16,10		3,33, 1,30,43	
		1,13,47,48,11,10,45,41		5,24
16″	48,33,51,20,40,12,49,55, 1,51		3,33, 1,36, 7	
		1,13,47,44,38, 9, 9,34		5,24
18″	48,33,52,34,27,57,28, 4,11,25		3,33, 1,41,31	
		1,13,47,41, 5, 7,28, 3		5,24
20″	48,33,53,48,15,38,33,11,39,28		3,33, 1,46,55	
		1,13,47,37,32, 5,41, 8		5,24
22″	48,33,55, 2, 3,16, 5,17,20,36		3,33, 1,52,19	
		1,13,47,33,59, 3,48,49		5,24
24″	48,33,56,15,50,50, 4,21, 9,25		3,33, 1,57,43	
		1,13,47,30,26, 1,51, 6		5,24
26″	48,33,57,29,38,20,30,23, 0,31		3,33, 2, 3, 7	
		1,13,47,26,52,59,47,59		5,24
28″	48,33,58,43,25,47,23,22,48,30		3,33, 2, 8,31	
		1,13,47,23,19,57,39,28		5,24
30″	48,33,59,57,13,10,43,20,27,58		3,33, 2,13,55	
		1,13,47,19,46,55,25,33		5,24
32″	48,34, 1,11, 0,30,30,15,53,31		3,33, 2,19,19	
		1,13,47,16,13,53, 6,14		5,24
34″	48,34, 2,24,47,46,44, 8,59,45		3,33, 2,24,43	
		1,13,47,12,40,50,41,31		5,24
36″	48,34, 3,38,34,59,24,59,41,16		3,33, 2,30, 7	
		1,13,47, 9, 7,48,11,24		5,24
38″	48,34, 4,52,22, 8,32,47,52,40		3,33, 2,35,31	
		1,13,47, 5,34,45,35,53		5,24
40″	48,34, 6, 6, 9,14, 7,33,28,33		3,33, 2,40,55	
		1,13,47, 2, 1,42,54,58		5,24
42″	48,34, 7,19,56,16, 9,16,23,31		3,33, 2,46,19	
		1,13,46,58,28,40, 8,39		5,24
44″	48,34, 8,33,43,14,37,56,32,10		3,33, 2,51,43	
		1,13,46,54,55,37,16,56		5,24
46″	48,34, 9,47,30, 9,33,33,49, 6		3,33, 2,57, 7	
		1,13,46,51,22,34,19,49		5,24
48″	48,34,11, 1,17, 0,56, 8, 8,55		3,33, 3, 2,31	
		1,13,46,47,49,31,17,18		5,24
50″	48,34,12,15, 3,48,45,39,26,13		3,33, 3, 7,55	
		1,13,46,44,16,28, 9,23		5,24
52″	48,34,13,28,50,33, 2, 7,35,36		3,33, 3,13,19	
		1,13,46,40,43,24,56, 4		5,24
54″	48,34,14,42,37,13,45,32,31,40		3,33, 3,18,43	
		1,13,46,37,10,21,37,21		5,24
56″	48,34,15,56,23,50,55,54, 9, 1		3,33, 3,24, 7	
		1,13,46,33,37,18,13,14		5,24
58″	48,34,17,10,10,24,33,12,22,15		3,33, 3,29,31	
		1,13,46,30, 4,14,43,43		
60″	48,34,18,23,56,54,37,27, 5,58			
exact	48,34,18,23,56,54,37,27,22,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54° 3′ 0″	48,34,18,23,56,54,37,27,22,37			
		1,13,46,26,31,11,10,47		
2″	48,34,19,37,43,21, 8,38,33,24		3,33, 3,40,10	
		1,13,46,22,58, 7,30,37		5,24
4″	48,34,20,51,29,44, 6,46, 4, 1		3,33, 3,45,34	
		1,13,46,19,25, 3,45, 3		5,24
6″	48,34,22, 5,16, 3,31,49,49, 4		3,33, 3,50,58	
		1,13,46,15,51,59,54, 5		5,24
8″	48,34,23,19, 2,19,23,49,43, 9		3,33, 3,56,22	
		1,13,46,12,18,55,57,43		5,24
10″	48,34,24,32,48,31,42,45,40,52		3,33, 4, 1,46	
		1,13,46, 8,45,51,55,57		5,24
12″	48,34,25,46,34,40,28,37,36,49		3,33, 4, 7,10	
		1,13,46, 5,12,47,48,47		5,24
14″	48,34,27, 0,20,45,41,25,25,36		3,33, 4,12,34	
		1,13,46, 1,39,43,36,13		5,24
16″	48,34,28,14, 6,47,21, 9, 1,49		3,33, 4,17,58	
		1,13,45,58, 6,39,18,15		5,24
18″	48,34,29,27,52,45,27,48,20, 4		3,33, 4,23,22	
		1,13,45,54,33,34,54,53		5,24
20″	48,34,30,41,38,40, 1,23,14,57		3,33, 4,28,46	
		1,13,45,51, 0,30,26, 7		5,24
22″	48,34,31,55,24,31, 1,53,41, 4		3,33, 4,34,10	
		1,13,45,47,27,25,51,57		5,24
24″	48,34,33, 9,10,18,29,19,33, 1		3,33, 4,39,34	
		1,13,45,43,54,21,12,23		5,24
26″	48,34,34,22,56, 2,23,40,45,24		3,33, 4,44,58	
		1,13,45,40,21,16,27,25		5,24
28″	48,34,35,36,41,42,44,57,12,49		3,33, 4,50,22	
		1,13,45,36,48,11,37, 3		5,24
30″	48,34,36,50,27,19,33, 8,49,52		3,33, 4,55,46	
		1,13,45,33,15, 6,41,17		5,24
32″	48,34,38, 4,12,52,48,15,31, 9		3,33, 5, 1,10	
		1,13,45,29,42, 1,40, 7		5,24
34″	48,34,39,17,58,22,30,17,11,16		3,33, 5, 6,34	
		1,13,45,26, 8,56,33,33		5,24
36″	48,34,40,31,43,48,39,13,44,49		3,33, 5,11,58	
		1,13,45,22,35,51,21,35		5,24
38″	48,34,41,45,29,11,15, 5, 6,24		3,33, 5,17,22	
		1,13,45,19, 2,46, 4,13		5,24
40″	48,34,42,59,14,30,17,51,10,37		3,33, 5,22,46	
		1,13,45,15,29,40,41,27		5,24
42″	48,34,44,12,59,45,47,31,52, 4		3,33, 5,28,10	
		1,13,45,11,56,35,13,17		5,24
44″	48,34,45,26,44,57,44, 7, 5,21		3,33, 5,33,34	
		1,13,45, 8,23,29,39,43		5,24
46″	48,34,46,40,30, 6, 7,36,45, 4		3,33, 5,38,58	
		1,13,45, 4,50,24, 0,45		5,24
48″	48,34,47,54,15,10,58, 0,45,49		3,33, 5,44,22	
		1,13,45, 1,17,18,16,23		5,24
50″	48,34,49, 8, 0,12,15,19, 2,12		3,33, 5,49,46	
		1,13,44,57,44,12,26,37		5,24
52″	48,34,50,21,45, 9,59,31,28,49		3,33, 5,55,10	
		1,13,44,54,11, 6,31,27		5,24
54″	48,34,51,35,30, 4,10,38, 0,16		3,33, 6, 0,34	
		1,13,44,50,38, 0,30,53		5,24
56″	48,34,52,49,14,54,48,38,31, 9		3,33, 6, 5,58	
		1,13,44,47, 4,54,24,55		5,24
58″	48,34,54, 2,59,41,53,32,56, 4		3,33, 6,11,22	
		1,13,44,43,31,48,13,33		
60″	48,34,55,16,44,25,25,21, 9,37			
exact	48,34,55,16,44,25,25,21,41, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54° 4′ 0″	48,34,55,16,44,25,25,21,41, 5			
		1,13,44,39,58,42, 0, 8		
2″	48,34,56,30,29, 5,24, 3,41,13		3,33, 6,21,56	
		1,13,44,36,25,35,38,12		5,23
4″	48,34,57,44,13,41,49,39,19,25		3,33, 6,27,19	
		1,13,44,32,52,29,10,53		5,23
6″	48,34,58,57,58,14,42, 8,30,18		3,33, 6,32,42	
		1,13,44,29,19,22,38,11		5,23
8″	48,35, 0,11,42,44, 1,31, 8,29		3,33, 6,38, 5	
		1,13,44,25,46,16, 0, 6		5,23
10″	48,35, 1,25,27, 9,47,47, 8,35		3,33, 6,43,28	
		1,13,44,22,13, 9,16,38		5,23
12″	48,35, 2,39,11,32, 0,56,25,13		3,33, 6,48,51	
		1,13,44,18,40, 2,27,47		5,23
14″	48,35, 3,52,55,50,40,58,53, 0		3,33, 6,54,14	
		1,13,44,15, 6,55,33,33		5,23
16″	48,35, 5, 6,40, 5,47,54,26,33		3,33, 6,59,37	
		1,13,44,11,33,48,33,56		5,23
18″	48,35, 6,20,24,17,21,43, 0,29		3,33, 7, 5, 0	
		1,13,44, 8, 0,41,28,56		5,23
20″	48,35, 7,34, 8,25,22,24,29,25		3,33, 7,10,23	
		1,13,44, 4,27,34,18,33		5,23
22″	48,35, 8,47,52,29,49,58,47,58		3,33, 7,15,46	
		1,13,44, 0,54,27, 2,47		5,23
24″	48,35,10, 1,36,30,44,25,50,45		3,33, 7,21, 9	
		1,13,43,57,21,19,41,38		5,23
26″	48,35,11,15,20,28, 5,45,32,23		3,33, 7,26,32	
		1,13,43,53,48,12,15, 6		5,23
28″	48,35,12,29, 4,21,53,57,47,29		3,33, 7,31,55	
		1,13,43,50,15, 4,43,11		5,23
30″	48,35,13,42,48,12, 9, 2,30,40		3,33, 7,37,18	
		1,13,43,46,41,57, 5,53		5,23
32″	48,35,14,56,31,58,50,59,36,33		3,33, 7,42,41	
		1,13,43,43, 8,49,23,12		5,23
34″	48,35,16,10,15,41,59,48,59,45		3,33, 7,48, 4	
		1,13,43,39,35,41,35, 8		5,23
36″	48,35,17,23,59,21,35,30,34,53		3,33, 7,53,27	
		1,13,43,36, 2,33,41,41		5,23
38″	48,35,18,37,42,57,38, 4,16,34		3,33, 7,58,50	
		1,13,43,32,29,25,42,51		5,23
40″	48,35,19,51,26,30, 7,29,59,25		3,33, 8, 4,13	
		1,13,43,28,56,17,38,38		5,23
42″	48,35,21, 5, 9,59, 3,47,38, 3		3,33, 8, 9,36	
		1,13,43,25,23, 9,29, 2		5,23
44″	48,35,22,18,53,24,26,57, 7, 5		3,33, 8,14,59	
		1,13,43,21,50, 1,14, 3		5,23
46″	48,35,23,32,36,46,16,58,21, 8		3,33, 8,20,22	
		1,13,43,18,16,52,53,41		5,23
48″	48,35,24,46,20, 4,33,51,14,49		3,33, 8,25,45	
		1,13,43,14,43,44,27,56		5,23
50″	48,35,26, 0, 3,19,17,35,42,45		3,33, 8,31, 8	
		1,13,43,11,10,35,56,48		5,23
52″	48,35,27,13,46,30,28,11,39,33		3,33, 8,36,31	
		1,13,43, 7,37,27,20,17		5,23
54″	48,35,28,27,29,38, 5,38,59,50		3,33, 8,41,54	
		1,13,43, 4, 4,18,38,23		5,23
56″	48,35,29,41,12,42, 9,57,38,13		3,33, 8,47,17	
		1,13,43, 0,31, 9,51, 6		5,23
58″	48,35,30,54,55,42,41, 7,29,19		3,33, 8,52,40	
		1,13,42,56,58, 0,58,26		
60″	48,35,32, 8,38,39,39, 8,27,45			
exact	48,35,32, 8,38,39,39, 7,58,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54° 5′ 0″	48,35,32, 8,38,39,39, 7,58,16			
		1,13,42,53,24,51,57,17		
2″	48,35,33,22,21,33, 3,59,55,33		3,33, 9, 3,38	
		1,13,42,49,51,42,53,39		5,23
4″	48,35,34,36, 4,22,55,42,49,12		3,33, 9, 9, 1	
		1,13,42,46,18,33,44,38		5,23
6″	48,35,35,49,47, 9,14,16,33,50		3,33, 9,14,24	
		1,13,42,42,45,24,30,14		5,23
8″	48,35,37, 3,29,51,59,41, 4, 4		3,33, 9,19,47	
		1,13,42,39,12,15,10,27		5,23
10″	48,35,38,17,12,31,11,56,14,31		3,33, 9,25,10	
		1,13,42,35,39, 5,45,17		5,23
12″	48,35,39,30,55, 6,51, 1,59,48		3,33, 9,30,33	
		1,13,42,32, 5,56,14,44		5,23
14″	48,35,40,44,37,38,56,58,14,32		3,33, 9,35,56	
		1,13,42,28,32,46,38,48		5,23
16″	48,35,41,58,20, 7,29,44,53,20		3,33, 9,41,19	
		1,13,42,24,59,36,57,29		5,23
18″	48,35,43,12, 2,32,29,21,50,49		3,33, 9,46,42	
		1,13,42,21,26,27,10,47		5,23
20″	48,35,44,25,44,53,55,49, 1,36		3,33, 9,52, 5	
		1,13,42,17,53,17,18,42		5,23
22″	48,35,45,39,27,11,49, 6,20,18		3,33, 9,57,28	
		1,13,42,14,20, 7,21,14		5,23
24″	48,35,46,53, 9,26, 9,13,41,32		3,33,10, 2,51	
		1,13,42,10,46,57,18,23		5,23
26″	48,35,48, 6,51,36,56,10,59,55		3,33,10, 8,14	
		1,13,42, 7,13,47,10, 9		5,23
28″	48,35,49,20,33,44, 9,58,10, 4		3,33,10,13,37	
		1,13,42, 3,40,36,56,32		5,23
30″	48,35,50,34,15,47,50,35, 6,36		3,33,10,19, 0	
		1,13,42, 0, 7,26,37,32		5,23
32″	48,35,51,47,57,47,58, 1,44, 8		3,33,10,24,23	
		1,13,41,56,34,16,13, 9		5,23
34″	48,35,53, 1,39,44,32,17,57,17		3,33,10,29,46	
		1,13,41,53, 1, 5,43,23		5,23
36″	48,35,54,15,21,37,33,23,40,40		3,33,10,35, 9	
		1,13,41,49,27,55, 8,14		5,23
38″	48,35,55,29, 3,27, 1,18,48,54		3,33,10,40,32	
		1,13,41,45,54,44,27,42		5,23
40″	48,35,56,42,45,12,56, 3,16,36		3,33,10,45,55	
		1,13,41,42,21,33,41,47		5,23
42″	48,35,57,56,26,55,17,36,58,23		3,33,10,51,18	
		1,13,41,38,48,22,50,29		5,23
44″	48,35,59,10, 8,34, 5,59,48,52		3,33,10,56,41	
		1,13,41,35,15,11,53,48		5,23
46″	48,36, 0,23,50, 9,21,11,42,40		3,33,11, 2, 4	
		1,13,41,31,42, 0,51,44		5,23
48″	48,36, 1,37,31,41, 3,12,34,24		3,33,11, 7,27	
		1,13,41,28, 8,49,44,17		5,23
50″	48,36, 2,51,13, 9,12, 2,18,41		3,33,11,12,50	
		1,13,41,24,35,38,31,27		5,23
52″	48,36, 4, 4,54,33,47,40,50, 8		3,33,11,18,13	
		1,13,41,21, 2,27,13,14		5,23
54″	48,36, 5,18,35,54,50, 8, 3,22		3,33,11,23,36	
		1,13,41,17,29,15,49,38		5,23
56″	48,36, 6,32,17,12,19,23,53, 0		3,33,11,28,59	
		1,13,41,13,56, 4,20,39		5,23
58″	48,36, 7,45,58,26,15,28,13,39		3,33,11,34,22	
		1,13,41,10,22,52,46,17		
60″	48,36, 8,59,39,36,38,20,59,56			
exact	48,36, 8,59,39,36,38,20,36,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54° 6′ 0″	48,36, 8,59,39,36,38,20,36,42	1,13,41, 6,49,41, 4,12		
2″	48,36,10,13,20,43,28, 1,40,54	1,13,41, 3,16,29,18,55	3,33,11,45,17	5,23
4″	48,36,11,27, 1,46,44,30,59,49	1,13,40,59,43,17,28,15	3,33,11,50,40	5,23
6″	48,36,12,40,42,46,27,48,28, 4	1,13,40,56,10, 5,32,12	3,33,11,56, 3	5,23
8″	48,36,13,54,23,42,37,54, 0,16	1,13,40,52,36,53,30,46	3,33,12, 1,26	5,23
10″	48,36,15, 8, 4,35,14,47,31, 2	1,13,40,49, 3,41,23,57	3,33,12, 6,49	5,23
12″	48,36,16,21,45,24,18,28,54,59	1,13,40,45,30,29,11,45	3,33,12,12,12	5,23
14″	48,36,17,35,26, 9,48,58, 6,44	1,13,40,41,57,16,54,10	3,33,12,17,35	5,23
16″	48,36,18,49, 6,51,46,15, 0,54	1,13,40,38,24, 4,31,12	3,33,12,22,58	5,23
18″	48,36,20, 2,47,30,10,19,32, 6	1,13,40,34,50,52, 2,51	3,33,12,28,21	5,23
20″	48,36,21,16,28, 5, 1,11,34,57	1,13,40,31,17,39,29, 7	3,33,12,33,44	5,23
22″	48,36,22,30, 8,36,18,51, 4, 4	1,13,40,27,44,26,50, 0	3,33,12,39, 7	5,23
24″	48,36,23,43,49, 4, 3,17,54, 4	1,13,40,24,11,14, 5,30	3,33,12,44,30	5,23
26″	48,36,24,57,29,28,14,31,59,34	1,13,40,20,38, 1,15,37	3,33,12,49,53	5,23
28″	48,36,26,11, 9,48,52,33,15,11	1,13,40,17, 4,48,20,21	3,33,12,55,16	5,23
30″	48,36,27,24,50, 5,57,21,35,32	1,13,40,13,31,35,19,42	3,33,13, 0,39	5,23
32″	48,36,28,38,30,19,28,56,55,14	1,13,40, 9,58,22,13,40	3,33,13, 6, 2	5,23
34″	48,36,29,52,10,29,27,19, 8,54	1,13,40, 6,25, 9, 2,15	3,33,13,11,25	5,23
36″	48,36,31, 5,50,35,52,28,11, 9	1,13,40, 2,51,55,45,27	3,33,13,16,48	5,23
38″	48,36,32,19,30,38,44,23,56,36	1,13,39,59,18,42,23,16	3,33,13,22,11	5,23
40″	48,36,33,33,10,38, 3, 6,19,52	1,13,39,55,45,28,55,42	3,33,13,27,34	5,23
42″	48,36,34,46,50,33,48,35,15,34	1,13,39,52,12,15,22,45	3,33,13,32,57	5,23
44″	48,36,36, 0,30,26, 0,50,38,19	1,13,39,48,39, 1,44,25	3,33,13,38,20	5,23
46″	48,36,37,14,10,14,39,52,22,44	1,13,39,45, 5,48, 0,42	3,33,13,43,43	5,23
48″	48,36,38,27,49,59,45,40,23,26	1,13,39,41,32,34,11,36	3,33,13,49, 6	5,23
50″	48,36,39,41,29,41,18,14,35, 2	1,13,39,37,59,20,17, 7	3,33,13,54,29	5,23
52″	48,36,40,55, 9,19,17,34,52, 9	1,13,39,34,26, 6,17,15	3,33,13,59,52	5,23
54″	48,36,42, 8,48,53,43,41, 9,24	1,13,39,30,52,52,12, 0	3,33,14, 5,15	5,23
56″	48,36,43,22,28,24,36,33,21,24	1,13,39,27,19,38, 1,22	3,33,14,10,38	5,23
58″	48,36,44,36, 7,51,56,11,22,46	1,13,39,23,46,23,45,21	3,33,14,16, 1	
60″	48,36,45,49,47,15,42,35, 8, 7			
exact	48,36,45,49,47,15,42,34,57,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54° 7′ 0″	48,36,45,49,47,15,42,34,57,23			
		1,13,39,20,13, 9,22,49		
2″	48,36,47, 3,26,35,55,44,20,12		3,33,14,26,51	
		1,13,39,16,39,54,55,58		5,23
4″	48,36,48,17, 5,52,35,39,16,10		3,33,14,32,14	
		1,13,39,13, 6,40,23,44		5,23
6″	48,36,49,30,45, 5,42,19,39,54		3,33,14,37,37	
		1,13,39, 9,33,25,46, 7		5,23
8″	48,36,50,44,24,15,15,45,26, 1		3,33,14,43, 0	
		1,13,39, 6, 0,11, 3, 7		5,23
10″	48,36,51,58, 3,21,15,56,29, 8		3,33,14,48,23	
		1,13,39, 2,26,56,14,44		5,23
12″	48,36,53,11,42,23,42,52,43,52		3,33,14,53,46	
		1,13,38,58,53,41,20,58		5,23
14″	48,36,54,25,21,22,36,34, 4,50		3,33,14,59, 9	
		1,13,38,55,20,26,21,49		5,23
16″	48,36,55,39, 0,17,57, 0,26,39		3,33,15, 4,32	
		1,13,38,51,47,11,17,17		5,23
18″	48,36,56,52,39, 9,44,11,43,56		3,33,15, 9,55	
		1,13,38,48,13,56, 7,22		5,23
20″	48,36,58, 6,17,57,58, 7,51,18		3,33,15,15,18	
		1,13,38,44,40,40,52, 4		5,23
22″	48,36,59,19,56,42,38,48,43,22		3,33,15,20,41	
		1,13,38,41, 7,25,31,23		5,23
24″	48,37, 0,33,35,23,46,14,14,45		3,33,15,26, 4	
		1,13,38,37,34,10, 5,19		5,23
26″	48,37, 1,47,14, 1,20,24,20, 4		3,33,15,31,27	
		1,13,38,34, 0,54,33,52		5,23
28″	48,37, 3, 0,52,35,21,18,53,56		3,33,15,36,50	
		1,13,38,30,27,38,57, 2		5,23
30″	48,37, 4,14,31, 5,48,57,50,58		3,33,15,42,13	
		1,13,38,26,54,23,14,49		5,23
32″	48,37, 5,28, 9,32,43,21, 5,47		3,33,15,47,36	
		1,13,38,23,21, 7,27,13		5,23
34″	48,37, 6,41,47,56, 4,28,33, 0		3,33,15,52,59	
		1,13,38,19,47,51,34,14		5,23
36″	48,37, 7,55,26,15,52,20, 7,14		3,33,15,58,22	
		1,13,38,16,14,35,35,52		5,23
38″	48,37, 9, 9, 4,32, 6,55,43, 6		3,33,16, 3,45	
		1,13,38,12,41,19,32, 7		5,23
40″	48,37,10,22,42,44,48,15,15,13		3,33,16, 9, 8	
		1,13,38, 9, 8, 3,22,59		5,23
42″	48,37,11,36,20,53,56,18,38,12		3,33,16,14,31	
		1,13,38, 5,34,47, 8,28		5,23
44″	48,37,12,49,58,59,31, 5,46,40		3,33,16,19,54	
		1,13,38, 2, 1,30,48,34		5,23
46″	48,37,14, 3,37, 1,32,36,35,14		3,33,16,25,17	
		1,13,37,58,28,14,23,17		5,23
48″	48,37,15,17,15, 0, 0,50,58,31		3,33,16,30,40	
		1,13,37,54,54,57,52,37		5,23
50″	48,37,16,30,52,54,55,48,51, 8		3,33,16,36, 3	
		1,13,37,51,21,41,16,34		5,23
52″	48,37,17,44,30,46,17,30, 7,42		3,33,16,41,26	
		1,13,37,47,48,24,35, 8		5,23
54″	48,37,18,58, 8,34, 5,54,42,50		3,33,16,46,49	
		1,13,37,44,15, 7,48,19		5,23
56″	48,37,20,11,46,18,21, 2,31, 9		3,33,16,52,12	
		1,13,37,40,41,50,56, 7		5,23
58″	48,37,21,25,23,59, 2,53,27,16		3,33,16,57,35	
		1,13,37,37, 8,33,58,32		
60″	48,37,22,39, 1,36,11,27,25,48			
exact	48,37,22,39, 1,36,11,27,19,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54° 8′ 0″	48,37,22,39, 1,36,11,27,19,45			
		1,13,37,33,35,16,55, 5		
2″	48,37,23,52,39, 9,46,44,14,50		3,33,17, 8,22	
		1,13,37,30, 1,59,46,43		5,23
4″	48,37,25, 6,16,39,48,44, 1,33		3,33,17,13,45	
		1,13,37,26,28,42,32,58		5,23
6″	48,37,26,19,54, 6,17,26,34,31		3,33,17,19, 8	
		1,13,37,22,55,25,13,50		5,23
8″	48,37,27,33,31,29,12,51,48,21		3,33,17,24,31	
		1,13,37,19,22, 7,49,19		5,23
10″	48,37,28,47, 8,48,34,59,37,40		3,33,17,29,54	
		1,13,37,15,48,50,19,25		5,23
12″	48,37,30, 0,46, 4,23,49,57, 5		3,33,17,35,17	
		1,13,37,12,15,32,44, 8		5,23
14″	48,37,31,14,23,16,39,22,41,13		3,33,17,40,40	
		1,13,37, 8,42,15, 3,28		5,23
16″	48,37,32,28, 0,25,21,37,44,41		3,33,17,46, 3	
		1,13,37, 5, 8,57,17,25		5,23
18″	48,37,33,41,37,30,30,35, 2, 6		3,33,17,51,26	
		1,13,37, 1,35,39,25,59		5,23
20″	48,37,34,55,14,32, 6,14,28, 5		3,33,17,56,49	
		1,13,36,58, 2,21,29,10		5,23
22″	48,37,36, 8,51,30, 8,35,57,15		3,33,18, 2,12	
		1,13,36,54,29, 3,26,58		5,23
24″	48,37,37,22,28,24,37,39,24,13		3,33,18, 7,35	
		1,13,36,50,55,45,19,23		5,23
26″	48,37,38,36, 5,15,33,24,43,36		3,33,18,12,58	
		1,13,36,47,22,27, 6,25		5,23
28″	48,37,39,49,42, 2,55,51,50, 1		3,33,18,18,21	
		1,13,36,43,49, 8,48, 4		5,23
30″	48,37,41, 3,18,46,45, 0,38, 5		3,33,18,23,44	
		1,13,36,40,15,50,24,20		5,23
32″	48,37,42,16,55,27, 0,51, 2,25		3,33,18,29, 7	
		1,13,36,36,42,31,55,13		5,23
34″	48,37,43,30,32, 3,43,22,57,38		3,33,18,34,30	
		1,13,36,33, 9,13,20,43		5,23
36″	48,37,44,44, 8,36,52,36,18,21		3,33,18,39,53	
		1,13,36,29,35,54,40,50		5,23
38″	48,37,45,57,45, 6,28,30,59,11		3,33,18,45,16	
		1,13,36,26, 2,35,55,34		5,23
40″	48,37,47,11,21,32,31, 6,54,45		3,33,18,50,39	
		1,13,36,22,29,17, 4,55		5,23
42″	48,37,48,24,57,55, 0,23,59,40		3,33,18,56, 2	
		1,13,36,18,55,58, 8,53		5,23
44″	48,37,49,38,34,13,56,22, 8,33		3,33,19, 1,25	
		1,13,36,15,22,39, 7,28		5,23
46″	48,37,50,52,10,29,19, 1,16, 1		3,33,19, 6,48	
		1,13,36,11,49,20, 0,40		5,23
48″	48,37,52, 5,46,41, 8,21,16,41		3,33,19,12,11	
		1,13,36, 8,16, 0,48,29		5,23
50″	48,37,53,19,22,49,24,22, 5,10		3,33,19,17,34	
		1,13,36, 4,42,41,30,55		5,23
52″	48,37,54,32,58,54, 7, 3,36, 5		3,33,19,22,57	
		1,13,36, 1, 9,22, 7,58		5,23
54″	48,37,55,46,34,55,16,25,44, 3		3,33,19,28,20	
		1,13,35,57,36, 2,39,38		5,23
56″	48,37,57, 0,10,52,52,28,23,41		3,33,19,33,43	
		1,13,35,54, 2,43, 5,55		5,23
58″	48,37,58,13,46,46,55,11,29,36		3,33,19,39, 6	
		1,13,35,50,29,23,26,49		
60″	48,37,59,27,22,37,24,34,56,25			
exact	48,37,59,27,22,37,24,35, 1,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54° 9′ 0″	48,37,59,27,22,37,24,35, 1,42			
		1,13,35,46,56, 3,42,58		
2″	48,38, 0,40,58,24,20,38,44,40		3,33,19,49,49	
		1,13,35,43,22,43,53, 9		5,23
4″	48,38, 1,54,34, 7,43,22,37,49		3,33,19,55,12	
		1,13,35,39,49,23,57,57		5,23
6″	48,38, 3, 8, 9,47,32,46,35,46		3,33,20, 0,35	
		1,13,35,36,16, 3,57,22		5,23
8″	48,38, 4,21,45,23,48,50,33, 8		3,33,20, 5,58	
		1,13,35,32,42,43,51,24		5,23
10″	48,38, 5,35,20,56,31,34,24,32		3,33,20,11,21	
		1,13,35,29, 9,23,40, 3		5,23
12″	48,38, 6,48,56,25,40,58, 4,35		3,33,20,16,44	
		1,13,35,25,36, 3,23,19		5,23
14″	48,38, 8, 2,31,51,17, 1,27,54		3,33,20,22, 7	
		1,13,35,22, 2,43, 1,12		5,23
16″	48,38, 9,16, 7,13,19,44,29, 6		3,33,20,27,30	
		1,13,35,18,29,22,33,42		5,23
18″	48,38,10,29,42,31,49, 7, 2,48		3,33,20,32,53	
		1,13,35,14,56, 2, 0,49		5,23
20″	48,38,11,43,17,46,45, 9, 3,37		3,33,20,38,16	
		1,13,35,11,22,41,22,33		5,23
22″	48,38,12,56,52,58, 7,50,26,10		3,33,20,43,39	
		1,13,35, 7,49,20,38,54		5,23
24″	48,38,14,10,28, 5,57,11, 5, 4		3,33,20,49, 2	
		1,13,35, 4,15,59,49,52		5,23
26″	48,38,15,24, 3,10,13,10,54,56		3,33,20,54,25	
		1,13,35, 0,42,38,55,27		5,23
28″	48,38,16,37,38,10,55,49,50,23		3,33,20,59,48	
		1,13,34,57, 9,17,55,39		5,23
30″	48,38,17,51,13, 8, 5, 7,46, 2		3,33,21, 5,11	
		1,13,34,53,35,56,50,28		5,23
32″	48,38,19, 4,48, 1,41, 4,36,30		3,33,21,10,34	
		1,13,34,50, 2,35,39,54		5,23
34″	48,38,20,18,22,51,43,40,16,24		3,33,21,15,57	
		1,13,34,46,29,14,23,57		5,23
36″	48,38,21,31,57,38,12,54,40,21		3,33,21,21,20	
		1,13,34,42,55,53, 2,37		5,23
38″	48,38,22,45,32,21, 8,47,42,58		3,33,21,26,43	
		1,13,34,39,22,31,35,54		5,23
40″	48,38,23,59, 7, 0,31,19,18,52		3,33,21,32, 6	
		1,13,34,35,49,10, 3,48		5,23
42″	48,38,25,12,41,36,20,29,22,40		3,33,21,37,29	
		1,13,34,32,15,48,26,19		5,23
44″	48,38,26,26,16, 8,36,17,48,59		3,33,21,42,52	
		1,13,34,28,42,26,43,27		5,23
46″	48,38,27,39,50,37,18,44,32,26		3,33,21,48,15	
		1,13,34,25, 9, 4,55,12		5,23
48″	48,38,28,53,25, 2,27,49,27,38		3,33,21,53,38	
		1,13,34,21,35,43, 1,34		5,23
50″	48,38,30, 6,59,24, 3,32,29,12		3,33,21,59, 1	
		1,13,34,18, 2,21, 2,33		5,23
52″	48,38,31,20,33,42, 5,53,31,45		3,33,22, 4,24	
		1,13,34,14,28,58,58, 9		5,23
54″	48,38,32,34, 7,56,34,52,29,54		3,33,22, 9,47	
		1,13,34,10,55,36,48,22		5,23
56″	48,38,33,47,42, 7,30,29,18,16		3,33,22,15,10	
		1,13,34, 7,22,14,33,12		5,23
58″	48,38,35, 1,16,14,52,43,51,28		3,33,22,20,33	
		1,13,34, 3,48,52,12,39		
60″	48,38,36,14,50,18,41,36, 4, 7			
exact	48,38,36,14,50,18,41,36,19,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°10′ 0″	48,38,36,14,50,18,41,36,19,37			
		1,13,34, 0,15,29,48,24		
2″	48,38,37,28,24,18,57, 6, 8, 1		3,33,22,31,12	
		1,13,33,56,42, 7,17,12		5,23
4″	48,38,38,41,58,15,39,13,25,13		3,33,22,36,35	
		1,13,33,53, 8,44,40,37		5,23
6″	48,38,39,55,32, 8,47,58, 5,50		3,33,22,41,58	
		1,13,33,49,35,21,58,39		5,23
8″	48,38,41, 9, 5,58,23,20, 4,29		3,33,22,47,21	
		1,13,33,46, 1,59,11,18		5,23
10″	48,38,42,22,39,44,25,19,15,47		3,33,22,52,44	
		1,13,33,42,28,36,18,34		5,23
12″	48,38,43,36,13,26,53,55,34,21		3,33,22,58, 7	
		1,13,33,38,55,13,20,27		5,23
14″	48,38,44,49,47, 5,49, 8,54,48		3,33,23, 3,30	
		1,13,33,35,21,50,16,57		5,23
16″	48,38,46, 3,20,41,10,59,11,45		3,33,23, 8,53	
		1,13,33,31,48,27, 8, 4		5,23
18″	48,38,47,16,54,12,59,26,19,49		3,33,23,14,16	
		1,13,33,28,15, 3,53,48		5,23
20″	48,38,48,30,27,41,14,30,13,37		3,33,23,19,39	
		1,13,33,24,41,40,34, 9		5,23
22″	48,38,49,44, 1, 5,56,10,47,46		3,33,23,25, 2	
		1,13,33,21, 8,17, 9, 7		5,23
24″	48,38,50,57,34,27, 4,27,56,53		3,33,23,30,25	
		1,13,33,17,34,53,38,42		5,23
26″	48,38,52,11, 7,44,39,21,35,35		3,33,23,35,48	
		1,13,33,14, 1,30, 2,54		5,23
28″	48,38,53,24,40,58,40,51,38,29		3,33,23,41,11	
		1,13,33,10,28, 6,21,43		5,23
30″	48,38,54,38,14, 9, 8,58, 0,12		3,33,23,46,34	
		1,13,33, 6,54,42,35, 9		5,23
32″	48,38,55,51,47,16, 3,40,35,21		3,33,23,51,57	
		1,13,33, 3,21,18,43,12		5,23
34″	48,38,57, 5,20,19,24,59,18,33		3,33,23,57,20	
		1,13,32,59,47,54,45,52		5,23
36″	48,38,58,18,53,19,12,54, 4,25		3,33,24, 2,43	
		1,13,32,56,14,30,43, 9		5,23
38″	48,38,59,32,26,15,27,24,47,34		3,33,24, 8, 6	
		1,13,32,52,41, 6,35, 3		5,23
40″	48,39, 0,45,59, 8, 8,31,22,37		3,33,24,13,29	
		1,13,32,49, 7,42,21,34		5,23
42″	48,39, 1,59,31,57,16,13,44,11		3,33,24,18,52	
		1,13,32,45,34,18, 2,42		5,23
44″	48,39, 3,13, 4,42,50,31,46,53		3,33,24,24,15	
		1,13,32,42, 0,53,38,27		5,23
46″	48,39, 4,26,37,24,51,25,25,20		3,33,24,29,38	
		1,13,32,38,27,29, 8,49		5,23
48″	48,39, 5,40,10, 3,18,54,34, 9		3,33,24,35, 1	
		1,13,32,34,54, 4,33,48		5,23
50″	48,39, 6,53,42,38,12,59, 7,57		3,33,24,40,24	
		1,13,32,31,20,39,53,24		5,23
52″	48,39, 8, 7,15, 9,33,39, 1,21		3,33,24,45,47	
		1,13,32,27,47,15, 7,37		5,23
54″	48,39, 9,20,47,37,20,54, 8,58		3,33,24,51,10	
		1,13,32,24,13,50,16,27		5,23
56″	48,39,10,34,20, 1,34,44,25,25		3,33,24,56,33	
		1,13,32,20,40,25,19,54		5,23
58″	48,39,11,47,52,22,15, 9,45,19		3,33,25, 1,56	
		1,13,32,17, 7, 0,17,58		
60″	48,39,13, 1,24,39,22,10, 3,17			
exact	48,39,13, 1,24,39,22,10,28,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°11′ 0″	48,39,13, 1,24,39,22,10,28,22			
		1,13,32,13,33,35,13,20		
2″	48,39,14,14,56,52,55,45,41,42		3,33,25,12,31	
		1,13,32,10, 0,10, 0,49		5,23
4″	48,39,15,28,29, 2,55,55,42,31		3,33,25,17,54	
		1,13,32, 6,26,44,42,55		5,23
6″	48,39,16,42, 1, 9,22,40,25,26		3,33,25,23,17	
		1,13,32, 2,53,19,19,38		5,23
8″	48,39,17,55,33,12,15,59,45, 4		3,33,25,28,40	
		1,13,31,59,19,53,50,58		5,23
10″	48,39,19, 9, 5,11,35,53,36, 2		3,33,25,34, 3	
		1,13,31,55,46,28,16,55		5,23
12″	48,39,20,22,37, 7,22,21,52,57		3,33,25,39,26	
		1,13,31,52,13, 2,37,29		5,23
14″	48,39,21,36, 8,59,35,24,30,26		3,33,25,44,49	
		1,13,31,48,39,36,52,40		5,23
16″	48,39,22,49,40,48,15, 1,23, 6		3,33,25,50,12	
		1,13,31,45, 6,11, 2,28		5,23
18″	48,39,24, 3,12,33,21,12,25,34		3,33,25,55,35	
		1,13,31,41,32,45, 6,53		5,23
20″	48,39,25,16,44,14,53,57,32,27		3,33,26, 0,58	
		1,13,31,37,59,19, 5,55		5,23
22″	48,39,26,30,15,52,53,16,38,22		3,33,26, 6,21	
		1,13,31,34,25,52,59,34		5,23
24″	48,39,27,43,47,27,19, 9,37,56		3,33,26,11,44	
		1,13,31,30,52,26,47,50		5,23
26″	48,39,28,57,18,58,11,36,25,46		3,33,26,17, 7	
		1,13,31,27,19, 0,30,43		5,23
28″	48,39,30,10,50,25,30,36,56,29		3,33,26,22,30	
		1,13,31,23,45,34, 8,13		5,23
30″	48,39,31,24,21,49,16,11, 4,42		3,33,26,27,53	
		1,13,31,20,12, 7,40,20		5,23
32″	48,39,32,37,53, 9,28,18,45, 2		3,33,26,33,16	
		1,13,31,16,38,41, 7, 4		5,23
34″	48,39,33,51,24,26, 6,59,52, 6		3,33,26,38,39	
		1,13,31,13, 5,14,28,25		5,23
36″	48,39,35, 4,55,39,12,14,20,31		3,33,26,44, 2	
		1,13,31, 9,31,47,44,23		5,23
38″	48,39,36,18,26,48,44, 2, 4,54		3,33,26,49,25	
		1,13,31, 5,58,20,54,58		5,23
40″	48,39,37,31,57,54,42,22,59,52		3,33,26,54,48	
		1,13,31, 2,24,54, 0,10		5,23
42″	48,39,38,45,28,57, 7,17, 0, 2		3,33,27, 0,11	
		1,13,30,58,51,26,59,59		5,23
44″	48,39,39,58,59,55,58,44, 0, 1		3,33,27, 5,34	
		1,13,30,55,17,59,54,25		5,23
46″	48,39,41,12,30,51,16,43,54,26		3,33,27,10,57	
		1,13,30,51,44,32,43,28		5,23
48″	48,39,42,26, 1,43, 1,16,37,54		3,33,27,16,20	
		1,13,30,48,11, 5,27, 8		5,23
50″	48,39,43,39,32,31,12,22, 5, 2		3,33,27,21,43	
		1,13,30,44,37,38, 5,25		5,23
52″	48,39,44,53, 3,15,50, 0,10,27		3,33,27,27, 6	
		1,13,30,41, 4,10,38,19		5,23
54″	48,39,46, 6,33,56,54,10,48,46		3,33,27,32,29	
		1,13,30,37,30,43, 5,50		5,23
56″	48,39,47,20, 4,34,24,53,54,36		3,33,27,37,52	
		1,13,30,33,57,15,27,58		5,23
58″	48,39,48,33,35, 8,22, 9,22,34		3,33,27,43,15	
		1,13,30,30,23,47,44,43		
60″	48,39,49,47, 5,38,45,57, 7,17			
exact	48,39,49,47, 5,38,45,57,41,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°12′ 0″	48,39,49,47, 5,38,45,57,41,16			
		1,13,30,26,50,19,59,43		
2″	48,39,51, 0,36, 5,36,17,40,59		3,33,27,53,46	
		1,13,30,23,16,52, 5,57		5,22
4″	48,39,52,14, 6,28,53, 9,46,56		3,33,27,59, 8	
		1,13,30,19,43,24, 6,49		5,22
6″	48,39,53,27,36,48,36,33,53,45		3,33,28, 4,30	
		1,13,30,16, 9,56, 2,19		5,22
8″	48,39,54,41, 7, 4,46,29,56, 4		3,33,28, 9,52	
		1,13,30,12,36,27,52,27		5,22
10″	48,39,55,54,37,17,22,57,48,31		3,33,28,15,14	
		1,13,30, 9, 2,59,37,13		5,22
12″	48,39,57, 8, 7,26,25,57,25,44		3,33,28,20,36	
		1,13,30, 5,29,31,16,37		5,22
14″	48,39,58,21,37,31,55,28,42,21		3,33,28,25,58	
		1,13,30, 1,56, 2,50,39		5,22
16″	48,39,59,35, 7,33,51,31,33, 0		3,33,28,31,20	
		1,13,29,58,22,34,19,19		5,22
18″	48,40, 0,48,37,32,14, 5,52,19		3,33,28,36,42	
		1,13,29,54,49, 5,42,37		5,22
20″	48,40, 2, 2, 7,27, 3,11,34,56		3,33,28,42, 4	
		1,13,29,51,15,37, 0,33		5,22
22″	48,40, 3,15,37,18,18,48,35,29		3,33,28,47,26	
		1,13,29,47,42, 8,13, 7		5,22
24″	48,40, 4,29, 7, 6, 0,56,48,36		3,33,28,52,48	
		1,13,29,44, 8,39,20,19		5,22
26″	48,40, 5,42,36,50, 9,36, 8,55		3,33,28,58,10	
		1,13,29,40,35,10,22, 9		5,22
28″	48,40, 6,56, 6,30,44,46,31, 4		3,33,29, 3,32	
		1,13,29,37, 1,41,18,37		5,22
30″	48,40, 8, 9,36, 7,46,27,49,41		3,33,29, 8,54	
		1,13,29,33,28,12, 9,43		5,22
32″	48,40, 9,23, 5,41,14,39,59,24		3,33,29,14,16	
		1,13,29,29,54,42,55,27		5,22
34″	48,40,10,36,35,11, 9,22,54,51		3,33,29,19,38	
		1,13,29,26,21,13,35,49		5,22
36″	48,40,11,50, 4,37,30,36,30,40		3,33,29,25, 0	
		1,13,29,22,47,44,10,49		5,22
38″	48,40,13, 3,34, 0,18,20,41,29		3,33,29,30,22	
		1,13,29,19,14,14,40,27		5,22
40″	48,40,14,17, 3,19,32,35,21,56		3,33,29,35,44	
		1,13,29,15,40,45, 4,43		5,22
42″	48,40,15,30,32,35,13,20,26,39		3,33,29,41, 6	
		1,13,29,12, 7,15,23,37		5,22
44″	48,40,16,44, 1,47,20,35,50,16		3,33,29,46,28	
		1,13,29, 8,33,45,37, 9		5,22
46″	48,40,17,57,30,55,54,21,27,25		3,33,29,51,50	
		1,13,29, 5, 0,15,45,19		5,22
48″	48,40,19,11, 0, 0,54,37,12,44		3,33,29,57,12	
		1,13,29, 1,26,45,48, 7		5,22
50″	48,40,20,24,29, 2,21,23, 0,51		3,33,30, 2,34	
		1,13,28,57,53,15,45,33		5,22
52″	48,40,21,37,58, 0,14,38,46,24		3,33,30, 7,56	
		1,13,28,54,19,45,37,37		5,22
54″	48,40,22,51,26,54,34,24,24, 1		3,33,30,13,18	
		1,13,28,50,46,15,24,19		5,22
56″	48,40,24, 4,55,45,20,39,48,20		3,33,30,18,40	
		1,13,28,47,12,45, 5,39		5,22
58″	48,40,25,18,24,32,33,24,53,59		3,33,30,24, 2	
		1,13,28,43,39,14,41,37		
60″	48,40,26,31,53,16,12,39,35,36			
exact	48,40,26,31,53,16,12,39,10,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°13′ 0″	48,40,26,31,53,16,12,39,10,13			
		1,13,28,40, 5,44, 9,30		
2″	48,40,27,45,21,56,18,23,19,43		3,33,30,34,57	
		1,13,28,36,32,13,34,33		5,22
4″	48,40,28,58,50,32,50,36,54,16		3,33,30,40,19	
		1,13,28,32,58,42,54,14		5,22
6″	48,40,30,12,19, 5,49,19,48,30		3,33,30,45,41	
		1,13,28,29,25,12, 8,33		5,22
8″	48,40,31,25,47,35,14,31,57, 3		3,33,30,51, 3	
		1,13,28,25,51,41,17,30		5,22
10″	48,40,32,39,16, 1, 6,13,14,33		3,33,30,56,25	
		1,13,28,22,18,10,21, 5		5,22
12″	48,40,33,52,44,23,24,23,35,38		3,33,31, 1,47	
		1,13,28,18,44,39,19,18		5,22
14″	48,40,35, 6,12,42, 9, 2,54,56		3,33,31, 7, 9	
		1,13,28,15,11, 8,12, 9		5,22
16″	48,40,36,19,40,57,20,11, 7, 5		3,33,31,12,31	
		1,13,28,11,37,36,59,38		5,22
18″	48,40,37,33, 9, 8,57,48, 6,43		3,33,31,17,53	
		1,13,28, 8, 4, 5,41,45		5,22
20″	48,40,38,46,37,17, 1,53,48,28		3,33,31,23,15	
		1,13,28, 4,30,34,18,30		5,22
22″	48,40,40, 0, 5,21,32,28, 6,58		3,33,31,28,37	
		1,13,28, 0,57, 2,49,53		5,22
24″	48,40,41,13,33,22,29,30,56,51		3,33,31,33,59	
		1,13,27,57,23,31,15,54		5,22
26″	48,40,42,27, 1,19,53, 2,12,45		3,33,31,39,21	
		1,13,27,53,49,59,36,33		5,22
28″	48,40,43,40,29,13,43, 1,49,18		3,33,31,44,43	
		1,13,27,50,16,27,51,50		5,22
30″	48,40,44,53,57, 3,59,29,41, 8		3,33,31,50, 5	
		1,13,27,46,42,56, 1,45		5,22
32″	48,40,46, 7,24,50,42,25,42,53		3,33,31,55,27	
		1,13,27,43, 9,24, 6,18		5,22
34″	48,40,47,20,52,33,51,49,49,11		3,33,32, 0,49	
		1,13,27,39,35,52, 5,29		5,22
36″	48,40,48,34,20,13,27,41,54,40		3,33,32, 6,11	
		1,13,27,36, 2,19,59,18		5,22
38″	48,40,49,47,47,49,30, 1,53,58		3,33,32,11,33	
		1,13,27,32,28,47,47,45		5,22
40″	48,40,51, 1,15,21,58,49,41,43		3,33,32,16,55	
		1,13,27,28,55,15,30,50		5,22
42″	48,40,52,14,42,50,54, 5,12,33		3,33,32,22,17	
		1,13,27,25,21,43, 8,33		5,22
44″	48,40,53,28,10,16,15,48,21, 6		3,33,32,27,39	
		1,13,27,21,48,10,40,54		5,22
46″	48,40,54,41,37,38, 3,59, 2, 0		3,33,32,33, 1	
		1,13,27,18,14,38, 7,53		5,22
48″	48,40,55,55, 4,56,18,37, 9,53		3,33,32,38,23	
		1,13,27,14,41, 5,29,30		5,22
50″	48,40,57, 8,32,10,59,42,39,23		3,33,32,43,45	
		1,13,27,11, 7,32,45,45		5,22
52″	48,40,58,21,59,22, 7,15,25, 8		3,33,32,49, 7	
		1,13,27, 7,33,59,56,38		5,22
54″	48,40,59,35,26,29,41,15,21,46		3,33,32,54,29	
		1,13,27, 4, 0,27, 2, 9		5,22
56″	48,41, 0,48,53,33,41,42,23,55		3,33,32,59,51	
		1,13,27, 0,26,54, 2,18		5,22
58″	48,41, 2, 2,20,34, 8,36,26,13		3,33,33, 5,13	
		1,13,26,56,53,20,57, 5		
60″	48,41, 3,15,47,31, 1,57,23,18			
exact	48,41, 3,15,47,31, 1,57, 5,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°14′ 0″	48,41, 3,15,47,31, 1,57, 5,36			
		1,13,26,53,19,47,44,39		
2″	48,41, 4,29,14,24,21,44,50,15		3,33,33,16, 4	
		1,13,26,49,46,14,28,35		5,22
4″	48,41, 5,42,41,14, 7,59,18,50		3,33,33,21,26	
		1,13,26,46,12,41, 7, 9		5,22
6″	48,41, 6,56, 8, 0,20,40,25,59		3,33,33,26,48	
		1,13,26,42,39, 7,40,21		5,22
8″	48,41, 8, 9,34,42,59,48, 6,20		3,33,33,32,10	
		1,13,26,39, 5,34, 8,11		5,22
10″	48,41, 9,23, 1,22, 5,22,14,31		3,33,33,37,32	
		1,13,26,35,32, 0,30,39		5,22
12″	48,41,10,36,27,57,37,22,45,10		3,33,33,42,54	
		1,13,26,31,58,26,47,45		5,22
14″	48,41,11,49,54,29,35,49,32,55		3,33,33,48,16	
		1,13,26,28,24,52,59,29		5,22
16″	48,41,13, 3,20,58, 0,42,32,24		3,33,33,53,38	
		1,13,26,24,51,19, 5,51		5,22
18″	48,41,14,16,47,22,52, 1,38,15		3,33,33,59, 0	
		1,13,26,21,17,45, 6,51		5,22
20″	48,41,15,30,13,44, 9,46,45, 6		3,33,34, 4,22	
		1,13,26,17,44,11, 2,29		5,22
22″	48,41,16,43,40, 1,53,57,47,35		3,33,34, 9,44	
		1,13,26,14,10,36,52,45		5,22
24″	48,41,17,57, 6,16, 4,34,40,20		3,33,34,15, 6	
		1,13,26,10,37, 2,37,39		5,22
26″	48,41,19,10,32,26,41,37,17,59		3,33,34,20,28	
		1,13,26, 7, 3,28,17,11		5,22
28″	48,41,20,23,58,33,45, 5,35,10		3,33,34,25,50	
		1,13,26, 3,29,53,51,21		5,22
30″	48,41,21,37,24,37,14,59,26,31		3,33,34,31,12	
		1,13,25,59,56,19,20, 9		5,22
32″	48,41,22,50,50,37,11,18,46,40		3,33,34,36,34	
		1,13,25,56,22,44,43,35		5,22
34″	48,41,24, 4,16,33,34, 3,30,15		3,33,34,41,56	
		1,13,25,52,49,10, 1,39		5,22
36″	48,41,25,17,42,26,23,13,31,54		3,33,34,47,18	
		1,13,25,49,15,35,14,21		5,22
38″	48,41,26,31, 8,15,38,48,46,15		3,33,34,52,40	
		1,13,25,45,42, 0,21,41		5,22
40″	48,41,27,44,34, 1,20,49, 7,56		3,33,34,58, 2	
		1,13,25,42, 8,25,23,39		5,22
42″	48,41,28,57,59,43,29,14,31,35		3,33,35, 3,24	
		1,13,25,38,34,50,20,15		5,22
44″	48,41,30,11,25,22, 4, 4,51,50		3,33,35, 8,46	
		1,13,25,35, 1,15,11,29		5,22
46″	48,41,31,24,50,57, 5,20, 3,19		3,33,35,14, 8	
		1,13,25,31,27,39,57,21		5,22
48″	48,41,32,38,16,28,33, 0, 0,40		3,33,35,19,30	
		1,13,25,27,54, 4,37,51		5,22
50″	48,41,33,51,41,56,27, 4,38,31		3,33,35,24,52	
		1,13,25,24,20,29,12,59		5,22
52″	48,41,35, 5, 7,20,47,33,51,30		3,33,35,30,14	
		1,13,25,20,46,53,42,45		5,22
54″	48,41,36,18,32,41,34,27,34,15		3,33,35,35,36	
		1,13,25,17,13,18, 7, 9		5,22
56″	48,41,37,31,57,58,47,45,41,24		3,33,35,40,58	
		1,13,25,13,39,42,26,11		5,22
58″	48,41,38,45,23,12,27,28, 7,35		3,33,35,46,20	
		1,13,25,10, 6, 6,39,51		
60″	48,41,39,58,48,22,33,34,47,26			
exact	48,41,39,58,48,22,33,34,36,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°15′ 0″	48,41,39,58,48,22,33,34,36,20			
		1,13,25, 6,32,30,47, 6		
2″	48,41,41,12,13,29, 6, 5,23,26		3,33,35,57, 8	
		1,13,25, 2,58,54,49,58		5,22
4″	48,41,42,25,38,32, 5, 0,13,24		3,33,36, 2,30	
		1,13,24,59,25,18,47,28		5,22
6″	48,41,43,39, 3,31,30,19, 0,52		3,33,36, 7,52	
		1,13,24,55,51,42,39,36		5,22
8″	48,41,44,52,28,27,22, 1,40,28		3,33,36,13,14	
		1,13,24,52,18, 6,26,22		5,22
10″	48,41,46, 5,53,19,40, 8, 6,50		3,33,36,18,36	
		1,13,24,48,44,30, 7,46		5,22
12″	48,41,47,19,18, 8,24,38,14,36		3,33,36,23,58	
		1,13,24,45,10,53,43,48		5,22
14″	48,41,48,32,42,53,35,31,58,24		3,33,36,29,20	
		1,13,24,41,37,17,14,28		5,22
16″	48,41,49,46, 7,35,12,49,12,52		3,33,36,34,42	
		1,13,24,38, 3,40,39,46		5,22
18″	48,41,50,59,32,13,16,29,52,38		3,33,36,40, 4	
		1,13,24,34,30, 3,59,42		5,22
20″	48,41,52,12,56,47,46,33,52,20		3,33,36,45,26	
		1,13,24,30,56,27,14,16		5,22
22″	48,41,53,26,21,18,43, 1, 6,36		3,33,36,50,48	
		1,13,24,27,22,50,23,28		5,22
24″	48,41,54,39,45,46, 5,51,30, 4		3,33,36,56,10	
		1,13,24,23,49,13,27,18		5,22
26″	48,41,55,53,10, 9,55, 4,57,22		3,33,37, 1,32	
		1,13,24,20,15,36,25,46		5,22
28″	48,41,57, 6,34,30,10,41,23, 8		3,33,37, 6,54	
		1,13,24,16,41,59,18,52		5,22
30″	48,41,58,19,58,46,52,40,42, 0		3,33,37,12,16	
		1,13,24,13, 8,22, 6,36		5,22
32″	48,41,59,33,23, 0, 1, 2,48,36		3,33,37,17,38	
		1,13,24, 9,34,44,48,58		5,22
34″	48,42, 0,46,47, 9,35,47,37,34		3,33,37,23, 0	
		1,13,24, 6, 1, 7,25,58		5,22
36″	48,42, 2, 0,11,15,36,55, 3,32		3,33,37,28,22	
		1,13,24, 2,27,29,57,36		5,22
38″	48,42, 3,13,35,18, 4,25, 1, 8		3,33,37,33,44	
		1,13,23,58,53,52,23,52		5,22
40″	48,42, 4,26,59,16,58,17,25, 0		3,33,37,39, 6	
		1,13,23,55,20,14,44,46		5,22
42″	48,42, 5,40,23,12,18,32, 9,46		3,33,37,44,28	
		1,13,23,51,46,37, 0,18		5,22
44″	48,42, 6,53,47, 4, 5, 9,10, 4		3,33,37,49,50	
		1,13,23,48,12,59,10,28		5,22
46″	48,42, 8, 7,10,52,18, 8,20,32		3,33,37,55,12	
		1,13,23,44,39,21,15,16		5,22
48″	48,42, 9,20,34,36,57,29,35,48		3,33,38, 0,34	
		1,13,23,41, 5,43,14,42		5,22
50″	48,42,10,33,58,18, 3,12,50,30		3,33,38, 5,56	
		1,13,23,37,32, 5, 8,46		5,22
52″	48,42,11,47,21,55,35,17,59,16		3,33,38,11,18	
		1,13,23,33,58,26,57,28		5,22
54″	48,42,13, 0,45,29,33,44,56,44		3,33,38,16,40	
		1,13,23,30,24,48,40,48		5,22
56″	48,42,14,14, 8,59,58,33,37,32		3,33,38,22, 2	
		1,13,23,26,51,10,18,46		5,22
58″	48,42,15,27,32,26,49,43,56,18		3,33,38,27,24	
		1,13,23,23,17,31,51,22		
60″	48,42,16,40,55,50, 7,15,47,40			
exact	48,42,16,40,55,50, 7,15,49,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°16′ 0″	48,42,16,40,55,50, 7,15,49,53			
		1,13,23,19,43,53,18,48		
2″	48,42,17,54,19, 9,51, 9, 8,41		3,33,38,38, 7	
		1,13,23,16,10,14,40,41		5,22
4″	48,42,19, 7,42,26, 1,23,49,22		3,33,38,43,29	
		1,13,23,12,36,35,57,12		5,22
6″	48,42,20,21, 5,38,37,59,46,34		3,33,38,48,51	
		1,13,23, 9, 2,57, 8,21		5,22
8″	48,42,21,34,28,47,40,56,54,55		3,33,38,54,13	
		1,13,23, 5,29,18,14, 8		5,22
10″	48,42,22,47,51,53,10,15, 9, 3		3,33,38,59,35	
		1,13,23, 1,55,39,14,33		5,22
12″	48,42,24, 1,14,55, 5,54,23,36		3,33,39, 4,57	
		1,13,22,58,22, 0, 9,36		5,22
14″	48,42,25,14,37,53,27,54,33,12		3,33,39,10,19	
		1,13,22,54,48,20,59,17		5,22
16″	48,42,26,28, 0,48,16,15,32,29		3,33,39,15,41	
		1,13,22,51,14,41,43,36		5,22
18″	48,42,27,41,23,39,30,57,16, 5		3,33,39,21, 3	
		1,13,22,47,41, 2,22,33		5,22
20″	48,42,28,54,46,27,11,59,38,38		3,33,39,26,25	
		1,13,22,44, 7,22,56, 8		5,22
22″	48,42,30, 8, 9,11,19,22,34,46		3,33,39,31,47	
		1,13,22,40,33,43,24,21		5,22
24″	48,42,31,21,31,51,53, 5,59, 7		3,33,39,37, 9	
		1,13,22,37, 0, 3,47,12		5,22
26″	48,42,32,34,54,28,53, 9,46,19		3,33,39,42,31	
		1,13,22,33,26,24, 4,41		5,22
28″	48,42,33,48,17, 2,19,33,51, 0		3,33,39,47,53	
		1,13,22,29,52,44,16,48		5,22
30″	48,42,35, 1,39,32,12,18, 7,48		3,33,39,53,15	
		1,13,22,26,19, 4,23,33		5,22
32″	48,42,36,15, 1,58,31,22,31,21		3,33,39,58,37	
		1,13,22,22,45,24,24,56		5,22
34″	48,42,37,28,24,21,16,46,56,17		3,33,40, 3,59	
		1,13,22,19,11,44,20,57		5,22
36″	48,42,38,41,46,40,28,31,17,14		3,33,40, 9,21	
		1,13,22,15,38, 4,11,36		5,22
38″	48,42,39,55, 8,56, 6,35,28,50		3,33,40,14,43	
		1,13,22,12, 4,23,56,53		5,22
40″	48,42,41, 8,31, 8,10,59,25,43		3,33,40,20, 5	
		1,13,22, 8,30,43,36,48		5,22
42″	48,42,42,21,53,16,41,43, 2,31		3,33,40,25,27	
		1,13,22, 4,57, 3,11,21		5,22
44″	48,42,43,35,15,21,38,46,13,52		3,33,40,30,49	
		1,13,22, 1,23,22,40,32		5,22
46″	48,42,44,48,37,23, 2, 8,54,24		3,33,40,36,11	
		1,13,21,57,49,42, 4,21		5,22
48″	48,42,46, 1,59,20,51,50,58,45		3,33,40,41,33	
		1,13,21,54,16, 1,22,48		5,22
50″	48,42,47,15,21,15, 7,52,21,33		3,33,40,46,55	
		1,13,21,50,42,20,35,53		5,22
52″	48,42,48,28,43, 5,50,12,57,26		3,33,40,52,17	
		1,13,21,47, 8,39,43,36		5,22
54″	48,42,49,42, 4,52,58,52,41, 2		3,33,40,57,39	
		1,13,21,43,34,58,45,57		5,22
56″	48,42,50,55,26,36,33,51,26,59		3,33,41, 3, 1	
		1,13,21,40, 1,17,42,56		5,22
58″	48,42,52, 8,48,16,35, 9, 9,55		3,33,41, 8,23	
		1,13,21,36,27,36,34,33		
60″	48,42,53,22, 9,53, 2,45,44,28			
exact	48,42,53,22, 9,53, 2,45,52,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°17′ 0″	48,42,53,22, 9,53, 2,45,52,17			
		1,13,21,32,53,55,21,43		
2″	48,42,54,35,31,25,56,41,14, 0		3,33,41,19, 3	
		1,13,21,29,20,14, 2,40		5,22
4″	48,42,55,48,52,55,16,55,16,40		3,33,41,24,25	
		1,13,21,25,46,32,38,15		5,22
6″	48,42,57, 2,14,21, 3,27,54,55		3,33,41,29,47	
		1,13,21,22,12,51, 8,28		5,22
8″	48,42,58,15,35,43,16,19, 3,23		3,33,41,35, 9	
		1,13,21,18,39, 9,33,19		5,22
10″	48,42,59,28,57, 1,55,28,36,42		3,33,41,40,31	
		1,13,21,15, 5,27,52,48		5,22
12″	48,43, 0,42,18,17, 0,56,29,30		3,33,41,45,53	
		1,13,21,11,31,46, 6,55		5,22
14″	48,43, 1,55,39,28,32,42,36,25		3,33,41,51,15	
		1,13,21, 7,58, 4,15,40		5,22
16″	48,43, 3, 9, 0,36,30,46,52, 5		3,33,41,56,37	
		1,13,21, 4,24,22,19, 3		5,22
18″	48,43, 4,22,21,40,55, 9,11, 8		3,33,42, 1,59	
		1,13,21, 0,50,40,17, 4		5,22
20″	48,43, 5,35,42,41,45,49,28,12		3,33,42, 7,21	
		1,13,20,57,16,58, 9,43		5,22
22″	48,43, 6,49, 3,39, 2,47,37,55		3,33,42,12,43	
		1,13,20,53,43,15,57, 0		5,22
24″	48,43, 8, 2,24,32,46, 3,34,55		3,33,42,18, 5	
		1,13,20,50, 9,33,38,55		5,22
26″	48,43, 9,15,45,22,55,37,13,50		3,33,42,23,27	
		1,13,20,46,35,51,15,28		5,22
28″	48,43,10,29, 6, 9,31,28,29,18		3,33,42,28,49	
		1,13,20,43, 2, 8,46,39		5,22
30″	48,43,11,42,26,52,33,37,15,57		3,33,42,34,11	
		1,13,20,39,28,26,12,28		5,22
32″	48,43,12,55,47,32, 2, 3,28,25		3,33,42,39,33	
		1,13,20,35,54,43,32,55		5,22
34″	48,43,14, 9, 8, 7,56,47, 1,20		3,33,42,44,55	
		1,13,20,32,21, 0,48, 0		5,22
36″	48,43,15,22,28,40,17,47,49,20		3,33,42,50,17	
		1,13,20,28,47,17,57,43		5,22
38″	48,43,16,35,49, 9, 5, 5,47, 3		3,33,42,55,39	
		1,13,20,25,13,35, 2, 4		5,22
40″	48,43,17,49, 9,34,18,40,49, 7		3,33,43, 1, 1	
		1,13,20,21,39,52, 1, 3		5,22
42″	48,43,19, 2,29,55,58,32,50,10		3,33,43, 6,23	
		1,13,20,18, 6, 8,54,40		5,22
44″	48,43,20,15,50,14, 4,41,44,50		3,33,43,11,45	
		1,13,20,14,32,25,42,55		5,22
46″	48,43,21,29,10,28,37, 7,27,45		3,33,43,17, 7	
		1,13,20,10,58,42,25,48		5,22
48″	48,43,22,42,30,39,35,49,53,33		3,33,43,22,29	
		1,13,20, 7,24,59, 3,19		5,22
50″	48,43,23,55,50,47, 0,48,56,52		3,33,43,27,51	
		1,13,20, 3,51,15,35,28		5,22
52″	48,43,25, 9,10,50,52, 4,32,20		3,33,43,33,13	
		1,13,20, 0,17,32, 2,15		5,22
54″	48,43,26,22,30,51, 9,36,34,35		3,33,43,38,35	
		1,13,19,56,43,48,23,40		5,22
56″	48,43,27,35,50,47,53,24,58,15		3,33,43,43,57	
		1,13,19,53,10, 4,39,43		5,22
58″	48,43,28,49,10,41, 3,29,37,58		3,33,43,49,19	
		1,13,19,49,36,20,50,24		
60″	48,43,30, 2,30,30,39,50,28,22			
exact	48,43,30, 2,30,30,39,50,48, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°18′ 0″	48,43,30, 2,30,30,39,50,48, 7			
		1,13,19,46, 2,36,57,48		
2″	48,43,31,15,50,16,42,27,45,55		3,33,43,59,54	
		1,13,19,42,28,52,57,54		5,22
4″	48,43,32,29, 9,59,11,20,43,49		3,33,44, 5,16	
		1,13,19,38,55, 8,52,38		5,22
6″	48,43,33,42,29,38, 6,29,36,27		3,33,44,10,38	
		1,13,19,35,21,24,42, 0		5,22
8″	48,43,34,55,49,13,27,54,18,27		3,33,44,16, 0	
		1,13,19,31,47,40,26, 0		5,22
10″	48,43,36, 9, 8,45,15,34,44,27		3,33,44,21,22	
		1,13,19,28,13,56, 4,38		5,22
12″	48,43,37,22,28,13,29,30,49, 5		3,33,44,26,44	
		1,13,19,24,40,11,37,54		5,22
14″	48,43,38,35,47,38, 9,42,26,59		3,33,44,32, 6	
		1,13,19,21, 6,27, 5,48		5,22
16″	48,43,39,49, 6,59,16, 9,32,47		3,33,44,37,28	
		1,13,19,17,32,42,28,20		5,22
18″	48,43,41, 2,26,16,48,52, 1, 7		3,33,44,42,50	
		1,13,19,13,58,57,45,30		5,22
20″	48,43,42,15,45,30,47,49,46,37		3,33,44,48,12	
		1,13,19,10,25,12,57,18		5,22
22″	48,43,43,29, 4,41,13, 2,43,55		3,33,44,53,34	
		1,13,19, 6,51,28, 3,44		5,22
24″	48,43,44,42,23,48, 4,30,47,39		3,33,44,58,56	
		1,13,19, 3,17,43, 4,48		5,22
26″	48,43,45,55,42,51,22,13,52,27		3,33,45, 4,18	
		1,13,18,59,43,58, 0,30		5,22
28″	48,43,47, 9, 1,51, 6,11,52,57		3,33,45, 9,40	
		1,13,18,56,10,12,50,50		5,22
30″	48,43,48,22,20,47,16,24,43,47		3,33,45,15, 2	
		1,13,18,52,36,27,35,48		5,22
32″	48,43,49,35,39,39,52,52,19,35		3,33,45,20,24	
		1,13,18,49, 2,42,15,24		5,22
34″	48,43,50,48,58,28,55,34,34,59		3,33,45,25,46	
		1,13,18,45,28,56,49,38		5,22
36″	48,43,52, 2,17,14,24,31,24,37		3,33,45,31, 8	
		1,13,18,41,55,11,18,30		5,22
38″	48,43,53,15,35,56,19,42,43, 7		3,33,45,36,30	
		1,13,18,38,21,25,42, 0		5,22
40″	48,43,54,28,54,34,41, 8,25, 7		3,33,45,41,52	
		1,13,18,34,47,40, 0, 8		5,22
42″	48,43,55,42,13, 9,28,48,25,15		3,33,45,47,14	
		1,13,18,31,13,54,12,54		5,22
44″	48,43,56,55,31,40,42,42,38, 9		3,33,45,52,36	
		1,13,18,27,40, 8,20,18		5,22
46″	48,43,58, 8,50, 8,22,50,58,27		3,33,45,57,58	
		1,13,18,24, 6,22,22,20		5,22
48″	48,43,59,22, 8,32,29,13,20,47		3,33,46, 3,20	
		1,13,18,20,32,36,19, 0		5,22
50″	48,44, 0,35,26,53, 1,49,39,47		3,33,46, 8,42	
		1,13,18,16,58,50,10,18		5,22
52″	48,44, 1,48,45,10, 0,39,50, 5		3,33,46,14, 4	
		1,13,18,13,25, 3,56,14		5,22
54″	48,44, 3, 2, 3,23,25,43,46,19		3,33,46,19,26	
		1,13,18, 9,51,17,36,48		5,22
56″	48,44, 4,15,21,33,17, 1,23, 7		3,33,46,24,48	
		1,13,18, 6,17,31,12, 0		5,22
58″	48,44, 5,28,39,39,34,32,35, 7		3,33,46,30,10	
		1,13,18, 2,43,44,41,50		
60″	48,44, 6,41,57,42,18,17,16,57			
exact	48,44, 6,41,57,42,18,17,40,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°19′ 0″	48,44, 6,41,57,42,18,17,40,36			
		1,13,17,59, 9,58, 8,59		
2″	48,44, 7,55,15,41,28,15,49,35		3,33,46,40,42	
		1,13,17,55,36,11,28,17		5,22
4″	48,44, 9, 8,33,37, 4,27,17,52		3,33,46,46, 4	
		1,13,17,52, 2,24,42,13		5,22
6″	48,44,10,21,51,29, 6,52, 0, 5		3,33,46,51,26	
		1,13,17,48,28,37,50,47		5,22
8″	48,44,11,35, 9,17,35,29,50,52		3,33,46,56,48	
		1,13,17,44,54,50,53,59		5,22
10″	48,44,12,48,27, 2,30,20,44,51		3,33,47, 2,10	
		1,13,17,41,21, 3,51,49		5,22
12″	48,44,14, 1,44,43,51,24,36,40		3,33,47, 7,32	
		1,13,17,37,47,16,44,17		5,22
14″	48,44,15,15, 2,21,38,41,20,57		3,33,47,12,54	
		1,13,17,34,13,29,31,23		5,22
16″	48,44,16,28,19,55,52,10,52,20		3,33,47,18,16	
		1,13,17,30,39,42,13, 7		5,22
18″	48,44,17,41,37,26,31,53, 5,27		3,33,47,23,38	
		1,13,17,27, 5,54,49,29		5,22
20″	48,44,18,54,54,53,37,47,54,56		3,33,47,29, 0	
		1,13,17,23,32, 7,20,29		5,22
22″	48,44,20, 8,12,17, 9,55,15,25		3,33,47,34,22	
		1,13,17,19,58,19,46, 7		5,22
24″	48,44,21,21,29,37, 8,15, 1,32		3,33,47,39,44	
		1,13,17,16,24,32, 6,23		5,22
26″	48,44,22,34,46,53,32,47, 7,55		3,33,47,45, 6	
		1,13,17,12,50,44,21,17		5,22
28″	48,44,23,48, 4, 6,23,31,29,12		3,33,47,50,28	
		1,13,17, 9,16,56,30,49		5,22
30″	48,44,25, 1,21,15,40,28, 0, 1		3,33,47,55,50	
		1,13,17, 5,43, 8,34,59		5,22
32″	48,44,26,14,38,21,23,36,35, 0		3,33,48, 1,12	
		1,13,17, 2, 9,20,33,47		5,22
34″	48,44,27,27,55,23,32,57, 8,47		3,33,48, 6,34	
		1,13,16,58,35,32,27,13		5,22
36″	48,44,28,41,12,22, 8,29,36, 0		3,33,48,11,56	
		1,13,16,55, 1,44,15,17		5,22
38″	48,44,29,54,29,17,10,13,51,17		3,33,48,17,18	
		1,13,16,51,27,55,57,59		5,22
40″	48,44,31, 7,46, 8,38, 9,49,16		3,33,48,22,40	
		1,13,16,47,54, 7,35,19		5,22
42″	48,44,32,21, 2,56,32,17,24,35		3,33,48,28, 2	
		1,13,16,44,20,19, 7,17		5,22
44″	48,44,33,34,19,40,52,36,31,52		3,33,48,33,24	
		1,13,16,40,46,30,33,53		5,22
46″	48,44,34,47,36,21,39, 7, 5,45		3,33,48,38,46	
		1,13,16,37,12,41,55, 7		5,22
48″	48,44,36, 0,52,58,51,49, 0,52		3,33,48,44, 8	
		1,13,16,33,38,53,10,59		5,22
50″	48,44,37,14, 9,32,30,42,11,51		3,33,48,49,30	
		1,13,16,30, 5, 4,21,29		5,22
52″	48,44,38,27,26, 2,35,46,33,20		3,33,48,54,52	
		1,13,16,26,31,15,26,37		5,22
54″	48,44,39,40,42,29, 7, 1,59,57		3,33,49, 0,14	
		1,13,16,22,57,26,26,23		5,22
56″	48,44,40,53,58,52, 4,28,26,20		3,33,49, 5,36	
		1,13,16,19,23,37,20,47		5,22
58″	48,44,42, 7,15,11,28, 5,47, 7		3,33,49,10,58	
		1,13,16,15,49,48, 9,49		
60″	48,44,43,20,31,27,17,53,56,56			
exact	48,44,43,20,31,27,17,54,31,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°20′ 0″	48,44,43,20,31,27,17,54,31,29			
		1,13,16,12,15,58,57,15		
2″	48,44,44,33,47,39,33,53,28,44		3,33,49,21,26	
		1,13,16, 8,42, 9,35,49		5,21
4″	48,44,45,47, 3,48,16, 3, 4,33		3,33,49,26,47	
		1,13,16, 5, 8,20, 9, 2		5,21
6″	48,44,47, 0,19,53,24,23,13,35		3,33,49,32, 8	
		1,13,16, 1,34,30,36,54		5,21
8″	48,44,48,13,35,54,58,53,50,29		3,33,49,37,29	
		1,13,15,58, 0,40,59,25		5,21
10″	48,44,49,26,51,52,59,34,49,54		3,33,49,42,50	
		1,13,15,54,26,51,16,35		5,21
12″	48,44,50,40, 7,47,26,26, 6,29		3,33,49,48,11	
		1,13,15,50,53, 1,28,24		5,21
14″	48,44,51,53,23,38,19,27,34,53		3,33,49,53,32	
		1,13,15,47,19,11,34,52		5,21
16″	48,44,53, 6,39,25,38,39, 9,45		3,33,49,58,53	
		1,13,15,43,45,21,35,59		5,21
18″	48,44,54,19,55, 9,24, 0,45,44		3,33,50, 4,14	
		1,13,15,40,11,31,31,45		5,21
20″	48,44,55,33,10,49,35,32,17,29		3,33,50, 9,35	
		1,13,15,36,37,41,22,10		5,21
22″	48,44,56,46,26,26,13,13,39,39		3,33,50,14,56	
		1,13,15,33, 3,51, 7,14		5,21
24″	48,44,57,59,41,59,17, 4,46,53		3,33,50,20,17	
		1,13,15,29,30, 0,46,57		5,21
26″	48,44,59,12,57,28,47, 5,33,50		3,33,50,25,38	
		1,13,15,25,56,10,21,19		5,21
28″	48,45, 0,26,12,54,43,15,55, 9		3,33,50,30,59	
		1,13,15,22,22,19,50,20		5,21
30″	48,45, 1,39,28,17, 5,35,45,29		3,33,50,36,20	
		1,13,15,18,48,29,14, 0		5,21
32″	48,45, 2,52,43,35,54, 4,59,29		3,33,50,41,41	
		1,13,15,15,14,38,32,19		5,21
34″	48,45, 4, 5,58,51, 8,43,31,48		3,33,50,47, 2	
		1,13,15,11,40,47,45,17		5,21
36″	48,45, 5,19,14, 2,49,31,17, 5		3,33,50,52,23	
		1,13,15, 8, 6,56,52,54		5,21
38″	48,45, 6,32,29,10,56,28, 9,59		3,33,50,57,44	
		1,13,15, 4,33, 5,55,10		5,21
40″	48,45, 7,45,44,15,29,34, 5, 9		3,33,51, 3, 5	
		1,13,15, 0,59,14,52, 5		5,21
42″	48,45, 8,58,59,16,28,48,57,14		3,33,51, 8,26	
		1,13,14,57,25,23,43,39		5,21
44″	48,45,10,12,14,13,54,12,40,53		3,33,51,13,47	
		1,13,14,53,51,32,29,52		5,21
46″	48,45,11,25,29, 7,45,45,10,45		3,33,51,19, 8	
		1,13,14,50,17,41,10,44		5,21
48″	48,45,12,38,43,58, 3,26,21,29		3,33,51,24,29	
		1,13,14,46,43,49,46,15		5,21
50″	48,45,13,51,58,44,47,16, 7,44		3,33,51,29,50	
		1,13,14,43, 9,58,16,25		5,21
52″	48,45,15, 5,13,27,57,14,24, 9		3,33,51,35,11	
		1,13,14,39,36, 6,41,14		5,21
54″	48,45,16,18,28, 7,33,21, 5,23		3,33,51,40,32	
		1,13,14,36, 2,15, 0,42		5,21
56″	48,45,17,31,42,43,35,36, 6, 5		3,33,51,45,53	
		1,13,14,32,28,23,14,49		5,21
58″	48,45,18,44,57,16, 3,59,20,54		3,33,51,51,14	
		1,13,14,28,54,31,23,35		
60″	48,45,19,58,11,44,58,30,44,29			
exact	48,45,19,58,11,44,58,30,21,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°21′ 0″	48,45,19,58,11,44,58,30,21,10	1,13,14,25,20,39,24,32		
2″	48,45,21,11,26,10,19, 9,45,42	1,13,14,21,46,47,22,26	3,33,52, 2, 6	5,21
4″	48,45,22,24,40,32, 5,57, 8, 8	1,13,14,18,12,55,14,59	3,33,52, 7,27	5,21
6″	48,45,23,37,54,50,18,52,23, 7	1,13,14,14,39, 3, 2,11	3,33,52,12,48	5,21
8″	48,45,24,51, 9, 4,57,55,25,18	1,13,14,11, 5,10,44, 2	3,33,52,18, 9	5,21
10″	48,45,26, 4,23,16, 3, 6, 9,20	1,13,14, 7,31,18,20,32	3,33,52,23,30	5,21
12″	48,45,27,17,37,23,34,24,29,52	1,13,14, 3,57,25,51,41	3,33,52,28,51	5,21
14″	48,45,28,30,51,27,31,50,21,33	1,13,14, 0,23,33,17,29	3,33,52,34,12	5,21
16″	48,45,29,44, 5,27,55,23,39, 2	1,13,13,56,49,40,37,56	3,33,52,39,33	5,21
18″	48,45,30,57,19,24,45, 4,16,58	1,13,13,53,15,47,53, 2	3,33,52,44,54	5,21
20″	48,45,32,10,33,18, 0,52,10, 0	1,13,13,49,41,55, 2,47	3,33,52,50,15	5,21
22″	48,45,33,23,47, 7,42,47,12,47	1,13,13,46, 8, 2, 7,11	3,33,52,55,36	5,21
24″	48,45,34,37, 0,53,50,49,19,58	1,13,13,42,34, 9, 6,14	3,33,53, 0,57	5,21
26″	48,45,35,50,14,36,24,58,26,12	1,13,13,39, 0,15,59,56	3,33,53, 6,18	5,21
28″	48,45,37, 3,28,15,25,14,26, 8	1,13,13,35,26,22,48,17	3,33,53,11,39	5,21
30″	48,45,38,16,41,50,51,37,14,25	1,13,13,31,52,29,31,17	3,33,53,17, 0	5,21
32″	48,45,39,29,55,22,44, 6,45,42	1,13,13,28,18,36, 8,56	3,33,53,22,21	5,21
34″	48,45,40,43, 8,51, 2,42,54,38	1,13,13,24,44,42,41,14	3,33,53,27,42	5,21
36″	48,45,41,56,22,15,47,25,35,52	1,13,13,21,10,49, 8,11	3,33,53,33, 3	5,21
38″	48,45,43, 9,35,36,58,14,44, 3	1,13,13,17,36,55,29,47	3,33,53,38,24	5,21
40″	48,45,44,22,48,54,35,10,13,50	1,13,13,14, 3, 1,46, 2	3,33,53,43,45	5,21
42″	48,45,45,36, 2, 8,38,11,59,52	1,13,13,10,29, 7,56,56	3,33,53,49, 6	5,21
44″	48,45,46,49,15,19, 7,19,56,48	1,13,13, 6,55,14, 2,29	3,33,53,54,27	5,21
46″	48,45,48, 2,28,26, 2,33,59,17	1,13,13, 3,21,20, 2,41	3,33,53,59,48	5,21
48″	48,45,49,15,41,29,23,54, 1,58	1,13,12,59,47,25,57,32	3,33,54, 5, 9	5,21
50″	48,45,50,28,54,29,11,19,59,30	1,13,12,56,13,31,47, 2	3,33,54,10,30	5,21
52″	48,45,51,42, 7,25,24,51,46,32	1,13,12,52,39,37,31,11	3,33,54,15,51	5,21
54″	48,45,52,55,20,18, 4,29,17,43	1,13,12,49, 5,43, 9,59	3,33,54,21,12	5,21
56″	48,45,54, 8,33, 7,10,12,27,42	1,13,12,45,31,48,43,26	3,33,54,26,33	5,21
58″	48,45,55,21,45,52,42, 1,11, 8	1,13,12,41,57,54,11,32	3,33,54,31,54	
60″	48,45,56,34,58,34,39,55,22,40			
exact	48,45,56,34,58,34,39,55, 8,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°22′ 0″	48,45,56,34,58,34,39,55, 8,40			
		1,13,12,38,23,59,32,48		
2″	48,45,57,48,11,13, 3,54,41,28		3,33,54,42,42	
		1,13,12,34,50, 4,50, 6		5,21
4″	48,45,59, 1,23,47,53,59,31,34		3,33,54,48, 3	
		1,13,12,31,16,10, 2, 3		5,21
6″	48,46, 0,14,36,19,10, 9,33,37		3,33,54,53,24	
		1,13,12,27,42,15, 8,39		5,21
8″	48,46, 1,27,48,46,52,24,42,16		3,33,54,58,45	
		1,13,12,24, 8,20, 9,54		5,21
10″	48,46, 2,41, 1,11, 0,44,52,10		3,33,55, 4, 6	
		1,13,12,20,34,25, 5,48		5,21
12″	48,46, 3,54,13,31,35, 9,57,58		3,33,55, 9,27	
		1,13,12,17, 0,29,56,21		5,21
14″	48,46, 5, 7,25,48,35,39,54,19		3,33,55,14,48	
		1,13,12,13,26,34,41,33		5,21
16″	48,46, 6,20,38, 2, 2,14,35,52		3,33,55,20, 9	
		1,13,12, 9,52,39,21,24		5,21
18″	48,46, 7,33,50,11,54,53,57,16		3,33,55,25,30	
		1,13,12, 6,18,43,55,54		5,21
20″	48,46, 8,47, 2,18,13,37,53,10		3,33,55,30,51	
		1,13,12, 2,44,48,25, 3		5,21
22″	48,46,10, 0,14,20,58,26,18,13		3,33,55,36,12	
		1,13,11,59,10,52,48,51		5,21
24″	48,46,11,13,26,20, 9,19, 7, 4		3,33,55,41,33	
		1,13,11,55,36,57, 7,18		5,21
26″	48,46,12,26,38,15,46,16,14,22		3,33,55,46,54	
		1,13,11,52, 3, 1,20,24		5,21
28″	48,46,13,39,50, 7,49,17,34,46		3,33,55,52,15	
		1,13,11,48,29, 5,28, 9		5,21
30″	48,46,14,53, 1,56,18,23, 2,55		3,33,55,57,36	
		1,13,11,44,55, 9,30,33		5,21
32″	48,46,16, 6,13,41,13,32,33,28		3,33,56, 2,57	
		1,13,11,41,21,13,27,36		5,21
34″	48,46,17,19,25,22,34,46, 1, 4		3,33,56, 8,18	
		1,13,11,37,47,17,19,18		5,21
36″	48,46,18,32,37, 0,22, 3,20,22		3,33,56,13,39	
		1,13,11,34,13,21, 5,39		5,21
38″	48,46,19,45,48,34,35,24,26, 1		3,33,56,19, 0	
		1,13,11,30,39,24,46,39		5,21
40″	48,46,20,59, 0, 5,14,49,12,40		3,33,56,24,21	
		1,13,11,27, 5,28,22,18		5,21
42″	48,46,22,12,11,32,20,17,34,58		3,33,56,29,42	
		1,13,11,23,31,31,52,36		5,21
44″	48,46,23,25,22,55,51,49,27,34		3,33,56,35, 3	
		1,13,11,19,57,35,17,33		5,21
46″	48,46,24,38,34,15,49,24,45, 7		3,33,56,40,24	
		1,13,11,16,23,38,37, 9		5,21
48″	48,46,25,51,45,32,13, 3,22,16		3,33,56,45,45	
		1,13,11,12,49,41,51,24		5,21
50″	48,46,27, 4,56,45, 2,45,13,40		3,33,56,51, 6	
		1,13,11, 9,15,45, 0,18		5,21
52″	48,46,28,18, 7,54,18,30,13,58		3,33,56,56,27	
		1,13,11, 5,41,48, 3,51		5,21
54″	48,46,29,31,19, 0, 0,18,17,49		3,33,57, 1,48	
		1,13,11, 2, 7,51, 2, 3		5,21
56″	48,46,30,44,30, 2, 8, 9,19,52		3,33,57, 7, 9	
		1,13,10,58,33,53,54,54		5,21
58″	48,46,31,57,41, 0,42, 3,14,46		3,33,57,12,30	
		1,13,10,54,59,56,42,24		
60″	48,46,33,10,51,55,41,59,57,10			
exact	48,46,33,10,51,55,41,59,51,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°23′ 0″	48,46,33,10,51,55,41,59,51,35			
		1,13,10,51,25,59,23,59		
2″	48,46,34,24, 2,47, 7,59,15,34		3,33,57,23,14	
		1,13,10,47,52, 2, 0,45		5,21
4″	48,46,35,37,13,35, 0, 1,16,19		3,33,57,28,35	
		1,13,10,44,18, 4,32,10		5,21
6″	48,46,36,50,24,19,18, 5,48,29		3,33,57,33,56	
		1,13,10,40,44, 6,58,14		5,21
8″	48,46,38, 3,35, 0, 2,12,46,43		3,33,57,39,17	
		1,13,10,37,10, 9,18,57		5,21
10″	48,46,39,16,45,37,12,22, 5,40		3,33,57,44,38	
		1,13,10,33,36,11,34,19		5,21
12″	48,46,40,29,56,10,48,33,39,59		3,33,57,49,59	
		1,13,10,30, 2,13,44,20		5,21
14″	48,46,41,43, 6,40,50,47,24,19		3,33,57,55,20	
		1,13,10,26,28,15,49, 0		5,21
16″	48,46,42,56,17, 7,19, 3,13,19		3,33,58, 0,41	
		1,13,10,22,54,17,48,19		5,21
18″	48,46,44, 9,27,30,13,21, 1,38		3,33,58, 6, 2	
		1,13,10,19,20,19,42,17		5,21
20″	48,46,45,22,37,49,33,40,43,55		3,33,58,11,23	
		1,13,10,15,46,21,30,54		5,21
22″	48,46,46,35,48, 5,20, 2,14,49		3,33,58,16,44	
		1,13,10,12,12,23,14,10		5,21
24″	48,46,47,48,58,17,32,25,28,59		3,33,58,22, 5	
		1,13,10, 8,38,24,52, 5		5,21
26″	48,46,49, 2, 8,26,10,50,21, 4		3,33,58,27,26	
		1,13,10, 5, 4,26,24,39		5,21
28″	48,46,50,15,18,31,15,16,45,43		3,33,58,32,47	
		1,13,10, 1,30,27,51,52		5,21
30″	48,46,51,28,28,32,45,44,37,35		3,33,58,38, 8	
		1,13, 9,57,56,29,13,44		5,21
32″	48,46,52,41,38,30,42,13,51,19		3,33,58,43,29	
		1,13, 9,54,22,30,30,15		5,21
34″	48,46,53,54,48,25, 4,44,21,34		3,33,58,48,50	
		1,13, 9,50,48,31,41,25		5,21
36″	48,46,55, 7,58,15,53,16, 2,59		3,33,58,54,11	
		1,13, 9,47,14,32,47,14		5,21
38″	48,46,56,21, 8, 3, 7,48,50,13		3,33,58,59,32	
		1,13, 9,43,40,33,47,42		5,21
40″	48,46,57,34,17,46,48,22,37,55		3,33,59, 4,53	
		1,13, 9,40, 6,34,42,49		5,21
42″	48,46,58,47,27,26,54,57,20,44		3,33,59,10,14	
		1,13, 9,36,32,35,32,35		5,21
44″	48,47, 0, 0,37, 3,27,32,53,19		3,33,59,15,35	
		1,13, 9,32,58,36,17, 0		5,21
46″	48,47, 1,13,46,36,26, 9,10,19		3,33,59,20,56	
		1,13, 9,29,24,36,56, 4		5,21
48″	48,47, 2,26,56, 5,50,46, 6,23		3,33,59,26,17	
		1,13, 9,25,50,37,29,47		5,21
50″	48,47, 3,40, 5,31,41,23,36,10		3,33,59,31,38	
		1,13, 9,22,16,37,58, 9		5,21
52″	48,47, 4,53,14,53,58, 1,34,19		3,33,59,36,59	
		1,13, 9,18,42,38,21,10		5,21
54″	48,47, 6, 6,24,12,40,39,55,29		3,33,59,42,20	
		1,13, 9,15, 8,38,38,50		5,21
56″	48,47, 7,19,33,27,49,18,34,19		3,33,59,47,41	
		1,13, 9,11,34,38,51, 9		5,21
58″	48,47, 8,32,42,39,23,57,25,28		3,33,59,53, 2	
		1,13, 9, 8, 0,38,58, 7		
60″	48,47, 9,45,51,47,24,36,23,35			
exact	48,47, 9,45,51,47,24,36,26,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°24′ 0″	48,47, 9,45,51,47,24,36,26,15			
		1,13, 9, 4,26,39, 0, 4		
2″	48,47,10,59, 0,51,51,15,26,19		3,34, 0, 3,42	
		1,13, 9, 0,52,38,56,22		5,21
4″	48,47,12,12, 9,52,43,54,22,41		3,34, 0, 9, 3	
		1,13, 8,57,18,38,47,19		5,21
6″	48,47,13,25,18,50, 2,33,10, 0		3,34, 0,14,24	
		1,13, 8,53,44,38,32,55		5,21
8″	48,47,14,38,27,43,47,11,42,55		3,34, 0,19,45	
		1,13, 8,50,10,38,13,10		5,21
10″	48,47,15,51,36,33,57,49,56, 5		3,34, 0,25, 6	
		1,13, 8,46,36,37,48, 4		5,21
12″	48,47,17, 4,45,20,34,27,44, 9		3,34, 0,30,27	
		1,13, 8,43, 2,37,17,37		5,21
14″	48,47,18,17,54, 3,37, 5, 1,46		3,34, 0,35,48	
		1,13, 8,39,28,36,41,49		5,21
16″	48,47,19,31, 2,43, 5,41,43,35		3,34, 0,41, 9	
		1,13, 8,35,54,36, 0,40		5,21
18″	48,47,20,44,11,19, 0,17,44,15		3,34, 0,46,30	
		1,13, 8,32,20,35,14,10		5,21
20″	48,47,21,57,19,51,20,52,58,25		3,34, 0,51,51	
		1,13, 8,28,46,34,22,19		5,21
22″	48,47,23,10,28,20, 7,27,20,44		3,34, 0,57,12	
		1,13, 8,25,12,33,25, 7		5,21
24″	48,47,24,23,36,45,20, 0,45,51		3,34, 1, 2,33	
		1,13, 8,21,38,32,22,34		5,21
26″	48,47,25,36,45, 6,58,33, 8,25		3,34, 1, 7,54	
		1,13, 8,18, 4,31,14,40		5,21
28″	48,47,26,49,53,25, 3, 4,23, 5		3,34, 1,13,15	
		1,13, 8,14,30,30, 1,25		5,21
30″	48,47,28, 3, 1,39,33,34,24,30		3,34, 1,18,36	
		1,13, 8,10,56,28,42,49		5,21
32″	48,47,29,16, 9,50,30, 3, 7,19		3,34, 1,23,57	
		1,13, 8, 7,22,27,18,52		5,21
34″	48,47,30,29,17,57,52,30,26,11		3,34, 1,29,18	
		1,13, 8, 3,48,25,49,34		5,21
36″	48,47,31,42,26, 1,40,56,15,45		3,34, 1,34,39	
		1,13, 8, 0,14,24,14,55		5,21
38″	48,47,32,55,34, 1,55,20,30,40		3,34, 1,40, 0	
		1,13, 7,56,40,22,34,55		5,21
40″	48,47,34, 8,41,58,35,43, 5,35		3,34, 1,45,21	
		1,13, 7,53, 6,20,49,34		5,21
42″	48,47,35,21,49,51,42, 3,55, 9		3,34, 1,50,42	
		1,13, 7,49,32,18,58,52		5,21
44″	48,47,36,34,57,41,14,22,54, 1		3,34, 1,56, 3	
		1,13, 7,45,58,17, 2,49		5,21
46″	48,47,37,48, 5,27,12,39,56,50		3,34, 2, 1,24	
		1,13, 7,42,24,15, 1,25		5,21
48″	48,47,39, 1,13, 9,36,54,58,15		3,34, 2, 6,45	
		1,13, 7,38,50,12,54,40		5,21
50″	48,47,40,14,20,48,27, 7,52,55		3,34, 2,12, 6	
		1,13, 7,35,16,10,42,34		5,21
52″	48,47,41,27,28,23,43,18,35,29		3,34, 2,17,27	
		1,13, 7,31,42, 8,25, 7		5,21
54″	48,47,42,40,35,55,25,27, 0,36		3,34, 2,22,48	
		1,13, 7,28, 8, 6, 2,19		5,21
56″	48,47,43,53,43,23,33,33, 2,55		3,34, 2,28, 9	
		1,13, 7,24,34, 3,34,10		5,21
58″	48,47,45, 6,50,48, 7,36,37, 5		3,34, 2,33,30	
		1,13, 7,21, 0, 1, 0,40		
60″	48,47,46,19,58, 9, 7,37,37,45			
exact	48,47,46,19,58, 9, 7,37,47,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°25′ 0″	48,47,46,19,58, 9, 7,37,47,35			
		1,13, 7,17,25,58,22,59		
2″	48,47,47,33, 5,26,33,36,10,34		3,34, 2,44, 6	
		1,13, 7,13,51,55,38,53		5,21
4″	48,47,48,46,12,40,25,31,49,27		3,34, 2,49,27	
		1,13, 7,10,17,52,49,26		5,21
6″	48,47,49,59,19,50,43,24,38,53		3,34, 2,54,48	
		1,13, 7, 6,43,49,54,38		5,21
8″	48,47,51,12,26,57,27,14,33,31		3,34, 3, 0, 9	
		1,13, 7, 3, 9,46,54,29		5,21
10″	48,47,52,25,34, 0,37, 1,28, 0		3,34, 3, 5,30	
		1,13, 6,59,35,43,48,59		5,21
12″	48,47,53,38,41, 0,12,45,16,59		3,34, 3,10,51	
		1,13, 6,56, 1,40,38, 8		5,21
14″	48,47,54,51,47,56,14,25,55, 7		3,34, 3,16,12	
		1,13, 6,52,27,37,21,56		5,21
16″	48,47,56, 4,54,48,42, 3,17, 3		3,34, 3,21,33	
		1,13, 6,48,53,34, 0,23		5,21
18″	48,47,57,18, 1,37,35,37,17,26		3,34, 3,26,54	
		1,13, 6,45,19,30,33,29		5,21
20″	48,47,58,31, 8,22,55, 7,50,55		3,34, 3,32,15	
		1,13, 6,41,45,27, 1,14		5,21
22″	48,47,59,44,15, 4,40,34,52, 9		3,34, 3,37,36	
		1,13, 6,38,11,23,23,38		5,21
24″	48,48, 0,57,21,42,51,58,15,47		3,34, 3,42,57	
		1,13, 6,34,37,19,40,41		5,21
26″	48,48, 2,10,28,17,29,17,56,28		3,34, 3,48,18	
		1,13, 6,31, 3,15,52,23		5,21
28″	48,48, 3,23,34,48,32,33,48,51		3,34, 3,53,39	
		1,13, 6,27,29,11,58,44		5,21
30″	48,48, 4,36,41,16, 1,45,47,35		3,34, 3,59, 0	
		1,13, 6,23,55, 7,59,44		5,21
32″	48,48, 5,49,47,39,56,53,47,19		3,34, 4, 4,21	
		1,13, 6,20,21, 3,55,23		5,21
34″	48,48, 7, 2,54, 0,17,57,42,42		3,34, 4, 9,42	
		1,13, 6,16,46,59,45,41		5,21
36″	48,48, 8,16, 0,17, 4,57,28,23		3,34, 4,15, 3	
		1,13, 6,13,12,55,30,38		5,21
38″	48,48, 9,29, 6,30,17,52,59, 1		3,34, 4,20,24	
		1,13, 6, 9,38,51,10,14		5,21
40″	48,48,10,42,12,39,56,44, 9,15		3,34, 4,25,45	
		1,13, 6, 6, 4,46,44,29		5,21
42″	48,48,11,55,18,46, 1,30,53,44		3,34, 4,31, 6	
		1,13, 6, 2,30,42,13,23		5,21
44″	48,48,13, 8,24,48,32,13, 7, 7		3,34, 4,36,27	
		1,13, 5,58,56,37,36,56		5,21
46″	48,48,14,21,30,47,28,50,44, 3		3,34, 4,41,48	
		1,13, 5,55,22,32,55, 8		5,21
48″	48,48,15,34,36,42,51,23,39,11		3,34, 4,47, 9	
		1,13, 5,51,48,28, 7,59		5,21
50″	48,48,16,47,42,34,39,51,47,10		3,34, 4,52,30	
		1,13, 5,48,14,23,15,29		5,21
52″	48,48,18, 0,48,22,54,15, 2,39		3,34, 4,57,51	
		1,13, 5,44,40,18,17,38		5,21
54″	48,48,19,13,54, 7,34,33,20,17		3,34, 5, 3,12	
		1,13, 5,41, 6,13,14,26		5,21
56″	48,48,20,26,59,48,40,46,34,43		3,34, 5, 8,33	
		1,13, 5,37,32, 8, 5,53		5,21
58″	48,48,21,40, 5,26,12,54,40,36		3,34, 5,13,54	
		1,13, 5,33,58, 2,51,59		
60″	48,48,22,53,11, 0,10,57,32,35			
exact	48,48,22,53,11, 0,10,57,49,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°26′ 0″	48,48,22,53,11, 0,10,57,49,12			
		1,13, 5,30,23,57,34,42		
2″	48,48,24, 6,16,30,34,55,23,54		3,34, 5,24,27	
		1,13, 5,26,49,52,10,15		5,21
4″	48,48,25,19,21,57,24,47,34, 9		3,34, 5,29,48	
		1,13, 5,23,15,46,40,27		5,21
6″	48,48,26,32,27,20,40,34,14,36		3,34, 5,35, 9	
		1,13, 5,19,41,41, 5,18		5,21
8″	48,48,27,45,32,40,22,15,19,54		3,34, 5,40,30	
		1,13, 5,16, 7,35,24,48		5,21
10″	48,48,28,58,37,56,29,50,44,42		3,34, 5,45,51	
		1,13, 5,12,33,29,38,57		5,21
12″	48,48,30,11,43, 9, 3,20,23,39		3,34, 5,51,12	
		1,13, 5, 8,59,23,47,45		5,21
14″	48,48,31,24,48,18, 2,44,11,24		3,34, 5,56,33	
		1,13, 5, 5,25,17,51,12		5,21
16″	48,48,32,37,53,23,28, 2, 2,36		3,34, 6, 1,54	
		1,13, 5, 1,51,11,49,18		5,21
18″	48,48,33,50,58,25,19,13,51,54		3,34, 6, 7,15	
		1,13, 4,58,17, 5,42, 3		5,21
20″	48,48,35, 4, 3,23,36,19,33,57		3,34, 6,12,36	
		1,13, 4,54,42,59,29,27		5,21
22″	48,48,36,17, 8,18,19,19, 3,24		3,34, 6,17,57	
		1,13, 4,51, 8,53,11,30		5,21
24″	48,48,37,30,13, 9,28,12,14,54		3,34, 6,23,18	
		1,13, 4,47,34,46,48,12		5,21
26″	48,48,38,43,17,57, 2,59, 3, 6		3,34, 6,28,39	
		1,13, 4,44, 0,40,19,33		5,21
28″	48,48,39,56,22,41, 3,39,22,39		3,34, 6,34, 0	
		1,13, 4,40,26,33,45,33		5,21
30″	48,48,41, 9,27,21,30,13, 8,12		3,34, 6,39,21	
		1,13, 4,36,52,27, 6,12		5,21
32″	48,48,42,22,31,58,22,40,14,24		3,34, 6,44,42	
		1,13, 4,33,18,20,21,30		5,21
34″	48,48,43,35,36,31,41, 0,35,54		3,34, 6,50, 3	
		1,13, 4,29,44,13,31,27		5,21
36″	48,48,44,48,41, 1,25,14, 7,21		3,34, 6,55,24	
		1,13, 4,26,10, 6,36, 3		5,21
38″	48,48,46, 1,45,27,35,20,43,24		3,34, 7, 0,45	
		1,13, 4,22,35,59,35,18		5,21
40″	48,48,47,14,49,50,11,20,18,42		3,34, 7, 6, 6	
		1,13, 4,19, 1,52,29,12		5,21
42″	48,48,48,27,54, 9,13,12,47,54		3,34, 7,11,27	
		1,13, 4,15,27,45,17,45		5,21
44″	48,48,49,40,58,24,40,58, 5,39		3,34, 7,16,48	
		1,13, 4,11,53,38, 0,57		5,21
46″	48,48,50,54, 2,36,34,36, 6,36		3,34, 7,22, 9	
		1,13, 4, 8,19,30,38,48		5,21
48″	48,48,52, 7, 6,44,54, 6,45,24		3,34, 7,27,30	
		1,13, 4, 4,45,23,11,18		5,21
50″	48,48,53,20,10,49,39,29,56,42		3,34, 7,32,51	
		1,13, 4, 1,11,15,38,27		5,21
52″	48,48,54,33,14,50,50,45,35, 9		3,34, 7,38,12	
		1,13, 3,57,37, 8, 0,15		5,21
54″	48,48,55,46,18,48,27,53,35,24		3,34, 7,43,33	
		1,13, 3,54, 3, 0,16,42		5,21
56″	48,48,56,59,22,42,30,53,52, 6		3,34, 7,48,54	
		1,13, 3,50,28,52,27,48		5,21
58″	48,48,58,12,26,32,59,46,19,54		3,34, 7,54,15	
		1,13, 3,46,54,44,33,33		
60″	48,48,59,25,30,19,54,30,53,27			
exact	48,48,59,25,30,19,54,31,23,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°27′ 0″	48,48,59,25,30,19,54,31,23,23			
		1,13, 3,43,20,36,37,10		
2″	48,49, 0,38,34, 3,15, 8, 0,33		3,34, 8, 4,43	
		1,13, 3,39,46,28,32,27		5,20
4″	48,49, 1,51,37,43, 1,36,33, 0		3,34, 8,10, 3	
		1,13, 3,36,12,20,22,24		5,20
6″	48,49, 3, 4,41,19,13,56,55,24		3,34, 8,15,23	
		1,13, 3,32,38,12, 7, 1		5,20
8″	48,49, 4,17,44,51,52, 9, 2,25		3,34, 8,20,43	
		1,13, 3,29, 4, 3,46,18		5,20
10″	48,49, 5,30,48,20,56,12,48,43		3,34, 8,26, 3	
		1,13, 3,25,29,55,20,15		5,20
12″	48,49, 6,43,51,46,26, 8, 8,58		3,34, 8,31,23	
		1,13, 3,21,55,46,48,52		5,20
14″	48,49, 7,56,55, 8,21,54,57,50		3,34, 8,36,43	
		1,13, 3,18,21,38,12, 9		5,20
16″	48,49, 9, 9,58,26,43,33, 9,59		3,34, 8,42, 3	
		1,13, 3,14,47,29,30, 6		5,20
18″	48,49,10,23, 1,41,31, 2,40, 5		3,34, 8,47,23	
		1,13, 3,11,13,20,42,43		5,20
20″	48,49,11,36, 4,52,44,23,22,48		3,34, 8,52,43	
		1,13, 3, 7,39,11,50, 0		5,20
22″	48,49,12,49, 8, 0,23,35,12,48		3,34, 8,58, 3	
		1,13, 3, 4, 5, 2,51,57		5,20
24″	48,49,14, 2,11, 4,28,38, 4,45		3,34, 9, 3,23	
		1,13, 3, 0,30,53,48,34		5,20
26″	48,49,15,15,14, 4,59,31,53,19		3,34, 9, 8,43	
		1,13, 2,56,56,44,39,51		5,20
28″	48,49,16,28,17, 1,56,16,33,10		3,34, 9,14, 3	
		1,13, 2,53,22,35,25,48		5,20
30″	48,49,17,41,19,55,18,51,58,58		3,34, 9,19,23	
		1,13, 2,49,48,26, 6,25		5,20
32″	48,49,18,54,22,45, 7,18, 5,23		3,34, 9,24,43	
		1,13, 2,46,14,16,41,42		5,20
34″	48,49,20, 7,25,31,21,34,47, 5		3,34, 9,30, 3	
		1,13, 2,42,40, 7,11,39		5,20
36″	48,49,21,20,28,14, 1,41,58,44		3,34, 9,35,23	
		1,13, 2,39, 5,57,36,16		5,20
38″	48,49,22,33,30,53, 7,39,35, 0		3,34, 9,40,43	
		1,13, 2,35,31,47,55,33		5,20
40″	48,49,23,46,33,28,39,27,30,33		3,34, 9,46, 3	
		1,13, 2,31,57,38, 9,30		5,20
42″	48,49,24,59,36, 0,37, 5,40, 3		3,34, 9,51,23	
		1,13, 2,28,23,28,18, 7		5,20
44″	48,49,26,12,38,29, 0,33,58,10		3,34, 9,56,43	
		1,13, 2,24,49,18,21,24		5,20
46″	48,49,27,25,40,53,49,52,19,34		3,34,10, 2, 3	
		1,13, 2,21,15, 8,19,21		5,20
48″	48,49,28,38,43,15, 5, 0,38,55		3,34,10, 7,23	
		1,13, 2,17,40,58,11,58		5,20
50″	48,49,29,51,45,32,45,58,50,53		3,34,10,12,43	
		1,13, 2,14, 6,47,59,15		5,20
52″	48,49,31, 4,47,46,52,46,50, 8		3,34,10,18, 3	
		1,13, 2,10,32,37,41,12		5,20
54″	48,49,32,17,49,57,25,24,31,20		3,34,10,23,23	
		1,13, 2, 6,58,27,17,49		5,20
56″	48,49,33,30,52, 4,23,51,49, 9		3,34,10,28,43	
		1,13, 2, 3,24,16,49, 6		5,20
58″	48,49,34,43,54, 7,48, 8,38,15		3,34,10,34, 3	
		1,13, 1,59,50, 6,15, 3		
60″	48,49,35,56,56, 7,38,14,53,18			
exact	48,49,35,56,56, 7,38,14,21, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°28′ 0″	48,49,35,56,56, 7,38,14,21, 7			
		1,13, 1,56,15,55,32,21		
2″	48,49,37, 9,58, 3,54, 9,53,28		3,34,10,44,56	
		1,13, 1,52,41,44,47,25		5,20
4″	48,49,38,22,59,56,35,54,40,53		3,34,10,50,16	
		1,13, 1,49, 7,33,57, 9		5,20
6″	48,49,39,36, 1,45,43,28,38, 2		3,34,10,55,36	
		1,13, 1,45,33,23, 1,33		5,20
8″	48,49,40,49, 3,31,16,51,39,35		3,34,11, 0,56	
		1,13, 1,41,59,12, 0,37		5,20
10″	48,49,42, 2, 5,13,16, 3,40,12		3,34,11, 6,16	
		1,13, 1,38,25, 0,54,21		5,20
12″	48,49,43,15, 6,51,41, 4,34,33		3,34,11,11,36	
		1,13, 1,34,50,49,42,45		5,20
14″	48,49,44,28, 8,26,31,54,17,18		3,34,11,16,56	
		1,13, 1,31,16,38,25,49		5,20
16″	48,49,45,41, 9,57,48,32,43, 7		3,34,11,22,16	
		1,13, 1,27,42,27, 3,33		5,20
18″	48,49,46,54,11,25,30,59,46,40		3,34,11,27,36	
		1,13, 1,24, 8,15,35,57		5,20
20″	48,49,48, 7,12,49,39,15,22,37		3,34,11,32,56	
		1,13, 1,20,34, 4, 3, 1		5,20
22″	48,49,49,20,14,10,13,19,25,38		3,34,11,38,16	
		1,13, 1,16,59,52,24,45		5,20
24″	48,49,50,33,15,27,13,11,50,23		3,34,11,43,36	
		1,13, 1,13,25,40,41, 9		5,20
26″	48,49,51,46,16,40,38,52,31,32		3,34,11,48,56	
		1,13, 1, 9,51,28,52,13		5,20
28″	48,49,52,59,17,50,30,21,23,45		3,34,11,54,16	
		1,13, 1, 6,17,16,57,57		5,20
30″	48,49,54,12,18,56,47,38,21,42		3,34,11,59,36	
		1,13, 1, 2,43, 4,58,21		5,20
32″	48,49,55,25,19,59,30,43,20, 3		3,34,12, 4,56	
		1,13, 0,59, 8,52,53,25		5,20
34″	48,49,56,38,20,58,39,36,13,28		3,34,12,10,16	
		1,13, 0,55,34,40,43, 9		5,20
36″	48,49,57,51,21,54,14,16,56,37		3,34,12,15,36	
		1,13, 0,52, 0,28,27,33		5,20
38″	48,49,59, 4,22,46,14,45,24,10		3,34,12,20,56	
		1,13, 0,48,26,16, 6,37		5,20
40″	48,50, 0,17,23,34,41, 1,30,47		3,34,12,26,16	
		1,13, 0,44,52, 3,40,21		5,20
42″	48,50, 1,30,24,19,33, 5,11, 8		3,34,12,31,36	
		1,13, 0,41,17,51, 8,45		5,20
44″	48,50, 2,43,25, 0,50,56,19,53		3,34,12,36,56	
		1,13, 0,37,43,38,31,49		5,20
46″	48,50, 3,56,25,38,34,34,51,42		3,34,12,42,16	
		1,13, 0,34, 9,25,49,33		5,20
48″	48,50, 5, 9,26,12,44, 0,41,15		3,34,12,47,36	
		1,13, 0,30,35,13, 1,57		5,20
50″	48,50, 6,22,26,43,19,13,43,12		3,34,12,52,56	
		1,13, 0,27, 1, 0, 9, 1		5,20
52″	48,50, 7,35,27,10,20,13,52,13		3,34,12,58,16	
		1,13, 0,23,26,47,10,45		5,20
54″	48,50, 8,48,27,33,47, 1, 2,58		3,34,13, 3,36	
		1,13, 0,19,52,34, 7, 9		5,20
56″	48,50,10, 1,27,53,39,35,10, 7		3,34,13, 8,56	
		1,13, 0,16,18,20,58,13		5,20
58″	48,50,11,14,28, 9,57,56, 8,20		3,34,13,14,16	
		1,13, 0,12,44, 7,43,57		
60″	48,50,12,27,28,22,42, 3,52,17			
exact	48,50,12,27,28,22,42, 3,32, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°29′ 0″	48,50,12,27,28,22,42, 3,32, 7			
		1,13, 0, 9, 9,54,22,12		
2″	48,50,13,40,28,31,51,57,54,19		3,34,13,25, 4	
		1,13, 0, 5,35,40,57, 8		5,20
4″	48,50,14,53,28,37,27,38,51,27		3,34,13,30,24	
		1,13, 0, 2, 1,27,26,44		5,20
6″	48,50,16, 6,28,39,29, 6,18,11		3,34,13,35,44	
		1,12,59,58,27,13,51, 0		5,20
8″	48,50,17,19,28,37,56,20, 9,11		3,34,13,41, 4	
		1,12,59,54,53, 0, 9,56		5,20
10″	48,50,18,32,28,32,49,20,19, 7		3,34,13,46,24	
		1,12,59,51,18,46,23,32		5,20
12″	48,50,19,45,28,24, 8, 6,42,39		3,34,13,51,44	
		1,12,59,47,44,32,31,48		5,20
14″	48,50,20,58,28,11,52,39,14,27		3,34,13,57, 4	
		1,12,59,44,10,18,34,44		5,20
16″	48,50,22,11,27,56, 2,57,49,11		3,34,14, 2,24	
		1,12,59,40,36, 4,32,20		5,20
18″	48,50,23,24,27,36,39, 2,21,31		3,34,14, 7,44	
		1,12,59,37, 1,50,24,36		5,20
20″	48,50,24,37,27,13,40,52,46, 7		3,34,14,13, 4	
		1,12,59,33,27,36,11,32		5,20
22″	48,50,25,50,26,47, 8,28,57,39		3,34,14,18,24	
		1,12,59,29,53,21,53, 8		5,20
24″	48,50,27, 3,26,17, 1,50,50,47		3,34,14,23,44	
		1,12,59,26,19, 7,29,24		5,20
26″	48,50,28,16,25,43,20,58,20,11		3,34,14,29, 4	
		1,12,59,22,44,53, 0,20		5,20
28″	48,50,29,29,25, 6, 5,51,20,31		3,34,14,34,24	
		1,12,59,19,10,38,25,56		5,20
30″	48,50,30,42,24,25,16,29,46,27		3,34,14,39,44	
		1,12,59,15,36,23,46,12		5,20
32″	48,50,31,55,23,40,52,53,32,39		3,34,14,45, 4	
		1,12,59,12, 2, 9, 1, 8		5,20
34″	48,50,33, 8,22,52,55, 2,33,47		3,34,14,50,24	
		1,12,59, 8,27,54,10,44		5,20
36″	48,50,34,21,22, 1,22,56,44,31		3,34,14,55,44	
		1,12,59, 4,53,39,15, 0		5,20
38″	48,50,35,34,21, 6,16,35,59,31		3,34,15, 1, 4	
		1,12,59, 1,19,24,13,56		5,20
40″	48,50,36,47,20, 7,36, 0,13,27		3,34,15, 6,24	
		1,12,58,57,45, 9, 7,32		5,20
42″	48,50,38, 0,19, 5,21, 9,20,59		3,34,15,11,44	
		1,12,58,54,10,53,55,48		5,20
44″	48,50,39,13,17,59,32, 3,16,47		3,34,15,17, 4	
		1,12,58,50,36,38,38,44		5,20
46″	48,50,40,26,16,50, 8,41,55,31		3,34,15,22,24	
		1,12,58,47, 2,23,16,20		5,20
48″	48,50,41,39,15,37,11, 5,11,51		3,34,15,27,44	
		1,12,58,43,28, 7,48,36		5,20
50″	48,50,42,52,14,20,39,13, 0,27		3,34,15,33, 4	
		1,12,58,39,53,52,15,32		5,20
52″	48,50,44, 5,13, 0,33, 5,15,59		3,34,15,38,24	
		1,12,58,36,19,36,37, 8		5,20
54″	48,50,45,18,11,36,52,41,53, 7		3,34,15,43,44	
		1,12,58,32,45,20,53,24		5,20
56″	48,50,46,31,10, 9,38, 2,46,31		3,34,15,49, 4	
		1,12,58,29,11, 5, 4,20		5,20
58″	48,50,47,44, 8,38,49, 7,50,51		3,34,15,54,24	
		1,12,58,25,36,49, 9,56		
60″	48,50,48,57, 7, 4,25,57, 0,47			
exact	48,50,48,57, 7, 4,25,56,44,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°30′ 0″	48,50,48,57, 7, 4,25,56,44,46			
		1,12,58,22, 2,33, 8,41		
2″	48,50,50,10, 5,26,28,29,53,27		3,34,16, 5, 9	
		1,12,58,18,28,17, 3,32		5,20
4″	48,50,51,23, 3,44,56,46,56,59		3,34,16,10,29	
		1,12,58,14,54, 0,53, 3		5,20
6″	48,50,52,36, 1,59,50,47,50, 2		3,34,16,15,49	
		1,12,58,11,19,44,37,14		5,20
8″	48,50,53,49, 0,11,10,32,27,16		3,34,16,21, 9	
		1,12,58, 7,45,28,16, 5		5,20
10″	48,50,55, 1,58,18,56, 0,43,21		3,34,16,26,29	
		1,12,58, 4,11,11,49,36		5,20
12″	48,50,56,14,56,23, 7,12,32,57		3,34,16,31,49	
		1,12,58, 0,36,55,17,47		5,20
14″	48,50,57,27,54,23,44, 7,50,44		3,34,16,37, 9	
		1,12,57,57, 2,38,40,38		5,20
16″	48,50,58,40,52,20,46,46,31,22		3,34,16,42,29	
		1,12,57,53,28,21,58, 9		5,20
18″	48,50,59,53,50,14,15, 8,29,31		3,34,16,47,49	
		1,12,57,49,54, 5,10,20		5,20
20″	48,51, 1, 6,48, 4, 9,13,39,51		3,34,16,53, 9	
		1,12,57,46,19,48,17,11		5,20
22″	48,51, 2,19,45,50,29, 1,57, 2		3,34,16,58,29	
		1,12,57,42,45,31,18,42		5,20
24″	48,51, 3,32,43,33,14,33,15,44		3,34,17, 3,49	
		1,12,57,39,11,14,14,53		5,20
26″	48,51, 4,45,41,12,25,47,30,37		3,34,17, 9, 9	
		1,12,57,35,36,57, 5,44		5,20
28″	48,51, 5,58,38,48, 2,44,36,21		3,34,17,14,29	
		1,12,57,32, 2,39,51,15		5,20
30″	48,51, 7,11,36,20, 5,24,27,36		3,34,17,19,49	
		1,12,57,28,28,22,31,26		5,20
32″	48,51, 8,24,33,48,33,46,59, 2		3,34,17,25, 9	
		1,12,57,24,54, 5, 6,17		5,20
34″	48,51, 9,37,31,13,27,52, 5,19		3,34,17,30,29	
		1,12,57,21,19,47,35,48		5,20
36″	48,51,10,50,28,34,47,39,41, 7		3,34,17,35,49	
		1,12,57,17,45,29,59,59		5,20
38″	48,51,12, 3,25,52,33, 9,41, 6		3,34,17,41, 9	
		1,12,57,14,11,12,18,50		5,20
40″	48,51,13,16,23, 6,44,21,59,56		3,34,17,46,29	
		1,12,57,10,36,54,32,21		5,20
42″	48,51,14,29,20,17,21,16,32,17		3,34,17,51,49	
		1,12,57, 7, 2,36,40,32		5,20
44″	48,51,15,42,17,24,23,53,12,49		3,34,17,57, 9	
		1,12,57, 3,28,18,43,23		5,20
46″	48,51,16,55,14,27,52,11,56,12		3,34,18, 2,29	
		1,12,56,59,54, 0,40,54		5,20
48″	48,51,18, 8,11,27,46,12,37, 6		3,34,18, 7,49	
		1,12,56,56,19,42,33, 5		5,20
50″	48,51,19,21, 8,24, 5,55,10,11		3,34,18,13, 9	
		1,12,56,52,45,24,19,56		5,20
52″	48,51,20,34, 5,16,51,19,30, 7		3,34,18,18,29	
		1,12,56,49,11, 6, 1,27		5,20
54″	48,51,21,47, 2, 6, 2,25,31,34		3,34,18,23,49	
		1,12,56,45,36,47,37,38		5,20
56″	48,51,22,59,58,51,39,13, 9,12		3,34,18,29, 9	
		1,12,56,42, 2,29, 8,29		5,20
58″	48,51,24,12,55,33,41,42,17,41		3,34,18,34,29	
		1,12,56,38,28,10,34, 0		
60″	48,51,25,25,52,12, 9,52,51,41			
exact	48,51,25,25,52,12, 9,52,46,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°31′ 0″	48,51,25,25,52,12, 9,52,46,13			
		1,12,56,34,53,51,53,44		
2″	48,51,26,38,48,47, 3,44,39,57		3,34,18,45,10	
		1,12,56,31,19,33, 8,34		5,20
4″	48,51,27,51,45,18,23,17,48,31		3,34,18,50,30	
		1,12,56,27,45,14,18, 4		5,20
6″	48,51,29, 4,41,46, 8,32, 6,35		3,34,18,55,50	
		1,12,56,24,10,55,22,14		5,20
8″	48,51,30,17,38,10,19,27,28,49		3,34,19, 1,10	
		1,12,56,20,36,36,21, 4		5,20
10″	48,51,31,30,34,30,56, 3,49,53		3,34,19, 6,30	
		1,12,56,17, 2,17,14,34		5,20
12″	48,51,32,43,30,47,58,21, 4,27		3,34,19,11,50	
		1,12,56,13,27,58, 2,44		5,20
14″	48,51,33,56,27, 1,26,19, 7,11		3,34,19,17,10	
		1,12,56, 9,53,38,45,34		5,20
16″	48,51,35, 9,23,11,19,57,52,45		3,34,19,22,30	
		1,12,56, 6,19,19,23, 4		5,20
18″	48,51,36,22,19,17,39,17,15,49		3,34,19,27,50	
		1,12,56, 2,44,59,55,14		5,20
20″	48,51,37,35,15,20,24,17,11, 3		3,34,19,33,10	
		1,12,55,59,10,40,22, 4		5,20
22″	48,51,38,48,11,19,34,57,33, 7		3,34,19,38,30	
		1,12,55,55,36,20,43,34		5,20
24″	48,51,40, 1, 7,15,11,18,16,41		3,34,19,43,50	
		1,12,55,52, 2, 0,59,44		5,20
26″	48,51,41,14, 3, 7,13,19,16,25		3,34,19,49,10	
		1,12,55,48,27,41,10,34		5,20
28″	48,51,42,26,58,55,41, 0,26,59		3,34,19,54,30	
		1,12,55,44,53,21,16, 4		5,20
30″	48,51,43,39,54,40,34,21,43, 3		3,34,19,59,50	
		1,12,55,41,19, 1,16,14		5,20
32″	48,51,44,52,50,21,53,22,59,17		3,34,20, 5,10	
		1,12,55,37,44,41,11, 4		5,20
34″	48,51,46, 5,45,59,38, 4,10,21		3,34,20,10,30	
		1,12,55,34,10,21, 0,34		5,20
36″	48,51,47,18,41,33,48,25,10,55		3,34,20,15,50	
		1,12,55,30,36, 0,44,44		5,20
38″	48,51,48,31,37, 4,24,25,55,39		3,34,20,21,10	
		1,12,55,27, 1,40,23,34		5,20
40″	48,51,49,44,32,31,26, 6,19,13		3,34,20,26,30	
		1,12,55,23,27,19,57, 4		5,20
42″	48,51,50,57,27,54,53,26,16,17		3,34,20,31,50	
		1,12,55,19,52,59,25,14		5,20
44″	48,51,52,10,23,14,46,25,41,31		3,34,20,37,10	
		1,12,55,16,18,38,48, 4		5,20
46″	48,51,53,23,18,31, 5, 4,29,35		3,34,20,42,30	
		1,12,55,12,44,18, 5,34		5,20
48″	48,51,54,36,13,43,49,22,35, 9		3,34,20,47,50	
		1,12,55, 9, 9,57,17,44		5,20
50″	48,51,55,49, 8,52,59,19,52,53		3,34,20,53,10	
		1,12,55, 5,35,36,24,34		5,20
52″	48,51,57, 2, 3,58,34,56,17,27		3,34,20,58,30	
		1,12,55, 2, 1,15,26, 4		5,20
54″	48,51,58,14,59, 0,36,11,43,31		3,34,21, 3,50	
		1,12,54,58,26,54,22,14		5,20
56″	48,51,59,27,53,59, 3, 6, 5,45		3,34,21, 9,10	
		1,12,54,54,52,33,13, 4		5,20
58″	48,52, 0,40,48,53,55,39,18,49		3,34,21,14,30	
		1,12,54,51,18,11,58,34		
60″	48,52, 1,53,43,45,13,51,17,23			
exact	48,52, 1,53,43,45,13,51,22,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°32′ 0″	48,52, 1,53,43,45,13,51,22,21			
		1,12,54,47,43,50,39,20		
2″	48,52, 3, 6,38,32,57,42, 1,41		3,34,21,25, 7	
		1,12,54,44, 9,29,14,13		5,20
4″	48,52, 4,19,33,17, 7,11,15,54		3,34,21,30,27	
		1,12,54,40,35, 7,43,46		5,20
6″	48,52, 5,32,27,57,42,18,59,40		3,34,21,35,47	
		1,12,54,37, 0,46, 7,59		5,20
8″	48,52, 6,45,22,34,43, 5, 7,39		3,34,21,41, 7	
		1,12,54,33,26,24,26,52		5,20
10″	48,52, 7,58,17, 8, 9,29,34,31		3,34,21,46,27	
		1,12,54,29,52, 2,40,25		5,20
12″	48,52, 9,11,11,38, 1,32,14,56		3,34,21,51,47	
		1,12,54,26,17,40,48,38		5,20
14″	48,52,10,24, 6, 4,19,13, 3,34		3,34,21,57, 7	
		1,12,54,22,43,18,51,31		5,20
16″	48,52,11,37, 0,27, 2,31,55, 5		3,34,22, 2,27	
		1,12,54,19, 8,56,49, 4		5,20
18″	48,52,12,49,54,46,11,28,44, 9		3,34,22, 7,47	
		1,12,54,15,34,34,41,17		5,20
20″	48,52,14, 2,49, 1,46, 3,25,26		3,34,22,13, 7	
		1,12,54,12, 0,12,28,10		5,20
22″	48,52,15,15,43,13,46,15,53,36		3,34,22,18,27	
		1,12,54, 8,25,50, 9,43		5,20
24″	48,52,16,28,37,22,12, 6, 3,19		3,34,22,23,47	
		1,12,54, 4,51,27,45,56		5,20
26″	48,52,17,41,31,27, 3,33,49,15		3,34,22,29, 7	
		1,12,54, 1,17, 5,16,49		5,20
28″	48,52,18,54,25,28,20,39, 6, 4		3,34,22,34,27	
		1,12,53,57,42,42,42,22		5,20
30″	48,52,20, 7,19,26, 3,21,48,26		3,34,22,39,47	
		1,12,53,54, 8,20, 2,35		5,20
32″	48,52,21,20,13,20,11,41,51, 1		3,34,22,45, 7	
		1,12,53,50,33,57,17,28		5,20
34″	48,52,22,33, 7,10,45,39, 8,29		3,34,22,50,27	
		1,12,53,46,59,34,27, 1		5,20
36″	48,52,23,46, 0,57,45,13,35,30		3,34,22,55,47	
		1,12,53,43,25,11,31,14		5,20
38″	48,52,24,58,54,41,10,25, 6,44		3,34,23, 1, 7	
		1,12,53,39,50,48,30, 7		5,20
40″	48,52,26,11,48,21, 1,13,36,51		3,34,23, 6,27	
		1,12,53,36,16,25,23,40		5,20
42″	48,52,27,24,41,57,17,39, 0,31		3,34,23,11,47	
		1,12,53,32,42, 2,11,53		5,20
44″	48,52,28,37,35,29,59,41,12,24		3,34,23,17, 7	
		1,12,53,29, 7,38,54,46		5,20
46″	48,52,29,50,28,59, 7,20, 7,10		3,34,23,22,27	
		1,12,53,25,33,15,32,19		5,20
48″	48,52,31, 3,22,24,40,35,39,29		3,34,23,27,47	
		1,12,53,21,58,52, 4,32		5,20
50″	48,52,32,16,15,46,39,27,44, 1		3,34,23,33, 7	
		1,12,53,18,24,28,31,25		5,20
52″	48,52,33,29, 9, 5, 3,56,15,26		3,34,23,38,27	
		1,12,53,14,50, 4,52,58		5,20
54″	48,52,34,42, 2,19,54, 1, 8,24		3,34,23,43,47	
		1,12,53,11,15,41, 9,11		5,20
56″	48,52,35,54,55,31, 9,42,17,35		3,34,23,49, 7	
		1,12,53, 7,41,17,20, 4		5,20
58″	48,52,37, 7,48,38,50,59,37,39		3,34,23,54,27	
		1,12,53, 4, 6,53,25,37		
60″	48,52,38,20,41,42,57,53, 3,16			
exact	48,52,38,20,41,42,57,53,17,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°33′ 0″	48,52,38,20,41,42,57,53,17,48			
		1,12,53, 0,32,29,27,26		
2″	48,52,39,33,34,43,30,22,45,14		3,34,24, 5, 0	
		1,12,52,56,58, 5,22,26		5,20
4″	48,52,40,46,27,40,28,28, 7,40		3,34,24,10,20	
		1,12,52,53,23,41,12, 6		5,20
6″	48,52,41,59,20,33,52, 9,19,46		3,34,24,15,40	
		1,12,52,49,49,16,56,26		5,20
8″	48,52,43,12,13,23,41,26,16,12		3,34,24,21, 0	
		1,12,52,46,14,52,35,26		5,20
10″	48,52,44,25, 6, 9,56,18,51,38		3,34,24,26,20	
		1,12,52,42,40,28, 9, 6		5,20
12″	48,52,45,37,58,52,36,47, 0,44		3,34,24,31,40	
		1,12,52,39, 6, 3,37,26		5,20
14″	48,52,46,50,51,31,42,50,38,10		3,34,24,37, 0	
		1,12,52,35,31,39, 0,26		5,20
16″	48,52,48, 3,44, 7,14,29,38,36		3,34,24,42,20	
		1,12,52,31,57,14,18, 6		5,20
18″	48,52,49,16,36,39,11,43,56,42		3,34,24,47,40	
		1,12,52,28,22,49,30,26		5,20
20″	48,52,50,29,29, 7,34,33,27, 8		3,34,24,53, 0	
		1,12,52,24,48,24,37,26		5,20
22″	48,52,51,42,21,32,22,58, 4,34		3,34,24,58,20	
		1,12,52,21,13,59,39, 6		5,20
24″	48,52,52,55,13,53,36,57,43,40		3,34,25, 3,40	
		1,12,52,17,39,34,35,26		5,20
26″	48,52,54, 8, 6,11,16,32,19, 6		3,34,25, 9, 0	
		1,12,52,14, 5, 9,26,26		5,20
28″	48,52,55,20,58,25,21,41,45,32		3,34,25,14,20	
		1,12,52,10,30,44,12, 6		5,20
30″	48,52,56,33,50,35,52,25,57,38		3,34,25,19,40	
		1,12,52, 6,56,18,52,26		5,20
32″	48,52,57,46,42,42,48,44,50, 4		3,34,25,25, 0	
		1,12,52, 3,21,53,27,26		5,20
34″	48,52,58,59,34,46,10,38,17,30		3,34,25,30,20	
		1,12,51,59,47,27,57, 6		5,20
36″	48,53, 0,12,26,45,58, 6,14,36		3,34,25,35,40	
		1,12,51,56,13, 2,21,26		5,20
38″	48,53, 1,25,18,42,11, 8,36, 2		3,34,25,41, 0	
		1,12,51,52,38,36,40,26		5,20
40″	48,53, 2,38,10,34,49,45,16,28		3,34,25,46,20	
		1,12,51,49, 4,10,54, 6		5,20
42″	48,53, 3,51, 2,23,53,56,10,34		3,34,25,51,40	
		1,12,51,45,29,45, 2,26		5,20
44″	48,53, 5, 3,54, 9,23,41,13, 0		3,34,25,57, 0	
		1,12,51,41,55,19, 5,26		5,20
46″	48,53, 6,16,45,51,19, 0,18,26		3,34,26, 2,20	
		1,12,51,38,20,53, 3, 6		5,20
48″	48,53, 7,29,37,29,39,53,21,32		3,34,26, 7,40	
		1,12,51,34,46,26,55,26		5,20
50″	48,53, 8,42,29, 4,26,20,16,58		3,34,26,13, 0	
		1,12,51,31,12, 0,42,26		5,20
52″	48,53, 9,55,20,35,38,20,59,24		3,34,26,18,20	
		1,12,51,27,37,34,24, 6		5,20
54″	48,53,11, 8,12, 3,15,55,23,30		3,34,26,23,40	
		1,12,51,24, 3, 8, 0,26		5,20
56″	48,53,12,21, 3,27,19, 3,23,56		3,34,26,29, 0	
		1,12,51,20,28,41,31,26		5,20
58″	48,53,13,33,54,47,47,44,55,22		3,34,26,34,20	
		1,12,51,16,54,14,57, 6		
60″	48,53,14,46,46, 4,41,59,52,28			
exact	48,53,14,46,46, 4,42, 0,15,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°34′ 0″	48,53,14,46,46, 4,42, 0,15,58			
		1,12,51,13,19,48,19,59		
2″	48,53,15,59,37,18, 1,48,35,57		3,34,26,44,49	
		1,12,51, 9,45,21,35,10		5,20
4″	48,53,17,12,28,27,47,10,11, 7		3,34,26,50, 9	
		1,12,51, 6,10,54,45, 1		5,20
6″	48,53,18,25,19,33,58, 4,56, 8		3,34,26,55,29	
		1,12,51, 2,36,27,49,32		5,20
8″	48,53,19,38,10,36,34,32,45,40		3,34,27, 0,49	
		1,12,50,59, 2, 0,48,43		5,20
10″	48,53,20,51, 1,35,36,33,34,23		3,34,27, 6, 9	
		1,12,50,55,27,33,42,34		5,20
12″	48,53,22, 3,52,31, 4, 7,16,57		3,34,27,11,29	
		1,12,50,51,53, 6,31, 5		5,20
14″	48,53,23,16,43,22,57,13,48, 2		3,34,27,16,49	
		1,12,50,48,18,39,14,16		5,20
16″	48,53,24,29,34,11,15,53, 2,18		3,34,27,22, 9	
		1,12,50,44,44,11,52, 7		5,20
18″	48,53,25,42,24,56, 0, 4,54,25		3,34,27,27,29	
		1,12,50,41, 9,44,24,38		5,20
20″	48,53,26,55,15,37, 9,49,19, 3		3,34,27,32,49	
		1,12,50,37,35,16,51,49		5,20
22″	48,53,28, 8, 6,14,45, 6,10,52		3,34,27,38, 9	
		1,12,50,34, 0,49,13,40		5,20
24″	48,53,29,20,56,48,45,55,24,32		3,34,27,43,29	
		1,12,50,30,26,21,30,11		5,20
26″	48,53,30,33,47,19,12,16,54,43		3,34,27,48,49	
		1,12,50,26,51,53,41,22		5,20
28″	48,53,31,46,37,46, 4,10,36, 5		3,34,27,54, 9	
		1,12,50,23,17,25,47,13		5,20
30″	48,53,32,59,28, 9,21,36,23,18		3,34,27,59,29	
		1,12,50,19,42,57,47,44		5,20
32″	48,53,34,12,18,29, 4,34,11, 2		3,34,28, 4,49	
		1,12,50,16, 8,29,42,55		5,20
34″	48,53,35,25, 8,45,13, 3,53,57		3,34,28,10, 9	
		1,12,50,12,34, 1,32,46		5,20
36″	48,53,36,37,58,57,47, 5,26,43		3,34,28,15,29	
		1,12,50, 8,59,33,17,17		5,20
38″	48,53,37,50,49, 6,46,38,44, 0		3,34,28,20,49	
		1,12,50, 5,25, 4,56,28		5,20
40″	48,53,39, 3,39,12,11,43,40,28		3,34,28,26, 9	
		1,12,50, 1,50,36,30,19		5,20
42″	48,53,40,16,29,14, 2,20,10,47		3,34,28,31,29	
		1,12,49,58,16, 7,58,50		5,20
44″	48,53,41,29,19,12,18,28, 9,37		3,34,28,36,49	
		1,12,49,54,41,39,22, 1		5,20
46″	48,53,42,42, 9, 7, 0, 7,31,38		3,34,28,42, 9	
		1,12,49,51, 7,10,39,52		5,20
48″	48,53,43,54,58,58, 7,18,11,30		3,34,28,47,29	
		1,12,49,47,32,41,52,23		5,20
50″	48,53,45, 7,48,45,40, 0, 3,53		3,34,28,52,49	
		1,12,49,43,58,12,59,34		5,20
52″	48,53,46,20,38,29,38,13, 3,27		3,34,28,58, 9	
		1,12,49,40,23,44, 1,25		5,20
54″	48,53,47,33,28,10, 1,57, 4,52		3,34,29, 3,29	
		1,12,49,36,49,14,57,56		5,20
56″	48,53,48,46,17,46,51,12, 2,48		3,34,29, 8,49	
		1,12,49,33,14,45,49, 7		5,20
58″	48,53,49,59, 7,20, 5,57,51,55		3,34,29,14, 9	
		1,12,49,29,40,16,34,58		
60″	48,53,51,11,56,49,46,14,26,53			
exact	48,53,51,11,56,49,46,14,59, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°35′ 0″	48,53,51,11,56,49,46,14,59, 2			
		1,12,49,26, 5,47,18,58		
2″	48,53,52,24,46,15,52, 2,18, 0		3,34,29,24,34	
		1,12,49,22,31,17,54,24		5,19
4″	48,53,53,37,35,38,23,20,12,24		3,34,29,29,53	
		1,12,49,18,56,48,24,31		5,19
6″	48,53,54,50,24,57,20, 8,36,55		3,34,29,35,12	
		1,12,49,15,22,18,49,19		5,19
8″	48,53,56, 3,14,12,42,27,26,14		3,34,29,40,31	
		1,12,49,11,47,49, 8,48		5,19
10″	48,53,57,16, 3,24,30,16,35, 2		3,34,29,45,50	
		1,12,49, 8,13,19,22,58		5,19
12″	48,53,58,28,52,32,43,35,58, 0		3,34,29,51, 9	
		1,12,49, 4,38,49,31,49		5,19
14″	48,53,59,41,41,37,22,25,29,49		3,34,29,56,28	
		1,12,49, 1, 4,19,35,21		5,19
16″	48,54, 0,54,30,38,26,45, 5,10		3,34,30, 1,47	
		1,12,48,57,29,49,33,34		5,19
18″	48,54, 2, 7,19,35,56,34,38,44		3,34,30, 7, 6	
		1,12,48,53,55,19,26,28		5,19
20″	48,54, 3,20, 8,29,51,54, 5,12		3,34,30,12,25	
		1,12,48,50,20,49,14, 3		5,19
22″	48,54, 4,32,57,20,12,43,19,15		3,34,30,17,44	
		1,12,48,46,46,18,56,19		5,19
24″	48,54, 5,45,46, 6,59, 2,15,34		3,34,30,23, 3	
		1,12,48,43,11,48,33,16		5,19
26″	48,54, 6,58,34,50,10,50,48,50		3,34,30,28,22	
		1,12,48,39,37,18, 4,54		5,19
28″	48,54, 8,11,23,29,48, 8,53,44		3,34,30,33,41	
		1,12,48,36, 2,47,31,13		5,19
30″	48,54, 9,24,12, 5,50,56,24,57		3,34,30,39, 0	
		1,12,48,32,28,16,52,13		5,19
32″	48,54,10,37, 0,38,19,13,17,10		3,34,30,44,19	
		1,12,48,28,53,46, 7,54		5,19
34″	48,54,11,49,49, 7,12,59,25, 4		3,34,30,49,38	
		1,12,48,25,19,15,18,16		5,19
36″	48,54,13, 2,37,32,32,14,43,20		3,34,30,54,57	
		1,12,48,21,44,44,23,19		5,19
38″	48,54,14,15,25,54,16,59, 6,39		3,34,31, 0,16	
		1,12,48,18,10,13,23, 3		5,19
40″	48,54,15,28,14,12,27,12,29,42		3,34,31, 5,35	
		1,12,48,14,35,42,17,28		5,19
42″	48,54,16,41, 2,27, 2,54,47,10		3,34,31,10,54	
		1,12,48,11, 1,11, 6,34		5,19
44″	48,54,17,53,50,38, 4, 5,53,44		3,34,31,16,13	
		1,12,48, 7,26,39,50,21		5,19
46″	48,54,19, 6,38,45,30,45,44, 5		3,34,31,21,32	
		1,12,48, 3,52, 8,28,49		5,19
48″	48,54,20,19,26,49,22,54,12,54		3,34,31,26,51	
		1,12,48, 0,17,37, 1,58		5,19
50″	48,54,21,32,14,49,40,31,14,52		3,34,31,32,10	
		1,12,47,56,43, 5,29,48		5,19
52″	48,54,22,45, 2,46,23,36,44,40		3,34,31,37,29	
		1,12,47,53, 8,33,52,19		5,19
54″	48,54,23,57,50,39,32,10,36,59		3,34,31,42,48	
		1,12,47,49,34, 2, 9,31		5,19
56″	48,54,25,10,38,29, 6,12,46,30		3,34,31,48, 7	
		1,12,47,45,59,30,21,24		5,19
58″	48,54,26,23,26,15, 5,43, 7,54		3,34,31,53,26	
		1,12,47,42,24,58,27,58		
60″	48,54,27,36,13,57,30,41,35,52			
exact	48,54,27,36,13,57,30,41, 7,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°36′ 0″	48,54,27,36,13,57,30,41, 7,59			
		1,12,47,38,50,26,26,19		
2″	48,54,28,49, 1,36,21, 7,34,18		3,34,32, 4,15	
		1,12,47,35,15,54,22, 4		5,19
4″	48,54,30, 1,49,11,37, 1,56,22		3,34,32, 9,34	
		1,12,47,31,41,22,12,30		5,19
6″	48,54,31,14,36,43,18,24, 8,52		3,34,32,14,53	
		1,12,47,28, 6,49,57,37		5,19
8″	48,54,32,27,24,11,25,14, 6,29		3,34,32,20,12	
		1,12,47,24,32,17,37,25		5,19
10″	48,54,33,40,11,35,57,31,43,54		3,34,32,25,31	
		1,12,47,20,57,45,11,54		5,19
12″	48,54,34,52,58,56,55,16,55,48		3,34,32,30,50	
		1,12,47,17,23,12,41, 4		5,19
14″	48,54,36, 5,46,14,18,29,36,52		3,34,32,36, 9	
		1,12,47,13,48,40, 4,55		5,19
16″	48,54,37,18,33,28, 7, 9,41,47		3,34,32,41,28	
		1,12,47,10,14, 7,23,27		5,19
18″	48,54,38,31,20,38,21,17, 5,14		3,34,32,46,47	
		1,12,47, 6,39,34,36,40		5,19
20″	48,54,39,44, 7,45, 0,51,41,54		3,34,32,52, 6	
		1,12,47, 3, 5, 1,44,34		5,19
22″	48,54,40,56,54,48, 5,53,26,28		3,34,32,57,25	
		1,12,46,59,30,28,47, 9		5,19
24″	48,54,42, 9,41,47,36,22,13,37		3,34,33, 2,44	
		1,12,46,55,55,55,44,25		5,19
26″	48,54,43,22,28,43,32,17,58, 2		3,34,33, 8, 3	
		1,12,46,52,21,22,36,22		5,19
28″	48,54,44,35,15,35,53,40,34,24		3,34,33,13,22	
		1,12,46,48,46,49,23, 0		5,19
30″	48,54,45,48, 2,24,40,29,57,24		3,34,33,18,41	
		1,12,46,45,12,16, 4,19		5,19
32″	48,54,47, 0,49, 9,52,46, 1,43		3,34,33,24, 0	
		1,12,46,41,37,42,40,19		5,19
34″	48,54,48,13,35,51,30,28,42, 2		3,34,33,29,19	
		1,12,46,38, 3, 9,11, 0		5,19
36″	48,54,49,26,22,29,33,37,53, 2		3,34,33,34,38	
		1,12,46,34,28,35,36,22		5,19
38″	48,54,50,39, 9, 4, 2,13,29,24		3,34,33,39,57	
		1,12,46,30,54, 1,56,25		5,19
40″	48,54,51,51,55,34,56,15,25,49		3,34,33,45,16	
		1,12,46,27,19,28,11, 9		5,19
42″	48,54,53, 4,42, 2,15,43,36,58		3,34,33,50,35	
		1,12,46,23,44,54,20,34		5,19
44″	48,54,54,17,28,26, 0,37,57,32		3,34,33,55,54	
		1,12,46,20,10,20,24,40		5,19
46″	48,54,55,30,14,46,10,58,22,12		3,34,34, 1,13	
		1,12,46,16,35,46,23,27		5,19
48″	48,54,56,43, 1, 2,46,44,45,39		3,34,34, 6,32	
		1,12,46,13, 1,12,16,55		5,19
50″	48,54,57,55,47,15,47,57, 2,34		3,34,34,11,51	
		1,12,46, 9,26,38, 5, 4		5,19
52″	48,54,59, 8,33,25,14,35, 7,38		3,34,34,17,10	
		1,12,46, 5,52, 3,47,54		5,19
54″	48,55, 0,21,19,31, 6,38,55,32		3,34,34,22,29	
		1,12,46, 2,17,29,25,25		5,19
56″	48,55, 1,34, 5,33,24, 8,20,57		3,34,34,27,48	
		1,12,45,58,42,54,57,37		5,19
58″	48,55, 2,46,51,32, 7, 3,18,34		3,34,34,33, 7	
		1,12,45,55, 8,20,24,30		
60″	48,55, 3,59,37,27,15,23,43, 4			
exact	48,55, 3,59,37,27,15,23,22,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°37′ 0″	48,55, 3,59,37,27,15,23,22,36			
		1,12,45,51,33,45,44, 1		
2″	48,55, 5,12,23,18,49, 9, 6,37		3,34,34,43,53	
		1,12,45,47,59,11, 0, 8		5,19
4″	48,55, 6,25, 9, 6,48,20, 6,45		3,34,34,49,12	
		1,12,45,44,24,36,10,56		5,19
6″	48,55, 7,37,54,51,12,56,17,41		3,34,34,54,31	
		1,12,45,40,50, 1,16,25		5,19
8″	48,55, 8,50,40,32, 2,57,34, 6		3,34,34,59,50	
		1,12,45,37,15,26,16,35		5,19
10″	48,55,10, 3,26, 9,18,23,50,41		3,34,35, 5, 9	
		1,12,45,33,40,51,11,26		5,19
12″	48,55,11,16,11,42,59,15, 2, 7		3,34,35,10,28	
		1,12,45,30, 6,16, 0,58		5,19
14″	48,55,12,28,57,13, 5,31, 3, 5		3,34,35,15,47	
		1,12,45,26,31,40,45,11		5,19
16″	48,55,13,41,42,39,37,11,48,16		3,34,35,21, 6	
		1,12,45,22,57, 5,24, 5		5,19
18″	48,55,14,54,28, 2,34,17,12,21		3,34,35,26,25	
		1,12,45,19,22,29,57,40		5,19
20″	48,55,16, 7,13,21,56,47,10, 1		3,34,35,31,44	
		1,12,45,15,47,54,25,56		5,19
22″	48,55,17,19,58,37,44,41,35,57		3,34,35,37, 3	
		1,12,45,12,13,18,48,53		5,19
24″	48,55,18,32,43,49,58, 0,24,50		3,34,35,42,22	
		1,12,45, 8,38,43, 6,31		5,19
26″	48,55,19,45,28,58,36,43,31,21		3,34,35,47,41	
		1,12,45, 5, 4, 7,18,50		5,19
28″	48,55,20,58,14, 3,40,50,50,11		3,34,35,53, 0	
		1,12,45, 1,29,31,25,50		5,19
30″	48,55,22,10,59, 5,10,22,16, 1		3,34,35,58,19	
		1,12,44,57,54,55,27,31		5,19
32″	48,55,23,23,44, 3, 5,17,43,32		3,34,36, 3,38	
		1,12,44,54,20,19,23,53		5,19
34″	48,55,24,36,28,57,25,37, 7,25		3,34,36, 8,57	
		1,12,44,50,45,43,14,56		5,19
36″	48,55,25,49,13,48,11,20,22,21		3,34,36,14,16	
		1,12,44,47,11, 7, 0,40		5,19
38″	48,55,27, 1,58,35,22,27,23, 1		3,34,36,19,35	
		1,12,44,43,36,30,41, 5		5,19
40″	48,55,28,14,43,18,58,58, 4, 6		3,34,36,24,54	
		1,12,44,40, 1,54,16,11		5,19
42″	48,55,29,27,27,59, 0,52,20,17		3,34,36,30,13	
		1,12,44,36,27,17,45,58		5,19
44″	48,55,30,40,12,35,28,10, 6,15		3,34,36,35,32	
		1,12,44,32,52,41,10,26		5,19
46″	48,55,31,52,57, 8,20,51,16,41		3,34,36,40,51	
		1,12,44,29,18, 4,29,35		5,19
48″	48,55,33, 5,41,37,38,55,46,16		3,34,36,46,10	
		1,12,44,25,43,27,43,25		5,19
50″	48,55,34,18,26, 3,22,23,29,41		3,34,36,51,29	
		1,12,44,22, 8,50,51,56		5,19
52″	48,55,35,31,10,25,31,14,21,37		3,34,36,56,48	
		1,12,44,18,34,13,55, 8		5,19
54″	48,55,36,43,54,44, 5,28,16,45		3,34,37, 2, 7	
		1,12,44,14,59,36,53, 1		5,19
56″	48,55,37,56,38,59, 5, 5, 9,46		3,34,37, 7,26	
		1,12,44,11,24,59,45,35		5,19
58″	48,55,39, 9,23,10,30, 4,55,21		3,34,37,12,45	
		1,12,44, 7,50,22,32,50		
60″	48,55,40,22, 7,18,20,27,28,11			
exact	48,55,40,22, 7,18,20,27,21,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°38′ 0″	48,55,40,22, 7,18,20,27,21,27			
		1,12,44, 4,15,45,14, 0		
2″	48,55,41,34,51,22,36,12,35,27		3,34,37,23,26	
		1,12,44, 0,41, 7,50,34		5,19
4″	48,55,42,47,35,23,17,20,26, 1		3,34,37,28,45	
		1,12,43,57, 6,30,21,49		5,19
6″	48,55,44, 0,19,20,23,50,47,50		3,34,37,34, 4	
		1,12,43,53,31,52,47,45		5,19
8″	48,55,45,13, 3,13,55,43,35,35		3,34,37,39,23	
		1,12,43,49,57,15, 8,22		5,19
10″	48,55,46,25,47, 3,52,58,43,57		3,34,37,44,42	
		1,12,43,46,22,37,23,40		5,19
12″	48,55,47,38,30,50,15,36, 7,37		3,34,37,50, 1	
		1,12,43,42,47,59,33,39		5,19
14″	48,55,48,51,14,33, 3,35,41,16		3,34,37,55,20	
		1,12,43,39,13,21,38,19		5,19
16″	48,55,50, 3,58,12,16,57,19,35		3,34,38, 0,39	
		1,12,43,35,38,43,37,40		5,19
18″	48,55,51,16,41,47,55,40,57,15		3,34,38, 5,58	
		1,12,43,32, 4, 5,31,42		5,19
20″	48,55,52,29,25,19,59,46,28,57		3,34,38,11,17	
		1,12,43,28,29,27,20,25		5,19
22″	48,55,53,42, 8,48,29,13,49,22		3,34,38,16,36	
		1,12,43,24,54,49, 3,49		5,19
24″	48,55,54,54,52,13,24, 2,53,11		3,34,38,21,55	
		1,12,43,21,20,10,41,54		5,19
26″	48,55,56, 7,35,34,44,13,35, 5		3,34,38,27,14	
		1,12,43,17,45,32,14,40		5,19
28″	48,55,57,20,18,52,29,45,49,45		3,34,38,32,33	
		1,12,43,14,10,53,42, 7		5,19
30″	48,55,58,33, 2, 6,40,39,31,52		3,34,38,37,52	
		1,12,43,10,36,15, 4,15		5,19
32″	48,55,59,45,45,17,16,54,36, 7		3,34,38,43,11	
		1,12,43, 7, 1,36,21, 4		5,19
34″	48,56, 0,58,28,24,18,30,57,11		3,34,38,48,30	
		1,12,43, 3,26,57,32,34		5,19
36″	48,56, 2,11,11,27,45,28,29,45		3,34,38,53,49	
		1,12,42,59,52,18,38,45		5,19
38″	48,56, 3,23,54,27,37,47, 8,30		3,34,38,59, 8	
		1,12,42,56,17,39,39,37		5,19
40″	48,56, 4,36,37,23,55,26,48, 7		3,34,39, 4,27	
		1,12,42,52,43, 0,35,10		5,19
42″	48,56, 5,49,20,16,38,27,23,17		3,34,39, 9,46	
		1,12,42,49, 8,21,25,24		5,19
44″	48,56, 7, 2, 3, 5,46,48,48,41		3,34,39,15, 5	
		1,12,42,45,33,42,10,19		5,19
46″	48,56, 8,14,45,51,20,30,59, 0		3,34,39,20,24	
		1,12,42,41,59, 2,49,55		5,19
48″	48,56, 9,27,28,33,19,33,48,55		3,34,39,25,43	
		1,12,42,38,24,23,24,12		5,19
50″	48,56,10,40,11,11,43,57,13, 7		3,34,39,31, 2	
		1,12,42,34,49,43,53,10		5,19
52″	48,56,11,52,53,46,33,41, 6,17		3,34,39,36,21	
		1,12,42,31,15, 4,16,49		5,19
54″	48,56,13, 5,36,17,48,45,23, 6		3,34,39,41,40	
		1,12,42,27,40,24,35, 9		5,19
56″	48,56,14,18,18,45,29, 9,58,15		3,34,39,46,59	
		1,12,42,24, 5,44,48,10		5,19
58″	48,56,15,31, 1, 9,34,54,46,25		3,34,39,52,18	
		1,12,42,20,31, 4,55,52		
60″	48,56,16,43,43,30, 5,59,42,17			
exact	48,56,16,43,43,30, 5,59,41,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°39′ 0″	48,56,16,43,43,30, 5,59,41,58			
		1,12,42,16,56,24,58,16		
2″	48,56,17,56,25,47, 2,24,40,14		3,34,40, 2,55	
		1,12,42,13,21,44,55,21		5,19
4″	48,56,19, 9, 8, 0,24, 9,35,35		3,34,40, 8,14	
		1,12,42, 9,47, 4,47, 7		5,19
6″	48,56,20,21,50,10,11,14,22,42		3,34,40,13,33	
		1,12,42, 6,12,24,33,34		5,19
8″	48,56,21,34,32,16,23,38,56,16		3,34,40,18,52	
		1,12,42, 2,37,44,14,42		5,19
10″	48,56,22,47,14,19, 1,23,10,58		3,34,40,24,11	
		1,12,41,59, 3, 3,50,31		5,19
12″	48,56,23,59,56,18, 4,27, 1,29		3,34,40,29,30	
		1,12,41,55,28,23,21, 1		5,19
14″	48,56,25,12,38,13,32,50,22,30		3,34,40,34,49	
		1,12,41,51,53,42,46,12		5,19
16″	48,56,26,25,20, 5,26,33, 8,42		3,34,40,40, 8	
		1,12,41,48,19, 2, 6, 4		5,19
18″	48,56,27,38, 1,53,45,35,14,46		3,34,40,45,27	
		1,12,41,44,44,21,20,37		5,19
20″	48,56,28,50,43,38,29,56,35,23		3,34,40,50,46	
		1,12,41,41, 9,40,29,51		5,19
22″	48,56,30, 3,25,19,39,37, 5,14		3,34,40,56, 5	
		1,12,41,37,34,59,33,46		5,19
24″	48,56,31,16, 6,57,14,36,39, 0		3,34,41, 1,24	
		1,12,41,34, 0,18,32,22		5,19
26″	48,56,32,28,48,31,14,55,11,22		3,34,41, 6,43	
		1,12,41,30,25,37,25,39		5,19
28″	48,56,33,41,30, 1,40,32,37, 1		3,34,41,12, 2	
		1,12,41,26,50,56,13,37		5,19
30″	48,56,34,54,11,28,31,28,50,38		3,34,41,17,21	
		1,12,41,23,16,14,56,16		5,19
32″	48,56,36, 6,52,51,47,43,46,54		3,34,41,22,40	
		1,12,41,19,41,33,33,36		5,19
34″	48,56,37,19,34,11,29,17,20,30		3,34,41,27,59	
		1,12,41,16, 6,52, 5,37		5,19
36″	48,56,38,32,15,27,36, 9,26, 7		3,34,41,33,18	
		1,12,41,12,32,10,32,19		5,19
38″	48,56,39,44,56,40, 8,19,58,26		3,34,41,38,37	
		1,12,41, 8,57,28,53,42		5,19
40″	48,56,40,57,37,49, 5,48,52, 8		3,34,41,43,56	
		1,12,41, 5,22,47, 9,46		5,19
42″	48,56,42,10,18,54,28,36, 1,54		3,34,41,49,15	
		1,12,41, 1,48, 5,20,31		5,19
44″	48,56,43,22,59,56,16,41,22,25		3,34,41,54,34	
		1,12,40,58,13,23,25,57		5,19
46″	48,56,44,35,40,54,30, 4,48,22		3,34,41,59,53	
		1,12,40,54,38,41,26, 4		5,19
48″	48,56,45,48,21,49, 8,46,14,26		3,34,42, 5,12	
		1,12,40,51, 3,59,20,52		5,19
50″	48,56,47, 1, 2,40,12,45,35,18		3,34,42,10,31	
		1,12,40,47,29,17,10,21		5,19
52″	48,56,48,13,43,27,42, 2,45,39		3,34,42,15,50	
		1,12,40,43,54,34,54,31		5,19
54″	48,56,49,26,24,11,36,37,40,10		3,34,42,21, 9	
		1,12,40,40,19,52,33,22		5,19
56″	48,56,50,39, 4,51,56,30,13,32		3,34,42,26,28	
		1,12,40,36,45,10, 6,54		5,19
58″	48,56,51,51,45,28,41,40,20,26		3,34,42,31,47	
		1,12,40,33,10,27,35, 7		
60″	48,56,53, 4,26, 1,52, 7,55,33			
exact	48,56,53, 4,26, 1,52, 8, 0,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°40′ 0″	48,56,53, 4,26, 1,52, 8, 0,25			
		1,12,40,29,35,44,58,44		
2″	48,56,54,17, 6,31,27,52,59, 9		3,34,42,42,21	
		1,12,40,26, 1, 2,16,23		5,19
4″	48,56,55,29,46,57,28,55,15,32		3,34,42,47,40	
		1,12,40,22,26,19,28,43		5,19
6″	48,56,56,42,27,19,55,14,44,15		3,34,42,52,59	
		1,12,40,18,51,36,35,44		5,19
8″	48,56,57,55, 7,38,46,51,19,59		3,34,42,58,18	
		1,12,40,15,16,53,37,26		5,19
10″	48,56,59, 7,47,54, 3,44,57,25		3,34,43, 3,37	
		1,12,40,11,42,10,33,49		5,19
12″	48,57, 0,20,28, 5,45,55,31,14		3,34,43, 8,56	
		1,12,40, 8, 7,27,24,53		5,19
14″	48,57, 1,33, 8,13,53,22,56, 7		3,34,43,14,15	
		1,12,40, 4,32,44,10,38		5,19
16″	48,57, 2,45,48,18,26, 7, 6,45		3,34,43,19,34	
		1,12,40, 0,58, 0,51, 4		5,19
18″	48,57, 3,58,28,19,24, 7,57,49		3,34,43,24,53	
		1,12,39,57,23,17,26,11		5,19
20″	48,57, 5,11, 8,16,47,25,24, 0		3,34,43,30,12	
		1,12,39,53,48,33,55,59		5,19
22″	48,57, 6,23,48,10,35,59,19,59		3,34,43,35,31	
		1,12,39,50,13,50,20,28		5,19
24″	48,57, 7,36,28, 0,49,49,40,27		3,34,43,40,50	
		1,12,39,46,39, 6,39,38		5,19
26″	48,57, 8,49, 7,47,28,56,20, 5		3,34,43,46, 9	
		1,12,39,43, 4,22,53,29		5,19
28″	48,57,10, 1,47,30,33,19,13,34		3,34,43,51,28	
		1,12,39,39,29,39, 2, 1		5,19
30″	48,57,11,14,27,10, 2,58,15,35		3,34,43,56,47	
		1,12,39,35,54,55, 5,14		5,19
32″	48,57,12,27, 6,45,57,53,20,49		3,34,44, 2, 6	
		1,12,39,32,20,11, 3, 8		5,19
34″	48,57,13,39,46,18,18, 4,23,57		3,34,44, 7,25	
		1,12,39,28,45,26,55,43		5,19
36″	48,57,14,52,25,47, 3,31,19,40		3,34,44,12,44	
		1,12,39,25,10,42,42,59		5,19
38″	48,57,16, 5, 5,12,14,14, 2,39		3,34,44,18, 3	
		1,12,39,21,35,58,24,56		5,19
40″	48,57,17,17,44,33,50,12,27,35		3,34,44,23,22	
		1,12,39,18, 1,14, 1,34		5,19
42″	48,57,18,30,23,51,51,26,29, 9		3,34,44,28,41	
		1,12,39,14,26,29,32,53		5,19
44″	48,57,19,43, 3, 6,17,56, 2, 2		3,34,44,34, 0	
		1,12,39,10,51,44,58,53		5,19
46″	48,57,20,55,42,17, 9,41, 0,55		3,34,44,39,19	
		1,12,39, 7,17, 0,19,34		5,19
48″	48,57,22, 8,21,24,26,41,20,29		3,34,44,44,38	
		1,12,39, 3,42,15,34,56		5,19
50″	48,57,23,21, 0,28, 8,56,55,25		3,34,44,49,57	
		1,12,39, 0, 7,30,44,59		5,19
52″	48,57,24,33,39,28,16,27,40,24		3,34,44,55,16	
		1,12,38,56,32,45,49,43		5,19
54″	48,57,25,46,18,24,49,13,30, 7		3,34,45, 0,35	
		1,12,38,52,58, 0,49, 8		5,19
56″	48,57,26,58,57,17,47,14,19,15		3,34,45, 5,54	
		1,12,38,49,23,15,43,14		5,19
58″	48,57,28,11,36, 7,10,30, 2,29		3,34,45,11,13	
		1,12,38,45,48,30,32, 1		
60″	48,57,29,24,14,52,59, 0,34,30			
exact	48,57,29,24,14,52,59, 0,51,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°41′ 0″	48,57,29,24,14,52,59, 0,51,54			
		1,12,38,42,13,45,17,24		
2″	48,57,30,36,53,35,12,46, 9,18		3,34,45,21,43	
		1,12,38,38,38,59,55,41		5,19
4″	48,57,31,49,32,13,51,46, 4,59		3,34,45,27, 2	
		1,12,38,35, 4,14,28,39		5,19
6″	48,57,33, 2,10,48,56, 0,33,38		3,34,45,32,21	
		1,12,38,31,29,28,56,18		5,19
8″	48,57,34,14,49,20,25,29,29,56		3,34,45,37,40	
		1,12,38,27,54,43,18,38		5,19
10″	48,57,35,27,27,48,20,12,48,34		3,34,45,42,59	
		1,12,38,24,19,57,35,39		5,19
12″	48,57,36,40, 6,12,40,10,24,13		3,34,45,48,18	
		1,12,38,20,45,11,47,21		5,19
14″	48,57,37,52,44,33,25,22,11,34		3,34,45,53,37	
		1,12,38,17,10,25,53,44		5,19
16″	48,57,39, 5,22,50,35,48, 5,18		3,34,45,58,56	
		1,12,38,13,35,39,54,48		5,19
18″	48,57,40,18, 1, 4,11,28, 0, 6		3,34,46, 4,15	
		1,12,38,10, 0,53,50,33		5,19
20″	48,57,41,30,39,14,12,21,50,39		3,34,46, 9,34	
		1,12,38, 6,26, 7,40,59		5,19
22″	48,57,42,43,17,20,38,29,31,38		3,34,46,14,53	
		1,12,38, 2,51,21,26, 6		5,19
24″	48,57,43,55,55,23,29,50,57,44		3,34,46,20,12	
		1,12,37,59,16,35, 5,54		5,19
26″	48,57,45, 8,33,22,46,26, 3,38		3,34,46,25,31	
		1,12,37,55,41,48,40,23		5,19
28″	48,57,46,21,11,18,28,14,44, 1		3,34,46,30,50	
		1,12,37,52, 7, 2, 9,33		5,19
30″	48,57,47,33,49,10,35,16,53,34		3,34,46,36, 9	
		1,12,37,48,32,15,33,24		5,19
32″	48,57,48,46,26,59, 7,32,26,58		3,34,46,41,28	
		1,12,37,44,57,28,51,56		5,19
34″	48,57,49,59, 4,44, 5, 1,18,54		3,34,46,46,47	
		1,12,37,41,22,42, 5, 9		5,19
36″	48,57,51,11,42,25,27,43,24, 3		3,34,46,52, 6	
		1,12,37,37,47,55,13, 3		5,19
38″	48,57,52,24,20, 3,15,38,37, 6		3,34,46,57,25	
		1,12,37,34,13, 8,15,38		5,19
40″	48,57,53,36,57,37,28,46,52,44		3,34,47, 2,44	
		1,12,37,30,38,21,12,54		5,19
42″	48,57,54,49,35, 8, 7, 8, 5,38		3,34,47, 8, 3	
		1,12,37,27, 3,34, 4,51		5,19
44″	48,57,56, 2,12,35,10,42,10,29		3,34,47,13,22	
		1,12,37,23,28,46,51,29		5,19
46″	48,57,57,14,49,58,39,29, 1,58		3,34,47,18,41	
		1,12,37,19,53,59,32,48		5,19
48″	48,57,58,27,27,18,33,28,34,46		3,34,47,24, 0	
		1,12,37,16,19,12, 8,48		5,19
50″	48,57,59,40, 4,34,52,40,43,34		3,34,47,29,19	
		1,12,37,12,44,24,39,29		5,19
52″	48,58, 0,52,41,47,37, 5,23, 3		3,34,47,34,38	
		1,12,37, 9, 9,37, 4,51		5,19
54″	48,58, 2, 5,18,56,46,42,27,54		3,34,47,39,57	
		1,12,37, 5,34,49,24,54		5,19
56″	48,58, 3,17,56, 2,21,31,52,48		3,34,47,45,16	
		1,12,37, 2, 0, 1,39,38		5,19
58″	48,58, 4,30,33, 4,21,33,32,26		3,34,47,50,35	
		1,12,36,58,25,13,49, 3		
60″	48,58, 5,43,10, 2,46,47,21,29			
exact	48,58, 5,43,10, 2,46,47,50,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°42′ 0″	48,58, 5,43,10, 2,46,47,50,24			
		1,12,36,54,50,25,56,12		
2″	48,58, 6,55,46,57,37,13,46,36		3,34,48, 1, 0	
		1,12,36,51,15,37,55,12		5,19
4″	48,58, 8, 8,23,48,52,51,41,48		3,34,48, 6,19	
		1,12,36,47,40,49,48,53		5,19
6″	48,58, 9,21, 0,36,33,41,30,41		3,34,48,11,38	
		1,12,36,44, 6, 1,37,15		5,19
8″	48,58,10,33,37,20,39,43, 7,56		3,34,48,16,57	
		1,12,36,40,31,13,20,18		5,19
10″	48,58,11,46,14, 1,10,56,28,14		3,34,48,22,16	
		1,12,36,36,56,24,58, 2		5,19
12″	48,58,12,58,50,38, 7,21,26,16		3,34,48,27,35	
		1,12,36,33,21,36,30,27		5,19
14″	48,58,14,11,27,11,28,57,56,43		3,34,48,32,54	
		1,12,36,29,46,47,57,33		5,19
16″	48,58,15,24, 3,41,15,45,54,16		3,34,48,38,13	
		1,12,36,26,11,59,19,20		5,19
18″	48,58,16,36,40, 7,27,45,13,36		3,34,48,43,32	
		1,12,36,22,37,10,35,48		5,19
20″	48,58,17,49,16,30, 4,55,49,24		3,34,48,48,51	
		1,12,36,19, 2,21,46,57		5,19
22″	48,58,19, 1,52,49, 7,17,36,21		3,34,48,54,10	
		1,12,36,15,27,32,52,47		5,19
24″	48,58,20,14,29, 4,34,50,29, 8		3,34,48,59,29	
		1,12,36,11,52,43,53,18		5,19
26″	48,58,21,27, 5,16,27,34,22,26		3,34,49, 4,48	
		1,12,36, 8,17,54,48,30		5,19
28″	48,58,22,39,41,24,45,29,10,56		3,34,49,10, 7	
		1,12,36, 4,43, 5,38,23		5,19
30″	48,58,23,52,17,29,28,34,49,19		3,34,49,15,26	
		1,12,36, 1, 8,16,22,57		5,19
32″	48,58,25, 4,53,30,36,51,12,16		3,34,49,20,45	
		1,12,35,57,33,27, 2,12		5,19
34″	48,58,26,17,29,28,10,18,14,28		3,34,49,26, 4	
		1,12,35,53,58,37,36, 8		5,19
36″	48,58,27,30, 5,22, 8,55,50,36		3,34,49,31,23	
		1,12,35,50,23,48, 4,45		5,19
38″	48,58,28,42,41,12,32,43,55,21		3,34,49,36,42	
		1,12,35,46,48,58,28, 3		5,19
40″	48,58,29,55,16,59,21,42,23,24		3,34,49,42, 1	
		1,12,35,43,14, 8,46, 2		5,19
42″	48,58,31, 7,52,42,35,51, 9,26		3,34,49,47,20	
		1,12,35,39,39,18,58,42		5,19
44″	48,58,32,20,28,22,15,10, 8, 8		3,34,49,52,39	
		1,12,35,36, 4,29, 6, 3		5,19
46″	48,58,33,33, 3,58,19,39,14,11		3,34,49,57,58	
		1,12,35,32,29,39, 8, 5		5,19
48″	48,58,34,45,39,30,49,18,22,16		3,34,50, 3,17	
		1,12,35,28,54,49, 4,48		5,19
50″	48,58,35,58,14,59,44, 7,27, 4		3,34,50, 8,36	
		1,12,35,25,19,58,56,12		5,19
52″	48,58,37,10,50,25, 4, 6,23,16		3,34,50,13,55	
		1,12,35,21,45, 8,42,17		5,19
54″	48,58,38,23,25,46,49,15, 5,33		3,34,50,19,14	
		1,12,35,18,10,18,23, 3		5,19
56″	48,58,39,36, 1, 4,59,33,28,36		3,34,50,24,33	
		1,12,35,14,35,27,58,30		5,19
58″	48,58,40,48,36,19,35, 1,27, 6		3,34,50,29,52	
		1,12,35,11, 0,37,28,38		
60″	48,58,42, 1,11,30,35,38,55,44			
exact	48,58,42, 1,11,30,35,39,28,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°43′ 0″	48,58,42, 1,11,30,35,39,28,46			
		1,12,35, 7,25,46,57, 7		
2″	48,58,43,13,46,38, 1,26,25,53		3,34,50,40,14	
		1,12,35, 3,50,56,16,53		5,18
4″	48,58,44,26,21,41,52,22,42,46		3,34,50,45,32	
		1,12,35, 0,16, 5,31,21		5,18
6″	48,58,45,38,56,42, 8,28,14, 7		3,34,50,50,50	
		1,12,34,56,41,14,40,31		5,18
8″	48,58,46,51,31,38,49,42,54,38		3,34,50,56, 8	
		1,12,34,53, 6,23,44,23		5,18
10″	48,58,48, 4, 6,31,56, 6,39, 1		3,34,51, 1,26	
		1,12,34,49,31,32,42,57		5,18
12″	48,58,49,16,41,21,27,39,21,58		3,34,51, 6,44	
		1,12,34,45,56,41,36,13		5,18
14″	48,58,50,29,16, 7,24,20,58,11		3,34,51,12, 2	
		1,12,34,42,21,50,24,11		5,18
16″	48,58,51,41,50,49,46,11,22,22		3,34,51,17,20	
		1,12,34,38,46,59, 6,51		5,18
18″	48,58,52,54,25,28,33,10,29,13		3,34,51,22,38	
		1,12,34,35,12, 7,44,13		5,18
20″	48,58,54, 7, 0, 3,45,18,13,26		3,34,51,27,56	
		1,12,34,31,37,16,16,17		5,18
22″	48,58,55,19,34,35,22,34,29,43		3,34,51,33,14	
		1,12,34,28, 2,24,43, 3		5,18
24″	48,58,56,32, 9, 3,24,59,12,46		3,34,51,38,32	
		1,12,34,24,27,33, 4,31		5,18
26″	48,58,57,44,43,27,52,32,17,17		3,34,51,43,50	
		1,12,34,20,52,41,20,41		5,18
28″	48,58,58,57,17,48,45,13,37,58		3,34,51,49, 8	
		1,12,34,17,17,49,31,33		5,18
30″	48,59, 0, 9,52, 6, 3, 3, 9,31		3,34,51,54,26	
		1,12,34,13,42,57,37, 7		5,18
32″	48,59, 1,22,26,19,46, 0,46,38		3,34,51,59,44	
		1,12,34,10, 8, 5,37,23		5,18
34″	48,59, 2,35, 0,29,54, 6,24, 1		3,34,52, 5, 2	
		1,12,34, 6,33,13,32,21		5,18
36″	48,59, 3,47,34,36,27,19,56,22		3,34,52,10,20	
		1,12,34, 2,58,21,22, 1		5,18
38″	48,59, 5, 0, 8,39,25,41,18,23		3,34,52,15,38	
		1,12,33,59,23,29, 6,23		5,18
40″	48,59, 6,12,42,38,49,10,24,46		3,34,52,20,56	
		1,12,33,55,48,36,45,27		5,18
42″	48,59, 7,25,16,34,37,47,10,13		3,34,52,26,14	
		1,12,33,52,13,44,19,13		5,18
44″	48,59, 8,37,50,26,51,31,29,26		3,34,52,31,32	
		1,12,33,48,38,51,47,41		5,18
46″	48,59, 9,50,24,15,30,23,17, 7		3,34,52,36,50	
		1,12,33,45, 3,59,10,51		5,18
48″	48,59,11, 2,58, 0,34,22,27,58		3,34,52,42, 8	
		1,12,33,41,29, 6,28,43		5,18
50″	48,59,12,15,31,42, 3,28,56,41		3,34,52,47,26	
		1,12,33,37,54,13,41,17		5,18
52″	48,59,13,28, 5,19,57,42,37,58		3,34,52,52,44	
		1,12,33,34,19,20,48,33		5,18
54″	48,59,14,40,38,54,17, 3,26,31		3,34,52,58, 2	
		1,12,33,30,44,27,50,31		5,18
56″	48,59,15,53,12,25, 1,31,17, 2		3,34,53, 3,20	
		1,12,33,27, 9,34,47,11		5,18
58″	48,59,17, 5,45,52,11, 6, 4,13		3,34,53, 8,38	
		1,12,33,23,34,41,38,33		
60″	48,59,18,18,19,15,45,47,42,46			
exact	48,59,18,18,19,15,45,47,18,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°44′ 0″	48,59,18,18,19,15,45,47,18,44			
		1,12,33,19,59,48,22, 6		
2″	48,59,19,30,52,35,45,35,40,50		3,34,53,19,24	
		1,12,33,16,24,55, 2,42		5,18
4″	48,59,20,43,25,52,10,30,43,32		3,34,53,24,42	
		1,12,33,12,50, 1,38, 0		5,18
6″	48,59,21,55,59, 5, 0,32,21,32		3,34,53,30, 0	
		1,12,33, 9,15, 8, 8, 0		5,18
8″	48,59,23, 8,32,14,15,40,29,32		3,34,53,35,18	
		1,12,33, 5,40,14,32,42		5,18
10″	48,59,24,21, 5,19,55,55, 2,14		3,34,53,40,36	
		1,12,33, 2, 5,20,52, 6		5,18
12″	48,59,25,33,38,22, 1,15,54,20		3,34,53,45,54	
		1,12,32,58,30,27, 6,12		5,18
14″	48,59,26,46,11,20,31,43, 0,32		3,34,53,51,12	
		1,12,32,54,55,33,15, 0		5,18
16″	48,59,27,58,44,15,27,16,15,32		3,34,53,56,30	
		1,12,32,51,20,39,18,30		5,18
18″	48,59,29,11,17, 6,47,55,34, 2		3,34,54, 1,48	
		1,12,32,47,45,45,16,42		5,18
20″	48,59,30,23,49,54,33,40,50,44		3,34,54, 7, 6	
		1,12,32,44,10,51, 9,36		5,18
22″	48,59,31,36,22,38,44,32, 0,20		3,34,54,12,24	
		1,12,32,40,35,56,57,12		5,18
24″	48,59,32,48,55,19,20,28,57,32		3,34,54,17,42	
		1,12,32,37, 1, 2,39,30		5,18
26″	48,59,34, 1,27,56,21,31,37, 2		3,34,54,23, 0	
		1,12,32,33,26, 8,16,30		5,18
28″	48,59,35,14, 0,29,47,39,53,32		3,34,54,28,18	
		1,12,32,29,51,13,48,12		5,18
30″	48,59,36,26,32,59,38,53,41,44		3,34,54,33,36	
		1,12,32,26,16,19,14,36		5,18
32″	48,59,37,39, 5,25,55,12,56,20		3,34,54,38,54	
		1,12,32,22,41,24,35,42		5,18
34″	48,59,38,51,37,48,36,37,32, 2		3,34,54,44,12	
		1,12,32,19, 6,29,51,30		5,18
36″	48,59,40, 4,10, 7,43, 7,23,32		3,34,54,49,30	
		1,12,32,15,31,35, 2, 0		5,18
38″	48,59,41,16,42,23,14,42,25,32		3,34,54,54,48	
		1,12,32,11,56,40, 7,12		5,18
40″	48,59,42,29,14,35,11,22,32,44		3,34,55, 0, 6	
		1,12,32, 8,21,45, 7, 6		5,18
42″	48,59,43,41,46,43,33, 7,39,50		3,34,55, 5,24	
		1,12,32, 4,46,50, 1,42		5,18
44″	48,59,44,54,18,48,19,57,41,32		3,34,55,10,42	
		1,12,32, 1,11,54,51, 0		5,18
46″	48,59,46, 6,50,49,31,52,32,32		3,34,55,16, 0	
		1,12,31,57,36,59,35, 0		5,18
48″	48,59,47,19,22,47, 8,52, 7,32		3,34,55,21,18	
		1,12,31,54, 2, 4,13,42		5,18
50″	48,59,48,31,54,41,10,56,21,14		3,34,55,26,36	
		1,12,31,50,27, 8,47, 6		5,18
52″	48,59,49,44,26,31,38, 5, 8,20		3,34,55,31,54	
		1,12,31,46,52,13,15,12		5,18
54″	48,59,50,56,58,18,30,18,23,32		3,34,55,37,12	
		1,12,31,43,17,17,38, 0		5,18
56″	48,59,52, 9,30, 1,47,36, 1,32		3,34,55,42,30	
		1,12,31,39,42,21,55,30		5,18
58″	48,59,53,22, 1,41,29,57,57, 2		3,34,55,47,48	
		1,12,31,36, 7,26, 7,42		
60″	48,59,54,34,33,17,37,24, 4,44			
exact	48,59,54,34,33,17,37,23,50,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°45′ 0″	48,59,54,34,33,17,37,23,50,57			
		1,12,31,32,32,30,13, 8		
2″	48,59,55,47, 4,50, 9,54, 4, 5		3,34,55,58,30	
		1,12,31,28,57,34,14,38		5,18
4″	48,59,56,59,36,19, 7,28,18,43		3,34,56, 3,48	
		1,12,31,25,22,38,10,50		5,18
6″	48,59,58,12, 7,44,30, 6,29,33		3,34,56, 9, 6	
		1,12,31,21,47,42, 1,44		5,18
8″	48,59,59,24,39, 6,17,48,31,17		3,34,56,14,24	
		1,12,31,18,12,45,47,20		5,18
10″	49, 0, 0,37,10,24,30,34,18,37		3,34,56,19,42	
		1,12,31,14,37,49,27,38		5,18
12″	49, 0, 1,49,41,39, 8,23,46,15		3,34,56,25, 0	
		1,12,31,11, 2,53, 2,38		5,18
14″	49, 0, 3, 2,12,50,11,16,48,53		3,34,56,30,18	
		1,12,31, 7,27,56,32,20		5,18
16″	49, 0, 4,14,43,57,39,13,21,13		3,34,56,35,36	
		1,12,31, 3,52,59,56,44		5,18
18″	49, 0, 5,27,15, 1,32,13,17,57		3,34,56,40,54	
		1,12,31, 0,18, 3,15,50		5,18
20″	49, 0, 6,39,46, 1,50,16,33,47		3,34,56,46,12	
		1,12,30,56,43, 6,29,38		5,18
22″	49, 0, 7,52,16,58,33,23, 3,25		3,34,56,51,30	
		1,12,30,53, 8, 9,38, 8		5,18
24″	49, 0, 9, 4,47,51,41,32,41,33		3,34,56,56,48	
		1,12,30,49,33,12,41,20		5,18
26″	49, 0,10,17,18,41,14,45,22,53		3,34,57, 2, 6	
		1,12,30,45,58,15,39,14		5,18
28″	49, 0,11,29,49,27,13, 1, 2, 7		3,34,57, 7,24	
		1,12,30,42,23,18,31,50		5,18
30″	49, 0,12,42,20, 9,36,19,33,57		3,34,57,12,42	
		1,12,30,38,48,21,19, 8		5,18
32″	49, 0,13,54,50,48,24,40,53, 5		3,34,57,18, 0	
		1,12,30,35,13,24, 1, 8		5,18
34″	49, 0,15, 7,21,23,38, 4,54,13		3,34,57,23,18	
		1,12,30,31,38,26,37,50		5,18
36″	49, 0,16,19,51,55,16,31,32, 3		3,34,57,28,36	
		1,12,30,28, 3,29, 9,14		5,18
38″	49, 0,17,32,22,23,20, 0,41,17		3,34,57,33,54	
		1,12,30,24,28,31,35,20		5,18
40″	49, 0,18,44,52,47,48,32,16,37		3,34,57,39,12	
		1,12,30,20,53,33,56, 8		5,18
42″	49, 0,19,57,23, 8,42, 6,12,45		3,34,57,44,30	
		1,12,30,17,18,36,11,38		5,18
44″	49, 0,21, 9,53,26, 0,42,24,23		3,34,57,49,48	
		1,12,30,13,43,38,21,50		5,18
46″	49, 0,22,22,23,39,44,20,46,13		3,34,57,55, 6	
		1,12,30,10, 8,40,26,44		5,18
48″	49, 0,23,34,53,49,53, 1,12,57		3,34,58, 0,24	
		1,12,30, 6,33,42,26,20		5,18
50″	49, 0,24,47,23,56,26,43,39,17		3,34,58, 5,42	
		1,12,30, 2,58,44,20,38		5,18
52″	49, 0,25,59,53,59,25,27,59,55		3,34,58,11, 0	
		1,12,29,59,23,46, 9,38		5,18
54″	49, 0,27,12,23,58,49,14, 9,33		3,34,58,16,18	
		1,12,29,55,48,47,53,20		5,18
56″	49, 0,28,24,53,54,38, 2, 2,53		3,34,58,21,36	
		1,12,29,52,13,49,31,44		5,18
58″	49, 0,29,37,23,46,51,51,34,37		3,34,58,26,54	
		1,12,29,48,38,51, 4,50		
60″	49, 0,30,49,53,35,30,42,39,27			
exact	49, 0,30,49,53,35,30,42,34,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°46′ 0″	49, 0,30,49,53,35,30,42,34,57	1,12,29,45, 3,52,32, 9		
2″	49, 0,32, 2,23,20,34,35, 7, 6	1,12,29,41,28,53,54,37	3,34,58,37,32	5,18
4″	49, 0,33,14,53, 2, 3,29, 1,43	1,12,29,37,53,55,11,47	3,34,58,42,50	5,18
6″	49, 0,34,27,22,39,57,24,13,30	1,12,29,34,18,56,23,39	3,34,58,48, 8	5,18
8″	49, 0,35,39,52,14,16,20,37, 9	1,12,29,30,43,57,30,13	3,34,58,53,26	5,18
10″	49, 0,36,52,21,45, 0,18, 7,22	1,12,29,27, 8,58,31,29	3,34,58,58,44	5,18
12″	49, 0,38, 4,51,12, 9,16,38,51	1,12,29,23,33,59,27,27	3,34,59, 4, 2	5,18
14″	49, 0,39,17,20,35,43,16, 6,18	1,12,29,19,59, 0,18, 7	3,34,59, 9,20	5,18
16″	49, 0,40,29,49,55,42,16,24,25	1,12,29,16,24, 1, 3,29	3,34,59,14,38	5,18
18″	49, 0,41,42,19,12, 6,17,27,54	1,12,29,12,49, 1,43,33	3,34,59,19,56	5,18
20″	49, 0,42,54,48,24,55,19,11,27	1,12,29, 9,14, 2,18,19	3,34,59,25,14	5,18
22″	49, 0,44, 7,17,34, 9,21,29,46	1,12,29, 5,39, 2,47,47	3,34,59,30,32	5,18
24″	49, 0,45,19,46,39,48,24,17,33	1,12,29, 2, 4, 3,11,57	3,34,59,35,50	5,18
26″	49, 0,46,32,15,41,52,27,29,30	1,12,28,58,29, 3,30,49	3,34,59,41, 8	5,18
28″	49, 0,47,44,44,40,21,31, 0,19	1,12,28,54,54, 3,44,23	3,34,59,46,26	5,18
30″	49, 0,48,57,13,35,15,34,44,42	1,12,28,51,19, 3,52,39	3,34,59,51,44	5,18
32″	49, 0,50, 9,42,26,34,38,37,21	1,12,28,47,44, 3,55,37	3,34,59,57, 2	5,18
34″	49, 0,51,22,11,14,18,42,32,58	1,12,28,44, 9, 3,53,17	3,35, 0, 2,20	5,18
36″	49, 0,52,34,39,58,27,46,26,15	1,12,28,40,34, 3,45,39	3,35, 0, 7,38	5,18
38″	49, 0,53,47, 8,39, 1,50,11,54	1,12,28,36,59, 3,32,43	3,35, 0,12,56	5,18
40″	49, 0,54,59,37,16, 0,53,44,37	1,12,28,33,24, 3,14,29	3,35, 0,18,14	5,18
42″	49, 0,56,12, 5,49,24,56,59, 6	1,12,28,29,49, 2,50,57	3,35, 0,23,32	5,18
44″	49, 0,57,24,34,19,13,59,50, 3	1,12,28,26,14, 2,22, 7	3,35, 0,28,50	5,18
46″	49, 0,58,37, 2,45,28, 2,12,10	1,12,28,22,39, 1,47,59	3,35, 0,34, 8	5,18
48″	49, 0,59,49,31, 8, 7, 4, 0, 9	1,12,28,19, 4, 1, 8,33	3,35, 0,39,26	5,18
50″	49, 1, 1, 1,59,27,11, 5, 8,42	1,12,28,15,29, 0,23,49	3,35, 0,44,44	5,18
52″	49, 1, 2,14,27,42,40, 5,32,31	1,12,28,11,53,59,33,47	3,35, 0,50, 2	5,18
54″	49, 1, 3,26,55,54,34, 5, 6,18	1,12,28, 8,18,58,38,27	3,35, 0,55,20	5,18
56″	49, 1, 4,39,24, 2,53, 3,44,45	1,12,28, 4,43,57,37,49	3,35, 1, 0,38	5,18
58″	49, 1, 5,51,52, 7,37, 1,22,34	1,12,28, 1, 8,56,31,53	3,35, 1, 5,56	
60″	49, 1, 7, 4,20, 8,45,57,54,27			
exact	49, 1, 7, 4,20, 8,45,57,59,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°47′ 0″	49, 1, 7, 4,20, 8,45,57,59,15			
		1,12,27,57,33,55,21, 8		
2″	49, 1, 8,16,48, 6,19,53,20,23		3,35, 1,16,30	
		1,12,27,53,58,54, 4,38		5,18
4″	49, 1, 9,29,16, 0,18,47,25, 1		3,35, 1,21,48	
		1,12,27,50,23,52,42,50		5,18
6″	49, 1,10,41,43,50,42,40, 7,51		3,35, 1,27, 6	
		1,12,27,46,48,51,15,44		5,18
8″	49, 1,11,54,11,37,31,31,23,35		3,35, 1,32,24	
		1,12,27,43,13,49,43,20		5,18
10″	49, 1,13, 6,39,20,45,21, 6,55		3,35, 1,37,42	
		1,12,27,39,38,48, 5,38		5,18
12″	49, 1,14,19, 7, 0,24, 9,12,33		3,35, 1,43, 0	
		1,12,27,36, 3,46,22,38		5,18
14″	49, 1,15,31,34,36,27,55,35,11		3,35, 1,48,18	
		1,12,27,32,28,44,34,20		5,18
16″	49, 1,16,44, 2, 8,56,40, 9,31		3,35, 1,53,36	
		1,12,27,28,53,42,40,44		5,18
18″	49, 1,17,56,29,37,50,22,50,15		3,35, 1,58,54	
		1,12,27,25,18,40,41,50		5,18
20″	49, 1,19, 8,57, 3, 9, 3,32, 5		3,35, 2, 4,12	
		1,12,27,21,43,38,37,38		5,18
22″	49, 1,20,21,24,24,52,42, 9,43		3,35, 2, 9,30	
		1,12,27,18, 8,36,28, 8		5,18
24″	49, 1,21,33,51,43, 1,18,37,51		3,35, 2,14,48	
		1,12,27,14,33,34,13,20		5,18
26″	49, 1,22,46,18,57,34,52,51,11		3,35, 2,20, 6	
		1,12,27,10,58,31,53,14		5,18
28″	49, 1,23,58,46, 8,33,24,44,25		3,35, 2,25,24	
		1,12,27, 7,23,29,27,50		5,18
30″	49, 1,25,11,13,15,56,54,12,15		3,35, 2,30,42	
		1,12,27, 3,48,26,57, 8		5,18
32″	49, 1,26,23,40,19,45,21, 9,23		3,35, 2,36, 0	
		1,12,27, 0,13,24,21, 8		5,18
34″	49, 1,27,36, 7,19,58,45,30,31		3,35, 2,41,18	
		1,12,26,56,38,21,39,50		5,18
36″	49, 1,28,48,34,16,37, 7,10,21		3,35, 2,46,36	
		1,12,26,53, 3,18,53,14		5,18
38″	49, 1,30, 1, 1, 9,40,26, 3,35		3,35, 2,51,54	
		1,12,26,49,28,16, 1,20		5,18
40″	49, 1,31,13,27,59, 8,42, 4,55		3,35, 2,57,12	
		1,12,26,45,53,13, 4, 8		5,18
42″	49, 1,32,25,54,45, 1,55, 9, 3		3,35, 3, 2,30	
		1,12,26,42,18,10, 1,38		5,18
44″	49, 1,33,38,21,27,20, 5,10,41		3,35, 3, 7,48	
		1,12,26,38,43, 6,53,50		5,18
46″	49, 1,34,50,48, 6, 3,12, 4,31		3,35, 3,13, 6	
		1,12,26,35, 8, 3,40,44		5,18
48″	49, 1,36, 3,14,41,11,15,45,15		3,35, 3,18,24	
		1,12,26,31,33, 0,22,20		5,18
50″	49, 1,37,15,41,12,44,16, 7,35		3,35, 3,23,42	
		1,12,26,27,57,56,58,38		5,18
52″	49, 1,38,28, 7,40,42,13, 6,13		3,35, 3,29, 0	
		1,12,26,24,22,53,29,38		5,18
54″	49, 1,39,40,34, 5, 5, 6,35,51		3,35, 3,34,18	
		1,12,26,20,47,49,55,20		5,18
56″	49, 1,40,53, 0,25,52,56,31,11		3,35, 3,39,36	
		1,12,26,17,12,46,15,44		5,18
58″	49, 1,42, 5,26,43, 5,42,46,55		3,35, 3,44,54	
		1,12,26,13,37,42,30,50		
60″	49, 1,43,17,52,56,43,25,17,45			
exact	49, 1,43,17,52,56,43,25,31,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°48′ 0″	49, 1,43,17,52,56,43,25,31,14			
		1,12,26,10, 2,38,42, 3		
2″	49, 1,44,30,19, 6,46, 4,13,17		3,35, 3,55,24	
		1,12,26, 6,27,34,46,39		5,18
4″	49, 1,45,42,45,13,13,38,59,56		3,35, 4, 0,42	
		1,12,26, 2,52,30,45,57		5,18
6″	49, 1,46,55,11,16, 6, 9,45,53		3,35, 4, 6, 0	
		1,12,25,59,17,26,39,57		5,18
8″	49, 1,48, 7,37,15,23,36,25,50		3,35, 4,11,18	
		1,12,25,55,42,22,28,39		5,18
10″	49, 1,49,20, 3,11, 5,58,54,29		3,35, 4,16,36	
		1,12,25,52, 7,18,12, 3		5,18
12″	49, 1,50,32,29, 3,13,17, 6,32		3,35, 4,21,54	
		1,12,25,48,32,13,50, 9		5,18
14″	49, 1,51,44,54,51,45,30,56,41		3,35, 4,27,12	
		1,12,25,44,57, 9,22,57		5,18
16″	49, 1,52,57,20,36,42,40,19,38		3,35, 4,32,30	
		1,12,25,41,22, 4,50,27		5,18
18″	49, 1,54, 9,46,18, 4,45,10, 5		3,35, 4,37,48	
		1,12,25,37,47, 0,12,39		5,18
20″	49, 1,55,22,11,55,51,45,22,44		3,35, 4,43, 6	
		1,12,25,34,11,55,29,33		5,18
22″	49, 1,56,34,37,30, 3,40,52,17		3,35, 4,48,24	
		1,12,25,30,36,50,41, 9		5,18
24″	49, 1,57,47, 3, 0,40,31,33,26		3,35, 4,53,42	
		1,12,25,27, 1,45,47,27		5,18
26″	49, 1,58,59,28,27,42,17,20,53		3,35, 4,59, 0	
		1,12,25,23,26,40,48,27		5,18
28″	49, 2, 0,11,53,51, 8,58, 9,20		3,35, 5, 4,18	
		1,12,25,19,51,35,44, 9		5,18
30″	49, 2, 1,24,19,11, 0,33,53,29		3,35, 5, 9,36	
		1,12,25,16,16,30,34,33		5,18
32″	49, 2, 2,36,44,27,17, 4,28, 2		3,35, 5,14,54	
		1,12,25,12,41,25,19,39		5,18
34″	49, 2, 3,49, 9,39,58,29,47,41		3,35, 5,20,12	
		1,12,25, 9, 6,19,59,27		5,18
36″	49, 2, 5, 1,34,49, 4,49,47, 8		3,35, 5,25,30	
		1,12,25, 5,31,14,33,57		5,18
38″	49, 2, 6,13,59,54,36, 4,21, 5		3,35, 5,30,48	
		1,12,25, 1,56, 9, 3, 9		5,18
40″	49, 2, 7,26,24,56,32,13,24,14		3,35, 5,36, 6	
		1,12,24,58,21, 3,27, 3		5,18
42″	49, 2, 8,38,49,54,53,16,51,17		3,35, 5,41,24	
		1,12,24,54,45,57,45,39		5,18
44″	49, 2, 9,51,14,49,39,14,36,56		3,35, 5,46,42	
		1,12,24,51,10,51,58,57		5,18
46″	49, 2,11, 3,39,40,50, 6,35,53		3,35, 5,52, 0	
		1,12,24,47,35,46, 6,57		5,18
48″	49, 2,12,16, 4,28,25,52,42,50		3,35, 5,57,18	
		1,12,24,44, 0,40, 9,39		5,18
50″	49, 2,13,28,29,12,26,32,52,29		3,35, 6, 2,36	
		1,12,24,40,25,34, 7, 3		5,18
52″	49, 2,14,40,53,52,52, 6,59,32		3,35, 6, 7,54	
		1,12,24,36,50,27,59, 9		5,18
54″	49, 2,15,53,18,29,42,34,58,41		3,35, 6,13,12	
		1,12,24,33,15,21,45,57		5,18
56″	49, 2,17, 5,43, 2,57,56,44,38		3,35, 6,18,30	
		1,12,24,29,40,15,27,27		5,18
58″	49, 2,18,18, 7,32,38,12,12, 5		3,35, 6,23,48	
		1,12,24,26, 5, 9, 3,39		
60″	49, 2,19,30,31,58,43,21,15,44			
exact	49, 2,19,30,31,58,43,21,37,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°49′ 0″	49, 2,19,30,31,58,43,21,37,16	1,12,24,22,30, 2,36,52		
2″	49, 2,20,42,56,21,13,24,14, 8	1,12,24,18,54,56, 2,38	3,35, 6,34,14	5,18
4″	49, 2,21,55,20,40, 8,20,16,46	1,12,24,15,19,49,23, 6	3,35, 6,39,32	5,18
6″	49, 2,23, 7,44,55,28, 9,39,52	1,12,24,11,44,42,38,16	3,35, 6,44,50	5,18
8″	49, 2,24,20, 9, 7,12,52,18, 8	1,12,24, 8, 9,35,48, 8	3,35, 6,50, 8	5,18
10″	49, 2,25,32,33,15,22,28, 6,16	1,12,24, 4,34,28,52,42	3,35, 6,55,26	5,18
12″	49, 2,26,44,57,19,56,56,58,58	1,12,24, 0,59,21,51,58	3,35, 7, 0,44	5,18
14″	49, 2,27,57,21,20,56,18,50,56	1,12,23,57,24,14,45,56	3,35, 7, 6, 2	5,18
16″	49, 2,29, 9,45,18,20,33,36,52	1,12,23,53,49, 7,34,36	3,35, 7,11,20	5,18
18″	49, 2,30,22, 9,12, 9,41,11,28	1,12,23,50,14, 0,17,58	3,35, 7,16,38	5,18
20″	49, 2,31,34,33, 2,23,41,29,26	1,12,23,46,38,52,56, 2	3,35, 7,21,56	5,18
22″	49, 2,32,46,56,49, 2,34,25,28	1,12,23,43, 3,45,28,48	3,35, 7,27,14	5,18
24″	49, 2,33,59,20,32, 6,19,54,16	1,12,23,39,28,37,56,16	3,35, 7,32,32	5,18
26″	49, 2,35,11,44,11,34,57,50,32	1,12,23,35,53,30,18,26	3,35, 7,37,50	5,18
28″	49, 2,36,24, 7,47,28,28, 8,58	1,12,23,32,18,22,35,18	3,35, 7,43, 8	5,18
30″	49, 2,37,36,31,19,46,50,44,16	1,12,23,28,43,14,46,52	3,35, 7,48,26	5,18
32″	49, 2,38,48,54,48,30, 5,31, 8	1,12,23,25, 8, 6,53, 8	3,35, 7,53,44	5,18
34″	49, 2,40, 1,18,13,38,12,24,16	1,12,23,21,32,58,54, 6	3,35, 7,59, 2	5,18
36″	49, 2,41,13,41,35,11,11,18,22	1,12,23,17,57,50,49,46	3,35, 8, 4,20	5,18
38″	49, 2,42,26, 4,53, 9, 2, 8, 8	1,12,23,14,22,42,40, 8	3,35, 8, 9,38	5,18
40″	49, 2,43,38,28, 7,31,44,48,16	1,12,23,10,47,34,25,12	3,35, 8,14,56	5,18
42″	49, 2,44,50,51,18,19,19,13,28	1,12,23, 7,12,26, 4,58	3,35, 8,20,14	5,18
44″	49, 2,46, 3,14,25,31,45,18,26	1,12,23, 3,37,17,39,26	3,35, 8,25,32	5,18
46″	49, 2,47,15,37,29, 9, 2,57,52	1,12,23, 0, 2, 9, 8,36	3,35, 8,30,50	5,18
48″	49, 2,48,28, 0,29,11,12, 6,28	1,12,22,56,27, 0,32,28	3,35, 8,36, 8	5,18
50″	49, 2,49,40,23,25,38,12,38,56	1,12,22,52,51,51,51, 2	3,35, 8,41,26	5,18
52″	49, 2,50,52,46,18,30, 4,29,58	1,12,22,49,16,43, 4,18	3,35, 8,46,44	5,18
54″	49, 2,52, 5, 9, 7,46,47,34,16	1,12,22,45,41,34,12,16	3,35, 8,52, 2	5,18
56″	49, 2,53,17,31,53,28,21,46,32	1,12,22,42, 6,25,14,56	3,35, 8,57,20	5,18
58″	49, 2,54,29,54,35,34,47, 1,28	1,12,22,38,31,16,12,18	3,35, 9, 2,38	
60″	49, 2,55,42,17,14, 6, 3,13,46			
exact	49, 2,55,42,17,14, 6, 3,42,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°50′ 0″	49, 2,55,42,17,14, 6, 3,42,41			
		1,12,22,34,56, 7, 7,32		
2″	49, 2,56,54,39,49, 2,10,50,13		3,35, 9,13, 0	
		1,12,22,31,20,57,54,32		5,17
4″	49, 2,58, 7, 2,20,23, 8,44,45		3,35, 9,18,17	
		1,12,22,27,45,48,36,15		5,17
6″	49, 2,59,19,24,48, 8,57,21, 0		3,35, 9,23,34	
		1,12,22,24,10,39,12,41		5,17
8″	49, 3, 0,31,47,12,19,36,33,41		3,35, 9,28,51	
		1,12,22,20,35,29,43,50		5,17
10″	49, 3, 1,44, 9,32,55, 6,17,31		3,35, 9,34, 8	
		1,12,22,17, 0,20, 9,42		5,17
12″	49, 3, 2,56,31,49,55,26,27,13		3,35, 9,39,25	
		1,12,22,13,25,10,30,17		5,17
14″	49, 3, 4, 8,54, 3,20,36,57,30		3,35, 9,44,42	
		1,12,22, 9,50, 0,45,35		5,17
16″	49, 3, 5,21,16,13,10,37,43, 5		3,35, 9,49,59	
		1,12,22, 6,14,50,55,36		5,17
18″	49, 3, 6,33,38,19,25,28,38,41		3,35, 9,55,16	
		1,12,22, 2,39,41, 0,20		5,17
20″	49, 3, 7,46, 0,22, 5, 9,39, 1		3,35,10, 0,33	
		1,12,21,59, 4,30,59,47		5,17
22″	49, 3, 8,58,22,21, 9,40,38,48		3,35,10, 5,50	
		1,12,21,55,29,20,53,57		5,17
24″	49, 3,10,10,44,16,39, 1,32,45		3,35,10,11, 7	
		1,12,21,51,54,10,42,50		5,17
26″	49, 3,11,23, 6, 8,33,12,15,35		3,35,10,16,24	
		1,12,21,48,19, 0,26,26		5,17
28″	49, 3,12,35,27,56,52,12,42, 1		3,35,10,21,41	
		1,12,21,44,43,50, 4,45		5,17
30″	49, 3,13,47,49,41,36, 2,46,46		3,35,10,26,58	
		1,12,21,41, 8,39,37,47		5,17
32″	49, 3,15, 0,11,22,44,42,24,33		3,35,10,32,15	
		1,12,21,37,33,29, 5,32		5,17
34″	49, 3,16,12,33, 0,18,11,30, 5		3,35,10,37,32	
		1,12,21,33,58,18,28, 0		5,17
36″	49, 3,17,24,54,34,16,29,58, 5		3,35,10,42,49	
		1,12,21,30,23, 7,45,11		5,17
38″	49, 3,18,37,16, 4,39,37,43,16		3,35,10,48, 6	
		1,12,21,26,47,56,57, 5		5,17
40″	49, 3,19,49,37,31,27,34,40,21		3,35,10,53,23	
		1,12,21,23,12,46, 3,42		5,17
42″	49, 3,21, 1,58,54,40,20,44, 3		3,35,10,58,40	
		1,12,21,19,37,35, 5, 2		5,17
44″	49, 3,22,14,20,14,17,55,49, 5		3,35,11, 3,57	
		1,12,21,16, 2,24, 1, 5		5,17
46″	49, 3,23,26,41,30,20,19,50,10		3,35,11, 9,14	
		1,12,21,12,27,12,51,51		5,17
48″	49, 3,24,39, 2,42,47,32,42, 1		3,35,11,14,31	
		1,12,21, 8,52, 1,37,20		5,17
50″	49, 3,25,51,23,51,39,34,19,21		3,35,11,19,48	
		1,12,21, 5,16,50,17,32		5,17
52″	49, 3,27, 3,44,56,56,24,36,53		3,35,11,25, 5	
		1,12,21, 1,41,38,52,27		5,17
54″	49, 3,28,16, 5,58,38, 3,29,20		3,35,11,30,22	
		1,12,20,58, 6,27,22, 5		5,17
56″	49, 3,29,28,26,56,44,30,51,25		3,35,11,35,39	
		1,12,20,54,31,15,46,26		5,17
58″	49, 3,30,40,47,51,15,46,37,51		3,35,11,40,56	
		1,12,20,50,56, 4, 5,30		
60″	49, 3,31,53, 8,42,11,50,43,21			
exact	49, 3,31,53, 8,42,11,50,11,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°51′ 0″	49, 3,31,53, 8,42,11,50,11,47			
		1,12,20,47,20,52,16, 2		
2″	49, 3,33, 5,29,29,32,42,27,49		3,35,11,51,43	
		1,12,20,43,45,40,24,19		5,17
4″	49, 3,34,17,50,13,18,22,52, 8		3,35,11,57, 0	
		1,12,20,40,10,28,27,19		5,17
6″	49, 3,35,30,10,53,28,51,19,27		3,35,12, 2,17	
		1,12,20,36,35,16,25, 2		5,17
8″	49, 3,36,42,31,30, 4, 7,44,29		3,35,12, 7,34	
		1,12,20,33, 0, 4,17,28		5,17
10″	49, 3,37,54,52, 3, 4,12, 1,57		3,35,12,12,51	
		1,12,20,29,24,52, 4,37		5,17
12″	49, 3,39, 7,12,32,29, 4, 6,34		3,35,12,18, 8	
		1,12,20,25,49,39,46,29		5,17
14″	49, 3,40,19,32,58,18,43,53, 3		3,35,12,23,25	
		1,12,20,22,14,27,23, 4		5,17
16″	49, 3,41,31,53,20,33,11,16, 7		3,35,12,28,42	
		1,12,20,18,39,14,54,22		5,17
18″	49, 3,42,44,13,39,12,26,10,29		3,35,12,33,59	
		1,12,20,15, 4, 2,20,23		5,17
20″	49, 3,43,56,33,54,16,28,30,52		3,35,12,39,16	
		1,12,20,11,28,49,41, 7		5,17
22″	49, 3,45, 8,54, 5,45,18,11,59		3,35,12,44,33	
		1,12,20, 7,53,36,56,34		5,17
24″	49, 3,46,21,14,13,38,55, 8,33		3,35,12,49,50	
		1,12,20, 4,18,24, 6,44		5,17
26″	49, 3,47,33,34,17,57,19,15,17		3,35,12,55, 7	
		1,12,20, 0,43,11,11,37		5,17
28″	49, 3,48,45,54,18,40,30,26,54		3,35,13, 0,24	
		1,12,19,57, 7,58,11,13		5,17
30″	49, 3,49,58,14,15,48,28,38, 7		3,35,13, 5,41	
		1,12,19,53,32,45, 5,32		5,17
32″	49, 3,51,10,34, 9,21,13,43,39		3,35,13,10,58	
		1,12,19,49,57,31,54,34		5,17
34″	49, 3,52,22,53,59,18,45,38,13		3,35,13,16,15	
		1,12,19,46,22,18,38,19		5,17
36″	49, 3,53,35,13,45,41, 4,16,32		3,35,13,21,32	
		1,12,19,42,47, 5,16,47		5,17
38″	49, 3,54,47,33,28,28, 9,33,19		3,35,13,26,49	
		1,12,19,39,11,51,49,58		5,17
40″	49, 3,55,59,53, 7,40, 1,23,17		3,35,13,32, 6	
		1,12,19,35,36,38,17,52		5,17
42″	49, 3,57,12,12,43,16,39,41, 9		3,35,13,37,23	
		1,12,19,32, 1,24,40,29		5,17
44″	49, 3,58,24,32,15,18, 4,21,38		3,35,13,42,40	
		1,12,19,28,26,10,57,49		5,17
46″	49, 3,59,36,51,43,44,15,19,27		3,35,13,47,57	
		1,12,19,24,50,57, 9,52		5,17
48″	49, 4, 0,49,11, 8,35,12,29,19		3,35,13,53,14	
		1,12,19,21,15,43,16,38		5,17
50″	49, 4, 2, 1,30,29,50,55,45,57		3,35,13,58,31	
		1,12,19,17,40,29,18, 7		5,17
52″	49, 4, 3,13,49,47,31,25, 4, 4		3,35,14, 3,48	
		1,12,19,14, 5,15,14,19		5,17
54″	49, 4, 4,26, 9, 1,36,40,18,23		3,35,14, 9, 5	
		1,12,19,10,30, 1, 5,14		5,17
56″	49, 4, 5,38,28,12, 6,41,23,37		3,35,14,14,22	
		1,12,19, 6,54,46,50,52		5,17
58″	49, 4, 6,50,47,19, 1,28,14,29		3,35,14,19,39	
		1,12,19, 3,19,32,31,13		
60″	49, 4, 8, 3, 6,22,21, 0,45,42			
exact	49, 4, 8, 3, 6,22,21, 0,27,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°52′ 0″	49, 4, 8, 3, 6,22,21, 0,27,50	1,12,18,59,44,18, 4,19		
2″	49, 4, 9,15,25,22, 5,18,32, 9	1,12,18,56, 9, 3,33,58	3,35,14,30,21	5,17
4″	49, 4,10,27,44,18,14,22, 6, 7	1,12,18,52,33,48,58,20	3,35,14,35,38	5,17
6″	49, 4,11,40, 3,10,48,11, 4,27	1,12,18,48,58,34,17,25	3,35,14,40,55	5,17
8″	49, 4,12,52,21,59,46,45,21,52	1,12,18,45,23,19,31,13	3,35,14,46,12	5,17
10″	49, 4,14, 4,40,45,10, 4,53, 5	1,12,18,41,48, 4,39,44	3,35,14,51,29	5,17
12″	49, 4,15,16,59,26,58, 9,32,49	1,12,18,38,12,49,42,58	3,35,14,56,46	5,17
14″	49, 4,16,29,18, 5,10,59,15,47	1,12,18,34,37,34,40,55	3,35,15, 2, 3	5,17
16″	49, 4,17,41,36,39,48,33,56,42	1,12,18,31, 2,19,33,35	3,35,15, 7,20	5,17
18″	49, 4,18,53,55,10,50,53,30,17	1,12,18,27,27, 4,20,58	3,35,15,12,37	5,17
20″	49, 4,20, 6,13,38,17,57,51,15	1,12,18,23,51,49, 3, 4	3,35,15,17,54	5,17
22″	49, 4,21,18,32, 2, 9,46,54,19	1,12,18,20,16,33,39,53	3,35,15,23,11	5,17
24″	49, 4,22,30,50,22,26,20,34,12	1,12,18,16,41,18,11,25	3,35,15,28,28	5,17
26″	49, 4,23,43, 8,39, 7,38,45,37	1,12,18,13, 6, 2,37,40	3,35,15,33,45	5,17
28″	49, 4,24,55,26,52,13,41,23,17	1,12,18, 9,30,46,58,38	3,35,15,39, 2	5,17
30″	49, 4,26, 7,45, 1,44,28,21,55	1,12,18, 5,55,31,14,19	3,35,15,44,19	5,17
32″	49, 4,27,20, 3, 7,39,59,36,14	1,12,18, 2,20,15,24,43	3,35,15,49,36	5,17
34″	49, 4,28,32,21,10, 0,15, 0,57	1,12,17,58,44,59,29,50	3,35,15,54,53	5,17
36″	49, 4,29,44,39, 8,45,14,30,47	1,12,17,55, 9,43,29,40	3,35,16, 0,10	5,17
38″	49, 4,30,56,57, 3,54,58, 0,27	1,12,17,51,34,27,24,13	3,35,16, 5,27	5,17
40″	49, 4,32, 9,14,55,29,25,24,40	1,12,17,47,59,11,13,29	3,35,16,10,44	5,17
42″	49, 4,33,21,32,43,28,36,38, 9	1,12,17,44,23,54,57,28	3,35,16,16, 1	5,17
44″	49, 4,34,33,50,27,52,31,35,37	1,12,17,40,48,38,36,10	3,35,16,21,18	5,17
46″	49, 4,35,46, 8, 8,41,10,11,47	1,12,17,37,13,22, 9,35	3,35,16,26,35	5,17
48″	49, 4,36,58,25,45,54,32,21,22	1,12,17,33,38, 5,37,43	3,35,16,31,52	5,17
50″	49, 4,38,10,43,19,32,37,59, 5	1,12,17,30, 2,49, 0,34	3,35,16,37, 9	5,17
52″	49, 4,39,23, 0,49,35,26,59,39	1,12,17,26,27,32,18, 8	3,35,16,42,26	5,17
54″	49, 4,40,35,18,16, 2,59,17,47	1,12,17,22,52,15,30,25	3,35,16,47,43	5,17
56″	49, 4,41,47,35,38,55,14,48,12	1,12,17,19,16,58,37,25	3,35,16,53, 0	5,17
58″	49, 4,42,59,52,58,12,13,25,37	1,12,17,15,41,41,39, 8	3,35,16,58,17	
60″	49, 4,44,12,10,13,53,55, 4,45			
exact	49, 4,44,12,10,13,53,54,53, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°53′ 0″	49, 4,44,12,10,13,53,54,53, 7			
		1,12,17,12, 6,24,34,22		
2″	49, 4,45,24,27,26, 0,19,27,29		3,35,17, 8,55	
		1,12,17, 8,31, 7,25,27		5,17
4″	49, 4,46,36,44,34,31,26,52,56		3,35,17,14,12	
		1,12,17, 4,55,50,11,15		5,17
6″	49, 4,47,49, 1,39,27,17, 4,11		3,35,17,19,29	
		1,12,17, 1,20,32,51,46		5,17
8″	49, 4,49, 1,18,40,47,49,55,57		3,35,17,24,46	
		1,12,16,57,45,15,27, 0		5,17
10″	49, 4,50,13,35,38,33, 5,22,57		3,35,17,30, 3	
		1,12,16,54, 9,57,56,57		5,17
12″	49, 4,51,25,52,32,43, 3,19,54		3,35,17,35,20	
		1,12,16,50,34,40,21,37		5,17
14″	49, 4,52,38, 9,23,17,43,41,31		3,35,17,40,37	
		1,12,16,46,59,22,41, 0		5,17
16″	49, 4,53,50,26,10,17, 6,22,31		3,35,17,45,54	
		1,12,16,43,24, 4,55, 6		5,17
18″	49, 4,55, 2,42,53,41,11,17,37		3,35,17,51,11	
		1,12,16,39,48,47, 3,55		5,17
20″	49, 4,56,14,59,33,29,58,21,32		3,35,17,56,28	
		1,12,16,36,13,29, 7,27		5,17
22″	49, 4,57,27,16, 9,43,27,28,59		3,35,18, 1,45	
		1,12,16,32,38,11, 5,42		5,17
24″	49, 4,58,39,32,42,21,38,34,41		3,35,18, 7, 2	
		1,12,16,29, 2,52,58,40		5,17
26″	49, 4,59,51,49,11,24,31,33,21		3,35,18,12,19	
		1,12,16,25,27,34,46,21		5,17
28″	49, 5, 1, 4, 5,36,52, 6,19,42		3,35,18,17,36	
		1,12,16,21,52,16,28,45		5,17
30″	49, 5, 2,16,21,58,44,22,48,27		3,35,18,22,53	
		1,12,16,18,16,58, 5,52		5,17
32″	49, 5, 3,28,38,17, 1,20,54,19		3,35,18,28,10	
		1,12,16,14,41,39,37,42		5,17
34″	49, 5, 4,40,54,31,43, 0,32, 1		3,35,18,33,27	
		1,12,16,11, 6,21, 4,15		5,17
36″	49, 5, 5,53,10,42,49,21,36,16		3,35,18,38,44	
		1,12,16, 7,31, 2,25,31		5,17
38″	49, 5, 7, 5,26,50,20,24, 1,47		3,35,18,44, 1	
		1,12,16, 3,55,43,41,30		5,17
40″	49, 5, 8,17,42,54,16, 7,43,17		3,35,18,49,18	
		1,12,16, 0,20,24,52,12		5,17
42″	49, 5, 9,29,58,54,36,32,35,29		3,35,18,54,35	
		1,12,15,56,45, 5,57,37		5,17
44″	49, 5,10,42,14,51,21,38,33, 6		3,35,18,59,52	
		1,12,15,53, 9,46,57,45		5,17
46″	49, 5,11,54,30,44,31,25,30,51		3,35,19, 5, 9	
		1,12,15,49,34,27,52,36		5,17
48″	49, 5,13, 6,46,34, 5,53,23,27		3,35,19,10,26	
		1,12,15,45,59, 8,42,10		5,17
50″	49, 5,14,19, 2,20, 5, 2, 5,37		3,35,19,15,43	
		1,12,15,42,23,49,26,27		5,17
52″	49, 5,15,31,18, 2,28,51,32, 4		3,35,19,21, 0	
		1,12,15,38,48,30, 5,27		5,17
54″	49, 5,16,43,33,41,17,21,37,31		3,35,19,26,17	
		1,12,15,35,13,10,39,10		5,17
56″	49, 5,17,55,49,16,30,32,16,41		3,35,19,31,34	
		1,12,15,31,37,51, 7,36		5,17
58″	49, 5,19, 8, 4,48, 8,23,24,17		3,35,19,36,51	
		1,12,15,28, 2,31,30,45		
60″	49, 5,20,20,20,16,10,54,55, 2			
exact	49, 5,20,20,20,16,10,54,48,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°54′ 0″	49, 5,20,20,20,16,10,54,48,57	1,12,15,24,27,11,48, 9		
2″	49, 5,21,32,35,40,38, 6,37, 6	1,12,15,20,51,52, 0,43	3,35,19,47,26	5,17
4″	49, 5,22,44,51, 1,29,58,37,49	1,12,15,17,16,32, 8, 0	3,35,19,52,43	5,17
6″	49, 5,23,57, 6,18,46,30,45,49	1,12,15,13,41,12,10, 0	3,35,19,58, 0	5,17
8″	49, 5,25, 9,21,32,27,42,55,49	1,12,15,10, 5,52, 6,43	3,35,20, 3,17	5,17
10″	49, 5,26,21,36,42,33,35, 2,32	1,12,15, 6,30,31,58, 9	3,35,20, 8,34	5,17
12″	49, 5,27,33,51,49, 4, 7, 0,41	1,12,15, 2,55,11,44,18	3,35,20,13,51	5,17
14″	49, 5,28,46, 6,51,59,18,44,59	1,12,14,59,19,51,25,10	3,35,20,19, 8	5,17
16″	49, 5,29,58,21,51,19,10,10, 9	1,12,14,55,44,31, 0,45	3,35,20,24,25	5,17
18″	49, 5,31,10,36,47, 3,41,10,54	1,12,14,52, 9,10,31, 3	3,35,20,29,42	5,17
20″	49, 5,32,22,51,39,12,51,41,57	1,12,14,48,33,49,56, 4	3,35,20,34,59	5,17
22″	49, 5,33,35, 6,27,46,41,38, 1	1,12,14,44,58,29,15,48	3,35,20,40,16	5,17
24″	49, 5,34,47,21,12,45,10,53,49	1,12,14,41,23, 8,30,15	3,35,20,45,33	5,17
26″	49, 5,35,59,35,54, 8,19,24, 4	1,12,14,37,47,47,39,25	3,35,20,50,50	5,17
28″	49, 5,37,11,50,31,56, 7, 3,29	1,12,14,34,12,26,43,18	3,35,20,56, 7	5,17
30″	49, 5,38,24, 5, 6, 8,33,46,47	1,12,14,30,37, 5,41,54	3,35,21, 1,24	5,17
32″	49, 5,39,36,19,36,45,39,28,41	1,12,14,27, 1,44,35,13	3,35,21, 6,41	5,17
34″	49, 5,40,48,34, 3,47,24, 3,54	1,12,14,23,26,23,23,15	3,35,21,11,58	5,17
36″	49, 5,42, 0,48,27,13,47,27, 9	1,12,14,19,51, 2, 6, 0	3,35,21,17,15	5,17
38″	49, 5,43,13, 2,47, 4,49,33, 9	1,12,14,16,15,40,43,28	3,35,21,22,32	5,17
40″	49, 5,44,25,17, 3,20,30,16,37	1,12,14,12,40,19,15,39	3,35,21,27,49	5,17
42″	49, 5,45,37,31,16, 0,49,32,16	1,12,14, 9, 4,57,42,33	3,35,21,33, 6	5,17
44″	49, 5,46,49,45,25, 5,47,14,49	1,12,14, 5,29,36, 4,10	3,35,21,38,23	5,17
46″	49, 5,48, 1,59,30,35,23,18,59	1,12,14, 1,54,14,20,30	3,35,21,43,40	5,17
48″	49, 5,49,14,13,32,29,37,39,29	1,12,13,58,18,52,31,33	3,35,21,48,57	5,17
50″	49, 5,50,26,27,30,48,30,11, 2	1,12,13,54,43,30,37,19	3,35,21,54,14	5,17
52″	49, 5,51,38,41,25,32, 0,48,21	1,12,13,51, 8, 8,37,48	3,35,21,59,31	5,17
54″	49, 5,52,50,55,16,40, 9,26, 9	1,12,13,47,32,46,33, 0	3,35,22, 4,48	5,17
56″	49, 5,54, 3, 9, 4,12,55,59, 9	1,12,13,43,57,24,22,55	3,35,22,10, 5	5,17
58″	49, 5,55,15,22,48,10,20,22, 4	1,12,13,40,22, 2, 7,33	3,35,22,15,22	
60″	49, 5,56,27,36,28,32,22,29,37			
exact	49, 5,56,27,36,28,32,22,35,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°55′ 0″	49, 5,56,27,36,28,32,22,35,36	1,12,13,36,46,39,47,37		
2″	49, 5,57,39,50, 5,19, 2,23,13	1,12,13,33,11,17,21,45	3,35,22,25,52	5,17
4″	49, 5,58,52, 3,38,30,19,44,58	1,12,13,29,35,54,50,36	3,35,22,31, 9	5,17
6″	49, 6, 0, 4,17, 8, 6,14,35,34	1,12,13,26, 0,32,14,10	3,35,22,36,26	5,17
8″	49, 6, 1,16,30,34, 6,46,49,44	1,12,13,22,25, 9,32,27	3,35,22,41,43	5,17
10″	49, 6, 2,28,43,56,31,56,22,11	1,12,13,18,49,46,45,27	3,35,22,47, 0	5,17
12″	49, 6, 3,40,57,15,21,43, 7,38	1,12,13,15,14,23,53,10	3,35,22,52,17	5,17
14″	49, 6, 4,53,10,30,36, 7, 0,48	1,12,13,11,39, 0,55,36	3,35,22,57,34	5,17
16″	49, 6, 6, 5,23,42,15, 7,56,24	1,12,13, 8, 3,37,52,45	3,35,23, 2,51	5,17
18″	49, 6, 7,17,36,50,18,45,49, 9	1,12,13, 4,28,14,44,37	3,35,23, 8, 8	5,17
20″	49, 6, 8,29,49,54,47, 0,33,46	1,12,13, 0,52,51,31,12	3,35,23,13,25	5,17
22″	49, 6, 9,42, 2,55,39,52, 4,58	1,12,12,57,17,28,12,30	3,35,23,18,42	5,17
24″	49, 6,10,54,15,52,57,20,17,28	1,12,12,53,42, 4,48,31	3,35,23,23,59	5,17
26″	49, 6,12, 6,28,46,39,25, 5,59	1,12,12,50, 6,41,19,15	3,35,23,29,16	5,17
28″	49, 6,13,18,41,36,46, 6,25,14	1,12,12,46,31,17,44,42	3,35,23,34,33	5,17
30″	49, 6,14,30,54,23,17,24, 9,56	1,12,12,42,55,54, 4,52	3,35,23,39,50	5,17
32″	49, 6,15,43, 7, 6,13,18,14,48	1,12,12,39,20,30,19,45	3,35,23,45, 7	5,17
34″	49, 6,16,55,19,45,33,48,34,33	1,12,12,35,45, 6,29,21	3,35,23,50,24	5,17
36″	49, 6,18, 7,32,21,18,55, 3,54	1,12,12,32, 9,42,33,40	3,35,23,55,41	5,17
38″	49, 6,19,19,44,53,28,37,37,34	1,12,12,28,34,18,32,42	3,35,24, 0,58	5,17
40″	49, 6,20,31,57,22, 2,56,10,16	1,12,12,24,58,54,26,27	3,35,24, 6,15	5,17
42″	49, 6,21,44, 9,47, 1,50,36,43	1,12,12,21,23,30,14,55	3,35,24,11,32	5,17
44″	49, 6,22,56,22, 8,25,20,51,38	1,12,12,17,48, 5,58, 6	3,35,24,16,49	5,17
46″	49, 6,24, 8,34,26,13,26,49,44	1,12,12,14,12,41,36, 0	3,35,24,22, 6	5,17
48″	49, 6,25,20,46,40,26, 8,25,44	1,12,12,10,37,17, 8,37	3,35,24,27,23	5,17
50″	49, 6,26,32,58,51, 3,25,34,21	1,12,12, 7, 1,52,35,57	3,35,24,32,40	5,17
52″	49, 6,27,45,10,58, 5,18,10,18	1,12,12, 3,26,27,58, 0	3,35,24,37,57	5,17
54″	49, 6,28,57,23, 1,31,46, 8,18	1,12,11,59,51, 3,14,46	3,35,24,43,14	5,17
56″	49, 6,30, 9,35, 1,22,49,23, 4	1,12,11,56,15,38,26,15	3,35,24,48,31	5,17
58″	49, 6,31,21,46,57,38,27,49,19	1,12,11,52,40,13,32,27	3,35,24,53,48	
60″	49, 6,32,33,58,50,18,41,21,46			
exact	49, 6,32,33,58,50,18,41,32,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°56′ 0″	49, 6,32,33,58,50,18,41,32,27	1,12,11,49, 4,48,34,44		
2″	49, 6,33,46,10,39,23,30, 7,11	1,12,11,45,29,23,30,29	3,35,25, 4,15	5,17
4″	49, 6,34,58,22,24,52,53,37,40	1,12,11,41,53,58,20,57	3,35,25, 9,32	5,17
6″	49, 6,36,10,34, 6,46,51,58,37	1,12,11,38,18,33, 6, 8	3,35,25,14,49	5,17
8″	49, 6,37,22,45,45, 5,25, 4,45	1,12,11,34,43, 7,46, 2	3,35,25,20, 6	5,17
10″	49, 6,38,34,57,19,48,32,50,47	1,12,11,31, 7,42,20,39	3,35,25,25,23	5,17
12″	49, 6,39,47, 8,50,56,15,11,26	1,12,11,27,32,16,49,59	3,35,25,30,40	5,17
14″	49, 6,40,59,20,18,28,32, 1,25	1,12,11,23,56,51,14, 2	3,35,25,35,57	5,17
16″	49, 6,42,11,31,42,25,23,15,27	1,12,11,20,21,25,32,48	3,35,25,41,14	5,17
18″	49, 6,43,23,43, 2,46,48,48,15	1,12,11,16,45,59,46,17	3,35,25,46,31	5,17
20″	49, 6,44,35,54,19,32,48,34,32	1,12,11,13,10,33,54,29	3,35,25,51,48	5,17
22″	49, 6,45,48, 5,32,43,22,29, 1	1,12,11, 9,35, 7,57,24	3,35,25,57, 5	5,17
24″	49, 6,47, 0,16,42,18,30,26,25	1,12,11, 5,59,41,55, 2	3,35,26, 2,22	5,17
26″	49, 6,48,12,27,48,18,12,21,27	1,12,11, 2,24,15,47,23	3,35,26, 7,39	5,17
28″	49, 6,49,24,38,50,42,28, 8,50	1,12,10,58,48,49,34,27	3,35,26,12,56	5,17
30″	49, 6,50,36,49,49,31,17,43,17	1,12,10,55,13,23,16,14	3,35,26,18,13	5,17
32″	49, 6,51,49, 0,44,44,40,59,31	1,12,10,51,37,56,52,44	3,35,26,23,30	5,17
34″	49, 6,53, 1,11,36,22,37,52,15	1,12,10,48, 2,30,23,57	3,35,26,28,47	5,17
36″	49, 6,54,13,22,24,25, 8,16,12	1,12,10,44,27, 3,49,53	3,35,26,34, 4	5,17
38″	49, 6,55,25,33, 8,52,12, 6, 5	1,12,10,40,51,37,10,32	3,35,26,39,21	5,17
40″	49, 6,56,37,43,49,43,49,16,37	1,12,10,37,16,10,25,54	3,35,26,44,38	5,17
42″	49, 6,57,49,54,26,59,59,42,31	1,12,10,33,40,43,35,59	3,35,26,49,55	5,17
44″	49, 6,59, 2, 5, 0,40,43,18,30	1,12,10,30, 5,16,40,47	3,35,26,55,12	5,17
46″	49, 7, 0,14,15,30,45,59,59,17	1,12,10,26,29,49,40,18	3,35,27, 0,29	5,17
48″	49, 7, 1,26,25,57,15,49,39,35	1,12,10,22,54,22,34,32	3,35,27, 5,46	5,17
50″	49, 7, 2,38,36,20,10,12,14, 7	1,12,10,19,18,55,23,29	3,35,27,11, 3	5,17
52″	49, 7, 3,50,46,39,29, 7,37,36	1,12,10,15,43,28, 7, 9	3,35,27,16,20	5,17
54″	49, 7, 5, 2,56,55,12,35,44,45	1,12,10,12, 8, 0,45,32	3,35,27,21,37	5,17
56″	49, 7, 6,15, 7, 7,20,36,30,17	1,12,10, 8,32,33,18,38	3,35,27,26,54	5,17
58″	49, 7, 7,27,17,15,53, 9,48,55	1,12,10, 4,57, 5,46,27	3,35,27,32,11	
60″	49, 7, 8,39,27,20,50,15,35,22			
exact	49, 7, 8,39,27,20,50,15,57,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°57′ 0″	49, 7, 8,39,27,20,50,15,57,52			
		1,12,10, 1,21,38,11,30		
2″	49, 7, 9,51,37,22,11,54, 9,22		3,35,27,42,34	
		1,12, 9,57,46,10,28,56		5,17
4″	49, 7,11, 3,47,19,58, 4,38,18		3,35,27,47,51	
		1,12, 9,54,10,42,41, 5		5,17
6″	49, 7,12,15,57,14, 8,47,19,23		3,35,27,53, 8	
		1,12, 9,50,35,14,47,57		5,17
8″	49, 7,13,28, 7, 4,44, 2, 7,20		3,35,27,58,25	
		1,12, 9,46,59,46,49,32		5,17
10″	49, 7,14,40,16,51,43,48,56,52		3,35,28, 3,42	
		1,12, 9,43,24,18,45,50		5,17
12″	49, 7,15,52,26,35, 8, 7,42,42		3,35,28, 8,59	
		1,12, 9,39,48,50,36,51		5,17
14″	49, 7,17, 4,36,14,56,58,19,33		3,35,28,14,16	
		1,12, 9,36,13,22,22,35		5,17
16″	49, 7,18,16,45,51,10,20,42, 8		3,35,28,19,33	
		1,12, 9,32,37,54, 3, 2		5,17
18″	49, 7,19,28,55,23,48,14,45,10		3,35,28,24,50	
		1,12, 9,29, 2,25,38,12		5,17
20″	49, 7,20,41, 4,52,50,40,23,22		3,35,28,30, 7	
		1,12, 9,25,26,57, 8, 5		5,17
22″	49, 7,21,53,14,18,17,37,31,27		3,35,28,35,24	
		1,12, 9,21,51,28,32,41		5,17
24″	49, 7,23, 5,23,40, 9, 6, 4, 8		3,35,28,40,41	
		1,12, 9,18,15,59,52, 0		5,17
26″	49, 7,24,17,32,58,25, 5,56, 8		3,35,28,45,58	
		1,12, 9,14,40,31, 6, 2		5,17
28″	49, 7,25,29,42,13, 5,37, 2,10		3,35,28,51,15	
		1,12, 9,11, 5, 2,14,47		5,17
30″	49, 7,26,41,51,24,10,39,16,57		3,35,28,56,32	
		1,12, 9, 7,29,33,18,15		5,17
32″	49, 7,27,54, 0,31,40,12,35,12		3,35,29, 1,49	
		1,12, 9, 3,54, 4,16,26		5,17
34″	49, 7,29, 6, 9,35,34,16,51,38		3,35,29, 7, 6	
		1,12, 9, 0,18,35, 9,20		5,17
36″	49, 7,30,18,18,35,52,52, 0,58		3,35,29,12,23	
		1,12, 8,56,43, 5,56,57		5,17
38″	49, 7,31,30,27,32,35,57,57,55		3,35,29,17,40	
		1,12, 8,53, 7,36,39,17		5,17
40″	49, 7,32,42,36,25,43,34,37,12		3,35,29,22,57	
		1,12, 8,49,32, 7,16,20		5,17
42″	49, 7,33,54,45,15,15,41,53,32		3,35,29,28,14	
		1,12, 8,45,56,37,48, 6		5,17
44″	49, 7,35, 6,54, 1,12,19,41,38		3,35,29,33,31	
		1,12, 8,42,21, 8,14,35		5,17
46″	49, 7,36,19, 2,43,33,27,56,13		3,35,29,38,48	
		1,12, 8,38,45,38,35,47		5,17
48″	49, 7,37,31,11,22,19, 6,32, 0		3,35,29,44, 5	
		1,12, 8,35,10, 8,51,42		5,17
50″	49, 7,38,43,19,57,29,15,23,42		3,35,29,49,22	
		1,12, 8,31,34,39, 2,20		5,17
52″	49, 7,39,55,28,29, 3,54,26, 2		3,35,29,54,39	
		1,12, 8,27,59, 9, 7,41		5,17
54″	49, 7,41, 7,36,57, 3, 3,33,43		3,35,29,59,56	
		1,12, 8,24,23,39, 7,45		5,17
56″	49, 7,42,19,45,21,26,42,41,28		3,35,30, 5,13	
		1,12, 8,20,48, 9, 2,32		5,17
58″	49, 7,43,31,53,42,14,51,44, 0		3,35,30,10,30	
		1,12, 8,17,12,38,52, 2		
60″	49, 7,44,44, 1,59,27,30,36, 2			
exact	49, 7,44,44, 1,59,27,31, 9,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°58′ 0″	49, 7,44,44, 1,59,27,31, 9,18			
		1,12, 8,13,37, 8,39,51		
2″	49, 7,45,56,10,13, 4,39,49, 9		3,35,30,20,49	
		1,12, 8,10, 1,38,19, 2		5,16
4″	49, 7,47, 8,18,23, 6,18, 8,11		3,35,30,26, 5	
		1,12, 8, 6,26, 7,52,57		5,16
6″	49, 7,48,20,26,29,32,26, 1, 8		3,35,30,31,21	
		1,12, 8, 2,50,37,21,36		5,16
8″	49, 7,49,32,34,32,23, 3,22,44		3,35,30,36,37	
		1,12, 7,59,15, 6,44,59		5,16
10″	49, 7,50,44,42,31,38,10, 7,43		3,35,30,41,53	
		1,12, 7,55,39,36, 3, 6		5,16
12″	49, 7,51,56,50,27,17,46,10,49		3,35,30,47, 9	
		1,12, 7,52, 4, 5,15,57		5,16
14″	49, 7,53, 8,58,19,21,51,26,46		3,35,30,52,25	
		1,12, 7,48,28,34,23,32		5,16
16″	49, 7,54,21, 6, 7,50,25,50,18		3,35,30,57,41	
		1,12, 7,44,53, 3,25,51		5,16
18″	49, 7,55,33,13,52,43,29,16, 9		3,35,31, 2,57	
		1,12, 7,41,17,32,22,54		5,16
20″	49, 7,56,45,21,34, 1, 1,39, 3		3,35,31, 8,13	
		1,12, 7,37,42, 1,14,41		5,16
22″	49, 7,57,57,29,11,43, 2,53,44		3,35,31,13,29	
		1,12, 7,34, 6,30, 1,12		5,16
24″	49, 7,59, 9,36,45,49,32,54,56		3,35,31,18,45	
		1,12, 7,30,30,58,42,27		5,16
26″	49, 8, 0,21,44,16,20,31,37,23		3,35,31,24, 1	
		1,12, 7,26,55,27,18,26		5,16
28″	49, 8, 1,33,51,43,15,58,55,49		3,35,31,29,17	
		1,12, 7,23,19,55,49, 9		5,16
30″	49, 8, 2,45,59, 6,35,54,44,58		3,35,31,34,33	
		1,12, 7,19,44,24,14,36		5,16
32″	49, 8, 3,58, 6,26,20,18,59,34		3,35,31,39,49	
		1,12, 7,16, 8,52,34,47		5,16
34″	49, 8, 5,10,13,42,29,11,34,21		3,35,31,45, 5	
		1,12, 7,12,33,20,49,42		5,16
36″	49, 8, 6,22,20,55, 2,32,24, 3		3,35,31,50,21	
		1,12, 7, 8,57,48,59,21		5,16
38″	49, 8, 7,34,28, 4, 0,21,23,24		3,35,31,55,37	
		1,12, 7, 5,22,17, 3,44		5,16
40″	49, 8, 8,46,35, 9,22,38,27, 8		3,35,32, 0,53	
		1,12, 7, 1,46,45, 2,51		5,16
42″	49, 8, 9,58,42,11, 9,23,29,59		3,35,32, 6, 9	
		1,12, 6,58,11,12,56,42		5,16
44″	49, 8,11,10,49, 9,20,36,26,41		3,35,32,11,25	
		1,12, 6,54,35,40,45,17		5,16
46″	49, 8,12,22,56, 3,56,17,11,58		3,35,32,16,41	
		1,12, 6,51, 0, 8,28,36		5,16
48″	49, 8,13,35, 2,54,56,25,40,34		3,35,32,21,57	
		1,12, 6,47,24,36, 6,39		5,16
50″	49, 8,14,47, 9,42,21, 1,47,13		3,35,32,27,13	
		1,12, 6,43,49, 3,39,26		5,16
52″	49, 8,15,59,16,26,10, 5,26,39		3,35,32,32,29	
		1,12, 6,40,13,31, 6,57		5,16
54″	49, 8,17,11,23, 6,23,36,33,36		3,35,32,37,45	
		1,12, 6,36,37,58,29,12		5,16
56″	49, 8,18,23,29,43, 1,35, 2,48		3,35,32,43, 1	
		1,12, 6,33, 2,25,46,11		5,16
58″	49, 8,19,35,36,16, 4, 0,48,59		3,35,32,48,17	
		1,12, 6,29,26,52,57,54		
60″	49, 8,20,47,42,45,30,53,46,53			
exact	49, 8,20,47,42,45,30,53,23,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
54°59′ 0″	49, 8,20,47,42,45,30,53,23,17	1,12, 6,25,51,20, 1,47		
2″	49, 8,21,59,49,11,22,13,25, 4	1,12, 6,22,15,47, 2,48	3,35,32,58,59	5,16
4″	49, 8,23,11,55,33,38, 0,27,52	1,12, 6,18,40,13,58,33	3,35,33, 4,15	5,16
6″	49, 8,24,24, 1,52,18,14,26,25	1,12, 6,15, 4,40,49, 2	3,35,33, 9,31	5,16
8″	49, 8,25,36, 8, 7,22,55,15,27	1,12, 6,11,29, 7,34,15	3,35,33,14,47	5,16
10″	49, 8,26,48,14,18,52, 2,49,42	1,12, 6, 7,53,34,14,12	3,35,33,20, 3	5,16
12″	49, 8,28, 0,20,26,45,37, 3,54	1,12, 6, 4,18, 0,48,53	3,35,33,25,19	5,16
14″	49, 8,29,12,26,31, 3,37,52,47	1,12, 6, 0,42,27,18,18	3,35,33,30,35	5,16
16″	49, 8,30,24,32,31,46, 5,11, 5	1,12, 5,57, 6,53,42,27	3,35,33,35,51	5,16
18″	49, 8,31,36,38,28,52,58,53,32	1,12, 5,53,31,20, 1,20	3,35,33,41, 7	5,16
20″	49, 8,32,48,44,22,24,18,54,52	1,12, 5,49,55,46,14,57	3,35,33,46,23	5,16
22″	49, 8,34, 0,50,12,20, 5, 9,49	1,12, 5,46,20,12,23,18	3,35,33,51,39	5,16
24″	49, 8,35,12,55,58,40,17,33, 7	1,12, 5,42,44,38,26,23	3,35,33,56,55	5,16
26″	49, 8,36,25, 1,41,24,55,59,30	1,12, 5,39, 9, 4,24,12	3,35,34, 2,11	5,16
28″	49, 8,37,37, 7,20,34, 0,23,42	1,12, 5,35,33,30,16,45	3,35,34, 7,27	5,16
30″	49, 8,38,49,12,56, 7,30,40,27	1,12, 5,31,57,56, 4, 2	3,35,34,12,43	5,16
32″	49, 8,40, 1,18,28, 5,26,44,29	1,12, 5,28,22,21,46, 3	3,35,34,17,59	5,16
34″	49, 8,41,13,23,56,27,48,30,32	1,12, 5,24,46,47,22,48	3,35,34,23,15	5,16
36″	49, 8,42,25,29,21,14,35,53,20	1,12, 5,21,11,12,54,17	3,35,34,28,31	5,16
38″	49, 8,43,37,34,42,25,48,47,37	1,12, 5,17,35,38,20,30	3,35,34,33,47	5,16
40″	49, 8,44,49,40, 0, 1,27, 8, 7	1,12, 5,14, 0, 3,41,27	3,35,34,39, 3	5,16
42″	49, 8,46, 1,45,14, 1,30,49,34	1,12, 5,10,24,28,57, 8	3,35,34,44,19	5,16
44″	49, 8,47,13,50,24,25,59,46,42	1,12, 5, 6,48,54, 7,33	3,35,34,49,35	5,16
46″	49, 8,48,25,55,31,14,53,54,15	1,12, 5, 3,13,19,12,42	3,35,34,54,51	5,16
48″	49, 8,49,38, 0,34,28,13, 6,57	1,12, 4,59,37,44,12,35	3,35,35, 0, 7	5,16
50″	49, 8,50,50, 5,34, 5,57,19,32	1,12, 4,56, 2, 9, 7,12	3,35,35, 5,23	5,16
52″	49, 8,52, 2,10,30, 8, 6,26,44	1,12, 4,52,26,33,56,33	3,35,35,10,39	5,16
54″	49, 8,53,14,15,22,34,40,23,17	1,12, 4,48,50,58,40,38	3,35,35,15,55	5,16
56″	49, 8,54,26,20,11,25,39, 3,55	1,12, 4,45,15,23,19,27	3,35,35,21,11	5,16
58″	49, 8,55,38,24,56,41, 2,23,22	1,12, 4,41,39,47,53, 0	3,35,35,26,27	
60″	49, 8,56,50,29,38,20,50,16,22			
exact	49, 8,56,50,29,38,20,49,55,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55° 0′ 0″	49, 8,56,50,29,38,20,49,55,24			
		1,12, 4,38, 4,12,19,15		
2″	49, 8,58, 2,34,16,25, 2,14,39		3,35,35,37, 6	
		1,12, 4,34,28,36,42, 9		5,16
4″	49, 8,59,14,38,50,53,38,56,48		3,35,35,42,22	
		1,12, 4,30,53, 0,59,47		5,16
6″	49, 9, 0,26,43,21,46,39,56,35		3,35,35,47,38	
		1,12, 4,27,17,25,12, 9		5,16
8″	49, 9, 1,38,47,49, 4, 5, 8,44		3,35,35,52,54	
		1,12, 4,23,41,49,19,15		5,16
10″	49, 9, 2,50,52,12,45,54,27,59		3,35,35,58,10	
		1,12, 4,20, 6,13,21, 5		5,16
12″	49, 9, 4, 2,56,32,52, 7,49, 4		3,35,36, 3,26	
		1,12, 4,16,30,37,17,39		5,16
14″	49, 9, 5,15, 0,49,22,45, 6,43		3,35,36, 8,42	
		1,12, 4,12,55, 1, 8,57		5,16
16″	49, 9, 6,27, 5, 2,17,46,15,40		3,35,36,13,58	
		1,12, 4, 9,19,24,54,59		5,16
18″	49, 9, 7,39, 9,11,37,11,10,39		3,35,36,19,14	
		1,12, 4, 5,43,48,35,45		5,16
20″	49, 9, 8,51,13,17,20,59,46,24		3,35,36,24,30	
		1,12, 4, 2, 8,12,11,15		5,16
22″	49, 9,10, 3,17,19,29,11,57,39		3,35,36,29,46	
		1,12, 3,58,32,35,41,29		5,16
24″	49, 9,11,15,21,18, 1,47,39, 8		3,35,36,35, 2	
		1,12, 3,54,56,59, 6,27		5,16
26″	49, 9,12,27,25,12,58,46,45,35		3,35,36,40,18	
		1,12, 3,51,21,22,26, 9		5,16
28″	49, 9,13,39,29, 4,20, 9,11,44		3,35,36,45,34	
		1,12, 3,47,45,45,40,35		5,16
30″	49, 9,14,51,32,52, 5,54,52,19		3,35,36,50,50	
		1,12, 3,44,10, 8,49,45		5,16
32″	49, 9,16, 3,36,36,16, 3,42, 4		3,35,36,56, 6	
		1,12, 3,40,34,31,53,39		5,16
34″	49, 9,17,15,40,16,50,35,35,43		3,35,37, 1,22	
		1,12, 3,36,58,54,52,17		5,16
36″	49, 9,18,27,43,53,49,30,28, 0		3,35,37, 6,38	
		1,12, 3,33,23,17,45,39		5,16
38″	49, 9,19,39,47,27,12,48,13,39		3,35,37,11,54	
		1,12, 3,29,47,40,33,45		5,16
40″	49, 9,20,51,50,57, 0,28,47,24		3,35,37,17,10	
		1,12, 3,26,12, 3,16,35		5,16
42″	49, 9,22, 3,54,23,12,32, 3,59		3,35,37,22,26	
		1,12, 3,22,36,25,54, 9		5,16
44″	49, 9,23,15,57,45,48,57,58, 8		3,35,37,27,42	
		1,12, 3,19, 0,48,26,27		5,16
46″	49, 9,24,28, 1, 4,49,46,24,35		3,35,37,32,58	
		1,12, 3,15,25,10,53,29		5,16
48″	49, 9,25,40, 4,20,14,57,18, 4		3,35,37,38,14	
		1,12, 3,11,49,33,15,15		5,16
50″	49, 9,26,52, 7,32, 4,30,33,19		3,35,37,43,30	
		1,12, 3, 8,13,55,31,45		5,16
52″	49, 9,28, 4,10,40,18,26, 5, 4		3,35,37,48,46	
		1,12, 3, 4,38,17,42,59		5,16
54″	49, 9,29,16,13,44,56,43,48, 3		3,35,37,54, 2	
		1,12, 3, 1, 2,39,48,57		5,16
56″	49, 9,30,28,16,45,59,23,37, 0		3,35,37,59,18	
		1,12, 2,57,27, 1,49,39		5,16
58″	49, 9,31,40,19,43,26,25,26,39		3,35,38, 4,34	
		1,12, 2,53,51,23,45, 5		
60″	49, 9,32,52,22,37,17,49,11,44			
exact	49, 9,32,52,22,37,17,49, 0,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55° 1′ 0″	49, 9,32,52,22,37,17,49, 0,21			
		1,12, 2,50,15,45,34,13		
2″	49, 9,34, 4,25,27,33,34,34,34		3,35,38,15, 9	
		1,12, 2,46,40, 7,19, 4		5,16
4″	49, 9,35,16,28,14,13,41,53,38		3,35,38,20,25	
		1,12, 2,43, 4,28,58,39		5,16
6″	49, 9,36,28,30,57,18,10,52,17		3,35,38,25,41	
		1,12, 2,39,28,50,32,58		5,16
8″	49, 9,37,40,33,36,47, 1,25,15		3,35,38,30,57	
		1,12, 2,35,53,12, 2, 1		5,16
10″	49, 9,38,52,36,12,40,13,27,16		3,35,38,36,13	
		1,12, 2,32,17,33,25,48		5,16
12″	49, 9,40, 4,38,44,57,46,53, 4		3,35,38,41,29	
		1,12, 2,28,41,54,44,19		5,16
14″	49, 9,41,16,41,13,39,41,37,23		3,35,38,46,45	
		1,12, 2,25, 6,15,57,34		5,16
16″	49, 9,42,28,43,38,45,57,34,57		3,35,38,52, 1	
		1,12, 2,21,30,37, 5,33		5,16
18″	49, 9,43,40,46, 0,16,34,40,30		3,35,38,57,17	
		1,12, 2,17,54,58, 8,16		5,16
20″	49, 9,44,52,48,18,11,32,48,46		3,35,39, 2,33	
		1,12, 2,14,19,19, 5,43		5,16
22″	49, 9,46, 4,50,32,30,51,54,29		3,35,39, 7,49	
		1,12, 2,10,43,39,57,54		5,16
24″	49, 9,47,16,52,43,14,31,52,23		3,35,39,13, 5	
		1,12, 2, 7, 8, 0,44,49		5,16
26″	49, 9,48,28,54,50,22,32,37,12		3,35,39,18,21	
		1,12, 2, 3,32,21,26,28		5,16
28″	49, 9,49,40,56,53,54,54, 3,40		3,35,39,23,37	
		1,12, 1,59,56,42, 2,51		5,16
30″	49, 9,50,52,58,53,51,36, 6,31		3,35,39,28,53	
		1,12, 1,56,21, 2,33,58		5,16
32″	49, 9,52, 5, 0,50,12,38,40,29		3,35,39,34, 9	
		1,12, 1,52,45,22,59,49		5,16
34″	49, 9,53,17, 2,42,58, 1,40,18		3,35,39,39,25	
		1,12, 1,49, 9,43,20,24		5,16
36″	49, 9,54,29, 4,32, 7,45, 0,42		3,35,39,44,41	
		1,12, 1,45,34, 3,35,43		5,16
38″	49, 9,55,41, 6,17,41,48,36,25		3,35,39,49,57	
		1,12, 1,41,58,23,45,46		5,16
40″	49, 9,56,53, 7,59,40,12,22,11		3,35,39,55,13	
		1,12, 1,38,22,43,50,33		5,16
42″	49, 9,58, 5, 9,38, 2,56,12,44		3,35,40, 0,29	
		1,12, 1,34,47, 3,50, 4		5,16
44″	49, 9,59,17,11,12,50, 0, 2,48		3,35,40, 5,45	
		1,12, 1,31,11,23,44,19		5,16
46″	49,10, 0,29,12,44, 1,23,47, 7		3,35,40,11, 1	
		1,12, 1,27,35,43,33,18		5,16
48″	49,10, 1,41,14,11,37, 7,20,25		3,35,40,16,17	
		1,12, 1,24, 0, 3,17, 1		5,16
50″	49,10, 2,53,15,35,37,10,37,26		3,35,40,21,33	
		1,12, 1,20,24,22,55,28		5,16
52″	49,10, 4, 5,16,56, 1,33,32,54		3,35,40,26,49	
		1,12, 1,16,48,42,28,39		5,16
54″	49,10, 5,17,18,12,50,16, 1,33		3,35,40,32, 5	
		1,12, 1,13,13, 1,56,34		5,16
56″	49,10, 6,29,19,26, 3,17,58, 7		3,35,40,37,21	
		1,12, 1, 9,37,21,19,13		5,16
58″	49,10, 7,41,20,35,40,39,17,20		3,35,40,42,37	
		1,12, 1, 6, 1,40,36,36		
60″	49,10, 8,53,21,41,42,19,53,56			
exact	49,10, 8,53,21,41,42,19,51,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55° 2′ 0″	49,10, 8,53,21,41,42,19,51,55	1,12, 1, 2,25,59,48,40		
2″	49,10,10, 5,22,44, 8,19,40,35	1,12, 0,58,50,18,55,32	3,35,40,53, 8	5,16
4″	49,10,11,17,23,42,58,38,36, 7	1,12, 0,55,14,37,57, 8	3,35,40,58,24	5,16
6″	49,10,12,29,24,38,13,16,33,15	1,12, 0,51,38,56,53,28	3,35,41, 3,40	5,16
8″	49,10,13,41,25,29,52,13,26,43	1,12, 0,48, 3,15,44,32	3,35,41, 8,56	5,16
10″	49,10,14,53,26,17,55,29,11,15	1,12, 0,44,27,34,30,20	3,35,41,14,12	5,16
12″	49,10,16, 5,27, 2,23, 3,41,35	1,12, 0,40,51,53,10,52	3,35,41,19,28	5,16
14″	49,10,17,17,27,43,14,56,52,27	1,12, 0,37,16,11,46, 8	3,35,41,24,44	5,16
16″	49,10,18,29,28,20,31, 8,38,35	1,12, 0,33,40,30,16, 8	3,35,41,30, 0	5,16
18″	49,10,19,41,28,54,11,38,54,43	1,12, 0,30, 4,48,40,52	3,35,41,35,16	5,16
20″	49,10,20,53,29,24,16,27,35,35	1,12, 0,26,29, 7, 0,20	3,35,41,40,32	5,16
22″	49,10,22, 5,29,50,45,34,35,55	1,12, 0,22,53,25,14,32	3,35,41,45,48	5,16
24″	49,10,23,17,30,13,38,59,50,27	1,12, 0,19,17,43,23,28	3,35,41,51, 4	5,16
26″	49,10,24,29,30,32,56,43,13,55	1,12, 0,15,42, 1,27, 8	3,35,41,56,20	5,16
28″	49,10,25,41,30,48,38,44,41, 3	1,12, 0,12, 6,19,25,32	3,35,42, 1,36	5,16
30″	49,10,26,53,31, 0,45, 4, 6,35	1,12, 0, 8,30,37,18,40	3,35,42, 6,52	5,16
32″	49,10,28, 5,31, 9,15,41,25,15	1,12, 0, 4,54,55, 6,32	3,35,42,12, 8	5,16
34″	49,10,29,17,31,14,10,36,31,47	1,12, 0, 1,19,12,49, 8	3,35,42,17,24	5,16
36″	49,10,30,29,31,15,29,49,20,55	1,11,59,57,43,30,26,28	3,35,42,22,40	5,16
38″	49,10,31,41,31,13,13,19,47,23	1,11,59,54, 7,47,58,32	3,35,42,27,56	5,16
40″	49,10,32,53,31, 7,21, 7,45,55	1,11,59,50,32, 5,25,20	3,35,42,33,12	5,16
42″	49,10,34, 5,30,57,53,13,11,15	1,11,59,46,56,22,46,52	3,35,42,38,28	5,16
44″	49,10,35,17,30,44,49,35,58, 7	1,11,59,43,20,40, 3, 8	3,35,42,43,44	5,16
46″	49,10,36,29,30,28,10,16, 1,15	1,11,59,39,44,57,14, 8	3,35,42,49, 0	5,16
48″	49,10,37,41,30, 7,55,13,15,23	1,11,59,36, 9,14,19,52	3,35,42,54,16	5,16
50″	49,10,38,53,29,44, 4,27,35,15	1,11,59,32,33,31,20,20	3,35,42,59,32	5,16
52″	49,10,40, 5,29,16,37,58,55,35	1,11,59,28,57,48,15,32	3,35,43, 4,48	5,16
54″	49,10,41,17,28,45,35,47,11, 7	1,11,59,25,22, 5, 5,28	3,35,43,10, 4	5,16
56″	49,10,42,29,28,10,57,52,16,35	1,11,59,21,46,21,50, 8	3,35,43,15,20	5,16
58″	49,10,43,41,27,32,44,14, 6,43	1,11,59,18,10,38,29,32	3,35,43,20,36	
60″	49,10,44,53,26,50,54,52,36,15			
exact	49,10,44,53,26,50,54,52,43, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55° 3′ 0″	49,10,44,53,26,50,54,52,43, 3			
		1,11,59,14,34,55, 4,34		
2″	49,10,46, 5,26, 5,29,47,47,37		3,35,43,31, 3	
		1,11,59,10,59,11,33,31		5,16
4″	49,10,47,17,25,16,28,59,21, 8		3,35,43,36,19	
		1,11,59, 7,23,27,57,12		5,16
6″	49,10,48,29,24,23,52,27,18,20		3,35,43,41,35	
		1,11,59, 3,47,44,15,37		5,16
8″	49,10,49,41,23,27,40,11,33,57		3,35,43,46,51	
		1,11,59, 0,12, 0,28,46		5,16
10″	49,10,50,53,22,27,52,12, 2,43		3,35,43,52, 7	
		1,11,58,56,36,16,36,39		5,16
12″	49,10,52, 5,21,24,28,28,39,22		3,35,43,57,23	
		1,11,58,53, 0,32,39,16		5,16
14″	49,10,53,17,20,17,29, 1,18,38		3,35,44, 2,39	
		1,11,58,49,24,48,36,37		5,16
16″	49,10,54,29,19, 6,53,49,55,15		3,35,44, 7,55	
		1,11,58,45,49, 4,28,42		5,16
18″	49,10,55,41,17,52,42,54,23,57		3,35,44,13,11	
		1,11,58,42,13,20,15,31		5,16
20″	49,10,56,53,16,34,56,14,39,28		3,35,44,18,27	
		1,11,58,38,37,35,57, 4		5,16
22″	49,10,58, 5,15,13,33,50,36,32		3,35,44,23,43	
		1,11,58,35, 1,51,33,21		5,16
24″	49,10,59,17,13,48,35,42, 9,53		3,35,44,28,59	
		1,11,58,31,26, 7, 4,22		5,16
26″	49,11, 0,29,12,20, 1,49,14,15		3,35,44,34,15	
		1,11,58,27,50,22,30, 7		5,16
28″	49,11, 1,41,10,47,52,11,44,22		3,35,44,39,31	
		1,11,58,24,14,37,50,36		5,16
30″	49,11, 2,53, 9,12, 6,49,34,58		3,35,44,44,47	
		1,11,58,20,38,53, 5,49		5,16
32″	49,11, 4, 5, 7,32,45,42,40,47		3,35,44,50, 3	
		1,11,58,17, 3, 8,15,46		5,16
34″	49,11, 5,17, 5,49,48,50,56,33		3,35,44,55,19	
		1,11,58,13,27,23,20,27		5,16
36″	49,11, 6,29, 4, 3,16,14,17, 0		3,35,45, 0,35	
		1,11,58, 9,51,38,19,52		5,16
38″	49,11, 7,41, 2,13, 7,52,36,52		3,35,45, 5,51	
		1,11,58, 6,15,53,14, 1		5,16
40″	49,11, 8,53, 0,19,23,45,50,53		3,35,45,11, 7	
		1,11,58, 2,40, 8, 2,54		5,16
42″	49,11,10, 4,58,22, 3,53,53,47		3,35,45,16,23	
		1,11,57,59, 4,22,46,31		5,16
44″	49,11,11,16,56,21, 8,16,40,18		3,35,45,21,39	
		1,11,57,55,28,37,24,52		5,16
46″	49,11,12,28,54,16,36,54, 5,10		3,35,45,26,55	
		1,11,57,51,52,51,57,57		5,16
48″	49,11,13,40,52, 8,29,46, 3, 7		3,35,45,32,11	
		1,11,57,48,17, 6,25,46		5,16
50″	49,11,14,52,49,56,46,52,28,53		3,35,45,37,27	
		1,11,57,44,41,20,48,19		5,16
52″	49,11,16, 4,47,41,28,13,17,12		3,35,45,42,43	
		1,11,57,41, 5,35, 5,36		5,16
54″	49,11,17,16,45,22,33,48,22,48		3,35,45,47,59	
		1,11,57,37,29,49,17,37		5,16
56″	49,11,18,28,43, 0, 3,37,40,25		3,35,45,53,15	
		1,11,57,33,54, 3,24,22		5,16
58″	49,11,19,40,40,33,57,41, 4,47		3,35,45,58,31	
		1,11,57,30,18,17,25,51		
60″	49,11,20,52,38, 4,15,58,30,38			
exact	49,11,20,52,38, 4,15,58,45,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55° 4′ 0″	49,11,20,52,38, 4,15,58,45,45			
		1,11,57,26,42,31,23,53		
2″	49,11,22, 4,35,30,58,30, 9,38		3,35,46, 8,54	
		1,11,57,23, 6,45,14,59		5,16
4″	49,11,23,16,32,54, 5,15,24,37		3,35,46,14,10	
		1,11,57,19,30,59, 0,49		5,16
6″	49,11,24,28,30,13,36,14,25,26		3,35,46,19,26	
		1,11,57,15,55,12,41,23		5,16
8″	49,11,25,40,27,29,31,27, 6,49		3,35,46,24,42	
		1,11,57,12,19,26,16,41		5,16
10″	49,11,26,52,24,41,50,53,23,30		3,35,46,29,58	
		1,11,57, 8,43,39,46,43		5,16
12″	49,11,28, 4,21,50,34,33,10,13		3,35,46,35,14	
		1,11,57, 5, 7,53,11,29		5,16
14″	49,11,29,16,18,55,42,26,21,42		3,35,46,40,30	
		1,11,57, 1,32, 6,30,59		5,16
16″	49,11,30,28,15,57,14,32,52,41		3,35,46,45,46	
		1,11,56,57,56,19,45,13		5,16
18″	49,11,31,40,12,55,10,52,37,54		3,35,46,51, 2	
		1,11,56,54,20,32,54,11		5,16
20″	49,11,32,52, 9,49,31,25,32, 5		3,35,46,56,18	
		1,11,56,50,44,45,57,53		5,16
22″	49,11,34, 4, 6,40,16,11,29,58		3,35,47, 1,34	
		1,11,56,47, 8,58,56,19		5,16
24″	49,11,35,16, 3,27,25,10,26,17		3,35,47, 6,50	
		1,11,56,43,33,11,49,29		5,16
26″	49,11,36,28, 0,10,58,22,15,46		3,35,47,12, 6	
		1,11,56,39,57,24,37,23		5,16
28″	49,11,37,39,56,50,55,46,53, 9		3,35,47,17,22	
		1,11,56,36,21,37,20, 1		5,16
30″	49,11,38,51,53,27,17,24,13,10		3,35,47,22,38	
		1,11,56,32,45,49,57,23		5,16
32″	49,11,40, 3,50, 0, 3,14,10,33		3,35,47,27,54	
		1,11,56,29,10, 2,29,29		5,16
34″	49,11,41,15,46,29,13,16,40, 2		3,35,47,33,10	
		1,11,56,25,34,14,56,19		5,16
36″	49,11,42,27,42,54,47,31,36,21		3,35,47,38,26	
		1,11,56,21,58,27,17,53		5,16
38″	49,11,43,39,39,16,45,58,54,14		3,35,47,43,42	
		1,11,56,18,22,39,34,11		5,16
40″	49,11,44,51,35,35, 8,38,28,25		3,35,47,48,58	
		1,11,56,14,46,51,45,13		5,16
42″	49,11,46, 3,31,49,55,30,13,38		3,35,47,54,14	
		1,11,56,11,11, 3,50,59		5,16
44″	49,11,47,15,28, 1, 6,34, 4,37		3,35,47,59,30	
		1,11,56, 7,35,15,51,29		5,16
46″	49,11,48,27,24, 8,41,49,56, 6		3,35,48, 4,46	
		1,11,56, 3,59,27,46,43		5,16
48″	49,11,49,39,20,12,41,17,42,49		3,35,48,10, 2	
		1,11,56, 0,23,39,36,41		5,16
50″	49,11,50,51,16,13, 4,57,19,30		3,35,48,15,18	
		1,11,55,56,47,51,21,23		5,16
52″	49,11,52, 3,12, 9,52,48,40,53		3,35,48,20,34	
		1,11,55,53,12, 3, 0,49		5,16
54″	49,11,53,15, 8, 3, 4,51,41,42		3,35,48,25,50	
		1,11,55,49,36,14,34,59		5,16
56″	49,11,54,27, 3,52,41, 6,16,41		3,35,48,31, 6	
		1,11,55,46, 0,26, 3,53		5,16
58″	49,11,55,38,59,38,41,32,20,34		3,35,48,36,22	
		1,11,55,42,24,37,27,31		
60″	49,11,56,50,55,21, 6, 9,48, 5			
exact	49,11,56,50,55,21, 6,10,11,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55° 5′ 0″	49,11,56,50,55,21, 6,10,11,15			
		1,11,55,38,48,48,48,35		
2″	49,11,58, 2,50,59,54,58,59,50		3,35,48,46,42	
		1,11,55,35,13, 0, 1,53		5,16
4″	49,11,59,14,46,35, 7,59, 1,43		3,35,48,51,58	
		1,11,55,31,37,11, 9,55		5,16
6″	49,12, 0,26,42, 6,45,10,11,38		3,35,48,57,14	
		1,11,55,28, 1,22,12,41		5,16
8″	49,12, 1,38,37,34,46,32,24,19		3,35,49, 2,30	
		1,11,55,24,25,33,10,11		5,16
10″	49,12, 2,50,32,59,12, 5,34,30		3,35,49, 7,46	
		1,11,55,20,49,44, 2,25		5,16
12″	49,12, 4, 2,28,20, 1,49,36,55		3,35,49,13, 2	
		1,11,55,17,13,54,49,23		5,16
14″	49,12, 5,14,23,37,15,44,26,18		3,35,49,18,18	
		1,11,55,13,38, 5,31, 5		5,16
16″	49,12, 6,26,18,50,53,49,57,23		3,35,49,23,34	
		1,11,55,10, 2,16, 7,31		5,16
18″	49,12, 7,38,14, 0,56, 6, 4,54		3,35,49,28,50	
		1,11,55, 6,26,26,38,41		5,16
20″	49,12, 8,50, 9, 7,22,32,43,35		3,35,49,34, 6	
		1,11,55, 2,50,37, 4,35		5,16
22″	49,12,10, 2, 4,10,13, 9,48,10		3,35,49,39,22	
		1,11,54,59,14,47,25,13		5,16
24″	49,12,11,13,59, 9,27,57,13,23		3,35,49,44,38	
		1,11,54,55,38,57,40,35		5,16
26″	49,12,12,25,54, 5, 6,54,53,58		3,35,49,49,54	
		1,11,54,52, 3, 7,50,41		5,16
28″	49,12,13,37,48,57,10, 2,44,39		3,35,49,55,10	
		1,11,54,48,27,17,55,31		5,16
30″	49,12,14,49,43,45,37,20,40,10		3,35,50, 0,26	
		1,11,54,44,51,27,55, 5		5,16
32″	49,12,16, 1,38,30,28,48,35,15		3,35,50, 5,42	
		1,11,54,41,15,37,49,23		5,16
34″	49,12,17,13,33,11,44,26,24,38		3,35,50,10,58	
		1,11,54,37,39,47,38,25		5,16
36″	49,12,18,25,27,49,24,14, 3, 3		3,35,50,16,14	
		1,11,54,34, 3,57,22,11		5,16
38″	49,12,19,37,22,23,28,11,25,14		3,35,50,21,30	
		1,11,54,30,28, 7, 0,41		5,16
40″	49,12,20,49,16,53,56,18,25,55		3,35,50,26,46	
		1,11,54,26,52,16,33,55		5,16
42″	49,12,22, 1,11,20,48,34,59,50		3,35,50,32, 2	
		1,11,54,23,16,26, 1,53		5,16
44″	49,12,23,13, 5,44, 5, 1, 1,43		3,35,50,37,18	
		1,11,54,19,40,35,24,35		5,16
46″	49,12,24,25, 0, 3,45,36,26,18		3,35,50,42,34	
		1,11,54,16, 4,44,42, 1		5,16
48″	49,12,25,36,54,19,50,21, 8,19		3,35,50,47,50	
		1,11,54,12,28,53,54,11		5,16
50″	49,12,26,48,48,32,19,15, 2,30		3,35,50,53, 6	
		1,11,54, 8,53, 3, 1, 5		5,16
52″	49,12,28, 0,42,41,12,18, 3,35		3,35,50,58,22	
		1,11,54, 5,17,12, 2,43		5,16
54″	49,12,29,12,36,46,29,30, 6,18		3,35,51, 3,38	
		1,11,54, 1,41,20,59, 5		5,16
56″	49,12,30,24,30,48,10,51, 5,23		3,35,51, 8,54	
		1,11,53,58, 5,29,50,11		5,16
58″	49,12,31,36,24,46,16,20,55,34		3,35,51,14,10	
		1,11,53,54,29,38,36, 1		
60″	49,12,32,48,18,40,45,59,31,35			
exact	49,12,32,48,18,40,46, 0, 9,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55° 6′ 0″	49,12,32,48,18,40,46, 0, 9,51			
		1,11,53,50,53,47,20,40		
2″	49,12,34, 0,12,31,39,47,30,31		3,35,51,24,25	
		1,11,53,47,17,55,56,15		5,15
4″	49,12,35,12, 6,18,57,43,26,46		3,35,51,29,40	
		1,11,53,43,42, 4,26,35		5,15
6″	49,12,36,24, 0, 2,39,47,53,21		3,35,51,34,55	
		1,11,53,40, 6,12,51,40		5,15
8″	49,12,37,35,53,42,46, 0,45, 1		3,35,51,40,10	
		1,11,53,36,30,21,11,30		5,15
10″	49,12,38,47,47,19,16,21,56,31		3,35,51,45,25	
		1,11,53,32,54,29,26, 5		5,15
12″	49,12,39,59,40,52,10,51,22,36		3,35,51,50,40	
		1,11,53,29,18,37,35,25		5,15
14″	49,12,41,11,34,21,29,28,58, 1		3,35,51,55,55	
		1,11,53,25,42,45,39,30		5,15
16″	49,12,42,23,27,47,12,14,37,31		3,35,52, 1,10	
		1,11,53,22, 6,53,38,20		5,15
18″	49,12,43,35,21, 9,19, 8,15,51		3,35,52, 6,25	
		1,11,53,18,31, 1,31,55		5,15
20″	49,12,44,47,14,27,50, 9,47,46		3,35,52,11,40	
		1,11,53,14,55, 9,20,15		5,15
22″	49,12,45,59, 7,42,45,19, 8, 1		3,35,52,16,55	
		1,11,53,11,19,17, 3,20		5,15
24″	49,12,47,11, 0,54, 4,36,11,21		3,35,52,22,10	
		1,11,53, 7,43,24,41,10		5,15
26″	49,12,48,22,54, 1,48, 0,52,31		3,35,52,27,25	
		1,11,53, 4, 7,32,13,45		5,15
28″	49,12,49,34,47, 5,55,33, 6,16		3,35,52,32,40	
		1,11,53, 0,31,39,41, 5		5,15
30″	49,12,50,46,40, 6,27,12,47,21		3,35,52,37,55	
		1,11,52,56,55,47, 3,10		5,15
32″	49,12,51,58,33, 3,22,59,50,31		3,35,52,43,10	
		1,11,52,53,19,54,20, 0		5,15
34″	49,12,53,10,25,56,42,54,10,31		3,35,52,48,25	
		1,11,52,49,44, 1,31,35		5,15
36″	49,12,54,22,18,46,26,55,42, 6		3,35,52,53,40	
		1,11,52,46, 8, 8,37,55		5,15
38″	49,12,55,34,11,32,35, 4,20, 1		3,35,52,58,55	
		1,11,52,42,32,15,39, 0		5,15
40″	49,12,56,46, 4,15, 7,19,59, 1		3,35,53, 4,10	
		1,11,52,38,56,22,34,50		5,15
42″	49,12,57,57,56,54, 3,42,33,51		3,35,53, 9,25	
		1,11,52,35,20,29,25,25		5,15
44″	49,12,59, 9,49,29,24,11,59,16		3,35,53,14,40	
		1,11,52,31,44,36,10,45		5,15
46″	49,13, 0,21,42, 1, 8,48,10, 1		3,35,53,19,55	
		1,11,52,28, 8,42,50,50		5,15
48″	49,13, 1,33,34,29,17,31, 0,51		3,35,53,25,10	
		1,11,52,24,32,49,25,40		5,15
50″	49,13, 2,45,26,53,50,20,26,31		3,35,53,30,25	
		1,11,52,20,56,55,55,15		5,15
52″	49,13, 3,57,19,14,47,16,21,46		3,35,53,35,40	
		1,11,52,17,21, 2,19,35		5,15
54″	49,13, 5, 9,11,32, 8,18,41,21		3,35,53,40,55	
		1,11,52,13,45, 8,38,40		5,15
56″	49,13, 6,21, 3,45,53,27,20, 1		3,35,53,46,10	
		1,11,52,10, 9,14,52,30		5,15
58″	49,13, 7,32,55,56, 2,42,12,31		3,35,53,51,25	
		1,11,52, 6,33,21, 1, 5		
60″	49,13, 8,44,48, 2,36, 3,13,36			
exact	49,13, 8,44,48, 2,36, 2,51, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55° 7′ 0″	49,13, 8,44,48, 2,36, 2,51, 6			
		1,11,52, 2,57,27, 2, 4		
2″	49,13, 9,56,40, 5,33,29,53,10		3,35,54, 2, 4	
		1,11,51,59,21,33, 0, 0		5,15
4″	49,13,11, 8,32, 4,55, 2,53,10		3,35,54, 7,19	
		1,11,51,55,45,38,52,41		5,15
6″	49,13,12,20,24, 0,40,41,45,51		3,35,54,12,34	
		1,11,51,52, 9,44,40, 7		5,15
8″	49,13,13,32,15,52,50,26,25,58		3,35,54,17,49	
		1,11,51,48,33,50,22,18		5,15
10″	49,13,14,44, 7,41,24,16,48,16		3,35,54,23, 4	
		1,11,51,44,57,55,59,14		5,15
12″	49,13,15,55,59,26,22,12,47,30		3,35,54,28,19	
		1,11,51,41,22, 1,30,55		5,15
14″	49,13,17, 7,51, 7,44,14,18,25		3,35,54,33,34	
		1,11,51,37,46, 6,57,21		5,15
16″	49,13,18,19,42,45,30,21,15,46		3,35,54,38,49	
		1,11,51,34,10,12,18,32		5,15
18″	49,13,19,31,34,19,40,33,34,18		3,35,54,44, 4	
		1,11,51,30,34,17,34,28		5,15
20″	49,13,20,43,25,50,14,51, 8,46		3,35,54,49,19	
		1,11,51,26,58,22,45, 9		5,15
22″	49,13,21,55,17,17,13,13,53,55		3,35,54,54,34	
		1,11,51,23,22,27,50,35		5,15
24″	49,13,23, 7, 8,40,35,41,44,30		3,35,54,59,49	
		1,11,51,19,46,32,50,46		5,15
26″	49,13,24,19, 0, 0,22,14,35,16		3,35,55, 5, 4	
		1,11,51,16,10,37,45,42		5,15
28″	49,13,25,30,51,16,32,52,20,58		3,35,55,10,19	
		1,11,51,12,34,42,35,23		5,15
30″	49,13,26,42,42,29, 7,34,56,21		3,35,55,15,34	
		1,11,51, 8,58,47,19,49		5,15
32″	49,13,27,54,33,38, 6,22,16,10		3,35,55,20,49	
		1,11,51, 5,22,51,59, 0		5,15
34″	49,13,29, 6,24,43,29,14,15,10		3,35,55,26, 4	
		1,11,51, 1,46,56,32,56		5,15
36″	49,13,30,18,15,45,16,10,48, 6		3,35,55,31,19	
		1,11,50,58,11, 1, 1,37		5,15
38″	49,13,31,30, 6,43,27,11,49,43		3,35,55,36,34	
		1,11,50,54,35, 5,25, 3		5,15
40″	49,13,32,41,57,38, 2,17,14,46		3,35,55,41,49	
		1,11,50,50,59, 9,43,14		5,15
42″	49,13,33,53,48,29, 1,26,58, 0		3,35,55,47, 4	
		1,11,50,47,23,13,56,10		5,15
44″	49,13,35, 5,39,16,24,40,54,10		3,35,55,52,19	
		1,11,50,43,47,18, 3,51		5,15
46″	49,13,36,17,30, 0,11,58,58, 1		3,35,55,57,34	
		1,11,50,40,11,22, 6,17		5,15
48″	49,13,37,29,20,40,23,21, 4,18		3,35,56, 2,49	
		1,11,50,36,35,26, 3,28		5,15
50″	49,13,38,41,11,16,58,47, 7,46		3,35,56, 8, 4	
		1,11,50,32,59,29,55,24		5,15
52″	49,13,39,53, 1,49,58,17, 3,10		3,35,56,13,19	
		1,11,50,29,23,33,42, 5		5,15
54″	49,13,41, 4,52,19,21,50,45,15		3,35,56,18,34	
		1,11,50,25,47,37,23,31		5,15
56″	49,13,42,16,42,45, 9,28, 8,46		3,35,56,23,49	
		1,11,50,22,11,40,59,42		5,15
58″	49,13,43,28,33, 7,21, 9, 8,28		3,35,56,29, 4	
		1,11,50,18,35,44,30,38		
60″	49,13,44,40,23,25,56,53,39, 6			
exact	49,13,44,40,23,25,56,53,23,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55° 8′ 0″	49,13,44,40,23,25,56,53,23,39			
		1,11,50,14,59,47,54,47		
2″	49,13,45,52,13,40,56,41,18,26		3,35,56,39,39	
		1,11,50,11,23,51,15, 8		5,15
4″	49,13,47, 4, 3,52,20,32,33,34		3,35,56,44,54	
		1,11,50, 7,47,54,30,14		5,15
6″	49,13,48,15,54, 0, 8,27, 3,48		3,35,56,50, 9	
		1,11,50, 4,11,57,40, 5		5,15
8″	49,13,49,27,44, 4,20,24,43,53		3,35,56,55,24	
		1,11,50, 0,36, 0,44,41		5,15
10″	49,13,50,39,34, 4,56,25,28,34		3,35,57, 0,39	
		1,11,49,57, 0, 3,44, 2		5,15
12″	49,13,51,51,24, 1,56,29,12,36		3,35,57, 5,54	
		1,11,49,53,24, 6,38, 8		5,15
14″	49,13,53, 3,13,55,20,35,50,44		3,35,57,11, 9	
		1,11,49,49,48, 9,26,59		5,15
16″	49,13,54,15, 3,45, 8,45,17,43		3,35,57,16,24	
		1,11,49,46,12,12,10,35		5,15
18″	49,13,55,26,53,31,20,57,28,18		3,35,57,21,39	
		1,11,49,42,36,14,48,56		5,15
20″	49,13,56,38,43,13,57,12,17,14		3,35,57,26,54	
		1,11,49,39, 0,17,22, 2		5,15
22″	49,13,57,50,32,52,57,29,39,16		3,35,57,32, 9	
		1,11,49,35,24,19,49,53		5,15
24″	49,13,59, 2,22,28,21,49,29, 9		3,35,57,37,24	
		1,11,49,31,48,22,12,29		5,15
26″	49,14, 0,14,12, 0,10,11,41,38		3,35,57,42,39	
		1,11,49,28,12,24,29,50		5,15
28″	49,14, 1,26, 1,28,22,36,11,28		3,35,57,47,54	
		1,11,49,24,36,26,41,56		5,15
30″	49,14, 2,37,50,52,59, 2,53,24		3,35,57,53, 9	
		1,11,49,21, 0,28,48,47		5,15
32″	49,14, 3,49,40,13,59,31,42,11		3,35,57,58,24	
		1,11,49,17,24,30,50,23		5,15
34″	49,14, 5, 1,29,31,24, 2,32,34		3,35,58, 3,39	
		1,11,49,13,48,32,46,44		5,15
36″	49,14, 6,13,18,45,12,35,19,18		3,35,58, 8,54	
		1,11,49,10,12,34,37,50		5,15
38″	49,14, 7,25, 7,55,25, 9,57, 8		3,35,58,14, 9	
		1,11,49, 6,36,36,23,41		5,15
40″	49,14, 8,36,57, 2, 1,46,20,49		3,35,58,19,24	
		1,11,49, 3, 0,38, 4,17		5,15
42″	49,14, 9,48,46, 5, 2,24,25, 6		3,35,58,24,39	
		1,11,48,59,24,39,39,38		5,15
44″	49,14,11, 0,35, 4,27, 4, 4,44		3,35,58,29,54	
		1,11,48,55,48,41, 9,44		5,15
46″	49,14,12,12,24, 0,15,45,14,28		3,35,58,35, 9	
		1,11,48,52,12,42,34,35		5,15
48″	49,14,13,24,12,52,28,27,49, 3		3,35,58,40,24	
		1,11,48,48,36,43,54,11		5,15
50″	49,14,14,36, 1,41, 5,11,43,14		3,35,58,45,39	
		1,11,48,45, 0,45, 8,32		5,15
52″	49,14,15,47,50,26, 5,56,51,46		3,35,58,50,54	
		1,11,48,41,24,46,17,38		5,15
54″	49,14,16,59,39, 7,30,43, 9,24		3,35,58,56, 9	
		1,11,48,37,48,47,21,29		5,15
56″	49,14,18,11,27,45,19,30,30,53		3,35,59, 1,24	
		1,11,48,34,12,48,20, 5		5,15
58″	49,14,19,23,16,19,32,18,50,58		3,35,59, 6,39	
		1,11,48,30,36,49,13,26		
60″	49,14,20,35, 4,50, 9, 8, 4,24			
exact	49,14,20,35, 4,50, 9, 7,55,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55° 9′ 0″	49,14,20,35, 4,50, 9, 7,55,24			
		1,11,48,27, 0,50, 0,47		
2″	49,14,21,46,53,17, 9,57,56,11		3,35,59,17,11	
		1,11,48,23,24,50,43,36		5,15
4″	49,14,22,58,41,40,34,48,39,47		3,35,59,22,26	
		1,11,48,19,48,51,21,10		5,15
6″	49,14,24,10,30, 0,23,40, 0,57		3,35,59,27,41	
		1,11,48,16,12,51,53,29		5,15
8″	49,14,25,22,18,16,36,31,54,26		3,35,59,32,56	
		1,11,48,12,36,52,20,33		5,15
10″	49,14,26,34, 6,29,13,24,14,59		3,35,59,38,11	
		1,11,48, 9, 0,52,42,22		5,15
12″	49,14,27,45,54,38,14,16,57,21		3,35,59,43,26	
		1,11,48, 5,24,52,58,56		5,15
14″	49,14,28,57,42,43,39, 9,56,17		3,35,59,48,41	
		1,11,48, 1,48,53,10,15		5,15
16″	49,14,30, 9,30,45,28, 3, 6,32		3,35,59,53,56	
		1,11,47,58,12,53,16,19		5,15
18″	49,14,31,21,18,43,40,56,22,51		3,35,59,59,11	
		1,11,47,54,36,53,17, 8		5,15
20″	49,14,32,33, 6,38,17,49,39,59		3,36, 0, 4,26	
		1,11,47,51, 0,53,12,42		5,15
22″	49,14,33,44,54,29,18,42,52,41		3,36, 0, 9,41	
		1,11,47,47,24,53, 3, 1		5,15
24″	49,14,34,56,42,16,43,35,55,42		3,36, 0,14,56	
		1,11,47,43,48,52,48, 5		5,15
26″	49,14,36, 8,30, 0,32,28,43,47		3,36, 0,20,11	
		1,11,47,40,12,52,27,54		5,15
28″	49,14,37,20,17,40,45,21,11,41		3,36, 0,25,26	
		1,11,47,36,36,52, 2,28		5,15
30″	49,14,38,32, 5,17,22,13,14, 9		3,36, 0,30,41	
		1,11,47,33, 0,51,31,47		5,15
32″	49,14,39,43,52,50,23, 4,45,56		3,36, 0,35,56	
		1,11,47,29,24,50,55,51		5,15
34″	49,14,40,55,40,19,47,55,41,47		3,36, 0,41,11	
		1,11,47,25,48,50,14,40		5,15
36″	49,14,42, 7,27,45,36,45,56,27		3,36, 0,46,26	
		1,11,47,22,12,49,28,14		5,15
38″	49,14,43,19,15, 7,49,35,24,41		3,36, 0,51,41	
		1,11,47,18,36,48,36,33		5,15
40″	49,14,44,31, 2,26,26,24, 1,14		3,36, 0,56,56	
		1,11,47,15, 0,47,39,37		5,15
42″	49,14,45,42,49,41,27,11,40,51		3,36, 1, 2,11	
		1,11,47,11,24,46,37,26		5,15
44″	49,14,46,54,36,52,51,58,18,17		3,36, 1, 7,26	
		1,11,47, 7,48,45,30, 0		5,15
46″	49,14,48, 6,24, 0,40,43,48,17		3,36, 1,12,41	
		1,11,47, 4,12,44,17,19		5,15
48″	49,14,49,18,11, 4,53,28, 5,36		3,36, 1,17,56	
		1,11,47, 0,36,42,59,23		5,15
50″	49,14,50,29,58, 5,30,11, 4,59		3,36, 1,23,11	
		1,11,46,57, 0,41,36,12		5,15
52″	49,14,51,41,45, 2,30,52,41,11		3,36, 1,28,26	
		1,11,46,53,24,40, 7,46		5,15
54″	49,14,52,53,31,55,55,32,48,57		3,36, 1,33,41	
		1,11,46,49,48,38,34, 5		5,15
56″	49,14,54, 5,18,45,44,11,23, 2		3,36, 1,38,56	
		1,11,46,46,12,36,55, 9		5,15
58″	49,14,55,17, 5,31,56,48,18,11		3,36, 1,44,11	
		1,11,46,42,36,35,10,58		
60″	49,14,56,28,52,14,33,23,29, 9			
exact	49,14,56,28,52,14,33,23,33,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°10′ 0″	49,14,56,28,52,14,33,23,33,24			
		1,11,46,39, 0,33,22, 2		
2″	49,14,57,40,38,53,33,56,55,26		3,36, 1,54,38	
		1,11,46,35,24,31,27,24		5,15
4″	49,14,58,52,25,28,58,28,22,50		3,36, 1,59,53	
		1,11,46,31,48,29,27,31		5,15
6″	49,15, 0, 4,12, 0,46,57,50,21		3,36, 2, 5, 8	
		1,11,46,28,12,27,22,23		5,15
8″	49,15, 1,15,58,28,59,25,12,44		3,36, 2,10,23	
		1,11,46,24,36,25,12, 0		5,15
10″	49,15, 2,27,44,53,35,50,24,44		3,36, 2,15,38	
		1,11,46,21, 0,22,56,22		5,15
12″	49,15, 3,39,31,14,36,13,21, 6		3,36, 2,20,53	
		1,11,46,17,24,20,35,29		5,15
14″	49,15, 4,51,17,32, 0,33,56,35		3,36, 2,26, 8	
		1,11,46,13,48,18, 9,21		5,15
16″	49,15, 6, 3, 3,45,48,52, 5,56		3,36, 2,31,23	
		1,11,46,10,12,15,37,58		5,15
18″	49,15, 7,14,49,56, 1, 7,43,54		3,36, 2,36,38	
		1,11,46, 6,36,13, 1,20		5,15
20″	49,15, 8,26,36, 2,37,20,45,14		3,36, 2,41,53	
		1,11,46, 3, 0,10,19,27		5,15
22″	49,15, 9,38,22, 5,37,31, 4,41		3,36, 2,47, 8	
		1,11,45,59,24, 7,32,19		5,15
24″	49,15,10,50, 8, 5, 1,38,37, 0		3,36, 2,52,23	
		1,11,45,55,48, 4,39,56		5,15
26″	49,15,12, 1,54, 0,49,43,16,56		3,36, 2,57,38	
		1,11,45,52,12, 1,42,18		5,15
28″	49,15,13,13,39,53, 1,44,59,14		3,36, 3, 2,53	
		1,11,45,48,35,58,39,25		5,15
30″	49,15,14,25,25,41,37,43,38,39		3,36, 3, 8, 8	
		1,11,45,44,59,55,31,17		5,15
32″	49,15,15,37,11,26,37,39, 9,56		3,36, 3,13,23	
		1,11,45,41,23,52,17,54		5,15
34″	49,15,16,48,57, 8, 1,31,27,50		3,36, 3,18,38	
		1,11,45,37,47,48,59,16		5,15
36″	49,15,18, 0,42,45,49,20,27, 6		3,36, 3,23,53	
		1,11,45,34,11,45,35,23		5,15
38″	49,15,19,12,28,20, 1, 6, 2,29		3,36, 3,29, 8	
		1,11,45,30,35,42, 6,15		5,15
40″	49,15,20,24,13,50,36,48, 8,44		3,36, 3,34,23	
		1,11,45,26,59,38,31,52		5,15
42″	49,15,21,35,59,17,36,26,40,36		3,36, 3,39,38	
		1,11,45,23,23,34,52,14		5,15
44″	49,15,22,47,44,41, 0, 1,32,50		3,36, 3,44,53	
		1,11,45,19,47,31, 7,21		5,15
46″	49,15,23,59,30, 0,47,32,40,11		3,36, 3,50, 8	
		1,11,45,16,11,27,17,13		5,15
48″	49,15,25,11,15,16,58,59,57,24		3,36, 3,55,23	
		1,11,45,12,35,23,21,50		5,15
50″	49,15,26,23, 0,29,34,23,19,14		3,36, 4, 0,38	
		1,11,45, 8,59,19,21,12		5,15
52″	49,15,27,34,45,38,33,42,40,26		3,36, 4, 5,53	
		1,11,45, 5,23,15,15,19		5,15
54″	49,15,28,46,30,43,56,57,55,45		3,36, 4,11, 8	
		1,11,45, 1,47,11, 4,11		5,15
56″	49,15,29,58,15,45,44, 8,59,56		3,36, 4,16,23	
		1,11,44,58,11, 6,47,48		5,15
58″	49,15,31,10, 0,43,55,15,47,44		3,36, 4,21,38	
		1,11,44,54,35, 2,26,10		
60″	49,15,32,21,45,38,30,18,13,54			
exact	49,15,32,21,45,38,30,18,23,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°11′ 0″	49,15,32,21,45,38,30,18,23,59			
		1,11,44,50,58,58, 0,32		
2″	49,15,33,33,30,29,29,16,24,31		3,36, 4,32, 2	
		1,11,44,47,22,53,28,30		5,15
4″	49,15,34,45,15,16,52, 9,53, 1		3,36, 4,37,17	
		1,11,44,43,46,48,51,13		5,15
6″	49,15,35,57, 0, 0,38,58,44,14		3,36, 4,42,32	
		1,11,44,40,10,44, 8,41		5,15
8″	49,15,37, 8,44,40,49,42,52,55		3,36, 4,47,47	
		1,11,44,36,34,39,20,54		5,15
10″	49,15,38,20,29,17,24,22,13,49		3,36, 4,53, 2	
		1,11,44,32,58,34,27,52		5,15
12″	49,15,39,32,13,50,22,56,41,41		3,36, 4,58,17	
		1,11,44,29,22,29,29,35		5,15
14″	49,15,40,43,58,19,45,26,11,16		3,36, 5, 3,32	
		1,11,44,25,46,24,26, 3		5,15
16″	49,15,41,55,42,45,31,50,37,19		3,36, 5, 8,47	
		1,11,44,22,10,19,17,16		5,15
18″	49,15,43, 7,27, 7,42, 9,54,35		3,36, 5,14, 2	
		1,11,44,18,34,14, 3,14		5,15
20″	49,15,44,19,11,26,16,23,57,49		3,36, 5,19,17	
		1,11,44,14,58, 8,43,57		5,15
22″	49,15,45,30,55,41,14,32,41,46		3,36, 5,24,32	
		1,11,44,11,22, 3,19,25		5,15
24″	49,15,46,42,39,52,36,36, 1,11		3,36, 5,29,47	
		1,11,44, 7,45,57,49,38		5,15
26″	49,15,47,54,24, 0,22,33,50,49		3,36, 5,35, 2	
		1,11,44, 4, 9,52,14,36		5,15
28″	49,15,49, 6, 8, 4,32,26, 5,25		3,36, 5,40,17	
		1,11,44, 0,33,46,34,19		5,15
30″	49,15,50,17,52, 5, 6,12,39,44		3,36, 5,45,32	
		1,11,43,56,57,40,48,47		5,15
32″	49,15,51,29,36, 2, 3,53,28,31		3,36, 5,50,47	
		1,11,43,53,21,34,58, 0		5,15
34″	49,15,52,41,19,55,25,28,26,31		3,36, 5,56, 2	
		1,11,43,49,45,29, 1,58		5,15
36″	49,15,53,53, 3,45,10,57,28,29		3,36, 6, 1,17	
		1,11,43,46, 9,23, 0,41		5,15
38″	49,15,55, 4,47,31,20,20,29,10		3,36, 6, 6,32	
		1,11,43,42,33,16,54, 9		5,15
40″	49,15,56,16,31,13,53,37,23,19		3,36, 6,11,47	
		1,11,43,38,57,10,42,22		5,15
42″	49,15,57,28,14,52,50,48, 5,41		3,36, 6,17, 2	
		1,11,43,35,21, 4,25,20		5,15
44″	49,15,58,39,58,28,11,52,31, 1		3,36, 6,22,17	
		1,11,43,31,44,58, 3, 3		5,15
46″	49,15,59,51,41,59,56,50,34, 4		3,36, 6,27,32	
		1,11,43,28, 8,51,35,31		5,15
48″	49,16, 1, 3,25,28, 5,42, 9,35		3,36, 6,32,47	
		1,11,43,24,32,45, 2,44		5,15
50″	49,16, 2,15, 8,52,38,27,12,19		3,36, 6,38, 2	
		1,11,43,20,56,38,24,42		5,15
52″	49,16, 3,26,52,13,35, 5,37, 1		3,36, 6,43,17	
		1,11,43,17,20,31,41,25		5,15
54″	49,16, 4,38,35,30,55,37,18,26		3,36, 6,48,32	
		1,11,43,13,44,24,52,53		5,15
56″	49,16, 5,50,18,44,40, 2,11,19		3,36, 6,53,47	
		1,11,43,10, 8,17,59, 6		5,15
58″	49,16, 7, 2, 1,54,48,20,10,25		3,36, 6,59, 2	
		1,11,43, 6,32,11, 0, 4		
60″	49,16, 8,13,45, 1,20,31,10,29			
exact	49,16, 8,13,45, 1,20,31,32,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°12′ 0″	49,16, 8,13,45, 1,20,31,32,38			
		1,11,43, 2,56, 3,58,13		
2″	49,16, 9,25,28, 4,16,35,30,51		3,36, 7, 9,21	
		1,11,42,59,19,56,48,52		5,15
4″	49,16,10,37,11, 3,36,32,19,43		3,36, 7,14,36	
		1,11,42,55,43,49,34,16		5,15
6″	49,16,11,48,53,59,20,21,53,59		3,36, 7,19,51	
		1,11,42,52, 7,42,14,25		5,15
8″	49,16,13, 0,36,51,28, 4, 8,24		3,36, 7,25, 6	
		1,11,42,48,31,34,49,19		5,15
10″	49,16,14,12,19,39,59,38,57,43		3,36, 7,30,21	
		1,11,42,44,55,27,18,58		5,15
12″	49,16,15,24, 2,24,55, 6,16,41		3,36, 7,35,36	
		1,11,42,41,19,19,43,22		5,15
14″	49,16,16,35,45, 6,14,26, 0, 3		3,36, 7,40,51	
		1,11,42,37,43,12, 2,31		5,15
16″	49,16,17,47,27,43,57,38, 2,34		3,36, 7,46, 6	
		1,11,42,34, 7, 4,16,25		5,15
18″	49,16,18,59,10,18, 4,42,18,59		3,36, 7,51,21	
		1,11,42,30,30,56,25, 4		5,15
20″	49,16,20,10,52,48,35,38,44, 3		3,36, 7,56,36	
		1,11,42,26,54,48,28,28		5,15
22″	49,16,21,22,35,15,30,27,12,31		3,36, 8, 1,51	
		1,11,42,23,18,40,26,37		5,15
24″	49,16,22,34,17,38,49, 7,39, 8		3,36, 8, 7, 6	
		1,11,42,19,42,32,19,31		5,15
26″	49,16,23,45,59,58,31,39,58,39		3,36, 8,12,21	
		1,11,42,16, 6,24, 7,10		5,15
28″	49,16,24,57,42,14,38, 4, 5,49		3,36, 8,17,36	
		1,11,42,12,30,15,49,34		5,15
30″	49,16,26, 9,24,27, 8,19,55,23		3,36, 8,22,51	
		1,11,42, 8,54, 7,26,43		5,15
32″	49,16,27,21, 6,36, 2,27,22, 6		3,36, 8,28, 6	
		1,11,42, 5,17,58,58,37		5,15
34″	49,16,28,32,48,41,20,26,20,43		3,36, 8,33,21	
		1,11,42, 1,41,50,25,16		5,15
36″	49,16,29,44,30,43, 2,16,45,59		3,36, 8,38,36	
		1,11,41,58, 5,41,46,40		5,15
38″	49,16,30,56,12,41, 7,58,32,39		3,36, 8,43,51	
		1,11,41,54,29,33, 2,49		5,15
40″	49,16,32, 7,54,35,37,31,35,28		3,36, 8,49, 6	
		1,11,41,50,53,24,13,43		5,15
42″	49,16,33,19,36,26,30,55,49,11		3,36, 8,54,21	
		1,11,41,47,17,15,19,22		5,15
44″	49,16,34,31,18,13,48,11, 8,33		3,36, 8,59,36	
		1,11,41,43,41, 6,19,46		5,15
46″	49,16,35,42,59,57,29,17,28,19		3,36, 9, 4,51	
		1,11,41,40, 4,57,14,55		5,15
48″	49,16,36,54,41,37,34,14,43,14		3,36, 9,10, 6	
		1,11,41,36,28,48, 4,49		5,15
50″	49,16,38, 6,23,14, 3, 2,48, 3		3,36, 9,15,21	
		1,11,41,32,52,38,49,28		5,15
52″	49,16,39,18, 4,46,55,41,37,31		3,36, 9,20,36	
		1,11,41,29,16,29,28,52		5,15
54″	49,16,40,29,46,16,12,11, 6,23		3,36, 9,25,51	
		1,11,41,25,40,20, 3, 1		5,15
56″	49,16,41,41,27,41,52,31, 9,24		3,36, 9,31, 6	
		1,11,41,22, 4,10,31,55		5,15
58″	49,16,42,53, 9, 3,56,41,41,19		3,36, 9,36,21	
		1,11,41,18,28, 0,55,34		
60″	49,16,44, 4,50,22,24,42,36,53			
exact	49,16,44, 4,50,22,24,43, 4, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°13′ 0″	49,16,44, 4,50,22,24,43, 4, 7			
		1,11,41,14,51,51,17, 5		
2″	49,16,45,16,31,37,16,34,21,12		3,36, 9,46,37	
		1,11,41,11,15,41,30,28		5,14
4″	49,16,46,28,12,48,32,15,51,40		3,36, 9,51,51	
		1,11,41, 7,39,31,38,37		5,14
6″	49,16,47,39,53,56,11,47,30,17		3,36, 9,57, 5	
		1,11,41, 4, 3,21,41,32		5,14
8″	49,16,48,51,35, 0,15, 9,11,49		3,36,10, 2,19	
		1,11,41, 0,27,11,39,13		5,14
10″	49,16,50, 3,16, 0,42,20,51, 2		3,36,10, 7,33	
		1,11,40,56,51, 1,31,40		5,14
12″	49,16,51,14,56,57,33,22,22,42		3,36,10,12,47	
		1,11,40,53,14,51,18,53		5,14
14″	49,16,52,26,37,50,48,13,41,35		3,36,10,18, 1	
		1,11,40,49,38,41, 0,52		5,14
16″	49,16,53,38,18,40,26,54,42,27		3,36,10,23,15	
		1,11,40,46, 2,30,37,37		5,14
18″	49,16,54,49,59,26,29,25,20, 4		3,36,10,28,29	
		1,11,40,42,26,20, 9, 8		5,14
20″	49,16,56, 1,40, 8,55,45,29,12		3,36,10,33,43	
		1,11,40,38,50, 9,35,25		5,14
22″	49,16,57,13,20,47,45,55, 4,37		3,36,10,38,57	
		1,11,40,35,13,58,56,28		5,14
24″	49,16,58,25, 1,22,59,54, 1, 5		3,36,10,44,11	
		1,11,40,31,37,48,12,17		5,14
26″	49,16,59,36,41,54,37,42,13,22		3,36,10,49,25	
		1,11,40,28, 1,37,22,52		5,14
28″	49,17, 0,48,22,22,39,19,36,14		3,36,10,54,39	
		1,11,40,24,25,26,28,13		5,14
30″	49,17, 2, 0, 2,47, 4,46, 4,27		3,36,10,59,53	
		1,11,40,20,49,15,28,20		5,14
32″	49,17, 3,11,43, 7,54, 1,32,47		3,36,11, 5, 7	
		1,11,40,17,13, 4,23,13		5,14
34″	49,17, 4,23,23,25, 7, 5,56, 0		3,36,11,10,21	
		1,11,40,13,36,53,12,52		5,14
36″	49,17, 5,35, 3,38,43,59, 8,52		3,36,11,15,35	
		1,11,40,10, 0,41,57,17		5,14
38″	49,17, 6,46,43,48,44,41, 6, 9		3,36,11,20,49	
		1,11,40, 6,24,30,36,28		5,14
40″	49,17, 7,58,23,55, 9,11,42,37		3,36,11,26, 3	
		1,11,40, 2,48,19,10,25		5,14
42″	49,17, 9,10, 3,57,57,30,53, 2		3,36,11,31,17	
		1,11,39,59,12, 7,39, 8		5,14
44″	49,17,10,21,43,57, 9,38,32,10		3,36,11,36,31	
		1,11,39,55,35,56, 2,37		5,14
46″	49,17,11,33,23,52,45,34,34,47		3,36,11,41,45	
		1,11,39,51,59,44,20,52		5,14
48″	49,17,12,45, 3,44,45,18,55,39		3,36,11,46,59	
		1,11,39,48,23,32,33,53		5,14
50″	49,17,13,56,43,33, 8,51,29,32		3,36,11,52,13	
		1,11,39,44,47,20,41,40		5,14
52″	49,17,15, 8,23,17,56,12,11,12		3,36,11,57,27	
		1,11,39,41,11, 8,44,13		5,14
54″	49,17,16,20, 2,59, 7,20,55,25		3,36,12, 2,41	
		1,11,39,37,34,56,41,32		5,14
56″	49,17,17,31,42,36,42,17,36,57		3,36,12, 7,55	
		1,11,39,33,58,44,33,37		5,14
58″	49,17,18,43,22,10,41, 2,10,34		3,36,12,13, 9	
		1,11,39,30,22,32,20,28		
60″	49,17,19,55, 1,41, 3,34,31, 2			
exact	49,17,19,55, 1,41, 3,34, 2,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°14′ 0″	49,17,19,55, 1,41, 3,34, 2,27			
		1,11,39,26,46,19,59, 6		
2″	49,17,21, 6,41, 7,49,54, 1,33		3,36,12,23,49	
		1,11,39,23,10, 7,35,17		5,14
4″	49,17,22,18,20,31, 0, 1,36,50		3,36,12,29, 3	
		1,11,39,19,33,55, 6,14		5,14
6″	49,17,23,29,59,50,33,56,43, 4		3,36,12,34,17	
		1,11,39,15,57,42,31,57		5,14
8″	49,17,24,41,39, 6,31,39,15, 1		3,36,12,39,31	
		1,11,39,12,21,29,52,26		5,14
10″	49,17,25,53,18,18,53, 9, 7,27		3,36,12,44,45	
		1,11,39, 8,45,17, 7,41		5,14
12″	49,17,27, 4,57,27,38,26,15, 8		3,36,12,49,59	
		1,11,39, 5, 9, 4,17,42		5,14
14″	49,17,28,16,36,32,47,30,32,50		3,36,12,55,13	
		1,11,39, 1,32,51,22,29		5,14
16″	49,17,29,28,15,34,20,21,55,19		3,36,13, 0,27	
		1,11,38,57,56,38,22, 2		5,14
18″	49,17,30,39,54,32,17, 0,17,21		3,36,13, 5,41	
		1,11,38,54,20,25,16,21		5,14
20″	49,17,31,51,33,26,37,25,33,42		3,36,13,10,55	
		1,11,38,50,44,12, 5,26		5,14
22″	49,17,33, 3,12,17,21,37,39, 8		3,36,13,16, 9	
		1,11,38,47, 7,58,49,17		5,14
24″	49,17,34,14,51, 4,29,36,28,25		3,36,13,21,23	
		1,11,38,43,31,45,27,54		5,14
26″	49,17,35,26,29,48, 1,21,56,19		3,36,13,26,37	
		1,11,38,39,55,32, 1,17		5,14
28″	49,17,36,38, 8,27,56,53,57,36		3,36,13,31,51	
		1,11,38,36,19,18,29,26		5,14
30″	49,17,37,49,47, 4,16,12,27, 2		3,36,13,37, 5	
		1,11,38,32,43, 4,52,21		5,14
32″	49,17,39, 1,25,36,59,17,19,23		3,36,13,42,19	
		1,11,38,29, 6,51,10, 2		5,14
34″	49,17,40,13, 4, 6, 6, 8,29,25		3,36,13,47,33	
		1,11,38,25,30,37,22,29		5,14
36″	49,17,41,24,42,31,36,45,51,54		3,36,13,52,47	
		1,11,38,21,54,23,29,42		5,14
38″	49,17,42,36,20,53,31, 9,21,36		3,36,13,58, 1	
		1,11,38,18,18, 9,31,41		5,14
40″	49,17,43,47,59,11,49,18,53,17		3,36,14, 3,15	
		1,11,38,14,41,55,28,26		5,14
42″	49,17,44,59,37,26,31,14,21,43		3,36,14, 8,29	
		1,11,38,11, 5,41,19,57		5,14
44″	49,17,46,11,15,37,36,55,41,40		3,36,14,13,43	
		1,11,38, 7,29,27, 6,14		5,14
46″	49,17,47,22,53,45, 6,22,47,54		3,36,14,18,57	
		1,11,38, 3,53,12,47,17		5,14
48″	49,17,48,34,31,48,59,35,35,11		3,36,14,24,11	
		1,11,38, 0,16,58,23, 6		5,14
50″	49,17,49,46, 9,49,16,33,58,17		3,36,14,29,25	
		1,11,37,56,40,43,53,41		5,14
52″	49,17,50,57,47,45,57,17,51,58		3,36,14,34,39	
		1,11,37,53, 4,29,19, 2		5,14
54″	49,17,52, 9,25,39, 1,47,11, 0		3,36,14,39,53	
		1,11,37,49,28,14,39, 9		5,14
56″	49,17,53,21, 3,28,30, 1,50, 9		3,36,14,45, 7	
		1,11,37,45,51,59,54, 2		5,14
58″	49,17,54,32,41,14,22, 1,44,11		3,36,14,50,21	
		1,11,37,42,15,45, 3,41		
60″	49,17,55,44,18,56,37,46,47,52			
exact	49,17,55,44,18,56,37,46,30,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°15′ 0″	49,17,55,44,18,56,37,46,30,53			
		1,11,37,38,39,30, 6,15		
2″	49,17,56,55,56,35,17,16,37, 8		3,36,15, 0,56	
		1,11,37,35, 3,15, 5,19		5,14
4″	49,17,58, 7,34,10,20,31,42,27		3,36,15, 6,10	
		1,11,37,31,26,59,59, 9		5,14
6″	49,17,59,19,11,41,47,31,41,36		3,36,15,11,24	
		1,11,37,27,50,44,47,45		5,14
8″	49,18, 0,30,49, 9,38,16,29,21		3,36,15,16,38	
		1,11,37,24,14,29,31, 7		5,14
10″	49,18, 1,42,26,33,52,46, 0,28		3,36,15,21,52	
		1,11,37,20,38,14, 9,15		5,14
12″	49,18, 2,54, 3,54,31, 0, 9,43		3,36,15,27, 6	
		1,11,37,17, 1,58,42, 9		5,14
14″	49,18, 4, 5,41,11,32,58,51,52		3,36,15,32,20	
		1,11,37,13,25,43, 9,49		5,14
16″	49,18, 5,17,18,24,58,42, 1,41		3,36,15,37,34	
		1,11,37, 9,49,27,32,15		5,14
18″	49,18, 6,28,55,34,48, 9,33,56		3,36,15,42,48	
		1,11,37, 6,13,11,49,27		5,14
20″	49,18, 7,40,32,41, 1,21,23,23		3,36,15,48, 2	
		1,11,37, 2,36,56, 1,25		5,14
22″	49,18, 8,52, 9,43,38,17,24,48		3,36,15,53,16	
		1,11,36,59, 0,40, 8, 9		5,14
24″	49,18,10, 3,46,42,38,57,32,57		3,36,15,58,30	
		1,11,36,55,24,24, 9,39		5,14
26″	49,18,11,15,23,38, 3,21,42,36		3,36,16, 3,44	
		1,11,36,51,48, 8, 5,55		5,14
28″	49,18,12,27, 0,29,51,29,48,31		3,36,16, 8,58	
		1,11,36,48,11,51,56,57		5,14
30″	49,18,13,38,37,18, 3,21,45,28		3,36,16,14,12	
		1,11,36,44,35,35,42,45		5,14
32″	49,18,14,50,14, 2,38,57,28,13		3,36,16,19,26	
		1,11,36,40,59,19,23,19		5,14
34″	49,18,16, 1,50,43,38,16,51,32		3,36,16,24,40	
		1,11,36,37,23, 2,58,39		5,14
36″	49,18,17,13,27,21, 1,19,50,11		3,36,16,29,54	
		1,11,36,33,46,46,28,45		5,14
38″	49,18,18,25, 3,54,48, 6,18,56		3,36,16,35, 8	
		1,11,36,30,10,29,53,37		5,14
40″	49,18,19,36,40,24,58,36,12,33		3,36,16,40,22	
		1,11,36,26,34,13,13,15		5,14
42″	49,18,20,48,16,51,32,49,25,48		3,36,16,45,36	
		1,11,36,22,57,56,27,39		5,14
44″	49,18,21,59,53,14,30,45,53,27		3,36,16,50,50	
		1,11,36,19,21,39,36,49		5,14
46″	49,18,23,11,29,33,52,25,30,16		3,36,16,56, 4	
		1,11,36,15,45,22,40,45		5,14
48″	49,18,24,23, 5,49,37,48,11, 1		3,36,17, 1,18	
		1,11,36,12, 9, 5,39,27		5,14
50″	49,18,25,34,42, 1,46,53,50,28		3,36,17, 6,32	
		1,11,36, 8,32,48,32,55		5,14
52″	49,18,26,46,18,10,19,42,23,23		3,36,17,11,46	
		1,11,36, 4,56,31,21, 9		5,14
54″	49,18,27,57,54,15,16,13,44,32		3,36,17,17, 0	
		1,11,36, 1,20,14, 4, 9		5,14
56″	49,18,29, 9,30,16,36,27,48,41		3,36,17,22,14	
		1,11,35,57,43,56,41,55		5,14
58″	49,18,30,21, 6,14,20,24,30,36		3,36,17,27,28	
		1,11,35,54, 7,39,14,27		
60″	49,18,31,32,42, 8,28, 3,45, 3			
exact	49,18,31,32,42, 8,28, 3,31,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°16′ 0″	49,18,31,32,42, 8,28, 3,31,58			
		1,11,35,50,31,21,40,31		
2″	49,18,32,44,17,58,59,25,12,29		3,36,17,38, 0	
		1,11,35,46,55, 4, 2,31		5,14
4″	49,18,33,55,53,45,54,29,15, 0		3,36,17,43,14	
		1,11,35,43,18,46,19,17		5,14
6″	49,18,35, 7,29,29,13,15,34,17		3,36,17,48,28	
		1,11,35,39,42,28,30,49		5,14
8″	49,18,36,19, 5, 8,55,44, 5, 6		3,36,17,53,42	
		1,11,35,36, 6,10,37, 7		5,14
10″	49,18,37,30,40,45, 1,54,42,13		3,36,17,58,56	
		1,11,35,32,29,52,38,11		5,14
12″	49,18,38,42,16,17,31,47,20,24		3,36,18, 4,10	
		1,11,35,28,53,34,34, 1		5,14
14″	49,18,39,53,51,46,25,21,54,25		3,36,18, 9,24	
		1,11,35,25,17,16,24,37		5,14
16″	49,18,41, 5,27,11,42,38,19, 2		3,36,18,14,38	
		1,11,35,21,40,58, 9,59		5,14
18″	49,18,42,17, 2,33,23,36,29, 1		3,36,18,19,52	
		1,11,35,18, 4,39,50, 7		5,14
20″	49,18,43,28,37,51,28,16,19, 8		3,36,18,25, 6	
		1,11,35,14,28,21,25, 1		5,14
22″	49,18,44,40,13, 5,56,37,44, 9		3,36,18,30,20	
		1,11,35,10,52, 2,54,41		5,14
24″	49,18,45,51,48,16,48,40,38,50		3,36,18,35,34	
		1,11,35, 7,15,44,19, 7		5,14
26″	49,18,47, 3,23,24, 4,24,57,57		3,36,18,40,48	
		1,11,35, 3,39,25,38,19		5,14
28″	49,18,48,14,58,27,43,50,36,16		3,36,18,46, 2	
		1,11,35, 0, 3, 6,52,17		5,14
30″	49,18,49,26,33,27,46,57,28,33		3,36,18,51,16	
		1,11,34,56,26,48, 1, 1		5,14
32″	49,18,50,38, 8,24,13,45,29,34		3,36,18,56,30	
		1,11,34,52,50,29, 4,31		5,14
34″	49,18,51,49,43,17, 4,14,34, 5		3,36,19, 1,44	
		1,11,34,49,14,10, 2,47		5,14
36″	49,18,53, 1,18, 6,18,24,36,52		3,36,19, 6,58	
		1,11,34,45,37,50,55,49		5,14
38″	49,18,54,12,52,51,56,15,32,41		3,36,19,12,12	
		1,11,34,42, 1,31,43,37		5,14
40″	49,18,55,24,27,33,57,47,16,18		3,36,19,17,26	
		1,11,34,38,25,12,26,11		5,14
42″	49,18,56,36, 2,12,22,59,42,29		3,36,19,22,40	
		1,11,34,34,48,53, 3,31		5,14
44″	49,18,57,47,36,47,11,52,46, 0		3,36,19,27,54	
		1,11,34,31,12,33,35,37		5,14
46″	49,18,58,59,11,18,24,26,21,37		3,36,19,33, 8	
		1,11,34,27,36,14, 2,29		5,14
48″	49,19, 0,10,45,46, 0,40,24, 6		3,36,19,38,22	
		1,11,34,23,59,54,24, 7		5,14
50″	49,19, 1,22,20,10, 0,34,48,13		3,36,19,43,36	
		1,11,34,20,23,34,40,31		5,14
52″	49,19, 2,33,54,30,24, 9,28,44		3,36,19,48,50	
		1,11,34,16,47,14,51,41		5,14
54″	49,19, 3,45,28,47,11,24,20,25		3,36,19,54, 4	
		1,11,34,13,10,54,57,37		5,14
56″	49,19, 4,57, 3, 0,22,19,18, 2		3,36,19,59,18	
		1,11,34, 9,34,34,58,19		5,14
58″	49,19, 6, 8,37, 9,56,54,16,21		3,36,20, 4,32	
		1,11,34, 5,58,14,53,47		
60″	49,19, 7,20,11,15,55, 9,10, 8			
exact	49,19, 7,20,11,15,55, 9, 7,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°17′ 0″	49,19, 7,20,11,15,55, 9, 7,32			
		1,11,34, 2,21,54,43,51		
2″	49,19, 8,31,45,18,17, 3,51,23		3,36,20,15, 0	
		1,11,33,58,45,34,28,51		5,14
4″	49,19, 9,43,19,17, 2,38,20,14		3,36,20,20,14	
		1,11,33,55, 9,14, 8,37		5,14
6″	49,19,10,54,53,12,11,52,28,51		3,36,20,25,28	
		1,11,33,51,32,53,43, 9		5,14
8″	49,19,12, 6,27, 3,44,46,12, 0		3,36,20,30,42	
		1,11,33,47,56,33,12,27		5,14
10″	49,19,13,18, 0,51,41,19,24,27		3,36,20,35,56	
		1,11,33,44,20,12,36,31		5,14
12″	49,19,14,29,34,36, 1,32, 0,58		3,36,20,41,10	
		1,11,33,40,43,51,55,21		5,14
14″	49,19,15,41, 8,16,45,23,56,19		3,36,20,46,24	
		1,11,33,37, 7,31, 8,57		5,14
16″	49,19,16,52,41,53,52,55, 5,16		3,36,20,51,38	
		1,11,33,33,31,10,17,19		5,14
18″	49,19,18, 4,15,27,24, 5,22,35		3,36,20,56,52	
		1,11,33,29,54,49,20,27		5,14
20″	49,19,19,15,48,57,18,54,43, 2		3,36,21, 2, 6	
		1,11,33,26,18,28,18,21		5,14
22″	49,19,20,27,22,23,37,23, 1,23		3,36,21, 7,20	
		1,11,33,22,42, 7,11, 1		5,14
24″	49,19,21,38,55,46,19,30,12,24		3,36,21,12,34	
		1,11,33,19, 5,45,58,27		5,14
26″	49,19,22,50,29, 5,25,16,10,51		3,36,21,17,48	
		1,11,33,15,29,24,40,39		5,14
28″	49,19,24, 2, 2,20,54,40,51,30		3,36,21,23, 2	
		1,11,33,11,53, 3,17,37		5,14
30″	49,19,25,13,35,32,47,44, 9, 7		3,36,21,28,16	
		1,11,33, 8,16,41,49,21		5,14
32″	49,19,26,25, 8,41, 4,25,58,28		3,36,21,33,30	
		1,11,33, 4,40,20,15,51		5,14
34″	49,19,27,36,41,45,44,46,14,19		3,36,21,38,44	
		1,11,33, 1, 3,58,37, 7		5,14
36″	49,19,28,48,14,46,48,44,51,26		3,36,21,43,58	
		1,11,32,57,27,36,53, 9		5,14
38″	49,19,29,59,47,44,16,21,44,35		3,36,21,49,12	
		1,11,32,53,51,15, 3,57		5,14
40″	49,19,31,11,20,38, 7,36,48,32		3,36,21,54,26	
		1,11,32,50,14,53, 9,31		5,14
42″	49,19,32,22,53,28,22,29,58, 3		3,36,21,59,40	
		1,11,32,46,38,31, 9,51		5,14
44″	49,19,33,34,26,15, 1, 1, 7,54		3,36,22, 4,54	
		1,11,32,43, 2, 9, 4,57		5,14
46″	49,19,34,45,58,58, 3,10,12,51		3,36,22,10, 8	
		1,11,32,39,25,46,54,49		5,14
48″	49,19,35,57,31,37,28,57, 7,40		3,36,22,15,22	
		1,11,32,35,49,24,39,27		5,14
50″	49,19,37, 9, 4,13,18,21,47, 7		3,36,22,20,36	
		1,11,32,32,13, 2,18,51		5,14
52″	49,19,38,20,36,45,31,24, 5,58		3,36,22,25,50	
		1,11,32,28,36,39,53, 1		5,14
54″	49,19,39,32, 9,14, 8, 3,58,59		3,36,22,31, 4	
		1,11,32,25, 0,17,21,57		5,14
56″	49,19,40,43,41,39, 8,21,20,56		3,36,22,36,18	
		1,11,32,21,23,54,45,39		5,14
58″	49,19,41,55,14, 0,32,16, 6,35		3,36,22,41,32	
		1,11,32,17,47,32, 4, 7		
60″	49,19,43, 6,46,18,19,48,10,42			
exact	49,19,43, 6,46,18,19,48,18,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°18′ 0″	49,19,43, 6,46,18,19,48,18,41			
		1,11,32,14,11, 9,18,15		
2″	49,19,44,18,18,32,30,57,36,56		3,36,22,51,56	
		1,11,32,10,34,46,26,19		5,14
4″	49,19,45,29,50,43, 5,44, 3,15		3,36,22,57,10	
		1,11,32, 6,58,23,29, 9		5,14
6″	49,19,46,41,22,50, 4, 7,32,24		3,36,23, 2,24	
		1,11,32, 3,22, 0,26,45		5,14
8″	49,19,47,52,54,53,26, 7,59, 9		3,36,23, 7,38	
		1,11,31,59,45,37,19, 7		5,14
10″	49,19,49, 4,26,53,11,45,18,16		3,36,23,12,52	
		1,11,31,56, 9,14, 6,15		5,14
12″	49,19,50,15,58,49,20,59,24,31		3,36,23,18, 6	
		1,11,31,52,32,50,48, 9		5,14
14″	49,19,51,27,30,41,53,50,12,40		3,36,23,23,20	
		1,11,31,48,56,27,24,49		5,14
16″	49,19,52,39, 2,30,50,17,37,29		3,36,23,28,34	
		1,11,31,45,20, 3,56,15		5,14
18″	49,19,53,50,34,16,10,21,33,44		3,36,23,33,48	
		1,11,31,41,43,40,22,27		5,14
20″	49,19,55, 2, 5,57,54, 1,56,11		3,36,23,39, 2	
		1,11,31,38, 7,16,43,25		5,14
22″	49,19,56,13,37,36, 1,18,39,36		3,36,23,44,16	
		1,11,31,34,30,52,59, 9		5,14
24″	49,19,57,25, 9,10,32,11,38,45		3,36,23,49,30	
		1,11,31,30,54,29, 9,39		5,14
26″	49,19,58,36,40,41,26,40,48,24		3,36,23,54,44	
		1,11,31,27,18, 5,14,55		5,14
28″	49,19,59,48,12, 8,44,46, 3,19		3,36,23,59,58	
		1,11,31,23,41,41,14,57		5,14
30″	49,20, 0,59,43,32,26,27,18,16		3,36,24, 5,12	
		1,11,31,20, 5,17, 9,45		5,14
32″	49,20, 2,11,14,52,31,44,28, 1		3,36,24,10,26	
		1,11,31,16,28,52,59,19		5,14
34″	49,20, 3,22,46, 9, 0,37,27,20		3,36,24,15,40	
		1,11,31,12,52,28,43,39		5,14
36″	49,20, 4,34,17,21,53, 6,10,59		3,36,24,20,54	
		1,11,31, 9,16, 4,22,45		5,14
38″	49,20, 5,45,48,31, 9,10,33,44		3,36,24,26, 8	
		1,11,31, 5,39,39,56,37		5,14
40″	49,20, 6,57,19,36,48,50,30,21		3,36,24,31,22	
		1,11,31, 2, 3,15,25,15		5,14
42″	49,20, 8, 8,50,38,52, 5,55,36		3,36,24,36,36	
		1,11,30,58,26,50,48,39		5,14
44″	49,20, 9,20,21,37,18,56,44,15		3,36,24,41,50	
		1,11,30,54,50,26, 6,49		5,14
46″	49,20,10,31,52,32, 9,22,51, 4		3,36,24,47, 4	
		1,11,30,51,14, 1,19,45		5,14
48″	49,20,11,43,23,23,23,24,10,49		3,36,24,52,18	
		1,11,30,47,37,36,27,27		5,14
50″	49,20,12,54,54,11, 1, 0,38,16		3,36,24,57,32	
		1,11,30,44, 1,11,29,55		5,14
52″	49,20,14, 6,24,55, 2,12, 8,11		3,36,25, 2,46	
		1,11,30,40,24,46,27, 9		5,14
54″	49,20,15,17,55,35,26,58,35,20		3,36,25, 8, 0	
		1,11,30,36,48,21,19, 9		5,14
56″	49,20,16,29,26,12,15,19,54,29		3,36,25,13,14	
		1,11,30,33,11,56, 5,55		5,14
58″	49,20,17,40,56,45,27,16, 0,24		3,36,25,18,28	
		1,11,30,29,35,30,47,27		
60″	49,20,18,52,27,15, 2,46,47,51			
exact	49,20,18,52,27,15, 2,47, 5,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°19′ 0″	49,20,18,52,27,15, 2,47, 5,53			
		1,11,30,25,59, 5,25,41		
2″	49,20,20, 3,57,41, 1,52,31,34		3,36,25,28,48	
		1,11,30,22,22,39,56,53		5,14
4″	49,20,21,15,28, 3,24,32,28,27		3,36,25,34, 2	
		1,11,30,18,46,14,22,51		5,14
6″	49,20,22,26,58,22,10,46,51,18		3,36,25,39,16	
		1,11,30,15, 9,48,43,35		5,14
8″	49,20,23,38,28,37,20,35,34,53		3,36,25,44,30	
		1,11,30,11,33,22,59, 5		5,14
10″	49,20,24,49,58,48,53,58,33,58		3,36,25,49,44	
		1,11,30, 7,56,57, 9,21		5,14
12″	49,20,26, 1,28,56,50,55,43,19		3,36,25,54,58	
		1,11,30, 4,20,31,14,23		5,14
14″	49,20,27,12,59, 1,11,26,57,42		3,36,26, 0,12	
		1,11,30, 0,44, 5,14,11		5,14
16″	49,20,28,24,29, 1,55,32,11,53		3,36,26, 5,26	
		1,11,29,57, 7,39, 8,45		5,14
18″	49,20,29,35,58,59, 3,11,20,38		3,36,26,10,40	
		1,11,29,53,31,12,58, 5		5,14
20″	49,20,30,47,28,52,34,24,18,43		3,36,26,15,54	
		1,11,29,49,54,46,42,11		5,14
22″	49,20,31,58,58,42,29,11, 0,54		3,36,26,21, 8	
		1,11,29,46,18,20,21, 3		5,14
24″	49,20,33,10,28,28,47,31,21,57		3,36,26,26,22	
		1,11,29,42,41,53,54,41		5,14
26″	49,20,34,21,58,11,29,25,16,38		3,36,26,31,36	
		1,11,29,39, 5,27,23, 5		5,14
28″	49,20,35,33,27,50,34,52,39,43		3,36,26,36,50	
		1,11,29,35,29, 0,46,15		5,14
30″	49,20,36,44,57,26, 3,53,25,58		3,36,26,42, 4	
		1,11,29,31,52,34, 4,11		5,14
32″	49,20,37,56,26,57,56,27,30, 9		3,36,26,47,18	
		1,11,29,28,16, 7,16,53		5,14
34″	49,20,39, 7,56,26,12,34,47, 2		3,36,26,52,32	
		1,11,29,24,39,40,24,21		5,14
36″	49,20,40,19,25,50,52,15,11,23		3,36,26,57,46	
		1,11,29,21, 3,13,26,35		5,14
38″	49,20,41,30,55,11,55,28,37,58		3,36,27, 3, 0	
		1,11,29,17,26,46,23,35		5,14
40″	49,20,42,42,24,29,22,15, 1,33		3,36,27, 8,14	
		1,11,29,13,50,19,15,21		5,14
42″	49,20,43,53,53,43,12,34,16,54		3,36,27,13,28	
		1,11,29,10,13,52, 1,53		5,14
44″	49,20,45, 5,22,53,26,26,18,47		3,36,27,18,42	
		1,11,29, 6,37,24,43,11		5,14
46″	49,20,46,16,52, 0, 3,51, 1,58		3,36,27,23,56	
		1,11,29, 3, 0,57,19,15		5,14
48″	49,20,47,28,21, 3, 4,48,21,13		3,36,27,29,10	
		1,11,28,59,24,29,50, 5		5,14
50″	49,20,48,39,50, 2,29,18,11,18		3,36,27,34,24	
		1,11,28,55,48, 2,15,41		5,14
52″	49,20,49,51,18,58,17,20,26,59		3,36,27,39,38	
		1,11,28,52,11,34,36, 3		5,14
54″	49,20,51, 2,47,50,28,55, 3, 2		3,36,27,44,52	
		1,11,28,48,35, 6,51,11		5,14
56″	49,20,52,14,16,39, 4, 1,54,13		3,36,27,50, 6	
		1,11,28,44,58,39, 1, 5		5,14
58″	49,20,53,25,45,24, 2,40,55,18		3,36,27,55,20	
		1,11,28,41,22,11, 5,45		
60″	49,20,54,37,14, 5,24,52, 1, 3			
exact	49,20,54,37,14, 5,24,52,28,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°20′ 0″	49,20,54,37,14, 5,24,52,28,53			
		1,11,28,37,45,43, 8, 8		
2″	49,20,55,48,42,43,10,35,37, 1		3,36,28, 5,36	
		1,11,28,34, 9,15, 2,32		5,14
4″	49,20,57, 0,11,17,19,50,39,33		3,36,28,10,50	
		1,11,28,30,32,46,51,42		5,14
6″	49,20,58,11,39,47,52,37,31,15		3,36,28,16, 4	
		1,11,28,26,56,18,35,38		5,14
8″	49,20,59,23, 8,14,48,56, 6,53		3,36,28,21,18	
		1,11,28,23,19,50,14,20		5,14
10″	49,21, 0,34,36,38, 8,46,21,13		3,36,28,26,32	
		1,11,28,19,43,21,47,48		5,14
12″	49,21, 1,46, 4,57,52, 8, 9, 1		3,36,28,31,46	
		1,11,28,16, 6,53,16, 2		5,14
14″	49,21, 2,57,33,13,59, 1,25, 3		3,36,28,37, 0	
		1,11,28,12,30,24,39, 2		5,14
16″	49,21, 4, 9, 1,26,29,26, 4, 5		3,36,28,42,14	
		1,11,28, 8,53,55,56,48		5,14
18″	49,21, 5,20,29,35,23,22, 0,53		3,36,28,47,28	
		1,11,28, 5,17,27, 9,20		5,14
20″	49,21, 6,31,57,40,40,49,10,13		3,36,28,52,42	
		1,11,28, 1,40,58,16,38		5,14
22″	49,21, 7,43,25,42,21,47,26,51		3,36,28,57,56	
		1,11,27,58, 4,29,18,42		5,14
24″	49,21, 8,54,53,40,26,16,45,33		3,36,29, 3,10	
		1,11,27,54,28, 0,15,32		5,14
26″	49,21,10, 6,21,34,54,17, 1, 5		3,36,29, 8,24	
		1,11,27,50,51,31, 7, 8		5,14
28″	49,21,11,17,49,25,45,48, 8,13		3,36,29,13,38	
		1,11,27,47,15, 1,53,30		5,14
30″	49,21,12,29,17,13, 0,50, 1,43		3,36,29,18,52	
		1,11,27,43,38,32,34,38		5,14
32″	49,21,13,40,44,56,39,22,36,21		3,36,29,24, 6	
		1,11,27,40, 2, 3,10,32		5,14
34″	49,21,14,52,12,36,41,25,46,53		3,36,29,29,20	
		1,11,27,36,25,33,41,12		5,14
36″	49,21,16, 3,40,13, 6,59,28, 5		3,36,29,34,34	
		1,11,27,32,49, 4, 6,38		5,14
38″	49,21,17,15, 7,45,56, 3,34,43		3,36,29,39,48	
		1,11,27,29,12,34,26,50		5,14
40″	49,21,18,26,35,15, 8,38, 1,33		3,36,29,45, 2	
		1,11,27,25,36, 4,41,48		5,14
42″	49,21,19,38, 2,40,44,42,43,21		3,36,29,50,16	
		1,11,27,21,59,34,51,32		5,14
44″	49,21,20,49,30, 2,44,17,34,53		3,36,29,55,30	
		1,11,27,18,23, 4,56, 2		5,14
46″	49,21,22, 0,57,21, 7,22,30,55		3,36,30, 0,44	
		1,11,27,14,46,34,55,18		5,14
48″	49,21,23,12,24,35,53,57,26,13		3,36,30, 5,58	
		1,11,27,11,10, 4,49,20		5,14
50″	49,21,24,23,51,47, 4, 2,15,33		3,36,30,11,12	
		1,11,27, 7,33,34,38, 8		5,14
52″	49,21,25,35,18,54,37,36,53,41		3,36,30,16,26	
		1,11,27, 3,57, 4,21,42		5,14
54″	49,21,26,46,45,58,34,41,15,23		3,36,30,21,40	
		1,11,27, 0,20,34, 0, 2		5,14
56″	49,21,27,58,12,58,55,15,15,25		3,36,30,26,54	
		1,11,26,56,44, 3,33, 8		5,14
58″	49,21,29, 9,39,55,39,18,48,33		3,36,30,32, 8	
		1,11,26,53, 7,33, 1, 0		
60″	49,21,30,21, 6,48,46,51,49,33			
exact	49,21,30,21, 6,48,46,52,26,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°21′ 0″	49,21,30,21, 6,48,46,52,26,45			
		1,11,26,49,31, 2,27,34		
2″	49,21,31,32,33,38,17,54,54,19		3,36,30,42,20	
		1,11,26,45,54,31,45,14		5,13
4″	49,21,32,44, 0,24,12,26,39,33		3,36,30,47,33	
		1,11,26,42,18, 0,57,41		5,13
6″	49,21,33,55,27, 6,30,27,37,14		3,36,30,52,46	
		1,11,26,38,41,30, 4,55		5,13
8″	49,21,35, 6,53,45,11,57,42, 9		3,36,30,57,59	
		1,11,26,35, 4,59, 6,56		5,13
10″	49,21,36,18,20,20,16,56,49, 5		3,36,31, 3,12	
		1,11,26,31,28,28, 3,44		5,13
12″	49,21,37,29,46,51,45,24,52,49		3,36,31, 8,25	
		1,11,26,27,51,56,55,19		5,13
14″	49,21,38,41,13,19,37,21,48, 8		3,36,31,13,38	
		1,11,26,24,15,25,41,41		5,13
16″	49,21,39,52,39,43,52,47,29,49		3,36,31,18,51	
		1,11,26,20,38,54,22,50		5,13
18″	49,21,41, 4, 6, 4,31,41,52,39		3,36,31,24, 4	
		1,11,26,17, 2,22,58,46		5,13
20″	49,21,42,15,32,21,34, 4,51,25		3,36,31,29,17	
		1,11,26,13,25,51,29,29		5,13
22″	49,21,43,26,58,34,59,56,20,54		3,36,31,34,30	
		1,11,26, 9,49,19,54,59		5,13
24″	49,21,44,38,24,44,49,16,15,53		3,36,31,39,43	
		1,11,26, 6,12,48,15,16		5,13
26″	49,21,45,49,50,51, 2, 4,31, 9		3,36,31,44,56	
		1,11,26, 2,36,16,30,20		5,13
28″	49,21,47, 1,16,53,38,21, 1,29		3,36,31,50, 9	
		1,11,25,58,59,44,40,11		5,13
30″	49,21,48,12,42,52,38, 5,41,40		3,36,31,55,22	
		1,11,25,55,23,12,44,49		5,13
32″	49,21,49,24, 8,48, 1,18,26,29		3,36,32, 0,35	
		1,11,25,51,46,40,44,14		5,13
34″	49,21,50,35,34,39,47,59,10,43		3,36,32, 5,48	
		1,11,25,48,10, 8,38,26		5,13
36″	49,21,51,47, 0,27,58, 7,49, 9		3,36,32,11, 1	
		1,11,25,44,33,36,27,25		5,13
38″	49,21,52,58,26,12,31,44,16,34		3,36,32,16,14	
		1,11,25,40,57, 4,11,11		5,13
40″	49,21,54, 9,51,53,28,48,27,45		3,36,32,21,27	
		1,11,25,37,20,31,49,44		5,13
42″	49,21,55,21,17,30,49,20,17,29		3,36,32,26,40	
		1,11,25,33,43,59,23, 4		5,13
44″	49,21,56,32,43, 4,33,19,40,33		3,36,32,31,53	
		1,11,25,30, 7,26,51,11		5,13
46″	49,21,57,44, 8,34,40,46,31,44		3,36,32,37, 6	
		1,11,25,26,30,54,14, 5		5,13
48″	49,21,58,55,34, 1,11,40,45,49		3,36,32,42,19	
		1,11,25,22,54,21,31,46		5,13
50″	49,22, 0, 6,59,24, 6, 2,17,35		3,36,32,47,32	
		1,11,25,19,17,48,44,14		5,13
52″	49,22, 1,18,24,43,23,51, 1,49		3,36,32,52,45	
		1,11,25,15,41,15,51,29		5,13
54″	49,22, 2,29,49,59, 5, 6,53,18		3,36,32,57,58	
		1,11,25,12, 4,42,53,31		5,13
56″	49,22, 3,41,15,11, 9,49,46,49		3,36,33, 3,11	
		1,11,25, 8,28, 9,50,20		5,13
58″	49,22, 4,52,40,19,37,59,37, 9		3,36,33, 8,24	
		1,11,25, 4,51,36,41,56		
60″	49,22, 6, 4, 5,24,29,36,19, 5			
exact	49,22, 6, 4, 5,24,29,35,57,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°22′ 0″	49,22, 6, 4, 5,24,29,35,57,57	1,11,25, 1,15, 3,25,59		
2″	49,22, 7,15,30,25,44,39,23,56	1,11,24,57,38,30, 6,59	3,36,33,19, 0	5,13
4″	49,22, 8,26,55,23,23, 9,30,55	1,11,24,54, 1,56,42,46	3,36,33,24,13	5,13
6″	49,22, 9,38,20,17,25, 6,13,41	1,11,24,50,25,23,13,20	3,36,33,29,26	5,13
8″	49,22,10,49,45, 7,50,29,27, 1	1,11,24,46,48,49,38,41	3,36,33,34,39	5,13
10″	49,22,12, 1, 9,54,39,19, 5,42	1,11,24,43,12,15,58,49	3,36,33,39,52	5,13
12″	49,22,13,12,34,37,51,35, 4,31	1,11,24,39,35,42,13,44	3,36,33,45, 5	5,13
14″	49,22,14,23,59,17,27,17,18,15	1,11,24,35,59, 8,23,26	3,36,33,50,18	5,13
16″	49,22,15,35,23,53,26,25,41,41	1,11,24,32,22,34,27,55	3,36,33,55,31	5,13
18″	49,22,16,46,48,25,49, 0, 9,36	1,11,24,28,46, 0,27,11	3,36,34, 0,44	5,13
20″	49,22,17,58,12,54,35, 0,36,47	1,11,24,25, 9,26,21,14	3,36,34, 5,57	5,13
22″	49,22,19, 9,37,19,44,26,58, 1	1,11,24,21,32,52,10, 4	3,36,34,11,10	5,13
24″	49,22,20,21, 1,41,17,19, 8, 5	1,11,24,17,56,17,53,41	3,36,34,16,23	5,13
26″	49,22,21,32,25,59,13,37, 1,46	1,11,24,14,19,43,32, 5	3,36,34,21,36	5,13
28″	49,22,22,43,50,13,33,20,33,51	1,11,24,10,43, 9, 5,16	3,36,34,26,49	5,13
30″	49,22,23,55,14,24,16,29,39, 7	1,11,24, 7, 6,34,33,14	3,36,34,32, 2	5,13
32″	49,22,25, 6,38,31,23, 4,12,21	1,11,24, 3,29,59,55,59	3,36,34,37,15	5,13
34″	49,22,26,18, 2,34,53, 4, 8,20	1,11,23,59,53,25,13,31	3,36,34,42,28	5,13
36″	49,22,27,29,26,34,46,29,21,51	1,11,23,56,16,50,25,50	3,36,34,47,41	5,13
38″	49,22,28,40,50,31, 3,19,47,41	1,11,23,52,40,15,32,56	3,36,34,52,54	5,13
40″	49,22,29,52,14,23,43,35,20,37	1,11,23,49, 3,40,34,49	3,36,34,58, 7	5,13
42″	49,22,31, 3,38,12,47,15,55,26	1,11,23,45,27, 5,31,29	3,36,35, 3,20	5,13
44″	49,22,32,15, 1,58,14,21,26,55	1,11,23,41,50,30,22,56	3,36,35, 8,33	5,13
46″	49,22,33,26,25,40, 4,51,49,51	1,11,23,38,13,55, 9,10	3,36,35,13,46	5,13
48″	49,22,34,37,49,18,18,46,59, 1	1,11,23,34,37,19,50,11	3,36,35,18,59	5,13
50″	49,22,35,49,12,52,56, 6,49,12	1,11,23,31, 0,44,25,59	3,36,35,24,12	5,13
52″	49,22,37, 0,36,23,56,51,15,11	1,11,23,27,24, 8,56,34	3,36,35,29,25	5,13
54″	49,22,38,11,59,51,21, 0,11,45	1,11,23,23,47,33,21,56	3,36,35,34,38	5,13
56″	49,22,39,23,23,15, 8,33,33,41	1,11,23,20,10,57,42, 5	3,36,35,39,51	5,13
58″	49,22,40,34,46,35,19,31,15,46	1,11,23,16,34,21,57, 1	3,36,35,45, 4	
60″	49,22,41,46, 9,51,53,53,12,47			
exact	49,22,41,46, 9,51,53,53, 0,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°23′ 0″	49,22,41,46, 9,51,53,53, 0,15			
		1,11,23,12,57,46, 5,21		
2″	49,22,42,57,33, 4,51,39, 5,36		3,36,35,55,36	
		1,11,23, 9,21,10, 9,45		5,13
4″	49,22,44, 8,56,14,12,49,15,21		3,36,36, 0,49	
		1,11,23, 5,44,34, 8,56		5,13
6″	49,22,45,20,19,19,57,23,24,17		3,36,36, 6, 2	
		1,11,23, 2, 7,58, 2,54		5,13
8″	49,22,46,31,42,22, 5,21,27,11		3,36,36,11,15	
		1,11,22,58,31,21,51,39		5,13
10″	49,22,47,43, 5,20,36,43,18,50		3,36,36,16,28	
		1,11,22,54,54,45,35,11		5,13
12″	49,22,48,54,28,15,31,28,54, 1		3,36,36,21,41	
		1,11,22,51,18, 9,13,30		5,13
14″	49,22,50, 5,51, 6,49,38, 7,31		3,36,36,26,54	
		1,11,22,47,41,32,46,36		5,13
16″	49,22,51,17,13,54,31,10,54, 7		3,36,36,32, 7	
		1,11,22,44, 4,56,14,29		5,13
18″	49,22,52,28,36,38,36, 7, 8,36		3,36,36,37,20	
		1,11,22,40,28,19,37, 9		5,13
20″	49,22,53,39,59,19, 4,26,45,45		3,36,36,42,33	
		1,11,22,36,51,42,54,36		5,13
22″	49,22,54,51,21,55,56, 9,40,21		3,36,36,47,46	
		1,11,22,33,15, 6, 6,50		5,13
24″	49,22,56, 2,44,29,11,15,47,11		3,36,36,52,59	
		1,11,22,29,38,29,13,51		5,13
26″	49,22,57,14, 6,58,49,45, 1, 2		3,36,36,58,12	
		1,11,22,26, 1,52,15,39		5,13
28″	49,22,58,25,29,24,51,37,16,41		3,36,37, 3,25	
		1,11,22,22,25,15,12,14		5,13
30″	49,22,59,36,51,47,16,52,28,55		3,36,37, 8,38	
		1,11,22,18,48,38, 3,36		5,13
32″	49,23, 0,48,14, 6, 5,30,32,31		3,36,37,13,51	
		1,11,22,15,12, 0,49,45		5,13
34″	49,23, 1,59,36,21,17,31,22,16		3,36,37,19, 4	
		1,11,22,11,35,23,30,41		5,13
36″	49,23, 3,10,58,32,52,54,52,57		3,36,37,24,17	
		1,11,22, 7,58,46, 6,24		5,13
38″	49,23, 4,22,20,40,51,40,59,21		3,36,37,29,30	
		1,11,22, 4,22, 8,36,54		5,13
40″	49,23, 5,33,42,45,13,49,36,15		3,36,37,34,43	
		1,11,22, 0,45,31, 2,11		5,13
42″	49,23, 6,45, 4,45,59,20,38,26		3,36,37,39,56	
		1,11,21,57, 8,53,22,15		5,13
44″	49,23, 7,56,26,43, 8,14, 0,41		3,36,37,45, 9	
		1,11,21,53,32,15,37, 6		5,13
46″	49,23, 9, 7,48,36,40,29,37,47		3,36,37,50,22	
		1,11,21,49,55,37,46,44		5,13
48″	49,23,10,19,10,26,36, 7,24,31		3,36,37,55,35	
		1,11,21,46,18,59,51, 9		5,13
50″	49,23,11,30,32,12,55, 7,15,40		3,36,38, 0,48	
		1,11,21,42,42,21,50,21		5,13
52″	49,23,12,41,53,55,37,29, 6, 1		3,36,38, 6, 1	
		1,11,21,39, 5,43,44,20		5,13
54″	49,23,13,53,15,34,43,12,50,21		3,36,38,11,14	
		1,11,21,35,29, 5,33, 6		5,13
56″	49,23,15, 4,37,10,12,18,23,27		3,36,38,16,27	
		1,11,21,31,52,27,16,39		5,13
58″	49,23,16,15,58,42, 4,45,40, 6		3,36,38,21,40	
		1,11,21,28,15,48,54,59		
60″	49,23,17,27,20,10,20,34,35, 5			
exact	49,23,17,27,20,10,20,34,30,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°24′ 0″	49,23,17,27,20,10,20,34,30,50			
		1,11,21,24,39,10,27,38		
2″	49,23,18,38,41,34,59,44,58,28		3,36,38,32, 8	
		1,11,21,21, 2,31,55,30		5,13
4″	49,23,19,50, 2,56, 2,16,53,58		3,36,38,37,21	
		1,11,21,17,25,53,18, 9		5,13
6″	49,23,21, 1,24,13,28,10,12, 7		3,36,38,42,34	
		1,11,21,13,49,14,35,35		5,13
8″	49,23,22,12,45,27,17,24,47,42		3,36,38,47,47	
		1,11,21,10,12,35,47,48		5,13
10″	49,23,23,24, 6,37,30, 0,35,30		3,36,38,53, 0	
		1,11,21, 6,35,56,54,48		5,13
12″	49,23,24,35,27,44, 5,57,30,18		3,36,38,58,13	
		1,11,21, 2,59,17,56,35		5,13
14″	49,23,25,46,48,47, 5,15,26,53		3,36,39, 3,26	
		1,11,20,59,22,38,53, 9		5,13
16″	49,23,26,58, 9,46,27,54,20, 2		3,36,39, 8,39	
		1,11,20,55,45,59,44,30		5,13
18″	49,23,28, 9,30,42,13,54, 4,32		3,36,39,13,52	
		1,11,20,52, 9,20,30,38		5,13
20″	49,23,29,20,51,34,23,14,35,10		3,36,39,19, 5	
		1,11,20,48,32,41,11,33		5,13
22″	49,23,30,32,12,22,55,55,46,43		3,36,39,24,18	
		1,11,20,44,56, 1,47,15		5,13
24″	49,23,31,43,33, 7,51,57,33,58		3,36,39,29,31	
		1,11,20,41,19,22,17,44		5,13
26″	49,23,32,54,53,49,11,19,51,42		3,36,39,34,44	
		1,11,20,37,42,42,43, 0		5,13
28″	49,23,34, 6,14,26,54, 2,34,42		3,36,39,39,57	
		1,11,20,34, 6, 3, 3, 3		5,13
30″	49,23,35,17,35, 1, 0, 5,37,45		3,36,39,45,10	
		1,11,20,30,29,23,17,53		5,13
32″	49,23,36,28,55,31,29,28,55,38		3,36,39,50,23	
		1,11,20,26,52,43,27,30		5,13
34″	49,23,37,40,15,58,22,12,23, 8		3,36,39,55,36	
		1,11,20,23,16, 3,31,54		5,13
36″	49,23,38,51,36,21,38,15,55, 2		3,36,40, 0,49	
		1,11,20,19,39,23,31, 5		5,13
38″	49,23,40, 2,56,41,17,39,26, 7		3,36,40, 6, 2	
		1,11,20,16, 2,43,25, 3		5,13
40″	49,23,41,14,16,57,20,22,51,10		3,36,40,11,15	
		1,11,20,12,26, 3,13,48		5,13
42″	49,23,42,25,37, 9,46,26, 4,58		3,36,40,16,28	
		1,11,20, 8,49,22,57,20		5,13
44″	49,23,43,36,57,18,35,49, 2,18		3,36,40,21,41	
		1,11,20, 5,12,42,35,39		5,13
46″	49,23,44,48,17,23,48,31,37,57		3,36,40,26,54	
		1,11,20, 1,36, 2, 8,45		5,13
48″	49,23,45,59,37,25,24,33,46,42		3,36,40,32, 7	
		1,11,19,57,59,21,36,38		5,13
50″	49,23,47,10,57,23,23,55,23,20		3,36,40,37,20	
		1,11,19,54,22,40,59,18		5,13
52″	49,23,48,22,17,17,46,36,22,38		3,36,40,42,33	
		1,11,19,50,46, 0,16,45		5,13
54″	49,23,49,33,37, 8,32,36,39,23		3,36,40,47,46	
		1,11,19,47, 9,19,28,59		5,13
56″	49,23,50,44,56,55,41,56, 8,22		3,36,40,52,59	
		1,11,19,43,32,38,36, 0		5,13
58″	49,23,51,56,16,39,14,34,44,22		3,36,40,58,12	
		1,11,19,39,55,57,37,48		
60″	49,23,53, 7,36,19,10,32,22,10			
exact	49,23,53, 7,36,19,10,32,26,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°25′ 0″	49,23,53, 7,36,19,10,32,26,14			
		1,11,19,36,19,16,34,49		
2″	49,23,54,18,55,55,29,49, 1, 3		3,36,41, 8,36	
		1,11,19,32,42,35,26,13		5,13
4″	49,23,55,30,15,28,12,24,27,16		3,36,41,13,49	
		1,11,19,29, 5,54,12,24		5,13
6″	49,23,56,41,34,57,18,18,39,40		3,36,41,19, 2	
		1,11,19,25,29,12,53,22		5,13
8″	49,23,57,52,54,22,47,31,33, 2		3,36,41,24,15	
		1,11,19,21,52,31,29, 7		5,13
10″	49,23,59, 4,13,44,40, 3, 2, 9		3,36,41,29,28	
		1,11,19,18,15,49,59,39		5,13
12″	49,24, 0,15,33, 2,55,53, 1,48		3,36,41,34,41	
		1,11,19,14,39, 8,24,58		5,13
14″	49,24, 1,26,52,17,35, 1,26,46		3,36,41,39,54	
		1,11,19,11, 2,26,45, 4		5,13
16″	49,24, 2,38,11,28,37,28,11,50		3,36,41,45, 7	
		1,11,19, 7,25,44,59,57		5,13
18″	49,24, 3,49,30,36, 3,13,11,47		3,36,41,50,20	
		1,11,19, 3,49, 3, 9,37		5,13
20″	49,24, 5, 0,49,39,52,16,21,24		3,36,41,55,33	
		1,11,19, 0,12,21,14, 4		5,13
22″	49,24, 6,12, 8,40, 4,37,35,28		3,36,42, 0,46	
		1,11,18,56,35,39,13,18		5,13
24″	49,24, 7,23,27,36,40,16,48,46		3,36,42, 5,59	
		1,11,18,52,58,57, 7,19		5,13
26″	49,24, 8,34,46,29,39,13,56, 5		3,36,42,11,12	
		1,11,18,49,22,14,56, 7		5,13
28″	49,24, 9,46, 5,19, 1,28,52,12		3,36,42,16,25	
		1,11,18,45,45,32,39,42		5,13
30″	49,24,10,57,24, 4,47, 1,31,54		3,36,42,21,38	
		1,11,18,42, 8,50,18, 4		5,13
32″	49,24,12, 8,42,46,55,51,49,58		3,36,42,26,51	
		1,11,18,38,32, 7,51,13		5,13
34″	49,24,13,20, 1,25,27,59,41,11		3,36,42,32, 4	
		1,11,18,34,55,25,19, 9		5,13
36″	49,24,14,31,20, 0,23,25, 0,20		3,36,42,37,17	
		1,11,18,31,18,42,41,52		5,13
38″	49,24,15,42,38,31,42, 7,42,12		3,36,42,42,30	
		1,11,18,27,41,59,59,22		5,13
40″	49,24,16,53,56,59,24, 7,41,34		3,36,42,47,43	
		1,11,18,24, 5,17,11,39		5,13
42″	49,24,18, 5,15,23,29,24,53,13		3,36,42,52,56	
		1,11,18,20,28,34,18,43		5,13
44″	49,24,19,16,33,43,57,59,11,56		3,36,42,58, 9	
		1,11,18,16,51,51,20,34		5,13
46″	49,24,20,27,52, 0,49,50,32,30		3,36,43, 3,22	
		1,11,18,13,15, 8,17,12		5,13
48″	49,24,21,39,10,14, 4,58,49,42		3,36,43, 8,35	
		1,11,18, 9,38,25, 8,37		5,13
50″	49,24,22,50,28,23,43,23,58,19		3,36,43,13,48	
		1,11,18, 6, 1,41,54,49		5,13
52″	49,24,24, 1,46,29,45, 5,53, 8		3,36,43,19, 1	
		1,11,18, 2,24,58,35,48		5,13
54″	49,24,25,13, 4,32,10, 4,28,56		3,36,43,24,14	
		1,11,17,58,48,15,11,34		5,13
56″	49,24,26,24,22,30,58,19,40,30		3,36,43,29,27	
		1,11,17,55,11,31,42, 7		5,13
58″	49,24,27,35,40,26, 9,51,22,37		3,36,43,34,40	
		1,11,17,51,34,48, 7,27		
60″	49,24,28,46,58,17,44,39,30, 4			
exact	49,24,28,46,58,17,44,39,42,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°26′ 0″	49,24,28,46,58,17,44,39,42,23			
		1,11,17,47,58, 4,28,54		
2″	49,24,29,58,16, 5,42,44,11,17		3,36,43,45, 0	
		1,11,17,44,21,20,43,54		5,13
4″	49,24,31, 9,33,50, 4, 4,55,11		3,36,43,50,13	
		1,11,17,40,44,36,53,41		5,13
6″	49,24,32,20,51,30,48,41,48,52		3,36,43,55,26	
		1,11,17,37, 7,52,58,15		5,13
8″	49,24,33,32, 9, 7,56,34,47, 7		3,36,44, 0,39	
		1,11,17,33,31, 8,57,36		5,13
10″	49,24,34,43,26,41,27,43,44,43		3,36,44, 5,52	
		1,11,17,29,54,24,51,44		5,13
12″	49,24,35,54,44,11,22, 8,36,27		3,36,44,11, 5	
		1,11,17,26,17,40,40,39		5,13
14″	49,24,37, 6, 1,37,39,49,17, 6		3,36,44,16,18	
		1,11,17,22,40,56,24,21		5,13
16″	49,24,38,17,19, 0,20,45,41,27		3,36,44,21,31	
		1,11,17,19, 4,12, 2,50		5,13
18″	49,24,39,28,36,19,24,57,44,17		3,36,44,26,44	
		1,11,17,15,27,27,36, 6		5,13
20″	49,24,40,39,53,34,52,25,20,23		3,36,44,31,57	
		1,11,17,11,50,43, 4, 9		5,13
22″	49,24,41,51,10,46,43, 8,24,32		3,36,44,37,10	
		1,11,17, 8,13,58,26,59		5,13
24″	49,24,43, 2,27,54,57, 6,51,31		3,36,44,42,23	
		1,11,17, 4,37,13,44,36		5,13
26″	49,24,44,13,44,59,34,20,36, 7		3,36,44,47,36	
		1,11,17, 1, 0,28,57, 0		5,13
28″	49,24,45,25, 2, 0,34,49,33, 7		3,36,44,52,49	
		1,11,16,57,23,44, 4,11		5,13
30″	49,24,46,36,18,57,58,33,37,18		3,36,44,58, 2	
		1,11,16,53,46,59, 6, 9		5,13
32″	49,24,47,47,35,51,45,32,43,27		3,36,45, 3,15	
		1,11,16,50,10,14, 2,54		5,13
34″	49,24,48,58,52,41,55,46,46,21		3,36,45, 8,28	
		1,11,16,46,33,28,54,26		5,13
36″	49,24,50,10, 9,28,29,15,40,47		3,36,45,13,41	
		1,11,16,42,56,43,40,45		5,13
38″	49,24,51,21,26,11,25,59,21,32		3,36,45,18,54	
		1,11,16,39,19,58,21,51		5,13
40″	49,24,52,32,42,50,45,57,43,23		3,36,45,24, 7	
		1,11,16,35,43,12,57,44		5,13
42″	49,24,53,43,59,26,29,10,41, 7		3,36,45,29,20	
		1,11,16,32, 6,27,28,24		5,13
44″	49,24,54,55,15,58,35,38, 9,31		3,36,45,34,33	
		1,11,16,28,29,41,53,51		5,13
46″	49,24,56, 6,32,27, 5,20, 3,22		3,36,45,39,46	
		1,11,16,24,52,56,14, 5		5,13
48″	49,24,57,17,48,51,58,16,17,27		3,36,45,44,59	
		1,11,16,21,16,10,29, 6		5,13
50″	49,24,58,29, 5,13,14,26,46,33		3,36,45,50,12	
		1,11,16,17,39,24,38,54		5,13
52″	49,24,59,40,21,30,53,51,25,27		3,36,45,55,25	
		1,11,16,14, 2,38,43,29		5,13
54″	49,25, 0,51,37,44,56,30, 8,56		3,36,46, 0,38	
		1,11,16,10,25,52,42,51		5,13
56″	49,25, 2, 2,53,55,22,22,51,47		3,36,46, 5,51	
		1,11,16, 6,49, 6,37, 0		5,13
58″	49,25, 3,14,10, 2,11,29,28,47		3,36,46,11, 4	
		1,11,16, 3,12,20,25,56		
60″	49,25, 4,25,26, 5,23,49,54,43			
exact	49,25, 4,25,26, 5,23,50,14,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°27′ 0″	49,25, 4,25,26, 5,23,50,14,38			
		1,11,15,59,35,34,11,51		
2″	49,25, 5,36,42, 4,59,24,26,29		3,36,46,21,20	
		1,11,15,55,58,47,50,31		5,13
4″	49,25, 6,47,58, 0,58,12,17, 0		3,36,46,26,33	
		1,11,15,52,22, 1,23,58		5,13
6″	49,25, 7,59,13,53,20,13,40,58		3,36,46,31,46	
		1,11,15,48,45,14,52,12		5,13
8″	49,25, 9,10,29,42, 5,28,33,10		3,36,46,36,59	
		1,11,15,45, 8,28,15,13		5,13
10″	49,25,10,21,45,27,13,56,48,23		3,36,46,42,12	
		1,11,15,41,31,41,33, 1		5,13
12″	49,25,11,33, 1, 8,45,38,21,24		3,36,46,47,25	
		1,11,15,37,54,54,45,36		5,13
14″	49,25,12,44,16,46,40,33, 7, 0		3,36,46,52,38	
		1,11,15,34,18, 7,52,58		5,13
16″	49,25,13,55,32,20,58,40,59,58		3,36,46,57,51	
		1,11,15,30,41,20,55, 7		5,13
18″	49,25,15, 6,47,51,40, 1,55, 5		3,36,47, 3, 4	
		1,11,15,27, 4,33,52, 3		5,13
20″	49,25,16,18, 3,18,44,35,47, 8		3,36,47, 8,17	
		1,11,15,23,27,46,43,46		5,13
22″	49,25,17,29,18,42,12,22,30,54		3,36,47,13,30	
		1,11,15,19,50,59,30,16		5,13
24″	49,25,18,40,34, 2, 3,22, 1,10		3,36,47,18,43	
		1,11,15,16,14,12,11,33		5,13
26″	49,25,19,51,49,18,17,34,12,43		3,36,47,23,56	
		1,11,15,12,37,24,47,37		5,13
28″	49,25,21, 3, 4,30,54,59, 0,20		3,36,47,29, 9	
		1,11,15, 9, 0,37,18,28		5,13
30″	49,25,22,14,19,39,55,36,18,48		3,36,47,34,22	
		1,11,15, 5,23,49,44, 6		5,13
32″	49,25,23,25,34,45,19,26, 2,54		3,36,47,39,35	
		1,11,15, 1,47, 2, 4,31		5,13
34″	49,25,24,36,49,47, 6,28, 7,25		3,36,47,44,48	
		1,11,14,58,10,14,19,43		5,13
36″	49,25,25,48, 4,45,16,42,27, 8		3,36,47,50, 1	
		1,11,14,54,33,26,29,42		5,13
38″	49,25,26,59,19,39,50, 8,56,50		3,36,47,55,14	
		1,11,14,50,56,38,34,28		5,13
40″	49,25,28,10,34,30,46,47,31,18		3,36,48, 0,27	
		1,11,14,47,19,50,34, 1		5,13
42″	49,25,29,21,49,18, 6,38, 5,19		3,36,48, 5,40	
		1,11,14,43,43, 2,28,21		5,13
44″	49,25,30,33, 4, 1,49,40,33,40		3,36,48,10,53	
		1,11,14,40, 6,14,17,28		5,13
46″	49,25,31,44,18,41,55,54,51, 8		3,36,48,16, 6	
		1,11,14,36,29,26, 1,22		5,13
48″	49,25,32,55,33,18,25,20,52,30		3,36,48,21,19	
		1,11,14,32,52,37,40, 3		5,13
50″	49,25,34, 6,47,51,17,58,32,33		3,36,48,26,32	
		1,11,14,29,15,49,13,31		5,13
52″	49,25,35,18, 2,20,33,47,46, 4		3,36,48,31,45	
		1,11,14,25,39, 0,41,46		5,13
54″	49,25,36,29,16,46,12,48,27,50		3,36,48,36,58	
		1,11,14,22, 2,12, 4,48		5,13
56″	49,25,37,40,31, 8,15, 0,32,38		3,36,48,42,11	
		1,11,14,18,25,23,22,37		5,13
58″	49,25,38,51,45,26,40,23,55,15		3,36,48,47,24	
		1,11,14,14,48,34,35,13		
60″	49,25,40, 2,59,41,28,58,30,28			
exact	49,25,40, 2,59,41,28,58,57,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°28′ 0″	49,25,40, 2,59,41,28,58,57,45			
		1,11,14,11,11,45,45,39		
2″	49,25,41,14,13,52,40,44,43,24		3,36,48,57,36	
		1,11,14, 7,34,56,48, 3		5,12
4″	49,25,42,25,28, 0,15,41,31,27		3,36,49, 2,48	
		1,11,14, 3,58, 7,45,15		5,12
6″	49,25,43,36,42, 4,13,49,16,42		3,36,49, 8, 0	
		1,11,14, 0,21,18,37,15		5,12
8″	49,25,44,47,56, 4,35, 7,53,57		3,36,49,13,12	
		1,11,13,56,44,29,24, 3		5,12
10″	49,25,45,59,10, 1,19,37,18, 0		3,36,49,18,24	
		1,11,13,53, 7,40, 5,39		5,12
12″	49,25,47,10,23,54,27,17,23,39		3,36,49,23,36	
		1,11,13,49,30,50,42, 3		5,12
14″	49,25,48,21,37,43,58, 8, 5,42		3,36,49,28,48	
		1,11,13,45,54, 1,13,15		5,12
16″	49,25,49,32,51,29,52, 9,18,57		3,36,49,34, 0	
		1,11,13,42,17,11,39,15		5,12
18″	49,25,50,44, 5,12, 9,20,58,12		3,36,49,39,12	
		1,11,13,38,40,22, 0, 3		5,12
20″	49,25,51,55,18,50,49,42,58,15		3,36,49,44,24	
		1,11,13,35, 3,32,15,39		5,12
22″	49,25,53, 6,32,25,53,15,13,54		3,36,49,49,36	
		1,11,13,31,26,42,26, 3		5,12
24″	49,25,54,17,45,57,19,57,39,57		3,36,49,54,48	
		1,11,13,27,49,52,31,15		5,12
26″	49,25,55,28,59,25, 9,50,11,12		3,36,50, 0, 0	
		1,11,13,24,13, 2,31,15		5,12
28″	49,25,56,40,12,49,22,52,42,27		3,36,50, 5,12	
		1,11,13,20,36,12,26, 3		5,12
30″	49,25,57,51,26, 9,59, 5, 8,30		3,36,50,10,24	
		1,11,13,16,59,22,15,39		5,12
32″	49,25,59, 2,39,26,58,27,24, 9		3,36,50,15,36	
		1,11,13,13,22,32, 0, 3		5,12
34″	49,26, 0,13,52,40,20,59,24,12		3,36,50,20,48	
		1,11,13, 9,45,41,39,15		5,12
36″	49,26, 1,25, 5,50, 6,41, 3,27		3,36,50,26, 0	
		1,11,13, 6, 8,51,13,15		5,12
38″	49,26, 2,36,18,56,15,32,16,42		3,36,50,31,12	
		1,11,13, 2,32, 0,42, 3		5,12
40″	49,26, 3,47,31,58,47,32,58,45		3,36,50,36,24	
		1,11,12,58,55,10, 5,39		5,12
42″	49,26, 4,58,44,57,42,43, 4,24		3,36,50,41,36	
		1,11,12,55,18,19,24, 3		5,12
44″	49,26, 6, 9,57,53, 1, 2,28,27		3,36,50,46,48	
		1,11,12,51,41,28,37,15		5,12
46″	49,26, 7,21,10,44,42,31, 5,42		3,36,50,52, 0	
		1,11,12,48, 4,37,45,15		5,12
48″	49,26, 8,32,23,32,47, 8,50,57		3,36,50,57,12	
		1,11,12,44,27,46,48, 3		5,12
50″	49,26, 9,43,36,17,14,55,39, 0		3,36,51, 2,24	
		1,11,12,40,50,55,45,39		5,12
52″	49,26,10,54,48,58, 5,51,24,39		3,36,51, 7,36	
		1,11,12,37,14, 4,38, 3		5,12
54″	49,26,12, 6, 1,35,19,56, 2,42		3,36,51,12,48	
		1,11,12,33,37,13,25,15		5,12
56″	49,26,13,17,14, 8,57, 9,27,57		3,36,51,18, 0	
		1,11,12,30, 0,22, 7,15		5,12
58″	49,26,14,28,26,38,57,31,35,12		3,36,51,23,12	
		1,11,12,26,23,30,44, 3		
60″	49,26,15,39,39, 5,21, 2,19,15			
exact	49,26,15,39,39, 5,21, 1,45,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°29′ 0″	49,26,15,39,39, 5,21, 1,45,54			
		1,11,12,22,46,39,12,17		
2″	49,26,16,50,51,28, 7,40,58,11		3,36,51,33,49	
		1,11,12,19, 9,47,38,28		5,12
4″	49,26,18, 2, 3,47,17,28,36,39		3,36,51,39, 1	
		1,11,12,15,32,55,59,27		5,12
6″	49,26,19,13,16, 2,50,24,36, 6		3,36,51,44,13	
		1,11,12,11,56, 4,15,14		5,12
8″	49,26,20,24,28,14,46,28,51,20		3,36,51,49,25	
		1,11,12, 8,19,12,25,49		5,12
10″	49,26,21,35,40,23, 5,41,17, 9		3,36,51,54,37	
		1,11,12, 4,42,20,31,12		5,12
12″	49,26,22,46,52,27,48, 1,48,21		3,36,51,59,49	
		1,11,12, 1, 5,28,31,23		5,12
14″	49,26,23,58, 4,28,53,30,19,44		3,36,52, 5, 1	
		1,11,11,57,28,36,26,22		5,12
16″	49,26,25, 9,16,26,22, 6,46, 6		3,36,52,10,13	
		1,11,11,53,51,44,16, 9		5,12
18″	49,26,26,20,28,20,13,51, 2,15		3,36,52,15,25	
		1,11,11,50,14,52, 0,44		5,12
20″	49,26,27,31,40,10,28,43, 2,59		3,36,52,20,37	
		1,11,11,46,37,59,40, 7		5,12
22″	49,26,28,42,51,57, 6,42,43, 6		3,36,52,25,49	
		1,11,11,43, 1, 7,14,18		5,12
24″	49,26,29,54, 3,40, 7,49,57,24		3,36,52,31, 1	
		1,11,11,39,24,14,43,17		5,12
26″	49,26,31, 5,15,19,32, 4,40,41		3,36,52,36,13	
		1,11,11,35,47,22, 7, 4		5,12
28″	49,26,32,16,26,55,19,26,47,45		3,36,52,41,25	
		1,11,11,32,10,29,25,39		5,12
30″	49,26,33,27,38,27,29,56,13,24		3,36,52,46,37	
		1,11,11,28,33,36,39, 2		5,12
32″	49,26,34,38,49,56, 3,32,52,26		3,36,52,51,49	
		1,11,11,24,56,43,47,13		5,12
34″	49,26,35,50, 1,21, 0,16,39,39		3,36,52,57, 1	
		1,11,11,21,19,50,50,12		5,12
36″	49,26,37, 1,12,42,20, 7,29,51		3,36,53, 2,13	
		1,11,11,17,42,57,47,59		5,12
38″	49,26,38,12,24, 0, 3, 5,17,50		3,36,53, 7,25	
		1,11,11,14, 6, 4,40,34		5,12
40″	49,26,39,23,35,14, 9, 9,58,24		3,36,53,12,37	
		1,11,11,10,29,11,27,57		5,12
42″	49,26,40,34,46,24,38,21,26,21		3,36,53,17,49	
		1,11,11, 6,52,18,10, 8		5,12
44″	49,26,41,45,57,31,30,39,36,29		3,36,53,23, 1	
		1,11,11, 3,15,24,47, 7		5,12
46″	49,26,42,57, 8,34,46, 4,23,36		3,36,53,28,13	
		1,11,10,59,38,31,18,54		5,12
48″	49,26,44, 8,19,34,24,35,42,30		3,36,53,33,25	
		1,11,10,56, 1,37,45,29		5,12
50″	49,26,45,19,30,30,26,13,27,59		3,36,53,38,37	
		1,11,10,52,24,44, 6,52		5,12
52″	49,26,46,30,41,22,50,57,34,51		3,36,53,43,49	
		1,11,10,48,47,50,23, 3		5,12
54″	49,26,47,41,52,11,38,47,57,54		3,36,53,49, 1	
		1,11,10,45,10,56,34, 2		5,12
56″	49,26,48,53, 2,56,49,44,31,56		3,36,53,54,13	
		1,11,10,41,34, 2,39,49		5,12
58″	49,26,50, 4,13,38,23,47,11,45		3,36,53,59,25	
		1,11,10,37,57, 8,40,24		
60″	49,26,51,15,24,16,20,55,52, 9			
exact	49,26,51,15,24,16,20,55,32,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°30′ 0″	49,26,51,15,24,16,20,55,32,45			
		1,11,10,34,20,14,33,43		
2″	49,26,52,26,34,50,41,10, 6,28		3,36,54, 9,57	
		1,11,10,30,43,20,23,46		5,12
4″	49,26,53,37,45,21,24,30,30,14		3,36,54,15, 9	
		1,11,10,27, 6,26, 8,37		5,12
6″	49,26,54,48,55,48,30,56,38,51		3,36,54,20,21	
		1,11,10,23,29,31,48,16		5,12
8″	49,26,56, 0, 6,12, 0,28,27, 7		3,36,54,25,33	
		1,11,10,19,52,37,22,43		5,12
10″	49,26,57,11,16,31,53, 5,49,50		3,36,54,30,45	
		1,11,10,16,15,42,51,58		5,12
12″	49,26,58,22,26,48, 8,48,41,48		3,36,54,35,57	
		1,11,10,12,38,48,16, 1		5,12
14″	49,26,59,33,37, 0,47,36,57,49		3,36,54,41, 9	
		1,11,10, 9, 1,53,34,52		5,12
16″	49,27, 0,44,47, 9,49,30,32,41		3,36,54,46,21	
		1,11,10, 5,24,58,48,31		5,12
18″	49,27, 1,55,57,15,14,29,21,12		3,36,54,51,33	
		1,11,10, 1,48, 3,56,58		5,12
20″	49,27, 3, 7, 7,17, 2,33,18,10		3,36,54,56,45	
		1,11, 9,58,11, 9, 0,13		5,12
22″	49,27, 4,18,17,15,13,42,18,23		3,36,55, 1,57	
		1,11, 9,54,34,13,58,16		5,12
24″	49,27, 5,29,27, 9,47,56,16,39		3,36,55, 7, 9	
		1,11, 9,50,57,18,51, 7		5,12
26″	49,27, 6,40,37, 0,45,15, 7,46		3,36,55,12,21	
		1,11, 9,47,20,23,38,46		5,12
28″	49,27, 7,51,46,48, 5,38,46,32		3,36,55,17,33	
		1,11, 9,43,43,28,21,13		5,12
30″	49,27, 9, 2,56,31,49, 7, 7,45		3,36,55,22,45	
		1,11, 9,40, 6,32,58,28		5,12
32″	49,27,10,14, 6,11,55,40, 6,13		3,36,55,27,57	
		1,11, 9,36,29,37,30,31		5,12
34″	49,27,11,25,15,48,25,17,36,44		3,36,55,33, 9	
		1,11, 9,32,52,41,57,22		5,12
36″	49,27,12,36,25,21,17,59,34, 6		3,36,55,38,21	
		1,11, 9,29,15,46,19, 1		5,12
38″	49,27,13,47,34,50,33,45,53, 7		3,36,55,43,33	
		1,11, 9,25,38,50,35,28		5,12
40″	49,27,14,58,44,16,12,36,28,35		3,36,55,48,45	
		1,11, 9,22, 1,54,46,43		5,12
42″	49,27,16, 9,53,38,14,31,15,18		3,36,55,53,57	
		1,11, 9,18,24,58,52,46		5,12
44″	49,27,17,21, 2,56,39,30, 8, 4		3,36,55,59, 9	
		1,11, 9,14,48, 2,53,37		5,12
46″	49,27,18,32,12,11,27,33, 1,41		3,36,56, 4,21	
		1,11, 9,11,11, 6,49,16		5,12
48″	49,27,19,43,21,22,38,39,50,57		3,36,56, 9,33	
		1,11, 9, 7,34,10,39,43		5,12
50″	49,27,20,54,30,30,12,50,30,40		3,36,56,14,45	
		1,11, 9, 3,57,14,24,58		5,12
52″	49,27,22, 5,39,34,10, 4,55,38		3,36,56,19,57	
		1,11, 9, 0,20,18, 5, 1		5,12
54″	49,27,23,16,48,34,30,23, 0,39		3,36,56,25, 9	
		1,11, 8,56,43,21,39,52		5,12
56″	49,27,24,27,57,31,13,44,40,31		3,36,56,30,21	
		1,11, 8,53, 6,25, 9,31		5,12
58″	49,27,25,39, 6,24,20, 9,50, 2		3,36,56,35,33	
		1,11, 8,49,29,28,33,58		
60″	49,27,26,50,15,13,49,38,24, 0			
exact	49,27,26,50,15,13,49,38,11,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°31′ 0″	49,27,26,50,15,13,49,38,11,21			
		1,11, 8,45,52,31,51,57		
2″	49,27,28, 1,23,59,42,10, 3,18		3,36,56,46, 1	
		1,11, 8,42,15,35, 5,56		5,12
4″	49,27,29,12,32,41,57,45, 9,14		3,36,56,51,13	
		1,11, 8,38,38,38,14,43		5,12
6″	49,27,30,23,41,20,36,23,23,57		3,36,56,56,25	
		1,11, 8,35, 1,41,18,18		5,12
8″	49,27,31,34,49,55,38, 4,42,15		3,36,57, 1,37	
		1,11, 8,31,24,44,16,41		5,12
10″	49,27,32,45,58,27, 2,48,58,56		3,36,57, 6,49	
		1,11, 8,27,47,47, 9,52		5,12
12″	49,27,33,57, 6,54,50,36, 8,48		3,36,57,12, 1	
		1,11, 8,24,10,49,57,51		5,12
14″	49,27,35, 8,15,19, 1,26, 6,39		3,36,57,17,13	
		1,11, 8,20,33,52,40,38		5,12
16″	49,27,36,19,23,39,35,18,47,17		3,36,57,22,25	
		1,11, 8,16,56,55,18,13		5,12
18″	49,27,37,30,31,56,32,14, 5,30		3,36,57,27,37	
		1,11, 8,13,19,57,50,36		5,12
20″	49,27,38,41,40, 9,52,11,56, 6		3,36,57,32,49	
		1,11, 8, 9,43, 0,17,47		5,12
22″	49,27,39,52,48,19,35,12,13,53		3,36,57,38, 1	
		1,11, 8, 6, 6, 2,39,46		5,12
24″	49,27,41, 3,56,25,41,14,53,39		3,36,57,43,13	
		1,11, 8, 2,29, 4,56,33		5,12
26″	49,27,42,15, 4,28,10,19,50,12		3,36,57,48,25	
		1,11, 7,58,52, 7, 8, 8		5,12
28″	49,27,43,26,12,27, 2,26,58,20		3,36,57,53,37	
		1,11, 7,55,15, 9,14,31		5,12
30″	49,27,44,37,20,22,17,36,12,51		3,36,57,58,49	
		1,11, 7,51,38,11,15,42		5,12
32″	49,27,45,48,28,13,55,47,28,33		3,36,58, 4, 1	
		1,11, 7,48, 1,13,11,41		5,12
34″	49,27,46,59,36, 1,57, 0,40,14		3,36,58, 9,13	
		1,11, 7,44,24,15, 2,28		5,12
36″	49,27,48,10,43,46,21,15,42,42		3,36,58,14,25	
		1,11, 7,40,47,16,48, 3		5,12
38″	49,27,49,21,51,27, 8,32,30,45		3,36,58,19,37	
		1,11, 7,37,10,18,28,26		5,12
40″	49,27,50,32,59, 4,18,50,59,11		3,36,58,24,49	
		1,11, 7,33,33,20, 3,37		5,12
42″	49,27,51,44, 6,37,52,11, 2,48		3,36,58,30, 1	
		1,11, 7,29,56,21,33,36		5,12
44″	49,27,52,55,14, 7,48,32,36,24		3,36,58,35,13	
		1,11, 7,26,19,22,58,23		5,12
46″	49,27,54, 6,21,34, 7,55,34,47		3,36,58,40,25	
		1,11, 7,22,42,24,17,58		5,12
48″	49,27,55,17,28,56,50,19,52,45		3,36,58,45,37	
		1,11, 7,19, 5,25,32,21		5,12
50″	49,27,56,28,36,15,55,45,25, 6		3,36,58,50,49	
		1,11, 7,15,28,26,41,32		5,12
52″	49,27,57,39,43,31,24,12, 6,38		3,36,58,56, 1	
		1,11, 7,11,51,27,45,31		5,12
54″	49,27,58,50,50,43,15,39,52, 9		3,36,59, 1,13	
		1,11, 7, 8,14,28,44,18		5,12
56″	49,28, 0, 1,57,51,30, 8,36,27		3,36,59, 6,25	
		1,11, 7, 4,37,29,37,53		5,12
58″	49,28, 1,13, 4,56, 7,38,14,20		3,36,59,11,37	
		1,11, 7, 1, 0,30,26,16		
60″	49,28, 2,24,11,57, 8, 8,40,36			
exact	49,28, 2,24,11,57, 8, 8,34,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°32′ 0″	49,28, 2,24,11,57, 8, 8,34,15			
		1,11, 6,57,23,31, 8,58		
2″	49,28, 3,35,18,54,31,39,43,13		3,36,59,22, 2	
		1,11, 6,53,46,31,46,56		5,12
4″	49,28, 4,46,25,48,18,11,30, 9		3,36,59,27,14	
		1,11, 6,50, 9,32,19,42		5,12
6″	49,28, 5,57,32,38,27,43,49,51		3,36,59,32,26	
		1,11, 6,46,32,32,47,16		5,12
8″	49,28, 7, 8,39,25, 0,16,37, 7		3,36,59,37,38	
		1,11, 6,42,55,33, 9,38		5,12
10″	49,28, 8,19,46, 7,55,49,46,45		3,36,59,42,50	
		1,11, 6,39,18,33,26,48		5,12
12″	49,28, 9,30,52,47,14,23,13,33		3,36,59,48, 2	
		1,11, 6,35,41,33,38,46		5,12
14″	49,28,10,41,59,22,55,56,52,19		3,36,59,53,14	
		1,11, 6,32, 4,33,45,32		5,12
16″	49,28,11,53, 5,55, 0,30,37,51		3,36,59,58,26	
		1,11, 6,28,27,33,47, 6		5,12
18″	49,28,13, 4,12,23,28, 4,24,57		3,37, 0, 3,38	
		1,11, 6,24,50,33,43,28		5,12
20″	49,28,14,15,18,48,18,38, 8,25		3,37, 0, 8,50	
		1,11, 6,21,13,33,34,38		5,12
22″	49,28,15,26,25, 9,32,11,43, 3		3,37, 0,14, 2	
		1,11, 6,17,36,33,20,36		5,12
24″	49,28,16,37,31,27, 8,45, 3,39		3,37, 0,19,14	
		1,11, 6,13,59,33, 1,22		5,12
26″	49,28,17,48,37,41, 8,18, 5, 1		3,37, 0,24,26	
		1,11, 6,10,22,32,36,56		5,12
28″	49,28,18,59,43,51,30,50,41,57		3,37, 0,29,38	
		1,11, 6, 6,45,32, 7,18		5,12
30″	49,28,20,10,49,58,16,22,49,15		3,37, 0,34,50	
		1,11, 6, 3, 8,31,32,28		5,12
32″	49,28,21,21,56, 1,24,54,21,43		3,37, 0,40, 2	
		1,11, 5,59,31,30,52,26		5,12
34″	49,28,22,33, 2, 0,56,25,14, 9		3,37, 0,45,14	
		1,11, 5,55,54,30, 7,12		5,12
36″	49,28,23,44, 7,56,50,55,21,21		3,37, 0,50,26	
		1,11, 5,52,17,29,16,46		5,12
38″	49,28,24,55,13,49, 8,24,38, 7		3,37, 0,55,38	
		1,11, 5,48,40,28,21, 8		5,12
40″	49,28,26, 6,19,37,48,52,59,15		3,37, 1, 0,50	
		1,11, 5,45, 3,27,20,18		5,12
42″	49,28,27,17,25,22,52,20,19,33		3,37, 1, 6, 2	
		1,11, 5,41,26,26,14,16		5,12
44″	49,28,28,28,31, 4,18,46,33,49		3,37, 1,11,14	
		1,11, 5,37,49,25, 3, 2		5,12
46″	49,28,29,39,36,42, 8,11,36,51		3,37, 1,16,26	
		1,11, 5,34,12,23,46,36		5,12
48″	49,28,30,50,42,16,20,35,23,27		3,37, 1,21,38	
		1,11, 5,30,35,22,24,58		5,12
50″	49,28,32, 1,47,46,55,57,48,25		3,37, 1,26,50	
		1,11, 5,26,58,20,58, 8		5,12
52″	49,28,33,12,53,13,54,18,46,33		3,37, 1,32, 2	
		1,11, 5,23,21,19,26, 6		5,12
54″	49,28,34,23,58,37,15,38,12,39		3,37, 1,37,14	
		1,11, 5,19,44,17,48,52		5,12
56″	49,28,35,35, 3,56,59,56, 1,31		3,37, 1,42,26	
		1,11, 5,16, 7,16, 6,26		5,12
58″	49,28,36,46, 9,13, 7,12, 7,57		3,37, 1,47,38	
		1,11, 5,12,30,14,18,48		
60″	49,28,37,57,14,25,37,26,26,45			
exact	49,28,37,57,14,25,37,26,33,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°33′ 0″	49,28,37,57,14,25,37,26,33,29			
		1,11, 5, 8,53,12,26,44		
2″	49,28,39, 8,19,34,30,39, 0,13		3,37, 1,57,58	
		1,11, 5, 5,16,10,28,46		5,12
4″	49,28,40,19,24,39,46,49,28,59		3,37, 2, 3,10	
		1,11, 5, 1,39, 8,25,36		5,12
6″	49,28,41,30,29,41,25,57,54,35		3,37, 2, 8,22	
		1,11, 4,58, 2, 6,17,14		5,12
8″	49,28,42,41,34,39,28, 4,11,49		3,37, 2,13,34	
		1,11, 4,54,25, 4, 3,40		5,12
10″	49,28,43,52,39,33,53, 8,15,29		3,37, 2,18,46	
		1,11, 4,50,48, 1,44,54		5,12
12″	49,28,45, 3,44,24,41,10, 0,23		3,37, 2,23,58	
		1,11, 4,47,10,59,20,56		5,12
14″	49,28,46,14,49,11,52, 9,21,19		3,37, 2,29,10	
		1,11, 4,43,33,56,51,46		5,12
16″	49,28,47,25,53,55,26, 6,13, 5		3,37, 2,34,22	
		1,11, 4,39,56,54,17,24		5,12
18″	49,28,48,36,58,35,23, 0,30,29		3,37, 2,39,34	
		1,11, 4,36,19,51,37,50		5,12
20″	49,28,49,48, 3,11,42,52, 8,19		3,37, 2,44,46	
		1,11, 4,32,42,48,53, 4		5,12
22″	49,28,50,59, 7,44,25,41, 1,23		3,37, 2,49,58	
		1,11, 4,29, 5,46, 3, 6		5,12
24″	49,28,52,10,12,13,31,27, 4,29		3,37, 2,55,10	
		1,11, 4,25,28,43, 7,56		5,12
26″	49,28,53,21,16,39, 0,10,12,25		3,37, 3, 0,22	
		1,11, 4,21,51,40, 7,34		5,12
28″	49,28,54,32,21, 0,51,50,19,59		3,37, 3, 5,34	
		1,11, 4,18,14,37, 2, 0		5,12
30″	49,28,55,43,25,19, 6,27,21,59		3,37, 3,10,46	
		1,11, 4,14,37,33,51,14		5,12
32″	49,28,56,54,29,33,44, 1,13,13		3,37, 3,15,58	
		1,11, 4,11, 0,30,35,16		5,12
34″	49,28,58, 5,33,44,44,31,48,29		3,37, 3,21,10	
		1,11, 4, 7,23,27,14, 6		5,12
36″	49,28,59,16,37,52, 7,59, 2,35		3,37, 3,26,22	
		1,11, 4, 3,46,23,47,44		5,12
38″	49,29, 0,27,41,55,54,22,50,19		3,37, 3,31,34	
		1,11, 4, 0, 9,20,16,10		5,12
40″	49,29, 1,38,45,56, 3,43, 6,29		3,37, 3,36,46	
		1,11, 3,56,32,16,39,24		5,12
42″	49,29, 2,49,49,52,35,59,45,53		3,37, 3,41,58	
		1,11, 3,52,55,12,57,26		5,12
44″	49,29, 4, 0,53,45,31,12,43,19		3,37, 3,47,10	
		1,11, 3,49,18, 9,10,16		5,12
46″	49,29, 5,11,57,34,49,21,53,35		3,37, 3,52,22	
		1,11, 3,45,41, 5,17,54		5,12
48″	49,29, 6,23, 1,20,30,27,11,29		3,37, 3,57,34	
		1,11, 3,42, 4, 1,20,20		5,12
50″	49,29, 7,34, 5, 2,34,28,31,49		3,37, 4, 2,46	
		1,11, 3,38,26,57,17,34		5,12
52″	49,29, 8,45, 8,41, 1,25,49,23		3,37, 4, 7,58	
		1,11, 3,34,49,53, 9,36		5,12
54″	49,29, 9,56,12,15,51,18,58,59		3,37, 4,13,10	
		1,11, 3,31,12,48,56,26		5,12
56″	49,29,11, 7,15,47, 4, 7,55,25		3,37, 4,18,22	
		1,11, 3,27,35,44,38, 4		5,12
58″	49,29,12,18,19,14,39,52,33,29		3,37, 4,23,34	
		1,11, 3,23,58,40,14,30		
60″	49,29,13,29,22,38,38,32,47,59			
exact	49,29,13,29,22,38,38,33, 0,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°34′ 0″	49,29,13,29,22,38,38,33, 0,34			
		1,11, 3,20,21,35,47,15		
2″	49,29,14,40,25,59, 0, 8,47,49		3,37, 4,33,51	
		1,11, 3,16,44,31,13,24		5,12
4″	49,29,15,51,29,15,44,40, 1,13		3,37, 4,39, 3	
		1,11, 3,13, 7,26,34,21		5,12
6″	49,29,17, 2,32,28,52, 6,35,34		3,37, 4,44,15	
		1,11, 3, 9,30,21,50, 6		5,12
8″	49,29,18,13,35,38,22,28,25,40		3,37, 4,49,27	
		1,11, 3, 5,53,17, 0,39		5,12
10″	49,29,19,24,38,44,15,45,26,19		3,37, 4,54,39	
		1,11, 3, 2,16,12, 6, 0		5,12
12″	49,29,20,35,41,46,31,57,32,19		3,37, 4,59,51	
		1,11, 2,58,39, 7, 6, 9		5,12
14″	49,29,21,46,44,45,11, 4,38,28		3,37, 5, 5, 3	
		1,11, 2,55, 2, 2, 1, 6		5,12
16″	49,29,22,57,47,40,13, 6,39,34		3,37, 5,10,15	
		1,11, 2,51,24,56,50,51		5,12
18″	49,29,24, 8,50,31,38, 3,30,25		3,37, 5,15,27	
		1,11, 2,47,47,51,35,24		5,12
20″	49,29,25,19,53,19,25,55, 5,49		3,37, 5,20,39	
		1,11, 2,44,10,46,14,45		5,12
22″	49,29,26,30,56, 3,36,41,20,34		3,37, 5,25,51	
		1,11, 2,40,33,40,48,54		5,12
24″	49,29,27,41,58,44,10,22, 9,28		3,37, 5,31, 3	
		1,11, 2,36,56,35,17,51		5,12
26″	49,29,28,53, 1,21, 6,57,27,19		3,37, 5,36,15	
		1,11, 2,33,19,29,41,36		5,12
28″	49,29,30, 4, 3,54,26,27, 8,55		3,37, 5,41,27	
		1,11, 2,29,42,24, 0, 9		5,12
30″	49,29,31,15, 6,24, 8,51, 9, 4		3,37, 5,46,39	
		1,11, 2,26, 5,18,13,30		5,12
32″	49,29,32,26, 8,50,14, 9,22,34		3,37, 5,51,51	
		1,11, 2,22,28,12,21,39		5,12
34″	49,29,33,37,11,12,42,21,44,13		3,37, 5,57, 3	
		1,11, 2,18,51, 6,24,36		5,12
36″	49,29,34,48,13,31,33,28, 8,49		3,37, 6, 2,15	
		1,11, 2,15,14, 0,22,21		5,12
38″	49,29,35,59,15,46,47,28,31,10		3,37, 6, 7,27	
		1,11, 2,11,36,54,14,54		5,12
40″	49,29,37,10,17,58,24,22,46, 4		3,37, 6,12,39	
		1,11, 2, 7,59,48, 2,15		5,12
42″	49,29,38,21,20, 6,24,10,48,19		3,37, 6,17,51	
		1,11, 2, 4,22,41,44,24		5,12
44″	49,29,39,32,22,10,46,52,32,43		3,37, 6,23, 3	
		1,11, 2, 0,45,35,21,21		5,12
46″	49,29,40,43,24,11,32,27,54, 4		3,37, 6,28,15	
		1,11, 1,57, 8,28,53, 6		5,12
48″	49,29,41,54,26, 8,40,56,47,10		3,37, 6,33,27	
		1,11, 1,53,31,22,19,39		5,12
50″	49,29,43, 5,28, 2,12,19, 6,49		3,37, 6,38,39	
		1,11, 1,49,54,15,41, 0		5,12
52″	49,29,44,16,29,52, 6,34,47,49		3,37, 6,43,51	
		1,11, 1,46,17, 8,57, 9		5,12
54″	49,29,45,27,31,38,23,43,44,58		3,37, 6,49, 3	
		1,11, 1,42,40, 2, 8, 6		5,12
56″	49,29,46,38,33,21, 3,45,53, 4		3,37, 6,54,15	
		1,11, 1,39, 2,55,13,51		5,12
58″	49,29,47,49,35, 0, 6,41, 6,55		3,37, 6,59,27	
		1,11, 1,35,25,48,14,24		
60″	49,29,49, 0,36,35,32,29,21,19			
exact	49,29,49, 0,36,35,32,29,46,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°35′ 0″	49,29,49, 0,36,35,32,29,46,30			
		1,11, 1,31,48,41,12,29		
2″	49,29,50,11,38, 7,21,10,58,59		3,37, 7, 9,39	
		1,11, 1,28,11,34, 2,50		5,12
4″	49,29,51,22,39,35,32,45, 1,49		3,37, 7,14,51	
		1,11, 1,24,34,26,47,59		5,12
6″	49,29,52,33,41, 0, 7,11,49,48		3,37, 7,20, 3	
		1,11, 1,20,57,19,27,56		5,12
8″	49,29,53,44,42,21, 4,31,17,44		3,37, 7,25,15	
		1,11, 1,17,20,12, 2,41		5,12
10″	49,29,54,55,43,38,24,43,20,25		3,37, 7,30,27	
		1,11, 1,13,43, 4,32,14		5,12
12″	49,29,56, 6,44,52, 7,47,52,39		3,37, 7,35,39	
		1,11, 1,10, 5,56,56,35		5,12
14″	49,29,57,17,46, 2,13,44,49,14		3,37, 7,40,51	
		1,11, 1, 6,28,49,15,44		5,12
16″	49,29,58,28,47, 8,42,34, 4,58		3,37, 7,46, 3	
		1,11, 1, 2,51,41,29,41		5,12
18″	49,29,59,39,48,11,34,15,34,39		3,37, 7,51,15	
		1,11, 0,59,14,33,38,26		5,12
20″	49,30, 0,50,49,10,48,49,13, 5		3,37, 7,56,27	
		1,11, 0,55,37,25,41,59		5,12
22″	49,30, 2, 1,50, 6,26,14,55, 4		3,37, 8, 1,39	
		1,11, 0,52, 0,17,40,20		5,12
24″	49,30, 3,12,50,58,26,32,35,24		3,37, 8, 6,51	
		1,11, 0,48,23, 9,33,29		5,12
26″	49,30, 4,23,51,46,49,42, 8,53		3,37, 8,12, 3	
		1,11, 0,44,46, 1,21,26		5,12
28″	49,30, 5,34,52,31,35,43,30,19		3,37, 8,17,15	
		1,11, 0,41, 8,53, 4,11		5,12
30″	49,30, 6,45,53,12,44,36,34,30		3,37, 8,22,27	
		1,11, 0,37,31,44,41,44		5,12
32″	49,30, 7,56,53,50,16,21,16,14		3,37, 8,27,39	
		1,11, 0,33,54,36,14, 5		5,12
34″	49,30, 9, 7,54,24,10,57,30,19		3,37, 8,32,51	
		1,11, 0,30,17,27,41,14		5,12
36″	49,30,10,18,54,54,28,25,11,33		3,37, 8,38, 3	
		1,11, 0,26,40,19, 3,11		5,12
38″	49,30,11,29,55,21, 8,44,14,44		3,37, 8,43,15	
		1,11, 0,23, 3,10,19,56		5,12
40″	49,30,12,40,55,44,11,54,34,40		3,37, 8,48,27	
		1,11, 0,19,26, 1,31,29		5,12
42″	49,30,13,51,56, 3,37,56, 6, 9		3,37, 8,53,39	
		1,11, 0,15,48,52,37,50		5,12
44″	49,30,15, 2,56,19,26,48,43,59		3,37, 8,58,51	
		1,11, 0,12,11,43,38,59		5,12
46″	49,30,16,13,56,31,38,32,22,58		3,37, 9, 4, 3	
		1,11, 0, 8,34,34,34,56		5,12
48″	49,30,17,24,56,40,13, 6,57,54		3,37, 9, 9,15	
		1,11, 0, 4,57,25,25,41		5,12
50″	49,30,18,35,56,45,10,32,23,35		3,37, 9,14,27	
		1,11, 0, 1,20,16,11,14		5,12
52″	49,30,19,46,56,46,30,48,34,49		3,37, 9,19,39	
		1,10,59,57,43, 6,51,35		5,12
54″	49,30,20,57,56,44,13,55,26,24		3,37, 9,24,51	
		1,10,59,54, 5,57,26,44		5,12
56″	49,30,22, 8,56,38,19,52,53, 8		3,37, 9,30, 3	
		1,10,59,50,28,47,56,41		5,12
58″	49,30,23,19,56,28,48,40,49,49		3,37, 9,35,15	
		1,10,59,46,51,38,21,26		
60″	49,30,24,30,56,15,40,19,11,15			
exact	49,30,24,30,56,15,40,19,41,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°36′ 0″	49,30,24,30,56,15,40,19,41,50			
		1,10,59,43,14,28,44,25		
2″	49,30,25,41,55,58,54,48,26,15		3,37, 9,45,24	
		1,10,59,39,37,18,59, 1		5,11
4″	49,30,26,52,55,38,32, 7,25,16		3,37, 9,50,35	
		1,10,59,36, 0, 9, 8,26		5,11
6″	49,30,28, 3,55,14,32,16,33,42		3,37, 9,55,46	
		1,10,59,32,22,59,12,40		5,11
8″	49,30,29,14,54,46,55,15,46,22		3,37,10, 0,57	
		1,10,59,28,45,49,11,43		5,11
10″	49,30,30,25,54,15,41, 4,58, 5		3,37,10, 6, 8	
		1,10,59,25, 8,39, 5,35		5,11
12″	49,30,31,36,53,40,49,44, 3,40		3,37,10,11,19	
		1,10,59,21,31,28,54,16		5,11
14″	49,30,32,47,53, 2,21,12,57,56		3,37,10,16,30	
		1,10,59,17,54,18,37,46		5,11
16″	49,30,33,58,52,20,15,31,35,42		3,37,10,21,41	
		1,10,59,14,17, 8,16, 5		5,11
18″	49,30,35, 9,51,34,32,39,51,47		3,37,10,26,52	
		1,10,59,10,39,57,49,13		5,11
20″	49,30,36,20,50,45,12,37,41, 0		3,37,10,32, 3	
		1,10,59, 7, 2,47,17,10		5,11
22″	49,30,37,31,49,52,15,24,58,10		3,37,10,37,14	
		1,10,59, 3,25,36,39,56		5,11
24″	49,30,38,42,48,55,41, 1,38, 6		3,37,10,42,25	
		1,10,58,59,48,25,57,31		5,11
26″	49,30,39,53,47,55,29,27,35,37		3,37,10,47,36	
		1,10,58,56,11,15, 9,55		5,11
28″	49,30,41, 4,46,51,40,42,45,32		3,37,10,52,47	
		1,10,58,52,34, 4,17, 8		5,11
30″	49,30,42,15,45,44,14,47, 2,40		3,37,10,57,58	
		1,10,58,48,56,53,19,10		5,11
32″	49,30,43,26,44,33,11,40,21,50		3,37,11, 3, 9	
		1,10,58,45,19,42,16, 1		5,11
34″	49,30,44,37,43,18,31,22,37,51		3,37,11, 8,20	
		1,10,58,41,42,31, 7,41		5,11
36″	49,30,45,48,42, 0,13,53,45,32		3,37,11,13,31	
		1,10,58,38, 5,19,54,10		5,11
38″	49,30,46,59,40,38,19,13,39,42		3,37,11,18,42	
		1,10,58,34,28, 8,35,28		5,11
40″	49,30,48,10,39,12,47,22,15,10		3,37,11,23,53	
		1,10,58,30,50,57,11,35		5,11
42″	49,30,49,21,37,43,38,19,26,45		3,37,11,29, 4	
		1,10,58,27,13,45,42,31		5,11
44″	49,30,50,32,36,10,52, 5, 9,16		3,37,11,34,15	
		1,10,58,23,36,34, 8,16		5,11
46″	49,30,51,43,34,34,28,39,17,32		3,37,11,39,26	
		1,10,58,19,59,22,28,50		5,11
48″	49,30,52,54,32,54,28, 1,46,22		3,37,11,44,37	
		1,10,58,16,22,10,44,13		5,11
50″	49,30,54, 5,31,10,50,12,30,35		3,37,11,49,48	
		1,10,58,12,44,58,54,25		5,11
52″	49,30,55,16,29,23,35,11,25, 0		3,37,11,54,59	
		1,10,58, 9, 7,46,59,26		5,11
54″	49,30,56,27,27,32,42,58,24,26		3,37,12, 0,10	
		1,10,58, 5,30,34,59,16		5,11
56″	49,30,57,38,25,38,13,33,23,42		3,37,12, 5,21	
		1,10,58, 1,53,22,53,55		5,11
58″	49,30,58,49,23,40, 6,56,17,37		3,37,12,10,32	
		1,10,57,58,16,10,43,23		
60″	49,31, 0, 0,21,38,23, 7, 1, 0			
exact	49,31, 0, 0,21,38,23, 6,36,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°37′ 0″	49,31, 0, 0,21,38,23, 6,36,35			
		1,10,57,54,38,58,25, 4		
2″	49,31, 1,11,19,33, 2, 5, 1,39		3,37,12,21, 4	
		1,10,57,51, 1,46, 4, 0		5,11
4″	49,31, 2,22,17,24, 3,51, 5,39		3,37,12,26,15	
		1,10,57,47,24,33,37,45		5,11
6″	49,31, 3,33,15,11,28,24,43,24		3,37,12,31,26	
		1,10,57,43,47,21, 6,19		5,11
8″	49,31, 4,44,12,55,15,45,49,43		3,37,12,36,37	
		1,10,57,40,10, 8,29,42		5,11
10″	49,31, 5,55,10,35,25,54,19,25		3,37,12,41,48	
		1,10,57,36,32,55,47,54		5,11
12″	49,31, 7, 6, 8,11,58,50, 7,19		3,37,12,46,59	
		1,10,57,32,55,43, 0,55		5,11
14″	49,31, 8,17, 5,44,54,33, 8,14		3,37,12,52,10	
		1,10,57,29,18,30, 8,45		5,11
16″	49,31, 9,28, 3,14,13, 3,16,59		3,37,12,57,21	
		1,10,57,25,41,17,11,24		5,11
18″	49,31,10,39, 0,39,54,20,28,23		3,37,13, 2,32	
		1,10,57,22, 4, 4, 8,52		5,11
20″	49,31,11,49,58, 1,58,24,37,15		3,37,13, 7,43	
		1,10,57,18,26,51, 1, 9		5,11
22″	49,31,13, 0,55,20,25,15,38,24		3,37,13,12,54	
		1,10,57,14,49,37,48,15		5,11
24″	49,31,14,11,52,35,14,53,26,39		3,37,13,18, 5	
		1,10,57,11,12,24,30,10		5,11
26″	49,31,15,22,49,46,27,17,56,49		3,37,13,23,16	
		1,10,57, 7,35,11, 6,54		5,11
28″	49,31,16,33,46,54, 2,29, 3,43		3,37,13,28,27	
		1,10,57, 3,57,57,38,27		5,11
30″	49,31,17,44,43,58, 0,26,42,10		3,37,13,33,38	
		1,10,57, 0,20,44, 4,49		5,11
32″	49,31,18,55,40,58,21,10,46,59		3,37,13,38,49	
		1,10,56,56,43,30,26, 0		5,11
34″	49,31,20, 6,37,55, 4,41,12,59		3,37,13,44, 0	
		1,10,56,53, 6,16,42, 0		5,11
36″	49,31,21,17,34,48,10,57,54,59		3,37,13,49,11	
		1,10,56,49,29, 2,52,49		5,11
38″	49,31,22,28,31,37,40, 0,47,48		3,37,13,54,22	
		1,10,56,45,51,48,58,27		5,11
40″	49,31,23,39,28,23,31,49,46,15		3,37,13,59,33	
		1,10,56,42,14,34,58,54		5,11
42″	49,31,24,50,25, 5,46,24,45, 9		3,37,14, 4,44	
		1,10,56,38,37,20,54,10		5,11
44″	49,31,26, 1,21,44,23,45,39,19		3,37,14, 9,55	
		1,10,56,35, 0, 6,44,15		5,11
46″	49,31,27,12,18,19,23,52,23,34		3,37,14,15, 6	
		1,10,56,31,22,52,29, 9		5,11
48″	49,31,28,23,14,50,46,44,52,43		3,37,14,20,17	
		1,10,56,27,45,38, 8,52		5,11
50″	49,31,29,34,11,18,32,23, 1,35		3,37,14,25,28	
		1,10,56,24, 8,23,43,24		5,11
52″	49,31,30,45, 7,42,40,46,44,59		3,37,14,30,39	
		1,10,56,20,31, 9,12,45		5,11
54″	49,31,31,56, 4, 3,11,55,57,44		3,37,14,35,50	
		1,10,56,16,53,54,36,55		5,11
56″	49,31,33, 7, 0,20, 5,50,34,39		3,37,14,41, 1	
		1,10,56,13,16,39,55,54		5,11
58″	49,31,34,17,56,33,22,30,30,33		3,37,14,46,12	
		1,10,56, 9,39,25, 9,42		
60″	49,31,35,28,52,43, 1,55,40,15			
exact	49,31,35,28,52,43, 1,55,20,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°38′ 0″	49,31,35,28,52,43, 1,55,20,21			
		1,10,56, 6, 2,10,16,23		
2″	49,31,36,39,48,49, 4, 5,36,44		3,37,14,56,41	
		1,10,56, 2,24,55,19,42		5,11
4″	49,31,37,50,44,51,29, 0,56,26		3,37,15, 1,52	
		1,10,55,58,47,40,17,50		5,11
6″	49,31,39, 1,40,50,16,41,14,16		3,37,15, 7, 3	
		1,10,55,55,10,25,10,47		5,11
8″	49,31,40,12,36,45,27, 6,25, 3		3,37,15,12,14	
		1,10,55,51,33, 9,58,33		5,11
10″	49,31,41,23,32,37, 0,16,23,36		3,37,15,17,25	
		1,10,55,47,55,54,41, 8		5,11
12″	49,31,42,34,28,24,56,11, 4,44		3,37,15,22,36	
		1,10,55,44,18,39,18,32		5,11
14″	49,31,43,45,24, 9,14,50,23,16		3,37,15,27,47	
		1,10,55,40,41,23,50,45		5,11
16″	49,31,44,56,19,49,56,14,14, 1		3,37,15,32,58	
		1,10,55,37, 4, 8,17,47		5,11
18″	49,31,46, 7,15,27, 0,22,31,48		3,37,15,38, 9	
		1,10,55,33,26,52,39,38		5,11
20″	49,31,47,18,11, 0,27,15,11,26		3,37,15,43,20	
		1,10,55,29,49,36,56,18		5,11
22″	49,31,48,29, 6,30,16,52, 7,44		3,37,15,48,31	
		1,10,55,26,12,21, 7,47		5,11
24″	49,31,49,40, 1,56,29,13,15,31		3,37,15,53,42	
		1,10,55,22,35, 5,14, 5		5,11
26″	49,31,50,50,57,19, 4,18,29,36		3,37,15,58,53	
		1,10,55,18,57,49,15,12		5,11
28″	49,31,52, 1,52,38, 2, 7,44,48		3,37,16, 4, 4	
		1,10,55,15,20,33,11, 8		5,11
30″	49,31,53,12,47,53,22,40,55,56		3,37,16, 9,15	
		1,10,55,11,43,17, 1,53		5,11
32″	49,31,54,23,43, 5, 5,57,57,49		3,37,16,14,26	
		1,10,55, 8, 6, 0,47,27		5,11
34″	49,31,55,34,38,13,11,58,45,16		3,37,16,19,37	
		1,10,55, 4,28,44,27,50		5,11
36″	49,31,56,45,33,17,40,43,13, 6		3,37,16,24,48	
		1,10,55, 0,51,28, 3, 2		5,11
38″	49,31,57,56,28,18,32,11,16, 8		3,37,16,29,59	
		1,10,54,57,14,11,33, 3		5,11
40″	49,31,59, 7,23,15,46,22,49,11		3,37,16,35,10	
		1,10,54,53,36,54,57,53		5,11
42″	49,32, 0,18,18, 9,23,17,47, 4		3,37,16,40,21	
		1,10,54,49,59,38,17,32		5,11
44″	49,32, 1,29,12,59,22,56, 4,36		3,37,16,45,32	
		1,10,54,46,22,21,32, 0		5,11
46″	49,32, 2,40, 7,45,45,17,36,36		3,37,16,50,43	
		1,10,54,42,45, 4,41,17		5,11
48″	49,32, 3,51, 2,28,30,22,17,53		3,37,16,55,54	
		1,10,54,39, 7,47,45,23		5,11
50″	49,32, 5, 1,57, 7,38,10, 3,16		3,37,17, 1, 5	
		1,10,54,35,30,30,44,18		5,11
52″	49,32, 6,12,51,43, 8,40,47,34		3,37,17, 6,16	
		1,10,54,31,53,13,38, 2		5,11
54″	49,32, 7,23,46,15, 1,54,25,36		3,37,17,11,27	
		1,10,54,28,15,56,26,35		5,11
56″	49,32, 8,34,40,43,17,50,52,11		3,37,17,16,38	
		1,10,54,24,38,39, 9,57		5,11
58″	49,32, 9,45,35, 7,56,30, 2, 8		3,37,17,21,49	
		1,10,54,21, 1,21,48, 8		
60″	49,32,10,56,29,28,57,51,50,16			
exact	49,32,10,56,29,28,57,51,42,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°39′ 0″	49,32,10,56,29,28,57,51,42,16			
		1,10,54,17,24, 4,20,21		
2″	49,32,12, 7,23,46,21,56, 2,37		3,37,17,32,14	
		1,10,54,13,46,46,48, 7		5,11
4″	49,32,13,18,18, 0, 8,42,50,44		3,37,17,37,25	
		1,10,54,10, 9,29,10,42		5,11
6″	49,32,14,29,12,10,18,12, 1,26		3,37,17,42,36	
		1,10,54, 6,32,11,28, 6		5,11
8″	49,32,15,40, 6,16,50,23,29,32		3,37,17,47,47	
		1,10,54, 2,54,53,40,19		5,11
10″	49,32,16,51, 0,19,45,17, 9,51		3,37,17,52,58	
		1,10,53,59,17,35,47,21		5,11
12″	49,32,18, 1,54,19, 2,52,57,12		3,37,17,58, 9	
		1,10,53,55,40,17,49,12		5,11
14″	49,32,19,12,48,14,43,10,46,24		3,37,18, 3,20	
		1,10,53,52, 2,59,45,52		5,11
16″	49,32,20,23,42, 6,46,10,32,16		3,37,18, 8,31	
		1,10,53,48,25,41,37,21		5,11
18″	49,32,21,34,35,55,11,52, 9,37		3,37,18,13,42	
		1,10,53,44,48,23,23,39		5,11
20″	49,32,22,45,29,40, 0,15,33,16		3,37,18,18,53	
		1,10,53,41,11, 5, 4,46		5,11
22″	49,32,23,56,23,21,11,20,38, 2		3,37,18,24, 4	
		1,10,53,37,33,46,40,42		5,11
24″	49,32,25, 7,16,58,45, 7,18,44		3,37,18,29,15	
		1,10,53,33,56,28,11,27		5,11
26″	49,32,26,18,10,32,41,35,30,11		3,37,18,34,26	
		1,10,53,30,19, 9,37, 1		5,11
28″	49,32,27,29, 4, 3, 0,45, 7,12		3,37,18,39,37	
		1,10,53,26,41,50,57,24		5,11
30″	49,32,28,39,57,29,42,36, 4,36		3,37,18,44,48	
		1,10,53,23, 4,32,12,36		5,11
32″	49,32,29,50,50,52,47, 8,17,12		3,37,18,49,59	
		1,10,53,19,27,13,22,37		5,11
34″	49,32,31, 1,44,12,14,21,39,49		3,37,18,55,10	
		1,10,53,15,49,54,27,27		5,11
36″	49,32,32,12,37,28, 4,16, 7,16		3,37,19, 0,21	
		1,10,53,12,12,35,27, 6		5,11
38″	49,32,33,23,30,40,16,51,34,22		3,37,19, 5,32	
		1,10,53, 8,35,16,21,34		5,11
40″	49,32,34,34,23,48,52, 7,55,56		3,37,19,10,43	
		1,10,53, 4,57,57,10,51		5,11
42″	49,32,35,45,16,53,50, 5, 6,47		3,37,19,15,54	
		1,10,53, 1,20,37,54,57		5,11
44″	49,32,36,56, 9,55,10,43, 1,44		3,37,19,21, 5	
		1,10,52,57,43,18,33,52		5,11
46″	49,32,38, 7, 2,52,54, 1,35,36		3,37,19,26,16	
		1,10,52,54, 5,59, 7,36		5,11
48″	49,32,39,17,55,47, 0, 0,43,12		3,37,19,31,27	
		1,10,52,50,28,39,36, 9		5,11
50″	49,32,40,28,48,37,28,40,19,21		3,37,19,36,38	
		1,10,52,46,51,19,59,31		5,11
52″	49,32,41,39,41,24,20, 0,18,52		3,37,19,41,49	
		1,10,52,43,14, 0,17,42		5,11
54″	49,32,42,50,34, 7,34, 0,36,34		3,37,19,47, 0	
		1,10,52,39,36,40,30,42		5,11
56″	49,32,44, 1,26,47,10,41, 7,16		3,37,19,52,11	
		1,10,52,35,59,20,38,31		5,11
58″	49,32,45,12,19,23,10, 1,45,47		3,37,19,57,22	
		1,10,52,32,22, 0,41, 9		
60″	49,32,46,23,11,55,32, 2,26,56			
exact	49,32,46,23,11,55,32, 2,31, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°40′ 0″	49,32,46,23,11,55,32, 2,31, 2			
		1,10,52,28,44,40,38,59		
2″	49,32,47,34, 4,24,16,43,10, 1		3,37,20, 7,42	
		1,10,52,25, 7,20,31,17		5,11
4″	49,32,48,44,56,49,24, 3,41,18		3,37,20,12,53	
		1,10,52,21,30, 0,18,24		5,11
6″	49,32,49,55,49,10,54, 3,59,42		3,37,20,18, 4	
		1,10,52,17,52,40, 0,20		5,11
8″	49,32,51, 6,41,28,46,44, 0, 2		3,37,20,23,15	
		1,10,52,14,15,19,37, 5		5,11
10″	49,32,52,17,33,43, 2, 3,37, 7		3,37,20,28,26	
		1,10,52,10,37,59, 8,39		5,11
12″	49,32,53,28,25,53,40, 2,45,46		3,37,20,33,37	
		1,10,52, 7, 0,38,35, 2		5,11
14″	49,32,54,39,18, 0,40,41,20,48		3,37,20,38,48	
		1,10,52, 3,23,17,56,14		5,11
16″	49,32,55,50,10, 4, 3,59,17, 2		3,37,20,43,59	
		1,10,51,59,45,57,12,15		5,11
18″	49,32,57, 1, 2, 3,49,56,29,17		3,37,20,49,10	
		1,10,51,56, 8,36,23, 5		5,11
20″	49,32,58,11,53,59,58,32,52,22		3,37,20,54,21	
		1,10,51,52,31,15,28,44		5,11
22″	49,32,59,22,45,52,29,48,21, 6		3,37,20,59,32	
		1,10,51,48,53,54,29,12		5,11
24″	49,33, 0,33,37,41,23,42,50,18		3,37,21, 4,43	
		1,10,51,45,16,33,24,29		5,11
26″	49,33, 1,44,29,26,40,16,14,47		3,37,21, 9,54	
		1,10,51,41,39,12,14,35		5,11
28″	49,33, 2,55,21, 8,19,28,29,22		3,37,21,15, 5	
		1,10,51,38, 1,50,59,30		5,11
30″	49,33, 4, 6,12,46,21,19,28,52		3,37,21,20,16	
		1,10,51,34,24,29,39,14		5,11
32″	49,33, 5,17, 4,20,45,49, 8, 6		3,37,21,25,27	
		1,10,51,30,47, 8,13,47		5,11
34″	49,33, 6,27,55,51,32,57,21,53		3,37,21,30,38	
		1,10,51,27, 9,46,43, 9		5,11
36″	49,33, 7,38,47,18,42,44, 5, 2		3,37,21,35,49	
		1,10,51,23,32,25, 7,20		5,11
38″	49,33, 8,49,38,42,15, 9,12,22		3,37,21,41, 0	
		1,10,51,19,55, 3,26,20		5,11
40″	49,33,10, 0,30, 2,10,12,38,42		3,37,21,46,11	
		1,10,51,16,17,41,40, 9		5,11
42″	49,33,11,11,21,18,27,54,18,51		3,37,21,51,22	
		1,10,51,12,40,19,48,47		5,11
44″	49,33,12,22,12,31, 8,14, 7,38		3,37,21,56,33	
		1,10,51, 9, 2,57,52,14		5,11
46″	49,33,13,33, 3,40,11,11,59,52		3,37,22, 1,44	
		1,10,51, 5,25,35,50,30		5,11
48″	49,33,14,43,54,45,36,47,50,22		3,37,22, 6,55	
		1,10,51, 1,48,13,43,35		5,11
50″	49,33,15,54,45,47,25, 1,33,57		3,37,22,12, 6	
		1,10,50,58,10,51,31,29		5,11
52″	49,33,17, 5,36,45,35,53, 5,26		3,37,22,17,17	
		1,10,50,54,33,29,14,12		5,11
54″	49,33,18,16,27,40, 9,22,19,38		3,37,22,22,28	
		1,10,50,50,56, 6,51,44		5,11
56″	49,33,19,27,18,31, 5,29,11,22		3,37,22,27,39	
		1,10,50,47,18,44,24, 5		5,11
58″	49,33,20,38, 9,18,24,13,35,27		3,37,22,32,50	
		1,10,50,43,41,21,51,15		
60″	49,33,21,49, 0, 2, 5,35,26,42			
exact	49,33,21,49, 0, 2, 5,35,34,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°41′ 0″	49,33,21,49, 0, 2, 5,35,34,54			
		1,10,50,40, 3,59,14,15		
2″	49,33,22,59,50,42, 9,34,49, 9		3,37,22,43, 7	
		1,10,50,36,26,36,31, 8		5,11
4″	49,33,24,10,41,18,36,11,20,17		3,37,22,48,18	
		1,10,50,32,49,13,42,50		5,11
6″	49,33,25,21,31,51,25,25, 3, 7		3,37,22,53,29	
		1,10,50,29,11,50,49,21		5,11
8″	49,33,26,32,22,20,37,15,52,28		3,37,22,58,40	
		1,10,50,25,34,27,50,41		5,11
10″	49,33,27,43,12,46,11,43,43, 9		3,37,23, 3,51	
		1,10,50,21,57, 4,46,50		5,11
12″	49,33,28,54, 3, 8, 8,48,29,59		3,37,23, 9, 2	
		1,10,50,18,19,41,37,48		5,11
14″	49,33,30, 4,53,26,28,30, 7,47		3,37,23,14,13	
		1,10,50,14,42,18,23,35		5,11
16″	49,33,31,15,43,41,10,48,31,22		3,37,23,19,24	
		1,10,50,11, 4,55, 4,11		5,11
18″	49,33,32,26,33,52,15,43,35,33		3,37,23,24,35	
		1,10,50, 7,27,31,39,36		5,11
20″	49,33,33,37,23,59,43,15,15, 9		3,37,23,29,46	
		1,10,50, 3,50, 8, 9,50		5,11
22″	49,33,34,48,14, 3,33,23,24,59		3,37,23,34,57	
		1,10,50, 0,12,44,34,53		5,11
24″	49,33,35,59, 4, 3,46, 7,59,52		3,37,23,40, 8	
		1,10,49,56,35,20,54,45		5,11
26″	49,33,37, 9,54, 0,21,28,54,37		3,37,23,45,19	
		1,10,49,52,57,57, 9,26		5,11
28″	49,33,38,20,43,53,19,26, 4, 3		3,37,23,50,30	
		1,10,49,49,20,33,18,56		5,11
30″	49,33,39,31,33,42,39,59,22,59		3,37,23,55,41	
		1,10,49,45,43, 9,23,15		5,11
32″	49,33,40,42,23,28,23, 8,46,14		3,37,24, 0,52	
		1,10,49,42, 5,45,22,23		5,11
34″	49,33,41,53,13,10,28,54, 8,37		3,37,24, 6, 3	
		1,10,49,38,28,21,16,20		5,11
36″	49,33,43, 4, 2,48,57,15,24,57		3,37,24,11,14	
		1,10,49,34,50,57, 5, 6		5,11
38″	49,33,44,14,52,23,48,12,30, 3		3,37,24,16,25	
		1,10,49,31,13,32,48,41		5,11
40″	49,33,45,25,41,55, 1,45,18,44		3,37,24,21,36	
		1,10,49,27,36, 8,27, 5		5,11
42″	49,33,46,36,31,22,37,53,45,49		3,37,24,26,47	
		1,10,49,23,58,44, 0,18		5,11
44″	49,33,47,47,20,46,36,37,46, 7		3,37,24,31,58	
		1,10,49,20,21,19,28,20		5,11
46″	49,33,48,58,10, 6,57,57,14,27		3,37,24,37, 9	
		1,10,49,16,43,54,51,11		5,11
48″	49,33,50, 8,59,23,41,52, 5,38		3,37,24,42,20	
		1,10,49,13, 6,30, 8,51		5,11
50″	49,33,51,19,48,36,48,22,14,29		3,37,24,47,31	
		1,10,49, 9,29, 5,21,20		5,11
52″	49,33,52,30,37,46,17,27,35,49		3,37,24,52,42	
		1,10,49, 5,51,40,28,38		5,11
54″	49,33,53,41,26,52, 9, 8, 4,27		3,37,24,57,53	
		1,10,49, 2,14,15,30,45		5,11
56″	49,33,54,52,15,54,23,23,35,12		3,37,25, 3, 4	
		1,10,48,58,36,50,27,41		5,11
58″	49,33,56, 3, 4,53, 0,14, 2,53		3,37,25, 8,15	
		1,10,48,54,59,25,19,26		
60″	49,33,57,13,53,47,59,39,22,19			
exact	49,33,57,13,53,47,59,39,41,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°42′ 0″	49,33,57,13,53,47,59,39,41,43			
		1,10,48,51,22, 0, 8, 8		
2″	49,33,58,24,42,39,21,39,49,51		3,37,25,18,28	
		1,10,48,47,44,34,49,40		5,11
4″	49,33,59,35,31,27, 6,14,39,31		3,37,25,23,39	
		1,10,48,44, 7, 9,26, 1		5,11
6″	49,34, 0,46,20,11,13,24, 5,32		3,37,25,28,50	
		1,10,48,40,29,43,57,11		5,11
8″	49,34, 1,57, 8,51,43, 8, 2,43		3,37,25,34, 1	
		1,10,48,36,52,18,23,10		5,11
10″	49,34, 3, 7,57,28,35,26,25,53		3,37,25,39,12	
		1,10,48,33,14,52,43,58		5,11
12″	49,34, 4,18,46, 1,50,19, 9,51		3,37,25,44,23	
		1,10,48,29,37,26,59,35		5,11
14″	49,34, 5,29,34,31,27,46, 9,26		3,37,25,49,34	
		1,10,48,26, 0, 1,10, 1		5,11
16″	49,34, 6,40,22,57,27,47,19,27		3,37,25,54,45	
		1,10,48,22,22,35,15,16		5,11
18″	49,34, 7,51,11,19,50,22,34,43		3,37,25,59,56	
		1,10,48,18,45, 9,15,20		5,11
20″	49,34, 9, 1,59,38,35,31,50, 3		3,37,26, 5, 7	
		1,10,48,15, 7,43,10,13		5,11
22″	49,34,10,12,47,53,43,15, 0,16		3,37,26,10,18	
		1,10,48,11,30,16,59,55		5,11
24″	49,34,11,23,36, 5,13,32, 0,11		3,37,26,15,29	
		1,10,48, 7,52,50,44,26		5,11
26″	49,34,12,34,24,13, 6,22,44,37		3,37,26,20,40	
		1,10,48, 4,15,24,23,46		5,11
28″	49,34,13,45,12,17,21,47, 8,23		3,37,26,25,51	
		1,10,48, 0,37,57,57,55		5,11
30″	49,34,14,56, 0,17,59,45, 6,18		3,37,26,31, 2	
		1,10,47,57, 0,31,26,53		5,11
32″	49,34,16, 6,48,15, 0,16,33,11		3,37,26,36,13	
		1,10,47,53,23, 4,50,40		5,11
34″	49,34,17,17,36, 8,23,21,23,51		3,37,26,41,24	
		1,10,47,49,45,38, 9,16		5,11
36″	49,34,18,28,23,58, 8,59,33, 7		3,37,26,46,35	
		1,10,47,46, 8,11,22,41		5,11
38″	49,34,19,39,11,44,17,10,55,48		3,37,26,51,46	
		1,10,47,42,30,44,30,55		5,11
40″	49,34,20,49,59,26,47,55,26,43		3,37,26,56,57	
		1,10,47,38,53,17,33,58		5,11
42″	49,34,22, 0,47, 5,41,13, 0,41		3,37,27, 2, 8	
		1,10,47,35,15,50,31,50		5,11
44″	49,34,23,11,34,40,57, 3,32,31		3,37,27, 7,19	
		1,10,47,31,38,23,24,31		5,11
46″	49,34,24,22,22,12,35,26,57, 2		3,37,27,12,30	
		1,10,47,28, 0,56,12, 1		5,11
48″	49,34,25,33, 9,40,36,23, 9, 3		3,37,27,17,41	
		1,10,47,24,23,28,54,20		5,11
50″	49,34,26,43,57, 4,59,52, 3,23		3,37,27,22,52	
		1,10,47,20,46, 1,31,28		5,11
52″	49,34,27,54,44,25,45,53,34,51		3,37,27,28, 3	
		1,10,47,17, 8,34, 3,25		5,11
54″	49,34,29, 5,31,42,54,27,38,16		3,37,27,33,14	
		1,10,47,13,31, 6,30,11		5,11
56″	49,34,30,16,18,56,25,34, 8,27		3,37,27,38,25	
		1,10,47, 9,53,38,51,46		5,11
58″	49,34,31,27, 6, 6,19,13, 0,13		3,37,27,43,36	
		1,10,47, 6,16,11, 8,10		
60″	49,34,32,37,53,12,35,24, 8,23			
exact	49,34,32,37,53,12,35,24,38,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°43′ 0″	49,34,32,37,53,12,35,24,38,56			
		1,10,47, 2,38,43,22,38		
2″	49,34,33,48,40,15,14, 8, 1,34		3,37,27,53,44	
		1,10,46,59, 1,15,28,54		5,10
4″	49,34,34,59,27,14,15,23,30,28		3,37,27,58,54	
		1,10,46,55,23,47,30, 0		5,10
6″	49,34,36,10,14, 9,39,11, 0,28		3,37,28, 4, 4	
		1,10,46,51,46,19,25,56		5,10
8″	49,34,37,21, 1, 1,25,30,26,24		3,37,28, 9,14	
		1,10,46,48, 8,51,16,42		5,10
10″	49,34,38,31,47,49,34,21,43, 6		3,37,28,14,24	
		1,10,46,44,31,23, 2,18		5,10
12″	49,34,39,42,34,34, 5,44,45,24		3,37,28,19,34	
		1,10,46,40,53,54,42,44		5,10
14″	49,34,40,53,21,14,59,39,28, 8		3,37,28,24,44	
		1,10,46,37,16,26,18, 0		5,10
16″	49,34,42, 4, 7,52,16, 5,46, 8		3,37,28,29,54	
		1,10,46,33,38,57,48, 6		5,10
18″	49,34,43,14,54,25,55, 3,34,14		3,37,28,35, 4	
		1,10,46,30, 1,29,13, 2		5,10
20″	49,34,44,25,40,55,56,32,47,16		3,37,28,40,14	
		1,10,46,26,24, 0,32,48		5,10
22″	49,34,45,36,27,22,20,33,20, 4		3,37,28,45,24	
		1,10,46,22,46,31,47,24		5,10
24″	49,34,46,47,13,45, 7, 5, 7,28		3,37,28,50,34	
		1,10,46,19, 9, 2,56,50		5,10
26″	49,34,47,58, 0, 4,16, 8, 4,18		3,37,28,55,44	
		1,10,46,15,31,34, 1, 6		5,10
28″	49,34,49, 8,46,19,47,42, 5,24		3,37,29, 0,54	
		1,10,46,11,54, 5, 0,12		5,10
30″	49,34,50,19,32,31,41,47, 5,36		3,37,29, 6, 4	
		1,10,46, 8,16,35,54, 8		5,10
32″	49,34,51,30,18,39,58,22,59,44		3,37,29,11,14	
		1,10,46, 4,39, 6,42,54		5,10
34″	49,34,52,41, 4,44,37,29,42,38		3,37,29,16,24	
		1,10,46, 1, 1,37,26,30		5,10
36″	49,34,53,51,50,45,39, 7, 9, 8		3,37,29,21,34	
		1,10,45,57,24, 8, 4,56		5,10
38″	49,34,55, 2,36,43, 3,15,14, 4		3,37,29,26,44	
		1,10,45,53,46,38,38,12		5,10
40″	49,34,56,13,22,36,49,53,52,16		3,37,29,31,54	
		1,10,45,50, 9, 9, 6,18		5,10
42″	49,34,57,24, 8,26,59, 2,58,34		3,37,29,37, 4	
		1,10,45,46,31,39,29,14		5,10
44″	49,34,58,34,54,13,30,42,27,48		3,37,29,42,14	
		1,10,45,42,54, 9,47, 0		5,10
46″	49,34,59,45,39,56,24,52,14,48		3,37,29,47,24	
		1,10,45,39,16,39,59,36		5,10
48″	49,35, 0,56,25,35,41,32,14,24		3,37,29,52,34	
		1,10,45,35,39,10, 7, 2		5,10
50″	49,35, 2, 7,11,11,20,42,21,26		3,37,29,57,44	
		1,10,45,32, 1,40, 9,18		5,10
52″	49,35, 3,17,56,43,22,22,30,44		3,37,30, 2,54	
		1,10,45,28,24,10, 6,24		5,10
54″	49,35, 4,28,42,11,46,32,37, 8		3,37,30, 8, 4	
		1,10,45,24,46,39,58,20		5,10
56″	49,35, 5,39,27,36,33,12,35,28		3,37,30,13,14	
		1,10,45,21, 9, 9,45, 6		5,10
58″	49,35, 6,50,12,57,42,22,20,34		3,37,30,18,24	
		1,10,45,17,31,39,26,42		
60″	49,35, 8, 0,58,15,14, 1,47,16			
exact	49,35, 8, 0,58,15,14, 1,13,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°44′ 0″	49,35, 8, 0,58,15,14, 1,13,35			
		1,10,45,13,54, 8,59,43		
2″	49,35, 9,11,43,29, 8,10,13,18		3,37,30,28,57	
		1,10,45,10,16,38,30,46		5,10
4″	49,35,10,22,28,39,24,48,44, 4		3,37,30,34, 7	
		1,10,45, 6,39, 7,56,39		5,10
6″	49,35,11,33,13,46, 3,56,40,43		3,37,30,39,17	
		1,10,45, 3, 1,37,17,22		5,10
8″	49,35,12,43,58,49, 5,33,58, 5		3,37,30,44,27	
		1,10,44,59,24, 6,32,55		5,10
10″	49,35,13,54,43,48,29,40,31, 0		3,37,30,49,37	
		1,10,44,55,46,35,43,18		5,10
12″	49,35,15, 5,28,44,16,16,14,18		3,37,30,54,47	
		1,10,44,52, 9, 4,48,31		5,10
14″	49,35,16,16,13,36,25,21, 2,49		3,37,30,59,57	
		1,10,44,48,31,33,48,34		5,10
16″	49,35,17,26,58,24,56,54,51,23		3,37,31, 5, 7	
		1,10,44,44,54, 2,43,27		5,10
18″	49,35,18,37,43, 9,50,57,34,50		3,37,31,10,17	
		1,10,44,41,16,31,33,10		5,10
20″	49,35,19,48,27,51, 7,29, 8, 0		3,37,31,15,27	
		1,10,44,37,39, 0,17,43		5,10
22″	49,35,20,59,12,28,46,29,25,43		3,37,31,20,37	
		1,10,44,34, 1,28,57, 6		5,10
24″	49,35,22, 9,57, 2,47,58,22,49		3,37,31,25,47	
		1,10,44,30,23,57,31,19		5,10
26″	49,35,23,20,41,33,11,55,54, 8		3,37,31,30,57	
		1,10,44,26,46,26, 0,22		5,10
28″	49,35,24,31,25,59,58,21,54,30		3,37,31,36, 7	
		1,10,44,23, 8,54,24,15		5,10
30″	49,35,25,42,10,23, 7,16,18,45		3,37,31,41,17	
		1,10,44,19,31,22,42,58		5,10
32″	49,35,26,52,54,42,38,39, 1,43		3,37,31,46,27	
		1,10,44,15,53,50,56,31		5,10
34″	49,35,28, 3,38,58,32,29,58,14		3,37,31,51,37	
		1,10,44,12,16,19, 4,54		5,10
36″	49,35,29,14,23,10,48,49, 3, 8		3,37,31,56,47	
		1,10,44, 8,38,47, 8, 7		5,10
38″	49,35,30,25, 7,19,27,36,11,15		3,37,32, 1,57	
		1,10,44, 5, 1,15, 6,10		5,10
40″	49,35,31,35,51,24,28,51,17,25		3,37,32, 7, 7	
		1,10,44, 1,23,42,59, 3		5,10
42″	49,35,32,46,35,25,52,34,16,28		3,37,32,12,17	
		1,10,43,57,46,10,46,46		5,10
44″	49,35,33,57,19,23,38,45, 3,14		3,37,32,17,27	
		1,10,43,54, 8,38,29,19		5,10
46″	49,35,35, 8, 3,17,47,23,32,33		3,37,32,22,37	
		1,10,43,50,31, 6, 6,42		5,10
48″	49,35,36,18,47, 8,18,29,39,15		3,37,32,27,47	
		1,10,43,46,53,33,38,55		5,10
50″	49,35,37,29,30,55,12, 3,18,10		3,37,32,32,57	
		1,10,43,43,16, 1, 5,58		5,10
52″	49,35,38,40,14,38,28, 4,24, 8		3,37,32,38, 7	
		1,10,43,39,38,28,27,51		5,10
54″	49,35,39,50,58,18, 6,32,51,59		3,37,32,43,17	
		1,10,43,36, 0,55,44,34		5,10
56″	49,35,41, 1,41,54, 7,28,36,33		3,37,32,48,27	
		1,10,43,32,23,22,56, 7		5,10
58″	49,35,42,12,25,26,30,51,32,40		3,37,32,53,37	
		1,10,43,28,45,50, 2,30		
60″	49,35,43,23, 8,55,16,41,35,10			
exact	49,35,43,23, 8,55,16,41,12,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°45′ 0″	49,35,43,23, 8,55,16,41,12,22			
		1,10,43,25, 8,17, 1,23		
2″	49,35,44,33,52,20,24,58,13,45		3,37,33, 4, 6	
		1,10,43,21,30,43,57,17		5,10
4″	49,35,45,44,35,41,55,42,11, 2		3,37,33, 9,16	
		1,10,43,17,53,10,48, 1		5,10
6″	49,35,46,55,18,59,48,52,59, 3		3,37,33,14,26	
		1,10,43,14,15,37,33,35		5,10
8″	49,35,48, 6, 2,14, 4,30,32,38		3,37,33,19,36	
		1,10,43,10,38, 4,13,59		5,10
10″	49,35,49,16,45,24,42,34,46,37		3,37,33,24,46	
		1,10,43, 7, 0,30,49,13		5,10
12″	49,35,50,27,28,31,43, 5,35,50		3,37,33,29,56	
		1,10,43, 3,22,57,19,17		5,10
14″	49,35,51,38,11,35, 6, 2,55, 7		3,37,33,35, 6	
		1,10,42,59,45,23,44,11		5,10
16″	49,35,52,48,54,34,51,26,39,18		3,37,33,40,16	
		1,10,42,56, 7,50, 3,55		5,10
18″	49,35,53,59,37,30,59,16,43,13		3,37,33,45,26	
		1,10,42,52,30,16,18,29		5,10
20″	49,35,55,10,20,23,29,33, 1,42		3,37,33,50,36	
		1,10,42,48,52,42,27,53		5,10
22″	49,35,56,21, 3,12,22,15,29,35		3,37,33,55,46	
		1,10,42,45,15, 8,32, 7		5,10
24″	49,35,57,31,45,57,37,24, 1,42		3,37,34, 0,56	
		1,10,42,41,37,34,31,11		5,10
26″	49,35,58,42,28,39,14,58,32,53		3,37,34, 6, 6	
		1,10,42,38, 0, 0,25, 5		5,10
28″	49,35,59,53,11,17,14,58,57,58		3,37,34,11,16	
		1,10,42,34,22,26,13,49		5,10
30″	49,36, 1, 3,53,51,37,25,11,47		3,37,34,16,26	
		1,10,42,30,44,51,57,23		5,10
32″	49,36, 2,14,36,22,22,17, 9,10		3,37,34,21,36	
		1,10,42,27, 7,17,35,47		5,10
34″	49,36, 3,25,18,49,29,34,44,57		3,37,34,26,46	
		1,10,42,23,29,43, 9, 1		5,10
36″	49,36, 4,36, 1,12,59,17,53,58		3,37,34,31,56	
		1,10,42,19,52, 8,37, 5		5,10
38″	49,36, 5,46,43,32,51,26,31, 3		3,37,34,37, 6	
		1,10,42,16,14,33,59,59		5,10
40″	49,36, 6,57,25,49, 6, 0,31, 2		3,37,34,42,16	
		1,10,42,12,36,59,17,43		5,10
42″	49,36, 8, 8, 8, 1,42,59,48,45		3,37,34,47,26	
		1,10,42, 8,59,24,30,17		5,10
44″	49,36, 9,18,50,10,42,24,19, 2		3,37,34,52,36	
		1,10,42, 5,21,49,37,41		5,10
46″	49,36,10,29,32,16, 4,13,56,43		3,37,34,57,46	
		1,10,42, 1,44,14,39,55		5,10
48″	49,36,11,40,14,17,48,28,36,38		3,37,35, 2,56	
		1,10,41,58, 6,39,36,59		5,10
50″	49,36,12,50,56,15,55, 8,13,37		3,37,35, 8, 6	
		1,10,41,54,29, 4,28,53		5,10
52″	49,36,14, 1,38,10,24,12,42,30		3,37,35,13,16	
		1,10,41,50,51,29,15,37		5,10
54″	49,36,15,12,20, 1,15,41,58, 7		3,37,35,18,26	
		1,10,41,47,13,53,57,11		5,10
56″	49,36,16,23, 1,48,29,35,55,18		3,37,35,23,36	
		1,10,41,43,36,18,33,35		5,10
58″	49,36,17,33,43,32, 5,54,28,53		3,37,35,28,46	
		1,10,41,39,58,43, 4,49		
60″	49,36,18,44,25,12, 4,37,33,42			
exact	49,36,18,44,25,12, 4,37,21,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°46′ 0″	49,36,18,44,25,12, 4,37,21,34			
		1,10,41,36,21, 7,29,38		
2″	49,36,19,55, 6,48,25,44,51,12		3,37,35,39,11	
		1,10,41,32,43,31,50,27		5,10
4″	49,36,21, 5,48,21, 9,16,41,39		3,37,35,44,21	
		1,10,41,29, 5,56, 6, 6		5,10
6″	49,36,22,16,29,50,15,12,47,45		3,37,35,49,31	
		1,10,41,25,28,20,16,35		5,10
8″	49,36,23,27,11,15,43,33, 4,20		3,37,35,54,41	
		1,10,41,21,50,44,21,54		5,10
10″	49,36,24,37,52,37,34,17,26,14		3,37,35,59,51	
		1,10,41,18,13, 8,22, 3		5,10
12″	49,36,25,48,33,55,47,25,48,17		3,37,36, 5, 1	
		1,10,41,14,35,32,17, 2		5,10
14″	49,36,26,59,15,10,22,58, 5,19		3,37,36,10,11	
		1,10,41,10,57,56, 6,51		5,10
16″	49,36,28, 9,56,21,20,54,12,10		3,37,36,15,21	
		1,10,41, 7,20,19,51,30		5,10
18″	49,36,29,20,37,28,41,14, 3,40		3,37,36,20,31	
		1,10,41, 3,42,43,30,59		5,10
20″	49,36,30,31,18,32,23,57,34,39		3,37,36,25,41	
		1,10,41, 0, 5, 7, 5,18		5,10
22″	49,36,31,41,59,32,29, 4,39,57		3,37,36,30,51	
		1,10,40,56,27,30,34,27		5,10
24″	49,36,32,52,40,28,56,35,14,24		3,37,36,36, 1	
		1,10,40,52,49,53,58,26		5,10
26″	49,36,34, 3,21,21,46,29,12,50		3,37,36,41,11	
		1,10,40,49,12,17,17,15		5,10
28″	49,36,35,14, 2,10,58,46,30, 5		3,37,36,46,21	
		1,10,40,45,34,40,30,54		5,10
30″	49,36,36,24,42,56,33,27, 0,59		3,37,36,51,31	
		1,10,40,41,57, 3,39,23		5,10
32″	49,36,37,35,23,38,30,30,40,22		3,37,36,56,41	
		1,10,40,38,19,26,42,42		5,10
34″	49,36,38,46, 4,16,49,57,23, 4		3,37,37, 1,51	
		1,10,40,34,41,49,40,51		5,10
36″	49,36,39,56,44,51,31,47, 3,55		3,37,37, 7, 1	
		1,10,40,31, 4,12,33,50		5,10
38″	49,36,41, 7,25,22,35,59,37,45		3,37,37,12,11	
		1,10,40,27,26,35,21,39		5,10
40″	49,36,42,18, 5,50, 2,34,59,24		3,37,37,17,21	
		1,10,40,23,48,58, 4,18		5,10
42″	49,36,43,28,46,13,51,33, 3,42		3,37,37,22,31	
		1,10,40,20,11,20,41,47		5,10
44″	49,36,44,39,26,34, 2,53,45,29		3,37,37,27,41	
		1,10,40,16,33,43,14, 6		5,10
46″	49,36,45,50, 6,50,36,36,59,35		3,37,37,32,51	
		1,10,40,12,56, 5,41,15		5,10
48″	49,36,47, 0,47, 3,32,42,40,50		3,37,37,38, 1	
		1,10,40, 9,18,28, 3,14		5,10
50″	49,36,48,11,27,12,51,10,44, 4		3,37,37,43,11	
		1,10,40, 5,40,50,20, 3		5,10
52″	49,36,49,22, 7,18,32, 1, 4, 7		3,37,37,48,21	
		1,10,40, 2, 3,12,31,42		5,10
54″	49,36,50,32,47,20,35,13,35,49		3,37,37,53,31	
		1,10,39,58,25,34,38,11		5,10
56″	49,36,51,43,27,19, 0,48,14, 0		3,37,37,58,41	
		1,10,39,54,47,56,39,30		5,10
58″	49,36,52,54, 7,13,48,44,53,30		3,37,38, 3,51	
		1,10,39,51,10,18,35,39		
60″	49,36,54, 4,47, 4,59, 3,29, 9			
exact	49,36,54, 4,47, 4,59, 3,27, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°47′ 0″	49,36,54, 4,47, 4,59, 3,27, 6			
		1,10,39,47,32,40,26,25		
2″	49,36,55,15,26,52,31,43,53,31		3,37,38,14,11	
		1,10,39,43,55, 2,12,14		5,10
4″	49,36,56,26, 6,36,26,46, 5,45		3,37,38,19,21	
		1,10,39,40,17,23,52,53		5,10
6″	49,36,57,36,46,16,44, 9,58,38		3,37,38,24,31	
		1,10,39,36,39,45,28,22		5,10
8″	49,36,58,47,25,53,23,55,27, 0		3,37,38,29,41	
		1,10,39,33, 2, 6,58,41		5,10
10″	49,36,59,58, 5,26,26, 2,25,41		3,37,38,34,51	
		1,10,39,29,24,28,23,50		5,10
12″	49,37, 1, 8,44,55,50,30,49,31		3,37,38,40, 1	
		1,10,39,25,46,49,43,49		5,10
14″	49,37, 2,19,24,21,37,20,33,20		3,37,38,45,11	
		1,10,39,22, 9,10,58,38		5,10
16″	49,37, 3,30, 3,43,46,31,31,58		3,37,38,50,21	
		1,10,39,18,31,32, 8,17		5,10
18″	49,37, 4,40,43, 2,18, 3,40,15		3,37,38,55,31	
		1,10,39,14,53,53,12,46		5,10
20″	49,37, 5,51,22,17,11,56,53, 1		3,37,39, 0,41	
		1,10,39,11,16,14,12, 5		5,10
22″	49,37, 7, 2, 1,28,28,11, 5, 6		3,37,39, 5,51	
		1,10,39, 7,38,35, 6,14		5,10
24″	49,37, 8,12,40,36, 6,46,11,20		3,37,39,11, 1	
		1,10,39, 4, 0,55,55,13		5,10
26″	49,37, 9,23,19,40, 7,42, 6,33		3,37,39,16,11	
		1,10,39, 0,23,16,39, 2		5,10
28″	49,37,10,33,58,40,30,58,45,35		3,37,39,21,21	
		1,10,38,56,45,37,17,41		5,10
30″	49,37,11,44,37,37,16,36, 3,16		3,37,39,26,31	
		1,10,38,53, 7,57,51,10		5,10
32″	49,37,12,55,16,30,24,33,54,26		3,37,39,31,41	
		1,10,38,49,30,18,19,29		5,10
34″	49,37,14, 5,55,19,54,52,13,55		3,37,39,36,51	
		1,10,38,45,52,38,42,38		5,10
36″	49,37,15,16,34, 5,47,30,56,33		3,37,39,42, 1	
		1,10,38,42,14,59, 0,37		5,10
38″	49,37,16,27,12,48, 2,29,57,10		3,37,39,47,11	
		1,10,38,38,37,19,13,26		5,10
40″	49,37,17,37,51,26,39,49,10,36		3,37,39,52,21	
		1,10,38,34,59,39,21, 5		5,10
42″	49,37,18,48,30, 1,39,28,31,41		3,37,39,57,31	
		1,10,38,31,21,59,23,34		5,10
44″	49,37,19,59, 8,33, 1,27,55,15		3,37,40, 2,41	
		1,10,38,27,44,19,20,53		5,10
46″	49,37,21, 9,47, 0,45,47,16, 8		3,37,40, 7,51	
		1,10,38,24, 6,39,13, 2		5,10
48″	49,37,22,20,25,24,52,26,29,10		3,37,40,13, 1	
		1,10,38,20,28,59, 0, 1		5,10
50″	49,37,23,31, 3,45,21,25,29,11		3,37,40,18,11	
		1,10,38,16,51,18,41,50		5,10
52″	49,37,24,41,42, 2,12,44,11, 1		3,37,40,23,21	
		1,10,38,13,13,38,18,29		5,10
54″	49,37,25,52,20,15,26,22,29,30		3,37,40,28,31	
		1,10,38, 9,35,57,49,58		5,10
56″	49,37,27, 2,58,25, 2,20,19,28		3,37,40,33,41	
		1,10,38, 5,58,17,16,17		5,10
58″	49,37,28,13,36,31, 0,37,35,45		3,37,40,38,51	
		1,10,38, 2,20,36,37,26		
60″	49,37,29,24,14,33,21,14,13,11			
exact	49,37,29,24,14,33,21,14,14,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°48′ 0″	49,37,29,24,14,33,21,14,14,36			
		1,10,37,58,42,55,53,46		
2″	49,37,30,34,52,32, 4,10, 8,22		3,37,40,49, 8	
		1,10,37,55, 5,15, 4,38		5,10
4″	49,37,31,45,30,27, 9,25,13, 0		3,37,40,54,18	
		1,10,37,51,27,34,10,20		5,10
6″	49,37,32,56, 8,18,36,59,23,20		3,37,40,59,28	
		1,10,37,47,49,53,10,52		5,10
8″	49,37,34, 6,46, 6,26,52,34,12		3,37,41, 4,38	
		1,10,37,44,12,12, 6,14		5,10
10″	49,37,35,17,23,50,39, 4,40,26		3,37,41, 9,48	
		1,10,37,40,34,30,56,26		5,10
12″	49,37,36,28, 1,31,13,35,36,52		3,37,41,14,58	
		1,10,37,36,56,49,41,28		5,10
14″	49,37,37,38,39, 8,10,25,18,20		3,37,41,20, 8	
		1,10,37,33,19, 8,21,20		5,10
16″	49,37,38,49,16,41,29,33,39,40		3,37,41,25,18	
		1,10,37,29,41,26,56, 2		5,10
18″	49,37,39,59,54,11,11, 0,35,42		3,37,41,30,28	
		1,10,37,26, 3,45,25,34		5,10
20″	49,37,41,10,31,37,14,46, 1,16		3,37,41,35,38	
		1,10,37,22,26, 3,49,56		5,10
22″	49,37,42,21, 8,59,40,49,51,12		3,37,41,40,48	
		1,10,37,18,48,22, 9, 8		5,10
24″	49,37,43,31,46,18,29,12, 0,20		3,37,41,45,58	
		1,10,37,15,10,40,23,10		5,10
26″	49,37,44,42,23,33,39,52,23,30		3,37,41,51, 8	
		1,10,37,11,32,58,32, 2		5,10
28″	49,37,45,53, 0,45,12,50,55,32		3,37,41,56,18	
		1,10,37, 7,55,16,35,44		5,10
30″	49,37,47, 3,37,53, 8, 7,31,16		3,37,42, 1,28	
		1,10,37, 4,17,34,34,16		5,10
32″	49,37,48,14,14,57,25,42, 5,32		3,37,42, 6,38	
		1,10,37, 0,39,52,27,38		5,10
34″	49,37,49,24,51,58, 5,34,33,10		3,37,42,11,48	
		1,10,36,57, 2,10,15,50		5,10
36″	49,37,50,35,28,55, 7,44,49, 0		3,37,42,16,58	
		1,10,36,53,24,27,58,52		5,10
38″	49,37,51,46, 5,48,32,12,47,52		3,37,42,22, 8	
		1,10,36,49,46,45,36,44		5,10
40″	49,37,52,56,42,38,18,58,24,36		3,37,42,27,18	
		1,10,36,46, 9, 3, 9,26		5,10
42″	49,37,54, 7,19,24,28, 1,34, 2		3,37,42,32,28	
		1,10,36,42,31,20,36,58		5,10
44″	49,37,55,17,56, 6,59,22,11, 0		3,37,42,37,38	
		1,10,36,38,53,37,59,20		5,10
46″	49,37,56,28,32,45,53, 0,10,20		3,37,42,42,48	
		1,10,36,35,15,55,16,32		5,10
48″	49,37,57,39, 9,21, 8,55,26,52		3,37,42,47,58	
		1,10,36,31,38,12,28,34		5,10
50″	49,37,58,49,45,52,47, 7,55,26		3,37,42,53, 8	
		1,10,36,28, 0,29,35,26		5,10
52″	49,38, 0, 0,22,20,47,37,30,52		3,37,42,58,18	
		1,10,36,24,22,46,37, 8		5,10
54″	49,38, 1,10,58,45,10,24, 8, 0		3,37,43, 3,28	
		1,10,36,20,45, 3,33,40		5,10
56″	49,38, 2,21,35, 5,55,27,41,40		3,37,43, 8,38	
		1,10,36,17, 7,20,25, 2		5,10
58″	49,38, 3,32,11,23, 2,48, 6,42		3,37,43,13,48	
		1,10,36,13,29,37,11,14		
60″	49,38, 4,42,47,36,32,25,17,56			
exact	49,38, 4,42,47,36,32,25,29,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°49′ 0″	49,38, 4,42,47,36,32,25,29,19			
		1,10,36, 9,51,53,53,39		
2″	49,38, 5,53,23,46,24,19,22,58		3,37,43,24, 1	
		1,10,36, 6,14,10,29,38		5,10
4″	49,38, 7, 3,59,52,38,29,52,36		3,37,43,29,11	
		1,10,36, 2,36,27, 0,27		5,10
6″	49,38, 8,14,35,55,14,56,53, 3		3,37,43,34,21	
		1,10,35,58,58,43,26, 6		5,10
8″	49,38, 9,25,11,54,13,40,19, 9		3,37,43,39,31	
		1,10,35,55,20,59,46,35		5,10
10″	49,38,10,35,47,49,34,40, 5,44		3,37,43,44,41	
		1,10,35,51,43,16, 1,54		5,10
12″	49,38,11,46,23,41,17,56, 7,38		3,37,43,49,51	
		1,10,35,48, 5,32,12, 3		5,10
14″	49,38,12,56,59,29,23,28,19,41		3,37,43,55, 1	
		1,10,35,44,27,48,17, 2		5,10
16″	49,38,14, 7,35,13,51,16,36,43		3,37,44, 0,11	
		1,10,35,40,50, 4,16,51		5,10
18″	49,38,15,18,10,54,41,20,53,34		3,37,44, 5,21	
		1,10,35,37,12,20,11,30		5,10
20″	49,38,16,28,46,31,53,41, 5, 4		3,37,44,10,31	
		1,10,35,33,34,36, 0,59		5,10
22″	49,38,17,39,22, 5,28,17, 6, 3		3,37,44,15,41	
		1,10,35,29,56,51,45,18		5,10
24″	49,38,18,49,57,35,25, 8,51,21		3,37,44,20,51	
		1,10,35,26,19, 7,24,27		5,10
26″	49,38,20, 0,33, 1,44,16,15,48		3,37,44,26, 1	
		1,10,35,22,41,22,58,26		5,10
28″	49,38,21,11, 8,24,25,39,14,14		3,37,44,31,11	
		1,10,35,19, 3,38,27,15		5,10
30″	49,38,22,21,43,43,29,17,41,29		3,37,44,36,21	
		1,10,35,15,25,53,50,54		5,10
32″	49,38,23,32,18,58,55,11,32,23		3,37,44,41,31	
		1,10,35,11,48, 9, 9,23		5,10
34″	49,38,24,42,54,10,43,20,41,46		3,37,44,46,41	
		1,10,35, 8,10,24,22,42		5,10
36″	49,38,25,53,29,18,53,45, 4,28		3,37,44,51,51	
		1,10,35, 4,32,39,30,51		5,10
38″	49,38,27, 4, 4,23,26,24,35,19		3,37,44,57, 1	
		1,10,35, 0,54,54,33,50		5,10
40″	49,38,28,14,39,24,21,19, 9, 9		3,37,45, 2,11	
		1,10,34,57,17, 9,31,39		5,10
42″	49,38,29,25,14,21,38,28,40,48		3,37,45, 7,21	
		1,10,34,53,39,24,24,18		5,10
44″	49,38,30,35,49,15,17,53, 5, 6		3,37,45,12,31	
		1,10,34,50, 1,39,11,47		5,10
46″	49,38,31,46,24, 5,19,32,16,53		3,37,45,17,41	
		1,10,34,46,23,53,54, 6		5,10
48″	49,38,32,56,58,51,43,26,10,59		3,37,45,22,51	
		1,10,34,42,46, 8,31,15		5,10
50″	49,38,34, 7,33,34,29,34,42,14		3,37,45,28, 1	
		1,10,34,39, 8,23, 3,14		5,10
52″	49,38,35,18, 8,13,37,57,45,28		3,37,45,33,11	
		1,10,34,35,30,37,30, 3		5,10
54″	49,38,36,28,42,49, 8,35,15,31		3,37,45,38,21	
		1,10,34,31,52,51,51,42		5,10
56″	49,38,37,39,17,21, 1,27, 7,13		3,37,45,43,31	
		1,10,34,28,15, 6, 8,11		5,10
58″	49,38,38,49,51,49,16,33,15,24		3,37,45,48,41	
		1,10,34,24,37,20,19,30		
60″	49,38,40, 0,26,13,53,53,34,54			
exact	49,38,40, 0,26,13,53,53,56,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°50′ 0″	49,38,40, 0,26,13,53,53,56,11	1,10,34,20,59,34,28, 4		
2″	49,38,41,11, 0,34,53,28,24,15	1,10,34,17,21,48,29,14	3,37,45,58,50	5,10
4″	49,38,42,21,34,52,15,16,53,29	1,10,34,13,44, 2,25,14	3,37,46, 4, 0	5,10
6″	49,38,43,32, 9, 5,59,19,18,43	1,10,34,10, 6,16,16, 4	3,37,46, 9,10	5,10
8″	49,38,44,42,43,16, 5,35,34,47	1,10,34, 6,28,30, 1,44	3,37,46,14,20	5,10
10″	49,38,45,53,17,22,34, 5,36,31	1,10,34, 2,50,43,42,14	3,37,46,19,30	5,10
12″	49,38,47, 3,51,25,24,49,18,45	1,10,33,59,12,57,17,34	3,37,46,24,40	5,10
14″	49,38,48,14,25,24,37,46,36,19	1,10,33,55,35,10,47,44	3,37,46,29,50	5,10
16″	49,38,49,24,59,20,12,57,24, 3	1,10,33,51,57,24,12,44	3,37,46,35, 0	5,10
18″	49,38,50,35,33,12,10,21,36,47	1,10,33,48,19,37,32,34	3,37,46,40,10	5,10
20″	49,38,51,46, 7, 0,29,59, 9,21	1,10,33,44,41,50,47,14	3,37,46,45,20	5,10
22″	49,38,52,56,40,45,11,49,56,35	1,10,33,41, 4, 3,56,44	3,37,46,50,30	5,10
24″	49,38,54, 7,14,26,15,53,53,19	1,10,33,37,26,17, 1, 4	3,37,46,55,40	5,10
26″	49,38,55,17,48, 3,42,10,54,23	1,10,33,33,48,30, 0,14	3,37,47, 0,50	5,10
28″	49,38,56,28,21,37,30,40,54,37	1,10,33,30,10,42,54,14	3,37,47, 6, 0	5,10
30″	49,38,57,38,55, 7,41,23,48,51	1,10,33,26,32,55,43, 4	3,37,47,11,10	5,10
32″	49,38,58,49,28,34,14,19,31,55	1,10,33,22,55, 8,26,44	3,37,47,16,20	5,10
34″	49,39, 0, 0, 1,57, 9,27,58,39	1,10,33,19,17,21, 5,14	3,37,47,21,30	5,10
36″	49,39, 1,10,35,16,26,49, 3,53	1,10,33,15,39,33,38,34	3,37,47,26,40	5,10
38″	49,39, 2,21, 8,32, 6,22,42,27	1,10,33,12, 1,46, 6,44	3,37,47,31,50	5,10
40″	49,39, 3,31,41,44, 8, 8,49,11	1,10,33, 8,23,58,29,44	3,37,47,37, 0	5,10
42″	49,39, 4,42,14,52,32, 7,18,55	1,10,33, 4,46,10,47,34	3,37,47,42,10	5,10
44″	49,39, 5,52,47,57,18,18, 6,29	1,10,33, 1, 8,23, 0,14	3,37,47,47,20	5,10
46″	49,39, 7, 3,20,58,26,41, 6,43	1,10,32,57,30,35, 7,44	3,37,47,52,30	5,10
48″	49,39, 8,13,53,55,57,16,14,27	1,10,32,53,52,47,10, 4	3,37,47,57,40	5,10
50″	49,39, 9,24,26,49,50, 3,24,31	1,10,32,50,14,59, 7,14	3,37,48, 2,50	5,10
52″	49,39,10,34,59,40, 5, 2,31,45	1,10,32,46,37,10,59,14	3,37,48, 8, 0	5,10
54″	49,39,11,45,32,26,42,13,30,59	1,10,32,42,59,22,46, 4	3,37,48,13,10	5,10
56″	49,39,12,56, 5, 9,41,36,17, 3	1,10,32,39,21,34,27,44	3,37,48,18,20	5,10
58″	49,39,14, 6,37,49, 3,10,44,47	1,10,32,35,43,46, 4,14	3,37,48,23,30	
60″	49,39,15,17,10,24,46,56,49, 1			
exact	49,39,15,17,10,24,46,57,19,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°51′ 0″	49,39,15,17,10,24,46,57,19,50			
		1,10,32,32, 5,57,38,59		
2″	49,39,16,27,42,56,52,54,58,49		3,37,48,33,35	
		1,10,32,28,28, 9, 5,24		5, 9
4″	49,39,17,38,15,25,21, 4, 4,13		3,37,48,38,44	
		1,10,32,24,50,20,26,40		5, 9
6″	49,39,18,48,47,50,11,24,30,53		3,37,48,43,53	
		1,10,32,21,12,31,42,47		5, 9
8″	49,39,19,59,20,11,23,56,13,40		3,37,48,49, 2	
		1,10,32,17,34,42,53,45		5, 9
10″	49,39,21, 9,52,28,58,39, 7,25		3,37,48,54,11	
		1,10,32,13,56,53,59,34		5, 9
12″	49,39,22,20,24,42,55,33, 6,59		3,37,48,59,20	
		1,10,32,10,19, 5, 0,14		5, 9
14″	49,39,23,30,56,53,14,38, 7,13		3,37,49, 4,29	
		1,10,32, 6,41,15,55,45		5, 9
16″	49,39,24,41,28,59,55,54, 2,58		3,37,49, 9,38	
		1,10,32, 3, 3,26,46, 7		5, 9
18″	49,39,25,52, 1, 2,59,20,49, 5		3,37,49,14,47	
		1,10,31,59,25,37,31,20		5, 9
20″	49,39,27, 2,33, 2,24,58,20,25		3,37,49,19,56	
		1,10,31,55,47,48,11,24		5, 9
22″	49,39,28,13, 4,58,12,46,31,49		3,37,49,25, 5	
		1,10,31,52, 9,58,46,19		5, 9
24″	49,39,29,23,36,50,22,45,18, 8		3,37,49,30,14	
		1,10,31,48,32, 9,16, 5		5, 9
26″	49,39,30,34, 8,38,54,54,34,13		3,37,49,35,23	
		1,10,31,44,54,19,40,42		5, 9
28″	49,39,31,44,40,23,49,14,14,55		3,37,49,40,32	
		1,10,31,41,16,30, 0,10		5, 9
30″	49,39,32,55,12, 5, 5,44,15, 5		3,37,49,45,41	
		1,10,31,37,38,40,14,29		5, 9
32″	49,39,34, 5,43,42,44,24,29,34		3,37,49,50,50	
		1,10,31,34, 0,50,23,39		5, 9
34″	49,39,35,16,15,16,45,14,53,13		3,37,49,55,59	
		1,10,31,30,23, 0,27,40		5, 9
36″	49,39,36,26,46,47, 8,15,20,53		3,37,50, 1, 8	
		1,10,31,26,45,10,26,32		5, 9
38″	49,39,37,37,18,13,53,25,47,25		3,37,50, 6,17	
		1,10,31,23, 7,20,20,15		5, 9
40″	49,39,38,47,49,37, 0,46, 7,40		3,37,50,11,26	
		1,10,31,19,29,30, 8,49		5, 9
42″	49,39,39,58,20,56,30,16,16,29		3,37,50,16,35	
		1,10,31,15,51,39,52,14		5, 9
44″	49,39,41, 8,52,12,21,56, 8,43		3,37,50,21,44	
		1,10,31,12,13,49,30,30		5, 9
46″	49,39,42,19,23,24,35,45,39,13		3,37,50,26,53	
		1,10,31, 8,35,59, 3,37		5, 9
48″	49,39,43,29,54,33,11,44,42,50		3,37,50,32, 2	
		1,10,31, 4,58, 8,31,35		5, 9
50″	49,39,44,40,25,38, 9,53,14,25		3,37,50,37,11	
		1,10,31, 1,20,17,54,24		5, 9
52″	49,39,45,50,56,39,30,11, 8,49		3,37,50,42,20	
		1,10,30,57,42,27,12, 4		5, 9
54″	49,39,47, 1,27,37,12,38,20,53		3,37,50,47,29	
		1,10,30,54, 4,36,24,35		5, 9
56″	49,39,48,11,58,31,17,14,45,28		3,37,50,52,38	
		1,10,30,50,26,45,31,57		5, 9
58″	49,39,49,22,29,21,44, 0,17,25		3,37,50,57,47	
		1,10,30,46,48,54,34,10		
60″	49,39,50,33, 0, 8,32,54,51,35			
exact	49,39,50,33, 0, 8,32,54,24,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°52′ 0″	49,39,50,33, 0, 8,32,54,24,36			
		1,10,30,43,11, 3,28,25		
2″	49,39,51,43,30,51,43,57,53, 1		3,37,51, 8,16	
		1,10,30,39,33,12,20, 9		5, 9
4″	49,39,52,54, 1,31,17,10,13,10		3,37,51,13,25	
		1,10,30,35,55,21, 6,44		5, 9
6″	49,39,54, 4,32, 7,12,31,19,54		3,37,51,18,34	
		1,10,30,32,17,29,48,10		5, 9
8″	49,39,55,15, 2,39,30, 1, 8, 4		3,37,51,23,43	
		1,10,30,28,39,38,24,27		5, 9
10″	49,39,56,25,33, 8, 9,39,32,31		3,37,51,28,52	
		1,10,30,25, 1,46,55,35		5, 9
12″	49,39,57,36, 3,33,11,26,28, 6		3,37,51,34, 1	
		1,10,30,21,23,55,21,34		5, 9
14″	49,39,58,46,33,54,35,21,49,40		3,37,51,39,10	
		1,10,30,17,46, 3,42,24		5, 9
16″	49,39,59,57, 4,12,21,25,32, 4		3,37,51,44,19	
		1,10,30,14, 8,11,58, 5		5, 9
18″	49,40, 1, 7,34,26,29,37,30, 9		3,37,51,49,28	
		1,10,30,10,30,20, 8,37		5, 9
20″	49,40, 2,18, 4,36,59,57,38,46		3,37,51,54,37	
		1,10,30, 6,52,28,14, 0		5, 9
22″	49,40, 3,28,34,43,52,25,52,46		3,37,51,59,46	
		1,10,30, 3,14,36,14,14		5, 9
24″	49,40, 4,39, 4,47, 7, 2, 7, 0		3,37,52, 4,55	
		1,10,29,59,36,44, 9,19		5, 9
26″	49,40, 5,49,34,46,43,46,16,19		3,37,52,10, 4	
		1,10,29,55,58,51,59,15		5, 9
28″	49,40, 7, 0, 4,42,42,38,15,34		3,37,52,15,13	
		1,10,29,52,20,59,44, 2		5, 9
30″	49,40, 8,10,34,35, 3,37,59,36		3,37,52,20,22	
		1,10,29,48,43, 7,23,40		5, 9
32″	49,40, 9,21, 4,23,46,45,23,16		3,37,52,25,31	
		1,10,29,45, 5,14,58, 9		5, 9
34″	49,40,10,31,34, 8,52, 0,21,25		3,37,52,30,40	
		1,10,29,41,27,22,27,29		5, 9
36″	49,40,11,42, 3,50,19,22,48,54		3,37,52,35,49	
		1,10,29,37,49,29,51,40		5, 9
38″	49,40,12,52,33,28, 8,52,40,34		3,37,52,40,58	
		1,10,29,34,11,37,10,42		5, 9
40″	49,40,14, 3, 3, 2,20,29,51,16		3,37,52,46, 7	
		1,10,29,30,33,44,24,35		5, 9
42″	49,40,15,13,32,32,54,14,15,51		3,37,52,51,16	
		1,10,29,26,55,51,33,19		5, 9
44″	49,40,16,24, 1,59,50, 5,49,10		3,37,52,56,25	
		1,10,29,23,17,58,36,54		5, 9
46″	49,40,17,34,31,23, 8, 4,26, 4		3,37,53, 1,34	
		1,10,29,19,40, 5,35,20		5, 9
48″	49,40,18,45, 0,42,48,10, 1,24		3,37,53, 6,43	
		1,10,29,16, 2,12,28,37		5, 9
50″	49,40,19,55,29,58,50,22,30, 1		3,37,53,11,52	
		1,10,29,12,24,19,16,45		5, 9
52″	49,40,21, 5,59,11,14,41,46,46		3,37,53,17, 1	
		1,10,29, 8,46,25,59,44		5, 9
54″	49,40,22,16,28,20, 1, 7,46,30		3,37,53,22,10	
		1,10,29, 5, 8,32,37,34		5, 9
56″	49,40,23,26,57,25, 9,40,24, 4		3,37,53,27,19	
		1,10,29, 1,30,39,10,15		5, 9
58″	49,40,24,37,26,26,40,19,34,19		3,37,53,32,28	
		1,10,28,57,52,45,37,47		
60″	49,40,25,47,55,24,33, 5,12, 6			
exact	49,40,25,47,55,24,33, 4,54,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°53′ 0″	49,40,25,47,55,24,33, 4,54,32			
		1,10,28,54,14,51,58,21		
2″	49,40,26,58,24,18,47,56,52,53		3,37,53,42,53	
		1,10,28,50,36,58,15,28		5, 9
4″	49,40,28, 8,53, 9,24,55, 8,21		3,37,53,48, 2	
		1,10,28,46,59, 4,27,26		5, 9
6″	49,40,29,19,21,56,23,59,35,47		3,37,53,53,11	
		1,10,28,43,21,10,34,15		5, 9
8″	49,40,30,29,50,39,45,10,10, 2		3,37,53,58,20	
		1,10,28,39,43,16,35,55		5, 9
10″	49,40,31,40,19,19,28,26,45,57		3,37,54, 3,29	
		1,10,28,36, 5,22,32,26		5, 9
12″	49,40,32,50,47,55,33,49,18,23		3,37,54, 8,38	
		1,10,28,32,27,28,23,48		5, 9
14″	49,40,34, 1,16,28, 1,17,42,11		3,37,54,13,47	
		1,10,28,28,49,34,10, 1		5, 9
16″	49,40,35,11,44,56,50,51,52,12		3,37,54,18,56	
		1,10,28,25,11,39,51, 5		5, 9
18″	49,40,36,22,13,22, 2,31,43,17		3,37,54,24, 5	
		1,10,28,21,33,45,27, 0		5, 9
20″	49,40,37,32,41,43,36,17,10,17		3,37,54,29,14	
		1,10,28,17,55,50,57,46		5, 9
22″	49,40,38,43,10, 1,32, 8, 8, 3		3,37,54,34,23	
		1,10,28,14,17,56,23,23		5, 9
24″	49,40,39,53,38,15,50, 4,31,26		3,37,54,39,32	
		1,10,28,10,40, 1,43,51		5, 9
26″	49,40,41, 4, 6,26,30, 6,15,17		3,37,54,44,41	
		1,10,28, 7, 2, 6,59,10		5, 9
28″	49,40,42,14,34,33,32,13,14,27		3,37,54,49,50	
		1,10,28, 3,24,12, 9,20		5, 9
30″	49,40,43,25, 2,36,56,25,23,47		3,37,54,54,59	
		1,10,27,59,46,17,14,21		5, 9
32″	49,40,44,35,30,36,42,42,38, 8		3,37,55, 0, 8	
		1,10,27,56, 8,22,14,13		5, 9
34″	49,40,45,45,58,32,51, 4,52,21		3,37,55, 5,17	
		1,10,27,52,30,27, 8,56		5, 9
36″	49,40,46,56,26,25,21,32, 1,17		3,37,55,10,26	
		1,10,27,48,52,31,58,30		5, 9
38″	49,40,48, 6,54,14,14, 3,59,47		3,37,55,15,35	
		1,10,27,45,14,36,42,55		5, 9
40″	49,40,49,17,21,59,28,40,42,42		3,37,55,20,44	
		1,10,27,41,36,41,22,11		5, 9
42″	49,40,50,27,49,41, 5,22, 4,53		3,37,55,25,53	
		1,10,27,37,58,45,56,18		5, 9
44″	49,40,51,38,17,19, 4, 8, 1,11		3,37,55,31, 2	
		1,10,27,34,20,50,25,16		5, 9
46″	49,40,52,48,44,53,24,58,26,27		3,37,55,36,11	
		1,10,27,30,42,54,49, 5		5, 9
48″	49,40,53,59,12,24, 7,53,15,32		3,37,55,41,20	
		1,10,27,27, 4,59, 7,45		5, 9
50″	49,40,55, 9,39,51,12,52,23,17		3,37,55,46,29	
		1,10,27,23,27, 3,21,16		5, 9
52″	49,40,56,20, 7,14,39,55,44,33		3,37,55,51,38	
		1,10,27,19,49, 7,29,38		5, 9
54″	49,40,57,30,34,34,29, 3,14,11		3,37,55,56,47	
		1,10,27,16,11,11,32,51		5, 9
56″	49,40,58,41, 1,50,40,14,47, 2		3,37,56, 1,56	
		1,10,27,12,33,15,30,55		5, 9
58″	49,40,59,51,29, 3,13,30,17,57		3,37,56, 7, 5	
		1,10,27, 8,55,19,23,50		
60″	49,41, 1, 1,56,12, 8,49,41,47			
exact	49,41, 1, 1,56,12, 8,49,33,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°54′ 0″	49,41, 1, 1,56,12, 8,49,33,23			
		1,10,27, 5,17,23,10,46		
2″	49,41, 2,12,23,17,26,12,44, 9		3,37,56,17,26	
		1,10,27, 1,39,26,53,20		5, 9
4″	49,41, 3,22,50,19, 5,39,37,29		3,37,56,22,35	
		1,10,26,58, 1,30,30,45		5, 9
6″	49,41, 4,33,17,17, 7,10, 8,14		3,37,56,27,44	
		1,10,26,54,23,34, 3, 1		5, 9
8″	49,41, 5,43,44,11,30,44,11,15		3,37,56,32,53	
		1,10,26,50,45,37,30, 8		5, 9
10″	49,41, 6,54,11, 2,16,21,41,23		3,37,56,38, 2	
		1,10,26,47, 7,40,52, 6		5, 9
12″	49,41, 8, 4,37,49,24, 2,33,29		3,37,56,43,11	
		1,10,26,43,29,44, 8,55		5, 9
14″	49,41, 9,15, 4,32,53,46,42,24		3,37,56,48,20	
		1,10,26,39,51,47,20,35		5, 9
16″	49,41,10,25,31,12,45,34, 2,59		3,37,56,53,29	
		1,10,26,36,13,50,27, 6		5, 9
18″	49,41,11,35,57,48,59,24,30, 5		3,37,56,58,38	
		1,10,26,32,35,53,28,28		5, 9
20″	49,41,12,46,24,21,35,17,58,33		3,37,57, 3,47	
		1,10,26,28,57,56,24,41		5, 9
22″	49,41,13,56,50,50,33,14,23,14		3,37,57, 8,56	
		1,10,26,25,19,59,15,45		5, 9
24″	49,41,15, 7,17,15,53,13,38,59		3,37,57,14, 5	
		1,10,26,21,42, 2, 1,40		5, 9
26″	49,41,16,17,43,37,35,15,40,39		3,37,57,19,14	
		1,10,26,18, 4, 4,42,26		5, 9
28″	49,41,17,28, 9,55,39,20,23, 5		3,37,57,24,23	
		1,10,26,14,26, 7,18, 3		5, 9
30″	49,41,18,38,36,10, 5,27,41, 8		3,37,57,29,32	
		1,10,26,10,48, 9,48,31		5, 9
32″	49,41,19,49, 2,20,53,37,29,39		3,37,57,34,41	
		1,10,26, 7,10,12,13,50		5, 9
34″	49,41,20,59,28,28, 3,49,43,29		3,37,57,39,50	
		1,10,26, 3,32,14,34, 0		5, 9
36″	49,41,22, 9,54,31,36, 4,17,29		3,37,57,44,59	
		1,10,25,59,54,16,49, 1		5, 9
38″	49,41,23,20,20,31,30,21, 6,30		3,37,57,50, 8	
		1,10,25,56,16,18,58,53		5, 9
40″	49,41,24,30,46,27,46,40, 5,23		3,37,57,55,17	
		1,10,25,52,38,21, 3,36		5, 9
42″	49,41,25,41,12,20,25, 1, 8,59		3,37,58, 0,26	
		1,10,25,49, 0,23, 3,10		5, 9
44″	49,41,26,51,38, 9,25,24,12, 9		3,37,58, 5,35	
		1,10,25,45,22,24,57,35		5, 9
46″	49,41,28, 2, 3,54,47,49, 9,44		3,37,58,10,44	
		1,10,25,41,44,26,46,51		5, 9
48″	49,41,29,12,29,36,32,15,56,35		3,37,58,15,53	
		1,10,25,38, 6,28,30,58		5, 9
50″	49,41,30,22,55,14,38,44,27,33		3,37,58,21, 2	
		1,10,25,34,28,30, 9,56		5, 9
52″	49,41,31,33,20,49, 7,14,37,29		3,37,58,26,11	
		1,10,25,30,50,31,43,45		5, 9
54″	49,41,32,43,46,19,57,46,21,14		3,37,58,31,20	
		1,10,25,27,12,33,12,25		5, 9
56″	49,41,33,54,11,47,10,19,33,39		3,37,58,36,29	
		1,10,25,23,34,34,35,56		5, 9
58″	49,41,35, 4,37,10,44,54, 9,35		3,37,58,41,38	
		1,10,25,19,56,35,54,18		
60″	49,41,36,15, 2,30,41,30, 3,53			
exact	49,41,36,15, 2,30,41,30, 4,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°55′ 0″	49,41,36,15, 2,30,41,30, 4,40			
		1,10,25,16,18,37, 7,39		
2″	49,41,37,25,27,47, 0, 7,12,19		3,37,58,51,55	
		1,10,25,12,40,38,15,44		5, 9
4″	49,41,38,35,52,59,40,45,28, 3		3,37,58,57, 4	
		1,10,25, 9, 2,39,18,40		5, 9
6″	49,41,39,46,18, 8,43,24,46,43		3,37,59, 2,13	
		1,10,25, 5,24,40,16,27		5, 9
8″	49,41,40,56,43,14, 8, 5, 3,10		3,37,59, 7,22	
		1,10,25, 1,46,41, 9, 5		5, 9
10″	49,41,42, 7, 8,15,54,46,12,15		3,37,59,12,31	
		1,10,24,58, 8,41,56,34		5, 9
12″	49,41,43,17,33,14, 3,28, 8,49		3,37,59,17,40	
		1,10,24,54,30,42,38,54		5, 9
14″	49,41,44,27,58, 8,34,10,47,43		3,37,59,22,49	
		1,10,24,50,52,43,16, 5		5, 9
16″	49,41,45,38,22,59,26,54, 3,48		3,37,59,27,58	
		1,10,24,47,14,43,48, 7		5, 9
18″	49,41,46,48,47,46,41,37,51,55		3,37,59,33, 7	
		1,10,24,43,36,44,15, 0		5, 9
20″	49,41,47,59,12,30,18,22, 6,55		3,37,59,38,16	
		1,10,24,39,58,44,36,44		5, 9
22″	49,41,49, 9,37,10,17, 6,43,39		3,37,59,43,25	
		1,10,24,36,20,44,53,19		5, 9
24″	49,41,50,20, 1,46,37,51,36,58		3,37,59,48,34	
		1,10,24,32,42,45, 4,45		5, 9
26″	49,41,51,30,26,19,20,36,41,43		3,37,59,53,43	
		1,10,24,29, 4,45,11, 2		5, 9
28″	49,41,52,40,50,48,25,21,52,45		3,37,59,58,52	
		1,10,24,25,26,45,12,10		5, 9
30″	49,41,53,51,15,13,52, 7, 4,55		3,38, 0, 4, 1	
		1,10,24,21,48,45, 8, 9		5, 9
32″	49,41,55, 1,39,35,40,52,13, 4		3,38, 0, 9,10	
		1,10,24,18,10,44,58,59		5, 9
34″	49,41,56,12, 3,53,51,37,12, 3		3,38, 0,14,19	
		1,10,24,14,32,44,44,40		5, 9
36″	49,41,57,22,28, 8,24,21,56,43		3,38, 0,19,28	
		1,10,24,10,54,44,25,12		5, 9
38″	49,41,58,32,52,19,19, 6,21,55		3,38, 0,24,37	
		1,10,24, 7,16,44, 0,35		5, 9
40″	49,41,59,43,16,26,35,50,22,30		3,38, 0,29,46	
		1,10,24, 3,38,43,30,49		5, 9
42″	49,42, 0,53,40,30,14,33,53,19		3,38, 0,34,55	
		1,10,24, 0, 0,42,55,54		5, 9
44″	49,42, 2, 4, 4,30,15,16,49,13		3,38, 0,40, 4	
		1,10,23,56,22,42,15,50		5, 9
46″	49,42, 3,14,28,26,37,59, 5, 3		3,38, 0,45,13	
		1,10,23,52,44,41,30,37		5, 9
48″	49,42, 4,24,52,19,22,40,35,40		3,38, 0,50,22	
		1,10,23,49, 6,40,40,15		5, 9
50″	49,42, 5,35,16, 8,29,21,15,55		3,38, 0,55,31	
		1,10,23,45,28,39,44,44		5, 9
52″	49,42, 6,45,39,53,58, 1, 0,39		3,38, 1, 0,40	
		1,10,23,41,50,38,44, 4		5, 9
54″	49,42, 7,56, 3,35,48,39,44,43		3,38, 1, 5,49	
		1,10,23,38,12,37,38,15		5, 9
56″	49,42, 9, 6,27,14, 1,17,22,58		3,38, 1,10,58	
		1,10,23,34,34,36,27,17		5, 9
58″	49,42,10,16,50,48,35,53,50,15		3,38, 1,16, 7	
		1,10,23,30,56,35,11,10		
60″	49,42,11,27,14,19,32,29, 1,25			
exact	49,42,11,27,14,19,32,29,11,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°56′ 0″	49,42,11,27,14,19,32,29,11,39			
		1,10,23,27,18,33,51, 1		
2″	49,42,12,37,37,46,51, 3, 2,40		3,38, 1,26,20	
		1,10,23,23,40,32,24,41		5, 9
4″	49,42,13,48, 1,10,31,35,27,21		3,38, 1,31,29	
		1,10,23,20, 2,30,53,12		5, 9
6″	49,42,14,58,24,30,34, 6,20,33		3,38, 1,36,38	
		1,10,23,16,24,29,16,34		5, 9
8″	49,42,16, 8,47,46,58,35,37, 7		3,38, 1,41,47	
		1,10,23,12,46,27,34,47		5, 9
10″	49,42,17,19,10,59,45, 3,11,54		3,38, 1,46,56	
		1,10,23, 9, 8,25,47,51		5, 9
12″	49,42,18,29,34, 8,53,28,59,45		3,38, 1,52, 5	
		1,10,23, 5,30,23,55,46		5, 9
14″	49,42,19,39,57,14,23,52,55,31		3,38, 1,57,14	
		1,10,23, 1,52,21,58,32		5, 9
16″	49,42,20,50,20,16,16,14,54, 3		3,38, 2, 2,23	
		1,10,22,58,14,19,56, 9		5, 9
18″	49,42,22, 0,43,14,30,34,50,12		3,38, 2, 7,32	
		1,10,22,54,36,17,48,37		5, 9
20″	49,42,23,11, 6, 9, 6,52,38,49		3,38, 2,12,41	
		1,10,22,50,58,15,35,56		5, 9
22″	49,42,24,21,29, 0, 5, 8,14,45		3,38, 2,17,50	
		1,10,22,47,20,13,18, 6		5, 9
24″	49,42,25,31,51,47,25,21,32,51		3,38, 2,22,59	
		1,10,22,43,42,10,55, 7		5, 9
26″	49,42,26,42,14,31, 7,32,27,58		3,38, 2,28, 8	
		1,10,22,40, 4, 8,26,59		5, 9
28″	49,42,27,52,37,11,11,40,54,57		3,38, 2,33,17	
		1,10,22,36,26, 5,53,42		5, 9
30″	49,42,29, 2,59,47,37,46,48,39		3,38, 2,38,26	
		1,10,22,32,48, 3,15,16		5, 9
32″	49,42,30,13,22,20,25,50, 3,55		3,38, 2,43,35	
		1,10,22,29,10, 0,31,41		5, 9
34″	49,42,31,23,44,49,35,50,35,36		3,38, 2,48,44	
		1,10,22,25,31,57,42,57		5, 9
36″	49,42,32,34, 7,15, 7,48,18,33		3,38, 2,53,53	
		1,10,22,21,53,54,49, 4		5, 9
38″	49,42,33,44,29,37, 1,43, 7,37		3,38, 2,59, 2	
		1,10,22,18,15,51,50, 2		5, 9
40″	49,42,34,54,51,55,17,34,57,39		3,38, 3, 4,11	
		1,10,22,14,37,48,45,51		5, 9
42″	49,42,36, 5,14, 9,55,23,43,30		3,38, 3, 9,20	
		1,10,22,10,59,45,36,31		5, 9
44″	49,42,37,15,36,20,55, 9,20, 1		3,38, 3,14,29	
		1,10,22, 7,21,42,22, 2		5, 9
46″	49,42,38,25,58,28,16,51,42, 3		3,38, 3,19,38	
		1,10,22, 3,43,39, 2,24		5, 9
48″	49,42,39,36,20,32, 0,30,44,27		3,38, 3,24,47	
		1,10,22, 0, 5,35,37,37		5, 9
50″	49,42,40,46,42,32, 6, 6,22, 4		3,38, 3,29,56	
		1,10,21,56,27,32, 7,41		5, 9
52″	49,42,41,57, 4,28,33,38,29,45		3,38, 3,35, 5	
		1,10,21,52,49,28,32,36		5, 9
54″	49,42,43, 7,26,21,23, 7, 2,21		3,38, 3,40,14	
		1,10,21,49,11,24,52,22		5, 9
56″	49,42,44,17,48,10,34,31,54,43		3,38, 3,45,23	
		1,10,21,45,33,21, 6,59		5, 9
58″	49,42,45,28, 9,56, 7,53, 1,42		3,38, 3,50,32	
		1,10,21,41,55,17,16,27		
60″	49,42,46,38,31,38, 3,10,18, 9			
exact	49,42,46,38,31,38, 3,10,37,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°57′ 0″	49,42,46,38,31,38, 3,10,37,20			
		1,10,21,38,17,13,22,51		
2″	49,42,47,48,53,16,20,24, 0,11		3,38, 4, 0,41	
		1,10,21,34,39, 9,22,10		5, 9
4″	49,42,48,59,14,50,59,33,22,21		3,38, 4, 5,50	
		1,10,21,31, 1, 5,16,20		5, 9
6″	49,42,50, 9,36,22, 0,38,38,41		3,38, 4,10,59	
		1,10,21,27,23, 1, 5,21		5, 9
8″	49,42,51,19,57,49,23,39,44, 2		3,38, 4,16, 8	
		1,10,21,23,44,56,49,13		5, 9
10″	49,42,52,30,19,13, 8,36,33,15		3,38, 4,21,17	
		1,10,21,20, 6,52,27,56		5, 9
12″	49,42,53,40,40,33,15,29, 1,11		3,38, 4,26,26	
		1,10,21,16,28,48, 1,30		5, 9
14″	49,42,54,51, 1,49,44,17, 2,41		3,38, 4,31,35	
		1,10,21,12,50,43,29,55		5, 9
16″	49,42,56, 1,23, 2,35, 0,32,36		3,38, 4,36,44	
		1,10,21, 9,12,38,53,11		5, 9
18″	49,42,57,11,44,11,47,39,25,47		3,38, 4,41,53	
		1,10,21, 5,34,34,11,18		5, 9
20″	49,42,58,22, 5,17,22,13,37, 5		3,38, 4,47, 2	
		1,10,21, 1,56,29,24,16		5, 9
22″	49,42,59,32,26,19,18,43, 1,21		3,38, 4,52,11	
		1,10,20,58,18,24,32, 5		5, 9
24″	49,43, 0,42,47,17,37, 7,33,26		3,38, 4,57,20	
		1,10,20,54,40,19,34,45		5, 9
26″	49,43, 1,53, 8,12,17,27, 8,11		3,38, 5, 2,29	
		1,10,20,51, 2,14,32,16		5, 9
28″	49,43, 3, 3,29, 3,19,41,40,27		3,38, 5, 7,38	
		1,10,20,47,24, 9,24,38		5, 9
30″	49,43, 4,13,49,50,43,51, 5, 5		3,38, 5,12,47	
		1,10,20,43,46, 4,11,51		5, 9
32″	49,43, 5,24,10,34,29,55,16,56		3,38, 5,17,56	
		1,10,20,40, 7,58,53,55		5, 9
34″	49,43, 6,34,31,14,37,54,10,51		3,38, 5,23, 5	
		1,10,20,36,29,53,30,50		5, 9
36″	49,43, 7,44,51,51, 7,47,41,41		3,38, 5,28,14	
		1,10,20,32,51,48, 2,36		5, 9
38″	49,43, 8,55,12,23,59,35,44,17		3,38, 5,33,23	
		1,10,20,29,13,42,29,13		5, 9
40″	49,43,10, 5,32,53,13,18,13,30		3,38, 5,38,32	
		1,10,20,25,35,36,50,41		5, 9
42″	49,43,11,15,53,18,48,55, 4,11		3,38, 5,43,41	
		1,10,20,21,57,31, 7, 0		5, 9
44″	49,43,12,26,13,40,46,26,11,11		3,38, 5,48,50	
		1,10,20,18,19,25,18,10		5, 9
46″	49,43,13,36,33,59, 5,51,29,21		3,38, 5,53,59	
		1,10,20,14,41,19,24,11		5, 9
48″	49,43,14,46,54,13,47,10,53,32		3,38, 5,59, 8	
		1,10,20,11, 3,13,25, 3		5, 9
50″	49,43,15,57,14,24,50,24,18,35		3,38, 6, 4,17	
		1,10,20, 7,25, 7,20,46		5, 9
52″	49,43,17, 7,34,32,15,31,39,21		3,38, 6, 9,26	
		1,10,20, 3,47, 1,11,20		5, 9
54″	49,43,18,17,54,36, 2,32,50,41		3,38, 6,14,35	
		1,10,20, 0, 8,54,56,45		5, 9
56″	49,43,19,28,14,36,11,27,47,26		3,38, 6,19,44	
		1,10,19,56,30,48,37, 1		5, 9
58″	49,43,20,38,34,32,42,16,24,27		3,38, 6,24,53	
		1,10,19,52,52,42,12, 8		
60″	49,43,21,48,54,25,34,58,36,35			
exact	49,43,21,48,54,25,34,59, 4,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°58′ 0″	49,43,21,48,54,25,34,59, 4,31			
		1,10,19,49,14,35,45, 8		
2″	49,43,22,59,14,14,49,34,49,39		3,38, 6,34,58	
		1,10,19,45,36,29,10,10		5, 8
4″	49,43,24, 9,34, 0,26, 3,59,49		3,38, 6,40, 6	
		1,10,19,41,58,22,30, 4		5, 8
6″	49,43,25,19,53,42,24,26,29,53		3,38, 6,45,14	
		1,10,19,38,20,15,44,50		5, 8
8″	49,43,26,30,13,20,44,42,14,43		3,38, 6,50,22	
		1,10,19,34,42, 8,54,28		5, 8
10″	49,43,27,40,32,55,26,51, 9,11		3,38, 6,55,30	
		1,10,19,31, 4, 1,58,58		5, 8
12″	49,43,28,50,52,26,30,53, 8, 9		3,38, 7, 0,38	
		1,10,19,27,25,54,58,20		5, 8
14″	49,43,30, 1,11,53,56,48, 6,29		3,38, 7, 5,46	
		1,10,19,23,47,47,52,34		5, 8
16″	49,43,31,11,31,17,44,35,59, 3		3,38, 7,10,54	
		1,10,19,20, 9,40,41,40		5, 8
18″	49,43,32,21,50,37,54,16,40,43		3,38, 7,16, 2	
		1,10,19,16,31,33,25,38		5, 8
20″	49,43,33,32, 9,54,25,50, 6,21		3,38, 7,21,10	
		1,10,19,12,53,26, 4,28		5, 8
22″	49,43,34,42,29, 7,19,16,10,49		3,38, 7,26,18	
		1,10,19, 9,15,18,38,10		5, 8
24″	49,43,35,52,48,16,34,34,48,59		3,38, 7,31,26	
		1,10,19, 5,37,11, 6,44		5, 8
26″	49,43,37, 3, 7,22,11,45,55,43		3,38, 7,36,34	
		1,10,19, 1,59, 3,30,10		5, 8
28″	49,43,38,13,26,24,10,49,25,53		3,38, 7,41,42	
		1,10,18,58,20,55,48,28		5, 8
30″	49,43,39,23,45,22,31,45,14,21		3,38, 7,46,50	
		1,10,18,54,42,48, 1,38		5, 8
32″	49,43,40,34, 4,17,14,33,15,59		3,38, 7,51,58	
		1,10,18,51, 4,40, 9,40		5, 8
34″	49,43,41,44,23, 8,19,13,25,39		3,38, 7,57, 6	
		1,10,18,47,26,32,12,34		5, 8
36″	49,43,42,54,41,55,45,45,38,13		3,38, 8, 2,14	
		1,10,18,43,48,24,10,20		5, 8
38″	49,43,44, 5, 0,39,34, 9,48,33		3,38, 8, 7,22	
		1,10,18,40,10,16, 2,58		5, 8
40″	49,43,45,15,19,19,44,25,51,31		3,38, 8,12,30	
		1,10,18,36,32, 7,50,28		5, 8
42″	49,43,46,25,37,56,16,33,41,59		3,38, 8,17,38	
		1,10,18,32,53,59,32,50		5, 8
44″	49,43,47,35,56,29,10,33,14,49		3,38, 8,22,46	
		1,10,18,29,15,51,10, 4		5, 8
46″	49,43,48,46,14,58,26,24,24,53		3,38, 8,27,54	
		1,10,18,25,37,42,42,10		5, 8
48″	49,43,49,56,33,24, 4, 7, 7, 3		3,38, 8,33, 2	
		1,10,18,21,59,34, 9, 8		5, 8
50″	49,43,51, 6,51,46, 3,41,16,11		3,38, 8,38,10	
		1,10,18,18,21,25,30,58		5, 8
52″	49,43,52,17,10, 4,25, 6,47, 9		3,38, 8,43,18	
		1,10,18,14,43,16,47,40		5, 8
54″	49,43,53,27,28,19, 8,23,34,49		3,38, 8,48,26	
		1,10,18,11, 5, 7,59,14		5, 8
56″	49,43,54,37,46,30,13,31,34, 3		3,38, 8,53,34	
		1,10,18, 7,26,59, 5,40		5, 8
58″	49,43,55,48, 4,37,40,30,39,43		3,38, 8,58,42	
		1,10,18, 3,48,50, 6,58		
60″	49,43,56,58,22,41,29,20,46,41			
exact	49,43,56,58,22,41,29,20,15,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
55°59′ 0″	49,43,56,58,22,41,29,20,15,46			
		1,10,18, 0,10,40,59,52		
2″	49,43,58, 8,40,41,40, 1,15,38		3,38, 9, 9,11	
		1,10,17,56,32,31,50,41		5, 8
4″	49,43,59,18,58,38,12,33, 6,19		3,38, 9,14,19	
		1,10,17,52,54,22,36,22		5, 8
6″	49,44, 0,29,16,31, 6,55,42,41		3,38, 9,19,27	
		1,10,17,49,16,13,16,55		5, 8
8″	49,44, 1,39,34,20,23, 8,59,36		3,38, 9,24,35	
		1,10,17,45,38, 3,52,20		5, 8
10″	49,44, 2,49,52, 6, 1,12,51,56		3,38, 9,29,43	
		1,10,17,41,59,54,22,37		5, 8
12″	49,44, 4, 0, 9,48, 1, 7,14,33		3,38, 9,34,51	
		1,10,17,38,21,44,47,46		5, 8
14″	49,44, 5,10,27,26,22,52, 2,19		3,38, 9,39,59	
		1,10,17,34,43,35, 7,47		5, 8
16″	49,44, 6,20,45, 1, 6,27,10, 6		3,38, 9,45, 7	
		1,10,17,31, 5,25,22,40		5, 8
18″	49,44, 7,31, 2,32,11,52,32,46		3,38, 9,50,15	
		1,10,17,27,27,15,32,25		5, 8
20″	49,44, 8,41,19,59,39, 8, 5,11		3,38, 9,55,23	
		1,10,17,23,49, 5,37, 2		5, 8
22″	49,44, 9,51,37,23,28,13,42,13		3,38,10, 0,31	
		1,10,17,20,10,55,36,31		5, 8
24″	49,44,11, 1,54,43,39, 9,18,44		3,38,10, 5,39	
		1,10,17,16,32,45,30,52		5, 8
26″	49,44,12,12,12, 0,11,54,49,36		3,38,10,10,47	
		1,10,17,12,54,35,20, 5		5, 8
28″	49,44,13,22,29,13, 6,30, 9,41		3,38,10,15,55	
		1,10,17, 9,16,25, 4,10		5, 8
30″	49,44,14,32,46,22,22,55,13,51		3,38,10,21, 3	
		1,10,17, 5,38,14,43, 7		5, 8
32″	49,44,15,43, 3,28, 1, 9,56,58		3,38,10,26,11	
		1,10,17, 2, 0, 4,16,56		5, 8
34″	49,44,16,53,20,30, 1,14,13,54		3,38,10,31,19	
		1,10,16,58,21,53,45,37		5, 8
36″	49,44,18, 3,37,28,23, 7,59,31		3,38,10,36,27	
		1,10,16,54,43,43, 9,10		5, 8
38″	49,44,19,13,54,23, 6,51, 8,41		3,38,10,41,35	
		1,10,16,51, 5,32,27,35		5, 8
40″	49,44,20,24,11,14,12,23,36,16		3,38,10,46,43	
		1,10,16,47,27,21,40,52		5, 8
42″	49,44,21,34,28, 1,39,45,17, 8		3,38,10,51,51	
		1,10,16,43,49,10,49, 1		5, 8
44″	49,44,22,44,44,45,28,56, 6, 9		3,38,10,56,59	
		1,10,16,40,10,59,52, 2		5, 8
46″	49,44,23,55, 1,25,39,55,58,11		3,38,11, 2, 7	
		1,10,16,36,32,48,49,55		5, 8
48″	49,44,25, 5,18, 2,12,44,48, 6		3,38,11, 7,15	
		1,10,16,32,54,37,42,40		5, 8
50″	49,44,26,15,34,35, 7,22,30,46		3,38,11,12,23	
		1,10,16,29,16,26,30,17		5, 8
52″	49,44,27,25,51, 4,23,49, 1, 3		3,38,11,17,31	
		1,10,16,25,38,15,12,46		5, 8
54″	49,44,28,36, 7,30, 2, 4,13,49		3,38,11,22,39	
		1,10,16,22, 0, 3,50, 7		5, 8
56″	49,44,29,46,23,52, 2, 8, 3,56		3,38,11,27,47	
		1,10,16,18,21,52,22,20		5, 8
58″	49,44,30,56,40,10,24, 0,26,16		3,38,11,32,55	
		1,10,16,14,43,40,49,25		
60″	49,44,32, 6,56,25, 7,41,15,41			
exact	49,44,32, 6,56,25, 7,40,53,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56° 0′ 0″	49,44,32, 6,56,25, 7,40,53,26			
		1,10,16,11, 5,29, 9, 3		
2″	49,44,33,17,12,36,13,10, 2,29		3,38,11,43,20	
		1,10,16, 7,27,17,25,43		5, 8
4″	49,44,34,27,28,43,40,27,28,12		3,38,11,48,28	
		1,10,16, 3,49, 5,37,15		5, 8
6″	49,44,35,37,44,47,29,33, 5,27		3,38,11,53,36	
		1,10,16, 0,10,53,43,39		5, 8
8″	49,44,36,48, 0,47,40,26,49, 6		3,38,11,58,44	
		1,10,15,56,32,41,44,55		5, 8
10″	49,44,37,58,16,44,13, 8,34, 1		3,38,12, 3,52	
		1,10,15,52,54,29,41, 3		5, 8
12″	49,44,39, 8,32,37, 7,38,15, 4		3,38,12, 9, 0	
		1,10,15,49,16,17,32, 3		5, 8
14″	49,44,40,18,48,26,23,55,47, 7		3,38,12,14, 8	
		1,10,15,45,38, 5,17,55		5, 8
16″	49,44,41,29, 4,12, 2, 1, 5, 2		3,38,12,19,16	
		1,10,15,41,59,52,58,39		5, 8
18″	49,44,42,39,19,54, 1,54, 3,41		3,38,12,24,24	
		1,10,15,38,21,40,34,15		5, 8
20″	49,44,43,49,35,32,23,34,37,56		3,38,12,29,32	
		1,10,15,34,43,28, 4,43		5, 8
22″	49,44,44,59,51, 7, 7, 2,42,39		3,38,12,34,40	
		1,10,15,31, 5,15,30, 3		5, 8
24″	49,44,46,10, 6,38,12,18,12,42		3,38,12,39,48	
		1,10,15,27,27, 2,50,15		5, 8
26″	49,44,47,20,22, 5,39,21, 2,57		3,38,12,44,56	
		1,10,15,23,48,50, 5,19		5, 8
28″	49,44,48,30,37,29,28,11, 8,16		3,38,12,50, 4	
		1,10,15,20,10,37,15,15		5, 8
30″	49,44,49,40,52,49,38,48,23,31		3,38,12,55,12	
		1,10,15,16,32,24,20, 3		5, 8
32″	49,44,50,51, 8, 6,11,12,43,34		3,38,13, 0,20	
		1,10,15,12,54,11,19,43		5, 8
34″	49,44,52, 1,23,19, 5,24, 3,17		3,38,13, 5,28	
		1,10,15, 9,15,58,14,15		5, 8
36″	49,44,53,11,38,28,21,22,17,32		3,38,13,10,36	
		1,10,15, 5,37,45, 3,39		5, 8
38″	49,44,54,21,53,33,59, 7,21,11		3,38,13,15,44	
		1,10,15, 1,59,31,47,55		5, 8
40″	49,44,55,32, 8,35,58,39, 9, 6		3,38,13,20,52	
		1,10,14,58,21,18,27, 3		5, 8
42″	49,44,56,42,23,34,19,57,36, 9		3,38,13,26, 0	
		1,10,14,54,43, 5, 1, 3		5, 8
44″	49,44,57,52,38,29, 3, 2,37,12		3,38,13,31, 8	
		1,10,14,51, 4,51,29,55		5, 8
46″	49,44,59, 2,53,20, 7,54, 7, 7		3,38,13,36,16	
		1,10,14,47,26,37,53,39		5, 8
48″	49,45, 0,13, 8, 7,34,32, 0,46		3,38,13,41,24	
		1,10,14,43,48,24,12,15		5, 8
50″	49,45, 1,23,22,51,22,56,13, 1		3,38,13,46,32	
		1,10,14,40,10,10,25,43		5, 8
52″	49,45, 2,33,37,31,33, 6,38,44		3,38,13,51,40	
		1,10,14,36,31,56,34, 3		5, 8
54″	49,45, 3,43,52, 8, 5, 3,12,47		3,38,13,56,48	
		1,10,14,32,53,42,37,15		5, 8
56″	49,45, 4,54, 6,40,58,45,50, 2		3,38,14, 1,56	
		1,10,14,29,15,28,35,19		5, 8
58″	49,45, 6, 4,21,10,14,14,25,21		3,38,14, 7, 4	
		1,10,14,25,37,14,28,15		
60″	49,45, 7,14,35,35,51,28,53,36			
exact	49,45, 7,14,35,35,51,28,39,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56° 1′ 0″	49,45, 7,14,35,35,51,28,39,43			
		1,10,14,21,59, 0,14,39		
2″	49,45, 8,24,49,57,50,28,54,22		3,38,14,17,25	
		1,10,14,18,20,45,57,14		5, 8
4″	49,45, 9,35, 4,16,11,14,51,36		3,38,14,22,33	
		1,10,14,14,42,31,34,41		5, 8
6″	49,45,10,45,18,30,53,46,26,17		3,38,14,27,41	
		1,10,14,11, 4,17, 7, 0		5, 8
8″	49,45,11,55,32,41,58, 3,33,17		3,38,14,32,49	
		1,10,14, 7,26, 2,34,11		5, 8
10″	49,45,13, 5,46,49,24, 6, 7,28		3,38,14,37,57	
		1,10,14, 3,47,47,56,14		5, 8
12″	49,45,14,16, 0,53,11,54, 3,42		3,38,14,43, 5	
		1,10,14, 0, 9,33,13, 9		5, 8
14″	49,45,15,26,14,53,21,27,16,51		3,38,14,48,13	
		1,10,13,56,31,18,24,56		5, 8
16″	49,45,16,36,28,49,52,45,41,47		3,38,14,53,21	
		1,10,13,52,53, 3,31,35		5, 8
18″	49,45,17,46,42,42,45,49,13,22		3,38,14,58,29	
		1,10,13,49,14,48,33, 6		5, 8
20″	49,45,18,56,56,32, 0,37,46,28		3,38,15, 3,37	
		1,10,13,45,36,33,29,29		5, 8
22″	49,45,20, 7,10,17,37,11,15,57		3,38,15, 8,45	
		1,10,13,41,58,18,20,44		5, 8
24″	49,45,21,17,23,59,35,29,36,41		3,38,15,13,53	
		1,10,13,38,20, 3, 6,51		5, 8
26″	49,45,22,27,37,37,55,32,43,32		3,38,15,19, 1	
		1,10,13,34,41,47,47,50		5, 8
28″	49,45,23,37,51,12,37,20,31,22		3,38,15,24, 9	
		1,10,13,31, 3,32,23,41		5, 8
30″	49,45,24,48, 4,43,40,52,55, 3		3,38,15,29,17	
		1,10,13,27,25,16,54,24		5, 8
32″	49,45,25,58,18,11, 6, 9,49,27		3,38,15,34,25	
		1,10,13,23,47, 1,19,59		5, 8
34″	49,45,27, 8,31,34,53,11, 9,26		3,38,15,39,33	
		1,10,13,20, 8,45,40,26		5, 8
36″	49,45,28,18,44,55, 1,56,49,52		3,38,15,44,41	
		1,10,13,16,30,29,55,45		5, 8
38″	49,45,29,28,58,11,32,26,45,37		3,38,15,49,49	
		1,10,13,12,52,14, 5,56		5, 8
40″	49,45,30,39,11,24,24,40,51,33		3,38,15,54,57	
		1,10,13, 9,13,58,10,59		5, 8
42″	49,45,31,49,24,33,38,39, 2,32		3,38,16, 0, 5	
		1,10,13, 5,35,42,10,54		5, 8
44″	49,45,32,59,37,39,14,21,13,26		3,38,16, 5,13	
		1,10,13, 1,57,26, 5,41		5, 8
46″	49,45,34, 9,50,41,11,47,19, 7		3,38,16,10,21	
		1,10,12,58,19, 9,55,20		5, 8
48″	49,45,35,20, 3,39,30,57,14,27		3,38,16,15,29	
		1,10,12,54,40,53,39,51		5, 8
50″	49,45,36,30,16,34,11,50,54,18		3,38,16,20,37	
		1,10,12,51, 2,37,19,14		5, 8
52″	49,45,37,40,29,25,14,28,13,32		3,38,16,25,45	
		1,10,12,47,24,20,53,29		5, 8
54″	49,45,38,50,42,12,38,49, 7, 1		3,38,16,30,53	
		1,10,12,43,46, 4,22,36		5, 8
56″	49,45,40, 0,54,56,24,53,29,37		3,38,16,36, 1	
		1,10,12,40, 7,47,46,35		5, 8
58″	49,45,41,11, 7,36,32,41,16,12		3,38,16,41, 9	
		1,10,12,36,29,31, 5,26		
60″	49,45,42,21,20,13, 2,12,21,38			
exact	49,45,42,21,20,13, 2,12,16,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56° 2′ 0″	49,45,42,21,20,13, 2,12,16,36			
		1,10,12,32,51,14,18,42		
2″	49,45,43,31,32,45,53,26,35,18		3,38,16,51,26	
		1,10,12,29,12,57,27,16		5, 8
4″	49,45,44,41,45,15, 6,24, 2,34		3,38,16,56,34	
		1,10,12,25,34,40,30,42		5, 8
6″	49,45,45,51,57,40,41, 4,33,16		3,38,17, 1,42	
		1,10,12,21,56,23,29, 0		5, 8
8″	49,45,47, 2,10, 2,37,28, 2,16		3,38,17, 6,50	
		1,10,12,18,18, 6,22,10		5, 8
10″	49,45,48,12,22,20,55,34,24,26		3,38,17,11,58	
		1,10,12,14,39,49,10,12		5, 8
12″	49,45,49,22,34,35,35,23,34,38		3,38,17,17, 6	
		1,10,12,11, 1,31,53, 6		5, 8
14″	49,45,50,32,46,46,36,55,27,44		3,38,17,22,14	
		1,10,12, 7,23,14,30,52		5, 8
16″	49,45,51,42,58,54, 0, 9,58,36		3,38,17,27,22	
		1,10,12, 3,44,57, 3,30		5, 8
18″	49,45,52,53,10,57,45, 7, 2, 6		3,38,17,32,30	
		1,10,12, 0, 6,39,31, 0		5, 8
20″	49,45,54, 3,22,57,51,46,33, 6		3,38,17,37,38	
		1,10,11,56,28,21,53,22		5, 8
22″	49,45,55,13,34,54,20, 8,26,28		3,38,17,42,46	
		1,10,11,52,50, 4,10,36		5, 8
24″	49,45,56,23,46,47,10,12,37, 4		3,38,17,47,54	
		1,10,11,49,11,46,22,42		5, 8
26″	49,45,57,33,58,36,21,58,59,46		3,38,17,53, 2	
		1,10,11,45,33,28,29,40		5, 8
28″	49,45,58,44,10,21,55,27,29,26		3,38,17,58,10	
		1,10,11,41,55,10,31,30		5, 8
30″	49,45,59,54,22, 3,50,38, 0,56		3,38,18, 3,18	
		1,10,11,38,16,52,28,12		5, 8
32″	49,46, 1, 4,33,42, 7,30,29, 8		3,38,18, 8,26	
		1,10,11,34,38,34,19,46		5, 8
34″	49,46, 2,14,45,16,46, 4,48,54		3,38,18,13,34	
		1,10,11,31, 0,16, 6,12		5, 8
36″	49,46, 3,24,56,47,46,20,55, 6		3,38,18,18,42	
		1,10,11,27,21,57,47,30		5, 8
38″	49,46, 4,35, 8,15, 8,18,42,36		3,38,18,23,50	
		1,10,11,23,43,39,23,40		5, 8
40″	49,46, 5,45,19,38,51,58, 6,16		3,38,18,28,58	
		1,10,11,20, 5,20,54,42		5, 8
42″	49,46, 6,55,30,58,57,19, 0,58		3,38,18,34, 6	
		1,10,11,16,27, 2,20,36		5, 8
44″	49,46, 8, 5,42,15,24,21,21,34		3,38,18,39,14	
		1,10,11,12,48,43,41,22		5, 8
46″	49,46, 9,15,53,28,13, 5, 2,56		3,38,18,44,22	
		1,10,11, 9,10,24,57, 0		5, 8
48″	49,46,10,26, 4,37,23,29,59,56		3,38,18,49,30	
		1,10,11, 5,32, 6, 7,30		5, 8
50″	49,46,11,36,15,42,55,36, 7,26		3,38,18,54,38	
		1,10,11, 1,53,47,12,52		5, 8
52″	49,46,12,46,26,44,49,23,20,18		3,38,18,59,46	
		1,10,10,58,15,28,13, 6		5, 8
54″	49,46,13,56,37,43, 4,51,33,24		3,38,19, 4,54	
		1,10,10,54,37, 9, 8,12		5, 8
56″	49,46,15, 6,48,37,42, 0,41,36		3,38,19,10, 2	
		1,10,10,50,58,49,58,10		5, 8
58″	49,46,16,16,59,28,40,50,39,46		3,38,19,15,10	
		1,10,10,47,20,30,43, 0		
60″	49,46,17,27,10,16, 1,21,22,46			
exact	49,46,17,27,10,16, 1,21,25,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56° 3′ 0″	49,46,17,27,10,16, 1,21,25,54			
		1,10,10,43,42,11,23,10		
2″	49,46,18,37,20,59,43,32,49, 4		3,38,19,25,23	
		1,10,10,40, 3,51,57,47		5, 8
4″	49,46,19,47,31,39,47,24,46,51		3,38,19,30,31	
		1,10,10,36,25,32,27,16		5, 8
6″	49,46,20,57,42,16,12,57,14, 7		3,38,19,35,39	
		1,10,10,32,47,12,51,37		5, 8
8″	49,46,22, 7,52,49, 0,10, 5,44		3,38,19,40,47	
		1,10,10,29, 8,53,10,50		5, 8
10″	49,46,23,18, 3,18, 9, 3,16,34		3,38,19,45,55	
		1,10,10,25,30,33,24,55		5, 8
12″	49,46,24,28,13,43,39,36,41,29		3,38,19,51, 3	
		1,10,10,21,52,13,33,52		5, 8
14″	49,46,25,38,24, 5,31,50,15,21		3,38,19,56,11	
		1,10,10,18,13,53,37,41		5, 8
16″	49,46,26,48,34,23,45,43,53, 2		3,38,20, 1,19	
		1,10,10,14,35,33,36,22		5, 8
18″	49,46,27,58,44,38,21,17,29,24		3,38,20, 6,27	
		1,10,10,10,57,13,29,55		5, 8
20″	49,46,29, 8,54,49,18,30,59,19		3,38,20,11,35	
		1,10,10, 7,18,53,18,20		5, 8
22″	49,46,30,19, 4,56,37,24,17,39		3,38,20,16,43	
		1,10,10, 3,40,33, 1,37		5, 8
24″	49,46,31,29,15, 0,17,57,19,16		3,38,20,21,51	
		1,10,10, 0, 2,12,39,46		5, 8
26″	49,46,32,39,25, 0,20, 9,59, 2		3,38,20,26,59	
		1,10, 9,56,23,52,12,47		5, 8
28″	49,46,33,49,34,56,44, 2,11,49		3,38,20,32, 7	
		1,10, 9,52,45,31,40,40		5, 8
30″	49,46,34,59,44,49,29,33,52,29		3,38,20,37,15	
		1,10, 9,49, 7,11, 3,25		5, 8
32″	49,46,36, 9,54,38,36,44,55,54		3,38,20,42,23	
		1,10, 9,45,28,50,21, 2		5, 8
34″	49,46,37,20, 4,24, 5,35,16,56		3,38,20,47,31	
		1,10, 9,41,50,29,33,31		5, 8
36″	49,46,38,30,14, 5,56, 4,50,27		3,38,20,52,39	
		1,10, 9,38,12, 8,40,52		5, 8
38″	49,46,39,40,23,44, 8,13,31,19		3,38,20,57,47	
		1,10, 9,34,33,47,43, 5		5, 8
40″	49,46,40,50,33,18,42, 1,14,24		3,38,21, 2,55	
		1,10, 9,30,55,26,40,10		5, 8
42″	49,46,42, 0,42,49,37,27,54,34		3,38,21, 8, 3	
		1,10, 9,27,17, 5,32, 7		5, 8
44″	49,46,43,10,52,16,54,33,26,41		3,38,21,13,11	
		1,10, 9,23,38,44,18,56		5, 8
46″	49,46,44,21, 1,40,33,17,45,37		3,38,21,18,19	
		1,10, 9,20, 0,23, 0,37		5, 8
48″	49,46,45,31,11, 0,33,40,46,14		3,38,21,23,27	
		1,10, 9,16,22, 1,37,10		5, 8
50″	49,46,46,41,20,16,55,42,23,24		3,38,21,28,35	
		1,10, 9,12,43,40, 8,35		5, 8
52″	49,46,47,51,29,29,39,22,31,59		3,38,21,33,43	
		1,10, 9, 9, 5,18,34,52		5, 8
54″	49,46,49, 1,38,38,44,41, 6,51		3,38,21,38,51	
		1,10, 9, 5,26,56,56, 1		5, 8
56″	49,46,50,11,47,44,11,38, 2,52		3,38,21,43,59	
		1,10, 9, 1,48,35,12, 2		5, 8
58″	49,46,51,21,56,46, 0,13,14,54		3,38,21,49, 7	
		1,10, 8,58,10,13,22,55		
60″	49,46,52,32, 5,44,10,26,37,49			
exact	49,46,52,32, 5,44,10,26,49,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56° 4′ 0″	49,46,52,32, 5,44,10,26,49,18			
		1,10, 8,54,31,51,30, 3		
2″	49,46,53,42,14,38,42,18,19,21		3,38,21,59,16	
		1,10, 8,50,53,29,30,47		5, 8
4″	49,46,54,52,23,29,35,47,50, 8		3,38,22, 4,24	
		1,10, 8,47,15, 7,26,23		5, 8
6″	49,46,56, 2,32,16,50,55,16,31		3,38,22, 9,32	
		1,10, 8,43,36,45,16,51		5, 8
8″	49,46,57,12,41, 0,27,40,33,22		3,38,22,14,40	
		1,10, 8,39,58,23, 2,11		5, 8
10″	49,46,58,22,49,40,26, 3,35,33		3,38,22,19,48	
		1,10, 8,36,20, 0,42,23		5, 8
12″	49,46,59,32,58,16,46, 4,17,56		3,38,22,24,56	
		1,10, 8,32,41,38,17,27		5, 8
14″	49,47, 0,43, 6,49,27,42,35,23		3,38,22,30, 4	
		1,10, 8,29, 3,15,47,23		5, 8
16″	49,47, 1,53,15,18,30,58,22,46		3,38,22,35,12	
		1,10, 8,25,24,53,12,11		5, 8
18″	49,47, 3, 3,23,43,55,51,34,57		3,38,22,40,20	
		1,10, 8,21,46,30,31,51		5, 8
20″	49,47, 4,13,32, 5,42,22, 6,48		3,38,22,45,28	
		1,10, 8,18, 8, 7,46,23		5, 8
22″	49,47, 5,23,40,23,50,29,53,11		3,38,22,50,36	
		1,10, 8,14,29,44,55,47		5, 8
24″	49,47, 6,33,48,38,20,14,48,58		3,38,22,55,44	
		1,10, 8,10,51,22, 0, 3		5, 8
26″	49,47, 7,43,56,49,11,36,49, 1		3,38,23, 0,52	
		1,10, 8, 7,12,58,59,11		5, 8
28″	49,47, 8,54, 4,56,24,35,48,12		3,38,23, 6, 0	
		1,10, 8, 3,34,35,53,11		5, 8
30″	49,47,10, 4,12,59,59,11,41,23		3,38,23,11, 8	
		1,10, 7,59,56,12,42, 3		5, 8
32″	49,47,11,14,20,59,55,24,23,26		3,38,23,16,16	
		1,10, 7,56,17,49,25,47		5, 8
34″	49,47,12,24,28,56,13,13,49,13		3,38,23,21,24	
		1,10, 7,52,39,26, 4,23		5, 8
36″	49,47,13,34,36,48,52,39,53,36		3,38,23,26,32	
		1,10, 7,49, 1, 2,37,51		5, 8
38″	49,47,14,44,44,37,53,42,31,27		3,38,23,31,40	
		1,10, 7,45,22,39, 6,11		5, 8
40″	49,47,15,54,52,23,16,21,37,38		3,38,23,36,48	
		1,10, 7,41,44,15,29,23		5, 8
42″	49,47,17, 5, 0, 5, 0,37, 7, 1		3,38,23,41,56	
		1,10, 7,38, 5,51,47,27		5, 8
44″	49,47,18,15, 7,43, 6,28,54,28		3,38,23,47, 4	
		1,10, 7,34,27,28, 0,23		5, 8
46″	49,47,19,25,15,17,33,56,54,51		3,38,23,52,12	
		1,10, 7,30,49, 4, 8,11		5, 8
48″	49,47,20,35,22,48,23, 1, 3, 2		3,38,23,57,20	
		1,10, 7,27,10,40,10,51		5, 8
50″	49,47,21,45,30,15,33,41,13,53		3,38,24, 2,28	
		1,10, 7,23,32,16, 8,23		5, 8
52″	49,47,22,55,37,39, 5,57,22,16		3,38,24, 7,36	
		1,10, 7,19,53,52, 0,47		5, 8
54″	49,47,24, 5,44,58,59,49,23, 3		3,38,24,12,44	
		1,10, 7,16,15,27,48, 3		5, 8
56″	49,47,25,15,52,15,15,17,11, 6		3,38,24,17,52	
		1,10, 7,12,37, 3,30,11		5, 8
58″	49,47,26,25,59,27,52,20,41,17		3,38,24,23, 0	
		1,10, 7, 8,58,39, 7,11		
60″	49,47,27,36, 6,36,50,59,48,28			
exact	49,47,27,36, 6,36,51, 0, 8,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56° 5′ 0″	49,47,27,36, 6,36,51, 0, 8,18			
		1,10, 7, 5,20,14,41,21		
2″	49,47,28,46,13,42,11,14,49,39		3,38,24,33, 5	
		1,10, 7, 1,41,50, 8,16		5, 8
4″	49,47,29,56,20,43,53, 4,57,55		3,38,24,38,13	
		1,10, 6,58, 3,25,30, 3		5, 8
6″	49,47,31, 6,27,41,56,30,27,58		3,38,24,43,21	
		1,10, 6,54,25, 0,46,42		5, 8
8″	49,47,32,16,34,36,21,31,14,40		3,38,24,48,29	
		1,10, 6,50,46,35,58,13		5, 8
10″	49,47,33,26,41,27, 8, 7,12,53		3,38,24,53,37	
		1,10, 6,47, 8,11, 4,36		5, 8
12″	49,47,34,36,48,14,16,18,17,29		3,38,24,58,45	
		1,10, 6,43,29,46, 5,51		5, 8
14″	49,47,35,46,54,57,46, 4,23,20		3,38,25, 3,53	
		1,10, 6,39,51,21, 1,58		5, 8
16″	49,47,36,57, 1,37,37,25,25,18		3,38,25, 9, 1	
		1,10, 6,36,12,55,52,57		5, 8
18″	49,47,38, 7, 8,13,50,21,18,15		3,38,25,14, 9	
		1,10, 6,32,34,30,38,48		5, 8
20″	49,47,39,17,14,46,24,51,57, 3		3,38,25,19,17	
		1,10, 6,28,56, 5,19,31		5, 8
22″	49,47,40,27,21,15,20,57,16,34		3,38,25,24,25	
		1,10, 6,25,17,39,55, 6		5, 8
24″	49,47,41,37,27,40,38,37,11,40		3,38,25,29,33	
		1,10, 6,21,39,14,25,33		5, 8
26″	49,47,42,47,34, 2,17,51,37,13		3,38,25,34,41	
		1,10, 6,18, 0,48,50,52		5, 8
28″	49,47,43,57,40,20,18,40,28, 5		3,38,25,39,49	
		1,10, 6,14,22,23,11, 3		5, 8
30″	49,47,45, 7,46,34,41, 3,39, 8		3,38,25,44,57	
		1,10, 6,10,43,57,26, 6		5, 8
32″	49,47,46,17,52,45,25, 1, 5,14		3,38,25,50, 5	
		1,10, 6, 7, 5,31,36, 1		5, 8
34″	49,47,47,27,58,52,30,32,41,15		3,38,25,55,13	
		1,10, 6, 3,27, 5,40,48		5, 8
36″	49,47,48,38, 4,55,57,38,22, 3		3,38,26, 0,21	
		1,10, 5,59,48,39,40,27		5, 8
38″	49,47,49,48,10,55,46,18, 2,30		3,38,26, 5,29	
		1,10, 5,56,10,13,34,58		5, 8
40″	49,47,50,58,16,51,56,31,37,28		3,38,26,10,37	
		1,10, 5,52,31,47,24,21		5, 8
42″	49,47,52, 8,22,44,28,19, 1,49		3,38,26,15,45	
		1,10, 5,48,53,21, 8,36		5, 8
44″	49,47,53,18,28,33,21,40,10,25		3,38,26,20,53	
		1,10, 5,45,14,54,47,43		5, 8
46″	49,47,54,28,34,18,36,34,58, 8		3,38,26,26, 1	
		1,10, 5,41,36,28,21,42		5, 8
48″	49,47,55,38,40, 0,13, 3,19,50		3,38,26,31, 9	
		1,10, 5,37,58, 1,50,33		5, 8
50″	49,47,56,48,45,38,11, 5,10,23		3,38,26,36,17	
		1,10, 5,34,19,35,14,16		5, 8
52″	49,47,57,58,51,12,30,40,24,39		3,38,26,41,25	
		1,10, 5,30,41, 8,32,51		5, 8
54″	49,47,59, 8,56,43,11,48,57,30		3,38,26,46,33	
		1,10, 5,27, 2,41,46,18		5, 8
56″	49,48, 0,19, 2,10,14,30,43,48		3,38,26,51,41	
		1,10, 5,23,24,14,54,37		5, 8
58″	49,48, 1,29, 7,33,38,45,38,25		3,38,26,56,49	
		1,10, 5,19,45,47,57,48		
60″	49,48, 2,39,12,53,24,33,36,13			
exact	49,48, 2,39,12,53,24,34, 4,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56° 6′ 0″	49,48, 2,39,12,53,24,34, 4,19			
		1,10, 5,16, 7,20,59, 4		
2″	49,48, 3,49,18, 9,31,55, 3,23		3,38,27, 6,51	
		1,10, 5,12,28,53,52,13		5, 7
4″	49,48, 4,59,23,22, 0,48,55,36		3,38,27,11,58	
		1,10, 5, 8,50,26,40,15		5, 7
6″	49,48, 6, 9,28,30,51,15,35,51		3,38,27,17, 5	
		1,10, 5, 5,11,59,23,10		5, 7
8″	49,48, 7,19,33,36, 3,14,59, 1		3,38,27,22,12	
		1,10, 5, 1,33,32, 0,58		5, 7
10″	49,48, 8,29,38,37,36,46,59,59		3,38,27,27,19	
		1,10, 4,57,55, 4,33,39		5, 7
12″	49,48, 9,39,43,35,31,51,33,38		3,38,27,32,26	
		1,10, 4,54,16,37, 1,13		5, 7
14″	49,48,10,49,48,29,48,28,34,51		3,38,27,37,33	
		1,10, 4,50,38, 9,23,40		5, 7
16″	49,48,11,59,53,20,26,37,58,31		3,38,27,42,40	
		1,10, 4,46,59,41,41, 0		5, 7
18″	49,48,13, 9,58, 7,26,19,39,31		3,38,27,47,47	
		1,10, 4,43,21,13,53,13		5, 7
20″	49,48,14,20, 2,50,47,33,32,44		3,38,27,52,54	
		1,10, 4,39,42,46, 0,19		5, 7
22″	49,48,15,30, 7,30,30,19,33, 3		3,38,27,58, 1	
		1,10, 4,36, 4,18, 2,18		5, 7
24″	49,48,16,40,12, 6,34,37,35,21		3,38,28, 3, 8	
		1,10, 4,32,25,49,59,10		5, 7
26″	49,48,17,50,16,39, 0,27,34,31		3,38,28, 8,15	
		1,10, 4,28,47,21,50,55		5, 7
28″	49,48,19, 0,21, 7,47,49,25,26		3,38,28,13,22	
		1,10, 4,25, 8,53,37,33		5, 7
30″	49,48,20,10,25,32,56,43, 2,59		3,38,28,18,29	
		1,10, 4,21,30,25,19, 4		5, 7
32″	49,48,21,20,29,54,27, 8,22, 3		3,38,28,23,36	
		1,10, 4,17,51,56,55,28		5, 7
34″	49,48,22,30,34,12,19, 5,17,31		3,38,28,28,43	
		1,10, 4,14,13,28,26,45		5, 7
36″	49,48,23,40,38,26,32,33,44,16		3,38,28,33,50	
		1,10, 4,10,34,59,52,55		5, 7
38″	49,48,24,50,42,37, 7,33,37,11		3,38,28,38,57	
		1,10, 4, 6,56,31,13,58		5, 7
40″	49,48,26, 0,46,44, 4, 4,51, 9		3,38,28,44, 4	
		1,10, 4, 3,18, 2,29,54		5, 7
42″	49,48,27,10,50,47,22, 7,21, 3		3,38,28,49,11	
		1,10, 3,59,39,33,40,43		5, 7
44″	49,48,28,20,54,47, 1,41, 1,46		3,38,28,54,18	
		1,10, 3,56, 1, 4,46,25		5, 7
46″	49,48,29,30,58,43, 2,45,48,11		3,38,28,59,25	
		1,10, 3,52,22,35,47, 0		5, 7
48″	49,48,30,41, 2,35,25,21,35,11		3,38,29, 4,32	
		1,10, 3,48,44, 6,42,28		5, 7
50″	49,48,31,51, 6,24, 9,28,17,39		3,38,29, 9,39	
		1,10, 3,45, 5,37,32,49		5, 7
52″	49,48,33, 1,10, 9,15, 5,50,28		3,38,29,14,46	
		1,10, 3,41,27, 8,18, 3		5, 7
54″	49,48,34,11,13,50,42,14, 8,31		3,38,29,19,53	
		1,10, 3,37,48,38,58,10		5, 7
56″	49,48,35,21,17,28,30,53, 6,41		3,38,29,25, 0	
		1,10, 3,34,10, 9,33,10		5, 7
58″	49,48,36,31,21, 2,41, 2,39,51		3,38,29,30, 7	
		1,10, 3,30,31,40, 3, 3		
60″	49,48,37,41,24,33,12,42,42,54			
exact	49,48,37,41,24,33,12,42,18,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56° 7′ 0″	49,48,37,41,24,33,12,42,18,35			
		1,10, 3,26,53,10,25,11		
2″	49,48,38,51,28, 0, 5,52,43,46		3,38,29,40,32	
		1,10, 3,23,14,40,44,39		5, 7
4″	49,48,40, 1,31,23,20,33,28,25		3,38,29,45,39	
		1,10, 3,19,36,10,59, 0		5, 7
6″	49,48,41,11,34,42,56,44,27,25		3,38,29,50,46	
		1,10, 3,15,57,41, 8,14		5, 7
8″	49,48,42,21,37,58,54,25,35,39		3,38,29,55,53	
		1,10, 3,12,19,11,12,21		5, 7
10″	49,48,43,31,41,11,13,36,48, 0		3,38,30, 1, 0	
		1,10, 3, 8,40,41,11,21		5, 7
12″	49,48,44,41,44,19,54,17,59,21		3,38,30, 6, 7	
		1,10, 3, 5, 2,11, 5,14		5, 7
14″	49,48,45,51,47,24,56,29, 4,35		3,38,30,11,14	
		1,10, 3, 1,23,40,54, 0		5, 7
16″	49,48,47, 1,50,26,20, 9,58,35		3,38,30,16,21	
		1,10, 2,57,45,10,37,39		5, 7
18″	49,48,48,11,53,24, 5,20,36,14		3,38,30,21,28	
		1,10, 2,54, 6,40,16,11		5, 7
20″	49,48,49,21,56,18,12, 0,52,25		3,38,30,26,35	
		1,10, 2,50,28, 9,49,36		5, 7
22″	49,48,50,31,59, 8,40,10,42, 1		3,38,30,31,42	
		1,10, 2,46,49,39,17,54		5, 7
24″	49,48,51,42, 1,55,29,49,59,55		3,38,30,36,49	
		1,10, 2,43,11, 8,41, 5		5, 7
26″	49,48,52,52, 4,38,40,58,41, 0		3,38,30,41,56	
		1,10, 2,39,32,37,59, 9		5, 7
28″	49,48,54, 2, 7,18,13,36,40, 9		3,38,30,47, 3	
		1,10, 2,35,54, 7,12, 6		5, 7
30″	49,48,55,12, 9,54, 7,43,52,15		3,38,30,52,10	
		1,10, 2,32,15,36,19,56		5, 7
32″	49,48,56,22,12,26,23,20,12,11		3,38,30,57,17	
		1,10, 2,28,37, 5,22,39		5, 7
34″	49,48,57,32,14,55, 0,25,34,50		3,38,31, 2,24	
		1,10, 2,24,58,34,20,15		5, 7
36″	49,48,58,42,17,19,58,59,55, 5		3,38,31, 7,31	
		1,10, 2,21,20, 3,12,44		5, 7
38″	49,48,59,52,19,41,19, 3, 7,49		3,38,31,12,38	
		1,10, 2,17,41,32, 0, 6		5, 7
40″	49,49, 1, 2,21,59, 0,35, 7,55		3,38,31,17,45	
		1,10, 2,14, 3, 0,42,21		5, 7
42″	49,49, 2,12,24,13, 3,35,50,16		3,38,31,22,52	
		1,10, 2,10,24,29,19,29		5, 7
44″	49,49, 3,22,26,23,28, 5, 9,45		3,38,31,27,59	
		1,10, 2, 6,45,57,51,30		5, 7
46″	49,49, 4,32,28,30,14, 3, 1,15		3,38,31,33, 6	
		1,10, 2, 3, 7,26,18,24		5, 7
48″	49,49, 5,42,30,33,21,29,19,39		3,38,31,38,13	
		1,10, 1,59,28,54,40,11		5, 7
50″	49,49, 6,52,32,32,50,23,59,50		3,38,31,43,20	
		1,10, 1,55,50,22,56,51		5, 7
52″	49,49, 8, 2,34,28,40,46,56,41		3,38,31,48,27	
		1,10, 1,52,11,51, 8,24		5, 7
54″	49,49, 9,12,36,20,52,38, 5, 5		3,38,31,53,34	
		1,10, 1,48,33,19,14,50		5, 7
56″	49,49,10,22,38, 9,25,57,19,55		3,38,31,58,41	
		1,10, 1,44,54,47,16, 9		5, 7
58″	49,49,11,32,39,54,20,44,36, 4		3,38,32, 3,48	
		1,10, 1,41,16,15,12,21		
60″	49,49,12,42,41,35,36,59,48,25			
exact	49,49,12,42,41,35,36,59,32,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56° 8′ 0″	49,49,12,42,41,35,36,59,32,16	1,10, 1,37,37,43, 1,42		
2″	49,49,13,52,43,13,14,42,33,58	1,10, 1,33,59,10,47,33	3,38,32,14, 9	5, 7
4″	49,49,15, 2,44,47,13,53,21,31	1,10, 1,30,20,38,28,17	3,38,32,19,16	5, 7
6″	49,49,16,12,46,17,34,31,49,48	1,10, 1,26,42, 6, 3,54	3,38,32,24,23	5, 7
8″	49,49,17,22,47,44,16,37,53,42	1,10, 1,23, 3,33,34,24	3,38,32,29,30	5, 7
10″	49,49,18,32,49, 7,20,11,28, 6	1,10, 1,19,25, 0,59,47	3,38,32,34,37	5, 7
12″	49,49,19,42,50,26,45,12,27,53	1,10, 1,15,46,28,20, 3	3,38,32,39,44	5, 7
14″	49,49,20,52,51,42,31,40,47,56	1,10, 1,12, 7,55,35,12	3,38,32,44,51	5, 7
16″	49,49,22, 2,52,54,39,36,23, 8	1,10, 1, 8,29,22,45,14	3,38,32,49,58	5, 7
18″	49,49,23,12,54, 3, 8,59, 8,22	1,10, 1, 4,50,49,50, 9	3,38,32,55, 5	5, 7
20″	49,49,24,22,55, 7,59,48,58,31	1,10, 1, 1,12,16,49,57	3,38,33, 0,12	5, 7
22″	49,49,25,32,56, 9,12, 5,48,28	1,10, 0,57,33,43,44,38	3,38,33, 5,19	5, 7
24″	49,49,26,42,57, 6,45,49,33, 6	1,10, 0,53,55,10,34,12	3,38,33,10,26	5, 7
26″	49,49,27,52,58, 0,41, 0, 7,18	1,10, 0,50,16,37,18,39	3,38,33,15,33	5, 7
28″	49,49,29, 2,58,50,57,37,25,57	1,10, 0,46,38, 3,57,59	3,38,33,20,40	5, 7
30″	49,49,30,12,59,37,35,41,23,56	1,10, 0,42,59,30,32,12	3,38,33,25,47	5, 7
32″	49,49,31,23, 0,20,35,11,56, 8	1,10, 0,39,20,57, 1,18	3,38,33,30,54	5, 7
34″	49,49,32,33, 0,59,56, 8,57,26	1,10, 0,35,42,23,25,17	3,38,33,36, 1	5, 7
36″	49,49,33,43, 1,35,38,32,22,43	1,10, 0,32, 3,49,44, 9	3,38,33,41, 8	5, 7
38″	49,49,34,53, 2, 7,42,22, 6,52	1,10, 0,28,25,15,57,54	3,38,33,46,15	5, 7
40″	49,49,36, 3, 2,36, 7,38, 4,46	1,10, 0,24,46,42, 6,32	3,38,33,51,22	5, 7
42″	49,49,37,13, 3, 0,54,20,11,18	1,10, 0,21, 8, 8,10, 3	3,38,33,56,29	5, 7
44″	49,49,38,23, 3,22, 2,28,21,21	1,10, 0,17,29,34, 8,27	3,38,34, 1,36	5, 7
46″	49,49,39,33, 3,39,32, 2,29,48	1,10, 0,13,51, 0, 1,44	3,38,34, 6,43	5, 7
48″	49,49,40,43, 3,53,23, 2,31,32	1,10, 0,10,12,25,49,54	3,38,34,11,50	5, 7
50″	49,49,41,53, 4, 3,35,28,21,26	1,10, 0, 6,33,51,32,57	3,38,34,16,57	5, 7
52″	49,49,43, 3, 4,10, 9,19,54,23	1,10, 0, 2,55,17,10,53	3,38,34,22, 4	5, 7
54″	49,49,44,13, 4,13, 4,37, 5,16	1, 9,59,59,16,42,43,42	3,38,34,27,11	5, 7
56″	49,49,45,23, 4,12,21,19,48,58	1, 9,59,55,38, 8,11,24	3,38,34,32,18	5, 7
58″	49,49,46,33, 4, 7,59,28, 0,22	1, 9,59,51,59,33,33,59	3,38,34,37,25	
60″	49,49,47,43, 3,59,59, 1,34,21			
exact	49,49,47,43, 3,59,59, 1,26,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56° 9′ 0″	49,49,47,43, 3,59,59, 1,26,26			
		1, 9,59,48,20,58,50,37		
2″	49,49,48,53, 3,48,20, 0,17, 3		3,38,34,47,42	
		1, 9,59,44,42,24, 2,55		5, 7
4″	49,49,50, 3, 3,33, 2,24,19,58		3,38,34,52,49	
		1, 9,59,41, 3,49,10, 6		5, 7
6″	49,49,51,13, 3,14, 6,13,30, 4		3,38,34,57,56	
		1, 9,59,37,25,14,12,10		5, 7
8″	49,49,52,23, 2,51,31,27,42,14		3,38,35, 3, 3	
		1, 9,59,33,46,39, 9, 7		5, 7
10″	49,49,53,33, 2,25,18, 6,51,21		3,38,35, 8,10	
		1, 9,59,30, 8, 4, 0,57		5, 7
12″	49,49,54,43, 1,55,26,10,52,18		3,38,35,13,17	
		1, 9,59,26,29,28,47,40		5, 7
14″	49,49,55,53, 1,21,55,39,39,58		3,38,35,18,24	
		1, 9,59,22,50,53,29,16		5, 7
16″	49,49,57, 3, 0,44,46,33, 9,14		3,38,35,23,31	
		1, 9,59,19,12,18, 5,45		5, 7
18″	49,49,58,13, 0, 3,58,51,14,59		3,38,35,28,38	
		1, 9,59,15,33,42,37, 7		5, 7
20″	49,49,59,22,59,19,32,33,52, 6		3,38,35,33,45	
		1, 9,59,11,55, 7, 3,22		5, 7
22″	49,50, 0,32,58,31,27,40,55,28		3,38,35,38,52	
		1, 9,59, 8,16,31,24,30		5, 7
24″	49,50, 1,42,57,39,44,12,19,58		3,38,35,43,59	
		1, 9,59, 4,37,55,40,31		5, 7
26″	49,50, 2,52,56,44,22, 8, 0,29		3,38,35,49, 6	
		1, 9,59, 0,59,19,51,25		5, 7
28″	49,50, 4, 2,55,45,21,27,51,54		3,38,35,54,13	
		1, 9,58,57,20,43,57,12		5, 7
30″	49,50, 5,12,54,42,42,11,49, 6		3,38,35,59,20	
		1, 9,58,53,42, 7,57,52		5, 7
32″	49,50, 6,22,53,36,24,19,46,58		3,38,36, 4,27	
		1, 9,58,50, 3,31,53,25		5, 7
34″	49,50, 7,32,52,26,27,51,40,23		3,38,36, 9,34	
		1, 9,58,46,24,55,43,51		5, 7
36″	49,50, 8,42,51,12,52,47,24,14		3,38,36,14,41	
		1, 9,58,42,46,19,29,10		5, 7
38″	49,50, 9,52,49,55,39, 6,53,24		3,38,36,19,48	
		1, 9,58,39, 7,43, 9,22		5, 7
40″	49,50,11, 2,48,34,46,50, 2,46		3,38,36,24,55	
		1, 9,58,35,29, 6,44,27		5, 7
42″	49,50,12,12,47,10,15,56,47,13		3,38,36,30, 2	
		1, 9,58,31,50,30,14,25		5, 7
44″	49,50,13,22,45,42, 6,27, 1,38		3,38,36,35, 9	
		1, 9,58,28,11,53,39,16		5, 7
46″	49,50,14,32,44,10,18,20,40,54		3,38,36,40,16	
		1, 9,58,24,33,16,59, 0		5, 7
48″	49,50,15,42,42,34,51,37,39,54		3,38,36,45,23	
		1, 9,58,20,54,40,13,37		5, 7
50″	49,50,16,52,40,55,46,17,53,31		3,38,36,50,30	
		1, 9,58,17,16, 3,23, 7		5, 7
52″	49,50,18, 2,39,13, 2,21,16,38		3,38,36,55,37	
		1, 9,58,13,37,26,27,30		5, 7
54″	49,50,19,12,37,26,39,47,44, 8		3,38,37, 0,44	
		1, 9,58, 9,58,49,26,46		5, 7
56″	49,50,20,22,35,36,38,37,10,54		3,38,37, 5,51	
		1, 9,58, 6,20,12,20,55		5, 7
58″	49,50,21,32,33,42,58,49,31,49		3,38,37,10,58	
		1, 9,58, 2,41,35, 9,57		
60″	49,50,22,42,31,45,40,24,41,46			
exact	49,50,22,42,31,45,40,24,42, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°10′ 0″	49,50,22,42,31,45,40,24,42, 2			
		1, 9,57,59, 2,57,53,57		
2″	49,50,23,52,29,44,43,22,35,59		3,38,37,21,11	
		1, 9,57,55,24,20,32,46		5, 7
4″	49,50,25, 2,27,40, 7,43, 8,45		3,38,37,26,18	
		1, 9,57,51,45,43, 6,28		5, 7
6″	49,50,26,12,25,31,53,26,15,13		3,38,37,31,25	
		1, 9,57,48, 7, 5,35, 3		5, 7
8″	49,50,27,22,23,20, 0,31,50,16		3,38,37,36,32	
		1, 9,57,44,28,27,58,31		5, 7
10″	49,50,28,32,21, 4,28,59,48,47		3,38,37,41,39	
		1, 9,57,40,49,50,16,52		5, 7
12″	49,50,29,42,18,45,18,50, 5,39		3,38,37,46,46	
		1, 9,57,37,11,12,30, 6		5, 7
14″	49,50,30,52,16,22,30, 2,35,45		3,38,37,51,53	
		1, 9,57,33,32,34,38,13		5, 7
16″	49,50,32, 2,13,56, 2,37,13,58		3,38,37,57, 0	
		1, 9,57,29,53,56,41,13		5, 7
18″	49,50,33,12,11,25,56,33,55,11		3,38,38, 2, 7	
		1, 9,57,26,15,18,39, 6		5, 7
20″	49,50,34,22, 8,52,11,52,34,17		3,38,38, 7,14	
		1, 9,57,22,36,40,31,52		5, 7
22″	49,50,35,32, 6,14,48,33, 6, 9		3,38,38,12,21	
		1, 9,57,18,58, 2,19,31		5, 7
24″	49,50,36,42, 3,33,46,35,25,40		3,38,38,17,28	
		1, 9,57,15,19,24, 2, 3		5, 7
26″	49,50,37,52, 0,49, 5,59,27,43		3,38,38,22,35	
		1, 9,57,11,40,45,39,28		5, 7
28″	49,50,39, 1,58, 0,46,45, 7,11		3,38,38,27,42	
		1, 9,57, 8, 2, 7,11,46		5, 7
30″	49,50,40,11,55, 8,48,52,18,57		3,38,38,32,49	
		1, 9,57, 4,23,28,38,57		5, 7
32″	49,50,41,21,52,13,12,20,57,54		3,38,38,37,56	
		1, 9,57, 0,44,50, 1, 1		5, 7
34″	49,50,42,31,49,13,57,10,58,55		3,38,38,43, 3	
		1, 9,56,57, 6,11,17,58		5, 7
36″	49,50,43,41,46,11, 3,22,16,53		3,38,38,48,10	
		1, 9,56,53,27,32,29,48		5, 7
38″	49,50,44,51,43, 4,30,54,46,41		3,38,38,53,17	
		1, 9,56,49,48,53,36,31		5, 7
40″	49,50,46, 1,39,54,19,48,23,12		3,38,38,58,24	
		1, 9,56,46,10,14,38, 7		5, 7
42″	49,50,47,11,36,40,30, 3, 1,19		3,38,39, 3,31	
		1, 9,56,42,31,35,34,36		5, 7
44″	49,50,48,21,33,23, 1,38,35,55		3,38,39, 8,38	
		1, 9,56,38,52,56,25,58		5, 7
46″	49,50,49,31,30, 1,54,35, 1,53		3,38,39,13,45	
		1, 9,56,35,14,17,12,13		5, 7
48″	49,50,50,41,26,37, 8,52,14, 6		3,38,39,18,52	
		1, 9,56,31,35,37,53,21		5, 7
50″	49,50,51,51,23, 8,44,30, 7,27		3,38,39,23,59	
		1, 9,56,27,56,58,29,22		5, 7
52″	49,50,53, 1,19,36,41,28,36,49		3,38,39,29, 6	
		1, 9,56,24,18,19, 0,16		5, 7
54″	49,50,54,11,16, 0,59,47,37, 5		3,38,39,34,13	
		1, 9,56,20,39,39,26, 3		5, 7
56″	49,50,55,21,12,21,39,27, 3, 8		3,38,39,39,20	
		1, 9,56,17, 0,59,46,43		5, 7
58″	49,50,56,31, 8,38,40,26,49,51		3,38,39,44,27	
		1, 9,56,13,22,20, 2,16		
60″	49,50,57,41, 4,52, 2,46,52, 7			
exact	49,50,57,41, 4,52, 2,46,59,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°11′ 0″	49,50,57,41, 4,52, 2,46,59,58			
		1, 9,56, 9,43,40,13,40		
2″	49,50,58,51, 1, 1,46,27,13,38		3,38,39,54,36	
		1, 9,56, 6, 5, 0,19, 4		5, 7
4″	49,51, 0, 0,57, 7,51,27,32,42		3,38,39,59,43	
		1, 9,56, 2,26,20,19,21		5, 7
6″	49,51, 1,10,53,10,17,47,52, 3		3,38,40, 4,50	
		1, 9,55,58,47,40,14,31		5, 7
8″	49,51, 2,20,49, 9, 5,28, 6,34		3,38,40, 9,57	
		1, 9,55,55, 9, 0, 4,34		5, 7
10″	49,51, 3,30,45, 4,14,28,11, 8		3,38,40,15, 4	
		1, 9,55,51,30,19,49,30		5, 7
12″	49,51, 4,40,40,55,44,48, 0,38		3,38,40,20,11	
		1, 9,55,47,51,39,29,19		5, 7
14″	49,51, 5,50,36,43,36,27,29,57		3,38,40,25,18	
		1, 9,55,44,12,59, 4, 1		5, 7
16″	49,51, 7, 0,32,27,49,26,33,58		3,38,40,30,25	
		1, 9,55,40,34,18,33,36		5, 7
18″	49,51, 8,10,28, 8,23,45, 7,34		3,38,40,35,32	
		1, 9,55,36,55,37,58, 4		5, 7
20″	49,51, 9,20,23,45,19,23, 5,38		3,38,40,40,39	
		1, 9,55,33,16,57,17,25		5, 7
22″	49,51,10,30,19,18,36,20,23, 3		3,38,40,45,46	
		1, 9,55,29,38,16,31,39		5, 7
24″	49,51,11,40,14,48,14,36,54,42		3,38,40,50,53	
		1, 9,55,25,59,35,40,46		5, 7
26″	49,51,12,50,10,14,14,12,35,28		3,38,40,56, 0	
		1, 9,55,22,20,54,44,46		5, 7
28″	49,51,14, 0, 5,36,35, 7,20,14		3,38,41, 1, 7	
		1, 9,55,18,42,13,43,39		5, 7
30″	49,51,15,10, 0,55,17,21, 3,53		3,38,41, 6,14	
		1, 9,55,15, 3,32,37,25		5, 7
32″	49,51,16,19,56,10,20,53,41,18		3,38,41,11,21	
		1, 9,55,11,24,51,26, 4		5, 7
34″	49,51,17,29,51,21,45,45, 7,22		3,38,41,16,28	
		1, 9,55, 7,46,10, 9,36		5, 7
36″	49,51,18,39,46,29,31,55,16,58		3,38,41,21,35	
		1, 9,55, 4, 7,28,48, 1		5, 7
38″	49,51,19,49,41,33,39,24, 4,59		3,38,41,26,42	
		1, 9,55, 0,28,47,21,19		5, 7
40″	49,51,20,59,36,34, 8,11,26,18		3,38,41,31,49	
		1, 9,54,56,50, 5,49,30		5, 7
42″	49,51,22, 9,31,30,58,17,15,48		3,38,41,36,56	
		1, 9,54,53,11,24,12,34		5, 7
44″	49,51,23,19,26,24, 9,41,28,22		3,38,41,42, 3	
		1, 9,54,49,32,42,30,31		5, 7
46″	49,51,24,29,21,13,42,23,58,53		3,38,41,47,10	
		1, 9,54,45,54, 0,43,21		5, 7
48″	49,51,25,39,15,59,36,24,42,14		3,38,41,52,17	
		1, 9,54,42,15,18,51, 4		5, 7
50″	49,51,26,49,10,41,51,43,33,18		3,38,41,57,24	
		1, 9,54,38,36,36,53,40		5, 7
52″	49,51,27,59, 5,20,28,20,26,58		3,38,42, 2,31	
		1, 9,54,34,57,54,51, 9		5, 7
54″	49,51,29, 8,59,55,26,15,18, 7		3,38,42, 7,38	
		1, 9,54,31,19,12,43,31		5, 7
56″	49,51,30,18,54,26,45,28, 1,38		3,38,42,12,45	
		1, 9,54,27,40,30,30,46		5, 7
58″	49,51,31,28,48,54,25,58,32,24		3,38,42,17,52	
		1, 9,54,24, 1,48,12,54		
60″	49,51,32,38,43,18,27,46,45,18			
exact	49,51,32,38,43,18,27,47, 1, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°12′ 0″	49,51,32,38,43,18,27,47, 1, 4			
		1, 9,54,20,23, 5,51,46		
2″	49,51,33,48,37,38,50,52,52,50		3,38,42,27,57	
		1, 9,54,16,44,23,23,49		5, 7
4″	49,51,34,58,31,55,35,16,16,39		3,38,42,33, 4	
		1, 9,54,13, 5,40,50,45		5, 7
6″	49,51,36, 8,26, 8,40,57, 7,24		3,38,42,38,11	
		1, 9,54, 9,26,58,12,34		5, 7
8″	49,51,37,18,20,18, 7,55,19,58		3,38,42,43,18	
		1, 9,54, 5,48,15,29,16		5, 7
10″	49,51,38,28,14,23,56,10,49,14		3,38,42,48,25	
		1, 9,54, 2, 9,32,40,51		5, 7
12″	49,51,39,38, 8,26, 5,43,30, 5		3,38,42,53,32	
		1, 9,53,58,30,49,47,19		5, 7
14″	49,51,40,48, 2,24,36,33,17,24		3,38,42,58,39	
		1, 9,53,54,52, 6,48,40		5, 7
16″	49,51,41,57,56,19,28,40, 6, 4		3,38,43, 3,46	
		1, 9,53,51,13,23,44,54		5, 7
18″	49,51,43, 7,50,10,42, 3,50,58		3,38,43, 8,53	
		1, 9,53,47,34,40,36, 1		5, 7
20″	49,51,44,17,43,58,16,44,26,59		3,38,43,14, 0	
		1, 9,53,43,55,57,22, 1		5, 7
22″	49,51,45,27,37,42,12,41,49, 0		3,38,43,19, 7	
		1, 9,53,40,17,14, 2,54		5, 7
24″	49,51,46,37,31,22,29,55,51,54		3,38,43,24,14	
		1, 9,53,36,38,30,38,40		5, 7
26″	49,51,47,47,24,59, 8,26,30,34		3,38,43,29,21	
		1, 9,53,32,59,47, 9,19		5, 7
28″	49,51,48,57,18,32, 8,13,39,53		3,38,43,34,28	
		1, 9,53,29,21, 3,34,51		5, 7
30″	49,51,50, 7,12, 1,29,17,14,44		3,38,43,39,35	
		1, 9,53,25,42,19,55,16		5, 7
32″	49,51,51,17, 5,27,11,37,10, 0		3,38,43,44,42	
		1, 9,53,22, 3,36,10,34		5, 7
34″	49,51,52,26,58,49,15,13,20,34		3,38,43,49,49	
		1, 9,53,18,24,52,20,45		5, 7
36″	49,51,53,36,52, 7,40, 5,41,19		3,38,43,54,56	
		1, 9,53,14,46, 8,25,49		5, 7
38″	49,51,54,46,45,22,26,14, 7, 8		3,38,44, 0, 3	
		1, 9,53,11, 7,24,25,46		5, 7
40″	49,51,55,56,38,33,33,38,32,54		3,38,44, 5,10	
		1, 9,53, 7,28,40,20,36		5, 7
42″	49,51,57, 6,31,41, 2,18,53,30		3,38,44,10,17	
		1, 9,53, 3,49,56,10,19		5, 7
44″	49,51,58,16,24,44,52,15, 3,49		3,38,44,15,24	
		1, 9,53, 0,11,11,54,55		5, 7
46″	49,51,59,26,17,45, 3,26,58,44		3,38,44,20,31	
		1, 9,52,56,32,27,34,24		5, 7
48″	49,52, 0,36,10,41,35,54,33, 8		3,38,44,25,38	
		1, 9,52,52,53,43, 8,46		5, 7
50″	49,52, 1,46, 3,34,29,37,41,54		3,38,44,30,45	
		1, 9,52,49,14,58,38, 1		5, 7
52″	49,52, 2,55,56,23,44,36,19,55		3,38,44,35,52	
		1, 9,52,45,36,14, 2, 9		5, 7
54″	49,52, 4, 5,49, 9,20,50,22, 4		3,38,44,40,59	
		1, 9,52,41,57,29,21,10		5, 7
56″	49,52, 5,15,41,51,18,19,43,14		3,38,44,46, 6	
		1, 9,52,38,18,44,35, 4		5, 7
58″	49,52, 6,25,34,29,37, 4,18,18		3,38,44,51,13	
		1, 9,52,34,39,59,43,51		
60″	49,52, 7,35,27, 4,17, 4, 2, 9			
exact	49,52, 7,35,27, 4,17, 4,26, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°13′ 0″	49,52, 7,35,27, 4,17, 4,26, 6			
		1, 9,52,31, 1,14,50,16		
2″	49,52, 8,45,19,35,18,19,16,22		3,38,45, 1,15	
		1, 9,52,27,22,29,49, 1		5, 7
4″	49,52, 9,55,12, 2,40,49, 5,23		3,38,45, 6,22	
		1, 9,52,23,43,44,42,39		5, 7
6″	49,52,11, 5, 4,26,24,33,48, 2		3,38,45,11,29	
		1, 9,52,20, 4,59,31,10		5, 7
8″	49,52,12,14,56,46,29,33,19,12		3,38,45,16,36	
		1, 9,52,16,26,14,14,34		5, 7
10″	49,52,13,24,49, 2,55,47,33,46		3,38,45,21,43	
		1, 9,52,12,47,28,52,51		5, 7
12″	49,52,14,34,41,15,43,16,26,37		3,38,45,26,50	
		1, 9,52, 9, 8,43,26, 1		5, 7
14″	49,52,15,44,33,24,51,59,52,38		3,38,45,31,57	
		1, 9,52, 5,29,57,54, 4		5, 7
16″	49,52,16,54,25,30,21,57,46,42		3,38,45,37, 4	
		1, 9,52, 1,51,12,17, 0		5, 7
18″	49,52,18, 4,17,32,13,10, 3,42		3,38,45,42,11	
		1, 9,51,58,12,26,34,49		5, 7
20″	49,52,19,14, 9,30,25,36,38,31		3,38,45,47,18	
		1, 9,51,54,33,40,47,31		5, 7
22″	49,52,20,24, 1,24,59,17,26, 2		3,38,45,52,25	
		1, 9,51,50,54,54,55, 6		5, 7
24″	49,52,21,33,53,15,54,12,21, 8		3,38,45,57,32	
		1, 9,51,47,16, 8,57,34		5, 7
26″	49,52,22,43,45, 3,10,21,18,42		3,38,46, 2,39	
		1, 9,51,43,37,22,54,55		5, 7
28″	49,52,23,53,36,46,47,44,13,37		3,38,46, 7,46	
		1, 9,51,39,58,36,47, 9		5, 7
30″	49,52,25, 3,28,26,46,21, 0,46		3,38,46,12,53	
		1, 9,51,36,19,50,34,16		5, 7
32″	49,52,26,13,20, 3, 6,11,35, 2		3,38,46,18, 0	
		1, 9,51,32,41, 4,16,16		5, 7
34″	49,52,27,23,11,35,47,15,51,18		3,38,46,23, 7	
		1, 9,51,29, 2,17,53, 9		5, 7
36″	49,52,28,33, 3, 4,49,33,44,27		3,38,46,28,14	
		1, 9,51,25,23,31,24,55		5, 7
38″	49,52,29,42,54,30,13, 5, 9,22		3,38,46,33,21	
		1, 9,51,21,44,44,51,34		5, 7
40″	49,52,30,52,45,51,57,50, 0,56		3,38,46,38,28	
		1, 9,51,18, 5,58,13, 6		5, 7
42″	49,52,32, 2,37,10, 3,48,14, 2		3,38,46,43,35	
		1, 9,51,14,27,11,29,31		5, 7
44″	49,52,33,12,28,24,30,59,43,33		3,38,46,48,42	
		1, 9,51,10,48,24,40,49		5, 7
46″	49,52,34,22,19,35,19,24,24,22		3,38,46,53,49	
		1, 9,51, 7, 9,37,47, 0		5, 7
48″	49,52,35,32,10,42,29, 2,11,22		3,38,46,58,56	
		1, 9,51, 3,30,50,48, 4		5, 7
50″	49,52,36,42, 1,45,59,52,59,26		3,38,47, 4, 3	
		1, 9,50,59,52, 3,44, 1		5, 7
52″	49,52,37,51,52,45,51,56,43,27		3,38,47, 9,10	
		1, 9,50,56,13,16,34,51		5, 7
54″	49,52,39, 1,43,42, 5,13,18,18		3,38,47,14,17	
		1, 9,50,52,34,29,20,34		5, 7
56″	49,52,40,11,34,34,39,42,38,52		3,38,47,19,24	
		1, 9,50,48,55,42, 1,10		5, 7
58″	49,52,41,21,25,23,35,24,40, 2		3,38,47,24,31	
		1, 9,50,45,16,54,36,39		
60″	49,52,42,31,16, 8,52,19,16,41			
exact	49,52,42,31,16, 8,52,19,55,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°14′ 0″	49,52,42,31,16, 8,52,19,55,49			
		1, 9,50,41,38, 7,11,10		
2″	49,52,43,41, 6,50,30,27, 6,59		3,38,47,34,28	
		1, 9,50,37,59,19,36,42		5, 6
4″	49,52,44,50,57,28,29,46,43,41		3,38,47,39,34	
		1, 9,50,34,20,31,57, 8		5, 6
6″	49,52,46, 0,48, 2,50,18,40,49		3,38,47,44,40	
		1, 9,50,30,41,44,12,28		5, 6
8″	49,52,47,10,38,33,32, 2,53,17		3,38,47,49,46	
		1, 9,50,27, 2,56,22,42		5, 6
10″	49,52,48,20,29, 0,34,59,15,59		3,38,47,54,52	
		1, 9,50,23,24, 8,27,50		5, 6
12″	49,52,49,30,19,23,59, 7,43,49		3,38,47,59,58	
		1, 9,50,19,45,20,27,52		5, 6
14″	49,52,50,40, 9,43,44,28,11,41		3,38,48, 5, 4	
		1, 9,50,16, 6,32,22,48		5, 6
16″	49,52,51,49,59,59,51, 0,34,29		3,38,48,10,10	
		1, 9,50,12,27,44,12,38		5, 6
18″	49,52,52,59,50,12,18,44,47, 7		3,38,48,15,16	
		1, 9,50, 8,48,55,57,22		5, 6
20″	49,52,54, 9,40,21, 7,40,44,29		3,38,48,20,22	
		1, 9,50, 5,10, 7,37, 0		5, 6
22″	49,52,55,19,30,26,17,48,21,29		3,38,48,25,28	
		1, 9,50, 1,31,19,11,32		5, 6
24″	49,52,56,29,20,27,49, 7,33, 1		3,38,48,30,34	
		1, 9,49,57,52,30,40,58		5, 6
26″	49,52,57,39,10,25,41,38,13,59		3,38,48,35,40	
		1, 9,49,54,13,42, 5,18		5, 6
28″	49,52,58,49, 0,19,55,20,19,17		3,38,48,40,46	
		1, 9,49,50,34,53,24,32		5, 6
30″	49,52,59,58,50,10,30,13,43,49		3,38,48,45,52	
		1, 9,49,46,56, 4,38,40		5, 6
32″	49,53, 1, 8,39,57,26,18,22,29		3,38,48,50,58	
		1, 9,49,43,17,15,47,42		5, 6
34″	49,53, 2,18,29,40,43,34,10,11		3,38,48,56, 4	
		1, 9,49,39,38,26,51,38		5, 6
36″	49,53, 3,28,19,20,22, 1, 1,49		3,38,49, 1,10	
		1, 9,49,35,59,37,50,28		5, 6
38″	49,53, 4,38, 8,56,21,38,52,17		3,38,49, 6,16	
		1, 9,49,32,20,48,44,12		5, 6
40″	49,53, 5,47,58,28,42,27,36,29		3,38,49,11,22	
		1, 9,49,28,41,59,32,50		5, 6
42″	49,53, 6,57,47,57,24,27, 9,19		3,38,49,16,28	
		1, 9,49,25, 3,10,16,22		5, 6
44″	49,53, 8, 7,37,22,27,37,25,41		3,38,49,21,34	
		1, 9,49,21,24,20,54,48		5, 6
46″	49,53, 9,17,26,43,51,58,20,29		3,38,49,26,40	
		1, 9,49,17,45,31,28, 8		5, 6
48″	49,53,10,27,16, 1,37,29,48,37		3,38,49,31,46	
		1, 9,49,14, 6,41,56,22		5, 6
50″	49,53,11,37, 5,15,44,11,44,59		3,38,49,36,52	
		1, 9,49,10,27,52,19,30		5, 6
52″	49,53,12,46,54,26,12, 4, 4,29		3,38,49,41,58	
		1, 9,49, 6,49, 2,37,32		5, 6
54″	49,53,13,56,43,33, 1, 6,42, 1		3,38,49,47, 4	
		1, 9,49, 3,10,12,50,28		5, 6
56″	49,53,15, 6,32,36,11,19,32,29		3,38,49,52,10	
		1, 9,48,59,31,22,58,18		5, 6
58″	49,53,16,16,21,35,42,42,30,47		3,38,49,57,16	
		1, 9,48,55,52,33, 1, 2		
60″	49,53,17,26,10,31,35,15,31,49			
exact	49,53,17,26,10,31,35,15,10,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°15′ 0″	49,53,17,26,10,31,35,15,10,56			
		1, 9,48,52,13,42,56,26		
2″	49,53,18,35,59,23,48,58, 7,22		3,38,50, 7,37	
		1, 9,48,48,34,52,48,49		5, 6
4″	49,53,19,45,48,12,23,50,56,11		3,38,50,12,43	
		1, 9,48,44,56, 2,36, 6		5, 6
6″	49,53,20,55,36,57,19,53,32,17		3,38,50,17,49	
		1, 9,48,41,17,12,18,17		5, 6
8″	49,53,22, 5,25,38,37, 5,50,34		3,38,50,22,55	
		1, 9,48,37,38,21,55,22		5, 6
10″	49,53,23,15,14,16,15,27,45,56		3,38,50,28, 1	
		1, 9,48,33,59,31,27,21		5, 6
12″	49,53,24,25, 2,50,14,59,13,17		3,38,50,33, 7	
		1, 9,48,30,20,40,54,14		5, 6
14″	49,53,25,34,51,20,35,40, 7,31		3,38,50,38,13	
		1, 9,48,26,41,50,16, 1		5, 6
16″	49,53,26,44,39,47,17,30,23,32		3,38,50,43,19	
		1, 9,48,23, 2,59,32,42		5, 6
18″	49,53,27,54,28,10,20,29,56,14		3,38,50,48,25	
		1, 9,48,19,24, 8,44,17		5, 6
20″	49,53,29, 4,16,29,44,38,40,31		3,38,50,53,31	
		1, 9,48,15,45,17,50,46		5, 6
22″	49,53,30,14, 4,45,29,56,31,17		3,38,50,58,37	
		1, 9,48,12, 6,26,52, 9		5, 6
24″	49,53,31,23,52,57,36,23,23,26		3,38,51, 3,43	
		1, 9,48, 8,27,35,48,26		5, 6
26″	49,53,32,33,41, 6, 3,59,11,52		3,38,51, 8,49	
		1, 9,48, 4,48,44,39,37		5, 6
28″	49,53,33,43,29,10,52,43,51,29		3,38,51,13,55	
		1, 9,48, 1, 9,53,25,42		5, 6
30″	49,53,34,53,17,12, 2,37,17,11		3,38,51,19, 1	
		1, 9,47,57,31, 2, 6,41		5, 6
32″	49,53,36, 3, 5, 9,33,39,23,52		3,38,51,24, 7	
		1, 9,47,53,52,10,42,34		5, 6
34″	49,53,37,12,53, 3,25,50, 6,26		3,38,51,29,13	
		1, 9,47,50,13,19,13,21		5, 6
36″	49,53,38,22,40,53,39, 9,19,47		3,38,51,34,19	
		1, 9,47,46,34,27,39, 2		5, 6
38″	49,53,39,32,28,40,13,36,58,49		3,38,51,39,25	
		1, 9,47,42,55,35,59,37		5, 6
40″	49,53,40,42,16,23, 9,12,58,26		3,38,51,44,31	
		1, 9,47,39,16,44,15, 6		5, 6
42″	49,53,41,52, 4, 2,25,57,13,32		3,38,51,49,37	
		1, 9,47,35,37,52,25,29		5, 6
44″	49,53,43, 1,51,38, 3,49,39, 1		3,38,51,54,43	
		1, 9,47,31,59, 0,30,46		5, 6
46″	49,53,44,11,39,10, 2,50, 9,47		3,38,51,59,49	
		1, 9,47,28,20, 8,30,57		5, 6
48″	49,53,45,21,26,38,22,58,40,44		3,38,52, 4,55	
		1, 9,47,24,41,16,26, 2		5, 6
50″	49,53,46,31,14, 3, 4,15, 6,46		3,38,52,10, 1	
		1, 9,47,21, 2,24,16, 1		5, 6
52″	49,53,47,41, 1,24, 6,39,22,47		3,38,52,15, 7	
		1, 9,47,17,23,32, 0,54		5, 6
54″	49,53,48,50,48,41,30,11,23,41		3,38,52,20,13	
		1, 9,47,13,44,39,40,41		5, 6
56″	49,53,50, 0,35,55,14,51, 4,22		3,38,52,25,19	
		1, 9,47,10, 5,47,15,22		5, 6
58″	49,53,51,10,23, 5,20,38,19,44		3,38,52,30,25	
		1, 9,47, 6,26,54,44,57		
60″	49,53,52,20,10,11,47,33, 4,41			
exact	49,53,52,20,10,11,47,32,52, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°16′ 0″	49,53,52,20,10,11,47,32,52, 6			
		1, 9,47, 2,48, 2, 8, 7		
2″	49,53,53,29,57,14,35,35, 0,13		3,38,52,40,42	
		1, 9,46,59, 9, 9,27,25		5, 6
4″	49,53,54,39,44,13,44,44,27,38		3,38,52,45,48	
		1, 9,46,55,30,16,41,37		5, 6
6″	49,53,55,49,31, 9,15, 1, 9,15		3,38,52,50,54	
		1, 9,46,51,51,23,50,43		5, 6
8″	49,53,56,59,18, 1, 6,24,59,58		3,38,52,56, 0	
		1, 9,46,48,12,30,54,43		5, 6
10″	49,53,58, 9, 4,49,18,55,54,41		3,38,53, 1, 6	
		1, 9,46,44,33,37,53,37		5, 6
12″	49,53,59,18,51,33,52,33,48,18		3,38,53, 6,12	
		1, 9,46,40,54,44,47,25		5, 6
14″	49,54, 0,28,38,14,47,18,35,43		3,38,53,11,18	
		1, 9,46,37,15,51,36, 7		5, 6
16″	49,54, 1,38,24,52, 3,10,11,50		3,38,53,16,24	
		1, 9,46,33,36,58,19,43		5, 6
18″	49,54, 2,48,11,25,40, 8,31,33		3,38,53,21,30	
		1, 9,46,29,58, 4,58,13		5, 6
20″	49,54, 3,57,57,55,38,13,29,46		3,38,53,26,36	
		1, 9,46,26,19,11,31,37		5, 6
22″	49,54, 5, 7,44,21,57,25, 1,23		3,38,53,31,42	
		1, 9,46,22,40,17,59,55		5, 6
24″	49,54, 6,17,30,44,37,43, 1,18		3,38,53,36,48	
		1, 9,46,19, 1,24,23, 7		5, 6
26″	49,54, 7,27,17, 3,39, 7,24,25		3,38,53,41,54	
		1, 9,46,15,22,30,41,13		5, 6
28″	49,54, 8,37, 3,19, 1,38, 5,38		3,38,53,47, 0	
		1, 9,46,11,43,36,54,13		5, 6
30″	49,54, 9,46,49,30,45,14,59,51		3,38,53,52, 6	
		1, 9,46, 8, 4,43, 2, 7		5, 6
32″	49,54,10,56,35,38,49,58, 1,58		3,38,53,57,12	
		1, 9,46, 4,25,49, 4,55		5, 6
34″	49,54,12, 6,21,43,15,47, 6,53		3,38,54, 2,18	
		1, 9,46, 0,46,55, 2,37		5, 6
36″	49,54,13,16, 7,44, 2,42, 9,30		3,38,54, 7,24	
		1, 9,45,57, 8, 0,55,13		5, 6
38″	49,54,14,25,53,41,10,43, 4,43		3,38,54,12,30	
		1, 9,45,53,29, 6,42,43		5, 6
40″	49,54,15,35,39,34,39,49,47,26		3,38,54,17,36	
		1, 9,45,49,50,12,25, 7		5, 6
42″	49,54,16,45,25,24,30, 2,12,33		3,38,54,22,42	
		1, 9,45,46,11,18, 2,25		5, 6
44″	49,54,17,55,11,10,41,20,14,58		3,38,54,27,48	
		1, 9,45,42,32,23,34,37		5, 6
46″	49,54,19, 4,56,53,13,43,49,35		3,38,54,32,54	
		1, 9,45,38,53,29, 1,43		5, 6
48″	49,54,20,14,42,32, 7,12,51,18		3,38,54,38, 0	
		1, 9,45,35,14,34,23,43		5, 6
50″	49,54,21,24,28, 7,21,47,15, 1		3,38,54,43, 6	
		1, 9,45,31,35,39,40,37		5, 6
52″	49,54,22,34,13,38,57,26,55,38		3,38,54,48,12	
		1, 9,45,27,56,44,52,25		5, 6
54″	49,54,23,43,59, 6,54,11,48, 3		3,38,54,53,18	
		1, 9,45,24,17,49,59, 7		5, 6
56″	49,54,24,53,44,31,12, 1,47,10		3,38,54,58,24	
		1, 9,45,20,38,55, 0,43		5, 6
58″	49,54,26, 3,29,51,50,56,47,53		3,38,55, 3,30	
		1, 9,45,16,59,59,57,13		
60″	49,54,27,13,15, 8,50,56,45, 6			
exact	49,54,27,13,15, 8,50,56,40, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°17′ 0″	49,54,27,13,15, 8,50,56,40, 2			
		1, 9,45,13,21, 4,48,10		
2″	49,54,28,23, 0,22,12, 1,28,12		3,38,55,13,43	
		1, 9,45, 9,42, 9,34,27		5, 6
4″	49,54,29,32,45,31,54,11, 2,39		3,38,55,18,49	
		1, 9,45, 6, 3,14,15,38		5, 6
6″	49,54,30,42,30,37,57,25,18,17		3,38,55,23,55	
		1, 9,45, 2,24,18,51,43		5, 6
8″	49,54,31,52,15,40,21,44,10, 0		3,38,55,29, 1	
		1, 9,44,58,45,23,22,42		5, 6
10″	49,54,33, 2, 0,39, 7, 7,32,42		3,38,55,34, 7	
		1, 9,44,55, 6,27,48,35		5, 6
12″	49,54,34,11,45,34,13,35,21,17		3,38,55,39,13	
		1, 9,44,51,27,32, 9,22		5, 6
14″	49,54,35,21,30,25,41, 7,30,39		3,38,55,44,19	
		1, 9,44,47,48,36,25, 3		5, 6
16″	49,54,36,31,15,13,29,43,55,42		3,38,55,49,25	
		1, 9,44,44, 9,40,35,38		5, 6
18″	49,54,37,40,59,57,39,24,31,20		3,38,55,54,31	
		1, 9,44,40,30,44,41, 7		5, 6
20″	49,54,38,50,44,38,10, 9,12,27		3,38,55,59,37	
		1, 9,44,36,51,48,41,30		5, 6
22″	49,54,40, 0,29,15, 1,57,53,57		3,38,56, 4,43	
		1, 9,44,33,12,52,36,47		5, 6
24″	49,54,41,10,13,48,14,50,30,44		3,38,56, 9,49	
		1, 9,44,29,33,56,26,58		5, 6
26″	49,54,42,19,58,17,48,46,57,42		3,38,56,14,55	
		1, 9,44,25,55, 0,12, 3		5, 6
28″	49,54,43,29,42,43,43,47, 9,45		3,38,56,20, 1	
		1, 9,44,22,16, 3,52, 2		5, 6
30″	49,54,44,39,27, 5,59,51, 1,47		3,38,56,25, 7	
		1, 9,44,18,37, 7,26,55		5, 6
32″	49,54,45,49,11,24,36,58,28,42		3,38,56,30,13	
		1, 9,44,14,58,10,56,42		5, 6
34″	49,54,46,58,55,39,35, 9,25,24		3,38,56,35,19	
		1, 9,44,11,19,14,21,23		5, 6
36″	49,54,48, 8,39,50,54,23,46,47		3,38,56,40,25	
		1, 9,44, 7,40,17,40,58		5, 6
38″	49,54,49,18,23,58,34,41,27,45		3,38,56,45,31	
		1, 9,44, 4, 1,20,55,27		5, 6
40″	49,54,50,28, 8, 2,36, 2,23,12		3,38,56,50,37	
		1, 9,44, 0,22,24, 4,50		5, 6
42″	49,54,51,37,52, 2,58,26,28, 2		3,38,56,55,43	
		1, 9,43,56,43,27, 9, 7		5, 6
44″	49,54,52,47,35,59,41,53,37, 9		3,38,57, 0,49	
		1, 9,43,53, 4,30, 8,18		5, 6
46″	49,54,53,57,19,52,46,23,45,27		3,38,57, 5,55	
		1, 9,43,49,25,33, 2,23		5, 6
48″	49,54,55, 7, 3,42,11,56,47,50		3,38,57,11, 1	
		1, 9,43,45,46,35,51,22		5, 6
50″	49,54,56,16,47,27,58,32,39,12		3,38,57,16, 7	
		1, 9,43,42, 7,38,35,15		5, 6
52″	49,54,57,26,31,10, 6,11,14,27		3,38,57,21,13	
		1, 9,43,38,28,41,14, 2		5, 6
54″	49,54,58,36,14,48,34,52,28,29		3,38,57,26,19	
		1, 9,43,34,49,43,47,43		5, 6
56″	49,54,59,45,58,23,24,36,16,12		3,38,57,31,25	
		1, 9,43,31,10,46,16,18		5, 6
58″	49,55, 0,55,41,54,35,22,32,30		3,38,57,36,31	
		1, 9,43,27,31,48,39,47		
60″	49,55, 2, 5,25,22, 7,11,12,17			
exact	49,55, 2, 5,25,22, 7,11,15,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°18′ 0″	49,55, 2, 5,25,22, 7,11,15,26			
		1, 9,43,23,52,50,58,37		
2″	49,55, 3,15, 8,46, 0, 2,14, 3		3,38,57,46,40	
		1, 9,43,20,13,53,11,57		5, 6
4″	49,55, 4,24,52, 6,13,55,26, 0		3,38,57,51,46	
		1, 9,43,16,34,55,20,11		5, 6
6″	49,55, 5,34,35,22,48,50,46,11		3,38,57,56,52	
		1, 9,43,12,55,57,23,19		5, 6
8″	49,55, 6,44,18,35,44,48, 9,30		3,38,58, 1,58	
		1, 9,43, 9,16,59,21,21		5, 6
10″	49,55, 7,54, 1,45, 1,47,30,51		3,38,58, 7, 4	
		1, 9,43, 5,38, 1,14,17		5, 6
12″	49,55, 9, 3,44,50,39,48,45, 8		3,38,58,12,10	
		1, 9,43, 1,59, 3, 2, 7		5, 6
14″	49,55,10,13,27,52,38,51,47,15		3,38,58,17,16	
		1, 9,42,58,20, 4,44,51		5, 6
16″	49,55,11,23,10,50,58,56,32, 6		3,38,58,22,22	
		1, 9,42,54,41, 6,22,29		5, 6
18″	49,55,12,32,53,45,40, 2,54,35		3,38,58,27,28	
		1, 9,42,51, 2, 7,55, 1		5, 6
20″	49,55,13,42,36,36,42,10,49,36		3,38,58,32,34	
		1, 9,42,47,23, 9,22,27		5, 6
22″	49,55,14,52,19,24, 5,20,12, 3		3,38,58,37,40	
		1, 9,42,43,44,10,44,47		5, 6
24″	49,55,16, 2, 2, 7,49,30,56,50		3,38,58,42,46	
		1, 9,42,40, 5,12, 2, 1		5, 6
26″	49,55,17,11,44,47,54,42,58,51		3,38,58,47,52	
		1, 9,42,36,26,13,14, 9		5, 6
28″	49,55,18,21,27,24,20,56,13, 0		3,38,58,52,58	
		1, 9,42,32,47,14,21,11		5, 6
30″	49,55,19,31, 9,57, 8,10,34,11		3,38,58,58, 4	
		1, 9,42,29, 8,15,23, 7		5, 6
32″	49,55,20,40,52,26,16,25,57,18		3,38,59, 3,10	
		1, 9,42,25,29,16,19,57		5, 6
34″	49,55,21,50,34,51,45,42,17,15		3,38,59, 8,16	
		1, 9,42,21,50,17,11,41		5, 6
36″	49,55,23, 0,17,13,35,59,28,56		3,38,59,13,22	
		1, 9,42,18,11,17,58,19		5, 6
38″	49,55,24, 9,59,31,47,17,27,15		3,38,59,18,28	
		1, 9,42,14,32,18,39,51		5, 6
40″	49,55,25,19,41,46,19,36, 7, 6		3,38,59,23,34	
		1, 9,42,10,53,19,16,17		5, 6
42″	49,55,26,29,23,57,12,55,23,23		3,38,59,28,40	
		1, 9,42, 7,14,19,47,37		5, 6
44″	49,55,27,39, 6, 4,27,15,11, 0		3,38,59,33,46	
		1, 9,42, 3,35,20,13,51		5, 6
46″	49,55,28,48,48, 8, 2,35,24,51		3,38,59,38,52	
		1, 9,41,59,56,20,34,59		5, 6
48″	49,55,29,58,30, 7,58,55,59,50		3,38,59,43,58	
		1, 9,41,56,17,20,51, 1		5, 6
50″	49,55,31, 8,12, 4,16,16,50,51		3,38,59,49, 4	
		1, 9,41,52,38,21, 1,57		5, 6
52″	49,55,32,17,53,56,54,37,52,48		3,38,59,54,10	
		1, 9,41,48,59,21, 7,47		5, 6
54″	49,55,33,27,35,45,53,59, 0,35		3,38,59,59,16	
		1, 9,41,45,20,21, 8,31		5, 6
56″	49,55,34,37,17,31,14,20, 9, 6		3,39, 0, 4,22	
		1, 9,41,41,41,21, 4, 9		5, 6
58″	49,55,35,46,59,12,55,41,13,15		3,39, 0, 9,28	
		1, 9,41,38, 2,20,54,41		
60″	49,55,36,56,40,50,58, 2, 7,56			
exact	49,55,36,56,40,50,58, 2,18,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°19′ 0″	49,55,36,56,40,50,58, 2,18,59			
		1, 9,41,34,23,20,41,28		
2″	49,55,38, 6,22,25,21,23, 0,27		3,39, 0,19,33	
		1, 9,41,30,44,20,21,55		5, 6
4″	49,55,39,16, 3,56, 5,43,22,22		3,39, 0,24,39	
		1, 9,41,27, 5,19,57,16		5, 6
6″	49,55,40,25,45,23,11, 3,19,38		3,39, 0,29,45	
		1, 9,41,23,26,19,27,31		5, 6
8″	49,55,41,35,26,46,37,22,47, 9		3,39, 0,34,51	
		1, 9,41,19,47,18,52,40		5, 6
10″	49,55,42,45, 8, 6,24,41,39,49		3,39, 0,39,57	
		1, 9,41,16, 8,18,12,43		5, 6
12″	49,55,43,54,49,22,32,59,52,32		3,39, 0,45, 3	
		1, 9,41,12,29,17,27,40		5, 6
14″	49,55,45, 4,30,35, 2,17,20,12		3,39, 0,50, 9	
		1, 9,41, 8,50,16,37,31		5, 6
16″	49,55,46,14,11,43,52,33,57,43		3,39, 0,55,15	
		1, 9,41, 5,11,15,42,16		5, 6
18″	49,55,47,23,52,49, 3,49,39,59		3,39, 1, 0,21	
		1, 9,41, 1,32,14,41,55		5, 6
20″	49,55,48,33,33,50,36, 4,21,54		3,39, 1, 5,27	
		1, 9,40,57,53,13,36,28		5, 6
22″	49,55,49,43,14,48,29,17,58,22		3,39, 1,10,33	
		1, 9,40,54,14,12,25,55		5, 6
24″	49,55,50,52,55,42,43,30,24,17		3,39, 1,15,39	
		1, 9,40,50,35,11,10,16		5, 6
26″	49,55,52, 2,36,33,18,41,34,33		3,39, 1,20,45	
		1, 9,40,46,56, 9,49,31		5, 6
28″	49,55,53,12,17,20,14,51,24, 4		3,39, 1,25,51	
		1, 9,40,43,17, 8,23,40		5, 6
30″	49,55,54,21,58, 3,31,59,47,44		3,39, 1,30,57	
		1, 9,40,39,38, 6,52,43		5, 6
32″	49,55,55,31,38,43,10, 6,40,27		3,39, 1,36, 3	
		1, 9,40,35,59, 5,16,40		5, 6
34″	49,55,56,41,19,19, 9,11,57, 7		3,39, 1,41, 9	
		1, 9,40,32,20, 3,35,31		5, 6
36″	49,55,57,50,59,51,29,15,32,38		3,39, 1,46,15	
		1, 9,40,28,41, 1,49,16		5, 6
38″	49,55,59, 0,40,20,10,17,21,54		3,39, 1,51,21	
		1, 9,40,25, 1,59,57,55		5, 6
40″	49,56, 0,10,20,45,12,17,19,49		3,39, 1,56,27	
		1, 9,40,21,22,58, 1,28		5, 6
42″	49,56, 1,20, 1, 6,35,15,21,17		3,39, 2, 1,33	
		1, 9,40,17,43,55,59,55		5, 6
44″	49,56, 2,29,41,24,19,11,21,12		3,39, 2, 6,39	
		1, 9,40,14, 4,53,53,16		5, 6
46″	49,56, 3,39,21,38,24, 5,14,28		3,39, 2,11,45	
		1, 9,40,10,25,51,41,31		5, 6
48″	49,56, 4,49, 1,48,49,56,55,59		3,39, 2,16,51	
		1, 9,40, 6,46,49,24,40		5, 6
50″	49,56, 5,58,41,55,36,46,20,39		3,39, 2,21,57	
		1, 9,40, 3, 7,47, 2,43		5, 6
52″	49,56, 7, 8,21,58,44,33,23,22		3,39, 2,27, 3	
		1, 9,39,59,28,44,35,40		5, 6
54″	49,56, 8,18, 1,58,13,17,59, 2		3,39, 2,32, 9	
		1, 9,39,55,49,42, 3,31		5, 6
56″	49,56, 9,27,41,54, 3, 0, 2,33		3,39, 2,37,15	
		1, 9,39,52,10,39,26,16		5, 6
58″	49,56,10,37,21,46,13,39,28,49		3,39, 2,42,21	
		1, 9,39,48,31,36,43,55		
60″	49,56,11,47, 1,34,45,16,12,44			
exact	49,56,11,47, 1,34,45,16,31,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°20′ 0″	49,56,11,47, 1,34,45,16,31,26			
		1, 9,39,44,52,33,58,42		
2″	49,56,12,56,41,19,37,50,30, 8		3,39, 2,52,23	
		1, 9,39,41,13,31, 6,19		5, 6
4″	49,56,14, 6,21, 0,51,21,36,27		3,39, 2,57,29	
		1, 9,39,37,34,28, 8,50		5, 6
6″	49,56,15,16, 0,38,25,49,45,17		3,39, 3, 2,35	
		1, 9,39,33,55,25, 6,15		5, 6
8″	49,56,16,25,40,12,21,14,51,32		3,39, 3, 7,41	
		1, 9,39,30,16,21,58,34		5, 6
10″	49,56,17,35,19,42,37,36,50, 6		3,39, 3,12,47	
		1, 9,39,26,37,18,45,47		5, 6
12″	49,56,18,44,59, 9,14,55,35,53		3,39, 3,17,53	
		1, 9,39,22,58,15,27,54		5, 6
14″	49,56,19,54,38,32,13,11, 3,47		3,39, 3,22,59	
		1, 9,39,19,19,12, 4,55		5, 6
16″	49,56,21, 4,17,51,32,23, 8,42		3,39, 3,28, 5	
		1, 9,39,15,40, 8,36,50		5, 6
18″	49,56,22,13,57, 7,12,31,45,32		3,39, 3,33,11	
		1, 9,39,12, 1, 5, 3,39		5, 6
20″	49,56,23,23,36,19,13,36,49,11		3,39, 3,38,17	
		1, 9,39, 8,22, 1,25,22		5, 6
22″	49,56,24,33,15,27,35,38,14,33		3,39, 3,43,23	
		1, 9,39, 4,42,57,41,59		5, 6
24″	49,56,25,42,54,32,18,35,56,32		3,39, 3,48,29	
		1, 9,39, 1, 3,53,53,30		5, 6
26″	49,56,26,52,33,33,22,29,50, 2		3,39, 3,53,35	
		1, 9,38,57,24,49,59,55		5, 6
28″	49,56,28, 2,12,30,47,19,49,57		3,39, 3,58,41	
		1, 9,38,53,45,46, 1,14		5, 6
30″	49,56,29,11,51,24,33, 5,51,11		3,39, 4, 3,47	
		1, 9,38,50, 6,41,57,27		5, 6
32″	49,56,30,21,30,14,39,47,48,38		3,39, 4, 8,53	
		1, 9,38,46,27,37,48,34		5, 6
34″	49,56,31,31, 9, 1, 7,25,37,12		3,39, 4,13,59	
		1, 9,38,42,48,33,34,35		5, 6
36″	49,56,32,40,47,43,55,59,11,47		3,39, 4,19, 5	
		1, 9,38,39, 9,29,15,30		5, 6
38″	49,56,33,50,26,23, 5,28,27,17		3,39, 4,24,11	
		1, 9,38,35,30,24,51,19		5, 6
40″	49,56,35, 0, 4,58,35,53,18,36		3,39, 4,29,17	
		1, 9,38,31,51,20,22, 2		5, 6
42″	49,56,36, 9,43,30,27,13,40,38		3,39, 4,34,23	
		1, 9,38,28,12,15,47,39		5, 6
44″	49,56,37,19,21,58,39,29,28,17		3,39, 4,39,29	
		1, 9,38,24,33,11, 8,10		5, 6
46″	49,56,38,29, 0,23,12,40,36,27		3,39, 4,44,35	
		1, 9,38,20,54, 6,23,35		5, 6
48″	49,56,39,38,38,44, 6,47, 0, 2		3,39, 4,49,41	
		1, 9,38,17,15, 1,33,54		5, 6
50″	49,56,40,48,17, 1,21,48,33,56		3,39, 4,54,47	
		1, 9,38,13,35,56,39, 7		5, 6
52″	49,56,41,57,55,14,57,45,13, 3		3,39, 4,59,53	
		1, 9,38, 9,56,51,39,14		5, 6
54″	49,56,43, 7,33,24,54,36,52,17		3,39, 5, 4,59	
		1, 9,38, 6,17,46,34,15		5, 6
56″	49,56,44,17,11,31,12,23,26,32		3,39, 5,10, 5	
		1, 9,38, 2,38,41,24,10		5, 6
58″	49,56,45,26,49,33,51, 4,50,42		3,39, 5,15,11	
		1, 9,37,58,59,36, 8,59		
60″	49,56,46,36,27,32,50,40,59,41			
exact	49,56,46,36,27,32,50,41,33,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°21′ 0″	49,56,46,36,27,32,50,41,33,34			
		1, 9,37,55,20,30,52,19		
2″	49,56,47,46, 5,28,11,12,25,53		3,39, 5,25, 8	
		1, 9,37,51,41,25,27,11		5, 5
4″	49,56,48,55,43,19,52,37,53, 4		3,39, 5,30,13	
		1, 9,37,48, 2,19,56,58		5, 5
6″	49,56,50, 5,21, 7,54,57,50, 2		3,39, 5,35,18	
		1, 9,37,44,23,14,21,40		5, 5
8″	49,56,51,14,58,52,18,12,11,42		3,39, 5,40,23	
		1, 9,37,40,44, 8,41,17		5, 5
10″	49,56,52,24,36,33, 2,20,52,59		3,39, 5,45,28	
		1, 9,37,37, 5, 2,55,49		5, 5
12″	49,56,53,34,14,10, 7,23,48,48		3,39, 5,50,33	
		1, 9,37,33,25,57, 5,16		5, 5
14″	49,56,54,43,51,43,33,20,54, 4		3,39, 5,55,38	
		1, 9,37,29,46,51, 9,38		5, 5
16″	49,56,55,53,29,13,20,12, 3,42		3,39, 6, 0,43	
		1, 9,37,26, 7,45, 8,55		5, 5
18″	49,56,57, 3, 6,39,27,57,12,37		3,39, 6, 5,48	
		1, 9,37,22,28,39, 3, 7		5, 5
20″	49,56,58,12,44, 1,56,36,15,44		3,39, 6,10,53	
		1, 9,37,18,49,32,52,14		5, 5
22″	49,56,59,22,21,20,46, 9, 7,58		3,39, 6,15,58	
		1, 9,37,15,10,26,36,16		5, 5
24″	49,57, 0,31,58,35,56,35,44,14		3,39, 6,21, 3	
		1, 9,37,11,31,20,15,13		5, 5
26″	49,57, 1,41,35,47,27,55,59,27		3,39, 6,26, 8	
		1, 9,37, 7,52,13,49, 5		5, 5
28″	49,57, 2,51,12,55,20, 9,48,32		3,39, 6,31,13	
		1, 9,37, 4,13, 7,17,52		5, 5
30″	49,57, 4, 0,49,59,33,17, 6,24		3,39, 6,36,18	
		1, 9,37, 0,34, 0,41,34		5, 5
32″	49,57, 5,10,27, 0, 7,17,47,58		3,39, 6,41,23	
		1, 9,36,56,54,54, 0,11		5, 5
34″	49,57, 6,20, 3,57, 2,11,48, 9		3,39, 6,46,28	
		1, 9,36,53,15,47,13,43		5, 5
36″	49,57, 7,29,40,50,17,59, 1,52		3,39, 6,51,33	
		1, 9,36,49,36,40,22,10		5, 5
38″	49,57, 8,39,17,39,54,39,24, 2		3,39, 6,56,38	
		1, 9,36,45,57,33,25,32		5, 5
40″	49,57, 9,48,54,25,52,12,49,34		3,39, 7, 1,43	
		1, 9,36,42,18,26,23,49		5, 5
42″	49,57,10,58,31, 8,10,39,13,23		3,39, 7, 6,48	
		1, 9,36,38,39,19,17, 1		5, 5
44″	49,57,12, 8, 7,46,49,58,30,24		3,39, 7,11,53	
		1, 9,36,35, 0,12, 5, 8		5, 5
46″	49,57,13,17,44,21,50,10,35,32		3,39, 7,16,58	
		1, 9,36,31,21, 4,48,10		5, 5
48″	49,57,14,27,20,53,11,15,23,42		3,39, 7,22, 3	
		1, 9,36,27,41,57,26, 7		5, 5
50″	49,57,15,36,57,20,53,12,49,49		3,39, 7,27, 8	
		1, 9,36,24, 2,49,58,59		5, 5
52″	49,57,16,46,33,44,56, 2,48,48		3,39, 7,32,13	
		1, 9,36,20,23,42,26,46		5, 5
54″	49,57,17,56,10, 5,19,45,15,34		3,39, 7,37,18	
		1, 9,36,16,44,34,49,28		5, 5
56″	49,57,19, 5,46,22, 4,20, 5, 2		3,39, 7,42,23	
		1, 9,36,13, 5,27, 7, 5		5, 5
58″	49,57,20,15,22,35, 9,47,12, 7		3,39, 7,47,28	
		1, 9,36, 9,26,19,19,37		
60″	49,57,21,24,58,44,36, 6,31,44			
exact	49,57,21,24,58,44,36, 6, 6,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°22′ 0″	49,57,21,24,58,44,36, 6, 6,13			
		1, 9,36, 5,47,11,24,20		
2″	49,57,22,34,34,50,23,17,30,33		3,39, 7,57,49	
		1, 9,36, 2, 8, 3,26,31		5, 5
4″	49,57,23,44,10,52,31,20,57, 4		3,39, 8, 2,54	
		1, 9,35,58,28,55,23,37		5, 5
6″	49,57,24,53,46,51, 0,16,20,41		3,39, 8, 7,59	
		1, 9,35,54,49,47,15,38		5, 5
8″	49,57,26, 3,22,45,50, 3,36,19		3,39, 8,13, 4	
		1, 9,35,51,10,39, 2,34		5, 5
10″	49,57,27,12,58,37, 0,42,38,53		3,39, 8,18, 9	
		1, 9,35,47,31,30,44,25		5, 5
12″	49,57,28,22,34,24,32,13,23,18		3,39, 8,23,14	
		1, 9,35,43,52,22,21,11		5, 5
14″	49,57,29,32,10, 8,24,35,44,29		3,39, 8,28,19	
		1, 9,35,40,13,13,52,52		5, 5
16″	49,57,30,41,45,48,37,49,37,21		3,39, 8,33,24	
		1, 9,35,36,34, 5,19,28		5, 5
18″	49,57,31,51,21,25,11,54,56,49		3,39, 8,38,29	
		1, 9,35,32,54,56,40,59		5, 5
20″	49,57,33, 0,56,58, 6,51,37,48		3,39, 8,43,34	
		1, 9,35,29,15,47,57,25		5, 5
22″	49,57,34,10,32,27,22,39,35,13		3,39, 8,48,39	
		1, 9,35,25,36,39, 8,46		5, 5
24″	49,57,35,20, 7,52,59,18,43,59		3,39, 8,53,44	
		1, 9,35,21,57,30,15, 2		5, 5
26″	49,57,36,29,43,14,56,48,59, 1		3,39, 8,58,49	
		1, 9,35,18,18,21,16,13		5, 5
28″	49,57,37,39,18,33,15,10,15,14		3,39, 9, 3,54	
		1, 9,35,14,39,12,12,19		5, 5
30″	49,57,38,48,53,47,54,22,27,33		3,39, 9, 8,59	
		1, 9,35,11, 0, 3, 3,20		5, 5
32″	49,57,39,58,28,58,54,25,30,53		3,39, 9,14, 4	
		1, 9,35, 7,20,53,49,16		5, 5
34″	49,57,41, 8, 4, 6,15,19,20, 9		3,39, 9,19, 9	
		1, 9,35, 3,41,44,30, 7		5, 5
36″	49,57,42,17,39, 9,57, 3,50,16		3,39, 9,24,14	
		1, 9,35, 0, 2,35, 5,53		5, 5
38″	49,57,43,27,14, 9,59,38,56, 9		3,39, 9,29,19	
		1, 9,34,56,23,25,36,34		5, 5
40″	49,57,44,36,49, 6,23, 4,32,43		3,39, 9,34,24	
		1, 9,34,52,44,16, 2,10		5, 5
42″	49,57,45,46,23,59, 7,20,34,53		3,39, 9,39,29	
		1, 9,34,49, 5, 6,22,41		5, 5
44″	49,57,46,55,58,48,12,26,57,34		3,39, 9,44,34	
		1, 9,34,45,25,56,38, 7		5, 5
46″	49,57,48, 5,33,33,38,23,35,41		3,39, 9,49,39	
		1, 9,34,41,46,46,48,28		5, 5
48″	49,57,49,15, 8,15,25,10,24, 9		3,39, 9,54,44	
		1, 9,34,38, 7,36,53,44		5, 5
50″	49,57,50,24,42,53,32,47,17,53		3,39, 9,59,49	
		1, 9,34,34,28,26,53,55		5, 5
52″	49,57,51,34,17,28, 1,14,11,48		3,39,10, 4,54	
		1, 9,34,30,49,16,49, 1		5, 5
54″	49,57,52,43,51,58,50,31, 0,49		3,39,10, 9,59	
		1, 9,34,27,10, 6,39, 2		5, 5
56″	49,57,53,53,26,26, 0,37,39,51		3,39,10,15, 4	
		1, 9,34,23,30,56,23,58		5, 5
58″	49,57,55, 3, 0,49,31,34, 3,49		3,39,10,20, 9	
		1, 9,34,19,51,46, 3,49		
60″	49,57,56,12,35, 9,23,20, 7,38			
exact	49,57,56,12,35, 9,23,19,50,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°23′ 0″	49,57,56,12,35, 9,23,19,50,17			
		1, 9,34,16,12,35,36,46		
2″	49,57,57,22, 9,25,35,55,27, 3		3,39,10,30,26	
		1, 9,34,12,33,25, 6,20		5, 5
4″	49,57,58,31,43,38, 9,20,33,23		3,39,10,35,31	
		1, 9,34, 8,54,14,30,49		5, 5
6″	49,57,59,41,17,47, 3,35, 4,12		3,39,10,40,36	
		1, 9,34, 5,15, 3,50,13		5, 5
8″	49,58, 0,50,51,52,18,38,54,25		3,39,10,45,41	
		1, 9,34, 1,35,53, 4,32		5, 5
10″	49,58, 2, 0,25,53,54,31,58,57		3,39,10,50,46	
		1, 9,33,57,56,42,13,46		5, 5
12″	49,58, 3, 9,59,51,51,14,12,43		3,39,10,55,51	
		1, 9,33,54,17,31,17,55		5, 5
14″	49,58, 4,19,33,46, 8,45,30,38		3,39,11, 0,56	
		1, 9,33,50,38,20,16,59		5, 5
16″	49,58, 5,29, 7,36,47, 5,47,37		3,39,11, 6, 1	
		1, 9,33,46,59, 9,10,58		5, 5
18″	49,58, 6,38,41,23,46,14,58,35		3,39,11,11, 6	
		1, 9,33,43,19,57,59,52		5, 5
20″	49,58, 7,48,15, 7, 6,12,58,27		3,39,11,16,11	
		1, 9,33,39,40,46,43,41		5, 5
22″	49,58, 8,57,48,46,46,59,42, 8		3,39,11,21,16	
		1, 9,33,36, 1,35,22,25		5, 5
24″	49,58,10, 7,22,22,48,35, 4,33		3,39,11,26,21	
		1, 9,33,32,22,23,56, 4		5, 5
26″	49,58,11,16,55,55,10,59, 0,37		3,39,11,31,26	
		1, 9,33,28,43,12,24,38		5, 5
28″	49,58,12,26,29,23,54,11,25,15		3,39,11,36,31	
		1, 9,33,25, 4, 0,48, 7		5, 5
30″	49,58,13,36, 2,48,58,12,13,22		3,39,11,41,36	
		1, 9,33,21,24,49, 6,31		5, 5
32″	49,58,14,45,36,10,23, 1,19,53		3,39,11,46,41	
		1, 9,33,17,45,37,19,50		5, 5
34″	49,58,15,55, 9,28, 8,38,39,43		3,39,11,51,46	
		1, 9,33,14, 6,25,28, 4		5, 5
36″	49,58,17, 4,42,42,15, 4, 7,47		3,39,11,56,51	
		1, 9,33,10,27,13,31,13		5, 5
38″	49,58,18,14,15,52,42,17,39, 0		3,39,12, 1,56	
		1, 9,33, 6,48, 1,29,17		5, 5
40″	49,58,19,23,48,59,30,19, 8,17		3,39,12, 7, 1	
		1, 9,33, 3, 8,49,22,16		5, 5
42″	49,58,20,33,22, 2,39, 8,30,33		3,39,12,12, 6	
		1, 9,32,59,29,37,10,10		5, 5
44″	49,58,21,42,55, 2, 8,45,40,43		3,39,12,17,11	
		1, 9,32,55,50,24,52,59		5, 5
46″	49,58,22,52,27,57,59,10,33,42		3,39,12,22,16	
		1, 9,32,52,11,12,30,43		5, 5
48″	49,58,24, 2, 0,50,10,23, 4,25		3,39,12,27,21	
		1, 9,32,48,32, 0, 3,22		5, 5
50″	49,58,25,11,33,38,42,23, 7,47		3,39,12,32,26	
		1, 9,32,44,52,47,30,56		5, 5
52″	49,58,26,21, 6,23,35,10,38,43		3,39,12,37,31	
		1, 9,32,41,13,34,53,25		5, 5
54″	49,58,27,30,39, 4,48,45,32, 8		3,39,12,42,36	
		1, 9,32,37,34,22,10,49		5, 5
56″	49,58,28,40,11,42,23, 7,42,57		3,39,12,47,41	
		1, 9,32,33,55, 9,23, 8		5, 5
58″	49,58,29,49,44,16,18,17, 6, 5		3,39,12,52,46	
		1, 9,32,30,15,56,30,22		
60″	49,58,30,59,16,46,34,13,36,27			
exact	49,58,30,59,16,46,34,13,26,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°24′ 0″	49,58,30,59,16,46,34,13,26,44			
		1, 9,32,26,36,43,31,35		
2″	49,58,32, 8,49,13,10,56,58,19		3,39,13, 2,59	
		1, 9,32,22,57,30,28,36		5, 5
4″	49,58,33,18,21,36, 8,27,26,55		3,39,13, 8, 4	
		1, 9,32,19,18,17,20,32		5, 5
6″	49,58,34,27,53,55,26,44,47,27		3,39,13,13, 9	
		1, 9,32,15,39, 4, 7,23		5, 5
8″	49,58,35,37,26,11, 5,48,54,50		3,39,13,18,14	
		1, 9,32,11,59,50,49, 9		5, 5
10″	49,58,36,46,58,23, 5,39,43,59		3,39,13,23,19	
		1, 9,32, 8,20,37,25,50		5, 5
12″	49,58,37,56,30,31,26,17, 9,49		3,39,13,28,24	
		1, 9,32, 4,41,23,57,26		5, 5
14″	49,58,39, 6, 2,36, 7,41, 7,15		3,39,13,33,29	
		1, 9,32, 1, 2,10,23,57		5, 5
16″	49,58,40,15,34,37, 9,51,31,12		3,39,13,38,34	
		1, 9,31,57,22,56,45,23		5, 5
18″	49,58,41,25, 6,34,32,48,16,35		3,39,13,43,39	
		1, 9,31,53,43,43, 1,44		5, 5
20″	49,58,42,34,38,28,16,31,18,19		3,39,13,48,44	
		1, 9,31,50, 4,29,13, 0		5, 5
22″	49,58,43,44,10,18,21, 0,31,19		3,39,13,53,49	
		1, 9,31,46,25,15,19,11		5, 5
24″	49,58,44,53,42, 4,46,15,50,30		3,39,13,58,54	
		1, 9,31,42,46, 1,20,17		5, 5
26″	49,58,46, 3,13,47,32,17,10,47		3,39,14, 3,59	
		1, 9,31,39, 6,47,16,18		5, 5
28″	49,58,47,12,45,26,39, 4,27, 5		3,39,14, 9, 4	
		1, 9,31,35,27,33, 7,14		5, 5
30″	49,58,48,22,17, 2, 6,37,34,19		3,39,14,14, 9	
		1, 9,31,31,48,18,53, 5		5, 5
32″	49,58,49,31,48,33,54,56,27,24		3,39,14,19,14	
		1, 9,31,28, 9, 4,33,51		5, 5
34″	49,58,50,41,20, 2, 4, 1, 1,15		3,39,14,24,19	
		1, 9,31,24,29,50, 9,32		5, 5
36″	49,58,51,50,51,26,33,51,10,47		3,39,14,29,24	
		1, 9,31,20,50,35,40, 8		5, 5
38″	49,58,53, 0,22,47,24,26,50,55		3,39,14,34,29	
		1, 9,31,17,11,21, 5,39		5, 5
40″	49,58,54, 9,54, 4,35,47,56,34		3,39,14,39,34	
		1, 9,31,13,32, 6,26, 5		5, 5
42″	49,58,55,19,25,18, 7,54,22,39		3,39,14,44,39	
		1, 9,31, 9,52,51,41,26		5, 5
44″	49,58,56,28,56,28, 0,46, 4, 5		3,39,14,49,44	
		1, 9,31, 6,13,36,51,42		5, 5
46″	49,58,57,38,27,34,14,22,55,47		3,39,14,54,49	
		1, 9,31, 2,34,21,56,53		5, 5
48″	49,58,58,47,58,36,48,44,52,40		3,39,14,59,54	
		1, 9,30,58,55, 6,56,59		5, 5
50″	49,58,59,57,29,35,43,51,49,39		3,39,15, 4,59	
		1, 9,30,55,15,51,52, 0		5, 5
52″	49,59, 1, 7, 0,30,59,43,41,39		3,39,15,10, 4	
		1, 9,30,51,36,36,41,56		5, 5
54″	49,59, 2,16,31,22,36,20,23,35		3,39,15,15, 9	
		1, 9,30,47,57,21,26,47		5, 5
56″	49,59, 3,26, 2,10,33,41,50,22		3,39,15,20,14	
		1, 9,30,44,18, 6, 6,33		5, 5
58″	49,59, 4,35,32,54,51,47,56,55		3,39,15,25,19	
		1, 9,30,40,38,50,41,14		
60″	49,59, 5,45, 3,35,30,38,38, 9			
exact	49,59, 5,45, 3,35,30,38,36,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°25′ 0″	49,59, 5,45, 3,35,30,38,36,38			
		1, 9,30,36,59,35,10,48		
2″	49,59, 6,54,34,12,30,13,47,26		3,39,15,35,28	
		1, 9,30,33,20,19,35,20		5, 5
4″	49,59, 8, 4, 4,45,50,33,22,46		3,39,15,40,33	
		1, 9,30,29,41, 3,54,47		5, 5
6″	49,59, 9,13,35,15,31,37,17,33		3,39,15,45,38	
		1, 9,30,26, 1,48, 9, 9		5, 5
8″	49,59,10,23, 5,41,33,25,26,42		3,39,15,50,43	
		1, 9,30,22,22,32,18,26		5, 5
10″	49,59,11,32,36, 3,55,57,45, 8		3,39,15,55,48	
		1, 9,30,18,43,16,22,38		5, 5
12″	49,59,12,42, 6,22,39,14, 7,46		3,39,16, 0,53	
		1, 9,30,15, 4, 0,21,45		5, 5
14″	49,59,13,51,36,37,43,14,29,31		3,39,16, 5,58	
		1, 9,30,11,24,44,15,47		5, 5
16″	49,59,15, 1, 6,49, 7,58,45,18		3,39,16,11, 3	
		1, 9,30, 7,45,28, 4,44		5, 5
18″	49,59,16,10,36,56,53,26,50, 2		3,39,16,16, 8	
		1, 9,30, 4, 6,11,48,36		5, 5
20″	49,59,17,20, 7, 0,59,38,38,38		3,39,16,21,13	
		1, 9,30, 0,26,55,27,23		5, 5
22″	49,59,18,29,37, 1,26,34, 6, 1		3,39,16,26,18	
		1, 9,29,56,47,39, 1, 5		5, 5
24″	49,59,19,39, 6,58,14,13, 7, 6		3,39,16,31,23	
		1, 9,29,53, 8,22,29,42		5, 5
26″	49,59,20,48,36,51,22,35,36,48		3,39,16,36,28	
		1, 9,29,49,29, 5,53,14		5, 5
28″	49,59,21,58, 6,40,51,41,30, 2		3,39,16,41,33	
		1, 9,29,45,49,49,11,41		5, 5
30″	49,59,23, 7,36,26,41,30,41,43		3,39,16,46,38	
		1, 9,29,42,10,32,25, 3		5, 5
32″	49,59,24,17, 6, 8,52, 3, 6,46		3,39,16,51,43	
		1, 9,29,38,31,15,33,20		5, 5
34″	49,59,25,26,35,47,23,18,40, 6		3,39,16,56,48	
		1, 9,29,34,51,58,36,32		5, 5
36″	49,59,26,36, 5,22,15,17,16,38		3,39,17, 1,53	
		1, 9,29,31,12,41,34,39		5, 5
38″	49,59,27,45,34,53,27,58,51,17		3,39,17, 6,58	
		1, 9,29,27,33,24,27,41		5, 5
40″	49,59,28,55, 4,21, 1,23,18,58		3,39,17,12, 3	
		1, 9,29,23,54, 7,15,38		5, 5
42″	49,59,30, 4,33,44,55,30,34,36		3,39,17,17, 8	
		1, 9,29,20,14,49,58,30		5, 5
44″	49,59,31,14, 3, 5,10,20,33, 6		3,39,17,22,13	
		1, 9,29,16,35,32,36,17		5, 5
46″	49,59,32,23,32,21,45,53, 9,23		3,39,17,27,18	
		1, 9,29,12,56,15, 8,59		5, 5
48″	49,59,33,33, 1,34,42, 8,18,22		3,39,17,32,23	
		1, 9,29, 9,16,57,36,36		5, 5
50″	49,59,34,42,30,43,59, 5,54,58		3,39,17,37,28	
		1, 9,29, 5,37,39,59, 8		5, 5
52″	49,59,35,51,59,49,36,45,54, 6		3,39,17,42,33	
		1, 9,29, 1,58,22,16,35		5, 5
54″	49,59,37, 1,28,51,35, 8,10,41		3,39,17,47,38	
		1, 9,28,58,19, 4,28,57		5, 5
56″	49,59,38,10,57,49,54,12,39,38		3,39,17,52,43	
		1, 9,28,54,39,46,36,14		5, 5
58″	49,59,39,20,26,44,33,59,15,52		3,39,17,57,48	
		1, 9,28,51, 0,28,38,26		
60″	49,59,40,29,55,35,34,27,54,18			
exact	49,59,40,29,55,35,34,28, 1, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°26′ 0″	49,59,40,29,55,35,34,28, 1, 8			
		1, 9,28,47,21,10,36,26		
2″	49,59,41,39,24,22,55,38,37,34		3,39,18, 7,53	
		1, 9,28,43,41,52,28,33		5, 5
4″	49,59,42,48,53, 6,37,31, 6, 7		3,39,18,12,58	
		1, 9,28,40, 2,34,15,35		5, 5
6″	49,59,43,58,21,46,40, 5,21,42		3,39,18,18, 3	
		1, 9,28,36,23,15,57,32		5, 5
8″	49,59,45, 7,50,23, 3,21,19,14		3,39,18,23, 8	
		1, 9,28,32,43,57,34,24		5, 5
10″	49,59,46,17,18,55,47,18,53,38		3,39,18,28,13	
		1, 9,28,29, 4,39, 6,11		5, 5
12″	49,59,47,26,47,24,51,57,59,49		3,39,18,33,18	
		1, 9,28,25,25,20,32,53		5, 5
14″	49,59,48,36,15,50,17,18,32,42		3,39,18,38,23	
		1, 9,28,21,46, 1,54,30		5, 5
16″	49,59,49,45,44,12, 3,20,27,12		3,39,18,43,28	
		1, 9,28,18, 6,43,11, 2		5, 5
18″	49,59,50,55,12,30,10, 3,38,14		3,39,18,48,33	
		1, 9,28,14,27,24,22,29		5, 5
20″	49,59,52, 4,40,44,37,28, 0,43		3,39,18,53,38	
		1, 9,28,10,48, 5,28,51		5, 5
22″	49,59,53,14, 8,55,25,33,29,34		3,39,18,58,43	
		1, 9,28, 7, 8,46,30, 8		5, 5
24″	49,59,54,23,37, 2,34,19,59,42		3,39,19, 3,48	
		1, 9,28, 3,29,27,26,20		5, 5
26″	49,59,55,33, 5, 6, 3,47,26, 2		3,39,19, 8,53	
		1, 9,27,59,50, 8,17,27		5, 5
28″	49,59,56,42,33, 5,53,55,43,29		3,39,19,13,58	
		1, 9,27,56,10,49, 3,29		5, 5
30″	49,59,57,52, 1, 2, 4,44,46,58		3,39,19,19, 3	
		1, 9,27,52,31,29,44,26		5, 5
32″	49,59,59, 1,28,54,36,14,31,24		3,39,19,24, 8	
		1, 9,27,48,52,10,20,18		5, 5
34″	50, 0, 0,10,56,43,28,24,51,42		3,39,19,29,13	
		1, 9,27,45,12,50,51, 5		5, 5
36″	50, 0, 1,20,24,28,41,15,42,47		3,39,19,34,18	
		1, 9,27,41,33,31,16,47		5, 5
38″	50, 0, 2,29,52,10,14,46,59,34		3,39,19,39,23	
		1, 9,27,37,54,11,37,24		5, 5
40″	50, 0, 3,39,19,48, 8,58,36,58		3,39,19,44,28	
		1, 9,27,34,14,51,52,56		5, 5
42″	50, 0, 4,48,47,22,23,50,29,54		3,39,19,49,33	
		1, 9,27,30,35,32, 3,23		5, 5
44″	50, 0, 5,58,14,52,59,22,33,17		3,39,19,54,38	
		1, 9,27,26,56,12, 8,45		5, 5
46″	50, 0, 7, 7,42,19,55,34,42, 2		3,39,19,59,43	
		1, 9,27,23,16,52, 9, 2		5, 5
48″	50, 0, 8,17, 9,43,12,26,51, 4		3,39,20, 4,48	
		1, 9,27,19,37,32, 4,14		5, 5
50″	50, 0, 9,26,37, 2,49,58,55,18		3,39,20, 9,53	
		1, 9,27,15,58,11,54,21		5, 5
52″	50, 0,10,36, 4,18,48,10,49,39		3,39,20,14,58	
		1, 9,27,12,18,51,39,23		5, 5
54″	50, 0,11,45,31,31, 7, 2,29, 2		3,39,20,20, 3	
		1, 9,27, 8,39,31,19,20		5, 5
56″	50, 0,12,54,58,39,46,33,48,22		3,39,20,25, 8	
		1, 9,27, 5, 0,10,54,12		5, 5
58″	50, 0,14, 4,25,44,46,44,42,34		3,39,20,30,13	
		1, 9,27, 1,20,50,23,59		
60″	50, 0,15,13,52,46, 7,35, 6,33			
exact	50, 0,15,13,52,46, 7,35,21,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°27′ 0″	50, 0,15,13,52,46, 7,35,21,30			
		1, 9,26,57,41,29,50,29		
2″	50, 0,16,23,19,43,49, 5,11,59		3,39,20,40,14	
		1, 9,26,54, 2, 9,10,15		5, 5
4″	50, 0,17,32,46,37,51,14,22,14		3,39,20,45,19	
		1, 9,26,50,22,48,24,56		5, 5
6″	50, 0,18,42,13,28,14, 2,47,10		3,39,20,50,24	
		1, 9,26,46,43,27,34,32		5, 5
8″	50, 0,19,51,40,14,57,30,21,42		3,39,20,55,29	
		1, 9,26,43, 4, 6,39, 3		5, 5
10″	50, 0,21, 1, 6,58, 1,37, 0,45		3,39,21, 0,34	
		1, 9,26,39,24,45,38,29		5, 5
12″	50, 0,22,10,33,37,26,22,39,14		3,39,21, 5,39	
		1, 9,26,35,45,24,32,50		5, 5
14″	50, 0,23,20, 0,13,11,47,12, 4		3,39,21,10,44	
		1, 9,26,32, 6, 3,22, 6		5, 5
16″	50, 0,24,29,26,45,17,50,34,10		3,39,21,15,49	
		1, 9,26,28,26,42, 6,17		5, 5
18″	50, 0,25,38,53,13,44,32,40,27		3,39,21,20,54	
		1, 9,26,24,47,20,45,23		5, 5
20″	50, 0,26,48,19,38,31,53,25,50		3,39,21,25,59	
		1, 9,26,21, 7,59,19,24		5, 5
22″	50, 0,27,57,45,59,39,52,45,14		3,39,21,31, 4	
		1, 9,26,17,28,37,48,20		5, 5
24″	50, 0,29, 7,12,17, 8,30,33,34		3,39,21,36, 9	
		1, 9,26,13,49,16,12,11		5, 5
26″	50, 0,30,16,38,30,57,46,45,45		3,39,21,41,14	
		1, 9,26,10, 9,54,30,57		5, 5
28″	50, 0,31,26, 4,41, 7,41,16,42		3,39,21,46,19	
		1, 9,26, 6,30,32,44,38		5, 5
30″	50, 0,32,35,30,47,38,14, 1,20		3,39,21,51,24	
		1, 9,26, 2,51,10,53,14		5, 5
32″	50, 0,33,44,56,50,29,24,54,34		3,39,21,56,29	
		1, 9,25,59,11,48,56,45		5, 5
34″	50, 0,34,54,22,49,41,13,51,19		3,39,22, 1,34	
		1, 9,25,55,32,26,55,11		5, 5
36″	50, 0,36, 3,48,45,13,40,46,30		3,39,22, 6,39	
		1, 9,25,51,53, 4,48,32		5, 5
38″	50, 0,37,13,14,37, 6,45,35, 2		3,39,22,11,44	
		1, 9,25,48,13,42,36,48		5, 5
40″	50, 0,38,22,40,25,20,28,11,50		3,39,22,16,49	
		1, 9,25,44,34,20,19,59		5, 5
42″	50, 0,39,32, 6, 9,54,48,31,49		3,39,22,21,54	
		1, 9,25,40,54,57,58, 5		5, 5
44″	50, 0,40,41,31,50,49,46,29,54		3,39,22,26,59	
		1, 9,25,37,15,35,31, 6		5, 5
46″	50, 0,41,50,57,28, 5,22, 1, 0		3,39,22,32, 4	
		1, 9,25,33,36,12,59, 2		5, 5
48″	50, 0,43, 0,23, 1,41,35, 0, 2		3,39,22,37, 9	
		1, 9,25,29,56,50,21,53		5, 5
50″	50, 0,44, 9,48,31,38,25,21,55		3,39,22,42,14	
		1, 9,25,26,17,27,39,39		5, 5
52″	50, 0,45,19,13,57,55,53, 1,34		3,39,22,47,19	
		1, 9,25,22,38, 4,52,20		5, 5
54″	50, 0,46,28,39,20,33,57,53,54		3,39,22,52,24	
		1, 9,25,18,58,41,59,56		5, 5
56″	50, 0,47,38, 4,39,32,39,53,50		3,39,22,57,29	
		1, 9,25,15,19,19, 2,27		5, 5
58″	50, 0,48,47,29,54,51,58,56,17		3,39,23, 2,34	
		1, 9,25,11,39,55,59,53		
60″	50, 0,49,56,55, 6,31,54,56,10			
exact	50, 0,49,56,55, 6,31,55,19,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°28′ 0″	50, 0,49,56,55, 6,31,55,19,10			
		1, 9,25, 8, 0,32,54,56		
2″	50, 0,51, 6,20,14,32,28,14, 6		3,39,23,12,32	
		1, 9,25, 4,21, 9,42,24		5, 5
4″	50, 0,52,15,45,18,53,37,56,30		3,39,23,17,37	
		1, 9,25, 0,41,46,24,47		5, 5
6″	50, 0,53,25,10,19,35,24,21,17		3,39,23,22,42	
		1, 9,24,57, 2,23, 2, 5		5, 5
8″	50, 0,54,34,35,16,37,47,23,22		3,39,23,27,47	
		1, 9,24,53,22,59,34,18		5, 5
10″	50, 0,55,44, 0,10, 0,46,57,40		3,39,23,32,52	
		1, 9,24,49,43,36, 1,26		5, 5
12″	50, 0,56,53,24,59,44,22,59, 6		3,39,23,37,57	
		1, 9,24,46, 4,12,23,29		5, 5
14″	50, 0,58, 2,49,45,48,35,22,35		3,39,23,43, 2	
		1, 9,24,42,24,48,40,27		5, 5
16″	50, 0,59,12,14,28,13,24, 3, 2		3,39,23,48, 7	
		1, 9,24,38,45,24,52,20		5, 5
18″	50, 1, 0,21,39, 6,58,48,55,22		3,39,23,53,12	
		1, 9,24,35, 6, 0,59, 8		5, 5
20″	50, 1, 1,31, 3,42, 4,49,54,30		3,39,23,58,17	
		1, 9,24,31,26,37, 0,51		5, 5
22″	50, 1, 2,40,28,13,31,26,55,21		3,39,24, 3,22	
		1, 9,24,27,47,12,57,29		5, 5
24″	50, 1, 3,49,52,41,18,39,52,50		3,39,24, 8,27	
		1, 9,24,24, 7,48,49, 2		5, 5
26″	50, 1, 4,59,17, 5,26,28,41,52		3,39,24,13,32	
		1, 9,24,20,28,24,35,30		5, 5
28″	50, 1, 6, 8,41,25,54,53,17,22		3,39,24,18,37	
		1, 9,24,16,49, 0,16,53		5, 5
30″	50, 1, 7,18, 5,42,43,53,34,15		3,39,24,23,42	
		1, 9,24,13, 9,35,53,11		5, 5
32″	50, 1, 8,27,29,55,53,29,27,26		3,39,24,28,47	
		1, 9,24, 9,30,11,24,24		5, 5
34″	50, 1, 9,36,54, 5,23,40,51,50		3,39,24,33,52	
		1, 9,24, 5,50,46,50,32		5, 5
36″	50, 1,10,46,18,11,14,27,42,22		3,39,24,38,57	
		1, 9,24, 2,11,22,11,35		5, 5
38″	50, 1,11,55,42,13,25,49,53,57		3,39,24,44, 2	
		1, 9,23,58,31,57,27,33		5, 5
40″	50, 1,13, 5, 6,11,57,47,21,30		3,39,24,49, 7	
		1, 9,23,54,52,32,38,26		5, 5
42″	50, 1,14,14,30, 6,50,19,59,56		3,39,24,54,12	
		1, 9,23,51,13, 7,44,14		5, 5
44″	50, 1,15,23,53,58, 3,27,44,10		3,39,24,59,17	
		1, 9,23,47,33,42,44,57		5, 5
46″	50, 1,16,33,17,45,37,10,29, 7		3,39,25, 4,22	
		1, 9,23,43,54,17,40,35		5, 5
48″	50, 1,17,42,41,29,31,28, 9,42		3,39,25, 9,27	
		1, 9,23,40,14,52,31, 8		5, 5
50″	50, 1,18,52, 5, 9,46,20,40,50		3,39,25,14,32	
		1, 9,23,36,35,27,16,36		5, 5
52″	50, 1,20, 1,28,46,21,47,57,26		3,39,25,19,37	
		1, 9,23,32,56, 1,56,59		5, 5
54″	50, 1,21,10,52,19,17,49,54,25		3,39,25,24,42	
		1, 9,23,29,16,36,32,17		5, 5
56″	50, 1,22,20,15,48,34,26,26,42		3,39,25,29,47	
		1, 9,23,25,37,11, 2,30		5, 5
58″	50, 1,23,29,39,14,11,37,29,12		3,39,25,34,52	
		1, 9,23,21,57,45,27,38		
60″	50, 1,24,39, 2,36, 9,22,56,50			
exact	50, 1,24,39, 2,36, 9,23,35,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°29′ 0″	50, 1,24,39, 2,36, 9,23,35,37			
		1, 9,23,18,18,19,51,49		
2″	50, 1,25,48,25,54,27,43,27,26		3,39,25,44,45	
		1, 9,23,14,38,54, 7, 4		5, 4
4″	50, 1,26,57,49, 9, 6,37,34,30		3,39,25,49,49	
		1, 9,23,10,59,28,17,15		5, 4
6″	50, 1,28, 7,12,20, 6, 5,51,45		3,39,25,54,53	
		1, 9,23, 7,20, 2,22,22		5, 4
8″	50, 1,29,16,35,27,26, 8,14, 7		3,39,25,59,57	
		1, 9,23, 3,40,36,22,25		5, 4
10″	50, 1,30,25,58,31, 6,44,36,32		3,39,26, 5, 1	
		1, 9,23, 0, 1,10,17,24		5, 4
12″	50, 1,31,35,21,31, 7,54,53,56		3,39,26,10, 5	
		1, 9,22,56,21,44, 7,19		5, 4
14″	50, 1,32,44,44,27,29,39, 1,15		3,39,26,15, 9	
		1, 9,22,52,42,17,52,10		5, 4
16″	50, 1,33,54, 7,20,11,56,53,25		3,39,26,20,13	
		1, 9,22,49, 2,51,31,57		5, 4
18″	50, 1,35, 3,30, 9,14,48,25,22		3,39,26,25,17	
		1, 9,22,45,23,25, 6,40		5, 4
20″	50, 1,36,12,52,54,38,13,32, 2		3,39,26,30,21	
		1, 9,22,41,43,58,36,19		5, 4
22″	50, 1,37,22,15,36,22,12, 8,21		3,39,26,35,25	
		1, 9,22,38, 4,32, 0,54		5, 4
24″	50, 1,38,31,38,14,26,44, 9,15		3,39,26,40,29	
		1, 9,22,34,25, 5,20,25		5, 4
26″	50, 1,39,41, 0,48,51,49,29,40		3,39,26,45,33	
		1, 9,22,30,45,38,34,52		5, 4
28″	50, 1,40,50,23,19,37,28, 4,32		3,39,26,50,37	
		1, 9,22,27, 6,11,44,15		5, 4
30″	50, 1,41,59,45,46,43,39,48,47		3,39,26,55,41	
		1, 9,22,23,26,44,48,34		5, 4
32″	50, 1,43, 9, 8,10,10,24,37,21		3,39,27, 0,45	
		1, 9,22,19,47,17,47,49		5, 4
34″	50, 1,44,18,30,29,57,42,25,10		3,39,27, 5,49	
		1, 9,22,16, 7,50,42, 0		5, 4
36″	50, 1,45,27,52,46, 5,33, 7,10		3,39,27,10,53	
		1, 9,22,12,28,23,31, 7		5, 4
38″	50, 1,46,37,14,58,33,56,38,17		3,39,27,15,57	
		1, 9,22, 8,48,56,15,10		5, 4
40″	50, 1,47,46,37, 7,22,52,53,27		3,39,27,21, 1	
		1, 9,22, 5, 9,28,54, 9		5, 4
42″	50, 1,48,55,59,12,32,21,47,36		3,39,27,26, 5	
		1, 9,22, 1,30, 1,28, 4		5, 4
44″	50, 1,50, 5,21,14, 2,23,15,40		3,39,27,31, 9	
		1, 9,21,57,50,33,56,55		5, 4
46″	50, 1,51,14,43,11,52,57,12,35		3,39,27,36,13	
		1, 9,21,54,11, 6,20,42		5, 4
48″	50, 1,52,24, 5, 6, 4, 3,33,17		3,39,27,41,17	
		1, 9,21,50,31,38,39,25		5, 4
50″	50, 1,53,33,26,56,35,42,12,42		3,39,27,46,21	
		1, 9,21,46,52,10,53, 4		5, 4
52″	50, 1,54,42,48,43,27,53, 5,46		3,39,27,51,25	
		1, 9,21,43,12,43, 1,39		5, 4
54″	50, 1,55,52,10,26,40,36, 7,25		3,39,27,56,29	
		1, 9,21,39,33,15, 5,10		5, 4
56″	50, 1,57, 1,32, 6,13,51,12,35		3,39,28, 1,33	
		1, 9,21,35,53,47, 3,37		5, 4
58″	50, 1,58,10,53,42, 7,38,16,12		3,39,28, 6,37	
		1, 9,21,32,14,18,57, 0		
60″	50, 1,59,20,15,14,21,57,13,12			
exact	50, 1,59,20,15,14,21,56,52,33			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
56°30′	0″	50, 1,59,20,15,14,21,56,52,33	1, 9,21,28,34,50,43, 7		
	2″	50, 2, 0,29,36,42,56,47,35,40	1, 9,21,24,55,22,26,13	3,39,28,16,54	5, 4
	4″	50, 2, 1,38,58, 7,52,10, 1,53	1, 9,21,21,15,54, 4,15	3,39,28,21,58	5, 4
	6″	50, 2, 2,48,19,29, 8, 4, 6, 8	1, 9,21,17,36,25,37,13	3,39,28,27, 2	5, 4
	8″	50, 2, 3,57,40,46,44,29,43,21	1, 9,21,13,56,57, 5, 7	3,39,28,32, 6	5, 4
	10″	50, 2, 5, 7, 2, 0,41,26,48,28	1, 9,21,10,17,28,27,57	3,39,28,37,10	5, 4
	12″	50, 2, 6,16,23,10,58,55,16,25	1, 9,21, 6,37,59,45,43	3,39,28,42,14	5, 4
	14″	50, 2, 7,25,44,17,36,55, 2, 8	1, 9,21, 2,58,30,58,25	3,39,28,47,18	5, 4
	16″	50, 2, 8,35, 5,20,35,26, 0,33	1, 9,20,59,19, 2, 6, 3	3,39,28,52,22	5, 4
	18″	50, 2, 9,44,26,19,54,28, 6,36	1, 9,20,55,39,33, 8,37	3,39,28,57,26	5, 4
	20″	50, 2,10,53,47,15,34, 1,15,13	1, 9,20,52, 0, 4, 6, 7	3,39,29, 2,30	5, 4
	22″	50, 2,12, 3, 8, 7,34, 5,21,20	1, 9,20,48,20,34,58,33	3,39,29, 7,34	5, 4
	24″	50, 2,13,12,28,55,54,40,19,53	1, 9,20,44,41, 5,45,55	3,39,29,12,38	5, 4
	26″	50, 2,14,21,49,40,35,46, 5,48	1, 9,20,41, 1,36,28,13	3,39,29,17,42	5, 4
	28″	50, 2,15,31,10,21,37,22,34, 1	1, 9,20,37,22, 7, 5,27	3,39,29,22,46	5, 4
	30″	50, 2,16,40,30,58,59,29,39,28	1, 9,20,33,42,37,37,37	3,39,29,27,50	5, 4
	32″	50, 2,17,49,51,32,42, 7,17, 5	1, 9,20,30, 3, 8, 4,43	3,39,29,32,54	5, 4
	34″	50, 2,18,59,12, 2,45,15,21,48	1, 9,20,26,23,38,26,45	3,39,29,37,58	5, 4
	36″	50, 2,20, 8,32,29, 8,53,48,33	1, 9,20,22,44, 8,43,43	3,39,29,43, 2	5, 4
	38″	50, 2,21,17,52,51,53, 2,32,16	1, 9,20,19, 4,38,55,37	3,39,29,48, 6	5, 4
	40″	50, 2,22,27,13,10,57,41,27,53	1, 9,20,15,25, 9, 2,27	3,39,29,53,10	5, 4
	42″	50, 2,23,36,33,26,22,50,30,20	1, 9,20,11,45,39, 4,13	3,39,29,58,14	5, 4
	44″	50, 2,24,45,53,38, 8,29,34,33	1, 9,20, 8, 6, 9, 0,55	3,39,30, 3,18	5, 4
	46″	50, 2,25,55,13,46,14,38,35,28	1, 9,20, 4,26,38,52,33	3,39,30, 8,22	5, 4
	48″	50, 2,27, 4,33,50,41,17,28, 1	1, 9,20, 0,47, 8,39, 7	3,39,30,13,26	5, 4
	50″	50, 2,28,13,53,51,28,26, 7, 8	1, 9,19,57, 7,38,20,37	3,39,30,18,30	5, 4
	52″	50, 2,29,23,13,48,36, 4,27,45	1, 9,19,53,28, 7,57, 3	3,39,30,23,34	5, 4
	54″	50, 2,30,32,33,42, 4,12,24,48	1, 9,19,49,48,37,28,25	3,39,30,28,38	5, 4
	56″	50, 2,31,41,53,31,52,49,53,13	1, 9,19,46, 9, 6,54,43	3,39,30,33,42	5, 4
	58″	50, 2,32,51,13,18, 1,56,47,56	1, 9,19,42,29,36,15,57	3,39,30,38,46	
	60″	50, 2,34, 0,33, 0,31,33, 3,53			
exact		50, 2,34, 0,33, 0,31,32,51,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°31′ 0″	50, 2,34, 0,33, 0,31,32,51,47	1, 9,19,38,50, 5,30,51		
2″	50, 2,35, 9,52,39,21,38,22,38	1, 9,19,35,10,34,41,52	3,39,30,48,59	5, 4
4″	50, 2,36,19,12,14,32,13, 4,30	1, 9,19,31,31, 3,47,49	3,39,30,54, 3	5, 4
6″	50, 2,37,28,31,46, 3,16,52,19	1, 9,19,27,51,32,48,42	3,39,30,59, 7	5, 4
8″	50, 2,38,37,51,13,54,49,41, 1	1, 9,19,24,12, 1,44,31	3,39,31, 4,11	5, 4
10″	50, 2,39,47,10,38, 6,51,25,32	1, 9,19,20,32,30,35,16	3,39,31, 9,15	5, 4
12″	50, 2,40,56,29,58,39,22, 0,48	1, 9,19,16,52,59,20,57	3,39,31,14,19	5, 4
14″	50, 2,42, 5,49,15,32,21,21,45	1, 9,19,13,13,28, 1,34	3,39,31,19,23	5, 4
16″	50, 2,43,15, 8,28,45,49,23,19	1, 9,19, 9,33,56,37, 7	3,39,31,24,27	5, 4
18″	50, 2,44,24,27,38,19,46, 0,26	1, 9,19, 5,54,25, 7,36	3,39,31,29,31	5, 4
20″	50, 2,45,33,46,44,14,11, 8, 2	1, 9,19, 2,14,53,33, 1	3,39,31,34,35	5, 4
22″	50, 2,46,43, 5,46,29, 4,41, 3	1, 9,18,58,35,21,53,22	3,39,31,39,39	5, 4
24″	50, 2,47,52,24,45, 4,26,34,25	1, 9,18,54,55,50, 8,39	3,39,31,44,43	5, 4
26″	50, 2,49, 1,43,40, 0,16,43, 4	1, 9,18,51,16,18,18,52	3,39,31,49,47	5, 4
28″	50, 2,50,11, 2,31,16,35, 1,56	1, 9,18,47,36,46,24, 1	3,39,31,54,51	5, 4
30″	50, 2,51,20,21,18,53,21,25,57	1, 9,18,43,57,14,24, 6	3,39,31,59,55	5, 4
32″	50, 2,52,29,40, 2,50,35,50, 3	1, 9,18,40,17,42,19, 7	3,39,32, 4,59	5, 4
34″	50, 2,53,38,58,43, 8,18, 9,10	1, 9,18,36,38,10, 9, 4	3,39,32,10, 3	5, 4
36″	50, 2,54,48,17,19,46,28,18,14	1, 9,18,32,58,37,53,57	3,39,32,15, 7	5, 4
38″	50, 2,55,57,35,52,45, 6,12,11	1, 9,18,29,19, 5,33,46	3,39,32,20,11	5, 4
40″	50, 2,57, 6,54,22, 4,11,45,57	1, 9,18,25,39,33, 8,31	3,39,32,25,15	5, 4
42″	50, 2,58,16,12,47,43,44,54,28	1, 9,18,22, 0, 0,38,12	3,39,32,30,19	5, 4
44″	50, 2,59,25,31, 9,43,45,32,40	1, 9,18,18,20,28, 2,49	3,39,32,35,23	5, 4
46″	50, 3, 0,34,49,28, 4,13,35,29	1, 9,18,14,40,55,22,22	3,39,32,40,27	5, 4
48″	50, 3, 1,44, 7,42,45, 8,57,51	1, 9,18,11, 1,22,36,51	3,39,32,45,31	5, 4
50″	50, 3, 2,53,25,53,46,31,34,42	1, 9,18, 7,21,49,46,16	3,39,32,50,35	5, 4
52″	50, 3, 4, 2,44, 1, 8,21,20,58	1, 9,18, 3,42,16,50,37	3,39,32,55,39	5, 4
54″	50, 3, 5,12, 2, 4,50,38,11,35	1, 9,18, 0, 2,43,49,54	3,39,33, 0,43	5, 4
56″	50, 3, 6,21,20, 4,53,22, 1,29	1, 9,17,56,23,10,44, 7	3,39,33, 5,47	5, 4
58″	50, 3, 7,30,38, 1,16,32,45,36	1, 9,17,52,43,37,33,16	3,39,33,10,51	
60″	50, 3, 8,39,55,54, 0,10,18,52			
exact	50, 3, 8,39,55,54, 0,10,15,20			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
56°32′	0″	50, 3, 8,39,55,54, 0,10,15,20	1, 9,17,49, 4, 4,17, 1		
	2″	50, 3, 9,49,13,43, 4,14,32,21	1, 9,17,45,24,30,56, 1	3,39,33,21, 0	5, 4
	4″	50, 3,10,58,31,28,28,45,28,22	1, 9,17,41,44,57,29,57	3,39,33,26, 4	5, 4
	6″	50, 3,12, 7,49,10,13,42,58,19	1, 9,17,38, 5,23,58,49	3,39,33,31, 8	5, 4
	8″	50, 3,13,17, 6,48,19, 6,57, 8	1, 9,17,34,25,50,22,37	3,39,33,36,12	5, 4
	10″	50, 3,14,26,24,22,44,57,19,45	1, 9,17,30,46,16,41,21	3,39,33,41,16	5, 4
	12″	50, 3,15,35,41,53,31,14, 1, 6	1, 9,17,27, 6,42,55, 1	3,39,33,46,20	5, 4
	14″	50, 3,16,44,59,20,37,56,56, 7	1, 9,17,23,27, 9, 3,37	3,39,33,51,24	5, 4
	16″	50, 3,17,54,16,44, 5, 5,59,44	1, 9,17,19,47,35, 7, 9	3,39,33,56,28	5, 4
	18″	50, 3,19, 3,34, 3,52,41, 6,53	1, 9,17,16, 8, 1, 5,37	3,39,34, 1,32	5, 4
	20″	50, 3,20,12,51,20, 0,42,12,30	1, 9,17,12,28,26,59, 1	3,39,34, 6,36	5, 4
	22″	50, 3,21,22, 8,32,29, 9,11,31	1, 9,17, 8,48,52,47,21	3,39,34,11,40	5, 4
	24″	50, 3,22,31,25,41,18, 1,58,52	1, 9,17, 5, 9,18,30,37	3,39,34,16,44	5, 4
	26″	50, 3,23,40,42,46,27,20,29,29	1, 9,17, 1,29,44, 8,49	3,39,34,21,48	5, 4
	28″	50, 3,24,49,59,47,57, 4,38,18	1, 9,16,57,50, 9,41,57	3,39,34,26,52	5, 4
	30″	50, 3,25,59,16,45,47,14,20,15	1, 9,16,54,10,35,10, 1	3,39,34,31,56	5, 4
	32″	50, 3,27, 8,33,39,57,49,30,16	1, 9,16,50,31, 0,33, 1	3,39,34,37, 0	5, 4
	34″	50, 3,28,17,50,30,28,50, 3,17	1, 9,16,46,51,25,50,57	3,39,34,42, 4	5, 4
	36″	50, 3,29,27, 7,17,20,15,54,14	1, 9,16,43,11,51, 3,49	3,39,34,47, 8	5, 4
	38″	50, 3,30,36,24, 0,32, 6,58, 3	1, 9,16,39,32,16,11,37	3,39,34,52,12	5, 4
	40″	50, 3,31,45,40,40, 4,23, 9,40	1, 9,16,35,52,41,14,21	3,39,34,57,16	5, 4
	42″	50, 3,32,54,57,15,57, 4,24, 1	1, 9,16,32,13, 6,12, 1	3,39,35, 2,20	5, 4
	44″	50, 3,34, 4,13,48,10,10,36, 2	1, 9,16,28,33,31, 4,37	3,39,35, 7,24	5, 4
	46″	50, 3,35,13,30,16,43,41,40,39	1, 9,16,24,53,55,52, 9	3,39,35,12,28	5, 4
	48″	50, 3,36,22,46,41,37,37,32,48	1, 9,16,21,14,20,34,37	3,39,35,17,32	5, 4
	50″	50, 3,37,32, 3, 2,51,58, 7,25	1, 9,16,17,34,45,12, 1	3,39,35,22,36	5, 4
	52″	50, 3,38,41,19,20,26,43,19,26	1, 9,16,13,55, 9,44,21	3,39,35,27,40	5, 4
	54″	50, 3,39,50,35,34,21,53, 3,47	1, 9,16,10,15,34,11,37	3,39,35,32,44	5, 4
	56″	50, 3,40,59,51,44,37,27,15,24	1, 9,16, 6,35,58,33,49	3,39,35,37,48	5, 4
	58″	50, 3,42, 9, 7,51,13,25,49,13	1, 9,16, 2,56,22,50,57	3,39,35,42,52	
	60″	50, 3,43,18,23,54, 9,48,40,10			
exact		50, 3,43,18,23,54, 9,48,45,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°33′ 0″	50, 3,43,18,23,54, 9,48,45,22			
		1, 9,15,59,16,47, 3,38		
2″	50, 3,44,27,39,53,26,35,49, 0		3,39,35,52,57	
		1, 9,15,55,37,11,10,41		5, 4
4″	50, 3,45,36,55,49, 3,46,59,41		3,39,35,58, 1	
		1, 9,15,51,57,35,12,40		5, 4
6″	50, 3,46,46,11,41, 1,22,12,21		3,39,36, 3, 5	
		1, 9,15,48,17,59, 9,35		5, 4
8″	50, 3,47,55,27,29,19,21,21,56		3,39,36, 8, 9	
		1, 9,15,44,38,23, 1,26		5, 4
10″	50, 3,49, 4,43,13,57,44,23,22		3,39,36,13,13	
		1, 9,15,40,58,46,48,13		5, 4
12″	50, 3,50,13,58,54,56,31,11,35		3,39,36,18,17	
		1, 9,15,37,19,10,29,56		5, 4
14″	50, 3,51,23,14,32,15,41,41,31		3,39,36,23,21	
		1, 9,15,33,39,34, 6,35		5, 4
16″	50, 3,52,32,30, 5,55,15,48, 6		3,39,36,28,25	
		1, 9,15,29,59,57,38,10		5, 4
18″	50, 3,53,41,45,35,55,13,26,16		3,39,36,33,29	
		1, 9,15,26,20,21, 4,41		5, 4
20″	50, 3,54,51, 1, 2,15,34,30,57		3,39,36,38,33	
		1, 9,15,22,40,44,26, 8		5, 4
22″	50, 3,56, 0,16,24,56,18,57, 5		3,39,36,43,37	
		1, 9,15,19, 1, 7,42,31		5, 4
24″	50, 3,57, 9,31,43,57,26,39,36		3,39,36,48,41	
		1, 9,15,15,21,30,53,50		5, 4
26″	50, 3,58,18,46,59,18,57,33,26		3,39,36,53,45	
		1, 9,15,11,41,54, 0, 5		5, 4
28″	50, 3,59,28, 2,11, 0,51,33,31		3,39,36,58,49	
		1, 9,15, 8, 2,17, 1,16		5, 4
30″	50, 4, 0,37,17,19, 3, 8,34,47		3,39,37, 3,53	
		1, 9,15, 4,22,39,57,23		5, 4
32″	50, 4, 1,46,32,23,25,48,32,10		3,39,37, 8,57	
		1, 9,15, 0,43, 2,48,26		5, 4
34″	50, 4, 2,55,47,24, 8,51,20,36		3,39,37,14, 1	
		1, 9,14,57, 3,25,34,25		5, 4
36″	50, 4, 4, 5, 2,21,12,16,55, 1		3,39,37,19, 5	
		1, 9,14,53,23,48,15,20		5, 4
38″	50, 4, 5,14,17,14,36, 5,10,21		3,39,37,24, 9	
		1, 9,14,49,44,10,51,11		5, 4
40″	50, 4, 6,23,32, 4,20,16, 1,32		3,39,37,29,13	
		1, 9,14,46, 4,33,21,58		5, 4
42″	50, 4, 7,32,46,50,24,49,23,30		3,39,37,34,17	
		1, 9,14,42,24,55,47,41		5, 4
44″	50, 4, 8,42, 1,32,49,45,11,11		3,39,37,39,21	
		1, 9,14,38,45,18, 8,20		5, 4
46″	50, 4, 9,51,16,11,35, 3,19,31		3,39,37,44,25	
		1, 9,14,35, 5,40,23,55		5, 4
48″	50, 4,11, 0,30,46,40,43,43,26		3,39,37,49,29	
		1, 9,14,31,26, 2,34,26		5, 4
50″	50, 4,12, 9,45,18, 6,46,17,52		3,39,37,54,33	
		1, 9,14,27,46,24,39,53		5, 4
52″	50, 4,13,18,59,45,53,10,57,45		3,39,37,59,37	
		1, 9,14,24, 6,46,40,16		5, 4
54″	50, 4,14,28,14, 9,59,57,38, 1		3,39,38, 4,41	
		1, 9,14,20,27, 8,35,35		5, 4
56″	50, 4,15,37,28,30,27, 6,13,36		3,39,38, 9,45	
		1, 9,14,16,47,30,25,50		5, 4
58″	50, 4,16,46,42,47,14,36,39,26		3,39,38,14,49	
		1, 9,14,13, 7,52,11, 1		
60″	50, 4,17,55,57, 0,22,28,50,27			
exact	50, 4,17,55,57, 0,22,29, 4,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°34′ 0″	50, 4,17,55,57, 0,22,29, 4,15			
		1, 9,14, 9,28,13,52,41		
2″	50, 4,19, 5,11, 9,50,42,56,56		3,39,38,24,50	
		1, 9,14, 5,48,35,27,51		5, 4
4″	50, 4,20,14,25,15,39,18,24,47		3,39,38,29,54	
		1, 9,14, 2, 8,56,57,57		5, 4
6″	50, 4,21,23,39,17,48,15,22,44		3,39,38,34,58	
		1, 9,13,58,29,18,22,59		5, 4
8″	50, 4,22,32,53,16,17,33,45,43		3,39,38,40, 2	
		1, 9,13,54,49,39,42,57		5, 4
10″	50, 4,23,42, 7,11, 7,13,28,40		3,39,38,45, 6	
		1, 9,13,51,10, 0,57,51		5, 4
12″	50, 4,24,51,21, 2,17,14,26,31		3,39,38,50,10	
		1, 9,13,47,30,22, 7,41		5, 4
14″	50, 4,26, 0,34,49,47,36,34,12		3,39,38,55,14	
		1, 9,13,43,50,43,12,27		5, 4
16″	50, 4,27, 9,48,33,38,19,46,39		3,39,39, 0,18	
		1, 9,13,40,11, 4,12, 9		5, 4
18″	50, 4,28,19, 2,13,49,23,58,48		3,39,39, 5,22	
		1, 9,13,36,31,25, 6,47		5, 4
20″	50, 4,29,28,15,50,20,49, 5,35		3,39,39,10,26	
		1, 9,13,32,51,45,56,21		5, 4
22″	50, 4,30,37,29,23,12,35, 1,56		3,39,39,15,30	
		1, 9,13,29,12, 6,40,51		5, 4
24″	50, 4,31,46,42,52,24,41,42,47		3,39,39,20,34	
		1, 9,13,25,32,27,20,17		5, 4
26″	50, 4,32,55,56,17,57, 9, 3, 4		3,39,39,25,38	
		1, 9,13,21,52,47,54,39		5, 4
28″	50, 4,34, 5, 9,39,49,56,57,43		3,39,39,30,42	
		1, 9,13,18,13, 8,23,57		5, 4
30″	50, 4,35,14,22,58, 3, 5,21,40		3,39,39,35,46	
		1, 9,13,14,33,28,48,11		5, 4
32″	50, 4,36,23,36,12,36,34, 9,51		3,39,39,40,50	
		1, 9,13,10,53,49, 7,21		5, 4
34″	50, 4,37,32,49,23,30,23,17,12		3,39,39,45,54	
		1, 9,13, 7,14, 9,21,27		5, 4
36″	50, 4,38,42, 2,30,44,32,38,39		3,39,39,50,58	
		1, 9,13, 3,34,29,30,29		5, 4
38″	50, 4,39,51,15,34,19, 2, 9, 8		3,39,39,56, 2	
		1, 9,12,59,54,49,34,27		5, 4
40″	50, 4,41, 0,28,34,13,51,43,35		3,39,40, 1, 6	
		1, 9,12,56,15, 9,33,21		5, 4
42″	50, 4,42, 9,41,30,29, 1,16,56		3,39,40, 6,10	
		1, 9,12,52,35,29,27,11		5, 4
44″	50, 4,43,18,54,23, 4,30,44, 7		3,39,40,11,14	
		1, 9,12,48,55,49,15,57		5, 4
46″	50, 4,44,28, 7,12, 0,20, 0, 4		3,39,40,16,18	
		1, 9,12,45,16, 8,59,39		5, 4
48″	50, 4,45,37,19,57,16,28,59,43		3,39,40,21,22	
		1, 9,12,41,36,28,38,17		5, 4
50″	50, 4,46,46,32,38,52,57,38, 0		3,39,40,26,26	
		1, 9,12,37,56,48,11,51		5, 4
52″	50, 4,47,55,45,16,49,45,49,51		3,39,40,31,30	
		1, 9,12,34,17, 7,40,21		5, 4
54″	50, 4,49, 4,57,51, 6,53,30,12		3,39,40,36,34	
		1, 9,12,30,37,27, 3,47		5, 4
56″	50, 4,50,14,10,21,44,20,33,59		3,39,40,41,38	
		1, 9,12,26,57,46,22, 9		5, 4
58″	50, 4,51,23,22,48,42, 6,56, 8		3,39,40,46,42	
		1, 9,12,23,18, 5,35,27		
60″	50, 4,52,32,35,12, 0,12,31,35			
exact	50, 4,52,32,35,12, 0,12,54,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°35′ 0″	50, 4,52,32,35,12, 0,12,54,35			
		1, 9,12,19,38,24,46,12		
2″	50, 4,53,41,47,31,38,37,40,47		3,39,40,56,39	
		1, 9,12,15,58,43,49,33		5, 4
4″	50, 4,54,50,59,47,37,21,30,20		3,39,41, 1,43	
		1, 9,12,12,19, 2,47,50		5, 4
6″	50, 4,56, 0,11,59,56,24,18,10		3,39,41, 6,47	
		1, 9,12, 8,39,21,41, 3		5, 4
8″	50, 4,57, 9,24, 8,35,45,59,13		3,39,41,11,51	
		1, 9,12, 4,59,40,29,12		5, 4
10″	50, 4,58,18,36,13,35,26,28,25		3,39,41,16,55	
		1, 9,12, 1,19,59,12,17		5, 4
12″	50, 4,59,27,48,14,55,25,40,42		3,39,41,21,59	
		1, 9,11,57,40,17,50,18		5, 4
14″	50, 5, 0,37, 0,12,35,43,31, 0		3,39,41,27, 3	
		1, 9,11,54, 0,36,23,15		5, 4
16″	50, 5, 1,46,12, 6,36,19,54,15		3,39,41,32, 7	
		1, 9,11,50,20,54,51, 8		5, 4
18″	50, 5, 2,55,23,56,57,14,45,23		3,39,41,37,11	
		1, 9,11,46,41,13,13,57		5, 4
20″	50, 5, 4, 4,35,43,38,27,59,20		3,39,41,42,15	
		1, 9,11,43, 1,31,31,42		5, 4
22″	50, 5, 5,13,47,26,39,59,31, 2		3,39,41,47,19	
		1, 9,11,39,21,49,44,23		5, 4
24″	50, 5, 6,22,59, 6, 1,49,15,25		3,39,41,52,23	
		1, 9,11,35,42, 7,52, 0		5, 4
26″	50, 5, 7,32,10,41,43,57, 7,25		3,39,41,57,27	
		1, 9,11,32, 2,25,54,33		5, 4
28″	50, 5, 8,41,22,13,46,23, 1,58		3,39,42, 2,31	
		1, 9,11,28,22,43,52, 2		5, 4
30″	50, 5, 9,50,33,42, 9, 6,54, 0		3,39,42, 7,35	
		1, 9,11,24,43, 1,44,27		5, 4
32″	50, 5,10,59,45, 6,52, 8,38,27		3,39,42,12,39	
		1, 9,11,21, 3,19,31,48		5, 4
34″	50, 5,12, 8,56,27,55,28,10,15		3,39,42,17,43	
		1, 9,11,17,23,37,14, 5		5, 4
36″	50, 5,13,18, 7,45,19, 5,24,20		3,39,42,22,47	
		1, 9,11,13,43,54,51,18		5, 4
38″	50, 5,14,27,18,59, 3, 0,15,38		3,39,42,27,51	
		1, 9,11,10, 4,12,23,27		5, 4
40″	50, 5,15,36,30, 9, 7,12,39, 5		3,39,42,32,55	
		1, 9,11, 6,24,29,50,32		5, 4
42″	50, 5,16,45,41,15,31,42,29,37		3,39,42,37,59	
		1, 9,11, 2,44,47,12,33		5, 4
44″	50, 5,17,54,52,18,16,29,42,10		3,39,42,43, 3	
		1, 9,10,59, 5, 4,29,30		5, 4
46″	50, 5,19, 4, 3,17,21,34,11,40		3,39,42,48, 7	
		1, 9,10,55,25,21,41,23		5, 4
48″	50, 5,20,13,14,12,46,55,53, 3		3,39,42,53,11	
		1, 9,10,51,45,38,48,12		5, 4
50″	50, 5,21,22,25, 4,32,34,41,15		3,39,42,58,15	
		1, 9,10,48, 5,55,49,57		5, 4
52″	50, 5,22,31,35,52,38,30,31,12		3,39,43, 3,19	
		1, 9,10,44,26,12,46,38		5, 4
54″	50, 5,23,40,46,37, 4,43,17,50		3,39,43, 8,23	
		1, 9,10,40,46,29,38,15		5, 4
56″	50, 5,24,49,57,17,51,12,56, 5		3,39,43,13,27	
		1, 9,10,37, 6,46,24,48		5, 4
58″	50, 5,25,59, 7,54,57,59,20,53		3,39,43,18,31	
		1, 9,10,33,27, 3, 6,17		
60″	50, 5,27, 8,18,28,25, 2,27,10			
exact	50, 5,27, 8,18,28,25, 2,59, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°36′ 0″	50, 5,27, 8,18,28,25, 2,59, 9	1, 9,10,29,47,19,46,11		
2″	50, 5,28,17,28,58,12,22,45,20	1, 9,10,26, 7,36,17,47	3,39,43,28,24	5, 3
4″	50, 5,29,26,39,24,19,59, 3, 7	1, 9,10,22,27,52,44,20	3,39,43,33,27	5, 3
6″	50, 5,30,35,49,46,47,51,47,27	1, 9,10,18,48, 9, 5,50	3,39,43,38,30	5, 3
8″	50, 5,31,45, 0, 5,36, 0,53,17	1, 9,10,15, 8,25,22,17	3,39,43,43,33	5, 3
10″	50, 5,32,54,10,20,44,26,15,34	1, 9,10,11,28,41,33,41	3,39,43,48,36	5, 3
12″	50, 5,34, 3,20,32,13, 7,49,15	1, 9,10, 7,48,57,40, 2	3,39,43,53,39	5, 3
14″	50, 5,35,12,30,40, 2, 5,29,17	1, 9,10, 4, 9,13,41,20	3,39,43,58,42	5, 3
16″	50, 5,36,21,40,44,11,19,10,37	1, 9,10, 0,29,29,37,35	3,39,44, 3,45	5, 3
18″	50, 5,37,30,50,44,40,48,48,12	1, 9, 9,56,49,45,28,47	3,39,44, 8,48	5, 3
20″	50, 5,38,40, 0,41,30,34,16,59	1, 9, 9,53,10, 1,14,56	3,39,44,13,51	5, 3
22″	50, 5,39,49,10,34,40,35,31,55	1, 9, 9,49,30,16,56, 2	3,39,44,18,54	5, 3
24″	50, 5,40,58,20,24,10,52,27,57	1, 9, 9,45,50,32,32, 5	3,39,44,23,57	5, 3
26″	50, 5,42, 7,30,10, 1,25, 0, 2	1, 9, 9,42,10,48, 3, 5	3,39,44,29, 0	5, 3
28″	50, 5,43,16,39,52,12,13, 3, 7	1, 9, 9,38,31, 3,29, 2	3,39,44,34, 3	5, 3
30″	50, 5,44,25,49,30,43,16,32, 9	1, 9, 9,34,51,18,49,56	3,39,44,39, 6	5, 3
32″	50, 5,45,34,59, 5,34,35,22, 5	1, 9, 9,31,11,34, 5,47	3,39,44,44, 9	5, 3
34″	50, 5,46,44, 8,36,46, 9,27,52	1, 9, 9,27,31,49,16,35	3,39,44,49,12	5, 3
36″	50, 5,47,53,18, 4,17,58,44,27	1, 9, 9,23,52, 4,22,20	3,39,44,54,15	5, 3
38″	50, 5,49, 2,27,28,10, 3, 6,47	1, 9, 9,20,12,19,23, 2	3,39,44,59,18	5, 3
40″	50, 5,50,11,36,48,22,22,29,49	1, 9, 9,16,32,34,18,41	3,39,45, 4,21	5, 3
42″	50, 5,51,20,46, 4,54,56,48,30	1, 9, 9,12,52,49, 9,17	3,39,45, 9,24	5, 3
44″	50, 5,52,29,55,17,47,45,57,47	1, 9, 9, 9,13, 3,54,50	3,39,45,14,27	5, 3
46″	50, 5,53,39, 4,27, 0,49,52,37	1, 9, 9, 5,33,18,35,20	3,39,45,19,30	5, 3
48″	50, 5,54,48,13,32,34, 8,27,57	1, 9, 9, 1,53,33,10,47	3,39,45,24,33	5, 3
50″	50, 5,55,57,22,34,27,41,38,44	1, 9, 8,58,13,47,41,11	3,39,45,29,36	5, 3
52″	50, 5,57, 6,31,32,41,29,19,55	1, 9, 8,54,34, 2, 6,32	3,39,45,34,39	5, 3
54″	50, 5,58,15,40,27,15,31,26,27	1, 9, 8,50,54,16,26,50	3,39,45,39,42	5, 3
56″	50, 5,59,24,49,18, 9,47,53,17	1, 9, 8,47,14,30,42, 5	3,39,45,44,45	5, 3
58″	50, 6, 0,33,58, 5,24,18,35,22	1, 9, 8,43,34,44,52,17	3,39,45,49,48	
60″	50, 6, 1,43, 6,48,59, 3,27,39			
exact	50, 6, 1,43, 6,48,59, 3, 0,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°37′ 0″	50, 6, 1,43, 6,48,59, 3, 0,57	1, 9, 8,39,54,58,54,38		
2″	50, 6, 2,52,15,28,54, 1,55,35	1, 9, 8,36,15,12,54,33	3,39,46, 0, 5	5, 3
4″	50, 6, 4, 1,24, 5, 9,14,50, 8	1, 9, 8,32,35,26,49,25	3,39,46, 5, 8	5, 3
6″	50, 6, 5,10,32,37,44,41,39,33	1, 9, 8,28,55,40,39,14	3,39,46,10,11	5, 3
8″	50, 6, 6,19,41, 6,40,22,18,47	1, 9, 8,25,15,54,24, 0	3,39,46,15,14	5, 3
10″	50, 6, 7,28,49,31,56,16,42,47	1, 9, 8,21,36, 8, 3,43	3,39,46,20,17	5, 3
12″	50, 6, 8,37,57,53,32,24,46,30	1, 9, 8,17,56,21,38,23	3,39,46,25,20	5, 3
14″	50, 6, 9,47, 6,11,28,46,24,53	1, 9, 8,14,16,35, 8, 0	3,39,46,30,23	5, 3
16″	50, 6,10,56,14,25,45,21,32,53	1, 9, 8,10,36,48,32,34	3,39,46,35,26	5, 3
18″	50, 6,12, 5,22,36,22,10, 5,27	1, 9, 8, 6,57, 1,52, 5	3,39,46,40,29	5, 3
20″	50, 6,13,14,30,43,19,11,57,32	1, 9, 8, 3,17,15, 6,33	3,39,46,45,32	5, 3
22″	50, 6,14,23,38,46,36,27, 4, 5	1, 9, 7,59,37,28,15,58	3,39,46,50,35	5, 3
24″	50, 6,15,32,46,46,13,55,20, 3	1, 9, 7,55,57,41,20,20	3,39,46,55,38	5, 3
26″	50, 6,16,41,54,42,11,36,40,23	1, 9, 7,52,17,54,19,39	3,39,47, 0,41	5, 3
28″	50, 6,17,51, 2,34,29,31, 0, 2	1, 9, 7,48,38, 7,13,55	3,39,47, 5,44	5, 3
30″	50, 6,19, 0,10,23, 7,38,13,57	1, 9, 7,44,58,20, 3, 8	3,39,47,10,47	5, 3
32″	50, 6,20, 9,18, 8, 5,58,17, 5	1, 9, 7,41,18,32,47,18	3,39,47,15,50	5, 3
34″	50, 6,21,18,25,49,24,31, 4,23	1, 9, 7,37,38,45,26,25	3,39,47,20,53	5, 3
36″	50, 6,22,27,33,27, 3,16,30,48	1, 9, 7,33,58,58, 0,29	3,39,47,25,56	5, 3
38″	50, 6,23,36,41, 1, 2,14,31,17	1, 9, 7,30,19,10,29,30	3,39,47,30,59	5, 3
40″	50, 6,24,45,48,31,21,25, 0,47	1, 9, 7,26,39,22,53,28	3,39,47,36, 2	5, 3
42″	50, 6,25,54,55,58, 0,47,54,15	1, 9, 7,22,59,35,12,23	3,39,47,41, 5	5, 3
44″	50, 6,27, 4, 3,21, 0,23, 6,38	1, 9, 7,19,19,47,26,15	3,39,47,46, 8	5, 3
46″	50, 6,28,13,10,40,20,10,32,53	1, 9, 7,15,39,59,35, 4	3,39,47,51,11	5, 3
48″	50, 6,29,22,17,56, 0,10, 7,57	1, 9, 7,12, 0,11,38,50	3,39,47,56,14	5, 3
50″	50, 6,30,31,25, 8, 0,21,46,47	1, 9, 7, 8,20,23,37,33	3,39,48, 1,17	5, 3
52″	50, 6,31,40,32,16,20,45,24,20	1, 9, 7, 4,40,35,31,13	3,39,48, 6,20	5, 3
54″	50, 6,32,49,39,21, 1,20,55,33	1, 9, 7, 1, 0,47,19,50	3,39,48,11,23	5, 3
56″	50, 6,33,58,46,22, 2, 8,15,23	1, 9, 6,57,20,59, 3,24	3,39,48,16,26	5, 3
58″	50, 6,35, 7,53,19,23, 7,18,47	1, 9, 6,53,41,10,41,55	3,39,48,21,29	
60″	50, 6,36,17, 0,13, 4,18, 0,42			
exact	50, 6,36,17, 0,13, 4,17,43,16			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
56°38′	0″	50, 6,36,17, 0,13, 4,17,43,16			
			1, 9, 6,50, 1,22,13,34		
	2″	50, 6,37,26, 7, 3, 5,39,56,50		3,39,48,31,42	
			1, 9, 6,46,21,33,41,52		5, 3
	4″	50, 6,38,35,13,49,27,13,38,42		3,39,48,36,45	
			1, 9, 6,42,41,45, 5, 7		5, 3
	6″	50, 6,39,44,20,32, 8,58,43,49		3,39,48,41,48	
			1, 9, 6,39, 1,56,23,19		5, 3
	8″	50, 6,40,53,27,11,10,55, 7, 8		3,39,48,46,51	
			1, 9, 6,35,22, 7,36,28		5, 3
	10″	50, 6,42, 2,33,46,33, 2,43,36		3,39,48,51,54	
			1, 9, 6,31,42,18,44,34		5, 3
	12″	50, 6,43,11,40,18,15,21,28,10		3,39,48,56,57	
			1, 9, 6,28, 2,29,47,37		5, 3
	14″	50, 6,44,20,46,46,17,51,15,47		3,39,49, 2, 0	
			1, 9, 6,24,22,40,45,37		5, 3
	16″	50, 6,45,29,53,10,40,32, 1,24		3,39,49, 7, 3	
			1, 9, 6,20,42,51,38,34		5, 3
	18″	50, 6,46,38,59,31,23,23,39,58		3,39,49,12, 6	
			1, 9, 6,17, 3, 2,26,28		5, 3
	20″	50, 6,47,48, 5,48,26,26, 6,26		3,39,49,17, 9	
			1, 9, 6,13,23,13, 9,19		5, 3
	22″	50, 6,48,57,12, 1,49,39,15,45		3,39,49,22,12	
			1, 9, 6, 9,43,23,47, 7		5, 3
	24″	50, 6,50, 6,18,11,33, 3, 2,52		3,39,49,27,15	
			1, 9, 6, 6, 3,34,19,52		5, 3
	26″	50, 6,51,15,24,17,36,37,22,44		3,39,49,32,18	
			1, 9, 6, 2,23,44,47,34		5, 3
	28″	50, 6,52,24,30,20, 0,22,10,18		3,39,49,37,21	
			1, 9, 5,58,43,55,10,13		5, 3
	30″	50, 6,53,33,36,18,44,17,20,31		3,39,49,42,24	
			1, 9, 5,55, 4, 5,27,49		5, 3
	32″	50, 6,54,42,42,13,48,22,48,20		3,39,49,47,27	
			1, 9, 5,51,24,15,40,22		5, 3
	34″	50, 6,55,51,48, 5,12,38,28,42		3,39,49,52,30	
			1, 9, 5,47,44,25,47,52		5, 3
	36″	50, 6,57, 0,53,52,57, 4,16,34		3,39,49,57,33	
			1, 9, 5,44, 4,35,50,19		5, 3
	38″	50, 6,58, 9,59,37, 1,40, 6,53		3,39,50, 2,36	
			1, 9, 5,40,24,45,47,43		5, 3
	40″	50, 6,59,19, 5,17,26,25,54,36		3,39,50, 7,39	
			1, 9, 5,36,44,55,40, 4		5, 3
	42″	50, 7, 0,28,10,54,11,21,34,40		3,39,50,12,42	
			1, 9, 5,33, 5, 5,27,22		5, 3
	44″	50, 7, 1,37,16,27,16,27, 2, 2		3,39,50,17,45	
			1, 9, 5,29,25,15, 9,37		5, 3
	46″	50, 7, 2,46,21,56,41,42,11,39		3,39,50,22,48	
			1, 9, 5,25,45,24,46,49		5, 3
	48″	50, 7, 3,55,27,22,27, 6,58,28		3,39,50,27,51	
			1, 9, 5,22, 5,34,18,58		5, 3
	50″	50, 7, 5, 4,32,44,32,41,17,26		3,39,50,32,54	
			1, 9, 5,18,25,43,46, 4		5, 3
	52″	50, 7, 6,13,38, 2,58,25, 3,30		3,39,50,37,57	
			1, 9, 5,14,45,53, 8, 7		5, 3
	54″	50, 7, 7,22,43,17,44,18,11,37		3,39,50,43, 0	
			1, 9, 5,11, 6, 2,25, 7		5, 3
	56″	50, 7, 8,31,48,28,50,20,36,44		3,39,50,48, 3	
			1, 9, 5, 7,26,11,37, 4		5, 3
	58″	50, 7, 9,40,53,36,16,32,13,48		3,39,50,53, 6	
			1, 9, 5, 3,46,20,43,58		
	60″	50, 7,10,49,58,40, 2,52,57,46			
exact		50, 7,10,49,58,40, 2,52,49,36			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
56°39′	0″	50, 7,10,49,58,40, 2,52,49,36			
			1, 9, 5, 0, 6,29,44,59		
	2″	50, 7,11,59, 3,40, 9,22,34,35		3,39,51, 3,15	
			1, 9, 4,56,26,38,41,44		5, 3
	4″	50, 7,13, 8, 8,36,36, 1,16,19		3,39,51, 8,18	
			1, 9, 4,52,46,47,33,26		5, 3
	6″	50, 7,14,17,13,29,22,48,49,45		3,39,51,13,21	
			1, 9, 4,49, 6,56,20, 5		5, 3
	8″	50, 7,15,26,18,18,29,45, 9,50		3,39,51,18,24	
			1, 9, 4,45,27, 5, 1,41		5, 3
	10″	50, 7,16,35,23, 3,56,50,11,31		3,39,51,23,27	
			1, 9, 4,41,47,13,38,14		5, 3
	12″	50, 7,17,44,27,45,44, 3,49,45		3,39,51,28,30	
			1, 9, 4,38, 7,22, 9,44		5, 3
	14″	50, 7,18,53,32,23,51,25,59,29		3,39,51,33,33	
			1, 9, 4,34,27,30,36,11		5, 3
	16″	50, 7,20, 2,36,58,18,56,35,40		3,39,51,38,36	
			1, 9, 4,30,47,38,57,35		5, 3
	18″	50, 7,21,11,41,29, 6,35,33,15		3,39,51,43,39	
			1, 9, 4,27, 7,47,13,56		5, 3
	20″	50, 7,22,20,45,56,14,22,47,11		3,39,51,48,42	
			1, 9, 4,23,27,55,25,14		5, 3
	22″	50, 7,23,29,50,19,42,18,12,25		3,39,51,53,45	
			1, 9, 4,19,48, 3,31,29		5, 3
	24″	50, 7,24,38,54,39,30,21,43,54		3,39,51,58,48	
			1, 9, 4,16, 8,11,32,41		5, 3
	26″	50, 7,25,47,58,55,38,33,16,35		3,39,52, 3,51	
			1, 9, 4,12,28,19,28,50		5, 3
	28″	50, 7,26,57, 3, 8, 6,52,45,25		3,39,52, 8,54	
			1, 9, 4, 8,48,27,19,56		5, 3
	30″	50, 7,28, 6, 7,16,55,20, 5,21		3,39,52,13,57	
			1, 9, 4, 5, 8,35, 5,59		5, 3
	32″	50, 7,29,15,11,22, 3,55,11,20		3,39,52,19, 0	
			1, 9, 4, 1,28,42,46,59		5, 3
	34″	50, 7,30,24,15,23,32,37,58,19		3,39,52,24, 3	
			1, 9, 3,57,48,50,22,56		5, 3
	36″	50, 7,31,33,19,21,21,28,21,15		3,39,52,29, 6	
			1, 9, 3,54, 8,57,53,50		5, 3
	38″	50, 7,32,42,23,15,30,26,15, 5		3,39,52,34, 9	
			1, 9, 3,50,29, 5,19,41		5, 3
	40″	50, 7,33,51,27, 5,59,31,34,46		3,39,52,39,12	
			1, 9, 3,46,49,12,40,29		5, 3
	42″	50, 7,35, 0,30,52,48,44,15,15		3,39,52,44,15	
			1, 9, 3,43, 9,19,56,14		5, 3
	44″	50, 7,36, 9,34,35,58, 4,11,29		3,39,52,49,18	
			1, 9, 3,39,29,27, 6,56		5, 3
	46″	50, 7,37,18,38,15,27,31,18,25		3,39,52,54,21	
			1, 9, 3,35,49,34,12,35		5, 3
	48″	50, 7,38,27,41,51,17, 5,31, 0		3,39,52,59,24	
			1, 9, 3,32, 9,41,13,11		5, 3
	50″	50, 7,39,36,45,23,26,46,44,11		3,39,53, 4,27	
			1, 9, 3,28,29,48, 8,44		5, 3
	52″	50, 7,40,45,48,51,56,34,52,55		3,39,53, 9,30	
			1, 9, 3,24,49,54,59,14		5, 3
	54″	50, 7,41,54,52,16,46,29,52, 9		3,39,53,14,33	
			1, 9, 3,21,10, 1,44,41		5, 3
	56″	50, 7,43, 3,55,37,56,31,36,50		3,39,53,19,36	
			1, 9, 3,17,30, 8,25, 5		5, 3
	58″	50, 7,44,12,58,55,26,40, 1,55		3,39,53,24,39	
			1, 9, 3,13,50,15, 0,26		
	60″	50, 7,45,22, 2, 9,16,55, 2,21			
exact		50, 7,45,22, 2, 9,16,55, 3,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°40′ 0″	50, 7,45,22, 2, 9,16,55, 3,42			
		1, 9, 3,10,10,21,30,54		
2″	50, 7,46,31, 5,19,27,16,34,36		3,39,53,34,44	
		1, 9, 3, 6,30,27,56,10		5, 3
4″	50, 7,47,40, 8,25,57,44,30,46		3,39,53,39,47	
		1, 9, 3, 2,50,34,16,23		5, 3
6″	50, 7,48,49,11,28,48,18,47, 9		3,39,53,44,50	
		1, 9, 2,59,10,40,31,33		5, 3
8″	50, 7,49,58,14,27,58,59,18,42		3,39,53,49,53	
		1, 9, 2,55,30,46,41,40		5, 3
10″	50, 7,51, 7,17,23,29,46, 0,22		3,39,53,54,56	
		1, 9, 2,51,50,52,46,44		5, 3
12″	50, 7,52,16,20,15,20,38,47, 6		3,39,53,59,59	
		1, 9, 2,48,10,58,46,45		5, 3
14″	50, 7,53,25,23, 3,31,37,33,51		3,39,54, 5, 2	
		1, 9, 2,44,31, 4,41,43		5, 3
16″	50, 7,54,34,25,48, 2,42,15,34		3,39,54,10, 5	
		1, 9, 2,40,51,10,31,38		5, 3
18″	50, 7,55,43,28,28,53,52,47,12		3,39,54,15, 8	
		1, 9, 2,37,11,16,16,30		5, 3
20″	50, 7,56,52,31, 6, 5, 9, 3,42		3,39,54,20,11	
		1, 9, 2,33,31,21,56,19		5, 3
22″	50, 7,58, 1,33,39,36,31, 0, 1		3,39,54,25,14	
		1, 9, 2,29,51,27,31, 5		5, 3
24″	50, 7,59,10,36, 9,27,58,31, 6		3,39,54,30,17	
		1, 9, 2,26,11,33, 0,48		5, 3
26″	50, 8, 0,19,38,35,39,31,31,54		3,39,54,35,20	
		1, 9, 2,22,31,38,25,28		5, 3
28″	50, 8, 1,28,40,58,11, 9,57,22		3,39,54,40,23	
		1, 9, 2,18,51,43,45, 5		5, 3
30″	50, 8, 2,37,43,17, 2,53,42,27		3,39,54,45,26	
		1, 9, 2,15,11,48,59,39		5, 3
32″	50, 8, 3,46,45,32,14,42,42, 6		3,39,54,50,29	
		1, 9, 2,11,31,54, 9,10		5, 3
34″	50, 8, 4,55,47,43,46,36,51,16		3,39,54,55,32	
		1, 9, 2, 7,51,59,13,38		5, 3
36″	50, 8, 6, 4,49,51,38,36, 4,54		3,39,55, 0,35	
		1, 9, 2, 4,12, 4,13, 3		5, 3
38″	50, 8, 7,13,51,55,50,40,17,57		3,39,55, 5,38	
		1, 9, 2, 0,32, 9, 7,25		5, 3
40″	50, 8, 8,22,53,56,22,49,25,22		3,39,55,10,41	
		1, 9, 1,56,52,13,56,44		5, 3
42″	50, 8, 9,31,55,53,15, 3,22, 6		3,39,55,15,44	
		1, 9, 1,53,12,18,41, 0		5, 3
44″	50, 8,10,40,57,46,27,22, 3, 6		3,39,55,20,47	
		1, 9, 1,49,32,23,20,13		5, 3
46″	50, 8,11,49,59,35,59,45,23,19		3,39,55,25,50	
		1, 9, 1,45,52,27,54,23		5, 3
48″	50, 8,12,59, 1,21,52,13,17,42		3,39,55,30,53	
		1, 9, 1,42,12,32,23,30		5, 3
50″	50, 8,14, 8, 3, 4, 4,45,41,12		3,39,55,35,56	
		1, 9, 1,38,32,36,47,34		5, 3
52″	50, 8,15,17, 4,42,37,22,28,46		3,39,55,40,59	
		1, 9, 1,34,52,41, 6,35		5, 3
54″	50, 8,16,26, 6,17,30, 3,35,21		3,39,55,46, 2	
		1, 9, 1,31,12,45,20,33		5, 3
56″	50, 8,17,35, 7,48,42,48,55,54		3,39,55,51, 5	
		1, 9, 1,27,32,49,29,28		5, 3
58″	50, 8,18,44, 9,16,15,38,25,22		3,39,55,56, 8	
		1, 9, 1,23,52,53,33,20		
60″	50, 8,19,53,10,40, 8,31,58,42			
exact	50, 8,19,53,10,40, 8,32, 9,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°41′ 0″	50, 8,19,53,10,40, 8,32, 9,38			
		1, 9, 1,20,12,57,33,20		
2″	50, 8,21, 2,12, 0,21,29,42,58		3,39,56, 6, 9	
		1, 9, 1,16,33, 1,27,11		5, 3
4″	50, 8,22,11,13,16,54,31,10, 9		3,39,56,11,12	
		1, 9, 1,12,53, 5,15,59		5, 3
6″	50, 8,23,20,14,29,47,36,26, 8		3,39,56,16,15	
		1, 9, 1, 9,13, 8,59,44		5, 3
8″	50, 8,24,29,15,39, 0,45,25,52		3,39,56,21,18	
		1, 9, 1, 5,33,12,38,26		5, 3
10″	50, 8,25,38,16,44,33,58, 4,18		3,39,56,26,21	
		1, 9, 1, 1,53,16,12, 5		5, 3
12″	50, 8,26,47,17,46,27,14,16,23		3,39,56,31,24	
		1, 9, 0,58,13,19,40,41		5, 3
14″	50, 8,27,56,18,44,40,33,57, 4		3,39,56,36,27	
		1, 9, 0,54,33,23, 4,14		5, 3
16″	50, 8,29, 5,19,39,13,57, 1,18		3,39,56,41,30	
		1, 9, 0,50,53,26,22,44		5, 3
18″	50, 8,30,14,20,30, 7,23,24, 2		3,39,56,46,33	
		1, 9, 0,47,13,29,36,11		5, 3
20″	50, 8,31,23,21,17,20,53, 0,13		3,39,56,51,36	
		1, 9, 0,43,33,32,44,35		5, 3
22″	50, 8,32,32,22, 0,54,25,44,48		3,39,56,56,39	
		1, 9, 0,39,53,35,47,56		5, 3
24″	50, 8,33,41,22,40,48, 1,32,44		3,39,57, 1,42	
		1, 9, 0,36,13,38,46,14		5, 3
26″	50, 8,34,50,23,17, 1,40,18,58		3,39,57, 6,45	
		1, 9, 0,32,33,41,39,29		5, 3
28″	50, 8,35,59,23,49,35,21,58,27		3,39,57,11,48	
		1, 9, 0,28,53,44,27,41		5, 3
30″	50, 8,37, 8,24,18,29, 6,26, 8		3,39,57,16,51	
		1, 9, 0,25,13,47,10,50		5, 3
32″	50, 8,38,17,24,43,42,53,36,58		3,39,57,21,54	
		1, 9, 0,21,33,49,48,56		5, 3
34″	50, 8,39,26,25, 5,16,43,25,54		3,39,57,26,57	
		1, 9, 0,17,53,52,21,59		5, 3
36″	50, 8,40,35,25,23,10,35,47,53		3,39,57,32, 0	
		1, 9, 0,14,13,54,49,59		5, 3
38″	50, 8,41,44,25,37,24,30,37,52		3,39,57,37, 3	
		1, 9, 0,10,33,57,12,56		5, 3
40″	50, 8,42,53,25,47,58,27,50,48		3,39,57,42, 6	
		1, 9, 0, 6,53,59,30,50		5, 3
42″	50, 8,44, 2,25,54,52,27,21,38		3,39,57,47, 9	
		1, 9, 0, 3,14, 1,43,41		5, 3
44″	50, 8,45,11,25,58, 6,29, 5,19		3,39,57,52,12	
		1, 8,59,59,34, 3,51,29		5, 3
46″	50, 8,46,20,25,57,40,32,56,48		3,39,57,57,15	
		1, 8,59,55,54, 5,54,14		5, 3
48″	50, 8,47,29,25,53,34,38,51, 2		3,39,58, 2,18	
		1, 8,59,52,14, 7,51,56		5, 3
50″	50, 8,48,38,25,45,48,46,42,58		3,39,58, 7,21	
		1, 8,59,48,34, 9,44,35		5, 3
52″	50, 8,49,47,25,34,22,56,27,33		3,39,58,12,24	
		1, 8,59,44,54,11,32,11		5, 3
54″	50, 8,50,56,25,19,17, 7,59,44		3,39,58,17,27	
		1, 8,59,41,14,13,14,44		5, 3
56″	50, 8,52, 5,25, 0,31,21,14,28		3,39,58,22,30	
		1, 8,59,37,34,14,52,14		5, 3
58″	50, 8,53,14,24,38, 5,36, 6,42		3,39,58,27,33	
		1, 8,59,33,54,16,24,41		
60″	50, 8,54,23,24,11,59,52,31,23			
exact	50, 8,54,23,24,11,59,52,51,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°42′ 0″	50, 8,54,23,24,11,59,52,51,43			
		1, 8,59,30,14,17,54,16		
2″	50, 8,55,32,23,42,14,10,45,59		3,39,58,37,30	
		1, 8,59,26,34,19,16,46		5, 3
4″	50, 8,56,41,23, 8,48,30, 2,45		3,39,58,42,33	
		1, 8,59,22,54,20,34,13		5, 3
6″	50, 8,57,50,22,31,42,50,36,58		3,39,58,47,36	
		1, 8,59,19,14,21,46,37		5, 3
8″	50, 8,58,59,21,50,57,12,23,35		3,39,58,52,39	
		1, 8,59,15,34,22,53,58		5, 3
10″	50, 9, 0, 8,21, 6,31,35,17,33		3,39,58,57,42	
		1, 8,59,11,54,23,56,16		5, 3
12″	50, 9, 1,17,20,18,25,59,13,49		3,39,59, 2,45	
		1, 8,59, 8,14,24,53,31		5, 3
14″	50, 9, 2,26,19,26,40,24, 7,20		3,39,59, 7,48	
		1, 8,59, 4,34,25,45,43		5, 3
16″	50, 9, 3,35,18,31,14,49,53, 3		3,39,59,12,51	
		1, 8,59, 0,54,26,32,52		5, 3
18″	50, 9, 4,44,17,32, 9,16,25,55		3,39,59,17,54	
		1, 8,58,57,14,27,14,58		5, 3
20″	50, 9, 5,53,16,29,23,43,40,53		3,39,59,22,57	
		1, 8,58,53,34,27,52, 1		5, 3
22″	50, 9, 7, 2,15,22,58,11,32,54		3,39,59,28, 0	
		1, 8,58,49,54,28,24, 1		5, 3
24″	50, 9, 8,11,14,12,52,39,56,55		3,39,59,33, 3	
		1, 8,58,46,14,28,50,58		5, 3
26″	50, 9, 9,20,12,59, 7, 8,47,53		3,39,59,38, 6	
		1, 8,58,42,34,29,12,52		5, 3
28″	50, 9,10,29,11,41,41,38, 0,45		3,39,59,43, 9	
		1, 8,58,38,54,29,29,43		5, 3
30″	50, 9,11,38,10,20,36, 7,30,28		3,39,59,48,12	
		1, 8,58,35,14,29,41,31		5, 3
32″	50, 9,12,47, 8,55,50,37,11,59		3,39,59,53,15	
		1, 8,58,31,34,29,48,16		5, 3
34″	50, 9,13,56, 7,27,25, 7, 0,15		3,39,59,58,18	
		1, 8,58,27,54,29,49,58		5, 3
36″	50, 9,15, 5, 5,55,19,36,50,13		3,40, 0, 3,21	
		1, 8,58,24,14,29,46,37		5, 3
38″	50, 9,16,14, 4,19,34, 6,36,50		3,40, 0, 8,24	
		1, 8,58,20,34,29,38,13		5, 3
40″	50, 9,17,23, 2,40, 8,36,15, 3		3,40, 0,13,27	
		1, 8,58,16,54,29,24,46		5, 3
42″	50, 9,18,32, 0,57, 3, 5,39,49		3,40, 0,18,30	
		1, 8,58,13,14,29, 6,16		5, 3
44″	50, 9,19,40,59,10,17,34,46, 5		3,40, 0,23,33	
		1, 8,58, 9,34,28,42,43		5, 3
46″	50, 9,20,49,57,19,52, 3,28,48		3,40, 0,28,36	
		1, 8,58, 5,54,28,14, 7		5, 3
48″	50, 9,21,58,55,25,46,31,42,55		3,40, 0,33,39	
		1, 8,58, 2,14,27,40,28		5, 3
50″	50, 9,23, 7,53,28, 0,59,23,23		3,40, 0,38,42	
		1, 8,57,58,34,27, 1,46		5, 3
52″	50, 9,24,16,51,26,35,26,25, 9		3,40, 0,43,45	
		1, 8,57,54,54,26,18, 1		5, 3
54″	50, 9,25,25,49,21,29,52,43,10		3,40, 0,48,48	
		1, 8,57,51,14,25,29,13		5, 3
56″	50, 9,26,34,47,12,44,18,12,23		3,40, 0,53,51	
		1, 8,57,47,34,24,35,22		5, 3
58″	50, 9,27,43,45, 0,18,42,47,45		3,40, 0,58,54	
		1, 8,57,43,54,23,36,28		
60″	50, 9,28,52,42,44,13, 6,24,13			
exact	50, 9,28,52,42,44,13, 6,54,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°43′ 0″	50, 9,28,52,42,44,13, 6,54,33			
		1, 8,57,40,14,22,35,44		
2″	50, 9,30, 1,40,24,27,29,30,17		3,40, 1, 8,46	
		1, 8,57,36,34,21,26,58		5, 2
4″	50, 9,31,10,38, 1, 1,50,57,15		3,40, 1,13,48	
		1, 8,57,32,54,20,13,10		5, 2
6″	50, 9,32,19,35,33,56,11,10,25		3,40, 1,18,50	
		1, 8,57,29,14,18,54,20		5, 2
8″	50, 9,33,28,33, 3,10,30, 4,45		3,40, 1,23,52	
		1, 8,57,25,34,17,30,28		5, 2
10″	50, 9,34,37,30,28,44,47,35,13		3,40, 1,28,54	
		1, 8,57,21,54,16, 1,34		5, 2
12″	50, 9,35,46,27,50,39, 3,36,47		3,40, 1,33,56	
		1, 8,57,18,14,14,27,38		5, 2
14″	50, 9,36,55,25, 8,53,18, 4,25		3,40, 1,38,58	
		1, 8,57,14,34,12,48,40		5, 2
16″	50, 9,38, 4,22,23,27,30,53, 5		3,40, 1,44, 0	
		1, 8,57,10,54,11, 4,40		5, 2
18″	50, 9,39,13,19,34,21,41,57,45		3,40, 1,49, 2	
		1, 8,57, 7,14, 9,15,38		5, 2
20″	50, 9,40,22,16,41,35,51,13,23		3,40, 1,54, 4	
		1, 8,57, 3,34, 7,21,34		5, 2
22″	50, 9,41,31,13,45, 9,58,34,57		3,40, 1,59, 6	
		1, 8,56,59,54, 5,22,28		5, 2
24″	50, 9,42,40,10,45, 4, 3,57,25		3,40, 2, 4, 8	
		1, 8,56,56,14, 3,18,20		5, 2
26″	50, 9,43,49, 7,41,18, 7,15,45		3,40, 2, 9,10	
		1, 8,56,52,34, 1, 9,10		5, 2
28″	50, 9,44,58, 4,33,52, 8,24,55		3,40, 2,14,12	
		1, 8,56,48,53,58,54,58		5, 2
30″	50, 9,46, 7, 1,22,46, 7,19,53		3,40, 2,19,14	
		1, 8,56,45,13,56,35,44		5, 2
32″	50, 9,47,15,58, 8, 0, 3,55,37		3,40, 2,24,16	
		1, 8,56,41,33,54,11,28		5, 2
34″	50, 9,48,24,54,49,33,58, 7, 5		3,40, 2,29,18	
		1, 8,56,37,53,51,42,10		5, 2
36″	50, 9,49,33,51,27,27,49,49,15		3,40, 2,34,20	
		1, 8,56,34,13,49, 7,50		5, 2
38″	50, 9,50,42,48, 1,41,38,57, 5		3,40, 2,39,22	
		1, 8,56,30,33,46,28,28		5, 2
40″	50, 9,51,51,44,32,15,25,25,33		3,40, 2,44,24	
		1, 8,56,26,53,43,44, 4		5, 2
42″	50, 9,53, 0,40,59, 9, 9, 9,37		3,40, 2,49,26	
		1, 8,56,23,13,40,54,38		5, 2
44″	50, 9,54, 9,37,22,22,50, 4,15		3,40, 2,54,28	
		1, 8,56,19,33,38, 0,10		5, 2
46″	50, 9,55,18,33,41,56,28, 4,25		3,40, 2,59,30	
		1, 8,56,15,53,35, 0,40		5, 2
48″	50, 9,56,27,29,57,50, 3, 5, 5		3,40, 3, 4,32	
		1, 8,56,12,13,31,56, 8		5, 2
50″	50, 9,57,36,26,10, 3,35, 1,13		3,40, 3, 9,34	
		1, 8,56, 8,33,28,46,34		5, 2
52″	50, 9,58,45,22,18,37, 3,47,47		3,40, 3,14,36	
		1, 8,56, 4,53,25,31,58		5, 2
54″	50, 9,59,54,18,23,30,29,19,45		3,40, 3,19,38	
		1, 8,56, 1,13,22,12,20		5, 2
56″	50,10, 1, 3,14,24,43,51,32, 5		3,40, 3,24,40	
		1, 8,55,57,33,18,47,40		5, 2
58″	50,10, 2,12,10,22,17,10,19,45		3,40, 3,29,42	
		1, 8,55,53,53,15,17,58		
60″	50,10, 3,21, 6,16,10,25,37,43			
exact	50,10, 3,21, 6,16,10,25, 3, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°44′ 0″	50,10, 3,21, 6,16,10,25, 3, 6			
		1, 8,55,50,13,11,39,44		
2″	50,10, 4,30, 2, 6,23,36,42,50		3,40, 3,39,59	
		1, 8,55,46,33, 7,59,45		5, 2
4″	50,10, 5,38,57,52,56,44,42,35		3,40, 3,45, 1	
		1, 8,55,42,53, 4,14,44		5, 2
6″	50,10, 6,47,53,35,49,48,57,19		3,40, 3,50, 3	
		1, 8,55,39,13, 0,24,41		5, 2
8″	50,10, 7,56,49,15, 2,49,22, 0		3,40, 3,55, 5	
		1, 8,55,35,32,56,29,36		5, 2
10″	50,10, 9, 5,44,50,35,45,51,36		3,40, 4, 0, 7	
		1, 8,55,31,52,52,29,29		5, 2
12″	50,10,10,14,40,22,28,38,21, 5		3,40, 4, 5, 9	
		1, 8,55,28,12,48,24,20		5, 2
14″	50,10,11,23,35,50,41,26,45,25		3,40, 4,10,11	
		1, 8,55,24,32,44,14, 9		5, 2
16″	50,10,12,32,31,15,14,10,59,34		3,40, 4,15,13	
		1, 8,55,20,52,39,58,56		5, 2
18″	50,10,13,41,26,36, 6,50,58,30		3,40, 4,20,15	
		1, 8,55,17,12,35,38,41		5, 2
20″	50,10,14,50,21,53,19,26,37,11		3,40, 4,25,17	
		1, 8,55,13,32,31,13,24		5, 2
22″	50,10,15,59,17, 6,51,57,50,35		3,40, 4,30,19	
		1, 8,55, 9,52,26,43, 5		5, 2
24″	50,10,17, 8,12,16,44,24,33,40		3,40, 4,35,21	
		1, 8,55, 6,12,22, 7,44		5, 2
26″	50,10,18,17, 7,22,56,46,41,24		3,40, 4,40,23	
		1, 8,55, 2,32,17,27,21		5, 2
28″	50,10,19,26, 2,25,29, 4, 8,45		3,40, 4,45,25	
		1, 8,54,58,52,12,41,56		5, 2
30″	50,10,20,34,57,24,21,16,50,41		3,40, 4,50,27	
		1, 8,54,55,12, 7,51,29		5, 2
32″	50,10,21,43,52,19,33,24,42,10		3,40, 4,55,29	
		1, 8,54,51,32, 2,56, 0		5, 2
34″	50,10,22,52,47,11, 5,27,38,10		3,40, 5, 0,31	
		1, 8,54,47,51,57,55,29		5, 2
36″	50,10,24, 1,41,58,57,25,33,39		3,40, 5, 5,33	
		1, 8,54,44,11,52,49,56		5, 2
38″	50,10,25,10,36,43, 9,18,23,35		3,40, 5,10,35	
		1, 8,54,40,31,47,39,21		5, 2
40″	50,10,26,19,31,23,41, 6, 2,56		3,40, 5,15,37	
		1, 8,54,36,51,42,23,44		5, 2
42″	50,10,27,28,26, 0,32,48,26,40		3,40, 5,20,39	
		1, 8,54,33,11,37, 3, 5		5, 2
44″	50,10,28,37,20,33,44,25,29,45		3,40, 5,25,41	
		1, 8,54,29,31,31,37,24		5, 2
46″	50,10,29,46,15, 3,15,57, 7, 9		3,40, 5,30,43	
		1, 8,54,25,51,26, 6,41		5, 2
48″	50,10,30,55, 9,29, 7,23,13,50		3,40, 5,35,45	
		1, 8,54,22,11,20,30,56		5, 2
50″	50,10,32, 4, 3,51,18,43,44,46		3,40, 5,40,47	
		1, 8,54,18,31,14,50, 9		5, 2
52″	50,10,33,12,58, 9,49,58,34,55		3,40, 5,45,49	
		1, 8,54,14,51, 9, 4,20		5, 2
54″	50,10,34,21,52,24,41, 7,39,15		3,40, 5,50,51	
		1, 8,54,11,11, 3,13,29		5, 2
56″	50,10,35,30,46,35,52,10,52,44		3,40, 5,55,53	
		1, 8,54, 7,30,57,17,36		5, 2
58″	50,10,36,39,40,43,23, 8,10,20		3,40, 6, 0,55	
		1, 8,54, 3,50,51,16,41		
60″	50,10,37,48,34,47,13,59,27, 1			
exact	50,10,37,48,34,47,13,59, 2,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°45′ 0″	50,10,37,48,34,47,13,59, 2,36			
		1, 8,54, 0,10,45, 8,17		
2″	50,10,38,57,28,47,24,44,10,53		3,40, 6,11, 8	
		1, 8,53,56,30,38,57, 9		5, 2
4″	50,10,40, 6,22,43,55,23, 8, 2		3,40, 6,16,10	
		1, 8,53,52,50,32,40,59		5, 2
6″	50,10,41,15,16,36,45,55,49, 1		3,40, 6,21,12	
		1, 8,53,49,10,26,19,47		5, 2
8″	50,10,42,24,10,25,56,22, 8,48		3,40, 6,26,14	
		1, 8,53,45,30,19,53,33		5, 2
10″	50,10,43,33, 4,11,26,42, 2,21		3,40, 6,31,16	
		1, 8,53,41,50,13,22,17		5, 2
12″	50,10,44,41,57,53,16,55,24,38		3,40, 6,36,18	
		1, 8,53,38,10, 6,45,59		5, 2
14″	50,10,45,50,51,31,27, 2,10,37		3,40, 6,41,20	
		1, 8,53,34,30, 0, 4,39		5, 2
16″	50,10,46,59,45, 5,57, 2,15,16		3,40, 6,46,22	
		1, 8,53,30,49,53,18,17		5, 2
18″	50,10,48, 8,38,36,46,55,33,33		3,40, 6,51,24	
		1, 8,53,27, 9,46,26,53		5, 2
20″	50,10,49,17,32, 3,56,42, 0,26		3,40, 6,56,26	
		1, 8,53,23,29,39,30,27		5, 2
22″	50,10,50,26,25,27,26,21,30,53		3,40, 7, 1,28	
		1, 8,53,19,49,32,28,59		5, 2
24″	50,10,51,35,18,47,15,53,59,52		3,40, 7, 6,30	
		1, 8,53,16, 9,25,22,29		5, 2
26″	50,10,52,44,12, 3,25,19,22,21		3,40, 7,11,32	
		1, 8,53,12,29,18,10,57		5, 2
28″	50,10,53,53, 5,15,54,37,33,18		3,40, 7,16,34	
		1, 8,53, 8,49,10,54,23		5, 2
30″	50,10,55, 1,58,24,43,48,27,41		3,40, 7,21,36	
		1, 8,53, 5, 9, 3,32,47		5, 2
32″	50,10,56,10,51,29,52,52, 0,28		3,40, 7,26,38	
		1, 8,53, 1,28,56, 6, 9		5, 2
34″	50,10,57,19,44,31,21,48, 6,37		3,40, 7,31,40	
		1, 8,52,57,48,48,34,29		5, 2
36″	50,10,58,28,37,29,10,36,41, 6		3,40, 7,36,42	
		1, 8,52,54, 8,40,57,47		5, 2
38″	50,10,59,37,30,23,19,17,38,53		3,40, 7,41,44	
		1, 8,52,50,28,33,16, 3		5, 2
40″	50,11, 0,46,23,13,47,50,54,56		3,40, 7,46,46	
		1, 8,52,46,48,25,29,17		5, 2
42″	50,11, 1,55,16, 0,36,16,24,13		3,40, 7,51,48	
		1, 8,52,43, 8,17,37,29		5, 2
44″	50,11, 3, 4, 8,43,44,34, 1,42		3,40, 7,56,50	
		1, 8,52,39,28, 9,40,39		5, 2
46″	50,11, 4,13, 1,23,12,43,42,21		3,40, 8, 1,52	
		1, 8,52,35,48, 1,38,47		5, 2
48″	50,11, 5,21,53,59, 0,45,21, 8		3,40, 8, 6,54	
		1, 8,52,32, 7,53,31,53		5, 2
50″	50,11, 6,30,46,31, 8,38,53, 1		3,40, 8,11,56	
		1, 8,52,28,27,45,19,57		5, 2
52″	50,11, 7,39,38,59,36,24,12,58		3,40, 8,16,58	
		1, 8,52,24,47,37, 2,59		5, 2
54″	50,11, 8,48,31,24,24, 1,15,57		3,40, 8,22, 0	
		1, 8,52,21, 7,28,40,59		5, 2
56″	50,11, 9,57,23,45,31,29,56,56		3,40, 8,27, 2	
		1, 8,52,17,27,20,13,57		5, 2
58″	50,11,11, 6,16, 2,58,50,10,53		3,40, 8,32, 4	
		1, 8,52,13,47,11,41,53		
60″	50,11,12,15, 8,16,46, 1,52,46			
exact	50,11,12,15, 8,16,46, 1,38,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°46′ 0″	50,11,12,15, 8,16,46, 1,38,37			
		1, 8,52,10, 7, 3, 3,23		
2″	50,11,13,24, 0,26,53, 4,42, 0		3,40, 8,42,13	
		1, 8,52, 6,26,54,21,10		5, 2
4″	50,11,14,32,52,33,19,59, 3,10		3,40, 8,47,15	
		1, 8,52, 2,46,45,33,55		5, 2
6″	50,11,15,41,44,36, 6,44,37, 5		3,40, 8,52,17	
		1, 8,51,59, 6,36,41,38		5, 2
8″	50,11,16,50,36,35,13,21,18,43		3,40, 8,57,19	
		1, 8,51,55,26,27,44,19		5, 2
10″	50,11,17,59,28,30,39,49, 3, 2		3,40, 9, 2,21	
		1, 8,51,51,46,18,41,58		5, 2
12″	50,11,19, 8,20,22,26, 7,45, 0		3,40, 9, 7,23	
		1, 8,51,48, 6, 9,34,35		5, 2
14″	50,11,20,17,12,10,32,17,19,35		3,40, 9,12,25	
		1, 8,51,44,26, 0,22,10		5, 2
16″	50,11,21,26, 3,54,58,17,41,45		3,40, 9,17,27	
		1, 8,51,40,45,51, 4,43		5, 2
18″	50,11,22,34,55,35,44, 8,46,28		3,40, 9,22,29	
		1, 8,51,37, 5,41,42,14		5, 2
20″	50,11,23,43,47,12,49,50,28,42		3,40, 9,27,31	
		1, 8,51,33,25,32,14,43		5, 2
22″	50,11,24,52,38,46,15,22,43,25		3,40, 9,32,33	
		1, 8,51,29,45,22,42,10		5, 2
24″	50,11,26, 1,30,16, 0,45,25,35		3,40, 9,37,35	
		1, 8,51,26, 5,13, 4,35		5, 2
26″	50,11,27,10,21,42, 5,58,30,10		3,40, 9,42,37	
		1, 8,51,22,25, 3,21,58		5, 2
28″	50,11,28,19,13, 4,31, 1,52, 8		3,40, 9,47,39	
		1, 8,51,18,44,53,34,19		5, 2
30″	50,11,29,28, 4,23,15,55,26,27		3,40, 9,52,41	
		1, 8,51,15, 4,43,41,38		5, 2
32″	50,11,30,36,55,38,20,39, 8, 5		3,40, 9,57,43	
		1, 8,51,11,24,33,43,55		5, 2
34″	50,11,31,45,46,49,45,12,52, 0		3,40,10, 2,45	
		1, 8,51, 7,44,23,41,10		5, 2
36″	50,11,32,54,37,57,29,36,33,10		3,40,10, 7,47	
		1, 8,51, 4, 4,13,33,23		5, 2
38″	50,11,34, 3,29, 1,33,50, 6,33		3,40,10,12,49	
		1, 8,51, 0,24, 3,20,34		5, 2
40″	50,11,35,12,20, 1,57,53,27, 7		3,40,10,17,51	
		1, 8,50,56,43,53, 2,43		5, 2
42″	50,11,36,21,10,58,41,46,29,50		3,40,10,22,53	
		1, 8,50,53, 3,42,39,50		5, 2
44″	50,11,37,30, 1,51,45,29, 9,40		3,40,10,27,55	
		1, 8,50,49,23,32,11,55		5, 2
46″	50,11,38,38,52,41, 9, 1,21,35		3,40,10,32,57	
		1, 8,50,45,43,21,38,58		5, 2
48″	50,11,39,47,43,26,52,23, 0,33		3,40,10,37,59	
		1, 8,50,42, 3,11, 0,59		5, 2
50″	50,11,40,56,34, 8,55,34, 1,32		3,40,10,43, 1	
		1, 8,50,38,23, 0,17,58		5, 2
52″	50,11,42, 5,24,47,18,34,19,30		3,40,10,48, 3	
		1, 8,50,34,42,49,29,55		5, 2
54″	50,11,43,14,15,22, 1,23,49,25		3,40,10,53, 5	
		1, 8,50,31, 2,38,36,50		5, 2
56″	50,11,44,23, 5,53, 4, 2,26,15		3,40,10,58, 7	
		1, 8,50,27,22,27,38,43		5, 2
58″	50,11,45,31,56,20,26,30, 4,58		3,40,11, 3, 9	
		1, 8,50,23,42,16,35,34		
60″	50,11,46,40,46,44, 8,46,40,32			
exact	50,11,46,40,46,44, 8,46,37, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°47′ 0″	50,11,46,40,46,44, 8,46,37, 5			
		1, 8,50,20, 2, 5,27, 4		
2″	50,11,47,49,37, 4,10,52, 4, 9		3,40,11,13,14	
		1, 8,50,16,21,54,13,50		5, 2
4″	50,11,48,58,27,20,32,46,17,59		3,40,11,18,16	
		1, 8,50,12,41,42,55,34		5, 2
6″	50,11,50, 7,17,33,14,29,13,33		3,40,11,23,18	
		1, 8,50, 9, 1,31,32,16		5, 2
8″	50,11,51,16, 7,42,16, 0,45,49		3,40,11,28,20	
		1, 8,50, 5,21,20, 3,56		5, 2
10″	50,11,52,24,57,47,37,20,49,45		3,40,11,33,22	
		1, 8,50, 1,41, 8,30,34		5, 2
12″	50,11,53,33,47,49,18,29,20,19		3,40,11,38,24	
		1, 8,49,58, 0,56,52,10		5, 2
14″	50,11,54,42,37,47,19,26,12,29		3,40,11,43,26	
		1, 8,49,54,20,45, 8,44		5, 2
16″	50,11,55,51,27,41,40,11,21,13		3,40,11,48,28	
		1, 8,49,50,40,33,20,16		5, 2
18″	50,11,57, 0,17,32,20,44,41,29		3,40,11,53,30	
		1, 8,49,47, 0,21,26,46		5, 2
20″	50,11,58, 9, 7,19,21, 6, 8,15		3,40,11,58,32	
		1, 8,49,43,20, 9,28,14		5, 2
22″	50,11,59,17,57, 2,41,15,36,29		3,40,12, 3,34	
		1, 8,49,39,39,57,24,40		5, 2
24″	50,12, 0,26,46,42,21,13, 1, 9		3,40,12, 8,36	
		1, 8,49,35,59,45,16, 4		5, 2
26″	50,12, 1,35,36,18,20,58,17,13		3,40,12,13,38	
		1, 8,49,32,19,33, 2,26		5, 2
28″	50,12, 2,44,25,50,40,31,19,39		3,40,12,18,40	
		1, 8,49,28,39,20,43,46		5, 2
30″	50,12, 3,53,15,19,19,52, 3,25		3,40,12,23,42	
		1, 8,49,24,59, 8,20, 4		5, 2
32″	50,12, 5, 2, 4,44,19, 0,23,29		3,40,12,28,44	
		1, 8,49,21,18,55,51,20		5, 2
34″	50,12, 6,10,54, 5,37,56,14,49		3,40,12,33,46	
		1, 8,49,17,38,43,17,34		5, 2
36″	50,12, 7,19,43,23,16,39,32,23		3,40,12,38,48	
		1, 8,49,13,58,30,38,46		5, 2
38″	50,12, 8,28,32,37,15,10,11, 9		3,40,12,43,50	
		1, 8,49,10,18,17,54,56		5, 2
40″	50,12, 9,37,21,47,33,28, 6, 5		3,40,12,48,52	
		1, 8,49, 6,38, 5, 6, 4		5, 2
42″	50,12,10,46,10,54,11,33,12, 9		3,40,12,53,54	
		1, 8,49, 2,57,52,12,10		5, 2
44″	50,12,11,54,59,57, 9,25,24,19		3,40,12,58,56	
		1, 8,48,59,17,39,13,14		5, 2
46″	50,12,13, 3,48,56,27, 4,37,33		3,40,13, 3,58	
		1, 8,48,55,37,26, 9,16		5, 2
48″	50,12,14,12,37,52, 4,30,46,49		3,40,13, 9, 0	
		1, 8,48,51,57,13, 0,16		5, 2
50″	50,12,15,21,26,44, 1,43,47, 5		3,40,13,14, 2	
		1, 8,48,48,16,59,46,14		5, 2
52″	50,12,16,30,15,32,18,43,33,19		3,40,13,19, 4	
		1, 8,48,44,36,46,27,10		5, 2
54″	50,12,17,39, 4,16,55,30, 0,29		3,40,13,24, 6	
		1, 8,48,40,56,33, 3, 4		5, 2
56″	50,12,18,47,52,57,52, 3, 3,33		3,40,13,29, 8	
		1, 8,48,37,16,19,33,56		5, 2
58″	50,12,19,56,41,35, 8,22,37,29		3,40,13,34,10	
		1, 8,48,33,36, 5,59,46		
60″	50,12,21, 5,30, 8,44,28,37,15			
exact	50,12,21, 5,30, 8,44,28,44,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°48′ 0″	50,12,21, 5,30, 8,44,28,44,16			
		1, 8,48,29,55,52,21,20		
2″	50,12,22,14,18,38,40,21, 5,36		3,40,13,44,10	
		1, 8,48,26,15,38,37,10		5, 2
4″	50,12,23,23, 7, 4,55,59,42,46		3,40,13,49,12	
		1, 8,48,22,35,24,47,58		5, 2
6″	50,12,24,31,55,27,31,24,30,44		3,40,13,54,14	
		1, 8,48,18,55,10,53,44		5, 2
8″	50,12,25,40,43,46,26,35,24,28		3,40,13,59,16	
		1, 8,48,15,14,56,54,28		5, 2
10″	50,12,26,49,32, 1,41,32,18,56		3,40,14, 4,18	
		1, 8,48,11,34,42,50,10		5, 2
12″	50,12,27,58,20,13,16,15, 9, 6		3,40,14, 9,20	
		1, 8,48, 7,54,28,40,50		5, 2
14″	50,12,29, 7, 8,21,10,43,49,56		3,40,14,14,22	
		1, 8,48, 4,14,14,26,28		5, 2
16″	50,12,30,15,56,25,24,58,16,24		3,40,14,19,24	
		1, 8,48, 0,34, 0, 7, 4		5, 2
18″	50,12,31,24,44,25,58,58,23,28		3,40,14,24,26	
		1, 8,47,56,53,45,42,38		5, 2
20″	50,12,32,33,32,22,52,44, 6, 6		3,40,14,29,28	
		1, 8,47,53,13,31,13,10		5, 2
22″	50,12,33,42,20,16, 6,15,19,16		3,40,14,34,30	
		1, 8,47,49,33,16,38,40		5, 2
24″	50,12,34,51, 8, 5,39,31,57,56		3,40,14,39,32	
		1, 8,47,45,53, 1,59, 8		5, 2
26″	50,12,35,59,55,51,32,33,57, 4		3,40,14,44,34	
		1, 8,47,42,12,47,14,34		5, 2
28″	50,12,37, 8,43,33,45,21,11,38		3,40,14,49,36	
		1, 8,47,38,32,32,24,58		5, 2
30″	50,12,38,17,31,12,17,53,36,36		3,40,14,54,38	
		1, 8,47,34,52,17,30,20		5, 2
32″	50,12,39,26,18,47,10,11, 6,56		3,40,14,59,40	
		1, 8,47,31,12, 2,30,40		5, 2
34″	50,12,40,35, 6,18,22,13,37,36		3,40,15, 4,42	
		1, 8,47,27,31,47,25,58		5, 2
36″	50,12,41,43,53,45,54, 1, 3,34		3,40,15, 9,44	
		1, 8,47,23,51,32,16,14		5, 2
38″	50,12,42,52,41, 9,45,33,19,48		3,40,15,14,46	
		1, 8,47,20,11,17, 1,28		5, 2
40″	50,12,44, 1,28,29,56,50,21,16		3,40,15,19,48	
		1, 8,47,16,31, 1,41,40		5, 2
42″	50,12,45,10,15,46,27,52, 2,56		3,40,15,24,50	
		1, 8,47,12,50,46,16,50		5, 2
44″	50,12,46,19, 2,59,18,38,19,46		3,40,15,29,52	
		1, 8,47, 9,10,30,46,58		5, 2
46″	50,12,47,27,50, 8,29, 9, 6,44		3,40,15,34,54	
		1, 8,47, 5,30,15,12, 4		5, 2
48″	50,12,48,36,37,13,59,24,18,48		3,40,15,39,56	
		1, 8,47, 1,49,59,32, 8		5, 2
50″	50,12,49,45,24,15,49,23,50,56		3,40,15,44,58	
		1, 8,46,58, 9,43,47,10		5, 2
52″	50,12,50,54,11,13,59, 7,38, 6		3,40,15,50, 0	
		1, 8,46,54,29,27,57,10		5, 2
54″	50,12,52, 2,58, 8,28,35,35,16		3,40,15,55, 2	
		1, 8,46,50,49,12, 2, 8		5, 2
56″	50,12,53,11,44,59,17,47,37,24		3,40,16, 0, 4	
		1, 8,46,47, 8,56, 2, 4		5, 2
58″	50,12,54,20,31,46,26,43,39,28		3,40,16, 5, 6	
		1, 8,46,43,28,39,56,58		
60″	50,12,55,29,18,29,55,23,36,26			
exact	50,12,55,29,18,29,55,23,46,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°49′ 0″	50,12,55,29,18,29,55,23,46,50			
		1, 8,46,39,48,23,48,11		
2″	50,12,56,38, 5, 9,43,47,35, 1		3,40,16,15, 3	
		1, 8,46,36, 8, 7,33, 8		5, 2
4″	50,12,57,46,51,45,51,55, 8, 9		3,40,16,20, 5	
		1, 8,46,32,27,51,13, 3		5, 2
6″	50,12,58,55,38,18,19,46,21,12		3,40,16,25, 7	
		1, 8,46,28,47,34,47,56		5, 2
8″	50,13, 0, 4,24,47, 7,21, 9, 8		3,40,16,30, 9	
		1, 8,46,25, 7,18,17,47		5, 2
10″	50,13, 1,13,11,12,14,39,26,55		3,40,16,35,11	
		1, 8,46,21,27, 1,42,36		5, 2
12″	50,13, 2,21,57,33,41,41, 9,31		3,40,16,40,13	
		1, 8,46,17,46,45, 2,23		5, 2
14″	50,13, 3,30,43,51,28,26,11,54		3,40,16,45,15	
		1, 8,46,14, 6,28,17, 8		5, 2
16″	50,13, 4,39,30, 5,34,54,29, 2		3,40,16,50,17	
		1, 8,46,10,26,11,26,51		5, 2
18″	50,13, 5,48,16,16, 1, 5,55,53		3,40,16,55,19	
		1, 8,46, 6,45,54,31,32		5, 2
20″	50,13, 6,57, 2,22,47, 0,27,25		3,40,17, 0,21	
		1, 8,46, 3, 5,37,31,11		5, 2
22″	50,13, 8, 5,48,25,52,37,58,36		3,40,17, 5,23	
		1, 8,45,59,25,20,25,48		5, 2
24″	50,13, 9,14,34,25,17,58,24,24		3,40,17,10,25	
		1, 8,45,55,45, 3,15,23		5, 2
26″	50,13,10,23,20,21, 3, 1,39,47		3,40,17,15,27	
		1, 8,45,52, 4,45,59,56		5, 2
28″	50,13,11,32, 6,13, 7,47,39,43		3,40,17,20,29	
		1, 8,45,48,24,28,39,27		5, 2
30″	50,13,12,40,52, 1,32,16,19,10		3,40,17,25,31	
		1, 8,45,44,44,11,13,56		5, 2
32″	50,13,13,49,37,46,16,27,33, 6		3,40,17,30,33	
		1, 8,45,41, 3,53,43,23		5, 2
34″	50,13,14,58,23,27,20,21,16,29		3,40,17,35,35	
		1, 8,45,37,23,36, 7,48		5, 2
36″	50,13,16, 7, 9, 4,43,57,24,17		3,40,17,40,37	
		1, 8,45,33,43,18,27,11		5, 2
38″	50,13,17,15,54,38,27,15,51,28		3,40,17,45,39	
		1, 8,45,30, 3, 0,41,32		5, 2
40″	50,13,18,24,40, 8,30,16,33, 0		3,40,17,50,41	
		1, 8,45,26,22,42,50,51		5, 2
42″	50,13,19,33,25,34,52,59,23,51		3,40,17,55,43	
		1, 8,45,22,42,24,55, 8		5, 2
44″	50,13,20,42,10,57,35,24,18,59		3,40,18, 0,45	
		1, 8,45,19, 2, 6,54,23		5, 2
46″	50,13,21,50,56,16,37,31,13,22		3,40,18, 5,47	
		1, 8,45,15,21,48,48,36		5, 2
48″	50,13,22,59,41,31,59,20, 1,58		3,40,18,10,49	
		1, 8,45,11,41,30,37,47		5, 2
50″	50,13,24, 8,26,43,40,50,39,45		3,40,18,15,51	
		1, 8,45, 8, 1,12,21,56		5, 2
52″	50,13,25,17,11,51,42, 3, 1,41		3,40,18,20,53	
		1, 8,45, 4,20,54, 1, 3		5, 2
54″	50,13,26,25,56,56, 2,57, 2,44		3,40,18,25,55	
		1, 8,45, 0,40,35,35, 8		5, 2
56″	50,13,27,34,41,56,43,32,37,52		3,40,18,30,57	
		1, 8,44,57, 0,17, 4,11		5, 2
58″	50,13,28,43,26,53,43,49,42, 3		3,40,18,35,59	
		1, 8,44,53,19,58,28,12		
60″	50,13,29,52,11,47, 3,48,10,15			
exact	50,13,29,52,11,47, 3,48,31,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°50′ 0″	50,13,29,52,11,47, 3,48,31,46			
		1, 8,44,49,39,39,49,38		
2″	50,13,31, 0,56,36,43,28,21,24		3,40,18,45,52	
		1, 8,44,45,59,21, 3,46		5, 2
4″	50,13,32, 9,41,22,42,49,25,10		3,40,18,50,54	
		1, 8,44,42,19, 2,12,52		5, 2
6″	50,13,33,18,26, 5, 1,51,38, 2		3,40,18,55,56	
		1, 8,44,38,38,43,16,56		5, 2
8″	50,13,34,27,10,43,40,34,54,58		3,40,19, 0,58	
		1, 8,44,34,58,24,15,58		5, 2
10″	50,13,35,35,55,18,38,59,10,56		3,40,19, 6, 0	
		1, 8,44,31,18, 5, 9,58		5, 2
12″	50,13,36,44,39,49,57, 4,20,54		3,40,19,11, 2	
		1, 8,44,27,37,45,58,56		5, 2
14″	50,13,37,53,24,17,34,50,19,50		3,40,19,16, 4	
		1, 8,44,23,57,26,42,52		5, 2
16″	50,13,39, 2, 8,41,32,17, 2,42		3,40,19,21, 6	
		1, 8,44,20,17, 7,21,46		5, 2
18″	50,13,40,10,53, 1,49,24,24,28		3,40,19,26, 8	
		1, 8,44,16,36,47,55,38		5, 2
20″	50,13,41,19,37,18,26,12,20, 6		3,40,19,31,10	
		1, 8,44,12,56,28,24,28		5, 2
22″	50,13,42,28,21,31,22,40,44,34		3,40,19,36,12	
		1, 8,44, 9,16, 8,48,16		5, 2
24″	50,13,43,37, 5,40,38,49,32,50		3,40,19,41,14	
		1, 8,44, 5,35,49, 7, 2		5, 2
26″	50,13,44,45,49,46,14,38,39,52		3,40,19,46,16	
		1, 8,44, 1,55,29,20,46		5, 2
28″	50,13,45,54,33,48,10, 8, 0,38		3,40,19,51,18	
		1, 8,43,58,15, 9,29,28		5, 2
30″	50,13,47, 3,17,46,25,17,30, 6		3,40,19,56,20	
		1, 8,43,54,34,49,33, 8		5, 2
32″	50,13,48,12, 1,41, 0, 7, 3,14		3,40,20, 1,22	
		1, 8,43,50,54,29,31,46		5, 2
34″	50,13,49,20,45,31,54,36,35, 0		3,40,20, 6,24	
		1, 8,43,47,14, 9,25,22		5, 2
36″	50,13,50,29,29,19, 8,46, 0,22		3,40,20,11,26	
		1, 8,43,43,33,49,13,56		5, 2
38″	50,13,51,38,13, 2,42,35,14,18		3,40,20,16,28	
		1, 8,43,39,53,28,57,28		5, 2
40″	50,13,52,46,56,42,36, 4,11,46		3,40,20,21,30	
		1, 8,43,36,13, 8,35,58		5, 2
42″	50,13,53,55,40,18,49,12,47,44		3,40,20,26,32	
		1, 8,43,32,32,48, 9,26		5, 2
44″	50,13,55, 4,23,51,22, 0,57,10		3,40,20,31,34	
		1, 8,43,28,52,27,37,52		5, 2
46″	50,13,56,13, 7,20,14,28,35, 2		3,40,20,36,36	
		1, 8,43,25,12, 7, 1,16		5, 2
48″	50,13,57,21,50,45,26,35,36,18		3,40,20,41,38	
		1, 8,43,21,31,46,19,38		5, 2
50″	50,13,58,30,34, 6,58,21,55,56		3,40,20,46,40	
		1, 8,43,17,51,25,32,58		5, 2
52″	50,13,59,39,17,24,49,47,28,54		3,40,20,51,42	
		1, 8,43,14,11, 4,41,16		5, 2
54″	50,14, 0,48, 0,39, 0,52,10,10		3,40,20,56,44	
		1, 8,43,10,30,43,44,32		5, 2
56″	50,14, 1,56,43,49,31,35,54,42		3,40,21, 1,46	
		1, 8,43, 6,50,22,42,46		5, 2
58″	50,14, 3, 5,26,56,21,58,37,28		3,40,21, 6,48	
		1, 8,43, 3,10, 1,35,58		
60″	50,14, 4,14, 9,59,32, 0,13,26			
exact	50,14, 4,14, 9,59,32, 0,46,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°51′ 0″	50,14, 4,14, 9,59,32, 0,46,29			
		1, 8,42,59,29,40,27,43		
2″	50,14, 5,22,52,59, 1,41,14,12		3,40,21,16,37	
		1, 8,42,55,49,19,11, 6		5, 1
4″	50,14, 6,31,35,54,51, 0,25,18		3,40,21,21,38	
		1, 8,42,52, 8,57,49,28		5, 1
6″	50,14, 7,40,18,46,59,58,14,46		3,40,21,26,39	
		1, 8,42,48,28,36,22,49		5, 1
8″	50,14, 8,49, 1,35,28,34,37,35		3,40,21,31,40	
		1, 8,42,44,48,14,51, 9		5, 1
10″	50,14, 9,57,44,20,16,49,28,44		3,40,21,36,41	
		1, 8,42,41, 7,53,14,28		5, 1
12″	50,14,11, 6,27, 1,24,42,43,12		3,40,21,41,42	
		1, 8,42,37,27,31,32,46		5, 1
14″	50,14,12,15, 9,38,52,14,15,58		3,40,21,46,43	
		1, 8,42,33,47, 9,46, 3		5, 1
16″	50,14,13,23,52,12,39,24, 2, 1		3,40,21,51,44	
		1, 8,42,30, 6,47,54,19		5, 1
18″	50,14,14,32,34,42,46,11,56,20		3,40,21,56,45	
		1, 8,42,26,26,25,57,34		5, 1
20″	50,14,15,41,17, 9,12,37,53,54		3,40,22, 1,46	
		1, 8,42,22,46, 3,55,48		5, 1
22″	50,14,16,49,59,31,58,41,49,42		3,40,22, 6,47	
		1, 8,42,19, 5,41,49, 1		5, 1
24″	50,14,17,58,41,51, 4,23,38,43		3,40,22,11,48	
		1, 8,42,15,25,19,37,13		5, 1
26″	50,14,19, 7,24, 6,29,43,15,56		3,40,22,16,49	
		1, 8,42,11,44,57,20,24		5, 1
28″	50,14,20,16, 6,18,14,40,36,20		3,40,22,21,50	
		1, 8,42, 8, 4,34,58,34		5, 1
30″	50,14,21,24,48,26,19,15,34,54		3,40,22,26,51	
		1, 8,42, 4,24,12,31,43		5, 1
32″	50,14,22,33,30,30,43,28, 6,37		3,40,22,31,52	
		1, 8,42, 0,43,49,59,51		5, 1
34″	50,14,23,42,12,31,27,18, 6,28		3,40,22,36,53	
		1, 8,41,57, 3,27,22,58		5, 1
36″	50,14,24,50,54,28,30,45,29,26		3,40,22,41,54	
		1, 8,41,53,23, 4,41, 4		5, 1
38″	50,14,25,59,36,21,53,50,10,30		3,40,22,46,55	
		1, 8,41,49,42,41,54, 9		5, 1
40″	50,14,27, 8,18,11,36,32, 4,39		3,40,22,51,56	
		1, 8,41,46, 2,19, 2,13		5, 1
42″	50,14,28,16,59,57,38,51, 6,52		3,40,22,56,57	
		1, 8,41,42,21,56, 5,16		5, 1
44″	50,14,29,25,41,40, 0,47,12, 8		3,40,23, 1,58	
		1, 8,41,38,41,33, 3,18		5, 1
46″	50,14,30,34,23,18,42,20,15,26		3,40,23, 6,59	
		1, 8,41,35, 1, 9,56,19		5, 1
48″	50,14,31,43, 4,53,43,30,11,45		3,40,23,12, 0	
		1, 8,41,31,20,46,44,19		5, 1
50″	50,14,32,51,46,25, 4,16,56, 4		3,40,23,17, 1	
		1, 8,41,27,40,23,27,18		5, 1
52″	50,14,34, 0,27,52,44,40,23,22		3,40,23,22, 2	
		1, 8,41,24, 0, 0, 5,16		5, 1
54″	50,14,35, 9, 9,16,44,40,28,38		3,40,23,27, 3	
		1, 8,41,20,19,36,38,13		5, 1
56″	50,14,36,17,50,37, 4,17, 6,51		3,40,23,32, 4	
		1, 8,41,16,39,13, 6, 9		5, 1
58″	50,14,37,26,31,53,43,30,13, 0		3,40,23,37, 5	
		1, 8,41,12,58,49,29, 4		
60″	50,14,38,35,13, 6,42,19,42, 4			
exact	50,14,38,35,13, 6,42,19,18,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°52′ 0″	50,14,38,35,13, 6,42,19,18,47			
		1, 8,41, 9,18,25,44,26		
2″	50,14,39,43,54,16, 0,45, 3,13		3,40,23,47,17	
		1, 8,41, 5,38, 1,57, 9		5, 1
4″	50,14,40,52,35,21,38,47, 0,22		3,40,23,52,18	
		1, 8,41, 1,57,38, 4,51		5, 1
6″	50,14,42, 1,16,23,36,25, 5,13		3,40,23,57,19	
		1, 8,40,58,17,14, 7,32		5, 1
8″	50,14,43, 9,57,21,53,39,12,45		3,40,24, 2,20	
		1, 8,40,54,36,50, 5,12		5, 1
10″	50,14,44,18,38,16,30,29,17,57		3,40,24, 7,21	
		1, 8,40,50,56,25,57,51		5, 1
12″	50,14,45,27,19, 7,26,55,15,48		3,40,24,12,22	
		1, 8,40,47,16, 1,45,29		5, 1
14″	50,14,46,35,59,54,42,57, 1,17		3,40,24,17,23	
		1, 8,40,43,35,37,28, 6		5, 1
16″	50,14,47,44,40,38,18,34,29,23		3,40,24,22,24	
		1, 8,40,39,55,13, 5,42		5, 1
18″	50,14,48,53,21,18,13,47,35, 5		3,40,24,27,25	
		1, 8,40,36,14,48,38,17		5, 1
20″	50,14,50, 2, 1,54,28,36,13,22		3,40,24,32,26	
		1, 8,40,32,34,24, 5,51		5, 1
22″	50,14,51,10,42,27, 3, 0,19,13		3,40,24,37,27	
		1, 8,40,28,53,59,28,24		5, 1
24″	50,14,52,19,22,55,56,59,47,37		3,40,24,42,28	
		1, 8,40,25,13,34,45,56		5, 1
26″	50,14,53,28, 3,21,10,34,33,33		3,40,24,47,29	
		1, 8,40,21,33, 9,58,27		5, 1
28″	50,14,54,36,43,42,43,44,32, 0		3,40,24,52,30	
		1, 8,40,17,52,45, 5,57		5, 1
30″	50,14,55,45,24, 0,36,29,37,57		3,40,24,57,31	
		1, 8,40,14,12,20, 8,26		5, 1
32″	50,14,56,54, 4,14,48,49,46,23		3,40,25, 2,32	
		1, 8,40,10,31,55, 5,54		5, 1
34″	50,14,58, 2,44,25,20,44,52,17		3,40,25, 7,33	
		1, 8,40, 6,51,29,58,21		5, 1
36″	50,14,59,11,24,32,12,14,50,38		3,40,25,12,34	
		1, 8,40, 3,11, 4,45,47		5, 1
38″	50,15, 0,20, 4,35,23,19,36,25		3,40,25,17,35	
		1, 8,39,59,30,39,28,12		5, 1
40″	50,15, 1,28,44,34,53,59, 4,37		3,40,25,22,36	
		1, 8,39,55,50,14, 5,36		5, 1
42″	50,15, 2,37,24,30,44,13,10,13		3,40,25,27,37	
		1, 8,39,52, 9,48,37,59		5, 1
44″	50,15, 3,46, 4,22,54, 1,48,12		3,40,25,32,38	
		1, 8,39,48,29,23, 5,21		5, 1
46″	50,15, 4,54,44,11,23,24,53,33		3,40,25,37,39	
		1, 8,39,44,48,57,27,42		5, 1
48″	50,15, 6, 3,23,56,12,22,21,15		3,40,25,42,40	
		1, 8,39,41, 8,31,45, 2		5, 1
50″	50,15, 7,12, 3,37,20,54, 6,17		3,40,25,47,41	
		1, 8,39,37,28, 5,57,21		5, 1
52″	50,15, 8,20,43,14,49, 0, 3,38		3,40,25,52,42	
		1, 8,39,33,47,40, 4,39		5, 1
54″	50,15, 9,29,22,48,36,40, 8,17		3,40,25,57,43	
		1, 8,39,30, 7,14, 6,56		5, 1
56″	50,15,10,38, 2,18,43,54,15,13		3,40,26, 2,44	
		1, 8,39,26,26,48, 4,12		5, 1
58″	50,15,11,46,41,45,10,42,19,25		3,40,26, 7,45	
		1, 8,39,22,46,21,56,27		
60″	50,15,12,55,21, 7,57, 4,15,52			
exact	50,15,12,55,21, 7,57, 3,56,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°53′ 0″	50,15,12,55,21, 7,57, 3,56,54			
		1, 8,39,19, 5,55,41,48		
2″	50,15,14, 4, 0,27, 2,59,38,42		3,40,26,17,54	
		1, 8,39,15,25,29,23,54		5, 1
4″	50,15,15,12,39,42,28,29, 2,36		3,40,26,22,55	
		1, 8,39,11,45, 3, 0,59		5, 1
6″	50,15,16,21,18,54,13,32, 3,35		3,40,26,27,56	
		1, 8,39, 8, 4,36,33, 3		5, 1
8″	50,15,17,29,58, 2,18, 8,36,38		3,40,26,32,57	
		1, 8,39, 4,24,10, 0, 6		5, 1
10″	50,15,18,38,37, 6,42,18,36,44		3,40,26,37,58	
		1, 8,39, 0,43,43,22, 8		5, 1
12″	50,15,19,47,16, 7,26, 1,58,52		3,40,26,42,59	
		1, 8,38,57, 3,16,39, 9		5, 1
14″	50,15,20,55,55, 4,29,18,38, 1		3,40,26,48, 0	
		1, 8,38,53,22,49,51, 9		5, 1
16″	50,15,22, 4,33,57,52, 8,29,10		3,40,26,53, 1	
		1, 8,38,49,42,22,58, 8		5, 1
18″	50,15,23,13,12,47,34,31,27,18		3,40,26,58, 2	
		1, 8,38,46, 1,56, 0, 6		5, 1
20″	50,15,24,21,51,33,36,27,27,24		3,40,27, 3, 3	
		1, 8,38,42,21,28,57, 3		5, 1
22″	50,15,25,30,30,15,57,56,24,27		3,40,27, 8, 4	
		1, 8,38,38,41, 1,48,59		5, 1
24″	50,15,26,39, 8,54,38,58,13,26		3,40,27,13, 5	
		1, 8,38,35, 0,34,35,54		5, 1
26″	50,15,27,47,47,29,39,32,49,20		3,40,27,18, 6	
		1, 8,38,31,20, 7,17,48		5, 1
28″	50,15,28,56,26, 0,59,40, 7, 8		3,40,27,23, 7	
		1, 8,38,27,39,39,54,41		5, 1
30″	50,15,30, 5, 4,28,39,20, 1,49		3,40,27,28, 8	
		1, 8,38,23,59,12,26,33		5, 1
32″	50,15,31,13,42,52,38,32,28,22		3,40,27,33, 9	
		1, 8,38,20,18,44,53,24		5, 1
34″	50,15,32,22,21,12,57,17,21,46		3,40,27,38,10	
		1, 8,38,16,38,17,15,14		5, 1
36″	50,15,33,30,59,29,35,34,37, 0		3,40,27,43,11	
		1, 8,38,12,57,49,32, 3		5, 1
38″	50,15,34,39,37,42,33,24, 9, 3		3,40,27,48,12	
		1, 8,38, 9,17,21,43,51		5, 1
40″	50,15,35,48,15,51,50,45,52,54		3,40,27,53,13	
		1, 8,38, 5,36,53,50,38		5, 1
42″	50,15,36,56,53,57,27,39,43,32		3,40,27,58,14	
		1, 8,38, 1,56,25,52,24		5, 1
44″	50,15,38, 5,31,59,24, 5,35,56		3,40,28, 3,15	
		1, 8,37,58,15,57,49, 9		5, 1
46″	50,15,39,14, 9,57,40, 3,25, 5		3,40,28, 8,16	
		1, 8,37,54,35,29,40,53		5, 1
48″	50,15,40,22,47,52,15,33, 5,58		3,40,28,13,17	
		1, 8,37,50,55, 1,27,36		5, 1
50″	50,15,41,31,25,43,10,34,33,34		3,40,28,18,18	
		1, 8,37,47,14,33, 9,18		5, 1
52″	50,15,42,40, 3,30,25, 7,42,52		3,40,28,23,19	
		1, 8,37,43,34, 4,45,59		5, 1
54″	50,15,43,48,41,13,59,12,28,51		3,40,28,28,20	
		1, 8,37,39,53,36,17,39		5, 1
56″	50,15,44,57,18,53,52,48,46,30		3,40,28,33,21	
		1, 8,37,36,13, 7,44,18		5, 1
58″	50,15,46, 5,56,30, 5,56,30,48		3,40,28,38,22	
		1, 8,37,32,32,39, 5,56		
60″	50,15,47,14,34, 2,38,35,36,44			
exact	50,15,47,14,34, 2,38,35,29,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°54′ 0″	50,15,47,14,34, 2,38,35,29,28			
		1, 8,37,28,52,10,21,49		
2″	50,15,48,23,11,31,30,45,51,17		3,40,28,48,26	
		1, 8,37,25,11,41,33,23		5, 1
4″	50,15,49,31,48,56,42,27,24,40		3,40,28,53,27	
		1, 8,37,21,31,12,39,56		5, 1
6″	50,15,50,40,26,18,13,40, 4,36		3,40,28,58,28	
		1, 8,37,17,50,43,41,28		5, 1
8″	50,15,51,49, 3,36, 4,23,46, 4		3,40,29, 3,29	
		1, 8,37,14,10,14,37,59		5, 1
10″	50,15,52,57,40,50,14,38,24, 3		3,40,29, 8,30	
		1, 8,37,10,29,45,29,29		5, 1
12″	50,15,54, 6,18, 0,44,23,53,32		3,40,29,13,31	
		1, 8,37, 6,49,16,15,58		5, 1
14″	50,15,55,14,55, 7,33,40, 9,30		3,40,29,18,32	
		1, 8,37, 3, 8,46,57,26		5, 1
16″	50,15,56,23,32,10,42,27, 6,56		3,40,29,23,33	
		1, 8,36,59,28,17,33,53		5, 1
18″	50,15,57,32, 9,10,10,44,40,49		3,40,29,28,34	
		1, 8,36,55,47,48, 5,19		5, 1
20″	50,15,58,40,46, 5,58,32,46, 8		3,40,29,33,35	
		1, 8,36,52, 7,18,31,44		5, 1
22″	50,15,59,49,22,58, 5,51,17,52		3,40,29,38,36	
		1, 8,36,48,26,48,53, 8		5, 1
24″	50,16, 0,57,59,46,32,40,11, 0		3,40,29,43,37	
		1, 8,36,44,46,19, 9,31		5, 1
26″	50,16, 2, 6,36,31,18,59,20,31		3,40,29,48,38	
		1, 8,36,41, 5,49,20,53		5, 1
28″	50,16, 3,15,13,12,24,48,41,24		3,40,29,53,39	
		1, 8,36,37,25,19,27,14		5, 1
30″	50,16, 4,23,49,49,50, 8, 8,38		3,40,29,58,40	
		1, 8,36,33,44,49,28,34		5, 1
32″	50,16, 5,32,26,23,34,57,37,12		3,40,30, 3,41	
		1, 8,36,30, 4,19,24,53		5, 1
34″	50,16, 6,41, 2,53,39,17, 2, 5		3,40,30, 8,42	
		1, 8,36,26,23,49,16,11		5, 1
36″	50,16, 7,49,39,20, 3, 6,18,16		3,40,30,13,43	
		1, 8,36,22,43,19, 2,28		5, 1
38″	50,16, 8,58,15,42,46,25,20,44		3,40,30,18,44	
		1, 8,36,19, 2,48,43,44		5, 1
40″	50,16,10, 6,52, 1,49,14, 4,28		3,40,30,23,45	
		1, 8,36,15,22,18,19,59		5, 1
42″	50,16,11,15,28,17,11,32,24,27		3,40,30,28,46	
		1, 8,36,11,41,47,51,13		5, 1
44″	50,16,12,24, 4,28,53,20,15,40		3,40,30,33,47	
		1, 8,36, 8, 1,17,17,26		5, 1
46″	50,16,13,32,40,36,54,37,33, 6		3,40,30,38,48	
		1, 8,36, 4,20,46,38,38		5, 1
48″	50,16,14,41,16,41,15,24,11,44		3,40,30,43,49	
		1, 8,36, 0,40,15,54,49		5, 1
50″	50,16,15,49,52,41,55,40, 6,33		3,40,30,48,50	
		1, 8,35,56,59,45, 5,59		5, 1
52″	50,16,16,58,28,38,55,25,12,32		3,40,30,53,51	
		1, 8,35,53,19,14,12, 8		5, 1
54″	50,16,18, 7, 4,32,14,39,24,40		3,40,30,58,52	
		1, 8,35,49,38,43,13,16		5, 1
56″	50,16,19,15,40,21,53,22,37,56		3,40,31, 3,53	
		1, 8,35,45,58,12, 9,23		5, 1
58″	50,16,20,24,16, 7,51,34,47,19		3,40,31, 8,54	
		1, 8,35,42,17,41, 0,29		
60″	50,16,21,32,51,50, 9,15,47,48			
exact	50,16,21,32,51,50, 9,15,45,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°55′ 0″	50,16,21,32,51,50, 9,15,45,32			
		1, 8,35,38,37, 9,46,31		
2″	50,16,22,41,27,28,46,25,32, 3		3,40,31,18,55	
		1, 8,35,34,56,38,27,36		5, 1
4″	50,16,23,50, 3, 3,43, 3,59,39		3,40,31,23,56	
		1, 8,35,31,16, 7, 3,40		5, 1
6″	50,16,24,58,38,34,59,11, 3,19		3,40,31,28,57	
		1, 8,35,27,35,35,34,43		5, 1
8″	50,16,26, 7,14, 2,34,46,38, 2		3,40,31,33,58	
		1, 8,35,23,55, 4, 0,45		5, 1
10″	50,16,27,15,49,26,29,50,38,47		3,40,31,38,59	
		1, 8,35,20,14,32,21,46		5, 1
12″	50,16,28,24,24,46,44,23, 0,33		3,40,31,44, 0	
		1, 8,35,16,34, 0,37,46		5, 1
14″	50,16,29,33, 0, 3,18,23,38,19		3,40,31,49, 1	
		1, 8,35,12,53,28,48,45		5, 1
16″	50,16,30,41,35,16,11,52,27, 4		3,40,31,54, 2	
		1, 8,35, 9,12,56,54,43		5, 1
18″	50,16,31,50,10,25,24,49,21,47		3,40,31,59, 3	
		1, 8,35, 5,32,24,55,40		5, 1
20″	50,16,32,58,45,30,57,14,17,27		3,40,32, 4, 4	
		1, 8,35, 1,51,52,51,36		5, 1
22″	50,16,34, 7,20,32,49, 7, 9, 3		3,40,32, 9, 5	
		1, 8,34,58,11,20,42,31		5, 1
24″	50,16,35,15,55,31, 0,27,51,34		3,40,32,14, 6	
		1, 8,34,54,30,48,28,25		5, 1
26″	50,16,36,24,30,25,31,16,19,59		3,40,32,19, 7	
		1, 8,34,50,50,16, 9,18		5, 1
28″	50,16,37,33, 5,16,21,32,29,17		3,40,32,24, 8	
		1, 8,34,47, 9,43,45,10		5, 1
30″	50,16,38,41,40, 3,31,16,14,27		3,40,32,29, 9	
		1, 8,34,43,29,11,16, 1		5, 1
32″	50,16,39,50,14,47, 0,27,30,28		3,40,32,34,10	
		1, 8,34,39,48,38,41,51		5, 1
34″	50,16,40,58,49,26,49, 6,12,19		3,40,32,39,11	
		1, 8,34,36, 8, 6, 2,40		5, 1
36″	50,16,42, 7,24, 2,57,12,14,59		3,40,32,44,12	
		1, 8,34,32,27,33,18,28		5, 1
38″	50,16,43,15,58,35,24,45,33,27		3,40,32,49,13	
		1, 8,34,28,47, 0,29,15		5, 1
40″	50,16,44,24,33, 4,11,46, 2,42		3,40,32,54,14	
		1, 8,34,25, 6,27,35, 1		5, 1
42″	50,16,45,33, 7,29,18,13,37,43		3,40,32,59,15	
		1, 8,34,21,25,54,35,46		5, 1
44″	50,16,46,41,41,50,44, 8,13,29		3,40,33, 4,16	
		1, 8,34,17,45,21,31,30		5, 1
46″	50,16,47,50,16, 8,29,29,44,59		3,40,33, 9,17	
		1, 8,34,14, 4,48,22,13		5, 1
48″	50,16,48,58,50,22,34,18, 7,12		3,40,33,14,18	
		1, 8,34,10,24,15, 7,55		5, 1
50″	50,16,50, 7,24,32,58,33,15, 7		3,40,33,19,19	
		1, 8,34, 6,43,41,48,36		5, 1
52″	50,16,51,15,58,39,42,15, 3,43		3,40,33,24,20	
		1, 8,34, 3, 3, 8,24,16		5, 1
54″	50,16,52,24,32,42,45,23,27,59		3,40,33,29,21	
		1, 8,33,59,22,34,54,55		5, 1
56″	50,16,53,33, 6,42, 7,58,22,54		3,40,33,34,22	
		1, 8,33,55,42, 1,20,33		5, 1
58″	50,16,54,41,40,37,49,59,43,27		3,40,33,39,23	
		1, 8,33,52, 1,27,41,10		
60″	50,16,55,50,14,29,51,27,24,37			
exact	50,16,55,50,14,29,51,27,34,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°56′ 0″	50,16,55,50,14,29,51,27,34,38			
		1, 8,33,48,20,53,57,55		
2″	50,16,56,58,48,18,12,21,32,33		3,40,33,49,20	
		1, 8,33,44,40,20, 8,35		5, 1
4″	50,16,58, 7,22, 2,52,41,41, 8		3,40,33,54,21	
		1, 8,33,40,59,46,14,14		5, 1
6″	50,16,59,15,55,43,52,27,55,22		3,40,33,59,22	
		1, 8,33,37,19,12,14,52		5, 1
8″	50,17, 0,24,29,21,11,40,10,14		3,40,34, 4,23	
		1, 8,33,33,38,38,10,29		5, 1
10″	50,17, 1,33, 2,54,50,18,20,43		3,40,34, 9,24	
		1, 8,33,29,58, 4, 1, 5		5, 1
12″	50,17, 2,41,36,24,48,22,21,48		3,40,34,14,25	
		1, 8,33,26,17,29,46,40		5, 1
14″	50,17, 3,50, 9,51, 5,52, 8,28		3,40,34,19,26	
		1, 8,33,22,36,55,27,14		5, 1
16″	50,17, 4,58,43,13,42,47,35,42		3,40,34,24,27	
		1, 8,33,18,56,21, 2,47		5, 1
18″	50,17, 6, 7,16,32,39, 8,38,29		3,40,34,29,28	
		1, 8,33,15,15,46,33,19		5, 1
20″	50,17, 7,15,49,47,54,55,11,48		3,40,34,34,29	
		1, 8,33,11,35,11,58,50		5, 1
22″	50,17, 8,24,22,59,30, 7,10,38		3,40,34,39,30	
		1, 8,33, 7,54,37,19,20		5, 1
24″	50,17, 9,32,56, 7,24,44,29,58		3,40,34,44,31	
		1, 8,33, 4,14, 2,34,49		5, 1
26″	50,17,10,41,29,11,38,47, 4,47		3,40,34,49,32	
		1, 8,33, 0,33,27,45,17		5, 1
28″	50,17,11,50, 2,12,12,14,50, 4		3,40,34,54,33	
		1, 8,32,56,52,52,50,44		5, 1
30″	50,17,12,58,35, 9, 5, 7,40,48		3,40,34,59,34	
		1, 8,32,53,12,17,51,10		5, 1
32″	50,17,14, 7, 8, 2,17,25,31,58		3,40,35, 4,35	
		1, 8,32,49,31,42,46,35		5, 1
34″	50,17,15,15,40,51,49, 8,18,33		3,40,35, 9,36	
		1, 8,32,45,51, 7,36,59		5, 1
36″	50,17,16,24,13,37,40,15,55,32		3,40,35,14,37	
		1, 8,32,42,10,32,22,22		5, 1
38″	50,17,17,32,46,19,50,48,17,54		3,40,35,19,38	
		1, 8,32,38,29,57, 2,44		5, 1
40″	50,17,18,41,18,58,20,45,20,38		3,40,35,24,39	
		1, 8,32,34,49,21,38, 5		5, 1
42″	50,17,19,49,51,33,10, 6,58,43		3,40,35,29,40	
		1, 8,32,31, 8,46, 8,25		5, 1
44″	50,17,20,58,24, 4,18,53, 7, 8		3,40,35,34,41	
		1, 8,32,27,28,10,33,44		5, 1
46″	50,17,22, 6,56,31,47, 3,40,52		3,40,35,39,42	
		1, 8,32,23,47,34,54, 2		5, 1
48″	50,17,23,15,28,55,34,38,34,54		3,40,35,44,43	
		1, 8,32,20, 6,59, 9,19		5, 1
50″	50,17,24,24, 1,15,41,37,44,13		3,40,35,49,44	
		1, 8,32,16,26,23,19,35		5, 1
52″	50,17,25,32,33,32, 8, 1, 3,48		3,40,35,54,45	
		1, 8,32,12,45,47,24,50		5, 1
54″	50,17,26,41, 5,44,53,48,28,38		3,40,35,59,46	
		1, 8,32, 9, 5,11,25, 4		5, 1
56″	50,17,27,49,37,53,58,59,53,42		3,40,36, 4,47	
		1, 8,32, 5,24,35,20,17		5, 1
58″	50,17,28,58, 9,59,23,35,13,59		3,40,36, 9,48	
		1, 8,32, 1,43,59,10,29		
60″	50,17,30, 6,42, 1, 7,34,24,28			
exact	50,17,30, 6,42, 1, 7,34,46,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°57′ 0″	50,17,30, 6,42, 1, 7,34,46,45			
		1, 8,31,58, 3,22,58, 1		
2″	50,17,31,15,13,59,10,57,44,46		3,40,36,19,40	
		1, 8,31,54,22,46,38,21		5, 1
4″	50,17,32,23,45,53,33,44,23, 7		3,40,36,24,41	
		1, 8,31,50,42,10,13,40		5, 1
6″	50,17,33,32,17,44,15,54,36,47		3,40,36,29,42	
		1, 8,31,47, 1,33,43,58		5, 1
8″	50,17,34,40,49,31,17,28,20,45		3,40,36,34,43	
		1, 8,31,43,20,57, 9,15		5, 1
10″	50,17,35,49,21,14,38,25,30, 0		3,40,36,39,44	
		1, 8,31,39,40,20,29,31		5, 1
12″	50,17,36,57,52,54,18,45,59,31		3,40,36,44,45	
		1, 8,31,35,59,43,44,46		5, 1
14″	50,17,38, 6,24,30,18,29,44,17		3,40,36,49,46	
		1, 8,31,32,19, 6,55, 0		5, 1
16″	50,17,39,14,56, 2,37,36,39,17		3,40,36,54,47	
		1, 8,31,28,38,30, 0,13		5, 1
18″	50,17,40,23,27,31,16, 6,39,30		3,40,36,59,48	
		1, 8,31,24,57,53, 0,25		5, 1
20″	50,17,41,31,58,56,13,59,39,55		3,40,37, 4,49	
		1, 8,31,21,17,15,55,36		5, 1
22″	50,17,42,40,30,17,31,15,35,31		3,40,37, 9,50	
		1, 8,31,17,36,38,45,46		5, 1
24″	50,17,43,49, 1,35, 7,54,21,17		3,40,37,14,51	
		1, 8,31,13,56, 1,30,55		5, 1
26″	50,17,44,57,32,49, 3,55,52,12		3,40,37,19,52	
		1, 8,31,10,15,24,11, 3		5, 1
28″	50,17,46, 6, 3,59,19,20, 3,15		3,40,37,24,53	
		1, 8,31, 6,34,46,46,10		5, 1
30″	50,17,47,14,35, 5,54, 6,49,25		3,40,37,29,54	
		1, 8,31, 2,54, 9,16,16		5, 1
32″	50,17,48,23, 6, 8,48,16, 5,41		3,40,37,34,55	
		1, 8,30,59,13,31,41,21		5, 1
34″	50,17,49,31,37, 8, 1,47,47, 2		3,40,37,39,56	
		1, 8,30,55,32,54, 1,25		5, 1
36″	50,17,50,40, 8, 3,34,41,48,27		3,40,37,44,57	
		1, 8,30,51,52,16,16,28		5, 1
38″	50,17,51,48,38,55,26,58, 4,55		3,40,37,49,58	
		1, 8,30,48,11,38,26,30		5, 1
40″	50,17,52,57, 9,43,38,36,31,25		3,40,37,54,59	
		1, 8,30,44,31, 0,31,31		5, 1
42″	50,17,54, 5,40,28, 9,37, 2,56		3,40,38, 0, 0	
		1, 8,30,40,50,22,31,31		5, 1
44″	50,17,55,14,11, 8,59,59,34,27		3,40,38, 5, 1	
		1, 8,30,37, 9,44,26,30		5, 1
46″	50,17,56,22,41,46, 9,44, 0,57		3,40,38,10, 2	
		1, 8,30,33,29, 6,16,28		5, 1
48″	50,17,57,31,12,19,38,50,17,25		3,40,38,15, 3	
		1, 8,30,29,48,28, 1,25		5, 1
50″	50,17,58,39,42,49,27,18,18,50		3,40,38,20, 4	
		1, 8,30,26, 7,49,41,21		5, 1
52″	50,17,59,48,13,15,35, 8, 0,11		3,40,38,25, 5	
		1, 8,30,22,27,11,16,16		5, 1
54″	50,18, 0,56,43,38, 2,19,16,27		3,40,38,30, 6	
		1, 8,30,18,46,32,46,10		5, 1
56″	50,18, 2, 5,13,56,48,52, 2,37		3,40,38,35, 7	
		1, 8,30,15, 5,54,11, 3		5, 1
58″	50,18, 3,13,44,11,54,46,13,40		3,40,38,40, 8	
		1, 8,30,11,25,15,30,55		
60″	50,18, 4,22,14,23,20, 1,44,35			
exact	50,18, 4,22,14,23,20, 2,12,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°58′ 0″	50,18, 4,22,14,23,20, 2,12,18			
		1, 8,30, 7,44,36,48,50		
2″	50,18, 5,30,44,31, 4,39, 1, 8		3,40,38,49,57	
		1, 8,30, 4, 3,57,58,53		5, 0
4″	50,18, 6,39,14,35, 8,37, 0, 1		3,40,38,54,57	
		1, 8,30, 0,23,19, 3,56		5, 0
6″	50,18, 7,47,44,35,31,56, 3,57		3,40,38,59,57	
		1, 8,29,56,42,40, 3,59		5, 0
8″	50,18, 8,56,14,32,14,36, 7,56		3,40,39, 4,57	
		1, 8,29,53, 2, 0,59, 2		5, 0
10″	50,18,10, 4,44,25,16,37, 6,58		3,40,39, 9,57	
		1, 8,29,49,21,21,49, 5		5, 0
12″	50,18,11,13,14,14,37,58,56, 3		3,40,39,14,57	
		1, 8,29,45,40,42,34, 8		5, 0
14″	50,18,12,21,44, 0,18,41,30,11		3,40,39,19,57	
		1, 8,29,42, 0, 3,14,11		5, 0
16″	50,18,13,30,13,42,18,44,44,22		3,40,39,24,57	
		1, 8,29,38,19,23,49,14		5, 0
18″	50,18,14,38,43,20,38, 8,33,36		3,40,39,29,57	
		1, 8,29,34,38,44,19,17		5, 0
20″	50,18,15,47,12,55,16,52,52,53		3,40,39,34,57	
		1, 8,29,30,58, 4,44,20		5, 0
22″	50,18,16,55,42,26,14,57,37,13		3,40,39,39,57	
		1, 8,29,27,17,25, 4,23		5, 0
24″	50,18,18, 4,11,53,32,22,41,36		3,40,39,44,57	
		1, 8,29,23,36,45,19,26		5, 0
26″	50,18,19,12,41,17, 9, 8, 1, 2		3,40,39,49,57	
		1, 8,29,19,56, 5,29,29		5, 0
28″	50,18,20,21,10,37, 5,13,30,31		3,40,39,54,57	
		1, 8,29,16,15,25,34,32		5, 0
30″	50,18,21,29,39,53,20,39, 5, 3		3,40,39,59,57	
		1, 8,29,12,34,45,34,35		5, 0
32″	50,18,22,38, 9, 5,55,24,39,38		3,40,40, 4,57	
		1, 8,29, 8,54, 5,29,38		5, 0
34″	50,18,23,46,38,14,49,30, 9,16		3,40,40, 9,57	
		1, 8,29, 5,13,25,19,41		5, 0
36″	50,18,24,55, 7,20, 2,55,28,57		3,40,40,14,57	
		1, 8,29, 1,32,45, 4,44		5, 0
38″	50,18,26, 3,36,21,35,40,33,41		3,40,40,19,57	
		1, 8,28,57,52, 4,44,47		5, 0
40″	50,18,27,12, 5,19,27,45,18,28		3,40,40,24,57	
		1, 8,28,54,11,24,19,50		5, 0
42″	50,18,28,20,34,13,39, 9,38,18		3,40,40,29,57	
		1, 8,28,50,30,43,49,53		5, 0
44″	50,18,29,29, 3, 4, 9,53,28,11		3,40,40,34,57	
		1, 8,28,46,50, 3,14,56		5, 0
46″	50,18,30,37,31,50,59,56,43, 7		3,40,40,39,57	
		1, 8,28,43, 9,22,34,59		5, 0
48″	50,18,31,46, 0,34, 9,19,18, 6		3,40,40,44,57	
		1, 8,28,39,28,41,50, 2		5, 0
50″	50,18,32,54,29,13,38, 1, 8, 8		3,40,40,49,57	
		1, 8,28,35,48, 1, 0, 5		5, 0
52″	50,18,34, 2,57,49,26, 2, 8,13		3,40,40,54,57	
		1, 8,28,32, 7,20, 5, 8		5, 0
54″	50,18,35,11,26,21,33,22,13,21		3,40,40,59,57	
		1, 8,28,28,26,39, 5,11		5, 0
56″	50,18,36,19,54,50, 0, 1,18,32		3,40,41, 4,57	
		1, 8,28,24,45,58, 0,14		5, 0
58″	50,18,37,28,23,14,45,59,18,46		3,40,41, 9,57	
		1, 8,28,21, 5,16,50,17		
60″	50,18,38,36,51,35,51,16, 9, 3			
exact	50,18,38,36,51,35,51,15,42,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
56°59′ 0″	50,18,38,36,51,35,51,15,42,14			
		1, 8,28,17,24,35,32,24		
2″	50,18,39,45,19,53,15,51,14,38		3,40,41,20, 9	
		1, 8,28,13,43,54,12,15		5, 0
4″	50,18,40,53,48, 6,59,45,26,53		3,40,41,25, 9	
		1, 8,28,10, 3,12,47, 6		5, 0
6″	50,18,42, 2,16,17, 2,58,13,59		3,40,41,30, 9	
		1, 8,28, 6,22,31,16,57		5, 0
8″	50,18,43,10,44,23,25,29,30,56		3,40,41,35, 9	
		1, 8,28, 2,41,49,41,48		5, 0
10″	50,18,44,19,12,26, 7,19,12,44		3,40,41,40, 9	
		1, 8,27,59, 1, 8, 1,39		5, 0
12″	50,18,45,27,40,25, 8,27,14,23		3,40,41,45, 9	
		1, 8,27,55,20,26,16,30		5, 0
14″	50,18,46,36, 8,20,28,53,30,53		3,40,41,50, 9	
		1, 8,27,51,39,44,26,21		5, 0
16″	50,18,47,44,36,12, 8,37,57,14		3,40,41,55, 9	
		1, 8,27,47,59, 2,31,12		5, 0
18″	50,18,48,53, 4, 0, 7,40,28,26		3,40,42, 0, 9	
		1, 8,27,44,18,20,31, 3		5, 0
20″	50,18,50, 1,31,44,26, 0,59,29		3,40,42, 5, 9	
		1, 8,27,40,37,38,25,54		5, 0
22″	50,18,51, 9,59,25, 3,39,25,23		3,40,42,10, 9	
		1, 8,27,36,56,56,15,45		5, 0
24″	50,18,52,18,27, 2, 0,35,41, 8		3,40,42,15, 9	
		1, 8,27,33,16,14, 0,36		5, 0
26″	50,18,53,26,54,35,16,49,41,44		3,40,42,20, 9	
		1, 8,27,29,35,31,40,27		5, 0
28″	50,18,54,35,22, 4,52,21,22,11		3,40,42,25, 9	
		1, 8,27,25,54,49,15,18		5, 0
30″	50,18,55,43,49,30,47,10,37,29		3,40,42,30, 9	
		1, 8,27,22,14, 6,45, 9		5, 0
32″	50,18,56,52,16,53, 1,17,22,38		3,40,42,35, 9	
		1, 8,27,18,33,24,10, 0		5, 0
34″	50,18,58, 0,44,11,34,41,32,38		3,40,42,40, 9	
		1, 8,27,14,52,41,29,51		5, 0
36″	50,18,59, 9,11,26,27,23, 2,29		3,40,42,45, 9	
		1, 8,27,11,11,58,44,42		5, 0
38″	50,19, 0,17,38,37,39,21,47,11		3,40,42,50, 9	
		1, 8,27, 7,31,15,54,33		5, 0
40″	50,19, 1,26, 5,45,10,37,41,44		3,40,42,55, 9	
		1, 8,27, 3,50,32,59,24		5, 0
42″	50,19, 2,34,32,49, 1,10,41, 8		3,40,43, 0, 9	
		1, 8,27, 0, 9,49,59,15		5, 0
44″	50,19, 3,42,59,49,11, 0,40,23		3,40,43, 5, 9	
		1, 8,26,56,29, 6,54, 6		5, 0
46″	50,19, 4,51,26,45,40, 7,34,29		3,40,43,10, 9	
		1, 8,26,52,48,23,43,57		5, 0
48″	50,19, 5,59,53,38,28,31,18,26		3,40,43,15, 9	
		1, 8,26,49, 7,40,28,48		5, 0
50″	50,19, 7, 8,20,27,36,11,47,14		3,40,43,20, 9	
		1, 8,26,45,26,57, 8,39		5, 0
52″	50,19, 8,16,47,13, 3, 8,55,53		3,40,43,25, 9	
		1, 8,26,41,46,13,43,30		5, 0
54″	50,19, 9,25,13,54,49,22,39,23		3,40,43,30, 9	
		1, 8,26,38, 5,30,13,21		5, 0
56″	50,19,10,33,40,32,54,52,52,44		3,40,43,35, 9	
		1, 8,26,34,24,46,38,12		5, 0
58″	50,19,11,42, 7, 7,19,39,30,56		3,40,43,40, 9	
		1, 8,26,30,44, 2,58, 3		
60″	50,19,12,50,33,38, 3,42,28,59			
exact	50,19,12,50,33,38, 3,42, 7,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57° 0′ 0″	50,19,12,50,33,38, 3,42, 7,58			
		1, 8,26,27, 3,19,10,43		
2″	50,19,13,59, 0, 5, 7, 1,18,41		3,40,43,50,17	
		1, 8,26,23,22,35,20,26		5, 0
4″	50,19,15, 7,26,28,29,36,39, 7		3,40,43,55,17	
		1, 8,26,19,41,51,25, 9		5, 0
6″	50,19,16,15,52,48,11,28, 4,16		3,40,44, 0,17	
		1, 8,26,16, 1, 7,24,52		5, 0
8″	50,19,17,24,19, 4,12,35,29, 8		3,40,44, 5,17	
		1, 8,26,12,20,23,19,35		5, 0
10″	50,19,18,32,45,16,32,58,48,43		3,40,44,10,17	
		1, 8,26, 8,39,39, 9,18		5, 0
12″	50,19,19,41,11,25,12,37,58, 1		3,40,44,15,17	
		1, 8,26, 4,58,54,54, 1		5, 0
14″	50,19,20,49,37,30,11,32,52, 2		3,40,44,20,17	
		1, 8,26, 1,18,10,33,44		5, 0
16″	50,19,21,58, 3,31,29,43,25,46		3,40,44,25,17	
		1, 8,25,57,37,26, 8,27		5, 0
18″	50,19,23, 6,29,29, 7, 9,34,13		3,40,44,30,17	
		1, 8,25,53,56,41,38,10		5, 0
20″	50,19,24,14,55,23, 3,51,12,23		3,40,44,35,17	
		1, 8,25,50,15,57, 2,53		5, 0
22″	50,19,25,23,21,13,19,48,15,16		3,40,44,40,17	
		1, 8,25,46,35,12,22,36		5, 0
24″	50,19,26,31,46,59,55, 0,37,52		3,40,44,45,17	
		1, 8,25,42,54,27,37,19		5, 0
26″	50,19,27,40,12,42,49,28,15,11		3,40,44,50,17	
		1, 8,25,39,13,42,47, 2		5, 0
28″	50,19,28,48,38,22, 3,11, 2,13		3,40,44,55,17	
		1, 8,25,35,32,57,51,45		5, 0
30″	50,19,29,57, 3,57,36, 8,53,58		3,40,45, 0,17	
		1, 8,25,31,52,12,51,28		5, 0
32″	50,19,31, 5,29,29,28,21,45,26		3,40,45, 5,17	
		1, 8,25,28,11,27,46,11		5, 0
34″	50,19,32,13,54,57,39,49,31,37		3,40,45,10,17	
		1, 8,25,24,30,42,35,54		5, 0
36″	50,19,33,22,20,22,10,32, 7,31		3,40,45,15,17	
		1, 8,25,20,49,57,20,37		5, 0
38″	50,19,34,30,45,43, 0,29,28, 8		3,40,45,20,17	
		1, 8,25,17, 9,12, 0,20		5, 0
40″	50,19,35,39,11, 0, 9,41,28,28		3,40,45,25,17	
		1, 8,25,13,28,26,35, 3		5, 0
42″	50,19,36,47,36,13,38, 8, 3,31		3,40,45,30,17	
		1, 8,25, 9,47,41, 4,46		5, 0
44″	50,19,37,56, 1,23,25,49, 8,17		3,40,45,35,17	
		1, 8,25, 6, 6,55,29,29		5, 0
46″	50,19,39, 4,26,29,32,44,37,46		3,40,45,40,17	
		1, 8,25, 2,26, 9,49,12		5, 0
48″	50,19,40,12,51,31,58,54,26,58		3,40,45,45,17	
		1, 8,24,58,45,24, 3,55		5, 0
50″	50,19,41,21,16,30,44,18,30,53		3,40,45,50,17	
		1, 8,24,55, 4,38,13,38		5, 0
52″	50,19,42,29,41,25,48,56,44,31		3,40,45,55,17	
		1, 8,24,51,23,52,18,21		5, 0
54″	50,19,43,38, 6,17,12,49, 2,52		3,40,46, 0,17	
		1, 8,24,47,43, 6,18, 4		5, 0
56″	50,19,44,46,31, 4,55,55,20,56		3,40,46, 5,17	
		1, 8,24,44, 2,20,12,47		5, 0
58″	50,19,45,54,55,48,58,15,33,43		3,40,46,10,17	
		1, 8,24,40,21,34, 2,30		
60″	50,19,47, 3,20,29,19,49,36,13			
exact	50,19,47, 3,20,29,19,49,21,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57° 1′ 0″	50,19,47, 3,20,29,19,49,21,23			
		1, 8,24,36,40,47,45,49		
2″	50,19,48,11,45, 6, 0,37, 7,12		3,40,46,20,22	
		1, 8,24,33, 0, 1,25,27		5, 0
4″	50,19,49,20, 9,39, 0,38,32,39		3,40,46,25,22	
		1, 8,24,29,19,15, 0, 5		5, 0
6″	50,19,50,28,34, 8,19,53,32,44		3,40,46,30,22	
		1, 8,24,25,38,28,29,43		5, 0
8″	50,19,51,36,58,33,58,22, 2,27		3,40,46,35,22	
		1, 8,24,21,57,41,54,21		5, 0
10″	50,19,52,45,22,55,56, 3,56,48		3,40,46,40,22	
		1, 8,24,18,16,55,13,59		5, 0
12″	50,19,53,53,47,14,12,59,10,47		3,40,46,45,22	
		1, 8,24,14,36, 8,28,37		5, 0
14″	50,19,55, 2,11,28,49, 7,39,24		3,40,46,50,22	
		1, 8,24,10,55,21,38,15		5, 0
16″	50,19,56,10,35,39,44,29,17,39		3,40,46,55,22	
		1, 8,24, 7,14,34,42,53		5, 0
18″	50,19,57,18,59,46,59, 4, 0,32		3,40,47, 0,22	
		1, 8,24, 3,33,47,42,31		5, 0
20″	50,19,58,27,23,50,32,51,43, 3		3,40,47, 5,22	
		1, 8,23,59,53, 0,37, 9		5, 0
22″	50,19,59,35,47,50,25,52,20,12		3,40,47,10,22	
		1, 8,23,56,12,13,26,47		5, 0
24″	50,20, 0,44,11,46,38, 5,46,59		3,40,47,15,22	
		1, 8,23,52,31,26,11,25		5, 0
26″	50,20, 1,52,35,39, 9,31,58,24		3,40,47,20,22	
		1, 8,23,48,50,38,51, 3		5, 0
28″	50,20, 3, 0,59,28, 0,10,49,27		3,40,47,25,22	
		1, 8,23,45, 9,51,25,41		5, 0
30″	50,20, 4, 9,23,13,10, 2,15, 8		3,40,47,30,22	
		1, 8,23,41,29, 3,55,19		5, 0
32″	50,20, 5,17,46,54,39, 6,10,27		3,40,47,35,22	
		1, 8,23,37,48,16,19,57		5, 0
34″	50,20, 6,26,10,32,27,22,30,24		3,40,47,40,22	
		1, 8,23,34, 7,28,39,35		5, 0
36″	50,20, 7,34,34, 6,34,51, 9,59		3,40,47,45,22	
		1, 8,23,30,26,40,54,13		5, 0
38″	50,20, 8,42,57,37, 1,32, 4,12		3,40,47,50,22	
		1, 8,23,26,45,53, 3,51		5, 0
40″	50,20, 9,51,21, 3,47,25, 8, 3		3,40,47,55,22	
		1, 8,23,23, 5, 5, 8,29		5, 0
42″	50,20,10,59,44,26,52,30,16,32		3,40,48, 0,22	
		1, 8,23,19,24,17, 8, 7		5, 0
44″	50,20,12, 8, 7,46,16,47,24,39		3,40,48, 5,22	
		1, 8,23,15,43,29, 2,45		5, 0
46″	50,20,13,16,31, 2, 0,16,27,24		3,40,48,10,22	
		1, 8,23,12, 2,40,52,23		5, 0
48″	50,20,14,24,54,14, 2,57,19,47		3,40,48,15,22	
		1, 8,23, 8,21,52,37, 1		5, 0
50″	50,20,15,33,17,22,24,49,56,48		3,40,48,20,22	
		1, 8,23, 4,41, 4,16,39		5, 0
52″	50,20,16,41,40,27, 5,54,13,27		3,40,48,25,22	
		1, 8,23, 1, 0,15,51,17		5, 0
54″	50,20,17,50, 3,28, 6,10, 4,44		3,40,48,30,22	
		1, 8,22,57,19,27,20,55		5, 0
56″	50,20,18,58,26,25,25,37,25,39		3,40,48,35,22	
		1, 8,22,53,38,38,45,33		5, 0
58″	50,20,20, 6,49,19, 4,16,11,12		3,40,48,40,22	
		1, 8,22,49,57,50, 5,11		
60″	50,20,21,15,12, 9, 2, 6,16,23			
exact	50,20,21,15,12, 9, 2, 6,14,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57° 2′ 0″	50,20,21,15,12, 9, 2, 6,14,57			
		1, 8,22,46,17, 1,19,41		
2″	50,20,22,23,34,55,19, 7,34,38		3,40,48,50,22	
		1, 8,22,42,36,12,29,19		5, 0
4″	50,20,23,31,57,37,55,20, 3,57		3,40,48,55,22	
		1, 8,22,38,55,23,33,57		5, 0
6″	50,20,24,40,20,16,50,43,37,54		3,40,49, 0,22	
		1, 8,22,35,14,34,33,35		5, 0
8″	50,20,25,48,42,52, 5,18,11,29		3,40,49, 5,22	
		1, 8,22,31,33,45,28,13		5, 0
10″	50,20,26,57, 5,23,39, 3,39,42		3,40,49,10,22	
		1, 8,22,27,52,56,17,51		5, 0
12″	50,20,28, 5,27,51,31,59,57,33		3,40,49,15,22	
		1, 8,22,24,12, 7, 2,29		5, 0
14″	50,20,29,13,50,15,44, 7, 0, 2		3,40,49,20,22	
		1, 8,22,20,31,17,42, 7		5, 0
16″	50,20,30,22,12,36,15,24,42, 9		3,40,49,25,22	
		1, 8,22,16,50,28,16,45		5, 0
18″	50,20,31,30,34,53, 5,52,58,54		3,40,49,30,22	
		1, 8,22,13, 9,38,46,23		5, 0
20″	50,20,32,38,57, 6,15,31,45,17		3,40,49,35,22	
		1, 8,22, 9,28,49,11, 1		5, 0
22″	50,20,33,47,19,15,44,20,56,18		3,40,49,40,22	
		1, 8,22, 5,47,59,30,39		5, 0
24″	50,20,34,55,41,21,32,20,26,57		3,40,49,45,22	
		1, 8,22, 2, 7, 9,45,17		5, 0
26″	50,20,36, 4, 3,23,39,30,12,14		3,40,49,50,22	
		1, 8,21,58,26,19,54,55		5, 0
28″	50,20,37,12,25,22, 5,50, 7, 9		3,40,49,55,22	
		1, 8,21,54,45,29,59,33		5, 0
30″	50,20,38,20,47,16,51,20, 6,42		3,40,50, 0,22	
		1, 8,21,51, 4,39,59,11		5, 0
32″	50,20,39,29, 9, 7,56, 0, 5,53		3,40,50, 5,22	
		1, 8,21,47,23,49,53,49		5, 0
34″	50,20,40,37,30,55,19,49,59,42		3,40,50,10,22	
		1, 8,21,43,42,59,43,27		5, 0
36″	50,20,41,45,52,39, 2,49,43, 9		3,40,50,15,22	
		1, 8,21,40, 2, 9,28, 5		5, 0
38″	50,20,42,54,14,19, 4,59,11,14		3,40,50,20,22	
		1, 8,21,36,21,19, 7,43		5, 0
40″	50,20,44, 2,35,55,26,18,18,57		3,40,50,25,22	
		1, 8,21,32,40,28,42,21		5, 0
42″	50,20,45,10,57,28, 6,47, 1,18		3,40,50,30,22	
		1, 8,21,28,59,38,11,59		5, 0
44″	50,20,46,19,18,57, 6,25,13,17		3,40,50,35,22	
		1, 8,21,25,18,47,36,37		5, 0
46″	50,20,47,27,40,22,25,12,49,54		3,40,50,40,22	
		1, 8,21,21,37,56,56,15		5, 0
48″	50,20,48,36, 1,44, 3, 9,46, 9		3,40,50,45,22	
		1, 8,21,17,57, 6,10,53		5, 0
50″	50,20,49,44,23, 2, 0,15,57, 2		3,40,50,50,22	
		1, 8,21,14,16,15,20,31		5, 0
52″	50,20,50,52,44,16,16,31,17,33		3,40,50,55,22	
		1, 8,21,10,35,24,25, 9		5, 0
54″	50,20,52, 1, 5,26,51,55,42,42		3,40,51, 0,22	
		1, 8,21, 6,54,33,24,47		5, 0
56″	50,20,53, 9,26,33,46,29, 7,29		3,40,51, 5,22	
		1, 8,21, 3,13,42,19,25		5, 0
58″	50,20,54,17,47,37, 0,11,26,54		3,40,51,10,22	
		1, 8,20,59,32,51, 9, 3		
60″	50,20,55,26, 8,36,33, 2,35,57			
exact	50,20,55,26, 8,36,33, 2,41,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57° 3′ 0″	50,20,55,26, 8,36,33, 2,41,36			
		1, 8,20,55,51,59,54,23		
2″	50,20,56,34,29,32,25, 2,35,59		3,40,51,20,18	
		1, 8,20,52,11, 8,34, 5		5, 0
4″	50,20,57,42,50,24,36,11,10, 4		3,40,51,25,18	
		1, 8,20,48,30,17, 8,47		5, 0
6″	50,20,58,51,11,13, 6,28,18,51		3,40,51,30,18	
		1, 8,20,44,49,25,38,29		5, 0
8″	50,20,59,59,31,57,55,53,57,20		3,40,51,35,18	
		1, 8,20,41, 8,34, 3,11		5, 0
10″	50,21, 1, 7,52,39, 4,28, 0,31		3,40,51,40,18	
		1, 8,20,37,27,42,22,53		5, 0
12″	50,21, 2,16,13,16,32,10,23,24		3,40,51,45,18	
		1, 8,20,33,46,50,37,35		5, 0
14″	50,21, 3,24,33,50,19, 1, 0,59		3,40,51,50,18	
		1, 8,20,30, 5,58,47,17		5, 0
16″	50,21, 4,32,54,20,24,59,48,16		3,40,51,55,18	
		1, 8,20,26,25, 6,51,59		5, 0
18″	50,21, 5,41,14,46,50, 6,40,15		3,40,52, 0,18	
		1, 8,20,22,44,14,51,41		5, 0
20″	50,21, 6,49,35, 9,34,21,31,56		3,40,52, 5,18	
		1, 8,20,19, 3,22,46,23		5, 0
22″	50,21, 7,57,55,28,37,44,18,19		3,40,52,10,18	
		1, 8,20,15,22,30,36, 5		5, 0
24″	50,21, 9, 6,15,44, 0,14,54,24		3,40,52,15,18	
		1, 8,20,11,41,38,20,47		5, 0
26″	50,21,10,14,35,55,41,53,15,11		3,40,52,20,18	
		1, 8,20, 8, 0,46, 0,29		5, 0
28″	50,21,11,22,56, 3,42,39,15,40		3,40,52,25,18	
		1, 8,20, 4,19,53,35,11		5, 0
30″	50,21,12,31,16, 8, 2,32,50,51		3,40,52,30,18	
		1, 8,20, 0,39, 1, 4,53		5, 0
32″	50,21,13,39,36, 8,41,33,55,44		3,40,52,35,18	
		1, 8,19,56,58, 8,29,35		5, 0
34″	50,21,14,47,56, 5,39,42,25,19		3,40,52,40,18	
		1, 8,19,53,17,15,49,17		5, 0
36″	50,21,15,56,15,58,56,58,14,36		3,40,52,45,18	
		1, 8,19,49,36,23, 3,59		5, 0
38″	50,21,17, 4,35,48,33,21,18,35		3,40,52,50,18	
		1, 8,19,45,55,30,13,41		5, 0
40″	50,21,18,12,55,34,28,51,32,16		3,40,52,55,18	
		1, 8,19,42,14,37,18,23		5, 0
42″	50,21,19,21,15,16,43,28,50,39		3,40,53, 0,18	
		1, 8,19,38,33,44,18, 5		5, 0
44″	50,21,20,29,34,55,17,13, 8,44		3,40,53, 5,18	
		1, 8,19,34,52,51,12,47		5, 0
46″	50,21,21,37,54,30,10, 4,21,31		3,40,53,10,18	
		1, 8,19,31,11,58, 2,29		5, 0
48″	50,21,22,46,14, 1,22, 2,24, 0		3,40,53,15,18	
		1, 8,19,27,31, 4,47,11		5, 0
50″	50,21,23,54,33,28,53, 7,11,11		3,40,53,20,18	
		1, 8,19,23,50,11,26,53		5, 0
52″	50,21,25, 2,52,52,43,18,38, 4		3,40,53,25,18	
		1, 8,19,20, 9,18, 1,35		5, 0
54″	50,21,26,11,12,12,52,36,39,39		3,40,53,30,18	
		1, 8,19,16,28,24,31,17		5, 0
56″	50,21,27,19,31,29,21, 1,10,56		3,40,53,35,18	
		1, 8,19,12,47,30,55,59		5, 0
58″	50,21,28,27,50,42, 8,32, 6,55		3,40,53,40,18	
		1, 8,19, 9, 6,37,15,41		
60″	50,21,29,36, 9,51,15, 9,22,36			
exact	50,21,29,36, 9,51,15, 9,34,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57° 4′ 0″	50,21,29,36, 9,51,15, 9,34,50			
		1, 8,19, 5,25,43,31,54		
2″	50,21,30,44,28,56,40,53, 6,44		3,40,53,50,11	
		1, 8,19, 1,44,49,41,43		5, 0
4″	50,21,31,52,47,58,25,42,48,27		3,40,53,55,11	
		1, 8,18,58, 3,55,46,32		5, 0
6″	50,21,33, 1, 6,56,29,38,34,59		3,40,54, 0,11	
		1, 8,18,54,23, 1,46,21		5, 0
8″	50,21,34, 9,25,50,52,40,21,20		3,40,54, 5,11	
		1, 8,18,50,42, 7,41,10		5, 0
10″	50,21,35,17,44,41,34,48, 2,30		3,40,54,10,11	
		1, 8,18,47, 1,13,30,59		5, 0
12″	50,21,36,26, 3,28,36, 1,33,29		3,40,54,15,11	
		1, 8,18,43,20,19,15,48		5, 0
14″	50,21,37,34,22,11,56,20,49,17		3,40,54,20,11	
		1, 8,18,39,39,24,55,37		5, 0
16″	50,21,38,42,40,51,35,45,44,54		3,40,54,25,11	
		1, 8,18,35,58,30,30,26		5, 0
18″	50,21,39,50,59,27,34,16,15,20		3,40,54,30,11	
		1, 8,18,32,17,36, 0,15		5, 0
20″	50,21,40,59,17,59,51,52,15,35		3,40,54,35,11	
		1, 8,18,28,36,41,25, 4		5, 0
22″	50,21,42, 7,36,28,28,33,40,39		3,40,54,40,11	
		1, 8,18,24,55,46,44,53		5, 0
24″	50,21,43,15,54,53,24,20,25,32		3,40,54,45,11	
		1, 8,18,21,14,51,59,42		5, 0
26″	50,21,44,24,13,14,39,12,25,14		3,40,54,50,11	
		1, 8,18,17,33,57, 9,31		5, 0
28″	50,21,45,32,31,32,13, 9,34,45		3,40,54,55,11	
		1, 8,18,13,53, 2,14,20		5, 0
30″	50,21,46,40,49,46, 6,11,49, 5		3,40,55, 0,11	
		1, 8,18,10,12, 7,14, 9		5, 0
32″	50,21,47,49, 7,56,18,19, 3,14		3,40,55, 5,11	
		1, 8,18, 6,31,12, 8,58		5, 0
34″	50,21,48,57,26, 2,49,31,12,12		3,40,55,10,11	
		1, 8,18, 2,50,16,58,47		5, 0
36″	50,21,50, 5,44, 5,39,48,10,59		3,40,55,15,11	
		1, 8,17,59, 9,21,43,36		5, 0
38″	50,21,51,14, 2, 4,49, 9,54,35		3,40,55,20,11	
		1, 8,17,55,28,26,23,25		5, 0
40″	50,21,52,22,20, 0,17,36,18, 0		3,40,55,25,11	
		1, 8,17,51,47,30,58,14		5, 0
42″	50,21,53,30,37,52, 5, 7,16,14		3,40,55,30,11	
		1, 8,17,48, 6,35,28, 3		5, 0
44″	50,21,54,38,55,40,11,42,44,17		3,40,55,35,11	
		1, 8,17,44,25,39,52,52		5, 0
46″	50,21,55,47,13,24,37,22,37, 9		3,40,55,40,11	
		1, 8,17,40,44,44,12,41		5, 0
48″	50,21,56,55,31, 5,22, 6,49,50		3,40,55,45,11	
		1, 8,17,37, 3,48,27,30		5, 0
50″	50,21,58, 3,48,42,25,55,17,20		3,40,55,50,11	
		1, 8,17,33,22,52,37,19		5, 0
52″	50,21,59,12, 6,15,48,47,54,39		3,40,55,55,11	
		1, 8,17,29,41,56,42, 8		5, 0
54″	50,22, 0,20,23,45,30,44,36,47		3,40,56, 0,11	
		1, 8,17,26, 1, 0,41,57		5, 0
56″	50,22, 1,28,41,11,31,45,18,44		3,40,56, 5,11	
		1, 8,17,22,20, 4,36,46		5, 0
58″	50,22, 2,36,58,33,51,49,55,30		3,40,56,10,11	
		1, 8,17,18,39, 8,26,35		
60″	50,22, 3,45,15,52,30,58,22, 5			
exact	50,22, 3,45,15,52,30,58,48,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57° 5′ 0″	50,22, 3,45,15,52,30,58,48,42			
		1, 8,17,14,58,12,14,15		
2″	50,22, 4,53,33, 7,29,11, 2,57		3,40,56,19,59	
		1, 8,17,11,17,15,54,16		5, 0
4″	50,22, 6, 1,50,18,46,26,57,13		3,40,56,24,59	
		1, 8,17, 7,36,19,29,17		5, 0
6″	50,22, 7,10, 7,26,22,46,26,30		3,40,56,29,59	
		1, 8,17, 3,55,22,59,18		5, 0
8″	50,22, 8,18,24,30,18, 9,25,48		3,40,56,34,59	
		1, 8,17, 0,14,26,24,19		5, 0
10″	50,22, 9,26,41,30,32,35,50, 7		3,40,56,39,59	
		1, 8,16,56,33,29,44,20		5, 0
12″	50,22,10,34,58,27, 6, 5,34,27		3,40,56,44,59	
		1, 8,16,52,52,32,59,21		5, 0
14″	50,22,11,43,15,19,58,38,33,48		3,40,56,49,59	
		1, 8,16,49,11,36, 9,22		5, 0
16″	50,22,12,51,32, 9,10,14,43,10		3,40,56,54,59	
		1, 8,16,45,30,39,14,23		5, 0
18″	50,22,13,59,48,54,40,53,57,33		3,40,56,59,59	
		1, 8,16,41,49,42,14,24		5, 0
20″	50,22,15, 8, 5,36,30,36,11,57		3,40,57, 4,59	
		1, 8,16,38, 8,45, 9,25		5, 0
22″	50,22,16,16,22,14,39,21,21,22		3,40,57, 9,59	
		1, 8,16,34,27,47,59,26		5, 0
24″	50,22,17,24,38,49, 7, 9,20,48		3,40,57,14,59	
		1, 8,16,30,46,50,44,27		5, 0
26″	50,22,18,32,55,19,54, 0, 5,15		3,40,57,19,59	
		1, 8,16,27, 5,53,24,28		5, 0
28″	50,22,19,41,11,46,59,53,29,43		3,40,57,24,59	
		1, 8,16,23,24,55,59,29		5, 0
30″	50,22,20,49,28,10,24,49,29,12		3,40,57,29,59	
		1, 8,16,19,43,58,29,30		5, 0
32″	50,22,21,57,44,30, 8,47,58,42		3,40,57,34,59	
		1, 8,16,16, 3, 0,54,31		5, 0
34″	50,22,23, 6, 0,46,11,48,53,13		3,40,57,39,59	
		1, 8,16,12,22, 3,14,32		5, 0
36″	50,22,24,14,16,58,33,52, 7,45		3,40,57,44,59	
		1, 8,16, 8,41, 5,29,33		5, 0
38″	50,22,25,22,33, 7,14,57,37,18		3,40,57,49,59	
		1, 8,16, 5, 0, 7,39,34		5, 0
40″	50,22,26,30,49,12,15, 5,16,52		3,40,57,54,59	
		1, 8,16, 1,19, 9,44,35		5, 0
42″	50,22,27,39, 5,13,34,15, 1,27		3,40,57,59,59	
		1, 8,15,57,38,11,44,36		5, 0
44″	50,22,28,47,21,11,12,26,46, 3		3,40,58, 4,59	
		1, 8,15,53,57,13,39,37		5, 0
46″	50,22,29,55,37, 5, 9,40,25,40		3,40,58, 9,59	
		1, 8,15,50,16,15,29,38		5, 0
48″	50,22,31, 3,52,55,25,55,55,18		3,40,58,14,59	
		1, 8,15,46,35,17,14,39		5, 0
50″	50,22,32,12, 8,42, 1,13, 9,57		3,40,58,19,59	
		1, 8,15,42,54,18,54,40		5, 0
52″	50,22,33,20,24,24,55,32, 4,37		3,40,58,24,59	
		1, 8,15,39,13,20,29,41		5, 0
54″	50,22,34,28,40, 4, 8,52,34,18		3,40,58,29,59	
		1, 8,15,35,32,21,59,42		5, 0
56″	50,22,35,36,55,39,41,14,34, 0		3,40,58,34,59	
		1, 8,15,31,51,23,24,43		5, 0
58″	50,22,36,45,11,11,32,37,58,43		3,40,58,39,59	
		1, 8,15,28,10,24,44,44		
60″	50,22,37,53,26,39,43, 2,43,27			
exact	50,22,37,53,26,39,43, 3,17,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57° 6′ 0″	50,22,37,53,26,39,43, 3,17,48			
		1, 8,15,24,29,26, 3,28		
2″	50,22,39, 1,42, 4,12,29,21,16		3,40,58,49,43	
		1, 8,15,20,48,27,13,45		4,59
4″	50,22,40, 9,57,25, 0,56,35, 1		3,40,58,54,42	
		1, 8,15,17, 7,28,19, 3		4,59
6″	50,22,41,18,12,42, 8,24,54, 4		3,40,58,59,41	
		1, 8,15,13,26,29,19,22		4,59
8″	50,22,42,26,27,55,34,54,13,26		3,40,59, 4,40	
		1, 8,15, 9,45,30,14,42		4,59
10″	50,22,43,34,43, 5,20,24,28, 8		3,40,59, 9,39	
		1, 8,15, 6, 4,31, 5, 3		4,59
12″	50,22,44,42,58,11,24,55,33,11		3,40,59,14,38	
		1, 8,15, 2,23,31,50,25		4,59
14″	50,22,45,51,13,13,48,27,23,36		3,40,59,19,37	
		1, 8,14,58,42,32,30,48		4,59
16″	50,22,46,59,28,12,30,59,54,24		3,40,59,24,36	
		1, 8,14,55, 1,33, 6,12		4,59
18″	50,22,48, 7,43, 7,32,33, 0,36		3,40,59,29,35	
		1, 8,14,51,20,33,36,37		4,59
20″	50,22,49,15,57,58,53, 6,37,13		3,40,59,34,34	
		1, 8,14,47,39,34, 2, 3		4,59
22″	50,22,50,24,12,46,32,40,39,16		3,40,59,39,33	
		1, 8,14,43,58,34,22,30		4,59
24″	50,22,51,32,27,30,31,15, 1,46		3,40,59,44,32	
		1, 8,14,40,17,34,37,58		4,59
26″	50,22,52,40,42,10,48,49,39,44		3,40,59,49,31	
		1, 8,14,36,36,34,48,27		4,59
28″	50,22,53,48,56,47,25,24,28,11		3,40,59,54,30	
		1, 8,14,32,55,34,53,57		4,59
30″	50,22,54,57,11,20,20,59,22, 8		3,40,59,59,29	
		1, 8,14,29,14,34,54,28		4,59
32″	50,22,56, 5,25,49,35,34,16,36		3,41, 0, 4,28	
		1, 8,14,25,33,34,50, 0		4,59
34″	50,22,57,13,40,15, 9, 9, 6,36		3,41, 0, 9,27	
		1, 8,14,21,52,34,40,33		4,59
36″	50,22,58,21,54,37, 1,43,47, 9		3,41, 0,14,26	
		1, 8,14,18,11,34,26, 7		4,59
38″	50,22,59,30, 8,55,13,18,13,16		3,41, 0,19,25	
		1, 8,14,14,30,34, 6,42		4,59
40″	50,23, 0,38,23, 9,43,52,19,58		3,41, 0,24,24	
		1, 8,14,10,49,33,42,18		4,59
42″	50,23, 1,46,37,20,33,26, 2,16		3,41, 0,29,23	
		1, 8,14, 7, 8,33,12,55		4,59
44″	50,23, 2,54,51,27,41,59,15,11		3,41, 0,34,22	
		1, 8,14, 3,27,32,38,33		4,59
46″	50,23, 4, 3, 5,31, 9,31,53,44		3,41, 0,39,21	
		1, 8,13,59,46,31,59,12		4,59
48″	50,23, 5,11,19,30,56, 3,52,56		3,41, 0,44,20	
		1, 8,13,56, 5,31,14,52		4,59
50″	50,23, 6,19,33,27, 1,35, 7,48		3,41, 0,49,19	
		1, 8,13,52,24,30,25,33		4,59
52″	50,23, 7,27,47,19,26, 5,33,21		3,41, 0,54,18	
		1, 8,13,48,43,29,31,15		4,59
54″	50,23, 8,36, 1, 8, 9,35, 4,36		3,41, 0,59,17	
		1, 8,13,45, 2,28,31,58		4,59
56″	50,23, 9,44,14,53,12, 3,36,34		3,41, 1, 4,16	
		1, 8,13,41,21,27,27,42		4,59
58″	50,23,10,52,28,34,33,31, 4,16		3,41, 1, 9,15	
		1, 8,13,37,40,26,18,27		
60″	50,23,12, 0,42,12,13,57,22,43			
exact	50,23,12, 0,42,12,13,56,57,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57° 7′ 0″	50,23,12, 0,42,12,13,56,57,18			
		1, 8,13,33,59,25, 1,35		
2″	50,23,13, 8,55,46,13,21,58,53		3,41, 1,19,23	
		1, 8,13,30,18,23,42,12		4,59
4″	50,23,14,17, 9,16,31,45,41, 5		3,41, 1,24,22	
		1, 8,13,26,37,22,17,50		4,59
6″	50,23,15,25,22,43, 9, 7,58,55		3,41, 1,29,21	
		1, 8,13,22,56,20,48,29		4,59
8″	50,23,16,33,36, 6, 5,28,47,24		3,41, 1,34,20	
		1, 8,13,19,15,19,14, 9		4,59
10″	50,23,17,41,49,25,20,48, 1,33		3,41, 1,39,19	
		1, 8,13,15,34,17,34,50		4,59
12″	50,23,18,50, 2,40,55, 5,36,23		3,41, 1,44,18	
		1, 8,13,11,53,15,50,32		4,59
14″	50,23,19,58,15,52,48,21,26,55		3,41, 1,49,17	
		1, 8,13, 8,12,14, 1,15		4,59
16″	50,23,21, 6,29, 1, 0,35,28,10		3,41, 1,54,16	
		1, 8,13, 4,31,12, 6,59		4,59
18″	50,23,22,14,42, 5,31,47,35, 9		3,41, 1,59,15	
		1, 8,13, 0,50,10, 7,44		4,59
20″	50,23,23,22,55, 6,21,57,42,53		3,41, 2, 4,14	
		1, 8,12,57, 9, 8, 3,30		4,59
22″	50,23,24,31, 8, 3,31, 5,46,23		3,41, 2, 9,13	
		1, 8,12,53,28, 5,54,17		4,59
24″	50,23,25,39,20,56,59,11,40,40		3,41, 2,14,12	
		1, 8,12,49,47, 3,40, 5		4,59
26″	50,23,26,47,33,46,46,15,20,45		3,41, 2,19,11	
		1, 8,12,46, 6, 1,20,54		4,59
28″	50,23,27,55,46,32,52,16,41,39		3,41, 2,24,10	
		1, 8,12,42,24,58,56,44		4,59
30″	50,23,29, 3,59,15,17,15,38,23		3,41, 2,29, 9	
		1, 8,12,38,43,56,27,35		4,59
32″	50,23,30,12,11,54, 1,12, 5,58		3,41, 2,34, 8	
		1, 8,12,35, 2,53,53,27		4,59
34″	50,23,31,20,24,29, 4, 5,59,25		3,41, 2,39, 7	
		1, 8,12,31,21,51,14,20		4,59
36″	50,23,32,28,37, 0,25,57,13,45		3,41, 2,44, 6	
		1, 8,12,27,40,48,30,14		4,59
38″	50,23,33,36,49,28, 6,45,43,59		3,41, 2,49, 5	
		1, 8,12,23,59,45,41, 9		4,59
40″	50,23,34,45, 1,52, 6,31,25, 8		3,41, 2,54, 4	
		1, 8,12,20,18,42,47, 5		4,59
42″	50,23,35,53,14,12,25,14,12,13		3,41, 2,59, 3	
		1, 8,12,16,37,39,48, 2		4,59
44″	50,23,37, 1,26,29, 2,54, 0,15		3,41, 3, 4, 2	
		1, 8,12,12,56,36,44, 0		4,59
46″	50,23,38, 9,38,41,59,30,44,15		3,41, 3, 9, 1	
		1, 8,12, 9,15,33,34,59		4,59
48″	50,23,39,17,50,51,15, 4,19,14		3,41, 3,14, 0	
		1, 8,12, 5,34,30,20,59		4,59
50″	50,23,40,26, 2,56,49,34,40,13		3,41, 3,18,59	
		1, 8,12, 1,53,27, 2, 0		4,59
52″	50,23,41,34,14,58,43, 1,42,13		3,41, 3,23,58	
		1, 8,11,58,12,23,38, 2		4,59
54″	50,23,42,42,26,56,55,25,20,15		3,41, 3,28,57	
		1, 8,11,54,31,20, 9, 5		4,59
56″	50,23,43,50,38,51,26,45,29,20		3,41, 3,33,56	
		1, 8,11,50,50,16,35, 9		4,59
58″	50,23,44,58,50,42,17, 2, 4,29		3,41, 3,38,55	
		1, 8,11,47, 9,12,56,14		
60″	50,23,46, 7, 2,29,26,15, 0,43			
exact	50,23,46, 7, 2,29,26,14,42,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57° 8′ 0″	50,23,46, 7, 2,29,26,14,42,57			
		1, 8,11,43,28, 9,10,35		
2″	50,23,47,15,14,12,54,23,53,32		3,41, 3,48,59	
		1, 8,11,39,47, 5,21,36		4,59
4″	50,23,48,23,25,52,41,29,15, 8		3,41, 3,53,58	
		1, 8,11,36, 6, 1,27,38		4,59
6″	50,23,49,31,37,28,47,30,42,46		3,41, 3,58,57	
		1, 8,11,32,24,57,28,41		4,59
8″	50,23,50,39,49, 1,12,28,11,27		3,41, 4, 3,56	
		1, 8,11,28,43,53,24,45		4,59
10″	50,23,51,48, 0,29,56,21,36,12		3,41, 4, 8,55	
		1, 8,11,25, 2,49,15,50		4,59
12″	50,23,52,56,11,54,59,10,52, 2		3,41, 4,13,54	
		1, 8,11,21,21,45, 1,56		4,59
14″	50,23,54, 4,23,16,20,55,53,58		3,41, 4,18,53	
		1, 8,11,17,40,40,43, 3		4,59
16″	50,23,55,12,34,34, 1,36,37, 1		3,41, 4,23,52	
		1, 8,11,13,59,36,19,11		4,59
18″	50,23,56,20,45,48, 1,12,56,12		3,41, 4,28,51	
		1, 8,11,10,18,31,50,20		4,59
20″	50,23,57,28,56,58,19,44,46,32		3,41, 4,33,50	
		1, 8,11, 6,37,27,16,30		4,59
22″	50,23,58,37, 8, 4,57,12, 3, 2		3,41, 4,38,49	
		1, 8,11, 2,56,22,37,41		4,59
24″	50,23,59,45,19, 7,53,34,40,43		3,41, 4,43,48	
		1, 8,10,59,15,17,53,53		4,59
26″	50,24, 0,53,30, 7, 8,52,34,36		3,41, 4,48,47	
		1, 8,10,55,34,13, 5, 6		4,59
28″	50,24, 2, 1,41, 2,43, 5,39,42		3,41, 4,53,46	
		1, 8,10,51,53, 8,11,20		4,59
30″	50,24, 3, 9,51,54,36,13,51, 2		3,41, 4,58,45	
		1, 8,10,48,12, 3,12,35		4,59
32″	50,24, 4,18, 2,42,48,17, 3,37		3,41, 5, 3,44	
		1, 8,10,44,30,58, 8,51		4,59
34″	50,24, 5,26,13,27,19,15,12,28		3,41, 5, 8,43	
		1, 8,10,40,49,53, 0, 8		4,59
36″	50,24, 6,34,24, 8, 9, 8,12,36		3,41, 5,13,42	
		1, 8,10,37, 8,47,46,26		4,59
38″	50,24, 7,42,34,45,17,55,59, 2		3,41, 5,18,41	
		1, 8,10,33,27,42,27,45		4,59
40″	50,24, 8,50,45,18,45,38,26,47		3,41, 5,23,40	
		1, 8,10,29,46,37, 4, 5		4,59
42″	50,24, 9,58,55,48,32,15,30,52		3,41, 5,28,39	
		1, 8,10,26, 5,31,35,26		4,59
44″	50,24,11, 7, 6,14,37,47, 6,18		3,41, 5,33,38	
		1, 8,10,22,24,26, 1,48		4,59
46″	50,24,12,15,16,37, 2,13, 8, 6		3,41, 5,38,37	
		1, 8,10,18,43,20,23,11		4,59
48″	50,24,13,23,26,55,45,33,31,17		3,41, 5,43,36	
		1, 8,10,15, 2,14,39,35		4,59
50″	50,24,14,31,37,10,47,48,10,52		3,41, 5,48,35	
		1, 8,10,11,21, 8,51, 0		4,59
52″	50,24,15,39,47,22, 8,57, 1,52		3,41, 5,53,34	
		1, 8,10, 7,40, 2,57,26		4,59
54″	50,24,16,47,57,29,48,59,59,18		3,41, 5,58,33	
		1, 8,10, 3,58,56,58,53		4,59
56″	50,24,17,56, 7,33,47,56,58,11		3,41, 6, 3,32	
		1, 8,10, 0,17,50,55,21		4,59
58″	50,24,19, 4,17,34, 5,47,53,32		3,41, 6, 8,31	
		1, 8, 9,56,36,44,46,50		
60″	50,24,20,12,27,30,42,32,40,22			
exact	50,24,20,12,27,30,42,32,31, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57° 9′ 0″	50,24,20,12,27,30,42,32,31, 7			
		1, 8, 9,52,55,38,32,31		
2″	50,24,21,20,37,23,38,11, 3,38		3,41, 6,18,31	
		1, 8, 9,49,14,32,14, 0		4,59
4″	50,24,22,28,47,12,52,43,17,38		3,41, 6,23,30	
		1, 8, 9,45,33,25,50,30		4,59
6″	50,24,23,36,56,58,26, 9, 8, 8		3,41, 6,28,29	
		1, 8, 9,41,52,19,22, 1		4,59
8″	50,24,24,45, 6,40,18,28,30, 9		3,41, 6,33,28	
		1, 8, 9,38,11,12,48,33		4,59
10″	50,24,25,53,16,18,29,41,18,42		3,41, 6,38,27	
		1, 8, 9,34,30, 6,10, 6		4,59
12″	50,24,27, 1,25,52,59,47,28,48		3,41, 6,43,26	
		1, 8, 9,30,48,59,26,40		4,59
14″	50,24,28, 9,35,23,48,46,55,28		3,41, 6,48,25	
		1, 8, 9,27, 7,52,38,15		4,59
16″	50,24,29,17,44,50,56,39,33,43		3,41, 6,53,24	
		1, 8, 9,23,26,45,44,51		4,59
18″	50,24,30,25,54,14,23,25,18,34		3,41, 6,58,23	
		1, 8, 9,19,45,38,46,28		4,59
20″	50,24,31,34, 3,34, 9, 4, 5, 2		3,41, 7, 3,22	
		1, 8, 9,16, 4,31,43, 6		4,59
22″	50,24,32,42,12,50,13,35,48, 8		3,41, 7, 8,21	
		1, 8, 9,12,23,24,34,45		4,59
24″	50,24,33,50,22, 2,37, 0,22,53		3,41, 7,13,20	
		1, 8, 9, 8,42,17,21,25		4,59
26″	50,24,34,58,31,11,19,17,44,18		3,41, 7,18,19	
		1, 8, 9, 5, 1,10, 3, 6		4,59
28″	50,24,36, 6,40,16,20,27,47,24		3,41, 7,23,18	
		1, 8, 9, 1,20, 2,39,48		4,59
30″	50,24,37,14,49,17,40,30,27,12		3,41, 7,28,17	
		1, 8, 8,57,38,55,11,31		4,59
32″	50,24,38,22,58,15,19,25,38,43		3,41, 7,33,16	
		1, 8, 8,53,57,47,38,15		4,59
34″	50,24,39,31, 7, 9,17,13,16,58		3,41, 7,38,15	
		1, 8, 8,50,16,40, 0, 0		4,59
36″	50,24,40,39,15,59,33,53,16,58		3,41, 7,43,14	
		1, 8, 8,46,35,32,16,46		4,59
38″	50,24,41,47,24,46, 9,25,33,44		3,41, 7,48,13	
		1, 8, 8,42,54,24,28,33		4,59
40″	50,24,42,55,33,29, 3,50, 2,17		3,41, 7,53,12	
		1, 8, 8,39,13,16,35,21		4,59
42″	50,24,44, 3,42, 8,17, 6,37,38		3,41, 7,58,11	
		1, 8, 8,35,32, 8,37,10		4,59
44″	50,24,45,11,50,43,49,15,14,48		3,41, 8, 3,10	
		1, 8, 8,31,51, 0,34, 0		4,59
46″	50,24,46,19,59,15,40,15,48,48		3,41, 8, 8, 9	
		1, 8, 8,28, 9,52,25,51		4,59
48″	50,24,47,28, 7,43,50, 8,14,39		3,41, 8,13, 8	
		1, 8, 8,24,28,44,12,43		4,59
50″	50,24,48,36,16, 8,18,52,27,22		3,41, 8,18, 7	
		1, 8, 8,20,47,35,54,36		4,59
52″	50,24,49,44,24,29, 6,28,21,58		3,41, 8,23, 6	
		1, 8, 8,17, 6,27,31,30		4,59
54″	50,24,50,52,32,46,12,55,53,28		3,41, 8,28, 5	
		1, 8, 8,13,25,19, 3,25		4,59
56″	50,24,52, 0,40,59,38,14,56,53		3,41, 8,33, 4	
		1, 8, 8, 9,44,10,30,21		4,59
58″	50,24,53, 8,49, 9,22,25,27,14		3,41, 8,38, 3	
		1, 8, 8, 6, 3, 1,52,18		
60″	50,24,54,16,57,15,25,27,19,32			
exact	50,24,54,16,57,15,25,27,18,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°10′ 0″	50,24,54,16,57,15,25,27,18,45			
		1, 8, 8, 2,21,53, 9,23		
2″	50,24,55,25, 5,17,47,20,28, 8		3,41, 8,47,59	
		1, 8, 7,58,40,44,21,24		4,59
4″	50,24,56,33,13,16,28, 4,49,32		3,41, 8,52,58	
		1, 8, 7,54,59,35,28,26		4,59
6″	50,24,57,41,21,11,27,40,17,58		3,41, 8,57,57	
		1, 8, 7,51,18,26,30,29		4,59
8″	50,24,58,49,29, 2,46, 6,48,27		3,41, 9, 2,56	
		1, 8, 7,47,37,17,27,33		4,59
10″	50,24,59,57,36,50,23,24,16, 0		3,41, 9, 7,55	
		1, 8, 7,43,56, 8,19,38		4,59
12″	50,25, 1, 5,44,34,19,32,35,38		3,41, 9,12,54	
		1, 8, 7,40,14,59, 6,44		4,59
14″	50,25, 2,13,52,14,34,31,42,22		3,41, 9,17,53	
		1, 8, 7,36,33,49,48,51		4,59
16″	50,25, 3,21,59,51, 8,21,31,13		3,41, 9,22,52	
		1, 8, 7,32,52,40,25,59		4,59
18″	50,25, 4,30, 7,24, 1, 1,57,12		3,41, 9,27,51	
		1, 8, 7,29,11,30,58, 8		4,59
20″	50,25, 5,38,14,53,12,32,55,20		3,41, 9,32,50	
		1, 8, 7,25,30,21,25,18		4,59
22″	50,25, 6,46,22,18,42,54,20,38		3,41, 9,37,49	
		1, 8, 7,21,49,11,47,29		4,59
24″	50,25, 7,54,29,40,32, 6, 8, 7		3,41, 9,42,48	
		1, 8, 7,18, 8, 2, 4,41		4,59
26″	50,25, 9, 2,36,58,40, 8,12,48		3,41, 9,47,47	
		1, 8, 7,14,26,52,16,54		4,59
28″	50,25,10,10,44,13, 7, 0,29,42		3,41, 9,52,46	
		1, 8, 7,10,45,42,24, 8		4,59
30″	50,25,11,18,51,23,52,42,53,50		3,41, 9,57,45	
		1, 8, 7, 7, 4,32,26,23		4,59
32″	50,25,12,26,58,30,57,15,20,13		3,41,10, 2,44	
		1, 8, 7, 3,23,22,23,39		4,59
34″	50,25,13,35, 5,34,20,37,43,52		3,41,10, 7,43	
		1, 8, 6,59,42,12,15,56		4,59
36″	50,25,14,43,12,34, 2,49,59,48		3,41,10,12,42	
		1, 8, 6,56, 1, 2, 3,14		4,59
38″	50,25,15,51,19,30, 3,52, 3, 2		3,41,10,17,41	
		1, 8, 6,52,19,51,45,33		4,59
40″	50,25,16,59,26,22,23,43,48,35		3,41,10,22,40	
		1, 8, 6,48,38,41,22,53		4,59
42″	50,25,18, 7,33,11, 2,25,11,28		3,41,10,27,39	
		1, 8, 6,44,57,30,55,14		4,59
44″	50,25,19,15,39,55,59,56, 6,42		3,41,10,32,38	
		1, 8, 6,41,16,20,22,36		4,59
46″	50,25,20,23,46,37,16,16,29,18		3,41,10,37,37	
		1, 8, 6,37,35, 9,44,59		4,59
48″	50,25,21,31,53,14,51,26,14,17		3,41,10,42,36	
		1, 8, 6,33,53,59, 2,23		4,59
50″	50,25,22,39,59,48,45,25,16,40		3,41,10,47,35	
		1, 8, 6,30,12,48,14,48		4,59
52″	50,25,23,48, 6,18,58,13,31,28		3,41,10,52,34	
		1, 8, 6,26,31,37,22,14		4,59
54″	50,25,24,56,12,45,29,50,53,42		3,41,10,57,33	
		1, 8, 6,22,50,26,24,41		4,59
56″	50,25,26, 4,19, 8,20,17,18,23		3,41,11, 2,32	
		1, 8, 6,19, 9,15,22, 9		4,59
58″	50,25,27,12,25,27,29,32,40,32		3,41,11, 7,31	
		1, 8, 6,15,28, 4,14,38		
60″	50,25,28,20,31,42,57,36,55,10			
exact	50,25,28,20,31,42,57,37, 3,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°11′ 0″	50,25,28,20,31,42,57,37, 3,25			
		1, 8, 6,11,46,53, 3,13		
2″	50,25,29,28,37,54,44,30, 6,38		3,41,11,17,23	
		1, 8, 6, 8, 5,41,45,50		4,59
4″	50,25,30,36,44, 2,50,11,52,28		3,41,11,22,22	
		1, 8, 6, 4,24,30,23,28		4,59
6″	50,25,31,44,50, 7,14,42,15,56		3,41,11,27,21	
		1, 8, 6, 0,43,18,56, 7		4,59
8″	50,25,32,52,56, 7,58, 1,12, 3		3,41,11,32,20	
		1, 8, 5,57, 2, 7,23,47		4,59
10″	50,25,34, 1, 2, 5, 0, 8,35,50		3,41,11,37,19	
		1, 8, 5,53,20,55,46,28		4,59
12″	50,25,35, 9, 7,58,21, 4,22,18		3,41,11,42,18	
		1, 8, 5,49,39,44, 4,10		4,59
14″	50,25,36,17,13,48, 0,48,26,28		3,41,11,47,17	
		1, 8, 5,45,58,32,16,53		4,59
16″	50,25,37,25,19,33,59,20,43,21		3,41,11,52,16	
		1, 8, 5,42,17,20,24,37		4,59
18″	50,25,38,33,25,16,16,41, 7,58		3,41,11,57,15	
		1, 8, 5,38,36, 8,27,22		4,59
20″	50,25,39,41,30,54,52,49,35,20		3,41,12, 2,14	
		1, 8, 5,34,54,56,25, 8		4,59
22″	50,25,40,49,36,29,47,46, 0,28		3,41,12, 7,13	
		1, 8, 5,31,13,44,17,55		4,59
24″	50,25,41,57,42, 1, 1,30,18,23		3,41,12,12,12	
		1, 8, 5,27,32,32, 5,43		4,59
26″	50,25,43, 5,47,28,34, 2,24, 6		3,41,12,17,11	
		1, 8, 5,23,51,19,48,32		4,59
28″	50,25,44,13,52,52,25,22,12,38		3,41,12,22,10	
		1, 8, 5,20,10, 7,26,22		4,59
30″	50,25,45,21,58,12,35,29,39, 0		3,41,12,27, 9	
		1, 8, 5,16,28,54,59,13		4,59
32″	50,25,46,30, 3,29, 4,24,38,13		3,41,12,32, 8	
		1, 8, 5,12,47,42,27, 5		4,59
34″	50,25,47,38, 8,41,52, 7, 5,18		3,41,12,37, 7	
		1, 8, 5, 9, 6,29,49,58		4,59
36″	50,25,48,46,13,50,58,36,55,16		3,41,12,42, 6	
		1, 8, 5, 5,25,17, 7,52		4,59
38″	50,25,49,54,18,56,23,54, 3, 8		3,41,12,47, 5	
		1, 8, 5, 1,44, 4,20,47		4,59
40″	50,25,51, 2,23,58, 7,58,23,55		3,41,12,52, 4	
		1, 8, 4,58, 2,51,28,43		4,59
42″	50,25,52,10,28,56,10,49,52,38		3,41,12,57, 3	
		1, 8, 4,54,21,38,31,40		4,59
44″	50,25,53,18,33,50,32,28,24,18		3,41,13, 2, 2	
		1, 8, 4,50,40,25,29,38		4,59
46″	50,25,54,26,38,41,12,53,53,56		3,41,13, 7, 1	
		1, 8, 4,46,59,12,22,37		4,59
48″	50,25,55,34,43,28,12, 6,16,33		3,41,13,12, 0	
		1, 8, 4,43,17,59,10,37		4,59
50″	50,25,56,42,48,11,30, 5,27,10		3,41,13,16,59	
		1, 8, 4,39,36,45,53,38		4,59
52″	50,25,57,50,52,51, 6,51,20,48		3,41,13,21,58	
		1, 8, 4,35,55,32,31,40		4,59
54″	50,25,58,58,57,27, 2,23,52,28		3,41,13,26,57	
		1, 8, 4,32,14,19, 4,43		4,59
56″	50,26, 0, 7, 1,59,16,42,57,11		3,41,13,31,56	
		1, 8, 4,28,33, 5,32,47		4,59
58″	50,26, 1,15, 6,27,49,48,29,58		3,41,13,36,55	
		1, 8, 4,24,51,51,55,52		
60″	50,26, 2,23,10,52,41,40,25,50			
exact	50,26, 2,23,10,52,41,40,43,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°12′ 0″	50,26, 2,23,10,52,41,40,43,19	1, 8, 4,21,10,38,16, 2		
2″	50,26, 3,31,15,13,52,18,59,21	1, 8, 4,17,29,24,29,19	3,41,13,46,43	4,59
4″	50,26, 4,39,19,31,21,43,28,40	1, 8, 4,13,48,10,37,37	3,41,13,51,42	4,59
6″	50,26, 5,47,23,45, 9,54, 6,17	1, 8, 4,10, 6,56,40,56	3,41,13,56,41	4,59
8″	50,26, 6,55,27,55,16,50,47,13	1, 8, 4, 6,25,42,39,16	3,41,14, 1,40	4,59
10″	50,26, 8, 3,32, 1,42,33,26,29	1, 8, 4, 2,44,28,32,37	3,41,14, 6,39	4,59
12″	50,26, 9,11,36, 4,27, 1,59, 6	1, 8, 3,59, 3,14,20,59	3,41,14,11,38	4,59
14″	50,26,10,19,40, 3,30,16,20, 5	1, 8, 3,55,22, 0, 4,22	3,41,14,16,37	4,59
16″	50,26,11,27,43,58,52,16,24,27	1, 8, 3,51,40,45,42,46	3,41,14,21,36	4,59
18″	50,26,12,35,47,50,33, 2, 7,13	1, 8, 3,47,59,31,16,11	3,41,14,26,35	4,59
20″	50,26,13,43,51,38,32,33,23,24	1, 8, 3,44,18,16,44,37	3,41,14,31,34	4,59
22″	50,26,14,51,55,22,50,50, 8, 1	1, 8, 3,40,37, 2, 8, 4	3,41,14,36,33	4,59
24″	50,26,15,59,59, 3,27,52,16, 5	1, 8, 3,36,55,47,26,32	3,41,14,41,32	4,59
26″	50,26,17, 8, 2,40,23,39,42,37	1, 8, 3,33,14,32,40, 1	3,41,14,46,31	4,59
28″	50,26,18,16, 6,13,38,12,22,38	1, 8, 3,29,33,17,48,31	3,41,14,51,30	4,59
30″	50,26,19,24, 9,43,11,30,11, 9	1, 8, 3,25,52, 2,52, 2	3,41,14,56,29	4,59
32″	50,26,20,32,13, 9, 3,33, 3,11	1, 8, 3,22,10,47,50,34	3,41,15, 1,28	4,59
34″	50,26,21,40,16,31,14,20,53,45	1, 8, 3,18,29,32,44, 7	3,41,15, 6,27	4,59
36″	50,26,22,48,19,49,43,53,37,52	1, 8, 3,14,48,17,32,41	3,41,15,11,26	4,59
38″	50,26,23,56,23, 4,32,11,10,33	1, 8, 3,11, 7, 2,16,16	3,41,15,16,25	4,59
40″	50,26,25, 4,26,15,39,13,26,49	1, 8, 3, 7,25,46,54,52	3,41,15,21,24	4,59
42″	50,26,26,12,29,23, 5, 0,21,41	1, 8, 3, 3,44,31,28,29	3,41,15,26,23	4,59
44″	50,26,27,20,32,26,49,31,50,10	1, 8, 3, 0, 3,15,57, 7	3,41,15,31,22	4,59
46″	50,26,28,28,35,26,52,47,47,17	1, 8, 2,56,22, 0,20,46	3,41,15,36,21	4,59
48″	50,26,29,36,38,23,14,48, 8, 3	1, 8, 2,52,40,44,39,26	3,41,15,41,20	4,59
50″	50,26,30,44,41,15,55,32,47,29	1, 8, 2,48,59,28,53, 7	3,41,15,46,19	4,59
52″	50,26,31,52,44, 4,55, 1,40,36	1, 8, 2,45,18,13, 1,49	3,41,15,51,18	4,59
54″	50,26,33, 0,46,50,13,14,42,25	1, 8, 2,41,36,57, 5,32	3,41,15,56,17	4,59
56″	50,26,34, 8,49,31,50,11,47,57	1, 8, 2,37,55,41, 4,16	3,41,16, 1,16	4,59
58″	50,26,35,16,52, 9,45,52,52,13	1, 8, 2,34,14,24,58, 1	3,41,16, 6,15	
60″	50,26,36,24,54,44, 0,17,50,14			
exact	50,26,36,24,54,44, 0,18,17,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°13′ 0″	50,26,36,24,54,44, 0,18,17,18			
		1, 8, 2,30,33, 8,49,51		
2″	50,26,37,32,57,14,33,27, 7, 9		3,41,16,15,59	
		1, 8, 2,26,51,52,33,52		4,58
4″	50,26,38,40,59,41,25,19,41, 1		3,41,16,20,57	
		1, 8, 2,23,10,36,12,55		4,58
6″	50,26,39,49, 2, 4,35,55,53,56		3,41,16,25,55	
		1, 8, 2,19,29,19,47, 0		4,58
8″	50,26,40,57, 4,24, 5,15,40,56		3,41,16,30,53	
		1, 8, 2,15,48, 3,16, 7		4,58
10″	50,26,42, 5, 6,39,53,18,57, 3		3,41,16,35,51	
		1, 8, 2,12, 6,46,40,16		4,58
12″	50,26,43,13, 8,52, 0, 5,37,19		3,41,16,40,49	
		1, 8, 2, 8,25,29,59,27		4,58
14″	50,26,44,21,11, 0,25,35,36,46		3,41,16,45,47	
		1, 8, 2, 4,44,13,13,40		4,58
16″	50,26,45,29,13, 5, 9,48,50,26		3,41,16,50,45	
		1, 8, 2, 1, 2,56,22,55		4,58
18″	50,26,46,37,15, 6,12,45,13,21		3,41,16,55,43	
		1, 8, 1,57,21,39,27,12		4,58
20″	50,26,47,45,17, 3,34,24,40,33		3,41,17, 0,41	
		1, 8, 1,53,40,22,26,31		4,58
22″	50,26,48,53,18,57,14,47, 7, 4		3,41,17, 5,39	
		1, 8, 1,49,59, 5,20,52		4,58
24″	50,26,50, 1,20,47,13,52,27,56		3,41,17,10,37	
		1, 8, 1,46,17,48,10,15		4,58
26″	50,26,51, 9,22,33,31,40,38,11		3,41,17,15,35	
		1, 8, 1,42,36,30,54,40		4,58
28″	50,26,52,17,24,16, 8,11,32,51		3,41,17,20,33	
		1, 8, 1,38,55,13,34, 7		4,58
30″	50,26,53,25,25,55, 3,25, 6,58		3,41,17,25,31	
		1, 8, 1,35,13,56, 8,36		4,58
32″	50,26,54,33,27,30,17,21,15,34		3,41,17,30,29	
		1, 8, 1,31,32,38,38, 7		4,58
34″	50,26,55,41,29, 1,49,59,53,41		3,41,17,35,27	
		1, 8, 1,27,51,21, 2,40		4,58
36″	50,26,56,49,30,29,41,20,56,21		3,41,17,40,25	
		1, 8, 1,24,10, 3,22,15		4,58
38″	50,26,57,57,31,53,51,24,18,36		3,41,17,45,23	
		1, 8, 1,20,28,45,36,52		4,58
40″	50,26,59, 5,33,14,20, 9,55,28		3,41,17,50,21	
		1, 8, 1,16,47,27,46,31		4,58
42″	50,27, 0,13,34,31, 7,37,41,59		3,41,17,55,19	
		1, 8, 1,13, 6, 9,51,12		4,58
44″	50,27, 1,21,35,44,13,47,33,11		3,41,18, 0,17	
		1, 8, 1, 9,24,51,50,55		4,58
46″	50,27, 2,29,36,53,38,39,24, 6		3,41,18, 5,15	
		1, 8, 1, 5,43,33,45,40		4,58
48″	50,27, 3,37,37,59,22,13, 9,46		3,41,18,10,13	
		1, 8, 1, 2, 2,15,35,27		4,58
50″	50,27, 4,45,39, 1,24,28,45,13		3,41,18,15,11	
		1, 8, 0,58,20,57,20,16		4,58
52″	50,27, 5,53,39,59,45,26, 5,29		3,41,18,20, 9	
		1, 8, 0,54,39,39, 0, 7		4,58
54″	50,27, 7, 1,40,54,25, 5, 5,36		3,41,18,25, 7	
		1, 8, 0,50,58,20,35, 0		4,58
56″	50,27, 8, 9,41,45,23,25,40,36		3,41,18,30, 5	
		1, 8, 0,47,17, 2, 4,55		4,58
58″	50,27, 9,17,42,32,40,27,45,31		3,41,18,35, 3	
		1, 8, 0,43,35,43,29,52		
60″	50,27,10,25,43,16,16,11,15,23			
exact	50,27,10,25,43,16,16,10,44,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°14′ 0″	50,27,10,25,43,16,16,10,44,51			
		1, 8, 0,39,54,24,46,43		
2″	50,27,11,33,43,56,10,35,31,34		3,41,18,45,11	
		1, 8, 0,36,13, 6, 1,32		4,58
4″	50,27,12,41,44,32,23,41,33, 6		3,41,18,50, 9	
		1, 8, 0,32,31,47,11,23		4,58
6″	50,27,13,49,45, 4,55,28,44,29		3,41,18,55, 7	
		1, 8, 0,28,50,28,16,16		4,58
8″	50,27,14,57,45,33,45,57, 0,45		3,41,19, 0, 5	
		1, 8, 0,25, 9, 9,16,11		4,58
10″	50,27,16, 5,45,58,55, 6,16,56		3,41,19, 5, 3	
		1, 8, 0,21,27,50,11, 8		4,58
12″	50,27,17,13,46,20,22,56,28, 4		3,41,19,10, 1	
		1, 8, 0,17,46,31, 1, 7		4,58
14″	50,27,18,21,46,38, 9,27,29,11		3,41,19,14,59	
		1, 8, 0,14, 5,11,46, 8		4,58
16″	50,27,19,29,46,52,14,39,15,19		3,41,19,19,57	
		1, 8, 0,10,23,52,26,11		4,58
18″	50,27,20,37,47, 2,38,31,41,30		3,41,19,24,55	
		1, 8, 0, 6,42,33, 1,16		4,58
20″	50,27,21,45,47, 9,21, 4,42,46		3,41,19,29,53	
		1, 8, 0, 3, 1,13,31,23		4,58
22″	50,27,22,53,47,12,22,18,14, 9		3,41,19,34,51	
		1, 7,59,59,19,53,56,32		4,58
24″	50,27,24, 1,47,11,42,12,10,41		3,41,19,39,49	
		1, 7,59,55,38,34,16,43		4,58
26″	50,27,25, 9,47, 7,20,46,27,24		3,41,19,44,47	
		1, 7,59,51,57,14,31,56		4,58
28″	50,27,26,17,46,59,18, 0,59,20		3,41,19,49,45	
		1, 7,59,48,15,54,42,11		4,58
30″	50,27,27,25,46,47,33,55,41,31		3,41,19,54,43	
		1, 7,59,44,34,34,47,28		4,58
32″	50,27,28,33,46,32, 8,30,28,59		3,41,19,59,41	
		1, 7,59,40,53,14,47,47		4,58
34″	50,27,29,41,46,13, 1,45,16,46		3,41,20, 4,39	
		1, 7,59,37,11,54,43, 8		4,58
36″	50,27,30,49,45,50,13,39,59,54		3,41,20, 9,37	
		1, 7,59,33,30,34,33,31		4,58
38″	50,27,31,57,45,23,44,14,33,25		3,41,20,14,35	
		1, 7,59,29,49,14,18,56		4,58
40″	50,27,33, 5,44,53,33,28,52,21		3,41,20,19,33	
		1, 7,59,26, 7,53,59,23		4,58
42″	50,27,34,13,44,19,41,22,51,44		3,41,20,24,31	
		1, 7,59,22,26,33,34,52		4,58
44″	50,27,35,21,43,42, 7,56,26,36		3,41,20,29,29	
		1, 7,59,18,45,13, 5,23		4,58
46″	50,27,36,29,43, 0,53, 9,31,59		3,41,20,34,27	
		1, 7,59,15, 3,52,30,56		4,58
48″	50,27,37,37,42,15,57, 2, 2,55		3,41,20,39,25	
		1, 7,59,11,22,31,51,31		4,58
50″	50,27,38,45,41,27,19,33,54,26		3,41,20,44,23	
		1, 7,59, 7,41,11, 7, 8		4,58
52″	50,27,39,53,40,35, 0,45, 1,34		3,41,20,49,21	
		1, 7,59, 3,59,50,17,47		4,58
54″	50,27,41, 1,39,39, 0,35,19,21		3,41,20,54,19	
		1, 7,59, 0,18,29,23,28		4,58
56″	50,27,42, 9,38,39,19, 4,42,49		3,41,20,59,17	
		1, 7,58,56,37, 8,24,11		4,58
58″	50,27,43,17,37,35,56,13, 7, 0		3,41,21, 4,15	
		1, 7,58,52,55,47,19,56		
60″	50,27,44,25,36,28,52, 0,26,56			
exact	50,27,44,25,36,28,52, 0, 6, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°15′ 0″	50,27,44,25,36,28,52, 0, 6, 7			
		1, 7,58,49,14,26, 8,37		
2″	50,27,45,33,35,18, 6,26,14,44		3,41,21,14,19	
		1, 7,58,45,33, 4,54,18		4,58
4″	50,27,46,41,34, 3,39,31, 9, 2		3,41,21,19,17	
		1, 7,58,41,51,43,35, 1		4,58
6″	50,27,47,49,32,45,31,14,44, 3		3,41,21,24,15	
		1, 7,58,38,10,22,10,46		4,58
8″	50,27,48,57,31,23,41,36,54,49		3,41,21,29,13	
		1, 7,58,34,29, 0,41,33		4,58
10″	50,27,50, 5,29,58,10,37,36,22		3,41,21,34,11	
		1, 7,58,30,47,39, 7,22		4,58
12″	50,27,51,13,28,28,58,16,43,44		3,41,21,39, 9	
		1, 7,58,27, 6,17,28,13		4,58
14″	50,27,52,21,26,56, 4,34,11,57		3,41,21,44, 7	
		1, 7,58,23,24,55,44, 6		4,58
16″	50,27,53,29,25,19,29,29,56, 3		3,41,21,49, 5	
		1, 7,58,19,43,33,55, 1		4,58
18″	50,27,54,37,23,39,13, 3,51, 4		3,41,21,54, 3	
		1, 7,58,16, 2,12, 0,58		4,58
20″	50,27,55,45,21,55,15,15,52, 2		3,41,21,59, 1	
		1, 7,58,12,20,50, 1,57		4,58
22″	50,27,56,53,20, 7,36, 5,53,59		3,41,22, 3,59	
		1, 7,58, 8,39,27,57,58		4,58
24″	50,27,58, 1,18,16,15,33,51,57		3,41,22, 8,57	
		1, 7,58, 4,58, 5,49, 1		4,58
26″	50,27,59, 9,16,21,13,39,40,58		3,41,22,13,55	
		1, 7,58, 1,16,43,35, 6		4,58
28″	50,28, 0,17,14,22,30,23,16, 4		3,41,22,18,53	
		1, 7,57,57,35,21,16,13		4,58
30″	50,28, 1,25,12,20, 5,44,32,17		3,41,22,23,51	
		1, 7,57,53,53,58,52,22		4,58
32″	50,28, 2,33,10,13,59,43,24,39		3,41,22,28,49	
		1, 7,57,50,12,36,23,33		4,58
34″	50,28, 3,41, 8, 4,12,19,48,12		3,41,22,33,47	
		1, 7,57,46,31,13,49,46		4,58
36″	50,28, 4,49, 5,50,43,33,37,58		3,41,22,38,45	
		1, 7,57,42,49,51,11, 1		4,58
38″	50,28, 5,57, 3,33,33,24,48,59		3,41,22,43,43	
		1, 7,57,39, 8,28,27,18		4,58
40″	50,28, 7, 5, 1,12,41,53,16,17		3,41,22,48,41	
		1, 7,57,35,27, 5,38,37		4,58
42″	50,28, 8,12,58,48, 8,58,54,54		3,41,22,53,39	
		1, 7,57,31,45,42,44,58		4,58
44″	50,28, 9,20,56,19,54,41,39,52		3,41,22,58,37	
		1, 7,57,28, 4,19,46,21		4,58
46″	50,28,10,28,53,47,59, 1,26,13		3,41,23, 3,35	
		1, 7,57,24,22,56,42,46		4,58
48″	50,28,11,36,51,12,21,58, 8,59		3,41,23, 8,33	
		1, 7,57,20,41,33,34,13		4,58
50″	50,28,12,44,48,33, 3,31,43,12		3,41,23,13,31	
		1, 7,57,17, 0,10,20,42		4,58
52″	50,28,13,52,45,50, 3,42, 3,54		3,41,23,18,29	
		1, 7,57,13,18,47, 2,13		4,58
54″	50,28,15, 0,43, 3,22,29, 6, 7		3,41,23,23,27	
		1, 7,57, 9,37,23,38,46		4,58
56″	50,28,16, 8,40,12,59,52,44,53		3,41,23,28,25	
		1, 7,57, 5,56, 0,10,21		4,58
58″	50,28,17,16,37,18,55,52,55,14		3,41,23,33,23	
		1, 7,57, 2,14,36,36,58		
60″	50,28,18,24,34,21,10,29,32,12			
exact	50,28,18,24,34,21,10,29,21,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°16′ 0″	50,28,18,24,34,21,10,29,21,56			
		1, 7,56,58,33,12,57,35		
2″	50,28,19,32,31,19,43,42,19,31		3,41,23,43,23	
		1, 7,56,54,51,49,14,12		4,58
4″	50,28,20,40,28,14,35,31,33,43		3,41,23,48,21	
		1, 7,56,51,10,25,25,51		4,58
6″	50,28,21,48,25, 5,45,56,59,34		3,41,23,53,19	
		1, 7,56,47,29, 1,32,32		4,58
8″	50,28,22,56,21,53,14,58,32, 6		3,41,23,58,17	
		1, 7,56,43,47,37,34,15		4,58
10″	50,28,24, 4,18,37, 2,36, 6,21		3,41,24, 3,15	
		1, 7,56,40, 6,13,31, 0		4,58
12″	50,28,25,12,15,17, 8,49,37,21		3,41,24, 8,13	
		1, 7,56,36,24,49,22,47		4,58
14″	50,28,26,20,11,53,33,39, 0, 8		3,41,24,13,11	
		1, 7,56,32,43,25, 9,36		4,58
16″	50,28,27,28, 8,26,17, 4, 9,44		3,41,24,18, 9	
		1, 7,56,29, 2, 0,51,27		4,58
18″	50,28,28,36, 4,55,19, 5, 1,11		3,41,24,23, 7	
		1, 7,56,25,20,36,28,20		4,58
20″	50,28,29,44, 1,20,39,41,29,31		3,41,24,28, 5	
		1, 7,56,21,39,12, 0,15		4,58
22″	50,28,30,51,57,42,18,53,29,46		3,41,24,33, 3	
		1, 7,56,17,57,47,27,12		4,58
24″	50,28,31,59,54, 0,16,40,56,58		3,41,24,38, 1	
		1, 7,56,14,16,22,49,11		4,58
26″	50,28,33, 7,50,14,33, 3,46, 9		3,41,24,42,59	
		1, 7,56,10,34,58, 6,12		4,58
28″	50,28,34,15,46,25, 8, 1,52,21		3,41,24,47,57	
		1, 7,56, 6,53,33,18,15		4,58
30″	50,28,35,23,42,32, 1,35,10,36		3,41,24,52,55	
		1, 7,56, 3,12, 8,25,20		4,58
32″	50,28,36,31,38,35,13,43,35,56		3,41,24,57,53	
		1, 7,55,59,30,43,27,27		4,58
34″	50,28,37,39,34,34,44,27, 3,23		3,41,25, 2,51	
		1, 7,55,55,49,18,24,36		4,58
36″	50,28,38,47,30,30,33,45,27,59		3,41,25, 7,49	
		1, 7,55,52, 7,53,16,47		4,58
38″	50,28,39,55,26,22,41,38,44,46		3,41,25,12,47	
		1, 7,55,48,26,28, 4, 0		4,58
40″	50,28,41, 3,22,11, 8, 6,48,46		3,41,25,17,45	
		1, 7,55,44,45, 2,46,15		4,58
42″	50,28,42,11,17,55,53, 9,35, 1		3,41,25,22,43	
		1, 7,55,41, 3,37,23,32		4,58
44″	50,28,43,19,13,36,56,46,58,33		3,41,25,27,41	
		1, 7,55,37,22,11,55,51		4,58
46″	50,28,44,27, 9,14,18,58,54,24		3,41,25,32,39	
		1, 7,55,33,40,46,23,12		4,58
48″	50,28,45,35, 4,47,59,45,17,36		3,41,25,37,37	
		1, 7,55,29,59,20,45,35		4,58
50″	50,28,46,43, 0,17,59, 6, 3,11		3,41,25,42,35	
		1, 7,55,26,17,55, 3, 0		4,58
52″	50,28,47,50,55,44,17, 1, 6,11		3,41,25,47,33	
		1, 7,55,22,36,29,15,27		4,58
54″	50,28,48,58,51, 6,53,30,21,38		3,41,25,52,31	
		1, 7,55,18,55, 3,22,56		4,58
56″	50,28,50, 6,46,25,48,33,44,34		3,41,25,57,29	
		1, 7,55,15,13,37,25,27		4,58
58″	50,28,51,14,41,41, 2,11,10, 1		3,41,26, 2,27	
		1, 7,55,11,32,11,23, 0		
60″	50,28,52,22,36,52,34,22,33, 1			
exact	50,28,52,22,36,52,34,22,33,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°17′ 0″	50,28,52,22,36,52,34,22,33,49			
		1, 7,55, 7,50,45,15,39		
2″	50,28,53,30,32, 0,25, 7,49,28		3,41,26,12,22	
		1, 7,55, 4, 9,19, 3,17		4,58
4″	50,28,54,38,27, 4,34,26,52,45		3,41,26,17,20	
		1, 7,55, 0,27,52,45,57		4,58
6″	50,28,55,46,22, 5, 2,19,38,42		3,41,26,22,18	
		1, 7,54,56,46,26,23,39		4,58
8″	50,28,56,54,17, 1,48,46, 2,21		3,41,26,27,16	
		1, 7,54,53, 4,59,56,23		4,58
10″	50,28,58, 2,11,54,53,45,58,44		3,41,26,32,14	
		1, 7,54,49,23,33,24, 9		4,58
12″	50,28,59,10, 6,44,17,19,22,53		3,41,26,37,12	
		1, 7,54,45,42, 6,46,57		4,58
14″	50,29, 0,18, 1,29,59,26, 9,50		3,41,26,42,10	
		1, 7,54,42, 0,40, 4,47		4,58
16″	50,29, 1,25,56,12, 0, 6,14,37		3,41,26,47, 8	
		1, 7,54,38,19,13,17,39		4,58
18″	50,29, 2,33,50,50,19,19,32,16		3,41,26,52, 6	
		1, 7,54,34,37,46,25,33		4,58
20″	50,29, 3,41,45,24,57, 5,57,49		3,41,26,57, 4	
		1, 7,54,30,56,19,28,29		4,58
22″	50,29, 4,49,39,55,53,25,26,18		3,41,27, 2, 2	
		1, 7,54,27,14,52,26,27		4,58
24″	50,29, 5,57,34,23, 8,17,52,45		3,41,27, 7, 0	
		1, 7,54,23,33,25,19,27		4,58
26″	50,29, 7, 5,28,46,41,43,12,12		3,41,27,11,58	
		1, 7,54,19,51,58, 7,29		4,58
28″	50,29, 8,13,23, 6,33,41,19,41		3,41,27,16,56	
		1, 7,54,16,10,30,50,33		4,58
30″	50,29, 9,21,17,22,44,12,10,14		3,41,27,21,54	
		1, 7,54,12,29, 3,28,39		4,58
32″	50,29,10,29,11,35,13,15,38,53		3,41,27,26,52	
		1, 7,54, 8,47,36, 1,47		4,58
34″	50,29,11,37, 5,44, 0,51,40,40		3,41,27,31,50	
		1, 7,54, 5, 6, 8,29,57		4,58
36″	50,29,12,44,59,49, 7, 0,10,37		3,41,27,36,48	
		1, 7,54, 1,24,40,53, 9		4,58
38″	50,29,13,52,53,50,31,41, 3,46		3,41,27,41,46	
		1, 7,53,57,43,13,11,23		4,58
40″	50,29,15, 0,47,48,14,54,15, 9		3,41,27,46,44	
		1, 7,53,54, 1,45,24,39		4,58
42″	50,29,16, 8,41,42,16,39,39,48		3,41,27,51,42	
		1, 7,53,50,20,17,32,57		4,58
44″	50,29,17,16,35,32,36,57,12,45		3,41,27,56,40	
		1, 7,53,46,38,49,36,17		4,58
46″	50,29,18,24,29,19,15,46,49, 2		3,41,28, 1,38	
		1, 7,53,42,57,21,34,39		4,58
48″	50,29,19,32,23, 2,13, 8,23,41		3,41,28, 6,36	
		1, 7,53,39,15,53,28, 3		4,58
50″	50,29,20,40,16,41,29, 1,51,44		3,41,28,11,34	
		1, 7,53,35,34,25,16,29		4,58
52″	50,29,21,48,10,17, 3,27, 8,13		3,41,28,16,32	
		1, 7,53,31,52,56,59,57		4,58
54″	50,29,22,56, 3,48,56,24, 8,10		3,41,28,21,30	
		1, 7,53,28,11,28,38,27		4,58
56″	50,29,24, 3,57,17, 7,52,46,37		3,41,28,26,28	
		1, 7,53,24,30, 0,11,59		4,58
58″	50,29,25,11,50,41,37,52,58,36		3,41,28,31,26	
		1, 7,53,20,48,31,40,33		
60″	50,29,26,19,44, 2,26,24,39, 9			
exact	50,29,26,19,44, 2,26,24,43,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°18′ 0″	50,29,26,19,44, 2,26,24,43,58			
		1, 7,53,17, 7, 3, 4,51		
2″	50,29,27,27,37,19,33,27,48,49		3,41,28,41,18	
		1, 7,53,13,25,34,23,33		4,58
4″	50,29,28,35,30,32,59, 2,12,22		3,41,28,46,16	
		1, 7,53, 9,44, 5,37,17		4,58
6″	50,29,29,43,23,42,43, 7,49,39		3,41,28,51,14	
		1, 7,53, 6, 2,36,46, 3		4,58
8″	50,29,30,51,16,48,45,44,35,42		3,41,28,56,12	
		1, 7,53, 2,21, 7,49,51		4,58
10″	50,29,31,59, 9,51, 6,52,25,33		3,41,29, 1,10	
		1, 7,52,58,39,38,48,41		4,58
12″	50,29,33, 7, 2,49,46,31,14,14		3,41,29, 6, 8	
		1, 7,52,54,58, 9,42,33		4,58
14″	50,29,34,14,55,44,44,40,56,47		3,41,29,11, 6	
		1, 7,52,51,16,40,31,27		4,58
16″	50,29,35,22,48,36, 1,21,28,14		3,41,29,16, 4	
		1, 7,52,47,35,11,15,23		4,58
18″	50,29,36,30,41,23,36,32,43,37		3,41,29,21, 2	
		1, 7,52,43,53,41,54,21		4,58
20″	50,29,37,38,34, 7,30,14,37,58		3,41,29,26, 0	
		1, 7,52,40,12,12,28,21		4,58
22″	50,29,38,46,26,47,42,27, 6,19		3,41,29,30,58	
		1, 7,52,36,30,42,57,23		4,58
24″	50,29,39,54,19,24,13,10, 3,42		3,41,29,35,56	
		1, 7,52,32,49,13,21,27		4,58
26″	50,29,41, 2,11,57, 2,23,25, 9		3,41,29,40,54	
		1, 7,52,29, 7,43,40,33		4,58
28″	50,29,42,10, 4,26,10, 7, 5,42		3,41,29,45,52	
		1, 7,52,25,26,13,54,41		4,58
30″	50,29,43,17,56,51,36,21, 0,23		3,41,29,50,50	
		1, 7,52,21,44,44, 3,51		4,58
32″	50,29,44,25,49,13,21, 5, 4,14		3,41,29,55,48	
		1, 7,52,18, 3,14, 8, 3		4,58
34″	50,29,45,33,41,31,24,19,12,17		3,41,30, 0,46	
		1, 7,52,14,21,44, 7,17		4,58
36″	50,29,46,41,33,45,46, 3,19,34		3,41,30, 5,44	
		1, 7,52,10,40,14, 1,33		4,58
38″	50,29,47,49,25,56,26,17,21, 7		3,41,30,10,42	
		1, 7,52, 6,58,43,50,51		4,58
40″	50,29,48,57,18, 3,25, 1,11,58		3,41,30,15,40	
		1, 7,52, 3,17,13,35,11		4,58
42″	50,29,50, 5,10, 6,42,14,47, 9		3,41,30,20,38	
		1, 7,51,59,35,43,14,33		4,58
44″	50,29,51,13, 2, 6,17,58, 1,42		3,41,30,25,36	
		1, 7,51,55,54,12,48,57		4,58
46″	50,29,52,20,54, 2,12,10,50,39		3,41,30,30,34	
		1, 7,51,52,12,42,18,23		4,58
48″	50,29,53,28,45,54,24,53, 9, 2		3,41,30,35,32	
		1, 7,51,48,31,11,42,51		4,58
50″	50,29,54,36,37,42,56, 4,51,53		3,41,30,40,30	
		1, 7,51,44,49,41, 2,21		4,58
52″	50,29,55,44,29,27,45,45,54,14		3,41,30,45,28	
		1, 7,51,41, 8,10,16,53		4,58
54″	50,29,56,52,21, 8,53,56,11, 7		3,41,30,50,26	
		1, 7,51,37,26,39,26,27		4,58
56″	50,29,58, 0,12,46,20,35,37,34		3,41,30,55,24	
		1, 7,51,33,45, 8,31, 3		4,58
58″	50,29,59, 8, 4,20, 5,44, 8,37		3,41,31, 0,22	
		1, 7,51,30, 3,37,30,41		
60″	50,30, 0,15,55,50, 9,21,39,18			
exact	50,30, 0,15,55,50, 9,21,55,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°19′ 0″	50,30, 0,15,55,50, 9,21,55,19			
		1, 7,51,26,22, 6,27,11		
2″	50,30, 1,23,47,16,31,28,22,30		3,41,31,10,10	
		1, 7,51,22,40,35,17, 1		4,58
4″	50,30, 2,31,38,39,12, 3,39,31		3,41,31,15, 8	
		1, 7,51,18,59, 4, 1,53		4,58
6″	50,30, 3,39,29,58,11, 7,41,24		3,41,31,20, 6	
		1, 7,51,15,17,32,41,47		4,58
8″	50,30, 4,47,21,13,28,40,23,11		3,41,31,25, 4	
		1, 7,51,11,36, 1,16,43		4,58
10″	50,30, 5,55,12,25, 4,41,39,54		3,41,31,30, 2	
		1, 7,51, 7,54,29,46,41		4,58
12″	50,30, 7, 3, 3,32,59,11,26,35		3,41,31,35, 0	
		1, 7,51, 4,12,58,11,41		4,58
14″	50,30, 8,10,54,37,12, 9,38,16		3,41,31,39,58	
		1, 7,51, 0,31,26,31,43		4,58
16″	50,30, 9,18,45,37,43,36, 9,59		3,41,31,44,56	
		1, 7,50,56,49,54,46,47		4,58
18″	50,30,10,26,36,34,33,30,56,46		3,41,31,49,54	
		1, 7,50,53, 8,22,56,53		4,58
20″	50,30,11,34,27,27,41,53,53,39		3,41,31,54,52	
		1, 7,50,49,26,51, 2, 1		4,58
22″	50,30,12,42,18,17, 8,44,55,40		3,41,31,59,50	
		1, 7,50,45,45,19, 2,11		4,58
24″	50,30,13,50, 9, 2,54, 3,57,51		3,41,32, 4,48	
		1, 7,50,42, 3,46,57,23		4,58
26″	50,30,14,57,59,44,57,50,55,14		3,41,32, 9,46	
		1, 7,50,38,22,14,47,37		4,58
28″	50,30,16, 5,50,23,20, 5,42,51		3,41,32,14,44	
		1, 7,50,34,40,42,32,53		4,58
30″	50,30,17,13,40,58, 0,48,15,44		3,41,32,19,42	
		1, 7,50,30,59,10,13,11		4,58
32″	50,30,18,21,31,28,59,58,28,55		3,41,32,24,40	
		1, 7,50,27,17,37,48,31		4,58
34″	50,30,19,29,21,56,17,36,17,26		3,41,32,29,38	
		1, 7,50,23,36, 5,18,53		4,58
36″	50,30,20,37,12,19,53,41,36,19		3,41,32,34,36	
		1, 7,50,19,54,32,44,17		4,58
38″	50,30,21,45, 2,39,48,14,20,36		3,41,32,39,34	
		1, 7,50,16,13, 0, 4,43		4,58
40″	50,30,22,52,52,56, 1,14,25,19		3,41,32,44,32	
		1, 7,50,12,31,27,20,11		4,58
42″	50,30,24, 0,43, 8,32,41,45,30		3,41,32,49,30	
		1, 7,50, 8,49,54,30,41		4,58
44″	50,30,25, 8,33,17,22,36,16,11		3,41,32,54,28	
		1, 7,50, 5, 8,21,36,13		4,58
46″	50,30,26,16,23,22,30,57,52,24		3,41,32,59,26	
		1, 7,50, 1,26,48,36,47		4,58
48″	50,30,27,24,13,23,57,46,29,11		3,41,33, 4,24	
		1, 7,49,57,45,15,32,23		4,58
50″	50,30,28,32, 3,21,43, 2, 1,34		3,41,33, 9,22	
		1, 7,49,54, 3,42,23, 1		4,58
52″	50,30,29,39,53,15,46,44,24,35		3,41,33,14,20	
		1, 7,49,50,22, 9, 8,41		4,58
54″	50,30,30,47,43, 6, 8,53,33,16		3,41,33,19,18	
		1, 7,49,46,40,35,49,23		4,58
56″	50,30,31,55,32,52,49,29,22,39		3,41,33,24,16	
		1, 7,49,42,59, 2,25, 7		4,58
58″	50,30,33, 3,22,35,48,31,47,46		3,41,33,29,14	
		1, 7,49,39,17,28,55,53		
60″	50,30,34,11,12,15, 6, 0,43,39			
exact	50,30,34,11,12,15, 6, 1,11,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°20′ 0″	50,30,34,11,12,15, 6, 1,11,28			
		1, 7,49,35,35,55,24,40		
2″	50,30,35,19, 1,50,41,56,36, 8		3,41,33,38,57	
		1, 7,49,31,54,21,45,43		4,58
4″	50,30,36,26,51,22,36,18,21,51		3,41,33,43,55	
		1, 7,49,28,12,48, 1,48		4,58
6″	50,30,37,34,40,50,49, 6,23,39		3,41,33,48,53	
		1, 7,49,24,31,14,12,55		4,58
8″	50,30,38,42,30,15,20,20,36,34		3,41,33,53,51	
		1, 7,49,20,49,40,19, 4		4,58
10″	50,30,39,50,19,36,10, 0,55,38		3,41,33,58,49	
		1, 7,49,17, 8, 6,20,15		4,58
12″	50,30,40,58, 8,53,18, 7,15,53		3,41,34, 3,47	
		1, 7,49,13,26,32,16,28		4,58
14″	50,30,42, 5,58, 6,44,39,32,21		3,41,34, 8,45	
		1, 7,49, 9,44,58, 7,43		4,58
16″	50,30,43,13,47,16,29,37,40, 4		3,41,34,13,43	
		1, 7,49, 6, 3,23,54, 0		4,58
18″	50,30,44,21,36,22,33, 1,34, 4		3,41,34,18,41	
		1, 7,49, 2,21,49,35,19		4,58
20″	50,30,45,29,25,24,54,51, 9,23		3,41,34,23,39	
		1, 7,48,58,40,15,11,40		4,58
22″	50,30,46,37,14,23,35, 6,21, 3		3,41,34,28,37	
		1, 7,48,54,58,40,43, 3		4,58
24″	50,30,47,45, 3,18,33,47, 4, 6		3,41,34,33,35	
		1, 7,48,51,17, 6, 9,28		4,58
26″	50,30,48,52,52, 9,50,53,13,34		3,41,34,38,33	
		1, 7,48,47,35,31,30,55		4,58
28″	50,30,50, 0,40,57,26,24,44,29		3,41,34,43,31	
		1, 7,48,43,53,56,47,24		4,58
30″	50,30,51, 8,29,41,20,21,31,53		3,41,34,48,29	
		1, 7,48,40,12,21,58,55		4,58
32″	50,30,52,16,18,21,32,43,30,48		3,41,34,53,27	
		1, 7,48,36,30,47, 5,28		4,58
34″	50,30,53,24, 6,58, 3,30,36,16		3,41,34,58,25	
		1, 7,48,32,49,12, 7, 3		4,58
36″	50,30,54,31,55,30,52,42,43,19		3,41,35, 3,23	
		1, 7,48,29, 7,37, 3,40		4,58
38″	50,30,55,39,44, 0, 0,19,46,59		3,41,35, 8,21	
		1, 7,48,25,26, 1,55,19		4,58
40″	50,30,56,47,32,25,26,21,42,18		3,41,35,13,19	
		1, 7,48,21,44,26,42, 0		4,58
42″	50,30,57,55,20,47,10,48,24,18		3,41,35,18,17	
		1, 7,48,18, 2,51,23,43		4,58
44″	50,30,59, 3, 9, 5,13,39,48, 1		3,41,35,23,15	
		1, 7,48,14,21,16, 0,28		4,58
46″	50,31, 0,10,57,19,34,55,48,29		3,41,35,28,13	
		1, 7,48,10,39,40,32,15		4,58
48″	50,31, 1,18,45,30,14,36,20,44		3,41,35,33,11	
		1, 7,48, 6,58, 4,59, 4		4,58
50″	50,31, 2,26,33,37,12,41,19,48		3,41,35,38, 9	
		1, 7,48, 3,16,29,20,55		4,58
52″	50,31, 3,34,21,40,29,10,40,43		3,41,35,43, 7	
		1, 7,47,59,34,53,37,48		4,58
54″	50,31, 4,42, 9,40, 4, 4,18,31		3,41,35,48, 5	
		1, 7,47,55,53,17,49,43		4,58
56″	50,31, 5,49,57,35,57,22, 8,14		3,41,35,53, 3	
		1, 7,47,52,11,41,56,40		4,58
58″	50,31, 6,57,45,28, 9, 4, 4,54		3,41,35,58, 1	
		1, 7,47,48,30, 5,58,39		
60″	50,31, 8, 5,33,16,39,10, 3,33			
exact	50,31, 8, 5,33,16,39,10,36,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°21′ 0″	50,31, 8, 5,33,16,39,10,36,49			
		1, 7,47,44,48,29,59,22		
2″	50,31, 9,13,21, 1,27,40,36,11		3,41,36, 7,41	
		1, 7,47,41, 6,53,51,41		4,57
4″	50,31,10,21, 8,42,34,34,27,52		3,41,36,12,38	
		1, 7,47,37,25,17,39, 3		4,57
6″	50,31,11,28,56,19,59,52, 6,55		3,41,36,17,35	
		1, 7,47,33,43,41,21,28		4,57
8″	50,31,12,36,43,53,43,33,28,23		3,41,36,22,32	
		1, 7,47,30, 2, 4,58,56		4,57
10″	50,31,13,44,31,23,45,38,27,19		3,41,36,27,29	
		1, 7,47,26,20,28,31,27		4,57
12″	50,31,14,52,18,50, 6, 6,58,46		3,41,36,32,26	
		1, 7,47,22,38,51,59, 1		4,57
14″	50,31,16, 0, 6,12,44,58,57,47		3,41,36,37,23	
		1, 7,47,18,57,15,21,38		4,57
16″	50,31,17, 7,53,31,42,14,19,25		3,41,36,42,20	
		1, 7,47,15,15,38,39,18		4,57
18″	50,31,18,15,40,46,57,52,58,43		3,41,36,47,17	
		1, 7,47,11,34, 1,52, 1		4,57
20″	50,31,19,23,27,58,31,54,50,44		3,41,36,52,14	
		1, 7,47, 7,52,24,59,47		4,57
22″	50,31,20,31,15, 6,24,19,50,31		3,41,36,57,11	
		1, 7,47, 4,10,48, 2,36		4,57
24″	50,31,21,39, 2,10,35, 7,53, 7		3,41,37, 2, 8	
		1, 7,47, 0,29,11, 0,28		4,57
26″	50,31,22,46,49,11, 4,18,53,35		3,41,37, 7, 5	
		1, 7,46,56,47,33,53,23		4,57
28″	50,31,23,54,36, 7,51,52,46,58		3,41,37,12, 2	
		1, 7,46,53, 5,56,41,21		4,57
30″	50,31,25, 2,23, 0,57,49,28,19		3,41,37,16,59	
		1, 7,46,49,24,19,24,22		4,57
32″	50,31,26,10, 9,50,22, 8,52,41		3,41,37,21,56	
		1, 7,46,45,42,42, 2,26		4,57
34″	50,31,27,17,56,36, 4,50,55, 7		3,41,37,26,53	
		1, 7,46,42, 1, 4,35,33		4,57
36″	50,31,28,25,43,18, 5,55,30,40		3,41,37,31,50	
		1, 7,46,38,19,27, 3,43		4,57
38″	50,31,29,33,29,56,25,22,34,23		3,41,37,36,47	
		1, 7,46,34,37,49,26,56		4,57
40″	50,31,30,41,16,31, 3,12, 1,19		3,41,37,41,44	
		1, 7,46,30,56,11,45,12		4,57
42″	50,31,31,49, 3, 1,59,23,46,31		3,41,37,46,41	
		1, 7,46,27,14,33,58,31		4,57
44″	50,31,32,56,49,29,13,57,45, 2		3,41,37,51,38	
		1, 7,46,23,32,56, 6,53		4,57
46″	50,31,34, 4,35,52,46,53,51,55		3,41,37,56,35	
		1, 7,46,19,51,18,10,18		4,57
48″	50,31,35,12,22,12,38,12, 2,13		3,41,38, 1,32	
		1, 7,46,16, 9,40, 8,46		4,57
50″	50,31,36,20, 8,28,47,52,10,59		3,41,38, 6,29	
		1, 7,46,12,28, 2, 2,17		4,57
52″	50,31,37,27,54,41,15,54,13,16		3,41,38,11,26	
		1, 7,46, 8,46,23,50,51		4,57
54″	50,31,38,35,40,50, 2,18, 4, 7		3,41,38,16,23	
		1, 7,46, 5, 4,45,34,28		4,57
56″	50,31,39,43,26,55, 7, 3,38,35		3,41,38,21,20	
		1, 7,46, 1,23, 7,13, 8		4,57
58″	50,31,40,51,12,56,30,10,51,43		3,41,38,26,17	
		1, 7,45,57,41,28,46,51		
60″	50,31,41,58,58,54,11,39,38,34			
exact	50,31,41,58,58,54,11,39,16,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°22′ 0″	50,31,41,58,58,54,11,39,16,28			
		1, 7,45,53,59,50,13,16		
2″	50,31,43, 6,44,48,11,29,29,44		3,41,38,36,20	
		1, 7,45,50,18,11,36,56		4,57
4″	50,31,44,14,30,38,29,41, 6,40		3,41,38,41,17	
		1, 7,45,46,36,32,55,39		4,57
6″	50,31,45,22,16,25, 6,14, 2,19		3,41,38,46,14	
		1, 7,45,42,54,54, 9,25		4,57
8″	50,31,46,30, 2, 8, 1, 8,11,44		3,41,38,51,11	
		1, 7,45,39,13,15,18,14		4,57
10″	50,31,47,37,47,47,14,23,29,58		3,41,38,56, 8	
		1, 7,45,35,31,36,22, 6		4,57
12″	50,31,48,45,33,22,45,59,52, 4		3,41,39, 1, 5	
		1, 7,45,31,49,57,21, 1		4,57
14″	50,31,49,53,18,54,35,57,13, 5		3,41,39, 6, 2	
		1, 7,45,28, 8,18,14,59		4,57
16″	50,31,51, 1, 4,22,44,15,28, 4		3,41,39,10,59	
		1, 7,45,24,26,39, 4, 0		4,57
18″	50,31,52, 8,49,47,10,54,32, 4		3,41,39,15,56	
		1, 7,45,20,44,59,48, 4		4,57
20″	50,31,53,16,35, 7,55,54,20, 8		3,41,39,20,53	
		1, 7,45,17, 3,20,27,11		4,57
22″	50,31,54,24,20,24,59,14,47,19		3,41,39,25,50	
		1, 7,45,13,21,41, 1,21		4,57
24″	50,31,55,32, 5,38,20,55,48,40		3,41,39,30,47	
		1, 7,45, 9,40, 1,30,34		4,57
26″	50,31,56,39,50,48, 0,57,19,14		3,41,39,35,44	
		1, 7,45, 5,58,21,54,50		4,57
28″	50,31,57,47,35,53,59,19,14, 4		3,41,39,40,41	
		1, 7,45, 2,16,42,14, 9		4,57
30″	50,31,58,55,20,56,16, 1,28,13		3,41,39,45,38	
		1, 7,44,58,35, 2,28,31		4,57
32″	50,32, 0, 3, 5,54,51, 3,56,44		3,41,39,50,35	
		1, 7,44,54,53,22,37,56		4,57
34″	50,32, 1,10,50,49,44,26,34,40		3,41,39,55,32	
		1, 7,44,51,11,42,42,24		4,57
36″	50,32, 2,18,35,40,56, 9,17, 4		3,41,40, 0,29	
		1, 7,44,47,30, 2,41,55		4,57
38″	50,32, 3,26,20,28,26,11,58,59		3,41,40, 5,26	
		1, 7,44,43,48,22,36,29		4,57
40″	50,32, 4,34, 5,12,14,34,35,28		3,41,40,10,23	
		1, 7,44,40, 6,42,26, 6		4,57
42″	50,32, 5,41,49,52,21,17, 1,34		3,41,40,15,20	
		1, 7,44,36,25, 2,10,46		4,57
44″	50,32, 6,49,34,28,46,19,12,20		3,41,40,20,17	
		1, 7,44,32,43,21,50,29		4,57
46″	50,32, 7,57,19, 1,29,41, 2,49		3,41,40,25,14	
		1, 7,44,29, 1,41,25,15		4,57
48″	50,32, 9, 5, 3,30,31,22,28, 4		3,41,40,30,11	
		1, 7,44,25,20, 0,55, 4		4,57
50″	50,32,10,12,47,55,51,23,23, 8		3,41,40,35, 8	
		1, 7,44,21,38,20,19,56		4,57
52″	50,32,11,20,32,17,29,43,43, 4		3,41,40,40, 5	
		1, 7,44,17,56,39,39,51		4,57
54″	50,32,12,28,16,35,26,23,22,55		3,41,40,45, 2	
		1, 7,44,14,14,58,54,49		4,57
56″	50,32,13,36, 0,49,41,22,17,44		3,41,40,49,59	
		1, 7,44,10,33,18, 4,50		4,57
58″	50,32,14,43,45, 0,14,40,22,34		3,41,40,54,56	
		1, 7,44, 6,51,37, 9,54		
60″	50,32,15,51,29, 7, 6,17,32,28			
exact	50,32,15,51,29, 7, 6,17,16,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°23′ 0″	50,32,15,51,29, 7, 6,17,16,16			
		1, 7,44, 3, 9,56, 8,25		
2″	50,32,16,59,13,10,16,13,24,41		3,41,41, 4,56	
		1, 7,43,59,28,15, 3,29		4,57
4″	50,32,18, 6,57, 9,44,28,28,10		3,41,41, 9,53	
		1, 7,43,55,46,33,53,36		4,57
6″	50,32,19,14,41, 5,31, 2,21,46		3,41,41,14,50	
		1, 7,43,52, 4,52,38,46		4,57
8″	50,32,20,22,24,57,35,55, 0,32		3,41,41,19,47	
		1, 7,43,48,23,11,18,59		4,57
10″	50,32,21,30, 8,45,59, 6,19,31		3,41,41,24,44	
		1, 7,43,44,41,29,54,15		4,57
12″	50,32,22,37,52,30,40,36,13,46		3,41,41,29,41	
		1, 7,43,40,59,48,24,34		4,57
14″	50,32,23,45,36,11,40,24,38,20		3,41,41,34,38	
		1, 7,43,37,18, 6,49,56		4,57
16″	50,32,24,53,19,48,58,31,28,16		3,41,41,39,35	
		1, 7,43,33,36,25,10,21		4,57
18″	50,32,26, 1, 3,22,34,56,38,37		3,41,41,44,32	
		1, 7,43,29,54,43,25,49		4,57
20″	50,32,27, 8,46,52,29,40, 4,26		3,41,41,49,29	
		1, 7,43,26,13, 1,36,20		4,57
22″	50,32,28,16,30,18,42,41,40,46		3,41,41,54,26	
		1, 7,43,22,31,19,41,54		4,57
24″	50,32,29,24,13,41,14, 1,22,40		3,41,41,59,23	
		1, 7,43,18,49,37,42,31		4,57
26″	50,32,30,31,57, 0, 3,39, 5,11		3,41,42, 4,20	
		1, 7,43,15, 7,55,38,11		4,57
28″	50,32,31,39,40,15,11,34,43,22		3,41,42, 9,17	
		1, 7,43,11,26,13,28,54		4,57
30″	50,32,32,47,23,26,37,48,12,16		3,41,42,14,14	
		1, 7,43, 7,44,31,14,40		4,57
32″	50,32,33,55, 6,34,22,19,26,56		3,41,42,19,11	
		1, 7,43, 4, 2,48,55,29		4,57
34″	50,32,35, 2,49,38,25, 8,22,25		3,41,42,24, 8	
		1, 7,43, 0,21, 6,31,21		4,57
36″	50,32,36,10,32,38,46,14,53,46		3,41,42,29, 5	
		1, 7,42,56,39,24, 2,16		4,57
38″	50,32,37,18,15,35,25,38,56, 2		3,41,42,34, 2	
		1, 7,42,52,57,41,28,14		4,57
40″	50,32,38,25,58,28,23,20,24,16		3,41,42,38,59	
		1, 7,42,49,15,58,49,15		4,57
42″	50,32,39,33,41,17,39,19,13,31		3,41,42,43,56	
		1, 7,42,45,34,16, 5,19		4,57
44″	50,32,40,41,24, 3,13,35,18,50		3,41,42,48,53	
		1, 7,42,41,52,33,16,26		4,57
46″	50,32,41,49, 6,45, 6, 8,35,16		3,41,42,53,50	
		1, 7,42,38,10,50,22,36		4,57
48″	50,32,42,56,49,23,16,58,57,52		3,41,42,58,47	
		1, 7,42,34,29, 7,23,49		4,57
50″	50,32,44, 4,31,57,46, 6,21,41		3,41,43, 3,44	
		1, 7,42,30,47,24,20, 5		4,57
52″	50,32,45,12,14,28,33,30,41,46		3,41,43, 8,41	
		1, 7,42,27, 5,41,11,24		4,57
54″	50,32,46,19,56,55,39,11,53,10		3,41,43,13,38	
		1, 7,42,23,23,57,57,46		4,57
56″	50,32,47,27,39,19, 3, 9,50,56		3,41,43,18,35	
		1, 7,42,19,42,14,39,11		4,57
58″	50,32,48,35,21,38,45,24,30, 7		3,41,43,23,32	
		1, 7,42,16, 0,31,15,39		
60″	50,32,49,43, 3,54,45,55,45,46			
exact	50,32,49,43, 3,54,45,55,42,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°24′ 0″	50,32,49,43, 3,54,45,55,42,51			
		1, 7,42,12,18,47,46,50		
2″	50,32,50,50,46, 7, 4,43,29,41		3,41,43,33,27	
		1, 7,42, 8,37, 4,13,23		4,57
4″	50,32,51,58,28,15,41,47,43, 4		3,41,43,38,24	
		1, 7,42, 4,55,20,34,59		4,57
6″	50,32,53, 6,10,20,37, 8,18, 3		3,41,43,43,21	
		1, 7,42, 1,13,36,51,38		4,57
8″	50,32,54,13,52,21,50,45, 9,41		3,41,43,48,18	
		1, 7,41,57,31,53, 3,20		4,57
10″	50,32,55,21,34,19,22,38,13, 1		3,41,43,53,15	
		1, 7,41,53,50, 9,10, 5		4,57
12″	50,32,56,29,16,13,12,47,23, 6		3,41,43,58,12	
		1, 7,41,50, 8,25,11,53		4,57
14″	50,32,57,36,58, 3,21,12,34,59		3,41,44, 3, 9	
		1, 7,41,46,26,41, 8,44		4,57
16″	50,32,58,44,39,49,47,53,43,43		3,41,44, 8, 6	
		1, 7,41,42,44,57, 0,38		4,57
18″	50,32,59,52,21,32,32,50,44,21		3,41,44,13, 3	
		1, 7,41,39, 3,12,47,35		4,57
20″	50,33, 1, 0, 3,11,36, 3,31,56		3,41,44,18, 0	
		1, 7,41,35,21,28,29,35		4,57
22″	50,33, 2, 7,44,46,57,32, 1,31		3,41,44,22,57	
		1, 7,41,31,39,44, 6,38		4,57
24″	50,33, 3,15,26,18,37,16, 8, 9		3,41,44,27,54	
		1, 7,41,27,57,59,38,44		4,57
26″	50,33, 4,23, 7,46,35,15,46,53		3,41,44,32,51	
		1, 7,41,24,16,15, 5,53		4,57
28″	50,33, 5,30,49,10,51,30,52,46		3,41,44,37,48	
		1, 7,41,20,34,30,28, 5		4,57
30″	50,33, 6,38,30,31,26, 1,20,51		3,41,44,42,45	
		1, 7,41,16,52,45,45,20		4,57
32″	50,33, 7,46,11,48,18,47, 6,11		3,41,44,47,42	
		1, 7,41,13,11, 0,57,38		4,57
34″	50,33, 8,53,53, 1,29,48, 3,49		3,41,44,52,39	
		1, 7,41, 9,29,16, 4,59		4,57
36″	50,33,10, 1,34,10,59, 4, 8,48		3,41,44,57,36	
		1, 7,41, 5,47,31, 7,23		4,57
38″	50,33,11, 9,15,16,46,35,16,11		3,41,45, 2,33	
		1, 7,41, 2, 5,46, 4,50		4,57
40″	50,33,12,16,56,18,52,21,21, 1		3,41,45, 7,30	
		1, 7,40,58,24, 0,57,20		4,57
42″	50,33,13,24,37,17,16,22,18,21		3,41,45,12,27	
		1, 7,40,54,42,15,44,53		4,57
44″	50,33,14,32,18,11,58,38, 3,14		3,41,45,17,24	
		1, 7,40,51, 0,30,27,29		4,57
46″	50,33,15,39,59, 2,59, 8,30,43		3,41,45,22,21	
		1, 7,40,47,18,45, 5, 8		4,57
48″	50,33,16,47,39,50,17,53,35,51		3,41,45,27,18	
		1, 7,40,43,36,59,37,50		4,57
50″	50,33,17,55,20,33,54,53,13,41		3,41,45,32,15	
		1, 7,40,39,55,14, 5,35		4,57
52″	50,33,19, 3, 1,13,50, 7,19,16		3,41,45,37,12	
		1, 7,40,36,13,28,28,23		4,57
54″	50,33,20,10,41,50, 3,35,47,39		3,41,45,42, 9	
		1, 7,40,32,31,42,46,14		4,57
56″	50,33,21,18,22,22,35,18,33,53		3,41,45,47, 6	
		1, 7,40,28,49,56,59, 8		4,57
58″	50,33,22,26, 2,51,25,15,33, 1		3,41,45,52, 3	
		1, 7,40,25, 8,11, 7, 5		
60″	50,33,23,33,43,16,33,26,40, 6			
exact	50,33,23,33,43,16,33,26,43,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°25′ 0″	50,33,23,33,43,16,33,26,43,37			
		1, 7,40,21,26,25,10,33		
2″	50,33,24,41,23,37,59,51,54,10		3,41,46, 1,54	
		1, 7,40,17,44,39, 8,39		4,57
4″	50,33,25,49, 3,55,44,31, 2,49		3,41,46, 6,51	
		1, 7,40,14, 2,53, 1,48		4,57
6″	50,33,26,56,44, 9,47,24, 4,37		3,41,46,11,48	
		1, 7,40,10,21, 6,50, 0		4,57
8″	50,33,28, 4,24,20, 8,30,54,37		3,41,46,16,45	
		1, 7,40, 6,39,20,33,15		4,57
10″	50,33,29,12, 4,26,47,51,27,52		3,41,46,21,42	
		1, 7,40, 2,57,34,11,33		4,57
12″	50,33,30,19,44,29,45,25,39,25		3,41,46,26,39	
		1, 7,39,59,15,47,44,54		4,57
14″	50,33,31,27,24,29, 1,13,24,19		3,41,46,31,36	
		1, 7,39,55,34, 1,13,18		4,57
16″	50,33,32,35, 4,24,35,14,37,37		3,41,46,36,33	
		1, 7,39,51,52,14,36,45		4,57
18″	50,33,33,42,44,16,27,29,14,22		3,41,46,41,30	
		1, 7,39,48,10,27,55,15		4,57
20″	50,33,34,50,24, 4,37,57, 9,37		3,41,46,46,27	
		1, 7,39,44,28,41, 8,48		4,57
22″	50,33,35,58, 3,49, 6,38,18,25		3,41,46,51,24	
		1, 7,39,40,46,54,17,24		4,57
24″	50,33,37, 5,43,29,53,32,35,49		3,41,46,56,21	
		1, 7,39,37, 5, 7,21, 3		4,57
26″	50,33,38,13,23, 6,58,39,56,52		3,41,47, 1,18	
		1, 7,39,33,23,20,19,45		4,57
28″	50,33,39,21, 2,40,22, 0,16,37		3,41,47, 6,15	
		1, 7,39,29,41,33,13,30		4,57
30″	50,33,40,28,42,10, 3,33,30, 7		3,41,47,11,12	
		1, 7,39,25,59,46, 2,18		4,57
32″	50,33,41,36,21,36, 3,19,32,25		3,41,47,16, 9	
		1, 7,39,22,17,58,46, 9		4,57
34″	50,33,42,44, 0,58,21,18,18,34		3,41,47,21, 6	
		1, 7,39,18,36,11,25, 3		4,57
36″	50,33,43,51,40,16,57,29,43,37		3,41,47,26, 3	
		1, 7,39,14,54,23,59, 0		4,57
38″	50,33,44,59,19,31,51,53,42,37		3,41,47,31, 0	
		1, 7,39,11,12,36,28, 0		4,57
40″	50,33,46, 6,58,43, 4,30,10,37		3,41,47,35,57	
		1, 7,39, 7,30,48,52, 3		4,57
42″	50,33,47,14,37,50,35,19, 2,40		3,41,47,40,54	
		1, 7,39, 3,49, 1,11, 9		4,57
44″	50,33,48,22,16,54,24,20,13,49		3,41,47,45,51	
		1, 7,39, 0, 7,13,25,18		4,57
46″	50,33,49,29,55,54,31,33,39, 7		3,41,47,50,48	
		1, 7,38,56,25,25,34,30		4,57
48″	50,33,50,37,34,50,56,59,13,37		3,41,47,55,45	
		1, 7,38,52,43,37,38,45		4,57
50″	50,33,51,45,13,43,40,36,52,22		3,41,48, 0,42	
		1, 7,38,49, 1,49,38, 3		4,57
52″	50,33,52,52,52,32,42,26,30,25		3,41,48, 5,39	
		1, 7,38,45,20, 1,32,24		4,57
54″	50,33,54, 0,31,18, 2,28, 2,49		3,41,48,10,36	
		1, 7,38,41,38,13,21,48		4,57
56″	50,33,55, 8, 9,59,40,41,24,37		3,41,48,15,33	
		1, 7,38,37,56,25, 6,15		4,57
58″	50,33,56,15,48,37,37, 6,30,52		3,41,48,20,30	
		1, 7,38,34,14,36,45,45		
60″	50,33,57,23,27,11,51,43,16,37			
exact	50,33,57,23,27,11,51,43,26,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°26′ 0″	50,33,57,23,27,11,51,43,26,46			
		1, 7,38,30,32,48,21,35		
2″	50,33,58,31, 5,42,24,31,48,21		3,41,48,30,18	
		1, 7,38,26,50,59,51,17		4,57
4″	50,33,59,38,44, 9,15,31,39,38		3,41,48,35,15	
		1, 7,38,23, 9,11,16, 2		4,57
6″	50,34, 0,46,22,32,24,42,55,40		3,41,48,40,12	
		1, 7,38,19,27,22,35,50		4,57
8″	50,34, 1,54, 0,51,52, 5,31,30		3,41,48,45, 9	
		1, 7,38,15,45,33,50,41		4,57
10″	50,34, 3, 1,39, 7,37,39,22,11		3,41,48,50, 6	
		1, 7,38,12, 3,45, 0,35		4,57
12″	50,34, 4, 9,17,19,41,24,22,46		3,41,48,55, 3	
		1, 7,38, 8,21,56, 5,32		4,57
14″	50,34, 5,16,55,28, 3,20,28,18		3,41,49, 0, 0	
		1, 7,38, 4,40, 7, 5,32		4,57
16″	50,34, 6,24,33,32,43,27,33,50		3,41,49, 4,57	
		1, 7,38, 0,58,18, 0,35		4,57
18″	50,34, 7,32,11,33,41,45,34,25		3,41,49, 9,54	
		1, 7,37,57,16,28,50,41		4,57
20″	50,34, 8,39,49,30,58,14,25, 6		3,41,49,14,51	
		1, 7,37,53,34,39,35,50		4,57
22″	50,34, 9,47,27,24,32,54, 0,56		3,41,49,19,48	
		1, 7,37,49,52,50,16, 2		4,57
24″	50,34,10,55, 5,14,25,44,16,58		3,41,49,24,45	
		1, 7,37,46,11, 0,51,17		4,57
26″	50,34,12, 2,43, 0,36,45, 8,15		3,41,49,29,42	
		1, 7,37,42,29,11,21,35		4,57
28″	50,34,13,10,20,43, 5,56,29,50		3,41,49,34,39	
		1, 7,37,38,47,21,46,56		4,57
30″	50,34,14,17,58,21,53,18,16,46		3,41,49,39,36	
		1, 7,37,35, 5,32, 7,20		4,57
32″	50,34,15,25,35,56,58,50,24, 6		3,41,49,44,33	
		1, 7,37,31,23,42,22,47		4,57
34″	50,34,16,33,13,28,22,32,46,53		3,41,49,49,30	
		1, 7,37,27,41,52,33,17		4,57
36″	50,34,17,40,50,56, 4,25,20,10		3,41,49,54,27	
		1, 7,37,24, 0, 2,38,50		4,57
38″	50,34,18,48,28,20, 4,27,59, 0		3,41,49,59,24	
		1, 7,37,20,18,12,39,26		4,57
40″	50,34,19,56, 5,40,22,40,38,26		3,41,50, 4,21	
		1, 7,37,16,36,22,35, 5		4,57
42″	50,34,21, 3,42,56,59, 3,13,31		3,41,50, 9,18	
		1, 7,37,12,54,32,25,47		4,57
44″	50,34,22,11,20, 9,53,35,39,18		3,41,50,14,15	
		1, 7,37, 9,12,42,11,32		4,57
46″	50,34,23,18,57,19, 6,17,50,50		3,41,50,19,12	
		1, 7,37, 5,30,51,52,20		4,57
48″	50,34,24,26,34,24,37, 9,43,10		3,41,50,24, 9	
		1, 7,37, 1,49, 1,28,11		4,57
50″	50,34,25,34,11,26,26,11,11,21		3,41,50,29, 6	
		1, 7,36,58, 7,10,59, 5		4,57
52″	50,34,26,41,48,24,33,22,10,26		3,41,50,34, 3	
		1, 7,36,54,25,20,25, 2		4,57
54″	50,34,27,49,25,18,58,42,35,28		3,41,50,39, 0	
		1, 7,36,50,43,29,46, 2		4,57
56″	50,34,28,57, 2, 9,42,12,21,30		3,41,50,43,57	
		1, 7,36,47, 1,39, 2, 5		4,57
58″	50,34,30, 4,38,56,43,51,23,35		3,41,50,48,54	
		1, 7,36,43,19,48,13,11		
60″	50,34,31,12,15,40, 3,39,36,46			
exact	50,34,31,12,15,40, 3,40, 1,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°27′ 0″	50,34,31,12,15,40, 3,40, 1,16			
		1, 7,36,39,37,57,21,57		
2″	50,34,32,19,52,19,41,37,23,13		3,41,50,58,37	
		1, 7,36,35,56, 6,23,20		4,57
4″	50,34,33,27,28,55,37,43,46,33		3,41,51, 3,34	
		1, 7,36,32,14,15,19,46		4,57
6″	50,34,34,35, 5,27,51,59, 6,19		3,41,51, 8,31	
		1, 7,36,28,32,24,11,15		4,57
8″	50,34,35,42,41,56,24,23,17,34		3,41,51,13,28	
		1, 7,36,24,50,32,57,47		4,57
10″	50,34,36,50,18,21,14,56,15,21		3,41,51,18,25	
		1, 7,36,21, 8,41,39,22		4,57
12″	50,34,37,57,54,42,23,37,54,43		3,41,51,23,22	
		1, 7,36,17,26,50,16, 0		4,57
14″	50,34,39, 5,30,59,50,28,10,43		3,41,51,28,19	
		1, 7,36,13,44,58,47,41		4,57
16″	50,34,40,13, 7,13,35,26,58,24		3,41,51,33,16	
		1, 7,36,10, 3, 7,14,25		4,57
18″	50,34,41,20,43,23,38,34,12,49		3,41,51,38,13	
		1, 7,36, 6,21,15,36,12		4,57
20″	50,34,42,28,19,29,59,49,49, 1		3,41,51,43,10	
		1, 7,36, 2,39,23,53, 2		4,57
22″	50,34,43,35,55,32,39,13,42, 3		3,41,51,48, 7	
		1, 7,35,58,57,32, 4,55		4,57
24″	50,34,44,43,31,31,36,45,46,58		3,41,51,53, 4	
		1, 7,35,55,15,40,11,51		4,57
26″	50,34,45,51, 7,26,52,25,58,49		3,41,51,58, 1	
		1, 7,35,51,33,48,13,50		4,57
28″	50,34,46,58,43,18,26,14,12,39		3,41,52, 2,58	
		1, 7,35,47,51,56,10,52		4,57
30″	50,34,48, 6,19, 6,18,10,23,31		3,41,52, 7,55	
		1, 7,35,44,10, 4, 2,57		4,57
32″	50,34,49,13,54,50,28,14,26,28		3,41,52,12,52	
		1, 7,35,40,28,11,50, 5		4,57
34″	50,34,50,21,30,30,56,26,16,33		3,41,52,17,49	
		1, 7,35,36,46,19,32,16		4,57
36″	50,34,51,29, 6, 7,42,45,48,49		3,41,52,22,46	
		1, 7,35,33, 4,27, 9,30		4,57
38″	50,34,52,36,41,40,47,12,58,19		3,41,52,27,43	
		1, 7,35,29,22,34,41,47		4,57
40″	50,34,53,44,17,10, 9,47,40, 6		3,41,52,32,40	
		1, 7,35,25,40,42, 9, 7		4,57
42″	50,34,54,51,52,35,50,29,49,13		3,41,52,37,37	
		1, 7,35,21,58,49,31,30		4,57
44″	50,34,55,59,27,57,49,19,20,43		3,41,52,42,34	
		1, 7,35,18,16,56,48,56		4,57
46″	50,34,57, 7, 3,16, 6,16, 9,39		3,41,52,47,31	
		1, 7,35,14,35, 4, 1,25		4,57
48″	50,34,58,14,38,30,41,20,11, 4		3,41,52,52,28	
		1, 7,35,10,53,11, 8,57		4,57
50″	50,34,59,22,13,41,34,31,20, 1		3,41,52,57,25	
		1, 7,35, 7,11,18,11,32		4,57
52″	50,35, 0,29,48,48,45,49,31,33		3,41,53, 2,22	
		1, 7,35, 3,29,25, 9,10		4,57
54″	50,35, 1,37,23,52,15,14,40,43		3,41,53, 7,19	
		1, 7,34,59,47,32, 1,51		4,57
56″	50,35, 2,44,58,52, 2,46,42,34		3,41,53,12,16	
		1, 7,34,56, 5,38,49,35		4,57
58″	50,35, 3,52,33,48, 8,25,32, 9		3,41,53,17,13	
		1, 7,34,52,23,45,32,22		
60″	50,35, 5, 0, 8,40,32,11, 4,31			
exact	50,35, 5, 0, 8,40,32,11,36,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°28′ 0″	50,35, 5, 0, 8,40,32,11,36,55			
		1, 7,34,48,41,52,13,42		
2″	50,35, 6, 7,43,29,14, 3,50,37		3,41,53,26,52	
		1, 7,34,44,59,58,46,50		4,56
4″	50,35, 7,15,18,14,14, 2,37,27		3,41,53,31,48	
		1, 7,34,41,18, 5,15, 2		4,56
6″	50,35, 8,22,52,55,32, 7,52,29		3,41,53,36,44	
		1, 7,34,37,36,11,38,18		4,56
8″	50,35, 9,30,27,33, 8,19,30,47		3,41,53,41,40	
		1, 7,34,33,54,17,56,38		4,56
10″	50,35,10,38, 2, 7, 2,37,27,25		3,41,53,46,36	
		1, 7,34,30,12,24,10, 2		4,56
12″	50,35,11,45,36,37,15, 1,37,27		3,41,53,51,32	
		1, 7,34,26,30,30,18,30		4,56
14″	50,35,12,53,11, 3,45,31,55,57		3,41,53,56,28	
		1, 7,34,22,48,36,22, 2		4,56
16″	50,35,14, 0,45,26,34, 8,17,59		3,41,54, 1,24	
		1, 7,34,19, 6,42,20,38		4,56
18″	50,35,15, 8,19,45,40,50,38,37		3,41,54, 6,20	
		1, 7,34,15,24,48,14,18		4,56
20″	50,35,16,15,54, 1, 5,38,52,55		3,41,54,11,16	
		1, 7,34,11,42,54, 3, 2		4,56
22″	50,35,17,23,28,12,48,32,55,57		3,41,54,16,12	
		1, 7,34, 8, 0,59,46,50		4,56
24″	50,35,18,31, 2,20,49,32,42,47		3,41,54,21, 8	
		1, 7,34, 4,19, 5,25,42		4,56
26″	50,35,19,38,36,25, 8,38, 8,29		3,41,54,26, 4	
		1, 7,34, 0,37,10,59,38		4,56
28″	50,35,20,46,10,25,45,49, 8, 7		3,41,54,31, 0	
		1, 7,33,56,55,16,28,38		4,56
30″	50,35,21,53,44,22,41, 5,36,45		3,41,54,35,56	
		1, 7,33,53,13,21,52,42		4,56
32″	50,35,23, 1,18,15,54,27,29,27		3,41,54,40,52	
		1, 7,33,49,31,27,11,50		4,56
34″	50,35,24, 8,52, 5,25,54,41,17		3,41,54,45,48	
		1, 7,33,45,49,32,26, 2		4,56
36″	50,35,25,16,25,51,15,27, 7,19		3,41,54,50,44	
		1, 7,33,42, 7,37,35,18		4,56
38″	50,35,26,23,59,33,23, 4,42,37		3,41,54,55,40	
		1, 7,33,38,25,42,39,38		4,56
40″	50,35,27,31,33,11,48,47,22,15		3,41,55, 0,36	
		1, 7,33,34,43,47,39, 2		4,56
42″	50,35,28,39, 6,46,32,35, 1,17		3,41,55, 5,32	
		1, 7,33,31, 1,52,33,30		4,56
44″	50,35,29,46,40,17,34,27,34,47		3,41,55,10,28	
		1, 7,33,27,19,57,23, 2		4,56
46″	50,35,30,54,13,44,54,24,57,49		3,41,55,15,24	
		1, 7,33,23,38, 2, 7,38		4,56
48″	50,35,32, 1,47, 8,32,27, 5,27		3,41,55,20,20	
		1, 7,33,19,56, 6,47,18		4,56
50″	50,35,33, 9,20,28,28,33,52,45		3,41,55,25,16	
		1, 7,33,16,14,11,22, 2		4,56
52″	50,35,34,16,53,44,42,45,14,47		3,41,55,30,12	
		1, 7,33,12,32,15,51,50		4,56
54″	50,35,35,24,26,57,15, 1, 6,37		3,41,55,35, 8	
		1, 7,33, 8,50,20,16,42		4,56
56″	50,35,36,32, 0, 6, 5,21,23,19		3,41,55,40, 4	
		1, 7,33, 5, 8,24,36,38		4,56
58″	50,35,37,39,33,11,13,45,59,57		3,41,55,45, 0	
		1, 7,33, 1,26,28,51,38		
60″	50,35,38,47, 6,12,40,14,51,35			
exact	50,35,38,47, 6,12,40,14,24,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°29′ 0″	50,35,38,47, 6,12,40,14,24,20			
		1, 7,32,57,44,32,58,51		
2″	50,35,39,54,39,10,24,47,23,11		3,41,55,55, 3	
		1, 7,32,54, 2,37, 3,48		4,56
4″	50,35,41, 2,12, 4,27,24,26,59		3,41,55,59,59	
		1, 7,32,50,20,41, 3,49		4,56
6″	50,35,42, 9,44,54,48, 5,30,48		3,41,56, 4,55	
		1, 7,32,46,38,44,58,54		4,56
8″	50,35,43,17,17,41,26,50,29,42		3,41,56, 9,51	
		1, 7,32,42,56,48,49, 3		4,56
10″	50,35,44,24,50,24,23,39,18,45		3,41,56,14,47	
		1, 7,32,39,14,52,34,16		4,56
12″	50,35,45,32,23, 3,38,31,53, 1		3,41,56,19,43	
		1, 7,32,35,32,56,14,33		4,56
14″	50,35,46,39,55,39,11,28, 7,34		3,41,56,24,39	
		1, 7,32,31,50,59,49,54		4,56
16″	50,35,47,47,28,11, 2,27,57,28		3,41,56,29,35	
		1, 7,32,28, 9, 3,20,19		4,56
18″	50,35,48,55, 0,39,11,31,17,47		3,41,56,34,31	
		1, 7,32,24,27, 6,45,48		4,56
20″	50,35,50, 2,33, 3,38,38, 3,35		3,41,56,39,27	
		1, 7,32,20,45,10, 6,21		4,56
22″	50,35,51,10, 5,24,23,48, 9,56		3,41,56,44,23	
		1, 7,32,17, 3,13,21,58		4,56
24″	50,35,52,17,37,41,27, 1,31,54		3,41,56,49,19	
		1, 7,32,13,21,16,32,39		4,56
26″	50,35,53,25, 9,54,48,18, 4,33		3,41,56,54,15	
		1, 7,32, 9,39,19,38,24		4,56
28″	50,35,54,32,42, 4,27,37,42,57		3,41,56,59,11	
		1, 7,32, 5,57,22,39,13		4,56
30″	50,35,55,40,14,10,25, 0,22,10		3,41,57, 4, 7	
		1, 7,32, 2,15,25,35, 6		4,56
32″	50,35,56,47,46,12,40,25,57,16		3,41,57, 9, 3	
		1, 7,31,58,33,28,26, 3		4,56
34″	50,35,57,55,18,11,13,54,23,19		3,41,57,13,59	
		1, 7,31,54,51,31,12, 4		4,56
36″	50,35,59, 2,50, 6, 5,25,35,23		3,41,57,18,55	
		1, 7,31,51, 9,33,53, 9		4,56
38″	50,36, 0,10,21,57,14,59,28,32		3,41,57,23,51	
		1, 7,31,47,27,36,29,18		4,56
40″	50,36, 1,17,53,44,42,35,57,50		3,41,57,28,47	
		1, 7,31,43,45,39, 0,31		4,56
42″	50,36, 2,25,25,28,28,14,58,21		3,41,57,33,43	
		1, 7,31,40, 3,41,26,48		4,56
44″	50,36, 3,32,57, 8,31,56,25, 9		3,41,57,38,39	
		1, 7,31,36,21,43,48, 9		4,56
46″	50,36, 4,40,28,44,53,40,13,18		3,41,57,43,35	
		1, 7,31,32,39,46, 4,34		4,56
48″	50,36, 5,48, 0,17,33,26,17,52		3,41,57,48,31	
		1, 7,31,28,57,48,16, 3		4,56
50″	50,36, 6,55,31,46,31,14,33,55		3,41,57,53,27	
		1, 7,31,25,15,50,22,36		4,56
52″	50,36, 8, 3, 3,11,47, 4,56,31		3,41,57,58,23	
		1, 7,31,21,33,52,24,13		4,56
54″	50,36, 9,10,34,33,20,57,20,44		3,41,58, 3,19	
		1, 7,31,17,51,54,20,54		4,56
56″	50,36,10,18, 5,51,12,51,41,38		3,41,58, 8,15	
		1, 7,31,14, 9,56,12,39		4,56
58″	50,36,11,25,37, 5,22,47,54,17		3,41,58,13,11	
		1, 7,31,10,27,57,59,28		
60″	50,36,12,33, 8,15,50,45,53,45			
exact	50,36,12,33, 8,15,50,45,34,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°30′ 0″	50,36,12,33, 8,15,50,45,34,59			
		1, 7,31, 6,45,59,39,26		
2″	50,36,13,40,39,22,36,45,14,25		3,41,58,23,10	
		1, 7,31, 3, 4, 1,16,16		4,56
4″	50,36,14,48,10,25,40,46,30,41		3,41,58,28, 6	
		1, 7,30,59,22, 2,48,10		4,56
6″	50,36,15,55,41,25, 2,49,18,51		3,41,58,33, 2	
		1, 7,30,55,40, 4,15, 8		4,56
8″	50,36,17, 3,12,20,42,53,33,59		3,41,58,37,58	
		1, 7,30,51,58, 5,37,10		4,56
10″	50,36,18,10,43,12,40,59,11, 9		3,41,58,42,54	
		1, 7,30,48,16, 6,54,16		4,56
12″	50,36,19,18,14, 0,57, 6, 5,25		3,41,58,47,50	
		1, 7,30,44,34, 8, 6,26		4,56
14″	50,36,20,25,44,45,31,14,11,51		3,41,58,52,46	
		1, 7,30,40,52, 9,13,40		4,56
16″	50,36,21,33,15,26,23,23,25,31		3,41,58,57,42	
		1, 7,30,37,10,10,15,58		4,56
18″	50,36,22,40,46, 3,33,33,41,29		3,41,59, 2,38	
		1, 7,30,33,28,11,13,20		4,56
20″	50,36,23,48,16,37, 1,44,54,49		3,41,59, 7,34	
		1, 7,30,29,46,12, 5,46		4,56
22″	50,36,24,55,47, 6,47,57, 0,35		3,41,59,12,30	
		1, 7,30,26, 4,12,53,16		4,56
24″	50,36,26, 3,17,32,52, 9,53,51		3,41,59,17,26	
		1, 7,30,22,22,13,35,50		4,56
26″	50,36,27,10,47,55,14,23,29,41		3,41,59,22,22	
		1, 7,30,18,40,14,13,28		4,56
28″	50,36,28,18,18,13,54,37,43, 9		3,41,59,27,18	
		1, 7,30,14,58,14,46,10		4,56
30″	50,36,29,25,48,28,52,52,29,19		3,41,59,32,14	
		1, 7,30,11,16,15,13,56		4,56
32″	50,36,30,33,18,40, 9, 7,43,15		3,41,59,37,10	
		1, 7,30, 7,34,15,36,46		4,56
34″	50,36,31,40,48,47,43,23,20, 1		3,41,59,42, 6	
		1, 7,30, 3,52,15,54,40		4,56
36″	50,36,32,48,18,51,35,39,14,41		3,41,59,47, 2	
		1, 7,30, 0,10,16, 7,38		4,56
38″	50,36,33,55,48,51,45,55,22,19		3,41,59,51,58	
		1, 7,29,56,28,16,15,40		4,56
40″	50,36,35, 3,18,48,14,11,37,59		3,41,59,56,54	
		1, 7,29,52,46,16,18,46		4,56
42″	50,36,36,10,48,41, 0,27,56,45		3,42, 0, 1,50	
		1, 7,29,49, 4,16,16,56		4,56
44″	50,36,37,18,18,30, 4,44,13,41		3,42, 0, 6,46	
		1, 7,29,45,22,16,10,10		4,56
46″	50,36,38,25,48,15,27, 0,23,51		3,42, 0,11,42	
		1, 7,29,41,40,15,58,28		4,56
48″	50,36,39,33,17,57, 7,16,22,19		3,42, 0,16,38	
		1, 7,29,37,58,15,41,50		4,56
50″	50,36,40,40,47,35, 5,32, 4, 9		3,42, 0,21,34	
		1, 7,29,34,16,15,20,16		4,56
52″	50,36,41,48,17, 9,21,47,24,25		3,42, 0,26,30	
		1, 7,29,30,34,14,53,46		4,56
54″	50,36,42,55,46,39,56, 2,18,11		3,42, 0,31,26	
		1, 7,29,26,52,14,22,20		4,56
56″	50,36,44, 3,16, 6,48,16,40,31		3,42, 0,36,22	
		1, 7,29,23,10,13,45,58		4,56
58″	50,36,45,10,45,29,58,30,26,29		3,42, 0,41,18	
		1, 7,29,19,28,13, 4,40		
60″	50,36,46,18,14,49,26,43,31, 9			
exact	50,36,46,18,14,49,26,43,21, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°31′ 0″	50,36,46,18,14,49,26,43,21, 8			
		1, 7,29,15,46,12,17,29		
2″	50,36,47,25,44, 5,12,55,38,37		3,42, 0,51,13	
		1, 7,29,12, 4,11,26,16		4,56
4″	50,36,48,33,13,17,17, 7, 4,53		3,42, 0,56, 9	
		1, 7,29, 8,22,10,30, 7		4,56
6″	50,36,49,40,42,25,39,17,35, 0		3,42, 1, 1, 5	
		1, 7,29, 4,40, 9,29, 2		4,56
8″	50,36,50,48,11,30,19,27, 4, 2		3,42, 1, 6, 1	
		1, 7,29, 0,58, 8,23, 1		4,56
10″	50,36,51,55,40,31,17,35,27, 3		3,42, 1,10,57	
		1, 7,28,57,16, 7,12, 4		4,56
12″	50,36,53, 3, 9,28,33,42,39, 7		3,42, 1,15,53	
		1, 7,28,53,34, 5,56,11		4,56
14″	50,36,54,10,38,22, 7,48,35,18		3,42, 1,20,49	
		1, 7,28,49,52, 4,35,22		4,56
16″	50,36,55,18, 7,11,59,53,10,40		3,42, 1,25,45	
		1, 7,28,46,10, 3, 9,37		4,56
18″	50,36,56,25,35,58, 9,56,20,17		3,42, 1,30,41	
		1, 7,28,42,28, 1,38,56		4,56
20″	50,36,57,33, 4,40,37,57,59,13		3,42, 1,35,37	
		1, 7,28,38,46, 0, 3,19		4,56
22″	50,36,58,40,33,19,23,58, 2,32		3,42, 1,40,33	
		1, 7,28,35, 3,58,22,46		4,56
24″	50,36,59,48, 1,54,27,56,25,18		3,42, 1,45,29	
		1, 7,28,31,21,56,37,17		4,56
26″	50,37, 0,55,30,25,49,53, 2,35		3,42, 1,50,25	
		1, 7,28,27,39,54,46,52		4,56
28″	50,37, 2, 2,58,53,29,47,49,27		3,42, 1,55,21	
		1, 7,28,23,57,52,51,31		4,56
30″	50,37, 3,10,27,17,27,40,40,58		3,42, 2, 0,17	
		1, 7,28,20,15,50,51,14		4,56
32″	50,37, 4,17,55,37,43,31,32,12		3,42, 2, 5,13	
		1, 7,28,16,33,48,46, 1		4,56
34″	50,37, 5,25,23,54,17,20,18,13		3,42, 2,10, 9	
		1, 7,28,12,51,46,35,52		4,56
36″	50,37, 6,32,52, 7, 9, 6,54, 5		3,42, 2,15, 5	
		1, 7,28, 9, 9,44,20,47		4,56
38″	50,37, 7,40,20,16,18,51,14,52		3,42, 2,20, 1	
		1, 7,28, 5,27,42, 0,46		4,56
40″	50,37, 8,47,48,21,46,33,15,38		3,42, 2,24,57	
		1, 7,28, 1,45,39,35,49		4,56
42″	50,37, 9,55,16,23,32,12,51,27		3,42, 2,29,53	
		1, 7,27,58, 3,37, 5,56		4,56
44″	50,37,11, 2,44,21,35,49,57,23		3,42, 2,34,49	
		1, 7,27,54,21,34,31, 7		4,56
46″	50,37,12,10,12,15,57,24,28,30		3,42, 2,39,45	
		1, 7,27,50,39,31,51,22		4,56
48″	50,37,13,17,40, 6,36,56,19,52		3,42, 2,44,41	
		1, 7,27,46,57,29, 6,41		4,56
50″	50,37,14,25, 7,53,34,25,26,33		3,42, 2,49,37	
		1, 7,27,43,15,26,17, 4		4,56
52″	50,37,15,32,35,36,49,51,43,37		3,42, 2,54,33	
		1, 7,27,39,33,23,22,31		4,56
54″	50,37,16,40, 3,16,23,15, 6, 8		3,42, 2,59,29	
		1, 7,27,35,51,20,23, 2		4,56
56″	50,37,17,47,30,52,14,35,29,10		3,42, 3, 4,25	
		1, 7,27,32, 9,17,18,37		4,56
58″	50,37,18,54,58,24,23,52,47,47		3,42, 3, 9,21	
		1, 7,27,28,27,14, 9,16		
60″	50,37,20, 2,25,52,51, 6,57, 3			
exact	50,37,20, 2,25,52,51, 6,55,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°32′ 0″	50,37,20, 2,25,52,51, 6,55,57			
		1, 7,27,24,45,10,55, 0		
2″	50,37,21, 9,53,17,36,17,50,57		3,42, 3,19,12	
		1, 7,27,21, 3, 7,35,48		4,56
4″	50,37,22,17,20,38,39,25,26,45		3,42, 3,24, 8	
		1, 7,27,17,21, 4,11,40		4,56
6″	50,37,23,24,47,56, 0,29,38,25		3,42, 3,29, 4	
		1, 7,27,13,39, 0,42,36		4,56
8″	50,37,24,32,15, 9,39,30,21, 1		3,42, 3,34, 0	
		1, 7,27, 9,56,57, 8,36		4,56
10″	50,37,25,39,42,19,36,27,29,37		3,42, 3,38,56	
		1, 7,27, 6,14,53,29,40		4,56
12″	50,37,26,47, 9,25,51,20,59,17		3,42, 3,43,52	
		1, 7,27, 2,32,49,45,48		4,56
14″	50,37,27,54,36,28,24,10,45, 5		3,42, 3,48,48	
		1, 7,26,58,50,45,57, 0		4,56
16″	50,37,29, 2, 3,27,14,56,42, 5		3,42, 3,53,44	
		1, 7,26,55, 8,42, 3,16		4,56
18″	50,37,30, 9,30,22,23,38,45,21		3,42, 3,58,40	
		1, 7,26,51,26,38, 4,36		4,56
20″	50,37,31,16,57,13,50,16,49,57		3,42, 4, 3,36	
		1, 7,26,47,44,34, 1, 0		4,56
22″	50,37,32,24,24, 1,34,50,50,57		3,42, 4, 8,32	
		1, 7,26,44, 2,29,52,28		4,56
24″	50,37,33,31,50,45,37,20,43,25		3,42, 4,13,28	
		1, 7,26,40,20,25,39, 0		4,56
26″	50,37,34,39,17,25,57,46,22,25		3,42, 4,18,24	
		1, 7,26,36,38,21,20,36		4,56
28″	50,37,35,46,44, 2,36, 7,43, 1		3,42, 4,23,20	
		1, 7,26,32,56,16,57,16		4,56
30″	50,37,36,54,10,35,32,24,40,17		3,42, 4,28,16	
		1, 7,26,29,14,12,29, 0		4,56
32″	50,37,38, 1,37, 4,46,37, 9,17		3,42, 4,33,12	
		1, 7,26,25,32, 7,55,48		4,56
34″	50,37,39, 9, 3,30,18,45, 5, 5		3,42, 4,38, 8	
		1, 7,26,21,50, 3,17,40		4,56
36″	50,37,40,16,29,52, 8,48,22,45		3,42, 4,43, 4	
		1, 7,26,18, 7,58,34,36		4,56
38″	50,37,41,23,56,10,16,46,57,21		3,42, 4,48, 0	
		1, 7,26,14,25,53,46,36		4,56
40″	50,37,42,31,22,24,42,40,43,57		3,42, 4,52,56	
		1, 7,26,10,43,48,53,40		4,56
42″	50,37,43,38,48,35,26,29,37,37		3,42, 4,57,52	
		1, 7,26, 7, 1,43,55,48		4,56
44″	50,37,44,46,14,42,28,13,33,25		3,42, 5, 2,48	
		1, 7,26, 3,19,38,53, 0		4,56
46″	50,37,45,53,40,45,47,52,26,25		3,42, 5, 7,44	
		1, 7,25,59,37,33,45,16		4,56
48″	50,37,47, 1, 6,45,25,26,11,41		3,42, 5,12,40	
		1, 7,25,55,55,28,32,36		4,56
50″	50,37,48, 8,32,41,20,54,44,17		3,42, 5,17,36	
		1, 7,25,52,13,23,15, 0		4,56
52″	50,37,49,15,58,33,34,17,59,17		3,42, 5,22,32	
		1, 7,25,48,31,17,52,28		4,56
54″	50,37,50,23,24,22, 5,35,51,45		3,42, 5,27,28	
		1, 7,25,44,49,12,25, 0		4,56
56″	50,37,51,30,50, 6,54,48,16,45		3,42, 5,32,24	
		1, 7,25,41, 7, 6,52,36		4,56
58″	50,37,52,38,15,48, 1,55, 9,21		3,42, 5,37,20	
		1, 7,25,37,25, 1,15,16		
60″	50,37,53,45,41,25,26,56,24,37			
exact	50,37,53,45,41,25,26,56,33,27			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
57°33′	0″	50,37,53,45,41,25,26,56,33,27			
	2″	50,37,54,53, 6,59, 9,52, 7,30	1, 7,25,33,42,55,34, 3	3,42, 5,47, 7	
	4″	50,37,56, 0,32,29,10,41,54,26	1, 7,25,30, 0,49,46,56	3,42, 5,52, 3	4,56
	6″	50,37,57, 7,57,55,29,25,49,19	1, 7,25,26,18,43,54,53	3,42, 5,56,59	4,56
	8″	50,37,58,15,23,18, 6, 3,47,13	1, 7,25,22,36,37,57,54	3,42, 6, 1,55	4,56
	10″	50,37,59,22,48,37, 0,35,43,12	1, 7,25,18,54,31,55,59	3,42, 6, 6,51	4,56
	12″	50,38, 0,30,13,52,13, 1,32,20	1, 7,25,15,12,25,49, 8	3,42, 6,11,47	4,56
	14″	50,38, 1,37,39, 3,43,21, 9,41	1, 7,25,11,30,19,37,21	3,42, 6,16,43	4,56
	16″	50,38, 2,45, 4,11,31,34,30,19	1, 7,25, 7,48,13,20,38	3,42, 6,21,39	4,56
	18″	50,38, 3,52,29,15,37,41,29,18	1, 7,25, 4, 6, 6,58,59	3,42, 6,26,35	4,56
	20″	50,38, 4,59,54,16, 1,42, 1,42	1, 7,25, 0,24, 0,32,24	3,42, 6,31,31	4,56
	22″	50,38, 6, 7,19,12,43,36, 2,35	1, 7,24,56,41,54, 0,53	3,42, 6,36,27	4,56
	24″	50,38, 7,14,44, 5,43,23,27, 1	1, 7,24,52,59,47,24,26	3,42, 6,41,23	4,56
	26″	50,38, 8,22, 8,55, 1, 4,10, 4	1, 7,24,49,17,40,43, 3	3,42, 6,46,19	4,56
	28″	50,38, 9,29,33,40,36,38, 6,48	1, 7,24,45,35,33,56,44	3,42, 6,51,15	4,56
	30″	50,38,10,36,58,22,30, 5,12,17	1, 7,24,41,53,27, 5,29	3,42, 6,56,11	4,56
	32″	50,38,11,44,23, 0,41,25,21,35	1, 7,24,38,11,20, 9,18	3,42, 7, 1, 7	4,56
	34″	50,38,12,51,47,35,10,38,29,46	1, 7,24,34,29,13, 8,11	3,42, 7, 6, 3	4,56
	36″	50,38,13,59,12, 5,57,44,31,54	1, 7,24,30,47, 6, 2, 8	3,42, 7,10,59	4,56
	38″	50,38,15, 6,36,33, 2,43,23, 3	1, 7,24,27, 4,58,51, 9	3,42, 7,15,55	4,56
	40″	50,38,16,14, 0,56,25,34,58,17	1, 7,24,23,22,51,35,14	3,42, 7,20,51	4,56
	42″	50,38,17,21,25,16, 6,19,12,40	1, 7,24,19,40,44,14,23	3,42, 7,25,47	4,56
	44″	50,38,18,28,49,32, 4,56, 1,16	1, 7,24,15,58,36,48,36	3,42, 7,30,43	4,56
	46″	50,38,19,36,13,44,21,25,19, 9	1, 7,24,12,16,29,17,53	3,42, 7,35,39	4,56
	48″	50,38,20,43,37,52,55,47, 1,23	1, 7,24, 8,34,21,42,14	3,42, 7,40,35	4,56
	50″	50,38,21,51, 1,57,48, 1, 3, 2	1, 7,24, 4,52,14, 1,39	3,42, 7,45,31	4,56
	52″	50,38,22,58,25,58,58, 7,19,10	1, 7,24, 1,10, 6,16, 8	3,42, 7,50,27	4,56
	54″	50,38,24, 5,49,56,26, 5,44,51	1, 7,23,57,27,58,25,41	3,42, 7,55,23	4,56
	56″	50,38,25,13,13,50,11,56,15, 9	1, 7,23,53,45,50,30,18	3,42, 8, 0,19	4,56
	58″	50,38,26,20,37,40,15,38,45, 8	1, 7,23,50, 3,42,29,59	3,42, 8, 5,15	
	60″	50,38,27,28, 1,26,37,13, 9,52	1, 7,23,46,21,34,24,44		
	exact	50,38,27,28, 1,26,37,13,28,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°34′ 0″	50,38,27,28, 1,26,37,13,28,31			
		1, 7,23,42,39,26,16,38		
2″	50,38,28,35,25, 9,16,39,45, 9		3,42, 8,14,58	
		1, 7,23,38,57,18, 1,40		4,56
4″	50,38,29,42,48,48,13,57,46,49		3,42, 8,19,54	
		1, 7,23,35,15, 9,41,46		4,56
6″	50,38,30,50,12,23,29, 7,28,35		3,42, 8,24,50	
		1, 7,23,31,33, 1,16,56		4,56
8″	50,38,31,57,35,55, 2, 8,45,31		3,42, 8,29,46	
		1, 7,23,27,50,52,47,10		4,56
10″	50,38,33, 4,59,22,53, 1,32,41		3,42, 8,34,42	
		1, 7,23,24, 8,44,12,28		4,56
12″	50,38,34,12,22,47, 1,45,45, 9		3,42, 8,39,38	
		1, 7,23,20,26,35,32,50		4,56
14″	50,38,35,19,46, 7,28,21,17,59		3,42, 8,44,34	
		1, 7,23,16,44,26,48,16		4,56
16″	50,38,36,27, 9,24,12,48, 6,15		3,42, 8,49,30	
		1, 7,23,13, 2,17,58,46		4,56
18″	50,38,37,34,32,37,15, 6, 5, 1		3,42, 8,54,26	
		1, 7,23, 9,20, 9, 4,20		4,56
20″	50,38,38,41,55,46,35,15, 9,21		3,42, 8,59,22	
		1, 7,23, 5,38, 0, 4,58		4,56
22″	50,38,39,49,18,52,13,15,14,19		3,42, 9, 4,18	
		1, 7,23, 1,55,51, 0,40		4,56
24″	50,38,40,56,41,54, 9, 6,14,59		3,42, 9, 9,14	
		1, 7,22,58,13,41,51,26		4,56
26″	50,38,42, 4, 4,52,22,48, 6,25		3,42, 9,14,10	
		1, 7,22,54,31,32,37,16		4,56
28″	50,38,43,11,27,46,54,20,43,41		3,42, 9,19, 6	
		1, 7,22,50,49,23,18,10		4,56
30″	50,38,44,18,50,37,43,44, 1,51		3,42, 9,24, 2	
		1, 7,22,47, 7,13,54, 8		4,56
32″	50,38,45,26,13,24,50,57,55,59		3,42, 9,28,58	
		1, 7,22,43,25, 4,25,10		4,56
34″	50,38,46,33,36, 8,16, 2,21, 9		3,42, 9,33,54	
		1, 7,22,39,42,54,51,16		4,56
36″	50,38,47,40,58,47,58,57,12,25		3,42, 9,38,50	
		1, 7,22,36, 0,45,12,26		4,56
38″	50,38,48,48,21,23,59,42,24,51		3,42, 9,43,46	
		1, 7,22,32,18,35,28,40		4,56
40″	50,38,49,55,43,56,18,17,53,31		3,42, 9,48,42	
		1, 7,22,28,36,25,39,58		4,56
42″	50,38,51, 3, 6,24,54,43,33,29		3,42, 9,53,38	
		1, 7,22,24,54,15,46,20		4,56
44″	50,38,52,10,28,49,48,59,19,49		3,42, 9,58,34	
		1, 7,22,21,12, 5,47,46		4,56
46″	50,38,53,17,51,11, 1, 5, 7,35		3,42,10, 3,30	
		1, 7,22,17,29,55,44,16		4,56
48″	50,38,54,25,13,28,31, 0,51,51		3,42,10, 8,26	
		1, 7,22,13,47,45,35,50		4,56
50″	50,38,55,32,35,42,18,46,27,41		3,42,10,13,22	
		1, 7,22,10, 5,35,22,28		4,56
52″	50,38,56,39,57,52,24,21,50, 9		3,42,10,18,18	
		1, 7,22, 6,23,25, 4,10		4,56
54″	50,38,57,47,19,58,47,46,54,19		3,42,10,23,14	
		1, 7,22, 2,41,14,40,56		4,56
56″	50,38,58,54,42, 1,29, 1,35,15		3,42,10,28,10	
		1, 7,21,58,59, 4,12,46		4,56
58″	50,39, 0, 2, 4, 0,28, 5,48, 1		3,42,10,33, 6	
		1, 7,21,55,16,53,39,40		
60″	50,39, 1, 9,25,55,44,59,27,41			
exact	50,39, 1, 9,25,55,44,59,56,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°35′ 0″	50,39, 1, 9,25,55,44,59,56,55			
		1, 7,21,51,34,43, 4,47		
2″	50,39, 2,16,47,47,19,43, 1,42		3,42,10,42,44	
		1, 7,21,47,52,32,22, 3		4,55
4″	50,39, 3,24, 9,35,12,15,23,45		3,42,10,47,39	
		1, 7,21,44,10,21,34,24		4,55
6″	50,39, 4,31,31,19,22,36,58, 9		3,42,10,52,34	
		1, 7,21,40,28,10,41,50		4,55
8″	50,39, 5,38,52,59,50,47,39,59		3,42,10,57,29	
		1, 7,21,36,45,59,44,21		4,55
10″	50,39, 6,46,14,36,36,47,24,20		3,42,11, 2,24	
		1, 7,21,33, 3,48,41,57		4,55
12″	50,39, 7,53,36, 9,40,36, 6,17		3,42,11, 7,19	
		1, 7,21,29,21,37,34,38		4,55
14″	50,39, 9, 0,57,39, 2,13,40,55		3,42,11,12,14	
		1, 7,21,25,39,26,22,24		4,55
16″	50,39,10, 8,19, 4,41,40, 3,19		3,42,11,17, 9	
		1, 7,21,21,57,15, 5,15		4,55
18″	50,39,11,15,40,26,38,55, 8,34		3,42,11,22, 4	
		1, 7,21,18,15, 3,43,11		4,55
20″	50,39,12,23, 1,44,53,58,51,45		3,42,11,26,59	
		1, 7,21,14,32,52,16,12		4,55
22″	50,39,13,30,22,59,26,51, 7,57		3,42,11,31,54	
		1, 7,21,10,50,40,44,18		4,55
24″	50,39,14,37,44,10,17,31,52,15		3,42,11,36,49	
		1, 7,21, 7, 8,29, 7,29		4,55
26″	50,39,15,45, 5,17,26, 0,59,44		3,42,11,41,44	
		1, 7,21, 3,26,17,25,45		4,55
28″	50,39,16,52,26,20,52,18,25,29		3,42,11,46,39	
		1, 7,20,59,44, 5,39, 6		4,55
30″	50,39,17,59,47,20,36,24, 4,35		3,42,11,51,34	
		1, 7,20,56, 1,53,47,32		4,55
32″	50,39,19, 7, 8,16,38,17,52, 7		3,42,11,56,29	
		1, 7,20,52,19,41,51, 3		4,55
34″	50,39,20,14,29, 8,57,59,43,10		3,42,12, 1,24	
		1, 7,20,48,37,29,49,39		4,55
36″	50,39,21,21,49,57,35,29,32,49		3,42,12, 6,19	
		1, 7,20,44,55,17,43,20		4,55
38″	50,39,22,29,10,42,30,47,16, 9		3,42,12,11,14	
		1, 7,20,41,13, 5,32, 6		4,55
40″	50,39,23,36,31,23,43,52,48,15		3,42,12,16, 9	
		1, 7,20,37,30,53,15,57		4,55
42″	50,39,24,43,52, 1,14,46, 4,12		3,42,12,21, 4	
		1, 7,20,33,48,40,54,53		4,55
44″	50,39,25,51,12,35, 3,26,59, 5		3,42,12,25,59	
		1, 7,20,30, 6,28,28,54		4,55
46″	50,39,26,58,33, 5, 9,55,27,59		3,42,12,30,54	
		1, 7,20,26,24,15,58, 0		4,55
48″	50,39,28, 5,53,31,34,11,25,59		3,42,12,35,49	
		1, 7,20,22,42, 3,22,11		4,55
50″	50,39,29,13,13,54,16,14,48,10		3,42,12,40,44	
		1, 7,20,18,59,50,41,27		4,55
52″	50,39,30,20,34,13,16, 5,29,37		3,42,12,45,39	
		1, 7,20,15,17,37,55,48		4,55
54″	50,39,31,27,54,28,33,43,25,25		3,42,12,50,34	
		1, 7,20,11,35,25, 5,14		4,55
56″	50,39,32,35,14,40, 9, 8,30,39		3,42,12,55,29	
		1, 7,20, 7,53,12, 9,45		4,55
58″	50,39,33,42,34,48, 2,20,40,24		3,42,13, 0,24	
		1, 7,20, 4,10,59, 9,21		
60″	50,39,34,49,54,52,13,19,49,45			
exact	50,39,34,49,54,52,13,19,15,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°36′ 0″	50,39,34,49,54,52,13,19,15,21			
		1, 7,20, 0,28,46, 0,33		
2″	50,39,35,57,14,52,42, 5,15,54		3,42,13,10,27	
		1, 7,19,56,46,32,50, 6		4,55
4″	50,39,37, 4,34,49,28,38, 6, 0		3,42,13,15,22	
		1, 7,19,53, 4,19,34,44		4,55
6″	50,39,38,11,54,42,32,57,40,44		3,42,13,20,17	
		1, 7,19,49,22, 6,14,27		4,55
8″	50,39,39,19,14,31,55, 3,55,11		3,42,13,25,12	
		1, 7,19,45,39,52,49,15		4,55
10″	50,39,40,26,34,17,34,56,44,26		3,42,13,30, 7	
		1, 7,19,41,57,39,19, 8		4,55
12″	50,39,41,33,53,59,32,36, 3,34		3,42,13,35, 2	
		1, 7,19,38,15,25,44, 6		4,55
14″	50,39,42,41,13,37,48, 1,47,40		3,42,13,39,57	
		1, 7,19,34,33,12, 4, 9		4,55
16″	50,39,43,48,33,12,21,13,51,49		3,42,13,44,52	
		1, 7,19,30,50,58,19,17		4,55
18″	50,39,44,55,52,43,12,12,11, 6		3,42,13,49,47	
		1, 7,19,27, 8,44,29,30		4,55
20″	50,39,46, 3,12,10,20,56,40,36		3,42,13,54,42	
		1, 7,19,23,26,30,34,48		4,55
22″	50,39,47,10,31,33,47,27,15,24		3,42,13,59,37	
		1, 7,19,19,44,16,35,11		4,55
24″	50,39,48,17,50,53,31,43,50,35		3,42,14, 4,32	
		1, 7,19,16, 2, 2,30,39		4,55
26″	50,39,49,25,10, 9,33,46,21,14		3,42,14, 9,27	
		1, 7,19,12,19,48,21,12		4,55
28″	50,39,50,32,29,21,53,34,42,26		3,42,14,14,22	
		1, 7,19, 8,37,34, 6,50		4,55
30″	50,39,51,39,48,30,31, 8,49,16		3,42,14,19,17	
		1, 7,19, 4,55,19,47,33		4,55
32″	50,39,52,47, 7,35,26,28,36,49		3,42,14,24,12	
		1, 7,19, 1,13, 5,23,21		4,55
34″	50,39,53,54,26,36,39,34, 0,10		3,42,14,29, 7	
		1, 7,18,57,30,50,54,14		4,55
36″	50,39,55, 1,45,34,10,24,54,24		3,42,14,34, 2	
		1, 7,18,53,48,36,20,12		4,55
38″	50,39,56, 9, 4,27,59, 1,14,36		3,42,14,38,57	
		1, 7,18,50, 6,21,41,15		4,55
40″	50,39,57,16,23,18, 5,22,55,51		3,42,14,43,52	
		1, 7,18,46,24, 6,57,23		4,55
42″	50,39,58,23,42, 4,29,29,53,14		3,42,14,48,47	
		1, 7,18,42,41,52, 8,36		4,55
44″	50,39,59,31, 0,47,11,22, 1,50		3,42,14,53,42	
		1, 7,18,38,59,37,14,54		4,55
46″	50,40, 0,38,19,26,10,59,16,44		3,42,14,58,37	
		1, 7,18,35,17,22,16,17		4,55
48″	50,40, 1,45,38, 1,28,21,33, 1		3,42,15, 3,32	
		1, 7,18,31,35, 7,12,45		4,55
50″	50,40, 2,52,56,33, 3,28,45,46		3,42,15, 8,27	
		1, 7,18,27,52,52, 4,18		4,55
52″	50,40, 4, 0,15, 0,56,20,50, 4		3,42,15,13,22	
		1, 7,18,24,10,36,50,56		4,55
54″	50,40, 5, 7,33,25, 6,57,41, 0		3,42,15,18,17	
		1, 7,18,20,28,21,32,39		4,55
56″	50,40, 6,14,51,45,35,19,13,39		3,42,15,23,12	
		1, 7,18,16,46, 6, 9,27		4,55
58″	50,40, 7,22,10, 2,21,25,23, 6		3,42,15,28, 7	
		1, 7,18,13, 3,50,41,20		
60″	50,40, 8,29,28,15,25,16, 4,26			
exact	50,40, 8,29,28,15,25,15,41,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°37′ 0″	50,40, 8,29,28,15,25,15,41,24			
		1, 7,18, 9,21,35, 5,57		
2″	50,40, 9,36,46,24,46,50,47,21		3,42,15,38, 6	
		1, 7,18, 5,39,19,27,51		4,55
4″	50,40,10,44, 4,30,26,10,15,12		3,42,15,43, 1	
		1, 7,18, 1,57, 3,44,50		4,55
6″	50,40,11,51,22,32,23,14, 0, 2		3,42,15,47,56	
		1, 7,17,58,14,47,56,54		4,55
8″	50,40,12,58,40,30,38, 1,56,56		3,42,15,52,51	
		1, 7,17,54,32,32, 4, 3		4,55
10″	50,40,14, 5,58,25,10,34, 0,59		3,42,15,57,46	
		1, 7,17,50,50,16, 6,17		4,55
12″	50,40,15,13,16,16, 0,50, 7,16		3,42,16, 2,41	
		1, 7,17,47, 8, 0, 3,36		4,55
14″	50,40,16,20,34, 3, 8,50,10,52		3,42,16, 7,36	
		1, 7,17,43,25,43,56, 0		4,55
16″	50,40,17,27,51,46,34,34, 6,52		3,42,16,12,31	
		1, 7,17,39,43,27,43,29		4,55
18″	50,40,18,35, 9,26,18, 1,50,21		3,42,16,17,26	
		1, 7,17,36, 1,11,26, 3		4,55
20″	50,40,19,42,27, 2,19,13,16,24		3,42,16,22,21	
		1, 7,17,32,18,55, 3,42		4,55
22″	50,40,20,49,44,34,38, 8,20, 6		3,42,16,27,16	
		1, 7,17,28,36,38,36,26		4,55
24″	50,40,21,57, 2, 3,14,46,56,32		3,42,16,32,11	
		1, 7,17,24,54,22, 4,15		4,55
26″	50,40,23, 4,19,28, 9, 9, 0,47		3,42,16,37, 6	
		1, 7,17,21,12, 5,27, 9		4,55
28″	50,40,24,11,36,49,21,14,27,56		3,42,16,42, 1	
		1, 7,17,17,29,48,45, 8		4,55
30″	50,40,25,18,54, 6,51, 3,13, 4		3,42,16,46,56	
		1, 7,17,13,47,31,58,12		4,55
32″	50,40,26,26,11,20,38,35,11,16		3,42,16,51,51	
		1, 7,17,10, 5,15, 6,21		4,55
34″	50,40,27,33,28,30,43,50,17,37		3,42,16,56,46	
		1, 7,17, 6,22,58, 9,35		4,55
36″	50,40,28,40,45,37, 6,48,27,12		3,42,17, 1,41	
		1, 7,17, 2,40,41, 7,54		4,55
38″	50,40,29,48, 2,39,47,29,35, 6		3,42,17, 6,36	
		1, 7,16,58,58,24, 1,18		4,55
40″	50,40,30,55,19,38,45,53,36,24		3,42,17,11,31	
		1, 7,16,55,16, 6,49,47		4,55
42″	50,40,32, 2,36,34, 2, 0,26,11		3,42,17,16,26	
		1, 7,16,51,33,49,33,21		4,55
44″	50,40,33, 9,53,25,35,49,59,32		3,42,17,21,21	
		1, 7,16,47,51,32,12, 0		4,55
46″	50,40,34,17,10,13,27,22,11,32		3,42,17,26,16	
		1, 7,16,44, 9,14,45,44		4,55
48″	50,40,35,24,26,57,36,36,57,16		3,42,17,31,11	
		1, 7,16,40,26,57,14,33		4,55
50″	50,40,36,31,43,38, 3,34,11,49		3,42,17,36, 6	
		1, 7,16,36,44,39,38,27		4,55
52″	50,40,37,39, 0,14,48,13,50,16		3,42,17,41, 1	
		1, 7,16,33, 2,21,57,26		4,55
54″	50,40,38,46,16,47,50,35,47,42		3,42,17,45,56	
		1, 7,16,29,20, 4,11,30		4,55
56″	50,40,39,53,33,17,10,39,59,12		3,42,17,50,51	
		1, 7,16,25,37,46,20,39		4,55
58″	50,40,41, 0,49,42,48,26,19,51		3,42,17,55,46	
		1, 7,16,21,55,28,24,53		
60″	50,40,42, 8, 6, 4,43,54,44,44			
exact	50,40,42, 8, 6, 4,43,54,33,34			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
57°38′	0″	50,40,42, 8, 6, 4,43,54,33,34			
	2″	50,40,43,15,22,22,57, 4,56,35	1, 7,16,18,13,10,23, 1	3,42,18, 5,40	
	4″	50,40,44,22,38,37,27,57,13,56	1, 7,16,14,30,52,17,21	3,42,18,10,35	4,55
	6″	50,40,45,29,54,48,16,31,20,42	1, 7,16,10,48,34, 6,46	3,42,18,15,30	4,55
	8″	50,40,46,37,10,55,22,47,11,58	1, 7,16, 7, 6,15,51,16	3,42,18,20,25	4,55
	10″	50,40,47,44,26,58,46,44,42,49	1, 7,16, 3,23,57,30,51	3,42,18,25,20	4,55
	12″	50,40,48,51,42,58,28,23,48,20	1, 7,15,59,41,39, 5,31	3,42,18,30,15	4,55
	14″	50,40,49,58,58,54,27,44,23,36	1, 7,15,55,59,20,35,16	3,42,18,35,10	4,55
	16″	50,40,51, 6,14,46,44,46,23,42	1, 7,15,52,17, 2, 0, 6	3,42,18,40, 5	4,55
	18″	50,40,52,13,30,35,19,29,43,43	1, 7,15,48,34,43,20, 1	3,42,18,45, 0	4,55
	20″	50,40,53,20,46,20,11,54,18,44	1, 7,15,44,52,24,35, 1	3,42,18,49,55	4,55
	22″	50,40,54,28, 2, 1,22, 0, 3,50	1, 7,15,41,10, 5,45, 6	3,42,18,54,50	4,55
	24″	50,40,55,35,17,38,49,46,54, 6	1, 7,15,37,27,46,50,16	3,42,18,59,45	4,55
	26″	50,40,56,42,33,12,35,14,44,37	1, 7,15,33,45,27,50,31	3,42,19, 4,40	4,55
	28″	50,40,57,49,48,42,38,23,30,28	1, 7,15,30, 3, 8,45,51	3,42,19, 9,35	4,55
	30″	50,40,58,57, 4, 8,59,13, 6,44	1, 7,15,26,20,49,36,16	3,42,19,14,30	4,55
	32″	50,41, 0, 4,19,31,37,43,28,30	1, 7,15,22,38,30,21,46	3,42,19,19,25	4,55
	34″	50,41, 1,11,34,50,33,54,30,51	1, 7,15,18,56,11, 2,21	3,42,19,24,20	4,55
	36″	50,41, 2,18,50, 5,47,46, 8,52	1, 7,15,15,13,51,38, 1	3,42,19,29,15	4,55
	38″	50,41, 3,26, 5,17,19,18,17,38	1, 7,15,11,31,32, 8,46	3,42,19,34,10	4,55
	40″	50,41, 4,33,20,25, 8,30,52,14	1, 7,15, 7,49,12,34,36	3,42,19,39, 5	4,55
	42″	50,41, 5,40,35,29,15,23,47,45	1, 7,15, 4, 6,52,55,31	3,42,19,44, 0	4,55
	44″	50,41, 6,47,50,29,39,56,59,16	1, 7,15, 0,24,33,11,31	3,42,19,48,55	4,55
	46″	50,41, 7,55, 5,26,22,10,21,52	1, 7,14,56,42,13,22,36	3,42,19,53,50	4,55
	48″	50,41, 9, 2,20,19,22, 3,50,38	1, 7,14,52,59,53,28,46	3,42,19,58,45	4,55
	50″	50,41,10, 9,35, 8,39,37,20,39	1, 7,14,49,17,33,30, 1	3,42,20, 3,40	4,55
	52″	50,41,11,16,49,54,14,50,47, 0	1, 7,14,45,35,13,26,21	3,42,20, 8,35	4,55
	54″	50,41,12,24, 4,36, 7,44, 4,46	1, 7,14,41,52,53,17,46	3,42,20,13,30	4,55
	56″	50,41,13,31,19,14,18,17, 9, 2	1, 7,14,38,10,33, 4,16	3,42,20,18,25	4,55
	58″	50,41,14,38,33,48,46,29,54,53	1, 7,14,34,28,12,45,51	3,42,20,23,20	
	60″	50,41,15,45,48,19,32,22,17,24	1, 7,14,30,45,52,22,31		
	exact	50,41,15,45,48,19,32,22,11,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°39′ 0″	50,41,15,45,48,19,32,22,11,20			
		1, 7,14,27, 3,31,53,47		
2″	50,41,16,53, 2,46,35,54, 5, 7		3,42,20,33,11	
		1, 7,14,23,21,11,20,36		4,55
4″	50,41,18, 0,17, 9,57, 5,25,43		3,42,20,38, 6	
		1, 7,14,19,38,50,42,30		4,55
6″	50,41,19, 7,31,29,35,56, 8,13		3,42,20,43, 1	
		1, 7,14,15,56,29,59,29		4,55
8″	50,41,20,14,45,45,32,26, 7,42		3,42,20,47,56	
		1, 7,14,12,14, 9,11,33		4,55
10″	50,41,21,21,59,57,46,35,19,15		3,42,20,52,51	
		1, 7,14, 8,31,48,18,42		4,55
12″	50,41,22,29,14, 6,18,23,37,57		3,42,20,57,46	
		1, 7,14, 4,49,27,20,56		4,55
14″	50,41,23,36,28,11, 7,50,58,53		3,42,21, 2,41	
		1, 7,14, 1, 7, 6,18,15		4,55
16″	50,41,24,43,42,12,14,57,17, 8		3,42,21, 7,36	
		1, 7,13,57,24,45,10,39		4,55
18″	50,41,25,50,56, 9,39,42,27,47		3,42,21,12,31	
		1, 7,13,53,42,23,58, 8		4,55
20″	50,41,26,58,10, 3,22, 6,25,55		3,42,21,17,26	
		1, 7,13,50, 0, 2,40,42		4,55
22″	50,41,28, 5,23,53,22, 9, 6,37		3,42,21,22,21	
		1, 7,13,46,17,41,18,21		4,55
24″	50,41,29,12,37,39,39,50,24,58		3,42,21,27,16	
		1, 7,13,42,35,19,51, 5		4,55
26″	50,41,30,19,51,22,15,10,16, 3		3,42,21,32,11	
		1, 7,13,38,52,58,18,54		4,55
28″	50,41,31,27, 5, 1, 8, 8,34,57		3,42,21,37, 6	
		1, 7,13,35,10,36,41,48		4,55
30″	50,41,32,34,18,36,18,45,16,45		3,42,21,42, 1	
		1, 7,13,31,28,14,59,47		4,55
32″	50,41,33,41,32, 7,47, 0,16,32		3,42,21,46,56	
		1, 7,13,27,45,53,12,51		4,55
34″	50,41,34,48,45,35,32,53,29,23		3,42,21,51,51	
		1, 7,13,24, 3,31,21, 0		4,55
36″	50,41,35,55,58,59,36,24,50,23		3,42,21,56,46	
		1, 7,13,20,21, 9,24,14		4,55
38″	50,41,37, 3,12,19,57,34,14,37		3,42,22, 1,41	
		1, 7,13,16,38,47,22,33		4,55
40″	50,41,38,10,25,36,36,21,37,10		3,42,22, 6,36	
		1, 7,13,12,56,25,15,57		4,55
42″	50,41,39,17,38,49,32,46,53, 7		3,42,22,11,31	
		1, 7,13, 9,14, 3, 4,26		4,55
44″	50,41,40,24,51,58,46,49,57,33		3,42,22,16,26	
		1, 7,13, 5,31,40,48, 0		4,55
46″	50,41,41,32, 5, 4,18,30,45,33		3,42,22,21,21	
		1, 7,13, 1,49,18,26,39		4,55
48″	50,41,42,39,18, 6, 7,49,12,12		3,42,22,26,16	
		1, 7,12,58, 6,56, 0,23		4,55
50″	50,41,43,46,31, 4,14,45,12,35		3,42,22,31,11	
		1, 7,12,54,24,33,29,12		4,55
52″	50,41,44,53,43,58,39,18,41,47		3,42,22,36, 6	
		1, 7,12,50,42,10,53, 6		4,55
54″	50,41,46, 0,56,49,21,29,34,53		3,42,22,41, 1	
		1, 7,12,46,59,48,12, 5		4,55
56″	50,41,47, 8, 9,36,21,17,46,58		3,42,22,45,56	
		1, 7,12,43,17,25,26, 9		4,55
58″	50,41,48,15,22,19,38,43,13, 7		3,42,22,50,51	
		1, 7,12,39,35, 2,35,18		
60″	50,41,49,22,34,59,13,45,48,25			
exact	50,41,49,22,34,59,13,45,55, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°40′ 0″	50,41,49,22,34,59,13,45,55, 3			
		1, 7,12,35,52,39,40,17		
2″	50,41,50,29,47,35, 6,25,35,20		3,42,23, 0,37	
		1, 7,12,32,10,16,39,40		4,55
4″	50,41,51,37, 0, 7,16,42,15, 0		3,42,23, 5,32	
		1, 7,12,28,27,53,34, 8		4,55
6″	50,41,52,44,12,35,44,35,49, 8		3,42,23,10,27	
		1, 7,12,24,45,30,23,41		4,55
8″	50,41,53,51,25, 0,30, 6,12,49		3,42,23,15,22	
		1, 7,12,21, 3, 7, 8,19		4,55
10″	50,41,54,58,37,21,33,13,21, 8		3,42,23,20,17	
		1, 7,12,17,20,43,48, 2		4,55
12″	50,41,56, 5,49,38,53,57, 9,10		3,42,23,25,12	
		1, 7,12,13,38,20,22,50		4,55
14″	50,41,57,13, 1,52,32,17,32, 0		3,42,23,30, 7	
		1, 7,12, 9,55,56,52,43		4,55
16″	50,41,58,20,14, 2,28,14,24,43		3,42,23,35, 2	
		1, 7,12, 6,13,33,17,41		4,55
18″	50,41,59,27,26, 8,41,47,42,24		3,42,23,39,57	
		1, 7,12, 2,31, 9,37,44		4,55
20″	50,42, 0,34,38,11,12,57,20, 8		3,42,23,44,52	
		1, 7,11,58,48,45,52,52		4,55
22″	50,42, 1,41,50,10, 1,43,13, 0		3,42,23,49,47	
		1, 7,11,55, 6,22, 3, 5		4,55
24″	50,42, 2,49, 2, 5, 8, 5,16, 5		3,42,23,54,42	
		1, 7,11,51,23,58, 8,23		4,55
26″	50,42, 3,56,13,56,32, 3,24,28		3,42,23,59,37	
		1, 7,11,47,41,34, 8,46		4,55
28″	50,42, 5, 3,25,44,13,37,33,14		3,42,24, 4,32	
		1, 7,11,43,59,10, 4,14		4,55
30″	50,42, 6,10,37,28,12,47,37,28		3,42,24, 9,27	
		1, 7,11,40,16,45,54,47		4,55
32″	50,42, 7,17,49, 8,29,33,32,15		3,42,24,14,22	
		1, 7,11,36,34,21,40,25		4,55
34″	50,42, 8,25, 0,45, 3,55,12,40		3,42,24,19,17	
		1, 7,11,32,51,57,21, 8		4,55
36″	50,42, 9,32,12,17,55,52,33,48		3,42,24,24,12	
		1, 7,11,29, 9,32,56,56		4,55
38″	50,42,10,39,23,47, 5,25,30,44		3,42,24,29, 7	
		1, 7,11,25,27, 8,27,49		4,55
40″	50,42,11,46,35,12,32,33,58,33		3,42,24,34, 2	
		1, 7,11,21,44,43,53,47		4,55
42″	50,42,12,53,46,34,17,17,52,20		3,42,24,38,57	
		1, 7,11,18, 2,19,14,50		4,55
44″	50,42,14, 0,57,52,19,37, 7,10		3,42,24,43,52	
		1, 7,11,14,19,54,30,58		4,55
46″	50,42,15, 8, 9, 6,39,31,38, 8		3,42,24,48,47	
		1, 7,11,10,37,29,42,11		4,55
48″	50,42,16,15,20,17,17, 1,20,19		3,42,24,53,42	
		1, 7,11, 6,55, 4,48,29		4,55
50″	50,42,17,22,31,24,12, 6, 8,48		3,42,24,58,37	
		1, 7,11, 3,12,39,49,52		4,55
52″	50,42,18,29,42,27,24,45,58,40		3,42,25, 3,32	
		1, 7,10,59,30,14,46,20		4,55
54″	50,42,19,36,53,26,55, 0,45, 0		3,42,25, 8,27	
		1, 7,10,55,47,49,37,53		4,55
56″	50,42,20,44, 4,22,42,50,22,53		3,42,25,13,22	
		1, 7,10,52, 5,24,24,31		4,55
58″	50,42,21,51,15,14,48,14,47,24		3,42,25,18,17	
		1, 7,10,48,22,59, 6,14		
60″	50,42,22,58,26, 3,11,13,53,38			
exact	50,42,22,58,26, 3,11,14, 6, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°41′ 0″	50,42,22,58,26, 3,11,14, 6, 5			
		1, 7,10,44,40,33,44,32		
2″	50,42,24, 5,36,47,51,47,50,37		3,42,25,28, 0	
		1, 7,10,40,58, 8,16,32		4,55
4″	50,42,25,12,47,28,49,56, 7, 9		3,42,25,32,55	
		1, 7,10,37,15,42,43,37		4,55
6″	50,42,26,19,58, 6, 5,38,50,46		3,42,25,37,50	
		1, 7,10,33,33,17, 5,47		4,55
8″	50,42,27,27, 8,39,38,55,56,33		3,42,25,42,45	
		1, 7,10,29,50,51,23, 2		4,55
10″	50,42,28,34,19, 9,29,47,19,35		3,42,25,47,40	
		1, 7,10,26, 8,25,35,22		4,55
12″	50,42,29,41,29,35,38,12,54,57		3,42,25,52,35	
		1, 7,10,22,25,59,42,47		4,55
14″	50,42,30,48,39,58, 4,12,37,44		3,42,25,57,30	
		1, 7,10,18,43,33,45,17		4,55
16″	50,42,31,55,50,16,47,46,23, 1		3,42,26, 2,25	
		1, 7,10,15, 1, 7,42,52		4,55
18″	50,42,33, 3, 0,31,48,54, 5,53		3,42,26, 7,20	
		1, 7,10,11,18,41,35,32		4,55
20″	50,42,34,10,10,43, 7,35,41,25		3,42,26,12,15	
		1, 7,10, 7,36,15,23,17		4,55
22″	50,42,35,17,20,50,43,51, 4,42		3,42,26,17,10	
		1, 7,10, 3,53,49, 6, 7		4,55
24″	50,42,36,24,30,54,37,40,10,49		3,42,26,22, 5	
		1, 7,10, 0,11,22,44, 2		4,55
26″	50,42,37,31,40,54,49, 2,54,51		3,42,26,27, 0	
		1, 7, 9,56,28,56,17, 2		4,55
28″	50,42,38,38,50,51,17,59,11,53		3,42,26,31,55	
		1, 7, 9,52,46,29,45, 7		4,55
30″	50,42,39,46, 0,44, 4,28,57, 0		3,42,26,36,50	
		1, 7, 9,49, 4, 3, 8,17		4,55
32″	50,42,40,53,10,33, 8,32, 5,17		3,42,26,41,45	
		1, 7, 9,45,21,36,26,32		4,55
34″	50,42,42, 0,20,18,30, 8,31,49		3,42,26,46,40	
		1, 7, 9,41,39, 9,39,52		4,55
36″	50,42,43, 7,30, 0, 9,18,11,41		3,42,26,51,35	
		1, 7, 9,37,56,42,48,17		4,55
38″	50,42,44,14,39,38, 6, 0,59,58		3,42,26,56,30	
		1, 7, 9,34,14,15,51,47		4,55
40″	50,42,45,21,49,12,20,16,51,45		3,42,27, 1,25	
		1, 7, 9,30,31,48,50,22		4,55
42″	50,42,46,28,58,42,52, 5,42, 7		3,42,27, 6,20	
		1, 7, 9,26,49,21,44, 2		4,55
44″	50,42,47,36, 8, 9,41,27,26, 9		3,42,27,11,15	
		1, 7, 9,23, 6,54,32,47		4,55
46″	50,42,48,43,17,32,48,21,58,56		3,42,27,16,10	
		1, 7, 9,19,24,27,16,37		4,55
48″	50,42,49,50,26,52,12,49,15,33		3,42,27,21, 5	
		1, 7, 9,15,41,59,55,32		4,55
50″	50,42,50,57,36, 7,54,49,11, 5		3,42,27,26, 0	
		1, 7, 9,11,59,32,29,32		4,55
52″	50,42,52, 4,45,19,54,21,40,37		3,42,27,30,55	
		1, 7, 9, 8,17, 4,58,37		4,55
54″	50,42,53,11,54,28,11,26,39,14		3,42,27,35,50	
		1, 7, 9, 4,34,37,22,47		4,55
56″	50,42,54,19, 3,32,46, 4, 2, 1		3,42,27,40,45	
		1, 7, 9, 0,52, 9,42, 2		4,55
58″	50,42,55,26,12,33,38,13,44, 3		3,42,27,45,40	
		1, 7, 8,57, 9,41,56,22		
60″	50,42,56,33,21,30,47,55,40,25			
exact	50,42,56,33,21,30,47,56, 6,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°42′ 0″	50,42,56,33,21,30,47,56, 6,45			
		1, 7, 8,53,27,14, 8,36		
2″	50,42,57,40,30,24,15,10,15,21		3,42,27,55,18	
		1, 7, 8,49,44,46,13,18		4,55
4″	50,42,58,47,39,13,59,56,28,39		3,42,28, 0,13	
		1, 7, 8,46, 2,18,13, 5		4,55
6″	50,42,59,54,48, 0, 2,14,41,44		3,42,28, 5, 8	
		1, 7, 8,42,19,50, 7,57		4,55
8″	50,43, 1, 1,56,42,22, 4,49,41		3,42,28,10, 3	
		1, 7, 8,38,37,21,57,54		4,55
10″	50,43, 2, 9, 5,20,59,26,47,35		3,42,28,14,58	
		1, 7, 8,34,54,53,42,56		4,55
12″	50,43, 3,16,13,55,54,20,30,31		3,42,28,19,53	
		1, 7, 8,31,12,25,23, 3		4,55
14″	50,43, 4,23,22,27, 6,45,53,34		3,42,28,24,48	
		1, 7, 8,27,29,56,58,15		4,55
16″	50,43, 5,30,30,54,36,42,51,49		3,42,28,29,43	
		1, 7, 8,23,47,28,28,32		4,55
18″	50,43, 6,37,39,18,24,11,20,21		3,42,28,34,38	
		1, 7, 8,20, 4,59,53,54		4,55
20″	50,43, 7,44,47,38,29,11,14,15		3,42,28,39,33	
		1, 7, 8,16,22,31,14,21		4,55
22″	50,43, 8,51,55,54,51,42,28,36		3,42,28,44,28	
		1, 7, 8,12,40, 2,29,53		4,55
24″	50,43, 9,59, 4, 7,31,44,58,29		3,42,28,49,23	
		1, 7, 8, 8,57,33,40,30		4,55
26″	50,43,11, 6,12,16,29,18,38,59		3,42,28,54,18	
		1, 7, 8, 5,15, 4,46,12		4,55
28″	50,43,12,13,20,21,44,23,25,11		3,42,28,59,13	
		1, 7, 8, 1,32,35,46,59		4,55
30″	50,43,13,20,28,23,16,59,12,10		3,42,29, 4, 8	
		1, 7, 7,57,50, 6,42,51		4,55
32″	50,43,14,27,36,21, 7, 5,55, 1		3,42,29, 9, 3	
		1, 7, 7,54, 7,37,33,48		4,55
34″	50,43,15,34,44,15,14,43,28,49		3,42,29,13,58	
		1, 7, 7,50,25, 8,19,50		4,55
36″	50,43,16,41,52, 5,39,51,48,39		3,42,29,18,53	
		1, 7, 7,46,42,39, 0,57		4,55
38″	50,43,17,48,59,52,22,30,49,36		3,42,29,23,48	
		1, 7, 7,43, 0, 9,37, 9		4,55
40″	50,43,18,56, 7,35,22,40,26,45		3,42,29,28,43	
		1, 7, 7,39,17,40, 8,26		4,55
42″	50,43,20, 3,15,14,40,20,35,11		3,42,29,33,38	
		1, 7, 7,35,35,10,34,48		4,55
44″	50,43,21,10,22,50,15,31, 9,59		3,42,29,38,33	
		1, 7, 7,31,52,40,56,15		4,55
46″	50,43,22,17,30,22, 8,12, 6,14		3,42,29,43,28	
		1, 7, 7,28,10,11,12,47		4,55
48″	50,43,23,24,37,50,18,23,19, 1		3,42,29,48,23	
		1, 7, 7,24,27,41,24,24		4,55
50″	50,43,24,31,45,14,46, 4,43,25		3,42,29,53,18	
		1, 7, 7,20,45,11,31, 6		4,55
52″	50,43,25,38,52,35,31,16,14,31		3,42,29,58,13	
		1, 7, 7,17, 2,41,32,53		4,55
54″	50,43,26,45,59,52,33,57,47,24		3,42,30, 3, 8	
		1, 7, 7,13,20,11,29,45		4,55
56″	50,43,27,53, 7, 5,54, 9,17, 9		3,42,30, 8, 3	
		1, 7, 7, 9,37,41,21,42		4,55
58″	50,43,29, 0,14,15,31,50,38,51		3,42,30,12,58	
		1, 7, 7, 5,55,11, 8,44		
60″	50,43,30, 7,21,21,27, 1,47,35			
exact	50,43,30, 7,21,21,27, 2,20,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°43′ 0″	50,43,30, 7,21,21,27, 2,20,21			
		1, 7, 7, 2,12,40,54,28		
2″	50,43,31,14,28,23,39,43,14,49		3,42,30,22,32	
		1, 7, 6,58,30,10,31,56		4,54
4″	50,43,32,21,35,22, 9,53,46,45		3,42,30,27,26	
		1, 7, 6,54,47,40, 4,30		4,54
6″	50,43,33,28,42,16,57,33,51,15		3,42,30,32,20	
		1, 7, 6,51, 5, 9,32,10		4,54
8″	50,43,34,35,49, 8, 2,43,23,25		3,42,30,37,14	
		1, 7, 6,47,22,38,54,56		4,54
10″	50,43,35,42,55,55,25,22,18,21		3,42,30,42, 8	
		1, 7, 6,43,40, 8,12,48		4,54
12″	50,43,36,50, 2,39, 5,30,31, 9		3,42,30,47, 2	
		1, 7, 6,39,57,37,25,46		4,54
14″	50,43,37,57, 9,19, 3, 7,56,55		3,42,30,51,56	
		1, 7, 6,36,15, 6,33,50		4,54
16″	50,43,39, 4,15,55,18,14,30,45		3,42,30,56,50	
		1, 7, 6,32,32,35,37, 0		4,54
18″	50,43,40,11,22,27,50,50, 7,45		3,42,31, 1,44	
		1, 7, 6,28,50, 4,35,16		4,54
20″	50,43,41,18,28,56,40,54,43, 1		3,42,31, 6,38	
		1, 7, 6,25, 7,33,28,38		4,54
22″	50,43,42,25,35,21,48,28,11,39		3,42,31,11,32	
		1, 7, 6,21,25, 2,17, 6		4,54
24″	50,43,43,32,41,43,13,30,28,45		3,42,31,16,26	
		1, 7, 6,17,42,31, 0,40		4,54
26″	50,43,44,39,48, 0,56, 1,29,25		3,42,31,21,20	
		1, 7, 6,13,59,59,39,20		4,54
28″	50,43,45,46,54,14,56, 1, 8,45		3,42,31,26,14	
		1, 7, 6,10,17,28,13, 6		4,54
30″	50,43,46,54, 0,25,13,29,21,51		3,42,31,31, 8	
		1, 7, 6, 6,34,56,41,58		4,54
32″	50,43,48, 1, 6,31,48,26, 3,49		3,42,31,36, 2	
		1, 7, 6, 2,52,25, 5,56		4,54
34″	50,43,49, 8,12,34,40,51, 9,45		3,42,31,40,56	
		1, 7, 5,59, 9,53,25, 0		4,54
36″	50,43,50,15,18,33,50,44,34,45		3,42,31,45,50	
		1, 7, 5,55,27,21,39,10		4,54
38″	50,43,51,22,24,29,18, 6,13,55		3,42,31,50,44	
		1, 7, 5,51,44,49,48,26		4,54
40″	50,43,52,29,30,21, 2,56, 2,21		3,42,31,55,38	
		1, 7, 5,48, 2,17,52,48		4,54
42″	50,43,53,36,36, 9, 5,13,55, 9		3,42,32, 0,32	
		1, 7, 5,44,19,45,52,16		4,54
44″	50,43,54,43,41,53,24,59,47,25		3,42,32, 5,26	
		1, 7, 5,40,37,13,46,50		4,54
46″	50,43,55,50,47,34, 2,13,34,15		3,42,32,10,20	
		1, 7, 5,36,54,41,36,30		4,54
48″	50,43,56,57,53,10,56,55,10,45		3,42,32,15,14	
		1, 7, 5,33,12, 9,21,16		4,54
50″	50,43,58, 4,58,44, 9, 4,32, 1		3,42,32,20, 8	
		1, 7, 5,29,29,37, 1, 8		4,54
52″	50,43,59,12, 4,13,38,41,33, 9		3,42,32,25, 2	
		1, 7, 5,25,47, 4,36, 6		4,54
54″	50,44, 0,19, 9,39,25,46, 9,15		3,42,32,29,56	
		1, 7, 5,22, 4,32, 6,10		4,54
56″	50,44, 1,26,15, 1,30,18,15,25		3,42,32,34,50	
		1, 7, 5,18,21,59,31,20		4,54
58″	50,44, 2,33,20,19,52,17,46,45		3,42,32,39,44	
		1, 7, 5,14,39,26,51,36		
60″	50,44, 3,40,25,34,31,44,38,21			
exact	50,44, 3,40,25,34,31,44,11, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°44′ 0″	50,44, 3,40,25,34,31,44,11, 9			
		1, 7, 5,10,56,54, 4,12		
2″	50,44, 4,47,30,45,28,38,15,21		3,42,32,49,42	
		1, 7, 5, 7,14,21,14,30		4,54
4″	50,44, 5,54,35,52,42,59,29,51		3,42,32,54,36	
		1, 7, 5, 3,31,48,19,54		4,54
6″	50,44, 7, 1,40,56,14,47,49,45		3,42,32,59,30	
		1, 7, 4,59,49,15,20,24		4,54
8″	50,44, 8, 8,45,56, 4, 3,10, 9		3,42,33, 4,24	
		1, 7, 4,56, 6,42,16, 0		4,54
10″	50,44, 9,15,50,52,10,45,26, 9		3,42,33, 9,18	
		1, 7, 4,52,24, 9, 6,42		4,54
12″	50,44,10,22,55,44,34,54,32,51		3,42,33,14,12	
		1, 7, 4,48,41,35,52,30		4,54
14″	50,44,11,30, 0,33,16,30,25,21		3,42,33,19, 6	
		1, 7, 4,44,59, 2,33,24		4,54
16″	50,44,12,37, 5,18,15,32,58,45		3,42,33,24, 0	
		1, 7, 4,41,16,29, 9,24		4,54
18″	50,44,13,44, 9,59,32, 2, 8, 9		3,42,33,28,54	
		1, 7, 4,37,33,55,40,30		4,54
20″	50,44,14,51,14,37, 5,57,48,39		3,42,33,33,48	
		1, 7, 4,33,51,22, 6,42		4,54
22″	50,44,15,58,19,10,57,19,55,21		3,42,33,38,42	
		1, 7, 4,30, 8,48,28, 0		4,54
24″	50,44,17, 5,23,41, 6, 8,23,21		3,42,33,43,36	
		1, 7, 4,26,26,14,44,24		4,54
26″	50,44,18,12,28, 7,32,23, 7,45		3,42,33,48,30	
		1, 7, 4,22,43,40,55,54		4,54
28″	50,44,19,19,32,30,16, 4, 3,39		3,42,33,53,24	
		1, 7, 4,19, 1, 7, 2,30		4,54
30″	50,44,20,26,36,49,17,11, 6, 9		3,42,33,58,18	
		1, 7, 4,15,18,33, 4,12		4,54
32″	50,44,21,33,41, 4,35,44,10,21		3,42,34, 3,12	
		1, 7, 4,11,35,59, 1, 0		4,54
34″	50,44,22,40,45,16,11,43,11,21		3,42,34, 8, 6	
		1, 7, 4, 7,53,24,52,54		4,54
36″	50,44,23,47,49,24, 5, 8, 4,15		3,42,34,13, 0	
		1, 7, 4, 4,10,50,39,54		4,54
38″	50,44,24,54,53,28,15,58,44, 9		3,42,34,17,54	
		1, 7, 4, 0,28,16,22, 0		4,54
40″	50,44,26, 1,57,28,44,15, 6, 9		3,42,34,22,48	
		1, 7, 3,56,45,41,59,12		4,54
42″	50,44,27, 9, 1,25,29,57, 5,21		3,42,34,27,42	
		1, 7, 3,53, 3, 7,31,30		4,54
44″	50,44,28,16, 5,18,33, 4,36,51		3,42,34,32,36	
		1, 7, 3,49,20,32,58,54		4,54
46″	50,44,29,23, 9, 7,53,37,35,45		3,42,34,37,30	
		1, 7, 3,45,37,58,21,24		4,54
48″	50,44,30,30,12,53,31,35,57, 9		3,42,34,42,24	
		1, 7, 3,41,55,23,39, 0		4,54
50″	50,44,31,37,16,35,26,59,36, 9		3,42,34,47,18	
		1, 7, 3,38,12,48,51,42		4,54
52″	50,44,32,44,20,13,39,48,27,51		3,42,34,52,12	
		1, 7, 3,34,30,13,59,30		4,54
54″	50,44,33,51,23,48,10, 2,27,21		3,42,34,57, 6	
		1, 7, 3,30,47,39, 2,24		4,54
56″	50,44,34,58,27,18,57,41,29,45		3,42,35, 2, 0	
		1, 7, 3,27, 5, 4, 0,24		4,54
58″	50,44,36, 5,30,46, 2,45,30, 9		3,42,35, 6,54	
		1, 7, 3,23,22,28,53,30		
60″	50,44,37,12,34, 9,25,14,23,39			
exact	50,44,37,12,34, 9,25,14, 4,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°45′ 0″	50,44,37,12,34, 9,25,14, 4,26			
		1, 7, 3,19,39,53,39,50		
2″	50,44,38,19,37,29, 5, 7,44,16		3,42,35,16,49	
		1, 7, 3,15,57,18,23, 1		4,54
4″	50,44,39,26,40,45, 2,26, 7,17		3,42,35,21,43	
		1, 7, 3,12,14,43, 1,18		4,54
6″	50,44,40,33,43,57,17, 9, 8,35		3,42,35,26,37	
		1, 7, 3, 8,32, 7,34,41		4,54
8″	50,44,41,40,47, 5,49,16,43,16		3,42,35,31,31	
		1, 7, 3, 4,49,32, 3,10		4,54
10″	50,44,42,47,50,10,38,48,46,26		3,42,35,36,25	
		1, 7, 3, 1, 6,56,26,45		4,54
12″	50,44,43,54,53,11,45,45,13,11		3,42,35,41,19	
		1, 7, 2,57,24,20,45,26		4,54
14″	50,44,45, 1,56, 9,10, 5,58,37		3,42,35,46,13	
		1, 7, 2,53,41,44,59,13		4,54
16″	50,44,46, 8,59, 2,51,50,57,50		3,42,35,51, 7	
		1, 7, 2,49,59, 9, 8, 6		4,54
18″	50,44,47,16, 1,52,51, 0, 5,56		3,42,35,56, 1	
		1, 7, 2,46,16,33,12, 5		4,54
20″	50,44,48,23, 4,39, 7,33,18, 1		3,42,36, 0,55	
		1, 7, 2,42,33,57,11,10		4,54
22″	50,44,49,30, 7,21,41,30,29,11		3,42,36, 5,49	
		1, 7, 2,38,51,21, 5,21		4,54
24″	50,44,50,37,10, 0,32,51,34,32		3,42,36,10,43	
		1, 7, 2,35, 8,44,54,38		4,54
26″	50,44,51,44,12,35,41,36,29,10		3,42,36,15,37	
		1, 7, 2,31,26, 8,39, 1		4,54
28″	50,44,52,51,15, 7, 7,45, 8,11		3,42,36,20,31	
		1, 7, 2,27,43,32,18,30		4,54
30″	50,44,53,58,17,34,51,17,26,41		3,42,36,25,25	
		1, 7, 2,24, 0,55,53, 5		4,54
32″	50,44,55, 5,19,58,52,13,19,46		3,42,36,30,19	
		1, 7, 2,20,18,19,22,46		4,54
34″	50,44,56,12,22,19,10,32,42,32		3,42,36,35,13	
		1, 7, 2,16,35,42,47,33		4,54
36″	50,44,57,19,24,35,46,15,30, 5		3,42,36,40, 7	
		1, 7, 2,12,53, 6, 7,26		4,54
38″	50,44,58,26,26,48,39,21,37,31		3,42,36,45, 1	
		1, 7, 2, 9,10,29,22,25		4,54
40″	50,44,59,33,28,57,49,50,59,56		3,42,36,49,55	
		1, 7, 2, 5,27,52,32,30		4,54
42″	50,45, 0,40,31, 3,17,43,32,26		3,42,36,54,49	
		1, 7, 2, 1,45,15,37,41		4,54
44″	50,45, 1,47,33, 5, 2,59,10, 7		3,42,36,59,43	
		1, 7, 1,58, 2,38,37,58		4,54
46″	50,45, 2,54,35, 3, 5,37,48, 5		3,42,37, 4,37	
		1, 7, 1,54,20, 1,33,21		4,54
48″	50,45, 4, 1,36,57,25,39,21,26		3,42,37, 9,31	
		1, 7, 1,50,37,24,23,50		4,54
50″	50,45, 5, 8,38,48, 3, 3,45,16		3,42,37,14,25	
		1, 7, 1,46,54,47, 9,25		4,54
52″	50,45, 6,15,40,34,57,50,54,41		3,42,37,19,19	
		1, 7, 1,43,12, 9,50, 6		4,54
54″	50,45, 7,22,42,18,10, 0,44,47		3,42,37,24,13	
		1, 7, 1,39,29,32,25,53		4,54
56″	50,45, 8,29,43,57,39,33,10,40		3,42,37,29, 7	
		1, 7, 1,35,46,54,56,46		4,54
58″	50,45, 9,36,45,33,26,28, 7,26		3,42,37,34, 1	
		1, 7, 1,32, 4,17,22,45		
60″	50,45,10,43,47, 5,30,45,30,11			
exact	50,45,10,43,47, 5,30,45,26,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°46′ 0″	50,45,10,43,47, 5,30,45,26,31			
		1, 7, 1,28,21,39,43,24		
2″	50,45,11,50,48,33,52,25, 9,55		3,42,37,43,51	
		1, 7, 1,24,39, 1,59,33		4,54
4″	50,45,12,57,49,58,31,27, 9,28		3,42,37,48,45	
		1, 7, 1,20,56,24,10,48		4,54
6″	50,45,14, 4,51,19,27,51,20,16		3,42,37,53,39	
		1, 7, 1,17,13,46,17, 9		4,54
8″	50,45,15,11,52,36,41,37,37,25		3,42,37,58,33	
		1, 7, 1,13,31, 8,18,36		4,54
10″	50,45,16,18,53,50,12,45,56, 1		3,42,38, 3,27	
		1, 7, 1, 9,48,30,15, 9		4,54
12″	50,45,17,25,55, 0, 1,16,11,10		3,42,38, 8,21	
		1, 7, 1, 6, 5,52, 6,48		4,54
14″	50,45,18,32,56, 6, 7, 8,17,58		3,42,38,13,15	
		1, 7, 1, 2,23,13,53,33		4,54
16″	50,45,19,39,57, 8,30,22,11,31		3,42,38,18, 9	
		1, 7, 0,58,40,35,35,24		4,54
18″	50,45,20,46,58, 7,10,57,46,55		3,42,38,23, 3	
		1, 7, 0,54,57,57,12,21		4,54
20″	50,45,21,53,59, 2, 8,54,59,16		3,42,38,27,57	
		1, 7, 0,51,15,18,44,24		4,54
22″	50,45,23, 0,59,53,24,13,43,40		3,42,38,32,51	
		1, 7, 0,47,32,40,11,33		4,54
24″	50,45,24, 8, 0,40,56,53,55,13		3,42,38,37,45	
		1, 7, 0,43,50, 1,33,48		4,54
26″	50,45,25,15, 1,24,46,55,29, 1		3,42,38,42,39	
		1, 7, 0,40, 7,22,51, 9		4,54
28″	50,45,26,22, 2, 4,54,18,20,10		3,42,38,47,33	
		1, 7, 0,36,24,44, 3,36		4,54
30″	50,45,27,29, 2,41,19, 2,23,46		3,42,38,52,27	
		1, 7, 0,32,42, 5,11, 9		4,54
32″	50,45,28,36, 3,14, 1, 7,34,55		3,42,38,57,21	
		1, 7, 0,28,59,26,13,48		4,54
34″	50,45,29,43, 3,43, 0,33,48,43		3,42,39, 2,15	
		1, 7, 0,25,16,47,11,33		4,54
36″	50,45,30,50, 4, 8,17,21, 0,16		3,42,39, 7, 9	
		1, 7, 0,21,34, 8, 4,24		4,54
38″	50,45,31,57, 4,29,51,29, 4,40		3,42,39,12, 3	
		1, 7, 0,17,51,28,52,21		4,54
40″	50,45,33, 4, 4,47,42,57,57, 1		3,42,39,16,57	
		1, 7, 0,14, 8,49,35,24		4,54
42″	50,45,34,11, 5, 1,51,47,32,25		3,42,39,21,51	
		1, 7, 0,10,26,10,13,33		4,54
44″	50,45,35,18, 5,12,17,57,45,58		3,42,39,26,45	
		1, 7, 0, 6,43,30,46,48		4,54
46″	50,45,36,25, 5,19, 1,28,32,46		3,42,39,31,39	
		1, 7, 0, 3, 0,51,15, 9		4,54
48″	50,45,37,32, 5,22, 2,19,47,55		3,42,39,36,33	
		1, 6,59,59,18,11,38,36		4,54
50″	50,45,38,39, 5,21,20,31,26,31		3,42,39,41,27	
		1, 6,59,55,35,31,57, 9		4,54
52″	50,45,39,46, 5,16,56, 3,23,40		3,42,39,46,21	
		1, 6,59,51,52,52,10,48		4,54
54″	50,45,40,53, 5, 8,48,55,34,28		3,42,39,51,15	
		1, 6,59,48,10,12,19,33		4,54
56″	50,45,42, 0, 4,56,59, 7,54, 1		3,42,39,56, 9	
		1, 6,59,44,27,32,23,24		4,54
58″	50,45,43, 7, 4,41,26,40,17,25		3,42,40, 1, 3	
		1, 6,59,40,44,52,22,21		
60″	50,45,44,14, 4,22,11,32,39,46			
exact	50,45,44,14, 4,22,11,32,44,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°47′ 0″	50,45,44,14, 4,22,11,32,44,42			
		1, 6,59,37, 2,12,16,55		
2″	50,45,45,21, 3,59,13,45, 1,37		3,42,40,10,49	
		1, 6,59,33,19,32, 6, 6		4,54
4″	50,45,46,28, 3,32,33,17, 7,43		3,42,40,15,43	
		1, 6,59,29,36,51,50,23		4,54
6″	50,45,47,35, 3, 2,10, 8,58, 6		3,42,40,20,37	
		1, 6,59,25,54,11,29,46		4,54
8″	50,45,48,42, 2,28, 4,20,27,52		3,42,40,25,31	
		1, 6,59,22,11,31, 4,15		4,54
10″	50,45,49,49, 1,50,15,51,32, 7		3,42,40,30,25	
		1, 6,59,18,28,50,33,50		4,54
12″	50,45,50,56, 1, 8,44,42, 5,57		3,42,40,35,19	
		1, 6,59,14,46, 9,58,31		4,54
14″	50,45,52, 3, 0,23,30,52, 4,28		3,42,40,40,13	
		1, 6,59,11, 3,29,18,18		4,54
16″	50,45,53, 9,59,34,34,21,22,46		3,42,40,45, 7	
		1, 6,59, 7,20,48,33,11		4,54
18″	50,45,54,16,58,41,55, 9,55,57		3,42,40,50, 1	
		1, 6,59, 3,38, 7,43,10		4,54
20″	50,45,55,23,57,45,33,17,39, 7		3,42,40,54,55	
		1, 6,58,59,55,26,48,15		4,54
22″	50,45,56,30,56,45,28,44,27,22		3,42,40,59,49	
		1, 6,58,56,12,45,48,26		4,54
24″	50,45,57,37,55,41,41,30,15,48		3,42,41, 4,43	
		1, 6,58,52,30, 4,43,43		4,54
26″	50,45,58,44,54,34,11,34,59,31		3,42,41, 9,37	
		1, 6,58,48,47,23,34, 6		4,54
28″	50,45,59,51,53,22,58,58,33,37		3,42,41,14,31	
		1, 6,58,45, 4,42,19,35		4,54
30″	50,46, 0,58,52, 8, 3,40,53,12		3,42,41,19,25	
		1, 6,58,41,22, 1, 0,10		4,54
32″	50,46, 2, 5,50,49,25,41,53,22		3,42,41,24,19	
		1, 6,58,37,39,19,35,51		4,54
34″	50,46, 3,12,49,27, 5, 1,29,13		3,42,41,29,13	
		1, 6,58,33,56,38, 6,38		4,54
36″	50,46, 4,19,48, 1, 1,39,35,51		3,42,41,34, 7	
		1, 6,58,30,13,56,32,31		4,54
38″	50,46, 5,26,46,31,15,36, 8,22		3,42,41,39, 1	
		1, 6,58,26,31,14,53,30		4,54
40″	50,46, 6,33,44,57,46,51, 1,52		3,42,41,43,55	
		1, 6,58,22,48,33, 9,35		4,54
42″	50,46, 7,40,43,20,35,24,11,27		3,42,41,48,49	
		1, 6,58,19, 5,51,20,46		4,54
44″	50,46, 8,47,41,39,41,15,32,13		3,42,41,53,43	
		1, 6,58,15,23, 9,27, 3		4,54
46″	50,46, 9,54,39,55, 4,24,59,16		3,42,41,58,37	
		1, 6,58,11,40,27,28,26		4,54
48″	50,46,11, 1,38, 6,44,52,27,42		3,42,42, 3,31	
		1, 6,58, 7,57,45,24,55		4,54
50″	50,46,12, 8,36,14,42,37,52,37		3,42,42, 8,25	
		1, 6,58, 4,15, 3,16,30		4,54
52″	50,46,13,15,34,18,57,41, 9, 7		3,42,42,13,19	
		1, 6,58, 0,32,21, 3,11		4,54
54″	50,46,14,22,32,19,30, 2,12,18		3,42,42,18,13	
		1, 6,57,56,49,38,44,58		4,54
56″	50,46,15,29,30,16,19,40,57,16		3,42,42,23, 7	
		1, 6,57,53, 6,56,21,51		4,54
58″	50,46,16,36,28, 9,26,37,19, 7		3,42,42,28, 1	
		1, 6,57,49,24,13,53,50		
60″	50,46,17,43,25,58,50,51,12,57			
exact	50,46,17,43,25,58,50,51,27,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°48′ 0″	50,46,17,43,25,58,50,51,27,21			
		1, 6,57,45,41,31,22,26		
2″	50,46,18,50,23,44,32,22,49,47		3,42,42,37,42	
		1, 6,57,41,58,48,44,44		4,54
4″	50,46,19,57,21,26,31,11,34,31		3,42,42,42,36	
		1, 6,57,38,16, 6, 2, 8		4,54
6″	50,46,21, 4,19, 4,47,17,36,39		3,42,42,47,30	
		1, 6,57,34,33,23,14,38		4,54
8″	50,46,22,11,16,39,20,40,51,17		3,42,42,52,24	
		1, 6,57,30,50,40,22,14		4,54
10″	50,46,23,18,14,10,11,21,13,31		3,42,42,57,18	
		1, 6,57,27, 7,57,24,56		4,54
12″	50,46,24,25,11,37,19,18,38,27		3,42,43, 2,12	
		1, 6,57,23,25,14,22,44		4,54
14″	50,46,25,32, 9, 0,44,33, 1,11		3,42,43, 7, 6	
		1, 6,57,19,42,31,15,38		4,54
16″	50,46,26,39, 6,20,27, 4,16,49		3,42,43,12, 0	
		1, 6,57,15,59,48, 3,38		4,54
18″	50,46,27,46, 3,36,26,52,20,27		3,42,43,16,54	
		1, 6,57,12,17, 4,46,44		4,54
20″	50,46,28,53, 0,48,43,57, 7,11		3,42,43,21,48	
		1, 6,57, 8,34,21,24,56		4,54
22″	50,46,29,59,57,57,18,18,32, 7		3,42,43,26,42	
		1, 6,57, 4,51,37,58,14		4,54
24″	50,46,31, 6,55, 2, 9,56,30,21		3,42,43,31,36	
		1, 6,57, 1, 8,54,26,38		4,54
26″	50,46,32,13,52, 3,18,50,56,59		3,42,43,36,30	
		1, 6,56,57,26,10,50, 8		4,54
28″	50,46,33,20,49, 0,45, 1,47, 7		3,42,43,41,24	
		1, 6,56,53,43,27, 8,44		4,54
30″	50,46,34,27,45,54,28,28,55,51		3,42,43,46,18	
		1, 6,56,50, 0,43,22,26		4,54
32″	50,46,35,34,42,44,29,12,18,17		3,42,43,51,12	
		1, 6,56,46,17,59,31,14		4,54
34″	50,46,36,41,39,30,47,11,49,31		3,42,43,56, 6	
		1, 6,56,42,35,15,35, 8		4,54
36″	50,46,37,48,36,13,22,27,24,39		3,42,44, 1, 0	
		1, 6,56,38,52,31,34, 8		4,54
38″	50,46,38,55,32,52,14,58,58,47		3,42,44, 5,54	
		1, 6,56,35, 9,47,28,14		4,54
40″	50,46,40, 2,29,27,24,46,27, 1		3,42,44,10,48	
		1, 6,56,31,27, 3,17,26		4,54
42″	50,46,41, 9,25,58,51,49,44,27		3,42,44,15,42	
		1, 6,56,27,44,19, 1,44		4,54
44″	50,46,42,16,22,26,36, 8,46,11		3,42,44,20,36	
		1, 6,56,24, 1,34,41, 8		4,54
46″	50,46,43,23,18,50,37,43,27,19		3,42,44,25,30	
		1, 6,56,20,18,50,15,38		4,54
48″	50,46,44,30,15,10,56,33,42,57		3,42,44,30,24	
		1, 6,56,16,36, 5,45,14		4,54
50″	50,46,45,37,11,27,32,39,28,11		3,42,44,35,18	
		1, 6,56,12,53,21, 9,56		4,54
52″	50,46,46,44, 7,40,26, 0,38, 7		3,42,44,40,12	
		1, 6,56, 9,10,36,29,44		4,54
54″	50,46,47,51, 3,49,36,37, 7,51		3,42,44,45, 6	
		1, 6,56, 5,27,51,44,38		4,54
56″	50,46,48,57,59,55, 4,28,52,29		3,42,44,50, 0	
		1, 6,56, 1,45, 6,54,38		4,54
58″	50,46,50, 4,55,56,49,35,47, 7		3,42,44,54,54	
		1, 6,55,58, 2,21,59,44		
60″	50,46,51,11,51,54,51,57,46,51			
exact	50,46,51,11,51,54,51,58, 3,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°49′ 0″	50,46,51,11,51,54,51,58, 3,52			
		1, 6,55,54,19,37, 1,59		
2″	50,46,52,18,47,49,11,35, 5,51		3,42,45, 4,32	
		1, 6,55,50,36,51,57,27		4,54
4″	50,46,53,25,43,39,48,27, 3,18		3,42,45, 9,26	
		1, 6,55,46,54, 6,48, 1		4,54
6″	50,46,54,32,39,26,42,33,51,19		3,42,45,14,20	
		1, 6,55,43,11,21,33,41		4,54
8″	50,46,55,39,35, 9,53,55,25, 0		3,42,45,19,14	
		1, 6,55,39,28,36,14,27		4,54
10″	50,46,56,46,30,49,22,31,39,27		3,42,45,24, 8	
		1, 6,55,35,45,50,50,19		4,54
12″	50,46,57,53,26,25, 8,22,29,46		3,42,45,29, 2	
		1, 6,55,32, 3, 5,21,17		4,54
14″	50,46,59, 0,21,57,11,27,51, 3		3,42,45,33,56	
		1, 6,55,28,20,19,47,21		4,54
16″	50,47, 0, 7,17,25,31,47,38,24		3,42,45,38,50	
		1, 6,55,24,37,34, 8,31		4,54
18″	50,47, 1,14,12,50, 9,21,46,55		3,42,45,43,44	
		1, 6,55,20,54,48,24,47		4,54
20″	50,47, 2,21, 8,11, 4,10,11,42		3,42,45,48,38	
		1, 6,55,17,12, 2,36, 9		4,54
22″	50,47, 3,28, 3,28,16,12,47,51		3,42,45,53,32	
		1, 6,55,13,29,16,42,37		4,54
24″	50,47, 4,34,58,41,45,29,30,28		3,42,45,58,26	
		1, 6,55, 9,46,30,44,11		4,54
26″	50,47, 5,41,53,51,32, 0,14,39		3,42,46, 3,20	
		1, 6,55, 6, 3,44,40,51		4,54
28″	50,47, 6,48,48,57,35,44,55,30		3,42,46, 8,14	
		1, 6,55, 2,20,58,32,37		4,54
30″	50,47, 7,55,43,59,56,43,28, 7		3,42,46,13, 8	
		1, 6,54,58,38,12,19,29		4,54
32″	50,47, 9, 2,38,58,34,55,47,36		3,42,46,18, 2	
		1, 6,54,54,55,26, 1,27		4,54
34″	50,47,10, 9,33,53,30,21,49, 3		3,42,46,22,56	
		1, 6,54,51,12,39,38,31		4,54
36″	50,47,11,16,28,44,43, 1,27,34		3,42,46,27,50	
		1, 6,54,47,29,53,10,41		4,54
38″	50,47,12,23,23,32,12,54,38,15		3,42,46,32,44	
		1, 6,54,43,47, 6,37,57		4,54
40″	50,47,13,30,18,16, 0, 1,16,12		3,42,46,37,38	
		1, 6,54,40, 4,20, 0,19		4,54
42″	50,47,14,37,12,56, 4,21,16,31		3,42,46,42,32	
		1, 6,54,36,21,33,17,47		4,54
44″	50,47,15,44, 7,32,25,54,34,18		3,42,46,47,26	
		1, 6,54,32,38,46,30,21		4,54
46″	50,47,16,51, 2, 5, 4,41, 4,39		3,42,46,52,20	
		1, 6,54,28,55,59,38, 1		4,54
48″	50,47,17,57,56,34, 0,40,42,40		3,42,46,57,14	
		1, 6,54,25,13,12,40,47		4,54
50″	50,47,19, 4,50,59,13,53,23,27		3,42,47, 2, 8	
		1, 6,54,21,30,25,38,39		4,54
52″	50,47,20,11,45,20,44,19, 2, 6		3,42,47, 7, 2	
		1, 6,54,17,47,38,31,37		4,54
54″	50,47,21,18,39,38,31,57,33,43		3,42,47,11,56	
		1, 6,54,14, 4,51,19,41		4,54
56″	50,47,22,25,33,52,36,48,53,24		3,42,47,16,50	
		1, 6,54,10,22, 4, 2,51		4,54
58″	50,47,23,32,28, 2,58,52,56,15		3,42,47,21,44	
		1, 6,54, 6,39,16,41, 7		
60″	50,47,24,39,22, 9,38, 9,37,22			
exact	50,47,24,39,22, 9,38,10, 4,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°50′ 0″	50,47,24,39,22, 9,38,10, 4,42			
		1, 6,54, 2,56,29,17,36		
2″	50,47,25,46,16,12,34,39,22,18		3,42,47,31,18	
		1, 6,53,59,13,41,46,18		4,53
4″	50,47,26,53,10,11,48,21, 8,36		3,42,47,36,11	
		1, 6,53,55,30,54,10, 7		4,53
6″	50,47,28, 0, 4, 7,19,15,18,43		3,42,47,41, 4	
		1, 6,53,51,48, 6,29, 3		4,53
8″	50,47,29, 6,57,59, 7,21,47,46		3,42,47,45,57	
		1, 6,53,48, 5,18,43, 6		4,53
10″	50,47,30,13,51,47,12,40,30,52		3,42,47,50,50	
		1, 6,53,44,22,30,52,16		4,53
12″	50,47,31,20,45,31,35,11,23, 8		3,42,47,55,43	
		1, 6,53,40,39,42,56,33		4,53
14″	50,47,32,27,39,12,14,54,19,41		3,42,48, 0,36	
		1, 6,53,36,56,54,55,57		4,53
16″	50,47,33,34,32,49,11,49,15,38		3,42,48, 5,29	
		1, 6,53,33,14, 6,50,28		4,53
18″	50,47,34,41,26,22,25,56, 6, 6		3,42,48,10,22	
		1, 6,53,29,31,18,40, 6		4,53
20″	50,47,35,48,19,51,57,14,46,12		3,42,48,15,15	
		1, 6,53,25,48,30,24,51		4,53
22″	50,47,36,55,13,17,45,45,11, 3		3,42,48,20, 8	
		1, 6,53,22, 5,42, 4,43		4,53
24″	50,47,38, 2, 6,39,51,27,15,46		3,42,48,25, 1	
		1, 6,53,18,22,53,39,42		4,53
26″	50,47,39, 8,59,58,14,20,55,28		3,42,48,29,54	
		1, 6,53,14,40, 5, 9,48		4,53
28″	50,47,40,15,53,12,54,26, 5,16		3,42,48,34,47	
		1, 6,53,10,57,16,35, 1		4,53
30″	50,47,41,22,46,23,51,42,40,17		3,42,48,39,40	
		1, 6,53, 7,14,27,55,21		4,53
32″	50,47,42,29,39,31, 6,10,35,38		3,42,48,44,33	
		1, 6,53, 3,31,39,10,48		4,53
34″	50,47,43,36,32,34,37,49,46,26		3,42,48,49,26	
		1, 6,52,59,48,50,21,22		4,53
36″	50,47,44,43,25,34,26,40, 7,48		3,42,48,54,19	
		1, 6,52,56, 6, 1,27, 3		4,53
38″	50,47,45,50,18,30,32,41,34,51		3,42,48,59,12	
		1, 6,52,52,23,12,27,51		4,53
40″	50,47,46,57,11,22,55,54, 2,42		3,42,49, 4, 5	
		1, 6,52,48,40,23,23,46		4,53
42″	50,47,48, 4, 4,11,36,17,26,28		3,42,49, 8,58	
		1, 6,52,44,57,34,14,48		4,53
44″	50,47,49,10,56,56,33,51,41,16		3,42,49,13,51	
		1, 6,52,41,14,45, 0,57		4,53
46″	50,47,50,17,49,37,48,36,42,13		3,42,49,18,44	
		1, 6,52,37,31,55,42,13		4,53
48″	50,47,51,24,42,15,20,32,24,26		3,42,49,23,37	
		1, 6,52,33,49, 6,18,36		4,53
50″	50,47,52,31,34,49, 9,38,43, 2		3,42,49,28,30	
		1, 6,52,30, 6,16,50, 6		4,53
52″	50,47,53,38,27,19,15,55,33, 8		3,42,49,33,23	
		1, 6,52,26,23,27,16,43		4,53
54″	50,47,54,45,19,45,39,22,49,51		3,42,49,38,16	
		1, 6,52,22,40,37,38,27		4,53
56″	50,47,55,52,12, 8,20, 0,28,18		3,42,49,43, 9	
		1, 6,52,18,57,47,55,18		4,53
58″	50,47,56,59, 4,27,17,48,23,36		3,42,49,48, 2	
		1, 6,52,15,14,58, 7,16		
60″	50,47,58, 5,56,42,32,46,30,52			
exact	50,47,58, 5,56,42,32,46, 1,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°51′ 0″	50,47,58, 5,56,42,32,46, 1,23			
		1, 6,52,11,32, 8,11,19		
2″	50,47,59,12,48,54, 4,54,12,42		3,42,49,58, 0	
		1, 6,52, 7,49,18,13,19		4,53
4″	50,48, 0,19,41, 1,54,12,26, 1		3,42,50, 2,53	
		1, 6,52, 4, 6,28,10,26		4,53
6″	50,48, 1,26,33, 6, 0,40,36,27		3,42,50, 7,46	
		1, 6,52, 0,23,38, 2,40		4,53
8″	50,48, 2,33,25, 6,24,18,39, 7		3,42,50,12,39	
		1, 6,51,56,40,47,50, 1		4,53
10″	50,48, 3,40,17, 3, 5, 6,29, 8		3,42,50,17,32	
		1, 6,51,52,57,57,32,29		4,53
12″	50,48, 4,47, 8,56, 3, 4, 1,37		3,42,50,22,25	
		1, 6,51,49,15, 7,10, 4		4,53
14″	50,48, 5,54, 0,45,18,11,11,41		3,42,50,27,18	
		1, 6,51,45,32,16,42,46		4,53
16″	50,48, 7, 0,52,30,50,27,54,27		3,42,50,32,11	
		1, 6,51,41,49,26,10,35		4,53
18″	50,48, 8, 7,44,12,39,54, 5, 2		3,42,50,37, 4	
		1, 6,51,38, 6,35,33,31		4,53
20″	50,48, 9,14,35,50,46,29,38,33		3,42,50,41,57	
		1, 6,51,34,23,44,51,34		4,53
22″	50,48,10,21,27,25,10,14,30, 7		3,42,50,46,50	
		1, 6,51,30,40,54, 4,44		4,53
24″	50,48,11,28,18,55,51, 8,34,51		3,42,50,51,43	
		1, 6,51,26,58, 3,13, 1		4,53
26″	50,48,12,35,10,22,49,11,47,52		3,42,50,56,36	
		1, 6,51,23,15,12,16,25		4,53
28″	50,48,13,42, 1,46, 4,24, 4,17		3,42,51, 1,29	
		1, 6,51,19,32,21,14,56		4,53
30″	50,48,14,48,53, 5,36,45,19,13		3,42,51, 6,22	
		1, 6,51,15,49,30, 8,34		4,53
32″	50,48,15,55,44,21,26,15,27,47		3,42,51,11,15	
		1, 6,51,12, 6,38,57,19		4,53
34″	50,48,17, 2,35,33,32,54,25, 6		3,42,51,16, 8	
		1, 6,51, 8,23,47,41,11		4,53
36″	50,48,18, 9,26,41,56,42, 6,17		3,42,51,21, 1	
		1, 6,51, 4,40,56,20,10		4,53
38″	50,48,19,16,17,46,37,38,26,27		3,42,51,25,54	
		1, 6,51, 0,58, 4,54,16		4,53
40″	50,48,20,23, 8,47,35,43,20,43		3,42,51,30,47	
		1, 6,50,57,15,13,23,29		4,53
42″	50,48,21,29,59,44,50,56,44,12		3,42,51,35,40	
		1, 6,50,53,32,21,47,49		4,53
44″	50,48,22,36,50,38,23,18,32, 1		3,42,51,40,33	
		1, 6,50,49,49,30, 7,16		4,53
46″	50,48,23,43,41,28,12,48,39,17		3,42,51,45,26	
		1, 6,50,46, 6,38,21,50		4,53
48″	50,48,24,50,32,14,19,27, 1, 7		3,42,51,50,19	
		1, 6,50,42,23,46,31,31		4,53
50″	50,48,25,57,22,56,43,13,32,38		3,42,51,55,12	
		1, 6,50,38,40,54,36,19		4,53
52″	50,48,27, 4,13,35,24, 8, 8,57		3,42,52, 0, 5	
		1, 6,50,34,58, 2,36,14		4,53
54″	50,48,28,11, 4,10,22,10,45,11		3,42,52, 4,58	
		1, 6,50,31,15,10,31,16		4,53
56″	50,48,29,17,54,41,37,21,16,27		3,42,52, 9,51	
		1, 6,50,27,32,18,21,25		4,53
58″	50,48,30,24,45, 9, 9,39,37,52		3,42,52,14,44	
		1, 6,50,23,49,26, 6,41		
60″	50,48,31,31,35,32,59, 5,44,33			
exact	50,48,31,31,35,32,59, 5,26,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°52′ 0″	50,48,31,31,35,32,59, 5,26,31			
		1, 6,50,20, 6,33,45,10		
2″	50,48,32,38,25,53, 5,39,11,41		3,42,52,24,37	
		1, 6,50,16,23,41,20,33		4,53
4″	50,48,33,45,16, 9,29,20,32,14		3,42,52,29,30	
		1, 6,50,12,40,48,51, 3		4,53
6″	50,48,34,52, 6,22,10, 9,23,17		3,42,52,34,23	
		1, 6,50, 8,57,56,16,40		4,53
8″	50,48,35,58,56,31, 8, 5,39,57		3,42,52,39,16	
		1, 6,50, 5,15, 3,37,24		4,53
10″	50,48,37, 5,46,36,23, 9,17,21		3,42,52,44, 9	
		1, 6,50, 1,32,10,53,15		4,53
12″	50,48,38,12,36,37,55,20,10,36		3,42,52,49, 2	
		1, 6,49,57,49,18, 4,13		4,53
14″	50,48,39,19,26,35,44,38,14,49		3,42,52,53,55	
		1, 6,49,54, 6,25,10,18		4,53
16″	50,48,40,26,16,29,51, 3,25, 7		3,42,52,58,48	
		1, 6,49,50,23,32,11,30		4,53
18″	50,48,41,33, 6,20,14,35,36,37		3,42,53, 3,41	
		1, 6,49,46,40,39, 7,49		4,53
20″	50,48,42,39,56, 6,55,14,44,26		3,42,53, 8,34	
		1, 6,49,42,57,45,59,15		4,53
22″	50,48,43,46,45,49,53, 0,43,41		3,42,53,13,27	
		1, 6,49,39,14,52,45,48		4,53
24″	50,48,44,53,35,29, 7,53,29,29		3,42,53,18,20	
		1, 6,49,35,31,59,27,28		4,53
26″	50,48,46, 0,25, 4,39,52,56,57		3,42,53,23,13	
		1, 6,49,31,49, 6, 4,15		4,53
28″	50,48,47, 7,14,36,28,59, 1,12		3,42,53,28, 6	
		1, 6,49,28, 6,12,36, 9		4,53
30″	50,48,48,14, 4, 4,35,11,37,21		3,42,53,32,59	
		1, 6,49,24,23,19, 3,10		4,53
32″	50,48,49,20,53,28,58,30,40,31		3,42,53,37,52	
		1, 6,49,20,40,25,25,18		4,53
34″	50,48,50,27,42,49,38,56, 5,49		3,42,53,42,45	
		1, 6,49,16,57,31,42,33		4,53
36″	50,48,51,34,32, 6,36,27,48,22		3,42,53,47,38	
		1, 6,49,13,14,37,54,55		4,53
38″	50,48,52,41,21,19,51, 5,43,17		3,42,53,52,31	
		1, 6,49, 9,31,44, 2,24		4,53
40″	50,48,53,48,10,29,22,49,45,41		3,42,53,57,24	
		1, 6,49, 5,48,50, 5, 0		4,53
42″	50,48,54,54,59,35,11,39,50,41		3,42,54, 2,17	
		1, 6,49, 2, 5,56, 2,43		4,53
44″	50,48,56, 1,48,37,17,35,53,24		3,42,54, 7,10	
		1, 6,48,58,23, 1,55,33		4,53
46″	50,48,57, 8,37,35,40,37,48,57		3,42,54,12, 3	
		1, 6,48,54,40, 7,43,30		4,53
48″	50,48,58,15,26,30,20,45,32,27		3,42,54,16,56	
		1, 6,48,50,57,13,26,34		4,53
50″	50,48,59,22,15,21,17,58,59, 1		3,42,54,21,49	
		1, 6,48,47,14,19, 4,45		4,53
52″	50,49, 0,29, 4, 8,32,18, 3,46		3,42,54,26,42	
		1, 6,48,43,31,24,38, 3		4,53
54″	50,49, 1,35,52,52, 3,42,41,49		3,42,54,31,35	
		1, 6,48,39,48,30, 6,28		4,53
56″	50,49, 2,42,41,31,52,12,48,17		3,42,54,36,28	
		1, 6,48,36, 5,35,30, 0		4,53
58″	50,49, 3,49,30, 7,57,48,18,17		3,42,54,41,21	
		1, 6,48,32,22,40,48,39		
60″	50,49, 4,56,18,40,20,29, 6,56			
exact	50,49, 4,56,18,40,20,28,53,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°53′ 0″	50,49, 4,56,18,40,20,28,53,48			
		1, 6,48,28,39,46, 1,12		
2″	50,49, 6, 3, 7, 9, 0,14,55, 0		3,42,54,51,11	
		1, 6,48,24,56,51,10, 1		4,53
4″	50,49, 7, 9,55,33,57, 6, 5, 1		3,42,54,56, 4	
		1, 6,48,21,13,56,13,57		4,53
6″	50,49, 8,16,43,55,11, 2,18,58		3,42,55, 0,57	
		1, 6,48,17,31, 1,13, 0		4,53
8″	50,49, 9,23,32,12,42, 3,31,58		3,42,55, 5,50	
		1, 6,48,13,48, 6, 7,10		4,53
10″	50,49,10,30,20,26,30, 9,39, 8		3,42,55,10,43	
		1, 6,48,10, 5,10,56,27		4,53
12″	50,49,11,37, 8,36,35,20,35,35		3,42,55,15,36	
		1, 6,48, 6,22,15,40,51		4,53
14″	50,49,12,43,56,42,57,36,16,26		3,42,55,20,29	
		1, 6,48, 2,39,20,20,22		4,53
16″	50,49,13,50,44,45,36,56,36,48		3,42,55,25,22	
		1, 6,47,58,56,24,55, 0		4,53
18″	50,49,14,57,32,44,33,21,31,48		3,42,55,30,15	
		1, 6,47,55,13,29,24,45		4,53
20″	50,49,16, 4,20,39,46,50,56,33		3,42,55,35, 8	
		1, 6,47,51,30,33,49,37		4,53
22″	50,49,17,11, 8,31,17,24,46,10		3,42,55,40, 1	
		1, 6,47,47,47,38, 9,36		4,53
24″	50,49,18,17,56,19, 5, 2,55,46		3,42,55,44,54	
		1, 6,47,44, 4,42,24,42		4,53
26″	50,49,19,24,44, 3, 9,45,20,28		3,42,55,49,47	
		1, 6,47,40,21,46,34,55		4,53
28″	50,49,20,31,31,43,31,31,55,23		3,42,55,54,40	
		1, 6,47,36,38,50,40,15		4,53
30″	50,49,21,38,19,20,10,22,35,38		3,42,55,59,33	
		1, 6,47,32,55,54,40,42		4,53
32″	50,49,22,45, 6,53, 6,17,16,20		3,42,56, 4,26	
		1, 6,47,29,12,58,36,16		4,53
34″	50,49,23,51,54,22,19,15,52,36		3,42,56, 9,19	
		1, 6,47,25,30, 2,26,57		4,53
36″	50,49,24,58,41,47,49,18,19,33		3,42,56,14,12	
		1, 6,47,21,47, 6,12,45		4,53
38″	50,49,26, 5,29, 9,36,24,32,18		3,42,56,19, 5	
		1, 6,47,18, 4, 9,53,40		4,53
40″	50,49,27,12,16,27,40,34,25,58		3,42,56,23,58	
		1, 6,47,14,21,13,29,42		4,53
42″	50,49,28,19, 3,42, 1,47,55,40		3,42,56,28,51	
		1, 6,47,10,38,17, 0,51		4,53
44″	50,49,29,25,50,52,40, 4,56,31		3,42,56,33,44	
		1, 6,47, 6,55,20,27, 7		4,53
46″	50,49,30,32,37,59,35,25,23,38		3,42,56,38,37	
		1, 6,47, 3,12,23,48,30		4,53
48″	50,49,31,39,25, 2,47,49,12, 8		3,42,56,43,30	
		1, 6,46,59,29,27, 5, 0		4,53
50″	50,49,32,46,12, 2,17,16,17, 8		3,42,56,48,23	
		1, 6,46,55,46,30,16,37		4,53
52″	50,49,33,52,58,58, 3,46,33,45		3,42,56,53,16	
		1, 6,46,52, 3,33,23,21		4,53
54″	50,49,34,59,45,50, 7,19,57, 6		3,42,56,58, 9	
		1, 6,46,48,20,36,25,12		4,53
56″	50,49,36, 6,32,38,27,56,22,18		3,42,57, 3, 2	
		1, 6,46,44,37,39,22,10		4,53
58″	50,49,37,13,19,23, 5,35,44,28		3,42,57, 7,55	
		1, 6,46,40,54,42,14,15		
60″	50,49,38,20, 6, 4, 0,17,58,43			
exact	50,49,38,20, 6, 4, 0,17,58, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°54′ 0″	50,49,38,20, 6, 4, 0,17,58, 1			
		1, 6,46,37,11,45, 1,27		
2″	50,49,39,26,52,41,12, 2,59,28		3,42,57,17,40	
		1, 6,46,33,28,47,43,47		4,53
4″	50,49,40,33,39,14,40,50,43,15		3,42,57,22,33	
		1, 6,46,29,45,50,21,14		4,53
6″	50,49,41,40,25,44,26,41, 4,29		3,42,57,27,26	
		1, 6,46,26, 2,52,53,48		4,53
8″	50,49,42,47,12,10,29,33,58,17		3,42,57,32,19	
		1, 6,46,22,19,55,21,29		4,53
10″	50,49,43,53,58,32,49,29,19,46		3,42,57,37,12	
		1, 6,46,18,36,57,44,17		4,53
12″	50,49,45, 0,44,51,26,27, 4, 3		3,42,57,42, 5	
		1, 6,46,14,54, 0, 2,12		4,53
14″	50,49,46, 7,31, 6,20,27, 6,15		3,42,57,46,58	
		1, 6,46,11,11, 2,15,14		4,53
16″	50,49,47,14,17,17,31,29,21,29		3,42,57,51,51	
		1, 6,46, 7,28, 4,23,23		4,53
18″	50,49,48,21, 3,24,59,33,44,52		3,42,57,56,44	
		1, 6,46, 3,45, 6,26,39		4,53
20″	50,49,49,27,49,28,44,40,11,31		3,42,58, 1,37	
		1, 6,46, 0, 2, 8,25, 2		4,53
22″	50,49,50,34,35,28,46,48,36,33		3,42,58, 6,30	
		1, 6,45,56,19,10,18,32		4,53
24″	50,49,51,41,21,25, 5,58,55, 5		3,42,58,11,23	
		1, 6,45,52,36,12, 7, 9		4,53
26″	50,49,52,48, 7,17,42,11, 2,14		3,42,58,16,16	
		1, 6,45,48,53,13,50,53		4,53
28″	50,49,53,54,53, 6,35,24,53, 7		3,42,58,21, 9	
		1, 6,45,45,10,15,29,44		4,53
30″	50,49,55, 1,38,51,45,40,22,51		3,42,58,26, 2	
		1, 6,45,41,27,17, 3,42		4,53
32″	50,49,56, 8,24,33,12,57,26,33		3,42,58,30,55	
		1, 6,45,37,44,18,32,47		4,53
34″	50,49,57,15,10,10,57,15,59,20		3,42,58,35,48	
		1, 6,45,34, 1,19,56,59		4,53
36″	50,49,58,21,55,44,58,35,56,19		3,42,58,40,41	
		1, 6,45,30,18,21,16,18		4,53
38″	50,49,59,28,41,15,16,57,12,37		3,42,58,45,34	
		1, 6,45,26,35,22,30,44		4,53
40″	50,50, 0,35,26,41,52,19,43,21		3,42,58,50,27	
		1, 6,45,22,52,23,40,17		4,53
42″	50,50, 1,42,12, 4,44,43,23,38		3,42,58,55,20	
		1, 6,45,19, 9,24,44,57		4,53
44″	50,50, 2,48,57,23,54, 8, 8,35		3,42,59, 0,13	
		1, 6,45,15,26,25,44,44		4,53
46″	50,50, 3,55,42,39,20,33,53,19		3,42,59, 5, 6	
		1, 6,45,11,43,26,39,38		4,53
48″	50,50, 5, 2,27,51, 4, 0,32,57		3,42,59, 9,59	
		1, 6,45, 8, 0,27,29,39		4,53
50″	50,50, 6, 9,12,59, 4,28, 2,36		3,42,59,14,52	
		1, 6,45, 4,17,28,14,47		4,53
52″	50,50, 7,15,58, 3,21,56,17,23		3,42,59,19,45	
		1, 6,45, 0,34,28,55, 2		4,53
54″	50,50, 8,22,43, 3,56,25,12,25		3,42,59,24,38	
		1, 6,44,56,51,29,30,24		4,53
56″	50,50, 9,29,28, 0,47,54,42,49		3,42,59,29,31	
		1, 6,44,53, 8,30, 0,53		4,53
58″	50,50,10,36,12,53,56,24,43,42		3,42,59,34,24	
		1, 6,44,49,25,30,26,29		
60″	50,50,11,42,57,43,21,55,10,11			
exact	50,50,11,42,57,43,21,55,15, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°55′ 0″	50,50,11,42,57,43,21,55,15, 5			
		1, 6,44,45,42,30,47,56		
2″	50,50,12,49,42,29, 4,26, 3, 1		3,42,59,44, 6	
		1, 6,44,41,59,31, 3,50		4,53
4″	50,50,13,56,27,11, 3,57, 6,51		3,42,59,48,59	
		1, 6,44,38,16,31,14,51		4,53
6″	50,50,15, 3,11,49,20,28,21,42		3,42,59,53,52	
		1, 6,44,34,33,31,20,59		4,53
8″	50,50,16, 9,56,23,53,59,42,41		3,42,59,58,45	
		1, 6,44,30,50,31,22,14		4,53
10″	50,50,17,16,40,54,44,31, 4,55		3,43, 0, 3,38	
		1, 6,44,27, 7,31,18,36		4,53
12″	50,50,18,23,25,21,52, 2,23,31		3,43, 0, 8,31	
		1, 6,44,23,24,31,10, 5		4,53
14″	50,50,19,30, 9,45,16,33,33,36		3,43, 0,13,24	
		1, 6,44,19,41,30,56,41		4,53
16″	50,50,20,36,54, 4,58, 4,30,17		3,43, 0,18,17	
		1, 6,44,15,58,30,38,24		4,53
18″	50,50,21,43,38,20,56,35, 8,41		3,43, 0,23,10	
		1, 6,44,12,15,30,15,14		4,53
20″	50,50,22,50,22,33,12, 5,23,55		3,43, 0,28, 3	
		1, 6,44, 8,32,29,47,11		4,53
22″	50,50,23,57, 6,41,44,35,11, 6		3,43, 0,32,56	
		1, 6,44, 4,49,29,14,15		4,53
24″	50,50,25, 3,50,46,34, 4,25,21		3,43, 0,37,49	
		1, 6,44, 1, 6,28,36,26		4,53
26″	50,50,26,10,34,47,40,33, 1,47		3,43, 0,42,42	
		1, 6,43,57,23,27,53,44		4,53
28″	50,50,27,17,18,45, 4, 0,55,31		3,43, 0,47,35	
		1, 6,43,53,40,27, 6, 9		4,53
30″	50,50,28,24, 2,38,44,28, 1,40		3,43, 0,52,28	
		1, 6,43,49,57,26,13,41		4,53
32″	50,50,29,30,46,28,41,54,15,21		3,43, 0,57,21	
		1, 6,43,46,14,25,16,20		4,53
34″	50,50,30,37,30,14,56,19,31,41		3,43, 1, 2,14	
		1, 6,43,42,31,24,14, 6		4,53
36″	50,50,31,44,13,57,27,43,45,47		3,43, 1, 7, 7	
		1, 6,43,38,48,23, 6,59		4,53
38″	50,50,32,50,57,36,16, 6,52,46		3,43, 1,12, 0	
		1, 6,43,35, 5,21,54,59		4,53
40″	50,50,33,57,41,11,21,28,47,45		3,43, 1,16,53	
		1, 6,43,31,22,20,38, 6		4,53
42″	50,50,35, 4,24,42,43,49,25,51		3,43, 1,21,46	
		1, 6,43,27,39,19,16,20		4,53
44″	50,50,36,11, 8,10,23, 8,42,11		3,43, 1,26,39	
		1, 6,43,23,56,17,49,41		4,53
46″	50,50,37,17,51,34,19,26,31,52		3,43, 1,31,32	
		1, 6,43,20,13,16,18, 9		4,53
48″	50,50,38,24,34,54,32,42,50, 1		3,43, 1,36,25	
		1, 6,43,16,30,14,41,44		4,53
50″	50,50,39,31,18,11, 2,57,31,45		3,43, 1,41,18	
		1, 6,43,12,47,13, 0,26		4,53
52″	50,50,40,38, 1,23,50,10,32,11		3,43, 1,46,11	
		1, 6,43, 9, 4,11,14,15		4,53
54″	50,50,41,44,44,32,54,21,46,26		3,43, 1,51, 4	
		1, 6,43, 5,21, 9,23,11		4,53
56″	50,50,42,51,27,38,15,31, 9,37		3,43, 1,55,57	
		1, 6,43, 1,38, 7,27,14		4,53
58″	50,50,43,58,10,39,53,38,36,51		3,43, 2, 0,50	
		1, 6,42,57,55, 5,26,24		
60″	50,50,45, 4,53,37,48,44, 3,15			
exact	50,50,45, 4,53,37,48,44,22, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°56′ 0″	50,50,45, 4,53,37,48,44,22, 3			
		1, 6,42,54,12, 3,22,43		
2″	50,50,46,11,36,32, 0,47,44,46		3,43, 2,10,27	
		1, 6,42,50,29, 1,12,16		4,53
4″	50,50,47,18,19,22,29,48,57, 2		3,43, 2,15,20	
		1, 6,42,46,45,58,56,56		4,53
6″	50,50,48,25, 2, 9,15,47,53,58		3,43, 2,20,13	
		1, 6,42,43, 2,56,36,43		4,53
8″	50,50,49,31,44,52,18,44,30,41		3,43, 2,25, 6	
		1, 6,42,39,19,54,11,37		4,53
10″	50,50,50,38,27,31,38,38,42,18		3,43, 2,29,59	
		1, 6,42,35,36,51,41,38		4,53
12″	50,50,51,45,10, 7,15,30,23,56		3,43, 2,34,52	
		1, 6,42,31,53,49, 6,46		4,53
14″	50,50,52,51,52,39, 9,19,30,42		3,43, 2,39,45	
		1, 6,42,28,10,46,27, 1		4,53
16″	50,50,53,58,35, 7,20, 5,57,43		3,43, 2,44,38	
		1, 6,42,24,27,43,42,23		4,53
18″	50,50,55, 5,17,31,47,49,40, 6		3,43, 2,49,31	
		1, 6,42,20,44,40,52,52		4,53
20″	50,50,56,11,59,52,32,30,32,58		3,43, 2,54,24	
		1, 6,42,17, 1,37,58,28		4,53
22″	50,50,57,18,42, 9,34, 8,31,26		3,43, 2,59,17	
		1, 6,42,13,18,34,59,11		4,53
24″	50,50,58,25,24,22,52,43,30,37		3,43, 3, 4,10	
		1, 6,42, 9,35,31,55, 1		4,53
26″	50,50,59,32, 6,32,28,15,25,38		3,43, 3, 9, 3	
		1, 6,42, 5,52,28,45,58		4,53
28″	50,51, 0,38,48,38,20,44,11,36		3,43, 3,13,56	
		1, 6,42, 2, 9,25,32, 2		4,53
30″	50,51, 1,45,30,40,30, 9,43,38		3,43, 3,18,49	
		1, 6,41,58,26,22,13,13		4,53
32″	50,51, 2,52,12,38,56,31,56,51		3,43, 3,23,42	
		1, 6,41,54,43,18,49,31		4,53
34″	50,51, 3,58,54,33,39,50,46,22		3,43, 3,28,35	
		1, 6,41,51, 0,15,20,56		4,53
36″	50,51, 5, 5,36,24,40, 6, 7,18		3,43, 3,33,28	
		1, 6,41,47,17,11,47,28		4,53
38″	50,51, 6,12,18,11,57,17,54,46		3,43, 3,38,21	
		1, 6,41,43,34, 8, 9, 7		4,53
40″	50,51, 7,18,59,55,31,26, 3,53		3,43, 3,43,14	
		1, 6,41,39,51, 4,25,53		4,53
42″	50,51, 8,25,41,35,22,30,29,46		3,43, 3,48, 7	
		1, 6,41,36, 8, 0,37,46		4,53
44″	50,51, 9,32,23,11,30,31, 7,32		3,43, 3,53, 0	
		1, 6,41,32,24,56,44,46		4,53
46″	50,51,10,39, 4,43,55,27,52,18		3,43, 3,57,53	
		1, 6,41,28,41,52,46,53		4,53
48″	50,51,11,45,46,12,37,20,39,11		3,43, 4, 2,46	
		1, 6,41,24,58,48,44, 7		4,53
50″	50,51,12,52,27,37,36, 9,23,18		3,43, 4, 7,39	
		1, 6,41,21,15,44,36,28		4,53
52″	50,51,13,59, 8,58,51,53,59,46		3,43, 4,12,32	
		1, 6,41,17,32,40,23,56		4,53
54″	50,51,15, 5,50,16,24,34,23,42		3,43, 4,17,25	
		1, 6,41,13,49,36, 6,31		4,53
56″	50,51,16,12,31,30,14,10,30,13		3,43, 4,22,18	
		1, 6,41,10, 6,31,44,13		4,53
58″	50,51,17,19,12,40,20,42,14,26		3,43, 4,27,11	
		1, 6,41, 6,23,27,17, 2		
60″	50,51,18,25,53,46,44, 9,31,28			
exact	50,51,18,25,53,46,44, 9,57, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°57′ 0″	50,51,18,25,53,46,44, 9,57, 3			
		1, 6,41, 2,40,22,47,49		
2″	50,51,19,32,34,49,24,32,44,52		3,43, 4,36,44	
		1, 6,40,58,57,18,11, 5		4,53
4″	50,51,20,39,15,48,21,50,55,57		3,43, 4,41,37	
		1, 6,40,55,14,13,29,28		4,53
6″	50,51,21,45,56,43,36, 4,25,25		3,43, 4,46,30	
		1, 6,40,51,31, 8,42,58		4,53
8″	50,51,22,52,37,35, 7,13, 8,23		3,43, 4,51,23	
		1, 6,40,47,48, 3,51,35		4,53
10″	50,51,23,59,18,22,55,16,59,58		3,43, 4,56,16	
		1, 6,40,44, 4,58,55,19		4,53
12″	50,51,25, 5,59, 7, 0,15,55,17		3,43, 5, 1, 9	
		1, 6,40,40,21,53,54,10		4,53
14″	50,51,26,12,39,47,22, 9,49,27		3,43, 5, 6, 2	
		1, 6,40,36,38,48,48, 8		4,53
16″	50,51,27,19,20,24, 0,58,37,35		3,43, 5,10,55	
		1, 6,40,32,55,43,37,13		4,53
18″	50,51,28,26, 0,56,56,42,14,48		3,43, 5,15,48	
		1, 6,40,29,12,38,21,25		4,53
20″	50,51,29,32,41,26, 9,20,36,13		3,43, 5,20,41	
		1, 6,40,25,29,33, 0,44		4,53
22″	50,51,30,39,21,51,38,53,36,57		3,43, 5,25,34	
		1, 6,40,21,46,27,35,10		4,53
24″	50,51,31,46, 2,13,25,21,12, 7		3,43, 5,30,27	
		1, 6,40,18, 3,22, 4,43		4,53
26″	50,51,32,52,42,31,28,43,16,50		3,43, 5,35,20	
		1, 6,40,14,20,16,29,23		4,53
28″	50,51,33,59,22,45,48,59,46,13		3,43, 5,40,13	
		1, 6,40,10,37,10,49,10		4,53
30″	50,51,35, 6, 2,56,26,10,35,23		3,43, 5,45, 6	
		1, 6,40, 6,54, 5, 4, 4		4,53
32″	50,51,36,12,43, 3,20,15,39,27		3,43, 5,49,59	
		1, 6,40, 3,10,59,14, 5		4,53
34″	50,51,37,19,23, 6,31,14,53,32		3,43, 5,54,52	
		1, 6,39,59,27,53,19,13		4,53
36″	50,51,38,26, 3, 5,59, 8,12,45		3,43, 5,59,45	
		1, 6,39,55,44,47,19,28		4,53
38″	50,51,39,32,43, 1,43,55,32,13		3,43, 6, 4,38	
		1, 6,39,52, 1,41,14,50		4,53
40″	50,51,40,39,22,53,45,36,47, 3		3,43, 6, 9,31	
		1, 6,39,48,18,35, 5,19		4,53
42″	50,51,41,46, 2,42, 4,11,52,22		3,43, 6,14,24	
		1, 6,39,44,35,28,50,55		4,53
44″	50,51,42,52,42,26,39,40,43,17		3,43, 6,19,17	
		1, 6,39,40,52,22,31,38		4,53
46″	50,51,43,59,22, 7,32, 3,14,55		3,43, 6,24,10	
		1, 6,39,37, 9,16, 7,28		4,53
48″	50,51,45, 6, 1,44,41,19,22,23		3,43, 6,29, 3	
		1, 6,39,33,26, 9,38,25		4,53
50″	50,51,46,12,41,18, 7,29, 0,48		3,43, 6,33,56	
		1, 6,39,29,43, 3, 4,29		4,53
52″	50,51,47,19,20,47,50,32, 5,17		3,43, 6,38,49	
		1, 6,39,25,59,56,25,40		4,53
54″	50,51,48,26, 0,13,50,28,30,57		3,43, 6,43,42	
		1, 6,39,22,16,49,41,58		4,53
56″	50,51,49,32,39,36, 7,18,12,55		3,43, 6,48,35	
		1, 6,39,18,33,42,53,23		4,53
58″	50,51,50,39,18,54,41, 1, 6,18		3,43, 6,53,28	
		1, 6,39,14,50,35,59,55		
60″	50,51,51,45,58, 9,31,37, 6,13			
exact	50,51,51,45,58, 9,31,37,39,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°58′ 0″	50,51,51,45,58, 9,31,37,39,26			
		1, 6,39,11, 7,29, 5,18		
2″	50,51,52,52,37,20,39, 6,44,44		3,43, 7, 2,58	
		1, 6,39, 7,24,22, 2,20		4,52
4″	50,51,53,59,16,28, 3,28,47, 4		3,43, 7, 7,50	
		1, 6,39, 3,41,14,54,30		4,52
6″	50,51,55, 5,55,31,44,43,41,34		3,43, 7,12,42	
		1, 6,38,59,58, 7,41,48		4,52
8″	50,51,56,12,34,31,42,51,23,22		3,43, 7,17,34	
		1, 6,38,56,15, 0,24,14		4,52
10″	50,51,57,19,13,27,57,51,47,36		3,43, 7,22,26	
		1, 6,38,52,31,53, 1,48		4,52
12″	50,51,58,25,52,20,29,44,49,24		3,43, 7,27,18	
		1, 6,38,48,48,45,34,30		4,52
14″	50,51,59,32,31, 9,18,30,23,54		3,43, 7,32,10	
		1, 6,38,45, 5,38, 2,20		4,52
16″	50,52, 0,39, 9,54,24, 8,26,14		3,43, 7,37, 2	
		1, 6,38,41,22,30,25,18		4,52
18″	50,52, 1,45,48,35,46,38,51,32		3,43, 7,41,54	
		1, 6,38,37,39,22,43,24		4,52
20″	50,52, 2,52,27,13,26, 1,34,56		3,43, 7,46,46	
		1, 6,38,33,56,14,56,38		4,52
22″	50,52, 3,59, 5,47,22,16,31,34		3,43, 7,51,38	
		1, 6,38,30,13, 7, 5, 0		4,52
24″	50,52, 5, 5,44,17,35,23,36,34		3,43, 7,56,30	
		1, 6,38,26,29,59, 8,30		4,52
26″	50,52, 6,12,22,44, 5,22,45, 4		3,43, 8, 1,22	
		1, 6,38,22,46,51, 7, 8		4,52
28″	50,52, 7,19, 1, 6,52,13,52,12		3,43, 8, 6,14	
		1, 6,38,19, 3,43, 0,54		4,52
30″	50,52, 8,25,39,25,55,56,53, 6		3,43, 8,11, 6	
		1, 6,38,15,20,34,49,48		4,52
32″	50,52, 9,32,17,41,16,31,42,54		3,43, 8,15,58	
		1, 6,38,11,37,26,33,50		4,52
34″	50,52,10,38,55,52,53,58,16,44		3,43, 8,20,50	
		1, 6,38, 7,54,18,13, 0		4,52
36″	50,52,11,45,34, 0,48,16,29,44		3,43, 8,25,42	
		1, 6,38, 4,11, 9,47,18		4,52
38″	50,52,12,52,12, 4,59,26,17, 2		3,43, 8,30,34	
		1, 6,38, 0,28, 1,16,44		4,52
40″	50,52,13,58,50, 5,27,27,33,46		3,43, 8,35,26	
		1, 6,37,56,44,52,41,18		4,52
42″	50,52,15, 5,28, 2,12,20,15, 4		3,43, 8,40,18	
		1, 6,37,53, 1,44, 1, 0		4,52
44″	50,52,16,12, 5,55,14, 4,16, 4		3,43, 8,45,10	
		1, 6,37,49,18,35,15,50		4,52
46″	50,52,17,18,43,44,32,39,31,54		3,43, 8,50, 2	
		1, 6,37,45,35,26,25,48		4,52
48″	50,52,18,25,21,30, 8, 5,57,42		3,43, 8,54,54	
		1, 6,37,41,52,17,30,54		4,52
50″	50,52,19,31,59,12, 0,23,28,36		3,43, 8,59,46	
		1, 6,37,38, 9, 8,31, 8		4,52
52″	50,52,20,38,36,50, 9,31,59,44		3,43, 9, 4,38	
		1, 6,37,34,25,59,26,30		4,52
54″	50,52,21,45,14,24,35,31,26,14		3,43, 9, 9,30	
		1, 6,37,30,42,50,17, 0		4,52
56″	50,52,22,51,51,55,18,21,43,14		3,43, 9,14,22	
		1, 6,37,26,59,41, 2,38		4,52
58″	50,52,23,58,29,22,18, 2,45,52		3,43, 9,19,14	
		1, 6,37,23,16,31,43,24		
60″	50,52,25, 5, 6,45,34,34,29,16			
exact	50,52,25, 5, 6,45,34,34, 9,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
57°59′ 0″	50,52,25, 5, 6,45,34,34, 9,40			
		1, 6,37,19,33,22,17,10		
2″	50,52,26,11,44, 5, 7,56,26,50		3,43, 9,29, 7	
		1, 6,37,15,50,12,48, 3		4,52
4″	50,52,27,18,21,20,58, 9,14,53		3,43, 9,33,59	
		1, 6,37,12, 7, 3,14, 4		4,52
6″	50,52,28,24,58,33, 5,12,28,57		3,43, 9,38,51	
		1, 6,37, 8,23,53,35,13		4,52
8″	50,52,29,31,35,41,29, 6, 4,10		3,43, 9,43,43	
		1, 6,37, 4,40,43,51,30		4,52
10″	50,52,30,38,12,46, 9,49,55,40		3,43, 9,48,35	
		1, 6,37, 0,57,34, 2,55		4,52
12″	50,52,31,44,49,47, 7,23,58,35		3,43, 9,53,27	
		1, 6,36,57,14,24, 9,28		4,52
14″	50,52,32,51,26,44,21,48, 8, 3		3,43, 9,58,19	
		1, 6,36,53,31,14,11, 9		4,52
16″	50,52,33,58, 3,37,53, 2,19,12		3,43,10, 3,11	
		1, 6,36,49,48, 4, 7,58		4,52
18″	50,52,35, 4,40,27,41, 6,27,10		3,43,10, 8, 3	
		1, 6,36,46, 4,53,59,55		4,52
20″	50,52,36,11,17,13,46, 0,27, 5		3,43,10,12,55	
		1, 6,36,42,21,43,47, 0		4,52
22″	50,52,37,17,53,56, 7,44,14, 5		3,43,10,17,47	
		1, 6,36,38,38,33,29,13		4,52
24″	50,52,38,24,30,34,46,17,43,18		3,43,10,22,39	
		1, 6,36,34,55,23, 6,34		4,52
26″	50,52,39,31, 7, 9,41,40,49,52		3,43,10,27,31	
		1, 6,36,31,12,12,39, 3		4,52
28″	50,52,40,37,43,40,53,53,28,55		3,43,10,32,23	
		1, 6,36,27,29, 2, 6,40		4,52
30″	50,52,41,44,20, 8,22,55,35,35		3,43,10,37,15	
		1, 6,36,23,45,51,29,25		4,52
32″	50,52,42,50,56,32, 8,47, 5, 0		3,43,10,42, 7	
		1, 6,36,20, 2,40,47,18		4,52
34″	50,52,43,57,32,52,11,27,52,18		3,43,10,46,59	
		1, 6,36,16,19,30, 0,19		4,52
36″	50,52,45, 4, 9, 8,30,57,52,37		3,43,10,51,51	
		1, 6,36,12,36,19, 8,28		4,52
38″	50,52,46,10,45,21, 7,17, 1, 5		3,43,10,56,43	
		1, 6,36, 8,53, 8,11,45		4,52
40″	50,52,47,17,21,30, 0,25,12,50		3,43,11, 1,35	
		1, 6,36, 5, 9,57,10,10		4,52
42″	50,52,48,23,57,35,10,22,23, 0		3,43,11, 6,27	
		1, 6,36, 1,26,46, 3,43		4,52
44″	50,52,49,30,33,36,37, 8,26,43		3,43,11,11,19	
		1, 6,35,57,43,34,52,24		4,52
46″	50,52,50,37, 9,34,20,43,19, 7		3,43,11,16,11	
		1, 6,35,54, 0,23,36,13		4,52
48″	50,52,51,43,45,28,21, 6,55,20		3,43,11,21, 3	
		1, 6,35,50,17,12,15,10		4,52
50″	50,52,52,50,21,18,38,19,10,30		3,43,11,25,55	
		1, 6,35,46,34, 0,49,15		4,52
52″	50,52,53,56,57, 5,12,19,59,45		3,43,11,30,47	
		1, 6,35,42,50,49,18,28		4,52
54″	50,52,55, 3,32,48, 3, 9,18,13		3,43,11,35,39	
		1, 6,35,39, 7,37,42,49		4,52
56″	50,52,56,10, 8,27,10,47, 1, 2		3,43,11,40,31	
		1, 6,35,35,24,26, 2,18		4,52
58″	50,52,57,16,44, 2,35,13, 3,20		3,43,11,45,23	
		1, 6,35,31,41,14,16,55		
60″	50,52,58,23,19,34,16,27,20,15			
exact	50,52,58,23,19,34,16,27, 9,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58° 0′ 0″	50,52,58,23,19,34,16,27, 9,23			
		1, 6,35,27,58, 2,25,29		
2″	50,52,59,29,55, 2,14,29,34,52		3,43,11,55,12	
		1, 6,35,24,14,50,30,17		4,52
4″	50,53, 0,36,30,26,29,20, 5, 9		3,43,12, 0, 4	
		1, 6,35,20,31,38,30,13		4,52
6″	50,53, 1,43, 5,47, 0,58,35,22		3,43,12, 4,56	
		1, 6,35,16,48,26,25,17		4,52
8″	50,53, 2,49,41, 3,49,25, 0,39		3,43,12, 9,48	
		1, 6,35,13, 5,14,15,29		4,52
10″	50,53, 3,56,16,16,54,39,16, 8		3,43,12,14,40	
		1, 6,35, 9,22, 2, 0,49		4,52
12″	50,53, 5, 2,51,26,16,41,16,57		3,43,12,19,32	
		1, 6,35, 5,38,49,41,17		4,52
14″	50,53, 6, 9,26,31,55,30,58,14		3,43,12,24,24	
		1, 6,35, 1,55,37,16,53		4,52
16″	50,53, 7,16, 1,33,51, 8,15, 7		3,43,12,29,16	
		1, 6,34,58,12,24,47,37		4,52
18″	50,53, 8,22,36,32, 3,33, 2,44		3,43,12,34, 8	
		1, 6,34,54,29,12,13,29		4,52
20″	50,53, 9,29,11,26,32,45,16,13		3,43,12,39, 0	
		1, 6,34,50,45,59,34,29		4,52
22″	50,53,10,35,46,17,18,44,50,42		3,43,12,43,52	
		1, 6,34,47, 2,46,50,37		4,52
24″	50,53,11,42,21, 4,21,31,41,19		3,43,12,48,44	
		1, 6,34,43,19,34, 1,53		4,52
26″	50,53,12,48,55,47,41, 5,43,12		3,43,12,53,36	
		1, 6,34,39,36,21, 8,17		4,52
28″	50,53,13,55,30,27,17,26,51,29		3,43,12,58,28	
		1, 6,34,35,53, 8, 9,49		4,52
30″	50,53,15, 2, 5, 3,10,35, 1,18		3,43,13, 3,20	
		1, 6,34,32, 9,55, 6,29		4,52
32″	50,53,16, 8,39,35,20,30, 7,47		3,43,13, 8,12	
		1, 6,34,28,26,41,58,17		4,52
34″	50,53,17,15,14, 3,47,12, 6, 4		3,43,13,13, 4	
		1, 6,34,24,43,28,45,13		4,52
36″	50,53,18,21,48,28,30,40,51,17		3,43,13,17,56	
		1, 6,34,21, 0,15,27,17		4,52
38″	50,53,19,28,22,49,30,56,18,34		3,43,13,22,48	
		1, 6,34,17,17, 2, 4,29		4,52
40″	50,53,20,34,57, 6,47,58,23, 3		3,43,13,27,40	
		1, 6,34,13,33,48,36,49		4,52
42″	50,53,21,41,31,20,21,46,59,52		3,43,13,32,32	
		1, 6,34, 9,50,35, 4,17		4,52
44″	50,53,22,48, 5,30,12,22, 4, 9		3,43,13,37,24	
		1, 6,34, 6, 7,21,26,53		4,52
46″	50,53,23,54,39,36,19,43,31, 2		3,43,13,42,16	
		1, 6,34, 2,24, 7,44,37		4,52
48″	50,53,25, 1,13,38,43,51,15,39		3,43,13,47, 8	
		1, 6,33,58,40,53,57,29		4,52
50″	50,53,26, 7,47,37,24,45,13, 8		3,43,13,52, 0	
		1, 6,33,54,57,40, 5,29		4,52
52″	50,53,27,14,21,32,22,25,18,37		3,43,13,56,52	
		1, 6,33,51,14,26, 8,37		4,52
54″	50,53,28,20,55,23,36,51,27,14		3,43,14, 1,44	
		1, 6,33,47,31,12, 6,53		4,52
56″	50,53,29,27,29,11, 8, 3,34, 7		3,43,14, 6,36	
		1, 6,33,43,47,58, 0,17		4,52
58″	50,53,30,34, 2,54,56, 1,34,24		3,43,14,11,28	
		1, 6,33,40, 4,43,48,49		
60″	50,53,31,40,36,35, 0,45,23,13			
exact	50,53,31,40,36,35, 0,45,21,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58° 1′ 0″	50,53,31,40,36,35, 0,45,21,23			
		1, 6,33,36,21,29,32,17		
2″	50,53,32,47,10,11,22,14,53,40		3,43,14,21,13	
		1, 6,33,32,38,15,11, 4		4,52
4″	50,53,33,53,43,44, 0,30, 4,44		3,43,14,26, 5	
		1, 6,33,28,55, 0,44,59		4,52
6″	50,53,35, 0,17,12,55,30,49,43		3,43,14,30,57	
		1, 6,33,25,11,46,14, 2		4,52
8″	50,53,36, 6,50,38, 7,17, 3,45		3,43,14,35,49	
		1, 6,33,21,28,31,38,13		4,52
10″	50,53,37,13,23,59,35,48,41,58		3,43,14,40,41	
		1, 6,33,17,45,16,57,32		4,52
12″	50,53,38,19,57,17,21, 5,39,30		3,43,14,45,33	
		1, 6,33,14, 2, 2,11,59		4,52
14″	50,53,39,26,30,31,23, 7,51,29		3,43,14,50,25	
		1, 6,33,10,18,47,21,34		4,52
16″	50,53,40,33, 3,41,41,55,13, 3		3,43,14,55,17	
		1, 6,33, 6,35,32,26,17		4,52
18″	50,53,41,39,36,48,17,27,39,20		3,43,15, 0, 9	
		1, 6,33, 2,52,17,26, 8		4,52
20″	50,53,42,46, 9,51, 9,45, 5,28		3,43,15, 5, 1	
		1, 6,32,59, 9, 2,21, 7		4,52
22″	50,53,43,52,42,50,18,47,26,35		3,43,15, 9,53	
		1, 6,32,55,25,47,11,14		4,52
24″	50,53,44,59,15,45,44,34,37,49		3,43,15,14,45	
		1, 6,32,51,42,31,56,29		4,52
26″	50,53,46, 5,48,37,27, 6,34,18		3,43,15,19,37	
		1, 6,32,47,59,16,36,52		4,52
28″	50,53,47,12,21,25,26,23,11,10		3,43,15,24,29	
		1, 6,32,44,16, 1,12,23		4,52
30″	50,53,48,18,54, 9,42,24,23,33		3,43,15,29,21	
		1, 6,32,40,32,45,43, 2		4,52
32″	50,53,49,25,26,50,15,10, 6,35		3,43,15,34,13	
		1, 6,32,36,49,30, 8,49		4,52
34″	50,53,50,31,59,27, 4,40,15,24		3,43,15,39, 5	
		1, 6,32,33, 6,14,29,44		4,52
36″	50,53,51,38,32, 0,10,54,45, 8		3,43,15,43,57	
		1, 6,32,29,22,58,45,47		4,52
38″	50,53,52,45, 4,29,33,53,30,55		3,43,15,48,49	
		1, 6,32,25,39,42,56,58		4,52
40″	50,53,53,51,36,55,13,36,27,53		3,43,15,53,41	
		1, 6,32,21,56,27, 3,17		4,52
42″	50,53,54,58, 9,17,10, 3,31,10		3,43,15,58,33	
		1, 6,32,18,13,11, 4,44		4,52
44″	50,53,56, 4,41,35,23,14,35,54		3,43,16, 3,25	
		1, 6,32,14,29,55, 1,19		4,52
46″	50,53,57,11,13,49,53, 9,37,13		3,43,16, 8,17	
		1, 6,32,10,46,38,53, 2		4,52
48″	50,53,58,17,46, 0,39,48,30,15		3,43,16,13, 9	
		1, 6,32, 7, 3,22,39,53		4,52
50″	50,53,59,24,18, 7,43,11,10, 8		3,43,16,18, 1	
		1, 6,32, 3,20, 6,21,52		4,52
52″	50,54, 0,30,50,11, 3,17,32, 0		3,43,16,22,53	
		1, 6,31,59,36,49,58,59		4,52
54″	50,54, 1,37,22,10,40, 7,30,59		3,43,16,27,45	
		1, 6,31,55,53,33,31,14		4,52
56″	50,54, 2,43,54, 6,33,41, 2,13		3,43,16,32,37	
		1, 6,31,52,10,16,58,37		4,52
58″	50,54, 3,50,25,58,43,58, 0,50		3,43,16,37,29	
		1, 6,31,48,27, 0,21, 8		
60″	50,54, 4,56,57,47,10,58,21,58			
exact	50,54, 4,56,57,47,10,58,29,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58° 2′ 0″	50,54, 4,56,57,47,10,58,29,43			
		1, 6,31,44,43,43,39,35		
2″	50,54, 6, 3,29,31,54,42, 9,18		3,43,16,47, 9	
		1, 6,31,41, 0,26,52,26		4,52
4″	50,54, 7,10, 1,12,55, 9, 1,44		3,43,16,52, 1	
		1, 6,31,37,17,10, 0,25		4,52
6″	50,54, 8,16,32,50,12,19, 2, 9		3,43,16,56,53	
		1, 6,31,33,33,53, 3,32		4,52
8″	50,54, 9,23, 4,23,46,12, 5,41		3,43,17, 1,45	
		1, 6,31,29,50,36, 1,47		4,52
10″	50,54,10,29,35,53,36,48, 7,28		3,43,17, 6,37	
		1, 6,31,26, 7,18,55,10		4,52
12″	50,54,11,36, 7,19,44, 7, 2,38		3,43,17,11,29	
		1, 6,31,22,24, 1,43,41		4,52
14″	50,54,12,42,38,42, 8, 8,46,19		3,43,17,16,21	
		1, 6,31,18,40,44,27,20		4,52
16″	50,54,13,49,10, 0,48,53,13,39		3,43,17,21,13	
		1, 6,31,14,57,27, 6, 7		4,52
18″	50,54,14,55,41,15,46,20,19,46		3,43,17,26, 5	
		1, 6,31,11,14, 9,40, 2		4,52
20″	50,54,16, 2,12,27, 0,29,59,48		3,43,17,30,57	
		1, 6,31, 7,30,52, 9, 5		4,52
22″	50,54,17, 8,43,34,31,22, 8,53		3,43,17,35,49	
		1, 6,31, 3,47,34,33,16		4,52
24″	50,54,18,15,14,38,18,56,42, 9		3,43,17,40,41	
		1, 6,31, 0, 4,16,52,35		4,52
26″	50,54,19,21,45,38,23,13,34,44		3,43,17,45,33	
		1, 6,30,56,20,59, 7, 2		4,52
28″	50,54,20,28,16,34,44,12,41,46		3,43,17,50,25	
		1, 6,30,52,37,41,16,37		4,52
30″	50,54,21,34,47,27,21,53,58,23		3,43,17,55,17	
		1, 6,30,48,54,23,21,20		4,52
32″	50,54,22,41,18,16,16,17,19,43		3,43,18, 0, 9	
		1, 6,30,45,11, 5,21,11		4,52
34″	50,54,23,47,49, 1,27,22,40,54		3,43,18, 5, 1	
		1, 6,30,41,27,47,16,10		4,52
36″	50,54,24,54,19,42,55, 9,57, 4		3,43,18, 9,53	
		1, 6,30,37,44,29, 6,17		4,52
38″	50,54,26, 0,50,20,39,39, 3,21		3,43,18,14,45	
		1, 6,30,34, 1,10,51,32		4,52
40″	50,54,27, 7,20,54,40,49,54,53		3,43,18,19,37	
		1, 6,30,30,17,52,31,55		4,52
42″	50,54,28,13,51,24,58,42,26,48		3,43,18,24,29	
		1, 6,30,26,34,34, 7,26		4,52
44″	50,54,29,20,21,51,33,16,34,14		3,43,18,29,21	
		1, 6,30,22,51,15,38, 5		4,52
46″	50,54,30,26,52,14,24,32,12,19		3,43,18,34,13	
		1, 6,30,19, 7,57, 3,52		4,52
48″	50,54,31,33,22,33,32,29,16,11		3,43,18,39, 5	
		1, 6,30,15,24,38,24,47		4,52
50″	50,54,32,39,52,48,57, 7,40,58		3,43,18,43,57	
		1, 6,30,11,41,19,40,50		4,52
52″	50,54,33,46,23, 0,38,27,21,48		3,43,18,48,49	
		1, 6,30, 7,58, 0,52, 1		4,52
54″	50,54,34,52,53, 8,36,28,13,49		3,43,18,53,41	
		1, 6,30, 4,14,41,58,20		4,52
56″	50,54,35,59,23,12,51,10,12, 9		3,43,18,58,33	
		1, 6,30, 0,31,22,59,47		4,52
58″	50,54,37, 5,53,13,22,33,11,56		3,43,19, 3,25	
		1, 6,29,56,48, 3,56,22		
60″	50,54,38,12,23,10,10,37, 8,18			
exact	50,54,38,12,23,10,10,37,19,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58° 3′ 0″	50,54,38,12,23,10,10,37,19,35			
		1, 6,29,53, 4,44,49,28		
2″	50,54,39,18,53, 3,15,22, 9, 3		3,43,19,13, 2	
		1, 6,29,49,21,25,36,26		4,52
4″	50,54,40,25,22,52,36,47,45,29		3,43,19,17,54	
		1, 6,29,45,38, 6,18,32		4,52
6″	50,54,41,31,52,38,14,54, 4, 1		3,43,19,22,46	
		1, 6,29,41,54,46,55,46		4,52
8″	50,54,42,38,22,20, 9,40,59,47		3,43,19,27,38	
		1, 6,29,38,11,27,28, 8		4,52
10″	50,54,43,44,51,58,21, 8,27,55		3,43,19,32,30	
		1, 6,29,34,28, 7,55,38		4,52
12″	50,54,44,51,21,32,49,16,23,33		3,43,19,37,22	
		1, 6,29,30,44,48,18,16		4,52
14″	50,54,45,57,51, 3,34, 4,41,49		3,43,19,42,14	
		1, 6,29,27, 1,28,36, 2		4,52
16″	50,54,47, 4,20,30,35,33,17,51		3,43,19,47, 6	
		1, 6,29,23,18, 8,48,56		4,52
18″	50,54,48,10,49,53,53,42, 6,47		3,43,19,51,58	
		1, 6,29,19,34,48,56,58		4,52
20″	50,54,49,17,19,13,28,31, 3,45		3,43,19,56,50	
		1, 6,29,15,51,29, 0, 8		4,52
22″	50,54,50,23,48,29,20, 0, 3,53		3,43,20, 1,42	
		1, 6,29,12, 8, 8,58,26		4,52
24″	50,54,51,30,17,41,28, 9, 2,19		3,43,20, 6,34	
		1, 6,29, 8,24,48,51,52		4,52
26″	50,54,52,36,46,49,52,57,54,11		3,43,20,11,26	
		1, 6,29, 4,41,28,40,26		4,52
28″	50,54,53,43,15,54,34,26,34,37		3,43,20,16,18	
		1, 6,29, 0,58, 8,24, 8		4,52
30″	50,54,54,49,44,55,32,34,58,45		3,43,20,21,10	
		1, 6,28,57,14,48, 2,58		4,52
32″	50,54,55,56,13,52,47,23, 1,43		3,43,20,26, 2	
		1, 6,28,53,31,27,36,56		4,52
34″	50,54,57, 2,42,46,18,50,38,39		3,43,20,30,54	
		1, 6,28,49,48, 7, 6, 2		4,52
36″	50,54,58, 9,11,36, 6,57,44,41		3,43,20,35,46	
		1, 6,28,46, 4,46,30,16		4,52
38″	50,54,59,15,40,22,11,44,14,57		3,43,20,40,38	
		1, 6,28,42,21,25,49,38		4,52
40″	50,55, 0,22, 9, 4,33,10, 4,35		3,43,20,45,30	
		1, 6,28,38,38, 5, 4, 8		4,52
42″	50,55, 1,28,37,43,11,15, 8,43		3,43,20,50,22	
		1, 6,28,34,54,44,13,46		4,52
44″	50,55, 2,35, 6,18, 5,59,22,29		3,43,20,55,14	
		1, 6,28,31,11,23,18,32		4,52
46″	50,55, 3,41,34,49,17,22,41, 1		3,43,21, 0, 6	
		1, 6,28,27,28, 2,18,26		4,52
48″	50,55, 4,48, 3,16,45,24,59,27		3,43,21, 4,58	
		1, 6,28,23,44,41,13,28		4,52
50″	50,55, 5,54,31,40,30, 6,12,55		3,43,21, 9,50	
		1, 6,28,20, 1,20, 3,38		4,52
52″	50,55, 7, 1, 0, 0,31,26,16,33		3,43,21,14,42	
		1, 6,28,16,17,58,48,56		4,52
54″	50,55, 8, 7,28,16,49,25, 5,29		3,43,21,19,34	
		1, 6,28,12,34,37,29,22		4,52
56″	50,55, 9,13,56,29,24, 2,34,51		3,43,21,24,26	
		1, 6,28, 8,51,16, 4,56		4,52
58″	50,55,10,20,24,38,15,18,39,47		3,43,21,29,18	
		1, 6,28, 5, 7,54,35,38		
60″	50,55,11,26,52,43,23,13,15,25			
exact	50,55,11,26,52,43,23,13,37,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58° 4′ 0″	50,55,11,26,52,43,23,13,37,24			
		1, 6,28, 1,24,33, 3,57		
2″	50,55,12,33,20,44,47,46,41,21		3,43,21,38,51	
		1, 6,27,57,41,11,25, 6		4,52
4″	50,55,13,39,48,42,28,58, 6,27		3,43,21,43,43	
		1, 6,27,53,57,49,41,23		4,52
6″	50,55,14,46,16,36,26,47,47,50		3,43,21,48,35	
		1, 6,27,50,14,27,52,48		4,52
8″	50,55,15,52,44,26,41,15,40,38		3,43,21,53,27	
		1, 6,27,46,31, 5,59,21		4,52
10″	50,55,16,59,12,13,12,21,39,59		3,43,21,58,19	
		1, 6,27,42,47,44, 1, 2		4,52
12″	50,55,18, 5,39,56, 0, 5,41, 1		3,43,22, 3,11	
		1, 6,27,39, 4,21,57,51		4,52
14″	50,55,19,12, 7,35, 4,27,38,52		3,43,22, 8, 3	
		1, 6,27,35,20,59,49,48		4,52
16″	50,55,20,18,35,10,25,27,28,40		3,43,22,12,55	
		1, 6,27,31,37,37,36,53		4,52
18″	50,55,21,25, 2,42, 3, 5, 5,33		3,43,22,17,47	
		1, 6,27,27,54,15,19, 6		4,52
20″	50,55,22,31,30, 9,57,20,24,39		3,43,22,22,39	
		1, 6,27,24,10,52,56,27		4,52
22″	50,55,23,37,57,34, 8,13,21, 6		3,43,22,27,31	
		1, 6,27,20,27,30,28,56		4,52
24″	50,55,24,44,24,54,35,43,50, 2		3,43,22,32,23	
		1, 6,27,16,44, 7,56,33		4,52
26″	50,55,25,50,52,11,19,51,46,35		3,43,22,37,15	
		1, 6,27,13, 0,45,19,18		4,52
28″	50,55,26,57,19,24,20,37, 5,53		3,43,22,42, 7	
		1, 6,27, 9,17,22,37,11		4,52
30″	50,55,28, 3,46,33,37,59,43, 4		3,43,22,46,59	
		1, 6,27, 5,33,59,50,12		4,52
32″	50,55,29,10,13,39,11,59,33,16		3,43,22,51,51	
		1, 6,27, 1,50,36,58,21		4,52
34″	50,55,30,16,40,41, 2,36,31,37		3,43,22,56,43	
		1, 6,26,58, 7,14, 1,38		4,52
36″	50,55,31,23, 7,39, 9,50,33,15		3,43,23, 1,35	
		1, 6,26,54,23,51, 0, 3		4,52
38″	50,55,32,29,34,33,33,41,33,18		3,43,23, 6,27	
		1, 6,26,50,40,27,53,36		4,52
40″	50,55,33,36, 1,24,14, 9,26,54		3,43,23,11,19	
		1, 6,26,46,57, 4,42,17		4,52
42″	50,55,34,42,28,11,11,14, 9,11		3,43,23,16,11	
		1, 6,26,43,13,41,26, 6		4,52
44″	50,55,35,48,54,54,24,55,35,17		3,43,23,21, 3	
		1, 6,26,39,30,18, 5, 3		4,52
46″	50,55,36,55,21,33,55,13,40,20		3,43,23,25,55	
		1, 6,26,35,46,54,39, 8		4,52
48″	50,55,38, 1,48, 9,42, 8,19,28		3,43,23,30,47	
		1, 6,26,32, 3,31, 8,21		4,52
50″	50,55,39, 8,14,41,45,39,27,49		3,43,23,35,39	
		1, 6,26,28,20, 7,32,42		4,52
52″	50,55,40,14,41,10, 5,47, 0,31		3,43,23,40,31	
		1, 6,26,24,36,43,52,11		4,52
54″	50,55,41,21, 7,34,42,30,52,42		3,43,23,45,23	
		1, 6,26,20,53,20, 6,48		4,52
56″	50,55,42,27,33,55,35,50,59,30		3,43,23,50,15	
		1, 6,26,17, 9,56,16,33		4,52
58″	50,55,43,34, 0,12,45,47,16, 3		3,43,23,55, 7	
		1, 6,26,13,26,32,21,26		
60″	50,55,44,40,26,26,12,19,37,29			
exact	50,55,44,40,26,26,12,20,10,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58° 5′ 0″	50,55,44,40,26,26,12,20,10,49			
		1, 6,26, 9,43, 8,25, 4		
2″	50,55,45,46,52,35,55,28,35,53		3,43,24, 4,35	
		1, 6,26, 5,59,44,20,29		4,51
4″	50,55,46,53,18,41,55,12,56,22		3,43,24, 9,26	
		1, 6,26, 2,16,20,11, 3		4,51
6″	50,55,47,59,44,44,11,33, 7,25		3,43,24,14,17	
		1, 6,25,58,32,55,56,46		4,51
8″	50,55,49, 6,10,42,44,29, 4,11		3,43,24,19, 8	
		1, 6,25,54,49,31,37,38		4,51
10″	50,55,50,12,36,37,34, 0,41,49		3,43,24,23,59	
		1, 6,25,51, 6, 7,13,39		4,51
12″	50,55,51,19, 2,28,40, 7,55,28		3,43,24,28,50	
		1, 6,25,47,22,42,44,49		4,51
14″	50,55,52,25,28,16, 2,50,40,17		3,43,24,33,41	
		1, 6,25,43,39,18,11, 8		4,51
16″	50,55,53,31,53,59,42, 8,51,25		3,43,24,38,32	
		1, 6,25,39,55,53,32,36		4,51
18″	50,55,54,38,19,39,38, 2,24, 1		3,43,24,43,23	
		1, 6,25,36,12,28,49,13		4,51
20″	50,55,55,44,45,15,50,31,13,14		3,43,24,48,14	
		1, 6,25,32,29, 4, 0,59		4,51
22″	50,55,56,51,10,48,19,35,14,13		3,43,24,53, 5	
		1, 6,25,28,45,39, 7,54		4,51
24″	50,55,57,57,36,17, 5,14,22, 7		3,43,24,57,56	
		1, 6,25,25, 2,14, 9,58		4,51
26″	50,55,59, 4, 1,42, 7,28,32, 5		3,43,25, 2,47	
		1, 6,25,21,18,49, 7,11		4,51
28″	50,56, 0,10,27, 3,26,17,39,16		3,43,25, 7,38	
		1, 6,25,17,35,23,59,33		4,51
30″	50,56, 1,16,52,21, 1,41,38,49		3,43,25,12,29	
		1, 6,25,13,51,58,47, 4		4,51
32″	50,56, 2,23,17,34,53,40,25,53		3,43,25,17,20	
		1, 6,25,10, 8,33,29,44		4,51
34″	50,56, 3,29,42,45, 2,13,55,37		3,43,25,22,11	
		1, 6,25, 6,25, 8, 7,33		4,51
36″	50,56, 4,36, 7,51,27,22, 3,10		3,43,25,27, 2	
		1, 6,25, 2,41,42,40,31		4,51
38″	50,56, 5,42,32,54, 9, 4,43,41		3,43,25,31,53	
		1, 6,24,58,58,17, 8,38		4,51
40″	50,56, 6,48,57,53, 7,21,52,19		3,43,25,36,44	
		1, 6,24,55,14,51,31,54		4,51
42″	50,56, 7,55,22,48,22,13,24,13		3,43,25,41,35	
		1, 6,24,51,31,25,50,19		4,51
44″	50,56, 9, 1,47,39,53,39,14,32		3,43,25,46,26	
		1, 6,24,47,48, 0, 3,53		4,51
46″	50,56,10, 8,12,27,41,39,18,25		3,43,25,51,17	
		1, 6,24,44, 4,34,12,36		4,51
48″	50,56,11,14,37,11,46,13,31, 1		3,43,25,56, 8	
		1, 6,24,40,21, 8,16,28		4,51
50″	50,56,12,21, 1,52, 7,21,47,29		3,43,26, 0,59	
		1, 6,24,36,37,42,15,29		4,51
52″	50,56,13,27,26,28,45, 4, 2,58		3,43,26, 5,50	
		1, 6,24,32,54,16, 9,39		4,51
54″	50,56,14,33,51, 1,39,20,12,37		3,43,26,10,41	
		1, 6,24,29,10,49,58,58		4,51
56″	50,56,15,40,15,30,50,10,11,35		3,43,26,15,32	
		1, 6,24,25,27,23,43,26		4,51
58″	50,56,16,46,39,56,17,33,55, 1		3,43,26,20,23	
		1, 6,24,21,43,57,23, 3		
60″	50,56,17,53, 4,18, 1,31,18, 4			
exact	50,56,17,53, 4,18, 1,30,48,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58° 6′ 0″	50,56,17,53, 4,18, 1,30,48,44			
		1, 6,24,18, 0,30,54,53		
2″	50,56,18,59,28,36, 2, 1,43,37		3,43,26,30,16	
		1, 6,24,14,17, 4,24,37		4,51
4″	50,56,20, 5,52,50,19, 6, 8,14		3,43,26,35, 7	
		1, 6,24,10,33,37,49,30		4,51
6″	50,56,21,12,17, 0,52,43,57,44		3,43,26,39,58	
		1, 6,24, 6,50,11, 9,32		4,51
8″	50,56,22,18,41, 7,42,55, 7,16		3,43,26,44,49	
		1, 6,24, 3, 6,44,24,43		4,51
10″	50,56,23,25, 5,10,49,39,31,59		3,43,26,49,40	
		1, 6,23,59,23,17,35, 3		4,51
12″	50,56,24,31,29,10,12,57, 7, 2		3,43,26,54,31	
		1, 6,23,55,39,50,40,32		4,51
14″	50,56,25,37,53, 5,52,47,47,34		3,43,26,59,22	
		1, 6,23,51,56,23,41,10		4,51
16″	50,56,26,44,16,57,49,11,28,44		3,43,27, 4,13	
		1, 6,23,48,12,56,36,57		4,51
18″	50,56,27,50,40,46, 2, 8, 5,41		3,43,27, 9, 4	
		1, 6,23,44,29,29,27,53		4,51
20″	50,56,28,57, 4,30,31,37,33,34		3,43,27,13,55	
		1, 6,23,40,46, 2,13,58		4,51
22″	50,56,30, 3,28,11,17,39,47,32		3,43,27,18,46	
		1, 6,23,37, 2,34,55,12		4,51
24″	50,56,31, 9,51,48,20,14,42,44		3,43,27,23,37	
		1, 6,23,33,19, 7,31,35		4,51
26″	50,56,32,16,15,21,39,22,14,19		3,43,27,28,28	
		1, 6,23,29,35,40, 3, 7		4,51
28″	50,56,33,22,38,51,15, 2,17,26		3,43,27,33,19	
		1, 6,23,25,52,12,29,48		4,51
30″	50,56,34,29, 2,17, 7,14,47,14		3,43,27,38,10	
		1, 6,23,22, 8,44,51,38		4,51
32″	50,56,35,35,25,39,15,59,38,52		3,43,27,43, 1	
		1, 6,23,18,25,17, 8,37		4,51
34″	50,56,36,41,48,57,41,16,47,29		3,43,27,47,52	
		1, 6,23,14,41,49,20,45		4,51
36″	50,56,37,48,12,12,23, 6, 8,14		3,43,27,52,43	
		1, 6,23,10,58,21,28, 2		4,51
38″	50,56,38,54,35,23,21,27,36,16		3,43,27,57,34	
		1, 6,23, 7,14,53,30,28		4,51
40″	50,56,40, 0,58,30,36,21, 6,44		3,43,28, 2,25	
		1, 6,23, 3,31,25,28, 3		4,51
42″	50,56,41, 7,21,34, 7,46,34,47		3,43,28, 7,16	
		1, 6,22,59,47,57,20,47		4,51
44″	50,56,42,13,44,33,55,43,55,34		3,43,28,12, 7	
		1, 6,22,56, 4,29, 8,40		4,51
46″	50,56,43,20, 7,30, 0,13, 4,14		3,43,28,16,58	
		1, 6,22,52,21, 0,51,42		4,51
48″	50,56,44,26,30,22,21,13,55,56		3,43,28,21,49	
		1, 6,22,48,37,32,29,53		4,51
50″	50,56,45,32,53,10,58,46,25,49		3,43,28,26,40	
		1, 6,22,44,54, 4, 3,13		4,51
52″	50,56,46,39,15,55,52,50,29, 2		3,43,28,31,31	
		1, 6,22,41,10,35,31,42		4,51
54″	50,56,47,45,38,37, 3,26, 0,44		3,43,28,36,22	
		1, 6,22,37,27, 6,55,20		4,51
56″	50,56,48,52, 1,14,30,32,56, 4		3,43,28,41,13	
		1, 6,22,33,43,38,14, 7		4,51
58″	50,56,49,58,23,48,14,11,10,11		3,43,28,46, 4	
		1, 6,22,30, 0, 9,28, 3		
60″	50,56,51, 4,46,18,14,20,38,14			
exact	50,56,51, 4,46,18,14,20,21,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58° 7′ 0″	50,56,51, 4,46,18,14,20,21,17			
		1, 6,22,26,16,40,35,25		
2″	50,56,52,11, 8,44,31, 0,56,42		3,43,28,55,52	
		1, 6,22,22,33,11,39,33		4,51
4″	50,56,53,17,31, 7, 4,12,36,15		3,43,29, 0,43	
		1, 6,22,18,49,42,38,50		4,51
6″	50,56,54,23,53,25,53,55,15, 5		3,43,29, 5,34	
		1, 6,22,15, 6,13,33,16		4,51
8″	50,56,55,30,15,41, 0, 8,48,21		3,43,29,10,25	
		1, 6,22,11,22,44,22,51		4,51
10″	50,56,56,36,37,52,22,53,11,12		3,43,29,15,16	
		1, 6,22, 7,39,15, 7,35		4,51
12″	50,56,57,43, 0, 0, 2, 8,18,47		3,43,29,20, 7	
		1, 6,22, 3,55,45,47,28		4,51
14″	50,56,58,49,22, 3,57,54, 6,15		3,43,29,24,58	
		1, 6,22, 0,12,16,22,30		4,51
16″	50,56,59,55,44, 4,10,10,28,45		3,43,29,29,49	
		1, 6,21,56,28,46,52,41		4,51
18″	50,57, 1, 2, 6, 0,38,57,21,26		3,43,29,34,40	
		1, 6,21,52,45,17,18, 1		4,51
20″	50,57, 2, 8,27,53,24,14,39,27		3,43,29,39,31	
		1, 6,21,49, 1,47,38,30		4,51
22″	50,57, 3,14,49,42,26, 2,17,57		3,43,29,44,22	
		1, 6,21,45,18,17,54, 8		4,51
24″	50,57, 4,21,11,27,44,20,12, 5		3,43,29,49,13	
		1, 6,21,41,34,48, 4,55		4,51
26″	50,57, 5,27,33, 9,19, 8,17, 0		3,43,29,54, 4	
		1, 6,21,37,51,18,10,51		4,51
28″	50,57, 6,33,54,47,10,26,27,51		3,43,29,58,55	
		1, 6,21,34, 7,48,11,56		4,51
30″	50,57, 7,40,16,21,18,14,39,47		3,43,30, 3,46	
		1, 6,21,30,24,18, 8,10		4,51
32″	50,57, 8,46,37,51,42,32,47,57		3,43,30, 8,37	
		1, 6,21,26,40,47,59,33		4,51
34″	50,57, 9,52,59,18,23,20,47,30		3,43,30,13,28	
		1, 6,21,22,57,17,46, 5		4,51
36″	50,57,10,59,20,41,20,38,33,35		3,43,30,18,19	
		1, 6,21,19,13,47,27,46		4,51
38″	50,57,12, 5,42, 0,34,26, 1,21		3,43,30,23,10	
		1, 6,21,15,30,17, 4,36		4,51
40″	50,57,13,12, 3,16, 4,43, 5,57		3,43,30,28, 1	
		1, 6,21,11,46,46,36,35		4,51
42″	50,57,14,18,24,27,51,29,42,32		3,43,30,32,52	
		1, 6,21, 8, 3,16, 3,43		4,51
44″	50,57,15,24,45,35,54,45,46,15		3,43,30,37,43	
		1, 6,21, 4,19,45,26, 0		4,51
46″	50,57,16,31, 6,40,14,31,12,15		3,43,30,42,34	
		1, 6,21, 0,36,14,43,26		4,51
48″	50,57,17,37,27,40,50,45,55,41		3,43,30,47,25	
		1, 6,20,56,52,43,56, 1		4,51
50″	50,57,18,43,48,37,43,29,51,42		3,43,30,52,16	
		1, 6,20,53, 9,13, 3,45		4,51
52″	50,57,19,50, 9,30,52,42,55,27		3,43,30,57, 7	
		1, 6,20,49,25,42, 6,38		4,51
54″	50,57,20,56,30,20,18,25, 2, 5		3,43,31, 1,58	
		1, 6,20,45,42,11, 4,40		4,51
56″	50,57,22, 2,51, 6, 0,36, 6,45		3,43,31, 6,49	
		1, 6,20,41,58,39,57,51		4,51
58″	50,57,23, 9,11,47,59,16, 4,36		3,43,31,11,40	
		1, 6,20,38,15, 8,46,11		
60″	50,57,24,15,32,26,14,24,50,47			
exact	50,57,24,15,32,26,14,24,39,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58° 8′ 0″	50,57,24,15,32,26,14,24,39,50			
		1, 6,20,34,31,37,28,43		
2″	50,57,25,21,53, 0,46, 2, 8,33		3,43,31,21,25	
		1, 6,20,30,48, 6, 7,18		4,51
4″	50,57,26,28,13,31,34, 8,15,51		3,43,31,26,16	
		1, 6,20,27, 4,34,41, 2		4,51
6″	50,57,27,34,33,58,38,42,56,53		3,43,31,31, 7	
		1, 6,20,23,21, 3, 9,55		4,51
8″	50,57,28,40,54,21,59,46, 6,48		3,43,31,35,58	
		1, 6,20,19,37,31,33,57		4,51
10″	50,57,29,47,14,41,37,17,40,45		3,43,31,40,49	
		1, 6,20,15,53,59,53, 8		4,51
12″	50,57,30,53,34,57,31,17,33,53		3,43,31,45,40	
		1, 6,20,12,10,28, 7,28		4,51
14″	50,57,31,59,55, 9,41,45,41,21		3,43,31,50,31	
		1, 6,20, 8,26,56,16,57		4,51
16″	50,57,33, 6,15,18, 8,41,58,18		3,43,31,55,22	
		1, 6,20, 4,43,24,21,35		4,51
18″	50,57,34,12,35,22,52, 6,19,53		3,43,32, 0,13	
		1, 6,20, 0,59,52,21,22		4,51
20″	50,57,35,18,55,23,51,58,41,15		3,43,32, 5, 4	
		1, 6,19,57,16,20,16,18		4,51
22″	50,57,36,25,15,21, 8,18,57,33		3,43,32, 9,55	
		1, 6,19,53,32,48, 6,23		4,51
24″	50,57,37,31,35,14,41, 7, 3,56		3,43,32,14,46	
		1, 6,19,49,49,15,51,37		4,51
26″	50,57,38,37,55, 4,30,22,55,33		3,43,32,19,37	
		1, 6,19,46, 5,43,32, 0		4,51
28″	50,57,39,44,14,50,36, 6,27,33		3,43,32,24,28	
		1, 6,19,42,22,11, 7,32		4,51
30″	50,57,40,50,34,32,58,17,35, 5		3,43,32,29,19	
		1, 6,19,38,38,38,38,13		4,51
32″	50,57,41,56,54,11,36,56,13,18		3,43,32,34,10	
		1, 6,19,34,55, 6, 4, 3		4,51
34″	50,57,43, 3,13,46,32, 2,17,21		3,43,32,39, 1	
		1, 6,19,31,11,33,25, 2		4,51
36″	50,57,44, 9,33,17,43,35,42,23		3,43,32,43,52	
		1, 6,19,27,28, 0,41,10		4,51
38″	50,57,45,15,52,45,11,36,23,33		3,43,32,48,43	
		1, 6,19,23,44,27,52,27		4,51
40″	50,57,46,22,12, 8,56, 4,16, 0		3,43,32,53,34	
		1, 6,19,20, 0,54,58,53		4,51
42″	50,57,47,28,31,28,56,59,14,53		3,43,32,58,25	
		1, 6,19,16,17,22, 0,28		4,51
44″	50,57,48,34,50,45,14,21,15,21		3,43,33, 3,16	
		1, 6,19,12,33,48,57,12		4,51
46″	50,57,49,41, 9,57,48,10,12,33		3,43,33, 8, 7	
		1, 6,19, 8,50,15,49, 5		4,51
48″	50,57,50,47,29, 6,38,26, 1,38		3,43,33,12,58	
		1, 6,19, 5, 6,42,36, 7		4,51
50″	50,57,51,53,48,11,45, 8,37,45		3,43,33,17,49	
		1, 6,19, 1,23, 9,18,18		4,51
52″	50,57,53, 0, 7,13, 8,17,56, 3		3,43,33,22,40	
		1, 6,18,57,39,35,55,38		4,51
54″	50,57,54, 6,26,10,47,53,51,41		3,43,33,27,31	
		1, 6,18,53,56, 2,28, 7		4,51
56″	50,57,55,12,45, 4,43,56,19,48		3,43,33,32,22	
		1, 6,18,50,12,28,55,45		4,51
58″	50,57,56,19, 3,54,56,25,15,33		3,43,33,37,13	
		1, 6,18,46,28,55,18,32		
60″	50,57,57,25,22,41,25,20,34, 5			
exact	50,57,57,25,22,41,25,20,37, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58° 9′ 0″	50,57,57,25,22,41,25,20,37, 4			
		1, 6,18,42,45,21,36,49		
2″	50,57,58,31,41,24,10,42,13,53		3,43,33,46,53	
		1, 6,18,39, 1,47,49,56		4,51
4″	50,57,59,38, 0, 3,12,30, 3,49		3,43,33,51,44	
		1, 6,18,35,18,13,58,12		4,51
6″	50,58, 0,44,18,38,30,44, 2, 1		3,43,33,56,35	
		1, 6,18,31,34,40, 1,37		4,51
8″	50,58, 1,50,37,10, 5,24, 3,38		3,43,34, 1,26	
		1, 6,18,27,51, 6, 0,11		4,51
10″	50,58, 2,56,55,37,56,30, 3,49		3,43,34, 6,17	
		1, 6,18,24, 7,31,53,54		4,51
12″	50,58, 4, 3,14, 2, 4, 1,57,43		3,43,34,11, 8	
		1, 6,18,20,23,57,42,46		4,51
14″	50,58, 5, 9,32,22,27,59,40,29		3,43,34,15,59	
		1, 6,18,16,40,23,26,47		4,51
16″	50,58, 6,15,50,39, 8,23, 7,16		3,43,34,20,50	
		1, 6,18,12,56,49, 5,57		4,51
18″	50,58, 7,22, 8,52, 5,12,13,13		3,43,34,25,41	
		1, 6,18, 9,13,14,40,16		4,51
20″	50,58, 8,28,27, 1,18,26,53,29		3,43,34,30,32	
		1, 6,18, 5,29,40, 9,44		4,51
22″	50,58, 9,34,45, 6,48, 7, 3,13		3,43,34,35,23	
		1, 6,18, 1,46, 5,34,21		4,51
24″	50,58,10,41, 3, 8,34,12,37,34		3,43,34,40,14	
		1, 6,17,58, 2,30,54, 7		4,51
26″	50,58,11,47,21, 6,36,43,31,41		3,43,34,45, 5	
		1, 6,17,54,18,56, 9, 2		4,51
28″	50,58,12,53,39, 0,55,39,40,43		3,43,34,49,56	
		1, 6,17,50,35,21,19, 6		4,51
30″	50,58,13,59,56,51,31, 0,59,49		3,43,34,54,47	
		1, 6,17,46,51,46,24,19		4,51
32″	50,58,15, 6,14,38,22,47,24, 8		3,43,34,59,38	
		1, 6,17,43, 8,11,24,41		4,51
34″	50,58,16,12,32,21,30,58,48,49		3,43,35, 4,29	
		1, 6,17,39,24,36,20,12		4,51
36″	50,58,17,18,50, 0,55,35, 9, 1		3,43,35, 9,20	
		1, 6,17,35,41, 1,10,52		4,51
38″	50,58,18,25, 7,36,36,36,19,53		3,43,35,14,11	
		1, 6,17,31,57,25,56,41		4,51
40″	50,58,19,31,25, 8,34, 2,16,34		3,43,35,19, 2	
		1, 6,17,28,13,50,37,39		4,51
42″	50,58,20,37,42,36,47,52,54,13		3,43,35,23,53	
		1, 6,17,24,30,15,13,46		4,51
44″	50,58,21,44, 0, 1,18, 8, 7,59		3,43,35,28,44	
		1, 6,17,20,46,39,45, 2		4,51
46″	50,58,22,50,17,22, 4,47,53, 1		3,43,35,33,35	
		1, 6,17,17, 3, 4,11,27		4,51
48″	50,58,23,56,34,39, 7,52, 4,28		3,43,35,38,26	
		1, 6,17,13,19,28,33, 1		4,51
50″	50,58,25, 2,51,52,27,20,37,29		3,43,35,43,17	
		1, 6,17, 9,35,52,49,44		4,51
52″	50,58,26, 9, 9, 2, 3,13,27,13		3,43,35,48, 8	
		1, 6,17, 5,52,17, 1,36		4,51
54″	50,58,27,15,26, 7,55,30,28,49		3,43,35,52,59	
		1, 6,17, 2, 8,41, 8,37		4,51
56″	50,58,28,21,43,10, 4,11,37,26		3,43,35,57,50	
		1, 6,16,58,25, 5,10,47		4,51
58″	50,58,29,28, 0, 8,29,16,48,13		3,43,36, 2,41	
		1, 6,16,54,41,29, 8, 6		
60″	50,58,30,34,17, 3,10,45,56,19			
exact	50,58,30,34,17, 3,10,46, 6,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°10′ 0″	50,58,30,34,17, 3,10,46, 6,54			
		1, 6,16,50,57,53, 1,47		
2″	50,58,31,40,33,54, 8,39, 8,41		3,43,36,12,17	
		1, 6,16,47,14,16,49,30		4,51
4″	50,58,32,46,50,41,22,55,58,11		3,43,36,17, 8	
		1, 6,16,43,30,40,32,22		4,51
6″	50,58,33,53, 7,24,53,36,30,33		3,43,36,21,59	
		1, 6,16,39,47, 4,10,23		4,51
8″	50,58,34,59,24, 4,40,40,40,56		3,43,36,26,50	
		1, 6,16,36, 3,27,43,33		4,51
10″	50,58,36, 5,40,40,44, 8,24,29		3,43,36,31,41	
		1, 6,16,32,19,51,11,52		4,51
12″	50,58,37,11,57,13, 3,59,36,21		3,43,36,36,32	
		1, 6,16,28,36,14,35,20		4,51
14″	50,58,38,18,13,41,40,14,11,41		3,43,36,41,23	
		1, 6,16,24,52,37,53,57		4,51
16″	50,58,39,24,30, 6,32,52, 5,38		3,43,36,46,14	
		1, 6,16,21, 9, 1, 7,43		4,51
18″	50,58,40,30,46,27,41,53,13,21		3,43,36,51, 5	
		1, 6,16,17,25,24,16,38		4,51
20″	50,58,41,37, 2,45, 7,17,29,59		3,43,36,55,56	
		1, 6,16,13,41,47,20,42		4,51
22″	50,58,42,43,18,58,49, 4,50,41		3,43,37, 0,47	
		1, 6,16, 9,58,10,19,55		4,51
24″	50,58,43,49,35, 8,47,15,10,36		3,43,37, 5,38	
		1, 6,16, 6,14,33,14,17		4,51
26″	50,58,44,55,51,15, 1,48,24,53		3,43,37,10,29	
		1, 6,16, 2,30,56, 3,48		4,51
28″	50,58,46, 2, 7,17,32,44,28,41		3,43,37,15,20	
		1, 6,15,58,47,18,48,28		4,51
30″	50,58,47, 8,23,16,20, 3,17, 9		3,43,37,20,11	
		1, 6,15,55, 3,41,28,17		4,51
32″	50,58,48,14,39,11,23,44,45,26		3,43,37,25, 2	
		1, 6,15,51,20, 4, 3,15		4,51
34″	50,58,49,20,55, 2,43,48,48,41		3,43,37,29,53	
		1, 6,15,47,36,26,33,22		4,51
36″	50,58,50,27,10,50,20,15,22, 3		3,43,37,34,44	
		1, 6,15,43,52,48,58,38		4,51
38″	50,58,51,33,26,34,13, 4,20,41		3,43,37,39,35	
		1, 6,15,40, 9,11,19, 3		4,51
40″	50,58,52,39,42,14,22,15,39,44		3,43,37,44,26	
		1, 6,15,36,25,33,34,37		4,51
42″	50,58,53,45,57,50,47,49,14,21		3,43,37,49,17	
		1, 6,15,32,41,55,45,20		4,51
44″	50,58,54,52,13,23,29,44,59,41		3,43,37,54, 8	
		1, 6,15,28,58,17,51,12		4,51
46″	50,58,55,58,28,52,28, 2,50,53		3,43,37,58,59	
		1, 6,15,25,14,39,52,13		4,51
48″	50,58,57, 4,44,17,42,42,43, 6		3,43,38, 3,50	
		1, 6,15,21,31, 1,48,23		4,51
50″	50,58,58,10,59,39,13,44,31,29		3,43,38, 8,41	
		1, 6,15,17,47,23,39,42		4,51
52″	50,58,59,17,14,57, 1, 8,11,11		3,43,38,13,32	
		1, 6,15,14, 3,45,26,10		4,51
54″	50,59, 0,23,30,11, 4,53,37,21		3,43,38,18,23	
		1, 6,15,10,20, 7, 7,47		4,51
56″	50,59, 1,29,45,21,25, 0,45, 8		3,43,38,23,14	
		1, 6,15, 6,36,28,44,33		4,51
58″	50,59, 2,36, 0,28, 1,29,29,41		3,43,38,28, 5	
		1, 6,15, 2,52,50,16,28		
60″	50,59, 3,42,15,30,54,19,46, 9			
exact	50,59, 3,42,15,30,54,20, 4,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°11′ 0″	50,59, 3,42,15,30,54,20, 4,35			
		1, 6,14,59, 9,11,45,39		
2″	50,59, 4,48,30,30, 3,31,50,14		3,43,38,37,37	
		1, 6,14,55,25,33, 8, 2		4,51
4″	50,59, 5,54,45,25,29, 4,58,16		3,43,38,42,28	
		1, 6,14,51,41,54,25,34		4,51
6″	50,59, 7, 1, 0,17,10,59,23,50		3,43,38,47,19	
		1, 6,14,47,58,15,38,15		4,51
8″	50,59, 8, 7,15, 5, 9,15, 2, 5		3,43,38,52,10	
		1, 6,14,44,14,36,46, 5		4,51
10″	50,59, 9,13,29,49,23,51,48,10		3,43,38,57, 1	
		1, 6,14,40,30,57,49, 4		4,51
12″	50,59,10,19,44,29,54,49,37,14		3,43,39, 1,52	
		1, 6,14,36,47,18,47,12		4,51
14″	50,59,11,25,59, 6,42, 8,24,26		3,43,39, 6,43	
		1, 6,14,33, 3,39,40,29		4,51
16″	50,59,12,32,13,39,45,48, 4,55		3,43,39,11,34	
		1, 6,14,29,20, 0,28,55		4,51
18″	50,59,13,38,28, 9, 5,48,33,50		3,43,39,16,25	
		1, 6,14,25,36,21,12,30		4,51
20″	50,59,14,44,42,34,42, 9,46,20		3,43,39,21,16	
		1, 6,14,21,52,41,51,14		4,51
22″	50,59,15,50,56,56,34,51,37,34		3,43,39,26, 7	
		1, 6,14,18, 9, 2,25, 7		4,51
24″	50,59,16,57,11,14,43,54, 2,41		3,43,39,30,58	
		1, 6,14,14,25,22,54, 9		4,51
26″	50,59,18, 3,25,29, 9,16,56,50		3,43,39,35,49	
		1, 6,14,10,41,43,18,20		4,51
28″	50,59,19, 9,39,39,51, 0,15,10		3,43,39,40,40	
		1, 6,14, 6,58, 3,37,40		4,51
30″	50,59,20,15,53,46,49, 3,52,50		3,43,39,45,31	
		1, 6,14, 3,14,23,52, 9		4,51
32″	50,59,21,22, 7,50, 3,27,44,59		3,43,39,50,22	
		1, 6,13,59,30,44, 1,47		4,51
34″	50,59,22,28,21,49,34,11,46,46		3,43,39,55,13	
		1, 6,13,55,47, 4, 6,34		4,51
36″	50,59,23,34,35,45,21,15,53,20		3,43,40, 0, 4	
		1, 6,13,52, 3,24, 6,30		4,51
38″	50,59,24,40,49,37,24,39,59,50		3,43,40, 4,55	
		1, 6,13,48,19,44, 1,35		4,51
40″	50,59,25,47, 3,25,44,24, 1,25		3,43,40, 9,46	
		1, 6,13,44,36, 3,51,49		4,51
42″	50,59,26,53,17,10,20,27,53,14		3,43,40,14,37	
		1, 6,13,40,52,23,37,12		4,51
44″	50,59,27,59,30,51,12,51,30,26		3,43,40,19,28	
		1, 6,13,37, 8,43,17,44		4,51
46″	50,59,29, 5,44,28,21,34,48,10		3,43,40,24,19	
		1, 6,13,33,25, 2,53,25		4,51
48″	50,59,30,11,58, 1,46,37,41,35		3,43,40,29,10	
		1, 6,13,29,41,22,24,15		4,51
50″	50,59,31,18,11,31,28, 0, 5,50		3,43,40,34, 1	
		1, 6,13,25,57,41,50,14		4,51
52″	50,59,32,24,24,57,25,41,56, 4		3,43,40,38,52	
		1, 6,13,22,14, 1,11,22		4,51
54″	50,59,33,30,38,19,39,43, 7,26		3,43,40,43,43	
		1, 6,13,18,30,20,27,39		4,51
56″	50,59,34,36,51,38,10, 3,35, 5		3,43,40,48,34	
		1, 6,13,14,46,39,39, 5		4,51
58″	50,59,35,43, 4,52,56,43,14,10		3,43,40,53,25	
		1, 6,13,11, 2,58,45,40		
60″	50,59,36,49,18, 3,59,41,59,50			
exact	50,59,36,49,18, 3,59,42,26,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°12′ 0″	50,59,36,49,18, 3,59,42,26,38			
		1, 6,13, 7,19,17,50,27		
2″	50,59,37,55,31,11,19, 0,17, 5		3,43,41, 2,53	
		1, 6,13, 3,35,36,47,34		4,50
4″	50,59,39, 1,44,14,54,37, 4,39		3,43,41, 7,43	
		1, 6,12,59,51,55,39,51		4,50
6″	50,59,40, 7,57,14,46,32,44,30		3,43,41,12,33	
		1, 6,12,56, 8,14,27,18		4,50
8″	50,59,41,14,10,10,54,47,11,48		3,43,41,17,23	
		1, 6,12,52,24,33, 9,55		4,50
10″	50,59,42,20,23, 3,19,20,21,43		3,43,41,22,13	
		1, 6,12,48,40,51,47,42		4,50
12″	50,59,43,26,35,52, 0,12, 9,25		3,43,41,27, 3	
		1, 6,12,44,57,10,20,39		4,50
14″	50,59,44,32,48,36,57,22,30, 4		3,43,41,31,53	
		1, 6,12,41,13,28,48,46		4,50
16″	50,59,45,39, 1,18,10,51,18,50		3,43,41,36,43	
		1, 6,12,37,29,47,12, 3		4,50
18″	50,59,46,45,13,55,40,38,30,53		3,43,41,41,33	
		1, 6,12,33,46, 5,30,30		4,50
20″	50,59,47,51,26,29,26,44, 1,23		3,43,41,46,23	
		1, 6,12,30, 2,23,44, 7		4,50
22″	50,59,48,57,38,59,29, 7,45,30		3,43,41,51,13	
		1, 6,12,26,18,41,52,54		4,50
24″	50,59,50, 3,51,25,47,49,38,24		3,43,41,56, 3	
		1, 6,12,22,34,59,56,51		4,50
26″	50,59,51,10, 3,48,22,49,35,15		3,43,42, 0,53	
		1, 6,12,18,51,17,55,58		4,50
28″	50,59,52,16,16, 7,14, 7,31,13		3,43,42, 5,43	
		1, 6,12,15, 7,35,50,15		4,50
30″	50,59,53,22,28,22,21,43,21,28		3,43,42,10,33	
		1, 6,12,11,23,53,39,42		4,50
32″	50,59,54,28,40,33,45,37, 1,10		3,43,42,15,23	
		1, 6,12, 7,40,11,24,19		4,50
34″	50,59,55,34,52,41,25,48,25,29		3,43,42,20,13	
		1, 6,12, 3,56,29, 4, 6		4,50
36″	50,59,56,41, 4,45,22,17,29,35		3,43,42,25, 3	
		1, 6,12, 0,12,46,39, 3		4,50
38″	50,59,57,47,16,45,35, 4, 8,38		3,43,42,29,53	
		1, 6,11,56,29, 4, 9,10		4,50
40″	50,59,58,53,28,42, 4, 8,17,48		3,43,42,34,43	
		1, 6,11,52,45,21,34,27		4,50
42″	50,59,59,59,40,34,49,29,52,15		3,43,42,39,33	
		1, 6,11,49, 1,38,54,54		4,50
44″	51, 0, 1, 5,52,23,51, 8,47, 9		3,43,42,44,23	
		1, 6,11,45,17,56,10,31		4,50
46″	51, 0, 2,12, 4, 9, 9, 4,57,40		3,43,42,49,13	
		1, 6,11,41,34,13,21,18		4,50
48″	51, 0, 3,18,15,50,43,18,18,58		3,43,42,54, 3	
		1, 6,11,37,50,30,27,15		4,50
50″	51, 0, 4,24,27,28,33,48,46,13		3,43,42,58,53	
		1, 6,11,34, 6,47,28,22		4,50
52″	51, 0, 5,30,39, 2,40,36,14,35		3,43,43, 3,43	
		1, 6,11,30,23, 4,24,39		4,50
54″	51, 0, 6,36,50,33, 3,40,39,14		3,43,43, 8,33	
		1, 6,11,26,39,21,16, 6		4,50
56″	51, 0, 7,43, 1,59,43, 1,55,20		3,43,43,13,23	
		1, 6,11,22,55,38, 2,43		4,50
58″	51, 0, 8,49,13,22,38,39,58, 3		3,43,43,18,13	
		1, 6,11,19,11,54,44,30		
60″	51, 0, 9,55,24,41,50,34,42,33			
exact	51, 0, 9,55,24,41,50,34,10,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°13′ 0″	51, 0, 9,55,24,41,50,34,10,54	1, 6,11,15,28,11,18,14		
2″	51, 0,11, 1,35,57,18,45,29, 8	1, 6,11,11,44,27,50, 9	3,43,43,28, 5	4,50
4″	51, 0,12, 7,47, 9, 3,13,19,17	1, 6,11, 8, 0,44,17,14	3,43,43,32,55	4,50
6″	51, 0,13,13,58,17, 3,57,36,31	1, 6,11, 4,17, 0,39,29	3,43,43,37,45	4,50
8″	51, 0,14,20, 9,21,20,58,16, 0	1, 6,11, 0,33,16,56,54	3,43,43,42,35	4,50
10″	51, 0,15,26,20,21,54,15,12,54	1, 6,10,56,49,33, 9,29	3,43,43,47,25	4,50
12″	51, 0,16,32,31,18,43,48,22,23	1, 6,10,53, 5,49,17,14	3,43,43,52,15	4,50
14″	51, 0,17,38,42,11,49,37,39,37	1, 6,10,49,22, 5,20, 9	3,43,43,57, 5	4,50
16″	51, 0,18,44,53, 1,11,42,59,46	1, 6,10,45,38,21,18,14	3,43,44, 1,55	4,50
18″	51, 0,19,51, 3,46,50, 4,18, 0	1, 6,10,41,54,37,11,29	3,43,44, 6,45	4,50
20″	51, 0,20,57,14,28,44,41,29,29	1, 6,10,38,10,52,59,54	3,43,44,11,35	4,50
22″	51, 0,22, 3,25, 6,55,34,29,23	1, 6,10,34,27, 8,43,29	3,43,44,16,25	4,50
24″	51, 0,23, 9,35,41,22,43,12,52	1, 6,10,30,43,24,22,14	3,43,44,21,15	4,50
26″	51, 0,24,15,46,12, 6, 7,35, 6	1, 6,10,26,59,39,56, 9	3,43,44,26, 5	4,50
28″	51, 0,25,21,56,39, 5,47,31,15	1, 6,10,23,15,55,25,14	3,43,44,30,55	4,50
30″	51, 0,26,28, 7, 2,21,42,56,29	1, 6,10,19,32,10,49,29	3,43,44,35,45	4,50
32″	51, 0,27,34,17,21,53,53,45,58	1, 6,10,15,48,26, 8,54	3,43,44,40,35	4,50
34″	51, 0,28,40,27,37,42,19,54,52	1, 6,10,12, 4,41,23,29	3,43,44,45,25	4,50
36″	51, 0,29,46,37,49,47, 1,18,21	1, 6,10, 8,20,56,33,14	3,43,44,50,15	4,50
38″	51, 0,30,52,47,58, 7,57,51,35	1, 6,10, 4,37,11,38, 9	3,43,44,55, 5	4,50
40″	51, 0,31,58,58, 2,45, 9,29,44	1, 6,10, 0,53,26,38,14	3,43,44,59,55	4,50
42″	51, 0,33, 5, 8, 3,38,36, 7,58	1, 6, 9,57, 9,41,33,29	3,43,45, 4,45	4,50
44″	51, 0,34,11,18, 0,48,17,41,27	1, 6, 9,53,25,56,23,54	3,43,45, 9,35	4,50
46″	51, 0,35,17,27,54,14,14, 5,21	1, 6, 9,49,42,11, 9,29	3,43,45,14,25	4,50
48″	51, 0,36,23,37,43,56,25,14,50	1, 6, 9,45,58,25,50,14	3,43,45,19,15	4,50
50″	51, 0,37,29,47,29,54,51, 5, 4	1, 6, 9,42,14,40,26, 9	3,43,45,24, 5	4,50
52″	51, 0,38,35,57,12, 9,31,31,13	1, 6, 9,38,30,54,57,14	3,43,45,28,55	4,50
54″	51, 0,39,42, 6,50,40,26,28,27	1, 6, 9,34,47, 9,23,29	3,43,45,33,45	4,50
56″	51, 0,40,48,16,25,27,35,51,56	1, 6, 9,31, 3,23,44,54	3,43,45,38,35	4,50
58″	51, 0,41,54,25,56,30,59,36,50	1, 6, 9,27,19,38, 1,29	3,43,45,43,25	
60″	51, 0,43, 0,35,23,50,37,38,19			
exact	51, 0,43, 0,35,23,50,37,16,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°14′ 0″	51, 0,43, 0,35,23,50,37,16,33	1, 6, 9,23,35,52,11, 3		
2″	51, 0,44, 6,44,47,26,29,27,36	1, 6, 9,19,52, 6,17,50	3,43,45,53,13	4,50
4″	51, 0,45,12,54, 7,18,35,45,26	1, 6, 9,16, 8,20,19,47	3,43,45,58, 3	4,50
6″	51, 0,46,19, 3,23,26,56, 5,13	1, 6, 9,12,24,34,16,54	3,43,46, 2,53	4,50
8″	51, 0,47,25,12,35,51,30,22, 7	1, 6, 9, 8,40,48, 9,11	3,43,46, 7,43	4,50
10″	51, 0,48,31,21,44,32,18,31,18	1, 6, 9, 4,57, 1,56,38	3,43,46,12,33	4,50
12″	51, 0,49,37,30,49,29,20,27,56	1, 6, 9, 1,13,15,39,15	3,43,46,17,23	4,50
14″	51, 0,50,43,39,50,42,36, 7,11	1, 6, 8,57,29,29,17, 2	3,43,46,22,13	4,50
16″	51, 0,51,49,48,48,12, 5,24,13	1, 6, 8,53,45,42,49,59	3,43,46,27, 3	4,50
18″	51, 0,52,55,57,41,57,48,14,12	1, 6, 8,50, 1,56,18, 6	3,43,46,31,53	4,50
20″	51, 0,54, 2, 6,31,59,44,32,18	1, 6, 8,46,18, 9,41,23	3,43,46,36,43	4,50
22″	51, 0,55, 8,15,18,17,54,13,41	1, 6, 8,42,34,22,59,50	3,43,46,41,33	4,50
24″	51, 0,56,14,24, 0,52,17,13,31	1, 6, 8,38,50,36,13,27	3,43,46,46,23	4,50
26″	51, 0,57,20,32,39,42,53,26,58	1, 6, 8,35, 6,49,22,14	3,43,46,51,13	4,50
28″	51, 0,58,26,41,14,49,42,49,12	1, 6, 8,31,23, 2,26,11	3,43,46,56, 3	4,50
30″	51, 0,59,32,49,46,12,45,15,23	1, 6, 8,27,39,15,25,18	3,43,47, 0,53	4,50
32″	51, 1, 0,38,58,13,52, 0,40,41	1, 6, 8,23,55,28,19,35	3,43,47, 5,43	4,50
34″	51, 1, 1,45, 6,37,47,29, 0,16	1, 6, 8,20,11,41, 9, 2	3,43,47,10,33	4,50
36″	51, 1, 2,51,14,57,59,10, 9,18	1, 6, 8,16,27,53,53,39	3,43,47,15,23	4,50
38″	51, 1, 3,57,23,14,27, 4, 2,57	1, 6, 8,12,44, 6,33,26	3,43,47,20,13	4,50
40″	51, 1, 5, 3,31,27,11,10,36,23	1, 6, 8, 9, 0,19, 8,23	3,43,47,25, 3	4,50
42″	51, 1, 6, 9,39,36,11,29,44,46	1, 6, 8, 5,16,31,38,30	3,43,47,29,53	4,50
44″	51, 1, 7,15,47,41,28, 1,23,16	1, 6, 8, 1,32,44, 3,47	3,43,47,34,43	4,50
46″	51, 1, 8,21,55,43, 0,45,27, 3	1, 6, 7,57,48,56,24,14	3,43,47,39,33	4,50
48″	51, 1, 9,28, 3,40,49,41,51,17	1, 6, 7,54, 5, 8,39,51	3,43,47,44,23	4,50
50″	51, 1,10,34,11,34,54,50,31, 8	1, 6, 7,50,21,20,50,38	3,43,47,49,13	4,50
52″	51, 1,11,40,19,25,16,11,21,46	1, 6, 7,46,37,32,56,35	3,43,47,54, 3	4,50
54″	51, 1,12,46,27,11,53,44,18,21	1, 6, 7,42,53,44,57,42	3,43,47,58,53	4,50
56″	51, 1,13,52,34,54,47,29,16, 3	1, 6, 7,39, 9,56,53,59	3,43,48, 3,43	4,50
58″	51, 1,14,58,42,33,57,26,10, 2	1, 6, 7,35,26, 8,45,26	3,43,48, 8,33	
60″	51, 1,16, 4,50, 9,23,34,55,28			
exact	51, 1,16, 4,50, 9,23,34,44, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°15′ 0″	51, 1,16, 4,50, 9,23,34,44, 5			
		1, 6, 7,31,42,20,30,56		
2″	51, 1,17,10,57,41, 5,55,15, 1		3,43,48,18,17	
		1, 6, 7,27,58,32,12,39		4,50
4″	51, 1,18,17, 5, 9, 4,27,27,40		3,43,48,23, 7	
		1, 6, 7,24,14,43,49,32		4,50
6″	51, 1,19,23,12,33,19,11,17,12		3,43,48,27,57	
		1, 6, 7,20,30,55,21,35		4,50
8″	51, 1,20,29,19,53,50, 6,38,47		3,43,48,32,47	
		1, 6, 7,16,47, 6,48,48		4,50
10″	51, 1,21,35,27,10,37,13,27,35		3,43,48,37,37	
		1, 6, 7,13, 3,18,11,11		4,50
12″	51, 1,22,41,34,23,40,31,38,46		3,43,48,42,27	
		1, 6, 7, 9,19,29,28,44		4,50
14″	51, 1,23,47,41,33, 0, 1, 7,30		3,43,48,47,17	
		1, 6, 7, 5,35,40,41,27		4,50
16″	51, 1,24,53,48,38,35,41,48,57		3,43,48,52, 7	
		1, 6, 7, 1,51,51,49,20		4,50
18″	51, 1,25,59,55,40,27,33,38,17		3,43,48,56,57	
		1, 6, 6,58, 8, 2,52,23		4,50
20″	51, 1,27, 6, 2,38,35,36,30,40		3,43,49, 1,47	
		1, 6, 6,54,24,13,50,36		4,50
22″	51, 1,28,12, 9,32,59,50,21,16		3,43,49, 6,37	
		1, 6, 6,50,40,24,43,59		4,50
24″	51, 1,29,18,16,23,40,15, 5,15		3,43,49,11,27	
		1, 6, 6,46,56,35,32,32		4,50
26″	51, 1,30,24,23,10,36,50,37,47		3,43,49,16,17	
		1, 6, 6,43,12,46,16,15		4,50
28″	51, 1,31,30,29,53,49,36,54, 2		3,43,49,21, 7	
		1, 6, 6,39,28,56,55, 8		4,50
30″	51, 1,32,36,36,33,18,33,49,10		3,43,49,25,57	
		1, 6, 6,35,45, 7,29,11		4,50
32″	51, 1,33,42,43, 9, 3,41,18,21		3,43,49,30,47	
		1, 6, 6,32, 1,17,58,24		4,50
34″	51, 1,34,48,49,41, 4,59,16,45		3,43,49,35,37	
		1, 6, 6,28,17,28,22,47		4,50
36″	51, 1,35,54,56, 9,22,27,39,32		3,43,49,40,27	
		1, 6, 6,24,33,38,42,20		4,50
38″	51, 1,37, 1, 2,33,56, 6,21,52		3,43,49,45,17	
		1, 6, 6,20,49,48,57, 3		4,50
40″	51, 1,38, 7, 8,54,45,55,18,55		3,43,49,50, 7	
		1, 6, 6,17, 5,59, 6,56		4,50
42″	51, 1,39,13,15,11,51,54,25,51		3,43,49,54,57	
		1, 6, 6,13,22, 9,11,59		4,50
44″	51, 1,40,19,21,25,14, 3,37,50		3,43,49,59,47	
		1, 6, 6, 9,38,19,12,12		4,50
46″	51, 1,41,25,27,34,52,22,50, 2		3,43,50, 4,37	
		1, 6, 6, 5,54,29, 7,35		4,50
48″	51, 1,42,31,33,40,46,51,57,37		3,43,50, 9,27	
		1, 6, 6, 2,10,38,58, 8		4,50
50″	51, 1,43,37,39,42,57,30,55,45		3,43,50,14,17	
		1, 6, 5,58,26,48,43,51		4,50
52″	51, 1,44,43,45,41,24,19,39,36		3,43,50,19, 7	
		1, 6, 5,54,42,58,24,44		4,50
54″	51, 1,45,49,51,36, 7,18, 4,20		3,43,50,23,57	
		1, 6, 5,50,59, 8, 0,47		4,50
56″	51, 1,46,55,57,27, 6,26, 5, 7		3,43,50,28,47	
		1, 6, 5,47,15,17,32, 0		4,50
58″	51, 1,48, 2, 3,14,21,43,37, 7		3,43,50,33,37	
		1, 6, 5,43,31,26,58,23		
60″	51, 1,49, 8, 8,57,53,10,35,30			
exact	51, 1,49, 8, 8,57,53,10,35,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°16′ 0″	51, 1,49, 8, 8,57,53,10,35,20	1, 6, 5,39,47,36,19,57		
2″	51, 1,50,14,14,37,40,46,55,17	1, 6, 5,36, 3,45,36,41	3,43,50,43,16	4,50
4″	51, 1,51,20,20,13,44,32,31,58	1, 6, 5,32,19,54,48,35	3,43,50,48, 6	4,50
6″	51, 1,52,26,25,46, 4,27,20,33	1, 6, 5,28,36, 3,55,39	3,43,50,52,56	4,50
8″	51, 1,53,32,31,14,40,31,16,12	1, 6, 5,24,52,12,57,53	3,43,50,57,46	4,50
10″	51, 1,54,38,36,39,32,44,14, 5	1, 6, 5,21, 8,21,55,17	3,43,51, 2,36	4,50
12″	51, 1,55,44,42, 0,41, 6, 9,22	1, 6, 5,17,24,30,47,51	3,43,51, 7,26	4,50
14″	51, 1,56,50,47,18, 5,36,57,13	1, 6, 5,13,40,39,35,35	3,43,51,12,16	4,50
16″	51, 1,57,56,52,31,46,16,32,48	1, 6, 5, 9,56,48,18,29	3,43,51,17, 6	4,50
18″	51, 1,59, 2,57,41,43, 4,51,17	1, 6, 5, 6,12,56,56,33	3,43,51,21,56	4,50
20″	51, 2, 0, 9, 2,47,56, 1,47,50	1, 6, 5, 2,29, 5,29,47	3,43,51,26,46	4,50
22″	51, 2, 1,15, 7,50,25, 7,17,37	1, 6, 4,58,45,13,58,11	3,43,51,31,36	4,50
24″	51, 2, 2,21,12,49,10,21,15,48	1, 6, 4,55, 1,22,21,45	3,43,51,36,26	4,50
26″	51, 2, 3,27,17,44,11,43,37,33	1, 6, 4,51,17,30,40,29	3,43,51,41,16	4,50
28″	51, 2, 4,33,22,35,29,14,18, 2	1, 6, 4,47,33,38,54,23	3,43,51,46, 6	4,50
30″	51, 2, 5,39,27,23, 2,53,12,25	1, 6, 4,43,49,47, 3,27	3,43,51,50,56	4,50
32″	51, 2, 6,45,32, 6,52,40,15,52	1, 6, 4,40, 5,55, 7,41	3,43,51,55,46	4,50
34″	51, 2, 7,51,36,46,58,35,23,33	1, 6, 4,36,22, 3, 7, 5	3,43,52, 0,36	4,50
36″	51, 2, 8,57,41,23,20,38,30,38	1, 6, 4,32,38,11, 1,39	3,43,52, 5,26	4,50
38″	51, 2,10, 3,45,55,58,49,32,17	1, 6, 4,28,54,18,51,23	3,43,52,10,16	4,50
40″	51, 2,11, 9,50,24,53, 8,23,40	1, 6, 4,25,10,26,36,17	3,43,52,15, 6	4,50
42″	51, 2,12,15,54,50, 3,34,59,57	1, 6, 4,21,26,34,16,21	3,43,52,19,56	4,50
44″	51, 2,13,21,59,11,30, 9,16,18	1, 6, 4,17,42,41,51,35	3,43,52,24,46	4,50
46″	51, 2,14,28, 3,29,12,51, 7,53	1, 6, 4,13,58,49,21,59	3,43,52,29,36	4,50
48″	51, 2,15,34, 7,43,11,40,29,52	1, 6, 4,10,14,56,47,33	3,43,52,34,26	4,50
50″	51, 2,16,40,11,53,26,37,17,25	1, 6, 4, 6,31, 4, 8,17	3,43,52,39,16	4,50
52″	51, 2,17,46,15,59,57,41,25,42	1, 6, 4, 2,47,11,24,11	3,43,52,44, 6	4,50
54″	51, 2,18,52,20, 2,44,52,49,53	1, 6, 3,59, 3,18,35,15	3,43,52,48,56	4,50
56″	51, 2,19,58,24, 1,48,11,25, 8	1, 6, 3,55,19,25,41,29	3,43,52,53,46	4,50
58″	51, 2,21, 4,27,57, 7,37, 6,37	1, 6, 3,51,35,32,42,53	3,43,52,58,36	
60″	51, 2,22,10,31,48,43, 9,49,30			
exact	51, 2,22,10,31,48,43, 9,53,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°17′ 0″	51, 2,22,10,31,48,43, 9,53,32			
		1, 6, 3,47,51,39,40, 7		
2″	51, 2,23,16,35,36,34,49,33,39		3,43,53, 8,12	
		1, 6, 3,44, 7,46,31,55		4,50
4″	51, 2,24,22,39,20,42,36, 5,34		3,43,53,13, 2	
		1, 6, 3,40,23,53,18,53		4,50
6″	51, 2,25,28,43, 1, 6,29,24,27		3,43,53,17,52	
		1, 6, 3,36,40, 0, 1, 1		4,50
8″	51, 2,26,34,46,37,46,29,25,28		3,43,53,22,42	
		1, 6, 3,32,56, 6,38,19		4,50
10″	51, 2,27,40,50,10,42,36, 3,47		3,43,53,27,32	
		1, 6, 3,29,12,13,10,47		4,50
12″	51, 2,28,46,53,39,54,49,14,34		3,43,53,32,22	
		1, 6, 3,25,28,19,38,25		4,50
14″	51, 2,29,52,57, 5,23, 8,52,59		3,43,53,37,12	
		1, 6, 3,21,44,26, 1,13		4,50
16″	51, 2,30,59, 0,27, 7,34,54,12		3,43,53,42, 2	
		1, 6, 3,18, 0,32,19,11		4,50
18″	51, 2,32, 5, 3,45, 8, 7,13,23		3,43,53,46,52	
		1, 6, 3,14,16,38,32,19		4,50
20″	51, 2,33,11, 6,59,24,45,45,42		3,43,53,51,42	
		1, 6, 3,10,32,44,40,37		4,50
22″	51, 2,34,17,10, 9,57,30,26,19		3,43,53,56,32	
		1, 6, 3, 6,48,50,44, 5		4,50
24″	51, 2,35,23,13,16,46,21,10,24		3,43,54, 1,22	
		1, 6, 3, 3, 4,56,42,43		4,50
26″	51, 2,36,29,16,19,51,17,53, 7		3,43,54, 6,12	
		1, 6, 2,59,21, 2,36,31		4,50
28″	51, 2,37,35,19,19,12,20,29,38		3,43,54,11, 2	
		1, 6, 2,55,37, 8,25,29		4,50
30″	51, 2,38,41,22,14,49,28,55, 7		3,43,54,15,52	
		1, 6, 2,51,53,14, 9,37		4,50
32″	51, 2,39,47,25, 6,42,43, 4,44		3,43,54,20,42	
		1, 6, 2,48, 9,19,48,55		4,50
34″	51, 2,40,53,27,54,52, 2,53,39		3,43,54,25,32	
		1, 6, 2,44,25,25,23,23		4,50
36″	51, 2,41,59,30,39,17,28,17, 2		3,43,54,30,22	
		1, 6, 2,40,41,30,53, 1		4,50
38″	51, 2,43, 5,33,19,58,59,10, 3		3,43,54,35,12	
		1, 6, 2,36,57,36,17,49		4,50
40″	51, 2,44,11,35,56,56,35,27,52		3,43,54,40, 2	
		1, 6, 2,33,13,41,37,47		4,50
42″	51, 2,45,17,38,30,10,17, 5,39		3,43,54,44,52	
		1, 6, 2,29,29,46,52,55		4,50
44″	51, 2,46,23,40,59,40, 3,58,34		3,43,54,49,42	
		1, 6, 2,25,45,52, 3,13		4,50
46″	51, 2,47,29,43,25,25,56, 1,47		3,43,54,54,32	
		1, 6, 2,22, 1,57, 8,41		4,50
48″	51, 2,48,35,45,47,27,53,10,28		3,43,54,59,22	
		1, 6, 2,18,18, 2, 9,19		4,50
50″	51, 2,49,41,48, 5,45,55,19,47		3,43,55, 4,12	
		1, 6, 2,14,34, 7, 5, 7		4,50
52″	51, 2,50,47,50,20,20, 2,24,54		3,43,55, 9, 2	
		1, 6, 2,10,50,11,56, 5		4,50
54″	51, 2,51,53,52,31,10,14,20,59		3,43,55,13,52	
		1, 6, 2, 7, 6,16,42,13		4,50
56″	51, 2,52,59,54,38,16,31, 3,12		3,43,55,18,42	
		1, 6, 2, 3,22,21,23,31		4,50
58″	51, 2,54, 5,56,41,38,52,26,43		3,43,55,23,32	
		1, 6, 1,59,38,25,59,59		
60″	51, 2,55,11,58,41,17,18,26,42			
exact	51, 2,55,11,58,41,17,18,43,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°18′ 0″	51, 2,55,11,58,41,17,18,43,14	1, 6, 1,55,54,30,33,29		
2″	51, 2,56,18, 0,37,11,49,16,43	1, 6, 1,52,10,35, 0,26	3,43,55,33, 3	4,50
4″	51, 2,57,24, 2,29,22,24,17, 9	1, 6, 1,48,26,39,22,33	3,43,55,37,53	4,50
6″	51, 2,58,30, 4,17,49, 3,39,42	1, 6, 1,44,42,43,39,50	3,43,55,42,43	4,50
8″	51, 2,59,36, 6, 2,31,47,19,32	1, 6, 1,40,58,47,52,17	3,43,55,47,33	4,50
10″	51, 3, 0,42, 7,43,30,35,11,49	1, 6, 1,37,14,51,59,54	3,43,55,52,23	4,50
12″	51, 3, 1,48, 9,20,45,27,11,43	1, 6, 1,33,30,56, 2,41	3,43,55,57,13	4,50
14″	51, 3, 2,54,10,54,16,23,14,24	1, 6, 1,29,47, 0, 0,38	3,43,56, 2, 3	4,50
16″	51, 3, 4, 0,12,24, 3,23,15, 2	1, 6, 1,26, 3, 3,53,45	3,43,56, 6,53	4,50
18″	51, 3, 5, 6,13,50, 6,27, 8,47	1, 6, 1,22,19, 7,42, 2	3,43,56,11,43	4,50
20″	51, 3, 6,12,15,12,25,34,50,49	1, 6, 1,18,35,11,25,29	3,43,56,16,33	4,50
22″	51, 3, 7,18,16,31, 0,46,16,18	1, 6, 1,14,51,15, 4, 6	3,43,56,21,23	4,50
24″	51, 3, 8,24,17,45,52, 1,20,24	1, 6, 1,11, 7,18,37,53	3,43,56,26,13	4,50
26″	51, 3, 9,30,18,56,59,19,58,17	1, 6, 1, 7,23,22, 6,50	3,43,56,31, 3	4,50
28″	51, 3,10,36,20, 4,22,42, 5, 7	1, 6, 1, 3,39,25,30,57	3,43,56,35,53	4,50
30″	51, 3,11,42,21, 8, 2, 7,36, 4	1, 6, 0,59,55,28,50,14	3,43,56,40,43	4,50
32″	51, 3,12,48,22, 7,57,36,26,18	1, 6, 0,56,11,32, 4,41	3,43,56,45,33	4,50
34″	51, 3,13,54,23, 4, 9, 8,30,59	1, 6, 0,52,27,35,14,18	3,43,56,50,23	4,50
36″	51, 3,15, 0,23,56,36,43,45,17	1, 6, 0,48,43,38,19, 5	3,43,56,55,13	4,50
38″	51, 3,16, 6,24,45,20,22, 4,22	1, 6, 0,44,59,41,19, 2	3,43,57, 0, 3	4,50
40″	51, 3,17,12,25,30,20, 3,23,24	1, 6, 0,41,15,44,14, 9	3,43,57, 4,53	4,50
42″	51, 3,18,18,26,11,35,47,37,33	1, 6, 0,37,31,47, 4,26	3,43,57, 9,43	4,50
44″	51, 3,19,24,26,49, 7,34,41,59	1, 6, 0,33,47,49,49,53	3,43,57,14,33	4,50
46″	51, 3,20,30,27,22,55,24,31,52	1, 6, 0,30, 3,52,30,30	3,43,57,19,23	4,50
48″	51, 3,21,36,27,52,59,17, 2,22	1, 6, 0,26,19,55, 6,17	3,43,57,24,13	4,50
50″	51, 3,22,42,28,19,19,12, 8,39	1, 6, 0,22,35,57,37,14	3,43,57,29, 3	4,50
52″	51, 3,23,48,28,41,55, 9,45,53	1, 6, 0,18,52, 0, 3,21	3,43,57,33,53	4,50
54″	51, 3,24,54,29, 0,47, 9,49,14	1, 6, 0,15, 8, 2,24,38	3,43,57,38,43	4,50
56″	51, 3,26, 0,29,15,55,12,13,52	1, 6, 0,11,24, 4,41, 5	3,43,57,43,33	4,50
58″	51, 3,27, 6,29,27,19,16,54,57	1, 6, 0, 7,40, 6,52,42	3,43,57,48,23	
60″	51, 3,28,12,29,34,59,23,47,39			
exact	51, 3,28,12,29,34,59,24,10,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°19′ 0″	51, 3,28,12,29,34,59,24,10,24			
		1, 6, 0, 3,56, 9, 2, 8		
2″	51, 3,29,18,29,38,55,33,12,32		3,43,57,57,51	
		1, 6, 0, 0,12,11, 4,17		4,50
4″	51, 3,30,24,29,39, 7,44,16,49		3,43,58, 2,41	
		1, 5,59,56,28,13, 1,36		4,50
6″	51, 3,31,30,29,35,35,57,18,25		3,43,58, 7,31	
		1, 5,59,52,44,14,54, 5		4,50
8″	51, 3,32,36,29,28,20,12,12,30		3,43,58,12,21	
		1, 5,59,49, 0,16,41,44		4,50
10″	51, 3,33,42,29,17,20,28,54,14		3,43,58,17,11	
		1, 5,59,45,16,18,24,33		4,50
12″	51, 3,34,48,29, 2,36,47,18,47		3,43,58,22, 1	
		1, 5,59,41,32,20, 2,32		4,50
14″	51, 3,35,54,28,44, 9, 7,21,19		3,43,58,26,51	
		1, 5,59,37,48,21,35,41		4,50
16″	51, 3,37, 0,28,21,57,28,57, 0		3,43,58,31,41	
		1, 5,59,34, 4,23, 4, 0		4,50
18″	51, 3,38, 6,27,56, 1,52, 1, 0		3,43,58,36,31	
		1, 5,59,30,20,24,27,29		4,50
20″	51, 3,39,12,27,26,22,16,28,29		3,43,58,41,21	
		1, 5,59,26,36,25,46, 8		4,50
22″	51, 3,40,18,26,52,58,42,14,37		3,43,58,46,11	
		1, 5,59,22,52,26,59,57		4,50
24″	51, 3,41,24,26,15,51, 9,14,34		3,43,58,51, 1	
		1, 5,59,19, 8,28, 8,56		4,50
26″	51, 3,42,30,25,34,59,37,23,30		3,43,58,55,51	
		1, 5,59,15,24,29,13, 5		4,50
28″	51, 3,43,36,24,50,24, 6,36,35		3,43,59, 0,41	
		1, 5,59,11,40,30,12,24		4,50
30″	51, 3,44,42,24, 2, 4,36,48,59		3,43,59, 5,31	
		1, 5,59, 7,56,31, 6,53		4,50
32″	51, 3,45,48,23,10, 1, 7,55,52		3,43,59,10,21	
		1, 5,59, 4,12,31,56,32		4,50
34″	51, 3,46,54,22,14,13,39,52,24		3,43,59,15,11	
		1, 5,59, 0,28,32,41,21		4,50
36″	51, 3,48, 0,21,14,42,12,33,45		3,43,59,20, 1	
		1, 5,58,56,44,33,21,20		4,50
38″	51, 3,49, 6,20,11,26,45,55, 5		3,43,59,24,51	
		1, 5,58,53, 0,33,56,29		4,50
40″	51, 3,50,12,19, 4,27,19,51,34		3,43,59,29,41	
		1, 5,58,49,16,34,26,48		4,50
42″	51, 3,51,18,17,53,43,54,18,22		3,43,59,34,31	
		1, 5,58,45,32,34,52,17		4,50
44″	51, 3,52,24,16,39,16,29,10,39		3,43,59,39,21	
		1, 5,58,41,48,35,12,56		4,50
46″	51, 3,53,30,15,21, 5, 4,23,35		3,43,59,44,11	
		1, 5,58,38, 4,35,28,45		4,50
48″	51, 3,54,36,13,59, 9,39,52,20		3,43,59,49, 1	
		1, 5,58,34,20,35,39,44		4,50
50″	51, 3,55,42,12,33,30,15,32, 4		3,43,59,53,51	
		1, 5,58,30,36,35,45,53		4,50
52″	51, 3,56,48,11, 4, 6,51,17,57		3,43,59,58,41	
		1, 5,58,26,52,35,47,12		4,50
54″	51, 3,57,54, 9,30,59,27, 5, 9		3,44, 0, 3,31	
		1, 5,58,23, 8,35,43,41		4,50
56″	51, 3,59, 0, 7,54, 8, 2,48,50		3,44, 0, 8,21	
		1, 5,58,19,24,35,35,20		4,50
58″	51, 4, 0, 6, 6,13,32,38,24,10		3,44, 0,13,11	
		1, 5,58,15,40,35,22, 9		
60″	51, 4, 1,12, 4,29,13,13,46,19			
exact	51, 4, 1,12, 4,29,13,14,22,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°20′ 0″	51, 4, 1,12, 4,29,13,14,22,22			
		1, 5,58,11,56,35, 8, 4		
2″	51, 4, 2,18, 2,41, 9,49,30,26		3,44, 0,22,34	
		1, 5,58, 8,12,34,45,30		4,49
4″	51, 4, 3,24, 0,49,22,24,15,56		3,44, 0,27,23	
		1, 5,58, 4,28,34,18, 7		4,49
6″	51, 4, 4,29,58,53,50,58,34, 3		3,44, 0,32,12	
		1, 5,58, 0,44,33,45,55		4,49
8″	51, 4, 5,35,56,54,35,32,19,58		3,44, 0,37, 1	
		1, 5,57,57, 0,33, 8,54		4,49
10″	51, 4, 6,41,54,51,36, 5,28,52		3,44, 0,41,50	
		1, 5,57,53,16,32,27, 4		4,49
12″	51, 4, 7,47,52,44,52,37,55,56		3,44, 0,46,39	
		1, 5,57,49,32,31,40,25		4,49
14″	51, 4, 8,53,50,34,25, 9,36,21		3,44, 0,51,28	
		1, 5,57,45,48,30,48,57		4,49
16″	51, 4, 9,59,48,20,13,40,25,18		3,44, 0,56,17	
		1, 5,57,42, 4,29,52,40		4,49
18″	51, 4,11, 5,46, 2,18,10,17,58		3,44, 1, 1, 6	
		1, 5,57,38,20,28,51,34		4,49
20″	51, 4,12,11,43,40,38,39, 9,32		3,44, 1, 5,55	
		1, 5,57,34,36,27,45,39		4,49
22″	51, 4,13,17,41,15,15, 6,55,11		3,44, 1,10,44	
		1, 5,57,30,52,26,34,55		4,49
24″	51, 4,14,23,38,46, 7,33,30, 6		3,44, 1,15,33	
		1, 5,57,27, 8,25,19,22		4,49
26″	51, 4,15,29,36,13,15,58,49,28		3,44, 1,20,22	
		1, 5,57,23,24,23,59, 0		4,49
28″	51, 4,16,35,33,36,40,22,48,28		3,44, 1,25,11	
		1, 5,57,19,40,22,33,49		4,49
30″	51, 4,17,41,30,56,20,45,22,17		3,44, 1,30, 0	
		1, 5,57,15,56,21, 3,49		4,49
32″	51, 4,18,47,28,12,17, 6,26, 6		3,44, 1,34,49	
		1, 5,57,12,12,19,29, 0		4,49
34″	51, 4,19,53,25,24,29,25,55, 6		3,44, 1,39,38	
		1, 5,57, 8,28,17,49,22		4,49
36″	51, 4,20,59,22,32,57,43,44,28		3,44, 1,44,27	
		1, 5,57, 4,44,16, 4,55		4,49
38″	51, 4,22, 5,19,37,41,59,49,23		3,44, 1,49,16	
		1, 5,57, 1, 0,14,15,39		4,49
40″	51, 4,23,11,16,38,42,14, 5, 2		3,44, 1,54, 5	
		1, 5,56,57,16,12,21,34		4,49
42″	51, 4,24,17,13,35,58,26,26,36		3,44, 1,58,54	
		1, 5,56,53,32,10,22,40		4,49
44″	51, 4,25,23,10,29,30,36,49,16		3,44, 2, 3,43	
		1, 5,56,49,48, 8,18,57		4,49
46″	51, 4,26,29, 7,19,18,45, 8,13		3,44, 2, 8,32	
		1, 5,56,46, 4, 6,10,25		4,49
48″	51, 4,27,35, 4, 5,22,51,18,38		3,44, 2,13,21	
		1, 5,56,42,20, 3,57, 4		4,49
50″	51, 4,28,41, 0,47,42,55,15,42		3,44, 2,18,10	
		1, 5,56,38,36, 1,38,54		4,49
52″	51, 4,29,46,57,26,18,56,54,36		3,44, 2,22,59	
		1, 5,56,34,51,59,15,55		4,49
54″	51, 4,30,52,54, 1,10,56,10,31		3,44, 2,27,48	
		1, 5,56,31, 7,56,48, 7		4,49
56″	51, 4,31,58,50,32,18,52,58,38		3,44, 2,32,37	
		1, 5,56,27,23,54,15,30		4,49
58″	51, 4,33, 4,46,59,42,47,14, 8		3,44, 2,37,26	
		1, 5,56,23,39,51,38, 4		
60″	51, 4,34,10,43,23,22,38,52,12			
exact	51, 4,34,10,43,23,22,38,27,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°21′ 0″	51, 4,34,10,43,23,22,38,27,54			
		1, 5,56,19,55,48,53,21		
2″	51, 4,35,16,39,43,18,27,21,15		3,44, 2,47,13	
		1, 5,56,16,11,46, 6, 8		4,49
4″	51, 4,36,22,35,59,30,13,27,23		3,44, 2,52, 2	
		1, 5,56,12,27,43,14, 6		4,49
6″	51, 4,37,28,32,11,57,56,41,29		3,44, 2,56,51	
		1, 5,56, 8,43,40,17,15		4,49
8″	51, 4,38,34,28,20,41,36,58,44		3,44, 3, 1,40	
		1, 5,56, 4,59,37,15,35		4,49
10″	51, 4,39,40,24,25,41,14,14,19		3,44, 3, 6,29	
		1, 5,56, 1,15,34, 9, 6		4,49
12″	51, 4,40,46,20,26,56,48,23,25		3,44, 3,11,18	
		1, 5,55,57,31,30,57,48		4,49
14″	51, 4,41,52,16,24,28,19,21,13		3,44, 3,16, 7	
		1, 5,55,53,47,27,41,41		4,49
16″	51, 4,42,58,12,18,15,47, 2,54		3,44, 3,20,56	
		1, 5,55,50, 3,24,20,45		4,49
18″	51, 4,44, 4, 8, 8,19,11,23,39		3,44, 3,25,45	
		1, 5,55,46,19,20,55, 0		4,49
20″	51, 4,45,10, 3,54,38,32,18,39		3,44, 3,30,34	
		1, 5,55,42,35,17,24,26		4,49
22″	51, 4,46,15,59,37,13,49,43, 5		3,44, 3,35,23	
		1, 5,55,38,51,13,49, 3		4,49
24″	51, 4,47,21,55,16, 5, 3,32, 8		3,44, 3,40,12	
		1, 5,55,35, 7,10, 8,51		4,49
26″	51, 4,48,27,50,51,12,13,40,59		3,44, 3,45, 1	
		1, 5,55,31,23, 6,23,50		4,49
28″	51, 4,49,33,46,22,35,20, 4,49		3,44, 3,49,50	
		1, 5,55,27,39, 2,34, 0		4,49
30″	51, 4,50,39,41,50,14,22,38,49		3,44, 3,54,39	
		1, 5,55,23,54,58,39,21		4,49
32″	51, 4,51,45,37,14, 9,21,18,10		3,44, 3,59,28	
		1, 5,55,20,10,54,39,53		4,49
34″	51, 4,52,51,32,34,20,15,58, 3		3,44, 4, 4,17	
		1, 5,55,16,26,50,35,36		4,49
36″	51, 4,53,57,27,50,47, 6,33,39		3,44, 4, 9, 6	
		1, 5,55,12,42,46,26,30		4,49
38″	51, 4,55, 3,23, 3,29,53, 0, 9		3,44, 4,13,55	
		1, 5,55, 8,58,42,12,35		4,49
40″	51, 4,56, 9,18,12,28,35,12,44		3,44, 4,18,44	
		1, 5,55, 5,14,37,53,51		4,49
42″	51, 4,57,15,13,17,43,13, 6,35		3,44, 4,23,33	
		1, 5,55, 1,30,33,30,18		4,49
44″	51, 4,58,21, 8,19,13,46,36,53		3,44, 4,28,22	
		1, 5,54,57,46,29, 1,56		4,49
46″	51, 4,59,27, 3,17, 0,15,38,49		3,44, 4,33,11	
		1, 5,54,54, 2,24,28,45		4,49
48″	51, 5, 0,32,58,11, 2,40, 7,34		3,44, 4,38, 0	
		1, 5,54,50,18,19,50,45		4,49
50″	51, 5, 1,38,53, 1,20,59,58,19		3,44, 4,42,49	
		1, 5,54,46,34,15, 7,56		4,49
52″	51, 5, 2,44,47,47,55,15, 6,15		3,44, 4,47,38	
		1, 5,54,42,50,10,20,18		4,49
54″	51, 5, 3,50,42,30,45,25,26,33		3,44, 4,52,27	
		1, 5,54,39, 6, 5,27,51		4,49
56″	51, 5, 4,56,37, 9,51,30,54,24		3,44, 4,57,16	
		1, 5,54,35,22, 0,30,35		4,49
58″	51, 5, 6, 2,31,45,13,31,24,59		3,44, 5, 2, 5	
		1, 5,54,31,37,55,28,30		
60″	51, 5, 7, 8,26,16,51,26,53,29			
exact	51, 5, 7, 8,26,16,51,26,37, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°22′ 0″	51, 5, 7, 8,26,16,51,26,37, 7			
		1, 5,54,27,53,50,20, 2		
2″	51, 5, 8,14,20,44,45,16,57, 9		3,44, 5,11,48	
		1, 5,54,24, 9,45, 8,14		4,49
4″	51, 5, 9,20,15, 8,55, 2, 5,23		3,44, 5,16,37	
		1, 5,54,20,25,39,51,37		4,49
6″	51, 5,10,26, 9,29,20,41,57, 0		3,44, 5,21,26	
		1, 5,54,16,41,34,30,11		4,49
8″	51, 5,11,32, 3,46, 2,16,27,11		3,44, 5,26,15	
		1, 5,54,12,57,29, 3,56		4,49
10″	51, 5,12,37,57,58,59,45,31, 7		3,44, 5,31, 4	
		1, 5,54, 9,13,23,32,52		4,49
12″	51, 5,13,43,52, 8,13, 9, 3,59		3,44, 5,35,53	
		1, 5,54, 5,29,17,56,59		4,49
14″	51, 5,14,49,46,13,42,27, 0,58		3,44, 5,40,42	
		1, 5,54, 1,45,12,16,17		4,49
16″	51, 5,15,55,40,15,27,39,17,15		3,44, 5,45,31	
		1, 5,53,58, 1, 6,30,46		4,49
18″	51, 5,17, 1,34,13,28,45,48, 1		3,44, 5,50,20	
		1, 5,53,54,17, 0,40,26		4,49
20″	51, 5,18, 7,28, 7,45,46,28,27		3,44, 5,55, 9	
		1, 5,53,50,32,54,45,17		4,49
22″	51, 5,19,13,21,58,18,41,13,44		3,44, 5,59,58	
		1, 5,53,46,48,48,45,19		4,49
24″	51, 5,20,19,15,45, 7,29,59, 3		3,44, 6, 4,47	
		1, 5,53,43, 4,42,40,32		4,49
26″	51, 5,21,25, 9,28,12,12,39,35		3,44, 6, 9,36	
		1, 5,53,39,20,36,30,56		4,49
28″	51, 5,22,31, 3, 7,32,49,10,31		3,44, 6,14,25	
		1, 5,53,35,36,30,16,31		4,49
30″	51, 5,23,36,56,43, 9,19,27, 2		3,44, 6,19,14	
		1, 5,53,31,52,23,57,17		4,49
32″	51, 5,24,42,50,15, 1,43,24,19		3,44, 6,24, 3	
		1, 5,53,28, 8,17,33,14		4,49
34″	51, 5,25,48,43,43,10, 0,57,33		3,44, 6,28,52	
		1, 5,53,24,24,11, 4,22		4,49
36″	51, 5,26,54,37, 7,34,12, 1,55		3,44, 6,33,41	
		1, 5,53,20,40, 4,30,41		4,49
38″	51, 5,28, 0,30,28,14,16,32,36		3,44, 6,38,30	
		1, 5,53,16,55,57,52,11		4,49
40″	51, 5,29, 6,23,45,10,14,24,47		3,44, 6,43,19	
		1, 5,53,13,11,51, 8,52		4,49
42″	51, 5,30,12,16,58,22, 5,33,39		3,44, 6,48, 8	
		1, 5,53, 9,27,44,20,44		4,49
44″	51, 5,31,18,10, 7,49,49,54,23		3,44, 6,52,57	
		1, 5,53, 5,43,37,27,47		4,49
46″	51, 5,32,24, 3,13,33,27,22,10		3,44, 6,57,46	
		1, 5,53, 1,59,30,30, 1		4,49
48″	51, 5,33,29,56,15,32,57,52,11		3,44, 7, 2,35	
		1, 5,52,58,15,23,27,26		4,49
50″	51, 5,34,35,49,13,48,21,19,37		3,44, 7, 7,24	
		1, 5,52,54,31,16,20, 2		4,49
52″	51, 5,35,41,42, 8,19,37,39,39		3,44, 7,12,13	
		1, 5,52,50,47, 9, 7,49		4,49
54″	51, 5,36,47,34,59, 6,46,47,28		3,44, 7,17, 2	
		1, 5,52,47, 3, 1,50,47		4,49
56″	51, 5,37,53,27,46, 9,48,38,15		3,44, 7,21,51	
		1, 5,52,43,18,54,28,56		4,49
58″	51, 5,38,59,20,29,28,43, 7,11		3,44, 7,26,40	
		1, 5,52,39,34,47, 2,16		
60″	51, 5,40, 5,13, 9, 3,30, 9,27			
exact	51, 5,40, 5,13, 9, 3,30, 1,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°23′ 0″	51, 5,40, 5,13, 9, 3,30, 1,38			
		1, 5,52,35,50,39,30, 9		
2″	51, 5,41,11, 5,44,54, 9,31,47		3,44, 7,36,19	
		1, 5,52,32, 6,31,53,50		4,49
4″	51, 5,42,16,58,17, 0,41,25,37		3,44, 7,41, 8	
		1, 5,52,28,22,24,12,42		4,49
6″	51, 5,43,22,50,45,23, 5,38,19		3,44, 7,45,57	
		1, 5,52,24,38,16,26,45		4,49
8″	51, 5,44,28,43,10, 1,22, 5, 4		3,44, 7,50,46	
		1, 5,52,20,54, 8,35,59		4,49
10″	51, 5,45,34,35,30,55,30,41, 3		3,44, 7,55,35	
		1, 5,52,17,10, 0,40,24		4,49
12″	51, 5,46,40,27,48, 5,31,21,27		3,44, 8, 0,24	
		1, 5,52,13,25,52,40, 0		4,49
14″	51, 5,47,46,20, 1,31,24, 1,27		3,44, 8, 5,13	
		1, 5,52, 9,41,44,34,47		4,49
16″	51, 5,48,52,12,11,13, 8,36,14		3,44, 8,10, 2	
		1, 5,52, 5,57,36,24,45		4,49
18″	51, 5,49,58, 4,17,10,45, 0,59		3,44, 8,14,51	
		1, 5,52, 2,13,28, 9,54		4,49
20″	51, 5,51, 3,56,19,24,13,10,53		3,44, 8,19,40	
		1, 5,51,58,29,19,50,14		4,49
22″	51, 5,52, 9,48,17,53,33, 1, 7		3,44, 8,24,29	
		1, 5,51,54,45,11,25,45		4,49
24″	51, 5,53,15,40,12,38,44,26,52		3,44, 8,29,18	
		1, 5,51,51, 1, 2,56,27		4,49
26″	51, 5,54,21,32, 3,39,47,23,19		3,44, 8,34, 7	
		1, 5,51,47,16,54,22,20		4,49
28″	51, 5,55,27,23,50,56,41,45,39		3,44, 8,38,56	
		1, 5,51,43,32,45,43,24		4,49
30″	51, 5,56,33,15,34,29,27,29, 3		3,44, 8,43,45	
		1, 5,51,39,48,36,59,39		4,49
32″	51, 5,57,39, 7,14,18, 4,28,42		3,44, 8,48,34	
		1, 5,51,36, 4,28,11, 5		4,49
34″	51, 5,58,44,58,50,22,32,39,47		3,44, 8,53,23	
		1, 5,51,32,20,19,17,42		4,49
36″	51, 5,59,50,50,22,42,51,57,29		3,44, 8,58,12	
		1, 5,51,28,36,10,19,30		4,49
38″	51, 6, 0,56,41,51,19, 2,16,59		3,44, 9, 3, 1	
		1, 5,51,24,52, 1,16,29		4,49
40″	51, 6, 2, 2,33,16,11, 3,33,28		3,44, 9, 7,50	
		1, 5,51,21, 7,52, 8,39		4,49
42″	51, 6, 3, 8,24,37,18,55,42, 7		3,44, 9,12,39	
		1, 5,51,17,23,42,56, 0		4,49
44″	51, 6, 4,14,15,54,42,38,38, 7		3,44, 9,17,28	
		1, 5,51,13,39,33,38,32		4,49
46″	51, 6, 5,20, 7, 8,22,12,16,39		3,44, 9,22,17	
		1, 5,51, 9,55,24,16,15		4,49
48″	51, 6, 6,25,58,18,17,36,32,54		3,44, 9,27, 6	
		1, 5,51, 6,11,14,49, 9		4,49
50″	51, 6, 7,31,49,24,28,51,22, 3		3,44, 9,31,55	
		1, 5,51, 2,27, 5,17,14		4,49
52″	51, 6, 8,37,40,26,55,56,39,17		3,44, 9,36,44	
		1, 5,50,58,42,55,40,30		4,49
54″	51, 6, 9,43,31,25,38,52,19,47		3,44, 9,41,33	
		1, 5,50,54,58,45,58,57		4,49
56″	51, 6,10,49,22,20,37,38,18,44		3,44, 9,46,22	
		1, 5,50,51,14,36,12,35		4,49
58″	51, 6,11,55,13,11,52,14,31,19		3,44, 9,51,11	
		1, 5,50,47,30,26,21,24		
60″	51, 6,13, 1, 3,59,22,40,52,43			
exact	51, 6,13, 1, 3,59,22,40,54,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°24′ 0″	51, 6,13, 1, 3,59,22,40,54,26			
		1, 5,50,43,46,16,25,46		
2″	51, 6,14, 6,54,43, 8,57,20,12		3,44,10, 0,46	
		1, 5,50,40, 2, 6,25, 0		4,49
4″	51, 6,15,12,45,23,11, 3,45,12		3,44,10, 5,35	
		1, 5,50,36,17,56,19,25		4,49
6″	51, 6,16,18,35,59,29, 0, 4,37		3,44,10,10,24	
		1, 5,50,32,33,46, 9, 1		4,49
8″	51, 6,17,24,26,32, 2,46,13,38		3,44,10,15,13	
		1, 5,50,28,49,35,53,48		4,49
10″	51, 6,18,30,17, 0,52,22, 7,26		3,44,10,20, 2	
		1, 5,50,25, 5,25,33,46		4,49
12″	51, 6,19,36, 7,25,57,47,41,12		3,44,10,24,51	
		1, 5,50,21,21,15, 8,55		4,49
14″	51, 6,20,41,57,47,19, 2,50, 7		3,44,10,29,40	
		1, 5,50,17,37, 4,39,15		4,49
16″	51, 6,21,47,48, 4,56, 7,29,22		3,44,10,34,29	
		1, 5,50,13,52,54, 4,46		4,49
18″	51, 6,22,53,38,18,49, 1,34, 8		3,44,10,39,18	
		1, 5,50,10, 8,43,25,28		4,49
20″	51, 6,23,59,28,28,57,44,59,36		3,44,10,44, 7	
		1, 5,50, 6,24,32,41,21		4,49
22″	51, 6,25, 5,18,35,22,17,40,57		3,44,10,48,56	
		1, 5,50, 2,40,21,52,25		4,49
24″	51, 6,26,11, 8,38, 2,39,33,22		3,44,10,53,45	
		1, 5,49,58,56,10,58,40		4,49
26″	51, 6,27,16,58,36,58,50,32, 2		3,44,10,58,34	
		1, 5,49,55,12, 0, 0, 6		4,49
28″	51, 6,28,22,48,32,10,50,32, 8		3,44,11, 3,23	
		1, 5,49,51,27,48,56,43		4,49
30″	51, 6,29,28,38,23,38,39,28,51		3,44,11, 8,12	
		1, 5,49,47,43,37,48,31		4,49
32″	51, 6,30,34,28,11,22,17,17,22		3,44,11,13, 1	
		1, 5,49,43,59,26,35,30		4,49
34″	51, 6,31,40,17,55,21,43,52,52		3,44,11,17,50	
		1, 5,49,40,15,15,17,40		4,49
36″	51, 6,32,46, 7,35,36,59,10,32		3,44,11,22,39	
		1, 5,49,36,31, 3,55, 1		4,49
38″	51, 6,33,51,57,12, 8, 3, 5,33		3,44,11,27,28	
		1, 5,49,32,46,52,27,33		4,49
40″	51, 6,34,57,46,44,54,55,33, 6		3,44,11,32,17	
		1, 5,49,29, 2,40,55,16		4,49
42″	51, 6,36, 3,36,13,57,36,28,22		3,44,11,37, 6	
		1, 5,49,25,18,29,18,10		4,49
44″	51, 6,37, 9,25,39,16, 5,46,32		3,44,11,41,55	
		1, 5,49,21,34,17,36,15		4,49
46″	51, 6,38,15,15, 0,50,23,22,47		3,44,11,46,44	
		1, 5,49,17,50, 5,49,31		4,49
48″	51, 6,39,21, 4,18,40,29,12,18		3,44,11,51,33	
		1, 5,49,14, 5,53,57,58		4,49
50″	51, 6,40,26,53,32,46,23,10,16		3,44,11,56,22	
		1, 5,49,10,21,42, 1,36		4,49
52″	51, 6,41,32,42,43, 8, 5,11,52		3,44,12, 1,11	
		1, 5,49, 6,37,30, 0,25		4,49
54″	51, 6,42,38,31,49,45,35,12,17		3,44,12, 6, 0	
		1, 5,49, 2,53,17,54,25		4,49
56″	51, 6,43,44,20,52,38,53, 6,42		3,44,12,10,49	
		1, 5,48,59, 9, 5,43,36		4,49
58″	51, 6,44,50, 9,51,47,58,50,18		3,44,12,15,38	
		1, 5,48,55,24,53,27,58		
60″	51, 6,45,55,58,47,12,52,18,16			
exact	51, 6,45,55,58,47,12,52,30, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°25′ 0″	51, 6,45,55,58,47,12,52,30, 0	1, 5,48,51,40,41, 8,56		
2″	51, 6,47, 1,47,38,53,33,38,56	1, 5,48,47,56,28,43,47	3,44,12,25, 9	4,49
4″	51, 6,48, 7,36,26,50, 2,22,43	1, 5,48,44,12,16,13,49	3,44,12,29,58	4,49
6″	51, 6,49,13,25,11, 2,18,36,32	1, 5,48,40,28, 3,39, 2	3,44,12,34,47	4,49
8″	51, 6,50,19,13,51,30,22,15,34	1, 5,48,36,43,50,59,26	3,44,12,39,36	4,49
10″	51, 6,51,25, 2,28,14,13,15, 0	1, 5,48,32,59,38,15, 1	3,44,12,44,25	4,49
12″	51, 6,52,30,51, 1,13,51,30, 1	1, 5,48,29,15,25,25,47	3,44,12,49,14	4,49
14″	51, 6,53,36,39,30,29,16,55,48	1, 5,48,25,31,12,31,44	3,44,12,54, 3	4,49
16″	51, 6,54,42,27,56, 0,29,27,32	1, 5,48,21,46,59,32,52	3,44,12,58,52	4,49
18″	51, 6,55,48,16,17,47,29, 0,24	1, 5,48,18, 2,46,29,11	3,44,13, 3,41	4,49
20″	51, 6,56,54, 4,35,50,15,29,35	1, 5,48,14,18,33,20,41	3,44,13, 8,30	4,49
22″	51, 6,57,59,52,50, 8,48,50,16	1, 5,48,10,34,20, 7,22	3,44,13,13,19	4,49
24″	51, 6,59, 5,41, 0,43, 8,57,38	1, 5,48, 6,50, 6,49,14	3,44,13,18, 8	4,49
26″	51, 7, 0,11,29, 7,33,15,46,52	1, 5,48, 3, 5,53,26,17	3,44,13,22,57	4,49
28″	51, 7, 1,17,17,10,39, 9,13, 9	1, 5,47,59,21,39,58,31	3,44,13,27,46	4,49
30″	51, 7, 2,23, 5,10, 0,49,11,40	1, 5,47,55,37,26,25,56	3,44,13,32,35	4,49
32″	51, 7, 3,28,53, 5,38,15,37,36	1, 5,47,51,53,12,48,32	3,44,13,37,24	4,49
34″	51, 7, 4,34,40,57,31,28,26, 8	1, 5,47,48, 8,59, 6,19	3,44,13,42,13	4,49
36″	51, 7, 5,40,28,45,40,27,32,27	1, 5,47,44,24,45,19,17	3,44,13,47, 2	4,49
38″	51, 7, 6,46,16,30, 5,12,51,44	1, 5,47,40,40,31,27,26	3,44,13,51,51	4,49
40″	51, 7, 7,52, 4,10,45,44,19,10	1, 5,47,36,56,17,30,46	3,44,13,56,40	4,49
42″	51, 7, 8,57,51,47,42, 1,49,56	1, 5,47,33,12, 3,29,17	3,44,14, 1,29	4,49
44″	51, 7,10, 3,39,20,54, 5,19,13	1, 5,47,29,27,49,22,59	3,44,14, 6,18	4,49
46″	51, 7,11, 9,26,50,21,54,42,12	1, 5,47,25,43,35,11,52	3,44,14,11, 7	4,49
48″	51, 7,12,15,14,16, 5,29,54, 4	1, 5,47,21,59,20,55,56	3,44,14,15,56	4,49
50″	51, 7,13,21, 1,38, 4,50,50, 0	1, 5,47,18,15, 6,35,11	3,44,14,20,45	4,49
52″	51, 7,14,26,48,56,19,57,25,11	1, 5,47,14,30,52, 9,37	3,44,14,25,34	4,49
54″	51, 7,15,32,36,10,50,49,34,48	1, 5,47,10,46,37,39,14	3,44,14,30,23	4,49
56″	51, 7,16,38,23,21,37,27,14, 2	1, 5,47, 7, 2,23, 4, 2	3,44,14,35,12	4,49
58″	51, 7,17,44,10,28,39,50,18, 4	1, 5,47, 3,18, 8,24, 1	3,44,14,40, 1	
60″	51, 7,18,49,57,31,57,58,42, 5			
exact	51, 7,18,49,57,31,57,59, 4,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°26′ 0″	51, 7,18,49,57,31,57,59, 4,14			
		1, 5,46,59,33,53,41,41		
2″	51, 7,19,55,44,31,31,52,45,55		3,44,14,49,28	
		1, 5,46,55,49,38,52,13		4,49
4″	51, 7,21, 1,31,27,21,31,38, 8		3,44,14,54,17	
		1, 5,46,52, 5,23,57,56		4,49
6″	51, 7,22, 7,18,19,26,55,36, 4		3,44,14,59, 6	
		1, 5,46,48,21, 8,58,50		4,49
8″	51, 7,23,13, 5, 7,48, 4,34,54		3,44,15, 3,55	
		1, 5,46,44,36,53,54,55		4,49
10″	51, 7,24,18,51,52,24,58,29,49		3,44,15, 8,44	
		1, 5,46,40,52,38,46,11		4,49
12″	51, 7,25,24,38,33,17,37,16, 0		3,44,15,13,33	
		1, 5,46,37, 8,23,32,38		4,49
14″	51, 7,26,30,25,10,26, 0,48,38		3,44,15,18,22	
		1, 5,46,33,24, 8,14,16		4,49
16″	51, 7,27,36,11,43,50, 9, 2,54		3,44,15,23,11	
		1, 5,46,29,39,52,51, 5		4,49
18″	51, 7,28,41,58,13,30, 1,53,59		3,44,15,28, 0	
		1, 5,46,25,55,37,23, 5		4,49
20″	51, 7,29,47,44,39,25,39,17, 4		3,44,15,32,49	
		1, 5,46,22,11,21,50,16		4,49
22″	51, 7,30,53,31, 1,37, 1, 7,20		3,44,15,37,38	
		1, 5,46,18,27, 6,12,38		4,49
24″	51, 7,31,59,17,20, 4, 7,19,58		3,44,15,42,27	
		1, 5,46,14,42,50,30,11		4,49
26″	51, 7,33, 5, 3,34,46,57,50, 9		3,44,15,47,16	
		1, 5,46,10,58,34,42,55		4,49
28″	51, 7,34,10,49,45,45,32,33, 4		3,44,15,52, 5	
		1, 5,46, 7,14,18,50,50		4,49
30″	51, 7,35,16,35,52,59,51,23,54		3,44,15,56,54	
		1, 5,46, 3,30, 2,53,56		4,49
32″	51, 7,36,22,21,56,29,54,17,50		3,44,16, 1,43	
		1, 5,45,59,45,46,52,13		4,49
34″	51, 7,37,28, 7,56,15,41,10, 3		3,44,16, 6,32	
		1, 5,45,56, 1,30,45,41		4,49
36″	51, 7,38,33,53,52,17,11,55,44		3,44,16,11,21	
		1, 5,45,52,17,14,34,20		4,49
38″	51, 7,39,39,39,44,34,26,30, 4		3,44,16,16,10	
		1, 5,45,48,32,58,18,10		4,49
40″	51, 7,40,45,25,33, 7,24,48,14		3,44,16,20,59	
		1, 5,45,44,48,41,57,11		4,49
42″	51, 7,41,51,11,17,56, 6,45,25		3,44,16,25,48	
		1, 5,45,41, 4,25,31,23		4,49
44″	51, 7,42,56,56,59, 0,32,16,48		3,44,16,30,37	
		1, 5,45,37,20, 9, 0,46		4,49
46″	51, 7,44, 2,42,36,20,41,17,34		3,44,16,35,26	
		1, 5,45,33,35,52,25,20		4,49
48″	51, 7,45, 8,28, 9,56,33,42,54		3,44,16,40,15	
		1, 5,45,29,51,35,45, 5		4,49
50″	51, 7,46,14,13,39,48, 9,27,59		3,44,16,45, 4	
		1, 5,45,26, 7,19, 0, 1		4,49
52″	51, 7,47,19,59, 5,55,28,28, 0		3,44,16,49,53	
		1, 5,45,22,23, 2,10, 8		4,49
54″	51, 7,48,25,44,28,18,30,38, 8		3,44,16,54,42	
		1, 5,45,18,38,45,15,26		4,49
56″	51, 7,49,31,29,46,57,15,53,34		3,44,16,59,31	
		1, 5,45,14,54,28,15,55		4,49
58″	51, 7,50,37,15, 1,51,44, 9,29		3,44,17, 4,20	
		1, 5,45,11,10,11,11,35		
60″	51, 7,51,43, 0,13, 1,55,21, 4			
exact	51, 7,51,43, 0,13, 1,55,54,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°27′ 0″	51, 7,51,43, 0,13, 1,55,54,31			
		1, 5,45, 7,25,54, 6, 4		
2″	51, 7,52,48,45,20,27,50, 0,35		3,44,17,13,42	
		1, 5,45, 3,41,36,52,22		4,48
4″	51, 7,53,54,30,24, 9,26,52,57		3,44,17,18,30	
		1, 5,44,59,57,19,33,52		4,48
6″	51, 7,55, 0,15,24, 6,46,26,49		3,44,17,23,18	
		1, 5,44,56,13, 2,10,34		4,48
8″	51, 7,56, 6, 0,20,19,48,37,23		3,44,17,28, 6	
		1, 5,44,52,28,44,42,28		4,48
10″	51, 7,57,11,45,12,48,33,19,51		3,44,17,32,54	
		1, 5,44,48,44,27, 9,34		4,48
12″	51, 7,58,17,30, 1,33, 0,29,25		3,44,17,37,42	
		1, 5,44,45, 0, 9,31,52		4,48
14″	51, 7,59,23,14,46,33,10, 1,17		3,44,17,42,30	
		1, 5,44,41,15,51,49,22		4,48
16″	51, 8, 0,28,59,27,49, 1,50,39		3,44,17,47,18	
		1, 5,44,37,31,34, 2, 4		4,48
18″	51, 8, 1,34,44, 5,20,35,52,43		3,44,17,52, 6	
		1, 5,44,33,47,16, 9,58		4,48
20″	51, 8, 2,40,28,39, 7,52, 2,41		3,44,17,56,54	
		1, 5,44,30, 2,58,13, 4		4,48
22″	51, 8, 3,46,13, 9,10,50,15,45		3,44,18, 1,42	
		1, 5,44,26,18,40,11,22		4,48
24″	51, 8, 4,51,57,35,29,30,27, 7		3,44,18, 6,30	
		1, 5,44,22,34,22, 4,52		4,48
26″	51, 8, 5,57,41,58, 3,52,31,59		3,44,18,11,18	
		1, 5,44,18,50, 3,53,34		4,48
28″	51, 8, 7, 3,26,16,53,56,25,33		3,44,18,16, 6	
		1, 5,44,15, 5,45,37,28		4,48
30″	51, 8, 8, 9,10,31,59,42, 3, 1		3,44,18,20,54	
		1, 5,44,11,21,27,16,34		4,48
32″	51, 8, 9,14,54,43,21, 9,19,35		3,44,18,25,42	
		1, 5,44, 7,37, 8,50,52		4,48
34″	51, 8,10,20,38,50,58,18,10,27		3,44,18,30,30	
		1, 5,44, 3,52,50,20,22		4,48
36″	51, 8,11,26,22,54,51, 8,30,49		3,44,18,35,18	
		1, 5,44, 0, 8,31,45, 4		4,48
38″	51, 8,12,32, 6,54,59,40,15,53		3,44,18,40, 6	
		1, 5,43,56,24,13, 4,58		4,48
40″	51, 8,13,37,50,51,23,53,20,51		3,44,18,44,54	
		1, 5,43,52,39,54,20, 4		4,48
42″	51, 8,14,43,34,44, 3,47,40,55		3,44,18,49,42	
		1, 5,43,48,55,35,30,22		4,48
44″	51, 8,15,49,18,32,59,23,11,17		3,44,18,54,30	
		1, 5,43,45,11,16,35,52		4,48
46″	51, 8,16,55, 2,18,10,39,47, 9		3,44,18,59,18	
		1, 5,43,41,26,57,36,34		4,48
48″	51, 8,18, 0,45,59,37,37,23,43		3,44,19, 4, 6	
		1, 5,43,37,42,38,32,28		4,48
50″	51, 8,19, 6,29,37,20,15,56,11		3,44,19, 8,54	
		1, 5,43,33,58,19,23,34		4,48
52″	51, 8,20,12,13,11,18,35,19,45		3,44,19,13,42	
		1, 5,43,30,14, 0, 9,52		4,48
54″	51, 8,21,17,56,41,32,35,29,37		3,44,19,18,30	
		1, 5,43,26,29,40,51,22		4,48
56″	51, 8,22,23,40, 8, 2,16,20,59		3,44,19,23,18	
		1, 5,43,22,45,21,28, 4		4,48
58″	51, 8,23,29,23,30,47,37,49, 3		3,44,19,28, 6	
		1, 5,43,19, 1, 1,59,58		
60″	51, 8,24,35, 6,49,48,39,49, 1			
exact	51, 8,24,35, 6,49,48,39,19,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°28′ 0″	51, 8,24,35, 6,49,48,39,19,43			
		1, 5,43,15,16,42,24, 8		
2″	51, 8,25,40,50, 5, 5,21,43,51		3,44,19,37,53	
		1, 5,43,11,32,22,46,15		4,48
4″	51, 8,26,46,33,16,37,44,30, 6		3,44,19,42,41	
		1, 5,43, 7,48, 3, 3,34		4,48
6″	51, 8,27,52,16,24,25,47,33,40		3,44,19,47,29	
		1, 5,43, 4, 3,43,16, 5		4,48
8″	51, 8,28,57,59,28,29,30,49,45		3,44,19,52,17	
		1, 5,43, 0,19,23,23,48		4,48
10″	51, 8,30, 3,42,28,48,54,13,33		3,44,19,57, 5	
		1, 5,42,56,35, 3,26,43		4,48
12″	51, 8,31, 9,25,25,23,57,40,16		3,44,20, 1,53	
		1, 5,42,52,50,43,24,50		4,48
14″	51, 8,32,15, 8,18,14,41, 5, 6		3,44,20, 6,41	
		1, 5,42,49, 6,23,18, 9		4,48
16″	51, 8,33,20,51, 7,21, 4,23,15		3,44,20,11,29	
		1, 5,42,45,22, 3, 6,40		4,48
18″	51, 8,34,26,33,52,43, 7,29,55		3,44,20,16,17	
		1, 5,42,41,37,42,50,23		4,48
20″	51, 8,35,32,16,34,20,50,20,18		3,44,20,21, 5	
		1, 5,42,37,53,22,29,18		4,48
22″	51, 8,36,37,59,12,14,12,49,36		3,44,20,25,53	
		1, 5,42,34, 9, 2, 3,25		4,48
24″	51, 8,37,43,41,46,23,14,53, 1		3,44,20,30,41	
		1, 5,42,30,24,41,32,44		4,48
26″	51, 8,38,49,24,16,47,56,25,45		3,44,20,35,29	
		1, 5,42,26,40,20,57,15		4,48
28″	51, 8,39,55, 6,43,28,17,23, 0		3,44,20,40,17	
		1, 5,42,22,56, 0,16,58		4,48
30″	51, 8,41, 0,49, 6,24,17,39,58		3,44,20,45, 5	
		1, 5,42,19,11,39,31,53		4,48
32″	51, 8,42, 6,31,25,35,57,11,51		3,44,20,49,53	
		1, 5,42,15,27,18,42, 0		4,48
34″	51, 8,43,12,13,41, 3,15,53,51		3,44,20,54,41	
		1, 5,42,11,42,57,47,19		4,48
36″	51, 8,44,17,55,52,46,13,41,10		3,44,20,59,29	
		1, 5,42, 7,58,36,47,50		4,48
38″	51, 8,45,23,38, 0,44,50,29, 0		3,44,21, 4,17	
		1, 5,42, 4,14,15,43,33		4,48
40″	51, 8,46,29,20, 4,59, 6,12,33		3,44,21, 9, 5	
		1, 5,42, 0,29,54,34,28		4,48
42″	51, 8,47,35, 2, 5,29, 0,47, 1		3,44,21,13,53	
		1, 5,41,56,45,33,20,35		4,48
44″	51, 8,48,40,44, 2,14,34, 7,36		3,44,21,18,41	
		1, 5,41,53, 1,12, 1,54		4,48
46″	51, 8,49,46,25,55,15,46, 9,30		3,44,21,23,29	
		1, 5,41,49,16,50,38,25		4,48
48″	51, 8,50,52, 7,44,32,36,47,55		3,44,21,28,17	
		1, 5,41,45,32,29,10, 8		4,48
50″	51, 8,51,57,49,30, 5, 5,58, 3		3,44,21,33, 5	
		1, 5,41,41,48, 7,37, 3		4,48
52″	51, 8,53, 3,31,11,53,13,35, 6		3,44,21,37,53	
		1, 5,41,38, 3,45,59,10		4,48
54″	51, 8,54, 9,12,49,56,59,34,16		3,44,21,42,41	
		1, 5,41,34,19,24,16,29		4,48
56″	51, 8,55,14,54,24,16,23,50,45		3,44,21,47,29	
		1, 5,41,30,35, 2,29, 0		4,48
58″	51, 8,56,20,35,54,51,26,19,45		3,44,21,52,17	
		1, 5,41,26,50,40,36,43		
60″	51, 8,57,26,17,21,42, 6,56,28			
exact	51, 8,57,26,17,21,42, 6,40,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°29′ 0″	51, 8,57,26,17,21,42, 6,40,11			
		1, 5,41,23, 6,18,37,57		
2″	51, 8,58,31,58,44,48,25,18, 8		3,44,22, 1,59	
		1, 5,41,19,21,56,35,58		4,48
4″	51, 8,59,37,40, 4,10,21,54, 6		3,44,22, 6,47	
		1, 5,41,15,37,34,29,11		4,48
6″	51, 9, 0,43,21,19,47,56,23,17		3,44,22,11,35	
		1, 5,41,11,53,12,17,36		4,48
8″	51, 9, 1,49, 2,31,41, 8,40,53		3,44,22,16,23	
		1, 5,41, 8, 8,50, 1,13		4,48
10″	51, 9, 2,54,43,39,49,58,42, 6		3,44,22,21,11	
		1, 5,41, 4,24,27,40, 2		4,48
12″	51, 9, 4, 0,24,44,14,26,22, 8		3,44,22,25,59	
		1, 5,41, 0,40, 5,14, 3		4,48
14″	51, 9, 5, 6, 5,44,54,31,36,11		3,44,22,30,47	
		1, 5,40,56,55,42,43,16		4,48
16″	51, 9, 6,11,46,41,50,14,19,27		3,44,22,35,35	
		1, 5,40,53,11,20, 7,41		4,48
18″	51, 9, 7,17,27,35, 1,34,27, 8		3,44,22,40,23	
		1, 5,40,49,26,57,27,18		4,48
20″	51, 9, 8,23, 8,24,28,31,54,26		3,44,22,45,11	
		1, 5,40,45,42,34,42, 7		4,48
22″	51, 9, 9,28,49,10,11, 6,36,33		3,44,22,49,59	
		1, 5,40,41,58,11,52, 8		4,48
24″	51, 9,10,34,29,52, 9,18,28,41		3,44,22,54,47	
		1, 5,40,38,13,48,57,21		4,48
26″	51, 9,11,40,10,30,23, 7,26, 2		3,44,22,59,35	
		1, 5,40,34,29,25,57,46		4,48
28″	51, 9,12,45,51, 4,52,33,23,48		3,44,23, 4,23	
		1, 5,40,30,45, 2,53,23		4,48
30″	51, 9,13,51,31,35,37,36,17,11		3,44,23, 9,11	
		1, 5,40,27, 0,39,44,12		4,48
32″	51, 9,14,57,12, 2,38,16, 1,23		3,44,23,13,59	
		1, 5,40,23,16,16,30,13		4,48
34″	51, 9,16, 2,52,25,54,32,31,36		3,44,23,18,47	
		1, 5,40,19,31,53,11,26		4,48
36″	51, 9,17, 8,32,45,26,25,43, 2		3,44,23,23,35	
		1, 5,40,15,47,29,47,51		4,48
38″	51, 9,18,14,13, 1,13,55,30,53		3,44,23,28,23	
		1, 5,40,12, 3, 6,19,28		4,48
40″	51, 9,19,19,53,13,17, 1,50,21		3,44,23,33,11	
		1, 5,40, 8,18,42,46,17		4,48
42″	51, 9,20,25,33,21,35,44,36,38		3,44,23,37,59	
		1, 5,40, 4,34,19, 8,18		4,48
44″	51, 9,21,31,13,26,10, 3,44,56		3,44,23,42,47	
		1, 5,40, 0,49,55,25,31		4,48
46″	51, 9,22,36,53,26,59,59,10,27		3,44,23,47,35	
		1, 5,39,57, 5,31,37,56		4,48
48″	51, 9,23,42,33,24, 5,30,48,23		3,44,23,52,23	
		1, 5,39,53,21, 7,45,33		4,48
50″	51, 9,24,48,13,17,26,38,33,56		3,44,23,57,11	
		1, 5,39,49,36,43,48,22		4,48
52″	51, 9,25,53,53, 7, 3,22,22,18		3,44,24, 1,59	
		1, 5,39,45,52,19,46,23		4,48
54″	51, 9,26,59,32,52,55,42, 8,41		3,44,24, 6,47	
		1, 5,39,42, 7,55,39,36		4,48
56″	51, 9,28, 5,12,35, 3,37,48,17		3,44,24,11,35	
		1, 5,39,38,23,31,28, 1		4,48
58″	51, 9,29,10,52,13,27, 9,16,18		3,44,24,16,23	
		1, 5,39,34,39, 7,11,38		
60″	51, 9,30,16,31,48, 6,16,27,56			
exact	51, 9,30,16,31,48, 6,16,17,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°30′ 0″	51, 9,30,16,31,48, 6,16,17,46			
		1, 5,39,30,54,42,49,33		
2″	51, 9,31,22,11,19, 0,59, 7,19		3,44,24,26, 2	
		1, 5,39,27,10,18,23,31		4,48
4″	51, 9,32,27,50,46,11,17,30,50		3,44,24,30,50	
		1, 5,39,23,25,53,52,41		4,48
6″	51, 9,33,33,30, 9,37,11,23,31		3,44,24,35,38	
		1, 5,39,19,41,29,17, 3		4,48
8″	51, 9,34,39, 9,29,18,40,40,34		3,44,24,40,26	
		1, 5,39,15,57, 4,36,37		4,48
10″	51, 9,35,44,48,45,15,45,17,11		3,44,24,45,14	
		1, 5,39,12,12,39,51,23		4,48
12″	51, 9,36,50,27,57,28,25, 8,34		3,44,24,50, 2	
		1, 5,39, 8,28,15, 1,21		4,48
14″	51, 9,37,56, 7, 5,56,40, 9,55		3,44,24,54,50	
		1, 5,39, 4,43,50, 6,31		4,48
16″	51, 9,39, 1,46,10,40,30,16,26		3,44,24,59,38	
		1, 5,39, 0,59,25, 6,53		4,48
18″	51, 9,40, 7,25,11,39,55,23,19		3,44,25, 4,26	
		1, 5,38,57,15, 0, 2,27		4,48
20″	51, 9,41,13, 4, 8,54,55,25,46		3,44,25, 9,14	
		1, 5,38,53,30,34,53,13		4,48
22″	51, 9,42,18,43, 2,25,30,18,59		3,44,25,14, 2	
		1, 5,38,49,46, 9,39,11		4,48
24″	51, 9,43,24,21,52,11,39,58,10		3,44,25,18,50	
		1, 5,38,46, 1,44,20,21		4,48
26″	51, 9,44,30, 0,38,13,24,18,31		3,44,25,23,38	
		1, 5,38,42,17,18,56,43		4,48
28″	51, 9,45,35,39,20,30,43,15,14		3,44,25,28,26	
		1, 5,38,38,32,53,28,17		4,48
30″	51, 9,46,41,17,59, 3,36,43,31		3,44,25,33,14	
		1, 5,38,34,48,27,55, 3		4,48
32″	51, 9,47,46,56,33,52, 4,38,34		3,44,25,38, 2	
		1, 5,38,31, 4, 2,17, 1		4,48
34″	51, 9,48,52,35, 4,56, 6,55,35		3,44,25,42,50	
		1, 5,38,27,19,36,34,11		4,48
36″	51, 9,49,58,13,32,15,43,29,46		3,44,25,47,38	
		1, 5,38,23,35,10,46,33		4,48
38″	51, 9,51, 3,51,55,50,54,16,19		3,44,25,52,26	
		1, 5,38,19,50,44,54, 7		4,48
40″	51, 9,52, 9,30,15,41,39,10,26		3,44,25,57,14	
		1, 5,38,16, 6,18,56,53		4,48
42″	51, 9,53,15, 8,31,47,58, 7,19		3,44,26, 2, 2	
		1, 5,38,12,21,52,54,51		4,48
44″	51, 9,54,20,46,44, 9,51, 2,10		3,44,26, 6,50	
		1, 5,38, 8,37,26,48, 1		4,48
46″	51, 9,55,26,24,52,47,17,50,11		3,44,26,11,38	
		1, 5,38, 4,53, 0,36,23		4,48
48″	51, 9,56,32, 2,57,40,18,26,34		3,44,26,16,26	
		1, 5,38, 1, 8,34,19,57		4,48
50″	51, 9,57,37,40,58,48,52,46,31		3,44,26,21,14	
		1, 5,37,57,24, 7,58,43		4,48
52″	51, 9,58,43,18,56,13, 0,45,14		3,44,26,26, 2	
		1, 5,37,53,39,41,32,41		4,48
54″	51, 9,59,48,56,49,52,42,17,55		3,44,26,30,50	
		1, 5,37,49,55,15, 1,51		4,48
56″	51,10, 0,54,34,39,47,57,19,46		3,44,26,35,38	
		1, 5,37,46,10,48,26,13		4,48
58″	51,10, 2, 0,12,25,58,45,45,59		3,44,26,40,26	
		1, 5,37,42,26,21,45,47		
60″	51,10, 3, 5,50, 8,25, 7,31,46			
exact	51,10, 3, 5,50, 8,25, 7,35,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°31′ 0″	51,10, 3, 5,50, 8,25, 7,35,49			
		1, 5,37,38,41,55, 0,59		
2″	51,10, 4,11,27,47, 7, 2,36,48		3,44,26,50, 0	
		1, 5,37,34,57,28,10,59		4,48
4″	51,10, 5,17, 5,22, 4,30,47,47		3,44,26,54,48	
		1, 5,37,31,13, 1,16,11		4,48
6″	51,10, 6,22,42,53,17,32, 3,58		3,44,26,59,36	
		1, 5,37,27,28,34,16,35		4,48
8″	51,10, 7,28,20,20,46, 6,20,33		3,44,27, 4,24	
		1, 5,37,23,44, 7,12,11		4,48
10″	51,10, 8,33,57,44,30,13,32,44		3,44,27, 9,12	
		1, 5,37,19,59,40, 2,59		4,48
12″	51,10, 9,39,35, 4,29,53,35,43		3,44,27,14, 0	
		1, 5,37,16,15,12,48,59		4,48
14″	51,10,10,45,12,20,45, 6,24,42		3,44,27,18,48	
		1, 5,37,12,30,45,30,11		4,48
16″	51,10,11,50,49,33,15,51,54,53		3,44,27,23,36	
		1, 5,37, 8,46,18, 6,35		4,48
18″	51,10,12,56,26,42, 2,10, 1,28		3,44,27,28,24	
		1, 5,37, 5, 1,50,38,11		4,48
20″	51,10,14, 2, 3,47, 4, 0,39,39		3,44,27,33,12	
		1, 5,37, 1,17,23, 4,59		4,48
22″	51,10,15, 7,40,48,21,23,44,38		3,44,27,38, 0	
		1, 5,36,57,32,55,26,59		4,48
24″	51,10,16,13,17,45,54,19,11,37		3,44,27,42,48	
		1, 5,36,53,48,27,44,11		4,48
26″	51,10,17,18,54,39,42,46,55,48		3,44,27,47,36	
		1, 5,36,50, 3,59,56,35		4,48
28″	51,10,18,24,31,29,46,46,52,23		3,44,27,52,24	
		1, 5,36,46,19,32, 4,11		4,48
30″	51,10,19,30, 8,16, 6,18,56,34		3,44,27,57,12	
		1, 5,36,42,35, 4, 6,59		4,48
32″	51,10,20,35,44,58,41,23, 3,33		3,44,28, 2, 0	
		1, 5,36,38,50,36, 4,59		4,48
34″	51,10,21,41,21,37,31,59, 8,32		3,44,28, 6,48	
		1, 5,36,35, 6, 7,58,11		4,48
36″	51,10,22,46,58,12,38, 7, 6,43		3,44,28,11,36	
		1, 5,36,31,21,39,46,35		4,48
38″	51,10,23,52,34,43,59,46,53,18		3,44,28,16,24	
		1, 5,36,27,37,11,30,11		4,48
40″	51,10,24,58,11,11,36,58,23,29		3,44,28,21,12	
		1, 5,36,23,52,43, 8,59		4,48
42″	51,10,26, 3,47,35,29,41,32,28		3,44,28,26, 0	
		1, 5,36,20, 8,14,42,59		4,48
44″	51,10,27, 9,23,55,37,56,15,27		3,44,28,30,48	
		1, 5,36,16,23,46,12,11		4,48
46″	51,10,28,15, 0,12, 1,42,27,38		3,44,28,35,36	
		1, 5,36,12,39,17,36,35		4,48
48″	51,10,29,20,36,24,41, 0, 4,13		3,44,28,40,24	
		1, 5,36, 8,54,48,56,11		4,48
50″	51,10,30,26,12,33,35,49, 0,24		3,44,28,45,12	
		1, 5,36, 5,10,20,10,59		4,48
52″	51,10,31,31,48,38,46, 9,11,23		3,44,28,50, 0	
		1, 5,36, 1,25,51,20,59		4,48
54″	51,10,32,37,24,40,12, 0,32,22		3,44,28,54,48	
		1, 5,35,57,41,22,26,11		4,48
56″	51,10,33,43, 0,37,53,22,58,33		3,44,28,59,36	
		1, 5,35,53,56,53,26,35		4,48
58″	51,10,34,48,36,31,50,16,25, 8		3,44,29, 4,24	
		1, 5,35,50,12,24,22,11		
60″	51,10,35,54,12,22, 2,40,47,19			
exact	51,10,35,54,12,22, 2,40,59,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°32′ 0″	51,10,35,54,12,22, 2,40,59,14			
		1, 5,35,46,27,55,14,18		
2″	51,10,36,59,48, 8,30,36,13,32		3,44,29,13,54	
		1, 5,35,42,43,26, 0,24		4,48
4″	51,10,38, 5,23,51,14, 2,13,56		3,44,29,18,42	
		1, 5,35,38,58,56,41,42		4,48
6″	51,10,39,10,59,30,12,58,55,38		3,44,29,23,30	
		1, 5,35,35,14,27,18,12		4,48
8″	51,10,40,16,35, 5,27,26,13,50		3,44,29,28,18	
		1, 5,35,31,29,57,49,54		4,48
10″	51,10,41,22,10,36,57,24, 3,44		3,44,29,33, 6	
		1, 5,35,27,45,28,16,48		4,48
12″	51,10,42,27,46, 4,42,52,20,32		3,44,29,37,54	
		1, 5,35,24, 0,58,38,54		4,48
14″	51,10,43,33,21,28,43,50,59,26		3,44,29,42,42	
		1, 5,35,20,16,28,56,12		4,48
16″	51,10,44,38,56,49, 0,19,55,38		3,44,29,47,30	
		1, 5,35,16,31,59, 8,42		4,48
18″	51,10,45,44,32, 5,32,19, 4,20		3,44,29,52,18	
		1, 5,35,12,47,29,16,24		4,48
20″	51,10,46,50, 7,18,19,48,20,44		3,44,29,57, 6	
		1, 5,35, 9, 2,59,19,18		4,48
22″	51,10,47,55,42,27,22,47,40, 2		3,44,30, 1,54	
		1, 5,35, 5,18,29,17,24		4,48
24″	51,10,49, 1,17,32,41,16,57,26		3,44,30, 6,42	
		1, 5,35, 1,33,59,10,42		4,48
26″	51,10,50, 6,52,34,15,16, 8, 8		3,44,30,11,30	
		1, 5,34,57,49,28,59,12		4,48
28″	51,10,51,12,27,32, 4,45, 7,20		3,44,30,16,18	
		1, 5,34,54, 4,58,42,54		4,48
30″	51,10,52,18, 2,26, 9,43,50,14		3,44,30,21, 6	
		1, 5,34,50,20,28,21,48		4,48
32″	51,10,53,23,37,16,30,12,12, 2		3,44,30,25,54	
		1, 5,34,46,35,57,55,54		4,48
34″	51,10,54,29,12, 3, 6,10, 7,56		3,44,30,30,42	
		1, 5,34,42,51,27,25,12		4,48
36″	51,10,55,34,46,45,57,37,33, 8		3,44,30,35,30	
		1, 5,34,39, 6,56,49,42		4,48
38″	51,10,56,40,21,25, 4,34,22,50		3,44,30,40,18	
		1, 5,34,35,22,26, 9,24		4,48
40″	51,10,57,45,56, 0,27, 0,32,14		3,44,30,45, 6	
		1, 5,34,31,37,55,24,18		4,48
42″	51,10,58,51,30,32, 4,55,56,32		3,44,30,49,54	
		1, 5,34,27,53,24,34,24		4,48
44″	51,10,59,57, 4,59,58,20,30,56		3,44,30,54,42	
		1, 5,34,24, 8,53,39,42		4,48
46″	51,11, 1, 2,39,24, 7,14,10,38		3,44,30,59,30	
		1, 5,34,20,24,22,40,12		4,48
48″	51,11, 2, 8,13,44,31,36,50,50		3,44,31, 4,18	
		1, 5,34,16,39,51,35,54		4,48
50″	51,11, 3,13,48, 1,11,28,26,44		3,44,31, 9, 6	
		1, 5,34,12,55,20,26,48		4,48
52″	51,11, 4,19,22,14, 6,48,53,32		3,44,31,13,54	
		1, 5,34, 9,10,49,12,54		4,48
54″	51,11, 5,24,56,23,17,38, 6,26		3,44,31,18,42	
		1, 5,34, 5,26,17,54,12		4,48
56″	51,11, 6,30,30,28,43,56, 0,38		3,44,31,23,30	
		1, 5,34, 1,41,46,30,42		4,48
58″	51,11, 7,36, 4,30,25,42,31,20		3,44,31,28,18	
		1, 5,33,57,57,15, 2,24		
60″	51,11, 8,41,38,28,22,57,33,44			
exact	51,11, 8,41,38,28,22,57,54,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°33′ 0″	51,11, 8,41,38,28,22,57,54,25			
		1, 5,33,54,12,43,31,34		
2″	51,11, 9,47,12,22,35,41,25,59		3,44,31,37,44	
		1, 5,33,50,28,11,53,50		4,48
4″	51,11,10,52,46,13, 3,53,19,49		3,44,31,42,32	
		1, 5,33,46,43,40,11,18		4,48
6″	51,11,11,58,19,59,47,33,31, 7		3,44,31,47,20	
		1, 5,33,42,59, 8,23,58		4,48
8″	51,11,13, 3,53,42,46,41,55, 5		3,44,31,52, 8	
		1, 5,33,39,14,36,31,50		4,48
10″	51,11,14, 9,27,22, 1,18,26,55		3,44,31,56,56	
		1, 5,33,35,30, 4,34,54		4,48
12″	51,11,15,15, 0,57,31,23, 1,49		3,44,32, 1,44	
		1, 5,33,31,45,32,33,10		4,48
14″	51,11,16,20,34,29,16,55,34,59		3,44,32, 6,32	
		1, 5,33,28, 1, 0,26,38		4,48
16″	51,11,17,26, 7,57,17,56, 1,37		3,44,32,11,20	
		1, 5,33,24,16,28,15,18		4,48
18″	51,11,18,31,41,21,34,24,16,55		3,44,32,16, 8	
		1, 5,33,20,31,55,59,10		4,48
20″	51,11,19,37,14,42, 6,20,16, 5		3,44,32,20,56	
		1, 5,33,16,47,23,38,14		4,48
22″	51,11,20,42,47,58,53,43,54,19		3,44,32,25,44	
		1, 5,33,13, 2,51,12,30		4,48
24″	51,11,21,48,21,11,56,35, 6,49		3,44,32,30,32	
		1, 5,33, 9,18,18,41,58		4,48
26″	51,11,22,53,54,21,14,53,48,47		3,44,32,35,20	
		1, 5,33, 5,33,46, 6,38		4,48
28″	51,11,23,59,27,26,48,39,55,25		3,44,32,40, 8	
		1, 5,33, 1,49,13,26,30		4,48
30″	51,11,25, 5, 0,28,37,53,21,55		3,44,32,44,56	
		1, 5,32,58, 4,40,41,34		4,48
32″	51,11,26,10,33,26,42,34, 3,29		3,44,32,49,44	
		1, 5,32,54,20, 7,51,50		4,48
34″	51,11,27,16, 6,21, 2,41,55,19		3,44,32,54,32	
		1, 5,32,50,35,34,57,18		4,48
36″	51,11,28,21,39,11,38,16,52,37		3,44,32,59,20	
		1, 5,32,46,51, 1,57,58		4,48
38″	51,11,29,27,11,58,29,18,50,35		3,44,33, 4, 8	
		1, 5,32,43, 6,28,53,50		4,48
40″	51,11,30,32,44,41,35,47,44,25		3,44,33, 8,56	
		1, 5,32,39,21,55,44,54		4,48
42″	51,11,31,38,17,20,57,43,29,19		3,44,33,13,44	
		1, 5,32,35,37,22,31,10		4,48
44″	51,11,32,43,49,56,35, 6, 0,29		3,44,33,18,32	
		1, 5,32,31,52,49,12,38		4,48
46″	51,11,33,49,22,28,27,55,13, 7		3,44,33,23,20	
		1, 5,32,28, 8,15,49,18		4,48
48″	51,11,34,54,54,56,36,11, 2,25		3,44,33,28, 8	
		1, 5,32,24,23,42,21,10		4,48
50″	51,11,36, 0,27,20,59,53,23,35		3,44,33,32,56	
		1, 5,32,20,39, 8,48,14		4,48
52″	51,11,37, 5,59,41,39, 2,11,49		3,44,33,37,44	
		1, 5,32,16,54,35,10,30		4,48
54″	51,11,38,11,31,58,33,37,22,19		3,44,33,42,32	
		1, 5,32,13,10, 1,27,58		4,48
56″	51,11,39,17, 4,11,43,38,50,17		3,44,33,47,20	
		1, 5,32, 9,25,27,40,38		4,48
58″	51,11,40,22,36,21, 9, 6,30,55		3,44,33,52, 8	
		1, 5,32, 5,40,53,48,30		
60″	51,11,41,28, 8,26,50, 0,19,25			
exact	51,11,41,28, 8,26,50, 0,49,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°34′ 0″	51,11,41,28, 8,26,50, 0,49,21			
		1, 5,32, 1,56,19,54,50		
2″	51,11,42,33,40,28,46,20,44,11		3,44,34, 1,30	
		1, 5,31,58,11,45,53,20		4,47
4″	51,11,43,39,12,26,58, 6,37,31		3,44,34, 6,17	
		1, 5,31,54,27,11,47, 3		4,47
6″	51,11,44,44,44,21,25,18,24,34		3,44,34,11, 4	
		1, 5,31,50,42,37,35,59		4,47
8″	51,11,45,50,16,12, 7,56, 0,33		3,44,34,15,51	
		1, 5,31,46,58, 3,20, 8		4,47
10″	51,11,46,55,47,59, 5,59,20,41		3,44,34,20,38	
		1, 5,31,43,13,28,59,30		4,47
12″	51,11,48, 1,19,42,19,28,20,11		3,44,34,25,25	
		1, 5,31,39,28,54,34, 5		4,47
14″	51,11,49, 6,51,21,48,22,54,16		3,44,34,30,12	
		1, 5,31,35,44,20, 3,53		4,47
16″	51,11,50,12,22,57,32,42,58, 9		3,44,34,34,59	
		1, 5,31,31,59,45,28,54		4,47
18″	51,11,51,17,54,29,32,28,27, 3		3,44,34,39,46	
		1, 5,31,28,15,10,49, 8		4,47
20″	51,11,52,23,25,57,47,39,16,11		3,44,34,44,33	
		1, 5,31,24,30,36, 4,35		4,47
22″	51,11,53,28,57,22,18,15,20,46		3,44,34,49,20	
		1, 5,31,20,46, 1,15,15		4,47
24″	51,11,54,34,28,43, 4,16,36, 1		3,44,34,54, 7	
		1, 5,31,17, 1,26,21, 8		4,47
26″	51,11,55,40, 0, 0, 5,42,57, 9		3,44,34,58,54	
		1, 5,31,13,16,51,22,14		4,47
28″	51,11,56,45,31,13,22,34,19,23		3,44,35, 3,41	
		1, 5,31, 9,32,16,18,33		4,47
30″	51,11,57,51, 2,22,54,50,37,56		3,44,35, 8,28	
		1, 5,31, 5,47,41,10, 5		4,47
32″	51,11,58,56,33,28,42,31,48, 1		3,44,35,13,15	
		1, 5,31, 2, 3, 5,56,50		4,47
34″	51,12, 0, 2, 4,30,45,37,44,51		3,44,35,18, 2	
		1, 5,30,58,18,30,38,48		4,47
36″	51,12, 1, 7,35,29, 4, 8,23,39		3,44,35,22,49	
		1, 5,30,54,33,55,15,59		4,47
38″	51,12, 2,13, 6,23,38, 3,39,38		3,44,35,27,36	
		1, 5,30,50,49,19,48,23		4,47
40″	51,12, 3,18,37,14,27,23,28, 1		3,44,35,32,23	
		1, 5,30,47, 4,44,16, 0		4,47
42″	51,12, 4,24, 8, 1,32, 7,44, 1		3,44,35,37,10	
		1, 5,30,43,20, 8,38,50		4,47
44″	51,12, 5,29,38,44,52,16,22,51		3,44,35,41,57	
		1, 5,30,39,35,32,56,53		4,47
46″	51,12, 6,35, 9,24,27,49,19,44		3,44,35,46,44	
		1, 5,30,35,50,57,10, 9		4,47
48″	51,12, 7,40,40, 0,18,46,29,53		3,44,35,51,31	
		1, 5,30,32, 6,21,18,38		4,47
50″	51,12, 8,46,10,32,25, 7,48,31		3,44,35,56,18	
		1, 5,30,28,21,45,22,20		4,47
52″	51,12, 9,51,41, 0,46,53,10,51		3,44,36, 1, 5	
		1, 5,30,24,37, 9,21,15		4,47
54″	51,12,10,57,11,25,24, 2,32, 6		3,44,36, 5,52	
		1, 5,30,20,52,33,15,23		4,47
56″	51,12,12, 2,41,46,16,35,47,29		3,44,36,10,39	
		1, 5,30,17, 7,57, 4,44		4,47
58″	51,12,13, 8,12, 3,24,32,52,13		3,44,36,15,26	
		1, 5,30,13,23,20,49,18		
60″	51,12,14,13,42,16,47,53,41,31			
exact	51,12,14,13,42,16,47,53,13,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°35′ 0″	51,12,14,13,42,16,47,53,13,31			
		1, 5,30, 9,38,44,26, 8		
2″	51,12,15,19,12,26,26,37,39,39		3,44,36,25,12	
		1, 5,30, 5,54, 8, 0,56		4,47
4″	51,12,16,24,42,32,20,45,40,35		3,44,36,29,59	
		1, 5,30, 2, 9,31,30,57		4,47
6″	51,12,17,30,12,34,30,17,11,32		3,44,36,34,46	
		1, 5,29,58,24,54,56,11		4,47
8″	51,12,18,35,42,32,55,12, 7,43		3,44,36,39,33	
		1, 5,29,54,40,18,16,38		4,47
10″	51,12,19,41,12,27,35,30,24,21		3,44,36,44,20	
		1, 5,29,50,55,41,32,18		4,47
12″	51,12,20,46,42,18,31,11,56,39		3,44,36,49, 7	
		1, 5,29,47,11, 4,43,11		4,47
14″	51,12,21,52,12, 5,42,16,39,50		3,44,36,53,54	
		1, 5,29,43,26,27,49,17		4,47
16″	51,12,22,57,41,49, 8,44,29, 7		3,44,36,58,41	
		1, 5,29,39,41,50,50,36		4,47
18″	51,12,24, 3,11,28,50,35,19,43		3,44,37, 3,28	
		1, 5,29,35,57,13,47, 8		4,47
20″	51,12,25, 8,41, 4,47,49, 6,51		3,44,37, 8,15	
		1, 5,29,32,12,36,38,53		4,47
22″	51,12,26,14,10,37, 0,25,45,44		3,44,37,13, 2	
		1, 5,29,28,27,59,25,51		4,47
24″	51,12,27,19,40, 5,28,25,11,35		3,44,37,17,49	
		1, 5,29,24,43,22, 8, 2		4,47
26″	51,12,28,25, 9,30,11,47,19,37		3,44,37,22,36	
		1, 5,29,20,58,44,45,26		4,47
28″	51,12,29,30,38,51,10,32, 5, 3		3,44,37,27,23	
		1, 5,29,17,14, 7,18, 3		4,47
30″	51,12,30,36, 8, 8,24,39,23, 6		3,44,37,32,10	
		1, 5,29,13,29,29,45,53		4,47
32″	51,12,31,41,37,21,54, 9, 8,59		3,44,37,36,57	
		1, 5,29, 9,44,52, 8,56		4,47
34″	51,12,32,47, 6,31,39, 1,17,55		3,44,37,41,44	
		1, 5,29, 6, 0,14,27,12		4,47
36″	51,12,33,52,35,37,39,15,45, 7		3,44,37,46,31	
		1, 5,29, 2,15,36,40,41		4,47
38″	51,12,34,58, 4,39,54,52,25,48		3,44,37,51,18	
		1, 5,28,58,30,58,49,23		4,47
40″	51,12,36, 3,33,38,25,51,15,11		3,44,37,56, 5	
		1, 5,28,54,46,20,53,18		4,47
42″	51,12,37, 9, 2,33,12,12, 8,29		3,44,38, 0,52	
		1, 5,28,51, 1,42,52,26		4,47
44″	51,12,38,14,31,24,13,55, 0,55		3,44,38, 5,39	
		1, 5,28,47,17, 4,46,47		4,47
46″	51,12,39,20, 0,11,30,59,47,42		3,44,38,10,26	
		1, 5,28,43,32,26,36,21		4,47
48″	51,12,40,25,28,55, 3,26,24, 3		3,44,38,15,13	
		1, 5,28,39,47,48,21, 8		4,47
50″	51,12,41,30,57,34,51,14,45,11		3,44,38,20, 0	
		1, 5,28,36, 3,10, 1, 8		4,47
52″	51,12,42,36,26,10,54,24,46,19		3,44,38,24,47	
		1, 5,28,32,18,31,36,21		4,47
54″	51,12,43,41,54,43,12,56,22,40		3,44,38,29,34	
		1, 5,28,28,33,53, 6,47		4,47
56″	51,12,44,47,23,11,46,49,29,27		3,44,38,34,21	
		1, 5,28,24,49,14,32,26		4,47
58″	51,12,45,52,51,36,36, 4, 1,53		3,44,38,39, 8	
		1, 5,28,21, 4,35,53,18		
60″	51,12,46,58,19,57,40,39,55,11			
exact	51,12,46,58,19,57,40,39,38, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°36′ 0″	51,12,46,58,19,57,40,39,38, 1			
		1, 5,28,17,19,57, 7,32		
2″	51,12,48, 3,48,15, 0,36,45,33		3,44,38,48,49	
		1, 5,28,13,35,18,18,43		4,47
4″	51,12,49, 9,16,28,35,55, 4,16		3,44,38,53,36	
		1, 5,28, 9,50,39,25, 7		4,47
6″	51,12,50,14,44,38,26,34,29,23		3,44,38,58,23	
		1, 5,28, 6, 6, 0,26,44		4,47
8″	51,12,51,20,12,44,32,34,56, 7		3,44,39, 3,10	
		1, 5,28, 2,21,21,23,34		4,47
10″	51,12,52,25,40,46,53,56,19,41		3,44,39, 7,57	
		1, 5,27,58,36,42,15,37		4,47
12″	51,12,53,31, 8,45,30,38,35,18		3,44,39,12,44	
		1, 5,27,54,52, 3, 2,53		4,47
14″	51,12,54,36,36,40,22,41,38,11		3,44,39,17,31	
		1, 5,27,51, 7,23,45,22		4,47
16″	51,12,55,42, 4,31,30, 5,23,33		3,44,39,22,18	
		1, 5,27,47,22,44,23, 4		4,47
18″	51,12,56,47,32,18,52,49,46,37		3,44,39,27, 5	
		1, 5,27,43,38, 4,55,59		4,47
20″	51,12,57,53, 0, 2,30,54,42,36		3,44,39,31,52	
		1, 5,27,39,53,25,24, 7		4,47
22″	51,12,58,58,27,42,24,20, 6,43		3,44,39,36,39	
		1, 5,27,36, 8,45,47,28		4,47
24″	51,13, 0, 3,55,18,33, 5,54,11		3,44,39,41,26	
		1, 5,27,32,24, 6, 6, 2		4,47
26″	51,13, 1, 9,22,50,57,12, 0,13		3,44,39,46,13	
		1, 5,27,28,39,26,19,49		4,47
28″	51,13, 2,14,50,19,36,38,20, 2		3,44,39,51, 0	
		1, 5,27,24,54,46,28,49		4,47
30″	51,13, 3,20,17,44,31,24,48,51		3,44,39,55,47	
		1, 5,27,21,10, 6,33, 2		4,47
32″	51,13, 4,25,45, 5,41,31,21,53		3,44,40, 0,34	
		1, 5,27,17,25,26,32,28		4,47
34″	51,13, 5,31,12,23, 6,57,54,21		3,44,40, 5,21	
		1, 5,27,13,40,46,27, 7		4,47
36″	51,13, 6,36,39,36,47,44,21,28		3,44,40,10, 8	
		1, 5,27, 9,56, 6,16,59		4,47
38″	51,13, 7,42, 6,46,43,50,38,27		3,44,40,14,55	
		1, 5,27, 6,11,26, 2, 4		4,47
40″	51,13, 8,47,33,52,55,16,40,31		3,44,40,19,42	
		1, 5,27, 2,26,45,42,22		4,47
42″	51,13, 9,53, 0,55,22, 2,22,53		3,44,40,24,29	
		1, 5,26,58,42, 5,17,53		4,47
44″	51,13,10,58,27,54, 4, 7,40,46		3,44,40,29,16	
		1, 5,26,54,57,24,48,37		4,47
46″	51,13,12, 3,54,49, 1,32,29,23		3,44,40,34, 3	
		1, 5,26,51,12,44,14,34		4,47
48″	51,13,13, 9,21,40,14,16,43,57		3,44,40,38,50	
		1, 5,26,47,28, 3,35,44		4,47
50″	51,13,14,14,48,27,42,20,19,41		3,44,40,43,37	
		1, 5,26,43,43,22,52, 7		4,47
52″	51,13,15,20,15,11,25,43,11,48		3,44,40,48,24	
		1, 5,26,39,58,42, 3,43		4,47
54″	51,13,16,25,41,51,24,25,15,31		3,44,40,53,11	
		1, 5,26,36,14, 1,10,32		4,47
56″	51,13,17,31, 8,27,38,26,26, 3		3,44,40,57,58	
		1, 5,26,32,29,20,12,34		4,47
58″	51,13,18,36,35, 0, 7,46,38,37		3,44,41, 2,45	
		1, 5,26,28,44,39, 9,49		
60″	51,13,19,42, 1,28,52,25,48,26			
exact	51,13,19,42, 1,28,52,25,35,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°37′ 0″	51,13,19,42, 1,28,52,25,35,31			
		1, 5,26,24,59,58, 1, 5		
2″	51,13,20,47,27,53,52,23,36,36		3,44,41,12,23	
		1, 5,26,21,15,16,48,42		4,47
4″	51,13,21,52,54,15, 7,40,25,18		3,44,41,17,10	
		1, 5,26,17,30,35,31,32		4,47
6″	51,13,22,58,20,32,38,15,56,50		3,44,41,21,57	
		1, 5,26,13,45,54, 9,35		4,47
8″	51,13,24, 3,46,46,24,10, 6,25		3,44,41,26,44	
		1, 5,26,10, 1,12,42,51		4,47
10″	51,13,25, 9,12,56,25,22,49,16		3,44,41,31,31	
		1, 5,26, 6,16,31,11,20		4,47
12″	51,13,26,14,39, 2,41,54, 0,36		3,44,41,36,18	
		1, 5,26, 2,31,49,35, 2		4,47
14″	51,13,27,20, 5, 5,13,43,35,38		3,44,41,41, 5	
		1, 5,25,58,47, 7,53,57		4,47
16″	51,13,28,25,31, 4, 0,51,29,35		3,44,41,45,52	
		1, 5,25,55, 2,26, 8, 5		4,47
18″	51,13,29,30,56,59, 3,17,37,40		3,44,41,50,39	
		1, 5,25,51,17,44,17,26		4,47
20″	51,13,30,36,22,50,21, 1,55, 6		3,44,41,55,26	
		1, 5,25,47,33, 2,22, 0		4,47
22″	51,13,31,41,48,37,54, 4,17, 6		3,44,42, 0,13	
		1, 5,25,43,48,20,21,47		4,47
24″	51,13,32,47,14,21,42,24,38,53		3,44,42, 5, 0	
		1, 5,25,40, 3,38,16,47		4,47
26″	51,13,33,52,40, 1,46, 2,55,40		3,44,42, 9,47	
		1, 5,25,36,18,56, 7, 0		4,47
28″	51,13,34,58, 5,38, 4,59, 2,40		3,44,42,14,34	
		1, 5,25,32,34,13,52,26		4,47
30″	51,13,36, 3,31,10,39,12,55, 6		3,44,42,19,21	
		1, 5,25,28,49,31,33, 5		4,47
32″	51,13,37, 8,56,39,28,44,28,11		3,44,42,24, 8	
		1, 5,25,25, 4,49, 8,57		4,47
34″	51,13,38,14,22, 4,33,33,37, 8		3,44,42,28,55	
		1, 5,25,21,20, 6,40, 2		4,47
36″	51,13,39,19,47,25,53,40,17,10		3,44,42,33,42	
		1, 5,25,17,35,24, 6,20		4,47
38″	51,13,40,25,12,43,29, 4,23,30		3,44,42,38,29	
		1, 5,25,13,50,41,27,51		4,47
40″	51,13,41,30,37,57,19,45,51,21		3,44,42,43,16	
		1, 5,25,10, 5,58,44,35		4,47
42″	51,13,42,36, 3, 7,25,44,35,56		3,44,42,48, 3	
		1, 5,25, 6,21,15,56,32		4,47
44″	51,13,43,41,28,13,47, 0,32,28		3,44,42,52,50	
		1, 5,25, 2,36,33, 3,42		4,47
46″	51,13,44,46,53,16,23,33,36,10		3,44,42,57,37	
		1, 5,24,58,51,50, 6, 5		4,47
48″	51,13,45,52,18,15,15,23,42,15		3,44,43, 2,24	
		1, 5,24,55, 7, 7, 3,41		4,47
50″	51,13,46,57,43,10,22,30,45,56		3,44,43, 7,11	
		1, 5,24,51,22,23,56,30		4,47
52″	51,13,48, 3, 8, 1,44,54,42,26		3,44,43,11,58	
		1, 5,24,47,37,40,44,32		4,47
54″	51,13,49, 8,32,49,22,35,26,58		3,44,43,16,45	
		1, 5,24,43,52,57,27,47		4,47
56″	51,13,50,13,57,33,15,32,54,45		3,44,43,21,32	
		1, 5,24,40, 8,14, 6,15		4,47
58″	51,13,51,19,22,13,23,47, 1, 0		3,44,43,26,19	
		1, 5,24,36,23,30,39,56		
60″	51,13,52,24,46,49,47,17,40,56			
exact	51,13,52,24,46,49,47,17,40,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°38′ 0″	51,13,52,24,46,49,47,17,40,15			
		1, 5,24,32,38,47, 8,50		
2″	51,13,53,30,11,22,26, 4,49, 5		3,44,43,35,52	
		1, 5,24,28,54, 3,32,58		4,47
4″	51,13,54,35,35,51,20, 8,22, 3		3,44,43,40,39	
		1, 5,24,25, 9,19,52,19		4,47
6″	51,13,55,41, 0,16,29,28,14,22		3,44,43,45,26	
		1, 5,24,21,24,36, 6,53		4,47
8″	51,13,56,46,24,37,54, 4,21,15		3,44,43,50,13	
		1, 5,24,17,39,52,16,40		4,47
10″	51,13,57,51,48,55,33,56,37,55		3,44,43,55, 0	
		1, 5,24,13,55, 8,21,40		4,47
12″	51,13,58,57,13, 9,29, 4,59,35		3,44,43,59,47	
		1, 5,24,10,10,24,21,53		4,47
14″	51,14, 0, 2,37,19,39,29,21,28		3,44,44, 4,34	
		1, 5,24, 6,25,40,17,19		4,47
16″	51,14, 1, 8, 1,26, 5, 9,38,47		3,44,44, 9,21	
		1, 5,24, 2,40,56, 7,58		4,47
18″	51,14, 2,13,25,28,46, 5,46,45		3,44,44,14, 8	
		1, 5,23,58,56,11,53,50		4,47
20″	51,14, 3,18,49,27,42,17,40,35		3,44,44,18,55	
		1, 5,23,55,11,27,34,55		4,47
22″	51,14, 4,24,13,22,53,45,15,30		3,44,44,23,42	
		1, 5,23,51,26,43,11,13		4,47
24″	51,14, 5,29,37,14,20,28,26,43		3,44,44,28,29	
		1, 5,23,47,41,58,42,44		4,47
26″	51,14, 6,35, 1, 2, 2,27, 9,27		3,44,44,33,16	
		1, 5,23,43,57,14, 9,28		4,47
28″	51,14, 7,40,24,45,59,41,18,55		3,44,44,38, 3	
		1, 5,23,40,12,29,31,25		4,47
30″	51,14, 8,45,48,26,12,10,50,20		3,44,44,42,50	
		1, 5,23,36,27,44,48,35		4,47
32″	51,14, 9,51,12, 2,39,55,38,55		3,44,44,47,37	
		1, 5,23,32,43, 0, 0,58		4,47
34″	51,14,10,56,35,35,22,55,39,53		3,44,44,52,24	
		1, 5,23,28,58,15, 8,34		4,47
36″	51,14,12, 1,59, 4,21,10,48,27		3,44,44,57,11	
		1, 5,23,25,13,30,11,23		4,47
38″	51,14,13, 7,22,29,34,40,59,50		3,44,45, 1,58	
		1, 5,23,21,28,45, 9,25		4,47
40″	51,14,14,12,45,51, 3,26, 9,15		3,44,45, 6,45	
		1, 5,23,17,44, 0, 2,40		4,47
42″	51,14,15,18, 9, 8,47,26,11,55		3,44,45,11,32	
		1, 5,23,13,59,14,51, 8		4,47
44″	51,14,16,23,32,22,46,41, 3, 3		3,44,45,16,19	
		1, 5,23,10,14,29,34,49		4,47
46″	51,14,17,28,55,33, 1,10,37,52		3,44,45,21, 6	
		1, 5,23, 6,29,44,13,43		4,47
48″	51,14,18,34,18,39,30,54,51,35		3,44,45,25,53	
		1, 5,23, 2,44,58,47,50		4,47
50″	51,14,19,39,41,42,15,53,39,25		3,44,45,30,40	
		1, 5,22,59, 0,13,17,10		4,47
52″	51,14,20,45, 4,41,16, 6,56,35		3,44,45,35,27	
		1, 5,22,55,15,27,41,43		4,47
54″	51,14,21,50,27,36,31,34,38,18		3,44,45,40,14	
		1, 5,22,51,30,42, 1,29		4,47
56″	51,14,22,55,50,28, 2,16,39,47		3,44,45,45, 1	
		1, 5,22,47,45,56,16,28		4,47
58″	51,14,24, 1,13,15,48,12,56,15		3,44,45,49,48	
		1, 5,22,44, 1,10,26,40		
60″	51,14,25, 6,35,59,49,23,22,55			
exact	51,14,25, 6,35,59,49,23,28, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°39′ 0″	51,14,25, 6,35,59,49,23,28, 4			
		1, 5,22,40,16,24,32,50		
2″	51,14,26,11,58,40, 5,48, 0,54		3,44,45,59,18	
		1, 5,22,36,31,38,33,32		4,47
4″	51,14,27,17,21,16,37,26,34,26		3,44,46, 4, 5	
		1, 5,22,32,46,52,29,27		4,47
6″	51,14,28,22,43,49,24,19, 3,53		3,44,46, 8,52	
		1, 5,22,29, 2, 6,20,35		4,47
8″	51,14,29,28, 6,18,26,25,24,28		3,44,46,13,39	
		1, 5,22,25,17,20, 6,56		4,47
10″	51,14,30,33,28,43,43,45,31,24		3,44,46,18,26	
		1, 5,22,21,32,33,48,30		4,47
12″	51,14,31,38,51, 5,16,19,19,54		3,44,46,23,13	
		1, 5,22,17,47,47,25,17		4,47
14″	51,14,32,44,13,23, 4, 6,45,11		3,44,46,28, 0	
		1, 5,22,14, 3, 0,57,17		4,47
16″	51,14,33,49,35,37, 7, 7,42,28		3,44,46,32,47	
		1, 5,22,10,18,14,24,30		4,47
18″	51,14,34,54,57,47,25,22, 6,58		3,44,46,37,34	
		1, 5,22, 6,33,27,46,56		4,47
20″	51,14,36, 0,19,53,58,49,53,54		3,44,46,42,21	
		1, 5,22, 2,48,41, 4,35		4,47
22″	51,14,37, 5,41,56,47,30,58,29		3,44,46,47, 8	
		1, 5,21,59, 3,54,17,27		4,47
24″	51,14,38,11, 3,55,51,25,15,56		3,44,46,51,55	
		1, 5,21,55,19, 7,25,32		4,47
26″	51,14,39,16,25,51,10,32,41,28		3,44,46,56,42	
		1, 5,21,51,34,20,28,50		4,47
28″	51,14,40,21,47,42,44,53,10,18		3,44,47, 1,29	
		1, 5,21,47,49,33,27,21		4,47
30″	51,14,41,27, 9,30,34,26,37,39		3,44,47, 6,16	
		1, 5,21,44, 4,46,21, 5		4,47
32″	51,14,42,32,31,14,39,12,58,44		3,44,47,11, 3	
		1, 5,21,40,19,59,10, 2		4,47
34″	51,14,43,37,52,54,59,12, 8,46		3,44,47,15,50	
		1, 5,21,36,35,11,54,12		4,47
36″	51,14,44,43,14,31,34,24, 2,58		3,44,47,20,37	
		1, 5,21,32,50,24,33,35		4,47
38″	51,14,45,48,36, 4,24,48,36,33		3,44,47,25,24	
		1, 5,21,29, 5,37, 8,11		4,47
40″	51,14,46,53,57,33,30,25,44,44		3,44,47,30,11	
		1, 5,21,25,20,49,38, 0		4,47
42″	51,14,47,59,18,58,51,15,22,44		3,44,47,34,58	
		1, 5,21,21,36, 2, 3, 2		4,47
44″	51,14,49, 4,40,20,27,17,25,46		3,44,47,39,45	
		1, 5,21,17,51,14,23,17		4,47
46″	51,14,50,10, 1,38,18,31,49, 3		3,44,47,44,32	
		1, 5,21,14, 6,26,38,45		4,47
48″	51,14,51,15,22,52,24,58,27,48		3,44,47,49,19	
		1, 5,21,10,21,38,49,26		4,47
50″	51,14,52,20,44, 2,46,37,17,14		3,44,47,54, 6	
		1, 5,21, 6,36,50,55,20		4,47
52″	51,14,53,26, 5, 9,23,28,12,34		3,44,47,58,53	
		1, 5,21, 2,52, 2,56,27		4,47
54″	51,14,54,31,26,12,15,31, 9, 1		3,44,48, 3,40	
		1, 5,20,59, 7,14,52,47		4,47
56″	51,14,55,36,47,11,22,46, 1,48		3,44,48, 8,27	
		1, 5,20,55,22,26,44,20		4,47
58″	51,14,56,42, 8, 6,45,12,46, 8		3,44,48,13,14	
		1, 5,20,51,37,38,31, 6		
60″	51,14,57,47,28,58,22,51,17,14			
exact	51,14,57,47,28,58,22,51,36,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°40′ 0″	51,14,57,47,28,58,22,51,36,25			
		1, 5,20,47,52,50,15, 9		
2″	51,14,58,52,49,46,15,41,51,34		3,44,48,22,39	
		1, 5,20,44, 8, 1,52,30		4,47
4″	51,14,59,58,10,30,23,43,44, 4		3,44,48,27,26	
		1, 5,20,40,23,13,25, 4		4,47
6″	51,15, 1, 3,31,10,46,57, 9, 8		3,44,48,32,13	
		1, 5,20,36,38,24,52,51		4,47
8″	51,15, 2, 8,51,47,25,22, 1,59		3,44,48,37, 0	
		1, 5,20,32,53,36,15,51		4,47
10″	51,15, 3,14,12,20,18,58,17,50		3,44,48,41,47	
		1, 5,20,29, 8,47,34, 4		4,47
12″	51,15, 4,19,32,49,27,45,51,54		3,44,48,46,34	
		1, 5,20,25,23,58,47,30		4,47
14″	51,15, 5,24,53,14,51,44,39,24		3,44,48,51,21	
		1, 5,20,21,39, 9,56, 9		4,47
16″	51,15, 6,30,13,36,30,54,35,33		3,44,48,56, 8	
		1, 5,20,17,54,21, 0, 1		4,47
18″	51,15, 7,35,33,54,25,15,35,34		3,44,49, 0,55	
		1, 5,20,14, 9,31,59, 6		4,47
20″	51,15, 8,40,54, 8,34,47,34,40		3,44,49, 5,42	
		1, 5,20,10,24,42,53,24		4,47
22″	51,15, 9,46,14,18,59,30,28, 4		3,44,49,10,29	
		1, 5,20, 6,39,53,42,55		4,47
24″	51,15,10,51,34,25,39,24,10,59		3,44,49,15,16	
		1, 5,20, 2,55, 4,27,39		4,47
26″	51,15,11,56,54,28,34,28,38,38		3,44,49,20, 3	
		1, 5,19,59,10,15, 7,36		4,47
28″	51,15,13, 2,14,27,44,43,46,14		3,44,49,24,50	
		1, 5,19,55,25,25,42,46		4,47
30″	51,15,14, 7,34,23,10, 9,29, 0		3,44,49,29,37	
		1, 5,19,51,40,36,13, 9		4,47
32″	51,15,15,12,54,14,50,45,42, 9		3,44,49,34,24	
		1, 5,19,47,55,46,38,45		4,47
34″	51,15,16,18,14, 2,46,32,20,54		3,44,49,39,11	
		1, 5,19,44,10,56,59,34		4,47
36″	51,15,17,23,33,46,57,29,20,28		3,44,49,43,58	
		1, 5,19,40,26, 7,15,36		4,47
38″	51,15,18,28,53,27,23,36,36, 4		3,44,49,48,45	
		1, 5,19,36,41,17,26,51		4,47
40″	51,15,19,34,13, 4, 4,54, 2,55		3,44,49,53,32	
		1, 5,19,32,56,27,33,19		4,47
42″	51,15,20,39,32,37, 1,21,36,14		3,44,49,58,19	
		1, 5,19,29,11,37,35, 0		4,47
44″	51,15,21,44,52, 6,12,59,11,14		3,44,50, 3, 6	
		1, 5,19,25,26,47,31,54		4,47
46″	51,15,22,50,11,31,39,46,43, 8		3,44,50, 7,53	
		1, 5,19,21,41,57,24, 1		4,47
48″	51,15,23,55,30,53,21,44, 7, 9		3,44,50,12,40	
		1, 5,19,17,57, 7,11,21		4,47
50″	51,15,25, 0,50,11,18,51,18,30		3,44,50,17,27	
		1, 5,19,14,12,16,53,54		4,47
52″	51,15,26, 6, 9,25,31, 8,12,24		3,44,50,22,14	
		1, 5,19,10,27,26,31,40		4,47
54″	51,15,27,11,28,35,58,34,44, 4		3,44,50,27, 1	
		1, 5,19, 6,42,36, 4,39		4,47
56″	51,15,28,16,47,42,41,10,48,43		3,44,50,31,48	
		1, 5,19, 2,57,45,32,51		4,47
58″	51,15,29,22, 6,45,38,56,21,34		3,44,50,36,35	
		1, 5,18,59,12,54,56,16		
60″	51,15,30,27,25,44,51,51,17,50			
exact	51,15,30,27,25,44,51,51,44,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°41′ 0″	51,15,30,27,25,44,51,51,44,23			
		1, 5,18,55,28, 4,17,50		
2″	51,15,31,32,44,40,19,56, 2,13		3,44,50,45,56	
		1, 5,18,51,43,13,31,54		4,47
4″	51,15,32,38, 3,32, 3, 9,34, 7		3,44,50,50,43	
		1, 5,18,47,58,22,41,11		4,47
6″	51,15,33,43,22,20, 1,32,15,18		3,44,50,55,30	
		1, 5,18,44,13,31,45,41		4,47
8″	51,15,34,48,41, 4,15, 4, 0,59		3,44,51, 0,17	
		1, 5,18,40,28,40,45,24		4,47
10″	51,15,35,53,59,44,43,44,46,23		3,44,51, 5, 4	
		1, 5,18,36,43,49,40,20		4,47
12″	51,15,36,59,18,21,27,34,26,43		3,44,51, 9,51	
		1, 5,18,32,58,58,30,29		4,47
14″	51,15,38, 4,36,54,26,32,57,12		3,44,51,14,38	
		1, 5,18,29,14, 7,15,51		4,47
16″	51,15,39, 9,55,23,40,40,13, 3		3,44,51,19,25	
		1, 5,18,25,29,15,56,26		4,47
18″	51,15,40,15,13,49, 9,56, 9,29		3,44,51,24,12	
		1, 5,18,21,44,24,32,14		4,47
20″	51,15,41,20,32,10,54,20,41,43		3,44,51,28,59	
		1, 5,18,17,59,33, 3,15		4,47
22″	51,15,42,25,50,28,53,53,44,58		3,44,51,33,46	
		1, 5,18,14,14,41,29,29		4,47
24″	51,15,43,31, 8,43, 8,35,14,27		3,44,51,38,33	
		1, 5,18,10,29,49,50,56		4,47
26″	51,15,44,36,26,53,38,25, 5,23		3,44,51,43,20	
		1, 5,18, 6,44,58, 7,36		4,47
28″	51,15,45,41,45, 0,23,23,12,59		3,44,51,48, 7	
		1, 5,18, 3, 0, 6,19,29		4,47
30″	51,15,46,47, 3, 3,23,29,32,28		3,44,51,52,54	
		1, 5,17,59,15,14,26,35		4,47
32″	51,15,47,52,21, 2,38,43,59, 3		3,44,51,57,41	
		1, 5,17,55,30,22,28,54		4,47
34″	51,15,48,57,38,58, 9, 6,27,57		3,44,52, 2,28	
		1, 5,17,51,45,30,26,26		4,47
36″	51,15,50, 2,56,49,54,36,54,23		3,44,52, 7,15	
		1, 5,17,48, 0,38,19,11		4,47
38″	51,15,51, 8,14,37,55,15,13,34		3,44,52,12, 2	
		1, 5,17,44,15,46, 7, 9		4,47
40″	51,15,52,13,32,22,11, 1,20,43		3,44,52,16,49	
		1, 5,17,40,30,53,50,20		4,47
42″	51,15,53,18,50, 2,41,55,11, 3		3,44,52,21,36	
		1, 5,17,36,46, 1,28,44		4,47
44″	51,15,54,24, 7,39,27,56,39,47		3,44,52,26,23	
		1, 5,17,33, 1, 9, 2,21		4,47
46″	51,15,55,29,25,12,29, 5,42, 8		3,44,52,31,10	
		1, 5,17,29,16,16,31,11		4,47
48″	51,15,56,34,42,41,45,22,13,19		3,44,52,35,57	
		1, 5,17,25,31,23,55,14		4,47
50″	51,15,57,40, 0, 7,16,46, 8,33		3,44,52,40,44	
		1, 5,17,21,46,31,14,30		4,47
52″	51,15,58,45,17,29, 3,17,23, 3		3,44,52,45,31	
		1, 5,17,18, 1,38,28,59		4,47
54″	51,15,59,50,34,47, 4,55,52, 2		3,44,52,50,18	
		1, 5,17,14,16,45,38,41		4,47
56″	51,16, 0,55,52, 1,21,41,30,43		3,44,52,55, 5	
		1, 5,17,10,31,52,43,36		4,47
58″	51,16, 2, 1, 9,11,53,34,14,19		3,44,52,59,52	
		1, 5,17, 6,46,59,43,44		
60″	51,16, 3, 6,26,18,40,33,58, 3			
exact	51,16, 3, 6,26,18,40,34,32,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°42′ 0″	51,16, 3, 6,26,18,40,34,32,40			
		1, 5,17, 3, 2, 6,42,56		
2″	51,16, 4,11,43,21,42,41,15,36		3,44,53, 9, 9	
		1, 5,16,59,17,13,33,47		4,46
4″	51,16, 5,17, 0,20,59,54,49,23		3,44,53,13,55	
		1, 5,16,55,32,20,19,52		4,46
6″	51,16, 6,22,17,16,32,15, 9,15		3,44,53,18,41	
		1, 5,16,51,47,27, 1,11		4,46
8″	51,16, 7,27,34, 8,19,42,10,26		3,44,53,23,27	
		1, 5,16,48, 2,33,37,44		4,46
10″	51,16, 8,32,50,56,22,15,48,10		3,44,53,28,13	
		1, 5,16,44,17,40, 9,31		4,46
12″	51,16, 9,38, 7,40,39,55,57,41		3,44,53,32,59	
		1, 5,16,40,32,46,36,32		4,46
14″	51,16,10,43,24,21,12,42,34,13		3,44,53,37,45	
		1, 5,16,36,47,52,58,47		4,46
16″	51,16,11,48,40,58, 0,35,33, 0		3,44,53,42,31	
		1, 5,16,33, 2,59,16,16		4,46
18″	51,16,12,53,57,31, 3,34,49,16		3,44,53,47,17	
		1, 5,16,29,18, 5,28,59		4,46
20″	51,16,13,59,14, 0,21,40,18,15		3,44,53,52, 3	
		1, 5,16,25,33,11,36,56		4,46
22″	51,16,15, 4,30,25,54,51,55,11		3,44,53,56,49	
		1, 5,16,21,48,17,40, 7		4,46
24″	51,16,16, 9,46,47,43, 9,35,18		3,44,54, 1,35	
		1, 5,16,18, 3,23,38,32		4,46
26″	51,16,17,15, 3, 5,46,33,13,50		3,44,54, 6,21	
		1, 5,16,14,18,29,32,11		4,46
28″	51,16,18,20,19,20, 5, 2,46, 1		3,44,54,11, 7	
		1, 5,16,10,33,35,21, 4		4,46
30″	51,16,19,25,35,30,38,38, 7, 5		3,44,54,15,53	
		1, 5,16, 6,48,41, 5,11		4,46
32″	51,16,20,30,51,37,27,19,12,16		3,44,54,20,39	
		1, 5,16, 3, 3,46,44,32		4,46
34″	51,16,21,36, 7,40,31, 5,56,48		3,44,54,25,25	
		1, 5,15,59,18,52,19, 7		4,46
36″	51,16,22,41,23,39,49,58,15,55		3,44,54,30,11	
		1, 5,15,55,33,57,48,56		4,46
38″	51,16,23,46,39,35,23,56, 4,51		3,44,54,34,57	
		1, 5,15,51,49, 3,13,59		4,46
40″	51,16,24,51,55,27,12,59,18,50		3,44,54,39,43	
		1, 5,15,48, 4, 8,34,16		4,46
42″	51,16,25,57,11,15,17, 7,53, 6		3,44,54,44,29	
		1, 5,15,44,19,13,49,47		4,46
44″	51,16,27, 2,26,59,36,21,42,53		3,44,54,49,15	
		1, 5,15,40,34,19, 0,32		4,46
46″	51,16,28, 7,42,40,10,40,43,25		3,44,54,54, 1	
		1, 5,15,36,49,24, 6,31		4,46
48″	51,16,29,12,58,17, 0, 4,49,56		3,44,54,58,47	
		1, 5,15,33, 4,29, 7,44		4,46
50″	51,16,30,18,13,50, 4,33,57,40		3,44,55, 3,33	
		1, 5,15,29,19,34, 4,11		4,46
52″	51,16,31,23,29,19,24, 8, 1,51		3,44,55, 8,19	
		1, 5,15,25,34,38,55,52		4,46
54″	51,16,32,28,44,44,58,46,57,43		3,44,55,13, 5	
		1, 5,15,21,49,43,42,47		4,46
56″	51,16,33,34, 0, 6,48,30,40,30		3,44,55,17,51	
		1, 5,15,18, 4,48,24,56		4,46
58″	51,16,34,39,15,24,53,19, 5,26		3,44,55,22,37	
		1, 5,15,14,19,53, 2,19		
60″	51,16,35,44,30,39,13,12, 7,45			
exact	51,16,35,44,30,39,13,11,43,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°43′ 0″	51,16,35,44,30,39,13,11,43,38			
		1, 5,15,10,34,57,32,30		
2″	51,16,36,49,45,49,48, 9,16, 8		3,44,55,32,18	
		1, 5,15, 6,50, 2, 0,12		4,46
4″	51,16,37,55, 0,56,38,11,16,20		3,44,55,37, 4	
		1, 5,15, 3, 5, 6,23, 8		4,46
6″	51,16,39, 0,15,59,43,17,39,28		3,44,55,41,50	
		1, 5,14,59,20,10,41,18		4,46
8″	51,16,40, 5,30,59, 3,28,20,46		3,44,55,46,36	
		1, 5,14,55,35,14,54,42		4,46
10″	51,16,41,10,45,54,38,43,15,28		3,44,55,51,22	
		1, 5,14,51,50,19, 3,20		4,46
12″	51,16,42,16, 0,46,29, 2,18,48		3,44,55,56, 8	
		1, 5,14,48, 5,23, 7,12		4,46
14″	51,16,43,21,15,34,34,25,26, 0		3,44,56, 0,54	
		1, 5,14,44,20,27, 6,18		4,46
16″	51,16,44,26,30,18,54,52,32,18		3,44,56, 5,40	
		1, 5,14,40,35,31, 0,38		4,46
18″	51,16,45,31,44,59,30,23,32,56		3,44,56,10,26	
		1, 5,14,36,50,34,50,12		4,46
20″	51,16,46,36,59,36,20,58,23, 8		3,44,56,15,12	
		1, 5,14,33, 5,38,35, 0		4,46
22″	51,16,47,42,14, 9,26,36,58, 8		3,44,56,19,58	
		1, 5,14,29,20,42,15, 2		4,46
24″	51,16,48,47,28,38,47,19,13,10		3,44,56,24,44	
		1, 5,14,25,35,45,50,18		4,46
26″	51,16,49,52,43, 4,23, 5, 3,28		3,44,56,29,30	
		1, 5,14,21,50,49,20,48		4,46
28″	51,16,50,57,57,26,13,54,24,16		3,44,56,34,16	
		1, 5,14,18, 5,52,46,32		4,46
30″	51,16,52, 3,11,44,19,47,10,48		3,44,56,39, 2	
		1, 5,14,14,20,56, 7,30		4,46
32″	51,16,53, 8,25,58,40,43,18,18		3,44,56,43,48	
		1, 5,14,10,35,59,23,42		4,46
34″	51,16,54,13,40, 9,16,42,42, 0		3,44,56,48,34	
		1, 5,14, 6,51, 2,35, 8		4,46
36″	51,16,55,18,54,16, 7,45,17, 8		3,44,56,53,20	
		1, 5,14, 3, 6, 5,41,48		4,46
38″	51,16,56,24, 8,19,13,50,58,56		3,44,56,58, 6	
		1, 5,13,59,21, 8,43,42		4,46
40″	51,16,57,29,22,18,34,59,42,38		3,44,57, 2,52	
		1, 5,13,55,36,11,40,50		4,46
42″	51,16,58,34,36,14,11,11,23,28		3,44,57, 7,38	
		1, 5,13,51,51,14,33,12		4,46
44″	51,16,59,39,50, 6, 2,25,56,40		3,44,57,12,24	
		1, 5,13,48, 6,17,20,48		4,46
46″	51,17, 0,45, 3,54, 8,43,17,28		3,44,57,17,10	
		1, 5,13,44,21,20, 3,38		4,46
48″	51,17, 1,50,17,38,30, 3,21, 6		3,44,57,21,56	
		1, 5,13,40,36,22,41,42		4,46
50″	51,17, 2,55,31,19, 6,26, 2,48		3,44,57,26,42	
		1, 5,13,36,51,25,15, 0		4,46
52″	51,17, 4, 0,44,55,57,51,17,48		3,44,57,31,28	
		1, 5,13,33, 6,27,43,32		4,46
54″	51,17, 5, 5,58,29, 4,19, 1,20		3,44,57,36,14	
		1, 5,13,29,21,30, 7,18		4,46
56″	51,17, 6,11,11,58,25,49, 8,38		3,44,57,41, 0	
		1, 5,13,25,36,32,26,18		4,46
58″	51,17, 7,16,25,24, 2,21,34,56		3,44,57,45,46	
		1, 5,13,21,51,34,40,32		
60″	51,17, 8,21,38,45,53,56,15,28			
exact	51,17, 8,21,38,45,53,56, 1,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°44′ 0″	51,17, 8,21,38,45,53,56, 1,15			
		1, 5,13,18, 6,36,48,36		
2″	51,17, 9,26,52, 4, 0,32,49,51		3,44,57,55,23	
		1, 5,13,14,21,38,53,13		4,46
4″	51,17,10,32, 5,18,22,11,43, 4		3,44,58, 0, 9	
		1, 5,13,10,36,40,53, 4		4,46
6″	51,17,11,37,18,28,58,52,36, 8		3,44,58, 4,55	
		1, 5,13, 6,51,42,48, 9		4,46
8″	51,17,12,42,31,35,50,35,24,17		3,44,58, 9,41	
		1, 5,13, 3, 6,44,38,28		4,46
10″	51,17,13,47,44,38,57,20, 2,45		3,44,58,14,27	
		1, 5,12,59,21,46,24, 1		4,46
12″	51,17,14,52,57,38,19, 6,26,46		3,44,58,19,13	
		1, 5,12,55,36,48, 4,48		4,46
14″	51,17,15,58,10,33,55,54,31,34		3,44,58,23,59	
		1, 5,12,51,51,49,40,49		4,46
16″	51,17,17, 3,23,25,47,44,12,23		3,44,58,28,45	
		1, 5,12,48, 6,51,12, 4		4,46
18″	51,17,18, 8,36,13,54,35,24,27		3,44,58,33,31	
		1, 5,12,44,21,52,38,33		4,46
20″	51,17,19,13,48,58,16,28, 3, 0		3,44,58,38,17	
		1, 5,12,40,36,54, 0,16		4,46
22″	51,17,20,19, 1,38,53,22, 3,16		3,44,58,43, 3	
		1, 5,12,36,51,55,17,13		4,46
24″	51,17,21,24,14,15,45,17,20,29		3,44,58,47,49	
		1, 5,12,33, 6,56,29,24		4,46
26″	51,17,22,29,26,48,52,13,49,53		3,44,58,52,35	
		1, 5,12,29,21,57,36,49		4,46
28″	51,17,23,34,39,18,14,11,26,42		3,44,58,57,21	
		1, 5,12,25,36,58,39,28		4,46
30″	51,17,24,39,51,43,51,10, 6,10		3,44,59, 2, 7	
		1, 5,12,21,51,59,37,21		4,46
32″	51,17,25,45, 4, 5,43, 9,43,31		3,44,59, 6,53	
		1, 5,12,18, 7, 0,30,28		4,46
34″	51,17,26,50,16,23,50,10,13,59		3,44,59,11,39	
		1, 5,12,14,22, 1,18,49		4,46
36″	51,17,27,55,28,38,12,11,32,48		3,44,59,16,25	
		1, 5,12,10,37, 2, 2,24		4,46
38″	51,17,29, 0,40,48,49,13,35,12		3,44,59,21,11	
		1, 5,12, 6,52, 2,41,13		4,46
40″	51,17,30, 5,52,55,41,16,16,25		3,44,59,25,57	
		1, 5,12, 3, 7, 3,15,16		4,46
42″	51,17,31,11, 4,58,48,19,31,41		3,44,59,30,43	
		1, 5,11,59,22, 3,44,33		4,46
44″	51,17,32,16,16,58,10,23,16,14		3,44,59,35,29	
		1, 5,11,55,37, 4, 9, 4		4,46
46″	51,17,33,21,28,53,47,27,25,18		3,44,59,40,15	
		1, 5,11,51,52, 4,28,49		4,46
48″	51,17,34,26,40,45,39,31,54, 7		3,44,59,45, 1	
		1, 5,11,48, 7, 4,43,48		4,46
50″	51,17,35,31,52,33,46,36,37,55		3,44,59,49,47	
		1, 5,11,44,22, 4,54, 1		4,46
52″	51,17,36,37, 4,18, 8,41,31,56		3,44,59,54,33	
		1, 5,11,40,37, 4,59,28		4,46
54″	51,17,37,42,15,58,45,46,31,24		3,44,59,59,19	
		1, 5,11,36,52, 5, 0, 9		4,46
56″	51,17,38,47,27,35,37,51,31,33		3,45, 0, 4, 5	
		1, 5,11,33, 7, 4,56, 4		4,46
58″	51,17,39,52,39, 8,44,56,27,37		3,45, 0, 8,51	
		1, 5,11,29,22, 4,47,13		
60″	51,17,40,57,50,38, 7, 1,14,50			
exact	51,17,40,57,50,38, 7, 1,11,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°45′ 0″	51,17,40,57,50,38, 7, 1,11,13			
		1, 5,11,25,37, 4,33,17		
2″	51,17,42, 3, 2, 3,44, 5,44,30		3,45, 0,18,24	
		1, 5,11,21,52, 4,14,53		4,46
4″	51,17,43, 8,13,25,36, 9,59,23		3,45, 0,23,10	
		1, 5,11,18, 7, 3,51,43		4,46
6″	51,17,44,13,24,43,43,13,51, 6		3,45, 0,27,56	
		1, 5,11,14,22, 3,23,47		4,46
8″	51,17,45,18,35,58, 5,17,14,53		3,45, 0,32,42	
		1, 5,11,10,37, 2,51, 5		4,46
10″	51,17,46,23,47, 8,42,20, 5,58		3,45, 0,37,28	
		1, 5,11, 6,52, 2,13,37		4,46
12″	51,17,47,28,58,15,34,22,19,35		3,45, 0,42,14	
		1, 5,11, 3, 7, 1,31,23		4,46
14″	51,17,48,34, 9,18,41,23,50,58		3,45, 0,47, 0	
		1, 5,10,59,22, 0,44,23		4,46
16″	51,17,49,39,20,18, 3,24,35,21		3,45, 0,51,46	
		1, 5,10,55,36,59,52,37		4,46
18″	51,17,50,44,31,13,40,24,27,58		3,45, 0,56,32	
		1, 5,10,51,51,58,56, 5		4,46
20″	51,17,51,49,42, 5,32,23,24, 3		3,45, 1, 1,18	
		1, 5,10,48, 6,57,54,47		4,46
22″	51,17,52,54,52,53,39,21,18,50		3,45, 1, 6, 4	
		1, 5,10,44,21,56,48,43		4,46
24″	51,17,54, 0, 3,38, 1,18, 7,33		3,45, 1,10,50	
		1, 5,10,40,36,55,37,53		4,46
26″	51,17,55, 5,14,18,38,13,45,26		3,45, 1,15,36	
		1, 5,10,36,51,54,22,17		4,46
28″	51,17,56,10,24,55,30, 8, 7,43		3,45, 1,20,22	
		1, 5,10,33, 6,53, 1,55		4,46
30″	51,17,57,15,35,28,37, 1, 9,38		3,45, 1,25, 8	
		1, 5,10,29,21,51,36,47		4,46
32″	51,17,58,20,45,57,58,52,46,25		3,45, 1,29,54	
		1, 5,10,25,36,50, 6,53		4,46
34″	51,17,59,25,56,23,35,42,53,18		3,45, 1,34,40	
		1, 5,10,21,51,48,32,13		4,46
36″	51,18, 0,31, 6,45,27,31,25,31		3,45, 1,39,26	
		1, 5,10,18, 6,46,52,47		4,46
38″	51,18, 1,36,17, 3,34,18,18,18		3,45, 1,44,12	
		1, 5,10,14,21,45, 8,35		4,46
40″	51,18, 2,41,27,17,56, 3,26,53		3,45, 1,48,58	
		1, 5,10,10,36,43,19,37		4,46
42″	51,18, 3,46,37,28,32,46,46,30		3,45, 1,53,44	
		1, 5,10, 6,51,41,25,53		4,46
44″	51,18, 4,51,47,35,24,28,12,23		3,45, 1,58,30	
		1, 5,10, 3, 6,39,27,23		4,46
46″	51,18, 5,56,57,38,31, 7,39,46		3,45, 2, 3,16	
		1, 5, 9,59,21,37,24, 7		4,46
48″	51,18, 7, 2, 7,37,52,45, 3,53		3,45, 2, 8, 2	
		1, 5, 9,55,36,35,16, 5		4,46
50″	51,18, 8, 7,17,33,29,20,19,58		3,45, 2,12,48	
		1, 5, 9,51,51,33, 3,17		4,46
52″	51,18, 9,12,27,25,20,53,23,15		3,45, 2,17,34	
		1, 5, 9,48, 6,30,45,43		4,46
54″	51,18,10,17,37,13,27,24, 8,58		3,45, 2,22,20	
		1, 5, 9,44,21,28,23,23		4,46
56″	51,18,11,22,46,57,48,52,32,21		3,45, 2,27, 6	
		1, 5, 9,40,36,25,56,17		4,46
58″	51,18,12,27,56,38,25,18,28,38		3,45, 2,31,52	
		1, 5, 9,36,51,23,24,25		
60″	51,18,13,33, 6,15,16,41,53, 3			
exact	51,18,13,33, 6,15,16,42, 0,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°46′ 0″	51,18,13,33, 6,15,16,42, 0,52			
		1, 5, 9,33, 6,20,48,37		
2″	51,18,14,38,15,48,23, 2,49,29		3,45, 2,41,20	
		1, 5, 9,29,21,18, 7,17		4,46
4″	51,18,15,43,25,17,44,20,56,46		3,45, 2,46, 6	
		1, 5, 9,25,36,15,21,11		4,46
6″	51,18,16,48,34,43,20,36,17,57		3,45, 2,50,52	
		1, 5, 9,21,51,12,30,19		4,46
8″	51,18,17,53,44, 5,11,48,48,16		3,45, 2,55,38	
		1, 5, 9,18, 6, 9,34,41		4,46
10″	51,18,18,58,53,23,17,58,22,57		3,45, 3, 0,24	
		1, 5, 9,14,21, 6,34,17		4,46
12″	51,18,20, 4, 2,37,39, 4,57,14		3,45, 3, 5,10	
		1, 5, 9,10,36, 3,29, 7		4,46
14″	51,18,21, 9,11,48,15, 8,26,21		3,45, 3, 9,56	
		1, 5, 9, 6,51, 0,19,11		4,46
16″	51,18,22,14,20,55, 6, 8,45,32		3,45, 3,14,42	
		1, 5, 9, 3, 5,57, 4,29		4,46
18″	51,18,23,19,29,58,12, 5,50, 1		3,45, 3,19,28	
		1, 5, 8,59,20,53,45, 1		4,46
20″	51,18,24,24,38,57,32,59,35, 2		3,45, 3,24,14	
		1, 5, 8,55,35,50,20,47		4,46
22″	51,18,25,29,47,53, 8,49,55,49		3,45, 3,29, 0	
		1, 5, 8,51,50,46,51,47		4,46
24″	51,18,26,34,56,44,59,36,47,36		3,45, 3,33,46	
		1, 5, 8,48, 5,43,18, 1		4,46
26″	51,18,27,40, 5,33, 5,20, 5,37		3,45, 3,38,32	
		1, 5, 8,44,20,39,39,29		4,46
28″	51,18,28,45,14,17,25,59,45, 6		3,45, 3,43,18	
		1, 5, 8,40,35,35,56,11		4,46
30″	51,18,29,50,22,58, 1,35,41,17		3,45, 3,48, 4	
		1, 5, 8,36,50,32, 8, 7		4,46
32″	51,18,30,55,31,34,52, 7,49,24		3,45, 3,52,50	
		1, 5, 8,33, 5,28,15,17		4,46
34″	51,18,32, 0,40, 7,57,36, 4,41		3,45, 3,57,36	
		1, 5, 8,29,20,24,17,41		4,46
36″	51,18,33, 5,48,37,18, 0,22,22		3,45, 4, 2,22	
		1, 5, 8,25,35,20,15,19		4,46
38″	51,18,34,10,57, 2,53,20,37,41		3,45, 4, 7, 8	
		1, 5, 8,21,50,16, 8,11		4,46
40″	51,18,35,16, 5,24,43,36,45,52		3,45, 4,11,54	
		1, 5, 8,18, 5,11,56,17		4,46
42″	51,18,36,21,13,42,48,48,42, 9		3,45, 4,16,40	
		1, 5, 8,14,20, 7,39,37		4,46
44″	51,18,37,26,21,57, 8,56,21,46		3,45, 4,21,26	
		1, 5, 8,10,35, 3,18,11		4,46
46″	51,18,38,31,30, 7,43,59,39,57		3,45, 4,26,12	
		1, 5, 8, 6,49,58,51,59		4,46
48″	51,18,39,36,38,14,33,58,31,56		3,45, 4,30,58	
		1, 5, 8, 3, 4,54,21, 1		4,46
50″	51,18,40,41,46,17,38,52,52,57		3,45, 4,35,44	
		1, 5, 7,59,19,49,45,17		4,46
52″	51,18,41,46,54,16,58,42,38,14		3,45, 4,40,30	
		1, 5, 7,55,34,45, 4,47		4,46
54″	51,18,42,52, 2,12,33,27,43, 1		3,45, 4,45,16	
		1, 5, 7,51,49,40,19,31		4,46
56″	51,18,43,57,10, 4,23, 8, 2,32		3,45, 4,50, 2	
		1, 5, 7,48, 4,35,29,29		4,46
58″	51,18,45, 2,17,52,27,43,32, 1		3,45, 4,54,48	
		1, 5, 7,44,19,30,34,41		
60″	51,18,46, 7,25,36,47,14, 6,42			
exact	51,18,46, 7,25,36,47,14,19,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°47′ 0″	51,18,46, 7,25,36,47,14,19,13			
		1, 5, 7,40,34,25,36,38		
2″	51,18,47,12,33,17,21,39,55,51		3,45, 5, 4,13	
		1, 5, 7,36,49,20,32,25		4,46
4″	51,18,48,17,40,54,11, 0,28,16		3,45, 5, 8,59	
		1, 5, 7,33, 4,15,23,26		4,46
6″	51,18,49,22,48,27,15,15,51,42		3,45, 5,13,45	
		1, 5, 7,29,19,10, 9,41		4,46
8″	51,18,50,27,55,56,34,26, 1,23		3,45, 5,18,31	
		1, 5, 7,25,34, 4,51,10		4,46
10″	51,18,51,33, 3,22, 8,30,52,33		3,45, 5,23,17	
		1, 5, 7,21,48,59,27,53		4,46
12″	51,18,52,38,10,43,57,30,20,26		3,45, 5,28, 3	
		1, 5, 7,18, 3,53,59,50		4,46
14″	51,18,53,43,18, 2, 1,24,20,16		3,45, 5,32,49	
		1, 5, 7,14,18,48,27, 1		4,46
16″	51,18,54,48,25,16,20,12,47,17		3,45, 5,37,35	
		1, 5, 7,10,33,42,49,26		4,46
18″	51,18,55,53,32,26,53,55,36,43		3,45, 5,42,21	
		1, 5, 7, 6,48,37, 7, 5		4,46
20″	51,18,56,58,39,33,42,32,43,48		3,45, 5,47, 7	
		1, 5, 7, 3, 3,31,19,58		4,46
22″	51,18,58, 3,46,36,46, 4, 3,46		3,45, 5,51,53	
		1, 5, 6,59,18,25,28, 5		4,46
24″	51,18,59, 8,53,36, 4,29,31,51		3,45, 5,56,39	
		1, 5, 6,55,33,19,31,26		4,46
26″	51,19, 0,14, 0,31,37,49, 3,17		3,45, 6, 1,25	
		1, 5, 6,51,48,13,30, 1		4,46
28″	51,19, 1,19, 7,23,26, 2,33,18		3,45, 6, 6,11	
		1, 5, 6,48, 3, 7,23,50		4,46
30″	51,19, 2,24,14,11,29, 9,57, 8		3,45, 6,10,57	
		1, 5, 6,44,18, 1,12,53		4,46
32″	51,19, 3,29,20,55,47,11,10, 1		3,45, 6,15,43	
		1, 5, 6,40,32,54,57,10		4,46
34″	51,19, 4,34,27,36,20, 6, 7,11		3,45, 6,20,29	
		1, 5, 6,36,47,48,36,41		4,46
36″	51,19, 5,39,34,13, 7,54,43,52		3,45, 6,25,15	
		1, 5, 6,33, 2,42,11,26		4,46
38″	51,19, 6,44,40,46,10,36,55,18		3,45, 6,30, 1	
		1, 5, 6,29,17,35,41,25		4,46
40″	51,19, 7,49,47,15,28,12,36,43		3,45, 6,34,47	
		1, 5, 6,25,32,29, 6,38		4,46
42″	51,19, 8,54,53,41, 0,41,43,21		3,45, 6,39,33	
		1, 5, 6,21,47,22,27, 5		4,46
44″	51,19,10, 0, 0, 2,48, 4,10,26		3,45, 6,44,19	
		1, 5, 6,18, 2,15,42,46		4,46
46″	51,19,11, 5, 6,20,50,19,53,12		3,45, 6,49, 5	
		1, 5, 6,14,17, 8,53,41		4,46
48″	51,19,12,10,12,35, 7,28,46,53		3,45, 6,53,51	
		1, 5, 6,10,32, 1,59,50		4,46
50″	51,19,13,15,18,45,39,30,46,43		3,45, 6,58,37	
		1, 5, 6, 6,46,55, 1,13		4,46
52″	51,19,14,20,24,52,26,25,47,56		3,45, 7, 3,23	
		1, 5, 6, 3, 1,47,57,50		4,46
54″	51,19,15,25,30,55,28,13,45,46		3,45, 7, 8, 9	
		1, 5, 5,59,16,40,49,41		4,46
56″	51,19,16,30,36,54,44,54,35,27		3,45, 7,12,55	
		1, 5, 5,55,31,33,36,46		4,46
58″	51,19,17,35,42,50,16,28,12,13		3,45, 7,17,41	
		1, 5, 5,51,46,26,19, 5		
60″	51,19,18,40,48,42, 2,54,31,18			
exact	51,19,18,40,48,42, 2,54,57, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°48′ 0″	51,19,18,40,48,42, 2,54,57, 0			
		1, 5, 5,48, 1,18,59,24		
2″	51,19,19,45,54,30, 4,13,56,24		3,45, 7,27, 1	
		1, 5, 5,44,16,11,32,23		4,46
4″	51,19,20,51, 0,14,20,25,28,47		3,45, 7,31,47	
		1, 5, 5,40,31, 4, 0,36		4,46
6″	51,19,21,56, 5,54,51,29,29,23		3,45, 7,36,33	
		1, 5, 5,36,45,56,24, 3		4,46
8″	51,19,23, 1,11,31,37,25,53,26		3,45, 7,41,19	
		1, 5, 5,33, 0,48,42,44		4,46
10″	51,19,24, 6,17, 4,38,14,36,10		3,45, 7,46, 5	
		1, 5, 5,29,15,40,56,39		4,46
12″	51,19,25,11,22,33,53,55,32,49		3,45, 7,50,51	
		1, 5, 5,25,30,33, 5,48		4,46
14″	51,19,26,16,27,59,24,28,38,37		3,45, 7,55,37	
		1, 5, 5,21,45,25,10,11		4,46
16″	51,19,27,21,33,21, 9,53,48,48		3,45, 8, 0,23	
		1, 5, 5,18, 0,17, 9,48		4,46
18″	51,19,28,26,38,39,10,10,58,36		3,45, 8, 5, 9	
		1, 5, 5,14,15, 9, 4,39		4,46
20″	51,19,29,31,43,53,25,20, 3,15		3,45, 8, 9,55	
		1, 5, 5,10,30, 0,54,44		4,46
22″	51,19,30,36,49, 3,55,20,57,59		3,45, 8,14,41	
		1, 5, 5, 6,44,52,40, 3		4,46
24″	51,19,31,41,54,10,40,13,38, 2		3,45, 8,19,27	
		1, 5, 5, 2,59,44,20,36		4,46
26″	51,19,32,46,59,13,39,57,58,38		3,45, 8,24,13	
		1, 5, 4,59,14,35,56,23		4,46
28″	51,19,33,52, 4,12,54,33,55, 1		3,45, 8,28,59	
		1, 5, 4,55,29,27,27,24		4,46
30″	51,19,34,57, 9, 8,24, 1,22,25		3,45, 8,33,45	
		1, 5, 4,51,44,18,53,39		4,46
32″	51,19,36, 2,14, 0, 8,20,16, 4		3,45, 8,38,31	
		1, 5, 4,47,59,10,15, 8		4,46
34″	51,19,37, 7,18,48, 7,30,31,12		3,45, 8,43,17	
		1, 5, 4,44,14, 1,31,51		4,46
36″	51,19,38,12,23,32,21,32, 3, 3		3,45, 8,48, 3	
		1, 5, 4,40,28,52,43,48		4,46
38″	51,19,39,17,28,12,50,24,46,51		3,45, 8,52,49	
		1, 5, 4,36,43,43,50,59		4,46
40″	51,19,40,22,32,49,34, 8,37,50		3,45, 8,57,35	
		1, 5, 4,32,58,34,53,24		4,46
42″	51,19,41,27,37,22,32,43,31,14		3,45, 9, 2,21	
		1, 5, 4,29,13,25,51, 3		4,46
44″	51,19,42,32,41,51,46, 9,22,17		3,45, 9, 7, 7	
		1, 5, 4,25,28,16,43,56		4,46
46″	51,19,43,37,46,17,14,26, 6,13		3,45, 9,11,53	
		1, 5, 4,21,43, 7,32, 3		4,46
48″	51,19,44,42,50,38,57,33,38,16		3,45, 9,16,39	
		1, 5, 4,17,57,58,15,24		4,46
50″	51,19,45,47,54,56,55,31,53,40		3,45, 9,21,25	
		1, 5, 4,14,12,48,53,59		4,46
52″	51,19,46,52,59,11, 8,20,47,39		3,45, 9,26,11	
		1, 5, 4,10,27,39,27,48		4,46
54″	51,19,47,58, 3,21,36, 0,15,27		3,45, 9,30,57	
		1, 5, 4, 6,42,29,56,51		4,46
56″	51,19,49, 3, 7,28,18,30,12,18		3,45, 9,35,43	
		1, 5, 4, 2,57,20,21, 8		4,46
58″	51,19,50, 8,11,31,15,50,33,26		3,45, 9,40,29	
		1, 5, 3,59,12,10,40,39		
60″	51,19,51,13,15,30,28, 1,14, 5			
exact	51,19,51,13,15,30,28, 1,46,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°49′ 0″	51,19,51,13,15,30,28, 1,46,39			
		1, 5, 3,55,27, 0,58,59		
2″	51,19,52,18,19,25,55, 2,45,38		3,45, 9,49,45	
		1, 5, 3,51,41,51, 9,14		4,45
4″	51,19,53,23,23,17,36,53,54,52		3,45, 9,54,30	
		1, 5, 3,47,56,41,14,44		4,45
6″	51,19,54,28,27, 5,33,35, 9,36		3,45, 9,59,15	
		1, 5, 3,44,11,31,15,29		4,45
8″	51,19,55,33,30,49,45, 6,25, 5		3,45,10, 4, 0	
		1, 5, 3,40,26,21,11,29		4,45
10″	51,19,56,38,34,30,11,27,36,34		3,45,10, 8,45	
		1, 5, 3,36,41,11, 2,44		4,45
12″	51,19,57,43,38, 6,52,38,39,18		3,45,10,13,30	
		1, 5, 3,32,56, 0,49,14		4,45
14″	51,19,58,48,41,39,48,39,28,32		3,45,10,18,15	
		1, 5, 3,29,10,50,30,59		4,45
16″	51,19,59,53,45, 8,59,29,59,31		3,45,10,23, 0	
		1, 5, 3,25,25,40, 7,59		4,45
18″	51,20, 0,58,48,34,25,10, 7,30		3,45,10,27,45	
		1, 5, 3,21,40,29,40,14		4,45
20″	51,20, 2, 3,51,56, 5,39,47,44		3,45,10,32,30	
		1, 5, 3,17,55,19, 7,44		4,45
22″	51,20, 3, 8,55,14, 0,58,55,28		3,45,10,37,15	
		1, 5, 3,14,10, 8,30,29		4,45
24″	51,20, 4,13,58,28,11, 7,25,57		3,45,10,42, 0	
		1, 5, 3,10,24,57,48,29		4,45
26″	51,20, 5,19, 1,38,36, 5,14,26		3,45,10,46,45	
		1, 5, 3, 6,39,47, 1,44		4,45
28″	51,20, 6,24, 4,45,15,52,16,10		3,45,10,51,30	
		1, 5, 3, 2,54,36,10,14		4,45
30″	51,20, 7,29, 7,48,10,28,26,24		3,45,10,56,15	
		1, 5, 2,59, 9,25,13,59		4,45
32″	51,20, 8,34,10,47,19,53,40,23		3,45,11, 1, 0	
		1, 5, 2,55,24,14,12,59		4,45
34″	51,20, 9,39,13,42,44, 7,53,22		3,45,11, 5,45	
		1, 5, 2,51,39, 3, 7,14		4,45
36″	51,20,10,44,16,34,23,11, 0,36		3,45,11,10,30	
		1, 5, 2,47,53,51,56,44		4,45
38″	51,20,11,49,19,22,17, 2,57,20		3,45,11,15,15	
		1, 5, 2,44, 8,40,41,29		4,45
40″	51,20,12,54,22, 6,25,43,38,49		3,45,11,20, 0	
		1, 5, 2,40,23,29,21,29		4,45
42″	51,20,13,59,24,46,49,13, 0,18		3,45,11,24,45	
		1, 5, 2,36,38,17,56,44		4,45
44″	51,20,15, 4,27,23,27,30,57, 2		3,45,11,29,30	
		1, 5, 2,32,53, 6,27,14		4,45
46″	51,20,16, 9,29,56,20,37,24,16		3,45,11,34,15	
		1, 5, 2,29, 7,54,52,59		4,45
48″	51,20,17,14,32,25,28,32,17,15		3,45,11,39, 0	
		1, 5, 2,25,22,43,13,59		4,45
50″	51,20,18,19,34,50,51,15,31,14		3,45,11,43,45	
		1, 5, 2,21,37,31,30,14		4,45
52″	51,20,19,24,37,12,28,47, 1,28		3,45,11,48,30	
		1, 5, 2,17,52,19,41,44		4,45
54″	51,20,20,29,39,30,21, 6,43,12		3,45,11,53,15	
		1, 5, 2,14, 7, 7,48,29		4,45
56″	51,20,21,34,41,44,28,14,31,41		3,45,11,58, 0	
		1, 5, 2,10,21,55,50,29		4,45
58″	51,20,22,39,43,54,50,10,22,10		3,45,12, 2,45	
		1, 5, 2, 6,36,43,47,44		
60″	51,20,23,44,46, 1,26,54, 9,54			
exact	51,20,23,44,46, 1,26,53,42,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°50′ 0″	51,20,23,44,46, 1,26,53,42,20			
		1, 5, 2, 2,51,31,37,27		
2″	51,20,24,49,48, 4,18,25,19,47		3,45,12,12,25	
		1, 5, 1,59, 6,19,25, 2		4,45
4″	51,20,25,54,50, 3,24,44,44,49		3,45,12,17,10	
		1, 5, 1,55,21, 7, 7,52		4,45
6″	51,20,26,59,51,58,45,51,52,41		3,45,12,21,55	
		1, 5, 1,51,35,54,45,57		4,45
8″	51,20,28, 4,53,50,21,46,38,38		3,45,12,26,40	
		1, 5, 1,47,50,42,19,17		4,45
10″	51,20,29, 9,55,38,12,28,57,55		3,45,12,31,25	
		1, 5, 1,44, 5,29,47,52		4,45
12″	51,20,30,14,57,22,17,58,45,47		3,45,12,36,10	
		1, 5, 1,40,20,17,11,42		4,45
14″	51,20,31,19,59, 2,38,15,57,29		3,45,12,40,55	
		1, 5, 1,36,35, 4,30,47		4,45
16″	51,20,32,25, 0,39,13,20,28,16		3,45,12,45,40	
		1, 5, 1,32,49,51,45, 7		4,45
18″	51,20,33,30, 2,12, 3,12,13,23		3,45,12,50,25	
		1, 5, 1,29, 4,38,54,42		4,45
20″	51,20,34,35, 3,41, 7,51, 8, 5		3,45,12,55,10	
		1, 5, 1,25,19,25,59,32		4,45
22″	51,20,35,40, 5, 6,27,17, 7,37		3,45,12,59,55	
		1, 5, 1,21,34,12,59,37		4,45
24″	51,20,36,45, 6,28, 1,30, 7,14		3,45,13, 4,40	
		1, 5, 1,17,48,59,54,57		4,45
26″	51,20,37,50, 7,45,50,30, 2,11		3,45,13, 9,25	
		1, 5, 1,14, 3,46,45,32		4,45
28″	51,20,38,55, 8,59,54,16,47,43		3,45,13,14,10	
		1, 5, 1,10,18,33,31,22		4,45
30″	51,20,40, 0,10,10,12,50,19, 5		3,45,13,18,55	
		1, 5, 1, 6,33,20,12,27		4,45
32″	51,20,41, 5,11,16,46,10,31,32		3,45,13,23,40	
		1, 5, 1, 2,48, 6,48,47		4,45
34″	51,20,42,10,12,19,34,17,20,19		3,45,13,28,25	
		1, 5, 0,59, 2,53,20,22		4,45
36″	51,20,43,15,13,18,37,10,40,41		3,45,13,33,10	
		1, 5, 0,55,17,39,47,12		4,45
38″	51,20,44,20,14,13,54,50,27,53		3,45,13,37,55	
		1, 5, 0,51,32,26, 9,17		4,45
40″	51,20,45,25,15, 5,27,16,37,10		3,45,13,42,40	
		1, 5, 0,47,47,12,26,37		4,45
42″	51,20,46,30,15,53,14,29, 3,47		3,45,13,47,25	
		1, 5, 0,44, 1,58,39,12		4,45
44″	51,20,47,35,16,37,16,27,42,59		3,45,13,52,10	
		1, 5, 0,40,16,44,47, 2		4,45
46″	51,20,48,40,17,17,33,12,30, 1		3,45,13,56,55	
		1, 5, 0,36,31,30,50, 7		4,45
48″	51,20,49,45,17,54, 4,43,20, 8		3,45,14, 1,40	
		1, 5, 0,32,46,16,48,27		4,45
50″	51,20,50,50,18,26,51, 0, 8,35		3,45,14, 6,25	
		1, 5, 0,29, 1, 2,42, 2		4,45
52″	51,20,51,55,18,55,52, 2,50,37		3,45,14,11,10	
		1, 5, 0,25,15,48,30,52		4,45
54″	51,20,53, 0,19,21, 7,51,21,29		3,45,14,15,55	
		1, 5, 0,21,30,34,14,57		4,45
56″	51,20,54, 5,19,42,38,25,36,26		3,45,14,20,40	
		1, 5, 0,17,45,19,54,17		4,45
58″	51,20,55,10,20, 0,23,45,30,43		3,45,14,25,25	
		1, 5, 0,14, 0, 5,28,52		
60″	51,20,56,15,20,14,23,50,59,35			
exact	51,20,56,15,20,14,23,50,39,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°51′ 0″	51,20,56,15,20,14,23,50,39,55			
		1, 5, 0,10,14,50,56,49		
2″	51,20,57,20,20,24,38,41,36,44		3,45,14,35, 2	
		1, 5, 0, 6,29,36,21,47		4,45
4″	51,20,58,25,20,31, 8,17,58,31		3,45,14,39,47	
		1, 5, 0, 2,44,21,42, 0		4,45
6″	51,20,59,30,20,33,52,39,40,31		3,45,14,44,32	
		1, 4,59,58,59, 6,57,28		4,45
8″	51,21, 0,35,20,32,51,46,37,59		3,45,14,49,17	
		1, 4,59,55,13,52, 8,11		4,45
10″	51,21, 1,40,20,28, 5,38,46,10		3,45,14,54, 2	
		1, 4,59,51,28,37,14, 9		4,45
12″	51,21, 2,45,20,19,34,16, 0,19		3,45,14,58,47	
		1, 4,59,47,43,22,15,22		4,45
14″	51,21, 3,50,20, 7,17,38,15,41		3,45,15, 3,32	
		1, 4,59,43,58, 7,11,50		4,45
16″	51,21, 4,55,19,51,15,45,27,31		3,45,15, 8,17	
		1, 4,59,40,12,52, 3,33		4,45
18″	51,21, 6, 0,19,31,28,37,31, 4		3,45,15,13, 2	
		1, 4,59,36,27,36,50,31		4,45
20″	51,21, 7, 5,19, 7,56,14,21,35		3,45,15,17,47	
		1, 4,59,32,42,21,32,44		4,45
22″	51,21, 8,10,18,40,38,35,54,19		3,45,15,22,32	
		1, 4,59,28,57, 6,10,12		4,45
24″	51,21, 9,15,18, 9,35,42, 4,31		3,45,15,27,17	
		1, 4,59,25,11,50,42,55		4,45
26″	51,21,10,20,17,34,47,32,47,26		3,45,15,32, 2	
		1, 4,59,21,26,35,10,53		4,45
28″	51,21,11,25,16,56,14, 7,58,19		3,45,15,36,47	
		1, 4,59,17,41,19,34, 6		4,45
30″	51,21,12,30,16,13,55,27,32,25		3,45,15,41,32	
		1, 4,59,13,56, 3,52,34		4,45
32″	51,21,13,35,15,27,51,31,24,59		3,45,15,46,17	
		1, 4,59,10,10,48, 6,17		4,45
34″	51,21,14,40,14,38, 2,19,31,16		3,45,15,51, 2	
		1, 4,59, 6,25,32,15,15		4,45
36″	51,21,15,45,13,44,27,51,46,31		3,45,15,55,47	
		1, 4,59, 2,40,16,19,28		4,45
38″	51,21,16,50,12,47, 8, 8, 5,59		3,45,16, 0,32	
		1, 4,58,58,55, 0,18,56		4,45
40″	51,21,17,55,11,46, 3, 8,24,55		3,45,16, 5,17	
		1, 4,58,55, 9,44,13,39		4,45
42″	51,21,19, 0,10,41,12,52,38,34		3,45,16,10, 2	
		1, 4,58,51,24,28, 3,37		4,45
44″	51,21,20, 5, 9,32,37,20,42,11		3,45,16,14,47	
		1, 4,58,47,39,11,48,50		4,45
46″	51,21,21,10, 8,20,16,32,31, 1		3,45,16,19,32	
		1, 4,58,43,53,55,29,18		4,45
48″	51,21,22,15, 7, 4,10,28, 0,19		3,45,16,24,17	
		1, 4,58,40, 8,39, 5, 1		4,45
50″	51,21,23,20, 5,44,19, 7, 5,20		3,45,16,29, 2	
		1, 4,58,36,23,22,35,59		4,45
52″	51,21,24,25, 4,20,42,29,41,19		3,45,16,33,47	
		1, 4,58,32,38, 6, 2,12		4,45
54″	51,21,25,30, 2,53,20,35,43,31		3,45,16,38,32	
		1, 4,58,28,52,49,23,40		4,45
56″	51,21,26,35, 1,22,13,25, 7,11		3,45,16,43,17	
		1, 4,58,25, 7,32,40,23		4,45
58″	51,21,27,39,59,47,20,57,47,34		3,45,16,48, 2	
		1, 4,58,21,22,15,52,21		
60″	51,21,28,44,58, 8,43,13,39,55			
exact	51,21,28,44,58, 8,43,13,37, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°52′ 0″	51,21,28,44,58, 8,43,13,37, 1			
		1, 4,58,17,36,58,59,11		
2″	51,21,29,49,56,26,20,12,36,12		3,45,16,57,33	
		1, 4,58,13,51,42, 1,38		4,45
4″	51,21,30,54,54,40,11,54,37,50		3,45,17, 2,18	
		1, 4,58,10, 6,24,59,20		4,45
6″	51,21,31,59,52,50,18,19,37,10		3,45,17, 7, 3	
		1, 4,58, 6,21, 7,52,17		4,45
8″	51,21,33, 4,50,56,39,27,29,27		3,45,17,11,48	
		1, 4,58, 2,35,50,40,29		4,45
10″	51,21,34, 9,48,59,15,18, 9,56		3,45,17,16,33	
		1, 4,57,58,50,33,23,56		4,45
12″	51,21,35,14,46,58, 5,51,33,52		3,45,17,21,18	
		1, 4,57,55, 5,16, 2,38		4,45
14″	51,21,36,19,44,53,11, 7,36,30		3,45,17,26, 3	
		1, 4,57,51,19,58,36,35		4,45
16″	51,21,37,24,42,44,31, 6,13, 5		3,45,17,30,48	
		1, 4,57,47,34,41, 5,47		4,45
18″	51,21,38,29,40,32, 5,47,18,52		3,45,17,35,33	
		1, 4,57,43,49,23,30,14		4,45
20″	51,21,39,34,38,15,55,10,49, 6		3,45,17,40,18	
		1, 4,57,40, 4, 5,49,56		4,45
22″	51,21,40,39,35,55,59,16,39, 2		3,45,17,45, 3	
		1, 4,57,36,18,48, 4,53		4,45
24″	51,21,41,44,33,32,18, 4,43,55		3,45,17,49,48	
		1, 4,57,32,33,30,15, 5		4,45
26″	51,21,42,49,31, 4,51,34,59, 0		3,45,17,54,33	
		1, 4,57,28,48,12,20,32		4,45
28″	51,21,43,54,28,33,39,47,19,32		3,45,17,59,18	
		1, 4,57,25, 2,54,21,14		4,45
30″	51,21,44,59,25,58,42,41,40,46		3,45,18, 4, 3	
		1, 4,57,21,17,36,17,11		4,45
32″	51,21,46, 4,23,20, 0,17,57,57		3,45,18, 8,48	
		1, 4,57,17,32,18, 8,23		4,45
34″	51,21,47, 9,20,37,32,36, 6,20		3,45,18,13,33	
		1, 4,57,13,46,59,54,50		4,45
36″	51,21,48,14,17,51,19,36, 1,10		3,45,18,18,18	
		1, 4,57,10, 1,41,36,32		4,45
38″	51,21,49,19,15, 1,21,17,37,42		3,45,18,23, 3	
		1, 4,57, 6,16,23,13,29		4,45
40″	51,21,50,24,12, 7,37,40,51,11		3,45,18,27,48	
		1, 4,57, 2,31, 4,45,41		4,45
42″	51,21,51,29, 9,10, 8,45,36,52		3,45,18,32,33	
		1, 4,56,58,45,46,13, 8		4,45
44″	51,21,52,34, 6, 8,54,31,50, 0		3,45,18,37,18	
		1, 4,56,55, 0,27,35,50		4,45
46″	51,21,53,39, 3, 3,54,59,25,50		3,45,18,42, 3	
		1, 4,56,51,15, 8,53,47		4,45
48″	51,21,54,43,59,55,10, 8,19,37		3,45,18,46,48	
		1, 4,56,47,29,50, 6,59		4,45
50″	51,21,55,48,56,42,39,58,26,36		3,45,18,51,33	
		1, 4,56,43,44,31,15,26		4,45
52″	51,21,56,53,53,26,24,29,42, 2		3,45,18,56,18	
		1, 4,56,39,59,12,19, 8		4,45
54″	51,21,57,58,50, 6,23,42, 1,10		3,45,19, 1, 3	
		1, 4,56,36,13,53,18, 5		4,45
56″	51,21,59, 3,46,42,37,35,19,15		3,45,19, 5,48	
		1, 4,56,32,28,34,12,17		4,45
58″	51,22, 0, 8,43,15, 6, 9,31,32		3,45,19,10,33	
		1, 4,56,28,43,15, 1,44		
60″	51,22, 1,13,39,43,49,24,33,16			
exact	51,22, 1,13,39,43,49,24,33, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°53′ 0″	51,22, 1,13,39,43,49,24,33, 0			
		1, 4,56,24,57,55,46,36		
2″	51,22, 2,18,36, 8,47,20,19,36		3,45,19,20, 1	
		1, 4,56,21,12,36,26,35		4,45
4″	51,22, 3,23,32,29,59,56,46,11		3,45,19,24,46	
		1, 4,56,17,27,17, 1,49		4,45
6″	51,22, 4,28,28,47,27,13,48, 0		3,45,19,29,31	
		1, 4,56,13,41,57,32,18		4,45
8″	51,22, 5,33,25, 1, 9,11,20,18		3,45,19,34,16	
		1, 4,56, 9,56,37,58, 2		4,45
10″	51,22, 6,38,21,11, 5,49,18,20		3,45,19,39, 1	
		1, 4,56, 6,11,18,19, 1		4,45
12″	51,22, 7,43,17,17,17, 7,37,21		3,45,19,43,46	
		1, 4,56, 2,25,58,35,15		4,45
14″	51,22, 8,48,13,19,43, 6,12,36		3,45,19,48,31	
		1, 4,55,58,40,38,46,44		4,45
16″	51,22, 9,53, 9,18,23,44,59,20		3,45,19,53,16	
		1, 4,55,54,55,18,53,28		4,45
18″	51,22,10,58, 5,13,19, 3,52,48		3,45,19,58, 1	
		1, 4,55,51, 9,58,55,27		4,45
20″	51,22,12, 3, 1, 4,29, 2,48,15		3,45,20, 2,46	
		1, 4,55,47,24,38,52,41		4,45
22″	51,22,13, 7,56,51,53,41,40,56		3,45,20, 7,31	
		1, 4,55,43,39,18,45,10		4,45
24″	51,22,14,12,52,35,33, 0,26, 6		3,45,20,12,16	
		1, 4,55,39,53,58,32,54		4,45
26″	51,22,15,17,48,15,26,58,59, 0		3,45,20,17, 1	
		1, 4,55,36, 8,38,15,53		4,45
28″	51,22,16,22,43,51,35,37,14,53		3,45,20,21,46	
		1, 4,55,32,23,17,54, 7		4,45
30″	51,22,17,27,39,23,58,55, 9, 0		3,45,20,26,31	
		1, 4,55,28,37,57,27,36		4,45
32″	51,22,18,32,34,52,36,52,36,36		3,45,20,31,16	
		1, 4,55,24,52,36,56,20		4,45
34″	51,22,19,37,30,17,29,29,32,56		3,45,20,36, 1	
		1, 4,55,21, 7,16,20,19		4,45
36″	51,22,20,42,25,38,36,45,53,15		3,45,20,40,46	
		1, 4,55,17,21,55,39,33		4,45
38″	51,22,21,47,20,55,58,41,32,48		3,45,20,45,31	
		1, 4,55,13,36,34,54, 2		4,45
40″	51,22,22,52,16, 9,35,16,26,50		3,45,20,50,16	
		1, 4,55, 9,51,14, 3,46		4,45
42″	51,22,23,57,11,19,26,30,30,36		3,45,20,55, 1	
		1, 4,55, 6, 5,53, 8,45		4,45
44″	51,22,25, 2, 6,25,32,23,39,21		3,45,20,59,46	
		1, 4,55, 2,20,32, 8,59		4,45
46″	51,22,26, 7, 1,27,52,55,48,20		3,45,21, 4,31	
		1, 4,54,58,35,11, 4,28		4,45
48″	51,22,27,11,56,26,28, 6,52,48		3,45,21, 9,16	
		1, 4,54,54,49,49,55,12		4,45
50″	51,22,28,16,51,21,17,56,48, 0		3,45,21,14, 1	
		1, 4,54,51, 4,28,41,11		4,45
52″	51,22,29,21,46,12,22,25,29,11		3,45,21,18,46	
		1, 4,54,47,19, 7,22,25		4,45
54″	51,22,30,26,40,59,41,32,51,36		3,45,21,23,31	
		1, 4,54,43,33,45,58,54		4,45
56″	51,22,31,31,35,43,15,18,50,30		3,45,21,28,16	
		1, 4,54,39,48,24,30,38		4,45
58″	51,22,32,36,30,23, 3,43,21, 8		3,45,21,33, 1	
		1, 4,54,36, 3, 2,57,37		
60″	51,22,33,41,24,59, 6,46,18,45			
exact	51,22,33,41,24,59, 6,46,29, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°54′ 0″	51,22,33,41,24,59, 6,46,29, 2			
		1, 4,54,32,17,41,21, 6		
2″	51,22,34,46,19,31,24,27,50, 8		3,45,21,42,25	
		1, 4,54,28,32,19,38,41		4,45
4″	51,22,35,51,13,59,56,47,28,49		3,45,21,47,10	
		1, 4,54,24,46,57,51,31		4,45
6″	51,22,36,56, 8,24,43,45,20,20		3,45,21,51,55	
		1, 4,54,21, 1,35,59,36		4,45
8″	51,22,38, 1, 2,45,45,21,19,56		3,45,21,56,40	
		1, 4,54,17,16,14, 2,56		4,45
10″	51,22,39, 5,57, 3, 1,35,22,52		3,45,22, 1,25	
		1, 4,54,13,30,52, 1,31		4,45
12″	51,22,40,10,51,16,32,27,24,23		3,45,22, 6,10	
		1, 4,54, 9,45,29,55,21		4,45
14″	51,22,41,15,45,26,17,57,19,44		3,45,22,10,55	
		1, 4,54, 6, 0, 7,44,26		4,45
16″	51,22,42,20,39,32,18, 5, 4,10		3,45,22,15,40	
		1, 4,54, 2,14,45,28,46		4,45
18″	51,22,43,25,33,34,32,50,32,56		3,45,22,20,25	
		1, 4,53,58,29,23, 8,21		4,45
20″	51,22,44,30,27,33, 2,13,41,17		3,45,22,25,10	
		1, 4,53,54,44, 0,43,11		4,45
22″	51,22,45,35,21,27,46,14,24,28		3,45,22,29,55	
		1, 4,53,50,58,38,13,16		4,45
24″	51,22,46,40,15,18,44,52,37,44		3,45,22,34,40	
		1, 4,53,47,13,15,38,36		4,45
26″	51,22,47,45, 9, 5,58, 8,16,20		3,45,22,39,25	
		1, 4,53,43,27,52,59,11		4,45
28″	51,22,48,50, 2,49,26, 1,15,31		3,45,22,44,10	
		1, 4,53,39,42,30,15, 1		4,45
30″	51,22,49,54,56,29, 8,31,30,32		3,45,22,48,55	
		1, 4,53,35,57, 7,26, 6		4,45
32″	51,22,50,59,50, 5, 5,38,56,38		3,45,22,53,40	
		1, 4,53,32,11,44,32,26		4,45
34″	51,22,52, 4,43,37,17,23,29, 4		3,45,22,58,25	
		1, 4,53,28,26,21,34, 1		4,45
36″	51,22,53, 9,37, 5,43,45, 3, 5		3,45,23, 3,10	
		1, 4,53,24,40,58,30,51		4,45
38″	51,22,54,14,30,30,24,43,33,56		3,45,23, 7,55	
		1, 4,53,20,55,35,22,56		4,45
40″	51,22,55,19,23,51,20,18,56,52		3,45,23,12,40	
		1, 4,53,17,10,12,10,16		4,45
42″	51,22,56,24,17, 8,30,31, 7, 8		3,45,23,17,25	
		1, 4,53,13,24,48,52,51		4,45
44″	51,22,57,29,10,21,55,19,59,59		3,45,23,22,10	
		1, 4,53, 9,39,25,30,41		4,45
46″	51,22,58,34, 3,31,34,45,30,40		3,45,23,26,55	
		1, 4,53, 5,54, 2, 3,46		4,45
48″	51,22,59,38,56,37,28,47,34,26		3,45,23,31,40	
		1, 4,53, 2, 8,38,32, 6		4,45
50″	51,23, 0,43,49,39,37,26, 6,32		3,45,23,36,25	
		1, 4,52,58,23,14,55,41		4,45
52″	51,23, 1,48,42,38, 0,41, 2,13		3,45,23,41,10	
		1, 4,52,54,37,51,14,31		4,45
54″	51,23, 2,53,35,32,38,32,16,44		3,45,23,45,55	
		1, 4,52,50,52,27,28,36		4,45
56″	51,23, 3,58,28,23,30,59,45,20		3,45,23,50,40	
		1, 4,52,47, 7, 3,37,56		4,45
58″	51,23, 5, 3,21,10,38, 3,23,16		3,45,23,55,25	
		1, 4,52,43,21,39,42,31		
60″	51,23, 6, 8,13,53,59,43, 5,47			
exact	51,23, 6, 8,13,53,59,43,28, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°55′ 0″	51,23, 6, 8,13,53,59,43,28, 0			
		1, 4,52,39,36,15,44,46		
2″	51,23, 7,13, 6,33,35,59,12,46		3,45,24, 4,44	
		1, 4,52,35,50,51,40, 2		4,45
4″	51,23, 8,17,59, 9,26,50,52,48		3,45,24, 9,29	
		1, 4,52,32, 5,27,30,33		4,45
6″	51,23, 9,22,51,41,32,18,23,21		3,45,24,14,14	
		1, 4,52,28,20, 3,16,19		4,45
8″	51,23,10,27,44, 9,52,21,39,40		3,45,24,18,59	
		1, 4,52,24,34,38,57,20		4,45
10″	51,23,11,32,36,34,27, 0,37, 0		3,45,24,23,44	
		1, 4,52,20,49,14,33,36		4,45
12″	51,23,12,37,28,55,16,15,10,36		3,45,24,28,29	
		1, 4,52,17, 3,50, 5, 7		4,45
14″	51,23,13,42,21,12,20, 5,15,43		3,45,24,33,14	
		1, 4,52,13,18,25,31,53		4,45
16″	51,23,14,47,13,25,38,30,47,36		3,45,24,37,59	
		1, 4,52, 9,33, 0,53,54		4,45
18″	51,23,15,52, 5,35,11,31,41,30		3,45,24,42,44	
		1, 4,52, 5,47,36,11,10		4,45
20″	51,23,16,56,57,40,59, 7,52,40		3,45,24,47,29	
		1, 4,52, 2, 2,11,23,41		4,45
22″	51,23,18, 1,49,43, 1,19,16,21		3,45,24,52,14	
		1, 4,51,58,16,46,31,27		4,45
24″	51,23,19, 6,41,41,18, 5,47,48		3,45,24,56,59	
		1, 4,51,54,31,21,34,28		4,45
26″	51,23,20,11,33,35,49,27,22,16		3,45,25, 1,44	
		1, 4,51,50,45,56,32,44		4,45
28″	51,23,21,16,25,26,35,23,55, 0		3,45,25, 6,29	
		1, 4,51,47, 0,31,26,15		4,45
30″	51,23,22,21,17,13,35,55,21,15		3,45,25,11,14	
		1, 4,51,43,15, 6,15, 1		4,45
32″	51,23,23,26, 8,56,51, 1,36,16		3,45,25,15,59	
		1, 4,51,39,29,40,59, 2		4,45
34″	51,23,24,31, 0,36,20,42,35,18		3,45,25,20,44	
		1, 4,51,35,44,15,38,18		4,45
36″	51,23,25,35,52,12, 4,58,13,36		3,45,25,25,29	
		1, 4,51,31,58,50,12,49		4,45
38″	51,23,26,40,43,44, 3,48,26,25		3,45,25,30,14	
		1, 4,51,28,13,24,42,35		4,45
40″	51,23,27,45,35,12,17,13, 9, 0		3,45,25,34,59	
		1, 4,51,24,27,59, 7,36		4,45
42″	51,23,28,50,26,36,45,12,16,36		3,45,25,39,44	
		1, 4,51,20,42,33,27,52		4,45
44″	51,23,29,55,17,57,27,45,44,28		3,45,25,44,29	
		1, 4,51,16,57, 7,43,23		4,45
46″	51,23,31, 0, 9,14,24,53,27,51		3,45,25,49,14	
		1, 4,51,13,11,41,54, 9		4,45
48″	51,23,32, 5, 0,27,36,35,22, 0		3,45,25,53,59	
		1, 4,51, 9,26,16, 0,10		4,45
50″	51,23,33, 9,51,37, 2,51,22,10		3,45,25,58,44	
		1, 4,51, 5,40,50, 1,26		4,45
52″	51,23,34,14,42,42,43,41,23,36		3,45,26, 3,29	
		1, 4,51, 1,55,23,57,57		4,45
54″	51,23,35,19,33,44,39, 5,21,33		3,45,26, 8,14	
		1, 4,50,58, 9,57,49,43		4,45
56″	51,23,36,24,24,42,49, 3,11,16		3,45,26,12,59	
		1, 4,50,54,24,31,36,44		4,45
58″	51,23,37,29,15,37,13,34,48, 0		3,45,26,17,44	
		1, 4,50,50,39, 5,19, 0		
60″	51,23,38,34, 6,27,52,40, 7, 0			
exact	51,23,38,34, 6,27,52,40,34,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°56′ 0″	51,23,38,34, 6,27,52,40,34,36			
		1, 4,50,46,53,38,59,40		
2″	51,23,39,38,57,14,46,19,34,16		3,45,26,27, 0	
		1, 4,50,43, 8,12,32,40		4,44
4″	51,23,40,43,47,57,54,32, 6,56		3,45,26,31,44	
		1, 4,50,39,22,46, 0,56		4,44
6″	51,23,41,48,38,37,17,18, 7,52		3,45,26,36,28	
		1, 4,50,35,37,19,24,28		4,44
8″	51,23,42,53,29,12,54,37,32,20		3,45,26,41,12	
		1, 4,50,31,51,52,43,16		4,44
10″	51,23,43,58,19,44,46,30,15,36		3,45,26,45,56	
		1, 4,50,28, 6,25,57,20		4,44
12″	51,23,45, 3,10,12,52,56,12,56		3,45,26,50,40	
		1, 4,50,24,20,59, 6,40		4,44
14″	51,23,46, 8, 0,37,13,55,19,36		3,45,26,55,24	
		1, 4,50,20,35,32,11,16		4,44
16″	51,23,47,12,50,57,49,27,30,52		3,45,27, 0, 8	
		1, 4,50,16,50, 5,11, 8		4,44
18″	51,23,48,17,41,14,39,32,42, 0		3,45,27, 4,52	
		1, 4,50,13, 4,38, 6,16		4,44
20″	51,23,49,22,31,27,44,10,48,16		3,45,27, 9,36	
		1, 4,50, 9,19,10,56,40		4,44
22″	51,23,50,27,21,37, 3,21,44,56		3,45,27,14,20	
		1, 4,50, 5,33,43,42,20		4,44
24″	51,23,51,32,11,42,37, 5,27,16		3,45,27,19, 4	
		1, 4,50, 1,48,16,23,16		4,44
26″	51,23,52,37, 1,44,25,21,50,32		3,45,27,23,48	
		1, 4,49,58, 2,48,59,28		4,44
28″	51,23,53,41,51,42,28,10,50, 0		3,45,27,28,32	
		1, 4,49,54,17,21,30,56		4,44
30″	51,23,54,46,41,36,45,32,20,56		3,45,27,33,16	
		1, 4,49,50,31,53,57,40		4,44
32″	51,23,55,51,31,27,17,26,18,36		3,45,27,38, 0	
		1, 4,49,46,46,26,19,40		4,44
34″	51,23,56,56,21,14, 3,52,38,16		3,45,27,42,44	
		1, 4,49,43, 0,58,36,56		4,44
36″	51,23,58, 1,10,57, 4,51,15,12		3,45,27,47,28	
		1, 4,49,39,15,30,49,28		4,44
38″	51,23,59, 6, 0,36,20,22, 4,40		3,45,27,52,12	
		1, 4,49,35,30, 2,57,16		4,44
40″	51,24, 0,10,50,11,50,25, 1,56		3,45,27,56,56	
		1, 4,49,31,44,35, 0,20		4,44
42″	51,24, 1,15,39,43,35, 0, 2,16		3,45,28, 1,40	
		1, 4,49,27,59, 6,58,40		4,44
44″	51,24, 2,20,29,11,34, 7, 0,56		3,45,28, 6,24	
		1, 4,49,24,13,38,52,16		4,44
46″	51,24, 3,25,18,35,47,45,53,12		3,45,28,11, 8	
		1, 4,49,20,28,10,41, 8		4,44
48″	51,24, 4,30, 7,56,15,56,34,20		3,45,28,15,52	
		1, 4,49,16,42,42,25,16		4,44
50″	51,24, 5,34,57,12,58,38,59,36		3,45,28,20,36	
		1, 4,49,12,57,14, 4,40		4,44
52″	51,24, 6,39,46,25,55,53, 4,16		3,45,28,25,20	
		1, 4,49, 9,11,45,39,20		4,44
54″	51,24, 7,44,35,35, 7,38,43,36		3,45,28,30, 4	
		1, 4,49, 5,26,17, 9,16		4,44
56″	51,24, 8,49,24,40,33,55,52,52		3,45,28,34,48	
		1, 4,49, 1,40,48,34,28		4,44
58″	51,24, 9,54,13,42,14,44,27,20		3,45,28,39,32	
		1, 4,48,57,55,19,54,56		
60″	51,24,10,59, 2,40,10, 4,22,16			
exact	51,24,10,59, 2,40,10, 3,55,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°57′ 0″	51,24,10,59, 2,40,10, 3,55,19			
		1, 4,48,54, 9,51, 7,50		
2″	51,24,12, 3,51,34,19,55, 3, 9		3,45,28,49,11	
		1, 4,48,50,24,22,18,39		4,44
4″	51,24,13, 8,40,24,44,17,21,48		3,45,28,53,55	
		1, 4,48,46,38,53,24,44		4,44
6″	51,24,14,13,29,11,23,10,46,32		3,45,28,58,39	
		1, 4,48,42,53,24,26, 5		4,44
8″	51,24,15,18,17,54,16,35,12,37		3,45,29, 3,23	
		1, 4,48,39, 7,55,22,42		4,44
10″	51,24,16,23, 6,33,24,30,35,19		3,45,29, 8, 7	
		1, 4,48,35,22,26,14,35		4,44
12″	51,24,17,27,55, 8,46,56,49,54		3,45,29,12,51	
		1, 4,48,31,36,57, 1,44		4,44
14″	51,24,18,32,43,40,23,53,51,38		3,45,29,17,35	
		1, 4,48,27,51,27,44, 9		4,44
16″	51,24,19,37,32, 8,15,21,35,47		3,45,29,22,19	
		1, 4,48,24, 5,58,21,50		4,44
18″	51,24,20,42,20,32,21,19,57,37		3,45,29,27, 3	
		1, 4,48,20,20,28,54,47		4,44
20″	51,24,21,47, 8,52,41,48,52,24		3,45,29,31,47	
		1, 4,48,16,34,59,23, 0		4,44
22″	51,24,22,51,57, 9,16,48,15,24		3,45,29,36,31	
		1, 4,48,12,49,29,46,29		4,44
24″	51,24,23,56,45,22, 6,18, 1,53		3,45,29,41,15	
		1, 4,48, 9, 4, 0, 5,14		4,44
26″	51,24,25, 1,33,31,10,18, 7, 7		3,45,29,45,59	
		1, 4,48, 5,18,30,19,15		4,44
28″	51,24,26, 6,21,36,28,48,26,22		3,45,29,50,43	
		1, 4,48, 1,33, 0,28,32		4,44
30″	51,24,27,11, 9,38, 1,48,54,54		3,45,29,55,27	
		1, 4,47,57,47,30,33, 5		4,44
32″	51,24,28,15,57,35,49,19,27,59		3,45,30, 0,11	
		1, 4,47,54, 2, 0,32,54		4,44
34″	51,24,29,20,45,29,51,20, 0,53		3,45,30, 4,55	
		1, 4,47,50,16,30,27,59		4,44
36″	51,24,30,25,33,20, 7,50,28,52		3,45,30, 9,39	
		1, 4,47,46,31, 0,18,20		4,44
38″	51,24,31,30,21, 6,38,50,47,12		3,45,30,14,23	
		1, 4,47,42,45,30, 3,57		4,44
40″	51,24,32,35, 8,49,24,20,51, 9		3,45,30,19, 7	
		1, 4,47,38,59,59,44,50		4,44
42″	51,24,33,39,56,28,24,20,35,59		3,45,30,23,51	
		1, 4,47,35,14,29,20,59		4,44
44″	51,24,34,44,44, 3,38,49,56,58		3,45,30,28,35	
		1, 4,47,31,28,58,52,24		4,44
46″	51,24,35,49,31,35, 7,48,49,22		3,45,30,33,19	
		1, 4,47,27,43,28,19, 5		4,44
48″	51,24,36,54,19, 2,51,17, 8,27		3,45,30,38, 3	
		1, 4,47,23,57,57,41, 2		4,44
50″	51,24,37,59, 6,26,49,14,49,29		3,45,30,42,47	
		1, 4,47,20,12,26,58,15		4,44
52″	51,24,39, 3,53,47, 1,41,47,44		3,45,30,47,31	
		1, 4,47,16,26,56,10,44		4,44
54″	51,24,40, 8,41, 3,28,37,58,28		3,45,30,52,15	
		1, 4,47,12,41,25,18,29		4,44
56″	51,24,41,13,28,16,10, 3,16,57		3,45,30,56,59	
		1, 4,47, 8,55,54,21,30		4,44
58″	51,24,42,18,15,25, 5,57,38,27		3,45,31, 1,43	
		1, 4,47, 5,10,23,19,47		
60″	51,24,43,23, 2,30,16,20,58,14			
exact	51,24,43,23, 2,30,16,20,38,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°58′ 0″	51,24,43,23, 2,30,16,20,38,26			
		1, 4,47, 1,24,52,11,21		
2″	51,24,44,27,49,31,41,12,49,47		3,45,31,11,18	
		1, 4,46,57,39,21, 0, 3		4,44
4″	51,24,45,32,36,29,20,33,49,50		3,45,31,16, 2	
		1, 4,46,53,53,49,44, 1		4,44
6″	51,24,46,37,23,23,14,23,33,51		3,45,31,20,46	
		1, 4,46,50, 8,18,23,15		4,44
8″	51,24,47,42,10,13,22,41,57, 6		3,45,31,25,30	
		1, 4,46,46,22,46,57,45		4,44
10″	51,24,48,46,56,59,45,28,54,51		3,45,31,30,14	
		1, 4,46,42,37,15,27,31		4,44
12″	51,24,49,51,43,42,22,44,22,22		3,45,31,34,58	
		1, 4,46,38,51,43,52,33		4,44
14″	51,24,50,56,30,21,14,28,14,55		3,45,31,39,42	
		1, 4,46,35, 6,12,12,51		4,44
16″	51,24,52, 1,16,56,20,40,27,46		3,45,31,44,26	
		1, 4,46,31,20,40,28,25		4,44
18″	51,24,53, 6, 3,27,41,20,56,11		3,45,31,49,10	
		1, 4,46,27,35, 8,39,15		4,44
20″	51,24,54,10,49,55,16,29,35,26		3,45,31,53,54	
		1, 4,46,23,49,36,45,21		4,44
22″	51,24,55,15,36,19, 6, 6,20,47		3,45,31,58,38	
		1, 4,46,20, 4, 4,46,43		4,44
24″	51,24,56,20,22,39,10,11, 7,30		3,45,32, 3,22	
		1, 4,46,16,18,32,43,21		4,44
26″	51,24,57,25, 8,55,28,43,50,51		3,45,32, 8, 6	
		1, 4,46,12,33, 0,35,15		4,44
28″	51,24,58,29,55, 8, 1,44,26, 6		3,45,32,12,50	
		1, 4,46, 8,47,28,22,25		4,44
30″	51,24,59,34,41,16,49,12,48,31		3,45,32,17,34	
		1, 4,46, 5, 1,56, 4,51		4,44
32″	51,25, 0,39,27,21,51, 8,53,22		3,45,32,22,18	
		1, 4,46, 1,16,23,42,33		4,44
34″	51,25, 1,44,13,23, 7,32,35,55		3,45,32,27, 2	
		1, 4,45,57,30,51,15,31		4,44
36″	51,25, 2,48,59,20,38,23,51,26		3,45,32,31,46	
		1, 4,45,53,45,18,43,45		4,44
38″	51,25, 3,53,45,14,23,42,35,11		3,45,32,36,30	
		1, 4,45,49,59,46, 7,15		4,44
40″	51,25, 4,58,31, 4,23,28,42,26		3,45,32,41,14	
		1, 4,45,46,14,13,26, 1		4,44
42″	51,25, 6, 3,16,50,37,42, 8,27		3,45,32,45,58	
		1, 4,45,42,28,40,40, 3		4,44
44″	51,25, 7, 8, 2,33, 6,22,48,30		3,45,32,50,42	
		1, 4,45,38,43, 7,49,21		4,44
46″	51,25, 8,12,48,11,49,30,37,51		3,45,32,55,26	
		1, 4,45,34,57,34,53,55		4,44
48″	51,25, 9,17,33,46,47, 5,31,46		3,45,33, 0,10	
		1, 4,45,31,12, 1,53,45		4,44
50″	51,25,10,22,19,17,59, 7,25,31		3,45,33, 4,54	
		1, 4,45,27,26,28,48,51		4,44
52″	51,25,11,27, 4,45,25,36,14,22		3,45,33, 9,38	
		1, 4,45,23,40,55,39,13		4,44
54″	51,25,12,31,50, 9, 6,31,53,35		3,45,33,14,22	
		1, 4,45,19,55,22,24,51		4,44
56″	51,25,13,36,35,29, 1,54,18,26		3,45,33,19, 6	
		1, 4,45,16, 9,49, 5,45		4,44
58″	51,25,14,41,20,45,11,43,24,11		3,45,33,23,50	
		1, 4,45,12,24,15,41,55		
60″	51,25,15,46, 5,57,35,59, 6, 6			
exact	51,25,15,46, 5,57,35,58,54, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
58°59′ 0″	51,25,15,46, 5,57,35,58,54, 5			
		1, 4,45, 8,38,42,12,15		
2″	51,25,16,50,51, 6,14,41, 6,20		3,45,33,33,21	
		1, 4,45, 4,53, 8,38,54		4,44
4″	51,25,17,55,36,11, 7,49,45,14		3,45,33,38, 5	
		1, 4,45, 1, 7,35, 0,49		4,44
6″	51,25,19, 0,21,12,15,24,46, 3		3,45,33,42,49	
		1, 4,44,57,22, 1,18, 0		4,44
8″	51,25,20, 5, 6, 9,37,26, 4, 3		3,45,33,47,33	
		1, 4,44,53,36,27,30,27		4,44
10″	51,25,21, 9,51, 3,13,53,34,30		3,45,33,52,17	
		1, 4,44,49,50,53,38,10		4,44
12″	51,25,22,14,35,53, 4,47,12,40		3,45,33,57, 1	
		1, 4,44,46, 5,19,41, 9		4,44
14″	51,25,23,19,20,39,10, 6,53,49		3,45,34, 1,45	
		1, 4,44,42,19,45,39,24		4,44
16″	51,25,24,24, 5,21,29,52,33,13		3,45,34, 6,29	
		1, 4,44,38,34,11,32,55		4,44
18″	51,25,25,28,50, 0, 4, 4, 6, 8		3,45,34,11,13	
		1, 4,44,34,48,37,21,42		4,44
20″	51,25,26,33,34,34,52,41,27,50		3,45,34,15,57	
		1, 4,44,31, 3, 3, 5,45		4,44
22″	51,25,27,38,19, 5,55,44,33,35		3,45,34,20,41	
		1, 4,44,27,17,28,45, 4		4,44
24″	51,25,28,43, 3,33,13,13,18,39		3,45,34,25,25	
		1, 4,44,23,31,54,19,39		4,44
26″	51,25,29,47,47,56,45, 7,38,18		3,45,34,30, 9	
		1, 4,44,19,46,19,49,30		4,44
28″	51,25,30,52,32,16,31,27,27,48		3,45,34,34,53	
		1, 4,44,16, 0,45,14,37		4,44
30″	51,25,31,57,16,32,32,12,42,25		3,45,34,39,37	
		1, 4,44,12,15,10,35, 0		4,44
32″	51,25,33, 2, 0,44,47,23,17,25		3,45,34,44,21	
		1, 4,44, 8,29,35,50,39		4,44
34″	51,25,34, 6,44,53,16,59, 8, 4		3,45,34,49, 5	
		1, 4,44, 4,44, 1, 1,34		4,44
36″	51,25,35,11,28,58, 1, 0, 9,38		3,45,34,53,49	
		1, 4,44, 0,58,26, 7,45		4,44
38″	51,25,36,16,12,58,59,26,17,23		3,45,34,58,33	
		1, 4,43,57,12,51, 9,12		4,44
40″	51,25,37,20,56,56,12,17,26,35		3,45,35, 3,17	
		1, 4,43,53,27,16, 5,55		4,44
42″	51,25,38,25,40,49,39,33,32,30		3,45,35, 8, 1	
		1, 4,43,49,41,40,57,54		4,44
44″	51,25,39,30,24,39,21,14,30,24		3,45,35,12,45	
		1, 4,43,45,56, 5,45, 9		4,44
46″	51,25,40,35, 8,25,17,20,15,33		3,45,35,17,29	
		1, 4,43,42,10,30,27,40		4,44
48″	51,25,41,39,52, 7,27,50,43,13		3,45,35,22,13	
		1, 4,43,38,24,55, 5,27		4,44
50″	51,25,42,44,35,45,52,45,48,40		3,45,35,26,57	
		1, 4,43,34,39,19,38,30		4,44
52″	51,25,43,49,19,20,32, 5,27,10		3,45,35,31,41	
		1, 4,43,30,53,44, 6,49		4,44
54″	51,25,44,54, 2,51,25,49,33,59		3,45,35,36,25	
		1, 4,43,27, 8, 8,30,24		4,44
56″	51,25,45,58,46,18,33,58, 4,23		3,45,35,41, 9	
		1, 4,43,23,22,32,49,15		4,44
58″	51,25,47, 3,29,41,56,30,53,38		3,45,35,45,53	
		1, 4,43,19,36,57, 3,22		
60″	51,25,48, 8,13, 1,33,27,57, 0			
exact	51,25,48, 8,13, 1,33,27,54,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59° 0′ 0″	51,25,48, 8,13, 1,33,27,54,11			
		1, 4,43,15,51,21,12,38		
2″	51,25,49,12,56,17,24,49, 6,49		3,45,35,55,20	
		1, 4,43,12, 5,45,17,18		4,44
4″	51,25,50,17,39,29,30,34,24, 7		3,45,36, 0, 4	
		1, 4,43, 8,20, 9,17,14		4,44
6″	51,25,51,22,22,37,50,43,41,21		3,45,36, 4,48	
		1, 4,43, 4,34,33,12,26		4,44
8″	51,25,52,27, 5,42,25,16,53,47		3,45,36, 9,32	
		1, 4,43, 0,48,57, 2,54		4,44
10″	51,25,53,31,48,43,14,13,56,41		3,45,36,14,16	
		1, 4,42,57, 3,20,48,38		4,44
12″	51,25,54,36,31,40,17,34,45,19		3,45,36,19, 0	
		1, 4,42,53,17,44,29,38		4,44
14″	51,25,55,41,14,33,35,19,14,57		3,45,36,23,44	
		1, 4,42,49,32, 8, 5,54		4,44
16″	51,25,56,45,57,23, 7,27,20,51		3,45,36,28,28	
		1, 4,42,45,46,31,37,26		4,44
18″	51,25,57,50,40, 8,53,58,58,17		3,45,36,33,12	
		1, 4,42,42, 0,55, 4,14		4,44
20″	51,25,58,55,22,50,54,54, 2,31		3,45,36,37,56	
		1, 4,42,38,15,18,26,18		4,44
22″	51,26, 0, 0, 5,29,10,12,28,49		3,45,36,42,40	
		1, 4,42,34,29,41,43,38		4,44
24″	51,26, 1, 4,48, 3,39,54,12,27		3,45,36,47,24	
		1, 4,42,30,44, 4,56,14		4,44
26″	51,26, 2, 9,30,34,23,59, 8,41		3,45,36,52, 8	
		1, 4,42,26,58,28, 4, 6		4,44
28″	51,26, 3,14,13, 1,22,27,12,47		3,45,36,56,52	
		1, 4,42,23,12,51, 7,14		4,44
30″	51,26, 4,18,55,24,35,18,20, 1		3,45,37, 1,36	
		1, 4,42,19,27,14, 5,38		4,44
32″	51,26, 5,23,37,44, 2,32,25,39		3,45,37, 6,20	
		1, 4,42,15,41,36,59,18		4,44
34″	51,26, 6,28,19,59,44, 9,24,57		3,45,37,11, 4	
		1, 4,42,11,55,59,48,14		4,44
36″	51,26, 7,33, 2,11,40, 9,13,11		3,45,37,15,48	
		1, 4,42, 8,10,22,32,26		4,44
38″	51,26, 8,37,44,19,50,31,45,37		3,45,37,20,32	
		1, 4,42, 4,24,45,11,54		4,44
40″	51,26, 9,42,26,24,15,16,57,31		3,45,37,25,16	
		1, 4,42, 0,39, 7,46,38		4,44
42″	51,26,10,47, 8,24,54,24,44, 9		3,45,37,30, 0	
		1, 4,41,56,53,30,16,38		4,44
44″	51,26,11,51,50,21,47,55, 0,47		3,45,37,34,44	
		1, 4,41,53, 7,52,41,54		4,44
46″	51,26,12,56,32,14,55,47,42,41		3,45,37,39,28	
		1, 4,41,49,22,15, 2,26		4,44
48″	51,26,14, 1,14, 4,18, 2,45, 7		3,45,37,44,12	
		1, 4,41,45,36,37,18,14		4,44
50″	51,26,15, 5,55,49,54,40, 3,21		3,45,37,48,56	
		1, 4,41,41,50,59,29,18		4,44
52″	51,26,16,10,37,31,45,39,32,39		3,45,37,53,40	
		1, 4,41,38, 5,21,35,38		4,44
54″	51,26,17,15,19, 9,51, 1, 8,17		3,45,37,58,24	
		1, 4,41,34,19,43,37,14		4,44
56″	51,26,18,20, 0,44,10,44,45,31		3,45,38, 3, 8	
		1, 4,41,30,34, 5,34, 6		4,44
58″	51,26,19,24,42,14,44,50,19,37		3,45,38, 7,52	
		1, 4,41,26,48,27,26,14		
60″	51,26,20,29,23,41,33,17,45,51			
exact	51,26,20,29,23,41,33,17,52,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59° 1′ 0″	51,26,20,29,23,41,33,17,52,31			
		1, 4,41,23, 2,49,14,32		
2″	51,26,21,34, 5, 4,36, 7, 7, 3		3,45,38,17,15	
		1, 4,41,19,17,10,57,17		4,44
4″	51,26,22,38,46,23,53,18, 4,20		3,45,38,21,59	
		1, 4,41,15,31,32,35,18		4,44
6″	51,26,23,43,27,39,24,50,39,38		3,45,38,26,43	
		1, 4,41,11,45,54, 8,35		4,44
8″	51,26,24,48, 8,51,10,44,48,13		3,45,38,31,27	
		1, 4,41, 8, 0,15,37, 8		4,44
10″	51,26,25,52,49,59,11, 0,25,21		3,45,38,36,11	
		1, 4,41, 4,14,37, 0,57		4,44
12″	51,26,26,57,31, 3,25,37,26,18		3,45,38,40,55	
		1, 4,41, 0,28,58,20, 2		4,44
14″	51,26,28, 2,12, 3,54,35,46,20		3,45,38,45,39	
		1, 4,40,56,43,19,34,23		4,44
16″	51,26,29, 6,53, 0,37,55,20,43		3,45,38,50,23	
		1, 4,40,52,57,40,44, 0		4,44
18″	51,26,30,11,33,53,35,36, 4,43		3,45,38,55, 7	
		1, 4,40,49,12, 1,48,53		4,44
20″	51,26,31,16,14,42,47,37,53,36		3,45,38,59,51	
		1, 4,40,45,26,22,49, 2		4,44
22″	51,26,32,20,55,28,14, 0,42,38		3,45,39, 4,35	
		1, 4,40,41,40,43,44,27		4,44
24″	51,26,33,25,36, 9,54,44,27, 5		3,45,39, 9,19	
		1, 4,40,37,55, 4,35, 8		4,44
26″	51,26,34,30,16,47,49,49, 2,13		3,45,39,14, 3	
		1, 4,40,34, 9,25,21, 5		4,44
28″	51,26,35,34,57,21,59,14,23,18		3,45,39,18,47	
		1, 4,40,30,23,46, 2,18		4,44
30″	51,26,36,39,37,52,23, 0,25,36		3,45,39,23,31	
		1, 4,40,26,38, 6,38,47		4,44
32″	51,26,37,44,18,19, 1, 7, 4,23		3,45,39,28,15	
		1, 4,40,22,52,27,10,32		4,44
34″	51,26,38,48,58,41,53,34,14,55		3,45,39,32,59	
		1, 4,40,19, 6,47,37,33		4,44
36″	51,26,39,53,39, 1, 0,21,52,28		3,45,39,37,43	
		1, 4,40,15,21, 7,59,50		4,44
38″	51,26,40,58,19,16,21,29,52,18		3,45,39,42,27	
		1, 4,40,11,35,28,17,23		4,44
40″	51,26,42, 2,59,27,56,58, 9,41		3,45,39,47,11	
		1, 4,40, 7,49,48,30,12		4,44
42″	51,26,43, 7,39,35,46,46,39,53		3,45,39,51,55	
		1, 4,40, 4, 4, 8,38,17		4,44
44″	51,26,44,12,19,39,50,55,18,10		3,45,39,56,39	
		1, 4,40, 0,18,28,41,38		4,44
46″	51,26,45,16,59,40, 9,23,59,48		3,45,40, 1,23	
		1, 4,39,56,32,48,40,15		4,44
48″	51,26,46,21,39,36,42,12,40, 3		3,45,40, 6, 7	
		1, 4,39,52,47, 8,34, 8		4,44
50″	51,26,47,26,19,29,29,21,14,11		3,45,40,10,51	
		1, 4,39,49, 1,28,23,17		4,44
52″	51,26,48,30,59,18,30,49,37,28		3,45,40,15,35	
		1, 4,39,45,15,48, 7,42		4,44
54″	51,26,49,35,39, 3,46,37,45,10		3,45,40,20,19	
		1, 4,39,41,30, 7,47,23		4,44
56″	51,26,50,40,18,45,16,45,32,33		3,45,40,25, 3	
		1, 4,39,37,44,27,22,20		4,44
58″	51,26,51,44,58,23, 1,12,54,53		3,45,40,29,47	
		1, 4,39,33,58,46,52,33		
60″	51,26,52,49,37,56,59,59,47,26			
exact	51,26,52,49,37,57, 0, 0, 4,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59° 2′ 0″	51,26,52,49,37,57, 0, 0, 4,42			
		1, 4,39,30,13, 6,20, 1		
2″	51,26,53,54,17,27,13, 6,24,43		3,45,40,39, 6	
		1, 4,39,26,27,25,40,55		4,44
4″	51,26,54,58,56,53,40,32, 5,38		3,45,40,43,50	
		1, 4,39,22,41,44,57, 5		4,44
6″	51,26,56, 3,36,16,22,17, 2,43		3,45,40,48,34	
		1, 4,39,18,56, 4, 8,31		4,44
8″	51,26,57, 8,15,35,18,21,11,14		3,45,40,53,18	
		1, 4,39,15,10,23,15,13		4,44
10″	51,26,58,12,54,50,28,44,26,27		3,45,40,58, 2	
		1, 4,39,11,24,42,17,11		4,44
12″	51,26,59,17,34, 1,53,26,43,38		3,45,41, 2,46	
		1, 4,39, 7,39, 1,14,25		4,44
14″	51,27, 0,22,13, 9,32,27,58, 3		3,45,41, 7,30	
		1, 4,39, 3,53,20, 6,55		4,44
16″	51,27, 1,26,52,13,25,48, 4,58		3,45,41,12,14	
		1, 4,39, 0, 7,38,54,41		4,44
18″	51,27, 2,31,31,13,33,26,59,39		3,45,41,16,58	
		1, 4,38,56,21,57,37,43		4,44
20″	51,27, 3,36,10, 9,55,24,37,22		3,45,41,21,42	
		1, 4,38,52,36,16,16, 1		4,44
22″	51,27, 4,40,49, 2,31,40,53,23		3,45,41,26,26	
		1, 4,38,48,50,34,49,35		4,44
24″	51,27, 5,45,27,51,22,15,42,58		3,45,41,31,10	
		1, 4,38,45, 4,53,18,25		4,44
26″	51,27, 6,50, 6,36,27, 9, 1,23		3,45,41,35,54	
		1, 4,38,41,19,11,42,31		4,44
28″	51,27, 7,54,45,17,46,20,43,54		3,45,41,40,38	
		1, 4,38,37,33,30, 1,53		4,44
30″	51,27, 8,59,23,55,19,50,45,47		3,45,41,45,22	
		1, 4,38,33,47,48,16,31		4,44
32″	51,27,10, 4, 2,29, 7,39, 2,18		3,45,41,50, 6	
		1, 4,38,30, 2, 6,26,25		4,44
34″	51,27,11, 8,40,59, 9,45,28,43		3,45,41,54,50	
		1, 4,38,26,16,24,31,35		4,44
36″	51,27,12,13,19,25,26,10, 0,18		3,45,41,59,34	
		1, 4,38,22,30,42,32, 1		4,44
38″	51,27,13,17,57,47,56,52,32,19		3,45,42, 4,18	
		1, 4,38,18,45, 0,27,43		4,44
40″	51,27,14,22,36, 6,41,53, 0, 2		3,45,42, 9, 2	
		1, 4,38,14,59,18,18,41		4,44
42″	51,27,15,27,14,21,41,11,18,43		3,45,42,13,46	
		1, 4,38,11,13,36, 4,55		4,44
44″	51,27,16,31,52,32,54,47,23,38		3,45,42,18,30	
		1, 4,38, 7,27,53,46,25		4,44
46″	51,27,17,36,30,40,22,41,10, 3		3,45,42,23,14	
		1, 4,38, 3,42,11,23,11		4,44
48″	51,27,18,41, 8,44, 4,52,33,14		3,45,42,27,58	
		1, 4,37,59,56,28,55,13		4,44
50″	51,27,19,45,46,44, 1,21,28,27		3,45,42,32,42	
		1, 4,37,56,10,46,22,31		4,44
52″	51,27,20,50,24,40,12, 7,50,58		3,45,42,37,26	
		1, 4,37,52,25, 3,45, 5		4,44
54″	51,27,21,55, 2,32,37,11,36, 3		3,45,42,42,10	
		1, 4,37,48,39,21, 2,55		4,44
56″	51,27,22,59,40,21,16,32,38,58		3,45,42,46,54	
		1, 4,37,44,53,38,16, 1		4,44
58″	51,27,24, 4,18, 6,10,10,54,59		3,45,42,51,38	
		1, 4,37,41, 7,55,24,23		
60″	51,27,25, 8,55,47,18, 6,19,22			
exact	51,27,25, 8,55,47,18, 6,48,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59° 3′ 0″	51,27,25, 8,55,47,18, 6,48,14			
		1, 4,37,37,22,12,31, 9		
2″	51,27,26,13,33,24,40,19,19,23		3,45,43, 0,52	
		1, 4,37,33,36,29,30,17		4,43
4″	51,27,27,18,10,58,16,48,49,40		3,45,43, 5,35	
		1, 4,37,29,50,46,24,42		4,43
6″	51,27,28,22,48,28, 7,35,14,22		3,45,43,10,18	
		1, 4,37,26, 5, 3,14,24		4,43
8″	51,27,29,27,25,54,12,38,28,46		3,45,43,15, 1	
		1, 4,37,22,19,19,59,23		4,43
10″	51,27,30,32, 3,16,31,58,28, 9		3,45,43,19,44	
		1, 4,37,18,33,36,39,39		4,43
12″	51,27,31,36,40,35, 5,35, 7,48		3,45,43,24,27	
		1, 4,37,14,47,53,15,12		4,43
14″	51,27,32,41,17,49,53,28,23, 0		3,45,43,29,10	
		1, 4,37,11, 2, 9,46, 2		4,43
16″	51,27,33,45,55, 0,55,38, 9, 2		3,45,43,33,53	
		1, 4,37, 7,16,26,12, 9		4,43
18″	51,27,34,50,32, 8,12, 4,21,11		3,45,43,38,36	
		1, 4,37, 3,30,42,33,33		4,43
20″	51,27,35,55, 9,11,42,46,54,44		3,45,43,43,19	
		1, 4,36,59,44,58,50,14		4,43
22″	51,27,36,59,46,11,27,45,44,58		3,45,43,48, 2	
		1, 4,36,55,59,15, 2,12		4,43
24″	51,27,38, 4,23, 7,27, 0,47,10		3,45,43,52,45	
		1, 4,36,52,13,31, 9,27		4,43
26″	51,27,39, 8,59,59,40,31,56,37		3,45,43,57,28	
		1, 4,36,48,27,47,11,59		4,43
28″	51,27,40,13,36,48, 8,19, 8,36		3,45,44, 2,11	
		1, 4,36,44,42, 3, 9,48		4,43
30″	51,27,41,18,13,32,50,22,18,24		3,45,44, 6,54	
		1, 4,36,40,56,19, 2,54		4,43
32″	51,27,42,22,50,13,46,41,21,18		3,45,44,11,37	
		1, 4,36,37,10,34,51,17		4,43
34″	51,27,43,27,26,50,57,16,12,35		3,45,44,16,20	
		1, 4,36,33,24,50,34,57		4,43
36″	51,27,44,32, 3,24,22, 6,47,32		3,45,44,21, 3	
		1, 4,36,29,39, 6,13,54		4,43
38″	51,27,45,36,39,54, 1,13, 1,26		3,45,44,25,46	
		1, 4,36,25,53,21,48, 8		4,43
40″	51,27,46,41,16,19,54,34,49,34		3,45,44,30,29	
		1, 4,36,22, 7,37,17,39		4,43
42″	51,27,47,45,52,42, 2,12, 7,13		3,45,44,35,12	
		1, 4,36,18,21,52,42,27		4,43
44″	51,27,48,50,29, 0,24, 4,49,40		3,45,44,39,55	
		1, 4,36,14,36, 8, 2,32		4,43
46″	51,27,49,55, 5,15, 0,12,52,12		3,45,44,44,38	
		1, 4,36,10,50,23,17,54		4,43
48″	51,27,50,59,41,25,50,36,10, 6		3,45,44,49,21	
		1, 4,36, 7, 4,38,28,33		4,43
50″	51,27,52, 4,17,32,55,14,38,39		3,45,44,54, 4	
		1, 4,36, 3,18,53,34,29		4,43
52″	51,27,53, 8,53,36,14, 8,13, 8		3,45,44,58,47	
		1, 4,35,59,33, 8,35,42		4,43
54″	51,27,54,13,29,35,47,16,48,50		3,45,45, 3,30	
		1, 4,35,55,47,23,32,12		4,43
56″	51,27,55,18, 5,31,34,40,21, 2		3,45,45, 8,13	
		1, 4,35,52, 1,38,23,59		4,43
58″	51,27,56,22,41,23,36,18,45, 1		3,45,45,12,56	
		1, 4,35,48,15,53,11, 3		
60″	51,27,57,27,17,11,52,11,56, 4			
exact	51,27,57,27,17,11,52,11,22,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59° 4′ 0″	51,27,57,27,17,11,52,11,22,26			
		1, 4,35,44,30, 7,50, 0		
2″	51,27,58,31,52,56,22,19,12,26		3,45,45,22,35	
		1, 4,35,40,44,22,27,25		4,43
4″	51,27,59,36,28,37, 6,41,39,51		3,45,45,27,18	
		1, 4,35,36,58,37, 0, 7		4,43
6″	51,28, 0,41, 4,14, 5,18,39,58		3,45,45,32, 1	
		1, 4,35,33,12,51,28, 6		4,43
8″	51,28, 1,45,39,47,18,10, 8, 4		3,45,45,36,44	
		1, 4,35,29,27, 5,51,22		4,43
10″	51,28, 2,50,15,16,45,15,59,26		3,45,45,41,27	
		1, 4,35,25,41,20, 9,55		4,43
12″	51,28, 3,54,50,42,26,36, 9,21		3,45,45,46,10	
		1, 4,35,21,55,34,23,45		4,43
14″	51,28, 4,59,26, 4,22,10,33, 6		3,45,45,50,53	
		1, 4,35,18, 9,48,32,52		4,43
16″	51,28, 6, 4, 1,22,31,59, 5,58		3,45,45,55,36	
		1, 4,35,14,24, 2,37,16		4,43
18″	51,28, 7, 8,36,36,56, 1,43,14		3,45,46, 0,19	
		1, 4,35,10,38,16,36,57		4,43
20″	51,28, 8,13,11,47,34,18,20,11		3,45,46, 5, 2	
		1, 4,35, 6,52,30,31,55		4,43
22″	51,28, 9,17,46,54,26,48,52, 6		3,45,46, 9,45	
		1, 4,35, 3, 6,44,22,10		4,43
24″	51,28,10,22,21,57,33,33,14,16		3,45,46,14,28	
		1, 4,34,59,20,58, 7,42		4,43
26″	51,28,11,26,56,56,54,31,21,58		3,45,46,19,11	
		1, 4,34,55,35,11,48,31		4,43
28″	51,28,12,31,31,52,29,43,10,29		3,45,46,23,54	
		1, 4,34,51,49,25,24,37		4,43
30″	51,28,13,36, 6,44,19, 8,35, 6		3,45,46,28,37	
		1, 4,34,48, 3,38,56, 0		4,43
32″	51,28,14,40,41,32,22,47,31, 6		3,45,46,33,20	
		1, 4,34,44,17,52,22,40		4,43
34″	51,28,15,45,16,16,40,39,53,46		3,45,46,38, 3	
		1, 4,34,40,32, 5,44,37		4,43
36″	51,28,16,49,50,57,12,45,38,23		3,45,46,42,46	
		1, 4,34,36,46,19, 1,51		4,43
38″	51,28,17,54,25,33,59, 4,40,14		3,45,46,47,29	
		1, 4,34,33, 0,32,14,22		4,43
40″	51,28,18,59, 0, 6,59,36,54,36		3,45,46,52,12	
		1, 4,34,29,14,45,22,10		4,43
42″	51,28,20, 3,34,36,14,22,16,46		3,45,46,56,55	
		1, 4,34,25,28,58,25,15		4,43
44″	51,28,21, 8, 9, 1,43,20,42, 1		3,45,47, 1,38	
		1, 4,34,21,43,11,23,37		4,43
46″	51,28,22,12,43,23,26,32, 5,38		3,45,47, 6,21	
		1, 4,34,17,57,24,17,16		4,43
48″	51,28,23,17,17,41,23,56,22,54		3,45,47,11, 4	
		1, 4,34,14,11,37, 6,12		4,43
50″	51,28,24,21,51,55,35,33,29, 6		3,45,47,15,47	
		1, 4,34,10,25,49,50,25		4,43
52″	51,28,25,26,26, 6, 1,23,19,31		3,45,47,20,30	
		1, 4,34, 6,40, 2,29,55		4,43
54″	51,28,26,31, 0,12,41,25,49,26		3,45,47,25,13	
		1, 4,34, 2,54,15, 4,42		4,43
56″	51,28,27,35,34,15,35,40,54, 8		3,45,47,29,56	
		1, 4,33,59, 8,27,34,46		4,43
58″	51,28,28,40, 8,14,44, 8,28,54		3,45,47,34,39	
		1, 4,33,55,22,40, 0, 7		
60″	51,28,29,44,42,10, 6,48,29, 1			
exact	51,28,29,44,42,10, 6,48, 8,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59° 5′ 0″	51,28,29,44,42,10, 6,48, 8,34			
		1, 4,33,51,36,52,18,37		
2″	51,28,30,49,16, 1,43,40,27,11		3,45,47,44,13	
		1, 4,33,47,51, 4,34,24		4,43
4″	51,28,31,53,49,49,34,45, 1,35		3,45,47,48,56	
		1, 4,33,44, 5,16,45,28		4,43
6″	51,28,32,58,23,33,40, 1,47, 3		3,45,47,53,39	
		1, 4,33,40,19,28,51,49		4,43
8″	51,28,34, 2,57,13,59,30,38,52		3,45,47,58,22	
		1, 4,33,36,33,40,53,27		4,43
10″	51,28,35, 7,30,50,33,11,32,19		3,45,48, 3, 5	
		1, 4,33,32,47,52,50,22		4,43
12″	51,28,36,12, 4,23,21, 4,22,41		3,45,48, 7,48	
		1, 4,33,29, 2, 4,42,34		4,43
14″	51,28,37,16,37,52,23, 9, 5,15		3,45,48,12,31	
		1, 4,33,25,16,16,30, 3		4,43
16″	51,28,38,21,11,17,39,25,35,18		3,45,48,17,14	
		1, 4,33,21,30,28,12,49		4,43
18″	51,28,39,25,44,39, 9,53,48, 7		3,45,48,21,57	
		1, 4,33,17,44,39,50,52		4,43
20″	51,28,40,30,17,56,54,33,38,59		3,45,48,26,40	
		1, 4,33,13,58,51,24,12		4,43
22″	51,28,41,34,51,10,53,25, 3,11		3,45,48,31,23	
		1, 4,33,10,13, 2,52,49		4,43
24″	51,28,42,39,24,21, 6,27,56, 0		3,45,48,36, 6	
		1, 4,33, 6,27,14,16,43		4,43
26″	51,28,43,43,57,27,33,42,12,43		3,45,48,40,49	
		1, 4,33, 2,41,25,35,54		4,43
28″	51,28,44,48,30,30,15, 7,48,37		3,45,48,45,32	
		1, 4,32,58,55,36,50,22		4,43
30″	51,28,45,53, 3,29,10,44,38,59		3,45,48,50,15	
		1, 4,32,55, 9,48, 0, 7		4,43
32″	51,28,46,57,36,24,20,32,39, 6		3,45,48,54,58	
		1, 4,32,51,23,59, 5, 9		4,43
34″	51,28,48, 2, 9,15,44,31,44,15		3,45,48,59,41	
		1, 4,32,47,38,10, 5,28		4,43
36″	51,28,49, 6,42, 3,22,41,49,43		3,45,49, 4,24	
		1, 4,32,43,52,21, 1, 4		4,43
38″	51,28,50,11,14,47,15, 2,50,47		3,45,49, 9, 7	
		1, 4,32,40, 6,31,51,57		4,43
40″	51,28,51,15,47,27,21,34,42,44		3,45,49,13,50	
		1, 4,32,36,20,42,38, 7		4,43
42″	51,28,52,20,20, 3,42,17,20,51		3,45,49,18,33	
		1, 4,32,32,34,53,19,34		4,43
44″	51,28,53,24,52,36,17,10,40,25		3,45,49,23,16	
		1, 4,32,28,49, 3,56,18		4,43
46″	51,28,54,29,25, 5, 6,14,36,43		3,45,49,27,59	
		1, 4,32,25, 3,14,28,19		4,43
48″	51,28,55,33,57,30, 9,29, 5, 2		3,45,49,32,42	
		1, 4,32,21,17,24,55,37		4,43
50″	51,28,56,38,29,51,26,54, 0,39		3,45,49,37,25	
		1, 4,32,17,31,35,18,12		4,43
52″	51,28,57,43, 2, 8,58,29,18,51		3,45,49,42, 8	
		1, 4,32,13,45,45,36, 4		4,43
54″	51,28,58,47,34,22,44,14,54,55		3,45,49,46,51	
		1, 4,32, 9,59,55,49,13		4,43
56″	51,28,59,52, 6,32,44,10,44, 8		3,45,49,51,34	
		1, 4,32, 6,14, 5,57,39		4,43
58″	51,29, 0,56,38,38,58,16,41,47		3,45,49,56,17	
		1, 4,32, 2,28,16, 1,22		
60″	51,29, 2, 1,10,41,26,32,43, 9			
exact	51,29, 2, 1,10,41,26,32,29,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59° 6′ 0″	51,29, 2, 1,10,41,26,32,29,44			
		1, 4,31,58,42,25,59, 4		
2″	51,29, 3, 5,42,40, 8,58,28,48		3,45,50, 5,47	
		1, 4,31,54,56,35,53,17		4,43
4″	51,29, 4,10,14,35, 5,34,22, 5		3,45,50,10,30	
		1, 4,31,51,10,45,42,47		4,43
6″	51,29, 5,14,46,26,16,20, 4,52		3,45,50,15,13	
		1, 4,31,47,24,55,27,34		4,43
8″	51,29, 6,19,18,13,41,15,32,26		3,45,50,19,56	
		1, 4,31,43,39, 5, 7,38		4,43
10″	51,29, 7,23,49,57,20,20,40, 4		3,45,50,24,39	
		1, 4,31,39,53,14,42,59		4,43
12″	51,29, 8,28,21,37,13,35,23, 3		3,45,50,29,22	
		1, 4,31,36, 7,24,13,37		4,43
14″	51,29, 9,32,53,13,20,59,36,40		3,45,50,34, 5	
		1, 4,31,32,21,33,39,32		4,43
16″	51,29,10,37,24,45,42,33,16,12		3,45,50,38,48	
		1, 4,31,28,35,43, 0,44		4,43
18″	51,29,11,41,56,14,18,16,16,56		3,45,50,43,31	
		1, 4,31,24,49,52,17,13		4,43
20″	51,29,12,46,27,39, 8, 8,34, 9		3,45,50,48,14	
		1, 4,31,21, 4, 1,28,59		4,43
22″	51,29,13,50,59, 0,12,10, 3, 8		3,45,50,52,57	
		1, 4,31,17,18,10,36, 2		4,43
24″	51,29,14,55,30,17,30,20,39,10		3,45,50,57,40	
		1, 4,31,13,32,19,38,22		4,43
26″	51,29,16, 0, 1,31, 2,40,17,32		3,45,51, 2,23	
		1, 4,31, 9,46,28,35,59		4,43
28″	51,29,17, 4,32,40,49, 8,53,31		3,45,51, 7, 6	
		1, 4,31, 6, 0,37,28,53		4,43
30″	51,29,18, 9, 3,46,49,46,22,24		3,45,51,11,49	
		1, 4,31, 2,14,46,17, 4		4,43
32″	51,29,19,13,34,49, 4,32,39,28		3,45,51,16,32	
		1, 4,30,58,28,55, 0,32		4,43
34″	51,29,20,18, 5,47,33,27,40, 0		3,45,51,21,15	
		1, 4,30,54,43, 3,39,17		4,43
36″	51,29,21,22,36,42,16,31,19,17		3,45,51,25,58	
		1, 4,30,50,57,12,13,19		4,43
38″	51,29,22,27, 7,33,13,43,32,36		3,45,51,30,41	
		1, 4,30,47,11,20,42,38		4,43
40″	51,29,23,31,38,20,25, 4,15,14		3,45,51,35,24	
		1, 4,30,43,25,29, 7,14		4,43
42″	51,29,24,36, 9, 3,50,33,22,28		3,45,51,40, 7	
		1, 4,30,39,39,37,27, 7		4,43
44″	51,29,25,40,39,43,30,10,49,35		3,45,51,44,50	
		1, 4,30,35,53,45,42,17		4,43
46″	51,29,26,45,10,19,23,56,31,52		3,45,51,49,33	
		1, 4,30,32, 7,53,52,44		4,43
48″	51,29,27,49,40,51,31,50,24,36		3,45,51,54,16	
		1, 4,30,28,22, 1,58,28		4,43
50″	51,29,28,54,11,19,53,52,23, 4		3,45,51,58,59	
		1, 4,30,24,36, 9,59,29		4,43
52″	51,29,29,58,41,44,30, 2,22,33		3,45,52, 3,42	
		1, 4,30,20,50,17,55,47		4,43
54″	51,29,31, 3,12, 5,20,20,18,20		3,45,52, 8,25	
		1, 4,30,17, 4,25,47,22		4,43
56″	51,29,32, 7,42,22,24,46, 5,42		3,45,52,13, 8	
		1, 4,30,13,18,33,34,14		4,43
58″	51,29,33,12,12,35,43,19,39,56		3,45,52,17,51	
		1, 4,30, 9,32,41,16,23		
60″	51,29,34,16,42,45,16, 0,56,19			
exact	51,29,34,16,42,45,16, 0,50,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59° 7′ 0″	51,29,34,16,42,45,16, 0,50,59			
		1, 4,30, 5,46,48,53,26		
2″	51,29,35,21,12,51, 2,49,44,25		3,45,52,27,17	
		1, 4,30, 2, 0,56,26, 9		4,43
4″	51,29,36,25,42,53, 3,46,10,34		3,45,52,32, 0	
		1, 4,29,58,15, 3,54, 9		4,43
6″	51,29,37,30,12,51,18,50, 4,43		3,45,52,36,43	
		1, 4,29,54,29,11,17,26		4,43
8″	51,29,38,34,42,45,48, 1,22, 9		3,45,52,41,26	
		1, 4,29,50,43,18,36, 0		4,43
10″	51,29,39,39,12,36,31,19,58, 9		3,45,52,46, 9	
		1, 4,29,46,57,25,49,51		4,43
12″	51,29,40,43,42,23,28,45,48, 0		3,45,52,50,52	
		1, 4,29,43,11,32,58,59		4,43
14″	51,29,41,48,12, 6,40,18,46,59		3,45,52,55,35	
		1, 4,29,39,25,40, 3,24		4,43
16″	51,29,42,52,41,46, 5,58,50,23		3,45,53, 0,18	
		1, 4,29,35,39,47, 3, 6		4,43
18″	51,29,43,57,11,21,45,45,53,29		3,45,53, 5, 1	
		1, 4,29,31,53,53,58, 5		4,43
20″	51,29,45, 1,40,53,39,39,51,34		3,45,53, 9,44	
		1, 4,29,28, 8, 0,48,21		4,43
22″	51,29,46, 6,10,21,47,40,39,55		3,45,53,14,27	
		1, 4,29,24,22, 7,33,54		4,43
24″	51,29,47,10,39,46, 9,48,13,49		3,45,53,19,10	
		1, 4,29,20,36,14,14,44		4,43
26″	51,29,48,15, 9, 6,46, 2,28,33		3,45,53,23,53	
		1, 4,29,16,50,20,50,51		4,43
28″	51,29,49,19,38,23,36,23,19,24		3,45,53,28,36	
		1, 4,29,13, 4,27,22,15		4,43
30″	51,29,50,24, 7,36,40,50,41,39		3,45,53,33,19	
		1, 4,29, 9,18,33,48,56		4,43
32″	51,29,51,28,36,45,59,24,30,35		3,45,53,38, 2	
		1, 4,29, 5,32,40,10,54		4,43
34″	51,29,52,33, 5,51,32, 4,41,29		3,45,53,42,45	
		1, 4,29, 1,46,46,28, 9		4,43
36″	51,29,53,37,34,53,18,51, 9,38		3,45,53,47,28	
		1, 4,28,58, 0,52,40,41		4,43
38″	51,29,54,42, 3,51,19,43,50,19		3,45,53,52,11	
		1, 4,28,54,14,58,48,30		4,43
40″	51,29,55,46,32,45,34,42,38,49		3,45,53,56,54	
		1, 4,28,50,29, 4,51,36		4,43
42″	51,29,56,51, 1,36, 3,47,30,25		3,45,54, 1,37	
		1, 4,28,46,43,10,49,59		4,43
44″	51,29,57,55,30,22,46,58,20,24		3,45,54, 6,20	
		1, 4,28,42,57,16,43,39		4,43
46″	51,29,58,59,59, 5,44,15, 4, 3		3,45,54,11, 3	
		1, 4,28,39,11,22,32,36		4,43
48″	51,30, 0, 4,27,44,55,37,36,39		3,45,54,15,46	
		1, 4,28,35,25,28,16,50		4,43
50″	51,30, 1, 8,56,20,21, 5,53,29		3,45,54,20,29	
		1, 4,28,31,39,33,56,21		4,43
52″	51,30, 2,13,24,52, 0,39,49,50		3,45,54,25,12	
		1, 4,28,27,53,39,31, 9		4,43
54″	51,30, 3,17,53,19,54,19,20,59		3,45,54,29,55	
		1, 4,28,24, 7,45, 1,14		4,43
56″	51,30, 4,22,21,44, 2, 4,22,13		3,45,54,34,38	
		1, 4,28,20,21,50,26,36		4,43
58″	51,30, 5,26,50, 4,23,54,48,49		3,45,54,39,21	
		1, 4,28,16,35,55,47,15		
60″	51,30, 6,31,18,20,59,50,36, 4			
exact	51,30, 6,31,18,20,59,50,39,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59° 8′ 0″	51,30, 6,31,18,20,59,50,39,15			
		1, 4,28,12,50, 1, 3,45		
2″	51,30, 7,35,46,33,49,51,43, 0		3,45,54,48,43	
		1, 4,28, 9, 4, 6,15, 2		4,43
4″	51,30, 8,40,14,42,53,57,58, 2		3,45,54,53,26	
		1, 4,28, 5,18,11,21,36		4,43
6″	51,30, 9,44,42,48,12, 9,19,38		3,45,54,58, 9	
		1, 4,28, 1,32,16,23,27		4,43
8″	51,30,10,49,10,49,44,25,43, 5		3,45,55, 2,52	
		1, 4,27,57,46,21,20,35		4,43
10″	51,30,11,53,38,47,30,47, 3,40		3,45,55, 7,35	
		1, 4,27,54, 0,26,13, 0		4,43
12″	51,30,12,58, 6,41,31,13,16,40		3,45,55,12,18	
		1, 4,27,50,14,31, 0,42		4,43
14″	51,30,14, 2,34,31,45,44,17,22		3,45,55,17, 1	
		1, 4,27,46,28,35,43,41		4,43
16″	51,30,15, 7, 2,18,14,20, 1, 3		3,45,55,21,44	
		1, 4,27,42,42,40,21,57		4,43
18″	51,30,16,11,30, 0,57, 0,23, 0		3,45,55,26,27	
		1, 4,27,38,56,44,55,30		4,43
20″	51,30,17,15,57,39,53,45,18,30		3,45,55,31,10	
		1, 4,27,35,10,49,24,20		4,43
22″	51,30,18,20,25,15, 4,34,42,50		3,45,55,35,53	
		1, 4,27,31,24,53,48,27		4,43
24″	51,30,19,24,52,46,29,28,31,17		3,45,55,40,36	
		1, 4,27,27,38,58, 7,51		4,43
26″	51,30,20,29,20,14, 8,26,39, 8		3,45,55,45,19	
		1, 4,27,23,53, 2,22,32		4,43
28″	51,30,21,33,47,38, 1,29, 1,40		3,45,55,50, 2	
		1, 4,27,20, 7, 6,32,30		4,43
30″	51,30,22,38,14,58, 8,35,34,10		3,45,55,54,45	
		1, 4,27,16,21,10,37,45		4,43
32″	51,30,23,42,42,14,29,46,11,55		3,45,55,59,28	
		1, 4,27,12,35,14,38,17		4,43
34″	51,30,24,47, 9,27, 5, 0,50,12		3,45,56, 4,11	
		1, 4,27, 8,49,18,34, 6		4,43
36″	51,30,25,51,36,35,54,19,24,18		3,45,56, 8,54	
		1, 4,27, 5, 3,22,25,12		4,43
38″	51,30,26,56, 3,40,57,41,49,30		3,45,56,13,37	
		1, 4,27, 1,17,26,11,35		4,43
40″	51,30,28, 0,30,42,15, 8, 1, 5		3,45,56,18,20	
		1, 4,26,57,31,29,53,15		4,43
42″	51,30,29, 4,57,39,46,37,54,20		3,45,56,23, 3	
		1, 4,26,53,45,33,30,12		4,43
44″	51,30,30, 9,24,33,32,11,24,32		3,45,56,27,46	
		1, 4,26,49,59,37, 2,26		4,43
46″	51,30,31,13,51,23,31,48,26,58		3,45,56,32,29	
		1, 4,26,46,13,40,29,57		4,43
48″	51,30,32,18,18, 9,45,28,56,55		3,45,56,37,12	
		1, 4,26,42,27,43,52,45		4,43
50″	51,30,33,22,44,52,13,12,49,40		3,45,56,41,55	
		1, 4,26,38,41,47,10,50		4,43
52″	51,30,34,27,11,30,55, 0, 0,30		3,45,56,46,38	
		1, 4,26,34,55,50,24,12		4,43
54″	51,30,35,31,38, 5,50,50,24,42		3,45,56,51,21	
		1, 4,26,31, 9,53,32,51		4,43
56″	51,30,36,36, 4,37, 0,43,57,33		3,45,56,56, 4	
		1, 4,26,27,23,56,36,47		4,43
58″	51,30,37,40,31, 4,24,40,34,20		3,45,57, 0,47	
		1, 4,26,23,37,59,36, 0		
60″	51,30,38,44,57,28, 2,40,10,20			
exact	51,30,38,44,57,28, 2,40,23,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59° 9′ 0″	51,30,38,44,57,28, 2,40,23,24			
		1, 4,26,19,52, 2,32, 6		
2″	51,30,39,49,23,47,54,42,55,30		3,45,57,10, 5	
		1, 4,26,16, 6, 5,22, 1		4,43
4″	51,30,40,53,50, 4, 0,48,17,31		3,45,57,14,48	
		1, 4,26,12,20, 8, 7,13		4,43
6″	51,30,41,58,16,16,20,56,24,44		3,45,57,19,31	
		1, 4,26, 8,34,10,47,42		4,43
8″	51,30,43, 2,42,24,55, 7,12,26		3,45,57,24,14	
		1, 4,26, 4,48,13,23,28		4,43
10″	51,30,44, 7, 8,29,43,20,35,54		3,45,57,28,57	
		1, 4,26, 1, 2,15,54,31		4,43
12″	51,30,45,11,34,30,45,36,30,25		3,45,57,33,40	
		1, 4,25,57,16,18,20,51		4,43
14″	51,30,46,16, 0,28, 1,54,51,16		3,45,57,38,23	
		1, 4,25,53,30,20,42,28		4,43
16″	51,30,47,20,26,21,32,15,33,44		3,45,57,43, 6	
		1, 4,25,49,44,22,59,22		4,43
18″	51,30,48,24,52,11,16,38,33, 6		3,45,57,47,49	
		1, 4,25,45,58,25,11,33		4,43
20″	51,30,49,29,17,57,15, 3,44,39		3,45,57,52,32	
		1, 4,25,42,12,27,19, 1		4,43
22″	51,30,50,33,43,39,27,31, 3,40		3,45,57,57,15	
		1, 4,25,38,26,29,21,46		4,43
24″	51,30,51,38, 9,17,54, 0,25,26		3,45,58, 1,58	
		1, 4,25,34,40,31,19,48		4,43
26″	51,30,52,42,34,52,34,31,45,14		3,45,58, 6,41	
		1, 4,25,30,54,33,13, 7		4,43
28″	51,30,53,47, 0,23,29, 4,58,21		3,45,58,11,24	
		1, 4,25,27, 8,35, 1,43		4,43
30″	51,30,54,51,25,50,37,40, 0, 4		3,45,58,16, 7	
		1, 4,25,23,22,36,45,36		4,43
32″	51,30,55,55,51,14, 0,16,45,40		3,45,58,20,50	
		1, 4,25,19,36,38,24,46		4,43
34″	51,30,57, 0,16,33,36,55,10,26		3,45,58,25,33	
		1, 4,25,15,50,39,59,13		4,43
36″	51,30,58, 4,41,49,27,35, 9,39		3,45,58,30,16	
		1, 4,25,12, 4,41,28,57		4,43
38″	51,30,59, 9, 7, 1,32,16,38,36		3,45,58,34,59	
		1, 4,25, 8,18,42,53,58		4,43
40″	51,31, 0,13,32, 9,50,59,32,34		3,45,58,39,42	
		1, 4,25, 4,32,44,14,16		4,43
42″	51,31, 1,17,57,14,23,43,46,50		3,45,58,44,25	
		1, 4,25, 0,46,45,29,51		4,43
44″	51,31, 2,22,22,15,10,29,16,41		3,45,58,49, 8	
		1, 4,24,57, 0,46,40,43		4,43
46″	51,31, 3,26,47,12,11,15,57,24		3,45,58,53,51	
		1, 4,24,53,14,47,46,52		4,43
48″	51,31, 4,31,12, 5,26, 3,44,16		3,45,58,58,34	
		1, 4,24,49,28,48,48,18		4,43
50″	51,31, 5,35,36,54,54,52,32,34		3,45,59, 3,17	
		1, 4,24,45,42,49,45, 1		4,43
52″	51,31, 6,40, 1,40,37,42,17,35		3,45,59, 8, 0	
		1, 4,24,41,56,50,37, 1		4,43
54″	51,31, 7,44,26,22,34,32,54,36		3,45,59,12,43	
		1, 4,24,38,10,51,24,18		4,43
56″	51,31, 8,48,51, 0,45,24,18,54		3,45,59,17,26	
		1, 4,24,34,24,52, 6,52		4,43
58″	51,31, 9,53,15,35,10,16,25,46		3,45,59,22, 9	
		1, 4,24,30,38,52,44,43		
60″	51,31,10,57,40, 5,49, 9,10,29			
exact	51,31,10,57,40, 5,49, 9,34,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°10′ 0″	51,31,10,57,40, 5,49, 9,34,15			
		1, 4,24,26,52,53,20,33		
2″	51,31,12, 2, 4,32,42, 2,54,48		3,45,59,31,23	
		1, 4,24,23, 6,53,49,10		4,43
4″	51,31,13, 6,28,55,48,56,43,58		3,45,59,36, 6	
		1, 4,24,19,20,54,13, 4		4,43
6″	51,31,14,10,53,15, 9,50,57, 2		3,45,59,40,49	
		1, 4,24,15,34,54,32,15		4,43
8″	51,31,15,15,17,30,44,45,29,17		3,45,59,45,32	
		1, 4,24,11,48,54,46,43		4,43
10″	51,31,16,19,41,42,33,40,16, 0		3,45,59,50,15	
		1, 4,24, 8, 2,54,56,28		4,43
12″	51,31,17,24, 5,50,36,35,12,28		3,45,59,54,58	
		1, 4,24, 4,16,55, 1,30		4,43
14″	51,31,18,28,29,54,53,30,13,58		3,45,59,59,41	
		1, 4,24, 0,30,55, 1,49		4,43
16″	51,31,19,32,53,55,24,25,15,47		3,46, 0, 4,24	
		1, 4,23,56,44,54,57,25		4,43
18″	51,31,20,37,17,52, 9,20,13,12		3,46, 0, 9, 7	
		1, 4,23,52,58,54,48,18		4,43
20″	51,31,21,41,41,45, 8,15, 1,30		3,46, 0,13,50	
		1, 4,23,49,12,54,34,28		4,43
22″	51,31,22,46, 5,34,21, 9,35,58		3,46, 0,18,33	
		1, 4,23,45,26,54,15,55		4,43
24″	51,31,23,50,29,19,48, 3,51,53		3,46, 0,23,16	
		1, 4,23,41,40,53,52,39		4,43
26″	51,31,24,54,53, 1,28,57,44,32		3,46, 0,27,59	
		1, 4,23,37,54,53,24,40		4,43
28″	51,31,25,59,16,39,23,51, 9,12		3,46, 0,32,42	
		1, 4,23,34, 8,52,51,58		4,43
30″	51,31,27, 3,40,13,32,44, 1,10		3,46, 0,37,25	
		1, 4,23,30,22,52,14,33		4,43
32″	51,31,28, 8, 3,43,55,36,15,43		3,46, 0,42, 8	
		1, 4,23,26,36,51,32,25		4,43
34″	51,31,29,12,27,10,32,27,48, 8		3,46, 0,46,51	
		1, 4,23,22,50,50,45,34		4,43
36″	51,31,30,16,50,33,23,18,33,42		3,46, 0,51,34	
		1, 4,23,19, 4,49,54, 0		4,43
38″	51,31,31,21,13,52,28, 8,27,42		3,46, 0,56,17	
		1, 4,23,15,18,48,57,43		4,43
40″	51,31,32,25,37, 7,46,57,25,25		3,46, 1, 1, 0	
		1, 4,23,11,32,47,56,43		4,43
42″	51,31,33,30, 0,19,19,45,22, 8		3,46, 1, 5,43	
		1, 4,23, 7,46,46,51, 0		4,43
44″	51,31,34,34,23,27, 6,32,13, 8		3,46, 1,10,26	
		1, 4,23, 4, 0,45,40,34		4,43
46″	51,31,35,38,46,31, 7,17,53,42		3,46, 1,15, 9	
		1, 4,23, 0,14,44,25,25		4,43
48″	51,31,36,43, 9,31,22, 2,19, 7		3,46, 1,19,52	
		1, 4,22,56,28,43, 5,33		4,43
50″	51,31,37,47,32,27,50,45,24,40		3,46, 1,24,35	
		1, 4,22,52,42,41,40,58		4,43
52″	51,31,38,51,55,20,33,27, 5,38		3,46, 1,29,18	
		1, 4,22,48,56,40,11,40		4,43
54″	51,31,39,56,18, 9,30, 7,17,18		3,46, 1,34, 1	
		1, 4,22,45,10,38,37,39		4,43
56″	51,31,41, 0,40,54,40,45,54,57		3,46, 1,38,44	
		1, 4,22,41,24,36,58,55		4,43
58″	51,31,42, 5, 3,36, 5,22,53,52		3,46, 1,43,27	
		1, 4,22,37,38,35,15,28		
60″	51,31,43, 9,26,13,43,58, 9,20			
exact	51,31,43, 9,26,13,43,58,44,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°11′ 0″	51,31,43, 9,26,13,43,58,44,31			
		1, 4,22,33,52,33,31, 9		
2″	51,31,44,13,48,47,36,32,15,40		3,46, 1,52,36	
		1, 4,22,30, 6,31,38,33		4,42
4″	51,31,45,18,11,17,43, 3,54,13		3,46, 1,57,18	
		1, 4,22,26,20,29,41,15		4,42
6″	51,31,46,22,33,44, 3,33,35,28		3,46, 2, 2, 0	
		1, 4,22,22,34,27,39,15		4,42
8″	51,31,47,26,56, 6,38, 1,14,43		3,46, 2, 6,42	
		1, 4,22,18,48,25,32,33		4,42
10″	51,31,48,31,18,25,26,26,47,16		3,46, 2,11,24	
		1, 4,22,15, 2,23,21, 9		4,42
12″	51,31,49,35,40,40,28,50, 8,25		3,46, 2,16, 6	
		1, 4,22,11,16,21, 5, 3		4,42
14″	51,31,50,40, 2,51,45,11,13,28		3,46, 2,20,48	
		1, 4,22, 7,30,18,44,15		4,42
16″	51,31,51,44,24,59,15,29,57,43		3,46, 2,25,30	
		1, 4,22, 3,44,16,18,45		4,42
18″	51,31,52,48,47, 2,59,46,16,28		3,46, 2,30,12	
		1, 4,21,59,58,13,48,33		4,42
20″	51,31,53,53, 9, 2,58, 0, 5, 1		3,46, 2,34,54	
		1, 4,21,56,12,11,13,39		4,42
22″	51,31,54,57,30,59,10,11,18,40		3,46, 2,39,36	
		1, 4,21,52,26, 8,34, 3		4,42
24″	51,31,56, 1,52,51,36,19,52,43		3,46, 2,44,18	
		1, 4,21,48,40, 5,49,45		4,42
26″	51,31,57, 6,14,40,16,25,42,28		3,46, 2,49, 0	
		1, 4,21,44,54, 3, 0,45		4,42
28″	51,31,58,10,36,25,10,28,43,13		3,46, 2,53,42	
		1, 4,21,41, 8, 0, 7, 3		4,42
30″	51,31,59,14,58, 6,18,28,50,16		3,46, 2,58,24	
		1, 4,21,37,21,57, 8,39		4,42
32″	51,32, 0,19,19,43,40,25,58,55		3,46, 3, 3, 6	
		1, 4,21,33,35,54, 5,33		4,42
34″	51,32, 1,23,41,17,16,20, 4,28		3,46, 3, 7,48	
		1, 4,21,29,49,50,57,45		4,42
36″	51,32, 2,28, 2,47, 6,11, 2,13		3,46, 3,12,30	
		1, 4,21,26, 3,47,45,15		4,42
38″	51,32, 3,32,24,13, 9,58,47,28		3,46, 3,17,12	
		1, 4,21,22,17,44,28, 3		4,42
40″	51,32, 4,36,45,35,27,43,15,31		3,46, 3,21,54	
		1, 4,21,18,31,41, 6, 9		4,42
42″	51,32, 5,41, 6,53,59,24,21,40		3,46, 3,26,36	
		1, 4,21,14,45,37,39,33		4,42
44″	51,32, 6,45,28, 8,45, 2, 1,13		3,46, 3,31,18	
		1, 4,21,10,59,34, 8,15		4,42
46″	51,32, 7,49,49,19,44,36, 9,28		3,46, 3,36, 0	
		1, 4,21, 7,13,30,32,15		4,42
48″	51,32, 8,54,10,26,58, 6,41,43		3,46, 3,40,42	
		1, 4,21, 3,27,26,51,33		4,42
50″	51,32, 9,58,31,30,25,33,33,16		3,46, 3,45,24	
		1, 4,20,59,41,23, 6, 9		4,42
52″	51,32,11, 2,52,30, 6,56,39,25		3,46, 3,50, 6	
		1, 4,20,55,55,19,16, 3		4,42
54″	51,32,12, 7,13,26, 2,15,55,28		3,46, 3,54,48	
		1, 4,20,52, 9,15,21,15		4,42
56″	51,32,13,11,34,18,11,31,16,43		3,46, 3,59,30	
		1, 4,20,48,23,11,21,45		4,42
58″	51,32,14,15,55, 6,34,42,38,28		3,46, 4, 4,12	
		1, 4,20,44,37, 7,17,33		
60″	51,32,15,20,15,51,11,49,56, 1			
exact	51,32,15,20,15,51,11,49,28,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°12′ 0″	51,32,15,20,15,51,11,49,28,56			
		1, 4,20,40,51, 3, 5,58		
2″	51,32,16,24,36,32, 2,52,34,54		3,46, 4,13,46	
		1, 4,20,37, 4,58,52,12		4,42
4″	51,32,17,28,57, 9, 7,51,27, 6		3,46, 4,18,28	
		1, 4,20,33,18,54,33,44		4,42
6″	51,32,18,33,17,42,26,46, 0,50		3,46, 4,23,10	
		1, 4,20,29,32,50,10,34		4,42
8″	51,32,19,37,38,11,59,36,11,24		3,46, 4,27,52	
		1, 4,20,25,46,45,42,42		4,42
10″	51,32,20,41,58,37,46,21,54, 6		3,46, 4,32,34	
		1, 4,20,22, 0,41,10, 8		4,42
12″	51,32,21,46,18,59,47, 3, 4,14		3,46, 4,37,16	
		1, 4,20,18,14,36,32,52		4,42
14″	51,32,22,50,39,18, 1,39,37, 6		3,46, 4,41,58	
		1, 4,20,14,28,31,50,54		4,42
16″	51,32,23,54,59,32,30,11,28, 0		3,46, 4,46,40	
		1, 4,20,10,42,27, 4,14		4,42
18″	51,32,24,59,19,43,12,38,32,14		3,46, 4,51,22	
		1, 4,20, 6,56,22,12,52		4,42
20″	51,32,26, 3,39,50, 9, 0,45, 6		3,46, 4,56, 4	
		1, 4,20, 3,10,17,16,48		4,42
22″	51,32,27, 7,59,53,19,18, 1,54		3,46, 5, 0,46	
		1, 4,19,59,24,12,16, 2		4,42
24″	51,32,28,12,19,52,43,30,17,56		3,46, 5, 5,28	
		1, 4,19,55,38, 7,10,34		4,42
26″	51,32,29,16,39,48,21,37,28,30		3,46, 5,10,10	
		1, 4,19,51,52, 2, 0,24		4,42
28″	51,32,30,20,59,40,13,39,28,54		3,46, 5,14,52	
		1, 4,19,48, 5,56,45,32		4,42
30″	51,32,31,25,19,28,19,36,14,26		3,46, 5,19,34	
		1, 4,19,44,19,51,25,58		4,42
32″	51,32,32,29,39,12,39,27,40,24		3,46, 5,24,16	
		1, 4,19,40,33,46, 1,42		4,42
34″	51,32,33,33,58,53,13,13,42, 6		3,46, 5,28,58	
		1, 4,19,36,47,40,32,44		4,42
36″	51,32,34,38,18,30, 0,54,14,50		3,46, 5,33,40	
		1, 4,19,33, 1,34,59, 4		4,42
38″	51,32,35,42,38, 3, 2,29,13,54		3,46, 5,38,22	
		1, 4,19,29,15,29,20,42		4,42
40″	51,32,36,46,57,32,17,58,34,36		3,46, 5,43, 4	
		1, 4,19,25,29,23,37,38		4,42
42″	51,32,37,51,16,57,47,22,12,14		3,46, 5,47,46	
		1, 4,19,21,43,17,49,52		4,42
44″	51,32,38,55,36,19,30,40, 2, 6		3,46, 5,52,28	
		1, 4,19,17,57,11,57,24		4,42
46″	51,32,39,59,55,37,27,51,59,30		3,46, 5,57,10	
		1, 4,19,14,11, 6, 0,14		4,42
48″	51,32,41, 4,14,51,38,57,59,44		3,46, 6, 1,52	
		1, 4,19,10,24,59,58,22		4,42
50″	51,32,42, 8,34, 2, 3,57,58, 6		3,46, 6, 6,34	
		1, 4,19, 6,38,53,51,48		4,42
52″	51,32,43,12,53, 8,42,51,49,54		3,46, 6,11,16	
		1, 4,19, 2,52,47,40,32		4,42
54″	51,32,44,17,12,11,35,39,30,26		3,46, 6,15,58	
		1, 4,18,59, 6,41,24,34		4,42
56″	51,32,45,21,31,10,42,20,55, 0		3,46, 6,20,40	
		1, 4,18,55,20,35, 3,54		4,42
58″	51,32,46,25,50, 6, 2,55,58,54		3,46, 6,25,22	
		1, 4,18,51,34,28,38,32		
60″	51,32,47,30, 8,57,37,24,37,26			
exact	51,32,47,30, 8,57,37,24,24, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°13′ 0″	51,32,47,30, 8,57,37,24,24, 9			
		1, 4,18,47,48,22, 7, 5		
2″	51,32,48,34,27,45,25,46,31,14		3,46, 6,34,51	
		1, 4,18,44, 2,15,32,14		4,42
4″	51,32,49,38,46,29,28, 2, 3,28		3,46, 6,39,33	
		1, 4,18,40,16, 8,52,41		4,42
6″	51,32,50,43, 5, 9,44,10,56, 9		3,46, 6,44,15	
		1, 4,18,36,30, 2, 8,26		4,42
8″	51,32,51,47,23,46,14,13, 4,35		3,46, 6,48,57	
		1, 4,18,32,43,55,19,29		4,42
10″	51,32,52,51,42,18,58, 8,24, 4		3,46, 6,53,39	
		1, 4,18,28,57,48,25,50		4,42
12″	51,32,53,56, 0,47,55,56,49,54		3,46, 6,58,21	
		1, 4,18,25,11,41,27,29		4,42
14″	51,32,55, 0,19,13, 7,38,17,23		3,46, 7, 3, 3	
		1, 4,18,21,25,34,24,26		4,42
16″	51,32,56, 4,37,34,33,12,41,49		3,46, 7, 7,45	
		1, 4,18,17,39,27,16,41		4,42
18″	51,32,57, 8,55,52,12,39,58,30		3,46, 7,12,27	
		1, 4,18,13,53,20, 4,14		4,42
20″	51,32,58,13,14, 6, 6, 0, 2,44		3,46, 7,17, 9	
		1, 4,18,10, 7,12,47, 5		4,42
22″	51,32,59,17,32,16,13,12,49,49		3,46, 7,21,51	
		1, 4,18, 6,21, 5,25,14		4,42
24″	51,33, 0,21,50,22,34,18,15, 3		3,46, 7,26,33	
		1, 4,18, 2,34,57,58,41		4,42
26″	51,33, 1,26, 8,25, 9,16,13,44		3,46, 7,31,15	
		1, 4,17,58,48,50,27,26		4,42
28″	51,33, 2,30,26,23,58, 6,41,10		3,46, 7,35,57	
		1, 4,17,55, 2,42,51,29		4,42
30″	51,33, 3,34,44,19, 0,49,32,39		3,46, 7,40,39	
		1, 4,17,51,16,35,10,50		4,42
32″	51,33, 4,39, 2,10,17,24,43,29		3,46, 7,45,21	
		1, 4,17,47,30,27,25,29		4,42
34″	51,33, 5,43,19,57,47,52, 8,58		3,46, 7,50, 3	
		1, 4,17,43,44,19,35,26		4,42
36″	51,33, 6,47,37,41,32,11,44,24		3,46, 7,54,45	
		1, 4,17,39,58,11,40,41		4,42
38″	51,33, 7,51,55,21,30,23,25, 5		3,46, 7,59,27	
		1, 4,17,36,12, 3,41,14		4,42
40″	51,33, 8,56,12,57,42,27, 6,19		3,46, 8, 4, 9	
		1, 4,17,32,25,55,37, 5		4,42
42″	51,33,10, 0,30,30, 8,22,43,24		3,46, 8, 8,51	
		1, 4,17,28,39,47,28,14		4,42
44″	51,33,11, 4,47,58,48,10,11,38		3,46, 8,13,33	
		1, 4,17,24,53,39,14,41		4,42
46″	51,33,12, 9, 5,23,41,49,26,19		3,46, 8,18,15	
		1, 4,17,21, 7,30,56,26		4,42
48″	51,33,13,13,22,44,49,20,22,45		3,46, 8,22,57	
		1, 4,17,17,21,22,33,29		4,42
50″	51,33,14,17,40, 2,10,42,56,14		3,46, 8,27,39	
		1, 4,17,13,35,14, 5,50		4,42
52″	51,33,15,21,57,15,45,57, 2, 4		3,46, 8,32,21	
		1, 4,17, 9,49, 5,33,29		4,42
54″	51,33,16,26,14,25,35, 2,35,33		3,46, 8,37, 3	
		1, 4,17, 6, 2,56,56,26		4,42
56″	51,33,17,30,31,31,37,59,31,59		3,46, 8,41,45	
		1, 4,17, 2,16,48,14,41		4,42
58″	51,33,18,34,48,33,54,47,46,40		3,46, 8,46,27	
		1, 4,16,58,30,39,28,14		
60″	51,33,19,39, 5,32,25,27,14,54			
exact	51,33,19,39, 5,32,25,27, 8,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°14′ 0″	51,33,19,39, 5,32,25,27, 8,50			
		1, 4,16,54,44,30,36,33		
2″	51,33,20,43,22,27, 9,57,45,23		3,46, 8,55,52	
		1, 4,16,50,58,21,40,41		4,42
4″	51,33,21,47,39,18, 8,19,26, 4		3,46, 9, 0,34	
		1, 4,16,47,12,12,40, 7		4,42
6″	51,33,22,51,56, 5,20,32, 6,11		3,46, 9, 5,16	
		1, 4,16,43,26, 3,34,51		4,42
8″	51,33,23,56,12,48,46,35,41, 2		3,46, 9, 9,58	
		1, 4,16,39,39,54,24,53		4,42
10″	51,33,25, 0,29,28,26,30, 5,55		3,46, 9,14,40	
		1, 4,16,35,53,45,10,13		4,42
12″	51,33,26, 4,46, 4,20,15,16, 8		3,46, 9,19,22	
		1, 4,16,32, 7,35,50,51		4,42
14″	51,33,27, 9, 2,36,27,51, 6,59		3,46, 9,24, 4	
		1, 4,16,28,21,26,26,47		4,42
16″	51,33,28,13,19, 4,49,17,33,46		3,46, 9,28,46	
		1, 4,16,24,35,16,58, 1		4,42
18″	51,33,29,17,35,29,24,34,31,47		3,46, 9,33,28	
		1, 4,16,20,49, 7,24,33		4,42
20″	51,33,30,21,51,50,13,41,56,20		3,46, 9,38,10	
		1, 4,16,17, 2,57,46,23		4,42
22″	51,33,31,26, 8, 7,16,39,42,43		3,46, 9,42,52	
		1, 4,16,13,16,48, 3,31		4,42
24″	51,33,32,30,24,20,33,27,46,14		3,46, 9,47,34	
		1, 4,16, 9,30,38,15,57		4,42
26″	51,33,33,34,40,30, 4, 6, 2,11		3,46, 9,52,16	
		1, 4,16, 5,44,28,23,41		4,42
28″	51,33,34,38,56,35,48,34,25,52		3,46, 9,56,58	
		1, 4,16, 1,58,18,26,43		4,42
30″	51,33,35,43,12,37,46,52,52,35		3,46,10, 1,40	
		1, 4,15,58,12, 8,25, 3		4,42
32″	51,33,36,47,28,35,59, 1,17,38		3,46,10, 6,22	
		1, 4,15,54,25,58,18,41		4,42
34″	51,33,37,51,44,30,24,59,36,19		3,46,10,11, 4	
		1, 4,15,50,39,48, 7,37		4,42
36″	51,33,38,56, 0,21, 4,47,43,56		3,46,10,15,46	
		1, 4,15,46,53,37,51,51		4,42
38″	51,33,40, 0,16, 7,58,25,35,47		3,46,10,20,28	
		1, 4,15,43, 7,27,31,23		4,42
40″	51,33,41, 4,31,51, 5,53, 7,10		3,46,10,25,10	
		1, 4,15,39,21,17, 6,13		4,42
42″	51,33,42, 8,47,30,27,10,13,23		3,46,10,29,52	
		1, 4,15,35,35, 6,36,21		4,42
44″	51,33,43,13, 3, 6, 2,16,49,44		3,46,10,34,34	
		1, 4,15,31,48,56, 1,47		4,42
46″	51,33,44,17,18,37,51,12,51,31		3,46,10,39,16	
		1, 4,15,28, 2,45,22,31		4,42
48″	51,33,45,21,34, 5,53,58,14, 2		3,46,10,43,58	
		1, 4,15,24,16,34,38,33		4,42
50″	51,33,46,25,49,30,10,32,52,35		3,46,10,48,40	
		1, 4,15,20,30,23,49,53		4,42
52″	51,33,47,30, 4,50,40,56,42,28		3,46,10,53,22	
		1, 4,15,16,44,12,56,31		4,42
54″	51,33,48,34,20, 7,25, 9,38,59		3,46,10,58, 4	
		1, 4,15,12,58, 1,58,27		4,42
56″	51,33,49,38,35,20,23,11,37,26		3,46,11, 2,46	
		1, 4,15, 9,11,50,55,41		4,42
58″	51,33,50,42,50,29,35, 2,33, 7		3,46,11, 7,28	
		1, 4,15, 5,25,39,48,13		
60″	51,33,51,47, 5,35, 0,42,21,20			
exact	51,33,51,47, 5,35, 0,42,23,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°15′ 0″	51,33,51,47, 5,35, 0,42,23,37			
		1, 4,15, 1,39,28,36,27		
2″	51,33,52,51,20,36,40,11, 0, 4		3,46,11,16,49	
		1, 4,14,57,53,17,19,38		4,42
4″	51,33,53,55,35,34,33,28,19,42		3,46,11,21,31	
		1, 4,14,54, 7, 5,58, 7		4,42
6″	51,33,54,59,50,28,40,34,17,49		3,46,11,26,13	
		1, 4,14,50,20,54,31,54		4,42
8″	51,33,56, 4, 5,19, 1,28,49,43		3,46,11,30,55	
		1, 4,14,46,34,43, 0,59		4,42
10″	51,33,57, 8,20, 5,36,11,50,42		3,46,11,35,37	
		1, 4,14,42,48,31,25,22		4,42
12″	51,33,58,12,34,48,24,43,16, 4		3,46,11,40,19	
		1, 4,14,39, 2,19,45, 3		4,42
14″	51,33,59,16,49,27,27, 3, 1, 7		3,46,11,45, 1	
		1, 4,14,35,16, 8, 0, 2		4,42
16″	51,34, 0,21, 4, 2,43,11, 1, 9		3,46,11,49,43	
		1, 4,14,31,29,56,10,19		4,42
18″	51,34, 1,25,18,34,13, 7,11,28		3,46,11,54,25	
		1, 4,14,27,43,44,15,54		4,42
20″	51,34, 2,29,33, 1,56,51,27,22		3,46,11,59, 7	
		1, 4,14,23,57,32,16,47		4,42
22″	51,34, 3,33,47,25,54,23,44, 9		3,46,12, 3,49	
		1, 4,14,20,11,20,12,58		4,42
24″	51,34, 4,38, 1,46, 5,43,57, 7		3,46,12, 8,31	
		1, 4,14,16,25, 8, 4,27		4,42
26″	51,34, 5,42,16, 2,30,52, 1,34		3,46,12,13,13	
		1, 4,14,12,38,55,51,14		4,42
28″	51,34, 6,46,30,15, 9,47,52,48		3,46,12,17,55	
		1, 4,14, 8,52,43,33,19		4,42
30″	51,34, 7,50,44,24, 2,31,26, 7		3,46,12,22,37	
		1, 4,14, 5, 6,31,10,42		4,42
32″	51,34, 8,54,58,29, 9, 2,36,49		3,46,12,27,19	
		1, 4,14, 1,20,18,43,23		4,42
34″	51,34, 9,59,12,30,29,21,20,12		3,46,12,32, 1	
		1, 4,13,57,34, 6,11,22		4,42
36″	51,34,11, 3,26,28, 3,27,31,34		3,46,12,36,43	
		1, 4,13,53,47,53,34,39		4,42
38″	51,34,12, 7,40,21,51,21, 6,13		3,46,12,41,25	
		1, 4,13,50, 1,40,53,14		4,42
40″	51,34,13,11,54,11,53, 1,59,27		3,46,12,46, 7	
		1, 4,13,46,15,28, 7, 7		4,42
42″	51,34,14,16, 7,58, 8,30, 6,34		3,46,12,50,49	
		1, 4,13,42,29,15,16,18		4,42
44″	51,34,15,20,21,40,37,45,22,52		3,46,12,55,31	
		1, 4,13,38,43, 2,20,47		4,42
46″	51,34,16,24,35,19,20,47,43,39		3,46,13, 0,13	
		1, 4,13,34,56,49,20,34		4,42
48″	51,34,17,28,48,54,17,37, 4,13		3,46,13, 4,55	
		1, 4,13,31,10,36,15,39		4,42
50″	51,34,18,33, 2,25,28,13,19,52		3,46,13, 9,37	
		1, 4,13,27,24,23, 6, 2		4,42
52″	51,34,19,37,15,52,52,36,25,54		3,46,13,14,19	
		1, 4,13,23,38, 9,51,43		4,42
54″	51,34,20,41,29,16,30,46,17,37		3,46,13,19, 1	
		1, 4,13,19,51,56,32,42		4,42
56″	51,34,21,45,42,36,22,42,50,19		3,46,13,23,43	
		1, 4,13,16, 5,43, 8,59		4,42
58″	51,34,22,49,55,52,28,25,59,18		3,46,13,28,25	
		1, 4,13,12,19,29,40,34		
60″	51,34,23,54, 9, 4,47,55,39,52			
exact	51,34,23,54, 9, 4,47,55,51, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°16′ 0″	51,34,23,54, 9, 4,47,55,51, 8			
		1, 4,13, 8,33,16, 8,50		
2″	51,34,24,58,22,13,21,11,59,58		3,46,13,37,42	
		1, 4,13, 4,47, 2,31, 8		4,42
4″	51,34,26, 2,35,18, 8,14,31, 6		3,46,13,42,24	
		1, 4,13, 1, 0,48,48,44		4,42
6″	51,34,27, 6,48,19, 9, 3,19,50		3,46,13,47, 6	
		1, 4,12,57,14,35, 1,38		4,42
8″	51,34,28,11, 1,16,23,38,21,28		3,46,13,51,48	
		1, 4,12,53,28,21, 9,50		4,42
10″	51,34,29,15,14, 9,51,59,31,18		3,46,13,56,30	
		1, 4,12,49,42, 7,13,20		4,42
12″	51,34,30,19,26,59,34, 6,44,38		3,46,14, 1,12	
		1, 4,12,45,55,53,12, 8		4,42
14″	51,34,31,23,39,45,29,59,56,46		3,46,14, 5,54	
		1, 4,12,42, 9,39, 6,14		4,42
16″	51,34,32,27,52,27,39,39, 3, 0		3,46,14,10,36	
		1, 4,12,38,23,24,55,38		4,42
18″	51,34,33,32, 5, 6, 3, 3,58,38		3,46,14,15,18	
		1, 4,12,34,37,10,40,20		4,42
20″	51,34,34,36,17,40,40,14,38,58		3,46,14,20, 0	
		1, 4,12,30,50,56,20,20		4,42
22″	51,34,35,40,30,11,31,10,59,18		3,46,14,24,42	
		1, 4,12,27, 4,41,55,38		4,42
24″	51,34,36,44,42,38,35,52,54,56		3,46,14,29,24	
		1, 4,12,23,18,27,26,14		4,42
26″	51,34,37,48,55, 1,54,20,21,10		3,46,14,34, 6	
		1, 4,12,19,32,12,52, 8		4,42
28″	51,34,38,53, 7,21,26,33,13,18		3,46,14,38,48	
		1, 4,12,15,45,58,13,20		4,42
30″	51,34,39,57,19,37,12,31,26,38		3,46,14,43,30	
		1, 4,12,11,59,43,29,50		4,42
32″	51,34,41, 1,31,49,12,14,56,28		3,46,14,48,12	
		1, 4,12, 8,13,28,41,38		4,42
34″	51,34,42, 5,43,57,25,43,38, 6		3,46,14,52,54	
		1, 4,12, 4,27,13,48,44		4,42
36″	51,34,43, 9,56, 1,52,57,26,50		3,46,14,57,36	
		1, 4,12, 0,40,58,51, 8		4,42
38″	51,34,44,14, 8, 2,33,56,17,58		3,46,15, 2,18	
		1, 4,11,56,54,43,48,50		4,42
40″	51,34,45,18,19,59,28,40, 6,48		3,46,15, 7, 0	
		1, 4,11,53, 8,28,41,50		4,42
42″	51,34,46,22,31,52,37, 8,48,38		3,46,15,11,42	
		1, 4,11,49,22,13,30, 8		4,42
44″	51,34,47,26,43,41,59,22,18,46		3,46,15,16,24	
		1, 4,11,45,35,58,13,44		4,42
46″	51,34,48,30,55,27,35,20,32,30		3,46,15,21, 6	
		1, 4,11,41,49,42,52,38		4,42
48″	51,34,49,35, 7, 9,25, 3,25, 8		3,46,15,25,48	
		1, 4,11,38, 3,27,26,50		4,42
50″	51,34,50,39,18,47,28,30,51,58		3,46,15,30,30	
		1, 4,11,34,17,11,56,20		4,42
52″	51,34,51,43,30,21,45,42,48,18		3,46,15,35,12	
		1, 4,11,30,30,56,21, 8		4,42
54″	51,34,52,47,41,52,16,39, 9,26		3,46,15,39,54	
		1, 4,11,26,44,40,41,14		4,42
56″	51,34,53,51,53,19, 1,19,50,40		3,46,15,44,36	
		1, 4,11,22,58,24,56,38		4,42
58″	51,34,54,56, 4,41,59,44,47,18		3,46,15,49,18	
		1, 4,11,19,12, 9, 7,20		
60″	51,34,56, 0,16, 1,11,53,54,38			
exact	51,34,56, 0,16, 1,11,54,16, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°17′ 0″	51,34,56, 0,16, 1,11,54,16, 2			
		1, 4,11,15,25,53,15,46		
2″	51,34,57, 4,27,16,37,47,31,48		3,46,15,58,31	
		1, 4,11,11,39,37,17,15		4,42
4″	51,34,58, 8,38,28,17,24,49, 3		3,46,16, 3,13	
		1, 4,11, 7,53,21,14, 2		4,42
6″	51,34,59,12,49,36,10,46, 3, 5		3,46,16, 7,55	
		1, 4,11, 4, 7, 5, 6, 7		4,42
8″	51,35, 0,17, 0,40,17,51, 9,12		3,46,16,12,37	
		1, 4,11, 0,20,48,53,30		4,42
10″	51,35, 1,21,11,40,38,40, 2,42		3,46,16,17,19	
		1, 4,10,56,34,32,36,11		4,42
12″	51,35, 2,25,22,37,13,12,38,53		3,46,16,22, 1	
		1, 4,10,52,48,16,14,10		4,42
14″	51,35, 3,29,33,30, 1,28,53, 3		3,46,16,26,43	
		1, 4,10,49, 1,59,47,27		4,42
16″	51,35, 4,33,44,19, 3,28,40,30		3,46,16,31,25	
		1, 4,10,45,15,43,16, 2		4,42
18″	51,35, 5,37,55, 4,19,11,56,32		3,46,16,36, 7	
		1, 4,10,41,29,26,39,55		4,42
20″	51,35, 6,42, 5,45,48,38,36,27		3,46,16,40,49	
		1, 4,10,37,43, 9,59, 6		4,42
22″	51,35, 7,46,16,23,31,48,35,33		3,46,16,45,31	
		1, 4,10,33,56,53,13,35		4,42
24″	51,35, 8,50,26,57,28,41,49, 8		3,46,16,50,13	
		1, 4,10,30,10,36,23,22		4,42
26″	51,35, 9,54,37,27,39,18,12,30		3,46,16,54,55	
		1, 4,10,26,24,19,28,27		4,42
28″	51,35,10,58,47,54, 3,37,40,57		3,46,16,59,37	
		1, 4,10,22,38, 2,28,50		4,42
30″	51,35,12, 2,58,16,41,40, 9,47		3,46,17, 4,19	
		1, 4,10,18,51,45,24,31		4,42
32″	51,35,13, 7, 8,35,33,25,34,18		3,46,17, 9, 1	
		1, 4,10,15, 5,28,15,30		4,42
34″	51,35,14,11,18,50,38,53,49,48		3,46,17,13,43	
		1, 4,10,11,19,11, 1,47		4,42
36″	51,35,15,15,29, 1,58, 4,51,35		3,46,17,18,25	
		1, 4,10, 7,32,53,43,22		4,42
38″	51,35,16,19,39, 9,30,58,34,57		3,46,17,23, 7	
		1, 4,10, 3,46,36,20,15		4,42
40″	51,35,17,23,49,13,17,34,55,12		3,46,17,27,49	
		1, 4,10, 0, 0,18,52,26		4,42
42″	51,35,18,27,59,13,17,53,47,38		3,46,17,32,31	
		1, 4, 9,56,14, 1,19,55		4,42
44″	51,35,19,32, 9, 9,31,55, 7,33		3,46,17,37,13	
		1, 4, 9,52,27,43,42,42		4,42
46″	51,35,20,36,19, 1,59,38,50,15		3,46,17,41,55	
		1, 4, 9,48,41,26, 0,47		4,42
48″	51,35,21,40,28,50,41, 4,51, 2		3,46,17,46,37	
		1, 4, 9,44,55, 8,14,10		4,42
50″	51,35,22,44,38,35,36,13, 5,12		3,46,17,51,19	
		1, 4, 9,41, 8,50,22,51		4,42
52″	51,35,23,48,48,16,45, 3,28, 3		3,46,17,56, 1	
		1, 4, 9,37,22,32,26,50		4,42
54″	51,35,24,52,57,54, 7,35,54,53		3,46,18, 0,43	
		1, 4, 9,33,36,14,26, 7		4,42
56″	51,35,25,57, 7,27,43,50,21, 0		3,46,18, 5,25	
		1, 4, 9,29,49,56,20,42		4,42
58″	51,35,27, 1,16,57,33,46,41,42		3,46,18,10, 7	
		1, 4, 9,26, 3,38,10,35		
60″	51,35,28, 5,26,23,37,24,52,17			
exact	51,35,28, 5,26,23,37,25,24,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°18′ 0″	51,35,28, 5,26,23,37,25,24,59			
		1, 4, 9,22,17,19,59,20		
2″	51,35,29, 9,35,45,54,45,24,19		3,46,18,19,16	
		1, 4, 9,18,31, 1,40, 4		4,41
4″	51,35,30,13,45, 4,25,47, 4,23		3,46,18,23,57	
		1, 4, 9,14,44,43,16, 7		4,41
6″	51,35,31,17,54,19,10,30,20,30		3,46,18,28,38	
		1, 4, 9,10,58,24,47,29		4,41
8″	51,35,32,22, 3,30, 8,55, 7,59		3,46,18,33,19	
		1, 4, 9, 7,12, 6,14,10		4,41
10″	51,35,33,26,12,37,21, 1,22, 9		3,46,18,38, 0	
		1, 4, 9, 3,25,47,36,10		4,41
12″	51,35,34,30,21,40,46,48,58,19		3,46,18,42,41	
		1, 4, 8,59,39,28,53,29		4,41
14″	51,35,35,34,30,40,26,17,51,48		3,46,18,47,22	
		1, 4, 8,55,53,10, 6, 7		4,41
16″	51,35,36,38,39,36,19,27,57,55		3,46,18,52, 3	
		1, 4, 8,52, 6,51,14, 4		4,41
18″	51,35,37,42,48,28,26,19,11,59		3,46,18,56,44	
		1, 4, 8,48,20,32,17,20		4,41
20″	51,35,38,46,57,16,46,51,29,19		3,46,19, 1,25	
		1, 4, 8,44,34,13,15,55		4,41
22″	51,35,39,51, 6, 1,21, 4,45,14		3,46,19, 6, 6	
		1, 4, 8,40,47,54, 9,49		4,41
24″	51,35,40,55,14,42, 8,58,55, 3		3,46,19,10,47	
		1, 4, 8,37, 1,34,59, 2		4,41
26″	51,35,41,59,23,19,10,33,54, 5		3,46,19,15,28	
		1, 4, 8,33,15,15,43,34		4,41
28″	51,35,43, 3,31,52,25,49,37,39		3,46,19,20, 9	
		1, 4, 8,29,28,56,23,25		4,41
30″	51,35,44, 7,40,21,54,46, 1, 4		3,46,19,24,50	
		1, 4, 8,25,42,36,58,35		4,41
32″	51,35,45,11,48,47,37,22,59,39		3,46,19,29,31	
		1, 4, 8,21,56,17,29, 4		4,41
34″	51,35,46,15,57, 9,33,40,28,43		3,46,19,34,12	
		1, 4, 8,18, 9,57,54,52		4,41
36″	51,35,47,20, 5,27,43,38,23,35		3,46,19,38,53	
		1, 4, 8,14,23,38,15,59		4,41
38″	51,35,48,24,13,42, 7,16,39,34		3,46,19,43,34	
		1, 4, 8,10,37,18,32,25		4,41
40″	51,35,49,28,21,52,44,35,11,59		3,46,19,48,15	
		1, 4, 8, 6,50,58,44,10		4,41
42″	51,35,50,32,29,59,35,33,56, 9		3,46,19,52,56	
		1, 4, 8, 3, 4,38,51,14		4,41
44″	51,35,51,36,38, 2,40,12,47,23		3,46,19,57,37	
		1, 4, 7,59,18,18,53,37		4,41
46″	51,35,52,40,46, 1,58,31,41, 0		3,46,20, 2,18	
		1, 4, 7,55,31,58,51,19		4,41
48″	51,35,53,44,53,57,30,30,32,19		3,46,20, 6,59	
		1, 4, 7,51,45,38,44,20		4,41
50″	51,35,54,49, 1,49,16, 9,16,39		3,46,20,11,40	
		1, 4, 7,47,59,18,32,40		4,41
52″	51,35,55,53, 9,37,15,27,49,19		3,46,20,16,21	
		1, 4, 7,44,12,58,16,19		4,41
54″	51,35,56,57,17,21,28,26, 5,38		3,46,20,21, 2	
		1, 4, 7,40,26,37,55,17		4,41
56″	51,35,58, 1,25, 1,55, 4, 0,55		3,46,20,25,43	
		1, 4, 7,36,40,17,29,34		4,41
58″	51,35,59, 5,32,38,35,21,30,29		3,46,20,30,24	
		1, 4, 7,32,53,56,59,10		
60″	51,36, 0, 9,40,11,29,18,29,39			
exact	51,36, 0, 9,40,11,29,18, 6,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°19′ 0″	51,36, 0, 9,40,11,29,18, 6,42			
		1, 4, 7,29, 7,36,21,35		
2″	51,36, 1,13,47,40,36,54,28,17		3,46,20,39,56	
		1, 4, 7,25,21,15,41,39		4,41
4″	51,36, 2,17,55, 5,58,10, 9,56		3,46,20,44,37	
		1, 4, 7,21,34,54,57, 2		4,41
6″	51,36, 3,22, 2,27,33, 5, 6,58		3,46,20,49,18	
		1, 4, 7,17,48,34, 7,44		4,41
8″	51,36, 4,26, 9,45,21,39,14,42		3,46,20,53,59	
		1, 4, 7,14, 2,13,13,45		4,41
10″	51,36, 5,30,16,59,23,52,28,27		3,46,20,58,40	
		1, 4, 7,10,15,52,15, 5		4,41
12″	51,36, 6,34,24, 9,39,44,43,32		3,46,21, 3,21	
		1, 4, 7, 6,29,31,11,44		4,41
14″	51,36, 7,38,31,16, 9,15,55,16		3,46,21, 8, 2	
		1, 4, 7, 2,43,10, 3,42		4,41
16″	51,36, 8,42,38,18,52,25,58,58		3,46,21,12,43	
		1, 4, 6,58,56,48,50,59		4,41
18″	51,36, 9,46,45,17,49,14,49,57		3,46,21,17,24	
		1, 4, 6,55,10,27,33,35		4,41
20″	51,36,10,50,52,12,59,42,23,32		3,46,21,22, 5	
		1, 4, 6,51,24, 6,11,30		4,41
22″	51,36,11,54,59, 4,23,48,35, 2		3,46,21,26,46	
		1, 4, 6,47,37,44,44,44		4,41
24″	51,36,12,59, 5,52, 1,33,19,46		3,46,21,31,27	
		1, 4, 6,43,51,23,13,17		4,41
26″	51,36,14, 3,12,35,52,56,33, 3		3,46,21,36, 8	
		1, 4, 6,40, 5, 1,37, 9		4,41
28″	51,36,15, 7,19,15,57,58,10,12		3,46,21,40,49	
		1, 4, 6,36,18,39,56,20		4,41
30″	51,36,16,11,25,52,16,38, 6,32		3,46,21,45,30	
		1, 4, 6,32,32,18,10,50		4,41
32″	51,36,17,15,32,24,48,56,17,22		3,46,21,50,11	
		1, 4, 6,28,45,56,20,39		4,41
34″	51,36,18,19,38,53,34,52,38, 1		3,46,21,54,52	
		1, 4, 6,24,59,34,25,47		4,41
36″	51,36,19,23,45,18,34,27, 3,48		3,46,21,59,33	
		1, 4, 6,21,13,12,26,14		4,41
38″	51,36,20,27,51,39,47,39,30, 2		3,46,22, 4,14	
		1, 4, 6,17,26,50,22, 0		4,41
40″	51,36,21,31,57,57,14,29,52, 2		3,46,22, 8,55	
		1, 4, 6,13,40,28,13, 5		4,41
42″	51,36,22,36, 4,10,54,58, 5, 7		3,46,22,13,36	
		1, 4, 6, 9,54, 5,59,29		4,41
44″	51,36,23,40,10,20,49, 4, 4,36		3,46,22,18,17	
		1, 4, 6, 6, 7,43,41,12		4,41
46″	51,36,24,44,16,26,56,47,45,48		3,46,22,22,58	
		1, 4, 6, 2,21,21,18,14		4,41
48″	51,36,25,48,22,29,18, 9, 4, 2		3,46,22,27,39	
		1, 4, 5,58,34,58,50,35		4,41
50″	51,36,26,52,28,27,53, 7,54,37		3,46,22,32,20	
		1, 4, 5,54,48,36,18,15		4,41
52″	51,36,27,56,34,22,41,44,12,52		3,46,22,37, 1	
		1, 4, 5,51, 2,13,41,14		4,41
54″	51,36,29, 0,40,13,43,57,54, 6		3,46,22,41,42	
		1, 4, 5,47,15,50,59,32		4,41
56″	51,36,30, 4,46, 0,59,48,53,38		3,46,22,46,23	
		1, 4, 5,43,29,28,13, 9		4,41
58″	51,36,31, 8,51,44,29,17, 6,47		3,46,22,51, 4	
		1, 4, 5,39,43, 5,22, 5		
60″	51,36,32,12,57,24,12,22,28,52			
exact	51,36,32,12,57,24,12,22,11,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°20′ 0″	51,36,32,12,57,24,12,22,11,55			
		1, 4, 5,35,56,42,24,36		
2″	51,36,33,17, 3, 0, 9, 4,36,31		3,46,23, 0,32	
		1, 4, 5,32,10,19,24, 4		4,41
4″	51,36,34,21, 8,32,19,24, 0,35		3,46,23, 5,13	
		1, 4, 5,28,23,56,18,51		4,41
6″	51,36,35,25,14, 0,43,20,19,26		3,46,23, 9,54	
		1, 4, 5,24,37,33, 8,57		4,41
8″	51,36,36,29,19,25,20,53,28,23		3,46,23,14,35	
		1, 4, 5,20,51, 9,54,22		4,41
10″	51,36,37,33,24,46,12, 3,22,45		3,46,23,19,16	
		1, 4, 5,17, 4,46,35, 6		4,41
12″	51,36,38,37,30, 3,16,49,57,51		3,46,23,23,57	
		1, 4, 5,13,18,23,11, 9		4,41
14″	51,36,39,41,35,16,35,13, 9, 0		3,46,23,28,38	
		1, 4, 5, 9,31,59,42,31		4,41
16″	51,36,40,45,40,26, 7,12,51,31		3,46,23,33,19	
		1, 4, 5, 5,45,36, 9,12		4,41
18″	51,36,41,49,45,31,52,49, 0,43		3,46,23,38, 0	
		1, 4, 5, 1,59,12,31,12		4,41
20″	51,36,42,53,50,33,52, 1,31,55		3,46,23,42,41	
		1, 4, 4,58,12,48,48,31		4,41
22″	51,36,43,57,55,32, 4,50,20,26		3,46,23,47,22	
		1, 4, 4,54,26,25, 1, 9		4,41
24″	51,36,45, 2, 0,26,31,15,21,35		3,46,23,52, 3	
		1, 4, 4,50,40, 1, 9, 6		4,41
26″	51,36,46, 6, 5,17,11,16,30,41		3,46,23,56,44	
		1, 4, 4,46,53,37,12,22		4,41
28″	51,36,47,10,10, 4, 4,53,43, 3		3,46,24, 1,25	
		1, 4, 4,43, 7,13,10,57		4,41
30″	51,36,48,14,14,47,12, 6,54, 0		3,46,24, 6, 6	
		1, 4, 4,39,20,49, 4,51		4,41
32″	51,36,49,18,19,26,32,55,58,51		3,46,24,10,47	
		1, 4, 4,35,34,24,54, 4		4,41
34″	51,36,50,22,24, 2, 7,20,52,55		3,46,24,15,28	
		1, 4, 4,31,48, 0,38,36		4,41
36″	51,36,51,26,28,33,55,21,31,31		3,46,24,20, 9	
		1, 4, 4,28, 1,36,18,27		4,41
38″	51,36,52,30,33, 1,56,57,49,58		3,46,24,24,50	
		1, 4, 4,24,15,11,53,37		4,41
40″	51,36,53,34,37,26,12, 9,43,35		3,46,24,29,31	
		1, 4, 4,20,28,47,24, 6		4,41
42″	51,36,54,38,41,46,40,57, 7,41		3,46,24,34,12	
		1, 4, 4,16,42,22,49,54		4,41
44″	51,36,55,42,46, 3,23,19,57,35		3,46,24,38,53	
		1, 4, 4,12,55,58,11, 1		4,41
46″	51,36,56,46,50,16,19,18, 8,36		3,46,24,43,34	
		1, 4, 4, 9, 9,33,27,27		4,41
48″	51,36,57,50,54,25,28,51,36, 3		3,46,24,48,15	
		1, 4, 4, 5,23, 8,39,12		4,41
50″	51,36,58,54,58,30,52, 0,15,15		3,46,24,52,56	
		1, 4, 4, 1,36,43,46,16		4,41
52″	51,36,59,59, 2,32,28,44, 1,31		3,46,24,57,37	
		1, 4, 3,57,50,18,48,39		4,41
54″	51,37, 1, 3, 6,30,19, 2,50,10		3,46,25, 2,18	
		1, 4, 3,54, 3,53,46,21		4,41
56″	51,37, 2, 7,10,24,22,56,36,31		3,46,25, 6,59	
		1, 4, 3,50,17,28,39,22		4,41
58″	51,37, 3,11,14,14,40,25,15,53		3,46,25,11,40	
		1, 4, 3,46,31, 3,27,42		
60″	51,37, 4,15,18, 1,11,28,43,35			
exact	51,37, 4,15,18, 1,11,28,33,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°21′ 0″	51,37, 4,15,18, 1,11,28,33,26			
		1, 4, 3,42,44,38,10,27		
2″	51,37, 5,19,21,43,56, 6,43,53		3,46,25,21, 5	
		1, 4, 3,38,58,12,49,22		4,41
4″	51,37, 6,23,25,22,54,19,33,15		3,46,25,25,46	
		1, 4, 3,35,11,47,23,36		4,41
6″	51,37, 7,27,28,58, 6, 6,56,51		3,46,25,30,27	
		1, 4, 3,31,25,21,53, 9		4,41
8″	51,37, 8,31,32,29,31,28,50, 0		3,46,25,35, 8	
		1, 4, 3,27,38,56,18, 1		4,41
10″	51,37, 9,35,35,57,10,25, 8, 1		3,46,25,39,49	
		1, 4, 3,23,52,30,38,12		4,41
12″	51,37,10,39,39,21, 2,55,46,13		3,46,25,44,30	
		1, 4, 3,20, 6, 4,53,42		4,41
14″	51,37,11,43,42,41, 9, 0,39,55		3,46,25,49,11	
		1, 4, 3,16,19,39, 4,31		4,41
16″	51,37,12,47,45,57,28,39,44,26		3,46,25,53,52	
		1, 4, 3,12,33,13,10,39		4,41
18″	51,37,13,51,49,10, 1,52,55, 5		3,46,25,58,33	
		1, 4, 3, 8,46,47,12, 6		4,41
20″	51,37,14,55,52,18,48,40, 7,11		3,46,26, 3,14	
		1, 4, 3, 5, 0,21, 8,52		4,41
22″	51,37,15,59,55,23,49, 1,16, 3		3,46,26, 7,55	
		1, 4, 3, 1,13,55, 0,57		4,41
24″	51,37,17, 3,58,25, 2,56,17, 0		3,46,26,12,36	
		1, 4, 2,57,27,28,48,21		4,41
26″	51,37,18, 8, 1,22,30,25, 5,21		3,46,26,17,17	
		1, 4, 2,53,41, 2,31, 4		4,41
28″	51,37,19,12, 4,16,11,27,36,25		3,46,26,21,58	
		1, 4, 2,49,54,36, 9, 6		4,41
30″	51,37,20,16, 7, 6, 6, 3,45,31		3,46,26,26,39	
		1, 4, 2,46, 8, 9,42,27		4,41
32″	51,37,21,20, 9,52,14,13,27,58		3,46,26,31,20	
		1, 4, 2,42,21,43,11, 7		4,41
34″	51,37,22,24,12,34,35,56,39, 5		3,46,26,36, 1	
		1, 4, 2,38,35,16,35, 6		4,41
36″	51,37,23,28,15,13,11,13,14,11		3,46,26,40,42	
		1, 4, 2,34,48,49,54,24		4,41
38″	51,37,24,32,17,48, 0, 3, 8,35		3,46,26,45,23	
		1, 4, 2,31, 2,23, 9, 1		4,41
40″	51,37,25,36,20,19, 2,26,17,36		3,46,26,50, 4	
		1, 4, 2,27,15,56,18,57		4,41
42″	51,37,26,40,22,46,18,22,36,33		3,46,26,54,45	
		1, 4, 2,23,29,29,24,12		4,41
44″	51,37,27,44,25, 9,47,52, 0,45		3,46,26,59,26	
		1, 4, 2,19,43, 2,24,46		4,41
46″	51,37,28,48,27,29,30,54,25,31		3,46,27, 4, 7	
		1, 4, 2,15,56,35,20,39		4,41
48″	51,37,29,52,29,45,27,29,46,10		3,46,27, 8,48	
		1, 4, 2,12,10, 8,11,51		4,41
50″	51,37,30,56,31,57,37,37,58, 1		3,46,27,13,29	
		1, 4, 2, 8,23,40,58,22		4,41
52″	51,37,32, 0,34, 6, 1,18,56,23		3,46,27,18,10	
		1, 4, 2, 4,37,13,40,12		4,41
54″	51,37,33, 4,36,10,38,32,36,35		3,46,27,22,51	
		1, 4, 2, 0,50,46,17,21		4,41
56″	51,37,34, 8,38,11,29,18,53,56		3,46,27,27,32	
		1, 4, 1,57, 4,18,49,49		4,41
58″	51,37,35,12,40, 8,33,37,43,45		3,46,27,32,13	
		1, 4, 1,53,17,51,17,36		
60″	51,37,36,16,42, 1,51,29, 1,21			
exact	51,37,36,16,42, 1,51,29, 6, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°22′ 0″	51,37,36,16,42, 1,51,29, 6, 7			
		1, 4, 1,49,31,23,41,11		
2″	51,37,37,20,43,51,22,52,47,18		3,46,27,41,33	
		1, 4, 1,45,44,55,59,38		4,41
4″	51,37,38,24,45,37, 7,48,46,56		3,46,27,46,14	
		1, 4, 1,41,58,28,13,24		4,41
6″	51,37,39,28,47,19, 6,17, 0,20		3,46,27,50,55	
		1, 4, 1,38,12, 0,22,29		4,41
8″	51,37,40,32,48,57,18,17,22,49		3,46,27,55,36	
		1, 4, 1,34,25,32,26,53		4,41
10″	51,37,41,36,50,31,43,49,49,42		3,46,28, 0,17	
		1, 4, 1,30,39, 4,26,36		4,41
12″	51,37,42,40,52, 2,22,54,16,18		3,46,28, 4,58	
		1, 4, 1,26,52,36,21,38		4,41
14″	51,37,43,44,53,29,15,30,37,56		3,46,28, 9,39	
		1, 4, 1,23, 6, 8,11,59		4,41
16″	51,37,44,48,54,52,21,38,49,55		3,46,28,14,20	
		1, 4, 1,19,19,39,57,39		4,41
18″	51,37,45,52,56,11,41,18,47,34		3,46,28,19, 1	
		1, 4, 1,15,33,11,38,38		4,41
20″	51,37,46,56,57,27,14,30,26,12		3,46,28,23,42	
		1, 4, 1,11,46,43,14,56		4,41
22″	51,37,48, 0,58,39, 1,13,41, 8		3,46,28,28,23	
		1, 4, 1, 8, 0,14,46,33		4,41
24″	51,37,49, 4,59,47, 1,28,27,41		3,46,28,33, 4	
		1, 4, 1, 4,13,46,13,29		4,41
26″	51,37,50, 9, 0,51,15,14,41,10		3,46,28,37,45	
		1, 4, 1, 0,27,17,35,44		4,41
28″	51,37,51,13, 1,51,42,32,16,54		3,46,28,42,26	
		1, 4, 0,56,40,48,53,18		4,41
30″	51,37,52,17, 2,48,23,21,10,12		3,46,28,47, 7	
		1, 4, 0,52,54,20, 6,11		4,41
32″	51,37,53,21, 3,41,17,41,16,23		3,46,28,51,48	
		1, 4, 0,49, 7,51,14,23		4,41
34″	51,37,54,25, 4,30,25,32,30,46		3,46,28,56,29	
		1, 4, 0,45,21,22,17,54		4,41
36″	51,37,55,29, 5,15,46,54,48,40		3,46,29, 1,10	
		1, 4, 0,41,34,53,16,44		4,41
38″	51,37,56,33, 5,57,21,48, 5,24		3,46,29, 5,51	
		1, 4, 0,37,48,24,10,53		4,41
40″	51,37,57,37, 6,35,10,12,16,17		3,46,29,10,32	
		1, 4, 0,34, 1,55, 0,21		4,41
42″	51,37,58,41, 7, 9,12, 7,16,38		3,46,29,15,13	
		1, 4, 0,30,15,25,45, 8		4,41
44″	51,37,59,45, 7,39,27,33, 1,46		3,46,29,19,54	
		1, 4, 0,26,28,56,25,14		4,41
46″	51,38, 0,49, 8, 5,56,29,27, 0		3,46,29,24,35	
		1, 4, 0,22,42,27, 0,39		4,41
48″	51,38, 1,53, 8,28,38,56,27,39		3,46,29,29,16	
		1, 4, 0,18,55,57,31,23		4,41
50″	51,38, 2,57, 8,47,34,53,59, 2		3,46,29,33,57	
		1, 4, 0,15, 9,27,57,26		4,41
52″	51,38, 4, 1, 9, 2,44,21,56,28		3,46,29,38,38	
		1, 4, 0,11,22,58,18,48		4,41
54″	51,38, 5, 5, 9,14, 7,20,15,16		3,46,29,43,19	
		1, 4, 0, 7,36,28,35,29		4,41
56″	51,38, 6, 9, 9,21,43,48,50,45		3,46,29,48, 0	
		1, 4, 0, 3,49,58,47,29		4,41
58″	51,38, 7,13, 9,25,33,47,38,14		3,46,29,52,41	
		1, 4, 0, 0, 3,28,54,48		
60″	51,38, 8,17, 9,25,37,16,33, 2			
exact	51,38, 8,17, 9,25,37,16,46,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°23′ 0″	51,38, 8,17, 9,25,37,16,46,53			
		1, 3,59,56,16,58,58,54		
2″	51,38, 9,21, 9,21,54,15,45,47		3,46,30, 1,57	
		1, 3,59,52,30,28,56,57		4,41
4″	51,38,10,25, 9,14,24,44,42,44		3,46,30, 6,38	
		1, 3,59,48,43,58,50,19		4,41
6″	51,38,11,29, 9, 3, 8,43,33, 3		3,46,30,11,19	
		1, 3,59,44,57,28,39, 0		4,41
8″	51,38,12,33, 8,48, 6,12,12, 3		3,46,30,16, 0	
		1, 3,59,41,10,58,23, 0		4,41
10″	51,38,13,37, 8,29,17,10,35, 3		3,46,30,20,41	
		1, 3,59,37,24,28, 2,19		4,41
12″	51,38,14,41, 8, 6,41,38,37,22		3,46,30,25,22	
		1, 3,59,33,37,57,36,57		4,41
14″	51,38,15,45, 7,40,19,36,14,19		3,46,30,30, 3	
		1, 3,59,29,51,27, 6,54		4,41
16″	51,38,16,49, 7,10,11, 3,21,13		3,46,30,34,44	
		1, 3,59,26, 4,56,32,10		4,41
18″	51,38,17,53, 6,36,15,59,53,23		3,46,30,39,25	
		1, 3,59,22,18,25,52,45		4,41
20″	51,38,18,57, 5,58,34,25,46, 8		3,46,30,44, 6	
		1, 3,59,18,31,55, 8,39		4,41
22″	51,38,20, 1, 5,17, 6,20,54,47		3,46,30,48,47	
		1, 3,59,14,45,24,19,52		4,41
24″	51,38,21, 5, 4,31,51,45,14,39		3,46,30,53,28	
		1, 3,59,10,58,53,26,24		4,41
26″	51,38,22, 9, 3,42,50,38,41, 3		3,46,30,58, 9	
		1, 3,59, 7,12,22,28,15		4,41
28″	51,38,23,13, 2,50, 3, 1, 9,18		3,46,31, 2,50	
		1, 3,59, 3,25,51,25,25		4,41
30″	51,38,24,17, 1,53,28,52,34,43		3,46,31, 7,31	
		1, 3,58,59,39,20,17,54		4,41
32″	51,38,25,21, 0,53, 8,12,52,37		3,46,31,12,12	
		1, 3,58,55,52,49, 5,42		4,41
34″	51,38,26,24,59,49, 1, 1,58,19		3,46,31,16,53	
		1, 3,58,52, 6,17,48,49		4,41
36″	51,38,27,28,58,41, 7,19,47, 8		3,46,31,21,34	
		1, 3,58,48,19,46,27,15		4,41
38″	51,38,28,32,57,29,27, 6,14,23		3,46,31,26,15	
		1, 3,58,44,33,15, 1, 0		4,41
40″	51,38,29,36,56,14, 0,21,15,23		3,46,31,30,56	
		1, 3,58,40,46,43,30, 4		4,41
42″	51,38,30,40,54,54,47, 4,45,27		3,46,31,35,37	
		1, 3,58,37, 0,11,54,27		4,41
44″	51,38,31,44,53,31,47,16,39,54		3,46,31,40,18	
		1, 3,58,33,13,40,14, 9		4,41
46″	51,38,32,48,52, 5, 0,56,54, 3		3,46,31,44,59	
		1, 3,58,29,27, 8,29,10		4,41
48″	51,38,33,52,50,34,28, 5,23,13		3,46,31,49,40	
		1, 3,58,25,40,36,39,30		4,41
50″	51,38,34,56,49, 0, 8,42, 2,43		3,46,31,54,21	
		1, 3,58,21,54, 4,45, 9		4,41
52″	51,38,36, 0,47,22, 2,46,47,52		3,46,31,59, 2	
		1, 3,58,18, 7,32,46, 7		4,41
54″	51,38,37, 4,45,40,10,19,33,59		3,46,32, 3,43	
		1, 3,58,14,21, 0,42,24		4,41
56″	51,38,38, 8,43,54,31,20,16,23		3,46,32, 8,24	
		1, 3,58,10,34,28,34, 0		4,41
58″	51,38,39,12,42, 5, 5,48,50,23		3,46,32,13, 5	
		1, 3,58, 6,47,56,20,55		
60″	51,38,40,16,40,11,53,45,11,18			
exact	51,38,40,16,40,11,53,45,34,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°24′ 0″	51,38,40,16,40,11,53,45,34,47			
		1, 3,58, 3, 1,24, 5,39		
2″	51,38,41,20,38,14,55, 9,40,26		3,46,32,22,16	
		1, 3,57,59,14,51,43,23		4,41
4″	51,38,42,24,36,14,10, 1,23,49		3,46,32,26,57	
		1, 3,57,55,28,19,16,26		4,41
6″	51,38,43,28,34, 9,38,20,40,15		3,46,32,31,38	
		1, 3,57,51,41,46,44,48		4,41
8″	51,38,44,32,32, 1,20, 7,25, 3		3,46,32,36,19	
		1, 3,57,47,55,14, 8,29		4,41
10″	51,38,45,36,29,49,15,21,33,32		3,46,32,41, 0	
		1, 3,57,44, 8,41,27,29		4,41
12″	51,38,46,40,27,33,24, 3, 1, 1		3,46,32,45,41	
		1, 3,57,40,22, 8,41,48		4,41
14″	51,38,47,44,25,13,46,11,42,49		3,46,32,50,22	
		1, 3,57,36,35,35,51,26		4,41
16″	51,38,48,48,22,50,21,47,34,15		3,46,32,55, 3	
		1, 3,57,32,49, 2,56,23		4,41
18″	51,38,49,52,20,23,10,50,30,38		3,46,32,59,44	
		1, 3,57,29, 2,29,56,39		4,41
20″	51,38,50,56,17,52,13,20,27,17		3,46,33, 4,25	
		1, 3,57,25,15,56,52,14		4,41
22″	51,38,52, 0,15,17,29,17,19,31		3,46,33, 9, 6	
		1, 3,57,21,29,23,43, 8		4,41
24″	51,38,53, 4,12,38,58,41, 2,39		3,46,33,13,47	
		1, 3,57,17,42,50,29,21		4,41
26″	51,38,54, 8, 9,56,41,31,32, 0		3,46,33,18,28	
		1, 3,57,13,56,17,10,53		4,41
28″	51,38,55,12, 7,10,37,48,42,53		3,46,33,23, 9	
		1, 3,57,10, 9,43,47,44		4,41
30″	51,38,56,16, 4,20,47,32,30,37		3,46,33,27,50	
		1, 3,57, 6,23,10,19,54		4,41
32″	51,38,57,20, 1,27,10,42,50,31		3,46,33,32,31	
		1, 3,57, 2,36,36,47,23		4,41
34″	51,38,58,23,58,29,47,19,37,54		3,46,33,37,12	
		1, 3,56,58,50, 3,10,11		4,41
36″	51,38,59,27,55,28,37,22,48, 5		3,46,33,41,53	
		1, 3,56,55, 3,29,28,18		4,41
38″	51,39, 0,31,52,23,40,52,16,23		3,46,33,46,34	
		1, 3,56,51,16,55,41,44		4,41
40″	51,39, 1,35,49,14,57,47,58, 7		3,46,33,51,15	
		1, 3,56,47,30,21,50,29		4,41
42″	51,39, 2,39,46, 2,28, 9,48,36		3,46,33,55,56	
		1, 3,56,43,43,47,54,33		4,41
44″	51,39, 3,43,42,46,11,57,43, 9		3,46,34, 0,37	
		1, 3,56,39,57,13,53,56		4,41
46″	51,39, 4,47,39,26, 9,11,37, 5		3,46,34, 5,18	
		1, 3,56,36,10,39,48,38		4,41
48″	51,39, 5,51,36, 2,19,51,25,43		3,46,34, 9,59	
		1, 3,56,32,24, 5,38,39		4,41
50″	51,39, 6,55,32,34,43,57, 4,22		3,46,34,14,40	
		1, 3,56,28,37,31,23,59		4,41
52″	51,39, 7,59,29, 3,21,28,28,21		3,46,34,19,21	
		1, 3,56,24,50,57, 4,38		4,41
54″	51,39, 9, 3,25,28,12,25,32,59		3,46,34,24, 2	
		1, 3,56,21, 4,22,40,36		4,41
56″	51,39,10, 7,21,49,16,48,13,35		3,46,34,28,43	
		1, 3,56,17,17,48,11,53		4,41
58″	51,39,11,11,18, 6,34,36,25,28		3,46,34,33,24	
		1, 3,56,13,31,13,38,29		
60″	51,39,12,15,14,20, 5,50, 3,57			
exact	51,39,12,15,14,20, 5,50,30,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°25′ 0″	51,39,12,15,14,20, 5,50,30,54			
		1, 3,56, 9,44,39, 3,30		
2″	51,39,13,19,10,29,50,29,34,24		3,46,34,42,32	
		1, 3,56, 5,58, 4,20,58		4,40
4″	51,39,14,23, 6,35,48,33,55,22		3,46,34,47,12	
		1, 3,56, 2,11,29,33,46		4,40
6″	51,39,15,27, 2,38, 0, 3,29, 8		3,46,34,51,52	
		1, 3,55,58,24,54,41,54		4,40
8″	51,39,16,30,58,36,24,58,11, 2		3,46,34,56,32	
		1, 3,55,54,38,19,45,22		4,40
10″	51,39,17,34,54,31, 3,17,56,24		3,46,35, 1,12	
		1, 3,55,50,51,44,44,10		4,40
12″	51,39,18,38,50,21,55, 2,40,34		3,46,35, 5,52	
		1, 3,55,47, 5, 9,38,18		4,40
14″	51,39,19,42,46, 9, 0,12,18,52		3,46,35,10,32	
		1, 3,55,43,18,34,27,46		4,40
16″	51,39,20,46,41,52,18,46,46,38		3,46,35,15,12	
		1, 3,55,39,31,59,12,34		4,40
18″	51,39,21,50,37,31,50,45,59,12		3,46,35,19,52	
		1, 3,55,35,45,23,52,42		4,40
20″	51,39,22,54,33, 7,36, 9,51,54		3,46,35,24,32	
		1, 3,55,31,58,48,28,10		4,40
22″	51,39,23,58,28,39,34,58,20, 4		3,46,35,29,12	
		1, 3,55,28,12,12,58,58		4,40
24″	51,39,25, 2,24, 7,47,11,19, 2		3,46,35,33,52	
		1, 3,55,24,25,37,25, 6		4,40
26″	51,39,26, 6,19,32,12,48,44, 8		3,46,35,38,32	
		1, 3,55,20,39, 1,46,34		4,40
28″	51,39,27,10,14,52,51,50,30,42		3,46,35,43,12	
		1, 3,55,16,52,26, 3,22		4,40
30″	51,39,28,14,10, 9,44,16,34, 4		3,46,35,47,52	
		1, 3,55,13, 5,50,15,30		4,40
32″	51,39,29,18, 5,22,50, 6,49,34		3,46,35,52,32	
		1, 3,55, 9,19,14,22,58		4,40
34″	51,39,30,22, 0,32, 9,21,12,32		3,46,35,57,12	
		1, 3,55, 5,32,38,25,46		4,40
36″	51,39,31,25,55,37,41,59,38,18		3,46,36, 1,52	
		1, 3,55, 1,46, 2,23,54		4,40
38″	51,39,32,29,50,39,28, 2, 2,12		3,46,36, 6,32	
		1, 3,54,57,59,26,17,22		4,40
40″	51,39,33,33,45,37,27,28,19,34		3,46,36,11,12	
		1, 3,54,54,12,50, 6,10		4,40
42″	51,39,34,37,40,31,40,18,25,44		3,46,36,15,52	
		1, 3,54,50,26,13,50,18		4,40
44″	51,39,35,41,35,22, 6,32,16, 2		3,46,36,20,32	
		1, 3,54,46,39,37,29,46		4,40
46″	51,39,36,45,30, 8,46, 9,45,48		3,46,36,25,12	
		1, 3,54,42,53, 1, 4,34		4,40
48″	51,39,37,49,24,51,39,10,50,22		3,46,36,29,52	
		1, 3,54,39, 6,24,34,42		4,40
50″	51,39,38,53,19,30,45,35,25, 4		3,46,36,34,32	
		1, 3,54,35,19,48, 0,10		4,40
52″	51,39,39,57,14, 6, 5,23,25,14		3,46,36,39,12	
		1, 3,54,31,33,11,20,58		4,40
54″	51,39,41, 1, 8,37,38,34,46,12		3,46,36,43,52	
		1, 3,54,27,46,34,37, 6		4,40
56″	51,39,42, 5, 3, 5,25, 9,23,18		3,46,36,48,32	
		1, 3,54,23,59,57,48,34		4,40
58″	51,39,43, 8,57,29,25, 7,11,52		3,46,36,53,12	
		1, 3,54,20,13,20,55,22		
60″	51,39,44,12,51,49,38,28, 7,14			
exact	51,39,44,12,51,49,38,27,38,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°26′ 0″	51,39,44,12,51,49,38,27,38,29			
		1, 3,54,16,26,43,54,32		
2″	51,39,45,16,46, 6, 5,11,33, 1		3,46,37, 2,44	
		1, 3,54,12,40, 6,51,48		4,40
4″	51,39,46,20,40,18,45,18,24,49		3,46,37, 7,24	
		1, 3,54, 8,53,29,44,24		4,40
6″	51,39,47,24,34,27,38,48, 9,13		3,46,37,12, 4	
		1, 3,54, 5, 6,52,32,20		4,40
8″	51,39,48,28,28,32,45,40,41,33		3,46,37,16,44	
		1, 3,54, 1,20,15,15,36		4,40
10″	51,39,49,32,22,34, 5,55,57, 9		3,46,37,21,24	
		1, 3,53,57,33,37,54,12		4,40
12″	51,39,50,36,16,31,39,33,51,21		3,46,37,26, 4	
		1, 3,53,53,47, 0,28, 8		4,40
14″	51,39,51,40,10,25,26,34,19,29		3,46,37,30,44	
		1, 3,53,50, 0,22,57,24		4,40
16″	51,39,52,44, 4,15,26,57,16,53		3,46,37,35,24	
		1, 3,53,46,13,45,22, 0		4,40
18″	51,39,53,47,58, 1,40,42,38,53		3,46,37,40, 4	
		1, 3,53,42,27, 7,41,56		4,40
20″	51,39,54,51,51,44, 7,50,20,49		3,46,37,44,44	
		1, 3,53,38,40,29,57,12		4,40
22″	51,39,55,55,45,22,48,20,18, 1		3,46,37,49,24	
		1, 3,53,34,53,52, 7,48		4,40
24″	51,39,56,59,38,57,42,12,25,49		3,46,37,54, 4	
		1, 3,53,31, 7,14,13,44		4,40
26″	51,39,58, 3,32,28,49,26,39,33		3,46,37,58,44	
		1, 3,53,27,20,36,15, 0		4,40
28″	51,39,59, 7,25,56,10, 2,54,33		3,46,38, 3,24	
		1, 3,53,23,33,58,11,36		4,40
30″	51,40, 0,11,19,19,44, 1, 6, 9		3,46,38, 8, 4	
		1, 3,53,19,47,20, 3,32		4,40
32″	51,40, 1,15,12,39,31,21, 9,41		3,46,38,12,44	
		1, 3,53,16, 0,41,50,48		4,40
34″	51,40, 2,19, 5,55,32, 3, 0,29		3,46,38,17,24	
		1, 3,53,12,14, 3,33,24		4,40
36″	51,40, 3,22,59, 7,46, 6,33,53		3,46,38,22, 4	
		1, 3,53, 8,27,25,11,20		4,40
38″	51,40, 4,26,52,16,13,31,45,13		3,46,38,26,44	
		1, 3,53, 4,40,46,44,36		4,40
40″	51,40, 5,30,45,20,54,18,29,49		3,46,38,31,24	
		1, 3,53, 0,54, 8,13,12		4,40
42″	51,40, 6,34,38,21,48,26,43, 1		3,46,38,36, 4	
		1, 3,52,57, 7,29,37, 8		4,40
44″	51,40, 7,38,31,18,55,56,20, 9		3,46,38,40,44	
		1, 3,52,53,20,50,56,24		4,40
46″	51,40, 8,42,24,12,16,47,16,33		3,46,38,45,24	
		1, 3,52,49,34,12,11, 0		4,40
48″	51,40, 9,46,17, 1,50,59,27,33		3,46,38,50, 4	
		1, 3,52,45,47,33,20,56		4,40
50″	51,40,10,50, 9,47,38,32,48,29		3,46,38,54,44	
		1, 3,52,42, 0,54,26,12		4,40
52″	51,40,11,54, 2,29,39,27,14,41		3,46,38,59,24	
		1, 3,52,38,14,15,26,48		4,40
54″	51,40,12,57,55, 7,53,42,41,29		3,46,39, 4, 4	
		1, 3,52,34,27,36,22,44		4,40
56″	51,40,14, 1,47,42,21,19, 4,13		3,46,39, 8,44	
		1, 3,52,30,40,57,14, 0		4,40
58″	51,40,15, 5,40,13, 2,16,18,13		3,46,39,13,24	
		1, 3,52,26,54,18, 0,36		
60″	51,40,16, 9,32,39,56,34,18,49			
exact	51,40,16, 9,32,39,56,34, 2,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°27′ 0″	51,40,16, 9,32,39,56,34, 2,52			
		1, 3,52,23, 7,38,40,48		
2″	51,40,17,13,25, 3, 4,12,43,40		3,46,39,22,51	
		1, 3,52,19,20,59,17,57		4,40
4″	51,40,18,17,17,22,25,12, 1,37		3,46,39,27,31	
		1, 3,52,15,34,19,50,26		4,40
6″	51,40,19,21, 9,37,59,31,52, 3		3,46,39,32,11	
		1, 3,52,11,47,40,18,15		4,40
8″	51,40,20,25, 1,49,47,12,10,18		3,46,39,36,51	
		1, 3,52, 8, 1, 0,41,24		4,40
10″	51,40,21,28,53,57,48,12,51,42		3,46,39,41,31	
		1, 3,52, 4,14,20,59,53		4,40
12″	51,40,22,32,46, 2, 2,33,51,35		3,46,39,46,11	
		1, 3,52, 0,27,41,13,42		4,40
14″	51,40,23,36,38, 2,30,15, 5,17		3,46,39,50,51	
		1, 3,51,56,41, 1,22,51		4,40
16″	51,40,24,40,29,59,11,16,28, 8		3,46,39,55,31	
		1, 3,51,52,54,21,27,20		4,40
18″	51,40,25,44,21,52, 5,37,55,28		3,46,40, 0,11	
		1, 3,51,49, 7,41,27, 9		4,40
20″	51,40,26,48,13,41,13,19,22,37		3,46,40, 4,51	
		1, 3,51,45,21, 1,22,18		4,40
22″	51,40,27,52, 5,26,34,20,44,55		3,46,40, 9,31	
		1, 3,51,41,34,21,12,47		4,40
24″	51,40,28,55,57, 8, 8,41,57,42		3,46,40,14,11	
		1, 3,51,37,47,40,58,36		4,40
26″	51,40,29,59,48,45,56,22,56,18		3,46,40,18,51	
		1, 3,51,34, 1, 0,39,45		4,40
28″	51,40,31, 3,40,19,57,23,36, 3		3,46,40,23,31	
		1, 3,51,30,14,20,16,14		4,40
30″	51,40,32, 7,31,50,11,43,52,17		3,46,40,28,11	
		1, 3,51,26,27,39,48, 3		4,40
32″	51,40,33,11,23,16,39,23,40,20		3,46,40,32,51	
		1, 3,51,22,40,59,15,12		4,40
34″	51,40,34,15,14,39,20,22,55,32		3,46,40,37,31	
		1, 3,51,18,54,18,37,41		4,40
36″	51,40,35,19, 5,58,14,41,33,13		3,46,40,42,11	
		1, 3,51,15, 7,37,55,30		4,40
38″	51,40,36,22,57,13,22,19,28,43		3,46,40,46,51	
		1, 3,51,11,20,57, 8,39		4,40
40″	51,40,37,26,48,24,43,16,37,22		3,46,40,51,31	
		1, 3,51, 7,34,16,17, 8		4,40
42″	51,40,38,30,39,32,17,32,54,30		3,46,40,56,11	
		1, 3,51, 3,47,35,20,57		4,40
44″	51,40,39,34,30,36, 5, 8,15,27		3,46,41, 0,51	
		1, 3,51, 0, 0,54,20, 6		4,40
46″	51,40,40,38,21,36, 6, 2,35,33		3,46,41, 5,31	
		1, 3,50,56,14,13,14,35		4,40
48″	51,40,41,42,12,32,20,15,50, 8		3,46,41,10,11	
		1, 3,50,52,27,32, 4,24		4,40
50″	51,40,42,46, 3,24,47,47,54,32		3,46,41,14,51	
		1, 3,50,48,40,50,49,33		4,40
52″	51,40,43,49,54,13,28,38,44, 5		3,46,41,19,31	
		1, 3,50,44,54, 9,30, 2		4,40
54″	51,40,44,53,44,58,22,48,14, 7		3,46,41,24,11	
		1, 3,50,41, 7,28, 5,51		4,40
56″	51,40,45,57,35,39,30,16,19,58		3,46,41,28,51	
		1, 3,50,37,20,46,37, 0		4,40
58″	51,40,47, 1,26,16,51, 2,56,58		3,46,41,33,31	
		1, 3,50,33,34, 5, 3,29		
60″	51,40,48, 5,16,50,25, 8, 0,27			
exact	51,40,48, 5,16,50,25, 7,51,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°28′ 0″	51,40,48, 5,16,50,25, 7,51,32			
		1, 3,50,29,47,23,24,24		
2″	51,40,49, 9, 7,20,12,31,15,56		3,46,41,42,54	
		1, 3,50,26, 0,41,41,30		4,40
4″	51,40,50,12,57,46,13,12,57,26		3,46,41,47,34	
		1, 3,50,22,13,59,53,56		4,40
6″	51,40,51,16,48, 8,27,12,51,22		3,46,41,52,14	
		1, 3,50,18,27,18, 1,42		4,40
8″	51,40,52,20,38,26,54,30,53, 4		3,46,41,56,54	
		1, 3,50,14,40,36, 4,48		4,40
10″	51,40,53,24,28,41,35, 6,57,52		3,46,42, 1,34	
		1, 3,50,10,53,54, 3,14		4,40
12″	51,40,54,28,18,52,29, 1, 1, 6		3,46,42, 6,14	
		1, 3,50, 7, 7,11,57, 0		4,40
14″	51,40,55,32, 8,59,36,12,58, 6		3,46,42,10,54	
		1, 3,50, 3,20,29,46, 6		4,40
16″	51,40,56,35,59, 2,56,42,44,12		3,46,42,15,34	
		1, 3,49,59,33,47,30,32		4,40
18″	51,40,57,39,49, 2,30,30,14,44		3,46,42,20,14	
		1, 3,49,55,47, 5,10,18		4,40
20″	51,40,58,43,38,58,17,35,25, 2		3,46,42,24,54	
		1, 3,49,52, 0,22,45,24		4,40
22″	51,40,59,47,28,50,17,58,10,26		3,46,42,29,34	
		1, 3,49,48,13,40,15,50		4,40
24″	51,41, 0,51,18,38,31,38,26,16		3,46,42,34,14	
		1, 3,49,44,26,57,41,36		4,40
26″	51,41, 1,55, 8,22,58,36, 7,52		3,46,42,38,54	
		1, 3,49,40,40,15, 2,42		4,40
28″	51,41, 2,58,58, 3,38,51,10,34		3,46,42,43,34	
		1, 3,49,36,53,32,19, 8		4,40
30″	51,41, 4, 2,47,40,32,23,29,42		3,46,42,48,14	
		1, 3,49,33, 6,49,30,54		4,40
32″	51,41, 5, 6,37,13,39,13, 0,36		3,46,42,52,54	
		1, 3,49,29,20, 6,38, 0		4,40
34″	51,41, 6,10,26,42,59,19,38,36		3,46,42,57,34	
		1, 3,49,25,33,23,40,26		4,40
36″	51,41, 7,14,16, 8,32,43,19, 2		3,46,43, 2,14	
		1, 3,49,21,46,40,38,12		4,40
38″	51,41, 8,18, 5,30,19,23,57,14		3,46,43, 6,54	
		1, 3,49,17,59,57,31,18		4,40
40″	51,41, 9,21,54,48,19,21,28,32		3,46,43,11,34	
		1, 3,49,14,13,14,19,44		4,40
42″	51,41,10,25,44, 2,32,35,48,16		3,46,43,16,14	
		1, 3,49,10,26,31, 3,30		4,40
44″	51,41,11,29,33,12,59, 6,51,46		3,46,43,20,54	
		1, 3,49, 6,39,47,42,36		4,40
46″	51,41,12,33,22,19,38,54,34,22		3,46,43,25,34	
		1, 3,49, 2,53, 4,17, 2		4,40
48″	51,41,13,37,11,22,31,58,51,24		3,46,43,30,14	
		1, 3,48,59, 6,20,46,48		4,40
50″	51,41,14,41, 0,21,38,19,38,12		3,46,43,34,54	
		1, 3,48,55,19,37,11,54		4,40
52″	51,41,15,44,49,16,57,56,50, 6		3,46,43,39,34	
		1, 3,48,51,32,53,32,20		4,40
54″	51,41,16,48,38, 8,30,50,22,26		3,46,43,44,14	
		1, 3,48,47,46, 9,48, 6		4,40
56″	51,41,17,52,26,56,17, 0,10,32		3,46,43,48,54	
		1, 3,48,43,59,25,59,12		4,40
58″	51,41,18,56,15,40,16,26, 9,44		3,46,43,53,34	
		1, 3,48,40,12,42, 5,38		
60″	51,41,20, 0, 4,20,29, 8,15,22			
exact	51,41,20, 0, 4,20,29, 8,14, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°29′ 0″	51,41,20, 0, 4,20,29, 8,14, 4			
		1, 3,48,36,25,58, 7,23		
2″	51,41,21, 3,52,56,55, 6,21,27		3,46,44, 2,53	
		1, 3,48,32,39,14, 4,30		4,40
4″	51,41,22, 7,41,29,34,20,25,57		3,46,44, 7,33	
		1, 3,48,28,52,29,56,57		4,40
6″	51,41,23,11,29,58,26,50,22,54		3,46,44,12,13	
		1, 3,48,25, 5,45,44,44		4,40
8″	51,41,24,15,18,23,32,36, 7,38		3,46,44,16,53	
		1, 3,48,21,19, 1,27,51		4,40
10″	51,41,25,19, 6,44,51,37,35,29		3,46,44,21,33	
		1, 3,48,17,32,17, 6,18		4,40
12″	51,41,26,22,55, 2,23,54,41,47		3,46,44,26,13	
		1, 3,48,13,45,32,40, 5		4,40
14″	51,41,27,26,43,16, 9,27,21,52		3,46,44,30,53	
		1, 3,48, 9,58,48, 9,12		4,40
16″	51,41,28,30,31,26, 8,15,31, 4		3,46,44,35,33	
		1, 3,48, 6,12, 3,33,39		4,40
18″	51,41,29,34,19,32,20,19, 4,43		3,46,44,40,13	
		1, 3,48, 2,25,18,53,26		4,40
20″	51,41,30,38, 7,34,45,37,58, 9		3,46,44,44,53	
		1, 3,47,58,38,34, 8,33		4,40
22″	51,41,31,41,55,33,24,12, 6,42		3,46,44,49,33	
		1, 3,47,54,51,49,19, 0		4,40
24″	51,41,32,45,43,28,16, 1,25,42		3,46,44,54,13	
		1, 3,47,51, 5, 4,24,47		4,40
26″	51,41,33,49,31,19,21, 5,50,29		3,46,44,58,53	
		1, 3,47,47,18,19,25,54		4,40
28″	51,41,34,53,19, 6,39,25,16,23		3,46,45, 3,33	
		1, 3,47,43,31,34,22,21		4,40
30″	51,41,35,57, 6,50,10,59,38,44		3,46,45, 8,13	
		1, 3,47,39,44,49,14, 8		4,40
32″	51,41,37, 0,54,29,55,48,52,52		3,46,45,12,53	
		1, 3,47,35,58, 4, 1,15		4,40
34″	51,41,38, 4,42, 5,53,52,54, 7		3,46,45,17,33	
		1, 3,47,32,11,18,43,42		4,40
36″	51,41,39, 8,29,38, 5,11,37,49		3,46,45,22,13	
		1, 3,47,28,24,33,21,29		4,40
38″	51,41,40,12,17, 6,29,44,59,18		3,46,45,26,53	
		1, 3,47,24,37,47,54,36		4,40
40″	51,41,41,16, 4,31, 7,32,53,54		3,46,45,31,33	
		1, 3,47,20,51, 2,23, 3		4,40
42″	51,41,42,19,51,51,58,35,16,57		3,46,45,36,13	
		1, 3,47,17, 4,16,46,50		4,40
44″	51,41,43,23,39, 9, 2,52, 3,47		3,46,45,40,53	
		1, 3,47,13,17,31, 5,57		4,40
46″	51,41,44,27,26,22,20,23, 9,44		3,46,45,45,33	
		1, 3,47, 9,30,45,20,24		4,40
48″	51,41,45,31,13,31,51, 8,30, 8		3,46,45,50,13	
		1, 3,47, 5,43,59,30,11		4,40
50″	51,41,46,35, 0,37,35, 8, 0,19		3,46,45,54,53	
		1, 3,47, 1,57,13,35,18		4,40
52″	51,41,47,38,47,39,32,21,35,37		3,46,45,59,33	
		1, 3,46,58,10,27,35,45		4,40
54″	51,41,48,42,34,37,42,49,11,22		3,46,46, 4,13	
		1, 3,46,54,23,41,31,32		4,40
56″	51,41,49,46,21,32, 6,30,42,54		3,46,46, 8,53	
		1, 3,46,50,36,55,22,39		4,40
58″	51,41,50,50, 8,22,43,26, 5,33		3,46,46,13,33	
		1, 3,46,46,50, 9, 9, 6		
60″	51,41,51,53,55, 9,33,35,14,39			
exact	51,41,51,53,55, 9,33,35,22,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°30′ 0″	51,41,51,53,55, 9,33,35,22,14			
		1, 3,46,43, 3,22,51,50		
2″	51,41,52,57,41,52,36,58,14, 4		3,46,46,22,48	
		1, 3,46,39,16,36,29, 2		4,40
4″	51,41,54, 1,28,31,53,34,43, 6		3,46,46,27,28	
		1, 3,46,35,29,50, 1,34		4,40
6″	51,41,55, 5,15, 7,23,24,44,40		3,46,46,32, 8	
		1, 3,46,31,43, 3,29,26		4,40
8″	51,41,56, 9, 1,39, 6,28,14, 6		3,46,46,36,48	
		1, 3,46,27,56,16,52,38		4,40
10″	51,41,57,12,48, 7, 2,45, 6,44		3,46,46,41,28	
		1, 3,46,24, 9,30,11,10		4,40
12″	51,41,58,16,34,31,12,15,17,54		3,46,46,46, 8	
		1, 3,46,20,22,43,25, 2		4,40
14″	51,41,59,20,20,51,34,58,42,56		3,46,46,50,48	
		1, 3,46,16,35,56,34,14		4,40
16″	51,42, 0,24, 7, 8,10,55,17,10		3,46,46,55,28	
		1, 3,46,12,49, 9,38,46		4,40
18″	51,42, 1,27,53,21, 0, 4,55,56		3,46,47, 0, 8	
		1, 3,46, 9, 2,22,38,38		4,40
20″	51,42, 2,31,39,30, 2,27,34,34		3,46,47, 4,48	
		1, 3,46, 5,15,35,33,50		4,40
22″	51,42, 3,35,25,35,18, 3, 8,24		3,46,47, 9,28	
		1, 3,46, 1,28,48,24,22		4,40
24″	51,42, 4,39,11,36,46,51,32,46		3,46,47,14, 8	
		1, 3,45,57,42, 1,10,14		4,40
26″	51,42, 5,42,57,34,28,52,43, 0		3,46,47,18,48	
		1, 3,45,53,55,13,51,26		4,40
28″	51,42, 6,46,43,28,24, 6,34,26		3,46,47,23,28	
		1, 3,45,50, 8,26,27,58		4,40
30″	51,42, 7,50,29,18,32,33, 2,24		3,46,47,28, 8	
		1, 3,45,46,21,38,59,50		4,40
32″	51,42, 8,54,15, 4,54,12, 2,14		3,46,47,32,48	
		1, 3,45,42,34,51,27, 2		4,40
34″	51,42, 9,58, 0,47,29, 3,29,16		3,46,47,37,28	
		1, 3,45,38,48, 3,49,34		4,40
36″	51,42,11, 1,46,26,17, 7,18,50		3,46,47,42, 8	
		1, 3,45,35, 1,16, 7,26		4,40
38″	51,42,12, 5,32, 1,18,23,26,16		3,46,47,46,48	
		1, 3,45,31,14,28,20,38		4,40
40″	51,42,13, 9,17,32,32,51,46,54		3,46,47,51,28	
		1, 3,45,27,27,40,29,10		4,40
42″	51,42,14,13, 3, 0, 0,32,16, 4		3,46,47,56, 8	
		1, 3,45,23,40,52,33, 2		4,40
44″	51,42,15,16,48,23,41,24,49, 6		3,46,48, 0,48	
		1, 3,45,19,54, 4,32,14		4,40
46″	51,42,16,20,33,43,35,29,21,20		3,46,48, 5,28	
		1, 3,45,16, 7,16,26,46		4,40
48″	51,42,17,24,18,59,42,45,48, 6		3,46,48,10, 8	
		1, 3,45,12,20,28,16,38		4,40
50″	51,42,18,28, 4,12, 3,14, 4,44		3,46,48,14,48	
		1, 3,45, 8,33,40, 1,50		4,40
52″	51,42,19,31,49,20,36,54, 6,34		3,46,48,19,28	
		1, 3,45, 4,46,51,42,22		4,40
54″	51,42,20,35,34,25,23,45,48,56		3,46,48,24, 8	
		1, 3,45, 1, 0, 3,18,14		4,40
56″	51,42,21,39,19,26,23,49, 7,10		3,46,48,28,48	
		1, 3,44,57,13,14,49,26		4,40
58″	51,42,22,43, 4,23,37, 3,56,36		3,46,48,33,28	
		1, 3,44,53,26,26,15,58		
60″	51,42,23,46,49,17, 3,30,12,34			
exact	51,42,23,46,49,17, 3,30,29,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°31′ 0″	51,42,23,46,49,17, 3,30,29,58			
		1, 3,44,49,39,37,39,49		
2″	51,42,24,50,34, 6,43, 8, 9,47		3,46,48,42,39	
		1, 3,44,45,52,48,57,10		4,40
4″	51,42,25,54,18,52,35,57, 6,57		3,46,48,47,19	
		1, 3,44,42, 6, 0, 9,51		4,40
6″	51,42,26,58, 3,34,41,57,16,48		3,46,48,51,59	
		1, 3,44,38,19,11,17,52		4,40
8″	51,42,28, 1,48,13, 1, 8,34,40		3,46,48,56,39	
		1, 3,44,34,32,22,21,13		4,40
10″	51,42,29, 5,32,47,33,30,55,53		3,46,49, 1,19	
		1, 3,44,30,45,33,19,54		4,40
12″	51,42,30, 9,17,18,19, 4,15,47		3,46,49, 5,59	
		1, 3,44,26,58,44,13,55		4,40
14″	51,42,31,13, 1,45,17,48,29,42		3,46,49,10,39	
		1, 3,44,23,11,55, 3,16		4,40
16″	51,42,32,16,46, 8,29,43,32,58		3,46,49,15,19	
		1, 3,44,19,25, 5,47,57		4,40
18″	51,42,33,20,30,27,54,49,20,55		3,46,49,19,59	
		1, 3,44,15,38,16,27,58		4,40
20″	51,42,34,24,14,43,33, 5,48,53		3,46,49,24,39	
		1, 3,44,11,51,27, 3,19		4,40
22″	51,42,35,27,58,55,24,32,52,12		3,46,49,29,19	
		1, 3,44, 8, 4,37,34, 0		4,40
24″	51,42,36,31,43, 3,29,10,26,12		3,46,49,33,59	
		1, 3,44, 4,17,48, 0, 1		4,40
26″	51,42,37,35,27, 7,46,58,26,13		3,46,49,38,39	
		1, 3,44, 0,30,58,21,22		4,40
28″	51,42,38,39,11, 8,17,56,47,35		3,46,49,43,19	
		1, 3,43,56,44, 8,38, 3		4,40
30″	51,42,39,42,55, 5, 2, 5,25,38		3,46,49,47,59	
		1, 3,43,52,57,18,50, 4		4,40
32″	51,42,40,46,38,57,59,24,15,42		3,46,49,52,39	
		1, 3,43,49,10,28,57,25		4,40
34″	51,42,41,50,22,47, 9,53,13, 7		3,46,49,57,19	
		1, 3,43,45,23,39, 0, 6		4,40
36″	51,42,42,54, 6,32,33,32,13,13		3,46,50, 1,59	
		1, 3,43,41,36,48,58, 7		4,40
38″	51,42,43,57,50,14,10,21,11,20		3,46,50, 6,39	
		1, 3,43,37,49,58,51,28		4,40
40″	51,42,45, 1,33,52, 0,20, 2,48		3,46,50,11,19	
		1, 3,43,34, 3, 8,40, 9		4,40
42″	51,42,46, 5,17,26, 3,28,42,57		3,46,50,15,59	
		1, 3,43,30,16,18,24,10		4,40
44″	51,42,47, 9, 0,56,19,47, 7, 7		3,46,50,20,39	
		1, 3,43,26,29,28, 3,31		4,40
46″	51,42,48,12,44,22,49,15,10,38		3,46,50,25,19	
		1, 3,43,22,42,37,38,12		4,40
48″	51,42,49,16,27,45,31,52,48,50		3,46,50,29,59	
		1, 3,43,18,55,47, 8,13		4,40
50″	51,42,50,20,11, 4,27,39,57, 3		3,46,50,34,39	
		1, 3,43,15, 8,56,33,34		4,40
52″	51,42,51,23,54,19,36,36,30,37		3,46,50,39,19	
		1, 3,43,11,22, 5,54,15		4,40
54″	51,42,52,27,37,30,58,42,24,52		3,46,50,43,59	
		1, 3,43, 7,35,15,10,16		4,40
56″	51,42,53,31,20,38,33,57,35, 8		3,46,50,48,39	
		1, 3,43, 3,48,24,21,37		4,40
58″	51,42,54,35, 3,42,22,21,56,45		3,46,50,53,19	
		1, 3,43, 0, 1,33,28,18		
60″	51,42,55,38,46,42,23,55,25, 3			
exact	51,42,55,38,46,42,23,55,53,20			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
59°32′	0″	51,42,55,38,46,42,23,55,53,20			
			1, 3,42,56,14,42,33,25		
	2″	51,42,56,42,29,38,38,38,26,45		3,46,51, 2,26	
			1, 3,42,52,27,51,30,59		4,39
	4″	51,42,57,46,12,31, 6,29,57,44		3,46,51, 7, 5	
			1, 3,42,48,41, 0,23,54		4,39
	6″	51,42,58,49,55,19,47,30,21,38		3,46,51,11,44	
			1, 3,42,44,54, 9,12,10		4,39
	8″	51,42,59,53,38, 4,41,39,33,48		3,46,51,16,23	
			1, 3,42,41, 7,17,55,47		4,39
	10″	51,43, 0,57,20,45,48,57,29,35		3,46,51,21, 2	
			1, 3,42,37,20,26,34,45		4,39
	12″	51,43, 2, 1, 3,23, 9,24, 4,20		3,46,51,25,41	
			1, 3,42,33,33,35, 9, 4		4,39
	14″	51,43, 3, 4,45,56,42,59,13,24		3,46,51,30,20	
			1, 3,42,29,46,43,38,44		4,39
	16″	51,43, 4, 8,28,26,29,42,52, 8		3,46,51,34,59	
			1, 3,42,25,59,52, 3,45		4,39
	18″	51,43, 5,12,10,52,29,34,55,53		3,46,51,39,38	
			1, 3,42,22,13, 0,24, 7		4,39
	20″	51,43, 6,15,53,14,42,35,20, 0		3,46,51,44,17	
			1, 3,42,18,26, 8,39,50		4,39
	22″	51,43, 7,19,35,33, 8,43,59,50		3,46,51,48,56	
			1, 3,42,14,39,16,50,54		4,39
	24″	51,43, 8,23,17,47,48, 0,50,44		3,46,51,53,35	
			1, 3,42,10,52,24,57,19		4,39
	26″	51,43, 9,26,59,58,40,25,48, 3		3,46,51,58,14	
			1, 3,42, 7, 5,32,59, 5		4,39
	28″	51,43,10,30,42, 5,45,58,47, 8		3,46,52, 2,53	
			1, 3,42, 3,18,40,56,12		4,39
	30″	51,43,11,34,24, 9, 4,39,43,20		3,46,52, 7,32	
			1, 3,41,59,31,48,48,40		4,39
	32″	51,43,12,38, 6, 8,36,28,32, 0		3,46,52,12,11	
			1, 3,41,55,44,56,36,29		4,39
	34″	51,43,13,41,48, 4,21,25, 8,29		3,46,52,16,50	
			1, 3,41,51,58, 4,19,39		4,39
	36″	51,43,14,45,29,56,19,29,28, 8		3,46,52,21,29	
			1, 3,41,48,11,11,58,10		4,39
	38″	51,43,15,49,11,44,30,41,26,18		3,46,52,26, 8	
			1, 3,41,44,24,19,32, 2		4,39
	40″	51,43,16,52,53,28,55, 0,58,20		3,46,52,30,47	
			1, 3,41,40,37,27, 1,15		4,39
	42″	51,43,17,56,35, 9,32,27,59,35		3,46,52,35,26	
			1, 3,41,36,50,34,25,49		4,39
	44″	51,43,19, 0,16,46,23, 2,25,24		3,46,52,40, 5	
			1, 3,41,33, 3,41,45,44		4,39
	46″	51,43,20, 3,58,19,26,44,11, 8		3,46,52,44,44	
			1, 3,41,29,16,49, 1, 0		4,39
	48″	51,43,21, 7,39,48,43,33,12, 8		3,46,52,49,23	
			1, 3,41,25,29,56,11,37		4,39
	50″	51,43,22,11,21,14,13,29,23,45		3,46,52,54, 2	
			1, 3,41,21,43, 3,17,35		4,39
	52″	51,43,23,15, 2,35,56,32,41,20		3,46,52,58,41	
			1, 3,41,17,56,10,18,54		4,39
	54″	51,43,24,18,43,53,52,43, 0,14		3,46,53, 3,20	
			1, 3,41,14, 9,17,15,34		4,39
	56″	51,43,25,22,25, 8, 2, 0,15,48		3,46,53, 7,59	
			1, 3,41,10,22,24, 7,35		4,39
	58″	51,43,26,26, 6,18,24,24,23,23		3,46,53,12,38	
			1, 3,41, 6,35,30,54,57		
	60″	51,43,27,29,47,24,59,55,18,20			
exact		51,43,27,29,47,24,59,54,50,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°33′ 0″	51,43,27,29,47,24,59,54,50,38			
		1, 3,41, 2,48,37,34,41		
2″	51,43,28,33,28,27,48,32,25,19		3,46,53,22, 8	
		1, 3,40,59, 1,44,12,33		4,39
4″	51,43,29,37, 9,26,50,16,37,52		3,46,53,26,47	
		1, 3,40,55,14,50,45,46		4,39
6″	51,43,30,40,50,22, 5, 7,23,38		3,46,53,31,26	
		1, 3,40,51,27,57,14,20		4,39
8″	51,43,31,44,31,13,33, 4,37,58		3,46,53,36, 5	
		1, 3,40,47,41, 3,38,15		4,39
10″	51,43,32,48,12, 1,14, 8,16,13		3,46,53,40,44	
		1, 3,40,43,54, 9,57,31		4,39
12″	51,43,33,51,52,45, 8,18,13,44		3,46,53,45,23	
		1, 3,40,40, 7,16,12, 8		4,39
14″	51,43,34,55,33,25,15,34,25,52		3,46,53,50, 2	
		1, 3,40,36,20,22,22, 6		4,39
16″	51,43,35,59,14, 1,35,56,47,58		3,46,53,54,41	
		1, 3,40,32,33,28,27,25		4,39
18″	51,43,37, 2,54,34, 9,25,15,23		3,46,53,59,20	
		1, 3,40,28,46,34,28, 5		4,39
20″	51,43,38, 6,35, 2,55,59,43,28		3,46,54, 3,59	
		1, 3,40,24,59,40,24, 6		4,39
22″	51,43,39,10,15,27,55,40, 7,34		3,46,54, 8,38	
		1, 3,40,21,12,46,15,28		4,39
24″	51,43,40,13,55,49, 8,26,23, 2		3,46,54,13,17	
		1, 3,40,17,25,52, 2,11		4,39
26″	51,43,41,17,36, 6,34,18,25,13		3,46,54,17,56	
		1, 3,40,13,38,57,44,15		4,39
28″	51,43,42,21,16,20,13,16, 9,28		3,46,54,22,35	
		1, 3,40, 9,52, 3,21,40		4,39
30″	51,43,43,24,56,30, 5,19,31, 8		3,46,54,27,14	
		1, 3,40, 6, 5, 8,54,26		4,39
32″	51,43,44,28,36,36,10,28,25,34		3,46,54,31,53	
		1, 3,40, 2,18,14,22,33		4,39
34″	51,43,45,32,16,38,28,42,48, 7		3,46,54,36,32	
		1, 3,39,58,31,19,46, 1		4,39
36″	51,43,46,35,56,37, 0, 2,34, 8		3,46,54,41,11	
		1, 3,39,54,44,25, 4,50		4,39
38″	51,43,47,39,36,31,44,27,38,58		3,46,54,45,50	
		1, 3,39,50,57,30,19, 0		4,39
40″	51,43,48,43,16,22,41,57,57,58		3,46,54,50,29	
		1, 3,39,47,10,35,28,31		4,39
42″	51,43,49,46,56, 9,52,33,26,29		3,46,54,55, 8	
		1, 3,39,43,23,40,33,23		4,39
44″	51,43,50,50,35,53,16,13,59,52		3,46,54,59,47	
		1, 3,39,39,36,45,33,36		4,39
46″	51,43,51,54,15,32,52,59,33,28		3,46,55, 4,26	
		1, 3,39,35,49,50,29,10		4,39
48″	51,43,52,57,55, 8,42,50, 2,38		3,46,55, 9, 5	
		1, 3,39,32, 2,55,20, 5		4,39
50″	51,43,54, 1,34,40,45,45,22,43		3,46,55,13,44	
		1, 3,39,28,16, 0, 6,21		4,39
52″	51,43,55, 5,14, 9, 1,45,29, 4		3,46,55,18,23	
		1, 3,39,24,29, 4,47,58		4,39
54″	51,43,56, 8,53,33,30,50,17, 2		3,46,55,23, 2	
		1, 3,39,20,42, 9,24,56		4,39
56″	51,43,57,12,32,54,12,59,41,58		3,46,55,27,41	
		1, 3,39,16,55,13,57,15		4,39
58″	51,43,58,16,12,11, 8,13,39,13		3,46,55,32,20	
		1, 3,39,13, 8,18,24,55		
60″	51,43,59,19,51,24,16,32, 4, 8			
exact	51,43,59,19,51,24,16,31,42,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°34′ 0″	51,43,59,19,51,24,16,31,42,17			
		1, 3,39, 9,21,22,45,42		
2″	51,44, 0,23,30,33,37,54,27,59		3,46,55,41,46	
		1, 3,39, 5,34,27, 3,56		4,39
4″	51,44, 1,27, 9,39,12,21,31,55		3,46,55,46,25	
		1, 3,39, 1,47,31,17,31		4,39
6″	51,44, 2,30,48,40,59,52,49,26		3,46,55,51, 4	
		1, 3,38,58, 0,35,26,27		4,39
8″	51,44, 3,34,27,39, 0,28,15,53		3,46,55,55,43	
		1, 3,38,54,13,39,30,44		4,39
10″	51,44, 4,38, 6,33,14, 7,46,37		3,46,56, 0,22	
		1, 3,38,50,26,43,30,22		4,39
12″	51,44, 5,41,45,23,40,51,16,59		3,46,56, 5, 1	
		1, 3,38,46,39,47,25,21		4,39
14″	51,44, 6,45,24,10,20,38,42,20		3,46,56, 9,40	
		1, 3,38,42,52,51,15,41		4,39
16″	51,44, 7,49, 2,53,13,29,58, 1		3,46,56,14,19	
		1, 3,38,39, 5,55, 1,22		4,39
18″	51,44, 8,52,41,32,19,24,59,23		3,46,56,18,58	
		1, 3,38,35,18,58,42,24		4,39
20″	51,44, 9,56,20, 7,38,23,41,47		3,46,56,23,37	
		1, 3,38,31,32, 2,18,47		4,39
22″	51,44,10,59,58,39,10,26, 0,34		3,46,56,28,16	
		1, 3,38,27,45, 5,50,31		4,39
24″	51,44,12, 3,37, 6,55,31,51, 5		3,46,56,32,55	
		1, 3,38,23,58, 9,17,36		4,39
26″	51,44,13, 7,15,30,53,41, 8,41		3,46,56,37,34	
		1, 3,38,20,11,12,40, 2		4,39
28″	51,44,14,10,53,51, 4,53,48,43		3,46,56,42,13	
		1, 3,38,16,24,15,57,49		4,39
30″	51,44,15,14,32, 7,29, 9,46,32		3,46,56,46,52	
		1, 3,38,12,37,19,10,57		4,39
32″	51,44,16,18,10,20, 6,28,57,29		3,46,56,51,31	
		1, 3,38, 8,50,22,19,26		4,39
34″	51,44,17,21,48,28,56,51,16,55		3,46,56,56,10	
		1, 3,38, 5, 3,25,23,16		4,39
36″	51,44,18,25,26,34, 0,16,40,11		3,46,57, 0,49	
		1, 3,38, 1,16,28,22,27		4,39
38″	51,44,19,29, 4,35,16,45, 2,38		3,46,57, 5,28	
		1, 3,37,57,29,31,16,59		4,39
40″	51,44,20,32,42,32,46,16,19,37		3,46,57,10, 7	
		1, 3,37,53,42,34, 6,52		4,39
42″	51,44,21,36,20,26,28,50,26,29		3,46,57,14,46	
		1, 3,37,49,55,36,52, 6		4,39
44″	51,44,22,39,58,16,24,27,18,35		3,46,57,19,25	
		1, 3,37,46, 8,39,32,41		4,39
46″	51,44,23,43,36, 2,33, 6,51,16		3,46,57,24, 4	
		1, 3,37,42,21,42, 8,37		4,39
48″	51,44,24,47,13,44,54,48,59,53		3,46,57,28,43	
		1, 3,37,38,34,44,39,54		4,39
50″	51,44,25,50,51,23,29,33,39,47		3,46,57,33,22	
		1, 3,37,34,47,47, 6,32		4,39
52″	51,44,26,54,28,58,17,20,46,19		3,46,57,38, 1	
		1, 3,37,31, 0,49,28,31		4,39
54″	51,44,27,58, 6,29,18,10,14,50		3,46,57,42,40	
		1, 3,37,27,13,51,45,51		4,39
56″	51,44,29, 1,43,56,32, 2, 0,41		3,46,57,47,19	
		1, 3,37,23,26,53,58,32		4,39
58″	51,44,30, 5,21,19,58,55,59,13		3,46,57,51,58	
		1, 3,37,19,39,56, 6,34		
60″	51,44,31, 8,58,39,38,52, 5,47			
exact	51,44,31, 8,58,39,38,51,51, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°35′ 0″	51,44,31, 8,58,39,38,51,51, 0			
		1, 3,37,15,52,58, 8,33		
2″	51,44,32,12,35,55,31,49,59,33		3,46,58, 1,21	
		1, 3,37,12, 6, 0, 7,12		4,39
4″	51,44,33,16,13, 7,37,50, 6,45		3,46,58, 6, 0	
		1, 3,37, 8,19, 2, 1,12		4,39
6″	51,44,34,19,50,15,56,52, 7,57		3,46,58,10,39	
		1, 3,37, 4,32, 3,50,33		4,39
8″	51,44,35,23,27,20,28,55,58,30		3,46,58,15,18	
		1, 3,37, 0,45, 5,35,15		4,39
10″	51,44,36,27, 4,21,14, 1,33,45		3,46,58,19,57	
		1, 3,36,56,58, 7,15,18		4,39
12″	51,44,37,30,41,18,12, 8,49, 3		3,46,58,24,36	
		1, 3,36,53,11, 8,50,42		4,39
14″	51,44,38,34,18,11,23,17,39,45		3,46,58,29,15	
		1, 3,36,49,24,10,21,27		4,39
16″	51,44,39,37,55, 0,47,28, 1,12		3,46,58,33,54	
		1, 3,36,45,37,11,47,33		4,39
18″	51,44,40,41,31,46,24,39,48,45		3,46,58,38,33	
		1, 3,36,41,50,13, 9, 0		4,39
20″	51,44,41,45, 8,28,14,52,57,45		3,46,58,43,12	
		1, 3,36,38, 3,14,25,48		4,39
22″	51,44,42,48,45, 6,18, 7,23,33		3,46,58,47,51	
		1, 3,36,34,16,15,37,57		4,39
24″	51,44,43,52,21,40,34,23, 1,30		3,46,58,52,30	
		1, 3,36,30,29,16,45,27		4,39
26″	51,44,44,55,58,11, 3,39,46,57		3,46,58,57, 9	
		1, 3,36,26,42,17,48,18		4,39
28″	51,44,45,59,34,37,45,57,35,15		3,46,59, 1,48	
		1, 3,36,22,55,18,46,30		4,39
30″	51,44,47, 3,11, 0,41,16,21,45		3,46,59, 6,27	
		1, 3,36,19, 8,19,40, 3		4,39
32″	51,44,48, 6,47,19,49,36, 1,48		3,46,59,11, 6	
		1, 3,36,15,21,20,28,57		4,39
34″	51,44,49,10,23,35,10,56,30,45		3,46,59,15,45	
		1, 3,36,11,34,21,13,12		4,39
36″	51,44,50,13,59,46,45,17,43,57		3,46,59,20,24	
		1, 3,36, 7,47,21,52,48		4,39
38″	51,44,51,17,35,54,32,39,36,45		3,46,59,25, 3	
		1, 3,36, 4, 0,22,27,45		4,39
40″	51,44,52,21,11,58,33, 2, 4,30		3,46,59,29,42	
		1, 3,36, 0,13,22,58, 3		4,39
42″	51,44,53,24,47,58,46,25, 2,33		3,46,59,34,21	
		1, 3,35,56,26,23,23,42		4,39
44″	51,44,54,28,23,55,12,48,26,15		3,46,59,39, 0	
		1, 3,35,52,39,23,44,42		4,39
46″	51,44,55,31,59,47,52,12,10,57		3,46,59,43,39	
		1, 3,35,48,52,24, 1, 3		4,39
48″	51,44,56,35,35,36,44,36,12, 0		3,46,59,48,18	
		1, 3,35,45, 5,24,12,45		4,39
50″	51,44,57,39,11,21,50, 0,24,45		3,46,59,52,57	
		1, 3,35,41,18,24,19,48		4,39
52″	51,44,58,42,47, 3, 8,24,44,33		3,46,59,57,36	
		1, 3,35,37,31,24,22,12		4,39
54″	51,44,59,46,22,40,39,49, 6,45		3,47, 0, 2,15	
		1, 3,35,33,44,24,19,57		4,39
56″	51,45, 0,49,58,14,24,13,26,42		3,47, 0, 6,54	
		1, 3,35,29,57,24,13, 3		4,39
58″	51,45, 1,53,33,44,21,37,39,45		3,47, 0,11,33	
		1, 3,35,26,10,24, 1,30		
60″	51,45, 2,57, 9,10,32, 1,41,15			
exact	51,45, 2,57, 9,10,32, 1,41,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°36′ 0″	51,45, 2,57, 9,10,32, 1,41,37			
		1, 3,35,22,23,23,45,19		
2″	51,45, 4, 0,44,32,55,25,26,56		3,47, 0,20,51	
		1, 3,35,18,36,23,24,28		4,39
4″	51,45, 5, 4,19,51,31,48,51,24		3,47, 0,25,30	
		1, 3,35,14,49,22,58,58		4,39
6″	51,45, 6, 7,55, 6,21,11,50,22		3,47, 0,30, 9	
		1, 3,35,11, 2,22,28,49		4,39
8″	51,45, 7,11,30,17,23,34,19,11		3,47, 0,34,48	
		1, 3,35, 7,15,21,54, 1		4,39
10″	51,45, 8,15, 5,24,38,56,13,12		3,47, 0,39,27	
		1, 3,35, 3,28,21,14,34		4,39
12″	51,45, 9,18,40,28, 7,17,27,46		3,47, 0,44, 6	
		1, 3,34,59,41,20,30,28		4,39
14″	51,45,10,22,15,27,48,37,58,14		3,47, 0,48,45	
		1, 3,34,55,54,19,41,43		4,39
16″	51,45,11,25,50,23,42,57,39,57		3,47, 0,53,24	
		1, 3,34,52, 7,18,48,19		4,39
18″	51,45,12,29,25,15,50,16,28,16		3,47, 0,58, 3	
		1, 3,34,48,20,17,50,16		4,39
20″	51,45,13,33, 0, 4,10,34,18,32		3,47, 1, 2,42	
		1, 3,34,44,33,16,47,34		4,39
22″	51,45,14,36,34,48,43,51, 6, 6		3,47, 1, 7,21	
		1, 3,34,40,46,15,40,13		4,39
24″	51,45,15,40, 9,29,30, 6,46,19		3,47, 1,12, 0	
		1, 3,34,36,59,14,28,13		4,39
26″	51,45,16,43,44, 6,29,21,14,32		3,47, 1,16,39	
		1, 3,34,33,12,13,11,34		4,39
28″	51,45,17,47,18,39,41,34,26, 6		3,47, 1,21,18	
		1, 3,34,29,25,11,50,16		4,39
30″	51,45,18,50,53, 9, 6,46,16,22		3,47, 1,25,57	
		1, 3,34,25,38,10,24,19		4,39
32″	51,45,19,54,27,34,44,56,40,41		3,47, 1,30,36	
		1, 3,34,21,51, 8,53,43		4,39
34″	51,45,20,58, 1,56,36, 5,34,24		3,47, 1,35,15	
		1, 3,34,18, 4, 7,18,28		4,39
36″	51,45,22, 1,36,14,40,12,52,52		3,47, 1,39,54	
		1, 3,34,14,17, 5,38,34		4,39
38″	51,45,23, 5,10,28,57,18,31,26		3,47, 1,44,33	
		1, 3,34,10,30, 3,54, 1		4,39
40″	51,45,24, 8,44,39,27,22,25,27		3,47, 1,49,12	
		1, 3,34, 6,43, 2, 4,49		4,39
42″	51,45,25,12,18,46,10,24,30,16		3,47, 1,53,51	
		1, 3,34, 2,56, 0,10,58		4,39
44″	51,45,26,15,52,49, 6,24,41,14		3,47, 1,58,30	
		1, 3,33,59, 8,58,12,28		4,39
46″	51,45,27,19,26,48,15,22,53,42		3,47, 2, 3, 9	
		1, 3,33,55,21,56, 9,19		4,39
48″	51,45,28,23, 0,43,37,19, 3, 1		3,47, 2, 7,48	
		1, 3,33,51,34,54, 1,31		4,39
50″	51,45,29,26,34,35,12,13, 4,32		3,47, 2,12,27	
		1, 3,33,47,47,51,49, 4		4,39
52″	51,45,30,30, 8,23, 0, 4,53,36		3,47, 2,17, 6	
		1, 3,33,44, 0,49,31,58		4,39
54″	51,45,31,33,42, 7, 0,54,25,34		3,47, 2,21,45	
		1, 3,33,40,13,47,10,13		4,39
56″	51,45,32,37,15,47,14,41,35,47		3,47, 2,26,24	
		1, 3,33,36,26,44,43,49		4,39
58″	51,45,33,40,49,23,41,26,19,36		3,47, 2,31, 3	
		1, 3,33,32,39,42,12,46		
60″	51,45,34,44,22,56,21, 8,32,22			
exact	51,45,34,44,22,56,21, 8,41,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°37′ 0″	51,45,34,44,22,56,21, 8,41,16			
		1, 3,33,28,52,39,38, 2		
2″	51,45,35,47,56,25,13,48,19,18		3,47, 2,40,17	
		1, 3,33,25, 5,36,57,45		4,39
4″	51,45,36,51,29,50,19,25,17, 3		3,47, 2,44,56	
		1, 3,33,21,18,34,12,49		4,39
6″	51,45,37,55, 3,11,37,59,29,52		3,47, 2,49,35	
		1, 3,33,17,31,31,23,14		4,39
8″	51,45,38,58,36,29, 9,30,53, 6		3,47, 2,54,14	
		1, 3,33,13,44,28,29, 0		4,39
10″	51,45,40, 2, 9,42,53,59,22, 6		3,47, 2,58,53	
		1, 3,33, 9,57,25,30, 7		4,39
12″	51,45,41, 5,42,52,51,24,52,13		3,47, 3, 3,32	
		1, 3,33, 6,10,22,26,35		4,39
14″	51,45,42, 9,15,59, 1,47,18,48		3,47, 3, 8,11	
		1, 3,33, 2,23,19,18,24		4,39
16″	51,45,43,12,49, 1,25, 6,37,12		3,47, 3,12,50	
		1, 3,32,58,36,16, 5,34		4,39
18″	51,45,44,16,22, 0, 1,22,42,46		3,47, 3,17,29	
		1, 3,32,54,49,12,48, 5		4,39
20″	51,45,45,19,54,54,50,35,30,51		3,47, 3,22, 8	
		1, 3,32,51, 2, 9,25,57		4,39
22″	51,45,46,23,27,45,52,44,56,48		3,47, 3,26,47	
		1, 3,32,47,15, 5,59,10		4,39
24″	51,45,47,27, 0,33, 7,50,55,58		3,47, 3,31,26	
		1, 3,32,43,28, 2,27,44		4,39
26″	51,45,48,30,33,16,35,53,23,42		3,47, 3,36, 5	
		1, 3,32,39,40,58,51,39		4,39
28″	51,45,49,34, 5,56,16,52,15,21		3,47, 3,40,44	
		1, 3,32,35,53,55,10,55		4,39
30″	51,45,50,37,38,32,10,47,26,16		3,47, 3,45,23	
		1, 3,32,32, 6,51,25,32		4,39
32″	51,45,51,41,11, 4,17,38,51,48		3,47, 3,50, 2	
		1, 3,32,28,19,47,35,30		4,39
34″	51,45,52,44,43,32,37,26,27,18		3,47, 3,54,41	
		1, 3,32,24,32,43,40,49		4,39
36″	51,45,53,48,15,57,10,10, 8, 7		3,47, 3,59,20	
		1, 3,32,20,45,39,41,29		4,39
38″	51,45,54,51,48,17,55,49,49,36		3,47, 4, 3,59	
		1, 3,32,16,58,35,37,30		4,39
40″	51,45,55,55,20,34,54,25,27, 6		3,47, 4, 8,38	
		1, 3,32,13,11,31,28,52		4,39
42″	51,45,56,58,52,48, 5,56,55,58		3,47, 4,13,17	
		1, 3,32, 9,24,27,15,35		4,39
44″	51,45,58, 2,24,57,30,24,11,33		3,47, 4,17,56	
		1, 3,32, 5,37,22,57,39		4,39
46″	51,45,59, 5,57, 3, 7,47, 9,12		3,47, 4,22,35	
		1, 3,32, 1,50,18,35, 4		4,39
48″	51,46, 0, 9,29, 4,58, 5,44,16		3,47, 4,27,14	
		1, 3,31,58, 3,14, 7,50		4,39
50″	51,46, 1,13, 1, 3, 1,19,52, 6		3,47, 4,31,53	
		1, 3,31,54,16, 9,35,57		4,39
52″	51,46, 2,16,32,57,17,29,28, 3		3,47, 4,36,32	
		1, 3,31,50,29, 4,59,25		4,39
54″	51,46, 3,20, 4,47,46,34,27,28		3,47, 4,41,11	
		1, 3,31,46,42, 0,18,14		4,39
56″	51,46, 4,23,36,34,28,34,45,42		3,47, 4,45,50	
		1, 3,31,42,54,55,32,24		4,39
58″	51,46, 5,27, 8,17,23,30,18, 6		3,47, 4,50,29	
		1, 3,31,39, 7,50,41,55		
60″	51,46, 6,30,39,56,31,21, 0, 1			
exact	51,46, 6,30,39,56,31,21,19,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°38′ 0″	51,46, 6,30,39,56,31,21,19,16			
		1, 3,31,35,20,45,48,49		
2″	51,46, 7,34,11,31,52, 7, 8, 5		3,47, 4,59,38	
		1, 3,31,31,33,40,49,11		4,39
4″	51,46, 8,37,43, 3,25,47,57,16		3,47, 5, 4,17	
		1, 3,31,27,46,35,44,54		4,39
6″	51,46, 9,41,14,31,12,23,42,10		3,47, 5, 8,56	
		1, 3,31,23,59,30,35,58		4,39
8″	51,46,10,44,45,55,11,54,18, 8		3,47, 5,13,35	
		1, 3,31,20,12,25,22,23		4,39
10″	51,46,11,48,17,15,24,19,40,31		3,47, 5,18,14	
		1, 3,31,16,25,20, 4, 9		4,39
12″	51,46,12,51,48,31,49,39,44,40		3,47, 5,22,53	
		1, 3,31,12,38,14,41,16		4,39
14″	51,46,13,55,19,44,27,54,25,56		3,47, 5,27,32	
		1, 3,31, 8,51, 9,13,44		4,39
16″	51,46,14,58,50,53,19, 3,39,40		3,47, 5,32,11	
		1, 3,31, 5, 4, 3,41,33		4,39
18″	51,46,16, 2,21,58,23, 7,21,13		3,47, 5,36,50	
		1, 3,31, 1,16,58, 4,43		4,39
20″	51,46,17, 5,52,59,40, 5,25,56		3,47, 5,41,29	
		1, 3,30,57,29,52,23,14		4,39
22″	51,46,18, 9,23,57, 9,57,49,10		3,47, 5,46, 8	
		1, 3,30,53,42,46,37, 6		4,39
24″	51,46,19,12,54,50,52,44,26,16		3,47, 5,50,47	
		1, 3,30,49,55,40,46,19		4,39
26″	51,46,20,16,25,40,48,25,12,35		3,47, 5,55,26	
		1, 3,30,46, 8,34,50,53		4,39
28″	51,46,21,19,56,26,57, 0, 3,28		3,47, 6, 0, 5	
		1, 3,30,42,21,28,50,48		4,39
30″	51,46,22,23,27, 9,18,28,54,16		3,47, 6, 4,44	
		1, 3,30,38,34,22,46, 4		4,39
32″	51,46,23,26,57,47,52,51,40,20		3,47, 6, 9,23	
		1, 3,30,34,47,16,36,41		4,39
34″	51,46,24,30,28,22,40, 8,17, 1		3,47, 6,14, 2	
		1, 3,30,31, 0,10,22,39		4,39
36″	51,46,25,33,58,53,40,18,39,40		3,47, 6,18,41	
		1, 3,30,27,13, 4, 3,58		4,39
38″	51,46,26,37,29,20,53,22,43,38		3,47, 6,23,20	
		1, 3,30,23,25,57,40,38		4,39
40″	51,46,27,40,59,44,19,20,24,16		3,47, 6,27,59	
		1, 3,30,19,38,51,12,39		4,39
42″	51,46,28,44,30, 3,58,11,36,55		3,47, 6,32,38	
		1, 3,30,15,51,44,40, 1		4,39
44″	51,46,29,48, 0,19,49,56,16,56		3,47, 6,37,17	
		1, 3,30,12, 4,38, 2,44		4,39
46″	51,46,30,51,30,31,54,34,19,40		3,47, 6,41,56	
		1, 3,30, 8,17,31,20,48		4,39
48″	51,46,31,55, 0,40,12, 5,40,28		3,47, 6,46,35	
		1, 3,30, 4,30,24,34,13		4,39
50″	51,46,32,58,30,44,42,30,14,41		3,47, 6,51,14	
		1, 3,30, 0,43,17,42,59		4,39
52″	51,46,34, 2, 0,45,25,47,57,40		3,47, 6,55,53	
		1, 3,29,56,56,10,47, 6		4,39
54″	51,46,35, 5,30,42,21,58,44,46		3,47, 7, 0,32	
		1, 3,29,53, 9, 3,46,34		4,39
56″	51,46,36, 9, 0,35,31, 2,31,20		3,47, 7, 5,11	
		1, 3,29,49,21,56,41,23		4,39
58″	51,46,37,12,30,24,52,59,12,43		3,47, 7, 9,50	
		1, 3,29,45,34,49,31,33		
60″	51,46,38,16, 0,10,27,48,44,16			
exact	51,46,38,16, 0,10,27,49, 7,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°39′ 0″	51,46,38,16, 0,10,27,49, 7,13			
		1, 3,29,41,47,42,19,43		
2″	51,46,39,19,29,52,15,31,26,56		3,47, 7,18,56	
		1, 3,29,38, 0,35, 0,47		4,39
4″	51,46,40,22,59,30,16, 6,27,43		3,47, 7,23,35	
		1, 3,29,34,13,27,37,12		4,39
6″	51,46,41,26,29, 4,29,34, 4,55		3,47, 7,28,14	
		1, 3,29,30,26,20, 8,58		4,39
8″	51,46,42,29,58,34,55,54,13,53		3,47, 7,32,53	
		1, 3,29,26,39,12,36, 5		4,39
10″	51,46,43,33,28, 1,35, 6,49,58		3,47, 7,37,32	
		1, 3,29,22,52, 4,58,33		4,39
12″	51,46,44,36,57,24,27,11,48,31		3,47, 7,42,11	
		1, 3,29,19, 4,57,16,22		4,39
14″	51,46,45,40,26,43,32, 9, 4,53		3,47, 7,46,50	
		1, 3,29,15,17,49,29,32		4,39
16″	51,46,46,43,55,58,49,58,34,25		3,47, 7,51,29	
		1, 3,29,11,30,41,38, 3		4,39
18″	51,46,47,47,25,10,20,40,12,28		3,47, 7,56, 8	
		1, 3,29, 7,43,33,41,55		4,39
20″	51,46,48,50,54,18, 4,13,54,23		3,47, 8, 0,47	
		1, 3,29, 3,56,25,41, 8		4,39
22″	51,46,49,54,23,22, 0,39,35,31		3,47, 8, 5,26	
		1, 3,29, 0, 9,17,35,42		4,39
24″	51,46,50,57,52,22, 9,57,11,13		3,47, 8,10, 5	
		1, 3,28,56,22, 9,25,37		4,39
26″	51,46,52, 1,21,18,32, 6,36,50		3,47, 8,14,44	
		1, 3,28,52,35, 1,10,53		4,39
28″	51,46,53, 4,50,11, 7, 7,47,43		3,47, 8,19,23	
		1, 3,28,48,47,52,51,30		4,39
30″	51,46,54, 8,18,59,55, 0,39,13		3,47, 8,24, 2	
		1, 3,28,45, 0,44,27,28		4,39
32″	51,46,55,11,47,44,55,45, 6,41		3,47, 8,28,41	
		1, 3,28,41,13,35,58,47		4,39
34″	51,46,56,15,16,26, 9,21, 5,28		3,47, 8,33,20	
		1, 3,28,37,26,27,25,27		4,39
36″	51,46,57,18,45, 3,35,48,30,55		3,47, 8,37,59	
		1, 3,28,33,39,18,47,28		4,39
38″	51,46,58,22,13,37,15, 7,18,23		3,47, 8,42,38	
		1, 3,28,29,52,10, 4,50		4,39
40″	51,46,59,25,42, 7, 7,17,23,13		3,47, 8,47,17	
		1, 3,28,26, 5, 1,17,33		4,39
42″	51,47, 0,29,10,33,12,18,40,46		3,47, 8,51,56	
		1, 3,28,22,17,52,25,37		4,39
44″	51,47, 1,32,38,55,30,11, 6,23		3,47, 8,56,35	
		1, 3,28,18,30,43,29, 2		4,39
46″	51,47, 2,36, 7,14, 0,54,35,25		3,47, 9, 1,14	
		1, 3,28,14,43,34,27,48		4,39
48″	51,47, 3,39,35,28,44,29, 3,13		3,47, 9, 5,53	
		1, 3,28,10,56,25,21,55		4,39
50″	51,47, 4,43, 3,39,40,54,25, 8		3,47, 9,10,32	
		1, 3,28, 7, 9,16,11,23		4,39
52″	51,47, 5,46,31,46,50,10,36,31		3,47, 9,15,11	
		1, 3,28, 3,22, 6,56,12		4,39
54″	51,47, 6,49,59,50,12,17,32,43		3,47, 9,19,50	
		1, 3,27,59,34,57,36,22		4,39
56″	51,47, 7,53,27,49,47,15, 9, 5		3,47, 9,24,29	
		1, 3,27,55,47,48,11,53		4,39
58″	51,47, 8,56,55,45,35, 3,20,58		3,47, 9,29, 8	
		1, 3,27,52, 0,38,42,45		
60″	51,47,10, 0,23,37,35,42, 3,43			
exact	51,47,10, 0,23,37,35,42,38,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°40′ 0″	51,47,10, 0,23,37,35,42,38,56			
		1, 3,27,48,13,29,12,49		
2″	51,47,11, 3,51,25,49,11,51,45		3,47, 9,38, 9	
		1, 3,27,44,26,19,34,40		4,38
4″	51,47,12, 7,19,10,15,31,26,25		3,47, 9,42,47	
		1, 3,27,40,39, 9,51,53		4,38
6″	51,47,13,10,46,50,54,41,18,18		3,47, 9,47,25	
		1, 3,27,36,52, 0, 4,28		4,38
8″	51,47,14,14,14,27,46,41,22,46		3,47, 9,52, 3	
		1, 3,27,33, 4,50,12,25		4,38
10″	51,47,15,17,42, 0,51,31,35,11		3,47, 9,56,41	
		1, 3,27,29,17,40,15,44		4,38
12″	51,47,16,21, 9,30, 9,11,50,55		3,47,10, 1,19	
		1, 3,27,25,30,30,14,25		4,38
14″	51,47,17,24,36,55,39,42, 5,20		3,47,10, 5,57	
		1, 3,27,21,43,20, 8,28		4,38
16″	51,47,18,28, 4,17,23, 2,13,48		3,47,10,10,35	
		1, 3,27,17,56, 9,57,53		4,38
18″	51,47,19,31,31,35,19,12,11,41		3,47,10,15,13	
		1, 3,27,14, 8,59,42,40		4,38
20″	51,47,20,34,58,49,28,11,54,21		3,47,10,19,51	
		1, 3,27,10,21,49,22,49		4,38
22″	51,47,21,38,25,59,50, 1,17,10		3,47,10,24,29	
		1, 3,27, 6,34,38,58,20		4,38
24″	51,47,22,41,53, 6,24,40,15,30		3,47,10,29, 7	
		1, 3,27, 2,47,28,29,13		4,38
26″	51,47,23,45,20, 9,12, 8,44,43		3,47,10,33,45	
		1, 3,26,59, 0,17,55,28		4,38
28″	51,47,24,48,47, 8,12,26,40,11		3,47,10,38,23	
		1, 3,26,55,13, 7,17, 5		4,38
30″	51,47,25,52,14, 3,25,33,57,16		3,47,10,43, 1	
		1, 3,26,51,25,56,34, 4		4,38
32″	51,47,26,55,40,54,51,30,31,20		3,47,10,47,39	
		1, 3,26,47,38,45,46,25		4,38
34″	51,47,27,59, 7,42,30,16,17,45		3,47,10,52,17	
		1, 3,26,43,51,34,54, 8		4,38
36″	51,47,29, 2,34,26,21,51,11,53		3,47,10,56,55	
		1, 3,26,40, 4,23,57,13		4,38
38″	51,47,30, 6, 1, 6,26,15, 9, 6		3,47,11, 1,33	
		1, 3,26,36,17,12,55,40		4,38
40″	51,47,31, 9,27,42,43,28, 4,46		3,47,11, 6,11	
		1, 3,26,32,30, 1,49,29		4,38
42″	51,47,32,12,54,15,13,29,54,15		3,47,11,10,49	
		1, 3,26,28,42,50,38,40		4,38
44″	51,47,33,16,20,43,56,20,32,55		3,47,11,15,27	
		1, 3,26,24,55,39,23,13		4,38
46″	51,47,34,19,47, 8,51,59,56, 8		3,47,11,20, 5	
		1, 3,26,21, 8,28, 3, 8		4,38
48″	51,47,35,23,13,30, 0,27,59,16		3,47,11,24,43	
		1, 3,26,17,21,16,38,25		4,38
50″	51,47,36,26,39,47,21,44,37,41		3,47,11,29,21	
		1, 3,26,13,34, 5, 9, 4		4,38
52″	51,47,37,30, 6, 0,55,49,46,45		3,47,11,33,59	
		1, 3,26, 9,46,53,35, 5		4,38
54″	51,47,38,33,32,10,42,43,21,50		3,47,11,38,37	
		1, 3,26, 5,59,41,56,28		4,38
56″	51,47,39,36,58,16,42,25,18,18		3,47,11,43,15	
		1, 3,26, 2,12,30,13,13		4,38
58″	51,47,40,40,24,18,54,55,31,31		3,47,11,47,53	
		1, 3,25,58,25,18,25,20		
60″	51,47,41,43,50,17,20,13,56,51			
exact	51,47,41,43,50,17,20,13,30,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°41′ 0″	51,47,41,43,50,17,20,13,30,32			
		1, 3,25,54,38, 6,30,12		
2″	51,47,42,47,16,11,58,20, 0,44		3,47,11,57,19	
		1, 3,25,50,50,54,32,53		4,38
4″	51,47,43,50,42, 2,49,14,33,37		3,47,12, 1,57	
		1, 3,25,47, 3,42,30,56		4,38
6″	51,47,44,54, 7,49,52,57, 4,33		3,47,12, 6,35	
		1, 3,25,43,16,30,24,21		4,38
8″	51,47,45,57,33,33, 9,27,28,54		3,47,12,11,13	
		1, 3,25,39,29,18,13, 8		4,38
10″	51,47,47, 0,59,12,38,45,42, 2		3,47,12,15,51	
		1, 3,25,35,42, 5,57,17		4,38
12″	51,47,48, 4,24,48,20,51,39,19		3,47,12,20,29	
		1, 3,25,31,54,53,36,48		4,38
14″	51,47,49, 7,50,20,15,45,16, 7		3,47,12,25, 7	
		1, 3,25,28, 7,41,11,41		4,38
16″	51,47,50,11,15,48,23,26,27,48		3,47,12,29,45	
		1, 3,25,24,20,28,41,56		4,38
18″	51,47,51,14,41,12,43,55, 9,44		3,47,12,34,23	
		1, 3,25,20,33,16, 7,33		4,38
20″	51,47,52,18, 6,33,17,11,17,17		3,47,12,39, 1	
		1, 3,25,16,46, 3,28,32		4,38
22″	51,47,53,21,31,50, 3,14,45,49		3,47,12,43,39	
		1, 3,25,12,58,50,44,53		4,38
24″	51,47,54,24,57, 3, 2, 5,30,42		3,47,12,48,17	
		1, 3,25, 9,11,37,56,36		4,38
26″	51,47,55,28,22,12,13,43,27,18		3,47,12,52,55	
		1, 3,25, 5,24,25, 3,41		4,38
28″	51,47,56,31,47,17,38, 8,30,59		3,47,12,57,33	
		1, 3,25, 1,37,12, 6, 8		4,38
30″	51,47,57,35,12,19,15,20,37, 7		3,47,13, 2,11	
		1, 3,24,57,49,59, 3,57		4,38
32″	51,47,58,38,37,17, 5,19,41, 4		3,47,13, 6,49	
		1, 3,24,54, 2,45,57, 8		4,38
34″	51,47,59,42, 2,11, 8, 5,38,12		3,47,13,11,27	
		1, 3,24,50,15,32,45,41		4,38
36″	51,48, 0,45,27, 1,23,38,23,53		3,47,13,16, 5	
		1, 3,24,46,28,19,29,36		4,38
38″	51,48, 1,48,51,47,51,57,53,29		3,47,13,20,43	
		1, 3,24,42,41, 6, 8,53		4,38
40″	51,48, 2,52,16,30,33, 4, 2,22		3,47,13,25,21	
		1, 3,24,38,53,52,43,32		4,38
42″	51,48, 3,55,41, 9,26,56,45,54		3,47,13,29,59	
		1, 3,24,35, 6,39,13,33		4,38
44″	51,48, 4,59, 5,44,33,35,59,27		3,47,13,34,37	
		1, 3,24,31,19,25,38,56		4,38
46″	51,48, 6, 2,30,15,53, 1,38,23		3,47,13,39,15	
		1, 3,24,27,32,11,59,41		4,38
48″	51,48, 7, 5,54,43,25,13,38, 4		3,47,13,43,53	
		1, 3,24,23,44,58,15,48		4,38
50″	51,48, 8, 9,19, 7,10,11,53,52		3,47,13,48,31	
		1, 3,24,19,57,44,27,17		4,38
52″	51,48, 9,12,43,27, 7,56,21, 9		3,47,13,53, 9	
		1, 3,24,16,10,30,34, 8		4,38
54″	51,48,10,16, 7,43,18,26,55,17		3,47,13,57,47	
		1, 3,24,12,23,16,36,21		4,38
56″	51,48,11,19,31,55,41,43,31,38		3,47,14, 2,25	
		1, 3,24, 8,36, 2,33,56		4,38
58″	51,48,12,22,56, 4,17,46, 5,34		3,47,14, 7, 3	
		1, 3,24, 4,48,48,26,53		
60″	51,48,13,26,20, 9, 6,34,32,27			
exact	51,48,13,26,20, 9, 6,34,20,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°42′ 0″	51,48,13,26,20, 9, 6,34,20,24			
		1, 3,24, 1, 1,34,13,56		
2″	51,48,14,29,44,10, 8, 8,34,20		3,47,14,16,24	
		1, 3,23,57,14,19,57,32		4,38
4″	51,48,15,33, 8, 7,22,28,31,52		3,47,14,21, 2	
		1, 3,23,53,27, 5,36,30		4,38
6″	51,48,16,36,32, 0,49,34, 8,22		3,47,14,25,40	
		1, 3,23,49,39,51,10,50		4,38
8″	51,48,17,39,55,50,29,25,19,12		3,47,14,30,18	
		1, 3,23,45,52,36,40,32		4,38
10″	51,48,18,43,19,36,22, 1,59,44		3,47,14,34,56	
		1, 3,23,42, 5,22, 5,36		4,38
12″	51,48,19,46,43,18,27,24, 5,20		3,47,14,39,34	
		1, 3,23,38,18, 7,26, 2		4,38
14″	51,48,20,50, 6,56,45,31,31,22		3,47,14,44,12	
		1, 3,23,34,30,52,41,50		4,38
16″	51,48,21,53,30,31,16,24,13,12		3,47,14,48,50	
		1, 3,23,30,43,37,53, 0		4,38
18″	51,48,22,56,54, 2, 0, 2, 6,12		3,47,14,53,28	
		1, 3,23,26,56,22,59,32		4,38
20″	51,48,24, 0,17,28,56,25, 5,44		3,47,14,58, 6	
		1, 3,23,23, 9, 8, 1,26		4,38
22″	51,48,25, 3,40,52, 5,33, 7,10		3,47,15, 2,44	
		1, 3,23,19,21,52,58,42		4,38
24″	51,48,26, 7, 4,11,27,26, 5,52		3,47,15, 7,22	
		1, 3,23,15,34,37,51,20		4,38
26″	51,48,27,10,27,27, 2, 3,57,12		3,47,15,12, 0	
		1, 3,23,11,47,22,39,20		4,38
28″	51,48,28,13,50,38,49,26,36,32		3,47,15,16,38	
		1, 3,23, 8, 0, 7,22,42		4,38
30″	51,48,29,17,13,46,49,33,59,14		3,47,15,21,16	
		1, 3,23, 4,12,52, 1,26		4,38
32″	51,48,30,20,36,51, 2,26, 0,40		3,47,15,25,54	
		1, 3,23, 0,25,36,35,32		4,38
34″	51,48,31,23,59,51,28, 2,36,12		3,47,15,30,32	
		1, 3,22,56,38,21, 5, 0		4,38
36″	51,48,32,27,22,48, 6,23,41,12		3,47,15,35,10	
		1, 3,22,52,51, 5,29,50		4,38
38″	51,48,33,30,45,40,57,29,11, 2		3,47,15,39,48	
		1, 3,22,49, 3,49,50, 2		4,38
40″	51,48,34,34, 8,30, 1,19, 1, 4		3,47,15,44,26	
		1, 3,22,45,16,34, 5,36		4,38
42″	51,48,35,37,31,15,17,53, 6,40		3,47,15,49, 4	
		1, 3,22,41,29,18,16,32		4,38
44″	51,48,36,40,53,56,47,11,23,12		3,47,15,53,42	
		1, 3,22,37,42, 2,22,50		4,38
46″	51,48,37,44,16,34,29,13,46, 2		3,47,15,58,20	
		1, 3,22,33,54,46,24,30		4,38
48″	51,48,38,47,39, 8,24, 0,10,32		3,47,16, 2,58	
		1, 3,22,30, 7,30,21,32		4,38
50″	51,48,39,51, 1,38,31,30,32, 4		3,47,16, 7,36	
		1, 3,22,26,20,14,13,56		4,38
52″	51,48,40,54,24, 4,51,44,46, 0		3,47,16,12,14	
		1, 3,22,22,32,58, 1,42		4,38
54″	51,48,41,57,46,27,24,42,47,42		3,47,16,16,52	
		1, 3,22,18,45,41,44,50		4,38
56″	51,48,43, 1, 8,46,10,24,32,32		3,47,16,21,30	
		1, 3,22,14,58,25,23,20		4,38
58″	51,48,44, 4,31, 1, 8,49,55,52		3,47,16,26, 8	
		1, 3,22,11,11, 8,57,12		
60″	51,48,45, 7,53,12,19,58,53, 4			
exact	51,48,45, 7,53,12,19,58,49,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°43′ 0″	51,48,45, 7,53,12,19,58,49,13			
		1, 3,22, 7,23,52,26, 5		
2″	51,48,46,11,15,19,43,51,15,18		3,47,16,35,25	
		1, 3,22, 3,36,35,50,40		4,38
4″	51,48,47,14,37,23,20,27, 5,58		3,47,16,40, 3	
		1, 3,21,59,49,19,10,37		4,38
6″	51,48,48,17,59,23, 9,46,16,35		3,47,16,44,41	
		1, 3,21,56, 2, 2,25,56		4,38
8″	51,48,49,21,21,19,11,48,42,31		3,47,16,49,19	
		1, 3,21,52,14,45,36,37		4,38
10″	51,48,50,24,43,11,26,34,19, 8		3,47,16,53,57	
		1, 3,21,48,27,28,42,40		4,38
12″	51,48,51,28, 4,59,54, 3, 1,48		3,47,16,58,35	
		1, 3,21,44,40,11,44, 5		4,38
14″	51,48,52,31,26,44,34,14,45,53		3,47,17, 3,13	
		1, 3,21,40,52,54,40,52		4,38
16″	51,48,53,34,48,25,27, 9,26,45		3,47,17, 7,51	
		1, 3,21,37, 5,37,33, 1		4,38
18″	51,48,54,38,10, 2,32,46,59,46		3,47,17,12,29	
		1, 3,21,33,18,20,20,32		4,38
20″	51,48,55,41,31,35,51, 7,20,18		3,47,17,17, 7	
		1, 3,21,29,31, 3, 3,25		4,38
22″	51,48,56,44,53, 5,22,10,23,43		3,47,17,21,45	
		1, 3,21,25,43,45,41,40		4,38
24″	51,48,57,48,14,31, 5,56, 5,23		3,47,17,26,23	
		1, 3,21,21,56,28,15,17		4,38
26″	51,48,58,51,35,53, 2,24,20,40		3,47,17,31, 1	
		1, 3,21,18, 9,10,44,16		4,38
28″	51,48,59,54,57,11,11,35, 4,56		3,47,17,35,39	
		1, 3,21,14,21,53, 8,37		4,38
30″	51,49, 0,58,18,25,33,28,13,33		3,47,17,40,17	
		1, 3,21,10,34,35,28,20		4,38
32″	51,49, 2, 1,39,36, 8, 3,41,53		3,47,17,44,55	
		1, 3,21, 6,47,17,43,25		4,38
34″	51,49, 3, 5, 0,42,55,21,25,18		3,47,17,49,33	
		1, 3,21, 2,59,59,53,52		4,38
36″	51,49, 4, 8,21,45,55,21,19,10		3,47,17,54,11	
		1, 3,20,59,12,41,59,41		4,38
38″	51,49, 5,11,42,45, 8, 3,18,51		3,47,17,58,49	
		1, 3,20,55,25,24, 0,52		4,38
40″	51,49, 6,15, 3,40,33,27,19,43		3,47,18, 3,27	
		1, 3,20,51,38, 5,57,25		4,38
42″	51,49, 7,18,24,32,11,33,17, 8		3,47,18, 8, 5	
		1, 3,20,47,50,47,49,20		4,38
44″	51,49, 8,21,45,20, 2,21, 6,28		3,47,18,12,43	
		1, 3,20,44, 3,29,36,37		4,38
46″	51,49, 9,25, 6, 4, 5,50,43, 5		3,47,18,17,21	
		1, 3,20,40,16,11,19,16		4,38
48″	51,49,10,28,26,44,22, 2, 2,21		3,47,18,21,59	
		1, 3,20,36,28,52,57,17		4,38
50″	51,49,11,31,47,20,50,54,59,38		3,47,18,26,37	
		1, 3,20,32,41,34,30,40		4,38
52″	51,49,12,35, 7,53,32,29,30,18		3,47,18,31,15	
		1, 3,20,28,54,15,59,25		4,38
54″	51,49,13,38,28,22,26,45,29,43		3,47,18,35,53	
		1, 3,20,25, 6,57,23,32		4,38
56″	51,49,14,41,48,47,33,42,53,15		3,47,18,40,31	
		1, 3,20,21,19,38,43, 1		4,38
58″	51,49,15,45, 9, 8,53,21,36,16		3,47,18,45, 9	
		1, 3,20,17,32,19,57,52		
60″	51,49,16,48,29,26,25,41,34, 8			
exact	51,49,16,48,29,26,25,41,39,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°44′ 0″	51,49,16,48,29,26,25,41,39,55			
		1, 3,20,13,45, 1, 8,45		
2″	51,49,17,51,49,40,10,42,48,40		3,47,18,54,22	
		1, 3,20, 9,57,42,14,23		4,38
4″	51,49,18,55, 9,50, 8,25, 3, 3		3,47,18,59, 0	
		1, 3,20, 6,10,23,15,23		4,38
6″	51,49,19,58,29,56,18,48,18,26		3,47,19, 3,38	
		1, 3,20, 2,23, 4,11,45		4,38
8″	51,49,21, 1,49,58,41,52,30,11		3,47,19, 8,16	
		1, 3,19,58,35,45, 3,29		4,38
10″	51,49,22, 5, 9,57,17,37,33,40		3,47,19,12,54	
		1, 3,19,54,48,25,50,35		4,38
12″	51,49,23, 8,29,52, 6, 3,24,15		3,47,19,17,32	
		1, 3,19,51, 1, 6,33, 3		4,38
14″	51,49,24,11,49,43, 7, 9,57,18		3,47,19,22,10	
		1, 3,19,47,13,47,10,53		4,38
16″	51,49,25,15, 9,30,20,57, 8,11		3,47,19,26,48	
		1, 3,19,43,26,27,44, 5		4,38
18″	51,49,26,18,29,13,47,24,52,16		3,47,19,31,26	
		1, 3,19,39,39, 8,12,39		4,38
20″	51,49,27,21,48,53,26,33, 4,55		3,47,19,36, 4	
		1, 3,19,35,51,48,36,35		4,38
22″	51,49,28,25, 8,29,18,21,41,30		3,47,19,40,42	
		1, 3,19,32, 4,28,55,53		4,38
24″	51,49,29,28,28, 1,22,50,37,23		3,47,19,45,20	
		1, 3,19,28,17, 9,10,33		4,38
26″	51,49,30,31,47,29,39,59,47,56		3,47,19,49,58	
		1, 3,19,24,29,49,20,35		4,38
28″	51,49,31,35, 6,54, 9,49, 8,31		3,47,19,54,36	
		1, 3,19,20,42,29,25,59		4,38
30″	51,49,32,38,26,14,52,18,34,30		3,47,19,59,14	
		1, 3,19,16,55, 9,26,45		4,38
32″	51,49,33,41,45,31,47,28, 1,15		3,47,20, 3,52	
		1, 3,19,13, 7,49,22,53		4,38
34″	51,49,34,45, 4,44,55,17,24, 8		3,47,20, 8,30	
		1, 3,19, 9,20,29,14,23		4,38
36″	51,49,35,48,23,54,15,46,38,31		3,47,20,13, 8	
		1, 3,19, 5,33, 9, 1,15		4,38
38″	51,49,36,51,42,59,48,55,39,46		3,47,20,17,46	
		1, 3,19, 1,45,48,43,29		4,38
40″	51,49,37,55, 2, 1,34,44,23,15		3,47,20,22,24	
		1, 3,18,57,58,28,21, 5		4,38
42″	51,49,38,58,20,59,33,12,44,20		3,47,20,27, 2	
		1, 3,18,54,11, 7,54, 3		4,38
44″	51,49,40, 1,39,53,44,20,38,23		3,47,20,31,40	
		1, 3,18,50,23,47,22,23		4,38
46″	51,49,41, 4,58,44, 8, 8, 0,46		3,47,20,36,18	
		1, 3,18,46,36,26,46, 5		4,38
48″	51,49,42, 8,17,30,44,34,46,51		3,47,20,40,56	
		1, 3,18,42,49, 6, 5, 9		4,38
50″	51,49,43,11,36,13,33,40,52, 0		3,47,20,45,34	
		1, 3,18,39, 1,45,19,35		4,38
52″	51,49,44,14,54,52,35,26,11,35		3,47,20,50,12	
		1, 3,18,35,14,24,29,23		4,38
54″	51,49,45,18,13,27,49,50,40,58		3,47,20,54,50	
		1, 3,18,31,27, 3,34,33		4,38
56″	51,49,46,21,31,59,16,54,15,31		3,47,20,59,28	
		1, 3,18,27,39,42,35, 5		4,38
58″	51,49,47,24,50,26,56,36,50,36		3,47,21, 4, 6	
		1, 3,18,23,52,21,30,59		
60″	51,49,48,28, 8,50,48,58,21,35			
exact	51,49,48,28, 8,50,48,58,37,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°45′ 0″	51,49,48,28, 8,50,48,58,37,47			
		1, 3,18,20, 5, 0,24, 0		
2″	51,49,49,31,27,10,53,59, 1,47		3,47,21,13,14	
		1, 3,18,16,17,39,10,46		4,38
4″	51,49,50,34,45,27,11,38,12,33		3,47,21,17,52	
		1, 3,18,12,30,17,52,54		4,38
6″	51,49,51,38, 3,39,41,56, 5,27		3,47,21,22,30	
		1, 3,18, 8,42,56,30,24		4,38
8″	51,49,52,41,21,48,24,52,35,51		3,47,21,27, 8	
		1, 3,18, 4,55,35, 3,16		4,38
10″	51,49,53,44,39,53,20,27,39, 7		3,47,21,31,46	
		1, 3,18, 1, 8,13,31,30		4,38
12″	51,49,54,47,57,54,28,41,10,37		3,47,21,36,24	
		1, 3,17,57,20,51,55, 6		4,38
14″	51,49,55,51,15,51,49,33, 5,43		3,47,21,41, 2	
		1, 3,17,53,33,30,14, 4		4,38
16″	51,49,56,54,33,45,23, 3,19,47		3,47,21,45,40	
		1, 3,17,49,46, 8,28,24		4,38
18″	51,49,57,57,51,35, 9,11,48,11		3,47,21,50,18	
		1, 3,17,45,58,46,38, 6		4,38
20″	51,49,59, 1, 9,21, 7,58,26,17		3,47,21,54,56	
		1, 3,17,42,11,24,43,10		4,38
22″	51,50, 0, 4,27, 3,19,23, 9,27		3,47,21,59,34	
		1, 3,17,38,24, 2,43,36		4,38
24″	51,50, 1, 7,44,41,43,25,53, 3		3,47,22, 4,12	
		1, 3,17,34,36,40,39,24		4,38
26″	51,50, 2,11, 2,16,20, 6,32,27		3,47,22, 8,50	
		1, 3,17,30,49,18,30,34		4,38
28″	51,50, 3,14,19,47, 9,25, 3, 1		3,47,22,13,28	
		1, 3,17,27, 1,56,17, 6		4,38
30″	51,50, 4,17,37,14,11,21,20, 7		3,47,22,18, 6	
		1, 3,17,23,14,33,59, 0		4,38
32″	51,50, 5,20,54,37,25,55,19, 7		3,47,22,22,44	
		1, 3,17,19,27,11,36,16		4,38
34″	51,50, 6,24,11,56,53, 6,55,23		3,47,22,27,22	
		1, 3,17,15,39,49, 8,54		4,38
36″	51,50, 7,27,29,12,32,56, 4,17		3,47,22,32, 0	
		1, 3,17,11,52,26,36,54		4,38
38″	51,50, 8,30,46,24,25,22,41,11		3,47,22,36,38	
		1, 3,17, 8, 5, 4, 0,16		4,38
40″	51,50, 9,34, 3,32,30,26,41,27		3,47,22,41,16	
		1, 3,17, 4,17,41,19, 0		4,38
42″	51,50,10,37,20,36,48, 8, 0,27		3,47,22,45,54	
		1, 3,17, 0,30,18,33, 6		4,38
44″	51,50,11,40,37,37,18,26,33,33		3,47,22,50,32	
		1, 3,16,56,42,55,42,34		4,38
46″	51,50,12,43,54,34, 1,22,16, 7		3,47,22,55,10	
		1, 3,16,52,55,32,47,24		4,38
48″	51,50,13,47,11,26,56,55, 3,31		3,47,22,59,48	
		1, 3,16,49, 8, 9,47,36		4,38
50″	51,50,14,50,28,16, 5, 4,51, 7		3,47,23, 4,26	
		1, 3,16,45,20,46,43,10		4,38
52″	51,50,15,53,45, 1,25,51,34,17		3,47,23, 9, 4	
		1, 3,16,41,33,23,34, 6		4,38
54″	51,50,16,57, 1,42,59,15, 8,23		3,47,23,13,42	
		1, 3,16,37,46, 0,20,24		4,38
56″	51,50,18, 0,18,20,45,15,28,47		3,47,23,18,20	
		1, 3,16,33,58,37, 2, 4		4,38
58″	51,50,19, 3,34,54,43,52,30,51		3,47,23,22,58	
		1, 3,16,30,11,13,39, 6		
60″	51,50,20, 6,51,24,55, 6, 9,57			
exact	51,50,20, 6,51,24,55, 6,30,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°46′ 0″	51,50,20, 6,51,24,55, 6,30,26			
		1, 3,16,26,23,50,13,54		
2″	51,50,21,10, 7,51,18,56,44,20		3,47,23,32, 3	
		1, 3,16,22,36,26,41,51		4,38
4″	51,50,22,13,24,13,55,23,26,11		3,47,23,36,41	
		1, 3,16,18,49, 3, 5,10		4,38
6″	51,50,23,16,40,32,44,26,31,21		3,47,23,41,19	
		1, 3,16,15, 1,39,23,51		4,38
8″	51,50,24,19,56,47,46, 5,55,12		3,47,23,45,57	
		1, 3,16,11,14,15,37,54		4,38
10″	51,50,25,23,12,59, 0,21,33, 6		3,47,23,50,35	
		1, 3,16, 7,26,51,47,19		4,38
12″	51,50,26,26,29, 6,27,13,20,25		3,47,23,55,13	
		1, 3,16, 3,39,27,52, 6		4,38
14″	51,50,27,29,45,10, 6,41,12,31		3,47,23,59,51	
		1, 3,15,59,52, 3,52,15		4,38
16″	51,50,28,33, 1, 9,58,45, 4,46		3,47,24, 4,29	
		1, 3,15,56, 4,39,47,46		4,38
18″	51,50,29,36,17, 6, 3,24,52,32		3,47,24, 9, 7	
		1, 3,15,52,17,15,38,39		4,38
20″	51,50,30,39,32,58,20,40,31,11		3,47,24,13,45	
		1, 3,15,48,29,51,24,54		4,38
22″	51,50,31,42,48,46,50,31,56, 5		3,47,24,18,23	
		1, 3,15,44,42,27, 6,31		4,38
24″	51,50,32,46, 4,31,32,59, 2,36		3,47,24,23, 1	
		1, 3,15,40,55, 2,43,30		4,38
26″	51,50,33,49,20,12,28, 1,46, 6		3,47,24,27,39	
		1, 3,15,37, 7,38,15,51		4,38
28″	51,50,34,52,35,49,35,40, 1,57		3,47,24,32,17	
		1, 3,15,33,20,13,43,34		4,38
30″	51,50,35,55,51,22,55,53,45,31		3,47,24,36,55	
		1, 3,15,29,32,49, 6,39		4,38
32″	51,50,36,59, 6,52,28,42,52,10		3,47,24,41,33	
		1, 3,15,25,45,24,25, 6		4,38
34″	51,50,38, 2,22,18,14, 7,17,16		3,47,24,46,11	
		1, 3,15,21,57,59,38,55		4,38
36″	51,50,39, 5,37,40,12, 6,56,11		3,47,24,50,49	
		1, 3,15,18,10,34,48, 6		4,38
38″	51,50,40, 8,52,58,22,41,44,17		3,47,24,55,27	
		1, 3,15,14,23, 9,52,39		4,38
40″	51,50,41,12, 8,12,45,51,36,56		3,47,25, 0, 5	
		1, 3,15,10,35,44,52,34		4,38
42″	51,50,42,15,23,23,21,36,29,30		3,47,25, 4,43	
		1, 3,15, 6,48,19,47,51		4,38
44″	51,50,43,18,38,30, 9,56,17,21		3,47,25, 9,21	
		1, 3,15, 3, 0,54,38,30		4,38
46″	51,50,44,21,53,33,10,50,55,51		3,47,25,13,59	
		1, 3,14,59,13,29,24,31		4,38
48″	51,50,45,25, 8,32,24,20,20,22		3,47,25,18,37	
		1, 3,14,55,26, 4, 5,54		4,38
50″	51,50,46,28,23,27,50,24,26,16		3,47,25,23,15	
		1, 3,14,51,38,38,42,39		4,38
52″	51,50,47,31,38,19,29, 3, 8,55		3,47,25,27,53	
		1, 3,14,47,51,13,14,46		4,38
54″	51,50,48,34,53, 7,20,16,23,41		3,47,25,32,31	
		1, 3,14,44, 3,47,42,15		4,38
56″	51,50,49,38, 7,51,24, 4, 5,56		3,47,25,37, 9	
		1, 3,14,40,16,22, 5, 6		4,38
58″	51,50,50,41,22,31,40,26,11, 2		3,47,25,41,47	
		1, 3,14,36,28,56,23,19		
60″	51,50,51,44,37, 8, 9,22,34,21			
exact	51,50,51,44,37, 8, 9,23, 7,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°47′ 0″	51,50,51,44,37, 8, 9,23, 7,46			
		1, 3,14,32,41,30,40,33		
2″	51,50,52,47,51,40,50,53,48,19		3,47,25,50,47	
		1, 3,14,28,54, 4,49,46		4,37
4″	51,50,53,51, 6, 9,44,58,38, 5		3,47,25,55,24	
		1, 3,14,25, 6,38,54,22		4,37
6″	51,50,54,54,20,34,51,37,32,27		3,47,26, 0, 1	
		1, 3,14,21,19,12,54,21		4,37
8″	51,50,55,57,34,56,10,50,26,48		3,47,26, 4,38	
		1, 3,14,17,31,46,49,43		4,37
10″	51,50,57, 0,49,13,42,37,16,31		3,47,26, 9,15	
		1, 3,14,13,44,20,40,28		4,37
12″	51,50,58, 4, 3,27,26,57,56,59		3,47,26,13,52	
		1, 3,14, 9,56,54,26,36		4,37
14″	51,50,59, 7,17,37,23,52,23,35		3,47,26,18,29	
		1, 3,14, 6, 9,28, 8, 7		4,37
16″	51,51, 0,10,31,43,33,20,31,42		3,47,26,23, 6	
		1, 3,14, 2,22, 1,45, 1		4,37
18″	51,51, 1,13,45,45,55,22,16,43		3,47,26,27,43	
		1, 3,13,58,34,35,17,18		4,37
20″	51,51, 2,16,59,44,29,57,34, 1		3,47,26,32,20	
		1, 3,13,54,47, 8,44,58		4,37
22″	51,51, 3,20,13,39,17, 6,18,59		3,47,26,36,57	
		1, 3,13,50,59,42, 8, 1		4,37
24″	51,51, 4,23,27,30,16,48,27, 0		3,47,26,41,34	
		1, 3,13,47,12,15,26,27		4,37
26″	51,51, 5,26,41,17,29, 3,53,27		3,47,26,46,11	
		1, 3,13,43,24,48,40,16		4,37
28″	51,51, 6,29,55, 0,53,52,33,43		3,47,26,50,48	
		1, 3,13,39,37,21,49,28		4,37
30″	51,51, 7,33, 8,40,31,14,23,11		3,47,26,55,25	
		1, 3,13,35,49,54,54, 3		4,37
32″	51,51, 8,36,22,16,21, 9,17,14		3,47,27, 0, 2	
		1, 3,13,32, 2,27,54, 1		4,37
34″	51,51, 9,39,35,48,23,37,11,15		3,47,27, 4,39	
		1, 3,13,28,15, 0,49,22		4,37
36″	51,51,10,42,49,16,38,38, 0,37		3,47,27, 9,16	
		1, 3,13,24,27,33,40, 6		4,37
38″	51,51,11,46, 2,41, 6,11,40,43		3,47,27,13,53	
		1, 3,13,20,40, 6,26,13		4,37
40″	51,51,12,49,16, 1,46,18, 6,56		3,47,27,18,30	
		1, 3,13,16,52,39, 7,43		4,37
42″	51,51,13,52,29,18,38,57,14,39		3,47,27,23, 7	
		1, 3,13,13, 5,11,44,36		4,37
44″	51,51,14,55,42,31,44, 8,59,15		3,47,27,27,44	
		1, 3,13, 9,17,44,16,52		4,37
46″	51,51,15,58,55,41, 1,53,16, 7		3,47,27,32,21	
		1, 3,13, 5,30,16,44,31		4,37
48″	51,51,17, 2, 8,46,32,10, 0,38		3,47,27,36,58	
		1, 3,13, 1,42,49, 7,33		4,37
50″	51,51,18, 5,21,48,14,59, 8,11		3,47,27,41,35	
		1, 3,12,57,55,21,25,58		4,37
52″	51,51,19, 8,34,46,10,20,34, 9		3,47,27,46,12	
		1, 3,12,54, 7,53,39,46		4,37
54″	51,51,20,11,47,40,18,14,13,55		3,47,27,50,49	
		1, 3,12,50,20,25,48,57		4,37
56″	51,51,21,15, 0,30,38,40, 2,52		3,47,27,55,26	
		1, 3,12,46,32,57,53,31		4,37
58″	51,51,22,18,13,17,11,37,56,23		3,47,28, 0, 3	
		1, 3,12,42,45,29,53,28		
60″	51,51,23,21,25,59,57, 7,49,51			
exact	51,51,23,21,25,59,57, 7,22, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°48′ 0″	51,51,23,21,25,59,57, 7,22, 4			
		1, 3,12,38,58, 1,46, 0		
2″	51,51,24,24,38,38,55, 9, 8, 4		3,47,28, 9,28	
		1, 3,12,35,10,33,36,32		4,37
4″	51,51,25,27,51,14, 5,42,44,36		3,47,28,14, 5	
		1, 3,12,31,23, 5,22,27		4,37
6″	51,51,26,31, 3,45,28,48, 7, 3		3,47,28,18,42	
		1, 3,12,27,35,37, 3,45		4,37
8″	51,51,27,34,16,13, 4,25,10,48		3,47,28,23,19	
		1, 3,12,23,48, 8,40,26		4,37
10″	51,51,28,37,28,36,52,33,51,14		3,47,28,27,56	
		1, 3,12,20, 0,40,12,30		4,37
12″	51,51,29,40,40,56,53,14, 3,44		3,47,28,32,33	
		1, 3,12,16,13,11,39,57		4,37
14″	51,51,30,43,53,13, 6,25,43,41		3,47,28,37,10	
		1, 3,12,12,25,43, 2,47		4,37
16″	51,51,31,47, 5,25,32, 8,46,28		3,47,28,41,47	
		1, 3,12, 8,38,14,21, 0		4,37
18″	51,51,32,50,17,34,10,23, 7,28		3,47,28,46,24	
		1, 3,12, 4,50,45,34,36		4,37
20″	51,51,33,53,29,39, 1, 8,42, 4		3,47,28,51, 1	
		1, 3,12, 1, 3,16,43,35		4,37
22″	51,51,34,56,41,40, 4,25,25,39		3,47,28,55,38	
		1, 3,11,57,15,47,47,57		4,37
24″	51,51,35,59,53,37,20,13,13,36		3,47,29, 0,15	
		1, 3,11,53,28,18,47,42		4,37
26″	51,51,37, 3, 5,30,48,32, 1,18		3,47,29, 4,52	
		1, 3,11,49,40,49,42,50		4,37
28″	51,51,38, 6,17,20,29,21,44, 8		3,47,29, 9,29	
		1, 3,11,45,53,20,33,21		4,37
30″	51,51,39, 9,29, 6,22,42,17,29		3,47,29,14, 6	
		1, 3,11,42, 5,51,19,15		4,37
32″	51,51,40,12,40,48,28,33,36,44		3,47,29,18,43	
		1, 3,11,38,18,22, 0,32		4,37
34″	51,51,41,15,52,26,46,55,37,16		3,47,29,23,20	
		1, 3,11,34,30,52,37,12		4,37
36″	51,51,42,19, 4, 1,17,48,14,28		3,47,29,27,57	
		1, 3,11,30,43,23, 9,15		4,37
38″	51,51,43,22,15,32, 1,11,23,43		3,47,29,32,34	
		1, 3,11,26,55,53,36,41		4,37
40″	51,51,44,25,26,58,57, 5, 0,24		3,47,29,37,11	
		1, 3,11,23, 8,23,59,30		4,37
42″	51,51,45,28,38,22, 5,28,59,54		3,47,29,41,48	
		1, 3,11,19,20,54,17,42		4,37
44″	51,51,46,31,49,41,26,23,17,36		3,47,29,46,25	
		1, 3,11,15,33,24,31,17		4,37
46″	51,51,47,35, 0,56,59,47,48,53		3,47,29,51, 2	
		1, 3,11,11,45,54,40,15		4,37
48″	51,51,48,38,12, 8,45,42,29, 8		3,47,29,55,39	
		1, 3,11, 7,58,24,44,36		4,37
50″	51,51,49,41,23,16,44, 7,13,44		3,47,30, 0,16	
		1, 3,11, 4,10,54,44,20		4,37
52″	51,51,50,44,34,20,55, 1,58, 4		3,47,30, 4,53	
		1, 3,11, 0,23,24,39,27		4,37
54″	51,51,51,47,45,21,18,26,37,31		3,47,30, 9,30	
		1, 3,10,56,35,54,29,57		4,37
56″	51,51,52,50,56,17,54,21, 7,28		3,47,30,14, 7	
		1, 3,10,52,48,24,15,50		4,37
58″	51,51,53,54, 7,10,42,45,23,18		3,47,30,18,44	
		1, 3,10,49, 0,53,57, 6		
60″	51,51,54,57,17,59,43,39,20,24			
exact	51,51,54,57,17,59,43,39, 7,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°49′ 0″	51,51,54,57,17,59,43,39, 7,57			
		1, 3,10,45,13,23,32,22		
2″	51,51,56, 0,28,44,57, 2,40,19		3,47,30,28, 4	
		1, 3,10,41,25,53, 4,18		4,37
4″	51,51,57, 3,39,26,22,55,44,37		3,47,30,32,41	
		1, 3,10,37,38,22,31,37		4,37
6″	51,51,58, 6,50, 4, 1,18,16,14		3,47,30,37,18	
		1, 3,10,33,50,51,54,19		4,37
8″	51,51,59,10, 0,37,52,10,10,33		3,47,30,41,55	
		1, 3,10,30, 3,21,12,24		4,37
10″	51,52, 0,13,11, 7,55,31,22,57		3,47,30,46,32	
		1, 3,10,26,15,50,25,52		4,37
12″	51,52, 1,16,21,34,11,21,48,49		3,47,30,51, 9	
		1, 3,10,22,28,19,34,43		4,37
14″	51,52, 2,19,31,56,39,41,23,32		3,47,30,55,46	
		1, 3,10,18,40,48,38,57		4,37
16″	51,52, 3,22,42,15,20,30, 2,29		3,47,31, 0,23	
		1, 3,10,14,53,17,38,34		4,37
18″	51,52, 4,25,52,30,13,47,41, 3		3,47,31, 5, 0	
		1, 3,10,11, 5,46,33,34		4,37
20″	51,52, 5,29, 2,41,19,34,14,37		3,47,31, 9,37	
		1, 3,10, 7,18,15,23,57		4,37
22″	51,52, 6,32,12,48,37,49,38,34		3,47,31,14,14	
		1, 3,10, 3,30,44, 9,43		4,37
24″	51,52, 7,35,22,52, 8,33,48,17		3,47,31,18,51	
		1, 3, 9,59,43,12,50,52		4,37
26″	51,52, 8,38,32,51,51,46,39, 9		3,47,31,23,28	
		1, 3, 9,55,55,41,27,24		4,37
28″	51,52, 9,41,42,47,47,28, 6,33		3,47,31,28, 5	
		1, 3, 9,52, 8, 9,59,19		4,37
30″	51,52,10,44,52,39,55,38, 5,52		3,47,31,32,42	
		1, 3, 9,48,20,38,26,37		4,37
32″	51,52,11,48, 2,28,16,16,32,29		3,47,31,37,19	
		1, 3, 9,44,33, 6,49,18		4,37
34″	51,52,12,51,12,12,49,23,21,47		3,47,31,41,56	
		1, 3, 9,40,45,35, 7,22		4,37
36″	51,52,13,54,21,53,34,58,29, 9		3,47,31,46,33	
		1, 3, 9,36,58, 3,20,49		4,37
38″	51,52,14,57,31,30,33, 1,49,58		3,47,31,51,10	
		1, 3, 9,33,10,31,29,39		4,37
40″	51,52,16, 0,41, 3,43,33,19,37		3,47,31,55,47	
		1, 3, 9,29,22,59,33,52		4,37
42″	51,52,17, 3,50,33, 6,32,53,29		3,47,32, 0,24	
		1, 3, 9,25,35,27,33,28		4,37
44″	51,52,18, 6,59,58,42, 0,26,57		3,47,32, 5, 1	
		1, 3, 9,21,47,55,28,27		4,37
46″	51,52,19,10, 9,20,29,55,55,24		3,47,32, 9,38	
		1, 3, 9,18, 0,23,18,49		4,37
48″	51,52,20,13,18,38,30,19,14,13		3,47,32,14,15	
		1, 3, 9,14,12,51, 4,34		4,37
50″	51,52,21,16,27,52,43,10,18,47		3,47,32,18,52	
		1, 3, 9,10,25,18,45,42		4,37
52″	51,52,22,19,37, 3, 8,29, 4,29		3,47,32,23,29	
		1, 3, 9, 6,37,46,22,13		4,37
54″	51,52,23,22,46, 9,46,15,26,42		3,47,32,28, 6	
		1, 3, 9, 2,50,13,54, 7		4,37
56″	51,52,24,25,55,12,36,29,20,49		3,47,32,32,43	
		1, 3, 8,59, 2,41,21,24		4,37
58″	51,52,25,29, 4,11,39,10,42,13		3,47,32,37,20	
		1, 3, 8,55,15, 8,44, 4		
60″	51,52,26,32,13, 6,54,19,26,17			
exact	51,52,26,32,13, 6,54,19,22,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°50′ 0″	51,52,26,32,13, 6,54,19,22,23			
		1, 3, 8,51,27,36, 1,41		
2″	51,52,27,35,21,58,21,55,24, 4		3,47,32,46,35	
		1, 3, 8,47,40, 3,15, 6		4,37
4″	51,52,28,38,30,46, 1,58,39,10		3,47,32,51,12	
		1, 3, 8,43,52,30,23,54		4,37
6″	51,52,29,41,39,29,54,29, 3, 4		3,47,32,55,49	
		1, 3, 8,40, 4,57,28, 5		4,37
8″	51,52,30,44,48, 9,59,26,31, 9		3,47,33, 0,26	
		1, 3, 8,36,17,24,27,39		4,37
10″	51,52,31,47,56,46,16,50,58,48		3,47,33, 5, 3	
		1, 3, 8,32,29,51,22,36		4,37
12″	51,52,32,51, 5,18,46,42,21,24		3,47,33, 9,40	
		1, 3, 8,28,42,18,12,56		4,37
14″	51,52,33,54,13,47,29, 0,34,20		3,47,33,14,17	
		1, 3, 8,24,54,44,58,39		4,37
16″	51,52,34,57,22,12,23,45,32,59		3,47,33,18,54	
		1, 3, 8,21, 7,11,39,45		4,37
18″	51,52,36, 0,30,33,30,57,12,44		3,47,33,23,31	
		1, 3, 8,17,19,38,16,14		4,37
20″	51,52,37, 3,38,50,50,35,28,58		3,47,33,28, 8	
		1, 3, 8,13,32, 4,48, 6		4,37
22″	51,52,38, 6,47, 4,22,40,17, 4		3,47,33,32,45	
		1, 3, 8, 9,44,31,15,21		4,37
24″	51,52,39, 9,55,14, 7,11,32,25		3,47,33,37,22	
		1, 3, 8, 5,56,57,37,59		4,37
26″	51,52,40,13, 3,20, 4, 9,10,24		3,47,33,41,59	
		1, 3, 8, 2, 9,23,56, 0		4,37
28″	51,52,41,16,11,22,13,33, 6,24		3,47,33,46,36	
		1, 3, 7,58,21,50, 9,24		4,37
30″	51,52,42,19,19,20,35,23,15,48		3,47,33,51,13	
		1, 3, 7,54,34,16,18,11		4,37
32″	51,52,43,22,27,15, 9,39,33,59		3,47,33,55,50	
		1, 3, 7,50,46,42,22,21		4,37
34″	51,52,44,25,35, 5,56,21,56,20		3,47,34, 0,27	
		1, 3, 7,46,59, 8,21,54		4,37
36″	51,52,45,28,42,52,55,30,18,14		3,47,34, 5, 4	
		1, 3, 7,43,11,34,16,50		4,37
38″	51,52,46,31,50,36, 7, 4,35, 4		3,47,34, 9,41	
		1, 3, 7,39,24, 0, 7, 9		4,37
40″	51,52,47,34,58,15,31, 4,42,13		3,47,34,14,18	
		1, 3, 7,35,36,25,52,51		4,37
42″	51,52,48,38, 5,51, 7,30,35, 4		3,47,34,18,55	
		1, 3, 7,31,48,51,33,56		4,37
44″	51,52,49,41,13,22,56,22, 9, 0		3,47,34,23,32	
		1, 3, 7,28, 1,17,10,24		4,37
46″	51,52,50,44,20,50,57,39,19,24		3,47,34,28, 9	
		1, 3, 7,24,13,42,42,15		4,37
48″	51,52,51,47,28,15,11,22, 1,39		3,47,34,32,46	
		1, 3, 7,20,26, 8, 9,29		4,37
50″	51,52,52,50,35,35,37,30,11, 8		3,47,34,37,23	
		1, 3, 7,16,38,33,32, 6		4,37
52″	51,52,53,53,42,52,16, 3,43,14		3,47,34,42, 0	
		1, 3, 7,12,50,58,50, 6		4,37
54″	51,52,54,56,50, 5, 7, 2,33,20		3,47,34,46,37	
		1, 3, 7, 9, 3,24, 3,29		4,37
56″	51,52,55,59,57,14,10,26,36,49		3,47,34,51,14	
		1, 3, 7, 5,15,49,12,15		4,37
58″	51,52,57, 3, 4,19,26,15,49, 4		3,47,34,55,51	
		1, 3, 7, 1,28,14,16,24		
60″	51,52,58, 6,11,20,54,30, 5,28			
exact	51,52,58, 6,11,20,54,30, 4,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°51′ 0″	51,52,58, 6,11,20,54,30, 4,43	1, 3, 6,57,40,39,16, 4		
2″	51,52,59, 9,18,18,35, 9,20,47	1, 3, 6,53,53, 4,11, 1	3,47,35, 5, 3	4,37
4″	51,53, 0,12,25,12,28,13,31,48	1, 3, 6,50, 5,29, 1,21	3,47,35, 9,40	4,37
6″	51,53, 1,15,32, 2,33,42,33, 9	1, 3, 6,46,17,53,47, 4	3,47,35,14,17	4,37
8″	51,53, 2,18,38,48,51,36,20,13	1, 3, 6,42,30,18,28,10	3,47,35,18,54	4,37
10″	51,53, 3,21,45,31,21,54,48,23	1, 3, 6,38,42,43, 4,39	3,47,35,23,31	4,37
12″	51,53, 4,24,52,10, 4,37,53, 2	1, 3, 6,34,55, 7,36,31	3,47,35,28, 8	4,37
14″	51,53, 5,27,58,44,59,45,29,33	1, 3, 6,31, 7,32, 3,46	3,47,35,32,45	4,37
16″	51,53, 6,31, 5,16, 7,17,33,19	1, 3, 6,27,19,56,26,24	3,47,35,37,22	4,37
18″	51,53, 7,34,11,43,27,13,59,43	1, 3, 6,23,32,20,44,25	3,47,35,41,59	4,37
20″	51,53, 8,37,18, 6,59,34,44, 8	1, 3, 6,19,44,44,57,49	3,47,35,46,36	4,37
22″	51,53, 9,40,24,26,44,19,41,57	1, 3, 6,15,57, 9, 6,36	3,47,35,51,13	4,37
24″	51,53,10,43,30,42,41,28,48,33	1, 3, 6,12, 9,33,10,46	3,47,35,55,50	4,37
26″	51,53,11,46,36,54,51, 1,59,19	1, 3, 6, 8,21,57,10,19	3,47,36, 0,27	4,37
28″	51,53,12,49,43, 3,12,59, 9,38	1, 3, 6, 4,34,21, 5,15	3,47,36, 5, 4	4,37
30″	51,53,13,52,49, 7,47,20,14,53	1, 3, 6, 0,46,44,55,34	3,47,36, 9,41	4,37
32″	51,53,14,55,55, 8,34, 5,10,27	1, 3, 5,56,59, 8,41,16	3,47,36,14,18	4,37
34″	51,53,15,59, 1, 5,33,13,51,43	1, 3, 5,53,11,32,22,21	3,47,36,18,55	4,37
36″	51,53,17, 2, 6,58,44,46,14, 4	1, 3, 5,49,23,55,58,49	3,47,36,23,32	4,37
38″	51,53,18, 5,12,48, 8,42,12,53	1, 3, 5,45,36,19,30,40	3,47,36,28, 9	4,37
40″	51,53,19, 8,18,33,45, 1,43,33	1, 3, 5,41,48,42,57,54	3,47,36,32,46	4,37
42″	51,53,20,11,24,15,33,44,41,27	1, 3, 5,38, 1, 6,20,31	3,47,36,37,23	4,37
44″	51,53,21,14,29,53,34,51, 1,58	1, 3, 5,34,13,29,38,31	3,47,36,42, 0	4,37
46″	51,53,22,17,35,27,48,20,40,29	1, 3, 5,30,25,52,51,54	3,47,36,46,37	4,37
48″	51,53,23,20,40,58,14,13,32,23	1, 3, 5,26,38,16, 0,40	3,47,36,51,14	4,37
50″	51,53,24,23,46,24,52,29,33, 3	1, 3, 5,22,50,39, 4,49	3,47,36,55,51	4,37
52″	51,53,25,26,51,47,43, 8,37,52	1, 3, 5,19, 3, 2, 4,21	3,47,37, 0,28	4,37
54″	51,53,26,29,57, 6,46,10,42,13	1, 3, 5,15,15,24,59,16	3,47,37, 5, 5	4,37
56″	51,53,27,33, 2,22, 1,35,41,29	1, 3, 5,11,27,47,49,34	3,47,37, 9,42	4,37
58″	51,53,28,36, 7,33,29,23,31, 3	1, 3, 5, 7,40,10,35,15	3,47,37,14,19	
60″	51,53,29,39,12,41, 9,34, 6,18			
exact	51,53,29,39,12,41, 9,34,16,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°52′ 0″	51,53,29,39,12,41, 9,34,16,42			
		1, 3, 5, 3,52,33,17,35		
2″	51,53,30,42,17,45, 2, 7,34,17		3,47,37,23,27	
		1, 3, 5, 0, 4,55,54, 8		4,37
4″	51,53,31,45,22,45, 7, 3,28,25		3,47,37,28, 4	
		1, 3, 4,56,17,18,26, 4		4,37
6″	51,53,32,48,27,41,24,21,54,29		3,47,37,32,41	
		1, 3, 4,52,29,40,53,23		4,37
8″	51,53,33,51,32,33,54, 2,47,52		3,47,37,37,18	
		1, 3, 4,48,42, 3,16, 5		4,37
10″	51,53,34,54,37,22,36, 6, 3,57		3,47,37,41,55	
		1, 3, 4,44,54,25,34,10		4,37
12″	51,53,35,57,42, 7,30,31,38, 7		3,47,37,46,32	
		1, 3, 4,41, 6,47,47,38		4,37
14″	51,53,37, 0,46,48,37,19,25,45		3,47,37,51, 9	
		1, 3, 4,37,19, 9,56,29		4,37
16″	51,53,38, 3,51,25,56,29,22,14		3,47,37,55,46	
		1, 3, 4,33,31,32, 0,43		4,37
18″	51,53,39, 6,55,59,28, 1,22,57		3,47,38, 0,23	
		1, 3, 4,29,43,54, 0,20		4,37
20″	51,53,40,10, 0,29,11,55,23,17		3,47,38, 5, 0	
		1, 3, 4,25,56,15,55,20		4,37
22″	51,53,41,13, 4,55, 8,11,18,37		3,47,38, 9,37	
		1, 3, 4,22, 8,37,45,43		4,37
24″	51,53,42,16, 9,17,16,49, 4,20		3,47,38,14,14	
		1, 3, 4,18,20,59,31,29		4,37
26″	51,53,43,19,13,35,37,48,35,49		3,47,38,18,51	
		1, 3, 4,14,33,21,12,38		4,37
28″	51,53,44,22,17,50,11, 9,48,27		3,47,38,23,28	
		1, 3, 4,10,45,42,49,10		4,37
30″	51,53,45,25,22, 0,56,52,37,37		3,47,38,28, 5	
		1, 3, 4, 6,58, 4,21, 5		4,37
32″	51,53,46,28,26, 7,54,56,58,42		3,47,38,32,42	
		1, 3, 4, 3,10,25,48,23		4,37
34″	51,53,47,31,30,11, 5,22,47, 5		3,47,38,37,19	
		1, 3, 3,59,22,47,11, 4		4,37
36″	51,53,48,34,34,10,28, 9,58, 9		3,47,38,41,56	
		1, 3, 3,55,35, 8,29, 8		4,37
38″	51,53,49,37,38, 6, 3,18,27,17		3,47,38,46,33	
		1, 3, 3,51,47,29,42,35		4,37
40″	51,53,50,40,41,57,50,48, 9,52		3,47,38,51,10	
		1, 3, 3,47,59,50,51,25		4,37
42″	51,53,51,43,45,45,50,39, 1,17		3,47,38,55,47	
		1, 3, 3,44,12,11,55,38		4,37
44″	51,53,52,46,49,30, 2,50,56,55		3,47,39, 0,24	
		1, 3, 3,40,24,32,55,14		4,37
46″	51,53,53,49,53,10,27,23,52, 9		3,47,39, 5, 1	
		1, 3, 3,36,36,53,50,13		4,37
48″	51,53,54,52,56,47, 4,17,42,22		3,47,39, 9,38	
		1, 3, 3,32,49,14,40,35		4,37
50″	51,53,55,56, 0,19,53,32,22,57		3,47,39,14,15	
		1, 3, 3,29, 1,35,26,20		4,37
52″	51,53,56,59, 3,48,55, 7,49,17		3,47,39,18,52	
		1, 3, 3,25,13,56, 7,28		4,37
54″	51,53,58, 2, 7,14, 9, 3,56,45		3,47,39,23,29	
		1, 3, 3,21,26,16,43,59		4,37
56″	51,53,59, 5,10,35,35,20,40,44		3,47,39,28, 6	
		1, 3, 3,17,38,37,15,53		4,37
58″	51,54, 0, 8,13,53,13,57,56,37		3,47,39,32,43	
		1, 3, 3,13,50,57,43,10		
60″	51,54, 1,11,17, 7, 4,55,39,47			
exact	51,54, 1,11,17, 7, 4,56, 2,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°53′ 0″	51,54, 1,11,17, 7, 4,56, 2,27	1, 3, 3,10, 3,18, 8,18		
2″	51,54, 2,14,20,17, 8,14,10,45	1, 3, 3, 6,15,38,26,32	3,47,39,41,46	4,37
4″	51,54, 3,17,23,23,23,52,37,17	1, 3, 3, 2,27,58,40, 9	3,47,39,46,23	4,37
6″	51,54, 4,20,26,25,51,51,17,26	1, 3, 2,58,40,18,49, 9	3,47,39,51, 0	4,37
8″	51,54, 5,23,29,24,32,10, 6,35	1, 3, 2,54,52,38,53,32	3,47,39,55,37	4,37
10″	51,54, 6,26,32,19,24,49, 0, 7	1, 3, 2,51, 4,58,53,18	3,47,40, 0,14	4,37
12″	51,54, 7,29,35,10,29,47,53,25	1, 3, 2,47,17,18,48,27	3,47,40, 4,51	4,37
14″	51,54, 8,32,37,57,47, 6,41,52	1, 3, 2,43,29,38,38,59	3,47,40, 9,28	4,37
16″	51,54, 9,35,40,41,16,45,20,51	1, 3, 2,39,41,58,24,54	3,47,40,14, 5	4,37
18″	51,54,10,38,43,20,58,43,45,45	1, 3, 2,35,54,18, 6,12	3,47,40,18,42	4,37
20″	51,54,11,41,45,56,53, 1,51,57	1, 3, 2,32, 6,37,42,53	3,47,40,23,19	4,37
22″	51,54,12,44,48,28,59,39,34,50	1, 3, 2,28,18,57,14,57	3,47,40,27,56	4,37
24″	51,54,13,47,50,57,18,36,49,47	1, 3, 2,24,31,16,42,24	3,47,40,32,33	4,37
26″	51,54,14,50,53,21,49,53,32,11	1, 3, 2,20,43,36, 5,14	3,47,40,37,10	4,37
28″	51,54,15,53,55,42,33,29,37,25	1, 3, 2,16,55,55,23,27	3,47,40,41,47	4,37
30″	51,54,16,56,57,59,29,25, 0,52	1, 3, 2,13, 8,14,37, 3	3,47,40,46,24	4,37
32″	51,54,18, 0, 0,12,37,39,37,55	1, 3, 2, 9,20,33,46, 2	3,47,40,51, 1	4,37
34″	51,54,19, 3, 2,21,58,13,23,57	1, 3, 2, 5,32,52,50,24	3,47,40,55,38	4,37
36″	51,54,20, 6, 4,27,31, 6,14,21	1, 3, 2, 1,45,11,50, 9	3,47,41, 0,15	4,37
38″	51,54,21, 9, 6,29,16,18, 4,30	1, 3, 1,57,57,30,45,17	3,47,41, 4,52	4,37
40″	51,54,22,12, 8,27,13,48,49,47	1, 3, 1,54, 9,49,35,48	3,47,41, 9,29	4,37
42″	51,54,23,15,10,21,23,38,25,35	1, 3, 1,50,22, 8,21,42	3,47,41,14, 6	4,37
44″	51,54,24,18,12,11,45,46,47,17	1, 3, 1,46,34,27, 2,59	3,47,41,18,43	4,37
46″	51,54,25,21,13,58,20,13,50,16	1, 3, 1,42,46,45,39,39	3,47,41,23,20	4,37
48″	51,54,26,24,15,41, 6,59,29,55	1, 3, 1,38,59, 4,11,42	3,47,41,27,57	4,37
50″	51,54,27,27,17,20, 6, 3,41,37	1, 3, 1,35,11,22,39, 8	3,47,41,32,34	4,37
52″	51,54,28,30,18,55,17,26,20,45	1, 3, 1,31,23,41, 1,57	3,47,41,37,11	4,37
54″	51,54,29,33,20,26,41, 7,22,42	1, 3, 1,27,35,59,20, 9	3,47,41,41,48	4,37
56″	51,54,30,36,21,54,17, 6,42,51	1, 3, 1,23,48,17,33,44	3,47,41,46,25	4,37
58″	51,54,31,39,23,18, 5,24,16,35	1, 3, 1,20, 0,35,42,42	3,47,41,51, 2	
60″	51,54,32,42,24,38, 5,59,59,17			
exact	51,54,32,42,24,38, 6, 0,28,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°54′ 0″	51,54,32,42,24,38, 6, 0,28,29			
		1, 3, 1,16,12,53,50,19		
2″	51,54,33,45,25,54,18,54,18,48		3,47,42, 0, 2	
		1, 3, 1,12,25,11,50,17		4,36
4″	51,54,34,48,27, 6,44, 6, 9, 5		3,47,42, 4,38	
		1, 3, 1, 8,37,29,45,39		4,36
6″	51,54,35,51,28,15,21,35,54,44		3,47,42, 9,14	
		1, 3, 1, 4,49,47,36,25		4,36
8″	51,54,36,54,29,20,11,23,31, 9		3,47,42,13,50	
		1, 3, 1, 1, 2, 5,22,35		4,36
10″	51,54,37,57,30,21,13,28,53,44		3,47,42,18,26	
		1, 3, 0,57,14,23, 4, 9		4,36
12″	51,54,39, 0,31,18,27,51,57,53		3,47,42,23, 2	
		1, 3, 0,53,26,40,41, 7		4,36
14″	51,54,40, 3,32,11,54,32,39, 0		3,47,42,27,38	
		1, 3, 0,49,38,58,13,29		4,36
16″	51,54,41, 6,33, 1,33,30,52,29		3,47,42,32,14	
		1, 3, 0,45,51,15,41,15		4,36
18″	51,54,42, 9,33,47,24,46,33,44		3,47,42,36,50	
		1, 3, 0,42, 3,33, 4,25		4,36
20″	51,54,43,12,34,29,28,19,38, 9		3,47,42,41,26	
		1, 3, 0,38,15,50,22,59		4,36
22″	51,54,44,15,35, 7,44,10, 1, 8		3,47,42,46, 2	
		1, 3, 0,34,28, 7,36,57		4,36
24″	51,54,45,18,35,42,12,17,38, 5		3,47,42,50,38	
		1, 3, 0,30,40,24,46,19		4,36
26″	51,54,46,21,36,12,52,42,24,24		3,47,42,55,14	
		1, 3, 0,26,52,41,51, 5		4,36
28″	51,54,47,24,36,39,45,24,15,29		3,47,42,59,50	
		1, 3, 0,23, 4,58,51,15		4,36
30″	51,54,48,27,37, 2,50,23, 6,44		3,47,43, 4,26	
		1, 3, 0,19,17,15,46,49		4,36
32″	51,54,49,30,37,22, 7,38,53,33		3,47,43, 9, 2	
		1, 3, 0,15,29,32,37,47		4,36
34″	51,54,50,33,37,37,37,11,31,20		3,47,43,13,38	
		1, 3, 0,11,41,49,24, 9		4,36
36″	51,54,51,36,37,49,19, 0,55,29		3,47,43,18,14	
		1, 3, 0, 7,54, 6, 5,55		4,36
38″	51,54,52,39,37,57,13, 7, 1,24		3,47,43,22,50	
		1, 3, 0, 4, 6,22,43, 5		4,36
40″	51,54,53,42,38, 1,19,29,44,29		3,47,43,27,26	
		1, 3, 0, 0,18,39,15,39		4,36
42″	51,54,54,45,38, 1,38, 9, 0, 8		3,47,43,32, 2	
		1, 2,59,56,30,55,43,37		4,36
44″	51,54,55,48,37,58, 9, 4,43,45		3,47,43,36,38	
		1, 2,59,52,43,12, 6,59		4,36
46″	51,54,56,51,37,50,52,16,50,44		3,47,43,41,14	
		1, 2,59,48,55,28,25,45		4,36
48″	51,54,57,54,37,39,47,45,16,29		3,47,43,45,50	
		1, 2,59,45, 7,44,39,55		4,36
50″	51,54,58,57,37,24,55,29,56,24		3,47,43,50,26	
		1, 2,59,41,20, 0,49,29		4,36
52″	51,55, 0, 0,37, 6,15,30,45,53		3,47,43,55, 2	
		1, 2,59,37,32,16,54,27		4,36
54″	51,55, 1, 3,36,43,47,47,40,20		3,47,43,59,38	
		1, 2,59,33,44,32,54,49		4,36
56″	51,55, 2, 6,36,17,32,20,35, 9		3,47,44, 4,14	
		1, 2,59,29,56,48,50,35		4,36
58″	51,55, 3, 9,35,47,29, 9,25,44		3,47,44, 8,50	
		1, 2,59,26, 9, 4,41,45		
60″	51,55, 4,12,35,13,38,14, 7,29			
exact	51,55, 4,12,35,13,38,13,43,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°55′ 0″	51,55, 4,12,35,13,38,13,43,46			
		1, 2,59,22,21,20,25,43		
2″	51,55, 5,15,34,35,59,34, 9,29		3,47,44,18,13	
		1, 2,59,18,33,36, 7,30		4,36
4″	51,55, 6,18,33,54,33,10,16,59		3,47,44,22,49	
		1, 2,59,14,45,51,44,41		4,36
6″	51,55, 7,21,33, 9,19, 2, 1,40		3,47,44,27,25	
		1, 2,59,10,58, 7,17,16		4,36
8″	51,55, 8,24,32,20,17, 9,18,56		3,47,44,32, 1	
		1, 2,59, 7,10,22,45,15		4,36
10″	51,55, 9,27,31,27,27,32, 4,11		3,47,44,36,37	
		1, 2,59, 3,22,38, 8,38		4,36
12″	51,55,10,30,30,30,50,10,12,49		3,47,44,41,13	
		1, 2,58,59,34,53,27,25		4,36
14″	51,55,11,33,29,30,25, 3,40,14		3,47,44,45,49	
		1, 2,58,55,47, 8,41,36		4,36
16″	51,55,12,36,28,26,12,12,21,50		3,47,44,50,25	
		1, 2,58,51,59,23,51,11		4,36
18″	51,55,13,39,27,18,11,36,13, 1		3,47,44,55, 1	
		1, 2,58,48,11,38,56,10		4,36
20″	51,55,14,42,26, 6,23,15, 9,11		3,47,44,59,37	
		1, 2,58,44,23,53,56,33		4,36
22″	51,55,15,45,24,50,47, 9, 5,44		3,47,45, 4,13	
		1, 2,58,40,36, 8,52,20		4,36
24″	51,55,16,48,23,31,23,17,58, 4		3,47,45, 8,49	
		1, 2,58,36,48,23,43,31		4,36
26″	51,55,17,51,22, 8,11,41,41,35		3,47,45,13,25	
		1, 2,58,33, 0,38,30, 6		4,36
28″	51,55,18,54,20,41,12,20,11,41		3,47,45,18, 1	
		1, 2,58,29,12,53,12, 5		4,36
30″	51,55,19,57,19,10,25,13,23,46		3,47,45,22,37	
		1, 2,58,25,25, 7,49,28		4,36
32″	51,55,21, 0,17,35,50,21,13,14		3,47,45,27,13	
		1, 2,58,21,37,22,22,15		4,36
34″	51,55,22, 3,15,57,27,43,35,29		3,47,45,31,49	
		1, 2,58,17,49,36,50,26		4,36
36″	51,55,23, 6,14,15,17,20,25,55		3,47,45,36,25	
		1, 2,58,14, 1,51,14, 1		4,36
38″	51,55,24, 9,12,29,19,11,39,56		3,47,45,41, 1	
		1, 2,58,10,14, 5,33, 0		4,36
40″	51,55,25,12,10,39,33,17,12,56		3,47,45,45,37	
		1, 2,58, 6,26,19,47,23		4,36
42″	51,55,26,15, 8,45,59,37, 0,19		3,47,45,50,13	
		1, 2,58, 2,38,33,57,10		4,36
44″	51,55,27,18, 6,48,38,10,57,29		3,47,45,54,49	
		1, 2,57,58,50,48, 2,21		4,36
46″	51,55,28,21, 4,47,28,58,59,50		3,47,45,59,25	
		1, 2,57,55, 3, 2, 2,56		4,36
48″	51,55,29,24, 2,42,32, 1, 2,46		3,47,46, 4, 1	
		1, 2,57,51,15,15,58,55		4,36
50″	51,55,30,27, 0,33,47,17, 1,41		3,47,46, 8,37	
		1, 2,57,47,27,29,50,18		4,36
52″	51,55,31,29,58,21,14,46,51,59		3,47,46,13,13	
		1, 2,57,43,39,43,37, 5		4,36
54″	51,55,32,32,56, 4,54,30,29, 4		3,47,46,17,49	
		1, 2,57,39,51,57,19,16		4,36
56″	51,55,33,35,53,44,46,27,48,20		3,47,46,22,25	
		1, 2,57,36, 4,10,56,51		4,36
58″	51,55,34,38,51,20,50,38,45,11		3,47,46,27, 1	
		1, 2,57,32,16,24,29,50		
60″	51,55,35,41,48,53, 7, 3,15, 1			
exact	51,55,35,41,48,53, 7, 2,59,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°56′ 0″	51,55,35,41,48,53, 7, 2,59,40			
		1, 2,57,28,28,37,56,33		
2″	51,55,36,44,46,21,35,40,56,13		3,47,46,36,20	
		1, 2,57,24,40,51,20,13		4,36
4″	51,55,37,47,43,46,16,32,16,26		3,47,46,40,56	
		1, 2,57,20,53, 4,39,17		4,36
6″	51,55,38,50,41, 7, 9,36,55,43		3,47,46,45,32	
		1, 2,57,17, 5,17,53,45		4,36
8″	51,55,39,53,38,24,14,54,49,28		3,47,46,50, 8	
		1, 2,57,13,17,31, 3,37		4,36
10″	51,55,40,56,35,37,32,25,53, 5		3,47,46,54,44	
		1, 2,57, 9,29,44, 8,53		4,36
12″	51,55,41,59,32,47, 2,10, 1,58		3,47,46,59,20	
		1, 2,57, 5,41,57, 9,33		4,36
14″	51,55,43, 2,29,52,44, 7,11,31		3,47,47, 3,56	
		1, 2,57, 1,54,10, 5,37		4,36
16″	51,55,44, 5,26,54,38,17,17, 8		3,47,47, 8,32	
		1, 2,56,58, 6,22,57, 5		4,36
18″	51,55,45, 8,23,52,44,40,14,13		3,47,47,13, 8	
		1, 2,56,54,18,35,43,57		4,36
20″	51,55,46,11,20,47, 3,15,58,10		3,47,47,17,44	
		1, 2,56,50,30,48,26,13		4,36
22″	51,55,47,14,17,37,34, 4,24,23		3,47,47,22,20	
		1, 2,56,46,43, 1, 3,53		4,36
24″	51,55,48,17,14,24,17, 5,28,16		3,47,47,26,56	
		1, 2,56,42,55,13,36,57		4,36
26″	51,55,49,20,11, 7,12,19, 5,13		3,47,47,31,32	
		1, 2,56,39, 7,26, 5,25		4,36
28″	51,55,50,23, 7,46,19,45,10,38		3,47,47,36, 8	
		1, 2,56,35,19,38,29,17		4,36
30″	51,55,51,26, 4,21,39,23,39,55		3,47,47,40,44	
		1, 2,56,31,31,50,48,33		4,36
32″	51,55,52,29, 0,53,11,14,28,28		3,47,47,45,20	
		1, 2,56,27,44, 3, 3,13		4,36
34″	51,55,53,31,57,20,55,17,31,41		3,47,47,49,56	
		1, 2,56,23,56,15,13,17		4,36
36″	51,55,54,34,53,44,51,32,44,58		3,47,47,54,32	
		1, 2,56,20, 8,27,18,45		4,36
38″	51,55,55,37,50, 5, 0, 0, 3,43		3,47,47,59, 8	
		1, 2,56,16,20,39,19,37		4,36
40″	51,55,56,40,46,21,20,39,23,20		3,47,48, 3,44	
		1, 2,56,12,32,51,15,53		4,36
42″	51,55,57,43,42,33,53,30,39,13		3,47,48, 8,20	
		1, 2,56, 8,45, 3, 7,33		4,36
44″	51,55,58,46,38,42,38,33,46,46		3,47,48,12,56	
		1, 2,56, 4,57,14,54,37		4,36
46″	51,55,59,49,34,47,35,48,41,23		3,47,48,17,32	
		1, 2,56, 1, 9,26,37, 5		4,36
48″	51,56, 0,52,30,48,45,15,18,28		3,47,48,22, 8	
		1, 2,55,57,21,38,14,57		4,36
50″	51,56, 1,55,26,46, 6,53,33,25		3,47,48,26,44	
		1, 2,55,53,33,49,48,13		4,36
52″	51,56, 2,58,22,39,40,43,21,38		3,47,48,31,20	
		1, 2,55,49,46, 1,16,53		4,36
54″	51,56, 4, 1,18,29,26,44,38,31		3,47,48,35,56	
		1, 2,55,45,58,12,40,57		4,36
56″	51,56, 5, 4,14,15,24,57,19,28		3,47,48,40,32	
		1, 2,55,42,10,24, 0,25		4,36
58″	51,56, 6, 7, 9,57,35,21,19,53		3,47,48,45, 8	
		1, 2,55,38,22,35,15,17		
60″	51,56, 7,10, 5,35,57,56,35,10			
exact	51,56, 7,10, 5,35,57,56,29,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°57′ 0″	51,56, 7,10, 5,35,57,56,29,59			
		1, 2,55,34,34,46,24,56		
2″	51,56, 8,13, 1,10,32,42,54,55		3,47,48,54,22	
		1, 2,55,30,46,57,30,34		4,36
4″	51,56, 9,15,56,41,19,40,25,29		3,47,48,58,58	
		1, 2,55,26,59, 8,31,36		4,36
6″	51,56,10,18,52, 8,18,48,57, 5		3,47,49, 3,34	
		1, 2,55,23,11,19,28, 2		4,36
8″	51,56,11,21,47,31,30, 8,25, 7		3,47,49, 8,10	
		1, 2,55,19,23,30,19,52		4,36
10″	51,56,12,24,42,50,53,38,44,59		3,47,49,12,46	
		1, 2,55,15,35,41, 7, 6		4,36
12″	51,56,13,27,38, 6,29,19,52, 5		3,47,49,17,22	
		1, 2,55,11,47,51,49,44		4,36
14″	51,56,14,30,33,18,17,11,41,49		3,47,49,21,58	
		1, 2,55, 8, 0, 2,27,46		4,36
16″	51,56,15,33,28,26,17,14, 9,35		3,47,49,26,34	
		1, 2,55, 4,12,13, 1,12		4,36
18″	51,56,16,36,23,30,29,27,10,47		3,47,49,31,10	
		1, 2,55, 0,24,23,30, 2		4,36
20″	51,56,17,39,18,30,53,50,40,49		3,47,49,35,46	
		1, 2,54,56,36,33,54,16		4,36
22″	51,56,18,42,13,27,30,24,35, 5		3,47,49,40,22	
		1, 2,54,52,48,44,13,54		4,36
24″	51,56,19,45, 8,20,19, 8,48,59		3,47,49,44,58	
		1, 2,54,49, 0,54,28,56		4,36
26″	51,56,20,48, 3, 9,20, 3,17,55		3,47,49,49,34	
		1, 2,54,45,13, 4,39,22		4,36
28″	51,56,21,50,57,54,33, 7,57,17		3,47,49,54,10	
		1, 2,54,41,25,14,45,12		4,36
30″	51,56,22,53,52,35,58,22,42,29		3,47,49,58,46	
		1, 2,54,37,37,24,46,26		4,36
32″	51,56,23,56,47,13,35,47,28,55		3,47,50, 3,22	
		1, 2,54,33,49,34,43, 4		4,36
34″	51,56,24,59,41,47,25,22,11,59		3,47,50, 7,58	
		1, 2,54,30, 1,44,35, 6		4,36
36″	51,56,26, 2,36,17,27, 6,47, 5		3,47,50,12,34	
		1, 2,54,26,13,54,22,32		4,36
38″	51,56,27, 5,30,43,41, 1, 9,37		3,47,50,17,10	
		1, 2,54,22,26, 4, 5,22		4,36
40″	51,56,28, 8,25, 6, 7, 5,14,59		3,47,50,21,46	
		1, 2,54,18,38,13,43,36		4,36
42″	51,56,29,11,19,24,45,18,58,35		3,47,50,26,22	
		1, 2,54,14,50,23,17,14		4,36
44″	51,56,30,14,13,39,35,42,15,49		3,47,50,30,58	
		1, 2,54,11, 2,32,46,16		4,36
46″	51,56,31,17, 7,50,38,15, 2, 5		3,47,50,35,34	
		1, 2,54, 7,14,42,10,42		4,36
48″	51,56,32,20, 1,57,52,57,12,47		3,47,50,40,10	
		1, 2,54, 3,26,51,30,32		4,36
50″	51,56,33,22,56, 1,19,48,43,19		3,47,50,44,46	
		1, 2,53,59,39, 0,45,46		4,36
52″	51,56,34,25,50, 0,58,49,29, 5		3,47,50,49,22	
		1, 2,53,55,51, 9,56,24		4,36
54″	51,56,35,28,43,56,49,59,25,29		3,47,50,53,58	
		1, 2,53,52, 3,19, 2,26		4,36
56″	51,56,36,31,37,48,53,18,27,55		3,47,50,58,34	
		1, 2,53,48,15,28, 3,52		4,36
58″	51,56,37,34,31,37, 8,46,31,47		3,47,51, 3,10	
		1, 2,53,44,27,37, 0,42		
60″	51,56,38,37,25,21,36,23,32,29			
exact	51,56,38,37,25,21,36,23,30,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°58′ 0″	51,56,38,37,25,21,36,23,30,57			
		1, 2,53,40,39,45,52,56		
2″	51,56,39,40,19, 2,16, 9,23,53		3,47,51,12,21	
		1, 2,53,36,51,54,40,35		4,36
4″	51,56,40,43,12,39, 8, 4, 4,28		3,47,51,16,57	
		1, 2,53,33, 4, 3,23,38		4,36
6″	51,56,41,46, 6,12,12, 7,28, 6		3,47,51,21,33	
		1, 2,53,29,16,12, 2, 5		4,36
8″	51,56,42,48,59,41,28,19,30,11		3,47,51,26, 9	
		1, 2,53,25,28,20,35,56		4,36
10″	51,56,43,51,53, 6,56,40, 6, 7		3,47,51,30,45	
		1, 2,53,21,40,29, 5,11		4,36
12″	51,56,44,54,46,28,37, 9,11,18		3,47,51,35,21	
		1, 2,53,17,52,37,29,50		4,36
14″	51,56,45,57,39,46,29,46,41, 8		3,47,51,39,57	
		1, 2,53,14, 4,45,49,53		4,36
16″	51,56,47, 0,33, 0,34,32,31, 1		3,47,51,44,33	
		1, 2,53,10,16,54, 5,20		4,36
18″	51,56,48, 3,26,10,51,26,36,21		3,47,51,49, 9	
		1, 2,53, 6,29, 2,16,11		4,36
20″	51,56,49, 6,19,17,20,28,52,32		3,47,51,53,45	
		1, 2,53, 2,41,10,22,26		4,36
22″	51,56,50, 9,12,20, 1,39,14,58		3,47,51,58,21	
		1, 2,52,58,53,18,24, 5		4,36
24″	51,56,51,12, 5,18,54,57,39, 3		3,47,52, 2,57	
		1, 2,52,55, 5,26,21, 8		4,36
26″	51,56,52,14,58,14, 0,24, 0,11		3,47,52, 7,33	
		1, 2,52,51,17,34,13,35		4,36
28″	51,56,53,17,51, 5,17,58,13,46		3,47,52,12, 9	
		1, 2,52,47,29,42, 1,26		4,36
30″	51,56,54,20,43,52,47,40,15,12		3,47,52,16,45	
		1, 2,52,43,41,49,44,41		4,36
32″	51,56,55,23,36,36,29,29,59,53		3,47,52,21,21	
		1, 2,52,39,53,57,23,20		4,36
34″	51,56,56,26,29,16,23,27,23,13		3,47,52,25,57	
		1, 2,52,36, 6, 4,57,23		4,36
36″	51,56,57,29,21,52,29,32,20,36		3,47,52,30,33	
		1, 2,52,32,18,12,26,50		4,36
38″	51,56,58,32,14,24,47,44,47,26		3,47,52,35, 9	
		1, 2,52,28,30,19,51,41		4,36
40″	51,56,59,35, 6,53,18, 4,39, 7		3,47,52,39,45	
		1, 2,52,24,42,27,11,56		4,36
42″	51,57, 0,37,59,18, 0,31,51, 3		3,47,52,44,21	
		1, 2,52,20,54,34,27,35		4,36
44″	51,57, 1,40,51,38,55, 6,18,38		3,47,52,48,57	
		1, 2,52,17, 6,41,38,38		4,36
46″	51,57, 2,43,43,56, 1,47,57,16		3,47,52,53,33	
		1, 2,52,13,18,48,45, 5		4,36
48″	51,57, 3,46,36, 9,20,36,42,21		3,47,52,58, 9	
		1, 2,52, 9,30,55,46,56		4,36
50″	51,57, 4,49,28,18,51,32,29,17		3,47,53, 2,45	
		1, 2,52, 5,43, 2,44,11		4,36
52″	51,57, 5,52,20,24,34,35,13,28		3,47,53, 7,21	
		1, 2,52, 1,55, 9,36,50		4,36
54″	51,57, 6,55,12,26,29,44,50,18		3,47,53,11,57	
		1, 2,51,58, 7,16,24,53		4,36
56″	51,57, 7,58, 4,24,37, 1,15,11		3,47,53,16,33	
		1, 2,51,54,19,23, 8,20		4,36
58″	51,57, 9, 0,56,18,56,24,23,31		3,47,53,21, 9	
		1, 2,51,50,31,29,47,11		
60″	51,57,10, 3,48, 9,27,54,10,42			
exact	51,57,10, 3,48, 9,27,54,21,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
59°59′ 0″	51,57,10, 3,48, 9,27,54,21,19			
		1, 2,51,46,43,36,22,38		
2″	51,57,11, 6,39,56,11,30,43,57		3,47,53,30,15	
		1, 2,51,42,55,42,52,23		4,36
4″	51,57,12, 9,31,39, 7,13,36,20		3,47,53,34,51	
		1, 2,51,39, 7,49,17,32		4,36
6″	51,57,13,12,23,18,15, 2,53,52		3,47,53,39,27	
		1, 2,51,35,19,55,38, 5		4,36
8″	51,57,14,15,14,53,34,58,31,57		3,47,53,44, 3	
		1, 2,51,31,32, 1,54, 2		4,36
10″	51,57,15,18, 6,25, 7, 0,25,59		3,47,53,48,39	
		1, 2,51,27,44, 8, 5,23		4,36
12″	51,57,16,20,57,52,51, 8,31,22		3,47,53,53,15	
		1, 2,51,23,56,14,12, 8		4,36
14″	51,57,17,23,49,16,47,22,43,30		3,47,53,57,51	
		1, 2,51,20, 8,20,14,17		4,36
16″	51,57,18,26,40,36,55,42,57,47		3,47,54, 2,27	
		1, 2,51,16,20,26,11,50		4,36
18″	51,57,19,29,31,53,16, 9, 9,37		3,47,54, 7, 3	
		1, 2,51,12,32,32, 4,47		4,36
20″	51,57,20,32,23, 5,48,41,14,24		3,47,54,11,39	
		1, 2,51, 8,44,37,53, 8		4,36
22″	51,57,21,35,14,14,33,19, 7,32		3,47,54,16,15	
		1, 2,51, 4,56,43,36,53		4,36
24″	51,57,22,38, 5,19,30, 2,44,25		3,47,54,20,51	
		1, 2,51, 1, 8,49,16, 2		4,36
26″	51,57,23,40,56,20,38,52, 0,27		3,47,54,25,27	
		1, 2,50,57,20,54,50,35		4,36
28″	51,57,24,43,47,17,59,46,51, 2		3,47,54,30, 3	
		1, 2,50,53,33, 0,20,32		4,36
30″	51,57,25,46,38,11,32,47,11,34		3,47,54,34,39	
		1, 2,50,49,45, 5,45,53		4,36
32″	51,57,26,49,29, 1,17,52,57,27		3,47,54,39,15	
		1, 2,50,45,57,11, 6,38		4,36
34″	51,57,27,52,19,47,15, 4, 4, 5		3,47,54,43,51	
		1, 2,50,42, 9,16,22,47		4,36
36″	51,57,28,55,10,29,24,20,26,52		3,47,54,48,27	
		1, 2,50,38,21,21,34,20		4,36
38″	51,57,29,58, 1, 7,45,42, 1,12		3,47,54,53, 3	
		1, 2,50,34,33,26,41,17		4,36
40″	51,57,31, 0,51,42,19, 8,42,29		3,47,54,57,39	
		1, 2,50,30,45,31,43,38		4,36
42″	51,57,32, 3,42,13, 4,40,26, 7		3,47,55, 2,15	
		1, 2,50,26,57,36,41,23		4,36
44″	51,57,33, 6,32,40, 2,17, 7,30		3,47,55, 6,51	
		1, 2,50,23, 9,41,34,32		4,36
46″	51,57,34, 9,23, 3,11,58,42, 2		3,47,55,11,27	
		1, 2,50,19,21,46,23, 5		4,36
48″	51,57,35,12,13,22,33,45, 5, 7		3,47,55,16, 3	
		1, 2,50,15,33,51, 7, 2		4,36
50″	51,57,36,15, 3,38, 7,36,12, 9		3,47,55,20,39	
		1, 2,50,11,45,55,46,23		4,36
52″	51,57,37,17,53,49,53,31,58,32		3,47,55,25,15	
		1, 2,50, 7,58, 0,21, 8		4,36
54″	51,57,38,20,43,57,51,32,19,40		3,47,55,29,51	
		1, 2,50, 4,10, 4,51,17		4,36
56″	51,57,39,23,34, 2, 1,37,10,57		3,47,55,34,27	
		1, 2,50, 0,22, 9,16,50		4,36
58″	51,57,40,26,24, 2,23,46,27,47		3,47,55,39, 3	
		1, 2,49,56,34,13,37,47		
60″	51,57,41,29,13,58,58, 0, 5,34			
exact	51,57,41,29,13,58,58, 0,22,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60° 0′ 0″	51,57,41,29,13,58,58, 0,22,13	1, 2,49,52,46,17,56, 7		
2″	51,57,42,32, 3,51,44,18,18,20	1, 2,49,48,58,22, 8, 1	3,47,55,48, 6	
4″	51,57,43,34,53,40,42,40,26,21	1, 2,49,45,10,26,15,19	3,47,55,52,42	4,36
6″	51,57,44,37,43,25,53, 6,41,40	1, 2,49,41,22,30,18, 1	3,47,55,57,18	4,36
8″	51,57,45,40,33, 7,15,36,59,41	1, 2,49,37,34,34,16, 7	3,47,56, 1,54	4,36
10″	51,57,46,43,22,44,50,11,15,48	1, 2,49,33,46,38, 9,37	3,47,56, 6,30	4,36
12″	51,57,47,46,12,18,36,49,25,25	1, 2,49,29,58,41,58,31	3,47,56,11, 6	4,36
14″	51,57,48,49, 1,48,35,31,23,56	1, 2,49,26,10,45,42,49	3,47,56,15,42	4,36
16″	51,57,49,51,51,14,46,17, 6,45	1, 2,49,22,22,49,22,31	3,47,56,20,18	4,36
18″	51,57,50,54,40,37, 9, 6,29,16	1, 2,49,18,34,52,57,37	3,47,56,24,54	4,36
20″	51,57,51,57,29,55,43,59,26,53	1, 2,49,14,46,56,28, 7	3,47,56,29,30	4,36
22″	51,57,53, 0,19,10,30,55,55, 0	1, 2,49,10,58,59,54, 1	3,47,56,34, 6	4,36
24″	51,57,54, 3, 8,21,29,55,49, 1	1, 2,49, 7,11, 3,15,19	3,47,56,38,42	4,36
26″	51,57,55, 5,57,28,40,59, 4,20	1, 2,49, 3,23, 6,32, 1	3,47,56,43,18	4,36
28″	51,57,56, 8,46,32, 4, 5,36,21	1, 2,48,59,35, 9,44, 7	3,47,56,47,54	4,36
30″	51,57,57,11,35,31,39,15,20,28	1, 2,48,55,47,12,51,37	3,47,56,52,30	4,36
32″	51,57,58,14,24,27,26,28,12, 5	1, 2,48,51,59,15,54,31	3,47,56,57, 6	4,36
34″	51,57,59,17,13,19,25,44, 6,36	1, 2,48,48,11,18,52,49	3,47,57, 1,42	4,36
36″	51,58, 0,20, 2, 7,37, 2,59,25	1, 2,48,44,23,21,46,31	3,47,57, 6,18	4,36
38″	51,58, 1,22,50,52, 0,24,45,56	1, 2,48,40,35,24,35,37	3,47,57,10,54	4,36
40″	51,58, 2,25,39,32,35,49,21,33	1, 2,48,36,47,27,20, 7	3,47,57,15,30	4,36
42″	51,58, 3,28,28, 9,23,16,41,40	1, 2,48,32,59,30, 0, 1	3,47,57,20, 6	4,36
44″	51,58, 4,31,16,42,22,46,41,41	1, 2,48,29,11,32,35,19	3,47,57,24,42	4,36
46″	51,58, 5,34, 5,11,34,19,17, 0	1, 2,48,25,23,35, 6, 1	3,47,57,29,18	4,36
48″	51,58, 6,36,53,36,57,54,23, 1	1, 2,48,21,35,37,32, 7	3,47,57,33,54	4,36
50″	51,58, 7,39,41,58,33,31,55, 8	1, 2,48,17,47,39,53,37	3,47,57,38,30	4,36
52″	51,58, 8,42,30,16,21,11,48,45	1, 2,48,13,59,42,10,31	3,47,57,43, 6	4,36
54″	51,58, 9,45,18,30,20,53,59,16	1, 2,48,10,11,44,22,49	3,47,57,47,42	4,36
56″	51,58,10,48, 6,40,32,38,22, 5	1, 2,48, 6,23,46,30,31	3,47,57,52,18	4,36
58″	51,58,11,50,54,46,56,24,52,36	1, 2,48, 2,35,48,33,37	3,47,57,56,54	
60″	51,58,12,53,42,49,32,13,26,13			
exact	51,58,12,53,42,49,32,13,57,19			

x			$\sin(x)$	Δ^1	Δ^2	Δ^3
60°	1′	0″	51,58,12,53,42,49,32,13,57,19			
		2″	51,58,13,56,30,48,20, 4,32,46	1, 2,47,58,47,50,35,27	3,47,58, 5,52	
		4″	51,58,14,59,18,43,19,57, 2,21	1, 2,47,54,59,52,29,35	3,47,58,10,27	4,35
		6″	51,58,16, 2, 6,34,31,51,21,29	1, 2,47,51,11,54,19, 8	3,47,58,15, 2	4,35
		8″	51,58,17, 4,54,21,55,47,25,35	1, 2,47,47,23,56, 4, 6	3,47,58,19,37	4,35
		10″	51,58,18, 7,42, 5,31,45,10, 4	1, 2,47,43,35,57,44,29	3,47,58,24,12	4,35
		12″	51,58,19,10,29,45,19,44,30,21	1, 2,47,39,47,59,20,17	3,47,58,28,47	4,35
		14″	51,58,20,13,17,21,19,45,21,51	1, 2,47,36, 0, 0,51,30	3,47,58,33,22	4,35
		16″	51,58,21,16, 4,53,31,47,39,59	1, 2,47,32,12, 2,18, 8	3,47,58,37,57	4,35
		18″	51,58,22,18,52,21,55,51,20,10	1, 2,47,28,24, 3,40,11	3,47,58,42,32	4,35
		20″	51,58,23,21,39,46,31,56,17,49	1, 2,47,24,36, 4,57,39	3,47,58,47, 7	4,35
		22″	51,58,24,24,27, 7,20, 2,28,21	1, 2,47,20,48, 6,10,32	3,47,58,51,42	4,35
		24″	51,58,25,27,14,24,20, 9,47,11	1, 2,47,17, 0, 7,18,50	3,47,58,56,17	4,35
		26″	51,58,26,30, 1,37,32,18, 9,44	1, 2,47,13,12, 8,22,33	3,47,59, 0,52	4,35
		28″	51,58,27,32,48,46,56,27,31,25	1, 2,47, 9,24, 9,21,41	3,47,59, 5,27	4,35
		30″	51,58,28,35,35,52,32,37,47,39	1, 2,47, 5,36,10,16,14	3,47,59,10, 2	4,35
		32″	51,58,29,38,22,54,20,48,53,51	1, 2,47, 1,48,11, 6,12	3,47,59,14,37	4,35
		34″	51,58,30,41, 9,52,21, 0,45,26	1, 2,46,58, 0,11,51,35	3,47,59,19,12	4,35
		36″	51,58,31,43,56,46,33,13,17,49	1, 2,46,54,12,12,32,23	3,47,59,23,47	4,35
		38″	51,58,32,46,43,36,57,26,26,25	1, 2,46,50,24,13, 8,36	3,47,59,28,22	4,35
		40″	51,58,33,49,30,23,33,40, 6,39	1, 2,46,46,36,13,40,14	3,47,59,32,57	4,35
		42″	51,58,34,52,17, 6,21,54,13,56	1, 2,46,42,48,14, 7,17	3,47,59,37,32	4,35
		44″	51,58,35,55, 3,45,22, 8,43,41	1, 2,46,39, 0,14,29,45	3,47,59,42, 7	4,35
		46″	51,58,36,57,50,20,34,23,31,19	1, 2,46,35,12,14,47,38	3,47,59,46,42	4,35
		48″	51,58,38, 0,36,51,58,38,32,15	1, 2,46,31,24,15, 0,56	3,47,59,51,17	4,35
		50″	51,58,39, 3,23,19,34,53,41,54	1, 2,46,27,36,15, 9,39	3,47,59,55,52	4,35
		52″	51,58,40, 6, 9,43,23, 8,55,41	1, 2,46,23,48,15,13,47	3,48, 0, 0,27	4,35
		54″	51,58,41, 8,56, 3,23,24, 9, 1	1, 2,46,20, 0,15,13,20	3,48, 0, 5, 2	4,35
		56″	51,58,42,11,42,19,35,39,17,19	1, 2,46,16,12,15, 8,18	3,48, 0, 9,37	4,35
		58″	51,58,43,14,28,31,59,54,16, 0	1, 2,46,12,24,14,58,41	3,48, 0,14,12	
		60″	51,58,44,17,14,40,36, 9, 0,29	1, 2,46, 8,36,14,44,29		
		exact	51,58,44,17,14,40,36, 8,32,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60° 2′ 0″	51,58,44,17,14,40,36, 8,32,46			
		1, 2,46, 4,48,14,22,45		
2″	51,58,45,20, 0,45,24,22,55,31		3,48, 0,23,34	
		1, 2,46, 1, 0,13,59,11		4,35
4″	51,58,46,22,46,46,24,36,54,42		3,48, 0,28, 9	
		1, 2,45,57,12,13,31, 2		4,35
6″	51,58,47,25,32,43,36,50,25,44		3,48, 0,32,44	
		1, 2,45,53,24,12,58,18		4,35
8″	51,58,48,28,18,37, 1, 3,24, 2		3,48, 0,37,19	
		1, 2,45,49,36,12,20,59		4,35
10″	51,58,49,31, 4,26,37,15,45, 1		3,48, 0,41,54	
		1, 2,45,45,48,11,39, 5		4,35
12″	51,58,50,33,50,12,25,27,24, 6		3,48, 0,46,29	
		1, 2,45,42, 0,10,52,36		4,35
14″	51,58,51,36,35,54,25,38,16,42		3,48, 0,51, 4	
		1, 2,45,38,12,10, 1,32		4,35
16″	51,58,52,39,21,32,37,48,18,14		3,48, 0,55,39	
		1, 2,45,34,24, 9, 5,53		4,35
18″	51,58,53,42, 7, 7, 1,57,24, 7		3,48, 1, 0,14	
		1, 2,45,30,36, 8, 5,39		4,35
20″	51,58,54,44,52,37,38, 5,29,46		3,48, 1, 4,49	
		1, 2,45,26,48, 7, 0,50		4,35
22″	51,58,55,47,38, 4,26,12,30,36		3,48, 1, 9,24	
		1, 2,45,23, 0, 5,51,26		4,35
24″	51,58,56,50,23,27,26,18,22, 2		3,48, 1,13,59	
		1, 2,45,19,12, 4,37,27		4,35
26″	51,58,57,53, 8,46,38,22,59,29		3,48, 1,18,34	
		1, 2,45,15,24, 3,18,53		4,35
28″	51,58,58,55,54, 2, 2,26,18,22		3,48, 1,23, 9	
		1, 2,45,11,36, 1,55,44		4,35
30″	51,58,59,58,39,13,38,28,14, 6		3,48, 1,27,44	
		1, 2,45, 7,48, 0,28, 0		4,35
32″	51,59, 1, 1,24,21,26,28,42, 6		3,48, 1,32,19	
		1, 2,45, 3,59,58,55,41		4,35
34″	51,59, 2, 4, 9,25,26,27,37,47		3,48, 1,36,54	
		1, 2,45, 0,11,57,18,47		4,35
36″	51,59, 3, 6,54,25,38,24,56,34		3,48, 1,41,29	
		1, 2,44,56,23,55,37,18		4,35
38″	51,59, 4, 9,39,22, 2,20,33,52		3,48, 1,46, 4	
		1, 2,44,52,35,53,51,14		4,35
40″	51,59, 5,12,24,14,38,14,25, 6		3,48, 1,50,39	
		1, 2,44,48,47,52, 0,35		4,35
42″	51,59, 6,15, 9, 3,26, 6,25,41		3,48, 1,55,14	
		1, 2,44,44,59,50, 5,21		4,35
44″	51,59, 7,17,53,48,25,56,31, 2		3,48, 1,59,49	
		1, 2,44,41,11,48, 5,32		4,35
46″	51,59, 8,20,38,29,37,44,36,34		3,48, 2, 4,24	
		1, 2,44,37,23,46, 1, 8		4,35
48″	51,59, 9,23,23, 7, 1,30,37,42		3,48, 2, 8,59	
		1, 2,44,33,35,43,52, 9		4,35
50″	51,59,10,26, 7,40,37,14,29,51		3,48, 2,13,34	
		1, 2,44,29,47,41,38,35		4,35
52″	51,59,11,28,52,10,24,56, 8,26		3,48, 2,18, 9	
		1, 2,44,25,59,39,20,26		4,35
54″	51,59,12,31,36,36,24,35,28,52		3,48, 2,22,44	
		1, 2,44,22,11,36,57,42		4,35
56″	51,59,13,34,20,58,36,12,26,34		3,48, 2,27,19	
		1, 2,44,18,23,34,30,23		4,35
58″	51,59,14,37, 5,16,59,46,56,57		3,48, 2,31,54	
		1, 2,44,14,35,31,58,29		
60″	51,59,15,39,49,31,35,18,55,26			
exact	51,59,15,39,49,31,35,18,37,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60° 3′ 0″	51,59,15,39,49,31,35,18,37,11			
		1, 2,44,10,47,29,20, 4		
2″	51,59,16,42,33,42,22,47,57,15		3,48, 2,41,12	
		1, 2,44, 6,59,26,38,52		4,35
4″	51,59,17,45,17,49,22,14,36, 7		3,48, 2,45,47	
		1, 2,44, 3,11,23,53, 5		4,35
6″	51,59,18,48, 1,52,33,38,29,12		3,48, 2,50,22	
		1, 2,43,59,23,21, 2,43		4,35
8″	51,59,19,50,45,51,56,59,31,55		3,48, 2,54,57	
		1, 2,43,55,35,18, 7,46		4,35
10″	51,59,20,53,29,47,32,17,39,41		3,48, 2,59,32	
		1, 2,43,51,47,15, 8,14		4,35
12″	51,59,21,56,13,39,19,32,47,55		3,48, 3, 4, 7	
		1, 2,43,47,59,12, 4, 7		4,35
14″	51,59,22,58,57,27,18,44,52, 2		3,48, 3, 8,42	
		1, 2,43,44,11, 8,55,25		4,35
16″	51,59,24, 1,41,11,29,53,47,27		3,48, 3,13,17	
		1, 2,43,40,23, 5,42, 8		4,35
18″	51,59,25, 4,24,51,52,59,29,35		3,48, 3,17,52	
		1, 2,43,36,35, 2,24,16		4,35
20″	51,59,26, 7, 8,28,28, 1,53,51		3,48, 3,22,27	
		1, 2,43,32,46,59, 1,49		4,35
22″	51,59,27, 9,52, 1,15, 0,55,40		3,48, 3,27, 2	
		1, 2,43,28,58,55,34,47		4,35
24″	51,59,28,12,35,30,13,56,30,27		3,48, 3,31,37	
		1, 2,43,25,10,52, 3,10		4,35
26″	51,59,29,15,18,55,24,48,33,37		3,48, 3,36,12	
		1, 2,43,21,22,48,26,58		4,35
28″	51,59,30,18, 2,16,47,37, 0,35		3,48, 3,40,47	
		1, 2,43,17,34,44,46,11		4,35
30″	51,59,31,20,45,34,22,21,46,46		3,48, 3,45,22	
		1, 2,43,13,46,41, 0,49		4,35
32″	51,59,32,23,28,48, 9, 2,47,35		3,48, 3,49,57	
		1, 2,43, 9,58,37,10,52		4,35
34″	51,59,33,26,11,58, 7,39,58,27		3,48, 3,54,32	
		1, 2,43, 6,10,33,16,20		4,35
36″	51,59,34,28,55, 4,18,13,14,47		3,48, 3,59, 7	
		1, 2,43, 2,22,29,17,13		4,35
38″	51,59,35,31,38, 6,40,42,32, 0		3,48, 4, 3,42	
		1, 2,42,58,34,25,13,31		4,35
40″	51,59,36,34,21, 5,15, 7,45,31		3,48, 4, 8,17	
		1, 2,42,54,46,21, 5,14		4,35
42″	51,59,37,37, 4, 0, 1,28,50,45		3,48, 4,12,52	
		1, 2,42,50,58,16,52,22		4,35
44″	51,59,38,39,46,50,59,45,43, 7		3,48, 4,17,27	
		1, 2,42,47,10,12,34,55		4,35
46″	51,59,39,42,29,38, 9,58,18, 2		3,48, 4,22, 2	
		1, 2,42,43,22, 8,12,53		4,35
48″	51,59,40,45,12,21,32, 6,30,55		3,48, 4,26,37	
		1, 2,42,39,34, 3,46,16		4,35
50″	51,59,41,47,55, 1, 6,10,17,11		3,48, 4,31,12	
		1, 2,42,35,45,59,15, 4		4,35
52″	51,59,42,50,37,36,52, 9,32,15		3,48, 4,35,47	
		1, 2,42,31,57,54,39,17		4,35
54″	51,59,43,53,20, 8,50, 4,11,32		3,48, 4,40,22	
		1, 2,42,28, 9,49,58,55		4,35
56″	51,59,44,56, 2,36,59,54,10,27		3,48, 4,44,57	
		1, 2,42,24,21,45,13,58		4,35
58″	51,59,45,58,45, 1,21,39,24,25		3,48, 4,49,32	
		1, 2,42,20,33,40,24,26		
60″	51,59,47, 1,27,21,55,19,48,51			
exact	51,59,47, 1,27,21,55,19,41,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60° 4′ 0″	51,59,47, 1,27,21,55,19,41,44			
		1, 2,42,16,45,35,29,30		
2″	51,59,48, 4, 9,38,40,55,11,14		3,48, 4,58,45	
		1, 2,42,12,57,30,30,45		4,35
4″	51,59,49, 6,51,51,38,25,41,59		3,48, 5, 3,20	
		1, 2,42, 9, 9,25,27,25		4,35
6″	51,59,50, 9,34, 0,47,51, 9,24		3,48, 5, 7,55	
		1, 2,42, 5,21,20,19,30		4,35
8″	51,59,51,12,16, 6, 9,11,28,54		3,48, 5,12,30	
		1, 2,42, 1,33,15, 7, 0		4,35
10″	51,59,52,14,58, 7,42,26,35,54		3,48, 5,17, 5	
		1, 2,41,57,45, 9,49,55		4,35
12″	51,59,53,17,40, 5,27,36,25,49		3,48, 5,21,40	
		1, 2,41,53,57, 4,28,15		4,35
14″	51,59,54,20,21,59,24,40,54, 4		3,48, 5,26,15	
		1, 2,41,50, 8,59, 2, 0		4,35
16″	51,59,55,23, 3,49,33,39,56, 4		3,48, 5,30,50	
		1, 2,41,46,20,53,31,10		4,35
18″	51,59,56,25,45,35,54,33,27,14		3,48, 5,35,25	
		1, 2,41,42,32,47,55,45		4,35
20″	51,59,57,28,27,18,27,21,22,59		3,48, 5,40, 0	
		1, 2,41,38,44,42,15,45		4,35
22″	51,59,58,31, 8,57,12, 3,38,44		3,48, 5,44,35	
		1, 2,41,34,56,36,31,10		4,35
24″	51,59,59,33,50,32, 8,40, 9,54		3,48, 5,49,10	
		1, 2,41,31, 8,30,42, 0		4,35
26″	52, 0, 0,36,32, 3,17,10,51,54		3,48, 5,53,45	
		1, 2,41,27,20,24,48,15		4,35
28″	52, 0, 1,39,13,30,37,35,40, 9		3,48, 5,58,20	
		1, 2,41,23,32,18,49,55		4,35
30″	52, 0, 2,41,54,54, 9,54,30, 4		3,48, 6, 2,55	
		1, 2,41,19,44,12,47, 0		4,35
32″	52, 0, 3,44,36,13,54, 7,17, 4		3,48, 6, 7,30	
		1, 2,41,15,56, 6,39,30		4,35
34″	52, 0, 4,47,17,29,50,13,56,34		3,48, 6,12, 5	
		1, 2,41,12, 8, 0,27,25		4,35
36″	52, 0, 5,49,58,41,58,14,23,59		3,48, 6,16,40	
		1, 2,41, 8,19,54,10,45		4,35
38″	52, 0, 6,52,39,50,18, 8,34,44		3,48, 6,21,15	
		1, 2,41, 4,31,47,49,30		4,35
40″	52, 0, 7,55,20,54,49,56,24,14		3,48, 6,25,50	
		1, 2,41, 0,43,41,23,40		4,35
42″	52, 0, 8,58, 1,55,33,37,47,54		3,48, 6,30,25	
		1, 2,40,56,55,34,53,15		4,35
44″	52, 0,10, 0,42,52,29,12,41, 9		3,48, 6,35, 0	
		1, 2,40,53, 7,28,18,15		4,35
46″	52, 0,11, 3,23,45,36,40,59,24		3,48, 6,39,35	
		1, 2,40,49,19,21,38,40		4,35
48″	52, 0,12, 6, 4,34,56, 2,38, 4		3,48, 6,44,10	
		1, 2,40,45,31,14,54,30		4,35
50″	52, 0,13, 8,45,20,27,17,32,34		3,48, 6,48,45	
		1, 2,40,41,43, 8, 5,45		4,35
52″	52, 0,14,11,26, 2,10,25,38,19		3,48, 6,53,20	
		1, 2,40,37,55, 1,12,25		4,35
54″	52, 0,15,14, 6,40, 5,26,50,44		3,48, 6,57,55	
		1, 2,40,34, 6,54,14,30		4,35
56″	52, 0,16,16,47,14,12,21, 5,14		3,48, 7, 2,30	
		1, 2,40,30,18,47,12, 0		4,35
58″	52, 0,17,19,27,44,31, 8,17,14		3,48, 7, 7, 5	
		1, 2,40,26,30,40, 4,55		
60″	52, 0,18,22, 8,11, 1,48,22, 9			
exact	52, 0,18,22, 8,11, 1,48,20, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60° 5′ 0″	52, 0,18,22, 8,11, 1,48,20, 5			
		1, 2,40,22,42,32,53, 9		
2″	52, 0,19,24,48,33,44,21,13,14		3,48, 7,16,15	
		1, 2,40,18,54,25,36,54		4,35
4″	52, 0,20,27,28,52,38,46,50, 8		3,48, 7,20,50	
		1, 2,40,15, 6,18,16, 4		4,35
6″	52, 0,21,30, 9, 7,45, 5, 6,12		3,48, 7,25,25	
		1, 2,40,11,18,10,50,39		4,35
8″	52, 0,22,32,49,19, 3,15,56,51		3,48, 7,30, 0	
		1, 2,40, 7,30, 3,20,39		4,35
10″	52, 0,23,35,29,26,33,19,17,30		3,48, 7,34,35	
		1, 2,40, 3,41,55,46, 4		4,35
12″	52, 0,24,38, 9,30,15,15, 3,34		3,48, 7,39,10	
		1, 2,39,59,53,48, 6,54		4,35
14″	52, 0,25,40,49,30, 9, 3,10,28		3,48, 7,43,45	
		1, 2,39,56, 5,40,23, 9		4,35
16″	52, 0,26,43,29,26,14,43,33,37		3,48, 7,48,20	
		1, 2,39,52,17,32,34,49		4,35
18″	52, 0,27,46, 9,18,32,16, 8,26		3,48, 7,52,55	
		1, 2,39,48,29,24,41,54		4,35
20″	52, 0,28,48,49, 7, 1,40,50,20		3,48, 7,57,30	
		1, 2,39,44,41,16,44,24		4,35
22″	52, 0,29,51,28,51,42,57,34,44		3,48, 8, 2, 5	
		1, 2,39,40,53, 8,42,19		4,35
24″	52, 0,30,54, 8,32,36, 6,17, 3		3,48, 8, 6,40	
		1, 2,39,37, 5, 0,35,39		4,35
26″	52, 0,31,56,48, 9,41, 6,52,42		3,48, 8,11,15	
		1, 2,39,33,16,52,24,24		4,35
28″	52, 0,32,59,27,42,57,59,17, 6		3,48, 8,15,50	
		1, 2,39,29,28,44, 8,34		4,35
30″	52, 0,34, 2, 7,12,26,43,25,40		3,48, 8,20,25	
		1, 2,39,25,40,35,48, 9		4,35
32″	52, 0,35, 4,46,38, 7,19,13,49		3,48, 8,25, 0	
		1, 2,39,21,52,27,23, 9		4,35
34″	52, 0,36, 7,25,59,59,46,36,58		3,48, 8,29,35	
		1, 2,39,18, 4,18,53,34		4,35
36″	52, 0,37,10, 5,18, 4, 5,30,32		3,48, 8,34,10	
		1, 2,39,14,16,10,19,24		4,35
38″	52, 0,38,12,44,32,20,15,49,56		3,48, 8,38,45	
		1, 2,39,10,28, 1,40,39		4,35
40″	52, 0,39,15,23,42,48,17,30,35		3,48, 8,43,20	
		1, 2,39, 6,39,52,57,19		4,35
42″	52, 0,40,18, 2,49,28,10,27,54		3,48, 8,47,55	
		1, 2,39, 2,51,44, 9,24		4,35
44″	52, 0,41,20,41,52,19,54,37,18		3,48, 8,52,30	
		1, 2,38,59, 3,35,16,54		4,35
46″	52, 0,42,23,20,51,23,29,54,12		3,48, 8,57, 5	
		1, 2,38,55,15,26,19,49		4,35
48″	52, 0,43,25,59,46,38,56,14, 1		3,48, 9, 1,40	
		1, 2,38,51,27,17,18, 9		4,35
50″	52, 0,44,28,38,38, 6,13,32,10		3,48, 9, 6,15	
		1, 2,38,47,39, 8,11,54		4,35
52″	52, 0,45,31,17,25,45,21,44, 4		3,48, 9,10,50	
		1, 2,38,43,50,59, 1, 4		4,35
54″	52, 0,46,33,56, 9,36,20,45, 8		3,48, 9,15,25	
		1, 2,38,40, 2,49,45,39		4,35
56″	52, 0,47,36,34,49,39,10,30,47		3,48, 9,20, 0	
		1, 2,38,36,14,40,25,39		4,35
58″	52, 0,48,39,13,25,53,50,56,26		3,48, 9,24,35	
		1, 2,38,32,26,31, 1, 4		
60″	52, 0,49,41,51,58,20,21,57,30			
exact	52, 0,49,41,51,58,20,22, 8,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60° 6′ 0″	52, 0,49,41,51,58,20,22, 8,25	1, 2,38,28,38,21,33, 4		
2″	52, 0,50,44,30,26,58,43,41,29	1, 2,38,24,50,11,59,24	3,48, 9,33,40	4,35
4″	52, 0,51,47, 8,51,48,55,40,53	1, 2,38,21, 2, 2,21, 9	3,48, 9,38,15	4,35
6″	52, 0,52,49,47,12,50,58, 2, 2	1, 2,38,17,13,52,38,19	3,48, 9,42,50	4,35
8″	52, 0,53,52,25,30, 4,50,40,21	1, 2,38,13,25,42,50,54	3,48, 9,47,25	4,35
10″	52, 0,54,55, 3,43,30,33,31,15	1, 2,38, 9,37,32,58,54	3,48, 9,52, 0	4,35
12″	52, 0,55,57,41,53, 8, 6,30, 9	1, 2,38, 5,49,23, 2,19	3,48, 9,56,35	4,35
14″	52, 0,57, 0,19,58,57,29,32,28	1, 2,38, 2, 1,13, 1, 9	3,48,10, 1,10	4,35
16″	52, 0,58, 2,58, 0,58,42,33,37	1, 2,37,58,13, 2,55,24	3,48,10, 5,45	4,35
18″	52, 0,59, 5,35,59,11,45,29, 1	1, 2,37,54,24,52,45, 4	3,48,10,10,20	4,35
20″	52, 1, 0, 8,13,53,36,38,14, 5	1, 2,37,50,36,42,30, 9	3,48,10,14,55	4,35
22″	52, 1, 1,10,51,44,13,20,44,14	1, 2,37,46,48,32,10,39	3,48,10,19,30	4,35
24″	52, 1, 2,13,29,31, 1,52,54,53	1, 2,37,43, 0,21,46,34	3,48,10,24, 5	4,35
26″	52, 1, 3,16, 7,14, 2,14,41,27	1, 2,37,39,12,11,17,54	3,48,10,28,40	4,35
28″	52, 1, 4,18,44,53,14,25,59,21	1, 2,37,35,24, 0,44,39	3,48,10,33,15	4,35
30″	52, 1, 5,21,22,28,38,26,44, 0	1, 2,37,31,35,50, 6,49	3,48,10,37,50	4,35
32″	52, 1, 6,24, 0, 0,14,16,50,49	1, 2,37,27,47,39,24,24	3,48,10,42,25	4,35
34″	52, 1, 7,26,37,28, 1,56,15,13	1, 2,37,23,59,28,37,24	3,48,10,47, 0	4,35
36″	52, 1, 8,29,14,52, 1,24,52,37	1, 2,37,20,11,17,45,49	3,48,10,51,35	4,35
38″	52, 1, 9,31,52,12,12,42,38,26	1, 2,37,16,23, 6,49,39	3,48,10,56,10	4,35
40″	52, 1,10,34,29,28,35,49,28, 5	1, 2,37,12,34,55,48,54	3,48,11, 0,45	4,35
42″	52, 1,11,37, 6,41,10,45,16,59	1, 2,37, 8,46,44,43,34	3,48,11, 5,20	4,35
44″	52, 1,12,39,43,49,57,30, 0,33	1, 2,37, 4,58,33,33,39	3,48,11, 9,55	4,35
46″	52, 1,13,42,20,54,56, 3,34,12	1, 2,37, 1,10,22,19, 9	3,48,11,14,30	4,35
48″	52, 1,14,44,57,56, 6,25,53,21	1, 2,36,57,22,11, 0, 4	3,48,11,19, 5	4,35
50″	52, 1,15,47,34,53,28,36,53,25	1, 2,36,53,33,59,36,24	3,48,11,23,40	4,35
52″	52, 1,16,50,11,47, 2,36,29,49	1, 2,36,49,45,48, 8, 9	3,48,11,28,15	4,35
54″	52, 1,17,52,48,36,48,24,37,58	1, 2,36,45,57,36,35,19	3,48,11,32,50	4,35
56″	52, 1,18,55,25,22,46, 1,13,17	1, 2,36,42, 9,24,57,54	3,48,11,37,25	4,35
58″	52, 1,19,58, 2, 4,55,26,11,11	1, 2,36,38,21,13,15,54	3,48,11,42, 0	
60″	52, 1,21, 0,38,43,16,39,27, 5			
exact	52, 1,21, 0,38,43,16,39,45,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60° 7′ 0″	52, 1,21, 0,38,43,16,39,45,28			
		1, 2,36,34,33, 1,31,21		
2″	52, 1,22, 3,15,17,49,41,16,49		3,48,11,51, 1	
		1, 2,36,30,44,49,40,20		4,35
4″	52, 1,23, 5,51,48,34,30,57, 9		3,48,11,55,36	
		1, 2,36,26,56,37,44,44		4,35
6″	52, 1,24, 8,28,15,31, 8,41,53		3,48,12, 0,11	
		1, 2,36,23, 8,25,44,33		4,35
8″	52, 1,25,11, 4,38,39,34,26,26		3,48,12, 4,46	
		1, 2,36,19,20,13,39,47		4,35
10″	52, 1,26,13,40,57,59,48, 6,13		3,48,12, 9,21	
		1, 2,36,15,32, 1,30,26		4,35
12″	52, 1,27,16,17,13,31,49,36,39		3,48,12,13,56	
		1, 2,36,11,43,49,16,30		4,35
14″	52, 1,28,18,53,25,15,38,53, 9		3,48,12,18,31	
		1, 2,36, 7,55,36,57,59		4,35
16″	52, 1,29,21,29,33,11,15,51, 8		3,48,12,23, 6	
		1, 2,36, 4, 7,24,34,53		4,35
18″	52, 1,30,24, 5,37,18,40,26, 1		3,48,12,27,41	
		1, 2,36, 0,19,12, 7,12		4,35
20″	52, 1,31,26,41,37,37,52,33,13		3,48,12,32,16	
		1, 2,35,56,30,59,34,56		4,35
22″	52, 1,32,29,17,34, 8,52, 8, 9		3,48,12,36,51	
		1, 2,35,52,42,46,58, 5		4,35
24″	52, 1,33,31,53,26,51,39, 6,14		3,48,12,41,26	
		1, 2,35,48,54,34,16,39		4,35
26″	52, 1,34,34,29,15,46,13,22,53		3,48,12,46, 1	
		1, 2,35,45, 6,21,30,38		4,35
28″	52, 1,35,37, 5, 0,52,34,53,31		3,48,12,50,36	
		1, 2,35,41,18, 8,40, 2		4,35
30″	52, 1,36,39,40,42,10,43,33,33		3,48,12,55,11	
		1, 2,35,37,29,55,44,51		4,35
32″	52, 1,37,42,16,19,40,39,18,24		3,48,12,59,46	
		1, 2,35,33,41,42,45, 5		4,35
34″	52, 1,38,44,51,53,22,22, 3,29		3,48,13, 4,21	
		1, 2,35,29,53,29,40,44		4,35
36″	52, 1,39,47,27,23,15,51,44,13		3,48,13, 8,56	
		1, 2,35,26, 5,16,31,48		4,35
38″	52, 1,40,50, 2,49,21, 8,16, 1		3,48,13,13,31	
		1, 2,35,22,17, 3,18,17		4,35
40″	52, 1,41,52,38,11,38,11,34,18		3,48,13,18, 6	
		1, 2,35,18,28,50, 0,11		4,35
42″	52, 1,42,55,13,30, 7, 1,34,29		3,48,13,22,41	
		1, 2,35,14,40,36,37,30		4,35
44″	52, 1,43,57,48,44,47,38,11,59		3,48,13,27,16	
		1, 2,35,10,52,23,10,14		4,35
46″	52, 1,45, 0,23,55,40, 1,22,13		3,48,13,31,51	
		1, 2,35, 7, 4, 9,38,23		4,35
48″	52, 1,46, 2,59, 2,44,11, 0,36		3,48,13,36,26	
		1, 2,35, 3,15,56, 1,57		4,35
50″	52, 1,47, 5,34, 6, 0, 7, 2,33		3,48,13,41, 1	
		1, 2,34,59,27,42,20,56		4,35
52″	52, 1,48, 8, 9, 5,27,49,23,29		3,48,13,45,36	
		1, 2,34,55,39,28,35,20		4,35
54″	52, 1,49,10,44, 1, 7,17,58,49		3,48,13,50,11	
		1, 2,34,51,51,14,45, 9		4,35
56″	52, 1,50,13,18,52,58,32,43,58		3,48,13,54,46	
		1, 2,34,48, 3, 0,50,23		4,35
58″	52, 1,51,15,53,41, 1,33,34,21		3,48,13,59,21	
		1, 2,34,44,14,46,51, 2		
60″	52, 1,52,18,28,25,16,20,25,23			
exact	52, 1,52,18,28,25,16,20,52,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60° 8′ 0″	52, 1,52,18,28,25,16,20,52,33			
		1, 2,34,40,26,32,50, 6		
2″	52, 1,53,21, 3, 5,42,53,42,39		3,48,14, 8,18	
		1, 2,34,36,38,18,41,48		4,34
4″	52, 1,54,23,37,42,21,12,24,27		3,48,14,12,52	
		1, 2,34,32,50, 4,28,56		4,34
6″	52, 1,55,26,12,15,11,16,53,23		3,48,14,17,26	
		1, 2,34,29, 1,50,11,30		4,34
8″	52, 1,56,28,46,44,13, 7, 4,53		3,48,14,22, 0	
		1, 2,34,25,13,35,49,30		4,34
10″	52, 1,57,31,21, 9,26,42,54,23		3,48,14,26,34	
		1, 2,34,21,25,21,22,56		4,34
12″	52, 1,58,33,55,30,52, 4,17,19		3,48,14,31, 8	
		1, 2,34,17,37, 6,51,48		4,34
14″	52, 1,59,36,29,48,29,11, 9, 7		3,48,14,35,42	
		1, 2,34,13,48,52,16, 6		4,34
16″	52, 2, 0,39, 4, 2,18, 3,25,13		3,48,14,40,16	
		1, 2,34,10, 0,37,35,50		4,34
18″	52, 2, 1,41,38,12,18,41, 1, 3		3,48,14,44,50	
		1, 2,34, 6,12,22,51, 0		4,34
20″	52, 2, 2,44,12,18,31, 3,52, 3		3,48,14,49,24	
		1, 2,34, 2,24, 8, 1,36		4,34
22″	52, 2, 3,46,46,20,55,11,53,39		3,48,14,53,58	
		1, 2,33,58,35,53, 7,38		4,34
24″	52, 2, 4,49,20,19,31, 5, 1,17		3,48,14,58,32	
		1, 2,33,54,47,38, 9, 6		4,34
26″	52, 2, 5,51,54,14,18,43,10,23		3,48,15, 3, 6	
		1, 2,33,50,59,23, 6, 0		4,34
28″	52, 2, 6,54,28, 5,18, 6,16,23		3,48,15, 7,40	
		1, 2,33,47,11, 7,58,20		4,34
30″	52, 2, 7,57, 1,52,29,14,14,43		3,48,15,12,14	
		1, 2,33,43,22,52,46, 6		4,34
32″	52, 2, 8,59,35,35,52, 7, 0,49		3,48,15,16,48	
		1, 2,33,39,34,37,29,18		4,34
34″	52, 2,10, 2, 9,15,26,44,30, 7		3,48,15,21,22	
		1, 2,33,35,46,22, 7,56		4,34
36″	52, 2,11, 4,42,51,13, 6,38, 3		3,48,15,25,56	
		1, 2,33,31,58, 6,42, 0		4,34
38″	52, 2,12, 7,16,23,11,13,20, 3		3,48,15,30,30	
		1, 2,33,28, 9,51,11,30		4,34
40″	52, 2,13, 9,49,51,21, 4,31,33		3,48,15,35, 4	
		1, 2,33,24,21,35,36,26		4,34
42″	52, 2,14,12,23,15,42,40, 7,59		3,48,15,39,38	
		1, 2,33,20,33,19,56,48		4,34
44″	52, 2,15,14,56,36,16, 0, 4,47		3,48,15,44,12	
		1, 2,33,16,45, 4,12,36		4,34
46″	52, 2,16,17,29,53, 1, 4,17,23		3,48,15,48,46	
		1, 2,33,12,56,48,23,50		4,34
48″	52, 2,17,20, 3, 5,57,52,41,13		3,48,15,53,20	
		1, 2,33, 9, 8,32,30,30		4,34
50″	52, 2,18,22,36,15, 6,25,11,43		3,48,15,57,54	
		1, 2,33, 5,20,16,32,36		4,34
52″	52, 2,19,25, 9,20,26,41,44,19		3,48,16, 2,28	
		1, 2,33, 1,32, 0,30, 8		4,34
54″	52, 2,20,27,42,21,58,42,14,27		3,48,16, 7, 2	
		1, 2,32,57,43,44,23, 6		4,34
56″	52, 2,21,30,15,19,42,26,37,33		3,48,16,11,36	
		1, 2,32,53,55,28,11,30		4,34
58″	52, 2,22,32,48,13,37,54,49, 3		3,48,16,16,10	
		1, 2,32,50, 7,11,55,20		
60″	52, 2,23,35,21, 3,45, 6,44,23			
exact	52, 2,23,35,21, 3,45, 6,13,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60° 9′ 0″	52, 2,23,35,21, 3,45, 6,13,29	1, 2,32,46,18,55,31,22		
2″	52, 2,24,37,53,50, 4, 1,44,51	1, 2,32,42,30,39, 5,51	3,48,16,25,31	4,34
4″	52, 2,25,40,26,32,34,40,50,42	1, 2,32,38,42,22,35,46	3,48,16,30, 5	4,34
6″	52, 2,26,42,59,11,17, 3,26,28	1, 2,32,34,54, 6, 1, 7	3,48,16,34,39	4,34
8″	52, 2,27,45,31,46,11, 9,27,35	1, 2,32,31, 5,49,21,54	3,48,16,39,13	4,34
10″	52, 2,28,48, 4,17,16,58,49,29	1, 2,32,27,17,32,38, 7	3,48,16,43,47	4,34
12″	52, 2,29,50,36,44,34,31,27,36	1, 2,32,23,29,15,49,46	3,48,16,48,21	4,34
14″	52, 2,30,53, 9, 8, 3,47,17,22	1, 2,32,19,40,58,56,51	3,48,16,52,55	4,34
16″	52, 2,31,55,41,27,44,46,14,13	1, 2,32,15,52,41,59,22	3,48,16,57,29	4,34
18″	52, 2,32,58,13,43,37,28,13,35	1, 2,32,12, 4,24,57,19	3,48,17, 2, 3	4,34
20″	52, 2,34, 0,45,55,41,53,10,54	1, 2,32, 8,16, 7,50,42	3,48,17, 6,37	4,34
22″	52, 2,35, 3,18, 3,58, 1, 1,36	1, 2,32, 4,27,50,39,31	3,48,17,11,11	4,34
24″	52, 2,36, 5,50, 8,25,51,41, 7	1, 2,32, 0,39,33,23,46	3,48,17,15,45	4,34
26″	52, 2,37, 8,22, 9, 5,25, 4,53	1, 2,31,56,51,16, 3,27	3,48,17,20,19	4,34
28″	52, 2,38,10,54, 5,56,41, 8,20	1, 2,31,53, 2,58,38,34	3,48,17,24,53	4,34
30″	52, 2,39,13,25,58,59,39,46,54	1, 2,31,49,14,41, 9, 7	3,48,17,29,27	4,34
32″	52, 2,40,15,57,48,14,20,56, 1	1, 2,31,45,26,23,35, 6	3,48,17,34, 1	4,34
34″	52, 2,41,18,29,33,40,44,31, 7	1, 2,31,41,38, 5,56,31	3,48,17,38,35	4,34
36″	52, 2,42,21, 1,15,18,50,27,38	1, 2,31,37,49,48,13,22	3,48,17,43, 9	4,34
38″	52, 2,43,23,32,53, 8,38,41, 0	1, 2,31,34, 1,30,25,39	3,48,17,47,43	4,34
40″	52, 2,44,26, 4,27,10, 9, 6,39	1, 2,31,30,13,12,33,22	3,48,17,52,17	4,34
42″	52, 2,45,28,35,57,23,21,40, 1	1, 2,31,26,24,54,36,31	3,48,17,56,51	4,34
44″	52, 2,46,31, 7,23,48,16,16,32	1, 2,31,22,36,36,35, 6	3,48,18, 1,25	4,34
46″	52, 2,47,33,38,46,24,52,51,38	1, 2,31,18,48,18,29, 7	3,48,18, 5,59	4,34
48″	52, 2,48,36,10, 5,13,11,20,45	1, 2,31,15, 0, 0,18,34	3,48,18,10,33	4,34
50″	52, 2,49,38,41,20,13,11,39,19	1, 2,31,11,11,42, 3,27	3,48,18,15, 7	4,34
52″	52, 2,50,41,12,31,24,53,42,46	1, 2,31, 7,23,23,43,46	3,48,18,19,41	4,34
54″	52, 2,51,43,43,38,48,17,26,32	1, 2,31, 3,35, 5,19,31	3,48,18,24,15	4,34
56″	52, 2,52,46,14,42,23,22,46, 3	1, 2,30,59,46,46,50,42	3,48,18,28,49	4,34
58″	52, 2,53,48,45,42,10, 9,36,45	1, 2,30,55,58,28,17,19	3,48,18,33,23	
60″	52, 2,54,51,16,38, 8,37,54, 4			
exact	52, 2,54,51,16,38, 8,37,34,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°10′ 0″	52, 2,54,51,16,38, 8,37,34,43			
		1, 2,30,52,10, 9,37,17		
2″	52, 2,55,53,47,30,18,47,12, 0		3,48,18,42,39	
		1, 2,30,48,21,50,54,38		4,34
4″	52, 2,56,56,18,18,40,38, 6,38		3,48,18,47,13	
		1, 2,30,44,33,32, 7,25		4,34
6″	52, 2,57,58,49, 3,14,10,14, 3		3,48,18,51,47	
		1, 2,30,40,45,13,15,38		4,34
8″	52, 2,59, 1,19,43,59,23,29,41		3,48,18,56,21	
		1, 2,30,36,56,54,19,17		4,34
10″	52, 3, 0, 3,50,20,56,17,48,58		3,48,19, 0,55	
		1, 2,30,33, 8,35,18,22		4,34
12″	52, 3, 1, 6,20,54, 4,53, 7,20		3,48,19, 5,29	
		1, 2,30,29,20,16,12,53		4,34
14″	52, 3, 2, 8,51,23,25, 9,20,13		3,48,19,10, 3	
		1, 2,30,25,31,57, 2,50		4,34
16″	52, 3, 3,11,21,48,57, 6,23, 3		3,48,19,14,37	
		1, 2,30,21,43,37,48,13		4,34
18″	52, 3, 4,13,52,10,40,44,11,16		3,48,19,19,11	
		1, 2,30,17,55,18,29, 2		4,34
20″	52, 3, 5,16,22,28,36, 2,40,18		3,48,19,23,45	
		1, 2,30,14, 6,59, 5,17		4,34
22″	52, 3, 6,18,52,42,43, 1,45,35		3,48,19,28,19	
		1, 2,30,10,18,39,36,58		4,34
24″	52, 3, 7,21,22,53, 1,41,22,33		3,48,19,32,53	
		1, 2,30, 6,30,20, 4, 5		4,34
26″	52, 3, 8,23,52,59,32, 1,26,38		3,48,19,37,27	
		1, 2,30, 2,42, 0,26,38		4,34
28″	52, 3, 9,26,23, 2,14, 1,53,16		3,48,19,42, 1	
		1, 2,29,58,53,40,44,37		4,34
30″	52, 3,10,28,53, 1, 7,42,37,53		3,48,19,46,35	
		1, 2,29,55, 5,20,58, 2		4,34
32″	52, 3,11,31,22,56,13, 3,35,55		3,48,19,51, 9	
		1, 2,29,51,17, 1, 6,53		4,34
34″	52, 3,12,33,52,47,30, 4,42,48		3,48,19,55,43	
		1, 2,29,47,28,41,11,10		4,34
36″	52, 3,13,36,22,34,58,45,53,58		3,48,20, 0,17	
		1, 2,29,43,40,21,10,53		4,34
38″	52, 3,14,38,52,18,39, 7, 4,51		3,48,20, 4,51	
		1, 2,29,39,52, 1, 6, 2		4,34
40″	52, 3,15,41,21,58,31, 8,10,53		3,48,20, 9,25	
		1, 2,29,36, 3,40,56,37		4,34
42″	52, 3,16,43,51,34,34,49, 7,30		3,48,20,13,59	
		1, 2,29,32,15,20,42,38		4,34
44″	52, 3,17,46,21, 6,50, 9,50, 8		3,48,20,18,33	
		1, 2,29,28,27, 0,24, 5		4,34
46″	52, 3,18,48,50,35,17,10,14,13		3,48,20,23, 7	
		1, 2,29,24,38,40, 0,58		4,34
48″	52, 3,19,51,19,59,55,50,15,11		3,48,20,27,41	
		1, 2,29,20,50,19,33,17		4,34
50″	52, 3,20,53,49,20,46, 9,48,28		3,48,20,32,15	
		1, 2,29,17, 1,59, 1, 2		4,34
52″	52, 3,21,56,18,37,48, 8,49,30		3,48,20,36,49	
		1, 2,29,13,13,38,24,13		4,34
54″	52, 3,22,58,47,51, 1,47,13,43		3,48,20,41,23	
		1, 2,29, 9,25,17,42,50		4,34
56″	52, 3,24, 1,17, 0,27, 4,56,33		3,48,20,45,57	
		1, 2,29, 5,36,56,56,53		4,34
58″	52, 3,25, 3,46, 6, 4, 1,53,26		3,48,20,50,31	
		1, 2,29, 1,48,36, 6,22		
60″	52, 3,26, 6,15, 7,52,37,59,48			
exact	52, 3,26, 6,15, 7,52,37,45,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°11′ 0″	52, 3,26, 6,15, 7,52,37,45,13			
		1, 2,28,58, 0,15, 9,54		
2″	52, 3,27, 8,44, 5,52,52,55, 7		3,48,20,59,44	
		1, 2,28,54,11,54,10,10		4,34
4″	52, 3,28,11,13, 0, 4,47, 5,17		3,48,21, 4,18	
		1, 2,28,50,23,33, 5,52		4,34
6″	52, 3,29,13,41,50,28,20,11, 9		3,48,21, 8,52	
		1, 2,28,46,35,11,57, 0		4,34
8″	52, 3,30,16,10,37, 3,32, 8, 9		3,48,21,13,26	
		1, 2,28,42,46,50,43,34		4,34
10″	52, 3,31,18,39,19,50,22,51,43		3,48,21,18, 0	
		1, 2,28,38,58,29,25,34		4,34
12″	52, 3,32,21, 7,58,48,52,17,17		3,48,21,22,34	
		1, 2,28,35,10, 8, 3, 0		4,34
14″	52, 3,33,23,36,33,59, 0,20,17		3,48,21,27, 8	
		1, 2,28,31,21,46,35,52		4,34
16″	52, 3,34,26, 5, 5,20,46,56, 9		3,48,21,31,42	
		1, 2,28,27,33,25, 4,10		4,34
18″	52, 3,35,28,33,32,54,12, 0,19		3,48,21,36,16	
		1, 2,28,23,45, 3,27,54		4,34
20″	52, 3,36,31, 1,56,39,15,28,13		3,48,21,40,50	
		1, 2,28,19,56,41,47, 4		4,34
22″	52, 3,37,33,30,16,35,57,15,17		3,48,21,45,24	
		1, 2,28,16, 8,20, 1,40		4,34
24″	52, 3,38,35,58,32,44,17,16,57		3,48,21,49,58	
		1, 2,28,12,19,58,11,42		4,34
26″	52, 3,39,38,26,45, 4,15,28,39		3,48,21,54,32	
		1, 2,28, 8,31,36,17,10		4,34
28″	52, 3,40,40,54,53,35,51,45,49		3,48,21,59, 6	
		1, 2,28, 4,43,14,18, 4		4,34
30″	52, 3,41,43,22,58,19, 6, 3,53		3,48,22, 3,40	
		1, 2,28, 0,54,52,14,24		4,34
32″	52, 3,42,45,50,59,13,58,18,17		3,48,22, 8,14	
		1, 2,27,57, 6,30, 6,10		4,34
34″	52, 3,43,48,18,56,20,28,24,27		3,48,22,12,48	
		1, 2,27,53,18, 7,53,22		4,34
36″	52, 3,44,50,46,49,38,36,17,49		3,48,22,17,22	
		1, 2,27,49,29,45,36, 0		4,34
38″	52, 3,45,53,14,39, 8,21,53,49		3,48,22,21,56	
		1, 2,27,45,41,23,14, 4		4,34
40″	52, 3,46,55,42,24,49,45, 7,53		3,48,22,26,30	
		1, 2,27,41,53, 0,47,34		4,34
42″	52, 3,47,58,10, 6,42,45,55,27		3,48,22,31, 4	
		1, 2,27,38, 4,38,16,30		4,34
44″	52, 3,49, 0,37,44,47,24,11,57		3,48,22,35,38	
		1, 2,27,34,16,15,40,52		4,34
46″	52, 3,50, 3, 5,19, 3,39,52,49		3,48,22,40,12	
		1, 2,27,30,27,53, 0,40		4,34
48″	52, 3,51, 5,32,49,31,32,53,29		3,48,22,44,46	
		1, 2,27,26,39,30,15,54		4,34
50″	52, 3,52, 8, 0,16,11, 3, 9,23		3,48,22,49,20	
		1, 2,27,22,51, 7,26,34		4,34
52″	52, 3,53,10,27,39, 2,10,35,57		3,48,22,53,54	
		1, 2,27,19, 2,44,32,40		4,34
54″	52, 3,54,12,54,58, 4,55, 8,37		3,48,22,58,28	
		1, 2,27,15,14,21,34,12		4,34
56″	52, 3,55,15,22,13,19,16,42,49		3,48,23, 3, 2	
		1, 2,27,11,25,58,31,10		4,34
58″	52, 3,56,17,49,24,45,15,13,59		3,48,23, 7,36	
		1, 2,27, 7,37,35,23,34		
60″	52, 3,57,20,16,32,22,50,37,33			
exact	52, 3,57,20,16,32,22,50,36,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°12′ 0″	52, 3,57,20,16,32,22,50,36,37			
		1, 2,27, 3,49,12,11,19		
2″	52, 3,58,22,43,36,12, 2,47,56		3,48,23,16,44	
		1, 2,27, 0, 0,48,54,35		4,34
4″	52, 3,59,25,10,36,12,51,42,31		3,48,23,21,18	
		1, 2,26,56,12,25,33,17		4,34
6″	52, 4, 0,27,37,32,25,17,15,48		3,48,23,25,52	
		1, 2,26,52,24, 2, 7,25		4,34
8″	52, 4, 1,30, 4,24,49,19,23,13		3,48,23,30,26	
		1, 2,26,48,35,38,36,59		4,34
10″	52, 4, 2,32,31,13,24,58, 0,12		3,48,23,35, 0	
		1, 2,26,44,47,15, 1,59		4,34
12″	52, 4, 3,34,57,58,12,13, 2,11		3,48,23,39,34	
		1, 2,26,40,58,51,22,25		4,34
14″	52, 4, 4,37,24,39,11, 4,24,36		3,48,23,44, 8	
		1, 2,26,37,10,27,38,17		4,34
16″	52, 4, 5,39,51,16,21,32, 2,53		3,48,23,48,42	
		1, 2,26,33,22, 3,49,35		4,34
18″	52, 4, 6,42,17,49,43,35,52,28		3,48,23,53,16	
		1, 2,26,29,33,39,56,19		4,34
20″	52, 4, 7,44,44,19,17,15,48,47		3,48,23,57,50	
		1, 2,26,25,45,15,58,29		4,34
22″	52, 4, 8,47,10,45, 2,31,47,16		3,48,24, 2,24	
		1, 2,26,21,56,51,56, 5		4,34
24″	52, 4, 9,49,37, 6,59,23,43,21		3,48,24, 6,58	
		1, 2,26,18, 8,27,49, 7		4,34
26″	52, 4,10,52, 3,25, 7,51,32,28		3,48,24,11,32	
		1, 2,26,14,20, 3,37,35		4,34
28″	52, 4,11,54,29,39,27,55,10, 3		3,48,24,16, 6	
		1, 2,26,10,31,39,21,29		4,34
30″	52, 4,12,56,55,49,59,34,31,32		3,48,24,20,40	
		1, 2,26, 6,43,15, 0,49		4,34
32″	52, 4,13,59,21,56,42,49,32,21		3,48,24,25,14	
		1, 2,26, 2,54,50,35,35		4,34
34″	52, 4,15, 1,47,59,37,40, 7,56		3,48,24,29,48	
		1, 2,25,59, 6,26, 5,47		4,34
36″	52, 4,16, 4,13,58,44, 6,13,43		3,48,24,34,22	
		1, 2,25,55,18, 1,31,25		4,34
38″	52, 4,17, 6,39,54, 2, 7,45, 8		3,48,24,38,56	
		1, 2,25,51,29,36,52,29		4,34
40″	52, 4,18, 9, 5,45,31,44,37,37		3,48,24,43,30	
		1, 2,25,47,41,12, 8,59		4,34
42″	52, 4,19,11,31,33,12,56,46,36		3,48,24,48, 4	
		1, 2,25,43,52,47,20,55		4,34
44″	52, 4,20,13,57,17, 5,44, 7,31		3,48,24,52,38	
		1, 2,25,40, 4,22,28,17		4,34
46″	52, 4,21,16,22,57,10, 6,35,48		3,48,24,57,12	
		1, 2,25,36,15,57,31, 5		4,34
48″	52, 4,22,18,48,33,26, 4, 6,53		3,48,25, 1,46	
		1, 2,25,32,27,32,29,19		4,34
50″	52, 4,23,21,14, 5,53,36,36,12		3,48,25, 6,20	
		1, 2,25,28,39, 7,22,59		4,34
52″	52, 4,24,23,39,34,32,43,59,11		3,48,25,10,54	
		1, 2,25,24,50,42,12, 5		4,34
54″	52, 4,25,26, 4,59,23,26,11,16		3,48,25,15,28	
		1, 2,25,21, 2,16,56,37		4,34
56″	52, 4,26,28,30,20,25,43, 7,53		3,48,25,20, 2	
		1, 2,25,17,13,51,36,35		4,34
58″	52, 4,27,30,55,37,39,34,44,28		3,48,25,24,36	
		1, 2,25,13,25,26,11,59		
60″	52, 4,28,33,20,51, 5, 0,56,27			
exact	52, 4,28,33,20,51, 5, 1, 3, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°13′ 0″	52, 4,28,33,20,51, 5, 1, 3, 5			
		1, 2,25, 9,37, 0,43,37		
2″	52, 4,29,35,46, 0,42, 1,46,42		3,48,25,33,40	
		1, 2,25, 5,48,35, 9,57		4,34
4″	52, 4,30,38,11, 6,30,36,56,39		3,48,25,38,14	
		1, 2,25, 2, 0, 9,31,43		4,34
6″	52, 4,31,40,36, 8,30,46,28,22		3,48,25,42,48	
		1, 2,24,58,11,43,48,55		4,34
8″	52, 4,32,43, 1, 6,42,30,17,17		3,48,25,47,22	
		1, 2,24,54,23,18, 1,33		4,34
10″	52, 4,33,45,26, 1, 5,48,18,50		3,48,25,51,56	
		1, 2,24,50,34,52, 9,37		4,34
12″	52, 4,34,47,50,51,40,40,28,27		3,48,25,56,30	
		1, 2,24,46,46,26,13, 7		4,34
14″	52, 4,35,50,15,38,27, 6,41,34		3,48,26, 1, 4	
		1, 2,24,42,58, 0,12, 3		4,34
16″	52, 4,36,52,40,21,25, 6,53,37		3,48,26, 5,38	
		1, 2,24,39, 9,34, 6,25		4,34
18″	52, 4,37,55, 5, 0,34,41, 0, 2		3,48,26,10,12	
		1, 2,24,35,21, 7,56,13		4,34
20″	52, 4,38,57,29,35,55,48,56,15		3,48,26,14,46	
		1, 2,24,31,32,41,41,27		4,34
22″	52, 4,39,59,54, 7,28,30,37,42		3,48,26,19,20	
		1, 2,24,27,44,15,22, 7		4,34
24″	52, 4,41, 2,18,35,12,45,59,49		3,48,26,23,54	
		1, 2,24,23,55,48,58,13		4,34
26″	52, 4,42, 4,42,59, 8,34,58, 2		3,48,26,28,28	
		1, 2,24,20, 7,22,29,45		4,34
28″	52, 4,43, 7, 7,19,15,57,27,47		3,48,26,33, 2	
		1, 2,24,16,18,55,56,43		4,34
30″	52, 4,44, 9,31,35,34,53,24,30		3,48,26,37,36	
		1, 2,24,12,30,29,19, 7		4,34
32″	52, 4,45,11,55,48, 5,22,43,37		3,48,26,42,10	
		1, 2,24, 8,42, 2,36,57		4,34
34″	52, 4,46,14,19,56,47,25,20,34		3,48,26,46,44	
		1, 2,24, 4,53,35,50,13		4,34
36″	52, 4,47,16,44, 1,41, 1,10,47		3,48,26,51,18	
		1, 2,24, 1, 5, 8,58,55		4,34
38″	52, 4,48,19, 8, 2,46,10, 9,42		3,48,26,55,52	
		1, 2,23,57,16,42, 3, 3		4,34
40″	52, 4,49,21,32, 0, 2,52,12,45		3,48,27, 0,26	
		1, 2,23,53,28,15, 2,37		4,34
42″	52, 4,50,23,55,53,31, 7,15,22		3,48,27, 5, 0	
		1, 2,23,49,39,47,57,37		4,34
44″	52, 4,51,26,19,43,10,55,12,59		3,48,27, 9,34	
		1, 2,23,45,51,20,48, 3		4,34
46″	52, 4,52,28,43,29, 2,16, 1, 2		3,48,27,14, 8	
		1, 2,23,42, 2,53,33,55		4,34
48″	52, 4,53,31, 7,11, 5, 9,34,57		3,48,27,18,42	
		1, 2,23,38,14,26,15,13		4,34
50″	52, 4,54,33,30,49,19,35,50,10		3,48,27,23,16	
		1, 2,23,34,25,58,51,57		4,34
52″	52, 4,55,35,54,23,45,34,42, 7		3,48,27,27,50	
		1, 2,23,30,37,31,24, 7		4,34
54″	52, 4,56,38,17,54,23, 6, 6,14		3,48,27,32,24	
		1, 2,23,26,49, 3,51,43		4,34
56″	52, 4,57,40,41,21,12, 9,57,57		3,48,27,36,58	
		1, 2,23,23, 0,36,14,45		4,34
58″	52, 4,58,43, 4,44,12,46,12,42		3,48,27,41,32	
		1, 2,23,19,12, 8,33,13		
60″	52, 4,59,45,28, 3,24,54,45,55			
exact	52, 4,59,45,28, 3,24,55, 1,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°14′ 0″	52, 4,59,45,28, 3,24,55, 1,28			
		1, 2,23,15,23,40,48,53		
2″	52, 5, 0,47,51,18,48,35,50,21		3,48,27,50,32	
		1, 2,23,11,35,12,58,21		4,34
4″	52, 5, 1,50,14,30,23,48,48,42		3,48,27,55, 6	
		1, 2,23, 7,46,45, 3,15		4,34
6″	52, 5, 2,52,37,38,10,33,51,57		3,48,27,59,40	
		1, 2,23, 3,58,17, 3,35		4,34
8″	52, 5, 3,55, 0,42, 8,50,55,32		3,48,28, 4,14	
		1, 2,23, 0, 9,48,59,21		4,34
10″	52, 5, 4,57,23,42,18,39,54,53		3,48,28, 8,48	
		1, 2,22,56,21,20,50,33		4,34
12″	52, 5, 5,59,46,38,40, 0,45,26		3,48,28,13,22	
		1, 2,22,52,32,52,37,11		4,34
14″	52, 5, 7, 2, 9,31,12,53,22,37		3,48,28,17,56	
		1, 2,22,48,44,24,19,15		4,34
16″	52, 5, 8, 4,32,19,57,17,41,52		3,48,28,22,30	
		1, 2,22,44,55,55,56,45		4,34
18″	52, 5, 9, 6,55, 4,53,13,38,37		3,48,28,27, 4	
		1, 2,22,41, 7,27,29,41		4,34
20″	52, 5,10, 9,17,46, 0,41, 8,18		3,48,28,31,38	
		1, 2,22,37,18,58,58, 3		4,34
22″	52, 5,11,11,40,23,19,40, 6,21		3,48,28,36,12	
		1, 2,22,33,30,30,21,51		4,34
24″	52, 5,12,14, 2,56,50,10,28,12		3,48,28,40,46	
		1, 2,22,29,42, 1,41, 5		4,34
26″	52, 5,13,16,25,26,32,12, 9,17		3,48,28,45,20	
		1, 2,22,25,53,32,55,45		4,34
28″	52, 5,14,18,47,52,25,45, 5, 2		3,48,28,49,54	
		1, 2,22,22, 5, 4, 5,51		4,34
30″	52, 5,15,21,10,14,30,49,10,53		3,48,28,54,28	
		1, 2,22,18,16,35,11,23		4,34
32″	52, 5,16,23,32,32,47,24,22,16		3,48,28,59, 2	
		1, 2,22,14,28, 6,12,21		4,34
34″	52, 5,17,25,54,47,15,30,34,37		3,48,29, 3,36	
		1, 2,22,10,39,37, 8,45		4,34
36″	52, 5,18,28,16,57,55, 7,43,22		3,48,29, 8,10	
		1, 2,22, 6,51, 8, 0,35		4,34
38″	52, 5,19,30,39, 4,46,15,43,57		3,48,29,12,44	
		1, 2,22, 3, 2,38,47,51		4,34
40″	52, 5,20,33, 1, 7,48,54,31,48		3,48,29,17,18	
		1, 2,21,59,14, 9,30,33		4,34
42″	52, 5,21,35,23, 7, 3, 4, 2,21		3,48,29,21,52	
		1, 2,21,55,25,40, 8,41		4,34
44″	52, 5,22,37,45, 2,28,44,11, 2		3,48,29,26,26	
		1, 2,21,51,37,10,42,15		4,34
46″	52, 5,23,40, 6,54, 5,54,53,17		3,48,29,31, 0	
		1, 2,21,47,48,41,11,15		4,34
48″	52, 5,24,42,28,41,54,36, 4,32		3,48,29,35,34	
		1, 2,21,44, 0,11,35,41		4,34
50″	52, 5,25,44,50,25,54,47,40,13		3,48,29,40, 8	
		1, 2,21,40,11,41,55,33		4,34
52″	52, 5,26,47,12, 6, 6,29,35,46		3,48,29,44,42	
		1, 2,21,36,23,12,10,51		4,34
54″	52, 5,27,49,33,42,29,41,46,37		3,48,29,49,16	
		1, 2,21,32,34,42,21,35		4,34
56″	52, 5,28,51,55,15, 4,24, 8,12		3,48,29,53,50	
		1, 2,21,28,46,12,27,45		4,34
58″	52, 5,29,54,16,43,50,36,35,57		3,48,29,58,24	
		1, 2,21,24,57,42,29,21		
60″	52, 5,30,56,38, 8,48,19, 5,18			
exact	52, 5,30,56,38, 8,48,19,31,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°15′ 0″	52, 5,30,56,38, 8,48,19,31,10	1, 2,21,21, 9,12,29,13		
2″	52, 5,31,58,59,29,57,32, 0,23	1, 2,21,17,20,42,21,53	3,48,30, 7,20	4,34
4″	52, 5,33, 1,20,47,18,14,22,16	1, 2,21,13,32,12, 9,59	3,48,30,11,54	4,34
6″	52, 5,34, 3,42, 0,50,26,32,15	1, 2,21, 9,43,41,53,31	3,48,30,16,28	4,34
8″	52, 5,35, 6, 3,10,34, 8,25,46	1, 2,21, 5,55,11,32,29	3,48,30,21, 2	4,34
10″	52, 5,36, 8,24,16,29,19,58,15	1, 2,21, 2, 6,41, 6,53	3,48,30,25,36	4,34
12″	52, 5,37,10,45,18,36, 1, 5, 8	1, 2,20,58,18,10,36,43	3,48,30,30,10	4,34
14″	52, 5,38,13, 6,16,54,11,41,51	1, 2,20,54,29,40, 1,59	3,48,30,34,44	4,34
16″	52, 5,39,15,27,11,23,51,43,50	1, 2,20,50,41, 9,22,41	3,48,30,39,18	4,34
18″	52, 5,40,17,48, 2, 5, 1, 6,31	1, 2,20,46,52,38,38,49	3,48,30,43,52	4,34
20″	52, 5,41,20, 8,48,57,39,45,20	1, 2,20,43, 4, 7,50,23	3,48,30,48,26	4,34
22″	52, 5,42,22,29,32, 1,47,35,43	1, 2,20,39,15,36,57,23	3,48,30,53, 0	4,34
24″	52, 5,43,24,50,11,17,24,33, 6	1, 2,20,35,27, 5,59,49	3,48,30,57,34	4,34
26″	52, 5,44,27,10,46,44,30,32,55	1, 2,20,31,38,34,57,41	3,48,31, 2, 8	4,34
28″	52, 5,45,29,31,18,23, 5,30,36	1, 2,20,27,50, 3,50,59	3,48,31, 6,42	4,34
30″	52, 5,46,31,51,46,13, 9,21,35	1, 2,20,24, 1,32,39,43	3,48,31,11,16	4,34
32″	52, 5,47,34,12,10,14,42, 1,18	1, 2,20,20,13, 1,23,53	3,48,31,15,50	4,34
34″	52, 5,48,36,32,30,27,43,25,11	1, 2,20,16,24,30, 3,29	3,48,31,20,24	4,34
36″	52, 5,49,38,52,46,52,13,28,40	1, 2,20,12,35,58,38,31	3,48,31,24,58	4,34
38″	52, 5,50,41,12,59,28,12, 7,11	1, 2,20, 8,47,27, 8,59	3,48,31,29,32	4,34
40″	52, 5,51,43,33, 8,15,39,16,10	1, 2,20, 4,58,55,34,53	3,48,31,34, 6	4,34
42″	52, 5,52,45,53,13,14,34,51, 3	1, 2,20, 1,10,23,56,13	3,48,31,38,40	4,34
44″	52, 5,53,48,13,14,24,58,47,16	1, 2,19,57,21,52,12,59	3,48,31,43,14	4,34
46″	52, 5,54,50,33,11,46,51, 0,15	1, 2,19,53,33,20,25,11	3,48,31,47,48	4,34
48″	52, 5,55,52,53, 5,20,11,25,26	1, 2,19,49,44,48,32,49	3,48,31,52,22	4,34
50″	52, 5,56,55,12,55, 4,59,58,15	1, 2,19,45,56,16,35,53	3,48,31,56,56	4,34
52″	52, 5,57,57,32,41, 1,16,34, 8	1, 2,19,42, 7,44,34,23	3,48,32, 1,30	4,34
54″	52, 5,58,59,52,23, 9, 1, 8,31	1, 2,19,38,19,12,28,19	3,48,32, 6, 4	4,34
56″	52, 6, 0, 2,12, 1,28,13,36,50	1, 2,19,34,30,40,17,41	3,48,32,10,38	4,34
58″	52, 6, 1, 4,31,35,58,53,54,31	1, 2,19,30,42, 8, 2,29	3,48,32,15,12	
60″	52, 6, 2, 6,51, 6,41, 1,57, 0			
exact	52, 6, 2, 6,51, 6,41, 2,34,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°16′ 0″	52, 6, 2, 6,51, 6,41, 2,34,16			
		1, 2,19,26,53,35,46,42		
2″	52, 6, 3, 9,10,33,34,38,20,58		3,48,32,24, 3	
		1, 2,19,23, 5, 3,22,39		4,33
4″	52, 6, 4,11,29,56,39,41,43,37		3,48,32,28,36	
		1, 2,19,19,16,30,54, 3		4,33
6″	52, 6, 5,13,49,15,56,12,37,40		3,48,32,33, 9	
		1, 2,19,15,27,58,20,54		4,33
8″	52, 6, 6,16, 8,31,24,10,58,34		3,48,32,37,42	
		1, 2,19,11,39,25,43,12		4,33
10″	52, 6, 7,18,27,43, 3,36,41,46		3,48,32,42,15	
		1, 2,19, 7,50,53, 0,57		4,33
12″	52, 6, 8,20,46,50,54,29,42,43		3,48,32,46,48	
		1, 2,19, 4, 2,20,14, 9		4,33
14″	52, 6, 9,23, 5,54,56,49,56,52		3,48,32,51,21	
		1, 2,19, 0,13,47,22,48		4,33
16″	52, 6,10,25,24,55,10,37,19,40		3,48,32,55,54	
		1, 2,18,56,25,14,26,54		4,33
18″	52, 6,11,27,43,51,35,51,46,34		3,48,33, 0,27	
		1, 2,18,52,36,41,26,27		4,33
20″	52, 6,12,30, 2,44,12,33,13, 1		3,48,33, 5, 0	
		1, 2,18,48,48, 8,21,27		4,33
22″	52, 6,13,32,21,33, 0,41,34,28		3,48,33, 9,33	
		1, 2,18,44,59,35,11,54		4,33
24″	52, 6,14,34,40,18, 0,16,46,22		3,48,33,14, 6	
		1, 2,18,41,11, 1,57,48		4,33
26″	52, 6,15,36,58,59,11,18,44,10		3,48,33,18,39	
		1, 2,18,37,22,28,39, 9		4,33
28″	52, 6,16,39,17,36,33,47,23,19		3,48,33,23,12	
		1, 2,18,33,33,55,15,57		4,33
30″	52, 6,17,41,36,10, 7,42,39,16		3,48,33,27,45	
		1, 2,18,29,45,21,48,12		4,33
32″	52, 6,18,43,54,39,53, 4,27,28		3,48,33,32,18	
		1, 2,18,25,56,48,15,54		4,33
34″	52, 6,19,46,13, 5,49,52,43,22		3,48,33,36,51	
		1, 2,18,22, 8,14,39, 3		4,33
36″	52, 6,20,48,31,27,58, 7,22,25		3,48,33,41,24	
		1, 2,18,18,19,40,57,39		4,33
38″	52, 6,21,50,49,46,17,48,20, 4		3,48,33,45,57	
		1, 2,18,14,31, 7,11,42		4,33
40″	52, 6,22,53, 8, 0,48,55,31,46		3,48,33,50,30	
		1, 2,18,10,42,33,21,12		4,33
42″	52, 6,23,55,26,11,31,28,52,58		3,48,33,55, 3	
		1, 2,18, 6,53,59,26, 9		4,33
44″	52, 6,24,57,44,18,25,28,19, 7		3,48,33,59,36	
		1, 2,18, 3, 5,25,26,33		4,33
46″	52, 6,26, 0, 2,21,30,53,45,40		3,48,34, 4, 9	
		1, 2,17,59,16,51,22,24		4,33
48″	52, 6,27, 2,20,20,47,45, 8, 4		3,48,34, 8,42	
		1, 2,17,55,28,17,13,42		4,33
50″	52, 6,28, 4,38,16,16, 2,21,46		3,48,34,13,15	
		1, 2,17,51,39,43, 0,27		4,33
52″	52, 6,29, 6,56, 7,55,45,22,13		3,48,34,17,48	
		1, 2,17,47,51, 8,42,39		4,33
54″	52, 6,30, 9,13,55,46,54, 4,52		3,48,34,22,21	
		1, 2,17,44, 2,34,20,18		4,33
56″	52, 6,31,11,31,39,49,28,25,10		3,48,34,26,54	
		1, 2,17,40,13,59,53,24		4,33
58″	52, 6,32,13,49,20, 3,28,18,34		3,48,34,31,27	
		1, 2,17,36,25,25,21,57		
60″	52, 6,33,16, 6,56,28,53,40,31			
exact	52, 6,33,16, 6,56,28,53,15,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°17′ 0″	52, 6,33,16, 6,56,28,53,15,29			
		1, 2,17,32,36,50,43,25		
2″	52, 6,34,18,24,29, 5,43,58,54		3,48,34,40,43	
		1, 2,17,28,48,16, 2,42		4,33
4″	52, 6,35,20,41,57,54, 0, 1,36		3,48,34,45,16	
		1, 2,17,24,59,41,17,26		4,33
6″	52, 6,36,22,59,22,53,41,19, 2		3,48,34,49,49	
		1, 2,17,21,11, 6,27,37		4,33
8″	52, 6,37,25,16,44, 4,47,46,39		3,48,34,54,22	
		1, 2,17,17,22,31,33,15		4,33
10″	52, 6,38,27,34, 1,27,19,19,54		3,48,34,58,55	
		1, 2,17,13,33,56,34,20		4,33
12″	52, 6,39,29,51,15, 1,15,54,14		3,48,35, 3,28	
		1, 2,17, 9,45,21,30,52		4,33
14″	52, 6,40,32, 8,24,46,37,25, 6		3,48,35, 8, 1	
		1, 2,17, 5,56,46,22,51		4,33
16″	52, 6,41,34,25,30,43,23,47,57		3,48,35,12,34	
		1, 2,17, 2, 8,11,10,17		4,33
18″	52, 6,42,36,42,32,51,34,58,14		3,48,35,17, 7	
		1, 2,16,58,19,35,53,10		4,33
20″	52, 6,43,38,59,31,11,10,51,24		3,48,35,21,40	
		1, 2,16,54,31, 0,31,30		4,33
22″	52, 6,44,41,16,25,42,11,22,54		3,48,35,26,13	
		1, 2,16,50,42,25, 5,17		4,33
24″	52, 6,45,43,33,16,24,36,28,11		3,48,35,30,46	
		1, 2,16,46,53,49,34,31		4,33
26″	52, 6,46,45,50, 3,18,26, 2,42		3,48,35,35,19	
		1, 2,16,43, 5,13,59,12		4,33
28″	52, 6,47,48, 6,46,23,40, 1,54		3,48,35,39,52	
		1, 2,16,39,16,38,19,20		4,33
30″	52, 6,48,50,23,25,40,18,21,14		3,48,35,44,25	
		1, 2,16,35,28, 2,34,55		4,33
32″	52, 6,49,52,40, 1, 8,20,56, 9		3,48,35,48,58	
		1, 2,16,31,39,26,45,57		4,33
34″	52, 6,50,54,56,32,47,47,42, 6		3,48,35,53,31	
		1, 2,16,27,50,50,52,26		4,33
36″	52, 6,51,57,13, 0,38,38,34,32		3,48,35,58, 4	
		1, 2,16,24, 2,14,54,22		4,33
38″	52, 6,52,59,29,24,40,53,28,54		3,48,36, 2,37	
		1, 2,16,20,13,38,51,45		4,33
40″	52, 6,54, 1,45,44,54,32,20,39		3,48,36, 7,10	
		1, 2,16,16,25, 2,44,35		4,33
42″	52, 6,55, 4, 2, 1,19,35, 5,14		3,48,36,11,43	
		1, 2,16,12,36,26,32,52		4,33
44″	52, 6,56, 6,18,13,56, 1,38, 6		3,48,36,16,16	
		1, 2,16, 8,47,50,16,36		4,33
46″	52, 6,57, 8,34,22,43,51,54,42		3,48,36,20,49	
		1, 2,16, 4,59,13,55,47		4,33
48″	52, 6,58,10,50,27,43, 5,50,29		3,48,36,25,22	
		1, 2,16, 1,10,37,30,25		4,33
50″	52, 6,59,13, 6,28,53,43,20,54		3,48,36,29,55	
		1, 2,15,57,22, 1, 0,30		4,33
52″	52, 7, 0,15,22,26,15,44,21,24		3,48,36,34,28	
		1, 2,15,53,33,24,26, 2		4,33
54″	52, 7, 1,17,38,19,49, 8,47,26		3,48,36,39, 1	
		1, 2,15,49,44,47,47, 1		4,33
56″	52, 7, 2,19,54, 9,33,56,34,27		3,48,36,43,34	
		1, 2,15,45,56,11, 3,27		4,33
58″	52, 7, 3,22, 9,55,30, 7,37,54		3,48,36,48, 7	
		1, 2,15,42, 7,34,15,20		
60″	52, 7, 4,24,25,37,37,41,53,14			
exact	52, 7, 4,24,25,37,37,41,42,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°18′ 0″	52, 7, 4,24,25,37,37,41,42,11	1, 2,15,38,18,57,21,27		
2″	52, 7, 5,26,41,15,56,39, 3,38	1, 2,15,34,30,20,24, 9	3,48,36,57,18	4,33
4″	52, 7, 6,28,56,50,26,59,27,47	1, 2,15,30,41,43,22,18	3,48,37, 1,51	4,33
6″	52, 7, 7,31,12,21, 8,42,50, 5	1, 2,15,26,53, 6,15,54	3,48,37, 6,24	4,33
8″	52, 7, 8,33,27,48, 1,49, 5,59	1, 2,15,23, 4,29, 4,57	3,48,37,10,57	4,33
10″	52, 7, 9,35,43,11, 6,18,10,56	1, 2,15,19,15,51,49,27	3,48,37,15,30	4,33
12″	52, 7,10,37,58,30,22,10, 0,23	1, 2,15,15,27,14,29,24	3,48,37,20, 3	4,33
14″	52, 7,11,40,13,45,49,24,29,47	1, 2,15,11,38,37, 4,48	3,48,37,24,36	4,33
16″	52, 7,12,42,28,57,28, 1,34,35	1, 2,15, 7,49,59,35,39	3,48,37,29, 9	4,33
18″	52, 7,13,44,44, 5,18, 1,10,14	1, 2,15, 4, 1,22, 1,57	3,48,37,33,42	4,33
20″	52, 7,14,46,59, 9,19,23,12,11	1, 2,15, 0,12,44,23,42	3,48,37,38,15	4,33
22″	52, 7,15,49,14, 9,32, 7,35,53	1, 2,14,56,24, 6,40,54	3,48,37,42,48	4,33
24″	52, 7,16,51,29, 5,56,14,16,47	1, 2,14,52,35,28,53,33	3,48,37,47,21	4,33
26″	52, 7,17,53,43,58,31,43,10,20	1, 2,14,48,46,51, 1,39	3,48,37,51,54	4,33
28″	52, 7,18,55,58,47,18,34,11,59	1, 2,14,44,58,13, 5,12	3,48,37,56,27	4,33
30″	52, 7,19,58,13,32,16,47,17,11	1, 2,14,41, 9,35, 4,12	3,48,38, 1, 0	4,33
32″	52, 7,21, 0,28,13,26,22,21,23	1, 2,14,37,20,56,58,39	3,48,38, 5,33	4,33
34″	52, 7,22, 2,42,50,47,19,20, 2	1, 2,14,33,32,18,48,33	3,48,38,10, 6	4,33
36″	52, 7,23, 4,57,24,19,38, 8,35	1, 2,14,29,43,40,33,54	3,48,38,14,39	4,33
38″	52, 7,24, 7,11,54, 3,18,42,29	1, 2,14,25,55, 2,14,42	3,48,38,19,12	4,33
40″	52, 7,25, 9,26,19,58,20,57,11	1, 2,14,22, 6,23,50,57	3,48,38,23,45	4,33
42″	52, 7,26,11,40,42, 4,44,48, 8	1, 2,14,18,17,45,22,39	3,48,38,28,18	4,33
44″	52, 7,27,13,55, 0,22,30,10,47	1, 2,14,14,29, 6,49,48	3,48,38,32,51	4,33
46″	52, 7,28,16, 9,14,51,37, 0,35	1, 2,14,10,40,28,12,24	3,48,38,37,24	4,33
48″	52, 7,29,18,23,25,32, 5,12,59	1, 2,14, 6,51,49,30,27	3,48,38,41,57	4,33
50″	52, 7,30,20,37,32,23,54,43,26	1, 2,14, 3, 3,10,43,57	3,48,38,46,30	4,33
52″	52, 7,31,22,51,35,27, 5,27,23	1, 2,13,59,14,31,52,54	3,48,38,51, 3	4,33
54″	52, 7,32,25, 5,34,41,37,20,17	1, 2,13,55,25,52,57,18	3,48,38,55,36	4,33
56″	52, 7,33,27,19,30, 7,30,17,35	1, 2,13,51,37,13,57, 9	3,48,39, 0, 9	4,33
58″	52, 7,34,29,33,21,44,44,14,44	1, 2,13,47,48,34,52,27	3,48,39, 4,42	
60″	52, 7,35,31,47, 9,33,19, 7,11			
exact	52, 7,35,31,47, 9,33,19, 4,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°19′ 0″	52, 7,35,31,47, 9,33,19, 4,25			
		1, 2,13,43,59,55,42,55		
2″	52, 7,36,34, 0,53,33,14,47,20		3,48,39,13,49	
		1, 2,13,40,11,16,29, 6		4,33
4″	52, 7,37,36,14,33,44,31,16,26		3,48,39,18,22	
		1, 2,13,36,22,37,10,44		4,33
6″	52, 7,38,38,28,10, 7, 8,27,10		3,48,39,22,55	
		1, 2,13,32,33,57,47,49		4,33
8″	52, 7,39,40,41,42,41, 6,14,59		3,48,39,27,28	
		1, 2,13,28,45,18,20,21		4,33
10″	52, 7,40,42,55,11,26,24,35,20		3,48,39,32, 1	
		1, 2,13,24,56,38,48,20		4,33
12″	52, 7,41,45, 8,36,23, 3,23,40		3,48,39,36,34	
		1, 2,13,21, 7,59,11,46		4,33
14″	52, 7,42,47,21,57,31, 2,35,26		3,48,39,41, 7	
		1, 2,13,17,19,19,30,39		4,33
16″	52, 7,43,49,35,14,50,22, 6, 5		3,48,39,45,40	
		1, 2,13,13,30,39,44,59		4,33
18″	52, 7,44,51,48,28,21, 1,51, 4		3,48,39,50,13	
		1, 2,13, 9,41,59,54,46		4,33
20″	52, 7,45,54, 1,38, 3, 1,45,50		3,48,39,54,46	
		1, 2,13, 5,53,20, 0, 0		4,33
22″	52, 7,46,56,14,43,56,21,45,50		3,48,39,59,19	
		1, 2,13, 2, 4,40, 0,41		4,33
24″	52, 7,47,58,27,46, 1, 1,46,31		3,48,40, 3,52	
		1, 2,12,58,15,59,56,49		4,33
26″	52, 7,49, 0,40,44,17, 1,43,20		3,48,40, 8,25	
		1, 2,12,54,27,19,48,24		4,33
28″	52, 7,50, 2,53,38,44,21,31,44		3,48,40,12,58	
		1, 2,12,50,38,39,35,26		4,33
30″	52, 7,51, 5, 6,29,23, 1, 7,10		3,48,40,17,31	
		1, 2,12,46,49,59,17,55		4,33
32″	52, 7,52, 7,19,16,13, 0,25, 5		3,48,40,22, 4	
		1, 2,12,43, 1,18,55,51		4,33
34″	52, 7,53, 9,31,59,14,19,20,56		3,48,40,26,37	
		1, 2,12,39,12,38,29,14		4,33
36″	52, 7,54,11,44,38,26,57,50,10		3,48,40,31,10	
		1, 2,12,35,23,57,58, 4		4,33
38″	52, 7,55,13,57,13,50,55,48,14		3,48,40,35,43	
		1, 2,12,31,35,17,22,21		4,33
40″	52, 7,56,16, 9,45,26,13,10,35		3,48,40,40,16	
		1, 2,12,27,46,36,42, 5		4,33
42″	52, 7,57,18,22,13,12,49,52,40		3,48,40,44,49	
		1, 2,12,23,57,55,57,16		4,33
44″	52, 7,58,20,34,37,10,45,49,56		3,48,40,49,22	
		1, 2,12,20, 9,15, 7,54		4,33
46″	52, 7,59,22,46,57,20, 0,57,50		3,48,40,53,55	
		1, 2,12,16,20,34,13,59		4,33
48″	52, 8, 0,24,59,13,40,35,11,49		3,48,40,58,28	
		1, 2,12,12,31,53,15,31		4,33
50″	52, 8, 1,27,11,26,12,28,27,20		3,48,41, 3, 1	
		1, 2,12, 8,43,12,12,30		4,33
52″	52, 8, 2,29,23,34,55,40,39,50		3,48,41, 7,34	
		1, 2,12, 4,54,31, 4,56		4,33
54″	52, 8, 3,31,35,39,50,11,44,46		3,48,41,12, 7	
		1, 2,12, 1, 5,49,52,49		4,33
56″	52, 8, 4,33,47,40,56, 1,37,35		3,48,41,16,40	
		1, 2,11,57,17, 8,36, 9		4,33
58″	52, 8, 5,35,59,38,13,10,13,44		3,48,41,21,13	
		1, 2,11,53,28,27,14,56		
60″	52, 8, 6,38,11,31,41,37,28,40			
exact	52, 8, 6,38,11,31,41,37,34,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°20′ 0″	52, 8, 6,38,11,31,41,37,34,53	1, 2,11,49,39,45,49,52		
2″	52, 8, 7,40,23,21,21,23,24,45	1, 2,11,45,51, 4,19,36	3,48,41,30,16	4,33
4″	52, 8, 8,42,35, 7,12,27,44,21	1, 2,11,42, 2,22,44,47	3,48,41,34,49	4,33
6″	52, 8, 9,44,46,49,14,50,29, 8	1, 2,11,38,13,41, 5,25	3,48,41,39,22	4,33
8″	52, 8,10,46,58,27,28,31,34,33	1, 2,11,34,24,59,21,30	3,48,41,43,55	4,33
10″	52, 8,11,49,10, 1,53,30,56, 3	1, 2,11,30,36,17,33, 2	3,48,41,48,28	4,33
12″	52, 8,12,51,21,32,29,48,29, 5	1, 2,11,26,47,35,40, 1	3,48,41,53, 1	4,33
14″	52, 8,13,53,32,59,17,24, 9, 6	1, 2,11,22,58,53,42,27	3,48,41,57,34	4,33
16″	52, 8,14,55,44,22,16,17,51,33	1, 2,11,19,10,11,40,20	3,48,42, 2, 7	4,33
18″	52, 8,15,57,55,41,26,29,31,53	1, 2,11,15,21,29,33,40	3,48,42, 6,40	4,33
20″	52, 8,17, 0, 6,56,47,59, 5,33	1, 2,11,11,32,47,22,27	3,48,42,11,13	4,33
22″	52, 8,18, 2,18, 8,20,46,28, 0	1, 2,11, 7,44, 5, 6,41	3,48,42,15,46	4,33
24″	52, 8,19, 4,29,16, 4,51,34,41	1, 2,11, 3,55,22,46,22	3,48,42,20,19	4,33
26″	52, 8,20, 6,40,20, 0,14,21, 3	1, 2,11, 0, 6,40,21,30	3,48,42,24,52	4,33
28″	52, 8,21, 8,51,20, 6,54,42,33	1, 2,10,56,17,57,52, 5	3,48,42,29,25	4,33
30″	52, 8,22,11, 2,16,24,52,34,38	1, 2,10,52,29,15,18, 7	3,48,42,33,58	4,33
32″	52, 8,23,13,13, 8,54, 7,52,45	1, 2,10,48,40,32,39,36	3,48,42,38,31	4,33
34″	52, 8,24,15,23,57,34,40,32,21	1, 2,10,44,51,49,56,32	3,48,42,43, 4	4,33
36″	52, 8,25,17,34,42,26,30,28,53	1, 2,10,41, 3, 7, 8,55	3,48,42,47,37	4,33
38″	52, 8,26,19,45,23,29,37,37,48	1, 2,10,37,14,24,16,45	3,48,42,52,10	4,33
40″	52, 8,27,21,56, 0,44, 1,54,33	1, 2,10,33,25,41,20, 2	3,48,42,56,43	4,33
42″	52, 8,28,24, 6,34, 9,43,14,35	1, 2,10,29,36,58,18,46	3,48,43, 1,16	4,33
44″	52, 8,29,26,17, 3,46,41,33,21	1, 2,10,25,48,15,12,57	3,48,43, 5,49	4,33
46″	52, 8,30,28,27,29,34,56,46,18	1, 2,10,21,59,32, 2,35	3,48,43,10,22	4,33
48″	52, 8,31,30,37,51,34,28,48,53	1, 2,10,18,10,48,47,40	3,48,43,14,55	4,33
50″	52, 8,32,32,48, 9,45,17,36,33	1, 2,10,14,22, 5,28,12	3,48,43,19,28	4,33
52″	52, 8,33,34,58,24, 7,23, 4,45	1, 2,10,10,33,22, 4,11	3,48,43,24, 1	4,33
54″	52, 8,34,37, 8,34,40,45, 8,56	1, 2,10, 6,44,38,35,37	3,48,43,28,34	4,33
56″	52, 8,35,39,18,41,25,23,44,33	1, 2,10, 2,55,55, 2,30	3,48,43,33, 7	4,33
58″	52, 8,36,41,28,44,21,18,47, 3	1, 2, 9,59, 7,11,24,50	3,48,43,37,40	
60″	52, 8,37,43,38,43,28,30,11,53			
exact	52, 8,37,43,38,43,28,30,28,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°21′ 0″	52, 8,37,43,38,43,28,30,28,58	1, 2, 9,55,18,27,44,25		
2″	52, 8,38,45,48,38,46,58,13,23	1, 2, 9,51,29,43,57,47	3,48,43,46,38	4,33
4″	52, 8,39,47,58,30,16,42,11,10	1, 2, 9,47,41, 0, 6,36	3,48,43,51,11	4,33
6″	52, 8,40,50, 8,17,57,42,17,46	1, 2, 9,43,52,16,10,52	3,48,43,55,44	4,33
8″	52, 8,41,52,18, 1,49,58,28,38	1, 2, 9,40, 3,32,10,35	3,48,44, 0,17	4,33
10″	52, 8,42,54,27,41,53,30,39,13	1, 2, 9,36,14,48, 5,45	3,48,44, 4,50	4,33
12″	52, 8,43,56,37,18, 8,18,44,58	1, 2, 9,32,26, 3,56,22	3,48,44, 9,23	4,33
14″	52, 8,44,58,46,50,34,22,41,20	1, 2, 9,28,37,19,42,26	3,48,44,13,56	4,33
16″	52, 8,46, 0,56,19,11,42,23,46	1, 2, 9,24,48,35,23,57	3,48,44,18,29	4,33
18″	52, 8,47, 3, 5,44, 0,17,47,43	1, 2, 9,20,59,51, 0,55	3,48,44,23, 2	4,33
20″	52, 8,48, 5,15, 5, 0, 8,48,38	1, 2, 9,17,11, 6,33,20	3,48,44,27,35	4,33
22″	52, 8,49, 7,24,22,11,15,21,58	1, 2, 9,13,22,22, 1,12	3,48,44,32, 8	4,33
24″	52, 8,50, 9,33,35,33,37,23,10	1, 2, 9, 9,33,37,24,31	3,48,44,36,41	4,33
26″	52, 8,51,11,42,45, 7,14,47,41	1, 2, 9, 5,44,52,43,17	3,48,44,41,14	4,33
28″	52, 8,52,13,51,50,52, 7,30,58	1, 2, 9, 1,56, 7,57,30	3,48,44,45,47	4,33
30″	52, 8,53,16, 0,52,48,15,28,28	1, 2, 8,58, 7,23, 7,10	3,48,44,50,20	4,33
32″	52, 8,54,18, 9,50,55,38,35,38	1, 2, 8,54,18,38,12,17	3,48,44,54,53	4,33
34″	52, 8,55,20,18,45,14,16,47,55	1, 2, 8,50,29,53,12,51	3,48,44,59,26	4,33
36″	52, 8,56,22,27,35,44,10, 0,46	1, 2, 8,46,41, 8, 8,52	3,48,45, 3,59	4,33
38″	52, 8,57,24,36,22,25,18, 9,38	1, 2, 8,42,52,23, 0,20	3,48,45, 8,32	4,33
40″	52, 8,58,26,45, 5,17,41, 9,58	1, 2, 8,39, 3,37,47,15	3,48,45,13, 5	4,33
42″	52, 8,59,28,53,44,21,18,57,13	1, 2, 8,35,14,52,29,37	3,48,45,17,38	4,33
44″	52, 9, 0,31, 2,19,36,11,26,50	1, 2, 8,31,26, 7, 7,26	3,48,45,22,11	4,33
46″	52, 9, 1,33,10,51, 2,18,34,16	1, 2, 8,27,37,21,40,42	3,48,45,26,44	4,33
48″	52, 9, 2,35,19,18,39,40,14,58	1, 2, 8,23,48,36, 9,25	3,48,45,31,17	4,33
50″	52, 9, 3,37,27,42,28,16,24,23	1, 2, 8,19,59,50,33,35	3,48,45,35,50	4,33
52″	52, 9, 4,39,36, 2,28, 6,57,58	1, 2, 8,16,11, 4,53,12	3,48,45,40,23	4,33
54″	52, 9, 5,41,44,18,39,11,51,10	1, 2, 8,12,22,19, 8,16	3,48,45,44,56	4,33
56″	52, 9, 6,43,52,31, 1,30,59,26	1, 2, 8, 8,33,33,18,47	3,48,45,49,29	4,33
58″	52, 9, 7,46, 0,39,35, 4,18,13	1, 2, 8, 4,44,47,24,45	3,48,45,54, 2	
60″	52, 9, 8,48, 8,44,19,51,42,58			
exact	52, 9, 8,48, 8,44,19,52, 4,48			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
60°22′	0″	52, 9, 8,48, 8,44,19,52, 4,48	1, 2, 8, 0,56, 1,28,39		
	2″	52, 9, 9,50,16,45,15,53,33,27	1, 2, 7,57, 7,15,25,42	3,48,46, 2,57	4,33
	4″	52, 9,10,52,24,42,23, 8,59, 9	1, 2, 7,53,18,29,18,12	3,48,46, 7,30	4,33
	6″	52, 9,11,54,32,35,41,38,17,21	1, 2, 7,49,29,43, 6, 9	3,48,46,12, 3	4,33
	8″	52, 9,12,56,40,25,11,21,23,30	1, 2, 7,45,40,56,49,33	3,48,46,16,36	4,33
	10″	52, 9,13,58,48,10,52,18,13, 3	1, 2, 7,41,52,10,28,24	3,48,46,21, 9	4,33
	12″	52, 9,15, 0,55,52,44,28,41,27	1, 2, 7,38, 3,24, 2,42	3,48,46,25,42	4,33
	14″	52, 9,16, 3, 3,30,47,52,44, 9	1, 2, 7,34,14,37,32,27	3,48,46,30,15	4,33
	16″	52, 9,17, 5,11, 5, 2,30,16,36	1, 2, 7,30,25,50,57,39	3,48,46,34,48	4,33
	18″	52, 9,18, 7,18,35,28,21,14,15	1, 2, 7,26,37, 4,18,18	3,48,46,39,21	4,33
	20″	52, 9,19, 9,26, 2, 5,25,32,33	1, 2, 7,22,48,17,34,24	3,48,46,43,54	4,33
	22″	52, 9,20,11,33,24,53,43, 6,57	1, 2, 7,18,59,30,45,57	3,48,46,48,27	4,33
	24″	52, 9,21,13,40,43,53,13,52,54	1, 2, 7,15,10,43,52,57	3,48,46,53, 0	4,33
	26″	52, 9,22,15,47,59, 3,57,45,51	1, 2, 7,11,21,56,55,24	3,48,46,57,33	4,33
	28″	52, 9,23,17,55,10,25,54,41,15	1, 2, 7, 7,33, 9,53,18	3,48,47, 2, 6	4,33
	30″	52, 9,24,20, 2,17,59, 4,34,33	1, 2, 7, 3,44,22,46,39	3,48,47, 6,39	4,33
	32″	52, 9,25,22, 9,21,43,27,21,12	1, 2, 6,59,55,35,35,27	3,48,47,11,12	4,33
	34″	52, 9,26,24,16,21,39, 2,56,39	1, 2, 6,56, 6,48,19,42	3,48,47,15,45	4,33
	36″	52, 9,27,26,23,17,45,51,16,21	1, 2, 6,52,18, 0,59,24	3,48,47,20,18	4,33
	38″	52, 9,28,28,30,10, 3,52,15,45	1, 2, 6,48,29,13,34,33	3,48,47,24,51	4,33
	40″	52, 9,29,30,36,58,33, 5,50,18	1, 2, 6,44,40,26, 5, 9	3,48,47,29,24	4,33
	42″	52, 9,30,32,43,43,13,31,55,27	1, 2, 6,40,51,38,31,12	3,48,47,33,57	4,33
	44″	52, 9,31,34,50,24, 5,10,26,39	1, 2, 6,37, 2,50,52,42	3,48,47,38,30	4,33
	46″	52, 9,32,36,57, 1, 8, 1,19,21	1, 2, 6,33,14, 3, 9,39	3,48,47,43, 3	4,33
	48″	52, 9,33,39, 3,34,22, 4,29, 0	1, 2, 6,29,25,15,22, 3	3,48,47,47,36	4,33
	50″	52, 9,34,41,10, 3,47,19,51, 3	1, 2, 6,25,36,27,29,54	3,48,47,52, 9	4,33
	52″	52, 9,35,43,16,29,23,47,20,57	1, 2, 6,21,47,39,33,12	3,48,47,56,42	4,33
	54″	52, 9,36,45,22,51,11,26,54, 9	1, 2, 6,17,58,51,31,57	3,48,48, 1,15	4,33
	56″	52, 9,37,47,29, 9,10,18,26, 6	1, 2, 6,14,10, 3,26, 9	3,48,48, 5,48	4,33
	58″	52, 9,38,49,35,23,20,21,52,15	1, 2, 6,10,21,15,15,48	3,48,48,10,21	
	60″	52, 9,39,51,41,33,41,37, 8, 3			
exact		52, 9,39,51,41,33,41,37,43, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°23′ 0″	52, 9,39,51,41,33,41,37,43, 9			
		1, 2, 6, 6,32,27, 4,40		
2″	52, 9,40,53,47,40,14, 4,47,49		3,48,48,19,11	
		1, 2, 6, 2,43,38,45,29		4,32
4″	52, 9,41,55,53,42,57,43,33,18		3,48,48,23,43	
		1, 2, 5,58,54,50,21,46		4,32
6″	52, 9,42,57,59,41,52,33,55, 4		3,48,48,28,15	
		1, 2, 5,55, 6, 1,53,31		4,32
8″	52, 9,44, 0, 5,36,58,35,48,35		3,48,48,32,47	
		1, 2, 5,51,17,13,20,44		4,32
10″	52, 9,45, 2,11,28,15,49, 9,19		3,48,48,37,19	
		1, 2, 5,47,28,24,43,25		4,32
12″	52, 9,46, 4,17,15,44,13,52,44		3,48,48,41,51	
		1, 2, 5,43,39,36, 1,34		4,32
14″	52, 9,47, 6,22,59,23,49,54,18		3,48,48,46,23	
		1, 2, 5,39,50,47,15,11		4,32
16″	52, 9,48, 8,28,39,14,37, 9,29		3,48,48,50,55	
		1, 2, 5,36, 1,58,24,16		4,32
18″	52, 9,49,10,34,15,16,35,33,45		3,48,48,55,27	
		1, 2, 5,32,13, 9,28,49		4,32
20″	52, 9,50,12,39,47,29,45, 2,34		3,48,48,59,59	
		1, 2, 5,28,24,20,28,50		4,32
22″	52, 9,51,14,45,15,54, 5,31,24		3,48,49, 4,31	
		1, 2, 5,24,35,31,24,19		4,32
24″	52, 9,52,16,50,40,29,36,55,43		3,48,49, 9, 3	
		1, 2, 5,20,46,42,15,16		4,32
26″	52, 9,53,18,56, 1,16,19,10,59		3,48,49,13,35	
		1, 2, 5,16,57,53, 1,41		4,32
28″	52, 9,54,21, 1,18,14,12,12,40		3,48,49,18, 7	
		1, 2, 5,13, 9, 3,43,34		4,32
30″	52, 9,55,23, 6,31,23,15,56,14		3,48,49,22,39	
		1, 2, 5, 9,20,14,20,55		4,32
32″	52, 9,56,25,11,40,43,30,17, 9		3,48,49,27,11	
		1, 2, 5, 5,31,24,53,44		4,32
34″	52, 9,57,27,16,46,14,55,10,53		3,48,49,31,43	
		1, 2, 5, 1,42,35,22, 1		4,32
36″	52, 9,58,29,21,47,57,30,32,54		3,48,49,36,15	
		1, 2, 4,57,53,45,45,46		4,32
38″	52, 9,59,31,26,45,51,16,18,40		3,48,49,40,47	
		1, 2, 4,54, 4,56, 4,59		4,32
40″	52,10, 0,33,31,39,56,12,23,39		3,48,49,45,19	
		1, 2, 4,50,16, 6,19,40		4,32
42″	52,10, 1,35,36,30,12,18,43,19		3,48,49,49,51	
		1, 2, 4,46,27,16,29,49		4,32
44″	52,10, 2,37,41,16,39,35,13, 8		3,48,49,54,23	
		1, 2, 4,42,38,26,35,26		4,32
46″	52,10, 3,39,45,59,18, 1,48,34		3,48,49,58,55	
		1, 2, 4,38,49,36,36,31		4,32
48″	52,10, 4,41,50,38, 7,38,25, 5		3,48,50, 3,27	
		1, 2, 4,35, 0,46,33, 4		4,32
50″	52,10, 5,43,55,13, 8,24,58, 9		3,48,50, 7,59	
		1, 2, 4,31,11,56,25, 5		4,32
52″	52,10, 6,45,59,44,20,21,23,14		3,48,50,12,31	
		1, 2, 4,27,23, 6,12,34		4,32
54″	52,10, 7,48, 4,11,43,27,35,48		3,48,50,17, 3	
		1, 2, 4,23,34,15,55,31		4,32
56″	52,10, 8,50, 8,35,17,43,31,19		3,48,50,21,35	
		1, 2, 4,19,45,25,33,56		4,32
58″	52,10, 9,52,12,55, 3, 9, 5,15		3,48,50,26, 7	
		1, 2, 4,15,56,35, 7,49		
60″	52,10,10,54,17,10,59,44,13, 4			
exact	52,10,10,54,17,10,59,43,47,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°24′ 0″	52,10,10,54,17,10,59,43,47,34			
		1, 2, 4,12, 7,44,34,32		
2″	52,10,11,56,21,23, 7,28,22, 6		3,48,50,35,21	
		1, 2, 4, 8,18,53,59,11		4,32
4″	52,10,12,58,25,31,26,22,21,17		3,48,50,39,53	
		1, 2, 4, 4,30, 3,19,18		4,32
6″	52,10,14, 0,29,35,56,25,40,35		3,48,50,44,25	
		1, 2, 4, 0,41,12,34,53		4,32
8″	52,10,15, 2,33,36,37,38,15,28		3,48,50,48,57	
		1, 2, 3,56,52,21,45,56		4,32
10″	52,10,16, 4,37,33,30, 0, 1,24		3,48,50,53,29	
		1, 2, 3,53, 3,30,52,27		4,32
12″	52,10,17, 6,41,26,33,30,53,51		3,48,50,58, 1	
		1, 2, 3,49,14,39,54,26		4,32
14″	52,10,18, 8,45,15,48,10,48,17		3,48,51, 2,33	
		1, 2, 3,45,25,48,51,53		4,32
16″	52,10,19,10,49, 1,13,59,40,10		3,48,51, 7, 5	
		1, 2, 3,41,36,57,44,48		4,32
18″	52,10,20,12,52,42,50,57,24,58		3,48,51,11,37	
		1, 2, 3,37,48, 6,33,11		4,32
20″	52,10,21,14,56,20,39, 3,58, 9		3,48,51,16, 9	
		1, 2, 3,33,59,15,17, 2		4,32
22″	52,10,22,16,59,54,38,19,15,11		3,48,51,20,41	
		1, 2, 3,30,10,23,56,21		4,32
24″	52,10,23,19, 3,24,48,43,11,32		3,48,51,25,13	
		1, 2, 3,26,21,32,31, 8		4,32
26″	52,10,24,21, 6,51,10,15,42,40		3,48,51,29,45	
		1, 2, 3,22,32,41, 1,23		4,32
28″	52,10,25,23,10,13,42,56,44, 3		3,48,51,34,17	
		1, 2, 3,18,43,49,27, 6		4,32
30″	52,10,26,25,13,32,26,46,11, 9		3,48,51,38,49	
		1, 2, 3,14,54,57,48,17		4,32
32″	52,10,27,27,16,47,21,43,59,26		3,48,51,43,21	
		1, 2, 3,11, 6, 6, 4,56		4,32
34″	52,10,28,29,19,58,27,50, 4,22		3,48,51,47,53	
		1, 2, 3, 7,17,14,17, 3		4,32
36″	52,10,29,31,23, 5,45, 4,21,25		3,48,51,52,25	
		1, 2, 3, 3,28,22,24,38		4,32
38″	52,10,30,33,26, 9,13,26,46, 3		3,48,51,56,57	
		1, 2, 2,59,39,30,27,41		4,32
40″	52,10,31,35,29, 8,52,57,13,44		3,48,52, 1,29	
		1, 2, 2,55,50,38,26,12		4,32
42″	52,10,32,37,32, 4,43,35,39,56		3,48,52, 6, 1	
		1, 2, 2,52, 1,46,20,11		4,32
44″	52,10,33,39,34,56,45,22, 0, 7		3,48,52,10,33	
		1, 2, 2,48,12,54, 9,38		4,32
46″	52,10,34,41,37,44,58,16, 9,45		3,48,52,15, 5	
		1, 2, 2,44,24, 1,54,33		4,32
48″	52,10,35,43,40,29,22,18, 4,18		3,48,52,19,37	
		1, 2, 2,40,35, 9,34,56		4,32
50″	52,10,36,45,43, 9,57,27,39,14		3,48,52,24, 9	
		1, 2, 2,36,46,17,10,47		4,32
52″	52,10,37,47,45,46,43,44,50, 1		3,48,52,28,41	
		1, 2, 2,32,57,24,42, 6		4,32
54″	52,10,38,49,48,19,41, 9,32, 7		3,48,52,33,13	
		1, 2, 2,29, 8,32, 8,53		4,32
56″	52,10,39,51,50,48,49,41,41, 0		3,48,52,37,45	
		1, 2, 2,25,19,39,31, 8		4,32
58″	52,10,40,53,53,14, 9,21,12, 8		3,48,52,42,17	
		1, 2, 2,21,30,46,48,51		
60″	52,10,41,55,55,35,40, 8, 0,59			
exact	52,10,41,55,55,35,40, 7,44,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°25′ 0″	52,10,41,55,55,35,40, 7,44,16			
		1, 2, 2,17,41,54, 0,22		
2″	52,10,42,57,57,53,22, 1,44,38		3,48,52,51,27	
		1, 2, 2,13,53, 1, 8,55		4,32
4″	52,10,44, 0, 0, 7,15, 2,53,33		3,48,52,55,59	
		1, 2, 2,10, 4, 8,12,56		4,32
6″	52,10,45, 2, 2,17,19,11, 6,29		3,48,53, 0,31	
		1, 2, 2, 6,15,15,12,25		4,32
8″	52,10,46, 4, 4,23,34,26,18,54		3,48,53, 5, 3	
		1, 2, 2, 2,26,22, 7,22		4,32
10″	52,10,47, 6, 6,26, 0,48,26,16		3,48,53, 9,35	
		1, 2, 1,58,37,28,57,47		4,32
12″	52,10,48, 8, 8,24,38,17,24, 3		3,48,53,14, 7	
		1, 2, 1,54,48,35,43,40		4,32
14″	52,10,49,10,10,19,26,53, 7,43		3,48,53,18,39	
		1, 2, 1,50,59,42,25, 1		4,32
16″	52,10,50,12,12,10,26,35,32,44		3,48,53,23,11	
		1, 2, 1,47,10,49, 1,50		4,32
18″	52,10,51,14,13,57,37,24,34,34		3,48,53,27,43	
		1, 2, 1,43,21,55,34, 7		4,32
20″	52,10,52,16,15,40,59,20, 8,41		3,48,53,32,15	
		1, 2, 1,39,33, 2, 1,52		4,32
22″	52,10,53,18,17,20,32,22,10,33		3,48,53,36,47	
		1, 2, 1,35,44, 8,25, 5		4,32
24″	52,10,54,20,18,56,16,30,35,38		3,48,53,41,19	
		1, 2, 1,31,55,14,43,46		4,32
26″	52,10,55,22,20,28,11,45,19,24		3,48,53,45,51	
		1, 2, 1,28, 6,20,57,55		4,32
28″	52,10,56,24,21,56,18, 6,17,19		3,48,53,50,23	
		1, 2, 1,24,17,27, 7,32		4,32
30″	52,10,57,26,23,20,35,33,24,51		3,48,53,54,55	
		1, 2, 1,20,28,33,12,37		4,32
32″	52,10,58,28,24,41, 4, 6,37,28		3,48,53,59,27	
		1, 2, 1,16,39,39,13,10		4,32
34″	52,10,59,30,25,57,43,45,50,38		3,48,54, 3,59	
		1, 2, 1,12,50,45, 9,11		4,32
36″	52,11, 0,32,27,10,34,30,59,49		3,48,54, 8,31	
		1, 2, 1, 9, 1,51, 0,40		4,32
38″	52,11, 1,34,28,19,36,22, 0,29		3,48,54,13, 3	
		1, 2, 1, 5,12,56,47,37		4,32
40″	52,11, 2,36,29,24,49,18,48, 6		3,48,54,17,35	
		1, 2, 1, 1,24, 2,30, 2		4,32
42″	52,11, 3,38,30,26,13,21,18, 8		3,48,54,22, 7	
		1, 2, 0,57,35, 8, 7,55		4,32
44″	52,11, 4,40,31,23,48,29,26, 3		3,48,54,26,39	
		1, 2, 0,53,46,13,41,16		4,32
46″	52,11, 5,42,32,17,34,43, 7,19		3,48,54,31,11	
		1, 2, 0,49,57,19,10, 5		4,32
48″	52,11, 6,44,33, 7,32, 2,17,24		3,48,54,35,43	
		1, 2, 0,46, 8,24,34,22		4,32
50″	52,11, 7,46,33,53,40,26,51,46		3,48,54,40,15	
		1, 2, 0,42,19,29,54, 7		4,32
52″	52,11, 8,48,34,35,59,56,45,53		3,48,54,44,47	
		1, 2, 0,38,30,35, 9,20		4,32
54″	52,11, 9,50,35,14,30,31,55,13		3,48,54,49,19	
		1, 2, 0,34,41,40,20, 1		4,32
56″	52,11,10,52,35,49,12,12,15,14		3,48,54,53,51	
		1, 2, 0,30,52,45,26,10		4,32
58″	52,11,11,54,36,20, 4,57,41,24		3,48,54,58,23	
		1, 2, 0,27, 3,50,27,47		
60″	52,11,12,56,36,47, 8,48, 9,11			
exact	52,11,12,56,36,47, 8,48, 2,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°26′ 0″	52,11,12,56,36,47, 8,48, 2,16			
		1, 2, 0,23,14,55,24,14		
2″	52,11,13,58,37,10,23,43,26,30		3,48,55, 7,29	
		1, 2, 0,19,26, 0,16,45		4,32
4″	52,11,15, 0,37,29,49,43,43,15		3,48,55,12, 1	
		1, 2, 0,15,37, 5, 4,44		4,32
6″	52,11,16, 2,37,45,26,48,47,59		3,48,55,16,33	
		1, 2, 0,11,48, 9,48,11		4,32
8″	52,11,17, 4,37,57,14,58,36,10		3,48,55,21, 5	
		1, 2, 0, 7,59,14,27, 6		4,32
10″	52,11,18, 6,38, 5,14,13, 3,16		3,48,55,25,37	
		1, 2, 0, 4,10,19, 1,29		4,32
12″	52,11,19, 8,38, 9,24,32, 4,45		3,48,55,30, 9	
		1, 2, 0, 0,21,23,31,20		4,32
14″	52,11,20,10,38, 9,45,55,36, 5		3,48,55,34,41	
		1, 1,59,56,32,27,56,39		4,32
16″	52,11,21,12,38, 6,18,23,32,44		3,48,55,39,13	
		1, 1,59,52,43,32,17,26		4,32
18″	52,11,22,14,37,59, 1,55,50,10		3,48,55,43,45	
		1, 1,59,48,54,36,33,41		4,32
20″	52,11,23,16,37,47,56,32,23,51		3,48,55,48,17	
		1, 1,59,45, 5,40,45,24		4,32
22″	52,11,24,18,37,33, 2,13, 9,15		3,48,55,52,49	
		1, 1,59,41,16,44,52,35		4,32
24″	52,11,25,20,37,14,18,58, 1,50		3,48,55,57,21	
		1, 1,59,37,27,48,55,14		4,32
26″	52,11,26,22,36,51,46,46,57, 4		3,48,56, 1,53	
		1, 1,59,33,38,52,53,21		4,32
28″	52,11,27,24,36,25,25,39,50,25		3,48,56, 6,25	
		1, 1,59,29,49,56,46,56		4,32
30″	52,11,28,26,35,55,15,36,37,21		3,48,56,10,57	
		1, 1,59,26, 1, 0,35,59		4,32
32″	52,11,29,28,35,21,16,37,13,20		3,48,56,15,29	
		1, 1,59,22,12, 4,20,30		4,32
34″	52,11,30,30,34,43,28,41,33,50		3,48,56,20, 1	
		1, 1,59,18,23, 8, 0,29		4,32
36″	52,11,31,32,34, 1,51,49,34,19		3,48,56,24,33	
		1, 1,59,14,34,11,35,56		4,32
38″	52,11,32,34,33,16,26, 1,10,15		3,48,56,29, 5	
		1, 1,59,10,45,15, 6,51		4,32
40″	52,11,33,36,32,27,11,16,17, 6		3,48,56,33,37	
		1, 1,59, 6,56,18,33,14		4,32
42″	52,11,34,38,31,34, 7,34,50,20		3,48,56,38, 9	
		1, 1,59, 3, 7,21,55, 5		4,32
44″	52,11,35,40,30,37,14,56,45,25		3,48,56,42,41	
		1, 1,58,59,18,25,12,24		4,32
46″	52,11,36,42,29,36,33,21,57,49		3,48,56,47,13	
		1, 1,58,55,29,28,25,11		4,32
48″	52,11,37,44,28,32, 2,50,23, 0		3,48,56,51,45	
		1, 1,58,51,40,31,33,26		4,32
50″	52,11,38,46,27,23,43,21,56,26		3,48,56,56,17	
		1, 1,58,47,51,34,37, 9		4,32
52″	52,11,39,48,26,11,34,56,33,35		3,48,57, 0,49	
		1, 1,58,44, 2,37,36,20		4,32
54″	52,11,40,50,24,55,37,34, 9,55		3,48,57, 5,21	
		1, 1,58,40,13,40,30,59		4,32
56″	52,11,41,52,23,35,51,14,40,54		3,48,57, 9,53	
		1, 1,58,36,24,43,21, 6		4,32
58″	52,11,42,54,22,12,15,58, 2, 0		3,48,57,14,25	
		1, 1,58,32,35,46, 6,41		
60″	52,11,43,56,20,44,51,44, 8,41			
exact	52,11,43,56,20,44,51,44,13,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°27′ 0″	52,11,43,56,20,44,51,44,13,17			
		1, 1,58,28,46,48,48,15		
2″	52,11,44,58,19,13,38,33, 1,32		3,48,57,23,26	
		1, 1,58,24,57,51,24,49		4,32
4″	52,11,46, 0,17,38,36,24,26,21		3,48,57,27,58	
		1, 1,58,21, 8,53,56,51		4,32
6″	52,11,47, 2,15,59,45,18,23,12		3,48,57,32,30	
		1, 1,58,17,19,56,24,21		4,32
8″	52,11,48, 4,14,17, 5,14,47,33		3,48,57,37, 2	
		1, 1,58,13,30,58,47,19		4,32
10″	52,11,49, 6,12,30,36,13,34,52		3,48,57,41,34	
		1, 1,58, 9,42, 1, 5,45		4,32
12″	52,11,50, 8,10,40,18,14,40,37		3,48,57,46, 6	
		1, 1,58, 5,53, 3,19,39		4,32
14″	52,11,51,10, 8,46,11,18, 0,16		3,48,57,50,38	
		1, 1,58, 2, 4, 5,29, 1		4,32
16″	52,11,52,12, 6,48,15,23,29,17		3,48,57,55,10	
		1, 1,57,58,15, 7,33,51		4,32
18″	52,11,53,14, 4,46,30,31, 3, 8		3,48,57,59,42	
		1, 1,57,54,26, 9,34, 9		4,32
20″	52,11,54,16, 2,40,56,40,37,17		3,48,58, 4,14	
		1, 1,57,50,37,11,29,55		4,32
22″	52,11,55,18, 0,31,33,52, 7,12		3,48,58, 8,46	
		1, 1,57,46,48,13,21, 9		4,32
24″	52,11,56,19,58,18,22, 5,28,21		3,48,58,13,18	
		1, 1,57,42,59,15, 7,51		4,32
26″	52,11,57,21,56, 1,21,20,36,12		3,48,58,17,50	
		1, 1,57,39,10,16,50, 1		4,32
28″	52,11,58,23,53,40,31,37,26,13		3,48,58,22,22	
		1, 1,57,35,21,18,27,39		4,32
30″	52,11,59,25,51,15,52,55,53,52		3,48,58,26,54	
		1, 1,57,31,32,20, 0,45		4,32
32″	52,12, 0,27,48,47,25,15,54,37		3,48,58,31,26	
		1, 1,57,27,43,21,29,19		4,32
34″	52,12, 1,29,46,15, 8,37,23,56		3,48,58,35,58	
		1, 1,57,23,54,22,53,21		4,32
36″	52,12, 2,31,43,39, 3, 0,17,17		3,48,58,40,30	
		1, 1,57,20, 5,24,12,51		4,32
38″	52,12, 3,33,40,59, 8,24,30, 8		3,48,58,45, 2	
		1, 1,57,16,16,25,27,49		4,32
40″	52,12, 4,35,38,15,24,49,57,57		3,48,58,49,34	
		1, 1,57,12,27,26,38,15		4,32
42″	52,12, 5,37,35,27,52,16,36,12		3,48,58,54, 6	
		1, 1,57, 8,38,27,44, 9		4,32
44″	52,12, 6,39,32,36,30,44,20,21		3,48,58,58,38	
		1, 1,57, 4,49,28,45,31		4,32
46″	52,12, 7,41,29,41,20,13, 5,52		3,48,59, 3,10	
		1, 1,57, 1, 0,29,42,21		4,32
48″	52,12, 8,43,26,42,20,42,48,13		3,48,59, 7,42	
		1, 1,56,57,11,30,34,39		4,32
50″	52,12, 9,45,23,39,32,13,22,52		3,48,59,12,14	
		1, 1,56,53,22,31,22,25		4,32
52″	52,12,10,47,20,32,54,44,45,17		3,48,59,16,46	
		1, 1,56,49,33,32, 5,39		4,32
54″	52,12,11,49,17,22,28,16,50,56		3,48,59,21,18	
		1, 1,56,45,44,32,44,21		4,32
56″	52,12,12,51,14, 8,12,49,35,17		3,48,59,25,50	
		1, 1,56,41,55,33,18,31		4,32
58″	52,12,13,53,10,50, 8,22,53,48		3,48,59,30,22	
		1, 1,56,38, 6,33,48, 9		
60″	52,12,14,55, 7,28,14,56,41,57			
exact	52,12,14,55, 7,28,14,56,51,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°28′ 0″	52,12,14,55, 7,28,14,56,51,49			
		1, 1,56,34,17,34,14,30		
2″	52,12,15,57, 4, 2,32,31, 6,19		3,48,59,39,20	
		1, 1,56,30,28,34,35,10		4,32
4″	52,12,16,59, 0,33, 1, 5,41,29		3,48,59,43,52	
		1, 1,56,26,39,34,51,18		4,32
6″	52,12,18, 0,56,59,40,40,32,47		3,48,59,48,24	
		1, 1,56,22,50,35, 2,54		4,32
8″	52,12,19, 2,53,22,31,15,35,41		3,48,59,52,56	
		1, 1,56,19, 1,35, 9,58		4,32
10″	52,12,20, 4,49,41,32,50,45,39		3,48,59,57,28	
		1, 1,56,15,12,35,12,30		4,32
12″	52,12,21, 6,45,56,45,25,58, 9		3,49, 0, 2, 0	
		1, 1,56,11,23,35,10,30		4,32
14″	52,12,22, 8,42, 8, 9, 1, 8,39		3,49, 0, 6,32	
		1, 1,56, 7,34,35, 3,58		4,32
16″	52,12,23,10,38,15,43,36,12,37		3,49, 0,11, 4	
		1, 1,56, 3,45,34,52,54		4,32
18″	52,12,24,12,34,19,29,11, 5,31		3,49, 0,15,36	
		1, 1,55,59,56,34,37,18		4,32
20″	52,12,25,14,30,19,25,45,42,49		3,49, 0,20, 8	
		1, 1,55,56, 7,34,17,10		4,32
22″	52,12,26,16,26,15,33,19,59,59		3,49, 0,24,40	
		1, 1,55,52,18,33,52,30		4,32
24″	52,12,27,18,22, 7,51,53,52,29		3,49, 0,29,12	
		1, 1,55,48,29,33,23,18		4,32
26″	52,12,28,20,17,56,21,27,15,47		3,49, 0,33,44	
		1, 1,55,44,40,32,49,34		4,32
28″	52,12,29,22,13,41, 2, 0, 5,21		3,49, 0,38,16	
		1, 1,55,40,51,32,11,18		4,32
30″	52,12,30,24, 9,21,53,32,16,39		3,49, 0,42,48	
		1, 1,55,37, 2,31,28,30		4,32
32″	52,12,31,26, 4,58,56, 3,45, 9		3,49, 0,47,20	
		1, 1,55,33,13,30,41,10		4,32
34″	52,12,32,28, 0,32, 9,34,26,19		3,49, 0,51,52	
		1, 1,55,29,24,29,49,18		4,32
36″	52,12,33,29,56, 1,34, 4,15,37		3,49, 0,56,24	
		1, 1,55,25,35,28,52,54		4,32
38″	52,12,34,31,51,27, 9,33, 8,31		3,49, 1, 0,56	
		1, 1,55,21,46,27,51,58		4,32
40″	52,12,35,33,46,48,56, 1, 0,29		3,49, 1, 5,28	
		1, 1,55,17,57,26,46,30		4,32
42″	52,12,36,35,42, 6,53,27,46,59		3,49, 1,10, 0	
		1, 1,55,14, 8,25,36,30		4,32
44″	52,12,37,37,37,21, 1,53,23,29		3,49, 1,14,32	
		1, 1,55,10,19,24,21,58		4,32
46″	52,12,38,39,32,31,21,17,45,27		3,49, 1,19, 4	
		1, 1,55, 6,30,23, 2,54		4,32
48″	52,12,39,41,27,37,51,40,48,21		3,49, 1,23,36	
		1, 1,55, 2,41,21,39,18		4,32
50″	52,12,40,43,22,40,33, 2,27,39		3,49, 1,28, 8	
		1, 1,54,58,52,20,11,10		4,32
52″	52,12,41,45,17,39,25,22,38,49		3,49, 1,32,40	
		1, 1,54,55, 3,18,38,30		4,32
54″	52,12,42,47,12,34,28,41,17,19		3,49, 1,37,12	
		1, 1,54,51,14,17, 1,18		4,32
56″	52,12,43,49, 7,25,42,58,18,37		3,49, 1,41,44	
		1, 1,54,47,25,15,19,34		4,32
58″	52,12,44,51, 2,13, 8,13,38,11		3,49, 1,46,16	
		1, 1,54,43,36,13,33,18		
60″	52,12,45,52,56,56,44,27,11,29			
exact	52,12,45,52,56,56,44,27,35, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°29′ 0″	52,12,45,52,56,56,44,27,35, 7			
		1, 1,54,39,47,11,45, 4		
2″	52,12,46,54,51,36,31,39,20,11		3,49, 1,55, 9	
		1, 1,54,35,58, 9,49,55		4,32
4″	52,12,47,56,46,12,29,49,10, 6		3,49, 1,59,41	
		1, 1,54,32, 9, 7,50,14		4,32
6″	52,12,48,58,40,44,38,57, 0,20		3,49, 2, 4,13	
		1, 1,54,28,20, 5,46, 1		4,32
8″	52,12,50, 0,35,12,59, 2,46,21		3,49, 2, 8,45	
		1, 1,54,24,31, 3,37,16		4,32
10″	52,12,51, 2,29,37,30, 6,23,37		3,49, 2,13,17	
		1, 1,54,20,42, 1,23,59		4,32
12″	52,12,52, 4,23,58,12, 7,47,36		3,49, 2,17,49	
		1, 1,54,16,52,59, 6,10		4,32
14″	52,12,53, 6,18,15, 5, 6,53,46		3,49, 2,22,21	
		1, 1,54,13, 3,56,43,49		4,32
16″	52,12,54, 8,12,28, 9, 3,37,35		3,49, 2,26,53	
		1, 1,54, 9,14,54,16,56		4,32
18″	52,12,55,10, 6,37,23,57,54,31		3,49, 2,31,25	
		1, 1,54, 5,25,51,45,31		4,32
20″	52,12,56,12, 0,42,49,49,40, 2		3,49, 2,35,57	
		1, 1,54, 1,36,49, 9,34		4,32
22″	52,12,57,13,54,44,26,38,49,36		3,49, 2,40,29	
		1, 1,53,57,47,46,29, 5		4,32
24″	52,12,58,15,48,42,14,25,18,41		3,49, 2,45, 1	
		1, 1,53,53,58,43,44, 4		4,32
26″	52,12,59,17,42,36,13, 9, 2,45		3,49, 2,49,33	
		1, 1,53,50, 9,40,54,31		4,32
28″	52,13, 0,19,36,26,22,49,57,16		3,49, 2,54, 5	
		1, 1,53,46,20,38, 0,26		4,32
30″	52,13, 1,21,30,12,43,27,57,42		3,49, 2,58,37	
		1, 1,53,42,31,35, 1,49		4,32
32″	52,13, 2,23,23,55,15, 2,59,31		3,49, 3, 3, 9	
		1, 1,53,38,42,31,58,40		4,32
34″	52,13, 3,25,17,33,57,34,58,11		3,49, 3, 7,41	
		1, 1,53,34,53,28,50,59		4,32
36″	52,13, 4,27,11, 8,51, 3,49,10		3,49, 3,12,13	
		1, 1,53,31, 4,25,38,46		4,32
38″	52,13, 5,29, 4,39,55,29,27,56		3,49, 3,16,45	
		1, 1,53,27,15,22,22, 1		4,32
40″	52,13, 6,30,58, 7,10,51,49,57		3,49, 3,21,17	
		1, 1,53,23,26,19, 0,44		4,32
42″	52,13, 7,32,51,30,37,10,50,41		3,49, 3,25,49	
		1, 1,53,19,37,15,34,55		4,32
44″	52,13, 8,34,44,50,14,26,25,36		3,49, 3,30,21	
		1, 1,53,15,48,12, 4,34		4,32
46″	52,13, 9,36,38, 6, 2,38,30,10		3,49, 3,34,53	
		1, 1,53,11,59, 8,29,41		4,32
48″	52,13,10,38,31,18, 1,46,59,51		3,49, 3,39,25	
		1, 1,53, 8,10, 4,50,16		4,32
50″	52,13,11,40,24,26,11,51,50, 7		3,49, 3,43,57	
		1, 1,53, 4,21, 1, 6,19		4,32
52″	52,13,12,42,17,30,32,52,56,26		3,49, 3,48,29	
		1, 1,53, 0,31,57,17,50		4,32
54″	52,13,13,44,10,31, 4,50,14,16		3,49, 3,53, 1	
		1, 1,52,56,42,53,24,49		4,32
56″	52,13,14,46, 3,27,47,43,39, 5		3,49, 3,57,33	
		1, 1,52,52,53,49,27,16		4,32
58″	52,13,15,47,56,20,41,33, 6,21		3,49, 4, 2, 5	
		1, 1,52,49, 4,45,25,11		
60″	52,13,16,49,49, 9,46,18,31,32			
exact	52,13,16,49,49, 9,46,19, 3,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°30′ 0″	52,13,16,49,49, 9,46,19, 3,15			
		1, 1,52,45,15,41,22, 3		
2″	52,13,17,51,41,55, 2, 0,25,18		3,49, 4,10,54	
		1, 1,52,41,26,37,11, 9		4,31
4″	52,13,18,53,34,36,28,37,36,27		3,49, 4,15,25	
		1, 1,52,37,37,32,55,44		4,31
6″	52,13,19,55,27,14, 6,10,32,11		3,49, 4,19,56	
		1, 1,52,33,48,28,35,48		4,31
8″	52,13,20,57,19,47,54,39, 7,59		3,49, 4,24,27	
		1, 1,52,29,59,24,11,21		4,31
10″	52,13,21,59,12,17,54, 3,19,20		3,49, 4,28,58	
		1, 1,52,26,10,19,42,23		4,31
12″	52,13,23, 1, 4,44, 4,23, 1,43		3,49, 4,33,29	
		1, 1,52,22,21,15, 8,54		4,31
14″	52,13,24, 2,57, 6,25,38,10,37		3,49, 4,38, 0	
		1, 1,52,18,32,10,30,54		4,31
16″	52,13,25, 4,49,24,57,48,41,31		3,49, 4,42,31	
		1, 1,52,14,43, 5,48,23		4,31
18″	52,13,26, 6,41,39,40,54,29,54		3,49, 4,47, 2	
		1, 1,52,10,54, 1, 1,21		4,31
20″	52,13,27, 8,33,50,34,55,31,15		3,49, 4,51,33	
		1, 1,52, 7, 4,56, 9,48		4,31
22″	52,13,28,10,25,57,39,51,41, 3		3,49, 4,56, 4	
		1, 1,52, 3,15,51,13,44		4,31
24″	52,13,29,12,18, 0,55,42,54,47		3,49, 5, 0,35	
		1, 1,51,59,26,46,13, 9		4,31
26″	52,13,30,14,10, 0,22,29, 7,56		3,49, 5, 5, 6	
		1, 1,51,55,37,41, 8, 3		4,31
28″	52,13,31,16, 1,56, 0,10,15,59		3,49, 5, 9,37	
		1, 1,51,51,48,35,58,26		4,31
30″	52,13,32,17,53,47,48,46,14,25		3,49, 5,14, 8	
		1, 1,51,47,59,30,44,18		4,31
32″	52,13,33,19,45,35,48,16,58,43		3,49, 5,18,39	
		1, 1,51,44,10,25,25,39		4,31
34″	52,13,34,21,37,19,58,42,24,22		3,49, 5,23,10	
		1, 1,51,40,21,20, 2,29		4,31
36″	52,13,35,23,29, 0,20, 2,26,51		3,49, 5,27,41	
		1, 1,51,36,32,14,34,48		4,31
38″	52,13,36,25,20,36,52,17, 1,39		3,49, 5,32,12	
		1, 1,51,32,43, 9, 2,36		4,31
40″	52,13,37,27,12, 9,35,26, 4,15		3,49, 5,36,43	
		1, 1,51,28,54, 3,25,53		4,31
42″	52,13,38,29, 3,38,29,29,30, 8		3,49, 5,41,14	
		1, 1,51,25, 4,57,44,39		4,31
44″	52,13,39,30,55, 3,34,27,14,47		3,49, 5,45,45	
		1, 1,51,21,15,51,58,54		4,31
46″	52,13,40,32,46,24,50,19,13,41		3,49, 5,50,16	
		1, 1,51,17,26,46, 8,38		4,31
48″	52,13,41,34,37,42,17, 5,22,19		3,49, 5,54,47	
		1, 1,51,13,37,40,13,51		4,31
50″	52,13,42,36,28,55,54,45,36,10		3,49, 5,59,18	
		1, 1,51, 9,48,34,14,33		4,31
52″	52,13,43,38,20, 5,43,19,50,43		3,49, 6, 3,49	
		1, 1,51, 5,59,28,10,44		4,31
54″	52,13,44,40,11,11,42,48, 1,27		3,49, 6, 8,20	
		1, 1,51, 2,10,22, 2,24		4,31
56″	52,13,45,42, 2,13,53,10, 3,51		3,49, 6,12,51	
		1, 1,50,58,21,15,49,33		4,31
58″	52,13,46,43,53,12,14,25,53,24		3,49, 6,17,22	
		1, 1,50,54,32, 9,32,11		
60″	52,13,47,45,44, 6,46,35,25,35			
exact	52,13,47,45,44, 6,46,34,59, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°31′ 0″	52,13,47,45,44, 6,46,34,59, 2			
		1, 1,50,50,43, 3, 7,32		
2″	52,13,48,47,34,57,29,38, 6,34		3,49, 6,26,35	
		1, 1,50,46,53,56,40,57		4,31
4″	52,13,49,49,25,44,23,34,47,31		3,49, 6,31, 6	
		1, 1,50,43, 4,50, 9,51		4,31
6″	52,13,50,51,16,27,28,24,57,22		3,49, 6,35,37	
		1, 1,50,39,15,43,34,14		4,31
8″	52,13,51,53, 7, 6,44, 8,31,36		3,49, 6,40, 8	
		1, 1,50,35,26,36,54, 6		4,31
10″	52,13,52,54,57,42,10,45,25,42		3,49, 6,44,39	
		1, 1,50,31,37,30, 9,27		4,31
12″	52,13,53,56,48,13,48,15,35, 9		3,49, 6,49,10	
		1, 1,50,27,48,23,20,17		4,31
14″	52,13,54,58,38,41,36,38,55,26		3,49, 6,53,41	
		1, 1,50,23,59,16,26,36		4,31
16″	52,13,56, 0,29, 5,35,55,22, 2		3,49, 6,58,12	
		1, 1,50,20,10, 9,28,24		4,31
18″	52,13,57, 2,19,25,46, 4,50,26		3,49, 7, 2,43	
		1, 1,50,16,21, 2,25,41		4,31
20″	52,13,58, 4, 9,42, 7, 7,16, 7		3,49, 7, 7,14	
		1, 1,50,12,31,55,18,27		4,31
22″	52,13,59, 5,59,54,39, 2,34,34		3,49, 7,11,45	
		1, 1,50, 8,42,48, 6,42		4,31
24″	52,14, 0, 7,50, 3,21,50,41,16		3,49, 7,16,16	
		1, 1,50, 4,53,40,50,26		4,31
26″	52,14, 1, 9,40, 8,15,31,31,42		3,49, 7,20,47	
		1, 1,50, 1, 4,33,29,39		4,31
28″	52,14, 2,11,30, 9,20, 5, 1,21		3,49, 7,25,18	
		1, 1,49,57,15,26, 4,21		4,31
30″	52,14, 3,13,20, 6,35,31, 5,42		3,49, 7,29,49	
		1, 1,49,53,26,18,34,32		4,31
32″	52,14, 4,15,10, 0, 1,49,40,14		3,49, 7,34,20	
		1, 1,49,49,37,11, 0,12		4,31
34″	52,14, 5,16,59,49,39, 0,40,26		3,49, 7,38,51	
		1, 1,49,45,48, 3,21,21		4,31
36″	52,14, 6,18,49,35,27, 4, 1,47		3,49, 7,43,22	
		1, 1,49,41,58,55,37,59		4,31
38″	52,14, 7,20,39,17,25,59,39,46		3,49, 7,47,53	
		1, 1,49,38, 9,47,50, 6		4,31
40″	52,14, 8,22,28,55,35,47,29,52		3,49, 7,52,24	
		1, 1,49,34,20,39,57,42		4,31
42″	52,14, 9,24,18,29,56,27,27,34		3,49, 7,56,55	
		1, 1,49,30,31,32, 0,47		4,31
44″	52,14,10,26, 8, 0,27,59,28,21		3,49, 8, 1,26	
		1, 1,49,26,42,23,59,21		4,31
46″	52,14,11,27,57,27,10,23,27,42		3,49, 8, 5,57	
		1, 1,49,22,53,15,53,24		4,31
48″	52,14,12,29,46,50, 3,39,21, 6		3,49, 8,10,28	
		1, 1,49,19, 4, 7,42,56		4,31
50″	52,14,13,31,36, 9, 7,47, 4, 2		3,49, 8,14,59	
		1, 1,49,15,14,59,27,57		4,31
52″	52,14,14,33,25,24,22,46,31,59		3,49, 8,19,30	
		1, 1,49,11,25,51, 8,27		4,31
54″	52,14,15,35,14,35,48,37,40,26		3,49, 8,24, 1	
		1, 1,49, 7,36,42,44,26		4,31
56″	52,14,16,37, 3,43,25,20,24,52		3,49, 8,28,32	
		1, 1,49, 3,47,34,15,54		4,31
58″	52,14,17,38,52,47,12,54,40,46		3,49, 8,33, 3	
		1, 1,48,59,58,25,42,51		
60″	52,14,18,40,41,47,11,20,23,37			
exact	52,14,18,40,41,47,11,20, 8, 6			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
60°32′	0″	52,14,18,40,41,47,11,20, 8, 6			
			1, 1,48,56, 9,17, 3,38		
	2″	52,14,19,42,30,43,20,37,11,44		3,49, 8,42,11	
			1, 1,48,52,20, 8,21,27		4,31
	4″	52,14,20,44,19,35,40,45,33,11		3,49, 8,46,42	
			1, 1,48,48,30,59,34,45		4,31
	6″	52,14,21,46, 8,24,11,45, 7,56		3,49, 8,51,13	
			1, 1,48,44,41,50,43,32		4,31
	8″	52,14,22,47,57, 8,53,35,51,28		3,49, 8,55,44	
			1, 1,48,40,52,41,47,48		4,31
	10″	52,14,23,49,45,49,46,17,39,16		3,49, 9, 0,15	
			1, 1,48,37, 3,32,47,33		4,31
	12″	52,14,24,51,34,26,49,50,26,49		3,49, 9, 4,46	
			1, 1,48,33,14,23,42,47		4,31
	14″	52,14,25,53,23, 0, 4,14, 9,36		3,49, 9, 9,17	
			1, 1,48,29,25,14,33,30		4,31
	16″	52,14,26,55,11,29,29,28,43, 6		3,49, 9,13,48	
			1, 1,48,25,36, 5,19,42		4,31
	18″	52,14,27,56,59,55, 5,34, 2,48		3,49, 9,18,19	
			1, 1,48,21,46,56, 1,23		4,31
	20″	52,14,28,58,48,16,52,30, 4,11		3,49, 9,22,50	
			1, 1,48,17,57,46,38,33		4,31
	22″	52,14,30, 0,36,34,50,16,42,44		3,49, 9,27,21	
			1, 1,48,14, 8,37,11,12		4,31
	24″	52,14,31, 2,24,48,58,53,53,56		3,49, 9,31,52	
			1, 1,48,10,19,27,39,20		4,31
	26″	52,14,32, 4,12,59,18,21,33,16		3,49, 9,36,23	
			1, 1,48, 6,30,18, 2,57		4,31
	28″	52,14,33, 6, 1, 5,48,39,36,13		3,49, 9,40,54	
			1, 1,48, 2,41, 8,22, 3		4,31
	30″	52,14,34, 7,49, 8,29,47,58,16		3,49, 9,45,25	
			1, 1,47,58,51,58,36,38		4,31
	32″	52,14,35, 9,37, 7,21,46,34,54		3,49, 9,49,56	
			1, 1,47,55, 2,48,46,42		4,31
	34″	52,14,36,11,25, 2,24,35,21,36		3,49, 9,54,27	
			1, 1,47,51,13,38,52,15		4,31
	36″	52,14,37,13,12,53,38,14,13,51		3,49, 9,58,58	
			1, 1,47,47,24,28,53,17		4,31
	38″	52,14,38,15, 0,41, 2,43, 7, 8		3,49,10, 3,29	
			1, 1,47,43,35,18,49,48		4,31
	40″	52,14,39,16,48,24,38, 1,56,56		3,49,10, 8, 0	
			1, 1,47,39,46, 8,41,48		4,31
	42″	52,14,40,18,36, 4,24,10,38,44		3,49,10,12,31	
			1, 1,47,35,56,58,29,17		4,31
	44″	52,14,41,20,23,40,21, 9, 8, 1		3,49,10,17, 2	
			1, 1,47,32, 7,48,12,15		4,31
	46″	52,14,42,22,11,12,28,57,20,16		3,49,10,21,33	
			1, 1,47,28,18,37,50,42		4,31
	48″	52,14,43,23,58,40,47,35,10,58		3,49,10,26, 4	
			1, 1,47,24,29,27,24,38		4,31
	50″	52,14,44,25,46, 5,17, 2,35,36		3,49,10,30,35	
			1, 1,47,20,40,16,54, 3		4,31
	52″	52,14,45,27,33,25,57,19,29,39		3,49,10,35, 6	
			1, 1,47,16,51, 6,18,57		4,31
	54″	52,14,46,29,20,42,48,25,48,36		3,49,10,39,37	
			1, 1,47,13, 1,55,39,20		4,31
	56″	52,14,47,31, 7,55,50,21,27,56		3,49,10,44, 8	
			1, 1,47, 9,12,44,55,12		4,31
	58″	52,14,48,32,55, 5, 3, 6,23, 8		3,49,10,48,39	
			1, 1,47, 5,23,34, 6,33		
	60″	52,14,49,34,42,10,26,40,29,41			
exact		52,14,49,34,42,10,26,40,18,55			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
60°33′	0″	52,14,49,34,42,10,26,40,18,55			
	2″	52,14,50,36,29,12, 1, 3,31,20	1, 1,47, 1,34,23,12,25	3,49,10,57,44	
	4″	52,14,51,38,16, 9,46,15,46, 1	1, 1,46,57,45,12,14,41	3,49,11, 2,15	4,31
	6″	52,14,52,40, 3, 3,42,16,58,27	1, 1,46,53,56, 1,12,26	3,49,11, 6,46	4,31
	8″	52,14,53,41,49,53,49, 7, 4, 7	1, 1,46,50, 6,50, 5,40	3,49,11,11,17	4,31
	10″	52,14,54,43,36,40, 6,45,58,30	1, 1,46,46,17,38,54,23	3,49,11,15,48	4,31
	12″	52,14,55,45,23,22,35,13,37, 5	1, 1,46,42,28,27,38,35	3,49,11,20,19	4,31
	14″	52,14,56,47,10, 1,14,29,55,21	1, 1,46,38,39,16,18,16	3,49,11,24,50	4,31
	16″	52,14,57,48,56,36, 4,34,48,47	1, 1,46,34,50, 4,53,26	3,49,11,29,21	4,31
	18″	52,14,58,50,43, 7, 5,28,12,52	1, 1,46,31, 0,53,24, 5	3,49,11,33,52	4,31
	20″	52,14,59,52,29,34,17,10, 3, 5	1, 1,46,27,11,41,50,13	3,49,11,38,23	4,31
	22″	52,15, 0,54,15,57,39,40,14,55	1, 1,46,23,22,30,11,50	3,49,11,42,54	4,31
	24″	52,15, 1,56, 2,17,12,58,43,51	1, 1,46,19,33,18,28,56	3,49,11,47,25	4,31
	26″	52,15, 2,57,48,32,57, 5,25,22	1, 1,46,15,44, 6,41,31	3,49,11,51,56	4,31
	28″	52,15, 3,59,34,44,52, 0,14,57	1, 1,46,11,54,54,49,35	3,49,11,56,27	4,31
	30″	52,15, 5, 1,20,52,57,43, 8, 5	1, 1,46, 8, 5,42,53, 8	3,49,12, 0,58	4,31
	32″	52,15, 6, 3, 6,57,14,14, 0,15	1, 1,46, 4,16,30,52,10	3,49,12, 5,29	4,31
	34″	52,15, 7, 4,52,57,41,32,46,56	1, 1,46, 0,27,18,46,41	3,49,12,10, 0	4,31
	36″	52,15, 8, 6,38,54,19,39,23,37	1, 1,45,56,38, 6,36,41	3,49,12,14,31	4,31
	38″	52,15, 9, 8,24,47, 8,33,45,47	1, 1,45,52,48,54,22,10	3,49,12,19, 2	4,31
	40″	52,15,10,10,10,36, 8,15,48,55	1, 1,45,48,59,42, 3, 8	3,49,12,23,33	4,31
	42″	52,15,11,11,56,21,18,45,28,30	1, 1,45,45,10,29,39,35	3,49,12,28, 4	4,31
	44″	52,15,12,13,42, 2,40, 2,40, 1	1, 1,45,41,21,17,11,31	3,49,12,32,35	4,31
	46″	52,15,13,15,27,40,12, 7,18,57	1, 1,45,37,32, 4,38,56	3,49,12,37, 6	4,31
	48″	52,15,14,17,13,13,54,59,20,47	1, 1,45,33,42,52, 1,50	3,49,12,41,37	4,31
	50″	52,15,15,18,58,43,48,38,41, 0	1, 1,45,29,53,39,20,13	3,49,12,46, 8	4,31
	52″	52,15,16,20,44, 9,53, 5,15, 5	1, 1,45,26, 4,26,34, 5	3,49,12,50,39	4,31
	54″	52,15,17,22,29,32, 8,18,58,31	1, 1,45,22,15,13,43,26	3,49,12,55,10	4,31
	56″	52,15,18,24,14,50,34,19,46,47	1, 1,45,18,26, 0,48,16	3,49,12,59,41	4,31
	58″	52,15,19,26, 0, 5,11, 7,35,22	1, 1,45,14,36,47,48,35	3,49,13, 4,12	
	60″	52,15,20,27,45,15,58,42,19,45	1, 1,45,10,47,34,44,23		
	exact	52,15,20,27,45,15,58,42,22,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°34′ 0″	52,15,20,27,45,15,58,42,22,43			
		1, 1,45, 6,58,21,36, 0		
2″	52,15,21,29,30,22,57, 3,58,43		3,49,13,13,12	
		1, 1,45, 3, 9, 8,22,48		4,31
4″	52,15,22,31,15,26, 6,12,21,31		3,49,13,17,43	
		1, 1,44,59,19,55, 5, 5		4,31
6″	52,15,23,33, 0,25,26, 7,26,36		3,49,13,22,14	
		1, 1,44,55,30,41,42,51		4,31
8″	52,15,24,34,45,20,56,49, 9,27		3,49,13,26,45	
		1, 1,44,51,41,28,16, 6		4,31
10″	52,15,25,36,30,12,38,17,25,33		3,49,13,31,16	
		1, 1,44,47,52,14,44,50		4,31
12″	52,15,26,38,15, 0,30,32,10,23		3,49,13,35,47	
		1, 1,44,44, 3, 1, 9, 3		4,31
14″	52,15,27,39,59,44,33,33,19,26		3,49,13,40,18	
		1, 1,44,40,13,47,28,45		4,31
16″	52,15,28,41,44,24,47,20,48,11		3,49,13,44,49	
		1, 1,44,36,24,33,43,56		4,31
18″	52,15,29,43,29, 1,11,54,32, 7		3,49,13,49,20	
		1, 1,44,32,35,19,54,36		4,31
20″	52,15,30,45,13,33,47,14,26,43		3,49,13,53,51	
		1, 1,44,28,46, 6, 0,45		4,31
22″	52,15,31,46,58, 2,33,20,27,28		3,49,13,58,22	
		1, 1,44,24,56,52, 2,23		4,31
24″	52,15,32,48,42,27,30,12,29,51		3,49,14, 2,53	
		1, 1,44,21, 7,37,59,30		4,31
26″	52,15,33,50,26,48,37,50,29,21		3,49,14, 7,24	
		1, 1,44,17,18,23,52, 6		4,31
28″	52,15,34,52,11, 5,56,14,21,27		3,49,14,11,55	
		1, 1,44,13,29, 9,40,11		4,31
30″	52,15,35,53,55,19,25,24, 1,38		3,49,14,16,26	
		1, 1,44, 9,39,55,23,45		4,31
32″	52,15,36,55,39,29, 5,19,25,23		3,49,14,20,57	
		1, 1,44, 5,50,41, 2,48		4,31
34″	52,15,37,57,23,34,56, 0,28,11		3,49,14,25,28	
		1, 1,44, 2, 1,26,37,20		4,31
36″	52,15,38,59, 7,36,57,27, 5,31		3,49,14,29,59	
		1, 1,43,58,12,12, 7,21		4,31
38″	52,15,40, 0,51,35, 9,39,12,52		3,49,14,34,30	
		1, 1,43,54,22,57,32,51		4,31
40″	52,15,41, 2,35,29,32,36,45,43		3,49,14,39, 1	
		1, 1,43,50,33,42,53,50		4,31
42″	52,15,42, 4,19,20, 6,19,39,33		3,49,14,43,32	
		1, 1,43,46,44,28,10,18		4,31
44″	52,15,43, 6, 3, 6,50,47,49,51		3,49,14,48, 3	
		1, 1,43,42,55,13,22,15		4,31
46″	52,15,44, 7,46,49,46, 1,12, 6		3,49,14,52,34	
		1, 1,43,39, 5,58,29,41		4,31
48″	52,15,45, 9,30,28,51,59,41,47		3,49,14,57, 5	
		1, 1,43,35,16,43,32,36		4,31
50″	52,15,46,11,14, 4, 8,43,14,23		3,49,15, 1,36	
		1, 1,43,31,27,28,31, 0		4,31
52″	52,15,47,12,57,35,36,11,45,23		3,49,15, 6, 7	
		1, 1,43,27,38,13,24,53		4,31
54″	52,15,48,14,41, 3,14,25,10,16		3,49,15,10,38	
		1, 1,43,23,48,58,14,15		4,31
56″	52,15,49,16,24,27, 3,23,24,31		3,49,15,15, 9	
		1, 1,43,19,59,42,59, 6		4,31
58″	52,15,50,18, 7,47, 3, 6,23,37		3,49,15,19,40	
		1, 1,43,16,10,27,39,26		
60″	52,15,51,19,51, 3,13,34, 3, 3			
exact	52,15,51,19,51, 3,13,34,13,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°35′ 0″	52,15,51,19,51, 3,13,34,13,37			
		1, 1,43,12,21,12,16,29		
2″	52,15,52,21,34,15,34,46,30, 6		3,49,15,28,36	
		1, 1,43, 8,31,56,47,53		4,31
4″	52,15,53,23,17,24, 6,43,17,59		3,49,15,33, 7	
		1, 1,43, 4,42,41,14,46		4,31
6″	52,15,54,25, 0,28,49,24,32,45		3,49,15,37,38	
		1, 1,43, 0,53,25,37, 8		4,31
8″	52,15,55,26,43,29,42,50, 9,53		3,49,15,42, 9	
		1, 1,42,57, 4, 9,54,59		4,31
10″	52,15,56,28,26,26,47, 0, 4,52		3,49,15,46,40	
		1, 1,42,53,14,54, 8,19		4,31
12″	52,15,57,30, 9,20, 1,54,13,11		3,49,15,51,11	
		1, 1,42,49,25,38,17, 8		4,31
14″	52,15,58,31,52, 9,27,32,30,19		3,49,15,55,42	
		1, 1,42,45,36,22,21,26		4,31
16″	52,15,59,33,34,55, 3,54,51,45		3,49,16, 0,13	
		1, 1,42,41,47, 6,21,13		4,31
18″	52,16, 0,35,17,36,51, 1,12,58		3,49,16, 4,44	
		1, 1,42,37,57,50,16,29		4,31
20″	52,16, 1,37, 0,14,48,51,29,27		3,49,16, 9,15	
		1, 1,42,34, 8,34, 7,14		4,31
22″	52,16, 2,38,42,48,57,25,36,41		3,49,16,13,46	
		1, 1,42,30,19,17,53,28		4,31
24″	52,16, 3,40,25,19,16,43,30, 9		3,49,16,18,17	
		1, 1,42,26,30, 1,35,11		4,31
26″	52,16, 4,42, 7,45,46,45, 5,20		3,49,16,22,48	
		1, 1,42,22,40,45,12,23		4,31
28″	52,16, 5,43,50, 8,27,30,17,43		3,49,16,27,19	
		1, 1,42,18,51,28,45, 4		4,31
30″	52,16, 6,45,32,27,18,59, 2,47		3,49,16,31,50	
		1, 1,42,15, 2,12,13,14		4,31
32″	52,16, 7,47,14,42,21,11,16, 1		3,49,16,36,21	
		1, 1,42,11,12,55,36,53		4,31
34″	52,16, 8,48,56,53,34, 6,52,54		3,49,16,40,52	
		1, 1,42, 7,23,38,56, 1		4,31
36″	52,16, 9,50,39, 0,57,45,48,55		3,49,16,45,23	
		1, 1,42, 3,34,22,10,38		4,31
38″	52,16,10,52,21, 4,32, 7,59,33		3,49,16,49,54	
		1, 1,41,59,45, 5,20,44		4,31
40″	52,16,11,54, 3, 4,17,13,20,17		3,49,16,54,25	
		1, 1,41,55,55,48,26,19		4,31
42″	52,16,12,55,45, 0,13, 1,46,36		3,49,16,58,56	
		1, 1,41,52, 6,31,27,23		4,31
44″	52,16,13,57,26,52,19,33,13,59		3,49,17, 3,27	
		1, 1,41,48,17,14,23,56		4,31
46″	52,16,14,59, 8,40,36,47,37,55		3,49,17, 7,58	
		1, 1,41,44,27,57,15,58		4,31
48″	52,16,16, 0,50,25, 4,44,53,53		3,49,17,12,29	
		1, 1,41,40,38,40, 3,29		4,31
50″	52,16,17, 2,32, 5,43,24,57,22		3,49,17,17, 0	
		1, 1,41,36,49,22,46,29		4,31
52″	52,16,18, 4,13,42,32,47,43,51		3,49,17,21,31	
		1, 1,41,33, 0, 5,24,58		4,31
54″	52,16,19, 5,55,15,32,53, 8,49		3,49,17,26, 2	
		1, 1,41,29,10,47,58,56		4,31
56″	52,16,20, 7,36,44,43,41, 7,45		3,49,17,30,33	
		1, 1,41,25,21,30,28,23		4,31
58″	52,16,21, 9,18,10, 5,11,36, 8		3,49,17,35, 4	
		1, 1,41,21,32,12,53,19		
60″	52,16,22,10,59,31,37,24,29,27			
exact	52,16,22,10,59,31,37,24,48,33			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
60°36′	0″	52,16,22,10,59,31,37,24,48,33			
	2″	52,16,23,12,40,49,20,20, 4,28	1, 1,41,17,42,55,15,55	3,49,17,43,56	
	4″	52,16,24,14,22, 3,13,57,36,27	1, 1,41,13,53,37,31,59	3,49,17,48,27	4,31
	6″	52,16,25,16, 3,13,18,17,19,59	1, 1,41,10, 4,19,43,32	3,49,17,52,58	4,31
	8″	52,16,26,17,44,19,33,19,10,33	1, 1,41, 6,15, 1,50,34	3,49,17,57,29	4,31
	10″	52,16,27,19,25,21,59, 3, 3,38	1, 1,41, 2,25,43,53, 5	3,49,18, 2, 0	4,31
	12″	52,16,28,21, 6,20,35,28,54,43	1, 1,40,58,36,25,51, 5	3,49,18, 6,31	4,31
	14″	52,16,29,22,47,15,22,36,39,17	1, 1,40,54,47, 7,44,34	3,49,18,11, 2	4,31
	16″	52,16,30,24,28, 6,20,26,12,49	1, 1,40,50,57,49,33,32	3,49,18,15,33	4,31
	18″	52,16,31,26, 8,53,28,57,30,48	1, 1,40,47, 8,31,17,59	3,49,18,20, 4	4,31
	20″	52,16,32,27,49,36,48,10,28,43	1, 1,40,43,19,12,57,55	3,49,18,24,35	4,31
	22″	52,16,33,29,30,16,18, 5, 2, 3	1, 1,40,39,29,54,33,20	3,49,18,29, 6	4,31
	24″	52,16,34,31,10,51,58,41, 6,17	1, 1,40,35,40,36, 4,14	3,49,18,33,37	4,31
	26″	52,16,35,32,51,23,49,58,36,54	1, 1,40,31,51,17,30,37	3,49,18,38, 8	4,31
	28″	52,16,36,34,31,51,51,57,29,23	1, 1,40,28, 1,58,52,29	3,49,18,42,39	4,31
	30″	52,16,37,36,12,16, 4,37,39,13	1, 1,40,24,12,40, 9,50	3,49,18,47,10	4,31
	32″	52,16,38,37,52,36,27,59, 1,53	1, 1,40,20,23,21,22,40	3,49,18,51,41	4,31
	34″	52,16,39,39,32,53, 2, 1,32,52	1, 1,40,16,34, 2,30,59	3,49,18,56,12	4,31
	36″	52,16,40,41,13, 5,46,45, 7,39	1, 1,40,12,44,43,34,47	3,49,19, 0,43	4,31
	38″	52,16,41,42,53,14,42, 9,41,43	1, 1,40, 8,55,24,34, 4	3,49,19, 5,14	4,31
	40″	52,16,42,44,33,19,48,15,10,33	1, 1,40, 5, 6, 5,28,50	3,49,19, 9,45	4,31
	42″	52,16,43,46,13,21, 5, 1,29,38	1, 1,40, 1,16,46,19, 5	3,49,19,14,16	4,31
	44″	52,16,44,47,53,18,32,28,34,27	1, 1,39,57,27,27, 4,49	3,49,19,18,47	4,31
	46″	52,16,45,49,33,12,10,36,20,29	1, 1,39,53,38, 7,46, 2	3,49,19,23,18	4,31
	48″	52,16,46,51,13, 1,59,24,43,13	1, 1,39,49,48,48,22,44	3,49,19,27,49	4,31
	50″	52,16,47,52,52,47,58,53,38, 8	1, 1,39,45,59,28,54,55	3,49,19,32,20	4,31
	52″	52,16,48,54,32,30, 9, 3, 0,43	1, 1,39,42,10, 9,22,35	3,49,19,36,51	4,31
	54″	52,16,49,56,12, 8,29,52,46,27	1, 1,39,38,20,49,45,44	3,49,19,41,22	4,31
	56″	52,16,50,57,51,43, 1,22,50,49	1, 1,39,34,31,30, 4,22	3,49,19,45,53	4,31
	58″	52,16,51,59,31,13,43,33, 9,18	1, 1,39,30,42,10,18,29	3,49,19,50,24	
	60″	52,16,53, 1,10,40,36,23,37,23	1, 1,39,26,52,50,28, 5		
	exact	52,16,53, 1,10,40,36,24, 7,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°37′ 0″	52,16,53, 1,10,40,36,24, 7,18			
		1, 1,39,23, 3,30,36,27		
2″	52,16,54, 2,50, 3,39,54,43,45		3,49,19,59,12	
		1, 1,39,19,14,10,37,15		4,30
4″	52,16,55, 4,29,22,54, 5,21, 0		3,49,20, 3,42	
		1, 1,39,15,24,50,33,33		4,30
6″	52,16,56, 6, 8,38,18,55,54,33		3,49,20, 8,12	
		1, 1,39,11,35,30,25,21		4,30
8″	52,16,57, 7,47,49,54,26,19,54		3,49,20,12,42	
		1, 1,39, 7,46,10,12,39		4,30
10″	52,16,58, 9,26,57,40,36,32,33		3,49,20,17,12	
		1, 1,39, 3,56,49,55,27		4,30
12″	52,16,59,11, 6, 1,37,26,28, 0		3,49,20,21,42	
		1, 1,39, 0, 7,29,33,45		4,30
14″	52,17, 0,12,45, 1,44,56, 1,45		3,49,20,26,12	
		1, 1,38,56,18, 9, 7,33		4,30
16″	52,17, 1,14,23,58, 3, 5, 9,18		3,49,20,30,42	
		1, 1,38,52,28,48,36,51		4,30
18″	52,17, 2,16, 2,50,31,53,46, 9		3,49,20,35,12	
		1, 1,38,48,39,28, 1,39		4,30
20″	52,17, 3,17,41,39,11,21,47,48		3,49,20,39,42	
		1, 1,38,44,50, 7,21,57		4,30
22″	52,17, 4,19,20,24, 1,29, 9,45		3,49,20,44,12	
		1, 1,38,41, 0,46,37,45		4,30
24″	52,17, 5,20,59, 5, 2,15,47,30		3,49,20,48,42	
		1, 1,38,37,11,25,49, 3		4,30
26″	52,17, 6,22,37,42,13,41,36,33		3,49,20,53,12	
		1, 1,38,33,22, 4,55,51		4,30
28″	52,17, 7,24,16,15,35,46,32,24		3,49,20,57,42	
		1, 1,38,29,32,43,58, 9		4,30
30″	52,17, 8,25,54,45, 8,30,30,33		3,49,21, 2,12	
		1, 1,38,25,43,22,55,57		4,30
32″	52,17, 9,27,33,10,51,53,26,30		3,49,21, 6,42	
		1, 1,38,21,54, 1,49,15		4,30
34″	52,17,10,29,11,32,45,55,15,45		3,49,21,11,12	
		1, 1,38,18, 4,40,38, 3		4,30
36″	52,17,11,30,49,50,50,35,53,48		3,49,21,15,42	
		1, 1,38,14,15,19,22,21		4,30
38″	52,17,12,32,28, 5, 5,55,16, 9		3,49,21,20,12	
		1, 1,38,10,25,58, 2, 9		4,30
40″	52,17,13,34, 6,15,31,53,18,18		3,49,21,24,42	
		1, 1,38, 6,36,36,37,27		4,30
42″	52,17,14,35,44,22, 8,29,55,45		3,49,21,29,12	
		1, 1,38, 2,47,15, 8,15		4,30
44″	52,17,15,37,22,24,55,45, 4, 0		3,49,21,33,42	
		1, 1,37,58,57,53,34,33		4,30
46″	52,17,16,39, 0,23,53,38,38,33		3,49,21,38,12	
		1, 1,37,55, 8,31,56,21		4,30
48″	52,17,17,40,38,19, 2,10,34,54		3,49,21,42,42	
		1, 1,37,51,19,10,13,39		4,30
50″	52,17,18,42,16,10,21,20,48,33		3,49,21,47,12	
		1, 1,37,47,29,48,26,27		4,30
52″	52,17,19,43,53,57,51, 9,15, 0		3,49,21,51,42	
		1, 1,37,43,40,26,34,45		4,30
54″	52,17,20,45,31,41,31,35,49,45		3,49,21,56,12	
		1, 1,37,39,51, 4,38,33		4,30
56″	52,17,21,47, 9,21,22,40,28,18		3,49,22, 0,42	
		1, 1,37,36, 1,42,37,51		4,30
58″	52,17,22,48,46,57,24,23, 6, 9		3,49,22, 5,12	
		1, 1,37,32,12,20,32,39		
60″	52,17,23,50,24,29,36,43,38,48			
exact	52,17,23,50,24,29,36,43,12,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°38′ 0″	52,17,23,50,24,29,36,43,12,32			
		1, 1,37,28,22,58,20, 9		
2″	52,17,24,52, 1,57,59,41,32,41		3,49,22,14,23	
		1, 1,37,24,33,36, 5,46		4,30
4″	52,17,25,53,39,22,33,17,38,27		3,49,22,18,53	
		1, 1,37,20,44,13,46,53		4,30
6″	52,17,26,55,16,43,17,31,25,20		3,49,22,23,23	
		1, 1,37,16,54,51,23,30		4,30
8″	52,17,27,56,54, 0,12,22,48,50		3,49,22,27,53	
		1, 1,37,13, 5,28,55,37		4,30
10″	52,17,28,58,31,13,17,51,44,27		3,49,22,32,23	
		1, 1,37, 9,16, 6,23,14		4,30
12″	52,17,30, 0, 8,22,33,58, 7,41		3,49,22,36,53	
		1, 1,37, 5,26,43,46,21		4,30
14″	52,17,31, 1,45,28, 0,41,54, 2		3,49,22,41,23	
		1, 1,37, 1,37,21, 4,58		4,30
16″	52,17,32, 3,22,29,38, 2,59, 0		3,49,22,45,53	
		1, 1,36,57,47,58,19, 5		4,30
18″	52,17,33, 4,59,27,26, 1,18, 5		3,49,22,50,23	
		1, 1,36,53,58,35,28,42		4,30
20″	52,17,34, 6,36,21,24,36,46,47		3,49,22,54,53	
		1, 1,36,50, 9,12,33,49		4,30
22″	52,17,35, 8,13,11,33,49,20,36		3,49,22,59,23	
		1, 1,36,46,19,49,34,26		4,30
24″	52,17,36, 9,49,57,53,38,55, 2		3,49,23, 3,53	
		1, 1,36,42,30,26,30,33		4,30
26″	52,17,37,11,26,40,24, 5,25,35		3,49,23, 8,23	
		1, 1,36,38,41, 3,22,10		4,30
28″	52,17,38,13, 3,19, 5, 8,47,45		3,49,23,12,53	
		1, 1,36,34,51,40, 9,17		4,30
30″	52,17,39,14,39,53,56,48,57, 2		3,49,23,17,23	
		1, 1,36,31, 2,16,51,54		4,30
32″	52,17,40,16,16,24,59, 5,48,56		3,49,23,21,53	
		1, 1,36,27,12,53,30, 1		4,30
34″	52,17,41,17,52,52,11,59,18,57		3,49,23,26,23	
		1, 1,36,23,23,30, 3,38		4,30
36″	52,17,42,19,29,15,35,29,22,35		3,49,23,30,53	
		1, 1,36,19,34, 6,32,45		4,30
38″	52,17,43,21, 5,35, 9,35,55,20		3,49,23,35,23	
		1, 1,36,15,44,42,57,22		4,30
40″	52,17,44,22,41,50,54,18,52,42		3,49,23,39,53	
		1, 1,36,11,55,19,17,29		4,30
42″	52,17,45,24,18, 2,49,38,10,11		3,49,23,44,23	
		1, 1,36, 8, 5,55,33, 6		4,30
44″	52,17,46,25,54,10,55,33,43,17		3,49,23,48,53	
		1, 1,36, 4,16,31,44,13		4,30
46″	52,17,47,27,30,15,12, 5,27,30		3,49,23,53,23	
		1, 1,36, 0,27, 7,50,50		4,30
48″	52,17,48,29, 6,15,39,13,18,20		3,49,23,57,53	
		1, 1,35,56,37,43,52,57		4,30
50″	52,17,49,30,42,12,16,57,11,17		3,49,24, 2,23	
		1, 1,35,52,48,19,50,34		4,30
52″	52,17,50,32,18, 5, 5,17, 1,51		3,49,24, 6,53	
		1, 1,35,48,58,55,43,41		4,30
54″	52,17,51,33,53,54, 4,12,45,32		3,49,24,11,23	
		1, 1,35,45, 9,31,32,18		4,30
56″	52,17,52,35,29,39,13,44,17,50		3,49,24,15,53	
		1, 1,35,41,20, 7,16,25		4,30
58″	52,17,53,37, 5,20,33,51,34,15		3,49,24,20,23	
		1, 1,35,37,30,42,56, 2		
60″	52,17,54,38,40,58, 4,34,30,17			
exact	52,17,54,38,40,58, 4,34, 9,46			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
60°39′	0″	52,17,54,38,40,58, 4,34, 9,46			
	2″	52,17,55,40,16,31,45,52,38,52	1, 1,35,33,41,18,29, 6	3,49,24,29,30	
	4″	52,17,56,41,52, 1,37,46,38,28	1, 1,35,29,51,53,59,36	3,49,24,34, 0	4,30
	6″	52,17,57,43,27,27,40,16, 4, 4	1, 1,35,26, 2,29,25,36	3,49,24,38,30	4,30
	8″	52,17,58,45, 2,49,53,20,51,10	1, 1,35,22,13, 4,47, 6	3,49,24,43, 0	4,30
	10″	52,17,59,46,38, 8,17, 0,55,16	1, 1,35,18,23,40, 4, 6	3,49,24,47,30	4,30
	12″	52,18, 0,48,13,22,51,16,11,52	1, 1,35,14,34,15,16,36	3,49,24,52, 0	4,30
	14″	52,18, 1,49,48,33,36, 6,36,28	1, 1,35,10,44,50,24,36	3,49,24,56,30	4,30
	16″	52,18, 2,51,23,40,31,32, 4,34	1, 1,35, 6,55,25,28, 6	3,49,25, 1, 0	4,30
	18″	52,18, 3,52,58,43,37,32,31,40	1, 1,35, 3, 6, 0,27, 6	3,49,25, 5,30	4,30
	20″	52,18, 4,54,33,42,54, 7,53,16	1, 1,34,59,16,35,21,36	3,49,25,10, 0	4,30
	22″	52,18, 5,56, 8,38,21,18, 4,52	1, 1,34,55,27,10,11,36	3,49,25,14,30	4,30
	24″	52,18, 6,57,43,29,59, 3, 1,58	1, 1,34,51,37,44,57, 6	3,49,25,19, 0	4,30
	26″	52,18, 7,59,18,17,47,22,40, 4	1, 1,34,47,48,19,38, 6	3,49,25,23,30	4,30
	28″	52,18, 9, 0,53, 1,46,16,54,40	1, 1,34,43,58,54,14,36	3,49,25,28, 0	4,30
	30″	52,18,10, 2,27,41,55,45,41,16	1, 1,34,40, 9,28,46,36	3,49,25,32,30	4,30
	32″	52,18,11, 4, 2,18,15,48,55,22	1, 1,34,36,20, 3,14, 6	3,49,25,37, 0	4,30
	34″	52,18,12, 5,36,50,46,26,32,28	1, 1,34,32,30,37,37, 6	3,49,25,41,30	4,30
	36″	52,18,13, 7,11,19,27,38,28, 4	1, 1,34,28,41,11,55,36	3,49,25,46, 0	4,30
	38″	52,18,14, 8,45,44,19,24,37,40	1, 1,34,24,51,46, 9,36	3,49,25,50,30	4,30
	40″	52,18,15,10,20, 5,21,44,56,46	1, 1,34,21, 2,20,19, 6	3,49,25,55, 0	4,30
	42″	52,18,16,11,54,22,34,39,20,52	1, 1,34,17,12,54,24, 6	3,49,25,59,30	4,30
	44″	52,18,17,13,28,35,58, 7,45,28	1, 1,34,13,23,28,24,36	3,49,26, 4, 0	4,30
	46″	52,18,18,15, 2,45,32,10, 6, 4	1, 1,34, 9,34, 2,20,36	3,49,26, 8,30	4,30
	48″	52,18,19,16,36,51,16,46,18,10	1, 1,34, 5,44,36,12, 6	3,49,26,13, 0	4,30
	50″	52,18,20,18,10,53,11,56,17,16	1, 1,34, 1,55, 9,59, 6	3,49,26,17,30	4,30
	52″	52,18,21,19,44,51,17,39,58,52	1, 1,33,58, 5,43,41,36	3,49,26,22, 0	4,30
	54″	52,18,22,21,18,45,33,57,18,28	1, 1,33,54,16,17,19,36	3,49,26,26,30	4,30
	56″	52,18,23,22,52,36, 0,48,11,34	1, 1,33,50,26,50,53, 6	3,49,26,31, 0	4,30
	58″	52,18,24,24,26,22,38,12,33,40	1, 1,33,46,37,24,22, 6	3,49,26,35,30	
	60″	52,18,25,26, 0, 5,26,10,20,16	1, 1,33,42,47,57,46,36		
	exact	52,18,25,26, 0, 5,26,10, 7,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°40′ 0″	52,18,25,26, 0, 5,26,10, 7,25			
		1, 1,33,38,58,31, 5,26		
2″	52,18,26,27,33,44,24,41,12,51		3,49,26,44,34	
		1, 1,33,35, 9, 4,20,52		4,30
4″	52,18,27,29, 7,19,33,45,33,43		3,49,26,49, 4	
		1, 1,33,31,19,37,31,48		4,30
6″	52,18,28,30,40,50,53,23, 5,31		3,49,26,53,34	
		1, 1,33,27,30,10,38,14		4,30
8″	52,18,29,32,14,18,23,33,43,45		3,49,26,58, 4	
		1, 1,33,23,40,43,40,10		4,30
10″	52,18,30,33,47,42, 4,17,23,55		3,49,27, 2,34	
		1, 1,33,19,51,16,37,36		4,30
12″	52,18,31,35,21, 1,55,34, 1,31		3,49,27, 7, 4	
		1, 1,33,16, 1,49,30,32		4,30
14″	52,18,32,36,54,17,57,23,32, 3		3,49,27,11,34	
		1, 1,33,12,12,22,18,58		4,30
16″	52,18,33,38,27,30, 9,45,51, 1		3,49,27,16, 4	
		1, 1,33, 8,22,55, 2,54		4,30
18″	52,18,34,40, 0,38,32,40,53,55		3,49,27,20,34	
		1, 1,33, 4,33,27,42,20		4,30
20″	52,18,35,41,33,43, 6, 8,36,15		3,49,27,25, 4	
		1, 1,33, 0,44, 0,17,16		4,30
22″	52,18,36,43, 6,43,50, 8,53,31		3,49,27,29,34	
		1, 1,32,56,54,32,47,42		4,30
24″	52,18,37,44,39,40,44,41,41,13		3,49,27,34, 4	
		1, 1,32,53, 5, 5,13,38		4,30
26″	52,18,38,46,12,33,49,46,54,51		3,49,27,38,34	
		1, 1,32,49,15,37,35, 4		4,30
28″	52,18,39,47,45,23, 5,24,29,55		3,49,27,43, 4	
		1, 1,32,45,26, 9,52, 0		4,30
30″	52,18,40,49,18, 8,31,34,21,55		3,49,27,47,34	
		1, 1,32,41,36,42, 4,26		4,30
32″	52,18,41,50,50,50, 8,16,26,21		3,49,27,52, 4	
		1, 1,32,37,47,14,12,22		4,30
34″	52,18,42,52,23,27,55,30,38,43		3,49,27,56,34	
		1, 1,32,33,57,46,15,48		4,30
36″	52,18,43,53,56, 1,53,16,54,31		3,49,28, 1, 4	
		1, 1,32,30, 8,18,14,44		4,30
38″	52,18,44,55,28,32, 1,35, 9,15		3,49,28, 5,34	
		1, 1,32,26,18,50, 9,10		4,30
40″	52,18,45,57, 0,58,20,25,18,25		3,49,28,10, 4	
		1, 1,32,22,29,21,59, 6		4,30
42″	52,18,46,58,33,20,49,47,17,31		3,49,28,14,34	
		1, 1,32,18,39,53,44,32		4,30
44″	52,18,48, 0, 5,39,29,41, 2, 3		3,49,28,19, 4	
		1, 1,32,14,50,25,25,28		4,30
46″	52,18,49, 1,37,54,20, 6,27,31		3,49,28,23,34	
		1, 1,32,11, 0,57, 1,54		4,30
48″	52,18,50, 3,10, 5,21, 3,29,25		3,49,28,28, 4	
		1, 1,32, 7,11,28,33,50		4,30
50″	52,18,51, 4,42,12,32,32, 3,15		3,49,28,32,34	
		1, 1,32, 3,22, 0, 1,16		4,30
52″	52,18,52, 6,14,15,54,32, 4,31		3,49,28,37, 4	
		1, 1,31,59,32,31,24,12		4,30
54″	52,18,53, 7,46,15,27, 3,28,43		3,49,28,41,34	
		1, 1,31,55,43, 2,42,38		4,30
56″	52,18,54, 9,18,11,10, 6,11,21		3,49,28,46, 4	
		1, 1,31,51,53,33,56,34		4,30
58″	52,18,55,10,50, 3, 3,40, 7,55		3,49,28,50,34	
		1, 1,31,48, 4, 5, 6, 0		
60″	52,18,56,12,21,51, 7,45,13,55			
exact	52,18,56,12,21,51, 7,45,16,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°41′ 0″	52,18,56,12,21,51, 7,45,16,46			
		1, 1,31,44,14,36,11,13		
2″	52,18,57,13,53,35,22,21,27,59		3,49,28,59,33	
		1, 1,31,40,25, 7,11,40		4,30
4″	52,18,58,15,25,15,47,28,39,39		3,49,29, 4, 3	
		1, 1,31,36,35,38, 7,37		4,30
6″	52,18,59,16,56,52,23, 6,47,16		3,49,29, 8,33	
		1, 1,31,32,46, 8,59, 4		4,30
8″	52,19, 0,18,28,25, 9,15,46,20		3,49,29,13, 3	
		1, 1,31,28,56,39,46, 1		4,30
10″	52,19, 1,19,59,54, 5,55,32,21		3,49,29,17,33	
		1, 1,31,25, 7,10,28,28		4,30
12″	52,19, 2,21,31,19,13, 6, 0,49		3,49,29,22, 3	
		1, 1,31,21,17,41, 6,25		4,30
14″	52,19, 3,23, 2,40,30,47, 7,14		3,49,29,26,33	
		1, 1,31,17,28,11,39,52		4,30
16″	52,19, 4,24,33,57,58,58,47, 6		3,49,29,31, 3	
		1, 1,31,13,38,42, 8,49		4,30
18″	52,19, 5,26, 5,11,37,40,55,55		3,49,29,35,33	
		1, 1,31, 9,49,12,33,16		4,30
20″	52,19, 6,27,36,21,26,53,29,11		3,49,29,40, 3	
		1, 1,31, 5,59,42,53,13		4,30
22″	52,19, 7,29, 7,27,26,36,22,24		3,49,29,44,33	
		1, 1,31, 2,10,13, 8,40		4,30
24″	52,19, 8,30,38,29,36,49,31, 4		3,49,29,49, 3	
		1, 1,30,58,20,43,19,37		4,30
26″	52,19, 9,32, 9,27,57,32,50,41		3,49,29,53,33	
		1, 1,30,54,31,13,26, 4		4,30
28″	52,19,10,33,40,22,28,46,16,45		3,49,29,58, 3	
		1, 1,30,50,41,43,28, 1		4,30
30″	52,19,11,35,11,13,10,29,44,46		3,49,30, 2,33	
		1, 1,30,46,52,13,25,28		4,30
32″	52,19,12,36,42, 0, 2,43,10,14		3,49,30, 7, 3	
		1, 1,30,43, 2,43,18,25		4,30
34″	52,19,13,38,12,43, 5,26,28,39		3,49,30,11,33	
		1, 1,30,39,13,13, 6,52		4,30
36″	52,19,14,39,43,22,18,39,35,31		3,49,30,16, 3	
		1, 1,30,35,23,42,50,49		4,30
38″	52,19,15,41,13,57,42,22,26,20		3,49,30,20,33	
		1, 1,30,31,34,12,30,16		4,30
40″	52,19,16,42,44,29,16,34,56,36		3,49,30,25, 3	
		1, 1,30,27,44,42, 5,13		4,30
42″	52,19,17,44,14,57, 1,17, 1,49		3,49,30,29,33	
		1, 1,30,23,55,11,35,40		4,30
44″	52,19,18,45,45,20,56,28,37,29		3,49,30,34, 3	
		1, 1,30,20, 5,41, 1,37		4,30
46″	52,19,19,47,15,41, 2, 9,39, 6		3,49,30,38,33	
		1, 1,30,16,16,10,23, 4		4,30
48″	52,19,20,48,45,57,18,20, 2,10		3,49,30,43, 3	
		1, 1,30,12,26,39,40, 1		4,30
50″	52,19,21,50,16, 9,44,59,42,11		3,49,30,47,33	
		1, 1,30, 8,37, 8,52,28		4,30
52″	52,19,22,51,46,18,22, 8,34,39		3,49,30,52, 3	
		1, 1,30, 4,47,38, 0,25		4,30
54″	52,19,23,53,16,23, 9,46,35, 4		3,49,30,56,33	
		1, 1,30, 0,58, 7, 3,52		4,30
56″	52,19,24,54,46,24, 7,53,38,56		3,49,31, 1, 3	
		1, 1,29,57, 8,36, 2,49		4,30
58″	52,19,25,56,16,21,16,29,41,45		3,49,31, 5,33	
		1, 1,29,53,19, 4,57,16		
60″	52,19,26,57,46,14,35,34,39, 1			
exact	52,19,26,57,46,14,35,34,52, 2			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
60°42′	0″	52,19,26,57,46,14,35,34,52, 2			
			1, 1,29,49,29,33,48,34		
	2″	52,19,27,59,16, 4, 5, 8,40,36		3,49,31,14,27	
			1, 1,29,45,40, 2,34, 7		4,30
	4″	52,19,29, 0,45,49,45,11,14,43		3,49,31,18,57	
			1, 1,29,41,50,31,15,10		4,30
	6″	52,19,30, 2,15,31,35,42,29,53		3,49,31,23,27	
			1, 1,29,38, 0,59,51,43		4,30
	8″	52,19,31, 3,45, 9,36,42,21,36		3,49,31,27,57	
			1, 1,29,34,11,28,23,46		4,30
	10″	52,19,32, 5,14,43,48,10,45,22		3,49,31,32,27	
			1, 1,29,30,21,56,51,19		4,30
	12″	52,19,33, 6,44,14,10, 7,36,41		3,49,31,36,57	
			1, 1,29,26,32,25,14,22		4,30
	14″	52,19,34, 8,13,40,42,32,51, 3		3,49,31,41,27	
			1, 1,29,22,42,53,32,55		4,30
	16″	52,19,35, 9,43, 3,25,26,23,58		3,49,31,45,57	
			1, 1,29,18,53,21,46,58		4,30
	18″	52,19,36,11,12,22,18,48,10,56		3,49,31,50,27	
			1, 1,29,15, 3,49,56,31		4,30
	20″	52,19,37,12,41,37,22,38, 7,27		3,49,31,54,57	
			1, 1,29,11,14,18, 1,34		4,30
	22″	52,19,38,14,10,48,36,56, 9, 1		3,49,31,59,27	
			1, 1,29, 7,24,46, 2, 7		4,30
	24″	52,19,39,15,39,56, 1,42,11, 8		3,49,32, 3,57	
			1, 1,29, 3,35,13,58,10		4,30
	26″	52,19,40,17, 8,59,36,56, 9,18		3,49,32, 8,27	
			1, 1,28,59,45,41,49,43		4,30
	28″	52,19,41,18,37,59,22,37,59, 1		3,49,32,12,57	
			1, 1,28,55,56, 9,36,46		4,30
	30″	52,19,42,20, 6,55,18,47,35,47		3,49,32,17,27	
			1, 1,28,52, 6,37,19,19		4,30
	32″	52,19,43,21,35,47,25,24,55, 6		3,49,32,21,57	
			1, 1,28,48,17, 4,57,22		4,30
	34″	52,19,44,23, 4,35,42,29,52,28		3,49,32,26,27	
			1, 1,28,44,27,32,30,55		4,30
	36″	52,19,45,24,33,20,10, 2,23,23		3,49,32,30,57	
			1, 1,28,40,37,59,59,58		4,30
	38″	52,19,46,26, 2, 0,48, 2,23,21		3,49,32,35,27	
			1, 1,28,36,48,27,24,31		4,30
	40″	52,19,47,27,30,37,36,29,47,52		3,49,32,39,57	
			1, 1,28,32,58,54,44,34		4,30
	42″	52,19,48,28,59,10,35,24,32,26		3,49,32,44,27	
			1, 1,28,29, 9,22, 0, 7		4,30
	44″	52,19,49,30,27,39,44,46,32,33		3,49,32,48,57	
			1, 1,28,25,19,49,11,10		4,30
	46″	52,19,50,31,56, 5, 4,35,43,43		3,49,32,53,27	
			1, 1,28,21,30,16,17,43		4,30
	48″	52,19,51,33,24,26,34,52, 1,26		3,49,32,57,57	
			1, 1,28,17,40,43,19,46		4,30
	50″	52,19,52,34,52,44,15,35,21,12		3,49,33, 2,27	
			1, 1,28,13,51,10,17,19		4,30
	52″	52,19,53,36,20,58, 6,45,38,31		3,49,33, 6,57	
			1, 1,28,10, 1,37,10,22		4,30
	54″	52,19,54,37,49, 8, 8,22,48,53		3,49,33,11,27	
			1, 1,28, 6,12, 3,58,55		4,30
	56″	52,19,55,39,17,14,20,26,47,48		3,49,33,15,57	
			1, 1,28, 2,22,30,42,58		4,30
	58″	52,19,56,40,45,16,42,57,30,46		3,49,33,20,27	
			1, 1,27,58,32,57,22,31		
	60″	52,19,57,42,13,15,15,54,53,17			
exact		52,19,57,42,13,15,15,55,10,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°43′ 0″	52,19,57,42,13,15,15,55,10,21			
		1, 1,27,54,43,23,59,34		
2″	52,19,58,43,41, 9,59,19, 9,55		3,49,33,29,18	
		1, 1,27,50,53,50,30,16		4,30
4″	52,19,59,45, 9, 0,53, 9,40,11		3,49,33,33,48	
		1, 1,27,47, 4,16,56,28		4,30
6″	52,20, 0,46,36,47,57,26,36,39		3,49,33,38,18	
		1, 1,27,43,14,43,18,10		4,30
8″	52,20, 1,48, 4,31,12, 9,54,49		3,49,33,42,48	
		1, 1,27,39,25, 9,35,22		4,30
10″	52,20, 2,49,32,10,37,19,30,11		3,49,33,47,18	
		1, 1,27,35,35,35,48, 4		4,30
12″	52,20, 3,50,59,46,12,55,18,15		3,49,33,51,48	
		1, 1,27,31,46, 1,56,16		4,30
14″	52,20, 4,52,27,17,58,57,14,31		3,49,33,56,18	
		1, 1,27,27,56,27,59,58		4,30
16″	52,20, 5,53,54,45,55,25,14,29		3,49,34, 0,48	
		1, 1,27,24, 6,53,59,10		4,30
18″	52,20, 6,55,22,10, 2,19,13,39		3,49,34, 5,18	
		1, 1,27,20,17,19,53,52		4,30
20″	52,20, 7,56,49,30,19,39, 7,31		3,49,34, 9,48	
		1, 1,27,16,27,45,44, 4		4,30
22″	52,20, 8,58,16,46,47,24,51,35		3,49,34,14,18	
		1, 1,27,12,38,11,29,46		4,30
24″	52,20, 9,59,43,59,25,36,21,21		3,49,34,18,48	
		1, 1,27, 8,48,37,10,58		4,30
26″	52,20,11, 1,11, 8,14,13,32,19		3,49,34,23,18	
		1, 1,27, 4,59, 2,47,40		4,30
28″	52,20,12, 2,38,13,13,16,19,59		3,49,34,27,48	
		1, 1,27, 1, 9,28,19,52		4,30
30″	52,20,13, 4, 5,14,22,44,39,51		3,49,34,32,18	
		1, 1,26,57,19,53,47,34		4,30
32″	52,20,14, 5,32,11,42,38,27,25		3,49,34,36,48	
		1, 1,26,53,30,19,10,46		4,30
34″	52,20,15, 6,59, 5,12,57,38,11		3,49,34,41,18	
		1, 1,26,49,40,44,29,28		4,30
36″	52,20,16, 8,25,54,53,42, 7,39		3,49,34,45,48	
		1, 1,26,45,51, 9,43,40		4,30
38″	52,20,17, 9,52,40,44,51,51,19		3,49,34,50,18	
		1, 1,26,42, 1,34,53,22		4,30
40″	52,20,18,11,19,22,46,26,44,41		3,49,34,54,48	
		1, 1,26,38,11,59,58,34		4,30
42″	52,20,19,12,46, 0,58,26,43,15		3,49,34,59,18	
		1, 1,26,34,22,24,59,16		4,30
44″	52,20,20,14,12,35,20,51,42,31		3,49,35, 3,48	
		1, 1,26,30,32,49,55,28		4,30
46″	52,20,21,15,39, 5,53,41,37,59		3,49,35, 8,18	
		1, 1,26,26,43,14,47,10		4,30
48″	52,20,22,17, 5,32,36,56,25, 9		3,49,35,12,48	
		1, 1,26,22,53,39,34,22		4,30
50″	52,20,23,18,31,55,30,35,59,31		3,49,35,17,18	
		1, 1,26,19, 4, 4,17, 4		4,30
52″	52,20,24,19,58,14,34,40,16,35		3,49,35,21,48	
		1, 1,26,15,14,28,55,16		4,30
54″	52,20,25,21,24,29,49, 9,11,51		3,49,35,26,18	
		1, 1,26,11,24,53,28,58		4,30
56″	52,20,26,22,50,41,14, 2,40,49		3,49,35,30,48	
		1, 1,26, 7,35,17,58,10		4,30
58″	52,20,27,24,16,48,49,20,38,59		3,49,35,35,18	
		1, 1,26, 3,45,42,22,52		
60″	52,20,28,25,42,52,35, 3, 1,51			
exact	52,20,28,25,42,52,35, 3,31,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°44′ 0″	52,20,28,25,42,52,35, 3,31,45			
		1, 1,25,59,56, 6,46,18		
2″	52,20,29,27, 8,52,31,10,18, 3		3,49,35,44, 4	
		1, 1,25,56, 6,31, 2,14		4,29
4″	52,20,30,28,34,48,37,41,20,17		3,49,35,48,33	
		1, 1,25,52,16,55,13,41		4,29
6″	52,20,31,30, 0,40,54,36,33,58		3,49,35,53, 2	
		1, 1,25,48,27,19,20,39		4,29
8″	52,20,32,31,26,29,21,55,54,37		3,49,35,57,31	
		1, 1,25,44,37,43,23, 8		4,29
10″	52,20,33,32,52,13,59,39,17,45		3,49,36, 2, 0	
		1, 1,25,40,48, 7,21, 8		4,29
12″	52,20,34,34,17,54,47,46,38,53		3,49,36, 6,29	
		1, 1,25,36,58,31,14,39		4,29
14″	52,20,35,35,43,31,46,17,53,32		3,49,36,10,58	
		1, 1,25,33, 8,55, 3,41		4,29
16″	52,20,36,37, 9, 4,55,12,57,13		3,49,36,15,27	
		1, 1,25,29,19,18,48,14		4,29
18″	52,20,37,38,34,34,14,31,45,27		3,49,36,19,56	
		1, 1,25,25,29,42,28,18		4,29
20″	52,20,38,39,59,59,44,14,13,45		3,49,36,24,25	
		1, 1,25,21,40, 6, 3,53		4,29
22″	52,20,39,41,25,21,24,20,17,38		3,49,36,28,54	
		1, 1,25,17,50,29,34,59		4,29
24″	52,20,40,42,50,39,14,49,52,37		3,49,36,33,23	
		1, 1,25,14, 0,53, 1,36		4,29
26″	52,20,41,44,15,53,15,42,54,13		3,49,36,37,52	
		1, 1,25,10,11,16,23,44		4,29
28″	52,20,42,45,41, 3,26,59,17,57		3,49,36,42,21	
		1, 1,25, 6,21,39,41,23		4,29
30″	52,20,43,47, 6, 9,48,38,59,20		3,49,36,46,50	
		1, 1,25, 2,32, 2,54,33		4,29
32″	52,20,44,48,31,12,20,41,53,53		3,49,36,51,19	
		1, 1,24,58,42,26, 3,14		4,29
34″	52,20,45,49,56,11, 3, 7,57, 7		3,49,36,55,48	
		1, 1,24,54,52,49, 7,26		4,29
36″	52,20,46,51,21, 5,55,57, 4,33		3,49,37, 0,17	
		1, 1,24,51, 3,12, 7, 9		4,29
38″	52,20,47,52,45,56,59, 9,11,42		3,49,37, 4,46	
		1, 1,24,47,13,35, 2,23		4,29
40″	52,20,48,54,10,44,12,44,14, 5		3,49,37, 9,15	
		1, 1,24,43,23,57,53, 8		4,29
42″	52,20,49,55,35,27,36,42, 7,13		3,49,37,13,44	
		1, 1,24,39,34,20,39,24		4,29
44″	52,20,50,57, 0, 7,11, 2,46,37		3,49,37,18,13	
		1, 1,24,35,44,43,21,11		4,29
46″	52,20,51,58,24,42,55,46, 7,48		3,49,37,22,42	
		1, 1,24,31,55, 5,58,29		4,29
48″	52,20,52,59,49,14,50,52, 6,17		3,49,37,27,11	
		1, 1,24,28, 5,28,31,18		4,29
50″	52,20,54, 1,13,42,56,20,37,35		3,49,37,31,40	
		1, 1,24,24,15,50,59,38		4,29
52″	52,20,55, 2,38, 7,12,11,37,13		3,49,37,36, 9	
		1, 1,24,20,26,13,23,29		4,29
54″	52,20,56, 4, 2,27,38,25, 0,42		3,49,37,40,38	
		1, 1,24,16,36,35,42,51		4,29
56″	52,20,57, 5,26,44,15, 0,43,33		3,49,37,45, 7	
		1, 1,24,12,46,57,57,44		4,29
58″	52,20,58, 6,50,57, 1,58,41,17		3,49,37,49,36	
		1, 1,24, 8,57,20, 8, 8		
60″	52,20,59, 8,15, 5,59,18,49,25			
exact	52,20,59, 8,15, 5,59,18,19,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°45′ 0″	52,20,59, 8,15, 5,59,18,19,11			
		1, 1,24, 5, 7,42,10,54		
2″	52,21, 0, 9,39,11, 7, 0,30, 5		3,49,37,58,46	
		1, 1,24, 1,18, 4,12, 8		4,29
4″	52,21, 1,11, 3,12,25, 4,42,13		3,49,38, 3,15	
		1, 1,23,57,28,26, 8,53		4,29
6″	52,21, 2,12,27, 9,53,30,51, 6		3,49,38, 7,44	
		1, 1,23,53,38,48, 1, 9		4,29
8″	52,21, 3,13,51, 3,32,18,52,15		3,49,38,12,13	
		1, 1,23,49,49, 9,48,56		4,29
10″	52,21, 4,15,14,53,21,28,41,11		3,49,38,16,42	
		1, 1,23,45,59,31,32,14		4,29
12″	52,21, 5,16,38,39,21, 0,13,25		3,49,38,21,11	
		1, 1,23,42, 9,53,11, 3		4,29
14″	52,21, 6,18, 2,21,30,53,24,28		3,49,38,25,40	
		1, 1,23,38,20,14,45,23		4,29
16″	52,21, 7,19,25,59,51, 8, 9,51		3,49,38,30, 9	
		1, 1,23,34,30,36,15,14		4,29
18″	52,21, 8,20,49,34,21,44,25, 5		3,49,38,34,38	
		1, 1,23,30,40,57,40,36		4,29
20″	52,21, 9,22,13, 5, 2,42, 5,41		3,49,38,39, 7	
		1, 1,23,26,51,19, 1,29		4,29
22″	52,21,10,23,36,31,54, 1, 7,10		3,49,38,43,36	
		1, 1,23,23, 1,40,17,53		4,29
24″	52,21,11,24,59,54,55,41,25, 3		3,49,38,48, 5	
		1, 1,23,19,12, 1,29,48		4,29
26″	52,21,12,26,23,14, 7,42,54,51		3,49,38,52,34	
		1, 1,23,15,22,22,37,14		4,29
28″	52,21,13,27,46,29,30, 5,32, 5		3,49,38,57, 3	
		1, 1,23,11,32,43,40,11		4,29
30″	52,21,14,29, 9,41, 2,49,12,16		3,49,39, 1,32	
		1, 1,23, 7,43, 4,38,39		4,29
32″	52,21,15,30,32,48,45,53,50,55		3,49,39, 6, 1	
		1, 1,23, 3,53,25,32,38		4,29
34″	52,21,16,31,55,52,39,19,23,33		3,49,39,10,30	
		1, 1,23, 0, 3,46,22, 8		4,29
36″	52,21,17,33,18,52,43, 5,45,41		3,49,39,14,59	
		1, 1,22,56,14, 7, 7, 9		4,29
38″	52,21,18,34,41,48,57,12,52,50		3,49,39,19,28	
		1, 1,22,52,24,27,47,41		4,29
40″	52,21,19,36, 4,41,21,40,40,31		3,49,39,23,57	
		1, 1,22,48,34,48,23,44		4,29
42″	52,21,20,37,27,29,56,29, 4,15		3,49,39,28,26	
		1, 1,22,44,45, 8,55,18		4,29
44″	52,21,21,38,50,14,41,37,59,33		3,49,39,32,55	
		1, 1,22,40,55,29,22,23		4,29
46″	52,21,22,40,12,55,37, 7,21,56		3,49,39,37,24	
		1, 1,22,37, 5,49,44,59		4,29
48″	52,21,23,41,35,32,42,57, 6,55		3,49,39,41,53	
		1, 1,22,33,16,10, 3, 6		4,29
50″	52,21,24,42,58, 5,59, 7,10, 1		3,49,39,46,22	
		1, 1,22,29,26,30,16,44		4,29
52″	52,21,25,44,20,35,25,37,26,45		3,49,39,50,51	
		1, 1,22,25,36,50,25,53		4,29
54″	52,21,26,45,43, 1, 2,27,52,38		3,49,39,55,20	
		1, 1,22,21,47,10,30,33		4,29
56″	52,21,27,47, 5,22,49,38,23,11		3,49,39,59,49	
		1, 1,22,17,57,30,30,44		4,29
58″	52,21,28,48,27,40,47, 8,53,55		3,49,40, 4,18	
		1, 1,22,14, 7,50,26,26		
60″	52,21,29,49,49,54,54,59,20,21			
exact	52,21,29,49,49,54,54,58,58,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°46′ 0″	52,21,29,49,49,54,54,58,58,37			
		1, 1,22,10,18,10,15,27		
2″	52,21,30,51,12, 5,13, 9,14, 4		3,49,40,13,24	
		1, 1,22, 6,28,30, 2, 3		4,29
4″	52,21,31,52,34,11,41,39,16, 7		3,49,40,17,53	
		1, 1,22, 2,38,49,44,10		4,29
6″	52,21,32,53,56,14,20,29, 0,17		3,49,40,22,22	
		1, 1,21,58,49, 9,21,48		4,29
8″	52,21,33,55,18,13, 9,38,22, 5		3,49,40,26,51	
		1, 1,21,54,59,28,54,57		4,29
10″	52,21,34,56,40, 8, 9, 7,17, 2		3,49,40,31,20	
		1, 1,21,51, 9,48,23,37		4,29
12″	52,21,35,58, 1,59,18,55,40,39		3,49,40,35,49	
		1, 1,21,47,20, 7,47,48		4,29
14″	52,21,36,59,23,46,39, 3,28,27		3,49,40,40,18	
		1, 1,21,43,30,27, 7,30		4,29
16″	52,21,38, 0,45,30, 9,30,35,57		3,49,40,44,47	
		1, 1,21,39,40,46,22,43		4,29
18″	52,21,39, 2, 7, 9,50,16,58,40		3,49,40,49,16	
		1, 1,21,35,51, 5,33,27		4,29
20″	52,21,40, 3,28,45,41,22,32, 7		3,49,40,53,45	
		1, 1,21,32, 1,24,39,42		4,29
22″	52,21,41, 4,50,17,42,47,11,49		3,49,40,58,14	
		1, 1,21,28,11,43,41,28		4,29
24″	52,21,42, 6,11,45,54,30,53,17		3,49,41, 2,43	
		1, 1,21,24,22, 2,38,45		4,29
26″	52,21,43, 7,33,10,16,33,32, 2		3,49,41, 7,12	
		1, 1,21,20,32,21,31,33		4,29
28″	52,21,44, 8,54,30,48,55, 3,35		3,49,41,11,41	
		1, 1,21,16,42,40,19,52		4,29
30″	52,21,45,10,15,47,31,35,23,27		3,49,41,16,10	
		1, 1,21,12,52,59, 3,42		4,29
32″	52,21,46,11,37, 0,24,34,27, 9		3,49,41,20,39	
		1, 1,21, 9, 3,17,43, 3		4,29
34″	52,21,47,12,58, 9,27,52,10,12		3,49,41,25, 8	
		1, 1,21, 5,13,36,17,55		4,29
36″	52,21,48,14,19,14,41,28,28, 7		3,49,41,29,37	
		1, 1,21, 1,23,54,48,18		4,29
38″	52,21,49,15,40,16, 5,23,16,25		3,49,41,34, 6	
		1, 1,20,57,34,13,14,12		4,29
40″	52,21,50,17, 1,13,39,36,30,37		3,49,41,38,35	
		1, 1,20,53,44,31,35,37		4,29
42″	52,21,51,18,22, 7,24, 8, 6,14		3,49,41,43, 4	
		1, 1,20,49,54,49,52,33		4,29
44″	52,21,52,19,42,57,18,57,58,47		3,49,41,47,33	
		1, 1,20,46, 5, 8, 5, 0		4,29
46″	52,21,53,21, 3,43,24, 6, 3,47		3,49,41,52, 2	
		1, 1,20,42,15,26,12,58		4,29
48″	52,21,54,22,24,25,39,32,16,45		3,49,41,56,31	
		1, 1,20,38,25,44,16,27		4,29
50″	52,21,55,23,45, 4, 5,16,33,12		3,49,42, 1, 0	
		1, 1,20,34,36, 2,15,27		4,29
52″	52,21,56,25, 5,38,41,18,48,39		3,49,42, 5,29	
		1, 1,20,30,46,20, 9,58		4,29
54″	52,21,57,26,26, 9,27,38,58,37		3,49,42, 9,58	
		1, 1,20,26,56,38, 0, 0		4,29
56″	52,21,58,27,46,36,24,16,58,37		3,49,42,14,27	
		1, 1,20,23, 6,55,45,33		4,29
58″	52,21,59,29, 6,59,31,12,44,10		3,49,42,18,56	
		1, 1,20,19,17,13,26,37		
60″	52,22, 0,30,27,18,48,26,10,47			
exact	52,22, 0,30,27,18,48,25,58,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°47′ 0″	52,22, 0,30,27,18,48,25,58,54			
		1, 1,20,15,27,31, 2, 3		
2″	52,22, 1,31,47,34,15,57, 0,57		3,49,42,27,58	
		1, 1,20,11,37,48,34, 5		4,29
4″	52,22, 2,33, 7,45,53,45,35, 2		3,49,42,32,27	
		1, 1,20, 7,48, 6, 1,38		4,29
6″	52,22, 3,34,27,53,41,51,36,40		3,49,42,36,56	
		1, 1,20, 3,58,23,24,42		4,29
8″	52,22, 4,35,47,57,40,15, 1,22		3,49,42,41,25	
		1, 1,20, 0, 8,40,43,17		4,29
10″	52,22, 5,37, 7,57,48,55,44,39		3,49,42,45,54	
		1, 1,19,56,18,57,57,23		4,29
12″	52,22, 6,38,27,54, 7,53,42, 2		3,49,42,50,23	
		1, 1,19,52,29,15, 7, 0		4,29
14″	52,22, 7,39,47,46,37, 8,49, 2		3,49,42,54,52	
		1, 1,19,48,39,32,12, 8		4,29
16″	52,22, 8,41, 7,35,16,41, 1,10		3,49,42,59,21	
		1, 1,19,44,49,49,12,47		4,29
18″	52,22, 9,42,27,20, 6,30,13,57		3,49,43, 3,50	
		1, 1,19,41, 0, 6, 8,57		4,29
20″	52,22,10,43,47, 1, 6,36,22,54		3,49,43, 8,19	
		1, 1,19,37,10,23, 0,38		4,29
22″	52,22,11,45, 6,38,16,59,23,32		3,49,43,12,48	
		1, 1,19,33,20,39,47,50		4,29
24″	52,22,12,46,26,11,37,39,11,22		3,49,43,17,17	
		1, 1,19,29,30,56,30,33		4,29
26″	52,22,13,47,45,41, 8,35,41,55		3,49,43,21,46	
		1, 1,19,25,41,13, 8,47		4,29
28″	52,22,14,49, 5, 6,49,48,50,42		3,49,43,26,15	
		1, 1,19,21,51,29,42,32		4,29
30″	52,22,15,50,24,28,41,18,33,14		3,49,43,30,44	
		1, 1,19,18, 1,46,11,48		4,29
32″	52,22,16,51,43,46,43, 4,45, 2		3,49,43,35,13	
		1, 1,19,14,12, 2,36,35		4,29
34″	52,22,17,53, 3, 0,55, 7,21,37		3,49,43,39,42	
		1, 1,19,10,22,18,56,53		4,29
36″	52,22,18,54,22,11,17,26,18,30		3,49,43,44,11	
		1, 1,19, 6,32,35,12,42		4,29
38″	52,22,19,55,41,17,50, 1,31,12		3,49,43,48,40	
		1, 1,19, 2,42,51,24, 2		4,29
40″	52,22,20,57, 0,20,32,52,55,14		3,49,43,53, 9	
		1, 1,18,58,53, 7,30,53		4,29
42″	52,22,21,58,19,19,26, 0,26, 7		3,49,43,57,38	
		1, 1,18,55, 3,23,33,15		4,29
44″	52,22,22,59,38,14,29,23,59,22		3,49,44, 2, 7	
		1, 1,18,51,13,39,31, 8		4,29
46″	52,22,24, 0,57, 5,43, 3,30,30		3,49,44, 6,36	
		1, 1,18,47,23,55,24,32		4,29
48″	52,22,25, 2,15,53, 6,58,55, 2		3,49,44,11, 5	
		1, 1,18,43,34,11,13,27		4,29
50″	52,22,26, 3,34,36,41,10, 8,29		3,49,44,15,34	
		1, 1,18,39,44,26,57,53		4,29
52″	52,22,27, 4,53,16,25,37, 6,22		3,49,44,20, 3	
		1, 1,18,35,54,42,37,50		4,29
54″	52,22,28, 6,11,52,20,19,44,12		3,49,44,24,32	
		1, 1,18,32, 4,58,13,18		4,29
56″	52,22,29, 7,30,24,25,17,57,30		3,49,44,29, 1	
		1, 1,18,28,15,13,44,17		4,29
58″	52,22,30, 8,48,52,40,31,41,47		3,49,44,33,30	
		1, 1,18,24,25,29,10,47		
60″	52,22,31,10, 7,17, 6, 0,52,34			
exact	52,22,31,10, 7,17, 6, 0,51,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°48′ 0″	52,22,31,10, 7,17, 6, 0,51,52			
		1, 1,18,20,35,44,32,47		
2″	52,22,32,11,25,37,41,45,24,39		3,49,44,42,27	
		1, 1,18,16,45,59,50,20		4,29
4″	52,22,33,12,43,54,27,45,14,59		3,49,44,46,56	
		1, 1,18,12,56,15, 3,24		4,29
6″	52,22,34,14, 2, 7,24, 0,18,23		3,49,44,51,25	
		1, 1,18, 9, 6,30,11,59		4,29
8″	52,22,35,15,20,16,30,30,30,22		3,49,44,55,54	
		1, 1,18, 5,16,45,16, 5		4,29
10″	52,22,36,16,38,21,47,15,46,27		3,49,45, 0,23	
		1, 1,18, 1,27, 0,15,42		4,29
12″	52,22,37,17,56,23,14,16, 2, 9		3,49,45, 4,52	
		1, 1,17,57,37,15,10,50		4,29
14″	52,22,38,19,14,20,51,31,12,59		3,49,45, 9,21	
		1, 1,17,53,47,30, 1,29		4,29
16″	52,22,39,20,32,14,39, 1,14,28		3,49,45,13,50	
		1, 1,17,49,57,44,47,39		4,29
18″	52,22,40,21,50, 4,36,46, 2, 7		3,49,45,18,19	
		1, 1,17,46, 7,59,29,20		4,29
20″	52,22,41,23, 7,50,44,45,31,27		3,49,45,22,48	
		1, 1,17,42,18,14, 6,32		4,29
22″	52,22,42,24,25,33, 2,59,37,59		3,49,45,27,17	
		1, 1,17,38,28,28,39,15		4,29
24″	52,22,43,25,43,11,31,28,17,14		3,49,45,31,46	
		1, 1,17,34,38,43, 7,29		4,29
26″	52,22,44,27, 0,46,10,11,24,43		3,49,45,36,15	
		1, 1,17,30,48,57,31,14		4,29
28″	52,22,45,28,18,16,59, 8,55,57		3,49,45,40,44	
		1, 1,17,26,59,11,50,30		4,29
30″	52,22,46,29,35,43,58,20,46,27		3,49,45,45,13	
		1, 1,17,23, 9,26, 5,17		4,29
32″	52,22,47,30,53, 7, 7,46,51,44		3,49,45,49,42	
		1, 1,17,19,19,40,15,35		4,29
34″	52,22,48,32,10,26,27,27, 7,19		3,49,45,54,11	
		1, 1,17,15,29,54,21,24		4,29
36″	52,22,49,33,27,41,57,21,28,43		3,49,45,58,40	
		1, 1,17,11,40, 8,22,44		4,29
38″	52,22,50,34,44,53,37,29,51,27		3,49,46, 3, 9	
		1, 1,17, 7,50,22,19,35		4,29
40″	52,22,51,36, 2, 1,27,52,11, 2		3,49,46, 7,38	
		1, 1,17, 4, 0,36,11,57		4,29
42″	52,22,52,37,19, 5,28,28,22,59		3,49,46,12, 7	
		1, 1,17, 0,10,49,59,50		4,29
44″	52,22,53,38,36, 5,39,18,22,49		3,49,46,16,36	
		1, 1,16,56,21, 3,43,14		4,29
46″	52,22,54,39,53, 2, 0,22, 6, 3		3,49,46,21, 5	
		1, 1,16,52,31,17,22, 9		4,29
48″	52,22,55,41, 9,54,31,39,28,12		3,49,46,25,34	
		1, 1,16,48,41,30,56,35		4,29
50″	52,22,56,42,26,43,13,10,24,47		3,49,46,30, 3	
		1, 1,16,44,51,44,26,32		4,29
52″	52,22,57,43,43,28, 4,54,51,19		3,49,46,34,32	
		1, 1,16,41, 1,57,52, 0		4,29
54″	52,22,58,45, 0, 9, 6,52,43,19		3,49,46,39, 1	
		1, 1,16,37,12,11,12,59		4,29
56″	52,22,59,46,16,46,19, 3,56,18		3,49,46,43,30	
		1, 1,16,33,22,24,29,29		4,29
58″	52,23, 0,47,33,19,41,28,25,47		3,49,46,47,59	
		1, 1,16,29,32,37,41,30		
60″	52,23, 1,48,49,49,14, 6, 7,17			
exact	52,23, 1,48,49,49,14, 6,12,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°49′ 0″	52,23, 1,48,49,49,14, 6,12,22			
		1, 1,16,25,42,50,49,46		
2″	52,23, 2,50, 6,14,56,57, 2, 8		3,49,46,56,53	
		1, 1,16,21,53, 3,52,53		4,29
4″	52,23, 3,51,22,36,50, 0,55, 1		3,49,47, 1,22	
		1, 1,16,18, 3,16,51,31		4,29
6″	52,23, 4,52,38,54,53,17,46,32		3,49,47, 5,51	
		1, 1,16,14,13,29,45,40		4,29
8″	52,23, 5,53,55, 9, 6,47,32,12		3,49,47,10,20	
		1, 1,16,10,23,42,35,20		4,29
10″	52,23, 6,55,11,19,30,30, 7,32		3,49,47,14,49	
		1, 1,16, 6,33,55,20,31		4,29
12″	52,23, 7,56,27,26, 4,25,28, 3		3,49,47,19,18	
		1, 1,16, 2,44, 8, 1,13		4,29
14″	52,23, 8,57,43,28,48,33,29,16		3,49,47,23,47	
		1, 1,15,58,54,20,37,26		4,29
16″	52,23, 9,58,59,27,42,54, 6,42		3,49,47,28,16	
		1, 1,15,55, 4,33, 9,10		4,29
18″	52,23,11, 0,15,22,47,27,15,52		3,49,47,32,45	
		1, 1,15,51,14,45,36,25		4,29
20″	52,23,12, 1,31,14, 2,12,52,17		3,49,47,37,14	
		1, 1,15,47,24,57,59,11		4,29
22″	52,23,13, 2,47, 1,27,10,51,28		3,49,47,41,43	
		1, 1,15,43,35,10,17,28		4,29
24″	52,23,14, 4, 2,45, 2,21, 8,56		3,49,47,46,12	
		1, 1,15,39,45,22,31,16		4,29
26″	52,23,15, 5,18,24,47,43,40,12		3,49,47,50,41	
		1, 1,15,35,55,34,40,35		4,29
28″	52,23,16, 6,34, 0,43,18,20,47		3,49,47,55,10	
		1, 1,15,32, 5,46,45,25		4,29
30″	52,23,17, 7,49,32,49, 5, 6,12		3,49,47,59,39	
		1, 1,15,28,15,58,45,46		4,29
32″	52,23,18, 9, 5, 1, 5, 3,51,58		3,49,48, 4, 8	
		1, 1,15,24,26,10,41,38		4,29
34″	52,23,19,10,20,25,31,14,33,36		3,49,48, 8,37	
		1, 1,15,20,36,22,33, 1		4,29
36″	52,23,20,11,35,46, 7,37, 6,37		3,49,48,13, 6	
		1, 1,15,16,46,34,19,55		4,29
38″	52,23,21,12,51, 2,54,11,26,32		3,49,48,17,35	
		1, 1,15,12,56,46, 2,20		4,29
40″	52,23,22,14, 6,15,50,57,28,52		3,49,48,22, 4	
		1, 1,15, 9, 6,57,40,16		4,29
42″	52,23,23,15,21,24,57,55, 9, 8		3,49,48,26,33	
		1, 1,15, 5,17, 9,13,43		4,29
44″	52,23,24,16,36,30,15, 4,22,51		3,49,48,31, 2	
		1, 1,15, 1,27,20,42,41		4,29
46″	52,23,25,17,51,31,42,25, 5,32		3,49,48,35,31	
		1, 1,14,57,37,32, 7,10		4,29
48″	52,23,26,19, 6,29,19,57,12,42		3,49,48,40, 0	
		1, 1,14,53,47,43,27,10		4,29
50″	52,23,27,20,21,23, 7,40,39,52		3,49,48,44,29	
		1, 1,14,49,57,54,42,41		4,29
52″	52,23,28,21,36,13, 5,35,22,33		3,49,48,48,58	
		1, 1,14,46, 8, 5,53,43		4,29
54″	52,23,29,22,50,59,13,41,16,16		3,49,48,53,27	
		1, 1,14,42,18,17, 0,16		4,29
56″	52,23,30,24, 5,41,31,58,16,32		3,49,48,57,56	
		1, 1,14,38,28,28, 2,20		4,29
58″	52,23,31,25,20,20, 0,26,18,52		3,49,49, 2,25	
		1, 1,14,34,38,38,59,55		
60″	52,23,32,26,34,54,39, 5,18,47			
exact	52,23,32,26,34,54,39, 5,38,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°50′ 0″	52,23,32,26,34,54,39, 5,38,11			
		1, 1,14,30,48,49,55, 6		
2″	52,23,33,27,49,25,27,55,33,17		3,49,49,11,14	
		1, 1,14,26,59, 0,43,52		4,29
4″	52,23,34,29, 3,52,26,56,17, 9		3,49,49,15,43	
		1, 1,14,23, 9,11,28, 9		4,29
6″	52,23,35,30,18,15,36, 7,45,18		3,49,49,20,12	
		1, 1,14,19,19,22, 7,57		4,29
8″	52,23,36,31,32,34,55,29,53,15		3,49,49,24,41	
		1, 1,14,15,29,32,43,16		4,29
10″	52,23,37,32,46,50,25, 2,36,31		3,49,49,29,10	
		1, 1,14,11,39,43,14, 6		4,29
12″	52,23,38,34, 1, 2, 4,45,50,37		3,49,49,33,39	
		1, 1,14, 7,49,53,40,27		4,29
14″	52,23,39,35,15, 9,54,39,31, 4		3,49,49,38, 8	
		1, 1,14, 4, 0, 4, 2,19		4,29
16″	52,23,40,36,29,13,54,43,33,23		3,49,49,42,37	
		1, 1,14, 0,10,14,19,42		4,29
18″	52,23,41,37,43,14, 4,57,53, 5		3,49,49,47, 6	
		1, 1,13,56,20,24,32,36		4,29
20″	52,23,42,38,57,10,25,22,25,41		3,49,49,51,35	
		1, 1,13,52,30,34,41, 1		4,29
22″	52,23,43,40,11, 2,55,57, 6,42		3,49,49,56, 4	
		1, 1,13,48,40,44,44,57		4,29
24″	52,23,44,41,24,51,36,41,51,39		3,49,50, 0,33	
		1, 1,13,44,50,54,44,24		4,29
26″	52,23,45,42,38,36,27,36,36, 3		3,49,50, 5, 2	
		1, 1,13,41, 1, 4,39,22		4,29
28″	52,23,46,43,52,17,28,41,15,25		3,49,50, 9,31	
		1, 1,13,37,11,14,29,51		4,29
30″	52,23,47,45, 5,54,39,55,45,16		3,49,50,14, 0	
		1, 1,13,33,21,24,15,51		4,29
32″	52,23,48,46,19,28, 1,20, 1, 7		3,49,50,18,29	
		1, 1,13,29,31,33,57,22		4,29
34″	52,23,49,47,32,57,32,53,58,29		3,49,50,22,58	
		1, 1,13,25,41,43,34,24		4,29
36″	52,23,50,48,46,23,14,37,32,53		3,49,50,27,27	
		1, 1,13,21,51,53, 6,57		4,29
38″	52,23,51,49,59,45, 6,30,39,50		3,49,50,31,56	
		1, 1,13,18, 2, 2,35, 1		4,29
40″	52,23,52,51,13, 3, 8,33,14,51		3,49,50,36,25	
		1, 1,13,14,12,11,58,36		4,29
42″	52,23,53,52,26,17,20,45,13,27		3,49,50,40,54	
		1, 1,13,10,22,21,17,42		4,29
44″	52,23,54,53,39,27,43, 6,31, 9		3,49,50,45,23	
		1, 1,13, 6,32,30,32,19		4,29
46″	52,23,55,54,52,34,15,37, 3,28		3,49,50,49,52	
		1, 1,13, 2,42,39,42,27		4,29
48″	52,23,56,56, 5,36,58,16,45,55		3,49,50,54,21	
		1, 1,12,58,52,48,48, 6		4,29
50″	52,23,57,57,18,35,51, 5,34, 1		3,49,50,58,50	
		1, 1,12,55, 2,57,49,16		4,29
52″	52,23,58,58,31,30,54, 3,23,17		3,49,51, 3,19	
		1, 1,12,51,13, 6,45,57		4,29
54″	52,23,59,59,44,22, 7,10, 9,14		3,49,51, 7,48	
		1, 1,12,47,23,15,38, 9		4,29
56″	52,24, 1, 0,57, 9,30,25,47,23		3,49,51,12,17	
		1, 1,12,43,33,24,25,52		4,29
58″	52,24, 2, 2, 9,53, 3,50,13,15		3,49,51,16,46	
		1, 1,12,39,43,33, 9, 6		
60″	52,24, 3, 3,22,32,47,23,22,21			
exact	52,24, 3, 3,22,32,47,23,50, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°51′ 0″	52,24, 3, 3,22,32,47,23,50, 6			
		1, 1,12,35,53,41,50,53		
2″	52,24, 4, 4,35, 8,41, 5,40,59		3,49,51,25,31	
		1, 1,12,32, 3,50,25,22		4,28
4″	52,24, 5, 5,47,40,44,56, 6,21		3,49,51,29,59	
		1, 1,12,28,13,58,55,23		4,28
6″	52,24, 6, 7, 0, 8,58,55, 1,44		3,49,51,34,27	
		1, 1,12,24,24, 7,20,56		4,28
8″	52,24, 7, 8,12,33,23, 2,22,40		3,49,51,38,55	
		1, 1,12,20,34,15,42, 1		4,28
10″	52,24, 8, 9,24,53,57,18, 4,41		3,49,51,43,23	
		1, 1,12,16,44,23,58,38		4,28
12″	52,24, 9,10,37,10,41,42, 3,19		3,49,51,47,51	
		1, 1,12,12,54,32,10,47		4,28
14″	52,24,10,11,49,23,36,14,14, 6		3,49,51,52,19	
		1, 1,12, 9, 4,40,18,28		4,28
16″	52,24,11,13, 1,32,40,54,32,34		3,49,51,56,47	
		1, 1,12, 5,14,48,21,41		4,28
18″	52,24,12,14,13,37,55,42,54,15		3,49,52, 1,15	
		1, 1,12, 1,24,56,20,26		4,28
20″	52,24,13,15,25,39,20,39,14,41		3,49,52, 5,43	
		1, 1,11,57,35, 4,14,43		4,28
22″	52,24,14,16,37,36,55,43,29,24		3,49,52,10,11	
		1, 1,11,53,45,12, 4,32		4,28
24″	52,24,15,17,49,30,40,55,33,56		3,49,52,14,39	
		1, 1,11,49,55,19,49,53		4,28
26″	52,24,16,19, 1,20,36,15,23,49		3,49,52,19, 7	
		1, 1,11,46, 5,27,30,46		4,28
28″	52,24,17,20,13, 6,41,42,54,35		3,49,52,23,35	
		1, 1,11,42,15,35, 7,11		4,28
30″	52,24,18,21,24,48,57,18, 1,46		3,49,52,28, 3	
		1, 1,11,38,25,42,39, 8		4,28
32″	52,24,19,22,36,27,23, 0,40,54		3,49,52,32,31	
		1, 1,11,34,35,50, 6,37		4,28
34″	52,24,20,23,48, 1,58,50,47,31		3,49,52,36,59	
		1, 1,11,30,45,57,29,38		4,28
36″	52,24,21,24,59,32,44,48,17, 9		3,49,52,41,27	
		1, 1,11,26,56, 4,48,11		4,28
38″	52,24,22,26,10,59,40,53, 5,20		3,49,52,45,55	
		1, 1,11,23, 6,12, 2,16		4,28
40″	52,24,23,27,22,22,47, 5, 7,36		3,49,52,50,23	
		1, 1,11,19,16,19,11,53		4,28
42″	52,24,24,28,33,42, 3,24,19,29		3,49,52,54,51	
		1, 1,11,15,26,26,17, 2		4,28
44″	52,24,25,29,44,57,29,50,36,31		3,49,52,59,19	
		1, 1,11,11,36,33,17,43		4,28
46″	52,24,26,30,56, 9, 6,23,54,14		3,49,53, 3,47	
		1, 1,11, 7,46,40,13,56		4,28
48″	52,24,27,32, 7,16,53, 4, 8,10		3,49,53, 8,15	
		1, 1,11, 3,56,47, 5,41		4,28
50″	52,24,28,33,18,20,49,51,13,51		3,49,53,12,43	
		1, 1,11, 0, 6,53,52,58		4,28
52″	52,24,29,34,29,20,56,45, 6,49		3,49,53,17,11	
		1, 1,10,56,17, 0,35,47		4,28
54″	52,24,30,35,40,17,13,45,42,36		3,49,53,21,39	
		1, 1,10,52,27, 7,14, 8		4,28
56″	52,24,31,36,51, 9,40,52,56,44		3,49,53,26, 7	
		1, 1,10,48,37,13,48, 1		4,28
58″	52,24,32,38, 1,58,18, 6,44,45		3,49,53,30,35	
		1, 1,10,44,47,20,17,26		
60″	52,24,33,39,12,43, 5,27, 2,11			
exact	52,24,33,39,12,43, 5,26,31,57			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
60°52′	0″	52,24,33,39,12,43, 5,26,31,57	1, 1,10,40,57,26,39,12		
	2″	52,24,34,40,23,24, 2,53,11, 9	1, 1,10,37, 7,32,59,28	3,49,53,39,44	4,28
	4″	52,24,35,41,34, 1,10,26,10,37	1, 1,10,33,17,39,15,16	3,49,53,44,12	4,28
	6″	52,24,36,42,44,34,28, 5,25,53	1, 1,10,29,27,45,26,36	3,49,53,48,40	4,28
	8″	52,24,37,43,55, 3,55,50,52,29	1, 1,10,25,37,51,33,28	3,49,53,53, 8	4,28
	10″	52,24,38,45, 5,29,33,42,25,57	1, 1,10,21,47,57,35,52	3,49,53,57,36	4,28
	12″	52,24,39,46,15,51,21,40, 1,49	1, 1,10,17,58, 3,33,48	3,49,54, 2, 4	4,28
	14″	52,24,40,47,26, 9,19,43,35,37	1, 1,10,14, 8, 9,27,16	3,49,54, 6,32	4,28
	16″	52,24,41,48,36,23,27,53, 2,53	1, 1,10,10,18,15,16,16	3,49,54,11, 0	4,28
	18″	52,24,42,49,46,33,46, 8,19, 9	1, 1,10, 6,28,21, 0,48	3,49,54,15,28	4,28
	20″	52,24,43,50,56,40,14,29,19,57	1, 1,10, 2,38,26,40,52	3,49,54,19,56	4,28
	22″	52,24,44,52, 6,42,52,56, 0,49	1, 1, 9,58,48,32,16,28	3,49,54,24,24	4,28
	24″	52,24,45,53,16,41,41,28,17,17	1, 1, 9,54,58,37,47,36	3,49,54,28,52	4,28
	26″	52,24,46,54,26,36,40, 6, 4,53	1, 1, 9,51, 8,43,14,16	3,49,54,33,20	4,28
	28″	52,24,47,55,36,27,48,49,19, 9	1, 1, 9,47,18,48,36,28	3,49,54,37,48	4,28
	30″	52,24,48,56,46,15, 7,37,55,37	1, 1, 9,43,28,53,54,12	3,49,54,42,16	4,28
	32″	52,24,49,57,55,58,36,31,49,49	1, 1, 9,39,38,59, 7,28	3,49,54,46,44	4,28
	34″	52,24,50,59, 5,38,15,30,57,17	1, 1, 9,35,49, 4,16,16	3,49,54,51,12	4,28
	36″	52,24,52, 0,15,14, 4,35,13,33	1, 1, 9,31,59, 9,20,36	3,49,54,55,40	4,28
	38″	52,24,53, 1,24,46, 3,44,34, 9	1, 1, 9,28, 9,14,20,28	3,49,55, 0, 8	4,28
	40″	52,24,54, 2,34,14,12,58,54,37	1, 1, 9,24,19,19,15,52	3,49,55, 4,36	4,28
	42″	52,24,55, 3,43,38,32,18,10,29	1, 1, 9,20,29,24, 6,48	3,49,55, 9, 4	4,28
	44″	52,24,56, 4,52,59, 1,42,17,17	1, 1, 9,16,39,28,53,16	3,49,55,13,32	4,28
	46″	52,24,57, 6, 2,15,41,11,10,33	1, 1, 9,12,49,33,35,16	3,49,55,18, 0	4,28
	48″	52,24,58, 7,11,28,30,44,45,49	1, 1, 9, 8,59,38,12,48	3,49,55,22,28	4,28
	50″	52,24,59, 8,20,37,30,22,58,37	1, 1, 9, 5, 9,42,45,52	3,49,55,26,56	4,28
	52″	52,25, 0, 9,29,42,40, 5,44,29	1, 1, 9, 1,19,47,14,28	3,49,55,31,24	4,28
	54″	52,25, 1,10,38,43,59,52,58,57	1, 1, 8,57,29,51,38,36	3,49,55,35,52	4,28
	56″	52,25, 2,11,47,41,29,44,37,33	1, 1, 8,53,39,55,58,16	3,49,55,40,20	4,28
	58″	52,25, 3,12,56,35, 9,40,35,49	1, 1, 8,49,50, 0,13,28	3,49,55,44,48	
	60″	52,25, 4,14, 5,24,59,40,49,17			
exact		52,25, 4,14, 5,24,59,40,30,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°53′ 0″	52,25, 4,14, 5,24,59,40,30,32			
		1, 1, 8,46, 0, 4,22,10		
2″	52,25, 5,15,14,10,59,44,52,42		3,49,55,53,52	
		1, 1, 8,42,10, 8,28,18		4,28
4″	52,25, 6,16,22,53, 9,53,21, 0		3,49,55,58,20	
		1, 1, 8,38,20,12,29,58		4,28
6″	52,25, 7,17,31,31,30, 5,50,58		3,49,56, 2,48	
		1, 1, 8,34,30,16,27,10		4,28
8″	52,25, 8,18,40, 6, 0,22,18, 8		3,49,56, 7,16	
		1, 1, 8,30,40,20,19,54		4,28
10″	52,25, 9,19,48,36,40,42,38, 2		3,49,56,11,44	
		1, 1, 8,26,50,24, 8,10		4,28
12″	52,25,10,20,57, 3,31, 6,46,12		3,49,56,16,12	
		1, 1, 8,23, 0,27,51,58		4,28
14″	52,25,11,22, 5,26,31,34,38,10		3,49,56,20,40	
		1, 1, 8,19,10,31,31,18		4,28
16″	52,25,12,23,13,45,42, 6, 9,28		3,49,56,25, 8	
		1, 1, 8,15,20,35, 6,10		4,28
18″	52,25,13,24,22, 1, 2,41,15,38		3,49,56,29,36	
		1, 1, 8,11,30,38,36,34		4,28
20″	52,25,14,25,30,12,33,19,52,12		3,49,56,34, 4	
		1, 1, 8, 7,40,42, 2,30		4,28
22″	52,25,15,26,38,20,14, 1,54,42		3,49,56,38,32	
		1, 1, 8, 3,50,45,23,58		4,28
24″	52,25,16,27,46,24, 4,47,18,40		3,49,56,43, 0	
		1, 1, 8, 0, 0,48,40,58		4,28
26″	52,25,17,28,54,24, 5,35,59,38		3,49,56,47,28	
		1, 1, 7,56,10,51,53,30		4,28
28″	52,25,18,30, 2,20,16,27,53, 8		3,49,56,51,56	
		1, 1, 7,52,20,55, 1,34		4,28
30″	52,25,19,31,10,12,37,22,54,42		3,49,56,56,24	
		1, 1, 7,48,30,58, 5,10		4,28
32″	52,25,20,32,18, 1, 8,20,59,52		3,49,57, 0,52	
		1, 1, 7,44,41, 1, 4,18		4,28
34″	52,25,21,33,25,45,49,22, 4,10		3,49,57, 5,20	
		1, 1, 7,40,51, 3,58,58		4,28
36″	52,25,22,34,33,26,40,26, 3, 8		3,49,57, 9,48	
		1, 1, 7,37, 1, 6,49,10		4,28
38″	52,25,23,35,41, 3,41,32,52,18		3,49,57,14,16	
		1, 1, 7,33,11, 9,34,54		4,28
40″	52,25,24,36,48,36,52,42,27,12		3,49,57,18,44	
		1, 1, 7,29,21,12,16,10		4,28
42″	52,25,25,37,56, 6,13,54,43,22		3,49,57,23,12	
		1, 1, 7,25,31,14,52,58		4,28
44″	52,25,26,39, 3,31,45, 9,36,20		3,49,57,27,40	
		1, 1, 7,21,41,17,25,18		4,28
46″	52,25,27,40,10,53,26,27, 1,38		3,49,57,32, 8	
		1, 1, 7,17,51,19,53,10		4,28
48″	52,25,28,41,18,11,17,46,54,48		3,49,57,36,36	
		1, 1, 7,14, 1,22,16,34		4,28
50″	52,25,29,42,25,25,19, 9,11,22		3,49,57,41, 4	
		1, 1, 7,10,11,24,35,30		4,28
52″	52,25,30,43,32,35,30,33,46,52		3,49,57,45,32	
		1, 1, 7, 6,21,26,49,58		4,28
54″	52,25,31,44,39,41,52, 0,36,50		3,49,57,50, 0	
		1, 1, 7, 2,31,28,59,58		4,28
56″	52,25,32,45,46,44,23,29,36,48		3,49,57,54,28	
		1, 1, 6,58,41,31, 5,30		4,28
58″	52,25,33,46,53,43, 5, 0,42,18		3,49,57,58,56	
		1, 1, 6,54,51,33, 6,34		
60″	52,25,34,48, 0,37,56,33,48,52			
exact	52,25,34,48, 0,37,56,33,35,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°54′ 0″	52,25,34,48, 0,37,56,33,35,43			
		1, 1, 6,51, 1,35, 1,53		
2″	52,25,35,49, 7,28,58, 8,37,36		3,49,58, 7,56	
		1, 1, 6,47,11,36,53,57		4,28
4″	52,25,36,50,14,16, 9,45,31,33		3,49,58,12,24	
		1, 1, 6,43,21,38,41,33		4,28
6″	52,25,37,51,20,59,31,24,13, 6		3,49,58,16,52	
		1, 1, 6,39,31,40,24,41		4,28
8″	52,25,38,52,27,39, 3, 4,37,47		3,49,58,21,20	
		1, 1, 6,35,41,42, 3,21		4,28
10″	52,25,39,53,34,14,44,46,41, 8		3,49,58,25,48	
		1, 1, 6,31,51,43,37,33		4,28
12″	52,25,40,54,40,46,36,30,18,41		3,49,58,30,16	
		1, 1, 6,28, 1,45, 7,17		4,28
14″	52,25,41,55,47,14,38,15,25,58		3,49,58,34,44	
		1, 1, 6,24,11,46,32,33		4,28
16″	52,25,42,56,53,38,50, 1,58,31		3,49,58,39,12	
		1, 1, 6,20,21,47,53,21		4,28
18″	52,25,43,57,59,59,11,49,51,52		3,49,58,43,40	
		1, 1, 6,16,31,49, 9,41		4,28
20″	52,25,44,59, 6,15,43,39, 1,33		3,49,58,48, 8	
		1, 1, 6,12,41,50,21,33		4,28
22″	52,25,46, 0,12,28,25,29,23, 6		3,49,58,52,36	
		1, 1, 6, 8,51,51,28,57		4,28
24″	52,25,47, 1,18,37,17,20,52, 3		3,49,58,57, 4	
		1, 1, 6, 5, 1,52,31,53		4,28
26″	52,25,48, 2,24,42,19,13,23,56		3,49,59, 1,32	
		1, 1, 6, 1,11,53,30,21		4,28
28″	52,25,49, 3,30,43,31, 6,54,17		3,49,59, 6, 0	
		1, 1, 5,57,21,54,24,21		4,28
30″	52,25,50, 4,36,40,53, 1,18,38		3,49,59,10,28	
		1, 1, 5,53,31,55,13,53		4,28
32″	52,25,51, 5,42,34,24,56,32,31		3,49,59,14,56	
		1, 1, 5,49,41,55,58,57		4,28
34″	52,25,52, 6,48,24, 6,52,31,28		3,49,59,19,24	
		1, 1, 5,45,51,56,39,33		4,28
36″	52,25,53, 7,54, 9,58,49,11, 1		3,49,59,23,52	
		1, 1, 5,42, 1,57,15,41		4,28
38″	52,25,54, 8,59,52, 0,46,26,42		3,49,59,28,20	
		1, 1, 5,38,11,57,47,21		4,28
40″	52,25,55,10, 5,30,12,44,14, 3		3,49,59,32,48	
		1, 1, 5,34,21,58,14,33		4,28
42″	52,25,56,11,11, 4,34,42,28,36		3,49,59,37,16	
		1, 1, 5,30,31,58,37,17		4,28
44″	52,25,57,12,16,35, 6,41, 5,53		3,49,59,41,44	
		1, 1, 5,26,41,58,55,33		4,28
46″	52,25,58,13,22, 1,48,40, 1,26		3,49,59,46,12	
		1, 1, 5,22,51,59, 9,21		4,28
48″	52,25,59,14,27,24,40,39,10,47		3,49,59,50,40	
		1, 1, 5,19, 1,59,18,41		4,28
50″	52,26, 0,15,32,43,42,38,29,28		3,49,59,55, 8	
		1, 1, 5,15,11,59,23,33		4,28
52″	52,26, 1,16,37,58,54,37,53, 1		3,49,59,59,36	
		1, 1, 5,11,21,59,23,57		4,28
54″	52,26, 2,17,43,10,16,37,16,58		3,50, 0, 4, 4	
		1, 1, 5, 7,31,59,19,53		4,28
56″	52,26, 3,18,48,17,48,36,36,51		3,50, 0, 8,32	
		1, 1, 5, 3,41,59,11,21		4,28
58″	52,26, 4,19,53,21,30,35,48,12		3,50, 0,13, 0	
		1, 1, 4,59,51,58,58,21		
60″	52,26, 5,20,58,21,22,34,46,33			
exact	52,26, 5,20,58,21,22,34,40,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°55′ 0″	52,26, 5,20,58,21,22,34,40,22			
		1, 1, 4,56, 1,58,40,27		
2″	52,26, 6,22, 3,17,24,33,20,49		3,50, 0,21,57	
		1, 1, 4,52,11,58,18,30		4,28
4″	52,26, 7,23, 8, 9,36,31,39,19		3,50, 0,26,25	
		1, 1, 4,48,21,57,52, 5		4,28
6″	52,26, 8,24,12,57,58,29,31,24		3,50, 0,30,53	
		1, 1, 4,44,31,57,21,12		4,28
8″	52,26, 9,25,17,42,30,26,52,36		3,50, 0,35,21	
		1, 1, 4,40,41,56,45,51		4,28
10″	52,26,10,26,22,23,12,23,38,27		3,50, 0,39,49	
		1, 1, 4,36,51,56, 6, 2		4,28
12″	52,26,11,27,27, 0, 4,19,44,29		3,50, 0,44,17	
		1, 1, 4,33, 1,55,21,45		4,28
14″	52,26,12,28,31,33, 6,15, 6,14		3,50, 0,48,45	
		1, 1, 4,29,11,54,33, 0		4,28
16″	52,26,13,29,36, 2,18, 9,39,14		3,50, 0,53,13	
		1, 1, 4,25,21,53,39,47		4,28
18″	52,26,14,30,40,27,40, 3,19, 1		3,50, 0,57,41	
		1, 1, 4,21,31,52,42, 6		4,28
20″	52,26,15,31,44,49,11,56, 1, 7		3,50, 1, 2, 9	
		1, 1, 4,17,41,51,39,57		4,28
22″	52,26,16,32,49, 6,53,47,41, 4		3,50, 1, 6,37	
		1, 1, 4,13,51,50,33,20		4,28
24″	52,26,17,33,53,20,45,38,14,24		3,50, 1,11, 5	
		1, 1, 4,10, 1,49,22,15		4,28
26″	52,26,18,34,57,30,47,27,36,39		3,50, 1,15,33	
		1, 1, 4, 6,11,48, 6,42		4,28
28″	52,26,19,36, 1,36,59,15,43,21		3,50, 1,20, 1	
		1, 1, 4, 2,21,46,46,41		4,28
30″	52,26,20,37, 5,39,21, 2,30, 2		3,50, 1,24,29	
		1, 1, 3,58,31,45,22,12		4,28
32″	52,26,21,38, 9,37,52,47,52,14		3,50, 1,28,57	
		1, 1, 3,54,41,43,53,15		4,28
34″	52,26,22,39,13,32,34,31,45,29		3,50, 1,33,25	
		1, 1, 3,50,51,42,19,50		4,28
36″	52,26,23,40,17,23,26,14, 5,19		3,50, 1,37,53	
		1, 1, 3,47, 1,40,41,57		4,28
38″	52,26,24,41,21,10,27,54,47,16		3,50, 1,42,21	
		1, 1, 3,43,11,38,59,36		4,28
40″	52,26,25,42,24,53,39,33,46,52		3,50, 1,46,49	
		1, 1, 3,39,21,37,12,47		4,28
42″	52,26,26,43,28,33, 1,10,59,39		3,50, 1,51,17	
		1, 1, 3,35,31,35,21,30		4,28
44″	52,26,27,44,32, 8,32,46,21, 9		3,50, 1,55,45	
		1, 1, 3,31,41,33,25,45		4,28
46″	52,26,28,45,35,40,14,19,46,54		3,50, 2, 0,13	
		1, 1, 3,27,51,31,25,32		4,28
48″	52,26,29,46,39, 8, 5,51,12,26		3,50, 2, 4,41	
		1, 1, 3,24, 1,29,20,51		4,28
50″	52,26,30,47,42,32, 7,20,33,17		3,50, 2, 9, 9	
		1, 1, 3,20,11,27,11,42		4,28
52″	52,26,31,48,45,52,18,47,44,59		3,50, 2,13,37	
		1, 1, 3,16,21,24,58, 5		4,28
54″	52,26,32,49,49, 8,40,12,43, 4		3,50, 2,18, 5	
		1, 1, 3,12,31,22,40, 0		4,28
56″	52,26,33,50,52,21,11,35,23, 4		3,50, 2,22,33	
		1, 1, 3, 8,41,20,17,27		4,28
58″	52,26,34,51,55,29,52,55,40,31		3,50, 2,27, 1	
		1, 1, 3, 4,51,17,50,26		
60″	52,26,35,52,58,34,44,13,30,57			
exact	52,26,35,52,58,34,44,13,40,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°56′ 0″	52,26,35,52,58,34,44,13,40,25			
		1, 1, 3, 1, 1,15,19,57		
2″	52,26,36,54, 1,35,45,29, 0,22		3,50, 2,35,53	
		1, 1, 2,57,11,12,44, 4		4,28
4″	52,26,37,55, 4,32,56,41,44,26		3,50, 2,40,21	
		1, 1, 2,53,21,10, 3,43		4,28
6″	52,26,38,56, 7,26,17,51,48, 9		3,50, 2,44,49	
		1, 1, 2,49,31, 7,18,54		4,28
8″	52,26,39,57,10,15,48,59, 7, 3		3,50, 2,49,17	
		1, 1, 2,45,41, 4,29,37		4,28
10″	52,26,40,58,13, 1,30, 3,36,40		3,50, 2,53,45	
		1, 1, 2,41,51, 1,35,52		4,28
12″	52,26,41,59,15,43,21, 5,12,32		3,50, 2,58,13	
		1, 1, 2,38, 0,58,37,39		4,28
14″	52,26,43, 0,18,21,22, 3,50,11		3,50, 3, 2,41	
		1, 1, 2,34,10,55,34,58		4,28
16″	52,26,44, 1,20,55,32,59,25, 9		3,50, 3, 7, 9	
		1, 1, 2,30,20,52,27,49		4,28
18″	52,26,45, 2,23,25,53,51,52,58		3,50, 3,11,37	
		1, 1, 2,26,30,49,16,12		4,28
20″	52,26,46, 3,25,52,24,41, 9,10		3,50, 3,16, 5	
		1, 1, 2,22,40,46, 0, 7		4,28
22″	52,26,47, 4,28,15, 5,27, 9,17		3,50, 3,20,33	
		1, 1, 2,18,50,42,39,34		4,28
24″	52,26,48, 5,30,33,56, 9,48,51		3,50, 3,25, 1	
		1, 1, 2,15, 0,39,14,33		4,28
26″	52,26,49, 6,32,48,56,49, 3,24		3,50, 3,29,29	
		1, 1, 2,11,10,35,45, 4		4,28
28″	52,26,50, 7,35, 0, 7,24,48,28		3,50, 3,33,57	
		1, 1, 2, 7,20,32,11, 7		4,28
30″	52,26,51, 8,37, 7,27,56,59,35		3,50, 3,38,25	
		1, 1, 2, 3,30,28,32,42		4,28
32″	52,26,52, 9,39,10,58,25,32,17		3,50, 3,42,53	
		1, 1, 1,59,40,24,49,49		4,28
34″	52,26,53,10,41,10,38,50,22, 6		3,50, 3,47,21	
		1, 1, 1,55,50,21, 2,28		4,28
36″	52,26,54,11,43, 6,29,11,24,34		3,50, 3,51,49	
		1, 1, 1,52, 0,17,10,39		4,28
38″	52,26,55,12,44,58,29,28,35,13		3,50, 3,56,17	
		1, 1, 1,48,10,13,14,22		4,28
40″	52,26,56,13,46,46,39,41,49,35		3,50, 4, 0,45	
		1, 1, 1,44,20, 9,13,37		4,28
42″	52,26,57,14,48,30,59,51, 3,12		3,50, 4, 5,13	
		1, 1, 1,40,30, 5, 8,24		4,28
44″	52,26,58,15,50,11,29,56,11,36		3,50, 4, 9,41	
		1, 1, 1,36,40, 0,58,43		4,28
46″	52,26,59,16,51,48, 9,57,10,19		3,50, 4,14, 9	
		1, 1, 1,32,49,56,44,34		4,28
48″	52,27, 0,17,53,20,59,53,54,53		3,50, 4,18,37	
		1, 1, 1,28,59,52,25,57		4,28
50″	52,27, 1,18,54,49,59,46,20,50		3,50, 4,23, 5	
		1, 1, 1,25, 9,48, 2,52		4,28
52″	52,27, 2,19,56,15, 9,34,23,42		3,50, 4,27,33	
		1, 1, 1,21,19,43,35,19		4,28
54″	52,27, 3,20,57,36,29,17,59, 1		3,50, 4,32, 1	
		1, 1, 1,17,29,39, 3,18		4,28
56″	52,27, 4,21,58,53,58,57, 2,19		3,50, 4,36,29	
		1, 1, 1,13,39,34,26,49		4,28
58″	52,27, 5,23, 0, 7,38,31,29, 8		3,50, 4,40,57	
		1, 1, 1, 9,49,29,45,52		
60″	52,27, 6,24, 1,17,28, 1,15, 0			
exact	52,27, 6,24, 1,17,28, 1,34,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°57′ 0″	52,27, 6,24, 1,17,28, 1,34,51			
		1, 1, 1, 5,59,25, 2,31		
2″	52,27, 7,25, 2,23,27,26,37,22		3,50, 4,49,44	
		1, 1, 1, 2, 9,20,12,47		4,28
4″	52,27, 8,26, 3,25,36,46,50, 9		3,50, 4,54,12	
		1, 1, 0,58,19,15,18,35		4,28
6″	52,27, 9,27, 4,23,56, 2, 8,44		3,50, 4,58,40	
		1, 1, 0,54,29,10,19,55		4,28
8″	52,27,10,28, 5,18,25,12,28,39		3,50, 5, 3, 8	
		1, 1, 0,50,39, 5,16,47		4,28
10″	52,27,11,29, 6, 9, 4,17,45,26		3,50, 5, 7,36	
		1, 1, 0,46,49, 0, 9,11		4,28
12″	52,27,12,30, 6,55,53,17,54,37		3,50, 5,12, 4	
		1, 1, 0,42,58,54,57, 7		4,28
14″	52,27,13,31, 7,38,52,12,51,44		3,50, 5,16,32	
		1, 1, 0,39, 8,49,40,35		4,28
16″	52,27,14,32, 8,18, 1, 2,32,19		3,50, 5,21, 0	
		1, 1, 0,35,18,44,19,35		4,28
18″	52,27,15,33, 8,53,19,46,51,54		3,50, 5,25,28	
		1, 1, 0,31,28,38,54, 7		4,28
20″	52,27,16,34, 9,24,48,25,46, 1		3,50, 5,29,56	
		1, 1, 0,27,38,33,24,11		4,28
22″	52,27,17,35, 9,52,26,59,10,12		3,50, 5,34,24	
		1, 1, 0,23,48,27,49,47		4,28
24″	52,27,18,36,10,16,15,26,59,59		3,50, 5,38,52	
		1, 1, 0,19,58,22,10,55		4,28
26″	52,27,19,37,10,36,13,49,10,54		3,50, 5,43,20	
		1, 1, 0,16, 8,16,27,35		4,28
28″	52,27,20,38,10,52,22, 5,38,29		3,50, 5,47,48	
		1, 1, 0,12,18,10,39,47		4,28
30″	52,27,21,39,11, 4,40,16,18,16		3,50, 5,52,16	
		1, 1, 0, 8,28, 4,47,31		4,28
32″	52,27,22,40,11,13, 8,21, 5,47		3,50, 5,56,44	
		1, 1, 0, 4,37,58,50,47		4,28
34″	52,27,23,41,11,17,46,19,56,34		3,50, 6, 1,12	
		1, 1, 0, 0,47,52,49,35		4,28
36″	52,27,24,42,11,18,34,12,46, 9		3,50, 6, 5,40	
		1, 0,59,56,57,46,43,55		4,28
38″	52,27,25,43,11,15,31,59,30, 4		3,50, 6,10, 8	
		1, 0,59,53, 7,40,33,47		4,28
40″	52,27,26,44,11, 8,39,40, 3,51		3,50, 6,14,36	
		1, 0,59,49,17,34,19,11		4,28
42″	52,27,27,45,10,57,57,14,23, 2		3,50, 6,19, 4	
		1, 0,59,45,27,28, 0, 7		4,28
44″	52,27,28,46,10,43,24,42,23, 9		3,50, 6,23,32	
		1, 0,59,41,37,21,36,35		4,28
46″	52,27,29,47,10,25, 2, 3,59,44		3,50, 6,28, 0	
		1, 0,59,37,47,15, 8,35		4,28
48″	52,27,30,48,10, 2,49,19, 8,19		3,50, 6,32,28	
		1, 0,59,33,57, 8,36, 7		4,28
50″	52,27,31,49, 9,36,46,27,44,26		3,50, 6,36,56	
		1, 0,59,30, 7, 1,59,11		4,28
52″	52,27,32,50, 9, 6,53,29,43,37		3,50, 6,41,24	
		1, 0,59,26,16,55,17,47		4,28
54″	52,27,33,51, 8,33,10,25, 1,24		3,50, 6,45,52	
		1, 0,59,22,26,48,31,55		4,28
56″	52,27,34,52, 7,55,37,13,33,19		3,50, 6,50,20	
		1, 0,59,18,36,41,41,35		4,28
58″	52,27,35,53, 7,14,13,55,14,54		3,50, 6,54,48	
		1, 0,59,14,46,34,46,47		
60″	52,27,36,54, 6,29, 0,30, 1,41			
exact	52,27,36,54, 6,29, 0,30,25,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°58′ 0″	52,27,36,54, 6,29, 0,30,25,45			
		1, 0,59,10,56,27,50,14		
2″	52,27,37,55, 5,39,56,58,15,59		3,50, 7, 3,32	
		1, 0,59, 7, 6,20,46,42		4,28
4″	52,27,38,56, 4,47, 3,19, 2,41		3,50, 7, 8, 0	
		1, 0,59, 3,16,13,38,42		4,28
6″	52,27,39,57, 3,50,19,32,41,23		3,50, 7,12,28	
		1, 0,58,59,26, 6,26,14		4,28
8″	52,27,40,58, 2,49,45,39, 7,37		3,50, 7,16,56	
		1, 0,58,55,35,59, 9,18		4,28
10″	52,27,41,59, 1,45,21,38,16,55		3,50, 7,21,24	
		1, 0,58,51,45,51,47,54		4,28
12″	52,27,43, 0, 0,37, 7,30, 4,49		3,50, 7,25,52	
		1, 0,58,47,55,44,22, 2		4,28
14″	52,27,44, 0,59,25, 3,14,26,51		3,50, 7,30,20	
		1, 0,58,44, 5,36,51,42		4,28
16″	52,27,45, 1,58, 9, 8,51,18,33		3,50, 7,34,48	
		1, 0,58,40,15,29,16,54		4,28
18″	52,27,46, 2,56,49,24,20,35,27		3,50, 7,39,16	
		1, 0,58,36,25,21,37,38		4,28
20″	52,27,47, 3,55,25,49,42,13, 5		3,50, 7,43,44	
		1, 0,58,32,35,13,53,54		4,28
22″	52,27,48, 4,53,58,24,56, 6,59		3,50, 7,48,12	
		1, 0,58,28,45, 6, 5,42		4,28
24″	52,27,49, 5,52,27,10, 2,12,41		3,50, 7,52,40	
		1, 0,58,24,54,58,13, 2		4,28
26″	52,27,50, 6,50,52, 5, 0,25,43		3,50, 7,57, 8	
		1, 0,58,21, 4,50,15,54		4,28
28″	52,27,51, 7,49,13, 9,50,41,37		3,50, 8, 1,36	
		1, 0,58,17,14,42,14,18		4,28
30″	52,27,52, 8,47,30,24,32,55,55		3,50, 8, 6, 4	
		1, 0,58,13,24,34, 8,14		4,28
32″	52,27,53, 9,45,43,49, 7, 4, 9		3,50, 8,10,32	
		1, 0,58, 9,34,25,57,42		4,28
34″	52,27,54,10,43,53,23,33, 1,51		3,50, 8,15, 0	
		1, 0,58, 5,44,17,42,42		4,28
36″	52,27,55,11,41,59, 7,50,44,33		3,50, 8,19,28	
		1, 0,58, 1,54, 9,23,14		4,28
38″	52,27,56,12,40, 1, 2, 0, 7,47		3,50, 8,23,56	
		1, 0,57,58, 4, 0,59,18		4,28
40″	52,27,57,13,37,59, 6, 1, 7, 5		3,50, 8,28,24	
		1, 0,57,54,13,52,30,54		4,28
42″	52,27,58,14,35,53,19,53,37,59		3,50, 8,32,52	
		1, 0,57,50,23,43,58, 2		4,28
44″	52,27,59,15,33,43,43,37,36, 1		3,50, 8,37,20	
		1, 0,57,46,33,35,20,42		4,28
46″	52,28, 0,16,31,30,17,12,56,43		3,50, 8,41,48	
		1, 0,57,42,43,26,38,54		4,28
48″	52,28, 1,17,29,13, 0,39,35,37		3,50, 8,46,16	
		1, 0,57,38,53,17,52,38		4,28
50″	52,28, 2,18,26,51,53,57,28,15		3,50, 8,50,44	
		1, 0,57,35, 3, 9, 1,54		4,28
52″	52,28, 3,19,24,26,57, 6,30, 9		3,50, 8,55,12	
		1, 0,57,31,13, 0, 6,42		4,28
54″	52,28, 4,20,21,58,10, 6,36,51		3,50, 8,59,40	
		1, 0,57,27,22,51, 7, 2		4,28
56″	52,28, 5,21,19,25,32,57,43,53		3,50, 9, 4, 8	
		1, 0,57,23,32,42, 2,54		4,28
58″	52,28, 6,22,16,49, 5,39,46,47		3,50, 9, 8,36	
		1, 0,57,19,42,32,54,18		
60″	52,28, 7,23,14, 8,48,12,41, 5			
exact	52,28, 7,23,14, 8,48,13,18,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
60°59′ 0″	52,28, 7,23,14, 8,48,13,18,13			
		1, 0,57,15,52,23,45,13		
2″	52,28, 8,24,11,24,40,37, 3,26		3,50, 9,17,15	
		1, 0,57,12, 2,14,27,58		4,27
4″	52,28, 9,25, 8,36,42,51,31,24		3,50, 9,21,42	
		1, 0,57, 8,12, 5, 6,16		4,27
6″	52,28,10,26, 5,44,54,56,37,40		3,50, 9,26, 9	
		1, 0,57, 4,21,55,40, 7		4,27
8″	52,28,11,27, 2,49,16,52,17,47		3,50, 9,30,36	
		1, 0,57, 0,31,46, 9,31		4,27
10″	52,28,12,27,59,49,48,38,27,18		3,50, 9,35, 3	
		1, 0,56,56,41,36,34,28		4,27
12″	52,28,13,28,56,46,30,15, 1,46		3,50, 9,39,30	
		1, 0,56,52,51,26,54,58		4,27
14″	52,28,14,29,53,39,21,41,56,44		3,50, 9,43,57	
		1, 0,56,49, 1,17,11, 1		4,27
16″	52,28,15,30,50,28,22,59, 7,45		3,50, 9,48,24	
		1, 0,56,45,11, 7,22,37		4,27
18″	52,28,16,31,47,13,34, 6,30,22		3,50, 9,52,51	
		1, 0,56,41,20,57,29,46		4,27
20″	52,28,17,32,43,54,55, 4, 0, 8		3,50, 9,57,18	
		1, 0,56,37,30,47,32,28		4,27
22″	52,28,18,33,40,32,25,51,32,36		3,50,10, 1,45	
		1, 0,56,33,40,37,30,43		4,27
24″	52,28,19,34,37, 6, 6,29, 3,19		3,50,10, 6,12	
		1, 0,56,29,50,27,24,31		4,27
26″	52,28,20,35,33,35,56,56,27,50		3,50,10,10,39	
		1, 0,56,26, 0,17,13,52		4,27
28″	52,28,21,36,30, 1,57,13,41,42		3,50,10,15, 6	
		1, 0,56,22,10, 6,58,46		4,27
30″	52,28,22,37,26,24, 7,20,40,28		3,50,10,19,33	
		1, 0,56,18,19,56,39,13		4,27
32″	52,28,23,38,22,42,27,17,19,41		3,50,10,24, 0	
		1, 0,56,14,29,46,15,13		4,27
34″	52,28,24,39,18,56,57, 3,34,54		3,50,10,28,27	
		1, 0,56,10,39,35,46,46		4,27
36″	52,28,25,40,15, 7,36,39,21,40		3,50,10,32,54	
		1, 0,56, 6,49,25,13,52		4,27
38″	52,28,26,41,11,14,26, 4,35,32		3,50,10,37,21	
		1, 0,56, 2,59,14,36,31		4,27
40″	52,28,27,42, 7,17,25,19,12, 3		3,50,10,41,48	
		1, 0,55,59, 9, 3,54,43		4,27
42″	52,28,28,43, 3,16,34,23, 6,46		3,50,10,46,15	
		1, 0,55,55,18,53, 8,28		4,27
44″	52,28,29,43,59,11,53,16,15,14		3,50,10,50,42	
		1, 0,55,51,28,42,17,46		4,27
46″	52,28,30,44,55, 3,21,58,33, 0		3,50,10,55, 9	
		1, 0,55,47,38,31,22,37		4,27
48″	52,28,31,45,50,51, 0,29,55,37		3,50,10,59,36	
		1, 0,55,43,48,20,23, 1		4,27
50″	52,28,32,46,46,34,48,50,18,38		3,50,11, 4, 3	
		1, 0,55,39,58, 9,18,58		4,27
52″	52,28,33,47,42,14,46,59,37,36		3,50,11, 8,30	
		1, 0,55,36, 7,58,10,28		4,27
54″	52,28,34,48,37,50,54,57,48, 4		3,50,11,12,57	
		1, 0,55,32,17,46,57,31		4,27
56″	52,28,35,49,33,23,12,44,45,35		3,50,11,17,24	
		1, 0,55,28,27,35,40, 7		4,27
58″	52,28,36,50,28,51,40,20,25,42		3,50,11,21,51	
		1, 0,55,24,37,24,18,16		
60″	52,28,37,51,24,16,17,44,43,58			
exact	52,28,37,51,24,16,17,44,20,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61° 0′ 0″	52,28,37,51,24,16,17,44,20,30	1, 0,55,20,47,12,49,33		
2″	52,28,38,52,19,37, 4,57,10, 3	1, 0,55,16,57, 1,18,39	3,50,11,30,54	4,27
4″	52,28,39,53,14,54, 1,58,28,42	1, 0,55,13, 6,49,43,18	3,50,11,35,21	4,27
6″	52,28,40,54,10, 7, 8,48,12, 0	1, 0,55, 9,16,38, 3,30	3,50,11,39,48	4,27
8″	52,28,41,55, 5,16,25,26,15,30	1, 0,55, 5,26,26,19,15	3,50,11,44,15	4,27
10″	52,28,42,56, 0,21,51,52,34,45	1, 0,55, 1,36,14,30,33	3,50,11,48,42	4,27
12″	52,28,43,56,55,23,28, 7, 5,18	1, 0,54,57,46, 2,37,24	3,50,11,53, 9	4,27
14″	52,28,44,57,50,21,14, 9,42,42	1, 0,54,53,55,50,39,48	3,50,11,57,36	4,27
16″	52,28,45,58,45,15,10, 0,22,30	1, 0,54,50, 5,38,37,45	3,50,12, 2, 3	4,27
18″	52,28,46,59,40, 5,15,39, 0,15	1, 0,54,46,15,26,31,15	3,50,12, 6,30	4,27
20″	52,28,48, 0,34,51,31, 5,31,30	1, 0,54,42,25,14,20,18	3,50,12,10,57	4,27
22″	52,28,49, 1,29,33,56,19,51,48	1, 0,54,38,35, 2, 4,54	3,50,12,15,24	4,27
24″	52,28,50, 2,24,12,31,21,56,42	1, 0,54,34,44,49,45, 3	3,50,12,19,51	4,27
26″	52,28,51, 3,18,47,16,11,41,45	1, 0,54,30,54,37,20,45	3,50,12,24,18	4,27
28″	52,28,52, 4,13,18,10,49, 2,30	1, 0,54,27, 4,24,52, 0	3,50,12,28,45	4,27
30″	52,28,53, 5, 7,45,15,13,54,30	1, 0,54,23,14,12,18,48	3,50,12,33,12	4,27
32″	52,28,54, 6, 2, 8,29,26,13,18	1, 0,54,19,23,59,41, 9	3,50,12,37,39	4,27
34″	52,28,55, 6,56,27,53,25,54,27	1, 0,54,15,33,46,59, 3	3,50,12,42, 6	4,27
36″	52,28,56, 7,50,43,27,12,53,30	1, 0,54,11,43,34,12,30	3,50,12,46,33	4,27
38″	52,28,57, 8,44,55,10,47, 6, 0	1, 0,54, 7,53,21,21,30	3,50,12,51, 0	4,27
40″	52,28,58, 9,39, 3, 4, 8,27,30	1, 0,54, 4, 3, 8,26, 3	3,50,12,55,27	4,27
42″	52,28,59,10,33, 7, 7,16,53,33	1, 0,54, 0,12,55,26, 9	3,50,12,59,54	4,27
44″	52,29, 0,11,27, 7,20,12,19,42	1, 0,53,56,22,42,21,48	3,50,13, 4,21	4,27
46″	52,29, 1,12,21, 3,42,54,41,30	1, 0,53,52,32,29,13, 0	3,50,13, 8,48	4,27
48″	52,29, 2,13,14,56,15,23,54,30	1, 0,53,48,42,15,59,45	3,50,13,13,15	4,27
50″	52,29, 3,14, 8,44,57,39,54,15	1, 0,53,44,52, 2,42, 3	3,50,13,17,42	4,27
52″	52,29, 4,15, 2,29,49,42,36,18	1, 0,53,41, 1,49,19,54	3,50,13,22, 9	4,27
54″	52,29, 5,15,56,10,51,31,56,12	1, 0,53,37,11,35,53,18	3,50,13,26,36	4,27
56″	52,29, 6,16,49,48, 3, 7,49,30	1, 0,53,33,21,22,22,15	3,50,13,31, 3	4,27
58″	52,29, 7,17,43,21,24,30,11,45	1, 0,53,29,31, 8,46,45	3,50,13,35,30	
60″	52,29, 8,18,36,50,55,38,58,30			
exact	52,29, 8,18,36,50,55,38,43,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61° 1′ 0″	52,29, 8,18,36,50,55,38,43,54			
		1, 0,53,25,40,55, 5,22		
2″	52,29, 9,19,30,16,36,33,49,16		3,50,13,44,29	
		1, 0,53,21,50,41,20,53		4,27
4″	52,29,10,20,23,38,27,15,10, 9		3,50,13,48,56	
		1, 0,53,18, 0,27,31,57		4,27
6″	52,29,11,21,16,56,27,42,42, 6		3,50,13,53,23	
		1, 0,53,14,10,13,38,34		4,27
8″	52,29,12,22,10,10,37,56,20,40		3,50,13,57,50	
		1, 0,53,10,19,59,40,44		4,27
10″	52,29,13,23, 3,20,57,56, 1,24		3,50,14, 2,17	
		1, 0,53, 6,29,45,38,27		4,27
12″	52,29,14,23,56,27,27,41,39,51		3,50,14, 6,44	
		1, 0,53, 2,39,31,31,43		4,27
14″	52,29,15,24,49,30, 7,13,11,34		3,50,14,11,11	
		1, 0,52,58,49,17,20,32		4,27
16″	52,29,16,25,42,28,56,30,32, 6		3,50,14,15,38	
		1, 0,52,54,59, 3, 4,54		4,27
18″	52,29,17,26,35,23,55,33,37, 0		3,50,14,20, 5	
		1, 0,52,51, 8,48,44,49		4,27
20″	52,29,18,27,28,15, 4,22,21,49		3,50,14,24,32	
		1, 0,52,47,18,34,20,17		4,27
22″	52,29,19,28,21, 2,22,56,42, 6		3,50,14,28,59	
		1, 0,52,43,28,19,51,18		4,27
24″	52,29,20,29,13,45,51,16,33,24		3,50,14,33,26	
		1, 0,52,39,38, 5,17,52		4,27
26″	52,29,21,30, 6,25,29,21,51,16		3,50,14,37,53	
		1, 0,52,35,47,50,39,59		4,27
28″	52,29,22,30,59, 1,17,12,31,15		3,50,14,42,20	
		1, 0,52,31,57,35,57,39		4,27
30″	52,29,23,31,51,33,14,48,28,54		3,50,14,46,47	
		1, 0,52,28, 7,21,10,52		4,27
32″	52,29,24,32,44, 1,22, 9,39,46		3,50,14,51,14	
		1, 0,52,24,17, 6,19,38		4,27
34″	52,29,25,33,36,25,39,15,59,24		3,50,14,55,41	
		1, 0,52,20,26,51,23,57		4,27
36″	52,29,26,34,28,46, 6, 7,23,21		3,50,15, 0, 8	
		1, 0,52,16,36,36,23,49		4,27
38″	52,29,27,35,21, 2,42,43,47,10		3,50,15, 4,35	
		1, 0,52,12,46,21,19,14		4,27
40″	52,29,28,36,13,15,29, 5, 6,24		3,50,15, 9, 2	
		1, 0,52, 8,56, 6,10,12		4,27
42″	52,29,29,37, 5,24,25,11,16,36		3,50,15,13,29	
		1, 0,52, 5, 5,50,56,43		4,27
44″	52,29,30,37,57,29,31, 2,13,19		3,50,15,17,56	
		1, 0,52, 1,15,35,38,47		4,27
46″	52,29,31,38,49,30,46,37,52, 6		3,50,15,22,23	
		1, 0,51,57,25,20,16,24		4,27
48″	52,29,32,39,41,28,11,58, 8,30		3,50,15,26,50	
		1, 0,51,53,35, 4,49,34		4,27
50″	52,29,33,40,33,21,47, 2,58, 4		3,50,15,31,17	
		1, 0,51,49,44,49,18,17		4,27
52″	52,29,34,41,25,11,31,52,16,21		3,50,15,35,44	
		1, 0,51,45,54,33,42,33		4,27
54″	52,29,35,42,16,57,26,25,58,54		3,50,15,40,11	
		1, 0,51,42, 4,18, 2,22		4,27
56″	52,29,36,43, 8,39,30,44, 1,16		3,50,15,44,38	
		1, 0,51,38,14, 2,17,44		4,27
58″	52,29,37,44, 0,17,44,46,19, 0		3,50,15,49, 5	
		1, 0,51,34,23,46,28,39		
60″	52,29,38,44,51,52, 8,32,47,39			
exact	52,29,38,44,51,52, 8,32,42,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61° 2′ 0″	52,29,38,44,51,52, 8,32,42,50			
		1, 0,51,30,33,30,34,44		
2″	52,29,39,45,43,22,42, 3,17,34		3,50,15,58, 0	
		1, 0,51,26,43,14,36,44		4,27
4″	52,29,40,46,34,49,25,17,54,18		3,50,16, 2,27	
		1, 0,51,22,52,58,34,17		4,27
6″	52,29,41,47,26,12,18,16,28,35		3,50,16, 6,54	
		1, 0,51,19, 2,42,27,23		4,27
8″	52,29,42,48,17,31,20,58,55,58		3,50,16,11,21	
		1, 0,51,15,12,26,16, 2		4,27
10″	52,29,43,49, 8,46,33,25,12, 0		3,50,16,15,48	
		1, 0,51,11,22,10, 0,14		4,27
12″	52,29,44,49,59,57,55,35,12,14		3,50,16,20,15	
		1, 0,51, 7,31,53,39,59		4,27
14″	52,29,45,50,51, 5,27,28,52,13		3,50,16,24,42	
		1, 0,51, 3,41,37,15,17		4,27
16″	52,29,46,51,42, 9, 9, 6, 7,30		3,50,16,29, 9	
		1, 0,50,59,51,20,46, 8		4,27
18″	52,29,47,52,33, 9, 0,26,53,38		3,50,16,33,36	
		1, 0,50,56, 1, 4,12,32		4,27
20″	52,29,48,53,24, 5, 1,31, 6,10		3,50,16,38, 3	
		1, 0,50,52,10,47,34,29		4,27
22″	52,29,49,54,14,57,12,18,40,39		3,50,16,42,30	
		1, 0,50,48,20,30,51,59		4,27
24″	52,29,50,55, 5,45,32,49,32,38		3,50,16,46,57	
		1, 0,50,44,30,14, 5, 2		4,27
26″	52,29,51,55,56,30, 3, 3,37,40		3,50,16,51,24	
		1, 0,50,40,39,57,13,38		4,27
28″	52,29,52,56,47,10,43, 0,51,18		3,50,16,55,51	
		1, 0,50,36,49,40,17,47		4,27
30″	52,29,53,57,37,47,32,41, 9, 5		3,50,17, 0,18	
		1, 0,50,32,59,23,17,29		4,27
32″	52,29,54,58,28,20,32, 4,26,34		3,50,17, 4,45	
		1, 0,50,29, 9, 6,12,44		4,27
34″	52,29,55,59,18,49,41,10,39,18		3,50,17, 9,12	
		1, 0,50,25,18,49, 3,32		4,27
36″	52,29,57, 0, 9,14,59,59,42,50		3,50,17,13,39	
		1, 0,50,21,28,31,49,53		4,27
38″	52,29,58, 0,59,36,28,31,32,43		3,50,17,18, 6	
		1, 0,50,17,38,14,31,47		4,27
40″	52,29,59, 1,49,54, 6,46, 4,30		3,50,17,22,33	
		1, 0,50,13,47,57, 9,14		4,27
42″	52,30, 0, 2,40, 7,54,43,13,44		3,50,17,27, 0	
		1, 0,50, 9,57,39,42,14		4,27
44″	52,30, 1, 3,30,17,52,22,55,58		3,50,17,31,27	
		1, 0,50, 6, 7,22,10,47		4,27
46″	52,30, 2, 4,20,23,59,45, 6,45		3,50,17,35,54	
		1, 0,50, 2,17, 4,34,53		4,27
48″	52,30, 3, 5,10,26,16,49,41,38		3,50,17,40,21	
		1, 0,49,58,26,46,54,32		4,27
50″	52,30, 4, 6, 0,24,43,36,36,10		3,50,17,44,48	
		1, 0,49,54,36,29, 9,44		4,27
52″	52,30, 5, 6,50,19,20, 5,45,54		3,50,17,49,15	
		1, 0,49,50,46,11,20,29		4,27
54″	52,30, 6, 7,40,10, 6,17, 6,23		3,50,17,53,42	
		1, 0,49,46,55,53,26,47		4,27
56″	52,30, 7, 8,29,57, 2,10,33,10		3,50,17,58, 9	
		1, 0,49,43, 5,35,28,38		4,27
58″	52,30, 8, 9,19,40, 7,46, 1,48		3,50,18, 2,36	
		1, 0,49,39,15,17,26, 2		
60″	52,30, 9,10, 9,19,23, 3,27,50			
exact	52,30, 9,10, 9,19,23, 3,34,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61° 3′ 0″	52,30, 9,10, 9,19,23, 3,34,52			
		1, 0,49,35,24,59,19,46		
2″	52,30,10,10,58,54,48, 2,54,38		3,50,18,11,26	
		1, 0,49,31,34,41, 8,20		4,27
4″	52,30,11,11,48,26,22,44, 2,58		3,50,18,15,53	
		1, 0,49,27,44,22,52,27		4,27
6″	52,30,12,12,37,54, 7, 6,55,25		3,50,18,20,20	
		1, 0,49,23,54, 4,32, 7		4,27
8″	52,30,13,13,27,18, 1,11,27,32		3,50,18,24,47	
		1, 0,49,20, 3,46, 7,20		4,27
10″	52,30,14,14,16,38, 4,57,34,52		3,50,18,29,14	
		1, 0,49,16,13,27,38, 6		4,27
12″	52,30,15,15, 5,54,18,25,12,58		3,50,18,33,41	
		1, 0,49,12,23, 9, 4,25		4,27
14″	52,30,16,15,55, 6,41,34,17,23		3,50,18,38, 8	
		1, 0,49, 8,32,50,26,17		4,27
16″	52,30,17,16,44,15,14,24,43,40		3,50,18,42,35	
		1, 0,49, 4,42,31,43,42		4,27
18″	52,30,18,17,33,19,56,56,27,22		3,50,18,47, 2	
		1, 0,49, 0,52,12,56,40		4,27
20″	52,30,19,18,22,20,49, 9,24, 2		3,50,18,51,29	
		1, 0,48,57, 1,54, 5,11		4,27
22″	52,30,20,19,11,17,51, 3,29,13		3,50,18,55,56	
		1, 0,48,53,11,35, 9,15		4,27
24″	52,30,21,20, 0,11, 2,38,38,28		3,50,19, 0,23	
		1, 0,48,49,21,16, 8,52		4,27
26″	52,30,22,20,49, 0,23,54,47,20		3,50,19, 4,50	
		1, 0,48,45,30,57, 4, 2		4,27
28″	52,30,23,21,37,45,54,51,51,22		3,50,19, 9,17	
		1, 0,48,41,40,37,54,45		4,27
30″	52,30,24,22,26,27,35,29,46, 7		3,50,19,13,44	
		1, 0,48,37,50,18,41, 1		4,27
32″	52,30,25,23,15, 5,25,48,27, 8		3,50,19,18,11	
		1, 0,48,33,59,59,22,50		4,27
34″	52,30,26,24, 3,39,25,47,49,58		3,50,19,22,38	
		1, 0,48,30, 9,40, 0,12		4,27
36″	52,30,27,24,52, 9,35,27,50,10		3,50,19,27, 5	
		1, 0,48,26,19,20,33, 7		4,27
38″	52,30,28,25,40,35,54,48,23,17		3,50,19,31,32	
		1, 0,48,22,29, 1, 1,35		4,27
40″	52,30,29,26,28,58,23,49,24,52		3,50,19,35,59	
		1, 0,48,18,38,41,25,36		4,27
42″	52,30,30,27,17,17, 2,30,50,28		3,50,19,40,26	
		1, 0,48,14,48,21,45,10		4,27
44″	52,30,31,28, 5,31,50,52,35,38		3,50,19,44,53	
		1, 0,48,10,58, 2, 0,17		4,27
46″	52,30,32,28,53,42,48,54,35,55		3,50,19,49,20	
		1, 0,48, 7, 7,42,10,57		4,27
48″	52,30,33,29,41,49,56,36,46,52		3,50,19,53,47	
		1, 0,48, 3,17,22,17,10		4,27
50″	52,30,34,30,29,53,13,59, 4, 2		3,50,19,58,14	
		1, 0,47,59,27, 2,18,56		4,27
52″	52,30,35,31,17,52,41, 1,22,58		3,50,20, 2,41	
		1, 0,47,55,36,42,16,15		4,27
54″	52,30,36,32, 5,48,17,43,39,13		3,50,20, 7, 8	
		1, 0,47,51,46,22, 9, 7		4,27
56″	52,30,37,32,53,40, 4, 5,48,20		3,50,20,11,35	
		1, 0,47,47,56, 1,57,32		4,27
58″	52,30,38,33,41,28, 0, 7,45,52		3,50,20,16, 2	
		1, 0,47,44, 5,41,41,30		
60″	52,30,39,34,29,12, 5,49,27,22			
exact	52,30,39,34,29,12, 5,49,40,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61° 4′ 0″	52,30,39,34,29,12, 5,49,40,41			
		1, 0,47,40,15,21,22,35		
2″	52,30,40,35,16,52,21,11, 3,16		3,50,20,24,49	
		1, 0,47,36,25, 0,57,46		4,27
4″	52,30,41,36, 4,28,46,12, 1, 2		3,50,20,29,16	
		1, 0,47,32,34,40,28,30		4,27
6″	52,30,42,36,52, 1,20,52,29,32		3,50,20,33,43	
		1, 0,47,28,44,19,54,47		4,27
8″	52,30,43,37,39,30, 5,12,24,19		3,50,20,38,10	
		1, 0,47,24,53,59,16,37		4,27
10″	52,30,44,38,26,54,59,11,40,56		3,50,20,42,37	
		1, 0,47,21, 3,38,34, 0		4,27
12″	52,30,45,39,14,16, 2,50,14,56		3,50,20,47, 4	
		1, 0,47,17,13,17,46,56		4,27
14″	52,30,46,40, 1,33,16, 8, 1,52		3,50,20,51,31	
		1, 0,47,13,22,56,55,25		4,27
16″	52,30,47,40,48,46,39, 4,57,17		3,50,20,55,58	
		1, 0,47, 9,32,35,59,27		4,27
18″	52,30,48,41,35,56,11,40,56,44		3,50,21, 0,25	
		1, 0,47, 5,42,14,59, 2		4,27
20″	52,30,49,42,23, 1,53,55,55,46		3,50,21, 4,52	
		1, 0,47, 1,51,53,54,10		4,27
22″	52,30,50,43,10, 3,45,49,49,56		3,50,21, 9,19	
		1, 0,46,58, 1,32,44,51		4,27
24″	52,30,51,43,57, 1,47,22,34,47		3,50,21,13,46	
		1, 0,46,54,11,11,31, 5		4,27
26″	52,30,52,44,43,55,58,34, 5,52		3,50,21,18,13	
		1, 0,46,50,20,50,12,52		4,27
28″	52,30,53,45,30,46,19,24,18,44		3,50,21,22,40	
		1, 0,46,46,30,28,50,12		4,27
30″	52,30,54,46,17,32,49,53, 8,56		3,50,21,27, 7	
		1, 0,46,42,40, 7,23, 5		4,27
32″	52,30,55,47, 4,15,30, 0,32, 1		3,50,21,31,34	
		1, 0,46,38,49,45,51,31		4,27
34″	52,30,56,47,50,54,19,46,23,32		3,50,21,36, 1	
		1, 0,46,34,59,24,15,30		4,27
36″	52,30,57,48,37,29,19,10,39, 2		3,50,21,40,28	
		1, 0,46,31, 9, 2,35, 2		4,27
38″	52,30,58,49,24, 0,28,13,14, 4		3,50,21,44,55	
		1, 0,46,27,18,40,50, 7		4,27
40″	52,30,59,50,10,27,46,54, 4,11		3,50,21,49,22	
		1, 0,46,23,28,19, 0,45		4,27
42″	52,31, 0,50,56,51,15,13, 4,56		3,50,21,53,49	
		1, 0,46,19,37,57, 6,56		4,27
44″	52,31, 1,51,43,10,53,10,11,52		3,50,21,58,16	
		1, 0,46,15,47,35, 8,40		4,27
46″	52,31, 2,52,29,26,40,45,20,32		3,50,22, 2,43	
		1, 0,46,11,57,13, 5,57		4,27
48″	52,31, 3,53,15,38,37,58,26,29		3,50,22, 7,10	
		1, 0,46, 8, 6,50,58,47		4,27
50″	52,31, 4,54, 1,46,44,49,25,16		3,50,22,11,37	
		1, 0,46, 4,16,28,47,10		4,27
52″	52,31, 5,54,47,51, 1,18,12,26		3,50,22,16, 4	
		1, 0,46, 0,26, 6,31, 6		4,27
54″	52,31, 6,55,33,51,27,24,43,32		3,50,22,20,31	
		1, 0,45,56,35,44,10,35		4,27
56″	52,31, 7,56,19,48, 3, 8,54, 7		3,50,22,24,58	
		1, 0,45,52,45,21,45,37		4,27
58″	52,31, 8,57, 5,40,48,30,39,44		3,50,22,29,25	
		1, 0,45,48,54,59,16,12		
60″	52,31, 9,57,51,29,43,29,55,56			
exact	52,31, 9,57,51,29,43,30,24, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61° 5′ 0″	52,31, 9,57,51,29,43,30,24, 3			
		1, 0,45,45, 4,36,45,17		
2″	52,31,10,58,37,14,48, 7, 9,20		3,50,22,38, 7	
		1, 0,45,41,14,14, 7,10		4,27
4″	52,31,11,59,22,56, 2,21,16,30		3,50,22,42,34	
		1, 0,45,37,23,51,24,36		4,27
6″	52,31,13, 0, 8,33,26,12,41, 6		3,50,22,47, 1	
		1, 0,45,33,33,28,37,35		4,27
8″	52,31,14, 0,54, 6,59,41,18,41		3,50,22,51,28	
		1, 0,45,29,43, 5,46, 7		4,27
10″	52,31,15, 1,39,36,42,47, 4,48		3,50,22,55,55	
		1, 0,45,25,52,42,50,12		4,27
12″	52,31,16, 2,25, 2,35,29,55, 0		3,50,23, 0,22	
		1, 0,45,22, 2,19,49,50		4,27
14″	52,31,17, 3,10,24,37,49,44,50		3,50,23, 4,49	
		1, 0,45,18,11,56,45, 1		4,27
16″	52,31,18, 3,55,42,49,46,29,51		3,50,23, 9,16	
		1, 0,45,14,21,33,35,45		4,27
18″	52,31,19, 4,40,57,11,20, 5,36		3,50,23,13,43	
		1, 0,45,10,31,10,22, 2		4,27
20″	52,31,20, 5,26, 7,42,30,27,38		3,50,23,18,10	
		1, 0,45, 6,40,47, 3,52		4,27
22″	52,31,21, 6,11,14,23,17,31,30		3,50,23,22,37	
		1, 0,45, 2,50,23,41,15		4,27
24″	52,31,22, 6,56,17,13,41,12,45		3,50,23,27, 4	
		1, 0,44,59, 0, 0,14,11		4,27
26″	52,31,23, 7,41,16,13,41,26,56		3,50,23,31,31	
		1, 0,44,55, 9,36,42,40		4,27
28″	52,31,24, 8,26,11,23,18, 9,36		3,50,23,35,58	
		1, 0,44,51,19,13, 6,42		4,27
30″	52,31,25, 9,11, 2,42,31,16,18		3,50,23,40,25	
		1, 0,44,47,28,49,26,17		4,27
32″	52,31,26, 9,55,50,11,20,42,35		3,50,23,44,52	
		1, 0,44,43,38,25,41,25		4,27
34″	52,31,27,10,40,33,49,46,24, 0		3,50,23,49,19	
		1, 0,44,39,48, 1,52, 6		4,27
36″	52,31,28,11,25,13,37,48,16, 6		3,50,23,53,46	
		1, 0,44,35,57,37,58,20		4,27
38″	52,31,29,12, 9,49,35,26,14,26		3,50,23,58,13	
		1, 0,44,32, 7,14, 0, 7		4,27
40″	52,31,30,12,54,21,42,40,14,33		3,50,24, 2,40	
		1, 0,44,28,16,49,57,27		4,27
42″	52,31,31,13,38,49,59,30,12, 0		3,50,24, 7, 7	
		1, 0,44,24,26,25,50,20		4,27
44″	52,31,32,14,23,14,25,56, 2,20		3,50,24,11,34	
		1, 0,44,20,36, 1,38,46		4,27
46″	52,31,33,15, 7,35, 1,57,41, 6		3,50,24,16, 1	
		1, 0,44,16,45,37,22,45		4,27
48″	52,31,34,15,51,51,47,35, 3,51		3,50,24,20,28	
		1, 0,44,12,55,13, 2,17		4,27
50″	52,31,35,16,36, 4,42,48, 6, 8		3,50,24,24,55	
		1, 0,44, 9, 4,48,37,22		4,27
52″	52,31,36,17,20,13,47,36,43,30		3,50,24,29,22	
		1, 0,44, 5,14,24, 8, 0		4,27
54″	52,31,37,18, 4,19, 2, 0,51,30		3,50,24,33,49	
		1, 0,44, 1,23,59,34,11		4,27
56″	52,31,38,18,48,20,26, 0,25,41		3,50,24,38,16	
		1, 0,43,57,33,34,55,55		4,27
58″	52,31,39,19,32,17,59,35,21,36		3,50,24,42,43	
		1, 0,43,53,43,10,13,12		
60″	52,31,40,20,16,11,42,45,34,48			
exact	52,31,40,20,16,11,42,46,11,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61° 6′ 0″	52,31,40,20,16,11,42,46,11,58			
		1, 0,43,49,52,45,29,59		
2″	52,31,41,21, 0, 1,35,31,41,57		3,50,24,51,20	
		1, 0,43,46, 2,20,38,39		4,26
4″	52,31,42,21,43,47,37,52,20,36		3,50,24,55,46	
		1, 0,43,42,11,55,42,53		4,26
6″	52,31,43,22,27,29,49,48, 3,29		3,50,25, 0,12	
		1, 0,43,38,21,30,42,41		4,26
8″	52,31,44,23,11, 8,11,18,46,10		3,50,25, 4,38	
		1, 0,43,34,31, 5,38, 3		4,26
10″	52,31,45,23,54,42,42,24,24,13		3,50,25, 9, 4	
		1, 0,43,30,40,40,28,59		4,26
12″	52,31,46,24,38,13,23, 4,53,12		3,50,25,13,30	
		1, 0,43,26,50,15,15,29		4,26
14″	52,31,47,25,21,40,13,20, 8,41		3,50,25,17,56	
		1, 0,43,22,59,49,57,33		4,26
16″	52,31,48,26, 5, 3,13,10, 6,14		3,50,25,22,22	
		1, 0,43,19, 9,24,35,11		4,26
18″	52,31,49,26,48,22,22,34,41,25		3,50,25,26,48	
		1, 0,43,15,18,59, 8,23		4,26
20″	52,31,50,27,31,37,41,33,49,48		3,50,25,31,14	
		1, 0,43,11,28,33,37, 9		4,26
22″	52,31,51,28,14,49,10, 7,26,57		3,50,25,35,40	
		1, 0,43, 7,38, 8, 1,29		4,26
24″	52,31,52,28,57,56,48,15,28,26		3,50,25,40, 6	
		1, 0,43, 3,47,42,21,23		4,26
26″	52,31,53,29,41, 0,35,57,49,49		3,50,25,44,32	
		1, 0,42,59,57,16,36,51		4,26
28″	52,31,54,30,24, 0,33,14,26,40		3,50,25,48,58	
		1, 0,42,56, 6,50,47,53		4,26
30″	52,31,55,31, 6,56,40, 5,14,33		3,50,25,53,24	
		1, 0,42,52,16,24,54,29		4,26
32″	52,31,56,31,49,48,56,30, 9, 2		3,50,25,57,50	
		1, 0,42,48,25,58,56,39		4,26
34″	52,31,57,32,32,37,22,29, 5,41		3,50,26, 2,16	
		1, 0,42,44,35,32,54,23		4,26
36″	52,31,58,33,15,21,58, 2, 0, 4		3,50,26, 6,42	
		1, 0,42,40,45, 6,47,41		4,26
38″	52,31,59,33,58, 2,43, 8,47,45		3,50,26,11, 8	
		1, 0,42,36,54,40,36,33		4,26
40″	52,32, 0,34,40,39,37,49,24,18		3,50,26,15,34	
		1, 0,42,33, 4,14,20,59		4,26
42″	52,32, 1,35,23,12,42, 3,45,17		3,50,26,20, 0	
		1, 0,42,29,13,48, 0,59		4,26
44″	52,32, 2,36, 5,41,55,51,46,16		3,50,26,24,26	
		1, 0,42,25,23,21,36,33		4,26
46″	52,32, 3,36,48, 7,19,13,22,49		3,50,26,28,52	
		1, 0,42,21,32,55, 7,41		4,26
48″	52,32, 4,37,30,28,52, 8,30,30		3,50,26,33,18	
		1, 0,42,17,42,28,34,23		4,26
50″	52,32, 5,38,12,46,34,37, 4,53		3,50,26,37,44	
		1, 0,42,13,52, 1,56,39		4,26
52″	52,32, 6,38,55, 0,26,39, 1,32		3,50,26,42,10	
		1, 0,42,10, 1,35,14,29		4,26
54″	52,32, 7,39,37,10,28,14,16, 1		3,50,26,46,36	
		1, 0,42, 6,11, 8,27,53		4,26
56″	52,32, 8,40,19,16,39,22,43,54		3,50,26,51, 2	
		1, 0,42, 2,20,41,36,51		4,26
58″	52,32, 9,41, 1,19, 0, 4,20,45		3,50,26,55,28	
		1, 0,41,58,30,14,41,23		
60″	52,32,10,41,43,17,30,19, 2, 8			
exact	52,32,10,41,43,17,30,18,34,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61° 7′ 0″	52,32,10,41,43,17,30,18,34,33			
		1, 0,41,54,39,47,38,45		
2″	52,32,11,42,25,12,10, 6,13,18		3,50,27, 4,30	
		1, 0,41,50,49,20,34,15		4,26
4″	52,32,12,43, 7, 2,59,26,47,33		3,50,27, 8,56	
		1, 0,41,46,58,53,25,19		4,26
6″	52,32,13,43,48,49,58,20,12,52		3,50,27,13,22	
		1, 0,41,43, 8,26,11,57		4,26
8″	52,32,14,44,30,33, 6,46,24,49		3,50,27,17,48	
		1, 0,41,39,17,58,54, 9		4,26
10″	52,32,15,45,12,12,24,45,18,58		3,50,27,22,14	
		1, 0,41,35,27,31,31,55		4,26
12″	52,32,16,45,53,47,52,16,50,53		3,50,27,26,40	
		1, 0,41,31,37, 4, 5,15		4,26
14″	52,32,17,46,35,19,29,20,56, 8		3,50,27,31, 6	
		1, 0,41,27,46,36,34, 9		4,26
16″	52,32,18,47,16,47,15,57,30,17		3,50,27,35,32	
		1, 0,41,23,56, 8,58,37		4,26
18″	52,32,19,47,58,11,12, 6,28,54		3,50,27,39,58	
		1, 0,41,20, 5,41,18,39		4,26
20″	52,32,20,48,39,31,17,47,47,33		3,50,27,44,24	
		1, 0,41,16,15,13,34,15		4,26
22″	52,32,21,49,20,47,33, 1,21,48		3,50,27,48,50	
		1, 0,41,12,24,45,45,25		4,26
24″	52,32,22,50, 1,59,57,47, 7,13		3,50,27,53,16	
		1, 0,41, 8,34,17,52, 9		4,26
26″	52,32,23,50,43, 8,32, 4,59,22		3,50,27,57,42	
		1, 0,41, 4,43,49,54,27		4,26
28″	52,32,24,51,24,13,15,54,53,49		3,50,28, 2, 8	
		1, 0,41, 0,53,21,52,19		4,26
30″	52,32,25,52, 5,14, 9,16,46, 8		3,50,28, 6,34	
		1, 0,40,57, 2,53,45,45		4,26
32″	52,32,26,52,46,11,12,10,31,53		3,50,28,11, 0	
		1, 0,40,53,12,25,34,45		4,26
34″	52,32,27,53,27, 4,24,36, 6,38		3,50,28,15,26	
		1, 0,40,49,21,57,19,19		4,26
36″	52,32,28,54, 7,53,46,33,25,57		3,50,28,19,52	
		1, 0,40,45,31,28,59,27		4,26
38″	52,32,29,54,48,39,18, 2,25,24		3,50,28,24,18	
		1, 0,40,41,41, 0,35, 9		4,26
40″	52,32,30,55,29,20,59, 3, 0,33		3,50,28,28,44	
		1, 0,40,37,50,32, 6,25		4,26
42″	52,32,31,56, 9,58,49,35, 6,58		3,50,28,33,10	
		1, 0,40,34, 0, 3,33,15		4,26
44″	52,32,32,56,50,32,49,38,40,13		3,50,28,37,36	
		1, 0,40,30, 9,34,55,39		4,26
46″	52,32,33,57,31, 2,59,13,35,52		3,50,28,42, 2	
		1, 0,40,26,19, 6,13,37		4,26
48″	52,32,34,58,11,29,18,19,49,29		3,50,28,46,28	
		1, 0,40,22,28,37,27, 9		4,26
50″	52,32,35,58,51,51,46,57,16,38		3,50,28,50,54	
		1, 0,40,18,38, 8,36,15		4,26
52″	52,32,36,59,32,10,25, 5,52,53		3,50,28,55,20	
		1, 0,40,14,47,39,40,55		4,26
54″	52,32,38, 0,12,25,12,45,33,48		3,50,28,59,46	
		1, 0,40,10,57,10,41, 9		4,26
56″	52,32,39, 0,52,36, 9,56,14,57		3,50,29, 4,12	
		1, 0,40, 7, 6,41,36,57		4,26
58″	52,32,40, 1,32,43,16,37,51,54		3,50,29, 8,38	
		1, 0,40, 3,16,12,28,19		
60″	52,32,41, 2,12,46,32,50,20,13			
exact	52,32,41, 2,12,46,32,50, 5, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61° 8′ 0″	52,32,41, 2,12,46,32,50, 5, 4			
		1, 0,39,59,25,43,13,44		
2″	52,32,42, 2,52,45,58,33,18,48		3,50,29,17,36	
		1, 0,39,55,35,13,56, 8		4,26
4″	52,32,43, 3,32,41,33,47,14,56		3,50,29,22, 2	
		1, 0,39,51,44,44,34, 6		4,26
6″	52,32,44, 4,12,33,18,31,49, 2		3,50,29,26,28	
		1, 0,39,47,54,15, 7,38		4,26
8″	52,32,45, 4,52,21,12,46,56,40		3,50,29,30,54	
		1, 0,39,44, 3,45,36,44		4,26
10″	52,32,46, 5,32, 5,16,32,33,24		3,50,29,35,20	
		1, 0,39,40,13,16, 1,24		4,26
12″	52,32,47, 6,11,45,29,48,34,48		3,50,29,39,46	
		1, 0,39,36,22,46,21,38		4,26
14″	52,32,48, 6,51,21,52,34,56,26		3,50,29,44,12	
		1, 0,39,32,32,16,37,26		4,26
16″	52,32,49, 7,30,54,24,51,33,52		3,50,29,48,38	
		1, 0,39,28,41,46,48,48		4,26
18″	52,32,50, 8,10,23, 6,38,22,40		3,50,29,53, 4	
		1, 0,39,24,51,16,55,44		4,26
20″	52,32,51, 8,49,47,57,55,18,24		3,50,29,57,30	
		1, 0,39,21, 0,46,58,14		4,26
22″	52,32,52, 9,29, 8,58,42,16,38		3,50,30, 1,56	
		1, 0,39,17,10,16,56,18		4,26
24″	52,32,53,10, 8,26, 8,59,12,56		3,50,30, 6,22	
		1, 0,39,13,19,46,49,56		4,26
26″	52,32,54,10,47,39,28,46, 2,52		3,50,30,10,48	
		1, 0,39, 9,29,16,39, 8		4,26
28″	52,32,55,11,26,48,58, 2,42, 0		3,50,30,15,14	
		1, 0,39, 5,38,46,23,54		4,26
30″	52,32,56,12, 5,54,36,49, 5,54		3,50,30,19,40	
		1, 0,39, 1,48,16, 4,14		4,26
32″	52,32,57,12,44,56,25, 5,10, 8		3,50,30,24, 6	
		1, 0,38,57,57,45,40, 8		4,26
34″	52,32,58,13,23,54,22,50,50,16		3,50,30,28,32	
		1, 0,38,54, 7,15,11,36		4,26
36″	52,32,59,14, 2,48,30, 6, 1,52		3,50,30,32,58	
		1, 0,38,50,16,44,38,38		4,26
38″	52,33, 0,14,41,38,46,50,40,30		3,50,30,37,24	
		1, 0,38,46,26,14, 1,14		4,26
40″	52,33, 1,15,20,25,13, 4,41,44		3,50,30,41,50	
		1, 0,38,42,35,43,19,24		4,26
42″	52,33, 2,15,59, 7,48,48, 1, 8		3,50,30,46,16	
		1, 0,38,38,45,12,33, 8		4,26
44″	52,33, 3,16,37,46,34, 0,34,16		3,50,30,50,42	
		1, 0,38,34,54,41,42,26		4,26
46″	52,33, 4,17,16,21,28,42,16,42		3,50,30,55, 8	
		1, 0,38,31, 4,10,47,18		4,26
48″	52,33, 5,17,54,52,32,53, 4, 0		3,50,30,59,34	
		1, 0,38,27,13,39,47,44		4,26
50″	52,33, 6,18,33,19,46,32,51,44		3,50,31, 4, 0	
		1, 0,38,23,23, 8,43,44		4,26
52″	52,33, 7,19,11,43, 9,41,35,28		3,50,31, 8,26	
		1, 0,38,19,32,37,35,18		4,26
54″	52,33, 8,19,50, 2,42,19,10,46		3,50,31,12,52	
		1, 0,38,15,42, 6,22,26		4,26
56″	52,33, 9,20,28,18,24,25,33,12		3,50,31,17,18	
		1, 0,38,11,51,35, 5, 8		4,26
58″	52,33,10,21, 6,30,16, 0,38,20		3,50,31,21,44	
		1, 0,38, 8, 1, 3,43,24		
60″	52,33,11,21,44,38,17, 4,21,44			
exact	52,33,11,21,44,38,17, 4,20, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61° 9′ 0″	52,33,11,21,44,38,17, 4,20, 1			
		1, 0,38, 4,10,32,17, 0		
2″	52,33,12,22,22,42,27,36,37, 1		3,50,31,30,37	
		1, 0,38, 0,20, 0,46,23		4,26
4″	52,33,13,23, 0,42,47,37,23,24		3,50,31,35, 3	
		1, 0,37,56,29,29,11,20		4,26
6″	52,33,14,23,38,39,17, 6,34,44		3,50,31,39,29	
		1, 0,37,52,38,57,31,51		4,26
8″	52,33,15,24,16,31,56, 4, 6,35		3,50,31,43,55	
		1, 0,37,48,48,25,47,56		4,26
10″	52,33,16,24,54,20,44,29,54,31		3,50,31,48,21	
		1, 0,37,44,57,53,59,35		4,26
12″	52,33,17,25,32, 5,42,23,54, 6		3,50,31,52,47	
		1, 0,37,41, 7,22, 6,48		4,26
14″	52,33,18,26, 9,46,49,46, 0,54		3,50,31,57,13	
		1, 0,37,37,16,50, 9,35		4,26
16″	52,33,19,26,47,24, 6,36,10,29		3,50,32, 1,39	
		1, 0,37,33,26,18, 7,56		4,26
18″	52,33,20,27,24,57,32,54,18,25		3,50,32, 6, 5	
		1, 0,37,29,35,46, 1,51		4,26
20″	52,33,21,28, 2,27, 8,40,20,16		3,50,32,10,31	
		1, 0,37,25,45,13,51,20		4,26
22″	52,33,22,28,39,52,53,54,11,36		3,50,32,14,57	
		1, 0,37,21,54,41,36,23		4,26
24″	52,33,23,29,17,14,48,35,47,59		3,50,32,19,23	
		1, 0,37,18, 4, 9,17, 0		4,26
26″	52,33,24,29,54,32,52,45, 4,59		3,50,32,23,49	
		1, 0,37,14,13,36,53,11		4,26
28″	52,33,25,30,31,47, 6,21,58,10		3,50,32,28,15	
		1, 0,37,10,23, 4,24,56		4,26
30″	52,33,26,31, 8,57,29,26,23, 6		3,50,32,32,41	
		1, 0,37, 6,32,31,52,15		4,26
32″	52,33,27,31,46, 4, 1,58,15,21		3,50,32,37, 7	
		1, 0,37, 2,41,59,15, 8		4,26
34″	52,33,28,32,23, 6,43,57,30,29		3,50,32,41,33	
		1, 0,36,58,51,26,33,35		4,26
36″	52,33,29,33, 0, 5,35,24, 4, 4		3,50,32,45,59	
		1, 0,36,55, 0,53,47,36		4,26
38″	52,33,30,33,37, 0,36,17,51,40		3,50,32,50,25	
		1, 0,36,51,10,20,57,11		4,26
40″	52,33,31,34,13,51,46,38,48,51		3,50,32,54,51	
		1, 0,36,47,19,48, 2,20		4,26
42″	52,33,32,34,50,39, 6,26,51,11		3,50,32,59,17	
		1, 0,36,43,29,15, 3, 3		4,26
44″	52,33,33,35,27,22,35,41,54,14		3,50,33, 3,43	
		1, 0,36,39,38,41,59,20		4,26
46″	52,33,34,36, 4, 2,14,23,53,34		3,50,33, 8, 9	
		1, 0,36,35,48, 8,51,11		4,26
48″	52,33,35,36,40,38, 2,32,44,45		3,50,33,12,35	
		1, 0,36,31,57,35,38,36		4,26
50″	52,33,36,37,17,10, 0, 8,23,21		3,50,33,17, 1	
		1, 0,36,28, 7, 2,21,35		4,26
52″	52,33,37,37,53,38, 7,10,44,56		3,50,33,21,27	
		1, 0,36,24,16,29, 0, 8		4,26
54″	52,33,38,38,30, 2,23,39,45, 4		3,50,33,25,53	
		1, 0,36,20,25,55,34,15		4,26
56″	52,33,39,39, 6,22,49,35,19,19		3,50,33,30,19	
		1, 0,36,16,35,22, 3,56		4,26
58″	52,33,40,39,42,39,24,57,23,15		3,50,33,34,45	
		1, 0,36,12,44,48,29,11		
60″	52,33,41,40,18,52, 9,45,52,26			
exact	52,33,41,40,18,52, 9,45,59, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°10′ 0″	52,33,41,40,18,52, 9,45,59, 1			
		1, 0,36, 8,54,14,50,42		
2″	52,33,42,40,55, 1, 4, 0,49,43		3,50,33,43,34	
		1, 0,36, 5, 3,41, 7, 8		4,26
4″	52,33,43,41,31, 6, 7,41,56,51		3,50,33,48, 0	
		1, 0,36, 1,13, 7,19, 8		4,26
6″	52,33,44,42, 7, 7,20,49,15,59		3,50,33,52,26	
		1, 0,35,57,22,33,26,42		4,26
8″	52,33,45,42,43, 4,43,22,42,41		3,50,33,56,52	
		1, 0,35,53,31,59,29,50		4,26
10″	52,33,46,43,18,58,15,22,12,31		3,50,34, 1,18	
		1, 0,35,49,41,25,28,32		4,26
12″	52,33,47,43,54,47,56,47,41, 3		3,50,34, 5,44	
		1, 0,35,45,50,51,22,48		4,26
14″	52,33,48,44,30,33,47,39, 3,51		3,50,34,10,10	
		1, 0,35,42, 0,17,12,38		4,26
16″	52,33,49,45, 6,15,47,56,16,29		3,50,34,14,36	
		1, 0,35,38, 9,42,58, 2		4,26
18″	52,33,50,45,41,53,57,39,14,31		3,50,34,19, 2	
		1, 0,35,34,19, 8,39, 0		4,26
20″	52,33,51,46,17,28,16,47,53,31		3,50,34,23,28	
		1, 0,35,30,28,34,15,32		4,26
22″	52,33,52,46,52,58,45,22, 9, 3		3,50,34,27,54	
		1, 0,35,26,37,59,47,38		4,26
24″	52,33,53,47,28,25,23,21,56,41		3,50,34,32,20	
		1, 0,35,22,47,25,15,18		4,26
26″	52,33,54,48, 3,48,10,47,11,59		3,50,34,36,46	
		1, 0,35,18,56,50,38,32		4,26
28″	52,33,55,48,39, 7, 7,37,50,31		3,50,34,41,12	
		1, 0,35,15, 6,15,57,20		4,26
30″	52,33,56,49,14,22,13,53,47,51		3,50,34,45,38	
		1, 0,35,11,15,41,11,42		4,26
32″	52,33,57,49,49,33,29,34,59,33		3,50,34,50, 4	
		1, 0,35, 7,25, 6,21,38		4,26
34″	52,33,58,50,24,40,54,41,21,11		3,50,34,54,30	
		1, 0,35, 3,34,31,27, 8		4,26
36″	52,33,59,50,59,44,29,12,48,19		3,50,34,58,56	
		1, 0,34,59,43,56,28,12		4,26
38″	52,34, 0,51,34,44,13, 9,16,31		3,50,35, 3,22	
		1, 0,34,55,53,21,24,50		4,26
40″	52,34, 1,52, 9,40, 6,30,41,21		3,50,35, 7,48	
		1, 0,34,52, 2,46,17, 2		4,26
42″	52,34, 2,52,44,32, 9,16,58,23		3,50,35,12,14	
		1, 0,34,48,12,11, 4,48		4,26
44″	52,34, 3,53,19,20,21,28, 3,11		3,50,35,16,40	
		1, 0,34,44,21,35,48, 8		4,26
46″	52,34, 4,53,54, 4,43, 3,51,19		3,50,35,21, 6	
		1, 0,34,40,31, 0,27, 2		4,26
48″	52,34, 5,54,28,45,14, 4,18,21		3,50,35,25,32	
		1, 0,34,36,40,25, 1,30		4,26
50″	52,34, 6,55, 3,21,54,29,19,51		3,50,35,29,58	
		1, 0,34,32,49,49,31,32		4,26
52″	52,34, 7,55,37,54,44,18,51,23		3,50,35,34,24	
		1, 0,34,28,59,13,57, 8		4,26
54″	52,34, 8,56,12,23,43,32,48,31		3,50,35,38,50	
		1, 0,34,25, 8,38,18,18		4,26
56″	52,34, 9,56,46,48,52,11, 6,49		3,50,35,43,16	
		1, 0,34,21,18, 2,35, 2		4,26
58″	52,34,10,57,21,10,10,13,41,51		3,50,35,47,42	
		1, 0,34,17,27,26,47,20		
60″	52,34,11,57,55,27,37,40,29,11			
exact	52,34,11,57,55,27,37,40,44,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°11′ 0″	52,34,11,57,55,27,37,40,44,58			
		1, 0,34,13,36,50,56,54		
2″	52,34,12,58,29,41,14,31,41,52		3,50,35,56,27	
		1, 0,34, 9,46,15, 0,27		4,26
4″	52,34,13,59, 3,51, 0,46,42,19		3,50,36, 0,53	
		1, 0,34, 5,55,38,59,34		4,26
6″	52,34,14,59,37,56,56,25,41,53		3,50,36, 5,19	
		1, 0,34, 2, 5, 2,54,15		4,26
8″	52,34,16, 0,11,59, 1,28,36, 8		3,50,36, 9,45	
		1, 0,33,58,14,26,44,30		4,26
10″	52,34,17, 0,45,57,15,55,20,38		3,50,36,14,11	
		1, 0,33,54,23,50,30,19		4,26
12″	52,34,18, 1,19,51,39,45,50,57		3,50,36,18,37	
		1, 0,33,50,33,14,11,42		4,26
14″	52,34,19, 1,53,42,13, 0, 2,39		3,50,36,23, 3	
		1, 0,33,46,42,37,48,39		4,26
16″	52,34,20, 2,27,28,55,37,51,18		3,50,36,27,29	
		1, 0,33,42,52, 1,21,10		4,26
18″	52,34,21, 3, 1,11,47,39,12,28		3,50,36,31,55	
		1, 0,33,39, 1,24,49,15		4,26
20″	52,34,22, 3,34,50,49, 4, 1,43		3,50,36,36,21	
		1, 0,33,35,10,48,12,54		4,26
22″	52,34,23, 4, 8,25,59,52,14,37		3,50,36,40,47	
		1, 0,33,31,20,11,32, 7		4,26
24″	52,34,24, 4,41,57,20, 3,46,44		3,50,36,45,13	
		1, 0,33,27,29,34,46,54		4,26
26″	52,34,25, 5,15,24,49,38,33,38		3,50,36,49,39	
		1, 0,33,23,38,57,57,15		4,26
28″	52,34,26, 5,48,48,28,36,30,53		3,50,36,54, 5	
		1, 0,33,19,48,21, 3,10		4,26
30″	52,34,27, 6,22, 8,16,57,34, 3		3,50,36,58,31	
		1, 0,33,15,57,44, 4,39		4,26
32″	52,34,28, 6,55,24,14,41,38,42		3,50,37, 2,57	
		1, 0,33,12, 7, 7, 1,42		4,26
34″	52,34,29, 7,28,36,21,48,40,24		3,50,37, 7,23	
		1, 0,33, 8,16,29,54,19		4,26
36″	52,34,30, 8, 1,44,38,18,34,43		3,50,37,11,49	
		1, 0,33, 4,25,52,42,30		4,26
38″	52,34,31, 8,34,49, 4,11,17,13		3,50,37,16,15	
		1, 0,33, 0,35,15,26,15		4,26
40″	52,34,32, 9, 7,49,39,26,43,28		3,50,37,20,41	
		1, 0,32,56,44,38, 5,34		4,26
42″	52,34,33, 9,40,46,24, 4,49, 2		3,50,37,25, 7	
		1, 0,32,52,54, 0,40,27		4,26
44″	52,34,34,10,13,39,18, 5,29,29		3,50,37,29,33	
		1, 0,32,49, 3,23,10,54		4,26
46″	52,34,35,10,46,28,21,28,40,23		3,50,37,33,59	
		1, 0,32,45,12,45,36,55		4,26
48″	52,34,36,11,19,13,34,14,17,18		3,50,37,38,25	
		1, 0,32,41,22, 7,58,30		4,26
50″	52,34,37,11,51,54,56,22,15,48		3,50,37,42,51	
		1, 0,32,37,31,30,15,39		4,26
52″	52,34,38,12,24,32,27,52,31,27		3,50,37,47,17	
		1, 0,32,33,40,52,28,22		4,26
54″	52,34,39,12,57, 6, 8,44,59,49		3,50,37,51,43	
		1, 0,32,29,50,14,36,39		4,26
56″	52,34,40,13,29,35,58,59,36,28		3,50,37,56, 9	
		1, 0,32,25,59,36,40,30		4,26
58″	52,34,41,14, 2, 1,58,36,16,58		3,50,38, 0,35	
		1, 0,32,22, 8,58,39,55		
60″	52,34,42,14,34,24, 7,34,56,53			
exact	52,34,42,14,34,24, 7,35,23,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°12′ 0″	52,34,42,14,34,24, 7,35,23,54			
		1, 0,32,18,18,20,37,44		
2″	52,34,43,15, 6,42,25,56, 1,38		3,50,38, 9,15	
		1, 0,32,14,27,42,28,29		4,26
4″	52,34,44,15,38,56,53,38,30, 7		3,50,38,13,41	
		1, 0,32,10,37, 4,14,48		4,26
6″	52,34,45,16,11, 7,30,42,44,55		3,50,38,18, 7	
		1, 0,32, 6,46,25,56,41		4,26
8″	52,34,46,16,43,14,17, 8,41,36		3,50,38,22,33	
		1, 0,32, 2,55,47,34, 8		4,26
10″	52,34,47,17,15,17,12,56,15,44		3,50,38,26,59	
		1, 0,31,59, 5, 9, 7, 9		4,26
12″	52,34,48,17,47,16,18, 5,22,53		3,50,38,31,25	
		1, 0,31,55,14,30,35,44		4,26
14″	52,34,49,18,19,11,32,35,58,37		3,50,38,35,51	
		1, 0,31,51,23,51,59,53		4,26
16″	52,34,50,18,51, 2,56,27,58,30		3,50,38,40,17	
		1, 0,31,47,33,13,19,36		4,26
18″	52,34,51,19,22,50,29,41,18, 6		3,50,38,44,43	
		1, 0,31,43,42,34,34,53		4,26
20″	52,34,52,19,54,34,12,15,52,59		3,50,38,49, 9	
		1, 0,31,39,51,55,45,44		4,26
22″	52,34,53,20,26,14, 4,11,38,43		3,50,38,53,35	
		1, 0,31,36, 1,16,52, 9		4,26
24″	52,34,54,20,57,50, 5,28,30,52		3,50,38,58, 1	
		1, 0,31,32,10,37,54, 8		4,26
26″	52,34,55,21,29,22,16, 6,25, 0		3,50,39, 2,27	
		1, 0,31,28,19,58,51,41		4,26
28″	52,34,56,22, 0,50,36, 5,16,41		3,50,39, 6,53	
		1, 0,31,24,29,19,44,48		4,26
30″	52,34,57,22,32,15, 5,25, 1,29		3,50,39,11,19	
		1, 0,31,20,38,40,33,29		4,26
32″	52,34,58,23, 3,35,44, 5,34,58		3,50,39,15,45	
		1, 0,31,16,48, 1,17,44		4,26
34″	52,34,59,23,34,52,32, 6,52,42		3,50,39,20,11	
		1, 0,31,12,57,21,57,33		4,26
36″	52,35, 0,24, 6, 5,29,28,50,15		3,50,39,24,37	
		1, 0,31, 9, 6,42,32,56		4,26
38″	52,35, 1,24,37,14,36,11,23,11		3,50,39,29, 3	
		1, 0,31, 5,16, 3, 3,53		4,26
40″	52,35, 2,25, 8,19,52,14,27, 4		3,50,39,33,29	
		1, 0,31, 1,25,23,30,24		4,26
42″	52,35, 3,25,39,21,17,37,57,28		3,50,39,37,55	
		1, 0,30,57,34,43,52,29		4,26
44″	52,35, 4,26,10,18,52,21,49,57		3,50,39,42,21	
		1, 0,30,53,44, 4,10, 8		4,26
46″	52,35, 5,26,41,12,36,26, 0, 5		3,50,39,46,47	
		1, 0,30,49,53,24,23,21		4,26
48″	52,35, 6,27,12, 2,29,50,23,26		3,50,39,51,13	
		1, 0,30,46, 2,44,32, 8		4,26
50″	52,35, 7,27,42,48,32,34,55,34		3,50,39,55,39	
		1, 0,30,42,12, 4,36,29		4,26
52″	52,35, 8,28,13,30,44,39,32, 3		3,50,40, 0, 5	
		1, 0,30,38,21,24,36,24		4,26
54″	52,35, 9,28,44, 9, 6, 4, 8,27		3,50,40, 4,31	
		1, 0,30,34,30,44,31,53		4,26
56″	52,35,10,29,14,43,36,48,40,20		3,50,40, 8,57	
		1, 0,30,30,40, 4,22,56		4,26
58″	52,35,11,29,45,14,16,53, 3,16		3,50,40,13,23	
		1, 0,30,26,49,24, 9,33		
60″	52,35,12,30,15,41, 6,17,12,49			
exact	52,35,12,30,15,41, 6,17,45, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°13′ 0″	52,35,12,30,15,41, 6,17,45, 7			
		1, 0,30,22,58,43,55,18		
2″	52,35,13,30,46, 4, 5, 1,40,25		3,50,40,21,59	
		1, 0,30,19, 8, 3,33,19		4,25
4″	52,35,14,31,16,23,13, 5,13,44		3,50,40,26,24	
		1, 0,30,15,17,23, 6,55		4,25
6″	52,35,15,31,46,38,30,28,20,39		3,50,40,30,49	
		1, 0,30,11,26,42,36, 6		4,25
8″	52,35,16,32,16,49,57,10,56,45		3,50,40,35,14	
		1, 0,30, 7,36, 2, 0,52		4,25
10″	52,35,17,32,46,57,33,12,57,37		3,50,40,39,39	
		1, 0,30, 3,45,21,21,13		4,25
12″	52,35,18,33,17, 1,18,34,18,50		3,50,40,44, 4	
		1, 0,29,59,54,40,37, 9		4,25
14″	52,35,19,33,47, 1,13,14,55,59		3,50,40,48,29	
		1, 0,29,56, 3,59,48,40		4,25
16″	52,35,20,34,16,57,17,14,44,39		3,50,40,52,54	
		1, 0,29,52,13,18,55,46		4,25
18″	52,35,21,34,46,49,30,33,40,25		3,50,40,57,19	
		1, 0,29,48,22,37,58,27		4,25
20″	52,35,22,35,16,37,53,11,38,52		3,50,41, 1,44	
		1, 0,29,44,31,56,56,43		4,25
22″	52,35,23,35,46,22,25, 8,35,35		3,50,41, 6, 9	
		1, 0,29,40,41,15,50,34		4,25
24″	52,35,24,36,16, 3, 6,24,26, 9		3,50,41,10,34	
		1, 0,29,36,50,34,40, 0		4,25
26″	52,35,25,36,45,39,56,59, 6, 9		3,50,41,14,59	
		1, 0,29,32,59,53,25, 1		4,25
28″	52,35,26,37,15,12,56,52,31,10		3,50,41,19,24	
		1, 0,29,29, 9,12, 5,37		4,25
30″	52,35,27,37,44,42, 6, 4,36,47		3,50,41,23,49	
		1, 0,29,25,18,30,41,48		4,25
32″	52,35,28,38,14, 7,24,35,18,35		3,50,41,28,14	
		1, 0,29,21,27,49,13,34		4,25
34″	52,35,29,38,43,28,52,24,32, 9		3,50,41,32,39	
		1, 0,29,17,37, 7,40,55		4,25
36″	52,35,30,39,12,46,29,32,13, 4		3,50,41,37, 4	
		1, 0,29,13,46,26, 3,51		4,25
38″	52,35,31,39,42, 0,15,58,16,55		3,50,41,41,29	
		1, 0,29, 9,55,44,22,22		4,25
40″	52,35,32,40,11,10,11,42,39,17		3,50,41,45,54	
		1, 0,29, 6, 5, 2,36,28		4,25
42″	52,35,33,40,40,16,16,45,15,45		3,50,41,50,19	
		1, 0,29, 2,14,20,46, 9		4,25
44″	52,35,34,41, 9,18,31, 6, 1,54		3,50,41,54,44	
		1, 0,28,58,23,38,51,25		4,25
46″	52,35,35,41,38,16,54,44,53,19		3,50,41,59, 9	
		1, 0,28,54,32,56,52,16		4,25
48″	52,35,36,42, 7,11,27,41,45,35		3,50,42, 3,34	
		1, 0,28,50,42,14,48,42		4,25
50″	52,35,37,42,36, 2, 9,56,34,17		3,50,42, 7,59	
		1, 0,28,46,51,32,40,43		4,25
52″	52,35,38,43, 4,49, 1,29,15, 0		3,50,42,12,24	
		1, 0,28,43, 0,50,28,19		4,25
54″	52,35,39,43,33,32, 2,19,43,19		3,50,42,16,49	
		1, 0,28,39,10, 8,11,30		4,25
56″	52,35,40,44, 2,11,12,27,54,49		3,50,42,21,14	
		1, 0,28,35,19,25,50,16		4,25
58″	52,35,41,44,30,46,31,53,45, 5		3,50,42,25,39	
		1, 0,28,31,28,43,24,37		
60″	52,35,42,44,59,18, 0,37, 9,42			
exact	52,35,42,44,59,18, 0,36,41, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°14′ 0″	52,35,42,44,59,18, 0,36,41, 8			
		1, 0,28,27,38, 0,51,42		
2″	52,35,43,45,27,45,38,37,32,50		3,50,42,34,40	
		1, 0,28,23,47,18,17, 2		4,25
4″	52,35,44,45,56, 9,25,55,49,52		3,50,42,39, 5	
		1, 0,28,19,56,35,37,57		4,25
6″	52,35,45,46,24,29,22,31,27,49		3,50,42,43,30	
		1, 0,28,16, 5,52,54,27		4,25
8″	52,35,46,46,52,45,28,24,22,16		3,50,42,47,55	
		1, 0,28,12,15,10, 6,32		4,25
10″	52,35,47,47,20,57,43,34,28,48		3,50,42,52,20	
		1, 0,28, 8,24,27,14,12		4,25
12″	52,35,48,47,49, 6, 8, 1,43, 0		3,50,42,56,45	
		1, 0,28, 4,33,44,17,27		4,25
14″	52,35,49,48,17,10,41,46, 0,27		3,50,43, 1,10	
		1, 0,28, 0,43, 1,16,17		4,25
16″	52,35,50,48,45,11,24,47,16,44		3,50,43, 5,35	
		1, 0,27,56,52,18,10,42		4,25
18″	52,35,51,49,13, 8,17, 5,27,26		3,50,43,10, 0	
		1, 0,27,53, 1,35, 0,42		4,25
20″	52,35,52,49,41, 1,18,40,28, 8		3,50,43,14,25	
		1, 0,27,49,10,51,46,17		4,25
22″	52,35,53,50, 8,50,29,32,14,25		3,50,43,18,50	
		1, 0,27,45,20, 8,27,27		4,25
24″	52,35,54,50,36,35,49,40,41,52		3,50,43,23,15	
		1, 0,27,41,29,25, 4,12		4,25
26″	52,35,55,51, 4,17,19, 5,46, 4		3,50,43,27,40	
		1, 0,27,37,38,41,36,32		4,25
28″	52,35,56,51,31,54,57,47,22,36		3,50,43,32, 5	
		1, 0,27,33,47,58, 4,27		4,25
30″	52,35,57,51,59,28,45,45,27, 3		3,50,43,36,30	
		1, 0,27,29,57,14,27,57		4,25
32″	52,35,58,52,26,58,42,59,55, 0		3,50,43,40,55	
		1, 0,27,26, 6,30,47, 2		4,25
34″	52,35,59,52,54,24,49,30,42, 2		3,50,43,45,20	
		1, 0,27,22,15,47, 1,42		4,25
36″	52,36, 0,53,21,47, 5,17,43,44		3,50,43,49,45	
		1, 0,27,18,25, 3,11,57		4,25
38″	52,36, 1,53,49, 5,30,20,55,41		3,50,43,54,10	
		1, 0,27,14,34,19,17,47		4,25
40″	52,36, 2,54,16,20, 4,40,13,28		3,50,43,58,35	
		1, 0,27,10,43,35,19,12		4,25
42″	52,36, 3,54,43,30,48,15,32,40		3,50,44, 3, 0	
		1, 0,27, 6,52,51,16,12		4,25
44″	52,36, 4,55,10,37,41, 6,48,52		3,50,44, 7,25	
		1, 0,27, 3, 2, 7, 8,47		4,25
46″	52,36, 5,55,37,40,43,13,57,39		3,50,44,11,50	
		1, 0,26,59,11,22,56,57		4,25
48″	52,36, 6,56, 4,39,54,36,54,36		3,50,44,16,15	
		1, 0,26,55,20,38,40,42		4,25
50″	52,36, 7,56,31,35,15,15,35,18		3,50,44,20,40	
		1, 0,26,51,29,54,20, 2		4,25
52″	52,36, 8,56,58,26,45, 9,55,20		3,50,44,25, 5	
		1, 0,26,47,39, 9,54,57		4,25
54″	52,36, 9,57,25,14,24,19,50,17		3,50,44,29,30	
		1, 0,26,43,48,25,25,27		4,25
56″	52,36,10,57,51,58,12,45,15,44		3,50,44,33,55	
		1, 0,26,39,57,40,51,32		4,25
58″	52,36,11,58,18,38,10,26, 7,16		3,50,44,38,20	
		1, 0,26,36, 6,56,13,12		
60″	52,36,12,58,45,14,17,22,20,28			
exact	52,36,12,58,45,14,17,22, 7,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°15′ 0″	52,36,12,58,45,14,17,22, 7,42			
		1, 0,26,32,16,11,29, 3		
2″	52,36,13,59,11,46,33,33,36,45		3,50,44,47,16	
		1, 0,26,28,25,26,41,47		4,25
4″	52,36,14,59,38,14,59, 0,18,32		3,50,44,51,41	
		1, 0,26,24,34,41,50, 6		4,25
6″	52,36,16, 0, 4,39,33,42, 8,38		3,50,44,56, 6	
		1, 0,26,20,43,56,54, 0		4,25
8″	52,36,17, 0,31, 0,17,39, 2,38		3,50,45, 0,31	
		1, 0,26,16,53,11,53,29		4,25
10″	52,36,18, 0,57,17,10,50,56, 7		3,50,45, 4,56	
		1, 0,26,13, 2,26,48,33		4,25
12″	52,36,19, 1,23,30,13,17,44,40		3,50,45, 9,21	
		1, 0,26, 9,11,41,39,12		4,25
14″	52,36,20, 1,49,39,24,59,23,52		3,50,45,13,46	
		1, 0,26, 5,20,56,25,26		4,25
16″	52,36,21, 2,15,44,45,55,49,18		3,50,45,18,11	
		1, 0,26, 1,30,11, 7,15		4,25
18″	52,36,22, 2,41,46,16, 6,56,33		3,50,45,22,36	
		1, 0,25,57,39,25,44,39		4,25
20″	52,36,23, 3, 7,43,55,32,41,12		3,50,45,27, 1	
		1, 0,25,53,48,40,17,38		4,25
22″	52,36,24, 3,33,37,44,12,58,50		3,50,45,31,26	
		1, 0,25,49,57,54,46,12		4,25
24″	52,36,25, 3,59,27,42, 7,45, 2		3,50,45,35,51	
		1, 0,25,46, 7, 9,10,21		4,25
26″	52,36,26, 4,25,13,49,16,55,23		3,50,45,40,16	
		1, 0,25,42,16,23,30, 5		4,25
28″	52,36,27, 4,50,56, 5,40,25,28		3,50,45,44,41	
		1, 0,25,38,25,37,45,24		4,25
30″	52,36,28, 5,16,34,31,18,10,52		3,50,45,49, 6	
		1, 0,25,34,34,51,56,18		4,25
32″	52,36,29, 5,42, 9, 6,10, 7,10		3,50,45,53,31	
		1, 0,25,30,44, 6, 2,47		4,25
34″	52,36,30, 6, 7,39,50,16, 9,57		3,50,45,57,56	
		1, 0,25,26,53,20, 4,51		4,25
36″	52,36,31, 6,33, 6,43,36,14,48		3,50,46, 2,21	
		1, 0,25,23, 2,34, 2,30		4,25
38″	52,36,32, 6,58,29,46,10,17,18		3,50,46, 6,46	
		1, 0,25,19,11,47,55,44		4,25
40″	52,36,33, 7,23,48,57,58,13, 2		3,50,46,11,11	
		1, 0,25,15,21, 1,44,33		4,25
42″	52,36,34, 7,49, 4,18,59,57,35		3,50,46,15,36	
		1, 0,25,11,30,15,28,57		4,25
44″	52,36,35, 8,14,15,49,15,26,32		3,50,46,20, 1	
		1, 0,25, 7,39,29, 8,56		4,25
46″	52,36,36, 8,39,23,28,44,35,28		3,50,46,24,26	
		1, 0,25, 3,48,42,44,30		4,25
48″	52,36,37, 9, 4,27,17,27,19,58		3,50,46,28,51	
		1, 0,24,59,57,56,15,39		4,25
50″	52,36,38, 9,29,27,15,23,35,37		3,50,46,33,16	
		1, 0,24,56, 7, 9,42,23		4,25
52″	52,36,39, 9,54,23,22,33,18, 0		3,50,46,37,41	
		1, 0,24,52,16,23, 4,42		4,25
54″	52,36,40,10,19,15,38,56,22,42		3,50,46,42, 6	
		1, 0,24,48,25,36,22,36		4,25
56″	52,36,41,10,44, 4, 4,32,45,18		3,50,46,46,31	
		1, 0,24,44,34,49,36, 5		4,25
58″	52,36,42,11, 8,48,39,22,21,23		3,50,46,50,56	
		1, 0,24,40,44, 2,45, 9		
60″	52,36,43,11,33,29,23,25, 6,32			
exact	52,36,43,11,33,29,23,25, 3,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°16′ 0″	52,36,43,11,33,29,23,25, 3,49			
		1, 0,24,36,53,15,49,27		
2″	52,36,44,11,58, 6,16,40,53,16		3,50,46,59,47	
		1, 0,24,33, 2,28,49,40		4,25
4″	52,36,45,12,22,39,19, 9,42,56		3,50,47, 4,12	
		1, 0,24,29,11,41,45,28		4,25
6″	52,36,46,12,47, 8,30,51,28,24		3,50,47, 8,37	
		1, 0,24,25,20,54,36,51		4,25
8″	52,36,47,13,11,33,51,46, 5,15		3,50,47,13, 2	
		1, 0,24,21,30, 7,23,49		4,25
10″	52,36,48,13,35,55,21,53,29, 4		3,50,47,17,27	
		1, 0,24,17,39,20, 6,22		4,25
12″	52,36,49,14, 0,13, 1,13,35,26		3,50,47,21,52	
		1, 0,24,13,48,32,44,30		4,25
14″	52,36,50,14,24,26,49,46,19,56		3,50,47,26,17	
		1, 0,24, 9,57,45,18,13		4,25
16″	52,36,51,14,48,36,47,31,38, 9		3,50,47,30,42	
		1, 0,24, 6, 6,57,47,31		4,25
18″	52,36,52,15,12,42,54,29,25,40		3,50,47,35, 7	
		1, 0,24, 2,16,10,12,24		4,25
20″	52,36,53,15,36,45,10,39,38, 4		3,50,47,39,32	
		1, 0,23,58,25,22,32,52		4,25
22″	52,36,54,16, 0,43,36, 2,10,56		3,50,47,43,57	
		1, 0,23,54,34,34,48,55		4,25
24″	52,36,55,16,24,38,10,36,59,51		3,50,47,48,22	
		1, 0,23,50,43,47, 0,33		4,25
26″	52,36,56,16,48,28,54,24, 0,24		3,50,47,52,47	
		1, 0,23,46,52,59, 7,46		4,25
28″	52,36,57,17,12,15,47,23, 8,10		3,50,47,57,12	
		1, 0,23,43, 2,11,10,34		4,25
30″	52,36,58,17,35,58,49,34,18,44		3,50,48, 1,37	
		1, 0,23,39,11,23, 8,57		4,25
32″	52,36,59,17,59,38, 0,57,27,41		3,50,48, 6, 2	
		1, 0,23,35,20,35, 2,55		4,25
34″	52,37, 0,18,23,13,21,32,30,36		3,50,48,10,27	
		1, 0,23,31,29,46,52,28		4,25
36″	52,37, 1,18,46,44,51,19,23, 4		3,50,48,14,52	
		1, 0,23,27,38,58,37,36		4,25
38″	52,37, 2,19,10,12,30,18, 0,40		3,50,48,19,17	
		1, 0,23,23,48,10,18,19		4,25
40″	52,37, 3,19,33,36,18,28,18,59		3,50,48,23,42	
		1, 0,23,19,57,21,54,37		4,25
42″	52,37, 4,19,56,56,15,50,13,36		3,50,48,28, 7	
		1, 0,23,16, 6,33,26,30		4,25
44″	52,37, 5,20,20,12,22,23,40, 6		3,50,48,32,32	
		1, 0,23,12,15,44,53,58		4,25
46″	52,37, 6,20,43,24,38, 8,34, 4		3,50,48,36,57	
		1, 0,23, 8,24,56,17, 1		4,25
48″	52,37, 7,21, 6,33, 3, 4,51, 5		3,50,48,41,22	
		1, 0,23, 4,34, 7,35,39		4,25
50″	52,37, 8,21,29,37,37,12,26,44		3,50,48,45,47	
		1, 0,23, 0,43,18,49,52		4,25
52″	52,37, 9,21,52,38,20,31,16,36		3,50,48,50,12	
		1, 0,22,56,52,29,59,40		4,25
54″	52,37,10,22,15,35,13, 1,16,16		3,50,48,54,37	
		1, 0,22,53, 1,41, 5, 3		4,25
56″	52,37,11,22,38,28,14,42,21,19		3,50,48,59, 2	
		1, 0,22,49,10,52, 6, 1		4,25
58″	52,37,12,23, 1,17,25,34,27,20		3,50,49, 3,27	
		1, 0,22,45,20, 3, 2,34		
60″	52,37,13,23,24, 2,45,37,29,54			
exact	52,37,13,23,24, 2,45,37,31,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°17′ 0″	52,37,13,23,24, 2,45,37,31,46			
		1, 0,22,41,29,13,55, 2		
2″	52,37,14,23,46,44,14,51,26,48		3,50,49,12,15	
		1, 0,22,37,38,24,42,47		4,25
4″	52,37,15,24, 9,21,53,16, 9,35		3,50,49,16,40	
		1, 0,22,33,47,35,26, 7		4,25
6″	52,37,16,24,31,55,40,51,35,42		3,50,49,21, 5	
		1, 0,22,29,56,46, 5, 2		4,25
8″	52,37,17,24,54,25,37,37,40,44		3,50,49,25,30	
		1, 0,22,26, 5,56,39,32		4,25
10″	52,37,18,25,16,51,43,34,20,16		3,50,49,29,55	
		1, 0,22,22,15, 7, 9,37		4,25
12″	52,37,19,25,39,13,58,41,29,53		3,50,49,34,20	
		1, 0,22,18,24,17,35,17		4,25
14″	52,37,20,26, 1,32,22,59, 5,10		3,50,49,38,45	
		1, 0,22,14,33,27,56,32		4,25
16″	52,37,21,26,23,46,56,27, 1,42		3,50,49,43,10	
		1, 0,22,10,42,38,13,22		4,25
18″	52,37,22,26,45,57,39, 5,15, 4		3,50,49,47,35	
		1, 0,22, 6,51,48,25,47		4,25
20″	52,37,23,27, 8, 4,30,53,40,51		3,50,49,52, 0	
		1, 0,22, 3, 0,58,33,47		4,25
22″	52,37,24,27,30, 7,31,52,14,38		3,50,49,56,25	
		1, 0,21,59,10, 8,37,22		4,25
24″	52,37,25,27,52, 6,42, 0,52, 0		3,50,50, 0,50	
		1, 0,21,55,19,18,36,32		4,25
26″	52,37,26,28,14, 2, 1,19,28,32		3,50,50, 5,15	
		1, 0,21,51,28,28,31,17		4,25
28″	52,37,27,28,35,53,29,47,59,49		3,50,50, 9,40	
		1, 0,21,47,37,38,21,37		4,25
30″	52,37,28,28,57,41, 7,26,21,26		3,50,50,14, 5	
		1, 0,21,43,46,48, 7,32		4,25
32″	52,37,29,29,19,24,54,14,28,58		3,50,50,18,30	
		1, 0,21,39,55,57,49, 2		4,25
34″	52,37,30,29,41, 4,50,12,18, 0		3,50,50,22,55	
		1, 0,21,36, 5, 7,26, 7		4,25
36″	52,37,31,30, 2,40,55,19,44, 7		3,50,50,27,20	
		1, 0,21,32,14,16,58,47		4,25
38″	52,37,32,30,24,13, 9,36,42,54		3,50,50,31,45	
		1, 0,21,28,23,26,27, 2		4,25
40″	52,37,33,30,45,41,33, 3, 9,56		3,50,50,36,10	
		1, 0,21,24,32,35,50,52		4,25
42″	52,37,34,31, 7, 6, 5,39, 0,48		3,50,50,40,35	
		1, 0,21,20,41,45,10,17		4,25
44″	52,37,35,31,28,26,47,24,11, 5		3,50,50,45, 0	
		1, 0,21,16,50,54,25,17		4,25
46″	52,37,36,31,49,43,38,18,36,22		3,50,50,49,25	
		1, 0,21,13, 0, 3,35,52		4,25
48″	52,37,37,32,10,56,38,22,12,14		3,50,50,53,50	
		1, 0,21, 9, 9,12,42, 2		4,25
50″	52,37,38,32,32, 5,47,34,54,16		3,50,50,58,15	
		1, 0,21, 5,18,21,43,47		4,25
52″	52,37,39,32,53,11, 5,56,38, 3		3,50,51, 2,40	
		1, 0,21, 1,27,30,41, 7		4,25
54″	52,37,40,33,14,12,33,27,19,10		3,50,51, 7, 5	
		1, 0,20,57,36,39,34, 2		4,25
56″	52,37,41,33,35,10,10, 6,53,12		3,50,51,11,30	
		1, 0,20,53,45,48,22,32		4,25
58″	52,37,42,33,56, 3,55,55,15,44		3,50,51,15,55	
		1, 0,20,49,54,57, 6,37		
60″	52,37,43,34,16,53,50,52,22,21			
exact	52,37,43,34,16,53,50,52,37, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°18′ 0″	52,37,43,34,16,53,50,52,37, 4			
		1, 0,20,46, 4, 5,47,53		
2″	52,37,44,34,37,39,54,58,24,57		3,50,51,24,38	
		1, 0,20,42,13,14,23,15		4,25
4″	52,37,45,34,58,22, 8,12,48,12		3,50,51,29, 3	
		1, 0,20,38,22,22,54,12		4,25
6″	52,37,46,35,19, 0,30,35,42,24		3,50,51,33,28	
		1, 0,20,34,31,31,20,44		4,25
8″	52,37,47,35,39,35, 2, 7, 3, 8		3,50,51,37,53	
		1, 0,20,30,40,39,42,51		4,25
10″	52,37,48,36, 0, 5,42,46,45,59		3,50,51,42,18	
		1, 0,20,26,49,48, 0,33		4,25
12″	52,37,49,36,20,32,32,34,46,32		3,50,51,46,43	
		1, 0,20,22,58,56,13,50		4,25
14″	52,37,50,36,40,55,31,31, 0,22		3,50,51,51, 8	
		1, 0,20,19, 8, 4,22,42		4,25
16″	52,37,51,37, 1,14,39,35,23, 4		3,50,51,55,33	
		1, 0,20,15,17,12,27, 9		4,25
18″	52,37,52,37,21,29,56,47,50,13		3,50,51,59,58	
		1, 0,20,11,26,20,27,11		4,25
20″	52,37,53,37,41,41,23, 8,17,24		3,50,52, 4,23	
		1, 0,20, 7,35,28,22,48		4,25
22″	52,37,54,38, 1,48,58,36,40,12		3,50,52, 8,48	
		1, 0,20, 3,44,36,14, 0		4,25
24″	52,37,55,38,21,52,43,12,54,12		3,50,52,13,13	
		1, 0,19,59,53,44, 0,47		4,25
26″	52,37,56,38,41,52,36,56,54,59		3,50,52,17,38	
		1, 0,19,56, 2,51,43, 9		4,25
28″	52,37,57,39, 1,48,39,48,38, 8		3,50,52,22, 3	
		1, 0,19,52,11,59,21, 6		4,25
30″	52,37,58,39,21,40,51,47,59,14		3,50,52,26,28	
		1, 0,19,48,21, 6,54,38		4,25
32″	52,37,59,39,41,29,12,54,53,52		3,50,52,30,53	
		1, 0,19,44,30,14,23,45		4,25
34″	52,38, 0,40, 1,13,43, 9,17,37		3,50,52,35,18	
		1, 0,19,40,39,21,48,27		4,25
36″	52,38, 1,40,20,54,22,31, 6, 4		3,50,52,39,43	
		1, 0,19,36,48,29, 8,44		4,25
38″	52,38, 2,40,40,31,11, 0,14,48		3,50,52,44, 8	
		1, 0,19,32,57,36,24,36		4,25
40″	52,38, 3,41, 0, 4, 8,36,39,24		3,50,52,48,33	
		1, 0,19,29, 6,43,36, 3		4,25
42″	52,38, 4,41,19,33,15,20,15,27		3,50,52,52,58	
		1, 0,19,25,15,50,43, 5		4,25
44″	52,38, 5,41,38,58,31,10,58,32		3,50,52,57,23	
		1, 0,19,21,24,57,45,42		4,25
46″	52,38, 6,41,58,19,56, 8,44,14		3,50,53, 1,48	
		1, 0,19,17,34, 4,43,54		4,25
48″	52,38, 7,42,17,37,30,13,28, 8		3,50,53, 6,13	
		1, 0,19,13,43,11,37,41		4,25
50″	52,38, 8,42,36,51,13,25, 5,49		3,50,53,10,38	
		1, 0,19, 9,52,18,27, 3		4,25
52″	52,38, 9,42,56, 1, 5,43,32,52		3,50,53,15, 3	
		1, 0,19, 6, 1,25,12, 0		4,25
54″	52,38,10,43,15, 7, 7, 8,44,52		3,50,53,19,28	
		1, 0,19, 2,10,31,52,32		4,25
56″	52,38,11,43,34, 9,17,40,37,24		3,50,53,23,53	
		1, 0,18,58,19,38,28,39		4,25
58″	52,38,12,43,53, 7,37,19, 6, 3		3,50,53,28,18	
		1, 0,18,54,28,45, 0,21		
60″	52,38,13,44,12, 2, 6, 4, 6,24			
exact	52,38,13,44,12, 2, 6, 4,28,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°19′ 0″	52,38,13,44,12, 2, 6, 4,28,33			
		1, 0,18,50,37,51,30, 6		
2″	52,38,14,44,30,52,43,55,58,39		3,50,53,36,57	
		1, 0,18,46,46,57,53, 9		4,25
4″	52,38,15,44,49,39,30,53,51,48		3,50,53,41,22	
		1, 0,18,42,56, 4,11,47		4,25
6″	52,38,16,45, 8,22,26,58, 3,35		3,50,53,45,47	
		1, 0,18,39, 5,10,26, 0		4,25
8″	52,38,17,45,27, 1,32, 8,29,35		3,50,53,50,12	
		1, 0,18,35,14,16,35,48		4,25
10″	52,38,18,45,45,36,46,25, 5,23		3,50,53,54,37	
		1, 0,18,31,23,22,41,11		4,25
12″	52,38,19,46, 4, 8, 9,47,46,34		3,50,53,59, 2	
		1, 0,18,27,32,28,42, 9		4,25
14″	52,38,20,46,22,35,42,16,28,43		3,50,54, 3,27	
		1, 0,18,23,41,34,38,42		4,25
16″	52,38,21,46,40,59,23,51, 7,25		3,50,54, 7,52	
		1, 0,18,19,50,40,30,50		4,25
18″	52,38,22,46,59,19,14,31,38,15		3,50,54,12,17	
		1, 0,18,15,59,46,18,33		4,25
20″	52,38,23,47,17,35,14,17,56,48		3,50,54,16,42	
		1, 0,18,12, 8,52, 1,51		4,25
22″	52,38,24,47,35,47,23, 9,58,39		3,50,54,21, 7	
		1, 0,18, 8,17,57,40,44		4,25
24″	52,38,25,47,53,55,41, 7,39,23		3,50,54,25,32	
		1, 0,18, 4,27, 3,15,12		4,25
26″	52,38,26,48,12, 0, 8,10,54,35		3,50,54,29,57	
		1, 0,18, 0,36, 8,45,15		4,25
28″	52,38,27,48,30, 0,44,19,39,50		3,50,54,34,22	
		1, 0,17,56,45,14,10,53		4,25
30″	52,38,28,48,47,57,29,33,50,43		3,50,54,38,47	
		1, 0,17,52,54,19,32, 6		4,25
32″	52,38,29,49, 5,50,23,53,22,49		3,50,54,43,12	
		1, 0,17,49, 3,24,48,54		4,25
34″	52,38,30,49,23,39,27,18,11,43		3,50,54,47,37	
		1, 0,17,45,12,30, 1,17		4,25
36″	52,38,31,49,41,24,39,48,13, 0		3,50,54,52, 2	
		1, 0,17,41,21,35, 9,15		4,25
38″	52,38,32,49,59, 6, 1,23,22,15		3,50,54,56,27	
		1, 0,17,37,30,40,12,48		4,25
40″	52,38,33,50,16,43,32, 3,35, 3		3,50,55, 0,52	
		1, 0,17,33,39,45,11,56		4,25
42″	52,38,34,50,34,17,11,48,46,59		3,50,55, 5,17	
		1, 0,17,29,48,50, 6,39		4,25
44″	52,38,35,50,51,47, 0,38,53,38		3,50,55, 9,42	
		1, 0,17,25,57,54,56,57		4,25
46″	52,38,36,51, 9,12,58,33,50,35		3,50,55,14, 7	
		1, 0,17,22, 6,59,42,50		4,25
48″	52,38,37,51,26,35, 5,33,33,25		3,50,55,18,32	
		1, 0,17,18,16, 4,24,18		4,25
50″	52,38,38,51,43,53,21,37,57,43		3,50,55,22,57	
		1, 0,17,14,25, 9, 1,21		4,25
52″	52,38,39,52, 1, 7,46,46,59, 4		3,50,55,27,22	
		1, 0,17,10,34,13,33,59		4,25
54″	52,38,40,52,18,18,21, 0,33, 3		3,50,55,31,47	
		1, 0,17, 6,43,18, 2,12		4,25
56″	52,38,41,52,35,25, 4,18,35,15		3,50,55,36,12	
		1, 0,17, 2,52,22,26, 0		4,25
58″	52,38,42,52,52,27,56,41, 1,15		3,50,55,40,37	
		1, 0,16,59, 1,26,45,23		
60″	52,38,43,53, 9,26,58, 7,46,38			
exact	52,38,43,53, 9,26,58, 8,18,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°20′ 0″	52,38,43,53, 9,26,58, 8,18,19			
		1, 0,16,55,10,31, 3,50		
2″	52,38,44,53,26,22, 8,39,22, 9		3,50,55,49,12	
		1, 0,16,51,19,35,14,38		4,24
4″	52,38,45,53,43,13,28,14,36,47		3,50,55,53,36	
		1, 0,16,47,28,39,21, 2		4,24
6″	52,38,46,54, 0, 0,56,53,57,49		3,50,55,58, 0	
		1, 0,16,43,37,43,23, 2		4,24
8″	52,38,47,54,16,44,34,37,20,51		3,50,56, 2,24	
		1, 0,16,39,46,47,20,38		4,24
10″	52,38,48,54,33,24,21,24,41,29		3,50,56, 6,48	
		1, 0,16,35,55,51,13,50		4,24
12″	52,38,49,54,50, 0,17,15,55,19		3,50,56,11,12	
		1, 0,16,32, 4,55, 2,38		4,24
14″	52,38,50,55, 6,32,22,10,57,57		3,50,56,15,36	
		1, 0,16,28,13,58,47, 2		4,24
16″	52,38,51,55,23, 0,36, 9,44,59		3,50,56,20, 0	
		1, 0,16,24,23, 2,27, 2		4,24
18″	52,38,52,55,39,24,59,12,12, 1		3,50,56,24,24	
		1, 0,16,20,32, 6, 2,38		4,24
20″	52,38,53,55,55,45,31,18,14,39		3,50,56,28,48	
		1, 0,16,16,41, 9,33,50		4,24
22″	52,38,54,56,12, 2,12,27,48,29		3,50,56,33,12	
		1, 0,16,12,50,13, 0,38		4,24
24″	52,38,55,56,28,15, 2,40,49, 7		3,50,56,37,36	
		1, 0,16, 8,59,16,23, 2		4,24
26″	52,38,56,56,44,24, 1,57,12, 9		3,50,56,42, 0	
		1, 0,16, 5, 8,19,41, 2		4,24
28″	52,38,57,57, 0,29,10,16,53,11		3,50,56,46,24	
		1, 0,16, 1,17,22,54,38		4,24
30″	52,38,58,57,16,30,27,39,47,49		3,50,56,50,48	
		1, 0,15,57,26,26, 3,50		4,24
32″	52,38,59,57,32,27,54, 5,51,39		3,50,56,55,12	
		1, 0,15,53,35,29, 8,38		4,24
34″	52,39, 0,57,48,21,29,35, 0,17		3,50,56,59,36	
		1, 0,15,49,44,32, 9, 2		4,24
36″	52,39, 1,58, 4,11,14, 7, 9,19		3,50,57, 4, 0	
		1, 0,15,45,53,35, 5, 2		4,24
38″	52,39, 2,58,19,57, 7,42,14,21		3,50,57, 8,24	
		1, 0,15,42, 2,37,56,38		4,24
40″	52,39, 3,58,35,39,10,20,10,59		3,50,57,12,48	
		1, 0,15,38,11,40,43,50		4,24
42″	52,39, 4,58,51,17,22, 0,54,49		3,50,57,17,12	
		1, 0,15,34,20,43,26,38		4,24
44″	52,39, 5,59, 6,51,42,44,21,27		3,50,57,21,36	
		1, 0,15,30,29,46, 5, 2		4,24
46″	52,39, 6,59,22,22,12,30,26,29		3,50,57,26, 0	
		1, 0,15,26,38,48,39, 2		4,24
48″	52,39, 7,59,37,48,51,19, 5,31		3,50,57,30,24	
		1, 0,15,22,47,51, 8,38		4,24
50″	52,39, 8,59,53,11,39,10,14, 9		3,50,57,34,48	
		1, 0,15,18,56,53,33,50		4,24
52″	52,39,10, 0, 8,30,36, 3,47,59		3,50,57,39,12	
		1, 0,15,15, 5,55,54,38		4,24
54″	52,39,11, 0,23,45,41,59,42,37		3,50,57,43,36	
		1, 0,15,11,14,58,11, 2		4,24
56″	52,39,12, 0,38,56,56,57,53,39		3,50,57,48, 0	
		1, 0,15, 7,24, 0,23, 2		4,24
58″	52,39,13, 0,54, 4,20,58,16,41		3,50,57,52,24	
		1, 0,15, 3,33, 2,30,38		
60″	52,39,14, 1, 9, 7,54, 0,47,19			
exact	52,39,14, 1, 9, 7,54, 0,21,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°21′ 0″	52,39,14, 1, 9, 7,54, 0,21,47			
		1, 0,14,59,42, 4,31, 9		
2″	52,39,15, 1,24, 7,36, 4,52,56		3,50,58, 1,22	
		1, 0,14,55,51, 6,29,47		4,24
4″	52,39,16, 1,39, 3,27,11,22,43		3,50,58, 5,46	
		1, 0,14,52, 0, 8,24, 1		4,24
6″	52,39,17, 1,53,55,27,19,46,44		3,50,58,10,10	
		1, 0,14,48, 9,10,13,51		4,24
8″	52,39,18, 2, 8,43,36,30, 0,35		3,50,58,14,34	
		1, 0,14,44,18,11,59,17		4,24
10″	52,39,19, 2,23,27,54,41,59,52		3,50,58,18,58	
		1, 0,14,40,27,13,40,19		4,24
12″	52,39,20, 2,38, 8,21,55,40,11		3,50,58,23,22	
		1, 0,14,36,36,15,16,57		4,24
14″	52,39,21, 2,52,44,58,10,57, 8		3,50,58,27,46	
		1, 0,14,32,45,16,49,11		4,24
16″	52,39,22, 3, 7,17,43,27,46,19		3,50,58,32,10	
		1, 0,14,28,54,18,17, 1		4,24
18″	52,39,23, 3,21,46,37,46, 3,20		3,50,58,36,34	
		1, 0,14,25, 3,19,40,27		4,24
20″	52,39,24, 3,36,11,41, 5,43,47		3,50,58,40,58	
		1, 0,14,21,12,20,59,29		4,24
22″	52,39,25, 3,50,32,53,26,43,16		3,50,58,45,22	
		1, 0,14,17,21,22,14, 7		4,24
24″	52,39,26, 4, 4,50,14,48,57,23		3,50,58,49,46	
		1, 0,14,13,30,23,24,21		4,24
26″	52,39,27, 4,19, 3,45,12,21,44		3,50,58,54,10	
		1, 0,14, 9,39,24,30,11		4,24
28″	52,39,28, 4,33,13,24,36,51,55		3,50,58,58,34	
		1, 0,14, 5,48,25,31,37		4,24
30″	52,39,29, 4,47,19,13, 2,23,32		3,50,59, 2,58	
		1, 0,14, 1,57,26,28,39		4,24
32″	52,39,30, 5, 1,21,10,28,52,11		3,50,59, 7,22	
		1, 0,13,58, 6,27,21,17		4,24
34″	52,39,31, 5,15,19,16,56,13,28		3,50,59,11,46	
		1, 0,13,54,15,28, 9,31		4,24
36″	52,39,32, 5,29,13,32,24,22,59		3,50,59,16,10	
		1, 0,13,50,24,28,53,21		4,24
38″	52,39,33, 5,43, 3,56,53,16,20		3,50,59,20,34	
		1, 0,13,46,33,29,32,47		4,24
40″	52,39,34, 5,56,50,30,22,49, 7		3,50,59,24,58	
		1, 0,13,42,42,30, 7,49		4,24
42″	52,39,35, 6,10,33,12,52,56,56		3,50,59,29,22	
		1, 0,13,38,51,30,38,27		4,24
44″	52,39,36, 6,24,12, 4,23,35,23		3,50,59,33,46	
		1, 0,13,35, 0,31, 4,41		4,24
46″	52,39,37, 6,37,47, 4,54,40, 4		3,50,59,38,10	
		1, 0,13,31, 9,31,26,31		4,24
48″	52,39,38, 6,51,18,14,26, 6,35		3,50,59,42,34	
		1, 0,13,27,18,31,43,57		4,24
50″	52,39,39, 7, 4,45,32,57,50,32		3,50,59,46,58	
		1, 0,13,23,27,31,56,59		4,24
52″	52,39,40, 7,18, 9, 0,29,47,31		3,50,59,51,22	
		1, 0,13,19,36,32, 5,37		4,24
54″	52,39,41, 7,31,28,37, 1,53, 8		3,50,59,55,46	
		1, 0,13,15,45,32, 9,51		4,24
56″	52,39,42, 7,44,44,22,34, 2,59		3,51, 0, 0,10	
		1, 0,13,11,54,32, 9,41		4,24
58″	52,39,43, 7,57,56,17, 6,12,40		3,51, 0, 4,34	
		1, 0,13, 8, 3,32, 5, 7		
60″	52,39,44, 8,11, 4,20,38,17,47			
exact	52,39,44, 8,11, 4,20,37,57,39			

x		$\sin(x)$	Δ^1	Δ^2	Δ^3
61°22′	0″	52,39,44, 8,11, 4,20,37,57,39			
	2″	52,39,45, 8,24, 8,33, 9,51,51	1, 0,13, 4,12,31,54,12	3,51, 0,13,29	
	4″	52,39,46, 8,37, 8,54,41,32,34	1, 0,13, 0,21,31,40,43	3,51, 0,17,53	4,24
	6″	52,39,47, 8,50, 5,25,12,55,24	1, 0,12,56,30,31,22,50	3,51, 0,22,17	4,24
	8″	52,39,48, 9, 2,58, 4,43,55,57	1, 0,12,52,39,31, 0,33	3,51, 0,26,41	4,24
	10″	52,39,49, 9,15,46,53,14,29,49	1, 0,12,48,48,30,33,52	3,51, 0,31, 5	4,24
	12″	52,39,50, 9,28,31,50,44,32,36	1, 0,12,44,57,30, 2,47	3,51, 0,35,29	4,24
	14″	52,39,51, 9,41,12,57,13,59,54	1, 0,12,41, 6,29,27,18	3,51, 0,39,53	4,24
	16″	52,39,52, 9,53,50,12,42,47,19	1, 0,12,37,15,28,47,25	3,51, 0,44,17	4,24
	18″	52,39,53,10, 6,23,37,10,50,27	1, 0,12,33,24,28, 3, 8	3,51, 0,48,41	4,24
	20″	52,39,54,10,18,53,10,38, 4,54	1, 0,12,29,33,27,14,27	3,51, 0,53, 5	4,24
	22″	52,39,55,10,31,18,53, 4,26,16	1, 0,12,25,42,26,21,22	3,51, 0,57,29	4,24
	24″	52,39,56,10,43,40,44,29,50, 9	1, 0,12,21,51,25,23,53	3,51, 1, 1,53	4,24
	26″	52,39,57,10,55,58,44,54,12, 9	1, 0,12,18, 0,24,22, 0	3,51, 1, 6,17	4,24
	28″	52,39,58,11, 8,12,54,17,27,52	1, 0,12,14, 9,23,15,43	3,51, 1,10,41	4,24
	30″	52,39,59,11,20,23,12,39,32,54	1, 0,12,10,18,22, 5, 2	3,51, 1,15, 5	4,24
	32″	52,40, 0,11,32,29,40, 0,22,51	1, 0,12, 6,27,20,49,57	3,51, 1,19,29	4,24
	34″	52,40, 1,11,44,32,16,19,53,19	1, 0,12, 2,36,19,30,28	3,51, 1,23,53	4,24
	36″	52,40, 2,11,56,31, 1,37,59,54	1, 0,11,58,45,18, 6,35	3,51, 1,28,17	4,24
	38″	52,40, 3,12, 8,25,55,54,38,12	1, 0,11,54,54,16,38,18	3,51, 1,32,41	4,24
	40″	52,40, 4,12,20,16,59, 9,43,49	1, 0,11,51, 3,15, 5,37	3,51, 1,37, 5	4,24
	42″	52,40, 5,12,32, 4,11,23,12,21	1, 0,11,47,12,13,28,32	3,51, 1,41,29	4,24
	44″	52,40, 6,12,43,47,32,34,59,24	1, 0,11,43,21,11,47, 3	3,51, 1,45,53	4,24
	46″	52,40, 7,12,55,27, 2,45, 0,34	1, 0,11,39,30,10, 1,10	3,51, 1,50,17	4,24
	48″	52,40, 8,13, 7, 2,41,53,11,27	1, 0,11,35,39, 8,10,53	3,51, 1,54,41	4,24
	50″	52,40, 9,13,18,34,29,59,27,39	1, 0,11,31,48, 6,16,12	3,51, 1,59, 5	4,24
	52″	52,40,10,13,30, 2,27, 3,44,46	1, 0,11,27,57, 4,17, 7	3,51, 2, 3,29	4,24
	54″	52,40,11,13,41,26,33, 5,58,24	1, 0,11,24, 6, 2,13,38	3,51, 2, 7,53	4,24
	56″	52,40,12,13,52,46,48, 6, 4, 9	1, 0,11,20,15, 0, 5,45	3,51, 2,12,17	4,24
	58″	52,40,13,14, 4, 3,12, 3,57,37	1, 0,11,16,23,57,53,28	3,51, 2,16,41	
	60″	52,40,14,14,15,15,44,59,34,24	1, 0,11,12,32,55,36,47		
exact		52,40,14,14,15,15,44,59,27,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°23′ 0″	52,40,14,14,15,15,44,59,27,57			
		1, 0,11, 8,41,53,15, 4		
2″	52,40,15,14,26,24,26,52,43, 1		3,51, 2,25,31	
		1, 0,11, 4,50,50,49,33		4,24
4″	52,40,16,14,37,29,17,43,32,34		3,51, 2,29,55	
		1, 0,11, 0,59,48,19,38		4,24
6″	52,40,17,14,48,30,17,31,52,12		3,51, 2,34,19	
		1, 0,10,57, 8,45,45,19		4,24
8″	52,40,18,14,59,27,26,17,37,31		3,51, 2,38,43	
		1, 0,10,53,17,43, 6,36		4,24
10″	52,40,19,15,10,20,44, 0,44, 7		3,51, 2,43, 7	
		1, 0,10,49,26,40,23,29		4,24
12″	52,40,20,15,21,10,10,41, 7,36		3,51, 2,47,31	
		1, 0,10,45,35,37,35,58		4,24
14″	52,40,21,15,31,55,46,18,43,34		3,51, 2,51,55	
		1, 0,10,41,44,34,44, 3		4,24
16″	52,40,22,15,42,37,30,53,27,37		3,51, 2,56,19	
		1, 0,10,37,53,31,47,44		4,24
18″	52,40,23,15,53,15,24,25,15,21		3,51, 3, 0,43	
		1, 0,10,34, 2,28,47, 1		4,24
20″	52,40,24,16, 3,49,26,54, 2,22		3,51, 3, 5, 7	
		1, 0,10,30,11,25,41,54		4,24
22″	52,40,25,16,14,19,38,19,44,16		3,51, 3, 9,31	
		1, 0,10,26,20,22,32,23		4,24
24″	52,40,26,16,24,45,58,42,16,39		3,51, 3,13,55	
		1, 0,10,22,29,19,18,28		4,24
26″	52,40,27,16,35, 8,28, 1,35, 7		3,51, 3,18,19	
		1, 0,10,18,38,16, 0, 9		4,24
28″	52,40,28,16,45,27, 6,17,35,16		3,51, 3,22,43	
		1, 0,10,14,47,12,37,26		4,24
30″	52,40,29,16,55,41,53,30,12,42		3,51, 3,27, 7	
		1, 0,10,10,56, 9,10,19		4,24
32″	52,40,30,17, 5,52,49,39,23, 1		3,51, 3,31,31	
		1, 0,10, 7, 5, 5,38,48		4,24
34″	52,40,31,17,15,59,54,45, 1,49		3,51, 3,35,55	
		1, 0,10, 3,14, 2, 2,53		4,24
36″	52,40,32,17,26, 3, 8,47, 4,42		3,51, 3,40,19	
		1, 0, 9,59,22,58,22,34		4,24
38″	52,40,33,17,36, 2,31,45,27,16		3,51, 3,44,43	
		1, 0, 9,55,31,54,37,51		4,24
40″	52,40,34,17,45,58, 3,40, 5, 7		3,51, 3,49, 7	
		1, 0, 9,51,40,50,48,44		4,24
42″	52,40,35,17,55,49,44,30,53,51		3,51, 3,53,31	
		1, 0, 9,47,49,46,55,13		4,24
44″	52,40,36,18, 5,37,34,17,49, 4		3,51, 3,57,55	
		1, 0, 9,43,58,42,57,18		4,24
46″	52,40,37,18,15,21,33, 0,46,22		3,51, 4, 2,19	
		1, 0, 9,40, 7,38,54,59		4,24
48″	52,40,38,18,25, 1,40,39,41,21		3,51, 4, 6,43	
		1, 0, 9,36,16,34,48,16		4,24
50″	52,40,39,18,34,37,57,14,29,37		3,51, 4,11, 7	
		1, 0, 9,32,25,30,37, 9		4,24
52″	52,40,40,18,44,10,22,45, 6,46		3,51, 4,15,31	
		1, 0, 9,28,34,26,21,38		4,24
54″	52,40,41,18,53,38,57,11,28,24		3,51, 4,19,55	
		1, 0, 9,24,43,22, 1,43		4,24
56″	52,40,42,19, 3, 3,40,33,30, 7		3,51, 4,24,19	
		1, 0, 9,20,52,17,37,24		4,24
58″	52,40,43,19,12,24,32,51, 7,31		3,51, 4,28,43	
		1, 0, 9,17, 1,13, 8,41		
60″	52,40,44,19,21,41,34, 4,16,12			
exact	52,40,44,19,21,41,34, 4,18, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°24′ 0″	52,40,44,19,21,41,34, 4,18, 5			
		1, 0, 9,13,10, 8,35,52		
2″	52,40,45,19,30,54,44,12,53,57		3,51, 4,37,29	
		1, 0, 9, 9,19, 3,58,23		4,24
4″	52,40,46,19,40, 4, 3,16,52,20		3,51, 4,41,53	
		1, 0, 9, 5,27,59,16,30		4,24
6″	52,40,47,19,49, 9,31,16, 8,50		3,51, 4,46,17	
		1, 0, 9, 1,36,54,30,13		4,24
8″	52,40,48,19,58,11, 8,10,39, 3		3,51, 4,50,41	
		1, 0, 8,57,45,49,39,32		4,24
10″	52,40,49,20, 7, 8,54, 0,18,35		3,51, 4,55, 5	
		1, 0, 8,53,54,44,44,27		4,24
12″	52,40,50,20,16, 2,48,45, 3, 2		3,51, 4,59,29	
		1, 0, 8,50, 3,39,44,58		4,24
14″	52,40,51,20,24,52,52,24,48, 0		3,51, 5, 3,53	
		1, 0, 8,46,12,34,41, 5		4,24
16″	52,40,52,20,33,39, 4,59,29, 5		3,51, 5, 8,17	
		1, 0, 8,42,21,29,32,48		4,24
18″	52,40,53,20,42,21,26,29, 1,53		3,51, 5,12,41	
		1, 0, 8,38,30,24,20, 7		4,24
20″	52,40,54,20,50,59,56,53,22, 0		3,51, 5,17, 5	
		1, 0, 8,34,39,19, 3, 2		4,24
22″	52,40,55,20,59,34,36,12,25, 2		3,51, 5,21,29	
		1, 0, 8,30,48,13,41,33		4,24
24″	52,40,56,21, 8, 5,24,26, 6,35		3,51, 5,25,53	
		1, 0, 8,26,57, 8,15,40		4,24
26″	52,40,57,21,16,32,21,34,22,15		3,51, 5,30,17	
		1, 0, 8,23, 6, 2,45,23		4,24
28″	52,40,58,21,24,55,27,37, 7,38		3,51, 5,34,41	
		1, 0, 8,19,14,57,10,42		4,24
30″	52,40,59,21,33,14,42,34,18,20		3,51, 5,39, 5	
		1, 0, 8,15,23,51,31,37		4,24
32″	52,41, 0,21,41,30, 6,25,49,57		3,51, 5,43,29	
		1, 0, 8,11,32,45,48, 8		4,24
34″	52,41, 1,21,49,41,39,11,38, 5		3,51, 5,47,53	
		1, 0, 8, 7,41,40, 0,15		4,24
36″	52,41, 2,21,57,49,20,51,38,20		3,51, 5,52,17	
		1, 0, 8, 3,50,34, 7,58		4,24
38″	52,41, 3,22, 5,53,11,25,46,18		3,51, 5,56,41	
		1, 0, 7,59,59,28,11,17		4,24
40″	52,41, 4,22,13,53,10,53,57,35		3,51, 6, 1, 5	
		1, 0, 7,56, 8,22,10,12		4,24
42″	52,41, 5,22,21,49,19,16, 7,47		3,51, 6, 5,29	
		1, 0, 7,52,17,16, 4,43		4,24
44″	52,41, 6,22,29,41,36,32,12,30		3,51, 6, 9,53	
		1, 0, 7,48,26, 9,54,50		4,24
46″	52,41, 7,22,37,30, 2,42, 7,20		3,51, 6,14,17	
		1, 0, 7,44,35, 3,40,33		4,24
48″	52,41, 8,22,45,14,37,45,47,53		3,51, 6,18,41	
		1, 0, 7,40,43,57,21,52		4,24
50″	52,41, 9,22,52,55,21,43, 9,45		3,51, 6,23, 5	
		1, 0, 7,36,52,50,58,47		4,24
52″	52,41,10,23, 0,32,14,34, 8,32		3,51, 6,27,29	
		1, 0, 7,33, 1,44,31,18		4,24
54″	52,41,11,23, 8, 5,16,18,39,50		3,51, 6,31,53	
		1, 0, 7,29,10,37,59,25		4,24
56″	52,41,12,23,15,34,26,56,39,15		3,51, 6,36,17	
		1, 0, 7,25,19,31,23, 8		4,24
58″	52,41,13,23,22,59,46,28, 2,23		3,51, 6,40,41	
		1, 0, 7,21,28,24,42,27		
60″	52,41,14,23,30,21,14,52,44,50			
exact	52,41,14,23,30,21,14,52,56,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°25′ 0″	52,41,14,23,30,21,14,52,56,44			
		1, 0, 7,17,37,17,58,43		
2″	52,41,15,23,37,38,52,10,55,27		3,51, 6,49,23	
		1, 0, 7,13,46,11, 9,20		4,24
4″	52,41,16,23,44,52,38,22, 4,47		3,51, 6,53,47	
		1, 0, 7, 9,55, 4,15,33		4,24
6″	52,41,17,23,52, 2,33,26,20,20		3,51, 6,58,11	
		1, 0, 7, 6, 3,57,17,22		4,24
8″	52,41,18,23,59, 8,37,23,37,42		3,51, 7, 2,35	
		1, 0, 7, 2,12,50,14,47		4,24
10″	52,41,19,24, 6,10,50,13,52,29		3,51, 7, 6,59	
		1, 0, 6,58,21,43, 7,48		4,24
12″	52,41,20,24,13, 9,11,57, 0,17		3,51, 7,11,23	
		1, 0, 6,54,30,35,56,25		4,24
14″	52,41,21,24,20, 3,42,32,56,42		3,51, 7,15,47	
		1, 0, 6,50,39,28,40,38		4,24
16″	52,41,22,24,26,54,22, 1,37,20		3,51, 7,20,11	
		1, 0, 6,46,48,21,20,27		4,24
18″	52,41,23,24,33,41,10,22,57,47		3,51, 7,24,35	
		1, 0, 6,42,57,13,55,52		4,24
20″	52,41,24,24,40,24, 7,36,53,39		3,51, 7,28,59	
		1, 0, 6,39, 6, 6,26,53		4,24
22″	52,41,25,24,47, 3,13,43,20,32		3,51, 7,33,23	
		1, 0, 6,35,14,58,53,30		4,24
24″	52,41,26,24,53,38,28,42,14, 2		3,51, 7,37,47	
		1, 0, 6,31,23,51,15,43		4,24
26″	52,41,27,25, 0, 9,52,33,29,45		3,51, 7,42,11	
		1, 0, 6,27,32,43,33,32		4,24
28″	52,41,28,25, 6,37,25,17, 3,17		3,51, 7,46,35	
		1, 0, 6,23,41,35,46,57		4,24
30″	52,41,29,25,13, 1, 6,52,50,14		3,51, 7,50,59	
		1, 0, 6,19,50,27,55,58		4,24
32″	52,41,30,25,19,20,57,20,46,12		3,51, 7,55,23	
		1, 0, 6,15,59,20, 0,35		4,24
34″	52,41,31,25,25,36,56,40,46,47		3,51, 7,59,47	
		1, 0, 6,12, 8,12, 0,48		4,24
36″	52,41,32,25,31,49, 4,52,47,35		3,51, 8, 4,11	
		1, 0, 6, 8,17, 3,56,37		4,24
38″	52,41,33,25,37,57,21,56,44,12		3,51, 8, 8,35	
		1, 0, 6, 4,25,55,48, 2		4,24
40″	52,41,34,25,44, 1,47,52,32,14		3,51, 8,12,59	
		1, 0, 6, 0,34,47,35, 3		4,24
42″	52,41,35,25,50, 2,22,40, 7,17		3,51, 8,17,23	
		1, 0, 5,56,43,39,17,40		4,24
44″	52,41,36,25,55,59, 6,19,24,57		3,51, 8,21,47	
		1, 0, 5,52,52,30,55,53		4,24
46″	52,41,37,26, 1,51,58,50,20,50		3,51, 8,26,11	
		1, 0, 5,49, 1,22,29,42		4,24
48″	52,41,38,26, 7,41, 0,12,50,32		3,51, 8,30,35	
		1, 0, 5,45,10,13,59, 7		4,24
50″	52,41,39,26,13,26,10,26,49,39		3,51, 8,34,59	
		1, 0, 5,41,19, 5,24, 8		4,24
52″	52,41,40,26,19, 7,29,32,13,47		3,51, 8,39,23	
		1, 0, 5,37,27,56,44,45		4,24
54″	52,41,41,26,24,44,57,28,58,32		3,51, 8,43,47	
		1, 0, 5,33,36,48, 0,58		4,24
56″	52,41,42,26,30,18,34,16,59,30		3,51, 8,48,11	
		1, 0, 5,29,45,39,12,47		4,24
58″	52,41,43,26,35,48,19,56,12,17		3,51, 8,52,35	
		1, 0, 5,25,54,30,20,12		
60″	52,41,44,26,41,14,14,26,32,29			
exact	52,41,44,26,41,14,14,26,55,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°26′ 0″	52,41,44,26,41,14,14,26,55,58			
		1, 0, 5,22, 3,21,25,44		
2″	52,41,45,26,46,36,17,48,21,42		3,51, 9, 1,12	
		1, 0, 5,18,12,12,24,32		4,24
4″	52,41,46,26,51,54,30, 0,46,14		3,51, 9, 5,36	
		1, 0, 5,14,21, 3,18,56		4,24
6″	52,41,47,26,57, 8,51, 4, 5,10		3,51, 9,10, 0	
		1, 0, 5,10,29,54, 8,56		4,24
8″	52,41,48,27, 2,19,20,58,14, 6		3,51, 9,14,24	
		1, 0, 5, 6,38,44,54,32		4,24
10″	52,41,49,27, 7,25,59,43, 8,38		3,51, 9,18,48	
		1, 0, 5, 2,47,35,35,44		4,24
12″	52,41,50,27,12,28,47,18,44,22		3,51, 9,23,12	
		1, 0, 4,58,56,26,12,32		4,24
14″	52,41,51,27,17,27,43,44,56,54		3,51, 9,27,36	
		1, 0, 4,55, 5,16,44,56		4,24
16″	52,41,52,27,22,22,49, 1,41,50		3,51, 9,32, 0	
		1, 0, 4,51,14, 7,12,56		4,24
18″	52,41,53,27,27,14, 3, 8,54,46		3,51, 9,36,24	
		1, 0, 4,47,22,57,36,32		4,24
20″	52,41,54,27,32, 1,26, 6,31,18		3,51, 9,40,48	
		1, 0, 4,43,31,47,55,44		4,24
22″	52,41,55,27,36,44,57,54,27, 2		3,51, 9,45,12	
		1, 0, 4,39,40,38,10,32		4,24
24″	52,41,56,27,41,24,38,32,37,34		3,51, 9,49,36	
		1, 0, 4,35,49,28,20,56		4,24
26″	52,41,57,27,46, 0,28, 0,58,30		3,51, 9,54, 0	
		1, 0, 4,31,58,18,26,56		4,24
28″	52,41,58,27,50,32,26,19,25,26		3,51, 9,58,24	
		1, 0, 4,28, 7, 8,28,32		4,24
30″	52,41,59,27,55, 0,33,27,53,58		3,51,10, 2,48	
		1, 0, 4,24,15,58,25,44		4,24
32″	52,42, 0,27,59,24,49,26,19,42		3,51,10, 7,12	
		1, 0, 4,20,24,48,18,32		4,24
34″	52,42, 1,28, 3,45,14,14,38,14		3,51,10,11,36	
		1, 0, 4,16,33,38, 6,56		4,24
36″	52,42, 2,28, 8, 1,47,52,45,10		3,51,10,16, 0	
		1, 0, 4,12,42,27,50,56		4,24
38″	52,42, 3,28,12,14,30,20,36, 6		3,51,10,20,24	
		1, 0, 4, 8,51,17,30,32		4,24
40″	52,42, 4,28,16,23,21,38, 6,38		3,51,10,24,48	
		1, 0, 4, 5, 0, 7, 5,44		4,24
42″	52,42, 5,28,20,28,21,45,12,22		3,51,10,29,12	
		1, 0, 4, 1, 8,56,36,32		4,24
44″	52,42, 6,28,24,29,30,41,48,54		3,51,10,33,36	
		1, 0, 3,57,17,46, 2,56		4,24
46″	52,42, 7,28,28,26,48,27,51,50		3,51,10,38, 0	
		1, 0, 3,53,26,35,24,56		4,24
48″	52,42, 8,28,32,20,15, 3,16,46		3,51,10,42,24	
		1, 0, 3,49,35,24,42,32		4,24
50″	52,42, 9,28,36, 9,50,27,59,18		3,51,10,46,48	
		1, 0, 3,45,44,13,55,44		4,24
52″	52,42,10,28,39,55,34,41,55, 2		3,51,10,51,12	
		1, 0, 3,41,53, 3, 4,32		4,24
54″	52,42,11,28,43,37,27,44,59,34		3,51,10,55,36	
		1, 0, 3,38, 1,52, 8,56		4,24
56″	52,42,12,28,47,15,29,37, 8,30		3,51,11, 0, 0	
		1, 0, 3,34,10,41, 8,56		4,24
58″	52,42,13,28,50,49,40,18,17,26		3,51,11, 4,24	
		1, 0, 3,30,19,30, 4,32		
60″	52,42,14,28,54,19,59,48,21,58			
exact	52,42,14,28,54,19,59,48,51,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°27′ 0″	52,42,14,28,54,19,59,48,51,13			
		1, 0, 3,26,28,18,59, 1		
2″	52,42,15,28,57,46,28, 7,50,14		3,51,11,12,57	
		1, 0, 3,22,37, 7,46, 4		4,23
4″	52,42,16,29, 1, 9, 5,15,36,18		3,51,11,17,20	
		1, 0, 3,18,45,56,28,44		4,23
6″	52,42,17,29, 4,27,51,12, 5, 2		3,51,11,21,43	
		1, 0, 3,14,54,45, 7, 1		4,23
8″	52,42,18,29, 7,42,45,57,12, 3		3,51,11,26, 6	
		1, 0, 3,11, 3,33,40,55		4,23
10″	52,42,19,29,10,53,49,30,52,58		3,51,11,30,29	
		1, 0, 3, 7,12,22,10,26		4,23
12″	52,42,20,29,14, 1, 1,53, 3,24		3,51,11,34,52	
		1, 0, 3, 3,21,10,35,34		4,23
14″	52,42,21,29,17, 4,23, 3,38,58		3,51,11,39,15	
		1, 0, 2,59,29,58,56,19		4,23
16″	52,42,22,29,20, 3,53, 2,35,17		3,51,11,43,38	
		1, 0, 2,55,38,47,12,41		4,23
18″	52,42,23,29,22,59,31,49,47,58		3,51,11,48, 1	
		1, 0, 2,51,47,35,24,40		4,23
20″	52,42,24,29,25,51,19,25,12,38		3,51,11,52,24	
		1, 0, 2,47,56,23,32,16		4,23
22″	52,42,25,29,28,39,15,48,44,54		3,51,11,56,47	
		1, 0, 2,44, 5,11,35,29		4,23
24″	52,42,26,29,31,23,21, 0,20,23		3,51,12, 1,10	
		1, 0, 2,40,13,59,34,19		4,23
26″	52,42,27,29,34, 3,34,59,54,42		3,51,12, 5,33	
		1, 0, 2,36,22,47,28,46		4,23
28″	52,42,28,29,36,39,57,47,23,28		3,51,12, 9,56	
		1, 0, 2,32,31,35,18,50		4,23
30″	52,42,29,29,39,12,29,22,42,18		3,51,12,14,19	
		1, 0, 2,28,40,23, 4,31		4,23
32″	52,42,30,29,41,41, 9,45,46,49		3,51,12,18,42	
		1, 0, 2,24,49,10,45,49		4,23
34″	52,42,31,29,44, 5,58,56,32,38		3,51,12,23, 5	
		1, 0, 2,20,57,58,22,44		4,23
36″	52,42,32,29,46,26,56,54,55,22		3,51,12,27,28	
		1, 0, 2,17, 6,45,55,16		4,23
38″	52,42,33,29,48,44, 3,40,50,38		3,51,12,31,51	
		1, 0, 2,13,15,33,23,25		4,23
40″	52,42,34,29,50,57,19,14,14, 3		3,51,12,36,14	
		1, 0, 2, 9,24,20,47,11		4,23
42″	52,42,35,29,53, 6,43,35, 1,14		3,51,12,40,37	
		1, 0, 2, 5,33, 8, 6,34		4,23
44″	52,42,36,29,55,12,16,43, 7,48		3,51,12,45, 0	
		1, 0, 2, 1,41,55,21,34		4,23
46″	52,42,37,29,57,13,58,38,29,22		3,51,12,49,23	
		1, 0, 1,57,50,42,32,11		4,23
48″	52,42,38,29,59,11,49,21, 1,33		3,51,12,53,46	
		1, 0, 1,53,59,29,38,25		4,23
50″	52,42,39,30, 1, 5,48,50,39,58		3,51,12,58, 9	
		1, 0, 1,50, 8,16,40,16		4,23
52″	52,42,40,30, 2,55,57, 7,20,14		3,51,13, 2,32	
		1, 0, 1,46,17, 3,37,44		4,23
54″	52,42,41,30, 4,42,14,10,57,58		3,51,13, 6,55	
		1, 0, 1,42,25,50,30,49		4,23
56″	52,42,42,30, 6,24,40, 1,28,47		3,51,13,11,18	
		1, 0, 1,38,34,37,19,31		4,23
58″	52,42,43,30, 8, 3,14,38,48,18		3,51,13,15,41	
		1, 0, 1,34,43,24, 3,50		
60″	52,42,44,30, 9,37,58, 2,52, 8			
exact	52,42,44,30, 9,37,58, 2,21,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°28′ 0″	52,42,44,30, 9,37,58, 2,21,15			
		1, 0, 1,30,52,10,40,41		
2″	52,42,45,30,11, 8,50,13, 1,56		3,51,13,24,39	
		1, 0, 1,27, 0,57,16, 2		4,23
4″	52,42,46,30,12,35,51,10,17,58		3,51,13,29, 2	
		1, 0, 1,23, 9,43,47, 0		4,23
6″	52,42,47,30,13,59, 0,54, 4,58		3,51,13,33,25	
		1, 0, 1,19,18,30,13,35		4,23
8″	52,42,48,30,15,18,19,24,18,33		3,51,13,37,48	
		1, 0, 1,15,27,16,35,47		4,23
10″	52,42,49,30,16,33,46,40,54,20		3,51,13,42,11	
		1, 0, 1,11,36, 2,53,36		4,23
12″	52,42,50,30,17,45,22,43,47,56		3,51,13,46,34	
		1, 0, 1, 7,44,49, 7, 2		4,23
14″	52,42,51,30,18,53, 7,32,54,58		3,51,13,50,57	
		1, 0, 1, 3,53,35,16, 5		4,23
16″	52,42,52,30,19,57, 1, 8,11, 3		3,51,13,55,20	
		1, 0, 1, 0, 2,21,20,45		4,23
18″	52,42,53,30,20,57, 3,29,31,48		3,51,13,59,43	
		1, 0, 0,56,11, 7,21, 2		4,23
20″	52,42,54,30,21,53,14,36,52,50		3,51,14, 4, 6	
		1, 0, 0,52,19,53,16,56		4,23
22″	52,42,55,30,22,45,34,30, 9,46		3,51,14, 8,29	
		1, 0, 0,48,28,39, 8,27		4,23
24″	52,42,56,30,23,34, 3, 9,18,13		3,51,14,12,52	
		1, 0, 0,44,37,24,55,35		4,23
26″	52,42,57,30,24,18,40,34,13,48		3,51,14,17,15	
		1, 0, 0,40,46,10,38,20		4,23
28″	52,42,58,30,24,59,26,44,52, 8		3,51,14,21,38	
		1, 0, 0,36,54,56,16,42		4,23
30″	52,42,59,30,25,36,21,41, 8,50		3,51,14,26, 1	
		1, 0, 0,33, 3,41,50,41		4,23
32″	52,43, 0,30,26, 9,25,22,59,31		3,51,14,30,24	
		1, 0, 0,29,12,27,20,17		4,23
34″	52,43, 1,30,26,38,37,50,19,48		3,51,14,34,47	
		1, 0, 0,25,21,12,45,30		4,23
36″	52,43, 2,30,27, 3,59, 3, 5,18		3,51,14,39,10	
		1, 0, 0,21,29,58, 6,20		4,23
38″	52,43, 3,30,27,25,29, 1,11,38		3,51,14,43,33	
		1, 0, 0,17,38,43,22,47		4,23
40″	52,43, 4,30,27,43, 7,44,34,25		3,51,14,47,56	
		1, 0, 0,13,47,28,34,51		4,23
42″	52,43, 5,30,27,56,55,13, 9,16		3,51,14,52,19	
		1, 0, 0, 9,56,13,42,32		4,23
44″	52,43, 6,30,28, 6,51,26,51,48		3,51,14,56,42	
		1, 0, 0, 6, 4,58,45,50		4,23
46″	52,43, 7,30,28,12,56,25,37,38		3,51,15, 1, 5	
		1, 0, 0, 2,13,43,44,45		4,23
48″	52,43, 8,30,28,15,10, 9,22,23		3,51,15, 5,28	
		0,59,59,58,22,28,39,17		4,23
50″	52,43, 9,30,28,13,32,38, 1,40		3,51,15, 9,51	
		0,59,59,54,31,13,29,26		4,23
52″	52,43,10,30,28, 8, 3,51,31, 6		3,51,15,14,14	
		0,59,59,50,39,58,15,12		4,23
54″	52,43,11,30,27,58,43,49,46,18		3,51,15,18,37	
		0,59,59,46,48,42,56,35		4,23
56″	52,43,12,30,27,45,32,32,42,53		3,51,15,23, 0	
		0,59,59,42,57,27,33,35		4,23
58″	52,43,13,30,27,28,30, 0,16,28		3,51,15,27,23	
		0,59,59,39, 6,12, 6,12		
60″	52,43,14,30,27, 7,36,12,22,40			
exact	52,43,14,30,27, 7,36,12, 8,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°29′ 0″	52,43,14,30,27, 7,36,12, 8,16			
		59,59,35,14,56,32,51		
2″	52,43,15,30,26,42,51, 8,41, 7		3,51,15,36,15	
		59,59,31,23,40,56,36		4,23
4″	52,43,16,30,26,14,14,49,37,43		3,51,15,40,38	
		59,59,27,32,25,15,58		4,23
6″	52,43,17,30,25,41,47,14,53,41		3,51,15,45, 1	
		59,59,23,41, 9,30,57		4,23
8″	52,43,18,30,25, 5,28,24,24,38		3,51,15,49,24	
		59,59,19,49,53,41,33		4,23
10″	52,43,19,30,24,25,18,18, 6,11		3,51,15,53,47	
		59,59,15,58,37,47,46		4,23
12″	52,43,20,30,23,41,16,55,53,57		3,51,15,58,10	
		59,59,12, 7,21,49,36		4,23
14″	52,43,21,30,22,53,24,17,43,33		3,51,16, 2,33	
		59,59, 8,16, 5,47, 3		4,23
16″	52,43,22,30,22, 1,40,23,30,36		3,51,16, 6,56	
		59,59, 4,24,49,40, 7		4,23
18″	52,43,23,30,21, 6, 5,13,10,43		3,51,16,11,19	
		59,59, 0,33,33,28,48		4,23
20″	52,43,24,30,20, 6,38,46,39,31		3,51,16,15,42	
		59,58,56,42,17,13, 6		4,23
22″	52,43,25,30,19, 3,21, 3,52,37		3,51,16,20, 5	
		59,58,52,51, 0,53, 1		4,23
24″	52,43,26,30,17,56,12, 4,45,38		3,51,16,24,28	
		59,58,48,59,44,28,33		4,23
26″	52,43,27,30,16,45,11,49,14,11		3,51,16,28,51	
		59,58,45, 8,27,59,42		4,23
28″	52,43,28,30,15,30,20,17,13,53		3,51,16,33,14	
		59,58,41,17,11,26,28		4,23
30″	52,43,29,30,14,11,37,28,40,21		3,51,16,37,37	
		59,58,37,25,54,48,51		4,23
32″	52,43,30,30,12,49, 3,23,29,12		3,51,16,42, 0	
		59,58,33,34,38, 6,51		4,23
34″	52,43,31,30,11,22,38, 1,36, 3		3,51,16,46,23	
		59,58,29,43,21,20,28		4,23
36″	52,43,32,30, 9,52,21,22,56,31		3,51,16,50,46	
		59,58,25,52, 4,29,42		4,23
38″	52,43,33,30, 8,18,13,27,26,13		3,51,16,55, 9	
		59,58,22, 0,47,34,33		4,23
40″	52,43,34,30, 6,40,14,15, 0,46		3,51,16,59,32	
		59,58,18, 9,30,35, 1		4,23
42″	52,43,35,30, 4,58,23,45,35,47		3,51,17, 3,55	
		59,58,14,18,13,31, 6		4,23
44″	52,43,36,30, 3,12,41,59, 6,53		3,51,17, 8,18	
		59,58,10,26,56,22,48		4,23
46″	52,43,37,30, 1,23, 8,55,29,41		3,51,17,12,41	
		59,58, 6,35,39,10, 7		4,23
48″	52,43,38,29,59,29,44,34,39,48		3,51,17,17, 4	
		59,58, 2,44,21,53, 3		4,23
50″	52,43,39,29,57,32,28,56,32,51		3,51,17,21,27	
		59,57,58,53, 4,31,36		4,23
52″	52,43,40,29,55,31,22, 1, 4,27		3,51,17,25,50	
		59,57,55, 1,47, 5,46		4,23
54″	52,43,41,29,53,26,23,48,10,13		3,51,17,30,13	
		59,57,51,10,29,35,33		4,23
56″	52,43,42,29,51,17,34,17,45,46		3,51,17,34,36	
		59,57,47,19,12, 0,57		4,23
58″	52,43,43,29,49, 4,53,29,46,43		3,51,17,38,59	
		59,57,43,27,54,21,58		
60″	52,43,44,29,46,48,21,24, 8,41			
exact	52,43,44,29,46,48,21,23,57,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°30′ 0″	52,43,44,29,46,48,21,23,57,48			
		59,57,39,36,36,37,37		
2″	52,43,45,29,44,27,58, 0,35,25		3,51,17,47,48	
		59,57,35,45,18,49,49		4,23
4″	52,43,46,29,42, 3,43,19,25,14		3,51,17,52,11	
		59,57,31,54, 0,57,38		4,23
6″	52,43,47,29,39,35,37,20,22,52		3,51,17,56,34	
		59,57,28, 2,43, 1, 4		4,23
8″	52,43,48,29,37, 3,40, 3,23,56		3,51,18, 0,57	
		59,57,24,11,25, 0, 7		4,23
10″	52,43,49,29,34,27,51,28,24, 3		3,51,18, 5,20	
		59,57,20,20, 6,54,47		4,23
12″	52,43,50,29,31,48,11,35,18,50		3,51,18, 9,43	
		59,57,16,28,48,45, 4		4,23
14″	52,43,51,29,29, 4,40,24, 3,54		3,51,18,14, 6	
		59,57,12,37,30,30,58		4,23
16″	52,43,52,29,26,17,17,54,34,52		3,51,18,18,29	
		59,57, 8,46,12,12,29		4,23
18″	52,43,53,29,23,26, 4, 6,47,21		3,51,18,22,52	
		59,57, 4,54,53,49,37		4,23
20″	52,43,54,29,20,30,59, 0,36,58		3,51,18,27,15	
		59,57, 1, 3,35,22,22		4,23
22″	52,43,55,29,17,32, 2,35,59,20		3,51,18,31,38	
		59,56,57,12,16,50,44		4,23
24″	52,43,56,29,14,29,14,52,50, 4		3,51,18,36, 1	
		59,56,53,20,58,14,43		4,23
26″	52,43,57,29,11,22,35,51, 4,47		3,51,18,40,24	
		59,56,49,29,39,34,19		4,23
28″	52,43,58,29, 8,12, 5,30,39, 6		3,51,18,44,47	
		59,56,45,38,20,49,32		4,23
30″	52,43,59,29, 4,57,43,51,28,38		3,51,18,49,10	
		59,56,41,47, 2, 0,22		4,23
32″	52,44, 0,29, 1,39,30,53,29, 0		3,51,18,53,33	
		59,56,37,55,43, 6,49		4,23
34″	52,44, 1,28,58,17,26,36,35,49		3,51,18,57,56	
		59,56,34, 4,24, 8,53		4,23
36″	52,44, 2,28,54,51,31, 0,44,42		3,51,19, 2,19	
		59,56,30,13, 5, 6,34		4,23
38″	52,44, 3,28,51,21,44, 5,51,16		3,51,19, 6,42	
		59,56,26,21,45,59,52		4,23
40″	52,44, 4,28,47,48, 5,51,51, 8		3,51,19,11, 5	
		59,56,22,30,26,48,47		4,23
42″	52,44, 5,28,44,10,36,18,39,55		3,51,19,15,28	
		59,56,18,39, 7,33,19		4,23
44″	52,44, 6,28,40,29,15,26,13,14		3,51,19,19,51	
		59,56,14,47,48,13,28		4,23
46″	52,44, 7,28,36,44, 3,14,26,42		3,51,19,24,14	
		59,56,10,56,28,49,14		4,23
48″	52,44, 8,28,32,54,59,43,15,56		3,51,19,28,37	
		59,56, 7, 5, 9,20,37		4,23
50″	52,44, 9,28,29, 2, 4,52,36,33		3,51,19,33, 0	
		59,56, 3,13,49,47,37		4,23
52″	52,44,10,28,25, 5,18,42,24,10		3,51,19,37,23	
		59,55,59,22,30,10,14		4,23
54″	52,44,11,28,21, 4,41,12,34,24		3,51,19,41,46	
		59,55,55,31,10,28,28		4,23
56″	52,44,12,28,17, 0,12,23, 2,52		3,51,19,46, 9	
		59,55,51,39,50,42,19		4,23
58″	52,44,13,28,12,51,52,13,45,11		3,51,19,50,32	
		59,55,47,48,30,51,47		
60″	52,44,14,28, 8,39,40,44,36,58			
exact	52,44,14,28, 8,39,40,44,38,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°31′ 0″	52,44,14,28, 8,39,40,44,38,51			
		59,55,43,57,10,57, 7		
2″	52,44,15,28, 4,23,37,55,35,58		3,51,19,59,16	
		59,55,40, 5,50,57,51		4,23
4″	52,44,16,28, 0, 3,43,46,33,49		3,51,20, 3,39	
		59,55,36,14,30,54,12		4,23
6″	52,44,17,27,55,39,58,17,28, 1		3,51,20, 8, 2	
		59,55,32,23,10,46,10		4,23
8″	52,44,18,27,51,12,21,28,14,11		3,51,20,12,25	
		59,55,28,31,50,33,45		4,23
10″	52,44,19,27,46,40,53,18,47,56		3,51,20,16,48	
		59,55,24,40,30,16,57		4,23
12″	52,44,20,27,42, 5,33,49, 4,53		3,51,20,21,11	
		59,55,20,49, 9,55,46		4,23
14″	52,44,21,27,37,26,22,59, 0,39		3,51,20,25,34	
		59,55,16,57,49,30,12		4,23
16″	52,44,22,27,32,43,20,48,30,51		3,51,20,29,57	
		59,55,13, 6,29, 0,15		4,23
18″	52,44,23,27,27,56,27,17,31, 6		3,51,20,34,20	
		59,55, 9,15, 8,25,55		4,23
20″	52,44,24,27,23, 5,42,25,57, 1		3,51,20,38,43	
		59,55, 5,23,47,47,12		4,23
22″	52,44,25,27,18,11, 6,13,44,13		3,51,20,43, 6	
		59,55, 1,32,27, 4, 6		4,23
24″	52,44,26,27,13,12,38,40,48,19		3,51,20,47,29	
		59,54,57,41, 6,16,37		4,23
26″	52,44,27,27, 8,10,19,47, 4,56		3,51,20,51,52	
		59,54,53,49,45,24,45		4,23
28″	52,44,28,27, 3, 4, 9,32,29,41		3,51,20,56,15	
		59,54,49,58,24,28,30		4,23
30″	52,44,29,26,57,54, 7,56,58,11		3,51,21, 0,38	
		59,54,46, 7, 3,27,52		4,23
32″	52,44,30,26,52,40,15, 0,26, 3		3,51,21, 5, 1	
		59,54,42,15,42,22,51		4,23
34″	52,44,31,26,47,22,30,42,48,54		3,51,21, 9,24	
		59,54,38,24,21,13,27		4,23
36″	52,44,32,26,42, 0,55, 4, 2,21		3,51,21,13,47	
		59,54,34,32,59,59,40		4,23
38″	52,44,33,26,36,35,28, 4, 2, 1		3,51,21,18,10	
		59,54,30,41,38,41,30		4,23
40″	52,44,34,26,31, 6, 9,42,43,31		3,51,21,22,33	
		59,54,26,50,17,18,57		4,23
42″	52,44,35,26,25,33, 0, 0, 2,28		3,51,21,26,56	
		59,54,22,58,55,52, 1		4,23
44″	52,44,36,26,19,55,58,55,54,29		3,51,21,31,19	
		59,54,19, 7,34,20,42		4,23
46″	52,44,37,26,14,15, 6,30,15,11		3,51,21,35,42	
		59,54,15,16,12,45, 0		4,23
48″	52,44,38,26, 8,30,22,43, 0,11		3,51,21,40, 5	
		59,54,11,24,51, 4,55		4,23
50″	52,44,39,26, 2,41,47,34, 5, 6		3,51,21,44,28	
		59,54, 7,33,29,20,27		4,23
52″	52,44,40,25,56,49,21, 3,25,33		3,51,21,48,51	
		59,54, 3,42, 7,31,36		4,23
54″	52,44,41,25,50,53, 3,10,57, 9		3,51,21,53,14	
		59,53,59,50,45,38,22		4,23
56″	52,44,42,25,44,52,53,56,35,31		3,51,21,57,37	
		59,53,55,59,23,40,45		4,23
58″	52,44,43,25,38,48,53,20,16,16		3,51,22, 2, 0	
		59,53,52, 8, 1,38,45		
60″	52,44,44,25,32,41, 1,21,55, 1			
exact	52,44,44,25,32,41, 1,22, 3,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°32′ 0″	52,44,44,25,32,41, 1,22, 3,46			
		59,53,48,16,39,33,28		
2″	52,44,45,25,26,29,18, 1,37,14		3,51,22,10,40	
		59,53,44,25,17,22,48		4,23
4″	52,44,46,25,20,13,43,19, 0, 2		3,51,22,15, 3	
		59,53,40,33,55, 7,45		4,23
6″	52,44,47,25,13,54,17,14, 7,47		3,51,22,19,26	
		59,53,36,42,32,48,19		4,23
8″	52,44,48,25, 7,30,59,46,56, 6		3,51,22,23,49	
		59,53,32,51,10,24,30		4,23
10″	52,44,49,25, 1, 3,50,57,20,36		3,51,22,28,12	
		59,53,28,59,47,56,18		4,23
12″	52,44,50,24,54,32,50,45,16,54		3,51,22,32,35	
		59,53,25, 8,25,23,43		4,23
14″	52,44,51,24,47,57,59,10,40,37		3,51,22,36,58	
		59,53,21,17, 2,46,45		4,23
16″	52,44,52,24,41,19,16,13,27,22		3,51,22,41,21	
		59,53,17,25,40, 5,24		4,23
18″	52,44,53,24,34,36,41,53,32,46		3,51,22,45,44	
		59,53,13,34,17,19,40		4,23
20″	52,44,54,24,27,50,16,10,52,26		3,51,22,50, 7	
		59,53, 9,42,54,29,33		4,23
22″	52,44,55,24,20,59,59, 5,21,59		3,51,22,54,30	
		59,53, 5,51,31,35, 3		4,23
24″	52,44,56,24,14, 5,50,36,57, 2		3,51,22,58,53	
		59,53, 2, 0, 8,36,10		4,23
26″	52,44,57,24, 7, 7,50,45,33,12		3,51,23, 3,16	
		59,52,58, 8,45,32,54		4,23
28″	52,44,58,24, 0, 5,59,31, 6, 6		3,51,23, 7,39	
		59,52,54,17,22,25,15		4,23
30″	52,44,59,23,53, 0,16,53,31,21		3,51,23,12, 2	
		59,52,50,25,59,13,13		4,23
32″	52,45, 0,23,45,50,42,52,44,34		3,51,23,16,25	
		59,52,46,34,35,56,48		4,23
34″	52,45, 1,23,38,37,17,28,41,22		3,51,23,20,48	
		59,52,42,43,12,36, 0		4,23
36″	52,45, 2,23,31,20, 0,41,17,22		3,51,23,25,11	
		59,52,38,51,49,10,49		4,23
38″	52,45, 3,23,23,58,52,30,28,11		3,51,23,29,34	
		59,52,35, 0,25,41,15		4,23
40″	52,45, 4,23,16,33,52,56, 9,26		3,51,23,33,57	
		59,52,31, 9, 2, 7,18		4,23
42″	52,45, 5,23, 9, 5, 1,58,16,44		3,51,23,38,20	
		59,52,27,17,38,28,58		4,23
44″	52,45, 6,23, 1,32,19,36,45,42		3,51,23,42,43	
		59,52,23,26,14,46,15		4,23
46″	52,45, 7,22,53,55,45,51,31,57		3,51,23,47, 6	
		59,52,19,34,50,59, 9		4,23
48″	52,45, 8,22,46,15,20,42,31, 6		3,51,23,51,29	
		59,52,15,43,27, 7,40		4,23
50″	52,45, 9,22,38,31, 4, 9,38,46		3,51,23,55,52	
		59,52,11,52, 3,11,48		4,23
52″	52,45,10,22,30,42,56,12,50,34		3,51,24, 0,15	
		59,52, 8, 0,39,11,33		4,23
54″	52,45,11,22,22,50,56,52, 2, 7		3,51,24, 4,38	
		59,52, 4, 9,15, 6,55		4,23
56″	52,45,12,22,14,55, 6, 7, 9, 2		3,51,24, 9, 1	
		59,52, 0,17,50,57,54		4,23
58″	52,45,13,22, 6,55,23,58, 6,56		3,51,24,13,24	
		59,51,56,26,26,44,30		
60″	52,45,14,21,58,51,50,24,51,26			
exact	52,45,14,21,58,51,50,25, 8,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°33′ 0″	52,45,14,21,58,51,50,25, 8,21			
		59,51,52,35, 2,28,45		
2″	52,45,15,21,50,44,25,27,37, 6		3,51,24,22, 0	
		59,51,48,43,38, 6,45		4,23
4″	52,45,16,21,42,33, 9, 5,43,51		3,51,24,26,23	
		59,51,44,52,13,40,22		4,23
6″	52,45,17,21,34,18, 1,19,24,13		3,51,24,30,46	
		59,51,41, 0,49, 9,36		4,23
8″	52,45,18,21,25,59, 2, 8,33,49		3,51,24,35, 9	
		59,51,37, 9,24,34,27		4,23
10″	52,45,19,21,17,36,11,33, 8,16		3,51,24,39,32	
		59,51,33,17,59,54,55		4,23
12″	52,45,20,21, 9, 9,29,33, 3,11		3,51,24,43,55	
		59,51,29,26,35,11, 0		4,23
14″	52,45,21,21, 0,38,56, 8,14,11		3,51,24,48,18	
		59,51,25,35,10,22,42		4,23
16″	52,45,22,20,52, 4,31,18,36,53		3,51,24,52,41	
		59,51,21,43,45,30, 1		4,23
18″	52,45,23,20,43,26,15, 4, 6,54		3,51,24,57, 4	
		59,51,17,52,20,32,57		4,23
20″	52,45,24,20,34,44, 7,24,39,51		3,51,25, 1,27	
		59,51,14, 0,55,31,30		4,23
22″	52,45,25,20,25,58, 8,20,11,21		3,51,25, 5,50	
		59,51,10, 9,30,25,40		4,23
24″	52,45,26,20,17, 8,17,50,37, 1		3,51,25,10,13	
		59,51, 6,18, 5,15,27		4,23
26″	52,45,27,20, 8,14,35,55,52,28		3,51,25,14,36	
		59,51, 2,26,40, 0,51		4,23
28″	52,45,28,19,59,17, 2,35,53,19		3,51,25,18,59	
		59,50,58,35,14,41,52		4,23
30″	52,45,29,19,50,15,37,50,35,11		3,51,25,23,22	
		59,50,54,43,49,18,30		4,23
32″	52,45,30,19,41,10,21,39,53,41		3,51,25,27,45	
		59,50,50,52,23,50,45		4,23
34″	52,45,31,19,32, 1,14, 3,44,26		3,51,25,32, 8	
		59,50,47, 0,58,18,37		4,23
36″	52,45,32,19,22,48,15, 2, 3, 3		3,51,25,36,31	
		59,50,43, 9,32,42, 6		4,23
38″	52,45,33,19,13,31,24,34,45, 9		3,51,25,40,54	
		59,50,39,18, 7, 1,12		4,23
40″	52,45,34,19, 4,10,42,41,46,21		3,51,25,45,17	
		59,50,35,26,41,15,55		4,23
42″	52,45,35,18,54,46, 9,23, 2,16		3,51,25,49,40	
		59,50,31,35,15,26,15		4,23
44″	52,45,36,18,45,17,44,38,28,31		3,51,25,54, 3	
		59,50,27,43,49,32,12		4,23
46″	52,45,37,18,35,45,28,28, 0,43		3,51,25,58,26	
		59,50,23,52,23,33,46		4,23
48″	52,45,38,18,26, 9,20,51,34,29		3,51,26, 2,49	
		59,50,20, 0,57,30,57		4,23
50″	52,45,39,18,16,29,21,49, 5,26		3,51,26, 7,12	
		59,50,16, 9,31,23,45		4,23
52″	52,45,40,18, 6,45,31,20,29,11		3,51,26,11,35	
		59,50,12,18, 5,12,10		4,23
54″	52,45,41,17,56,57,49,25,41,21		3,51,26,15,58	
		59,50, 8,26,38,56,12		4,23
56″	52,45,42,17,47, 6,16, 4,37,33		3,51,26,20,21	
		59,50, 4,35,12,35,51		4,23
58″	52,45,43,17,37,10,51,17,13,24		3,51,26,24,44	
		59,50, 0,43,46,11, 7		
60″	52,45,44,17,27,11,35, 3,24,31			
exact	52,45,44,17,27,11,35, 3,51,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°34′ 0″	52,45,44,17,27,11,35, 3,51,51			
		59,49,56,52,19,45, 7		
2″	52,45,45,17,17, 8,27,23,36,58		3,51,26,33,16	
		59,49,53, 0,53,11,51		4,22
4″	52,45,46,17, 7, 1,28,16,48,49		3,51,26,37,38	
		59,49,49, 9,26,34,13		4,22
6″	52,45,47,16,56,50,37,43,23, 2		3,51,26,42, 0	
		59,49,45,17,59,52,13		4,22
8″	52,45,48,16,46,35,55,43,15,15		3,51,26,46,22	
		59,49,41,26,33, 5,51		4,22
10″	52,45,49,16,36,17,22,16,21, 6		3,51,26,50,44	
		59,49,37,35, 6,15, 7		4,22
12″	52,45,50,16,25,54,57,22,36,13		3,51,26,55, 6	
		59,49,33,43,39,20, 1		4,22
14″	52,45,51,16,15,28,41, 1,56,14		3,51,26,59,28	
		59,49,29,52,12,20,33		4,22
16″	52,45,52,16, 4,58,33,14,16,47		3,51,27, 3,50	
		59,49,26, 0,45,16,43		4,22
18″	52,45,53,15,54,24,33,59,33,30		3,51,27, 8,12	
		59,49,22, 9,18, 8,31		4,22
20″	52,45,54,15,43,46,43,17,42, 1		3,51,27,12,34	
		59,49,18,17,50,55,57		4,22
22″	52,45,55,15,33, 5, 1, 8,37,58		3,51,27,16,56	
		59,49,14,26,23,39, 1		4,22
24″	52,45,56,15,22,19,27,32,16,59		3,51,27,21,18	
		59,49,10,34,56,17,43		4,22
26″	52,45,57,15,11,30, 2,28,34,42		3,51,27,25,40	
		59,49, 6,43,28,52, 3		4,22
28″	52,45,58,15, 0,36,45,57,26,45		3,51,27,30, 2	
		59,49, 2,52, 1,22, 1		4,22
30″	52,45,59,14,49,39,37,58,48,46		3,51,27,34,24	
		59,48,59, 0,33,47,37		4,22
32″	52,46, 0,14,38,38,38,32,36,23		3,51,27,38,46	
		59,48,55, 9, 6, 8,51		4,22
34″	52,46, 1,14,27,33,47,38,45,14		3,51,27,43, 8	
		59,48,51,17,38,25,43		4,22
36″	52,46, 2,14,16,25, 5,17,10,57		3,51,27,47,30	
		59,48,47,26,10,38,13		4,22
38″	52,46, 3,14, 5,12,31,27,49,10		3,51,27,51,52	
		59,48,43,34,42,46,21		4,22
40″	52,46, 4,13,53,56, 6,10,35,31		3,51,27,56,14	
		59,48,39,43,14,50, 7		4,22
42″	52,46, 5,13,42,35,49,25,25,38		3,51,28, 0,36	
		59,48,35,51,46,49,31		4,22
44″	52,46, 6,13,31,11,41,12,15, 9		3,51,28, 4,58	
		59,48,32, 0,18,44,33		4,22
46″	52,46, 7,13,19,43,41,30,59,42		3,51,28, 9,20	
		59,48,28, 8,50,35,13		4,22
48″	52,46, 8,13, 8,11,50,21,34,55		3,51,28,13,42	
		59,48,24,17,22,21,31		4,22
50″	52,46, 9,12,56,36, 7,43,56,26		3,51,28,18, 4	
		59,48,20,25,54, 3,27		4,22
52″	52,46,10,12,44,56,33,37,59,53		3,51,28,22,26	
		59,48,16,34,25,41, 1		4,22
54″	52,46,11,12,33,13, 8, 3,40,54		3,51,28,26,48	
		59,48,12,42,57,14,13		4,22
56″	52,46,12,12,21,25,51, 0,55, 7		3,51,28,31,10	
		59,48, 8,51,28,43, 3		4,22
58″	52,46,13,12, 9,34,42,29,38,10		3,51,28,35,32	
		59,48, 5, 0, 0, 7,31		
60″	52,46,14,11,57,39,42,29,45,41			
exact	52,46,14,11,57,39,42,29,16,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°35′ 0″	52,46,14,11,57,39,42,29,16,54			
		59,48, 1, 8,31,24,39		
2″	52,46,15,11,45,40,51, 0,41,33		3,51,28,44,27	
		59,47,57,17, 2,40,12		4,22
4″	52,46,16,11,33,38, 8, 3,21,45		3,51,28,48,49	
		59,47,53,25,33,51,23		4,22
6″	52,46,17,11,21,31,33,37,13, 8		3,51,28,53,11	
		59,47,49,34, 4,58,12		4,22
8″	52,46,18,11, 9,21, 7,42,11,20		3,51,28,57,33	
		59,47,45,42,36, 0,39		4,22
10″	52,46,19,10,57, 6,50,18,11,59		3,51,29, 1,55	
		59,47,41,51, 6,58,44		4,22
12″	52,46,20,10,44,48,41,25,10,43		3,51,29, 6,17	
		59,47,37,59,37,52,27		4,22
14″	52,46,21,10,32,26,41, 3, 3,10		3,51,29,10,39	
		59,47,34, 8, 8,41,48		4,22
16″	52,46,22,10,20, 0,49,11,44,58		3,51,29,15, 1	
		59,47,30,16,39,26,47		4,22
18″	52,46,23,10, 7,31, 5,51,11,45		3,51,29,19,23	
		59,47,26,25,10, 7,24		4,22
20″	52,46,24, 9,54,57,31, 1,19, 9		3,51,29,23,45	
		59,47,22,33,40,43,39		4,22
22″	52,46,25, 9,42,20, 4,42, 2,48		3,51,29,28, 7	
		59,47,18,42,11,15,32		4,22
24″	52,46,26, 9,29,38,46,53,18,20		3,51,29,32,29	
		59,47,14,50,41,43, 3		4,22
26″	52,46,27, 9,16,53,37,35, 1,23		3,51,29,36,51	
		59,47,10,59,12, 6,12		4,22
28″	52,46,28, 9, 4, 4,36,47, 7,35		3,51,29,41,13	
		59,47, 7, 7,42,24,59		4,22
30″	52,46,29, 8,51,11,44,29,32,34		3,51,29,45,35	
		59,47, 3,16,12,39,24		4,22
32″	52,46,30, 8,38,15, 0,42,11,58		3,51,29,49,57	
		59,46,59,24,42,49,27		4,22
34″	52,46,31, 8,25,14,25,25, 1,25		3,51,29,54,19	
		59,46,55,33,12,55, 8		4,22
36″	52,46,32, 8,12, 9,58,37,56,33		3,51,29,58,41	
		59,46,51,41,42,56,27		4,22
38″	52,46,33, 7,59, 1,40,20,53, 0		3,51,30, 3, 3	
		59,46,47,50,12,53,24		4,22
40″	52,46,34, 7,45,49,30,33,46,24		3,51,30, 7,25	
		59,46,43,58,42,45,59		4,22
42″	52,46,35, 7,32,33,29,16,32,23		3,51,30,11,47	
		59,46,40, 7,12,34,12		4,22
44″	52,46,36, 7,19,13,36,29, 6,35		3,51,30,16, 9	
		59,46,36,15,42,18, 3		4,22
46″	52,46,37, 7, 5,49,52,11,24,38		3,51,30,20,31	
		59,46,32,24,11,57,32		4,22
48″	52,46,38, 6,52,22,16,23,22,10		3,51,30,24,53	
		59,46,28,32,41,32,39		4,22
50″	52,46,39, 6,38,50,49, 4,54,49		3,51,30,29,15	
		59,46,24,41,11, 3,24		4,22
52″	52,46,40, 6,25,15,30,15,58,13		3,51,30,33,37	
		59,46,20,49,40,29,47		4,22
54″	52,46,41, 6,11,36,19,56,28, 0		3,51,30,37,59	
		59,46,16,58, 9,51,48		4,22
56″	52,46,42, 5,57,53,18, 6,19,48		3,51,30,42,21	
		59,46,13, 6,39, 9,27		4,22
58″	52,46,43, 5,44, 6,24,45,29,15		3,51,30,46,43	
		59,46, 9,15, 8,22,44		
60″	52,46,44, 5,30,15,39,53,51,59			
exact	52,46,44, 5,30,15,39,53,29,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°36′ 0″	52,46,44, 5,30,15,39,53,29,39			
		59,46, 5,23,37,29,29		
2″	52,46,45, 5,16,21, 3,30,59, 8		3,51,30,55,35	
		59,46, 1,32, 6,33,54		4,22
4″	52,46,46, 5, 2,22,35,37,33, 2		3,51,30,59,57	
		59,45,57,40,35,33,57		4,22
6″	52,46,47, 4,48,20,16,13, 6,59		3,51,31, 4,19	
		59,45,53,49, 4,29,38		4,22
8″	52,46,48, 4,34,14, 5,17,36,37		3,51,31, 8,41	
		59,45,49,57,33,20,57		4,22
10″	52,46,49, 4,20, 4, 2,50,57,34		3,51,31,13, 3	
		59,45,46, 6, 2, 7,54		4,22
12″	52,46,50, 4, 5,50, 8,53, 5,28		3,51,31,17,25	
		59,45,42,14,30,50,29		4,22
14″	52,46,51, 3,51,32,23,23,55,57		3,51,31,21,47	
		59,45,38,22,59,28,42		4,22
16″	52,46,52, 3,37,10,46,23,24,39		3,51,31,26, 9	
		59,45,34,31,28, 2,33		4,22
18″	52,46,53, 3,22,45,17,51,27,12		3,51,31,30,31	
		59,45,30,39,56,32, 2		4,22
20″	52,46,54, 3, 8,15,57,47,59,14		3,51,31,34,53	
		59,45,26,48,24,57, 9		4,22
22″	52,46,55, 2,53,42,46,12,56,23		3,51,31,39,15	
		59,45,22,56,53,17,54		4,22
24″	52,46,56, 2,39, 5,43, 6,14,17		3,51,31,43,37	
		59,45,19, 5,21,34,17		4,22
26″	52,46,57, 2,24,24,48,27,48,34		3,51,31,47,59	
		59,45,15,13,49,46,18		4,22
28″	52,46,58, 2, 9,40, 2,17,34,52		3,51,31,52,21	
		59,45,11,22,17,53,57		4,22
30″	52,46,59, 1,54,51,24,35,28,49		3,51,31,56,43	
		59,45, 7,30,45,57,14		4,22
32″	52,47, 0, 1,39,58,55,21,26, 3		3,51,32, 1, 5	
		59,45, 3,39,13,56, 9		4,22
34″	52,47, 1, 1,25, 2,34,35,22,12		3,51,32, 5,27	
		59,44,59,47,41,50,42		4,22
36″	52,47, 2, 1,10, 2,22,17,12,54		3,51,32, 9,49	
		59,44,55,56, 9,40,53		4,22
38″	52,47, 3, 0,54,58,18,26,53,47		3,51,32,14,11	
		59,44,52, 4,37,26,42		4,22
40″	52,47, 4, 0,39,50,23, 4,20,29		3,51,32,18,33	
		59,44,48,13, 5, 8, 9		4,22
42″	52,47, 5, 0,24,38,36, 9,28,38		3,51,32,22,55	
		59,44,44,21,32,45,14		4,22
44″	52,47, 6, 0, 9,22,57,42,13,52		3,51,32,27,17	
		59,44,40,30, 0,17,57		4,22
46″	52,47, 6,59,54, 3,27,42,31,49		3,51,32,31,39	
		59,44,36,38,27,46,18		4,22
48″	52,47, 7,59,38,40, 6,10,18, 7		3,51,32,36, 1	
		59,44,32,46,55,10,17		4,22
50″	52,47, 8,59,23,12,53, 5,28,24		3,51,32,40,23	
		59,44,28,55,22,29,54		4,22
52″	52,47, 9,59, 7,41,48,27,58,18		3,51,32,44,45	
		59,44,25, 3,49,45, 9		4,22
54″	52,47,10,58,52, 6,52,17,43,27		3,51,32,49, 7	
		59,44,21,12,16,56, 2		4,22
56″	52,47,11,58,36,28, 4,34,39,29		3,51,32,53,29	
		59,44,17,20,44, 2,33		4,22
58″	52,47,12,58,20,45,25,18,42, 2		3,51,32,57,51	
		59,44,13,29,11, 4,42		
60″	52,47,13,58, 4,58,54,29,46,44			
exact	52,47,13,58, 4,58,54,29,39,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°37′ 0″	52,47,13,58, 4,58,54,29,39,39			
		59,44, 9,37,38, 1,44		
2″	52,47,14,57,49, 8,32, 7,41,23		3,51,33, 6,38	
		59,44, 5,46, 4,55, 6		4,22
4″	52,47,15,57,33,14,18,12,36,29		3,51,33,11, 0	
		59,44, 1,54,31,44, 6		4,22
6″	52,47,16,57,17,16,12,44,20,35		3,51,33,15,22	
		59,43,58, 2,58,28,44		4,22
8″	52,47,17,57, 1,14,15,42,49,19		3,51,33,19,44	
		59,43,54,11,25, 9, 0		4,22
10″	52,47,18,56,45, 8,27, 7,58,19		3,51,33,24, 6	
		59,43,50,19,51,44,54		4,22
12″	52,47,19,56,28,58,46,59,43,13		3,51,33,28,28	
		59,43,46,28,18,16,26		4,22
14″	52,47,20,56,12,45,15,17,59,39		3,51,33,32,50	
		59,43,42,36,44,43,36		4,22
16″	52,47,21,55,56,27,52, 2,43,15		3,51,33,37,12	
		59,43,38,45,11, 6,24		4,22
18″	52,47,22,55,40, 6,37,13,49,39		3,51,33,41,34	
		59,43,34,53,37,24,50		4,22
20″	52,47,23,55,23,41,30,51,14,29		3,51,33,45,56	
		59,43,31, 2, 3,38,54		4,22
22″	52,47,24,55, 7,12,32,54,53,23		3,51,33,50,18	
		59,43,27,10,29,48,36		4,22
24″	52,47,25,54,50,39,43,24,41,59		3,51,33,54,40	
		59,43,23,18,55,53,56		4,22
26″	52,47,26,54,34, 3, 2,20,35,55		3,51,33,59, 2	
		59,43,19,27,21,54,54		4,22
28″	52,47,27,54,17,22,29,42,30,49		3,51,34, 3,24	
		59,43,15,35,47,51,30		4,22
30″	52,47,28,54, 0,38, 5,30,22,19		3,51,34, 7,46	
		59,43,11,44,13,43,44		4,22
32″	52,47,29,53,43,49,49,44, 6, 3		3,51,34,12, 8	
		59,43, 7,52,39,31,36		4,22
34″	52,47,30,53,26,57,42,23,37,39		3,51,34,16,30	
		59,43, 4, 1, 5,15, 6		4,22
36″	52,47,31,53,10, 1,43,28,52,45		3,51,34,20,52	
		59,43, 0, 9,30,54,14		4,22
38″	52,47,32,52,53, 1,52,59,46,59		3,51,34,25,14	
		59,42,56,17,56,29, 0		4,22
40″	52,47,33,52,35,58,10,56,15,59		3,51,34,29,36	
		59,42,52,26,21,59,24		4,22
42″	52,47,34,52,18,50,37,18,15,23		3,51,34,33,58	
		59,42,48,34,47,25,26		4,22
44″	52,47,35,52, 1,39,12, 5,40,49		3,51,34,38,20	
		59,42,44,43,12,47, 6		4,22
46″	52,47,36,51,44,23,55,18,27,55		3,51,34,42,42	
		59,42,40,51,38, 4,24		4,22
48″	52,47,37,51,27, 4,46,56,32,19		3,51,34,47, 4	
		59,42,37, 0, 3,17,20		4,22
50″	52,47,38,51, 9,41,46,59,49,39		3,51,34,51,26	
		59,42,33, 8,28,25,54		4,22
52″	52,47,39,50,52,14,55,28,15,33		3,51,34,55,48	
		59,42,29,16,53,30, 6		4,22
54″	52,47,40,50,34,44,12,21,45,39		3,51,35, 0,10	
		59,42,25,25,18,29,56		4,22
56″	52,47,41,50,17, 9,37,40,15,35		3,51,35, 4,32	
		59,42,21,33,43,25,24		4,22
58″	52,47,42,49,59,31,11,23,40,59		3,51,35, 8,54	
		59,42,17,42, 8,16,30		
60″	52,47,43,49,41,48,53,31,57,29			
exact	52,47,43,49,41,48,53,31,59,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°38′ 0″	52,47,43,49,41,48,53,31,59,59			
		59,42,13,50,33, 3,30		
2″	52,47,44,49,24, 2,44, 5, 3,29		3,51,35,17,36	
		59,42, 9,58,57,45,54		4,22
4″	52,47,45,49, 6,12,43, 2,49,23		3,51,35,21,58	
		59,42, 6, 7,22,23,56		4,22
6″	52,47,46,48,48,18,50,25,13,19		3,51,35,26,20	
		59,42, 2,15,46,57,36		4,22
8″	52,47,47,48,30,21, 6,12,10,55		3,51,35,30,42	
		59,41,58,24,11,26,54		4,22
10″	52,47,48,48,12,19,30,23,37,49		3,51,35,35, 4	
		59,41,54,32,35,51,50		4,22
12″	52,47,49,47,54,14, 2,59,29,39		3,51,35,39,26	
		59,41,50,41, 0,12,24		4,22
14″	52,47,50,47,36, 4,43,59,42, 3		3,51,35,43,48	
		59,41,46,49,24,28,36		4,22
16″	52,47,51,47,17,51,33,24,10,39		3,51,35,48,10	
		59,41,42,57,48,40,26		4,22
18″	52,47,52,46,59,34,31,12,51, 5		3,51,35,52,32	
		59,41,39, 6,12,47,54		4,22
20″	52,47,53,46,41,13,37,25,38,59		3,51,35,56,54	
		59,41,35,14,36,51, 0		4,22
22″	52,47,54,46,22,48,52, 2,29,59		3,51,36, 1,16	
		59,41,31,23, 0,49,44		4,22
24″	52,47,55,46, 4,20,15, 3,19,43		3,51,36, 5,38	
		59,41,27,31,24,44, 6		4,22
26″	52,47,56,45,45,47,46,28, 3,49		3,51,36,10, 0	
		59,41,23,39,48,34, 6		4,22
28″	52,47,57,45,27,11,26,16,37,55		3,51,36,14,22	
		59,41,19,48,12,19,44		4,22
30″	52,47,58,45, 8,31,14,28,57,39		3,51,36,18,44	
		59,41,15,56,36, 1, 0		4,22
32″	52,47,59,44,49,47,11, 4,58,39		3,51,36,23, 6	
		59,41,12, 4,59,37,54		4,22
34″	52,48, 0,44,30,59,16, 4,36,33		3,51,36,27,28	
		59,41, 8,13,23,10,26		4,22
36″	52,48, 1,44,12, 7,29,27,46,59		3,51,36,31,50	
		59,41, 4,21,46,38,36		4,22
38″	52,48, 2,43,53,11,51,14,25,35		3,51,36,36,12	
		59,41, 0,30,10, 2,24		4,22
40″	52,48, 3,43,34,12,21,24,27,59		3,51,36,40,34	
		59,40,56,38,33,21,50		4,22
42″	52,48, 4,43,15, 8,59,57,49,49		3,51,36,44,56	
		59,40,52,46,56,36,54		4,22
44″	52,48, 5,42,56, 1,46,54,26,43		3,51,36,49,18	
		59,40,48,55,19,47,36		4,22
46″	52,48, 6,42,36,50,42,14,14,19		3,51,36,53,40	
		59,40,45, 3,42,53,56		4,22
48″	52,48, 7,42,17,35,45,57, 8,15		3,51,36,58, 2	
		59,40,41,12, 5,55,54		4,22
50″	52,48, 8,41,58,16,58, 3, 4, 9		3,51,37, 2,24	
		59,40,37,20,28,53,30		4,22
52″	52,48, 9,41,38,54,18,31,57,39		3,51,37, 6,46	
		59,40,33,28,51,46,44		4,22
54″	52,48,10,41,19,27,47,23,44,23		3,51,37,11, 8	
		59,40,29,37,14,35,36		4,22
56″	52,48,11,40,59,57,24,38,19,59		3,51,37,15,30	
		59,40,25,45,37,20, 6		4,22
58″	52,48,12,40,40,23,10,15,40, 5		3,51,37,19,52	
		59,40,21,54, 0, 0,14		
60″	52,48,13,40,20,45, 4,15,40,19			
exact	52,48,13,40,20,45, 4,15,47,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°39′ 0″	52,48,13,40,20,45, 4,15,47,10			
		59,40,18, 2,22,36,56		
2″	52,48,14,40, 1, 3, 6,38,24, 6		3,51,37,28,31	
		59,40,14,10,45, 8,25		4,22
4″	52,48,15,39,41,17,17,23,32,31		3,51,37,32,53	
		59,40,10,19, 7,35,32		4,22
6″	52,48,16,39,21,27,36,31, 8, 3		3,51,37,37,15	
		59,40, 6,27,29,58,17		4,22
8″	52,48,17,39, 1,34, 4, 1, 6,20		3,51,37,41,37	
		59,40, 2,35,52,16,40		4,22
10″	52,48,18,38,41,36,39,53,23, 0		3,51,37,45,59	
		59,39,58,44,14,30,41		4,22
12″	52,48,19,38,21,35,24, 7,53,41		3,51,37,50,21	
		59,39,54,52,36,40,20		4,22
14″	52,48,20,38, 1,30,16,44,34, 1		3,51,37,54,43	
		59,39,51, 0,58,45,37		4,22
16″	52,48,21,37,41,21,17,43,19,38		3,51,37,59, 5	
		59,39,47, 9,20,46,32		4,22
18″	52,48,22,37,21, 8,27, 4, 6,10		3,51,38, 3,27	
		59,39,43,17,42,43, 5		4,22
20″	52,48,23,37, 0,51,44,46,49,15		3,51,38, 7,49	
		59,39,39,26, 4,35,16		4,22
22″	52,48,24,36,40,31,10,51,24,31		3,51,38,12,11	
		59,39,35,34,26,23, 5		4,22
24″	52,48,25,36,20, 6,45,17,47,36		3,51,38,16,33	
		59,39,31,42,48, 6,32		4,22
26″	52,48,26,35,59,38,28, 5,54, 8		3,51,38,20,55	
		59,39,27,51, 9,45,37		4,22
28″	52,48,27,35,39, 6,19,15,39,45		3,51,38,25,17	
		59,39,23,59,31,20,20		4,22
30″	52,48,28,35,18,30,18,47, 0, 5		3,51,38,29,39	
		59,39,20, 7,52,50,41		4,22
32″	52,48,29,34,57,50,26,39,50,46		3,51,38,34, 1	
		59,39,16,16,14,16,40		4,22
34″	52,48,30,34,37, 6,42,54, 7,26		3,51,38,38,23	
		59,39,12,24,35,38,17		4,22
36″	52,48,31,34,16,19, 7,29,45,43		3,51,38,42,45	
		59,39, 8,32,56,55,32		4,22
38″	52,48,32,33,55,27,40,26,41,15		3,51,38,47, 7	
		59,39, 4,41,18, 8,25		4,22
40″	52,48,33,33,34,32,21,44,49,40		3,51,38,51,29	
		59,39, 0,49,39,16,56		4,22
42″	52,48,34,33,13,33,11,24, 6,36		3,51,38,55,51	
		59,38,56,58, 0,21, 5		4,22
44″	52,48,35,32,52,30, 9,24,27,41		3,51,39, 0,13	
		59,38,53, 6,21,20,52		4,22
46″	52,48,36,32,31,23,15,45,48,33		3,51,39, 4,35	
		59,38,49,14,42,16,17		4,22
48″	52,48,37,32,10,12,30,28, 4,50		3,51,39, 8,57	
		59,38,45,23, 3, 7,20		4,22
50″	52,48,38,31,48,57,53,31,12,10		3,51,39,13,19	
		59,38,41,31,23,54, 1		4,22
52″	52,48,39,31,27,39,24,55, 6,11		3,51,39,17,41	
		59,38,37,39,44,36,20		4,22
54″	52,48,40,31, 6,17, 4,39,42,31		3,51,39,22, 3	
		59,38,33,48, 5,14,17		4,22
56″	52,48,41,30,44,50,52,44,56,48		3,51,39,26,25	
		59,38,29,56,25,47,52		4,22
58″	52,48,42,30,23,20,49,10,44,40		3,51,39,30,47	
		59,38,26, 4,46,17, 5		
60″	52,48,43,30, 1,46,53,57, 1,45			
exact	52,48,43,30, 1,46,53,57,21,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°40′ 0″	52,48,43,30, 1,46,53,57,21,14			
		59,38,22,13, 6,44, 7		
2″	52,48,44,29,40, 9, 7, 4, 5,21		3,51,39,39,21	
		59,38,18,21,27, 4,46		4,22
4″	52,48,45,29,18,27,28,31,10, 7		3,51,39,43,43	
		59,38,14,29,47,21, 3		4,22
6″	52,48,46,28,56,41,58,18,31,10		3,51,39,48, 5	
		59,38,10,38, 7,32,58		4,22
8″	52,48,47,28,34,52,36,26, 4, 8		3,51,39,52,27	
		59,38, 6,46,27,40,31		4,22
10″	52,48,48,28,12,59,22,53,44,39		3,51,39,56,49	
		59,38, 2,54,47,43,42		4,22
12″	52,48,49,27,51, 2,17,41,28,21		3,51,40, 1,11	
		59,37,59, 3, 7,42,31		4,22
14″	52,48,50,27,29, 1,20,49,10,52		3,51,40, 5,33	
		59,37,55,11,27,36,58		4,22
16″	52,48,51,27, 6,56,32,16,47,50		3,51,40, 9,55	
		59,37,51,19,47,27, 3		4,22
18″	52,48,52,26,44,47,52, 4,14,53		3,51,40,14,17	
		59,37,47,28, 7,12,46		4,22
20″	52,48,53,26,22,35,20,11,27,39		3,51,40,18,39	
		59,37,43,36,26,54, 7		4,22
22″	52,48,54,26, 0,18,56,38,21,46		3,51,40,23, 1	
		59,37,39,44,46,31, 6		4,22
24″	52,48,55,25,37,58,41,24,52,52		3,51,40,27,23	
		59,37,35,53, 6, 3,43		4,22
26″	52,48,56,25,15,34,34,30,56,35		3,51,40,31,45	
		59,37,32, 1,25,31,58		4,22
28″	52,48,57,24,53, 6,35,56,28,33		3,51,40,36, 7	
		59,37,28, 9,44,55,51		4,22
30″	52,48,58,24,30,34,45,41,24,24		3,51,40,40,29	
		59,37,24,18, 4,15,22		4,22
32″	52,48,59,24, 7,59, 3,45,39,46		3,51,40,44,51	
		59,37,20,26,23,30,31		4,22
34″	52,49, 0,23,45,19,30, 9,10,17		3,51,40,49,13	
		59,37,16,34,42,41,18		4,22
36″	52,49, 1,23,22,36, 4,51,51,35		3,51,40,53,35	
		59,37,12,43, 1,47,43		4,22
38″	52,49, 2,22,59,48,47,53,39,18		3,51,40,57,57	
		59,37, 8,51,20,49,46		4,22
40″	52,49, 3,22,36,57,39,14,29, 4		3,51,41, 2,19	
		59,37, 4,59,39,47,27		4,22
42″	52,49, 4,22,14, 2,38,54,16,31		3,51,41, 6,41	
		59,37, 1, 7,58,40,46		4,22
44″	52,49, 5,21,51, 3,46,52,57,17		3,51,41,11, 3	
		59,36,57,16,17,29,43		4,22
46″	52,49, 6,21,28, 1, 3,10,27, 0		3,51,41,15,25	
		59,36,53,24,36,14,18		4,22
48″	52,49, 7,21, 4,54,27,46,41,18		3,51,41,19,47	
		59,36,49,32,54,54,31		4,22
50″	52,49, 8,20,41,44, 0,41,35,49		3,51,41,24, 9	
		59,36,45,41,13,30,22		4,22
52″	52,49, 9,20,18,29,41,55, 6,11		3,51,41,28,31	
		59,36,41,49,32, 1,51		4,22
54″	52,49,10,19,55,11,31,27, 8, 2		3,51,41,32,53	
		59,36,37,57,50,28,58		4,22
56″	52,49,11,19,31,49,29,17,37, 0		3,51,41,37,15	
		59,36,34, 6, 8,51,43		4,22
58″	52,49,12,19, 8,23,35,26,28,43		3,51,41,41,37	
		59,36,30,14,27,10, 6		
60″	52,49,13,18,44,53,49,53,38,49			
exact	52,49,13,18,44,53,49,54, 5,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°41′ 0″	52,49,13,18,44,53,49,54, 5,41			
		59,36,26,22,45,27,10		
2″	52,49,14,18,21,20,12,39,32,51		3,51,41,50, 7	
		59,36,22,31, 3,37, 3		4,21
4″	52,49,15,17,57,42,43,43, 9,54		3,51,41,54,28	
		59,36,18,39,21,42,35		4,21
6″	52,49,16,17,34, 1,23, 4,52,29		3,51,41,58,49	
		59,36,14,47,39,43,46		4,21
8″	52,49,17,17,10,16,10,44,36,15		3,51,42, 3,10	
		59,36,10,55,57,40,36		4,21
10″	52,49,18,16,46,27, 6,42,16,51		3,51,42, 7,31	
		59,36, 7, 4,15,33, 5		4,21
12″	52,49,19,16,22,34,10,57,49,56		3,51,42,11,52	
		59,36, 3,12,33,21,13		4,21
14″	52,49,20,15,58,37,23,31,11, 9		3,51,42,16,13	
		59,35,59,20,51, 5, 0		4,21
16″	52,49,21,15,34,36,44,22,16, 9		3,51,42,20,34	
		59,35,55,29, 8,44,26		4,21
18″	52,49,22,15,10,32,13,31, 0,35		3,51,42,24,55	
		59,35,51,37,26,19,31		4,21
20″	52,49,23,14,46,23,50,57,20, 6		3,51,42,29,16	
		59,35,47,45,43,50,15		4,21
22″	52,49,24,14,22,11,36,41,10,21		3,51,42,33,37	
		59,35,43,54, 1,16,38		4,21
24″	52,49,25,13,57,55,30,42,26,59		3,51,42,37,58	
		59,35,40, 2,18,38,40		4,21
26″	52,49,26,13,33,35,33, 1, 5,39		3,51,42,42,19	
		59,35,36,10,35,56,21		4,21
28″	52,49,27,13, 9,11,43,37, 2, 0		3,51,42,46,40	
		59,35,32,18,53, 9,41		4,21
30″	52,49,28,12,44,44, 2,30,11,41		3,51,42,51, 1	
		59,35,28,27,10,18,40		4,21
32″	52,49,29,12,20,12,29,40,30,21		3,51,42,55,22	
		59,35,24,35,27,23,18		4,21
34″	52,49,30,11,55,37, 5, 7,53,39		3,51,42,59,43	
		59,35,20,43,44,23,35		4,21
36″	52,49,31,11,30,57,48,52,17,14		3,51,43, 4, 4	
		59,35,16,52, 1,19,31		4,21
38″	52,49,32,11, 6,14,40,53,36,45		3,51,43, 8,25	
		59,35,13, 0,18,11, 6		4,21
40″	52,49,33,10,41,27,41,11,47,51		3,51,43,12,46	
		59,35, 9, 8,34,58,20		4,21
42″	52,49,34,10,16,36,49,46,46,11		3,51,43,17, 7	
		59,35, 5,16,51,41,13		4,21
44″	52,49,35, 9,51,42, 6,38,27,24		3,51,43,21,28	
		59,35, 1,25, 8,19,45		4,21
46″	52,49,36, 9,26,43,31,46,47, 9		3,51,43,25,49	
		59,34,57,33,24,53,56		4,21
48″	52,49,37, 9, 1,41, 5,11,41, 5		3,51,43,30,10	
		59,34,53,41,41,23,46		4,21
50″	52,49,38, 8,36,34,46,53, 4,51		3,51,43,34,31	
		59,34,49,49,57,49,15		4,21
52″	52,49,39, 8,11,24,36,50,54, 6		3,51,43,38,52	
		59,34,45,58,14,10,23		4,21
54″	52,49,40, 7,46,10,35, 5, 4,29		3,51,43,43,13	
		59,34,42, 6,30,27,10		4,21
56″	52,49,41, 7,20,52,41,35,31,39		3,51,43,47,34	
		59,34,38,14,46,39,36		4,21
58″	52,49,42, 6,55,30,56,22,11,15		3,51,43,51,55	
		59,34,34,23, 2,47,41		
60″	52,49,43, 6,30, 5,19,24,58,56			
exact	52,49,43, 6,30, 5,19,24,27,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°42′ 0″	52,49,43, 6,30, 5,19,24,27,34			
		59,34,30,31,18,48,14		
2″	52,49,44, 6, 4,35,50,43,15,48		3,51,44, 0,49	
		59,34,26,39,34,47,25		4,21
4″	52,49,45, 5,39, 2,30,18, 3,13		3,51,44, 5,10	
		59,34,22,47,50,42,15		4,21
6″	52,49,46, 5,13,25,18, 8,45,28		3,51,44, 9,31	
		59,34,18,56, 6,32,44		4,21
8″	52,49,47, 4,47,44,14,15,18,12		3,51,44,13,52	
		59,34,15, 4,22,18,52		4,21
10″	52,49,48, 4,21,59,18,37,37, 4		3,51,44,18,13	
		59,34,11,12,38, 0,39		4,21
12″	52,49,49, 3,56,10,31,15,37,43		3,51,44,22,34	
		59,34, 7,20,53,38, 5		4,21
14″	52,49,50, 3,30,17,52, 9,15,48		3,51,44,26,55	
		59,34, 3,29, 9,11,10		4,21
16″	52,49,51, 3, 4,21,21,18,26,58		3,51,44,31,16	
		59,33,59,37,24,39,54		4,21
18″	52,49,52, 2,38,20,58,43, 6,52		3,51,44,35,37	
		59,33,55,45,40, 4,17		4,21
20″	52,49,53, 2,12,16,44,23,11, 9		3,51,44,39,58	
		59,33,51,53,55,24,19		4,21
22″	52,49,54, 1,46, 8,38,18,35,28		3,51,44,44,19	
		59,33,48, 2,10,40, 0		4,21
24″	52,49,55, 1,19,56,40,29,15,28		3,51,44,48,40	
		59,33,44,10,25,51,20		4,21
26″	52,49,56, 0,53,40,50,55, 6,48		3,51,44,53, 1	
		59,33,40,18,40,58,19		4,21
28″	52,49,57, 0,27,21, 9,36, 5, 7		3,51,44,57,22	
		59,33,36,26,56, 0,57		4,21
30″	52,49,58, 0, 0,57,36,32, 6, 4		3,51,45, 1,43	
		59,33,32,35,10,59,14		4,21
32″	52,49,58,59,34,30,11,43, 5,18		3,51,45, 6, 4	
		59,33,28,43,25,53,10		4,21
34″	52,49,59,59, 7,58,55, 8,58,28		3,51,45,10,25	
		59,33,24,51,40,42,45		4,21
36″	52,50, 0,58,41,23,46,49,41,13		3,51,45,14,46	
		59,33,20,59,55,27,59		4,21
38″	52,50, 1,58,14,44,46,45, 9,12		3,51,45,19, 7	
		59,33,17, 8,10, 8,52		4,21
40″	52,50, 2,57,48, 1,54,55,18, 4		3,51,45,23,28	
		59,33,13,16,24,45,24		4,21
42″	52,50, 3,57,21,15,11,20, 3,28		3,51,45,27,49	
		59,33, 9,24,39,17,35		4,21
44″	52,50, 4,56,54,24,35,59,21, 3		3,51,45,32,10	
		59,33, 5,32,53,45,25		4,21
46″	52,50, 5,56,27,30, 8,53, 6,28		3,51,45,36,31	
		59,33, 1,41, 8, 8,54		4,21
48″	52,50, 6,56, 0,31,50, 1,15,22		3,51,45,40,52	
		59,32,57,49,22,28, 2		4,21
50″	52,50, 7,55,33,29,39,23,43,24		3,51,45,45,13	
		59,32,53,57,36,42,49		4,21
52″	52,50, 8,55, 6,23,37, 0,26,13		3,51,45,49,34	
		59,32,50, 5,50,53,15		4,21
54″	52,50, 9,54,39,13,42,51,19,28		3,51,45,53,55	
		59,32,46,14, 4,59,20		4,21
56″	52,50,10,54,11,59,56,56,18,48		3,51,45,58,16	
		59,32,42,22,19, 1, 4		4,21
58″	52,50,11,53,44,42,19,15,19,52		3,51,46, 2,37	
		59,32,38,30,32,58,27		
60″	52,50,12,53,17,20,49,48,18,19			
exact	52,50,12,53,17,20,49,47,57,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°43′ 0″	52,50,12,53,17,20,49,47,57,27			
		59,32,34,38,46,49,24		
2″	52,50,13,52,49,55,28,34,46,51		3,51,46,11,27	
		59,32,30,47, 0,37,57		4,21
4″	52,50,14,52,22,26,15,35,24,48		3,51,46,15,48	
		59,32,26,55,14,22, 9		4,21
6″	52,50,15,51,54,53,10,49,46,57		3,51,46,20, 9	
		59,32,23, 3,28, 2, 0		4,21
8″	52,50,16,51,27,16,14,17,48,57		3,51,46,24,30	
		59,32,19,11,41,37,30		4,21
10″	52,50,17,50,59,35,25,59,26,27		3,51,46,28,51	
		59,32,15,19,55, 8,39		4,21
12″	52,50,18,50,31,50,45,54,35, 6		3,51,46,33,12	
		59,32,11,28, 8,35,27		4,21
14″	52,50,19,50, 4, 2,14, 3,10,33		3,51,46,37,33	
		59,32, 7,36,21,57,54		4,21
16″	52,50,20,49,36, 9,50,25, 8,27		3,51,46,41,54	
		59,32, 3,44,35,16, 0		4,21
18″	52,50,21,49, 8,13,35, 0,24,27		3,51,46,46,15	
		59,31,59,52,48,29,45		4,21
20″	52,50,22,48,40,13,27,48,54,12		3,51,46,50,36	
		59,31,56, 1, 1,39, 9		4,21
22″	52,50,23,48,12, 9,28,50,33,21		3,51,46,54,57	
		59,31,52, 9,14,44,12		4,21
24″	52,50,24,47,44, 1,38, 5,17,33		3,51,46,59,18	
		59,31,48,17,27,44,54		4,21
26″	52,50,25,47,15,49,55,33, 2,27		3,51,47, 3,39	
		59,31,44,25,40,41,15		4,21
28″	52,50,26,46,47,34,21,13,43,42		3,51,47, 8, 0	
		59,31,40,33,53,33,15		4,21
30″	52,50,27,46,19,14,55, 7,16,57		3,51,47,12,21	
		59,31,36,42, 6,20,54		4,21
32″	52,50,28,45,50,51,37,13,37,51		3,51,47,16,42	
		59,31,32,50,19, 4,12		4,21
34″	52,50,29,45,22,24,27,32,42, 3		3,51,47,21, 3	
		59,31,28,58,31,43, 9		4,21
36″	52,50,30,44,53,53,26, 4,25,12		3,51,47,25,24	
		59,31,25, 6,44,17,45		4,21
38″	52,50,31,44,25,18,32,48,42,57		3,51,47,29,45	
		59,31,21,14,56,48, 0		4,21
40″	52,50,32,43,56,39,47,45,30,57		3,51,47,34, 6	
		59,31,17,23, 9,13,54		4,21
42″	52,50,33,43,27,57,10,54,44,51		3,51,47,38,27	
		59,31,13,31,21,35,27		4,21
44″	52,50,34,42,59,10,42,16,20,18		3,51,47,42,48	
		59,31, 9,39,33,52,39		4,21
46″	52,50,35,42,30,20,21,50,12,57		3,51,47,47, 9	
		59,31, 5,47,46, 5,30		4,21
48″	52,50,36,42, 1,26, 9,36,18,27		3,51,47,51,30	
		59,31, 1,55,58,14, 0		4,21
50″	52,50,37,41,32,28, 5,34,32,27		3,51,47,55,51	
		59,30,58, 4,10,18, 9		4,21
52″	52,50,38,41, 3,26, 9,44,50,36		3,51,48, 0,12	
		59,30,54,12,22,17,57		4,21
54″	52,50,39,40,34,20,22, 7, 8,33		3,51,48, 4,33	
		59,30,50,20,34,13,24		4,21
56″	52,50,40,40, 5,10,42,41,21,57		3,51,48, 8,54	
		59,30,46,28,46, 4,30		4,21
58″	52,50,41,39,35,57,11,27,26,27		3,51,48,13,15	
		59,30,42,36,57,51,15		
60″	52,50,42,39, 6,39,48,25,17,42			
exact	52,50,42,39, 6,39,48,25, 9,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°44′ 0″	52,50,42,39, 6,39,48,25, 9,24			
		59,30,38,45, 9,32,47		
2″	52,50,43,38,37,18,33,34,42,11		3,51,48,22, 0	
		59,30,34,53,21,10,47		4,21
4″	52,50,44,38, 7,53,26,55,52,58		3,51,48,26,21	
		59,30,31, 1,32,44,26		4,21
6″	52,50,45,37,38,24,28,28,37,24		3,51,48,30,42	
		59,30,27, 9,44,13,44		4,21
8″	52,50,46,37, 8,51,38,12,51, 8		3,51,48,35, 3	
		59,30,23,17,55,38,41		4,21
10″	52,50,47,36,39,14,56, 8,29,49		3,51,48,39,24	
		59,30,19,26, 6,59,17		4,21
12″	52,50,48,36, 9,34,22,15,29, 6		3,51,48,43,45	
		59,30,15,34,18,15,32		4,21
14″	52,50,49,35,39,49,56,33,44,38		3,51,48,48, 6	
		59,30,11,42,29,27,26		4,21
16″	52,50,50,35,10, 1,39, 3,12, 4		3,51,48,52,27	
		59,30, 7,50,40,34,59		4,21
18″	52,50,51,34,40, 9,29,43,47, 3		3,51,48,56,48	
		59,30, 3,58,51,38,11		4,21
20″	52,50,52,34,10,13,28,35,25,14		3,51,49, 1, 9	
		59,30, 0, 7, 2,37, 2		4,21
22″	52,50,53,33,40,13,35,38, 2,16		3,51,49, 5,30	
		59,29,56,15,13,31,32		4,21
24″	52,50,54,33,10, 9,50,51,33,48		3,51,49, 9,51	
		59,29,52,23,24,21,41		4,21
26″	52,50,55,32,40, 2,14,15,55,29		3,51,49,14,12	
		59,29,48,31,35, 7,29		4,21
28″	52,50,56,32, 9,50,45,51, 2,58		3,51,49,18,33	
		59,29,44,39,45,48,56		4,21
30″	52,50,57,31,39,35,25,36,51,54		3,51,49,22,54	
		59,29,40,47,56,26, 2		4,21
32″	52,50,58,31, 9,16,13,33,17,56		3,51,49,27,15	
		59,29,36,56, 6,58,47		4,21
34″	52,50,59,30,38,53, 9,40,16,43		3,51,49,31,36	
		59,29,33, 4,17,27,11		4,21
36″	52,51, 0,30, 8,26,13,57,43,54		3,51,49,35,57	
		59,29,29,12,27,51,14		4,21
38″	52,51, 1,29,37,55,26,25,35, 8		3,51,49,40,18	
		59,29,25,20,38,10,56		4,21
40″	52,51, 2,29, 7,20,47, 3,46, 4		3,51,49,44,39	
		59,29,21,28,48,26,17		4,21
42″	52,51, 3,28,36,42,15,52,12,21		3,51,49,49, 0	
		59,29,17,36,58,37,17		4,21
44″	52,51, 4,28, 5,59,52,50,49,38		3,51,49,53,21	
		59,29,13,45, 8,43,56		4,21
46″	52,51, 5,27,35,13,37,59,33,34		3,51,49,57,42	
		59,29, 9,53,18,46,14		4,21
48″	52,51, 6,27, 4,23,31,18,19,48		3,51,50, 2, 3	
		59,29, 6, 1,28,44,11		4,21
50″	52,51, 7,26,33,29,32,47, 3,59		3,51,50, 6,24	
		59,29, 2, 9,38,37,47		4,21
52″	52,51, 8,26, 2,31,42,25,41,46		3,51,50,10,45	
		59,28,58,17,48,27, 2		4,21
54″	52,51, 9,25,31,30, 0,14, 8,48		3,51,50,15, 6	
		59,28,54,25,58,11,56		4,21
56″	52,51,10,25, 0,24,26,12,20,44		3,51,50,19,27	
		59,28,50,34, 7,52,29		4,21
58″	52,51,11,24,29,15, 0,20,13,13		3,51,50,23,48	
		59,28,46,42,17,28,41		
60″	52,51,12,23,58, 1,42,37,41,54			
exact	52,51,12,23,58, 1,42,37,41, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°45′ 0″	52,51,12,23,58, 1,42,37,41, 3			
		59,28,42,50,27, 0,32		
2″	52,51,13,23,26,44,33, 4,41,35		3,51,50,32,29	
		59,28,38,58,36,28, 3		4,21
4″	52,51,14,22,55,23,31,41, 9,38		3,51,50,36,50	
		59,28,35, 6,45,51,13		4,21
6″	52,51,15,22,23,58,38,27, 0,51		3,51,50,41,11	
		59,28,31,14,55,10, 2		4,21
8″	52,51,16,21,52,29,53,22,10,53		3,51,50,45,32	
		59,28,27,23, 4,24,30		4,21
10″	52,51,17,21,20,57,16,26,35,23		3,51,50,49,53	
		59,28,23,31,13,34,37		4,21
12″	52,51,18,20,49,20,47,40,10, 0		3,51,50,54,14	
		59,28,19,39,22,40,23		4,21
14″	52,51,19,20,17,40,27, 2,50,23		3,51,50,58,35	
		59,28,15,47,31,41,48		4,21
16″	52,51,20,19,45,56,14,34,32,11		3,51,51, 2,56	
		59,28,11,55,40,38,52		4,21
18″	52,51,21,19,14, 8,10,15,11, 3		3,51,51, 7,17	
		59,28, 8, 3,49,31,35		4,21
20″	52,51,22,18,42,16,14, 4,42,38		3,51,51,11,38	
		59,28, 4,11,58,19,57		4,21
22″	52,51,23,18,10,20,26, 3, 2,35		3,51,51,15,59	
		59,28, 0,20, 7, 3,58		4,21
24″	52,51,24,17,38,20,46,10, 6,33		3,51,51,20,20	
		59,27,56,28,15,43,38		4,21
26″	52,51,25,17, 6,17,14,25,50,11		3,51,51,24,41	
		59,27,52,36,24,18,57		4,21
28″	52,51,26,16,34, 9,50,50, 9, 8		3,51,51,29, 2	
		59,27,48,44,32,49,55		4,21
30″	52,51,27,16, 1,58,35,22,59, 3		3,51,51,33,23	
		59,27,44,52,41,16,32		4,21
32″	52,51,28,15,29,43,28, 4,15,35		3,51,51,37,44	
		59,27,41, 0,49,38,48		4,21
34″	52,51,29,14,57,24,28,53,54,23		3,51,51,42, 5	
		59,27,37, 8,57,56,43		4,21
36″	52,51,30,14,25, 1,37,51,51, 6		3,51,51,46,26	
		59,27,33,17, 6,10,17		4,21
38″	52,51,31,13,52,34,54,58, 1,23		3,51,51,50,47	
		59,27,29,25,14,19,30		4,21
40″	52,51,32,13,20, 4,20,12,20,53		3,51,51,55, 8	
		59,27,25,33,22,24,22		4,21
42″	52,51,33,12,47,29,53,34,45,15		3,51,51,59,29	
		59,27,21,41,30,24,53		4,21
44″	52,51,34,12,14,51,35, 5,10, 8		3,51,52, 3,50	
		59,27,17,49,38,21, 3		4,21
46″	52,51,35,11,42, 9,24,43,31,11		3,51,52, 8,11	
		59,27,13,57,46,12,52		4,21
48″	52,51,36,11, 9,23,22,29,44, 3		3,51,52,12,32	
		59,27,10, 5,54, 0,20		4,21
50″	52,51,37,10,36,33,28,23,44,23		3,51,52,16,53	
		59,27, 6,14, 1,43,27		4,21
52″	52,51,38,10, 3,39,42,25,27,50		3,51,52,21,14	
		59,27, 2,22, 9,22,13		4,21
54″	52,51,39, 9,30,42, 4,34,50, 3		3,51,52,25,35	
		59,26,58,30,16,56,38		4,21
56″	52,51,40, 8,57,40,34,51,46,41		3,51,52,29,56	
		59,26,54,38,24,26,42		4,21
58″	52,51,41, 8,24,35,13,16,13,23		3,51,52,34,17	
		59,26,50,46,31,52,25		
60″	52,51,42, 7,51,25,59,48, 5,48			
exact	52,51,42, 7,51,25,59,48,13,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°46′ 0″	52,51,42, 7,51,25,59,48,13,36			
		59,26,46,54,39,14,45		
2″	52,51,43, 7,18,12,54,27,28,21		3,51,52,42,54	
		59,26,43, 2,46,31,51		4,21
4″	52,51,44, 6,44,55,57,14, 0,12		3,51,52,47,15	
		59,26,39,10,53,44,36		4,21
6″	52,51,45, 6,11,35, 8, 7,44,48		3,51,52,51,36	
		59,26,35,19, 0,53, 0		4,21
8″	52,51,46, 5,38,10,27, 8,37,48		3,51,52,55,57	
		59,26,31,27, 7,57, 3		4,21
10″	52,51,47, 5, 4,41,54,16,34,51		3,51,53, 0,18	
		59,26,27,35,14,56,45		4,21
12″	52,51,48, 4,31, 9,29,31,31,36		3,51,53, 4,39	
		59,26,23,43,21,52, 6		4,21
14″	52,51,49, 3,57,33,12,53,23,42		3,51,53, 9, 0	
		59,26,19,51,28,43, 6		4,21
16″	52,51,50, 3,23,53, 4,22, 6,48		3,51,53,13,21	
		59,26,15,59,35,29,45		4,21
18″	52,51,51, 2,50, 9, 3,57,36,33		3,51,53,17,42	
		59,26,12, 7,42,12, 3		4,21
20″	52,51,52, 2,16,21,11,39,48,36		3,51,53,22, 3	
		59,26, 8,15,48,50, 0		4,21
22″	52,51,53, 1,42,29,27,28,38,36		3,51,53,26,24	
		59,26, 4,23,55,23,36		4,21
24″	52,51,54, 1, 8,33,51,24, 2,12		3,51,53,30,45	
		59,26, 0,32, 1,52,51		4,21
26″	52,51,55, 0,34,34,23,25,55, 3		3,51,53,35, 6	
		59,25,56,40, 8,17,45		4,21
28″	52,51,56, 0, 0,31, 3,34,12,48		3,51,53,39,27	
		59,25,52,48,14,38,18		4,21
30″	52,51,56,59,26,23,51,48,51, 6		3,51,53,43,48	
		59,25,48,56,20,54,30		4,21
32″	52,51,57,58,52,12,48, 9,45,36		3,51,53,48, 9	
		59,25,45, 4,27, 6,21		4,21
34″	52,51,58,58,17,57,52,36,51,57		3,51,53,52,30	
		59,25,41,12,33,13,51		4,21
36″	52,51,59,57,43,39, 5,10, 5,48		3,51,53,56,51	
		59,25,37,20,39,17, 0		4,21
38″	52,52, 0,57, 9,16,25,49,22,48		3,51,54, 1,12	
		59,25,33,28,45,15,48		4,21
40″	52,52, 1,56,34,49,54,34,38,36		3,51,54, 5,33	
		59,25,29,36,51,10,15		4,21
42″	52,52, 2,56, 0,19,31,25,48,51		3,51,54, 9,54	
		59,25,25,44,57, 0,21		4,21
44″	52,52, 3,55,25,45,16,22,49,12		3,51,54,14,15	
		59,25,21,53, 2,46, 6		4,21
46″	52,52, 4,54,51, 7, 9,25,35,18		3,51,54,18,36	
		59,25,18, 1, 8,27,30		4,21
48″	52,52, 5,54,16,25,10,34, 2,48		3,51,54,22,57	
		59,25,14, 9,14, 4,33		4,21
50″	52,52, 6,53,41,39,19,48, 7,21		3,51,54,27,18	
		59,25,10,17,19,37,15		4,21
52″	52,52, 7,53, 6,49,37, 7,44,36		3,51,54,31,39	
		59,25, 6,25,25, 5,36		4,21
54″	52,52, 8,52,31,56, 2,32,50,12		3,51,54,36, 0	
		59,25, 2,33,30,29,36		4,21
56″	52,52, 9,51,56,58,36, 3,19,48		3,51,54,40,21	
		59,24,58,41,35,49,15		4,21
58″	52,52,10,51,21,57,17,39, 9, 3		3,51,54,44,42	
		59,24,54,49,41, 4,33		
60″	52,52,11,50,46,52, 7,20,13,36			
exact	52,52,11,50,46,52, 7,20,31,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°47′ 0″	52,52,11,50,46,52, 7,20,31,45			
		59,24,50,57,46,17,33		
2″	52,52,12,50,11,43, 5, 6,49,18		3,51,54,53,15	
		59,24,47, 5,51,24,18		4,21
4″	52,52,13,49,36,30,10,58,13,36		3,51,54,57,36	
		59,24,43,13,56,26,42		4,21
6″	52,52,14,49, 1,13,24,54,40,18		3,51,55, 1,57	
		59,24,39,22, 1,24,45		4,21
8″	52,52,15,48,25,52,46,56, 5, 3		3,51,55, 6,18	
		59,24,35,30, 6,18,27		4,21
10″	52,52,16,47,50,28,17, 2,23,30		3,51,55,10,39	
		59,24,31,38,11, 7,48		4,21
12″	52,52,17,47,14,59,55,13,31,18		3,51,55,15, 0	
		59,24,27,46,15,52,48		4,21
14″	52,52,18,46,39,27,41,29,24, 6		3,51,55,19,21	
		59,24,23,54,20,33,27		4,21
16″	52,52,19,46, 3,51,35,49,57,33		3,51,55,23,42	
		59,24,20, 2,25, 9,45		4,21
18″	52,52,20,45,28,11,38,15, 7,18		3,51,55,28, 3	
		59,24,16,10,29,41,42		4,21
20″	52,52,21,44,52,27,48,44,49, 0		3,51,55,32,24	
		59,24,12,18,34, 9,18		4,21
22″	52,52,22,44,16,40, 7,18,58,18		3,51,55,36,45	
		59,24, 8,26,38,32,33		4,21
24″	52,52,23,43,40,48,33,57,30,51		3,51,55,41, 6	
		59,24, 4,34,42,51,27		4,21
26″	52,52,24,43, 4,53, 8,40,22,18		3,51,55,45,27	
		59,24, 0,42,47, 6, 0		4,21
28″	52,52,25,42,28,53,51,27,28,18		3,51,55,49,48	
		59,23,56,50,51,16,12		4,21
30″	52,52,26,41,52,50,42,18,44,30		3,51,55,54, 9	
		59,23,52,58,55,22, 3		4,21
32″	52,52,27,41,16,43,41,14, 6,33		3,51,55,58,30	
		59,23,49, 6,59,23,33		4,21
34″	52,52,28,40,40,32,48,13,30, 6		3,51,56, 2,51	
		59,23,45,15, 3,20,42		4,21
36″	52,52,29,40, 4,18, 3,16,50,48		3,51,56, 7,12	
		59,23,41,23, 7,13,30		4,21
38″	52,52,30,39,27,59,26,24, 4,18		3,51,56,11,33	
		59,23,37,31,11, 1,57		4,21
40″	52,52,31,38,51,36,57,35, 6,15		3,51,56,15,54	
		59,23,33,39,14,46, 3		4,21
42″	52,52,32,38,15,10,36,49,52,18		3,51,56,20,15	
		59,23,29,47,18,25,48		4,21
44″	52,52,33,37,38,40,24, 8,18, 6		3,51,56,24,36	
		59,23,25,55,22, 1,12		4,21
46″	52,52,34,37, 2, 6,19,30,19,18		3,51,56,28,57	
		59,23,22, 3,25,32,15		4,21
48″	52,52,35,36,25,28,22,55,51,33		3,51,56,33,18	
		59,23,18,11,28,58,57		4,21
50″	52,52,36,35,48,46,34,24,50,30		3,51,56,37,39	
		59,23,14,19,32,21,18		4,21
52″	52,52,37,35,12, 0,53,57,11,48		3,51,56,42, 0	
		59,23,10,27,35,39,18		4,21
54″	52,52,38,34,35,11,21,32,51, 6		3,51,56,46,21	
		59,23, 6,35,38,52,57		4,21
56″	52,52,39,33,58,17,57,11,44, 3		3,51,56,50,42	
		59,23, 2,43,42, 2,15		4,21
58″	52,52,40,33,21,20,40,53,46,18		3,51,56,55, 3	
		59,22,58,51,45, 7,12		
60″	52,52,41,32,44,19,32,38,53,30			
exact	52,52,41,32,44,19,32,39,23,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°48′ 0″	52,52,41,32,44,19,32,39,23,50			
		59,22,54,59,48,11, 3		
2″	52,52,42,32, 7,14,32,27,34,53		3,51,57, 3,31	
		59,22,51, 7,51, 7,32		4,20
4″	52,52,43,31,30, 5,40,18,42,25		3,51,57, 7,51	
		59,22,47,15,53,59,41		4,20
6″	52,52,44,30,52,52,56,12,42, 6		3,51,57,12,11	
		59,22,43,23,56,47,30		4,20
8″	52,52,45,30,15,36,20, 9,29,36		3,51,57,16,31	
		59,22,39,31,59,30,59		4,20
10″	52,52,46,29,38,15,52, 9, 0,35		3,51,57,20,51	
		59,22,35,40, 2,10, 8		4,20
12″	52,52,47,29, 0,51,32,11,10,43		3,51,57,25,11	
		59,22,31,48, 4,44,57		4,20
14″	52,52,48,28,23,23,20,15,55,40		3,51,57,29,31	
		59,22,27,56, 7,15,26		4,20
16″	52,52,49,27,45,51,16,23,11, 6		3,51,57,33,51	
		59,22,24, 4, 9,41,35		4,20
18″	52,52,50,27, 8,15,20,32,52,41		3,51,57,38,11	
		59,22,20,12,12, 3,24		4,20
20″	52,52,51,26,30,35,32,44,56, 5		3,51,57,42,31	
		59,22,16,20,14,20,53		4,20
22″	52,52,52,25,52,51,52,59,16,58		3,51,57,46,51	
		59,22,12,28,16,34, 2		4,20
24″	52,52,53,25,15, 4,21,15,51, 0		3,51,57,51,11	
		59,22, 8,36,18,42,51		4,20
26″	52,52,54,24,37,12,57,34,33,51		3,51,57,55,31	
		59,22, 4,44,20,47,20		4,20
28″	52,52,55,23,59,17,41,55,21,11		3,51,57,59,51	
		59,22, 0,52,22,47,29		4,20
30″	52,52,56,23,21,18,34,18, 8,40		3,51,58, 4,11	
		59,21,57, 0,24,43,18		4,20
32″	52,52,57,22,43,15,34,42,51,58		3,51,58, 8,31	
		59,21,53, 8,26,34,47		4,20
34″	52,52,58,22, 5, 8,43, 9,26,45		3,51,58,12,51	
		59,21,49,16,28,21,56		4,20
36″	52,52,59,21,26,57,59,37,48,41		3,51,58,17,11	
		59,21,45,24,30, 4,45		4,20
38″	52,53, 0,20,48,43,24, 7,53,26		3,51,58,21,31	
		59,21,41,32,31,43,14		4,20
40″	52,53, 1,20,10,24,56,39,36,40		3,51,58,25,51	
		59,21,37,40,33,17,23		4,20
42″	52,53, 2,19,32, 2,37,12,54, 3		3,51,58,30,11	
		59,21,33,48,34,47,12		4,20
44″	52,53, 3,18,53,36,25,47,41,15		3,51,58,34,31	
		59,21,29,56,36,12,41		4,20
46″	52,53, 4,18,15, 6,22,23,53,56		3,51,58,38,51	
		59,21,26, 4,37,33,50		4,20
48″	52,53, 5,17,36,32,27, 1,27,46		3,51,58,43,11	
		59,21,22,12,38,50,39		4,20
50″	52,53, 6,16,57,54,39,40,18,25		3,51,58,47,31	
		59,21,18,20,40, 3, 8		4,20
52″	52,53, 7,16,19,13, 0,20,21,33		3,51,58,51,51	
		59,21,14,28,41,11,17		4,20
54″	52,53, 8,15,40,27,29, 1,32,50		3,51,58,56,11	
		59,21,10,36,42,15, 6		4,20
56″	52,53, 9,15, 1,38, 5,43,47,56		3,51,59, 0,31	
		59,21, 6,44,43,14,35		4,20
58″	52,53,10,14,22,44,50,27, 2,31		3,51,59, 4,51	
		59,21, 2,52,44, 9,44		
60″	52,53,11,13,43,47,43,11,12,15			
exact	52,53,11,13,43,47,43,10,41,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°49′ 0″	52,53,11,13,43,47,43,10,41,44			
		59,20,59, 0,44,57,23		
2″	52,53,12,13, 4,46,43,55,39, 7		3,51,59,13,43	
		59,20,55, 8,45,43,40		4,20
4″	52,53,13,12,25,41,52,41,22,47		3,51,59,18, 3	
		59,20,51,16,46,25,37		4,20
6″	52,53,14,11,46,33, 9,27,48,24		3,51,59,22,23	
		59,20,47,24,47, 3,14		4,20
8″	52,53,15,11, 7,20,34,14,51,38		3,51,59,26,43	
		59,20,43,32,47,36,31		4,20
10″	52,53,16,10,28, 4, 7, 2,28, 9		3,51,59,31, 3	
		59,20,39,40,48, 5,28		4,20
12″	52,53,17, 9,48,43,47,50,33,37		3,51,59,35,23	
		59,20,35,48,48,30, 5		4,20
14″	52,53,18, 9, 9,19,36,39, 3,42		3,51,59,39,43	
		59,20,31,56,48,50,22		4,20
16″	52,53,19, 8,29,51,33,27,54, 4		3,51,59,44, 3	
		59,20,28, 4,49, 6,19		4,20
18″	52,53,20, 7,50,19,38,17, 0,23		3,51,59,48,23	
		59,20,24,12,49,17,56		4,20
20″	52,53,21, 7,10,43,51, 6,18,19		3,51,59,52,43	
		59,20,20,20,49,25,13		4,20
22″	52,53,22, 6,31, 4,11,55,43,32		3,51,59,57, 3	
		59,20,16,28,49,28,10		4,20
24″	52,53,23, 5,51,20,40,45,11,42		3,52, 0, 1,23	
		59,20,12,36,49,26,47		4,20
26″	52,53,24, 5,11,33,17,34,38,29		3,52, 0, 5,43	
		59,20, 8,44,49,21, 4		4,20
28″	52,53,25, 4,31,42, 2,23,59,33		3,52, 0,10, 3	
		59,20, 4,52,49,11, 1		4,20
30″	52,53,26, 3,51,46,55,13,10,34		3,52, 0,14,23	
		59,20, 1, 0,48,56,38		4,20
32″	52,53,27, 3,11,47,56, 2, 7,12		3,52, 0,18,43	
		59,19,57, 8,48,37,55		4,20
34″	52,53,28, 2,31,45, 4,50,45, 7		3,52, 0,23, 3	
		59,19,53,16,48,14,52		4,20
36″	52,53,29, 1,51,38,21,38,59,59		3,52, 0,27,23	
		59,19,49,24,47,47,29		4,20
38″	52,53,30, 1,11,27,46,26,47,28		3,52, 0,31,43	
		59,19,45,32,47,15,46		4,20
40″	52,53,31, 0,31,13,19,14, 3,14		3,52, 0,36, 3	
		59,19,41,40,46,39,43		4,20
42″	52,53,31,59,50,55, 0, 0,42,57		3,52, 0,40,23	
		59,19,37,48,45,59,20		4,20
44″	52,53,32,59,10,32,48,46,42,17		3,52, 0,44,43	
		59,19,33,56,45,14,37		4,20
46″	52,53,33,58,30, 6,45,31,56,54		3,52, 0,49, 3	
		59,19,30, 4,44,25,34		4,20
48″	52,53,34,57,49,36,50,16,22,28		3,52, 0,53,23	
		59,19,26,12,43,32,11		4,20
50″	52,53,35,57, 9, 3, 2,59,54,39		3,52, 0,57,43	
		59,19,22,20,42,34,28		4,20
52″	52,53,36,56,28,25,23,42,29, 7		3,52, 1, 2, 3	
		59,19,18,28,41,32,25		4,20
54″	52,53,37,55,47,43,52,24, 1,32		3,52, 1, 6,23	
		59,19,14,36,40,26, 2		4,20
56″	52,53,38,55, 6,58,29, 4,27,34		3,52, 1,10,43	
		59,19,10,44,39,15,19		4,20
58″	52,53,39,54,26, 9,13,43,42,53		3,52, 1,15, 3	
		59,19, 6,52,38, 0,16		
60″	52,53,40,53,45,16, 6,21,43, 9			
exact	52,53,40,53,45,16, 6,21,20,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°50′ 0″	52,53,40,53,45,16, 6,21,20,56			
		59,19, 3, 0,36,38,40		
2″	52,53,41,53, 4,19, 6,57,59,36		3,52, 1,23,51	
		59,18,59, 8,35,14,49		4,20
4″	52,53,42,52,23,18,15,33,14,25		3,52, 1,28,11	
		59,18,55,16,33,46,38		4,20
6″	52,53,43,51,42,13,32, 7, 1, 3		3,52, 1,32,31	
		59,18,51,24,32,14, 7		4,20
8″	52,53,44,51, 1, 4,56,39,15,10		3,52, 1,36,51	
		59,18,47,32,30,37,16		4,20
10″	52,53,45,50,19,52,29, 9,52,26		3,52, 1,41,11	
		59,18,43,40,28,56, 5		4,20
12″	52,53,46,49,38,36, 9,38,48,31		3,52, 1,45,31	
		59,18,39,48,27,10,34		4,20
14″	52,53,47,48,57,15,58, 5,59, 5		3,52, 1,49,51	
		59,18,35,56,25,20,43		4,20
16″	52,53,48,48,15,51,54,31,19,48		3,52, 1,54,11	
		59,18,32, 4,23,26,32		4,20
18″	52,53,49,47,34,23,58,54,46,20		3,52, 1,58,31	
		59,18,28,12,21,28, 1		4,20
20″	52,53,50,46,52,52,11,16,14,21		3,52, 2, 2,51	
		59,18,24,20,19,25,10		4,20
22″	52,53,51,46,11,16,31,35,39,31		3,52, 2, 7,11	
		59,18,20,28,17,17,59		4,20
24″	52,53,52,45,29,36,59,52,57,30		3,52, 2,11,31	
		59,18,16,36,15, 6,28		4,20
26″	52,53,53,44,47,53,36, 8, 3,58		3,52, 2,15,51	
		59,18,12,44,12,50,37		4,20
28″	52,53,54,44, 6, 6,20,20,54,35		3,52, 2,20,11	
		59,18, 8,52,10,30,26		4,20
30″	52,53,55,43,24,15,12,31,25, 1		3,52, 2,24,31	
		59,18, 5, 0, 8, 5,55		4,20
32″	52,53,56,42,42,20,12,39,30,56		3,52, 2,28,51	
		59,18, 1, 8, 5,37, 4		4,20
34″	52,53,57,42, 0,21,20,45, 8, 0		3,52, 2,33,11	
		59,17,57,16, 3, 3,53		4,20
36″	52,53,58,41,18,18,36,48,11,53		3,52, 2,37,31	
		59,17,53,24, 0,26,22		4,20
38″	52,53,59,40,36,12, 0,48,38,15		3,52, 2,41,51	
		59,17,49,31,57,44,31		4,20
40″	52,54, 0,39,54, 1,32,46,22,46		3,52, 2,46,11	
		59,17,45,39,54,58,20		4,20
42″	52,54, 1,39,11,47,12,41,21, 6		3,52, 2,50,31	
		59,17,41,47,52, 7,49		4,20
44″	52,54, 2,38,29,29, 0,33,28,55		3,52, 2,54,51	
		59,17,37,55,49,12,58		4,20
46″	52,54, 3,37,47, 6,56,22,41,53		3,52, 2,59,11	
		59,17,34, 3,46,13,47		4,20
48″	52,54, 4,37, 4,41, 0, 8,55,40		3,52, 3, 3,31	
		59,17,30,11,43,10,16		4,20
50″	52,54, 5,36,22,11,11,52, 5,56		3,52, 3, 7,51	
		59,17,26,19,40, 2,25		4,20
52″	52,54, 6,35,39,37,31,32, 8,21		3,52, 3,12,11	
		59,17,22,27,36,50,14		4,20
54″	52,54, 7,34,56,59,59, 8,58,35		3,52, 3,16,31	
		59,17,18,35,33,33,43		4,20
56″	52,54, 8,34,14,18,34,42,32,18		3,52, 3,20,51	
		59,17,14,43,30,12,52		4,20
58″	52,54, 9,33,31,33,18,12,45,10		3,52, 3,25,11	
		59,17,10,51,26,47,41		
60″	52,54,10,32,48,44, 9,39,32,51			
exact	52,54,10,32,48,44, 9,39,20,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°51′ 0″	52,54,10,32,48,44, 9,39,20,30			
		59,17, 6,59,23,17, 0		
2″	52,54,11,32, 5,51, 9, 2,37,30		3,52, 3,33,55	
		59,17, 3, 7,19,43, 5		4,20
4″	52,54,12,31,22,54,16,22,20,35		3,52, 3,38,15	
		59,16,59,15,16, 4,50		4,20
6″	52,54,13,30,39,53,31,38,25,25		3,52, 3,42,35	
		59,16,55,23,12,22,15		4,20
8″	52,54,14,29,56,48,54,50,47,40		3,52, 3,46,55	
		59,16,51,31, 8,35,20		4,20
10″	52,54,15,29,13,40,25,59,23, 0		3,52, 3,51,15	
		59,16,47,39, 4,44, 5		4,20
12″	52,54,16,28,30,28, 5, 4, 7, 5		3,52, 3,55,35	
		59,16,43,47, 0,48,30		4,20
14″	52,54,17,27,47,11,52, 4,55,35		3,52, 3,59,55	
		59,16,39,54,56,48,35		4,20
16″	52,54,18,27, 3,51,47, 1,44,10		3,52, 4, 4,15	
		59,16,36, 2,52,44,20		4,20
18″	52,54,19,26,20,27,49,54,28,30		3,52, 4, 8,35	
		59,16,32,10,48,35,45		4,20
20″	52,54,20,25,37, 0, 0,43, 4,15		3,52, 4,12,55	
		59,16,28,18,44,22,50		4,20
22″	52,54,21,24,53,28,19,27,27, 5		3,52, 4,17,15	
		59,16,24,26,40, 5,35		4,20
24″	52,54,22,24, 9,52,46, 7,32,40		3,52, 4,21,35	
		59,16,20,34,35,44, 0		4,20
26″	52,54,23,23,26,13,20,43,16,40		3,52, 4,25,55	
		59,16,16,42,31,18, 5		4,20
28″	52,54,24,22,42,30, 3,14,34,45		3,52, 4,30,15	
		59,16,12,50,26,47,50		4,20
30″	52,54,25,21,58,42,53,41,22,35		3,52, 4,34,35	
		59,16, 8,58,22,13,15		4,20
32″	52,54,26,21,14,51,52, 3,35,50		3,52, 4,38,55	
		59,16, 5, 6,17,34,20		4,20
34″	52,54,27,20,30,56,58,21,10,10		3,52, 4,43,15	
		59,16, 1,14,12,51, 5		4,20
36″	52,54,28,19,46,58,12,34, 1,15		3,52, 4,47,35	
		59,15,57,22, 8, 3,30		4,20
38″	52,54,29,19, 2,55,34,42, 4,45		3,52, 4,51,55	
		59,15,53,30, 3,11,35		4,20
40″	52,54,30,18,18,49, 4,45,16,20		3,52, 4,56,15	
		59,15,49,37,58,15,20		4,20
42″	52,54,31,17,34,38,42,43,31,40		3,52, 5, 0,35	
		59,15,45,45,53,14,45		4,20
44″	52,54,32,16,50,24,28,36,46,25		3,52, 5, 4,55	
		59,15,41,53,48, 9,50		4,20
46″	52,54,33,16, 6, 6,22,24,56,15		3,52, 5, 9,15	
		59,15,38, 1,43, 0,35		4,20
48″	52,54,34,15,21,44,24, 7,56,50		3,52, 5,13,35	
		59,15,34, 9,37,47, 0		4,20
50″	52,54,35,14,37,18,33,45,43,50		3,52, 5,17,55	
		59,15,30,17,32,29, 5		4,20
52″	52,54,36,13,52,48,51,18,12,55		3,52, 5,22,15	
		59,15,26,25,27, 6,50		4,20
54″	52,54,37,13, 8,15,16,45,19,45		3,52, 5,26,35	
		59,15,22,33,21,40,15		4,20
56″	52,54,38,12,23,37,50, 7, 0, 0		3,52, 5,30,55	
		59,15,18,41,16, 9,20		4,20
58″	52,54,39,11,38,56,31,23, 9,20		3,52, 5,35,15	
		59,15,14,49,10,34, 5		
60″	52,54,40,10,54,11,20,33,43,25			
exact	52,54,40,10,54,11,20,33,43, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°52′ 0″	52,54,40,10,54,11,20,33,43, 8			
		59,15,10,57, 4,54,31		
2″	52,54,41,10, 9,22,17,38,37,39		3,52, 5,43,54	
		59,15, 7, 4,59,10,37		4,20
4″	52,54,42, 9,24,29,22,37,48,16		3,52, 5,48,14	
		59,15, 3,12,53,22,23		4,20
6″	52,54,43, 8,39,32,35,31,10,39		3,52, 5,52,34	
		59,14,59,20,47,29,49		4,20
8″	52,54,44, 7,54,31,56,18,40,28		3,52, 5,56,54	
		59,14,55,28,41,32,55		4,20
10″	52,54,45, 7, 9,27,25, 0,13,23		3,52, 6, 1,14	
		59,14,51,36,35,31,41		4,20
12″	52,54,46, 6,24,19, 1,35,45, 4		3,52, 6, 5,34	
		59,14,47,44,29,26, 7		4,20
14″	52,54,47, 5,39, 6,46, 5,11,11		3,52, 6, 9,54	
		59,14,43,52,23,16,13		4,20
16″	52,54,48, 4,53,50,38,28,27,24		3,52, 6,14,14	
		59,14,40, 0,17, 1,59		4,20
18″	52,54,49, 4, 8,30,38,45,29,23		3,52, 6,18,34	
		59,14,36, 8,10,43,25		4,20
20″	52,54,50, 3,23, 6,46,56,12,48		3,52, 6,22,54	
		59,14,32,16, 4,20,31		4,20
22″	52,54,51, 2,37,39, 3, 0,33,19		3,52, 6,27,14	
		59,14,28,23,57,53,17		4,20
24″	52,54,52, 1,52, 7,26,58,26,36		3,52, 6,31,34	
		59,14,24,31,51,21,43		4,20
26″	52,54,53, 1, 6,31,58,49,48,19		3,52, 6,35,54	
		59,14,20,39,44,45,49		4,20
28″	52,54,54, 0,20,52,38,34,34, 8		3,52, 6,40,14	
		59,14,16,47,38, 5,35		4,20
30″	52,54,54,59,35, 9,26,12,39,43		3,52, 6,44,34	
		59,14,12,55,31,21, 1		4,20
32″	52,54,55,58,49,22,21,44, 0,44		3,52, 6,48,54	
		59,14, 9, 3,24,32, 7		4,20
34″	52,54,56,58, 3,31,25, 8,32,51		3,52, 6,53,14	
		59,14, 5,11,17,38,53		4,20
36″	52,54,57,57,17,36,36,26,11,44		3,52, 6,57,34	
		59,14, 1,19,10,41,19		4,20
38″	52,54,58,56,31,37,55,36,53, 3		3,52, 7, 1,54	
		59,13,57,27, 3,39,25		4,20
40″	52,54,59,55,45,35,22,40,32,28		3,52, 7, 6,14	
		59,13,53,34,56,33,11		4,20
42″	52,55, 0,54,59,28,57,37, 5,39		3,52, 7,10,34	
		59,13,49,42,49,22,37		4,20
44″	52,55, 1,54,13,18,40,26,28,16		3,52, 7,14,54	
		59,13,45,50,42, 7,43		4,20
46″	52,55, 2,53,27, 4,31, 8,35,59		3,52, 7,19,14	
		59,13,41,58,34,48,29		4,20
48″	52,55, 3,52,40,46,29,43,24,28		3,52, 7,23,34	
		59,13,38, 6,27,24,55		4,20
50″	52,55, 4,51,54,24,36,10,49,23		3,52, 7,27,54	
		59,13,34,14,19,57, 1		4,20
52″	52,55, 5,51, 7,58,50,30,46,24		3,52, 7,32,14	
		59,13,30,22,12,24,47		4,20
54″	52,55, 6,50,21,29,12,43,11,11		3,52, 7,36,34	
		59,13,26,30, 4,48,13		4,20
56″	52,55, 7,49,34,55,42,47,59,24		3,52, 7,40,54	
		59,13,22,37,57, 7,19		4,20
58″	52,55, 8,48,48,18,20,45, 6,43		3,52, 7,45,14	
		59,13,18,45,49,22, 5		
60″	52,55, 9,48, 1,37, 6,34,28,48			
exact	52,55, 9,48, 1,37, 6,34,35, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°53′ 0″	52,55, 9,48, 1,37, 6,34,35, 9			
		59,13,14,53,41,33,21		
2″	52,55,10,47,14,52, 0,16, 8,30		3,52, 7,53,50	
		59,13,11, 1,33,39,31		4,20
4″	52,55,11,46,28, 3, 1,49,48, 1		3,52, 7,58,10	
		59,13, 7, 9,25,41,21		4,20
6″	52,55,12,45,41,10,11,15,29,22		3,52, 8, 2,30	
		59,13, 3,17,17,38,51		4,20
8″	52,55,13,44,54,13,28,33, 8,13		3,52, 8, 6,50	
		59,12,59,25, 9,32, 1		4,20
10″	52,55,14,44, 7,12,53,42,40,14		3,52, 8,11,10	
		59,12,55,33, 1,20,51		4,20
12″	52,55,15,43,20, 8,26,44, 1, 5		3,52, 8,15,30	
		59,12,51,40,53, 5,21		4,20
14″	52,55,16,42,33, 0, 7,37, 6,26		3,52, 8,19,50	
		59,12,47,48,44,45,31		4,20
16″	52,55,17,41,45,47,56,21,51,57		3,52, 8,24,10	
		59,12,43,56,36,21,21		4,20
18″	52,55,18,40,58,31,52,58,13,18		3,52, 8,28,30	
		59,12,40, 4,27,52,51		4,20
20″	52,55,19,40,11,11,57,26, 6, 9		3,52, 8,32,50	
		59,12,36,12,19,20, 1		4,20
22″	52,55,20,39,23,48, 9,45,26,10		3,52, 8,37,10	
		59,12,32,20,10,42,51		4,20
24″	52,55,21,38,36,20,29,56, 9, 1		3,52, 8,41,30	
		59,12,28,28, 2, 1,21		4,20
26″	52,55,22,37,48,48,57,58,10,22		3,52, 8,45,50	
		59,12,24,35,53,15,31		4,20
28″	52,55,23,37, 1,13,33,51,25,53		3,52, 8,50,10	
		59,12,20,43,44,25,21		4,20
30″	52,55,24,36,13,34,17,35,51,14		3,52, 8,54,30	
		59,12,16,51,35,30,51		4,20
32″	52,55,25,35,25,51, 9,11,22, 5		3,52, 8,58,50	
		59,12,12,59,26,32, 1		4,20
34″	52,55,26,34,38, 4, 8,37,54, 6		3,52, 9, 3,10	
		59,12, 9, 7,17,28,51		4,20
36″	52,55,27,33,50,13,15,55,22,57		3,52, 9, 7,30	
		59,12, 5,15, 8,21,21		4,20
38″	52,55,28,33, 2,18,31, 3,44,18		3,52, 9,11,50	
		59,12, 1,22,59, 9,31		4,20
40″	52,55,29,32,14,19,54, 2,53,49		3,52, 9,16,10	
		59,11,57,30,49,53,21		4,20
42″	52,55,30,31,26,17,24,52,47,10		3,52, 9,20,30	
		59,11,53,38,40,32,51		4,20
44″	52,55,31,30,38,11, 3,33,20, 1		3,52, 9,24,50	
		59,11,49,46,31, 8, 1		4,20
46″	52,55,32,29,50, 0,50, 4,28, 2		3,52, 9,29,10	
		59,11,45,54,21,38,51		4,20
48″	52,55,33,29, 1,46,44,26, 6,53		3,52, 9,33,30	
		59,11,42, 2,12, 5,21		4,20
50″	52,55,34,28,13,28,46,38,12,14		3,52, 9,37,50	
		59,11,38,10, 2,27,31		4,20
52″	52,55,35,27,25, 6,56,40,39,45		3,52, 9,42,10	
		59,11,34,17,52,45,21		4,20
54″	52,55,36,26,36,41,14,33,25, 6		3,52, 9,46,30	
		59,11,30,25,42,58,51		4,20
56″	52,55,37,25,48,11,40,16,23,57		3,52, 9,50,50	
		59,11,26,33,33, 8, 1		4,20
58″	52,55,38,24,59,38,13,49,31,58		3,52, 9,55,10	
		59,11,22,41,23,12,51		
60″	52,55,39,24,11, 0,55,12,44,49			
exact	52,55,39,24,11, 0,55,13, 6,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°54′ 0″	52,55,39,24,11, 0,55,13, 6,29			
		59,11,18,49,13,15,37		
2″	52,55,40,23,22,19,44,26,22, 6		3,52,10, 3,40	
		59,11,14,57, 3,11,57		4,20
4″	52,55,41,22,33,34,41,29,34, 3		3,52,10, 8, 0	
		59,11,11, 4,53, 3,57		4,20
6″	52,55,42,21,44,45,46,22,38, 0		3,52,10,12,20	
		59,11, 7,12,42,51,37		4,20
8″	52,55,43,20,55,52,59, 5,29,37		3,52,10,16,40	
		59,11, 3,20,32,34,57		4,20
10″	52,55,44,20, 6,56,19,38, 4,34		3,52,10,21, 0	
		59,10,59,28,22,13,57		4,20
12″	52,55,45,19,17,55,48, 0,18,31		3,52,10,25,20	
		59,10,55,36,11,48,37		4,20
14″	52,55,46,18,28,51,24,12, 7, 8		3,52,10,29,40	
		59,10,51,44, 1,18,57		4,20
16″	52,55,47,17,39,43, 8,13,26, 5		3,52,10,34, 0	
		59,10,47,51,50,44,57		4,20
18″	52,55,48,16,50,31, 0, 4,11, 2		3,52,10,38,20	
		59,10,43,59,40, 6,37		4,20
20″	52,55,49,16, 1,14,59,44,17,39		3,52,10,42,40	
		59,10,40, 7,29,23,57		4,20
22″	52,55,50,15,11,55, 7,13,41,36		3,52,10,47, 0	
		59,10,36,15,18,36,57		4,20
24″	52,55,51,14,22,31,22,32,18,33		3,52,10,51,20	
		59,10,32,23, 7,45,37		4,20
26″	52,55,52,13,33, 3,45,40, 4,10		3,52,10,55,40	
		59,10,28,30,56,49,57		4,20
28″	52,55,53,12,43,32,16,36,54, 7		3,52,11, 0, 0	
		59,10,24,38,45,49,57		4,20
30″	52,55,54,11,53,56,55,22,44, 4		3,52,11, 4,20	
		59,10,20,46,34,45,37		4,20
32″	52,55,55,11, 4,17,41,57,29,41		3,52,11, 8,40	
		59,10,16,54,23,36,57		4,20
34″	52,55,56,10,14,34,36,21, 6,38		3,52,11,13, 0	
		59,10,13, 2,12,23,57		4,20
36″	52,55,57, 9,24,47,38,33,30,35		3,52,11,17,20	
		59,10, 9,10, 1, 6,37		4,20
38″	52,55,58, 8,34,56,48,34,37,12		3,52,11,21,40	
		59,10, 5,17,49,44,57		4,20
40″	52,55,59, 7,45, 2, 6,24,22, 9		3,52,11,26, 0	
		59,10, 1,25,38,18,57		4,20
42″	52,56, 0, 6,55, 3,32, 2,41, 6		3,52,11,30,20	
		59, 9,57,33,26,48,37		4,20
44″	52,56, 1, 6, 5, 1, 5,29,29,43		3,52,11,34,40	
		59, 9,53,41,15,13,57		4,20
46″	52,56, 2, 5,14,54,46,44,43,40		3,52,11,39, 0	
		59, 9,49,49, 3,34,57		4,20
48″	52,56, 3, 4,24,44,35,48,18,37		3,52,11,43,20	
		59, 9,45,56,51,51,37		4,20
50″	52,56, 4, 3,34,30,32,40,10,14		3,52,11,47,40	
		59, 9,42, 4,40, 3,57		4,20
52″	52,56, 5, 2,44,12,37,20,14,11		3,52,11,52, 0	
		59, 9,38,12,28,11,57		4,20
54″	52,56, 6, 1,53,50,49,48,26, 8		3,52,11,56,20	
		59, 9,34,20,16,15,37		4,20
56″	52,56, 7, 1, 3,25,10, 4,41,45		3,52,12, 0,40	
		59, 9,30,28, 4,14,57		4,20
58″	52,56, 8, 0,12,55,38, 8,56,42		3,52,12, 5, 0	
		59, 9,26,35,52, 9,57		
60″	52,56, 8,59,22,22,14, 1, 6,39			
exact	52,56, 8,59,22,22,14, 1,30,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°55′ 0″	52,56, 8,59,22,22,14, 1,30,42			
		59, 9,22,43,40, 3,25		
2″	52,56, 9,58,31,44,57,41,34, 7		3,52,12,13,27	
		59, 9,18,51,27,49,58		4,19
4″	52,56,10,57,41, 3,49, 9,24, 5		3,52,12,17,46	
		59, 9,14,59,15,32,12		4,19
6″	52,56,11,56,50,18,48,24,56,17		3,52,12,22, 5	
		59, 9,11, 7, 3,10, 7		4,19
8″	52,56,12,55,59,29,55,28, 6,24		3,52,12,26,24	
		59, 9, 7,14,50,43,43		4,19
10″	52,56,13,55, 8,37,10,18,50, 7		3,52,12,30,43	
		59, 9, 3,22,38,13, 0		4,19
12″	52,56,14,54,17,40,32,57, 3, 7		3,52,12,35, 2	
		59, 8,59,30,25,37,58		4,19
14″	52,56,15,53,26,40, 3,22,41, 5		3,52,12,39,21	
		59, 8,55,38,12,58,37		4,19
16″	52,56,16,52,35,35,41,35,39,42		3,52,12,43,40	
		59, 8,51,46, 0,14,57		4,19
18″	52,56,17,51,44,27,27,35,54,39		3,52,12,47,59	
		59, 8,47,53,47,26,58		4,19
20″	52,56,18,50,53,15,21,23,21,37		3,52,12,52,18	
		59, 8,44, 1,34,34,40		4,19
22″	52,56,19,50, 1,59,22,57,56,17		3,52,12,56,37	
		59, 8,40, 9,21,38, 3		4,19
24″	52,56,20,49,10,39,32,19,34,20		3,52,13, 0,56	
		59, 8,36,17, 8,37, 7		4,19
26″	52,56,21,48,19,15,49,28,11,27		3,52,13, 5,15	
		59, 8,32,24,55,31,52		4,19
28″	52,56,22,47,27,48,14,23,43,19		3,52,13, 9,34	
		59, 8,28,32,42,22,18		4,19
30″	52,56,23,46,36,16,47, 6, 5,37		3,52,13,13,53	
		59, 8,24,40,29, 8,25		4,19
32″	52,56,24,45,44,41,27,35,14, 2		3,52,13,18,12	
		59, 8,20,48,15,50,13		4,19
34″	52,56,25,44,53, 2,15,51, 4,15		3,52,13,22,31	
		59, 8,16,56, 2,27,42		4,19
36″	52,56,26,44, 1,19,11,53,31,57		3,52,13,26,50	
		59, 8,13, 3,49, 0,52		4,19
38″	52,56,27,43, 9,32,15,42,32,49		3,52,13,31, 9	
		59, 8, 9,11,35,29,43		4,19
40″	52,56,28,42,17,41,27,18, 2,32		3,52,13,35,28	
		59, 8, 5,19,21,54,15		4,19
42″	52,56,29,41,25,46,46,39,56,47		3,52,13,39,47	
		59, 8, 1,27, 8,14,28		4,19
44″	52,56,30,40,33,48,13,48,11,15		3,52,13,44, 6	
		59, 7,57,34,54,30,22		4,19
46″	52,56,31,39,41,45,48,42,41,37		3,52,13,48,25	
		59, 7,53,42,40,41,57		4,19
48″	52,56,32,38,49,39,31,23,23,34		3,52,13,52,44	
		59, 7,49,50,26,49,13		4,19
50″	52,56,33,37,57,29,21,50,12,47		3,52,13,57, 3	
		59, 7,45,58,12,52,10		4,19
52″	52,56,34,37, 5,15,20, 3, 4,57		3,52,14, 1,22	
		59, 7,42, 5,58,50,48		4,19
54″	52,56,35,36,12,57,26, 1,55,45		3,52,14, 5,41	
		59, 7,38,13,44,45, 7		4,19
56″	52,56,36,35,20,35,39,46,40,52		3,52,14,10, 0	
		59, 7,34,21,30,35, 7		4,19
58″	52,56,37,34,28,10, 1,17,15,59		3,52,14,14,19	
		59, 7,30,29,16,20,48		
60″	52,56,38,33,35,40,30,33,36,47			
exact	52,56,38,33,35,40,30,33, 5, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°56′ 0″	52,56,38,33,35,40,30,33, 5, 3			
		59, 7,26,37, 1,58,54		
2″	52,56,39,32,43, 7, 7,35, 3,57		3,52,14,23,10	
		59, 7,22,44,47,35,44		4,19
4″	52,56,40,31,50,29,52,22,39,41		3,52,14,27,29	
		59, 7,18,52,33, 8,15		4,19
6″	52,56,41,30,57,48,44,55,47,56		3,52,14,31,48	
		59, 7,15, 0,18,36,27		4,19
8″	52,56,42,30, 5, 3,45,14,24,23		3,52,14,36, 7	
		59, 7,11, 8, 4, 0,20		4,19
10″	52,56,43,29,12,14,53,18,24,43		3,52,14,40,26	
		59, 7, 7,15,49,19,54		4,19
12″	52,56,44,28,19,22, 9, 7,44,37		3,52,14,44,45	
		59, 7, 3,23,34,35, 9		4,19
14″	52,56,45,27,26,25,32,42,19,46		3,52,14,49, 4	
		59, 6,59,31,19,46, 5		4,19
16″	52,56,46,26,33,25, 4, 2, 5,51		3,52,14,53,23	
		59, 6,55,39, 4,52,42		4,19
18″	52,56,47,25,40,20,43, 6,58,33		3,52,14,57,42	
		59, 6,51,46,49,55, 0		4,19
20″	52,56,48,24,47,12,29,56,53,33		3,52,15, 2, 1	
		59, 6,47,54,34,52,59		4,19
22″	52,56,49,23,54, 0,24,31,46,32		3,52,15, 6,20	
		59, 6,44, 2,19,46,39		4,19
24″	52,56,50,23, 0,44,26,51,33,11		3,52,15,10,39	
		59, 6,40,10, 4,36, 0		4,19
26″	52,56,51,22, 7,24,36,56, 9,11		3,52,15,14,58	
		59, 6,36,17,49,21, 2		4,19
28″	52,56,52,21,14, 0,54,45,30,13		3,52,15,19,17	
		59, 6,32,25,34, 1,45		4,19
30″	52,56,53,20,20,33,20,19,31,58		3,52,15,23,36	
		59, 6,28,33,18,38, 9		4,19
32″	52,56,54,19,27, 1,53,38,10, 7		3,52,15,27,55	
		59, 6,24,41, 3,10,14		4,19
34″	52,56,55,18,33,26,34,41,20,21		3,52,15,32,14	
		59, 6,20,48,47,38, 0		4,19
36″	52,56,56,17,39,47,23,28,58,21		3,52,15,36,33	
		59, 6,16,56,32, 1,27		4,19
38″	52,56,57,16,46, 4,20, 0,59,48		3,52,15,40,52	
		59, 6,13, 4,16,20,35		4,19
40″	52,56,58,15,52,17,24,17,20,23		3,52,15,45,11	
		59, 6, 9,12, 0,35,24		4,19
42″	52,56,59,14,58,26,36,17,55,47		3,52,15,49,30	
		59, 6, 5,19,44,45,54		4,19
44″	52,57, 0,14, 4,31,56, 2,41,41		3,52,15,53,49	
		59, 6, 1,27,28,52, 5		4,19
46″	52,57, 1,13,10,33,23,31,33,46		3,52,15,58, 8	
		59, 5,57,35,12,53,57		4,19
48″	52,57, 2,12,16,30,58,44,27,43		3,52,16, 2,27	
		59, 5,53,42,56,51,30		4,19
50″	52,57, 3,11,22,24,41,41,19,13		3,52,16, 6,46	
		59, 5,49,50,40,44,44		4,19
52″	52,57, 4,10,28,14,32,22, 3,57		3,52,16,11, 5	
		59, 5,45,58,24,33,39		4,19
54″	52,57, 5, 9,34, 0,30,46,37,36		3,52,16,15,24	
		59, 5,42, 6, 8,18,15		4,19
56″	52,57, 6, 8,39,42,36,54,55,51		3,52,16,19,43	
		59, 5,38,13,51,58,32		4,19
58″	52,57, 7, 7,45,20,50,46,54,23		3,52,16,24, 2	
		59, 5,34,21,35,34,30		
60″	52,57, 8, 6,50,55,12,22,28,53			
exact	52,57, 8, 6,50,55,12,22,10,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°57′ 0″	52,57, 8, 6,50,55,12,22,10,25			
		59, 5,30,29,19, 4,10		
2″	52,57, 9, 5,56,25,41,41,14,35		3,52,16,32,48	
		59, 5,26,37, 2,31,22		4,19
4″	52,57,10, 5, 1,52,18,43,45,57		3,52,16,37, 7	
		59, 5,22,44,45,54,15		4,19
6″	52,57,11, 4, 7,15, 3,29,40,12		3,52,16,41,26	
		59, 5,18,52,29,12,49		4,19
8″	52,57,12, 3,12,33,55,58,53, 1		3,52,16,45,45	
		59, 5,15, 0,12,27, 4		4,19
10″	52,57,13, 2,17,48,56,11,20, 5		3,52,16,50, 4	
		59, 5,11, 7,55,37, 0		4,19
12″	52,57,14, 1,23, 0, 4, 6,57, 5		3,52,16,54,23	
		59, 5, 7,15,38,42,37		4,19
14″	52,57,15, 0,28, 7,19,45,39,42		3,52,16,58,42	
		59, 5, 3,23,21,43,55		4,19
16″	52,57,15,59,33,10,43, 7,23,37		3,52,17, 3, 1	
		59, 4,59,31, 4,40,54		4,19
18″	52,57,16,58,38,10,14,12, 4,31		3,52,17, 7,20	
		59, 4,55,38,47,33,34		4,19
20″	52,57,17,57,43, 5,52,59,38, 5		3,52,17,11,39	
		59, 4,51,46,30,21,55		4,19
22″	52,57,18,56,47,57,39,30, 0, 0		3,52,17,15,58	
		59, 4,47,54,13, 5,57		4,19
24″	52,57,19,55,52,45,33,43, 5,57		3,52,17,20,17	
		59, 4,44, 1,55,45,40		4,19
26″	52,57,20,54,57,29,35,38,51,37		3,52,17,24,36	
		59, 4,40, 9,38,21, 4		4,19
28″	52,57,21,54, 2, 9,45,17,12,41		3,52,17,28,55	
		59, 4,36,17,20,52, 9		4,19
30″	52,57,22,53, 6,46, 2,38, 4,50		3,52,17,33,14	
		59, 4,32,25, 3,18,55		4,19
32″	52,57,23,52,11,18,27,41,23,45		3,52,17,37,33	
		59, 4,28,32,45,41,22		4,19
34″	52,57,24,51,15,47, 0,27, 5, 7		3,52,17,41,52	
		59, 4,24,40,27,59,30		4,19
36″	52,57,25,50,20,11,40,55, 4,37		3,52,17,46,11	
		59, 4,20,48,10,13,19		4,19
38″	52,57,26,49,24,32,29, 5,17,56		3,52,17,50,30	
		59, 4,16,55,52,22,49		4,19
40″	52,57,27,48,28,49,24,57,40,45		3,52,17,54,49	
		59, 4,13, 3,34,28, 0		4,19
42″	52,57,28,47,33, 2,28,32, 8,45		3,52,17,59, 8	
		59, 4, 9,11,16,28,52		4,19
44″	52,57,29,46,37,11,39,48,37,37		3,52,18, 3,27	
		59, 4, 5,18,58,25,25		4,19
46″	52,57,30,45,41,16,58,47, 3, 2		3,52,18, 7,46	
		59, 4, 1,26,40,17,39		4,19
48″	52,57,31,44,45,18,25,27,20,41		3,52,18,12, 5	
		59, 3,57,34,22, 5,34		4,19
50″	52,57,32,43,49,15,59,49,26,15		3,52,18,16,24	
		59, 3,53,42, 3,49,10		4,19
52″	52,57,33,42,53, 9,41,53,15,25		3,52,18,20,43	
		59, 3,49,49,45,28,27		4,19
54″	52,57,34,41,56,59,31,38,43,52		3,52,18,25, 2	
		59, 3,45,57,27, 3,25		4,19
56″	52,57,35,41, 0,45,29, 5,47,17		3,52,18,29,21	
		59, 3,42, 5, 8,34, 4		4,19
58″	52,57,36,40, 4,27,34,14,21,21		3,52,18,33,40	
		59, 3,38,12,50, 0,24		
60″	52,57,37,39, 8, 5,47, 4,21,45			
exact	52,57,37,39, 8, 5,47, 4,11,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°58′ 0″	52,57,37,39, 8, 5,47, 4,11,22			
		59, 3,34,20,31,21,21		
2″	52,57,38,38,11,40, 7,35,32,43		3,52,18,42,22	
		59, 3,30,28,12,38,59		4,19
4″	52,57,39,37,15,10,35,48,11,42		3,52,18,46,41	
		59, 3,26,35,53,52,18		4,19
6″	52,57,40,36,18,37,11,42, 4, 0		3,52,18,51, 0	
		59, 3,22,43,35, 1,18		4,19
8″	52,57,41,35,21,59,55,17, 5,18		3,52,18,55,19	
		59, 3,18,51,16, 5,59		4,19
10″	52,57,42,34,25,18,46,33,11,17		3,52,18,59,38	
		59, 3,14,58,57, 6,21		4,19
12″	52,57,43,33,28,33,45,30,17,38		3,52,19, 3,57	
		59, 3,11, 6,38, 2,24		4,19
14″	52,57,44,32,31,44,52, 8,20, 2		3,52,19, 8,16	
		59, 3, 7,14,18,54, 8		4,19
16″	52,57,45,31,34,52, 6,27,14,10		3,52,19,12,35	
		59, 3, 3,21,59,41,33		4,19
18″	52,57,46,30,37,55,28,26,55,43		3,52,19,16,54	
		59, 2,59,29,40,24,39		4,19
20″	52,57,47,29,40,54,58, 7,20,22		3,52,19,21,13	
		59, 2,55,37,21, 3,26		4,19
22″	52,57,48,28,43,50,35,28,23,48		3,52,19,25,32	
		59, 2,51,45, 1,37,54		4,19
24″	52,57,49,27,46,42,20,30, 1,42		3,52,19,29,51	
		59, 2,47,52,42, 8, 3		4,19
26″	52,57,50,26,49,30,13,12, 9,45		3,52,19,34,10	
		59, 2,44, 0,22,33,53		4,19
28″	52,57,51,25,52,14,13,34,43,38		3,52,19,38,29	
		59, 2,40, 8, 2,55,24		4,19
30″	52,57,52,24,54,54,21,37,39, 2		3,52,19,42,48	
		59, 2,36,15,43,12,36		4,19
32″	52,57,53,23,57,30,37,20,51,38		3,52,19,47, 7	
		59, 2,32,23,23,25,29		4,19
34″	52,57,54,23, 0, 3, 0,44,17, 7		3,52,19,51,26	
		59, 2,28,31, 3,34, 3		4,19
36″	52,57,55,22, 2,31,31,47,51,10		3,52,19,55,45	
		59, 2,24,38,43,38,18		4,19
38″	52,57,56,21, 4,56,10,31,29,28		3,52,20, 0, 4	
		59, 2,20,46,23,38,14		4,19
40″	52,57,57,20, 7,16,56,55, 7,42		3,52,20, 4,23	
		59, 2,16,54, 3,33,51		4,19
42″	52,57,58,19, 9,33,50,58,41,33		3,52,20, 8,42	
		59, 2,13, 1,43,25, 9		4,19
44″	52,57,59,18,11,46,52,42, 6,42		3,52,20,13, 1	
		59, 2, 9, 9,23,12, 8		4,19
46″	52,58, 0,17,13,56, 2, 5,18,50		3,52,20,17,20	
		59, 2, 5,17, 2,54,48		4,19
48″	52,58, 1,16,16, 1,19, 8,13,38		3,52,20,21,39	
		59, 2, 1,24,42,33, 9		4,19
50″	52,58, 2,15,18, 2,43,50,46,47		3,52,20,25,58	
		59, 1,57,32,22, 7,11		4,19
52″	52,58, 3,14,20, 0,16,12,53,58		3,52,20,30,17	
		59, 1,53,40, 1,36,54		4,19
54″	52,58, 4,13,21,53,56,14,30,52		3,52,20,34,36	
		59, 1,49,47,41, 2,18		4,19
56″	52,58, 5,12,23,43,43,55,33,10		3,52,20,38,55	
		59, 1,45,55,20,23,23		4,19
58″	52,58, 6,11,25,29,39,15,56,33		3,52,20,43,14	
		59, 1,42, 2,59,40, 9		
60″	52,58, 7,10,27,11,42,15,36,42			
exact	52,58, 7,10,27,11,42,15,36, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
61°59′ 0″	52,58, 7,10,27,11,42,15,36, 7			
		59, 1,38,10,38,52,35		
2″	52,58, 8, 9,28,49,52,54,28,42		3,52,20,51,52	
		59, 1,34,18,18, 0,43		4,19
4″	52,58, 9, 8,30,24,11,12,29,25		3,52,20,56,11	
		59, 1,30,25,57, 4,32		4,19
6″	52,58,10, 7,31,54,37, 9,33,57		3,52,21, 0,30	
		59, 1,26,33,36, 4, 2		4,19
8″	52,58,11, 6,33,21,10,45,37,59		3,52,21, 4,49	
		59, 1,22,41,14,59,13		4,19
10″	52,58,12, 5,34,43,52, 0,37,12		3,52,21, 9, 8	
		59, 1,18,48,53,50, 5		4,19
12″	52,58,13, 4,36, 2,40,54,27,17		3,52,21,13,27	
		59, 1,14,56,32,36,38		4,19
14″	52,58,14, 3,37,17,37,27, 3,55		3,52,21,17,46	
		59, 1,11, 4,11,18,52		4,19
16″	52,58,15, 2,38,28,41,38,22,47		3,52,21,22, 5	
		59, 1, 7,11,49,56,47		4,19
18″	52,58,16, 1,39,35,53,28,19,34		3,52,21,26,24	
		59, 1, 3,19,28,30,23		4,19
20″	52,58,17, 0,40,39,12,56,49,57		3,52,21,30,43	
		59, 0,59,27, 6,59,40		4,19
22″	52,58,17,59,41,38,40, 3,49,37		3,52,21,35, 2	
		59, 0,55,34,45,24,38		4,19
24″	52,58,18,58,42,34,14,49,14,15		3,52,21,39,21	
		59, 0,51,42,23,45,17		4,19
26″	52,58,19,57,43,25,57,12,59,32		3,52,21,43,40	
		59, 0,47,50, 2, 1,37		4,19
28″	52,58,20,56,44,13,47,15, 1, 9		3,52,21,47,59	
		59, 0,43,57,40,13,38		4,19
30″	52,58,21,55,44,57,44,55,14,47		3,52,21,52,18	
		59, 0,40, 5,18,21,20		4,19
32″	52,58,22,54,45,37,50,13,36, 7		3,52,21,56,37	
		59, 0,36,12,56,24,43		4,19
34″	52,58,23,53,46,14, 3,10, 0,50		3,52,22, 0,56	
		59, 0,32,20,34,23,47		4,19
36″	52,58,24,52,46,46,23,44,24,37		3,52,22, 5,15	
		59, 0,28,28,12,18,32		4,19
38″	52,58,25,51,47,14,51,56,43, 9		3,52,22, 9,34	
		59, 0,24,35,50, 8,58		4,19
40″	52,58,26,50,47,39,27,46,52, 7		3,52,22,13,53	
		59, 0,20,43,27,55, 5		4,19
42″	52,58,27,49,48, 0,11,14,47,12		3,52,22,18,12	
		59, 0,16,51, 5,36,53		4,19
44″	52,58,28,48,48,17, 2,20,24, 5		3,52,22,22,31	
		59, 0,12,58,43,14,22		4,19
46″	52,58,29,47,48,30, 1, 3,38,27		3,52,22,26,50	
		59, 0, 9, 6,20,47,32		4,19
48″	52,58,30,46,48,39, 7,24,25,59		3,52,22,31, 9	
		59, 0, 5,13,58,16,23		4,19
50″	52,58,31,45,48,44,21,22,42,22		3,52,22,35,28	
		59, 0, 1,21,35,40,55		4,19
52″	52,58,32,44,48,45,42,58,23,17		3,52,22,39,47	
		58,59,57,29,13, 1, 8		4,19
54″	52,58,33,43,48,43,12,11,24,25		3,52,22,44, 6	
		58,59,53,36,50,17, 2		4,19
56″	52,58,34,42,48,36,49, 1,41,27		3,52,22,48,25	
		58,59,49,44,27,28,37		4,19
58″	52,58,35,41,48,26,33,29,10, 4		3,52,22,52,44	
		58,59,45,52, 4,35,53		
60″	52,58,36,40,48,12,25,33,45,57			
exact	52,58,36,40,48,12,25,33,56,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62° 0′ 0″	52,58,36,40,48,12,25,33,56,36			
		58,59,41,59,41,39,58		
2″	52,58,37,39,47,54,25,15,36,34		3,52,23, 1,17	
		58,59,38, 7,18,38,41		4,19
4″	52,58,38,38,47,32,32,34,15,15		3,52,23, 5,36	
		58,59,34,14,55,33, 5		4,19
6″	52,58,39,37,47, 6,47,29,48,20		3,52,23, 9,55	
		58,59,30,22,32,23,10		4,19
8″	52,58,40,36,46,37,10, 2,11,30		3,52,23,14,14	
		58,59,26,30, 9, 8,56		4,19
10″	52,58,41,35,46, 3,40,11,20,26		3,52,23,18,33	
		58,59,22,37,45,50,23		4,19
12″	52,58,42,34,45,26,17,57,10,49		3,52,23,22,52	
		58,59,18,45,22,27,31		4,19
14″	52,58,43,33,44,45, 3,19,38,20		3,52,23,27,11	
		58,59,14,52,59, 0,20		4,19
16″	52,58,44,32,43,59,56,18,38,40		3,52,23,31,30	
		58,59,11, 0,35,28,50		4,19
18″	52,58,45,31,43,10,56,54, 7,30		3,52,23,35,49	
		58,59, 7, 8,11,53, 1		4,19
20″	52,58,46,30,42,18, 5, 6, 0,31		3,52,23,40, 8	
		58,59, 3,15,48,12,53		4,19
22″	52,58,47,29,41,21,20,54,13,24		3,52,23,44,27	
		58,58,59,23,24,28,26		4,19
24″	52,58,48,28,40,20,44,18,41,50		3,52,23,48,46	
		58,58,55,31, 0,39,40		4,19
26″	52,58,49,27,39,16,15,19,21,30		3,52,23,53, 5	
		58,58,51,38,36,46,35		4,19
28″	52,58,50,26,38, 7,53,56, 8, 5		3,52,23,57,24	
		58,58,47,46,12,49,11		4,19
30″	52,58,51,25,36,55,40, 8,57,16		3,52,24, 1,43	
		58,58,43,53,48,47,28		4,19
32″	52,58,52,24,35,39,33,57,44,44		3,52,24, 6, 2	
		58,58,40, 1,24,41,26		4,19
34″	52,58,53,23,34,19,35,22,26,10		3,52,24,10,21	
		58,58,36, 9, 0,31, 5		4,19
36″	52,58,54,22,32,55,44,22,57,15		3,52,24,14,40	
		58,58,32,16,36,16,25		4,19
38″	52,58,55,21,31,28, 0,59,13,40		3,52,24,18,59	
		58,58,28,24,11,57,26		4,19
40″	52,58,56,20,29,56,25,11,11, 6		3,52,24,23,18	
		58,58,24,31,47,34, 8		4,19
42″	52,58,57,19,28,20,56,58,45,14		3,52,24,27,37	
		58,58,20,39,23, 6,31		4,19
44″	52,58,58,18,26,41,36,21,51,45		3,52,24,31,56	
		58,58,16,46,58,34,35		4,19
46″	52,58,59,17,24,58,23,20,26,20		3,52,24,36,15	
		58,58,12,54,33,58,20		4,19
48″	52,59, 0,16,23,11,17,54,24,40		3,52,24,40,34	
		58,58, 9, 2, 9,17,46		4,19
50″	52,59, 1,15,21,20,20, 3,42,26		3,52,24,44,53	
		58,58, 5, 9,44,32,53		4,19
52″	52,59, 2,14,19,25,29,48,15,19		3,52,24,49,12	
		58,58, 1,17,19,43,41		4,19
54″	52,59, 3,13,17,26,47, 7,59, 0		3,52,24,53,31	
		58,57,57,24,54,50,10		4,19
56″	52,59, 4,12,15,24,12, 2,49,10		3,52,24,57,50	
		58,57,53,32,29,52,20		4,19
58″	52,59, 5,11,13,17,44,32,41,30		3,52,25, 2, 9	
		58,57,49,40, 4,50,11		
60″	52,59, 6,10,11, 7,24,37,31,41			
exact	52,59, 6,10,11, 7,24,37,48,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62° 1′ 0″	52,59, 6,10,11, 7,24,37,48,28			
		58,57,45,47,39,45,38		
2″	52,59, 7, 9, 8,53,12,17,34, 6		3,52,25,10,38	
		58,57,41,55,14,35, 0		4,19
4″	52,59, 8, 8, 6,35, 7,32, 9, 6		3,52,25,14,57	
		58,57,38, 2,49,20, 3		4,19
6″	52,59, 9, 7, 4,13,10,21,29, 9		3,52,25,19,16	
		58,57,34,10,24, 0,47		4,19
8″	52,59,10, 6, 1,47,20,45,29,56		3,52,25,23,35	
		58,57,30,17,58,37,12		4,19
10″	52,59,11, 4,59,17,38,44, 7, 8		3,52,25,27,54	
		58,57,26,25,33, 9,18		4,19
12″	52,59,12, 3,56,44, 4,17,16,26		3,52,25,32,13	
		58,57,22,33, 7,37, 5		4,19
14″	52,59,13, 2,54, 6,37,24,53,31		3,52,25,36,32	
		58,57,18,40,42, 0,33		4,19
16″	52,59,14, 1,51,25,18, 6,54, 4		3,52,25,40,51	
		58,57,14,48,16,19,42		4,19
18″	52,59,15, 0,48,40, 6,23,13,46		3,52,25,45,10	
		58,57,10,55,50,34,32		4,19
20″	52,59,15,59,45,51, 2,13,48,18		3,52,25,49,29	
		58,57, 7, 3,24,45, 3		4,19
22″	52,59,16,58,42,58, 5,38,33,21		3,52,25,53,48	
		58,57, 3,10,58,51,15		4,19
24″	52,59,17,57,40, 1,16,37,24,36		3,52,25,58, 7	
		58,56,59,18,32,53, 8		4,19
26″	52,59,18,56,37, 0,35,10,17,44		3,52,26, 2,26	
		58,56,55,26, 6,50,42		4,19
28″	52,59,19,55,33,56, 1,17, 8,26		3,52,26, 6,45	
		58,56,51,33,40,43,57		4,19
30″	52,59,20,54,30,47,34,57,52,23		3,52,26,11, 4	
		58,56,47,41,14,32,53		4,19
32″	52,59,21,53,27,35,16,12,25,16		3,52,26,15,23	
		58,56,43,48,48,17,30		4,19
34″	52,59,22,52,24,19, 5, 0,42,46		3,52,26,19,42	
		58,56,39,56,21,57,48		4,19
36″	52,59,23,51,20,59, 1,22,40,34		3,52,26,24, 1	
		58,56,36, 3,55,33,47		4,19
38″	52,59,24,50,17,35, 5,18,14,21		3,52,26,28,20	
		58,56,32,11,29, 5,27		4,19
40″	52,59,25,49,14, 7,16,47,19,48		3,52,26,32,39	
		58,56,28,19, 2,32,48		4,19
42″	52,59,26,48,10,35,35,49,52,36		3,52,26,36,58	
		58,56,24,26,35,55,50		4,19
44″	52,59,27,47, 7, 0, 2,25,48,26		3,52,26,41,17	
		58,56,20,34, 9,14,33		4,19
46″	52,59,28,46, 3,20,36,35, 2,59		3,52,26,45,36	
		58,56,16,41,42,28,57		4,19
48″	52,59,29,44,59,37,18,17,31,56		3,52,26,49,55	
		58,56,12,49,15,39, 2		4,19
50″	52,59,30,43,55,50, 7,33,10,58		3,52,26,54,14	
		58,56, 8,56,48,44,48		4,19
52″	52,59,31,42,51,59, 4,21,55,46		3,52,26,58,33	
		58,56, 5, 4,21,46,15		4,19
54″	52,59,32,41,48, 4, 8,43,42, 1		3,52,27, 2,52	
		58,56, 1,11,54,43,23		4,19
56″	52,59,33,40,44, 5,20,38,25,24		3,52,27, 7,11	
		58,55,57,19,27,36,12		4,19
58″	52,59,34,39,40, 2,40, 6, 1,36		3,52,27,11,30	
		58,55,53,27, 0,24,42		
60″	52,59,35,38,35,56, 7, 6,26,18			
exact	52,59,35,38,35,56, 7, 6,51, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62° 2′ 0″	52,59,35,38,35,56, 7, 6,51, 2			
		58,55,49,34,33,11,42		
2″	52,59,36,37,31,45,41,40, 2,44		3,52,27,19,55	
		58,55,45,42, 5,51,47		4,18
4″	52,59,37,36,27,31,23,45,54,31		3,52,27,24,13	
		58,55,41,49,38,27,34		4,18
6″	52,59,38,35,23,13,13,24,22, 5		3,52,27,28,31	
		58,55,37,57,10,59, 3		4,18
8″	52,59,39,34,18,51,10,35,21, 8		3,52,27,32,49	
		58,55,34, 4,43,26,14		4,18
10″	52,59,40,33,14,25,15,18,47,22		3,52,27,37, 7	
		58,55,30,12,15,49, 7		4,18
12″	52,59,41,32, 9,55,27,34,36,29		3,52,27,41,25	
		58,55,26,19,48, 7,42		4,18
14″	52,59,42,31, 5,21,47,22,44,11		3,52,27,45,43	
		58,55,22,27,20,21,59		4,18
16″	52,59,43,30, 0,44,14,43, 6,10		3,52,27,50, 1	
		58,55,18,34,52,31,58		4,18
18″	52,59,44,28,56, 2,49,35,38, 8		3,52,27,54,19	
		58,55,14,42,24,37,39		4,18
20″	52,59,45,27,51,17,32, 0,15,47		3,52,27,58,37	
		58,55,10,49,56,39, 2		4,18
22″	52,59,46,26,46,28,21,56,54,49		3,52,28, 2,55	
		58,55, 6,57,28,36, 7		4,18
24″	52,59,47,25,41,35,19,25,30,56		3,52,28, 7,13	
		58,55, 3, 5, 0,28,54		4,18
26″	52,59,48,24,36,38,24,25,59,50		3,52,28,11,31	
		58,54,59,12,32,17,23		4,18
28″	52,59,49,23,31,37,36,58,17,13		3,52,28,15,49	
		58,54,55,20, 4, 1,34		4,18
30″	52,59,50,22,26,32,57, 2,18,47		3,52,28,20, 7	
		58,54,51,27,35,41,27		4,18
32″	52,59,51,21,21,24,24,38, 0,14		3,52,28,24,25	
		58,54,47,35, 7,17, 2		4,18
34″	52,59,52,20,16,11,59,45,17,16		3,52,28,28,43	
		58,54,43,42,38,48,19		4,18
36″	52,59,53,19,10,55,42,24, 5,35		3,52,28,33, 1	
		58,54,39,50,10,15,18		4,18
38″	52,59,54,18, 5,35,32,34,20,53		3,52,28,37,19	
		58,54,35,57,41,37,59		4,18
40″	52,59,55,17, 0,11,30,15,58,52		3,52,28,41,37	
		58,54,32, 5,12,56,22		4,18
42″	52,59,56,15,54,43,35,28,55,14		3,52,28,45,55	
		58,54,28,12,44,10,27		4,18
44″	52,59,57,14,49,11,48,13, 5,41		3,52,28,50,13	
		58,54,24,20,15,20,14		4,18
46″	52,59,58,13,43,36, 8,28,25,55		3,52,28,54,31	
		58,54,20,27,46,25,43		4,18
48″	52,59,59,12,37,56,36,14,51,38		3,52,28,58,49	
		58,54,16,35,17,26,54		4,18
50″	53, 0, 0,11,32,13,11,32,18,32		3,52,29, 3, 7	
		58,54,12,42,48,23,47		4,18
52″	53, 0, 1,10,26,25,54,20,42,19		3,52,29, 7,25	
		58,54, 8,50,19,16,22		4,18
54″	53, 0, 2, 9,20,34,44,39,58,41		3,52,29,11,43	
		58,54, 4,57,50, 4,39		4,18
56″	53, 0, 3, 8,14,39,42,30, 3,20		3,52,29,16, 1	
		58,54, 1, 5,20,48,38		4,18
58″	53, 0, 4, 7, 8,40,47,50,51,58		3,52,29,20,19	
		58,53,57,12,51,28,19		
60″	53, 0, 5, 6, 2,38, 0,42,20,17			
exact	53, 0, 5, 6, 2,38, 0,41,47,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62° 3′ 0″	53, 0, 5, 6, 2,38, 0,41,47,21			
		58,53,53,20,22, 0,19		
2″	53, 0, 6, 4,56,31,21, 3,47,40		3,52,29,29, 8	
		58,53,49,27,52,31,11		4,18
4″	53, 0, 7, 3,50,20,48,56,18,51		3,52,29,33,26	
		58,53,45,35,22,57,45		4,18
6″	53, 0, 8, 2,44, 6,24,19,16,36		3,52,29,37,44	
		58,53,41,42,53,20, 1		4,18
8″	53, 0, 9, 1,37,48, 7,12,36,37		3,52,29,42, 2	
		58,53,37,50,23,37,59		4,18
10″	53, 0,10, 0,31,25,57,36,14,36		3,52,29,46,20	
		58,53,33,57,53,51,39		4,18
12″	53, 0,10,59,24,59,55,30, 6,15		3,52,29,50,38	
		58,53,30, 5,24, 1, 1		4,18
14″	53, 0,11,58,18,30, 0,54, 7,16		3,52,29,54,56	
		58,53,26,12,54, 6, 5		4,18
16″	53, 0,12,57,11,56,13,48,13,21		3,52,29,59,14	
		58,53,22,20,24, 6,51		4,18
18″	53, 0,13,56, 5,18,34,12,20,12		3,52,30, 3,32	
		58,53,18,27,54, 3,19		4,18
20″	53, 0,14,54,58,37, 2, 6,23,31		3,52,30, 7,50	
		58,53,14,35,23,55,29		4,18
22″	53, 0,15,53,51,51,37,30,19, 0		3,52,30,12, 8	
		58,53,10,42,53,43,21		4,18
24″	53, 0,16,52,45, 2,20,24, 2,21		3,52,30,16,26	
		58,53, 6,50,23,26,55		4,18
26″	53, 0,17,51,38, 9,10,47,29,16		3,52,30,20,44	
		58,53, 2,57,53, 6,11		4,18
28″	53, 0,18,50,31,12, 8,40,35,27		3,52,30,25, 2	
		58,52,59, 5,22,41, 9		4,18
30″	53, 0,19,49,24,11,14, 3,16,36		3,52,30,29,20	
		58,52,55,12,52,11,49		4,18
32″	53, 0,20,48,17, 6,26,55,28,25		3,52,30,33,38	
		58,52,51,20,21,38,11		4,18
34″	53, 0,21,47, 9,57,47,17, 6,36		3,52,30,37,56	
		58,52,47,27,51, 0,15		4,18
36″	53, 0,22,46, 2,45,15, 8, 6,51		3,52,30,42,14	
		58,52,43,35,20,18, 1		4,18
38″	53, 0,23,44,55,28,50,28,24,52		3,52,30,46,32	
		58,52,39,42,49,31,29		4,18
40″	53, 0,24,43,48, 8,33,17,56,21		3,52,30,50,50	
		58,52,35,50,18,40,39		4,18
42″	53, 0,25,42,40,44,23,36,37, 0		3,52,30,55, 8	
		58,52,31,57,47,45,31		4,18
44″	53, 0,26,41,33,16,21,24,22,31		3,52,30,59,26	
		58,52,28, 5,16,46, 5		4,18
46″	53, 0,27,40,25,44,26,41, 8,36		3,52,31, 3,44	
		58,52,24,12,45,42,21		4,18
48″	53, 0,28,39,18, 8,39,26,50,57		3,52,31, 8, 2	
		58,52,20,20,14,34,19		4,18
50″	53, 0,29,38,10,28,59,41,25,16		3,52,31,12,20	
		58,52,16,27,43,21,59		4,18
52″	53, 0,30,37, 2,45,27,24,47,15		3,52,31,16,38	
		58,52,12,35,12, 5,21		4,18
54″	53, 0,31,35,54,58, 2,36,52,36		3,52,31,20,56	
		58,52, 8,42,40,44,25		4,18
56″	53, 0,32,34,47, 6,45,17,37, 1		3,52,31,25,14	
		58,52, 4,50, 9,19,11		4,18
58″	53, 0,33,33,39,11,35,26,56,12		3,52,31,29,32	
		58,52, 0,57,37,49,39		
60″	53, 0,34,32,31,12,33, 4,45,51			
exact	53, 0,34,32,31,12,33, 4,24,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62° 4′ 0″	53, 0,34,32,31,12,33, 4,24,12			
		58,51,57, 5, 6,13,35		
2″	53, 0,35,31,23, 9,38,10,37,47		3,52,31,38,16	
		58,51,53,12,34,35,19		4,18
4″	53, 0,36,30,15, 2,50,45,13, 6		3,52,31,42,34	
		58,51,49,20, 2,52,45		4,18
6″	53, 0,37,29, 6,52,10,48, 5,51		3,52,31,46,52	
		58,51,45,27,31, 5,53		4,18
8″	53, 0,38,27,58,37,38,19,11,44		3,52,31,51,10	
		58,51,41,34,59,14,43		4,18
10″	53, 0,39,26,50,19,13,18,26,27		3,52,31,55,28	
		58,51,37,42,27,19,15		4,18
12″	53, 0,40,25,41,56,55,45,45,42		3,52,31,59,46	
		58,51,33,49,55,19,29		4,18
14″	53, 0,41,24,33,30,45,41, 5,11		3,52,32, 4, 4	
		58,51,29,57,23,15,25		4,18
16″	53, 0,42,23,25, 0,43, 4,20,36		3,52,32, 8,22	
		58,51,26, 4,51, 7, 3		4,18
18″	53, 0,43,22,16,26,47,55,27,39		3,52,32,12,40	
		58,51,22,12,18,54,23		4,18
20″	53, 0,44,21, 7,49, 0,14,22, 2		3,52,32,16,58	
		58,51,18,19,46,37,25		4,18
22″	53, 0,45,19,59, 7,20, 0,59,27		3,52,32,21,16	
		58,51,14,27,14,16, 9		4,18
24″	53, 0,46,18,50,21,47,15,15,36		3,52,32,25,34	
		58,51,10,34,41,50,35		4,18
26″	53, 0,47,17,41,32,21,57, 6,11		3,52,32,29,52	
		58,51, 6,42, 9,20,43		4,18
28″	53, 0,48,16,32,39, 4, 6,26,54		3,52,32,34,10	
		58,51, 2,49,36,46,33		4,18
30″	53, 0,49,15,23,41,53,43,13,27		3,52,32,38,28	
		58,50,58,57, 4, 8, 5		4,18
32″	53, 0,50,14,14,40,50,47,21,32		3,52,32,42,46	
		58,50,55, 4,31,25,19		4,18
34″	53, 0,51,13, 5,35,55,18,46,51		3,52,32,47, 4	
		58,50,51,11,58,38,15		4,18
36″	53, 0,52,11,56,27, 7,17,25, 6		3,52,32,51,22	
		58,50,47,19,25,46,53		4,18
38″	53, 0,53,10,47,14,26,43,11,59		3,52,32,55,40	
		58,50,43,26,52,51,13		4,18
40″	53, 0,54, 9,37,57,53,36, 3,12		3,52,32,59,58	
		58,50,39,34,19,51,15		4,18
42″	53, 0,55, 8,28,37,27,55,54,27		3,52,33, 4,16	
		58,50,35,41,46,46,59		4,18
44″	53, 0,56, 7,19,13, 9,42,41,26		3,52,33, 8,34	
		58,50,31,49,13,38,25		4,18
46″	53, 0,57, 6, 9,44,58,56,19,51		3,52,33,12,52	
		58,50,27,56,40,25,33		4,18
48″	53, 0,58, 5, 0,12,55,36,45,24		3,52,33,17,10	
		58,50,24, 4, 7, 8,23		4,18
50″	53, 0,59, 3,50,36,59,43,53,47		3,52,33,21,28	
		58,50,20,11,33,46,55		4,18
52″	53, 1, 0, 2,40,57,11,17,40,42		3,52,33,25,46	
		58,50,16,19, 0,21, 9		4,18
54″	53, 1, 1, 1,31,13,30,18, 1,51		3,52,33,30, 4	
		58,50,12,26,26,51, 5		4,18
56″	53, 1, 2, 0,21,25,56,44,52,56		3,52,33,34,22	
		58,50, 8,33,53,16,43		4,18
58″	53, 1, 2,59,11,34,30,38, 9,39		3,52,33,38,40	
		58,50, 4,41,19,38, 3		
60″	53, 1, 3,58, 1,39,11,57,47,42			
exact	53, 1, 3,58, 1,39,11,57,32, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62° 5′ 0″	53, 1, 3,58, 1,39,11,57,32, 7			
		58,50, 0,48,45,53,38		
2″	53, 1, 4,56,51,40, 0,43,25,45		3,52,33,47,21	
		58,49,56,56,12, 6,17		4,18
4″	53, 1, 5,55,41,36,56,55,32, 2		3,52,33,51,39	
		58,49,53, 3,38,14,38		4,18
6″	53, 1, 6,54,31,30, 0,33,46,40		3,52,33,55,57	
		58,49,49,11, 4,18,41		4,18
8″	53, 1, 7,53,21,19,11,38, 5,21		3,52,34, 0,15	
		58,49,45,18,30,18,26		4,18
10″	53, 1, 8,52,11, 4,30, 8,23,47		3,52,34, 4,33	
		58,49,41,25,56,13,53		4,18
12″	53, 1, 9,51, 0,45,56, 4,37,40		3,52,34, 8,51	
		58,49,37,33,22, 5, 2		4,18
14″	53, 1,10,49,50,23,29,26,42,42		3,52,34,13, 9	
		58,49,33,40,47,51,53		4,18
16″	53, 1,11,48,39,57,10,14,34,35		3,52,34,17,27	
		58,49,29,48,13,34,26		4,18
18″	53, 1,12,47,29,26,58,28, 9, 1		3,52,34,21,45	
		58,49,25,55,39,12,41		4,18
20″	53, 1,13,46,18,52,54, 7,21,42		3,52,34,26, 3	
		58,49,22, 3, 4,46,38		4,18
22″	53, 1,14,45, 8,14,57,12, 8,20		3,52,34,30,21	
		58,49,18,10,30,16,17		4,18
24″	53, 1,15,43,57,33, 7,42,24,37		3,52,34,34,39	
		58,49,14,17,55,41,38		4,18
26″	53, 1,16,42,46,47,25,38, 6,15		3,52,34,38,57	
		58,49,10,25,21, 2,41		4,18
28″	53, 1,17,41,35,57,50,59, 8,56		3,52,34,43,15	
		58,49, 6,32,46,19,26		4,18
30″	53, 1,18,40,25, 4,23,45,28,22		3,52,34,47,33	
		58,49, 2,40,11,31,53		4,18
32″	53, 1,19,39,14, 7, 3,57, 0,15		3,52,34,51,51	
		58,48,58,47,36,40, 2		4,18
34″	53, 1,20,38, 3, 5,51,33,40,17		3,52,34,56, 9	
		58,48,54,55, 1,43,53		4,18
36″	53, 1,21,36,52, 0,46,35,24,10		3,52,35, 0,27	
		58,48,51, 2,26,43,26		4,18
38″	53, 1,22,35,40,51,49, 2, 7,36		3,52,35, 4,45	
		58,48,47, 9,51,38,41		4,18
40″	53, 1,23,34,29,38,58,53,46,17		3,52,35, 9, 3	
		58,48,43,17,16,29,38		4,18
42″	53, 1,24,33,18,22,16,10,15,55		3,52,35,13,21	
		58,48,39,24,41,16,17		4,18
44″	53, 1,25,32, 7, 1,40,51,32,12		3,52,35,17,39	
		58,48,35,32, 5,58,38		4,18
46″	53, 1,26,30,55,37,12,57,30,50		3,52,35,21,57	
		58,48,31,39,30,36,41		4,18
48″	53, 1,27,29,44, 8,52,28, 7,31		3,52,35,26,15	
		58,48,27,46,55,10,26		4,18
50″	53, 1,28,28,32,36,39,23,17,57		3,52,35,30,33	
		58,48,23,54,19,39,53		4,18
52″	53, 1,29,27,21, 0,33,42,57,50		3,52,35,34,51	
		58,48,20, 1,44, 5, 2		4,18
54″	53, 1,30,26, 9,20,35,27, 2,52		3,52,35,39, 9	
		58,48,16, 9, 8,25,53		4,18
56″	53, 1,31,24,57,36,44,35,28,45		3,52,35,43,27	
		58,48,12,16,32,42,26		4,18
58″	53, 1,32,23,45,49, 1, 8,11,11		3,52,35,47,45	
		58,48, 8,23,56,54,41		
60″	53, 1,33,22,33,57,25, 5, 5,52			
exact	53, 1,33,22,33,57,25, 5, 5,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62° 6′ 0″	53, 1,33,22,33,57,25, 5, 5,22			
		58,48, 4,31,21, 2,35		
2″	53, 1,34,21,22, 1,56,26, 7,57		3,52,35,56,21	
		58,48, 0,38,45, 6,14		4,18
4″	53, 1,35,20,10, 2,35,11,14,11		3,52,36, 0,39	
		58,47,56,46, 9, 5,35		4,18
6″	53, 1,36,18,57,59,21,20,19,46		3,52,36, 4,57	
		58,47,52,53,33, 0,38		4,18
8″	53, 1,37,17,45,52,14,53,20,24		3,52,36, 9,15	
		58,47,49, 0,56,51,23		4,18
10″	53, 1,38,16,33,41,15,50,11,47		3,52,36,13,33	
		58,47,45, 8,20,37,50		4,18
12″	53, 1,39,15,21,26,24,10,49,37		3,52,36,17,51	
		58,47,41,15,44,19,59		4,18
14″	53, 1,40,14, 9, 7,39,55, 9,36		3,52,36,22, 9	
		58,47,37,23, 7,57,50		4,18
16″	53, 1,41,12,56,45, 3, 3, 7,26		3,52,36,26,27	
		58,47,33,30,31,31,23		4,18
18″	53, 1,42,11,44,18,33,34,38,49		3,52,36,30,45	
		58,47,29,37,55, 0,38		4,18
20″	53, 1,43,10,31,48,11,29,39,27		3,52,36,35, 3	
		58,47,25,45,18,25,35		4,18
22″	53, 1,44, 9,19,13,56,48, 5, 2		3,52,36,39,21	
		58,47,21,52,41,46,14		4,18
24″	53, 1,45, 8, 6,35,49,29,51,16		3,52,36,43,39	
		58,47,18, 0, 5, 2,35		4,18
26″	53, 1,46, 6,53,53,49,34,53,51		3,52,36,47,57	
		58,47,14, 7,28,14,38		4,18
28″	53, 1,47, 5,41, 7,57, 3, 8,29		3,52,36,52,15	
		58,47,10,14,51,22,23		4,18
30″	53, 1,48, 4,28,18,11,54,30,52		3,52,36,56,33	
		58,47, 6,22,14,25,50		4,18
32″	53, 1,49, 3,15,24,34, 8,56,42		3,52,37, 0,51	
		58,47, 2,29,37,24,59		4,18
34″	53, 1,50, 2, 2,27, 3,46,21,41		3,52,37, 5, 9	
		58,46,58,37, 0,19,50		4,18
36″	53, 1,51, 0,49,25,40,46,41,31		3,52,37, 9,27	
		58,46,54,44,23,10,23		4,18
38″	53, 1,51,59,36,20,25, 9,51,54		3,52,37,13,45	
		58,46,50,51,45,56,38		4,18
40″	53, 1,52,58,23,11,16,55,48,32		3,52,37,18, 3	
		58,46,46,59, 8,38,35		4,18
42″	53, 1,53,57, 9,58,16, 4,27, 7		3,52,37,22,21	
		58,46,43, 6,31,16,14		4,18
44″	53, 1,54,55,56,41,22,35,43,21		3,52,37,26,39	
		58,46,39,13,53,49,35		4,18
46″	53, 1,55,54,43,20,36,29,32,56		3,52,37,30,57	
		58,46,35,21,16,18,38		4,18
48″	53, 1,56,53,29,55,57,45,51,34		3,52,37,35,15	
		58,46,31,28,38,43,23		4,18
50″	53, 1,57,52,16,27,26,24,34,57		3,52,37,39,33	
		58,46,27,36, 1, 3,50		4,18
52″	53, 1,58,51, 2,55, 2,25,38,47		3,52,37,43,51	
		58,46,23,43,23,19,59		4,18
54″	53, 1,59,49,49,18,45,48,58,46		3,52,37,48, 9	
		58,46,19,50,45,31,50		4,18
56″	53, 2, 0,48,35,38,36,34,30,36		3,52,37,52,27	
		58,46,15,58, 7,39,23		4,18
58″	53, 2, 1,47,21,54,34,42, 9,59		3,52,37,56,45	
		58,46,12, 5,29,42,38		
60″	53, 2, 2,46, 8, 6,40,11,52,37			
exact	53, 2, 2,46, 8, 6,40,12, 1,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62° 7′ 0″	53, 2, 2,46, 8, 6,40,12, 1,59			
		58,46, 8,12,51,42,35		
2″	53, 2, 3,44,54,14,53, 3,44,34		3,52,38, 5,16	
		58,46, 4,20,13,37,19		4,18
4″	53, 2, 4,43,40,19,13,17,21,53		3,52,38, 9,34	
		58,46, 0,27,35,27,45		4,18
6″	53, 2, 5,42,26,19,40,52,49,38		3,52,38,13,52	
		58,45,56,34,57,13,53		4,18
8″	53, 2, 6,41,12,16,15,50, 3,31		3,52,38,18,10	
		58,45,52,42,18,55,43		4,18
10″	53, 2, 7,39,58, 8,58, 8,59,14		3,52,38,22,28	
		58,45,48,49,40,33,15		4,18
12″	53, 2, 8,38,43,57,47,49,32,29		3,52,38,26,46	
		58,45,44,57, 2, 6,29		4,18
14″	53, 2, 9,37,29,42,44,51,38,58		3,52,38,31, 4	
		58,45,41, 4,23,35,25		4,18
16″	53, 2,10,36,15,23,49,15,14,23		3,52,38,35,22	
		58,45,37,11,45, 0, 3		4,18
18″	53, 2,11,35, 1, 1, 1, 0,14,26		3,52,38,39,40	
		58,45,33,19, 6,20,23		4,18
20″	53, 2,12,33,46,34,20, 6,34,49		3,52,38,43,58	
		58,45,29,26,27,36,25		4,18
22″	53, 2,13,32,32, 3,46,34,11,14		3,52,38,48,16	
		58,45,25,33,48,48, 9		4,18
24″	53, 2,14,31,17,29,20,22,59,23		3,52,38,52,34	
		58,45,21,41, 9,55,35		4,18
26″	53, 2,15,30, 2,51, 1,32,54,58		3,52,38,56,52	
		58,45,17,48,30,58,43		4,18
28″	53, 2,16,28,48, 8,50, 3,53,41		3,52,39, 1,10	
		58,45,13,55,51,57,33		4,18
30″	53, 2,17,27,33,22,45,55,51,14		3,52,39, 5,28	
		58,45,10, 3,12,52, 5		4,18
32″	53, 2,18,26,18,32,49, 8,43,19		3,52,39, 9,46	
		58,45, 6,10,33,42,19		4,18
34″	53, 2,19,25, 3,38,59,42,25,38		3,52,39,14, 4	
		58,45, 2,17,54,28,15		4,18
36″	53, 2,20,23,48,41,17,36,53,53		3,52,39,18,22	
		58,44,58,25,15, 9,53		4,18
38″	53, 2,21,22,33,39,42,52, 3,46		3,52,39,22,40	
		58,44,54,32,35,47,13		4,18
40″	53, 2,22,21,18,34,15,27,50,59		3,52,39,26,58	
		58,44,50,39,56,20,15		4,18
42″	53, 2,23,20, 3,24,55,24,11,14		3,52,39,31,16	
		58,44,46,47,16,48,59		4,18
44″	53, 2,24,18,48,11,42,41, 0,13		3,52,39,35,34	
		58,44,42,54,37,13,25		4,18
46″	53, 2,25,17,32,54,37,18,13,38		3,52,39,39,52	
		58,44,39, 1,57,33,33		4,18
48″	53, 2,26,16,17,33,39,15,47,11		3,52,39,44,10	
		58,44,35, 9,17,49,23		4,18
50″	53, 2,27,15, 2, 8,48,33,36,34		3,52,39,48,28	
		58,44,31,16,38, 0,55		4,18
52″	53, 2,28,13,46,40, 5,11,37,29		3,52,39,52,46	
		58,44,27,23,58, 8, 9		4,18
54″	53, 2,29,12,31, 7,29, 9,45,38		3,52,39,57, 4	
		58,44,23,31,18,11, 5		4,18
56″	53, 2,30,11,15,31, 0,27,56,43		3,52,40, 1,22	
		58,44,19,38,38, 9,43		4,18
58″	53, 2,31, 9,59,50,39, 6, 6,26		3,52,40, 5,40	
		58,44,15,45,58, 4, 3		
60″	53, 2,32, 8,44, 6,25, 4,10,29			
exact	53, 2,32, 8,44, 6,25, 4,23,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62° 8′ 0″	53, 2,32, 8,44, 6,25, 4,23,44			
		58,44,11,53,17,55,44		
2″	53, 2,33, 7,28,18,18,22,19,28		3,52,40,14, 8	
		58,44, 8, 0,37,41,36		4,18
4″	53, 2,34, 6,12,26,19, 0, 1, 4		3,52,40,18,26	
		58,44, 4, 7,57,23,10		4,18
6″	53, 2,35, 4,56,30,26,57,24,14		3,52,40,22,44	
		58,44, 0,15,17, 0,26		4,18
8″	53, 2,36, 3,40,30,42,14,24,40		3,52,40,27, 2	
		58,43,56,22,36,33,24		4,18
10″	53, 2,37, 2,24,27, 4,50,58, 4		3,52,40,31,20	
		58,43,52,29,56, 2, 4		4,18
12″	53, 2,38, 1, 8,19,34,47, 0, 8		3,52,40,35,38	
		58,43,48,37,15,26,26		4,18
14″	53, 2,38,59,52, 8,12, 2,26,34		3,52,40,39,56	
		58,43,44,44,34,46,30		4,18
16″	53, 2,39,58,35,52,56,37,13, 4		3,52,40,44,14	
		58,43,40,51,54, 2,16		4,18
18″	53, 2,40,57,19,33,48,31,15,20		3,52,40,48,32	
		58,43,36,59,13,13,44		4,18
20″	53, 2,41,56, 3,10,47,44,29, 4		3,52,40,52,50	
		58,43,33, 6,32,20,54		4,18
22″	53, 2,42,54,46,43,54,16,49,58		3,52,40,57, 8	
		58,43,29,13,51,23,46		4,18
24″	53, 2,43,53,30,13, 8, 8,13,44		3,52,41, 1,26	
		58,43,25,21,10,22,20		4,18
26″	53, 2,44,52,13,38,29,18,36, 4		3,52,41, 5,44	
		58,43,21,28,29,16,36		4,18
28″	53, 2,45,50,56,59,57,47,52,40		3,52,41,10, 2	
		58,43,17,35,48, 6,34		4,18
30″	53, 2,46,49,40,17,33,35,59,14		3,52,41,14,20	
		58,43,13,43, 6,52,14		4,18
32″	53, 2,47,48,23,31,16,42,51,28		3,52,41,18,38	
		58,43, 9,50,25,33,36		4,18
34″	53, 2,48,47, 6,41, 7, 8,25, 4		3,52,41,22,56	
		58,43, 5,57,44,10,40		4,18
36″	53, 2,49,45,49,47, 4,52,35,44		3,52,41,27,14	
		58,43, 2, 5, 2,43,26		4,18
38″	53, 2,50,44,32,49, 9,55,19,10		3,52,41,31,32	
		58,42,58,12,21,11,54		4,18
40″	53, 2,51,43,15,47,22,16,31, 4		3,52,41,35,50	
		58,42,54,19,39,36, 4		4,18
42″	53, 2,52,41,58,41,41,56, 7, 8		3,52,41,40, 8	
		58,42,50,26,57,55,56		4,18
44″	53, 2,53,40,41,32, 8,54, 3, 4		3,52,41,44,26	
		58,42,46,34,16,11,30		4,18
46″	53, 2,54,39,24,18,43,10,14,34		3,52,41,48,44	
		58,42,42,41,34,22,46		4,18
48″	53, 2,55,38, 7, 1,24,44,37,20		3,52,41,53, 2	
		58,42,38,48,52,29,44		4,18
50″	53, 2,56,36,49,40,13,37, 7, 4		3,52,41,57,20	
		58,42,34,56,10,32,24		4,18
52″	53, 2,57,35,32,15, 9,47,39,28		3,52,42, 1,38	
		58,42,31, 3,28,30,46		4,18
54″	53, 2,58,34,14,46,13,16,10,14		3,52,42, 5,56	
		58,42,27,10,46,24,50		4,18
56″	53, 2,59,32,57,13,24, 2,35, 4		3,52,42,10,14	
		58,42,23,18, 4,14,36		4,18
58″	53, 3, 0,31,39,36,42, 6,49,40		3,52,42,14,32	
		58,42,19,25,22, 0, 4		
60″	53, 3, 1,30,21,56, 7,28,49,44			
exact	53, 3, 1,30,21,56, 7,29,16,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62° 9′ 0″	53, 3, 1,30,21,56, 7,29,16,14			
		58,42,15,32,39,44,10		
2″	53, 3, 2,29, 4,11,40, 9, 0,24		3,52,42,22,55	
		58,42,11,39,57,21,15		4,18
4″	53, 3, 3,27,46,23,20, 6,21,39		3,52,42,27,13	
		58,42, 7,47,14,54, 2		4,18
6″	53, 3, 4,26,28,31, 7,21,15,41		3,52,42,31,31	
		58,42, 3,54,32,22,31		4,18
8″	53, 3, 5,25,10,35, 1,53,38,12		3,52,42,35,49	
		58,42, 0, 1,49,46,42		4,18
10″	53, 3, 6,23,52,35, 3,43,24,54		3,52,42,40, 7	
		58,41,56, 9, 7, 6,35		4,18
12″	53, 3, 7,22,34,31,12,50,31,29		3,52,42,44,25	
		58,41,52,16,24,22,10		4,18
14″	53, 3, 8,21,16,23,29,14,53,39		3,52,42,48,43	
		58,41,48,23,41,33,27		4,18
16″	53, 3, 9,19,58,11,52,56,27, 6		3,52,42,53, 1	
		58,41,44,30,58,40,26		4,18
18″	53, 3,10,18,39,56,23,55, 7,32		3,52,42,57,19	
		58,41,40,38,15,43, 7		4,18
20″	53, 3,11,17,21,37, 2,10,50,39		3,52,43, 1,37	
		58,41,36,45,32,41,30		4,18
22″	53, 3,12,16, 3,13,47,43,32, 9		3,52,43, 5,55	
		58,41,32,52,49,35,35		4,18
24″	53, 3,13,14,44,46,40,33, 7,44		3,52,43,10,13	
		58,41,29, 0, 6,25,22		4,18
26″	53, 3,14,13,26,15,40,39,33, 6		3,52,43,14,31	
		58,41,25, 7,23,10,51		4,18
28″	53, 3,15,12, 7,40,48, 2,43,57		3,52,43,18,49	
		58,41,21,14,39,52, 2		4,18
30″	53, 3,16,10,49, 2, 2,42,35,59		3,52,43,23, 7	
		58,41,17,21,56,28,55		4,18
32″	53, 3,17, 9,30,19,24,39, 4,54		3,52,43,27,25	
		58,41,13,29,13, 1,30		4,18
34″	53, 3,18, 8,11,32,53,52, 6,24		3,52,43,31,43	
		58,41, 9,36,29,29,47		4,18
36″	53, 3,19, 6,52,42,30,21,36,11		3,52,43,36, 1	
		58,41, 5,43,45,53,46		4,18
38″	53, 3,20, 5,33,48,14, 7,29,57		3,52,43,40,19	
		58,41, 1,51, 2,13,27		4,18
40″	53, 3,21, 4,14,50, 5, 9,43,24		3,52,43,44,37	
		58,40,57,58,18,28,50		4,18
42″	53, 3,22, 2,55,48, 3,28,12,14		3,52,43,48,55	
		58,40,54, 5,34,39,55		4,18
44″	53, 3,23, 1,36,42, 9, 2,52, 9		3,52,43,53,13	
		58,40,50,12,50,46,42		4,18
46″	53, 3,24, 0,17,32,21,53,38,51		3,52,43,57,31	
		58,40,46,20, 6,49,11		4,18
48″	53, 3,24,58,58,18,42, 0,28, 2		3,52,44, 1,49	
		58,40,42,27,22,47,22		4,18
50″	53, 3,25,57,39, 1, 9,23,15,24		3,52,44, 6, 7	
		58,40,38,34,38,41,15		4,18
52″	53, 3,26,56,19,39,44, 1,56,39		3,52,44,10,25	
		58,40,34,41,54,30,50		4,18
54″	53, 3,27,55, 0,14,25,56,27,29		3,52,44,14,43	
		58,40,30,49,10,16, 7		4,18
56″	53, 3,28,53,40,45,15, 6,43,36		3,52,44,19, 1	
		58,40,26,56,25,57, 6		4,18
58″	53, 3,29,52,21,12,11,32,40,42		3,52,44,23,19	
		58,40,23, 3,41,33,47		
60″	53, 3,30,51, 1,35,15,14,14,29			
exact	53, 3,30,51, 1,35,15,14,48,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°10′ 0″	53, 3,30,51, 1,35,15,14,48,49			
		58,40,19,10,57,10, 0		
2″	53, 3,31,49,41,54,26,11,58,49		3,52,44,31,38	
		58,40,15,18,12,38,22		4,17
4″	53, 3,32,48,22, 9,44,24,37,11		3,52,44,35,55	
		58,40,11,25,28, 2,27		4,17
6″	53, 3,33,47, 2,21, 9,52,39,38		3,52,44,40,12	
		58,40, 7,32,43,22,15		4,17
8″	53, 3,34,45,42,28,42,36, 1,53		3,52,44,44,29	
		58,40, 3,39,58,37,46		4,17
10″	53, 3,35,44,22,32,22,34,39,39		3,52,44,48,46	
		58,39,59,47,13,49, 0		4,17
12″	53, 3,36,43, 2,32, 9,48,28,39		3,52,44,53, 3	
		58,39,55,54,28,55,57		4,17
14″	53, 3,37,41,42,28, 4,17,24,36		3,52,44,57,20	
		58,39,52, 1,43,58,37		4,17
16″	53, 3,38,40,22,20, 6, 1,23,13		3,52,45, 1,37	
		58,39,48, 8,58,57, 0		4,17
18″	53, 3,39,39, 2, 8,15, 0,20,13		3,52,45, 5,54	
		58,39,44,16,13,51, 6		4,17
20″	53, 3,40,37,41,52,31,14,11,19		3,52,45,10,11	
		58,39,40,23,28,40,55		4,17
22″	53, 3,41,36,21,32,54,42,52,14		3,52,45,14,28	
		58,39,36,30,43,26,27		4,17
24″	53, 3,42,35, 1, 9,25,26,18,41		3,52,45,18,45	
		58,39,32,37,58, 7,42		4,17
26″	53, 3,43,33,40,42, 3,24,26,23		3,52,45,23, 2	
		58,39,28,45,12,44,40		4,17
28″	53, 3,44,32,20,10,48,37,11, 3		3,52,45,27,19	
		58,39,24,52,27,17,21		4,17
30″	53, 3,45,30,59,35,41, 4,28,24		3,52,45,31,36	
		58,39,20,59,41,45,45		4,17
32″	53, 3,46,29,38,56,40,46,14, 9		3,52,45,35,53	
		58,39,17, 6,56, 9,52		4,17
34″	53, 3,47,28,18,13,47,42,24, 1		3,52,45,40,10	
		58,39,13,14,10,29,42		4,17
36″	53, 3,48,26,57,27, 1,52,53,43		3,52,45,44,27	
		58,39, 9,21,24,45,15		4,17
38″	53, 3,49,25,36,36,23,17,38,58		3,52,45,48,44	
		58,39, 5,28,38,56,31		4,17
40″	53, 3,50,24,15,41,51,56,35,29		3,52,45,53, 1	
		58,39, 1,35,53, 3,30		4,17
42″	53, 3,51,22,54,43,27,49,38,59		3,52,45,57,18	
		58,38,57,43, 7, 6,12		4,17
44″	53, 3,52,21,33,41,10,56,45,11		3,52,46, 1,35	
		58,38,53,50,21, 4,37		4,17
46″	53, 3,53,20,12,35, 1,17,49,48		3,52,46, 5,52	
		58,38,49,57,34,58,45		4,17
48″	53, 3,54,18,51,24,58,52,48,33		3,52,46,10, 9	
		58,38,46, 4,48,48,36		4,17
50″	53, 3,55,17,30,11, 3,41,37, 9		3,52,46,14,26	
		58,38,42,12, 2,34,10		4,17
52″	53, 3,56,16, 8,53,15,44,11,19		3,52,46,18,43	
		58,38,38,19,16,15,27		4,17
54″	53, 3,57,14,47,31,35, 0,26,46		3,52,46,23, 0	
		58,38,34,26,29,52,27		4,17
56″	53, 3,58,13,26, 6, 1,30,19,13		3,52,46,27,17	
		58,38,30,33,43,25,10		4,17
58″	53, 3,59,12, 4,36,35,13,44,23		3,52,46,31,34	
		58,38,26,40,56,53,36		
60″	53, 4, 0,10,43, 3,16,10,37,59			
exact	53, 4, 0,10,43, 3,16,10,14,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°11′ 0″	53, 4, 0,10,43, 3,16,10,14,39			
		58,38,22,48,10,15,23		
2″	53, 4, 1, 9,21,26, 4,20,30, 2		3,52,46,40,17	
		58,38,18,55,23,35, 6		4,17
4″	53, 4, 2, 7,59,44,59,44, 5, 8		3,52,46,44,34	
		58,38,15, 2,36,50,32		4,17
6″	53, 4, 3, 6,38, 0, 2,20,55,40		3,52,46,48,51	
		58,38,11, 9,50, 1,41		4,17
8″	53, 4, 4, 5,16,11,12,10,57,21		3,52,46,53, 8	
		58,38, 7,17, 3, 8,33		4,17
10″	53, 4, 5, 3,54,18,29,14, 5,54		3,52,46,57,25	
		58,38, 3,24,16,11, 8		4,17
12″	53, 4, 6, 2,32,21,53,30,17, 2		3,52,47, 1,42	
		58,37,59,31,29, 9,26		4,17
14″	53, 4, 7, 1,10,21,24,59,26,28		3,52,47, 5,59	
		58,37,55,38,42, 3,27		4,17
16″	53, 4, 7,59,48,17, 3,41,29,55		3,52,47,10,16	
		58,37,51,45,54,53,11		4,17
18″	53, 4, 8,58,26, 8,49,36,23, 6		3,52,47,14,33	
		58,37,47,53, 7,38,38		4,17
20″	53, 4, 9,57, 3,56,42,44, 1,44		3,52,47,18,50	
		58,37,44, 0,20,19,48		4,17
22″	53, 4,10,55,41,40,43, 4,21,32		3,52,47,23, 7	
		58,37,40, 7,32,56,41		4,17
24″	53, 4,11,54,19,20,50,37,18,13		3,52,47,27,24	
		58,37,36,14,45,29,17		4,17
26″	53, 4,12,52,56,57, 5,22,47,30		3,52,47,31,41	
		58,37,32,21,57,57,36		4,17
28″	53, 4,13,51,34,29,27,20,45, 6		3,52,47,35,58	
		58,37,28,29,10,21,38		4,17
30″	53, 4,14,50,11,57,56,31, 6,44		3,52,47,40,15	
		58,37,24,36,22,41,23		4,17
32″	53, 4,15,48,49,22,32,53,48, 7		3,52,47,44,32	
		58,37,20,43,34,56,51		4,17
34″	53, 4,16,47,26,43,16,28,44,58		3,52,47,48,49	
		58,37,16,50,47, 8, 2		4,17
36″	53, 4,17,46, 4, 0, 7,15,53, 0		3,52,47,53, 6	
		58,37,12,57,59,14,56		4,17
38″	53, 4,18,44,41,13, 5,15, 7,56		3,52,47,57,23	
		58,37, 9, 5,11,17,33		4,17
40″	53, 4,19,43,18,22,10,26,25,29		3,52,48, 1,40	
		58,37, 5,12,23,15,53		4,17
42″	53, 4,20,41,55,27,22,49,41,22		3,52,48, 5,57	
		58,37, 1,19,35, 9,56		4,17
44″	53, 4,21,40,32,28,42,24,51,18		3,52,48,10,14	
		58,36,57,26,46,59,42		4,17
46″	53, 4,22,39, 9,26, 9,11,51, 0		3,52,48,14,31	
		58,36,53,33,58,45,11		4,17
48″	53, 4,23,37,46,19,43,10,36,11		3,52,48,18,48	
		58,36,49,41,10,26,23		4,17
50″	53, 4,24,36,23, 9,24,21, 2,34		3,52,48,23, 5	
		58,36,45,48,22, 3,18		4,17
52″	53, 4,25,34,59,55,12,43, 5,52		3,52,48,27,22	
		58,36,41,55,33,35,56		4,17
54″	53, 4,26,33,36,37, 8,16,41,48		3,52,48,31,39	
		58,36,38, 2,45, 4,17		4,17
56″	53, 4,27,32,13,15,11, 1,46, 5		3,52,48,35,56	
		58,36,34, 9,56,28,21		4,17
58″	53, 4,28,30,49,49,20,58,14,26		3,52,48,40,13	
		58,36,30,17, 7,48, 8		
60″	53, 4,29,29,26,19,38, 6, 2,34			
exact	53, 4,29,29,26,19,38, 5,50,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°12′ 0″	53, 4,29,29,26,19,38, 5,50,42			
		58,36,26,24,19, 2,26		
2″	53, 4,30,28, 2,46, 2,24,53, 8		3,52,48,48,51	
		58,36,22,31,30,13,35		4,17
4″	53, 4,31,26,39, 8,33,55, 6,43		3,52,48,53, 8	
		58,36,18,38,41,20,27		4,17
6″	53, 4,32,25,15,27,12,36,27,10		3,52,48,57,25	
		58,36,14,45,52,23, 2		4,17
8″	53, 4,33,23,51,41,58,28,50,12		3,52,49, 1,42	
		58,36,10,53, 3,21,20		4,17
10″	53, 4,34,22,27,52,51,32,11,32		3,52,49, 5,59	
		58,36, 7, 0,14,15,21		4,17
12″	53, 4,35,21, 3,59,51,46,26,53		3,52,49,10,16	
		58,36, 3, 7,25, 5, 5		4,17
14″	53, 4,36,19,40, 2,59,11,31,58		3,52,49,14,33	
		58,35,59,14,35,50,32		4,17
16″	53, 4,37,18,16, 2,13,47,22,30		3,52,49,18,50	
		58,35,55,21,46,31,42		4,17
18″	53, 4,38,16,51,57,35,33,54,12		3,52,49,23, 7	
		58,35,51,28,57, 8,35		4,17
20″	53, 4,39,15,27,49, 4,31, 2,47		3,52,49,27,24	
		58,35,47,36, 7,41,11		4,17
22″	53, 4,40,14, 3,36,40,38,43,58		3,52,49,31,41	
		58,35,43,43,18, 9,30		4,17
24″	53, 4,41,12,39,20,23,56,53,28		3,52,49,35,58	
		58,35,39,50,28,33,32		4,17
26″	53, 4,42,11,15, 0,14,25,27, 0		3,52,49,40,15	
		58,35,35,57,38,53,17		4,17
28″	53, 4,43, 9,50,36,12, 4,20,17		3,52,49,44,32	
		58,35,32, 4,49, 8,45		4,17
30″	53, 4,44, 8,26, 8,16,53,29, 2		3,52,49,48,49	
		58,35,28,11,59,19,56		4,17
32″	53, 4,45, 7, 1,36,28,52,48,58		3,52,49,53, 6	
		58,35,24,19, 9,26,50		4,17
34″	53, 4,46, 5,37, 0,48, 2,15,48		3,52,49,57,23	
		58,35,20,26,19,29,27		4,17
36″	53, 4,47, 4,12,21,14,21,45,15		3,52,50, 1,40	
		58,35,16,33,29,27,47		4,17
38″	53, 4,48, 2,47,37,47,51,13, 2		3,52,50, 5,57	
		58,35,12,40,39,21,50		4,17
40″	53, 4,49, 1,22,50,28,30,34,52		3,52,50,10,14	
		58,35, 8,47,49,11,36		4,17
42″	53, 4,49,59,57,59,16,19,46,28		3,52,50,14,31	
		58,35, 4,54,58,57, 5		4,17
44″	53, 4,50,58,33, 4,11,18,43,33		3,52,50,18,48	
		58,35, 1, 2, 8,38,17		4,17
46″	53, 4,51,57, 8, 5,13,27,21,50		3,52,50,23, 5	
		58,34,57, 9,18,15,12		4,17
48″	53, 4,52,55,43, 2,22,45,37, 2		3,52,50,27,22	
		58,34,53,16,27,47,50		4,17
50″	53, 4,53,54,17,55,39,13,24,52		3,52,50,31,39	
		58,34,49,23,37,16,11		4,17
52″	53, 4,54,52,52,45, 2,50,41, 3		3,52,50,35,56	
		58,34,45,30,46,40,15		4,17
54″	53, 4,55,51,27,30,33,37,21,18		3,52,50,40,13	
		58,34,41,37,56, 0, 2		4,17
56″	53, 4,56,50, 2,12,11,33,21,20		3,52,50,44,30	
		58,34,37,45, 5,15,32		4,17
58″	53, 4,57,48,36,49,56,38,36,52		3,52,50,48,47	
		58,34,33,52,14,26,45		
60″	53, 4,58,47,11,23,48,53, 3,37			
exact	53, 4,58,47,11,23,48,52,57,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°13′ 0″	53, 4,58,47,11,23,48,52,57,45			
		58,34,29,59,23,33,16		
2″	53, 4,59,45,45,53,48,16,31, 1		3,52,50,57,22	
		58,34,26, 6,32,35,54		4,17
4″	53, 5, 0,44,20,19,54,49, 6,55		3,52,51, 1,39	
		58,34,22,13,41,34,15		4,17
6″	53, 5, 1,42,54,42, 8,30,41,10		3,52,51, 5,56	
		58,34,18,20,50,28,19		4,17
8″	53, 5, 2,41,29, 0,29,21, 9,29		3,52,51,10,13	
		58,34,14,27,59,18, 6		4,17
10″	53, 5, 3,40, 3,14,57,20,27,35		3,52,51,14,30	
		58,34,10,35, 8, 3,36		4,17
12″	53, 5, 4,38,37,25,32,28,31,11		3,52,51,18,47	
		58,34, 6,42,16,44,49		4,17
14″	53, 5, 5,37,11,32,14,45,16, 0		3,52,51,23, 4	
		58,34, 2,49,25,21,45		4,17
16″	53, 5, 6,35,45,35, 4,10,37,45		3,52,51,27,21	
		58,33,58,56,33,54,24		4,17
18″	53, 5, 7,34,19,34, 0,44,32, 9		3,52,51,31,38	
		58,33,55, 3,42,22,46		4,17
20″	53, 5, 8,32,53,29, 4,26,54,55		3,52,51,35,55	
		58,33,51,10,50,46,51		4,17
22″	53, 5, 9,31,27,20,15,17,41,46		3,52,51,40,12	
		58,33,47,17,59, 6,39		4,17
24″	53, 5,10,30, 1, 7,33,16,48,25		3,52,51,44,29	
		58,33,43,25, 7,22,10		4,17
26″	53, 5,11,28,34,50,58,24,10,35		3,52,51,48,46	
		58,33,39,32,15,33,24		4,17
28″	53, 5,12,27, 8,30,30,39,43,59		3,52,51,53, 3	
		58,33,35,39,23,40,21		4,17
30″	53, 5,13,25,42, 6,10, 3,24,20		3,52,51,57,20	
		58,33,31,46,31,43, 1		4,17
32″	53, 5,14,24,15,37,56,35, 7,21		3,52,52, 1,37	
		58,33,27,53,39,41,24		4,17
34″	53, 5,15,22,49, 5,50,14,48,45		3,52,52, 5,54	
		58,33,24, 0,47,35,30		4,17
36″	53, 5,16,21,22,29,51, 2,24,15		3,52,52,10,11	
		58,33,20, 7,55,25,19		4,17
38″	53, 5,17,19,55,49,58,57,49,34		3,52,52,14,28	
		58,33,16,15, 3,10,51		4,17
40″	53, 5,18,18,29, 6,14, 1, 0,25		3,52,52,18,45	
		58,33,12,22,10,52, 6		4,17
42″	53, 5,19,17, 2,18,36,11,52,31		3,52,52,23, 2	
		58,33, 8,29,18,29, 4		4,17
44″	53, 5,20,15,35,27, 5,30,21,35		3,52,52,27,19	
		58,33, 4,36,26, 1,45		4,17
46″	53, 5,21,14, 8,31,41,56,23,20		3,52,52,31,36	
		58,33, 0,43,33,30, 9		4,17
48″	53, 5,22,12,41,32,25,29,53,29		3,52,52,35,53	
		58,32,56,50,40,54,16		4,17
50″	53, 5,23,11,14,29,16,10,47,45		3,52,52,40,10	
		58,32,52,57,48,14, 6		4,17
52″	53, 5,24, 9,47,22,13,59, 1,51		3,52,52,44,27	
		58,32,49, 4,55,29,39		4,17
54″	53, 5,25, 8,20,11,18,54,31,30		3,52,52,48,44	
		58,32,45,12, 2,40,55		4,17
56″	53, 5,26, 6,52,56,30,57,12,25		3,52,52,53, 1	
		58,32,41,19, 9,47,54		4,17
58″	53, 5,27, 5,25,37,50, 7, 0,19		3,52,52,57,18	
		58,32,37,26,16,50,36		
60″	53, 5,28, 3,58,15,16,23,50,55			
exact	53, 5,28, 3,58,15,16,24, 0,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°14′ 0″	53, 5,28, 3,58,15,16,24, 0,24			
		58,32,33,33,23,50, 1		
2″	53, 5,29, 2,30,48,49,47,50,25		3,52,53, 5,48	
		58,32,29,40,30,44,13		4,17
4″	53, 5,30, 1, 3,18,30,18,34,38		3,52,53,10, 5	
		58,32,25,47,37,34, 8		4,17
6″	53, 5,30,59,35,44,17,56, 8,46		3,52,53,14,22	
		58,32,21,54,44,19,46		4,17
8″	53, 5,31,58, 8, 6,12,40,28,32		3,52,53,18,39	
		58,32,18, 1,51, 1, 7		4,17
10″	53, 5,32,56,40,24,14,31,29,39		3,52,53,22,56	
		58,32,14, 8,57,38,11		4,17
12″	53, 5,33,55,12,38,23,29, 7,50		3,52,53,27,13	
		58,32,10,16, 4,10,58		4,17
14″	53, 5,34,53,44,48,39,33,18,48		3,52,53,31,30	
		58,32, 6,23,10,39,28		4,17
16″	53, 5,35,52,16,55, 2,43,58,16		3,52,53,35,47	
		58,32, 2,30,17, 3,41		4,17
18″	53, 5,36,50,48,57,33, 1, 1,57		3,52,53,40, 4	
		58,31,58,37,23,23,37		4,17
20″	53, 5,37,49,20,56,10,24,25,34		3,52,53,44,21	
		58,31,54,44,29,39,16		4,17
22″	53, 5,38,47,52,50,54,54, 4,50		3,52,53,48,38	
		58,31,50,51,35,50,38		4,17
24″	53, 5,39,46,24,41,46,29,55,28		3,52,53,52,55	
		58,31,46,58,41,57,43		4,17
26″	53, 5,40,44,56,28,45,11,53,11		3,52,53,57,12	
		58,31,43, 5,48, 0,31		4,17
28″	53, 5,41,43,28,11,50,59,53,42		3,52,54, 1,29	
		58,31,39,12,53,59, 2		4,17
30″	53, 5,42,41,59,51, 3,53,52,44		3,52,54, 5,46	
		58,31,35,19,59,53,16		4,17
32″	53, 5,43,40,31,26,23,53,46, 0		3,52,54,10, 3	
		58,31,31,27, 5,43,13		4,17
34″	53, 5,44,39, 2,57,50,59,29,13		3,52,54,14,20	
		58,31,27,34,11,28,53		4,17
36″	53, 5,45,37,34,25,25,10,58, 6		3,52,54,18,37	
		58,31,23,41,17,10,16		4,17
38″	53, 5,46,36, 5,49, 6,28, 8,22		3,52,54,22,54	
		58,31,19,48,22,47,22		4,17
40″	53, 5,47,34,37, 8,54,50,55,44		3,52,54,27,11	
		58,31,15,55,28,20,11		4,17
42″	53, 5,48,33, 8,24,50,19,15,55		3,52,54,31,28	
		58,31,12, 2,33,48,43		4,17
44″	53, 5,49,31,39,36,52,53, 4,38		3,52,54,35,45	
		58,31, 8, 9,39,12,58		4,17
46″	53, 5,50,30,10,45, 2,32,17,36		3,52,54,40, 2	
		58,31, 4,16,44,32,56		4,17
48″	53, 5,51,28,41,49,19,16,50,32		3,52,54,44,19	
		58,31, 0,23,49,48,37		4,17
50″	53, 5,52,27,12,49,43, 6,39, 9		3,52,54,48,36	
		58,30,56,30,55, 0, 1		4,17
52″	53, 5,53,25,43,46,14, 1,39,10		3,52,54,52,53	
		58,30,52,38, 0, 7, 8		4,17
54″	53, 5,54,24,14,38,52, 1,46,18		3,52,54,57,10	
		58,30,48,45, 5, 9,58		4,17
56″	53, 5,55,22,45,27,37, 6,56,16		3,52,55, 1,27	
		58,30,44,52,10, 8,31		4,17
58″	53, 5,56,21,16,12,29,17, 4,47		3,52,55, 5,44	
		58,30,40,59,15, 2,47		
60″	53, 5,57,19,46,53,28,32, 7,34			
exact	53, 5,57,19,46,53,28,32,27, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°15′ 0″	53, 5,57,19,46,53,28,32,27, 7			
		58,30,37, 6,19,54,49		
2″	53, 5,58,18,17,30,34,52,21,56		3,52,55,14, 9	
		58,30,33,13,24,40,40		4,17
4″	53, 5,59,16,48, 3,48,17, 2,36		3,52,55,18,26	
		58,30,29,20,29,22,14		4,17
6″	53, 6, 0,15,18,33, 8,46,24,50		3,52,55,22,43	
		58,30,25,27,33,59,31		4,17
8″	53, 6, 1,13,48,58,36,20,24,21		3,52,55,27, 0	
		58,30,21,34,38,32,31		4,17
10″	53, 6, 2,12,19,20,10,58,56,52		3,52,55,31,17	
		58,30,17,41,43, 1,14		4,17
12″	53, 6, 3,10,49,37,52,41,58, 6		3,52,55,35,34	
		58,30,13,48,47,25,40		4,17
14″	53, 6, 4, 9,19,51,41,29,23,46		3,52,55,39,51	
		58,30, 9,55,51,45,49		4,17
16″	53, 6, 5, 7,50, 1,37,21, 9,35		3,52,55,44, 8	
		58,30, 6, 2,56, 1,41		4,17
18″	53, 6, 6, 6,20, 7,40,17,11,16		3,52,55,48,25	
		58,30, 2,10, 0,13,16		4,17
20″	53, 6, 7, 4,50, 9,50,17,24,32		3,52,55,52,42	
		58,29,58,17, 4,20,34		4,17
22″	53, 6, 8, 3,20, 8, 7,21,45, 6		3,52,55,56,59	
		58,29,54,24, 8,23,35		4,17
24″	53, 6, 9, 1,50, 2,31,30, 8,41		3,52,56, 1,16	
		58,29,50,31,12,22,19		4,17
26″	53, 6,10, 0,19,53, 2,42,31, 0		3,52,56, 5,33	
		58,29,46,38,16,16,46		4,17
28″	53, 6,10,58,49,39,40,58,47,46		3,52,56, 9,50	
		58,29,42,45,20, 6,56		4,17
30″	53, 6,11,57,19,22,26,18,54,42		3,52,56,14, 7	
		58,29,38,52,23,52,49		4,17
32″	53, 6,12,55,49, 1,18,42,47,31		3,52,56,18,24	
		58,29,34,59,27,34,25		4,17
34″	53, 6,13,54,18,36,18,10,21,56		3,52,56,22,41	
		58,29,31, 6,31,11,44		4,17
36″	53, 6,14,52,48, 7,24,41,33,40		3,52,56,26,58	
		58,29,27,13,34,44,46		4,17
38″	53, 6,15,51,17,34,38,16,18,26		3,52,56,31,15	
		58,29,23,20,38,13,31		4,17
40″	53, 6,16,49,46,57,58,54,31,57		3,52,56,35,32	
		58,29,19,27,41,37,59		4,17
42″	53, 6,17,48,16,17,26,36, 9,56		3,52,56,39,49	
		58,29,15,34,44,58,10		4,17
44″	53, 6,18,46,45,33, 1,21, 8, 6		3,52,56,44, 6	
		58,29,11,41,48,14, 4		4,17
46″	53, 6,19,45,14,44,43, 9,22,10		3,52,56,48,23	
		58,29, 7,48,51,25,41		4,17
48″	53, 6,20,43,43,52,32, 0,47,51		3,52,56,52,40	
		58,29, 3,55,54,33, 1		4,17
50″	53, 6,21,42,12,56,27,55,20,52		3,52,56,56,57	
		58,29, 0, 2,57,36, 4		4,17
52″	53, 6,22,40,41,56,30,52,56,56		3,52,57, 1,14	
		58,28,56,10, 0,34,50		4,17
54″	53, 6,23,39,10,52,40,53,31,46		3,52,57, 5,31	
		58,28,52,17, 3,29,19		4,17
56″	53, 6,24,37,39,44,57,57, 1, 5		3,52,57, 9,48	
		58,28,48,24, 6,19,31		4,17
58″	53, 6,25,36, 8,33,22, 3,20,36		3,52,57,14, 5	
		58,28,44,31, 9, 5,26		
60″	53, 6,26,34,37,17,53,12,26, 2			
exact	53, 6,26,34,37,17,53,12,50,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°16′ 0″	53, 6,26,34,37,17,53,12,50,11			
		58,28,40,38,11,49,48		
2″	53, 6,27,33, 5,58,31,24,39,59		3,52,57,22,27	
		58,28,36,45,14,27,21		4,17
4″	53, 6,28,31,34,35,16,39, 7,20		3,52,57,26,44	
		58,28,32,52,17, 0,37		4,17
6″	53, 6,29,30, 3, 8, 8,56, 7,57		3,52,57,31, 1	
		58,28,28,59,19,29,36		4,17
8″	53, 6,30,28,31,37, 8,15,37,33		3,52,57,35,18	
		58,28,25, 6,21,54,18		4,17
10″	53, 6,31,27, 0, 2,14,37,31,51		3,52,57,39,35	
		58,28,21,13,24,14,43		4,17
12″	53, 6,32,25,28,23,28, 1,46,34		3,52,57,43,52	
		58,28,17,20,26,30,51		4,17
14″	53, 6,33,23,56,40,48,28,17,25		3,52,57,48, 9	
		58,28,13,27,28,42,42		4,17
16″	53, 6,34,22,24,54,15,57, 0, 7		3,52,57,52,26	
		58,28, 9,34,30,50,16		4,17
18″	53, 6,35,20,53, 3,50,27,50,23		3,52,57,56,43	
		58,28, 5,41,32,53,33		4,17
20″	53, 6,36,19,21, 9,32, 0,43,56		3,52,58, 1, 0	
		58,28, 1,48,34,52,33		4,17
22″	53, 6,37,17,49,11,20,35,36,29		3,52,58, 5,17	
		58,27,57,55,36,47,16		4,17
24″	53, 6,38,16,17, 9,16,12,23,45		3,52,58, 9,34	
		58,27,54, 2,38,37,42		4,17
26″	53, 6,39,14,45, 3,18,51, 1,27		3,52,58,13,51	
		58,27,50, 9,40,23,51		4,17
28″	53, 6,40,13,12,53,28,31,25,18		3,52,58,18, 8	
		58,27,46,16,42, 5,43		4,17
30″	53, 6,41,11,40,39,45,13,31, 1		3,52,58,22,25	
		58,27,42,23,43,43,18		4,17
32″	53, 6,42,10, 8,22, 8,57,14,19		3,52,58,26,42	
		58,27,38,30,45,16,36		4,17
34″	53, 6,43, 8,36, 0,39,42,30,55		3,52,58,30,59	
		58,27,34,37,46,45,37		4,17
36″	53, 6,44, 7, 3,35,17,29,16,32		3,52,58,35,16	
		58,27,30,44,48,10,21		4,17
38″	53, 6,45, 5,31, 6, 2,17,26,53		3,52,58,39,33	
		58,27,26,51,49,30,48		4,17
40″	53, 6,46, 3,58,32,54, 6,57,41		3,52,58,43,50	
		58,27,22,58,50,46,58		4,17
42″	53, 6,47, 2,25,55,52,57,44,39		3,52,58,48, 7	
		58,27,19, 5,51,58,51		4,17
44″	53, 6,48, 0,53,14,58,49,43,30		3,52,58,52,24	
		58,27,15,12,53, 6,27		4,17
46″	53, 6,48,59,20,30,11,42,49,57		3,52,58,56,41	
		58,27,11,19,54, 9,46		4,17
48″	53, 6,49,57,47,41,31,36,59,43		3,52,59, 0,58	
		58,27, 7,26,55, 8,48		4,17
50″	53, 6,50,56,14,48,58,32, 8,31		3,52,59, 5,15	
		58,27, 3,33,56, 3,33		4,17
52″	53, 6,51,54,41,52,32,28,12, 4		3,52,59, 9,32	
		58,26,59,40,56,54, 1		4,17
54″	53, 6,52,53, 8,52,13,25, 6, 5		3,52,59,13,49	
		58,26,55,47,57,40,12		4,17
56″	53, 6,53,51,35,48, 1,22,46,17		3,52,59,18, 6	
		58,26,51,54,58,22, 6		4,17
58″	53, 6,54,50, 2,39,56,21, 8,23		3,52,59,22,23	
		58,26,48, 1,58,59,43		
60″	53, 6,55,48,29,27,58,20, 8, 6			
exact	53, 6,55,48,29,27,58,20,45,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°17′ 0″	53, 6,55,48,29,27,58,20,45,45			
		58,26,44, 8,59,37, 5		
2″	53, 6,56,46,56,12, 7,20,22,50		3,52,59,30,40	
		58,26,40,16, 0, 6,25		4,16
4″	53, 6,57,45,22,52,23,20,29,15		3,52,59,34,56	
		58,26,36,23, 0,31,29		4,16
6″	53, 6,58,43,49,28,46,21, 0,44		3,52,59,39,12	
		58,26,32,30, 0,52,17		4,16
8″	53, 6,59,42,16, 1,16,21,53, 1		3,52,59,43,28	
		58,26,28,37, 1, 8,49		4,16
10″	53, 7, 0,40,42,29,53,23, 1,50		3,52,59,47,44	
		58,26,24,44, 1,21, 5		4,16
12″	53, 7, 1,39, 8,54,37,24,22,55		3,52,59,52, 0	
		58,26,20,51, 1,29, 5		4,16
14″	53, 7, 2,37,35,15,28,25,52, 0		3,52,59,56,16	
		58,26,16,58, 1,32,49		4,16
16″	53, 7, 3,36, 1,32,26,27,24,49		3,53, 0, 0,32	
		58,26,13, 5, 1,32,17		4,16
18″	53, 7, 4,34,27,45,31,28,57, 6		3,53, 0, 4,48	
		58,26, 9,12, 1,27,29		4,16
20″	53, 7, 5,32,53,54,43,30,24,35		3,53, 0, 9, 4	
		58,26, 5,19, 1,18,25		4,16
22″	53, 7, 6,31,20, 0, 2,31,43, 0		3,53, 0,13,20	
		58,26, 1,26, 1, 5, 5		4,16
24″	53, 7, 7,29,46, 1,28,32,48, 5		3,53, 0,17,36	
		58,25,57,33, 0,47,29		4,16
26″	53, 7, 8,28,11,59, 1,33,35,34		3,53, 0,21,52	
		58,25,53,40, 0,25,37		4,16
28″	53, 7, 9,26,37,52,41,34, 1,11		3,53, 0,26, 8	
		58,25,49,46,59,59,29		4,16
30″	53, 7,10,25, 3,42,28,34, 0,40		3,53, 0,30,24	
		58,25,45,53,59,29, 5		4,16
32″	53, 7,11,23,29,28,22,33,29,45		3,53, 0,34,40	
		58,25,42, 0,58,54,25		4,16
34″	53, 7,12,21,55,10,23,32,24,10		3,53, 0,38,56	
		58,25,38, 7,58,15,29		4,16
36″	53, 7,13,20,20,48,31,30,39,39		3,53, 0,43,12	
		58,25,34,14,57,32,17		4,16
38″	53, 7,14,18,46,22,46,28,11,56		3,53, 0,47,28	
		58,25,30,21,56,44,49		4,16
40″	53, 7,15,17,11,53, 8,24,56,45		3,53, 0,51,44	
		58,25,26,28,55,53, 5		4,16
42″	53, 7,16,15,37,19,37,20,49,50		3,53, 0,56, 0	
		58,25,22,35,54,57, 5		4,16
44″	53, 7,17,14, 2,42,13,15,46,55		3,53, 1, 0,16	
		58,25,18,42,53,56,49		4,16
46″	53, 7,18,12,28, 0,56, 9,43,44		3,53, 1, 4,32	
		58,25,14,49,52,52,17		4,16
48″	53, 7,19,10,53,15,46, 2,36, 1		3,53, 1, 8,48	
		58,25,10,56,51,43,29		4,16
50″	53, 7,20, 9,18,26,42,54,19,30		3,53, 1,13, 4	
		58,25, 7, 3,50,30,25		4,16
52″	53, 7,21, 7,43,33,46,44,49,55		3,53, 1,17,20	
		58,25, 3,10,49,13, 5		4,16
54″	53, 7,22, 6, 8,36,57,34, 3, 0		3,53, 1,21,36	
		58,24,59,17,47,51,29		4,16
56″	53, 7,23, 4,33,36,15,21,54,29		3,53, 1,25,52	
		58,24,55,24,46,25,37		4,16
58″	53, 7,24, 2,58,31,40, 8,20, 6		3,53, 1,30, 8	
		58,24,51,31,44,55,29		
60″	53, 7,25, 1,23,23,11,53,15,35			
exact	53, 7,25, 1,23,23,11,52,53,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°18′ 0″	53, 7,25, 1,23,23,11,52,53,50			
		58,24,47,38,43,18,48		
2″	53, 7,25,59,48,10,50,36,12,38		3,53, 1,38,49	
		58,24,43,45,41,39,59		4,16
4″	53, 7,26,58,12,54,36,17,52,37		3,53, 1,43, 5	
		58,24,39,52,39,56,54		4,16
6″	53, 7,27,56,37,34,28,57,49,31		3,53, 1,47,21	
		58,24,35,59,38, 9,33		4,16
8″	53, 7,28,55, 2,10,28,35,59, 4		3,53, 1,51,37	
		58,24,32, 6,36,17,56		4,16
10″	53, 7,29,53,26,42,35,12,17, 0		3,53, 1,55,53	
		58,24,28,13,34,22, 3		4,16
12″	53, 7,30,51,51,10,48,46,39, 3		3,53, 2, 0, 9	
		58,24,24,20,32,21,54		4,16
14″	53, 7,31,50,15,35, 9,19, 0,57		3,53, 2, 4,25	
		58,24,20,27,30,17,29		4,16
16″	53, 7,32,48,39,55,36,49,18,26		3,53, 2, 8,41	
		58,24,16,34,28, 8,48		4,16
18″	53, 7,33,47, 4,12,11,17,27,14		3,53, 2,12,57	
		58,24,12,41,25,55,51		4,16
20″	53, 7,34,45,28,24,52,43,23, 5		3,53, 2,17,13	
		58,24, 8,48,23,38,38		4,16
22″	53, 7,35,43,52,33,41, 7, 1,43		3,53, 2,21,29	
		58,24, 4,55,21,17, 9		4,16
24″	53, 7,36,42,16,38,36,28,18,52		3,53, 2,25,45	
		58,24, 1, 2,18,51,24		4,16
26″	53, 7,37,40,40,39,38,47,10,16		3,53, 2,30, 1	
		58,23,57, 9,16,21,23		4,16
28″	53, 7,38,39, 4,36,48, 3,31,39		3,53, 2,34,17	
		58,23,53,16,13,47, 6		4,16
30″	53, 7,39,37,28,30, 4,17,18,45		3,53, 2,38,33	
		58,23,49,23,11, 8,33		4,16
32″	53, 7,40,35,52,19,27,28,27,18		3,53, 2,42,49	
		58,23,45,30, 8,25,44		4,16
34″	53, 7,41,34,16, 4,57,36,53, 2		3,53, 2,47, 5	
		58,23,41,37, 5,38,39		4,16
36″	53, 7,42,32,39,46,34,42,31,41		3,53, 2,51,21	
		58,23,37,44, 2,47,18		4,16
38″	53, 7,43,31, 3,24,18,45,18,59		3,53, 2,55,37	
		58,23,33,50,59,51,41		4,16
40″	53, 7,44,29,26,58, 9,45,10,40		3,53, 2,59,53	
		58,23,29,57,56,51,48		4,16
42″	53, 7,45,27,50,28, 7,42, 2,28		3,53, 3, 4, 9	
		58,23,26, 4,53,47,39		4,16
44″	53, 7,46,26,13,54,12,35,50, 7		3,53, 3, 8,25	
		58,23,22,11,50,39,14		4,16
46″	53, 7,47,24,37,16,24,26,29,21		3,53, 3,12,41	
		58,23,18,18,47,26,33		4,16
48″	53, 7,48,23, 0,34,43,13,55,54		3,53, 3,16,57	
		58,23,14,25,44, 9,36		4,16
50″	53, 7,49,21,23,49, 8,58, 5,30		3,53, 3,21,13	
		58,23,10,32,40,48,23		4,16
52″	53, 7,50,19,46,59,41,38,53,53		3,53, 3,25,29	
		58,23, 6,39,37,22,54		4,16
54″	53, 7,51,18,10, 6,21,16,16,47		3,53, 3,29,45	
		58,23, 2,46,33,53, 9		4,16
56″	53, 7,52,16,33, 9, 7,50, 9,56		3,53, 3,34, 1	
		58,22,58,53,30,19, 8		4,16
58″	53, 7,53,14,56, 8, 1,20,29, 4		3,53, 3,38,17	
		58,22,55, 0,26,40,51		
60″	53, 7,54,13,19, 3, 1,47, 9,55			
exact	53, 7,54,13,19, 3, 1,46,58,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°19′ 0″	53, 7,54,13,19, 3, 1,46,58,19			
		58,22,51, 7,22,57, 5		
2″	53, 7,55,11,41,54, 9, 9,55,24		3,53, 3,46,53	
		58,22,47,14,19,10,12		4,16
4″	53, 7,56,10, 4,41,23,29, 5,36		3,53, 3,51, 9	
		58,22,43,21,15,19, 3		4,16
6″	53, 7,57, 8,27,24,44,44,24,39		3,53, 3,55,25	
		58,22,39,28,11,23,38		4,16
8″	53, 7,58, 6,50, 4,12,55,48,17		3,53, 3,59,41	
		58,22,35,35, 7,23,57		4,16
10″	53, 7,59, 5,12,39,48, 3,12,14		3,53, 4, 3,57	
		58,22,31,42, 3,20, 0		4,16
12″	53, 8, 0, 3,35,11,30, 6,32,14		3,53, 4, 8,13	
		58,22,27,48,59,11,47		4,16
14″	53, 8, 1, 1,57,39,19, 5,44, 1		3,53, 4,12,29	
		58,22,23,55,54,59,18		4,16
16″	53, 8, 2, 0,20, 3,15, 0,43,19		3,53, 4,16,45	
		58,22,20, 2,50,42,33		4,16
18″	53, 8, 2,58,42,23,17,51,25,52		3,53, 4,21, 1	
		58,22,16, 9,46,21,32		4,16
20″	53, 8, 3,57, 4,39,27,37,47,24		3,53, 4,25,17	
		58,22,12,16,41,56,15		4,16
22″	53, 8, 4,55,26,51,44,19,43,39		3,53, 4,29,33	
		58,22, 8,23,37,26,42		4,16
24″	53, 8, 5,53,49, 0, 7,57,10,21		3,53, 4,33,49	
		58,22, 4,30,32,52,53		4,16
26″	53, 8, 6,52,11, 4,38,30, 3,14		3,53, 4,38, 5	
		58,22, 0,37,28,14,48		4,16
28″	53, 8, 7,50,33, 5,15,58,18, 2		3,53, 4,42,21	
		58,21,56,44,23,32,27		4,16
30″	53, 8, 8,48,55, 2, 0,21,50,29		3,53, 4,46,37	
		58,21,52,51,18,45,50		4,16
32″	53, 8, 9,47,16,54,51,40,36,19		3,53, 4,50,53	
		58,21,48,58,13,54,57		4,16
34″	53, 8,10,45,38,43,49,54,31,16		3,53, 4,55, 9	
		58,21,45, 5, 8,59,48		4,16
36″	53, 8,11,44, 0,28,55, 3,31, 4		3,53, 4,59,25	
		58,21,41,12, 4, 0,23		4,16
38″	53, 8,12,42,22,10, 7, 7,31,27		3,53, 5, 3,41	
		58,21,37,18,58,56,42		4,16
40″	53, 8,13,40,43,47,26, 6,28, 9		3,53, 5, 7,57	
		58,21,33,25,53,48,45		4,16
42″	53, 8,14,39, 5,20,52, 0,16,54		3,53, 5,12,13	
		58,21,29,32,48,36,32		4,16
44″	53, 8,15,37,26,50,24,48,53,26		3,53, 5,16,29	
		58,21,25,39,43,20, 3		4,16
46″	53, 8,16,35,48,16, 4,32,13,29		3,53, 5,20,45	
		58,21,21,46,37,59,18		4,16
48″	53, 8,17,34, 9,37,51,10,12,47		3,53, 5,25, 1	
		58,21,17,53,32,34,17		4,16
50″	53, 8,18,32,30,55,44,42,47, 4		3,53, 5,29,17	
		58,21,14, 0,27, 5, 0		4,16
52″	53, 8,19,30,52, 9,45, 9,52, 4		3,53, 5,33,33	
		58,21,10, 7,21,31,27		4,16
54″	53, 8,20,29,13,19,52,31,23,31		3,53, 5,37,49	
		58,21, 6,14,15,53,38		4,16
56″	53, 8,21,27,34,26, 6,47,17, 9		3,53, 5,42, 5	
		58,21, 2,21,10,11,33		4,16
58″	53, 8,22,25,55,28,27,57,28,42		3,53, 5,46,21	
		58,20,58,28, 4,25,12		
60″	53, 8,23,24,16,26,56, 1,53,54			
exact	53, 8,23,24,16,26,56, 1,46,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°20′ 0″	53, 8,23,24,16,26,56, 1,46,59			
		58,20,54,34,58,34, 4		
2″	53, 8,24,22,37,21,31, 0,21, 3		3,53, 5,54,54	
		58,20,50,41,52,39,10		4,16
4″	53, 8,25,20,58,12,12,53, 0,13		3,53, 5,59,10	
		58,20,46,48,46,40, 0		4,16
6″	53, 8,26,19,18,59, 1,39,40,13		3,53, 6, 3,26	
		58,20,42,55,40,36,34		4,16
8″	53, 8,27,17,39,41,57,20,16,47		3,53, 6, 7,42	
		58,20,39, 2,34,28,52		4,16
10″	53, 8,28,16, 0,20,59,54,45,39		3,53, 6,11,58	
		58,20,35, 9,28,16,54		4,16
12″	53, 8,29,14,20,56, 9,23, 2,33		3,53, 6,16,14	
		58,20,31,16,22, 0,40		4,16
14″	53, 8,30,12,41,27,25,45, 3,13		3,53, 6,20,30	
		58,20,27,23,15,40,10		4,16
16″	53, 8,31,11, 1,54,49, 0,43,23		3,53, 6,24,46	
		58,20,23,30, 9,15,24		4,16
18″	53, 8,32, 9,22,18,19, 9,58,47		3,53, 6,29, 2	
		58,20,19,37, 2,46,22		4,16
20″	53, 8,33, 7,42,37,56,12,45, 9		3,53, 6,33,18	
		58,20,15,43,56,13, 4		4,16
22″	53, 8,34, 6, 2,53,40, 8,58,13		3,53, 6,37,34	
		58,20,11,50,49,35,30		4,16
24″	53, 8,35, 4,23, 5,30,58,33,43		3,53, 6,41,50	
		58,20, 7,57,42,53,40		4,16
26″	53, 8,36, 2,43,13,28,41,27,23		3,53, 6,46, 6	
		58,20, 4, 4,36, 7,34		4,16
28″	53, 8,37, 1, 3,17,33,17,34,57		3,53, 6,50,22	
		58,20, 0,11,29,17,12		4,16
30″	53, 8,37,59,23,17,44,46,52, 9		3,53, 6,54,38	
		58,19,56,18,22,22,34		4,16
32″	53, 8,38,57,43,14, 3, 9,14,43		3,53, 6,58,54	
		58,19,52,25,15,23,40		4,16
34″	53, 8,39,56, 3, 6,28,24,38,23		3,53, 7, 3,10	
		58,19,48,32, 8,20,30		4,16
36″	53, 8,40,54,22,55, 0,32,58,53		3,53, 7, 7,26	
		58,19,44,39, 1,13, 4		4,16
38″	53, 8,41,52,42,39,39,34,11,57		3,53, 7,11,42	
		58,19,40,45,54, 1,22		4,16
40″	53, 8,42,51, 2,20,25,28,13,19		3,53, 7,15,58	
		58,19,36,52,46,45,24		4,16
42″	53, 8,43,49,21,57,18,14,58,43		3,53, 7,20,14	
		58,19,32,59,39,25,10		4,16
44″	53, 8,44,47,41,30,17,54,23,53		3,53, 7,24,30	
		58,19,29, 6,32, 0,40		4,16
46″	53, 8,45,46, 0,59,24,26,24,33		3,53, 7,28,46	
		58,19,25,13,24,31,54		4,16
48″	53, 8,46,44,20,24,37,50,56,27		3,53, 7,33, 2	
		58,19,21,20,16,58,52		4,16
50″	53, 8,47,42,39,45,58, 7,55,19		3,53, 7,37,18	
		58,19,17,27, 9,21,34		4,16
52″	53, 8,48,40,59, 3,25,17,16,53		3,53, 7,41,34	
		58,19,13,34, 1,40, 0		4,16
54″	53, 8,49,39,18,16,59,18,56,53		3,53, 7,45,50	
		58,19, 9,40,53,54,10		4,16
56″	53, 8,50,37,37,26,40,12,51, 3		3,53, 7,50, 6	
		58,19, 5,47,46, 4, 4		4,16
58″	53, 8,51,35,56,32,27,58,55, 7		3,53, 7,54,22	
		58,19, 1,54,38, 9,42		
60″	53, 8,52,34,15,34,22,37, 4,49			
exact	53, 8,52,34,15,34,22,37,11,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°21′ 0″	53, 8,52,34,15,34,22,37,11,30			
		58,18,58, 1,30,11,52		
2″	53, 8,53,32,34,32,24, 7,23,22		3,53, 8, 2,50	
		58,18,54, 8,22, 9, 2		4,16
4″	53, 8,54,30,53,26,32,29,32,24		3,53, 8, 7, 6	
		58,18,50,15,14, 1,56		4,16
6″	53, 8,55,29,12,16,47,43,34,20		3,53, 8,11,22	
		58,18,46,22, 5,50,34		4,16
8″	53, 8,56,27,31, 3, 9,49,24,54		3,53, 8,15,38	
		58,18,42,28,57,34,56		4,16
10″	53, 8,57,25,49,45,38,46,59,50		3,53, 8,19,54	
		58,18,38,35,49,15, 2		4,16
12″	53, 8,58,24, 8,24,14,36,14,52		3,53, 8,24,10	
		58,18,34,42,40,50,52		4,16
14″	53, 8,59,22,26,58,57,17, 5,44		3,53, 8,28,26	
		58,18,30,49,32,22,26		4,16
16″	53, 9, 0,20,45,29,46,49,28,10		3,53, 8,32,42	
		58,18,26,56,23,49,44		4,16
18″	53, 9, 1,19, 3,56,43,13,17,54		3,53, 8,36,58	
		58,18,23, 3,15,12,46		4,16
20″	53, 9, 2,17,22,19,46,28,30,40		3,53, 8,41,14	
		58,18,19,10, 6,31,32		4,16
22″	53, 9, 3,15,40,38,56,35, 2,12		3,53, 8,45,30	
		58,18,15,16,57,46, 2		4,16
24″	53, 9, 4,13,58,54,13,32,48,14		3,53, 8,49,46	
		58,18,11,23,48,56,16		4,16
26″	53, 9, 5,12,17, 5,37,21,44,30		3,53, 8,54, 2	
		58,18, 7,30,40, 2,14		4,16
28″	53, 9, 6,10,35,13, 8, 1,46,44		3,53, 8,58,18	
		58,18, 3,37,31, 3,56		4,16
30″	53, 9, 7, 8,53,16,45,32,50,40		3,53, 9, 2,34	
		58,17,59,44,22, 1,22		4,16
32″	53, 9, 8, 7,11,16,29,54,52, 2		3,53, 9, 6,50	
		58,17,55,51,12,54,32		4,16
34″	53, 9, 9, 5,29,12,21, 7,46,34		3,53, 9,11, 6	
		58,17,51,58, 3,43,26		4,16
36″	53, 9,10, 3,47, 4,19,11,30, 0		3,53, 9,15,22	
		58,17,48, 4,54,28, 4		4,16
38″	53, 9,11, 2, 4,52,24, 5,58, 4		3,53, 9,19,38	
		58,17,44,11,45, 8,26		4,16
40″	53, 9,12, 0,22,36,35,51, 6,30		3,53, 9,23,54	
		58,17,40,18,35,44,32		4,16
42″	53, 9,12,58,40,16,54,26,51, 2		3,53, 9,28,10	
		58,17,36,25,26,16,22		4,16
44″	53, 9,13,56,57,53,19,53, 7,24		3,53, 9,32,26	
		58,17,32,32,16,43,56		4,16
46″	53, 9,14,55,15,25,52, 9,51,20		3,53, 9,36,42	
		58,17,28,39, 7, 7,14		4,16
48″	53, 9,15,53,32,54,31,16,58,34		3,53, 9,40,58	
		58,17,24,45,57,26,16		4,16
50″	53, 9,16,51,50,19,17,14,24,50		3,53, 9,45,14	
		58,17,20,52,47,41, 2		4,16
52″	53, 9,17,50, 7,40,10, 2, 5,52		3,53, 9,49,30	
		58,17,16,59,37,51,32		4,16
54″	53, 9,18,48,24,57, 9,39,57,24		3,53, 9,53,46	
		58,17,13, 6,27,57,46		4,16
56″	53, 9,19,46,42,10,16, 7,55,10		3,53, 9,58, 2	
		58,17, 9,13,17,59,44		4,16
58″	53, 9,20,44,59,19,29,25,54,54		3,53,10, 2,18	
		58,17, 5,20, 7,57,26		
60″	53, 9,21,43,16,24,49,33,52,20			
exact	53, 9,21,43,16,24,49,34, 7,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°22′ 0″	53, 9,21,43,16,24,49,34, 7,27			
		58,17, 1,26,57,52,37		
2″	53, 9,22,41,33,26,16,32, 0, 4		3,53,10,10,42	
		58,16,57,33,47,41,55		4,16
4″	53, 9,23,39,50,23,50,19,41,59		3,53,10,14,58	
		58,16,53,40,37,26,57		4,16
6″	53, 9,24,38, 7,17,30,57, 8,56		3,53,10,19,14	
		58,16,49,47,27, 7,43		4,16
8″	53, 9,25,36,24, 7,18,24,16,39		3,53,10,23,30	
		58,16,45,54,16,44,13		4,16
10″	53, 9,26,34,40,53,12,41, 0,52		3,53,10,27,46	
		58,16,42, 1, 6,16,27		4,16
12″	53, 9,27,32,57,35,13,47,17,19		3,53,10,32, 2	
		58,16,38, 7,55,44,25		4,16
14″	53, 9,28,31,14,13,21,43, 1,44		3,53,10,36,18	
		58,16,34,14,45, 8, 7		4,16
16″	53, 9,29,29,30,47,36,28, 9,51		3,53,10,40,34	
		58,16,30,21,34,27,33		4,16
18″	53, 9,30,27,47,17,58, 2,37,24		3,53,10,44,50	
		58,16,26,28,23,42,43		4,16
20″	53, 9,31,26, 3,44,26,26,20, 7		3,53,10,49, 6	
		58,16,22,35,12,53,37		4,16
22″	53, 9,32,24,20, 7, 1,39,13,44		3,53,10,53,22	
		58,16,18,42, 2, 0,15		4,16
24″	53, 9,33,22,36,25,43,41,13,59		3,53,10,57,38	
		58,16,14,48,51, 2,37		4,16
26″	53, 9,34,20,52,40,32,32,16,36		3,53,11, 1,54	
		58,16,10,55,40, 0,43		4,16
28″	53, 9,35,19, 8,51,28,12,17,19		3,53,11, 6,10	
		58,16, 7, 2,28,54,33		4,16
30″	53, 9,36,17,24,58,30,41,11,52		3,53,11,10,26	
		58,16, 3, 9,17,44, 7		4,16
32″	53, 9,37,15,41, 1,39,58,55,59		3,53,11,14,42	
		58,15,59,16, 6,29,25		4,16
34″	53, 9,38,13,57, 0,56, 5,25,24		3,53,11,18,58	
		58,15,55,22,55,10,27		4,16
36″	53, 9,39,12,12,56,19, 0,35,51		3,53,11,23,14	
		58,15,51,29,43,47,13		4,16
38″	53, 9,40,10,28,47,48,44,23, 4		3,53,11,27,30	
		58,15,47,36,32,19,43		4,16
40″	53, 9,41, 8,44,35,25,16,42,47		3,53,11,31,46	
		58,15,43,43,20,47,57		4,16
42″	53, 9,42, 7, 0,19, 8,37,30,44		3,53,11,36, 2	
		58,15,39,50, 9,11,55		4,16
44″	53, 9,43, 5,15,58,58,46,42,39		3,53,11,40,18	
		58,15,35,56,57,31,37		4,16
46″	53, 9,44, 3,31,34,55,44,14,16		3,53,11,44,34	
		58,15,32, 3,45,47, 3		4,16
48″	53, 9,45, 1,47, 6,59,30, 1,19		3,53,11,48,50	
		58,15,28,10,33,58,13		4,16
50″	53, 9,46, 0, 2,35,10, 3,59,32		3,53,11,53, 6	
		58,15,24,17,22, 5, 7		4,16
52″	53, 9,46,58,17,59,27,26, 4,39		3,53,11,57,22	
		58,15,20,24,10, 7,45		4,16
54″	53, 9,47,56,33,19,51,36,12,24		3,53,12, 1,38	
		58,15,16,30,58, 6, 7		4,16
56″	53, 9,48,54,48,36,22,34,18,31		3,53,12, 5,54	
		58,15,12,37,46, 0,13		4,16
58″	53, 9,49,53, 3,49, 0,20,18,44		3,53,12,10,10	
		58,15, 8,44,33,50, 3		
60″	53, 9,50,51,18,57,44,54, 8,47			
exact	53, 9,50,51,18,57,44,54,34,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°23′ 0″	53, 9,50,51,18,57,44,54,34,20			
		58,15, 4,51,21,38,27		
2″	53, 9,51,49,34, 2,36,16,12,47		3,53,12,18,30	
		58,15, 0,58, 9,19,57		4,16
4″	53, 9,52,47,49, 3,34,25,32,44		3,53,12,22,46	
		58,14,57, 4,56,57,11		4,16
6″	53, 9,53,46, 4, 0,39,22,29,55		3,53,12,27, 2	
		58,14,53,11,44,30, 9		4,16
8″	53, 9,54,44,18,53,51, 7, 0, 4		3,53,12,31,18	
		58,14,49,18,31,58,51		4,16
10″	53, 9,55,42,33,43, 9,38,58,55		3,53,12,35,34	
		58,14,45,25,19,23,17		4,16
12″	53, 9,56,40,48,28,34,58,22,12		3,53,12,39,50	
		58,14,41,32, 6,43,27		4,16
14″	53, 9,57,39, 3,10, 7, 5, 5,39		3,53,12,44, 6	
		58,14,37,38,53,59,21		4,16
16″	53, 9,58,37,17,47,45,59, 5, 0		3,53,12,48,22	
		58,14,33,45,41,10,59		4,16
18″	53, 9,59,35,32,21,31,40,15,59		3,53,12,52,38	
		58,14,29,52,28,18,21		4,16
20″	53,10, 0,33,46,51,24, 8,34,20		3,53,12,56,54	
		58,14,25,59,15,21,27		4,16
22″	53,10, 1,32, 1,17,23,23,55,47		3,53,13, 1,10	
		58,14,22, 6, 2,20,17		4,16
24″	53,10, 2,30,15,39,29,26,16, 4		3,53,13, 5,26	
		58,14,18,12,49,14,51		4,16
26″	53,10, 3,28,29,57,42,15,30,55		3,53,13, 9,42	
		58,14,14,19,36, 5, 9		4,16
28″	53,10, 4,26,44,12, 1,51,36, 4		3,53,13,13,58	
		58,14,10,26,22,51,11		4,16
30″	53,10, 5,24,58,22,28,14,27,15		3,53,13,18,14	
		58,14, 6,33, 9,32,57		4,16
32″	53,10, 6,23,12,29, 1,24, 0,12		3,53,13,22,30	
		58,14, 2,39,56,10,27		4,16
34″	53,10, 7,21,26,31,41,20,10,39		3,53,13,26,46	
		58,13,58,46,42,43,41		4,16
36″	53,10, 8,19,40,30,28, 2,54,20		3,53,13,31, 2	
		58,13,54,53,29,12,39		4,16
38″	53,10, 9,17,54,25,21,32, 6,59		3,53,13,35,18	
		58,13,51, 0,15,37,21		4,16
40″	53,10,10,16, 8,16,21,47,44,20		3,53,13,39,34	
		58,13,47, 7, 1,57,47		4,16
42″	53,10,11,14,22, 3,28,49,42, 7		3,53,13,43,50	
		58,13,43,13,48,13,57		4,16
44″	53,10,12,12,35,46,42,37,56, 4		3,53,13,48, 6	
		58,13,39,20,34,25,51		4,16
46″	53,10,13,10,49,26, 3,12,21,55		3,53,13,52,22	
		58,13,35,27,20,33,29		4,16
48″	53,10,14, 9, 3, 1,30,32,55,24		3,53,13,56,38	
		58,13,31,34, 6,36,51		4,16
50″	53,10,15, 7,16,33, 4,39,32,15		3,53,14, 0,54	
		58,13,27,40,52,35,57		4,16
52″	53,10,16, 5,30, 0,45,32, 8,12		3,53,14, 5,10	
		58,13,23,47,38,30,47		4,16
54″	53,10,17, 3,43,24,33,10,38,59		3,53,14, 9,26	
		58,13,19,54,24,21,21		4,16
56″	53,10,18, 1,56,44,27,35, 0,20		3,53,14,13,42	
		58,13,16, 1,10, 7,39		4,16
58″	53,10,19, 0,10, 0,28,45, 7,59		3,53,14,17,58	
		58,13,12, 7,55,49,41		
60″	53,10,19,58,23,12,36,40,57,40			
exact	53,10,19,58,23,12,36,41,35,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°24′ 0″	53,10,19,58,23,12,36,41,35,32			
		58,13, 8,14,41,31,30		
2″	53,10,20,56,36,20,51,23, 7, 2		3,53,14,26,13	
		58,13, 4,21,27, 5,17		4,15
4″	53,10,21,54,49,25,12,50,12,19		3,53,14,30,28	
		58,13, 0,28,12,34,49		4,15
6″	53,10,22,53, 2,25,41, 2,47, 8		3,53,14,34,43	
		58,12,56,34,58, 0, 6		4,15
8″	53,10,23,51,15,22,16, 0,47,14		3,53,14,38,58	
		58,12,52,41,43,21, 8		4,15
10″	53,10,24,49,28,14,57,44, 8,22		3,53,14,43,13	
		58,12,48,48,28,37,55		4,15
12″	53,10,25,47,41, 3,46,12,46,17		3,53,14,47,28	
		58,12,44,55,13,50,27		4,15
14″	53,10,26,45,53,48,41,26,36,44		3,53,14,51,43	
		58,12,41, 1,58,58,44		4,15
16″	53,10,27,44, 6,29,43,25,35,28		3,53,14,55,58	
		58,12,37, 8,44, 2,46		4,15
18″	53,10,28,42,19, 6,52, 9,38,14		3,53,15, 0,13	
		58,12,33,15,29, 2,33		4,15
20″	53,10,29,40,31,40, 7,38,40,47		3,53,15, 4,28	
		58,12,29,22,13,58, 5		4,15
22″	53,10,30,38,44, 9,29,52,38,52		3,53,15, 8,43	
		58,12,25,28,58,49,22		4,15
24″	53,10,31,36,56,34,58,51,28,14		3,53,15,12,58	
		58,12,21,35,43,36,24		4,15
26″	53,10,32,35, 8,56,34,35, 4,38		3,53,15,17,13	
		58,12,17,42,28,19,11		4,15
28″	53,10,33,33,21,14,17, 3,23,49		3,53,15,21,28	
		58,12,13,49,12,57,43		4,15
30″	53,10,34,31,33,28, 6,16,21,32		3,53,15,25,43	
		58,12, 9,55,57,32, 0		4,15
32″	53,10,35,29,45,38, 2,13,53,32		3,53,15,29,58	
		58,12, 6, 2,42, 2, 2		4,15
34″	53,10,36,27,57,44, 4,55,55,34		3,53,15,34,13	
		58,12, 2, 9,26,27,49		4,15
36″	53,10,37,26, 9,46,14,22,23,23		3,53,15,38,28	
		58,11,58,16,10,49,21		4,15
38″	53,10,38,24,21,44,30,33,12,44		3,53,15,42,43	
		58,11,54,22,55, 6,38		4,15
40″	53,10,39,22,33,38,53,28,19,22		3,53,15,46,58	
		58,11,50,29,39,19,40		4,15
42″	53,10,40,20,45,29,23, 7,39, 2		3,53,15,51,13	
		58,11,46,36,23,28,27		4,15
44″	53,10,41,18,57,15,59,31, 7,29		3,53,15,55,28	
		58,11,42,43, 7,32,59		4,15
46″	53,10,42,17, 8,58,42,38,40,28		3,53,15,59,43	
		58,11,38,49,51,33,16		4,15
48″	53,10,43,15,20,37,32,30,13,44		3,53,16, 3,58	
		58,11,34,56,35,29,18		4,15
50″	53,10,44,13,32,12,29, 5,43, 2		3,53,16, 8,13	
		58,11,31, 3,19,21, 5		4,15
52″	53,10,45,11,43,43,32,25, 4, 7		3,53,16,12,28	
		58,11,27,10, 3, 8,37		4,15
54″	53,10,46, 9,55,10,42,28,12,44		3,53,16,16,43	
		58,11,23,16,46,51,54		4,15
56″	53,10,47, 8, 6,33,59,15, 4,38		3,53,16,20,58	
		58,11,19,23,30,30,56		4,15
58″	53,10,48, 6,17,53,22,45,35,34		3,53,16,25,13	
		58,11,15,30,14, 5,43		
60″	53,10,49, 4,29, 8,52,59,41,17			
exact	53,10,49, 4,29, 8,52,59,18,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°25′ 0″	53,10,49, 4,29, 8,52,59,18,26			
		58,11,11,36,57,33,53		
2″	53,10,50, 2,40,20,29,56,52,19		3,53,16,33,52	
		58,11, 7,43,41, 0, 1		4,15
4″	53,10,51, 0,51,28,13,37,52,20		3,53,16,38, 7	
		58,11, 3,50,24,21,54		4,15
6″	53,10,51,59, 2,32, 4, 2,14,14		3,53,16,42,22	
		58,10,59,57, 7,39,32		4,15
8″	53,10,52,57,13,32, 1, 9,53,46		3,53,16,46,37	
		58,10,56, 3,50,52,55		4,15
10″	53,10,53,55,24,28, 5, 0,46,41		3,53,16,50,52	
		58,10,52,10,34, 2, 3		4,15
12″	53,10,54,53,35,20,15,34,48,44		3,53,16,55, 7	
		58,10,48,17,17, 6,56		4,15
14″	53,10,55,51,46, 8,32,51,55,40		3,53,16,59,22	
		58,10,44,24, 0, 7,34		4,15
16″	53,10,56,49,56,52,56,52, 3,14		3,53,17, 3,37	
		58,10,40,30,43, 3,57		4,15
18″	53,10,57,48, 7,33,27,35, 7,11		3,53,17, 7,52	
		58,10,36,37,25,56, 5		4,15
20″	53,10,58,46,18,10, 5, 1, 3,16		3,53,17,12, 7	
		58,10,32,44, 8,43,58		4,15
22″	53,10,59,44,28,42,49, 9,47,14		3,53,17,16,22	
		58,10,28,50,51,27,36		4,15
24″	53,11, 0,42,39,11,40, 1,14,50		3,53,17,20,37	
		58,10,24,57,34, 6,59		4,15
26″	53,11, 1,40,49,36,37,35,21,49		3,53,17,24,52	
		58,10,21, 4,16,42, 7		4,15
28″	53,11, 2,38,59,57,41,52, 3,56		3,53,17,29, 7	
		58,10,17,10,59,13, 0		4,15
30″	53,11, 3,37,10,14,52,51,16,56		3,53,17,33,22	
		58,10,13,17,41,39,38		4,15
32″	53,11, 4,35,20,28,10,32,56,34		3,53,17,37,37	
		58,10, 9,24,24, 2, 1		4,15
34″	53,11, 5,33,30,37,34,56,58,35		3,53,17,41,52	
		58,10, 5,31, 6,20, 9		4,15
36″	53,11, 6,31,40,43, 6, 3,18,44		3,53,17,46, 7	
		58,10, 1,37,48,34, 2		4,15
38″	53,11, 7,29,50,44,43,51,52,46		3,53,17,50,22	
		58, 9,57,44,30,43,40		4,15
40″	53,11, 8,28, 0,42,28,22,36,26		3,53,17,54,37	
		58, 9,53,51,12,49, 3		4,15
42″	53,11, 9,26,10,36,19,35,25,29		3,53,17,58,52	
		58, 9,49,57,54,50,11		4,15
44″	53,11,10,24,20,26,17,30,15,40		3,53,18, 3, 7	
		58, 9,46, 4,36,47, 4		4,15
46″	53,11,11,22,30,12,22, 7, 2,44		3,53,18, 7,22	
		58, 9,42,11,18,39,42		4,15
48″	53,11,12,20,39,54,33,25,42,26		3,53,18,11,37	
		58, 9,38,18, 0,28, 5		4,15
50″	53,11,13,18,49,32,51,26,10,31		3,53,18,15,52	
		58, 9,34,24,42,12,13		4,15
52″	53,11,14,16,59, 7,16, 8,22,44		3,53,18,20, 7	
		58, 9,30,31,23,52, 6		4,15
54″	53,11,15,15, 8,37,47,32,14,50		3,53,18,24,22	
		58, 9,26,38, 5,27,44		4,15
56″	53,11,16,13,18, 4,25,37,42,34		3,53,18,28,37	
		58, 9,22,44,46,59, 7		4,15
58″	53,11,17,11,27,27,10,24,41,41		3,53,18,32,52	
		58, 9,18,51,28,26,15		
60″	53,11,18, 9,36,46, 1,53, 7,56			
exact	53,11,18, 9,36,46, 1,52,54,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°26′ 0″	53,11,18, 9,36,46, 1,52,54,19			
		58, 9,14,58, 9,47,46		
2″	53,11,19, 7,46, 1, 0, 2,42, 5		3,53,18,41,27	
		58, 9,11, 4,51, 6,19		4,15
4″	53,11,20, 5,55,12, 4,53,48,24		3,53,18,45,42	
		58, 9, 7,11,32,20,37		4,15
6″	53,11,21, 4, 4,19,16,26, 9, 1		3,53,18,49,57	
		58, 9, 3,18,13,30,40		4,15
8″	53,11,22, 2,13,22,34,39,39,41		3,53,18,54,12	
		58, 8,59,24,54,36,28		4,15
10″	53,11,23, 0,22,21,59,34,16, 9		3,53,18,58,27	
		58, 8,55,31,35,38, 1		4,15
12″	53,11,23,58,31,17,31, 9,54,10		3,53,19, 2,42	
		58, 8,51,38,16,35,19		4,15
14″	53,11,24,56,40, 9, 9,26,29,29		3,53,19, 6,57	
		58, 8,47,44,57,28,22		4,15
16″	53,11,25,54,48,56,54,23,57,51		3,53,19,11,12	
		58, 8,43,51,38,17,10		4,15
18″	53,11,26,52,57,40,46, 2,15, 1		3,53,19,15,27	
		58, 8,39,58,19, 1,43		4,15
20″	53,11,27,51, 6,20,44,21,16,44		3,53,19,19,42	
		58, 8,36, 4,59,42, 1		4,15
22″	53,11,28,49,14,56,49,20,58,45		3,53,19,23,57	
		58, 8,32,11,40,18, 4		4,15
24″	53,11,29,47,23,29, 1, 1,16,49		3,53,19,28,12	
		58, 8,28,18,20,49,52		4,15
26″	53,11,30,45,31,57,19,22, 6,41		3,53,19,32,27	
		58, 8,24,25, 1,17,25		4,15
28″	53,11,31,43,40,21,44,23,24, 6		3,53,19,36,42	
		58, 8,20,31,41,40,43		4,15
30″	53,11,32,41,48,42,16, 5, 4,49		3,53,19,40,57	
		58, 8,16,38,21,59,46		4,15
32″	53,11,33,39,56,58,54,27, 4,35		3,53,19,45,12	
		58, 8,12,45, 2,14,34		4,15
34″	53,11,34,38, 5,11,39,29,19, 9		3,53,19,49,27	
		58, 8, 8,51,42,25, 7		4,15
36″	53,11,35,36,13,20,31,11,44,16		3,53,19,53,42	
		58, 8, 4,58,22,31,25		4,15
38″	53,11,36,34,21,25,29,34,15,41		3,53,19,57,57	
		58, 8, 1, 5, 2,33,28		4,15
40″	53,11,37,32,29,26,34,36,49, 9		3,53,20, 2,12	
		58, 7,57,11,42,31,16		4,15
42″	53,11,38,30,37,23,46,19,20,25		3,53,20, 6,27	
		58, 7,53,18,22,24,49		4,15
44″	53,11,39,28,45,17, 4,41,45,14		3,53,20,10,42	
		58, 7,49,25, 2,14, 7		4,15
46″	53,11,40,26,53, 6,29,43,59,21		3,53,20,14,57	
		58, 7,45,31,41,59,10		4,15
48″	53,11,41,25, 0,52, 1,25,58,31		3,53,20,19,12	
		58, 7,41,38,21,39,58		4,15
50″	53,11,42,23, 8,33,39,47,38,29		3,53,20,23,27	
		58, 7,37,45, 1,16,31		4,15
52″	53,11,43,21,16,11,24,48,55, 0		3,53,20,27,42	
		58, 7,33,51,40,48,49		4,15
54″	53,11,44,19,23,45,16,29,43,49		3,53,20,31,57	
		58, 7,29,58,20,16,52		4,15
56″	53,11,45,17,31,15,14,50, 0,41		3,53,20,36,12	
		58, 7,26, 4,59,40,40		4,15
58″	53,11,46,15,38,41,19,49,41,21		3,53,20,40,27	
		58, 7,22,11,39, 0,13		
60″	53,11,47,13,46, 3,31,28,41,34			
exact	53,11,47,13,46, 3,31,28,38,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°27′ 0″	53,11,47,13,46, 3,31,28,38,26			
		58, 7,18,18,18,15,15		
2″	53,11,48,11,53,21,49,46,53,41		3,53,20,48,57	
		58, 7,14,24,57,26,18		4,15
4″	53,11,49,10, 0,36,14,44,19,59		3,53,20,53,12	
		58, 7,10,31,36,33, 6		4,15
6″	53,11,50, 8, 7,46,46,20,53, 5		3,53,20,57,27	
		58, 7, 6,38,15,35,39		4,15
8″	53,11,51, 6,14,53,24,36,28,44		3,53,21, 1,42	
		58, 7, 2,44,54,33,57		4,15
10″	53,11,52, 4,21,56, 9,31, 2,41		3,53,21, 5,57	
		58, 6,58,51,33,28, 0		4,15
12″	53,11,53, 2,28,55, 1, 4,30,41		3,53,21,10,12	
		58, 6,54,58,12,17,48		4,15
14″	53,11,54, 0,35,49,59,16,48,29		3,53,21,14,27	
		58, 6,51, 4,51, 3,21		4,15
16″	53,11,54,58,42,41, 4, 7,51,50		3,53,21,18,42	
		58, 6,47,11,29,44,39		4,15
18″	53,11,55,56,49,28,15,37,36,29		3,53,21,22,57	
		58, 6,43,18, 8,21,42		4,15
20″	53,11,56,54,56,11,33,45,58,11		3,53,21,27,12	
		58, 6,39,24,46,54,30		4,15
22″	53,11,57,53, 2,50,58,32,52,41		3,53,21,31,27	
		58, 6,35,31,25,23, 3		4,15
24″	53,11,58,51, 9,26,29,58,15,44		3,53,21,35,42	
		58, 6,31,38, 3,47,21		4,15
26″	53,11,59,49,15,58, 8, 2, 3, 5		3,53,21,39,57	
		58, 6,27,44,42, 7,24		4,15
28″	53,12, 0,47,22,25,52,44,10,29		3,53,21,44,12	
		58, 6,23,51,20,23,12		4,15
30″	53,12, 1,45,28,49,44, 4,33,41		3,53,21,48,27	
		58, 6,19,57,58,34,45		4,15
32″	53,12, 2,43,35, 9,42, 3, 8,26		3,53,21,52,42	
		58, 6,16, 4,36,42, 3		4,15
34″	53,12, 3,41,41,25,46,39,50,29		3,53,21,56,57	
		58, 6,12,11,14,45, 6		4,15
36″	53,12, 4,39,47,37,57,54,35,35		3,53,22, 1,12	
		58, 6, 8,17,52,43,54		4,15
38″	53,12, 5,37,53,46,15,47,19,29		3,53,22, 5,27	
		58, 6, 4,24,30,38,27		4,15
40″	53,12, 6,35,59,50,40,17,57,56		3,53,22, 9,42	
		58, 6, 0,31, 8,28,45		4,15
42″	53,12, 7,34, 5,51,11,26,26,41		3,53,22,13,57	
		58, 5,56,37,46,14,48		4,15
44″	53,12, 8,32,11,47,49,12,41,29		3,53,22,18,12	
		58, 5,52,44,23,56,36		4,15
46″	53,12, 9,30,17,40,33,36,38, 5		3,53,22,22,27	
		58, 5,48,51, 1,34, 9		4,15
48″	53,12,10,28,23,29,24,38,12,14		3,53,22,26,42	
		58, 5,44,57,39, 7,27		4,15
50″	53,12,11,26,29,14,22,17,19,41		3,53,22,30,57	
		58, 5,41, 4,16,36,30		4,15
52″	53,12,12,24,34,55,26,33,56,11		3,53,22,35,12	
		58, 5,37,10,54, 1,18		4,15
54″	53,12,13,22,40,32,37,27,57,29		3,53,22,39,27	
		58, 5,33,17,31,21,51		4,15
56″	53,12,14,20,46, 5,54,59,19,20		3,53,22,43,42	
		58, 5,29,24, 8,38, 9		4,15
58″	53,12,15,18,51,35,19, 7,57,29		3,53,22,47,57	
		58, 5,25,30,45,50,12		
60″	53,12,16,16,57, 0,49,53,47,41			
exact	53,12,16,16,57, 0,49,53,49,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°28′ 0″	53,12,16,16,57, 0,49,53,49,59			
		58, 5,21,37,22,58,28		
2″	53,12,17,15, 2,22,27,16,48,27		3,53,22,56,24	
		58, 5,17,44, 0, 2, 4		4,15
4″	53,12,18,13, 7,40,11,16,50,31		3,53,23, 0,39	
		58, 5,13,50,37, 1,25		4,15
6″	53,12,19,11,12,54, 1,53,51,56		3,53,23, 4,54	
		58, 5, 9,57,13,56,31		4,15
8″	53,12,20, 9,18, 3,59, 7,48,27		3,53,23, 9, 9	
		58, 5, 6, 3,50,47,22		4,15
10″	53,12,21, 7,23,10, 2,58,35,49		3,53,23,13,24	
		58, 5, 2,10,27,33,58		4,15
12″	53,12,22, 5,28,12,13,26, 9,47		3,53,23,17,39	
		58, 4,58,17, 4,16,19		4,15
14″	53,12,23, 3,33,10,30,30,26, 6		3,53,23,21,54	
		58, 4,54,23,40,54,25		4,15
16″	53,12,24, 1,38, 4,54,11,20,31		3,53,23,26, 9	
		58, 4,50,30,17,28,16		4,15
18″	53,12,24,59,42,55,24,28,48,47		3,53,23,30,24	
		58, 4,46,36,53,57,52		4,15
20″	53,12,25,57,47,42, 1,22,46,39		3,53,23,34,39	
		58, 4,42,43,30,23,13		4,15
22″	53,12,26,55,52,24,44,53, 9,52		3,53,23,38,54	
		58, 4,38,50, 6,44,19		4,15
24″	53,12,27,53,57, 3,34,59,54,11		3,53,23,43, 9	
		58, 4,34,56,43, 1,10		4,15
26″	53,12,28,52, 1,38,31,42,55,21		3,53,23,47,24	
		58, 4,31, 3,19,13,46		4,15
28″	53,12,29,50, 6, 9,35, 2, 9, 7		3,53,23,51,39	
		58, 4,27, 9,55,22, 7		4,15
30″	53,12,30,48,10,36,44,57,31,14		3,53,23,55,54	
		58, 4,23,16,31,26,13		4,15
32″	53,12,31,46,15, 0, 1,28,57,27		3,53,24, 0, 9	
		58, 4,19,23, 7,26, 4		4,15
34″	53,12,32,44,19,19,24,36,23,31		3,53,24, 4,24	
		58, 4,15,29,43,21,40		4,15
36″	53,12,33,42,23,34,54,19,45,11		3,53,24, 8,39	
		58, 4,11,36,19,13, 1		4,15
38″	53,12,34,40,27,46,30,38,58,12		3,53,24,12,54	
		58, 4, 7,42,55, 0, 7		4,15
40″	53,12,35,38,31,54,13,33,58,19		3,53,24,17, 9	
		58, 4, 3,49,30,42,58		4,15
42″	53,12,36,36,35,58, 3, 4,41,17		3,53,24,21,24	
		58, 3,59,56, 6,21,34		4,15
44″	53,12,37,34,39,57,59,11, 2,51		3,53,24,25,39	
		58, 3,56, 2,41,55,55		4,15
46″	53,12,38,32,43,54, 1,52,58,46		3,53,24,29,54	
		58, 3,52, 9,17,26, 1		4,15
48″	53,12,39,30,47,46,11,10,24,47		3,53,24,34, 9	
		58, 3,48,15,52,51,52		4,15
50″	53,12,40,28,51,34,27, 3,16,39		3,53,24,38,24	
		58, 3,44,22,28,13,28		4,15
52″	53,12,41,26,55,18,49,31,30, 7		3,53,24,42,39	
		58, 3,40,29, 3,30,49		4,15
54″	53,12,42,24,58,59,18,35, 0,56		3,53,24,46,54	
		58, 3,36,35,38,43,55		4,15
56″	53,12,43,23, 2,35,54,13,44,51		3,53,24,51, 9	
		58, 3,32,42,13,52,46		4,15
58″	53,12,44,21, 6, 8,36,27,37,37		3,53,24,55,24	
		58, 3,28,48,48,57,22		
60″	53,12,45,19, 9,37,25,16,34,59			
exact	53,12,45,19, 9,37,25,16,52, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°29′ 0″	53,12,45,19, 9,37,25,16,52, 9			
		58, 3,24,55,23,59,34		
2″	53,12,46,17,13, 2,20,40,51,43		3,53,25, 3,46	
		58, 3,21, 1,58,55,48		4,15
4″	53,12,47,15,16,23,22,39,47,31		3,53,25, 8, 1	
		58, 3,17, 8,33,47,47		4,15
6″	53,12,48,13,19,40,31,13,35,18		3,53,25,12,16	
		58, 3,13,15, 8,35,31		4,15
8″	53,12,49,11,22,53,46,22,10,49		3,53,25,16,31	
		58, 3, 9,21,43,19, 0		4,15
10″	53,12,50, 9,26, 3, 8, 5,29,49		3,53,25,20,46	
		58, 3, 5,28,17,58,14		4,15
12″	53,12,51, 7,29, 8,36,23,28, 3		3,53,25,25, 1	
		58, 3, 1,34,52,33,13		4,15
14″	53,12,52, 5,32,10,11,16, 1,16		3,53,25,29,16	
		58, 2,57,41,27, 3,57		4,15
16″	53,12,53, 3,35, 7,52,43, 5,13		3,53,25,33,31	
		58, 2,53,48, 1,30,26		4,15
18″	53,12,54, 1,38, 1,40,44,35,39		3,53,25,37,46	
		58, 2,49,54,35,52,40		4,15
20″	53,12,54,59,40,51,35,20,28,19		3,53,25,42, 1	
		58, 2,46, 1,10,10,39		4,15
22″	53,12,55,57,43,37,36,30,38,58		3,53,25,46,16	
		58, 2,42, 7,44,24,23		4,15
24″	53,12,56,55,46,19,44,15, 3,21		3,53,25,50,31	
		58, 2,38,14,18,33,52		4,15
26″	53,12,57,53,48,57,58,33,37,13		3,53,25,54,46	
		58, 2,34,20,52,39, 6		4,15
28″	53,12,58,51,51,32,19,26,16,19		3,53,25,59, 1	
		58, 2,30,27,26,40, 5		4,15
30″	53,12,59,49,54, 2,46,52,56,24		3,53,26, 3,16	
		58, 2,26,34, 0,36,49		4,15
32″	53,13, 0,47,56,29,20,53,33,13		3,53,26, 7,31	
		58, 2,22,40,34,29,18		4,15
34″	53,13, 1,45,58,52, 1,28, 2,31		3,53,26,11,46	
		58, 2,18,47, 8,17,32		4,15
36″	53,13, 2,44, 1,10,48,36,20, 3		3,53,26,16, 1	
		58, 2,14,53,42, 1,31		4,15
38″	53,13, 3,42, 3,25,42,18,21,34		3,53,26,20,16	
		58, 2,11, 0,15,41,15		4,15
40″	53,13, 4,40, 5,36,42,34, 2,49		3,53,26,24,31	
		58, 2, 7, 6,49,16,44		4,15
42″	53,13, 5,38, 7,43,49,23,19,33		3,53,26,28,46	
		58, 2, 3,13,22,47,58		4,15
44″	53,13, 6,36, 9,47, 2,46, 7,31		3,53,26,33, 1	
		58, 1,59,19,56,14,57		4,15
46″	53,13, 7,34,11,46,22,42,22,28		3,53,26,37,16	
		58, 1,55,26,29,37,41		4,15
48″	53,13, 8,32,13,41,49,12, 0, 9		3,53,26,41,31	
		58, 1,51,33, 2,56,10		4,15
50″	53,13, 9,30,15,33,22,14,56,19		3,53,26,45,46	
		58, 1,47,39,36,10,24		4,15
52″	53,13,10,28,17,21, 1,51, 6,43		3,53,26,50, 1	
		58, 1,43,46, 9,20,23		4,15
54″	53,13,11,26,19, 4,48, 0,27, 6		3,53,26,54,16	
		58, 1,39,52,42,26, 7		4,15
56″	53,13,12,24,20,44,40,42,53,13		3,53,26,58,31	
		58, 1,35,59,15,27,36		4,15
58″	53,13,13,22,22,20,39,58,20,49		3,53,27, 2,46	
		58, 1,32, 5,48,24,50		
60″	53,13,14,20,23,52,45,46,45,39			
exact	53,13,14,20,23,52,45,47,12, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°30′ 0″	53,13,14,20,23,52,45,47,12, 7			
		58, 1,28,12,21,20,41		
2″	53,13,15,18,25,20,58, 8,32,48		3,53,27,11, 4	
		58, 1,24,18,54, 9,37		4,15
4″	53,13,16,16,26,45,17, 2,42,25		3,53,27,15,19	
		58, 1,20,25,26,54,18		4,15
6″	53,13,17,14,28, 5,42,29,36,43		3,53,27,19,34	
		58, 1,16,31,59,34,44		4,15
8″	53,13,18,12,29,22,14,29,11,27		3,53,27,23,49	
		58, 1,12,38,32,10,55		4,15
10″	53,13,19,10,30,34,53, 1,22,22		3,53,27,28, 4	
		58, 1, 8,45, 4,42,51		4,15
12″	53,13,20, 8,31,43,38, 6, 5,13		3,53,27,32,19	
		58, 1, 4,51,37,10,32		4,15
14″	53,13,21, 6,32,48,29,43,15,45		3,53,27,36,34	
		58, 1, 0,58, 9,33,58		4,15
16″	53,13,22, 4,33,49,27,52,49,43		3,53,27,40,49	
		58, 0,57, 4,41,53, 9		4,15
18″	53,13,23, 2,34,46,32,34,42,52		3,53,27,45, 4	
		58, 0,53,11,14, 8, 5		4,15
20″	53,13,24, 0,35,39,43,48,50,57		3,53,27,49,19	
		58, 0,49,17,46,18,46		4,15
22″	53,13,24,58,36,29, 1,35, 9,43		3,53,27,53,34	
		58, 0,45,24,18,25,12		4,15
24″	53,13,25,56,37,14,25,53,34,55		3,53,27,57,49	
		58, 0,41,30,50,27,23		4,15
26″	53,13,26,54,37,55,56,44, 2,18		3,53,28, 2, 4	
		58, 0,37,37,22,25,19		4,15
28″	53,13,27,52,38,33,34, 6,27,37		3,53,28, 6,19	
		58, 0,33,43,54,19, 0		4,15
30″	53,13,28,50,39, 7,18, 0,46,37		3,53,28,10,34	
		58, 0,29,50,26, 8,26		4,15
32″	53,13,29,48,39,37, 8,26,55, 3		3,53,28,14,49	
		58, 0,25,56,57,53,37		4,15
34″	53,13,30,46,40, 3, 5,24,48,40		3,53,28,19, 4	
		58, 0,22, 3,29,34,33		4,15
36″	53,13,31,44,40,25, 8,54,23,13		3,53,28,23,19	
		58, 0,18,10, 1,11,14		4,15
38″	53,13,32,42,40,43,18,55,34,27		3,53,28,27,34	
		58, 0,14,16,32,43,40		4,15
40″	53,13,33,40,40,57,35,28,18, 7		3,53,28,31,49	
		58, 0,10,23, 4,11,51		4,15
42″	53,13,34,38,41, 7,58,32,29,58		3,53,28,36, 4	
		58, 0, 6,29,35,35,47		4,15
44″	53,13,35,36,41,14,28, 8, 5,45		3,53,28,40,19	
		58, 0, 2,36, 6,55,28		4,15
46″	53,13,36,34,41,17, 4,15, 1,13		3,53,28,44,34	
		57,59,58,42,38,10,54		4,15
48″	53,13,37,32,41,15,46,53,12, 7		3,53,28,48,49	
		57,59,54,49, 9,22, 5		4,15
50″	53,13,38,30,41,10,36, 2,34,12		3,53,28,53, 4	
		57,59,50,55,40,29, 1		4,15
52″	53,13,39,28,41, 1,31,43, 3,13		3,53,28,57,19	
		57,59,47, 2,11,31,42		4,15
54″	53,13,40,26,40,48,33,54,34,55		3,53,29, 1,34	
		57,59,43, 8,42,30, 8		4,15
56″	53,13,41,24,40,31,42,37, 5, 3		3,53,29, 5,49	
		57,59,39,15,13,24,19		4,15
58″	53,13,42,22,40,10,57,50,29,22		3,53,29,10, 4	
		57,59,35,21,44,14,15		
60″	53,13,43,20,39,46,19,34,43,37			
exact	53,13,43,20,39,46,19,35,21, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°31′ 0″	53,13,43,20,39,46,19,35,21, 2			
		57,59,31,28,15, 3,56		
2″	53,13,44,18,39,17,47,50,24,58		3,53,29,18,17	
		57,59,27,34,45,45,39		4,14
4″	53,13,45,16,38,45,22,36,10,37		3,53,29,22,31	
		57,59,23,41,16,23, 8		4,14
6″	53,13,46,14,38, 9, 3,52,33,45		3,53,29,26,45	
		57,59,19,47,46,56,23		4,14
8″	53,13,47,12,37,28,51,39,30, 8		3,53,29,30,59	
		57,59,15,54,17,25,24		4,14
10″	53,13,48,10,36,44,45,56,55,32		3,53,29,35,13	
		57,59,12, 0,47,50,11		4,14
12″	53,13,49, 8,35,56,46,44,45,43		3,53,29,39,27	
		57,59, 8, 7,18,10,44		4,14
14″	53,13,50, 6,35, 4,54, 2,56,27		3,53,29,43,41	
		57,59, 4,13,48,27, 3		4,14
16″	53,13,51, 4,34, 9, 7,51,23,30		3,53,29,47,55	
		57,59, 0,20,18,39, 8		4,14
18″	53,13,52, 2,33, 9,28,10, 2,38		3,53,29,52, 9	
		57,58,56,26,48,46,59		4,14
20″	53,13,53, 0,32, 5,54,58,49,37		3,53,29,56,23	
		57,58,52,33,18,50,36		4,14
22″	53,13,53,58,30,58,28,17,40,13		3,53,30, 0,37	
		57,58,48,39,48,49,59		4,14
24″	53,13,54,56,29,47, 8, 6,30,12		3,53,30, 4,51	
		57,58,44,46,18,45, 8		4,14
26″	53,13,55,54,28,31,54,25,15,20		3,53,30, 9, 5	
		57,58,40,52,48,36, 3		4,14
28″	53,13,56,52,27,12,47,13,51,23		3,53,30,13,19	
		57,58,36,59,18,22,44		4,14
30″	53,13,57,50,25,49,46,32,14, 7		3,53,30,17,33	
		57,58,33, 5,48, 5,11		4,14
32″	53,13,58,48,24,22,52,20,19,18		3,53,30,21,47	
		57,58,29,12,17,43,24		4,14
34″	53,13,59,46,22,52, 4,38, 2,42		3,53,30,26, 1	
		57,58,25,18,47,17,23		4,14
36″	53,14, 0,44,21,17,23,25,20, 5		3,53,30,30,15	
		57,58,21,25,16,47, 8		4,14
38″	53,14, 1,42,19,38,48,42, 7,13		3,53,30,34,29	
		57,58,17,31,46,12,39		4,14
40″	53,14, 2,40,17,56,20,28,19,52		3,53,30,38,43	
		57,58,13,38,15,33,56		4,14
42″	53,14, 3,38,16, 9,58,43,53,48		3,53,30,42,57	
		57,58, 9,44,44,50,59		4,14
44″	53,14, 4,36,14,19,43,28,44,47		3,53,30,47,11	
		57,58, 5,51,14, 3,48		4,14
46″	53,14, 5,34,12,25,34,42,48,35		3,53,30,51,25	
		57,58, 1,57,43,12,23		4,14
48″	53,14, 6,32,10,27,32,26, 0,58		3,53,30,55,39	
		57,57,58, 4,12,16,44		4,14
50″	53,14, 7,30, 8,25,36,38,17,42		3,53,30,59,53	
		57,57,54,10,41,16,51		4,14
52″	53,14, 8,28, 6,19,47,19,34,33		3,53,31, 4, 7	
		57,57,50,17,10,12,44		4,14
54″	53,14, 9,26, 4,10, 4,29,47,17		3,53,31, 8,21	
		57,57,46,23,39, 4,23		4,14
56″	53,14,10,24, 1,56,28, 8,51,40		3,53,31,12,35	
		57,57,42,30, 7,51,48		4,14
58″	53,14,11,21,59,38,58,16,43,28		3,53,31,16,49	
		57,57,38,36,36,34,59		
60″	53,14,12,19,57,17,34,53,18,27			
exact	53,14,12,19,57,17,34,52,54, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°32′ 0″	53,14,12,19,57,17,34,52,54, 4			
		57,57,34,43, 5,11,27		
2″	53,14,13,17,54,52,17,58, 5,31		3,53,31,25,26	
		57,57,30,49,33,46, 1		4,14
4″	53,14,14,15,52,23, 7,31,51,32		3,53,31,29,40	
		57,57,26,56, 2,16,21		4,14
6″	53,14,15,13,49,50, 3,34, 7,53		3,53,31,33,54	
		57,57,23, 2,30,42,27		4,14
8″	53,14,16,11,47,13, 6, 4,50,20		3,53,31,38, 8	
		57,57,19, 8,59, 4,19		4,14
10″	53,14,17, 9,44,32,15, 3,54,39		3,53,31,42,22	
		57,57,15,15,27,21,57		4,14
12″	53,14,18, 7,41,47,30,31,16,36		3,53,31,46,36	
		57,57,11,21,55,35,21		4,14
14″	53,14,19, 5,38,58,52,26,51,57		3,53,31,50,50	
		57,57, 7,28,23,44,31		4,14
16″	53,14,20, 3,36, 6,20,50,36,28		3,53,31,55, 4	
		57,57, 3,34,51,49,27		4,14
18″	53,14,21, 1,33, 9,55,42,25,55		3,53,31,59,18	
		57,56,59,41,19,50, 9		4,14
20″	53,14,21,59,30, 9,37, 2,16, 4		3,53,32, 3,32	
		57,56,55,47,47,46,37		4,14
22″	53,14,22,57,27, 5,24,50, 2,41		3,53,32, 7,46	
		57,56,51,54,15,38,51		4,14
24″	53,14,23,55,23,57,19, 5,41,32		3,53,32,12, 0	
		57,56,48, 0,43,26,51		4,14
26″	53,14,24,53,20,45,19,49, 8,23		3,53,32,16,14	
		57,56,44, 7,11,10,37		4,14
28″	53,14,25,51,17,29,27, 0,19, 0		3,53,32,20,28	
		57,56,40,13,38,50, 9		4,14
30″	53,14,26,49,14, 9,40,39, 9, 9		3,53,32,24,42	
		57,56,36,20, 6,25,27		4,14
32″	53,14,27,47,10,46, 0,45,34,36		3,53,32,28,56	
		57,56,32,26,33,56,31		4,14
34″	53,14,28,45, 7,18,27,19,31, 7		3,53,32,33,10	
		57,56,28,33, 1,23,21		4,14
36″	53,14,29,43, 3,47, 0,20,54,28		3,53,32,37,24	
		57,56,24,39,28,45,57		4,14
38″	53,14,30,41, 0,11,39,49,40,25		3,53,32,41,38	
		57,56,20,45,56, 4,19		4,14
40″	53,14,31,38,56,32,25,45,44,44		3,53,32,45,52	
		57,56,16,52,23,18,27		4,14
42″	53,14,32,36,52,49,18, 9, 3,11		3,53,32,50, 6	
		57,56,12,58,50,28,21		4,14
44″	53,14,33,34,49, 2,16,59,31,32		3,53,32,54,20	
		57,56, 9, 5,17,34, 1		4,14
46″	53,14,34,32,45,11,22,17, 5,33		3,53,32,58,34	
		57,56, 5,11,44,35,27		4,14
48″	53,14,35,30,41,16,34, 1,41, 0		3,53,33, 2,48	
		57,56, 1,18,11,32,39		4,14
50″	53,14,36,28,37,17,52,13,13,39		3,53,33, 7, 2	
		57,55,57,24,38,25,37		4,14
52″	53,14,37,26,33,15,16,51,39,16		3,53,33,11,16	
		57,55,53,31, 5,14,21		4,14
54″	53,14,38,24,29, 8,47,56,53,37		3,53,33,15,30	
		57,55,49,37,31,58,51		4,14
56″	53,14,39,22,24,58,25,28,52,28		3,53,33,19,44	
		57,55,45,43,58,39, 7		4,14
58″	53,14,40,20,20,44, 9,27,31,35		3,53,33,23,58	
		57,55,41,50,25,15, 9		
60″	53,14,41,18,16,25,59,52,46,44			
exact	53,14,41,18,16,25,59,52,30,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°33′ 0″	53,14,41,18,16,25,59,52,30,23			
		57,55,37,56,51,45,23		
2″	53,14,42,16,12, 3,56,44,15,46		3,53,33,32,31	
		57,55,34, 3,18,12,52		4,14
4″	53,14,43,14, 7,38, 0, 2,28,38		3,53,33,36,45	
		57,55,30, 9,44,36, 7		4,14
6″	53,14,44,12, 3, 8, 9,47, 4,45		3,53,33,40,59	
		57,55,26,16,10,55, 8		4,14
8″	53,14,45, 9,58,34,25,57,59,53		3,53,33,45,13	
		57,55,22,22,37, 9,55		4,14
10″	53,14,46, 7,53,56,48,35, 9,48		3,53,33,49,27	
		57,55,18,29, 3,20,28		4,14
12″	53,14,47, 5,49,15,17,38,30,16		3,53,33,53,41	
		57,55,14,35,29,26,47		4,14
14″	53,14,48, 3,44,29,53, 7,57, 3		3,53,33,57,55	
		57,55,10,41,55,28,52		4,14
16″	53,14,49, 1,39,40,35, 3,25,55		3,53,34, 2, 9	
		57,55, 6,48,21,26,43		4,14
18″	53,14,49,59,34,47,23,24,52,38		3,53,34, 6,23	
		57,55, 2,54,47,20,20		4,14
20″	53,14,50,57,29,50,18,12,12,58		3,53,34,10,37	
		57,54,59, 1,13, 9,43		4,14
22″	53,14,51,55,24,49,19,25,22,41		3,53,34,14,51	
		57,54,55, 7,38,54,52		4,14
24″	53,14,52,53,19,44,27, 4,17,33		3,53,34,19, 5	
		57,54,51,14, 4,35,47		4,14
26″	53,14,53,51,14,35,41, 8,53,20		3,53,34,23,19	
		57,54,47,20,30,12,28		4,14
28″	53,14,54,49, 9,23, 1,39, 5,48		3,53,34,27,33	
		57,54,43,26,55,44,55		4,14
30″	53,14,55,47, 4, 6,28,34,50,43		3,53,34,31,47	
		57,54,39,33,21,13, 8		4,14
32″	53,14,56,44,58,46, 1,56, 3,51		3,53,34,36, 1	
		57,54,35,39,46,37, 7		4,14
34″	53,14,57,42,53,21,41,42,40,58		3,53,34,40,15	
		57,54,31,46,11,56,52		4,14
36″	53,14,58,40,47,53,27,54,37,50		3,53,34,44,29	
		57,54,27,52,37,12,23		4,14
38″	53,14,59,38,42,21,20,31,50,13		3,53,34,48,43	
		57,54,23,59, 2,23,40		4,14
40″	53,15, 0,36,36,45,19,34,13,53		3,53,34,52,57	
		57,54,20, 5,27,30,43		4,14
42″	53,15, 1,34,31, 5,25, 1,44,36		3,53,34,57,11	
		57,54,16,11,52,33,32		4,14
44″	53,15, 2,32,25,21,36,54,18, 8		3,53,35, 1,25	
		57,54,12,18,17,32, 7		4,14
46″	53,15, 3,30,19,33,55,11,50,15		3,53,35, 5,39	
		57,54, 8,24,42,26,28		4,14
48″	53,15, 4,28,13,42,19,54,16,43		3,53,35, 9,53	
		57,54, 4,31, 7,16,35		4,14
50″	53,15, 5,26, 7,46,51, 1,33,18		3,53,35,14, 7	
		57,54, 0,37,32, 2,28		4,14
52″	53,15, 6,24, 1,47,28,33,35,46		3,53,35,18,21	
		57,53,56,43,56,44, 7		4,14
54″	53,15, 7,21,55,44,12,30,19,53		3,53,35,22,35	
		57,53,52,50,21,21,32		4,14
56″	53,15, 8,19,49,37, 2,51,41,25		3,53,35,26,49	
		57,53,48,56,45,54,43		4,14
58″	53,15, 9,17,43,25,59,37,36, 8		3,53,35,31, 3	
		57,53,45, 3,10,23,40		
60″	53,15,10,15,37,11, 2,47,59,48			
exact	53,15,10,15,37,11, 2,47,53,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°34′ 0″	53,15,10,15,37,11, 2,47,53,11			
		57,53,41, 9,34,47,52		
2″	53,15,11,13,30,52,12,22,41, 3		3,53,35,39,32	
		57,53,37,15,59, 8,20		4,14
4″	53,15,12,11,24,29,28,21,49,23		3,53,35,43,46	
		57,53,33,22,23,24,34		4,14
6″	53,15,13, 9,18, 2,50,45,13,57		3,53,35,48, 0	
		57,53,29,28,47,36,34		4,14
8″	53,15,14, 7,11,32,19,32,50,31		3,53,35,52,14	
		57,53,25,35,11,44,20		4,14
10″	53,15,15, 5, 4,57,54,44,34,51		3,53,35,56,28	
		57,53,21,41,35,47,52		4,14
12″	53,15,16, 2,58,19,36,20,22,43		3,53,36, 0,42	
		57,53,17,47,59,47,10		4,14
14″	53,15,17, 0,51,37,24,20, 9,53		3,53,36, 4,56	
		57,53,13,54,23,42,14		4,14
16″	53,15,17,58,44,51,18,43,52, 7		3,53,36, 9,10	
		57,53,10, 0,47,33, 4		4,14
18″	53,15,18,56,38, 1,19,31,25,11		3,53,36,13,24	
		57,53, 6, 7,11,19,40		4,14
20″	53,15,19,54,31, 7,26,42,44,51		3,53,36,17,38	
		57,53, 2,13,35, 2, 2		4,14
22″	53,15,20,52,24, 9,40,17,46,53		3,53,36,21,52	
		57,52,58,19,58,40,10		4,14
24″	53,15,21,50,17, 8, 0,16,27, 3		3,53,36,26, 6	
		57,52,54,26,22,14, 4		4,14
26″	53,15,22,48,10, 2,26,38,41, 7		3,53,36,30,20	
		57,52,50,32,45,43,44		4,14
28″	53,15,23,46, 2,52,59,24,24,51		3,53,36,34,34	
		57,52,46,39, 9, 9,10		4,14
30″	53,15,24,43,55,39,38,33,34, 1		3,53,36,38,48	
		57,52,42,45,32,30,22		4,14
32″	53,15,25,41,48,22,24, 6, 4,23		3,53,36,43, 2	
		57,52,38,51,55,47,20		4,14
34″	53,15,26,39,41, 1,16, 1,51,43		3,53,36,47,16	
		57,52,34,58,19, 0, 4		4,14
36″	53,15,27,37,33,36,14,20,51,47		3,53,36,51,30	
		57,52,31, 4,42, 8,34		4,14
38″	53,15,28,35,26, 7,19, 3, 0,21		3,53,36,55,44	
		57,52,27,11, 5,12,50		4,14
40″	53,15,29,33,18,34,30, 8,13,11		3,53,36,59,58	
		57,52,23,17,28,12,52		4,14
42″	53,15,30,31,10,57,47,36,26, 3		3,53,37, 4,12	
		57,52,19,23,51, 8,40		4,14
44″	53,15,31,29, 3,17,11,27,34,43		3,53,37, 8,26	
		57,52,15,30,14, 0,14		4,14
46″	53,15,32,26,55,32,41,41,34,57		3,53,37,12,40	
		57,52,11,36,36,47,34		4,14
48″	53,15,33,24,47,44,18,18,22,31		3,53,37,16,54	
		57,52, 7,42,59,30,40		4,14
50″	53,15,34,22,39,52, 1,17,53,11		3,53,37,21, 8	
		57,52, 3,49,22, 9,32		4,14
52″	53,15,35,20,31,55,50,40, 2,43		3,53,37,25,22	
		57,51,59,55,44,44,10		4,14
54″	53,15,36,18,23,55,46,24,46,53		3,53,37,29,36	
		57,51,56, 2, 7,14,34		4,14
56″	53,15,37,16,15,51,48,32, 1,27		3,53,37,33,50	
		57,51,52, 8,29,40,44		4,14
58″	53,15,38,14, 7,43,57, 1,42,11		3,53,37,38, 4	
		57,51,48,14,52, 2,40		
60″	53,15,39,11,59,32,11,53,44,51			
exact	53,15,39,11,59,32,11,53,49,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°35′ 0″	53,15,39,11,59,32,11,53,49,41			
		57,51,44,21,14,21, 1		
2″	53,15,40, 9,51,16,33, 8,10,42		3,53,37,46,29	
		57,51,40,27,36,34,32		4,14
4″	53,15,41, 7,42,57, 0,44,45,14		3,53,37,50,43	
		57,51,36,33,58,43,49		4,14
6″	53,15,42, 5,34,33,34,43,29, 3		3,53,37,54,57	
		57,51,32,40,20,48,52		4,14
8″	53,15,43, 3,26, 6,15, 4,17,55		3,53,37,59,11	
		57,51,28,46,42,49,41		4,14
10″	53,15,44, 1,17,35, 1,47, 7,36		3,53,38, 3,25	
		57,51,24,53, 4,46,16		4,14
12″	53,15,44,59, 8,59,54,51,53,52		3,53,38, 7,39	
		57,51,20,59,26,38,37		4,14
14″	53,15,45,57, 0,20,54,18,32,29		3,53,38,11,53	
		57,51,17, 5,48,26,44		4,14
16″	53,15,46,54,51,38, 0, 6,59,13		3,53,38,16, 7	
		57,51,13,12,10,10,37		4,14
18″	53,15,47,52,42,51,12,17, 9,50		3,53,38,20,21	
		57,51, 9,18,31,50,16		4,14
20″	53,15,48,50,34, 0,30,49, 0, 6		3,53,38,24,35	
		57,51, 5,24,53,25,41		4,14
22″	53,15,49,48,25, 5,55,42,25,47		3,53,38,28,49	
		57,51, 1,31,14,56,52		4,14
24″	53,15,50,46,16, 7,26,57,22,39		3,53,38,33, 3	
		57,50,57,37,36,23,49		4,14
26″	53,15,51,44, 7, 5, 4,33,46,28		3,53,38,37,17	
		57,50,53,43,57,46,32		4,14
28″	53,15,52,41,57,58,48,31,33, 0		3,53,38,41,31	
		57,50,49,50,19, 5, 1		4,14
30″	53,15,53,39,48,48,38,50,38, 1		3,53,38,45,45	
		57,50,45,56,40,19,16		4,14
32″	53,15,54,37,39,34,35,30,57,17		3,53,38,49,59	
		57,50,42, 3, 1,29,17		4,14
34″	53,15,55,35,30,16,38,32,26,34		3,53,38,54,13	
		57,50,38, 9,22,35, 4		4,14
36″	53,15,56,33,20,54,47,55, 1,38		3,53,38,58,27	
		57,50,34,15,43,36,37		4,14
38″	53,15,57,31,11,29, 3,38,38,15		3,53,39, 2,41	
		57,50,30,22, 4,33,56		4,14
40″	53,15,58,29, 1,59,25,43,12,11		3,53,39, 6,55	
		57,50,26,28,25,27, 1		4,14
42″	53,15,59,26,52,25,54, 8,39,12		3,53,39,11, 9	
		57,50,22,34,46,15,52		4,14
44″	53,16, 0,24,42,48,28,54,55, 4		3,53,39,15,23	
		57,50,18,41, 7, 0,29		4,14
46″	53,16, 1,22,33, 7,10, 1,55,33		3,53,39,19,37	
		57,50,14,47,27,40,52		4,14
48″	53,16, 2,20,23,21,57,29,36,25		3,53,39,23,51	
		57,50,10,53,48,17, 1		4,14
50″	53,16, 3,18,13,32,51,17,53,26		3,53,39,28, 5	
		57,50, 7, 0, 8,48,56		4,14
52″	53,16, 4,16, 3,39,51,26,42,22		3,53,39,32,19	
		57,50, 3, 6,29,16,37		4,14
54″	53,16, 5,13,53,42,57,55,58,59		3,53,39,36,33	
		57,49,59,12,49,40, 4		4,14
56″	53,16, 6,11,43,42,10,45,39, 3		3,53,39,40,47	
		57,49,55,19, 9,59,17		4,14
58″	53,16, 7, 9,33,37,29,55,38,20		3,53,39,45, 1	
		57,49,51,25,30,14,16		
60″	53,16, 8, 7,23,28,55,25,52,36			
exact	53,16, 8, 7,23,28,55,26,11,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°36′ 0″	53,16, 8, 7,23,28,55,26,11,10			
		57,49,47,31,50,26,58		
2″	53,16, 9, 5,13,16,27,16,38, 8		3,53,39,53,21	
		57,49,43,38,10,33,37		4,14
4″	53,16,10, 3, 3, 0, 5,27,11,45		3,53,39,57,35	
		57,49,39,44,30,36, 2		4,14
6″	53,16,11, 0,52,39,49,57,47,47		3,53,40, 1,49	
		57,49,35,50,50,34,13		4,14
8″	53,16,11,58,42,15,40,48,22, 0		3,53,40, 6, 3	
		57,49,31,57,10,28,10		4,14
10″	53,16,12,56,31,47,37,58,50,10		3,53,40,10,17	
		57,49,28, 3,30,17,53		4,14
12″	53,16,13,54,21,15,41,29, 8, 3		3,53,40,14,31	
		57,49,24, 9,50, 3,22		4,14
14″	53,16,14,52,10,39,51,19,11,25		3,53,40,18,45	
		57,49,20,16, 9,44,37		4,14
16″	53,16,15,50, 0, 0, 7,28,56, 2		3,53,40,22,59	
		57,49,16,22,29,21,38		4,14
18″	53,16,16,47,49,16,29,58,17,40		3,53,40,27,13	
		57,49,12,28,48,54,25		4,14
20″	53,16,17,45,38,28,58,47,12, 5		3,53,40,31,27	
		57,49, 8,35, 8,22,58		4,14
22″	53,16,18,43,27,37,33,55,35, 3		3,53,40,35,41	
		57,49, 4,41,27,47,17		4,14
24″	53,16,19,41,16,42,15,23,22,20		3,53,40,39,55	
		57,49, 0,47,47, 7,22		4,14
26″	53,16,20,39, 5,43, 3,10,29,42		3,53,40,44, 9	
		57,48,56,54, 6,23,13		4,14
28″	53,16,21,36,54,39,57,16,52,55		3,53,40,48,23	
		57,48,53, 0,25,34,50		4,14
30″	53,16,22,34,43,32,57,42,27,45		3,53,40,52,37	
		57,48,49, 6,44,42,13		4,14
32″	53,16,23,32,32,22, 4,27, 9,58		3,53,40,56,51	
		57,48,45,13, 3,45,22		4,14
34″	53,16,24,30,21, 7,17,30,55,20		3,53,41, 1, 5	
		57,48,41,19,22,44,17		4,14
36″	53,16,25,28, 9,48,36,53,39,37		3,53,41, 5,19	
		57,48,37,25,41,38,58		4,14
38″	53,16,26,25,58,26, 2,35,18,35		3,53,41, 9,33	
		57,48,33,32, 0,29,25		4,14
40″	53,16,27,23,46,59,34,35,48, 0		3,53,41,13,47	
		57,48,29,38,19,15,38		4,14
42″	53,16,28,21,35,29,12,55, 3,38		3,53,41,18, 1	
		57,48,25,44,37,57,37		4,14
44″	53,16,29,19,23,54,57,33, 1,15		3,53,41,22,15	
		57,48,21,50,56,35,22		4,14
46″	53,16,30,17,12,16,48,29,36,37		3,53,41,26,29	
		57,48,17,57,15, 8,53		4,14
48″	53,16,31,15, 0,34,45,44,45,30		3,53,41,30,43	
		57,48,14, 3,33,38,10		4,14
50″	53,16,32,12,48,48,49,18,23,40		3,53,41,34,57	
		57,48,10, 9,52, 3,13		4,14
52″	53,16,33,10,36,58,59,10,26,53		3,53,41,39,11	
		57,48, 6,16,10,24, 2		4,14
54″	53,16,34, 8,25, 5,15,20,50,55		3,53,41,43,25	
		57,48, 2,22,28,40,37		4,14
56″	53,16,35, 6,13, 7,37,49,31,32		3,53,41,47,39	
		57,47,58,28,46,52,58		4,14
58″	53,16,36, 4, 1, 6, 6,36,24,30		3,53,41,51,53	
		57,47,54,35, 5, 1, 5		
60″	53,16,37, 1,49, 0,41,41,25,35			
exact	53,16,37, 1,49, 0,41,41,52,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°37′ 0″	53,16,37, 1,49, 0,41,41,52,55			
		57,47,50,41,23, 7,53		
2″	53,16,37,59,36,51,23, 5, 0,48		3,53,42, 0, 9	
		57,47,46,47,41, 7,44		4,14
4″	53,16,38,57,24,38,10,46, 8,32		3,53,42, 4,23	
		57,47,42,53,59, 3,21		4,14
6″	53,16,39,55,12,21, 4,45,11,53		3,53,42, 8,37	
		57,47,39, 0,16,54,44		4,14
8″	53,16,40,53, 0, 0, 5, 2, 6,37		3,53,42,12,51	
		57,47,35, 6,34,41,53		4,14
10″	53,16,41,50,47,35,11,36,48,30		3,53,42,17, 5	
		57,47,31,12,52,24,48		4,14
12″	53,16,42,48,35, 6,24,29,13,18		3,53,42,21,19	
		57,47,27,19,10, 3,29		4,14
14″	53,16,43,46,22,33,43,39,16,47		3,53,42,25,33	
		57,47,23,25,27,37,56		4,14
16″	53,16,44,44, 9,57, 9, 6,54,43		3,53,42,29,47	
		57,47,19,31,45, 8, 9		4,14
18″	53,16,45,41,57,16,40,52, 2,52		3,53,42,34, 1	
		57,47,15,38, 2,34, 8		4,14
20″	53,16,46,39,44,32,18,54,37, 0		3,53,42,38,15	
		57,47,11,44,19,55,53		4,14
22″	53,16,47,37,31,44, 3,14,32,53		3,53,42,42,29	
		57,47, 7,50,37,13,24		4,14
24″	53,16,48,35,18,51,53,51,46,17		3,53,42,46,43	
		57,47, 3,56,54,26,41		4,14
26″	53,16,49,33, 5,55,50,46,12,58		3,53,42,50,57	
		57,47, 0, 3,11,35,44		4,14
28″	53,16,50,30,52,55,53,57,48,42		3,53,42,55,11	
		57,46,56, 9,28,40,33		4,14
30″	53,16,51,28,39,52, 3,26,29,15		3,53,42,59,25	
		57,46,52,15,45,41, 8		4,14
32″	53,16,52,26,26,44,19,12,10,23		3,53,43, 3,39	
		57,46,48,22, 2,37,29		4,14
34″	53,16,53,24,13,32,41,14,47,52		3,53,43, 7,53	
		57,46,44,28,19,29,36		4,14
36″	53,16,54,22, 0,17, 9,34,17,28		3,53,43,12, 7	
		57,46,40,34,36,17,29		4,14
38″	53,16,55,19,46,57,44,10,34,57		3,53,43,16,21	
		57,46,36,40,53, 1, 8		4,14
40″	53,16,56,17,33,34,25, 3,36, 5		3,53,43,20,35	
		57,46,32,47, 9,40,33		4,14
42″	53,16,57,15,20, 7,12,13,16,38		3,53,43,24,49	
		57,46,28,53,26,15,44		4,14
44″	53,16,58,13, 6,36, 5,39,32,22		3,53,43,29, 3	
		57,46,24,59,42,46,41		4,14
46″	53,16,59,10,53, 1, 5,22,19, 3		3,53,43,33,17	
		57,46,21, 5,59,13,24		4,14
48″	53,17, 0, 8,39,22,11,21,32,27		3,53,43,37,31	
		57,46,17,12,15,35,53		4,14
50″	53,17, 1, 6,25,39,23,37, 8,20		3,53,43,41,45	
		57,46,13,18,31,54, 8		4,14
52″	53,17, 2, 4,11,52,42, 9, 2,28		3,53,43,45,59	
		57,46, 9,24,48, 8, 9		4,14
54″	53,17, 3, 1,58, 2, 6,57,10,37		3,53,43,50,13	
		57,46, 5,31, 4,17,56		4,14
56″	53,17, 3,59,44, 7,38, 1,28,33		3,53,43,54,27	
		57,46, 1,37,20,23,29		4,14
58″	53,17, 4,57,30, 9,15,21,52, 2		3,53,43,58,41	
		57,45,57,43,36,24,48		
60″	53,17, 5,55,16, 6,58,58,16,50			
exact	53,17, 5,55,16, 6,58,58,54,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°38′ 0″	53,17, 5,55,16, 6,58,58,54,21			
		57,45,53,49,52,25,53		
2″	53,17, 6,53, 2, 0,48,51,20,14		3,53,44, 6,52	
		57,45,49,56, 8,19, 1		4,13
4″	53,17, 7,50,47,50,44,59,39,15		3,53,44,11, 5	
		57,45,46, 2,24, 7,56		4,13
6″	53,17, 8,48,33,36,47,23,47,11		3,53,44,15,18	
		57,45,42, 8,39,52,38		4,13
8″	53,17, 9,46,19,18,56, 3,39,49		3,53,44,19,31	
		57,45,38,14,55,33, 7		4,13
10″	53,17,10,44, 4,57,10,59,12,56		3,53,44,23,44	
		57,45,34,21,11, 9,23		4,13
12″	53,17,11,41,50,31,32,10,22,19		3,53,44,27,57	
		57,45,30,27,26,41,26		4,13
14″	53,17,12,39,36, 1,59,37, 3,45		3,53,44,32,10	
		57,45,26,33,42, 9,16		4,13
16″	53,17,13,37,21,28,33,19,13, 1		3,53,44,36,23	
		57,45,22,39,57,32,53		4,13
18″	53,17,14,35, 6,51,13,16,45,54		3,53,44,40,36	
		57,45,18,46,12,52,17		4,13
20″	53,17,15,32,52, 9,59,29,38,11		3,53,44,44,49	
		57,45,14,52,28, 7,28		4,13
22″	53,17,16,30,37,24,51,57,45,39		3,53,44,49, 2	
		57,45,10,58,43,18,26		4,13
24″	53,17,17,28,22,35,50,41, 4, 5		3,53,44,53,15	
		57,45, 7, 4,58,25,11		4,13
26″	53,17,18,26, 7,42,55,39,29,16		3,53,44,57,28	
		57,45, 3,11,13,27,43		4,13
28″	53,17,19,23,52,46, 6,52,56,59		3,53,45, 1,41	
		57,44,59,17,28,26, 2		4,13
30″	53,17,20,21,37,45,24,21,23, 1		3,53,45, 5,54	
		57,44,55,23,43,20, 8		4,13
32″	53,17,21,19,22,40,48, 4,43, 9		3,53,45,10, 7	
		57,44,51,29,58,10, 1		4,13
34″	53,17,22,17, 7,32,18, 2,53,10		3,53,45,14,20	
		57,44,47,36,12,55,41		4,13
36″	53,17,23,14,52,19,54,15,48,51		3,53,45,18,33	
		57,44,43,42,27,37, 8		4,13
38″	53,17,24,12,37, 3,36,43,25,59		3,53,45,22,46	
		57,44,39,48,42,14,22		4,13
40″	53,17,25,10,21,43,25,25,40,21		3,53,45,26,59	
		57,44,35,54,56,47,23		4,13
42″	53,17,26, 8, 6,19,20,22,27,44		3,53,45,31,12	
		57,44,32, 1,11,16,11		4,13
44″	53,17,27, 5,50,51,21,33,43,55		3,53,45,35,25	
		57,44,28, 7,25,40,46		4,13
46″	53,17,28, 3,35,19,28,59,24,41		3,53,45,39,38	
		57,44,24,13,40, 1, 8		4,13
48″	53,17,29, 1,19,43,42,39,25,49		3,53,45,43,51	
		57,44,20,19,54,17,17		4,13
50″	53,17,29,59, 4, 4, 2,33,43, 6		3,53,45,48, 4	
		57,44,16,26, 8,29,13		4,13
52″	53,17,30,56,48,20,28,42,12,19		3,53,45,52,17	
		57,44,12,32,22,36,56		4,13
54″	53,17,31,54,32,33, 1, 4,49,15		3,53,45,56,30	
		57,44, 8,38,36,40,26		4,13
56″	53,17,32,52,16,41,39,41,29,41		3,53,46, 0,43	
		57,44, 4,44,50,39,43		4,13
58″	53,17,33,50, 0,46,24,32, 9,24		3,53,46, 4,56	
		57,44, 0,51, 4,34,47		
60″	53,17,34,47,44,47,15,36,44,11			
exact	53,17,34,47,44,47,15,36,18,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°39′ 0″	53,17,34,47,44,47,15,36,18,54			
		57,43,56,57,18,23, 5		
2″	53,17,35,45,28,44,12,54,41,59		3,53,46,13,32	
		57,43,53, 3,32, 9,33		4,13
4″	53,17,36,43,12,37,16,26,51,32		3,53,46,17,45	
		57,43,49, 9,45,51,48		4,13
6″	53,17,37,40,56,26,26,12,43,20		3,53,46,21,58	
		57,43,45,15,59,29,50		4,13
8″	53,17,38,38,40,11,42,12,13,10		3,53,46,26,11	
		57,43,41,22,13, 3,39		4,13
10″	53,17,39,36,23,53, 4,25,16,49		3,53,46,30,24	
		57,43,37,28,26,33,15		4,13
12″	53,17,40,34, 7,30,32,51,50, 4		3,53,46,34,37	
		57,43,33,34,39,58,38		4,13
14″	53,17,41,31,51, 4, 7,31,48,42		3,53,46,38,50	
		57,43,29,40,53,19,48		4,13
16″	53,17,42,29,34,33,48,25, 8,30		3,53,46,43, 3	
		57,43,25,47, 6,36,45		4,13
18″	53,17,43,27,17,59,35,31,45,15		3,53,46,47,16	
		57,43,21,53,19,49,29		4,13
20″	53,17,44,25, 1,21,28,51,34,44		3,53,46,51,29	
		57,43,17,59,32,58, 0		4,13
22″	53,17,45,22,44,39,28,24,32,44		3,53,46,55,42	
		57,43,14, 5,46, 2,18		4,13
24″	53,17,46,20,27,53,34,10,35, 2		3,53,46,59,55	
		57,43,10,11,59, 2,23		4,13
26″	53,17,47,18,11, 3,46, 9,37,25		3,53,47, 4, 8	
		57,43, 6,18,11,58,15		4,13
28″	53,17,48,15,54,10, 4,21,35,40		3,53,47, 8,21	
		57,43, 2,24,24,49,54		4,13
30″	53,17,49,13,37,12,28,46,25,34		3,53,47,12,34	
		57,42,58,30,37,37,20		4,13
32″	53,17,50,11,20,10,59,24, 2,54		3,53,47,16,47	
		57,42,54,36,50,20,33		4,13
34″	53,17,51, 9, 3, 5,36,14,23,27		3,53,47,21, 0	
		57,42,50,43, 2,59,33		4,13
36″	53,17,52, 6,45,56,19,17,23, 0		3,53,47,25,13	
		57,42,46,49,15,34,20		4,13
38″	53,17,53, 4,28,43, 8,32,57,20		3,53,47,29,26	
		57,42,42,55,28, 4,54		4,13
40″	53,17,54, 2,11,26, 4, 1, 2,14		3,53,47,33,39	
		57,42,39, 1,40,31,15		4,13
42″	53,17,54,59,54, 5, 5,41,33,29		3,53,47,37,52	
		57,42,35, 7,52,53,23		4,13
44″	53,17,55,57,36,40,13,34,26,52		3,53,47,42, 5	
		57,42,31,14, 5,11,18		4,13
46″	53,17,56,55,19,11,27,39,38,10		3,53,47,46,18	
		57,42,27,20,17,25, 0		4,13
48″	53,17,57,53, 1,38,47,57, 3,10		3,53,47,50,31	
		57,42,23,26,29,34,29		4,13
50″	53,17,58,50,44, 2,14,26,37,39		3,53,47,54,44	
		57,42,19,32,41,39,45		4,13
52″	53,17,59,48,26,21,47, 8,17,24		3,53,47,58,57	
		57,42,15,38,53,40,48		4,13
54″	53,18, 0,46, 8,37,26, 1,58,12		3,53,48, 3,10	
		57,42,11,45, 5,37,38		4,13
56″	53,18, 1,43,50,49,11, 7,35,50		3,53,48, 7,23	
		57,42, 7,51,17,30,15		4,13
58″	53,18, 2,41,32,57, 2,25, 6, 5		3,53,48,11,36	
		57,42, 3,57,29,18,39		
60″	53,18, 3,39,15, 0,59,54,24,44			
exact	53,18, 3,39,15, 0,59,54,14, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°40′ 0″	53,18, 3,39,15, 0,59,54,14, 6			
		57,42, 0, 3,41, 1,39		
2″	53,18, 4,36,57, 1, 3,35,15,45		3,53,48,20, 7	
		57,41,56, 9,52,41,32		4,13
4″	53,18, 5,34,38,57,13,27,57,17		3,53,48,24,20	
		57,41,52,16, 4,17,12		4,13
6″	53,18, 6,32,20,49,29,32,14,29		3,53,48,28,33	
		57,41,48,22,15,48,39		4,13
8″	53,18, 7,30, 2,37,51,48, 3, 8		3,53,48,32,46	
		57,41,44,28,27,15,53		4,13
10″	53,18, 8,27,44,22,20,15,19, 1		3,53,48,36,59	
		57,41,40,34,38,38,54		4,13
12″	53,18, 9,25,26, 2,54,53,57,55		3,53,48,41,12	
		57,41,36,40,49,57,42		4,13
14″	53,18,10,23, 7,39,35,43,55,37		3,53,48,45,25	
		57,41,32,47, 1,12,17		4,13
16″	53,18,11,20,49,12,22,45, 7,54		3,53,48,49,38	
		57,41,28,53,12,22,39		4,13
18″	53,18,12,18,30,41,15,57,30,33		3,53,48,53,51	
		57,41,24,59,23,28,48		4,13
20″	53,18,13,16,12, 6,15,20,59,21		3,53,48,58, 4	
		57,41,21, 5,34,30,44		4,13
22″	53,18,14,13,53,27,20,55,30, 5		3,53,49, 2,17	
		57,41,17,11,45,28,27		4,13
24″	53,18,15,11,34,44,32,40,58,32		3,53,49, 6,30	
		57,41,13,17,56,21,57		4,13
26″	53,18,16, 9,15,57,50,37,20,29		3,53,49,10,43	
		57,41, 9,24, 7,11,14		4,13
28″	53,18,17, 6,57, 7,14,44,31,43		3,53,49,14,56	
		57,41, 5,30,17,56,18		4,13
30″	53,18,18, 4,38,12,45, 2,28, 1		3,53,49,19, 9	
		57,41, 1,36,28,37, 9		4,13
32″	53,18,19, 2,19,14,21,31, 5,10		3,53,49,23,22	
		57,40,57,42,39,13,47		4,13
34″	53,18,20, 0, 0,12, 4,10,18,57		3,53,49,27,35	
		57,40,53,48,49,46,12		4,13
36″	53,18,20,57,41, 5,53, 0, 5, 9		3,53,49,31,48	
		57,40,49,55, 0,14,24		4,13
38″	53,18,21,55,21,55,48, 0,19,33		3,53,49,36, 1	
		57,40,46, 1,10,38,23		4,13
40″	53,18,22,53, 2,41,49,10,57,56		3,53,49,40,14	
		57,40,42, 7,20,58, 9		4,13
42″	53,18,23,50,43,23,56,31,56, 5		3,53,49,44,27	
		57,40,38,13,31,13,42		4,13
44″	53,18,24,48,24, 2,10, 3, 9,47		3,53,49,48,40	
		57,40,34,19,41,25, 2		4,13
46″	53,18,25,46, 4,36,29,44,34,49		3,53,49,52,53	
		57,40,30,25,51,32, 9		4,13
48″	53,18,26,43,45, 6,55,36, 6,58		3,53,49,57, 6	
		57,40,26,32, 1,35, 3		4,13
50″	53,18,27,41,25,33,27,37,42, 1		3,53,50, 1,19	
		57,40,22,38,11,33,44		4,13
52″	53,18,28,39, 5,56, 5,49,15,45		3,53,50, 5,32	
		57,40,18,44,21,28,12		4,13
54″	53,18,29,36,46,14,50,10,43,57		3,53,50, 9,45	
		57,40,14,50,31,18,27		4,13
56″	53,18,30,34,26,29,40,42, 2,24		3,53,50,13,58	
		57,40,10,56,41, 4,29		4,13
58″	53,18,31,32, 6,40,37,23, 6,53		3,53,50,18,11	
		57,40, 7, 2,50,46,18		
60″	53,18,32,29,46,47,40,13,53,11			
exact	53,18,32,29,46,47,40,13,51,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°41′ 0″	53,18,32,29,46,47,40,13,51,33			
		57,40, 3, 9, 0,23,43		
2″	53,18,33,27,26,50,49,14,15,16		3,53,50,26,37	
		57,39,59,15, 9,57, 6		4,13
4″	53,18,34,25, 6,50, 4,24,12,22		3,53,50,30,50	
		57,39,55,21,19,26,16		4,13
6″	53,18,35,22,46,45,25,43,38,38		3,53,50,35, 3	
		57,39,51,27,28,51,13		4,13
8″	53,18,36,20,26,36,53,12,29,51		3,53,50,39,16	
		57,39,47,33,38,11,57		4,13
10″	53,18,37,18, 6,24,26,50,41,48		3,53,50,43,29	
		57,39,43,39,47,28,28		4,13
12″	53,18,38,15,46, 8, 6,38,10,16		3,53,50,47,42	
		57,39,39,45,56,40,46		4,13
14″	53,18,39,13,25,47,52,34,51, 2		3,53,50,51,55	
		57,39,35,52, 5,48,51		4,13
16″	53,18,40,11, 5,23,44,40,39,53		3,53,50,56, 8	
		57,39,31,58,14,52,43		4,13
18″	53,18,41, 8,44,55,42,55,32,36		3,53,51, 0,21	
		57,39,28, 4,23,52,22		4,13
20″	53,18,42, 6,24,23,47,19,24,58		3,53,51, 4,34	
		57,39,24,10,32,47,48		4,13
22″	53,18,43, 4, 3,47,57,52,12,46		3,53,51, 8,47	
		57,39,20,16,41,39, 1		4,13
24″	53,18,44, 1,43, 8,14,33,51,47		3,53,51,13, 0	
		57,39,16,22,50,26, 1		4,13
26″	53,18,44,59,22,24,37,24,17,48		3,53,51,17,13	
		57,39,12,28,59, 8,48		4,13
28″	53,18,45,57, 1,37, 6,23,26,36		3,53,51,21,26	
		57,39, 8,35, 7,47,22		4,13
30″	53,18,46,54,40,45,41,31,13,58		3,53,51,25,39	
		57,39, 4,41,16,21,43		4,13
32″	53,18,47,52,19,50,22,47,35,41		3,53,51,29,52	
		57,39, 0,47,24,51,51		4,13
34″	53,18,48,49,58,51,10,12,27,32		3,53,51,34, 5	
		57,38,56,53,33,17,46		4,13
36″	53,18,49,47,37,48, 3,45,45,18		3,53,51,38,18	
		57,38,52,59,41,39,28		4,13
38″	53,18,50,45,16,41, 3,27,24,46		3,53,51,42,31	
		57,38,49, 5,49,56,57		4,13
40″	53,18,51,42,55,30, 9,17,21,43		3,53,51,46,44	
		57,38,45,11,58,10,13		4,13
42″	53,18,52,40,34,15,21,15,31,56		3,53,51,50,57	
		57,38,41,18, 6,19,16		4,13
44″	53,18,53,38,12,56,39,21,51,12		3,53,51,55,10	
		57,38,37,24,14,24, 6		4,13
46″	53,18,54,35,51,34, 3,36,15,18		3,53,51,59,23	
		57,38,33,30,22,24,43		4,13
48″	53,18,55,33,30, 7,33,58,40, 1		3,53,52, 3,36	
		57,38,29,36,30,21, 7		4,13
50″	53,18,56,31, 8,37,10,29, 1, 8		3,53,52, 7,49	
		57,38,25,42,38,13,18		4,13
52″	53,18,57,28,47, 2,53, 7,14,26		3,53,52,12, 2	
		57,38,21,48,46, 1,16		4,13
54″	53,18,58,26,25,24,41,53,15,42		3,53,52,16,15	
		57,38,17,54,53,45, 1		4,13
56″	53,18,59,24, 3,42,36,47, 0,43		3,53,52,20,28	
		57,38,14, 1, 1,24,33		4,13
58″	53,19, 0,21,41,56,37,48,25,16		3,53,52,24,41	
		57,38,10, 7, 8,59,52		
60″	53,19, 1,19,20, 6,44,57,25, 8			
exact	53,19, 1,19,20, 6,44,57,26,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°42′ 0″	53,19, 1,19,20, 6,44,57,26,59			
		57,38, 6,13,16,31,24		
2″	53,19, 2,16,58,12,58,13,58,23		3,53,52,33, 4	
		57,38, 2,19,23,58,20		4,13
4″	53,19, 3,14,36,15,17,37,56,43		3,53,52,37,17	
		57,37,58,25,31,21, 3		4,13
6″	53,19, 4,12,14,13,43, 9,17,46		3,53,52,41,30	
		57,37,54,31,38,39,33		4,13
8″	53,19, 5, 9,52, 8,14,47,57,19		3,53,52,45,43	
		57,37,50,37,45,53,50		4,13
10″	53,19, 6, 7,29,58,52,33,51, 9		3,53,52,49,56	
		57,37,46,43,53, 3,54		4,13
12″	53,19, 7, 5, 7,45,36,26,55, 3		3,53,52,54, 9	
		57,37,42,50, 0, 9,45		4,13
14″	53,19, 8, 2,45,28,26,27, 4,48		3,53,52,58,22	
		57,37,38,56, 7,11,23		4,13
16″	53,19, 9, 0,23, 7,22,34,16,11		3,53,53, 2,35	
		57,37,35, 2,14, 8,48		4,13
18″	53,19, 9,58, 0,42,24,48,24,59		3,53,53, 6,48	
		57,37,31, 8,21, 2, 0		4,13
20″	53,19,10,55,38,13,33, 9,26,59		3,53,53,11, 1	
		57,37,27,14,27,50,59		4,13
22″	53,19,11,53,15,40,47,37,17,58		3,53,53,15,14	
		57,37,23,20,34,35,45		4,13
24″	53,19,12,50,53, 4, 8,11,53,43		3,53,53,19,27	
		57,37,19,26,41,16,18		4,13
26″	53,19,13,48,30,23,34,53,10, 1		3,53,53,23,40	
		57,37,15,32,47,52,38		4,13
28″	53,19,14,46, 7,39, 7,41, 2,39		3,53,53,27,53	
		57,37,11,38,54,24,45		4,13
30″	53,19,15,43,44,50,46,35,27,24		3,53,53,32, 6	
		57,37, 7,45, 0,52,39		4,13
32″	53,19,16,41,21,58,31,36,20, 3		3,53,53,36,19	
		57,37, 3,51, 7,16,20		4,13
34″	53,19,17,38,59, 2,22,43,36,23		3,53,53,40,32	
		57,36,59,57,13,35,48		4,13
36″	53,19,18,36,36, 2,19,57,12,11		3,53,53,44,45	
		57,36,56, 3,19,51, 3		4,13
38″	53,19,19,34,12,58,23,17, 3,14		3,53,53,48,58	
		57,36,52, 9,26, 2, 5		4,13
40″	53,19,20,31,49,50,32,43, 5,19		3,53,53,53,11	
		57,36,48,15,32, 8,54		4,13
42″	53,19,21,29,26,38,48,15,14,13		3,53,53,57,24	
		57,36,44,21,38,11,30		4,13
44″	53,19,22,27, 3,23, 9,53,25,43		3,53,54, 1,37	
		57,36,40,27,44, 9,53		4,13
46″	53,19,23,24,40, 3,37,37,35,36		3,53,54, 5,50	
		57,36,36,33,50, 4, 3		4,13
48″	53,19,24,22,16,40,11,27,39,39		3,53,54,10, 3	
		57,36,32,39,55,54, 0		4,13
50″	53,19,25,19,53,12,51,23,33,39		3,53,54,14,16	
		57,36,28,46, 1,39,44		4,13
52″	53,19,26,17,29,41,37,25,13,23		3,53,54,18,29	
		57,36,24,52, 7,21,15		4,13
54″	53,19,27,15, 6, 6,29,32,34,38		3,53,54,22,42	
		57,36,20,58,12,58,33		4,13
56″	53,19,28,12,42,27,27,45,33,11		3,53,54,26,55	
		57,36,17, 4,18,31,38		4,13
58″	53,19,29,10,18,44,32, 4, 4,49		3,53,54,31, 8	
		57,36,13,10,24, 0,30		
60″	53,19,30, 7,54,57,42,28, 5,19			
exact	53,19,30, 7,54,57,42,28,20,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°43′ 0″	53,19,30, 7,54,57,42,28,20,12			
		57,36, 9,16,29,26,51		
2″	53,19,31, 5,31, 6,58,57,47, 3		3,53,54,39,26	
		57,36, 5,22,34,47,25		4,13
4″	53,19,32, 3, 7,12,21,32,34,28		3,53,54,43,39	
		57,36, 1,28,40, 3,46		4,13
6″	53,19,33, 0,43,13,50,12,38,14		3,53,54,47,52	
		57,35,57,34,45,15,54		4,13
8″	53,19,33,58,19,11,24,57,54, 8		3,53,54,52, 5	
		57,35,53,40,50,23,49		4,13
10″	53,19,34,55,55, 5, 5,48,17,57		3,53,54,56,18	
		57,35,49,46,55,27,31		4,13
12″	53,19,35,53,30,54,52,43,45,28		3,53,55, 0,31	
		57,35,45,53, 0,27, 0		4,13
14″	53,19,36,51, 6,40,45,44,12,28		3,53,55, 4,44	
		57,35,41,59, 5,22,16		4,13
16″	53,19,37,48,42,22,44,49,34,44		3,53,55, 8,57	
		57,35,38, 5,10,13,19		4,13
18″	53,19,38,46,18, 0,49,59,48, 3		3,53,55,13,10	
		57,35,34,11,15, 0, 9		4,13
20″	53,19,39,43,53,35, 1,14,48,12		3,53,55,17,23	
		57,35,30,17,19,42,46		4,13
22″	53,19,40,41,29, 5,18,34,30,58		3,53,55,21,36	
		57,35,26,23,24,21,10		4,13
24″	53,19,41,39, 4,31,41,58,52, 8		3,53,55,25,49	
		57,35,22,29,28,55,21		4,13
26″	53,19,42,36,39,54,11,27,47,29		3,53,55,30, 2	
		57,35,18,35,33,25,19		4,13
28″	53,19,43,34,15,12,47, 1,12,48		3,53,55,34,15	
		57,35,14,41,37,51, 4		4,13
30″	53,19,44,31,50,27,28,39, 3,52		3,53,55,38,28	
		57,35,10,47,42,12,36		4,13
32″	53,19,45,29,25,38,16,21,16,28		3,53,55,42,41	
		57,35, 6,53,46,29,55		4,13
34″	53,19,46,27, 0,45,10, 7,46,23		3,53,55,46,54	
		57,35, 2,59,50,43, 1		4,13
36″	53,19,47,24,35,48, 9,58,29,24		3,53,55,51, 7	
		57,34,59, 5,54,51,54		4,13
38″	53,19,48,22,10,47,15,53,21,18		3,53,55,55,20	
		57,34,55,11,58,56,34		4,13
40″	53,19,49,19,45,42,27,52,17,52		3,53,55,59,33	
		57,34,51,18, 2,57, 1		4,13
42″	53,19,50,17,20,33,45,55,14,53		3,53,56, 3,46	
		57,34,47,24, 6,53,15		4,13
44″	53,19,51,14,55,21,10, 2, 8, 8		3,53,56, 7,59	
		57,34,43,30,10,45,16		4,13
46″	53,19,52,12,30, 4,40,12,53,24		3,53,56,12,12	
		57,34,39,36,14,33, 4		4,13
48″	53,19,53,10, 4,44,16,27,26,28		3,53,56,16,25	
		57,34,35,42,18,16,39		4,13
50″	53,19,54, 7,39,19,58,45,43, 7		3,53,56,20,38	
		57,34,31,48,21,56, 1		4,13
52″	53,19,55, 5,13,51,47, 7,39, 8		3,53,56,24,51	
		57,34,27,54,25,31,10		4,13
54″	53,19,56, 2,48,19,41,33,10,18		3,53,56,29, 4	
		57,34,24, 0,29, 2, 6		4,13
56″	53,19,57, 0,22,43,42, 2,12,24		3,53,56,33,17	
		57,34,20, 6,32,28,49		4,13
58″	53,19,57,57,57, 3,48,34,41,13		3,53,56,37,30	
		57,34,16,12,35,51,19		
60″	53,19,58,55,31,20, 1,10,32,32			
exact	53,19,58,55,31,20, 1,10,55,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°44′ 0″	53,19,58,55,31,20, 1,10,55,10			
		57,34,12,18,39,12,12		
2″	53,19,59,53, 5,32,19,50, 7,22		3,53,56,45,44	
		57,34, 8,24,42,26,28		4,13
4″	53,20, 0,50,39,40,44,32,33,50		3,53,56,49,57	
		57,34, 4,30,45,36,31		4,13
6″	53,20, 1,48,13,45,15,18,10,21		3,53,56,54,10	
		57,34, 0,36,48,42,21		4,13
8″	53,20, 2,45,47,45,52, 6,52,42		3,53,56,58,23	
		57,33,56,42,51,43,58		4,13
10″	53,20, 3,43,21,42,34,58,36,40		3,53,57, 2,36	
		57,33,52,48,54,41,22		4,13
12″	53,20, 4,40,55,35,23,53,18, 2		3,53,57, 6,49	
		57,33,48,54,57,34,33		4,13
14″	53,20, 5,38,29,24,18,50,52,35		3,53,57,11, 2	
		57,33,45, 1, 0,23,31		4,13
16″	53,20, 6,36, 3, 9,19,51,16, 6		3,53,57,15,15	
		57,33,41, 7, 3, 8,16		4,13
18″	53,20, 7,33,36,50,26,54,24,22		3,53,57,19,28	
		57,33,37,13, 5,48,48		4,13
20″	53,20, 8,31,10,27,40, 0,13,10		3,53,57,23,41	
		57,33,33,19, 8,25, 7		4,13
22″	53,20, 9,28,44, 0,59, 8,38,17		3,53,57,27,54	
		57,33,29,25,10,57,13		4,13
24″	53,20,10,26,17,30,24,19,35,30		3,53,57,32, 7	
		57,33,25,31,13,25, 6		4,13
26″	53,20,11,23,50,55,55,33, 0,36		3,53,57,36,20	
		57,33,21,37,15,48,46		4,13
28″	53,20,12,21,24,17,32,48,49,22		3,53,57,40,33	
		57,33,17,43,18, 8,13		4,13
30″	53,20,13,18,57,35,16, 6,57,35		3,53,57,44,46	
		57,33,13,49,20,23,27		4,13
32″	53,20,14,16,30,49, 5,27,21, 2		3,53,57,48,59	
		57,33, 9,55,22,34,28		4,13
34″	53,20,15,14, 3,59, 0,49,55,30		3,53,57,53,12	
		57,33, 6, 1,24,41,16		4,13
36″	53,20,16,11,37, 5, 2,14,36,46		3,53,57,57,25	
		57,33, 2, 7,26,43,51		4,13
38″	53,20,17, 9,10, 7, 9,41,20,37		3,53,58, 1,38	
		57,32,58,13,28,42,13		4,13
40″	53,20,18, 6,43, 5,23,10, 2,50		3,53,58, 5,51	
		57,32,54,19,30,36,22		4,13
42″	53,20,19, 4,15,59,42,40,39,12		3,53,58,10, 4	
		57,32,50,25,32,26,18		4,13
44″	53,20,20, 1,48,50, 8,13, 5,30		3,53,58,14,17	
		57,32,46,31,34,12, 1		4,13
46″	53,20,20,59,21,36,39,47,17,31		3,53,58,18,30	
		57,32,42,37,35,53,31		4,13
48″	53,20,21,56,54,19,17,23,11, 2		3,53,58,22,43	
		57,32,38,43,37,30,48		4,13
50″	53,20,22,54,26,58, 1, 0,41,50		3,53,58,26,56	
		57,32,34,49,39, 3,52		4,13
52″	53,20,23,51,59,32,50,39,45,42		3,53,58,31, 9	
		57,32,30,55,40,32,43		4,13
54″	53,20,24,49,32, 3,46,20,18,25		3,53,58,35,22	
		57,32,27, 1,41,57,21		4,13
56″	53,20,25,47, 4,30,48, 2,15,46		3,53,58,39,35	
		57,32,23, 7,43,17,46		4,13
58″	53,20,26,44,36,53,55,45,33,32		3,53,58,43,48	
		57,32,19,13,44,33,58		
60″	53,20,27,42, 9,13, 9,30, 7,30			
exact	53,20,27,42, 9,13, 9,30,39,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°45′ 0″	53,20,27,42, 9,13, 9,30,39,56			
		57,32,15,19,45,49,35		
2″	53,20,28,39,41,28,29,16,29,31		3,53,58,51,58	
		57,32,11,25,46,57,37		4,12
4″	53,20,29,37,13,39,55, 3,27, 8		3,53,58,56,10	
		57,32, 7,31,48, 1,27		4,12
6″	53,20,30,34,45,47,26,51,28,35		3,53,59, 0,22	
		57,32, 3,37,49, 1, 5		4,12
8″	53,20,31,32,17,51, 4,40,29,40		3,53,59, 4,34	
		57,31,59,43,49,56,31		4,12
10″	53,20,32,29,49,50,48,30,26,11		3,53,59, 8,46	
		57,31,55,49,50,47,45		4,12
12″	53,20,33,27,21,46,38,21,13,56		3,53,59,12,58	
		57,31,51,55,51,34,47		4,12
14″	53,20,34,24,53,38,34,12,48,43		3,53,59,17,10	
		57,31,48, 1,52,17,37		4,12
16″	53,20,35,22,25,26,36, 5, 6,20		3,53,59,21,22	
		57,31,44, 7,52,56,15		4,12
18″	53,20,36,19,57,10,43,58, 2,35		3,53,59,25,34	
		57,31,40,13,53,30,41		4,12
20″	53,20,37,17,28,50,57,51,33,16		3,53,59,29,46	
		57,31,36,19,54, 0,55		4,12
22″	53,20,38,15, 0,27,17,45,34,11		3,53,59,33,58	
		57,31,32,25,54,26,57		4,12
24″	53,20,39,12,31,59,43,40, 1, 8		3,53,59,38,10	
		57,31,28,31,54,48,47		4,12
26″	53,20,40,10, 3,28,15,34,49,55		3,53,59,42,22	
		57,31,24,37,55, 6,25		4,12
28″	53,20,41, 7,34,52,53,29,56,20		3,53,59,46,34	
		57,31,20,43,55,19,51		4,12
30″	53,20,42, 5, 6,13,37,25,16,11		3,53,59,50,46	
		57,31,16,49,55,29, 5		4,12
32″	53,20,43, 2,37,30,27,20,45,16		3,53,59,54,58	
		57,31,12,55,55,34, 7		4,12
34″	53,20,44, 0, 8,43,23,16,19,23		3,53,59,59,10	
		57,31, 9, 1,55,34,57		4,12
36″	53,20,44,57,39,52,25,11,54,20		3,54, 0, 3,22	
		57,31, 5, 7,55,31,35		4,12
38″	53,20,45,55,10,57,33, 7,25,55		3,54, 0, 7,34	
		57,31, 1,13,55,24, 1		4,12
40″	53,20,46,52,41,58,47, 2,49,56		3,54, 0,11,46	
		57,30,57,19,55,12,15		4,12
42″	53,20,47,50,12,56, 6,58, 2,11		3,54, 0,15,58	
		57,30,53,25,54,56,17		4,12
44″	53,20,48,47,43,49,32,52,58,28		3,54, 0,20,10	
		57,30,49,31,54,36, 7		4,12
46″	53,20,49,45,14,39, 4,47,34,35		3,54, 0,24,22	
		57,30,45,37,54,11,45		4,12
48″	53,20,50,42,45,24,42,41,46,20		3,54, 0,28,34	
		57,30,41,43,53,43,11		4,12
50″	53,20,51,40,16, 6,26,35,29,31		3,54, 0,32,46	
		57,30,37,49,53,10,25		4,12
52″	53,20,52,37,46,44,16,28,39,56		3,54, 0,36,58	
		57,30,33,55,52,33,27		4,12
54″	53,20,53,35,17,18,12,21,13,23		3,54, 0,41,10	
		57,30,30, 1,51,52,17		4,12
56″	53,20,54,32,47,48,14,13, 5,40		3,54, 0,45,22	
		57,30,26, 7,51, 6,55		4,12
58″	53,20,55,30,18,14,22, 4,12,35		3,54, 0,49,34	
		57,30,22,13,50,17,21		
60″	53,20,56,27,48,36,35,54,29,56			
exact	53,20,56,27,48,36,35,54, 6,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°46′ 0″	53,20,56,27,48,36,35,54, 6,43			
		57,30,18,19,49,21,10		
2″	53,20,57,25,18,54,55,43,27,53		3,54, 0,58, 7	
		57,30,14,25,48,23, 3		4,12
4″	53,20,58,22,49, 9,21,31,50,56		3,54, 1, 2,19	
		57,30,10,31,47,20,44		4,12
6″	53,20,59,20,19,19,53,19,11,40		3,54, 1, 6,31	
		57,30, 6,37,46,14,13		4,12
8″	53,21, 0,17,49,26,31, 5,25,53		3,54, 1,10,43	
		57,30, 2,43,45, 3,30		4,12
10″	53,21, 1,15,19,29,14,50,29,23		3,54, 1,14,55	
		57,29,58,49,43,48,35		4,12
12″	53,21, 2,12,49,28, 4,34,17,58		3,54, 1,19, 7	
		57,29,54,55,42,29,28		4,12
14″	53,21, 3,10,19,23, 0,16,47,26		3,54, 1,23,19	
		57,29,51, 1,41, 6, 9		4,12
16″	53,21, 4, 7,49,14, 1,57,53,35		3,54, 1,27,31	
		57,29,47, 7,39,38,38		4,12
18″	53,21, 5, 5,19, 1, 9,37,32,13		3,54, 1,31,43	
		57,29,43,13,38, 6,55		4,12
20″	53,21, 6, 2,48,44,23,15,39, 8		3,54, 1,35,55	
		57,29,39,19,36,31, 0		4,12
22″	53,21, 7, 0,18,23,42,52,10, 8		3,54, 1,40, 7	
		57,29,35,25,34,50,53		4,12
24″	53,21, 7,57,47,59, 8,27, 1, 1		3,54, 1,44,19	
		57,29,31,31,33, 6,34		4,12
26″	53,21, 8,55,17,30,40, 0, 7,35		3,54, 1,48,31	
		57,29,27,37,31,18, 3		4,12
28″	53,21, 9,52,46,58,17,31,25,38		3,54, 1,52,43	
		57,29,23,43,29,25,20		4,12
30″	53,21,10,50,16,22, 1, 0,50,58		3,54, 1,56,55	
		57,29,19,49,27,28,25		4,12
32″	53,21,11,47,45,41,50,28,19,23		3,54, 2, 1, 7	
		57,29,15,55,25,27,18		4,12
34″	53,21,12,45,14,57,45,53,46,41		3,54, 2, 5,19	
		57,29,12, 1,23,21,59		4,12
36″	53,21,13,42,44, 9,47,17, 8,40		3,54, 2, 9,31	
		57,29, 8, 7,21,12,28		4,12
38″	53,21,14,40,13,17,54,38,21, 8		3,54, 2,13,43	
		57,29, 4,13,18,58,45		4,12
40″	53,21,15,37,42,22, 7,57,19,53		3,54, 2,17,55	
		57,29, 0,19,16,40,50		4,12
42″	53,21,16,35,11,22,27,14, 0,43		3,54, 2,22, 7	
		57,28,56,25,14,18,43		4,12
44″	53,21,17,32,40,18,52,28,19,26		3,54, 2,26,19	
		57,28,52,31,11,52,24		4,12
46″	53,21,18,30, 9,11,23,40,11,50		3,54, 2,30,31	
		57,28,48,37, 9,21,53		4,12
48″	53,21,19,27,38, 0, 0,49,33,43		3,54, 2,34,43	
		57,28,44,43, 6,47,10		4,12
50″	53,21,20,25, 6,44,43,56,20,53		3,54, 2,38,55	
		57,28,40,49, 4, 8,15		4,12
52″	53,21,21,22,35,25,33, 0,29, 8		3,54, 2,43, 7	
		57,28,36,55, 1,25, 8		4,12
54″	53,21,22,20, 4, 2,28, 1,54,16		3,54, 2,47,19	
		57,28,33, 0,58,37,49		4,12
56″	53,21,23,17,32,35,29, 0,32, 5		3,54, 2,51,31	
		57,28,29, 6,55,46,18		4,12
58″	53,21,24,15, 1, 4,35,56,18,23		3,54, 2,55,43	
		57,28,25,12,52,50,35		
60″	53,21,25,12,29,29,48,49, 8,58			
exact	53,21,25,12,29,29,48,48,51,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°47′ 0″	53,21,25,12,29,29,48,48,51,53			
		57,28,21,18,49,49, 3		
2″	53,21,26, 9,57,51, 7,38,40,56		3,54, 3, 4,13	
		57,28,17,24,46,44,50		4,12
4″	53,21,27, 7,26, 8,32,25,25,46		3,54, 3, 8,25	
		57,28,13,30,43,36,25		4,12
6″	53,21,28, 4,54,22, 3, 9, 2,11		3,54, 3,12,37	
		57,28, 9,36,40,23,48		4,12
8″	53,21,29, 2,22,31,39,49,25,59		3,54, 3,16,49	
		57,28, 5,42,37, 6,59		4,12
10″	53,21,29,59,50,37,22,26,32,58		3,54, 3,21, 1	
		57,28, 1,48,33,45,58		4,12
12″	53,21,30,57,18,39,11, 0,18,56		3,54, 3,25,13	
		57,27,57,54,30,20,45		4,12
14″	53,21,31,54,46,37, 5,30,39,41		3,54, 3,29,25	
		57,27,54, 0,26,51,20		4,12
16″	53,21,32,52,14,31, 5,57,31, 1		3,54, 3,33,37	
		57,27,50, 6,23,17,43		4,12
18″	53,21,33,49,42,21,12,20,48,44		3,54, 3,37,49	
		57,27,46,12,19,39,54		4,12
20″	53,21,34,47,10, 7,24,40,28,38		3,54, 3,42, 1	
		57,27,42,18,15,57,53		4,12
22″	53,21,35,44,37,49,42,56,26,31		3,54, 3,46,13	
		57,27,38,24,12,11,40		4,12
24″	53,21,36,42, 5,28, 7, 8,38,11		3,54, 3,50,25	
		57,27,34,30, 8,21,15		4,12
26″	53,21,37,39,33, 2,37,16,59,26		3,54, 3,54,37	
		57,27,30,36, 4,26,38		4,12
28″	53,21,38,37, 0,33,13,21,26, 4		3,54, 3,58,49	
		57,27,26,42, 0,27,49		4,12
30″	53,21,39,34,27,59,55,21,53,53		3,54, 4, 3, 1	
		57,27,22,47,56,24,48		4,12
32″	53,21,40,31,55,22,43,18,18,41		3,54, 4, 7,13	
		57,27,18,53,52,17,35		4,12
34″	53,21,41,29,22,41,37,10,36,16		3,54, 4,11,25	
		57,27,14,59,48, 6,10		4,12
36″	53,21,42,26,49,56,36,58,42,26		3,54, 4,15,37	
		57,27,11, 5,43,50,33		4,12
38″	53,21,43,24,17, 7,42,42,32,59		3,54, 4,19,49	
		57,27, 7,11,39,30,44		4,12
40″	53,21,44,21,44,14,54,22, 3,43		3,54, 4,24, 1	
		57,27, 3,17,35, 6,43		4,12
42″	53,21,45,19,11,18,11,57,10,26		3,54, 4,28,13	
		57,26,59,23,30,38,30		4,12
44″	53,21,46,16,38,17,35,27,48,56		3,54, 4,32,25	
		57,26,55,29,26, 6, 5		4,12
46″	53,21,47,14, 5,13, 4,53,55, 1		3,54, 4,36,37	
		57,26,51,35,21,29,28		4,12
48″	53,21,48,11,32, 4,40,15,24,29		3,54, 4,40,49	
		57,26,47,41,16,48,39		4,12
50″	53,21,49, 8,58,52,21,32,13, 8		3,54, 4,45, 1	
		57,26,43,47,12, 3,38		4,12
52″	53,21,50, 6,25,36, 8,44,16,46		3,54, 4,49,13	
		57,26,39,53, 7,14,25		4,12
54″	53,21,51, 3,52,16, 1,51,31,11		3,54, 4,53,25	
		57,26,35,59, 2,21, 0		4,12
56″	53,21,52, 1,18,52, 0,53,52,11		3,54, 4,57,37	
		57,26,32, 4,57,23,23		4,12
58″	53,21,52,58,45,24, 5,51,15,34		3,54, 5, 1,49	
		57,26,28,10,52,21,34		
60″	53,21,53,56,11,52,16,43,37, 8			
exact	53,21,53,56,11,52,16,43,35,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°48′ 0″	53,21,53,56,11,52,16,43,35,55			
		57,26,24,16,47,15,23		
2″	53,21,54,53,38,16,33,30,51,18		3,54, 5,10,13	
		57,26,20,22,42, 5,10		4,12
4″	53,21,55,51, 4,36,56,12,56,28		3,54, 5,14,25	
		57,26,16,28,36,50,45		4,12
6″	53,21,56,48,30,53,24,49,47,13		3,54, 5,18,37	
		57,26,12,34,31,32, 8		4,12
8″	53,21,57,45,57, 5,59,21,19,21		3,54, 5,22,49	
		57,26, 8,40,26, 9,19		4,12
10″	53,21,58,43,23,14,39,47,28,40		3,54, 5,27, 1	
		57,26, 4,46,20,42,18		4,12
12″	53,21,59,40,49,19,26, 8,10,58		3,54, 5,31,13	
		57,26, 0,52,15,11, 5		4,12
14″	53,22, 0,38,15,20,18,23,22, 3		3,54, 5,35,25	
		57,25,56,58, 9,35,40		4,12
16″	53,22, 1,35,41,17,16,32,57,43		3,54, 5,39,37	
		57,25,53, 4, 3,56, 3		4,12
18″	53,22, 2,33, 7,10,20,36,53,46		3,54, 5,43,49	
		57,25,49, 9,58,12,14		4,12
20″	53,22, 3,30,32,59,30,35, 6, 0		3,54, 5,48, 1	
		57,25,45,15,52,24,13		4,12
22″	53,22, 4,27,58,44,46,27,30,13		3,54, 5,52,13	
		57,25,41,21,46,32, 0		4,12
24″	53,22, 5,25,24,26, 8,14, 2,13		3,54, 5,56,25	
		57,25,37,27,40,35,35		4,12
26″	53,22, 6,22,50, 3,35,54,37,48		3,54, 6, 0,37	
		57,25,33,33,34,34,58		4,12
28″	53,22, 7,20,15,37, 9,29,12,46		3,54, 6, 4,49	
		57,25,29,39,28,30, 9		4,12
30″	53,22, 8,17,41, 6,48,57,42,55		3,54, 6, 9, 1	
		57,25,25,45,22,21, 8		4,12
32″	53,22, 9,15, 6,32,34,20, 4, 3		3,54, 6,13,13	
		57,25,21,51,16, 7,55		4,12
34″	53,22,10,12,31,54,25,36,11,58		3,54, 6,17,25	
		57,25,17,57, 9,50,30		4,12
36″	53,22,11, 9,57,12,22,46, 2,28		3,54, 6,21,37	
		57,25,14, 3, 3,28,53		4,12
38″	53,22,12, 7,22,26,25,49,31,21		3,54, 6,25,49	
		57,25,10, 8,57, 3, 4		4,12
40″	53,22,13, 4,47,36,34,46,34,25		3,54, 6,30, 1	
		57,25, 6,14,50,33, 3		4,12
42″	53,22,14, 2,12,42,49,37, 7,28		3,54, 6,34,13	
		57,25, 2,20,43,58,50		4,12
44″	53,22,14,59,37,45,10,21, 6,18		3,54, 6,38,25	
		57,24,58,26,37,20,25		4,12
46″	53,22,15,57, 2,43,36,58,26,43		3,54, 6,42,37	
		57,24,54,32,30,37,48		4,12
48″	53,22,16,54,27,38, 9,29, 4,31		3,54, 6,46,49	
		57,24,50,38,23,50,59		4,12
50″	53,22,17,51,52,28,47,52,55,30		3,54, 6,51, 1	
		57,24,46,44,16,59,58		4,12
52″	53,22,18,49,17,15,32, 9,55,28		3,54, 6,55,13	
		57,24,42,50,10, 4,45		4,12
54″	53,22,19,46,41,58,22,20, 0,13		3,54, 6,59,25	
		57,24,38,56, 3, 5,20		4,12
56″	53,22,20,44, 6,37,18,23, 5,33		3,54, 7, 3,37	
		57,24,35, 1,56, 1,43		4,12
58″	53,22,21,41,31,12,20,19, 7,16		3,54, 7, 7,49	
		57,24,31, 7,48,53,54		
60″	53,22,22,38,55,43,28, 8, 1,10			
exact	53,22,22,38,55,43,28, 8, 3,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°49′ 0″	53,22,22,38,55,43,28, 8, 3,30			
		57,24,27,13,41,42,20		
2″	53,22,23,36,20,10,41,49,45,50		3,54, 7,16,10	
		57,24,23,19,34,26,10		4,12
4″	53,22,24,33,44,34, 1,24,12, 0		3,54, 7,20,22	
		57,24,19,25,27, 5,48		4,12
6″	53,22,25,31, 8,53,26,51,17,48		3,54, 7,24,34	
		57,24,15,31,19,41,14		4,12
8″	53,22,26,28,33, 8,58,10,59, 2		3,54, 7,28,46	
		57,24,11,37,12,12,28		4,12
10″	53,22,27,25,57,20,35,23,11,30		3,54, 7,32,58	
		57,24, 7,43, 4,39,30		4,12
12″	53,22,28,23,21,28,18,27,51, 0		3,54, 7,37,10	
		57,24, 3,48,57, 2,20		4,12
14″	53,22,29,20,45,32, 7,24,53,20		3,54, 7,41,22	
		57,23,59,54,49,20,58		4,12
16″	53,22,30,18, 9,32, 2,14,14,18		3,54, 7,45,34	
		57,23,56, 0,41,35,24		4,12
18″	53,22,31,15,33,28, 2,55,49,42		3,54, 7,49,46	
		57,23,52, 6,33,45,38		4,12
20″	53,22,32,12,57,20, 9,29,35,20		3,54, 7,53,58	
		57,23,48,12,25,51,40		4,12
22″	53,22,33,10,21, 8,21,55,27, 0		3,54, 7,58,10	
		57,23,44,18,17,53,30		4,12
24″	53,22,34, 7,44,52,40,13,20,30		3,54, 8, 2,22	
		57,23,40,24, 9,51, 8		4,12
26″	53,22,35, 5, 8,33, 4,23,11,38		3,54, 8, 6,34	
		57,23,36,30, 1,44,34		4,12
28″	53,22,36, 2,32, 9,34,24,56,12		3,54, 8,10,46	
		57,23,32,35,53,33,48		4,12
30″	53,22,36,59,55,42,10,18,30, 0		3,54, 8,14,58	
		57,23,28,41,45,18,50		4,12
32″	53,22,37,57,19,10,52, 3,48,50		3,54, 8,19,10	
		57,23,24,47,36,59,40		4,12
34″	53,22,38,54,42,35,39,40,48,30		3,54, 8,23,22	
		57,23,20,53,28,36,18		4,12
36″	53,22,39,52, 5,56,33, 9,24,48		3,54, 8,27,34	
		57,23,16,59,20, 8,44		4,12
38″	53,22,40,49,29,13,32,29,33,32		3,54, 8,31,46	
		57,23,13, 5,11,36,58		4,12
40″	53,22,41,46,52,26,37,41,10,30		3,54, 8,35,58	
		57,23, 9,11, 3, 1, 0		4,12
42″	53,22,42,44,15,35,48,44,11,30		3,54, 8,40,10	
		57,23, 5,16,54,20,50		4,12
44″	53,22,43,41,38,41, 5,38,32,20		3,54, 8,44,22	
		57,23, 1,22,45,36,28		4,12
46″	53,22,44,39, 1,42,28,24, 8,48		3,54, 8,48,34	
		57,22,57,28,36,47,54		4,12
48″	53,22,45,36,24,39,57, 0,56,42		3,54, 8,52,46	
		57,22,53,34,27,55, 8		4,12
50″	53,22,46,33,47,33,31,28,51,50		3,54, 8,56,58	
		57,22,49,40,18,58,10		4,12
52″	53,22,47,31,10,23,11,47,50, 0		3,54, 9, 1,10	
		57,22,45,46, 9,57, 0		4,12
54″	53,22,48,28,33, 8,57,57,47, 0		3,54, 9, 5,22	
		57,22,41,52, 0,51,38		4,12
56″	53,22,49,25,55,50,49,58,38,38		3,54, 9, 9,34	
		57,22,37,57,51,42, 4		4,12
58″	53,22,50,23,18,28,47,50,20,42		3,54, 9,13,46	
		57,22,34, 3,42,28,18		
60″	53,22,51,20,41, 2,51,32,49, 0			
exact	53,22,51,20,41, 2,51,33, 3,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°50′ 0″	53,22,51,20,41, 2,51,33, 3,29			
		57,22,30, 9,33,12, 0		
2″	53,22,52,18, 3,33, 1, 6,15,29		3,54, 9,22, 2	
		57,22,26,15,23,49,58		4,12
4″	53,22,53,15,25,59,16,30, 5,27		3,54, 9,26,14	
		57,22,22,21,14,23,44		4,12
6″	53,22,54,12,48,21,37,44,29,11		3,54, 9,30,26	
		57,22,18,27, 4,53,18		4,12
8″	53,22,55,10,10,40, 4,49,22,29		3,54, 9,34,38	
		57,22,14,32,55,18,40		4,12
10″	53,22,56, 7,32,54,37,44,41, 9		3,54, 9,38,50	
		57,22,10,38,45,39,50		4,12
12″	53,22,57, 4,55, 5,16,30,20,59		3,54, 9,43, 2	
		57,22, 6,44,35,56,48		4,12
14″	53,22,58, 2,17,12, 1, 6,17,47		3,54, 9,47,14	
		57,22, 2,50,26, 9,34		4,12
16″	53,22,58,59,39,14,51,32,27,21		3,54, 9,51,26	
		57,21,58,56,16,18, 8		4,12
18″	53,22,59,57, 1,13,47,48,45,29		3,54, 9,55,38	
		57,21,55, 2, 6,22,30		4,12
20″	53,23, 0,54,23, 8,49,55, 7,59		3,54, 9,59,50	
		57,21,51, 7,56,22,40		4,12
22″	53,23, 1,51,44,59,57,51,30,39		3,54,10, 4, 2	
		57,21,47,13,46,18,38		4,12
24″	53,23, 2,49, 6,47,11,37,49,17		3,54,10, 8,14	
		57,21,43,19,36,10,24		4,12
26″	53,23, 3,46,28,30,31,13,59,41		3,54,10,12,26	
		57,21,39,25,25,57,58		4,12
28″	53,23, 4,43,50, 9,56,39,57,39		3,54,10,16,38	
		57,21,35,31,15,41,20		4,12
30″	53,23, 5,41,11,45,27,55,38,59		3,54,10,20,50	
		57,21,31,37, 5,20,30		4,12
32″	53,23, 6,38,33,17, 5, 0,59,29		3,54,10,25, 2	
		57,21,27,42,54,55,28		4,12
34″	53,23, 7,35,54,44,47,55,54,57		3,54,10,29,14	
		57,21,23,48,44,26,14		4,12
36″	53,23, 8,33,16, 8,36,40,21,11		3,54,10,33,26	
		57,21,19,54,33,52,48		4,12
38″	53,23, 9,30,37,28,31,14,13,59		3,54,10,37,38	
		57,21,16, 0,23,15,10		4,12
40″	53,23,10,27,58,44,31,37,29, 9		3,54,10,41,50	
		57,21,12, 6,12,33,20		4,12
42″	53,23,11,25,19,56,37,50, 2,29		3,54,10,46, 2	
		57,21, 8,12, 1,47,18		4,12
44″	53,23,12,22,41, 4,49,51,49,47		3,54,10,50,14	
		57,21, 4,17,50,57, 4		4,12
46″	53,23,13,20, 2, 9, 7,42,46,51		3,54,10,54,26	
		57,21, 0,23,40, 2,38		4,12
48″	53,23,14,17,23, 9,31,22,49,29		3,54,10,58,38	
		57,20,56,29,29, 4, 0		4,12
50″	53,23,15,14,44, 6, 0,51,53,29		3,54,11, 2,50	
		57,20,52,35,18, 1,10		4,12
52″	53,23,16,12, 4,58,36, 9,54,39		3,54,11, 7, 2	
		57,20,48,41, 6,54, 8		4,12
54″	53,23,17, 9,25,47,17,16,48,47		3,54,11,11,14	
		57,20,44,46,55,42,54		4,12
56″	53,23,18, 6,46,32, 4,12,31,41		3,54,11,15,26	
		57,20,40,52,44,27,28		4,12
58″	53,23,19, 4, 7,12,56,56,59, 9		3,54,11,19,38	
		57,20,36,58,33, 7,50		
60″	53,23,20, 1,27,49,55,30, 6,59			
exact	53,23,20, 1,27,49,55,30,28,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°51′ 0″	53,23,20, 1,27,49,55,30,28,56			
		57,20,33, 4,21,46,32		
2″	53,23,20,58,48,22,59,52,15,28		3,54,11,27,50	
		57,20,29,10,10,18,42		4,12
4″	53,23,21,56, 8,52,10, 2,34,10		3,54,11,32, 2	
		57,20,25,15,58,46,40		4,12
6″	53,23,22,53,29,17,26, 1,20,50		3,54,11,36,14	
		57,20,21,21,47,10,26		4,12
8″	53,23,23,50,49,38,47,48,31,16		3,54,11,40,26	
		57,20,17,27,35,30, 0		4,12
10″	53,23,24,48, 9,56,15,24, 1,16		3,54,11,44,38	
		57,20,13,33,23,45,22		4,12
12″	53,23,25,45,30, 9,48,47,46,38		3,54,11,48,50	
		57,20, 9,39,11,56,32		4,12
14″	53,23,26,42,50,19,27,59,43,10		3,54,11,53, 2	
		57,20, 5,45, 0, 3,30		4,12
16″	53,23,27,40,10,25,12,59,46,40		3,54,11,57,14	
		57,20, 1,50,48, 6,16		4,12
18″	53,23,28,37,30,27, 3,47,52,56		3,54,12, 1,26	
		57,19,57,56,36, 4,50		4,12
20″	53,23,29,34,50,25, 0,23,57,46		3,54,12, 5,38	
		57,19,54, 2,23,59,12		4,12
22″	53,23,30,32,10,19, 2,47,56,58		3,54,12, 9,50	
		57,19,50, 8,11,49,22		4,12
24″	53,23,31,29,30, 9,10,59,46,20		3,54,12,14, 2	
		57,19,46,13,59,35,20		4,12
26″	53,23,32,26,49,55,24,59,21,40		3,54,12,18,14	
		57,19,42,19,47,17, 6		4,12
28″	53,23,33,24, 9,37,44,46,38,46		3,54,12,22,26	
		57,19,38,25,34,54,40		4,12
30″	53,23,34,21,29,16,10,21,33,26		3,54,12,26,38	
		57,19,34,31,22,28, 2		4,12
32″	53,23,35,18,48,50,41,44, 1,28		3,54,12,30,50	
		57,19,30,37, 9,57,12		4,12
34″	53,23,36,16, 8,21,18,53,58,40		3,54,12,35, 2	
		57,19,26,42,57,22,10		4,12
36″	53,23,37,13,27,48, 1,51,20,50		3,54,12,39,14	
		57,19,22,48,44,42,56		4,12
38″	53,23,38,10,47,10,50,36, 3,46		3,54,12,43,26	
		57,19,18,54,31,59,30		4,12
40″	53,23,39, 8, 6,29,45, 8, 3,16		3,54,12,47,38	
		57,19,15, 0,19,11,52		4,12
42″	53,23,40, 5,25,44,45,27,15, 8		3,54,12,51,50	
		57,19,11, 6, 6,20, 2		4,12
44″	53,23,41, 2,44,55,51,33,35,10		3,54,12,56, 2	
		57,19, 7,11,53,24, 0		4,12
46″	53,23,42, 0, 4, 3, 3,26,59,10		3,54,13, 0,14	
		57,19, 3,17,40,23,46		4,12
48″	53,23,42,57,23, 6,21, 7,22,56		3,54,13, 4,26	
		57,18,59,23,27,19,20		4,12
50″	53,23,43,54,42, 5,44,34,42,16		3,54,13, 8,38	
		57,18,55,29,14,10,42		4,12
52″	53,23,44,52, 1, 1,13,48,52,58		3,54,13,12,50	
		57,18,51,35, 0,57,52		4,12
54″	53,23,45,49,19,52,48,49,50,50		3,54,13,17, 2	
		57,18,47,40,47,40,50		4,12
56″	53,23,46,46,38,40,29,37,31,40		3,54,13,21,14	
		57,18,43,46,34,19,36		4,12
58″	53,23,47,43,57,24,16,11,51,16		3,54,13,25,26	
		57,18,39,52,20,54,10		
60″	53,23,48,41,16, 4, 8,32,45,26			
exact	53,23,48,41,16, 4, 8,33,17, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°52′ 0″	53,23,48,41,16, 4, 8,33,17, 3			
		57,18,35,58, 7,28, 6		
2″	53,23,49,38,34,40, 6,40,45, 9		3,54,13,33,34	
		57,18,32, 3,53,54,32		4,11
4″	53,23,50,35,53,12,10,34,39,41		3,54,13,37,45	
		57,18,28, 9,40,16,47		4,11
6″	53,23,51,33,11,40,20,14,56,28		3,54,13,41,56	
		57,18,24,15,26,34,51		4,11
8″	53,23,52,30,30, 4,35,41,31,19		3,54,13,46, 7	
		57,18,20,21,12,48,44		4,11
10″	53,23,53,27,48,24,56,54,20, 3		3,54,13,50,18	
		57,18,16,26,58,58,26		4,11
12″	53,23,54,25, 6,41,23,53,18,29		3,54,13,54,29	
		57,18,12,32,45, 3,57		4,11
14″	53,23,55,22,24,53,56,38,22,26		3,54,13,58,40	
		57,18, 8,38,31, 5,17		4,11
16″	53,23,56,19,43, 2,35, 9,27,43		3,54,14, 2,51	
		57,18, 4,44,17, 2,26		4,11
18″	53,23,57,17, 1, 7,19,26,30, 9		3,54,14, 7, 2	
		57,18, 0,50, 2,55,24		4,11
20″	53,23,58,14,19, 8, 9,29,25,33		3,54,14,11,13	
		57,17,56,55,48,44,11		4,11
22″	53,23,59,11,37, 5, 5,18, 9,44		3,54,14,15,24	
		57,17,53, 1,34,28,47		4,11
24″	53,24, 0, 8,54,58, 6,52,38,31		3,54,14,19,35	
		57,17,49, 7,20, 9,12		4,11
26″	53,24, 1, 6,12,47,14,12,47,43		3,54,14,23,46	
		57,17,45,13, 5,45,26		4,11
28″	53,24, 2, 3,30,32,27,18,33, 9		3,54,14,27,57	
		57,17,41,18,51,17,29		4,11
30″	53,24, 3, 0,48,13,46, 9,50,38		3,54,14,32, 8	
		57,17,37,24,36,45,21		4,11
32″	53,24, 3,58, 5,51,10,46,35,59		3,54,14,36,19	
		57,17,33,30,22, 9, 2		4,11
34″	53,24, 4,55,23,24,41, 8,45, 1		3,54,14,40,30	
		57,17,29,36, 7,28,32		4,11
36″	53,24, 5,52,40,54,17,16,13,33		3,54,14,44,41	
		57,17,25,41,52,43,51		4,11
38″	53,24, 6,49,58,19,59, 8,57,24		3,54,14,48,52	
		57,17,21,47,37,54,59		4,11
40″	53,24, 7,47,15,41,46,46,52,23		3,54,14,53, 3	
		57,17,17,53,23, 1,56		4,11
42″	53,24, 8,44,32,59,40, 9,54,19		3,54,14,57,14	
		57,17,13,59, 8, 4,42		4,11
44″	53,24, 9,41,50,13,39,17,59, 1		3,54,15, 1,25	
		57,17,10, 4,53, 3,17		4,11
46″	53,24,10,39, 7,23,44,11, 2,18		3,54,15, 5,36	
		57,17, 6,10,37,57,41		4,11
48″	53,24,11,36,24,29,54,48,59,59		3,54,15, 9,47	
		57,17, 2,16,22,47,54		4,11
50″	53,24,12,33,41,32,11,11,47,53		3,54,15,13,58	
		57,16,58,22, 7,33,56		4,11
52″	53,24,13,30,58,30,33,19,21,49		3,54,15,18, 9	
		57,16,54,27,52,15,47		4,11
54″	53,24,14,28,15,25, 1,11,37,36		3,54,15,22,20	
		57,16,50,33,36,53,27		4,11
56″	53,24,15,25,32,15,34,48,31, 3		3,54,15,26,31	
		57,16,46,39,21,26,56		4,11
58″	53,24,16,22,49, 2,14, 9,57,59		3,54,15,30,42	
		57,16,42,45, 5,56,14		
60″	53,24,17,20, 5,44,59,15,54,13			
exact	53,24,17,20, 5,44,59,15,29,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°53′ 0″	53,24,17,20, 5,44,59,15,29,16			
		57,16,38,50,50,18,49		
2″	53,24,18,17,22,23,50, 5,48, 5		3,54,15,39,14	
		57,16,34,56,34,39,35		4,11
4″	53,24,19,14,38,58,46,40,27,40		3,54,15,43,25	
		57,16,31, 2,18,56,10		4,11
6″	53,24,20,11,55,29,48,59,23,50		3,54,15,47,36	
		57,16,27, 8, 3, 8,34		4,11
8″	53,24,21, 9,11,56,57, 2,32,24		3,54,15,51,47	
		57,16,23,13,47,16,47		4,11
10″	53,24,22, 6,28,20,10,49,49,11		3,54,15,55,58	
		57,16,19,19,31,20,49		4,11
12″	53,24,23, 3,44,39,30,21,10, 0		3,54,16, 0, 9	
		57,16,15,25,15,20,40		4,11
14″	53,24,24, 1, 0,54,55,36,30,40		3,54,16, 4,20	
		57,16,11,30,59,16,20		4,11
16″	53,24,24,58,17, 6,26,35,47, 0		3,54,16, 8,31	
		57,16, 7,36,43, 7,49		4,11
18″	53,24,25,55,33,14, 3,18,54,49		3,54,16,12,42	
		57,16, 3,42,26,55, 7		4,11
20″	53,24,26,52,49,17,45,45,49,56		3,54,16,16,53	
		57,15,59,48,10,38,14		4,11
22″	53,24,27,50, 5,17,33,56,28,10		3,54,16,21, 4	
		57,15,55,53,54,17,10		4,11
24″	53,24,28,47,21,13,27,50,45,20		3,54,16,25,15	
		57,15,51,59,37,51,55		4,11
26″	53,24,29,44,37, 5,27,28,37,15		3,54,16,29,26	
		57,15,48, 5,21,22,29		4,11
28″	53,24,30,41,52,53,32,49,59,44		3,54,16,33,37	
		57,15,44,11, 4,48,52		4,11
30″	53,24,31,39, 8,37,43,54,48,36		3,54,16,37,48	
		57,15,40,16,48,11, 4		4,11
32″	53,24,32,36,24,18, 0,42,59,40		3,54,16,41,59	
		57,15,36,22,31,29, 5		4,11
34″	53,24,33,33,39,54,23,14,28,45		3,54,16,46,10	
		57,15,32,28,14,42,55		4,11
36″	53,24,34,30,55,26,51,29,11,40		3,54,16,50,21	
		57,15,28,33,57,52,34		4,11
38″	53,24,35,28,10,55,25,27, 4,14		3,54,16,54,32	
		57,15,24,39,40,58, 2		4,11
40″	53,24,36,25,26,20, 5, 8, 2,16		3,54,16,58,43	
		57,15,20,45,23,59,19		4,11
42″	53,24,37,22,41,40,50,32, 1,35		3,54,17, 2,54	
		57,15,16,51, 6,56,25		4,11
44″	53,24,38,19,56,57,41,38,58, 0		3,54,17, 7, 5	
		57,15,12,56,49,49,20		4,11
46″	53,24,39,17,12,10,38,28,47,20		3,54,17,11,16	
		57,15, 9, 2,32,38, 4		4,11
48″	53,24,40,14,27,19,41, 1,25,24		3,54,17,15,27	
		57,15, 5, 8,15,22,37		4,11
50″	53,24,41,11,42,24,49,16,48, 1		3,54,17,19,38	
		57,15, 1,13,58, 2,59		4,11
52″	53,24,42, 8,57,26, 3,14,51, 0		3,54,17,23,49	
		57,14,57,19,40,39,10		4,11
54″	53,24,43, 6,12,23,22,55,30,10		3,54,17,28, 0	
		57,14,53,25,23,11,10		4,11
56″	53,24,44, 3,27,16,48,18,41,20		3,54,17,32,11	
		57,14,49,31, 5,38,59		4,11
58″	53,24,45, 0,42, 6,19,24,20,19		3,54,17,36,22	
		57,14,45,36,48, 2,37		
60″	53,24,45,57,56,51,56,12,22,56			
exact	53,24,45,57,56,51,56,12,11,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°54′ 0″	53,24,45,57,56,51,56,12,11,16			
		57,14,41,42,30,20,49		
2″	53,24,46,55,11,33,38,42,32, 5		3,54,17,44,49	
		57,14,37,48,12,36, 0		4,11
4″	53,24,47,52,26,11,26,55, 8, 5		3,54,17,49, 0	
		57,14,33,53,54,47, 0		4,11
6″	53,24,48,49,40,45,20,49,55, 5		3,54,17,53,11	
		57,14,29,59,36,53,49		4,11
8″	53,24,49,46,55,15,20,26,48,54		3,54,17,57,22	
		57,14,26, 5,18,56,27		4,11
10″	53,24,50,44, 9,41,25,45,45,21		3,54,18, 1,33	
		57,14,22,11, 0,54,54		4,11
12″	53,24,51,41,24, 3,36,46,40,15		3,54,18, 5,44	
		57,14,18,16,42,49,10		4,11
14″	53,24,52,38,38,21,53,29,29,25		3,54,18, 9,55	
		57,14,14,22,24,39,15		4,11
16″	53,24,53,35,52,36,15,54, 8,40		3,54,18,14, 6	
		57,14,10,28, 6,25, 9		4,11
18″	53,24,54,33, 6,46,44, 0,33,49		3,54,18,18,17	
		57,14, 6,33,48, 6,52		4,11
20″	53,24,55,30,20,53,17,48,40,41		3,54,18,22,28	
		57,14, 2,39,29,44,24		4,11
22″	53,24,56,27,34,55,57,18,25, 5		3,54,18,26,39	
		57,13,58,45,11,17,45		4,11
24″	53,24,57,24,48,54,42,29,42,50		3,54,18,30,50	
		57,13,54,50,52,46,55		4,11
26″	53,24,58,22, 2,49,33,22,29,45		3,54,18,35, 1	
		57,13,50,56,34,11,54		4,11
28″	53,24,59,19,16,40,29,56,41,39		3,54,18,39,12	
		57,13,47, 2,15,32,42		4,11
30″	53,25, 0,16,30,27,32,12,14,21		3,54,18,43,23	
		57,13,43, 7,56,49,19		4,11
32″	53,25, 1,13,44,10,40, 9, 3,40		3,54,18,47,34	
		57,13,39,13,38, 1,45		4,11
34″	53,25, 2,10,57,49,53,47, 5,25		3,54,18,51,45	
		57,13,35,19,19,10, 0		4,11
36″	53,25, 3, 8,11,25,13, 6,15,25		3,54,18,55,56	
		57,13,31,25, 0,14, 4		4,11
38″	53,25, 4, 5,24,56,38, 6,29,29		3,54,19, 0, 7	
		57,13,27,30,41,13,57		4,11
40″	53,25, 5, 2,38,24, 8,47,43,26		3,54,19, 4,18	
		57,13,23,36,22, 9,39		4,11
42″	53,25, 5,59,51,47,45, 9,53, 5		3,54,19, 8,29	
		57,13,19,42, 3, 1,10		4,11
44″	53,25, 6,57, 5, 7,27,12,54,15		3,54,19,12,40	
		57,13,15,47,43,48,30		4,11
46″	53,25, 7,54,18,23,14,56,42,45		3,54,19,16,51	
		57,13,11,53,24,31,39		4,11
48″	53,25, 8,51,31,35, 8,21,14,24		3,54,19,21, 2	
		57,13, 7,59, 5,10,37		4,11
50″	53,25, 9,48,44,43, 7,26,25, 1		3,54,19,25,13	
		57,13, 4, 4,45,45,24		4,11
52″	53,25,10,45,57,47,12,12,10,25		3,54,19,29,24	
		57,13, 0,10,26,16, 0		4,11
54″	53,25,11,43,10,47,22,38,26,25		3,54,19,33,35	
		57,12,56,16, 6,42,25		4,11
56″	53,25,12,40,23,43,38,45, 8,50		3,54,19,37,46	
		57,12,52,21,47, 4,39		4,11
58″	53,25,13,37,36,36, 0,32,13,29		3,54,19,41,57	
		57,12,48,27,27,22,42		
60″	53,25,14,34,49,24,27,59,36,11			
exact	53,25,14,34,49,24,27,59,32,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°55′ 0″	53,25,14,34,49,24,27,59,32,53			
		57,12,44,33, 7,36,15		
2″	53,25,15,32, 2, 9, 1, 7, 9, 8		3,54,19,50,20	
		57,12,40,38,47,45,55		4,11
4″	53,25,16,29,14,49,39,54,55, 3		3,54,19,54,31	
		57,12,36,44,27,51,24		4,11
6″	53,25,17,26,27,26,24,22,46,27		3,54,19,58,42	
		57,12,32,50, 7,52,42		4,11
8″	53,25,18,23,39,59,14,30,39, 9		3,54,20, 2,53	
		57,12,28,55,47,49,49		4,11
10″	53,25,19,20,52,28,10,18,28,58		3,54,20, 7, 4	
		57,12,25, 1,27,42,45		4,11
12″	53,25,20,18, 4,53,11,46,11,43		3,54,20,11,15	
		57,12,21, 7, 7,31,30		4,11
14″	53,25,21,15,17,14,18,53,43,13		3,54,20,15,26	
		57,12,17,12,47,16, 4		4,11
16″	53,25,22,12,29,31,31,40,59,17		3,54,20,19,37	
		57,12,13,18,26,56,27		4,11
18″	53,25,23, 9,41,44,50, 7,55,44		3,54,20,23,48	
		57,12, 9,24, 6,32,39		4,11
20″	53,25,24, 6,53,54,14,14,28,23		3,54,20,27,59	
		57,12, 5,29,46, 4,40		4,11
22″	53,25,25, 4, 5,59,44, 0,33, 3		3,54,20,32,10	
		57,12, 1,35,25,32,30		4,11
24″	53,25,26, 1,18, 1,19,26, 5,33		3,54,20,36,21	
		57,11,57,41, 4,56, 9		4,11
26″	53,25,26,58,29,59, 0,31, 1,42		3,54,20,40,32	
		57,11,53,46,44,15,37		4,11
28″	53,25,27,55,41,52,47,15,17,19		3,54,20,44,43	
		57,11,49,52,23,30,54		4,11
30″	53,25,28,52,53,42,39,38,48,13		3,54,20,48,54	
		57,11,45,58, 2,42, 0		4,11
32″	53,25,29,50, 5,28,37,41,30,13		3,54,20,53, 5	
		57,11,42, 3,41,48,55		4,11
34″	53,25,30,47,17,10,41,23,19, 8		3,54,20,57,16	
		57,11,38, 9,20,51,39		4,11
36″	53,25,31,44,28,48,50,44,10,47		3,54,21, 1,27	
		57,11,34,14,59,50,12		4,11
38″	53,25,32,41,40,23, 5,44, 0,59		3,54,21, 5,38	
		57,11,30,20,38,44,34		4,11
40″	53,25,33,38,51,53,26,22,45,33		3,54,21, 9,49	
		57,11,26,26,17,34,45		4,11
42″	53,25,34,36, 3,19,52,40,20,18		3,54,21,14, 0	
		57,11,22,31,56,20,45		4,11
44″	53,25,35,33,14,42,24,36,41, 3		3,54,21,18,11	
		57,11,18,37,35, 2,34		4,11
46″	53,25,36,30,26, 1, 2,11,43,37		3,54,21,22,22	
		57,11,14,43,13,40,12		4,11
48″	53,25,37,27,37,15,45,25,23,49		3,54,21,26,33	
		57,11,10,48,52,13,39		4,11
50″	53,25,38,24,48,26,34,17,37,28		3,54,21,30,44	
		57,11, 6,54,30,42,55		4,11
52″	53,25,39,21,59,33,28,48,20,23		3,54,21,34,55	
		57,11, 3, 0, 9, 8, 0		4,11
54″	53,25,40,19,10,36,28,57,28,23		3,54,21,39, 6	
		57,10,59, 5,47,28,54		4,11
56″	53,25,41,16,21,35,34,44,57,17		3,54,21,43,17	
		57,10,55,11,25,45,37		4,11
58″	53,25,42,13,32,30,46,10,42,54		3,54,21,47,28	
		57,10,51,17, 3,58, 9		
60″	53,25,43,10,43,22, 3,14,41, 3			
exact	53,25,43,10,43,22, 3,14,48,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°56′ 0″	53,25,43,10,43,22, 3,14,48,16			
		57,10,47,22,42, 7,16		
2″	53,25,44, 7,54, 9,25,56,55,32		3,54,21,55,46	
		57,10,43,28,20,11,30		4,11
4″	53,25,45, 5, 4,52,54,17, 7, 2		3,54,21,59,57	
		57,10,39,33,58,11,33		4,11
6″	53,25,46, 2,15,32,28,15,18,35		3,54,22, 4, 8	
		57,10,35,39,36, 7,25		4,11
8″	53,25,46,59,26, 8, 7,51,26, 0		3,54,22, 8,19	
		57,10,31,45,13,59, 6		4,11
10″	53,25,47,56,36,39,53, 5,25, 6		3,54,22,12,30	
		57,10,27,50,51,46,36		4,11
12″	53,25,48,53,47, 7,43,57,11,42		3,54,22,16,41	
		57,10,23,56,29,29,55		4,11
14″	53,25,49,50,57,31,40,26,41,37		3,54,22,20,52	
		57,10,20, 2, 7, 9, 3		4,11
16″	53,25,50,48, 7,51,42,33,50,40		3,54,22,25, 3	
		57,10,16, 7,44,44, 0		4,11
18″	53,25,51,45,18, 7,50,18,34,40		3,54,22,29,14	
		57,10,12,13,22,14,46		4,11
20″	53,25,52,42,28,20, 3,40,49,26		3,54,22,33,25	
		57,10, 8,18,59,41,21		4,11
22″	53,25,53,39,38,28,22,40,30,47		3,54,22,37,36	
		57,10, 4,24,37, 3,45		4,11
24″	53,25,54,36,48,32,47,17,34,32		3,54,22,41,47	
		57,10, 0,30,14,21,58		4,11
26″	53,25,55,33,58,33,17,31,56,30		3,54,22,45,58	
		57, 9,56,35,51,36, 0		4,11
28″	53,25,56,31, 8,29,53,23,32,30		3,54,22,50, 9	
		57, 9,52,41,28,45,51		4,11
30″	53,25,57,28,18,22,34,52,18,21		3,54,22,54,20	
		57, 9,48,47, 5,51,31		4,11
32″	53,25,58,25,28,11,21,58, 9,52		3,54,22,58,31	
		57, 9,44,52,42,53, 0		4,11
34″	53,25,59,22,37,56,14,41, 2,52		3,54,23, 2,42	
		57, 9,40,58,19,50,18		4,11
36″	53,26, 0,19,47,37,13, 0,53,10		3,54,23, 6,53	
		57, 9,37, 3,56,43,25		4,11
38″	53,26, 1,16,57,14,16,57,36,35		3,54,23,11, 4	
		57, 9,33, 9,33,32,21		4,11
40″	53,26, 2,14, 6,47,26,31, 8,56		3,54,23,15,15	
		57, 9,29,15,10,17, 6		4,11
42″	53,26, 3,11,16,16,41,41,26, 2		3,54,23,19,26	
		57, 9,25,20,46,57,40		4,11
44″	53,26, 4, 8,25,42, 2,28,23,42		3,54,23,23,37	
		57, 9,21,26,23,34, 3		4,11
46″	53,26, 5, 5,35, 3,28,51,57,45		3,54,23,27,48	
		57, 9,17,32, 0, 6,15		4,11
48″	53,26, 6, 2,44,21, 0,52, 4, 0		3,54,23,31,59	
		57, 9,13,37,36,34,16		4,11
50″	53,26, 6,59,53,34,38,28,38,16		3,54,23,36,10	
		57, 9, 9,43,12,58, 6		4,11
52″	53,26, 7,57, 2,44,21,41,36,22		3,54,23,40,21	
		57, 9, 5,48,49,17,45		4,11
54″	53,26, 8,54,11,50,10,30,54, 7		3,54,23,44,32	
		57, 9, 1,54,25,33,13		4,11
56″	53,26, 9,51,20,52, 4,56,27,20		3,54,23,48,43	
		57, 8,58, 0, 1,44,30		4,11
58″	53,26,10,48,29,50, 4,58,11,50		3,54,23,52,54	
		57, 8,54, 5,37,51,36		
60″	53,26,11,45,38,44,10,36, 3,26			
exact	53,26,11,45,38,44,10,36,15,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°57′ 0″	53,26,11,45,38,44,10,36,15,44			
		57, 8,50,11,13,56, 1		
2″	53,26,12,42,47,34,21,50,11,45		3,54,24, 1, 9	
		57, 8,46,16,49,54,52		4,11
4″	53,26,13,39,56,20,38,40, 6,37		3,54,24, 5,20	
		57, 8,42,22,25,49,32		4,11
6″	53,26,14,37, 5, 3, 1, 5,56, 9		3,54,24, 9,31	
		57, 8,38,28, 1,40, 1		4,11
8″	53,26,15,34,13,41,29, 7,36,10		3,54,24,13,42	
		57, 8,34,33,37,26,19		4,11
10″	53,26,16,31,22,16, 2,45, 2,29		3,54,24,17,53	
		57, 8,30,39,13, 8,26		4,11
12″	53,26,17,28,30,46,41,58,10,55		3,54,24,22, 4	
		57, 8,26,44,48,46,22		4,11
14″	53,26,18,25,39,13,26,46,57,17		3,54,24,26,15	
		57, 8,22,50,24,20, 7		4,11
16″	53,26,19,22,47,36,17,11,17,24		3,54,24,30,26	
		57, 8,18,55,59,49,41		4,11
18″	53,26,20,19,55,55,13,11, 7, 5		3,54,24,34,37	
		57, 8,15, 1,35,15, 4		4,11
20″	53,26,21,17, 4,10,14,46,22, 9		3,54,24,38,48	
		57, 8,11, 7,10,36,16		4,11
22″	53,26,22,14,12,21,21,56,58,25		3,54,24,42,59	
		57, 8, 7,12,45,53,17		4,11
24″	53,26,23,11,20,28,34,42,51,42		3,54,24,47,10	
		57, 8, 3,18,21, 6, 7		4,11
26″	53,26,24, 8,28,31,53, 3,57,49		3,54,24,51,21	
		57, 7,59,23,56,14,46		4,11
28″	53,26,25, 5,36,31,17, 0,12,35		3,54,24,55,32	
		57, 7,55,29,31,19,14		4,11
30″	53,26,26, 2,44,26,46,31,31,49		3,54,24,59,43	
		57, 7,51,35, 6,19,31		4,11
32″	53,26,26,59,52,18,21,37,51,20		3,54,25, 3,54	
		57, 7,47,40,41,15,37		4,11
34″	53,26,27,57, 0, 6, 2,19, 6,57		3,54,25, 8, 5	
		57, 7,43,46,16, 7,32		4,11
36″	53,26,28,54, 7,49,48,35,14,29		3,54,25,12,16	
		57, 7,39,51,50,55,16		4,11
38″	53,26,29,51,15,29,40,26, 9,45		3,54,25,16,27	
		57, 7,35,57,25,38,49		4,11
40″	53,26,30,48,23, 5,37,51,48,34		3,54,25,20,38	
		57, 7,32, 3, 0,18,11		4,11
42″	53,26,31,45,30,37,40,52, 6,45		3,54,25,24,49	
		57, 7,28, 8,34,53,22		4,11
44″	53,26,32,42,38, 5,49,27, 0, 7		3,54,25,29, 0	
		57, 7,24,14, 9,24,22		4,11
46″	53,26,33,39,45,30, 3,36,24,29		3,54,25,33,11	
		57, 7,20,19,43,51,11		4,11
48″	53,26,34,36,52,50,23,20,15,40		3,54,25,37,22	
		57, 7,16,25,18,13,49		4,11
50″	53,26,35,34, 0, 6,48,38,29,29		3,54,25,41,33	
		57, 7,12,30,52,32,16		4,11
52″	53,26,36,31, 7,19,19,31, 1,45		3,54,25,45,44	
		57, 7, 8,36,26,46,32		4,11
54″	53,26,37,28,14,27,55,57,48,17		3,54,25,49,55	
		57, 7, 4,42, 0,56,37		4,11
56″	53,26,38,25,21,32,37,58,44,54		3,54,25,54, 6	
		57, 7, 0,47,35, 2,31		4,11
58″	53,26,39,22,28,33,25,33,47,25		3,54,25,58,17	
		57, 6,56,53, 9, 4,14		
60″	53,26,40,19,35,30,18,42,51,39			
exact	53,26,40,19,35,30,18,43,17,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°58′ 0″	53,26,40,19,35,30,18,43,17,54			
		57, 6,52,58,43, 4,36		
2″	53,26,41,16,42,23,17,26,22,30		3,54,26, 6,27	
		57, 6,49, 4,16,58, 9		4,11
4″	53,26,42,13,49,12,21,43,20,39		3,54,26,10,38	
		57, 6,45, 9,50,47,31		4,11
6″	53,26,43,10,55,57,31,34, 8,10		3,54,26,14,49	
		57, 6,41,15,24,32,42		4,11
8″	53,26,44, 8, 2,38,46,58,40,52		3,54,26,19, 0	
		57, 6,37,20,58,13,42		4,11
10″	53,26,45, 5, 9,16, 7,56,54,34		3,54,26,23,11	
		57, 6,33,26,31,50,31		4,11
12″	53,26,46, 2,15,49,34,28,45, 5		3,54,26,27,22	
		57, 6,29,32, 5,23, 9		4,11
14″	53,26,46,59,22,19, 6,34, 8,14		3,54,26,31,33	
		57, 6,25,37,38,51,36		4,11
16″	53,26,47,56,28,44,44,12,59,50		3,54,26,35,44	
		57, 6,21,43,12,15,52		4,11
18″	53,26,48,53,35, 6,27,25,15,42		3,54,26,39,55	
		57, 6,17,48,45,35,57		4,11
20″	53,26,49,50,41,24,16,10,51,39		3,54,26,44, 6	
		57, 6,13,54,18,51,51		4,11
22″	53,26,50,47,47,38,10,29,43,30		3,54,26,48,17	
		57, 6, 9,59,52, 3,34		4,11
24″	53,26,51,44,53,48,10,21,47, 4		3,54,26,52,28	
		57, 6, 6, 5,25,11, 6		4,11
26″	53,26,52,41,59,54,15,46,58,10		3,54,26,56,39	
		57, 6, 2,10,58,14,27		4,11
28″	53,26,53,39, 5,56,26,45,12,37		3,54,27, 0,50	
		57, 5,58,16,31,13,37		4,11
30″	53,26,54,36,11,54,43,16,26,14		3,54,27, 5, 1	
		57, 5,54,22, 4, 8,36		4,11
32″	53,26,55,33,17,49, 5,20,34,50		3,54,27, 9,12	
		57, 5,50,27,36,59,24		4,11
34″	53,26,56,30,23,39,32,57,34,14		3,54,27,13,23	
		57, 5,46,33, 9,46, 1		4,11
36″	53,26,57,27,29,26, 6, 7,20,15		3,54,27,17,34	
		57, 5,42,38,42,28,27		4,11
38″	53,26,58,24,35, 8,44,49,48,42		3,54,27,21,45	
		57, 5,38,44,15, 6,42		4,11
40″	53,26,59,21,40,47,29, 4,55,24		3,54,27,25,56	
		57, 5,34,49,47,40,46		4,11
42″	53,27, 0,18,46,22,18,52,36,10		3,54,27,30, 7	
		57, 5,30,55,20,10,39		4,11
44″	53,27, 1,15,51,53,14,12,46,49		3,54,27,34,18	
		57, 5,27, 0,52,36,21		4,11
46″	53,27, 2,12,57,20,15, 5,23,10		3,54,27,38,29	
		57, 5,23, 6,24,57,52		4,11
48″	53,27, 3,10, 2,43,21,30,21, 2		3,54,27,42,40	
		57, 5,19,11,57,15,12		4,11
50″	53,27, 4, 7, 8, 2,33,27,36,14		3,54,27,46,51	
		57, 5,15,17,29,28,21		4,11
52″	53,27, 5, 4,13,17,50,57, 4,35		3,54,27,51, 2	
		57, 5,11,23, 1,37,19		4,11
54″	53,27, 6, 1,18,29,13,58,41,54		3,54,27,55,13	
		57, 5, 7,28,33,42, 6		4,11
56″	53,27, 6,58,23,36,42,32,24, 0		3,54,27,59,24	
		57, 5, 3,34, 5,42,42		4,11
58″	53,27, 7,55,28,40,16,38, 6,42		3,54,28, 3,35	
		57, 4,59,39,37,39, 7		
60″	53,27, 8,52,33,39,56,15,45,49			
exact	53,27, 8,52,33,39,56,16,21,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
62°59′ 0″	53,27, 8,52,33,39,56,16,21,38			
		57, 4,55,45, 9,35,12		
2″	53,27, 9,49,38,35,41,25,56,50		3,54,28,11,41	
		57, 4,51,50,41,23,31		4,10
4″	53,27,10,46,43,27,32, 7,20,21		3,54,28,15,51	
		57, 4,47,56,13, 7,40		4,10
6″	53,27,11,43,48,15,28,20,28, 1		3,54,28,20, 1	
		57, 4,44, 1,44,47,39		4,10
8″	53,27,12,40,52,59,30, 5,15,40		3,54,28,24,11	
		57, 4,40, 7,16,23,28		4,10
10″	53,27,13,37,57,39,37,21,39, 8		3,54,28,28,21	
		57, 4,36,12,47,55, 7		4,10
12″	53,27,14,35, 2,15,50, 9,34,15		3,54,28,32,31	
		57, 4,32,18,19,22,36		4,10
14″	53,27,15,32, 6,48, 8,28,56,51		3,54,28,36,41	
		57, 4,28,23,50,45,55		4,10
16″	53,27,16,29,11,16,32,19,42,46		3,54,28,40,51	
		57, 4,24,29,22, 5, 4		4,10
18″	53,27,17,26,15,41, 1,41,47,50		3,54,28,45, 1	
		57, 4,20,34,53,20, 3		4,10
20″	53,27,18,23,20, 1,36,35, 7,53		3,54,28,49,11	
		57, 4,16,40,24,30,52		4,10
22″	53,27,19,20,24,18,16,59,38,45		3,54,28,53,21	
		57, 4,12,45,55,37,31		4,10
24″	53,27,20,17,28,31, 2,55,16,16		3,54,28,57,31	
		57, 4, 8,51,26,40, 0		4,10
26″	53,27,21,14,32,39,54,21,56,16		3,54,29, 1,41	
		57, 4, 4,56,57,38,19		4,10
28″	53,27,22,11,36,44,51,19,34,35		3,54,29, 5,51	
		57, 4, 1, 2,28,32,28		4,10
30″	53,27,23, 8,40,45,53,48, 7, 3		3,54,29,10, 1	
		57, 3,57, 7,59,22,27		4,10
32″	53,27,24, 5,44,43, 1,47,29,30		3,54,29,14,11	
		57, 3,53,13,30, 8,16		4,10
34″	53,27,25, 2,48,36,15,17,37,46		3,54,29,18,21	
		57, 3,49,19, 0,49,55		4,10
36″	53,27,25,59,52,25,34,18,27,41		3,54,29,22,31	
		57, 3,45,24,31,27,24		4,10
38″	53,27,26,56,56,10,58,49,55, 5		3,54,29,26,41	
		57, 3,41,30, 2, 0,43		4,10
40″	53,27,27,53,59,52,28,51,55,48		3,54,29,30,51	
		57, 3,37,35,32,29,52		4,10
42″	53,27,28,51, 3,30, 4,24,25,40		3,54,29,35, 1	
		57, 3,33,41, 2,54,51		4,10
44″	53,27,29,48, 7, 3,45,27,20,31		3,54,29,39,11	
		57, 3,29,46,33,15,40		4,10
46″	53,27,30,45,10,33,32, 0,36,11		3,54,29,43,21	
		57, 3,25,52, 3,32,19		4,10
48″	53,27,31,42,13,59,24, 4, 8,30		3,54,29,47,31	
		57, 3,21,57,33,44,48		4,10
50″	53,27,32,39,17,21,21,37,53,18		3,54,29,51,41	
		57, 3,18, 3, 3,53, 7		4,10
52″	53,27,33,36,20,39,24,41,46,25		3,54,29,55,51	
		57, 3,14, 8,33,57,16		4,10
54″	53,27,34,33,23,53,33,15,43,41		3,54,30, 0, 1	
		57, 3,10,14, 3,57,15		4,10
56″	53,27,35,30,27, 3,47,19,40,56		3,54,30, 4,11	
		57, 3, 6,19,33,53, 4		4,10
58″	53,27,36,27,30,10, 6,53,34, 0		3,54,30, 8,21	
		57, 3, 2,25, 3,44,43		
60″	53,27,37,24,33,12,31,57,18,43			
exact	53,27,37,24,33,12,31,56,58, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63° 0′ 0″	53,27,37,24,33,12,31,56,58, 3			
		57, 2,58,30,33,29,57		
2″	53,27,38,21,36,11, 2,30,28, 0		3,54,30,16,50	
		57, 2,54,36, 3,13, 7		4,10
4″	53,27,39,18,39, 5,38,33,41, 7		3,54,30,21, 0	
		57, 2,50,41,32,52, 7		4,10
6″	53,27,40,15,41,56,20, 6,33,14		3,54,30,25,10	
		57, 2,46,47, 2,26,57		4,10
8″	53,27,41,12,44,43, 7, 9, 0,11		3,54,30,29,20	
		57, 2,42,52,31,57,37		4,10
10″	53,27,42, 9,47,25,59,40,57,48		3,54,30,33,30	
		57, 2,38,58, 1,24, 7		4,10
12″	53,27,43, 6,50, 4,57,42,21,55		3,54,30,37,40	
		57, 2,35, 3,30,46,27		4,10
14″	53,27,44, 3,52,40, 1,13, 8,22		3,54,30,41,50	
		57, 2,31, 9, 0, 4,37		4,10
16″	53,27,45, 0,55,11,10,13,12,59		3,54,30,46, 0	
		57, 2,27,14,29,18,37		4,10
18″	53,27,45,57,57,38,24,42,31,36		3,54,30,50,10	
		57, 2,23,19,58,28,27		4,10
20″	53,27,46,55, 0, 1,44,41, 0, 3		3,54,30,54,20	
		57, 2,19,25,27,34, 7		4,10
22″	53,27,47,52, 2,21,10, 8,34,10		3,54,30,58,30	
		57, 2,15,30,56,35,37		4,10
24″	53,27,48,49, 4,36,41, 5, 9,47		3,54,31, 2,40	
		57, 2,11,36,25,32,57		4,10
26″	53,27,49,46, 6,48,17,30,42,44		3,54,31, 6,50	
		57, 2, 7,41,54,26, 7		4,10
28″	53,27,50,43, 8,55,59,25, 8,51		3,54,31,11, 0	
		57, 2, 3,47,23,15, 7		4,10
30″	53,27,51,40,10,59,46,48,23,58		3,54,31,15,10	
		57, 1,59,52,51,59,57		4,10
32″	53,27,52,37,12,59,39,40,23,55		3,54,31,19,20	
		57, 1,55,58,20,40,37		4,10
34″	53,27,53,34,14,55,38, 1, 4,32		3,54,31,23,30	
		57, 1,52, 3,49,17, 7		4,10
36″	53,27,54,31,16,47,41,50,21,39		3,54,31,27,40	
		57, 1,48, 9,17,49,27		4,10
38″	53,27,55,28,18,35,51, 8,11, 6		3,54,31,31,50	
		57, 1,44,14,46,17,37		4,10
40″	53,27,56,25,20,20, 5,54,28,43		3,54,31,36, 0	
		57, 1,40,20,14,41,37		4,10
42″	53,27,57,22,22, 0,26, 9,10,20		3,54,31,40,10	
		57, 1,36,25,43, 1,27		4,10
44″	53,27,58,19,23,36,51,52,11,47		3,54,31,44,20	
		57, 1,32,31,11,17, 7		4,10
46″	53,27,59,16,25, 9,23, 3,28,54		3,54,31,48,30	
		57, 1,28,36,39,28,37		4,10
48″	53,28, 0,13,26,37,59,42,57,31		3,54,31,52,40	
		57, 1,24,42, 7,35,57		4,10
50″	53,28, 1,10,28, 2,41,50,33,28		3,54,31,56,50	
		57, 1,20,47,35,39, 7		4,10
52″	53,28, 2, 7,29,23,29,26,12,35		3,54,32, 1, 0	
		57, 1,16,53, 3,38, 7		4,10
54″	53,28, 3, 4,30,40,22,29,50,42		3,54,32, 5,10	
		57, 1,12,58,31,32,57		4,10
56″	53,28, 4, 1,31,53,21, 1,23,39		3,54,32, 9,20	
		57, 1, 9, 3,59,23,37		4,10
58″	53,28, 4,58,33, 2,25, 0,47,16		3,54,32,13,30	
		57, 1, 5, 9,27,10, 7		
60″	53,28, 5,55,34, 7,34,27,57,23			
exact	53,28, 5,55,34, 7,34,27,42,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63° 1′ 0″	53,28, 5,55,34, 7,34,27,42,36			
		57, 1, 1,14,54,50,59		
2″	53,28, 6,52,35, 8,49,22,33,35		3,54,32,21,55	
		57, 0,57,20,22,29, 4		4,10
4″	53,28, 7,49,36, 6, 9,45, 2,39		3,54,32,26, 5	
		57, 0,53,25,50, 2,59		4,10
6″	53,28, 8,46,36,59,35,35, 5,38		3,54,32,30,15	
		57, 0,49,31,17,32,44		4,10
8″	53,28, 9,43,37,49, 6,52,38,22		3,54,32,34,25	
		57, 0,45,36,44,58,19		4,10
10″	53,28,10,40,38,34,43,37,36,41		3,54,32,38,35	
		57, 0,41,42,12,19,44		4,10
12″	53,28,11,37,39,16,25,49,56,25		3,54,32,42,45	
		57, 0,37,47,39,36,59		4,10
14″	53,28,12,34,39,54,13,29,33,24		3,54,32,46,55	
		57, 0,33,53, 6,50, 4		4,10
16″	53,28,13,31,40,28, 6,36,23,28		3,54,32,51, 5	
		57, 0,29,58,33,58,59		4,10
18″	53,28,14,28,40,58, 5,10,22,27		3,54,32,55,15	
		57, 0,26, 4, 1, 3,44		4,10
20″	53,28,15,25,41,24, 9,11,26,11		3,54,32,59,25	
		57, 0,22, 9,28, 4,19		4,10
22″	53,28,16,22,41,46,18,39,30,30		3,54,33, 3,35	
		57, 0,18,14,55, 0,44		4,10
24″	53,28,17,19,42, 4,33,34,31,14		3,54,33, 7,45	
		57, 0,14,20,21,52,59		4,10
26″	53,28,18,16,42,18,53,56,24,13		3,54,33,11,55	
		57, 0,10,25,48,41, 4		4,10
28″	53,28,19,13,42,29,19,45, 5,17		3,54,33,16, 5	
		57, 0, 6,31,15,24,59		4,10
30″	53,28,20,10,42,35,51, 0,30,16		3,54,33,20,15	
		57, 0, 2,36,42, 4,44		4,10
32″	53,28,21, 7,42,38,27,42,35, 0		3,54,33,24,25	
		56,59,58,42, 8,40,19		4,10
34″	53,28,22, 4,42,37, 9,51,15,19		3,54,33,28,35	
		56,59,54,47,35,11,44		4,10
36″	53,28,23, 1,42,31,57,26,27, 3		3,54,33,32,45	
		56,59,50,53, 1,38,59		4,10
38″	53,28,23,58,42,22,50,28, 6, 2		3,54,33,36,55	
		56,59,46,58,28, 2, 4		4,10
40″	53,28,24,55,42, 9,48,56, 8, 6		3,54,33,41, 5	
		56,59,43, 3,54,20,59		4,10
42″	53,28,25,52,41,52,52,50,29, 5		3,54,33,45,15	
		56,59,39, 9,20,35,44		4,10
44″	53,28,26,49,41,32, 2,11, 4,49		3,54,33,49,25	
		56,59,35,14,46,46,19		4,10
46″	53,28,27,46,41, 7,16,57,51, 8		3,54,33,53,35	
		56,59,31,20,12,52,44		4,10
48″	53,28,28,43,40,38,37,10,43,52		3,54,33,57,45	
		56,59,27,25,38,54,59		4,10
50″	53,28,29,40,40, 6, 2,49,38,51		3,54,34, 1,55	
		56,59,23,31, 4,53, 4		4,10
52″	53,28,30,37,39,29,33,54,31,55		3,54,34, 6, 5	
		56,59,19,36,30,46,59		4,10
54″	53,28,31,34,38,49,10,25,18,54		3,54,34,10,15	
		56,59,15,41,56,36,44		4,10
56″	53,28,32,31,38, 4,52,21,55,38		3,54,34,14,25	
		56,59,11,47,22,22,19		4,10
58″	53,28,33,28,37,16,39,44,17,57		3,54,34,18,35	
		56,59, 7,52,48, 3,44		
60″	53,28,34,25,36,24,32,32,21,41			
exact	53,28,34,25,36,24,32,32,14,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63° 2′ 0″	53,28,34,25,36,24,32,32,14,58			
		56,59, 3,58,13,40,26		
2″	53,28,35,22,35,28,30,45,55,24		3,54,34,26,56	
		56,59, 0, 3,39,13,30		4,10
4″	53,28,36,19,34,28,34,25, 8,54		3,54,34,31, 6	
		56,58,56, 9, 4,42,24		4,10
6″	53,28,37,16,33,24,43,29,51,18		3,54,34,35,16	
		56,58,52,14,30, 7, 8		4,10
8″	53,28,38,13,32,16,57,59,58,26		3,54,34,39,26	
		56,58,48,19,55,27,42		4,10
10″	53,28,39,10,31, 5,17,55,26, 8		3,54,34,43,36	
		56,58,44,25,20,44, 6		4,10
12″	53,28,40, 7,29,49,43,16,10,14		3,54,34,47,46	
		56,58,40,30,45,56,20		4,10
14″	53,28,41, 4,28,30,14, 2, 6,34		3,54,34,51,56	
		56,58,36,36,11, 4,24		4,10
16″	53,28,42, 1,27, 6,50,13,10,58		3,54,34,56, 6	
		56,58,32,41,36, 8,18		4,10
18″	53,28,42,58,25,39,31,49,19,16		3,54,35, 0,16	
		56,58,28,47, 1, 8, 2		4,10
20″	53,28,43,55,24, 8,18,50,27,18		3,54,35, 4,26	
		56,58,24,52,26, 3,36		4,10
22″	53,28,44,52,22,33,11,16,30,54		3,54,35, 8,36	
		56,58,20,57,50,55, 0		4,10
24″	53,28,45,49,20,54, 9, 7,25,54		3,54,35,12,46	
		56,58,17, 3,15,42,14		4,10
26″	53,28,46,46,19,11,12,23, 8, 8		3,54,35,16,56	
		56,58,13, 8,40,25,18		4,10
28″	53,28,47,43,17,24,21, 3,33,26		3,54,35,21, 6	
		56,58, 9,14, 5, 4,12		4,10
30″	53,28,48,40,15,33,35, 8,37,38		3,54,35,25,16	
		56,58, 5,19,29,38,56		4,10
32″	53,28,49,37,13,38,54,38,16,34		3,54,35,29,26	
		56,58, 1,24,54, 9,30		4,10
34″	53,28,50,34,11,40,19,32,26, 4		3,54,35,33,36	
		56,57,57,30,18,35,54		4,10
36″	53,28,51,31, 9,37,49,51, 1,58		3,54,35,37,46	
		56,57,53,35,42,58, 8		4,10
38″	53,28,52,28, 7,31,25,34, 0, 6		3,54,35,41,56	
		56,57,49,41, 7,16,12		4,10
40″	53,28,53,25, 5,21, 6,41,16,18		3,54,35,46, 6	
		56,57,45,46,31,30, 6		4,10
42″	53,28,54,22, 3, 6,53,12,46,24		3,54,35,50,16	
		56,57,41,51,55,39,50		4,10
44″	53,28,55,19, 0,48,45, 8,26,14		3,54,35,54,26	
		56,57,37,57,19,45,24		4,10
46″	53,28,56,15,58,26,42,28,11,38		3,54,35,58,36	
		56,57,34, 2,43,46,48		4,10
48″	53,28,57,12,56, 0,45,11,58,26		3,54,36, 2,46	
		56,57,30, 8, 7,44, 2		4,10
50″	53,28,58, 9,53,30,53,19,42,28		3,54,36, 6,56	
		56,57,26,13,31,37, 6		4,10
52″	53,28,59, 6,50,57, 6,51,19,34		3,54,36,11, 6	
		56,57,22,18,55,26, 0		4,10
54″	53,29, 0, 3,48,19,25,46,45,34		3,54,36,15,16	
		56,57,18,24,19,10,44		4,10
56″	53,29, 1, 0,45,37,50, 5,56,18		3,54,36,19,26	
		56,57,14,29,42,51,18		4,10
58″	53,29, 1,57,42,52,19,48,47,36		3,54,36,23,36	
		56,57,10,35, 6,27,42		
60″	53,29, 2,54,40, 2,54,55,15,18			
exact	53,29, 2,54,40, 2,54,55,19, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63° 3′ 0″	53,29, 2,54,40, 2,54,55,19, 9			
		56,57, 6,40,30, 0,29		
2″	53,29, 3,51,37, 9,35,25,19,38		3,54,36,31,53	
		56,57, 2,45,53,28,36		4,10
4″	53,29, 4,48,34,12,21,18,48,14		3,54,36,36, 3	
		56,56,58,51,16,52,33		4,10
6″	53,29, 5,45,31,11,12,35,40,47		3,54,36,40,13	
		56,56,54,56,40,12,20		4,10
8″	53,29, 6,42,28, 6, 9,15,53, 7		3,54,36,44,23	
		56,56,51, 2, 3,27,57		4,10
10″	53,29, 7,39,24,57,11,19,21, 4		3,54,36,48,33	
		56,56,47, 7,26,39,24		4,10
12″	53,29, 8,36,21,44,18,46, 0,28		3,54,36,52,43	
		56,56,43,12,49,46,41		4,10
14″	53,29, 9,33,18,27,31,35,47, 9		3,54,36,56,53	
		56,56,39,18,12,49,48		4,10
16″	53,29,10,30,15, 6,49,48,36,57		3,54,37, 1, 3	
		56,56,35,23,35,48,45		4,10
18″	53,29,11,27,11,42,13,24,25,42		3,54,37, 5,13	
		56,56,31,28,58,43,32		4,10
20″	53,29,12,24, 8,13,42,23, 9,14		3,54,37, 9,23	
		56,56,27,34,21,34, 9		4,10
22″	53,29,13,21, 4,41,16,44,43,23		3,54,37,13,33	
		56,56,23,39,44,20,36		4,10
24″	53,29,14,18, 1, 4,56,29, 3,59		3,54,37,17,43	
		56,56,19,45, 7, 2,53		4,10
26″	53,29,15,14,57,24,41,36, 6,52		3,54,37,21,53	
		56,56,15,50,29,41, 0		4,10
28″	53,29,16,11,53,40,32, 5,47,52		3,54,37,26, 3	
		56,56,11,55,52,14,57		4,10
30″	53,29,17, 8,49,52,27,58, 2,49		3,54,37,30,13	
		56,56, 8, 1,14,44,44		4,10
32″	53,29,18, 5,46, 0,29,12,47,33		3,54,37,34,23	
		56,56, 4, 6,37,10,21		4,10
34″	53,29,19, 2,42, 4,35,49,57,54		3,54,37,38,33	
		56,56, 0,11,59,31,48		4,10
36″	53,29,19,59,38, 4,47,49,29,42		3,54,37,42,43	
		56,55,56,17,21,49, 5		4,10
38″	53,29,20,56,34, 1, 5,11,18,47		3,54,37,46,53	
		56,55,52,22,44, 2,12		4,10
40″	53,29,21,53,29,53,27,55,20,59		3,54,37,51, 3	
		56,55,48,28, 6,11, 9		4,10
42″	53,29,22,50,25,41,56, 1,32, 8		3,54,37,55,13	
		56,55,44,33,28,15,56		4,10
44″	53,29,23,47,21,26,29,29,48, 4		3,54,37,59,23	
		56,55,40,38,50,16,33		4,10
46″	53,29,24,44,17, 7, 8,20, 4,37		3,54,38, 3,33	
		56,55,36,44,12,13, 0		4,10
48″	53,29,25,41,12,43,52,32,17,37		3,54,38, 7,43	
		56,55,32,49,34, 5,17		4,10
50″	53,29,26,38, 8,16,42, 6,22,54		3,54,38,11,53	
		56,55,28,54,55,53,24		4,10
52″	53,29,27,35, 3,45,37, 2,16,18		3,54,38,16, 3	
		56,55,25, 0,17,37,21		4,10
54″	53,29,28,31,59,10,37,19,53,39		3,54,38,20,13	
		56,55,21, 5,39,17, 8		4,10
56″	53,29,29,28,54,31,42,59,10,47		3,54,38,24,23	
		56,55,17,11, 0,52,45		4,10
58″	53,29,30,25,49,48,54, 0, 3,32		3,54,38,28,33	
		56,55,13,16,22,24,12		
60″	53,29,31,22,45, 2,10,22,27,44			
exact	53,29,31,22,45, 2,10,22,43,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63° 4′ 0″	53,29,31,22,45, 2,10,22,43,30			
		56,55, 9,21,43,53,14		
2″	53,29,32,19,40,11,32, 6,36,44		3,54,38,36,45	
		56,55, 5,27, 5,16,29		4,10
4″	53,29,33,16,35,16,59,11,53,13		3,54,38,40,55	
		56,55, 1,32,26,35,34		4,10
6″	53,29,34,13,30,18,31,38,28,47		3,54,38,45, 5	
		56,54,57,37,47,50,29		4,10
8″	53,29,35,10,25,16, 9,26,19,16		3,54,38,49,15	
		56,54,53,43, 9, 1,14		4,10
10″	53,29,36, 7,20, 9,52,35,20,30		3,54,38,53,25	
		56,54,49,48,30, 7,49		4,10
12″	53,29,37, 4,14,59,41, 5,28,19		3,54,38,57,35	
		56,54,45,53,51,10,14		4,10
14″	53,29,38, 1, 9,45,34,56,38,33		3,54,39, 1,45	
		56,54,41,59,12, 8,29		4,10
16″	53,29,38,58, 4,27,34, 8,47, 2		3,54,39, 5,55	
		56,54,38, 4,33, 2,34		4,10
18″	53,29,39,54,59, 5,38,41,49,36		3,54,39,10, 5	
		56,54,34, 9,53,52,29		4,10
20″	53,29,40,51,53,39,48,35,42, 5		3,54,39,14,15	
		56,54,30,15,14,38,14		4,10
22″	53,29,41,48,48,10, 3,50,20,19		3,54,39,18,25	
		56,54,26,20,35,19,49		4,10
24″	53,29,42,45,42,36,24,25,40, 8		3,54,39,22,35	
		56,54,22,25,55,57,14		4,10
26″	53,29,43,42,36,58,50,21,37,22		3,54,39,26,45	
		56,54,18,31,16,30,29		4,10
28″	53,29,44,39,31,17,21,38, 7,51		3,54,39,30,55	
		56,54,14,36,36,59,34		4,10
30″	53,29,45,36,25,31,58,15, 7,25		3,54,39,35, 5	
		56,54,10,41,57,24,29		4,10
32″	53,29,46,33,19,42,40,12,31,54		3,54,39,39,15	
		56,54, 6,47,17,45,14		4,10
34″	53,29,47,30,13,49,27,30,17, 8		3,54,39,43,25	
		56,54, 2,52,38, 1,49		4,10
36″	53,29,48,27, 7,52,20, 8,18,57		3,54,39,47,35	
		56,53,58,57,58,14,14		4,10
38″	53,29,49,24, 1,51,18, 6,33,11		3,54,39,51,45	
		56,53,55, 3,18,22,29		4,10
40″	53,29,50,20,55,46,21,24,55,40		3,54,39,55,55	
		56,53,51, 8,38,26,34		4,10
42″	53,29,51,17,49,37,30, 3,22,14		3,54,40, 0, 5	
		56,53,47,13,58,26,29		4,10
44″	53,29,52,14,43,24,44, 1,48,43		3,54,40, 4,15	
		56,53,43,19,18,22,14		4,10
46″	53,29,53,11,37, 8, 3,20,10,57		3,54,40, 8,25	
		56,53,39,24,38,13,49		4,10
48″	53,29,54, 8,30,47,27,58,24,46		3,54,40,12,35	
		56,53,35,29,58, 1,14		4,10
50″	53,29,55, 5,24,22,57,56,26, 0		3,54,40,16,45	
		56,53,31,35,17,44,29		4,10
52″	53,29,56, 2,17,54,33,14,10,29		3,54,40,20,55	
		56,53,27,40,37,23,34		4,10
54″	53,29,56,59,11,22,13,51,34, 3		3,54,40,25, 5	
		56,53,23,45,56,58,29		4,10
56″	53,29,57,56, 4,45,59,48,32,32		3,54,40,29,15	
		56,53,19,51,16,29,14		4,10
58″	53,29,58,52,58, 5,51, 5, 1,46		3,54,40,33,25	
		56,53,15,56,35,55,49		
60″	53,29,59,49,51,21,47,40,57,35			
exact	53,29,59,49,51,21,47,41,20,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63° 5′ 0″	53,29,59,49,51,21,47,41,20,37			
		56,53,12, 1,55,20,51		
2″	53,30, 0,46,44,33,49,36,41,28		3,54,40,41,33	
		56,53, 8, 7,14,39,18		4,10
4″	53,30, 1,43,37,41,56,51,20,46		3,54,40,45,43	
		56,53, 4,12,33,53,35		4,10
6″	53,30, 2,40,30,46, 9,25,14,21		3,54,40,49,53	
		56,53, 0,17,53, 3,42		4,10
8″	53,30, 3,37,23,46,27,18,18, 3		3,54,40,54, 3	
		56,52,56,23,12, 9,39		4,10
10″	53,30, 4,34,16,42,50,30,27,42		3,54,40,58,13	
		56,52,52,28,31,11,26		4,10
12″	53,30, 5,31, 9,35,19, 1,39, 8		3,54,41, 2,23	
		56,52,48,33,50, 9, 3		4,10
14″	53,30, 6,28, 2,23,52,51,48,11		3,54,41, 6,33	
		56,52,44,39, 9, 2,30		4,10
16″	53,30, 7,24,55, 8,32, 0,50,41		3,54,41,10,43	
		56,52,40,44,27,51,47		4,10
18″	53,30, 8,21,47,49,16,28,42,28		3,54,41,14,53	
		56,52,36,49,46,36,54		4,10
20″	53,30, 9,18,40,26, 6,15,19,22		3,54,41,19, 3	
		56,52,32,55, 5,17,51		4,10
22″	53,30,10,15,32,59, 1,20,37,13		3,54,41,23,13	
		56,52,29, 0,23,54,38		4,10
24″	53,30,11,12,25,28, 1,44,31,51		3,54,41,27,23	
		56,52,25, 5,42,27,15		4,10
26″	53,30,12, 9,17,53, 7,26,59, 6		3,54,41,31,33	
		56,52,21,11, 0,55,42		4,10
28″	53,30,13, 6,10,14,18,27,54,48		3,54,41,35,43	
		56,52,17,16,19,19,59		4,10
30″	53,30,14, 3, 2,31,34,47,14,47		3,54,41,39,53	
		56,52,13,21,37,40, 6		4,10
32″	53,30,14,59,54,44,56,24,54,53		3,54,41,44, 3	
		56,52, 9,26,55,56, 3		4,10
34″	53,30,15,56,46,54,23,20,50,56		3,54,41,48,13	
		56,52, 5,32,14, 7,50		4,10
36″	53,30,16,53,38,59,55,34,58,46		3,54,41,52,23	
		56,52, 1,37,32,15,27		4,10
38″	53,30,17,50,31, 1,33, 7,14,13		3,54,41,56,33	
		56,51,57,42,50,18,54		4,10
40″	53,30,18,47,22,59,15,57,33, 7		3,54,42, 0,43	
		56,51,53,48, 8,18,11		4,10
42″	53,30,19,44,14,53, 4, 5,51,18		3,54,42, 4,53	
		56,51,49,53,26,13,18		4,10
44″	53,30,20,41, 6,42,57,32, 4,36		3,54,42, 9, 3	
		56,51,45,58,44, 4,15		4,10
46″	53,30,21,37,58,28,56,16, 8,51		3,54,42,13,13	
		56,51,42, 4, 1,51, 2		4,10
48″	53,30,22,34,50,11, 0,17,59,53		3,54,42,17,23	
		56,51,38, 9,19,33,39		4,10
50″	53,30,23,31,41,49, 9,37,33,32		3,54,42,21,33	
		56,51,34,14,37,12, 6		4,10
52″	53,30,24,28,33,23,24,14,45,38		3,54,42,25,43	
		56,51,30,19,54,46,23		4,10
54″	53,30,25,25,24,53,44, 9,32, 1		3,54,42,29,53	
		56,51,26,25,12,16,30		4,10
56″	53,30,26,22,16,20, 9,21,48,31		3,54,42,34, 3	
		56,51,22,30,29,42,27		4,10
58″	53,30,27,19, 7,42,39,51,30,58		3,54,42,38,13	
		56,51,18,35,47, 4,14		
60″	53,30,28,15,59, 1,15,38,35,12			
exact	53,30,28,15,59, 1,15,39, 7,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63° 6′ 0″	53,30,28,15,59, 1,15,39, 7,29			
		56,51,14,41, 4,25,28		
2″	53,30,29,12,50,15,56,43,32,57		3,54,42,46,17	
		56,51,10,46,21,39,11		4, 9
4″	53,30,30, 9,41,26,43, 5,12, 8		3,54,42,50,26	
		56,51, 6,51,38,48,45		4, 9
6″	53,30,31, 6,32,33,34,44, 0,53		3,54,42,54,35	
		56,51, 2,56,55,54,10		4, 9
8″	53,30,32, 3,23,36,31,39,55, 3		3,54,42,58,44	
		56,50,59, 2,12,55,26		4, 9
10″	53,30,33, 0,14,35,33,52,50,29		3,54,43, 2,53	
		56,50,55, 7,29,52,33		4, 9
12″	53,30,33,57, 5,30,41,22,43, 2		3,54,43, 7, 2	
		56,50,51,12,46,45,31		4, 9
14″	53,30,34,53,56,21,54, 9,28,33		3,54,43,11,11	
		56,50,47,18, 3,34,20		4, 9
16″	53,30,35,50,47, 9,12,13, 2,53		3,54,43,15,20	
		56,50,43,23,20,19, 0		4, 9
18″	53,30,36,47,37,52,35,33,21,53		3,54,43,19,29	
		56,50,39,28,36,59,31		4, 9
20″	53,30,37,44,28,32, 4,10,21,24		3,54,43,23,38	
		56,50,35,33,53,35,53		4, 9
22″	53,30,38,41,19, 7,38, 3,57,17		3,54,43,27,47	
		56,50,31,39,10, 8, 6		4, 9
24″	53,30,39,38, 9,39,17,14, 5,23		3,54,43,31,56	
		56,50,27,44,26,36,10		4, 9
26″	53,30,40,35, 0, 7, 1,40,41,33		3,54,43,36, 5	
		56,50,23,49,43, 0, 5		4, 9
28″	53,30,41,31,50,30,51,23,41,38		3,54,43,40,14	
		56,50,19,54,59,19,51		4, 9
30″	53,30,42,28,40,50,46,23, 1,29		3,54,43,44,23	
		56,50,16, 0,15,35,28		4, 9
32″	53,30,43,25,31, 6,46,38,36,57		3,54,43,48,32	
		56,50,12, 5,31,46,56		4, 9
34″	53,30,44,22,21,18,52,10,23,53		3,54,43,52,41	
		56,50, 8,10,47,54,15		4, 9
36″	53,30,45,19,11,27, 2,58,18, 8		3,54,43,56,50	
		56,50, 4,16, 3,57,25		4, 9
38″	53,30,46,16, 1,31,19, 2,15,33		3,54,44, 0,59	
		56,50, 0,21,19,56,26		4, 9
40″	53,30,47,12,51,31,40,22,11,59		3,54,44, 5, 8	
		56,49,56,26,35,51,18		4, 9
42″	53,30,48, 9,41,28, 6,58, 3,17		3,54,44, 9,17	
		56,49,52,31,51,42, 1		4, 9
44″	53,30,49, 6,31,20,38,49,45,18		3,54,44,13,26	
		56,49,48,37, 7,28,35		4, 9
46″	53,30,50, 3,21, 9,15,57,13,53		3,54,44,17,35	
		56,49,44,42,23,11, 0		4, 9
48″	53,30,51, 0,10,53,58,20,24,53		3,54,44,21,44	
		56,49,40,47,38,49,16		4, 9
50″	53,30,51,57, 0,34,45,59,14, 9		3,54,44,25,53	
		56,49,36,52,54,23,23		4, 9
52″	53,30,52,53,50,11,38,53,37,32		3,54,44,30, 2	
		56,49,32,58, 9,53,21		4, 9
54″	53,30,53,50,39,44,37, 3,30,53		3,54,44,34,11	
		56,49,29, 3,25,19,10		4, 9
56″	53,30,54,47,29,13,40,28,50, 3		3,54,44,38,20	
		56,49,25, 8,40,40,50		4, 9
58″	53,30,55,44,18,38,49, 9,30,53		3,54,44,42,29	
		56,49,21,13,55,58,21		
60″	53,30,56,41, 8, 0, 3, 5,29,14			
exact	53,30,56,41, 8, 0, 3, 5, 5,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63° 7′ 0″	53,30,56,41, 8, 0, 3, 5, 5,24			
		56,49,17,19,11, 9,15		
2″	53,30,57,37,57,17,22,16,14,39		3,54,44,50,56	
		56,49,13,24,26,18,19		4, 9
4″	53,30,58,34,46,30,46,42,32,58		3,54,44,55, 5	
		56,49, 9,29,41,23,14		4, 9
6″	53,30,59,31,35,40,16,23,56,12		3,54,44,59,14	
		56,49, 5,34,56,24, 0		4, 9
8″	53,31, 0,28,24,45,51,20,20,12		3,54,45, 3,23	
		56,49, 1,40,11,20,37		4, 9
10″	53,31, 1,25,13,47,31,31,40,49		3,54,45, 7,32	
		56,48,57,45,26,13, 5		4, 9
12″	53,31, 2,22, 2,45,16,57,53,54		3,54,45,11,41	
		56,48,53,50,41, 1,24		4, 9
14″	53,31, 3,18,51,39, 7,38,55,18		3,54,45,15,50	
		56,48,49,55,55,45,34		4, 9
16″	53,31, 4,15,40,29, 3,34,40,52		3,54,45,19,59	
		56,48,46, 1,10,25,35		4, 9
18″	53,31, 5,12,29,15, 4,45, 6,27		3,54,45,24, 8	
		56,48,42, 6,25, 1,27		4, 9
20″	53,31, 6, 9,17,57,11,10, 7,54		3,54,45,28,17	
		56,48,38,11,39,33,10		4, 9
22″	53,31, 7, 6, 6,35,22,49,41, 4		3,54,45,32,26	
		56,48,34,16,54, 0,44		4, 9
24″	53,31, 8, 2,55, 9,39,43,41,48		3,54,45,36,35	
		56,48,30,22, 8,24, 9		4, 9
26″	53,31, 8,59,43,40, 1,52, 5,57		3,54,45,40,44	
		56,48,26,27,22,43,25		4, 9
28″	53,31, 9,56,32, 6,29,14,49,22		3,54,45,44,53	
		56,48,22,32,36,58,32		4, 9
30″	53,31,10,53,20,29, 1,51,47,54		3,54,45,49, 2	
		56,48,18,37,51, 9,30		4, 9
32″	53,31,11,50, 8,47,39,42,57,24		3,54,45,53,11	
		56,48,14,43, 5,16,19		4, 9
34″	53,31,12,46,57, 2,22,48,13,43		3,54,45,57,20	
		56,48,10,48,19,18,59		4, 9
36″	53,31,13,43,45,13,11, 7,32,42		3,54,46, 1,29	
		56,48, 6,53,33,17,30		4, 9
38″	53,31,14,40,33,20, 4,40,50,12		3,54,46, 5,38	
		56,48, 2,58,47,11,52		4, 9
40″	53,31,15,37,21,23, 3,28, 2, 4		3,54,46, 9,47	
		56,47,59, 4, 1, 2, 5		4, 9
42″	53,31,16,34, 9,22, 7,29, 4, 9		3,54,46,13,56	
		56,47,55, 9,14,48, 9		4, 9
44″	53,31,17,30,57,17,16,43,52,18		3,54,46,18, 5	
		56,47,51,14,28,30, 4		4, 9
46″	53,31,18,27,45, 8,31,12,22,22		3,54,46,22,14	
		56,47,47,19,42, 7,50		4, 9
48″	53,31,19,24,32,55,50,54,30,12		3,54,46,26,23	
		56,47,43,24,55,41,27		4, 9
50″	53,31,20,21,20,39,15,50,11,39		3,54,46,30,32	
		56,47,39,30, 9,10,55		4, 9
52″	53,31,21,18, 8,18,45,59,22,34		3,54,46,34,41	
		56,47,35,35,22,36,14		4, 9
54″	53,31,22,14,55,54,21,21,58,48		3,54,46,38,50	
		56,47,31,40,35,57,24		4, 9
56″	53,31,23,11,43,26, 1,57,56,12		3,54,46,42,59	
		56,47,27,45,49,14,25		4, 9
58″	53,31,24, 8,30,53,47,47,10,37		3,54,46,47, 8	
		56,47,23,51, 2,27,17		
60″	53,31,25, 5,18,17,38,49,37,54			
exact	53,31,25, 5,18,17,38,49,20, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63° 8′ 0″	53,31,25, 5,18,17,38,49,20, 1			
		56,47,19,56,15,34,19		
2″	53,31,26, 2, 5,37,35, 4,54,20		3,54,46,55,32	
		56,47,16, 1,28,38,47		4, 9
4″	53,31,26,58,52,53,36,33,33, 7		3,54,46,59,41	
		56,47,12, 6,41,39, 6		4, 9
6″	53,31,27,55,40, 5,43,15,12,13		3,54,47, 3,50	
		56,47, 8,11,54,35,16		4, 9
8″	53,31,28,52,27,13,55, 9,47,29		3,54,47, 7,59	
		56,47, 4,17, 7,27,17		4, 9
10″	53,31,29,49,14,18,12,17,14,46		3,54,47,12, 8	
		56,47, 0,22,20,15, 9		4, 9
12″	53,31,30,46, 1,18,34,37,29,55		3,54,47,16,17	
		56,46,56,27,32,58,52		4, 9
14″	53,31,31,42,48,15, 2,10,28,47		3,54,47,20,26	
		56,46,52,32,45,38,26		4, 9
16″	53,31,32,39,35, 7,34,56, 7,13		3,54,47,24,35	
		56,46,48,37,58,13,51		4, 9
18″	53,31,33,36,21,56,12,54,21, 4		3,54,47,28,44	
		56,46,44,43,10,45, 7		4, 9
20″	53,31,34,33, 8,40,56, 5, 6,11		3,54,47,32,53	
		56,46,40,48,23,12,14		4, 9
22″	53,31,35,29,55,21,44,28,18,25		3,54,47,37, 2	
		56,46,36,53,35,35,12		4, 9
24″	53,31,36,26,41,58,38, 3,53,37		3,54,47,41,11	
		56,46,32,58,47,54, 1		4, 9
26″	53,31,37,23,28,31,36,51,47,38		3,54,47,45,20	
		56,46,29, 4, 0, 8,41		4, 9
28″	53,31,38,20,15, 0,40,51,56,19		3,54,47,49,29	
		56,46,25, 9,12,19,12		4, 9
30″	53,31,39,17, 1,25,50, 4,15,31		3,54,47,53,38	
		56,46,21,14,24,25,34		4, 9
32″	53,31,40,13,47,47, 4,28,41, 5		3,54,47,57,47	
		56,46,17,19,36,27,47		4, 9
34″	53,31,41,10,34, 4,24, 5, 8,52		3,54,48, 1,56	
		56,46,13,24,48,25,51		4, 9
36″	53,31,42, 7,20,17,48,53,34,43		3,54,48, 6, 5	
		56,46, 9,30, 0,19,46		4, 9
38″	53,31,43, 4, 6,27,18,53,54,29		3,54,48,10,14	
		56,46, 5,35,12, 9,32		4, 9
40″	53,31,44, 0,52,32,54, 6, 4, 1		3,54,48,14,23	
		56,46, 1,40,23,55, 9		4, 9
42″	53,31,44,57,38,34,34,29,59,10		3,54,48,18,32	
		56,45,57,45,35,36,37		4, 9
44″	53,31,45,54,24,32,20, 5,35,47		3,54,48,22,41	
		56,45,53,50,47,13,56		4, 9
46″	53,31,46,51,10,26,10,52,49,43		3,54,48,26,50	
		56,45,49,55,58,47, 6		4, 9
48″	53,31,47,47,56,16, 6,51,36,49		3,54,48,30,59	
		56,45,46, 1,10,16, 7		4, 9
50″	53,31,48,44,42, 2, 8, 1,52,56		3,54,48,35, 8	
		56,45,42, 6,21,40,59		4, 9
52″	53,31,49,41,27,44,14,23,33,55		3,54,48,39,17	
		56,45,38,11,33, 1,42		4, 9
54″	53,31,50,38,13,22,25,56,35,37		3,54,48,43,26	
		56,45,34,16,44,18,16		4, 9
56″	53,31,51,34,58,56,42,40,53,53		3,54,48,47,35	
		56,45,30,21,55,30,41		4, 9
58″	53,31,52,31,44,27, 4,36,24,34		3,54,48,51,44	
		56,45,26,27, 6,38,57		
60″	53,31,53,28,29,53,31,43, 3,31			
exact	53,31,53,28,29,53,31,43, 1,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63° 9′ 0″	53,31,53,28,29,53,31,43, 1,20			
		56,45,22,32,17,42,50		
2″	53,31,54,25,15,16, 4, 0,44,10		3,54,49, 0, 3	
		56,45,18,37,28,42,47		4, 9
4″	53,31,55,22, 0,34,41,29,26,57		3,54,49, 4,12	
		56,45,14,42,39,38,35		4, 9
6″	53,31,56,18,45,49,24, 9, 5,32		3,54,49, 8,21	
		56,45,10,47,50,30,14		4, 9
8″	53,31,57,15,31, 0,11,59,35,46		3,54,49,12,30	
		56,45, 6,53, 1,17,44		4, 9
10″	53,31,58,12,16, 7, 5, 0,53,30		3,54,49,16,39	
		56,45, 2,58,12, 1, 5		4, 9
12″	53,31,59, 9, 1,10, 3,12,54,35		3,54,49,20,48	
		56,44,59, 3,22,40,17		4, 9
14″	53,32, 0, 5,46, 9, 6,35,34,52		3,54,49,24,57	
		56,44,55, 8,33,15,20		4, 9
16″	53,32, 1, 2,31, 4,15, 8,50,12		3,54,49,29, 6	
		56,44,51,13,43,46,14		4, 9
18″	53,32, 1,59,15,55,28,52,36,26		3,54,49,33,15	
		56,44,47,18,54,12,59		4, 9
20″	53,32, 2,56, 0,42,47,46,49,25		3,54,49,37,24	
		56,44,43,24, 4,35,35		4, 9
22″	53,32, 3,52,45,26,11,51,25, 0		3,54,49,41,33	
		56,44,39,29,14,54, 2		4, 9
24″	53,32, 4,49,30, 5,41, 6,19, 2		3,54,49,45,42	
		56,44,35,34,25, 8,20		4, 9
26″	53,32, 5,46,14,41,15,31,27,22		3,54,49,49,51	
		56,44,31,39,35,18,29		4, 9
28″	53,32, 6,42,59,12,55, 6,45,51		3,54,49,54, 0	
		56,44,27,44,45,24,29		4, 9
30″	53,32, 7,39,43,40,39,52,10,20		3,54,49,58, 9	
		56,44,23,49,55,26,20		4, 9
32″	53,32, 8,36,28, 4,29,47,36,40		3,54,50, 2,18	
		56,44,19,55, 5,24, 2		4, 9
34″	53,32, 9,33,12,24,24,53, 0,42		3,54,50, 6,27	
		56,44,16, 0,15,17,35		4, 9
36″	53,32,10,29,56,40,25, 8,18,17		3,54,50,10,36	
		56,44,12, 5,25, 6,59		4, 9
38″	53,32,11,26,40,52,30,33,25,16		3,54,50,14,45	
		56,44, 8,10,34,52,14		4, 9
40″	53,32,12,23,25, 0,41, 8,17,30		3,54,50,18,54	
		56,44, 4,15,44,33,20		4, 9
42″	53,32,13,20, 9, 4,56,52,50,50		3,54,50,23, 3	
		56,44, 0,20,54,10,17		4, 9
44″	53,32,14,16,53, 5,17,47, 1, 7		3,54,50,27,12	
		56,43,56,26, 3,43, 5		4, 9
46″	53,32,15,13,37, 1,43,50,44,12		3,54,50,31,21	
		56,43,52,31,13,11,44		4, 9
48″	53,32,16,10,20,54,15, 3,55,56		3,54,50,35,30	
		56,43,48,36,22,36,14		4, 9
50″	53,32,17, 7, 4,42,51,26,32,10		3,54,50,39,39	
		56,43,44,41,31,56,35		4, 9
52″	53,32,18, 3,48,27,32,58,28,45		3,54,50,43,48	
		56,43,40,46,41,12,47		4, 9
54″	53,32,19, 0,32, 8,19,39,41,32		3,54,50,47,57	
		56,43,36,51,50,24,50		4, 9
56″	53,32,19,57,15,45,11,30, 6,22		3,54,50,52, 6	
		56,43,32,56,59,32,44		4, 9
58″	53,32,20,53,59,18, 8,29,39, 6		3,54,50,56,15	
		56,43,29, 2, 8,36,29		
60″	53,32,21,50,42,47,10,38,15,35			
exact	53,32,21,50,42,47,10,38,23,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°10′ 0″	53,32,21,50,42,47,10,38,23,45			
		56,43,25, 7,17,36,56		
2″	53,32,22,47,26,12,17,56, 0,41		3,54,51, 4,29	
		56,43,21,12,26,32,27		4, 9
4″	53,32,23,44, 9,33,30,22,33, 8		3,54,51, 8,38	
		56,43,17,17,35,23,49		4, 9
6″	53,32,24,40,52,50,47,57,56,57		3,54,51,12,47	
		56,43,13,22,44,11, 2		4, 9
8″	53,32,25,37,36, 4,10,42, 7,59		3,54,51,16,56	
		56,43, 9,27,52,54, 6		4, 9
10″	53,32,26,34,19,13,38,35, 2, 5		3,54,51,21, 5	
		56,43, 5,33, 1,33, 1		4, 9
12″	53,32,27,31, 2,19,11,36,35, 6		3,54,51,25,14	
		56,43, 1,38,10, 7,47		4, 9
14″	53,32,28,27,45,20,49,46,42,53		3,54,51,29,23	
		56,42,57,43,18,38,24		4, 9
16″	53,32,29,24,28,18,33, 5,21,17		3,54,51,33,32	
		56,42,53,48,27, 4,52		4, 9
18″	53,32,30,21,11,12,21,32,26, 9		3,54,51,37,41	
		56,42,49,53,35,27,11		4, 9
20″	53,32,31,17,54, 2,15, 7,53,20		3,54,51,41,50	
		56,42,45,58,43,45,21		4, 9
22″	53,32,32,14,36,48,13,51,38,41		3,54,51,45,59	
		56,42,42, 3,51,59,22		4, 9
24″	53,32,33,11,19,30,17,43,38, 3		3,54,51,50, 8	
		56,42,38, 9, 0, 9,14		4, 9
26″	53,32,34, 8, 2, 8,26,43,47,17		3,54,51,54,17	
		56,42,34,14, 8,14,57		4, 9
28″	53,32,35, 4,44,42,40,52, 2,14		3,54,51,58,26	
		56,42,30,19,16,16,31		4, 9
30″	53,32,36, 1,27,13, 0, 8,18,45		3,54,52, 2,35	
		56,42,26,24,24,13,56		4, 9
32″	53,32,36,58, 9,39,24,32,32,41		3,54,52, 6,44	
		56,42,22,29,32, 7,12		4, 9
34″	53,32,37,54,52, 1,54, 4,39,53		3,54,52,10,53	
		56,42,18,34,39,56,19		4, 9
36″	53,32,38,51,34,20,28,44,36,12		3,54,52,15, 2	
		56,42,14,39,47,41,17		4, 9
38″	53,32,39,48,16,35, 8,32,17,29		3,54,52,19,11	
		56,42,10,44,55,22, 6		4, 9
40″	53,32,40,44,58,45,53,27,39,35		3,54,52,23,20	
		56,42, 6,50, 2,58,46		4, 9
42″	53,32,41,41,40,52,43,30,38,21		3,54,52,27,29	
		56,42, 2,55,10,31,17		4, 9
44″	53,32,42,38,22,55,38,41, 9,38		3,54,52,31,38	
		56,41,59, 0,17,59,39		4, 9
46″	53,32,43,35, 4,54,38,59, 9,17		3,54,52,35,47	
		56,41,55, 5,25,23,52		4, 9
48″	53,32,44,31,46,49,44,24,33, 9		3,54,52,39,56	
		56,41,51,10,32,43,56		4, 9
50″	53,32,45,28,28,40,54,57,17, 5		3,54,52,44, 5	
		56,41,47,15,39,59,51		4, 9
52″	53,32,46,25,10,28,10,37,16,56		3,54,52,48,14	
		56,41,43,20,47,11,37		4, 9
54″	53,32,47,21,52,11,31,24,28,33		3,54,52,52,23	
		56,41,39,25,54,19,14		4, 9
56″	53,32,48,18,33,50,57,18,47,47		3,54,52,56,32	
		56,41,35,31, 1,22,42		4, 9
58″	53,32,49,15,15,26,28,20,10,29		3,54,53, 0,41	
		56,41,31,36, 8,22, 1		
60″	53,32,50,11,56,58, 4,28,32,30			
exact	53,32,50,11,56,58, 4,28,45,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°11′ 0″	53,32,50,11,56,58, 4,28,45,58			
		56,41,27,41,15,18,46		
2″	53,32,51, 8,38,25,45,44, 4,44		3,54,53, 8,52	
		56,41,23,46,22, 9,54		4, 9
4″	53,32,52, 5,19,49,32, 6,14,38		3,54,53,13, 1	
		56,41,19,51,28,56,53		4, 9
6″	53,32,53, 2, 1, 9,23,35,11,31		3,54,53,17,10	
		56,41,15,56,35,39,43		4, 9
8″	53,32,53,58,42,25,20,10,51,14		3,54,53,21,19	
		56,41,12, 1,42,18,24		4, 9
10″	53,32,54,55,23,37,21,53, 9,38		3,54,53,25,28	
		56,41, 8, 6,48,52,56		4, 9
12″	53,32,55,52, 4,45,28,42, 2,34		3,54,53,29,37	
		56,41, 4,11,55,23,19		4, 9
14″	53,32,56,48,45,49,40,37,25,53		3,54,53,33,46	
		56,41, 0,17, 1,49,33		4, 9
16″	53,32,57,45,26,49,57,39,15,26		3,54,53,37,55	
		56,40,56,22, 8,11,38		4, 9
18″	53,32,58,42, 7,46,19,47,27, 4		3,54,53,42, 4	
		56,40,52,27,14,29,34		4, 9
20″	53,32,59,38,48,38,47, 1,56,38		3,54,53,46,13	
		56,40,48,32,20,43,21		4, 9
22″	53,33, 0,35,29,27,19,22,39,59		3,54,53,50,22	
		56,40,44,37,26,52,59		4, 9
24″	53,33, 1,32,10,11,56,49,32,58		3,54,53,54,31	
		56,40,40,42,32,58,28		4, 9
26″	53,33, 2,28,50,52,39,22,31,26		3,54,53,58,40	
		56,40,36,47,38,59,48		4, 9
28″	53,33, 3,25,31,29,27, 1,31,14		3,54,54, 2,49	
		56,40,32,52,44,56,59		4, 9
30″	53,33, 4,22,12, 2,19,46,28,13		3,54,54, 6,58	
		56,40,28,57,50,50, 1		4, 9
32″	53,33, 5,18,52,31,17,37,18,14		3,54,54,11, 7	
		56,40,25, 2,56,38,54		4, 9
34″	53,33, 6,15,32,56,20,33,57, 8		3,54,54,15,16	
		56,40,21, 8, 2,23,38		4, 9
36″	53,33, 7,12,13,17,28,36,20,46		3,54,54,19,25	
		56,40,17,13, 8, 4,13		4, 9
38″	53,33, 8, 8,53,34,41,44,24,59		3,54,54,23,34	
		56,40,13,18,13,40,39		4, 9
40″	53,33, 9, 5,33,47,59,58, 5,38		3,54,54,27,43	
		56,40, 9,23,19,12,56		4, 9
42″	53,33,10, 2,13,57,23,17,18,34		3,54,54,31,52	
		56,40, 5,28,24,41, 4		4, 9
44″	53,33,10,58,54, 2,51,41,59,38		3,54,54,36, 1	
		56,40, 1,33,30, 5, 3		4, 9
46″	53,33,11,55,34, 4,25,12, 4,41		3,54,54,40,10	
		56,39,57,38,35,24,53		4, 9
48″	53,33,12,52,14, 2, 3,47,29,34		3,54,54,44,19	
		56,39,53,43,40,40,34		4, 9
50″	53,33,13,48,53,55,47,28,10, 8		3,54,54,48,28	
		56,39,49,48,45,52, 6		4, 9
52″	53,33,14,45,33,45,36,14, 2,14		3,54,54,52,37	
		56,39,45,53,50,59,29		4, 9
54″	53,33,15,42,13,31,30, 5, 1,43		3,54,54,56,46	
		56,39,41,58,56, 2,43		4, 9
56″	53,33,16,38,53,13,29, 1, 4,26		3,54,55, 0,55	
		56,39,38, 4, 1, 1,48		4, 9
58″	53,33,17,35,32,51,33, 2, 6,14		3,54,55, 5, 4	
		56,39,34, 9, 5,56,44		
60″	53,33,18,32,12,25,42, 8, 2,58			
exact	53,33,18,32,12,25,42, 8,31,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°12′ 0″	53,33,18,32,12,25,42, 8,31,10			
		56,39,30,14,10,50,29		
2″	53,33,19,28,51,55,56,19,21,39		3,54,55,13,10	
		56,39,26,19,15,37,19		4, 9
4″	53,33,20,25,31,22,15,34,58,58		3,54,55,17,19	
		56,39,22,24,20,20, 0		4, 9
6″	53,33,21,22,10,44,39,55,18,58		3,54,55,21,28	
		56,39,18,29,24,58,32		4, 9
8″	53,33,22,18,50, 3, 9,20,17,30		3,54,55,25,37	
		56,39,14,34,29,32,55		4, 9
10″	53,33,23,15,29,17,43,49,50,25		3,54,55,29,46	
		56,39,10,39,34, 3, 9		4, 9
12″	53,33,24,12, 8,28,23,23,53,34		3,54,55,33,55	
		56,39, 6,44,38,29,14		4, 9
14″	53,33,25, 8,47,35, 8, 2,22,48		3,54,55,38, 4	
		56,39, 2,49,42,51,10		4, 9
16″	53,33,26, 5,26,37,57,45,13,58		3,54,55,42,13	
		56,38,58,54,47, 8,57		4, 9
18″	53,33,27, 2, 5,36,52,32,22,55		3,54,55,46,22	
		56,38,54,59,51,22,35		4, 9
20″	53,33,27,58,44,31,52,23,45,30		3,54,55,50,31	
		56,38,51, 4,55,32, 4		4, 9
22″	53,33,28,55,23,22,57,19,17,34		3,54,55,54,40	
		56,38,47, 9,59,37,24		4, 9
24″	53,33,29,52, 2,10, 7,18,54,58		3,54,55,58,49	
		56,38,43,15, 3,38,35		4, 9
26″	53,33,30,48,40,53,22,22,33,33		3,54,56, 2,58	
		56,38,39,20, 7,35,37		4, 9
28″	53,33,31,45,19,32,42,30, 9,10		3,54,56, 7, 7	
		56,38,35,25,11,28,30		4, 9
30″	53,33,32,41,58, 8, 7,41,37,40		3,54,56,11,16	
		56,38,31,30,15,17,14		4, 9
32″	53,33,33,38,36,39,37,56,54,54		3,54,56,15,25	
		56,38,27,35,19, 1,49		4, 9
34″	53,33,34,35,15, 7,13,15,56,43		3,54,56,19,34	
		56,38,23,40,22,42,15		4, 9
36″	53,33,35,31,53,30,53,38,38,58		3,54,56,23,43	
		56,38,19,45,26,18,32		4, 9
38″	53,33,36,28,31,50,39, 4,57,30		3,54,56,27,52	
		56,38,15,50,29,50,40		4, 9
40″	53,33,37,25,10, 6,29,34,48,10		3,54,56,32, 1	
		56,38,11,55,33,18,39		4, 9
42″	53,33,38,21,48,18,25, 8, 6,49		3,54,56,36,10	
		56,38, 8, 0,36,42,29		4, 9
44″	53,33,39,18,26,26,25,44,49,18		3,54,56,40,19	
		56,38, 4, 5,40, 2,10		4, 9
46″	53,33,40,15, 4,30,31,24,51,28		3,54,56,44,28	
		56,38, 0,10,43,17,42		4, 9
48″	53,33,41,11,42,30,42, 8, 9,10		3,54,56,48,37	
		56,37,56,15,46,29, 5		4, 9
50″	53,33,42, 8,20,26,57,54,38,15		3,54,56,52,46	
		56,37,52,20,49,36,19		4, 9
52″	53,33,43, 4,58,19,18,44,14,34		3,54,56,56,55	
		56,37,48,25,52,39,24		4, 9
54″	53,33,44, 1,36, 7,44,36,53,58		3,54,57, 1, 4	
		56,37,44,30,55,38,20		4, 9
56″	53,33,44,58,13,52,15,32,32,18		3,54,57, 5,13	
		56,37,40,35,58,33, 7		4, 9
58″	53,33,45,54,51,32,51,31, 5,25		3,54,57, 9,22	
		56,37,36,41, 1,23,45		
60″	53,33,46,51,29, 9,32,32,29,10			
exact	53,33,46,51,29, 9,32,33, 6,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°13′ 0″	53,33,46,51,29, 9,32,33, 6,51			
		56,37,32,46, 4,14,14		
2″	53,33,47,48, 6,42,18,37,21, 5		3,54,57,17,23	
		56,37,28,51, 6,56,51		4, 8
4″	53,33,48,44,44,11, 9,44,17,56		3,54,57,21,31	
		56,37,24,56, 9,35,20		4, 8
6″	53,33,49,41,21,36, 5,53,53,16		3,54,57,25,39	
		56,37,21, 1,12, 9,41		4, 8
8″	53,33,50,37,58,57, 7, 6, 2,57		3,54,57,29,47	
		56,37,17, 6,14,39,54		4, 8
10″	53,33,51,34,36,14,13,20,42,51		3,54,57,33,55	
		56,37,13,11,17, 5,59		4, 8
12″	53,33,52,31,13,27,24,37,48,50		3,54,57,38, 3	
		56,37, 9,16,19,27,56		4, 8
14″	53,33,53,27,50,36,40,57,16,46		3,54,57,42,11	
		56,37, 5,21,21,45,45		4, 8
16″	53,33,54,24,27,42, 2,19, 2,31		3,54,57,46,19	
		56,37, 1,26,23,59,26		4, 8
18″	53,33,55,21, 4,43,28,43, 1,57		3,54,57,50,27	
		56,36,57,31,26, 8,59		4, 8
20″	53,33,56,17,41,41, 0, 9,10,56		3,54,57,54,35	
		56,36,53,36,28,14,24		4, 8
22″	53,33,57,14,18,34,36,37,25,20		3,54,57,58,43	
		56,36,49,41,30,15,41		4, 8
24″	53,33,58,10,55,24,18, 7,41, 1		3,54,58, 2,51	
		56,36,45,46,32,12,50		4, 8
26″	53,33,59, 7,32,10, 4,39,53,51		3,54,58, 6,59	
		56,36,41,51,34, 5,51		4, 8
28″	53,34, 0, 4, 8,51,56,13,59,42		3,54,58,11, 7	
		56,36,37,56,35,54,44		4, 8
30″	53,34, 1, 0,45,29,52,49,54,26		3,54,58,15,15	
		56,36,34, 1,37,39,29		4, 8
32″	53,34, 1,57,22, 3,54,27,33,55		3,54,58,19,23	
		56,36,30, 6,39,20, 6		4, 8
34″	53,34, 2,53,58,34, 1, 6,54, 1		3,54,58,23,31	
		56,36,26,11,40,56,35		4, 8
36″	53,34, 3,50,35, 0,12,47,50,36		3,54,58,27,39	
		56,36,22,16,42,28,56		4, 8
38″	53,34, 4,47,11,22,29,30,19,32		3,54,58,31,47	
		56,36,18,21,43,57, 9		4, 8
40″	53,34, 5,43,47,40,51,14,16,41		3,54,58,35,55	
		56,36,14,26,45,21,14		4, 8
42″	53,34, 6,40,23,55,17,59,37,55		3,54,58,40, 3	
		56,36,10,31,46,41,11		4, 8
44″	53,34, 7,37, 0, 5,49,46,19, 6		3,54,58,44,11	
		56,36, 6,36,47,57, 0		4, 8
46″	53,34, 8,33,36,12,26,34,16, 6		3,54,58,48,19	
		56,36, 2,41,49, 8,41		4, 8
48″	53,34, 9,30,12,15, 8,23,24,47		3,54,58,52,27	
		56,35,58,46,50,16,14		4, 8
50″	53,34,10,26,48,13,55,13,41, 1		3,54,58,56,35	
		56,35,54,51,51,19,39		4, 8
52″	53,34,11,23,24, 8,47, 5, 0,40		3,54,59, 0,43	
		56,35,50,56,52,18,56		4, 8
54″	53,34,12,19,59,59,43,57,19,36		3,54,59, 4,51	
		56,35,47, 1,53,14, 5		4, 8
56″	53,34,13,16,35,46,45,50,33,41		3,54,59, 8,59	
		56,35,43, 6,54, 5, 6		4, 8
58″	53,34,14,13,11,29,52,44,38,47		3,54,59,13, 7	
		56,35,39,11,54,51,59		
60″	53,34,15, 9,47, 9, 4,39,30,46			
exact	53,34,15, 9,47, 9, 4,39, 4,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°14′ 0″	53,34,15, 9,47, 9, 4,39, 4,58			
		56,35,35,16,55,32, 9		
2″	53,34,16, 6,22,44,21,34,37, 7		3,54,59,21,33	
		56,35,31,21,56,10,36		4, 8
4″	53,34,17, 2,58,15,43,30,47,43		3,54,59,25,41	
		56,35,27,26,56,44,55		4, 8
6″	53,34,17,59,33,43,10,27,32,38		3,54,59,29,49	
		56,35,23,31,57,15, 6		4, 8
8″	53,34,18,56, 9, 6,42,24,47,44		3,54,59,33,57	
		56,35,19,36,57,41, 9		4, 8
10″	53,34,19,52,44,26,19,22,28,53		3,54,59,38, 5	
		56,35,15,41,58, 3, 4		4, 8
12″	53,34,20,49,19,42, 1,20,31,57		3,54,59,42,13	
		56,35,11,46,58,20,51		4, 8
14″	53,34,21,45,54,53,48,18,52,48		3,54,59,46,21	
		56,35, 7,51,58,34,30		4, 8
16″	53,34,22,42,30, 1,40,17,27,18		3,54,59,50,29	
		56,35, 3,56,58,44, 1		4, 8
18″	53,34,23,39, 5, 5,37,16,11,19		3,54,59,54,37	
		56,35, 0, 1,58,49,24		4, 8
20″	53,34,24,35,40, 5,39,15, 0,43		3,54,59,58,45	
		56,34,56, 6,58,50,39		4, 8
22″	53,34,25,32,15, 1,46,13,51,22		3,55, 0, 2,53	
		56,34,52,11,58,47,46		4, 8
24″	53,34,26,28,49,53,58,12,39, 8		3,55, 0, 7, 1	
		56,34,48,16,58,40,45		4, 8
26″	53,34,27,25,24,42,15,11,19,53		3,55, 0,11, 9	
		56,34,44,21,58,29,36		4, 8
28″	53,34,28,21,59,26,37, 9,49,29		3,55, 0,15,17	
		56,34,40,26,58,14,19		4, 8
30″	53,34,29,18,34, 7, 4, 8, 3,48		3,55, 0,19,25	
		56,34,36,31,57,54,54		4, 8
32″	53,34,30,15, 8,43,36, 5,58,42		3,55, 0,23,33	
		56,34,32,36,57,31,21		4, 8
34″	53,34,31,11,43,16,13, 3,30, 3		3,55, 0,27,41	
		56,34,28,41,57, 3,40		4, 8
36″	53,34,32, 8,17,44,55, 0,33,43		3,55, 0,31,49	
		56,34,24,46,56,31,51		4, 8
38″	53,34,33, 4,52, 9,41,57, 5,34		3,55, 0,35,57	
		56,34,20,51,55,55,54		4, 8
40″	53,34,34, 1,26,30,33,53, 1,28		3,55, 0,40, 5	
		56,34,16,56,55,15,49		4, 8
42″	53,34,34,58, 0,47,30,48,17,17		3,55, 0,44,13	
		56,34,13, 1,54,31,36		4, 8
44″	53,34,35,54,35, 0,32,42,48,53		3,55, 0,48,21	
		56,34, 9, 6,53,43,15		4, 8
46″	53,34,36,51, 9, 9,39,36,32, 8		3,55, 0,52,29	
		56,34, 5,11,52,50,46		4, 8
48″	53,34,37,47,43,14,51,29,22,54		3,55, 0,56,37	
		56,34, 1,16,51,54, 9		4, 8
50″	53,34,38,44,17,16, 8,21,17, 3		3,55, 1, 0,45	
		56,33,57,21,50,53,24		4, 8
52″	53,34,39,40,51,13,30,12,10,27		3,55, 1, 4,53	
		56,33,53,26,49,48,31		4, 8
54″	53,34,40,37,25, 6,57, 1,58,58		3,55, 1, 9, 1	
		56,33,49,31,48,39,30		4, 8
56″	53,34,41,33,58,56,28,50,38,28		3,55, 1,13, 9	
		56,33,45,36,47,26,21		4, 8
58″	53,34,42,30,32,42, 5,38, 4,49		3,55, 1,17,17	
		56,33,41,41,46, 9, 4		
60″	53,34,43,27, 6,23,47,24,13,53			
exact	53,34,43,27, 6,23,47,24, 1,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°15′ 0″	53,34,43,27, 6,23,47,24, 1,52			
		56,33,37,46,44,46,23		
2″	53,34,44,23,40, 1,34, 8,48,15		3,55, 1,25,38	
		56,33,33,51,43,20,45		4, 8
4″	53,34,45,20,13,35,25,52, 9, 0		3,55, 1,29,46	
		56,33,29,56,41,50,59		4, 8
6″	53,34,46,16,47, 5,22,33,59,59		3,55, 1,33,54	
		56,33,26, 1,40,17, 5		4, 8
8″	53,34,47,13,20,31,24,14,17, 4		3,55, 1,38, 2	
		56,33,22, 6,38,39, 3		4, 8
10″	53,34,48, 9,53,53,30,52,56, 7		3,55, 1,42,10	
		56,33,18,11,36,56,53		4, 8
12″	53,34,49, 6,27,11,42,29,53, 0		3,55, 1,46,18	
		56,33,14,16,35,10,35		4, 8
14″	53,34,50, 3, 0,25,59, 5, 3,35		3,55, 1,50,26	
		56,33,10,21,33,20, 9		4, 8
16″	53,34,50,59,33,36,20,38,23,44		3,55, 1,54,34	
		56,33, 6,26,31,25,35		4, 8
18″	53,34,51,56, 6,42,47, 9,49,19		3,55, 1,58,42	
		56,33, 2,31,29,26,53		4, 8
20″	53,34,52,52,39,45,18,39,16,12		3,55, 2, 2,50	
		56,32,58,36,27,24, 3		4, 8
22″	53,34,53,49,12,43,55, 6,40,15		3,55, 2, 6,58	
		56,32,54,41,25,17, 5		4, 8
24″	53,34,54,45,45,38,36,31,57,20		3,55, 2,11, 6	
		56,32,50,46,23, 5,59		4, 8
26″	53,34,55,42,18,29,22,55, 3,19		3,55, 2,15,14	
		56,32,46,51,20,50,45		4, 8
28″	53,34,56,38,51,16,14,15,54, 4		3,55, 2,19,22	
		56,32,42,56,18,31,23		4, 8
30″	53,34,57,35,23,59,10,34,25,27		3,55, 2,23,30	
		56,32,39, 1,16, 7,53		4, 8
32″	53,34,58,31,56,38,11,50,33,20		3,55, 2,27,38	
		56,32,35, 6,13,40,15		4, 8
34″	53,34,59,28,29,13,18, 4,13,35		3,55, 2,31,46	
		56,32,31,11,11, 8,29		4, 8
36″	53,35, 0,25, 1,44,29,15,22, 4		3,55, 2,35,54	
		56,32,27,16, 8,32,35		4, 8
38″	53,35, 1,21,34,11,45,23,54,39		3,55, 2,40, 2	
		56,32,23,21, 5,52,33		4, 8
40″	53,35, 2,18, 6,35, 6,29,47,12		3,55, 2,44,10	
		56,32,19,26, 3, 8,23		4, 8
42″	53,35, 3,14,38,54,32,32,55,35		3,55, 2,48,18	
		56,32,15,31, 0,20, 5		4, 8
44″	53,35, 4,11,11,10, 3,33,15,40		3,55, 2,52,26	
		56,32,11,35,57,27,39		4, 8
46″	53,35, 5, 7,43,21,39,30,43,19		3,55, 2,56,34	
		56,32, 7,40,54,31, 5		4, 8
48″	53,35, 6, 4,15,29,20,25,14,24		3,55, 3, 0,42	
		56,32, 3,45,51,30,23		4, 8
50″	53,35, 7, 0,47,33, 6,16,44,47		3,55, 3, 4,50	
		56,31,59,50,48,25,33		4, 8
52″	53,35, 7,57,19,32,57, 5,10,20		3,55, 3, 8,58	
		56,31,55,55,45,16,35		4, 8
54″	53,35, 8,53,51,28,52,50,26,55		3,55, 3,13, 6	
		56,31,52, 0,42, 3,29		4, 8
56″	53,35, 9,50,23,20,53,32,30,24		3,55, 3,17,14	
		56,31,48, 5,38,46,15		4, 8
58″	53,35,10,46,55, 8,59,11,16,39		3,55, 3,21,22	
		56,31,44,10,35,24,53		
60″	53,35,11,43,26,53, 9,46,41,32			
exact	53,35,11,43,26,53, 9,46,38,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°16′ 0″	53,35,11,43,26,53, 9,46,38,18			
		56,31,40,15,31,59, 5		
2″	53,35,12,39,58,33,25,18,37,23		3,55, 3,29,39	
		56,31,36,20,28,29,26		4, 8
4″	53,35,13,36,30, 9,45,47, 6,49		3,55, 3,33,47	
		56,31,32,25,24,55,39		4, 8
6″	53,35,14,33, 1,42,11,12, 2,28		3,55, 3,37,55	
		56,31,28,30,21,17,44		4, 8
8″	53,35,15,29,33,10,41,33,20,12		3,55, 3,42, 3	
		56,31,24,35,17,35,41		4, 8
10″	53,35,16,26, 4,35,16,50,55,53		3,55, 3,46,11	
		56,31,20,40,13,49,30		4, 8
12″	53,35,17,22,35,55,57, 4,45,23		3,55, 3,50,19	
		56,31,16,45, 9,59,11		4, 8
14″	53,35,18,19, 7,12,42,14,44,34		3,55, 3,54,27	
		56,31,12,50, 6, 4,44		4, 8
16″	53,35,19,15,38,25,32,20,49,18		3,55, 3,58,35	
		56,31, 8,55, 2, 6, 9		4, 8
18″	53,35,20,12, 9,34,27,22,55,27		3,55, 4, 2,43	
		56,31, 4,59,58, 3,26		4, 8
20″	53,35,21, 8,40,39,27,20,58,53		3,55, 4, 6,51	
		56,31, 1, 4,53,56,35		4, 8
22″	53,35,22, 5,11,40,32,14,55,28		3,55, 4,10,59	
		56,30,57, 9,49,45,36		4, 8
24″	53,35,23, 1,42,37,42, 4,41, 4		3,55, 4,15, 7	
		56,30,53,14,45,30,29		4, 8
26″	53,35,23,58,13,30,56,50,11,33		3,55, 4,19,15	
		56,30,49,19,41,11,14		4, 8
28″	53,35,24,54,44,20,16,31,22,47		3,55, 4,23,23	
		56,30,45,24,36,47,51		4, 8
30″	53,35,25,51,15, 5,41, 8,10,38		3,55, 4,27,31	
		56,30,41,29,32,20,20		4, 8
32″	53,35,26,47,45,47,10,40,30,58		3,55, 4,31,39	
		56,30,37,34,27,48,41		4, 8
34″	53,35,27,44,16,24,45, 8,19,39		3,55, 4,35,47	
		56,30,33,39,23,12,54		4, 8
36″	53,35,28,40,46,58,24,31,32,33		3,55, 4,39,55	
		56,30,29,44,18,32,59		4, 8
38″	53,35,29,37,17,28, 8,50, 5,32		3,55, 4,44, 3	
		56,30,25,49,13,48,56		4, 8
40″	53,35,30,33,47,53,58, 3,54,28		3,55, 4,48,11	
		56,30,21,54, 9, 0,45		4, 8
42″	53,35,31,30,18,15,52,12,55,13		3,55, 4,52,19	
		56,30,17,59, 4, 8,26		4, 8
44″	53,35,32,26,48,33,51,17, 3,39		3,55, 4,56,27	
		56,30,14, 3,59,11,59		4, 8
46″	53,35,33,23,18,47,55,16,15,38		3,55, 5, 0,35	
		56,30,10, 8,54,11,24		4, 8
48″	53,35,34,19,48,58, 4,10,27, 2		3,55, 5, 4,43	
		56,30, 6,13,49, 6,41		4, 8
50″	53,35,35,16,19, 4,17,59,33,43		3,55, 5, 8,51	
		56,30, 2,18,43,57,50		4, 8
52″	53,35,36,12,49, 6,36,43,31,33		3,55, 5,12,59	
		56,29,58,23,38,44,51		4, 8
54″	53,35,37, 9,19, 5, 0,22,16,24		3,55, 5,17, 7	
		56,29,54,28,33,27,44		4, 8
56″	53,35,38, 5,48,59,28,55,44, 8		3,55, 5,21,15	
		56,29,50,33,28, 6,29		4, 8
58″	53,35,39, 2,18,50, 2,23,50,37		3,55, 5,25,23	
		56,29,46,38,22,41, 6		
60″	53,35,39,58,48,36,40,46,31,43			
exact	53,35,39,58,48,36,40,46,39,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°17′ 0″	53,35,39,58,48,36,40,46,39,30			
		56,29,42,43,17,12,24		
2″	53,35,40,55,18,19,24, 3,51,54		3,55, 5,33,35	
		56,29,38,48,11,38,49		4, 8
4″	53,35,41,51,47,58,12,15,30,43		3,55, 5,37,43	
		56,29,34,53, 6, 1, 6		4, 8
6″	53,35,42,48,17,33, 5,21,31,49		3,55, 5,41,51	
		56,29,30,58, 0,19,15		4, 8
8″	53,35,43,44,47, 4, 3,21,51, 4		3,55, 5,45,59	
		56,29,27, 2,54,33,16		4, 8
10″	53,35,44,41,16,31, 6,16,24,20		3,55, 5,50, 7	
		56,29,23, 7,48,43, 9		4, 8
12″	53,35,45,37,45,54,14, 5, 7,29		3,55, 5,54,15	
		56,29,19,12,42,48,54		4, 8
14″	53,35,46,34,15,13,26,47,56,23		3,55, 5,58,23	
		56,29,15,17,36,50,31		4, 8
16″	53,35,47,30,44,28,44,24,46,54		3,55, 6, 2,31	
		56,29,11,22,30,48, 0		4, 8
18″	53,35,48,27,13,40, 6,55,34,54		3,55, 6, 6,39	
		56,29, 7,27,24,41,21		4, 8
20″	53,35,49,23,42,47,34,20,16,15		3,55, 6,10,47	
		56,29, 3,32,18,30,34		4, 8
22″	53,35,50,20,11,51, 6,38,46,49		3,55, 6,14,55	
		56,28,59,37,12,15,39		4, 8
24″	53,35,51,16,40,50,43,51, 2,28		3,55, 6,19, 3	
		56,28,55,42, 5,56,36		4, 8
26″	53,35,52,13, 9,46,25,56,59, 4		3,55, 6,23,11	
		56,28,51,46,59,33,25		4, 8
28″	53,35,53, 9,38,38,12,56,32,29		3,55, 6,27,19	
		56,28,47,51,53, 6, 6		4, 8
30″	53,35,54, 6, 7,26, 4,49,38,35		3,55, 6,31,27	
		56,28,43,56,46,34,39		4, 8
32″	53,35,55, 2,36,10, 1,36,13,14		3,55, 6,35,35	
		56,28,40, 1,39,59, 4		4, 8
34″	53,35,55,59, 4,50, 3,16,12,18		3,55, 6,39,43	
		56,28,36, 6,33,19,21		4, 8
36″	53,35,56,55,33,26, 9,49,31,39		3,55, 6,43,51	
		56,28,32,11,26,35,30		4, 8
38″	53,35,57,52, 1,58,21,16, 7, 9		3,55, 6,47,59	
		56,28,28,16,19,47,31		4, 8
40″	53,35,58,48,30,26,37,35,54,40		3,55, 6,52, 7	
		56,28,24,21,12,55,24		4, 8
42″	53,35,59,44,58,50,58,48,50, 4		3,55, 6,56,15	
		56,28,20,26, 5,59, 9		4, 8
44″	53,36, 0,41,27,11,24,54,49,13		3,55, 7, 0,23	
		56,28,16,30,58,58,46		4, 8
46″	53,36, 1,37,55,27,55,53,47,59		3,55, 7, 4,31	
		56,28,12,35,51,54,15		4, 8
48″	53,36, 2,34,23,40,31,45,42,14		3,55, 7, 8,39	
		56,28, 8,40,44,45,36		4, 8
50″	53,36, 3,30,51,49,12,30,27,50		3,55, 7,12,47	
		56,28, 4,45,37,32,49		4, 8
52″	53,36, 4,27,19,53,58, 8, 0,39		3,55, 7,16,55	
		56,28, 0,50,30,15,54		4, 8
54″	53,36, 5,23,47,54,48,38,16,33		3,55, 7,21, 3	
		56,27,56,55,22,54,51		4, 8
56″	53,36, 6,20,15,51,44, 1,11,24		3,55, 7,25,11	
		56,27,53, 0,15,29,40		4, 8
58″	53,36, 7,16,43,44,44,16,41, 4		3,55, 7,29,19	
		56,27,49, 5, 8, 0,21		
60″	53,36, 8,13,11,33,49,24,41,25			
exact	53,36, 8,13,11,33,49,24,55, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°18′ 0″	53,36, 8,13,11,33,49,24,55, 5			
		56,27,45,10, 0,28,30		
2″	53,36, 9, 9,39,18,59,25,23,35		3,55, 7,37,27	
		56,27,41,14,52,51, 3		4, 8
4″	53,36,10, 6, 7, 0,14,18,14,38		3,55, 7,41,35	
		56,27,37,19,45, 9,28		4, 8
6″	53,36,11, 2,34,37,34, 3,24, 6		3,55, 7,45,43	
		56,27,33,24,37,23,45		4, 8
8″	53,36,11,59, 2,10,58,40,47,51		3,55, 7,49,51	
		56,27,29,29,29,33,54		4, 8
10″	53,36,12,55,29,40,28,10,21,45		3,55, 7,53,59	
		56,27,25,34,21,39,55		4, 8
12″	53,36,13,51,57, 6, 2,32, 1,40		3,55, 7,58, 7	
		56,27,21,39,13,41,48		4, 8
14″	53,36,14,48,24,27,41,45,43,28		3,55, 8, 2,15	
		56,27,17,44, 5,39,33		4, 8
16″	53,36,15,44,51,45,25,51,23, 1		3,55, 8, 6,23	
		56,27,13,48,57,33,10		4, 8
18″	53,36,16,41,18,59,14,48,56,11		3,55, 8,10,31	
		56,27, 9,53,49,22,39		4, 8
20″	53,36,17,37,46, 9, 8,38,18,50		3,55, 8,14,39	
		56,27, 5,58,41, 8, 0		4, 8
22″	53,36,18,34,13,15, 7,19,26,50		3,55, 8,18,47	
		56,27, 2, 3,32,49,13		4, 8
24″	53,36,19,30,40,17,10,52,16, 3		3,55, 8,22,55	
		56,26,58, 8,24,26,18		4, 8
26″	53,36,20,27, 7,15,19,16,42,21		3,55, 8,27, 3	
		56,26,54,13,15,59,15		4, 8
28″	53,36,21,23,34, 9,32,32,41,36		3,55, 8,31,11	
		56,26,50,18, 7,28, 4		4, 8
30″	53,36,22,20, 0,59,50,40, 9,40		3,55, 8,35,19	
		56,26,46,22,58,52,45		4, 8
32″	53,36,23,16,27,46,13,39, 2,25		3,55, 8,39,27	
		56,26,42,27,50,13,18		4, 8
34″	53,36,24,12,54,28,41,29,15,43		3,55, 8,43,35	
		56,26,38,32,41,29,43		4, 8
36″	53,36,25, 9,21, 7,14,10,45,26		3,55, 8,47,43	
		56,26,34,37,32,42, 0		4, 8
38″	53,36,26, 5,47,41,51,43,27,26		3,55, 8,51,51	
		56,26,30,42,23,50, 9		4, 8
40″	53,36,27, 2,14,12,34, 7,17,35		3,55, 8,55,59	
		56,26,26,47,14,54,10		4, 8
42″	53,36,27,58,40,39,21,22,11,45		3,55, 9, 0, 7	
		56,26,22,52, 5,54, 3		4, 8
44″	53,36,28,55, 7, 2,13,28, 5,48		3,55, 9, 4,15	
		56,26,18,56,56,49,48		4, 8
46″	53,36,29,51,33,21,10,24,55,36		3,55, 9, 8,23	
		56,26,15, 1,47,41,25		4, 8
48″	53,36,30,47,59,36,12,12,37, 1		3,55, 9,12,31	
		56,26,11, 6,38,28,54		4, 8
50″	53,36,31,44,25,47,18,51, 5,55		3,55, 9,16,39	
		56,26, 7,11,29,12,15		4, 8
52″	53,36,32,40,51,54,30,20,18,10		3,55, 9,20,47	
		56,26, 3,16,19,51,28		4, 8
54″	53,36,33,37,17,57,46,40, 9,38		3,55, 9,24,55	
		56,25,59,21,10,26,33		4, 8
56″	53,36,34,33,43,57, 7,50,36,11		3,55, 9,29, 3	
		56,25,55,26, 0,57,30		4, 8
58″	53,36,35,30, 9,52,33,51,33,41		3,55, 9,33,11	
		56,25,51,30,51,24,19		
60″	53,36,36,26,35,44, 4,42,58, 0			
exact	53,36,36,26,35,44, 4,43,19,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°19′ 0″	53,36,36,26,35,44, 4,43,19,10			
		56,25,47,35,41,49,30		
2″	53,36,37,23, 1,31,40,25, 8,40		3,55, 9,41,15	
		56,25,43,40,32, 8,15		4, 8
4″	53,36,38,19,27,15,20,57,16,55		3,55, 9,45,23	
		56,25,39,45,22,22,52		4, 8
6″	53,36,39,15,52,55, 6,19,39,47		3,55, 9,49,31	
		56,25,35,50,12,33,21		4, 8
8″	53,36,40,12,18,30,56,32,13, 8		3,55, 9,53,39	
		56,25,31,55, 2,39,42		4, 8
10″	53,36,41, 8,44, 2,51,34,52,50		3,55, 9,57,47	
		56,25,27,59,52,41,55		4, 8
12″	53,36,42, 5, 9,30,51,27,34,45		3,55,10, 1,55	
		56,25,24, 4,42,40, 0		4, 8
14″	53,36,43, 1,34,54,56,10,14,45		3,55,10, 6, 3	
		56,25,20, 9,32,33,57		4, 8
16″	53,36,43,58, 0,15, 5,42,48,42		3,55,10,10,11	
		56,25,16,14,22,23,46		4, 8
18″	53,36,44,54,25,31,20, 5,12,28		3,55,10,14,19	
		56,25,12,19,12, 9,27		4, 8
20″	53,36,45,50,50,43,39,17,21,55		3,55,10,18,27	
		56,25, 8,24, 1,51, 0		4, 8
22″	53,36,46,47,15,52, 3,19,12,55		3,55,10,22,35	
		56,25, 4,28,51,28,25		4, 8
24″	53,36,47,43,40,56,32,10,41,20		3,55,10,26,43	
		56,25, 0,33,41, 1,42		4, 8
26″	53,36,48,40, 5,57, 5,51,43, 2		3,55,10,30,51	
		56,24,56,38,30,30,51		4, 8
28″	53,36,49,36,30,53,44,22,13,53		3,55,10,34,59	
		56,24,52,43,19,55,52		4, 8
30″	53,36,50,32,55,46,27,42, 9,45		3,55,10,39, 7	
		56,24,48,48, 9,16,45		4, 8
32″	53,36,51,29,20,35,15,51,26,30		3,55,10,43,15	
		56,24,44,52,58,33,30		4, 8
34″	53,36,52,25,45,20, 8,50, 0, 0		3,55,10,47,23	
		56,24,40,57,47,46, 7		4, 8
36″	53,36,53,22,10, 1, 6,37,46, 7		3,55,10,51,31	
		56,24,37, 2,36,54,36		4, 8
38″	53,36,54,18,34,38, 9,14,40,43		3,55,10,55,39	
		56,24,33, 7,25,58,57		4, 8
40″	53,36,55,14,59,11,16,40,39,40		3,55,10,59,47	
		56,24,29,12,14,59,10		4, 8
42″	53,36,56,11,23,40,28,55,38,50		3,55,11, 3,55	
		56,24,25,17, 3,55,15		4, 8
44″	53,36,57, 7,48, 5,45,59,34, 5		3,55,11, 8, 3	
		56,24,21,21,52,47,12		4, 8
46″	53,36,58, 4,12,27, 7,52,21,17		3,55,11,12,11	
		56,24,17,26,41,35, 1		4, 8
48″	53,36,59, 0,36,44,34,33,56,18		3,55,11,16,19	
		56,24,13,31,30,18,42		4, 8
50″	53,36,59,57, 0,58, 6, 4,15, 0		3,55,11,20,27	
		56,24, 9,36,18,58,15		4, 8
52″	53,37, 0,53,25, 7,42,23,13,15		3,55,11,24,35	
		56,24, 5,41, 7,33,40		4, 8
54″	53,37, 1,49,49,13,23,30,46,55		3,55,11,28,43	
		56,24, 1,45,56, 4,57		4, 8
56″	53,37, 2,46,13,15, 9,26,51,52		3,55,11,32,51	
		56,23,57,50,44,32, 6		4, 8
58″	53,37, 3,42,37,13, 0,11,23,58		3,55,11,36,59	
		56,23,53,55,32,55, 7		
60″	53,37, 4,39, 1, 6,55,44,19, 5			
exact	53,37, 4,39, 1, 6,55,44,50,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°20′ 0″	53,37, 4,39, 1, 6,55,44,50,19			
		56,23,50, 0,21,17,34		
2″	53,37, 5,35,24,56,56, 6, 7,53		3,55,11,44,59	
		56,23,46, 5, 9,32,35		4, 7
4″	53,37, 6,31,48,43, 1,15,40,28		3,55,11,49, 6	
		56,23,42, 9,57,43,29		4, 7
6″	53,37, 7,28,12,25,11,13,23,57		3,55,11,53,13	
		56,23,38,14,45,50,16		4, 7
8″	53,37, 8,24,36, 3,25,59,14,13		3,55,11,57,20	
		56,23,34,19,33,52,56		4, 7
10″	53,37, 9,20,59,37,45,33, 7, 9		3,55,12, 1,27	
		56,23,30,24,21,51,29		4, 7
12″	53,37,10,17,23, 8, 9,54,58,38		3,55,12, 5,34	
		56,23,26,29, 9,45,55		4, 7
14″	53,37,11,13,46,34,39, 4,44,33		3,55,12, 9,41	
		56,23,22,33,57,36,14		4, 7
16″	53,37,12,10, 9,57,13, 2,20,47		3,55,12,13,48	
		56,23,18,38,45,22,26		4, 7
18″	53,37,13, 6,33,15,51,47,43,13		3,55,12,17,55	
		56,23,14,43,33, 4,31		4, 7
20″	53,37,14, 2,56,30,35,20,47,44		3,55,12,22, 2	
		56,23,10,48,20,42,29		4, 7
22″	53,37,14,59,19,41,23,41,30,13		3,55,12,26, 9	
		56,23, 6,53, 8,16,20		4, 7
24″	53,37,15,55,42,48,16,49,46,33		3,55,12,30,16	
		56,23, 2,57,55,46, 4		4, 7
26″	53,37,16,52, 5,51,14,45,32,37		3,55,12,34,23	
		56,22,59, 2,43,11,41		4, 7
28″	53,37,17,48,28,50,17,28,44,18		3,55,12,38,30	
		56,22,55, 7,30,33,11		4, 7
30″	53,37,18,44,51,45,24,59,17,29		3,55,12,42,37	
		56,22,51,12,17,50,34		4, 7
32″	53,37,19,41,14,36,37,17, 8, 3		3,55,12,46,44	
		56,22,47,17, 5, 3,50		4, 7
34″	53,37,20,37,37,23,54,22,11,53		3,55,12,50,51	
		56,22,43,21,52,12,59		4, 7
36″	53,37,21,34, 0, 7,16,14,24,52		3,55,12,54,58	
		56,22,39,26,39,18, 1		4, 7
38″	53,37,22,30,22,46,42,53,42,53		3,55,12,59, 5	
		56,22,35,31,26,18,56		4, 7
40″	53,37,23,26,45,22,14,20, 1,49		3,55,13, 3,12	
		56,22,31,36,13,15,44		4, 7
42″	53,37,24,23, 7,53,50,33,17,33		3,55,13, 7,19	
		56,22,27,41, 0, 8,25		4, 7
44″	53,37,25,19,30,21,31,33,25,58		3,55,13,11,26	
		56,22,23,45,46,56,59		4, 7
46″	53,37,26,15,52,45,17,20,22,57		3,55,13,15,33	
		56,22,19,50,33,41,26		4, 7
48″	53,37,27,12,15, 5, 7,54, 4,23		3,55,13,19,40	
		56,22,15,55,20,21,46		4, 7
50″	53,37,28, 8,37,21, 3,14,26, 9		3,55,13,23,47	
		56,22,12, 0, 6,57,59		4, 7
52″	53,37,29, 4,59,33, 3,21,24, 8		3,55,13,27,54	
		56,22, 8, 4,53,30, 5		4, 7
54″	53,37,30, 1,21,41, 8,14,54,13		3,55,13,32, 1	
		56,22, 4, 9,39,58, 4		4, 7
56″	53,37,30,57,43,45,17,54,52,17		3,55,13,36, 8	
		56,22, 0,14,26,21,56		4, 7
58″	53,37,31,54, 5,45,32,21,14,13		3,55,13,40,15	
		56,21,56,19,12,41,41		
60″	53,37,32,50,27,41,51,33,55,54			
exact	53,37,32,50,27,41,51,33,31,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°21′ 0″	53,37,32,50,27,41,51,33,31,33			
		56,21,52,23,58,54,50		
2″	53,37,33,46,49,34,15,32,26,23		3,55,13,48,38	
		56,21,48,28,45, 6,12		4, 7
4″	53,37,34,43,11,22,44,17,32,35		3,55,13,52,45	
		56,21,44,33,31,13,27		4, 7
6″	53,37,35,39,33, 7,17,48,46, 2		3,55,13,56,52	
		56,21,40,38,17,16,35		4, 7
8″	53,37,36,35,54,47,56, 6, 2,37		3,55,14, 0,59	
		56,21,36,43, 3,15,36		4, 7
10″	53,37,37,32,16,24,39, 9,18,13		3,55,14, 5, 6	
		56,21,32,47,49,10,30		4, 7
12″	53,37,38,28,37,57,26,58,28,43		3,55,14, 9,13	
		56,21,28,52,35, 1,17		4, 7
14″	53,37,39,24,59,26,19,33,30, 0		3,55,14,13,20	
		56,21,24,57,20,47,57		4, 7
16″	53,37,40,21,20,51,16,54,17,57		3,55,14,17,27	
		56,21,21, 2, 6,30,30		4, 7
18″	53,37,41,17,42,12,19, 0,48,27		3,55,14,21,34	
		56,21,17, 6,52, 8,56		4, 7
20″	53,37,42,14, 3,29,25,52,57,23		3,55,14,25,41	
		56,21,13,11,37,43,15		4, 7
22″	53,37,43,10,24,42,37,30,40,38		3,55,14,29,48	
		56,21, 9,16,23,13,27		4, 7
24″	53,37,44, 6,45,51,53,53,54, 5		3,55,14,33,55	
		56,21, 5,21, 8,39,32		4, 7
26″	53,37,45, 3, 6,57,15, 2,33,37		3,55,14,38, 2	
		56,21, 1,25,54, 1,30		4, 7
28″	53,37,45,59,27,58,40,56,35, 7		3,55,14,42, 9	
		56,20,57,30,39,19,21		4, 7
30″	53,37,46,55,48,56,11,35,54,28		3,55,14,46,16	
		56,20,53,35,24,33, 5		4, 7
32″	53,37,47,52, 9,49,47, 0,27,33		3,55,14,50,23	
		56,20,49,40, 9,42,42		4, 7
34″	53,37,48,48,30,39,27,10,10,15		3,55,14,54,30	
		56,20,45,44,54,48,12		4, 7
36″	53,37,49,44,51,25,12, 4,58,27		3,55,14,58,37	
		56,20,41,49,39,49,35		4, 7
38″	53,37,50,41,12, 7, 1,44,48, 2		3,55,15, 2,44	
		56,20,37,54,24,46,51		4, 7
40″	53,37,51,37,32,44,56, 9,34,53		3,55,15, 6,51	
		56,20,33,59, 9,40, 0		4, 7
42″	53,37,52,33,53,18,55,19,14,53		3,55,15,10,58	
		56,20,30, 3,54,29, 2		4, 7
44″	53,37,53,30,13,48,59,13,43,55		3,55,15,15, 5	
		56,20,26, 8,39,13,57		4, 7
46″	53,37,54,26,34,15, 7,52,57,52		3,55,15,19,12	
		56,20,22,13,23,54,45		4, 7
48″	53,37,55,22,54,37,21,16,52,37		3,55,15,23,19	
		56,20,18,18, 8,31,26		4, 7
50″	53,37,56,19,14,55,39,25,24, 3		3,55,15,27,26	
		56,20,14,22,53, 4, 0		4, 7
52″	53,37,57,15,35,10, 2,18,28, 3		3,55,15,31,33	
		56,20,10,27,37,32,27		4, 7
54″	53,37,58,11,55,20,29,56, 0,30		3,55,15,35,40	
		56,20, 6,32,21,56,47		4, 7
56″	53,37,59, 8,15,27, 2,17,57,17		3,55,15,39,47	
		56,20, 2,37, 6,17, 0		4, 7
58″	53,38, 0, 4,35,29,39,24,14,17		3,55,15,43,54	
		56,19,58,41,50,33, 6		
60″	53,38, 1, 0,55,28,21,14,47,23			
exact	53,38, 1, 0,55,28,21,14,30,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°22′ 0″	53,38, 1, 0,55,28,21,14,30,23			
		56,19,54,46,34,43,28		
2″	53,38, 1,57,15,23, 7,49,13,51		3,55,15,52,13	
		56,19,50,51,18,51,15		4, 7
4″	53,38, 2,53,35,13,59, 8, 5, 6		3,55,15,56,20	
		56,19,46,56, 2,54,55		4, 7
6″	53,38, 3,49,55, 0,55,11, 0, 1		3,55,16, 0,27	
		56,19,43, 0,46,54,28		4, 7
8″	53,38, 4,46,14,43,55,57,54,29		3,55,16, 4,34	
		56,19,39, 5,30,49,54		4, 7
10″	53,38, 5,42,34,23, 1,28,44,23		3,55,16, 8,41	
		56,19,35,10,14,41,13		4, 7
12″	53,38, 6,38,53,58,11,43,25,36		3,55,16,12,48	
		56,19,31,14,58,28,25		4, 7
14″	53,38, 7,35,13,29,26,41,54, 1		3,55,16,16,55	
		56,19,27,19,42,11,30		4, 7
16″	53,38, 8,31,32,56,46,24, 5,31		3,55,16,21, 2	
		56,19,23,24,25,50,28		4, 7
18″	53,38, 9,27,52,20,10,49,55,59		3,55,16,25, 9	
		56,19,19,29, 9,25,19		4, 7
20″	53,38,10,24,11,39,39,59,21,18		3,55,16,29,16	
		56,19,15,33,52,56, 3		4, 7
22″	53,38,11,20,30,55,13,52,17,21		3,55,16,33,23	
		56,19,11,38,36,22,40		4, 7
24″	53,38,12,16,50, 6,52,28,40, 1		3,55,16,37,30	
		56,19, 7,43,19,45,10		4, 7
26″	53,38,13,13, 9,14,35,48,25,11		3,55,16,41,37	
		56,19, 3,48, 3, 3,33		4, 7
28″	53,38,14, 9,28,18,23,51,28,44		3,55,16,45,44	
		56,18,59,52,46,17,49		4, 7
30″	53,38,15, 5,47,18,16,37,46,33		3,55,16,49,51	
		56,18,55,57,29,27,58		4, 7
32″	53,38,16, 2, 6,14,14, 7,14,31		3,55,16,53,58	
		56,18,52, 2,12,34, 0		4, 7
34″	53,38,16,58,25, 6,16,19,48,31		3,55,16,58, 5	
		56,18,48, 6,55,35,55		4, 7
36″	53,38,17,54,43,54,23,15,24,26		3,55,17, 2,12	
		56,18,44,11,38,33,43		4, 7
38″	53,38,18,51, 2,38,34,53,58, 9		3,55,17, 6,19	
		56,18,40,16,21,27,24		4, 7
40″	53,38,19,47,21,18,51,15,25,33		3,55,17,10,26	
		56,18,36,21, 4,16,58		4, 7
42″	53,38,20,43,39,55,12,19,42,31		3,55,17,14,33	
		56,18,32,25,47, 2,25		4, 7
44″	53,38,21,39,58,27,38, 6,44,56		3,55,17,18,40	
		56,18,28,30,29,43,45		4, 7
46″	53,38,22,36,16,56, 8,36,28,41		3,55,17,22,47	
		56,18,24,35,12,20,58		4, 7
48″	53,38,23,32,35,20,43,48,49,39		3,55,17,26,54	
		56,18,20,39,54,54, 4		4, 7
50″	53,38,24,28,53,41,23,43,43,43		3,55,17,31, 1	
		56,18,16,44,37,23, 3		4, 7
52″	53,38,25,25,11,58, 8,21, 6,46		3,55,17,35, 8	
		56,18,12,49,19,47,55		4, 7
54″	53,38,26,21,30,10,57,40,54,41		3,55,17,39,15	
		56,18, 8,54, 2, 8,40		4, 7
56″	53,38,27,17,48,19,51,43, 3,21		3,55,17,43,22	
		56,18, 4,58,44,25,18		4, 7
58″	53,38,28,14, 6,24,50,27,28,39		3,55,17,47,29	
		56,18, 1, 3,26,37,49		
60″	53,38,29,10,24,25,53,54, 6,28			
exact	53,38,29,10,24,25,53,53,58,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°23′ 0″	53,38,29,10,24,25,53,53,58,48			
		56,17,57, 8, 8,45,37		
2″	53,38,30, 6,42,23, 2, 2,44,25		3,55,17,55,44	
		56,17,53,12,50,49,53		4, 7
4″	53,38,31, 3, 0,16,14,53,34,18		3,55,17,59,51	
		56,17,49,17,32,50, 2		4, 7
6″	53,38,31,59,18, 5,32,26,24,20		3,55,18, 3,58	
		56,17,45,22,14,46, 4		4, 7
8″	53,38,32,55,35,50,54,41,10,24		3,55,18, 8, 5	
		56,17,41,26,56,37,59		4, 7
10″	53,38,33,51,53,32,21,37,48,23		3,55,18,12,12	
		56,17,37,31,38,25,47		4, 7
12″	53,38,34,48,11, 9,53,16,14,10		3,55,18,16,19	
		56,17,33,36,20, 9,28		4, 7
14″	53,38,35,44,28,43,29,36,23,38		3,55,18,20,26	
		56,17,29,41, 1,49, 2		4, 7
16″	53,38,36,40,46,13,10,38,12,40		3,55,18,24,33	
		56,17,25,45,43,24,29		4, 7
18″	53,38,37,37, 3,38,56,21,37, 9		3,55,18,28,40	
		56,17,21,50,24,55,49		4, 7
20″	53,38,38,33,21, 0,46,46,32,58		3,55,18,32,47	
		56,17,17,55, 6,23, 2		4, 7
22″	53,38,39,29,38,18,41,52,56, 0		3,55,18,36,54	
		56,17,13,59,47,46, 8		4, 7
24″	53,38,40,25,55,32,41,40,42, 8		3,55,18,41, 1	
		56,17,10, 4,29, 5, 7		4, 7
26″	53,38,41,22,12,42,46, 9,47,15		3,55,18,45, 8	
		56,17, 6, 9,10,19,59		4, 7
28″	53,38,42,18,29,48,55,20, 7,14		3,55,18,49,15	
		56,17, 2,13,51,30,44		4, 7
30″	53,38,43,14,46,51, 9,11,37,58		3,55,18,53,22	
		56,16,58,18,32,37,22		4, 7
32″	53,38,44,11, 3,49,27,44,15,20		3,55,18,57,29	
		56,16,54,23,13,39,53		4, 7
34″	53,38,45, 7,20,43,50,57,55,13		3,55,19, 1,36	
		56,16,50,27,54,38,17		4, 7
36″	53,38,46, 3,37,34,18,52,33,30		3,55,19, 5,43	
		56,16,46,32,35,32,34		4, 7
38″	53,38,46,59,54,20,51,28, 6, 4		3,55,19, 9,50	
		56,16,42,37,16,22,44		4, 7
40″	53,38,47,56,11, 3,28,44,28,48		3,55,19,13,57	
		56,16,38,41,57, 8,47		4, 7
42″	53,38,48,52,27,42,10,41,37,35		3,55,19,18, 4	
		56,16,34,46,37,50,43		4, 7
44″	53,38,49,48,44,16,57,19,28,18		3,55,19,22,11	
		56,16,30,51,18,28,32		4, 7
46″	53,38,50,45, 0,47,48,37,56,50		3,55,19,26,18	
		56,16,26,55,59, 2,14		4, 7
48″	53,38,51,41,17,14,44,36,59, 4		3,55,19,30,25	
		56,16,23, 0,39,31,49		4, 7
50″	53,38,52,37,33,37,45,16,30,53		3,55,19,34,32	
		56,16,19, 5,19,57,17		4, 7
52″	53,38,53,33,49,56,50,36,28,10		3,55,19,38,39	
		56,16,15,10, 0,18,38		4, 7
54″	53,38,54,30, 6,12, 0,36,46,48		3,55,19,42,46	
		56,16,11,14,40,35,52		4, 7
56″	53,38,55,26,22,23,15,17,22,40		3,55,19,46,53	
		56,16, 7,19,20,48,59		4, 7
58″	53,38,56,22,38,30,34,38,11,39		3,55,19,51, 0	
		56,16, 3,24, 0,57,59		
60″	53,38,57,18,54,33,58,39, 9,38			
exact	53,38,57,18,54,33,58,39,13,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°24′ 0″	53,38,57,18,54,33,58,39,13,19			
		56,15,59,28,41, 3,25		
2″	53,38,58,15,10,33,27,20,16,44		3,55,19,59,11	
		56,15,55,33,21, 4,14		4, 7
4″	53,38,59,11,26,29, 0,41,20,58		3,55,20, 3,18	
		56,15,51,38, 1, 0,56		4, 7
6″	53,39, 0, 7,42,20,38,42,21,54		3,55,20, 7,25	
		56,15,47,42,40,53,31		4, 7
8″	53,39, 1, 3,58, 8,21,23,15,25		3,55,20,11,32	
		56,15,43,47,20,41,59		4, 7
10″	53,39, 2, 0,13,52, 8,43,57,24		3,55,20,15,39	
		56,15,39,52, 0,26,20		4, 7
12″	53,39, 2,56,29,32, 0,44,23,44		3,55,20,19,46	
		56,15,35,56,40, 6,34		4, 7
14″	53,39, 3,52,45, 7,57,24,30,18		3,55,20,23,53	
		56,15,32, 1,19,42,41		4, 7
16″	53,39, 4,49, 0,39,58,44,12,59		3,55,20,28, 0	
		56,15,28, 5,59,14,41		4, 7
18″	53,39, 5,45,16, 8, 4,43,27,40		3,55,20,32, 7	
		56,15,24,10,38,42,34		4, 7
20″	53,39, 6,41,31,32,15,22,10,14		3,55,20,36,14	
		56,15,20,15,18, 6,20		4, 7
22″	53,39, 7,37,46,52,30,40,16,34		3,55,20,40,21	
		56,15,16,19,57,25,59		4, 7
24″	53,39, 8,34, 2, 8,50,37,42,33		3,55,20,44,28	
		56,15,12,24,36,41,31		4, 7
26″	53,39, 9,30,17,21,15,14,24, 4		3,55,20,48,35	
		56,15, 8,29,15,52,56		4, 7
28″	53,39,10,26,32,29,44,30,17, 0		3,55,20,52,42	
		56,15, 4,33,55, 0,14		4, 7
30″	53,39,11,22,47,34,18,25,17,14		3,55,20,56,49	
		56,15, 0,38,34, 3,25		4, 7
32″	53,39,12,19, 2,34,56,59,20,39		3,55,21, 0,56	
		56,14,56,43,13, 2,29		4, 7
34″	53,39,13,15,17,31,40,12,23, 8		3,55,21, 5, 3	
		56,14,52,47,51,57,26		4, 7
36″	53,39,14,11,32,24,28, 4,20,34		3,55,21, 9,10	
		56,14,48,52,30,48,16		4, 7
38″	53,39,15, 7,47,13,20,35, 8,50		3,55,21,13,17	
		56,14,44,57, 9,34,59		4, 7
40″	53,39,16, 4, 1,58,17,44,43,49		3,55,21,17,24	
		56,14,41, 1,48,17,35		4, 7
42″	53,39,17, 0,16,39,19,33, 1,24		3,55,21,21,31	
		56,14,37, 6,26,56, 4		4, 7
44″	53,39,17,56,31,16,25,59,57,28		3,55,21,25,38	
		56,14,33,11, 5,30,26		4, 7
46″	53,39,18,52,45,49,37, 5,27,54		3,55,21,29,45	
		56,14,29,15,44, 0,41		4, 7
48″	53,39,19,49, 0,18,52,49,28,35		3,55,21,33,52	
		56,14,25,20,22,26,49		4, 7
50″	53,39,20,45,14,44,13,11,55,24		3,55,21,37,59	
		56,14,21,25, 0,48,50		4, 7
52″	53,39,21,41,29, 5,38,12,44,14		3,55,21,42, 6	
		56,14,17,29,39, 6,44		4, 7
54″	53,39,22,37,43,23, 7,51,50,58		3,55,21,46,13	
		56,14,13,34,17,20,31		4, 7
56″	53,39,23,33,57,36,42, 9,11,29		3,55,21,50,20	
		56,14, 9,38,55,30,11		4, 7
58″	53,39,24,30,11,46,21, 4,41,40		3,55,21,54,27	
		56,14, 5,43,33,35,44		
60″	53,39,25,26,25,52, 4,38,17,24			
exact	53,39,25,26,25,52, 4,38,34,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°25′ 0″	53,39,25,26,25,52, 4,38,34,56			
		56,14, 1,48,11,39, 2		
2″	53,39,26,22,39,53,52,50,13,58		3,55,22, 2,33	
		56,13,57,52,49,36,29		4, 7
4″	53,39,27,18,53,51,45,39,50,27		3,55,22, 6,40	
		56,13,53,57,27,29,49		4, 7
6″	53,39,28,15, 7,45,43, 7,20,16		3,55,22,10,47	
		56,13,50, 2, 5,19, 2		4, 7
8″	53,39,29,11,21,35,45,12,39,18		3,55,22,14,54	
		56,13,46, 6,43, 4, 8		4, 7
10″	53,39,30, 7,35,21,51,55,43,26		3,55,22,19, 1	
		56,13,42,11,20,45, 7		4, 7
12″	53,39,31, 3,49, 4, 3,16,28,33		3,55,22,23, 8	
		56,13,38,15,58,21,59		4, 7
14″	53,39,32, 0, 2,42,19,14,50,32		3,55,22,27,15	
		56,13,34,20,35,54,44		4, 7
16″	53,39,32,56,16,16,39,50,45,16		3,55,22,31,22	
		56,13,30,25,13,23,22		4, 7
18″	53,39,33,52,29,47, 5, 4, 8,38		3,55,22,35,29	
		56,13,26,29,50,47,53		4, 7
20″	53,39,34,48,43,13,34,54,56,31		3,55,22,39,36	
		56,13,22,34,28, 8,17		4, 7
22″	53,39,35,44,56,36, 9,23, 4,48		3,55,22,43,43	
		56,13,18,39, 5,24,34		4, 7
24″	53,39,36,41, 9,54,48,28,29,22		3,55,22,47,50	
		56,13,14,43,42,36,44		4, 7
26″	53,39,37,37,23, 9,32,11, 6, 6		3,55,22,51,57	
		56,13,10,48,19,44,47		4, 7
28″	53,39,38,33,36,20,20,30,50,53		3,55,22,56, 4	
		56,13, 6,52,56,48,43		4, 7
30″	53,39,39,29,49,27,13,27,39,36		3,55,23, 0,11	
		56,13, 2,57,33,48,32		4, 7
32″	53,39,40,26, 2,30,11, 1,28, 8		3,55,23, 4,18	
		56,12,59, 2,10,44,14		4, 7
34″	53,39,41,22,15,29,13,12,12,22		3,55,23, 8,25	
		56,12,55, 6,47,35,49		4, 7
36″	53,39,42,18,28,24,19,59,48,11		3,55,23,12,32	
		56,12,51,11,24,23,17		4, 7
38″	53,39,43,14,41,15,31,24,11,28		3,55,23,16,39	
		56,12,47,16, 1, 6,38		4, 7
40″	53,39,44,10,54, 2,47,25,18, 6		3,55,23,20,46	
		56,12,43,20,37,45,52		4, 7
42″	53,39,45, 7, 6,46, 8, 3, 3,58		3,55,23,24,53	
		56,12,39,25,14,20,59		4, 7
44″	53,39,46, 3,19,25,33,17,24,57		3,55,23,29, 0	
		56,12,35,29,50,51,59		4, 7
46″	53,39,46,59,32, 1, 3, 8,16,56		3,55,23,33, 7	
		56,12,31,34,27,18,52		4, 7
48″	53,39,47,55,44,32,37,35,35,48		3,55,23,37,14	
		56,12,27,39, 3,41,38		4, 7
50″	53,39,48,51,57, 0,16,39,17,26		3,55,23,41,21	
		56,12,23,43,40, 0,17		4, 7
52″	53,39,49,48, 9,24, 0,19,17,43		3,55,23,45,28	
		56,12,19,48,16,14,49		4, 7
54″	53,39,50,44,21,43,48,35,32,32		3,55,23,49,35	
		56,12,15,52,52,25,14		4, 7
56″	53,39,51,40,33,59,41,27,57,46		3,55,23,53,42	
		56,12,11,57,28,31,32		4, 7
58″	53,39,52,36,46,11,38,56,29,18		3,55,23,57,49	
		56,12, 8, 2, 4,33,43		
60″	53,39,53,32,58,19,41, 1, 3, 1			
exact	53,39,53,32,58,19,41, 1,29,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°26′ 0″	53,39,53,32,58,19,41, 1,29,11			
		56,12, 4, 6,40,34,37		
2″	53,39,54,29,10,23,47,42, 3,48		3,55,24, 5,51	
		56,12, 0,11,16,28,46		4, 7
4″	53,39,55,25,22,23,58,58,32,34		3,55,24, 9,58	
		56,11,56,15,52,18,48		4, 7
6″	53,39,56,21,34,20,14,50,51,22		3,55,24,14, 5	
		56,11,52,20,28, 4,43		4, 7
8″	53,39,57,17,46,12,35,18,56, 5		3,55,24,18,12	
		56,11,48,25, 3,46,31		4, 7
10″	53,39,58,13,58, 1, 0,22,42,36		3,55,24,22,19	
		56,11,44,29,39,24,12		4, 7
12″	53,39,59,10, 9,45,30, 2, 6,48		3,55,24,26,26	
		56,11,40,34,14,57,46		4, 7
14″	53,40, 0, 6,21,26, 4,17, 4,34		3,55,24,30,33	
		56,11,36,38,50,27,13		4, 7
16″	53,40, 1, 2,33, 2,43, 7,31,47		3,55,24,34,40	
		56,11,32,43,25,52,33		4, 7
18″	53,40, 1,58,44,35,26,33,24,20		3,55,24,38,47	
		56,11,28,48, 1,13,46		4, 7
20″	53,40, 2,54,56, 4,14,34,38, 6		3,55,24,42,54	
		56,11,24,52,36,30,52		4, 7
22″	53,40, 3,51, 7,29, 7,11, 8,58		3,55,24,47, 1	
		56,11,20,57,11,43,51		4, 7
24″	53,40, 4,47,18,50, 4,22,52,49		3,55,24,51, 8	
		56,11,17, 1,46,52,43		4, 7
26″	53,40, 5,43,30, 7, 6, 9,45,32		3,55,24,55,15	
		56,11,13, 6,21,57,28		4, 7
28″	53,40, 6,39,41,20,12,31,43, 0		3,55,24,59,22	
		56,11, 9,10,56,58, 6		4, 7
30″	53,40, 7,35,52,29,23,28,41, 6		3,55,25, 3,29	
		56,11, 5,15,31,54,37		4, 7
32″	53,40, 8,32, 3,34,39, 0,35,43		3,55,25, 7,36	
		56,11, 1,20, 6,47, 1		4, 7
34″	53,40, 9,28,14,35,59, 7,22,44		3,55,25,11,43	
		56,10,57,24,41,35,18		4, 7
36″	53,40,10,24,25,33,23,48,58, 2		3,55,25,15,50	
		56,10,53,29,16,19,28		4, 7
38″	53,40,11,20,36,26,53, 5,17,30		3,55,25,19,57	
		56,10,49,33,50,59,31		4, 7
40″	53,40,12,16,47,16,26,56,17, 1		3,55,25,24, 4	
		56,10,45,38,25,35,27		4, 7
42″	53,40,13,12,58, 2, 5,21,52,28		3,55,25,28,11	
		56,10,41,43, 0, 7,16		4, 7
44″	53,40,14, 9, 8,43,48,21,59,44		3,55,25,32,18	
		56,10,37,47,34,34,58		4, 7
46″	53,40,15, 5,19,21,35,56,34,42		3,55,25,36,25	
		56,10,33,52, 8,58,33		4, 7
48″	53,40,16, 1,29,55,28, 5,33,15		3,55,25,40,32	
		56,10,29,56,43,18, 1		4, 7
50″	53,40,16,57,40,25,24,48,51,16		3,55,25,44,39	
		56,10,26, 1,17,33,22		4, 7
52″	53,40,17,53,50,51,26, 6,24,38		3,55,25,48,46	
		56,10,22, 5,51,44,36		4, 7
54″	53,40,18,50, 1,13,31,58, 9,14		3,55,25,52,53	
		56,10,18,10,25,51,43		4, 7
56″	53,40,19,46,11,31,42,24, 0,57		3,55,25,57, 0	
		56,10,14,14,59,54,43		4, 7
58″	53,40,20,42,21,45,57,23,55,40		3,55,26, 1, 7	
		56,10,10,19,33,53,36		
60″	53,40,21,38,31,56,16,57,49,16			
exact	53,40,21,38,31,56,16,58,26, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°27′ 0″	53,40,21,38,31,56,16,58,26, 6			
		56,10, 6,24, 7,52,19		
2″	53,40,22,34,42, 2,41, 6,18,25		3,55,26, 9, 4	
		56,10, 2,28,41,43,15		4, 6
4″	53,40,23,30,52, 5, 9,48, 1,40		3,55,26,13,10	
		56, 9,58,33,15,30, 5		4, 6
6″	53,40,24,27, 2, 3,43, 3,31,45		3,55,26,17,16	
		56, 9,54,37,49,12,49		4, 6
8″	53,40,25,23,11,58,20,52,44,34		3,55,26,21,22	
		56, 9,50,42,22,51,27		4, 6
10″	53,40,26,19,21,49, 3,15,36, 1		3,55,26,25,28	
		56, 9,46,46,56,25,59		4, 6
12″	53,40,27,15,31,35,50,12, 2, 0		3,55,26,29,34	
		56, 9,42,51,29,56,25		4, 6
14″	53,40,28,11,41,18,41,41,58,25		3,55,26,33,40	
		56, 9,38,56, 3,22,45		4, 6
16″	53,40,29, 7,50,57,37,45,21,10		3,55,26,37,46	
		56, 9,35, 0,36,44,59		4, 6
18″	53,40,30, 4, 0,32,38,22, 6, 9		3,55,26,41,52	
		56, 9,31, 5,10, 3, 7		4, 6
20″	53,40,31, 0,10, 3,43,32, 9,16		3,55,26,45,58	
		56, 9,27, 9,43,17, 9		4, 6
22″	53,40,31,56,19,30,53,15,26,25		3,55,26,50, 4	
		56, 9,23,14,16,27, 5		4, 6
24″	53,40,32,52,28,54, 7,31,53,30		3,55,26,54,10	
		56, 9,19,18,49,32,55		4, 6
26″	53,40,33,48,38,13,26,21,26,25		3,55,26,58,16	
		56, 9,15,23,22,34,39		4, 6
28″	53,40,34,44,47,28,49,44, 1, 4		3,55,27, 2,22	
		56, 9,11,27,55,32,17		4, 6
30″	53,40,35,40,56,40,17,39,33,21		3,55,27, 6,28	
		56, 9, 7,32,28,25,49		4, 6
32″	53,40,36,37, 5,47,50, 7,59,10		3,55,27,10,34	
		56, 9, 3,37, 1,15,15		4, 6
34″	53,40,37,33,14,51,27, 9,14,25		3,55,27,14,40	
		56, 8,59,41,34, 0,35		4, 6
36″	53,40,38,29,23,51, 8,43,15, 0		3,55,27,18,46	
		56, 8,55,46, 6,41,49		4, 6
38″	53,40,39,25,32,46,54,49,56,49		3,55,27,22,52	
		56, 8,51,50,39,18,57		4, 6
40″	53,40,40,21,41,38,45,29,15,46		3,55,27,26,58	
		56, 8,47,55,11,51,59		4, 6
42″	53,40,41,17,50,26,40,41, 7,45		3,55,27,31, 4	
		56, 8,43,59,44,20,55		4, 6
44″	53,40,42,13,59,10,40,25,28,40		3,55,27,35,10	
		56, 8,40, 4,16,45,45		4, 6
46″	53,40,43,10, 7,50,44,42,14,25		3,55,27,39,16	
		56, 8,36, 8,49, 6,29		4, 6
48″	53,40,44, 6,16,26,53,31,20,54		3,55,27,43,22	
		56, 8,32,13,21,23, 7		4, 6
50″	53,40,45, 2,24,59, 6,52,44, 1		3,55,27,47,28	
		56, 8,28,17,53,35,39		4, 6
52″	53,40,45,58,33,27,24,46,19,40		3,55,27,51,34	
		56, 8,24,22,25,44, 5		4, 6
54″	53,40,46,54,41,51,47,12, 3,45		3,55,27,55,40	
		56, 8,20,26,57,48,25		4, 6
56″	53,40,47,50,50,12,14, 9,52,10		3,55,27,59,46	
		56, 8,16,31,29,48,39		4, 6
58″	53,40,48,46,58,28,45,39,40,49		3,55,28, 3,52	
		56, 8,12,36, 1,44,47		
60″	53,40,49,43, 6,41,21,41,25,36			
exact	53,40,49,43, 6,41,21,41, 0,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°28′ 0″	53,40,49,43, 6,41,21,41, 0,17			
		56, 8, 8,40,33,34,16		
2″	53,40,50,39,14,50, 2,14,34,33		3,55,28,12,14	
		56, 8, 4,45, 5,22, 2		4, 6
4″	53,40,51,35,22,54,47,19,56,35		3,55,28,16,20	
		56, 8, 0,49,37, 5,42		4, 6
6″	53,40,52,31,30,55,36,57, 2,17		3,55,28,20,26	
		56, 7,56,54, 8,45,16		4, 6
8″	53,40,53,27,38,52,31, 5,47,33		3,55,28,24,32	
		56, 7,52,58,40,20,44		4, 6
10″	53,40,54,23,46,45,29,46, 8,17		3,55,28,28,38	
		56, 7,49, 3,11,52, 6		4, 6
12″	53,40,55,19,54,34,32,58, 0,23		3,55,28,32,44	
		56, 7,45, 7,43,19,22		4, 6
14″	53,40,56,16, 2,19,40,41,19,45		3,55,28,36,50	
		56, 7,41,12,14,42,32		4, 6
16″	53,40,57,12,10, 0,52,56, 2,17		3,55,28,40,56	
		56, 7,37,16,46, 1,36		4, 6
18″	53,40,58, 8,17,38, 9,42, 3,53		3,55,28,45, 2	
		56, 7,33,21,17,16,34		4, 6
20″	53,40,59, 4,25,11,30,59,20,27		3,55,28,49, 8	
		56, 7,29,25,48,27,26		4, 6
22″	53,41, 0, 0,32,40,56,47,47,53		3,55,28,53,14	
		56, 7,25,30,19,34,12		4, 6
24″	53,41, 0,56,40, 6,27, 7,22, 5		3,55,28,57,20	
		56, 7,21,34,50,36,52		4, 6
26″	53,41, 1,52,47,28, 1,57,58,57		3,55,29, 1,26	
		56, 7,17,39,21,35,26		4, 6
28″	53,41, 2,48,54,45,41,19,34,23		3,55,29, 5,32	
		56, 7,13,43,52,29,54		4, 6
30″	53,41, 3,45, 1,59,25,12, 4,17		3,55,29, 9,38	
		56, 7, 9,48,23,20,16		4, 6
32″	53,41, 4,41, 9, 9,13,35,24,33		3,55,29,13,44	
		56, 7, 5,52,54, 6,32		4, 6
34″	53,41, 5,37,16,15, 6,29,31, 5		3,55,29,17,50	
		56, 7, 1,57,24,48,42		4, 6
36″	53,41, 6,33,23,17, 3,54,19,47		3,55,29,21,56	
		56, 6,58, 1,55,26,46		4, 6
38″	53,41, 7,29,30,15, 5,49,46,33		3,55,29,26, 2	
		56, 6,54, 6,26, 0,44		4, 6
40″	53,41, 8,25,37, 9,12,15,47,17		3,55,29,30, 8	
		56, 6,50,10,56,30,36		4, 6
42″	53,41, 9,21,43,59,23,12,17,53		3,55,29,34,14	
		56, 6,46,15,26,56,22		4, 6
44″	53,41,10,17,50,45,38,39,14,15		3,55,29,38,20	
		56, 6,42,19,57,18, 2		4, 6
46″	53,41,11,13,57,27,58,36,32,17		3,55,29,42,26	
		56, 6,38,24,27,35,36		4, 6
48″	53,41,12,10, 4, 6,23, 4, 7,53		3,55,29,46,32	
		56, 6,34,28,57,49, 4		4, 6
50″	53,41,13, 6,10,40,52, 1,56,57		3,55,29,50,38	
		56, 6,30,33,27,58,26		4, 6
52″	53,41,14, 2,17,11,25,29,55,23		3,55,29,54,44	
		56, 6,26,37,58, 3,42		4, 6
54″	53,41,14,58,23,38, 3,27,59, 5		3,55,29,58,50	
		56, 6,22,42,28, 4,52		4, 6
56″	53,41,15,54,30, 0,45,56, 3,57		3,55,30, 2,56	
		56, 6,18,46,58, 1,56		4, 6
58″	53,41,16,50,36,19,32,54, 5,53		3,55,30, 7, 2	
		56, 6,14,51,27,54,54		
60″	53,41,17,46,42,34,24,22, 0,47			
exact	53,41,17,46,42,34,24,21,50,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°29′ 0″	53,41,17,46,42,34,24,21,50,51			
		56, 6,10,55,57,42,39		
2″	53,41,18,42,48,45,20,19,33,30		3,55,30,15,18	
		56, 6, 7, 0,27,27,21		4, 6
4″	53,41,19,38,54,52,20,47, 0,51		3,55,30,19,24	
		56, 6, 3, 4,57, 7,57		4, 6
6″	53,41,20,35, 0,55,25,44, 8,48		3,55,30,23,30	
		56, 5,59, 9,26,44,27		4, 6
8″	53,41,21,31, 6,54,35,10,53,15		3,55,30,27,36	
		56, 5,55,13,56,16,51		4, 6
10″	53,41,22,27,12,49,49, 7,10, 6		3,55,30,31,42	
		56, 5,51,18,25,45, 9		4, 6
12″	53,41,23,23,18,41, 7,32,55,15		3,55,30,35,48	
		56, 5,47,22,55, 9,21		4, 6
14″	53,41,24,19,24,28,30,28, 4,36		3,55,30,39,54	
		56, 5,43,27,24,29,27		4, 6
16″	53,41,25,15,30,11,57,52,34, 3		3,55,30,44, 0	
		56, 5,39,31,53,45,27		4, 6
18″	53,41,26,11,35,51,29,46,19,30		3,55,30,48, 6	
		56, 5,35,36,22,57,21		4, 6
20″	53,41,27, 7,41,27, 6, 9,16,51		3,55,30,52,12	
		56, 5,31,40,52, 5, 9		4, 6
22″	53,41,28, 3,46,58,47, 1,22, 0		3,55,30,56,18	
		56, 5,27,45,21, 8,51		4, 6
24″	53,41,28,59,52,26,32,22,30,51		3,55,31, 0,24	
		56, 5,23,49,50, 8,27		4, 6
26″	53,41,29,55,57,50,22,12,39,18		3,55,31, 4,30	
		56, 5,19,54,19, 3,57		4, 6
28″	53,41,30,52, 3,10,16,31,43,15		3,55,31, 8,36	
		56, 5,15,58,47,55,21		4, 6
30″	53,41,31,48, 8,26,15,19,38,36		3,55,31,12,42	
		56, 5,12, 3,16,42,39		4, 6
32″	53,41,32,44,13,38,18,36,21,15		3,55,31,16,48	
		56, 5, 8, 7,45,25,51		4, 6
34″	53,41,33,40,18,46,26,21,47, 6		3,55,31,20,54	
		56, 5, 4,12,14, 4,57		4, 6
36″	53,41,34,36,23,50,38,35,52, 3		3,55,31,25, 0	
		56, 5, 0,16,42,39,57		4, 6
38″	53,41,35,32,28,50,55,18,32, 0		3,55,31,29, 6	
		56, 4,56,21,11,10,51		4, 6
40″	53,41,36,28,33,47,16,29,42,51		3,55,31,33,12	
		56, 4,52,25,39,37,39		4, 6
42″	53,41,37,24,38,39,42, 9,20,30		3,55,31,37,18	
		56, 4,48,30, 8, 0,21		4, 6
44″	53,41,38,20,43,28,12,17,20,51		3,55,31,41,24	
		56, 4,44,34,36,18,57		4, 6
46″	53,41,39,16,48,12,46,53,39,48		3,55,31,45,30	
		56, 4,40,39, 4,33,27		4, 6
48″	53,41,40,12,52,53,25,58,13,15		3,55,31,49,36	
		56, 4,36,43,32,43,51		4, 6
50″	53,41,41, 8,57,30, 9,30,57, 6		3,55,31,53,42	
		56, 4,32,48, 0,50, 9		4, 6
52″	53,41,42, 5, 2, 2,57,31,47,15		3,55,31,57,48	
		56, 4,28,52,28,52,21		4, 6
54″	53,41,43, 1, 6,31,50, 0,39,36		3,55,32, 1,54	
		56, 4,24,56,56,50,27		4, 6
56″	53,41,43,57,10,56,46,57,30, 3		3,55,32, 6, 0	
		56, 4,21, 1,24,44,27		4, 6
58″	53,41,44,53,15,17,48,22,14,30		3,55,32,10, 6	
		56, 4,17, 5,52,34,21		
60″	53,41,45,49,19,34,54,14,48,51			
exact	53,41,45,49,19,34,54,14,41,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°30′ 0″	53,41,45,49,19,34,54,14,41,30			
		56, 4,13,10,20,19,35		
2″	53,41,46,45,23,48, 4,35, 1, 5		3,55,32,18,19	
		56, 4, 9,14,48, 1,16		4, 6
4″	53,41,47,41,27,57,19,23, 2,21		3,55,32,22,25	
		56, 4, 5,19,15,38,51		4, 6
6″	53,41,48,37,32, 2,38,38,41,12		3,55,32,26,31	
		56, 4, 1,23,43,12,20		4, 6
8″	53,41,49,33,36, 4, 2,21,53,32		3,55,32,30,37	
		56, 3,57,28,10,41,43		4, 6
10″	53,41,50,29,40, 1,30,32,35,15		3,55,32,34,43	
		56, 3,53,32,38, 7, 0		4, 6
12″	53,41,51,25,43,55, 3,10,42,15		3,55,32,38,49	
		56, 3,49,37, 5,28,11		4, 6
14″	53,41,52,21,47,44,40,16,10,26		3,55,32,42,55	
		56, 3,45,41,32,45,16		4, 6
16″	53,41,53,17,51,30,21,48,55,42		3,55,32,47, 1	
		56, 3,41,45,59,58,15		4, 6
18″	53,41,54,13,55,12, 7,48,53,57		3,55,32,51, 7	
		56, 3,37,50,27, 7, 8		4, 6
20″	53,41,55, 9,58,49,58,16, 1, 5		3,55,32,55,13	
		56, 3,33,54,54,11,55		4, 6
22″	53,41,56, 6, 2,23,53,10,13, 0		3,55,32,59,19	
		56, 3,29,59,21,12,36		4, 6
24″	53,41,57, 2, 5,53,52,31,25,36		3,55,33, 3,25	
		56, 3,26, 3,48, 9,11		4, 6
26″	53,41,57,58, 9,19,56,19,34,47		3,55,33, 7,31	
		56, 3,22, 8,15, 1,40		4, 6
28″	53,41,58,54,12,42, 4,34,36,27		3,55,33,11,37	
		56, 3,18,12,41,50, 3		4, 6
30″	53,41,59,50,16, 0,17,16,26,30		3,55,33,15,43	
		56, 3,14,17, 8,34,20		4, 6
32″	53,42, 0,46,19,14,34,25, 0,50		3,55,33,19,49	
		56, 3,10,21,35,14,31		4, 6
34″	53,42, 1,42,22,24,56, 0,15,21		3,55,33,23,55	
		56, 3, 6,26, 1,50,36		4, 6
36″	53,42, 2,38,25,31,22, 2, 5,57		3,55,33,28, 1	
		56, 3, 2,30,28,22,35		4, 6
38″	53,42, 3,34,28,33,52,30,28,32		3,55,33,32, 7	
		56, 2,58,34,54,50,28		4, 6
40″	53,42, 4,30,31,32,27,25,19, 0		3,55,33,36,13	
		56, 2,54,39,21,14,15		4, 6
42″	53,42, 5,26,34,27, 6,46,33,15		3,55,33,40,19	
		56, 2,50,43,47,33,56		4, 6
44″	53,42, 6,22,37,17,50,34, 7,11		3,55,33,44,25	
		56, 2,46,48,13,49,31		4, 6
46″	53,42, 7,18,40, 4,38,47,56,42		3,55,33,48,31	
		56, 2,42,52,40, 1, 0		4, 6
48″	53,42, 8,14,42,47,31,27,57,42		3,55,33,52,37	
		56, 2,38,57, 6, 8,23		4, 6
50″	53,42, 9,10,45,26,28,34, 6, 5		3,55,33,56,43	
		56, 2,35, 1,32,11,40		4, 6
52″	53,42,10, 6,48, 1,30, 6,17,45		3,55,34, 0,49	
		56, 2,31, 5,58,10,51		4, 6
54″	53,42,11, 2,50,32,36, 4,28,36		3,55,34, 4,55	
		56, 2,27,10,24, 5,56		4, 6
56″	53,42,11,58,52,59,46,28,34,32		3,55,34, 9, 1	
		56, 2,23,14,49,56,55		4, 6
58″	53,42,12,54,55,23, 1,18,31,27		3,55,34,13, 7	
		56, 2,19,19,15,43,48		
60″	53,42,13,50,57,42,20,34,15,15			
exact	53,42,13,50,57,42,20,34,20,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°31′ 0″	53,42,13,50,57,42,20,34,20,30			
		56, 2,15,23,41,27,15		
2″	53,42,14,46,59,57,44,15,47,45		3,55,34,21,15	
		56, 2,11,28, 7, 6, 0		4, 6
4″	53,42,15,43, 2, 9,12,22,53,45		3,55,34,25,21	
		56, 2, 7,32,32,40,39		4, 6
6″	53,42,16,39, 4,16,44,55,34,24		3,55,34,29,27	
		56, 2, 3,36,58,11,12		4, 6
8″	53,42,17,35, 6,20,21,53,45,36		3,55,34,33,33	
		56, 1,59,41,23,37,39		4, 6
10″	53,42,18,31, 8,20, 3,17,23,15		3,55,34,37,39	
		56, 1,55,45,49, 0, 0		4, 6
12″	53,42,19,27,10,15,49, 6,23,15		3,55,34,41,45	
		56, 1,51,50,14,18,15		4, 6
14″	53,42,20,23,12, 7,39,20,41,30		3,55,34,45,51	
		56, 1,47,54,39,32,24		4, 6
16″	53,42,21,19,13,55,34, 0,13,54		3,55,34,49,57	
		56, 1,43,59, 4,42,27		4, 6
18″	53,42,22,15,15,39,33, 4,56,21		3,55,34,54, 3	
		56, 1,40, 3,29,48,24		4, 6
20″	53,42,23,11,17,19,36,34,44,45		3,55,34,58, 9	
		56, 1,36, 7,54,50,15		4, 6
22″	53,42,24, 7,18,55,44,29,35, 0		3,55,35, 2,15	
		56, 1,32,12,19,48, 0		4, 6
24″	53,42,25, 3,20,27,56,49,23, 0		3,55,35, 6,21	
		56, 1,28,16,44,41,39		4, 6
26″	53,42,25,59,21,56,13,34, 4,39		3,55,35,10,27	
		56, 1,24,21, 9,31,12		4, 6
28″	53,42,26,55,23,20,34,43,35,51		3,55,35,14,33	
		56, 1,20,25,34,16,39		4, 6
30″	53,42,27,51,24,41, 0,17,52,30		3,55,35,18,39	
		56, 1,16,29,58,58, 0		4, 6
32″	53,42,28,47,25,57,30,16,50,30		3,55,35,22,45	
		56, 1,12,34,23,35,15		4, 6
34″	53,42,29,43,27,10, 4,40,25,45		3,55,35,26,51	
		56, 1, 8,38,48, 8,24		4, 6
36″	53,42,30,39,28,18,43,28,34, 9		3,55,35,30,57	
		56, 1, 4,43,12,37,27		4, 6
38″	53,42,31,35,29,23,26,41,11,36		3,55,35,35, 3	
		56, 1, 0,47,37, 2,24		4, 6
40″	53,42,32,31,30,24,14,18,14, 0		3,55,35,39, 9	
		56, 0,56,52, 1,23,15		4, 6
42″	53,42,33,27,31,21, 6,19,37,15		3,55,35,43,15	
		56, 0,52,56,25,40, 0		4, 6
44″	53,42,34,23,32,14, 2,45,17,15		3,55,35,47,21	
		56, 0,49, 0,49,52,39		4, 6
46″	53,42,35,19,33, 3, 3,35, 9,54		3,55,35,51,27	
		56, 0,45, 5,14, 1,12		4, 6
48″	53,42,36,15,33,48, 8,49,11, 6		3,55,35,55,33	
		56, 0,41, 9,38, 5,39		4, 6
50″	53,42,37,11,34,29,18,27,16,45		3,55,35,59,39	
		56, 0,37,14, 2, 6, 0		4, 6
52″	53,42,38, 7,35, 6,32,29,22,45		3,55,36, 3,45	
		56, 0,33,18,26, 2,15		4, 6
54″	53,42,39, 3,35,39,50,55,25, 0		3,55,36, 7,51	
		56, 0,29,22,49,54,24		4, 6
56″	53,42,39,59,36, 9,13,45,19,24		3,55,36,11,57	
		56, 0,25,27,13,42,27		4, 6
58″	53,42,40,55,36,34,40,59, 1,51		3,55,36,16, 3	
		56, 0,21,31,37,26,24		
60″	53,42,41,51,36,56,12,36,28,15			
exact	53,42,41,51,36,56,12,36,40,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°32′ 0″	53,42,41,51,36,56,12,36,40,39			
		56, 0,17,36, 1, 7,47		
2″	53,42,42,47,37,13,48,37,48,26		3,55,36,24, 7	
		56, 0,13,40,24,43,40		4, 6
4″	53,42,43,43,37,27,29, 2,32, 6		3,55,36,28,13	
		56, 0, 9,44,48,15,27		4, 6
6″	53,42,44,39,37,37,13,50,47,33		3,55,36,32,19	
		56, 0, 5,49,11,43, 8		4, 6
8″	53,42,45,35,37,43, 3, 2,30,41		3,55,36,36,25	
		56, 0, 1,53,35, 6,43		4, 6
10″	53,42,46,31,37,44,56,37,37,24		3,55,36,40,31	
		55,59,57,57,58,26,12		4, 6
12″	53,42,47,27,37,42,54,36, 3,36		3,55,36,44,37	
		55,59,54, 2,21,41,35		4, 6
14″	53,42,48,23,37,36,56,57,45,11		3,55,36,48,43	
		55,59,50, 6,44,52,52		4, 6
16″	53,42,49,19,37,27, 3,42,38, 3		3,55,36,52,49	
		55,59,46,11, 8, 0, 3		4, 6
18″	53,42,50,15,37,13,14,50,38, 6		3,55,36,56,55	
		55,59,42,15,31, 3, 8		4, 6
20″	53,42,51,11,36,55,30,21,41,14		3,55,37, 1, 1	
		55,59,38,19,54, 2, 7		4, 6
22″	53,42,52, 7,36,33,50,15,43,21		3,55,37, 5, 7	
		55,59,34,24,16,57, 0		4, 6
24″	53,42,53, 3,36, 8,14,32,40,21		3,55,37, 9,13	
		55,59,30,28,39,47,47		4, 6
26″	53,42,53,59,35,38,43,12,28, 8		3,55,37,13,19	
		55,59,26,33, 2,34,28		4, 6
28″	53,42,54,55,35, 5,16,15, 2,36		3,55,37,17,25	
		55,59,22,37,25,17, 3		4, 6
30″	53,42,55,51,34,27,53,40,19,39		3,55,37,21,31	
		55,59,18,41,47,55,32		4, 6
32″	53,42,56,47,33,46,35,28,15,11		3,55,37,25,37	
		55,59,14,46,10,29,55		4, 6
34″	53,42,57,43,33, 1,21,38,45, 6		3,55,37,29,43	
		55,59,10,50,33, 0,12		4, 6
36″	53,42,58,39,32,12,12,11,45,18		3,55,37,33,49	
		55,59, 6,54,55,26,23		4, 6
38″	53,42,59,35,31,19, 7, 7,11,41		3,55,37,37,55	
		55,59, 2,59,17,48,28		4, 6
40″	53,43, 0,31,30,22, 6,25, 0, 9		3,55,37,42, 1	
		55,58,59, 3,40, 6,27		4, 6
42″	53,43, 1,27,29,21,10, 5, 6,36		3,55,37,46, 7	
		55,58,55, 8, 2,20,20		4, 6
44″	53,43, 2,23,28,16,18, 7,26,56		3,55,37,50,13	
		55,58,51,12,24,30, 7		4, 6
46″	53,43, 3,19,27, 7,30,31,57, 3		3,55,37,54,19	
		55,58,47,16,46,35,48		4, 6
48″	53,43, 4,15,25,54,47,18,32,51		3,55,37,58,25	
		55,58,43,21, 8,37,23		4, 6
50″	53,43, 5,11,24,38, 8,27,10,14		3,55,38, 2,31	
		55,58,39,25,30,34,52		4, 6
52″	53,43, 6, 7,23,17,33,57,45, 6		3,55,38, 6,37	
		55,58,35,29,52,28,15		4, 6
54″	53,43, 7, 3,21,53, 3,50,13,21		3,55,38,10,43	
		55,58,31,34,14,17,32		4, 6
56″	53,43, 7,59,20,24,38, 4,30,53		3,55,38,14,49	
		55,58,27,38,36, 2,43		4, 6
58″	53,43, 8,55,18,52,16,40,33,36		3,55,38,18,55	
		55,58,23,42,57,43,48		
60″	53,43, 9,51,17,15,59,38,17,24			
exact	53,43, 9,51,17,15,59,38,39,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°33′ 0″	53,43, 9,51,17,15,59,38,39,23			
		55,58,19,47,19,23,21		
2″	53,43,10,47,15,35,46,58, 2,44		3,55,38,26,55	
		55,58,15,51,40,56,26		4, 6
4″	53,43,11,43,13,51,38,38,59,10		3,55,38,31, 1	
		55,58,11,56, 2,25,25		4, 6
6″	53,43,12,39,12, 3,34,41,24,35		3,55,38,35, 7	
		55,58, 8, 0,23,50,18		4, 6
8″	53,43,13,35,10,11,35, 5,14,53		3,55,38,39,13	
		55,58, 4, 4,45,11, 5		4, 6
10″	53,43,14,31, 8,15,39,50,25,58		3,55,38,43,19	
		55,58, 0, 9, 6,27,46		4, 6
12″	53,43,15,27, 6,15,48,56,53,44		3,55,38,47,25	
		55,57,56,13,27,40,21		4, 6
14″	53,43,16,23, 4,12, 2,24,34, 5		3,55,38,51,31	
		55,57,52,17,48,48,50		4, 6
16″	53,43,17,19, 2, 4,20,13,22,55		3,55,38,55,37	
		55,57,48,22, 9,53,13		4, 6
18″	53,43,18,14,59,52,42,23,16, 8		3,55,38,59,43	
		55,57,44,26,30,53,30		4, 6
20″	53,43,19,10,57,37, 8,54, 9,38		3,55,39, 3,49	
		55,57,40,30,51,49,41		4, 6
22″	53,43,20, 6,55,17,39,45,59,19		3,55,39, 7,55	
		55,57,36,35,12,41,46		4, 6
24″	53,43,21, 2,52,54,14,58,41, 5		3,55,39,12, 1	
		55,57,32,39,33,29,45		4, 6
26″	53,43,21,58,50,26,54,32,10,50		3,55,39,16, 7	
		55,57,28,43,54,13,38		4, 6
28″	53,43,22,54,47,55,38,26,24,28		3,55,39,20,13	
		55,57,24,48,14,53,25		4, 6
30″	53,43,23,50,45,20,26,41,17,53		3,55,39,24,19	
		55,57,20,52,35,29, 6		4, 6
32″	53,43,24,46,42,41,19,16,46,59		3,55,39,28,25	
		55,57,16,56,56, 0,41		4, 6
34″	53,43,25,42,39,58,16,12,47,40		3,55,39,32,31	
		55,57,13, 1,16,28,10		4, 6
36″	53,43,26,38,37,11,17,29,15,50		3,55,39,36,37	
		55,57, 9, 5,36,51,33		4, 6
38″	53,43,27,34,34,20,23, 6, 7,23		3,55,39,40,43	
		55,57, 5, 9,57,10,50		4, 6
40″	53,43,28,30,31,25,33, 3,18,13		3,55,39,44,49	
		55,57, 1,14,17,26, 1		4, 6
42″	53,43,29,26,28,26,47,20,44,14		3,55,39,48,55	
		55,56,57,18,37,37, 6		4, 6
44″	53,43,30,22,25,24, 5,58,21,20		3,55,39,53, 1	
		55,56,53,22,57,44, 5		4, 6
46″	53,43,31,18,22,17,28,56, 5,25		3,55,39,57, 7	
		55,56,49,27,17,46,58		4, 6
48″	53,43,32,14,19, 6,56,13,52,23		3,55,40, 1,13	
		55,56,45,31,37,45,45		4, 6
50″	53,43,33,10,15,52,27,51,38, 8		3,55,40, 5,19	
		55,56,41,35,57,40,26		4, 6
52″	53,43,34, 6,12,34, 3,49,18,34		3,55,40, 9,25	
		55,56,37,40,17,31, 1		4, 6
54″	53,43,35, 2, 9,11,44, 6,49,35		3,55,40,13,31	
		55,56,33,44,37,17,30		4, 6
56″	53,43,35,58, 5,45,28,44, 7, 5		3,55,40,17,37	
		55,56,29,48,56,59,53		4, 6
58″	53,43,36,54, 2,15,17,41, 6,58		3,55,40,21,43	
		55,56,25,53,16,38,10		
60″	53,43,37,49,58,41,10,57,45, 8			
exact	53,43,37,49,58,41,10,58,18,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°34′ 0″	53,43,37,49,58,41,10,58,18,40			
		55,56,21,57,36,16, 5		
2″	53,43,38,45,55, 3, 8,34,34,45		3,55,40,29,39	
		55,56,18, 1,55,46,26		4, 5
4″	53,43,39,41,51,21,10,30,21,11		3,55,40,33,44	
		55,56,14, 6,15,12,42		4, 5
6″	53,43,40,37,47,35,16,45,33,53		3,55,40,37,49	
		55,56,10,10,34,34,53		4, 5
8″	53,43,41,33,43,45,27,20, 8,46		3,55,40,41,54	
		55,56, 6,14,53,52,59		4, 5
10″	53,43,42,29,39,51,42,14, 1,45		3,55,40,45,59	
		55,56, 2,19,13, 7, 0		4, 5
12″	53,43,43,25,35,54, 1,27, 8,45		3,55,40,50, 4	
		55,55,58,23,32,16,56		4, 5
14″	53,43,44,21,31,52,24,59,25,41		3,55,40,54, 9	
		55,55,54,27,51,22,47		4, 5
16″	53,43,45,17,27,46,52,50,48,28		3,55,40,58,14	
		55,55,50,32,10,24,33		4, 5
18″	53,43,46,13,23,37,25, 1,13, 1		3,55,41, 2,19	
		55,55,46,36,29,22,14		4, 5
20″	53,43,47, 9,19,24, 1,30,35,15		3,55,41, 6,24	
		55,55,42,40,48,15,50		4, 5
22″	53,43,48, 5,15, 6,42,18,51, 5		3,55,41,10,29	
		55,55,38,45, 7, 5,21		4, 5
24″	53,43,49, 1,10,45,27,25,56,26		3,55,41,14,34	
		55,55,34,49,25,50,47		4, 5
26″	53,43,49,57, 6,20,16,51,47,13		3,55,41,18,39	
		55,55,30,53,44,32, 8		4, 5
28″	53,43,50,53, 1,51,10,36,19,21		3,55,41,22,44	
		55,55,26,58, 3, 9,24		4, 5
30″	53,43,51,48,57,18, 8,39,28,45		3,55,41,26,49	
		55,55,23, 2,21,42,35		4, 5
32″	53,43,52,44,52,41,11, 1,11,20		3,55,41,30,54	
		55,55,19, 6,40,11,41		4, 5
34″	53,43,53,40,48, 0,17,41,23, 1		3,55,41,34,59	
		55,55,15,10,58,36,42		4, 5
36″	53,43,54,36,43,15,28,39,59,43		3,55,41,39, 4	
		55,55,11,15,16,57,38		4, 5
38″	53,43,55,32,38,26,43,56,57,21		3,55,41,43, 9	
		55,55, 7,19,35,14,29		4, 5
40″	53,43,56,28,33,34, 3,32,11,50		3,55,41,47,14	
		55,55, 3,23,53,27,15		4, 5
42″	53,43,57,24,28,37,27,25,39, 5		3,55,41,51,19	
		55,54,59,28,11,35,56		4, 5
44″	53,43,58,20,23,36,55,37,15, 1		3,55,41,55,24	
		55,54,55,32,29,40,32		4, 5
46″	53,43,59,16,18,32,28, 6,55,33		3,55,41,59,29	
		55,54,51,36,47,41, 3		4, 5
48″	53,44, 0,12,13,24, 4,54,36,36		3,55,42, 3,34	
		55,54,47,41, 5,37,29		4, 5
50″	53,44, 1, 8, 8,11,46, 0,14, 5		3,55,42, 7,39	
		55,54,43,45,23,29,50		4, 5
52″	53,44, 2, 4, 2,55,31,23,43,55		3,55,42,11,44	
		55,54,39,49,41,18, 6		4, 5
54″	53,44, 2,59,57,35,21, 5, 2, 1		3,55,42,15,49	
		55,54,35,53,59, 2,17		4, 5
56″	53,44, 3,55,52,11,15, 4, 4,18		3,55,42,19,54	
		55,54,31,58,16,42,23		4, 5
58″	53,44, 4,51,46,43,13,20,46,41		3,55,42,23,59	
		55,54,28, 2,34,18,24		
60″	53,44, 5,47,41,11,15,55, 5, 5			
exact	53,44, 5,47,41,11,15,54,45, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°35′ 0″	53,44, 5,47,41,11,15,54,45, 9			
		55,54,24, 6,51,48,10		
2″	53,44, 6,43,35,35,22,46,33,19		3,55,42,32,18	
		55,54,20,11, 9,15,52		4, 5
4″	53,44, 7,39,29,55,33,55,49,11		3,55,42,36,23	
		55,54,16,15,26,39,29		4, 5
6″	53,44, 8,35,24,11,49,22,28,40		3,55,42,40,28	
		55,54,12,19,43,59, 1		4, 5
8″	53,44, 9,31,18,24, 9, 6,27,41		3,55,42,44,33	
		55,54, 8,24, 1,14,28		4, 5
10″	53,44,10,27,12,32,33, 7,42, 9		3,55,42,48,38	
		55,54, 4,28,18,25,50		4, 5
12″	53,44,11,23, 6,37, 1,26, 7,59		3,55,42,52,43	
		55,54, 0,32,35,33, 7		4, 5
14″	53,44,12,19, 0,37,34, 1,41, 6		3,55,42,56,48	
		55,53,56,36,52,36,19		4, 5
16″	53,44,13,14,54,34,10,54,17,25		3,55,43, 0,53	
		55,53,52,41, 9,35,26		4, 5
18″	53,44,14,10,48,26,52, 3,52,51		3,55,43, 4,58	
		55,53,48,45,26,30,28		4, 5
20″	53,44,15, 6,42,15,37,30,23,19		3,55,43, 9, 3	
		55,53,44,49,43,21,25		4, 5
22″	53,44,16, 2,36, 0,27,13,44,44		3,55,43,13, 8	
		55,53,40,54, 0, 8,17		4, 5
24″	53,44,16,58,29,41,21,13,53, 1		3,55,43,17,13	
		55,53,36,58,16,51, 4		4, 5
26″	53,44,17,54,23,18,19,30,44, 5		3,55,43,21,18	
		55,53,33, 2,33,29,46		4, 5
28″	53,44,18,50,16,51,22, 4,13,51		3,55,43,25,23	
		55,53,29, 6,50, 4,23		4, 5
30″	53,44,19,46,10,20,28,54,18,14		3,55,43,29,28	
		55,53,25,11, 6,34,55		4, 5
32″	53,44,20,42, 3,45,40, 0,53, 9		3,55,43,33,33	
		55,53,21,15,23, 1,22		4, 5
34″	53,44,21,37,57, 6,55,23,54,31		3,55,43,37,38	
		55,53,17,19,39,23,44		4, 5
36″	53,44,22,33,50,24,15, 3,18,15		3,55,43,41,43	
		55,53,13,23,55,42, 1		4, 5
38″	53,44,23,29,43,37,38,59, 0,16		3,55,43,45,48	
		55,53, 9,28,11,56,13		4, 5
40″	53,44,24,25,36,47, 7,10,56,29		3,55,43,49,53	
		55,53, 5,32,28, 6,20		4, 5
42″	53,44,25,21,29,52,39,39, 2,49		3,55,43,53,58	
		55,53, 1,36,44,12,22		4, 5
44″	53,44,26,17,22,54,16,23,15,11		3,55,43,58, 3	
		55,52,57,41, 0,14,19		4, 5
46″	53,44,27,13,15,51,57,23,29,30		3,55,44, 2, 8	
		55,52,53,45,16,12,11		4, 5
48″	53,44,28, 9, 8,45,42,39,41,41		3,55,44, 6,13	
		55,52,49,49,32, 5,58		4, 5
50″	53,44,29, 5, 1,35,32,11,47,39		3,55,44,10,18	
		55,52,45,53,47,55,40		4, 5
52″	53,44,30, 0,54,21,25,59,43,19		3,55,44,14,23	
		55,52,41,58, 3,41,17		4, 5
54″	53,44,30,56,47, 3,24, 3,24,36		3,55,44,18,28	
		55,52,38, 2,19,22,49		4, 5
56″	53,44,31,52,39,41,26,22,47,25		3,55,44,22,33	
		55,52,34, 6,35, 0,16		4, 5
58″	53,44,32,48,32,15,32,57,47,41		3,55,44,26,38	
		55,52,30,10,50,33,38		
60″	53,44,33,44,24,45,43,48,21,19			
exact	53,44,33,44,24,45,43,48,10, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°36′ 0″	53,44,33,44,24,45,43,48,10, 2			
		55,52,26,15, 6, 1,43		
2″	53,44,34,40,17,11,58,54,11,45		3,55,44,34,53	
		55,52,22,19,21,26,50		4, 5
4″	53,44,35,36, 9,34,18,15,38,35		3,55,44,38,58	
		55,52,18,23,36,47,52		4, 5
6″	53,44,36,32, 1,52,41,52,26,27		3,55,44,43, 3	
		55,52,14,27,52, 4,49		4, 5
8″	53,44,37,27,54, 7, 9,44,31,16		3,55,44,47, 8	
		55,52,10,32, 7,17,41		4, 5
10″	53,44,38,23,46,17,41,51,48,57		3,55,44,51,13	
		55,52, 6,36,22,26,28		4, 5
12″	53,44,39,19,38,24,18,14,15,25		3,55,44,55,18	
		55,52, 2,40,37,31,10		4, 5
14″	53,44,40,15,30,26,58,51,46,35		3,55,44,59,23	
		55,51,58,44,52,31,47		4, 5
16″	53,44,41,11,22,25,43,44,18,22		3,55,45, 3,28	
		55,51,54,49, 7,28,19		4, 5
18″	53,44,42, 7,14,20,32,51,46,41		3,55,45, 7,33	
		55,51,50,53,22,20,46		4, 5
20″	53,44,43, 3, 6,11,26,14, 7,27		3,55,45,11,38	
		55,51,46,57,37, 9, 8		4, 5
22″	53,44,43,58,57,58,23,51,16,35		3,55,45,15,43	
		55,51,43, 1,51,53,25		4, 5
24″	53,44,44,54,49,41,25,43,10, 0		3,55,45,19,48	
		55,51,39, 6, 6,33,37		4, 5
26″	53,44,45,50,41,20,31,49,43,37		3,55,45,23,53	
		55,51,35,10,21, 9,44		4, 5
28″	53,44,46,46,32,55,42,10,53,21		3,55,45,27,58	
		55,51,31,14,35,41,46		4, 5
30″	53,44,47,42,24,26,56,46,35, 7		3,55,45,32, 3	
		55,51,27,18,50, 9,43		4, 5
32″	53,44,48,38,15,54,15,36,44,50		3,55,45,36, 8	
		55,51,23,23, 4,33,35		4, 5
34″	53,44,49,34, 7,17,38,41,18,25		3,55,45,40,13	
		55,51,19,27,18,53,22		4, 5
36″	53,44,50,29,58,37, 6, 0,11,47		3,55,45,44,18	
		55,51,15,31,33, 9, 4		4, 5
38″	53,44,51,25,49,52,37,33,20,51		3,55,45,48,23	
		55,51,11,35,47,20,41		4, 5
40″	53,44,52,21,41, 4,13,20,41,32		3,55,45,52,28	
		55,51, 7,40, 1,28,13		4, 5
42″	53,44,53,17,32,11,53,22, 9,45		3,55,45,56,33	
		55,51, 3,44,15,31,40		4, 5
44″	53,44,54,13,23,15,37,37,41,25		3,55,46, 0,38	
		55,50,59,48,29,31, 2		4, 5
46″	53,44,55, 9,14,15,26, 7,12,27		3,55,46, 4,43	
		55,50,55,52,43,26,19		4, 5
48″	53,44,56, 5, 5,11,18,50,38,46		3,55,46, 8,48	
		55,50,51,56,57,17,31		4, 5
50″	53,44,57, 0,56, 3,15,47,56,17		3,55,46,12,53	
		55,50,48, 1,11, 4,38		4, 5
52″	53,44,57,56,46,51,16,59, 0,55		3,55,46,16,58	
		55,50,44, 5,24,47,40		4, 5
54″	53,44,58,52,37,35,22,23,48,35		3,55,46,21, 3	
		55,50,40, 9,38,26,37		4, 5
56″	53,44,59,48,28,15,32, 2,15,12		3,55,46,25, 8	
		55,50,36,13,52, 1,29		4, 5
58″	53,45, 0,44,18,51,45,54,16,41		3,55,46,29,13	
		55,50,32,18, 5,32,16		
60″	53,45, 1,40, 9,24, 3,59,48,57			
exact	53,45, 1,40, 9,24, 3,59,49, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°37′ 0″	53,45, 1,40, 9,24, 3,59,49, 8			
		55,50,28,22,18,58,55		
2″	53,45, 2,35,59,52,26,18,48, 3		3,55,46,37,23	
		55,50,24,26,32,21,32		4, 5
4″	53,45, 3,31,50,16,52,51, 9,35		3,55,46,41,28	
		55,50,20,30,45,40, 4		4, 5
6″	53,45, 4,27,40,37,23,36,49,39		3,55,46,45,33	
		55,50,16,34,58,54,31		4, 5
8″	53,45, 5,23,30,53,58,35,44,10		3,55,46,49,38	
		55,50,12,39,12, 4,53		4, 5
10″	53,45, 6,19,21, 6,37,47,49, 3		3,55,46,53,43	
		55,50, 8,43,25,11,10		4, 5
12″	53,45, 7,15,11,15,21,13, 0,13		3,55,46,57,48	
		55,50, 4,47,38,13,22		4, 5
14″	53,45, 8,11, 1,20, 8,51,13,35		3,55,47, 1,53	
		55,50, 0,51,51,11,29		4, 5
16″	53,45, 9, 6,51,21, 0,42,25, 4		3,55,47, 5,58	
		55,49,56,56, 4, 5,31		4, 5
18″	53,45,10, 2,41,17,56,46,30,35		3,55,47,10, 3	
		55,49,53, 0,16,55,28		4, 5
20″	53,45,10,58,31,10,57, 3,26, 3		3,55,47,14, 8	
		55,49,49, 4,29,41,20		4, 5
22″	53,45,11,54,21, 0, 1,33, 7,23		3,55,47,18,13	
		55,49,45, 8,42,23, 7		4, 5
24″	53,45,12,50,10,45,10,15,30,30		3,55,47,22,18	
		55,49,41,12,55, 0,49		4, 5
26″	53,45,13,46, 0,26,23,10,31,19		3,55,47,26,23	
		55,49,37,17, 7,34,26		4, 5
28″	53,45,14,41,50, 3,40,18, 5,45		3,55,47,30,28	
		55,49,33,21,20, 3,58		4, 5
30″	53,45,15,37,39,37, 1,38, 9,43		3,55,47,34,33	
		55,49,29,25,32,29,25		4, 5
32″	53,45,16,33,29, 6,27,10,39, 8		3,55,47,38,38	
		55,49,25,29,44,50,47		4, 5
34″	53,45,17,29,18,31,56,55,29,55		3,55,47,42,43	
		55,49,21,33,57, 8, 4		4, 5
36″	53,45,18,25, 7,53,30,52,37,59		3,55,47,46,48	
		55,49,17,38, 9,21,16		4, 5
38″	53,45,19,20,57,11, 9, 1,59,15		3,55,47,50,53	
		55,49,13,42,21,30,23		4, 5
40″	53,45,20,16,46,24,51,23,29,38		3,55,47,54,58	
		55,49, 9,46,33,35,25		4, 5
42″	53,45,21,12,35,34,37,57, 5, 3		3,55,47,59, 3	
		55,49, 5,50,45,36,22		4, 5
44″	53,45,22, 8,24,40,28,42,41,25		3,55,48, 3, 8	
		55,49, 1,54,57,33,14		4, 5
46″	53,45,23, 4,13,42,23,40,14,39		3,55,48, 7,13	
		55,48,57,59, 9,26, 1		4, 5
48″	53,45,24, 0, 2,40,22,49,40,40		3,55,48,11,18	
		55,48,54, 3,21,14,43		4, 5
50″	53,45,24,55,51,34,26,10,55,23		3,55,48,15,23	
		55,48,50, 7,32,59,20		4, 5
52″	53,45,25,51,40,24,33,43,54,43		3,55,48,19,28	
		55,48,46,11,44,39,52		4, 5
54″	53,45,26,47,29,10,45,28,34,35		3,55,48,23,33	
		55,48,42,15,56,16,19		4, 5
56″	53,45,27,43,17,53, 1,24,50,54		3,55,48,27,38	
		55,48,38,20, 7,48,41		4, 5
58″	53,45,28,39, 6,31,21,32,39,35		3,55,48,31,43	
		55,48,34,24,19,16,58		
60″	53,45,29,34,55, 5,45,51,56,33			
exact	53,45,29,34,55, 5,45,52, 2,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°38′ 0″	53,45,29,34,55, 5,45,52, 2,56			
		55,48,30,28,30,41,55		
2″	53,45,30,30,43,36,14,22,44,51		3,55,48,39,49	
		55,48,26,32,42, 2, 6		4, 5
4″	53,45,31,26,32, 2,47, 4,46,57		3,55,48,43,54	
		55,48,22,36,53,18,12		4, 5
6″	53,45,32,22,20,25,23,58, 5, 9		3,55,48,47,59	
		55,48,18,41, 4,30,13		4, 5
8″	53,45,33,18, 8,44, 5, 2,35,22		3,55,48,52, 4	
		55,48,14,45,15,38, 9		4, 5
10″	53,45,34,13,56,58,50,18,13,31		3,55,48,56, 9	
		55,48,10,49,26,42, 0		4, 5
12″	53,45,35, 9,45, 9,39,44,55,31		3,55,49, 0,14	
		55,48, 6,53,37,41,46		4, 5
14″	53,45,36, 5,33,16,33,22,37,17		3,55,49, 4,19	
		55,48, 2,57,48,37,27		4, 5
16″	53,45,37, 1,21,19,31,11,14,44		3,55,49, 8,24	
		55,47,59, 1,59,29, 3		4, 5
18″	53,45,37,57, 9,18,33,10,43,47		3,55,49,12,29	
		55,47,55, 6,10,16,34		4, 5
20″	53,45,38,52,57,13,39,21, 0,21		3,55,49,16,34	
		55,47,51,10,21, 0, 0		4, 5
22″	53,45,39,48,45, 4,49,42, 0,21		3,55,49,20,39	
		55,47,47,14,31,39,21		4, 5
24″	53,45,40,44,32,52, 4,13,39,42		3,55,49,24,44	
		55,47,43,18,42,14,37		4, 5
26″	53,45,41,40,20,35,22,55,54,19		3,55,49,28,49	
		55,47,39,22,52,45,48		4, 5
28″	53,45,42,36, 8,14,45,48,40, 7		3,55,49,32,54	
		55,47,35,27, 3,12,54		4, 5
30″	53,45,43,31,55,50,12,51,53, 1		3,55,49,36,59	
		55,47,31,31,13,35,55		4, 5
32″	53,45,44,27,43,21,44, 5,28,56		3,55,49,41, 4	
		55,47,27,35,23,54,51		4, 5
34″	53,45,45,23,30,49,19,29,23,47		3,55,49,45, 9	
		55,47,23,39,34, 9,42		4, 5
36″	53,45,46,19,18,12,59, 3,33,29		3,55,49,49,14	
		55,47,19,43,44,20,28		4, 5
38″	53,45,47,15, 5,32,42,47,53,57		3,55,49,53,19	
		55,47,15,47,54,27, 9		4, 5
40″	53,45,48,10,52,48,30,42,21, 6		3,55,49,57,24	
		55,47,11,52, 4,29,45		4, 5
42″	53,45,49, 6,40, 0,22,46,50,51		3,55,50, 1,29	
		55,47, 7,56,14,28,16		4, 5
44″	53,45,50, 2,27, 8,19, 1,19, 7		3,55,50, 5,34	
		55,47, 4, 0,24,22,42		4, 5
46″	53,45,50,58,14,12,19,25,41,49		3,55,50, 9,39	
		55,47, 0, 4,34,13, 3		4, 5
48″	53,45,51,54, 1,12,23,59,54,52		3,55,50,13,44	
		55,46,56, 8,43,59,19		4, 5
50″	53,45,52,49,48, 8,32,43,54,11		3,55,50,17,49	
		55,46,52,12,53,41,30		4, 5
52″	53,45,53,45,35, 0,45,37,35,41		3,55,50,21,54	
		55,46,48,17, 3,19,36		4, 5
54″	53,45,54,41,21,49, 2,40,55,17		3,55,50,25,59	
		55,46,44,21,12,53,37		4, 5
56″	53,45,55,37, 8,33,23,53,48,54		3,55,50,30, 4	
		55,46,40,25,22,23,33		4, 5
58″	53,45,56,32,55,13,49,16,12,27		3,55,50,34, 9	
		55,46,36,29,31,49,24		
60″	53,45,57,28,41,50,18,48, 1,51			
exact	53,45,57,28,41,50,18,48,16,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°39′ 0″	53,45,57,28,41,50,18,48,16,32			
		55,46,32,33,41,12,52		
2″	53,45,58,24,28,22,52,29,29,24		3,55,50,42,11	
		55,46,28,37,50,30,41		4, 5
4″	53,45,59,20,14,51,30,20, 0, 5		3,55,50,46,16	
		55,46,24,41,59,44,25		4, 5
6″	53,46, 0,16, 1,16,12,19,44,30		3,55,50,50,21	
		55,46,20,46, 8,54, 4		4, 5
8″	53,46, 1,11,47,36,58,28,38,34		3,55,50,54,26	
		55,46,16,50,17,59,38		4, 5
10″	53,46, 2, 7,33,53,48,46,38,12		3,55,50,58,31	
		55,46,12,54,27, 1, 7		4, 5
12″	53,46, 3, 3,20, 6,43,13,39,19		3,55,51, 2,36	
		55,46, 8,58,35,58,31		4, 5
14″	53,46, 3,59, 6,15,41,49,37,50		3,55,51, 6,41	
		55,46, 5, 2,44,51,50		4, 5
16″	53,46, 4,54,52,20,44,34,29,40		3,55,51,10,46	
		55,46, 1, 6,53,41, 4		4, 5
18″	53,46, 5,50,38,21,51,28,10,44		3,55,51,14,51	
		55,45,57,11, 2,26,13		4, 5
20″	53,46, 6,46,24,19, 2,30,36,57		3,55,51,18,56	
		55,45,53,15,11, 7,17		4, 5
22″	53,46, 7,42,10,12,17,41,44,14		3,55,51,23, 1	
		55,45,49,19,19,44,16		4, 5
24″	53,46, 8,37,56, 1,37, 1,28,30		3,55,51,27, 6	
		55,45,45,23,28,17,10		4, 5
26″	53,46, 9,33,41,47, 0,29,45,40		3,55,51,31,11	
		55,45,41,27,36,45,59		4, 5
28″	53,46,10,29,27,28,28, 6,31,39		3,55,51,35,16	
		55,45,37,31,45,10,43		4, 5
30″	53,46,11,25,13, 5,59,51,42,22		3,55,51,39,21	
		55,45,33,35,53,31,22		4, 5
32″	53,46,12,20,58,39,35,45,13,44		3,55,51,43,26	
		55,45,29,40, 1,47,56		4, 5
34″	53,46,13,16,44, 9,15,47, 1,40		3,55,51,47,31	
		55,45,25,44,10, 0,25		4, 5
36″	53,46,14,12,29,34,59,57, 2, 5		3,55,51,51,36	
		55,45,21,48,18, 8,49		4, 5
38″	53,46,15, 8,14,56,48,15,10,54		3,55,51,55,41	
		55,45,17,52,26,13, 8		4, 5
40″	53,46,16, 4, 0,14,40,41,24, 2		3,55,51,59,46	
		55,45,13,56,34,13,22		4, 5
42″	53,46,16,59,45,28,37,15,37,24		3,55,52, 3,51	
		55,45,10, 0,42, 9,31		4, 5
44″	53,46,17,55,30,38,37,57,46,55		3,55,52, 7,56	
		55,45, 6, 4,50, 1,35		4, 5
46″	53,46,18,51,15,44,42,47,48,30		3,55,52,12, 1	
		55,45, 2, 8,57,49,34		4, 5
48″	53,46,19,47, 0,46,51,45,38, 4		3,55,52,16, 6	
		55,44,58,13, 5,33,28		4, 5
50″	53,46,20,42,45,45, 4,51,11,32		3,55,52,20,11	
		55,44,54,17,13,13,17		4, 5
52″	53,46,21,38,30,39,22, 4,24,49		3,55,52,24,16	
		55,44,50,21,20,49, 1		4, 5
54″	53,46,22,34,15,29,43,25,13,50		3,55,52,28,21	
		55,44,46,25,28,20,40		4, 5
56″	53,46,23,30, 0,16, 8,53,34,30		3,55,52,32,26	
		55,44,42,29,35,48,14		4, 5
58″	53,46,24,25,44,58,38,29,22,44		3,55,52,36,31	
		55,44,38,33,43,11,43		
60″	53,46,25,21,29,37,12,12,34,27			
exact	53,46,25,21,29,37,12,12,59,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°40′ 0″	53,46,25,21,29,37,12,12,59,41			
		55,44,34,37,50,33,55		
2″	53,46,26,17,14,11,50, 3,33,36		3,55,52,44,29	
		55,44,30,41,57,49,26		4, 5
4″	53,46,27,12,58,42,32, 1,23, 2		3,55,52,48,34	
		55,44,26,46, 5, 0,52		4, 5
6″	53,46,28, 8,43, 9,18, 6,23,54		3,55,52,52,39	
		55,44,22,50,12, 8,13		4, 5
8″	53,46,29, 4,27,32, 8,18,32, 7		3,55,52,56,44	
		55,44,18,54,19,11,29		4, 5
10″	53,46,30, 0,11,51, 2,37,43,36		3,55,53, 0,49	
		55,44,14,58,26,10,40		4, 5
12″	53,46,30,55,56, 6, 1, 3,54,16		3,55,53, 4,54	
		55,44,11, 2,33, 5,46		4, 5
14″	53,46,31,51,40,17, 3,37, 0, 2		3,55,53, 8,59	
		55,44, 7, 6,39,56,47		4, 5
16″	53,46,32,47,24,24,10,16,56,49		3,55,53,13, 4	
		55,44, 3,10,46,43,43		4, 5
18″	53,46,33,43, 8,27,21, 3,40,32		3,55,53,17, 9	
		55,43,59,14,53,26,34		4, 5
20″	53,46,34,38,52,26,35,57, 7, 6		3,55,53,21,14	
		55,43,55,19, 0, 5,20		4, 5
22″	53,46,35,34,36,21,54,57,12,26		3,55,53,25,19	
		55,43,51,23, 6,40, 1		4, 5
24″	53,46,36,30,20,13,18, 3,52,27		3,55,53,29,24	
		55,43,47,27,13,10,37		4, 5
26″	53,46,37,26, 4, 0,45,17, 3, 4		3,55,53,33,29	
		55,43,43,31,19,37, 8		4, 5
28″	53,46,38,21,47,44,16,36,40,12		3,55,53,37,34	
		55,43,39,35,25,59,34		4, 5
30″	53,46,39,17,31,23,52, 2,39,46		3,55,53,41,39	
		55,43,35,39,32,17,55		4, 5
32″	53,46,40,13,14,59,31,34,57,41		3,55,53,45,44	
		55,43,31,43,38,32,11		4, 5
34″	53,46,41, 8,58,31,15,13,29,52		3,55,53,49,49	
		55,43,27,47,44,42,22		4, 5
36″	53,46,42, 4,41,59, 2,58,12,14		3,55,53,53,54	
		55,43,23,51,50,48,28		4, 5
38″	53,46,43, 0,25,22,54,49, 0,42		3,55,53,57,59	
		55,43,19,55,56,50,29		4, 5
40″	53,46,43,56, 8,42,50,45,51,11		3,55,54, 2, 4	
		55,43,16, 0, 2,48,25		4, 5
42″	53,46,44,51,51,58,50,48,39,36		3,55,54, 6, 9	
		55,43,12, 4, 8,42,16		4, 5
44″	53,46,45,47,35,10,54,57,21,52		3,55,54,10,14	
		55,43, 8, 8,14,32, 2		4, 5
46″	53,46,46,43,18,19, 3,11,53,54		3,55,54,14,19	
		55,43, 4,12,20,17,43		4, 5
48″	53,46,47,39, 1,23,15,32,11,37		3,55,54,18,24	
		55,43, 0,16,25,59,19		4, 5
50″	53,46,48,34,44,23,31,58,10,56		3,55,54,22,29	
		55,42,56,20,31,36,50		4, 5
52″	53,46,49,30,27,19,52,29,47,46		3,55,54,26,34	
		55,42,52,24,37,10,16		4, 5
54″	53,46,50,26,10,12,17, 6,58, 2		3,55,54,30,39	
		55,42,48,28,42,39,37		4, 5
56″	53,46,51,21,53, 0,45,49,37,39		3,55,54,34,44	
		55,42,44,32,48, 4,53		4, 5
58″	53,46,52,17,35,45,18,37,42,32		3,55,54,38,49	
		55,42,40,36,53,26, 4		
60″	53,46,53,13,18,25,55,31, 8,36			
exact	53,46,53,13,18,25,55,31,46,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°41′ 0″	53,46,53,13,18,25,55,31,46,49			
		55,42,36,40,58,47,14		
2″	53,46,54, 9, 1, 2,36,30,34, 3		3,55,54,46,42	
		55,42,32,45, 4, 0,32		4, 4
4″	53,46,55, 4,43,35,21,34,34,35		3,55,54,50,46	
		55,42,28,49, 9, 9,46		4, 4
6″	53,46,56, 0,26, 4,10,43,44,21		3,55,54,54,50	
		55,42,24,53,14,14,56		4, 4
8″	53,46,56,56, 8,29, 3,57,59,17		3,55,54,58,54	
		55,42,20,57,19,16, 2		4, 4
10″	53,46,57,51,50,50, 1,17,15,19		3,55,55, 2,58	
		55,42,17, 1,24,13, 4		4, 4
12″	53,46,58,47,33, 7, 2,41,28,23		3,55,55, 7, 2	
		55,42,13, 5,29, 6, 2		4, 4
14″	53,46,59,43,15,20, 8,10,34,25		3,55,55,11, 6	
		55,42, 9, 9,33,54,56		4, 4
16″	53,47, 0,38,57,29,17,44,29,21		3,55,55,15,10	
		55,42, 5,13,38,39,46		4, 4
18″	53,47, 1,34,39,34,31,23, 9, 7		3,55,55,19,14	
		55,42, 1,17,43,20,32		4, 4
20″	53,47, 2,30,21,35,49, 6,29,39		3,55,55,23,18	
		55,41,57,21,47,57,14		4, 4
22″	53,47, 3,26, 3,33,10,54,26,53		3,55,55,27,22	
		55,41,53,25,52,29,52		4, 4
24″	53,47, 4,21,45,26,36,46,56,45		3,55,55,31,26	
		55,41,49,29,56,58,26		4, 4
26″	53,47, 5,17,27,16, 6,43,55,11		3,55,55,35,30	
		55,41,45,34, 1,22,56		4, 4
28″	53,47, 6,13, 9, 1,40,45,18, 7		3,55,55,39,34	
		55,41,41,38, 5,43,22		4, 4
30″	53,47, 7, 8,50,43,18,51, 1,29		3,55,55,43,38	
		55,41,37,42, 9,59,44		4, 4
32″	53,47, 8, 4,32,21, 1, 1, 1,13		3,55,55,47,42	
		55,41,33,46,14,12, 2		4, 4
34″	53,47, 9, 0,13,54,47,15,13,15		3,55,55,51,46	
		55,41,29,50,18,20,16		4, 4
36″	53,47, 9,55,55,24,37,33,33,31		3,55,55,55,50	
		55,41,25,54,22,24,26		4, 4
38″	53,47,10,51,36,50,31,55,57,57		3,55,55,59,54	
		55,41,21,58,26,24,32		4, 4
40″	53,47,11,47,18,12,30,22,22,29		3,55,56, 3,58	
		55,41,18, 2,30,20,34		4, 4
42″	53,47,12,42,59,30,32,52,43, 3		3,55,56, 8, 2	
		55,41,14, 6,34,12,32		4, 4
44″	53,47,13,38,40,44,39,26,55,35		3,55,56,12, 6	
		55,41,10,10,38, 0,26		4, 4
46″	53,47,14,34,21,54,50, 4,56, 1		3,55,56,16,10	
		55,41, 6,14,41,44,16		4, 4
48″	53,47,15,30, 3, 1, 4,46,40,17		3,55,56,20,14	
		55,41, 2,18,45,24, 2		4, 4
50″	53,47,16,25,44, 3,23,32, 4,19		3,55,56,24,18	
		55,40,58,22,48,59,44		4, 4
52″	53,47,17,21,25, 1,46,21, 4, 3		3,55,56,28,22	
		55,40,54,26,52,31,22		4, 4
54″	53,47,18,17, 5,56,13,13,35,25		3,55,56,32,26	
		55,40,50,30,55,58,56		4, 4
56″	53,47,19,12,46,46,44, 9,34,21		3,55,56,36,30	
		55,40,46,34,59,22,26		4, 4
58″	53,47,20, 8,27,33,19, 8,56,47		3,55,56,40,34	
		55,40,42,39, 2,41,52		
60″	53,47,21, 4, 8,15,58,11,38,39			
exact	53,47,21, 4, 8,15,58,11,16,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°42′ 0″	53,47,21, 4, 8,15,58,11,16,59			
		55,40,38,43, 5,54,58		
2″	53,47,21,59,48,54,41,17,11,57		3,55,56,48,51	
		55,40,34,47, 9, 6, 7		4, 4
4″	53,47,22,55,29,29,28,26,18, 4		3,55,56,52,55	
		55,40,30,51,12,13,12		4, 4
6″	53,47,23,51,10, 0,19,38,31,16		3,55,56,56,59	
		55,40,26,55,15,16,13		4, 4
8″	53,47,24,46,50,27,14,53,47,29		3,55,57, 1, 3	
		55,40,22,59,18,15,10		4, 4
10″	53,47,25,42,30,50,14,12, 2,39		3,55,57, 5, 7	
		55,40,19, 3,21,10, 3		4, 4
12″	53,47,26,38,11, 9,17,33,12,42		3,55,57, 9,11	
		55,40,15, 7,24, 0,52		4, 4
14″	53,47,27,33,51,24,24,57,13,34		3,55,57,13,15	
		55,40,11,11,26,47,37		4, 4
16″	53,47,28,29,31,35,36,24, 1,11		3,55,57,17,19	
		55,40, 7,15,29,30,18		4, 4
18″	53,47,29,25,11,42,51,53,31,29		3,55,57,21,23	
		55,40, 3,19,32, 8,55		4, 4
20″	53,47,30,20,51,46,11,25,40,24		3,55,57,25,27	
		55,39,59,23,34,43,28		4, 4
22″	53,47,31,16,31,45,35, 0,23,52		3,55,57,29,31	
		55,39,55,27,37,13,57		4, 4
24″	53,47,32,12,11,41, 2,37,37,49		3,55,57,33,35	
		55,39,51,31,39,40,22		4, 4
26″	53,47,33, 7,51,32,34,17,18,11		3,55,57,37,39	
		55,39,47,35,42, 2,43		4, 4
28″	53,47,34, 3,31,20, 9,59,20,54		3,55,57,41,43	
		55,39,43,39,44,21, 0		4, 4
30″	53,47,34,59,11, 3,49,43,41,54		3,55,57,45,47	
		55,39,39,43,46,35,13		4, 4
32″	53,47,35,54,50,43,33,30,17, 7		3,55,57,49,51	
		55,39,35,47,48,45,22		4, 4
34″	53,47,36,50,30,19,21,19, 2,29		3,55,57,53,55	
		55,39,31,51,50,51,27		4, 4
36″	53,47,37,46, 9,51,13, 9,53,56		3,55,57,57,59	
		55,39,27,55,52,53,28		4, 4
38″	53,47,38,41,49,19, 9, 2,47,24		3,55,58, 2, 3	
		55,39,23,59,54,51,25		4, 4
40″	53,47,39,37,28,43, 8,57,38,49		3,55,58, 6, 7	
		55,39,20, 3,56,45,18		4, 4
42″	53,47,40,33, 8, 3,12,54,24, 7		3,55,58,10,11	
		55,39,16, 7,58,35, 7		4, 4
44″	53,47,41,28,47,19,20,52,59,14		3,55,58,14,15	
		55,39,12,12, 0,20,52		4, 4
46″	53,47,42,24,26,31,32,53,20, 6		3,55,58,18,19	
		55,39, 8,16, 2, 2,33		4, 4
48″	53,47,43,20, 5,39,48,55,22,39		3,55,58,22,23	
		55,39, 4,20, 3,40,10		4, 4
50″	53,47,44,15,44,44, 8,59, 2,49		3,55,58,26,27	
		55,39, 0,24, 5,13,43		4, 4
52″	53,47,45,11,23,44,33, 4,16,32		3,55,58,30,31	
		55,38,56,28, 6,43,12		4, 4
54″	53,47,46, 7, 2,41, 1,10,59,44		3,55,58,34,35	
		55,38,52,32, 8, 8,37		4, 4
56″	53,47,47, 2,41,33,33,19, 8,21		3,55,58,38,39	
		55,38,48,36, 9,29,58		4, 4
58″	53,47,47,58,20,22, 9,28,38,19		3,55,58,42,43	
		55,38,44,40,10,47,15		
60″	53,47,48,53,59, 6,49,39,25,34			
exact	53,47,48,53,59, 6,49,39,13,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°43′ 0″	53,47,48,53,59, 6,49,39,13,58			
		55,38,40,44,11,59,16		
2″	53,47,49,49,37,47,33,51,13,14		3,55,58,50,55	
		55,38,36,48,13, 8,21		4, 4
4″	53,47,50,45,16,24,22, 4,21,35		3,55,58,54,59	
		55,38,32,52,14,13,22		4, 4
6″	53,47,51,40,54,57,14,18,34,57		3,55,58,59, 3	
		55,38,28,56,15,14,19		4, 4
8″	53,47,52,36,33,26,10,33,49,16		3,55,59, 3, 7	
		55,38,25, 0,16,11,12		4, 4
10″	53,47,53,32,11,51,10,50, 0,28		3,55,59, 7,11	
		55,38,21, 4,17, 4, 1		4, 4
12″	53,47,54,27,50,12,15, 7, 4,29		3,55,59,11,15	
		55,38,17, 8,17,52,46		4, 4
14″	53,47,55,23,28,29,23,24,57,15		3,55,59,15,19	
		55,38,13,12,18,37,27		4, 4
16″	53,47,56,19, 6,42,35,43,34,42		3,55,59,19,23	
		55,38, 9,16,19,18, 4		4, 4
18″	53,47,57,14,44,51,52, 2,52,46		3,55,59,23,27	
		55,38, 5,20,19,54,37		4, 4
20″	53,47,58,10,22,57,12,22,47,23		3,55,59,27,31	
		55,38, 1,24,20,27, 6		4, 4
22″	53,47,59, 6, 0,58,36,43,14,29		3,55,59,31,35	
		55,37,57,28,20,55,31		4, 4
24″	53,48, 0, 1,38,56, 5, 4,10, 0		3,55,59,35,39	
		55,37,53,32,21,19,52		4, 4
26″	53,48, 0,57,16,49,37,25,29,52		3,55,59,39,43	
		55,37,49,36,21,40, 9		4, 4
28″	53,48, 1,52,54,39,13,47,10, 1		3,55,59,43,47	
		55,37,45,40,21,56,22		4, 4
30″	53,48, 2,48,32,24,54, 9, 6,23		3,55,59,47,51	
		55,37,41,44,22, 8,31		4, 4
32″	53,48, 3,44,10, 6,38,31,14,54		3,55,59,51,55	
		55,37,37,48,22,16,36		4, 4
34″	53,48, 4,39,47,44,26,53,31,30		3,55,59,55,59	
		55,37,33,52,22,20,37		4, 4
36″	53,48, 5,35,25,18,19,15,52, 7		3,56, 0, 0, 3	
		55,37,29,56,22,20,34		4, 4
38″	53,48, 6,31, 2,48,15,38,12,41		3,56, 0, 4, 7	
		55,37,26, 0,22,16,27		4, 4
40″	53,48, 7,26,40,14,16, 0,29, 8		3,56, 0, 8,11	
		55,37,22, 4,22, 8,16		4, 4
42″	53,48, 8,22,17,36,20,22,37,24		3,56, 0,12,15	
		55,37,18, 8,21,56, 1		4, 4
44″	53,48, 9,17,54,54,28,44,33,25		3,56, 0,16,19	
		55,37,14,12,21,39,42		4, 4
46″	53,48,10,13,32, 8,41, 6,13, 7		3,56, 0,20,23	
		55,37,10,16,21,19,19		4, 4
48″	53,48,11, 9, 9,18,57,27,32,26		3,56, 0,24,27	
		55,37, 6,20,20,54,52		4, 4
50″	53,48,12, 4,46,25,17,48,27,18		3,56, 0,28,31	
		55,37, 2,24,20,26,21		4, 4
52″	53,48,13, 0,23,27,42, 8,53,39		3,56, 0,32,35	
		55,36,58,28,19,53,46		4, 4
54″	53,48,13,56, 0,26,10,28,47,25		3,56, 0,36,39	
		55,36,54,32,19,17, 7		4, 4
56″	53,48,14,51,37,20,42,48, 4,32		3,56, 0,40,43	
		55,36,50,36,18,36,24		4, 4
58″	53,48,15,47,14,11,19, 6,40,56		3,56, 0,44,47	
		55,36,46,40,17,51,37		
60″	53,48,16,42,50,57,59,24,32,33			
exact	53,48,16,42,50,57,59,24,26,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°44′ 0″	53,48,16,42,50,57,59,24,26,11			
		55,36,42,44,17, 2,18		
2″	53,48,17,38,27,40,43,41,28,29		3,56, 0,52,56	
		55,36,38,48,16, 9,22		4, 4
4″	53,48,18,34, 4,19,31,57,37,51		3,56, 0,57, 0	
		55,36,34,52,15,12,22		4, 4
6″	53,48,19,29,40,54,24,12,50,13		3,56, 1, 1, 4	
		55,36,30,56,14,11,18		4, 4
8″	53,48,20,25,17,25,20,27, 1,31		3,56, 1, 5, 8	
		55,36,27, 0,13, 6,10		4, 4
10″	53,48,21,20,53,52,20,40, 7,41		3,56, 1, 9,12	
		55,36,23, 4,11,56,58		4, 4
12″	53,48,22,16,30,15,24,52, 4,39		3,56, 1,13,16	
		55,36,19, 8,10,43,42		4, 4
14″	53,48,23,12, 6,34,33, 2,48,21		3,56, 1,17,20	
		55,36,15,12, 9,26,22		4, 4
16″	53,48,24, 7,42,49,45,12,14,43		3,56, 1,21,24	
		55,36,11,16, 8, 4,58		4, 4
18″	53,48,25, 3,19, 1, 1,20,19,41		3,56, 1,25,28	
		55,36, 7,20, 6,39,30		4, 4
20″	53,48,25,58,55, 8,21,26,59,11		3,56, 1,29,32	
		55,36, 3,24, 5, 9,58		4, 4
22″	53,48,26,54,31,11,45,32, 9, 9		3,56, 1,33,36	
		55,35,59,28, 3,36,22		4, 4
24″	53,48,27,50, 7,11,13,35,45,31		3,56, 1,37,40	
		55,35,55,32, 1,58,42		4, 4
26″	53,48,28,45,43, 6,45,37,44,13		3,56, 1,41,44	
		55,35,51,36, 0,16,58		4, 4
28″	53,48,29,41,18,58,21,38, 1,11		3,56, 1,45,48	
		55,35,47,39,58,31,10		4, 4
30″	53,48,30,36,54,46, 1,36,32,21		3,56, 1,49,52	
		55,35,43,43,56,41,18		4, 4
32″	53,48,31,32,30,29,45,33,13,39		3,56, 1,53,56	
		55,35,39,47,54,47,22		4, 4
34″	53,48,32,28, 6, 9,33,28, 1, 1		3,56, 1,58, 0	
		55,35,35,51,52,49,22		4, 4
36″	53,48,33,23,41,45,25,20,50,23		3,56, 2, 2, 4	
		55,35,31,55,50,47,18		4, 4
38″	53,48,34,19,17,17,21,11,37,41		3,56, 2, 6, 8	
		55,35,27,59,48,41,10		4, 4
40″	53,48,35,14,52,45,21, 0,18,51		3,56, 2,10,12	
		55,35,24, 3,46,30,58		4, 4
42″	53,48,36,10,28, 9,24,46,49,49		3,56, 2,14,16	
		55,35,20, 7,44,16,42		4, 4
44″	53,48,37, 6, 3,29,32,31, 6,31		3,56, 2,18,20	
		55,35,16,11,41,58,22		4, 4
46″	53,48,38, 1,38,45,44,13, 4,53		3,56, 2,22,24	
		55,35,12,15,39,35,58		4, 4
48″	53,48,38,57,13,57,59,52,40,51		3,56, 2,26,28	
		55,35, 8,19,37, 9,30		4, 4
50″	53,48,39,52,49, 6,19,29,50,21		3,56, 2,30,32	
		55,35, 4,23,34,38,58		4, 4
52″	53,48,40,48,24,10,43, 4,29,19		3,56, 2,34,36	
		55,35, 0,27,32, 4,22		4, 4
54″	53,48,41,43,59,11,10,36,33,41		3,56, 2,38,40	
		55,34,56,31,29,25,42		4, 4
56″	53,48,42,39,34, 7,42, 5,59,23		3,56, 2,42,44	
		55,34,52,35,26,42,58		4, 4
58″	53,48,43,35, 9, 0,17,32,42,21		3,56, 2,46,48	
		55,34,48,39,23,56,10		
60″	53,48,44,30,43,48,56,56,38,31			
exact	53,48,44,30,43,48,56,56,46,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°45′ 0″	53,48,44,30,43,48,56,56,46,47			
		55,34,44,43,21, 6,13		
2″	53,48,45,26,18,33,40,17,53, 0		3,56, 2,54,52	
		55,34,40,47,18,11,21		4, 4
4″	53,48,46,21,53,14,27,36, 4,21		3,56, 2,58,56	
		55,34,36,51,15,12,25		4, 4
6″	53,48,47,17,27,51,18,51,16,46		3,56, 3, 3, 0	
		55,34,32,55,12, 9,25		4, 4
8″	53,48,48,13, 2,24,14, 3,26,11		3,56, 3, 7, 4	
		55,34,28,59, 9, 2,21		4, 4
10″	53,48,49, 8,36,53,13,12,28,32		3,56, 3,11, 8	
		55,34,25, 3, 5,51,13		4, 4
12″	53,48,50, 4,11,18,16,18,19,45		3,56, 3,15,12	
		55,34,21, 7, 2,36, 1		4, 4
14″	53,48,50,59,45,39,23,20,55,46		3,56, 3,19,16	
		55,34,17,10,59,16,45		4, 4
16″	53,48,51,55,19,56,34,20,12,31		3,56, 3,23,20	
		55,34,13,14,55,53,25		4, 4
18″	53,48,52,50,54, 9,49,16, 5,56		3,56, 3,27,24	
		55,34, 9,18,52,26, 1		4, 4
20″	53,48,53,46,28,19, 8, 8,31,57		3,56, 3,31,28	
		55,34, 5,22,48,54,33		4, 4
22″	53,48,54,42, 2,24,30,57,26,30		3,56, 3,35,32	
		55,34, 1,26,45,19, 1		4, 4
24″	53,48,55,37,36,25,57,42,45,31		3,56, 3,39,36	
		55,33,57,30,41,39,25		4, 4
26″	53,48,56,33,10,23,28,24,24,56		3,56, 3,43,40	
		55,33,53,34,37,55,45		4, 4
28″	53,48,57,28,44,17, 3, 2,20,41		3,56, 3,47,44	
		55,33,49,38,34, 8, 1		4, 4
30″	53,48,58,24,18, 6,41,36,28,42		3,56, 3,51,48	
		55,33,45,42,30,16,13		4, 4
32″	53,48,59,19,51,52,24, 6,44,55		3,56, 3,55,52	
		55,33,41,46,26,20,21		4, 4
34″	53,49, 0,15,25,34,10,33, 5,16		3,56, 3,59,56	
		55,33,37,50,22,20,25		4, 4
36″	53,49, 1,10,59,12, 0,55,25,41		3,56, 4, 4, 0	
		55,33,33,54,18,16,25		4, 4
38″	53,49, 2, 6,32,45,55,13,42, 6		3,56, 4, 8, 4	
		55,33,29,58,14, 8,21		4, 4
40″	53,49, 3, 2, 6,15,53,27,50,27		3,56, 4,12, 8	
		55,33,26, 2, 9,56,13		4, 4
42″	53,49, 3,57,39,41,55,37,46,40		3,56, 4,16,12	
		55,33,22, 6, 5,40, 1		4, 4
44″	53,49, 4,53,13, 4, 1,43,26,41		3,56, 4,20,16	
		55,33,18,10, 1,19,45		4, 4
46″	53,49, 5,48,46,22,11,44,46,26		3,56, 4,24,20	
		55,33,14,13,56,55,25		4, 4
48″	53,49, 6,44,19,36,25,41,41,51		3,56, 4,28,24	
		55,33,10,17,52,27, 1		4, 4
50″	53,49, 7,39,52,46,43,34, 8,52		3,56, 4,32,28	
		55,33, 6,21,47,54,33		4, 4
52″	53,49, 8,35,25,53, 5,22, 3,25		3,56, 4,36,32	
		55,33, 2,25,43,18, 1		4, 4
54″	53,49, 9,30,58,55,31, 5,21,26		3,56, 4,40,36	
		55,32,58,29,38,37,25		4, 4
56″	53,49,10,26,31,54, 0,43,58,51		3,56, 4,44,40	
		55,32,54,33,33,52,45		4, 4
58″	53,49,11,22, 4,48,34,17,51,36		3,56, 4,48,44	
		55,32,50,37,29, 4, 1		
60″	53,49,12,17,37,39,11,46,55,37			
exact	53,49,12,17,37,39,11,47,13,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°46′ 0″	53,49,12,17,37,39,11,47,13,37			
		55,32,46,41,24,13,10		
2″	53,49,13,13,10,25,53,11,26,47		3,56, 4,56,43	
		55,32,42,45,19,16,27		4, 4
4″	53,49,14, 8,43, 8,38,30,43,14		3,56, 5, 0,47	
		55,32,38,49,14,15,40		4, 4
6″	53,49,15, 4,15,47,27,44,58,54		3,56, 5, 4,51	
		55,32,34,53, 9,10,49		4, 4
8″	53,49,15,59,48,22,20,54, 9,43		3,56, 5, 8,55	
		55,32,30,57, 4, 1,54		4, 4
10″	53,49,16,55,20,53,17,58,11,37		3,56, 5,12,59	
		55,32,27, 0,58,48,55		4, 4
12″	53,49,17,50,53,20,18,57, 0,32		3,56, 5,17, 3	
		55,32,23, 4,53,31,52		4, 4
14″	53,49,18,46,25,43,23,50,32,24		3,56, 5,21, 7	
		55,32,19, 8,48,10,45		4, 4
16″	53,49,19,41,58, 2,32,38,43, 9		3,56, 5,25,11	
		55,32,15,12,42,45,34		4, 4
18″	53,49,20,37,30,17,45,21,28,43		3,56, 5,29,15	
		55,32,11,16,37,16,19		4, 4
20″	53,49,21,33, 2,29, 1,58,45, 2		3,56, 5,33,19	
		55,32, 7,20,31,43, 0		4, 4
22″	53,49,22,28,34,36,22,30,28, 2		3,56, 5,37,23	
		55,32, 3,24,26, 5,37		4, 4
24″	53,49,23,24, 6,39,46,56,33,39		3,56, 5,41,27	
		55,31,59,28,20,24,10		4, 4
26″	53,49,24,19,38,39,15,16,57,49		3,56, 5,45,31	
		55,31,55,32,14,38,39		4, 4
28″	53,49,25,15,10,34,47,31,36,28		3,56, 5,49,35	
		55,31,51,36, 8,49, 4		4, 4
30″	53,49,26,10,42,26,23,40,25,32		3,56, 5,53,39	
		55,31,47,40, 2,55,25		4, 4
32″	53,49,27, 6,14,14, 3,43,20,57		3,56, 5,57,43	
		55,31,43,43,56,57,42		4, 4
34″	53,49,28, 1,45,57,47,40,18,39		3,56, 6, 1,47	
		55,31,39,47,50,55,55		4, 4
36″	53,49,28,57,17,37,35,31,14,34		3,56, 6, 5,51	
		55,31,35,51,44,50, 4		4, 4
38″	53,49,29,52,49,13,27,16, 4,38		3,56, 6, 9,55	
		55,31,31,55,38,40, 9		4, 4
40″	53,49,30,48,20,45,22,54,44,47		3,56, 6,13,59	
		55,31,27,59,32,26,10		4, 4
42″	53,49,31,43,52,13,22,27,10,57		3,56, 6,18, 3	
		55,31,24, 3,26, 8, 7		4, 4
44″	53,49,32,39,23,37,25,53,19, 4		3,56, 6,22, 7	
		55,31,20, 7,19,46, 0		4, 4
46″	53,49,33,34,54,57,33,13, 5, 4		3,56, 6,26,11	
		55,31,16,11,13,19,49		4, 4
48″	53,49,34,30,26,13,44,26,24,53		3,56, 6,30,15	
		55,31,12,15, 6,49,34		4, 4
50″	53,49,35,25,57,25,59,33,14,27		3,56, 6,34,19	
		55,31, 8,19, 0,15,15		4, 4
52″	53,49,36,21,28,34,18,33,29,42		3,56, 6,38,23	
		55,31, 4,22,53,36,52		4, 4
54″	53,49,37,16,59,38,41,27, 6,34		3,56, 6,42,27	
		55,31, 0,26,46,54,25		4, 4
56″	53,49,38,12,30,39, 8,14, 0,59		3,56, 6,46,31	
		55,30,56,30,40, 7,54		4, 4
58″	53,49,39, 8, 1,35,38,54, 8,53		3,56, 6,50,35	
		55,30,52,34,33,17,19		
60″	53,49,40, 3,32,28,13,27,26,12			
exact	53,49,40, 3,32,28,13,27,49,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°47′ 0″	53,49,40, 3,32,28,13,27,49,14			
		55,30,48,38,26,25,20		
2″	53,49,40,59, 3,16,51,54,14,34		3,56, 6,58,31	
		55,30,44,42,19,26,49		4, 4
4″	53,49,41,54,34, 1,34,13,41,23		3,56, 7, 2,35	
		55,30,40,46,12,24,14		4, 4
6″	53,49,42,50, 4,42,20,26, 5,37		3,56, 7, 6,39	
		55,30,36,50, 5,17,35		4, 4
8″	53,49,43,45,35,19,10,31,23,12		3,56, 7,10,43	
		55,30,32,53,58, 6,52		4, 4
10″	53,49,44,41, 5,52, 4,29,30, 4		3,56, 7,14,47	
		55,30,28,57,50,52, 5		4, 4
12″	53,49,45,36,36,21, 2,20,22, 9		3,56, 7,18,51	
		55,30,25, 1,43,33,14		4, 4
14″	53,49,46,32, 6,46, 4, 3,55,23		3,56, 7,22,55	
		55,30,21, 5,36,10,19		4, 4
16″	53,49,47,27,37, 7, 9,40, 5,42		3,56, 7,26,59	
		55,30,17, 9,28,43,20		4, 4
18″	53,49,48,23, 7,24,19, 8,49, 2		3,56, 7,31, 3	
		55,30,13,13,21,12,17		4, 4
20″	53,49,49,18,37,37,32,30, 1,19		3,56, 7,35, 7	
		55,30, 9,17,13,37,10		4, 4
22″	53,49,50,14, 7,46,49,43,38,29		3,56, 7,39,11	
		55,30, 5,21, 5,57,59		4, 4
24″	53,49,51, 9,37,52,10,49,36,28		3,56, 7,43,15	
		55,30, 1,24,58,14,44		4, 4
26″	53,49,52, 5, 7,53,35,47,51,12		3,56, 7,47,19	
		55,29,57,28,50,27,25		4, 4
28″	53,49,53, 0,37,51, 4,38,18,37		3,56, 7,51,23	
		55,29,53,32,42,36, 2		4, 4
30″	53,49,53,56, 7,44,37,20,54,39		3,56, 7,55,27	
		55,29,49,36,34,40,35		4, 4
32″	53,49,54,51,37,34,13,55,35,14		3,56, 7,59,31	
		55,29,45,40,26,41, 4		4, 4
34″	53,49,55,47, 7,19,54,22,16,18		3,56, 8, 3,35	
		55,29,41,44,18,37,29		4, 4
36″	53,49,56,42,37, 1,38,40,53,47		3,56, 8, 7,39	
		55,29,37,48,10,29,50		4, 4
38″	53,49,57,38, 6,39,26,51,23,37		3,56, 8,11,43	
		55,29,33,52, 2,18, 7		4, 4
40″	53,49,58,33,36,13,18,53,41,44		3,56, 8,15,47	
		55,29,29,55,54, 2,20		4, 4
42″	53,49,59,29, 5,43,14,47,44, 4		3,56, 8,19,51	
		55,29,25,59,45,42,29		4, 4
44″	53,50, 0,24,35, 9,14,33,26,33		3,56, 8,23,55	
		55,29,22, 3,37,18,34		4, 4
46″	53,50, 1,20, 4,31,18,10,45, 7		3,56, 8,27,59	
		55,29,18, 7,28,50,35		4, 4
48″	53,50, 2,15,33,49,25,39,35,42		3,56, 8,32, 3	
		55,29,14,11,20,18,32		4, 4
50″	53,50, 3,11, 3, 3,36,59,54,14		3,56, 8,36, 7	
		55,29,10,15,11,42,25		4, 4
52″	53,50, 4, 6,32,13,52,11,36,39		3,56, 8,40,11	
		55,29, 6,19, 3, 2,14		4, 4
54″	53,50, 5, 2, 1,20,11,14,38,53		3,56, 8,44,15	
		55,29, 2,22,54,17,59		4, 4
56″	53,50, 5,57,30,22,34, 8,56,52		3,56, 8,48,19	
		55,28,58,26,45,29,40		4, 4
58″	53,50, 6,52,59,21, 0,54,26,32		3,56, 8,52,23	
		55,28,54,30,36,37,17		
60″	53,50, 7,48,28,15,31,31, 3,49			
exact	53,50, 7,48,28,15,31,31,40,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°48′ 0″	53,50, 7,48,28,15,31,31,40,53			
		55,28,50,34,27,44,51		
2″	53,50, 8,43,57, 6, 5,59,25,44		3,56, 9, 0,14	
		55,28,46,38,18,44,37		4, 3
4″	53,50, 9,39,25,52,44,18,10,21		3,56, 9, 4,17	
		55,28,42,42, 9,40,20		4, 3
6″	53,50,10,34,54,35,26,27,50,41		3,56, 9, 8,20	
		55,28,38,46, 0,32, 0		4, 3
8″	53,50,11,30,23,14,12,28,22,41		3,56, 9,12,23	
		55,28,34,49,51,19,37		4, 3
10″	53,50,12,25,51,49, 2,19,42,18		3,56, 9,16,26	
		55,28,30,53,42, 3,11		4, 3
12″	53,50,13,21,20,19,56, 1,45,29		3,56, 9,20,29	
		55,28,26,57,32,42,42		4, 3
14″	53,50,14,16,48,46,53,34,28,11		3,56, 9,24,32	
		55,28,23, 1,23,18,10		4, 3
16″	53,50,15,12,17, 9,54,57,46,21		3,56, 9,28,35	
		55,28,19, 5,13,49,35		4, 3
18″	53,50,16, 7,45,29, 0,11,35,56		3,56, 9,32,38	
		55,28,15, 9, 4,16,57		4, 3
20″	53,50,17, 3,13,44, 9,15,52,53		3,56, 9,36,41	
		55,28,11,12,54,40,16		4, 3
22″	53,50,17,58,41,55,22,10,33, 9		3,56, 9,40,44	
		55,28, 7,16,44,59,32		4, 3
24″	53,50,18,54,10, 2,38,55,32,41		3,56, 9,44,47	
		55,28, 3,20,35,14,45		4, 3
26″	53,50,19,49,38, 5,59,30,47,26		3,56, 9,48,50	
		55,27,59,24,25,25,55		4, 3
28″	53,50,20,45, 6, 5,23,56,13,21		3,56, 9,52,53	
		55,27,55,28,15,33, 2		4, 3
30″	53,50,21,40,34, 0,52,11,46,23		3,56, 9,56,56	
		55,27,51,32, 5,36, 6		4, 3
32″	53,50,22,36, 1,52,24,17,22,29		3,56,10, 0,59	
		55,27,47,35,55,35, 7		4, 3
34″	53,50,23,31,29,40, 0,12,57,36		3,56,10, 5, 2	
		55,27,43,39,45,30, 5		4, 3
36″	53,50,24,26,57,23,39,58,27,41		3,56,10, 9, 5	
		55,27,39,43,35,21, 0		4, 3
38″	53,50,25,22,25, 3,23,33,48,41		3,56,10,13, 8	
		55,27,35,47,25, 7,52		4, 3
40″	53,50,26,17,52,39,10,58,56,33		3,56,10,17,11	
		55,27,31,51,14,50,41		4, 3
42″	53,50,27,13,20,11, 2,13,47,14		3,56,10,21,14	
		55,27,27,55, 4,29,27		4, 3
44″	53,50,28, 8,47,38,57,18,16,41		3,56,10,25,17	
		55,27,23,58,54, 4,10		4, 3
46″	53,50,29, 4,15, 2,56,12,20,51		3,56,10,29,20	
		55,27,20, 2,43,34,50		4, 3
48″	53,50,29,59,42,22,58,55,55,41		3,56,10,33,23	
		55,27,16, 6,33, 1,27		4, 3
50″	53,50,30,55, 9,39, 5,28,57, 8		3,56,10,37,26	
		55,27,12,10,22,24, 1		4, 3
52″	53,50,31,50,36,51,15,51,21, 9		3,56,10,41,29	
		55,27, 8,14,11,42,32		4, 3
54″	53,50,32,46, 3,59,30, 3, 3,41		3,56,10,45,32	
		55,27, 4,18, 0,57, 0		4, 3
56″	53,50,33,41,31, 3,48, 4, 0,41		3,56,10,49,35	
		55,27, 0,21,50, 7,25		4, 3
58″	53,50,34,36,58, 4, 9,54, 8, 6		3,56,10,53,38	
		55,26,56,25,39,13,47		
60″	53,50,35,32,25, 0,35,33,21,53			
exact	53,50,35,32,25, 0,35,33, 0,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°49′ 0″	53,50,35,32,25, 0,35,33, 0,37			
		55,26,52,29,28,13,53		
2″	53,50,36,27,51,53, 5, 1,14,30		3,56,11, 1,53	
		55,26,48,33,17,12, 0		4, 3
4″	53,50,37,23,18,41,38,18,26,30		3,56,11, 5,56	
		55,26,44,37, 6, 6, 4		4, 3
6″	53,50,38,18,45,26,15,24,32,34		3,56,11, 9,59	
		55,26,40,40,54,56, 5		4, 3
8″	53,50,39,14,12, 6,56,19,28,39		3,56,11,14, 2	
		55,26,36,44,43,42, 3		4, 3
10″	53,50,40, 9,38,43,41, 3,10,42		3,56,11,18, 5	
		55,26,32,48,32,23,58		4, 3
12″	53,50,41, 5, 5,16,29,35,34,40		3,56,11,22, 8	
		55,26,28,52,21, 1,50		4, 3
14″	53,50,42, 0,31,45,21,56,36,30		3,56,11,26,11	
		55,26,24,56, 9,35,39		4, 3
16″	53,50,42,55,58,10,18, 6,12, 9		3,56,11,30,14	
		55,26,20,59,58, 5,25		4, 3
18″	53,50,43,51,24,31,18, 4,17,34		3,56,11,34,17	
		55,26,17, 3,46,31, 8		4, 3
20″	53,50,44,46,50,48,21,50,48,42		3,56,11,38,20	
		55,26,13, 7,34,52,48		4, 3
22″	53,50,45,42,17, 1,29,25,41,30		3,56,11,42,23	
		55,26, 9,11,23,10,25		4, 3
24″	53,50,46,37,43,10,40,48,51,55		3,56,11,46,26	
		55,26, 5,15,11,23,59		4, 3
26″	53,50,47,33, 9,15,56, 0,15,54		3,56,11,50,29	
		55,26, 1,18,59,33,30		4, 3
28″	53,50,48,28,35,17,14,59,49,24		3,56,11,54,32	
		55,25,57,22,47,38,58		4, 3
30″	53,50,49,24, 1,14,37,47,28,22		3,56,11,58,35	
		55,25,53,26,35,40,23		4, 3
32″	53,50,50,19,27, 8, 4,23, 8,45		3,56,12, 2,38	
		55,25,49,30,23,37,45		4, 3
34″	53,50,51,14,52,57,34,46,46,30		3,56,12, 6,41	
		55,25,45,34,11,31, 4		4, 3
36″	53,50,52,10,18,43, 8,58,17,34		3,56,12,10,44	
		55,25,41,37,59,20,20		4, 3
38″	53,50,53, 5,44,24,46,57,37,54		3,56,12,14,47	
		55,25,37,41,47, 5,33		4, 3
40″	53,50,54, 1,10, 2,28,44,43,27		3,56,12,18,50	
		55,25,33,45,34,46,43		4, 3
42″	53,50,54,56,35,36,14,19,30,10		3,56,12,22,53	
		55,25,29,49,22,23,50		4, 3
44″	53,50,55,52, 1, 6, 3,41,54, 0		3,56,12,26,56	
		55,25,25,53, 9,56,54		4, 3
46″	53,50,56,47,26,31,56,51,50,54		3,56,12,30,59	
		55,25,21,56,57,25,55		4, 3
48″	53,50,57,42,51,53,53,49,16,49		3,56,12,35, 2	
		55,25,18, 0,44,50,53		4, 3
50″	53,50,58,38,17,11,54,34, 7,42		3,56,12,39, 5	
		55,25,14, 4,32,11,48		4, 3
52″	53,50,59,33,42,25,59, 6,19,30		3,56,12,43, 8	
		55,25,10, 8,19,28,40		4, 3
54″	53,51, 0,29, 7,36, 7,25,48,10		3,56,12,47,11	
		55,25, 6,12, 6,41,29		4, 3
56″	53,51, 1,24,32,42,19,32,29,39		3,56,12,51,14	
		55,25, 2,15,53,50,15		4, 3
58″	53,51, 2,19,57,44,35,26,19,54		3,56,12,55,17	
		55,24,58,19,40,54,58		
60″	53,51, 3,15,22,42,55, 7,14,52			
exact	53,51, 3,15,22,42,55, 7, 5,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°50′ 0″	53,51, 3,15,22,42,55, 7, 5,11			
		55,24,54,23,27,54,35		
2″	53,51, 4,10,47,37,18,34,59,46		3,56,13, 3,27	
		55,24,50,27,14,51, 8		4, 3
4″	53,51, 5, 6,12,27,45,49,50,54		3,56,13, 7,30	
		55,24,46,31, 1,43,38		4, 3
6″	53,51, 6, 1,37,14,16,51,34,32		3,56,13,11,33	
		55,24,42,34,48,32, 5		4, 3
8″	53,51, 6,57, 1,56,51,40, 6,37		3,56,13,15,36	
		55,24,38,38,35,16,29		4, 3
10″	53,51, 7,52,26,35,30,15,23, 6		3,56,13,19,39	
		55,24,34,42,21,56,50		4, 3
12″	53,51, 8,47,51,10,12,37,19,56		3,56,13,23,42	
		55,24,30,46, 8,33, 8		4, 3
14″	53,51, 9,43,15,40,58,45,53, 4		3,56,13,27,45	
		55,24,26,49,55, 5,23		4, 3
16″	53,51,10,38,40, 7,48,40,58,27		3,56,13,31,48	
		55,24,22,53,41,33,35		4, 3
18″	53,51,11,34, 4,30,42,22,32, 2		3,56,13,35,51	
		55,24,18,57,27,57,44		4, 3
20″	53,51,12,29,28,49,39,50,29,46		3,56,13,39,54	
		55,24,15, 1,14,17,50		4, 3
22″	53,51,13,24,53, 4,41, 4,47,36		3,56,13,43,57	
		55,24,11, 5, 0,33,53		4, 3
24″	53,51,14,20,17,15,46, 5,21,29		3,56,13,48, 0	
		55,24, 7, 8,46,45,53		4, 3
26″	53,51,15,15,41,22,54,52, 7,22		3,56,13,52, 3	
		55,24, 3,12,32,53,50		4, 3
28″	53,51,16,11, 5,26, 7,25, 1,12		3,56,13,56, 6	
		55,23,59,16,18,57,44		4, 3
30″	53,51,17, 6,29,25,23,43,58,56		3,56,14, 0, 9	
		55,23,55,20, 4,57,35		4, 3
32″	53,51,18, 1,53,20,43,48,56,31		3,56,14, 4,12	
		55,23,51,23,50,53,23		4, 3
34″	53,51,18,57,17,12, 7,39,49,54		3,56,14, 8,15	
		55,23,47,27,36,45, 8		4, 3
36″	53,51,19,52,40,59,35,16,35, 2		3,56,14,12,18	
		55,23,43,31,22,32,50		4, 3
38″	53,51,20,48, 4,43, 6,39, 7,52		3,56,14,16,21	
		55,23,39,35, 8,16,29		4, 3
40″	53,51,21,43,28,22,41,47,24,21		3,56,14,20,24	
		55,23,35,38,53,56, 5		4, 3
42″	53,51,22,38,51,58,20,41,20,26		3,56,14,24,27	
		55,23,31,42,39,31,38		4, 3
44″	53,51,23,34,15,30, 3,20,52, 4		3,56,14,28,30	
		55,23,27,46,25, 3, 8		4, 3
46″	53,51,24,29,38,57,49,45,55,12		3,56,14,32,33	
		55,23,23,50,10,30,35		4, 3
48″	53,51,25,25, 2,21,39,56,25,47		3,56,14,36,36	
		55,23,19,53,55,53,59		4, 3
50″	53,51,26,20,25,41,33,52,19,46		3,56,14,40,39	
		55,23,15,57,41,13,20		4, 3
52″	53,51,27,15,48,57,31,33,33, 6		3,56,14,44,42	
		55,23,12, 1,26,28,38		4, 3
54″	53,51,28,11,12, 9,33, 0, 1,44		3,56,14,48,45	
		55,23, 8, 5,11,39,53		4, 3
56″	53,51,29, 6,35,17,38,11,41,37		3,56,14,52,48	
		55,23, 4, 8,56,47, 5		4, 3
58″	53,51,30, 1,58,21,47, 8,28,42		3,56,14,56,51	
		55,23, 0,12,41,50,14		
60″	53,51,30,57,21,21,59,50,18,56			
exact	53,51,30,57,21,21,59,50,16, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°51′ 0″	53,51,30,57,21,21,59,50,16, 3			
		55,22,56,16,26,49, 7		
2″	53,51,31,52,44,18,16,17, 5,10		3,56,15, 4,57	
		55,22,52,20,11,44,10		4, 3
4″	53,51,32,48, 7,10,36,28,49,20		3,56,15, 9, 0	
		55,22,48,23,56,35,10		4, 3
6″	53,51,33,43,29,59, 0,25,24,30		3,56,15,13, 3	
		55,22,44,27,41,22, 7		4, 3
8″	53,51,34,38,52,43,28, 6,46,37		3,56,15,17, 6	
		55,22,40,31,26, 5, 1		4, 3
10″	53,51,35,34,15,23,59,32,51,38		3,56,15,21, 9	
		55,22,36,35,10,43,52		4, 3
12″	53,51,36,29,38, 0,34,43,35,30		3,56,15,25,12	
		55,22,32,38,55,18,40		4, 3
14″	53,51,37,25, 0,33,13,38,54,10		3,56,15,29,15	
		55,22,28,42,39,49,25		4, 3
16″	53,51,38,20,23, 1,56,18,43,35		3,56,15,33,18	
		55,22,24,46,24,16, 7		4, 3
18″	53,51,39,15,45,26,42,42,59,42		3,56,15,37,21	
		55,22,20,50, 8,38,46		4, 3
20″	53,51,40,11, 7,47,32,51,38,28		3,56,15,41,24	
		55,22,16,53,52,57,22		4, 3
22″	53,51,41, 6,30, 4,26,44,35,50		3,56,15,45,27	
		55,22,12,57,37,11,55		4, 3
24″	53,51,42, 1,52,17,24,21,47,45		3,56,15,49,30	
		55,22, 9, 1,21,22,25		4, 3
26″	53,51,42,57,14,26,25,43,10,10		3,56,15,53,33	
		55,22, 5, 5, 5,28,52		4, 3
28″	53,51,43,52,36,31,30,48,39, 2		3,56,15,57,36	
		55,22, 1, 8,49,31,16		4, 3
30″	53,51,44,47,58,32,39,38,10,18		3,56,16, 1,39	
		55,21,57,12,33,29,37		4, 3
32″	53,51,45,43,20,29,52,11,39,55		3,56,16, 5,42	
		55,21,53,16,17,23,55		4, 3
34″	53,51,46,38,42,23, 8,29, 3,50		3,56,16, 9,45	
		55,21,49,20, 1,14,10		4, 3
36″	53,51,47,34, 4,12,28,30,18, 0		3,56,16,13,48	
		55,21,45,23,45, 0,22		4, 3
38″	53,51,48,29,25,57,52,15,18,22		3,56,16,17,51	
		55,21,41,27,28,42,31		4, 3
40″	53,51,49,24,47,39,19,44, 0,53		3,56,16,21,54	
		55,21,37,31,12,20,37		4, 3
42″	53,51,50,20, 9,16,50,56,21,30		3,56,16,25,57	
		55,21,33,34,55,54,40		4, 3
44″	53,51,51,15,30,50,25,52,16,10		3,56,16,30, 0	
		55,21,29,38,39,24,40		4, 3
46″	53,51,52,10,52,20, 4,31,40,50		3,56,16,34, 3	
		55,21,25,42,22,50,37		4, 3
48″	53,51,53, 6,13,45,46,54,31,27		3,56,16,38, 6	
		55,21,21,46, 6,12,31		4, 3
50″	53,51,54, 1,35, 7,33, 0,43,58		3,56,16,42, 9	
		55,21,17,49,49,30,22		4, 3
52″	53,51,54,56,56,25,22,50,14,20		3,56,16,46,12	
		55,21,13,53,32,44,10		4, 3
54″	53,51,55,52,17,39,16,22,58,30		3,56,16,50,15	
		55,21, 9,57,15,53,55		4, 3
56″	53,51,56,47,38,49,13,38,52,25		3,56,16,54,18	
		55,21, 6, 0,58,59,37		4, 3
58″	53,51,57,42,59,55,14,37,52, 2		3,56,16,58,21	
		55,21, 2, 4,42, 1,16		
60″	53,51,58,38,20,57,19,19,53,18			
exact	53,51,58,38,20,57,19,19,59,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°52′ 0″	53,51,58,38,20,57,19,19,59,31			
		55,20,58, 8,24,59,39		
2″	53,51,59,33,41,55,27,44,59,10		3,56,17, 6,23	
		55,20,54,12, 7,53,16		4, 3
4″	53,52, 0,29, 2,49,39,52,52,26		3,56,17,10,26	
		55,20,50,15,50,42,50		4, 3
6″	53,52, 1,24,23,39,55,43,35,16		3,56,17,14,29	
		55,20,46,19,33,28,21		4, 3
8″	53,52, 2,19,44,26,15,17, 3,37		3,56,17,18,32	
		55,20,42,23,16, 9,49		4, 3
10″	53,52, 3,15, 5, 8,38,33,13,26		3,56,17,22,35	
		55,20,38,26,58,47,14		4, 3
12″	53,52, 4,10,25,47, 5,32, 0,40		3,56,17,26,38	
		55,20,34,30,41,20,36		4, 3
14″	53,52, 5, 5,46,21,36,13,21,16		3,56,17,30,41	
		55,20,30,34,23,49,55		4, 3
16″	53,52, 6, 1, 6,52,10,37,11,11		3,56,17,34,44	
		55,20,26,38, 6,15,11		4, 3
18″	53,52, 6,56,27,18,48,43,26,22		3,56,17,38,47	
		55,20,22,41,48,36,24		4, 3
20″	53,52, 7,51,47,41,30,32, 2,46		3,56,17,42,50	
		55,20,18,45,30,53,34		4, 3
22″	53,52, 8,47, 8, 0,16, 2,56,20		3,56,17,46,53	
		55,20,14,49,13, 6,41		4, 3
24″	53,52, 9,42,28,15, 5,16, 3, 1		3,56,17,50,56	
		55,20,10,52,55,15,45		4, 3
26″	53,52,10,37,48,25,58,11,18,46		3,56,17,54,59	
		55,20, 6,56,37,20,46		4, 3
28″	53,52,11,33, 8,32,54,48,39,32		3,56,17,59, 2	
		55,20, 3, 0,19,21,44		4, 3
30″	53,52,12,28,28,35,55, 8, 1,16		3,56,18, 3, 5	
		55,19,59, 4, 1,18,39		4, 3
32″	53,52,13,23,48,34,59, 9,19,55		3,56,18, 7, 8	
		55,19,55, 7,43,11,31		4, 3
34″	53,52,14,19, 8,30, 6,52,31,26		3,56,18,11,11	
		55,19,51,11,25, 0,20		4, 3
36″	53,52,15,14,28,21,18,17,31,46		3,56,18,15,14	
		55,19,47,15, 6,45, 6		4, 3
38″	53,52,16, 9,48, 8,33,24,16,52		3,56,18,19,17	
		55,19,43,18,48,25,49		4, 3
40″	53,52,17, 5, 7,51,52,12,42,41		3,56,18,23,20	
		55,19,39,22,30, 2,29		4, 3
42″	53,52,18, 0,27,31,14,42,45,10		3,56,18,27,23	
		55,19,35,26,11,35, 6		4, 3
44″	53,52,18,55,47, 6,40,54,20,16		3,56,18,31,26	
		55,19,31,29,53, 3,40		4, 3
46″	53,52,19,51, 6,38,10,47,23,56		3,56,18,35,29	
		55,19,27,33,34,28,11		4, 3
48″	53,52,20,46,26, 5,44,21,52, 7		3,56,18,39,32	
		55,19,23,37,15,48,39		4, 3
50″	53,52,21,41,45,29,21,37,40,46		3,56,18,43,35	
		55,19,19,40,57, 5, 4		4, 3
52″	53,52,22,37, 4,49, 2,34,45,50		3,56,18,47,38	
		55,19,15,44,38,17,26		4, 3
54″	53,52,23,32,24, 4,47,13, 3,16		3,56,18,51,41	
		55,19,11,48,19,25,45		4, 3
56″	53,52,24,27,43,16,35,32,29, 1		3,56,18,55,44	
		55,19, 7,52, 0,30, 1		4, 3
58″	53,52,25,23, 2,24,27,32,59, 2		3,56,18,59,47	
		55,19, 3,55,41,30,14		
60″	53,52,26,18,21,28,23,14,29,16			
exact	53,52,26,18,21,28,23,14,46,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°53′ 0″	53,52,26,18,21,28,23,14,46,36			
		55,18,59,59,22,28,20		
2″	53,52,27,13,40,28,22,37,14,56		3,56,19, 7,44	
		55,18,56, 3, 3,20,36		4, 3
4″	53,52,28, 8,59,24,25,40,35,32		3,56,19,11,47	
		55,18,52, 6,44, 8,49		4, 3
6″	53,52,29, 4,18,16,32,24,44,21		3,56,19,15,50	
		55,18,48,10,24,52,59		4, 3
8″	53,52,29,59,37, 4,42,49,37,20		3,56,19,19,53	
		55,18,44,14, 5,33, 6		4, 3
10″	53,52,30,54,55,48,56,55,10,26		3,56,19,23,56	
		55,18,40,17,46, 9,10		4, 3
12″	53,52,31,50,14,29,14,41,19,36		3,56,19,27,59	
		55,18,36,21,26,41,11		4, 3
14″	53,52,32,45,33, 5,36, 8, 0,47		3,56,19,32, 2	
		55,18,32,25, 7, 9, 9		4, 3
16″	53,52,33,40,51,38, 1,15, 9,56		3,56,19,36, 5	
		55,18,28,28,47,33, 4		4, 3
18″	53,52,34,36,10, 6,30, 2,43, 0		3,56,19,40, 8	
		55,18,24,32,27,52,56		4, 3
20″	53,52,35,31,28,31, 2,30,35,56		3,56,19,44,11	
		55,18,20,36, 8, 8,45		4, 3
22″	53,52,36,26,46,51,38,38,44,41		3,56,19,48,14	
		55,18,16,39,48,20,31		4, 3
24″	53,52,37,22, 5, 8,18,27, 5,12		3,56,19,52,17	
		55,18,12,43,28,28,14		4, 3
26″	53,52,38,17,23,21, 1,55,33,26		3,56,19,56,20	
		55,18, 8,47, 8,31,54		4, 3
28″	53,52,39,12,41,29,49, 4, 5,20		3,56,20, 0,23	
		55,18, 4,50,48,31,31		4, 3
30″	53,52,40, 7,59,34,39,52,36,51		3,56,20, 4,26	
		55,18, 0,54,28,27, 5		4, 3
32″	53,52,41, 3,17,35,34,21, 3,56		3,56,20, 8,29	
		55,17,56,58, 8,18,36		4, 3
34″	53,52,41,58,35,32,32,29,22,32		3,56,20,12,32	
		55,17,53, 1,48, 6, 4		4, 3
36″	53,52,42,53,53,25,34,17,28,36		3,56,20,16,35	
		55,17,49, 5,27,49,29		4, 3
38″	53,52,43,49,11,14,39,45,18, 5		3,56,20,20,38	
		55,17,45, 9, 7,28,51		4, 3
40″	53,52,44,44,28,59,48,52,46,56		3,56,20,24,41	
		55,17,41,12,47, 4,10		4, 3
42″	53,52,45,39,46,41, 1,39,51, 6		3,56,20,28,44	
		55,17,37,16,26,35,26		4, 3
44″	53,52,46,35, 4,18,18, 6,26,32		3,56,20,32,47	
		55,17,33,20, 6, 2,39		4, 3
46″	53,52,47,30,21,51,38,12,29,11		3,56,20,36,50	
		55,17,29,23,45,25,49		4, 3
48″	53,52,48,25,39,21, 1,57,55, 0		3,56,20,40,53	
		55,17,25,27,24,44,56		4, 3
50″	53,52,49,20,56,46,29,22,39,56		3,56,20,44,56	
		55,17,21,31, 4, 0, 0		4, 3
52″	53,52,50,16,14, 8, 0,26,39,56		3,56,20,48,59	
		55,17,17,34,43,11, 1		4, 3
54″	53,52,51,11,31,25,35, 9,50,57		3,56,20,53, 2	
		55,17,13,38,22,17,59		4, 3
56″	53,52,52, 6,48,39,13,32, 8,56		3,56,20,57, 5	
		55,17, 9,42, 1,20,54		4, 3
58″	53,52,53, 2, 5,48,55,33,29,50		3,56,21, 1, 8	
		55,17, 5,45,40,19,46		
60″	53,52,53,57,22,54,41,13,49,36			
exact	53,52,53,57,22,54,41,14,13, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°54′ 0″	53,52,53,57,22,54,41,14,13, 6			
		55,17, 1,49,19,17,19		
2″	53,52,54,52,39,56,30,33,30,25		3,56,21, 9, 2	
		55,16,57,52,58, 8,17		4, 2
4″	53,52,55,47,56,54,23,31,38,42		3,56,21,13, 4	
		55,16,53,56,36,55,13		4, 2
6″	53,52,56,43,13,48,20, 8,33,55		3,56,21,17, 6	
		55,16,50, 0,15,38, 7		4, 2
8″	53,52,57,38,30,38,20,24,12, 2		3,56,21,21, 8	
		55,16,46, 3,54,16,59		4, 2
10″	53,52,58,33,47,24,24,18,29, 1		3,56,21,25,10	
		55,16,42, 7,32,51,49		4, 2
12″	53,52,59,29, 4, 6,31,51,20,50		3,56,21,29,12	
		55,16,38,11,11,22,37		4, 2
14″	53,53, 0,24,20,44,43, 2,43,27		3,56,21,33,14	
		55,16,34,14,49,49,23		4, 2
16″	53,53, 1,19,37,18,57,52,32,50		3,56,21,37,16	
		55,16,30,18,28,12, 7		4, 2
18″	53,53, 2,14,53,49,16,20,44,57		3,56,21,41,18	
		55,16,26,22, 6,30,49		4, 2
20″	53,53, 3,10,10,15,38,27,15,46		3,56,21,45,20	
		55,16,22,25,44,45,29		4, 2
22″	53,53, 4, 5,26,38, 4,12, 1,15		3,56,21,49,22	
		55,16,18,29,22,56, 7		4, 2
24″	53,53, 5, 0,42,56,33,34,57,22		3,56,21,53,24	
		55,16,14,33, 1, 2,43		4, 2
26″	53,53, 5,55,59,11, 6,36, 0, 5		3,56,21,57,26	
		55,16,10,36,39, 5,17		4, 2
28″	53,53, 6,51,15,21,43,15, 5,22		3,56,22, 1,28	
		55,16, 6,40,17, 3,49		4, 2
30″	53,53, 7,46,31,28,23,32, 9,11		3,56,22, 5,30	
		55,16, 2,43,54,58,19		4, 2
32″	53,53, 8,41,47,31, 7,27, 7,30		3,56,22, 9,32	
		55,15,58,47,32,48,47		4, 2
34″	53,53, 9,37, 3,29,54,59,56,17		3,56,22,13,34	
		55,15,54,51,10,35,13		4, 2
36″	53,53,10,32,19,24,46,10,31,30		3,56,22,17,36	
		55,15,50,54,48,17,37		4, 2
38″	53,53,11,27,35,15,40,58,49, 7		3,56,22,21,38	
		55,15,46,58,25,55,59		4, 2
40″	53,53,12,22,51, 2,39,24,45, 6		3,56,22,25,40	
		55,15,43, 2, 3,30,19		4, 2
42″	53,53,13,18, 6,45,41,28,15,25		3,56,22,29,42	
		55,15,39, 5,41, 0,37		4, 2
44″	53,53,14,13,22,24,47, 9,16, 2		3,56,22,33,44	
		55,15,35, 9,18,26,53		4, 2
46″	53,53,15, 8,37,59,56,27,42,55		3,56,22,37,46	
		55,15,31,12,55,49, 7		4, 2
48″	53,53,16, 3,53,31, 9,23,32, 2		3,56,22,41,48	
		55,15,27,16,33, 7,19		4, 2
50″	53,53,16,59, 8,58,25,56,39,21		3,56,22,45,50	
		55,15,23,20,10,21,29		4, 2
52″	53,53,17,54,24,21,46, 7, 0,50		3,56,22,49,52	
		55,15,19,23,47,31,37		4, 2
54″	53,53,18,49,39,41, 9,54,32,27		3,56,22,53,54	
		55,15,15,27,24,37,43		4, 2
56″	53,53,19,44,54,56,37,19,10,10		3,56,22,57,56	
		55,15,11,31, 1,39,47		4, 2
58″	53,53,20,40,10, 8, 8,20,49,57		3,56,23, 1,58	
		55,15, 7,34,38,37,49		
60″	53,53,21,35,25,15,42,59,27,46			
exact	53,53,21,35,25,15,42,58,59,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°55′ 0″	53,53,21,35,25,15,42,58,59,38			
		55,15, 3,38,15,28,46		
2″	53,53,22,30,40,19,21,14,28,24		3,56,23,10,14	
		55,14,59,41,52,18,32		4, 2
4″	53,53,23,25,55,19, 3, 6,46,56		3,56,23,14,16	
		55,14,55,45,29, 4,16		4, 2
6″	53,53,24,21,10,14,48,35,51,12		3,56,23,18,18	
		55,14,51,49, 5,45,58		4, 2
8″	53,53,25,16,25, 6,37,41,37,10		3,56,23,22,20	
		55,14,47,52,42,23,38		4, 2
10″	53,53,26,11,39,54,30,24, 0,48		3,56,23,26,22	
		55,14,43,56,18,57,16		4, 2
12″	53,53,27, 6,54,38,26,42,58, 4		3,56,23,30,24	
		55,14,39,59,55,26,52		4, 2
14″	53,53,28, 2, 9,18,26,38,24,56		3,56,23,34,26	
		55,14,36, 3,31,52,26		4, 2
16″	53,53,28,57,23,54,30,10,17,22		3,56,23,38,28	
		55,14,32, 7, 8,13,58		4, 2
18″	53,53,29,52,38,26,37,18,31,20		3,56,23,42,30	
		55,14,28,10,44,31,28		4, 2
20″	53,53,30,47,52,54,48, 3, 2,48		3,56,23,46,32	
		55,14,24,14,20,44,56		4, 2
22″	53,53,31,43, 7,19, 2,23,47,44		3,56,23,50,34	
		55,14,20,17,56,54,22		4, 2
24″	53,53,32,38,21,39,20,20,42, 6		3,56,23,54,36	
		55,14,16,21,32,59,46		4, 2
26″	53,53,33,33,35,55,41,53,41,52		3,56,23,58,38	
		55,14,12,25, 9, 1, 8		4, 2
28″	53,53,34,28,50, 8, 7, 2,43, 0		3,56,24, 2,40	
		55,14, 8,28,44,58,28		4, 2
30″	53,53,35,24, 4,16,35,47,41,28		3,56,24, 6,42	
		55,14, 4,32,20,51,46		4, 2
32″	53,53,36,19,18,21, 8, 8,33,14		3,56,24,10,44	
		55,14, 0,35,56,41, 2		4, 2
34″	53,53,37,14,32,21,44, 5,14,16		3,56,24,14,46	
		55,13,56,39,32,26,16		4, 2
36″	53,53,38, 9,46,18,23,37,40,32		3,56,24,18,48	
		55,13,52,43, 8, 7,28		4, 2
38″	53,53,39, 5, 0,11, 6,45,48, 0		3,56,24,22,50	
		55,13,48,46,43,44,38		4, 2
40″	53,53,40, 0,13,59,53,29,32,38		3,56,24,26,52	
		55,13,44,50,19,17,46		4, 2
42″	53,53,40,55,27,44,43,48,50,24		3,56,24,30,54	
		55,13,40,53,54,46,52		4, 2
44″	53,53,41,50,41,25,37,43,37,16		3,56,24,34,56	
		55,13,36,57,30,11,56		4, 2
46″	53,53,42,45,55, 2,35,13,49,12		3,56,24,38,58	
		55,13,33, 1, 5,32,58		4, 2
48″	53,53,43,41, 8,35,36,19,22,10		3,56,24,43, 0	
		55,13,29, 4,40,49,58		4, 2
50″	53,53,44,36,22, 4,41, 0,12, 8		3,56,24,47, 2	
		55,13,25, 8,16, 2,56		4, 2
52″	53,53,45,31,35,29,49,16,15, 4		3,56,24,51, 4	
		55,13,21,11,51,11,52		4, 2
54″	53,53,46,26,48,51, 1, 7,26,56		3,56,24,55, 6	
		55,13,17,15,26,16,46		4, 2
56″	53,53,47,22, 2, 8,16,33,43,42		3,56,24,59, 8	
		55,13,13,19, 1,17,38		4, 2
58″	53,53,48,17,15,21,35,35, 1,20		3,56,25, 3,10	
		55,13, 9,22,36,14,28		
60″	53,53,49,12,28,30,58,11,15,48			
exact	53,53,49,12,28,30,58,10,51,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°56′ 0″	53,53,49,12,28,30,58,10,51,36			
		55,13, 5,26,11, 4,51		
2″	53,53,50, 7,41,36,24,21,56,27		3,56,25,11,23	
		55,13, 1,29,45,53,28		4, 2
4″	53,53,51, 2,54,37,54, 7,49,55		3,56,25,15,25	
		55,12,57,33,20,38, 3		4, 2
6″	53,53,51,58, 7,35,27,28,27,58		3,56,25,19,27	
		55,12,53,36,55,18,36		4, 2
8″	53,53,52,53,20,29, 4,23,46,34		3,56,25,23,29	
		55,12,49,40,29,55, 7		4, 2
10″	53,53,53,48,33,18,44,53,41,41		3,56,25,27,31	
		55,12,45,44, 4,27,36		4, 2
12″	53,53,54,43,46, 4,28,58, 9,17		3,56,25,31,33	
		55,12,41,47,38,56, 3		4, 2
14″	53,53,55,38,58,46,16,37, 5,20		3,56,25,35,35	
		55,12,37,51,13,20,28		4, 2
16″	53,53,56,34,11,24, 7,50,25,48		3,56,25,39,37	
		55,12,33,54,47,40,51		4, 2
18″	53,53,57,29,23,58, 2,38, 6,39		3,56,25,43,39	
		55,12,29,58,21,57,12		4, 2
20″	53,53,58,24,36,28, 1, 0, 3,51		3,56,25,47,41	
		55,12,26, 1,56, 9,31		4, 2
22″	53,53,59,19,48,54, 2,56,13,22		3,56,25,51,43	
		55,12,22, 5,30,17,48		4, 2
24″	53,54, 0,15, 1,16, 8,26,31,10		3,56,25,55,45	
		55,12,18, 9, 4,22, 3		4, 2
26″	53,54, 1,10,13,34,17,30,53,13		3,56,25,59,47	
		55,12,14,12,38,22,16		4, 2
28″	53,54, 2, 5,25,48,30, 9,15,29		3,56,26, 3,49	
		55,12,10,16,12,18,27		4, 2
30″	53,54, 3, 0,37,58,46,21,33,56		3,56,26, 7,51	
		55,12, 6,19,46,10,36		4, 2
32″	53,54, 3,55,50, 5, 6, 7,44,32		3,56,26,11,53	
		55,12, 2,23,19,58,43		4, 2
34″	53,54, 4,51, 2, 7,29,27,43,15		3,56,26,15,55	
		55,11,58,26,53,42,48		4, 2
36″	53,54, 5,46,14, 5,56,21,26, 3		3,56,26,19,57	
		55,11,54,30,27,22,51		4, 2
38″	53,54, 6,41,26, 0,26,48,48,54		3,56,26,23,59	
		55,11,50,34, 0,58,52		4, 2
40″	53,54, 7,36,37,51, 0,49,47,46		3,56,26,28, 1	
		55,11,46,37,34,30,51		4, 2
42″	53,54, 8,31,49,37,38,24,18,37		3,56,26,32, 3	
		55,11,42,41, 7,58,48		4, 2
44″	53,54, 9,27, 1,20,19,32,17,25		3,56,26,36, 5	
		55,11,38,44,41,22,43		4, 2
46″	53,54,10,22,12,59, 4,13,40, 8		3,56,26,40, 7	
		55,11,34,48,14,42,36		4, 2
48″	53,54,11,17,24,33,52,28,22,44		3,56,26,44, 9	
		55,11,30,51,47,58,27		4, 2
50″	53,54,12,12,36, 4,44,16,21,11		3,56,26,48,11	
		55,11,26,55,21,10,16		4, 2
52″	53,54,13, 7,47,31,39,37,31,27		3,56,26,52,13	
		55,11,22,58,54,18, 3		4, 2
54″	53,54,14, 2,58,54,38,31,49,30		3,56,26,56,15	
		55,11,19, 2,27,21,48		4, 2
56″	53,54,14,58,10,13,40,59,11,18		3,56,27, 0,17	
		55,11,15, 6, 0,21,31		4, 2
58″	53,54,15,53,21,28,46,59,32,49		3,56,27, 4,19	
		55,11,11, 9,33,17,12		
60″	53,54,16,48,32,39,56,32,50, 1			
exact	53,54,16,48,32,39,56,32,39,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°57′ 0″	53,54,16,48,32,39,56,32,39,11			
		55,11, 7,13, 6, 7,44		
2″	53,54,17,43,43,47, 9,38,46,55		3,56,27,12,27	
		55,11, 3,16,38,55,17		4, 2
4″	53,54,18,38,54,50,26,17,42,12		3,56,27,16,29	
		55,10,59,20,11,38,48		4, 2
6″	53,54,19,34, 5,49,46,29,21, 0		3,56,27,20,31	
		55,10,55,23,44,18,17		4, 2
8″	53,54,20,29,16,45,10,13,39,17		3,56,27,24,33	
		55,10,51,27,16,53,44		4, 2
10″	53,54,21,24,27,36,37,30,33, 1		3,56,27,28,35	
		55,10,47,30,49,25, 9		4, 2
12″	53,54,22,19,38,24, 8,19,58,10		3,56,27,32,37	
		55,10,43,34,21,52,32		4, 2
14″	53,54,23,14,49, 7,42,41,50,42		3,56,27,36,39	
		55,10,39,37,54,15,53		4, 2
16″	53,54,24, 9,59,47,20,36, 6,35		3,56,27,40,41	
		55,10,35,41,26,35,12		4, 2
18″	53,54,25, 5,10,23, 2, 2,41,47		3,56,27,44,43	
		55,10,31,44,58,50,29		4, 2
20″	53,54,26, 0,20,54,47, 1,32,16		3,56,27,48,45	
		55,10,27,48,31, 1,44		4, 2
22″	53,54,26,55,31,22,35,32,34, 0		3,56,27,52,47	
		55,10,23,52, 3, 8,57		4, 2
24″	53,54,27,50,41,46,27,35,42,57		3,56,27,56,49	
		55,10,19,55,35,12, 8		4, 2
26″	53,54,28,45,52, 6,23,10,55, 5		3,56,28, 0,51	
		55,10,15,59, 7,11,17		4, 2
28″	53,54,29,41, 2,22,22,18, 6,22		3,56,28, 4,53	
		55,10,12, 2,39, 6,24		4, 2
30″	53,54,30,36,12,34,24,57,12,46		3,56,28, 8,55	
		55,10, 8, 6,10,57,29		4, 2
32″	53,54,31,31,22,42,31, 8,10,15		3,56,28,12,57	
		55,10, 4, 9,42,44,32		4, 2
34″	53,54,32,26,32,46,40,50,54,47		3,56,28,16,59	
		55,10, 0,13,14,27,33		4, 2
36″	53,54,33,21,42,46,54, 5,22,20		3,56,28,21, 1	
		55, 9,56,16,46, 6,32		4, 2
38″	53,54,34,16,52,43,10,51,28,52		3,56,28,25, 3	
		55, 9,52,20,17,41,29		4, 2
40″	53,54,35,12, 2,35,31, 9,10,21		3,56,28,29, 5	
		55, 9,48,23,49,12,24		4, 2
42″	53,54,36, 7,12,23,54,58,22,45		3,56,28,33, 7	
		55, 9,44,27,20,39,17		4, 2
44″	53,54,37, 2,22, 8,22,19, 2, 2		3,56,28,37, 9	
		55, 9,40,30,52, 2, 8		4, 2
46″	53,54,37,57,31,48,53,11, 4,10		3,56,28,41,11	
		55, 9,36,34,23,20,57		4, 2
48″	53,54,38,52,41,25,27,34,25, 7		3,56,28,45,13	
		55, 9,32,37,54,35,44		4, 2
50″	53,54,39,47,50,58, 5,29, 0,51		3,56,28,49,15	
		55, 9,28,41,25,46,29		4, 2
52″	53,54,40,43, 0,26,46,54,47,20		3,56,28,53,17	
		55, 9,24,44,56,53,12		4, 2
54″	53,54,41,38, 9,51,31,51,40,32		3,56,28,57,19	
		55, 9,20,48,27,55,53		4, 2
56″	53,54,42,33,19,12,20,19,36,25		3,56,29, 1,21	
		55, 9,16,51,58,54,32		4, 2
58″	53,54,43,28,28,29,12,18,30,57		3,56,29, 5,23	
		55, 9,12,55,29,49, 9		
60″	53,54,44,23,37,42, 7,48,20, 6			
exact	53,54,44,23,37,42, 7,48,17,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°58′ 0″	53,54,44,23,37,42, 7,48,17,25			
		55, 9, 8,59, 0,39,33		
2″	53,54,45,18,46,51, 6,48,56,58		3,56,29,13,27	
		55, 9, 5, 2,31,26, 6		4, 2
4″	53,54,46,13,55,56, 9,20,23, 4		3,56,29,17,29	
		55, 9, 1, 6, 2, 8,37		4, 2
6″	53,54,47, 9, 4,57,15,22,31,41		3,56,29,21,31	
		55, 8,57, 9,32,47, 6		4, 2
8″	53,54,48, 4,13,54,24,55,18,47		3,56,29,25,33	
		55, 8,53,13, 3,21,33		4, 2
10″	53,54,48,59,22,47,37,58,40,20		3,56,29,29,35	
		55, 8,49,16,33,51,58		4, 2
12″	53,54,49,54,31,36,54,32,32,18		3,56,29,33,37	
		55, 8,45,20, 4,18,21		4, 2
14″	53,54,50,49,40,22,14,36,50,39		3,56,29,37,39	
		55, 8,41,23,34,40,42		4, 2
16″	53,54,51,44,49, 3,38,11,31,21		3,56,29,41,41	
		55, 8,37,27, 4,59, 1		4, 2
18″	53,54,52,39,57,41, 5,16,30,22		3,56,29,45,43	
		55, 8,33,30,35,13,18		4, 2
20″	53,54,53,35, 6,14,35,51,43,40		3,56,29,49,45	
		55, 8,29,34, 5,23,33		4, 2
22″	53,54,54,30,14,44, 9,57, 7,13		3,56,29,53,47	
		55, 8,25,37,35,29,46		4, 2
24″	53,54,55,25,23, 9,47,32,36,59		3,56,29,57,49	
		55, 8,21,41, 5,31,57		4, 2
26″	53,54,56,20,31,31,28,38, 8,56		3,56,30, 1,51	
		55, 8,17,44,35,30, 6		4, 2
28″	53,54,57,15,39,49,13,13,39, 2		3,56,30, 5,53	
		55, 8,13,48, 5,24,13		4, 2
30″	53,54,58,10,48, 3, 1,19, 3,15		3,56,30, 9,55	
		55, 8, 9,51,35,14,18		4, 2
32″	53,54,59, 5,56,12,52,54,17,33		3,56,30,13,57	
		55, 8, 5,55, 5, 0,21		4, 2
34″	53,55, 0, 1, 4,18,47,59,17,54		3,56,30,17,59	
		55, 8, 1,58,34,42,22		4, 2
36″	53,55, 0,56,12,20,46,34, 0,16		3,56,30,22, 1	
		55, 7,58, 2, 4,20,21		4, 2
38″	53,55, 1,51,20,18,48,38,20,37		3,56,30,26, 3	
		55, 7,54, 5,33,54,18		4, 2
40″	53,55, 2,46,28,12,54,12,14,55		3,56,30,30, 5	
		55, 7,50, 9, 3,24,13		4, 2
42″	53,55, 3,41,36, 3, 3,15,39, 8		3,56,30,34, 7	
		55, 7,46,12,32,50, 6		4, 2
44″	53,55, 4,36,43,49,15,48,29,14		3,56,30,38, 9	
		55, 7,42,16, 2,11,57		4, 2
46″	53,55, 5,31,51,31,31,50,41,11		3,56,30,42,11	
		55, 7,38,19,31,29,46		4, 2
48″	53,55, 6,26,59, 9,51,22,10,57		3,56,30,46,13	
		55, 7,34,23, 0,43,33		4, 2
50″	53,55, 7,22, 6,44,14,22,54,30		3,56,30,50,15	
		55, 7,30,26,29,53,18		4, 2
52″	53,55, 8,17,14,14,40,52,47,48		3,56,30,54,17	
		55, 7,26,29,58,59, 1		4, 2
54″	53,55, 9,12,21,41,10,51,46,49		3,56,30,58,19	
		55, 7,22,33,28, 0,42		4, 2
56″	53,55,10, 7,29, 3,44,19,47,31		3,56,31, 2,21	
		55, 7,18,36,56,58,21		4, 2
58″	53,55,11, 2,36,22,21,16,45,52		3,56,31, 6,23	
		55, 7,14,40,25,51,58		
60″	53,55,11,57,43,37, 1,42,37,50			
exact	53,55,11,57,43,37, 1,42,46, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
63°59′ 0″	53,55,11,57,43,37, 1,42,46, 8			
		55, 7,10,43,54,42,30		
2″	53,55,12,52,50,47,45,37,28,38		3,56,31,14,22	
		55, 7, 6,47,23,28, 8		4, 2
4″	53,55,13,47,57,54,33, 0,56,46		3,56,31,18,24	
		55, 7, 2,50,52, 9,44		4, 2
6″	53,55,14,43, 4,57,23,53, 6,30		3,56,31,22,26	
		55, 6,58,54,20,47,18		4, 2
8″	53,55,15,38,11,56,18,13,53,48		3,56,31,26,28	
		55, 6,54,57,49,20,50		4, 2
10″	53,55,16,33,18,51,16, 3,14,38		3,56,31,30,30	
		55, 6,51, 1,17,50,20		4, 2
12″	53,55,17,28,25,42,17,21, 4,58		3,56,31,34,32	
		55, 6,47, 4,46,15,48		4, 2
14″	53,55,18,23,32,29,22, 7,20,46		3,56,31,38,34	
		55, 6,43, 8,14,37,14		4, 2
16″	53,55,19,18,39,12,30,21,58, 0		3,56,31,42,36	
		55, 6,39,11,42,54,38		4, 2
18″	53,55,20,13,45,51,42, 4,52,38		3,56,31,46,38	
		55, 6,35,15,11, 8, 0		4, 2
20″	53,55,21, 8,52,26,57,16, 0,38		3,56,31,50,40	
		55, 6,31,18,39,17,20		4, 2
22″	53,55,22, 3,58,58,15,55,17,58		3,56,31,54,42	
		55, 6,27,22, 7,22,38		4, 2
24″	53,55,22,59, 5,25,38, 2,40,36		3,56,31,58,44	
		55, 6,23,25,35,23,54		4, 2
26″	53,55,23,54,11,49, 3,38, 4,30		3,56,32, 2,46	
		55, 6,19,29, 3,21, 8		4, 2
28″	53,55,24,49,18, 8,32,41,25,38		3,56,32, 6,48	
		55, 6,15,32,31,14,20		4, 2
30″	53,55,25,44,24,24, 5,12,39,58		3,56,32,10,50	
		55, 6,11,35,59, 3,30		4, 2
32″	53,55,26,39,30,35,41,11,43,28		3,56,32,14,52	
		55, 6, 7,39,26,48,38		4, 2
34″	53,55,27,34,36,43,20,38,32, 6		3,56,32,18,54	
		55, 6, 3,42,54,29,44		4, 2
36″	53,55,28,29,42,47, 3,33, 1,50		3,56,32,22,56	
		55, 5,59,46,22, 6,48		4, 2
38″	53,55,29,24,48,46,49,55, 8,38		3,56,32,26,58	
		55, 5,55,49,49,39,50		4, 2
40″	53,55,30,19,54,42,39,44,48,28		3,56,32,31, 0	
		55, 5,51,53,17, 8,50		4, 2
42″	53,55,31,15, 0,34,33, 1,57,18		3,56,32,35, 2	
		55, 5,47,56,44,33,48		4, 2
44″	53,55,32,10, 6,22,29,46,31, 6		3,56,32,39, 4	
		55, 5,44, 0,11,54,44		4, 2
46″	53,55,33, 5,12, 6,29,58,25,50		3,56,32,43, 6	
		55, 5,40, 3,39,11,38		4, 2
48″	53,55,34, 0,17,46,33,37,37,28		3,56,32,47, 8	
		55, 5,36, 7, 6,24,30		4, 2
50″	53,55,34,55,23,22,40,44, 1,58		3,56,32,51,10	
		55, 5,32,10,33,33,20		4, 2
52″	53,55,35,50,28,54,51,17,35,18		3,56,32,55,12	
		55, 5,28,14, 0,38, 8		4, 2
54″	53,55,36,45,34,23, 5,18,13,26		3,56,32,59,14	
		55, 5,24,17,27,38,54		4, 2
56″	53,55,37,40,39,47,22,45,52,20		3,56,33, 3,16	
		55, 5,20,20,54,35,38		4, 2
58″	53,55,38,35,45, 7,43,40,27,58		3,56,33, 7,18	
		55, 5,16,24,21,28,20		
60″	53,55,39,30,50,24, 8, 1,56,18			
exact	53,55,39,30,50,24, 8, 2,10, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64° 0′ 0″	53,55,39,30,50,24, 8, 2,10, 0			
		55, 5,12,27,48,18,42		
2″	53,55,40,25,55,36,35,50,28,42		3,56,33,15,14	
		55, 5, 8,31,15, 3,28		4, 2
4″	53,55,41,21, 0,45, 7, 5,32,10		3,56,33,19,16	
		55, 5, 4,34,41,44,12		4, 2
6″	53,55,42,16, 5,49,41,47,16,22		3,56,33,23,18	
		55, 5, 0,38, 8,20,54		4, 2
8″	53,55,43,11,10,50,19,55,37,16		3,56,33,27,20	
		55, 4,56,41,34,53,34		4, 2
10″	53,55,44, 6,15,47, 1,30,30,50		3,56,33,31,22	
		55, 4,52,45, 1,22,12		4, 2
12″	53,55,45, 1,20,39,46,31,53, 2		3,56,33,35,24	
		55, 4,48,48,27,46,48		4, 2
14″	53,55,45,56,25,28,34,59,39,50		3,56,33,39,26	
		55, 4,44,51,54, 7,22		4, 2
16″	53,55,46,51,30,13,26,53,47,12		3,56,33,43,28	
		55, 4,40,55,20,23,54		4, 2
18″	53,55,47,46,34,54,22,14,11, 6		3,56,33,47,30	
		55, 4,36,58,46,36,24		4, 2
20″	53,55,48,41,39,31,21, 0,47,30		3,56,33,51,32	
		55, 4,33, 2,12,44,52		4, 2
22″	53,55,49,36,44, 4,23,13,32,22		3,56,33,55,34	
		55, 4,29, 5,38,49,18		4, 2
24″	53,55,50,31,48,33,28,52,21,40		3,56,33,59,36	
		55, 4,25, 9, 4,49,42		4, 2
26″	53,55,51,26,52,58,37,57,11,22		3,56,34, 3,38	
		55, 4,21,12,30,46, 4		4, 2
28″	53,55,52,21,57,19,50,27,57,26		3,56,34, 7,40	
		55, 4,17,15,56,38,24		4, 2
30″	53,55,53,17, 1,37, 6,24,35,50		3,56,34,11,42	
		55, 4,13,19,22,26,42		4, 2
32″	53,55,54,12, 5,50,25,47, 2,32		3,56,34,15,44	
		55, 4, 9,22,48,10,58		4, 2
34″	53,55,55, 7, 9,59,48,35,13,30		3,56,34,19,46	
		55, 4, 5,26,13,51,12		4, 2
36″	53,55,56, 2,14, 5,14,49, 4,42		3,56,34,23,48	
		55, 4, 1,29,39,27,24		4, 2
38″	53,55,56,57,18, 6,44,28,32, 6		3,56,34,27,50	
		55, 3,57,33, 4,59,34		4, 2
40″	53,55,57,52,22, 4,17,33,31,40		3,56,34,31,52	
		55, 3,53,36,30,27,42		4, 2
42″	53,55,58,47,25,57,54, 3,59,22		3,56,34,35,54	
		55, 3,49,39,55,51,48		4, 2
44″	53,55,59,42,29,47,33,59,51,10		3,56,34,39,56	
		55, 3,45,43,21,11,52		4, 2
46″	53,56, 0,37,33,33,17,21, 3, 2		3,56,34,43,58	
		55, 3,41,46,46,27,54		4, 2
48″	53,56, 1,32,37,15, 4, 7,30,56		3,56,34,48, 0	
		55, 3,37,50,11,39,54		4, 2
50″	53,56, 2,27,40,52,54,19,10,50		3,56,34,52, 2	
		55, 3,33,53,36,47,52		4, 2
52″	53,56, 3,22,44,26,47,55,58,42		3,56,34,56, 4	
		55, 3,29,57, 1,51,48		4, 2
54″	53,56, 4,17,47,56,44,57,50,30		3,56,35, 0, 6	
		55, 3,26, 0,26,51,42		4, 2
56″	53,56, 5,12,51,22,45,24,42,12		3,56,35, 4, 8	
		55, 3,22, 3,51,47,34		4, 2
58″	53,56, 6, 7,54,44,49,16,29,46		3,56,35, 8,10	
		55, 3,18, 7,16,39,24		
60″	53,56, 7, 2,58, 2,56,33, 9,10			
exact	53,56, 7, 2,58, 2,56,33,38,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64° 1′ 0″	53,56, 7, 2,58, 2,56,33,38,34			
		55, 3,14,10,41,30,21		
2″	53,56, 7,58, 1,17, 7,15, 8,55		3,56,35,16, 1	
		55, 3,10,14, 6,14,20		4, 1
4″	53,56, 8,53, 4,27,21,21,23,15		3,56,35,20, 2	
		55, 3, 6,17,30,54,18		4, 1
6″	53,56, 9,48, 7,33,38,52,17,33		3,56,35,24, 3	
		55, 3, 2,20,55,30,15		4, 1
8″	53,56,10,43,10,35,59,47,47,48		3,56,35,28, 4	
		55, 2,58,24,20, 2,11		4, 1
10″	53,56,11,38,13,34,24, 7,49,59		3,56,35,32, 5	
		55, 2,54,27,44,30, 6		4, 1
12″	53,56,12,33,16,28,51,52,20, 5		3,56,35,36, 6	
		55, 2,50,31, 8,54, 0		4, 1
14″	53,56,13,28,19,19,23, 1,14, 5		3,56,35,40, 7	
		55, 2,46,34,33,13,53		4, 1
16″	53,56,14,23,22, 5,57,34,27,58		3,56,35,44, 8	
		55, 2,42,37,57,29,45		4, 1
18″	53,56,15,18,24,48,35,31,57,43		3,56,35,48, 9	
		55, 2,38,41,21,41,36		4, 1
20″	53,56,16,13,27,27,16,53,39,19		3,56,35,52,10	
		55, 2,34,44,45,49,26		4, 1
22″	53,56,17, 8,30, 2, 1,39,28,45		3,56,35,56,11	
		55, 2,30,48, 9,53,15		4, 1
24″	53,56,18, 3,32,32,49,49,22, 0		3,56,36, 0,12	
		55, 2,26,51,33,53, 3		4, 1
26″	53,56,18,58,34,59,41,23,15, 3		3,56,36, 4,13	
		55, 2,22,54,57,48,50		4, 1
28″	53,56,19,53,37,22,36,21, 3,53		3,56,36, 8,14	
		55, 2,18,58,21,40,36		4, 1
30″	53,56,20,48,39,41,34,42,44,29		3,56,36,12,15	
		55, 2,15, 1,45,28,21		4, 1
32″	53,56,21,43,41,56,36,28,12,50		3,56,36,16,16	
		55, 2,11, 5, 9,12, 5		4, 1
34″	53,56,22,38,44, 7,41,37,24,55		3,56,36,20,17	
		55, 2, 7, 8,32,51,48		4, 1
36″	53,56,23,33,46,14,50,10,16,43		3,56,36,24,18	
		55, 2, 3,11,56,27,30		4, 1
38″	53,56,24,28,48,18, 2, 6,44,13		3,56,36,28,19	
		55, 1,59,15,19,59,11		4, 1
40″	53,56,25,23,50,17,17,26,43,24		3,56,36,32,20	
		55, 1,55,18,43,26,51		4, 1
42″	53,56,26,18,52,12,36,10,10,15		3,56,36,36,21	
		55, 1,51,22, 6,50,30		4, 1
44″	53,56,27,13,54, 3,58,17, 0,45		3,56,36,40,22	
		55, 1,47,25,30,10, 8		4, 1
46″	53,56,28, 8,55,51,23,47,10,53		3,56,36,44,23	
		55, 1,43,28,53,25,45		4, 1
48″	53,56,29, 3,57,34,52,40,36,38		3,56,36,48,24	
		55, 1,39,32,16,37,21		4, 1
50″	53,56,29,58,59,14,24,57,13,59		3,56,36,52,25	
		55, 1,35,35,39,44,56		4, 1
52″	53,56,30,54, 0,50, 0,36,58,55		3,56,36,56,26	
		55, 1,31,39, 2,48,30		4, 1
54″	53,56,31,49, 2,21,39,39,47,25		3,56,37, 0,27	
		55, 1,27,42,25,48, 3		4, 1
56″	53,56,32,44, 3,49,22, 5,35,28		3,56,37, 4,28	
		55, 1,23,45,48,43,35		4, 1
58″	53,56,33,39, 5,13, 7,54,19, 3		3,56,37, 8,29	
		55, 1,19,49,11,35, 6		
60″	53,56,34,34, 6,32,57, 5,54, 9			
exact	53,56,34,34, 6,32,57, 5,26,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64° 2′ 0″	53,56,34,34, 6,32,57, 5,26,11			
		55, 1,15,52,34,19,35		
2″	53,56,35,29, 7,48,49,39,45,46		3,56,37,16,43	
		55, 1,11,55,57, 2,52		4, 1
4″	53,56,36,24, 9, 0,45,36,48,38		3,56,37,20,44	
		55, 1, 7,59,19,42, 8		4, 1
6″	53,56,37,19,10, 8,44,56,30,46		3,56,37,24,45	
		55, 1, 4, 2,42,17,23		4, 1
8″	53,56,38,14,11,12,47,38,48, 9		3,56,37,28,46	
		55, 1, 0, 6, 4,48,37		4, 1
10″	53,56,39, 9,12,12,53,43,36,46		3,56,37,32,47	
		55, 0,56, 9,27,15,50		4, 1
12″	53,56,40, 4,13, 9, 3,10,52,36		3,56,37,36,48	
		55, 0,52,12,49,39, 2		4, 1
14″	53,56,40,59,14, 1,16, 0,31,38		3,56,37,40,49	
		55, 0,48,16,11,58,13		4, 1
16″	53,56,41,54,14,49,32,12,29,51		3,56,37,44,50	
		55, 0,44,19,34,13,23		4, 1
18″	53,56,42,49,15,33,51,46,43,14		3,56,37,48,51	
		55, 0,40,22,56,24,32		4, 1
20″	53,56,43,44,16,14,14,43, 7,46		3,56,37,52,52	
		55, 0,36,26,18,31,40		4, 1
22″	53,56,44,39,16,50,41, 1,39,26		3,56,37,56,53	
		55, 0,32,29,40,34,47		4, 1
24″	53,56,45,34,17,23,10,42,14,13		3,56,38, 0,54	
		55, 0,28,33, 2,33,53		4, 1
26″	53,56,46,29,17,51,43,44,48, 6		3,56,38, 4,55	
		55, 0,24,36,24,28,58		4, 1
28″	53,56,47,24,18,16,20, 9,17, 4		3,56,38, 8,56	
		55, 0,20,39,46,20, 2		4, 1
30″	53,56,48,19,18,36,59,55,37, 6		3,56,38,12,57	
		55, 0,16,43, 8, 7, 5		4, 1
32″	53,56,49,14,18,53,43, 3,44,11		3,56,38,16,58	
		55, 0,12,46,29,50, 7		4, 1
34″	53,56,50, 9,19, 6,29,33,34,18		3,56,38,20,59	
		55, 0, 8,49,51,29, 8		4, 1
36″	53,56,51, 4,19,15,19,25, 3,26		3,56,38,25, 0	
		55, 0, 4,53,13, 4, 8		4, 1
38″	53,56,51,59,19,20,12,38, 7,34		3,56,38,29, 1	
		55, 0, 0,56,34,35, 7		4, 1
40″	53,56,52,54,19,21, 9,12,42,41		3,56,38,33, 2	
		54,59,56,59,56, 2, 5		4, 1
42″	53,56,53,49,19,18, 9, 8,44,46		3,56,38,37, 3	
		54,59,53, 3,17,25, 2		4, 1
44″	53,56,54,44,19,11,12,26, 9,48		3,56,38,41, 4	
		54,59,49, 6,38,43,58		4, 1
46″	53,56,55,39,19, 0,19, 4,53,46		3,56,38,45, 5	
		54,59,45, 9,59,58,53		4, 1
48″	53,56,56,34,18,45,29, 4,52,39		3,56,38,49, 6	
		54,59,41,13,21, 9,47		4, 1
50″	53,56,57,29,18,26,42,26, 2,26		3,56,38,53, 7	
		54,59,37,16,42,16,40		4, 1
52″	53,56,58,24,18, 3,59, 8,19, 6		3,56,38,57, 8	
		54,59,33,20, 3,19,32		4, 1
54″	53,56,59,19,17,37,19,11,38,38		3,56,39, 1, 9	
		54,59,29,23,24,18,23		4, 1
56″	53,57, 0,14,17, 6,42,35,57, 1		3,56,39, 5,10	
		54,59,25,26,45,13,13		4, 1
58″	53,57, 1, 9,16,32, 9,21,10,14		3,56,39, 9,11	
		54,59,21,30, 6, 4, 2		
60″	53,57, 2, 4,15,53,39,27,14,16			
exact	53,57, 2, 4,15,53,39,26,52, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64° 3′ 0″	53,57, 2, 4,15,53,39,26,52, 5			
		54,59,17,33,26,48,35		
2″	53,57, 2,59,15,11,12,53,40,40		3,56,39,17,21	
		54,59,13,36,47,31,14		4, 1
4″	53,57, 3,54,14,24,49,41,11,54		3,56,39,21,22	
		54,59, 9,40, 8, 9,52		4, 1
6″	53,57, 4,49,13,34,29,49,21,46		3,56,39,25,23	
		54,59, 5,43,28,44,29		4, 1
8″	53,57, 5,44,12,40,13,18, 6,15		3,56,39,29,24	
		54,59, 1,46,49,15, 5		4, 1
10″	53,57, 6,39,11,42, 0, 7,21,20		3,56,39,33,25	
		54,58,57,50, 9,41,40		4, 1
12″	53,57, 7,34,10,39,50,17, 3, 0		3,56,39,37,26	
		54,58,53,53,30, 4,14		4, 1
14″	53,57, 8,29, 9,33,43,47, 7,14		3,56,39,41,27	
		54,58,49,56,50,22,47		4, 1
16″	53,57, 9,24, 8,23,40,37,30, 1		3,56,39,45,28	
		54,58,46, 0,10,37,19		4, 1
18″	53,57,10,19, 7, 9,40,48, 7,20		3,56,39,49,29	
		54,58,42, 3,30,47,50		4, 1
20″	53,57,11,14, 5,51,44,18,55,10		3,56,39,53,30	
		54,58,38, 6,50,54,20		4, 1
22″	53,57,12, 9, 4,29,51, 9,49,30		3,56,39,57,31	
		54,58,34,10,10,56,49		4, 1
24″	53,57,13, 4, 3, 4, 1,20,46,19		3,56,40, 1,32	
		54,58,30,13,30,55,17		4, 1
26″	53,57,13,59, 1,34,14,51,41,36		3,56,40, 5,33	
		54,58,26,16,50,49,44		4, 1
28″	53,57,14,54, 0, 0,31,42,31,20		3,56,40, 9,34	
		54,58,22,20,10,40,10		4, 1
30″	53,57,15,48,58,22,51,53,11,30		3,56,40,13,35	
		54,58,18,23,30,26,35		4, 1
32″	53,57,16,43,56,41,15,23,38, 5		3,56,40,17,36	
		54,58,14,26,50, 8,59		4, 1
34″	53,57,17,38,54,55,42,13,47, 4		3,56,40,21,37	
		54,58,10,30, 9,47,22		4, 1
36″	53,57,18,33,53, 6,12,23,34,26		3,56,40,25,38	
		54,58, 6,33,29,21,44		4, 1
38″	53,57,19,28,51,12,45,52,56,10		3,56,40,29,39	
		54,58, 2,36,48,52, 5		4, 1
40″	53,57,20,23,49,15,22,41,48,15		3,56,40,33,40	
		54,57,58,40, 8,18,25		4, 1
42″	53,57,21,18,47,14, 2,50, 6,40		3,56,40,37,41	
		54,57,54,43,27,40,44		4, 1
44″	53,57,22,13,45, 8,46,17,47,24		3,56,40,41,42	
		54,57,50,46,46,59, 2		4, 1
46″	53,57,23, 8,42,59,33, 4,46,26		3,56,40,45,43	
		54,57,46,50, 6,13,19		4, 1
48″	53,57,24, 3,40,46,23,10,59,45		3,56,40,49,44	
		54,57,42,53,25,23,35		4, 1
50″	53,57,24,58,38,29,16,36,23,20		3,56,40,53,45	
		54,57,38,56,44,29,50		4, 1
52″	53,57,25,53,36, 8,13,20,53,10		3,56,40,57,46	
		54,57,35, 0, 3,32, 4		4, 1
54″	53,57,26,48,33,43,13,24,25,14		3,56,41, 1,47	
		54,57,31, 3,22,30,17		4, 1
56″	53,57,27,43,31,14,16,46,55,31		3,56,41, 5,48	
		54,57,27, 6,41,24,29		4, 1
58″	53,57,28,38,28,41,23,28,20, 0		3,56,41, 9,49	
		54,57,23,10, 0,14,40		
60″	53,57,29,33,26, 4,33,28,34,40			
exact	53,57,29,33,26, 4,33,28,20,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64° 4′ 0″	53,57,29,33,26, 4,33,28,20,23			
		54,57,19,13,18,59,30		
2″	53,57,30,28,23,23,46,47,19,53		3,56,41,17,55	
		54,57,15,16,37,41,35		4, 1
4″	53,57,31,23,20,39, 3,25, 1,28		3,56,41,21,56	
		54,57,11,19,56,19,39		4, 1
6″	53,57,32,18,17,50,23,21,21, 7		3,56,41,25,57	
		54,57, 7,23,14,53,42		4, 1
8″	53,57,33,13,14,57,46,36,14,49		3,56,41,29,58	
		54,57, 3,26,33,23,44		4, 1
10″	53,57,34, 8,12, 1,13, 9,38,33		3,56,41,33,59	
		54,56,59,29,51,49,45		4, 1
12″	53,57,35, 3, 9, 0,43, 1,28,18		3,56,41,38, 0	
		54,56,55,33,10,11,45		4, 1
14″	53,57,35,58, 5,56,16,11,40, 3		3,56,41,42, 1	
		54,56,51,36,28,29,44		4, 1
16″	53,57,36,53, 2,47,52,40, 9,47		3,56,41,46, 2	
		54,56,47,39,46,43,42		4, 1
18″	53,57,37,47,59,35,32,26,53,29		3,56,41,50, 3	
		54,56,43,43, 4,53,39		4, 1
20″	53,57,38,42,56,19,15,31,47, 8		3,56,41,54, 4	
		54,56,39,46,22,59,35		4, 1
22″	53,57,39,37,52,59, 1,54,46,43		3,56,41,58, 5	
		54,56,35,49,41, 1,30		4, 1
24″	53,57,40,32,49,34,51,35,48,13		3,56,42, 2, 6	
		54,56,31,52,58,59,24		4, 1
26″	53,57,41,27,46, 6,44,34,47,37		3,56,42, 6, 7	
		54,56,27,56,16,53,17		4, 1
28″	53,57,42,22,42,34,40,51,40,54		3,56,42,10, 8	
		54,56,23,59,34,43, 9		4, 1
30″	53,57,43,17,38,58,40,26,24, 3		3,56,42,14, 9	
		54,56,20, 2,52,29, 0		4, 1
32″	53,57,44,12,35,18,43,18,53, 3		3,56,42,18,10	
		54,56,16, 6,10,10,50		4, 1
34″	53,57,45, 7,31,34,49,29, 3,53		3,56,42,22,11	
		54,56,12, 9,27,48,39		4, 1
36″	53,57,46, 2,27,46,58,56,52,32		3,56,42,26,12	
		54,56, 8,12,45,22,27		4, 1
38″	53,57,46,57,23,55,11,42,14,59		3,56,42,30,13	
		54,56, 4,16, 2,52,14		4, 1
40″	53,57,47,52,19,59,27,45, 7,13		3,56,42,34,14	
		54,56, 0,19,20,18, 0		4, 1
42″	53,57,48,47,15,59,47, 5,25,13		3,56,42,38,15	
		54,55,56,22,37,39,45		4, 1
44″	53,57,49,42,11,56, 9,43, 4,58		3,56,42,42,16	
		54,55,52,25,54,57,29		4, 1
46″	53,57,50,37, 7,48,35,38, 2,27		3,56,42,46,17	
		54,55,48,29,12,11,12		4, 1
48″	53,57,51,32, 3,37, 4,50,13,39		3,56,42,50,18	
		54,55,44,32,29,20,54		4, 1
50″	53,57,52,26,59,21,37,19,34,33		3,56,42,54,19	
		54,55,40,35,46,26,35		4, 1
52″	53,57,53,21,55, 2,13, 6, 1, 8		3,56,42,58,20	
		54,55,36,39, 3,28,15		4, 1
54″	53,57,54,16,50,38,52, 9,29,23		3,56,43, 2,21	
		54,55,32,42,20,25,54		4, 1
56″	53,57,55,11,46,11,34,29,55,17		3,56,43, 6,22	
		54,55,28,45,37,19,32		4, 1
58″	53,57,56, 6,41,40,20, 7,14,49		3,56,43,10,23	
		54,55,24,48,54, 9, 9		
60″	53,57,57, 1,37, 5, 9, 1,23,58			
exact	53,57,57, 1,37, 5, 9, 1,20, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64° 5′ 0″	53,57,57, 1,37, 5, 9, 1,20, 3			
		54,55,20,52,10,54,30		
2″	53,57,57,56,32,26, 1,12,14,33		3,56,43,18,25	
		54,55,16,55,27,36, 5		4, 1
4″	53,57,58,51,27,42,56,39,50,38		3,56,43,22,26	
		54,55,12,58,44,13,39		4, 1
6″	53,57,59,46,22,55,55,24, 4,17		3,56,43,26,27	
		54,55, 9, 2, 0,47,12		4, 1
8″	53,58, 0,41,18, 4,57,24,51,29		3,56,43,30,28	
		54,55, 5, 5,17,16,44		4, 1
10″	53,58, 1,36,13,10, 2,42, 8,13		3,56,43,34,29	
		54,55, 1, 8,33,42,15		4, 1
12″	53,58, 2,31, 8,11,11,15,50,28		3,56,43,38,30	
		54,54,57,11,50, 3,45		4, 1
14″	53,58, 3,26, 3, 8,23, 5,54,13		3,56,43,42,31	
		54,54,53,15, 6,21,14		4, 1
16″	53,58, 4,20,58, 1,38,12,15,27		3,56,43,46,32	
		54,54,49,18,22,34,42		4, 1
18″	53,58, 5,15,52,50,56,34,50, 9		3,56,43,50,33	
		54,54,45,21,38,44, 9		4, 1
20″	53,58, 6,10,47,36,18,13,34,18		3,56,43,54,34	
		54,54,41,24,54,49,35		4, 1
22″	53,58, 7, 5,42,17,43, 8,23,53		3,56,43,58,35	
		54,54,37,28,10,51, 0		4, 1
24″	53,58, 8, 0,36,55,11,19,14,53		3,56,44, 2,36	
		54,54,33,31,26,48,24		4, 1
26″	53,58, 8,55,31,28,42,46, 3,17		3,56,44, 6,37	
		54,54,29,34,42,41,47		4, 1
28″	53,58, 9,50,25,58,17,28,45, 4		3,56,44,10,38	
		54,54,25,37,58,31, 9		4, 1
30″	53,58,10,45,20,23,55,27,16,13		3,56,44,14,39	
		54,54,21,41,14,16,30		4, 1
32″	53,58,11,40,14,45,36,41,32,43		3,56,44,18,40	
		54,54,17,44,29,57,50		4, 1
34″	53,58,12,35, 9, 3,21,11,30,33		3,56,44,22,41	
		54,54,13,47,45,35, 9		4, 1
36″	53,58,13,30, 3,17, 8,57, 5,42		3,56,44,26,42	
		54,54, 9,51, 1, 8,27		4, 1
38″	53,58,14,24,57,26,59,58,14, 9		3,56,44,30,43	
		54,54, 5,54,16,37,44		4, 1
40″	53,58,15,19,51,32,54,14,51,53		3,56,44,34,44	
		54,54, 1,57,32, 3, 0		4, 1
42″	53,58,16,14,45,34,51,46,54,53		3,56,44,38,45	
		54,53,58, 0,47,24,15		4, 1
44″	53,58,17, 9,39,32,52,34,19, 8		3,56,44,42,46	
		54,53,54, 4, 2,41,29		4, 1
46″	53,58,18, 4,33,26,56,37, 0,37		3,56,44,46,47	
		54,53,50, 7,17,54,42		4, 1
48″	53,58,18,59,27,17, 3,54,55,19		3,56,44,50,48	
		54,53,46,10,33, 3,54		4, 1
50″	53,58,19,54,21, 3,14,27,59,13		3,56,44,54,49	
		54,53,42,13,48, 9, 5		4, 1
52″	53,58,20,49,14,45,28,16, 8,18		3,56,44,58,50	
		54,53,38,17, 3,10,15		4, 1
54″	53,58,21,44, 8,23,45,19,18,33		3,56,45, 2,51	
		54,53,34,20,18, 7,24		4, 1
56″	53,58,22,39, 1,58, 5,37,25,57		3,56,45, 6,52	
		54,53,30,23,33, 0,32		4, 1
58″	53,58,23,33,55,28,29,10,26,29		3,56,45,10,53	
		54,53,26,26,47,49,39		
60″	53,58,24,28,48,54,55,58,16, 8			
exact	53,58,24,28,48,54,55,58,24,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64° 6′ 0″	53,58,24,28,48,54,55,58,24,58			
		54,53,22,30, 2,35,45		
2″	53,58,25,23,42,17,26, 1, 0,43		3,56,45,18,50	
		54,53,18,33,17,16,55		4, 1
4″	53,58,26,18,35,35,59,18,17,38		3,56,45,22,51	
		54,53,14,36,31,54, 4		4, 1
6″	53,58,27,13,28,50,35,50,11,42		3,56,45,26,52	
		54,53,10,39,46,27,12		4, 1
8″	53,58,28, 8,22, 1,15,36,38,54		3,56,45,30,53	
		54,53, 6,43, 0,56,19		4, 1
10″	53,58,29, 3,15, 7,58,37,35,13		3,56,45,34,54	
		54,53, 2,46,15,21,25		4, 1
12″	53,58,29,58, 8,10,44,52,56,38		3,56,45,38,55	
		54,52,58,49,29,42,30		4, 1
14″	53,58,30,53, 1, 9,34,22,39, 8		3,56,45,42,56	
		54,52,54,52,43,59,34		4, 1
16″	53,58,31,47,54, 4,27, 6,38,42		3,56,45,46,57	
		54,52,50,55,58,12,37		4, 1
18″	53,58,32,42,46,55,23, 4,51,19		3,56,45,50,58	
		54,52,46,59,12,21,39		4, 1
20″	53,58,33,37,39,42,22,17,12,58		3,56,45,54,59	
		54,52,43, 2,26,26,40		4, 1
22″	53,58,34,32,32,25,24,43,39,38		3,56,45,59, 0	
		54,52,39, 5,40,27,40		4, 1
24″	53,58,35,27,25, 4,30,24, 7,18		3,56,46, 3, 1	
		54,52,35, 8,54,24,39		4, 1
26″	53,58,36,22,17,39,39,18,31,57		3,56,46, 7, 2	
		54,52,31,12, 8,17,37		4, 1
28″	53,58,37,17,10,10,51,26,49,34		3,56,46,11, 3	
		54,52,27,15,22, 6,34		4, 1
30″	53,58,38,12, 2,38, 6,48,56, 8		3,56,46,15, 4	
		54,52,23,18,35,51,30		4, 1
32″	53,58,39, 6,55, 1,25,24,47,38		3,56,46,19, 5	
		54,52,19,21,49,32,25		4, 1
34″	53,58,40, 1,47,20,47,14,20, 3		3,56,46,23, 6	
		54,52,15,25, 3, 9,19		4, 1
36″	53,58,40,56,39,36,12,17,29,22		3,56,46,27, 7	
		54,52,11,28,16,42,12		4, 1
38″	53,58,41,51,31,47,40,34,11,34		3,56,46,31, 8	
		54,52, 7,31,30,11, 4		4, 1
40″	53,58,42,46,23,55,12, 4,22,38		3,56,46,35, 9	
		54,52, 3,34,43,35,55		4, 1
42″	53,58,43,41,15,58,46,47,58,33		3,56,46,39,10	
		54,51,59,37,56,56,45		4, 1
44″	53,58,44,36, 7,58,24,44,55,18		3,56,46,43,11	
		54,51,55,41,10,13,34		4, 1
46″	53,58,45,30,59,54, 5,55, 8,52		3,56,46,47,12	
		54,51,51,44,23,26,22		4, 1
48″	53,58,46,25,51,45,50,18,35,14		3,56,46,51,13	
		54,51,47,47,36,35, 9		4, 1
50″	53,58,47,20,43,33,37,55,10,23		3,56,46,55,14	
		54,51,43,50,49,39,55		4, 1
52″	53,58,48,15,35,17,28,44,50,18		3,56,46,59,15	
		54,51,39,54, 2,40,40		4, 1
54″	53,58,49,10,26,57,22,47,30,58		3,56,47, 3,16	
		54,51,35,57,15,37,24		4, 1
56″	53,58,50, 5,18,33,20, 3, 8,22		3,56,47, 7,17	
		54,51,32, 0,28,30, 7		4, 1
58″	53,58,51, 0,10, 5,20,31,38,29		3,56,47,11,18	
		54,51,28, 3,41,18,49		
60″	53,58,51,55, 1,33,24,12,57,18			
exact	53,58,51,55, 1,33,24,13,13,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64° 7′ 0″	53,58,51,55, 1,33,24,13,13,54			
		54,51,24, 6,54, 5,25		
2″	53,58,52,49,52,57,31, 7,19,19		3,56,47,19,11	
		54,51,20,10, 6,46,14		4, 1
4″	53,58,53,44,44,17,41,14, 5,33		3,56,47,23,12	
		54,51,16,13,19,23, 2		4, 1
6″	53,58,54,39,35,33,54,33,28,35		3,56,47,27,13	
		54,51,12,16,31,55,49		4, 1
8″	53,58,55,34,26,46,11, 5,24,24		3,56,47,31,14	
		54,51, 8,19,44,24,35		4, 1
10″	53,58,56,29,17,54,30,49,48,59		3,56,47,35,15	
		54,51, 4,22,56,49,20		4, 1
12″	53,58,57,24, 8,58,53,46,38,19		3,56,47,39,16	
		54,51, 0,26, 9,10, 4		4, 1
14″	53,58,58,18,59,59,19,55,48,23		3,56,47,43,17	
		54,50,56,29,21,26,47		4, 1
16″	53,58,59,13,50,55,49,17,15,10		3,56,47,47,18	
		54,50,52,32,33,39,29		4, 1
18″	53,59, 0, 8,41,48,21,50,54,39		3,56,47,51,19	
		54,50,48,35,45,48,10		4, 1
20″	53,59, 1, 3,32,36,57,36,42,49		3,56,47,55,20	
		54,50,44,38,57,52,50		4, 1
22″	53,59, 1,58,23,21,36,34,35,39		3,56,47,59,21	
		54,50,40,42, 9,53,29		4, 1
24″	53,59, 2,53,14, 2,18,44,29, 8		3,56,48, 3,22	
		54,50,36,45,21,50, 7		4, 1
26″	53,59, 3,48, 4,39, 4, 6,19,15		3,56,48, 7,23	
		54,50,32,48,33,42,44		4, 1
28″	53,59, 4,42,55,11,52,40, 1,59		3,56,48,11,24	
		54,50,28,51,45,31,20		4, 1
30″	53,59, 5,37,45,40,44,25,33,19		3,56,48,15,25	
		54,50,24,54,57,15,55		4, 1
32″	53,59, 6,32,36, 5,39,22,49,14		3,56,48,19,26	
		54,50,20,58, 8,56,29		4, 1
34″	53,59, 7,27,26,26,37,31,45,43		3,56,48,23,27	
		54,50,17, 1,20,33, 2		4, 1
36″	53,59, 8,22,16,43,38,52,18,45		3,56,48,27,28	
		54,50,13, 4,32, 5,34		4, 1
38″	53,59, 9,17, 6,56,43,24,24,19		3,56,48,31,29	
		54,50, 9, 7,43,34, 5		4, 1
40″	53,59,10,11,57, 5,51, 7,58,24		3,56,48,35,30	
		54,50, 5,10,54,58,35		4, 1
42″	53,59,11, 6,47,11, 2, 2,56,59		3,56,48,39,31	
		54,50, 1,14, 6,19, 4		4, 1
44″	53,59,12, 1,37,12,16, 9,16, 3		3,56,48,43,32	
		54,49,57,17,17,35,32		4, 1
46″	53,59,12,56,27, 9,33,26,51,35		3,56,48,47,33	
		54,49,53,20,28,47,59		4, 1
48″	53,59,13,51,17, 2,53,55,39,34		3,56,48,51,34	
		54,49,49,23,39,56,25		4, 1
50″	53,59,14,46, 6,52,17,35,35,59		3,56,48,55,35	
		54,49,45,26,51, 0,50		4, 1
52″	53,59,15,40,56,37,44,26,36,49		3,56,48,59,36	
		54,49,41,30, 2, 1,14		4, 1
54″	53,59,16,35,46,19,14,28,38, 3		3,56,49, 3,37	
		54,49,37,33,12,57,37		4, 1
56″	53,59,17,30,35,56,47,41,35,40		3,56,49, 7,38	
		54,49,33,36,23,49,59		4, 1
58″	53,59,18,25,25,30,24, 5,25,39		3,56,49,11,39	
		54,49,29,39,34,38,20		
60″	53,59,19,20,15, 0, 3,40, 3,59			
exact	53,59,19,20,15, 0, 3,40,30,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64° 8′ 0″	53,59,19,20,15, 0, 3,40,30,33			
		54,49,25,42,45,25,39		
2″	53,59,20,15, 4,25,46,25,56,12		3,56,49,19,28	
		54,49,21,45,56, 6,11		4, 0
4″	53,59,21, 9,53,47,32,22, 2,23		3,56,49,23,28	
		54,49,17,49, 6,42,43		4, 0
6″	53,59,22, 4,43, 5,21,28,45, 6		3,56,49,27,28	
		54,49,13,52,17,15,15		4, 0
8″	53,59,22,59,32,19,13,46, 0,21		3,56,49,31,28	
		54,49, 9,55,27,43,47		4, 0
10″	53,59,23,54,21,29, 9,13,44, 8		3,56,49,35,28	
		54,49, 5,58,38, 8,19		4, 0
12″	53,59,24,49,10,35, 7,51,52,27		3,56,49,39,28	
		54,49, 2, 1,48,28,51		4, 0
14″	53,59,25,43,59,37, 9,40,21,18		3,56,49,43,28	
		54,48,58, 4,58,45,23		4, 0
16″	53,59,26,38,48,35,14,39, 6,41		3,56,49,47,28	
		54,48,54, 8, 8,57,55		4, 0
18″	53,59,27,33,37,29,22,48, 4,36		3,56,49,51,28	
		54,48,50,11,19, 6,27		4, 0
20″	53,59,28,28,26,19,34, 7,11, 3		3,56,49,55,28	
		54,48,46,14,29,10,59		4, 0
22″	53,59,29,23,15, 5,48,36,22, 2		3,56,49,59,28	
		54,48,42,17,39,11,31		4, 0
24″	53,59,30,18, 3,48, 6,15,33,33		3,56,50, 3,28	
		54,48,38,20,49, 8, 3		4, 0
26″	53,59,31,12,52,26,27, 4,41,36		3,56,50, 7,28	
		54,48,34,23,59, 0,35		4, 0
28″	53,59,32, 7,41, 0,51, 3,42,11		3,56,50,11,28	
		54,48,30,27, 8,49, 7		4, 0
30″	53,59,33, 2,29,31,18,12,31,18		3,56,50,15,28	
		54,48,26,30,18,33,39		4, 0
32″	53,59,33,57,17,57,48,31, 4,57		3,56,50,19,28	
		54,48,22,33,28,14,11		4, 0
34″	53,59,34,52, 6,20,21,59,19, 8		3,56,50,23,28	
		54,48,18,36,37,50,43		4, 0
36″	53,59,35,46,54,38,58,37, 9,51		3,56,50,27,28	
		54,48,14,39,47,23,15		4, 0
38″	53,59,36,41,42,53,38,24,33, 6		3,56,50,31,28	
		54,48,10,42,56,51,47		4, 0
40″	53,59,37,36,31, 4,21,21,24,53		3,56,50,35,28	
		54,48, 6,46, 6,16,19		4, 0
42″	53,59,38,31,19,11, 7,27,41,12		3,56,50,39,28	
		54,48, 2,49,15,36,51		4, 0
44″	53,59,39,26, 7,13,56,43,18, 3		3,56,50,43,28	
		54,47,58,52,24,53,23		4, 0
46″	53,59,40,20,55,12,49, 8,11,26		3,56,50,47,28	
		54,47,54,55,34, 5,55		4, 0
48″	53,59,41,15,43, 7,44,42,17,21		3,56,50,51,28	
		54,47,50,58,43,14,27		4, 0
50″	53,59,42,10,30,58,43,25,31,48		3,56,50,55,28	
		54,47,47, 1,52,18,59		4, 0
52″	53,59,43, 5,18,45,45,17,50,47		3,56,50,59,28	
		54,47,43, 5, 1,19,31		4, 0
54″	53,59,44, 0, 6,28,50,19,10,18		3,56,51, 3,28	
		54,47,39, 8,10,16, 3		4, 0
56″	53,59,44,54,54, 7,58,29,26,21		3,56,51, 7,28	
		54,47,35,11,19, 8,35		4, 0
58″	53,59,45,49,41,43, 9,48,34,56		3,56,51,11,28	
		54,47,31,14,27,57, 7		
60″	53,59,46,44,29,14,24,16,32, 3			
exact	53,59,46,44,29,14,24,16, 3,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64° 9′ 0″	53,59,46,44,29,14,24,16, 3,29			
		54,47,27,17,36,38,37		
2″	53,59,47,39,16,41,41,52,42, 6		3,56,51,19,40	
		54,47,23,20,45,18,57		4, 0
4″	53,59,48,34, 4, 5, 2,38, 1, 3		3,56,51,23,40	
		54,47,19,23,53,55,17		4, 0
6″	53,59,49,28,51,24,26,31,56,20		3,56,51,27,40	
		54,47,15,27, 2,27,37		4, 0
8″	53,59,50,23,38,39,53,34,23,57		3,56,51,31,40	
		54,47,11,30,10,55,57		4, 0
10″	53,59,51,18,25,51,23,45,19,54		3,56,51,35,40	
		54,47, 7,33,19,20,17		4, 0
12″	53,59,52,13,12,58,57, 4,40,11		3,56,51,39,40	
		54,47, 3,36,27,40,37		4, 0
14″	53,59,53, 8, 0, 2,33,32,20,48		3,56,51,43,40	
		54,46,59,39,35,56,57		4, 0
16″	53,59,54, 2,47, 2,13, 8,17,45		3,56,51,47,40	
		54,46,55,42,44, 9,17		4, 0
18″	53,59,54,57,33,57,55,52,27, 2		3,56,51,51,40	
		54,46,51,45,52,17,37		4, 0
20″	53,59,55,52,20,49,41,44,44,39		3,56,51,55,40	
		54,46,47,49, 0,21,57		4, 0
22″	53,59,56,47, 7,37,30,45, 6,36		3,56,51,59,40	
		54,46,43,52, 8,22,17		4, 0
24″	53,59,57,41,54,21,22,53,28,53		3,56,52, 3,40	
		54,46,39,55,16,18,37		4, 0
26″	53,59,58,36,41, 1,18, 9,47,30		3,56,52, 7,40	
		54,46,35,58,24,10,57		4, 0
28″	53,59,59,31,27,37,16,33,58,27		3,56,52,11,40	
		54,46,32, 1,31,59,17		4, 0
30″	54, 0, 0,26,14, 9,18, 5,57,44		3,56,52,15,40	
		54,46,28, 4,39,43,37		4, 0
32″	54, 0, 1,21, 0,37,22,45,41,21		3,56,52,19,40	
		54,46,24, 7,47,23,57		4, 0
34″	54, 0, 2,15,47, 1,30,33, 5,18		3,56,52,23,40	
		54,46,20,10,55, 0,17		4, 0
36″	54, 0, 3,10,33,21,41,28, 5,35		3,56,52,27,40	
		54,46,16,14, 2,32,37		4, 0
38″	54, 0, 4, 5,19,37,55,30,38,12		3,56,52,31,40	
		54,46,12,17,10, 0,57		4, 0
40″	54, 0, 5, 0, 5,50,12,40,39, 9		3,56,52,35,40	
		54,46, 8,20,17,25,17		4, 0
42″	54, 0, 5,54,51,58,32,58, 4,26		3,56,52,39,40	
		54,46, 4,23,24,45,37		4, 0
44″	54, 0, 6,49,38, 2,56,22,50, 3		3,56,52,43,40	
		54,46, 0,26,32, 1,57		4, 0
46″	54, 0, 7,44,24, 3,22,54,52, 0		3,56,52,47,40	
		54,45,56,29,39,14,17		4, 0
48″	54, 0, 8,39, 9,59,52,34, 6,17		3,56,52,51,40	
		54,45,52,32,46,22,37		4, 0
50″	54, 0, 9,33,55,52,25,20,28,54		3,56,52,55,40	
		54,45,48,35,53,26,57		4, 0
52″	54, 0,10,28,41,41, 1,13,55,51		3,56,52,59,40	
		54,45,44,39, 0,27,17		4, 0
54″	54, 0,11,23,27,25,40,14,23, 8		3,56,53, 3,40	
		54,45,40,42, 7,23,37		4, 0
56″	54, 0,12,18,13, 6,22,21,46,45		3,56,53, 7,40	
		54,45,36,45,14,15,57		4, 0
58″	54, 0,13,12,58,43, 7,36, 2,42		3,56,53,11,40	
		54,45,32,48,21, 4,17		
60″	54, 0,14, 7,44,15,55,57, 6,59			
exact	54, 0,14, 7,44,15,55,56,46,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°10′ 0″	54, 0,14, 7,44,15,55,56,46,14			
		54,45,28,51,27,46,30		
2″	54, 0,15, 2,29,44,47,24,32,44		3,56,53,19,48	
		54,45,24,54,34,26,42		4, 0
4″	54, 0,15,57,15, 9,41,58,59,26		3,56,53,23,48	
		54,45,20,57,41, 2,54		4, 0
6″	54, 0,16,52, 0,30,39,40, 2,20		3,56,53,27,48	
		54,45,17, 0,47,35, 6		4, 0
8″	54, 0,17,46,45,47,40,27,37,26		3,56,53,31,48	
		54,45,13, 3,54, 3,18		4, 0
10″	54, 0,18,41,31, 0,44,21,40,44		3,56,53,35,48	
		54,45, 9, 7, 0,27,30		4, 0
12″	54, 0,19,36,16, 9,51,22, 8,14		3,56,53,39,48	
		54,45, 5,10, 6,47,42		4, 0
14″	54, 0,20,31, 1,15, 1,28,55,56		3,56,53,43,48	
		54,45, 1,13,13, 3,54		4, 0
16″	54, 0,21,25,46,16,14,41,59,50		3,56,53,47,48	
		54,44,57,16,19,16, 6		4, 0
18″	54, 0,22,20,31,13,31, 1,15,56		3,56,53,51,48	
		54,44,53,19,25,24,18		4, 0
20″	54, 0,23,15,16, 6,50,26,40,14		3,56,53,55,48	
		54,44,49,22,31,28,30		4, 0
22″	54, 0,24,10, 0,56,12,58, 8,44		3,56,53,59,48	
		54,44,45,25,37,28,42		4, 0
24″	54, 0,25, 4,45,41,38,35,37,26		3,56,54, 3,48	
		54,44,41,28,43,24,54		4, 0
26″	54, 0,25,59,30,23, 7,19, 2,20		3,56,54, 7,48	
		54,44,37,31,49,17, 6		4, 0
28″	54, 0,26,54,15, 0,39, 8,19,26		3,56,54,11,48	
		54,44,33,34,55, 5,18		4, 0
30″	54, 0,27,48,59,34,14, 3,24,44		3,56,54,15,48	
		54,44,29,38, 0,49,30		4, 0
32″	54, 0,28,43,44, 3,52, 4,14,14		3,56,54,19,48	
		54,44,25,41, 6,29,42		4, 0
34″	54, 0,29,38,28,29,33,10,43,56		3,56,54,23,48	
		54,44,21,44,12, 5,54		4, 0
36″	54, 0,30,33,12,51,17,22,49,50		3,56,54,27,48	
		54,44,17,47,17,38, 6		4, 0
38″	54, 0,31,27,57, 9, 4,40,27,56		3,56,54,31,48	
		54,44,13,50,23, 6,18		4, 0
40″	54, 0,32,22,41,22,55, 3,34,14		3,56,54,35,48	
		54,44, 9,53,28,30,30		4, 0
42″	54, 0,33,17,25,32,48,32, 4,44		3,56,54,39,48	
		54,44, 5,56,33,50,42		4, 0
44″	54, 0,34,12, 9,38,45, 5,55,26		3,56,54,43,48	
		54,44, 1,59,39, 6,54		4, 0
46″	54, 0,35, 6,53,40,44,45, 2,20		3,56,54,47,48	
		54,43,58, 2,44,19, 6		4, 0
48″	54, 0,36, 1,37,38,47,29,21,26		3,56,54,51,48	
		54,43,54, 5,49,27,18		4, 0
50″	54, 0,36,56,21,32,53,18,48,44		3,56,54,55,48	
		54,43,50, 8,54,31,30		4, 0
52″	54, 0,37,51, 5,23, 2,13,20,14		3,56,54,59,48	
		54,43,46,11,59,31,42		4, 0
54″	54, 0,38,45,49, 9,14,12,51,56		3,56,55, 3,48	
		54,43,42,15, 4,27,54		4, 0
56″	54, 0,39,40,32,51,29,17,19,50		3,56,55, 7,48	
		54,43,38,18, 9,20, 6		4, 0
58″	54, 0,40,35,16,29,47,26,39,56		3,56,55,11,48	
		54,43,34,21,14, 8,18		
60″	54, 0,41,30, 0, 4, 8,40,48,14			
exact	54, 0,41,30, 0, 4, 8,40,37,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°11′ 0″	54, 0,41,30, 0, 4, 8,40,37,16			
		54,43,30,24,18,51,26		
2″	54, 0,42,24,43,34,32,59,28,42		3,56,55,19,52	
		54,43,26,27,23,31,34		4, 0
4″	54, 0,43,19,27, 1, 0,23, 0,16		3,56,55,23,52	
		54,43,22,30,28, 7,42		4, 0
6″	54, 0,44,14,10,23,30,51, 7,58		3,56,55,27,52	
		54,43,18,33,32,39,50		4, 0
8″	54, 0,45, 8,53,42, 4,23,47,48		3,56,55,31,52	
		54,43,14,36,37, 7,58		4, 0
10″	54, 0,46, 3,36,56,41, 0,55,46		3,56,55,35,52	
		54,43,10,39,41,32, 6		4, 0
12″	54, 0,46,58,20, 7,20,42,27,52		3,56,55,39,52	
		54,43, 6,42,45,52,14		4, 0
14″	54, 0,47,53, 3,14, 3,28,20, 6		3,56,55,43,52	
		54,43, 2,45,50, 8,22		4, 0
16″	54, 0,48,47,46,16,49,18,28,28		3,56,55,47,52	
		54,42,58,48,54,20,30		4, 0
18″	54, 0,49,42,29,15,38,12,48,58		3,56,55,51,52	
		54,42,54,51,58,28,38		4, 0
20″	54, 0,50,37,12,10,30,11,17,36		3,56,55,55,52	
		54,42,50,55, 2,32,46		4, 0
22″	54, 0,51,31,55, 1,25,13,50,22		3,56,55,59,52	
		54,42,46,58, 6,32,54		4, 0
24″	54, 0,52,26,37,48,23,20,23,16		3,56,56, 3,52	
		54,42,43, 1,10,29, 2		4, 0
26″	54, 0,53,21,20,31,24,30,52,18		3,56,56, 7,52	
		54,42,39, 4,14,21,10		4, 0
28″	54, 0,54,16, 3,10,28,45,13,28		3,56,56,11,52	
		54,42,35, 7,18, 9,18		4, 0
30″	54, 0,55,10,45,45,36, 3,22,46		3,56,56,15,52	
		54,42,31,10,21,53,26		4, 0
32″	54, 0,56, 5,28,16,46,25,16,12		3,56,56,19,52	
		54,42,27,13,25,33,34		4, 0
34″	54, 0,57, 0,10,43,59,50,49,46		3,56,56,23,52	
		54,42,23,16,29, 9,42		4, 0
36″	54, 0,57,54,53, 7,16,19,59,28		3,56,56,27,52	
		54,42,19,19,32,41,50		4, 0
38″	54, 0,58,49,35,26,35,52,41,18		3,56,56,31,52	
		54,42,15,22,36, 9,58		4, 0
40″	54, 0,59,44,17,41,58,28,51,16		3,56,56,35,52	
		54,42,11,25,39,34, 6		4, 0
42″	54, 1, 0,38,59,53,24, 8,25,22		3,56,56,39,52	
		54,42, 7,28,42,54,14		4, 0
44″	54, 1, 1,33,42, 0,52,51,19,36		3,56,56,43,52	
		54,42, 3,31,46,10,22		4, 0
46″	54, 1, 2,28,24, 4,24,37,29,58		3,56,56,47,52	
		54,41,59,34,49,22,30		4, 0
48″	54, 1, 3,23, 6, 3,59,26,52,28		3,56,56,51,52	
		54,41,55,37,52,30,38		4, 0
50″	54, 1, 4,17,47,59,37,19,23, 6		3,56,56,55,52	
		54,41,51,40,55,34,46		4, 0
52″	54, 1, 5,12,29,51,18,14,57,52		3,56,56,59,52	
		54,41,47,43,58,34,54		4, 0
54″	54, 1, 6, 7,11,39, 2,13,32,46		3,56,57, 3,52	
		54,41,43,47, 1,31, 2		4, 0
56″	54, 1, 7, 1,53,22,49,15, 3,48		3,56,57, 7,52	
		54,41,39,50, 4,23,10		4, 0
58″	54, 1, 7,56,35, 2,39,19,26,58		3,56,57,11,52	
		54,41,35,53, 7,11,18		
60″	54, 1, 8,51,16,38,32,26,38,16			
exact	54, 1, 8,51,16,38,32,26,39,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°12′ 0″	54, 1, 8,51,16,38,32,26,39,58			
		54,41,31,56, 9,55,36		
2″	54, 1, 9,45,58,10,28,36,35,34		3,56,57,19,51	
		54,41,27,59,12,35,45		4, 0
4″	54, 1,10,40,39,38,27,49,11,19		3,56,57,23,51	
		54,41,24, 2,15,11,54		4, 0
6″	54, 1,11,35,21, 2,30, 4,23,13		3,56,57,27,51	
		54,41,20, 5,17,44, 3		4, 0
8″	54, 1,12,30, 2,22,35,22, 7,16		3,56,57,31,51	
		54,41,16, 8,20,12,12		4, 0
10″	54, 1,13,24,43,38,43,42,19,28		3,56,57,35,51	
		54,41,12,11,22,36,21		4, 0
12″	54, 1,14,19,24,50,55, 4,55,49		3,56,57,39,51	
		54,41, 8,14,24,56,30		4, 0
14″	54, 1,15,14, 5,59, 9,29,52,19		3,56,57,43,51	
		54,41, 4,17,27,12,39		4, 0
16″	54, 1,16, 8,47, 3,26,57, 4,58		3,56,57,47,51	
		54,41, 0,20,29,24,48		4, 0
18″	54, 1,17, 3,28, 3,47,26,29,46		3,56,57,51,51	
		54,40,56,23,31,32,57		4, 0
20″	54, 1,17,58, 9, 0,10,58, 2,43		3,56,57,55,51	
		54,40,52,26,33,37, 6		4, 0
22″	54, 1,18,52,49,52,37,31,39,49		3,56,57,59,51	
		54,40,48,29,35,37,15		4, 0
24″	54, 1,19,47,30,41, 7, 7,17, 4		3,56,58, 3,51	
		54,40,44,32,37,33,24		4, 0
26″	54, 1,20,42,11,25,39,44,50,28		3,56,58, 7,51	
		54,40,40,35,39,25,33		4, 0
28″	54, 1,21,36,52, 6,15,24,16, 1		3,56,58,11,51	
		54,40,36,38,41,13,42		4, 0
30″	54, 1,22,31,32,42,54, 5,29,43		3,56,58,15,51	
		54,40,32,41,42,57,51		4, 0
32″	54, 1,23,26,13,15,35,48,27,34		3,56,58,19,51	
		54,40,28,44,44,38, 0		4, 0
34″	54, 1,24,20,53,44,20,33, 5,34		3,56,58,23,51	
		54,40,24,47,46,14, 9		4, 0
36″	54, 1,25,15,34, 9, 8,19,19,43		3,56,58,27,51	
		54,40,20,50,47,46,18		4, 0
38″	54, 1,26,10,14,29,59, 7, 6, 1		3,56,58,31,51	
		54,40,16,53,49,14,27		4, 0
40″	54, 1,27, 4,54,46,52,56,20,28		3,56,58,35,51	
		54,40,12,56,50,38,36		4, 0
42″	54, 1,27,59,34,59,49,46,59, 4		3,56,58,39,51	
		54,40, 8,59,51,58,45		4, 0
44″	54, 1,28,54,15, 8,49,38,57,49		3,56,58,43,51	
		54,40, 5, 2,53,14,54		4, 0
46″	54, 1,29,48,55,13,52,32,12,43		3,56,58,47,51	
		54,40, 1, 5,54,27, 3		4, 0
48″	54, 1,30,43,35,14,58,26,39,46		3,56,58,51,51	
		54,39,57, 8,55,35,12		4, 0
50″	54, 1,31,38,15,12, 7,22,14,58		3,56,58,55,51	
		54,39,53,11,56,39,21		4, 0
52″	54, 1,32,32,55, 5,19,18,54,19		3,56,58,59,51	
		54,39,49,14,57,39,30		4, 0
54″	54, 1,33,27,34,54,34,16,33,49		3,56,59, 3,51	
		54,39,45,17,58,35,39		4, 0
56″	54, 1,34,22,14,39,52,15, 9,28		3,56,59, 7,51	
		54,39,41,20,59,27,48		4, 0
58″	54, 1,35,16,54,21,13,14,37,16		3,56,59,11,51	
		54,39,37,24, 0,15,57		
60″	54, 1,36,11,33,58,37,14,53,13			
exact	54, 1,36,11,33,58,37,15, 2,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°13′ 0″	54, 1,36,11,33,58,37,15, 2,42			
		54,39,33,27, 1, 1,11		
2″	54, 1,37, 6,13,32, 4,16, 3,53		3,56,59,19,46	
		54,39,29,30, 1,41,25		4, 0
4″	54, 1,38, 0,53, 1,34,17,45,18		3,56,59,23,46	
		54,39,25,33, 2,17,39		4, 0
6″	54, 1,38,55,32,27, 7,20, 2,57		3,56,59,27,46	
		54,39,21,36, 2,49,53		4, 0
8″	54, 1,39,50,11,48,43,22,52,50		3,56,59,31,46	
		54,39,17,39, 3,18, 7		4, 0
10″	54, 1,40,44,51, 6,22,26,10,57		3,56,59,35,46	
		54,39,13,42, 3,42,21		4, 0
12″	54, 1,41,39,30,20, 4,29,53,18		3,56,59,39,46	
		54,39, 9,45, 4, 2,35		4, 0
14″	54, 1,42,34, 9,29,49,33,55,53		3,56,59,43,46	
		54,39, 5,48, 4,18,49		4, 0
16″	54, 1,43,28,48,35,37,38,14,42		3,56,59,47,46	
		54,39, 1,51, 4,31, 3		4, 0
18″	54, 1,44,23,27,37,28,42,45,45		3,56,59,51,46	
		54,38,57,54, 4,39,17		4, 0
20″	54, 1,45,18, 6,35,22,47,25, 2		3,56,59,55,46	
		54,38,53,57, 4,43,31		4, 0
22″	54, 1,46,12,45,29,19,52, 8,33		3,56,59,59,46	
		54,38,50, 0, 4,43,45		4, 0
24″	54, 1,47, 7,24,19,19,56,52,18		3,57, 0, 3,46	
		54,38,46, 3, 4,39,59		4, 0
26″	54, 1,48, 2, 3, 5,23, 1,32,17		3,57, 0, 7,46	
		54,38,42, 6, 4,32,13		4, 0
28″	54, 1,48,56,41,47,29, 6, 4,30		3,57, 0,11,46	
		54,38,38, 9, 4,20,27		4, 0
30″	54, 1,49,51,20,25,38,10,24,57		3,57, 0,15,46	
		54,38,34,12, 4, 4,41		4, 0
32″	54, 1,50,45,58,59,50,14,29,38		3,57, 0,19,46	
		54,38,30,15, 3,44,55		4, 0
34″	54, 1,51,40,37,30, 5,18,14,33		3,57, 0,23,46	
		54,38,26,18, 3,21, 9		4, 0
36″	54, 1,52,35,15,56,23,21,35,42		3,57, 0,27,46	
		54,38,22,21, 2,53,23		4, 0
38″	54, 1,53,29,54,18,44,24,29, 5		3,57, 0,31,46	
		54,38,18,24, 2,21,37		4, 0
40″	54, 1,54,24,32,37, 8,26,50,42		3,57, 0,35,46	
		54,38,14,27, 1,45,51		4, 0
42″	54, 1,55,19,10,51,35,28,36,33		3,57, 0,39,46	
		54,38,10,30, 1, 6, 5		4, 0
44″	54, 1,56,13,49, 2, 5,29,42,38		3,57, 0,43,46	
		54,38, 6,33, 0,22,19		4, 0
46″	54, 1,57, 8,27, 8,38,30, 4,57		3,57, 0,47,46	
		54,38, 2,35,59,34,33		4, 0
48″	54, 1,58, 3, 5,11,14,29,39,30		3,57, 0,51,46	
		54,37,58,38,58,42,47		4, 0
50″	54, 1,58,57,43, 9,53,28,22,17		3,57, 0,55,46	
		54,37,54,41,57,47, 1		4, 0
52″	54, 1,59,52,21, 4,35,26, 9,18		3,57, 0,59,46	
		54,37,50,44,56,47,15		4, 0
54″	54, 2, 0,46,58,55,20,22,56,33		3,57, 1, 3,46	
		54,37,46,47,55,43,29		4, 0
56″	54, 2, 1,41,36,42, 8,18,40, 2		3,57, 1, 7,46	
		54,37,42,50,54,35,43		4, 0
58″	54, 2, 2,36,14,24,59,13,15,45		3,57, 1,11,46	
		54,37,38,53,53,23,57		
60″	54, 2, 3,30,52, 3,53, 6,39,42			
exact	54, 2, 3,30,52, 3,53, 6,58,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°14′ 0″	54, 2, 3,30,52, 3,53, 6,58,47			
		54,37,34,56,52,10,18		
2″	54, 2, 4,25,29,38,49,59, 9, 5		3,57, 1,19,37	
		54,37,30,59,50,50,41		4, 0
4″	54, 2, 5,20, 7, 9,49,49,59,46		3,57, 1,23,37	
		54,37,27, 2,49,27, 4		4, 0
6″	54, 2, 6,14,44,36,52,39,26,50		3,57, 1,27,37	
		54,37,23, 5,47,59,27		4, 0
8″	54, 2, 7, 9,21,59,58,27,26,17		3,57, 1,31,37	
		54,37,19, 8,46,27,50		4, 0
10″	54, 2, 8, 3,59,19, 7,13,54, 7		3,57, 1,35,37	
		54,37,15,11,44,52,13		4, 0
12″	54, 2, 8,58,36,34,18,58,46,20		3,57, 1,39,37	
		54,37,11,14,43,12,36		4, 0
14″	54, 2, 9,53,13,45,33,41,58,56		3,57, 1,43,37	
		54,37, 7,17,41,28,59		4, 0
16″	54, 2,10,47,50,52,51,23,27,55		3,57, 1,47,37	
		54,37, 3,20,39,41,22		4, 0
18″	54, 2,11,42,27,56,12, 3, 9,17		3,57, 1,51,37	
		54,36,59,23,37,49,45		4, 0
20″	54, 2,12,37, 4,55,35,40,59, 2		3,57, 1,55,37	
		54,36,55,26,35,54, 8		4, 0
22″	54, 2,13,31,41,51, 2,16,53,10		3,57, 1,59,37	
		54,36,51,29,33,54,31		4, 0
24″	54, 2,14,26,18,42,31,50,47,41		3,57, 2, 3,37	
		54,36,47,32,31,50,54		4, 0
26″	54, 2,15,20,55,30, 4,22,38,35		3,57, 2, 7,37	
		54,36,43,35,29,43,17		4, 0
28″	54, 2,16,15,32,13,39,52,21,52		3,57, 2,11,37	
		54,36,39,38,27,31,40		4, 0
30″	54, 2,17,10, 8,53,18,19,53,32		3,57, 2,15,37	
		54,36,35,41,25,16, 3		4, 0
32″	54, 2,18, 4,45,28,59,45, 9,35		3,57, 2,19,37	
		54,36,31,44,22,56,26		4, 0
34″	54, 2,18,59,22, 0,44, 8, 6, 1		3,57, 2,23,37	
		54,36,27,47,20,32,49		4, 0
36″	54, 2,19,53,58,28,31,28,38,50		3,57, 2,27,37	
		54,36,23,50,18, 5,12		4, 0
38″	54, 2,20,48,34,52,21,46,44, 2		3,57, 2,31,37	
		54,36,19,53,15,33,35		4, 0
40″	54, 2,21,43,11,12,15, 2,17,37		3,57, 2,35,37	
		54,36,15,56,12,57,58		4, 0
42″	54, 2,22,37,47,28,11,15,15,35		3,57, 2,39,37	
		54,36,11,59,10,18,21		4, 0
44″	54, 2,23,32,23,40,10,25,33,56		3,57, 2,43,37	
		54,36, 8, 2, 7,34,44		4, 0
46″	54, 2,24,26,59,48,12,33, 8,40		3,57, 2,47,37	
		54,36, 4, 5, 4,47, 7		4, 0
48″	54, 2,25,21,35,52,17,37,55,47		3,57, 2,51,37	
		54,36, 0, 8, 1,55,30		4, 0
50″	54, 2,26,16,11,52,25,39,51,17		3,57, 2,55,37	
		54,35,56,10,58,59,53		4, 0
52″	54, 2,27,10,47,48,36,38,51,10		3,57, 2,59,37	
		54,35,52,13,56, 0,16		4, 0
54″	54, 2,28, 5,23,40,50,34,51,26		3,57, 3, 3,37	
		54,35,48,16,52,56,39		4, 0
56″	54, 2,28,59,59,29, 7,27,48, 5		3,57, 3, 7,37	
		54,35,44,19,49,49, 2		4, 0
58″	54, 2,29,54,35,13,27,17,37, 7		3,57, 3,11,37	
		54,35,40,22,46,37,25		
60″	54, 2,30,49,10,53,50, 4,14,32			
exact	54, 2,30,49,10,53,50, 4,46,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°15′ 0″	54, 2,30,49,10,53,50, 4,46,30			
		54,35,36,25,43,25,10		
2″	54, 2,31,43,46,30,15,48,11,40		3,57, 3,19,23	
		54,35,32,28,40, 5,47		3,59
4″	54, 2,32,38,22, 2,44,28,17,27		3,57, 3,23,22	
		54,35,28,31,36,42,25		3,59
6″	54, 2,33,32,57,31,16, 4,59,52		3,57, 3,27,21	
		54,35,24,34,33,15, 4		3,59
8″	54, 2,34,27,32,55,50,38,14,56		3,57, 3,31,20	
		54,35,20,37,29,43,44		3,59
10″	54, 2,35,22, 8,16,28, 7,58,40		3,57, 3,35,19	
		54,35,16,40,26, 8,25		3,59
12″	54, 2,36,16,43,33, 8,34, 7, 5		3,57, 3,39,18	
		54,35,12,43,22,29, 7		3,59
14″	54, 2,37,11,18,45,51,56,36,12		3,57, 3,43,17	
		54,35, 8,46,18,45,50		3,59
16″	54, 2,38, 5,53,54,38,15,22, 2		3,57, 3,47,16	
		54,35, 4,49,14,58,34		3,59
18″	54, 2,39, 0,28,59,27,30,20,36		3,57, 3,51,15	
		54,35, 0,52,11, 7,19		3,59
20″	54, 2,39,55, 4, 0,19,41,27,55		3,57, 3,55,14	
		54,34,56,55, 7,12, 5		3,59
22″	54, 2,40,49,38,57,14,48,40, 0		3,57, 3,59,13	
		54,34,52,58, 3,12,52		3,59
24″	54, 2,41,44,13,50,12,51,52,52		3,57, 4, 3,12	
		54,34,49, 0,59, 9,40		3,59
26″	54, 2,42,38,48,39,13,51, 2,32		3,57, 4, 7,11	
		54,34,45, 3,55, 2,29		3,59
28″	54, 2,43,33,23,24,17,46, 5, 1		3,57, 4,11,10	
		54,34,41, 6,50,51,19		3,59
30″	54, 2,44,27,58, 5,24,36,56,20		3,57, 4,15, 9	
		54,34,37, 9,46,36,10		3,59
32″	54, 2,45,22,32,42,34,23,32,30		3,57, 4,19, 8	
		54,34,33,12,42,17, 2		3,59
34″	54, 2,46,17, 7,15,47, 5,49,32		3,57, 4,23, 7	
		54,34,29,15,37,53,55		3,59
36″	54, 2,47,11,41,45, 2,43,43,27		3,57, 4,27, 6	
		54,34,25,18,33,26,49		3,59
38″	54, 2,48, 6,16,10,21,17,10,16		3,57, 4,31, 5	
		54,34,21,21,28,55,44		3,59
40″	54, 2,49, 0,50,31,42,46, 6, 0		3,57, 4,35, 4	
		54,34,17,24,24,20,40		3,59
42″	54, 2,49,55,24,49, 7,10,26,40		3,57, 4,39, 3	
		54,34,13,27,19,41,37		3,59
44″	54, 2,50,49,59, 2,34,30, 8,17		3,57, 4,43, 2	
		54,34, 9,30,14,58,35		3,59
46″	54, 2,51,44,33,12, 4,45, 6,52		3,57, 4,47, 1	
		54,34, 5,33,10,11,34		3,59
48″	54, 2,52,39, 7,17,37,55,18,26		3,57, 4,51, 0	
		54,34, 1,36, 5,20,34		3,59
50″	54, 2,53,33,41,19,14, 0,39, 0		3,57, 4,54,59	
		54,33,57,39, 0,25,35		3,59
52″	54, 2,54,28,15,16,53, 1, 4,35		3,57, 4,58,58	
		54,33,53,41,55,26,37		3,59
54″	54, 2,55,22,49,10,34,56,31,12		3,57, 5, 2,57	
		54,33,49,44,50,23,40		3,59
56″	54, 2,56,17,23, 0,19,46,54,52		3,57, 5, 6,56	
		54,33,45,47,45,16,44		3,59
58″	54, 2,57,11,56,46, 7,32,11,36		3,57, 5,10,55	
		54,33,41,50,40, 5,49		
60″	54, 2,58, 6,30,27,58,12,17,25			
exact	54, 2,58, 6,30,27,58,11,49, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°16′ 0″	54, 2,58, 6,30,27,58,11,49, 7			
		54,33,37,53,34,47,56		
2″	54, 2,59, 1, 4, 5,51,46,37, 3		3,57, 5,19, 5	
		54,33,33,56,29,28,51		3,59
4″	54, 2,59,55,37,39,48,16, 5,54		3,57, 5,23, 4	
		54,33,29,59,24, 5,47		3,59
6″	54, 3, 0,50,11, 9,47,40,11,41		3,57, 5,27, 3	
		54,33,26, 2,18,38,44		3,59
8″	54, 3, 1,44,44,35,49,58,50,25		3,57, 5,31, 2	
		54,33,22, 5,13, 7,42		3,59
10″	54, 3, 2,39,17,57,55,11,58, 7		3,57, 5,35, 1	
		54,33,18, 8, 7,32,41		3,59
12″	54, 3, 3,33,51,16, 3,19,30,48		3,57, 5,39, 0	
		54,33,14,11, 1,53,41		3,59
14″	54, 3, 4,28,24,30,14,21,24,29		3,57, 5,42,59	
		54,33,10,13,56,10,42		3,59
16″	54, 3, 5,22,57,40,28,17,35,11		3,57, 5,46,58	
		54,33, 6,16,50,23,44		3,59
18″	54, 3, 6,17,30,46,45, 7,58,55		3,57, 5,50,57	
		54,33, 2,19,44,32,47		3,59
20″	54, 3, 7,12, 3,49, 4,52,31,42		3,57, 5,54,56	
		54,32,58,22,38,37,51		3,59
22″	54, 3, 8, 6,36,47,27,31, 9,33		3,57, 5,58,55	
		54,32,54,25,32,38,56		3,59
24″	54, 3, 9, 1, 9,41,53, 3,48,29		3,57, 6, 2,54	
		54,32,50,28,26,36, 2		3,59
26″	54, 3, 9,55,42,32,21,30,24,31		3,57, 6, 6,53	
		54,32,46,31,20,29, 9		3,59
28″	54, 3,10,50,15,18,52,50,53,40		3,57, 6,10,52	
		54,32,42,34,14,18,17		3,59
30″	54, 3,11,44,48, 1,27, 5,11,57		3,57, 6,14,51	
		54,32,38,37, 8, 3,26		3,59
32″	54, 3,12,39,20,40, 4,13,15,23		3,57, 6,18,50	
		54,32,34,40, 1,44,36		3,59
34″	54, 3,13,33,53,14,44,14,59,59		3,57, 6,22,49	
		54,32,30,42,55,21,47		3,59
36″	54, 3,14,28,25,45,27,10,21,46		3,57, 6,26,48	
		54,32,26,45,48,54,59		3,59
38″	54, 3,15,22,58,12,12,59,16,45		3,57, 6,30,47	
		54,32,22,48,42,24,12		3,59
40″	54, 3,16,17,30,35, 1,41,40,57		3,57, 6,34,46	
		54,32,18,51,35,49,26		3,59
42″	54, 3,17,12, 2,53,53,17,30,23		3,57, 6,38,45	
		54,32,14,54,29,10,41		3,59
44″	54, 3,18, 6,35, 8,47,46,41, 4		3,57, 6,42,44	
		54,32,10,57,22,27,57		3,59
46″	54, 3,19, 1, 7,19,45, 9, 9, 1		3,57, 6,46,43	
		54,32, 7, 0,15,41,14		3,59
48″	54, 3,19,55,39,26,45,24,50,15		3,57, 6,50,42	
		54,32, 3, 3, 8,50,32		3,59
50″	54, 3,20,50,11,29,48,33,40,47		3,57, 6,54,41	
		54,31,59, 6, 1,55,51		3,59
52″	54, 3,21,44,43,28,54,35,36,38		3,57, 6,58,40	
		54,31,55, 8,54,57,11		3,59
54″	54, 3,22,39,15,24, 3,30,33,49		3,57, 7, 2,39	
		54,31,51,11,47,54,32		3,59
56″	54, 3,23,33,47,15,15,18,28,21		3,57, 7, 6,38	
		54,31,47,14,40,47,54		3,59
58″	54, 3,24,28,19, 2,29,59,16,15		3,57, 7,10,37	
		54,31,43,17,33,37,17		
60″	54, 3,25,22,50,45,47,32,53,32			
exact	54, 3,25,22,50,45,47,32,34,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°17′ 0″	54, 3,25,22,50,45,47,32,34,53			
		54,31,39,20,26,20,45		
2″	54, 3,26,17,22,25, 7,58,55,38		3,57, 7,18,42	
		54,31,35,23,19, 2, 3		3,59
4″	54, 3,27,11,54, 0,31,17,57,41		3,57, 7,22,41	
		54,31,31,26,11,39,22		3,59
6″	54, 3,28, 6,25,31,57,29,37, 3		3,57, 7,26,40	
		54,31,27,29, 4,12,42		3,59
8″	54, 3,29, 0,56,59,26,33,49,45		3,57, 7,30,39	
		54,31,23,31,56,42, 3		3,59
10″	54, 3,29,55,28,22,58,30,31,48		3,57, 7,34,38	
		54,31,19,34,49, 7,25		3,59
12″	54, 3,30,49,59,42,33,19,39,13		3,57, 7,38,37	
		54,31,15,37,41,28,48		3,59
14″	54, 3,31,44,30,58,11, 1, 8, 1		3,57, 7,42,36	
		54,31,11,40,33,46,12		3,59
16″	54, 3,32,39, 2, 9,51,34,54,13		3,57, 7,46,35	
		54,31, 7,43,25,59,37		3,59
18″	54, 3,33,33,33,17,35, 0,53,50		3,57, 7,50,34	
		54,31, 3,46,18, 9, 3		3,59
20″	54, 3,34,28, 4,21,21,19, 2,53		3,57, 7,54,33	
		54,30,59,49,10,14,30		3,59
22″	54, 3,35,22,35,21,10,29,17,23		3,57, 7,58,32	
		54,30,55,52, 2,15,58		3,59
24″	54, 3,36,17, 6,17, 2,31,33,21		3,57, 8, 2,31	
		54,30,51,54,54,13,27		3,59
26″	54, 3,37,11,37, 8,57,25,46,48		3,57, 8, 6,30	
		54,30,47,57,46, 6,57		3,59
28″	54, 3,38, 6, 7,56,55,11,53,45		3,57, 8,10,29	
		54,30,44, 0,37,56,28		3,59
30″	54, 3,39, 0,38,40,55,49,50,13		3,57, 8,14,28	
		54,30,40, 3,29,42, 0		3,59
32″	54, 3,39,55, 9,20,59,19,32,13		3,57, 8,18,27	
		54,30,36, 6,21,23,33		3,59
34″	54, 3,40,49,39,57, 5,40,55,46		3,57, 8,22,26	
		54,30,32, 9,13, 1, 7		3,59
36″	54, 3,41,44,10,29,14,53,56,53		3,57, 8,26,25	
		54,30,28,12, 4,34,42		3,59
38″	54, 3,42,38,40,57,26,58,31,35		3,57, 8,30,24	
		54,30,24,14,56, 4,18		3,59
40″	54, 3,43,33,11,21,41,54,35,53		3,57, 8,34,23	
		54,30,20,17,47,29,55		3,59
42″	54, 3,44,27,41,41,59,42, 5,48		3,57, 8,38,22	
		54,30,16,20,38,51,33		3,59
44″	54, 3,45,22,11,58,20,20,57,21		3,57, 8,42,21	
		54,30,12,23,30, 9,12		3,59
46″	54, 3,46,16,42,10,43,51, 6,33		3,57, 8,46,20	
		54,30, 8,26,21,22,52		3,59
48″	54, 3,47,11,12,19,10,12,29,25		3,57, 8,50,19	
		54,30, 4,29,12,32,33		3,59
50″	54, 3,48, 5,42,23,39,25, 1,58		3,57, 8,54,18	
		54,30, 0,32, 3,38,15		3,59
52″	54, 3,49, 0,12,24,11,28,40,13		3,57, 8,58,17	
		54,29,56,34,54,39,58		3,59
54″	54, 3,49,54,42,20,46,23,20,11		3,57, 9, 2,16	
		54,29,52,37,45,37,42		3,59
56″	54, 3,50,49,12,13,24, 8,57,53		3,57, 9, 6,15	
		54,29,48,40,36,31,27		3,59
58″	54, 3,51,43,42, 2, 4,45,29,20		3,57, 9,10,14	
		54,29,44,43,27,21,13		
60″	54, 3,52,38,11,46,48,12,50,33			
exact	54, 3,52,38,11,46,48,12,37, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°18′ 0″	54, 3,52,38,11,46,48,12,37, 5			
		54,29,40,46,18, 5,47		
2″	54, 3,53,32,41,27,34,30,42,52		3,57, 9,18,16	
		54,29,36,49, 8,47,31		3,59
4″	54, 3,54,27,11, 4,23,39,30,23		3,57, 9,22,15	
		54,29,32,51,59,25,16		3,59
6″	54, 3,55,21,40,37,15,38,55,39		3,57, 9,26,14	
		54,29,28,54,49,59, 2		3,59
8″	54, 3,56,16,10, 6,10,28,54,41		3,57, 9,30,13	
		54,29,24,57,40,28,49		3,59
10″	54, 3,57,10,39,31, 8, 9,23,30		3,57, 9,34,12	
		54,29,21, 0,30,54,37		3,59
12″	54, 3,58, 5, 8,52, 8,40,18, 7		3,57, 9,38,11	
		54,29,17, 3,21,16,26		3,59
14″	54, 3,58,59,38, 9,12, 1,34,33		3,57, 9,42,10	
		54,29,13, 6,11,34,16		3,59
16″	54, 3,59,54, 7,22,18,13, 8,49		3,57, 9,46, 9	
		54,29, 9, 9, 1,48, 7		3,59
18″	54, 4, 0,48,36,31,27,14,56,56		3,57, 9,50, 8	
		54,29, 5,11,51,57,59		3,59
20″	54, 4, 1,43, 5,36,39, 6,54,55		3,57, 9,54, 7	
		54,29, 1,14,42, 3,52		3,59
22″	54, 4, 2,37,34,37,53,48,58,47		3,57, 9,58, 6	
		54,28,57,17,32, 5,46		3,59
24″	54, 4, 3,32, 3,35,11,21, 4,33		3,57,10, 2, 5	
		54,28,53,20,22, 3,41		3,59
26″	54, 4, 4,26,32,28,31,43, 8,14		3,57,10, 6, 4	
		54,28,49,23,11,57,37		3,59
28″	54, 4, 5,21, 1,17,54,55, 5,51		3,57,10,10, 3	
		54,28,45,26, 1,47,34		3,59
30″	54, 4, 6,15,30, 3,20,56,53,25		3,57,10,14, 2	
		54,28,41,28,51,33,32		3,59
32″	54, 4, 7, 9,58,44,49,48,26,57		3,57,10,18, 1	
		54,28,37,31,41,15,31		3,59
34″	54, 4, 8, 4,27,22,21,29,42,28		3,57,10,22, 0	
		54,28,33,34,30,53,31		3,59
36″	54, 4, 8,58,55,55,56, 0,35,59		3,57,10,25,59	
		54,28,29,37,20,27,32		3,59
38″	54, 4, 9,53,24,25,33,21, 3,31		3,57,10,29,58	
		54,28,25,40, 9,57,34		3,59
40″	54, 4,10,47,52,51,13,31, 1, 5		3,57,10,33,57	
		54,28,21,42,59,23,37		3,59
42″	54, 4,11,42,21,12,56,30,24,42		3,57,10,37,56	
		54,28,17,45,48,45,41		3,59
44″	54, 4,12,36,49,30,42,19,10,23		3,57,10,41,55	
		54,28,13,48,38, 3,46		3,59
46″	54, 4,13,31,17,44,30,57,14, 9		3,57,10,45,54	
		54,28, 9,51,27,17,52		3,59
48″	54, 4,14,25,45,54,22,24,32, 1		3,57,10,49,53	
		54,28, 5,54,16,27,59		3,59
50″	54, 4,15,20,14, 0,16,41, 0, 0		3,57,10,53,52	
		54,28, 1,57, 5,34, 7		3,59
52″	54, 4,16,14,42, 2,13,46,34, 7		3,57,10,57,51	
		54,27,57,59,54,36,16		3,59
54″	54, 4,17, 9,10, 0,13,41,10,23		3,57,11, 1,50	
		54,27,54, 2,43,34,26		3,59
56″	54, 4,18, 3,37,54,16,24,44,49		3,57,11, 5,49	
		54,27,50, 5,32,28,37		3,59
58″	54, 4,18,58, 5,44,21,57,13,26		3,57,11, 9,48	
		54,27,46, 8,21,18,49		
60″	54, 4,19,52,33,30,30,18,32,15			
exact	54, 4,19,52,33,30,30,18,33,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°19′ 0″	54, 4,19,52,33,30,30,18,33,57			
		54,27,42,11,10, 5,14		
2″	54, 4,20,47, 1,12,41,28,39,11		3,57,11,17,45	
		54,27,38,13,58,47,29		3,59
4″	54, 4,21,41,28,50,55,27,26,40		3,57,11,21,44	
		54,27,34,16,47,25,45		3,59
6″	54, 4,22,35,56,25,12,14,52,25		3,57,11,25,43	
		54,27,30,19,36, 0, 2		3,59
8″	54, 4,23,30,23,55,31,50,52,27		3,57,11,29,42	
		54,27,26,22,24,30,20		3,59
10″	54, 4,24,24,51,21,54,15,22,47		3,57,11,33,41	
		54,27,22,25,12,56,39		3,59
12″	54, 4,25,19,18,44,19,28,19,26		3,57,11,37,40	
		54,27,18,28, 1,18,59		3,59
14″	54, 4,26,13,46, 2,47,29,38,25		3,57,11,41,39	
		54,27,14,30,49,37,20		3,59
16″	54, 4,27, 8,13,17,18,19,15,45		3,57,11,45,38	
		54,27,10,33,37,51,42		3,59
18″	54, 4,28, 2,40,27,51,57, 7,27		3,57,11,49,37	
		54,27, 6,36,26, 2, 5		3,59
20″	54, 4,28,57, 7,34,28,23, 9,32		3,57,11,53,36	
		54,27, 2,39,14, 8,29		3,59
22″	54, 4,29,51,34,37, 7,37,18, 1		3,57,11,57,35	
		54,26,58,42, 2,10,54		3,59
24″	54, 4,30,46, 1,35,49,39,28,55		3,57,12, 1,34	
		54,26,54,44,50, 9,20		3,59
26″	54, 4,31,40,28,30,34,29,38,15		3,57,12, 5,33	
		54,26,50,47,38, 3,47		3,59
28″	54, 4,32,34,55,21,22, 7,42, 2		3,57,12, 9,32	
		54,26,46,50,25,54,15		3,59
30″	54, 4,33,29,22, 8,12,33,36,17		3,57,12,13,31	
		54,26,42,53,13,40,44		3,59
32″	54, 4,34,23,48,51, 5,47,17, 1		3,57,12,17,30	
		54,26,38,56, 1,23,14		3,59
34″	54, 4,35,18,15,30, 1,48,40,15		3,57,12,21,29	
		54,26,34,58,49, 1,45		3,59
36″	54, 4,36,12,42, 5, 0,37,42, 0		3,57,12,25,28	
		54,26,31, 1,36,36,17		3,59
38″	54, 4,37, 7, 8,36, 2,14,18,17		3,57,12,29,27	
		54,26,27, 4,24, 6,50		3,59
40″	54, 4,38, 1,35, 3, 6,38,25, 7		3,57,12,33,26	
		54,26,23, 7,11,33,24		3,59
42″	54, 4,38,56, 1,26,13,49,58,31		3,57,12,37,25	
		54,26,19, 9,58,55,59		3,59
44″	54, 4,39,50,27,45,23,48,54,30		3,57,12,41,24	
		54,26,15,12,46,14,35		3,59
46″	54, 4,40,44,54, 0,36,35, 9, 5		3,57,12,45,23	
		54,26,11,15,33,29,12		3,59
48″	54, 4,41,39,20,11,52, 8,38,17		3,57,12,49,22	
		54,26, 7,18,20,39,50		3,59
50″	54, 4,42,33,46,19,10,29,18, 7		3,57,12,53,21	
		54,26, 3,21, 7,46,29		3,59
52″	54, 4,43,28,12,22,31,37, 4,36		3,57,12,57,20	
		54,25,59,23,54,49, 9		3,59
54″	54, 4,44,22,38,21,55,31,53,45		3,57,13, 1,19	
		54,25,55,26,41,47,50		3,59
56″	54, 4,45,17, 4,17,22,13,41,35		3,57,13, 5,18	
		54,25,51,29,28,42,32		3,59
58″	54, 4,46,11,30, 8,51,42,24, 7		3,57,13, 9,17	
		54,25,47,32,15,33,15		
60″	54, 4,47, 5,55,56,23,57,57,22			
exact	54, 4,47, 5,55,56,23,58, 8,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°20′ 0″	54, 4,47, 5,55,56,23,58, 8,48			
		54,25,43,35, 2,21,14		
2″	54, 4,48, 0,21,39,59, 0,30, 2		3,57,13,17, 9	
		54,25,39,37,49, 4, 5		3,59
4″	54, 4,48,54,47,19,36,49,34, 7		3,57,13,21, 8	
		54,25,35,40,35,42,57		3,59
6″	54, 4,49,49,12,55,17,25,17, 4		3,57,13,25, 7	
		54,25,31,43,22,17,50		3,59
8″	54, 4,50,43,38,27, 0,47,34,54		3,57,13,29, 6	
		54,25,27,46, 8,48,44		3,59
10″	54, 4,51,38, 3,54,46,56,23,38		3,57,13,33, 5	
		54,25,23,48,55,15,39		3,59
12″	54, 4,52,32,29,18,35,51,39,17		3,57,13,37, 4	
		54,25,19,51,41,38,35		3,59
14″	54, 4,53,26,54,38,27,33,17,52		3,57,13,41, 3	
		54,25,15,54,27,57,32		3,59
16″	54, 4,54,21,19,54,22, 1,15,24		3,57,13,45, 2	
		54,25,11,57,14,12,30		3,59
18″	54, 4,55,15,45, 6,19,15,27,54		3,57,13,49, 1	
		54,25, 8, 0, 0,23,29		3,59
20″	54, 4,56,10,10,14,19,15,51,23		3,57,13,53, 0	
		54,25, 4, 2,46,30,29		3,59
22″	54, 4,57, 4,35,18,22, 2,21,52		3,57,13,56,59	
		54,25, 0, 5,32,33,30		3,59
24″	54, 4,57,59, 0,18,27,34,55,22		3,57,14, 0,58	
		54,24,56, 8,18,32,32		3,59
26″	54, 4,58,53,25,14,35,53,27,54		3,57,14, 4,57	
		54,24,52,11, 4,27,35		3,59
28″	54, 4,59,47,50, 6,46,57,55,29		3,57,14, 8,56	
		54,24,48,13,50,18,39		3,59
30″	54, 5, 0,42,14,55, 0,48,14, 8		3,57,14,12,55	
		54,24,44,16,36, 5,44		3,59
32″	54, 5, 1,36,39,39,17,24,19,52		3,57,14,16,54	
		54,24,40,19,21,48,50		3,59
34″	54, 5, 2,31, 4,19,36,46, 8,42		3,57,14,20,53	
		54,24,36,22, 7,27,57		3,59
36″	54, 5, 3,25,28,55,58,53,36,39		3,57,14,24,52	
		54,24,32,24,53, 3, 5		3,59
38″	54, 5, 4,19,53,28,23,46,39,44		3,57,14,28,51	
		54,24,28,27,38,34,14		3,59
40″	54, 5, 5,14,17,56,51,25,13,58		3,57,14,32,50	
		54,24,24,30,24, 1,24		3,59
42″	54, 5, 6, 8,42,21,21,49,15,22		3,57,14,36,49	
		54,24,20,33, 9,24,35		3,59
44″	54, 5, 7, 3, 6,41,54,58,39,57		3,57,14,40,48	
		54,24,16,35,54,43,47		3,59
46″	54, 5, 7,57,30,58,30,53,23,44		3,57,14,44,47	
		54,24,12,38,39,59, 0		3,59
48″	54, 5, 8,51,55,11, 9,33,22,44		3,57,14,48,46	
		54,24, 8,41,25,10,14		3,59
50″	54, 5, 9,46,19,19,50,58,32,58		3,57,14,52,45	
		54,24, 4,44,10,17,29		3,59
52″	54, 5,10,40,43,24,35, 8,50,27		3,57,14,56,44	
		54,24, 0,46,55,20,45		3,59
54″	54, 5,11,35, 7,25,22, 4,11,12		3,57,15, 0,43	
		54,23,56,49,40,20, 2		3,59
56″	54, 5,12,29,31,22,11,44,31,14		3,57,15, 4,42	
		54,23,52,52,25,15,20		3,59
58″	54, 5,13,23,55,15, 4, 9,46,34		3,57,15, 8,41	
		54,23,48,55,10, 6,39		
60″	54, 5,14,18,19, 3,59,19,53,13			
exact	54, 5,14,18,19, 3,59,20, 9,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°21′ 0″	54, 5,14,18,19, 3,59,20, 9,55			
		54,23,44,57,54,55,58		
2″	54, 5,15,12,42,48,57,15, 5,53		3,57,15,16,30	
		54,23,41, 0,39,39,28		3,59
4″	54, 5,16, 7, 6,29,57,54,45,21		3,57,15,20,29	
		54,23,37, 3,24,18,59		3,59
6″	54, 5,17, 1,30, 7, 1,19, 4,20		3,57,15,24,28	
		54,23,33, 6, 8,54,31		3,59
8″	54, 5,17,55,53,40, 7,27,58,51		3,57,15,28,27	
		54,23,29, 8,53,26, 4		3,59
10″	54, 5,18,50,17, 9,16,21,24,55		3,57,15,32,26	
		54,23,25,11,37,53,38		3,59
12″	54, 5,19,44,40,34,27,59,18,33		3,57,15,36,25	
		54,23,21,14,22,17,13		3,59
14″	54, 5,20,39, 3,55,42,21,35,46		3,57,15,40,24	
		54,23,17,17, 6,36,49		3,59
16″	54, 5,21,33,27,12,59,28,12,35		3,57,15,44,23	
		54,23,13,19,50,52,26		3,59
18″	54, 5,22,27,50,26,19,19, 5, 1		3,57,15,48,22	
		54,23, 9,22,35, 4, 4		3,59
20″	54, 5,23,22,13,35,41,54, 9, 5		3,57,15,52,21	
		54,23, 5,25,19,11,43		3,59
22″	54, 5,24,16,36,41, 7,13,20,48		3,57,15,56,20	
		54,23, 1,28, 3,15,23		3,59
24″	54, 5,25,10,59,42,35,16,36,11		3,57,16, 0,19	
		54,22,57,30,47,15, 4		3,59
26″	54, 5,26, 5,22,40, 6, 3,51,15		3,57,16, 4,18	
		54,22,53,33,31,10,46		3,59
28″	54, 5,26,59,45,33,39,35, 2, 1		3,57,16, 8,17	
		54,22,49,36,15, 2,29		3,59
30″	54, 5,27,54, 8,23,15,50, 4,30		3,57,16,12,16	
		54,22,45,38,58,50,13		3,59
32″	54, 5,28,48,31, 8,54,48,54,43		3,57,16,16,15	
		54,22,41,41,42,33,58		3,59
34″	54, 5,29,42,53,50,36,31,28,41		3,57,16,20,14	
		54,22,37,44,26,13,44		3,59
36″	54, 5,30,37,16,28,20,57,42,25		3,57,16,24,13	
		54,22,33,47, 9,49,31		3,59
38″	54, 5,31,31,39, 2, 8, 7,31,56		3,57,16,28,12	
		54,22,29,49,53,21,19		3,59
40″	54, 5,32,26, 1,31,58, 0,53,15		3,57,16,32,11	
		54,22,25,52,36,49, 8		3,59
42″	54, 5,33,20,23,57,50,37,42,23		3,57,16,36,10	
		54,22,21,55,20,12,58		3,59
44″	54, 5,34,14,46,19,45,57,55,21		3,57,16,40, 9	
		54,22,17,58, 3,32,49		3,59
46″	54, 5,35, 9, 8,37,44, 1,28,10		3,57,16,44, 8	
		54,22,14, 0,46,48,41		3,59
48″	54, 5,36, 3,30,51,44,48,16,51		3,57,16,48, 7	
		54,22,10, 3,30, 0,34		3,59
50″	54, 5,36,57,53, 1,48,18,17,25		3,57,16,52, 6	
		54,22, 6, 6,13, 8,28		3,59
52″	54, 5,37,52,15, 7,54,31,25,53		3,57,16,56, 5	
		54,22, 2, 8,56,12,23		3,59
54″	54, 5,38,46,37,10, 3,27,38,16		3,57,17, 0, 4	
		54,21,58,11,39,12,19		3,59
56″	54, 5,39,40,59, 8,15, 6,50,35		3,57,17, 4, 3	
		54,21,54,14,22, 8,16		3,59
58″	54, 5,40,35,21, 2,29,28,58,51		3,57,17, 8, 2	
		54,21,50,17, 5, 0,14		
60″	54, 5,41,29,42,52,46,33,59, 5			
exact	54, 5,41,29,42,52,46,34,30,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°22′ 0″	54, 5,41,29,42,52,46,34,30,38			
		54,21,46,19,47,51,36		
2″	54, 5,42,24, 4,39, 6,22,22,14		3,57,17,15,46	
		54,21,42,22,30,35,50		3,58
4″	54, 5,43,18,26,21,28,52,58, 4		3,57,17,19,44	
		54,21,38,25,13,16, 6		3,58
6″	54, 5,44,12,47,59,54, 6,14,10		3,57,17,23,42	
		54,21,34,27,55,52,24		3,58
8″	54, 5,45, 7, 9,34,22, 2, 6,34		3,57,17,27,40	
		54,21,30,30,38,24,44		3,58
10″	54, 5,46, 1,31, 4,52,40,31,18		3,57,17,31,38	
		54,21,26,33,20,53, 6		3,58
12″	54, 5,46,55,52,31,26, 1,24,24		3,57,17,35,36	
		54,21,22,36, 3,17,30		3,58
14″	54, 5,47,50,13,54, 2, 4,41,54		3,57,17,39,34	
		54,21,18,38,45,37,56		3,58
16″	54, 5,48,44,35,12,40,50,19,50		3,57,17,43,32	
		54,21,14,41,27,54,24		3,58
18″	54, 5,49,38,56,27,22,18,14,14		3,57,17,47,30	
		54,21,10,44,10, 6,54		3,58
20″	54, 5,50,33,17,38, 6,28,21, 8		3,57,17,51,28	
		54,21, 6,46,52,15,26		3,58
22″	54, 5,51,27,38,44,53,20,36,34		3,57,17,55,26	
		54,21, 2,49,34,20, 0		3,58
24″	54, 5,52,21,59,47,42,54,56,34		3,57,17,59,24	
		54,20,58,52,16,20,36		3,58
26″	54, 5,53,16,20,46,35,11,17,10		3,57,18, 3,22	
		54,20,54,54,58,17,14		3,58
28″	54, 5,54,10,41,41,30, 9,34,24		3,57,18, 7,20	
		54,20,50,57,40, 9,54		3,58
30″	54, 5,55, 5, 2,32,27,49,44,18		3,57,18,11,18	
		54,20,47, 0,21,58,36		3,58
32″	54, 5,55,59,23,19,28,11,42,54		3,57,18,15,16	
		54,20,43, 3, 3,43,20		3,58
34″	54, 5,56,53,44, 2,31,15,26,14		3,57,18,19,14	
		54,20,39, 5,45,24, 6		3,58
36″	54, 5,57,48, 4,41,37, 0,50,20		3,57,18,23,12	
		54,20,35, 8,27, 0,54		3,58
38″	54, 5,58,42,25,16,45,27,51,14		3,57,18,27,10	
		54,20,31,11, 8,33,44		3,58
40″	54, 5,59,36,45,47,56,36,24,58		3,57,18,31, 8	
		54,20,27,13,50, 2,36		3,58
42″	54, 6, 0,31, 6,15,10,26,27,34		3,57,18,35, 6	
		54,20,23,16,31,27,30		3,58
44″	54, 6, 1,25,26,38,26,57,55, 4		3,57,18,39, 4	
		54,20,19,19,12,48,26		3,58
46″	54, 6, 2,19,46,57,46,10,43,30		3,57,18,43, 2	
		54,20,15,21,54, 5,24		3,58
48″	54, 6, 3,14, 7,13, 8, 4,48,54		3,57,18,47, 0	
		54,20,11,24,35,18,24		3,58
50″	54, 6, 4, 8,27,24,32,40, 7,18		3,57,18,50,58	
		54,20, 7,27,16,27,26		3,58
52″	54, 6, 5, 2,47,31,59,56,34,44		3,57,18,54,56	
		54,20, 3,29,57,32,30		3,58
54″	54, 6, 5,57, 7,35,29,54, 7,14		3,57,18,58,54	
		54,19,59,32,38,33,36		3,58
56″	54, 6, 6,51,27,35, 2,32,40,50		3,57,19, 2,52	
		54,19,55,35,19,30,44		3,58
58″	54, 6, 7,45,47,30,37,52,11,34		3,57,19, 6,50	
		54,19,51,38, 0,23,54		
60″	54, 6, 8,40, 7,22,15,52,35,28			
exact	54, 6, 8,40, 7,22,15,52, 9,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°23′ 0″	54, 6, 8,40, 7,22,15,52, 9,23			
		54,19,47,40,41,10,18		
2″	54, 6, 9,34,27, 9,56,33,19,41		3,57,19,14,57	
		54,19,43,43,21,55,21		3,58
4″	54, 6,10,28,46,53,39,55,15, 2		3,57,19,18,55	
		54,19,39,46, 2,36,26		3,58
6″	54, 6,11,23, 6,33,25,57,51,28		3,57,19,22,53	
		54,19,35,48,43,13,33		3,58
8″	54, 6,12,17,26, 9,14,41, 5, 1		3,57,19,26,51	
		54,19,31,51,23,46,42		3,58
10″	54, 6,13,11,45,41, 6, 4,51,43		3,57,19,30,49	
		54,19,27,54, 4,15,53		3,58
12″	54, 6,14, 6, 5, 9, 0, 9, 7,36		3,57,19,34,47	
		54,19,23,56,44,41, 6		3,58
14″	54, 6,15, 0,24,32,56,53,48,42		3,57,19,38,45	
		54,19,19,59,25, 2,21		3,58
16″	54, 6,15,54,43,52,56,18,51, 3		3,57,19,42,43	
		54,19,16, 2, 5,19,38		3,58
18″	54, 6,16,49, 3, 8,58,24,10,41		3,57,19,46,41	
		54,19,12, 4,45,32,57		3,58
20″	54, 6,17,43,22,21, 3, 9,43,38		3,57,19,50,39	
		54,19, 8, 7,25,42,18		3,58
22″	54, 6,18,37,41,29,10,35,25,56		3,57,19,54,37	
		54,19, 4,10, 5,47,41		3,58
24″	54, 6,19,32, 0,33,20,41,13,37		3,57,19,58,35	
		54,19, 0,12,45,49, 6		3,58
26″	54, 6,20,26,19,33,33,27, 2,43		3,57,20, 2,33	
		54,18,56,15,25,46,33		3,58
28″	54, 6,21,20,38,29,48,52,49,16		3,57,20, 6,31	
		54,18,52,18, 5,40, 2		3,58
30″	54, 6,22,14,57,22, 6,58,29,18		3,57,20,10,29	
		54,18,48,20,45,29,33		3,58
32″	54, 6,23, 9,16,10,27,43,58,51		3,57,20,14,27	
		54,18,44,23,25,15, 6		3,58
34″	54, 6,24, 3,34,54,51, 9,13,57		3,57,20,18,25	
		54,18,40,26, 4,56,41		3,58
36″	54, 6,24,57,53,35,17,14,10,38		3,57,20,22,23	
		54,18,36,28,44,34,18		3,58
38″	54, 6,25,52,12,11,45,58,44,56		3,57,20,26,21	
		54,18,32,31,24, 7,57		3,58
40″	54, 6,26,46,30,44,17,22,52,53		3,57,20,30,19	
		54,18,28,34, 3,37,38		3,58
42″	54, 6,27,40,49,12,51,26,30,31		3,57,20,34,17	
		54,18,24,36,43, 3,21		3,58
44″	54, 6,28,35, 7,37,28, 9,33,52		3,57,20,38,15	
		54,18,20,39,22,25, 6		3,58
46″	54, 6,29,29,25,58, 7,31,58,58		3,57,20,42,13	
		54,18,16,42, 1,42,53		3,58
48″	54, 6,30,23,44,14,49,33,41,51		3,57,20,46,11	
		54,18,12,44,40,56,42		3,58
50″	54, 6,31,18, 2,27,34,14,38,33		3,57,20,50, 9	
		54,18, 8,47,20, 6,33		3,58
52″	54, 6,32,12,20,36,21,34,45, 6		3,57,20,54, 7	
		54,18, 4,49,59,12,26		3,58
54″	54, 6,33, 6,38,41,11,33,57,32		3,57,20,58, 5	
		54,18, 0,52,38,14,21		3,58
56″	54, 6,34, 0,56,42, 4,12,11,53		3,57,21, 2, 3	
		54,17,56,55,17,12,18		3,58
58″	54, 6,34,55,14,38,59,29,24,11		3,57,21, 6, 1	
		54,17,52,57,56, 6,17		
60″	54, 6,35,49,32,31,57,25,30,28			
exact	54, 6,35,49,32,31,57,25, 9,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°24′ 0″	54, 6,35,49,32,31,57,25, 9,34			
		54,17,49, 0,34,54,14		
2″	54, 6,36,43,50,20,58, 0, 3,48		3,57,21,14, 5	
		54,17,45, 3,13,40, 9		3,58
4″	54, 6,37,38, 8, 6, 1,13,43,57		3,57,21,18, 3	
		54,17,41, 5,52,22, 6		3,58
6″	54, 6,38,32,25,47, 7, 6, 6, 3		3,57,21,22, 1	
		54,17,37, 8,31, 0, 5		3,58
8″	54, 6,39,26,43,24,15,37, 6, 8		3,57,21,25,59	
		54,17,33,11, 9,34, 6		3,58
10″	54, 6,40,21, 0,57,26,46,40,14		3,57,21,29,57	
		54,17,29,13,48, 4, 9		3,58
12″	54, 6,41,15,18,26,40,34,44,23		3,57,21,33,55	
		54,17,25,16,26,30,14		3,58
14″	54, 6,42, 9,35,51,57, 1,14,37		3,57,21,37,53	
		54,17,21,19, 4,52,21		3,58
16″	54, 6,43, 3,53,13,16, 6, 6,58		3,57,21,41,51	
		54,17,17,21,43,10,30		3,58
18″	54, 6,43,58,10,30,37,49,17,28		3,57,21,45,49	
		54,17,13,24,21,24,41		3,58
20″	54, 6,44,52,27,44, 2,10,42, 9		3,57,21,49,47	
		54,17, 9,26,59,34,54		3,58
22″	54, 6,45,46,44,53,29,10,17, 3		3,57,21,53,45	
		54,17, 5,29,37,41, 9		3,58
24″	54, 6,46,41, 1,58,58,47,58,12		3,57,21,57,43	
		54,17, 1,32,15,43,26		3,58
26″	54, 6,47,35,19, 0,31, 3,41,38		3,57,22, 1,41	
		54,16,57,34,53,41,45		3,58
28″	54, 6,48,29,35,58, 5,57,23,23		3,57,22, 5,39	
		54,16,53,37,31,36, 6		3,58
30″	54, 6,49,23,52,51,43,28,59,29		3,57,22, 9,37	
		54,16,49,40, 9,26,29		3,58
32″	54, 6,50,18, 9,41,23,38,25,58		3,57,22,13,35	
		54,16,45,42,47,12,54		3,58
34″	54, 6,51,12,26,27, 6,25,38,52		3,57,22,17,33	
		54,16,41,45,24,55,21		3,58
36″	54, 6,52, 6,43, 8,51,50,34,13		3,57,22,21,31	
		54,16,37,48, 2,33,50		3,58
38″	54, 6,53, 0,59,46,39,53, 8, 3		3,57,22,25,29	
		54,16,33,50,40, 8,21		3,58
40″	54, 6,53,55,16,20,30,33,16,24		3,57,22,29,27	
		54,16,29,53,17,38,54		3,58
42″	54, 6,54,49,32,50,23,50,55,18		3,57,22,33,25	
		54,16,25,55,55, 5,29		3,58
44″	54, 6,55,43,49,16,19,46, 0,47		3,57,22,37,23	
		54,16,21,58,32,28, 6		3,58
46″	54, 6,56,38, 5,38,18,18,28,53		3,57,22,41,21	
		54,16,18, 1, 9,46,45		3,58
48″	54, 6,57,32,21,56,19,28,15,38		3,57,22,45,19	
		54,16,14, 3,47, 1,26		3,58
50″	54, 6,58,26,38,10,23,15,17, 4		3,57,22,49,17	
		54,16,10, 6,24,12, 9		3,58
52″	54, 6,59,20,54,20,29,39,29,13		3,57,22,53,15	
		54,16, 6, 9, 1,18,54		3,58
54″	54, 7, 0,15,10,26,38,40,48, 7		3,57,22,57,13	
		54,16, 2,11,38,21,41		3,58
56″	54, 7, 1, 9,26,28,50,19, 9,48		3,57,23, 1,11	
		54,15,58,14,15,20,30		3,58
58″	54, 7, 2, 3,42,27, 4,34,30,18		3,57,23, 5, 9	
		54,15,54,16,52,15,21		
60″	54, 7, 2,57,58,21,21,26,45,39			
exact	54, 7, 2,57,58,21,21,26,39,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°25′ 0″	54, 7, 2,57,58,21,21,26,39,42			
		54,15,50,19,29, 5,34		
2″	54, 7, 3,52,14,11,40,55,45,16		3,57,23,13, 7	
		54,15,46,22, 5,52,27		3,58
4″	54, 7, 4,46,29,58, 3, 1,37,43		3,57,23,17, 5	
		54,15,42,24,42,35,22		3,58
6″	54, 7, 5,40,45,40,27,44,13, 5		3,57,23,21, 3	
		54,15,38,27,19,14,19		3,58
8″	54, 7, 6,35, 1,18,55, 3,27,24		3,57,23,25, 1	
		54,15,34,29,55,49,18		3,58
10″	54, 7, 7,29,16,53,24,59,16,42		3,57,23,28,59	
		54,15,30,32,32,20,19		3,58
12″	54, 7, 8,23,32,23,57,31,37, 1		3,57,23,32,57	
		54,15,26,35, 8,47,22		3,58
14″	54, 7, 9,17,47,50,32,40,24,23		3,57,23,36,55	
		54,15,22,37,45,10,27		3,58
16″	54, 7,10,12, 3,13,10,25,34,50		3,57,23,40,53	
		54,15,18,40,21,29,34		3,58
18″	54, 7,11, 6,18,31,50,47, 4,24		3,57,23,44,51	
		54,15,14,42,57,44,43		3,58
20″	54, 7,12, 0,33,46,33,44,49, 7		3,57,23,48,49	
		54,15,10,45,33,55,54		3,58
22″	54, 7,12,54,48,57,19,18,45, 1		3,57,23,52,47	
		54,15, 6,48,10, 3, 7		3,58
24″	54, 7,13,49, 4, 4, 7,28,48, 8		3,57,23,56,45	
		54,15, 2,50,46, 6,22		3,58
26″	54, 7,14,43,19, 6,58,14,54,30		3,57,24, 0,43	
		54,14,58,53,22, 5,39		3,58
28″	54, 7,15,37,34, 5,51,37, 0, 9		3,57,24, 4,41	
		54,14,54,55,58, 0,58		3,58
30″	54, 7,16,31,49, 0,47,35, 1, 7		3,57,24, 8,39	
		54,14,50,58,33,52,19		3,58
32″	54, 7,17,26, 3,51,46, 8,53,26		3,57,24,12,37	
		54,14,47, 1, 9,39,42		3,58
34″	54, 7,18,20,18,38,47,18,33, 8		3,57,24,16,35	
		54,14,43, 3,45,23, 7		3,58
36″	54, 7,19,14,33,21,51, 3,56,15		3,57,24,20,33	
		54,14,39, 6,21, 2,34		3,58
38″	54, 7,20, 8,48, 0,57,24,58,49		3,57,24,24,31	
		54,14,35, 8,56,38, 3		3,58
40″	54, 7,21, 3, 2,36, 6,21,36,52		3,57,24,28,29	
		54,14,31,11,32, 9,34		3,58
42″	54, 7,21,57,17, 7,17,53,46,26		3,57,24,32,27	
		54,14,27,14, 7,37, 7		3,58
44″	54, 7,22,51,31,34,32, 1,23,33		3,57,24,36,25	
		54,14,23,16,43, 0,42		3,58
46″	54, 7,23,45,45,57,48,44,24,15		3,57,24,40,23	
		54,14,19,19,18,20,19		3,58
48″	54, 7,24,40, 0,17, 8, 2,44,34		3,57,24,44,21	
		54,14,15,21,53,35,58		3,58
50″	54, 7,25,34,14,32,29,56,20,32		3,57,24,48,19	
		54,14,11,24,28,47,39		3,58
52″	54, 7,26,28,28,43,54,25, 8,11		3,57,24,52,17	
		54,14, 7,27, 3,55,22		3,58
54″	54, 7,27,22,42,51,21,29, 3,33		3,57,24,56,15	
		54,14, 3,29,38,59, 7		3,58
56″	54, 7,28,16,56,54,51, 8, 2,40		3,57,25, 0,13	
		54,13,59,32,13,58,54		3,58
58″	54, 7,29,11,10,54,23,22, 1,34		3,57,25, 4,11	
		54,13,55,34,48,54,43		
60″	54, 7,30, 5,24,49,58,10,56,17			
exact	54, 7,30, 5,24,49,58,10,53,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°26′ 0″	54, 7,30, 5,24,49,58,10,53,22			
		54,13,51,37,23,46,29		
2″	54, 7,30,59,38,41,35,34,39,51		3,57,25,12, 6	
		54,13,47,39,58,34,23		3,58
4″	54, 7,31,53,52,29,15,33,14,14		3,57,25,16, 4	
		54,13,43,42,33,18,19		3,58
6″	54, 7,32,48, 6,12,58, 6,32,33		3,57,25,20, 2	
		54,13,39,45, 7,58,17		3,58
8″	54, 7,33,42,19,52,43,14,30,50		3,57,25,24, 0	
		54,13,35,47,42,34,17		3,58
10″	54, 7,34,36,33,28,30,57, 5, 7		3,57,25,27,58	
		54,13,31,50,17, 6,19		3,58
12″	54, 7,35,30,47, 0,21,14,11,26		3,57,25,31,56	
		54,13,27,52,51,34,23		3,58
14″	54, 7,36,25, 0,28,14, 5,45,49		3,57,25,35,54	
		54,13,23,55,25,58,29		3,58
16″	54, 7,37,19,13,52, 9,31,44,18		3,57,25,39,52	
		54,13,19,58, 0,18,37		3,58
18″	54, 7,38,13,27,12, 7,32, 2,55		3,57,25,43,50	
		54,13,16, 0,34,34,47		3,58
20″	54, 7,39, 7,40,28, 8, 6,37,42		3,57,25,47,48	
		54,13,12, 3, 8,46,59		3,58
22″	54, 7,40, 1,53,40,11,15,24,41		3,57,25,51,46	
		54,13, 8, 5,42,55,13		3,58
24″	54, 7,40,56, 6,48,16,58,19,54		3,57,25,55,44	
		54,13, 4, 8,16,59,29		3,58
26″	54, 7,41,50,19,52,25,15,19,23		3,57,25,59,42	
		54,13, 0,10,50,59,47		3,58
28″	54, 7,42,44,32,52,36, 6,19,10		3,57,26, 3,40	
		54,12,56,13,24,56, 7		3,58
30″	54, 7,43,38,45,48,49,31,15,17		3,57,26, 7,38	
		54,12,52,15,58,48,29		3,58
32″	54, 7,44,32,58,41, 5,30, 3,46		3,57,26,11,36	
		54,12,48,18,32,36,53		3,58
34″	54, 7,45,27,11,29,24, 2,40,39		3,57,26,15,34	
		54,12,44,21, 6,21,19		3,58
36″	54, 7,46,21,24,13,45, 9, 1,58		3,57,26,19,32	
		54,12,40,23,40, 1,47		3,58
38″	54, 7,47,15,36,54, 8,49, 3,45		3,57,26,23,30	
		54,12,36,26,13,38,17		3,58
40″	54, 7,48, 9,49,30,35, 2,42, 2		3,57,26,27,28	
		54,12,32,28,47,10,49		3,58
42″	54, 7,49, 4, 2, 3, 3,49,52,51		3,57,26,31,26	
		54,12,28,31,20,39,23		3,58
44″	54, 7,49,58,14,31,35,10,32,14		3,57,26,35,24	
		54,12,24,33,54, 3,59		3,58
46″	54, 7,50,52,26,56, 9, 4,36,13		3,57,26,39,22	
		54,12,20,36,27,24,37		3,58
48″	54, 7,51,46,39,16,45,32, 0,50		3,57,26,43,20	
		54,12,16,39, 0,41,17		3,58
50″	54, 7,52,40,51,33,24,32,42, 7		3,57,26,47,18	
		54,12,12,41,33,53,59		3,58
52″	54, 7,53,35, 3,46, 6, 6,36, 6		3,57,26,51,16	
		54,12, 8,44, 7, 2,43		3,58
54″	54, 7,54,29,15,54,50,13,38,49		3,57,26,55,14	
		54,12, 4,46,40, 7,29		3,58
56″	54, 7,55,23,27,59,36,53,46,18		3,57,26,59,12	
		54,12, 0,49,13, 8,17		3,58
58″	54, 7,56,17,40, 0,26, 6,54,35		3,57,27, 3,10	
		54,11,56,51,46, 5, 7		
60″	54, 7,57,11,51,57,17,52,59,42			
exact	54, 7,57,11,51,57,17,53, 9,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°27′ 0″	54, 7,57,11,51,57,17,53, 9,13			
		54,11,52,54,18,59, 8		
2″	54, 7,58, 6, 3,50,12,12, 8,21		3,57,27,11, 0	
		54,11,48,56,51,48, 8		3,58
4″	54, 7,59, 0,15,39, 9, 3,56,29		3,57,27,14,58	
		54,11,44,59,24,33,10		3,58
6″	54, 7,59,54,27,24, 8,28,29,39		3,57,27,18,56	
		54,11,41, 1,57,14,14		3,58
8″	54, 8, 0,48,39, 5,10,25,43,53		3,57,27,22,54	
		54,11,37, 4,29,51,20		3,58
10″	54, 8, 1,42,50,42,14,55,35,13		3,57,27,26,52	
		54,11,33, 7, 2,24,28		3,58
12″	54, 8, 2,37, 2,15,21,57,59,41		3,57,27,30,50	
		54,11,29, 9,34,53,38		3,58
14″	54, 8, 3,31,13,44,31,32,53,19		3,57,27,34,48	
		54,11,25,12, 7,18,50		3,58
16″	54, 8, 4,25,25, 9,43,40,12, 9		3,57,27,38,46	
		54,11,21,14,39,40, 4		3,58
18″	54, 8, 5,19,36,30,58,19,52,13		3,57,27,42,44	
		54,11,17,17,11,57,20		3,58
20″	54, 8, 6,13,47,48,15,31,49,33		3,57,27,46,42	
		54,11,13,19,44,10,38		3,58
22″	54, 8, 7, 7,59, 1,35,16, 0,11		3,57,27,50,40	
		54,11, 9,22,16,19,58		3,58
24″	54, 8, 8, 2,10,10,57,32,20, 9		3,57,27,54,38	
		54,11, 5,24,48,25,20		3,58
26″	54, 8, 8,56,21,16,22,20,45,29		3,57,27,58,36	
		54,11, 1,27,20,26,44		3,58
28″	54, 8, 9,50,32,17,49,41,12,13		3,57,28, 2,34	
		54,10,57,29,52,24,10		3,58
30″	54, 8,10,44,43,15,19,33,36,23		3,57,28, 6,32	
		54,10,53,32,24,17,38		3,58
32″	54, 8,11,38,54, 8,51,57,54, 1		3,57,28,10,30	
		54,10,49,34,56, 7, 8		3,58
34″	54, 8,12,33, 4,58,26,54, 1, 9		3,57,28,14,28	
		54,10,45,37,27,52,40		3,58
36″	54, 8,13,27,15,44, 4,21,53,49		3,57,28,18,26	
		54,10,41,39,59,34,14		3,58
38″	54, 8,14,21,26,25,44,21,28, 3		3,57,28,22,24	
		54,10,37,42,31,11,50		3,58
40″	54, 8,15,15,37, 3,26,52,39,53		3,57,28,26,22	
		54,10,33,45, 2,45,28		3,58
42″	54, 8,16, 9,47,37,11,55,25,21		3,57,28,30,20	
		54,10,29,47,34,15, 8		3,58
44″	54, 8,17, 3,58, 6,59,29,40,29		3,57,28,34,18	
		54,10,25,50, 5,40,50		3,58
46″	54, 8,17,58, 8,32,49,35,21,19		3,57,28,38,16	
		54,10,21,52,37, 2,34		3,58
48″	54, 8,18,52,18,54,42,12,23,53		3,57,28,42,14	
		54,10,17,55, 8,20,20		3,58
50″	54, 8,19,46,29,12,37,20,44,13		3,57,28,46,12	
		54,10,13,57,39,34, 8		3,58
52″	54, 8,20,40,39,26,35, 0,18,21		3,57,28,50,10	
		54,10,10, 0,10,43,58		3,58
54″	54, 8,21,34,49,36,35,11, 2,19		3,57,28,54, 8	
		54,10, 6, 2,41,49,50		3,58
56″	54, 8,22,28,59,42,37,52,52, 9		3,57,28,58, 6	
		54,10, 2, 5,12,51,44		3,58
58″	54, 8,23,23, 9,44,43, 5,43,53		3,57,29, 2, 4	
		54, 9,58, 7,43,49,40		
60″	54, 8,24,17,19,42,50,49,33,33			
exact	54, 8,24,17,19,42,50,49,51, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°28′ 0″	54, 8,24,17,19,42,50,49,51, 0			
		54, 9,54,10,14,45,42		
2″	54, 8,25,11,29,37, 1, 4,36,42		3,57,29, 9,50	
		54, 9,50,12,45,35,52		3,58
4″	54, 8,26, 5,39,27,13,50,12,34		3,57,29,13,48	
		54, 9,46,15,16,22, 4		3,58
6″	54, 8,26,59,49,13,29, 6,34,38		3,57,29,17,46	
		54, 9,42,17,47, 4,18		3,58
8″	54, 8,27,53,58,55,46,53,38,56		3,57,29,21,44	
		54, 9,38,20,17,42,34		3,58
10″	54, 8,28,48, 8,34, 7,11,21,30		3,57,29,25,42	
		54, 9,34,22,48,16,52		3,58
12″	54, 8,29,42,18, 8,29,59,38,22		3,57,29,29,40	
		54, 9,30,25,18,47,12		3,58
14″	54, 8,30,36,27,38,55,18,25,34		3,57,29,33,38	
		54, 9,26,27,49,13,34		3,58
16″	54, 8,31,30,37, 5,23, 7,39, 8		3,57,29,37,36	
		54, 9,22,30,19,35,58		3,58
18″	54, 8,32,24,46,27,53,27,15, 6		3,57,29,41,34	
		54, 9,18,32,49,54,24		3,58
20″	54, 8,33,18,55,46,26,17, 9,30		3,57,29,45,32	
		54, 9,14,35,20, 8,52		3,58
22″	54, 8,34,13, 5, 1, 1,37,18,22		3,57,29,49,30	
		54, 9,10,37,50,19,22		3,58
24″	54, 8,35, 7,14,11,39,27,37,44		3,57,29,53,28	
		54, 9, 6,40,20,25,54		3,58
26″	54, 8,36, 1,23,18,19,48, 3,38		3,57,29,57,26	
		54, 9, 2,42,50,28,28		3,58
28″	54, 8,36,55,32,21, 2,38,32, 6		3,57,30, 1,24	
		54, 8,58,45,20,27, 4		3,58
30″	54, 8,37,49,41,19,47,58,59,10		3,57,30, 5,22	
		54, 8,54,47,50,21,42		3,58
32″	54, 8,38,43,50,14,35,49,20,52		3,57,30, 9,20	
		54, 8,50,50,20,12,22		3,58
34″	54, 8,39,37,59, 5,26, 9,33,14		3,57,30,13,18	
		54, 8,46,52,49,59, 4		3,58
36″	54, 8,40,32, 7,52,18,59,32,18		3,57,30,17,16	
		54, 8,42,55,19,41,48		3,58
38″	54, 8,41,26,16,35,14,19,14, 6		3,57,30,21,14	
		54, 8,38,57,49,20,34		3,58
40″	54, 8,42,20,25,14,12, 8,34,40		3,57,30,25,12	
		54, 8,35, 0,18,55,22		3,58
42″	54, 8,43,14,33,49,12,27,30, 2		3,57,30,29,10	
		54, 8,31, 2,48,26,12		3,58
44″	54, 8,44, 8,42,20,15,15,56,14		3,57,30,33, 8	
		54, 8,27, 5,17,53, 4		3,58
46″	54, 8,45, 2,50,47,20,33,49,18		3,57,30,37, 6	
		54, 8,23, 7,47,15,58		3,58
48″	54, 8,45,56,59,10,28,21, 5,16		3,57,30,41, 4	
		54, 8,19,10,16,34,54		3,58
50″	54, 8,46,51, 7,29,38,37,40,10		3,57,30,45, 2	
		54, 8,15,12,45,49,52		3,58
52″	54, 8,47,45,15,44,51,23,30, 2		3,57,30,49, 0	
		54, 8,11,15,15, 0,52		3,58
54″	54, 8,48,39,23,56, 6,38,30,54		3,57,30,52,58	
		54, 8, 7,17,44, 7,54		3,58
56″	54, 8,49,33,32, 3,24,22,38,48		3,57,30,56,56	
		54, 8, 3,20,13,10,58		3,58
58″	54, 8,50,27,40, 6,44,35,49,46		3,57,31, 0,54	
		54, 7,59,22,42,10, 4		
60″	54, 8,51,21,48, 6, 7,17,59,50			
exact	54, 8,51,21,48, 6, 7,18,27,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°29′ 0″	54, 8,51,21,48, 6, 7,18,27,33			
		54, 7,55,25,11, 8,21		
2″	54, 8,52,15,56, 1,32,29,35,54		3,57,31, 8,36	
		54, 7,51,27,39,59,45		3,57
4″	54, 8,53,10, 3,53, 0, 9,35,39		3,57,31,12,33	
		54, 7,47,30, 8,47,12		3,57
6″	54, 8,54, 4,11,40,30,18,22,51		3,57,31,16,30	
		54, 7,43,32,37,30,42		3,57
8″	54, 8,54,58,19,24, 2,55,53,33		3,57,31,20,27	
		54, 7,39,35, 6,10,15		3,57
10″	54, 8,55,52,27, 3,38, 2, 3,48		3,57,31,24,24	
		54, 7,35,37,34,45,51		3,57
12″	54, 8,56,46,34,39,15,36,49,39		3,57,31,28,21	
		54, 7,31,40, 3,17,30		3,57
14″	54, 8,57,40,42,10,55,40, 7, 9		3,57,31,32,18	
		54, 7,27,42,31,45,12		3,57
16″	54, 8,58,34,49,38,38,11,52,21		3,57,31,36,15	
		54, 7,23,45, 0, 8,57		3,57
18″	54, 8,59,28,57, 2,23,12, 1,18		3,57,31,40,12	
		54, 7,19,47,28,28,45		3,57
20″	54, 9, 0,23, 4,22,10,40,30, 3		3,57,31,44, 9	
		54, 7,15,49,56,44,36		3,57
22″	54, 9, 1,17,11,38, 0,37,14,39		3,57,31,48, 6	
		54, 7,11,52,24,56,30		3,57
24″	54, 9, 2,11,18,49,53, 2,11, 9		3,57,31,52, 3	
		54, 7, 7,54,53, 4,27		3,57
26″	54, 9, 3, 5,25,57,47,55,15,36		3,57,31,56, 0	
		54, 7, 3,57,21, 8,27		3,57
28″	54, 9, 3,59,33, 1,45,16,24, 3		3,57,31,59,57	
		54, 6,59,59,49, 8,30		3,57
30″	54, 9, 4,53,40, 1,45, 5,32,33		3,57,32, 3,54	
		54, 6,56, 2,17, 4,36		3,57
32″	54, 9, 5,47,46,57,47,22,37, 9		3,57,32, 7,51	
		54, 6,52, 4,44,56,45		3,57
34″	54, 9, 6,41,53,49,52, 7,33,54		3,57,32,11,48	
		54, 6,48, 7,12,44,57		3,57
36″	54, 9, 7,36, 0,37,59,20,18,51		3,57,32,15,45	
		54, 6,44, 9,40,29,12		3,57
38″	54, 9, 8,30, 7,22, 9, 0,48, 3		3,57,32,19,42	
		54, 6,40,12, 8, 9,30		3,57
40″	54, 9, 9,24,14, 2,21, 8,57,33		3,57,32,23,39	
		54, 6,36,14,35,45,51		3,57
42″	54, 9,10,18,20,38,35,44,43,24		3,57,32,27,36	
		54, 6,32,17, 3,18,15		3,57
44″	54, 9,11,12,27,10,52,48, 1,39		3,57,32,31,33	
		54, 6,28,19,30,46,42		3,57
46″	54, 9,12, 6,33,39,12,18,48,21		3,57,32,35,30	
		54, 6,24,21,58,11,12		3,57
48″	54, 9,13, 0,40, 3,34,16,59,33		3,57,32,39,27	
		54, 6,20,24,25,31,45		3,57
50″	54, 9,13,54,46,23,58,42,31,18		3,57,32,43,24	
		54, 6,16,26,52,48,21		3,57
52″	54, 9,14,48,52,40,25,35,19,39		3,57,32,47,21	
		54, 6,12,29,20, 1, 0		3,57
54″	54, 9,15,42,58,52,54,55,20,39		3,57,32,51,18	
		54, 6, 8,31,47, 9,42		3,57
56″	54, 9,16,37, 5, 1,26,42,30,21		3,57,32,55,15	
		54, 6, 4,34,14,14,27		3,57
58″	54, 9,17,31,11, 6, 0,56,44,48		3,57,32,59,12	
		54, 6, 0,36,41,15,15		
60″	54, 9,18,25,17, 6,37,38, 0, 3			
exact	54, 9,18,25,17, 6,37,37,32,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°30′ 0″	54, 9,18,25,17, 6,37,37,32,50			
		54, 5,56,39, 8, 9,15		
2″	54, 9,19,19,23, 3,16,45,42, 5		3,57,33, 7,17	
		54, 5,52,41,35, 1,58		3,57
4″	54, 9,20,13,28,55,58,20,44, 3		3,57,33,11,14	
		54, 5,48,44, 1,50,44		3,57
6″	54, 9,21, 7,34,44,42,22,34,47		3,57,33,15,11	
		54, 5,44,46,28,35,33		3,57
8″	54, 9,22, 1,40,29,28,51,10,20		3,57,33,19, 8	
		54, 5,40,48,55,16,25		3,57
10″	54, 9,22,55,46,10,17,46,26,45		3,57,33,23, 5	
		54, 5,36,51,21,53,20		3,57
12″	54, 9,23,49,51,47, 9, 8,20, 5		3,57,33,27, 2	
		54, 5,32,53,48,26,18		3,57
14″	54, 9,24,43,57,20, 2,56,46,23		3,57,33,30,59	
		54, 5,28,56,14,55,19		3,57
16″	54, 9,25,38, 2,48,59,11,41,42		3,57,33,34,56	
		54, 5,24,58,41,20,23		3,57
18″	54, 9,26,32, 8,13,57,53, 2, 5		3,57,33,38,53	
		54, 5,21, 1, 7,41,30		3,57
20″	54, 9,27,26,13,34,59, 0,43,35		3,57,33,42,50	
		54, 5,17, 3,33,58,40		3,57
22″	54, 9,28,20,18,52, 2,34,42,15		3,57,33,46,47	
		54, 5,13, 6, 0,11,53		3,57
24″	54, 9,29,14,24, 5, 8,34,54, 8		3,57,33,50,44	
		54, 5, 9, 8,26,21, 9		3,57
26″	54, 9,30, 8,29,14,17, 1,15,17		3,57,33,54,41	
		54, 5, 5,10,52,26,28		3,57
28″	54, 9,31, 2,34,19,27,53,41,45		3,57,33,58,38	
		54, 5, 1,13,18,27,50		3,57
30″	54, 9,31,56,39,20,41,12, 9,35		3,57,34, 2,35	
		54, 4,57,15,44,25,15		3,57
32″	54, 9,32,50,44,17,56,56,34,50		3,57,34, 6,32	
		54, 4,53,18,10,18,43		3,57
34″	54, 9,33,44,49,11,15, 6,53,33		3,57,34,10,29	
		54, 4,49,20,36, 8,14		3,57
36″	54, 9,34,38,54, 0,35,43, 1,47		3,57,34,14,26	
		54, 4,45,23, 1,53,48		3,57
38″	54, 9,35,32,58,45,58,44,55,35		3,57,34,18,23	
		54, 4,41,25,27,35,25		3,57
40″	54, 9,36,27, 3,27,24,12,31, 0		3,57,34,22,20	
		54, 4,37,27,53,13, 5		3,57
42″	54, 9,37,21, 8, 4,52, 5,44, 5		3,57,34,26,17	
		54, 4,33,30,18,46,48		3,57
44″	54, 9,38,15,12,38,22,24,30,53		3,57,34,30,14	
		54, 4,29,32,44,16,34		3,57
46″	54, 9,39, 9,17, 7,55, 8,47,27		3,57,34,34,11	
		54, 4,25,35, 9,42,23		3,57
48″	54, 9,40, 3,21,33,30,18,29,50		3,57,34,38, 8	
		54, 4,21,37,35, 4,15		3,57
50″	54, 9,40,57,25,55, 7,53,34, 5		3,57,34,42, 5	
		54, 4,17,40, 0,22,10		3,57
52″	54, 9,41,51,30,12,47,53,56,15		3,57,34,46, 2	
		54, 4,13,42,25,36, 8		3,57
54″	54, 9,42,45,34,26,30,19,32,23		3,57,34,49,59	
		54, 4, 9,44,50,46, 9		3,57
56″	54, 9,43,39,38,36,15,10,18,32		3,57,34,53,56	
		54, 4, 5,47,15,52,13		3,57
58″	54, 9,44,33,42,42, 2,26,10,45		3,57,34,57,53	
		54, 4, 1,49,40,54,20		
60″	54, 9,45,27,46,43,52, 7, 5, 5			
exact	54, 9,45,27,46,43,52, 6,45,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°31′ 0″	54, 9,45,27,46,43,52, 6,45,55			
		54, 3,57,52, 5,50,35		
2″	54, 9,46,21,50,41,44,12,36,30		3,57,35, 5,54	
		54, 3,53,54,30,44,41		3,57
4″	54, 9,47,15,54,35,38,43,21,11		3,57,35, 9,51	
		54, 3,49,56,55,34,50		3,57
6″	54, 9,48, 9,58,25,35,38,56, 1		3,57,35,13,48	
		54, 3,45,59,20,21, 2		3,57
8″	54, 9,49, 4, 2,11,34,59,17, 3		3,57,35,17,45	
		54, 3,42, 1,45, 3,17		3,57
10″	54, 9,49,58, 5,53,36,44,20,20		3,57,35,21,42	
		54, 3,38, 4, 9,41,35		3,57
12″	54, 9,50,52, 9,31,40,54, 1,55		3,57,35,25,39	
		54, 3,34, 6,34,15,56		3,57
14″	54, 9,51,46,13, 5,47,28,17,51		3,57,35,29,36	
		54, 3,30, 8,58,46,20		3,57
16″	54, 9,52,40,16,35,56,27, 4,11		3,57,35,33,33	
		54, 3,26,11,23,12,47		3,57
18″	54, 9,53,34,20, 2, 7,50,16,58		3,57,35,37,30	
		54, 3,22,13,47,35,17		3,57
20″	54, 9,54,28,23,24,21,37,52,15		3,57,35,41,27	
		54, 3,18,16,11,53,50		3,57
22″	54, 9,55,22,26,42,37,49,46, 5		3,57,35,45,24	
		54, 3,14,18,36, 8,26		3,57
24″	54, 9,56,16,29,56,56,25,54,31		3,57,35,49,21	
		54, 3,10,21, 0,19, 5		3,57
26″	54, 9,57,10,33, 7,17,26,13,36		3,57,35,53,18	
		54, 3, 6,23,24,25,47		3,57
28″	54, 9,58, 4,36,13,40,50,39,23		3,57,35,57,15	
		54, 3, 2,25,48,28,32		3,57
30″	54, 9,58,58,39,16, 6,39, 7,55		3,57,36, 1,12	
		54, 2,58,28,12,27,20		3,57
32″	54, 9,59,52,42,14,34,51,35,15		3,57,36, 5, 9	
		54, 2,54,30,36,22,11		3,57
34″	54,10, 0,46,45, 9, 5,27,57,26		3,57,36, 9, 6	
		54, 2,50,33, 0,13, 5		3,57
36″	54,10, 1,40,47,59,38,28,10,31		3,57,36,13, 3	
		54, 2,46,35,24, 0, 2		3,57
38″	54,10, 2,34,50,46,13,52,10,33		3,57,36,17, 0	
		54, 2,42,37,47,43, 2		3,57
40″	54,10, 3,28,53,28,51,39,53,35		3,57,36,20,57	
		54, 2,38,40,11,22, 5		3,57
42″	54,10, 4,22,56, 7,31,51,15,40		3,57,36,24,54	
		54, 2,34,42,34,57,11		3,57
44″	54,10, 5,16,58,42,14,26,12,51		3,57,36,28,51	
		54, 2,30,44,58,28,20		3,57
46″	54,10, 6,11, 1,12,59,24,41,11		3,57,36,32,48	
		54, 2,26,47,21,55,32		3,57
48″	54,10, 7, 5, 3,39,46,46,36,43		3,57,36,36,45	
		54, 2,22,49,45,18,47		3,57
50″	54,10, 7,59, 6, 2,36,31,55,30		3,57,36,40,42	
		54, 2,18,52, 8,38, 5		3,57
52″	54,10, 8,53, 8,21,28,40,33,35		3,57,36,44,39	
		54, 2,14,54,31,53,26		3,57
54″	54,10, 9,47,10,36,23,12,27, 1		3,57,36,48,36	
		54, 2,10,56,55, 4,50		3,57
56″	54,10,10,41,12,47,20, 7,31,51		3,57,36,52,33	
		54, 2, 6,59,18,12,17		3,57
58″	54,10,11,35,14,54,19,25,44, 8		3,57,36,56,30	
		54, 2, 3, 1,41,15,47		
60″	54,10,12,29,16,57,21, 6,59,55			
exact	54,10,12,29,16,57,21, 6,51, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°32′ 0″	54,10,12,29,16,57,21, 6,51, 0			
		54, 1,59, 4, 4,14,30		
2″	54,10,13,23,18,56,25,11, 5,30		3,57,37, 4,27	
		54, 1,55, 6,27,10, 3		3,57
4″	54,10,14,17,20,51,31,38,15,33		3,57,37, 8,24	
		54, 1,51, 8,50, 1,39		3,57
6″	54,10,15,11,22,42,40,28,17,12		3,57,37,12,21	
		54, 1,47,11,12,49,18		3,57
8″	54,10,16, 5,24,29,51,41, 6,30		3,57,37,16,18	
		54, 1,43,13,35,33, 0		3,57
10″	54,10,16,59,26,13, 5,16,39,30		3,57,37,20,15	
		54, 1,39,15,58,12,45		3,57
12″	54,10,17,53,27,52,21,14,52,15		3,57,37,24,12	
		54, 1,35,18,20,48,33		3,57
14″	54,10,18,47,29,27,39,35,40,48		3,57,37,28, 9	
		54, 1,31,20,43,20,24		3,57
16″	54,10,19,41,30,59, 0,19, 1,12		3,57,37,32, 6	
		54, 1,27,23, 5,48,18		3,57
18″	54,10,20,35,32,26,23,24,49,30		3,57,37,36, 3	
		54, 1,23,25,28,12,15		3,57
20″	54,10,21,29,33,49,48,53, 1,45		3,57,37,40, 0	
		54, 1,19,27,50,32,15		3,57
22″	54,10,22,23,35, 9,16,43,34, 0		3,57,37,43,57	
		54, 1,15,30,12,48,18		3,57
24″	54,10,23,17,36,24,46,56,22,18		3,57,37,47,54	
		54, 1,11,32,35, 0,24		3,57
26″	54,10,24,11,37,36,19,31,22,42		3,57,37,51,51	
		54, 1, 7,34,57, 8,33		3,57
28″	54,10,25, 5,38,43,54,28,31,15		3,57,37,55,48	
		54, 1, 3,37,19,12,45		3,57
30″	54,10,25,59,39,47,31,47,44, 0		3,57,37,59,45	
		54, 0,59,39,41,13, 0		3,57
32″	54,10,26,53,40,47,11,28,57, 0		3,57,38, 3,42	
		54, 0,55,42, 3, 9,18		3,57
34″	54,10,27,47,41,42,53,32, 6,18		3,57,38, 7,39	
		54, 0,51,44,25, 1,39		3,57
36″	54,10,28,41,42,34,37,57, 7,57		3,57,38,11,36	
		54, 0,47,46,46,50, 3		3,57
38″	54,10,29,35,43,22,24,43,58, 0		3,57,38,15,33	
		54, 0,43,49, 8,34,30		3,57
40″	54,10,30,29,44, 6,13,52,32,30		3,57,38,19,30	
		54, 0,39,51,30,15, 0		3,57
42″	54,10,31,23,44,46, 5,22,47,30		3,57,38,23,27	
		54, 0,35,53,51,51,33		3,57
44″	54,10,32,17,45,21,59,14,39, 3		3,57,38,27,24	
		54, 0,31,56,13,24, 9		3,57
46″	54,10,33,11,45,53,55,28, 3,12		3,57,38,31,21	
		54, 0,27,58,34,52,48		3,57
48″	54,10,34, 5,46,21,54, 2,56, 0		3,57,38,35,18	
		54, 0,24, 0,56,17,30		3,57
50″	54,10,34,59,46,45,54,59,13,30		3,57,38,39,15	
		54, 0,20, 3,17,38,15		3,57
52″	54,10,35,53,47, 5,58,16,51,45		3,57,38,43,12	
		54, 0,16, 5,38,55, 3		3,57
54″	54,10,36,47,47,22, 3,55,46,48		3,57,38,47, 9	
		54, 0,12, 8, 0, 7,54		3,57
56″	54,10,37,41,47,34,11,55,54,42		3,57,38,51, 6	
		54, 0, 8,10,21,16,48		3,57
58″	54,10,38,35,47,42,22,17,11,30		3,57,38,55, 3	
		54, 0, 4,12,42,21,45		
60″	54,10,39,29,47,46,34,59,33,15			
exact	54,10,39,29,47,46,34,59,37,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°33′ 0″	54,10,39,29,47,46,34,59,37,24			
		54, 0, 0,15, 3,23,11		
2″	54,10,40,23,47,46,50, 3, 0,35		3,57,39, 2,55	
		53,59,56,17,24,20,16		3,57
4″	54,10,41,17,47,43, 7,27,20,51		3,57,39, 6,52	
		53,59,52,19,45,13,24		3,57
6″	54,10,42,11,47,35,27,12,34,15		3,57,39,10,49	
		53,59,48,22, 6, 2,35		3,57
8″	54,10,43, 5,47,23,49,18,36,50		3,57,39,14,46	
		53,59,44,24,26,47,49		3,57
10″	54,10,43,59,47, 8,13,45,24,39		3,57,39,18,43	
		53,59,40,26,47,29, 6		3,57
12″	54,10,44,53,46,48,40,32,53,45		3,57,39,22,40	
		53,59,36,29, 8, 6,26		3,57
14″	54,10,45,47,46,25, 9,41, 0,11		3,57,39,26,37	
		53,59,32,31,28,39,49		3,57
16″	54,10,46,41,45,57,41, 9,40, 0		3,57,39,30,34	
		53,59,28,33,49, 9,15		3,57
18″	54,10,47,35,45,26,14,58,49,15		3,57,39,34,31	
		53,59,24,36, 9,34,44		3,57
20″	54,10,48,29,44,50,51, 8,23,59		3,57,39,38,28	
		53,59,20,38,29,56,16		3,57
22″	54,10,49,23,44,11,29,38,20,15		3,57,39,42,25	
		53,59,16,40,50,13,51		3,57
24″	54,10,50,17,43,28,10,28,34, 6		3,57,39,46,22	
		53,59,12,43,10,27,29		3,57
26″	54,10,51,11,42,40,53,39, 1,35		3,57,39,50,19	
		53,59, 8,45,30,37,10		3,57
28″	54,10,52, 5,41,49,39, 9,38,45		3,57,39,54,16	
		53,59, 4,47,50,42,54		3,57
30″	54,10,52,59,40,54,27, 0,21,39		3,57,39,58,13	
		53,59, 0,50,10,44,41		3,57
32″	54,10,53,53,39,55,17,11, 6,20		3,57,40, 2,10	
		53,58,56,52,30,42,31		3,57
34″	54,10,54,47,38,52, 9,41,48,51		3,57,40, 6, 7	
		53,58,52,54,50,36,24		3,57
36″	54,10,55,41,37,45, 4,32,25,15		3,57,40,10, 4	
		53,58,48,57,10,26,20		3,57
38″	54,10,56,35,36,34, 1,42,51,35		3,57,40,14, 1	
		53,58,44,59,30,12,19		3,57
40″	54,10,57,29,35,19, 1,13, 3,54		3,57,40,17,58	
		53,58,41, 1,49,54,21		3,57
42″	54,10,58,23,34, 0, 3, 2,58,15		3,57,40,21,55	
		53,58,37, 4, 9,32,26		3,57
44″	54,10,59,17,32,37, 7,12,30,41		3,57,40,25,52	
		53,58,33, 6,29, 6,34		3,57
46″	54,11, 0,11,31,10,13,41,37,15		3,57,40,29,49	
		53,58,29, 8,48,36,45		3,57
48″	54,11, 1, 5,29,39,22,30,14, 0		3,57,40,33,46	
		53,58,25,11, 8, 2,59		3,57
50″	54,11, 1,59,28, 4,33,38,16,59		3,57,40,37,43	
		53,58,21,13,27,25,16		3,57
52″	54,11, 2,53,26,25,47, 5,42,15		3,57,40,41,40	
		53,58,17,15,46,43,36		3,57
54″	54,11, 3,47,24,43, 2,52,25,51		3,57,40,45,37	
		53,58,13,18, 5,57,59		3,57
56″	54,11, 4,41,22,56,20,58,23,50		3,57,40,49,34	
		53,58, 9,20,25, 8,25		3,57
58″	54,11, 5,35,21, 5,41,23,32,15		3,57,40,53,31	
		53,58, 5,22,44,14,54		
60″	54,11, 6,29,19,11, 4, 7,47, 9			
exact	54,11, 6,29,19,11, 4, 7,59,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°34′ 0″	54,11, 6,29,19,11, 4, 7,59,36			
		53,58, 1,25, 3,18,49		
2″	54,11, 7,23,17,12,29,11,18,25		3,57,41, 1,19	
		53,57,57,27,22,17,30		3,57
4″	54,11, 8,17,15, 9,56,33,35,55		3,57,41, 5,16	
		53,57,53,29,41,12,14		3,57
6″	54,11, 9,11,13, 3,26,14,48, 9		3,57,41, 9,13	
		53,57,49,32, 0, 3, 1		3,57
8″	54,11,10, 5,10,52,58,14,51,10		3,57,41,13,10	
		53,57,45,34,18,49,51		3,57
10″	54,11,10,59, 8,38,32,33,41, 1		3,57,41,17, 7	
		53,57,41,36,37,32,44		3,57
12″	54,11,11,53, 6,20, 9,11,13,45		3,57,41,21, 4	
		53,57,37,38,56,11,40		3,57
14″	54,11,12,47, 3,57,48, 7,25,25		3,57,41,25, 1	
		53,57,33,41,14,46,39		3,57
16″	54,11,13,41, 1,31,29,22,12, 4		3,57,41,28,58	
		53,57,29,43,33,17,41		3,57
18″	54,11,14,34,59, 1,12,55,29,45		3,57,41,32,55	
		53,57,25,45,51,44,46		3,57
20″	54,11,15,28,56,26,58,47,14,31		3,57,41,36,52	
		53,57,21,48,10, 7,54		3,57
22″	54,11,16,22,53,48,46,57,22,25		3,57,41,40,49	
		53,57,17,50,28,27, 5		3,57
24″	54,11,17,16,51, 6,37,25,49,30		3,57,41,44,46	
		53,57,13,52,46,42,19		3,57
26″	54,11,18,10,48,20,30,12,31,49		3,57,41,48,43	
		53,57, 9,55, 4,53,36		3,57
28″	54,11,19, 4,45,30,25,17,25,25		3,57,41,52,40	
		53,57, 5,57,23, 0,56		3,57
30″	54,11,19,58,42,36,22,40,26,21		3,57,41,56,37	
		53,57, 1,59,41, 4,19		3,57
32″	54,11,20,52,39,38,22,21,30,40		3,57,42, 0,34	
		53,56,58, 1,59, 3,45		3,57
34″	54,11,21,46,36,36,24,20,34,25		3,57,42, 4,31	
		53,56,54, 4,16,59,14		3,57
36″	54,11,22,40,33,30,28,37,33,39		3,57,42, 8,28	
		53,56,50, 6,34,50,46		3,57
38″	54,11,23,34,30,20,35,12,24,25		3,57,42,12,25	
		53,56,46, 8,52,38,21		3,57
40″	54,11,24,28,27, 6,44, 5, 2,46		3,57,42,16,22	
		53,56,42,11,10,21,59		3,57
42″	54,11,25,22,23,48,55,15,24,45		3,57,42,20,19	
		53,56,38,13,28, 1,40		3,57
44″	54,11,26,16,20,27, 8,43,26,25		3,57,42,24,16	
		53,56,34,15,45,37,24		3,57
46″	54,11,27,10,17, 1,24,29, 3,49		3,57,42,28,13	
		53,56,30,18, 3, 9,11		3,57
48″	54,11,28, 4,13,31,42,32,13, 0		3,57,42,32,10	
		53,56,26,20,20,37, 1		3,57
50″	54,11,28,58, 9,58, 2,52,50, 1		3,57,42,36, 7	
		53,56,22,22,38, 0,54		3,57
52″	54,11,29,52, 6,20,25,30,50,55		3,57,42,40, 4	
		53,56,18,24,55,20,50		3,57
54″	54,11,30,46, 2,38,50,26,11,45		3,57,42,44, 1	
		53,56,14,27,12,36,49		3,57
56″	54,11,31,39,58,53,17,38,48,34		3,57,42,47,58	
		53,56,10,29,29,48,51		3,57
58″	54,11,32,33,55, 3,47, 8,37,25		3,57,42,51,55	
		53,56, 6,31,46,56,56		
60″	54,11,33,27,51,10,18,55,34,21			
exact	54,11,33,27,51,10,18,55,57,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°35′ 0″	54,11,33,27,51,10,18,55,57,14			
		53,56, 2,34, 4, 3,33		
2″	54,11,34,21,47,12,53, 0, 0,47		3,57,42,59,38	
		53,55,58,36,21, 3,55		3,57
4″	54,11,35,15,43,11,29,21, 4,42		3,57,43, 3,35	
		53,55,54,38,38, 0,20		3,57
6″	54,11,36, 9,39, 6, 7,59, 5, 2		3,57,43, 7,32	
		53,55,50,40,54,52,48		3,57
8″	54,11,37, 3,34,56,48,53,57,50		3,57,43,11,29	
		53,55,46,43,11,41,19		3,57
10″	54,11,37,57,30,43,32, 5,39, 9		3,57,43,15,26	
		53,55,42,45,28,25,53		3,57
12″	54,11,38,51,26,26,17,34, 5, 2		3,57,43,19,23	
		53,55,38,47,45, 6,30		3,57
14″	54,11,39,45,22, 5, 5,19,11,32		3,57,43,23,20	
		53,55,34,50, 1,43,10		3,57
16″	54,11,40,39,17,39,55,20,54,42		3,57,43,27,17	
		53,55,30,52,18,15,53		3,57
18″	54,11,41,33,13,10,47,39,10,35		3,57,43,31,14	
		53,55,26,54,34,44,39		3,57
20″	54,11,42,27, 8,37,42,13,55,14		3,57,43,35,11	
		53,55,22,56,51, 9,28		3,57
22″	54,11,43,21, 4, 0,39, 5, 4,42		3,57,43,39, 8	
		53,55,18,59, 7,30,20		3,57
24″	54,11,44,14,59,19,38,12,35, 2		3,57,43,43, 5	
		53,55,15, 1,23,47,15		3,57
26″	54,11,45, 8,54,34,39,36,22,17		3,57,43,47, 2	
		53,55,11, 3,40, 0,13		3,57
28″	54,11,46, 2,49,45,43,16,22,30		3,57,43,50,59	
		53,55, 7, 5,56, 9,14		3,57
30″	54,11,46,56,44,52,49,12,31,44		3,57,43,54,56	
		53,55, 3, 8,12,14,18		3,57
32″	54,11,47,50,39,55,57,24,46, 2		3,57,43,58,53	
		53,54,59,10,28,15,25		3,57
34″	54,11,48,44,34,55, 7,53, 1,27		3,57,44, 2,50	
		53,54,55,12,44,12,35		3,57
36″	54,11,49,38,29,50,20,37,14, 2		3,57,44, 6,47	
		53,54,51,15, 0, 5,48		3,57
38″	54,11,50,32,24,41,35,37,19,50		3,57,44,10,44	
		53,54,47,17,15,55, 4		3,57
40″	54,11,51,26,19,28,52,53,14,54		3,57,44,14,41	
		53,54,43,19,31,40,23		3,57
42″	54,11,52,20,14,12,12,24,55,17		3,57,44,18,38	
		53,54,39,21,47,21,45		3,57
44″	54,11,53,14, 8,51,34,12,17, 2		3,57,44,22,35	
		53,54,35,24, 2,59,10		3,57
46″	54,11,54, 8, 3,26,58,15,16,12		3,57,44,26,32	
		53,54,31,26,18,32,38		3,57
48″	54,11,55, 1,57,58,24,33,48,50		3,57,44,30,29	
		53,54,27,28,34, 2, 9		3,57
50″	54,11,55,55,52,25,53, 7,50,59		3,57,44,34,26	
		53,54,23,30,49,27,43		3,57
52″	54,11,56,49,46,49,23,57,18,42		3,57,44,38,23	
		53,54,19,33, 4,49,20		3,57
54″	54,11,57,43,41, 8,57, 2, 8, 2		3,57,44,42,20	
		53,54,15,35,20, 7, 0		3,57
56″	54,11,58,37,35,24,32,22,15, 2		3,57,44,46,17	
		53,54,11,37,35,20,43		3,57
58″	54,11,59,31,29,36, 9,57,35,45		3,57,44,50,14	
		53,54, 7,39,50,30,29		
60″	54,12, 0,25,23,43,49,48, 6,14			
exact	54,12, 0,25,23,43,49,48,35, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°36′ 0″	54,12, 0,25,23,43,49,48,35, 4			
		53,54, 3,42, 5,39,34		
2″	54,12, 1,19,17,47,31,54,14,38		3,57,44,57,53	
		53,53,59,44,20,41,41		3,56
4″	54,12, 2,13,11,47,16,14,56,19		3,57,45, 1,49	
		53,53,55,46,35,39,52		3,56
6″	54,12, 3, 7, 5,43, 2,50,36,11		3,57,45, 5,45	
		53,53,51,48,50,34, 7		3,56
8″	54,12, 4, 0,59,34,51,41,10,18		3,57,45, 9,41	
		53,53,47,51, 5,24,26		3,56
10″	54,12, 4,54,53,22,42,46,34,44		3,57,45,13,37	
		53,53,43,53,20,10,49		3,56
12″	54,12, 5,48,47, 6,36, 6,45,33		3,57,45,17,33	
		53,53,39,55,34,53,16		3,56
14″	54,12, 6,42,40,46,31,41,38,49		3,57,45,21,29	
		53,53,35,57,49,31,47		3,56
16″	54,12, 7,36,34,22,29,31,10,36		3,57,45,25,25	
		53,53,32, 0, 4, 6,22		3,56
18″	54,12, 8,30,27,54,29,35,16,58		3,57,45,29,21	
		53,53,28, 2,18,37, 1		3,56
20″	54,12, 9,24,21,22,31,53,53,59		3,57,45,33,17	
		53,53,24, 4,33, 3,44		3,56
22″	54,12,10,18,14,46,36,26,57,43		3,57,45,37,13	
		53,53,20, 6,47,26,31		3,56
24″	54,12,11,12, 8, 6,43,14,24,14		3,57,45,41, 9	
		53,53,16, 9, 1,45,22		3,56
26″	54,12,12, 6, 1,22,52,16, 9,36		3,57,45,45, 5	
		53,53,12,11,16, 0,17		3,56
28″	54,12,12,59,54,35, 3,32, 9,53		3,57,45,49, 1	
		53,53, 8,13,30,11,16		3,56
30″	54,12,13,53,47,43,17, 2,21, 9		3,57,45,52,57	
		53,53, 4,15,44,18,19		3,56
32″	54,12,14,47,40,47,32,46,39,28		3,57,45,56,53	
		53,53, 0,17,58,21,26		3,56
34″	54,12,15,41,33,47,50,45, 0,54		3,57,46, 0,49	
		53,52,56,20,12,20,37		3,56
36″	54,12,16,35,26,44,10,57,21,31		3,57,46, 4,45	
		53,52,52,22,26,15,52		3,56
38″	54,12,17,29,19,36,33,23,37,23		3,57,46, 8,41	
		53,52,48,24,40, 7,11		3,56
40″	54,12,18,23,12,24,58, 3,44,34		3,57,46,12,37	
		53,52,44,26,53,54,34		3,56
42″	54,12,19,17, 5, 9,24,57,39, 8		3,57,46,16,33	
		53,52,40,29, 7,38, 1		3,56
44″	54,12,20,10,57,49,54, 5,17, 9		3,57,46,20,29	
		53,52,36,31,21,17,32		3,56
46″	54,12,21, 4,50,26,25,26,34,41		3,57,46,24,25	
		53,52,32,33,34,53, 7		3,56
48″	54,12,21,58,42,58,59, 1,27,48		3,57,46,28,21	
		53,52,28,35,48,24,46		3,56
50″	54,12,22,52,35,27,34,49,52,34		3,57,46,32,17	
		53,52,24,38, 1,52,29		3,56
52″	54,12,23,46,27,52,12,51,45, 3		3,57,46,36,13	
		53,52,20,40,15,16,16		3,56
54″	54,12,24,40,20,12,53, 7, 1,19		3,57,46,40, 9	
		53,52,16,42,28,36, 7		3,56
56″	54,12,25,34,12,29,35,35,37,26		3,57,46,44, 5	
		53,52,12,44,41,52, 2		3,56
58″	54,12,26,28, 4,42,20,17,29,28		3,57,46,48, 1	
		53,52, 8,46,55, 4, 1		
60″	54,12,27,21,56,51, 7,12,33,29			
exact	54,12,27,21,56,51, 7,12, 3, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°37′ 0″	54,12,27,21,56,51, 7,12, 3, 6			
		53,52, 4,49, 8, 9, 2		
2″	54,12,28,15,48,55,56,20,12, 8		3,57,46,56, 4	
		53,52, 0,51,21,12,58		3,56
4″	54,12,29, 9,40,56,47,41,25, 6		3,57,47, 0, 0	
		53,51,56,53,34,12,58		3,56
6″	54,12,30, 3,32,53,41,15,38, 4		3,57,47, 3,56	
		53,51,52,55,47, 9, 2		3,56
8″	54,12,30,57,24,46,37, 2,47, 6		3,57,47, 7,52	
		53,51,48,58, 0, 1,10		3,56
10″	54,12,31,51,16,35,35, 2,48,16		3,57,47,11,48	
		53,51,45, 0,12,49,22		3,56
12″	54,12,32,45, 8,20,35,15,37,38		3,57,47,15,44	
		53,51,41, 2,25,33,38		3,56
14″	54,12,33,39, 0, 1,37,41,11,16		3,57,47,19,40	
		53,51,37, 4,38,13,58		3,56
16″	54,12,34,32,51,38,42,19,25,14		3,57,47,23,36	
		53,51,33, 6,50,50,22		3,56
18″	54,12,35,26,43,11,49,10,15,36		3,57,47,27,32	
		53,51,29, 9, 3,22,50		3,56
20″	54,12,36,20,34,40,58,13,38,26		3,57,47,31,28	
		53,51,25,11,15,51,22		3,56
22″	54,12,37,14,26, 6, 9,29,29,48		3,57,47,35,24	
		53,51,21,13,28,15,58		3,56
24″	54,12,38, 8,17,27,22,57,45,46		3,57,47,39,20	
		53,51,17,15,40,36,38		3,56
26″	54,12,39, 2, 8,44,38,38,22,24		3,57,47,43,16	
		53,51,13,17,52,53,22		3,56
28″	54,12,39,55,59,57,56,31,15,46		3,57,47,47,12	
		53,51, 9,20, 5, 6,10		3,56
30″	54,12,40,49,51, 7,16,36,21,56		3,57,47,51, 8	
		53,51, 5,22,17,15, 2		3,56
32″	54,12,41,43,42,12,38,53,36,58		3,57,47,55, 4	
		53,51, 1,24,29,19,58		3,56
34″	54,12,42,37,33,14, 3,22,56,56		3,57,47,59, 0	
		53,50,57,26,41,20,58		3,56
36″	54,12,43,31,24,11,30, 4,17,54		3,57,48, 2,56	
		53,50,53,28,53,18, 2		3,56
38″	54,12,44,25,15, 4,58,57,35,56		3,57,48, 6,52	
		53,50,49,31, 5,11,10		3,56
40″	54,12,45,19, 5,54,30, 2,47, 6		3,57,48,10,48	
		53,50,45,33,17, 0,22		3,56
42″	54,12,46,12,56,40, 3,19,47,28		3,57,48,14,44	
		53,50,41,35,28,45,38		3,56
44″	54,12,47, 6,47,21,38,48,33, 6		3,57,48,18,40	
		53,50,37,37,40,26,58		3,56
46″	54,12,48, 0,37,59,16,29, 0, 4		3,57,48,22,36	
		53,50,33,39,52, 4,22		3,56
48″	54,12,48,54,28,32,56,21, 4,26		3,57,48,26,32	
		53,50,29,42, 3,37,50		3,56
50″	54,12,49,48,19, 2,38,24,42,16		3,57,48,30,28	
		53,50,25,44,15, 7,22		3,56
52″	54,12,50,42, 9,28,22,39,49,38		3,57,48,34,24	
		53,50,21,46,26,32,58		3,56
54″	54,12,51,35,59,50, 9, 6,22,36		3,57,48,38,20	
		53,50,17,48,37,54,38		3,56
56″	54,12,52,29,50, 7,57,44,17,14		3,57,48,42,16	
		53,50,13,50,49,12,22		3,56
58″	54,12,53,23,40,21,48,33,29,36		3,57,48,46,12	
		53,50, 9,53, 0,26,10		
60″	54,12,54,17,30,31,41,33,55,46			
exact	54,12,54,17,30,31,41,33,36,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°38′ 0″	54,12,54,17,30,31,41,33,36,26			
		53,50, 5,55,11,34, 8		
2″	54,12,55,11,20,37,36,45,10,34		3,57,48,54,11	
		53,50, 1,57,22,39,57		3,56
4″	54,12,56, 5,10,39,34, 7,50,31		3,57,48,58, 7	
		53,49,57,59,33,41,50		3,56
6″	54,12,56,59, 0,37,33,41,32,21		3,57,49, 2, 3	
		53,49,54, 1,44,39,47		3,56
8″	54,12,57,52,50,31,35,26,12, 8		3,57,49, 5,59	
		53,49,50, 3,55,33,48		3,56
10″	54,12,58,46,40,21,39,21,45,56		3,57,49, 9,55	
		53,49,46, 6, 6,23,53		3,56
12″	54,12,59,40,30, 7,45,28, 9,49		3,57,49,13,51	
		53,49,42, 8,17,10, 2		3,56
14″	54,13, 0,34,19,49,53,45,19,51		3,57,49,17,47	
		53,49,38,10,27,52,15		3,56
16″	54,13, 1,28, 9,28, 4,13,12, 6		3,57,49,21,43	
		53,49,34,12,38,30,32		3,56
18″	54,13, 2,21,59, 2,16,51,42,38		3,57,49,25,39	
		53,49,30,14,49, 4,53		3,56
20″	54,13, 3,15,48,32,31,40,47,31		3,57,49,29,35	
		53,49,26,16,59,35,18		3,56
22″	54,13, 4, 9,37,58,48,40,22,49		3,57,49,33,31	
		53,49,22,19,10, 1,47		3,56
24″	54,13, 5, 3,27,21, 7,50,24,36		3,57,49,37,27	
		53,49,18,21,20,24,20		3,56
26″	54,13, 5,57,16,39,29,10,48,56		3,57,49,41,23	
		53,49,14,23,30,42,57		3,56
28″	54,13, 6,51, 5,53,52,41,31,53		3,57,49,45,19	
		53,49,10,25,40,57,38		3,56
30″	54,13, 7,44,55, 4,18,22,29,31		3,57,49,49,15	
		53,49, 6,27,51, 8,23		3,56
32″	54,13, 8,38,44,10,46,13,37,54		3,57,49,53,11	
		53,49, 2,30, 1,15,12		3,56
34″	54,13, 9,32,33,13,16,14,53, 6		3,57,49,57, 7	
		53,48,58,32,11,18, 5		3,56
36″	54,13,10,26,22,11,48,26,11,11		3,57,50, 1, 3	
		53,48,54,34,21,17, 2		3,56
38″	54,13,11,20,11, 6,22,47,28,13		3,57,50, 4,59	
		53,48,50,36,31,12, 3		3,56
40″	54,13,12,13,59,56,59,18,40,16		3,57,50, 8,55	
		53,48,46,38,41, 3, 8		3,56
42″	54,13,13, 7,48,43,37,59,43,24		3,57,50,12,51	
		53,48,42,40,50,50,17		3,56
44″	54,13,14, 1,37,26,18,50,33,41		3,57,50,16,47	
		53,48,38,43, 0,33,30		3,56
46″	54,13,14,55,26, 5, 1,51, 7,11		3,57,50,20,43	
		53,48,34,45,10,12,47		3,56
48″	54,13,15,49,14,39,47, 1,19,58		3,57,50,24,39	
		53,48,30,47,19,48, 8		3,56
50″	54,13,16,43, 3,10,34,21, 8, 6		3,57,50,28,35	
		53,48,26,49,29,19,33		3,56
52″	54,13,17,36,51,37,23,50,27,39		3,57,50,32,31	
		53,48,22,51,38,47, 2		3,56
54″	54,13,18,30,40, 0,15,29,14,41		3,57,50,36,27	
		53,48,18,53,48,10,35		3,56
56″	54,13,19,24,28,19, 9,17,25,16		3,57,50,40,23	
		53,48,14,55,57,30,12		3,56
58″	54,13,20,18,16,34, 5,14,55,28		3,57,50,44,19	
		53,48,10,58, 6,45,53		
60″	54,13,21,12, 4,45, 3,21,41,21			
exact	54,13,21,12, 4,45, 3,21,35,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°39′ 0″	54,13,21,12, 4,45, 3,21,35,26			
		53,48, 7, 0,15,57, 2		
2″	54,13,22, 5,52,52, 3,37,32,28		3,57,50,52,13	
		53,48, 3, 2,25, 4,49		3,56
4″	54,13,22,59,40,55, 6, 2,37,17		3,57,50,56, 9	
		53,47,59, 4,34, 8,40		3,56
6″	54,13,23,53,28,54,10,36,45,57		3,57,51, 0, 5	
		53,47,55, 6,43, 8,35		3,56
8″	54,13,24,47,16,49,17,19,54,32		3,57,51, 4, 1	
		53,47,51, 8,52, 4,34		3,56
10″	54,13,25,41, 4,40,26,11,59, 6		3,57,51, 7,57	
		53,47,47,11, 0,56,37		3,56
12″	54,13,26,34,52,27,37,12,55,43		3,57,51,11,53	
		53,47,43,13, 9,44,44		3,56
14″	54,13,27,28,40,10,50,22,40,27		3,57,51,15,49	
		53,47,39,15,18,28,55		3,56
16″	54,13,28,22,27,50, 5,41, 9,22		3,57,51,19,45	
		53,47,35,17,27, 9,10		3,56
18″	54,13,29,16,15,25,23, 8,18,32		3,57,51,23,41	
		53,47,31,19,35,45,29		3,56
20″	54,13,30,10, 2,56,42,44, 4, 1		3,57,51,27,37	
		53,47,27,21,44,17,52		3,56
22″	54,13,31, 3,50,24, 4,28,21,53		3,57,51,31,33	
		53,47,23,23,52,46,19		3,56
24″	54,13,31,57,37,47,28,21, 8,12		3,57,51,35,29	
		53,47,19,26, 1,10,50		3,56
26″	54,13,32,51,25, 6,54,22,19, 2		3,57,51,39,25	
		53,47,15,28, 9,31,25		3,56
28″	54,13,33,45,12,22,22,31,50,27		3,57,51,43,21	
		53,47,11,30,17,48, 4		3,56
30″	54,13,34,38,59,33,52,49,38,31		3,57,51,47,17	
		53,47, 7,32,26, 0,47		3,56
32″	54,13,35,32,46,41,25,15,39,18		3,57,51,51,13	
		53,47, 3,34,34, 9,34		3,56
34″	54,13,36,26,33,44,59,49,48,52		3,57,51,55, 9	
		53,46,59,36,42,14,25		3,56
36″	54,13,37,20,20,44,36,32, 3,17		3,57,51,59, 5	
		53,46,55,38,50,15,20		3,56
38″	54,13,38,14, 7,40,15,22,18,37		3,57,52, 3, 1	
		53,46,51,40,58,12,19		3,56
40″	54,13,39, 7,54,31,56,20,30,56		3,57,52, 6,57	
		53,46,47,43, 6, 5,22		3,56
42″	54,13,40, 1,41,19,39,26,36,18		3,57,52,10,53	
		53,46,43,45,13,54,29		3,56
44″	54,13,40,55,28, 3,24,40,30,47		3,57,52,14,49	
		53,46,39,47,21,39,40		3,56
46″	54,13,41,49,14,43,12, 2,10,27		3,57,52,18,45	
		53,46,35,49,29,20,55		3,56
48″	54,13,42,43, 1,19, 1,31,31,22		3,57,52,22,41	
		53,46,31,51,36,58,14		3,56
50″	54,13,43,36,47,50,53, 8,29,36		3,57,52,26,37	
		53,46,27,53,44,31,37		3,56
52″	54,13,44,30,34,18,46,53, 1,13		3,57,52,30,33	
		53,46,23,55,52, 1, 4		3,56
54″	54,13,45,24,20,42,42,45, 2,17		3,57,52,34,29	
		53,46,19,57,59,26,35		3,56
56″	54,13,46,18, 7, 2,40,44,28,52		3,57,52,38,25	
		53,46,16, 0, 6,48,10		3,56
58″	54,13,47,11,53,18,40,51,17, 2		3,57,52,42,21	
		53,46,12, 2,14, 5,49		
60″	54,13,48, 5,39,30,43, 5,22,51			
exact	54,13,48, 5,39,30,43, 5,25,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°40′ 0″	54,13,48, 5,39,30,43, 5,25,36			
		53,46, 8, 4,21,19,54		
2″	54,13,48,59,25,38,47,26,45,30		3,57,52,50,11	
		53,46, 4, 6,28,29,43		3,56
4″	54,13,49,53,11,42,53,55,15,13		3,57,52,54, 7	
		53,46, 0, 8,35,35,36		3,56
6″	54,13,50,46,57,43, 2,30,50,49		3,57,52,58, 3	
		53,45,56,10,42,37,33		3,56
8″	54,13,51,40,43,39,13,13,28,22		3,57,53, 1,59	
		53,45,52,12,49,35,34		3,56
10″	54,13,52,34,29,31,26, 3, 3,56		3,57,53, 5,55	
		53,45,48,14,56,29,39		3,56
12″	54,13,53,28,15,19,40,59,33,35		3,57,53, 9,51	
		53,45,44,17, 3,19,48		3,56
14″	54,13,54,22, 1, 3,58, 2,53,23		3,57,53,13,47	
		53,45,40,19,10, 6, 1		3,56
16″	54,13,55,15,46,44,17,12,59,24		3,57,53,17,43	
		53,45,36,21,16,48,18		3,56
18″	54,13,56, 9,32,20,38,29,47,42		3,57,53,21,39	
		53,45,32,23,23,26,39		3,56
20″	54,13,57, 3,17,53, 1,53,14,21		3,57,53,25,35	
		53,45,28,25,30, 1, 4		3,56
22″	54,13,57,57, 3,21,27,23,15,25		3,57,53,29,31	
		53,45,24,27,36,31,33		3,56
24″	54,13,58,50,48,45,54,59,46,58		3,57,53,33,27	
		53,45,20,29,42,58, 6		3,56
26″	54,13,59,44,34, 6,24,42,45, 4		3,57,53,37,23	
		53,45,16,31,49,20,43		3,56
28″	54,14, 0,38,19,22,56,32, 5,47		3,57,53,41,19	
		53,45,12,33,55,39,24		3,56
30″	54,14, 1,32, 4,35,30,27,45,11		3,57,53,45,15	
		53,45, 8,36, 1,54, 9		3,56
32″	54,14, 2,25,49,44, 6,29,39,20		3,57,53,49,11	
		53,45, 4,38, 8, 4,58		3,56
34″	54,14, 3,19,34,48,44,37,44,18		3,57,53,53, 7	
		53,45, 0,40,14,11,51		3,56
36″	54,14, 4,13,19,49,24,51,56, 9		3,57,53,57, 3	
		53,44,56,42,20,14,48		3,56
38″	54,14, 5, 7, 4,46, 7,12,10,57		3,57,54, 0,59	
		53,44,52,44,26,13,49		3,56
40″	54,14, 6, 0,49,38,51,38,24,46		3,57,54, 4,55	
		53,44,48,46,32, 8,54		3,56
42″	54,14, 6,54,34,27,38,10,33,40		3,57,54, 8,51	
		53,44,44,48,38, 0, 3		3,56
44″	54,14, 7,48,19,12,26,48,33,43		3,57,54,12,47	
		53,44,40,50,43,47,16		3,56
46″	54,14, 8,42, 3,53,17,32,20,59		3,57,54,16,43	
		53,44,36,52,49,30,33		3,56
48″	54,14, 9,35,48,30,10,21,51,32		3,57,54,20,39	
		53,44,32,54,55, 9,54		3,56
50″	54,14,10,29,33, 3, 5,17, 1,26		3,57,54,24,35	
		53,44,28,57, 0,45,19		3,56
52″	54,14,11,23,17,32, 2,17,46,45		3,57,54,28,31	
		53,44,24,59, 6,16,48		3,56
54″	54,14,12,17, 1,57, 1,24, 3,33		3,57,54,32,27	
		53,44,21, 1,11,44,21		3,56
56″	54,14,13,10,46,18, 2,35,47,54		3,57,54,36,23	
		53,44,17, 3,17, 7,58		3,56
58″	54,14,14, 4,30,35, 5,52,55,52		3,57,54,40,19	
		53,44,13, 5,22,27,39		
60″	54,14,14,58,14,48,11,15,23,31			
exact	54,14,14,58,14,48,11,15,37,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°41′ 0″	54,14,14,58,14,48,11,15,37,41			
		53,44, 9, 7,27,44,56		
2″	54,14,15,51,58,57,18,43,22,37		3,57,54,48, 4	
		53,44, 5, 9,32,56,52		3,56
4″	54,14,16,45,43, 2,28,16,19,29		3,57,54,52, 0	
		53,44, 1,11,38, 4,52		3,56
6″	54,14,17,39,27, 3,39,54,24,21		3,57,54,55,56	
		53,43,57,13,43, 8,56		3,56
8″	54,14,18,33,11, 0,53,37,33,17		3,57,54,59,52	
		53,43,53,15,48, 9, 4		3,56
10″	54,14,19,26,54,54, 9,25,42,21		3,57,55, 3,48	
		53,43,49,17,53, 5,16		3,56
12″	54,14,20,20,38,43,27,18,47,37		3,57,55, 7,44	
		53,43,45,19,57,57,32		3,56
14″	54,14,21,14,22,28,47,16,45, 9		3,57,55,11,40	
		53,43,41,22, 2,45,52		3,56
16″	54,14,22, 8, 6,10, 9,19,31, 1		3,57,55,15,36	
		53,43,37,24, 7,30,16		3,56
18″	54,14,23, 1,49,47,33,27, 1,17		3,57,55,19,32	
		53,43,33,26,12,10,44		3,56
20″	54,14,23,55,33,20,59,39,12, 1		3,57,55,23,28	
		53,43,29,28,16,47,16		3,56
22″	54,14,24,49,16,50,27,55,59,17		3,57,55,27,24	
		53,43,25,30,21,19,52		3,56
24″	54,14,25,43, 0,15,58,17,19, 9		3,57,55,31,20	
		53,43,21,32,25,48,32		3,56
26″	54,14,26,36,43,37,30,43, 7,41		3,57,55,35,16	
		53,43,17,34,30,13,16		3,56
28″	54,14,27,30,26,55, 5,13,20,57		3,57,55,39,12	
		53,43,13,36,34,34, 4		3,56
30″	54,14,28,24,10, 8,41,47,55, 1		3,57,55,43, 8	
		53,43, 9,38,38,50,56		3,56
32″	54,14,29,17,53,18,20,26,45,57		3,57,55,47, 4	
		53,43, 5,40,43, 3,52		3,56
34″	54,14,30,11,36,24, 1, 9,49,49		3,57,55,51, 0	
		53,43, 1,42,47,12,52		3,56
36″	54,14,31, 5,19,25,43,57, 2,41		3,57,55,54,56	
		53,42,57,44,51,17,56		3,56
38″	54,14,31,59, 2,23,28,48,20,37		3,57,55,58,52	
		53,42,53,46,55,19, 4		3,56
40″	54,14,32,52,45,17,15,43,39,41		3,57,56, 2,48	
		53,42,49,48,59,16,16		3,56
42″	54,14,33,46,28, 7, 4,42,55,57		3,57,56, 6,44	
		53,42,45,51, 3, 9,32		3,56
44″	54,14,34,40,10,52,55,46, 5,29		3,57,56,10,40	
		53,42,41,53, 6,58,52		3,56
46″	54,14,35,33,53,34,48,53, 4,21		3,57,56,14,36	
		53,42,37,55,10,44,16		3,56
48″	54,14,36,27,36,12,44, 3,48,37		3,57,56,18,32	
		53,42,33,57,14,25,44		3,56
50″	54,14,37,21,18,46,41,18,14,21		3,57,56,22,28	
		53,42,29,59,18, 3,16		3,56
52″	54,14,38,15, 1,16,40,36,17,37		3,57,56,26,24	
		53,42,26, 1,21,36,52		3,56
54″	54,14,39, 8,43,42,41,57,54,29		3,57,56,30,20	
		53,42,22, 3,25, 6,32		3,56
56″	54,14,40, 2,26, 4,45,23, 1, 1		3,57,56,34,16	
		53,42,18, 5,28,32,16		3,56
58″	54,14,40,56, 8,22,50,51,33,17		3,57,56,38,12	
		53,42,14, 7,31,54, 4		
60″	54,14,41,49,50,36,58,23,27,21			
exact	54,14,41,49,50,36,58,23,47,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°42′ 0″	54,14,41,49,50,36,58,23,47,37			
		53,42,10, 9,35,14,16		
2″	54,14,42,43,32,47, 7,59, 1,53		3,57,56,45,53	
		53,42, 6,11,38,28,23		3,56
4″	54,14,43,37,14,53,19,37,30,16		3,57,56,49,49	
		53,42, 2,13,41,38,34		3,56
6″	54,14,44,30,56,55,33,19, 8,50		3,57,56,53,45	
		53,41,58,15,44,44,49		3,56
8″	54,14,45,24,38,53,49, 3,53,39		3,57,56,57,41	
		53,41,54,17,47,47, 8		3,56
10″	54,14,46,18,20,48, 6,51,40,47		3,57,57, 1,37	
		53,41,50,19,50,45,31		3,56
12″	54,14,47,12, 2,38,26,42,26,18		3,57,57, 5,33	
		53,41,46,21,53,39,58		3,56
14″	54,14,48, 5,44,24,48,36, 6,16		3,57,57, 9,29	
		53,41,42,23,56,30,29		3,56
16″	54,14,48,59,26, 7,12,32,36,45		3,57,57,13,25	
		53,41,38,25,59,17, 4		3,56
18″	54,14,49,53, 7,45,38,31,53,49		3,57,57,17,21	
		53,41,34,28, 1,59,43		3,56
20″	54,14,50,46,49,20, 6,33,53,32		3,57,57,21,17	
		53,41,30,30, 4,38,26		3,56
22″	54,14,51,40,30,50,36,38,31,58		3,57,57,25,13	
		53,41,26,32, 7,13,13		3,56
24″	54,14,52,34,12,17, 8,45,45,11		3,57,57,29, 9	
		53,41,22,34, 9,44, 4		3,56
26″	54,14,53,27,53,39,42,55,29,15		3,57,57,33, 5	
		53,41,18,36,12,10,59		3,56
28″	54,14,54,21,34,58,19, 7,40,14		3,57,57,37, 1	
		53,41,14,38,14,33,58		3,56
30″	54,14,55,15,16,12,57,22,14,12		3,57,57,40,57	
		53,41,10,40,16,53, 1		3,56
32″	54,14,56, 8,57,23,37,39, 7,13		3,57,57,44,53	
		53,41, 6,42,19, 8, 8		3,56
34″	54,14,57, 2,38,30,19,58,15,21		3,57,57,48,49	
		53,41, 2,44,21,19,19		3,56
36″	54,14,57,56,19,33, 4,19,34,40		3,57,57,52,45	
		53,40,58,46,23,26,34		3,56
38″	54,14,58,50, 0,31,50,43, 1,14		3,57,57,56,41	
		53,40,54,48,25,29,53		3,56
40″	54,14,59,43,41,26,39, 8,31, 7		3,57,58, 0,37	
		53,40,50,50,27,29,16		3,56
42″	54,15, 0,37,22,17,29,36, 0,23		3,57,58, 4,33	
		53,40,46,52,29,24,43		3,56
44″	54,15, 1,31, 3, 4,22, 5,25, 6		3,57,58, 8,29	
		53,40,42,54,31,16,14		3,56
46″	54,15, 2,24,43,47,16,36,41,20		3,57,58,12,25	
		53,40,38,56,33, 3,49		3,56
48″	54,15, 3,18,24,26,13, 9,45, 9		3,57,58,16,21	
		53,40,34,58,34,47,28		3,56
50″	54,15, 4,12, 5, 1,11,44,32,37		3,57,58,20,17	
		53,40,31, 0,36,27,11		3,56
52″	54,15, 5, 5,45,32,12,20,59,48		3,57,58,24,13	
		53,40,27, 2,38, 2,58		3,56
54″	54,15, 5,59,25,59,14,59, 2,46		3,57,58,28, 9	
		53,40,23, 4,39,34,49		3,56
56″	54,15, 6,53, 6,22,19,38,37,35		3,57,58,32, 5	
		53,40,19, 6,41, 2,44		3,56
58″	54,15, 7,46,46,41,26,19,40,19		3,57,58,36, 1	
		53,40,15, 8,42,26,43		
60″	54,15, 8,40,26,56,35, 2, 7, 2			
exact	54,15, 8,40,26,56,35, 2,36,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°43′ 0″	54,15, 8,40,26,56,35, 2,36,36			
		53,40,11,10,43,50, 6		
2″	54,15, 9,34, 7, 7,45,46,26,42		3,57,58,43,38	
		53,40, 7,12,45, 6,28		3,55
4″	54,15,10,27,47,14,58,31,33,10		3,57,58,47,33	
		53,40, 3,14,46,18,55		3,55
6″	54,15,11,21,27,18,13,17,52, 5		3,57,58,51,28	
		53,39,59,16,47,27,27		3,55
8″	54,15,12,15, 7,17,30, 5,19,32		3,57,58,55,23	
		53,39,55,18,48,32, 4		3,55
10″	54,15,13, 8,47,12,48,53,51,36		3,57,58,59,18	
		53,39,51,20,49,32,46		3,55
12″	54,15,14, 2,27, 4, 9,43,24,22		3,57,59, 3,13	
		53,39,47,22,50,29,33		3,55
14″	54,15,14,56, 6,51,32,33,53,55		3,57,59, 7, 8	
		53,39,43,24,51,22,25		3,55
16″	54,15,15,49,46,34,57,25,16,20		3,57,59,11, 3	
		53,39,39,26,52,11,22		3,55
18″	54,15,16,43,26,14,24,17,27,42		3,57,59,14,58	
		53,39,35,28,52,56,24		3,55
20″	54,15,17,37, 5,49,53,10,24, 6		3,57,59,18,53	
		53,39,31,30,53,37,31		3,55
22″	54,15,18,30,45,21,24, 4, 1,37		3,57,59,22,48	
		53,39,27,32,54,14,43		3,55
24″	54,15,19,24,24,48,56,58,16,20		3,57,59,26,43	
		53,39,23,34,54,48, 0		3,55
26″	54,15,20,18, 4,12,31,53, 4,20		3,57,59,30,38	
		53,39,19,36,55,17,22		3,55
28″	54,15,21,11,43,32, 8,48,21,42		3,57,59,34,33	
		53,39,15,38,55,42,49		3,55
30″	54,15,22, 5,22,47,47,44, 4,31		3,57,59,38,28	
		53,39,11,40,56, 4,21		3,55
32″	54,15,22,59, 1,59,28,40, 8,52		3,57,59,42,23	
		53,39, 7,42,56,21,58		3,55
34″	54,15,23,52,41, 7,11,36,30,50		3,57,59,46,18	
		53,39, 3,44,56,35,40		3,55
36″	54,15,24,46,20,10,56,33, 6,30		3,57,59,50,13	
		53,38,59,46,56,45,27		3,55
38″	54,15,25,39,59,10,43,29,51,57		3,57,59,54, 8	
		53,38,55,48,56,51,19		3,55
40″	54,15,26,33,38, 6,32,26,43,16		3,57,59,58, 3	
		53,38,51,50,56,53,16		3,55
42″	54,15,27,27,16,58,23,23,36,32		3,58, 0, 1,58	
		53,38,47,52,56,51,18		3,55
44″	54,15,28,20,55,46,16,20,27,50		3,58, 0, 5,53	
		53,38,43,54,56,45,25		3,55
46″	54,15,29,14,34,30,11,17,13,15		3,58, 0, 9,48	
		53,38,39,56,56,35,37		3,55
48″	54,15,30, 8,13,10, 8,13,48,52		3,58, 0,13,43	
		53,38,35,58,56,21,54		3,55
50″	54,15,31, 1,51,46, 7,10,10,46		3,58, 0,17,38	
		53,38,32, 0,56, 4,16		3,55
52″	54,15,31,55,30,18, 8, 6,15, 2		3,58, 0,21,33	
		53,38,28, 2,55,42,43		3,55
54″	54,15,32,49, 8,46,11, 1,57,45		3,58, 0,25,28	
		53,38,24, 4,55,17,15		3,55
56″	54,15,33,42,47,10,15,57,15, 0		3,58, 0,29,23	
		53,38,20, 6,54,47,52		3,55
58″	54,15,34,36,25,30,22,52, 2,52		3,58, 0,33,18	
		53,38,16, 8,54,14,34		
60″	54,15,35,30, 3,46,31,46,17,26			
exact	54,15,35,30, 3,46,31,45,51, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°44′ 0″	54,15,35,30, 3,46,31,45,51, 2			
		53,38,12,10,53,34,37		
2″	54,15,36,23,41,58,42,39,25,39		3,58, 0,41,18	
		53,38, 8,12,52,53,19		3,55
4″	54,15,37,17,20, 6,55,32,18,58		3,58, 0,45,13	
		53,38, 4,14,52, 8, 6		3,55
6″	54,15,38,10,58,11,10,24,27, 4		3,58, 0,49, 8	
		53,38, 0,16,51,18,58		3,55
8″	54,15,39, 4,36,11,27,15,46, 2		3,58, 0,53, 3	
		53,37,56,18,50,25,55		3,55
10″	54,15,39,58,14, 7,46, 6,11,57		3,58, 0,56,58	
		53,37,52,20,49,28,57		3,55
12″	54,15,40,51,52, 0, 6,55,40,54		3,58, 1, 0,53	
		53,37,48,22,48,28, 4		3,55
14″	54,15,41,45,29,48,29,44, 8,58		3,58, 1, 4,48	
		53,37,44,24,47,23,16		3,55
16″	54,15,42,39, 7,32,54,31,32,14		3,58, 1, 8,43	
		53,37,40,26,46,14,33		3,55
18″	54,15,43,32,45,13,21,17,46,47		3,58, 1,12,38	
		53,37,36,28,45, 1,55		3,55
20″	54,15,44,26,22,49,50, 2,48,42		3,58, 1,16,33	
		53,37,32,30,43,45,22		3,55
22″	54,15,45,20, 0,22,20,46,34, 4		3,58, 1,20,28	
		53,37,28,32,42,24,54		3,55
24″	54,15,46,13,37,50,53,28,58,58		3,58, 1,24,23	
		53,37,24,34,41, 0,31		3,55
26″	54,15,47, 7,15,15,28, 9,59,29		3,58, 1,28,18	
		53,37,20,36,39,32,13		3,55
28″	54,15,48, 0,52,36, 4,49,31,42		3,58, 1,32,13	
		53,37,16,38,38, 0, 0		3,55
30″	54,15,48,54,29,52,43,27,31,42		3,58, 1,36, 8	
		53,37,12,40,36,23,52		3,55
32″	54,15,49,48, 7, 5,24, 3,55,34		3,58, 1,40, 3	
		53,37, 8,42,34,43,49		3,55
34″	54,15,50,41,44,14, 6,38,39,23		3,58, 1,43,58	
		53,37, 4,44,32,59,51		3,55
36″	54,15,51,35,21,18,51,11,39,14		3,58, 1,47,53	
		53,37, 0,46,31,11,58		3,55
38″	54,15,52,28,58,19,37,42,51,12		3,58, 1,51,48	
		53,36,56,48,29,20,10		3,55
40″	54,15,53,22,35,16,26,12,11,22		3,58, 1,55,43	
		53,36,52,50,27,24,27		3,55
42″	54,15,54,16,12, 9,16,39,35,49		3,58, 1,59,38	
		53,36,48,52,25,24,49		3,55
44″	54,15,55, 9,48,58, 9, 5, 0,38		3,58, 2, 3,33	
		53,36,44,54,23,21,16		3,55
46″	54,15,56, 3,25,43, 3,28,21,54		3,58, 2, 7,28	
		53,36,40,56,21,13,48		3,55
48″	54,15,56,57, 2,23,59,49,35,42		3,58, 2,11,23	
		53,36,36,58,19, 2,25		3,55
50″	54,15,57,50,39, 0,58, 8,38, 7		3,58, 2,15,18	
		53,36,33, 0,16,47, 7		3,55
52″	54,15,58,44,15,33,58,25,25,14		3,58, 2,19,13	
		53,36,29, 2,14,27,54		3,55
54″	54,15,59,37,52, 3, 0,39,53, 8		3,58, 2,23, 8	
		53,36,25, 4,12, 4,46		3,55
56″	54,16, 0,31,28,28, 4,51,57,54		3,58, 2,27, 3	
		53,36,21, 6, 9,37,43		3,55
58″	54,16, 1,25, 4,49,11, 1,35,37		3,58, 2,30,58	
		53,36,17, 8, 7, 6,45		
60″	54,16, 2,18,41, 6,19, 8,42,22			
exact	54,16, 2,18,41, 6,19, 8,22,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°45′ 0″	54,16, 2,18,41, 6,19, 8,22,34			
		53,36,13,10, 4,29,58		
2″	54,16, 3,12,17,19,29,12,52,32		3,58, 2,38,55	
		53,36, 9,12, 1,51, 3		3,55
4″	54,16, 4, 5,53,28,41,14,43,35		3,58, 2,42,50	
		53,36, 5,13,59, 8,13		3,55
6″	54,16, 4,59,29,33,55,13,51,48		3,58, 2,46,45	
		53,36, 1,15,56,21,28		3,55
8″	54,16, 5,53, 5,35,11,10,13,16		3,58, 2,50,40	
		53,35,57,17,53,30,48		3,55
10″	54,16, 6,46,41,32,29, 3,44, 4		3,58, 2,54,35	
		53,35,53,19,50,36,13		3,55
12″	54,16, 7,40,17,25,48,54,20,17		3,58, 2,58,30	
		53,35,49,21,47,37,43		3,55
14″	54,16, 8,33,53,15,10,41,58, 0		3,58, 3, 2,25	
		53,35,45,23,44,35,18		3,55
16″	54,16, 9,27,29, 0,34,26,33,18		3,58, 3, 6,20	
		53,35,41,25,41,28,58		3,55
18″	54,16,10,21, 4,42, 0, 8, 2,16		3,58, 3,10,15	
		53,35,37,27,38,18,43		3,55
20″	54,16,11,14,40,19,27,46,20,59		3,58, 3,14,10	
		53,35,33,29,35, 4,33		3,55
22″	54,16,12, 8,15,52,57,21,25,32		3,58, 3,18, 5	
		53,35,29,31,31,46,28		3,55
24″	54,16,13, 1,51,22,28,53,12, 0		3,58, 3,22, 0	
		53,35,25,33,28,24,28		3,55
26″	54,16,13,55,26,48, 2,21,36,28		3,58, 3,25,55	
		53,35,21,35,24,58,33		3,55
28″	54,16,14,49, 2, 9,37,46,35, 1		3,58, 3,29,50	
		53,35,17,37,21,28,43		3,55
30″	54,16,15,42,37,27,15, 8, 3,44		3,58, 3,33,45	
		53,35,13,39,17,54,58		3,55
32″	54,16,16,36,12,40,54,25,58,42		3,58, 3,37,40	
		53,35, 9,41,14,17,18		3,55
34″	54,16,17,29,47,50,35,40,16, 0		3,58, 3,41,35	
		53,35, 5,43,10,35,43		3,55
36″	54,16,18,23,22,56,18,50,51,43		3,58, 3,45,30	
		53,35, 1,45, 6,50,13		3,55
38″	54,16,19,16,57,58, 3,57,41,56		3,58, 3,49,25	
		53,34,57,47, 3, 0,48		3,55
40″	54,16,20,10,32,55,51, 0,42,44		3,58, 3,53,20	
		53,34,53,48,59, 7,28		3,55
42″	54,16,21, 4, 7,49,39,59,50,12		3,58, 3,57,15	
		53,34,49,50,55,10,13		3,55
44″	54,16,21,57,42,39,30,55, 0,25		3,58, 4, 1,10	
		53,34,45,52,51, 9, 3		3,55
46″	54,16,22,51,17,25,23,46, 9,28		3,58, 4, 5, 5	
		53,34,41,54,47, 3,58		3,55
48″	54,16,23,44,52, 7,18,33,13,26		3,58, 4, 9, 0	
		53,34,37,56,42,54,58		3,55
50″	54,16,24,38,26,45,15,16, 8,24		3,58, 4,12,55	
		53,34,33,58,38,42, 3		3,55
52″	54,16,25,32, 1,19,13,54,50,27		3,58, 4,16,50	
		53,34,30, 0,34,25,13		3,55
54″	54,16,26,25,35,49,14,29,15,40		3,58, 4,20,45	
		53,34,26, 2,30, 4,28		3,55
56″	54,16,27,19,10,15,16,59,20, 8		3,58, 4,24,40	
		53,34,22, 4,25,39,48		3,55
58″	54,16,28,12,44,37,21,24,59,56		3,58, 4,28,35	
		53,34,18, 6,21,11,13		
60″	54,16,29, 6,18,55,27,46,11, 9			
exact	54,16,29, 6,18,55,27,46, 8, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°46′ 0″	54,16,29, 6,18,55,27,46, 8, 6			
		53,34,14, 8,16,38,21		
2″	54,16,29,59,53, 9,36, 2,46,27		3,58, 4,36,26	
		53,34,10,10,12, 1,55		3,55
4″	54,16,30,53,27,19,46,14,48,22		3,58, 4,40,21	
		53,34, 6,12, 7,21,34		3,55
6″	54,16,31,47, 1,25,58,22, 9,56		3,58, 4,44,16	
		53,34, 2,14, 2,37,18		3,55
8″	54,16,32,40,35,28,12,24,47,14		3,58, 4,48,11	
		53,33,58,15,57,49, 7		3,55
10″	54,16,33,34, 9,26,28,22,36,21		3,58, 4,52, 6	
		53,33,54,17,52,57, 1		3,55
12″	54,16,34,27,43,20,46,15,33,22		3,58, 4,56, 1	
		53,33,50,19,48, 1, 0		3,55
14″	54,16,35,21,17,11, 6, 3,34,22		3,58, 4,59,56	
		53,33,46,21,43, 1, 4		3,55
16″	54,16,36,14,50,57,27,46,35,26		3,58, 5, 3,51	
		53,33,42,23,37,57,13		3,55
18″	54,16,37, 8,24,39,51,24,32,39		3,58, 5, 7,46	
		53,33,38,25,32,49,27		3,55
20″	54,16,38, 1,58,18,16,57,22, 6		3,58, 5,11,41	
		53,33,34,27,27,37,46		3,55
22″	54,16,38,55,31,52,44,24,59,52		3,58, 5,15,36	
		53,33,30,29,22,22,10		3,55
24″	54,16,39,49, 5,23,13,47,22, 2		3,58, 5,19,31	
		53,33,26,31,17, 2,39		3,55
26″	54,16,40,42,38,49,45, 4,24,41		3,58, 5,23,26	
		53,33,22,33,11,39,13		3,55
28″	54,16,41,36,12,12,18,16, 3,54		3,58, 5,27,21	
		53,33,18,35, 6,11,52		3,55
30″	54,16,42,29,45,30,53,22,15,46		3,58, 5,31,16	
		53,33,14,37, 0,40,36		3,55
32″	54,16,43,23,18,45,30,22,56,22		3,58, 5,35,11	
		53,33,10,38,55, 5,25		3,55
34″	54,16,44,16,51,56, 9,18, 1,47		3,58, 5,39, 6	
		53,33, 6,40,49,26,19		3,55
36″	54,16,45,10,25, 2,50, 7,28, 6		3,58, 5,43, 1	
		53,33, 2,42,43,43,18		3,55
38″	54,16,46, 3,58, 5,32,51,11,24		3,58, 5,46,56	
		53,32,58,44,37,56,22		3,55
40″	54,16,46,57,31, 4,17,29, 7,46		3,58, 5,50,51	
		53,32,54,46,32, 5,31		3,55
42″	54,16,47,51, 3,59, 4, 1,13,17		3,58, 5,54,46	
		53,32,50,48,26,10,45		3,55
44″	54,16,48,44,36,49,52,27,24, 2		3,58, 5,58,41	
		53,32,46,50,20,12, 4		3,55
46″	54,16,49,38, 9,36,42,47,36, 6		3,58, 6, 2,36	
		53,32,42,52,14, 9,28		3,55
48″	54,16,50,31,42,19,35, 1,45,34		3,58, 6, 6,31	
		53,32,38,54, 8, 2,57		3,55
50″	54,16,51,25,14,58,29, 9,48,31		3,58, 6,10,26	
		53,32,34,56, 1,52,31		3,55
52″	54,16,52,18,47,33,25,11,41, 2		3,58, 6,14,21	
		53,32,30,57,55,38,10		3,55
54″	54,16,53,12,20, 4,23, 7,19,12		3,58, 6,18,16	
		53,32,26,59,49,19,54		3,55
56″	54,16,54, 5,52,31,22,56,39, 6		3,58, 6,22,11	
		53,32,23, 1,42,57,43		3,55
58″	54,16,54,59,24,54,24,39,36,49		3,58, 6,26, 6	
		53,32,19, 3,36,31,37		
60″	54,16,55,52,57,13,28,16, 8,26			
exact	54,16,55,52,57,13,28,16, 9,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°47′ 0″	54,16,55,52,57,13,28,16, 9,49			
		53,32,15, 5,30, 1,55		
2″	54,16,56,46,29,28,33,46,11,44		3,58, 6,33,54	
		53,32,11, 7,23,28, 1		3,55
4″	54,16,57,40, 1,39,41, 9,39,45		3,58, 6,37,49	
		53,32, 7, 9,16,50,12		3,55
6″	54,16,58,33,33,46,50,26,29,57		3,58, 6,41,44	
		53,32, 3,11,10, 8,28		3,55
8″	54,16,59,27, 5,50, 1,36,38,25		3,58, 6,45,39	
		53,31,59,13, 3,22,49		3,55
10″	54,17, 0,20,37,49,14,40, 1,14		3,58, 6,49,34	
		53,31,55,14,56,33,15		3,55
12″	54,17, 1,14, 9,44,29,36,34,29		3,58, 6,53,29	
		53,31,51,16,49,39,46		3,55
14″	54,17, 2, 7,41,35,46,26,14,15		3,58, 6,57,24	
		53,31,47,18,42,42,22		3,55
16″	54,17, 3, 1,13,23, 5, 8,56,37		3,58, 7, 1,19	
		53,31,43,20,35,41, 3		3,55
18″	54,17, 3,54,45, 6,25,44,37,40		3,58, 7, 5,14	
		53,31,39,22,28,35,49		3,55
20″	54,17, 4,48,16,45,48,13,13,29		3,58, 7, 9, 9	
		53,31,35,24,21,26,40		3,55
22″	54,17, 5,41,48,21,12,34,40, 9		3,58, 7,13, 4	
		53,31,31,26,14,13,36		3,55
24″	54,17, 6,35,19,52,38,48,53,45		3,58, 7,16,59	
		53,31,27,28, 6,56,37		3,55
26″	54,17, 7,28,51,20, 6,55,50,22		3,58, 7,20,54	
		53,31,23,29,59,35,43		3,55
28″	54,17, 8,22,22,43,36,55,26, 5		3,58, 7,24,49	
		53,31,19,31,52,10,54		3,55
30″	54,17, 9,15,54, 3, 8,47,36,59		3,58, 7,28,44	
		53,31,15,33,44,42,10		3,55
32″	54,17,10, 9,25,18,42,32,19, 9		3,58, 7,32,39	
		53,31,11,35,37, 9,31		3,55
34″	54,17,11, 2,56,30,18, 9,28,40		3,58, 7,36,34	
		53,31, 7,37,29,32,57		3,55
36″	54,17,11,56,27,37,55,39, 1,37		3,58, 7,40,29	
		53,31, 3,39,21,52,28		3,55
38″	54,17,12,49,58,41,35, 0,54, 5		3,58, 7,44,24	
		53,30,59,41,14, 8, 4		3,55
40″	54,17,13,43,29,41,16,15, 2, 9		3,58, 7,48,19	
		53,30,55,43, 6,19,45		3,55
42″	54,17,14,37, 0,36,59,21,21,54		3,58, 7,52,14	
		53,30,51,44,58,27,31		3,55
44″	54,17,15,30,31,28,44,19,49,25		3,58, 7,56, 9	
		53,30,47,46,50,31,22		3,55
46″	54,17,16,24, 2,16,31,10,20,47		3,58, 8, 0, 4	
		53,30,43,48,42,31,18		3,55
48″	54,17,17,17,33, 0,19,52,52, 5		3,58, 8, 3,59	
		53,30,39,50,34,27,19		3,55
50″	54,17,18,11, 3,40,10,27,19,24		3,58, 8, 7,54	
		53,30,35,52,26,19,25		3,55
52″	54,17,19, 4,34,16, 2,53,38,49		3,58, 8,11,49	
		53,30,31,54,18, 7,36		3,55
54″	54,17,19,58, 4,47,57,11,46,25		3,58, 8,15,44	
		53,30,27,56, 9,51,52		3,55
56″	54,17,20,51,35,15,53,21,38,17		3,58, 8,19,39	
		53,30,23,58, 1,32,13		3,55
58″	54,17,21,45, 5,39,51,23,10,30		3,58, 8,23,34	
		53,30,19,59,53, 8,39		
60″	54,17,22,38,35,59,51,16,19, 9			
exact	54,17,22,38,35,59,51,16,35, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°48′ 0″	54,17,22,38,35,59,51,16,35, 8			
		53,30,16, 1,44,42,52		
2″	54,17,23,32, 6,15,53, 1,18, 0		3,58, 8,31,17	
		53,30,12, 3,36,11,35		3,55
4″	54,17,24,25,36,27,56,37,29,35		3,58, 8,35,12	
		53,30, 8, 5,27,36,23		3,55
6″	54,17,25,19, 6,36, 2, 5, 5,58		3,58, 8,39, 7	
		53,30, 4, 7,18,57,16		3,55
8″	54,17,26,12,36,40, 9,24, 3,14		3,58, 8,43, 2	
		53,30, 0, 9,10,14,14		3,55
10″	54,17,27, 6, 6,40,18,34,17,28		3,58, 8,46,57	
		53,29,56,11, 1,27,17		3,55
12″	54,17,27,59,36,36,29,35,44,45		3,58, 8,50,52	
		53,29,52,12,52,36,25		3,55
14″	54,17,28,53, 6,28,42,28,21,10		3,58, 8,54,47	
		53,29,48,14,43,41,38		3,55
16″	54,17,29,46,36,16,57,12, 2,48		3,58, 8,58,42	
		53,29,44,16,34,42,56		3,55
18″	54,17,30,40, 6, 1,13,46,45,44		3,58, 9, 2,37	
		53,29,40,18,25,40,19		3,55
20″	54,17,31,33,35,41,32,12,26, 3		3,58, 9, 6,32	
		53,29,36,20,16,33,47		3,55
22″	54,17,32,27, 5,17,52,28,59,50		3,58, 9,10,27	
		53,29,32,22, 7,23,20		3,55
24″	54,17,33,20,34,50,14,36,23,10		3,58, 9,14,22	
		53,29,28,23,58, 8,58		3,55
26″	54,17,34,14, 4,18,38,34,32, 8		3,58, 9,18,17	
		53,29,24,25,48,50,41		3,55
28″	54,17,35, 7,33,43, 4,23,22,49		3,58, 9,22,12	
		53,29,20,27,39,28,29		3,55
30″	54,17,36, 1, 3, 3,32, 2,51,18		3,58, 9,26, 7	
		53,29,16,29,30, 2,22		3,55
32″	54,17,36,54,32,20, 1,32,53,40		3,58, 9,30, 2	
		53,29,12,31,20,32,20		3,55
34″	54,17,37,48, 1,32,32,53,26, 0		3,58, 9,33,57	
		53,29, 8,33,10,58,23		3,55
36″	54,17,38,41,30,41, 6, 4,24,23		3,58, 9,37,52	
		53,29, 4,35, 1,20,31		3,55
38″	54,17,39,34,59,45,41, 5,44,54		3,58, 9,41,47	
		53,29, 0,36,51,38,44		3,55
40″	54,17,40,28,28,46,17,57,23,38		3,58, 9,45,42	
		53,28,56,38,41,53, 2		3,55
42″	54,17,41,21,57,42,56,39,16,40		3,58, 9,49,37	
		53,28,52,40,32, 3,25		3,55
44″	54,17,42,15,26,35,37,11,20, 5		3,58, 9,53,32	
		53,28,48,42,22, 9,53		3,55
46″	54,17,43, 8,55,24,19,33,29,58		3,58, 9,57,27	
		53,28,44,44,12,12,26		3,55
48″	54,17,44, 2,24, 9, 3,45,42,24		3,58,10, 1,22	
		53,28,40,46, 2,11, 4		3,55
50″	54,17,44,55,52,49,49,47,53,28		3,58,10, 5,17	
		53,28,36,47,52, 5,47		3,55
52″	54,17,45,49,21,26,37,39,59,15		3,58,10, 9,12	
		53,28,32,49,41,56,35		3,55
54″	54,17,46,42,49,59,27,21,55,50		3,58,10,13, 7	
		53,28,28,51,31,43,28		3,55
56″	54,17,47,36,18,28,18,53,39,18		3,58,10,17, 2	
		53,28,24,53,21,26,26		3,55
58″	54,17,48,29,46,53,12,15, 5,44		3,58,10,20,57	
		53,28,20,55,11, 5,29		
60″	54,17,49,23,15,14, 7,26,11,13			
exact	54,17,49,23,15,14, 7,26,36,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°49′ 0″	54,17,49,23,15,14, 7,26,36,46			
		53,28,16,57, 0,43,21		
2″	54,17,50,16,43,31, 4,27,20, 7		3,58,10,28,35	
		53,28,12,58,50,14,46		3,55
4″	54,17,51,10,11,44, 3,17,34,53		3,58,10,32,30	
		53,28, 9, 0,39,42,16		3,55
6″	54,17,52, 3,39,53, 3,57,17, 9		3,58,10,36,25	
		53,28, 5, 2,29, 5,51		3,55
8″	54,17,52,57, 7,58, 6,26,23, 0		3,58,10,40,20	
		53,28, 1, 4,18,25,31		3,55
10″	54,17,53,50,35,59,10,44,48,31		3,58,10,44,15	
		53,27,57, 6, 7,41,16		3,55
12″	54,17,54,44, 3,56,16,52,29,47		3,58,10,48,10	
		53,27,53, 7,56,53, 6		3,55
14″	54,17,55,37,31,49,24,49,22,53		3,58,10,52, 5	
		53,27,49, 9,46, 1, 1		3,55
16″	54,17,56,30,59,38,34,35,23,54		3,58,10,56, 0	
		53,27,45,11,35, 5, 1		3,55
18″	54,17,57,24,27,23,46,10,28,55		3,58,10,59,55	
		53,27,41,13,24, 5, 6		3,55
20″	54,17,58,17,55, 4,59,34,34, 1		3,58,11, 3,50	
		53,27,37,15,13, 1,16		3,55
22″	54,17,59,11,22,42,14,47,35,17		3,58,11, 7,45	
		53,27,33,17, 1,53,31		3,55
24″	54,18, 0, 4,50,15,31,49,28,48		3,58,11,11,40	
		53,27,29,18,50,41,51		3,55
26″	54,18, 0,58,17,44,50,40,10,39		3,58,11,15,35	
		53,27,25,20,39,26,16		3,55
28″	54,18, 1,51,45,10,11,19,36,55		3,58,11,19,30	
		53,27,21,22,28, 6,46		3,55
30″	54,18, 2,45,12,31,33,47,43,41		3,58,11,23,25	
		53,27,17,24,16,43,21		3,55
32″	54,18, 3,38,39,48,58, 4,27, 2		3,58,11,27,20	
		53,27,13,26, 5,16, 1		3,55
34″	54,18, 4,32, 7, 2,24, 9,43, 3		3,58,11,31,15	
		53,27, 9,27,53,44,46		3,55
36″	54,18, 5,25,34,11,52, 3,27,49		3,58,11,35,10	
		53,27, 5,29,42, 9,36		3,55
38″	54,18, 6,19, 1,17,21,45,37,25		3,58,11,39, 5	
		53,27, 1,31,30,30,31		3,55
40″	54,18, 7,12,28,18,53,16, 7,56		3,58,11,43, 0	
		53,26,57,33,18,47,31		3,55
42″	54,18, 8, 5,55,16,26,34,55,27		3,58,11,46,55	
		53,26,53,35, 7, 0,36		3,55
44″	54,18, 8,59,22,10, 1,41,56, 3		3,58,11,50,50	
		53,26,49,36,55, 9,46		3,55
46″	54,18, 9,52,48,59,38,37, 5,49		3,58,11,54,45	
		53,26,45,38,43,15, 1		3,55
48″	54,18,10,46,15,45,17,20,20,50		3,58,11,58,40	
		53,26,41,40,31,16,21		3,55
50″	54,18,11,39,42,26,57,51,37,11		3,58,12, 2,35	
		53,26,37,42,19,13,46		3,55
52″	54,18,12,33, 9, 4,40,10,50,57		3,58,12, 6,30	
		53,26,33,44, 7, 7,16		3,55
54″	54,18,13,26,35,38,24,17,58,13		3,58,12,10,25	
		53,26,29,45,54,56,51		3,55
56″	54,18,14,20, 2, 8,10,12,55, 4		3,58,12,14,20	
		53,26,25,47,42,42,31		3,55
58″	54,18,15,13,28,33,57,55,37,35		3,58,12,18,15	
		53,26,21,49,30,24,16		
60″	54,18,16, 6,54,55,47,26, 1,51			
exact	54,18,16, 6,54,55,47,26,32,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°50′ 0″	54,18,16, 6,54,55,47,26,32,44			
		53,26,17,51,18, 5,34		
2″	54,18,17, 0,21,13,38,44,38,18		3,58,12,25,50	
		53,26,13,53, 5,39,44		3,54
4″	54,18,17,53,47,27,31,50,18, 2		3,58,12,29,44	
		53,26, 9,54,53,10, 0		3,54
6″	54,18,18,47,13,37,26,43,28, 2		3,58,12,33,38	
		53,26, 5,56,40,36,22		3,54
8″	54,18,19,40,39,43,23,24, 4,24		3,58,12,37,32	
		53,26, 1,58,27,58,50		3,54
10″	54,18,20,34, 5,45,21,52, 3,14		3,58,12,41,26	
		53,25,58, 0,15,17,24		3,54
12″	54,18,21,27,31,43,22, 7,20,38		3,58,12,45,20	
		53,25,54, 2, 2,32, 4		3,54
14″	54,18,22,20,57,37,24, 9,52,42		3,58,12,49,14	
		53,25,50, 3,49,42,50		3,54
16″	54,18,23,14,23,27,27,59,35,32		3,58,12,53, 8	
		53,25,46, 5,36,49,42		3,54
18″	54,18,24, 7,49,13,33,36,25,14		3,58,12,57, 2	
		53,25,42, 7,23,52,40		3,54
20″	54,18,25, 1,14,55,41, 0,17,54		3,58,13, 0,56	
		53,25,38, 9,10,51,44		3,54
22″	54,18,25,54,40,33,50,11, 9,38		3,58,13, 4,50	
		53,25,34,10,57,46,54		3,54
24″	54,18,26,48, 6, 8, 1, 8,56,32		3,58,13, 8,44	
		53,25,30,12,44,38,10		3,54
26″	54,18,27,41,31,38,13,53,34,42		3,58,13,12,38	
		53,25,26,14,31,25,32		3,54
28″	54,18,28,34,57, 4,28,25, 0,14		3,58,13,16,32	
		53,25,22,16,18, 9, 0		3,54
30″	54,18,29,28,22,26,44,43, 9,14		3,58,13,20,26	
		53,25,18,18, 4,48,34		3,54
32″	54,18,30,21,47,45, 2,47,57,48		3,58,13,24,20	
		53,25,14,19,51,24,14		3,54
34″	54,18,31,15,12,59,22,39,22, 2		3,58,13,28,14	
		53,25,10,21,37,56, 0		3,54
36″	54,18,32, 8,38, 9,44,17,18, 2		3,58,13,32, 8	
		53,25, 6,23,24,23,52		3,54
38″	54,18,33, 2, 3,16, 7,41,41,54		3,58,13,36, 2	
		53,25, 2,25,10,47,50		3,54
40″	54,18,33,55,28,18,32,52,29,44		3,58,13,39,56	
		53,24,58,26,57, 7,54		3,54
42″	54,18,34,48,53,16,59,49,37,38		3,58,13,43,50	
		53,24,54,28,43,24, 4		3,54
44″	54,18,35,42,18,11,28,33, 1,42		3,58,13,47,44	
		53,24,50,30,29,36,20		3,54
46″	54,18,36,35,43, 1,59, 2,38, 2		3,58,13,51,38	
		53,24,46,32,15,44,42		3,54
48″	54,18,37,29, 7,48,31,18,22,44		3,58,13,55,32	
		53,24,42,34, 1,49,10		3,54
50″	54,18,38,22,32,31, 5,20,11,54		3,58,13,59,26	
		53,24,38,35,47,49,44		3,54
52″	54,18,39,15,57, 9,41, 8, 1,38		3,58,14, 3,20	
		53,24,34,37,33,46,24		3,54
54″	54,18,40, 9,21,44,18,41,48, 2		3,58,14, 7,14	
		53,24,30,39,19,39,10		3,54
56″	54,18,41, 2,46,14,58, 1,27,12		3,58,14,11, 8	
		53,24,26,41, 5,28, 2		3,54
58″	54,18,41,56,10,41,39, 6,55,14		3,58,14,15, 2	
		53,24,22,42,51,13, 0		
60″	54,18,42,49,35, 4,21,58, 8,14			
exact	54,18,42,49,35, 4,21,57,46,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°51′ 0″	54,18,42,49,35, 4,21,57,46,19			
		53,24,18,44,36,51,41		
2″	54,18,43,42,59,23, 6,34,38, 0		3,58,14,23, 0	
		53,24,14,46,22,28,41		3,54
4″	54,18,44,36,23,37,52,57, 6,41		3,58,14,26,54	
		53,24,10,48, 8, 1,47		3,54
6″	54,18,45,29,47,48,41, 5, 8,28		3,58,14,30,48	
		53,24, 6,49,53,30,59		3,54
8″	54,18,46,23,11,55,30,58,39,27		3,58,14,34,42	
		53,24, 2,51,38,56,17		3,54
10″	54,18,47,16,35,58,22,37,35,44		3,58,14,38,36	
		53,23,58,53,24,17,41		3,54
12″	54,18,48, 9,59,57,16, 1,53,25		3,58,14,42,30	
		53,23,54,55, 9,35,11		3,54
14″	54,18,49, 3,23,52,11,11,28,36		3,58,14,46,24	
		53,23,50,56,54,48,47		3,54
16″	54,18,49,56,47,43, 8, 6,17,23		3,58,14,50,18	
		53,23,46,58,39,58,29		3,54
18″	54,18,50,50,11,30, 6,46,15,52		3,58,14,54,12	
		53,23,43, 0,25, 4,17		3,54
20″	54,18,51,43,35,13, 7,11,20, 9		3,58,14,58, 6	
		53,23,39, 2,10, 6,11		3,54
22″	54,18,52,36,58,52, 9,21,26,20		3,58,15, 2, 0	
		53,23,35, 3,55, 4,11		3,54
24″	54,18,53,30,22,27,13,16,30,31		3,58,15, 5,54	
		53,23,31, 5,39,58,17		3,54
26″	54,18,54,23,45,58,18,56,28,48		3,58,15, 9,48	
		53,23,27, 7,24,48,29		3,54
28″	54,18,55,17, 9,25,26,21,17,17		3,58,15,13,42	
		53,23,23, 9, 9,34,47		3,54
30″	54,18,56,10,32,48,35,30,52, 4		3,58,15,17,36	
		53,23,19,10,54,17,11		3,54
32″	54,18,57, 3,56, 7,46,25, 9,15		3,58,15,21,30	
		53,23,15,12,38,55,41		3,54
34″	54,18,57,57,19,22,59, 4, 4,56		3,58,15,25,24	
		53,23,11,14,23,30,17		3,54
36″	54,18,58,50,42,34,13,27,35,13		3,58,15,29,18	
		53,23, 7,16, 8, 0,59		3,54
38″	54,18,59,44, 5,41,29,35,36,12		3,58,15,33,12	
		53,23, 3,17,52,27,47		3,54
40″	54,19, 0,37,28,44,47,28, 3,59		3,58,15,37, 6	
		53,22,59,19,36,50,41		3,54
42″	54,19, 1,30,51,44, 7, 4,54,40		3,58,15,41, 0	
		53,22,55,21,21, 9,41		3,54
44″	54,19, 2,24,14,39,28,26, 4,21		3,58,15,44,54	
		53,22,51,23, 5,24,47		3,54
46″	54,19, 3,17,37,30,51,31,29, 8		3,58,15,48,48	
		53,22,47,24,49,35,59		3,54
48″	54,19, 4,11, 0,18,16,21, 5, 7		3,58,15,52,42	
		53,22,43,26,33,43,17		3,54
50″	54,19, 5, 4,23, 1,42,54,48,24		3,58,15,56,36	
		53,22,39,28,17,46,41		3,54
52″	54,19, 5,57,45,41,11,12,35, 5		3,58,16, 0,30	
		53,22,35,30, 1,46,11		3,54
54″	54,19, 6,51, 8,16,41,14,21,16		3,58,16, 4,24	
		53,22,31,31,45,41,47		3,54
56″	54,19, 7,44,30,48,13, 0, 3, 3		3,58,16, 8,18	
		53,22,27,33,29,33,29		3,54
58″	54,19, 8,37,53,15,46,29,36,32		3,58,16,12,12	
		53,22,23,35,13,21,17		
60″	54,19, 9,31,15,39,21,42,57,49			
exact	54,19, 9,31,15,39,21,42,46, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°52′ 0″	54,19, 9,31,15,39,21,42,46, 8			
		53,22,19,36,57, 3,53		
2″	54,19,10,24,37,58,58,39,50, 1		3,58,16,20, 5	
		53,22,15,38,40,43,48		3,54
4″	54,19,11,18, 0,14,37,20,33,49		3,58,16,23,59	
		53,22,11,40,24,19,49		3,54
6″	54,19,12,11,22,26,17,44,53,38		3,58,16,27,53	
		53,22, 7,42, 7,51,56		3,54
8″	54,19,13, 4,44,33,59,52,45,34		3,58,16,31,47	
		53,22, 3,43,51,20, 9		3,54
10″	54,19,13,58, 6,37,43,44, 5,43		3,58,16,35,41	
		53,21,59,45,34,44,28		3,54
12″	54,19,14,51,28,37,29,18,50,11		3,58,16,39,35	
		53,21,55,47,18, 4,53		3,54
14″	54,19,15,44,50,33,16,36,55, 4		3,58,16,43,29	
		53,21,51,49, 1,21,24		3,54
16″	54,19,16,38,12,25, 5,38,16,28		3,58,16,47,23	
		53,21,47,50,44,34, 1		3,54
18″	54,19,17,31,34,12,56,22,50,29		3,58,16,51,17	
		53,21,43,52,27,42,44		3,54
20″	54,19,18,24,55,56,48,50,33,13		3,58,16,55,11	
		53,21,39,54,10,47,33		3,54
22″	54,19,19,18,17,36,43, 1,20,46		3,58,16,59, 5	
		53,21,35,55,53,48,28		3,54
24″	54,19,20,11,39,12,38,55, 9,14		3,58,17, 2,59	
		53,21,31,57,36,45,29		3,54
26″	54,19,21, 5, 0,44,36,31,54,43		3,58,17, 6,53	
		53,21,27,59,19,38,36		3,54
28″	54,19,21,58,22,12,35,51,33,19		3,58,17,10,47	
		53,21,24, 1, 2,27,49		3,54
30″	54,19,22,51,43,36,36,54, 1, 8		3,58,17,14,41	
		53,21,20, 2,45,13, 8		3,54
32″	54,19,23,45, 4,56,39,39,14,16		3,58,17,18,35	
		53,21,16, 4,27,54,33		3,54
34″	54,19,24,38,26,12,44, 7, 8,49		3,58,17,22,29	
		53,21,12, 6,10,32, 4		3,54
36″	54,19,25,31,47,24,50,17,40,53		3,58,17,26,23	
		53,21, 8, 7,53, 5,41		3,54
38″	54,19,26,25, 8,32,58,10,46,34		3,58,17,30,17	
		53,21, 4, 9,35,35,24		3,54
40″	54,19,27,18,29,37, 7,46,21,58		3,58,17,34,11	
		53,21, 0,11,18, 1,13		3,54
42″	54,19,28,11,50,37,19, 4,23,11		3,58,17,38, 5	
		53,20,56,13, 0,23, 8		3,54
44″	54,19,29, 5,11,33,32, 4,46,19		3,58,17,41,59	
		53,20,52,14,42,41, 9		3,54
46″	54,19,29,58,32,25,46,47,27,28		3,58,17,45,53	
		53,20,48,16,24,55,16		3,54
48″	54,19,30,51,53,14, 3,12,22,44		3,58,17,49,47	
		53,20,44,18, 7, 5,29		3,54
50″	54,19,31,45,13,58,21,19,28,13		3,58,17,53,41	
		53,20,40,19,49,11,48		3,54
52″	54,19,32,38,34,38,41, 8,40, 1		3,58,17,57,35	
		53,20,36,21,31,14,13		3,54
54″	54,19,33,31,55,15, 2,39,54,14		3,58,18, 1,29	
		53,20,32,23,13,12,44		3,54
56″	54,19,34,25,15,47,25,53, 6,58		3,58,18, 5,23	
		53,20,28,24,55, 7,21		3,54
58″	54,19,35,18,36,15,50,48,14,19		3,58,18, 9,17	
		53,20,24,26,36,58, 4		
60″	54,19,36,11,56,40,17,25,12,23			
exact	54,19,36,11,56,40,17,25, 6, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°53′ 0″	54,19,36,11,56,40,17,25, 6, 6			
		53,20,20,28,18,44,20		
2″	54,19,37, 5,17, 0,45,43,50,26		3,58,18,17, 6	
		53,20,16,30, 0,27,14		3,54
4″	54,19,37,58,37,17,15,44,17,40		3,58,18,21, 0	
		53,20,12,31,42, 6,14		3,54
6″	54,19,38,51,57,29,47,26,23,54		3,58,18,24,54	
		53,20, 8,33,23,41,20		3,54
8″	54,19,39,45,17,38,20,50, 5,14		3,58,18,28,48	
		53,20, 4,35, 5,12,32		3,54
10″	54,19,40,38,37,42,55,55,17,46		3,58,18,32,42	
		53,20, 0,36,46,39,50		3,54
12″	54,19,41,31,57,43,32,41,57,36		3,58,18,36,36	
		53,19,56,38,28, 3,14		3,54
14″	54,19,42,25,17,40,11,10, 0,50		3,58,18,40,30	
		53,19,52,40, 9,22,44		3,54
16″	54,19,43,18,37,32,51,19,23,34		3,58,18,44,24	
		53,19,48,41,50,38,20		3,54
18″	54,19,44,11,57,21,33,10, 1,54		3,58,18,48,18	
		53,19,44,43,31,50, 2		3,54
20″	54,19,45, 5,17, 6,16,41,51,56		3,58,18,52,12	
		53,19,40,45,12,57,50		3,54
22″	54,19,45,58,36,47, 1,54,49,46		3,58,18,56, 6	
		53,19,36,46,54, 1,44		3,54
24″	54,19,46,51,56,23,48,48,51,30		3,58,19, 0, 0	
		53,19,32,48,35, 1,44		3,54
26″	54,19,47,45,15,56,37,23,53,14		3,58,19, 3,54	
		53,19,28,50,15,57,50		3,54
28″	54,19,48,38,35,25,27,39,51, 4		3,58,19, 7,48	
		53,19,24,51,56,50, 2		3,54
30″	54,19,49,31,54,50,19,36,41, 6		3,58,19,11,42	
		53,19,20,53,37,38,20		3,54
32″	54,19,50,25,14,11,13,14,19,26		3,58,19,15,36	
		53,19,16,55,18,22,44		3,54
34″	54,19,51,18,33,28, 8,32,42,10		3,58,19,19,30	
		53,19,12,56,59, 3,14		3,54
36″	54,19,52,11,52,41, 5,31,45,24		3,58,19,23,24	
		53,19, 8,58,39,39,50		3,54
38″	54,19,53, 5,11,50, 4,11,25,14		3,58,19,27,18	
		53,19, 5, 0,20,12,32		3,54
40″	54,19,53,58,30,55, 4,31,37,46		3,58,19,31,12	
		53,19, 1, 2, 0,41,20		3,54
42″	54,19,54,51,49,56, 6,32,19, 6		3,58,19,35, 6	
		53,18,57, 3,41, 6,14		3,54
44″	54,19,55,45, 8,53,10,13,25,20		3,58,19,39, 0	
		53,18,53, 5,21,27,14		3,54
46″	54,19,56,38,27,46,15,34,52,34		3,58,19,42,54	
		53,18,49, 7, 1,44,20		3,54
48″	54,19,57,31,46,35,22,36,36,54		3,58,19,46,48	
		53,18,45, 8,41,57,32		3,54
50″	54,19,58,25, 5,20,31,18,34,26		3,58,19,50,42	
		53,18,41,10,22, 6,50		3,54
52″	54,19,59,18,24, 1,41,40,41,16		3,58,19,54,36	
		53,18,37,12, 2,12,14		3,54
54″	54,20, 0,11,42,38,53,42,53,30		3,58,19,58,30	
		53,18,33,13,42,13,44		3,54
56″	54,20, 1, 5, 1,12, 7,25, 7,14		3,58,20, 2,24	
		53,18,29,15,22,11,20		3,54
58″	54,20, 1,58,19,41,22,47,18,34		3,58,20, 6,18	
		53,18,25,17, 2, 5, 2		
60″	54,20, 2,51,38, 6,39,49,23,36			
exact	54,20, 2,51,38, 6,39,49,25,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°54′ 0″	54,20, 2,51,38, 6,39,49,25,26			
		53,18,21,18,41,55,13		
2″	54,20, 3,44,56,27,58,31,20,39		3,58,20,14, 3	
		53,18,17,20,21,41,10		3,54
4″	54,20, 4,38,14,45,18,53, 1,49		3,58,20,17,57	
		53,18,13,22, 1,23,13		3,54
6″	54,20, 5,31,32,58,40,54,25, 2		3,58,20,21,51	
		53,18, 9,23,41, 1,22		3,54
8″	54,20, 6,24,51, 8, 4,35,26,24		3,58,20,25,45	
		53,18, 5,25,20,35,37		3,54
10″	54,20, 7,18, 9,13,29,56, 2, 1		3,58,20,29,39	
		53,18, 1,27, 0, 5,58		3,54
12″	54,20, 8,11,27,14,56,56, 7,59		3,58,20,33,33	
		53,17,57,28,39,32,25		3,54
14″	54,20, 9, 4,45,12,25,35,40,24		3,58,20,37,27	
		53,17,53,30,18,54,58		3,54
16″	54,20, 9,58, 3, 5,55,54,35,22		3,58,20,41,21	
		53,17,49,31,58,13,37		3,54
18″	54,20,10,51,20,55,27,52,48,59		3,58,20,45,15	
		53,17,45,33,37,28,22		3,54
20″	54,20,11,44,38,41, 1,30,17,21		3,58,20,49, 9	
		53,17,41,35,16,39,13		3,54
22″	54,20,12,37,56,22,36,46,56,34		3,58,20,53, 3	
		53,17,37,36,55,46,10		3,54
24″	54,20,13,31,14, 0,13,42,42,44		3,58,20,56,57	
		53,17,33,38,34,49,13		3,54
26″	54,20,14,24,31,33,52,17,31,57		3,58,21, 0,51	
		53,17,29,40,13,48,22		3,54
28″	54,20,15,17,49, 3,32,31,20,19		3,58,21, 4,45	
		53,17,25,41,52,43,37		3,54
30″	54,20,16,11, 6,29,14,24, 3,56		3,58,21, 8,39	
		53,17,21,43,31,34,58		3,54
32″	54,20,17, 4,23,50,57,55,38,54		3,58,21,12,33	
		53,17,17,45,10,22,25		3,54
34″	54,20,17,57,41, 8,43, 6, 1,19		3,58,21,16,27	
		53,17,13,46,49, 5,58		3,54
36″	54,20,18,50,58,22,29,55, 7,17		3,58,21,20,21	
		53,17, 9,48,27,45,37		3,54
38″	54,20,19,44,15,32,18,22,52,54		3,58,21,24,15	
		53,17, 5,50, 6,21,22		3,54
40″	54,20,20,37,32,38, 8,29,14,16		3,58,21,28, 9	
		53,17, 1,51,44,53,13		3,54
42″	54,20,21,30,49,40, 0,14, 7,29		3,58,21,32, 3	
		53,16,57,53,23,21,10		3,54
44″	54,20,22,24, 6,37,53,37,28,39		3,58,21,35,57	
		53,16,53,55, 1,45,13		3,54
46″	54,20,23,17,23,31,48,39,13,52		3,58,21,39,51	
		53,16,49,56,40, 5,22		3,54
48″	54,20,24,10,40,21,45,19,19,14		3,58,21,43,45	
		53,16,45,58,18,21,37		3,54
50″	54,20,25, 3,57, 7,43,37,40,51		3,58,21,47,39	
		53,16,41,59,56,33,58		3,54
52″	54,20,25,57,13,49,43,34,14,49		3,58,21,51,33	
		53,16,38, 1,34,42,25		3,54
54″	54,20,26,50,30,27,45, 8,57,14		3,58,21,55,27	
		53,16,34, 3,12,46,58		3,54
56″	54,20,27,43,47, 1,48,21,44,12		3,58,21,59,21	
		53,16,30, 4,50,47,37		3,54
58″	54,20,28,37, 3,31,53,12,31,49		3,58,22, 3,15	
		53,16,26, 6,28,44,22		
60″	54,20,29,30,19,57,59,41,16,11			
exact	54,20,29,30,19,57,59,41,28,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°55′ 0″	54,20,29,30,19,57,59,41,28,45			
		53,16,22, 8, 6,38,43		
2″	54,20,30,23,36,20, 7,48, 7,28		3,58,22,10,56	
		53,16,18, 9,44,27,47		3,54
4″	54,20,31,16,52,38,17,32,35,15		3,58,22,14,50	
		53,16,14,11,22,12,57		3,54
6″	54,20,32,10, 8,52,28,54,48,12		3,58,22,18,44	
		53,16,10,12,59,54,13		3,54
8″	54,20,33, 3,25, 2,41,54,42,25		3,58,22,22,38	
		53,16, 6,14,37,31,35		3,54
10″	54,20,33,56,41, 8,56,32,14, 0		3,58,22,26,32	
		53,16, 2,16,15, 5, 3		3,54
12″	54,20,34,49,57,11,12,47,19, 3		3,58,22,30,26	
		53,15,58,17,52,34,37		3,54
14″	54,20,35,43,13, 9,30,39,53,40		3,58,22,34,20	
		53,15,54,19,30, 0,17		3,54
16″	54,20,36,36,29, 3,50, 9,53,57		3,58,22,38,14	
		53,15,50,21, 7,22, 3		3,54
18″	54,20,37,29,44,54,11,17,16, 0		3,58,22,42, 8	
		53,15,46,22,44,39,55		3,54
20″	54,20,38,23, 0,40,34, 1,55,55		3,58,22,46, 2	
		53,15,42,24,21,53,53		3,54
22″	54,20,39,16,16,22,58,23,49,48		3,58,22,49,56	
		53,15,38,25,59, 3,57		3,54
24″	54,20,40, 9,32, 1,24,22,53,45		3,58,22,53,50	
		53,15,34,27,36,10, 7		3,54
26″	54,20,41, 2,47,35,51,59, 3,52		3,58,22,57,44	
		53,15,30,29,13,12,23		3,54
28″	54,20,41,56, 3, 6,21,12,16,15		3,58,23, 1,38	
		53,15,26,30,50,10,45		3,54
30″	54,20,42,49,18,32,52, 2,27, 0		3,58,23, 5,32	
		53,15,22,32,27, 5,13		3,54
32″	54,20,43,42,33,55,24,29,32,13		3,58,23, 9,26	
		53,15,18,34, 3,55,47		3,54
34″	54,20,44,35,49,13,58,33,28, 0		3,58,23,13,20	
		53,15,14,35,40,42,27		3,54
36″	54,20,45,29, 4,28,34,14,10,27		3,58,23,17,14	
		53,15,10,37,17,25,13		3,54
38″	54,20,46,22,19,39,11,31,35,40		3,58,23,21, 8	
		53,15, 6,38,54, 4, 5		3,54
40″	54,20,47,15,34,45,50,25,39,45		3,58,23,25, 2	
		53,15, 2,40,30,39, 3		3,54
42″	54,20,48, 8,49,48,30,56,18,48		3,58,23,28,56	
		53,14,58,42, 7,10, 7		3,54
44″	54,20,49, 2, 4,47,13, 3,28,55		3,58,23,32,50	
		53,14,54,43,43,37,17		3,54
46″	54,20,49,55,19,41,56,47, 6,12		3,58,23,36,44	
		53,14,50,45,20, 0,33		3,54
48″	54,20,50,48,34,32,42, 7, 6,45		3,58,23,40,38	
		53,14,46,46,56,19,55		3,54
50″	54,20,51,41,49,19,29, 3,26,40		3,58,23,44,32	
		53,14,42,48,32,35,23		3,54
52″	54,20,52,35, 4, 2,17,36, 2, 3		3,58,23,48,26	
		53,14,38,50, 8,46,57		3,54
54″	54,20,53,28,18,41, 7,44,49, 0		3,58,23,52,20	
		53,14,34,51,44,54,37		3,54
56″	54,20,54,21,33,15,59,29,43,37		3,58,23,56,14	
		53,14,30,53,20,58,23		3,54
58″	54,20,55,14,47,46,52,50,42, 0		3,58,24, 0, 8	
		53,14,26,54,56,58,15		
60″	54,20,56, 8, 2,13,47,47,40,15			
exact	54,20,56, 8, 2,13,47,48, 5,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°56′ 0″	54,20,56, 8, 2,13,47,48, 5,56			
		53,14,22,56,32,57, 0		
2″	54,20,57, 1,16,36,44,21, 2,56		3,58,24, 7,44	
		53,14,18,58, 8,49,16		3,54
4″	54,20,57,54,30,55,42,29,52,12		3,58,24,11,38	
		53,14,14,59,44,37,38		3,54
6″	54,20,58,47,45,10,42,14,29,50		3,58,24,15,32	
		53,14,11, 1,20,22, 6		3,54
8″	54,20,59,40,59,21,43,34,51,56		3,58,24,19,26	
		53,14, 7, 2,56, 2,40		3,54
10″	54,21, 0,34,13,28,46,30,54,36		3,58,24,23,20	
		53,14, 3, 4,31,39,20		3,54
12″	54,21, 1,27,27,31,51, 2,33,56		3,58,24,27,14	
		53,13,59, 6, 7,12, 6		3,54
14″	54,21, 2,20,41,30,57, 9,46, 2		3,58,24,31, 8	
		53,13,55, 7,42,40,58		3,54
16″	54,21, 3,13,55,26, 4,52,27, 0		3,58,24,35, 2	
		53,13,51, 9,18, 5,56		3,54
18″	54,21, 4, 7, 9,17,14,10,32,56		3,58,24,38,56	
		53,13,47,10,53,27, 0		3,54
20″	54,21, 5, 0,23, 4,25, 3,59,56		3,58,24,42,50	
		53,13,43,12,28,44,10		3,54
22″	54,21, 5,53,36,47,37,32,44, 6		3,58,24,46,44	
		53,13,39,14, 3,57,26		3,54
24″	54,21, 6,46,50,26,51,36,41,32		3,58,24,50,38	
		53,13,35,15,39, 6,48		3,54
26″	54,21, 7,40, 4, 2, 7,15,48,20		3,58,24,54,32	
		53,13,31,17,14,12,16		3,54
28″	54,21, 8,33,17,33,24,30, 0,36		3,58,24,58,26	
		53,13,27,18,49,13,50		3,54
30″	54,21, 9,26,31, 0,43,19,14,26		3,58,25, 2,20	
		53,13,23,20,24,11,30		3,54
32″	54,21,10,19,44,24, 3,43,25,56		3,58,25, 6,14	
		53,13,19,21,59, 5,16		3,54
34″	54,21,11,12,57,43,25,42,31,12		3,58,25,10, 8	
		53,13,15,23,33,55, 8		3,54
36″	54,21,12, 6,10,58,49,16,26,20		3,58,25,14, 2	
		53,13,11,25, 8,41, 6		3,54
38″	54,21,12,59,24,10,14,25, 7,26		3,58,25,17,56	
		53,13, 7,26,43,23,10		3,54
40″	54,21,13,52,37,17,41, 8,30,36		3,58,25,21,50	
		53,13, 3,28,18, 1,20		3,54
42″	54,21,14,45,50,21, 9,26,31,56		3,58,25,25,44	
		53,12,59,29,52,35,36		3,54
44″	54,21,15,39, 3,20,39,19, 7,32		3,58,25,29,38	
		53,12,55,31,27, 5,58		3,54
46″	54,21,16,32,16,16,10,46,13,30		3,58,25,33,32	
		53,12,51,33, 1,32,26		3,54
48″	54,21,17,25,29, 7,43,47,45,56		3,58,25,37,26	
		53,12,47,34,35,55, 0		3,54
50″	54,21,18,18,41,55,18,23,40,56		3,58,25,41,20	
		53,12,43,36,10,13,40		3,54
52″	54,21,19,11,54,38,54,33,54,36		3,58,25,45,14	
		53,12,39,37,44,28,26		3,54
54″	54,21,20, 5, 7,18,32,18,23, 2		3,58,25,49, 8	
		53,12,35,39,18,39,18		3,54
56″	54,21,20,58,19,54,11,37, 2,20		3,58,25,53, 2	
		53,12,31,40,52,46,16		3,54
58″	54,21,21,51,32,25,52,29,48,36		3,58,25,56,56	
		53,12,27,42,26,49,20		
60″	54,21,22,44,44,53,34,56,37,56			
exact	54,21,22,44,44,53,34,57,12,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°57′ 0″	54,21,22,44,44,53,34,57,12,16			
		53,12,23,44, 0,52,15		
2″	54,21,23,37,57,17,18,58, 4,31		3,58,26, 4,28	
		53,12,19,45,34,47,47		3,53
4″	54,21,24,31, 9,37, 4,32,52,18		3,58,26, 8,21	
		53,12,15,47, 8,39,26		3,53
6″	54,21,25,24,21,52,51,41,31,44		3,58,26,12,14	
		53,12,11,48,42,27,12		3,53
8″	54,21,26,17,34, 4,40,23,58,56		3,58,26,16, 7	
		53,12, 7,50,16,11, 5		3,53
10″	54,21,27,10,46,12,30,40,10, 1		3,58,26,20, 0	
		53,12, 3,51,49,51, 5		3,53
12″	54,21,28, 3,58,16,22,30, 1, 6		3,58,26,23,53	
		53,11,59,53,23,27,12		3,53
14″	54,21,28,57,10,16,15,53,28,18		3,58,26,27,46	
		53,11,55,54,56,59,26		3,53
16″	54,21,29,50,22,12,10,50,27,44		3,58,26,31,39	
		53,11,51,56,30,27,47		3,53
18″	54,21,30,43,34, 4, 7,20,55,31		3,58,26,35,32	
		53,11,47,58, 3,52,15		3,53
20″	54,21,31,36,45,52, 5,24,47,46		3,58,26,39,25	
		53,11,43,59,37,12,50		3,53
22″	54,21,32,29,57,36, 5, 2, 0,36		3,58,26,43,18	
		53,11,40, 1,10,29,32		3,53
24″	54,21,33,23, 9,16, 6,12,30, 8		3,58,26,47,11	
		53,11,36, 2,43,42,21		3,53
26″	54,21,34,16,20,52, 8,56,12,29		3,58,26,51, 4	
		53,11,32, 4,16,51,17		3,53
28″	54,21,35, 9,32,24,13,13, 3,46		3,58,26,54,57	
		53,11,28, 5,49,56,20		3,53
30″	54,21,36, 2,43,52,19, 3, 0, 6		3,58,26,58,50	
		53,11,24, 7,22,57,30		3,53
32″	54,21,36,55,55,16,26,25,57,36		3,58,27, 2,43	
		53,11,20, 8,55,54,47		3,53
34″	54,21,37,49, 6,36,35,21,52,23		3,58,27, 6,36	
		53,11,16,10,28,48,11		3,53
36″	54,21,38,42,17,52,45,50,40,34		3,58,27,10,29	
		53,11,12,12, 1,37,42		3,53
38″	54,21,39,35,29, 4,57,52,18,16		3,58,27,14,22	
		53,11, 8,13,34,23,20		3,53
40″	54,21,40,28,40,13,11,26,41,36		3,58,27,18,15	
		53,11, 4,15, 7, 5, 5		3,53
42″	54,21,41,21,51,17,26,33,46,41		3,58,27,22, 8	
		53,11, 0,16,39,42,57		3,53
44″	54,21,42,15, 2,17,43,13,29,38		3,58,27,26, 1	
		53,10,56,18,12,16,56		3,53
46″	54,21,43, 8,13,14, 1,25,46,34		3,58,27,29,54	
		53,10,52,19,44,47, 2		3,53
48″	54,21,44, 1,24, 6,21,10,33,36		3,58,27,33,47	
		53,10,48,21,17,13,15		3,53
50″	54,21,44,54,34,54,42,27,46,51		3,58,27,37,40	
		53,10,44,22,49,35,35		3,53
52″	54,21,45,47,45,39, 5,17,22,26		3,58,27,41,33	
		53,10,40,24,21,54, 2		3,53
54″	54,21,46,40,56,19,29,39,16,28		3,58,27,45,26	
		53,10,36,25,54, 8,36		3,53
56″	54,21,47,34, 6,55,55,33,25, 4		3,58,27,49,19	
		53,10,32,27,26,19,17		3,53
58″	54,21,48,27,17,28,22,59,44,21		3,58,27,53,12	
		53,10,28,28,58,26, 5		
60″	54,21,49,20,27,56,51,58,10,26			
exact	54,21,49,20,27,56,51,57,48,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°58′ 0″	54,21,49,20,27,56,51,57,48,21			
		53,10,24,30,30,26,39		
2″	54,21,50,13,38,21,22,28,15, 0		3,58,28, 1, 7	
		53,10,20,32, 2,25,32		3,53
4″	54,21,51, 6,48,41,54,30,40,32		3,58,28, 5, 0	
		53,10,16,33,34,20,32		3,53
6″	54,21,51,59,58,58,28, 5, 1, 4		3,58,28, 8,53	
		53,10,12,35, 6,11,39		3,53
8″	54,21,52,53, 9,11, 3,11,12,43		3,58,28,12,46	
		53,10, 8,36,37,58,53		3,53
10″	54,21,53,46,19,19,39,49,11,36		3,58,28,16,39	
		53,10, 4,38, 9,42,14		3,53
12″	54,21,54,39,29,24,17,58,53,50		3,58,28,20,32	
		53,10, 0,39,41,21,42		3,53
14″	54,21,55,32,39,24,57,40,15,32		3,58,28,24,25	
		53, 9,56,41,12,57,17		3,53
16″	54,21,56,25,49,21,38,53,12,49		3,58,28,28,18	
		53, 9,52,42,44,28,59		3,53
18″	54,21,57,18,59,14,21,37,41,48		3,58,28,32,11	
		53, 9,48,44,15,56,48		3,53
20″	54,21,58,12, 9, 3, 5,53,38,36		3,58,28,36, 4	
		53, 9,44,45,47,20,44		3,53
22″	54,21,59, 5,18,47,51,40,59,20		3,58,28,39,57	
		53, 9,40,47,18,40,47		3,53
24″	54,21,59,58,28,28,38,59,40, 7		3,58,28,43,50	
		53, 9,36,48,49,56,57		3,53
26″	54,22, 0,51,38, 5,27,49,37, 4		3,58,28,47,43	
		53, 9,32,50,21, 9,14		3,53
28″	54,22, 1,44,47,38,18,10,46,18		3,58,28,51,36	
		53, 9,28,51,52,17,38		3,53
30″	54,22, 2,37,57, 7,10, 3, 3,56		3,58,28,55,29	
		53, 9,24,53,23,22, 9		3,53
32″	54,22, 3,31, 6,32, 3,26,26, 5		3,58,28,59,22	
		53, 9,20,54,54,22,47		3,53
34″	54,22, 4,24,15,52,58,20,48,52		3,58,29, 3,15	
		53, 9,16,56,25,19,32		3,53
36″	54,22, 5,17,25, 9,54,46, 8,24		3,58,29, 7, 8	
		53, 9,12,57,56,12,24		3,53
38″	54,22, 6,10,34,22,52,42,20,48		3,58,29,11, 1	
		53, 9, 8,59,27, 1,23		3,53
40″	54,22, 7, 3,43,31,52, 9,22,11		3,58,29,14,54	
		53, 9, 5, 0,57,46,29		3,53
42″	54,22, 7,56,52,36,53, 7, 8,40		3,58,29,18,47	
		53, 9, 1, 2,28,27,42		3,53
44″	54,22, 8,50, 1,37,55,35,36,22		3,58,29,22,40	
		53, 8,57, 3,59, 5, 2		3,53
46″	54,22, 9,43,10,34,59,34,41,24		3,58,29,26,33	
		53, 8,53, 5,29,38,29		3,53
48″	54,22,10,36,19,28, 5, 4,19,53		3,58,29,30,26	
		53, 8,49, 7, 0, 8, 3		3,53
50″	54,22,11,29,28,17,12, 4,27,56		3,58,29,34,19	
		53, 8,45, 8,30,33,44		3,53
52″	54,22,12,22,37, 2,20,35, 1,40		3,58,29,38,12	
		53, 8,41,10, 0,55,32		3,53
54″	54,22,13,15,45,43,30,35,57,12		3,58,29,42, 5	
		53, 8,37,11,31,13,27		3,53
56″	54,22,14, 8,54,20,42, 7,10,39		3,58,29,45,58	
		53, 8,33,13, 1,27,29		3,53
58″	54,22,15, 2, 2,53,55, 8,38, 8		3,58,29,49,51	
		53, 8,29,14,31,37,38		
60″	54,22,15,55,11,23, 9,40,15,46			
exact	54,22,15,55,11,23, 9,40, 0,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
64°59′ 0″	54,22,15,55,11,23, 9,40, 0,12			
		53, 8,25,16, 1,42,23		
2″	54,22,16,48,19,48,25,41,42,35		3,58,29,57,42	
		53, 8,21,17,31,44,41		3,53
4″	54,22,17,41,28, 9,43,13,27,16		3,58,30, 1,35	
		53, 8,17,19, 1,43, 6		3,53
6″	54,22,18,34,36,27, 2,15,10,22		3,58,30, 5,28	
		53, 8,13,20,31,37,38		3,53
8″	54,22,19,27,44,40,22,46,48, 0		3,58,30, 9,21	
		53, 8, 9,22, 1,28,17		3,53
10″	54,22,20,20,52,49,44,48,16,17		3,58,30,13,14	
		53, 8, 5,23,31,15, 3		3,53
12″	54,22,21,14, 0,55, 8,19,31,20		3,58,30,17, 7	
		53, 8, 1,25, 0,57,56		3,53
14″	54,22,22, 7, 8,56,33,20,29,16		3,58,30,21, 0	
		53, 7,57,26,30,36,56		3,53
16″	54,22,23, 0,16,53,59,51, 6,12		3,58,30,24,53	
		53, 7,53,28, 0,12, 3		3,53
18″	54,22,23,53,24,47,27,51,18,15		3,58,30,28,46	
		53, 7,49,29,29,43,17		3,53
20″	54,22,24,46,32,36,57,21, 1,32		3,58,30,32,39	
		53, 7,45,30,59,10,38		3,53
22″	54,22,25,39,40,22,28,20,12,10		3,58,30,36,32	
		53, 7,41,32,28,34, 6		3,53
24″	54,22,26,32,48, 4, 0,48,46,16		3,58,30,40,25	
		53, 7,37,33,57,53,41		3,53
26″	54,22,27,25,55,41,34,46,39,57		3,58,30,44,18	
		53, 7,33,35,27, 9,23		3,53
28″	54,22,28,19, 3,15,10,13,49,20		3,58,30,48,11	
		53, 7,29,36,56,21,12		3,53
30″	54,22,29,12,10,44,47,10,10,32		3,58,30,52, 4	
		53, 7,25,38,25,29, 8		3,53
32″	54,22,30, 5,18,10,25,35,39,40		3,58,30,55,57	
		53, 7,21,39,54,33,11		3,53
34″	54,22,30,58,25,32, 5,30,12,51		3,58,30,59,50	
		53, 7,17,41,23,33,21		3,53
36″	54,22,31,51,32,49,46,53,46,12		3,58,31, 3,43	
		53, 7,13,42,52,29,38		3,53
38″	54,22,32,44,40, 3,29,46,15,50		3,58,31, 7,36	
		53, 7, 9,44,21,22, 2		3,53
40″	54,22,33,37,47,13,14, 7,37,52		3,58,31,11,29	
		53, 7, 5,45,50,10,33		3,53
42″	54,22,34,30,54,18,59,57,48,25		3,58,31,15,22	
		53, 7, 1,47,18,55,11		3,53
44″	54,22,35,24, 1,20,47,16,43,36		3,58,31,19,15	
		53, 6,57,48,47,35,56		3,53
46″	54,22,36,17, 8,18,36, 4,19,32		3,58,31,23, 8	
		53, 6,53,50,16,12,48		3,53
48″	54,22,37,10,15,12,26,20,32,20		3,58,31,27, 1	
		53, 6,49,51,44,45,47		3,53
50″	54,22,38, 3,22, 2,18, 5,18, 7		3,58,31,30,54	
		53, 6,45,53,13,14,53		3,53
52″	54,22,38,56,28,48,11,18,33, 0		3,58,31,34,47	
		53, 6,41,54,41,40, 6		3,53
54″	54,22,39,49,35,30, 6, 0,13, 6		3,58,31,38,40	
		53, 6,37,56,10, 1,26		3,53
56″	54,22,40,42,42, 8, 2,10,14,32		3,58,31,42,33	
		53, 6,33,57,38,18,53		3,53
58″	54,22,41,35,48,41,59,48,33,25		3,58,31,46,26	
		53, 6,29,59, 6,32,27		
60″	54,22,42,28,55,11,58,55, 5,52			
exact	54,22,42,28,55,11,58,54,59,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65° 0′ 0″	54,22,42,28,55,11,58,54,59,11			
		53, 6,26, 0,34,41,36		
2″	54,22,43,22, 1,37,59,29,40,47		3,58,31,54,13	
		53, 6,22, 2, 2,47,23		3,53
4″	54,22,44,15, 8, 0, 1,32,28,10		3,58,31,58, 6	
		53, 6,18, 3,30,49,17		3,53
6″	54,22,45, 8,14,18, 5, 3,17,27		3,58,32, 1,59	
		53, 6,14, 4,58,47,18		3,53
8″	54,22,46, 1,20,32,10, 2, 4,45		3,58,32, 5,52	
		53, 6,10, 6,26,41,26		3,53
10″	54,22,46,54,26,42,16,28,46,11		3,58,32, 9,45	
		53, 6, 6, 7,54,31,41		3,53
12″	54,22,47,47,32,48,24,23,17,52		3,58,32,13,38	
		53, 6, 2, 9,22,18, 3		3,53
14″	54,22,48,40,38,50,33,45,35,55		3,58,32,17,31	
		53, 5,58,10,50, 0,32		3,53
16″	54,22,49,33,44,48,44,35,36,27		3,58,32,21,24	
		53, 5,54,12,17,39, 8		3,53
18″	54,22,50,26,50,42,56,53,15,35		3,58,32,25,17	
		53, 5,50,13,45,13,51		3,53
20″	54,22,51,19,56,33,10,38,29,26		3,58,32,29,10	
		53, 5,46,15,12,44,41		3,53
22″	54,22,52,13, 2,19,25,51,14, 7		3,58,32,33, 3	
		53, 5,42,16,40,11,38		3,53
24″	54,22,53, 6, 8, 1,42,31,25,45		3,58,32,36,56	
		53, 5,38,18, 7,34,42		3,53
26″	54,22,53,59,13,40, 0,39, 0,27		3,58,32,40,49	
		53, 5,34,19,34,53,53		3,53
28″	54,22,54,52,19,14,20,13,54,20		3,58,32,44,42	
		53, 5,30,21, 2, 9,11		3,53
30″	54,22,55,45,24,44,41,16, 3,31		3,58,32,48,35	
		53, 5,26,22,29,20,36		3,53
32″	54,22,56,38,30,11, 3,45,24, 7		3,58,32,52,28	
		53, 5,22,23,56,28, 8		3,53
34″	54,22,57,31,35,33,27,41,52,15		3,58,32,56,21	
		53, 5,18,25,23,31,47		3,53
36″	54,22,58,24,40,51,53, 5,24, 2		3,58,33, 0,14	
		53, 5,14,26,50,31,33		3,53
38″	54,22,59,17,46, 6,19,55,55,35		3,58,33, 4, 7	
		53, 5,10,28,17,27,26		3,53
40″	54,23, 0,10,51,16,48,13,23, 1		3,58,33, 8, 0	
		53, 5, 6,29,44,19,26		3,53
42″	54,23, 1, 3,56,23,17,57,42,27		3,58,33,11,53	
		53, 5, 2,31,11, 7,33		3,53
44″	54,23, 1,57, 1,25,49, 8,50, 0		3,58,33,15,46	
		53, 4,58,32,37,51,47		3,53
46″	54,23, 2,50, 6,24,21,46,41,47		3,58,33,19,39	
		53, 4,54,34, 4,32, 8		3,53
48″	54,23, 3,43,11,18,55,51,13,55		3,58,33,23,32	
		53, 4,50,35,31, 8,36		3,53
50″	54,23, 4,36,16, 9,31,22,22,31		3,58,33,27,25	
		53, 4,46,36,57,41,11		3,53
52″	54,23, 5,29,20,56, 8,20, 3,42		3,58,33,31,18	
		53, 4,42,38,24, 9,53		3,53
54″	54,23, 6,22,25,38,46,44,13,35		3,58,33,35,11	
		53, 4,38,39,50,34,42		3,53
56″	54,23, 7,15,30,17,26,34,48,17		3,58,33,39, 4	
		53, 4,34,41,16,55,38		3,53
58″	54,23, 8, 8,34,52, 7,51,43,55		3,58,33,42,57	
		53, 4,30,42,43,12,41		
60″	54,23, 9, 1,39,22,50,34,56,36			
exact	54,23, 9, 1,39,22,50,35, 2, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65° 1′ 0″	54,23, 9, 1,39,22,50,35, 2, 3			
		53, 4,26,44, 9,26,31		
2″	54,23, 9,54,43,49,34,44,28,34		3,58,33,50,39	
		53, 4,22,45,35,35,52		3,53
4″	54,23,10,47,48,12,20,20, 4,26		3,58,33,54,32	
		53, 4,18,47, 1,41,20		3,53
6″	54,23,11,40,52,31, 7,21,45,46		3,58,33,58,25	
		53, 4,14,48,27,42,55		3,53
8″	54,23,12,33,56,45,55,49,28,41		3,58,34, 2,18	
		53, 4,10,49,53,40,37		3,53
10″	54,23,13,27, 0,56,45,43, 9,18		3,58,34, 6,11	
		53, 4, 6,51,19,34,26		3,53
12″	54,23,14,20, 5, 3,37, 2,43,44		3,58,34,10, 4	
		53, 4, 2,52,45,24,22		3,53
14″	54,23,15,13, 9, 6,29,48, 8, 6		3,58,34,13,57	
		53, 3,58,54,11,10,25		3,53
16″	54,23,16, 6,13, 5,23,59,18,31		3,58,34,17,50	
		53, 3,54,55,36,52,35		3,53
18″	54,23,16,59,17, 0,19,36,11, 6		3,58,34,21,43	
		53, 3,50,57, 2,30,52		3,53
20″	54,23,17,52,20,51,16,38,41,58		3,58,34,25,36	
		53, 3,46,58,28, 5,16		3,53
22″	54,23,18,45,24,38,15, 6,47,14		3,58,34,29,29	
		53, 3,42,59,53,35,47		3,53
24″	54,23,19,38,28,21,15, 0,23, 1		3,58,34,33,22	
		53, 3,39, 1,19, 2,25		3,53
26″	54,23,20,31,32, 0,16,19,25,26		3,58,34,37,15	
		53, 3,35, 2,44,25,10		3,53
28″	54,23,21,24,35,35,19, 3,50,36		3,58,34,41, 8	
		53, 3,31, 4, 9,44, 2		3,53
30″	54,23,22,17,39, 6,23,13,34,38		3,58,34,45, 1	
		53, 3,27, 5,34,59, 1		3,53
32″	54,23,23,10,42,33,28,48,33,39		3,58,34,48,54	
		53, 3,23, 7, 0,10, 7		3,53
34″	54,23,24, 3,45,56,35,48,43,46		3,58,34,52,47	
		53, 3,19, 8,25,17,20		3,53
36″	54,23,24,56,49,15,44,14, 1, 6		3,58,34,56,40	
		53, 3,15, 9,50,20,40		3,53
38″	54,23,25,49,52,30,54, 4,21,46		3,58,35, 0,33	
		53, 3,11,11,15,20, 7		3,53
40″	54,23,26,42,55,42, 5,19,41,53		3,58,35, 4,26	
		53, 3, 7,12,40,15,41		3,53
42″	54,23,27,35,58,49,17,59,57,34		3,58,35, 8,19	
		53, 3, 3,14, 5, 7,22		3,53
44″	54,23,28,29, 1,52,32, 5, 4,56		3,58,35,12,12	
		53, 2,59,15,29,55,10		3,53
46″	54,23,29,22, 4,51,47,35, 0, 6		3,58,35,16, 5	
		53, 2,55,16,54,39, 5		3,53
48″	54,23,30,15, 7,47, 4,29,39,11		3,58,35,19,58	
		53, 2,51,18,19,19, 7		3,53
50″	54,23,31, 8,10,38,22,48,58,18		3,58,35,23,51	
		53, 2,47,19,43,55,16		3,53
52″	54,23,32, 1,13,25,42,32,53,34		3,58,35,27,44	
		53, 2,43,21, 8,27,32		3,53
54″	54,23,32,54,16, 9, 3,41,21, 6		3,58,35,31,37	
		53, 2,39,22,32,55,55		3,53
56″	54,23,33,47,18,48,26,14,17, 1		3,58,35,35,30	
		53, 2,35,23,57,20,25		3,53
58″	54,23,34,40,21,23,50,11,37,26		3,58,35,39,23	
		53, 2,31,25,21,41, 2		
60″	54,23,35,33,23,55,15,33,18,28			
exact	54,23,35,33,23,55,15,33,30,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65° 2′ 0″	54,23,35,33,23,55,15,33,30,57			
		53, 2,27,26,45,59,18		
2″	54,23,36,26,26,22,42,19,30,15		3,58,35,47, 1	
		53, 2,23,28,10,12,17		3,53
4″	54,23,37,19,28,46,10,29,42,32		3,58,35,50,54	
		53, 2,19,29,34,21,23		3,53
6″	54,23,38,12,31, 5,40, 4, 3,55		3,58,35,54,47	
		53, 2,15,30,58,26,36		3,53
8″	54,23,39, 5,33,21,11, 2,30,31		3,58,35,58,40	
		53, 2,11,32,22,27,56		3,53
10″	54,23,39,58,35,32,43,24,58,27		3,58,36, 2,33	
		53, 2, 7,33,46,25,23		3,53
12″	54,23,40,51,37,40,17,11,23,50		3,58,36, 6,26	
		53, 2, 3,35,10,18,57		3,53
14″	54,23,41,44,39,43,52,21,42,47		3,58,36,10,19	
		53, 1,59,36,34, 8,38		3,53
16″	54,23,42,37,41,43,28,55,51,25		3,58,36,14,12	
		53, 1,55,37,57,54,26		3,53
18″	54,23,43,30,43,39, 6,53,45,51		3,58,36,18, 5	
		53, 1,51,39,21,36,21		3,53
20″	54,23,44,23,45,30,46,15,22,12		3,58,36,21,58	
		53, 1,47,40,45,14,23		3,53
22″	54,23,45,16,47,18,27, 0,36,35		3,58,36,25,51	
		53, 1,43,42, 8,48,32		3,53
24″	54,23,46, 9,49, 2, 9, 9,25, 7		3,58,36,29,44	
		53, 1,39,43,32,18,48		3,53
26″	54,23,47, 2,50,41,52,41,43,55		3,58,36,33,37	
		53, 1,35,44,55,45,11		3,53
28″	54,23,47,55,52,17,37,37,29, 6		3,58,36,37,30	
		53, 1,31,46,19, 7,41		3,53
30″	54,23,48,48,53,49,23,56,36,47		3,58,36,41,23	
		53, 1,27,47,42,26,18		3,53
32″	54,23,49,41,55,17,11,39, 3, 5		3,58,36,45,16	
		53, 1,23,49, 5,41, 2		3,53
34″	54,23,50,34,56,41, 0,44,44, 7		3,58,36,49, 9	
		53, 1,19,50,28,51,53		3,53
36″	54,23,51,27,58, 0,51,13,36, 0		3,58,36,53, 2	
		53, 1,15,51,51,58,51		3,53
38″	54,23,52,20,59,16,43, 5,34,51		3,58,36,56,55	
		53, 1,11,53,15, 1,56		3,53
40″	54,23,53,14, 0,28,36,20,36,47		3,58,37, 0,48	
		53, 1, 7,54,38, 1, 8		3,53
42″	54,23,54, 7, 1,36,30,58,37,55		3,58,37, 4,41	
		53, 1, 3,56, 0,56,27		3,53
44″	54,23,55, 0, 2,40,26,59,34,22		3,58,37, 8,34	
		53, 0,59,57,23,47,53		3,53
46″	54,23,55,53, 3,40,24,23,22,15		3,58,37,12,27	
		53, 0,55,58,46,35,26		3,53
48″	54,23,56,46, 4,36,23, 9,57,41		3,58,37,16,20	
		53, 0,52, 0, 9,19, 6		3,53
50″	54,23,57,39, 5,28,23,19,16,47		3,58,37,20,13	
		53, 0,48, 1,31,58,53		3,53
52″	54,23,58,32, 6,16,24,51,15,40		3,58,37,24, 6	
		53, 0,44, 2,54,34,47		3,53
54″	54,23,59,25, 7, 0,27,45,50,27		3,58,37,27,59	
		53, 0,40, 4,17, 6,48		3,53
56″	54,24, 0,18, 7,40,32, 2,57,15		3,58,37,31,52	
		53, 0,36, 5,39,34,56		3,53
58″	54,24, 1,11, 8,16,37,42,32,11		3,58,37,35,45	
		53, 0,32, 7, 1,59,11		
60″	54,24, 2, 4, 8,48,44,44,31,22			
exact	54,24, 2, 4, 8,48,44,44,53,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65° 3′ 0″	54,24, 2, 4, 8,48,44,44,53,26			
		53, 0,28, 8,24,22, 8		
2″	54,24, 2,57, 9,16,53, 9,15,34		3,58,37,43,19	
		53, 0,24, 9,46,38,49		3,53
4″	54,24, 3,50, 9,41, 2,55,54,23		3,58,37,47,12	
		53, 0,20,11, 8,51,37		3,53
6″	54,24, 4,43,10, 1,14, 4,46, 0		3,58,37,51, 5	
		53, 0,16,12,31, 0,32		3,53
8″	54,24, 5,36,10,17,26,35,46,32		3,58,37,54,58	
		53, 0,12,13,53, 5,34		3,53
10″	54,24, 6,29,10,29,40,28,52, 6		3,58,37,58,51	
		53, 0, 8,15,15, 6,43		3,53
12″	54,24, 7,22,10,37,55,43,58,49		3,58,38, 2,44	
		53, 0, 4,16,37, 3,59		3,53
14″	54,24, 8,15,10,42,12,21, 2,48		3,58,38, 6,37	
		53, 0, 0,17,58,57,22		3,53
16″	54,24, 9, 8,10,42,30,20, 0,10		3,58,38,10,30	
		52,59,56,19,20,46,52		3,53
18″	54,24,10, 1,10,38,49,40,47, 2		3,58,38,14,23	
		52,59,52,20,42,32,29		3,53
20″	54,24,10,54,10,31,10,23,19,31		3,58,38,18,16	
		52,59,48,22, 4,14,13		3,53
22″	54,24,11,47,10,19,32,27,33,44		3,58,38,22, 9	
		52,59,44,23,25,52, 4		3,53
24″	54,24,12,40,10, 3,55,53,25,48		3,58,38,26, 2	
		52,59,40,24,47,26, 2		3,53
26″	54,24,13,33, 9,44,20,40,51,50		3,58,38,29,55	
		52,59,36,26, 8,56, 7		3,53
28″	54,24,14,26, 9,20,46,49,47,57		3,58,38,33,48	
		52,59,32,27,30,22,19		3,53
30″	54,24,15,19, 8,53,14,20,10,16		3,58,38,37,41	
		52,59,28,28,51,44,38		3,53
32″	54,24,16,12, 8,21,43,11,54,54		3,58,38,41,34	
		52,59,24,30,13, 3, 4		3,53
34″	54,24,17, 5, 7,46,13,24,57,58		3,58,38,45,27	
		52,59,20,31,34,17,37		3,53
36″	54,24,17,58, 7, 6,44,59,15,35		3,58,38,49,20	
		52,59,16,32,55,28,17		3,53
38″	54,24,18,51, 6,23,17,54,43,52		3,58,38,53,13	
		52,59,12,34,16,35, 4		3,53
40″	54,24,19,44, 5,35,52,11,18,56		3,58,38,57, 6	
		52,59, 8,35,37,37,58		3,53
42″	54,24,20,37, 4,44,27,48,56,54		3,58,39, 0,59	
		52,59, 4,36,58,36,59		3,53
44″	54,24,21,30, 3,49, 4,47,33,53		3,58,39, 4,52	
		52,59, 0,38,19,32, 7		3,53
46″	54,24,22,23, 2,49,43, 7, 6, 0		3,58,39, 8,45	
		52,58,56,39,40,23,22		3,53
48″	54,24,23,16, 1,46,22,47,29,22		3,58,39,12,38	
		52,58,52,41, 1,10,44		3,53
50″	54,24,24, 9, 0,39, 3,48,40, 6		3,58,39,16,31	
		52,58,48,42,21,54,13		3,53
52″	54,24,25, 1,59,27,46,10,34,19		3,58,39,20,24	
		52,58,44,43,42,33,49		3,53
54″	54,24,25,54,58,12,29,53, 8, 8		3,58,39,24,17	
		52,58,40,45, 3, 9,32		3,53
56″	54,24,26,47,56,53,14,56,17,40		3,58,39,28,10	
		52,58,36,46,23,41,22		3,53
58″	54,24,27,40,55,30, 1,19,59, 2		3,58,39,32, 3	
		52,58,32,47,44, 9,19		
60″	54,24,28,33,54, 2,49, 4, 8,21			
exact	54,24,28,33,54, 2,49, 4,42,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65° 4′ 0″	54,24,28,33,54, 2,49, 4,42,28			
		52,58,28,49, 4,37,11		
2″	54,24,29,26,52,31,38, 9,19,39		3,58,39,39,32	
		52,58,24,50,24,57,39		3,52
4″	54,24,30,19,50,56,28,34,17,18		3,58,39,43,24	
		52,58,20,51,45,14,15		3,52
6″	54,24,31,12,49,17,20,19,31,33		3,58,39,47,16	
		52,58,16,53, 5,26,59		3,52
8″	54,24,32, 5,47,34,13,24,58,32		3,58,39,51, 8	
		52,58,12,54,25,35,51		3,52
10″	54,24,32,58,45,47, 7,50,34,23		3,58,39,55, 0	
		52,58, 8,55,45,40,51		3,52
12″	54,24,33,51,43,56, 3,36,15,14		3,58,39,58,52	
		52,58, 4,57, 5,41,59		3,52
14″	54,24,34,44,42, 1, 0,41,57,13		3,58,40, 2,44	
		52,58, 0,58,25,39,15		3,52
16″	54,24,35,37,40, 1,59, 7,36,28		3,58,40, 6,36	
		52,57,56,59,45,32,39		3,52
18″	54,24,36,30,37,58,58,53, 9, 7		3,58,40,10,28	
		52,57,53, 1, 5,22,11		3,52
20″	54,24,37,23,35,51,59,58,31,18		3,58,40,14,20	
		52,57,49, 2,25, 7,51		3,52
22″	54,24,38,16,33,41, 2,23,39, 9		3,58,40,18,12	
		52,57,45, 3,44,49,39		3,52
24″	54,24,39, 9,31,26, 6, 8,28,48		3,58,40,22, 4	
		52,57,41, 5, 4,27,35		3,52
26″	54,24,40, 2,29, 7,11,12,56,23		3,58,40,25,56	
		52,57,37, 6,24, 1,39		3,52
28″	54,24,40,55,26,44,17,36,58, 2		3,58,40,29,48	
		52,57,33, 7,43,31,51		3,52
30″	54,24,41,48,24,17,25,20,29,53		3,58,40,33,40	
		52,57,29, 9, 2,58,11		3,52
32″	54,24,42,41,21,46,34,23,28, 4		3,58,40,37,32	
		52,57,25,10,22,20,39		3,52
34″	54,24,43,34,19,11,44,45,48,43		3,58,40,41,24	
		52,57,21,11,41,39,15		3,52
36″	54,24,44,27,16,32,56,27,27,58		3,58,40,45,16	
		52,57,17,13, 0,53,59		3,52
38″	54,24,45,20,13,50, 9,28,21,57		3,58,40,49, 8	
		52,57,13,14,20, 4,51		3,52
40″	54,24,46,13,11, 3,23,48,26,48		3,58,40,53, 0	
		52,57, 9,15,39,11,51		3,52
42″	54,24,47, 6, 8,12,39,27,38,39		3,58,40,56,52	
		52,57, 5,16,58,14,59		3,52
44″	54,24,47,59, 5,17,56,25,53,38		3,58,41, 0,44	
		52,57, 1,18,17,14,15		3,52
46″	54,24,48,52, 2,19,14,43, 7,53		3,58,41, 4,36	
		52,56,57,19,36, 9,39		3,52
48″	54,24,49,44,59,16,34,19,17,32		3,58,41, 8,28	
		52,56,53,20,55, 1,11		3,52
50″	54,24,50,37,56, 9,55,14,18,43		3,58,41,12,20	
		52,56,49,22,13,48,51		3,52
52″	54,24,51,30,52,59,17,28, 7,34		3,58,41,16,12	
		52,56,45,23,32,32,39		3,52
54″	54,24,52,23,49,44,41, 0,40,13		3,58,41,20, 4	
		52,56,41,24,51,12,35		3,52
56″	54,24,53,16,46,26, 5,51,52,48		3,58,41,23,56	
		52,56,37,26, 9,48,39		3,52
58″	54,24,54, 9,43, 3,32, 1,41,27		3,58,41,27,48	
		52,56,33,27,28,20,51		
60″	54,24,55, 2,39,36,59,30, 2,18			
exact	54,24,55, 2,39,36,59,29,36,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65° 5′ 0″	54,24,55, 2,39,36,59,29,36,27			
		52,56,29,28,46,46,38		
2″	54,24,55,55,36, 6,28,16,23, 5		3,58,41,35,41	
		52,56,25,30, 5,10,57		3,52
4″	54,24,56,48,32,31,58,21,34, 2		3,58,41,39,33	
		52,56,21,31,23,31,24		3,52
6″	54,24,57,41,28,53,29,45, 5,26		3,58,41,43,25	
		52,56,17,32,41,47,59		3,52
8″	54,24,58,34,25,11, 2,26,53,25		3,58,41,47,17	
		52,56,13,34, 0, 0,42		3,52
10″	54,24,59,27,21,24,36,26,54, 7		3,58,41,51, 9	
		52,56, 9,35,18, 9,33		3,52
12″	54,25, 0,20,17,34,11,45, 3,40		3,58,41,55, 1	
		52,56, 5,36,36,14,32		3,52
14″	54,25, 1,13,13,39,48,21,18,12		3,58,41,58,53	
		52,56, 1,37,54,15,39		3,52
16″	54,25, 2, 6, 9,41,26,15,33,51		3,58,42, 2,45	
		52,55,57,39,12,12,54		3,52
18″	54,25, 2,59, 5,39, 5,27,46,45		3,58,42, 6,37	
		52,55,53,40,30, 6,17		3,52
20″	54,25, 3,52, 1,32,45,57,53, 2		3,58,42,10,29	
		52,55,49,41,47,55,48		3,52
22″	54,25, 4,44,57,22,27,45,48,50		3,58,42,14,21	
		52,55,45,43, 5,41,27		3,52
24″	54,25, 5,37,53, 8,10,51,30,17		3,58,42,18,13	
		52,55,41,44,23,23,14		3,52
26″	54,25, 6,30,48,49,55,14,53,31		3,58,42,22, 5	
		52,55,37,45,41, 1, 9		3,52
28″	54,25, 7,23,44,27,40,55,54,40		3,58,42,25,57	
		52,55,33,46,58,35,12		3,52
30″	54,25, 8,16,40, 1,27,54,29,52		3,58,42,29,49	
		52,55,29,48,16, 5,23		3,52
32″	54,25, 9, 9,35,31,16,10,35,15		3,58,42,33,41	
		52,55,25,49,33,31,42		3,52
34″	54,25,10, 2,30,57, 5,44, 6,57		3,58,42,37,33	
		52,55,21,50,50,54, 9		3,52
36″	54,25,10,55,26,18,56,35, 1, 6		3,58,42,41,25	
		52,55,17,52, 8,12,44		3,52
38″	54,25,11,48,21,36,48,43,13,50		3,58,42,45,17	
		52,55,13,53,25,27,27		3,52
40″	54,25,12,41,16,50,42, 8,41,17		3,58,42,49, 9	
		52,55, 9,54,42,38,18		3,52
42″	54,25,13,34,12, 0,36,51,19,35		3,58,42,53, 1	
		52,55, 5,55,59,45,17		3,52
44″	54,25,14,27, 7, 6,32,51, 4,52		3,58,42,56,53	
		52,55, 1,57,16,48,24		3,52
46″	54,25,15,20, 2, 8,30, 7,53,16		3,58,43, 0,45	
		52,54,57,58,33,47,39		3,52
48″	54,25,16,12,57, 6,28,41,40,55		3,58,43, 4,37	
		52,54,53,59,50,43, 2		3,52
50″	54,25,17, 5,52, 0,28,32,23,57		3,58,43, 8,29	
		52,54,50, 1, 7,34,33		3,52
52″	54,25,17,58,46,50,29,39,58,30		3,58,43,12,21	
		52,54,46, 2,24,22,12		3,52
54″	54,25,18,51,41,36,32, 4,20,42		3,58,43,16,13	
		52,54,42, 3,41, 5,59		3,52
56″	54,25,19,44,36,18,35,45,26,41		3,58,43,20, 5	
		52,54,38, 4,57,45,54		3,52
58″	54,25,20,37,30,56,40,43,12,35		3,58,43,23,57	
		52,54,34, 6,14,21,57		
60″	54,25,21,30,25,30,46,57,34,32			
exact	54,25,21,30,25,30,46,57,19,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65° 6′ 0″	54,25,21,30,25,30,46,57,19,10			
		52,54,30, 7,30,52,41		
2″	54,25,22,23,20, 0,54,28,11,51		3,58,43,31,46	
		52,54,26, 8,47,20,55		3,52
4″	54,25,23,16,14,27, 3,15,32,46		3,58,43,35,38	
		52,54,22,10, 3,45,17		3,52
6″	54,25,24, 9, 8,49,13,19,18, 3		3,58,43,39,30	
		52,54,18,11,20, 5,47		3,52
8″	54,25,25, 2, 3, 7,24,39,23,50		3,58,43,43,22	
		52,54,14,12,36,22,25		3,52
10″	54,25,25,54,57,21,37,15,46,15		3,58,43,47,14	
		52,54,10,13,52,35,11		3,52
12″	54,25,26,47,51,31,51, 8,21,26		3,58,43,51, 6	
		52,54, 6,15, 8,44, 5		3,52
14″	54,25,27,40,45,38, 6,17, 5,31		3,58,43,54,58	
		52,54, 2,16,24,49, 7		3,52
16″	54,25,28,33,39,40,22,41,54,38		3,58,43,58,50	
		52,53,58,17,40,50,17		3,52
18″	54,25,29,26,33,38,40,22,44,55		3,58,44, 2,42	
		52,53,54,18,56,47,35		3,52
20″	54,25,30,19,27,32,59,19,32,30		3,58,44, 6,34	
		52,53,50,20,12,41, 1		3,52
22″	54,25,31,12,21,23,19,32,13,31		3,58,44,10,26	
		52,53,46,21,28,30,35		3,52
24″	54,25,32, 5,15, 9,41, 0,44, 6		3,58,44,14,18	
		52,53,42,22,44,16,17		3,52
26″	54,25,32,58, 8,52, 3,45, 0,23		3,58,44,18,10	
		52,53,38,23,59,58, 7		3,52
28″	54,25,33,51, 2,30,27,44,58,30		3,58,44,22, 2	
		52,53,34,25,15,36, 5		3,52
30″	54,25,34,43,56, 4,53, 0,34,35		3,58,44,25,54	
		52,53,30,26,31,10,11		3,52
32″	54,25,35,36,49,35,19,31,44,46		3,58,44,29,46	
		52,53,26,27,46,40,25		3,52
34″	54,25,36,29,43, 1,47,18,25,11		3,58,44,33,38	
		52,53,22,29, 2, 6,47		3,52
36″	54,25,37,22,36,24,16,20,31,58		3,58,44,37,30	
		52,53,18,30,17,29,17		3,52
38″	54,25,38,15,29,42,46,38, 1,15		3,58,44,41,22	
		52,53,14,31,32,47,55		3,52
40″	54,25,39, 8,22,57,18,10,49,10		3,58,44,45,14	
		52,53,10,32,48, 2,41		3,52
42″	54,25,40, 1,16, 7,50,58,51,51		3,58,44,49, 6	
		52,53, 6,34, 3,13,35		3,52
44″	54,25,40,54, 9,14,25, 2, 5,26		3,58,44,52,58	
		52,53, 2,35,18,20,37		3,52
46″	54,25,41,47, 2,17, 0,20,26, 3		3,58,44,56,50	
		52,52,58,36,33,23,47		3,52
48″	54,25,42,39,55,15,36,53,49,50		3,58,45, 0,42	
		52,52,54,37,48,23, 5		3,52
50″	54,25,43,32,48,10,14,42,12,55		3,58,45, 4,34	
		52,52,50,39, 3,18,31		3,52
52″	54,25,44,25,41, 0,53,45,31,26		3,58,45, 8,26	
		52,52,46,40,18,10, 5		3,52
54″	54,25,45,18,33,47,34, 3,41,31		3,58,45,12,18	
		52,52,42,41,32,57,47		3,52
56″	54,25,46,11,26,30,15,36,39,18		3,58,45,16,10	
		52,52,38,42,47,41,37		3,52
58″	54,25,47, 4,19, 8,58,24,20,55		3,58,45,20, 2	
		52,52,34,44, 2,21,35		
60″	54,25,47,57,11,43,42,26,42,30			
exact	54,25,47,57,11,43,42,26,39,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65° 7′ 0″	54,25,47,57,11,43,42,26,39,55			
		52,52,30,45,16,57,29		
2″	54,25,48,50, 4,14,27,43,37,24		3,58,45,27,46	
		52,52,26,46,31,29,43		3,52
4″	54,25,49,42,56,41,14,15, 7, 7		3,58,45,31,38	
		52,52,22,47,45,58, 5		3,52
6″	54,25,50,35,49, 4, 2, 1, 5,12		3,58,45,35,30	
		52,52,18,49, 0,22,35		3,52
8″	54,25,51,28,41,22,51, 1,27,47		3,58,45,39,22	
		52,52,14,50,14,43,13		3,52
10″	54,25,52,21,33,37,41,16,11, 0		3,58,45,43,14	
		52,52,10,51,28,59,59		3,52
12″	54,25,53,14,25,48,32,45,10,59		3,58,45,47, 6	
		52,52, 6,52,43,12,53		3,52
14″	54,25,54, 7,17,55,25,28,23,52		3,58,45,50,58	
		52,52, 2,53,57,21,55		3,52
16″	54,25,55, 0, 9,58,19,25,45,47		3,58,45,54,50	
		52,51,58,55,11,27, 5		3,52
18″	54,25,55,53, 1,57,14,37,12,52		3,58,45,58,42	
		52,51,54,56,25,28,23		3,52
20″	54,25,56,45,53,52,11, 2,41,15		3,58,46, 2,34	
		52,51,50,57,39,25,49		3,52
22″	54,25,57,38,45,43, 8,42, 7, 4		3,58,46, 6,26	
		52,51,46,58,53,19,23		3,52
24″	54,25,58,31,37,30, 7,35,26,27		3,58,46,10,18	
		52,51,43, 0, 7, 9, 5		3,52
26″	54,25,59,24,29,13, 7,42,35,32		3,58,46,14,10	
		52,51,39, 1,20,54,55		3,52
28″	54,26, 0,17,20,52, 9, 3,30,27		3,58,46,18, 2	
		52,51,35, 2,34,36,53		3,52
30″	54,26, 1,10,12,27,11,38, 7,20		3,58,46,21,54	
		52,51,31, 3,48,14,59		3,52
32″	54,26, 2, 3, 3,58,15,26,22,19		3,58,46,25,46	
		52,51,27, 5, 1,49,13		3,52
34″	54,26, 2,55,55,25,20,28,11,32		3,58,46,29,38	
		52,51,23, 6,15,19,35		3,52
36″	54,26, 3,48,46,48,26,43,31, 7		3,58,46,33,30	
		52,51,19, 7,28,46, 5		3,52
38″	54,26, 4,41,38, 7,34,12,17,12		3,58,46,37,22	
		52,51,15, 8,42, 8,43		3,52
40″	54,26, 5,34,29,22,42,54,25,55		3,58,46,41,14	
		52,51,11, 9,55,27,29		3,52
42″	54,26, 6,27,20,33,52,49,53,24		3,58,46,45, 6	
		52,51, 7,11, 8,42,23		3,52
44″	54,26, 7,20,11,41, 3,58,35,47		3,58,46,48,58	
		52,51, 3,12,21,53,25		3,52
46″	54,26, 8,13, 2,44,16,20,29,12		3,58,46,52,50	
		52,50,59,13,35, 0,35		3,52
48″	54,26, 9, 5,53,43,29,55,29,47		3,58,46,56,42	
		52,50,55,14,48, 3,53		3,52
50″	54,26, 9,58,44,38,44,43,33,40		3,58,47, 0,34	
		52,50,51,16, 1, 3,19		3,52
52″	54,26,10,51,35,30, 0,44,36,59		3,58,47, 4,26	
		52,50,47,17,13,58,53		3,52
54″	54,26,11,44,26,17,17,58,35,52		3,58,47, 8,18	
		52,50,43,18,26,50,35		3,52
56″	54,26,12,37,17, 0,36,25,26,27		3,58,47,12,10	
		52,50,39,19,39,38,25		3,52
58″	54,26,13,30, 7,39,56, 5, 4,52		3,58,47,16, 2	
		52,50,35,20,52,22,23		
60″	54,26,14,22,58,15,16,57,27,15			
exact	54,26,14,22,58,15,16,57,33,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65° 8′ 0″	54,26,14,22,58,15,16,57,33,21			
		52,50,31,22, 5, 3,15		
2″	54,26,15,15,48,46,39, 2,36,36		3,58,47,23,42	
		52,50,27,23,17,39,33		3,52
4″	54,26,16, 8,39,14, 2,20,16, 9		3,58,47,27,34	
		52,50,23,24,30,11,59		3,52
6″	54,26,17, 1,29,37,26,50,28, 8		3,58,47,31,26	
		52,50,19,25,42,40,33		3,52
8″	54,26,17,54,19,56,52,33, 8,41		3,58,47,35,18	
		52,50,15,26,55, 5,15		3,52
10″	54,26,18,47,10,12,19,28,13,56		3,58,47,39,10	
		52,50,11,28, 7,26, 5		3,52
12″	54,26,19,40, 0,23,47,35,40, 1		3,58,47,43, 2	
		52,50, 7,29,19,43, 3		3,52
14″	54,26,20,32,50,31,16,55,23, 4		3,58,47,46,54	
		52,50, 3,30,31,56, 9		3,52
16″	54,26,21,25,40,34,47,27,19,13		3,58,47,50,46	
		52,49,59,31,44, 5,23		3,52
18″	54,26,22,18,30,34,19,11,24,36		3,58,47,54,38	
		52,49,55,32,56,10,45		3,52
20″	54,26,23,11,20,29,52, 7,35,21		3,58,47,58,30	
		52,49,51,34, 8,12,15		3,52
22″	54,26,24, 4,10,21,26,15,47,36		3,58,48, 2,22	
		52,49,47,35,20, 9,53		3,52
24″	54,26,24,57, 0, 9, 1,35,57,29		3,58,48, 6,14	
		52,49,43,36,32, 3,39		3,52
26″	54,26,25,49,49,52,38, 8, 1, 8		3,58,48,10, 6	
		52,49,39,37,43,53,33		3,52
28″	54,26,26,42,39,32,15,51,54,41		3,58,48,13,58	
		52,49,35,38,55,39,35		3,52
30″	54,26,27,35,29, 7,54,47,34,16		3,58,48,17,50	
		52,49,31,40, 7,21,45		3,52
32″	54,26,28,28,18,39,34,54,56, 1		3,58,48,21,42	
		52,49,27,41,19, 0, 3		3,52
34″	54,26,29,21, 8, 7,16,13,56, 4		3,58,48,25,34	
		52,49,23,42,30,34,29		3,52
36″	54,26,30,13,57,30,58,44,30,33		3,58,48,29,26	
		52,49,19,43,42, 5, 3		3,52
38″	54,26,31, 6,46,50,42,26,35,36		3,58,48,33,18	
		52,49,15,44,53,31,45		3,52
40″	54,26,31,59,36, 6,27,20, 7,21		3,58,48,37,10	
		52,49,11,46, 4,54,35		3,52
42″	54,26,32,52,25,18,13,25, 1,56		3,58,48,41, 2	
		52,49, 7,47,16,13,33		3,52
44″	54,26,33,45,14,26, 0,41,15,29		3,58,48,44,54	
		52,49, 3,48,27,28,39		3,52
46″	54,26,34,38, 3,29,49, 8,44, 8		3,58,48,48,46	
		52,48,59,49,38,39,53		3,52
48″	54,26,35,30,52,29,38,47,24, 1		3,58,48,52,38	
		52,48,55,50,49,47,15		3,52
50″	54,26,36,23,41,25,29,37,11,16		3,58,48,56,30	
		52,48,51,52, 0,50,45		3,52
52″	54,26,37,16,30,17,21,38, 2, 1		3,58,49, 0,22	
		52,48,47,53,11,50,23		3,52
54″	54,26,38, 9,19, 5,14,49,52,24		3,58,49, 4,14	
		52,48,43,54,22,46, 9		3,52
56″	54,26,39, 2, 7,49, 9,12,38,33		3,58,49, 8, 6	
		52,48,39,55,33,38, 3		3,52
58″	54,26,39,54,56,29, 4,46,16,36		3,58,49,11,58	
		52,48,35,56,44,26, 5		
60″	54,26,40,47,45, 5, 1,30,42,41			
exact	54,26,40,47,45, 5, 1,30,59,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65° 9′ 0″	54,26,40,47,45, 5, 1,30,59,40			
		52,48,31,57,55,12, 9		
2″	54,26,41,40,33,36,59,26,11,49		3,58,49,19,33	
		52,48,27,59, 5,52,36		3,52
4″	54,26,42,33,22, 4,58,32, 4,25		3,58,49,23,25	
		52,48,24, 0,16,29,11		3,52
6″	54,26,43,26,10,28,58,48,33,36		3,58,49,27,17	
		52,48,20, 1,27, 1,54		3,52
8″	54,26,44,18,58,49, 0,15,35,30		3,58,49,31, 9	
		52,48,16, 2,37,30,45		3,52
10″	54,26,45,11,47, 5, 2,53, 6,15		3,58,49,35, 1	
		52,48,12, 3,47,55,44		3,52
12″	54,26,46, 4,35,17, 6,41, 1,59		3,58,49,38,53	
		52,48, 8, 4,58,16,51		3,52
14″	54,26,46,57,23,25,11,39,18,50		3,58,49,42,45	
		52,48, 4, 6, 8,34, 6		3,52
16″	54,26,47,50,11,29,17,47,52,56		3,58,49,46,37	
		52,48, 0, 7,18,47,29		3,52
18″	54,26,48,42,59,29,25, 6,40,25		3,58,49,50,29	
		52,47,56, 8,28,57, 0		3,52
20″	54,26,49,35,47,25,33,35,37,25		3,58,49,54,21	
		52,47,52, 9,39, 2,39		3,52
22″	54,26,50,28,35,17,43,14,40, 4		3,58,49,58,13	
		52,47,48,10,49, 4,26		3,52
24″	54,26,51,21,23, 5,54, 3,44,30		3,58,50, 2, 5	
		52,47,44,11,59, 2,21		3,52
26″	54,26,52,14,10,50, 6, 2,46,51		3,58,50, 5,57	
		52,47,40,13, 8,56,24		3,52
28″	54,26,53, 6,58,30,19,11,43,15		3,58,50, 9,49	
		52,47,36,14,18,46,35		3,52
30″	54,26,53,59,46, 6,33,30,29,50		3,58,50,13,41	
		52,47,32,15,28,32,54		3,52
32″	54,26,54,52,33,38,48,59, 2,44		3,58,50,17,33	
		52,47,28,16,38,15,21		3,52
34″	54,26,55,45,21, 7, 5,37,18, 5		3,58,50,21,25	
		52,47,24,17,47,53,56		3,52
36″	54,26,56,38, 8,31,23,25,12, 1		3,58,50,25,17	
		52,47,20,18,57,28,39		3,52
38″	54,26,57,30,55,51,42,22,40,40		3,58,50,29, 9	
		52,47,16,20, 6,59,30		3,52
40″	54,26,58,23,43, 8, 2,29,40,10		3,58,50,33, 1	
		52,47,12,21,16,26,29		3,52
42″	54,26,59,16,30,20,23,46, 6,39		3,58,50,36,53	
		52,47, 8,22,25,49,36		3,52
44″	54,27, 0, 9,17,28,46,11,56,15		3,58,50,40,45	
		52,47, 4,23,35, 8,51		3,52
46″	54,27, 1, 2, 4,33, 9,47, 5, 6		3,58,50,44,37	
		52,47, 0,24,44,24,14		3,52
48″	54,27, 1,54,51,33,34,31,29,20		3,58,50,48,29	
		52,46,56,25,53,35,45		3,52
50″	54,27, 2,47,38,30, 0,25, 5, 5		3,58,50,52,21	
		52,46,52,27, 2,43,24		3,52
52″	54,27, 3,40,25,22,27,27,48,29		3,58,50,56,13	
		52,46,48,28,11,47,11		3,52
54″	54,27, 4,33,12,10,55,39,35,40		3,58,51, 0, 5	
		52,46,44,29,20,47, 6		3,52
56″	54,27, 5,25,58,55,25, 0,22,46		3,58,51, 3,57	
		52,46,40,30,29,43, 9		3,52
58″	54,27, 6,18,45,35,55,30, 5,55		3,58,51, 7,49	
		52,46,36,31,38,35,20		
60″	54,27, 7,11,32,12,27, 8,41,15			
exact	54,27, 7,11,32,12,27, 9, 4,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°10′ 0″	54,27, 7,11,32,12,27, 9, 4,29			
		52,46,32,32,47,26,21		
2″	54,27, 8, 4,18,44,59,56,30,50		3,58,51,15,21	
		52,46,28,33,56,11, 0		3,51
4″	54,27, 8,57, 5,13,33,52,41,50		3,58,51,19,12	
		52,46,24,35, 4,51,48		3,51
6″	54,27, 9,49,51,38, 8,57,33,38		3,58,51,23, 3	
		52,46,20,36,13,28,45		3,51
8″	54,27,10,42,37,58,45,11, 2,23		3,58,51,26,54	
		52,46,16,37,22, 1,51		3,51
10″	54,27,11,35,24,15,22,33, 4,14		3,58,51,30,45	
		52,46,12,38,30,31, 6		3,51
12″	54,27,12,28,10,28, 1, 3,35,20		3,58,51,34,36	
		52,46, 8,39,38,56,30		3,51
14″	54,27,13,20,56,36,40,42,31,50		3,58,51,38,27	
		52,46, 4,40,47,18, 3		3,51
16″	54,27,14,13,42,41,21,29,49,53		3,58,51,42,18	
		52,46, 0,41,55,35,45		3,51
18″	54,27,15, 6,28,42, 3,25,25,38		3,58,51,46, 9	
		52,45,56,43, 3,49,36		3,51
20″	54,27,15,59,14,38,46,29,15,14		3,58,51,50, 0	
		52,45,52,44,11,59,36		3,51
22″	54,27,16,52, 0,31,30,41,14,50		3,58,51,53,51	
		52,45,48,45,20, 5,45		3,51
24″	54,27,17,44,46,20,16, 1,20,35		3,58,51,57,42	
		52,45,44,46,28, 8, 3		3,51
26″	54,27,18,37,32, 5, 2,29,28,38		3,58,52, 1,33	
		52,45,40,47,36, 6,30		3,51
28″	54,27,19,30,17,45,50, 5,35, 8		3,58,52, 5,24	
		52,45,36,48,44, 1, 6		3,51
30″	54,27,20,23, 3,22,38,49,36,14		3,58,52, 9,15	
		52,45,32,49,51,51,51		3,51
32″	54,27,21,15,48,55,28,41,28, 5		3,58,52,13, 6	
		52,45,28,50,59,38,45		3,51
34″	54,27,22, 8,34,24,19,41, 6,50		3,58,52,16,57	
		52,45,24,52, 7,21,48		3,51
36″	54,27,23, 1,19,49,11,48,28,38		3,58,52,20,48	
		52,45,20,53,15, 1, 0		3,51
38″	54,27,23,54, 5,10, 5, 3,29,38		3,58,52,24,39	
		52,45,16,54,22,36,21		3,51
40″	54,27,24,46,50,26,59,26, 5,59		3,58,52,28,30	
		52,45,12,55,30, 7,51		3,51
42″	54,27,25,39,35,39,54,56,13,50		3,58,52,32,21	
		52,45, 8,56,37,35,30		3,51
44″	54,27,26,32,20,48,51,33,49,20		3,58,52,36,12	
		52,45, 4,57,44,59,18		3,51
46″	54,27,27,25, 5,53,49,18,48,38		3,58,52,40, 3	
		52,45, 0,58,52,19,15		3,51
48″	54,27,28,17,50,54,48,11, 7,53		3,58,52,43,54	
		52,44,56,59,59,35,21		3,51
50″	54,27,29,10,35,51,48,10,43,14		3,58,52,47,45	
		52,44,53, 1, 6,47,36		3,51
52″	54,27,30, 3,20,44,49,17,30,50		3,58,52,51,36	
		52,44,49, 2,13,56, 0		3,51
54″	54,27,30,56, 5,33,51,31,26,50		3,58,52,55,27	
		52,44,45, 3,21, 0,33		3,51
56″	54,27,31,48,50,18,54,52,27,23		3,58,52,59,18	
		52,44,41, 4,28, 1,15		3,51
58″	54,27,32,41,34,59,59,20,28,38		3,58,53, 3, 9	
		52,44,37, 5,34,58, 6		
60″	54,27,33,34,19,37, 4,55,26,44			
exact	54,27,33,34,19,37, 4,54,58,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°11′ 0″	54,27,33,34,19,37, 4,54,58,53			
		52,44,33, 6,41,48, 4		
2″	54,27,34,27, 4,10,11,36,46,57		3,58,53,11, 3	
		52,44,29, 7,48,37, 1		3,51
4″	54,27,35,19,48,39,19,25,23,58		3,58,53,14,54	
		52,44,25, 8,55,22, 7		3,51
6″	54,27,36,12,33, 4,28,20,46, 5		3,58,53,18,45	
		52,44,21,10, 2, 3,22		3,51
8″	54,27,37, 5,17,25,38,22,49,27		3,58,53,22,36	
		52,44,17,11, 8,40,46		3,51
10″	54,27,37,58, 1,42,49,31,30,13		3,58,53,26,27	
		52,44,13,12,15,14,19		3,51
12″	54,27,38,50,45,56, 1,46,44,32		3,58,53,30,18	
		52,44, 9,13,21,44, 1		3,51
14″	54,27,39,43,30, 5,15, 8,28,33		3,58,53,34, 9	
		52,44, 5,14,28, 9,52		3,51
16″	54,27,40,36,14,10,29,36,38,25		3,58,53,38, 0	
		52,44, 1,15,34,31,52		3,51
18″	54,27,41,28,58,11,45,11,10,17		3,58,53,41,51	
		52,43,57,16,40,50, 1		3,51
20″	54,27,42,21,42, 9, 1,52, 0,18		3,58,53,45,42	
		52,43,53,17,47, 4,19		3,51
22″	54,27,43,14,26, 2,19,39, 4,37		3,58,53,49,33	
		52,43,49,18,53,14,46		3,51
24″	54,27,44, 7, 9,51,38,32,19,23		3,58,53,53,24	
		52,43,45,19,59,21,22		3,51
26″	54,27,44,59,53,36,58,31,40,45		3,58,53,57,15	
		52,43,41,21, 5,24, 7		3,51
28″	54,27,45,52,37,18,19,37, 4,52		3,58,54, 1, 6	
		52,43,37,22,11,23, 1		3,51
30″	54,27,46,45,20,55,41,48,27,53		3,58,54, 4,57	
		52,43,33,23,17,18, 4		3,51
32″	54,27,47,38, 4,29, 5, 5,45,57		3,58,54, 8,48	
		52,43,29,24,23, 9,16		3,51
34″	54,27,48,30,47,58,29,28,55,13		3,58,54,12,39	
		52,43,25,25,28,56,37		3,51
36″	54,27,49,23,31,23,54,57,51,50		3,58,54,16,30	
		52,43,21,26,34,40, 7		3,51
38″	54,27,50,16,14,45,21,32,31,57		3,58,54,20,21	
		52,43,17,27,40,19,46		3,51
40″	54,27,51, 8,58, 2,49,12,51,43		3,58,54,24,12	
		52,43,13,28,45,55,34		3,51
42″	54,27,52, 1,41,16,17,58,47,17		3,58,54,28, 3	
		52,43, 9,29,51,27,31		3,51
44″	54,27,52,54,24,25,47,50,14,48		3,58,54,31,54	
		52,43, 5,30,56,55,37		3,51
46″	54,27,53,47, 7,31,18,47,10,25		3,58,54,35,45	
		52,43, 1,32, 2,19,52		3,51
48″	54,27,54,39,50,32,50,49,30,17		3,58,54,39,36	
		52,42,57,33, 7,40,16		3,51
50″	54,27,55,32,33,30,23,57,10,33		3,58,54,43,27	
		52,42,53,34,12,56,49		3,51
52″	54,27,56,25,16,23,58,10, 7,22		3,58,54,47,18	
		52,42,49,35,18, 9,31		3,51
54″	54,27,57,17,59,13,33,28,16,53		3,58,54,51, 9	
		52,42,45,36,23,18,22		3,51
56″	54,27,58,10,41,59, 9,51,35,15		3,58,54,55, 0	
		52,42,41,37,28,23,22		3,51
58″	54,27,59, 3,24,40,47,19,58,37		3,58,54,58,51	
		52,42,37,38,33,24,31		
60″	54,27,59,56, 7,18,25,53,23, 8			
exact	54,27,59,56, 7,18,25,52,59,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°12′ 0″	54,27,59,56, 7,18,25,52,59,28			
		52,42,33,39,38,19,27		
2″	54,28, 0,48,49,52, 5,31,18,55		3,58,55, 6,42	
		52,42,29,40,43,12,45		3,51
4″	54,28, 1,41,32,21,46,14,31,40		3,58,55,10,33	
		52,42,25,41,48, 2,12		3,51
6″	54,28, 2,34,14,47,28, 2,33,52		3,58,55,14,24	
		52,42,21,42,52,47,48		3,51
8″	54,28, 3,26,57, 9,10,55,21,40		3,58,55,18,15	
		52,42,17,43,57,29,33		3,51
10″	54,28, 4,19,39,26,54,52,51,13		3,58,55,22, 6	
		52,42,13,45, 2, 7,27		3,51
12″	54,28, 5,12,21,40,39,54,58,40		3,58,55,25,57	
		52,42, 9,46, 6,41,30		3,51
14″	54,28, 6, 5, 3,50,26, 1,40,10		3,58,55,29,48	
		52,42, 5,47,11,11,42		3,51
16″	54,28, 6,57,45,56,13,12,51,52		3,58,55,33,39	
		52,42, 1,48,15,38, 3		3,51
18″	54,28, 7,50,27,58, 1,28,29,55		3,58,55,37,30	
		52,41,57,49,20, 0,33		3,51
20″	54,28, 8,43, 9,55,50,48,30,28		3,58,55,41,21	
		52,41,53,50,24,19,12		3,51
22″	54,28, 9,35,51,49,41,12,49,40		3,58,55,45,12	
		52,41,49,51,28,34, 0		3,51
24″	54,28,10,28,33,39,32,41,23,40		3,58,55,49, 3	
		52,41,45,52,32,44,57		3,51
26″	54,28,11,21,15,25,25,14, 8,37		3,58,55,52,54	
		52,41,41,53,36,52, 3		3,51
28″	54,28,12,13,57, 7,18,51, 0,40		3,58,55,56,45	
		52,41,37,54,40,55,18		3,51
30″	54,28,13, 6,38,45,13,31,55,58		3,58,56, 0,36	
		52,41,33,55,44,54,42		3,51
32″	54,28,13,59,20,19, 9,16,50,40		3,58,56, 4,27	
		52,41,29,56,48,50,15		3,51
34″	54,28,14,52, 1,49, 6, 5,40,55		3,58,56, 8,18	
		52,41,25,57,52,41,57		3,51
36″	54,28,15,44,43,15, 3,58,22,52		3,58,56,12, 9	
		52,41,21,58,56,29,48		3,51
38″	54,28,16,37,24,37, 2,54,52,40		3,58,56,16, 0	
		52,41,18, 0, 0,13,48		3,51
40″	54,28,17,30, 5,55, 2,55, 6,28		3,58,56,19,51	
		52,41,14, 1, 3,53,57		3,51
42″	54,28,18,22,47, 9, 3,59, 0,25		3,58,56,23,42	
		52,41,10, 2, 7,30,15		3,51
44″	54,28,19,15,28,19, 6, 6,30,40		3,58,56,27,33	
		52,41, 6, 3,11, 2,42		3,51
46″	54,28,20, 8, 9,25, 9,17,33,22		3,58,56,31,24	
		52,41, 2, 4,14,31,18		3,51
48″	54,28,21, 0,50,27,13,32, 4,40		3,58,56,35,15	
		52,40,58, 5,17,56, 3		3,51
50″	54,28,21,53,31,25,18,50, 0,43		3,58,56,39, 6	
		52,40,54, 6,21,16,57		3,51
52″	54,28,22,46,12,19,25,11,17,40		3,58,56,42,57	
		52,40,50, 7,24,34, 0		3,51
54″	54,28,23,38,53, 9,32,35,51,40		3,58,56,46,48	
		52,40,46, 8,27,47,12		3,51
56″	54,28,24,31,33,55,41, 3,38,52		3,58,56,50,39	
		52,40,42, 9,30,56,33		3,51
58″	54,28,25,24,14,37,50,34,35,25		3,58,56,54,30	
		52,40,38,10,34, 2, 3		
60″	54,28,26,16,55,16, 1, 8,37,28			
exact	54,28,26,16,55,16, 1, 8,28,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°13′ 0″	54,28,26,16,55,16, 1, 8,28,18			
		52,40,34,11,37, 2,43		
2″	54,28,27, 9,35,50,12,45,31, 1		3,58,57, 2,16	
		52,40,30,12,40, 0,27		3,51
4″	54,28,28, 2,16,20,25,25,31,28		3,58,57, 6, 7	
		52,40,26,13,42,54,20		3,51
6″	54,28,28,54,56,46,39, 8,25,48		3,58,57, 9,58	
		52,40,22,14,45,44,22		3,51
8″	54,28,29,47,37, 8,53,54,10,10		3,58,57,13,49	
		52,40,18,15,48,30,33		3,51
10″	54,28,30,40,17,27, 9,42,40,43		3,58,57,17,40	
		52,40,14,16,51,12,53		3,51
12″	54,28,31,32,57,41,26,33,53,36		3,58,57,21,31	
		52,40,10,17,53,51,22		3,51
14″	54,28,32,25,37,51,44,27,44,58		3,58,57,25,22	
		52,40, 6,18,56,26, 0		3,51
16″	54,28,33,18,17,58, 3,24,10,58		3,58,57,29,13	
		52,40, 2,19,58,56,47		3,51
18″	54,28,34,10,58, 0,23,23, 7,45		3,58,57,33, 4	
		52,39,58,21, 1,23,43		3,51
20″	54,28,35, 3,37,58,44,24,31,28		3,58,57,36,55	
		52,39,54,22, 3,46,48		3,51
22″	54,28,35,56,17,53, 6,28,18,16		3,58,57,40,46	
		52,39,50,23, 6, 6, 2		3,51
24″	54,28,36,48,57,43,29,34,24,18		3,58,57,44,37	
		52,39,46,24, 8,21,25		3,51
26″	54,28,37,41,37,29,53,42,45,43		3,58,57,48,28	
		52,39,42,25,10,32,57		3,51
28″	54,28,38,34,17,12,18,53,18,40		3,58,57,52,19	
		52,39,38,26,12,40,38		3,51
30″	54,28,39,26,56,50,45, 5,59,18		3,58,57,56,10	
		52,39,34,27,14,44,28		3,51
32″	54,28,40,19,36,25,12,20,43,46		3,58,58, 0, 1	
		52,39,30,28,16,44,27		3,51
34″	54,28,41,12,15,55,40,37,28,13		3,58,58, 3,52	
		52,39,26,29,18,40,35		3,51
36″	54,28,42, 4,55,22, 9,56, 8,48		3,58,58, 7,43	
		52,39,22,30,20,32,52		3,51
38″	54,28,42,57,34,44,40,16,41,40		3,58,58,11,34	
		52,39,18,31,22,21,18		3,51
40″	54,28,43,50,14, 3,11,39, 2,58		3,58,58,15,25	
		52,39,14,32,24, 5,53		3,51
42″	54,28,44,42,53,17,44, 3, 8,51		3,58,58,19,16	
		52,39,10,33,25,46,37		3,51
44″	54,28,45,35,32,28,17,28,55,28		3,58,58,23, 7	
		52,39, 6,34,27,23,30		3,51
46″	54,28,46,28,11,34,51,56,18,58		3,58,58,26,58	
		52,39, 2,35,28,56,32		3,51
48″	54,28,47,20,50,37,27,25,15,30		3,58,58,30,49	
		52,38,58,36,30,25,43		3,51
50″	54,28,48,13,29,36, 3,55,41,13		3,58,58,34,40	
		52,38,54,37,31,51, 3		3,51
52″	54,28,49, 6, 8,30,41,27,32,16		3,58,58,38,31	
		52,38,50,38,33,12,32		3,51
54″	54,28,49,58,47,21,20, 0,44,48		3,58,58,42,22	
		52,38,46,39,34,30,10		3,51
56″	54,28,50,51,26, 7,59,35,14,58		3,58,58,46,13	
		52,38,42,40,35,43,57		3,51
58″	54,28,51,44, 4,50,40,10,58,55		3,58,58,50, 4	
		52,38,38,41,36,53,53		
60″	54,28,52,36,43,29,21,47,52,48			
exact	54,28,52,36,43,29,21,47,52,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°14′ 0″	54,28,52,36,43,29,21,47,52,57			
		52,38,34,42,38, 0, 1		
2″	54,28,53,29,22, 4, 4,25,52,58		3,58,58,57,45	
		52,38,30,43,39, 2,16		3,51
4″	54,28,54,22, 0,34,48, 4,55,14		3,58,59, 1,36	
		52,38,26,44,40, 0,40		3,51
6″	54,28,55,14,39, 1,32,44,55,54		3,58,59, 5,27	
		52,38,22,45,40,55,13		3,51
8″	54,28,56, 7,17,24,18,25,51, 7		3,58,59, 9,18	
		52,38,18,46,41,45,55		3,51
10″	54,28,56,59,55,43, 5, 7,37, 2		3,58,59,13, 9	
		52,38,14,47,42,32,46		3,51
12″	54,28,57,52,33,57,52,50, 9,48		3,58,59,17, 0	
		52,38,10,48,43,15,46		3,51
14″	54,28,58,45,12, 8,41,33,25,34		3,58,59,20,51	
		52,38, 6,49,43,54,55		3,51
16″	54,28,59,37,50,15,31,17,20,29		3,58,59,24,42	
		52,38, 2,50,44,30,13		3,51
18″	54,29, 0,30,28,18,22, 1,50,42		3,58,59,28,33	
		52,37,58,51,45, 1,40		3,51
20″	54,29, 1,23, 6,17,13,46,52,22		3,58,59,32,24	
		52,37,54,52,45,29,16		3,51
22″	54,29, 2,15,44,12, 6,32,21,38		3,58,59,36,15	
		52,37,50,53,45,53, 1		3,51
24″	54,29, 3, 8,22, 3, 0,18,14,39		3,58,59,40, 6	
		52,37,46,54,46,12,55		3,51
26″	54,29, 4, 0,59,49,55, 4,27,34		3,58,59,43,57	
		52,37,42,55,46,28,58		3,51
28″	54,29, 4,53,37,32,50,50,56,32		3,58,59,47,48	
		52,37,38,56,46,41,10		3,51
30″	54,29, 5,46,15,11,47,37,37,42		3,58,59,51,39	
		52,37,34,57,46,49,31		3,51
32″	54,29, 6,38,52,46,45,24,27,13		3,58,59,55,30	
		52,37,30,58,46,54, 1		3,51
34″	54,29, 7,31,30,17,44,11,21,14		3,58,59,59,21	
		52,37,26,59,46,54,40		3,51
36″	54,29, 8,24, 7,44,43,58,15,54		3,59, 0, 3,12	
		52,37,23, 0,46,51,28		3,51
38″	54,29, 9,16,45, 7,44,45, 7,22		3,59, 0, 7, 3	
		52,37,19, 1,46,44,25		3,51
40″	54,29,10, 9,22,26,46,31,51,47		3,59, 0,10,54	
		52,37,15, 2,46,33,31		3,51
42″	54,29,11, 1,59,41,49,18,25,18		3,59, 0,14,45	
		52,37,11, 3,46,18,46		3,51
44″	54,29,11,54,36,52,53, 4,44, 4		3,59, 0,18,36	
		52,37, 7, 4,46, 0,10		3,51
46″	54,29,12,47,13,59,57,50,44,14		3,59, 0,22,27	
		52,37, 3, 5,45,37,43		3,51
48″	54,29,13,39,51, 3, 3,36,21,57		3,59, 0,26,18	
		52,36,59, 6,45,11,25		3,51
50″	54,29,14,32,28, 2,10,21,33,22		3,59, 0,30, 9	
		52,36,55, 7,44,41,16		3,51
52″	54,29,15,25, 4,57,18, 6,14,38		3,59, 0,34, 0	
		52,36,51, 8,44, 7,16		3,51
54″	54,29,16,17,41,48,26,50,21,54		3,59, 0,37,51	
		52,36,47, 9,43,29,25		3,51
56″	54,29,17,10,18,35,36,33,51,19		3,59, 0,41,42	
		52,36,43,10,42,47,43		3,51
58″	54,29,18, 2,55,18,47,16,39, 2		3,59, 0,45,33	
		52,36,39,11,42, 2,10		
60″	54,29,18,55,31,57,58,58,41,12			
exact	54,29,18,55,31,57,58,58,46,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°15′ 0″	54,29,18,55,31,57,58,58,46,31			
		52,36,35,12,41,13,32		
2″	54,29,19,48, 8,33,11,40, 0, 3		3,59, 0,53,11	
		52,36,31,13,40,20,21		3,51
4″	54,29,20,40,45, 4,25,20,20,24		3,59, 0,57, 2	
		52,36,27,14,39,23,19		3,51
6″	54,29,21,33,21,31,39,59,43,43		3,59, 1, 0,53	
		52,36,23,15,38,22,26		3,51
8″	54,29,22,25,57,54,55,38, 6, 9		3,59, 1, 4,44	
		52,36,19,16,37,17,42		3,51
10″	54,29,23,18,34,14,12,15,23,51		3,59, 1, 8,35	
		52,36,15,17,36, 9, 7		3,51
12″	54,29,24,11,10,29,29,51,32,58		3,59, 1,12,26	
		52,36,11,18,34,56,41		3,51
14″	54,29,25, 3,46,40,48,26,29,39		3,59, 1,16,17	
		52,36, 7,19,33,40,24		3,51
16″	54,29,25,56,22,48, 8, 0,10, 3		3,59, 1,20, 8	
		52,36, 3,20,32,20,16		3,51
18″	54,29,26,48,58,51,28,32,30,19		3,59, 1,23,59	
		52,35,59,21,30,56,17		3,51
20″	54,29,27,41,34,50,50, 3,26,36		3,59, 1,27,50	
		52,35,55,22,29,28,27		3,51
22″	54,29,28,34,10,46,12,32,55, 3		3,59, 1,31,41	
		52,35,51,23,27,56,46		3,51
24″	54,29,29,26,46,37,36, 0,51,49		3,59, 1,35,32	
		52,35,47,24,26,21,14		3,51
26″	54,29,30,19,22,25, 0,27,13, 3		3,59, 1,39,23	
		52,35,43,25,24,41,51		3,51
28″	54,29,31,11,58, 8,25,51,54,54		3,59, 1,43,14	
		52,35,39,26,22,58,37		3,51
30″	54,29,32, 4,33,47,52,14,53,31		3,59, 1,47, 5	
		52,35,35,27,21,11,32		3,51
32″	54,29,32,57, 9,23,19,36, 5, 3		3,59, 1,50,56	
		52,35,31,28,19,20,36		3,51
34″	54,29,33,49,44,54,47,55,25,39		3,59, 1,54,47	
		52,35,27,29,17,25,49		3,51
36″	54,29,34,42,20,22,17,12,51,28		3,59, 1,58,38	
		52,35,23,30,15,27,11		3,51
38″	54,29,35,34,55,45,47,28,18,39		3,59, 2, 2,29	
		52,35,19,31,13,24,42		3,51
40″	54,29,36,27,31, 5,18,41,43,21		3,59, 2, 6,20	
		52,35,15,32,11,18,22		3,51
42″	54,29,37,20, 6,20,50,53, 1,43		3,59, 2,10,11	
		52,35,11,33, 9, 8,11		3,51
44″	54,29,38,12,41,32,24, 2, 9,54		3,59, 2,14, 2	
		52,35, 7,34, 6,54, 9		3,51
46″	54,29,39, 5,16,39,58, 9, 4, 3		3,59, 2,17,53	
		52,35, 3,35, 4,36,16		3,51
48″	54,29,39,57,51,43,33,13,40,19		3,59, 2,21,44	
		52,34,59,36, 2,14,32		3,51
50″	54,29,40,50,26,43, 9,15,54,51		3,59, 2,25,35	
		52,34,55,36,59,48,57		3,51
52″	54,29,41,43, 1,38,46,15,43,48		3,59, 2,29,26	
		52,34,51,37,57,19,31		3,51
54″	54,29,42,35,36,30,24,13, 3,19		3,59, 2,33,17	
		52,34,47,38,54,46,14		3,51
56″	54,29,43,28,11,18, 3, 7,49,33		3,59, 2,37, 8	
		52,34,43,39,52, 9, 6		3,51
58″	54,29,44,20,46, 1,42,59,58,39		3,59, 2,40,59	
		52,34,39,40,49,28, 7		
60″	54,29,45,13,20,41,23,49,26,46			
exact	54,29,45,13,20,41,23,49,47,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°16′ 0″	54,29,45,13,20,41,23,49,47,34			
		52,34,35,41,46,45,29		
2″	54,29,46, 5,55,17, 5,36,33, 3		3,59, 2,48,32	
		52,34,31,42,43,56,57		3,51
4″	54,29,46,58,29,48,48,20,30, 0		3,59, 2,52,23	
		52,34,27,43,41, 4,34		3,51
6″	54,29,47,51, 4,16,32, 1,34,34		3,59, 2,56,14	
		52,34,23,44,38, 8,20		3,51
8″	54,29,48,43,38,40,16,39,42,54		3,59, 3, 0, 5	
		52,34,19,45,35, 8,15		3,51
10″	54,29,49,36,13, 0, 2,14,51, 9		3,59, 3, 3,56	
		52,34,15,46,32, 4,19		3,51
12″	54,29,50,28,47,15,48,46,55,28		3,59, 3, 7,47	
		52,34,11,47,28,56,32		3,51
14″	54,29,51,21,21,27,36,15,52, 0		3,59, 3,11,38	
		52,34, 7,48,25,44,54		3,51
16″	54,29,52,13,55,35,24,41,36,54		3,59, 3,15,29	
		52,34, 3,49,22,29,25		3,51
18″	54,29,53, 6,29,39,14, 4, 6,19		3,59, 3,19,20	
		52,33,59,50,19,10, 5		3,51
20″	54,29,53,59, 3,39, 4,23,16,24		3,59, 3,23,11	
		52,33,55,51,15,46,54		3,51
22″	54,29,54,51,37,34,55,39, 3,18		3,59, 3,27, 2	
		52,33,51,52,12,19,52		3,51
24″	54,29,55,44,11,26,47,51,23,10		3,59, 3,30,53	
		52,33,47,53, 8,48,59		3,51
26″	54,29,56,36,45,14,41, 0,12, 9		3,59, 3,34,44	
		52,33,43,54, 5,14,15		3,51
28″	54,29,57,29,18,58,35, 5,26,24		3,59, 3,38,35	
		52,33,39,55, 1,35,40		3,51
30″	54,29,58,21,52,38,30, 7, 2, 4		3,59, 3,42,26	
		52,33,35,55,57,53,14		3,51
32″	54,29,59,14,26,14,26, 4,55,18		3,59, 3,46,17	
		52,33,31,56,54, 6,57		3,51
34″	54,30, 0, 6,59,46,22,59, 2,15		3,59, 3,50, 8	
		52,33,27,57,50,16,49		3,51
36″	54,30, 0,59,33,14,20,49,19, 4		3,59, 3,53,59	
		52,33,23,58,46,22,50		3,51
38″	54,30, 1,52, 6,38,19,35,41,54		3,59, 3,57,50	
		52,33,19,59,42,25, 0		3,51
40″	54,30, 2,44,39,58,19,18, 6,54		3,59, 4, 1,41	
		52,33,16, 0,38,23,19		3,51
42″	54,30, 3,37,13,14,19,56,30,13		3,59, 4, 5,32	
		52,33,12, 1,34,17,47		3,51
44″	54,30, 4,29,46,26,21,30,48, 0		3,59, 4, 9,23	
		52,33, 8, 2,30, 8,24		3,51
46″	54,30, 5,22,19,34,24, 0,56,24		3,59, 4,13,14	
		52,33, 4, 3,25,55,10		3,51
48″	54,30, 6,14,52,38,27,26,51,34		3,59, 4,17, 5	
		52,33, 0, 4,21,38, 5		3,51
50″	54,30, 7, 7,25,38,31,48,29,39		3,59, 4,20,56	
		52,32,56, 5,17,17, 9		3,51
52″	54,30, 7,59,58,34,37, 5,46,48		3,59, 4,24,47	
		52,32,52, 6,12,52,22		3,51
54″	54,30, 8,52,31,26,43,18,39,10		3,59, 4,28,38	
		52,32,48, 7, 8,23,44		3,51
56″	54,30, 9,45, 4,14,50,27, 2,54		3,59, 4,32,29	
		52,32,44, 8, 3,51,15		3,51
58″	54,30,10,37,36,58,58,30,54, 9		3,59, 4,36,20	
		52,32,40, 8,59,14,55		
60″	54,30,11,30, 9,39, 7,30, 9, 4			
exact	54,30,11,30, 9,39, 7,30,40,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°17′ 0″	54,30,11,30, 9,39, 7,30,40,16			
		52,32,36, 9,54,38, 2		
2″	54,30,12,22,42,15,17,25,18,18		3,59, 4,43,48	
		52,32,32,10,49,54,14		3,50
4″	54,30,13,15,14,47,28,15,12,32		3,59, 4,47,38	
		52,32,28,11,45, 6,36		3,50
6″	54,30,14, 7,47,15,40, 0,19, 8		3,59, 4,51,28	
		52,32,24,12,40,15, 8		3,50
8″	54,30,15, 0,19,39,52,40,34,16		3,59, 4,55,18	
		52,32,20,13,35,19,50		3,50
10″	54,30,15,52,52, 0, 6,15,54, 6		3,59, 4,59, 8	
		52,32,16,14,30,20,42		3,50
12″	54,30,16,45,24,16,20,46,14,48		3,59, 5, 2,58	
		52,32,12,15,25,17,44		3,50
14″	54,30,17,37,56,28,36,11,32,32		3,59, 5, 6,48	
		52,32, 8,16,20,10,56		3,50
16″	54,30,18,30,28,36,52,31,43,28		3,59, 5,10,38	
		52,32, 4,17,15, 0,18		3,50
18″	54,30,19,23, 0,41, 9,46,43,46		3,59, 5,14,28	
		52,32, 0,18, 9,45,50		3,50
20″	54,30,20,15,32,41,27,56,29,36		3,59, 5,18,18	
		52,31,56,19, 4,27,32		3,50
22″	54,30,21, 8, 4,37,47, 0,57, 8		3,59, 5,22, 8	
		52,31,52,19,59, 5,24		3,50
24″	54,30,22, 0,36,30, 7, 0, 2,32		3,59, 5,25,58	
		52,31,48,20,53,39,26		3,50
26″	54,30,22,53, 8,18,27,53,41,58		3,59, 5,29,48	
		52,31,44,21,48, 9,38		3,50
28″	54,30,23,45,40, 2,49,41,51,36		3,59, 5,33,38	
		52,31,40,22,42,36, 0		3,50
30″	54,30,24,38,11,43,12,24,27,36		3,59, 5,37,28	
		52,31,36,23,36,58,32		3,50
32″	54,30,25,30,43,19,36, 1,26, 8		3,59, 5,41,18	
		52,31,32,24,31,17,14		3,50
34″	54,30,26,23,14,52, 0,32,43,22		3,59, 5,45, 8	
		52,31,28,25,25,32, 6		3,50
36″	54,30,27,15,46,20,25,58,15,28		3,59, 5,48,58	
		52,31,24,26,19,43, 8		3,50
38″	54,30,28, 8,17,44,52,17,58,36		3,59, 5,52,48	
		52,31,20,27,13,50,20		3,50
40″	54,30,29, 0,49, 5,19,31,48,56		3,59, 5,56,38	
		52,31,16,28, 7,53,42		3,50
42″	54,30,29,53,20,21,47,39,42,38		3,59, 6, 0,28	
		52,31,12,29, 1,53,14		3,50
44″	54,30,30,45,51,34,16,41,35,52		3,59, 6, 4,18	
		52,31, 8,29,55,48,56		3,50
46″	54,30,31,38,22,42,46,37,24,48		3,59, 6, 8, 8	
		52,31, 4,30,49,40,48		3,50
48″	54,30,32,30,53,47,17,27, 5,36		3,59, 6,11,58	
		52,31, 0,31,43,28,50		3,50
50″	54,30,33,23,24,47,49,10,34,26		3,59, 6,15,48	
		52,30,56,32,37,13, 2		3,50
52″	54,30,34,15,55,44,21,47,47,28		3,59, 6,19,38	
		52,30,52,33,30,53,24		3,50
54″	54,30,35, 8,26,36,55,18,40,52		3,59, 6,23,28	
		52,30,48,34,24,29,56		3,50
56″	54,30,36, 0,57,25,29,43,10,48		3,59, 6,27,18	
		52,30,44,35,18, 2,38		3,50
58″	54,30,36,53,28,10, 5, 1,13,26		3,59, 6,31, 8	
		52,30,40,36,11,31,30		
60″	54,30,37,45,58,50,41,12,44,56			
exact	54,30,37,45,58,50,41,12,14,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°18′ 0″	54,30,37,45,58,50,41,12,14,16			
		52,30,36,37, 4,53,22		
2″	54,30,38,38,29,27,18,17, 7,38		3,59, 6,39, 0	
		52,30,32,37,58,14,22		3,50
4″	54,30,39,30,59,59,56,15,22, 0		3,59, 6,42,50	
		52,30,28,38,51,31,32		3,50
6″	54,30,40,23,30,28,35, 6,53,32		3,59, 6,46,40	
		52,30,24,39,44,44,52		3,50
8″	54,30,41,16, 0,53,14,51,38,24		3,59, 6,50,30	
		52,30,20,40,37,54,22		3,50
10″	54,30,42, 8,31,13,55,29,32,46		3,59, 6,54,20	
		52,30,16,41,31, 0, 2		3,50
12″	54,30,43, 1, 1,30,37, 0,32,48		3,59, 6,58,10	
		52,30,12,42,24, 1,52		3,50
14″	54,30,43,53,31,43,19,24,34,40		3,59, 7, 2, 0	
		52,30, 8,43,16,59,52		3,50
16″	54,30,44,46, 1,52, 2,41,34,32		3,59, 7, 5,50	
		52,30, 4,44, 9,54, 2		3,50
18″	54,30,45,38,31,56,46,51,28,34		3,59, 7, 9,40	
		52,30, 0,45, 2,44,22		3,50
20″	54,30,46,31, 1,57,31,54,12,56		3,59, 7,13,30	
		52,29,56,45,55,30,52		3,50
22″	54,30,47,23,31,54,17,49,43,48		3,59, 7,17,20	
		52,29,52,46,48,13,32		3,50
24″	54,30,48,16, 1,47, 4,37,57,20		3,59, 7,21,10	
		52,29,48,47,40,52,22		3,50
26″	54,30,49, 8,31,35,52,18,49,42		3,59, 7,25, 0	
		52,29,44,48,33,27,22		3,50
28″	54,30,50, 1, 1,20,40,52,17, 4		3,59, 7,28,50	
		52,29,40,49,25,58,32		3,50
30″	54,30,50,53,31, 1,30,18,15,36		3,59, 7,32,40	
		52,29,36,50,18,25,52		3,50
32″	54,30,51,46, 0,38,20,36,41,28		3,59, 7,36,30	
		52,29,32,51,10,49,22		3,50
34″	54,30,52,38,30,11,11,47,30,50		3,59, 7,40,20	
		52,29,28,52, 3, 9, 2		3,50
36″	54,30,53,30,59,40, 3,50,39,52		3,59, 7,44,10	
		52,29,24,52,55,24,52		3,50
38″	54,30,54,23,29, 4,56,46, 4,44		3,59, 7,48, 0	
		52,29,20,53,47,36,52		3,50
40″	54,30,55,15,58,25,50,33,41,36		3,59, 7,51,50	
		52,29,16,54,39,45, 2		3,50
42″	54,30,56, 8,27,42,45,13,26,38		3,59, 7,55,40	
		52,29,12,55,31,49,22		3,50
44″	54,30,57, 0,56,55,40,45,16, 0		3,59, 7,59,30	
		52,29, 8,56,23,49,52		3,50
46″	54,30,57,53,26, 4,37, 9, 5,52		3,59, 8, 3,20	
		52,29, 4,57,15,46,32		3,50
48″	54,30,58,45,55, 9,34,24,52,24		3,59, 8, 7,10	
		52,29, 0,58, 7,39,22		3,50
50″	54,30,59,38,24,10,32,32,31,46		3,59, 8,11, 0	
		52,28,56,58,59,28,22		3,50
52″	54,31, 0,30,53, 7,31,32, 0, 8		3,59, 8,14,50	
		52,28,52,59,51,13,32		3,50
54″	54,31, 1,23,22, 0,31,23,13,40		3,59, 8,18,40	
		52,28,49, 0,42,54,52		3,50
56″	54,31, 2,15,50,49,32, 6, 8,32		3,59, 8,22,30	
		52,28,45, 1,34,32,22		3,50
58″	54,31, 3, 8,19,34,33,40,40,54		3,59, 8,26,20	
		52,28,41, 2,26, 6, 2		
60″	54,31, 4, 0,48,15,36, 6,46,56			
exact	54,31, 4, 0,48,15,36, 6,24,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°19′ 0″	54,31, 4, 0,48,15,36, 6,24,47			
		52,28,37, 3,17,33,40		
2″	54,31, 4,53,16,52,39,23,58,27		3,59, 8,34, 8	
		52,28,33, 4, 8,59,32		3,50
4″	54,31, 5,45,45,25,43,32,57,59		3,59, 8,37,58	
		52,28,29, 5, 0,21,34		3,50
6″	54,31, 6,38,13,54,48,33,19,33		3,59, 8,41,48	
		52,28,25, 5,51,39,46		3,50
8″	54,31, 7,30,42,19,54,24,59,19		3,59, 8,45,38	
		52,28,21, 6,42,54, 8		3,50
10″	54,31, 8,23,10,41, 1, 7,53,27		3,59, 8,49,28	
		52,28,17, 7,34, 4,40		3,50
12″	54,31, 9,15,38,58, 8,41,58, 7		3,59, 8,53,18	
		52,28,13, 8,25,11,22		3,50
14″	54,31,10, 8, 7,11,17, 7, 9,29		3,59, 8,57, 8	
		52,28, 9, 9,16,14,14		3,50
16″	54,31,11, 0,35,20,26,23,23,43		3,59, 9, 0,58	
		52,28, 5,10, 7,13,16		3,50
18″	54,31,11,53, 3,25,36,30,36,59		3,59, 9, 4,48	
		52,28, 1,10,58, 8,28		3,50
20″	54,31,12,45,31,26,47,28,45,27		3,59, 9, 8,38	
		52,27,57,11,48,59,50		3,50
22″	54,31,13,37,59,23,59,17,45,17		3,59, 9,12,28	
		52,27,53,12,39,47,22		3,50
24″	54,31,14,30,27,17,11,57,32,39		3,59, 9,16,18	
		52,27,49,13,30,31, 4		3,50
26″	54,31,15,22,55, 6,25,28, 3,43		3,59, 9,20, 8	
		52,27,45,14,21,10,56		3,50
28″	54,31,16,15,22,51,39,49,14,39		3,59, 9,23,58	
		52,27,41,15,11,46,58		3,50
30″	54,31,17, 7,50,32,55, 1, 1,37		3,59, 9,27,48	
		52,27,37,16, 2,19,10		3,50
32″	54,31,18, 0,18,10,11, 3,20,47		3,59, 9,31,38	
		52,27,33,16,52,47,32		3,50
34″	54,31,18,52,45,43,27,56, 8,19		3,59, 9,35,28	
		52,27,29,17,43,12, 4		3,50
36″	54,31,19,45,13,12,45,39,20,23		3,59, 9,39,18	
		52,27,25,18,33,32,46		3,50
38″	54,31,20,37,40,38, 4,12,53, 9		3,59, 9,43, 8	
		52,27,21,19,23,49,38		3,50
40″	54,31,21,30, 7,59,23,36,42,47		3,59, 9,46,58	
		52,27,17,20,14, 2,40		3,50
42″	54,31,22,22,35,16,43,50,45,27		3,59, 9,50,48	
		52,27,13,21, 4,11,52		3,50
44″	54,31,23,15, 2,30, 4,54,57,19		3,59, 9,54,38	
		52,27, 9,21,54,17,14		3,50
46″	54,31,24, 7,29,39,26,49,14,33		3,59, 9,58,28	
		52,27, 5,22,44,18,46		3,50
48″	54,31,24,59,56,44,49,33,33,19		3,59,10, 2,18	
		52,27, 1,23,34,16,28		3,50
50″	54,31,25,52,23,46,13, 7,49,47		3,59,10, 6, 8	
		52,26,57,24,24,10,20		3,50
52″	54,31,26,44,50,43,37,32, 0, 7		3,59,10, 9,58	
		52,26,53,25,14, 0,22		3,50
54″	54,31,27,37,17,37, 2,46, 0,29		3,59,10,13,48	
		52,26,49,26, 3,46,34		3,50
56″	54,31,28,29,44,26,28,49,47, 3		3,59,10,17,38	
		52,26,45,26,53,28,56		3,50
58″	54,31,29,22,11,11,55,43,15,59		3,59,10,21,28	
		52,26,41,27,43, 7,28		
60″	54,31,30,14,37,53,23,26,23,27			
exact	54,31,30,14,37,53,23,26,12,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°20′ 0″	54,31,30,14,37,53,23,26,12,33			
		52,26,37,28,32,41, 7		
2″	54,31,31, 7, 4,30,51,58,53,40		3,59,10,29,12	
		52,26,33,29,22,11,55		3,50
4″	54,31,31,59,31, 4,21,21, 5,35		3,59,10,33, 2	
		52,26,29,30,11,38,53		3,50
6″	54,31,32,51,57,33,51,32,44,28		3,59,10,36,52	
		52,26,25,31, 1, 2, 1		3,50
8″	54,31,33,44,23,59,22,33,46,29		3,59,10,40,42	
		52,26,21,31,50,21,19		3,50
10″	54,31,34,36,50,20,54,24, 7,48		3,59,10,44,32	
		52,26,17,32,39,36,47		3,50
12″	54,31,35,29,16,38,27, 3,44,35		3,59,10,48,22	
		52,26,13,33,28,48,25		3,50
14″	54,31,36,21,42,52, 0,32,33, 0		3,59,10,52,12	
		52,26, 9,34,17,56,13		3,50
16″	54,31,37,14, 9, 1,34,50,29,13		3,59,10,56, 2	
		52,26, 5,35, 7, 0,11		3,50
18″	54,31,38, 6,35, 7, 9,57,29,24		3,59,10,59,52	
		52,26, 1,35,56, 0,19		3,50
20″	54,31,38,59, 1, 8,45,53,29,43		3,59,11, 3,42	
		52,25,57,36,44,56,37		3,50
22″	54,31,39,51,27, 6,22,38,26,20		3,59,11, 7,32	
		52,25,53,37,33,49, 5		3,50
24″	54,31,40,43,53, 0, 0,12,15,25		3,59,11,11,22	
		52,25,49,38,22,37,43		3,50
26″	54,31,41,36,18,49,38,34,53, 8		3,59,11,15,12	
		52,25,45,39,11,22,31		3,50
28″	54,31,42,28,44,35,17,46,15,39		3,59,11,19, 2	
		52,25,41,40, 0, 3,29		3,50
30″	54,31,43,21,10,16,57,46,19, 8		3,59,11,22,52	
		52,25,37,40,48,40,37		3,50
32″	54,31,44,13,35,54,38,34,59,45		3,59,11,26,42	
		52,25,33,41,37,13,55		3,50
34″	54,31,45, 6, 1,28,20,12,13,40		3,59,11,30,32	
		52,25,29,42,25,43,23		3,50
36″	54,31,45,58,26,58, 2,37,57, 3		3,59,11,34,22	
		52,25,25,43,14, 9, 1		3,50
38″	54,31,46,50,52,23,45,52, 6, 4		3,59,11,38,12	
		52,25,21,44, 2,30,49		3,50
40″	54,31,47,43,17,45,29,54,36,53		3,59,11,42, 2	
		52,25,17,44,50,48,47		3,50
42″	54,31,48,35,43, 3,14,45,25,40		3,59,11,45,52	
		52,25,13,45,39, 2,55		3,50
44″	54,31,49,28, 8,17, 0,24,28,35		3,59,11,49,42	
		52,25, 9,46,27,13,13		3,50
46″	54,31,50,20,33,26,46,51,41,48		3,59,11,53,32	
		52,25, 5,47,15,19,41		3,50
48″	54,31,51,12,58,32,34, 7, 1,29		3,59,11,57,22	
		52,25, 1,48, 3,22,19		3,50
50″	54,31,52, 5,23,34,22,10,23,48		3,59,12, 1,12	
		52,24,57,48,51,21, 7		3,50
52″	54,31,52,57,48,32,11, 1,44,55		3,59,12, 5, 2	
		52,24,53,49,39,16, 5		3,50
54″	54,31,53,50,13,26, 0,41, 1, 0		3,59,12, 8,52	
		52,24,49,50,27, 7,13		3,50
56″	54,31,54,42,38,15,51, 8, 8,13		3,59,12,12,42	
		52,24,45,51,14,54,31		3,50
58″	54,31,55,35, 3, 1,42,23, 2,44		3,59,12,16,32	
		52,24,41,52, 2,37,59		
60″	54,31,56,27,27,43,34,25,40,43			
exact	54,31,56,27,27,43,34,25,43,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°21′ 0″	54,31,56,27,27,43,34,25,43,56			
		52,24,37,52,50,17,55		
2″	54,31,57,19,52,21,27,16, 1,51		3,59,12,24,11	
		52,24,33,53,37,53,44		3,50
4″	54,31,58,12,16,55,20,53,55,35		3,59,12,28, 1	
		52,24,29,54,25,25,43		3,50
6″	54,31,59, 4,41,25,15,19,21,18		3,59,12,31,51	
		52,24,25,55,12,53,52		3,50
8″	54,31,59,57, 5,51,10,32,15,10		3,59,12,35,41	
		52,24,21,56, 0,18,11		3,50
10″	54,32, 0,49,30,13, 6,32,33,21		3,59,12,39,31	
		52,24,17,56,47,38,40		3,50
12″	54,32, 1,41,54,31, 3,20,12, 1		3,59,12,43,21	
		52,24,13,57,34,55,19		3,50
14″	54,32, 2,34,18,45, 0,55, 7,20		3,59,12,47,11	
		52,24, 9,58,22, 8, 8		3,50
16″	54,32, 3,26,42,54,59,17,15,28		3,59,12,51, 1	
		52,24, 5,59, 9,17, 7		3,50
18″	54,32, 4,19, 7, 0,58,26,32,35		3,59,12,54,51	
		52,24, 1,59,56,22,16		3,50
20″	54,32, 5,11,31, 2,58,22,54,51		3,59,12,58,41	
		52,23,58, 0,43,23,35		3,50
22″	54,32, 6, 3,55, 0,59, 6,18,26		3,59,13, 2,31	
		52,23,54, 1,30,21, 4		3,50
24″	54,32, 6,56,18,55, 0,36,39,30		3,59,13, 6,21	
		52,23,50, 2,17,14,43		3,50
26″	54,32, 7,48,42,45, 2,53,54,13		3,59,13,10,11	
		52,23,46, 3, 4, 4,32		3,50
28″	54,32, 8,41, 6,31, 5,57,58,45		3,59,13,14, 1	
		52,23,42, 3,50,50,31		3,50
30″	54,32, 9,33,30,13, 9,48,49,16		3,59,13,17,51	
		52,23,38, 4,37,32,40		3,50
32″	54,32,10,25,53,51,14,26,21,56		3,59,13,21,41	
		52,23,34, 5,24,10,59		3,50
34″	54,32,11,18,17,25,19,50,32,55		3,59,13,25,31	
		52,23,30, 6,10,45,28		3,50
36″	54,32,12,10,40,55,26, 1,18,23		3,59,13,29,21	
		52,23,26, 6,57,16, 7		3,50
38″	54,32,13, 3, 4,21,32,58,34,30		3,59,13,33,11	
		52,23,22, 7,43,42,56		3,50
40″	54,32,13,55,27,43,40,42,17,26		3,59,13,37, 1	
		52,23,18, 8,30, 5,55		3,50
42″	54,32,14,47,51, 1,49,12,23,21		3,59,13,40,51	
		52,23,14, 9,16,25, 4		3,50
44″	54,32,15,40,14,15,58,28,48,25		3,59,13,44,41	
		52,23,10,10, 2,40,23		3,50
46″	54,32,16,32,37,26, 8,31,28,48		3,59,13,48,31	
		52,23, 6,10,48,51,52		3,50
48″	54,32,17,25, 0,32,19,20,20,40		3,59,13,52,21	
		52,23, 2,11,34,59,31		3,50
50″	54,32,18,17,23,34,30,55,20,11		3,59,13,56,11	
		52,22,58,12,21, 3,20		3,50
52″	54,32,19, 9,46,32,43,16,23,31		3,59,14, 0, 1	
		52,22,54,13, 7, 3,19		3,50
54″	54,32,20, 2, 9,26,56,23,26,50		3,59,14, 3,51	
		52,22,50,13,52,59,28		3,50
56″	54,32,20,54,32,17,10,16,26,18		3,59,14, 7,41	
		52,22,46,14,38,51,47		3,50
58″	54,32,21,46,55, 3,24,55,18, 5		3,59,14,11,31	
		52,22,42,15,24,40,16		
60″	54,32,22,39,17,45,40,19,58,21			
exact	54,32,22,39,17,45,40,20,10,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°22′ 0″	54,32,22,39,17,45,40,20,10,47			
		52,22,38,16,10,26,14		
2″	54,32,23,31,40,23,56,30,37, 1		3,59,14,19, 5	
		52,22,34,16,56, 7, 9		3,50
4″	54,32,24,24, 2,58,13,26,44,10		3,59,14,22,55	
		52,22,30,17,41,44,14		3,50
6″	54,32,25,16,25,28,31, 8,28,24		3,59,14,26,45	
		52,22,26,18,27,17,29		3,50
8″	54,32,26, 8,47,54,49,35,45,53		3,59,14,30,35	
		52,22,22,19,12,46,54		3,50
10″	54,32,27, 1,10,17, 8,48,32,47		3,59,14,34,25	
		52,22,18,19,58,12,29		3,50
12″	54,32,27,53,32,35,28,46,45,16		3,59,14,38,15	
		52,22,14,20,43,34,14		3,50
14″	54,32,28,45,54,49,49,30,19,30		3,59,14,42, 5	
		52,22,10,21,28,52, 9		3,50
16″	54,32,29,38,17, 0,10,59,11,39		3,59,14,45,55	
		52,22, 6,22,14, 6,14		3,50
18″	54,32,30,30,39, 6,33,13,17,53		3,59,14,49,45	
		52,22, 2,22,59,16,29		3,50
20″	54,32,31,23, 1, 8,56,12,34,22		3,59,14,53,35	
		52,21,58,23,44,22,54		3,50
22″	54,32,32,15,23, 7,19,56,57,16		3,59,14,57,25	
		52,21,54,24,29,25,29		3,50
24″	54,32,33, 7,45, 1,44,26,22,45		3,59,15, 1,15	
		52,21,50,25,14,24,14		3,50
26″	54,32,34, 0, 6,52, 9,40,46,59		3,59,15, 5, 5	
		52,21,46,25,59,19, 9		3,50
28″	54,32,34,52,28,38,35,40, 6, 8		3,59,15, 8,55	
		52,21,42,26,44,10,14		3,50
30″	54,32,35,44,50,21, 2,24,16,22		3,59,15,12,45	
		52,21,38,27,28,57,29		3,50
32″	54,32,36,37,11,59,29,53,13,51		3,59,15,16,35	
		52,21,34,28,13,40,54		3,50
34″	54,32,37,29,33,33,58, 6,54,45		3,59,15,20,25	
		52,21,30,28,58,20,29		3,50
36″	54,32,38,21,55, 4,27, 5,15,14		3,59,15,24,15	
		52,21,26,29,42,56,14		3,50
38″	54,32,39,14,16,30,56,48,11,28		3,59,15,28, 5	
		52,21,22,30,27,28, 9		3,50
40″	54,32,40, 6,37,53,27,15,39,37		3,59,15,31,55	
		52,21,18,31,11,56,14		3,50
42″	54,32,40,58,59,11,58,27,35,51		3,59,15,35,45	
		52,21,14,31,56,20,29		3,50
44″	54,32,41,51,20,26,30,23,56,20		3,59,15,39,35	
		52,21,10,32,40,40,54		3,50
46″	54,32,42,43,41,37, 3, 4,37,14		3,59,15,43,25	
		52,21, 6,33,24,57,29		3,50
48″	54,32,43,36, 2,43,36,29,34,43		3,59,15,47,15	
		52,21, 2,34, 9,10,14		3,50
50″	54,32,44,28,23,46,10,38,44,57		3,59,15,51, 5	
		52,20,58,34,53,19, 9		3,50
52″	54,32,45,20,44,44,45,32, 4, 6		3,59,15,54,55	
		52,20,54,35,37,24,14		3,50
54″	54,32,46,13, 5,39,21, 9,28,20		3,59,15,58,45	
		52,20,50,36,21,25,29		3,50
56″	54,32,47, 5,26,29,57,30,53,49		3,59,16, 2,35	
		52,20,46,37, 5,22,54		3,50
58″	54,32,47,57,47,16,34,36,16,43		3,59,16, 6,25	
		52,20,42,37,49,16,29		
60″	54,32,48,50, 7,59,12,25,33,12			
exact	54,32,48,50, 7,59,12,25,50,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°23′ 0″	54,32,48,50, 7,59,12,25,50,37			
		52,20,38,38,33, 8,16		
2″	54,32,49,42,28,37,50,58,58,53		3,59,16,13,56	
		52,20,34,39,16,54,20		3,50
4″	54,32,50,34,49,12,30,15,53,13		3,59,16,17,46	
		52,20,30,40, 0,36,34		3,50
6″	54,32,51,27, 9,43,10,16,29,47		3,59,16,21,36	
		52,20,26,40,44,14,58		3,50
8″	54,32,52,19,30, 9,51, 0,44,45		3,59,16,25,26	
		52,20,22,41,27,49,32		3,50
10″	54,32,53,11,50,32,32,28,34,17		3,59,16,29,16	
		52,20,18,42,11,20,16		3,50
12″	54,32,54, 4,10,51,14,39,54,33		3,59,16,33, 6	
		52,20,14,42,54,47,10		3,50
14″	54,32,54,56,31, 5,57,34,41,43		3,59,16,36,56	
		52,20,10,43,38,10,14		3,50
16″	54,32,55,48,51,16,41,12,51,57		3,59,16,40,46	
		52,20, 6,44,21,29,28		3,50
18″	54,32,56,41,11,23,25,34,21,25		3,59,16,44,36	
		52,20, 2,45, 4,44,52		3,50
20″	54,32,57,33,31,26,10,39, 6,17		3,59,16,48,26	
		52,19,58,45,47,56,26		3,50
22″	54,32,58,25,51,24,56,27, 2,43		3,59,16,52,16	
		52,19,54,46,31, 4,10		3,50
24″	54,32,59,18,11,19,42,58, 6,53		3,59,16,56, 6	
		52,19,50,47,14, 8, 4		3,50
26″	54,33, 0,10,31,10,30,12,14,57		3,59,16,59,56	
		52,19,46,47,57, 8, 8		3,50
28″	54,33, 1, 2,50,57,18, 9,23, 5		3,59,17, 3,46	
		52,19,42,48,40, 4,22		3,50
30″	54,33, 1,55,10,40, 6,49,27,27		3,59,17, 7,36	
		52,19,38,49,22,56,46		3,50
32″	54,33, 2,47,30,18,56,12,24,13		3,59,17,11,26	
		52,19,34,50, 5,45,20		3,50
34″	54,33, 3,39,49,53,46,18, 9,33		3,59,17,15,16	
		52,19,30,50,48,30, 4		3,50
36″	54,33, 4,32, 9,24,37, 6,39,37		3,59,17,19, 6	
		52,19,26,51,31,10,58		3,50
38″	54,33, 5,24,28,51,28,37,50,35		3,59,17,22,56	
		52,19,22,52,13,48, 2		3,50
40″	54,33, 6,16,48,14,20,51,38,37		3,59,17,26,46	
		52,19,18,52,56,21,16		3,50
42″	54,33, 7, 9, 7,33,13,47,59,53		3,59,17,30,36	
		52,19,14,53,38,50,40		3,50
44″	54,33, 8, 1,26,48, 7,26,50,33		3,59,17,34,26	
		52,19,10,54,21,16,14		3,50
46″	54,33, 8,53,45,59, 1,48, 6,47		3,59,17,38,16	
		52,19, 6,55, 3,37,58		3,50
48″	54,33, 9,46, 5, 5,56,51,44,45		3,59,17,42, 6	
		52,19, 2,55,45,55,52		3,50
50″	54,33,10,38,24, 8,52,37,40,37		3,59,17,45,56	
		52,18,58,56,28, 9,56		3,50
52″	54,33,11,30,43, 7,49, 5,50,33		3,59,17,49,46	
		52,18,54,57,10,20,10		3,50
54″	54,33,12,23, 2, 2,46,16,10,43		3,59,17,53,36	
		52,18,50,57,52,26,34		3,50
56″	54,33,13,15,20,53,44, 8,37,17		3,59,17,57,26	
		52,18,46,58,34,29, 8		3,50
58″	54,33,14, 7,39,40,42,43, 6,25		3,59,18, 1,16	
		52,18,42,59,16,27,52		
60″	54,33,14,59,58,23,41,59,34,17			
exact	54,33,14,59,58,23,42, 0, 6,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°24′ 0″	54,33,14,59,58,23,42, 0, 6,28			
		52,18,38,59,58,26,12		
2″	54,33,15,52,17, 2,41,58,32,40		3,59,18, 8,42	
		52,18,35, 0,40,17,30		3,49
4″	54,33,16,44,35,37,42,38,50,10		3,59,18,12,31	
		52,18,31, 1,22, 4,59		3,49
6″	54,33,17,36,54, 8,44, 0,55, 9		3,59,18,16,20	
		52,18,27, 2, 3,48,39		3,49
8″	54,33,18,29,12,35,46, 4,43,48		3,59,18,20, 9	
		52,18,23, 2,45,28,30		3,49
10″	54,33,19,21,30,58,48,50,12,18		3,59,18,23,58	
		52,18,19, 3,27, 4,32		3,49
12″	54,33,20,13,49,17,52,17,16,50		3,59,18,27,47	
		52,18,15, 4, 8,36,45		3,49
14″	54,33,21, 6, 7,32,56,25,53,35		3,59,18,31,36	
		52,18,11, 4,50, 5, 9		3,49
16″	54,33,21,58,25,44, 1,15,58,44		3,59,18,35,25	
		52,18, 7, 5,31,29,44		3,49
18″	54,33,22,50,43,51, 6,47,28,28		3,59,18,39,14	
		52,18, 3, 6,12,50,30		3,49
20″	54,33,23,43, 1,54,13, 0,18,58		3,59,18,43, 3	
		52,17,59, 6,54, 7,27		3,49
22″	54,33,24,35,19,53,19,54,26,25		3,59,18,46,52	
		52,17,55, 7,35,20,35		3,49
24″	54,33,25,27,37,48,27,29,47, 0		3,59,18,50,41	
		52,17,51, 8,16,29,54		3,49
26″	54,33,26,19,55,39,35,46,16,54		3,59,18,54,30	
		52,17,47, 8,57,35,24		3,49
28″	54,33,27,12,13,26,44,43,52,18		3,59,18,58,19	
		52,17,43, 9,38,37, 5		3,49
30″	54,33,28, 4,31, 9,54,22,29,23		3,59,19, 2, 8	
		52,17,39,10,19,34,57		3,49
32″	54,33,28,56,48,49, 4,42, 4,20		3,59,19, 5,57	
		52,17,35,11, 0,29, 0		3,49
34″	54,33,29,49, 6,24,15,42,33,20		3,59,19, 9,46	
		52,17,31,11,41,19,14		3,49
36″	54,33,30,41,23,55,27,23,52,34		3,59,19,13,35	
		52,17,27,12,22, 5,39		3,49
38″	54,33,31,33,41,22,39,45,58,13		3,59,19,17,24	
		52,17,23,13, 2,48,15		3,49
40″	54,33,32,25,58,45,52,48,46,28		3,59,19,21,13	
		52,17,19,13,43,27, 2		3,49
42″	54,33,33,18,16, 5, 6,32,13,30		3,59,19,25, 2	
		52,17,15,14,24, 2, 0		3,49
44″	54,33,34,10,33,20,20,56,15,30		3,59,19,28,51	
		52,17,11,15, 4,33, 9		3,49
46″	54,33,35, 2,50,31,36, 0,48,39		3,59,19,32,40	
		52,17, 7,15,45, 0,29		3,49
48″	54,33,35,55, 7,38,51,45,49, 8		3,59,19,36,29	
		52,17, 3,16,25,24, 0		3,49
50″	54,33,36,47,24,42, 8,11,13, 8		3,59,19,40,18	
		52,16,59,17, 5,43,42		3,49
52″	54,33,37,39,41,41,25,16,56,50		3,59,19,44, 7	
		52,16,55,17,45,59,35		3,49
54″	54,33,38,31,58,36,43, 2,56,25		3,59,19,47,56	
		52,16,51,18,26,11,39		3,49
56″	54,33,39,24,15,28, 1,29, 8, 4		3,59,19,51,45	
		52,16,47,19, 6,19,54		3,49
58″	54,33,40,16,32,15,20,35,27,58		3,59,19,55,34	
		52,16,43,19,46,24,20		
60″	54,33,41, 8,48,58,40,21,52,18			
exact	54,33,41, 8,48,58,40,21,27, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°25′ 0″	54,33,41, 8,48,58,40,21,27, 0			
		52,16,39,20,26,22,13		
2″	54,33,42, 1, 5,38, 0,47,49,13		3,59,20, 3,23	
		52,16,35,21, 6,18,50		3,49
4″	54,33,42,53,22,13,21,54, 8, 3		3,59,20, 7,12	
		52,16,31,21,46,11,38		3,49
6″	54,33,43,45,38,44,43,40,19,41		3,59,20,11, 1	
		52,16,27,22,26, 0,37		3,49
8″	54,33,44,37,55,12, 6, 6,20,18		3,59,20,14,50	
		52,16,23,23, 5,45,47		3,49
10″	54,33,45,30,11,35,29,12, 6, 5		3,59,20,18,39	
		52,16,19,23,45,27, 8		3,49
12″	54,33,46,22,27,54,52,57,33,13		3,59,20,22,28	
		52,16,15,24,25, 4,40		3,49
14″	54,33,47,14,44,10,17,22,37,53		3,59,20,26,17	
		52,16,11,25, 4,38,23		3,49
16″	54,33,48, 7, 0,21,42,27,16,16		3,59,20,30, 6	
		52,16, 7,25,44, 8,17		3,49
18″	54,33,48,59,16,29, 8,11,24,33		3,59,20,33,55	
		52,16, 3,26,23,34,22		3,49
20″	54,33,49,51,32,32,34,34,58,55		3,59,20,37,44	
		52,15,59,27, 2,56,38		3,49
22″	54,33,50,43,48,32, 1,37,55,33		3,59,20,41,33	
		52,15,55,27,42,15, 5		3,49
24″	54,33,51,36, 4,27,29,20,10,38		3,59,20,45,22	
		52,15,51,28,21,29,43		3,49
26″	54,33,52,28,20,18,57,41,40,21		3,59,20,49,11	
		52,15,47,29, 0,40,32		3,49
28″	54,33,53,20,36, 6,26,42,20,53		3,59,20,53, 0	
		52,15,43,29,39,47,32		3,49
30″	54,33,54,12,51,49,56,22, 8,25		3,59,20,56,49	
		52,15,39,30,18,50,43		3,49
32″	54,33,55, 5, 7,29,26,40,59, 8		3,59,21, 0,38	
		52,15,35,30,57,50, 5		3,49
34″	54,33,55,57,23, 4,57,38,49,13		3,59,21, 4,27	
		52,15,31,31,36,45,38		3,49
36″	54,33,56,49,38,36,29,15,34,51		3,59,21, 8,16	
		52,15,27,32,15,37,22		3,49
38″	54,33,57,41,54, 4, 1,31,12,13		3,59,21,12, 5	
		52,15,23,32,54,25,17		3,49
40″	54,33,58,34, 9,27,34,25,37,30		3,59,21,15,54	
		52,15,19,33,33, 9,23		3,49
42″	54,33,59,26,24,47, 7,58,46,53		3,59,21,19,43	
		52,15,15,34,11,49,40		3,49
44″	54,34, 0,18,40, 2,42,10,36,33		3,59,21,23,32	
		52,15,11,34,50,26, 8		3,49
46″	54,34, 1,10,55,14,17, 1, 2,41		3,59,21,27,21	
		52,15, 7,35,28,58,47		3,49
48″	54,34, 2, 3,10,21,52,30, 1,28		3,59,21,31,10	
		52,15, 3,36, 7,27,37		3,49
50″	54,34, 2,55,25,25,28,37,29, 5		3,59,21,34,59	
		52,14,59,36,45,52,38		3,49
52″	54,34, 3,47,40,25, 5,23,21,43		3,59,21,38,48	
		52,14,55,37,24,13,50		3,49
54″	54,34, 4,39,55,20,42,47,35,33		3,59,21,42,37	
		52,14,51,38, 2,31,13		3,49
56″	54,34, 5,32,10,12,20,50, 6,46		3,59,21,46,26	
		52,14,47,38,40,44,47		3,49
58″	54,34, 6,24,24,59,59,30,51,33		3,59,21,50,15	
		52,14,43,39,18,54,32		
60″	54,34, 7,16,39,43,38,49,46, 5			
exact	54,34, 7,16,39,43,38,49,26,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°26′ 0″	54,34, 7,16,39,43,38,49,26,30			
		52,14,39,39,56,58,30		
2″	54,34, 8, 8,54,23,18,46,25, 0		3,59,21,58, 0	
		52,14,35,40,35, 0,30		3,49
4″	54,34, 9, 1, 8,58,59,21,25,30		3,59,22, 1,49	
		52,14,31,41,12,58,41		3,49
6″	54,34, 9,53,23,30,40,34,24,11		3,59,22, 5,38	
		52,14,27,41,50,53, 3		3,49
8″	54,34,10,45,37,58,22,25,17,14		3,59,22, 9,27	
		52,14,23,42,28,43,36		3,49
10″	54,34,11,37,52,22, 4,54, 0,50		3,59,22,13,16	
		52,14,19,43, 6,30,20		3,49
12″	54,34,12,30, 6,41,48, 0,31,10		3,59,22,17, 5	
		52,14,15,43,44,13,15		3,49
14″	54,34,13,22,20,57,31,44,44,25		3,59,22,20,54	
		52,14,11,44,21,52,21		3,49
16″	54,34,14,14,35, 9,16, 6,36,46		3,59,22,24,43	
		52,14, 7,44,59,27,38		3,49
18″	54,34,15, 6,49,17, 1, 6, 4,24		3,59,22,28,32	
		52,14, 3,45,36,59, 6		3,49
20″	54,34,15,59, 3,20,46,43, 3,30		3,59,22,32,21	
		52,13,59,46,14,26,45		3,49
22″	54,34,16,51,17,20,32,57,30,15		3,59,22,36,10	
		52,13,55,46,51,50,35		3,49
24″	54,34,17,43,31,16,19,49,20,50		3,59,22,39,59	
		52,13,51,47,29,10,36		3,49
26″	54,34,18,35,45, 8, 7,18,31,26		3,59,22,43,48	
		52,13,47,48, 6,26,48		3,49
28″	54,34,19,27,58,55,55,24,58,14		3,59,22,47,37	
		52,13,43,48,43,39,11		3,49
30″	54,34,20,20,12,39,44, 8,37,25		3,59,22,51,26	
		52,13,39,49,20,47,45		3,49
32″	54,34,21,12,26,19,33,29,25,10		3,59,22,55,15	
		52,13,35,49,57,52,30		3,49
34″	54,34,22, 4,39,55,23,27,17,40		3,59,22,59, 4	
		52,13,31,50,34,53,26		3,49
36″	54,34,22,56,53,27,14, 2,11, 6		3,59,23, 2,53	
		52,13,27,51,11,50,33		3,49
38″	54,34,23,49, 6,55, 5,14, 1,39		3,59,23, 6,42	
		52,13,23,51,48,43,51		3,49
40″	54,34,24,41,20,18,57, 2,45,30		3,59,23,10,31	
		52,13,19,52,25,33,20		3,49
42″	54,34,25,33,33,38,49,28,18,50		3,59,23,14,20	
		52,13,15,53, 2,19, 0		3,49
44″	54,34,26,25,46,54,42,30,37,50		3,59,23,18, 9	
		52,13,11,53,39, 0,51		3,49
46″	54,34,27,18, 0, 6,36, 9,38,41		3,59,23,21,58	
		52,13, 7,54,15,38,53		3,49
48″	54,34,28,10,13,14,30,25,17,34		3,59,23,25,47	
		52,13, 3,54,52,13, 6		3,49
50″	54,34,29, 2,26,18,25,17,30,40		3,59,23,29,36	
		52,12,59,55,28,43,30		3,49
52″	54,34,29,54,39,18,20,46,14,10		3,59,23,33,25	
		52,12,55,56, 5,10, 5		3,49
54″	54,34,30,46,52,14,16,51,24,15		3,59,23,37,14	
		52,12,51,56,41,32,51		3,49
56″	54,34,31,39, 5, 6,13,32,57, 6		3,59,23,41, 3	
		52,12,47,57,17,51,48		3,49
58″	54,34,32,31,17,54,10,50,48,54		3,59,23,44,52	
		52,12,43,57,54, 6,56		
60″	54,34,33,23,30,38, 8,44,55,50			
exact	54,34,33,23,30,38, 8,44,44,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°27′ 0″	54,34,33,23,30,38, 8,44,44,49			
		52,12,39,58,30,17,15		
2″	54,34,34,15,43,18, 7,15, 2, 4		3,59,23,52,33	
		52,12,35,59, 6,24,42		3,49
4″	54,34,35, 7,55,54, 6,21,26,46		3,59,23,56,22	
		52,12,31,59,42,28,20		3,49
6″	54,34,36, 0, 8,26, 6, 3,55, 6		3,59,24, 0,11	
		52,12,28, 0,18,28, 9		3,49
8″	54,34,36,52,20,54, 6,22,23,15		3,59,24, 4, 0	
		52,12,24, 0,54,24, 9		3,49
10″	54,34,37,44,33,18, 7,16,47,24		3,59,24, 7,49	
		52,12,20, 1,30,16,20		3,49
12″	54,34,38,36,45,38, 8,47, 3,44		3,59,24,11,38	
		52,12,16, 2, 6, 4,42		3,49
14″	54,34,39,28,57,54,10,53, 8,26		3,59,24,15,27	
		52,12,12, 2,41,49,15		3,49
16″	54,34,40,21,10, 6,13,34,57,41		3,59,24,19,16	
		52,12, 8, 3,17,29,59		3,49
18″	54,34,41,13,22,14,16,52,27,40		3,59,24,23, 5	
		52,12, 4, 3,53, 6,54		3,49
20″	54,34,42, 5,34,18,20,45,34,34		3,59,24,26,54	
		52,12, 0, 4,28,40, 0		3,49
22″	54,34,42,57,46,18,25,14,14,34		3,59,24,30,43	
		52,11,56, 5, 4, 9,17		3,49
24″	54,34,43,49,58,14,30,18,23,51		3,59,24,34,32	
		52,11,52, 5,39,34,45		3,49
26″	54,34,44,42,10, 6,35,57,58,36		3,59,24,38,21	
		52,11,48, 6,14,56,24		3,49
28″	54,34,45,34,21,54,42,12,55, 0		3,59,24,42,10	
		52,11,44, 6,50,14,14		3,49
30″	54,34,46,26,33,38,49, 3, 9,14		3,59,24,45,59	
		52,11,40, 7,25,28,15		3,49
32″	54,34,47,18,45,18,56,28,37,29		3,59,24,49,48	
		52,11,36, 8, 0,38,27		3,49
34″	54,34,48,10,56,55, 4,29,15,56		3,59,24,53,37	
		52,11,32, 8,35,44,50		3,49
36″	54,34,49, 3, 8,27,13, 5, 0,46		3,59,24,57,26	
		52,11,28, 9,10,47,24		3,49
38″	54,34,49,55,19,55,22,15,48,10		3,59,25, 1,15	
		52,11,24, 9,45,46, 9		3,49
40″	54,34,50,47,31,19,32, 1,34,19		3,59,25, 5, 4	
		52,11,20,10,20,41, 5		3,49
42″	54,34,51,39,42,39,42,22,15,24		3,59,25, 8,53	
		52,11,16,10,55,32,12		3,49
44″	54,34,52,31,53,55,53,17,47,36		3,59,25,12,42	
		52,11,12,11,30,19,30		3,49
46″	54,34,53,24, 5, 8, 4,48, 7, 6		3,59,25,16,31	
		52,11, 8,12, 5, 2,59		3,49
48″	54,34,54,16,16,16,16,53,10, 5		3,59,25,20,20	
		52,11, 4,12,39,42,39		3,49
50″	54,34,55, 8,27,20,29,32,52,44		3,59,25,24, 9	
		52,11, 0,13,14,18,30		3,49
52″	54,34,56, 0,38,20,42,47,11,14		3,59,25,27,58	
		52,10,56,13,48,50,32		3,49
54″	54,34,56,52,49,16,56,36, 1,46		3,59,25,31,47	
		52,10,52,14,23,18,45		3,49
56″	54,34,57,45, 0, 9,10,59,20,31		3,59,25,35,36	
		52,10,48,14,57,43, 9		3,49
58″	54,34,58,37,10,57,25,57, 3,40		3,59,25,39,25	
		52,10,44,15,32, 3,44		
60″	54,34,59,29,21,41,41,29, 7,24			
exact	54,34,59,29,21,41,41,29, 7,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°28′ 0″	54,34,59,29,21,41,41,29, 7,28			
		52,10,40,16, 6,20,38		
2″	54,35, 0,21,32,21,57,35,28, 6		3,59,25,47, 2	
		52,10,36,16,40,33,36		3,49
4″	54,35, 1,13,42,58,14,16, 1,42		3,59,25,50,51	
		52,10,32,17,14,42,45		3,49
6″	54,35, 2, 5,53,30,31,30,44,27		3,59,25,54,40	
		52,10,28,17,48,48, 5		3,49
8″	54,35, 2,58, 3,58,49,19,32,32		3,59,25,58,29	
		52,10,24,18,22,49,36		3,49
10″	54,35, 3,50,14,23, 7,42,22, 8		3,59,26, 2,18	
		52,10,20,18,56,47,18		3,49
12″	54,35, 4,42,24,43,26,39, 9,26		3,59,26, 6, 7	
		52,10,16,19,30,41,11		3,49
14″	54,35, 5,34,34,59,46, 9,50,37		3,59,26, 9,56	
		52,10,12,20, 4,31,15		3,49
16″	54,35, 6,26,45,12, 6,14,21,52		3,59,26,13,45	
		52,10, 8,20,38,17,30		3,49
18″	54,35, 7,18,55,20,26,52,39,22		3,59,26,17,34	
		52,10, 4,21,11,59,56		3,49
20″	54,35, 8,11, 5,24,48, 4,39,18		3,59,26,21,23	
		52,10, 0,21,45,38,33		3,49
22″	54,35, 9, 3,15,25, 9,50,17,51		3,59,26,25,12	
		52, 9,56,22,19,13,21		3,49
24″	54,35, 9,55,25,21,32, 9,31,12		3,59,26,29, 1	
		52, 9,52,22,52,44,20		3,49
26″	54,35,10,47,35,13,55, 2,15,32		3,59,26,32,50	
		52, 9,48,23,26,11,30		3,49
28″	54,35,11,39,45, 2,18,28,27, 2		3,59,26,36,39	
		52, 9,44,23,59,34,51		3,49
30″	54,35,12,31,54,46,42,28, 1,53		3,59,26,40,28	
		52, 9,40,24,32,54,23		3,49
32″	54,35,13,24, 4,27, 7, 0,56,16		3,59,26,44,17	
		52, 9,36,25, 6,10, 6		3,49
34″	54,35,14,16,14, 3,32, 7, 6,22		3,59,26,48, 6	
		52, 9,32,25,39,22, 0		3,49
36″	54,35,15, 8,23,35,57,46,28,22		3,59,26,51,55	
		52, 9,28,26,12,30, 5		3,49
38″	54,35,16, 0,33, 4,23,58,58,27		3,59,26,55,44	
		52, 9,24,26,45,34,21		3,49
40″	54,35,16,52,42,28,50,44,32,48		3,59,26,59,33	
		52, 9,20,27,18,34,48		3,49
42″	54,35,17,44,51,49,18, 3, 7,36		3,59,27, 3,22	
		52, 9,16,27,51,31,26		3,49
44″	54,35,18,37, 1, 5,45,54,39, 2		3,59,27, 7,11	
		52, 9,12,28,24,24,15		3,49
46″	54,35,19,29,10,18,14,19, 3,17		3,59,27,11, 0	
		52, 9, 8,28,57,13,15		3,49
48″	54,35,20,21,19,26,43,16,16,32		3,59,27,14,49	
		52, 9, 4,29,29,58,26		3,49
50″	54,35,21,13,28,31,12,46,14,58		3,59,27,18,38	
		52, 9, 0,30, 2,39,48		3,49
52″	54,35,22, 5,37,31,42,48,54,46		3,59,27,22,27	
		52, 8,56,30,35,17,21		3,49
54″	54,35,22,57,46,28,13,24,12, 7		3,59,27,26,16	
		52, 8,52,31, 7,51, 5		3,49
56″	54,35,23,49,55,20,44,32, 3,12		3,59,27,30, 5	
		52, 8,48,31,40,21, 0		3,49
58″	54,35,24,42, 4, 9,16,12,24,12		3,59,27,33,54	
		52, 8,44,32,12,47, 6		
60″	54,35,25,34,12,53,48,25,11,18			
exact	54,35,25,34,12,53,48,25,25,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°29′ 0″	54,35,25,34,12,53,48,25,25,36			
		52, 8,40,32,45,10,52		
2″	54,35,26,26,21,34,21,10,36,28		3,59,27,41,26	
		52, 8,36,33,17,29,26		3,49
4″	54,35,27,18,30,10,54,28, 5,54		3,59,27,45,15	
		52, 8,32,33,49,44,11		3,49
6″	54,35,28,10,38,43,28,17,50, 5		3,59,27,49, 4	
		52, 8,28,34,21,55, 7		3,49
8″	54,35,29, 2,47,12, 2,39,45,12		3,59,27,52,53	
		52, 8,24,34,54, 2,14		3,49
10″	54,35,29,54,55,36,37,33,47,26		3,59,27,56,42	
		52, 8,20,35,26, 5,32		3,49
12″	54,35,30,47, 3,57,12,59,52,58		3,59,28, 0,31	
		52, 8,16,35,58, 5, 1		3,49
14″	54,35,31,39,12,13,48,57,57,59		3,59,28, 4,20	
		52, 8,12,36,30, 0,41		3,49
16″	54,35,32,31,20,26,25,27,58,40		3,59,28, 8, 9	
		52, 8, 8,37, 1,52,32		3,49
18″	54,35,33,23,28,35, 2,29,51,12		3,59,28,11,58	
		52, 8, 4,37,33,40,34		3,49
20″	54,35,34,15,36,39,40, 3,31,46		3,59,28,15,47	
		52, 8, 0,38, 5,24,47		3,49
22″	54,35,35, 7,44,40,18, 8,56,33		3,59,28,19,36	
		52, 7,56,38,37, 5,11		3,49
24″	54,35,35,59,52,36,56,46, 1,44		3,59,28,23,25	
		52, 7,52,39, 8,41,46		3,49
26″	54,35,36,52, 0,29,35,54,43,30		3,59,28,27,14	
		52, 7,48,39,40,14,32		3,49
28″	54,35,37,44, 8,18,15,34,58, 2		3,59,28,31, 3	
		52, 7,44,40,11,43,29		3,49
30″	54,35,38,36,16, 2,55,46,41,31		3,59,28,34,52	
		52, 7,40,40,43, 8,37		3,49
32″	54,35,39,28,23,43,36,29,50, 8		3,59,28,38,41	
		52, 7,36,41,14,29,56		3,49
34″	54,35,40,20,31,20,17,44,20, 4		3,59,28,42,30	
		52, 7,32,41,45,47,26		3,49
36″	54,35,41,12,38,52,59,30, 7,30		3,59,28,46,19	
		52, 7,28,42,17, 1, 7		3,49
38″	54,35,42, 4,46,21,41,47, 8,37		3,59,28,50, 8	
		52, 7,24,42,48,10,59		3,49
40″	54,35,42,56,53,46,24,35,19,36		3,59,28,53,57	
		52, 7,20,43,19,17, 2		3,49
42″	54,35,43,49, 1, 7, 7,54,36,38		3,59,28,57,46	
		52, 7,16,43,50,19,16		3,49
44″	54,35,44,41, 8,23,51,44,55,54		3,59,29, 1,35	
		52, 7,12,44,21,17,41		3,49
46″	54,35,45,33,15,36,36, 6,13,35		3,59,29, 5,24	
		52, 7, 8,44,52,12,17		3,49
48″	54,35,46,25,22,45,20,58,25,52		3,59,29, 9,13	
		52, 7, 4,45,23, 3, 4		3,49
50″	54,35,47,17,29,50, 6,21,28,56		3,59,29,13, 2	
		52, 7, 0,45,53,50, 2		3,49
52″	54,35,48, 9,36,50,52,15,18,58		3,59,29,16,51	
		52, 6,56,46,24,33,11		3,49
54″	54,35,49, 1,43,47,38,39,52, 9		3,59,29,20,40	
		52, 6,52,46,55,12,31		3,49
56″	54,35,49,53,50,40,25,35, 4,40		3,59,29,24,29	
		52, 6,48,47,25,48, 2		3,49
58″	54,35,50,45,57,29,13, 0,52,42		3,59,29,28,18	
		52, 6,44,47,56,19,44		
60″	54,35,51,38, 4,14, 0,57,12,26			
exact	54,35,51,38, 4,14, 0,57,35,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°30′ 0″	54,35,51,38, 4,14, 0,57,35,59			
		52, 6,40,48,26,50, 7		
2″	54,35,52,30,10,54,49,24,26, 6		3,59,29,35,45	
		52, 6,36,48,57,14,22		3,49
4″	54,35,53,22,17,31,38,21,40,28		3,59,29,39,34	
		52, 6,32,49,27,34,48		3,49
6″	54,35,54,14,24, 4,27,49,15,16		3,59,29,43,23	
		52, 6,28,49,57,51,25		3,49
8″	54,35,55, 6,30,33,17,47, 6,41		3,59,29,47,12	
		52, 6,24,50,28, 4,13		3,49
10″	54,35,55,58,36,58, 8,15,10,54		3,59,29,51, 1	
		52, 6,20,50,58,13,12		3,49
12″	54,35,56,50,43,18,59,13,24, 6		3,59,29,54,50	
		52, 6,16,51,28,18,22		3,49
14″	54,35,57,42,49,35,50,41,42,28		3,59,29,58,39	
		52, 6,12,51,58,19,43		3,49
16″	54,35,58,34,55,48,42,40, 2,11		3,59,30, 2,28	
		52, 6, 8,52,28,17,15		3,49
18″	54,35,59,27, 1,57,35, 8,19,26		3,59,30, 6,17	
		52, 6, 4,52,58,10,58		3,49
20″	54,36, 0,19, 8, 2,28, 6,30,24		3,59,30,10, 6	
		52, 6, 0,53,28, 0,52		3,49
22″	54,36, 1,11,14, 3,21,34,31,16		3,59,30,13,55	
		52, 5,56,53,57,46,57		3,49
24″	54,36, 2, 3,20, 0,15,32,18,13		3,59,30,17,44	
		52, 5,52,54,27,29,13		3,49
26″	54,36, 2,55,25,53, 9,59,47,26		3,59,30,21,33	
		52, 5,48,54,57, 7,40		3,49
28″	54,36, 3,47,31,42, 4,56,55, 6		3,59,30,25,22	
		52, 5,44,55,26,42,18		3,49
30″	54,36, 4,39,37,27, 0,23,37,24		3,59,30,29,11	
		52, 5,40,55,56,13, 7		3,49
32″	54,36, 5,31,43, 7,56,19,50,31		3,59,30,33, 0	
		52, 5,36,56,25,40, 7		3,49
34″	54,36, 6,23,48,44,52,45,30,38		3,59,30,36,49	
		52, 5,32,56,55, 3,18		3,49
36″	54,36, 7,15,54,17,49,40,33,56		3,59,30,40,38	
		52, 5,28,57,24,22,40		3,49
38″	54,36, 8, 7,59,46,47, 4,56,36		3,59,30,44,27	
		52, 5,24,57,53,38,13		3,49
40″	54,36, 9, 0, 5,11,44,58,34,49		3,59,30,48,16	
		52, 5,20,58,22,49,57		3,49
42″	54,36, 9,52,10,32,43,21,24,46		3,59,30,52, 5	
		52, 5,16,58,51,57,52		3,49
44″	54,36,10,44,15,49,42,13,22,38		3,59,30,55,54	
		52, 5,12,59,21, 1,58		3,49
46″	54,36,11,36,21, 2,41,34,24,36		3,59,30,59,43	
		52, 5, 8,59,50, 2,15		3,49
48″	54,36,12,28,26,11,41,24,26,51		3,59,31, 3,32	
		52, 5, 5, 0,18,58,43		3,49
50″	54,36,13,20,31,16,41,43,25,34		3,59,31, 7,21	
		52, 5, 1, 0,47,51,22		3,49
52″	54,36,14,12,36,17,42,31,16,56		3,59,31,11,10	
		52, 4,57, 1,16,40,12		3,49
54″	54,36,15, 4,41,14,43,47,57, 8		3,59,31,14,59	
		52, 4,53, 1,45,25,13		3,49
56″	54,36,15,56,46, 7,45,33,22,21		3,59,31,18,48	
		52, 4,49, 2,14, 6,25		3,49
58″	54,36,16,48,50,56,47,47,28,46		3,59,31,22,37	
		52, 4,45, 2,42,43,48		
60″	54,36,17,40,55,41,50,30,12,34			
exact	54,36,17,40,55,41,50,30,41, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°31′ 0″	54,36,17,40,55,41,50,30,41, 2			
		52, 4,41, 3,11,20,35		
2″	54,36,18,33, 0,22,53,42, 1,37		3,59,31,30, 1	
		52, 4,37, 3,39,50,34		3,48
4″	54,36,19,25, 4,59,57,21,52,11		3,59,31,33,49	
		52, 4,33, 4, 8,16,45		3,48
6″	54,36,20,17, 9,33, 1,30, 8,56		3,59,31,37,37	
		52, 4,29, 4,36,39, 8		3,48
8″	54,36,21, 9,14, 2, 6, 6,48, 4		3,59,31,41,25	
		52, 4,25, 5, 4,57,43		3,48
10″	54,36,22, 1,18,27,11,11,45,47		3,59,31,45,13	
		52, 4,21, 5,33,12,30		3,48
12″	54,36,22,53,22,48,16,44,58,17		3,59,31,49, 1	
		52, 4,17, 6, 1,23,29		3,48
14″	54,36,23,45,27, 5,22,46,21,46		3,59,31,52,49	
		52, 4,13, 6,29,30,40		3,48
16″	54,36,24,37,31,18,29,15,52,26		3,59,31,56,37	
		52, 4, 9, 6,57,34, 3		3,48
18″	54,36,25,29,35,27,36,13,26,29		3,59,32, 0,25	
		52, 4, 5, 7,25,33,38		3,48
20″	54,36,26,21,39,32,43,39, 0, 7		3,59,32, 4,13	
		52, 4, 1, 7,53,29,25		3,48
22″	54,36,27,13,43,33,51,32,29,32		3,59,32, 8, 1	
		52, 3,57, 8,21,21,24		3,48
24″	54,36,28, 5,47,30,59,53,50,56		3,59,32,11,49	
		52, 3,53, 8,49, 9,35		3,48
26″	54,36,28,57,51,24, 8,43, 0,31		3,59,32,15,37	
		52, 3,49, 9,16,53,58		3,48
28″	54,36,29,49,55,13,17,59,54,29		3,59,32,19,25	
		52, 3,45, 9,44,34,33		3,48
30″	54,36,30,41,58,58,27,44,29, 2		3,59,32,23,13	
		52, 3,41,10,12,11,20		3,48
32″	54,36,31,34, 2,39,37,56,40,22		3,59,32,27, 1	
		52, 3,37,10,39,44,19		3,48
34″	54,36,32,26, 6,16,48,36,24,41		3,59,32,30,49	
		52, 3,33,11, 7,13,30		3,48
36″	54,36,33,18, 9,49,59,43,38,11		3,59,32,34,37	
		52, 3,29,11,34,38,53		3,48
38″	54,36,34,10,13,19,11,18,17, 4		3,59,32,38,25	
		52, 3,25,12, 2, 0,28		3,48
40″	54,36,35, 2,16,44,23,20,17,32		3,59,32,42,13	
		52, 3,21,12,29,18,15		3,48
42″	54,36,35,54,20, 5,35,49,35,47		3,59,32,46, 1	
		52, 3,17,12,56,32,14		3,48
44″	54,36,36,46,23,22,48,46, 8, 1		3,59,32,49,49	
		52, 3,13,13,23,42,25		3,48
46″	54,36,37,38,26,36, 2, 9,50,26		3,59,32,53,37	
		52, 3, 9,13,50,48,48		3,48
48″	54,36,38,30,29,45,16, 0,39,14		3,59,32,57,25	
		52, 3, 5,14,17,51,23		3,48
50″	54,36,39,22,32,50,30,18,30,37		3,59,33, 1,13	
		52, 3, 1,14,44,50,10		3,48
52″	54,36,40,14,35,51,45, 3,20,47		3,59,33, 5, 1	
		52, 2,57,15,11,45, 9		3,48
54″	54,36,41, 6,38,49, 0,15, 5,56		3,59,33, 8,49	
		52, 2,53,15,38,36,20		3,48
56″	54,36,41,58,41,42,15,53,42,16		3,59,33,12,37	
		52, 2,49,16, 5,23,43		3,48
58″	54,36,42,50,44,31,31,59, 5,59		3,59,33,16,25	
		52, 2,45,16,32, 7,18		
60″	54,36,43,42,47,16,48,31,13,17			
exact	54,36,43,42,47,16,48,30,48,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°32′ 0″	54,36,43,42,47,16,48,30,48,51			
		52, 2,41,16,58,44,27		
2″	54,36,44,34,49,58, 5,29,33,18		3,59,33,24,12	
		52, 2,37,17,25,20,15		3,48
4″	54,36,45,26,52,35,22,54,53,33		3,59,33,28, 0	
		52, 2,33,17,51,52,15		3,48
6″	54,36,46,18,55, 8,40,46,45,48		3,59,33,31,48	
		52, 2,29,18,18,20,27		3,48
8″	54,36,47,10,57,37,59, 5, 6,15		3,59,33,35,36	
		52, 2,25,18,44,44,51		3,48
10″	54,36,48, 3, 0, 3,17,49,51, 6		3,59,33,39,24	
		52, 2,21,19,11, 5,27		3,48
12″	54,36,48,55, 2,24,37, 0,56,33		3,59,33,43,12	
		52, 2,17,19,37,22,15		3,48
14″	54,36,49,47, 4,41,56,38,18,48		3,59,33,47, 0	
		52, 2,13,20, 3,35,15		3,48
16″	54,36,50,39, 6,55,16,41,54, 3		3,59,33,50,48	
		52, 2, 9,20,29,44,27		3,48
18″	54,36,51,31, 9, 4,37,11,38,30		3,59,33,54,36	
		52, 2, 5,20,55,49,51		3,48
20″	54,36,52,23,11, 9,58, 7,28,21		3,59,33,58,24	
		52, 2, 1,21,21,51,27		3,48
22″	54,36,53,15,13,11,19,29,19,48		3,59,34, 2,12	
		52, 1,57,21,47,49,15		3,48
24″	54,36,54, 7,15, 8,41,17, 9, 3		3,59,34, 6, 0	
		52, 1,53,22,13,43,15		3,48
26″	54,36,54,59,17, 2, 3,30,52,18		3,59,34, 9,48	
		52, 1,49,22,39,33,27		3,48
28″	54,36,55,51,18,51,26,10,25,45		3,59,34,13,36	
		52, 1,45,23, 5,19,51		3,48
30″	54,36,56,43,20,36,49,15,45,36		3,59,34,17,24	
		52, 1,41,23,31, 2,27		3,48
32″	54,36,57,35,22,18,12,46,48, 3		3,59,34,21,12	
		52, 1,37,23,56,41,15		3,48
34″	54,36,58,27,23,55,36,43,29,18		3,59,34,25, 0	
		52, 1,33,24,22,16,15		3,48
36″	54,36,59,19,25,29, 1, 5,45,33		3,59,34,28,48	
		52, 1,29,24,47,47,27		3,48
38″	54,37, 0,11,26,58,25,53,33, 0		3,59,34,32,36	
		52, 1,25,25,13,14,51		3,48
40″	54,37, 1, 3,28,23,51, 6,47,51		3,59,34,36,24	
		52, 1,21,25,38,38,27		3,48
42″	54,37, 1,55,29,45,16,45,26,18		3,59,34,40,12	
		52, 1,17,26, 3,58,15		3,48
44″	54,37, 2,47,31, 2,42,49,24,33		3,59,34,44, 0	
		52, 1,13,26,29,14,15		3,48
46″	54,37, 3,39,32,16, 9,18,38,48		3,59,34,47,48	
		52, 1, 9,26,54,26,27		3,48
48″	54,37, 4,31,33,25,36,13, 5,15		3,59,34,51,36	
		52, 1, 5,27,19,34,51		3,48
50″	54,37, 5,23,34,31, 3,32,40, 6		3,59,34,55,24	
		52, 1, 1,27,44,39,27		3,48
52″	54,37, 6,15,35,32,31,17,19,33		3,59,34,59,12	
		52, 0,57,28, 9,40,15		3,48
54″	54,37, 7, 7,36,29,59,26,59,48		3,59,35, 3, 0	
		52, 0,53,28,34,37,15		3,48
56″	54,37, 7,59,37,23,28, 1,37, 3		3,59,35, 6,48	
		52, 0,49,28,59,30,27		3,48
58″	54,37, 8,51,38,12,57, 1, 7,30		3,59,35,10,36	
		52, 0,45,29,24,19,51		
60″	54,37, 9,43,38,58,26,25,27,21			
exact	54,37, 9,43,38,58,26,25,13,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°33′ 0″	54,37, 9,43,38,58,26,25,13,10			
		52, 0,41,29,49, 3,54		
2″	54,37,10,35,39,39,56,14,17, 4		3,59,35,18,18	
		52, 0,37,30,13,45,36		3,48
4″	54,37,11,27,40,17,26,28, 2,40		3,59,35,22, 6	
		52, 0,33,30,38,23,30		3,48
6″	54,37,12,19,40,50,57, 6,26,10		3,59,35,25,54	
		52, 0,29,31, 2,57,36		3,48
8″	54,37,13,11,41,20,28, 9,23,46		3,59,35,29,42	
		52, 0,25,31,27,27,54		3,48
10″	54,37,14, 3,41,45,59,36,51,40		3,59,35,33,30	
		52, 0,21,31,51,54,24		3,48
12″	54,37,14,55,42, 7,31,28,46, 4		3,59,35,37,18	
		52, 0,17,32,16,17, 6		3,48
14″	54,37,15,47,42,25, 3,45, 3,10		3,59,35,41, 6	
		52, 0,13,32,40,36, 0		3,48
16″	54,37,16,39,42,38,36,25,39,10		3,59,35,44,54	
		52, 0, 9,33, 4,51, 6		3,48
18″	54,37,17,31,42,48, 9,30,30,16		3,59,35,48,42	
		52, 0, 5,33,29, 2,24		3,48
20″	54,37,18,23,42,53,42,59,32,40		3,59,35,52,30	
		52, 0, 1,33,53, 9,54		3,48
22″	54,37,19,15,42,55,16,52,42,34		3,59,35,56,18	
		51,59,57,34,17,13,36		3,48
24″	54,37,20, 7,42,52,51, 9,56,10		3,59,36, 0, 6	
		51,59,53,34,41,13,30		3,48
26″	54,37,20,59,42,46,25,51, 9,40		3,59,36, 3,54	
		51,59,49,35, 5, 9,36		3,48
28″	54,37,21,51,42,36, 0,56,19,16		3,59,36, 7,42	
		51,59,45,35,29, 1,54		3,48
30″	54,37,22,43,42,21,36,25,21,10		3,59,36,11,30	
		51,59,41,35,52,50,24		3,48
32″	54,37,23,35,42, 3,12,18,11,34		3,59,36,15,18	
		51,59,37,36,16,35, 6		3,48
34″	54,37,24,27,41,40,48,34,46,40		3,59,36,19, 6	
		51,59,33,36,40,16, 0		3,48
36″	54,37,25,19,41,14,25,15, 2,40		3,59,36,22,54	
		51,59,29,37, 3,53, 6		3,48
38″	54,37,26,11,40,44, 2,18,55,46		3,59,36,26,42	
		51,59,25,37,27,26,24		3,48
40″	54,37,27, 3,40, 9,39,46,22,10		3,59,36,30,30	
		51,59,21,37,50,55,54		3,48
42″	54,37,27,55,39,31,17,37,18, 4		3,59,36,34,18	
		51,59,17,38,14,21,36		3,48
44″	54,37,28,47,38,48,55,51,39,40		3,59,36,38, 6	
		51,59,13,38,37,43,30		3,48
46″	54,37,29,39,38, 2,34,29,23,10		3,59,36,41,54	
		51,59, 9,39, 1, 1,36		3,48
48″	54,37,30,31,37,12,13,30,24,46		3,59,36,45,42	
		51,59, 5,39,24,15,54		3,48
50″	54,37,31,23,36,17,52,54,40,40		3,59,36,49,30	
		51,59, 1,39,47,26,24		3,48
52″	54,37,32,15,35,19,32,42, 7, 4		3,59,36,53,18	
		51,58,57,40,10,33, 6		3,48
54″	54,37,33, 7,34,17,12,52,40,10		3,59,36,57, 6	
		51,58,53,40,33,36, 0		3,48
56″	54,37,33,59,33,10,53,26,16,10		3,59,37, 0,54	
		51,58,49,40,56,35, 6		3,48
58″	54,37,34,51,32, 0,34,22,51,16		3,59,37, 4,42	
		51,58,45,41,19,30,24		
60″	54,37,35,43,30,46,15,42,21,40			
exact	54,37,35,43,30,46,15,42,13,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°34′ 0″	54,37,35,43,30,46,15,42,13,25			
		51,58,41,41,42,21, 8		
2″	54,37,36,35,29,27,57,24,34,33		3,59,37,12,20	
		51,58,37,42, 5, 8,48		3,48
4″	54,37,37,27,28, 5,39,29,43,21		3,59,37,16, 8	
		51,58,33,42,27,52,40		3,48
6″	54,37,38,19,26,39,21,57,36, 1		3,59,37,19,56	
		51,58,29,42,50,32,44		3,48
8″	54,37,39,11,25, 9, 4,48, 8,45		3,59,37,23,44	
		51,58,25,43,13, 9, 0		3,48
10″	54,37,40, 3,23,34,48, 1,17,45		3,59,37,27,32	
		51,58,21,43,35,41,28		3,48
12″	54,37,40,55,21,56,31,36,59,13		3,59,37,31,20	
		51,58,17,43,58,10, 8		3,48
14″	54,37,41,47,20,14,15,35, 9,21		3,59,37,35, 8	
		51,58,13,44,20,35, 0		3,48
16″	54,37,42,39,18,27,59,55,44,21		3,59,37,38,56	
		51,58, 9,44,42,56, 4		3,48
18″	54,37,43,31,16,37,44,38,40,25		3,59,37,42,44	
		51,58, 5,45, 5,13,20		3,48
20″	54,37,44,23,14,43,29,43,53,45		3,59,37,46,32	
		51,58, 1,45,27,26,48		3,48
22″	54,37,45,15,12,45,15,11,20,33		3,59,37,50,20	
		51,57,57,45,49,36,28		3,48
24″	54,37,46, 7,10,43, 1, 0,57, 1		3,59,37,54, 8	
		51,57,53,46,11,42,20		3,48
26″	54,37,46,59, 8,36,47,12,39,21		3,59,37,57,56	
		51,57,49,46,33,44,24		3,48
28″	54,37,47,51, 6,26,33,46,23,45		3,59,38, 1,44	
		51,57,45,46,55,42,40		3,48
30″	54,37,48,43, 4,12,20,42, 6,25		3,59,38, 5,32	
		51,57,41,47,17,37, 8		3,48
32″	54,37,49,35, 1,54, 7,59,43,33		3,59,38, 9,20	
		51,57,37,47,39,27,48		3,48
34″	54,37,50,26,59,31,55,39,11,21		3,59,38,13, 8	
		51,57,33,48, 1,14,40		3,48
36″	54,37,51,18,57, 5,43,40,26, 1		3,59,38,16,56	
		51,57,29,48,22,57,44		3,48
38″	54,37,52,10,54,35,32, 3,23,45		3,59,38,20,44	
		51,57,25,48,44,37, 0		3,48
40″	54,37,53, 2,52, 1,20,48, 0,45		3,59,38,24,32	
		51,57,21,49, 6,12,28		3,48
42″	54,37,53,54,49,23, 9,54,13,13		3,59,38,28,20	
		51,57,17,49,27,44, 8		3,48
44″	54,37,54,46,46,40,59,21,57,21		3,59,38,32, 8	
		51,57,13,49,49,12, 0		3,48
46″	54,37,55,38,43,54,49,11, 9,21		3,59,38,35,56	
		51,57, 9,50,10,36, 4		3,48
48″	54,37,56,30,41, 4,39,21,45,25		3,59,38,39,44	
		51,57, 5,50,31,56,20		3,48
50″	54,37,57,22,38,10,29,53,41,45		3,59,38,43,32	
		51,57, 1,50,53,12,48		3,48
52″	54,37,58,14,35,12,20,46,54,33		3,59,38,47,20	
		51,56,57,51,14,25,28		3,48
54″	54,37,59, 6,32,10,12, 1,20, 1		3,59,38,51, 8	
		51,56,53,51,35,34,20		3,48
56″	54,37,59,58,29, 4, 3,36,54,21		3,59,38,54,56	
		51,56,49,51,56,39,24		3,48
58″	54,38, 0,50,25,53,55,33,33,45		3,59,38,58,44	
		51,56,45,52,17,40,40		
60″	54,38, 1,42,22,39,47,51,14,25			
exact	54,38, 1,42,22,39,47,51,14,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°35′ 0″	54,38, 1,42,22,39,47,51,14,43			
		51,56,41,52,38,38,20		
2″	54,38, 2,34,19,21,40,29,53, 3		3,59,39, 6,18	
		51,56,37,52,59,32, 2		3,48
4″	54,38, 3,26,15,59,33,29,25, 5		3,59,39,10, 6	
		51,56,33,53,20,21,56		3,48
6″	54,38, 4,18,12,33,26,49,47, 1		3,59,39,13,54	
		51,56,29,53,41, 8, 2		3,48
8″	54,38, 5,10, 9, 3,20,30,55, 3		3,59,39,17,42	
		51,56,25,54, 1,50,20		3,48
10″	54,38, 6, 2, 5,29,14,32,45,23		3,59,39,21,30	
		51,56,21,54,22,28,50		3,48
12″	54,38, 6,54, 1,51, 8,55,14,13		3,59,39,25,18	
		51,56,17,54,43, 3,32		3,48
14″	54,38, 7,45,58, 9, 3,38,17,45		3,59,39,29, 6	
		51,56,13,55, 3,34,26		3,48
16″	54,38, 8,37,54,22,58,41,52,11		3,59,39,32,54	
		51,56, 9,55,24, 1,32		3,48
18″	54,38, 9,29,50,32,54, 5,53,43		3,59,39,36,42	
		51,56, 5,55,44,24,50		3,48
20″	54,38,10,21,46,38,49,50,18,33		3,59,39,40,30	
		51,56, 1,56, 4,44,20		3,48
22″	54,38,11,13,42,40,45,55, 2,53		3,59,39,44,18	
		51,55,57,56,25, 0, 2		3,48
24″	54,38,12, 5,38,38,42,20, 2,55		3,59,39,48, 6	
		51,55,53,56,45,11,56		3,48
26″	54,38,12,57,34,32,39, 5,14,51		3,59,39,51,54	
		51,55,49,57, 5,20, 2		3,48
28″	54,38,13,49,30,22,36,10,34,53		3,59,39,55,42	
		51,55,45,57,25,24,20		3,48
30″	54,38,14,41,26, 8,33,35,59,13		3,59,39,59,30	
		51,55,41,57,45,24,50		3,48
32″	54,38,15,33,21,50,31,21,24, 3		3,59,40, 3,18	
		51,55,37,58, 5,21,32		3,48
34″	54,38,16,25,17,28,29,26,45,35		3,59,40, 7, 6	
		51,55,33,58,25,14,26		3,48
36″	54,38,17,17,13, 2,27,52, 0, 1		3,59,40,10,54	
		51,55,29,58,45, 3,32		3,48
38″	54,38,18, 9, 8,32,26,37, 3,33		3,59,40,14,42	
		51,55,25,59, 4,48,50		3,48
40″	54,38,19, 1, 3,58,25,41,52,23		3,59,40,18,30	
		51,55,21,59,24,30,20		3,48
42″	54,38,19,52,59,20,25, 6,22,43		3,59,40,22,18	
		51,55,17,59,44, 8, 2		3,48
44″	54,38,20,44,54,38,24,50,30,45		3,59,40,26, 6	
		51,55,14, 0, 3,41,56		3,48
46″	54,38,21,36,49,52,24,54,12,41		3,59,40,29,54	
		51,55,10, 0,23,12, 2		3,48
48″	54,38,22,28,45, 2,25,17,24,43		3,59,40,33,42	
		51,55, 6, 0,42,38,20		3,48
50″	54,38,23,20,40, 8,26, 0, 3, 3		3,59,40,37,30	
		51,55, 2, 1, 2, 0,50		3,48
52″	54,38,24,12,35,10,27, 2, 3,53		3,59,40,41,18	
		51,54,58, 1,21,19,32		3,48
54″	54,38,25, 4,30, 8,28,23,23,25		3,59,40,45, 6	
		51,54,54, 1,40,34,26		3,48
56″	54,38,25,56,25, 2,30, 3,57,51		3,59,40,48,54	
		51,54,50, 1,59,45,32		3,48
58″	54,38,26,48,19,52,32, 3,43,23		3,59,40,52,42	
		51,54,46, 2,18,52,50		
60″	54,38,27,40,14,38,34,22,36,13			
exact	54,38,27,40,14,38,34,22,47,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°36′ 0″	54,38,27,40,14,38,34,22,47,51			
		51,54,42, 2,37,57,42		
2″	54,38,28,32, 9,20,37, 0,45,33		3,59,41, 0,12	
		51,54,38, 2,56,57,30		3,48
4″	54,38,29,24, 3,58,39,57,43, 3		3,59,41, 4, 0	
		51,54,34, 3,15,53,30		3,48
6″	54,38,30,15,58,32,43,13,36,33		3,59,41, 7,48	
		51,54,30, 3,34,45,42		3,48
8″	54,38,31, 7,53, 2,46,48,22,15		3,59,41,11,36	
		51,54,26, 3,53,34, 6		3,48
10″	54,38,31,59,47,28,50,41,56,21		3,59,41,15,24	
		51,54,22, 4,12,18,42		3,48
12″	54,38,32,51,41,50,54,54,15, 3		3,59,41,19,12	
		51,54,18, 4,30,59,30		3,48
14″	54,38,33,43,36, 8,59,25,14,33		3,59,41,23, 0	
		51,54,14, 4,49,36,30		3,48
16″	54,38,34,35,30,23, 4,14,51, 3		3,59,41,26,48	
		51,54,10, 5, 8, 9,42		3,48
18″	54,38,35,27,24,33, 9,23, 0,45		3,59,41,30,36	
		51,54, 6, 5,26,39, 6		3,48
20″	54,38,36,19,18,39,14,49,39,51		3,59,41,34,24	
		51,54, 2, 5,45, 4,42		3,48
22″	54,38,37,11,12,41,20,34,44,33		3,59,41,38,12	
		51,53,58, 6, 3,26,30		3,48
24″	54,38,38, 3, 6,39,26,38,11, 3		3,59,41,42, 0	
		51,53,54, 6,21,44,30		3,48
26″	54,38,38,55, 0,33,32,59,55,33		3,59,41,45,48	
		51,53,50, 6,39,58,42		3,48
28″	54,38,39,46,54,23,39,39,54,15		3,59,41,49,36	
		51,53,46, 6,58, 9, 6		3,48
30″	54,38,40,38,48, 9,46,38, 3,21		3,59,41,53,24	
		51,53,42, 7,16,15,42		3,48
32″	54,38,41,30,41,51,53,54,19, 3		3,59,41,57,12	
		51,53,38, 7,34,18,30		3,48
34″	54,38,42,22,35,30, 1,28,37,33		3,59,42, 1, 0	
		51,53,34, 7,52,17,30		3,48
36″	54,38,43,14,29, 4, 9,20,55, 3		3,59,42, 4,48	
		51,53,30, 8,10,12,42		3,48
38″	54,38,44, 6,22,34,17,31, 7,45		3,59,42, 8,36	
		51,53,26, 8,28, 4, 6		3,48
40″	54,38,44,58,16, 0,25,59,11,51		3,59,42,12,24	
		51,53,22, 8,45,51,42		3,48
42″	54,38,45,50, 9,22,34,45, 3,33		3,59,42,16,12	
		51,53,18, 9, 3,35,30		3,48
44″	54,38,46,42, 2,40,43,48,39, 3		3,59,42,20, 0	
		51,53,14, 9,21,15,30		3,48
46″	54,38,47,33,55,54,53, 9,54,33		3,59,42,23,48	
		51,53,10, 9,38,51,42		3,48
48″	54,38,48,25,49, 5, 2,48,46,15		3,59,42,27,36	
		51,53, 6, 9,56,24, 6		3,48
50″	54,38,49,17,42,11,12,45,10,21		3,59,42,31,24	
		51,53, 2,10,13,52,42		3,48
52″	54,38,50, 9,35,13,22,59, 3, 3		3,59,42,35,12	
		51,52,58,10,31,17,30		3,48
54″	54,38,51, 1,28,11,33,30,20,33		3,59,42,39, 0	
		51,52,54,10,48,38,30		3,48
56″	54,38,51,53,21, 5,44,18,59, 3		3,59,42,42,48	
		51,52,50,11, 5,55,42		3,48
58″	54,38,52,45,13,55,55,24,54,45		3,59,42,46,36	
		51,52,46,11,23, 9, 6		
60″	54,38,53,37, 6,42, 6,48, 3,51			
exact	54,38,53,37, 6,42, 6,48,29,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°37′ 0″	54,38,53,37, 6,42, 6,48,29,21			
		51,52,42,11,40,21,24		
2″	54,38,54,28,59,24,18,28,50,45		3,59,42,54, 1	
		51,52,38,11,57,27,23		3,48
4″	54,38,55,20,52, 2,30,26,18, 8		3,59,42,57,49	
		51,52,34,12,14,29,34		3,48
6″	54,38,56,12,44,36,42,40,47,42		3,59,43, 1,37	
		51,52,30,12,31,27,57		3,48
8″	54,38,57, 4,37, 6,55,12,15,39		3,59,43, 5,25	
		51,52,26,12,48,22,32		3,48
10″	54,38,57,56,29,33, 8, 0,38,11		3,59,43, 9,13	
		51,52,22,13, 5,13,19		3,48
12″	54,38,58,48,21,55,21, 5,51,30		3,59,43,13, 1	
		51,52,18,13,22, 0,18		3,48
14″	54,38,59,40,14,13,34,27,51,48		3,59,43,16,49	
		51,52,14,13,38,43,29		3,48
16″	54,39, 0,32, 6,27,48, 6,35,17		3,59,43,20,37	
		51,52,10,13,55,22,52		3,48
18″	54,39, 1,23,58,38, 2, 1,58, 9		3,59,43,24,25	
		51,52, 6,14,11,58,27		3,48
20″	54,39, 2,15,50,44,16,13,56,36		3,59,43,28,13	
		51,52, 2,14,28,30,14		3,48
22″	54,39, 3, 7,42,46,30,42,26,50		3,59,43,32, 1	
		51,51,58,14,44,58,13		3,48
24″	54,39, 3,59,34,44,45,27,25, 3		3,59,43,35,49	
		51,51,54,15, 1,22,24		3,48
26″	54,39, 4,51,26,39, 0,28,47,27		3,59,43,39,37	
		51,51,50,15,17,42,47		3,48
28″	54,39, 5,43,18,29,15,46,30,14		3,59,43,43,25	
		51,51,46,15,33,59,22		3,48
30″	54,39, 6,35,10,15,31,20,29,36		3,59,43,47,13	
		51,51,42,15,50,12, 9		3,48
32″	54,39, 7,27, 1,57,47,10,41,45		3,59,43,51, 1	
		51,51,38,16, 6,21, 8		3,48
34″	54,39, 8,18,53,36, 3,17, 2,53		3,59,43,54,49	
		51,51,34,16,22,26,19		3,48
36″	54,39, 9,10,45,10,19,39,29,12		3,59,43,58,37	
		51,51,30,16,38,27,42		3,48
38″	54,39,10, 2,36,40,36,17,56,54		3,59,44, 2,25	
		51,51,26,16,54,25,17		3,48
40″	54,39,10,54,28, 6,53,12,22,11		3,59,44, 6,13	
		51,51,22,17,10,19, 4		3,48
42″	54,39,11,46,19,29,10,22,41,15		3,59,44,10, 1	
		51,51,18,17,26, 9, 3		3,48
44″	54,39,12,38,10,47,27,48,50,18		3,59,44,13,49	
		51,51,14,17,41,55,14		3,48
46″	54,39,13,30, 2, 1,45,30,45,32		3,59,44,17,37	
		51,51,10,17,57,37,37		3,48
48″	54,39,14,21,53,12, 3,28,23, 9		3,59,44,21,25	
		51,51, 6,18,13,16,12		3,48
50″	54,39,15,13,44,18,21,41,39,21		3,59,44,25,13	
		51,51, 2,18,28,50,59		3,48
52″	54,39,16, 5,35,20,40,10,30,20		3,59,44,29, 1	
		51,50,58,18,44,21,58		3,48
54″	54,39,16,57,26,18,58,54,52,18		3,59,44,32,49	
		51,50,54,18,59,49, 9		3,48
56″	54,39,17,49,17,13,17,54,41,27		3,59,44,36,37	
		51,50,50,19,15,12,32		3,48
58″	54,39,18,41, 8, 3,37, 9,53,59		3,59,44,40,25	
		51,50,46,19,30,32, 7		
60″	54,39,19,32,58,49,56,40,26, 6			
exact	54,39,19,32,58,49,56,41, 1,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°38′ 0″	54,39,19,32,58,49,56,41, 1,25			
		51,50,42,19,45,51,39		
2″	54,39,20,24,49,32,16,26,53, 4		3,59,44,47,45	
		51,50,38,20, 1, 3,54		3,47
4″	54,39,21,16,40,10,36,27,56,58		3,59,44,51,32	
		51,50,34,20,16,12,22		3,47
6″	54,39,22, 8,30,44,56,44, 9,20		3,59,44,55,19	
		51,50,30,20,31,17, 3		3,47
8″	54,39,23, 0,21,15,17,15,26,23		3,59,44,59, 6	
		51,50,26,20,46,17,57		3,47
10″	54,39,23,52,11,41,38, 1,44,20		3,59,45, 2,53	
		51,50,22,21, 1,15, 4		3,47
12″	54,39,24,44, 2, 3,59, 2,59,24		3,59,45, 6,40	
		51,50,18,21,16, 8,24		3,47
14″	54,39,25,35,52,22,20,19, 7,48		3,59,45,10,27	
		51,50,14,21,30,57,57		3,47
16″	54,39,26,27,42,36,41,50, 5,45		3,59,45,14,14	
		51,50,10,21,45,43,43		3,47
18″	54,39,27,19,32,47, 3,35,49,28		3,59,45,18, 1	
		51,50, 6,22, 0,25,42		3,47
20″	54,39,28,11,22,53,25,36,15,10		3,59,45,21,48	
		51,50, 2,22,15, 3,54		3,47
22″	54,39,29, 3,12,55,47,51,19, 4		3,59,45,25,35	
		51,49,58,22,29,38,19		3,47
24″	54,39,29,55, 2,54,10,20,57,23		3,59,45,29,22	
		51,49,54,22,44, 8,57		3,47
26″	54,39,30,46,52,48,33, 5, 6,20		3,59,45,33, 9	
		51,49,50,22,58,35,48		3,47
28″	54,39,31,38,42,38,56, 3,42, 8		3,59,45,36,56	
		51,49,46,23,12,58,52		3,47
30″	54,39,32,30,32,25,19,16,41, 0		3,59,45,40,43	
		51,49,42,23,27,18, 9		3,47
32″	54,39,33,22,22, 7,42,43,59, 9		3,59,45,44,30	
		51,49,38,23,41,33,39		3,47
34″	54,39,34,14,11,46, 6,25,32,48		3,59,45,48,17	
		51,49,34,23,55,45,22		3,47
36″	54,39,35, 6, 1,20,30,21,18,10		3,59,45,52, 4	
		51,49,30,24, 9,53,18		3,47
38″	54,39,35,57,50,50,54,31,11,28		3,59,45,55,51	
		51,49,26,24,23,57,27		3,47
40″	54,39,36,49,40,17,18,55, 8,55		3,59,45,59,38	
		51,49,22,24,37,57,49		3,47
42″	54,39,37,41,29,39,43,33, 6,44		3,59,46, 3,25	
		51,49,18,24,51,54,24		3,47
44″	54,39,38,33,18,58, 8,25, 1, 8		3,59,46, 7,12	
		51,49,14,25, 5,47,12		3,47
46″	54,39,39,25, 8,12,33,30,48,20		3,59,46,10,59	
		51,49,10,25,19,36,13		3,47
48″	54,39,40,16,57,22,58,50,24,33		3,59,46,14,46	
		51,49, 6,25,33,21,27		3,47
50″	54,39,41, 8,46,29,24,23,46, 0		3,59,46,18,33	
		51,49, 2,25,47, 2,54		3,47
52″	54,39,42, 0,35,31,50,10,48,54		3,59,46,22,20	
		51,48,58,26, 0,40,34		3,47
54″	54,39,42,52,24,30,16,11,29,28		3,59,46,26, 7	
		51,48,54,26,14,14,27		3,47
56″	54,39,43,44,13,24,42,25,43,55		3,59,46,29,54	
		51,48,50,26,27,44,33		3,47
58″	54,39,44,36, 2,15, 8,53,28,28		3,59,46,33,41	
		51,48,46,26,41,10,52		
60″	54,39,45,27,51, 1,35,34,39,20			
exact	54,39,45,27,51, 1,35,34,12, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°39′ 0″	54,39,45,27,51, 1,35,34,12, 0			
		51,48,42,26,54,30,37		
2″	54,39,46,19,39,44, 2,28,42,37		3,59,46,41,25	
		51,48,38,27, 7,49,12		3,47
4″	54,39,47,11,28,22,29,36,31,49		3,59,46,45,12	
		51,48,34,27,21, 4, 0		3,47
6″	54,39,48, 3,16,56,56,57,35,49		3,59,46,48,59	
		51,48,30,27,34,15, 1		3,47
8″	54,39,48,55, 5,27,24,31,50,50		3,59,46,52,46	
		51,48,26,27,47,22,15		3,47
10″	54,39,49,46,53,53,52,19,13, 5		3,59,46,56,33	
		51,48,22,28, 0,25,42		3,47
12″	54,39,50,38,42,16,20,19,38,47		3,59,47, 0,20	
		51,48,18,28,13,25,22		3,47
14″	54,39,51,30,30,34,48,33, 4, 9		3,59,47, 4, 7	
		51,48,14,28,26,21,15		3,47
16″	54,39,52,22,18,49,16,59,25,24		3,59,47, 7,54	
		51,48,10,28,39,13,21		3,47
18″	54,39,53,14, 6,59,45,38,38,45		3,59,47,11,41	
		51,48, 6,28,52, 1,40		3,47
20″	54,39,54, 5,55, 6,14,30,40,25		3,59,47,15,28	
		51,48, 2,29, 4,46,12		3,47
22″	54,39,54,57,43, 8,43,35,26,37		3,59,47,19,15	
		51,47,58,29,17,26,57		3,47
24″	54,39,55,49,31, 7,12,52,53,34		3,59,47,23, 2	
		51,47,54,29,30, 3,55		3,47
26″	54,39,56,41,19, 1,42,22,57,29		3,59,47,26,49	
		51,47,50,29,42,37, 6		3,47
28″	54,39,57,33, 6,52,12, 5,34,35		3,59,47,30,36	
		51,47,46,29,55, 6,30		3,47
30″	54,39,58,24,54,38,42, 0,41, 5		3,59,47,34,23	
		51,47,42,30, 7,32, 7		3,47
32″	54,39,59,16,42,21,12, 8,13,12		3,59,47,38,10	
		51,47,38,30,19,53,57		3,47
34″	54,40, 0, 8,29,59,42,28, 7, 9		3,59,47,41,57	
		51,47,34,30,32,12, 0		3,47
36″	54,40, 1, 0,17,34,13, 0,19, 9		3,59,47,45,44	
		51,47,30,30,44,26,16		3,47
38″	54,40, 1,52, 5, 4,43,44,45,25		3,59,47,49,31	
		51,47,26,30,56,36,45		3,47
40″	54,40, 2,43,52,31,14,41,22,10		3,59,47,53,18	
		51,47,22,31, 8,43,27		3,47
42″	54,40, 3,35,39,53,45,50, 5,37		3,59,47,57, 5	
		51,47,18,31,20,46,22		3,47
44″	54,40, 4,27,27,12,17,10,51,59		3,59,48, 0,52	
		51,47,14,31,32,45,30		3,47
46″	54,40, 5,19,14,26,48,43,37,29		3,59,48, 4,39	
		51,47,10,31,44,40,51		3,47
48″	54,40, 6,11, 1,37,20,28,18,20		3,59,48, 8,26	
		51,47, 6,31,56,32,25		3,47
50″	54,40, 7, 2,48,43,52,24,50,45		3,59,48,12,13	
		51,47, 2,32, 8,20,12		3,47
52″	54,40, 7,54,35,46,24,33,10,57		3,59,48,16, 0	
		51,46,58,32,20, 4,12		3,47
54″	54,40, 8,46,22,44,56,53,15, 9		3,59,48,19,47	
		51,46,54,32,31,44,25		3,47
56″	54,40, 9,38, 9,39,29,24,59,34		3,59,48,23,34	
		51,46,50,32,43,20,51		3,47
58″	54,40,10,29,56,30, 2, 8,20,25		3,59,48,27,21	
		51,46,46,32,54,53,30		
60″	54,40,11,21,43,16,35, 3,13,55			
exact	54,40,11,21,43,16,35, 2,54,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°40′ 0″	54,40,11,21,43,16,35, 2,54,44			
		51,46,42,33, 6,20,31		
2″	54,40,12,13,29,59, 8, 9,15,15		3,59,48,35, 1	
		51,46,38,33,17,45,30		3,47
4″	54,40,13, 5,16,37,41,27, 0,45		3,59,48,38,48	
		51,46,34,33,29, 6,42		3,47
6″	54,40,13,57, 3,12,14,56, 7,27		3,59,48,42,35	
		51,46,30,33,40,24, 7		3,47
8″	54,40,14,48,49,42,48,36,31,34		3,59,48,46,22	
		51,46,26,33,51,37,45		3,47
10″	54,40,15,40,36, 9,22,28, 9,19		3,59,48,50, 9	
		51,46,22,34, 2,47,36		3,47
12″	54,40,16,32,22,31,56,30,56,55		3,59,48,53,56	
		51,46,18,34,13,53,40		3,47
14″	54,40,17,24, 8,50,30,44,50,35		3,59,48,57,43	
		51,46,14,34,24,55,57		3,47
16″	54,40,18,15,55, 5, 5, 9,46,32		3,59,49, 1,30	
		51,46,10,34,35,54,27		3,47
18″	54,40,19, 7,41,15,39,45,40,59		3,59,49, 5,17	
		51,46, 6,34,46,49,10		3,47
20″	54,40,19,59,27,22,14,32,30, 9		3,59,49, 9, 4	
		51,46, 2,34,57,40, 6		3,47
22″	54,40,20,51,13,24,49,30,10,15		3,59,49,12,51	
		51,45,58,35, 8,27,15		3,47
24″	54,40,21,42,59,23,24,38,37,30		3,59,49,16,38	
		51,45,54,35,19,10,37		3,47
26″	54,40,22,34,45,17,59,57,48, 7		3,59,49,20,25	
		51,45,50,35,29,50,12		3,47
28″	54,40,23,26,31, 8,35,27,38,19		3,59,49,24,12	
		51,45,46,35,40,26, 0		3,47
30″	54,40,24,18,16,55,11, 8, 4,19		3,59,49,27,59	
		51,45,42,35,50,58, 1		3,47
32″	54,40,25,10, 2,37,46,59, 2,20		3,59,49,31,46	
		51,45,38,36, 1,26,15		3,47
34″	54,40,26, 1,48,16,23, 0,28,35		3,59,49,35,33	
		51,45,34,36,11,50,42		3,47
36″	54,40,26,53,33,50,59,12,19,17		3,59,49,39,20	
		51,45,30,36,22,11,22		3,47
38″	54,40,27,45,19,21,35,34,30,39		3,59,49,43, 7	
		51,45,26,36,32,28,15		3,47
40″	54,40,28,37, 4,48,12, 6,58,54		3,59,49,46,54	
		51,45,22,36,42,41,21		3,47
42″	54,40,29,28,50,10,48,49,40,15		3,59,49,50,41	
		51,45,18,36,52,50,40		3,47
44″	54,40,30,20,35,29,25,42,30,55		3,59,49,54,28	
		51,45,14,37, 2,56,12		3,47
46″	54,40,31,12,20,44, 2,45,27, 7		3,59,49,58,15	
		51,45,10,37,12,57,57		3,47
48″	54,40,32, 4, 5,54,39,58,25, 4		3,59,50, 2, 2	
		51,45, 6,37,22,55,55		3,47
50″	54,40,32,55,51, 1,17,21,20,59		3,59,50, 5,49	
		51,45, 2,37,32,50, 6		3,47
52″	54,40,33,47,36, 3,54,54,11, 5		3,59,50, 9,36	
		51,44,58,37,42,40,30		3,47
54″	54,40,34,39,21, 2,32,36,51,35		3,59,50,13,23	
		51,44,54,37,52,27, 7		3,47
56″	54,40,35,31, 5,57,10,29,18,42		3,59,50,17,10	
		51,44,50,38, 2, 9,57		3,47
58″	54,40,36,22,50,47,48,31,28,39		3,59,50,20,57	
		51,44,46,38,11,49, 0		
60″	54,40,37,14,35,34,26,43,17,39			
exact	54,40,37,14,35,34,26,43, 9, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°41′ 0″	54,40,37,14,35,34,26,43, 9, 2			
		51,44,42,38,21,23,32		
2″	54,40,38, 6,20,17, 5, 4,32,34		3,59,50,28,33	
		51,44,38,38,30,54,59		3,47
4″	54,40,38,58, 4,55,43,35,27,33		3,59,50,32,20	
		51,44,34,38,40,22,39		3,47
6″	54,40,39,49,49,30,22,15,50,12		3,59,50,36, 7	
		51,44,30,38,49,46,32		3,47
8″	54,40,40,41,34, 1, 1, 5,36,44		3,59,50,39,54	
		51,44,26,38,59, 6,38		3,47
10″	54,40,41,33,18,27,40, 4,43,22		3,59,50,43,41	
		51,44,22,39, 8,22,57		3,47
12″	54,40,42,25, 2,50,19,13, 6,19		3,59,50,47,28	
		51,44,18,39,17,35,29		3,47
14″	54,40,43,16,47, 8,58,30,41,48		3,59,50,51,15	
		51,44,14,39,26,44,14		3,47
16″	54,40,44, 8,31,23,37,57,26, 2		3,59,50,55, 2	
		51,44,10,39,35,49,12		3,47
18″	54,40,45, 0,15,34,17,33,15,14		3,59,50,58,49	
		51,44, 6,39,44,50,23		3,47
20″	54,40,45,51,59,40,57,18, 5,37		3,59,51, 2,36	
		51,44, 2,39,53,47,47		3,47
22″	54,40,46,43,43,43,37,11,53,24		3,59,51, 6,23	
		51,43,58,40, 2,41,24		3,47
24″	54,40,47,35,27,42,17,14,34,48		3,59,51,10,10	
		51,43,54,40,11,31,14		3,47
26″	54,40,48,27,11,36,57,26, 6, 2		3,59,51,13,57	
		51,43,50,40,20,17,17		3,47
28″	54,40,49,18,55,27,37,46,23,19		3,59,51,17,44	
		51,43,46,40,28,59,33		3,47
30″	54,40,50,10,39,14,18,15,22,52		3,59,51,21,31	
		51,43,42,40,37,38, 2		3,47
32″	54,40,51, 2,22,56,58,53, 0,54		3,59,51,25,18	
		51,43,38,40,46,12,44		3,47
34″	54,40,51,54, 6,35,39,39,13,38		3,59,51,29, 5	
		51,43,34,40,54,43,39		3,47
36″	54,40,52,45,50,10,20,33,57,17		3,59,51,32,52	
		51,43,30,41, 3,10,47		3,47
38″	54,40,53,37,33,41, 1,37, 8, 4		3,59,51,36,39	
		51,43,26,41,11,34, 8		3,47
40″	54,40,54,29,17, 7,42,48,42,12		3,59,51,40,26	
		51,43,22,41,19,53,42		3,47
42″	54,40,55,21, 0,30,24, 8,35,54		3,59,51,44,13	
		51,43,18,41,28, 9,29		3,47
44″	54,40,56,12,43,49, 5,36,45,23		3,59,51,48, 0	
		51,43,14,41,36,21,29		3,47
46″	54,40,57, 4,27, 3,47,13, 6,52		3,59,51,51,47	
		51,43,10,41,44,29,42		3,47
48″	54,40,57,56,10,14,28,57,36,34		3,59,51,55,34	
		51,43, 6,41,52,34, 8		3,47
50″	54,40,58,47,53,21,10,50,10,42		3,59,51,59,21	
		51,43, 2,42, 0,34,47		3,47
52″	54,40,59,39,36,23,52,50,45,29		3,59,52, 3, 8	
		51,42,58,42, 8,31,39		3,47
54″	54,41, 0,31,19,22,34,59,17, 8		3,59,52, 6,55	
		51,42,54,42,16,24,44		3,47
56″	54,41, 1,23, 2,17,17,15,41,52		3,59,52,10,42	
		51,42,50,42,24,14, 2		3,47
58″	54,41, 2,14,45, 7,59,39,55,54		3,59,52,14,29	
		51,42,46,42,31,59,33		
60″	54,41, 3, 6,27,54,42,11,55,27			
exact	54,41, 3, 6,27,54,42,12, 0, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°42′ 0″	54,41, 3, 6,27,54,42,12, 0, 2			
		51,42,42,42,39,41,51		
2″	54,41, 3,58,10,37,24,51,41,53		3,59,52,22, 0	
		51,42,38,42,47,19,51		3,47
4″	54,41, 4,49,53,16, 7,39, 1,44		3,59,52,25,47	
		51,42,34,42,54,54, 4		3,47
6″	54,41, 5,41,35,50,50,33,55,48		3,59,52,29,34	
		51,42,30,43, 2,24,30		3,47
8″	54,41, 6,33,18,21,33,36,20,18		3,59,52,33,21	
		51,42,26,43, 9,51, 9		3,47
10″	54,41, 7,25, 0,48,16,46,11,27		3,59,52,37, 8	
		51,42,22,43,17,14, 1		3,47
12″	54,41, 8,16,43,11, 0, 3,25,28		3,59,52,40,55	
		51,42,18,43,24,33, 6		3,47
14″	54,41, 9, 8,25,29,43,27,58,34		3,59,52,44,42	
		51,42,14,43,31,48,24		3,47
16″	54,41,10, 0, 7,44,26,59,46,58		3,59,52,48,29	
		51,42,10,43,38,59,55		3,47
18″	54,41,10,51,49,55,10,38,46,53		3,59,52,52,16	
		51,42, 6,43,46, 7,39		3,47
20″	54,41,11,43,32, 1,54,24,54,32		3,59,52,56, 3	
		51,42, 2,43,53,11,36		3,47
22″	54,41,12,35,14, 4,38,18, 6, 8		3,59,52,59,50	
		51,41,58,44, 0,11,46		3,47
24″	54,41,13,26,56, 3,22,18,17,54		3,59,53, 3,37	
		51,41,54,44, 7, 8, 9		3,47
26″	54,41,14,18,37,58, 6,25,26, 3		3,59,53, 7,24	
		51,41,50,44,14, 0,45		3,47
28″	54,41,15,10,19,48,50,39,26,48		3,59,53,11,11	
		51,41,46,44,20,49,34		3,47
30″	54,41,16, 2, 1,35,35, 0,16,22		3,59,53,14,58	
		51,41,42,44,27,34,36		3,47
32″	54,41,16,53,43,18,19,27,50,58		3,59,53,18,45	
		51,41,38,44,34,15,51		3,47
34″	54,41,17,45,24,57, 4, 2, 6,49		3,59,53,22,32	
		51,41,34,44,40,53,19		3,47
36″	54,41,18,37, 6,31,48,43, 0, 8		3,59,53,26,19	
		51,41,30,44,47,27, 0		3,47
38″	54,41,19,28,48, 2,33,30,27, 8		3,59,53,30, 6	
		51,41,26,44,53,56,54		3,47
40″	54,41,20,20,29,29,18,24,24, 2		3,59,53,33,53	
		51,41,22,45, 0,23, 1		3,47
42″	54,41,21,12,10,52, 3,24,47, 3		3,59,53,37,40	
		51,41,18,45, 6,45,21		3,47
44″	54,41,22, 3,52,10,48,31,32,24		3,59,53,41,27	
		51,41,14,45,13, 3,54		3,47
46″	54,41,22,55,33,25,33,44,36,18		3,59,53,45,14	
		51,41,10,45,19,18,40		3,47
48″	54,41,23,47,14,36,19, 3,54,58		3,59,53,49, 1	
		51,41, 6,45,25,29,39		3,47
50″	54,41,24,38,55,43, 4,29,24,37		3,59,53,52,48	
		51,41, 2,45,31,36,51		3,47
52″	54,41,25,30,36,45,50, 1, 1,28		3,59,53,56,35	
		51,40,58,45,37,40,16		3,47
54″	54,41,26,22,17,44,35,38,41,44		3,59,54, 0,22	
		51,40,54,45,43,39,54		3,47
56″	54,41,27,13,58,39,21,22,21,38		3,59,54, 4, 9	
		51,40,50,45,49,35,45		3,47
58″	54,41,28, 5,39,30, 7,11,57,23		3,59,54, 7,56	
		51,40,46,45,55,27,49		
60″	54,41,28,57,20,16,53, 7,25,12			
exact	54,41,28,57,20,16,53, 7,38,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°43′ 0″	54,41,28,57,20,16,53, 7,38,39			
		51,40,42,46, 1,17,39		
2″	54,41,29,49, 0,59,39, 8,56,18		3,59,54,15,23	
		51,40,38,46, 7, 2,16		3,47
4″	54,41,30,40,41,38,25,15,58,34		3,59,54,19,10	
		51,40,34,46,12,43, 6		3,47
6″	54,41,31,32,22,13,11,28,41,40		3,59,54,22,57	
		51,40,30,46,18,20, 9		3,47
8″	54,41,32,24, 2,43,57,47, 1,49		3,59,54,26,44	
		51,40,26,46,23,53,25		3,47
10″	54,41,33,15,43,10,44,10,55,14		3,59,54,30,31	
		51,40,22,46,29,22,54		3,47
12″	54,41,34, 7,23,33,30,40,18, 8		3,59,54,34,18	
		51,40,18,46,34,48,36		3,47
14″	54,41,34,59, 3,52,17,15, 6,44		3,59,54,38, 5	
		51,40,14,46,40,10,31		3,47
16″	54,41,35,50,44, 7, 3,55,17,15		3,59,54,41,52	
		51,40,10,46,45,28,39		3,47
18″	54,41,36,42,24,17,50,40,45,54		3,59,54,45,39	
		51,40, 6,46,50,43, 0		3,47
20″	54,41,37,34, 4,24,37,31,28,54		3,59,54,49,26	
		51,40, 2,46,55,53,34		3,47
22″	54,41,38,25,44,27,24,27,22,28		3,59,54,53,13	
		51,39,58,47, 1, 0,21		3,47
24″	54,41,39,17,24,26,11,28,22,49		3,59,54,57, 0	
		51,39,54,47, 6, 3,21		3,47
26″	54,41,40, 9, 4,20,58,34,26,10		3,59,55, 0,47	
		51,39,50,47,11, 2,34		3,47
28″	54,41,41, 0,44,11,45,45,28,44		3,59,55, 4,34	
		51,39,46,47,15,58, 0		3,47
30″	54,41,41,52,23,58,33, 1,26,44		3,59,55, 8,21	
		51,39,42,47,20,49,39		3,47
32″	54,41,42,44, 3,41,20,22,16,23		3,59,55,12, 8	
		51,39,38,47,25,37,31		3,47
34″	54,41,43,35,43,20, 7,47,53,54		3,59,55,15,55	
		51,39,34,47,30,21,36		3,47
36″	54,41,44,27,22,54,55,18,15,30		3,59,55,19,42	
		51,39,30,47,35, 1,54		3,47
38″	54,41,45,19, 2,25,42,53,17,24		3,59,55,23,29	
		51,39,26,47,39,38,25		3,47
40″	54,41,46,10,41,52,30,32,55,49		3,59,55,27,16	
		51,39,22,47,44,11, 9		3,47
42″	54,41,47, 2,21,15,18,17, 6,58		3,59,55,31, 3	
		51,39,18,47,48,40, 6		3,47
44″	54,41,47,54, 0,34, 6, 5,47, 4		3,59,55,34,50	
		51,39,14,47,53, 5,16		3,47
46″	54,41,48,45,39,48,53,58,52,20		3,59,55,38,37	
		51,39,10,47,57,26,39		3,47
48″	54,41,49,37,18,59,41,56,18,59		3,59,55,42,24	
		51,39, 6,48, 1,44,15		3,47
50″	54,41,50,28,58, 6,29,58, 3,14		3,59,55,46,11	
		51,39, 2,48, 5,58, 4		3,47
52″	54,41,51,20,37, 9,18, 4, 1,18		3,59,55,49,58	
		51,38,58,48,10, 8, 6		3,47
54″	54,41,52,12,16, 8, 6,14, 9,24		3,59,55,53,45	
		51,38,54,48,14,14,21		3,47
56″	54,41,53, 3,55, 2,54,28,23,45		3,59,55,57,32	
		51,38,50,48,18,16,49		3,47
58″	54,41,53,55,33,53,42,46,40,34		3,59,56, 1,19	
		51,38,46,48,22,15,30		
60″	54,41,54,47,12,40,31, 8,56, 4			
exact	54,41,54,47,12,40,31, 9,21,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°44′ 0″	54,41,54,47,12,40,31, 9,21,31			
		51,38,42,48,26,13, 9		
2″	54,41,55,38,51,23,19,35,34,40		3,59,56, 8,41	
		51,38,38,48,30, 4,28		3,47
4″	54,41,56,30,30, 2, 8, 5,39, 8		3,59,56,12,28	
		51,38,34,48,33,52, 0		3,47
6″	54,41,57,22, 8,36,56,39,31, 8		3,59,56,16,15	
		51,38,30,48,37,35,45		3,47
8″	54,41,58,13,47, 7,45,17, 6,53		3,59,56,20, 2	
		51,38,26,48,41,15,43		3,47
10″	54,41,59, 5,25,34,33,58,22,36		3,59,56,23,49	
		51,38,22,48,44,51,54		3,47
12″	54,41,59,57, 3,57,22,43,14,30		3,59,56,27,36	
		51,38,18,48,48,24,18		3,47
14″	54,42, 0,48,42,16,11,31,38,48		3,59,56,31,23	
		51,38,14,48,51,52,55		3,47
16″	54,42, 1,40,20,31, 0,23,31,43		3,59,56,35,10	
		51,38,10,48,55,17,45		3,47
18″	54,42, 2,31,58,41,49,18,49,28		3,59,56,38,57	
		51,38, 6,48,58,38,48		3,47
20″	54,42, 3,23,36,48,38,17,28,16		3,59,56,42,44	
		51,38, 2,49, 1,56, 4		3,47
22″	54,42, 4,15,14,51,27,19,24,20		3,59,56,46,31	
		51,37,58,49, 5, 9,33		3,47
24″	54,42, 5, 6,52,50,16,24,33,53		3,59,56,50,18	
		51,37,54,49, 8,19,15		3,47
26″	54,42, 5,58,30,45, 5,32,53, 8		3,59,56,54, 5	
		51,37,50,49,11,25,10		3,47
28″	54,42, 6,50, 8,35,54,44,18,18		3,59,56,57,52	
		51,37,46,49,14,27,18		3,47
30″	54,42, 7,41,46,22,43,58,45,36		3,59,57, 1,39	
		51,37,42,49,17,25,39		3,47
32″	54,42, 8,33,24, 5,33,16,11,15		3,59,57, 5,26	
		51,37,38,49,20,20,13		3,47
34″	54,42, 9,25, 1,44,22,36,31,28		3,59,57, 9,13	
		51,37,34,49,23,11, 0		3,47
36″	54,42,10,16,39,19,11,59,42,28		3,59,57,13, 0	
		51,37,30,49,25,58, 0		3,47
38″	54,42,11, 8,16,50, 1,25,40,28		3,59,57,16,47	
		51,37,26,49,28,41,13		3,47
40″	54,42,11,59,54,16,50,54,21,41		3,59,57,20,34	
		51,37,22,49,31,20,39		3,47
42″	54,42,12,51,31,39,40,25,42,20		3,59,57,24,21	
		51,37,18,49,33,56,18		3,47
44″	54,42,13,43, 8,58,29,59,38,38		3,59,57,28, 8	
		51,37,14,49,36,28,10		3,47
46″	54,42,14,34,46,13,19,36, 6,48		3,59,57,31,55	
		51,37,10,49,38,56,15		3,47
48″	54,42,15,26,23,24, 9,15, 3, 3		3,59,57,35,42	
		51,37, 6,49,41,20,33		3,47
50″	54,42,16,18, 0,30,58,56,23,36		3,59,57,39,29	
		51,37, 2,49,43,41, 4		3,47
52″	54,42,17, 9,37,33,48,40, 4,40		3,59,57,43,16	
		51,36,58,49,45,57,48		3,47
54″	54,42,18, 1,14,32,38,26, 2,28		3,59,57,47, 3	
		51,36,54,49,48,10,45		3,47
56″	54,42,18,52,51,27,28,14,13,13		3,59,57,50,50	
		51,36,50,49,50,19,55		3,47
58″	54,42,19,44,28,18,18, 4,33, 8		3,59,57,54,37	
		51,36,46,49,52,25,18		
60″	54,42,20,36, 5, 5, 7,56,58,26			
exact	54,42,20,36, 5, 5, 7,57,31, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°45′ 0″	54,42,20,36, 5, 5, 7,57,31, 5			
		51,36,42,49,54,30,32		
2″	54,42,21,27,41,47,57,52, 1,37		3,59,58, 1,55	
		51,36,38,49,56,28,37		3,46
4″	54,42,22,19,18,26,47,48,30,14		3,59,58, 5,41	
		51,36,34,49,58,22,56		3,46
6″	54,42,23,10,55, 1,37,46,53,10		3,59,58, 9,27	
		51,36,30,50, 0,13,29		3,46
8″	54,42,24, 2,31,32,27,47, 6,39		3,59,58,13,13	
		51,36,26,50, 2, 0,16		3,46
10″	54,42,24,54, 7,59,17,49, 6,55		3,59,58,16,59	
		51,36,22,50, 3,43,17		3,46
12″	54,42,25,45,44,22, 7,52,50,12		3,59,58,20,45	
		51,36,18,50, 5,22,32		3,46
14″	54,42,26,37,20,40,57,58,12,44		3,59,58,24,31	
		51,36,14,50, 6,58, 1		3,46
16″	54,42,27,28,56,55,48, 5,10,45		3,59,58,28,17	
		51,36,10,50, 8,29,44		3,46
18″	54,42,28,20,33, 6,38,13,40,29		3,59,58,32, 3	
		51,36, 6,50, 9,57,41		3,46
20″	54,42,29,12, 9,13,28,23,38,10		3,59,58,35,49	
		51,36, 2,50,11,21,52		3,46
22″	54,42,30, 3,45,16,18,35, 0, 2		3,59,58,39,35	
		51,35,58,50,12,42,17		3,46
24″	54,42,30,55,21,15, 8,47,42,19		3,59,58,43,21	
		51,35,54,50,13,58,56		3,46
26″	54,42,31,46,57, 9,59, 1,41,15		3,59,58,47, 7	
		51,35,50,50,15,11,49		3,46
28″	54,42,32,38,33, 0,49,16,53, 4		3,59,58,50,53	
		51,35,46,50,16,20,56		3,46
30″	54,42,33,30, 8,47,39,33,14, 0		3,59,58,54,39	
		51,35,42,50,17,26,17		3,46
32″	54,42,34,21,44,30,29,50,40,17		3,59,58,58,25	
		51,35,38,50,18,27,52		3,46
34″	54,42,35,13,20, 9,20, 9, 8, 9		3,59,59, 2,11	
		51,35,34,50,19,25,41		3,46
36″	54,42,36, 4,55,44,10,28,33,50		3,59,59, 5,57	
		51,35,30,50,20,19,44		3,46
38″	54,42,36,56,31,15, 0,48,53,34		3,59,59, 9,43	
		51,35,26,50,21,10, 1		3,46
40″	54,42,37,48, 6,41,51,10, 3,35		3,59,59,13,29	
		51,35,22,50,21,56,32		3,46
42″	54,42,38,39,42, 4,41,32, 0, 7		3,59,59,17,15	
		51,35,18,50,22,39,17		3,46
44″	54,42,39,31,17,23,31,54,39,24		3,59,59,21, 1	
		51,35,14,50,23,18,16		3,46
46″	54,42,40,22,52,38,22,17,57,40		3,59,59,24,47	
		51,35,10,50,23,53,29		3,46
48″	54,42,41,14,27,49,12,41,51, 9		3,59,59,28,33	
		51,35, 6,50,24,24,56		3,46
50″	54,42,42, 6, 2,56, 3, 6,16, 5		3,59,59,32,19	
		51,35, 2,50,24,52,37		3,46
52″	54,42,42,57,37,58,53,31, 8,42		3,59,59,36, 5	
		51,34,58,50,25,16,32		3,46
54″	54,42,43,49,12,57,43,56,25,14		3,59,59,39,51	
		51,34,54,50,25,36,41		3,46
56″	54,42,44,40,47,52,34,22, 1,55		3,59,59,43,37	
		51,34,50,50,25,53, 4		3,46
58″	54,42,45,32,22,43,24,47,54,59		3,59,59,47,23	
		51,34,46,50,26, 5,41		
60″	54,42,46,23,57,30,15,14, 0,40			
exact	54,42,46,23,57,30,15,13,35,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°46′ 0″	54,42,46,23,57,30,15,13,35,32			
		51,34,42,50,26,11,59		
2″	54,42,47,15,32,13, 5,39,47,31		3,59,59,55, 5	
		51,34,38,50,26,16,54		3,46
4″	54,42,48, 7, 6,51,56, 6, 4,25		3,59,59,58,51	
		51,34,34,50,26,18, 3		3,46
6″	54,42,48,58,41,26,46,32,22,28		4, 0, 0, 2,37	
		51,34,30,50,26,15,26		3,46
8″	54,42,49,50,15,57,36,58,37,54		4, 0, 0, 6,23	
		51,34,26,50,26, 9, 3		3,46
10″	54,42,50,41,50,24,27,24,46,57		4, 0, 0,10, 9	
		51,34,22,50,25,58,54		3,46
12″	54,42,51,33,24,47,17,50,45,51		4, 0, 0,13,55	
		51,34,18,50,25,44,59		3,46
14″	54,42,52,24,59, 6, 8,16,30,50		4, 0, 0,17,41	
		51,34,14,50,25,27,18		3,46
16″	54,42,53,16,33,20,58,41,58, 8		4, 0, 0,21,27	
		51,34,10,50,25, 5,51		3,46
18″	54,42,54, 8, 7,31,49, 7, 3,59		4, 0, 0,25,13	
		51,34, 6,50,24,40,38		3,46
20″	54,42,54,59,41,38,39,31,44,37		4, 0, 0,28,59	
		51,34, 2,50,24,11,39		3,46
22″	54,42,55,51,15,41,29,55,56,16		4, 0, 0,32,45	
		51,33,58,50,23,38,54		3,46
24″	54,42,56,42,49,40,20,19,35,10		4, 0, 0,36,31	
		51,33,54,50,23, 2,23		3,46
26″	54,42,57,34,23,35,10,42,37,33		4, 0, 0,40,17	
		51,33,50,50,22,22, 6		3,46
28″	54,42,58,25,57,26, 1, 4,59,39		4, 0, 0,44, 3	
		51,33,46,50,21,38, 3		3,46
30″	54,42,59,17,31,12,51,26,37,42		4, 0, 0,47,49	
		51,33,42,50,20,50,14		3,46
32″	54,43, 0, 9, 4,55,41,47,27,56		4, 0, 0,51,35	
		51,33,38,50,19,58,39		3,46
34″	54,43, 1, 0,38,34,32, 7,26,35		4, 0, 0,55,21	
		51,33,34,50,19, 3,18		3,46
36″	54,43, 1,52,12, 9,22,26,29,53		4, 0, 0,59, 7	
		51,33,30,50,18, 4,11		3,46
38″	54,43, 2,43,45,40,12,44,34, 4		4, 0, 1, 2,53	
		51,33,26,50,17, 1,18		3,46
40″	54,43, 3,35,19, 7, 3, 1,35,22		4, 0, 1, 6,39	
		51,33,22,50,15,54,39		3,46
42″	54,43, 4,26,52,29,53,17,30, 1		4, 0, 1,10,25	
		51,33,18,50,14,44,14		3,46
44″	54,43, 5,18,25,48,43,32,14,15		4, 0, 1,14,11	
		51,33,14,50,13,30, 3		3,46
46″	54,43, 6, 9,59, 3,33,45,44,18		4, 0, 1,17,57	
		51,33,10,50,12,12, 6		3,46
48″	54,43, 7, 1,32,14,23,57,56,24		4, 0, 1,21,43	
		51,33, 6,50,10,50,23		3,46
50″	54,43, 7,53, 5,21,14, 8,46,47		4, 0, 1,25,29	
		51,33, 2,50, 9,24,54		3,46
52″	54,43, 8,44,38,24, 4,18,11,41		4, 0, 1,29,15	
		51,32,58,50, 7,55,39		3,46
54″	54,43, 9,36,11,22,54,26, 7,20		4, 0, 1,33, 1	
		51,32,54,50, 6,22,38		3,46
56″	54,43,10,27,44,17,44,32,29,58		4, 0, 1,36,47	
		51,32,50,50, 4,45,51		3,46
58″	54,43,11,19,17, 8,34,37,15,49		4, 0, 1,40,33	
		51,32,46,50, 3, 5,18		
60″	54,43,12,10,49,55,24,40,21, 7			
exact	54,43,12,10,49,55,24,40, 8,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°47′ 0″	54,43,12,10,49,55,24,40, 8,54			
		51,32,42,50, 1,19,42		
2″	54,43,13, 2,22,38,14,41,28,36		4, 0, 1,48,10	
		51,32,38,49,59,31,32		3,46
4″	54,43,13,53,55,17, 4,41, 0, 8		4, 0, 1,51,56	
		51,32,34,49,57,39,36		3,46
6″	54,43,14,45,27,51,54,38,39,44		4, 0, 1,55,42	
		51,32,30,49,55,43,54		3,46
8″	54,43,15,37, 0,22,44,34,23,38		4, 0, 1,59,28	
		51,32,26,49,53,44,26		3,46
10″	54,43,16,28,32,49,34,28, 8, 4		4, 0, 2, 3,14	
		51,32,22,49,51,41,12		3,46
12″	54,43,17,20, 5,12,24,19,49,16		4, 0, 2, 7, 0	
		51,32,18,49,49,34,12		3,46
14″	54,43,18,11,37,31,14, 9,23,28		4, 0, 2,10,46	
		51,32,14,49,47,23,26		3,46
16″	54,43,19, 3, 9,46, 3,56,46,54		4, 0, 2,14,32	
		51,32,10,49,45, 8,54		3,46
18″	54,43,19,54,41,56,53,41,55,48		4, 0, 2,18,18	
		51,32, 6,49,42,50,36		3,46
20″	54,43,20,46,14, 3,43,24,46,24		4, 0, 2,22, 4	
		51,32, 2,49,40,28,32		3,46
22″	54,43,21,37,46, 6,33, 5,14,56		4, 0, 2,25,50	
		51,31,58,49,38, 2,42		3,46
24″	54,43,22,29,18, 5,22,43,17,38		4, 0, 2,29,36	
		51,31,54,49,35,33, 6		3,46
26″	54,43,23,20,50, 0,12,18,50,44		4, 0, 2,33,22	
		51,31,50,49,32,59,44		3,46
28″	54,43,24,12,21,51, 1,51,50,28		4, 0, 2,37, 8	
		51,31,46,49,30,22,36		3,46
30″	54,43,25, 3,53,37,51,22,13, 4		4, 0, 2,40,54	
		51,31,42,49,27,41,42		3,46
32″	54,43,25,55,25,20,40,49,54,46		4, 0, 2,44,40	
		51,31,38,49,24,57, 2		3,46
34″	54,43,26,46,56,59,30,14,51,48		4, 0, 2,48,26	
		51,31,34,49,22, 8,36		3,46
36″	54,43,27,38,28,34,19,37, 0,24		4, 0, 2,52,12	
		51,31,30,49,19,16,24		3,46
38″	54,43,28,30, 0, 5, 8,56,16,48		4, 0, 2,55,58	
		51,31,26,49,16,20,26		3,46
40″	54,43,29,21,31,31,58,12,37,14		4, 0, 2,59,44	
		51,31,22,49,13,20,42		3,46
42″	54,43,30,13, 2,54,47,25,57,56		4, 0, 3, 3,30	
		51,31,18,49,10,17,12		3,46
44″	54,43,31, 4,34,13,36,36,15, 8		4, 0, 3, 7,16	
		51,31,14,49, 7, 9,56		3,46
46″	54,43,31,56, 5,28,25,43,25, 4		4, 0, 3,11, 2	
		51,31,10,49, 3,58,54		3,46
48″	54,43,32,47,36,39,14,47,23,58		4, 0, 3,14,48	
		51,31, 6,49, 0,44, 6		3,46
50″	54,43,33,39, 7,46, 3,48, 8, 4		4, 0, 3,18,34	
		51,31, 2,48,57,25,32		3,46
52″	54,43,34,30,38,48,52,45,33,36		4, 0, 3,22,20	
		51,30,58,48,54, 3,12		3,46
54″	54,43,35,22, 9,47,41,39,36,48		4, 0, 3,26, 6	
		51,30,54,48,50,37, 6		3,46
56″	54,43,36,13,40,42,30,30,13,54		4, 0, 3,29,52	
		51,30,50,48,47, 7,14		3,46
58″	54,43,37, 5,11,33,19,17,21, 8		4, 0, 3,33,38	
		51,30,46,48,43,33,36		
60″	54,43,37,56,42,20, 8, 0,54,44			
exact	54,43,37,56,42,20, 8, 0,50,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°48′ 0″	54,43,37,56,42,20, 8, 0,50,57			
		51,30,42,48,39,55,52		
2″	54,43,38,48,13, 2,56,40,46,49		4, 0, 3,41,11	
		51,30,38,48,36,14,41		3,46
4″	54,43,39,39,43,41,45,17, 1,30		4, 0, 3,44,57	
		51,30,34,48,32,29,44		3,46
6″	54,43,40,31,14,16,33,49,31,14		4, 0, 3,48,43	
		51,30,30,48,28,41, 1		3,46
8″	54,43,41,22,44,47,22,18,12,15		4, 0, 3,52,29	
		51,30,26,48,24,48,32		3,46
10″	54,43,42,14,15,14,10,43, 0,47		4, 0, 3,56,15	
		51,30,22,48,20,52,17		3,46
12″	54,43,43, 5,45,36,59, 3,53, 4		4, 0, 4, 0, 1	
		51,30,18,48,16,52,16		3,46
14″	54,43,43,57,15,55,47,20,45,20		4, 0, 4, 3,47	
		51,30,14,48,12,48,29		3,46
16″	54,43,44,48,46,10,35,33,33,49		4, 0, 4, 7,33	
		51,30,10,48, 8,40,56		3,46
18″	54,43,45,40,16,21,23,42,14,45		4, 0, 4,11,19	
		51,30, 6,48, 4,29,37		3,46
20″	54,43,46,31,46,28,11,46,44,22		4, 0, 4,15, 5	
		51,30, 2,48, 0,14,32		3,46
22″	54,43,47,23,16,30,59,46,58,54		4, 0, 4,18,51	
		51,29,58,47,55,55,41		3,46
24″	54,43,48,14,46,29,47,42,54,35		4, 0, 4,22,37	
		51,29,54,47,51,33, 4		3,46
26″	54,43,49, 6,16,24,35,34,27,39		4, 0, 4,26,23	
		51,29,50,47,47, 6,41		3,46
28″	54,43,49,57,46,15,23,21,34,20		4, 0, 4,30, 9	
		51,29,46,47,42,36,32		3,46
30″	54,43,50,49,16, 2,11, 4,10,52		4, 0, 4,33,55	
		51,29,42,47,38, 2,37		3,46
32″	54,43,51,40,45,44,58,42,13,29		4, 0, 4,37,41	
		51,29,38,47,33,24,56		3,46
34″	54,43,52,32,15,23,46,15,38,25		4, 0, 4,41,27	
		51,29,34,47,28,43,29		3,46
36″	54,43,53,23,44,58,33,44,21,54		4, 0, 4,45,13	
		51,29,30,47,23,58,16		3,46
38″	54,43,54,15,14,29,21, 8,20,10		4, 0, 4,48,59	
		51,29,26,47,19, 9,17		3,46
40″	54,43,55, 6,43,56, 8,27,29,27		4, 0, 4,52,45	
		51,29,22,47,14,16,32		3,46
42″	54,43,55,58,13,18,55,41,45,59		4, 0, 4,56,31	
		51,29,18,47, 9,20, 1		3,46
44″	54,43,56,49,42,37,42,51, 6, 0		4, 0, 5, 0,17	
		51,29,14,47, 4,19,44		3,46
46″	54,43,57,41,11,52,29,55,25,44		4, 0, 5, 4, 3	
		51,29,10,46,59,15,41		3,46
48″	54,43,58,32,41, 3,16,54,41,25		4, 0, 5, 7,49	
		51,29, 6,46,54, 7,52		3,46
50″	54,43,59,24,10,10, 3,48,49,17		4, 0, 5,11,35	
		51,29, 2,46,48,56,17		3,46
52″	54,44, 0,15,39,12,50,37,45,34		4, 0, 5,15,21	
		51,28,58,46,43,40,56		3,46
54″	54,44, 1, 7, 8,11,37,21,26,30		4, 0, 5,19, 7	
		51,28,54,46,38,21,49		3,46
56″	54,44, 1,58,37, 6,23,59,48,19		4, 0, 5,22,53	
		51,28,50,46,32,58,56		3,46
58″	54,44, 2,50, 5,57,10,32,47,15		4, 0, 5,26,39	
		51,28,46,46,27,32,17		
60″	54,44, 3,41,34,43,57, 0,19,32			
exact	54,44, 3,41,34,43,57, 0,27,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°49′ 0″	54,44, 3,41,34,43,57, 0,27,17			
		51,28,42,46,22, 2,42		
2″	54,44, 4,33, 3,26,43,22,29,59		4, 0, 5,34, 7	
		51,28,38,46,16,28,35		3,46
4″	54,44, 5,24,32, 5,29,38,58,34		4, 0, 5,37,53	
		51,28,34,46,10,50,42		3,46
6″	54,44, 6,16, 0,40,15,49,49,16		4, 0, 5,41,39	
		51,28,30,46, 5, 9, 3		3,46
8″	54,44, 7, 7,29,11, 1,54,58,19		4, 0, 5,45,25	
		51,28,26,45,59,23,38		3,46
10″	54,44, 7,58,57,37,47,54,21,57		4, 0, 5,49,11	
		51,28,22,45,53,34,27		3,46
12″	54,44, 8,50,26, 0,33,47,56,24		4, 0, 5,52,57	
		51,28,18,45,47,41,30		3,46
14″	54,44, 9,41,54,19,19,35,37,54		4, 0, 5,56,43	
		51,28,14,45,41,44,47		3,46
16″	54,44,10,33,22,34, 5,17,22,41		4, 0, 6, 0,29	
		51,28,10,45,35,44,18		3,46
18″	54,44,11,24,50,44,50,53, 6,59		4, 0, 6, 4,15	
		51,28, 6,45,29,40, 3		3,46
20″	54,44,12,16,18,51,36,22,47, 2		4, 0, 6, 8, 1	
		51,28, 2,45,23,32, 2		3,46
22″	54,44,13, 7,46,54,21,46,19, 4		4, 0, 6,11,47	
		51,27,58,45,17,20,15		3,46
24″	54,44,13,59,14,53, 7, 3,39,19		4, 0, 6,15,33	
		51,27,54,45,11, 4,42		3,46
26″	54,44,14,50,42,47,52,14,44, 1		4, 0, 6,19,19	
		51,27,50,45, 4,45,23		3,46
28″	54,44,15,42,10,38,37,19,29,24		4, 0, 6,23, 5	
		51,27,46,44,58,22,18		3,46
30″	54,44,16,33,38,25,22,17,51,42		4, 0, 6,26,51	
		51,27,42,44,51,55,27		3,46
32″	54,44,17,25, 6, 8, 7, 9,47, 9		4, 0, 6,30,37	
		51,27,38,44,45,24,50		3,46
34″	54,44,18,16,33,46,51,55,11,59		4, 0, 6,34,23	
		51,27,34,44,38,50,27		3,46
36″	54,44,19, 8, 1,21,36,34, 2,26		4, 0, 6,38, 9	
		51,27,30,44,32,12,18		3,46
38″	54,44,19,59,28,52,21, 6,14,44		4, 0, 6,41,55	
		51,27,26,44,25,30,23		3,46
40″	54,44,20,50,56,19, 5,31,45, 7		4, 0, 6,45,41	
		51,27,22,44,18,44,42		3,46
42″	54,44,21,42,23,41,49,50,29,49		4, 0, 6,49,27	
		51,27,18,44,11,55,15		3,46
44″	54,44,22,33,51, 0,34, 2,25, 4		4, 0, 6,53,13	
		51,27,14,44, 5, 2, 2		3,46
46″	54,44,23,25,18,15,18, 7,27, 6		4, 0, 6,56,59	
		51,27,10,43,58, 5, 3		3,46
48″	54,44,24,16,45,26, 2, 5,32, 9		4, 0, 7, 0,45	
		51,27, 6,43,51, 4,18		3,46
50″	54,44,25, 8,12,32,45,56,36,27		4, 0, 7, 4,31	
		51,27, 2,43,43,59,47		3,46
52″	54,44,25,59,39,35,29,40,36,14		4, 0, 7, 8,17	
		51,26,58,43,36,51,30		3,46
54″	54,44,26,51, 6,34,13,17,27,44		4, 0, 7,12, 3	
		51,26,54,43,29,39,27		3,46
56″	54,44,27,42,33,28,56,47, 7,11		4, 0, 7,15,49	
		51,26,50,43,22,23,38		3,46
58″	54,44,28,34, 0,19,40, 9,30,49		4, 0, 7,19,35	
		51,26,46,43,15, 4, 3		
60″	54,44,29,25,27, 6,23,24,34,52			
exact	54,44,29,25,27, 6,23,24,49,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°50′ 0″	54,44,29,25,27, 6,23,24,49,20			
		51,26,42,43, 7,42,23		
2″	54,44,30,16,53,49, 6,32,31,43		4, 0, 7,26,59	
		51,26,38,43, 0,15,24		3,46
4″	54,44,31, 8,20,27,49,32,47, 7		4, 0, 7,30,45	
		51,26,34,42,52,44,39		3,46
6″	54,44,31,59,47, 2,32,25,31,46		4, 0, 7,34,31	
		51,26,30,42,45,10, 8		3,46
8″	54,44,32,51,13,33,15,10,41,54		4, 0, 7,38,17	
		51,26,26,42,37,31,51		3,46
10″	54,44,33,42,39,59,57,48,13,45		4, 0, 7,42, 3	
		51,26,22,42,29,49,48		3,46
12″	54,44,34,34, 6,22,40,18, 3,33		4, 0, 7,45,49	
		51,26,18,42,22, 3,59		3,46
14″	54,44,35,25,32,41,22,40, 7,32		4, 0, 7,49,35	
		51,26,14,42,14,14,24		3,46
16″	54,44,36,16,58,56, 4,54,21,56		4, 0, 7,53,21	
		51,26,10,42, 6,21, 3		3,46
18″	54,44,37, 8,25, 6,47, 0,42,59		4, 0, 7,57, 7	
		51,26, 6,41,58,23,56		3,46
20″	54,44,37,59,51,13,28,59, 6,55		4, 0, 8, 0,53	
		51,26, 2,41,50,23, 3		3,46
22″	54,44,38,51,17,16,10,49,29,58		4, 0, 8, 4,39	
		51,25,58,41,42,18,24		3,46
24″	54,44,39,42,43,14,52,31,48,22		4, 0, 8, 8,25	
		51,25,54,41,34, 9,59		3,46
26″	54,44,40,34, 9, 9,34, 5,58,21		4, 0, 8,12,11	
		51,25,50,41,25,57,48		3,46
28″	54,44,41,25,35, 0,15,31,56, 9		4, 0, 8,15,57	
		51,25,46,41,17,41,51		3,46
30″	54,44,42,17, 0,46,56,49,38, 0		4, 0, 8,19,43	
		51,25,42,41, 9,22, 8		3,46
32″	54,44,43, 8,26,29,37,59, 0, 8		4, 0, 8,23,29	
		51,25,38,41, 0,58,39		3,46
34″	54,44,43,59,52, 8,18,59,58,47		4, 0, 8,27,15	
		51,25,34,40,52,31,24		3,46
36″	54,44,44,51,17,42,59,52,30,11		4, 0, 8,31, 1	
		51,25,30,40,44, 0,23		3,46
38″	54,44,45,42,43,13,40,36,30,34		4, 0, 8,34,47	
		51,25,26,40,35,25,36		3,46
40″	54,44,46,34, 8,40,21,11,56,10		4, 0, 8,38,33	
		51,25,22,40,26,47, 3		3,46
42″	54,44,47,25,34, 3, 1,38,43,13		4, 0, 8,42,19	
		51,25,18,40,18, 4,44		3,46
44″	54,44,48,16,59,21,41,56,47,57		4, 0, 8,46, 5	
		51,25,14,40, 9,18,39		3,46
46″	54,44,49, 8,24,36,22, 6, 6,36		4, 0, 8,49,51	
		51,25,10,40, 0,28,48		3,46
48″	54,44,49,59,49,47, 2, 6,35,24		4, 0, 8,53,37	
		51,25, 6,39,51,35,11		3,46
50″	54,44,50,51,14,53,41,58,10,35		4, 0, 8,57,23	
		51,25, 2,39,42,37,48		3,46
52″	54,44,51,42,39,56,21,40,48,23		4, 0, 9, 1, 9	
		51,24,58,39,33,36,39		3,46
54″	54,44,52,34, 4,55, 1,14,25, 2		4, 0, 9, 4,55	
		51,24,54,39,24,31,44		3,46
56″	54,44,53,25,29,49,40,38,56,46		4, 0, 9, 8,41	
		51,24,50,39,15,23, 3		3,46
58″	54,44,54,16,54,40,19,54,19,49		4, 0, 9,12,27	
		51,24,46,39, 6,10,36		
60″	54,44,55, 8,19,26,59, 0,30,25			
exact	54,44,55, 8,19,26,59, 0,54,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°51′ 0″	54,44,55, 8,19,26,59, 0,54,19			
		51,24,42,38,56,57, 6		
2″	54,44,55,59,44, 9,37,57,51,25		4, 0, 9,19,47	
		51,24,38,38,47,37,19		3,46
4″	54,44,56,51, 8,48,16,45,28,44		4, 0, 9,23,33	
		51,24,34,38,38,13,46		3,46
6″	54,44,57,42,33,22,55,23,42,30		4, 0, 9,27,19	
		51,24,30,38,28,46,27		3,46
8″	54,44,58,33,57,53,33,52,28,57		4, 0, 9,31, 5	
		51,24,26,38,19,15,22		3,46
10″	54,44,59,25,22,20,12,11,44,19		4, 0, 9,34,51	
		51,24,22,38, 9,40,31		3,46
12″	54,45, 0,16,46,42,50,21,24,50		4, 0, 9,38,37	
		51,24,18,38, 0, 1,54		3,46
14″	54,45, 1, 8,11, 1,28,21,26,44		4, 0, 9,42,23	
		51,24,14,37,50,19,31		3,46
16″	54,45, 1,59,35,16, 6,11,46,15		4, 0, 9,46, 9	
		51,24,10,37,40,33,22		3,46
18″	54,45, 2,50,59,26,43,52,19,37		4, 0, 9,49,55	
		51,24, 6,37,30,43,27		3,46
20″	54,45, 3,42,23,33,21,23, 3, 4		4, 0, 9,53,41	
		51,24, 2,37,20,49,46		3,46
22″	54,45, 4,33,47,35,58,43,52,50		4, 0, 9,57,27	
		51,23,58,37,10,52,19		3,46
24″	54,45, 5,25,11,34,35,54,45, 9		4, 0,10, 1,13	
		51,23,54,37, 0,51, 6		3,46
26″	54,45, 6,16,35,29,12,55,36,15		4, 0,10, 4,59	
		51,23,50,36,50,46, 7		3,46
28″	54,45, 7, 7,59,19,49,46,22,22		4, 0,10, 8,45	
		51,23,46,36,40,37,22		3,46
30″	54,45, 7,59,23, 6,26,26,59,44		4, 0,10,12,31	
		51,23,42,36,30,24,51		3,46
32″	54,45, 8,50,46,49, 2,57,24,35		4, 0,10,16,17	
		51,23,38,36,20, 8,34		3,46
34″	54,45, 9,42,10,27,39,17,33, 9		4, 0,10,20, 3	
		51,23,34,36, 9,48,31		3,46
36″	54,45,10,33,34, 2,15,27,21,40		4, 0,10,23,49	
		51,23,30,35,59,24,42		3,46
38″	54,45,11,24,57,32,51,26,46,22		4, 0,10,27,35	
		51,23,26,35,48,57, 7		3,46
40″	54,45,12,16,20,59,27,15,43,29		4, 0,10,31,21	
		51,23,22,35,38,25,46		3,46
42″	54,45,13, 7,44,22, 2,54, 9,15		4, 0,10,35, 7	
		51,23,18,35,27,50,39		3,46
44″	54,45,13,59, 7,40,38,21,59,54		4, 0,10,38,53	
		51,23,14,35,17,11,46		3,46
46″	54,45,14,50,30,55,13,39,11,40		4, 0,10,42,39	
		51,23,10,35, 6,29, 7		3,46
48″	54,45,15,41,54, 5,48,45,40,47		4, 0,10,46,25	
		51,23, 6,34,55,42,42		3,46
50″	54,45,16,33,17,12,23,41,23,29		4, 0,10,50,11	
		51,23, 2,34,44,52,31		3,46
52″	54,45,17,24,40,14,58,26,16, 0		4, 0,10,53,57	
		51,22,58,34,33,58,34		3,46
54″	54,45,18,16, 3,13,33, 0,14,34		4, 0,10,57,43	
		51,22,54,34,23, 0,51		3,46
56″	54,45,19, 7,26, 8, 7,23,15,25		4, 0,11, 1,29	
		51,22,50,34,11,59,22		3,46
58″	54,45,19,58,48,58,41,35,14,47		4, 0,11, 5,15	
		51,22,46,34, 0,54, 7		
60″	54,45,20,50,11,45,15,36, 8,54			
exact	54,45,20,50,11,45,15,36,45,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°52′ 0″	54,45,20,50,11,45,15,36,45,18			
		51,22,42,33,49,49, 3		
2″	54,45,21,41,34,27,49,26,34,21		4, 0,11,12,30	
		51,22,38,33,38,36,33		3,45
4″	54,45,22,32,57, 6,23, 5,10,54		4, 0,11,16,15	
		51,22,34,33,27,20,18		3,45
6″	54,45,23,24,19,40,56,32,31,12		4, 0,11,20, 0	
		51,22,30,33,16, 0,18		3,45
8″	54,45,24,15,42,11,29,48,31,30		4, 0,11,23,45	
		51,22,26,33, 4,36,33		3,45
10″	54,45,25, 7, 4,38, 2,53, 8, 3		4, 0,11,27,30	
		51,22,22,32,53, 9, 3		3,45
12″	54,45,25,58,27, 0,35,46,17, 6		4, 0,11,31,15	
		51,22,18,32,41,37,48		3,45
14″	54,45,26,49,49,19, 8,27,54,54		4, 0,11,35, 0	
		51,22,14,32,30, 2,48		3,45
16″	54,45,27,41,11,33,40,57,57,42		4, 0,11,38,45	
		51,22,10,32,18,24, 3		3,45
18″	54,45,28,32,33,44,13,16,21,45		4, 0,11,42,30	
		51,22, 6,32, 6,41,33		3,45
20″	54,45,29,23,55,50,45,23, 3,18		4, 0,11,46,15	
		51,22, 2,31,54,55,18		3,45
22″	54,45,30,15,17,53,17,17,58,36		4, 0,11,50, 0	
		51,21,58,31,43, 5,18		3,45
24″	54,45,31, 6,39,51,49, 1, 3,54		4, 0,11,53,45	
		51,21,54,31,31,11,33		3,45
26″	54,45,31,58, 1,46,20,32,15,27		4, 0,11,57,30	
		51,21,50,31,19,14, 3		3,45
28″	54,45,32,49,23,36,51,51,29,30		4, 0,12, 1,15	
		51,21,46,31, 7,12,48		3,45
30″	54,45,33,40,45,23,22,58,42,18		4, 0,12, 5, 0	
		51,21,42,30,55, 7,48		3,45
32″	54,45,34,32, 7, 5,53,53,50, 6		4, 0,12, 8,45	
		51,21,38,30,42,59, 3		3,45
34″	54,45,35,23,28,44,24,36,49, 9		4, 0,12,12,30	
		51,21,34,30,30,46,33		3,45
36″	54,45,36,14,50,18,55, 7,35,42		4, 0,12,16,15	
		51,21,30,30,18,30,18		3,45
38″	54,45,37, 6,11,49,25,26, 6, 0		4, 0,12,20, 0	
		51,21,26,30, 6,10,18		3,45
40″	54,45,37,57,33,15,55,32,16,18		4, 0,12,23,45	
		51,21,22,29,53,46,33		3,45
42″	54,45,38,48,54,38,25,26, 2,51		4, 0,12,27,30	
		51,21,18,29,41,19, 3		3,45
44″	54,45,39,40,15,56,55, 7,21,54		4, 0,12,31,15	
		51,21,14,29,28,47,48		3,45
46″	54,45,40,31,37,11,24,36, 9,42		4, 0,12,35, 0	
		51,21,10,29,16,12,48		3,45
48″	54,45,41,22,58,21,53,52,22,30		4, 0,12,38,45	
		51,21, 6,29, 3,34, 3		3,45
50″	54,45,42,14,19,28,22,55,56,33		4, 0,12,42,30	
		51,21, 2,28,50,51,33		3,45
52″	54,45,43, 5,40,30,51,46,48, 6		4, 0,12,46,15	
		51,20,58,28,38, 5,18		3,45
54″	54,45,43,57, 1,29,20,24,53,24		4, 0,12,50, 0	
		51,20,54,28,25,15,18		3,45
56″	54,45,44,48,22,23,48,50, 8,42		4, 0,12,53,45	
		51,20,50,28,12,21,33		3,45
58″	54,45,45,39,43,14,17, 2,30,15		4, 0,12,57,30	
		51,20,46,27,59,24, 3		
60″	54,45,46,31, 4, 0,45, 1,54,18			
exact	54,45,46,31, 4, 0,45, 1,31,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°53′ 0″	54,45,46,31, 4, 0,45, 1,31,12			
		51,20,42,27,46,20,26		
2″	54,45,47,22,24,43,12,47,51,38		4, 0,13, 5, 9	
		51,20,38,27,33,15,17		3,45
4″	54,45,48,13,45,21,40,21, 6,55		4, 0,13, 8,54	
		51,20,34,27,20, 6,23		3,45
6″	54,45,49, 5, 5,56, 7,41,13,18		4, 0,13,12,39	
		51,20,30,27, 6,53,44		3,45
8″	54,45,49,56,26,26,34,48, 7, 2		4, 0,13,16,24	
		51,20,26,26,53,37,20		3,45
10″	54,45,50,47,46,53, 1,41,44,22		4, 0,13,20, 9	
		51,20,22,26,40,17,11		3,45
12″	54,45,51,39, 7,15,28,22, 1,33		4, 0,13,23,54	
		51,20,18,26,26,53,17		3,45
14″	54,45,52,30,27,33,54,48,54,50		4, 0,13,27,39	
		51,20,14,26,13,25,38		3,45
16″	54,45,53,21,47,48,21, 2,20,28		4, 0,13,31,24	
		51,20,10,25,59,54,14		3,45
18″	54,45,54,13, 7,58,47, 2,14,42		4, 0,13,35, 9	
		51,20, 6,25,46,19, 5		3,45
20″	54,45,55, 4,28, 5,12,48,33,47		4, 0,13,38,54	
		51,20, 2,25,32,40,11		3,45
22″	54,45,55,55,48, 7,38,21,13,58		4, 0,13,42,39	
		51,19,58,25,18,57,32		3,45
24″	54,45,56,47, 8, 6, 3,40,11,30		4, 0,13,46,24	
		51,19,54,25, 5,11, 8		3,45
26″	54,45,57,38,28, 0,28,45,22,38		4, 0,13,50, 9	
		51,19,50,24,51,20,59		3,45
28″	54,45,58,29,47,50,53,36,43,37		4, 0,13,53,54	
		51,19,46,24,37,27, 5		3,45
30″	54,45,59,21, 7,37,18,14,10,42		4, 0,13,57,39	
		51,19,42,24,23,29,26		3,45
32″	54,46, 0,12,27,19,42,37,40, 8		4, 0,14, 1,24	
		51,19,38,24, 9,28, 2		3,45
34″	54,46, 1, 3,46,58, 6,47, 8,10		4, 0,14, 5, 9	
		51,19,34,23,55,22,53		3,45
36″	54,46, 1,55, 6,32,30,42,31, 3		4, 0,14, 8,54	
		51,19,30,23,41,13,59		3,45
38″	54,46, 2,46,26, 2,54,23,45, 2		4, 0,14,12,39	
		51,19,26,23,27, 1,20		3,45
40″	54,46, 3,37,45,29,17,50,46,22		4, 0,14,16,24	
		51,19,22,23,12,44,56		3,45
42″	54,46, 4,29, 4,51,41, 3,31,18		4, 0,14,20, 9	
		51,19,18,22,58,24,47		3,45
44″	54,46, 5,20,24,10, 4, 1,56, 5		4, 0,14,23,54	
		51,19,14,22,44, 0,53		3,45
46″	54,46, 6,11,43,24,26,45,56,58		4, 0,14,27,39	
		51,19,10,22,29,33,14		3,45
48″	54,46, 7, 3, 2,34,49,15,30,12		4, 0,14,31,24	
		51,19, 6,22,15, 1,50		3,45
50″	54,46, 7,54,21,41,11,30,32, 2		4, 0,14,35, 9	
		51,19, 2,22, 0,26,41		3,45
52″	54,46, 8,45,40,43,33,30,58,43		4, 0,14,38,54	
		51,18,58,21,45,47,47		3,45
54″	54,46, 9,36,59,41,55,16,46,30		4, 0,14,42,39	
		51,18,54,21,31, 5, 8		3,45
56″	54,46,10,28,18,36,16,47,51,38		4, 0,14,46,24	
		51,18,50,21,16,18,44		3,45
58″	54,46,11,19,37,26,38, 4,10,22		4, 0,14,50, 9	
		51,18,46,21, 1,28,35		
60″	54,46,12,10,56,12,59, 5,38,57			
exact	54,46,12,10,56,12,59, 5,26,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°54′ 0″	54,46,12,10,56,12,59, 5,26,46			
		51,18,42,20,46,33,27		
2″	54,46,13, 2,14,55,19,52, 0,13		4, 0,14,57,43	
		51,18,38,20,31,35,44		3,45
4″	54,46,13,53,33,33,40,23,35,57		4, 0,15, 1,28	
		51,18,34,20,16,34,16		3,45
6″	54,46,14,44,52, 8, 0,40,10,13		4, 0,15, 5,13	
		51,18,30,20, 1,29, 3		3,45
8″	54,46,15,36,10,38,20,41,39,16		4, 0,15, 8,58	
		51,18,26,19,46,20, 5		3,45
10″	54,46,16,27,29, 4,40,27,59,21		4, 0,15,12,43	
		51,18,22,19,31, 7,22		3,45
12″	54,46,17,18,47,26,59,59, 6,43		4, 0,15,16,28	
		51,18,18,19,15,50,54		3,45
14″	54,46,18,10, 5,45,19,14,57,37		4, 0,15,20,13	
		51,18,14,19, 0,30,41		3,45
16″	54,46,19, 1,23,59,38,15,28,18		4, 0,15,23,58	
		51,18,10,18,45, 6,43		3,45
18″	54,46,19,52,42, 9,57, 0,35, 1		4, 0,15,27,43	
		51,18, 6,18,29,39, 0		3,45
20″	54,46,20,44, 0,16,15,30,14, 1		4, 0,15,31,28	
		51,18, 2,18,14, 7,32		3,45
22″	54,46,21,35,18,18,33,44,21,33		4, 0,15,35,13	
		51,17,58,17,58,32,19		3,45
24″	54,46,22,26,36,16,51,42,53,52		4, 0,15,38,58	
		51,17,54,17,42,53,21		3,45
26″	54,46,23,17,54,11, 9,25,47,13		4, 0,15,42,43	
		51,17,50,17,27,10,38		3,45
28″	54,46,24, 9,12, 1,26,52,57,51		4, 0,15,46,28	
		51,17,46,17,11,24,10		3,45
30″	54,46,25, 0,29,47,44, 4,22, 1		4, 0,15,50,13	
		51,17,42,16,55,33,57		3,45
32″	54,46,25,51,47,30, 0,59,55,58		4, 0,15,53,58	
		51,17,38,16,39,39,59		3,45
34″	54,46,26,43, 5, 8,17,39,35,57		4, 0,15,57,43	
		51,17,34,16,23,42,16		3,45
36″	54,46,27,34,22,42,34, 3,18,13		4, 0,16, 1,28	
		51,17,30,16, 7,40,48		3,45
38″	54,46,28,25,40,12,50,10,59, 1		4, 0,16, 5,13	
		51,17,26,15,51,35,35		3,45
40″	54,46,29,16,57,39, 6, 2,34,36		4, 0,16, 8,58	
		51,17,22,15,35,26,37		3,45
42″	54,46,30, 8,15, 1,21,38, 1,13		4, 0,16,12,43	
		51,17,18,15,19,13,54		3,45
44″	54,46,30,59,32,19,36,57,15, 7		4, 0,16,16,28	
		51,17,14,15, 2,57,26		3,45
46″	54,46,31,50,49,33,52, 0,12,33		4, 0,16,20,13	
		51,17,10,14,46,37,13		3,45
48″	54,46,32,42, 6,44, 6,46,49,46		4, 0,16,23,58	
		51,17, 6,14,30,13,15		3,45
50″	54,46,33,33,23,50,21,17, 3, 1		4, 0,16,27,43	
		51,17, 2,14,13,45,32		3,45
52″	54,46,34,24,40,52,35,30,48,33		4, 0,16,31,28	
		51,16,58,13,57,14, 4		3,45
54″	54,46,35,15,57,50,49,28, 2,37		4, 0,16,35,13	
		51,16,54,13,40,38,51		3,45
56″	54,46,36, 7,14,45, 3, 8,41,28		4, 0,16,38,58	
		51,16,50,13,23,59,53		3,45
58″	54,46,36,58,31,35,16,32,41,21		4, 0,16,42,43	
		51,16,46,13, 7,17,10		
60″	54,46,37,49,48,21,29,39,58,31			
exact	54,46,37,49,48,21,29,39,52,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°55′ 0″	54,46,37,49,48,21,29,39,52,37			
		51,16,42,12,50,30,17		
2″	54,46,38,41, 5, 3,42,30,22,54		4, 0,16,50,14	
		51,16,38,12,33,40, 3		3,45
4″	54,46,39,32,21,41,55, 4, 2,57		4, 0,16,53,59	
		51,16,34,12,16,46, 4		3,45
6″	54,46,40,23,38,16, 7,20,49, 1		4, 0,16,57,44	
		51,16,30,11,59,48,20		3,45
8″	54,46,41,14,54,46,19,20,37,21		4, 0,17, 1,29	
		51,16,26,11,42,46,51		3,45
10″	54,46,42, 6,11,12,31, 3,24,12		4, 0,17, 5,14	
		51,16,22,11,25,41,37		3,45
12″	54,46,42,57,27,34,42,29, 5,49		4, 0,17, 8,59	
		51,16,18,11, 8,32,38		3,45
14″	54,46,43,48,43,52,53,37,38,27		4, 0,17,12,44	
		51,16,14,10,51,19,54		3,45
16″	54,46,44,40, 0, 7, 4,28,58,21		4, 0,17,16,29	
		51,16,10,10,34, 3,25		3,45
18″	54,46,45,31,16,17,15, 3, 1,46		4, 0,17,20,14	
		51,16, 6,10,16,43,11		3,45
20″	54,46,46,22,32,23,25,19,44,57		4, 0,17,23,59	
		51,16, 2, 9,59,19,12		3,45
22″	54,46,47,13,48,25,35,19, 4, 9		4, 0,17,27,44	
		51,15,58, 9,41,51,28		3,45
24″	54,46,48, 5, 4,23,45, 0,55,37		4, 0,17,31,29	
		51,15,54, 9,24,19,59		3,45
26″	54,46,48,56,20,17,54,25,15,36		4, 0,17,35,14	
		51,15,50, 9, 6,44,45		3,45
28″	54,46,49,47,36, 8, 3,32, 0,21		4, 0,17,38,59	
		51,15,46, 8,49, 5,46		3,45
30″	54,46,50,38,51,54,12,21, 6, 7		4, 0,17,42,44	
		51,15,42, 8,31,23, 2		3,45
32″	54,46,51,30, 7,36,20,52,29, 9		4, 0,17,46,29	
		51,15,38, 8,13,36,33		3,45
34″	54,46,52,21,23,14,29, 6, 5,42		4, 0,17,50,14	
		51,15,34, 7,55,46,19		3,45
36″	54,46,53,12,38,48,37, 1,52, 1		4, 0,17,53,59	
		51,15,30, 7,37,52,20		3,45
38″	54,46,54, 3,54,18,44,39,44,21		4, 0,17,57,44	
		51,15,26, 7,19,54,36		3,45
40″	54,46,54,55, 9,44,51,59,38,57		4, 0,18, 1,29	
		51,15,22, 7, 1,53, 7		3,45
42″	54,46,55,46,25, 6,59, 1,32, 4		4, 0,18, 5,14	
		51,15,18, 6,43,47,53		3,45
44″	54,46,56,37,40,25, 5,45,19,57		4, 0,18, 8,59	
		51,15,14, 6,25,38,54		3,45
46″	54,46,57,28,55,39,12,10,58,51		4, 0,18,12,44	
		51,15,10, 6, 7,26,10		3,45
48″	54,46,58,20,10,49,18,18,25, 1		4, 0,18,16,29	
		51,15, 6, 5,49, 9,41		3,45
50″	54,46,59,11,25,55,24, 7,34,42		4, 0,18,20,14	
		51,15, 2, 5,30,49,27		3,45
52″	54,47, 0, 2,40,57,29,38,24, 9		4, 0,18,23,59	
		51,14,58, 5,12,25,28		3,45
54″	54,47, 0,53,55,55,34,50,49,37		4, 0,18,27,44	
		51,14,54, 4,53,57,44		3,45
56″	54,47, 1,45,10,49,39,44,47,21		4, 0,18,31,29	
		51,14,50, 4,35,26,15		3,45
58″	54,47, 2,36,25,39,44,20,13,36		4, 0,18,35,14	
		51,14,46, 4,16,51, 1		
60″	54,47, 3,27,40,25,48,37, 4,37			
exact	54,47, 3,27,40,25,48,37,15,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°56′ 0″	54,47, 3,27,40,25,48,37,15,13			
		51,14,42, 3,58,13, 8		
2″	54,47, 4,18,55, 7,52,35,28,21		4, 0,18,42,39	
		51,14,38, 3,39,30,29		3,45
4″	54,47, 5,10, 9,45,56,14,58,50		4, 0,18,46,24	
		51,14,34, 3,20,44, 5		3,45
6″	54,47, 6, 1,24,19,59,35,42,55		4, 0,18,50, 9	
		51,14,30, 3, 1,53,56		3,45
8″	54,47, 6,52,38,50, 2,37,36,51		4, 0,18,53,54	
		51,14,26, 2,43, 0, 2		3,45
10″	54,47, 7,43,53,16, 5,20,36,53		4, 0,18,57,39	
		51,14,22, 2,24, 2,23		3,45
12″	54,47, 8,35, 7,38, 7,44,39,16		4, 0,19, 1,24	
		51,14,18, 2, 5, 0,59		3,45
14″	54,47, 9,26,21,56, 9,49,40,15		4, 0,19, 5, 9	
		51,14,14, 1,45,55,50		3,45
16″	54,47,10,17,36,10,11,35,36, 5		4, 0,19, 8,54	
		51,14,10, 1,26,46,56		3,45
18″	54,47,11, 8,50,20,13, 2,23, 1		4, 0,19,12,39	
		51,14, 6, 1, 7,34,17		3,45
20″	54,47,12, 0, 4,26,14, 9,57,18		4, 0,19,16,24	
		51,14, 2, 0,48,17,53		3,45
22″	54,47,12,51,18,28,14,58,15,11		4, 0,19,20, 9	
		51,13,58, 0,28,57,44		3,45
24″	54,47,13,42,32,26,15,27,12,55		4, 0,19,23,54	
		51,13,54, 0, 9,33,50		3,45
26″	54,47,14,33,46,20,15,36,46,45		4, 0,19,27,39	
		51,13,49,59,50, 6,11		3,45
28″	54,47,15,25, 0,10,15,26,52,56		4, 0,19,31,24	
		51,13,45,59,30,34,47		3,45
30″	54,47,16,16,13,56,14,57,27,43		4, 0,19,35, 9	
		51,13,41,59,10,59,38		3,45
32″	54,47,17, 7,27,38,14, 8,27,21		4, 0,19,38,54	
		51,13,37,58,51,20,44		3,45
34″	54,47,17,58,41,16,12,59,48, 5		4, 0,19,42,39	
		51,13,33,58,31,38, 5		3,45
36″	54,47,18,49,54,50,11,31,26,10		4, 0,19,46,24	
		51,13,29,58,11,51,41		3,45
38″	54,47,19,41, 8,20, 9,43,17,51		4, 0,19,50, 9	
		51,13,25,57,52, 1,32		3,45
40″	54,47,20,32,21,46, 7,35,19,23		4, 0,19,53,54	
		51,13,21,57,32, 7,38		3,45
42″	54,47,21,23,35, 8, 5, 7,27, 1		4, 0,19,57,39	
		51,13,17,57,12, 9,59		3,45
44″	54,47,22,14,48,26, 2,19,37, 0		4, 0,20, 1,24	
		51,13,13,56,52, 8,35		3,45
46″	54,47,23, 6, 1,39,59,11,45,35		4, 0,20, 5, 9	
		51,13, 9,56,32, 3,26		3,45
48″	54,47,23,57,14,49,55,43,49, 1		4, 0,20, 8,54	
		51,13, 5,56,11,54,32		3,45
50″	54,47,24,48,27,55,51,55,43,33		4, 0,20,12,39	
		51,13, 1,55,51,41,53		3,45
52″	54,47,25,39,40,57,47,47,25,26		4, 0,20,16,24	
		51,12,57,55,31,25,29		3,45
54″	54,47,26,30,53,55,43,18,50,55		4, 0,20,20, 9	
		51,12,53,55,11, 5,20		3,45
56″	54,47,27,22, 6,49,38,29,56,15		4, 0,20,23,54	
		51,12,49,54,50,41,26		3,45
58″	54,47,28,13,19,39,33,20,37,41		4, 0,20,27,39	
		51,12,45,54,30,13,47		
60″	54,47,29, 4,32,25,27,50,51,28			
exact	54,47,29, 4,32,25,27,51, 6,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°57′ 0″	54,47,29, 4,32,25,27,51, 6,55			
		51,12,41,54, 9,44,12		
2″	54,47,29,55,45, 7,22, 0,51, 7		4, 0,20,35, 1	
		51,12,37,53,49, 9,11		3,45
4″	54,47,30,46,57,45,15,50, 0,18		4, 0,20,38,46	
		51,12,33,53,28,30,25		3,45
6″	54,47,31,38,10,19, 9,18,30,43		4, 0,20,42,31	
		51,12,29,53, 7,47,54		3,45
8″	54,47,32,29,22,49, 2,26,18,37		4, 0,20,46,16	
		51,12,25,52,47, 1,38		3,45
10″	54,47,33,20,35,14,55,13,20,15		4, 0,20,50, 1	
		51,12,21,52,26,11,37		3,45
12″	54,47,34,11,47,36,47,39,31,52		4, 0,20,53,46	
		51,12,17,52, 5,17,51		3,45
14″	54,47,35, 2,59,54,39,44,49,43		4, 0,20,57,31	
		51,12,13,51,44,20,20		3,45
16″	54,47,35,54,12, 8,31,29,10, 3		4, 0,21, 1,16	
		51,12, 9,51,23,19, 4		3,45
18″	54,47,36,45,24,18,22,52,29, 7		4, 0,21, 5, 1	
		51,12, 5,51, 2,14, 3		3,45
20″	54,47,37,36,36,24,13,54,43,10		4, 0,21, 8,46	
		51,12, 1,50,41, 5,17		3,45
22″	54,47,38,27,48,26, 4,35,48,27		4, 0,21,12,31	
		51,11,57,50,19,52,46		3,45
24″	54,47,39,19, 0,23,54,55,41,13		4, 0,21,16,16	
		51,11,53,49,58,36,30		3,45
26″	54,47,40,10,12,17,44,54,17,43		4, 0,21,20, 1	
		51,11,49,49,37,16,29		3,45
28″	54,47,41, 1,24, 7,34,31,34,12		4, 0,21,23,46	
		51,11,45,49,15,52,43		3,45
30″	54,47,41,52,35,53,23,47,26,55		4, 0,21,27,31	
		51,11,41,48,54,25,12		3,45
32″	54,47,42,43,47,35,12,41,52, 7		4, 0,21,31,16	
		51,11,37,48,32,53,56		3,45
34″	54,47,43,34,59,13, 1,14,46, 3		4, 0,21,35, 1	
		51,11,33,48,11,18,55		3,45
36″	54,47,44,26,10,46,49,26, 4,58		4, 0,21,38,46	
		51,11,29,47,49,40, 9		3,45
38″	54,47,45,17,22,16,37,15,45, 7		4, 0,21,42,31	
		51,11,25,47,27,57,38		3,45
40″	54,47,46, 8,33,42,24,43,42,45		4, 0,21,46,16	
		51,11,21,47, 6,11,22		3,45
42″	54,47,46,59,45, 4,11,49,54, 7		4, 0,21,50, 1	
		51,11,17,46,44,21,21		3,45
44″	54,47,47,50,56,21,58,34,15,28		4, 0,21,53,46	
		51,11,13,46,22,27,35		3,45
46″	54,47,48,42, 7,35,44,56,43, 3		4, 0,21,57,31	
		51,11, 9,46, 0,30, 4		3,45
48″	54,47,49,33,18,45,30,57,13, 7		4, 0,22, 1,16	
		51,11, 5,45,38,28,48		3,45
50″	54,47,50,24,29,51,16,35,41,55		4, 0,22, 5, 1	
		51,11, 1,45,16,23,47		3,45
52″	54,47,51,15,40,53, 1,52, 5,42		4, 0,22, 8,46	
		51,10,57,44,54,15, 1		3,45
54″	54,47,52, 6,51,50,46,46,20,43		4, 0,22,12,31	
		51,10,53,44,32, 2,30		3,45
56″	54,47,52,58, 2,44,31,18,23,13		4, 0,22,16,16	
		51,10,49,44, 9,46,14		3,45
58″	54,47,53,49,13,34,15,28, 9,27		4, 0,22,20, 1	
		51,10,45,43,47,26,13		
60″	54,47,54,40,24,19,59,15,35,40			
exact	54,47,54,40,24,19,59,16, 5,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°58′ 0″	54,47,54,40,24,19,59,16, 5,58			
		51,10,41,43,25, 5,40		
2″	54,47,55,31,35, 1,42,41,11,38		4, 0,22,27,17	
		51,10,37,43, 2,38,23		3,44
4″	54,47,56,22,45,39,25,43,50, 1		4, 0,22,31, 1	
		51,10,33,42,40, 7,22		3,44
6″	54,47,57,13,56,13, 8,23,57,23		4, 0,22,34,45	
		51,10,29,42,17,32,37		3,44
8″	54,47,58, 5, 6,42,50,41,30, 0		4, 0,22,38,29	
		51,10,25,41,54,54, 8		3,44
10″	54,47,58,56,17, 8,32,36,24, 8		4, 0,22,42,13	
		51,10,21,41,32,11,55		3,44
12″	54,47,59,47,27,30,14, 8,36, 3		4, 0,22,45,57	
		51,10,17,41, 9,25,58		3,44
14″	54,48, 0,38,37,47,55,18, 2, 1		4, 0,22,49,41	
		51,10,13,40,46,36,17		3,44
16″	54,48, 1,29,48, 1,36, 4,38,18		4, 0,22,53,25	
		51,10, 9,40,23,42,52		3,44
18″	54,48, 2,20,58,11,16,28,21,10		4, 0,22,57, 9	
		51,10, 5,40, 0,45,43		3,44
20″	54,48, 3,12, 8,16,56,29, 6,53		4, 0,23, 0,53	
		51,10, 1,39,37,44,50		3,44
22″	54,48, 4, 3,18,18,36, 6,51,43		4, 0,23, 4,37	
		51, 9,57,39,14,40,13		3,44
24″	54,48, 4,54,28,16,15,21,31,56		4, 0,23, 8,21	
		51, 9,53,38,51,31,52		3,44
26″	54,48, 5,45,38, 9,54,13, 3,48		4, 0,23,12, 5	
		51, 9,49,38,28,19,47		3,44
28″	54,48, 6,36,47,59,32,41,23,35		4, 0,23,15,49	
		51, 9,45,38, 5, 3,58		3,44
30″	54,48, 7,27,57,45,10,46,27,33		4, 0,23,19,33	
		51, 9,41,37,41,44,25		3,44
32″	54,48, 8,19, 7,26,48,28,11,58		4, 0,23,23,17	
		51, 9,37,37,18,21, 8		3,44
34″	54,48, 9,10,17, 4,25,46,33, 6		4, 0,23,27, 1	
		51, 9,33,36,54,54, 7		3,44
36″	54,48,10, 1,26,38, 2,41,27,13		4, 0,23,30,45	
		51, 9,29,36,31,23,22		3,44
38″	54,48,10,52,36, 7,39,12,50,35		4, 0,23,34,29	
		51, 9,25,36, 7,48,53		3,44
40″	54,48,11,43,45,33,15,20,39,28		4, 0,23,38,13	
		51, 9,21,35,44,10,40		3,44
42″	54,48,12,34,54,54,51, 4,50, 8		4, 0,23,41,57	
		51, 9,17,35,20,28,43		3,44
44″	54,48,13,26, 4,12,26,25,18,51		4, 0,23,45,41	
		51, 9,13,34,56,43, 2		3,44
46″	54,48,14,17,13,26, 1,22, 1,53		4, 0,23,49,25	
		51, 9, 9,34,32,53,37		3,44
48″	54,48,15, 8,22,35,35,54,55,30		4, 0,23,53, 9	
		51, 9, 5,34, 9, 0,28		3,44
50″	54,48,15,59,31,41,10, 3,55,58		4, 0,23,56,53	
		51, 9, 1,33,45, 3,35		3,44
52″	54,48,16,50,40,42,43,48,59,33		4, 0,24, 0,37	
		51, 8,57,33,21, 2,58		3,44
54″	54,48,17,41,49,40,17,10, 2,31		4, 0,24, 4,21	
		51, 8,53,32,56,58,37		3,44
56″	54,48,18,32,58,33,50, 7, 1, 8		4, 0,24, 8, 5	
		51, 8,49,32,32,50,32		3,44
58″	54,48,19,24, 7,23,22,39,51,40		4, 0,24,11,49	
		51, 8,45,32, 8,38,43		
60″	54,48,20,15,16, 8,54,48,30,23			
exact	54,48,20,15,16, 8,54,47,56,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
65°59′ 0″	54,48,20,15,16, 8,54,47,56,28			
		51, 8,41,31,44,19,45		
2″	54,48,21, 6,24,50,26,32,16,13		4, 0,24,19,30	
		51, 8,37,31,20, 0,15		3,44
4″	54,48,21,57,33,27,57,52,16,28		4, 0,24,23,14	
		51, 8,33,30,55,37, 1		3,44
6″	54,48,22,48,42, 1,28,47,53,29		4, 0,24,26,58	
		51, 8,29,30,31,10, 3		3,44
8″	54,48,23,39,50,30,59,19, 3,32		4, 0,24,30,42	
		51, 8,25,30, 6,39,21		3,44
10″	54,48,24,30,58,56,29,25,42,53		4, 0,24,34,26	
		51, 8,21,29,42, 4,55		3,44
12″	54,48,25,22, 7,17,59, 7,47,48		4, 0,24,38,10	
		51, 8,17,29,17,26,45		3,44
14″	54,48,26,13,15,35,28,25,14,33		4, 0,24,41,54	
		51, 8,13,28,52,44,51		3,44
16″	54,48,27, 4,23,48,57,17,59,24		4, 0,24,45,38	
		51, 8, 9,28,27,59,13		3,44
18″	54,48,27,55,31,58,25,45,58,37		4, 0,24,49,22	
		51, 8, 5,28, 3, 9,51		3,44
20″	54,48,28,46,40, 3,53,49, 8,28		4, 0,24,53, 6	
		51, 8, 1,27,38,16,45		3,44
22″	54,48,29,37,48, 5,21,27,25,13		4, 0,24,56,50	
		51, 7,57,27,13,19,55		3,44
24″	54,48,30,28,56, 2,48,40,45, 8		4, 0,25, 0,34	
		51, 7,53,26,48,19,21		3,44
26″	54,48,31,20, 3,56,15,29, 4,29		4, 0,25, 4,18	
		51, 7,49,26,23,15, 3		3,44
28″	54,48,32,11,11,45,41,52,19,32		4, 0,25, 8, 2	
		51, 7,45,25,58, 7, 1		3,44
30″	54,48,33, 2,19,31, 7,50,26,33		4, 0,25,11,46	
		51, 7,41,25,32,55,15		3,44
32″	54,48,33,53,27,12,33,23,21,48		4, 0,25,15,30	
		51, 7,37,25, 7,39,45		3,44
34″	54,48,34,44,34,49,58,31, 1,33		4, 0,25,19,14	
		51, 7,33,24,42,20,31		3,44
36″	54,48,35,35,42,23,23,13,22, 4		4, 0,25,22,58	
		51, 7,29,24,16,57,33		3,44
38″	54,48,36,26,49,52,47,30,19,37		4, 0,25,26,42	
		51, 7,25,23,51,30,51		3,44
40″	54,48,37,17,57,18,11,21,50,28		4, 0,25,30,26	
		51, 7,21,23,26, 0,25		3,44
42″	54,48,38, 9, 4,39,34,47,50,53		4, 0,25,34,10	
		51, 7,17,23, 0,26,15		3,44
44″	54,48,39, 0,11,56,57,48,17, 8		4, 0,25,37,54	
		51, 7,13,22,34,48,21		3,44
46″	54,48,39,51,19,10,20,23, 5,29		4, 0,25,41,38	
		51, 7, 9,22, 9, 6,43		3,44
48″	54,48,40,42,26,19,42,32,12,12		4, 0,25,45,22	
		51, 7, 5,21,43,21,21		3,44
50″	54,48,41,33,33,25, 4,15,33,33		4, 0,25,49, 6	
		51, 7, 1,21,17,32,15		3,44
52″	54,48,42,24,40,26,25,33, 5,48		4, 0,25,52,50	
		51, 6,57,20,51,39,25		3,44
54″	54,48,43,15,47,23,46,24,45,13		4, 0,25,56,34	
		51, 6,53,20,25,42,51		3,44
56″	54,48,44, 6,54,17, 6,50,28, 4		4, 0,26, 0,18	
		51, 6,49,19,59,42,33		3,44
58″	54,48,44,58, 1, 6,26,50,10,37		4, 0,26, 4, 2	
		51, 6,45,19,33,38,31		
60″	54,48,45,49, 7,51,46,23,49, 8			
exact	54,48,45,49, 7,51,46,23,28,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66° 0′ 0″	54,48,45,49, 7,51,46,23,28,28			
		51, 6,41,19, 7,28,37		
2″	54,48,46,40,14,33, 5,30,57, 5		4, 0,26,11,38	
		51, 6,37,18,41,16,59		3,44
4″	54,48,47,31,21,10,24,12,14, 4		4, 0,26,15,22	
		51, 6,33,18,15, 1,37		3,44
6″	54,48,48,22,27,43,42,27,15,41		4, 0,26,19, 6	
		51, 6,29,17,48,42,31		3,44
8″	54,48,49,13,34,13, 0,15,58,12		4, 0,26,22,50	
		51, 6,25,17,22,19,41		3,44
10″	54,48,50, 4,40,38,17,38,17,53		4, 0,26,26,34	
		51, 6,21,16,55,53, 7		3,44
12″	54,48,50,55,46,59,34,34,11, 0		4, 0,26,30,18	
		51, 6,17,16,29,22,49		3,44
14″	54,48,51,46,53,16,51, 3,33,49		4, 0,26,34, 2	
		51, 6,13,16, 2,48,47		3,44
16″	54,48,52,37,59,30, 7, 6,22,36		4, 0,26,37,46	
		51, 6, 9,15,36,11, 1		3,44
18″	54,48,53,29, 5,39,22,42,33,37		4, 0,26,41,30	
		51, 6, 5,15, 9,29,31		3,44
20″	54,48,54,20,11,44,37,52, 3, 8		4, 0,26,45,14	
		51, 6, 1,14,42,44,17		3,44
22″	54,48,55,11,17,45,52,34,47,25		4, 0,26,48,58	
		51, 5,57,14,15,55,19		3,44
24″	54,48,56, 2,23,43, 6,50,42,44		4, 0,26,52,42	
		51, 5,53,13,49, 2,37		3,44
26″	54,48,56,53,29,36,20,39,45,21		4, 0,26,56,26	
		51, 5,49,13,22, 6,11		3,44
28″	54,48,57,44,35,25,34, 1,51,32		4, 0,27, 0,10	
		51, 5,45,12,55, 6, 1		3,44
30″	54,48,58,35,41,10,46,56,57,33		4, 0,27, 3,54	
		51, 5,41,12,28, 2, 7		3,44
32″	54,48,59,26,46,51,59,24,59,40		4, 0,27, 7,38	
		51, 5,37,12, 0,54,29		3,44
34″	54,49, 0,17,52,29,11,25,54, 9		4, 0,27,11,22	
		51, 5,33,11,33,43, 7		3,44
36″	54,49, 1, 8,58, 2,22,59,37,16		4, 0,27,15, 6	
		51, 5,29,11, 6,28, 1		3,44
38″	54,49, 2, 0, 3,31,34, 6, 5,17		4, 0,27,18,50	
		51, 5,25,10,39, 9,11		3,44
40″	54,49, 2,51, 8,56,44,45,14,28		4, 0,27,22,34	
		51, 5,21,10,11,46,37		3,44
42″	54,49, 3,42,14,17,54,57, 1, 5		4, 0,27,26,18	
		51, 5,17, 9,44,20,19		3,44
44″	54,49, 4,33,19,35, 4,41,21,24		4, 0,27,30, 2	
		51, 5,13, 9,16,50,17		3,44
46″	54,49, 5,24,24,48,13,58,11,41		4, 0,27,33,46	
		51, 5, 9, 8,49,16,31		3,44
48″	54,49, 6,15,29,57,22,47,28,12		4, 0,27,37,30	
		51, 5, 5, 8,21,39, 1		3,44
50″	54,49, 7, 6,35, 2,31, 9, 7,13		4, 0,27,41,14	
		51, 5, 1, 7,53,57,47		3,44
52″	54,49, 7,57,40, 3,39, 3, 5, 0		4, 0,27,44,58	
		51, 4,57, 7,26,12,49		3,44
54″	54,49, 8,48,45, 0,46,29,17,49		4, 0,27,48,42	
		51, 4,53, 6,58,24, 7		3,44
56″	54,49, 9,39,49,53,53,27,41,56		4, 0,27,52,26	
		51, 4,49, 6,30,31,41		3,44
58″	54,49,10,30,54,42,59,58,13,37		4, 0,27,56,10	
		51, 4,45, 6, 2,35,31		
60″	54,49,11,21,59,28, 6, 0,49, 8			
exact	54,49,11,21,59,28, 6, 0,37,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66° 1′ 0″	54,49,11,21,59,28, 6, 0,37,54			
		51, 4,41, 5,34,34,30		
2″	54,49,12,13, 4, 9,11,35,12,24		4, 0,28, 3,42	
		51, 4,37, 5, 6,30,48		3,44
4″	54,49,13, 4, 8,46,16,41,43,12		4, 0,28, 7,26	
		51, 4,33, 4,38,23,22		3,44
6″	54,49,13,55,13,19,21,20, 6,34		4, 0,28,11,10	
		51, 4,29, 4,10,12,12		3,44
8″	54,49,14,46,17,48,25,30,18,46		4, 0,28,14,54	
		51, 4,25, 3,41,57,18		3,44
10″	54,49,15,37,22,13,29,12,16, 4		4, 0,28,18,38	
		51, 4,21, 3,13,38,40		3,44
12″	54,49,16,28,26,34,32,25,54,44		4, 0,28,22,22	
		51, 4,17, 2,45,16,18		3,44
14″	54,49,17,19,30,51,35,11,11, 2		4, 0,28,26, 6	
		51, 4,13, 2,16,50,12		3,44
16″	54,49,18,10,35, 4,37,28, 1,14		4, 0,28,29,50	
		51, 4, 9, 1,48,20,22		3,44
18″	54,49,19, 1,39,13,39,16,21,36		4, 0,28,33,34	
		51, 4, 5, 1,19,46,48		3,44
20″	54,49,19,52,43,18,40,36, 8,24		4, 0,28,37,18	
		51, 4, 1, 0,51, 9,30		3,44
22″	54,49,20,43,47,19,41,27,17,54		4, 0,28,41, 2	
		51, 3,57, 0,22,28,28		3,44
24″	54,49,21,34,51,16,41,49,46,22		4, 0,28,44,46	
		51, 3,52,59,53,43,42		3,44
26″	54,49,22,25,55, 9,41,43,30, 4		4, 0,28,48,30	
		51, 3,48,59,24,55,12		3,44
28″	54,49,23,16,58,58,41, 8,25,16		4, 0,28,52,14	
		51, 3,44,58,56, 2,58		3,44
30″	54,49,24, 8, 2,43,40, 4,28,14		4, 0,28,55,58	
		51, 3,40,58,27, 7, 0		3,44
32″	54,49,24,59, 6,24,38,31,35,14		4, 0,28,59,42	
		51, 3,36,57,58, 7,18		3,44
34″	54,49,25,50,10, 1,36,29,42,32		4, 0,29, 3,26	
		51, 3,32,57,29, 3,52		3,44
36″	54,49,26,41,13,34,33,58,46,24		4, 0,29, 7,10	
		51, 3,28,56,59,56,42		3,44
38″	54,49,27,32,17, 3,30,58,43, 6		4, 0,29,10,54	
		51, 3,24,56,30,45,48		3,44
40″	54,49,28,23,20,28,27,29,28,54		4, 0,29,14,38	
		51, 3,20,56, 1,31,10		3,44
42″	54,49,29,14,23,49,23,31, 0, 4		4, 0,29,18,22	
		51, 3,16,55,32,12,48		3,44
44″	54,49,30, 5,27, 6,19, 3,12,52		4, 0,29,22, 6	
		51, 3,12,55, 2,50,42		3,44
46″	54,49,30,56,30,19,14, 6, 3,34		4, 0,29,25,50	
		51, 3, 8,54,33,24,52		3,44
48″	54,49,31,47,33,28, 8,39,28,26		4, 0,29,29,34	
		51, 3, 4,54, 3,55,18		3,44
50″	54,49,32,38,36,33, 2,43,23,44		4, 0,29,33,18	
		51, 3, 0,53,34,22, 0		3,44
52″	54,49,33,29,39,33,56,17,45,44		4, 0,29,37, 2	
		51, 2,56,53, 4,44,58		3,44
54″	54,49,34,20,42,30,49,22,30,42		4, 0,29,40,46	
		51, 2,52,52,35, 4,12		3,44
56″	54,49,35,11,45,23,41,57,34,54		4, 0,29,44,30	
		51, 2,48,52, 5,19,42		3,44
58″	54,49,36, 2,48,12,34, 2,54,36		4, 0,29,48,14	
		51, 2,44,51,35,31,28		
60″	54,49,36,53,50,57,25,38,26, 4			
exact	54,49,36,53,50,57,25,38,26,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66° 2′ 0″	54,49,36,53,50,57,25,38,26,35			
		51, 2,40,51, 5,39,35		
2″	54,49,37,44,53,38,16,44, 6,10		4, 0,29,55,41	
		51, 2,36,50,35,43,54		3,44
4″	54,49,38,35,56,15, 7,19,50, 4		4, 0,29,59,25	
		51, 2,32,50, 5,44,29		3,44
6″	54,49,39,26,58,47,57,25,34,33		4, 0,30, 3, 9	
		51, 2,28,49,35,41,20		3,44
8″	54,49,40,18, 1,16,47, 1,15,53		4, 0,30, 6,53	
		51, 2,24,49, 5,34,27		3,44
10″	54,49,41, 9, 3,41,36, 6,50,20		4, 0,30,10,37	
		51, 2,20,48,35,23,50		3,44
12″	54,49,42, 0, 6, 2,24,42,14,10		4, 0,30,14,21	
		51, 2,16,48, 5, 9,29		3,44
14″	54,49,42,51, 8,19,12,47,23,39		4, 0,30,18, 5	
		51, 2,12,47,34,51,24		3,44
16″	54,49,43,42,10,32, 0,22,15, 3		4, 0,30,21,49	
		51, 2, 8,47, 4,29,35		3,44
18″	54,49,44,33,12,40,47,26,44,38		4, 0,30,25,33	
		51, 2, 4,46,34, 4, 2		3,44
20″	54,49,45,24,14,45,34, 0,48,40		4, 0,30,29,17	
		51, 2, 0,46, 3,34,45		3,44
22″	54,49,46,15,16,46,20, 4,23,25		4, 0,30,33, 1	
		51, 1,56,45,33, 1,44		3,44
24″	54,49,47, 6,18,43, 5,37,25, 9		4, 0,30,36,45	
		51, 1,52,45, 2,24,59		3,44
26″	54,49,47,57,20,35,50,39,50, 8		4, 0,30,40,29	
		51, 1,48,44,31,44,30		3,44
28″	54,49,48,48,22,24,35,11,34,38		4, 0,30,44,13	
		51, 1,44,44, 1, 0,17		3,44
30″	54,49,49,39,24, 9,19,12,34,55		4, 0,30,47,57	
		51, 1,40,43,30,12,20		3,44
32″	54,49,50,30,25,50, 2,42,47,15		4, 0,30,51,41	
		51, 1,36,42,59,20,39		3,44
34″	54,49,51,21,27,26,45,42, 7,54		4, 0,30,55,25	
		51, 1,32,42,28,25,14		3,44
36″	54,49,52,12,28,59,28,10,33, 8		4, 0,30,59, 9	
		51, 1,28,41,57,26, 5		3,44
38″	54,49,53, 3,30,28,10, 7,59,13		4, 0,31, 2,53	
		51, 1,24,41,26,23,12		3,44
40″	54,49,53,54,31,52,51,34,22,25		4, 0,31, 6,37	
		51, 1,20,40,55,16,35		3,44
42″	54,49,54,45,33,13,32,29,39, 0		4, 0,31,10,21	
		51, 1,16,40,24, 6,14		3,44
44″	54,49,55,36,34,30,12,53,45,14		4, 0,31,14, 5	
		51, 1,12,39,52,52, 9		3,44
46″	54,49,56,27,35,42,52,46,37,23		4, 0,31,17,49	
		51, 1, 8,39,21,34,20		3,44
48″	54,49,57,18,36,51,32, 8,11,43		4, 0,31,21,33	
		51, 1, 4,38,50,12,47		3,44
50″	54,49,58, 9,37,56,10,58,24,30		4, 0,31,25,17	
		51, 1, 0,38,18,47,30		3,44
52″	54,49,59, 0,38,56,49,17,12, 0		4, 0,31,29, 1	
		51, 0,56,37,47,18,29		3,44
54″	54,49,59,51,39,53,27, 4,30,29		4, 0,31,32,45	
		51, 0,52,37,15,45,44		3,44
56″	54,50, 0,42,40,46, 4,20,16,13		4, 0,31,36,29	
		51, 0,48,36,44, 9,15		3,44
58″	54,50, 1,33,41,34,41, 4,25,28		4, 0,31,40,13	
		51, 0,44,36,12,29, 2		
60″	54,50, 2,24,42,19,17,16,54,30			
exact	54,50, 2,24,42,19,17,17, 2,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66° 3′ 0″	54,50, 2,24,42,19,17,17, 2,20			
		51, 0,40,35,40,46, 3		
2″	54,50, 3,15,42,59,52,57,48,23		4, 0,31,47,36	
		51, 0,36,35, 8,58,27		3,44
4″	54,50, 4, 6,43,36,28, 6,46,50		4, 0,31,51,20	
		51, 0,32,34,37, 7, 7		3,44
6″	54,50, 4,57,44, 9, 2,43,53,57		4, 0,31,55, 4	
		51, 0,28,34, 5,12, 3		3,44
8″	54,50, 5,48,44,37,36,49, 6, 0		4, 0,31,58,48	
		51, 0,24,33,33,13,15		3,44
10″	54,50, 6,39,45, 2,10,22,19,15		4, 0,32, 2,32	
		51, 0,20,33, 1,10,43		3,44
12″	54,50, 7,30,45,22,43,23,29,58		4, 0,32, 6,16	
		51, 0,16,32,29, 4,27		3,44
14″	54,50, 8,21,45,39,15,52,34,25		4, 0,32,10, 0	
		51, 0,12,31,56,54,27		3,44
16″	54,50, 9,12,45,51,47,49,28,52		4, 0,32,13,44	
		51, 0, 8,31,24,40,43		3,44
18″	54,50,10, 3,46, 0,19,14, 9,35		4, 0,32,17,28	
		51, 0, 4,30,52,23,15		3,44
20″	54,50,10,54,46, 4,50, 6,32,50		4, 0,32,21,12	
		51, 0, 0,30,20, 2, 3		3,44
22″	54,50,11,45,46, 5,20,26,34,53		4, 0,32,24,56	
		50,59,56,29,47,37, 7		3,44
24″	54,50,12,36,46, 1,50,14,12, 0		4, 0,32,28,40	
		50,59,52,29,15, 8,27		3,44
26″	54,50,13,27,45,54,19,29,20,27		4, 0,32,32,24	
		50,59,48,28,42,36, 3		3,44
28″	54,50,14,18,45,42,48,11,56,30		4, 0,32,36, 8	
		50,59,44,28, 9,59,55		3,44
30″	54,50,15, 9,45,27,16,21,56,25		4, 0,32,39,52	
		50,59,40,27,37,20, 3		3,44
32″	54,50,16, 0,45, 7,43,59,16,28		4, 0,32,43,36	
		50,59,36,27, 4,36,27		3,44
34″	54,50,16,51,44,44,11, 3,52,55		4, 0,32,47,20	
		50,59,32,26,31,49, 7		3,44
36″	54,50,17,42,44,16,37,35,42, 2		4, 0,32,51, 4	
		50,59,28,25,58,58, 3		3,44
38″	54,50,18,33,43,45, 3,34,40, 5		4, 0,32,54,48	
		50,59,24,25,26, 3,15		3,44
40″	54,50,19,24,43, 9,29, 0,43,20		4, 0,32,58,32	
		50,59,20,24,53, 4,43		3,44
42″	54,50,20,15,42,29,53,53,48, 3		4, 0,33, 2,16	
		50,59,16,24,20, 2,27		3,44
44″	54,50,21, 6,41,46,18,13,50,30		4, 0,33, 6, 0	
		50,59,12,23,46,56,27		3,44
46″	54,50,21,57,40,58,42, 0,46,57		4, 0,33, 9,44	
		50,59, 8,23,13,46,43		3,44
48″	54,50,22,48,40, 7, 5,14,33,40		4, 0,33,13,28	
		50,59, 4,22,40,33,15		3,44
50″	54,50,23,39,39,11,27,55, 6,55		4, 0,33,17,12	
		50,59, 0,22, 7,16, 3		3,44
52″	54,50,24,30,38,11,50, 2,22,58		4, 0,33,20,56	
		50,58,56,21,33,55, 7		3,44
54″	54,50,25,21,37, 8,11,36,18, 5		4, 0,33,24,40	
		50,58,52,21, 0,30,27		3,44
56″	54,50,26,12,36, 0,32,36,48,32		4, 0,33,28,24	
		50,58,48,20,27, 2, 3		3,44
58″	54,50,27, 3,34,48,53, 3,50,35		4, 0,33,32, 8	
		50,58,44,19,53,29,55		
60″	54,50,27,54,33,33,12,57,20,30			
exact	54,50,27,54,33,33,12,57,38,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66° 4′ 0″	54,50,27,54,33,33,12,57,38,49			
		50,58,40,19,19,56, 7		
2″	54,50,28,45,32,13,32,17,34,56		4, 0,33,39,27	
		50,58,36,18,46,16,40		3,44
4″	54,50,29,36,30,49,51, 3,51,36		4, 0,33,43,11	
		50,58,32,18,12,33,29		3,44
6″	54,50,30,27,29,22, 9,16,25, 5		4, 0,33,46,55	
		50,58,28,17,38,46,34		3,44
8″	54,50,31,18,27,50,26,55,11,39		4, 0,33,50,39	
		50,58,24,17, 4,55,55		3,44
10″	54,50,32, 9,26,14,44, 0, 7,34		4, 0,33,54,23	
		50,58,20,16,31, 1,32		3,44
12″	54,50,33, 0,24,35, 0,31, 9, 6		4, 0,33,58, 7	
		50,58,16,15,57, 3,25		3,44
14″	54,50,33,51,22,51,16,28,12,31		4, 0,34, 1,51	
		50,58,12,15,23, 1,34		3,44
16″	54,50,34,42,21, 3,31,51,14, 5		4, 0,34, 5,35	
		50,58, 8,14,48,55,59		3,44
18″	54,50,35,33,19,11,46,40,10, 4		4, 0,34, 9,19	
		50,58, 4,14,14,46,40		3,44
20″	54,50,36,24,17,16, 0,54,56,44		4, 0,34,13, 3	
		50,58, 0,13,40,33,37		3,44
22″	54,50,37,15,15,16,14,35,30,21		4, 0,34,16,47	
		50,57,56,13, 6,16,50		3,44
24″	54,50,38, 6,13,12,27,41,47,11		4, 0,34,20,31	
		50,57,52,12,31,56,19		3,44
26″	54,50,38,57,11, 4,40,13,43,30		4, 0,34,24,15	
		50,57,48,11,57,32, 4		3,44
28″	54,50,39,48, 8,52,52,11,15,34		4, 0,34,27,59	
		50,57,44,11,23, 4, 5		3,44
30″	54,50,40,39, 6,37, 3,34,19,39		4, 0,34,31,43	
		50,57,40,10,48,32,22		3,44
32″	54,50,41,30, 4,17,14,22,52, 1		4, 0,34,35,27	
		50,57,36,10,13,56,55		3,44
34″	54,50,42,21, 1,53,24,36,48,56		4, 0,34,39,11	
		50,57,32, 9,39,17,44		3,44
36″	54,50,43,11,59,25,34,16, 6,40		4, 0,34,42,55	
		50,57,28, 9, 4,34,49		3,44
38″	54,50,44, 2,56,53,43,20,41,29		4, 0,34,46,39	
		50,57,24, 8,29,48,10		3,44
40″	54,50,44,53,54,17,51,50,29,39		4, 0,34,50,23	
		50,57,20, 7,54,57,47		3,44
42″	54,50,45,44,51,37,59,45,27,26		4, 0,34,54, 7	
		50,57,16, 7,20, 3,40		3,44
44″	54,50,46,35,48,54, 7, 5,31, 6		4, 0,34,57,51	
		50,57,12, 6,45, 5,49		3,44
46″	54,50,47,26,46, 6,13,50,36,55		4, 0,35, 1,35	
		50,57, 8, 6,10, 4,14		3,44
48″	54,50,48,17,43,14,20, 0,41, 9		4, 0,35, 5,19	
		50,57, 4, 5,34,58,55		3,44
50″	54,50,49, 8,40,18,25,35,40, 4		4, 0,35, 9, 3	
		50,57, 0, 4,59,49,52		3,44
52″	54,50,49,59,37,18,30,35,29,56		4, 0,35,12,47	
		50,56,56, 4,24,37, 5		3,44
54″	54,50,50,50,34,14,35, 0, 7, 1		4, 0,35,16,31	
		50,56,52, 3,49,20,34		3,44
56″	54,50,51,41,31, 6,38,49,27,35		4, 0,35,20,15	
		50,56,48, 3,14, 0,19		3,44
58″	54,50,52,32,27,54,42, 3,27,54		4, 0,35,23,59	
		50,56,44, 2,38,36,20		
60″	54,50,53,23,24,38,44,42, 4,14			
exact	54,50,53,23,24,38,44,42,35,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66° 5′ 0″	54,50,53,23,24,38,44,42,35,43			
		50,56,40, 2, 3,11,58		
2″	54,50,54,14,21,18,46,45,47,41		4, 0,35,31,13	
		50,56,36, 1,27,40,45		3,43
4″	54,50,55, 5,17,54,48,13,28,26		4, 0,35,34,56	
		50,56,32, 0,52, 5,49		3,43
6″	54,50,55,56,14,26,49, 5,34,15		4, 0,35,38,39	
		50,56,28, 0,16,27,10		3,43
8″	54,50,56,47,10,54,49,22, 1,25		4, 0,35,42,22	
		50,56,23,59,40,44,48		3,43
10″	54,50,57,38, 7,18,49, 2,46,13		4, 0,35,46, 5	
		50,56,19,59, 4,58,43		3,43
12″	54,50,58,29, 3,38,48, 7,44,56		4, 0,35,49,48	
		50,56,15,58,29, 8,55		3,43
14″	54,50,59,19,59,54,46,36,53,51		4, 0,35,53,31	
		50,56,11,57,53,15,24		3,43
16″	54,51, 0,10,56, 6,44,30, 9,15		4, 0,35,57,14	
		50,56, 7,57,17,18,10		3,43
18″	54,51, 1, 1,52,14,41,47,27,25		4, 0,36, 0,57	
		50,56, 3,56,41,17,13		3,43
20″	54,51, 1,52,48,18,38,28,44,38		4, 0,36, 4,40	
		50,55,59,56, 5,12,33		3,43
22″	54,51, 2,43,44,18,34,33,57,11		4, 0,36, 8,23	
		50,55,55,55,29, 4,10		3,43
24″	54,51, 3,34,40,14,30, 3, 1,21		4, 0,36,12, 6	
		50,55,51,54,52,52, 4		3,43
26″	54,51, 4,25,36, 6,24,55,53,25		4, 0,36,15,49	
		50,55,47,54,16,36,15		3,43
28″	54,51, 5,16,31,54,19,12,29,40		4, 0,36,19,32	
		50,55,43,53,40,16,43		3,43
30″	54,51, 6, 7,27,38,12,52,46,23		4, 0,36,23,15	
		50,55,39,53, 3,53,28		3,43
32″	54,51, 6,58,23,18, 5,56,39,51		4, 0,36,26,58	
		50,55,35,52,27,26,30		3,43
34″	54,51, 7,49,18,53,58,24, 6,21		4, 0,36,30,41	
		50,55,31,51,50,55,49		3,43
36″	54,51, 8,40,14,25,50,15, 2,10		4, 0,36,34,24	
		50,55,27,51,14,21,25		3,43
38″	54,51, 9,31, 9,53,41,29,23,35		4, 0,36,38, 7	
		50,55,23,50,37,43,18		3,43
40″	54,51,10,22, 5,17,32, 7, 6,53		4, 0,36,41,50	
		50,55,19,50, 1, 1,28		3,43
42″	54,51,11,13, 0,37,22, 8, 8,21		4, 0,36,45,33	
		50,55,15,49,24,15,55		3,43
44″	54,51,12, 3,55,53,11,32,24,16		4, 0,36,49,16	
		50,55,11,48,47,26,39		3,43
46″	54,51,12,54,51, 5, 0,19,50,55		4, 0,36,52,59	
		50,55, 7,48,10,33,40		3,43
48″	54,51,13,45,46,12,48,30,24,35		4, 0,36,56,42	
		50,55, 3,47,33,36,58		3,43
50″	54,51,14,36,41,16,36, 4, 1,33		4, 0,37, 0,25	
		50,54,59,46,56,36,33		3,43
52″	54,51,15,27,36,16,23, 0,38, 6		4, 0,37, 4, 8	
		50,54,55,46,19,32,25		3,43
54″	54,51,16,18,31,12, 9,20,10,31		4, 0,37, 7,51	
		50,54,51,45,42,24,34		3,43
56″	54,51,17, 9,26, 3,55, 2,35, 5		4, 0,37,11,34	
		50,54,47,45, 5,13, 0		3,43
58″	54,51,18, 0,20,51,40, 7,48, 5		4, 0,37,15,17	
		50,54,43,44,27,57,43		
60″	54,51,18,51,15,35,24,35,45,48			
exact	54,51,18,51,15,35,24,35,18,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66° 6′ 0″	54,51,18,51,15,35,24,35,18,37			
		50,54,39,43,50,35,49		
2″	54,51,19,42,10,15, 8,25,54,26		4, 0,37,22,55	
		50,54,35,43,13,12,54		3,43
4″	54,51,20,33, 4,50,51,39, 7,20		4, 0,37,26,38	
		50,54,31,42,35,46,16		3,43
6″	54,51,21,23,59,22,34,14,53,36		4, 0,37,30,21	
		50,54,27,41,58,15,55		3,43
8″	54,51,22,14,53,50,16,13, 9,31		4, 0,37,34, 4	
		50,54,23,41,20,41,51		3,43
10″	54,51,23, 5,48,13,57,33,51,22		4, 0,37,37,47	
		50,54,19,40,43, 4, 4		3,43
12″	54,51,23,56,42,33,38,16,55,26		4, 0,37,41,30	
		50,54,15,40, 5,22,34		3,43
14″	54,51,24,47,36,49,18,22,18, 0		4, 0,37,45,13	
		50,54,11,39,27,37,21		3,43
16″	54,51,25,38,31, 0,57,49,55,21		4, 0,37,48,56	
		50,54, 7,38,49,48,25		3,43
18″	54,51,26,29,25, 8,36,39,43,46		4, 0,37,52,39	
		50,54, 3,38,11,55,46		3,43
20″	54,51,27,20,19,12,14,51,39,32		4, 0,37,56,22	
		50,53,59,37,33,59,24		3,43
22″	54,51,28,11,13,11,52,25,38,56		4, 0,38, 0, 5	
		50,53,55,36,55,59,19		3,43
24″	54,51,29, 2, 7, 7,29,21,38,15		4, 0,38, 3,48	
		50,53,51,36,17,55,31		3,43
26″	54,51,29,53, 0,59, 5,39,33,46		4, 0,38, 7,31	
		50,53,47,35,39,48, 0		3,43
28″	54,51,30,43,54,46,41,19,21,46		4, 0,38,11,14	
		50,53,43,35, 1,36,46		3,43
30″	54,51,31,34,48,30,16,20,58,32		4, 0,38,14,57	
		50,53,39,34,23,21,49		3,43
32″	54,51,32,25,42, 9,50,44,20,21		4, 0,38,18,40	
		50,53,35,33,45, 3, 9		3,43
34″	54,51,33,16,35,45,24,29,23,30		4, 0,38,22,23	
		50,53,31,33, 6,40,46		3,43
36″	54,51,34, 7,29,16,57,36, 4,16		4, 0,38,26, 6	
		50,53,27,32,28,14,40		3,43
38″	54,51,34,58,22,44,30, 4,18,56		4, 0,38,29,49	
		50,53,23,31,49,44,51		3,43
40″	54,51,35,49,16, 8, 1,54, 3,47		4, 0,38,33,32	
		50,53,19,31,11,11,19		3,43
42″	54,51,36,40, 9,27,33, 5,15, 6		4, 0,38,37,15	
		50,53,15,30,32,34, 4		3,43
44″	54,51,37,31, 2,43, 3,37,49,10		4, 0,38,40,58	
		50,53,11,29,53,53, 6		3,43
46″	54,51,38,21,55,54,33,31,42,16		4, 0,38,44,41	
		50,53, 7,29,15, 8,25		3,43
48″	54,51,39,12,49, 2, 2,46,50,41		4, 0,38,48,24	
		50,53, 3,28,36,20, 1		3,43
50″	54,51,40, 3,42, 5,31,23,10,42		4, 0,38,52, 7	
		50,52,59,27,57,27,54		3,43
52″	54,51,40,54,35, 4,59,20,38,36		4, 0,38,55,50	
		50,52,55,27,18,32, 4		3,43
54″	54,51,41,45,28, 0,26,39,10,40		4, 0,38,59,33	
		50,52,51,26,39,32,31		3,43
56″	54,51,42,36,20,51,53,18,43,11		4, 0,39, 3,16	
		50,52,47,26, 0,29,15		3,43
58″	54,51,43,27,13,39,19,19,12,26		4, 0,39, 6,59	
		50,52,43,25,21,22,16		
60″	54,51,44,18, 6,22,44,40,34,42			
exact	54,51,44,18, 6,22,44,40,19, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66° 7′ 0″	54,51,44,18, 6,22,44,40,19, 6			
		50,52,39,24,42, 9,51		
2″	54,51,45, 8,59, 2, 9,22,28,57		4, 0,39,14,32	
		50,52,35,24, 2,55,19		3,43
4″	54,51,45,59,51,37,33,25,24,16		4, 0,39,18,15	
		50,52,31,23,23,37, 4		3,43
6″	54,51,46,50,44, 8,56,49, 1,20		4, 0,39,21,58	
		50,52,27,22,44,15, 6		3,43
8″	54,51,47,41,36,36,19,33,16,26		4, 0,39,25,41	
		50,52,23,22, 4,49,25		3,43
10″	54,51,48,32,28,59,41,38, 5,51		4, 0,39,29,24	
		50,52,19,21,25,20, 1		3,43
12″	54,51,49,23,21,19, 3, 3,25,52		4, 0,39,33, 7	
		50,52,15,20,45,46,54		3,43
14″	54,51,50,14,13,34,23,49,12,46		4, 0,39,36,50	
		50,52,11,20, 6,10, 4		3,43
16″	54,51,51, 5, 5,45,43,55,22,50		4, 0,39,40,33	
		50,52, 7,19,26,29,31		3,43
18″	54,51,51,55,57,53, 3,21,52,21		4, 0,39,44,16	
		50,52, 3,18,46,45,15		3,43
20″	54,51,52,46,49,56,22, 8,37,36		4, 0,39,47,59	
		50,51,59,18, 6,57,16		3,43
22″	54,51,53,37,41,55,40,15,34,52		4, 0,39,51,42	
		50,51,55,17,27, 5,34		3,43
24″	54,51,54,28,33,50,57,42,40,26		4, 0,39,55,25	
		50,51,51,16,47,10, 9		3,43
26″	54,51,55,19,25,42,14,29,50,35		4, 0,39,59, 8	
		50,51,47,16, 7,11, 1		3,43
28″	54,51,56,10,17,29,30,37, 1,36		4, 0,40, 2,51	
		50,51,43,15,27, 8,10		3,43
30″	54,51,57, 1, 9,12,46, 4, 9,46		4, 0,40, 6,34	
		50,51,39,14,47, 1,36		3,43
32″	54,51,57,52, 0,52, 0,51,11,22		4, 0,40,10,17	
		50,51,35,14, 6,51,19		3,43
34″	54,51,58,42,52,27,14,58, 2,41		4, 0,40,14, 0	
		50,51,31,13,26,37,19		3,43
36″	54,51,59,33,43,58,28,24,40, 0		4, 0,40,17,43	
		50,51,27,12,46,19,36		3,43
38″	54,52, 0,24,35,25,41,10,59,36		4, 0,40,21,26	
		50,51,23,12, 5,58,10		3,43
40″	54,52, 1,15,26,48,53,16,57,46		4, 0,40,25, 9	
		50,51,19,11,25,33, 1		3,43
42″	54,52, 2, 6,18, 8, 4,42,30,47		4, 0,40,28,52	
		50,51,15,10,45, 4, 9		3,43
44″	54,52, 2,57, 9,23,15,27,34,56		4, 0,40,32,35	
		50,51,11,10, 4,31,34		3,43
46″	54,52, 3,48, 0,34,25,32, 6,30		4, 0,40,36,18	
		50,51, 7, 9,23,55,16		3,43
48″	54,52, 4,38,51,41,34,56, 1,46		4, 0,40,40, 1	
		50,51, 3, 8,43,15,15		3,43
50″	54,52, 5,29,42,44,43,39,17, 1		4, 0,40,43,44	
		50,50,59, 8, 2,31,31		3,43
52″	54,52, 6,20,33,43,51,41,48,32		4, 0,40,47,27	
		50,50,55, 7,21,44, 4		3,43
54″	54,52, 7,11,24,38,59, 3,32,36		4, 0,40,51,10	
		50,50,51, 6,40,52,54		3,43
56″	54,52, 8, 2,15,30, 5,44,25,30		4, 0,40,54,53	
		50,50,47, 5,59,58, 1		3,43
58″	54,52, 8,53, 6,17,11,44,23,31		4, 0,40,58,36	
		50,50,43, 5,18,59,25		
60″	54,52, 9,43,57, 0,17, 3,22,56			
exact	54,52, 9,43,57, 0,17, 3,14,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66° 8′ 0″	54,52, 9,43,57, 0,17, 3,14,40			
		50,50,39, 4,37,56,16		
2″	54,52,10,34,47,39,21,41,10,56		4, 0,41, 6, 5	
		50,50,35, 3,56,50,11		3,43
4″	54,52,11,25,38,14,25,38, 1, 7		4, 0,41, 9,48	
		50,50,31, 3,15,40,23		3,43
6″	54,52,12,16,28,45,28,53,41,30		4, 0,41,13,31	
		50,50,27, 2,34,26,52		3,43
8″	54,52,13, 7,19,12,31,28, 8,22		4, 0,41,17,14	
		50,50,23, 1,53, 9,38		3,43
10″	54,52,13,58, 9,35,33,21,18, 0		4, 0,41,20,57	
		50,50,19, 1,11,48,41		3,43
12″	54,52,14,48,59,54,34,33, 6,41		4, 0,41,24,40	
		50,50,15, 0,30,24, 1		3,43
14″	54,52,15,39,50, 9,35, 3,30,42		4, 0,41,28,23	
		50,50,10,59,48,55,38		3,43
16″	54,52,16,30,40,20,34,52,26,20		4, 0,41,32, 6	
		50,50, 6,59, 7,23,32		3,43
18″	54,52,17,21,30,27,33,59,49,52		4, 0,41,35,49	
		50,50, 2,58,25,47,43		3,43
20″	54,52,18,12,20,30,32,25,37,35		4, 0,41,39,32	
		50,49,58,57,44, 8,11		3,43
22″	54,52,19, 3,10,29,30, 9,45,46		4, 0,41,43,15	
		50,49,54,57, 2,24,56		3,43
24″	54,52,19,54, 0,24,27,12,10,42		4, 0,41,46,58	
		50,49,50,56,20,37,58		3,43
26″	54,52,20,44,50,15,23,32,48,40		4, 0,41,50,41	
		50,49,46,55,38,47,17		3,43
28″	54,52,21,35,40, 2,19,11,35,57		4, 0,41,54,24	
		50,49,42,54,56,52,53		3,43
30″	54,52,22,26,29,45,14, 8,28,50		4, 0,41,58, 7	
		50,49,38,54,14,54,46		3,43
32″	54,52,23,17,19,24, 8,23,23,36		4, 0,42, 1,50	
		50,49,34,53,32,52,56		3,43
34″	54,52,24, 8, 8,59, 1,56,16,32		4, 0,42, 5,33	
		50,49,30,52,50,47,23		3,43
36″	54,52,24,58,58,29,54,47, 3,55		4, 0,42, 9,16	
		50,49,26,52, 8,38, 7		3,43
38″	54,52,25,49,47,56,46,55,42, 2		4, 0,42,12,59	
		50,49,22,51,26,25, 8		3,43
40″	54,52,26,40,37,19,38,22, 7,10		4, 0,42,16,42	
		50,49,18,50,44, 8,26		3,43
42″	54,52,27,31,26,38,29, 6,15,36		4, 0,42,20,25	
		50,49,14,50, 1,48, 1		3,43
44″	54,52,28,22,15,53,19, 8, 3,37		4, 0,42,24, 8	
		50,49,10,49,19,23,53		3,43
46″	54,52,29,13, 5, 4, 8,27,27,30		4, 0,42,27,51	
		50,49, 6,48,36,56, 2		3,43
48″	54,52,30, 3,54,10,57, 4,23,32		4, 0,42,31,34	
		50,49, 2,47,54,24,28		3,43
50″	54,52,30,54,43,13,44,58,48, 0		4, 0,42,35,17	
		50,48,58,47,11,49,11		3,43
52″	54,52,31,45,32,12,32,10,37,11		4, 0,42,39, 0	
		50,48,54,46,29,10,11		3,43
54″	54,52,32,36,21, 7,18,39,47,22		4, 0,42,42,43	
		50,48,50,45,46,27,28		3,43
56″	54,52,33,27, 9,58, 4,26,14,50		4, 0,42,46,26	
		50,48,46,45, 3,41, 2		3,43
58″	54,52,34,17,58,44,49,29,55,52		4, 0,42,50, 9	
		50,48,42,44,20,50,53		
60″	54,52,35, 8,47,27,33,50,46,45			
exact	54,52,35, 8,47,27,33,50,48,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66° 9′ 0″	54,52,35, 8,47,27,33,50,48,50			
		50,48,38,43,37,57,17		
2″	54,52,35,59,36, 6,17,28,46, 7		4, 0,42,57,33	
		50,48,34,42,54,59,44		3,43
4″	54,52,36,50,24,41, 0,23,45,51		4, 0,43, 1,16	
		50,48,30,42,11,58,28		3,43
6″	54,52,37,41,13,11,42,35,44,19		4, 0,43, 4,59	
		50,48,26,41,28,53,29		3,43
8″	54,52,38,32, 1,38,24, 4,37,48		4, 0,43, 8,42	
		50,48,22,40,45,44,47		3,43
10″	54,52,39,22,50, 1, 4,50,22,35		4, 0,43,12,25	
		50,48,18,40, 2,32,22		3,43
12″	54,52,40,13,38,19,44,52,54,57		4, 0,43,16, 8	
		50,48,14,39,19,16,14		3,43
14″	54,52,41, 4,26,34,24,12,11,11		4, 0,43,19,51	
		50,48,10,38,35,56,23		3,43
16″	54,52,41,55,14,45, 2,48, 7,34		4, 0,43,23,34	
		50,48, 6,37,52,32,49		3,43
18″	54,52,42,46, 2,51,40,40,40,23		4, 0,43,27,17	
		50,48, 2,37, 9, 5,32		3,43
20″	54,52,43,36,50,54,17,49,45,55		4, 0,43,31, 0	
		50,47,58,36,25,34,32		3,43
22″	54,52,44,27,38,52,54,15,20,27		4, 0,43,34,43	
		50,47,54,35,41,59,49		3,43
24″	54,52,45,18,26,47,29,57,20,16		4, 0,43,38,26	
		50,47,50,34,58,21,23		3,43
26″	54,52,46, 9,14,38, 4,55,41,39		4, 0,43,42, 9	
		50,47,46,34,14,39,14		3,43
28″	54,52,47, 0, 2,24,39,10,20,53		4, 0,43,45,52	
		50,47,42,33,30,53,22		3,43
30″	54,52,47,50,50, 7,12,41,14,15		4, 0,43,49,35	
		50,47,38,32,47, 3,47		3,43
32″	54,52,48,41,37,45,45,28,18, 2		4, 0,43,53,18	
		50,47,34,32, 3,10,29		3,43
34″	54,52,49,32,25,20,17,31,28,31		4, 0,43,57, 1	
		50,47,30,31,19,13,28		3,43
36″	54,52,50,23,12,50,48,50,41,59		4, 0,44, 0,44	
		50,47,26,30,35,12,44		3,43
38″	54,52,51,14, 0,17,19,25,54,43		4, 0,44, 4,27	
		50,47,22,29,51, 8,17		3,43
40″	54,52,52, 4,47,39,49,17, 3, 0		4, 0,44, 8,10	
		50,47,18,29, 7, 0, 7		3,43
42″	54,52,52,55,34,58,18,24, 3, 7		4, 0,44,11,53	
		50,47,14,28,22,48,14		3,43
44″	54,52,53,46,22,12,46,46,51,21		4, 0,44,15,36	
		50,47,10,27,38,32,38		3,43
46″	54,52,54,37, 9,23,14,25,23,59		4, 0,44,19,19	
		50,47, 6,26,54,13,19		3,43
48″	54,52,55,27,56,29,41,19,37,18		4, 0,44,23, 2	
		50,47, 2,26, 9,50,17		3,43
50″	54,52,56,18,43,32, 7,29,27,35		4, 0,44,26,45	
		50,46,58,25,25,23,32		3,43
52″	54,52,57, 9,30,30,32,54,51, 7		4, 0,44,30,28	
		50,46,54,24,40,53, 4		3,43
54″	54,52,58, 0,17,24,57,35,44,11		4, 0,44,34,11	
		50,46,50,23,56,18,53		3,43
56″	54,52,58,51, 4,15,21,32, 3, 4		4, 0,44,37,54	
		50,46,46,23,11,40,59		3,43
58″	54,52,59,41,51, 1,44,43,44, 3		4, 0,44,41,37	
		50,46,42,22,26,59,22		
60″	54,53, 0,32,37,44, 7,10,43,25			
exact	54,53, 0,32,37,44, 7,10,51, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°10′ 0″	54,53, 0,32,37,44, 7,10,51, 6			
		50,46,38,21,42,15, 4		
2″	54,53, 1,23,24,22,28,53, 6,10		4, 0,44,48,58	
		50,46,34,20,57,26, 6		3,43
4″	54,53, 2,14,10,56,49,50,32,16		4, 0,44,52,41	
		50,46,30,20,12,33,25		3,43
6″	54,53, 3, 4,57,27,10, 3, 5,41		4, 0,44,56,24	
		50,46,26,19,27,37, 1		3,43
8″	54,53, 3,55,43,53,29,30,42,42		4, 0,45, 0, 7	
		50,46,22,18,42,36,54		3,43
10″	54,53, 4,46,30,15,48,13,19,36		4, 0,45, 3,50	
		50,46,18,17,57,33, 4		3,43
12″	54,53, 5,37,16,34, 6,10,52,40		4, 0,45, 7,33	
		50,46,14,17,12,25,31		3,43
14″	54,53, 6,28, 2,48,23,23,18,11		4, 0,45,11,16	
		50,46,10,16,27,14,15		3,43
16″	54,53, 7,18,48,58,39,50,32,26		4, 0,45,14,59	
		50,46, 6,15,41,59,16		3,43
18″	54,53, 8, 9,35, 4,55,32,31,42		4, 0,45,18,42	
		50,46, 2,14,56,40,34		3,43
20″	54,53, 9, 0,21, 7,10,29,12,16		4, 0,45,22,25	
		50,45,58,14,11,18, 9		3,43
22″	54,53, 9,51, 7, 5,24,40,30,25		4, 0,45,26, 8	
		50,45,54,13,25,52, 1		3,43
24″	54,53,10,41,52,59,38, 6,22,26		4, 0,45,29,51	
		50,45,50,12,40,22,10		3,43
26″	54,53,11,32,38,49,50,46,44,36		4, 0,45,33,34	
		50,45,46,11,54,48,36		3,43
28″	54,53,12,23,24,36, 2,41,33,12		4, 0,45,37,17	
		50,45,42,11, 9,11,19		3,43
30″	54,53,13,14,10,18,13,50,44,31		4, 0,45,41, 0	
		50,45,38,10,23,30,19		3,43
32″	54,53,14, 4,55,56,24,14,14,50		4, 0,45,44,43	
		50,45,34, 9,37,45,36		3,43
34″	54,53,14,55,41,30,33,52, 0,26		4, 0,45,48,26	
		50,45,30, 8,51,57,10		3,43
36″	54,53,15,46,27, 0,42,43,57,36		4, 0,45,52, 9	
		50,45,26, 8, 6, 5, 1		3,43
38″	54,53,16,37,12,26,50,50, 2,37		4, 0,45,55,52	
		50,45,22, 7,20, 9, 9		3,43
40″	54,53,17,27,57,48,58,10,11,46		4, 0,45,59,35	
		50,45,18, 6,34, 9,34		3,43
42″	54,53,18,18,43, 7, 4,44,21,20		4, 0,46, 3,18	
		50,45,14, 5,48, 6,16		3,43
44″	54,53,19, 9,28,21,10,32,27,36		4, 0,46, 7, 1	
		50,45,10, 5, 1,59,15		3,43
46″	54,53,20, 0,13,31,15,34,26,51		4, 0,46,10,44	
		50,45, 6, 4,15,48,31		3,43
48″	54,53,20,50,58,37,19,50,15,22		4, 0,46,14,27	
		50,45, 2, 3,29,34, 4		3,43
50″	54,53,21,41,43,39,23,19,49,26		4, 0,46,18,10	
		50,44,58, 2,43,15,54		3,43
52″	54,53,22,32,28,37,26, 3, 5,20		4, 0,46,21,53	
		50,44,54, 1,56,54, 1		3,43
54″	54,53,23,23,13,31,27,59,59,21		4, 0,46,25,36	
		50,44,50, 1,10,28,25		3,43
56″	54,53,24,13,58,21,29,10,27,46		4, 0,46,29,19	
		50,44,46, 0,23,59, 6		3,43
58″	54,53,25, 4,43, 7,29,34,26,52		4, 0,46,33, 2	
		50,44,41,59,37,26, 4		
60″	54,53,25,55,27,49,29,11,52,56			
exact	54,53,25,55,27,49,29,12,16,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°11′ 0″	54,53,25,55,27,49,29,12,16,57			
		50,44,37,58,50,51,51		
2″	54,53,26,46,12,27,28, 3, 8,48		4, 0,46,40,17	
		50,44,33,58, 4,11,34		3,43
4″	54,53,27,36,57, 1,26, 7,20,22		4, 0,46,44, 0	
		50,44,29,57,17,27,34		3,43
6″	54,53,28,27,41,31,23,24,47,56		4, 0,46,47,43	
		50,44,25,56,30,39,51		3,43
8″	54,53,29,18,25,57,19,55,27,47		4, 0,46,51,26	
		50,44,21,55,43,48,25		3,43
10″	54,53,30, 9,10,19,15,39,16,12		4, 0,46,55, 9	
		50,44,17,54,56,53,16		3,43
12″	54,53,30,59,54,37,10,36, 9,28		4, 0,46,58,52	
		50,44,13,54, 9,54,24		3,43
14″	54,53,31,50,38,51, 4,46, 3,52		4, 0,47, 2,35	
		50,44, 9,53,22,51,49		3,43
16″	54,53,32,41,23, 0,58, 8,55,41		4, 0,47, 6,18	
		50,44, 5,52,35,45,31		3,43
18″	54,53,33,32, 7, 6,50,44,41,12		4, 0,47,10, 1	
		50,44, 1,51,48,35,30		3,43
20″	54,53,34,22,51, 8,42,33,16,42		4, 0,47,13,44	
		50,43,57,51, 1,21,46		3,43
22″	54,53,35,13,35, 6,33,34,38,28		4, 0,47,17,27	
		50,43,53,50,14, 4,19		3,43
24″	54,53,36, 4,19, 0,23,48,42,47		4, 0,47,21,10	
		50,43,49,49,26,43, 9		3,43
26″	54,53,36,55, 2,50,13,15,25,56		4, 0,47,24,53	
		50,43,45,48,39,18,16		3,43
28″	54,53,37,45,46,36, 1,54,44,12		4, 0,47,28,36	
		50,43,41,47,51,49,40		3,43
30″	54,53,38,36,30,17,49,46,33,52		4, 0,47,32,19	
		50,43,37,47, 4,17,21		3,43
32″	54,53,39,27,13,55,36,50,51,13		4, 0,47,36, 2	
		50,43,33,46,16,41,19		3,43
34″	54,53,40,17,57,29,23, 7,32,32		4, 0,47,39,45	
		50,43,29,45,29, 1,34		3,43
36″	54,53,41, 8,40,59, 8,36,34, 6		4, 0,47,43,28	
		50,43,25,44,41,18, 6		3,43
38″	54,53,41,59,24,24,53,17,52,12		4, 0,47,47,11	
		50,43,21,43,53,30,55		3,43
40″	54,53,42,50, 7,46,37,11,23, 7		4, 0,47,50,54	
		50,43,17,43, 5,40, 1		3,43
42″	54,53,43,40,51, 4,20,17, 3, 8		4, 0,47,54,37	
		50,43,13,42,17,45,24		3,43
44″	54,53,44,31,34,18, 2,34,48,32		4, 0,47,58,20	
		50,43, 9,41,29,47, 4		3,43
46″	54,53,45,22,17,27,44, 4,35,36		4, 0,48, 2, 3	
		50,43, 5,40,41,45, 1		3,43
48″	54,53,46,13, 0,33,24,46,20,37		4, 0,48, 5,46	
		50,43, 1,39,53,39,15		3,43
50″	54,53,47, 3,43,35, 4,39,59,52		4, 0,48, 9,29	
		50,42,57,39, 5,29,46		3,43
52″	54,53,47,54,26,32,43,45,29,38		4, 0,48,13,12	
		50,42,53,38,17,16,34		3,43
54″	54,53,48,45, 9,26,22, 2,46,12		4, 0,48,16,55	
		50,42,49,37,28,59,39		3,43
56″	54,53,49,35,52,15,59,31,45,51		4, 0,48,20,38	
		50,42,45,36,40,39, 1		3,43
58″	54,53,50,26,35, 1,36,12,24,52		4, 0,48,24,21	
		50,42,41,35,52,14,40		
60″	54,53,51,17,17,43,12, 4,39,32			
exact	54,53,51,17,17,43,12, 5, 7,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°12′ 0″	54,53,51,17,17,43,12, 5, 7,51			
		50,42,37,35, 3,49,49		
2″	54,53,52, 8, 0,20,47, 8,57,40		4, 0,48,31,33	
		50,42,33,34,15,18,16		3,42
4″	54,53,52,58,42,54,21,24,15,56		4, 0,48,35,15	
		50,42,29,33,26,43, 1		3,42
6″	54,53,53,49,25,23,54,50,58,57		4, 0,48,38,57	
		50,42,25,32,38, 4, 4		3,42
8″	54,53,54,40, 7,49,27,29, 3, 1		4, 0,48,42,39	
		50,42,21,31,49,21,25		3,42
10″	54,53,55,30,50,10,59,18,24,26		4, 0,48,46,21	
		50,42,17,31, 0,35, 4		3,42
12″	54,53,56,21,32,28,30,18,59,30		4, 0,48,50, 3	
		50,42,13,30,11,45, 1		3,42
14″	54,53,57,12,14,42, 0,30,44,31		4, 0,48,53,45	
		50,42, 9,29,22,51,16		3,42
16″	54,53,58, 2,56,51,29,53,35,47		4, 0,48,57,27	
		50,42, 5,28,33,53,49		3,42
18″	54,53,58,53,38,56,58,27,29,36		4, 0,49, 1, 9	
		50,42, 1,27,44,52,40		3,42
20″	54,53,59,44,20,58,26,12,22,16		4, 0,49, 4,51	
		50,41,57,26,55,47,49		3,42
22″	54,54, 0,35, 2,55,53, 8,10, 5		4, 0,49, 8,33	
		50,41,53,26, 6,39,16		3,42
24″	54,54, 1,25,44,49,19,14,49,21		4, 0,49,12,15	
		50,41,49,25,17,27, 1		3,42
26″	54,54, 2,16,26,38,44,32,16,22		4, 0,49,15,57	
		50,41,45,24,28,11, 4		3,42
28″	54,54, 3, 7, 8,24, 9, 0,27,26		4, 0,49,19,39	
		50,41,41,23,38,51,25		3,42
30″	54,54, 3,57,50, 5,32,39,18,51		4, 0,49,23,21	
		50,41,37,22,49,28, 4		3,42
32″	54,54, 4,48,31,42,55,28,46,55		4, 0,49,27, 3	
		50,41,33,22, 0, 1, 1		3,42
34″	54,54, 5,39,13,16,17,28,47,56		4, 0,49,30,45	
		50,41,29,21,10,30,16		3,42
36″	54,54, 6,29,54,45,38,39,18,12		4, 0,49,34,27	
		50,41,25,20,20,55,49		3,42
38″	54,54, 7,20,36,10,59, 0,14, 1		4, 0,49,38, 9	
		50,41,21,19,31,17,40		3,42
40″	54,54, 8,11,17,32,18,31,31,41		4, 0,49,41,51	
		50,41,17,18,41,35,49		3,42
42″	54,54, 9, 1,58,49,37,13, 7,30		4, 0,49,45,33	
		50,41,13,17,51,50,16		3,42
44″	54,54, 9,52,40, 2,55, 4,57,46		4, 0,49,49,15	
		50,41, 9,17, 2, 1, 1		3,42
46″	54,54,10,43,21,12,12, 6,58,47		4, 0,49,52,57	
		50,41, 5,16,12, 8, 4		3,42
48″	54,54,11,34, 2,17,28,19, 6,51		4, 0,49,56,39	
		50,41, 1,15,22,11,25		3,42
50″	54,54,12,24,43,18,43,41,18,16		4, 0,50, 0,21	
		50,40,57,14,32,11, 4		3,42
52″	54,54,13,15,24,15,58,13,29,20		4, 0,50, 4, 3	
		50,40,53,13,42, 7, 1		3,42
54″	54,54,14, 6, 5, 9,11,55,36,21		4, 0,50, 7,45	
		50,40,49,12,51,59,16		3,42
56″	54,54,14,56,45,58,24,47,35,37		4, 0,50,11,27	
		50,40,45,12, 1,47,49		3,42
58″	54,54,15,47,26,43,36,49,23,26		4, 0,50,15, 9	
		50,40,41,11,11,32,40		
60″	54,54,16,38, 7,24,48, 0,56, 6			
exact	54,54,16,38, 7,24,48, 0,31,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°13′ 0″	54,54,16,38, 7,24,48, 0,31,19			
		50,40,37,10,21,11,10		
2″	54,54,17,28,48, 1,58,21,42,29		4, 0,50,22,44	
		50,40,33, 9,30,48,26		3,42
4″	54,54,18,19,28,35, 7,52,30,55		4, 0,50,26,26	
		50,40,29, 8,40,22, 0		3,42
6″	54,54,19,10, 9, 4,16,32,52,55		4, 0,50,30, 8	
		50,40,25, 7,49,51,52		3,42
8″	54,54,20, 0,49,29,24,22,44,47		4, 0,50,33,50	
		50,40,21, 6,59,18, 2		3,42
10″	54,54,20,51,29,50,31,22, 2,49		4, 0,50,37,32	
		50,40,17, 6, 8,40,30		3,42
12″	54,54,21,42,10, 7,37,30,43,19		4, 0,50,41,14	
		50,40,13, 5,17,59,16		3,42
14″	54,54,22,32,50,20,42,48,42,35		4, 0,50,44,56	
		50,40, 9, 4,27,14,20		3,42
16″	54,54,23,23,30,29,47,15,56,55		4, 0,50,48,38	
		50,40, 5, 3,36,25,42		3,42
18″	54,54,24,14,10,34,50,52,22,37		4, 0,50,52,20	
		50,40, 1, 2,45,33,22		3,42
20″	54,54,25, 4,50,35,53,37,55,59		4, 0,50,56, 2	
		50,39,57, 1,54,37,20		3,42
22″	54,54,25,55,30,32,55,32,33,19		4, 0,50,59,44	
		50,39,53, 1, 3,37,36		3,42
24″	54,54,26,46,10,25,56,36,10,55		4, 0,51, 3,26	
		50,39,49, 0,12,34,10		3,42
26″	54,54,27,36,50,14,56,48,45, 5		4, 0,51, 7, 8	
		50,39,44,59,21,27, 2		3,42
28″	54,54,28,27,29,59,56,10,12, 7		4, 0,51,10,50	
		50,39,40,58,30,16,12		3,42
30″	54,54,29,18, 9,40,54,40,28,19		4, 0,51,14,32	
		50,39,36,57,39, 1,40		3,42
32″	54,54,30, 8,49,17,52,19,29,59		4, 0,51,18,14	
		50,39,32,56,47,43,26		3,42
34″	54,54,30,59,28,50,49, 7,13,25		4, 0,51,21,56	
		50,39,28,55,56,21,30		3,42
36″	54,54,31,50, 8,19,45, 3,34,55		4, 0,51,25,38	
		50,39,24,55, 4,55,52		3,42
38″	54,54,32,40,47,44,40, 8,30,47		4, 0,51,29,20	
		50,39,20,54,13,26,32		3,42
40″	54,54,33,31,27, 5,34,21,57,19		4, 0,51,33, 2	
		50,39,16,53,21,53,30		3,42
42″	54,54,34,22, 6,22,27,43,50,49		4, 0,51,36,44	
		50,39,12,52,30,16,46		3,42
44″	54,54,35,12,45,35,20,14, 7,35		4, 0,51,40,26	
		50,39, 8,51,38,36,20		3,42
46″	54,54,36, 3,24,44,11,52,43,55		4, 0,51,44, 8	
		50,39, 4,50,46,52,12		3,42
48″	54,54,36,54, 3,49, 2,39,36, 7		4, 0,51,47,50	
		50,39, 0,49,55, 4,22		3,42
50″	54,54,37,44,42,49,52,34,40,29		4, 0,51,51,32	
		50,38,56,49, 3,12,50		3,42
52″	54,54,38,35,21,46,41,37,53,19		4, 0,51,55,14	
		50,38,52,48,11,17,36		3,42
54″	54,54,39,26, 0,39,29,49,10,55		4, 0,51,58,56	
		50,38,48,47,19,18,40		3,42
56″	54,54,40,16,39,28,17, 8,29,35		4, 0,52, 2,38	
		50,38,44,46,27,16, 2		3,42
58″	54,54,41, 7,18,13, 3,35,45,37		4, 0,52, 6,20	
		50,38,40,45,35, 9,42		
60″	54,54,41,57,56,53,49,10,55,19			
exact	54,54,41,57,56,53,49,10,40,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°14′ 0″	54,54,41,57,56,53,49,10,40,51			
		50,38,36,44,42,58, 6		
2″	54,54,42,48,35,30,33,53,38,57		4, 0,52,13,50	
		50,38,32,43,50,44,16		3,42
4″	54,54,43,39,14, 3,17,44,23,13		4, 0,52,17,32	
		50,38,28,42,58,26,44		3,42
6″	54,54,44,29,52,32, 0,42,49,57		4, 0,52,21,14	
		50,38,24,42, 6, 5,30		3,42
8″	54,54,45,20,30,56,42,48,55,27		4, 0,52,24,56	
		50,38,20,41,13,40,34		3,42
10″	54,54,46,11, 9,17,24, 2,36, 1		4, 0,52,28,38	
		50,38,16,40,21,11,56		3,42
12″	54,54,47, 1,47,34, 4,23,47,57		4, 0,52,32,20	
		50,38,12,39,28,39,36		3,42
14″	54,54,47,52,25,46,43,52,27,33		4, 0,52,36, 2	
		50,38, 8,38,36, 3,34		3,42
16″	54,54,48,43, 3,55,22,28,31, 7		4, 0,52,39,44	
		50,38, 4,37,43,23,50		3,42
18″	54,54,49,33,42, 0, 0,11,54,57		4, 0,52,43,26	
		50,38, 0,36,50,40,24		3,42
20″	54,54,50,24,20, 0,37, 2,35,21		4, 0,52,47, 8	
		50,37,56,35,57,53,16		3,42
22″	54,54,51,14,57,57,13, 0,28,37		4, 0,52,50,50	
		50,37,52,35, 5, 2,26		3,42
24″	54,54,52, 5,35,49,48, 5,31, 3		4, 0,52,54,32	
		50,37,48,34,12, 7,54		3,42
26″	54,54,52,56,13,38,22,17,38,57		4, 0,52,58,14	
		50,37,44,33,19, 9,40		3,42
28″	54,54,53,46,51,22,55,36,48,37		4, 0,53, 1,56	
		50,37,40,32,26, 7,44		3,42
30″	54,54,54,37,29, 3,28, 2,56,21		4, 0,53, 5,38	
		50,37,36,31,33, 2, 6		3,42
32″	54,54,55,28, 6,39,59,35,58,27		4, 0,53, 9,20	
		50,37,32,30,39,52,46		3,42
34″	54,54,56,18,44,12,30,15,51,13		4, 0,53,13, 2	
		50,37,28,29,46,39,44		3,42
36″	54,54,57, 9,21,41, 0, 2,30,57		4, 0,53,16,44	
		50,37,24,28,53,23, 0		3,42
38″	54,54,57,59,59, 5,28,55,53,57		4, 0,53,20,26	
		50,37,20,28, 0, 2,34		3,42
40″	54,54,58,50,36,25,56,55,56,31		4, 0,53,24, 8	
		50,37,16,27, 6,38,26		3,42
42″	54,54,59,41,13,42,24, 2,34,57		4, 0,53,27,50	
		50,37,12,26,13,10,36		3,42
44″	54,55, 0,31,50,54,50,15,45,33		4, 0,53,31,32	
		50,37, 8,25,19,39, 4		3,42
46″	54,55, 1,22,28, 3,15,35,24,37		4, 0,53,35,14	
		50,37, 4,24,26, 3,50		3,42
48″	54,55, 2,13, 5, 7,40, 1,28,27		4, 0,53,38,56	
		50,37, 0,23,32,24,54		3,42
50″	54,55, 3, 3,42, 8, 3,33,53,21		4, 0,53,42,38	
		50,36,56,22,38,42,16		3,42
52″	54,55, 3,54,19, 4,26,12,35,37		4, 0,53,46,20	
		50,36,52,21,44,55,56		3,42
54″	54,55, 4,44,55,56,47,57,31,33		4, 0,53,50, 2	
		50,36,48,20,51, 5,54		3,42
56″	54,55, 5,35,32,45, 8,48,37,27		4, 0,53,53,44	
		50,36,44,19,57,12,10		3,42
58″	54,55, 6,26, 9,29,28,45,49,37		4, 0,53,57,26	
		50,36,40,19, 3,14,44		
60″	54,55, 7,16,46, 9,47,49, 4,21			
exact	54,55, 7,16,46, 9,47,48,55,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°15′ 0″	54,55, 7,16,46, 9,47,48,55,59			
		50,36,36,18, 9,12,50		
2″	54,55, 8, 7,22,46, 5,58, 8,49		4, 0,54, 4,52	
		50,36,32,17,15, 7,58		3,42
4″	54,55, 8,57,59,18,23,13,16,47		4, 0,54, 8,34	
		50,36,28,16,20,59,24		3,42
6″	54,55, 9,48,35,46,39,34,16,11		4, 0,54,12,16	
		50,36,24,15,26,47, 8		3,42
8″	54,55,10,39,12,10,55, 1, 3,19		4, 0,54,15,58	
		50,36,20,14,32,31,10		3,42
10″	54,55,11,29,48,31, 9,33,34,29		4, 0,54,19,40	
		50,36,16,13,38,11,30		3,42
12″	54,55,12,20,24,47,23,11,45,59		4, 0,54,23,22	
		50,36,12,12,43,48, 8		3,42
14″	54,55,13,11, 0,59,35,55,34, 7		4, 0,54,27, 4	
		50,36, 8,11,49,21, 4		3,42
16″	54,55,14, 1,37, 7,47,44,55,11		4, 0,54,30,46	
		50,36, 4,10,54,50,18		3,42
18″	54,55,14,52,13,11,58,39,45,29		4, 0,54,34,28	
		50,36, 0,10, 0,15,50		3,42
20″	54,55,15,42,49,12, 8,40, 1,19		4, 0,54,38,10	
		50,35,56, 9, 5,37,40		3,42
22″	54,55,16,33,25, 8,17,45,38,59		4, 0,54,41,52	
		50,35,52, 8,10,55,48		3,42
24″	54,55,17,24, 1, 0,25,56,34,47		4, 0,54,45,34	
		50,35,48, 7,16,10,14		3,42
26″	54,55,18,14,36,48,33,12,45, 1		4, 0,54,49,16	
		50,35,44, 6,21,20,58		3,42
28″	54,55,19, 5,12,32,39,34, 5,59		4, 0,54,52,58	
		50,35,40, 5,26,28, 0		3,42
30″	54,55,19,55,48,12,45, 0,33,59		4, 0,54,56,40	
		50,35,36, 4,31,31,20		3,42
32″	54,55,20,46,23,48,49,32, 5,19		4, 0,55, 0,22	
		50,35,32, 3,36,30,58		3,42
34″	54,55,21,36,59,20,53, 8,36,17		4, 0,55, 4, 4	
		50,35,28, 2,41,26,54		3,42
36″	54,55,22,27,34,48,55,50, 3,11		4, 0,55, 7,46	
		50,35,24, 1,46,19, 8		3,42
38″	54,55,23,18,10,12,57,36,22,19		4, 0,55,11,28	
		50,35,20, 0,51, 7,40		3,42
40″	54,55,24, 8,45,32,58,27,29,59		4, 0,55,15,10	
		50,35,15,59,55,52,30		3,42
42″	54,55,24,59,20,48,58,23,22,29		4, 0,55,18,52	
		50,35,11,59, 0,33,38		3,42
44″	54,55,25,49,56, 0,57,23,56, 7		4, 0,55,22,34	
		50,35, 7,58, 5,11, 4		3,42
46″	54,55,26,40,31, 8,55,29, 7,11		4, 0,55,26,16	
		50,35, 3,57, 9,44,48		3,42
48″	54,55,27,31, 6,12,52,38,51,59		4, 0,55,29,58	
		50,34,59,56,14,14,50		3,42
50″	54,55,28,21,41,12,48,53, 6,49		4, 0,55,33,40	
		50,34,55,55,18,41,10		3,42
52″	54,55,29,12,16, 8,44,11,47,59		4, 0,55,37,22	
		50,34,51,54,23, 3,48		3,42
54″	54,55,30, 2,51, 0,38,34,51,47		4, 0,55,41, 4	
		50,34,47,53,27,22,44		3,42
56″	54,55,30,53,25,48,32, 2,14,31		4, 0,55,44,46	
		50,34,43,52,31,37,58		3,42
58″	54,55,31,44, 0,32,24,33,52,29		4, 0,55,48,28	
		50,34,39,51,35,49,30		
60″	54,55,32,34,35,12,16, 9,41,59			
exact	54,55,32,34,35,12,16, 9,42,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°16′ 0″	54,55,32,34,35,12,16, 9,42,20			
		50,34,35,50,39,57,33		
2″	54,55,33,25, 9,48, 6,49,39,53		4, 0,55,55,50	
		50,34,31,49,44, 1,43		3,42
4″	54,55,34,15,44,19,56,33,41,36		4, 0,55,59,32	
		50,34,27,48,48, 2,11		3,42
6″	54,55,35, 6,18,47,45,21,43,47		4, 0,56, 3,14	
		50,34,23,47,51,58,57		3,42
8″	54,55,35,56,53,11,33,13,42,44		4, 0,56, 6,56	
		50,34,19,46,55,52, 1		3,42
10″	54,55,36,47,27,31,20, 9,34,45		4, 0,56,10,38	
		50,34,15,45,59,41,23		3,42
12″	54,55,37,38, 1,47, 6, 9,16, 8		4, 0,56,14,20	
		50,34,11,45, 3,27, 3		3,42
14″	54,55,38,28,35,58,51,12,43,11		4, 0,56,18, 2	
		50,34, 7,44, 7, 9, 1		3,42
16″	54,55,39,19,10, 6,35,19,52,12		4, 0,56,21,44	
		50,34, 3,43,10,47,17		3,42
18″	54,55,40, 9,44,10,18,30,39,29		4, 0,56,25,26	
		50,33,59,42,14,21,51		3,42
20″	54,55,41, 0,18,10, 0,45, 1,20		4, 0,56,29, 8	
		50,33,55,41,17,52,43		3,42
22″	54,55,41,50,52, 5,42, 2,54, 3		4, 0,56,32,50	
		50,33,51,40,21,19,53		3,42
24″	54,55,42,41,25,57,22,24,13,56		4, 0,56,36,32	
		50,33,47,39,24,43,21		3,42
26″	54,55,43,31,59,45, 1,48,57,17		4, 0,56,40,14	
		50,33,43,38,28, 3, 7		3,42
28″	54,55,44,22,33,28,40,17, 0,24		4, 0,56,43,56	
		50,33,39,37,31,19,11		3,42
30″	54,55,45,13, 7, 8,17,48,19,35		4, 0,56,47,38	
		50,33,35,36,34,31,33		3,42
32″	54,55,46, 3,40,43,54,22,51, 8		4, 0,56,51,20	
		50,33,31,35,37,40,13		3,42
34″	54,55,46,54,14,15,30, 0,31,21		4, 0,56,55, 2	
		50,33,27,34,40,45,11		3,42
36″	54,55,47,44,47,43, 4,41,16,32		4, 0,56,58,44	
		50,33,23,33,43,46,27		3,42
38″	54,55,48,35,21, 6,38,25, 2,59		4, 0,57, 2,26	
		50,33,19,32,46,44, 1		3,42
40″	54,55,49,25,54,26,11,11,47, 0		4, 0,57, 6, 8	
		50,33,15,31,49,37,53		3,42
42″	54,55,50,16,27,41,43, 1,24,53		4, 0,57, 9,50	
		50,33,11,30,52,28, 3		3,42
44″	54,55,51, 7, 0,53,13,53,52,56		4, 0,57,13,32	
		50,33, 7,29,55,14,31		3,42
46″	54,55,51,57,34, 0,43,49, 7,27		4, 0,57,17,14	
		50,33, 3,28,57,57,17		3,42
48″	54,55,52,48, 7, 4,12,47, 4,44		4, 0,57,20,56	
		50,32,59,28, 0,36,21		3,42
50″	54,55,53,38,40, 3,40,47,41, 5		4, 0,57,24,38	
		50,32,55,27, 3,11,43		3,42
52″	54,55,54,29,12,59, 7,50,52,48		4, 0,57,28,20	
		50,32,51,26, 5,43,23		3,42
54″	54,55,55,19,45,50,33,56,36,11		4, 0,57,32, 2	
		50,32,47,25, 8,11,21		3,42
56″	54,55,56,10,18,37,59, 4,47,32		4, 0,57,35,44	
		50,32,43,24,10,35,37		3,42
58″	54,55,57, 0,51,21,23,15,23, 9		4, 0,57,39,26	
		50,32,39,23,12,56,11		
60″	54,55,57,51,24, 0,46,28,19,20			
exact	54,55,57,51,24, 0,46,28,31,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°17′ 0″	54,55,57,51,24, 0,46,28,31,29			
		50,32,35,22,15,14,27		
2″	54,55,58,41,56,36, 8,43,45,56		4, 0,57,46,43	
		50,32,31,21,17,27,44		3,42
4″	54,55,59,32,29, 7,30, 1,13,40		4, 0,57,50,25	
		50,32,27,20,19,37,19		3,42
6″	54,56, 0,23, 1,34,50,20,50,59		4, 0,57,54, 7	
		50,32,23,19,21,43,12		3,42
8″	54,56, 1,13,33,58, 9,42,34,11		4, 0,57,57,49	
		50,32,19,18,23,45,23		3,42
10″	54,56, 2, 4, 6,17,28, 6,19,34		4, 0,58, 1,31	
		50,32,15,17,25,43,52		3,42
12″	54,56, 2,54,38,32,45,32, 3,26		4, 0,58, 5,13	
		50,32,11,16,27,38,39		3,42
14″	54,56, 3,45,10,44, 1,59,42, 5		4, 0,58, 8,55	
		50,32, 7,15,29,29,44		3,42
16″	54,56, 4,35,42,51,17,29,11,49		4, 0,58,12,37	
		50,32, 3,14,31,17, 7		3,42
18″	54,56, 5,26,14,54,32, 0,28,56		4, 0,58,16,19	
		50,31,59,13,33, 0,48		3,42
20″	54,56, 6,16,46,53,45,33,29,44		4, 0,58,20, 1	
		50,31,55,12,34,40,47		3,42
22″	54,56, 7, 7,18,48,58, 8,10,31		4, 0,58,23,43	
		50,31,51,11,36,17, 4		3,42
24″	54,56, 7,57,50,40, 9,44,27,35		4, 0,58,27,25	
		50,31,47,10,37,49,39		3,42
26″	54,56, 8,48,22,27,20,22,17,14		4, 0,58,31, 7	
		50,31,43, 9,39,18,32		3,42
28″	54,56, 9,38,54,10,30, 1,35,46		4, 0,58,34,49	
		50,31,39, 8,40,43,43		3,42
30″	54,56,10,29,25,49,38,42,19,29		4, 0,58,38,31	
		50,31,35, 7,42, 5,12		3,42
32″	54,56,11,19,57,24,46,24,24,41		4, 0,58,42,13	
		50,31,31, 6,43,22,59		3,42
34″	54,56,12,10,28,55,53, 7,47,40		4, 0,58,45,55	
		50,31,27, 5,44,37, 4		3,42
36″	54,56,13, 1, 0,22,58,52,24,44		4, 0,58,49,37	
		50,31,23, 4,45,47,27		3,42
38″	54,56,13,51,31,46, 3,38,12,11		4, 0,58,53,19	
		50,31,19, 3,46,54, 8		3,42
40″	54,56,14,42, 3, 5, 7,25, 6,19		4, 0,58,57, 1	
		50,31,15, 2,47,57, 7		3,42
42″	54,56,15,32,34,20,10,13, 3,26		4, 0,59, 0,43	
		50,31,11, 1,48,56,24		3,42
44″	54,56,16,23, 5,31,12, 1,59,50		4, 0,59, 4,25	
		50,31, 7, 0,49,51,59		3,42
46″	54,56,17,13,36,38,12,51,51,49		4, 0,59, 8, 7	
		50,31, 2,59,50,43,52		3,42
48″	54,56,18, 4, 7,41,12,42,35,41		4, 0,59,11,49	
		50,30,58,58,51,32, 3		3,42
50″	54,56,18,54,38,40,11,34, 7,44		4, 0,59,15,31	
		50,30,54,57,52,16,32		3,42
52″	54,56,19,45, 9,35, 9,26,24,16		4, 0,59,19,13	
		50,30,50,56,52,57,19		3,42
54″	54,56,20,35,40,26, 6,19,21,35		4, 0,59,22,55	
		50,30,46,55,53,34,24		3,42
56″	54,56,21,26,11,13, 2,12,55,59		4, 0,59,26,37	
		50,30,42,54,54, 7,47		3,42
58″	54,56,22,16,41,55,57, 7, 3,46		4, 0,59,30,19	
		50,30,38,53,54,37,28		
60″	54,56,23, 7,12,34,51, 1,41,14			
exact	54,56,23, 7,12,34,51, 2, 1, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°18′ 0″	54,56,23, 7,12,34,51, 2, 1, 7			
		50,30,34,52,55, 5,46		
2″	54,56,23,57,43, 9,43,57, 6,53		4, 0,59,37,32	
		50,30,30,51,55,28,14		3,42
4″	54,56,24,48,13,40,35,52,35, 7		4, 0,59,41,14	
		50,30,26,50,55,47, 0		3,42
6″	54,56,25,38,44, 7,26,48,22, 7		4, 0,59,44,56	
		50,30,22,49,56, 2, 4		3,42
8″	54,56,26,29,14,30,16,44,24,11		4, 0,59,48,38	
		50,30,18,48,56,13,26		3,42
10″	54,56,27,19,44,49, 5,40,37,37		4, 0,59,52,20	
		50,30,14,47,56,21, 6		3,42
12″	54,56,28,10,15, 3,53,36,58,43		4, 0,59,56, 2	
		50,30,10,46,56,25, 4		3,42
14″	54,56,29, 0,45,14,40,33,23,47		4, 0,59,59,44	
		50,30, 6,45,56,25,20		3,42
16″	54,56,29,51,15,21,26,29,49, 7		4, 1, 0, 3,26	
		50,30, 2,44,56,21,54		3,42
18″	54,56,30,41,45,24,11,26,11, 1		4, 1, 0, 7, 8	
		50,29,58,43,56,14,46		3,42
20″	54,56,31,32,15,22,55,22,25,47		4, 1, 0,10,50	
		50,29,54,42,56, 3,56		3,42
22″	54,56,32,22,45,17,38,18,29,43		4, 1, 0,14,32	
		50,29,50,41,55,49,24		3,42
24″	54,56,33,13,15, 8,20,14,19, 7		4, 1, 0,18,14	
		50,29,46,40,55,31,10		3,42
26″	54,56,34, 3,44,55, 1, 9,50,17		4, 1, 0,21,56	
		50,29,42,39,55, 9,14		3,42
28″	54,56,34,54,14,37,41, 4,59,31		4, 1, 0,25,38	
		50,29,38,38,54,43,36		3,42
30″	54,56,35,44,44,16,19,59,43, 7		4, 1, 0,29,20	
		50,29,34,37,54,14,16		3,42
32″	54,56,36,35,13,50,57,53,57,23		4, 1, 0,33, 2	
		50,29,30,36,53,41,14		3,42
34″	54,56,37,25,43,21,34,47,38,37		4, 1, 0,36,44	
		50,29,26,35,53, 4,30		3,42
36″	54,56,38,16,12,48,10,40,43, 7		4, 1, 0,40,26	
		50,29,22,34,52,24, 4		3,42
38″	54,56,39, 6,42,10,45,33, 7,11		4, 1, 0,44, 8	
		50,29,18,33,51,39,56		3,42
40″	54,56,39,57,11,29,19,24,47, 7		4, 1, 0,47,50	
		50,29,14,32,50,52, 6		3,42
42″	54,56,40,47,40,43,52,15,39,13		4, 1, 0,51,32	
		50,29,10,31,50, 0,34		3,42
44″	54,56,41,38, 9,54,24, 5,39,47		4, 1, 0,55,14	
		50,29, 6,30,49, 5,20		3,42
46″	54,56,42,28,39, 0,54,54,45, 7		4, 1, 0,58,56	
		50,29, 2,29,48, 6,24		3,42
48″	54,56,43,19, 8, 3,24,42,51,31		4, 1, 1, 2,38	
		50,28,58,28,47, 3,46		3,42
50″	54,56,44, 9,37, 1,53,29,55,17		4, 1, 1, 6,20	
		50,28,54,27,45,57,26		3,42
52″	54,56,45, 0, 5,56,21,15,52,43		4, 1, 1,10, 2	
		50,28,50,26,44,47,24		3,42
54″	54,56,45,50,34,46,48, 0,40, 7		4, 1, 1,13,44	
		50,28,46,25,43,33,40		3,42
56″	54,56,46,41, 3,33,13,44,13,47		4, 1, 1,17,26	
		50,28,42,24,42,16,14		3,42
58″	54,56,47,31,32,15,38,26,30, 1		4, 1, 1,21, 8	
		50,28,38,23,40,55, 6		
60″	54,56,48,22, 0,54, 2, 7,25, 7			
exact	54,56,48,22, 0,54, 2, 7,54,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°19′ 0″	54,56,48,22, 0,54, 2, 7,54,59			
		50,28,34,22,39,33,40		
2″	54,56,49,12,29,28,24,47,28,39		4, 1, 1,28,17	
		50,28,30,21,38, 5,23		3,41
4″	54,56,50, 2,57,58,46,25,34, 2		4, 1, 1,31,58	
		50,28,26,20,36,33,25		3,41
6″	54,56,50,53,26,25, 7, 2, 7,27		4, 1, 1,35,39	
		50,28,22,19,34,57,46		3,41
8″	54,56,51,43,54,47,26,37, 5,13		4, 1, 1,39,20	
		50,28,18,18,33,18,26		3,41
10″	54,56,52,34,23, 5,45,10,23,39		4, 1, 1,43, 1	
		50,28,14,17,31,35,25		3,41
12″	54,56,53,24,51,20, 2,41,59, 4		4, 1, 1,46,42	
		50,28,10,16,29,48,43		3,41
14″	54,56,54,15,19,30,19,11,47,47		4, 1, 1,50,23	
		50,28, 6,15,27,58,20		3,41
16″	54,56,55, 5,47,36,34,39,46, 7		4, 1, 1,54, 4	
		50,28, 2,14,26, 4,16		3,41
18″	54,56,55,56,15,38,49, 5,50,23		4, 1, 1,57,45	
		50,27,58,13,24, 6,31		3,41
20″	54,56,56,46,43,37, 2,29,56,54		4, 1, 2, 1,26	
		50,27,54,12,22, 5, 5		3,41
22″	54,56,57,37,11,31,14,52, 1,59		4, 1, 2, 5, 7	
		50,27,50,11,19,59,58		3,41
24″	54,56,58,27,39,21,26,12, 1,57		4, 1, 2, 8,48	
		50,27,46,10,17,51,10		3,41
26″	54,56,59,18, 7, 7,36,29,53, 7		4, 1, 2,12,29	
		50,27,42, 9,15,38,41		3,41
28″	54,57, 0, 8,34,49,45,45,31,48		4, 1, 2,16,10	
		50,27,38, 8,13,22,31		3,41
30″	54,57, 0,59, 2,27,53,58,54,19		4, 1, 2,19,51	
		50,27,34, 7,11, 2,40		3,41
32″	54,57, 1,49,30, 2, 1, 9,56,59		4, 1, 2,23,32	
		50,27,30, 6, 8,39, 8		3,41
34″	54,57, 2,39,57,32, 7,18,36, 7		4, 1, 2,27,13	
		50,27,26, 5, 6,11,55		3,41
36″	54,57, 3,30,24,58,12,24,48, 2		4, 1, 2,30,54	
		50,27,22, 4, 3,41, 1		3,41
38″	54,57, 4,20,52,20,16,28,29, 3		4, 1, 2,34,35	
		50,27,18, 3, 1, 6,26		3,41
40″	54,57, 5,11,19,38,19,29,35,29		4, 1, 2,38,16	
		50,27,14, 1,58,28,10		3,41
42″	54,57, 6, 1,46,52,21,28, 3,39		4, 1, 2,41,57	
		50,27,10, 0,55,46,13		3,41
44″	54,57, 6,52,14, 2,22,23,49,52		4, 1, 2,45,38	
		50,27, 5,59,53, 0,35		3,41
46″	54,57, 7,42,41, 8,22,16,50,27		4, 1, 2,49,19	
		50,27, 1,58,50,11,16		3,41
48″	54,57, 8,33, 8,10,21, 7, 1,43		4, 1, 2,53, 0	
		50,26,57,57,47,18,16		3,41
50″	54,57, 9,23,35, 8,18,54,19,59		4, 1, 2,56,41	
		50,26,53,56,44,21,35		3,41
52″	54,57,10,14, 2, 2,15,38,41,34		4, 1, 3, 0,22	
		50,26,49,55,41,21,13		3,41
54″	54,57,11, 4,28,52,11,20, 2,47		4, 1, 3, 4, 3	
		50,26,45,54,38,17,10		3,41
56″	54,57,11,54,55,38, 5,58,19,57		4, 1, 3, 7,44	
		50,26,41,53,35, 9,26		3,41
58″	54,57,12,45,22,19,59,33,29,23		4, 1, 3,11,25	
		50,26,37,52,31,58, 1		
60″	54,57,13,35,48,57,52, 5,27,24			
exact	54,57,13,35,48,57,52, 5, 2,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°20′ 0″	54,57,13,35,48,57,52, 5, 2,53			
		50,26,33,51,28,40,21		
2″	54,57,14,26,15,31,43,33,43,14		4, 1, 3,18,57	
		50,26,29,50,25,21,24		3,41
4″	54,57,15,16,42, 1,33,59, 4,38		4, 1, 3,22,38	
		50,26,25,49,21,58,46		3,41
6″	54,57,16, 7, 8,27,23,21, 3,24		4, 1, 3,26,19	
		50,26,21,48,18,32,27		3,41
8″	54,57,16,57,34,49,11,39,35,51		4, 1, 3,30, 0	
		50,26,17,47,15, 2,27		3,41
10″	54,57,17,48, 1, 6,58,54,38,18		4, 1, 3,33,41	
		50,26,13,46,11,28,46		3,41
12″	54,57,18,38,27,20,45, 6, 7, 4		4, 1, 3,37,22	
		50,26, 9,45, 7,51,24		3,41
14″	54,57,19,28,53,30,30,13,58,28		4, 1, 3,41, 3	
		50,26, 5,44, 4,10,21		3,41
16″	54,57,20,19,19,36,14,18, 8,49		4, 1, 3,44,44	
		50,26, 1,43, 0,25,37		3,41
18″	54,57,21, 9,45,37,57,18,34,26		4, 1, 3,48,25	
		50,25,57,41,56,37,12		3,41
20″	54,57,22, 0,11,35,39,15,11,38		4, 1, 3,52, 6	
		50,25,53,40,52,45, 6		3,41
22″	54,57,22,50,37,29,20, 7,56,44		4, 1, 3,55,47	
		50,25,49,39,48,49,19		3,41
24″	54,57,23,41, 3,18,59,56,46, 3		4, 1, 3,59,28	
		50,25,45,38,44,49,51		3,41
26″	54,57,24,31,29, 4,38,41,35,54		4, 1, 4, 3, 9	
		50,25,41,37,40,46,42		3,41
28″	54,57,25,21,54,46,16,22,22,36		4, 1, 4, 6,50	
		50,25,37,36,36,39,52		3,41
30″	54,57,26,12,20,23,52,59, 2,28		4, 1, 4,10,31	
		50,25,33,35,32,29,21		3,41
32″	54,57,27, 2,45,57,28,31,31,49		4, 1, 4,14,12	
		50,25,29,34,28,15, 9		3,41
34″	54,57,27,53,11,27, 2,59,46,58		4, 1, 4,17,53	
		50,25,25,33,23,57,16		3,41
36″	54,57,28,43,36,52,36,23,44,14		4, 1, 4,21,34	
		50,25,21,32,19,35,42		3,41
38″	54,57,29,34, 2,14, 8,43,19,56		4, 1, 4,25,15	
		50,25,17,31,15,10,27		3,41
40″	54,57,30,24,27,31,39,58,30,23		4, 1, 4,28,56	
		50,25,13,30,10,41,31		3,41
42″	54,57,31,14,52,45,10, 9,11,54		4, 1, 4,32,37	
		50,25, 9,29, 6, 8,54		3,41
44″	54,57,32, 5,17,54,39,15,20,48		4, 1, 4,36,18	
		50,25, 5,28, 1,32,36		3,41
46″	54,57,32,55,43, 0, 7,16,53,24		4, 1, 4,39,59	
		50,25, 1,26,56,52,37		3,41
48″	54,57,33,46, 8, 1,34,13,46, 1		4, 1, 4,43,40	
		50,24,57,25,52, 8,57		3,41
50″	54,57,34,36,32,59, 0, 5,54,58		4, 1, 4,47,21	
		50,24,53,24,47,21,36		3,41
52″	54,57,35,26,57,52,24,53,16,34		4, 1, 4,51, 2	
		50,24,49,23,42,30,34		3,41
54″	54,57,36,17,22,41,48,35,47, 8		4, 1, 4,54,43	
		50,24,45,22,37,35,51		3,41
56″	54,57,37, 7,47,27,11,13,22,59		4, 1, 4,58,24	
		50,24,41,21,32,37,27		3,41
58″	54,57,37,58,12, 8,32,46, 0,26		4, 1, 5, 2, 5	
		50,24,37,20,27,35,22		
60″	54,57,38,48,36,45,53,13,35,48			
exact	54,57,38,48,36,45,53,13,20,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°21′ 0″	54,57,38,48,36,45,53,13,20,41			
		50,24,33,19,22,28, 3		
2″	54,57,39,39, 1,19,12,35,48,44		4, 1, 5, 9,33	
		50,24,29,18,17,18,30		3,41
4″	54,57,40,29,25,48,30,53, 7,14		4, 1, 5,13,14	
		50,24,25,17,12, 5,16		3,41
6″	54,57,41,19,50,13,48, 5,12,30		4, 1, 5,16,55	
		50,24,21,16, 6,48,21		3,41
8″	54,57,42,10,14,35, 4,12, 0,51		4, 1, 5,20,36	
		50,24,17,15, 1,27,45		3,41
10″	54,57,43, 0,38,52,19,13,28,36		4, 1, 5,24,17	
		50,24,13,13,56, 3,28		3,41
12″	54,57,43,51, 3, 5,33, 9,32, 4		4, 1, 5,27,58	
		50,24, 9,12,50,35,30		3,41
14″	54,57,44,41,27,14,46, 0, 7,34		4, 1, 5,31,39	
		50,24, 5,11,45, 3,51		3,41
16″	54,57,45,31,51,19,57,45,11,25		4, 1, 5,35,20	
		50,24, 1,10,39,28,31		3,41
18″	54,57,46,22,15,21, 8,24,39,56		4, 1, 5,39, 1	
		50,23,57, 9,33,49,30		3,41
20″	54,57,47,12,39,18,17,58,29,26		4, 1, 5,42,42	
		50,23,53, 8,28, 6,48		3,41
22″	54,57,48, 3, 3,11,26,26,36,14		4, 1, 5,46,23	
		50,23,49, 7,22,20,25		3,41
24″	54,57,48,53,27, 0,33,48,56,39		4, 1, 5,50, 4	
		50,23,45, 6,16,30,21		3,41
26″	54,57,49,43,50,45,40, 5,27, 0		4, 1, 5,53,45	
		50,23,41, 5,10,36,36		3,41
28″	54,57,50,34,14,26,45,16, 3,36		4, 1, 5,57,26	
		50,23,37, 4, 4,39,10		3,41
30″	54,57,51,24,38, 3,49,20,42,46		4, 1, 6, 1, 7	
		50,23,33, 2,58,38, 3		3,41
32″	54,57,52,15, 1,36,52,19,20,49		4, 1, 6, 4,48	
		50,23,29, 1,52,33,15		3,41
34″	54,57,53, 5,25, 5,54,11,54, 4		4, 1, 6, 8,29	
		50,23,25, 0,46,24,46		3,41
36″	54,57,53,55,48,30,54,58,18,50		4, 1, 6,12,10	
		50,23,20,59,40,12,36		3,41
38″	54,57,54,46,11,51,54,38,31,26		4, 1, 6,15,51	
		50,23,16,58,33,56,45		3,41
40″	54,57,55,36,35, 8,53,12,28,11		4, 1, 6,19,32	
		50,23,12,57,27,37,13		3,41
42″	54,57,56,26,58,21,50,40, 5,24		4, 1, 6,23,13	
		50,23, 8,56,21,14, 0		3,41
44″	54,57,57,17,21,30,47, 1,19,24		4, 1, 6,26,54	
		50,23, 4,55,14,47, 6		3,41
46″	54,57,58, 7,44,35,42,16, 6,30		4, 1, 6,30,35	
		50,23, 0,54, 8,16,31		3,41
48″	54,57,58,58, 7,36,36,24,23, 1		4, 1, 6,34,16	
		50,22,56,53, 1,42,15		3,41
50″	54,57,59,48,30,33,29,26, 5,16		4, 1, 6,37,57	
		50,22,52,51,55, 4,18		3,41
52″	54,58, 0,38,53,26,21,21, 9,34		4, 1, 6,41,38	
		50,22,48,50,48,22,40		3,41
54″	54,58, 1,29,16,15,12, 9,32,14		4, 1, 6,45,19	
		50,22,44,49,41,37,21		3,41
56″	54,58, 2,19,39, 0, 1,51, 9,35		4, 1, 6,49, 0	
		50,22,40,48,34,48,21		3,41
58″	54,58, 3,10, 1,40,50,25,57,56		4, 1, 6,52,41	
		50,22,36,47,27,55,40		
60″	54,58, 4, 0,24,17,37,53,53,36			
exact	54,58, 4, 0,24,17,37,53,50,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°22′ 0″	54,58, 4, 0,24,17,37,53,50,22			
		50,22,32,46,20,58,57		
2″	54,58, 4,50,46,50,24,14,49,19		4, 1, 7, 0, 4	
		50,22,28,45,13,58,53		3,41
4″	54,58, 5,41, 9,19, 9,28,48,12		4, 1, 7, 3,45	
		50,22,24,44, 6,55, 8		3,41
6″	54,58, 6,31,31,43,53,35,43,20		4, 1, 7, 7,26	
		50,22,20,42,59,47,42		3,41
8″	54,58, 7,21,54, 4,36,35,31, 2		4, 1, 7,11, 7	
		50,22,16,41,52,36,35		3,41
10″	54,58, 8,12,16,21,18,28, 7,37		4, 1, 7,14,48	
		50,22,12,40,45,21,47		3,41
12″	54,58, 9, 2,38,33,59,13,29,24		4, 1, 7,18,29	
		50,22, 8,39,38, 3,18		3,41
14″	54,58, 9,53, 0,42,38,51,32,42		4, 1, 7,22,10	
		50,22, 4,38,30,41, 8		3,41
16″	54,58,10,43,22,47,17,22,13,50		4, 1, 7,25,51	
		50,22, 0,37,23,15,17		3,41
18″	54,58,11,33,44,47,54,45,29, 7		4, 1, 7,29,32	
		50,21,56,36,15,45,45		3,41
20″	54,58,12,24, 6,44,31, 1,14,52		4, 1, 7,33,13	
		50,21,52,35, 8,12,32		3,41
22″	54,58,13,14,28,37, 6, 9,27,24		4, 1, 7,36,54	
		50,21,48,34, 0,35,38		3,41
24″	54,58,14, 4,50,25,40,10, 3, 2		4, 1, 7,40,35	
		50,21,44,32,52,55, 3		3,41
26″	54,58,14,55,12,10,13, 2,58, 5		4, 1, 7,44,16	
		50,21,40,31,45,10,47		3,41
28″	54,58,15,45,33,50,44,48, 8,52		4, 1, 7,47,57	
		50,21,36,30,37,22,50		3,41
30″	54,58,16,35,55,27,15,25,31,42		4, 1, 7,51,38	
		50,21,32,29,29,31,12		3,41
32″	54,58,17,26,16,59,44,55, 2,54		4, 1, 7,55,19	
		50,21,28,28,21,35,53		3,41
34″	54,58,18,16,38,28,13,16,38,47		4, 1, 7,59, 0	
		50,21,24,27,13,36,53		3,41
36″	54,58,19, 6,59,52,40,30,15,40		4, 1, 8, 2,41	
		50,21,20,26, 5,34,12		3,41
38″	54,58,19,57,21,13, 6,35,49,52		4, 1, 8, 6,22	
		50,21,16,24,57,27,50		3,41
40″	54,58,20,47,42,29,31,33,17,42		4, 1, 8,10, 3	
		50,21,12,23,49,17,47		3,41
42″	54,58,21,38, 3,41,55,22,35,29		4, 1, 8,13,44	
		50,21, 8,22,41, 4, 3		3,41
44″	54,58,22,28,24,50,18, 3,39,32		4, 1, 8,17,25	
		50,21, 4,21,32,46,38		3,41
46″	54,58,23,18,45,54,39,36,26,10		4, 1, 8,21, 6	
		50,21, 0,20,24,25,32		3,41
48″	54,58,24, 9, 6,55, 0, 0,51,42		4, 1, 8,24,47	
		50,20,56,19,16, 0,45		3,41
50″	54,58,24,59,27,51,19,16,52,27		4, 1, 8,28,28	
		50,20,52,18, 7,32,17		3,41
52″	54,58,25,49,48,43,37,24,24,44		4, 1, 8,32, 9	
		50,20,48,16,59, 0, 8		3,41
54″	54,58,26,40, 9,31,54,23,24,52		4, 1, 8,35,50	
		50,20,44,15,50,24,18		3,41
56″	54,58,27,30,30,16,10,13,49,10		4, 1, 8,39,31	
		50,20,40,14,41,44,47		3,41
58″	54,58,28,20,50,56,24,55,33,57		4, 1, 8,43,12	
		50,20,36,13,33, 1,35		
60″	54,58,29,11,11,32,38,28,35,32			
exact	54,58,29,11,11,32,38,28,40, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°23′ 0″	54,58,29,11,11,32,38,28,40, 0			
		50,20,32,12,24,15,16		
2″	54,58,30, 1,32, 4,50,52,55,16		4, 1, 8,50,31	
		50,20,28,11,15,24,45		3,41
4″	54,58,30,51,52,33, 2, 8,20, 1		4, 1, 8,54,12	
		50,20,24,10, 6,30,33		3,41
6″	54,58,31,42,12,57,12,14,50,34		4, 1, 8,57,53	
		50,20,20, 8,57,32,40		3,41
8″	54,58,32,32,33,17,21,12,23,14		4, 1, 9, 1,34	
		50,20,16, 7,48,31, 6		3,41
10″	54,58,33,22,53,33,29, 0,54,20		4, 1, 9, 5,15	
		50,20,12, 6,39,25,51		3,41
12″	54,58,34,13,13,45,35,40,20,11		4, 1, 9, 8,56	
		50,20, 8, 5,30,16,55		3,41
14″	54,58,35, 3,33,53,41,10,37, 6		4, 1, 9,12,37	
		50,20, 4, 4,21, 4,18		3,41
16″	54,58,35,53,53,57,45,31,41,24		4, 1, 9,16,18	
		50,20, 0, 3,11,48, 0		3,41
18″	54,58,36,44,13,57,48,43,29,24		4, 1, 9,19,59	
		50,19,56, 2, 2,28, 1		3,41
20″	54,58,37,34,33,53,50,45,57,25		4, 1, 9,23,40	
		50,19,52, 0,53, 4,21		3,41
22″	54,58,38,24,53,45,51,39, 1,46		4, 1, 9,27,21	
		50,19,47,59,43,37, 0		3,41
24″	54,58,39,15,13,33,51,22,38,46		4, 1, 9,31, 2	
		50,19,43,58,34, 5,58		3,41
26″	54,58,40, 5,33,17,49,56,44,44		4, 1, 9,34,43	
		50,19,39,57,24,31,15		3,41
28″	54,58,40,55,52,57,47,21,15,59		4, 1, 9,38,24	
		50,19,35,56,14,52,51		3,41
30″	54,58,41,46,12,33,43,36, 8,50		4, 1, 9,42, 5	
		50,19,31,55, 5,10,46		3,41
32″	54,58,42,36,32, 5,38,41,19,36		4, 1, 9,45,46	
		50,19,27,53,55,25, 0		3,41
34″	54,58,43,26,51,33,32,36,44,36		4, 1, 9,49,27	
		50,19,23,52,45,35,33		3,41
36″	54,58,44,17,10,57,25,22,20, 9		4, 1, 9,53, 8	
		50,19,19,51,35,42,25		3,41
38″	54,58,45, 7,30,17,16,58, 2,34		4, 1, 9,56,49	
		50,19,15,50,25,45,36		3,41
40″	54,58,45,57,49,33, 7,23,48,10		4, 1,10, 0,30	
		50,19,11,49,15,45, 6		3,41
42″	54,58,46,48, 8,44,56,39,33,16		4, 1,10, 4,11	
		50,19, 7,48, 5,40,55		3,41
44″	54,58,47,38,27,52,44,45,14,11		4, 1,10, 7,52	
		50,19, 3,46,55,33, 3		3,41
46″	54,58,48,28,46,56,31,40,47,14		4, 1,10,11,33	
		50,18,59,45,45,21,30		3,41
48″	54,58,49,19, 5,56,17,26, 8,44		4, 1,10,15,14	
		50,18,55,44,35, 6,16		3,41
50″	54,58,50, 9,24,52, 2, 1,15, 0		4, 1,10,18,55	
		50,18,51,43,24,47,21		3,41
52″	54,58,50,59,43,43,45,26, 2,21		4, 1,10,22,36	
		50,18,47,42,14,24,45		3,41
54″	54,58,51,50, 2,31,27,40,27, 6		4, 1,10,26,17	
		50,18,43,41, 3,58,28		3,41
56″	54,58,52,40,21,15, 8,44,25,34		4, 1,10,29,58	
		50,18,39,39,53,28,30		3,41
58″	54,58,53,30,39,54,48,37,54, 4		4, 1,10,33,39	
		50,18,35,38,42,54,51		
60″	54,58,54,20,58,30,27,20,48,55			
exact	54,58,54,20,58,30,27,21, 3,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°24′ 0″	54,58,54,20,58,30,27,21, 3,44			
		50,18,31,37,32,19,11		
2″	54,58,55,11,17, 2, 4,53,22,55		4, 1,10,40,53	
		50,18,27,36,21,38,18		3,41
4″	54,58,56, 1,35,29,41,15, 1,13		4, 1,10,44,34	
		50,18,23,35,10,53,44		3,41
6″	54,58,56,51,53,53,16,25,54,57		4, 1,10,48,15	
		50,18,19,34, 0, 5,29		3,41
8″	54,58,57,42,12,12,50,26, 0,26		4, 1,10,51,56	
		50,18,15,32,49,13,33		3,41
10″	54,58,58,32,30,28,23,15,13,59		4, 1,10,55,37	
		50,18,11,31,38,17,56		3,41
12″	54,58,59,22,48,39,54,53,31,55		4, 1,10,59,18	
		50,18, 7,30,27,18,38		3,41
14″	54,59, 0,13, 6,47,25,20,50,33		4, 1,11, 2,59	
		50,18, 3,29,16,15,39		3,41
16″	54,59, 1, 3,24,50,54,37, 6,12		4, 1,11, 6,40	
		50,17,59,28, 5, 8,59		3,41
18″	54,59, 1,53,42,50,22,42,15,11		4, 1,11,10,21	
		50,17,55,26,53,58,38		3,41
20″	54,59, 2,44, 0,45,49,36,13,49		4, 1,11,14, 2	
		50,17,51,25,42,44,36		3,41
22″	54,59, 3,34,18,37,15,18,58,25		4, 1,11,17,43	
		50,17,47,24,31,26,53		3,41
24″	54,59, 4,24,36,24,39,50,25,18		4, 1,11,21,24	
		50,17,43,23,20, 5,29		3,41
26″	54,59, 5,14,54, 8, 3,10,30,47		4, 1,11,25, 5	
		50,17,39,22, 8,40,24		3,41
28″	54,59, 6, 5,11,47,25,19,11,11		4, 1,11,28,46	
		50,17,35,20,57,11,38		3,41
30″	54,59, 6,55,29,22,46,16,22,49		4, 1,11,32,27	
		50,17,31,19,45,39,11		3,41
32″	54,59, 7,45,46,54, 6, 2, 2, 0		4, 1,11,36, 8	
		50,17,27,18,34, 3, 3		3,41
34″	54,59, 8,36, 4,21,24,36, 5, 3		4, 1,11,39,49	
		50,17,23,17,22,23,14		3,41
36″	54,59, 9,26,21,44,41,58,28,17		4, 1,11,43,30	
		50,17,19,16,10,39,44		3,41
38″	54,59,10,16,39, 3,58, 9, 8, 1		4, 1,11,47,11	
		50,17,15,14,58,52,33		3,41
40″	54,59,11, 6,56,19,13, 8, 0,34		4, 1,11,50,52	
		50,17,11,13,47, 1,41		3,41
42″	54,59,11,57,13,30,26,55, 2,15		4, 1,11,54,33	
		50,17, 7,12,35, 7, 8		3,41
44″	54,59,12,47,30,37,39,30, 9,23		4, 1,11,58,14	
		50,17, 3,11,23, 8,54		3,41
46″	54,59,13,37,47,40,50,53,18,17		4, 1,12, 1,55	
		50,16,59,10,11, 6,59		3,41
48″	54,59,14,28, 4,40, 1, 4,25,16		4, 1,12, 5,36	
		50,16,55, 8,59, 1,23		3,41
50″	54,59,15,18,21,35,10, 3,26,39		4, 1,12, 9,17	
		50,16,51, 7,46,52, 6		3,41
52″	54,59,16, 8,38,26,17,50,18,45		4, 1,12,12,58	
		50,16,47, 6,34,39, 8		3,41
54″	54,59,16,58,55,13,24,24,57,53		4, 1,12,16,39	
		50,16,43, 5,22,22,29		3,41
56″	54,59,17,49,11,56,29,47,20,22		4, 1,12,20,20	
		50,16,39, 4,10, 2, 9		3,41
58″	54,59,18,39,28,35,33,57,22,31		4, 1,12,24, 1	
		50,16,35, 2,57,38, 8		
60″	54,59,19,29,45,10,36,55, 0,39			
exact	54,59,19,29,45,10,36,55,21,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°25′ 0″	54,59,19,29,45,10,36,55,21,52			
		50,16,31, 1,45,12,55		
2″	54,59,20,20, 1,41,38,40,34,47		4, 1,12,31,12	
		50,16,27, 0,32,41,43		3,41
4″	54,59,21,10,18, 8,39,13,16,30		4, 1,12,34,53	
		50,16,22,59,20, 6,50		3,41
6″	54,59,22, 0,34,31,38,33,23,20		4, 1,12,38,34	
		50,16,18,58, 7,28,16		3,41
8″	54,59,22,50,50,50,36,40,51,36		4, 1,12,42,15	
		50,16,14,56,54,46, 1		3,41
10″	54,59,23,41, 7, 5,33,35,37,37		4, 1,12,45,56	
		50,16,10,55,42, 0, 5		3,41
12″	54,59,24,31,23,16,29,17,37,42		4, 1,12,49,37	
		50,16, 6,54,29,10,28		3,41
14″	54,59,25,21,39,23,23,46,48,10		4, 1,12,53,18	
		50,16, 2,53,16,17,10		3,41
16″	54,59,26,11,55,26,17, 3, 5,20		4, 1,12,56,59	
		50,15,58,52, 3,20,11		3,41
18″	54,59,27, 2,11,25, 9, 6,25,31		4, 1,13, 0,40	
		50,15,54,50,50,19,31		3,41
20″	54,59,27,52,27,19,59,56,45, 2		4, 1,13, 4,21	
		50,15,50,49,37,15,10		3,41
22″	54,59,28,42,43,10,49,34, 0,12		4, 1,13, 8, 2	
		50,15,46,48,24, 7, 8		3,41
24″	54,59,29,32,58,57,37,58, 7,20		4, 1,13,11,43	
		50,15,42,47,10,55,25		3,41
26″	54,59,30,23,14,40,25, 9, 2,45		4, 1,13,15,24	
		50,15,38,45,57,40, 1		3,41
28″	54,59,31,13,30,19,11, 6,42,46		4, 1,13,19, 5	
		50,15,34,44,44,20,56		3,41
30″	54,59,32, 3,45,53,55,51, 3,42		4, 1,13,22,46	
		50,15,30,43,30,58,10		3,41
32″	54,59,32,54, 1,24,39,22, 1,52		4, 1,13,26,27	
		50,15,26,42,17,31,43		3,41
34″	54,59,33,44,16,51,21,39,33,35		4, 1,13,30, 8	
		50,15,22,41, 4, 1,35		3,41
36″	54,59,34,34,32,14, 2,43,35,10		4, 1,13,33,49	
		50,15,18,39,50,27,46		3,41
38″	54,59,35,24,47,32,42,34, 2,56		4, 1,13,37,30	
		50,15,14,38,36,50,16		3,41
40″	54,59,36,15, 2,47,21,10,53,12		4, 1,13,41,11	
		50,15,10,37,23, 9, 5		3,41
42″	54,59,37, 5,17,57,58,34, 2,17		4, 1,13,44,52	
		50,15, 6,36, 9,24,13		3,41
44″	54,59,37,55,33, 4,34,43,26,30		4, 1,13,48,33	
		50,15, 2,34,55,35,40		3,41
46″	54,59,38,45,48, 7, 9,39, 2,10		4, 1,13,52,14	
		50,14,58,33,41,43,26		3,41
48″	54,59,39,36, 3, 5,43,20,45,36		4, 1,13,55,55	
		50,14,54,32,27,47,31		3,41
50″	54,59,40,26,18, 0,15,48,33, 7		4, 1,13,59,36	
		50,14,50,31,13,47,55		3,41
52″	54,59,41,16,32,50,47, 2,21, 2		4, 1,14, 3,17	
		50,14,46,29,59,44,38		3,41
54″	54,59,42, 6,47,37,17, 2, 5,40		4, 1,14, 6,58	
		50,14,42,28,45,37,40		3,41
56″	54,59,42,57, 2,19,45,47,43,20		4, 1,14,10,39	
		50,14,38,27,31,27, 1		3,41
58″	54,59,43,47,16,58,13,19,10,21		4, 1,14,14,20	
		50,14,34,26,17,12,41		
60″	54,59,44,37,31,32,39,36,23, 2			
exact	54,59,44,37,31,32,39,37, 0,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°26′ 0″	54,59,44,37,31,32,39,37, 0,48			
		50,14,30,25, 2,58,40		
2″	54,59,45,27,46, 3, 4,39,59,28		4, 1,14,21,25	
		50,14,26,23,48,37,15		3,40
4″	54,59,46,18, 0,29,28,28,36,43		4, 1,14,25, 5	
		50,14,22,22,34,12,10		3,40
6″	54,59,47, 8,14,51,51, 2,48,53		4, 1,14,28,45	
		50,14,18,21,19,43,25		3,40
8″	54,59,47,58,29,10,12,22,32,18		4, 1,14,32,25	
		50,14,14,20, 5,11, 0		3,40
10″	54,59,48,48,43,24,32,27,43,18		4, 1,14,36, 5	
		50,14,10,18,50,34,55		3,40
12″	54,59,49,38,57,34,51,18,18,13		4, 1,14,39,45	
		50,14, 6,17,35,55,10		3,40
14″	54,59,50,29,11,41, 8,54,13,23		4, 1,14,43,25	
		50,14, 2,16,21,11,45		3,40
16″	54,59,51,19,25,43,25,15,25, 8		4, 1,14,47, 5	
		50,13,58,15, 6,24,40		3,40
18″	54,59,52, 9,39,41,40,21,49,48		4, 1,14,50,45	
		50,13,54,13,51,33,55		3,40
20″	54,59,52,59,53,35,54,13,23,43		4, 1,14,54,25	
		50,13,50,12,36,39,30		3,40
22″	54,59,53,50, 7,26, 6,50, 3,13		4, 1,14,58, 5	
		50,13,46,11,21,41,25		3,40
24″	54,59,54,40,21,12,18,11,44,38		4, 1,15, 1,45	
		50,13,42,10, 6,39,40		3,40
26″	54,59,55,30,34,54,28,18,24,18		4, 1,15, 5,25	
		50,13,38, 8,51,34,15		3,40
28″	54,59,56,20,48,32,37, 9,58,33		4, 1,15, 9, 5	
		50,13,34, 7,36,25,10		3,40
30″	54,59,57,11, 2, 6,44,46,23,43		4, 1,15,12,45	
		50,13,30, 6,21,12,25		3,40
32″	54,59,58, 1,15,36,51, 7,36, 8		4, 1,15,16,25	
		50,13,26, 5, 5,56, 0		3,40
34″	54,59,58,51,29, 2,56,13,32, 8		4, 1,15,20, 5	
		50,13,22, 3,50,35,55		3,40
36″	54,59,59,41,42,25, 0, 4, 8, 3		4, 1,15,23,45	
		50,13,18, 2,35,12,10		3,40
38″	55, 0, 0,31,55,43, 2,39,20,13		4, 1,15,27,25	
		50,13,14, 1,19,44,45		3,40
40″	55, 0, 1,22, 8,57, 3,59, 4,58		4, 1,15,31, 5	
		50,13,10, 0, 4,13,40		3,40
42″	55, 0, 2,12,22, 7, 4, 3,18,38		4, 1,15,34,45	
		50,13, 5,58,48,38,55		3,40
44″	55, 0, 3, 2,35,13, 2,51,57,33		4, 1,15,38,25	
		50,13, 1,57,33, 0,30		3,40
46″	55, 0, 3,52,48,15, 0,24,58, 3		4, 1,15,42, 5	
		50,12,57,56,17,18,25		3,40
48″	55, 0, 4,43, 1,12,56,42,16,28		4, 1,15,45,45	
		50,12,53,55, 1,32,40		3,40
50″	55, 0, 5,33,14, 6,51,43,49, 8		4, 1,15,49,25	
		50,12,49,53,45,43,15		3,40
52″	55, 0, 6,23,26,56,45,29,32,23		4, 1,15,53, 5	
		50,12,45,52,29,50,10		3,40
54″	55, 0, 7,13,39,42,37,59,22,33		4, 1,15,56,45	
		50,12,41,51,13,53,25		3,40
56″	55, 0, 8, 3,52,24,29,13,15,58		4, 1,16, 0,25	
		50,12,37,49,57,53, 0		3,40
58″	55, 0, 8,54, 5, 2,19,11, 8,58		4, 1,16, 4, 5	
		50,12,33,48,41,48,55		
60″	55, 0, 9,44,17,36, 7,52,57,53			
exact	55, 0, 9,44,17,36, 7,52,33, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°27′ 0″	55, 0, 9,44,17,36, 7,52,33, 3			
		50,12,29,47,25,38,39		
2″	55, 0,10,34,30, 5,55,18,11,42		4, 1,16,11,34	
		50,12,25,46, 9,27, 5		3,40
4″	55, 0,11,24,42,31,41,27,38,47		4, 1,16,15,14	
		50,12,21,44,53,11,51		3,40
6″	55, 0,12,14,54,53,26,20,50,38		4, 1,16,18,54	
		50,12,17,43,36,52,57		3,40
8″	55, 0,13, 5, 7,11, 9,57,43,35		4, 1,16,22,34	
		50,12,13,42,20,30,23		3,40
10″	55, 0,13,55,19,24,52,18,13,58		4, 1,16,26,14	
		50,12, 9,41, 4, 4, 9		3,40
12″	55, 0,14,45,31,34,33,22,18, 7		4, 1,16,29,54	
		50,12, 5,39,47,34,15		3,40
14″	55, 0,15,35,43,40,13, 9,52,22		4, 1,16,33,34	
		50,12, 1,38,31, 0,41		3,40
16″	55, 0,16,25,55,41,51,40,53, 3		4, 1,16,37,14	
		50,11,57,37,14,23,27		3,40
18″	55, 0,17,16, 7,39,28,55,16,30		4, 1,16,40,54	
		50,11,53,35,57,42,33		3,40
20″	55, 0,18, 6,19,33, 4,52,59, 3		4, 1,16,44,34	
		50,11,49,34,40,57,59		3,40
22″	55, 0,18,56,31,22,39,33,57, 2		4, 1,16,48,14	
		50,11,45,33,24, 9,45		3,40
24″	55, 0,19,46,43, 8,12,58, 6,47		4, 1,16,51,54	
		50,11,41,32, 7,17,51		3,40
26″	55, 0,20,36,54,49,45, 5,24,38		4, 1,16,55,34	
		50,11,37,30,50,22,17		3,40
28″	55, 0,21,27, 6,27,15,55,46,55		4, 1,16,59,14	
		50,11,33,29,33,23, 3		3,40
30″	55, 0,22,17,18, 0,45,29, 9,58		4, 1,17, 2,54	
		50,11,29,28,16,20, 9		3,40
32″	55, 0,23, 7,29,30,13,45,30, 7		4, 1,17, 6,34	
		50,11,25,26,59,13,35		3,40
34″	55, 0,23,57,40,55,40,44,43,42		4, 1,17,10,14	
		50,11,21,25,42, 3,21		3,40
36″	55, 0,24,47,52,17, 6,26,47, 3		4, 1,17,13,54	
		50,11,17,24,24,49,27		3,40
38″	55, 0,25,38, 3,34,30,51,36,30		4, 1,17,17,34	
		50,11,13,23, 7,31,53		3,40
40″	55, 0,26,28,14,47,53,59, 8,23		4, 1,17,21,14	
		50,11, 9,21,50,10,39		3,40
42″	55, 0,27,18,25,57,15,49,19, 2		4, 1,17,24,54	
		50,11, 5,20,32,45,45		3,40
44″	55, 0,28, 8,37, 2,36,22, 4,47		4, 1,17,28,34	
		50,11, 1,19,15,17,11		3,40
46″	55, 0,28,58,48, 3,55,37,21,58		4, 1,17,32,14	
		50,10,57,17,57,44,57		3,40
48″	55, 0,29,48,59, 1,13,35, 6,55		4, 1,17,35,54	
		50,10,53,16,40, 9, 3		3,40
50″	55, 0,30,39, 9,54,30,15,15,58		4, 1,17,39,34	
		50,10,49,15,22,29,29		3,40
52″	55, 0,31,29,20,43,45,37,45,27		4, 1,17,43,14	
		50,10,45,14, 4,46,15		3,40
54″	55, 0,32,19,31,28,59,42,31,42		4, 1,17,46,54	
		50,10,41,12,46,59,21		3,40
56″	55, 0,33, 9,42,10,12,29,31, 3		4, 1,17,50,34	
		50,10,37,11,29, 8,47		3,40
58″	55, 0,33,59,52,47,23,58,39,50		4, 1,17,54,14	
		50,10,33,10,11,14,33		
60″	55, 0,34,50, 3,20,34, 9,54,23			
exact	55, 0,34,50, 3,20,34, 9,37,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°28′ 0″	55, 0,34,50, 3,20,34, 9,37,16			
		50,10,29, 8,53,15, 3		
2″	55, 0,35,40,13,49,43, 2,52,19		4, 1,18, 1,39	
		50,10,25, 7,35,13,24		3,40
4″	55, 0,36,30,24,14,50,38, 5,43		4, 1,18, 5,19	
		50,10,21, 6,17, 8, 5		3,40
6″	55, 0,37,20,34,35,56,55,13,48		4, 1,18, 8,59	
		50,10,17, 4,58,59, 6		3,40
8″	55, 0,38,10,44,53, 1,54,12,54		4, 1,18,12,39	
		50,10,13, 3,40,46,27		3,40
10″	55, 0,39, 0,55, 6, 5,34,59,21		4, 1,18,16,19	
		50,10, 9, 2,22,30, 8		3,40
12″	55, 0,39,51, 5,15, 7,57,29,29		4, 1,18,19,59	
		50,10, 5, 1, 4,10, 9		3,40
14″	55, 0,40,41,15,20, 9, 1,39,38		4, 1,18,23,39	
		50,10, 0,59,45,46,30		3,40
16″	55, 0,41,31,25,21, 8,47,26, 8		4, 1,18,27,19	
		50, 9,56,58,27,19,11		3,40
18″	55, 0,42,21,35,18, 7,14,45,19		4, 1,18,30,59	
		50, 9,52,57, 8,48,12		3,40
20″	55, 0,43,11,45,11, 4,23,33,31		4, 1,18,34,39	
		50, 9,48,55,50,13,33		3,40
22″	55, 0,44, 1,55, 0, 0,13,47, 4		4, 1,18,38,19	
		50, 9,44,54,31,35,14		3,40
24″	55, 0,44,52, 4,44,54,45,22,18		4, 1,18,41,59	
		50, 9,40,53,12,53,15		3,40
26″	55, 0,45,42,14,25,47,58,15,33		4, 1,18,45,39	
		50, 9,36,51,54, 7,36		3,40
28″	55, 0,46,32,24, 2,39,52,23, 9		4, 1,18,49,19	
		50, 9,32,50,35,18,17		3,40
30″	55, 0,47,22,33,35,30,27,41,26		4, 1,18,52,59	
		50, 9,28,49,16,25,18		3,40
32″	55, 0,48,12,43, 4,19,44, 6,44		4, 1,18,56,39	
		50, 9,24,47,57,28,39		3,40
34″	55, 0,49, 2,52,29, 7,41,35,23		4, 1,19, 0,19	
		50, 9,20,46,38,28,20		3,40
36″	55, 0,49,53, 1,49,54,20, 3,43		4, 1,19, 3,59	
		50, 9,16,45,19,24,21		3,40
38″	55, 0,50,43,11, 6,39,39,28, 4		4, 1,19, 7,39	
		50, 9,12,44, 0,16,42		3,40
40″	55, 0,51,33,20,19,23,39,44,46		4, 1,19,11,19	
		50, 9, 8,42,41, 5,23		3,40
42″	55, 0,52,23,29,28, 6,20,50, 9		4, 1,19,14,59	
		50, 9, 4,41,21,50,24		3,40
44″	55, 0,53,13,38,32,47,42,40,33		4, 1,19,18,39	
		50, 9, 0,40, 2,31,45		3,40
46″	55, 0,54, 3,47,33,27,45,12,18		4, 1,19,22,19	
		50, 8,56,38,43, 9,26		3,40
48″	55, 0,54,53,56,30, 6,28,21,44		4, 1,19,25,59	
		50, 8,52,37,23,43,27		3,40
50″	55, 0,55,44, 5,22,43,52, 5,11		4, 1,19,29,39	
		50, 8,48,36, 4,13,48		3,40
52″	55, 0,56,34,14,11,19,56,18,59		4, 1,19,33,19	
		50, 8,44,34,44,40,29		3,40
54″	55, 0,57,24,22,55,54,40,59,28		4, 1,19,36,59	
		50, 8,40,33,25, 3,30		3,40
56″	55, 0,58,14,31,36,28, 6, 2,58		4, 1,19,40,39	
		50, 8,36,32, 5,22,51		3,40
58″	55, 0,59, 4,40,13, 0,11,25,49		4, 1,19,44,19	
		50, 8,32,30,45,38,32		
60″	55, 0,59,54,48,45,30,57, 4,21			
exact	55, 0,59,54,48,45,30,56,58,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°29′ 0″	55, 0,59,54,48,45,30,56,58,17			
		50, 8,28,29,25,50, 5		
2″	55, 1, 0,44,57,14, 0,22,48,22		4, 1,19,51,40	
		50, 8,24,28, 5,58,25		3,40
4″	55, 1, 1,35, 5,38,28,28,46,47		4, 1,19,55,20	
		50, 8,20,26,46, 3, 5		3,40
6″	55, 1, 2,25,13,58,55,14,49,52		4, 1,19,59, 0	
		50, 8,16,25,26, 4, 5		3,40
8″	55, 1, 3,15,22,15,20,40,53,57		4, 1,20, 2,40	
		50, 8,12,24, 6, 1,25		3,40
10″	55, 1, 4, 5,30,27,44,46,55,22		4, 1,20, 6,20	
		50, 8, 8,22,45,55, 5		3,40
12″	55, 1, 4,55,38,36, 7,32,50,27		4, 1,20,10, 0	
		50, 8, 4,21,25,45, 5		3,40
14″	55, 1, 5,45,46,40,28,58,35,32		4, 1,20,13,40	
		50, 8, 0,20, 5,31,25		3,40
16″	55, 1, 6,35,54,40,49, 4, 6,57		4, 1,20,17,20	
		50, 7,56,18,45,14, 5		3,40
18″	55, 1, 7,26, 2,37, 7,49,21, 2		4, 1,20,21, 0	
		50, 7,52,17,24,53, 5		3,40
20″	55, 1, 8,16,10,29,25,14,14, 7		4, 1,20,24,40	
		50, 7,48,16, 4,28,25		3,40
22″	55, 1, 9, 6,18,17,41,18,42,32		4, 1,20,28,20	
		50, 7,44,14,44, 0, 5		3,40
24″	55, 1, 9,56,26, 1,56, 2,42,37		4, 1,20,32, 0	
		50, 7,40,13,23,28, 5		3,40
26″	55, 1,10,46,33,42, 9,26,10,42		4, 1,20,35,40	
		50, 7,36,12, 2,52,25		3,40
28″	55, 1,11,36,41,18,21,29, 3, 7		4, 1,20,39,20	
		50, 7,32,10,42,13, 5		3,40
30″	55, 1,12,26,48,50,32,11,16,12		4, 1,20,43, 0	
		50, 7,28, 9,21,30, 5		3,40
32″	55, 1,13,16,56,18,41,32,46,17		4, 1,20,46,40	
		50, 7,24, 8, 0,43,25		3,40
34″	55, 1,14, 7, 3,42,49,33,29,42		4, 1,20,50,20	
		50, 7,20, 6,39,53, 5		3,40
36″	55, 1,14,57,11, 2,56,13,22,47		4, 1,20,54, 0	
		50, 7,16, 5,18,59, 5		3,40
38″	55, 1,15,47,18,19, 1,32,21,52		4, 1,20,57,40	
		50, 7,12, 3,58, 1,25		3,40
40″	55, 1,16,37,25,31, 5,30,23,17		4, 1,21, 1,20	
		50, 7, 8, 2,37, 0, 5		3,40
42″	55, 1,17,27,32,39, 8, 7,23,22		4, 1,21, 5, 0	
		50, 7, 4, 1,15,55, 5		3,40
44″	55, 1,18,17,39,43, 9,23,18,27		4, 1,21, 8,40	
		50, 6,59,59,54,46,25		3,40
46″	55, 1,19, 7,46,43, 9,18, 4,52		4, 1,21,12,20	
		50, 6,55,58,33,34, 5		3,40
48″	55, 1,19,57,53,39, 7,51,38,57		4, 1,21,16, 0	
		50, 6,51,57,12,18, 5		3,40
50″	55, 1,20,48, 0,31, 5, 3,57, 2		4, 1,21,19,40	
		50, 6,47,55,50,58,25		3,40
52″	55, 1,21,38, 7,19, 0,54,55,27		4, 1,21,23,20	
		50, 6,43,54,29,35, 5		3,40
54″	55, 1,22,28,14, 2,55,24,30,32		4, 1,21,27, 0	
		50, 6,39,53, 8, 8, 5		3,40
56″	55, 1,23,18,20,42,48,32,38,37		4, 1,21,30,40	
		50, 6,35,51,46,37,25		3,40
58″	55, 1,24, 8,27,18,40,19,16, 2		4, 1,21,34,20	
		50, 6,31,50,25, 3, 5		
60″	55, 1,24,58,33,50,30,44,19, 7			
exact	55, 1,24,58,33,50,30,44,27, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°30′ 0″	55, 1,24,58,33,50,30,44,27, 4			
		50, 6,27,49, 3,25,58		
2″	55, 1,25,48,40,18,19,47,53, 2		4, 1,21,41,36	
		50, 6,23,47,41,44,22		3,40
4″	55, 1,26,38,46,42, 7,29,37,24		4, 1,21,45,16	
		50, 6,19,46,19,59, 6		3,40
6″	55, 1,27,28,53, 1,53,49,36,30		4, 1,21,48,56	
		50, 6,15,44,58,10,10		3,40
8″	55, 1,28,18,59,17,38,47,46,40		4, 1,21,52,36	
		50, 6,11,43,36,17,34		3,40
10″	55, 1,29, 9, 5,29,22,24, 4,14		4, 1,21,56,16	
		50, 6, 7,42,14,21,18		3,40
12″	55, 1,29,59,11,37, 4,38,25,32		4, 1,21,59,56	
		50, 6, 3,40,52,21,22		3,40
14″	55, 1,30,49,17,40,45,30,46,54		4, 1,22, 3,36	
		50, 5,59,39,30,17,46		3,40
16″	55, 1,31,39,23,40,25, 1, 4,40		4, 1,22, 7,16	
		50, 5,55,38, 8,10,30		3,40
18″	55, 1,32,29,29,36, 3, 9,15,10		4, 1,22,10,56	
		50, 5,51,36,45,59,34		3,40
20″	55, 1,33,19,35,27,39,55,14,44		4, 1,22,14,36	
		50, 5,47,35,23,44,58		3,40
22″	55, 1,34, 9,41,15,15,18,59,42		4, 1,22,18,16	
		50, 5,43,34, 1,26,42		3,40
24″	55, 1,34,59,46,58,49,20,26,24		4, 1,22,21,56	
		50, 5,39,32,39, 4,46		3,40
26″	55, 1,35,49,52,38,21,59,31,10		4, 1,22,25,36	
		50, 5,35,31,16,39,10		3,40
28″	55, 1,36,39,58,13,53,16,10,20		4, 1,22,29,16	
		50, 5,31,29,54, 9,54		3,40
30″	55, 1,37,30, 3,45,23,10,20,14		4, 1,22,32,56	
		50, 5,27,28,31,36,58		3,40
32″	55, 1,38,20, 9,12,51,41,57,12		4, 1,22,36,36	
		50, 5,23,27, 9, 0,22		3,40
34″	55, 1,39,10,14,36,18,50,57,34		4, 1,22,40,16	
		50, 5,19,25,46,20, 6		3,40
36″	55, 1,40, 0,19,55,44,37,17,40		4, 1,22,43,56	
		50, 5,15,24,23,36,10		3,40
38″	55, 1,40,50,25,11, 9, 0,53,50		4, 1,22,47,36	
		50, 5,11,23, 0,48,34		3,40
40″	55, 1,41,40,30,22,32, 1,42,24		4, 1,22,51,16	
		50, 5, 7,21,37,57,18		3,40
42″	55, 1,42,30,35,29,53,39,39,42		4, 1,22,54,56	
		50, 5, 3,20,15, 2,22		3,40
44″	55, 1,43,20,40,33,13,54,42, 4		4, 1,22,58,36	
		50, 4,59,18,52, 3,46		3,40
46″	55, 1,44,10,45,32,32,46,45,50		4, 1,23, 2,16	
		50, 4,55,17,29, 1,30		3,40
48″	55, 1,45, 0,50,27,50,15,47,20		4, 1,23, 5,56	
		50, 4,51,16, 5,55,34		3,40
50″	55, 1,45,50,55,19, 6,21,42,54		4, 1,23, 9,36	
		50, 4,47,14,42,45,58		3,40
52″	55, 1,46,41, 0, 6,21, 4,28,52		4, 1,23,13,16	
		50, 4,43,13,19,32,42		3,40
54″	55, 1,47,31, 4,49,34,24, 1,34		4, 1,23,16,56	
		50, 4,39,11,56,15,46		3,40
56″	55, 1,48,21, 9,28,46,20,17,20		4, 1,23,20,36	
		50, 4,35,10,32,55,10		3,40
58″	55, 1,49,11,14, 3,56,53,12,30		4, 1,23,24,16	
		50, 4,31, 9, 9,30,54		
60″	55, 1,50, 1,18,35, 6, 2,43,24			
exact	55, 1,50, 1,18,35, 6, 3, 0,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°31′ 0″	55, 1,50, 1,18,35, 6, 3, 0,44			
		50, 4,27, 7,46, 4,53		
2″	55, 1,50,51,23, 2,13,49, 5,37		4, 1,23,31,27	
		50, 4,23, 6,22,33,26		3,40
4″	55, 1,51,41,27,25,20,11,39, 3		4, 1,23,35, 7	
		50, 4,19, 4,58,58,19		3,40
6″	55, 1,52,31,31,44,25,10,37,22		4, 1,23,38,47	
		50, 4,15, 3,35,19,32		3,40
8″	55, 1,53,21,35,59,28,45,56,54		4, 1,23,42,27	
		50, 4,11, 2,11,37, 5		3,40
10″	55, 1,54,11,40,10,30,57,33,59		4, 1,23,46, 7	
		50, 4, 7, 0,47,50,58		3,40
12″	55, 1,55, 1,44,17,31,45,24,57		4, 1,23,49,47	
		50, 4, 2,59,24, 1,11		3,40
14″	55, 1,55,51,48,20,31, 9,26, 8		4, 1,23,53,27	
		50, 3,58,58, 0, 7,44		3,40
16″	55, 1,56,41,52,19,29, 9,33,52		4, 1,23,57, 7	
		50, 3,54,56,36,10,37		3,40
18″	55, 1,57,31,56,14,25,45,44,29		4, 1,24, 0,47	
		50, 3,50,55,12, 9,50		3,40
20″	55, 1,58,22, 0, 5,20,57,54,19		4, 1,24, 4,27	
		50, 3,46,53,48, 5,23		3,40
22″	55, 1,59,12, 3,52,14,45,59,42		4, 1,24, 8, 7	
		50, 3,42,52,23,57,16		3,40
24″	55, 2, 0, 2, 7,35, 7, 9,56,58		4, 1,24,11,47	
		50, 3,38,50,59,45,29		3,40
26″	55, 2, 0,52,11,13,58, 9,42,27		4, 1,24,15,27	
		50, 3,34,49,35,30, 2		3,40
28″	55, 2, 1,42,14,48,47,45,12,29		4, 1,24,19, 7	
		50, 3,30,48,11,10,55		3,40
30″	55, 2, 2,32,18,19,35,56,23,24		4, 1,24,22,47	
		50, 3,26,46,46,48, 8		3,40
32″	55, 2, 3,22,21,46,22,43,11,32		4, 1,24,26,27	
		50, 3,22,45,22,21,41		3,40
34″	55, 2, 4,12,25, 9, 8, 5,33,13		4, 1,24,30, 7	
		50, 3,18,43,57,51,34		3,40
36″	55, 2, 5, 2,28,27,52, 3,24,47		4, 1,24,33,47	
		50, 3,14,42,33,17,47		3,40
38″	55, 2, 5,52,31,42,34,36,42,34		4, 1,24,37,27	
		50, 3,10,41, 8,40,20		3,40
40″	55, 2, 6,42,34,53,15,45,22,54		4, 1,24,41, 7	
		50, 3, 6,39,43,59,13		3,40
42″	55, 2, 7,32,37,59,55,29,22, 7		4, 1,24,44,47	
		50, 3, 2,38,19,14,26		3,40
44″	55, 2, 8,22,41, 2,33,48,36,33		4, 1,24,48,27	
		50, 2,58,36,54,25,59		3,40
46″	55, 2, 9,12,44, 1,10,43, 2,32		4, 1,24,52, 7	
		50, 2,54,35,29,33,52		3,40
48″	55, 2,10, 2,46,55,46,12,36,24		4, 1,24,55,47	
		50, 2,50,34, 4,38, 5		3,40
50″	55, 2,10,52,49,46,20,17,14,29		4, 1,24,59,27	
		50, 2,46,32,39,38,38		3,40
52″	55, 2,11,42,52,32,52,56,53, 7		4, 1,25, 3, 7	
		50, 2,42,31,14,35,31		3,40
54″	55, 2,12,32,55,15,24,11,28,38		4, 1,25, 6,47	
		50, 2,38,29,49,28,44		3,40
56″	55, 2,13,22,57,53,54, 0,57,22		4, 1,25,10,27	
		50, 2,34,28,24,18,17		3,40
58″	55, 2,14,13, 0,28,22,25,15,39		4, 1,25,14, 7	
		50, 2,30,26,59, 4,10		
60″	55, 2,15, 3, 2,58,49,24,19,49			
exact	55, 2,15, 3, 2,58,49,24,42,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°32′ 0″	55, 2,15, 3, 2,58,49,24,42,34			
		50, 2,26,25,33,49, 3		
2″	55, 2,15,53, 5,25,14,58,31,37		4, 1,25,21,15	
		50, 2,22,24, 8,27,48		3,39
4″	55, 2,16,43, 7,47,39, 6,59,25		4, 1,25,24,54	
		50, 2,18,22,43, 2,54		3,39
6″	55, 2,17,33,10, 6, 1,50, 2,19		4, 1,25,28,33	
		50, 2,14,21,17,34,21		3,39
8″	55, 2,18,23,12,20,23, 7,36,40		4, 1,25,32,12	
		50, 2,10,19,52, 2, 9		3,39
10″	55, 2,19,13,14,30,42,59,38,49		4, 1,25,35,51	
		50, 2, 6,18,26,26,18		3,39
12″	55, 2,20, 3,16,37, 1,26, 5, 7		4, 1,25,39,30	
		50, 2, 2,17, 0,46,48		3,39
14″	55, 2,20,53,18,39,18,26,51,55		4, 1,25,43, 9	
		50, 1,58,15,35, 3,39		3,39
16″	55, 2,21,43,20,37,34, 1,55,34		4, 1,25,46,48	
		50, 1,54,14, 9,16,51		3,39
18″	55, 2,22,33,22,31,48,11,12,25		4, 1,25,50,27	
		50, 1,50,12,43,26,24		3,39
20″	55, 2,23,23,24,22, 0,54,38,49		4, 1,25,54, 6	
		50, 1,46,11,17,32,18		3,39
22″	55, 2,24,13,26, 8,12,12,11, 7		4, 1,25,57,45	
		50, 1,42, 9,51,34,33		3,39
24″	55, 2,25, 3,27,50,22, 3,45,40		4, 1,26, 1,24	
		50, 1,38, 8,25,33, 9		3,39
26″	55, 2,25,53,29,28,30,29,18,49		4, 1,26, 5, 3	
		50, 1,34, 6,59,28, 6		3,39
28″	55, 2,26,43,31, 2,37,28,46,55		4, 1,26, 8,42	
		50, 1,30, 5,33,19,24		3,39
30″	55, 2,27,33,32,32,43, 2, 6,19		4, 1,26,12,21	
		50, 1,26, 4, 7, 7, 3		3,39
32″	55, 2,28,23,33,58,47, 9,13,22		4, 1,26,16, 0	
		50, 1,22, 2,40,51, 3		3,39
34″	55, 2,29,13,35,20,49,50, 4,25		4, 1,26,19,39	
		50, 1,18, 1,14,31,24		3,39
36″	55, 2,30, 3,36,38,51, 4,35,49		4, 1,26,23,18	
		50, 1,13,59,48, 8, 6		3,39
38″	55, 2,30,53,37,52,50,52,43,55		4, 1,26,26,57	
		50, 1, 9,58,21,41, 9		3,39
40″	55, 2,31,43,39, 2,49,14,25, 4		4, 1,26,30,36	
		50, 1, 5,56,55,10,33		3,39
42″	55, 2,32,33,40, 8,46, 9,35,37		4, 1,26,34,15	
		50, 1, 1,55,28,36,18		3,39
44″	55, 2,33,23,41,10,41,38,11,55		4, 1,26,37,54	
		50, 0,57,54, 1,58,24		3,39
46″	55, 2,34,13,42, 8,35,40,10,19		4, 1,26,41,33	
		50, 0,53,52,35,16,51		3,39
48″	55, 2,35, 3,43, 2,28,15,27,10		4, 1,26,45,12	
		50, 0,49,51, 8,31,39		3,39
50″	55, 2,35,53,43,52,19,23,58,49		4, 1,26,48,51	
		50, 0,45,49,41,42,48		3,39
52″	55, 2,36,43,44,38, 9, 5,41,37		4, 1,26,52,30	
		50, 0,41,48,14,50,18		3,39
54″	55, 2,37,33,45,19,57,20,31,55		4, 1,26,56, 9	
		50, 0,37,46,47,54, 9		3,39
56″	55, 2,38,23,45,57,44, 8,26, 4		4, 1,26,59,48	
		50, 0,33,45,20,54,21		3,39
58″	55, 2,39,13,46,31,29,29,20,25		4, 1,27, 3,27	
		50, 0,29,43,53,50,54		
60″	55, 2,40, 3,47, 1,13,23,11,19			
exact	55, 2,40, 3,47, 1,13,22,42, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°33′ 0″	55, 2,40, 3,47, 1,13,22,42, 3			
		50, 0,25,42,26,40,40		
2″	55, 2,40,53,47,26,55,49,22,43		4, 1,27,10,58	
		50, 0,21,40,59,29,42		3,39
4″	55, 2,41,43,47,48,36,48,52,25		4, 1,27,14,37	
		50, 0,17,39,32,15, 5		3,39
6″	55, 2,42,33,48, 6,16,21, 7,30		4, 1,27,18,16	
		50, 0,13,38, 4,56,49		3,39
8″	55, 2,43,23,48,19,54,26, 4,19		4, 1,27,21,55	
		50, 0, 9,36,37,34,54		3,39
10″	55, 2,44,13,48,29,31, 3,39,13		4, 1,27,25,34	
		50, 0, 5,35,10, 9,20		3,39
12″	55, 2,45, 3,48,35, 6,13,48,33		4, 1,27,29,13	
		50, 0, 1,33,42,40, 7		3,39
14″	55, 2,45,53,48,36,39,56,28,40		4, 1,27,32,52	
		49,59,57,32,15, 7,15		3,39
16″	55, 2,46,43,48,34,12,11,35,55		4, 1,27,36,31	
		49,59,53,30,47,30,44		3,39
18″	55, 2,47,33,48,27,42,59, 6,39		4, 1,27,40,10	
		49,59,49,29,19,50,34		3,39
20″	55, 2,48,23,48,17,12,18,57,13		4, 1,27,43,49	
		49,59,45,27,52, 6,45		3,39
22″	55, 2,49,13,48, 2,40,11, 3,58		4, 1,27,47,28	
		49,59,41,26,24,19,17		3,39
24″	55, 2,50, 3,47,44, 6,35,23,15		4, 1,27,51, 7	
		49,59,37,24,56,28,10		3,39
26″	55, 2,50,53,47,21,31,31,51,25		4, 1,27,54,46	
		49,59,33,23,28,33,24		3,39
28″	55, 2,51,43,46,54,55, 0,24,49		4, 1,27,58,25	
		49,59,29,22, 0,34,59		3,39
30″	55, 2,52,33,46,24,17, 0,59,48		4, 1,28, 2, 4	
		49,59,25,20,32,32,55		3,39
32″	55, 2,53,23,45,49,37,33,32,43		4, 1,28, 5,43	
		49,59,21,19, 4,27,12		3,39
34″	55, 2,54,13,45,10,56,37,59,55		4, 1,28, 9,22	
		49,59,17,17,36,17,50		3,39
36″	55, 2,55, 3,44,28,14,14,17,45		4, 1,28,13, 1	
		49,59,13,16, 8, 4,49		3,39
38″	55, 2,55,53,43,41,30,22,22,34		4, 1,28,16,40	
		49,59, 9,14,39,48, 9		3,39
40″	55, 2,56,43,42,50,45, 2,10,43		4, 1,28,20,19	
		49,59, 5,13,11,27,50		3,39
42″	55, 2,57,33,41,55,58,13,38,33		4, 1,28,23,58	
		49,59, 1,11,43, 3,52		3,39
44″	55, 2,58,23,40,57, 9,56,42,25		4, 1,28,27,37	
		49,58,57,10,14,36,15		3,39
46″	55, 2,59,13,39,54,20,11,18,40		4, 1,28,31,16	
		49,58,53, 8,46, 4,59		3,39
48″	55, 3, 0, 3,38,47,28,57,23,39		4, 1,28,34,55	
		49,58,49, 7,17,30, 4		3,39
50″	55, 3, 0,53,37,36,36,14,53,43		4, 1,28,38,34	
		49,58,45, 5,48,51,30		3,39
52″	55, 3, 1,43,36,21,42, 3,45,13		4, 1,28,42,13	
		49,58,41, 4,20, 9,17		3,39
54″	55, 3, 2,33,35, 2,46,23,54,30		4, 1,28,45,52	
		49,58,37, 2,51,23,25		3,39
56″	55, 3, 3,23,33,39,49,15,17,55		4, 1,28,49,31	
		49,58,33, 1,22,33,54		3,39
58″	55, 3, 4,13,32,12,50,37,51,49		4, 1,28,53,10	
		49,58,28,59,53,40,44		
60″	55, 3, 5, 3,30,41,50,31,32,33			
exact	55, 3, 5, 3,30,41,50,31,14,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°34′ 0″	55, 3, 5, 3,30,41,50,31,14,51			
		49,58,24,58,24,41,58		
2″	55, 3, 5,53,29, 6,48,55,56,49		4, 1,29, 0,36	
		49,58,20,56,55,41,22		3,39
4″	55, 3, 6,43,27,27,45,51,38,11		4, 1,29, 4,15	
		49,58,16,55,26,37, 7		3,39
6″	55, 3, 7,33,25,44,41,18,15,18		4, 1,29, 7,54	
		49,58,12,53,57,29,13		3,39
8″	55, 3, 8,23,23,57,35,15,44,31		4, 1,29,11,33	
		49,58, 8,52,28,17,40		3,39
10″	55, 3, 9,13,22, 6,27,44, 2,11		4, 1,29,15,12	
		49,58, 4,50,59, 2,28		3,39
12″	55, 3,10, 3,20,11,18,43, 4,39		4, 1,29,18,51	
		49,58, 0,49,29,43,37		3,39
14″	55, 3,10,53,18,12, 8,12,48,16		4, 1,29,22,30	
		49,57,56,48, 0,21, 7		3,39
16″	55, 3,11,43,16, 8,56,13, 9,23		4, 1,29,26, 9	
		49,57,52,46,30,54,58		3,39
18″	55, 3,12,33,14, 1,42,44, 4,21		4, 1,29,29,48	
		49,57,48,45, 1,25,10		3,39
20″	55, 3,13,23,11,50,27,45,29,31		4, 1,29,33,27	
		49,57,44,43,31,51,43		3,39
22″	55, 3,14,13, 9,35,11,17,21,14		4, 1,29,37, 6	
		49,57,40,42, 2,14,37		3,39
24″	55, 3,15, 3, 7,15,53,19,35,51		4, 1,29,40,45	
		49,57,36,40,32,33,52		3,39
26″	55, 3,15,53, 4,52,33,52, 9,43		4, 1,29,44,24	
		49,57,32,39, 2,49,28		3,39
28″	55, 3,16,43, 2,25,12,54,59,11		4, 1,29,48, 3	
		49,57,28,37,33, 1,25		3,39
30″	55, 3,17,32,59,53,50,28, 0,36		4, 1,29,51,42	
		49,57,24,36, 3, 9,43		3,39
32″	55, 3,18,22,57,18,26,31,10,19		4, 1,29,55,21	
		49,57,20,34,33,14,22		3,39
34″	55, 3,19,12,54,39, 1, 4,24,41		4, 1,29,59, 0	
		49,57,16,33, 3,15,22		3,39
36″	55, 3,20, 2,51,55,34, 7,40, 3		4, 1,30, 2,39	
		49,57,12,31,33,12,43		3,39
38″	55, 3,20,52,49, 8, 5,40,52,46		4, 1,30, 6,18	
		49,57, 8,30, 3, 6,25		3,39
40″	55, 3,21,42,46,16,35,43,59,11		4, 1,30, 9,57	
		49,57, 4,28,32,56,28		3,39
42″	55, 3,22,32,43,21, 4,16,55,39		4, 1,30,13,36	
		49,57, 0,27, 2,42,52		3,39
44″	55, 3,23,22,40,21,31,19,38,31		4, 1,30,17,15	
		49,56,56,25,32,25,37		3,39
46″	55, 3,24,12,37,17,56,52, 4, 8		4, 1,30,20,54	
		49,56,52,24, 2, 4,43		3,39
48″	55, 3,25, 2,34,10,20,54, 8,51		4, 1,30,24,33	
		49,56,48,22,31,40,10		3,39
50″	55, 3,25,52,30,58,43,25,49, 1		4, 1,30,28,12	
		49,56,44,21, 1,11,58		3,39
52″	55, 3,26,42,27,43, 4,27, 0,59		4, 1,30,31,51	
		49,56,40,19,30,40, 7		3,39
54″	55, 3,27,32,24,23,23,57,41, 6		4, 1,30,35,30	
		49,56,36,18, 0, 4,37		3,39
56″	55, 3,28,22,20,59,41,57,45,43		4, 1,30,39, 9	
		49,56,32,16,29,25,28		3,39
58″	55, 3,29,12,17,31,58,27,11,11		4, 1,30,42,48	
		49,56,28,14,58,42,40		
60″	55, 3,30, 2,14, 0,13,25,53,51			
exact	55, 3,30, 2,14, 0,13,25,42,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°35′ 0″	55, 3,30, 2,14, 0,13,25,42,49			
		49,56,24,13,27,55, 7		
2″	55, 3,30,52,10,24,26,53,37,56		4, 1,30,50,10	
		49,56,20,11,57, 4,57		3,39
4″	55, 3,31,42, 6,44,38,50,42,53		4, 1,30,53,49	
		49,56,16,10,26,11, 8		3,39
6″	55, 3,32,32, 3, 0,49,16,54, 1		4, 1,30,57,28	
		49,56,12, 8,55,13,40		3,39
8″	55, 3,33,21,59,12,58,12, 7,41		4, 1,31, 1, 7	
		49,56, 8, 7,24,12,33		3,39
10″	55, 3,34,11,55,21, 5,36,20,14		4, 1,31, 4,46	
		49,56, 4, 5,53, 7,47		3,39
12″	55, 3,35, 1,51,25,11,29,28, 1		4, 1,31, 8,25	
		49,56, 0, 4,21,59,22		3,39
14″	55, 3,35,51,47,25,15,51,27,23		4, 1,31,12, 4	
		49,55,56, 2,50,47,18		3,39
16″	55, 3,36,41,43,21,18,42,14,41		4, 1,31,15,43	
		49,55,52, 1,19,31,35		3,39
18″	55, 3,37,31,39,13,20, 1,46,16		4, 1,31,19,22	
		49,55,47,59,48,12,13		3,39
20″	55, 3,38,21,35, 1,19,49,58,29		4, 1,31,23, 1	
		49,55,43,58,16,49,12		3,39
22″	55, 3,39,11,30,45,18, 6,47,41		4, 1,31,26,40	
		49,55,39,56,45,22,32		3,39
24″	55, 3,40, 1,26,25,14,52,10,13		4, 1,31,30,19	
		49,55,35,55,13,52,13		3,39
26″	55, 3,40,51,22, 1,10, 6, 2,26		4, 1,31,33,58	
		49,55,31,53,42,18,15		3,39
28″	55, 3,41,41,17,33, 3,48,20,41		4, 1,31,37,37	
		49,55,27,52,10,40,38		3,39
30″	55, 3,42,31,13, 0,55,59, 1,19		4, 1,31,41,16	
		49,55,23,50,38,59,22		3,39
32″	55, 3,43,21, 8,24,46,38, 0,41		4, 1,31,44,55	
		49,55,19,49, 7,14,27		3,39
34″	55, 3,44,11, 3,44,35,45,15, 8		4, 1,31,48,34	
		49,55,15,47,35,25,53		3,39
36″	55, 3,45, 0,59, 0,23,20,41, 1		4, 1,31,52,13	
		49,55,11,46, 3,33,40		3,39
38″	55, 3,45,50,54,12, 9,24,14,41		4, 1,31,55,52	
		49,55, 7,44,31,37,48		3,39
40″	55, 3,46,40,49,19,53,55,52,29		4, 1,31,59,31	
		49,55, 3,42,59,38,17		3,39
42″	55, 3,47,30,44,23,36,55,30,46		4, 1,32, 3,10	
		49,54,59,41,27,35, 7		3,39
44″	55, 3,48,20,39,23,18,23, 5,53		4, 1,32, 6,49	
		49,54,55,39,55,28,18		3,39
46″	55, 3,49,10,34,18,58,18,34,11		4, 1,32,10,28	
		49,54,51,38,23,17,50		3,39
48″	55, 3,50, 0,29,10,36,41,52, 1		4, 1,32,14, 7	
		49,54,47,36,51, 3,43		3,39
50″	55, 3,50,50,23,58,13,32,55,44		4, 1,32,17,46	
		49,54,43,35,18,45,57		3,39
52″	55, 3,51,40,18,41,48,51,41,41		4, 1,32,21,25	
		49,54,39,33,46,24,32		3,39
54″	55, 3,52,30,13,21,22,38, 6,13		4, 1,32,25, 4	
		49,54,35,32,13,59,28		3,39
56″	55, 3,53,20, 7,56,54,52, 5,41		4, 1,32,28,43	
		49,54,31,30,41,30,45		3,39
58″	55, 3,54,10, 2,28,25,33,36,26		4, 1,32,32,22	
		49,54,27,29, 8,58,23		
60″	55, 3,54,59,56,55,54,42,34,49			
exact	55, 3,54,59,56,55,54,42,34, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°36′ 0″	55, 3,54,59,56,55,54,42,34, 1			
		49,54,23,27,36,22,21		
2″	55, 3,55,49,51,19,22,18,56,22		4, 1,32,39,39	
		49,54,19,26, 3,42,42		3,39
4″	55, 3,56,39,45,38,48,22,39, 4		4, 1,32,43,18	
		49,54,15,24,30,59,24		3,39
6″	55, 3,57,29,39,54,12,53,38,28		4, 1,32,46,57	
		49,54,11,22,58,12,27		3,39
8″	55, 3,58,19,34, 5,35,51,50,55		4, 1,32,50,36	
		49,54, 7,21,25,21,51		3,39
10″	55, 3,59, 9,28,12,57,17,12,46		4, 1,32,54,15	
		49,54, 3,19,52,27,36		3,39
12″	55, 3,59,59,22,16,17, 9,40,22		4, 1,32,57,54	
		49,53,59,18,19,29,42		3,39
14″	55, 4, 0,49,16,15,35,29,10, 4		4, 1,33, 1,33	
		49,53,55,16,46,28, 9		3,39
16″	55, 4, 1,39,10,10,52,15,38,13		4, 1,33, 5,12	
		49,53,51,15,13,22,57		3,39
18″	55, 4, 2,29, 4, 2, 7,29, 1,10		4, 1,33, 8,51	
		49,53,47,13,40,14, 6		3,39
20″	55, 4, 3,18,57,49,21, 9,15,16		4, 1,33,12,30	
		49,53,43,12, 7, 1,36		3,39
22″	55, 4, 4, 8,51,32,33,16,16,52		4, 1,33,16, 9	
		49,53,39,10,33,45,27		3,39
24″	55, 4, 4,58,45,11,43,50, 2,19		4, 1,33,19,48	
		49,53,35, 9, 0,25,39		3,39
26″	55, 4, 5,48,38,46,52,50,27,58		4, 1,33,23,27	
		49,53,31, 7,27, 2,12		3,39
28″	55, 4, 6,38,32,18, 0,17,30,10		4, 1,33,27, 6	
		49,53,27, 5,53,35, 6		3,39
30″	55, 4, 7,28,25,45, 6,11, 5,16		4, 1,33,30,45	
		49,53,23, 4,20, 4,21		3,39
32″	55, 4, 8,18,19, 8,10,31, 9,37		4, 1,33,34,24	
		49,53,19, 2,46,29,57		3,39
34″	55, 4, 9, 8,12,27,13,17,39,34		4, 1,33,38, 3	
		49,53,15, 1,12,51,54		3,39
36″	55, 4, 9,58, 5,42,14,30,31,28		4, 1,33,41,42	
		49,53,10,59,39,10,12		3,39
38″	55, 4,10,47,58,53,14, 9,41,40		4, 1,33,45,21	
		49,53, 6,58, 5,24,51		3,39
40″	55, 4,11,37,52, 0,12,15, 6,31		4, 1,33,49, 0	
		49,53, 2,56,31,35,51		3,39
42″	55, 4,12,27,45, 3, 8,46,42,22		4, 1,33,52,39	
		49,52,58,54,57,43,12		3,39
44″	55, 4,13,17,38, 2, 3,44,25,34		4, 1,33,56,18	
		49,52,54,53,23,46,54		3,39
46″	55, 4,14, 7,30,56,57, 8,12,28		4, 1,33,59,57	
		49,52,50,51,49,46,57		3,39
48″	55, 4,14,57,23,47,48,57,59,25		4, 1,34, 3,36	
		49,52,46,50,15,43,21		3,39
50″	55, 4,15,47,16,34,39,13,42,46		4, 1,34, 7,15	
		49,52,42,48,41,36, 6		3,39
52″	55, 4,16,37, 9,17,27,55,18,52		4, 1,34,10,54	
		49,52,38,47, 7,25,12		3,39
54″	55, 4,17,27, 1,56,15, 2,44, 4		4, 1,34,14,33	
		49,52,34,45,33,10,39		3,39
56″	55, 4,18,16,54,31, 0,35,54,43		4, 1,34,18,12	
		49,52,30,43,58,52,27		3,39
58″	55, 4,19, 6,47, 1,44,34,47,10		4, 1,34,21,51	
		49,52,26,42,24,30,36		
60″	55, 4,19,56,39,28,26,59,17,46			
exact	55, 4,19,56,39,28,26,59,22,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°37′ 0″	55, 4,19,56,39,28,26,59,22,43			
		49,52,22,40,50, 5,51		
2″	55, 4,20,46,31,51, 7,49,28,34		4, 1,34,29, 5	
		49,52,18,39,15,36,46		3,39
4″	55, 4,21,36,24, 9,47, 5, 5,20		4, 1,34,32,44	
		49,52,14,37,41, 4, 2		3,39
6″	55, 4,22,26,16,24,24,46, 9,22		4, 1,34,36,23	
		49,52,10,36, 6,27,39		3,39
8″	55, 4,23,16, 8,35, 0,52,37, 1		4, 1,34,40, 2	
		49,52, 6,34,31,47,37		3,39
10″	55, 4,24, 6, 0,41,35,24,24,38		4, 1,34,43,41	
		49,52, 2,32,57, 3,56		3,39
12″	55, 4,24,55,52,44, 8,21,28,34		4, 1,34,47,20	
		49,51,58,31,22,16,36		3,39
14″	55, 4,25,45,44,42,39,43,45,10		4, 1,34,50,59	
		49,51,54,29,47,25,37		3,39
16″	55, 4,26,35,36,37, 9,31,10,47		4, 1,34,54,38	
		49,51,50,28,12,30,59		3,39
18″	55, 4,27,25,28,27,37,43,41,46		4, 1,34,58,17	
		49,51,46,26,37,32,42		3,39
20″	55, 4,28,15,20,14, 4,21,14,28		4, 1,35, 1,56	
		49,51,42,25, 2,30,46		3,39
22″	55, 4,29, 5,11,56,29,23,45,14		4, 1,35, 5,35	
		49,51,38,23,27,25,11		3,39
24″	55, 4,29,55, 3,34,52,51,10,25		4, 1,35, 9,14	
		49,51,34,21,52,15,57		3,39
26″	55, 4,30,44,55, 9,14,43,26,22		4, 1,35,12,53	
		49,51,30,20,17, 3, 4		3,39
28″	55, 4,31,34,46,39,35, 0,29,26		4, 1,35,16,32	
		49,51,26,18,41,46,32		3,39
30″	55, 4,32,24,38, 5,53,42,15,58		4, 1,35,20,11	
		49,51,22,17, 6,26,21		3,39
32″	55, 4,33,14,29,28,10,48,42,19		4, 1,35,23,50	
		49,51,18,15,31, 2,31		3,39
34″	55, 4,34, 4,20,46,26,19,44,50		4, 1,35,27,29	
		49,51,14,13,55,35, 2		3,39
36″	55, 4,34,54,12, 0,40,15,19,52		4, 1,35,31, 8	
		49,51,10,12,20, 3,54		3,39
38″	55, 4,35,44, 3,10,52,35,23,46		4, 1,35,34,47	
		49,51, 6,10,44,29, 7		3,39
40″	55, 4,36,33,54,17, 3,19,52,53		4, 1,35,38,26	
		49,51, 2, 9, 8,50,41		3,39
42″	55, 4,37,23,45,19,12,28,43,34		4, 1,35,42, 5	
		49,50,58, 7,33, 8,36		3,39
44″	55, 4,38,13,36,17,20, 1,52,10		4, 1,35,45,44	
		49,50,54, 5,57,22,52		3,39
46″	55, 4,39, 3,27,11,25,59,15, 2		4, 1,35,49,23	
		49,50,50, 4,21,33,29		3,39
48″	55, 4,39,53,18, 1,30,20,48,31		4, 1,35,53, 2	
		49,50,46, 2,45,40,27		3,39
50″	55, 4,40,43, 8,47,33, 6,28,58		4, 1,35,56,41	
		49,50,42, 1, 9,43,46		3,39
52″	55, 4,41,32,59,29,34,16,12,44		4, 1,36, 0,20	
		49,50,37,59,33,43,26		3,39
54″	55, 4,42,22,50, 7,33,49,56,10		4, 1,36, 3,59	
		49,50,33,57,57,39,27		3,39
56″	55, 4,43,12,40,41,31,47,35,37		4, 1,36, 7,38	
		49,50,29,56,21,31,49		3,39
58″	55, 4,44, 2,31,11,28, 9, 7,26		4, 1,36,11,17	
		49,50,25,54,45,20,32		
60″	55, 4,44,52,21,37,22,54,27,58			
exact	55, 4,44,52,21,37,22,54,49,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°38′ 0″	55, 4,44,52,21,37,22,54,49,25			
		49,50,21,53, 9, 7,52		
2″	55, 4,45,42,11,59,16, 3,57,17		4, 1,36,18,25	
		49,50,17,51,32,49,27		3,39
4″	55, 4,46,32, 2,17, 7,36,46,44		4, 1,36,22, 4	
		49,50,13,49,56,27,23		3,39
6″	55, 4,47,21,52,30,57,33,14, 7		4, 1,36,25,43	
		49,50, 9,48,20, 1,40		3,39
8″	55, 4,48,11,42,40,45,53,15,47		4, 1,36,29,22	
		49,50, 5,46,43,32,18		3,39
10″	55, 4,49, 1,32,46,32,36,48, 5		4, 1,36,33, 1	
		49,50, 1,45, 6,59,17		3,39
12″	55, 4,49,51,22,48,17,43,47,22		4, 1,36,36,40	
		49,49,57,43,30,22,37		3,39
14″	55, 4,50,41,12,46, 1,14, 9,59		4, 1,36,40,19	
		49,49,53,41,53,42,18		3,39
16″	55, 4,51,31, 2,39,43, 7,52,17		4, 1,36,43,58	
		49,49,49,40,16,58,20		3,39
18″	55, 4,52,20,52,29,23,24,50,37		4, 1,36,47,37	
		49,49,45,38,40,10,43		3,39
20″	55, 4,53,10,42,15, 2, 5, 1,20		4, 1,36,51,16	
		49,49,41,37, 3,19,27		3,39
22″	55, 4,54, 0,31,56,39, 8,20,47		4, 1,36,54,55	
		49,49,37,35,26,24,32		3,39
24″	55, 4,54,50,21,34,14,34,45,19		4, 1,36,58,34	
		49,49,33,33,49,25,58		3,39
26″	55, 4,55,40,11, 7,48,24,11,17		4, 1,37, 2,13	
		49,49,29,32,12,23,45		3,39
28″	55, 4,56,30, 0,37,20,36,35, 2		4, 1,37, 5,52	
		49,49,25,30,35,17,53		3,39
30″	55, 4,57,19,50, 2,51,11,52,55		4, 1,37, 9,31	
		49,49,21,28,58, 8,22		3,39
32″	55, 4,58, 9,39,24,20,10, 1,17		4, 1,37,13,10	
		49,49,17,27,20,55,12		3,39
34″	55, 4,58,59,28,41,47,30,56,29		4, 1,37,16,49	
		49,49,13,25,43,38,23		3,39
36″	55, 4,59,49,17,55,13,14,34,52		4, 1,37,20,28	
		49,49, 9,24, 6,17,55		3,39
38″	55, 5, 0,39, 7, 4,37,20,52,47		4, 1,37,24, 7	
		49,49, 5,22,28,53,48		3,39
40″	55, 5, 1,28,56, 9,59,49,46,35		4, 1,37,27,46	
		49,49, 1,20,51,26, 2		3,39
42″	55, 5, 2,18,45,11,20,41,12,37		4, 1,37,31,25	
		49,48,57,19,13,54,37		3,39
44″	55, 5, 3, 8,34, 8,39,55, 7,14		4, 1,37,35, 4	
		49,48,53,17,36,19,33		3,39
46″	55, 5, 3,58,23, 1,57,31,26,47		4, 1,37,38,43	
		49,48,49,15,58,40,50		3,39
48″	55, 5, 4,48,11,51,13,30, 7,37		4, 1,37,42,22	
		49,48,45,14,20,58,28		3,39
50″	55, 5, 5,38, 0,36,27,51, 6, 5		4, 1,37,46, 1	
		49,48,41,12,43,12,27		3,39
52″	55, 5, 6,27,49,17,40,34,18,32		4, 1,37,49,40	
		49,48,37,11, 5,22,47		3,39
54″	55, 5, 7,17,37,54,51,39,41,19		4, 1,37,53,19	
		49,48,33, 9,27,29,28		3,39
56″	55, 5, 8, 7,26,28, 1, 7,10,47		4, 1,37,56,58	
		49,48,29, 7,49,32,30		3,39
58″	55, 5, 8,57,14,57, 8,56,43,17		4, 1,38, 0,37	
		49,48,25, 6,11,31,53		
60″	55, 5, 9,47, 3,22,15, 8,15,10			
exact	55, 5, 9,47, 3,22,15, 8,40,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°39′ 0″	55, 5, 9,47, 3,22,15, 8,40,49			
		49,48,21, 4,33,30,34		
2″	55, 5,10,36,51,43,19,42,11,23		4, 1,38, 7,42	
		49,48,17, 2,55,22,52		3,38
4″	55, 5,11,26,40, 0,22,37,34,15		4, 1,38,11,20	
		49,48,13, 1,17,11,32		3,38
6″	55, 5,12,16,28,13,23,54,45,47		4, 1,38,14,58	
		49,48, 8,59,38,56,34		3,38
8″	55, 5,13, 6,16,22,23,33,42,21		4, 1,38,18,36	
		49,48, 4,58, 0,37,58		3,38
10″	55, 5,13,56, 4,27,21,34,20,19		4, 1,38,22,14	
		49,48, 0,56,22,15,44		3,38
12″	55, 5,14,45,52,28,17,56,36, 3		4, 1,38,25,52	
		49,47,56,54,43,49,52		3,38
14″	55, 5,15,35,40,25,12,40,25,55		4, 1,38,29,30	
		49,47,52,53, 5,20,22		3,38
16″	55, 5,16,25,28,18, 5,45,46,17		4, 1,38,33, 8	
		49,47,48,51,26,47,14		3,38
18″	55, 5,17,15,16, 6,57,12,33,31		4, 1,38,36,46	
		49,47,44,49,48,10,28		3,38
20″	55, 5,18, 5, 3,51,47, 0,43,59		4, 1,38,40,24	
		49,47,40,48, 9,30, 4		3,38
22″	55, 5,18,54,51,32,35,10,14, 3		4, 1,38,44, 2	
		49,47,36,46,30,46, 2		3,38
24″	55, 5,19,44,39, 9,21,41, 0, 5		4, 1,38,47,40	
		49,47,32,44,51,58,22		3,38
26″	55, 5,20,34,26,42, 6,32,58,27		4, 1,38,51,18	
		49,47,28,43,13, 7, 4		3,38
28″	55, 5,21,24,14,10,49,46, 5,31		4, 1,38,54,56	
		49,47,24,41,34,12, 8		3,38
30″	55, 5,22,14, 1,35,31,20,17,39		4, 1,38,58,34	
		49,47,20,39,55,13,34		3,38
32″	55, 5,23, 3,48,56,11,15,31,13		4, 1,39, 2,12	
		49,47,16,38,16,11,22		3,38
34″	55, 5,23,53,36,12,49,31,42,35		4, 1,39, 5,50	
		49,47,12,36,37, 5,32		3,38
36″	55, 5,24,43,23,25,26, 8,48, 7		4, 1,39, 9,28	
		49,47, 8,34,57,56, 4		3,38
38″	55, 5,25,33,10,34, 1, 6,44,11		4, 1,39,13, 6	
		49,47, 4,33,18,42,58		3,38
40″	55, 5,26,22,57,38,34,25,27, 9		4, 1,39,16,44	
		49,47, 0,31,39,26,14		3,38
42″	55, 5,27,12,44,39, 6, 4,53,23		4, 1,39,20,22	
		49,46,56,30, 0, 5,52		3,38
44″	55, 5,28, 2,31,35,36, 4,59,15		4, 1,39,24, 0	
		49,46,52,28,20,41,52		3,38
46″	55, 5,28,52,18,28, 4,25,41, 7		4, 1,39,27,38	
		49,46,48,26,41,14,14		3,38
48″	55, 5,29,42, 5,16,31, 6,55,21		4, 1,39,31,16	
		49,46,44,25, 1,42,58		3,38
50″	55, 5,30,31,52, 0,56, 8,38,19		4, 1,39,34,54	
		49,46,40,23,22, 8, 4		3,38
52″	55, 5,31,21,38,41,19,30,46,23		4, 1,39,38,32	
		49,46,36,21,42,29,32		3,38
54″	55, 5,32,11,25,17,41,13,15,55		4, 1,39,42,10	
		49,46,32,20, 2,47,22		3,38
56″	55, 5,33, 1,11,50, 1,16, 3,17		4, 1,39,45,48	
		49,46,28,18,23, 1,34		3,38
58″	55, 5,33,50,58,18,19,39, 4,51		4, 1,39,49,26	
		49,46,24,16,43,12, 8		
60″	55, 5,34,40,44,42,36,22,16,59			
exact	55, 5,34,40,44,42,36,21,49,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°40′ 0″	55, 5,34,40,44,42,36,21,49,55			
		49,46,20,15, 3,16,10		
2″	55, 5,35,30,31, 2,51,25, 6, 5		4, 1,39,56,54	
		49,46,16,13,23,19,16		3,38
4″	55, 5,36,20,17,19, 4,48,25,21		4, 1,40, 0,32	
		49,46,12,11,43,18,44		3,38
6″	55, 5,37,10, 3,31,16,31,44, 5		4, 1,40, 4,10	
		49,46, 8,10, 3,14,34		3,38
8″	55, 5,37,59,49,39,26,34,58,39		4, 1,40, 7,48	
		49,46, 4, 8,23, 6,46		3,38
10″	55, 5,38,49,35,43,34,58, 5,25		4, 1,40,11,26	
		49,46, 0, 6,42,55,20		3,38
12″	55, 5,39,39,21,43,41,41, 0,45		4, 1,40,15, 4	
		49,45,56, 5, 2,40,16		3,38
14″	55, 5,40,29, 7,39,46,43,41, 1		4, 1,40,18,42	
		49,45,52, 3,22,21,34		3,38
16″	55, 5,41,18,53,31,50, 6, 2,35		4, 1,40,22,20	
		49,45,48, 1,41,59,14		3,38
18″	55, 5,42, 8,39,19,51,48, 1,49		4, 1,40,25,58	
		49,45,44, 0, 1,33,16		3,38
20″	55, 5,42,58,25, 3,51,49,35, 5		4, 1,40,29,36	
		49,45,39,58,21, 3,40		3,38
22″	55, 5,43,48,10,43,50,10,38,45		4, 1,40,33,14	
		49,45,35,56,40,30,26		3,38
24″	55, 5,44,37,56,19,46,51, 9,11		4, 1,40,36,52	
		49,45,31,54,59,53,34		3,38
26″	55, 5,45,27,41,51,41,51, 2,45		4, 1,40,40,30	
		49,45,27,53,19,13, 4		3,38
28″	55, 5,46,17,27,19,35,10,15,49		4, 1,40,44, 8	
		49,45,23,51,38,28,56		3,38
30″	55, 5,47, 7,12,43,26,48,44,45		4, 1,40,47,46	
		49,45,19,49,57,41,10		3,38
32″	55, 5,47,56,58, 3,16,46,25,55		4, 1,40,51,24	
		49,45,15,48,16,49,46		3,38
34″	55, 5,48,46,43,19, 5, 3,15,41		4, 1,40,55, 2	
		49,45,11,46,35,54,44		3,38
36″	55, 5,49,36,28,30,51,39,10,25		4, 1,40,58,40	
		49,45, 7,44,54,56, 4		3,38
38″	55, 5,50,26,13,38,36,34, 6,29		4, 1,41, 2,18	
		49,45, 3,43,13,53,46		3,38
40″	55, 5,51,15,58,42,19,48, 0,15		4, 1,41, 5,56	
		49,44,59,41,32,47,50		3,38
42″	55, 5,52, 5,43,42, 1,20,48, 5		4, 1,41, 9,34	
		49,44,55,39,51,38,16		3,38
44″	55, 5,52,55,28,37,41,12,26,21		4, 1,41,13,12	
		49,44,51,38,10,25, 4		3,38
46″	55, 5,53,45,13,29,19,22,51,25		4, 1,41,16,50	
		49,44,47,36,29, 8,14		3,38
48″	55, 5,54,34,58,16,55,51,59,39		4, 1,41,20,28	
		49,44,43,34,47,47,46		3,38
50″	55, 5,55,24,43, 0,30,39,47,25		4, 1,41,24, 6	
		49,44,39,33, 6,23,40		3,38
52″	55, 5,56,14,27,40, 3,46,11, 5		4, 1,41,27,44	
		49,44,35,31,24,55,56		3,38
54″	55, 5,57, 4,12,15,35,11, 7, 1		4, 1,41,31,22	
		49,44,31,29,43,24,34		3,38
56″	55, 5,57,53,56,47, 4,54,31,35		4, 1,41,35, 0	
		49,44,27,28, 1,49,34		3,38
58″	55, 5,58,43,41,14,32,56,21, 9		4, 1,41,38,38	
		49,44,23,26,20,10,56		
60″	55, 5,59,33,25,37,59,16,32, 5			
exact	55, 5,59,33,25,37,59,16,15,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°41′ 0″	55, 5,59,33,25,37,59,16,15,54			
		49,44,19,24,38,26,54		
2″	55, 6, 0,23, 9,57,23,54,42,48		4, 1,41,46, 1	
		49,44,15,22,56,40,53		3,38
4″	55, 6, 1,12,54,12,46,51,23,41		4, 1,41,49,39	
		49,44,11,21,14,51,14		3,38
6″	55, 6, 2, 2,38,24, 8, 6,14,55		4, 1,41,53,17	
		49,44, 7,19,32,57,57		3,38
8″	55, 6, 2,52,22,31,27,39,12,52		4, 1,41,56,55	
		49,44, 3,17,51, 1, 2		3,38
10″	55, 6, 3,42, 6,34,45,30,13,54		4, 1,42, 0,33	
		49,43,59,16, 9, 0,29		3,38
12″	55, 6, 4,31,50,34, 1,39,14,23		4, 1,42, 4,11	
		49,43,55,14,26,56,18		3,38
14″	55, 6, 5,21,34,29,16, 6,10,41		4, 1,42, 7,49	
		49,43,51,12,44,48,29		3,38
16″	55, 6, 6,11,18,20,28,50,59,10		4, 1,42,11,27	
		49,43,47,11, 2,37, 2		3,38
18″	55, 6, 7, 1, 2, 7,39,53,36,12		4, 1,42,15, 5	
		49,43,43, 9,20,21,57		3,38
20″	55, 6, 7,50,45,50,49,13,58, 9		4, 1,42,18,43	
		49,43,39, 7,38, 3,14		3,38
22″	55, 6, 8,40,29,29,56,52, 1,23		4, 1,42,22,21	
		49,43,35, 5,55,40,53		3,38
24″	55, 6, 9,30,13, 5, 2,47,42,16		4, 1,42,25,59	
		49,43,31, 4,13,14,54		3,38
26″	55, 6,10,19,56,36, 7, 0,57,10		4, 1,42,29,37	
		49,43,27, 2,30,45,17		3,38
28″	55, 6,11, 9,40, 3, 9,31,42,27		4, 1,42,33,15	
		49,43,23, 0,48,12, 2		3,38
30″	55, 6,11,59,23,26,10,19,54,29		4, 1,42,36,53	
		49,43,18,59, 5,35, 9		3,38
32″	55, 6,12,49, 6,45, 9,25,29,38		4, 1,42,40,31	
		49,43,14,57,22,54,38		3,38
34″	55, 6,13,38,50, 0, 6,48,24,16		4, 1,42,44, 9	
		49,43,10,55,40,10,29		3,38
36″	55, 6,14,28,33,11, 2,28,34,45		4, 1,42,47,47	
		49,43, 6,53,57,22,42		3,38
38″	55, 6,15,18,16,17,56,25,57,27		4, 1,42,51,25	
		49,43, 2,52,14,31,17		3,38
40″	55, 6,16, 7,59,20,48,40,28,44		4, 1,42,55, 3	
		49,42,58,50,31,36,14		3,38
42″	55, 6,16,57,42,19,39,12, 4,58		4, 1,42,58,41	
		49,42,54,48,48,37,33		3,38
44″	55, 6,17,47,25,14,28, 0,42,31		4, 1,43, 2,19	
		49,42,50,47, 5,35,14		3,38
46″	55, 6,18,37, 8, 5,15, 6,17,45		4, 1,43, 5,57	
		49,42,46,45,22,29,17		3,38
48″	55, 6,19,26,50,52, 0,28,47, 2		4, 1,43, 9,35	
		49,42,42,43,39,19,42		3,38
50″	55, 6,20,16,33,34,44, 8, 6,44		4, 1,43,13,13	
		49,42,38,41,56, 6,29		3,38
52″	55, 6,21, 6,16,13,26, 4,13,13		4, 1,43,16,51	
		49,42,34,40,12,49,38		3,38
54″	55, 6,21,55,58,48, 6,17, 2,51		4, 1,43,20,29	
		49,42,30,38,29,29, 9		3,38
56″	55, 6,22,45,41,18,44,46,32, 0		4, 1,43,24, 7	
		49,42,26,36,46, 5, 2		3,38
58″	55, 6,23,35,23,45,21,32,37, 2		4, 1,43,27,45	
		49,42,22,35, 2,37,17		
60″	55, 6,24,25, 6, 7,56,35,14,19			
exact	55, 6,24,25, 6, 7,56,35, 4,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°42′ 0″	55, 6,24,25, 6, 7,56,35, 4,13			
		49,42,18,33,19, 4,56		
2″	55, 6,25,14,48,26,29,54, 9, 9		4, 1,43,35, 4	
		49,42,14,31,35,29,52		3,38
4″	55, 6,26, 4,30,41, 1,29,39, 1		4, 1,43,38,42	
		49,42,10,29,51,51,10		3,38
6″	55, 6,26,54,12,51,31,21,30,11		4, 1,43,42,20	
		49,42, 6,28, 8, 8,50		3,38
8″	55, 6,27,43,54,57,59,29,39, 1		4, 1,43,45,58	
		49,42, 2,26,24,22,52		3,38
10″	55, 6,28,33,37, 0,25,54, 1,53		4, 1,43,49,36	
		49,41,58,24,40,33,16		3,38
12″	55, 6,29,23,18,58,50,34,35, 9		4, 1,43,53,14	
		49,41,54,22,56,40, 2		3,38
14″	55, 6,30,13, 0,53,13,31,15,11		4, 1,43,56,52	
		49,41,50,21,12,43,10		3,38
16″	55, 6,31, 2,42,43,34,43,58,21		4, 1,44, 0,30	
		49,41,46,19,28,42,40		3,38
18″	55, 6,31,52,24,29,54,12,41, 1		4, 1,44, 4, 8	
		49,41,42,17,44,38,32		3,38
20″	55, 6,32,42, 6,12,11,57,19,33		4, 1,44, 7,46	
		49,41,38,16, 0,30,46		3,38
22″	55, 6,33,31,47,50,27,57,50,19		4, 1,44,11,24	
		49,41,34,14,16,19,22		3,38
24″	55, 6,34,21,29,24,42,14, 9,41		4, 1,44,15, 2	
		49,41,30,12,32, 4,20		3,38
26″	55, 6,35,11,10,54,54,46,14, 1		4, 1,44,18,40	
		49,41,26,10,47,45,40		3,38
28″	55, 6,36, 0,52,21, 5,33,59,41		4, 1,44,22,18	
		49,41,22, 9, 3,23,22		3,38
30″	55, 6,36,50,33,43,14,37,23, 3		4, 1,44,25,56	
		49,41,18, 7,18,57,26		3,38
32″	55, 6,37,40,15, 1,21,56,20,29		4, 1,44,29,34	
		49,41,14, 5,34,27,52		3,38
34″	55, 6,38,29,56,15,27,30,48,21		4, 1,44,33,12	
		49,41,10, 3,49,54,40		3,38
36″	55, 6,39,19,37,25,31,20,43, 1		4, 1,44,36,50	
		49,41, 6, 2, 5,17,50		3,38
38″	55, 6,40, 9,18,31,33,26, 0,51		4, 1,44,40,28	
		49,41, 2, 0,20,37,22		3,38
40″	55, 6,40,58,59,33,33,46,38,13		4, 1,44,44, 6	
		49,40,57,58,35,53,16		3,38
42″	55, 6,41,48,40,31,32,22,31,29		4, 1,44,47,44	
		49,40,53,56,51, 5,32		3,38
44″	55, 6,42,38,21,25,29,13,37, 1		4, 1,44,51,22	
		49,40,49,55, 6,14,10		3,38
46″	55, 6,43,28, 2,15,24,19,51,11		4, 1,44,55, 0	
		49,40,45,53,21,19,10		3,38
48″	55, 6,44,17,43, 1,17,41,10,21		4, 1,44,58,38	
		49,40,41,51,36,20,32		3,38
50″	55, 6,45, 7,23,43, 9,17,30,53		4, 1,45, 2,16	
		49,40,37,49,51,18,16		3,38
52″	55, 6,45,57, 4,20,59, 8,49, 9		4, 1,45, 5,54	
		49,40,33,48, 6,12,22		3,38
54″	55, 6,46,46,44,54,47,15, 1,31		4, 1,45, 9,32	
		49,40,29,46,21, 2,50		3,38
56″	55, 6,47,36,25,24,33,36, 4,21		4, 1,45,13,10	
		49,40,25,44,35,49,40		3,38
58″	55, 6,48,26, 5,50,18,11,54, 1		4, 1,45,16,48	
		49,40,21,42,50,32,52		
60″	55, 6,49,15,46,12, 1, 2,26,53			
exact	55, 6,49,15,46,12, 1, 2,26,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°43′ 0″	55, 6,49,15,46,12, 1, 2,26,35			
		49,40,17,41, 5,12,31		
2″	55, 6,50, 5,26,29,42, 7,39, 6		4, 1,45,24, 3	
		49,40,13,39,19,48,28		3,38
4″	55, 6,50,55, 6,43,21,27,27,34		4, 1,45,27,41	
		49,40, 9,37,34,20,47		3,38
6″	55, 6,51,44,46,52,59, 1,48,21		4, 1,45,31,19	
		49,40, 5,35,48,49,28		3,38
8″	55, 6,52,34,26,58,34,50,37,49		4, 1,45,34,57	
		49,40, 1,34, 3,14,31		3,38
10″	55, 6,53,24, 7, 0, 8,53,52,20		4, 1,45,38,35	
		49,39,57,32,17,35,56		3,38
12″	55, 6,54,13,46,57,41,11,28,16		4, 1,45,42,13	
		49,39,53,30,31,53,43		3,38
14″	55, 6,55, 3,26,51,11,43,21,59		4, 1,45,45,51	
		49,39,49,28,46, 7,52		3,38
16″	55, 6,55,53, 6,40,40,29,29,51		4, 1,45,49,29	
		49,39,45,27, 0,18,23		3,38
18″	55, 6,56,42,46,26, 7,29,48,14		4, 1,45,53, 7	
		49,39,41,25,14,25,16		3,38
20″	55, 6,57,32,26, 7,32,44,13,30		4, 1,45,56,45	
		49,39,37,23,28,28,31		3,38
22″	55, 6,58,22, 5,44,56,12,42, 1		4, 1,46, 0,23	
		49,39,33,21,42,28, 8		3,38
24″	55, 6,59,11,45,18,17,55,10, 9		4, 1,46, 4, 1	
		49,39,29,19,56,24, 7		3,38
26″	55, 7, 0, 1,24,47,37,51,34,16		4, 1,46, 7,39	
		49,39,25,18,10,16,28		3,38
28″	55, 7, 0,51, 4,12,56, 1,50,44		4, 1,46,11,17	
		49,39,21,16,24, 5,11		3,38
30″	55, 7, 1,40,43,34,12,25,55,55		4, 1,46,14,55	
		49,39,17,14,37,50,16		3,38
32″	55, 7, 2,30,22,51,27, 3,46,11		4, 1,46,18,33	
		49,39,13,12,51,31,43		3,38
34″	55, 7, 3,20, 2, 4,39,55,17,54		4, 1,46,22,11	
		49,39, 9,11, 5, 9,32		3,38
36″	55, 7, 4, 9,41,13,51, 0,27,26		4, 1,46,25,49	
		49,39, 5, 9,18,43,43		3,38
38″	55, 7, 4,59,20,19, 0,19,11, 9		4, 1,46,29,27	
		49,39, 1, 7,32,14,16		3,38
40″	55, 7, 5,48,59,20, 7,51,25,25		4, 1,46,33, 5	
		49,38,57, 5,45,41,11		3,38
42″	55, 7, 6,38,38,17,13,37, 6,36		4, 1,46,36,43	
		49,38,53, 3,59, 4,28		3,38
44″	55, 7, 7,28,17,10,17,36,11, 4		4, 1,46,40,21	
		49,38,49, 2,12,24, 7		3,38
46″	55, 7, 8,17,55,59,19,48,35,11		4, 1,46,43,59	
		49,38,45, 0,25,40, 8		3,38
48″	55, 7, 9, 7,34,44,20,14,15,19		4, 1,46,47,37	
		49,38,40,58,38,52,31		3,38
50″	55, 7, 9,57,13,25,18,53, 7,50		4, 1,46,51,15	
		49,38,36,56,52, 1,16		3,38
52″	55, 7,10,46,52, 2,15,45, 9, 6		4, 1,46,54,53	
		49,38,32,55, 5, 6,23		3,38
54″	55, 7,11,36,30,35,10,50,15,29		4, 1,46,58,31	
		49,38,28,53,18, 7,52		3,38
56″	55, 7,12,26, 9, 4, 4, 8,23,21		4, 1,47, 2, 9	
		49,38,24,51,31, 5,43		3,38
58″	55, 7,13,15,47,28,55,39,29, 4		4, 1,47, 5,47	
		49,38,20,49,43,59,56		
60″	55, 7,14, 5,25,49,45,23,29, 0			
exact	55, 7,14, 5,25,49,45,23,41, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°44′ 0″	55, 7,14, 5,25,49,45,23,41, 1			
		49,38,16,47,56,51,50		
2″	55, 7,14,55, 4, 6,33,20,32,51		4, 1,47,12,57	
		49,38,12,46, 9,38,53		3,38
4″	55, 7,15,44,42,19,19,30,11,44		4, 1,47,16,35	
		49,38, 8,44,22,22,18		3,38
6″	55, 7,16,34,20,28, 3,52,34, 2		4, 1,47,20,13	
		49,38, 4,42,35, 2, 5		3,38
8″	55, 7,17,23,58,32,46,27,36, 7		4, 1,47,23,51	
		49,38, 0,40,47,38,14		3,38
10″	55, 7,18,13,36,33,27,15,14,21		4, 1,47,27,29	
		49,37,56,39, 0,10,45		3,38
12″	55, 7,19, 3,14,30, 6,15,25, 6		4, 1,47,31, 7	
		49,37,52,37,12,39,38		3,38
14″	55, 7,19,52,52,22,43,28, 4,44		4, 1,47,34,45	
		49,37,48,35,25, 4,53		3,38
16″	55, 7,20,42,30,11,18,53, 9,37		4, 1,47,38,23	
		49,37,44,33,37,26,30		3,38
18″	55, 7,21,32, 7,55,52,30,36, 7		4, 1,47,42, 1	
		49,37,40,31,49,44,29		3,38
20″	55, 7,22,21,45,36,24,20,20,36		4, 1,47,45,39	
		49,37,36,30, 1,58,50		3,38
22″	55, 7,23,11,23,12,54,22,19,26		4, 1,47,49,17	
		49,37,32,28,14, 9,33		3,38
24″	55, 7,24, 1, 0,45,22,36,28,59		4, 1,47,52,55	
		49,37,28,26,26,16,38		3,38
26″	55, 7,24,50,38,13,49, 2,45,37		4, 1,47,56,33	
		49,37,24,24,38,20, 5		3,38
28″	55, 7,25,40,15,38,13,41, 5,42		4, 1,48, 0,11	
		49,37,20,22,50,19,54		3,38
30″	55, 7,26,29,52,58,36,31,25,36		4, 1,48, 3,49	
		49,37,16,21, 2,16, 5		3,38
32″	55, 7,27,19,30,14,57,33,41,41		4, 1,48, 7,27	
		49,37,12,19,14, 8,38		3,38
34″	55, 7,28, 9, 7,27,16,47,50,19		4, 1,48,11, 5	
		49,37, 8,17,25,57,33		3,38
36″	55, 7,28,58,44,35,34,13,47,52		4, 1,48,14,43	
		49,37, 4,15,37,42,50		3,38
38″	55, 7,29,48,21,39,49,51,30,42		4, 1,48,18,21	
		49,37, 0,13,49,24,29		3,38
40″	55, 7,30,37,58,40, 3,40,55,11		4, 1,48,21,59	
		49,36,56,12, 1, 2,30		3,38
42″	55, 7,31,27,35,36,15,41,57,41		4, 1,48,25,37	
		49,36,52,10,12,36,53		3,38
44″	55, 7,32,17,12,28,25,54,34,34		4, 1,48,29,15	
		49,36,48, 8,24, 7,38		3,38
46″	55, 7,33, 6,49,16,34,18,42,12		4, 1,48,32,53	
		49,36,44, 6,35,34,45		3,38
48″	55, 7,33,56,26, 0,40,54,16,57		4, 1,48,36,31	
		49,36,40, 4,46,58,14		3,38
50″	55, 7,34,46, 2,40,45,41,15,11		4, 1,48,40, 9	
		49,36,36, 2,58,18, 5		3,38
52″	55, 7,35,35,39,16,48,39,33,16		4, 1,48,43,47	
		49,36,32, 1, 9,34,18		3,38
54″	55, 7,36,25,15,48,49,49, 7,34		4, 1,48,47,25	
		49,36,27,59,20,46,53		3,38
56″	55, 7,37,14,52,16,49, 9,54,27		4, 1,48,51, 3	
		49,36,23,57,31,55,50		3,38
58″	55, 7,38, 4,28,40,46,41,50,17		4, 1,48,54,41	
		49,36,19,55,43, 1, 9		
60″	55, 7,38,54, 5, 0,42,24,51,26			
exact	55, 7,38,54, 5, 0,42,25,11,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°45′ 0″	55, 7,38,54, 5, 0,42,25,11,46			
		49,36,15,53,54, 5, 6		
2″	55, 7,39,43,41,16,36,19,16,52		4, 1,49, 1,47	
		49,36,11,52, 5, 3,19		3,38
4″	55, 7,40,33,17,28,28,24,20,11		4, 1,49, 5,25	
		49,36, 7,50,15,57,54		3,38
6″	55, 7,41,22,53,36,18,40,18, 5		4, 1,49, 9, 3	
		49,36, 3,48,26,48,51		3,38
8″	55, 7,42,12,29,40, 7, 7, 6,56		4, 1,49,12,41	
		49,35,59,46,37,36,10		3,38
10″	55, 7,43, 2, 5,39,53,44,43, 6		4, 1,49,16,19	
		49,35,55,44,48,19,51		3,38
12″	55, 7,43,51,41,35,38,33, 2,57		4, 1,49,19,57	
		49,35,51,42,58,59,54		3,38
14″	55, 7,44,41,17,27,21,32, 2,51		4, 1,49,23,35	
		49,35,47,41, 9,36,19		3,38
16″	55, 7,45,30,53,15, 2,41,39,10		4, 1,49,27,13	
		49,35,43,39,20, 9, 6		3,38
18″	55, 7,46,20,28,58,42, 1,48,16		4, 1,49,30,51	
		49,35,39,37,30,38,15		3,38
20″	55, 7,47,10, 4,38,19,32,26,31		4, 1,49,34,29	
		49,35,35,35,41, 3,46		3,38
22″	55, 7,47,59,40,13,55,13,30,17		4, 1,49,38, 7	
		49,35,31,33,51,25,39		3,38
24″	55, 7,48,49,15,45,29, 4,55,56		4, 1,49,41,45	
		49,35,27,32, 1,43,54		3,38
26″	55, 7,49,38,51,13, 1, 6,39,50		4, 1,49,45,23	
		49,35,23,30,11,58,31		3,38
28″	55, 7,50,28,26,36,31,18,38,21		4, 1,49,49, 1	
		49,35,19,28,22, 9,30		3,38
30″	55, 7,51,18, 1,55,59,40,47,51		4, 1,49,52,39	
		49,35,15,26,32,16,51		3,38
32″	55, 7,52, 7,37,11,26,13, 4,42		4, 1,49,56,17	
		49,35,11,24,42,20,34		3,38
34″	55, 7,52,57,12,22,50,55,25,16		4, 1,49,59,55	
		49,35, 7,22,52,20,39		3,38
36″	55, 7,53,46,47,30,13,47,45,55		4, 1,50, 3,33	
		49,35, 3,21, 2,17, 6		3,38
38″	55, 7,54,36,22,33,34,50, 3, 1		4, 1,50, 7,11	
		49,34,59,19,12, 9,55		3,38
40″	55, 7,55,25,57,32,54, 2,12,56		4, 1,50,10,49	
		49,34,55,17,21,59, 6		3,38
42″	55, 7,56,15,32,28,11,24,12, 2		4, 1,50,14,27	
		49,34,51,15,31,44,39		3,38
44″	55, 7,57, 5, 7,19,26,55,56,41		4, 1,50,18, 5	
		49,34,47,13,41,26,34		3,38
46″	55, 7,57,54,42, 6,40,37,23,15		4, 1,50,21,43	
		49,34,43,11,51, 4,51		3,38
48″	55, 7,58,44,16,49,52,28,28, 6		4, 1,50,25,21	
		49,34,39,10, 0,39,30		3,38
50″	55, 7,59,33,51,29, 2,29, 7,36		4, 1,50,28,59	
		49,34,35, 8,10,10,31		3,38
52″	55, 8, 0,23,26, 4,10,39,18, 7		4, 1,50,32,37	
		49,34,31, 6,19,37,54		3,38
54″	55, 8, 1,13, 0,35,16,58,56, 1		4, 1,50,36,15	
		49,34,27, 4,29, 1,39		3,38
56″	55, 8, 2, 2,35, 2,21,27,57,40		4, 1,50,39,53	
		49,34,23, 2,38,21,46		3,38
58″	55, 8, 2,52, 9,25,24, 6,19,26		4, 1,50,43,31	
		49,34,19, 0,47,38,15		
60″	55, 8, 3,41,43,44,24,53,57,41			
exact	55, 8, 3,41,43,44,24,54,29,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°46′ 0″	55, 8, 3,41,43,44,24,54,29,24			
		49,34,14,58,56,54,32		
2″	55, 8, 4,31,17,59,23,51,23,56		4, 1,50,50,32	
		49,34,10,57, 6, 4, 0		3,37
4″	55, 8, 5,20,52,10,20,57,27,56		4, 1,50,54, 9	
		49,34, 6,55,15, 9,51		3,37
6″	55, 8, 6,10,26,17,16,12,37,47		4, 1,50,57,46	
		49,34, 2,53,24,12, 5		3,37
8″	55, 8, 7, 0, 0,20, 9,36,49,52		4, 1,51, 1,23	
		49,33,58,51,33,10,42		3,37
10″	55, 8, 7,49,34,19, 1,10, 0,34		4, 1,51, 5, 0	
		49,33,54,49,42, 5,42		3,37
12″	55, 8, 8,39, 8,13,50,52, 6,16		4, 1,51, 8,37	
		49,33,50,47,50,57, 5		3,37
14″	55, 8, 9,28,42, 4,38,43, 3,21		4, 1,51,12,14	
		49,33,46,45,59,44,51		3,37
16″	55, 8,10,18,15,51,24,42,48,12		4, 1,51,15,51	
		49,33,42,44, 8,29, 0		3,37
18″	55, 8,11, 7,49,34, 8,51,17,12		4, 1,51,19,28	
		49,33,38,42,17, 9,32		3,37
20″	55, 8,11,57,23,12,51, 8,26,44		4, 1,51,23, 5	
		49,33,34,40,25,46,27		3,37
22″	55, 8,12,46,56,47,31,34,13,11		4, 1,51,26,42	
		49,33,30,38,34,19,45		3,37
24″	55, 8,13,36,30,18,10, 8,32,56		4, 1,51,30,19	
		49,33,26,36,42,49,26		3,37
26″	55, 8,14,26, 3,44,46,51,22,22		4, 1,51,33,56	
		49,33,22,34,51,15,30		3,37
28″	55, 8,15,15,37, 7,21,42,37,52		4, 1,51,37,33	
		49,33,18,32,59,37,57		3,37
30″	55, 8,16, 5,10,25,54,42,15,49		4, 1,51,41,10	
		49,33,14,31, 7,56,47		3,37
32″	55, 8,16,54,43,40,25,50,12,36		4, 1,51,44,47	
		49,33,10,29,16,12, 0		3,37
34″	55, 8,17,44,16,50,55, 6,24,36		4, 1,51,48,24	
		49,33, 6,27,24,23,36		3,37
36″	55, 8,18,33,49,57,22,30,48,12		4, 1,51,52, 1	
		49,33, 2,25,32,31,35		3,37
38″	55, 8,19,23,22,59,48, 3,19,47		4, 1,51,55,38	
		49,32,58,23,40,35,57		3,37
40″	55, 8,20,12,55,58,11,43,55,44		4, 1,51,59,15	
		49,32,54,21,48,36,42		3,37
42″	55, 8,21, 2,28,52,33,32,32,26		4, 1,52, 2,52	
		49,32,50,19,56,33,50		3,37
44″	55, 8,21,52, 1,42,53,29, 6,16		4, 1,52, 6,29	
		49,32,46,18, 4,27,21		3,37
46″	55, 8,22,41,34,29,11,33,33,37		4, 1,52,10, 6	
		49,32,42,16,12,17,15		3,37
48″	55, 8,23,31, 7,11,27,45,50,52		4, 1,52,13,43	
		49,32,38,14,20, 3,32		3,37
50″	55, 8,24,20,39,49,42, 5,54,24		4, 1,52,17,20	
		49,32,34,12,27,46,12		3,37
52″	55, 8,25,10,12,23,54,33,40,36		4, 1,52,20,57	
		49,32,30,10,35,25,15		3,37
54″	55, 8,25,59,44,54, 5, 9, 5,51		4, 1,52,24,34	
		49,32,26, 8,43, 0,41		3,37
56″	55, 8,26,49,17,20,13,52, 6,32		4, 1,52,28,11	
		49,32,22, 6,50,32,30		3,37
58″	55, 8,27,38,49,42,20,42,39, 2		4, 1,52,31,48	
		49,32,18, 4,58, 0,42		
60″	55, 8,28,28,22, 0,25,40,39,44			
exact	55, 8,28,28,22, 0,25,40,10,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°47′ 0″	55, 8,28,28,22, 0,25,40,10,45			
		49,32,14, 3, 5,22,20		
2″	55, 8,29,17,54,14,28,45,33, 5		4, 1,52,39,13	
		49,32,10, 1,12,43, 7		3,37
4″	55, 8,30, 7,26,24,29,58,16,12		4, 1,52,42,50	
		49,32, 5,59,20, 0,17		3,37
6″	55, 8,30,56,58,30,29,18,16,29		4, 1,52,46,27	
		49,32, 1,57,27,13,50		3,37
8″	55, 8,31,46,30,32,26,45,30,19		4, 1,52,50, 4	
		49,31,57,55,34,23,46		3,37
10″	55, 8,32,36, 2,30,22,19,54, 5		4, 1,52,53,41	
		49,31,53,53,41,30, 5		3,37
12″	55, 8,33,25,34,24,16, 1,24,10		4, 1,52,57,18	
		49,31,49,51,48,32,47		3,37
14″	55, 8,34,15, 6,14, 7,49,56,57		4, 1,53, 0,55	
		49,31,45,49,55,31,52		3,37
16″	55, 8,35, 4,37,59,57,45,28,49		4, 1,53, 4,32	
		49,31,41,48, 2,27,20		3,37
18″	55, 8,35,54, 9,41,45,47,56, 9		4, 1,53, 8, 9	
		49,31,37,46, 9,19,11		3,37
20″	55, 8,36,43,41,19,31,57,15,20		4, 1,53,11,46	
		49,31,33,44,16, 7,25		3,37
22″	55, 8,37,33,12,53,16,13,22,45		4, 1,53,15,23	
		49,31,29,42,22,52, 2		3,37
24″	55, 8,38,22,44,22,58,36,14,47		4, 1,53,19, 0	
		49,31,25,40,29,33, 2		3,37
26″	55, 8,39,12,15,48,39, 5,47,49		4, 1,53,22,37	
		49,31,21,38,36,10,25		3,37
28″	55, 8,40, 1,47,10,17,41,58,14		4, 1,53,26,14	
		49,31,17,36,42,44,11		3,37
30″	55, 8,40,51,18,27,54,24,42,25		4, 1,53,29,51	
		49,31,13,34,49,14,20		3,37
32″	55, 8,41,40,49,41,29,13,56,45		4, 1,53,33,28	
		49,31, 9,32,55,40,52		3,37
34″	55, 8,42,30,20,51, 2, 9,37,37		4, 1,53,37, 5	
		49,31, 5,31, 2, 3,47		3,37
36″	55, 8,43,19,51,56,33,11,41,24		4, 1,53,40,42	
		49,31, 1,29, 8,23, 5		3,37
38″	55, 8,44, 9,22,58, 2,20, 4,29		4, 1,53,44,19	
		49,30,57,27,14,38,46		3,37
40″	55, 8,44,58,53,55,29,34,43,15		4, 1,53,47,56	
		49,30,53,25,20,50,50		3,37
42″	55, 8,45,48,24,48,54,55,34, 5		4, 1,53,51,33	
		49,30,49,23,26,59,17		3,37
44″	55, 8,46,37,55,38,18,22,33,22		4, 1,53,55,10	
		49,30,45,21,33, 4, 7		3,37
46″	55, 8,47,27,26,23,39,55,37,29		4, 1,53,58,47	
		49,30,41,19,39, 5,20		3,37
48″	55, 8,48,16,57, 4,59,34,42,49		4, 1,54, 2,24	
		49,30,37,17,45, 2,56		3,37
50″	55, 8,49, 6,27,42,17,19,45,45		4, 1,54, 6, 1	
		49,30,33,15,50,56,55		3,37
52″	55, 8,49,55,58,15,33,10,42,40		4, 1,54, 9,38	
		49,30,29,13,56,47,17		3,37
54″	55, 8,50,45,28,44,47, 7,29,57		4, 1,54,13,15	
		49,30,25,12, 2,34, 2		3,37
56″	55, 8,51,34,59, 9,59,10, 3,59		4, 1,54,16,52	
		49,30,21,10, 8,17,10		3,37
58″	55, 8,52,24,29,31, 9,18,21, 9		4, 1,54,20,29	
		49,30,17, 8,13,56,41		
60″	55, 8,53,13,59,48,17,32,17,50			
exact	55, 8,53,13,59,48,17,31,59, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°48′ 0″	55, 8,53,13,59,48,17,31,59, 0			
		49,30,13, 6,19,30,43		
2″	55, 8,54, 3,30, 1,23,51,29,43		4, 1,54,27,50	
		49,30, 9, 4,25, 2,53		3,37
4″	55, 8,54,53, 0,10,28,16,32,36		4, 1,54,31,27	
		49,30, 5, 2,30,31,26		3,37
6″	55, 8,55,42,30,15,30,47, 4, 2		4, 1,54,35, 4	
		49,30, 1, 0,35,56,22		3,37
8″	55, 8,56,32, 0,16,31,23, 0,24		4, 1,54,38,41	
		49,29,56,58,41,17,41		3,37
10″	55, 8,57,21,30,13,30, 4,18, 5		4, 1,54,42,18	
		49,29,52,56,46,35,23		3,37
12″	55, 8,58,11, 0, 6,26,50,53,28		4, 1,54,45,55	
		49,29,48,54,51,49,28		3,37
14″	55, 8,59, 0,29,55,21,42,42,56		4, 1,54,49,32	
		49,29,44,52,56,59,56		3,37
16″	55, 8,59,49,59,40,14,39,42,52		4, 1,54,53, 9	
		49,29,40,51, 2, 6,47		3,37
18″	55, 9, 0,39,29,21, 5,41,49,39		4, 1,54,56,46	
		49,29,36,49, 7,10, 1		3,37
20″	55, 9, 1,28,58,57,54,48,59,40		4, 1,55, 0,23	
		49,29,32,47,12, 9,38		3,37
22″	55, 9, 2,18,28,30,42, 1, 9,18		4, 1,55, 4, 0	
		49,29,28,45,17, 5,38		3,37
24″	55, 9, 3, 7,57,59,27,18,14,56		4, 1,55, 7,37	
		49,29,24,43,21,58, 1		3,37
26″	55, 9, 3,57,27,24,10,40,12,57		4, 1,55,11,14	
		49,29,20,41,26,46,47		3,37
28″	55, 9, 4,46,56,44,52, 6,59,44		4, 1,55,14,51	
		49,29,16,39,31,31,56		3,37
30″	55, 9, 5,36,26, 1,31,38,31,40		4, 1,55,18,28	
		49,29,12,37,36,13,28		3,37
32″	55, 9, 6,25,55,14, 9,14,45, 8		4, 1,55,22, 5	
		49,29, 8,35,40,51,23		3,37
34″	55, 9, 7,15,24,22,44,55,36,31		4, 1,55,25,42	
		49,29, 4,33,45,25,41		3,37
36″	55, 9, 8, 4,53,27,18,41, 2,12		4, 1,55,29,19	
		49,29, 0,31,49,56,22		3,37
38″	55, 9, 8,54,22,27,50,30,58,34		4, 1,55,32,56	
		49,28,56,29,54,23,26		3,37
40″	55, 9, 9,43,51,24,20,25,22, 0		4, 1,55,36,33	
		49,28,52,27,58,46,53		3,37
42″	55, 9,10,33,20,16,48,24, 8,53		4, 1,55,40,10	
		49,28,48,26, 3, 6,43		3,37
44″	55, 9,11,22,49, 5,14,27,15,36		4, 1,55,43,47	
		49,28,44,24, 7,22,56		3,37
46″	55, 9,12,12,17,49,38,34,38,32		4, 1,55,47,24	
		49,28,40,22,11,35,32		3,37
48″	55, 9,13, 1,46,30, 0,46,14, 4		4, 1,55,51, 1	
		49,28,36,20,15,44,31		3,37
50″	55, 9,13,51,15, 6,21, 1,58,35		4, 1,55,54,38	
		49,28,32,18,19,49,53		3,37
52″	55, 9,14,40,43,38,39,21,48,28		4, 1,55,58,15	
		49,28,28,16,23,51,38		3,37
54″	55, 9,15,30,12, 6,55,45,40, 6		4, 1,56, 1,52	
		49,28,24,14,27,49,46		3,37
56″	55, 9,16,19,40,31,10,13,29,52		4, 1,56, 5,29	
		49,28,20,12,31,44,17		3,37
58″	55, 9,17, 9, 8,51,22,45,14, 9		4, 1,56, 9, 6	
		49,28,16,10,35,35,11		
60″	55, 9,17,58,37, 7,33,20,49,20			
exact	55, 9,17,58,37, 7,33,20,43,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°49′ 0″	55, 9,17,58,37, 7,33,20,43,36			
		49,28,12, 8,39,21,53		
2″	55, 9,18,48, 5,19,42, 0, 5,29		4, 1,56,16,22	
		49,28, 8, 6,43, 5,31		3,37
4″	55, 9,19,37,33,27,48,43,11, 0		4, 1,56,19,59	
		49,28, 4, 4,46,45,32		3,37
6″	55, 9,20,27, 1,31,53,29,56,32		4, 1,56,23,36	
		49,28, 0, 2,50,21,56		3,37
8″	55, 9,21,16,29,31,56,20,18,28		4, 1,56,27,13	
		49,27,56, 0,53,54,43		3,37
10″	55, 9,22, 5,57,27,57,14,13,11		4, 1,56,30,50	
		49,27,51,58,57,23,53		3,37
12″	55, 9,22,55,25,19,56,11,37, 4		4, 1,56,34,27	
		49,27,47,57, 0,49,26		3,37
14″	55, 9,23,44,53, 7,53,12,26,30		4, 1,56,38, 4	
		49,27,43,55, 4,11,22		3,37
16″	55, 9,24,34,20,51,48,16,37,52		4, 1,56,41,41	
		49,27,39,53, 7,29,41		3,37
18″	55, 9,25,23,48,31,41,24, 7,33		4, 1,56,45,18	
		49,27,35,51,10,44,23		3,37
20″	55, 9,26,13,16, 7,32,34,51,56		4, 1,56,48,55	
		49,27,31,49,13,55,28		3,37
22″	55, 9,27, 2,43,39,21,48,47,24		4, 1,56,52,32	
		49,27,27,47,17, 2,56		3,37
24″	55, 9,27,52,11, 7, 9, 5,50,20		4, 1,56,56, 9	
		49,27,23,45,20, 6,47		3,37
26″	55, 9,28,41,38,30,54,25,57, 7		4, 1,56,59,46	
		49,27,19,43,23, 7, 1		3,37
28″	55, 9,29,31, 5,50,37,49, 4, 8		4, 1,57, 3,23	
		49,27,15,41,26, 3,38		3,37
30″	55, 9,30,20,33, 6,19,15, 7,46		4, 1,57, 7, 0	
		49,27,11,39,28,56,38		3,37
32″	55, 9,31,10, 0,17,58,44, 4,24		4, 1,57,10,37	
		49,27, 7,37,31,46, 1		3,37
34″	55, 9,31,59,27,25,36,15,50,25		4, 1,57,14,14	
		49,27, 3,35,34,31,47		3,37
36″	55, 9,32,48,54,29,11,50,22,12		4, 1,57,17,51	
		49,26,59,33,37,13,56		3,37
38″	55, 9,33,38,21,28,45,27,36, 8		4, 1,57,21,28	
		49,26,55,31,39,52,28		3,37
40″	55, 9,34,27,48,24,17, 7,28,36		4, 1,57,25, 5	
		49,26,51,29,42,27,23		3,37
42″	55, 9,35,17,15,15,46,49,55,59		4, 1,57,28,42	
		49,26,47,27,44,58,41		3,37
44″	55, 9,36, 6,42, 3,14,34,54,40		4, 1,57,32,19	
		49,26,43,25,47,26,22		3,37
46″	55, 9,36,56, 8,46,40,22,21, 2		4, 1,57,35,56	
		49,26,39,23,49,50,26		3,37
48″	55, 9,37,45,35,26, 4,12,11,28		4, 1,57,39,33	
		49,26,35,21,52,10,53		3,37
50″	55, 9,38,35, 2, 1,26, 4,22,21		4, 1,57,43,10	
		49,26,31,19,54,27,43		3,37
52″	55, 9,39,24,28,32,45,58,50, 4		4, 1,57,46,47	
		49,26,27,17,56,40,56		3,37
54″	55, 9,40,13,55, 0, 3,55,31, 0		4, 1,57,50,24	
		49,26,23,15,58,50,32		3,37
56″	55, 9,41, 3,21,23,19,54,21,32		4, 1,57,54, 1	
		49,26,19,14, 0,56,31		3,37
58″	55, 9,41,52,47,42,33,55,18, 3		4, 1,57,57,38	
		49,26,15,12, 2,58,53		
60″	55, 9,42,42,13,57,45,58,16,56			
exact	55, 9,42,42,13,57,45,58,20,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°50′ 0″	55, 9,42,42,13,57,45,58,20,21			
		49,26,11,10, 4,58, 3		
2″	55, 9,43,31,40, 8,56, 3,18,24		4, 1,58, 4,50	
		49,26, 7, 8, 6,53,13		3,37
4″	55, 9,44,21, 6,16, 4,10,11,37		4, 1,58, 8,27	
		49,26, 3, 6, 8,44,46		3,37
6″	55, 9,45,10,32,19,10,18,56,23		4, 1,58,12, 4	
		49,25,59, 4,10,32,42		3,37
8″	55, 9,45,59,58,18,14,29,29, 5		4, 1,58,15,41	
		49,25,55, 2,12,17, 1		3,37
10″	55, 9,46,49,24,13,16,41,46, 6		4, 1,58,19,18	
		49,25,51, 0,13,57,43		3,37
12″	55, 9,47,38,50, 4,16,55,43,49		4, 1,58,22,55	
		49,25,46,58,15,34,48		3,37
14″	55, 9,48,28,15,51,15,11,18,37		4, 1,58,26,32	
		49,25,42,56,17, 8,16		3,37
16″	55, 9,49,17,41,34,11,28,26,53		4, 1,58,30, 9	
		49,25,38,54,18,38, 7		3,37
18″	55, 9,50, 7, 7,13, 5,47, 5, 0		4, 1,58,33,46	
		49,25,34,52,20, 4,21		3,37
20″	55, 9,50,56,32,47,58, 7, 9,21		4, 1,58,37,23	
		49,25,30,50,21,26,58		3,37
22″	55, 9,51,45,58,18,48,28,36,19		4, 1,58,41, 0	
		49,25,26,48,22,45,58		3,37
24″	55, 9,52,35,23,45,36,51,22,17		4, 1,58,44,37	
		49,25,22,46,24, 1,21		3,37
26″	55, 9,53,24,49, 8,23,15,23,38		4, 1,58,48,14	
		49,25,18,44,25,13, 7		3,37
28″	55, 9,54,14,14,27, 7,40,36,45		4, 1,58,51,51	
		49,25,14,42,26,21,16		3,37
30″	55, 9,55, 3,39,41,50, 6,58, 1		4, 1,58,55,28	
		49,25,10,40,27,25,48		3,37
32″	55, 9,55,53, 4,52,30,34,23,49		4, 1,58,59, 5	
		49,25, 6,38,28,26,43		3,37
34″	55, 9,56,42,29,59, 9, 2,50,32		4, 1,59, 2,42	
		49,25, 2,36,29,24, 1		3,37
36″	55, 9,57,31,55, 1,45,32,14,33		4, 1,59, 6,19	
		49,24,58,34,30,17,42		3,37
38″	55, 9,58,21,20, 0,20, 2,32,15		4, 1,59, 9,56	
		49,24,54,32,31, 7,46		3,37
40″	55, 9,59,10,44,54,52,33,40, 1		4, 1,59,13,33	
		49,24,50,30,31,54,13		3,37
42″	55,10, 0, 0, 9,45,23, 5,34,14		4, 1,59,17,10	
		49,24,46,28,32,37, 3		3,37
44″	55,10, 0,49,34,31,51,38,11,17		4, 1,59,20,47	
		49,24,42,26,33,16,16		3,37
46″	55,10, 1,38,59,14,18,11,27,33		4, 1,59,24,24	
		49,24,38,24,33,51,52		3,37
48″	55,10, 2,28,23,52,42,45,19,25		4, 1,59,28, 1	
		49,24,34,22,34,23,51		3,37
50″	55,10, 3,17,48,27, 5,19,43,16		4, 1,59,31,38	
		49,24,30,20,34,52,13		3,37
52″	55,10, 4, 7,12,57,25,54,35,29		4, 1,59,35,15	
		49,24,26,18,35,16,58		3,37
54″	55,10, 4,56,37,23,44,29,52,27		4, 1,59,38,52	
		49,24,22,16,35,38, 6		3,37
56″	55,10, 5,46, 1,46, 1, 5,30,33		4, 1,59,42,29	
		49,24,18,14,35,55,37		3,37
58″	55,10, 6,35,26, 4,15,41,26,10		4, 1,59,46, 6	
		49,24,14,12,36, 9,31		
60″	55,10, 7,24,50,18,28,17,35,41			
exact	55,10, 7,24,50,18,28,17,51,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°51′ 0″	55,10, 7,24,50,18,28,17,51,20			
		49,24,10,10,36,21,27		
2″	55,10, 8,14,14,28,38,54,12,47		4, 1,59,53,13	
		49,24, 6, 8,36,28,14		3,37
4″	55,10, 9, 3,38,34,47,30,41, 1		4, 1,59,56,50	
		49,24, 2, 6,36,31,24		3,37
6″	55,10, 9,53, 2,36,54, 7,12,25		4, 2, 0, 0,27	
		49,23,58, 4,36,30,57		3,37
8″	55,10,10,42,26,34,58,43,43,22		4, 2, 0, 4, 4	
		49,23,54, 2,36,26,53		3,37
10″	55,10,11,31,50,29, 1,20,10,15		4, 2, 0, 7,41	
		49,23,50, 0,36,19,12		3,37
12″	55,10,12,21,14,19, 1,56,29,27		4, 2, 0,11,18	
		49,23,45,58,36, 7,54		3,37
14″	55,10,13,10,38, 5, 0,32,37,21		4, 2, 0,14,55	
		49,23,41,56,35,52,59		3,37
16″	55,10,14, 0, 1,46,57, 8,30,20		4, 2, 0,18,32	
		49,23,37,54,35,34,27		3,37
18″	55,10,14,49,25,24,51,44, 4,47		4, 2, 0,22, 9	
		49,23,33,52,35,12,18		3,37
20″	55,10,15,38,48,58,44,19,17, 5		4, 2, 0,25,46	
		49,23,29,50,34,46,32		3,37
22″	55,10,16,28,12,28,34,54, 3,37		4, 2, 0,29,23	
		49,23,25,48,34,17, 9		3,37
24″	55,10,17,17,35,54,23,28,20,46		4, 2, 0,33, 0	
		49,23,21,46,33,44, 9		3,37
26″	55,10,18, 6,59,16,10, 2, 4,55		4, 2, 0,36,37	
		49,23,17,44,33, 7,32		3,37
28″	55,10,18,56,22,33,54,35,12,27		4, 2, 0,40,14	
		49,23,13,42,32,27,18		3,37
30″	55,10,19,45,45,47,37, 7,39,45		4, 2, 0,43,51	
		49,23, 9,40,31,43,27		3,37
32″	55,10,20,35, 8,57,17,39,23,12		4, 2, 0,47,28	
		49,23, 5,38,30,55,59		3,37
34″	55,10,21,24,32, 2,56,10,19,11		4, 2, 0,51, 5	
		49,23, 1,36,30, 4,54		3,37
36″	55,10,22,13,55, 4,32,40,24, 5		4, 2, 0,54,42	
		49,22,57,34,29,10,12		3,37
38″	55,10,23, 3,18, 2, 7, 9,34,17		4, 2, 0,58,19	
		49,22,53,32,28,11,53		3,37
40″	55,10,23,52,40,55,39,37,46,10		4, 2, 1, 1,56	
		49,22,49,30,27, 9,57		3,37
42″	55,10,24,42, 3,45,10, 4,56, 7		4, 2, 1, 5,33	
		49,22,45,28,26, 4,24		3,37
44″	55,10,25,31,26,30,38,31, 0,31		4, 2, 1, 9,10	
		49,22,41,26,24,55,14		3,37
46″	55,10,26,20,49,12, 4,55,55,45		4, 2, 1,12,47	
		49,22,37,24,23,42,27		3,37
48″	55,10,27,10,11,49,29,19,38,12		4, 2, 1,16,24	
		49,22,33,22,22,26, 3		3,37
50″	55,10,27,59,34,22,51,42, 4,15		4, 2, 1,20, 1	
		49,22,29,20,21, 6, 2		3,37
52″	55,10,28,48,56,52,12, 3,10,17		4, 2, 1,23,38	
		49,22,25,18,19,42,24		3,37
54″	55,10,29,38,19,17,30,22,52,41		4, 2, 1,27,15	
		49,22,21,16,18,15, 9		3,37
56″	55,10,30,27,41,38,46,41, 7,50		4, 2, 1,30,52	
		49,22,17,14,16,44,17		3,37
58″	55,10,31,17, 3,56, 0,57,52, 7		4, 2, 1,34,29	
		49,22,13,12,15, 9,48		
60″	55,10,32, 6,26, 9,13,13, 1,55			
exact	55,10,32, 6,26, 9,13,13,25, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°52′ 0″	55,10,32, 6,26, 9,13,13,25, 3			
		49,22, 9,10,13,34,15		
2″	55,10,32,55,48,18,23,26,59,18		4, 2, 1,41,32	
		49,22, 5, 8,11,52,43		3,37
4″	55,10,33,45,10,23,31,38,52, 1		4, 2, 1,45, 9	
		49,22, 1, 6,10, 7,34		3,37
6″	55,10,34,34,32,24,37,48,59,35		4, 2, 1,48,46	
		49,21,57, 4, 8,18,48		3,37
8″	55,10,35,23,54,21,41,57,18,23		4, 2, 1,52,23	
		49,21,53, 2, 6,26,25		3,37
10″	55,10,36,13,16,14,44, 3,44,48		4, 2, 1,56, 0	
		49,21,49, 0, 4,30,25		3,37
12″	55,10,37, 2,38, 3,44, 8,15,13		4, 2, 1,59,37	
		49,21,44,58, 2,30,48		3,37
14″	55,10,37,51,59,48,42,10,46, 1		4, 2, 2, 3,14	
		49,21,40,56, 0,27,34		3,37
16″	55,10,38,41,21,29,38,11,13,35		4, 2, 2, 6,51	
		49,21,36,53,58,20,43		3,37
18″	55,10,39,30,43, 6,32, 9,34,18		4, 2, 2,10,28	
		49,21,32,51,56,10,15		3,37
20″	55,10,40,20, 4,39,24, 5,44,33		4, 2, 2,14, 5	
		49,21,28,49,53,56,10		3,37
22″	55,10,41, 9,26, 8,13,59,40,43		4, 2, 2,17,42	
		49,21,24,47,51,38,28		3,37
24″	55,10,41,58,47,33, 1,51,19,11		4, 2, 2,21,19	
		49,21,20,45,49,17, 9		3,37
26″	55,10,42,48, 8,53,47,40,36,20		4, 2, 2,24,56	
		49,21,16,43,46,52,13		3,37
28″	55,10,43,37,30,10,31,27,28,33		4, 2, 2,28,33	
		49,21,12,41,44,23,40		3,37
30″	55,10,44,26,51,23,13,11,52,13		4, 2, 2,32,10	
		49,21, 8,39,41,51,30		3,37
32″	55,10,45,16,12,31,52,53,43,43		4, 2, 2,35,47	
		49,21, 4,37,39,15,43		3,37
34″	55,10,46, 5,33,36,30,32,59,26		4, 2, 2,39,24	
		49,21, 0,35,36,36,19		3,37
36″	55,10,46,54,54,37, 6, 9,35,45		4, 2, 2,43, 1	
		49,20,56,33,33,53,18		3,37
38″	55,10,47,44,15,33,39,43,29, 3		4, 2, 2,46,38	
		49,20,52,31,31, 6,40		3,37
40″	55,10,48,33,36,26,11,14,35,43		4, 2, 2,50,15	
		49,20,48,29,28,16,25		3,37
42″	55,10,49,22,57,14,40,42,52, 8		4, 2, 2,53,52	
		49,20,44,27,25,22,33		3,37
44″	55,10,50,12,17,59, 8, 8,14,41		4, 2, 2,57,29	
		49,20,40,25,22,25, 4		3,37
46″	55,10,51, 1,38,39,33,30,39,45		4, 2, 3, 1, 6	
		49,20,36,23,19,23,58		3,37
48″	55,10,51,50,59,15,56,50, 3,43		4, 2, 3, 4,43	
		49,20,32,21,16,19,15		3,37
50″	55,10,52,40,19,48,18, 6,22,58		4, 2, 3, 8,20	
		49,20,28,19,13,10,55		3,37
52″	55,10,53,29,40,16,37,19,33,53		4, 2, 3,11,57	
		49,20,24,17, 9,58,58		3,37
54″	55,10,54,19, 0,40,54,29,32,51		4, 2, 3,15,34	
		49,20,20,15, 6,43,24		3,37
56″	55,10,55, 8,21, 1, 9,36,16,15		4, 2, 3,19,11	
		49,20,16,13, 3,24,13		3,37
58″	55,10,55,57,41,17,22,39,40,28		4, 2, 3,22,48	
		49,20,12,11, 0, 1,25		
60″	55,10,56,47, 1,29,33,39,41,53			
exact	55,10,56,47, 1,29,33,40,16,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°53′ 0″	55,10,56,47, 1,29,33,40,16,15			
		49,20, 8, 8,56,38,42		
2″	55,10,57,36,21,37,42,36,54,57		4, 2, 3,29,46	
		49,20, 4, 6,53, 8,56		3,36
4″	55,10,58,25,41,41,49,30, 3,53		4, 2, 3,33,22	
		49,20, 0, 4,49,35,34		3,36
6″	55,10,59,15, 1,41,54,19,39,27		4, 2, 3,36,58	
		49,19,56, 2,45,58,36		3,36
8″	55,11, 0, 4,21,37,57, 5,38, 3		4, 2, 3,40,34	
		49,19,52, 0,42,18, 2		3,36
10″	55,11, 0,53,41,29,57,47,56, 5		4, 2, 3,44,10	
		49,19,47,58,38,33,52		3,36
12″	55,11, 1,43, 1,17,56,26,29,57		4, 2, 3,47,46	
		49,19,43,56,34,46, 6		3,36
14″	55,11, 2,32,21, 1,53, 1,16, 3		4, 2, 3,51,22	
		49,19,39,54,30,54,44		3,36
16″	55,11, 3,21,40,41,47,32,10,47		4, 2, 3,54,58	
		49,19,35,52,26,59,46		3,36
18″	55,11, 4,11, 0,17,39,59,10,33		4, 2, 3,58,34	
		49,19,31,50,23, 1,12		3,36
20″	55,11, 5, 0,19,49,30,22,11,45		4, 2, 4, 2,10	
		49,19,27,48,18,59, 2		3,36
22″	55,11, 5,49,39,17,18,41,10,47		4, 2, 4, 5,46	
		49,19,23,46,14,53,16		3,36
24″	55,11, 6,38,58,41, 4,56, 4, 3		4, 2, 4, 9,22	
		49,19,19,44,10,43,54		3,36
26″	55,11, 7,28,18, 0,49, 6,47,57		4, 2, 4,12,58	
		49,19,15,42, 6,30,56		3,36
28″	55,11, 8,17,37,16,31,13,18,53		4, 2, 4,16,34	
		49,19,11,40, 2,14,22		3,36
30″	55,11, 9, 6,56,28,11,15,33,15		4, 2, 4,20,10	
		49,19, 7,37,57,54,12		3,36
32″	55,11, 9,56,15,35,49,13,27,27		4, 2, 4,23,46	
		49,19, 3,35,53,30,26		3,36
34″	55,11,10,45,34,39,25, 6,57,53		4, 2, 4,27,22	
		49,18,59,33,49, 3, 4		3,36
36″	55,11,11,34,53,38,58,56, 0,57		4, 2, 4,30,58	
		49,18,55,31,44,32, 6		3,36
38″	55,11,12,24,12,34,30,40,33, 3		4, 2, 4,34,34	
		49,18,51,29,39,57,32		3,36
40″	55,11,13,13,31,26, 0,20,30,35		4, 2, 4,38,10	
		49,18,47,27,35,19,22		3,36
42″	55,11,14, 2,50,13,27,55,49,57		4, 2, 4,41,46	
		49,18,43,25,30,37,36		3,36
44″	55,11,14,52, 8,56,53,26,27,33		4, 2, 4,45,22	
		49,18,39,23,25,52,14		3,36
46″	55,11,15,41,27,36,16,52,19,47		4, 2, 4,48,58	
		49,18,35,21,21, 3,16		3,36
48″	55,11,16,30,46,11,38,13,23, 3		4, 2, 4,52,34	
		49,18,31,19,16,10,42		3,36
50″	55,11,17,20, 4,42,57,29,33,45		4, 2, 4,56,10	
		49,18,27,17,11,14,32		3,36
52″	55,11,18, 9,23,10,14,40,48,17		4, 2, 4,59,46	
		49,18,23,15, 6,14,46		3,36
54″	55,11,18,58,41,33,29,47, 3, 3		4, 2, 5, 3,22	
		49,18,19,13, 1,11,24		3,36
56″	55,11,19,47,59,52,42,48,14,27		4, 2, 5, 6,58	
		49,18,15,10,56, 4,26		3,36
58″	55,11,20,37,18, 7,53,44,18,53		4, 2, 5,10,34	
		49,18,11, 8,50,53,52		
60″	55,11,21,26,36,19, 2,35,12,45			
exact	55,11,21,26,36,19, 2,34,46, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°54′ 0″	55,11,21,26,36,19, 2,34,46, 7			
		49,18, 7, 6,45,37, 0		
2″	55,11,22,15,54,26, 9,20,23, 7		4, 2, 5,17,56	
		49,18, 3, 4,40,19, 4		3,36
4″	55,11,23, 5,12,29,14, 0,42,11		4, 2, 5,21,32	
		49,17,59, 2,34,57,32		3,36
6″	55,11,23,54,30,28,16,35,39,43		4, 2, 5,25, 8	
		49,17,55, 0,29,32,24		3,36
8″	55,11,24,43,48,23,17, 5,12, 7		4, 2, 5,28,44	
		49,17,50,58,24, 3,40		3,36
10″	55,11,25,33, 6,14,15,29,15,47		4, 2, 5,32,20	
		49,17,46,56,18,31,20		3,36
12″	55,11,26,22,24, 1,11,47,47, 7		4, 2, 5,35,56	
		49,17,42,54,12,55,24		3,36
14″	55,11,27,11,41,44, 6, 0,42,31		4, 2, 5,39,32	
		49,17,38,52, 7,15,52		3,36
16″	55,11,28, 0,59,22,58, 7,58,23		4, 2, 5,43, 8	
		49,17,34,50, 1,32,44		3,36
18″	55,11,28,50,16,57,48, 9,31, 7		4, 2, 5,46,44	
		49,17,30,47,55,46, 0		3,36
20″	55,11,29,39,34,28,36, 5,17, 7		4, 2, 5,50,20	
		49,17,26,45,49,55,40		3,36
22″	55,11,30,28,51,55,21,55,12,47		4, 2, 5,53,56	
		49,17,22,43,44, 1,44		3,36
24″	55,11,31,18, 9,18, 5,39,14,31		4, 2, 5,57,32	
		49,17,18,41,38, 4,12		3,36
26″	55,11,32, 7,26,36,47,17,18,43		4, 2, 6, 1, 8	
		49,17,14,39,32, 3, 4		3,36
28″	55,11,32,56,43,51,26,49,21,47		4, 2, 6, 4,44	
		49,17,10,37,25,58,20		3,36
30″	55,11,33,46, 1, 2, 4,15,20, 7		4, 2, 6, 8,20	
		49,17, 6,35,19,50, 0		3,36
32″	55,11,34,35,18, 8,39,35,10, 7		4, 2, 6,11,56	
		49,17, 2,33,13,38, 4		3,36
34″	55,11,35,24,35,11,12,48,48,11		4, 2, 6,15,32	
		49,16,58,31, 7,22,32		3,36
36″	55,11,36,13,52, 9,43,56,10,43		4, 2, 6,19, 8	
		49,16,54,29, 1, 3,24		3,36
38″	55,11,37, 3, 9, 4,12,57,14, 7		4, 2, 6,22,44	
		49,16,50,26,54,40,40		3,36
40″	55,11,37,52,25,54,39,51,54,47		4, 2, 6,26,20	
		49,16,46,24,48,14,20		3,36
42″	55,11,38,41,42,41, 4,40, 9, 7		4, 2, 6,29,56	
		49,16,42,22,41,44,24		3,36
44″	55,11,39,30,59,23,27,21,53,31		4, 2, 6,33,32	
		49,16,38,20,35,10,52		3,36
46″	55,11,40,20,16, 1,47,57, 4,23		4, 2, 6,37, 8	
		49,16,34,18,28,33,44		3,36
48″	55,11,41, 9,32,36, 6,25,38, 7		4, 2, 6,40,44	
		49,16,30,16,21,53, 0		3,36
50″	55,11,41,58,49, 6,22,47,31, 7		4, 2, 6,44,20	
		49,16,26,14,15, 8,40		3,36
52″	55,11,42,48, 5,32,37, 2,39,47		4, 2, 6,47,56	
		49,16,22,12, 8,20,44		3,36
54″	55,11,43,37,21,54,49,11, 0,31		4, 2, 6,51,32	
		49,16,18,10, 1,29,12		3,36
56″	55,11,44,26,38,12,59,12,29,43		4, 2, 6,55, 8	
		49,16,14, 7,54,34, 4		3,36
58″	55,11,45,15,54,27, 7, 7, 3,47		4, 2, 6,58,44	
		49,16,10, 5,47,35,20		
60″	55,11,46, 5,10,37,12,54,39, 7			
exact	55,11,46, 5,10,37,12,54,22, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°55′ 0″	55,11,46, 5,10,37,12,54,22, 9			
		49,16, 6, 3,40,31,21		
2″	55,11,46,54,26,43,16,34,53,30		4, 2, 7, 6, 2	
		49,16, 2, 1,33,25,19		3,36
4″	55,11,47,43,42,45,18, 8,18,49		4, 2, 7, 9,38	
		49,15,57,59,26,15,41		3,36
6″	55,11,48,32,58,43,17,34,34,30		4, 2, 7,13,14	
		49,15,53,57,19, 2,27		3,36
8″	55,11,49,22,14,37,14,53,36,57		4, 2, 7,16,50	
		49,15,49,55,11,45,37		3,36
10″	55,11,50,11,30,27,10, 5,22,34		4, 2, 7,20,26	
		49,15,45,53, 4,25,11		3,36
12″	55,11,51, 0,46,13, 3, 9,47,45		4, 2, 7,24, 2	
		49,15,41,50,57, 1, 9		3,36
14″	55,11,51,50, 1,54,54, 6,48,54		4, 2, 7,27,38	
		49,15,37,48,49,33,31		3,36
16″	55,11,52,39,17,32,42,56,22,25		4, 2, 7,31,14	
		49,15,33,46,42, 2,17		3,36
18″	55,11,53,28,33, 6,29,38,24,42		4, 2, 7,34,50	
		49,15,29,44,34,27,27		3,36
20″	55,11,54,17,48,36,14,12,52, 9		4, 2, 7,38,26	
		49,15,25,42,26,49, 1		3,36
22″	55,11,55, 7, 4, 1,56,39,41,10		4, 2, 7,42, 2	
		49,15,21,40,19, 6,59		3,36
24″	55,11,55,56,19,23,36,58,48, 9		4, 2, 7,45,38	
		49,15,17,38,11,21,21		3,36
26″	55,11,56,45,34,41,15,10, 9,30		4, 2, 7,49,14	
		49,15,13,36, 3,32, 7		3,36
28″	55,11,57,34,49,54,51,13,41,37		4, 2, 7,52,50	
		49,15, 9,33,55,39,17		3,36
30″	55,11,58,24, 5, 4,25, 9,20,54		4, 2, 7,56,26	
		49,15, 5,31,47,42,51		3,36
32″	55,11,59,13,20, 9,56,57, 3,45		4, 2, 8, 0, 2	
		49,15, 1,29,39,42,49		3,36
34″	55,12, 0, 2,35,11,26,36,46,34		4, 2, 8, 3,38	
		49,14,57,27,31,39,11		3,36
36″	55,12, 0,51,50, 8,54, 8,25,45		4, 2, 8, 7,14	
		49,14,53,25,23,31,57		3,36
38″	55,12, 1,41, 5, 2,19,31,57,42		4, 2, 8,10,50	
		49,14,49,23,15,21, 7		3,36
40″	55,12, 2,30,19,51,42,47,18,49		4, 2, 8,14,26	
		49,14,45,21, 7, 6,41		3,36
42″	55,12, 3,19,34,37, 3,54,25,30		4, 2, 8,18, 2	
		49,14,41,18,58,48,39		3,36
44″	55,12, 4, 8,49,18,22,53,14, 9		4, 2, 8,21,38	
		49,14,37,16,50,27, 1		3,36
46″	55,12, 4,58, 3,55,39,43,41,10		4, 2, 8,25,14	
		49,14,33,14,42, 1,47		3,36
48″	55,12, 5,47,18,28,54,25,42,57		4, 2, 8,28,50	
		49,14,29,12,33,32,57		3,36
50″	55,12, 6,36,32,58, 6,59,15,54		4, 2, 8,32,26	
		49,14,25,10,25, 0,31		3,36
52″	55,12, 7,25,47,23,17,24,16,25		4, 2, 8,36, 2	
		49,14,21, 8,16,24,29		3,36
54″	55,12, 8,15, 1,44,25,40,40,54		4, 2, 8,39,38	
		49,14,17, 6, 7,44,51		3,36
56″	55,12, 9, 4,16, 1,31,48,25,45		4, 2, 8,43,14	
		49,14,13, 3,59, 1,37		3,36
58″	55,12, 9,53,30,14,35,47,27,22		4, 2, 8,46,50	
		49,14, 9, 1,50,14,47		
60″	55,12,10,42,44,23,37,37,42, 9			
exact	55,12,10,42,44,23,37,37,38,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°56′ 0″	55,12,10,42,44,23,37,37,38,14			
		49,14, 4,59,41,23,58		
2″	55,12,11,31,58,28,37,19, 2,12		4, 2, 8,54, 3	
		49,14, 0,57,32,29,55		3,36
4″	55,12,12,21,12,29,34,51,32, 7		4, 2, 8,57,39	
		49,13,56,55,23,32,16		3,36
6″	55,12,13,10,26,26,30,15, 4,23		4, 2, 9, 1,15	
		49,13,52,53,14,31, 1		3,36
8″	55,12,13,59,40,19,23,29,35,24		4, 2, 9, 4,51	
		49,13,48,51, 5,26,10		3,36
10″	55,12,14,48,54, 8,14,35, 1,34		4, 2, 9, 8,27	
		49,13,44,48,56,17,43		3,36
12″	55,12,15,38, 7,53, 3,31,19,17		4, 2, 9,12, 3	
		49,13,40,46,47, 5,40		3,36
14″	55,12,16,27,21,33,50,18,24,57		4, 2, 9,15,39	
		49,13,36,44,37,50, 1		3,36
16″	55,12,17,16,35,10,34,56,14,58		4, 2, 9,19,15	
		49,13,32,42,28,30,46		3,36
18″	55,12,18, 5,48,43,17,24,45,44		4, 2, 9,22,51	
		49,13,28,40,19, 7,55		3,36
20″	55,12,18,55, 2,11,57,43,53,39		4, 2, 9,26,27	
		49,13,24,38, 9,41,28		3,36
22″	55,12,19,44,15,36,35,53,35, 7		4, 2, 9,30, 3	
		49,13,20,36, 0,11,25		3,36
24″	55,12,20,33,28,57,11,53,46,32		4, 2, 9,33,39	
		49,13,16,33,50,37,46		3,36
26″	55,12,21,22,42,13,45,44,24,18		4, 2, 9,37,15	
		49,13,12,31,41, 0,31		3,36
28″	55,12,22,11,55,26,17,25,24,49		4, 2, 9,40,51	
		49,13, 8,29,31,19,40		3,36
30″	55,12,23, 1, 8,34,46,56,44,29		4, 2, 9,44,27	
		49,13, 4,27,21,35,13		3,36
32″	55,12,23,50,21,39,14,18,19,42		4, 2, 9,48, 3	
		49,13, 0,25,11,47,10		3,36
34″	55,12,24,39,34,39,39,30, 6,52		4, 2, 9,51,39	
		49,12,56,23, 1,55,31		3,36
36″	55,12,25,28,47,36, 2,32, 2,23		4, 2, 9,55,15	
		49,12,52,20,52, 0,16		3,36
38″	55,12,26,18, 0,28,23,24, 2,39		4, 2, 9,58,51	
		49,12,48,18,42, 1,25		3,36
40″	55,12,27, 7,13,16,42, 6, 4, 4		4, 2,10, 2,27	
		49,12,44,16,31,58,58		3,36
42″	55,12,27,56,26, 0,58,38, 3, 2		4, 2,10, 6, 3	
		49,12,40,14,21,52,55		3,36
44″	55,12,28,45,38,41,12,59,55,57		4, 2,10, 9,39	
		49,12,36,12,11,43,16		3,36
46″	55,12,29,34,51,17,25,11,39,13		4, 2,10,13,15	
		49,12,32,10, 1,30, 1		3,36
48″	55,12,30,24, 3,49,35,13, 9,14		4, 2,10,16,51	
		49,12,28, 7,51,13,10		3,36
50″	55,12,31,13,16,17,43, 4,22,24		4, 2,10,20,27	
		49,12,24, 5,40,52,43		3,36
52″	55,12,32, 2,28,41,48,45,15, 7		4, 2,10,24, 3	
		49,12,20, 3,30,28,40		3,36
54″	55,12,32,51,41, 1,52,15,43,47		4, 2,10,27,39	
		49,12,16, 1,20, 1, 1		3,36
56″	55,12,33,40,53,17,53,35,44,48		4, 2,10,31,15	
		49,12,11,59, 9,29,46		3,36
58″	55,12,34,30, 5,29,52,45,14,34		4, 2,10,34,51	
		49,12, 7,56,58,54,55		
60″	55,12,35,19,17,37,49,44, 9,29			
exact	55,12,35,19,17,37,49,44,14,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°57′ 0″	55,12,35,19,17,37,49,44,14,37			
		49,12, 3,54,48,17, 5		
2″	55,12,36, 8,29,41,44,32,31,42		4, 2,10,42, 0	
		49,11,59,52,37,35, 5		3,36
4″	55,12,36,57,41,41,37,10, 6,47		4, 2,10,45,36	
		49,11,55,50,26,49,29		3,36
6″	55,12,37,46,53,37,27,36,56,16		4, 2,10,49,12	
		49,11,51,48,16, 0,17		3,36
8″	55,12,38,36, 5,29,15,52,56,33		4, 2,10,52,48	
		49,11,47,46, 5, 7,29		3,36
10″	55,12,39,25,17,17, 1,58, 4, 2		4, 2,10,56,24	
		49,11,43,43,54,11, 5		3,36
12″	55,12,40,14,29, 0,45,52,15, 7		4, 2,11, 0, 0	
		49,11,39,41,43,11, 5		3,36
14″	55,12,41, 3,40,40,27,35,26,12		4, 2,11, 3,36	
		49,11,35,39,32, 7,29		3,36
16″	55,12,41,52,52,16, 7, 7,33,41		4, 2,11, 7,12	
		49,11,31,37,21, 0,17		3,36
18″	55,12,42,42, 3,47,44,28,33,58		4, 2,11,10,48	
		49,11,27,35, 9,49,29		3,36
20″	55,12,43,31,15,15,19,38,23,27		4, 2,11,14,24	
		49,11,23,32,58,35, 5		3,36
22″	55,12,44,20,26,38,52,36,58,32		4, 2,11,18, 0	
		49,11,19,30,47,17, 5		3,36
24″	55,12,45, 9,37,58,23,24,15,37		4, 2,11,21,36	
		49,11,15,28,35,55,29		3,36
26″	55,12,45,58,49,13,52, 0,11, 6		4, 2,11,25,12	
		49,11,11,26,24,30,17		3,36
28″	55,12,46,48, 0,25,18,24,41,23		4, 2,11,28,48	
		49,11, 7,24,13, 1,29		3,36
30″	55,12,47,37,11,32,42,37,42,52		4, 2,11,32,24	
		49,11, 3,22, 1,29, 5		3,36
32″	55,12,48,26,22,36, 4,39,11,57		4, 2,11,36, 0	
		49,10,59,19,49,53, 5		3,36
34″	55,12,49,15,33,35,24,29, 5, 2		4, 2,11,39,36	
		49,10,55,17,38,13,29		3,36
36″	55,12,50, 4,44,30,42, 7,18,31		4, 2,11,43,12	
		49,10,51,15,26,30,17		3,36
38″	55,12,50,53,55,21,57,33,48,48		4, 2,11,46,48	
		49,10,47,13,14,43,29		3,36
40″	55,12,51,43, 6, 9,10,48,32,17		4, 2,11,50,24	
		49,10,43,11, 2,53, 5		3,36
42″	55,12,52,32,16,52,21,51,25,22		4, 2,11,54, 0	
		49,10,39, 8,50,59, 5		3,36
44″	55,12,53,21,27,31,30,42,24,27		4, 2,11,57,36	
		49,10,35, 6,39, 1,29		3,36
46″	55,12,54,10,38, 6,37,21,25,56		4, 2,12, 1,12	
		49,10,31, 4,27, 0,17		3,36
48″	55,12,54,59,48,37,41,48,26,13		4, 2,12, 4,48	
		49,10,27, 2,14,55,29		3,36
50″	55,12,55,48,59, 4,44, 3,21,42		4, 2,12, 8,24	
		49,10,23, 0, 2,47, 5		3,36
52″	55,12,56,38, 9,27,44, 6, 8,47		4, 2,12,12, 0	
		49,10,18,57,50,35, 5		3,36
54″	55,12,57,27,19,46,41,56,43,52		4, 2,12,15,36	
		49,10,14,55,38,19,29		3,36
56″	55,12,58,16,30, 1,37,35, 3,21		4, 2,12,19,12	
		49,10,10,53,26, 0,17		3,36
58″	55,12,59, 5,40,12,31, 1, 3,38		4, 2,12,22,48	
		49,10, 6,51,13,37,29		
60″	55,12,59,54,50,19,22,14,41, 7			
exact	55,12,59,54,50,19,22,14,57,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°58′ 0″	55,12,59,54,50,19,22,14,57,58			
		49,10, 2,49, 1,12,54		
2″	55,13, 0,44, 0,22,11,16,10,52		4, 2,12,29,52	
		49, 9,58,46,48,43, 2		3,36
4″	55,13, 1,33,10,20,58, 4,53,54		4, 2,12,33,28	
		49, 9,54,44,36, 9,34		3,36
6″	55,13, 2,22,20,15,42,41, 3,28		4, 2,12,37, 4	
		49, 9,50,42,23,32,30		3,36
8″	55,13, 3,11,30, 6,25, 4,35,58		4, 2,12,40,40	
		49, 9,46,40,10,51,50		3,36
10″	55,13, 4, 0,39,53, 5,15,27,48		4, 2,12,44,16	
		49, 9,42,37,58, 7,34		3,36
12″	55,13, 4,49,49,35,43,13,35,22		4, 2,12,47,52	
		49, 9,38,35,45,19,42		3,36
14″	55,13, 5,38,59,14,18,58,55, 4		4, 2,12,51,28	
		49, 9,34,33,32,28,14		3,36
16″	55,13, 6,28, 8,48,52,31,23,18		4, 2,12,55, 4	
		49, 9,30,31,19,33,10		3,36
18″	55,13, 7,17,18,19,23,50,56,28		4, 2,12,58,40	
		49, 9,26,29, 6,34,30		3,36
20″	55,13, 8, 6,27,45,52,57,30,58		4, 2,13, 2,16	
		49, 9,22,26,53,32,14		3,36
22″	55,13, 8,55,37, 8,19,51, 3,12		4, 2,13, 5,52	
		49, 9,18,24,40,26,22		3,36
24″	55,13, 9,44,46,26,44,31,29,34		4, 2,13, 9,28	
		49, 9,14,22,27,16,54		3,36
26″	55,13,10,33,55,41, 6,58,46,28		4, 2,13,13, 4	
		49, 9,10,20,14, 3,50		3,36
28″	55,13,11,23, 4,51,27,12,50,18		4, 2,13,16,40	
		49, 9, 6,18, 0,47,10		3,36
30″	55,13,12,12,13,57,45,13,37,28		4, 2,13,20,16	
		49, 9, 2,15,47,26,54		3,36
32″	55,13,13, 1,23, 0, 1, 1, 4,22		4, 2,13,23,52	
		49, 8,58,13,34, 3, 2		3,36
34″	55,13,13,50,31,58,14,35, 7,24		4, 2,13,27,28	
		49, 8,54,11,20,35,34		3,36
36″	55,13,14,39,40,52,25,55,42,58		4, 2,13,31, 4	
		49, 8,50, 9, 7, 4,30		3,36
38″	55,13,15,28,49,42,35, 2,47,28		4, 2,13,34,40	
		49, 8,46, 6,53,29,50		3,36
40″	55,13,16,17,58,28,41,56,17,18		4, 2,13,38,16	
		49, 8,42, 4,39,51,34		3,36
42″	55,13,17, 7, 7,10,46,36, 8,52		4, 2,13,41,52	
		49, 8,38, 2,26, 9,42		3,36
44″	55,13,17,56,15,48,49, 2,18,34		4, 2,13,45,28	
		49, 8,34, 0,12,24,14		3,36
46″	55,13,18,45,24,22,49,14,42,48		4, 2,13,49, 4	
		49, 8,29,57,58,35,10		3,36
48″	55,13,19,34,32,52,47,13,17,58		4, 2,13,52,40	
		49, 8,25,55,44,42,30		3,36
50″	55,13,20,23,41,18,42,58, 0,28		4, 2,13,56,16	
		49, 8,21,53,30,46,14		3,36
52″	55,13,21,12,49,40,36,28,46,42		4, 2,13,59,52	
		49, 8,17,51,16,46,22		3,36
54″	55,13,22, 1,57,58,27,45,33, 4		4, 2,14, 3,28	
		49, 8,13,49, 2,42,54		3,36
56″	55,13,22,51, 6,12,16,48,15,58		4, 2,14, 7, 4	
		49, 8, 9,46,48,35,50		3,36
58″	55,13,23,40,14,22, 3,36,51,48		4, 2,14,10,40	
		49, 8, 5,44,34,25,10		
60″	55,13,24,29,22,27,48,11,16,58			
exact	55,13,24,29,22,27,48,11,41,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
66°59′ 0″	55,13,24,29,22,27,48,11,41,18			
		49, 8, 1,42,20,13,37		
2″	55,13,25,18,30,29,30,31,54,55		4, 2,14,17,40	
		49, 7,57,40, 5,55,57		3,36
4″	55,13,26, 7,38,27,10,37,50,52		4, 2,14,21,16	
		49, 7,53,37,51,34,41		3,36
6″	55,13,26,56,46,20,48,29,25,33		4, 2,14,24,52	
		49, 7,49,35,37, 9,49		3,36
8″	55,13,27,45,54,10,24, 6,35,22		4, 2,14,28,28	
		49, 7,45,33,22,41,21		3,36
10″	55,13,28,35, 1,55,57,29,16,43		4, 2,14,32, 4	
		49, 7,41,31, 8, 9,17		3,36
12″	55,13,29,24, 9,37,28,37,26, 0		4, 2,14,35,40	
		49, 7,37,28,53,33,37		3,36
14″	55,13,30,13,17,14,57,30,59,37		4, 2,14,39,16	
		49, 7,33,26,38,54,21		3,36
16″	55,13,31, 2,24,48,24, 9,53,58		4, 2,14,42,52	
		49, 7,29,24,24,11,29		3,36
18″	55,13,31,51,32,17,48,34, 5,27		4, 2,14,46,28	
		49, 7,25,22, 9,25, 1		3,36
20″	55,13,32,40,39,43,10,43,30,28		4, 2,14,50, 4	
		49, 7,21,19,54,34,57		3,36
22″	55,13,33,29,47, 4,30,38, 5,25		4, 2,14,53,40	
		49, 7,17,17,39,41,17		3,36
24″	55,13,34,18,54,21,48,17,46,42		4, 2,14,57,16	
		49, 7,13,15,24,44, 1		3,36
26″	55,13,35, 8, 1,35, 3,42,30,43		4, 2,15, 0,52	
		49, 7, 9,13, 9,43, 9		3,36
28″	55,13,35,57, 8,44,16,52,13,52		4, 2,15, 4,28	
		49, 7, 5,10,54,38,41		3,36
30″	55,13,36,46,15,49,27,46,52,33		4, 2,15, 8, 4	
		49, 7, 1, 8,39,30,37		3,36
32″	55,13,37,35,22,50,36,26,23,10		4, 2,15,11,40	
		49, 6,57, 6,24,18,57		3,36
34″	55,13,38,24,29,47,42,50,42, 7		4, 2,15,15,16	
		49, 6,53, 4, 9, 3,41		3,36
36″	55,13,39,13,36,40,46,59,45,48		4, 2,15,18,52	
		49, 6,49, 1,53,44,49		3,36
38″	55,13,40, 2,43,29,48,53,30,37		4, 2,15,22,28	
		49, 6,44,59,38,22,21		3,36
40″	55,13,40,51,50,14,48,31,52,58		4, 2,15,26, 4	
		49, 6,40,57,22,56,17		3,36
42″	55,13,41,40,56,55,45,54,49,15		4, 2,15,29,40	
		49, 6,36,55, 7,26,37		3,36
44″	55,13,42,30, 3,32,41, 2,15,52		4, 2,15,33,16	
		49, 6,32,52,51,53,21		3,36
46″	55,13,43,19,10, 5,33,54, 9,13		4, 2,15,36,52	
		49, 6,28,50,36,16,29		3,36
48″	55,13,44, 8,16,34,24,30,25,42		4, 2,15,40,28	
		49, 6,24,48,20,36, 1		3,36
50″	55,13,44,57,22,59,12,51, 1,43		4, 2,15,44, 4	
		49, 6,20,46, 4,51,57		3,36
52″	55,13,45,46,29,19,58,55,53,40		4, 2,15,47,40	
		49, 6,16,43,49, 4,17		3,36
54″	55,13,46,35,35,36,42,44,57,57		4, 2,15,51,16	
		49, 6,12,41,33,13, 1		3,36
56″	55,13,47,24,41,49,24,18,10,58		4, 2,15,54,52	
		49, 6, 8,39,17,18, 9		3,36
58″	55,13,48,13,47,58, 3,35,29, 7		4, 2,15,58,28	
		49, 6, 4,37, 1,19,41		
60″	55,13,49, 2,54, 2,40,36,48,48			
exact	55,13,49, 2,54, 2,40,37,24, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67° 0′ 0″	55,13,49, 2,54, 2,40,37,24, 5			
		49, 6, 0,34,45,21,28		
2″	55,13,49,52, 0, 3,15,22,45,33		4, 2,16, 5,23	
		49, 5,56,32,29,16, 5		3,35
4″	55,13,50,41, 5,59,47,52, 1,38		4, 2,16, 8,58	
		49, 5,52,30,13, 7, 7		3,35
6″	55,13,51,30,11,52,18, 5, 8,45		4, 2,16,12,33	
		49, 5,48,27,56,54,34		3,35
8″	55,13,52,19,17,40,46, 2, 3,19		4, 2,16,16, 8	
		49, 5,44,25,40,38,26		3,35
10″	55,13,53, 8,23,25,11,42,41,45		4, 2,16,19,43	
		49, 5,40,23,24,18,43		3,35
12″	55,13,53,57,29, 5,35, 7, 0,28		4, 2,16,23,18	
		49, 5,36,21, 7,55,25		3,35
14″	55,13,54,46,34,41,56,14,55,53		4, 2,16,26,53	
		49, 5,32,18,51,28,32		3,35
16″	55,13,55,35,40,14,15, 6,24,25		4, 2,16,30,28	
		49, 5,28,16,34,58, 4		3,35
18″	55,13,56,24,45,42,31,41,22,29		4, 2,16,34, 3	
		49, 5,24,14,18,24, 1		3,35
20″	55,13,57,13,51, 6,45,59,46,30		4, 2,16,37,38	
		49, 5,20,12, 1,46,23		3,35
22″	55,13,58, 2,56,26,58, 1,32,53		4, 2,16,41,13	
		49, 5,16, 9,45, 5,10		3,35
24″	55,13,58,52, 1,43, 7,46,38, 3		4, 2,16,44,48	
		49, 5,12, 7,28,20,22		3,35
26″	55,13,59,41, 6,55,15,14,58,25		4, 2,16,48,23	
		49, 5, 8, 5,11,31,59		3,35
28″	55,14, 0,30,12, 3,20,26,30,24		4, 2,16,51,58	
		49, 5, 4, 2,54,40, 1		3,35
30″	55,14, 1,19,17, 7,23,21,10,25		4, 2,16,55,33	
		49, 5, 0, 0,37,44,28		3,35
32″	55,14, 2, 8,22, 7,23,58,54,53		4, 2,16,59, 8	
		49, 4,55,58,20,45,20		3,35
34″	55,14, 2,57,27, 3,22,19,40,13		4, 2,17, 2,43	
		49, 4,51,56, 3,42,37		3,35
36″	55,14, 3,46,31,55,18,23,22,50		4, 2,17, 6,18	
		49, 4,47,53,46,36,19		3,35
38″	55,14, 4,35,36,43,12, 9,59, 9		4, 2,17, 9,53	
		49, 4,43,51,29,26,26		3,35
40″	55,14, 5,24,41,27, 3,39,25,35		4, 2,17,13,28	
		49, 4,39,49,12,12,58		3,35
42″	55,14, 6,13,46, 6,52,51,38,33		4, 2,17,17, 3	
		49, 4,35,46,54,55,55		3,35
44″	55,14, 7, 2,50,42,39,46,34,28		4, 2,17,20,38	
		49, 4,31,44,37,35,17		3,35
46″	55,14, 7,51,55,14,24,24, 9,45		4, 2,17,24,13	
		49, 4,27,42,20,11, 4		3,35
48″	55,14, 8,40,59,42, 6,44,20,49		4, 2,17,27,48	
		49, 4,23,40, 2,43,16		3,35
50″	55,14, 9,30, 4, 5,46,47, 4, 5		4, 2,17,31,23	
		49, 4,19,37,45,11,53		3,35
52″	55,14,10,19, 8,25,24,32,15,58		4, 2,17,34,58	
		49, 4,15,35,27,36,55		3,35
54″	55,14,11, 8,12,40,59,59,52,53		4, 2,17,38,33	
		49, 4,11,33, 9,58,22		3,35
56″	55,14,11,57,16,52,33, 9,51,15		4, 2,17,42, 8	
		49, 4, 7,30,52,16,14		3,35
58″	55,14,12,46,21, 0, 4, 2, 7,29		4, 2,17,45,43	
		49, 4, 3,28,34,30,31		
60″	55,14,13,35,25, 3,32,36,38, 0			
exact	55,14,13,35,25, 3,32,36,12, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67° 1′ 0″	55,14,13,35,25, 3,32,36,12, 8			
		49, 3,59,26,16,38,39		
2″	55,14,14,24,29, 2,58,52,50,47		4, 2,17,53, 2	
		49, 3,55,23,58,45,37		3,35
4″	55,14,15,13,32,58,22,51,36,24		4, 2,17,56,37	
		49, 3,51,21,40,49, 0		3,35
6″	55,14,16, 2,36,49,44,32,25,24		4, 2,18, 0,12	
		49, 3,47,19,22,48,48		3,35
8″	55,14,16,51,40,37, 3,55,14,12		4, 2,18, 3,47	
		49, 3,43,17, 4,45, 1		3,35
10″	55,14,17,40,44,20,20,59,59,13		4, 2,18, 7,22	
		49, 3,39,14,46,37,39		3,35
12″	55,14,18,29,47,59,35,46,36,52		4, 2,18,10,57	
		49, 3,35,12,28,26,42		3,35
14″	55,14,19,18,51,34,48,15, 3,34		4, 2,18,14,32	
		49, 3,31,10,10,12,10		3,35
16″	55,14,20, 7,55, 5,58,25,15,44		4, 2,18,18, 7	
		49, 3,27, 7,51,54, 3		3,35
18″	55,14,20,56,58,33, 6,17, 9,47		4, 2,18,21,42	
		49, 3,23, 5,33,32,21		3,35
20″	55,14,21,46, 1,56,11,50,42, 8		4, 2,18,25,17	
		49, 3,19, 3,15, 7, 4		3,35
22″	55,14,22,35, 5,15,15, 5,49,12		4, 2,18,28,52	
		49, 3,15, 0,56,38,12		3,35
24″	55,14,23,24, 8,30,16, 2,27,24		4, 2,18,32,27	
		49, 3,10,58,38, 5,45		3,35
26″	55,14,24,13,11,41,14,40,33, 9		4, 2,18,36, 2	
		49, 3, 6,56,19,29,43		3,35
28″	55,14,25, 2,14,48,11, 0, 2,52		4, 2,18,39,37	
		49, 3, 2,54, 0,50, 6		3,35
30″	55,14,25,51,17,51, 5, 0,52,58		4, 2,18,43,12	
		49, 2,58,51,42, 6,54		3,35
32″	55,14,26,40,20,49,56,42,59,52		4, 2,18,46,47	
		49, 2,54,49,23,20, 7		3,35
34″	55,14,27,29,23,44,46, 6,19,59		4, 2,18,50,22	
		49, 2,50,47, 4,29,45		3,35
36″	55,14,28,18,26,35,33,10,49,44		4, 2,18,53,57	
		49, 2,46,44,45,35,48		3,35
38″	55,14,29, 7,29,22,17,56,25,32		4, 2,18,57,32	
		49, 2,42,42,26,38,16		3,35
40″	55,14,29,56,32, 5, 0,23, 3,48		4, 2,19, 1, 7	
		49, 2,38,40, 7,37, 9		3,35
42″	55,14,30,45,34,43,40,30,40,57		4, 2,19, 4,42	
		49, 2,34,37,48,32,27		3,35
44″	55,14,31,34,37,18,18,19,13,24		4, 2,19, 8,17	
		49, 2,30,35,29,24,10		3,35
46″	55,14,32,23,39,48,53,48,37,34		4, 2,19,11,52	
		49, 2,26,33,10,12,18		3,35
48″	55,14,33,12,42,15,26,58,49,52		4, 2,19,15,27	
		49, 2,22,30,50,56,51		3,35
50″	55,14,34, 1,44,37,57,49,46,43		4, 2,19,19, 2	
		49, 2,18,28,31,37,49		3,35
52″	55,14,34,50,46,56,26,21,24,32		4, 2,19,22,37	
		49, 2,14,26,12,15,12		3,35
54″	55,14,35,39,49,10,52,33,39,44		4, 2,19,26,12	
		49, 2,10,23,52,49, 0		3,35
56″	55,14,36,28,51,21,16,26,28,44		4, 2,19,29,47	
		49, 2, 6,21,33,19,13		3,35
58″	55,14,37,17,53,27,37,59,47,57		4, 2,19,33,22	
		49, 2, 2,19,13,45,51		
60″	55,14,38, 6,55,29,57,13,33,48			
exact	55,14,38, 6,55,29,57,13,17,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67° 2′ 0″	55,14,38, 6,55,29,57,13,17,46			
		49, 1,58,16,54, 7,23		
2″	55,14,38,55,57,28,14, 7,25, 9		4, 2,19,40,37	
		49, 1,54,14,34,26,46		3,35
4″	55,14,39,44,59,22,28,41,51,55		4, 2,19,44,12	
		49, 1,50,12,14,42,34		3,35
6″	55,14,40,34, 1,12,40,56,34,29		4, 2,19,47,47	
		49, 1,46, 9,54,54,47		3,35
8″	55,14,41,23, 2,58,50,51,29,16		4, 2,19,51,22	
		49, 1,42, 7,35, 3,25		3,35
10″	55,14,42,12, 4,40,58,26,32,41		4, 2,19,54,57	
		49, 1,38, 5,15, 8,28		3,35
12″	55,14,43, 1, 6,19, 3,41,41, 9		4, 2,19,58,32	
		49, 1,34, 2,55, 9,56		3,35
14″	55,14,43,50, 7,53, 6,36,51, 5		4, 2,20, 2, 7	
		49, 1,30, 0,35, 7,49		3,35
16″	55,14,44,39, 9,23, 7,11,58,54		4, 2,20, 5,42	
		49, 1,25,58,15, 2, 7		3,35
18″	55,14,45,28,10,49, 5,27, 1, 1		4, 2,20, 9,17	
		49, 1,21,55,54,52,50		3,35
20″	55,14,46,17,12,11, 1,21,53,51		4, 2,20,12,52	
		49, 1,17,53,34,39,58		3,35
22″	55,14,47, 6,13,28,54,56,33,49		4, 2,20,16,27	
		49, 1,13,51,14,23,31		3,35
24″	55,14,47,55,14,42,46,10,57,20		4, 2,20,20, 2	
		49, 1, 9,48,54, 3,29		3,35
26″	55,14,48,44,15,52,35, 5, 0,49		4, 2,20,23,37	
		49, 1, 5,46,33,39,52		3,35
28″	55,14,49,33,16,58,21,38,40,41		4, 2,20,27,12	
		49, 1, 1,44,13,12,40		3,35
30″	55,14,50,22,18, 0, 5,51,53,21		4, 2,20,30,47	
		49, 0,57,41,52,41,53		3,35
32″	55,14,51,11,18,57,47,44,35,14		4, 2,20,34,22	
		49, 0,53,39,32, 7,31		3,35
34″	55,14,52, 0,19,51,27,16,42,45		4, 2,20,37,57	
		49, 0,49,37,11,29,34		3,35
36″	55,14,52,49,20,41, 4,28,12,19		4, 2,20,41,32	
		49, 0,45,34,50,48, 2		3,35
38″	55,14,53,38,21,26,39,19, 0,21		4, 2,20,45, 7	
		49, 0,41,32,30, 2,55		3,35
40″	55,14,54,27,22, 8,11,49, 3,16		4, 2,20,48,42	
		49, 0,37,30, 9,14,13		3,35
42″	55,14,55,16,22,45,41,58,17,29		4, 2,20,52,17	
		49, 0,33,27,48,21,56		3,35
44″	55,14,56, 5,23,19, 9,46,39,25		4, 2,20,55,52	
		49, 0,29,25,27,26, 4		3,35
46″	55,14,56,54,23,48,35,14, 5,29		4, 2,20,59,27	
		49, 0,25,23, 6,26,37		3,35
48″	55,14,57,43,24,13,58,20,32, 6		4, 2,21, 3, 2	
		49, 0,21,20,45,23,35		3,35
50″	55,14,58,32,24,35,19, 5,55,41		4, 2,21, 6,37	
		49, 0,17,18,24,16,58		3,35
52″	55,14,59,21,24,52,37,30,12,39		4, 2,21,10,12	
		49, 0,13,16, 3, 6,46		3,35
54″	55,15, 0,10,25, 5,53,33,19,25		4, 2,21,13,47	
		49, 0, 9,13,41,52,59		3,35
56″	55,15, 0,59,25,15, 7,15,12,24		4, 2,21,17,22	
		49, 0, 5,11,20,35,37		3,35
58″	55,15, 1,48,25,20,18,35,48, 1		4, 2,21,20,57	
		49, 0, 1, 8,59,14,40		
60″	55,15, 2,37,25,21,27,35, 2,41			
exact	55,15, 2,37,25,21,27,34,59,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67° 3′ 0″	55,15, 2,37,25,21,27,34,59,38			
		48,59,57, 6,37,49,54		
2″	55,15, 3,26,25,18,34,12,49,32		4, 2,21,28, 7	
		48,59,53, 4,16,21,47		3,35
4″	55,15, 4,15,25,11,38,29,11,19		4, 2,21,31,42	
		48,59,49, 1,54,50, 5		3,35
6″	55,15, 5, 4,25, 0,40,24, 1,24		4, 2,21,35,17	
		48,59,44,59,33,14,48		3,35
8″	55,15, 5,53,24,45,39,57,16,12		4, 2,21,38,52	
		48,59,40,57,11,35,56		3,35
10″	55,15, 6,42,24,26,37, 8,52, 8		4, 2,21,42,27	
		48,59,36,54,49,53,29		3,35
12″	55,15, 7,31,24, 3,31,58,45,37		4, 2,21,46, 2	
		48,59,32,52,28, 7,27		3,35
14″	55,15, 8,20,23,36,24,26,53, 4		4, 2,21,49,37	
		48,59,28,50, 6,17,50		3,35
16″	55,15, 9, 9,23, 5,14,33,10,54		4, 2,21,53,12	
		48,59,24,47,44,24,38		3,35
18″	55,15, 9,58,22,30, 2,17,35,32		4, 2,21,56,47	
		48,59,20,45,22,27,51		3,35
20″	55,15,10,47,21,50,47,40, 3,23		4, 2,22, 0,22	
		48,59,16,43, 0,27,29		3,35
22″	55,15,11,36,21, 7,30,40,30,52		4, 2,22, 3,57	
		48,59,12,40,38,23,32		3,35
24″	55,15,12,25,20,20,11,18,54,24		4, 2,22, 7,32	
		48,59, 8,38,16,16, 0		3,35
26″	55,15,13,14,19,28,49,35,10,24		4, 2,22,11, 7	
		48,59, 4,35,54, 4,53		3,35
28″	55,15,14, 3,18,33,25,29,15,17		4, 2,22,14,42	
		48,59, 0,33,31,50,11		3,35
30″	55,15,14,52,17,33,59, 1, 5,28		4, 2,22,18,17	
		48,58,56,31, 9,31,54		3,35
32″	55,15,15,41,16,30,30,10,37,22		4, 2,22,21,52	
		48,58,52,28,47,10, 2		3,35
34″	55,15,16,30,15,22,58,57,47,24		4, 2,22,25,27	
		48,58,48,26,24,44,35		3,35
36″	55,15,17,19,14,11,25,22,31,59		4, 2,22,29, 2	
		48,58,44,24, 2,15,33		3,35
38″	55,15,18, 8,12,55,49,24,47,32		4, 2,22,32,37	
		48,58,40,21,39,42,56		3,35
40″	55,15,18,57,11,36,11, 4,30,28		4, 2,22,36,12	
		48,58,36,19,17, 6,44		3,35
42″	55,15,19,46,10,12,30,21,37,12		4, 2,22,39,47	
		48,58,32,16,54,26,57		3,35
44″	55,15,20,35, 8,44,47,16, 4, 9		4, 2,22,43,22	
		48,58,28,14,31,43,35		3,35
46″	55,15,21,24, 7,13, 1,47,47,44		4, 2,22,46,57	
		48,58,24,12, 8,56,38		3,35
48″	55,15,22,13, 5,37,13,56,44,22		4, 2,22,50,32	
		48,58,20, 9,46, 6, 6		3,35
50″	55,15,23, 2, 3,57,23,42,50,28		4, 2,22,54, 7	
		48,58,16, 7,23,11,59		3,35
52″	55,15,23,51, 2,13,31, 6, 2,27		4, 2,22,57,42	
		48,58,12, 5, 0,14,17		3,35
54″	55,15,24,40, 0,25,36, 6,16,44		4, 2,23, 1,17	
		48,58, 8, 2,37,13, 0		3,35
56″	55,15,25,28,58,33,38,43,29,44		4, 2,23, 4,52	
		48,58, 4, 0,14, 8, 8		3,35
58″	55,15,26,17,56,37,38,57,37,52		4, 2,23, 8,27	
		48,57,59,57,50,59,41		
60″	55,15,27, 6,54,37,36,48,37,33			
exact	55,15,27, 6,54,37,36,48,42,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67° 4′ 0″	55,15,27, 6,54,37,36,48,42,54			
		48,57,55,55,27,48,23		
2″	55,15,27,55,52,33,32,16,31,17		4, 2,23,15,33	
		48,57,51,53, 4,32,50		3,35
4″	55,15,28,44,50,25,25,21, 4, 7		4, 2,23,19, 8	
		48,57,47,50,41,13,42		3,35
6″	55,15,29,33,48,13,16, 2,17,49		4, 2,23,22,43	
		48,57,43,48,17,50,59		3,35
8″	55,15,30,22,45,57, 4,20, 8,48		4, 2,23,26,18	
		48,57,39,45,54,24,41		3,35
10″	55,15,31,11,43,36,50,14,33,29		4, 2,23,29,53	
		48,57,35,43,30,54,48		3,35
12″	55,15,32, 0,41,12,33,45,28,17		4, 2,23,33,28	
		48,57,31,41, 7,21,20		3,35
14″	55,15,32,49,38,44,14,52,49,37		4, 2,23,37, 3	
		48,57,27,38,43,44,17		3,35
16″	55,15,33,38,36,11,53,36,33,54		4, 2,23,40,38	
		48,57,23,36,20, 3,39		3,35
18″	55,15,34,27,33,35,29,56,37,33		4, 2,23,44,13	
		48,57,19,33,56,19,26		3,35
20″	55,15,35,16,30,55, 3,52,56,59		4, 2,23,47,48	
		48,57,15,31,32,31,38		3,35
22″	55,15,36, 5,28,10,35,25,28,37		4, 2,23,51,23	
		48,57,11,29, 8,40,15		3,35
24″	55,15,36,54,25,22, 4,34, 8,52		4, 2,23,54,58	
		48,57, 7,26,44,45,17		3,35
26″	55,15,37,43,22,29,31,18,54, 9		4, 2,23,58,33	
		48,57, 3,24,20,46,44		3,35
28″	55,15,38,32,19,32,55,39,40,53		4, 2,24, 2, 8	
		48,56,59,21,56,44,36		3,35
30″	55,15,39,21,16,32,17,36,25,29		4, 2,24, 5,43	
		48,56,55,19,32,38,53		3,35
32″	55,15,40,10,13,27,37, 9, 4,22		4, 2,24, 9,18	
		48,56,51,17, 8,29,35		3,35
34″	55,15,40,59,10,18,54,17,33,57		4, 2,24,12,53	
		48,56,47,14,44,16,42		3,35
36″	55,15,41,48, 7, 6, 9, 1,50,39		4, 2,24,16,28	
		48,56,43,12,20, 0,14		3,35
38″	55,15,42,37, 3,49,21,21,50,53		4, 2,24,20, 3	
		48,56,39, 9,55,40,11		3,35
40″	55,15,43,26, 0,28,31,17,31, 4		4, 2,24,23,38	
		48,56,35, 7,31,16,33		3,35
42″	55,15,44,14,57, 3,38,48,47,37		4, 2,24,27,13	
		48,56,31, 5, 6,49,20		3,35
44″	55,15,45, 3,53,34,43,55,36,57		4, 2,24,30,48	
		48,56,27, 2,42,18,32		3,35
46″	55,15,45,52,50, 1,46,37,55,29		4, 2,24,34,23	
		48,56,23, 0,17,44, 9		3,35
48″	55,15,46,41,46,24,46,55,39,38		4, 2,24,37,58	
		48,56,18,57,53, 6,11		3,35
50″	55,15,47,30,42,43,44,48,45,49		4, 2,24,41,33	
		48,56,14,55,28,24,38		3,35
52″	55,15,48,19,38,58,40,17,10,27		4, 2,24,45, 8	
		48,56,10,53, 3,39,30		3,35
54″	55,15,49, 8,35, 9,33,20,49,57		4, 2,24,48,43	
		48,56, 6,50,38,50,47		3,35
56″	55,15,49,57,31,16,23,59,40,44		4, 2,24,52,18	
		48,56, 2,48,13,58,29		3,35
58″	55,15,50,46,27,19,12,13,39,13		4, 2,24,55,53	
		48,55,58,45,49, 2,36		
60″	55,15,51,35,23,17,58, 2,41,49			
exact	55,15,51,35,23,17,58, 2,59, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67° 5′ 0″	55,15,51,35,23,17,58, 2,59, 9			
		48,55,54,43,24, 5, 4		
2″	55,15,52,24,19,12,41,27, 4,13		4, 2,25, 2,54	
		48,55,50,40,59, 2,10		3,35
4″	55,15,53,13,15, 3,22,26, 6,23		4, 2,25, 6,29	
		48,55,46,38,33,55,41		3,35
6″	55,15,54, 2,10,50, 1, 0, 2, 4		4, 2,25,10, 4	
		48,55,42,36, 8,45,37		3,35
8″	55,15,54,51, 6,32,37, 8,47,41		4, 2,25,13,39	
		48,55,38,33,43,31,58		3,35
10″	55,15,55,40, 2,11,10,52,19,39		4, 2,25,17,14	
		48,55,34,31,18,14,44		3,35
12″	55,15,56,28,57,45,42,10,34,23		4, 2,25,20,49	
		48,55,30,28,52,53,55		3,35
14″	55,15,57,17,53,16,11, 3,28,18		4, 2,25,24,24	
		48,55,26,26,27,29,31		3,35
16″	55,15,58, 6,48,42,37,30,57,49		4, 2,25,27,59	
		48,55,22,24, 2, 1,32		3,35
18″	55,15,58,55,44, 5, 1,32,59,21		4, 2,25,31,34	
		48,55,18,21,36,29,58		3,35
20″	55,15,59,44,39,23,23, 9,29,19		4, 2,25,35, 9	
		48,55,14,19,10,54,49		3,35
22″	55,16, 0,33,34,37,42,20,24, 8		4, 2,25,38,44	
		48,55,10,16,45,16, 5		3,35
24″	55,16, 1,22,29,47,59, 5,40,13		4, 2,25,42,19	
		48,55, 6,14,19,33,46		3,35
26″	55,16, 2,11,24,54,13,25,13,59		4, 2,25,45,54	
		48,55, 2,11,53,47,52		3,35
28″	55,16, 3, 0,19,56,25,19, 1,51		4, 2,25,49,29	
		48,54,58, 9,27,58,23		3,35
30″	55,16, 3,49,14,54,34,47, 0,14		4, 2,25,53, 4	
		48,54,54, 7, 2, 5,19		3,35
32″	55,16, 4,38, 9,48,41,49, 5,33		4, 2,25,56,39	
		48,54,50, 4,36, 8,40		3,35
34″	55,16, 5,27, 4,38,46,25,14,13		4, 2,26, 0,14	
		48,54,46, 2,10, 8,26		3,35
36″	55,16, 6,15,59,24,48,35,22,39		4, 2,26, 3,49	
		48,54,41,59,44, 4,37		3,35
38″	55,16, 7, 4,54, 6,48,19,27,16		4, 2,26, 7,24	
		48,54,37,57,17,57,13		3,35
40″	55,16, 7,53,48,44,45,37,24,29		4, 2,26,10,59	
		48,54,33,54,51,46,14		3,35
42″	55,16, 8,42,43,18,40,29,10,43		4, 2,26,14,34	
		48,54,29,52,25,31,40		3,35
44″	55,16, 9,31,37,48,32,54,42,23		4, 2,26,18, 9	
		48,54,25,49,59,13,31		3,35
46″	55,16,10,20,32,14,22,53,55,54		4, 2,26,21,44	
		48,54,21,47,32,51,47		3,35
48″	55,16,11, 9,26,36,10,26,47,41		4, 2,26,25,19	
		48,54,17,45, 6,26,28		3,35
50″	55,16,11,58,20,53,55,33,14, 9		4, 2,26,28,54	
		48,54,13,42,39,57,34		3,35
52″	55,16,12,47,15, 7,38,13,11,43		4, 2,26,32,29	
		48,54, 9,40,13,25, 5		3,35
54″	55,16,13,36, 9,17,18,26,36,48		4, 2,26,36, 4	
		48,54, 5,37,46,49, 1		3,35
56″	55,16,14,25, 3,22,56,13,25,49		4, 2,26,39,39	
		48,54, 1,35,20, 9,22		3,35
58″	55,16,15,13,57,24,31,33,35,11		4, 2,26,43,14	
		48,53,57,32,53,26, 8		
60″	55,16,16, 2,51,22, 4,27, 1,19			
exact	55,16,16, 2,51,22, 4,27,26,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67° 6′ 0″	55,16,16, 2,51,22, 4,27,26,23			
		48,53,53,30,26,42,10		
2″	55,16,16,51,45,15,34,54, 8,33		4, 2,26,50,11	
		48,53,49,27,59,51,59		3,34
4″	55,16,17,40,39, 5, 2,54, 0,32		4, 2,26,53,45	
		48,53,45,25,32,58,14		3,34
6″	55,16,18,29,32,50,28,26,58,46		4, 2,26,57,19	
		48,53,41,23, 6, 0,55		3,34
8″	55,16,19,18,26,31,51,32,59,41		4, 2,27, 0,53	
		48,53,37,20,39, 0, 2		3,34
10″	55,16,20, 7,20, 9,12,11,59,43		4, 2,27, 4,27	
		48,53,33,18,11,55,35		3,34
12″	55,16,20,56,13,42,30,23,55,18		4, 2,27, 8, 1	
		48,53,29,15,44,47,34		3,34
14″	55,16,21,45, 7,11,46, 8,42,52		4, 2,27,11,35	
		48,53,25,13,17,35,59		3,34
16″	55,16,22,34, 0,36,59,26,18,51		4, 2,27,15, 9	
		48,53,21,10,50,20,50		3,34
18″	55,16,23,22,53,58,10,16,39,41		4, 2,27,18,43	
		48,53,17, 8,23, 2, 7		3,34
20″	55,16,24,11,47,15,18,39,41,48		4, 2,27,22,17	
		48,53,13, 5,55,39,50		3,34
22″	55,16,25, 0,40,28,24,35,21,38		4, 2,27,25,51	
		48,53, 9, 3,28,13,59		3,34
24″	55,16,25,49,33,37,28, 3,35,37		4, 2,27,29,25	
		48,53, 5, 1, 0,44,34		3,34
26″	55,16,26,38,26,42,29, 4,20,11		4, 2,27,32,59	
		48,53, 0,58,33,11,35		3,34
28″	55,16,27,27,19,43,27,37,31,46		4, 2,27,36,33	
		48,52,56,56, 5,35, 2		3,34
30″	55,16,28,16,12,40,23,43, 6,48		4, 2,27,40, 7	
		48,52,52,53,37,54,55		3,34
32″	55,16,29, 5, 5,33,17,21, 1,43		4, 2,27,43,41	
		48,52,48,51,10,11,14		3,34
34″	55,16,29,53,58,22, 8,31,12,57		4, 2,27,47,15	
		48,52,44,48,42,23,59		3,34
36″	55,16,30,42,51, 6,57,13,36,56		4, 2,27,50,49	
		48,52,40,46,14,33,10		3,34
38″	55,16,31,31,43,47,43,28,10, 6		4, 2,27,54,23	
		48,52,36,43,46,38,47		3,34
40″	55,16,32,20,36,24,27,14,48,53		4, 2,27,57,57	
		48,52,32,41,18,40,50		3,34
42″	55,16,33, 9,28,57, 8,33,29,43		4, 2,28, 1,31	
		48,52,28,38,50,39,19		3,34
44″	55,16,33,58,21,25,47,24, 9, 2		4, 2,28, 5, 5	
		48,52,24,36,22,34,14		3,34
46″	55,16,34,47,13,50,23,46,43,16		4, 2,28, 8,39	
		48,52,20,33,54,25,35		3,34
48″	55,16,35,36, 6,10,57,41, 8,51		4, 2,28,12,13	
		48,52,16,31,26,13,22		3,34
50″	55,16,36,24,58,27,29, 7,22,13		4, 2,28,15,47	
		48,52,12,28,57,57,35		3,34
52″	55,16,37,13,50,39,58, 5,19,48		4, 2,28,19,21	
		48,52, 8,26,29,38,14		3,34
54″	55,16,38, 2,42,48,24,34,58, 2		4, 2,28,22,55	
		48,52, 4,24, 1,15,19		3,34
56″	55,16,38,51,34,52,48,36,13,21		4, 2,28,26,29	
		48,52, 0,21,32,48,50		3,34
58″	55,16,39,40,26,53,10, 9, 2,11		4, 2,28,30, 3	
		48,51,56,19, 4,18,47		
60″	55,16,40,29,18,49,29,13,20,58			
exact	55,16,40,29,18,49,29,12,49, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67° 7′ 0″	55,16,40,29,18,49,29,12,49, 7			
		48,51,52,16,35,41,53		
2″	55,16,41,18,10,41,45,48,31, 0		4, 2,28,37,24	
		48,51,48,14, 7, 4,29		3,34
4″	55,16,42, 7, 2,29,59,55,35,29		4, 2,28,40,58	
		48,51,44,11,38,23,31		3,34
6″	55,16,42,55,54,14,11,33,59, 0		4, 2,28,44,32	
		48,51,40, 9, 9,38,59		3,34
8″	55,16,43,44,45,54,20,43,37,59		4, 2,28,48, 6	
		48,51,36, 6,40,50,53		3,34
10″	55,16,44,33,37,30,27,24,28,52		4, 2,28,51,40	
		48,51,32, 4,11,59,13		3,34
12″	55,16,45,22,29, 2,31,36,28, 5		4, 2,28,55,14	
		48,51,28, 1,43, 3,59		3,34
14″	55,16,46,11,20,30,33,19,32, 4		4, 2,28,58,48	
		48,51,23,59,14, 5,11		3,34
16″	55,16,47, 0,11,54,32,33,37,15		4, 2,29, 2,22	
		48,51,19,56,45, 2,49		3,34
18″	55,16,47,49, 3,14,29,18,40, 4		4, 2,29, 5,56	
		48,51,15,54,15,56,53		3,34
20″	55,16,48,37,54,30,23,34,36,57		4, 2,29, 9,30	
		48,51,11,51,46,47,23		3,34
22″	55,16,49,26,45,42,15,21,24,20		4, 2,29,13, 4	
		48,51, 7,49,17,34,19		3,34
24″	55,16,50,15,36,50, 4,38,58,39		4, 2,29,16,38	
		48,51, 3,46,48,17,41		3,34
26″	55,16,51, 4,27,53,51,27,16,20		4, 2,29,20,12	
		48,50,59,44,18,57,29		3,34
28″	55,16,51,53,18,53,35,46,13,49		4, 2,29,23,46	
		48,50,55,41,49,33,43		3,34
30″	55,16,52,42, 9,49,17,35,47,32		4, 2,29,27,20	
		48,50,51,39,20, 6,23		3,34
32″	55,16,53,31, 0,40,56,55,53,55		4, 2,29,30,54	
		48,50,47,36,50,35,29		3,34
34″	55,16,54,19,51,28,33,46,29,24		4, 2,29,34,28	
		48,50,43,34,21, 1, 1		3,34
36″	55,16,55, 8,42,12, 8, 7,30,25		4, 2,29,38, 2	
		48,50,39,31,51,22,59		3,34
38″	55,16,55,57,32,51,39,58,53,24		4, 2,29,41,36	
		48,50,35,29,21,41,23		3,34
40″	55,16,56,46,23,27, 9,20,34,47		4, 2,29,45,10	
		48,50,31,26,51,56,13		3,34
42″	55,16,57,35,13,58,36,12,31, 0		4, 2,29,48,44	
		48,50,27,24,22, 7,29		3,34
44″	55,16,58,24, 4,26, 0,34,38,29		4, 2,29,52,18	
		48,50,23,21,52,15,11		3,34
46″	55,16,59,12,54,49,22,26,53,40		4, 2,29,55,52	
		48,50,19,19,22,19,19		3,34
48″	55,17, 0, 1,45, 8,41,49,12,59		4, 2,29,59,26	
		48,50,15,16,52,19,53		3,34
50″	55,17, 0,50,35,23,58,41,32,52		4, 2,30, 3, 0	
		48,50,11,14,22,16,53		3,34
52″	55,17, 1,39,25,35,13, 3,49,45		4, 2,30, 6,34	
		48,50, 7,11,52,10,19		3,34
54″	55,17, 2,28,15,42,24,56, 0, 4		4, 2,30,10, 8	
		48,50, 3, 9,22, 0,11		3,34
56″	55,17, 3,17, 5,45,34,18, 0,15		4, 2,30,13,42	
		48,49,59, 6,51,46,29		3,34
58″	55,17, 4, 5,55,44,41, 9,46,44		4, 2,30,17,16	
		48,49,55, 4,21,29,13		
60″	55,17, 4,54,45,39,45,31,15,57			
exact	55,17, 4,54,45,39,45,30,58,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67° 8′ 0″	55,17, 4,54,45,39,45,30,58,18			
		48,49,51, 1,51, 6,28		
2″	55,17, 5,43,35,30,47,22, 4,46		4, 2,30,24,32	
		48,49,46,59,20,41,56		3,34
4″	55,17, 6,32,25,17,46,42,46,42		4, 2,30,28, 6	
		48,49,42,56,50,13,50		3,34
6″	55,17, 7,21,15, 0,43,33, 0,32		4, 2,30,31,40	
		48,49,38,54,19,42,10		3,34
8″	55,17, 8,10, 4,39,37,52,42,42		4, 2,30,35,14	
		48,49,34,51,49, 6,56		3,34
10″	55,17, 8,58,54,14,29,41,49,38		4, 2,30,38,48	
		48,49,30,49,18,28, 8		3,34
12″	55,17, 9,47,43,45,19, 0,17,46		4, 2,30,42,22	
		48,49,26,46,47,45,46		3,34
14″	55,17,10,36,33,12, 5,48, 3,32		4, 2,30,45,56	
		48,49,22,44,16,59,50		3,34
16″	55,17,11,25,22,34,50, 5, 3,22		4, 2,30,49,30	
		48,49,18,41,46,10,20		3,34
18″	55,17,12,14,11,53,31,51,13,42		4, 2,30,53, 4	
		48,49,14,39,15,17,16		3,34
20″	55,17,13, 3, 1, 8,11, 6,30,58		4, 2,30,56,38	
		48,49,10,36,44,20,38		3,34
22″	55,17,13,51,50,18,47,50,51,36		4, 2,31, 0,12	
		48,49, 6,34,13,20,26		3,34
24″	55,17,14,40,39,25,22, 4,12, 2		4, 2,31, 3,46	
		48,49, 2,31,42,16,40		3,34
26″	55,17,15,29,28,27,53,46,28,42		4, 2,31, 7,20	
		48,48,58,29,11, 9,20		3,34
28″	55,17,16,18,17,26,22,57,38, 2		4, 2,31,10,54	
		48,48,54,26,39,58,26		3,34
30″	55,17,17, 7, 6,20,49,37,36,28		4, 2,31,14,28	
		48,48,50,24, 8,43,58		3,34
32″	55,17,17,55,55,11,13,46,20,26		4, 2,31,18, 2	
		48,48,46,21,37,25,56		3,34
34″	55,17,18,44,43,57,35,23,46,22		4, 2,31,21,36	
		48,48,42,19, 6, 4,20		3,34
36″	55,17,19,33,32,39,54,29,50,42		4, 2,31,25,10	
		48,48,38,16,34,39,10		3,34
38″	55,17,20,22,21,18,11, 4,29,52		4, 2,31,28,44	
		48,48,34,14, 3,10,26		3,34
40″	55,17,21,11, 9,52,25, 7,40,18		4, 2,31,32,18	
		48,48,30,11,31,38, 8		3,34
42″	55,17,21,59,58,22,36,39,18,26		4, 2,31,35,52	
		48,48,26, 9, 0, 2,16		3,34
44″	55,17,22,48,46,48,45,39,20,42		4, 2,31,39,26	
		48,48,22, 6,28,22,50		3,34
46″	55,17,23,37,35,10,52, 7,43,32		4, 2,31,43, 0	
		48,48,18, 3,56,39,50		3,34
48″	55,17,24,26,23,28,56, 4,23,22		4, 2,31,46,34	
		48,48,14, 1,24,53,16		3,34
50″	55,17,25,15,11,42,57,29,16,38		4, 2,31,50, 8	
		48,48, 9,58,53, 3, 8		3,34
52″	55,17,26, 3,59,52,56,22,19,46		4, 2,31,53,42	
		48,48, 5,56,21, 9,26		3,34
54″	55,17,26,52,47,58,52,43,29,12		4, 2,31,57,16	
		48,48, 1,53,49,12,10		3,34
56″	55,17,27,41,36, 0,46,32,41,22		4, 2,32, 0,50	
		48,47,57,51,17,11,20		3,34
58″	55,17,28,30,23,58,37,49,52,42		4, 2,32, 4,24	
		48,47,53,48,45, 6,56		
60″	55,17,29,19,11,52,26,34,59,38			
exact	55,17,29,19,11,52,26,34,51,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67° 9′ 0″	55,17,29,19,11,52,26,34,51,21			
		48,47,49,46,12,58, 5		
2″	55,17,30, 7,59,42,12,47,49,26		4, 2,32,11,35	
		48,47,45,43,40,46,30		3,34
4″	55,17,30,56,47,27,56,28,35,56		4, 2,32,15, 9	
		48,47,41,41, 8,31,21		3,34
6″	55,17,31,45,35, 9,37,37, 7,17		4, 2,32,18,43	
		48,47,37,38,36,12,38		3,34
8″	55,17,32,34,22,47,16,13,19,55		4, 2,32,22,17	
		48,47,33,36, 3,50,21		3,34
10″	55,17,33,23,10,20,52,17,10,16		4, 2,32,25,51	
		48,47,29,33,31,24,30		3,34
12″	55,17,34,11,57,50,25,48,34,46		4, 2,32,29,25	
		48,47,25,30,58,55, 5		3,34
14″	55,17,35, 0,45,15,56,47,29,51		4, 2,32,32,59	
		48,47,21,28,26,22, 6		3,34
16″	55,17,35,49,32,37,25,13,51,57		4, 2,32,36,33	
		48,47,17,25,53,45,33		3,34
18″	55,17,36,38,19,54,51, 7,37,30		4, 2,32,40, 7	
		48,47,13,23,21, 5,26		3,34
20″	55,17,37,27, 7, 8,14,28,42,56		4, 2,32,43,41	
		48,47, 9,20,48,21,45		3,34
22″	55,17,38,15,54,17,35,17, 4,41		4, 2,32,47,15	
		48,47, 5,18,15,34,30		3,34
24″	55,17,39, 4,41,22,53,32,39,11		4, 2,32,50,49	
		48,47, 1,15,42,43,41		3,34
26″	55,17,39,53,28,24, 9,15,22,52		4, 2,32,54,23	
		48,46,57,13, 9,49,18		3,34
28″	55,17,40,42,15,21,22,25,12,10		4, 2,32,57,57	
		48,46,53,10,36,51,21		3,34
30″	55,17,41,31, 2,14,33, 2, 3,31		4, 2,33, 1,31	
		48,46,49, 8, 3,49,50		3,34
32″	55,17,42,19,49, 3,41, 5,53,21		4, 2,33, 5, 5	
		48,46,45, 5,30,44,45		3,34
34″	55,17,43, 8,35,48,46,36,38, 6		4, 2,33, 8,39	
		48,46,41, 2,57,36, 6		3,34
36″	55,17,43,57,22,29,49,34,14,12		4, 2,33,12,13	
		48,46,37, 0,24,23,53		3,34
38″	55,17,44,46, 9, 6,49,58,38, 5		4, 2,33,15,47	
		48,46,32,57,51, 8, 6		3,34
40″	55,17,45,34,55,39,47,49,46,11		4, 2,33,19,21	
		48,46,28,55,17,48,45		3,34
42″	55,17,46,23,42, 8,43, 7,34,56		4, 2,33,22,55	
		48,46,24,52,44,25,50		3,34
44″	55,17,47,12,28,33,35,52, 0,46		4, 2,33,26,29	
		48,46,20,50,10,59,21		3,34
46″	55,17,48, 1,14,54,26, 3, 0, 7		4, 2,33,30, 3	
		48,46,16,47,37,29,18		3,34
48″	55,17,48,50, 1,11,13,40,29,25		4, 2,33,33,37	
		48,46,12,45, 3,55,41		3,34
50″	55,17,49,38,47,23,58,44,25, 6		4, 2,33,37,11	
		48,46, 8,42,30,18,30		3,34
52″	55,17,50,27,33,32,41,14,43,36		4, 2,33,40,45	
		48,46, 4,39,56,37,45		3,34
54″	55,17,51,16,19,37,21,11,21,21		4, 2,33,44,19	
		48,46, 0,37,22,53,26		3,34
56″	55,17,52, 5, 5,37,58,34,14,47		4, 2,33,47,53	
		48,45,56,34,49, 5,33		3,34
58″	55,17,52,53,51,34,33,23,20,20		4, 2,33,51,27	
		48,45,52,32,15,14, 6		
60″	55,17,53,42,37,27, 5,38,34,26			
exact	55,17,53,42,37,27, 5,38,32,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°10′ 0″	55,17,53,42,37,27, 5,38,32,12			
		48,45,48,29,41,18,59		
2″	55,17,54,31,23,15,35,19,51,11		4, 2,33,58,34	
		48,45,44,27, 7,20,25		3,34
4″	55,17,55,20, 9, 0, 2,27,11,36		4, 2,34, 2, 8	
		48,45,40,24,33,18,17		3,34
6″	55,17,56, 8,54,40,27, 0,29,53		4, 2,34, 5,42	
		48,45,36,21,59,12,35		3,34
8″	55,17,56,57,40,16,48,59,42,28		4, 2,34, 9,16	
		48,45,32,19,25, 3,19		3,34
10″	55,17,57,46,25,49, 8,24,45,47		4, 2,34,12,50	
		48,45,28,16,50,50,29		3,34
12″	55,17,58,35,11,17,25,15,36,16		4, 2,34,16,24	
		48,45,24,14,16,34, 5		3,34
14″	55,17,59,23,56,41,39,32,10,21		4, 2,34,19,58	
		48,45,20,11,42,14, 7		3,34
16″	55,18, 0,12,42, 1,51,14,24,28		4, 2,34,23,32	
		48,45,16, 9, 7,50,35		3,34
18″	55,18, 1, 1,27,18, 0,22,15, 3		4, 2,34,27, 6	
		48,45,12, 6,33,23,29		3,34
20″	55,18, 1,50,12,30, 6,55,38,32		4, 2,34,30,40	
		48,45, 8, 3,58,52,49		3,34
22″	55,18, 2,38,57,38,10,54,31,21		4, 2,34,34,14	
		48,45, 4, 1,24,18,35		3,34
24″	55,18, 3,27,42,42,12,18,49,56		4, 2,34,37,48	
		48,44,59,58,49,40,47		3,34
26″	55,18, 4,16,27,42,11, 8,30,43		4, 2,34,41,22	
		48,44,55,56,14,59,25		3,34
28″	55,18, 5, 5,12,38, 7,23,30, 8		4, 2,34,44,56	
		48,44,51,53,40,14,29		3,34
30″	55,18, 5,53,57,30, 1, 3,44,37		4, 2,34,48,30	
		48,44,47,51, 5,25,59		3,34
32″	55,18, 6,42,42,17,52, 9,10,36		4, 2,34,52, 4	
		48,44,43,48,30,33,55		3,34
34″	55,18, 7,31,27, 1,40,39,44,31		4, 2,34,55,38	
		48,44,39,45,55,38,17		3,34
36″	55,18, 8,20,11,41,26,35,22,48		4, 2,34,59,12	
		48,44,35,43,20,39, 5		3,34
38″	55,18, 9, 8,56,17, 9,56, 1,53		4, 2,35, 2,46	
		48,44,31,40,45,36,19		3,34
40″	55,18, 9,57,40,48,50,41,38,12		4, 2,35, 6,20	
		48,44,27,38,10,29,59		3,34
42″	55,18,10,46,25,16,28,52, 8,11		4, 2,35, 9,54	
		48,44,23,35,35,20, 5		3,34
44″	55,18,11,35, 9,40, 4,27,28,16		4, 2,35,13,28	
		48,44,19,33, 0, 6,37		3,34
46″	55,18,12,23,53,59,37,27,34,53		4, 2,35,17, 2	
		48,44,15,30,24,49,35		3,34
48″	55,18,13,12,38,15, 7,52,24,28		4, 2,35,20,36	
		48,44,11,27,49,28,59		3,34
50″	55,18,14, 1,22,26,35,41,53,27		4, 2,35,24,10	
		48,44, 7,25,14, 4,49		3,34
52″	55,18,14,50, 6,34, 0,55,58,16		4, 2,35,27,44	
		48,44, 3,22,38,37, 5		3,34
54″	55,18,15,38,50,37,23,34,35,21		4, 2,35,31,18	
		48,43,59,20, 3, 5,47		3,34
56″	55,18,16,27,34,36,43,37,41, 8		4, 2,35,34,52	
		48,43,55,17,27,30,55		3,34
58″	55,18,17,16,18,32, 1, 5,12, 3		4, 2,35,38,26	
		48,43,51,14,51,52,29		
60″	55,18,18, 5, 2,23,15,57, 4,32			
exact	55,18,18, 5, 2,23,15,57,11,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°11′ 0″	55,18,18, 5, 2,23,15,57,11,16			
		48,43,47,12,16,11,23		
2″	55,18,18,53,46,10,28,13,22,39		4, 2,35,45,29	
		48,43,43, 9,40,25,54		3,34
4″	55,18,19,42,29,53,37,53,48,33		4, 2,35,49, 3	
		48,43,39, 7, 4,36,51		3,34
6″	55,18,20,31,13,32,44,58,25,24		4, 2,35,52,37	
		48,43,35, 4,28,44,14		3,34
8″	55,18,21,19,57, 7,49,27, 9,38		4, 2,35,56,11	
		48,43,31, 1,52,48, 3		3,34
10″	55,18,22, 8,40,38,51,19,57,41		4, 2,35,59,45	
		48,43,26,59,16,48,18		3,34
12″	55,18,22,57,24, 5,50,36,45,59		4, 2,36, 3,19	
		48,43,22,56,40,44,59		3,34
14″	55,18,23,46, 7,28,47,17,30,58		4, 2,36, 6,53	
		48,43,18,54, 4,38, 6		3,34
16″	55,18,24,34,50,47,41,22, 9, 4		4, 2,36,10,27	
		48,43,14,51,28,27,39		3,34
18″	55,18,25,23,34, 2,32,50,36,43		4, 2,36,14, 1	
		48,43,10,48,52,13,38		3,34
20″	55,18,26,12,17,13,21,42,50,21		4, 2,36,17,35	
		48,43, 6,46,15,56, 3		3,34
22″	55,18,27, 1, 0,20, 7,58,46,24		4, 2,36,21, 9	
		48,43, 2,43,39,34,54		3,34
24″	55,18,27,49,43,22,51,38,21,18		4, 2,36,24,43	
		48,42,58,41, 3,10,11		3,34
26″	55,18,28,38,26,21,32,41,31,29		4, 2,36,28,17	
		48,42,54,38,26,41,54		3,34
28″	55,18,29,27, 9,16,11, 8,13,23		4, 2,36,31,51	
		48,42,50,35,50,10, 3		3,34
30″	55,18,30,15,52, 6,46,58,23,26		4, 2,36,35,25	
		48,42,46,33,13,34,38		3,34
32″	55,18,31, 4,34,53,20,11,58, 4		4, 2,36,38,59	
		48,42,42,30,36,55,39		3,34
34″	55,18,31,53,17,35,50,48,53,43		4, 2,36,42,33	
		48,42,38,28, 0,13, 6		3,34
36″	55,18,32,42, 0,14,18,49, 6,49		4, 2,36,46, 7	
		48,42,34,25,23,26,59		3,34
38″	55,18,33,30,42,48,44,12,33,48		4, 2,36,49,41	
		48,42,30,22,46,37,18		3,34
40″	55,18,34,19,25,19, 6,59,11, 6		4, 2,36,53,15	
		48,42,26,20, 9,44, 3		3,34
42″	55,18,35, 8, 7,45,27, 8,55, 9		4, 2,36,56,49	
		48,42,22,17,32,47,14		3,34
44″	55,18,35,56,50, 7,44,41,42,23		4, 2,37, 0,23	
		48,42,18,14,55,46,51		3,34
46″	55,18,36,45,32,25,59,37,29,14		4, 2,37, 3,57	
		48,42,14,12,18,42,54		3,34
48″	55,18,37,34,14,40,11,56,12, 8		4, 2,37, 7,31	
		48,42,10, 9,41,35,23		3,34
50″	55,18,38,22,56,50,21,37,47,31		4, 2,37,11, 5	
		48,42, 6, 7, 4,24,18		3,34
52″	55,18,39,11,38,56,28,42,11,49		4, 2,37,14,39	
		48,42, 2, 4,27, 9,39		3,34
54″	55,18,40, 0,20,58,33, 9,21,28		4, 2,37,18,13	
		48,41,58, 1,49,51,26		3,34
56″	55,18,40,49, 2,56,34,59,12,54		4, 2,37,21,47	
		48,41,53,59,12,29,39		3,34
58″	55,18,41,37,44,50,34,11,42,33		4, 2,37,25,21	
		48,41,49,56,35, 4,18		
60″	55,18,42,26,26,40,30,46,46,51			
exact	55,18,42,26,26,40,30,47, 5,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°12′ 0″	55,18,42,26,26,40,30,47, 5,26			
		48,41,45,53,57,37,29		
2″	55,18,43,15, 8,26,24,44,42,55		4, 2,37,32,19	
		48,41,41,51,20, 5,10		3,34
4″	55,18,44, 3,50, 8,16, 4,48, 5		4, 2,37,35,53	
		48,41,37,48,42,29,17		3,34
6″	55,18,44,52,31,46, 4,47,17,22		4, 2,37,39,27	
		48,41,33,46, 4,49,50		3,34
8″	55,18,45,41,13,19,50,52, 7,12		4, 2,37,43, 1	
		48,41,29,43,27, 6,49		3,34
10″	55,18,46,29,54,49,34,19,14, 1		4, 2,37,46,35	
		48,41,25,40,49,20,14		3,34
12″	55,18,47,18,36,15,15, 8,34,15		4, 2,37,50, 9	
		48,41,21,38,11,30, 5		3,34
14″	55,18,48, 7,17,36,53,20, 4,20		4, 2,37,53,43	
		48,41,17,35,33,36,22		3,34
16″	55,18,48,55,58,54,28,53,40,42		4, 2,37,57,17	
		48,41,13,32,55,39, 5		3,34
18″	55,18,49,44,40, 8, 1,49,19,47		4, 2,38, 0,51	
		48,41, 9,30,17,38,14		3,34
20″	55,18,50,33,21,17,32, 6,58, 1		4, 2,38, 4,25	
		48,41, 5,27,39,33,49		3,34
22″	55,18,51,22, 2,22,59,46,31,50		4, 2,38, 7,59	
		48,41, 1,25, 1,25,50		3,34
24″	55,18,52,10,43,24,24,47,57,40		4, 2,38,11,33	
		48,40,57,22,23,14,17		3,34
26″	55,18,52,59,24,21,47,11,11,57		4, 2,38,15, 7	
		48,40,53,19,44,59,10		3,34
28″	55,18,53,48, 5,15, 6,56,11, 7		4, 2,38,18,41	
		48,40,49,17, 6,40,29		3,34
30″	55,18,54,36,46, 4,24, 2,51,36		4, 2,38,22,15	
		48,40,45,14,28,18,14		3,34
32″	55,18,55,25,26,49,38,31, 9,50		4, 2,38,25,49	
		48,40,41,11,49,52,25		3,34
34″	55,18,56,14, 7,30,50,21, 2,15		4, 2,38,29,23	
		48,40,37, 9,11,23, 2		3,34
36″	55,18,57, 2,48, 7,59,32,25,17		4, 2,38,32,57	
		48,40,33, 6,32,50, 5		3,34
38″	55,18,57,51,28,41, 6, 5,15,22		4, 2,38,36,31	
		48,40,29, 3,54,13,34		3,34
40″	55,18,58,40, 9,10, 9,59,28,56		4, 2,38,40, 5	
		48,40,25, 1,15,33,29		3,34
42″	55,18,59,28,49,35,11,15, 2,25		4, 2,38,43,39	
		48,40,20,58,36,49,50		3,34
44″	55,19, 0,17,29,56, 9,51,52,15		4, 2,38,47,13	
		48,40,16,55,58, 2,37		3,34
46″	55,19, 1, 6,10,13, 5,49,54,52		4, 2,38,50,47	
		48,40,12,53,19,11,50		3,34
48″	55,19, 1,54,50,25,59, 9, 6,42		4, 2,38,54,21	
		48,40, 8,50,40,17,29		3,34
50″	55,19, 2,43,30,34,49,49,24,11		4, 2,38,57,55	
		48,40, 4,48, 1,19,34		3,34
52″	55,19, 3,32,10,39,37,50,43,45		4, 2,39, 1,29	
		48,40, 0,45,22,18, 5		3,34
54″	55,19, 4,20,50,40,23,13, 1,50		4, 2,39, 5, 3	
		48,39,56,42,43,13, 2		3,34
56″	55,19, 5, 9,30,37, 5,56,14,52		4, 2,39, 8,37	
		48,39,52,40, 4, 4,25		3,34
58″	55,19, 5,58,10,29,46, 0,19,17		4, 2,39,12,11	
		48,39,48,37,24,52,14		
60″	55,19, 6,46,50,18,23,25,11,31			
exact	55,19, 6,46,50,18,23,25,38, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°13′ 0″	55,19, 6,46,50,18,23,25,38, 9			
		48,39,44,34,45,39,31		
2″	55,19, 7,35,30, 2,58,11,17,40		4, 2,39,19, 5	
		48,39,40,32, 6,20,26		3,33
4″	55,19, 8,24, 9,43,30,17,38, 6		4, 2,39,22,38	
		48,39,36,29,26,57,48		3,33
6″	55,19, 9,12,49,19,59,44,35,54		4, 2,39,26,11	
		48,39,32,26,47,31,37		3,33
8″	55,19,10, 1,28,52,26,32, 7,31		4, 2,39,29,44	
		48,39,28,24, 8, 1,53		3,33
10″	55,19,10,50, 8,20,50,40, 9,24		4, 2,39,33,17	
		48,39,24,21,28,28,36		3,33
12″	55,19,11,38,47,45,12, 8,38, 0		4, 2,39,36,50	
		48,39,20,18,48,51,46		3,33
14″	55,19,12,27,27, 5,30,57,29,46		4, 2,39,40,23	
		48,39,16,16, 9,11,23		3,33
16″	55,19,13,16, 6,21,47, 6,41, 9		4, 2,39,43,56	
		48,39,12,13,29,27,27		3,33
18″	55,19,14, 4,45,34, 0,36, 8,36		4, 2,39,47,29	
		48,39, 8,10,49,39,58		3,33
20″	55,19,14,53,24,42,11,25,48,34		4, 2,39,51, 2	
		48,39, 4, 8, 9,48,56		3,33
22″	55,19,15,42, 3,46,19,35,37,30		4, 2,39,54,35	
		48,39, 0, 5,29,54,21		3,33
24″	55,19,16,30,42,46,25, 5,31,51		4, 2,39,58, 8	
		48,38,56, 2,49,56,13		3,33
26″	55,19,17,19,21,42,27,55,28, 4		4, 2,40, 1,41	
		48,38,52, 0, 9,54,32		3,33
28″	55,19,18, 8, 0,34,28, 5,22,36		4, 2,40, 5,14	
		48,38,47,57,29,49,18		3,33
30″	55,19,18,56,39,22,25,35,11,54		4, 2,40, 8,47	
		48,38,43,54,49,40,31		3,33
32″	55,19,19,45,18, 6,20,24,52,25		4, 2,40,12,20	
		48,38,39,52, 9,28,11		3,33
34″	55,19,20,33,56,46,12,34,20,36		4, 2,40,15,53	
		48,38,35,49,29,12,18		3,33
36″	55,19,21,22,35,22, 2, 3,32,54		4, 2,40,19,26	
		48,38,31,46,48,52,52		3,33
38″	55,19,22,11,13,53,48,52,25,46		4, 2,40,22,59	
		48,38,27,44, 8,29,53		3,33
40″	55,19,22,59,52,21,33, 0,55,39		4, 2,40,26,32	
		48,38,23,41,28, 3,21		3,33
42″	55,19,23,48,30,45,14,28,59, 0		4, 2,40,30, 5	
		48,38,19,38,47,33,16		3,33
44″	55,19,24,37, 9, 4,53,16,32,16		4, 2,40,33,38	
		48,38,15,36, 6,59,38		3,33
46″	55,19,25,25,47,20,29,23,31,54		4, 2,40,37,11	
		48,38,11,33,26,22,27		3,33
48″	55,19,26,14,25,32, 2,49,54,21		4, 2,40,40,44	
		48,38, 7,30,45,41,43		3,33
50″	55,19,27, 3, 3,39,33,35,36, 4		4, 2,40,44,17	
		48,38, 3,28, 4,57,26		3,33
52″	55,19,27,51,41,43, 1,40,33,30		4, 2,40,47,50	
		48,37,59,25,24, 9,36		3,33
54″	55,19,28,40,19,42,27, 4,43, 6		4, 2,40,51,23	
		48,37,55,22,43,18,13		3,33
56″	55,19,29,28,57,37,49,48, 1,19		4, 2,40,54,56	
		48,37,51,20, 2,23,17		3,33
58″	55,19,30,17,35,29, 9,50,24,36		4, 2,40,58,29	
		48,37,47,17,21,24,48		
60″	55,19,31, 6,13,16,27,11,49,24			
exact	55,19,31, 6,13,16,27,11,19,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°14′ 0″	55,19,31, 6,13,16,27,11,19,20			
		48,37,43,14,40,19,42		
2″	55,19,31,54,50,59,41,51,39, 2		4, 2,41, 5,47	
		48,37,39,11,59,13,55		3,33
4″	55,19,32,43,28,38,53,50,52,57		4, 2,41, 9,20	
		48,37,35, 9,18, 4,35		3,33
6″	55,19,33,32, 6,14, 3, 8,57,32		4, 2,41,12,53	
		48,37,31, 6,36,51,42		3,33
8″	55,19,34,20,43,45, 9,45,49,14		4, 2,41,16,26	
		48,37,27, 3,55,35,16		3,33
10″	55,19,35, 9,21,12,13,41,24,30		4, 2,41,19,59	
		48,37,23, 1,14,15,17		3,33
12″	55,19,35,57,58,35,14,55,39,47		4, 2,41,23,32	
		48,37,18,58,32,51,45		3,33
14″	55,19,36,46,35,54,13,28,31,32		4, 2,41,27, 5	
		48,37,14,55,51,24,40		3,33
16″	55,19,37,35,13, 9, 9,19,56,12		4, 2,41,30,38	
		48,37,10,53, 9,54, 2		3,33
18″	55,19,38,23,50,20, 2,29,50,14		4, 2,41,34,11	
		48,37, 6,50,28,19,51		3,33
20″	55,19,39,12,27,26,52,58,10, 5		4, 2,41,37,44	
		48,37, 2,47,46,42, 7		3,33
22″	55,19,40, 1, 4,29,40,44,52,12		4, 2,41,41,17	
		48,36,58,45, 5, 0,50		3,33
24″	55,19,40,49,41,28,25,49,53, 2		4, 2,41,44,50	
		48,36,54,42,23,16, 0		3,33
26″	55,19,41,38,18,23, 8,13, 9, 2		4, 2,41,48,23	
		48,36,50,39,41,27,37		3,33
28″	55,19,42,26,55,13,47,54,36,39		4, 2,41,51,56	
		48,36,46,36,59,35,41		3,33
30″	55,19,43,15,32, 0,24,54,12,20		4, 2,41,55,29	
		48,36,42,34,17,40,12		3,33
32″	55,19,44, 4, 8,42,59,11,52,32		4, 2,41,59, 2	
		48,36,38,31,35,41,10		3,33
34″	55,19,44,52,45,21,30,47,33,42		4, 2,42, 2,35	
		48,36,34,28,53,38,35		3,33
36″	55,19,45,41,21,55,59,41,12,17		4, 2,42, 6, 8	
		48,36,30,26,11,32,27		3,33
38″	55,19,46,29,58,26,25,52,44,44		4, 2,42, 9,41	
		48,36,26,23,29,22,46		3,33
40″	55,19,47,18,34,52,49,22, 7,30		4, 2,42,13,14	
		48,36,22,20,47, 9,32		3,33
42″	55,19,48, 7,11,15,10, 9,17, 2		4, 2,42,16,47	
		48,36,18,18, 4,52,45		3,33
44″	55,19,48,55,47,33,28,14, 9,47		4, 2,42,20,20	
		48,36,14,15,22,32,25		3,33
46″	55,19,49,44,23,47,43,36,42,12		4, 2,42,23,53	
		48,36,10,12,40, 8,32		3,33
48″	55,19,50,32,59,57,56,16,50,44		4, 2,42,27,26	
		48,36, 6, 9,57,41, 6		3,33
50″	55,19,51,21,36, 4, 6,14,31,50		4, 2,42,30,59	
		48,36, 2, 7,15,10, 7		3,33
52″	55,19,52,10,12, 6,13,29,41,57		4, 2,42,34,32	
		48,35,58, 4,32,35,35		3,33
54″	55,19,52,58,48, 4,18, 2,17,32		4, 2,42,38, 5	
		48,35,54, 1,49,57,30		3,33
56″	55,19,53,47,23,58,19,52,15, 2		4, 2,42,41,38	
		48,35,49,59, 7,15,52		3,33
58″	55,19,54,35,59,48,18,59,30,54		4, 2,42,45,11	
		48,35,45,56,24,30,41		
60″	55,19,55,24,35,34,15,24, 1,35			
exact	55,19,55,24,35,34,15,23,45,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°15′ 0″	55,19,55,24,35,34,15,23,45,28			
		48,35,41,53,41,40,14		
2″	55,19,56,13,11,16, 9, 5,25,42		4, 2,42,52,24	
		48,35,37,50,58,47,50		3,33
4″	55,19,57, 1,46,54, 0, 4,13,32		4, 2,42,55,57	
		48,35,33,48,15,51,53		3,33
6″	55,19,57,50,22,27,48,20, 5,25		4, 2,42,59,30	
		48,35,29,45,32,52,23		3,33
8″	55,19,58,38,57,57,33,52,57,48		4, 2,43, 3, 3	
		48,35,25,42,49,49,20		3,33
10″	55,19,59,27,33,23,16,42,47, 8		4, 2,43, 6,36	
		48,35,21,40, 6,42,44		3,33
12″	55,20, 0,16, 8,44,56,49,29,52		4, 2,43,10, 9	
		48,35,17,37,23,32,35		3,33
14″	55,20, 1, 4,44, 2,34,13, 2,27		4, 2,43,13,42	
		48,35,13,34,40,18,53		3,33
16″	55,20, 1,53,19,16, 8,53,21,20		4, 2,43,17,15	
		48,35, 9,31,57, 1,38		3,33
18″	55,20, 2,41,54,25,40,50,22,58		4, 2,43,20,48	
		48,35, 5,29,13,40,50		3,33
20″	55,20, 3,30,29,31,10, 4, 3,48		4, 2,43,24,21	
		48,35, 1,26,30,16,29		3,33
22″	55,20, 4,19, 4,32,36,34,20,17		4, 2,43,27,54	
		48,34,57,23,46,48,35		3,33
24″	55,20, 5, 7,39,30, 0,21, 8,52		4, 2,43,31,27	
		48,34,53,21, 3,17, 8		3,33
26″	55,20, 5,56,14,23,21,24,26, 0		4, 2,43,35, 0	
		48,34,49,18,19,42, 8		3,33
28″	55,20, 6,44,49,12,39,44, 8, 8		4, 2,43,38,33	
		48,34,45,15,36, 3,35		3,33
30″	55,20, 7,33,23,57,55,20,11,43		4, 2,43,42, 6	
		48,34,41,12,52,21,29		3,33
32″	55,20, 8,21,58,39, 8,12,33,12		4, 2,43,45,39	
		48,34,37,10, 8,35,50		3,33
34″	55,20, 9,10,33,16,18,21, 9, 2		4, 2,43,49,12	
		48,34,33, 7,24,46,38		3,33
36″	55,20, 9,59, 7,49,25,45,55,40		4, 2,43,52,45	
		48,34,29, 4,40,53,53		3,33
38″	55,20,10,47,42,18,30,26,49,33		4, 2,43,56,18	
		48,34,25, 1,56,57,35		3,33
40″	55,20,11,36,16,43,32,23,47, 8		4, 2,43,59,51	
		48,34,20,59,12,57,44		3,33
42″	55,20,12,24,51, 4,31,36,44,52		4, 2,44, 3,24	
		48,34,16,56,28,54,20		3,33
44″	55,20,13,13,25,21,28, 5,39,12		4, 2,44, 6,57	
		48,34,12,53,44,47,23		3,33
46″	55,20,14, 1,59,34,21,50,26,35		4, 2,44,10,30	
		48,34, 8,51, 0,36,53		3,33
48″	55,20,14,50,33,43,12,51, 3,28		4, 2,44,14, 3	
		48,34, 4,48,16,22,50		3,33
50″	55,20,15,39, 7,48, 1, 7,26,18		4, 2,44,17,36	
		48,34, 0,45,32, 5,14		3,33
52″	55,20,16,27,41,48,46,39,31,32		4, 2,44,21, 9	
		48,33,56,42,47,44, 5		3,33
54″	55,20,17,16,15,45,29,27,15,37		4, 2,44,24,42	
		48,33,52,40, 3,19,23		3,33
56″	55,20,18, 4,49,38, 9,30,35, 0		4, 2,44,28,15	
		48,33,48,37,18,51, 8		3,33
58″	55,20,18,53,23,26,46,49,26, 8		4, 2,44,31,48	
		48,33,44,34,34,19,20		
60″	55,20,19,41,57,11,21,23,45,28			
exact	55,20,19,41,57,11,21,23,39,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°16′ 0″	55,20,19,41,57,11,21,23,39,31			
		48,33,40,31,49,43,21		
2″	55,20,20,30,30,51,53,13,22,52		4, 2,44,38,56	
		48,33,36,29, 5, 4,25		3,33
4″	55,20,21,19, 4,28,22,18,27,17		4, 2,44,42,29	
		48,33,32,26,20,21,56		3,33
6″	55,20,22, 7,38, 0,48,38,49,13		4, 2,44,46, 2	
		48,33,28,23,35,35,54		3,33
8″	55,20,22,56,11,29,12,14,25, 7		4, 2,44,49,35	
		48,33,24,20,50,46,19		3,33
10″	55,20,23,44,44,53,33, 5,11,26		4, 2,44,53, 8	
		48,33,20,18, 5,53,11		3,33
12″	55,20,24,33,18,13,51,11, 4,37		4, 2,44,56,41	
		48,33,16,15,20,56,30		3,33
14″	55,20,25,21,51,30, 6,32, 1, 7		4, 2,45, 0,14	
		48,33,12,12,35,56,16		3,33
16″	55,20,26,10,24,42,19, 7,57,23		4, 2,45, 3,47	
		48,33, 8, 9,50,52,29		3,33
18″	55,20,26,58,57,50,28,58,49,52		4, 2,45, 7,20	
		48,33, 4, 7, 5,45, 9		3,33
20″	55,20,27,47,30,54,36, 4,35, 1		4, 2,45,10,53	
		48,33, 0, 4,20,34,16		3,33
22″	55,20,28,36, 3,54,40,25, 9,17		4, 2,45,14,26	
		48,32,56, 1,35,19,50		3,33
24″	55,20,29,24,36,50,42, 0,29, 7		4, 2,45,17,59	
		48,32,51,58,50, 1,51		3,33
26″	55,20,30,13, 9,42,40,50,30,58		4, 2,45,21,32	
		48,32,47,56, 4,40,19		3,33
28″	55,20,31, 1,42,30,36,55,11,17		4, 2,45,25, 5	
		48,32,43,53,19,15,14		3,33
30″	55,20,31,50,15,14,30,14,26,31		4, 2,45,28,38	
		48,32,39,50,33,46,36		3,33
32″	55,20,32,38,47,54,20,48,13, 7		4, 2,45,32,11	
		48,32,35,47,48,14,25		3,33
34″	55,20,33,27,20,30, 8,36,27,32		4, 2,45,35,44	
		48,32,31,45, 2,38,41		3,33
36″	55,20,34,15,53, 1,53,39, 6,13		4, 2,45,39,17	
		48,32,27,42,16,59,24		3,33
38″	55,20,35, 4,25,29,35,56, 5,37		4, 2,45,42,50	
		48,32,23,39,31,16,34		3,33
40″	55,20,35,52,57,53,15,27,22,11		4, 2,45,46,23	
		48,32,19,36,45,30,11		3,33
42″	55,20,36,41,30,12,52,12,52,22		4, 2,45,49,56	
		48,32,15,33,59,40,15		3,33
44″	55,20,37,30, 2,28,26,12,32,37		4, 2,45,53,29	
		48,32,11,31,13,46,46		3,33
46″	55,20,38,18,34,39,57,26,19,23		4, 2,45,57, 2	
		48,32, 7,28,27,49,44		3,33
48″	55,20,39, 7, 6,47,25,54, 9, 7		4, 2,46, 0,35	
		48,32, 3,25,41,49, 9		3,33
50″	55,20,39,55,38,50,51,35,58,16		4, 2,46, 4, 8	
		48,31,59,22,55,45, 1		3,33
52″	55,20,40,44,10,50,14,31,43,17		4, 2,46, 7,41	
		48,31,55,20, 9,37,20		3,33
54″	55,20,41,32,42,45,34,41,20,37		4, 2,46,11,14	
		48,31,51,17,23,26, 6		3,33
56″	55,20,42,21,14,36,52, 4,46,43		4, 2,46,14,47	
		48,31,47,14,37,11,19		3,33
58″	55,20,43, 9,46,24, 6,41,58, 2		4, 2,46,18,20	
		48,31,43,11,50,52,59		
60″	55,20,43,58,18, 7,18,32,51, 1			
exact	55,20,43,58,18, 7,18,32,51, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°17′ 0″	55,20,43,58,18, 7,18,32,51, 2			
		48,31,39, 9, 4,31,16		
2″	55,20,44,46,49,46,27,37,22,18		4, 2,46,25,24	
		48,31,35, 6,18, 5,52		3,33
4″	55,20,45,35,21,21,33,55,28,10		4, 2,46,28,57	
		48,31,31, 3,31,36,55		3,33
6″	55,20,46,23,52,52,37,27, 5, 5		4, 2,46,32,30	
		48,31,27, 0,45, 4,25		3,33
8″	55,20,47,12,24,19,38,12, 9,30		4, 2,46,36, 3	
		48,31,22,57,58,28,22		3,33
10″	55,20,48, 0,55,42,36,10,37,52		4, 2,46,39,36	
		48,31,18,55,11,48,46		3,33
12″	55,20,48,49,27, 1,31,22,26,38		4, 2,46,43, 9	
		48,31,14,52,25, 5,37		3,33
14″	55,20,49,37,58,16,23,47,32,15		4, 2,46,46,42	
		48,31,10,49,38,18,55		3,33
16″	55,20,50,26,29,27,13,25,51,10		4, 2,46,50,15	
		48,31, 6,46,51,28,40		3,33
18″	55,20,51,15, 0,34, 0,17,19,50		4, 2,46,53,48	
		48,31, 2,44, 4,34,52		3,33
20″	55,20,52, 3,31,36,44,21,54,42		4, 2,46,57,21	
		48,30,58,41,17,37,31		3,33
22″	55,20,52,52, 2,35,25,39,32,13		4, 2,47, 0,54	
		48,30,54,38,30,36,37		3,33
24″	55,20,53,40,33,30, 4,10, 8,50		4, 2,47, 4,27	
		48,30,50,35,43,32,10		3,33
26″	55,20,54,29, 4,20,39,53,41, 0		4, 2,47, 8, 0	
		48,30,46,32,56,24,10		3,33
28″	55,20,55,17,35, 7,12,50, 5,10		4, 2,47,11,33	
		48,30,42,30, 9,12,37		3,33
30″	55,20,56, 6, 5,49,42,59,17,47		4, 2,47,15, 6	
		48,30,38,27,21,57,31		3,33
32″	55,20,56,54,36,28,10,21,15,18		4, 2,47,18,39	
		48,30,34,24,34,38,52		3,33
34″	55,20,57,43, 7, 2,34,55,54,10		4, 2,47,22,12	
		48,30,30,21,47,16,40		3,33
36″	55,20,58,31,37,32,56,43,10,50		4, 2,47,25,45	
		48,30,26,18,59,50,55		3,33
38″	55,20,59,20, 7,59,15,43, 1,45		4, 2,47,29,18	
		48,30,22,16,12,21,37		3,33
40″	55,21, 0, 8,38,21,31,55,23,22		4, 2,47,32,51	
		48,30,18,13,24,48,46		3,33
42″	55,21, 0,57, 8,39,45,20,12, 8		4, 2,47,36,24	
		48,30,14,10,37,12,22		3,33
44″	55,21, 1,45,38,53,55,57,24,30		4, 2,47,39,57	
		48,30,10, 7,49,32,25		3,33
46″	55,21, 2,34, 9, 4, 3,46,56,55		4, 2,47,43,30	
		48,30, 6, 5, 1,48,55		3,33
48″	55,21, 3,22,39,10, 8,48,45,50		4, 2,47,47, 3	
		48,30, 2, 2,14, 1,52		3,33
50″	55,21, 4,11, 9,12,11, 2,47,42		4, 2,47,50,36	
		48,29,57,59,26,11,16		3,33
52″	55,21, 4,59,39,10,10,28,58,58		4, 2,47,54, 9	
		48,29,53,56,38,17, 7		3,33
54″	55,21, 5,48, 9, 4, 7, 7,16, 5		4, 2,47,57,42	
		48,29,49,53,50,19,25		3,33
56″	55,21, 6,36,38,54, 0,57,35,30		4, 2,48, 1,15	
		48,29,45,51, 2,18,10		3,33
58″	55,21, 7,25, 8,39,51,59,53,40		4, 2,48, 4,48	
		48,29,41,48,14,13,22		
60″	55,21, 8,13,38,21,40,14, 7, 2			
exact	55,21, 8,13,38,21,40,14,16, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°18′ 0″	55,21, 8,13,38,21,40,14,16, 6			
		48,29,37,45,26, 6,11		
2″	55,21, 9, 2, 7,59,25,40,22,17		4, 2,48,11,48	
		48,29,33,42,37,54,23		3,33
4″	55,21, 9,50,37,33, 8,18,16,40		4, 2,48,15,21	
		48,29,29,39,49,39, 2		3,33
6″	55,21,10,39, 7, 2,48, 7,55,42		4, 2,48,18,54	
		48,29,25,37, 1,20, 8		3,33
8″	55,21,11,27,36,28,25, 9,15,50		4, 2,48,22,27	
		48,29,21,34,12,57,41		3,33
10″	55,21,12,16, 5,49,59,22,13,31		4, 2,48,26, 0	
		48,29,17,31,24,31,41		3,33
12″	55,21,13, 4,35, 7,30,46,45,12		4, 2,48,29,33	
		48,29,13,28,36, 2, 8		3,33
14″	55,21,13,53, 4,20,59,22,47,20		4, 2,48,33, 6	
		48,29, 9,25,47,29, 2		3,33
16″	55,21,14,41,33,30,25,10,16,22		4, 2,48,36,39	
		48,29, 5,22,58,52,23		3,33
18″	55,21,15,30, 2,35,48, 9, 8,45		4, 2,48,40,12	
		48,29, 1,20,10,12,11		3,33
20″	55,21,16,18,31,37, 8,19,20,56		4, 2,48,43,45	
		48,28,57,17,21,28,26		3,33
22″	55,21,17, 7, 0,34,25,40,49,22		4, 2,48,47,18	
		48,28,53,14,32,41, 8		3,33
24″	55,21,17,55,29,27,40,13,30,30		4, 2,48,50,51	
		48,28,49,11,43,50,17		3,33
26″	55,21,18,43,58,16,51,57,20,47		4, 2,48,54,24	
		48,28,45, 8,54,55,53		3,33
28″	55,21,19,32,27, 2, 0,52,16,40		4, 2,48,57,57	
		48,28,41, 6, 5,57,56		3,33
30″	55,21,20,20,55,43, 6,58,14,36		4, 2,49, 1,30	
		48,28,37, 3,16,56,26		3,33
32″	55,21,21, 9,24,20,10,15,11, 2		4, 2,49, 5, 3	
		48,28,33, 0,27,51,23		3,33
34″	55,21,21,57,52,53,10,43, 2,25		4, 2,49, 8,36	
		48,28,28,57,38,42,47		3,33
36″	55,21,22,46,21,22, 8,21,45,12		4, 2,49,12, 9	
		48,28,24,54,49,30,38		3,33
38″	55,21,23,34,49,47, 3,11,15,50		4, 2,49,15,42	
		48,28,20,52, 0,14,56		3,33
40″	55,21,24,23,18, 7,55,11,30,46		4, 2,49,19,15	
		48,28,16,49,10,55,41		3,33
42″	55,21,25,11,46,24,44,22,26,27		4, 2,49,22,48	
		48,28,12,46,21,32,53		3,33
44″	55,21,26, 0,14,37,30,43,59,20		4, 2,49,26,21	
		48,28, 8,43,32, 6,32		3,33
46″	55,21,26,48,42,46,14,16, 5,52		4, 2,49,29,54	
		48,28, 4,40,42,36,38		3,33
48″	55,21,27,37,10,50,54,58,42,30		4, 2,49,33,27	
		48,28, 0,37,53, 3,11		3,33
50″	55,21,28,25,38,51,32,51,45,41		4, 2,49,37, 0	
		48,27,56,35, 3,26,11		3,33
52″	55,21,29,14, 6,48, 7,55,11,52		4, 2,49,40,33	
		48,27,52,32,13,45,38		3,33
54″	55,21,30, 2,34,40,40, 8,57,30		4, 2,49,44, 6	
		48,27,48,29,24, 1,32		3,33
56″	55,21,30,51, 2,29, 9,32,59, 2		4, 2,49,47,39	
		48,27,44,26,34,13,53		3,33
58″	55,21,31,39,30,13,36, 7,12,55		4, 2,49,51,12	
		48,27,40,23,44,22,41		
60″	55,21,32,27,57,53,59,51,35,36			
exact	55,21,32,27,57,53,59,51,57,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°19′ 0″	55,21,32,27,57,53,59,51,57,22			
		48,27,36,20,54,30,21		
2″	55,21,33,16,25,30,20,46,27,43		4, 2,49,58, 7	
		48,27,32,18, 4,32,14		3,33
4″	55,21,34, 4,53, 2,38,50,59,57		4, 2,50, 1,40	
		48,27,28,15,14,30,34		3,33
6″	55,21,34,53,20,30,54, 5,30,31		4, 2,50, 5,13	
		48,27,24,12,24,25,21		3,33
8″	55,21,35,41,47,55, 6,29,55,52		4, 2,50, 8,46	
		48,27,20, 9,34,16,35		3,33
10″	55,21,36,30,15,15,16, 4,12,27		4, 2,50,12,19	
		48,27,16, 6,44, 4,16		3,33
12″	55,21,37,18,42,31,22,48,16,43		4, 2,50,15,52	
		48,27,12, 3,53,48,24		3,33
14″	55,21,38, 7, 9,43,26,42, 5, 7		4, 2,50,19,25	
		48,27, 8, 1, 3,28,59		3,33
16″	55,21,38,55,36,51,27,45,34, 6		4, 2,50,22,58	
		48,27, 3,58,13, 6, 1		3,33
18″	55,21,39,44, 3,55,25,58,40, 7		4, 2,50,26,31	
		48,26,59,55,22,39,30		3,33
20″	55,21,40,32,30,55,21,21,19,37		4, 2,50,30, 4	
		48,26,55,52,32, 9,26		3,33
22″	55,21,41,20,57,51,13,53,29, 3		4, 2,50,33,37	
		48,26,51,49,41,35,49		3,33
24″	55,21,42, 9,24,43, 3,35, 4,52		4, 2,50,37,10	
		48,26,47,46,50,58,39		3,33
26″	55,21,42,57,51,30,50,26, 3,31		4, 2,50,40,43	
		48,26,43,44, 0,17,56		3,33
28″	55,21,43,46,18,14,34,26,21,27		4, 2,50,44,16	
		48,26,39,41, 9,33,40		3,33
30″	55,21,44,34,44,54,15,35,55, 7		4, 2,50,47,49	
		48,26,35,38,18,45,51		3,33
32″	55,21,45,23,11,29,53,54,40,58		4, 2,50,51,22	
		48,26,31,35,27,54,29		3,33
34″	55,21,46,11,38, 1,29,22,35,27		4, 2,50,54,55	
		48,26,27,32,36,59,34		3,33
36″	55,21,47, 0, 4,29, 1,59,35, 1		4, 2,50,58,28	
		48,26,23,29,46, 1, 6		3,33
38″	55,21,47,48,30,52,31,45,36, 7		4, 2,51, 2, 1	
		48,26,19,26,54,59, 5		3,33
40″	55,21,48,36,57,11,58,40,35,12		4, 2,51, 5,34	
		48,26,15,24, 3,53,31		3,33
42″	55,21,49,25,23,27,22,44,28,43		4, 2,51, 9, 7	
		48,26,11,21,12,44,24		3,33
44″	55,21,50,13,49,38,43,57,13, 7		4, 2,51,12,40	
		48,26, 7,18,21,31,44		3,33
46″	55,21,51, 2,15,46, 2,18,44,51		4, 2,51,16,13	
		48,26, 3,15,30,15,31		3,33
48″	55,21,51,50,41,49,17,49, 0,22		4, 2,51,19,46	
		48,25,59,12,38,55,45		3,33
50″	55,21,52,39, 7,48,30,27,56, 7		4, 2,51,23,19	
		48,25,55, 9,47,32,26		3,33
52″	55,21,53,27,33,43,40,15,28,33		4, 2,51,26,52	
		48,25,51, 6,56, 5,34		3,33
54″	55,21,54,15,59,34,47,11,34, 7		4, 2,51,30,25	
		48,25,47, 4, 4,35, 9		3,33
56″	55,21,55, 4,25,21,51,16, 9,16		4, 2,51,33,58	
		48,25,43, 1,13, 1,11		3,33
58″	55,21,55,52,51, 4,52,29,10,27		4, 2,51,37,31	
		48,25,38,58,21,23,40		
60″	55,21,56,41,16,43,50,50,34, 7			
exact	55,21,56,41,16,43,50,51, 4, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°20′ 0″	55,21,56,41,16,43,50,51, 4, 3			
		48,25,34,55,29,45,58		
2″	55,21,57,29,42,18,46,20,50, 1		4, 2,51,44,22	
		48,25,30,52,38, 1,36		3,32
4″	55,21,58,18, 7,49,38,58,51,37		4, 2,51,47,54	
		48,25,26,49,46,13,42		3,32
6″	55,21,59, 6,33,16,28,45, 5,19		4, 2,51,51,26	
		48,25,22,46,54,22,16		3,32
8″	55,21,59,54,58,39,15,39,27,35		4, 2,51,54,58	
		48,25,18,44, 2,27,18		3,32
10″	55,22, 0,43,23,57,59,41,54,53		4, 2,51,58,30	
		48,25,14,41,10,28,48		3,32
12″	55,22, 1,31,49,12,40,52,23,41		4, 2,52, 2, 2	
		48,25,10,38,18,26,46		3,32
14″	55,22, 2,20,14,23,19,10,50,27		4, 2,52, 5,34	
		48,25, 6,35,26,21,12		3,32
16″	55,22, 3, 8,39,29,54,37,11,39		4, 2,52, 9, 6	
		48,25, 2,32,34,12, 6		3,32
18″	55,22, 3,57, 4,32,27,11,23,45		4, 2,52,12,38	
		48,24,58,29,41,59,28		3,32
20″	55,22, 4,45,29,30,56,53,23,13		4, 2,52,16,10	
		48,24,54,26,49,43,18		3,32
22″	55,22, 5,33,54,25,23,43, 6,31		4, 2,52,19,42	
		48,24,50,23,57,23,36		3,32
24″	55,22, 6,22,19,15,47,40,30, 7		4, 2,52,23,14	
		48,24,46,21, 5, 0,22		3,32
26″	55,22, 7,10,44, 2, 8,45,30,29		4, 2,52,26,46	
		48,24,42,18,12,33,36		3,32
28″	55,22, 7,59, 8,44,26,58, 4, 5		4, 2,52,30,18	
		48,24,38,15,20, 3,18		3,32
30″	55,22, 8,47,33,22,42,18, 7,23		4, 2,52,33,50	
		48,24,34,12,27,29,28		3,32
32″	55,22, 9,35,57,56,54,45,36,51		4, 2,52,37,22	
		48,24,30, 9,34,52, 6		3,32
34″	55,22,10,24,22,27, 4,20,28,57		4, 2,52,40,54	
		48,24,26, 6,42,11,12		3,32
36″	55,22,11,12,46,53,11, 2,40, 9		4, 2,52,44,26	
		48,24,22, 3,49,26,46		3,32
38″	55,22,12, 1,11,15,14,52, 6,55		4, 2,52,47,58	
		48,24,18, 0,56,38,48		3,32
40″	55,22,12,49,35,33,15,48,45,43		4, 2,52,51,30	
		48,24,13,58, 3,47,18		3,32
42″	55,22,13,37,59,47,13,52,33, 1		4, 2,52,55, 2	
		48,24, 9,55,10,52,16		3,32
44″	55,22,14,26,23,57, 9, 3,25,17		4, 2,52,58,34	
		48,24, 5,52,17,53,42		3,32
46″	55,22,15,14,48, 3, 1,21,18,59		4, 2,53, 2, 6	
		48,24, 1,49,24,51,36		3,32
48″	55,22,16, 3,12, 4,50,46,10,35		4, 2,53, 5,38	
		48,23,57,46,31,45,58		3,32
50″	55,22,16,51,36, 2,37,17,56,33		4, 2,53, 9,10	
		48,23,53,43,38,36,48		3,32
52″	55,22,17,39,59,56,20,56,33,21		4, 2,53,12,42	
		48,23,49,40,45,24, 6		3,32
54″	55,22,18,28,23,46, 1,41,57,27		4, 2,53,16,14	
		48,23,45,37,52, 7,52		3,32
56″	55,22,19,16,47,31,39,34, 5,19		4, 2,53,19,46	
		48,23,41,34,58,48, 6		3,32
58″	55,22,20, 5,11,13,14,32,53,25		4, 2,53,23,18	
		48,23,37,32, 5,24,48		
60″	55,22,20,53,34,50,46,38,18,13			
exact	55,22,20,53,34,50,46,37,51,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°21′ 0″	55,22,20,53,34,50,46,37,51,54			
		48,23,33,29,11,55,15		
2″	55,22,21,41,58,24,15,49,47, 9		4, 2,53,30,32	
		48,23,29,26,18,24,43		3,32
4″	55,22,22,30,21,53,42, 8,11,52		4, 2,53,34, 4	
		48,23,25,23,24,50,39		3,32
6″	55,22,23,18,45,19, 5,33, 2,31		4, 2,53,37,36	
		48,23,21,20,31,13, 3		3,32
8″	55,22,24, 7, 8,40,26, 4,15,34		4, 2,53,41, 8	
		48,23,17,17,37,31,55		3,32
10″	55,22,24,55,31,57,43,41,47,29		4, 2,53,44,40	
		48,23,13,14,43,47,15		3,32
12″	55,22,25,43,55,10,58,25,34,44		4, 2,53,48,12	
		48,23, 9,11,49,59, 3		3,32
14″	55,22,26,32,18,20,10,15,33,47		4, 2,53,51,44	
		48,23, 5, 8,56, 7,19		3,32
16″	55,22,27,20,41,25,19,11,41, 6		4, 2,53,55,16	
		48,23, 1, 6, 2,12, 3		3,32
18″	55,22,28, 9, 4,26,25,13,53, 9		4, 2,53,58,48	
		48,22,57, 3, 8,13,15		3,32
20″	55,22,28,57,27,23,28,22, 6,24		4, 2,54, 2,20	
		48,22,53, 0,14,10,55		3,32
22″	55,22,29,45,50,16,28,36,17,19		4, 2,54, 5,52	
		48,22,48,57,20, 5, 3		3,32
24″	55,22,30,34,13, 5,25,56,22,22		4, 2,54, 9,24	
		48,22,44,54,25,55,39		3,32
26″	55,22,31,22,35,50,20,22,18, 1		4, 2,54,12,56	
		48,22,40,51,31,42,43		3,32
28″	55,22,32,10,58,31,11,54, 0,44		4, 2,54,16,28	
		48,22,36,48,37,26,15		3,32
30″	55,22,32,59,21, 8, 0,31,26,59		4, 2,54,20, 0	
		48,22,32,45,43, 6,15		3,32
32″	55,22,33,47,43,40,46,14,33,14		4, 2,54,23,32	
		48,22,28,42,48,42,43		3,32
34″	55,22,34,36, 6, 9,29, 3,15,57		4, 2,54,27, 4	
		48,22,24,39,54,15,39		3,32
36″	55,22,35,24,28,34, 8,57,31,36		4, 2,54,30,36	
		48,22,20,36,59,45, 3		3,32
38″	55,22,36,12,50,54,45,57,16,39		4, 2,54,34, 8	
		48,22,16,34, 5,10,55		3,32
40″	55,22,37, 1,13,11,20, 2,27,34		4, 2,54,37,40	
		48,22,12,31,10,33,15		3,32
42″	55,22,37,49,35,23,51,13, 0,49		4, 2,54,41,12	
		48,22, 8,28,15,52, 3		3,32
44″	55,22,38,37,57,32,19,28,52,52		4, 2,54,44,44	
		48,22, 4,25,21, 7,19		3,32
46″	55,22,39,26,19,36,44,50, 0,11		4, 2,54,48,16	
		48,22, 0,22,26,19, 3		3,32
48″	55,22,40,14,41,37, 7,16,19,14		4, 2,54,51,48	
		48,21,56,19,31,27,15		3,32
50″	55,22,41, 3, 3,33,26,47,46,29		4, 2,54,55,20	
		48,21,52,16,36,31,55		3,32
52″	55,22,41,51,25,25,43,24,18,24		4, 2,54,58,52	
		48,21,48,13,41,33, 3		3,32
54″	55,22,42,39,47,13,57, 5,51,27		4, 2,55, 2,24	
		48,21,44,10,46,30,39		3,32
56″	55,22,43,28, 8,58, 7,52,22, 6		4, 2,55, 5,56	
		48,21,40, 7,51,24,43		3,32
58″	55,22,44,16,30,38,15,43,46,49		4, 2,55, 9,28	
		48,21,36, 4,56,15,15		
60″	55,22,45, 4,52,14,20,40, 2, 4			
exact	55,22,45, 4,52,14,20,39,43,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°22′ 0″	55,22,45, 4,52,14,20,39,43,19			
		48,21,32, 2, 1, 0,26		
2″	55,22,45,53,13,46,22,40,43,45		4, 2,55,16,38	
		48,21,27,59, 5,43,48		3,32
4″	55,22,46,41,35,14,21,46,27,33		4, 2,55,20,10	
		48,21,23,56,10,23,38		3,32
6″	55,22,47,29,56,38,17,56,51,11		4, 2,55,23,42	
		48,21,19,53,14,59,56		3,32
8″	55,22,48,18,17,58,11,11,51, 7		4, 2,55,27,14	
		48,21,15,50,19,32,42		3,32
10″	55,22,49, 6,39,14, 1,31,23,49		4, 2,55,30,46	
		48,21,11,47,24, 1,56		3,32
12″	55,22,49,55, 0,25,48,55,25,45		4, 2,55,34,18	
		48,21, 7,44,28,27,38		3,32
14″	55,22,50,43,21,33,33,23,53,23		4, 2,55,37,50	
		48,21, 3,41,32,49,48		3,32
16″	55,22,51,31,42,37,14,56,43,11		4, 2,55,41,22	
		48,20,59,38,37, 8,26		3,32
18″	55,22,52,20, 3,36,53,33,51,37		4, 2,55,44,54	
		48,20,55,35,41,23,32		3,32
20″	55,22,53, 8,24,32,29,15,15, 9		4, 2,55,48,26	
		48,20,51,32,45,35, 6		3,32
22″	55,22,53,56,45,24, 2, 0,50,15		4, 2,55,51,58	
		48,20,47,29,49,43, 8		3,32
24″	55,22,54,45, 6,11,31,50,33,23		4, 2,55,55,30	
		48,20,43,26,53,47,38		3,32
26″	55,22,55,33,26,54,58,44,21, 1		4, 2,55,59, 2	
		48,20,39,23,57,48,36		3,32
28″	55,22,56,21,47,34,22,42, 9,37		4, 2,56, 2,34	
		48,20,35,21, 1,46, 2		3,32
30″	55,22,57,10, 8, 9,43,43,55,39		4, 2,56, 6, 6	
		48,20,31,18, 5,39,56		3,32
32″	55,22,57,58,28,41, 1,49,35,35		4, 2,56, 9,38	
		48,20,27,15, 9,30,18		3,32
34″	55,22,58,46,49, 8,16,59, 5,53		4, 2,56,13,10	
		48,20,23,12,13,17, 8		3,32
36″	55,22,59,35, 9,31,29,12,23, 1		4, 2,56,16,42	
		48,20,19, 9,17, 0,26		3,32
38″	55,23, 0,23,29,50,38,29,23,27		4, 2,56,20,14	
		48,20,15, 6,20,40,12		3,32
40″	55,23, 1,11,50, 5,44,50, 3,39		4, 2,56,23,46	
		48,20,11, 3,24,16,26		3,32
42″	55,23, 2, 0,10,16,48,14,20, 5		4, 2,56,27,18	
		48,20, 7, 0,27,49, 8		3,32
44″	55,23, 2,48,30,23,48,42, 9,13		4, 2,56,30,50	
		48,20, 2,57,31,18,18		3,32
46″	55,23, 3,36,50,26,46,13,27,31		4, 2,56,34,22	
		48,19,58,54,34,43,56		3,32
48″	55,23, 4,25,10,25,40,48,11,27		4, 2,56,37,54	
		48,19,54,51,38, 6, 2		3,32
50″	55,23, 5,13,30,20,32,26,17,29		4, 2,56,41,26	
		48,19,50,48,41,24,36		3,32
52″	55,23, 6, 1,50,11,21, 7,42, 5		4, 2,56,44,58	
		48,19,46,45,44,39,38		3,32
54″	55,23, 6,50, 9,58, 6,52,21,43		4, 2,56,48,30	
		48,19,42,42,47,51, 8		3,32
56″	55,23, 7,38,29,40,49,40,12,51		4, 2,56,52, 2	
		48,19,38,39,50,59, 6		3,32
58″	55,23, 8,26,49,19,29,31,11,57		4, 2,56,55,34	
		48,19,34,36,54, 3,32		
60″	55,23, 9,15, 8,54, 6,25,15,29			
exact	55,23, 9,15, 8,54, 6,25, 7,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°23′ 0″	55,23, 9,15, 8,54, 6,25, 7,13			
		48,19,30,33,57, 3,44		
2″	55,23,10, 3,28,24,40,22,10,57		4, 2,57, 2,40	
		48,19,26,31, 0, 1, 4		3,32
4″	55,23,10,51,47,51,11,22,12, 1		4, 2,57, 6,12	
		48,19,22,28, 2,54,52		3,32
6″	55,23,11,40, 7,13,39,25, 6,53		4, 2,57, 9,44	
		48,19,18,25, 5,45, 8		3,32
8″	55,23,12,28,26,32, 4,30,52, 1		4, 2,57,13,16	
		48,19,14,22, 8,31,52		3,32
10″	55,23,13,16,45,46,26,39,23,53		4, 2,57,16,48	
		48,19,10,19,11,15, 4		3,32
12″	55,23,14, 5, 4,56,45,50,38,57		4, 2,57,20,20	
		48,19, 6,16,13,54,44		3,32
14″	55,23,14,53,24, 3, 2, 4,33,41		4, 2,57,23,52	
		48,19, 2,13,16,30,52		3,32
16″	55,23,15,41,43, 5,15,21, 4,33		4, 2,57,27,24	
		48,18,58,10,19, 3,28		3,32
18″	55,23,16,30, 2, 3,25,40, 8, 1		4, 2,57,30,56	
		48,18,54, 7,21,32,32		3,32
20″	55,23,17,18,20,57,33, 1,40,33		4, 2,57,34,28	
		48,18,50, 4,23,58, 4		3,32
22″	55,23,18, 6,39,47,37,25,38,37		4, 2,57,38, 0	
		48,18,46, 1,26,20, 4		3,32
24″	55,23,18,54,58,33,38,51,58,41		4, 2,57,41,32	
		48,18,41,58,28,38,32		3,32
26″	55,23,19,43,17,15,37,20,37,13		4, 2,57,45, 4	
		48,18,37,55,30,53,28		3,32
28″	55,23,20,31,35,53,32,51,30,41		4, 2,57,48,36	
		48,18,33,52,33, 4,52		3,32
30″	55,23,21,19,54,27,25,24,35,33		4, 2,57,52, 8	
		48,18,29,49,35,12,44		3,32
32″	55,23,22, 8,12,57,14,59,48,17		4, 2,57,55,40	
		48,18,25,46,37,17, 4		3,32
34″	55,23,22,56,31,23, 1,37, 5,21		4, 2,57,59,12	
		48,18,21,43,39,17,52		3,32
36″	55,23,23,44,49,44,45,16,23,13		4, 2,58, 2,44	
		48,18,17,40,41,15, 8		3,32
38″	55,23,24,33, 8, 2,25,57,38,21		4, 2,58, 6,16	
		48,18,13,37,43, 8,52		3,32
40″	55,23,25,21,26,16, 3,40,47,13		4, 2,58, 9,48	
		48,18, 9,34,44,59, 4		3,32
42″	55,23,26, 9,44,25,38,25,46,17		4, 2,58,13,20	
		48,18, 5,31,46,45,44		3,32
44″	55,23,26,58, 2,31,10,12,32, 1		4, 2,58,16,52	
		48,18, 1,28,48,28,52		3,32
46″	55,23,27,46,20,32,39, 1, 0,53		4, 2,58,20,24	
		48,17,57,25,50, 8,28		3,32
48″	55,23,28,34,38,30, 4,51, 9,21		4, 2,58,23,56	
		48,17,53,22,51,44,32		3,32
50″	55,23,29,22,56,23,27,42,53,53		4, 2,58,27,28	
		48,17,49,19,53,17, 4		3,32
52″	55,23,30,11,14,12,47,36,10,57		4, 2,58,31, 0	
		48,17,45,16,54,46, 4		3,32
54″	55,23,30,59,31,58, 4,30,57, 1		4, 2,58,34,32	
		48,17,41,13,56,11,32		3,32
56″	55,23,31,47,49,39,18,27, 8,33		4, 2,58,38, 4	
		48,17,37,10,57,33,28		3,32
58″	55,23,32,36, 7,16,29,24,42, 1		4, 2,58,41,36	
		48,17,33, 7,58,51,52		
60″	55,23,33,24,24,49,37,23,33,53			
exact	55,23,33,24,24,49,37,23,39,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°24′ 0″	55,23,33,24,24,49,37,23,39,12			
		48,17,29, 5, 0, 7,21		
2″	55,23,34,12,42,18,42,23,46,33		4, 2,58,48,37	
		48,17,25, 2, 1,18,44		3,32
4″	55,23,35, 0,59,43,44,25, 5,17		4, 2,58,52, 9	
		48,17,20,59, 2,26,35		3,32
6″	55,23,35,49,17, 4,43,27,31,52		4, 2,58,55,41	
		48,17,16,56, 3,30,54		3,32
8″	55,23,36,37,34,21,39,31, 2,46		4, 2,58,59,13	
		48,17,12,53, 4,31,41		3,32
10″	55,23,37,25,51,34,32,35,34,27		4, 2,59, 2,45	
		48,17, 8,50, 5,28,56		3,32
12″	55,23,38,14, 8,43,22,41, 3,23		4, 2,59, 6,17	
		48,17, 4,47, 6,22,39		3,32
14″	55,23,39, 2,25,48, 9,47,26, 2		4, 2,59, 9,49	
		48,17, 0,44, 7,12,50		3,32
16″	55,23,39,50,42,48,53,54,38,52		4, 2,59,13,21	
		48,16,56,41, 7,59,29		3,32
18″	55,23,40,38,59,45,35, 2,38,21		4, 2,59,16,53	
		48,16,52,38, 8,42,36		3,32
20″	55,23,41,27,16,38,13,11,20,57		4, 2,59,20,25	
		48,16,48,35, 9,22,11		3,32
22″	55,23,42,15,33,26,48,20,43, 8		4, 2,59,23,57	
		48,16,44,32, 9,58,14		3,32
24″	55,23,43, 3,50,11,20,30,41,22		4, 2,59,27,29	
		48,16,40,29,10,30,45		3,32
26″	55,23,43,52, 6,51,49,41,12, 7		4, 2,59,31, 1	
		48,16,36,26,10,59,44		3,32
28″	55,23,44,40,23,28,15,52,11,51		4, 2,59,34,33	
		48,16,32,23,11,25,11		3,32
30″	55,23,45,28,40, 0,39, 3,37, 2		4, 2,59,38, 5	
		48,16,28,20,11,47, 6		3,32
32″	55,23,46,16,56,28,59,15,24, 8		4, 2,59,41,37	
		48,16,24,17,12, 5,29		3,32
34″	55,23,47, 5,12,53,16,27,29,37		4, 2,59,45, 9	
		48,16,20,14,12,20,20		3,32
36″	55,23,47,53,29,13,30,39,49,57		4, 2,59,48,41	
		48,16,16,11,12,31,39		3,32
38″	55,23,48,41,45,29,41,52,21,36		4, 2,59,52,13	
		48,16,12, 8,12,39,26		3,32
40″	55,23,49,30, 1,41,50, 5, 1, 2		4, 2,59,55,45	
		48,16, 8, 5,12,43,41		3,32
42″	55,23,50,18,17,49,55,17,44,43		4, 2,59,59,17	
		48,16, 4, 2,12,44,24		3,32
44″	55,23,51, 6,33,53,57,30,29, 7		4, 3, 0, 2,49	
		48,15,59,59,12,41,35		3,32
46″	55,23,51,54,49,53,56,43,10,42		4, 3, 0, 6,21	
		48,15,55,56,12,35,14		3,32
48″	55,23,52,43, 5,49,52,55,45,56		4, 3, 0, 9,53	
		48,15,51,53,12,25,21		3,32
50″	55,23,53,31,21,41,46, 8,11,17		4, 3, 0,13,25	
		48,15,47,50,12,11,56		3,32
52″	55,23,54,19,37,29,36,20,23,13		4, 3, 0,16,57	
		48,15,43,47,11,54,59		3,32
54″	55,23,55, 7,53,13,23,32,18,12		4, 3, 0,20,29	
		48,15,39,44,11,34,30		3,32
56″	55,23,55,56, 8,53, 7,43,52,42		4, 3, 0,24, 1	
		48,15,35,41,11,10,29		3,32
58″	55,23,56,44,24,28,48,55, 3,11		4, 3, 0,27,33	
		48,15,31,38,10,42,56		
60″	55,23,57,32,40, 0,27, 5,46, 7			
exact	55,23,57,32,40, 0,27, 6, 1,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°25′ 0″	55,23,57,32,40, 0,27, 6, 1,23			
		48,15,27,35,10,13,32		
2″	55,23,58,20,55,28, 2,16,14,55		4, 3, 0,34,29	
		48,15,23,32, 9,39, 3		3,32
4″	55,23,59, 9,10,51,34,25,53,58		4, 3, 0,38, 1	
		48,15,19,29, 9, 1, 2		3,32
6″	55,23,59,57,26,11, 3,34,55, 0		4, 3, 0,41,33	
		48,15,15,26, 8,19,29		3,32
8″	55,24, 0,45,41,26,29,43,14,29		4, 3, 0,45, 5	
		48,15,11,23, 7,34,24		3,32
10″	55,24, 1,33,56,37,52,50,48,53		4, 3, 0,48,37	
		48,15, 7,20, 6,45,47		3,32
12″	55,24, 2,22,11,45,12,57,34,40		4, 3, 0,52, 9	
		48,15, 3,17, 5,53,38		3,32
14″	55,24, 3,10,26,48,30, 3,28,18		4, 3, 0,55,41	
		48,14,59,14, 4,57,57		3,32
16″	55,24, 3,58,41,47,44, 8,26,15		4, 3, 0,59,13	
		48,14,55,11, 3,58,44		3,32
18″	55,24, 4,46,56,42,55,12,24,59		4, 3, 1, 2,45	
		48,14,51, 8, 2,55,59		3,32
20″	55,24, 5,35,11,34, 3,15,20,58		4, 3, 1, 6,17	
		48,14,47, 5, 1,49,42		3,32
22″	55,24, 6,23,26,21, 8,17,10,40		4, 3, 1, 9,49	
		48,14,43, 2, 0,39,53		3,32
24″	55,24, 7,11,41, 4,10,17,50,33		4, 3, 1,13,21	
		48,14,38,58,59,26,32		3,32
26″	55,24, 7,59,55,43, 9,17,17, 5		4, 3, 1,16,53	
		48,14,34,55,58, 9,39		3,32
28″	55,24, 8,48,10,18, 5,15,26,44		4, 3, 1,20,25	
		48,14,30,52,56,49,14		3,32
30″	55,24, 9,36,24,48,58,12,15,58		4, 3, 1,23,57	
		48,14,26,49,55,25,17		3,32
32″	55,24,10,24,39,15,48, 7,41,15		4, 3, 1,27,29	
		48,14,22,46,53,57,48		3,32
34″	55,24,11,12,53,38,35, 1,39, 3		4, 3, 1,31, 1	
		48,14,18,43,52,26,47		3,32
36″	55,24,12, 1, 7,57,18,54, 5,50		4, 3, 1,34,33	
		48,14,14,40,50,52,14		3,32
38″	55,24,12,49,22,11,59,44,58, 4		4, 3, 1,38, 5	
		48,14,10,37,49,14, 9		3,32
40″	55,24,13,37,36,22,37,34,12,13		4, 3, 1,41,37	
		48,14, 6,34,47,32,32		3,32
42″	55,24,14,25,50,29,12,21,44,45		4, 3, 1,45, 9	
		48,14, 2,31,45,47,23		3,32
44″	55,24,15,14, 4,31,44, 7,32, 8		4, 3, 1,48,41	
		48,13,58,28,43,58,42		3,32
46″	55,24,16, 2,18,30,12,51,30,50		4, 3, 1,52,13	
		48,13,54,25,42, 6,29		3,32
48″	55,24,16,50,32,24,38,33,37,19		4, 3, 1,55,45	
		48,13,50,22,40,10,44		3,32
50″	55,24,17,38,46,15, 1,13,48, 3		4, 3, 1,59,17	
		48,13,46,19,38,11,27		3,32
52″	55,24,18,27, 0, 1,20,51,59,30		4, 3, 2, 2,49	
		48,13,42,16,36, 8,38		3,32
54″	55,24,19,15,13,43,37,28, 8, 8		4, 3, 2, 6,21	
		48,13,38,13,34, 2,17		3,32
56″	55,24,20, 3,27,21,51, 2,10,25		4, 3, 2, 9,53	
		48,13,34,10,31,52,24		3,32
58″	55,24,20,51,40,56, 1,34, 2,49		4, 3, 2,13,25	
		48,13,30, 7,29,38,59		
60″	55,24,21,39,54,26, 9, 3,41,48			
exact	55,24,21,39,54,26, 9, 4, 2,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°26′ 0″	55,24,21,39,54,26, 9, 4, 2,33			
		48,13,26, 4,27,24,29		
2″	55,24,22,28, 7,52,13,31,27, 2		4, 3, 2,20,18	
		48,13,22, 1,25, 4,11		3,32
4″	55,24,23,16,21,14,14,56,31,13		4, 3, 2,23,50	
		48,13,17,58,22,40,21		3,32
6″	55,24,24, 4,34,32,13,19,11,34		4, 3, 2,27,22	
		48,13,13,55,20,12,59		3,32
8″	55,24,24,52,47,46, 8,39,24,33		4, 3, 2,30,54	
		48,13, 9,52,17,42, 5		3,32
10″	55,24,25,41, 0,56, 0,57, 6,38		4, 3, 2,34,26	
		48,13, 5,49,15, 7,39		3,32
12″	55,24,26,29,14, 1,50,12,14,17		4, 3, 2,37,58	
		48,13, 1,46,12,29,41		3,32
14″	55,24,27,17,27, 3,36,24,43,58		4, 3, 2,41,30	
		48,12,57,43, 9,48,11		3,32
16″	55,24,28, 5,40, 1,19,34,32, 9		4, 3, 2,45, 2	
		48,12,53,40, 7, 3, 9		3,32
18″	55,24,28,53,52,54,59,41,35,18		4, 3, 2,48,34	
		48,12,49,37, 4,14,35		3,32
20″	55,24,29,42, 5,44,36,45,49,53		4, 3, 2,52, 6	
		48,12,45,34, 1,22,29		3,32
22″	55,24,30,30,18,30,10,47,12,22		4, 3, 2,55,38	
		48,12,41,30,58,26,51		3,32
24″	55,24,31,18,31,11,41,45,39,13		4, 3, 2,59,10	
		48,12,37,27,55,27,41		3,32
26″	55,24,32, 6,43,49, 9,41, 6,54		4, 3, 3, 2,42	
		48,12,33,24,52,24,59		3,32
28″	55,24,32,54,56,22,34,33,31,53		4, 3, 3, 6,14	
		48,12,29,21,49,18,45		3,32
30″	55,24,33,43, 8,51,56,22,50,38		4, 3, 3, 9,46	
		48,12,25,18,46, 8,59		3,32
32″	55,24,34,31,21,17,15, 8,59,37		4, 3, 3,13,18	
		48,12,21,15,42,55,41		3,32
34″	55,24,35,19,33,38,30,51,55,18		4, 3, 3,16,50	
		48,12,17,12,39,38,51		3,32
36″	55,24,36, 7,45,55,43,31,34, 9		4, 3, 3,20,22	
		48,12,13, 9,36,18,29		3,32
38″	55,24,36,55,58, 8,53, 7,52,38		4, 3, 3,23,54	
		48,12, 9, 6,32,54,35		3,32
40″	55,24,37,44,10,17,59,40,47,13		4, 3, 3,27,26	
		48,12, 5, 3,29,27, 9		3,32
42″	55,24,38,32,22,23, 3,10,14,22		4, 3, 3,30,58	
		48,12, 1, 0,25,56,11		3,32
44″	55,24,39,20,34,24, 3,36,10,33		4, 3, 3,34,30	
		48,11,56,57,22,21,41		3,32
46″	55,24,40, 8,46,21, 0,58,32,14		4, 3, 3,38, 2	
		48,11,52,54,18,43,39		3,32
48″	55,24,40,56,58,13,55,17,15,53		4, 3, 3,41,34	
		48,11,48,51,15, 2, 5		3,32
50″	55,24,41,45,10, 2,46,32,17,58		4, 3, 3,45, 6	
		48,11,44,48,11,16,59		3,32
52″	55,24,42,33,21,47,34,43,34,57		4, 3, 3,48,38	
		48,11,40,45, 7,28,21		3,32
54″	55,24,43,21,33,28,19,51, 3,18		4, 3, 3,52,10	
		48,11,36,42, 3,36,11		3,32
56″	55,24,44, 9,45, 5, 1,54,39,29		4, 3, 3,55,42	
		48,11,32,38,59,40,29		3,32
58″	55,24,44,57,56,37,40,54,19,58		4, 3, 3,59,14	
		48,11,28,35,55,41,15		
60″	55,24,45,46, 8, 6,16,50, 1,13			
exact	55,24,45,46, 8, 6,16,50,38, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°27′ 0″	55,24,45,46, 8, 6,16,50,38, 6			
		48,11,24,32,51,42,26		
2″	55,24,46,34,19,30,49,42,20,32		4, 3, 4, 6, 1	
		48,11,20,29,47,36,25		3,31
4″	55,24,47,22,30,51,19,29,56,57		4, 3, 4, 9,32	
		48,11,16,26,43,26,53		3,31
6″	55,24,48,10,42, 7,46,13,23,50		4, 3, 4,13, 3	
		48,11,12,23,39,13,50		3,31
8″	55,24,48,58,53,20, 9,52,37,40		4, 3, 4,16,34	
		48,11, 8,20,34,57,16		3,31
10″	55,24,49,47, 4,28,30,27,34,56		4, 3, 4,20, 5	
		48,11, 4,17,30,37,11		3,31
12″	55,24,50,35,15,32,47,58,12, 7		4, 3, 4,23,36	
		48,11, 0,14,26,13,35		3,31
14″	55,24,51,23,26,33, 2,24,25,42		4, 3, 4,27, 7	
		48,10,56,11,21,46,28		3,31
16″	55,24,52,11,37,29,13,46,12,10		4, 3, 4,30,38	
		48,10,52, 8,17,15,50		3,31
18″	55,24,52,59,48,21,22, 3,28, 0		4, 3, 4,34, 9	
		48,10,48, 5,12,41,41		3,31
20″	55,24,53,47,59, 9,27,16, 9,41		4, 3, 4,37,40	
		48,10,44, 2, 8, 4, 1		3,31
22″	55,24,54,36, 9,53,29,24,13,42		4, 3, 4,41,11	
		48,10,39,59, 3,22,50		3,31
24″	55,24,55,24,20,33,28,27,36,32		4, 3, 4,44,42	
		48,10,35,55,58,38, 8		3,31
26″	55,24,56,12,31, 9,24,26,14,40		4, 3, 4,48,13	
		48,10,31,52,53,49,55		3,31
28″	55,24,57, 0,41,41,17,20, 4,35		4, 3, 4,51,44	
		48,10,27,49,48,58,11		3,31
30″	55,24,57,48,52, 9, 7, 9, 2,46		4, 3, 4,55,15	
		48,10,23,46,44, 2,56		3,31
32″	55,24,58,37, 2,32,53,53, 5,42		4, 3, 4,58,46	
		48,10,19,43,39, 4,10		3,31
34″	55,24,59,25,12,52,37,32, 9,52		4, 3, 5, 2,17	
		48,10,15,40,34, 1,53		3,31
36″	55,25, 0,13,23, 8,18, 6,11,45		4, 3, 5, 5,48	
		48,10,11,37,28,56, 5		3,31
38″	55,25, 1, 1,33,19,55,35, 7,50		4, 3, 5, 9,19	
		48,10, 7,34,23,46,46		3,31
40″	55,25, 1,49,43,27,29,58,54,36		4, 3, 5,12,50	
		48,10, 3,31,18,33,56		3,31
42″	55,25, 2,37,53,31, 1,17,28,32		4, 3, 5,16,21	
		48, 9,59,28,13,17,35		3,31
44″	55,25, 3,26, 3,30,29,30,46, 7		4, 3, 5,19,52	
		48, 9,55,25, 7,57,43		3,31
46″	55,25, 4,14,13,25,54,38,43,50		4, 3, 5,23,23	
		48, 9,51,22, 2,34,20		3,31
48″	55,25, 5, 2,23,17,16,41,18,10		4, 3, 5,26,54	
		48, 9,47,18,57, 7,26		3,31
50″	55,25, 5,50,33, 4,35,38,25,36		4, 3, 5,30,25	
		48, 9,43,15,51,37, 1		3,31
52″	55,25, 6,38,42,47,51,30, 2,37		4, 3, 5,33,56	
		48, 9,39,12,46, 3, 5		3,31
54″	55,25, 7,26,52,27, 4,16, 5,42		4, 3, 5,37,27	
		48, 9,35, 9,40,25,38		3,31
56″	55,25, 8,15, 2, 2,13,56,31,20		4, 3, 5,40,58	
		48, 9,31, 6,34,44,40		3,31
58″	55,25, 9, 3,11,33,20,31,16, 0		4, 3, 5,44,29	
		48, 9,27, 3,29, 0,11		
60″	55,25, 9,51,21, 0,24, 0,16,11			
exact	55,25, 9,51,21, 0,23,59,50, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°28′ 0″	55,25, 9,51,21, 0,23,59,50, 4			
		48, 9,23, 0,23, 9,35		
2″	55,25,10,39,30,23,24,22,59,39		4, 3, 5,51,41	
		48, 9,18,57,17,17,54		3,31
4″	55,25,11,27,39,42,21,40,17,33		4, 3, 5,55,12	
		48, 9,14,54,11,22,42		3,31
6″	55,25,12,15,48,57,15,51,40,15		4, 3, 5,58,43	
		48, 9,10,51, 5,23,59		3,31
8″	55,25,13, 3,58, 8, 6,57, 4,14		4, 3, 6, 2,14	
		48, 9, 6,47,59,21,45		3,31
10″	55,25,13,52, 7,14,54,56,25,59		4, 3, 6, 5,45	
		48, 9, 2,44,53,16, 0		3,31
12″	55,25,14,40,16,17,39,49,41,59		4, 3, 6, 9,16	
		48, 8,58,41,47, 6,44		3,31
14″	55,25,15,28,25,16,21,36,48,43		4, 3, 6,12,47	
		48, 8,54,38,40,53,57		3,31
16″	55,25,16,16,34,11, 0,17,42,40		4, 3, 6,16,18	
		48, 8,50,35,34,37,39		3,31
18″	55,25,17, 4,43, 1,35,52,20,19		4, 3, 6,19,49	
		48, 8,46,32,28,17,50		3,31
20″	55,25,17,52,51,48, 8,20,38, 9		4, 3, 6,23,20	
		48, 8,42,29,21,54,30		3,31
22″	55,25,18,41, 0,30,37,42,32,39		4, 3, 6,26,51	
		48, 8,38,26,15,27,39		3,31
24″	55,25,19,29, 9, 9, 3,58, 0,18		4, 3, 6,30,22	
		48, 8,34,23, 8,57,17		3,31
26″	55,25,20,17,17,43,27, 6,57,35		4, 3, 6,33,53	
		48, 8,30,20, 2,23,24		3,31
28″	55,25,21, 5,26,13,47, 9,20,59		4, 3, 6,37,24	
		48, 8,26,16,55,46, 0		3,31
30″	55,25,21,53,34,40, 4, 5, 6,59		4, 3, 6,40,55	
		48, 8,22,13,49, 5, 5		3,31
32″	55,25,22,41,43, 2,17,54,12, 4		4, 3, 6,44,26	
		48, 8,18,10,42,20,39		3,31
34″	55,25,23,29,51,20,28,36,32,43		4, 3, 6,47,57	
		48, 8,14, 7,35,32,42		3,31
36″	55,25,24,17,59,34,36,12, 5,25		4, 3, 6,51,28	
		48, 8,10, 4,28,41,14		3,31
38″	55,25,25, 6, 7,44,40,40,46,39		4, 3, 6,54,59	
		48, 8, 6, 1,21,46,15		3,31
40″	55,25,25,54,15,50,42, 2,32,54		4, 3, 6,58,30	
		48, 8, 1,58,14,47,45		3,31
42″	55,25,26,42,23,52,40,17,20,39		4, 3, 7, 2, 1	
		48, 7,57,55, 7,45,44		3,31
44″	55,25,27,30,31,50,35,25, 6,23		4, 3, 7, 5,32	
		48, 7,53,52, 0,40,12		3,31
46″	55,25,28,18,39,44,27,25,46,35		4, 3, 7, 9, 3	
		48, 7,49,48,53,31, 9		3,31
48″	55,25,29, 6,47,34,16,19,17,44		4, 3, 7,12,34	
		48, 7,45,45,46,18,35		3,31
50″	55,25,29,54,55,20, 2, 5,36,19		4, 3, 7,16, 5	
		48, 7,41,42,39, 2,30		3,31
52″	55,25,30,43, 3, 1,44,44,38,49		4, 3, 7,19,36	
		48, 7,37,39,31,42,54		3,31
54″	55,25,31,31,10,39,24,16,21,43		4, 3, 7,23, 7	
		48, 7,33,36,24,19,47		3,31
56″	55,25,32,19,18,13, 0,40,41,30		4, 3, 7,26,38	
		48, 7,29,33,16,53, 9		3,31
58″	55,25,33, 7,25,42,33,57,34,39		4, 3, 7,30, 9	
		48, 7,25,30, 9,23, 0		
60″	55,25,33,55,33, 8, 4, 6,57,39			
exact	55,25,33,55,33, 8, 4, 6,47, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°29′ 0″	55,25,33,55,33, 8, 4, 6,47, 5			
		48, 7,21,27, 1,48,11		
2″	55,25,34,43,40,29,31, 8,35,16		4, 3, 7,37,15	
		48, 7,17,23,54,10,56		3,31
4″	55,25,35,31,47,46,55, 2,46,12		4, 3, 7,40,46	
		48, 7,13,20,46,30,10		3,31
6″	55,25,36,19,55, 0,15,49,16,22		4, 3, 7,44,17	
		48, 7, 9,17,38,45,53		3,31
8″	55,25,37, 8, 2, 9,33,28, 2,15		4, 3, 7,47,48	
		48, 7, 5,14,30,58, 5		3,31
10″	55,25,37,56, 9,14,47,59, 0,20		4, 3, 7,51,19	
		48, 7, 1,11,23, 6,46		3,31
12″	55,25,38,44,16,15,59,22, 7, 6		4, 3, 7,54,50	
		48, 6,57, 8,15,11,56		3,31
14″	55,25,39,32,23,13, 7,37,19, 2		4, 3, 7,58,21	
		48, 6,53, 5, 7,13,35		3,31
16″	55,25,40,20,30, 6,12,44,32,37		4, 3, 8, 1,52	
		48, 6,49, 1,59,11,43		3,31
18″	55,25,41, 8,36,55,14,43,44,20		4, 3, 8, 5,23	
		48, 6,44,58,51, 6,20		3,31
20″	55,25,41,56,43,40,13,34,50,40		4, 3, 8, 8,54	
		48, 6,40,55,42,57,26		3,31
22″	55,25,42,44,50,21, 9,17,48, 6		4, 3, 8,12,25	
		48, 6,36,52,34,45, 1		3,31
24″	55,25,43,32,56,58, 1,52,33, 7		4, 3, 8,15,56	
		48, 6,32,49,26,29, 5		3,31
26″	55,25,44,21, 3,30,51,19, 2,12		4, 3, 8,19,27	
		48, 6,28,46,18, 9,38		3,31
28″	55,25,45, 9, 9,59,37,37,11,50		4, 3, 8,22,58	
		48, 6,24,43, 9,46,40		3,31
30″	55,25,45,57,16,24,20,46,58,30		4, 3, 8,26,29	
		48, 6,20,40, 1,20,11		3,31
32″	55,25,46,45,22,45, 0,48,18,41		4, 3, 8,30, 0	
		48, 6,16,36,52,50,11		3,31
34″	55,25,47,33,29, 1,37,41, 8,52		4, 3, 8,33,31	
		48, 6,12,33,44,16,40		3,31
36″	55,25,48,21,35,14,11,25,25,32		4, 3, 8,37, 2	
		48, 6, 8,30,35,39,38		3,31
38″	55,25,49, 9,41,22,42, 1, 5,10		4, 3, 8,40,33	
		48, 6, 4,27,26,59, 5		3,31
40″	55,25,49,57,47,27, 9,28, 4,15		4, 3, 8,44, 4	
		48, 6, 0,24,18,15, 1		3,31
42″	55,25,50,45,53,27,33,46,19,16		4, 3, 8,47,35	
		48, 5,56,21, 9,27,26		3,31
44″	55,25,51,33,59,23,54,55,46,42		4, 3, 8,51, 6	
		48, 5,52,18, 0,36,20		3,31
46″	55,25,52,22, 5,16,12,56,23, 2		4, 3, 8,54,37	
		48, 5,48,14,51,41,43		3,31
48″	55,25,53,10,11, 4,27,48, 4,45		4, 3, 8,58, 8	
		48, 5,44,11,42,43,35		3,31
50″	55,25,53,58,16,48,39,30,48,20		4, 3, 9, 1,39	
		48, 5,40, 8,33,41,56		3,31
52″	55,25,54,46,22,28,48, 4,30,16		4, 3, 9, 5,10	
		48, 5,36, 5,24,36,46		3,31
54″	55,25,55,34,28, 4,53,29, 7, 2		4, 3, 9, 8,41	
		48, 5,32, 2,15,28, 5		3,31
56″	55,25,56,22,33,36,55,44,35, 7		4, 3, 9,12,12	
		48, 5,27,59, 6,15,53		3,31
58″	55,25,57,10,39, 4,54,50,51, 0		4, 3, 9,15,43	
		48, 5,23,55,57, 0,10		
60″	55,25,57,58,44,28,50,47,51,10			
exact	55,25,57,58,44,28,50,47,44,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°30′ 0″	55,25,57,58,44,28,50,47,44,30			
		48, 5,19,52,47,40,26		
2″	55,25,58,46,49,48,43,35,24,56		4, 3, 9,22,46	
		48, 5,15,49,38,17,40		3,31
4″	55,25,59,34,55, 4,33,13,42,36		4, 3, 9,26,17	
		48, 5,11,46,28,51,23		3,31
6″	55,26, 0,23, 0,16,19,42,33,59		4, 3, 9,29,48	
		48, 5, 7,43,19,21,35		3,31
8″	55,26, 1,11, 5,24, 3, 1,55,34		4, 3, 9,33,19	
		48, 5, 3,40, 9,48,16		3,31
10″	55,26, 1,59,10,27,43,11,43,50		4, 3, 9,36,50	
		48, 4,59,37, 0,11,26		3,31
12″	55,26, 2,47,15,27,20,11,55,16		4, 3, 9,40,21	
		48, 4,55,33,50,31, 5		3,31
14″	55,26, 3,35,20,22,54, 2,26,21		4, 3, 9,43,52	
		48, 4,51,30,40,47,13		3,31
16″	55,26, 4,23,25,14,24,43,13,34		4, 3, 9,47,23	
		48, 4,47,27,30,59,50		3,31
18″	55,26, 5,11,30, 1,52,14,13,24		4, 3, 9,50,54	
		48, 4,43,24,21, 8,56		3,31
20″	55,26, 5,59,34,45,16,35,22,20		4, 3, 9,54,25	
		48, 4,39,21,11,14,31		3,31
22″	55,26, 6,47,39,24,37,46,36,51		4, 3, 9,57,56	
		48, 4,35,18, 1,16,35		3,31
24″	55,26, 7,35,43,59,55,47,53,26		4, 3,10, 1,27	
		48, 4,31,14,51,15, 8		3,31
26″	55,26, 8,23,48,31,10,39, 8,34		4, 3,10, 4,58	
		48, 4,27,11,41,10,10		3,31
28″	55,26, 9,11,52,58,22,20,18,44		4, 3,10, 8,29	
		48, 4,23, 8,31, 1,41		3,31
30″	55,26, 9,59,57,21,30,51,20,25		4, 3,10,12, 0	
		48, 4,19, 5,20,49,41		3,31
32″	55,26,10,48, 1,40,36,12,10, 6		4, 3,10,15,31	
		48, 4,15, 2,10,34,10		3,31
34″	55,26,11,36, 5,55,38,22,44,16		4, 3,10,19, 2	
		48, 4,10,59, 0,15, 8		3,31
36″	55,26,12,24,10, 6,37,22,59,24		4, 3,10,22,33	
		48, 4, 6,55,49,52,35		3,31
38″	55,26,13,12,14,13,33,12,51,59		4, 3,10,26, 4	
		48, 4, 2,52,39,26,31		3,31
40″	55,26,14, 0,18,16,25,52,18,30		4, 3,10,29,35	
		48, 3,58,49,28,56,56		3,31
42″	55,26,14,48,22,15,15,21,15,26		4, 3,10,33, 6	
		48, 3,54,46,18,23,50		3,31
44″	55,26,15,36,26,10, 1,39,39,16		4, 3,10,36,37	
		48, 3,50,43, 7,47,13		3,31
46″	55,26,16,24,30, 0,44,47,26,29		4, 3,10,40, 8	
		48, 3,46,39,57, 7, 5		3,31
48″	55,26,17,12,33,47,24,44,33,34		4, 3,10,43,39	
		48, 3,42,36,46,23,26		3,31
50″	55,26,18, 0,37,30, 1,30,57, 0		4, 3,10,47,10	
		48, 3,38,33,35,36,16		3,31
52″	55,26,18,48,41, 8,35, 6,33,16		4, 3,10,50,41	
		48, 3,34,30,24,45,35		3,31
54″	55,26,19,36,44,43, 5,31,18,51		4, 3,10,54,12	
		48, 3,30,27,13,51,23		3,31
56″	55,26,20,24,48,13,32,45,10,14		4, 3,10,57,43	
		48, 3,26,24, 2,53,40		3,31
58″	55,26,21,12,51,39,56,48, 3,54		4, 3,11, 1,14	
		48, 3,22,20,51,52,26		
60″	55,26,22, 0,55, 2,17,39,56,20			
exact	55,26,22, 0,55, 2,17,40, 4,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°31′ 0″	55,26,22, 0,55, 2,17,40, 4,15			
		48, 3,18,17,40,48,34		
2″	55,26,22,48,58,20,35,20,52,49		4, 3,11, 8,12	
		48, 3,14,14,29,40,22		3,31
4″	55,26,23,37, 1,34,49,50,33,11		4, 3,11,11,43	
		48, 3,10,11,18,28,39		3,31
6″	55,26,24,25, 4,45, 1, 9, 1,50		4, 3,11,15,14	
		48, 3, 6, 8, 7,13,25		3,31
8″	55,26,25,13, 7,51, 9,16,15,15		4, 3,11,18,45	
		48, 3, 2, 4,55,54,40		3,31
10″	55,26,26, 1,10,53,14,12, 9,55		4, 3,11,22,16	
		48, 2,58, 1,44,32,24		3,31
12″	55,26,26,49,13,51,15,56,42,19		4, 3,11,25,47	
		48, 2,53,58,33, 6,37		3,31
14″	55,26,27,37,16,45,14,29,48,56		4, 3,11,29,18	
		48, 2,49,55,21,37,19		3,31
16″	55,26,28,25,19,35, 9,51,26,15		4, 3,11,32,49	
		48, 2,45,52,10, 4,30		3,31
18″	55,26,29,13,22,21, 2, 1,30,45		4, 3,11,36,20	
		48, 2,41,48,58,28,10		3,31
20″	55,26,30, 1,25, 2,50,59,58,55		4, 3,11,39,51	
		48, 2,37,45,46,48,19		3,31
22″	55,26,30,49,27,40,36,46,47,14		4, 3,11,43,22	
		48, 2,33,42,35, 4,57		3,31
24″	55,26,31,37,30,14,19,21,52,11		4, 3,11,46,53	
		48, 2,29,39,23,18, 4		3,31
26″	55,26,32,25,32,43,58,45,10,15		4, 3,11,50,24	
		48, 2,25,36,11,27,40		3,31
28″	55,26,33,13,35, 9,34,56,37,55		4, 3,11,53,55	
		48, 2,21,32,59,33,45		3,31
30″	55,26,34, 1,37,31, 7,56,11,40		4, 3,11,57,26	
		48, 2,17,29,47,36,19		3,31
32″	55,26,34,49,39,48,37,43,47,59		4, 3,12, 0,57	
		48, 2,13,26,35,35,22		3,31
34″	55,26,35,37,42, 2, 4,19,23,21		4, 3,12, 4,28	
		48, 2, 9,23,23,30,54		3,31
36″	55,26,36,25,44,11,27,42,54,15		4, 3,12, 7,59	
		48, 2, 5,20,11,22,55		3,31
38″	55,26,37,13,46,16,47,54,17,10		4, 3,12,11,30	
		48, 2, 1,16,59,11,25		3,31
40″	55,26,38, 1,48,18, 4,53,28,35		4, 3,12,15, 1	
		48, 1,57,13,46,56,24		3,31
42″	55,26,38,49,50,15,18,40,24,59		4, 3,12,18,32	
		48, 1,53,10,34,37,52		3,31
44″	55,26,39,37,52, 8,29,15, 2,51		4, 3,12,22, 3	
		48, 1,49, 7,22,15,49		3,31
46″	55,26,40,25,53,57,36,37,18,40		4, 3,12,25,34	
		48, 1,45, 4, 9,50,15		3,31
48″	55,26,41,13,55,42,40,47, 8,55		4, 3,12,29, 5	
		48, 1,41, 0,57,21,10		3,31
50″	55,26,42, 1,57,23,41,44,30, 5		4, 3,12,32,36	
		48, 1,36,57,44,48,34		3,31
52″	55,26,42,49,59, 0,39,29,18,39		4, 3,12,36, 7	
		48, 1,32,54,32,12,27		3,31
54″	55,26,43,38, 0,33,34, 1,31, 6		4, 3,12,39,38	
		48, 1,28,51,19,32,49		3,31
56″	55,26,44,26, 2, 2,25,21, 3,55		4, 3,12,43, 9	
		48, 1,24,48, 6,49,40		3,31
58″	55,26,45,14, 3,27,13,27,53,35		4, 3,12,46,40	
		48, 1,20,44,54, 3, 0		
60″	55,26,46, 2, 4,47,58,21,56,35			
exact	55,26,46, 2, 4,47,58,22,14,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°32′ 0″	55,26,46, 2, 4,47,58,22,14,58			
		48, 1,16,41,41,14,48		
2″	55,26,46,50, 6, 4,40, 3,29,46		4, 3,12,53,33	
		48, 1,12,38,28,21,15		3,31
4″	55,26,47,38, 7,17,18,31,51, 1		4, 3,12,57, 4	
		48, 1, 8,35,15,24,11		3,31
6″	55,26,48,26, 8,25,53,47,15,12		4, 3,13, 0,35	
		48, 1, 4,32, 2,23,36		3,31
8″	55,26,49,14, 9,30,25,49,38,48		4, 3,13, 4, 6	
		48, 1, 0,28,49,19,30		3,31
10″	55,26,50, 2,10,30,54,38,58,18		4, 3,13, 7,37	
		48, 0,56,25,36,11,53		3,31
12″	55,26,50,50,11,27,20,15,10,11		4, 3,13,11, 8	
		48, 0,52,22,23, 0,45		3,31
14″	55,26,51,38,12,19,42,38,10,56		4, 3,13,14,39	
		48, 0,48,19, 9,46, 6		3,31
16″	55,26,52,26,13, 8, 1,47,57, 2		4, 3,13,18,10	
		48, 0,44,15,56,27,56		3,31
18″	55,26,53,14,13,52,17,44,24,58		4, 3,13,21,41	
		48, 0,40,12,43, 6,15		3,31
20″	55,26,54, 2,14,32,30,27,31,13		4, 3,13,25,12	
		48, 0,36, 9,29,41, 3		3,31
22″	55,26,54,50,15, 8,39,57,12,16		4, 3,13,28,43	
		48, 0,32, 6,16,12,20		3,31
24″	55,26,55,38,15,40,46,13,24,36		4, 3,13,32,14	
		48, 0,28, 3, 2,40, 6		3,31
26″	55,26,56,26,16, 8,49,16, 4,42		4, 3,13,35,45	
		48, 0,23,59,49, 4,21		3,31
28″	55,26,57,14,16,32,49, 5, 9, 3		4, 3,13,39,16	
		48, 0,19,56,35,25, 5		3,31
30″	55,26,58, 2,16,52,45,40,34, 8		4, 3,13,42,47	
		48, 0,15,53,21,42,18		3,31
32″	55,26,58,50,17, 8,39, 2,16,26		4, 3,13,46,18	
		48, 0,11,50, 7,56, 0		3,31
34″	55,26,59,38,17,20,29,10,12,26		4, 3,13,49,49	
		48, 0, 7,46,54, 6,11		3,31
36″	55,27, 0,26,17,28,16, 4,18,37		4, 3,13,53,20	
		48, 0, 3,43,40,12,51		3,31
38″	55,27, 1,14,17,31,59,44,31,28		4, 3,13,56,51	
		47,59,59,40,26,16, 0		3,31
40″	55,27, 2, 2,17,31,40,10,47,28		4, 3,14, 0,22	
		47,59,55,37,12,15,38		3,31
42″	55,27, 2,50,17,27,17,23, 3, 6		4, 3,14, 3,53	
		47,59,51,33,58,11,45		3,31
44″	55,27, 3,38,17,18,51,21,14,51		4, 3,14, 7,24	
		47,59,47,30,44, 4,21		3,31
46″	55,27, 4,26,17, 6,22, 5,19,12		4, 3,14,10,55	
		47,59,43,27,29,53,26		3,31
48″	55,27, 5,14,16,49,49,35,12,38		4, 3,14,14,26	
		47,59,39,24,15,39, 0		3,31
50″	55,27, 6, 2,16,29,13,50,51,38		4, 3,14,17,57	
		47,59,35,21, 1,21, 3		3,31
52″	55,27, 6,50,16, 4,34,52,12,41		4, 3,14,21,28	
		47,59,31,17,46,59,35		3,31
54″	55,27, 7,38,15,35,52,39,12,16		4, 3,14,24,59	
		47,59,27,14,32,34,36		3,31
56″	55,27, 8,26,15, 3, 7,11,46,52		4, 3,14,28,30	
		47,59,23,11,18, 6, 6		3,31
58″	55,27, 9,14,14,26,18,29,52,58		4, 3,14,32, 1	
		47,59,19, 8, 3,34, 5		
60″	55,27,10, 2,13,45,26,33,27, 3			
exact	55,27,10, 2,13,45,26,33,51,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°33′ 0″	55,27,10, 2,13,45,26,33,51,57			
		47,59,15, 4,49, 1,22		
2″	55,27,10,50,13, 0,31,22,53,19		4, 3,14,38,50	
		47,59,11, 1,34,22,32		3,30
4″	55,27,11,38,12,11,32,57,15,51		4, 3,14,42,20	
		47,59, 6,58,19,40,12		3,30
6″	55,27,12,26,11,18,31,16,56, 3		4, 3,14,45,50	
		47,59, 2,55, 4,54,22		3,30
8″	55,27,13,14,10,21,26,21,50,25		4, 3,14,49,20	
		47,58,58,51,50, 5, 2		3,30
10″	55,27,14, 2, 9,20,18,11,55,27		4, 3,14,52,50	
		47,58,54,48,35,12,12		3,30
12″	55,27,14,50, 8,15, 6,47, 7,39		4, 3,14,56,20	
		47,58,50,45,20,15,52		3,30
14″	55,27,15,38, 7, 5,52, 7,23,31		4, 3,14,59,50	
		47,58,46,42, 5,16, 2		3,30
16″	55,27,16,26, 5,52,34,12,39,33		4, 3,15, 3,20	
		47,58,42,38,50,12,42		3,30
18″	55,27,17,14, 4,35,13, 2,52,15		4, 3,15, 6,50	
		47,58,38,35,35, 5,52		3,30
20″	55,27,18, 2, 3,13,48,37,58, 7		4, 3,15,10,20	
		47,58,34,32,19,55,32		3,30
22″	55,27,18,50, 1,48,20,57,53,39		4, 3,15,13,50	
		47,58,30,29, 4,41,42		3,30
24″	55,27,19,38, 0,18,50, 2,35,21		4, 3,15,17,20	
		47,58,26,25,49,24,22		3,30
26″	55,27,20,25,58,45,15,51,59,43		4, 3,15,20,50	
		47,58,22,22,34, 3,32		3,30
28″	55,27,21,13,57, 7,38,26, 3,15		4, 3,15,24,20	
		47,58,18,19,18,39,12		3,30
30″	55,27,22, 1,55,25,57,44,42,27		4, 3,15,27,50	
		47,58,14,16, 3,11,22		3,30
32″	55,27,22,49,53,40,13,47,53,49		4, 3,15,31,20	
		47,58,10,12,47,40, 2		3,30
34″	55,27,23,37,51,50,26,35,33,51		4, 3,15,34,50	
		47,58, 6, 9,32, 5,12		3,30
36″	55,27,24,25,49,56,36, 7,39, 3		4, 3,15,38,20	
		47,58, 2, 6,16,26,52		3,30
38″	55,27,25,13,47,58,42,24, 5,55		4, 3,15,41,50	
		47,57,58, 3, 0,45, 2		3,30
40″	55,27,26, 1,45,56,45,24,50,57		4, 3,15,45,20	
		47,57,53,59,44,59,42		3,30
42″	55,27,26,49,43,50,45, 9,50,39		4, 3,15,48,50	
		47,57,49,56,29,10,52		3,30
44″	55,27,27,37,41,40,41,39, 1,31		4, 3,15,52,20	
		47,57,45,53,13,18,32		3,30
46″	55,27,28,25,39,26,34,52,20, 3		4, 3,15,55,50	
		47,57,41,49,57,22,42		3,30
48″	55,27,29,13,37, 8,24,49,42,45		4, 3,15,59,20	
		47,57,37,46,41,23,22		3,30
50″	55,27,30, 1,34,46,11,31, 6, 7		4, 3,16, 2,50	
		47,57,33,43,25,20,32		3,30
52″	55,27,30,49,32,19,54,56,26,39		4, 3,16, 6,20	
		47,57,29,40, 9,14,12		3,30
54″	55,27,31,37,29,49,35, 5,40,51		4, 3,16, 9,50	
		47,57,25,36,53, 4,22		3,30
56″	55,27,32,25,27,15,11,58,45,13		4, 3,16,13,20	
		47,57,21,33,36,51, 2		3,30
58″	55,27,33,13,24,36,45,35,36,15		4, 3,16,16,50	
		47,57,17,30,20,34,12		
60″	55,27,34, 1,21,54,15,56,10,27			
exact	55,27,34, 1,21,54,15,55,37,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°34′ 0″	55,27,34, 1,21,54,15,55,37,10			
		47,57,13,27, 4,10,29		
2″	55,27,34,49,19, 7,42,59,47,39		4, 3,16,24, 3	
		47,57, 9,23,47,46,26		3,30
4″	55,27,35,37,16,17, 6,47,34, 5		4, 3,16,27,33	
		47,57, 5,20,31,18,53		3,30
6″	55,27,36,25,13,22,27,18,52,58		4, 3,16,31, 3	
		47,57, 1,17,14,47,50		3,30
8″	55,27,37,13,10,23,44,33,40,48		4, 3,16,34,33	
		47,56,57,13,58,13,17		3,30
10″	55,27,38, 1, 7,20,58,31,54, 5		4, 3,16,38, 3	
		47,56,53,10,41,35,14		3,30
12″	55,27,38,49, 4,14, 9,13,29,19		4, 3,16,41,33	
		47,56,49, 7,24,53,41		3,30
14″	55,27,39,37, 1, 3,16,38,23, 0		4, 3,16,45, 3	
		47,56,45, 4, 8, 8,38		3,30
16″	55,27,40,24,57,48,20,46,31,38		4, 3,16,48,33	
		47,56,41, 0,51,20, 5		3,30
18″	55,27,41,12,54,29,21,37,51,43		4, 3,16,52, 3	
		47,56,36,57,34,28, 2		3,30
20″	55,27,42, 0,51, 6,19,12,19,45		4, 3,16,55,33	
		47,56,32,54,17,32,29		3,30
22″	55,27,42,48,47,39,13,29,52,14		4, 3,16,59, 3	
		47,56,28,51, 0,33,26		3,30
24″	55,27,43,36,44, 8, 4,30,25,40		4, 3,17, 2,33	
		47,56,24,47,43,30,53		3,30
26″	55,27,44,24,40,32,52,13,56,33		4, 3,17, 6, 3	
		47,56,20,44,26,24,50		3,30
28″	55,27,45,12,36,53,36,40,21,23		4, 3,17, 9,33	
		47,56,16,41, 9,15,17		3,30
30″	55,27,46, 0,33,10,17,49,36,40		4, 3,17,13, 3	
		47,56,12,37,52, 2,14		3,30
32″	55,27,46,48,29,22,55,41,38,54		4, 3,17,16,33	
		47,56, 8,34,34,45,41		3,30
34″	55,27,47,36,25,31,30,16,24,35		4, 3,17,20, 3	
		47,56, 4,31,17,25,38		3,30
36″	55,27,48,24,21,36, 1,33,50,13		4, 3,17,23,33	
		47,56, 0,28, 0, 2, 5		3,30
38″	55,27,49,12,17,36,29,33,52,18		4, 3,17,27, 3	
		47,55,56,24,42,35, 2		3,30
40″	55,27,50, 0,13,32,54,16,27,20		4, 3,17,30,33	
		47,55,52,21,25, 4,29		3,30
42″	55,27,50,48, 9,25,15,41,31,49		4, 3,17,34, 3	
		47,55,48,18, 7,30,26		3,30
44″	55,27,51,36, 5,13,33,49, 2,15		4, 3,17,37,33	
		47,55,44,14,49,52,53		3,30
46″	55,27,52,24, 0,57,48,38,55, 8		4, 3,17,41, 3	
		47,55,40,11,32,11,50		3,30
48″	55,27,53,11,56,38, 0,11, 6,58		4, 3,17,44,33	
		47,55,36, 8,14,27,17		3,30
50″	55,27,53,59,52,14, 8,25,34,15		4, 3,17,48, 3	
		47,55,32, 4,56,39,14		3,30
52″	55,27,54,47,47,46,13,22,13,29		4, 3,17,51,33	
		47,55,28, 1,38,47,41		3,30
54″	55,27,55,35,43,14,15, 1, 1,10		4, 3,17,55, 3	
		47,55,23,58,20,52,38		3,30
56″	55,27,56,23,38,38,13,21,53,48		4, 3,17,58,33	
		47,55,19,55, 2,54, 5		3,30
58″	55,27,57,11,33,58, 8,24,47,53		4, 3,18, 2, 3	
		47,55,15,51,44,52, 2		
60″	55,27,57,59,29,14, 0, 9,39,55			
exact	55,27,57,59,29,14, 0, 9,19,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°35′ 0″	55,27,57,59,29,14, 0, 9,19,18			
		47,55,11,48,26,44,21		
2″	55,27,58,47,24,25,48,36, 3,39		4, 3,18, 9,11	
		47,55, 7,45, 8,35,10		3,30
4″	55,27,59,35,19,33,33,44,38,49		4, 3,18,12,41	
		47,55, 3,41,50,22,29		3,30
6″	55,28, 0,23,14,37,15,35, 1,18		4, 3,18,16,11	
		47,54,59,38,32, 6,18		3,30
8″	55,28, 1,11, 9,36,54, 7, 7,36		4, 3,18,19,41	
		47,54,55,35,13,46,37		3,30
10″	55,28, 1,59, 4,32,29,20,54,13		4, 3,18,23,11	
		47,54,51,31,55,23,26		3,30
12″	55,28, 2,46,59,24, 1,16,17,39		4, 3,18,26,41	
		47,54,47,28,36,56,45		3,30
14″	55,28, 3,34,54,11,29,53,14,24		4, 3,18,30,11	
		47,54,43,25,18,26,34		3,30
16″	55,28, 4,22,48,54,55,11,40,58		4, 3,18,33,41	
		47,54,39,21,59,52,53		3,30
18″	55,28, 5,10,43,34,17,11,33,51		4, 3,18,37,11	
		47,54,35,18,41,15,42		3,30
20″	55,28, 5,58,38, 9,35,52,49,33		4, 3,18,40,41	
		47,54,31,15,22,35, 1		3,30
22″	55,28, 6,46,32,40,51,15,24,34		4, 3,18,44,11	
		47,54,27,12, 3,50,50		3,30
24″	55,28, 7,34,27, 8, 3,19,15,24		4, 3,18,47,41	
		47,54,23, 8,45, 3, 9		3,30
26″	55,28, 8,22,21,31,12, 4,18,33		4, 3,18,51,11	
		47,54,19, 5,26,11,58		3,30
28″	55,28, 9,10,15,50,17,30,30,31		4, 3,18,54,41	
		47,54,15, 2, 7,17,17		3,30
30″	55,28, 9,58,10, 5,19,37,47,48		4, 3,18,58,11	
		47,54,10,58,48,19, 6		3,30
32″	55,28,10,46, 4,16,18,26, 6,54		4, 3,19, 1,41	
		47,54, 6,55,29,17,25		3,30
34″	55,28,11,33,58,23,13,55,24,19		4, 3,19, 5,11	
		47,54, 2,52,10,12,14		3,30
36″	55,28,12,21,52,26, 6, 5,36,33		4, 3,19, 8,41	
		47,53,58,48,51, 3,33		3,30
38″	55,28,13, 9,46,24,54,56,40, 6		4, 3,19,12,11	
		47,53,54,45,31,51,22		3,30
40″	55,28,13,57,40,19,40,28,31,28		4, 3,19,15,41	
		47,53,50,42,12,35,41		3,30
42″	55,28,14,45,34,10,22,41, 7, 9		4, 3,19,19,11	
		47,53,46,38,53,16,30		3,30
44″	55,28,15,33,27,57, 1,34,23,39		4, 3,19,22,41	
		47,53,42,35,33,53,49		3,30
46″	55,28,16,21,21,39,37, 8,17,28		4, 3,19,26,11	
		47,53,38,32,14,27,38		3,30
48″	55,28,17, 9,15,18, 9,22,45, 6		4, 3,19,29,41	
		47,53,34,28,54,57,57		3,30
50″	55,28,17,57, 8,52,38,17,43, 3		4, 3,19,33,11	
		47,53,30,25,35,24,46		3,30
52″	55,28,18,45, 2,23, 3,53, 7,49		4, 3,19,36,41	
		47,53,26,22,15,48, 5		3,30
54″	55,28,19,32,55,49,26, 8,55,54		4, 3,19,40,11	
		47,53,22,18,56, 7,54		3,30
56″	55,28,20,20,49,11,45, 5, 3,48		4, 3,19,43,41	
		47,53,18,15,36,24,13		3,30
58″	55,28,21, 8,42,30, 0,41,28, 1		4, 3,19,47,11	
		47,53,14,12,16,37, 2		
60″	55,28,21,56,35,44,12,58, 5, 3			
exact	55,28,21,56,35,44,12,57,53,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°36′ 0″	55,28,21,56,35,44,12,57,53,40			
		47,53,10, 8,56,45,14		
2″	55,28,22,44,28,54,21,54,38,54		4, 3,19,54,15	
		47,53, 6, 5,36,50,59		3,30
4″	55,28,23,32,22, 0,27,31,29,53		4, 3,19,57,45	
		47,53, 2, 2,16,53,14		3,30
6″	55,28,24,20,15, 2,29,48,23, 7		4, 3,20, 1,15	
		47,52,57,58,56,51,59		3,30
8″	55,28,25, 8, 8, 0,28,45,15, 6		4, 3,20, 4,45	
		47,52,53,55,36,47,14		3,30
10″	55,28,25,56, 0,54,24,22, 2,20		4, 3,20, 8,15	
		47,52,49,52,16,38,59		3,30
12″	55,28,26,43,53,44,16,38,41,19		4, 3,20,11,45	
		47,52,45,48,56,27,14		3,30
14″	55,28,27,31,46,30, 5,35, 8,33		4, 3,20,15,15	
		47,52,41,45,36,11,59		3,30
16″	55,28,28,19,39,11,51,11,20,32		4, 3,20,18,45	
		47,52,37,42,15,53,14		3,30
18″	55,28,29, 7,31,49,33,27,13,46		4, 3,20,22,15	
		47,52,33,38,55,30,59		3,30
20″	55,28,29,55,24,23,12,22,44,45		4, 3,20,25,45	
		47,52,29,35,35, 5,14		3,30
22″	55,28,30,43,16,52,47,57,49,59		4, 3,20,29,15	
		47,52,25,32,14,35,59		3,30
24″	55,28,31,31, 9,18,20,12,25,58		4, 3,20,32,45	
		47,52,21,28,54, 3,14		3,30
26″	55,28,32,19, 1,39,49, 6,29,12		4, 3,20,36,15	
		47,52,17,25,33,26,59		3,30
28″	55,28,33, 6,53,57,14,39,56,11		4, 3,20,39,45	
		47,52,13,22,12,47,14		3,30
30″	55,28,33,54,46,10,36,52,43,25		4, 3,20,43,15	
		47,52, 9,18,52, 3,59		3,30
32″	55,28,34,42,38,19,55,44,47,24		4, 3,20,46,45	
		47,52, 5,15,31,17,14		3,30
34″	55,28,35,30,30,25,11,16, 4,38		4, 3,20,50,15	
		47,52, 1,12,10,26,59		3,30
36″	55,28,36,18,22,26,23,26,31,37		4, 3,20,53,45	
		47,51,57, 8,49,33,14		3,30
38″	55,28,37, 6,14,23,32,16, 4,51		4, 3,20,57,15	
		47,51,53, 5,28,35,59		3,30
40″	55,28,37,54, 6,16,37,44,40,50		4, 3,21, 0,45	
		47,51,49, 2, 7,35,14		3,30
42″	55,28,38,41,58, 5,39,52,16, 4		4, 3,21, 4,15	
		47,51,44,58,46,30,59		3,30
44″	55,28,39,29,49,50,38,38,47, 3		4, 3,21, 7,45	
		47,51,40,55,25,23,14		3,30
46″	55,28,40,17,41,31,34, 4,10,17		4, 3,21,11,15	
		47,51,36,52, 4,11,59		3,30
48″	55,28,41, 5,33, 8,26, 8,22,16		4, 3,21,14,45	
		47,51,32,48,42,57,14		3,30
50″	55,28,41,53,24,41,14,51,19,30		4, 3,21,18,15	
		47,51,28,45,21,38,59		3,30
52″	55,28,42,41,16,10, 0,12,58,29		4, 3,21,21,45	
		47,51,24,42, 0,17,14		3,30
54″	55,28,43,29, 7,34,42,13,15,43		4, 3,21,25,15	
		47,51,20,38,38,51,59		3,30
56″	55,28,44,16,58,55,20,52, 7,42		4, 3,21,28,45	
		47,51,16,35,17,23,14		3,30
58″	55,28,45, 4,50,11,56, 9,30,56		4, 3,21,32,15	
		47,51,12,31,55,50,59		
60″	55,28,45,52,41,24,28, 5,21,55			
exact	55,28,45,52,41,24,28, 5,22,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°37′ 0″	55,28,45,52,41,24,28, 5,22,22			
		47,51, 8,28,34,15,19		
2″	55,28,46,40,32,32,56,39,37,41		4, 3,21,39,14	
		47,51, 4,25,12,36, 5		3,30
4″	55,28,47,28,23,37,21,52,13,46		4, 3,21,42,44	
		47,51, 0,21,50,53,21		3,30
6″	55,28,48,16,14,37,43,43, 7, 7		4, 3,21,46,14	
		47,50,56,18,29, 7, 7		3,30
8″	55,28,49, 4, 5,34, 2,12,14,14		4, 3,21,49,44	
		47,50,52,15, 7,17,23		3,30
10″	55,28,49,51,56,26,17,19,31,37		4, 3,21,53,14	
		47,50,48,11,45,24, 9		3,30
12″	55,28,50,39,47,14,29, 4,55,46		4, 3,21,56,44	
		47,50,44, 8,23,27,25		3,30
14″	55,28,51,27,37,58,37,28,23,11		4, 3,22, 0,14	
		47,50,40, 5, 1,27,11		3,30
16″	55,28,52,15,28,38,42,29,50,22		4, 3,22, 3,44	
		47,50,36, 1,39,23,27		3,30
18″	55,28,53, 3,19,14,44, 9,13,49		4, 3,22, 7,14	
		47,50,31,58,17,16,13		3,30
20″	55,28,53,51, 9,46,42,26,30, 2		4, 3,22,10,44	
		47,50,27,54,55, 5,29		3,30
22″	55,28,54,39, 0,14,37,21,35,31		4, 3,22,14,14	
		47,50,23,51,32,51,15		3,30
24″	55,28,55,26,50,38,28,54,26,46		4, 3,22,17,44	
		47,50,19,48,10,33,31		3,30
26″	55,28,56,14,40,58,17, 5, 0,17		4, 3,22,21,14	
		47,50,15,44,48,12,17		3,30
28″	55,28,57, 2,31,14, 1,53,12,34		4, 3,22,24,44	
		47,50,11,41,25,47,33		3,30
30″	55,28,57,50,21,25,43,19, 0, 7		4, 3,22,28,14	
		47,50, 7,38, 3,19,19		3,30
32″	55,28,58,38,11,33,21,22,19,26		4, 3,22,31,44	
		47,50, 3,34,40,47,35		3,30
34″	55,28,59,26, 1,36,56, 3, 7, 1		4, 3,22,35,14	
		47,49,59,31,18,12,21		3,30
36″	55,29, 0,13,51,36,27,21,19,22		4, 3,22,38,44	
		47,49,55,27,55,33,37		3,30
38″	55,29, 1, 1,41,31,55,16,52,59		4, 3,22,42,14	
		47,49,51,24,32,51,23		3,30
40″	55,29, 1,49,31,23,19,49,44,22		4, 3,22,45,44	
		47,49,47,21,10, 5,39		3,30
42″	55,29, 2,37,21,10,40,59,50, 1		4, 3,22,49,14	
		47,49,43,17,47,16,25		3,30
44″	55,29, 3,25,10,53,58,47, 6,26		4, 3,22,52,44	
		47,49,39,14,24,23,41		3,30
46″	55,29, 4,13, 0,33,13,11,30, 7		4, 3,22,56,14	
		47,49,35,11, 1,27,27		3,30
48″	55,29, 5, 0,50, 8,24,12,57,34		4, 3,22,59,44	
		47,49,31, 7,38,27,43		3,30
50″	55,29, 5,48,39,39,31,51,25,17		4, 3,23, 3,14	
		47,49,27, 4,15,24,29		3,30
52″	55,29, 6,36,29, 6,36, 6,49,46		4, 3,23, 6,44	
		47,49,23, 0,52,17,45		3,30
54″	55,29, 7,24,18,29,36,59, 7,31		4, 3,23,10,14	
		47,49,18,57,29, 7,31		3,30
56″	55,29, 8,12, 7,48,34,28,15, 2		4, 3,23,13,44	
		47,49,14,54, 5,53,47		3,30
58″	55,29, 8,59,57, 3,28,34, 8,49		4, 3,23,17,14	
		47,49,10,50,42,36,33		
60″	55,29, 9,47,46,14,19,16,45,22			
exact	55,29, 9,47,46,14,19,16,54, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°38′ 0″	55,29, 9,47,46,14,19,16,54, 9			
		47,49, 6,47,19,16,51		
2″	55,29,10,35,35,21, 6,36,11, 0		4, 3,23,24, 9	
		47,49, 2,43,55,52,42		3,30
4″	55,29,11,23,24,23,50,32, 3,42		4, 3,23,27,39	
		47,48,58,40,32,25, 3		3,30
6″	55,29,12,11,13,22,31, 4,28,45		4, 3,23,31, 9	
		47,48,54,37, 8,53,54		3,30
8″	55,29,12,59, 2,17, 8,13,22,39		4, 3,23,34,39	
		47,48,50,33,45,19,15		3,30
10″	55,29,13,46,51, 7,41,58,41,54		4, 3,23,38, 9	
		47,48,46,30,21,41, 6		3,30
12″	55,29,14,34,39,54,12,20,23, 0		4, 3,23,41,39	
		47,48,42,26,57,59,27		3,30
14″	55,29,15,22,28,36,39,18,22,27		4, 3,23,45, 9	
		47,48,38,23,34,14,18		3,30
16″	55,29,16,10,17,15, 2,52,36,45		4, 3,23,48,39	
		47,48,34,20,10,25,39		3,30
18″	55,29,16,58, 5,49,23, 3, 2,24		4, 3,23,52, 9	
		47,48,30,16,46,33,30		3,30
20″	55,29,17,45,54,19,39,49,35,54		4, 3,23,55,39	
		47,48,26,13,22,37,51		3,30
22″	55,29,18,33,42,45,53,12,13,45		4, 3,23,59, 9	
		47,48,22, 9,58,38,42		3,30
24″	55,29,19,21,31, 8, 3,10,52,27		4, 3,24, 2,39	
		47,48,18, 6,34,36, 3		3,30
26″	55,29,20, 9,19,26, 9,45,28,30		4, 3,24, 6, 9	
		47,48,14, 3,10,29,54		3,30
28″	55,29,20,57, 7,40,12,55,58,24		4, 3,24, 9,39	
		47,48, 9,59,46,20,15		3,30
30″	55,29,21,44,55,50,12,42,18,39		4, 3,24,13, 9	
		47,48, 5,56,22, 7, 6		3,30
32″	55,29,22,32,43,56, 9, 4,25,45		4, 3,24,16,39	
		47,48, 1,52,57,50,27		3,30
34″	55,29,23,20,31,58, 2, 2,16,12		4, 3,24,20, 9	
		47,47,57,49,33,30,18		3,30
36″	55,29,24, 8,19,55,51,35,46,30		4, 3,24,23,39	
		47,47,53,46, 9, 6,39		3,30
38″	55,29,24,56, 7,49,37,44,53, 9		4, 3,24,27, 9	
		47,47,49,42,44,39,30		3,30
40″	55,29,25,43,55,39,20,29,32,39		4, 3,24,30,39	
		47,47,45,39,20, 8,51		3,30
42″	55,29,26,31,43,24,59,49,41,30		4, 3,24,34, 9	
		47,47,41,35,55,34,42		3,30
44″	55,29,27,19,31, 6,35,45,16,12		4, 3,24,37,39	
		47,47,37,32,30,57, 3		3,30
46″	55,29,28, 7,18,44, 8,16,13,15		4, 3,24,41, 9	
		47,47,33,29, 6,15,54		3,30
48″	55,29,28,55, 6,17,37,22,29, 9		4, 3,24,44,39	
		47,47,29,25,41,31,15		3,30
50″	55,29,29,42,53,47, 3, 4, 0,24		4, 3,24,48, 9	
		47,47,25,22,16,43, 6		3,30
52″	55,29,30,30,41,12,25,20,43,30		4, 3,24,51,39	
		47,47,21,18,51,51,27		3,30
54″	55,29,31,18,28,33,44,12,34,57		4, 3,24,55, 9	
		47,47,17,15,26,56,18		3,30
56″	55,29,32, 6,15,50,59,39,31,15		4, 3,24,58,39	
		47,47,13,12, 1,57,39		3,30
58″	55,29,32,54, 3, 4,11,41,28,54		4, 3,25, 2, 9	
		47,47, 9, 8,36,55,30		
60″	55,29,33,41,50,13,20,18,24,24			
exact	55,29,33,41,50,13,20,18,44,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°39′ 0″	55,29,33,41,50,13,20,18,44,31			
		47,47, 5, 5,11,52, 3		
2″	55,29,34,29,37,18,25,30,36,34		4, 3,25, 8,59	
		47,47, 1, 1,46,43, 4		3,30
4″	55,29,35,17,24,19,27,17,19,38		4, 3,25,12,29	
		47,46,56,58,21,30,35		3,30
6″	55,29,36, 5,11,16,25,38,50,13		4, 3,25,15,59	
		47,46,52,54,56,14,36		3,30
8″	55,29,36,52,58, 9,20,35, 4,49		4, 3,25,19,29	
		47,46,48,51,30,55, 7		3,30
10″	55,29,37,40,44,58,12, 5,59,56		4, 3,25,22,59	
		47,46,44,48, 5,32, 8		3,30
12″	55,29,38,28,31,43, 0,11,32, 4		4, 3,25,26,29	
		47,46,40,44,40, 5,39		3,30
14″	55,29,39,16,18,23,44,51,37,43		4, 3,25,29,59	
		47,46,36,41,14,35,40		3,30
16″	55,29,40, 4, 5, 0,26, 6,13,23		4, 3,25,33,29	
		47,46,32,37,49, 2,11		3,30
18″	55,29,40,51,51,33, 3,55,15,34		4, 3,25,36,59	
		47,46,28,34,23,25,12		3,30
20″	55,29,41,39,38, 1,38,18,40,46		4, 3,25,40,29	
		47,46,24,30,57,44,43		3,30
22″	55,29,42,27,24,26, 9,16,25,29		4, 3,25,43,59	
		47,46,20,27,32, 0,44		3,30
24″	55,29,43,15,10,46,36,48,26,13		4, 3,25,47,29	
		47,46,16,24, 6,13,15		3,30
26″	55,29,44, 2,57, 3, 0,54,39,28		4, 3,25,50,59	
		47,46,12,20,40,22,16		3,30
28″	55,29,44,50,43,15,21,35, 1,44		4, 3,25,54,29	
		47,46, 8,17,14,27,47		3,30
30″	55,29,45,38,29,23,38,49,29,31		4, 3,25,57,59	
		47,46, 4,13,48,29,48		3,30
32″	55,29,46,26,15,27,52,37,59,19		4, 3,26, 1,29	
		47,46, 0,10,22,28,19		3,30
34″	55,29,47,14, 1,28, 3, 0,27,38		4, 3,26, 4,59	
		47,45,56, 6,56,23,20		3,30
36″	55,29,48, 1,47,24, 9,56,50,58		4, 3,26, 8,29	
		47,45,52, 3,30,14,51		3,30
38″	55,29,48,49,33,16,13,27, 5,49		4, 3,26,11,59	
		47,45,48, 0, 4, 2,52		3,30
40″	55,29,49,37,19, 4,13,31, 8,41		4, 3,26,15,29	
		47,45,43,56,37,47,23		3,30
42″	55,29,50,25, 4,48,10, 8,56, 4		4, 3,26,18,59	
		47,45,39,53,11,28,24		3,30
44″	55,29,51,12,50,28, 3,20,24,28		4, 3,26,22,29	
		47,45,35,49,45, 5,55		3,30
46″	55,29,52, 0,36, 3,53, 5,30,23		4, 3,26,25,59	
		47,45,31,46,18,39,56		3,30
48″	55,29,52,48,21,35,39,24,10,19		4, 3,26,29,29	
		47,45,27,42,52,10,27		3,30
50″	55,29,53,36, 7, 3,22,16,20,46		4, 3,26,32,59	
		47,45,23,39,25,37,28		3,30
52″	55,29,54,23,52,27, 1,41,58,14		4, 3,26,36,29	
		47,45,19,35,59, 0,59		3,30
54″	55,29,55,11,37,46,37,40,59,13		4, 3,26,39,59	
		47,45,15,32,32,21, 0		3,30
56″	55,29,55,59,23, 2,10,13,20,13		4, 3,26,43,29	
		47,45,11,29, 5,37,31		3,30
58″	55,29,56,47, 8,13,39,18,57,44		4, 3,26,46,59	
		47,45, 7,25,38,50,32		
60″	55,29,57,34,53,21, 4,57,48,16			
exact	55,29,57,34,53,21, 4,58,15,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°40′ 0″	55,29,57,34,53,21, 4,58,15,39			
		47,45, 3,22,12, 3, 8		
2″	55,29,58,22,38,24,27,10,18,47		4, 3,26,53,45	
		47,44,59,18,45, 9,23		3,29
4″	55,29,59,10,23,23,45,55,28,10		4, 3,26,57,14	
		47,44,55,15,18,12, 9		3,29
6″	55,29,59,58, 8,19, 1,13,40,19		4, 3,27, 0,43	
		47,44,51,11,51,11,26		3,29
8″	55,30, 0,45,53,10,13, 4,51,45		4, 3,27, 4,12	
		47,44,47, 8,24, 7,14		3,29
10″	55,30, 1,33,37,57,21,28,58,59		4, 3,27, 7,41	
		47,44,43, 4,56,59,33		3,29
12″	55,30, 2,21,22,40,26,25,58,32		4, 3,27,11,10	
		47,44,39, 1,29,48,23		3,29
14″	55,30, 3, 9, 7,19,27,55,46,55		4, 3,27,14,39	
		47,44,34,58, 2,33,44		3,29
16″	55,30, 3,56,51,54,25,58,20,39		4, 3,27,18, 8	
		47,44,30,54,35,15,36		3,29
18″	55,30, 4,44,36,25,20,33,36,15		4, 3,27,21,37	
		47,44,26,51, 7,53,59		3,29
20″	55,30, 5,32,20,52,11,41,30,14		4, 3,27,25, 6	
		47,44,22,47,40,28,53		3,29
22″	55,30, 6,20, 5,14,59,21,59, 7		4, 3,27,28,35	
		47,44,18,44,13, 0,18		3,29
24″	55,30, 7, 7,49,33,43,34,59,25		4, 3,27,32, 4	
		47,44,14,40,45,28,14		3,29
26″	55,30, 7,55,33,48,24,20,27,39		4, 3,27,35,33	
		47,44,10,37,17,52,41		3,29
28″	55,30, 8,43,17,59, 1,38,20,20		4, 3,27,39, 2	
		47,44, 6,33,50,13,39		3,29
30″	55,30, 9,31, 2, 5,35,28,33,59		4, 3,27,42,31	
		47,44, 2,30,22,31, 8		3,29
32″	55,30,10,18,46, 8, 5,51, 5, 7		4, 3,27,46, 0	
		47,43,58,26,54,45, 8		3,29
34″	55,30,11, 6,30, 6,32,45,50,15		4, 3,27,49,29	
		47,43,54,23,26,55,39		3,29
36″	55,30,11,54,14, 0,56,12,45,54		4, 3,27,52,58	
		47,43,50,19,59, 2,41		3,29
38″	55,30,12,41,57,51,16,11,48,35		4, 3,27,56,27	
		47,43,46,16,31, 6,14		3,29
40″	55,30,13,29,41,37,32,42,54,49		4, 3,27,59,56	
		47,43,42,13, 3, 6,18		3,29
42″	55,30,14,17,25,19,45,46, 1, 7		4, 3,28, 3,25	
		47,43,38, 9,35, 2,53		3,29
44″	55,30,15, 5, 8,57,55,21, 4, 0		4, 3,28, 6,54	
		47,43,34, 6, 6,55,59		3,29
46″	55,30,15,52,52,32, 1,27,59,59		4, 3,28,10,23	
		47,43,30, 2,38,45,36		3,29
48″	55,30,16,40,36, 2, 4, 6,45,35		4, 3,28,13,52	
		47,43,25,59,10,31,44		3,29
50″	55,30,17,28,19,28, 3,17,17,19		4, 3,28,17,21	
		47,43,21,55,42,14,23		3,29
52″	55,30,18,16, 2,49,58,59,31,42		4, 3,28,20,50	
		47,43,17,52,13,53,33		3,29
54″	55,30,19, 3,46, 7,51,13,25,15		4, 3,28,24,19	
		47,43,13,48,45,29,14		3,29
56″	55,30,19,51,29,21,39,58,54,29		4, 3,28,27,48	
		47,43, 9,45,17, 1,26		3,29
58″	55,30,20,39,12,31,25,15,55,55		4, 3,28,31,17	
		47,43, 5,41,48,30, 9		
60″	55,30,21,26,55,37, 7, 4,26, 4			
exact	55,30,21,26,55,37, 7, 3,56,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°41′ 0″	55,30,21,26,55,37, 7, 3,56,32			
		47,43, 1,38,19,52,21		
2″	55,30,22,14,38,38,45,23,48,53		4, 3,28,38,27	
		47,42,57,34,51,13,54		3,29
4″	55,30,23, 2,21,36,20,15, 2,47		4, 3,28,41,56	
		47,42,53,31,22,31,58		3,29
6″	55,30,23,50, 4,29,51,37,34,45		4, 3,28,45,25	
		47,42,49,27,53,46,33		3,29
8″	55,30,24,37,47,19,19,31,21,18		4, 3,28,48,54	
		47,42,45,24,24,57,39		3,29
10″	55,30,25,25,30, 4,43,56,18,57		4, 3,28,52,23	
		47,42,41,20,56, 5,16		3,29
12″	55,30,26,13,12,46, 4,52,24,13		4, 3,28,55,52	
		47,42,37,17,27, 9,24		3,29
14″	55,30,27, 0,55,23,22,19,33,37		4, 3,28,59,21	
		47,42,33,13,58,10, 3		3,29
16″	55,30,27,48,37,56,36,17,43,40		4, 3,29, 2,50	
		47,42,29,10,29, 7,13		3,29
18″	55,30,28,36,20,25,46,46,50,53		4, 3,29, 6,19	
		47,42,25, 7, 0, 0,54		3,29
20″	55,30,29,24, 2,50,53,46,51,47		4, 3,29, 9,48	
		47,42,21, 3,30,51, 6		3,29
22″	55,30,30,11,45,11,57,17,42,53		4, 3,29,13,17	
		47,42,17, 0, 1,37,49		3,29
24″	55,30,30,59,27,28,57,19,20,42		4, 3,29,16,46	
		47,42,12,56,32,21, 3		3,29
26″	55,30,31,47, 9,41,53,51,41,45		4, 3,29,20,15	
		47,42, 8,53, 3, 0,48		3,29
28″	55,30,32,34,51,50,46,54,42,33		4, 3,29,23,44	
		47,42, 4,49,33,37, 4		3,29
30″	55,30,33,22,33,55,36,28,19,37		4, 3,29,27,13	
		47,42, 0,46, 4, 9,51		3,29
32″	55,30,34,10,15,56,22,32,29,28		4, 3,29,30,42	
		47,41,56,42,34,39, 9		3,29
34″	55,30,34,57,57,53, 5, 7, 8,37		4, 3,29,34,11	
		47,41,52,39, 5, 4,58		3,29
36″	55,30,35,45,39,45,44,12,13,35		4, 3,29,37,40	
		47,41,48,35,35,27,18		3,29
38″	55,30,36,33,21,34,19,47,40,53		4, 3,29,41, 9	
		47,41,44,32, 5,46, 9		3,29
40″	55,30,37,21, 3,18,51,53,27, 2		4, 3,29,44,38	
		47,41,40,28,36, 1,31		3,29
42″	55,30,38, 8,44,59,20,29,28,33		4, 3,29,48, 7	
		47,41,36,25, 6,13,24		3,29
44″	55,30,38,56,26,35,45,35,41,57		4, 3,29,51,36	
		47,41,32,21,36,21,48		3,29
46″	55,30,39,44, 8, 8, 7,12, 3,45		4, 3,29,55, 5	
		47,41,28,18, 6,26,43		3,29
48″	55,30,40,31,49,36,25,18,30,28		4, 3,29,58,34	
		47,41,24,14,36,28, 9		3,29
50″	55,30,41,19,31, 0,39,54,58,37		4, 3,30, 2, 3	
		47,41,20,11, 6,26, 6		3,29
52″	55,30,42, 7,12,20,51, 1,24,43		4, 3,30, 5,32	
		47,41,16, 7,36,20,34		3,29
54″	55,30,42,54,53,36,58,37,45,17		4, 3,30, 9, 1	
		47,41,12, 4, 6,11,33		3,29
56″	55,30,43,42,34,49, 2,43,56,50		4, 3,30,12,30	
		47,41, 8, 0,35,59, 3		3,29
58″	55,30,44,30,15,57, 3,19,55,53		4, 3,30,15,59	
		47,41, 3,57, 5,43, 4		
60″	55,30,45,17,57, 1, 0,25,38,57			
exact	55,30,45,17,57, 1, 0,25,22,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°42′ 0″	55,30,45,17,57, 1, 0,25,22,50			
		47,40,59,53,35,21,53		
2″	55,30,46, 5,38, 0,54, 0,44,43		4, 3,30,23, 4	
		47,40,55,50, 4,58,49		3,29
4″	55,30,46,53,18,56,44, 5,43,32		4, 3,30,26,33	
		47,40,51,46,34,32,16		3,29
6″	55,30,47,40,59,48,30,40,15,48		4, 3,30,30, 2	
		47,40,47,43, 4, 2,14		3,29
8″	55,30,48,28,40,36,13,44,18, 2		4, 3,30,33,31	
		47,40,43,39,33,28,43		3,29
10″	55,30,49,16,21,19,53,17,46,45		4, 3,30,37, 0	
		47,40,39,36, 2,51,43		3,29
12″	55,30,50, 4, 1,59,29,20,38,28		4, 3,30,40,29	
		47,40,35,32,32,11,14		3,29
14″	55,30,50,51,42,35, 1,52,49,42		4, 3,30,43,58	
		47,40,31,29, 1,27,16		3,29
16″	55,30,51,39,23, 6,30,54,16,58		4, 3,30,47,27	
		47,40,27,25,30,39,49		3,29
18″	55,30,52,27, 3,33,56,24,56,47		4, 3,30,50,56	
		47,40,23,21,59,48,53		3,29
20″	55,30,53,14,43,57,18,24,45,40		4, 3,30,54,25	
		47,40,19,18,28,54,28		3,29
22″	55,30,54, 2,24,16,36,53,40, 8		4, 3,30,57,54	
		47,40,15,14,57,56,34		3,29
24″	55,30,54,50, 4,31,51,51,36,42		4, 3,31, 1,23	
		47,40,11,11,26,55,11		3,29
26″	55,30,55,37,44,43, 3,18,31,53		4, 3,31, 4,52	
		47,40, 7, 7,55,50,19		3,29
28″	55,30,56,25,24,50,11,14,22,12		4, 3,31, 8,21	
		47,40, 3, 4,24,41,58		3,29
30″	55,30,57,13, 4,53,15,39, 4,10		4, 3,31,11,50	
		47,39,59, 0,53,30, 8		3,29
32″	55,30,58, 0,44,52,16,32,34,18		4, 3,31,15,19	
		47,39,54,57,22,14,49		3,29
34″	55,30,58,48,24,47,13,54,49, 7		4, 3,31,18,48	
		47,39,50,53,50,56, 1		3,29
36″	55,30,59,36, 4,38, 7,45,45, 8		4, 3,31,22,17	
		47,39,46,50,19,33,44		3,29
38″	55,31, 0,23,44,24,58, 5,18,52		4, 3,31,25,46	
		47,39,42,46,48, 7,58		3,29
40″	55,31, 1,11,24, 7,44,53,26,50		4, 3,31,29,15	
		47,39,38,43,16,38,43		3,29
42″	55,31, 1,59, 3,46,28,10, 5,33		4, 3,31,32,44	
		47,39,34,39,45, 5,59		3,29
44″	55,31, 2,46,43,21, 7,55,11,32		4, 3,31,36,13	
		47,39,30,36,13,29,46		3,29
46″	55,31, 3,34,22,51,44, 8,41,18		4, 3,31,39,42	
		47,39,26,32,41,50, 4		3,29
48″	55,31, 4,22, 2,18,16,50,31,22		4, 3,31,43,11	
		47,39,22,29,10, 6,53		3,29
50″	55,31, 5, 9,41,40,46, 0,38,15		4, 3,31,46,40	
		47,39,18,25,38,20,13		3,29
52″	55,31, 5,57,20,59,11,38,58,28		4, 3,31,50, 9	
		47,39,14,22, 6,30, 4		3,29
54″	55,31, 6,45, 0,13,33,45,28,32		4, 3,31,53,38	
		47,39,10,18,34,36,26		3,29
56″	55,31, 7,32,39,23,52,20, 4,58		4, 3,31,57, 7	
		47,39, 6,15, 2,39,19		3,29
58″	55,31, 8,20,18,30, 7,22,44,17		4, 3,32, 0,36	
		47,39, 2,11,30,38,43		
60″	55,31, 9, 7,57,32,18,53,23, 0			
exact	55,31, 9, 7,57,32,18,53,17, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°43′ 0″	55,31, 9, 7,57,32,18,53,17, 1			
		47,38,58, 7,58,33,59		
2″	55,31, 9,55,36,30,26,51,51, 0		4, 3,32, 7,36	
		47,38,54, 4,26,26,23		3,29
4″	55,31,10,43,15,24,31,18,17,23		4, 3,32,11, 5	
		47,38,50, 0,54,15,18		3,29
6″	55,31,11,30,54,14,32,12,32,41		4, 3,32,14,34	
		47,38,45,57,22, 0,44		3,29
8″	55,31,12,18,33, 0,29,34,33,25		4, 3,32,18, 3	
		47,38,41,53,49,42,41		3,29
10″	55,31,13, 6,11,42,23,24,16, 6		4, 3,32,21,32	
		47,38,37,50,17,21, 9		3,29
12″	55,31,13,53,50,20,13,41,37,15		4, 3,32,25, 1	
		47,38,33,46,44,56, 8		3,29
14″	55,31,14,41,28,54, 0,26,33,23		4, 3,32,28,30	
		47,38,29,43,12,27,38		3,29
16″	55,31,15,29, 7,23,43,39, 1, 1		4, 3,32,31,59	
		47,38,25,39,39,55,39		3,29
18″	55,31,16,16,45,49,23,18,56,40		4, 3,32,35,28	
		47,38,21,36, 7,20,11		3,29
20″	55,31,17, 4,24,10,59,26,16,51		4, 3,32,38,57	
		47,38,17,32,34,41,14		3,29
22″	55,31,17,52, 2,28,32, 0,58, 5		4, 3,32,42,26	
		47,38,13,29, 1,58,48		3,29
24″	55,31,18,39,40,42, 1, 2,56,53		4, 3,32,45,55	
		47,38, 9,25,29,12,53		3,29
26″	55,31,19,27,18,51,26,32, 9,46		4, 3,32,49,24	
		47,38, 5,21,56,23,29		3,29
28″	55,31,20,14,56,56,48,28,33,15		4, 3,32,52,53	
		47,38, 1,18,23,30,36		3,29
30″	55,31,21, 2,34,58, 6,52, 3,51		4, 3,32,56,22	
		47,37,57,14,50,34,14		3,29
32″	55,31,21,50,12,55,21,42,38, 5		4, 3,32,59,51	
		47,37,53,11,17,34,23		3,29
34″	55,31,22,37,50,48,33, 0,12,28		4, 3,33, 3,20	
		47,37,49, 7,44,31, 3		3,29
36″	55,31,23,25,28,37,40,44,43,31		4, 3,33, 6,49	
		47,37,45, 4,11,24,14		3,29
38″	55,31,24,13, 6,22,44,56, 7,45		4, 3,33,10,18	
		47,37,41, 0,38,13,56		3,29
40″	55,31,25, 0,44, 3,45,34,21,41		4, 3,33,13,47	
		47,37,36,57, 5, 0, 9		3,29
42″	55,31,25,48,21,40,42,39,21,50		4, 3,33,17,16	
		47,37,32,53,31,42,53		3,29
44″	55,31,26,35,59,13,36,11, 4,43		4, 3,33,20,45	
		47,37,28,49,58,22, 8		3,29
46″	55,31,27,23,36,42,26, 9,26,51		4, 3,33,24,14	
		47,37,24,46,24,57,54		3,29
48″	55,31,28,11,14, 7,12,34,24,45		4, 3,33,27,43	
		47,37,20,42,51,30,11		3,29
50″	55,31,28,58,51,27,55,25,54,56		4, 3,33,31,12	
		47,37,16,39,17,58,59		3,29
52″	55,31,29,46,28,44,34,43,53,55		4, 3,33,34,41	
		47,37,12,35,44,24,18		3,29
54″	55,31,30,34, 5,57,10,28,18,13		4, 3,33,38,10	
		47,37, 8,32,10,46, 8		3,29
56″	55,31,31,21,43, 5,42,39, 4,21		4, 3,33,41,39	
		47,37, 4,28,37, 4,29		3,29
58″	55,31,32, 9,20,10,11,16, 8,50		4, 3,33,45, 8	
		47,37, 0,25, 3,19,21		
60″	55,31,32,56,57,10,36,19,28,11			
exact	55,31,32,56,57,10,36,19,28,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°44′ 0″	55,31,32,56,57,10,36,19,28,15			
		47,36,56,21,29,30,53		
2″	55,31,33,44,34, 6,57,48,59, 8		4, 3,33,52, 4	
		47,36,52,17,55,38,49		3,29
4″	55,31,34,32,10,59,15,44,37,57		4, 3,33,55,33	
		47,36,48,14,21,43,16		3,29
6″	55,31,35,19,47,47,30, 6,21,13		4, 3,33,59, 2	
		47,36,44,10,47,44,14		3,29
8″	55,31,36, 7,24,31,40,54, 5,27		4, 3,34, 2,31	
		47,36,40, 7,13,41,43		3,29
10″	55,31,36,55, 1,11,48, 7,47,10		4, 3,34, 6, 0	
		47,36,36, 3,39,35,43		3,29
12″	55,31,37,42,37,47,51,47,22,53		4, 3,34, 9,29	
		47,36,32, 0, 5,26,14		3,29
14″	55,31,38,30,14,19,51,52,49, 7		4, 3,34,12,58	
		47,36,27,56,31,13,16		3,29
16″	55,31,39,17,50,47,48,24, 2,23		4, 3,34,16,27	
		47,36,23,52,56,56,49		3,29
18″	55,31,40, 5,27,11,41,20,59,12		4, 3,34,19,56	
		47,36,19,49,22,36,53		3,29
20″	55,31,40,53, 3,31,30,43,36, 5		4, 3,34,23,25	
		47,36,15,45,48,13,28		3,29
22″	55,31,41,40,39,47,16,31,49,33		4, 3,34,26,54	
		47,36,11,42,13,46,34		3,29
24″	55,31,42,28,15,58,58,45,36, 7		4, 3,34,30,23	
		47,36, 7,38,39,16,11		3,29
26″	55,31,43,15,52, 6,37,24,52,18		4, 3,34,33,52	
		47,36, 3,35, 4,42,19		3,29
28″	55,31,44, 3,28,10,12,29,34,37		4, 3,34,37,21	
		47,35,59,31,30, 4,58		3,29
30″	55,31,44,51, 4, 9,43,59,39,35		4, 3,34,40,50	
		47,35,55,27,55,24, 8		3,29
32″	55,31,45,38,40, 5,11,55, 3,43		4, 3,34,44,19	
		47,35,51,24,20,39,49		3,29
34″	55,31,46,26,15,56,36,15,43,32		4, 3,34,47,48	
		47,35,47,20,45,52, 1		3,29
36″	55,31,47,13,51,43,57, 1,35,33		4, 3,34,51,17	
		47,35,43,17,11, 0,44		3,29
38″	55,31,48, 1,27,27,14,12,36,17		4, 3,34,54,46	
		47,35,39,13,36, 5,58		3,29
40″	55,31,48,49, 3, 6,27,48,42,15		4, 3,34,58,15	
		47,35,35,10, 1, 7,43		3,29
42″	55,31,49,36,38,41,37,49,49,58		4, 3,35, 1,44	
		47,35,31, 6,26, 5,59		3,29
44″	55,31,50,24,14,12,44,15,55,57		4, 3,35, 5,13	
		47,35,27, 2,51, 0,46		3,29
46″	55,31,51,11,49,39,47, 6,56,43		4, 3,35, 8,42	
		47,35,22,59,15,52, 4		3,29
48″	55,31,51,59,25, 2,46,22,48,47		4, 3,35,12,11	
		47,35,18,55,40,39,53		3,29
50″	55,31,52,47, 0,21,42, 3,28,40		4, 3,35,15,40	
		47,35,14,52, 5,24,13		3,29
52″	55,31,53,34,35,36,34, 8,52,53		4, 3,35,19, 9	
		47,35,10,48,30, 5, 4		3,29
54″	55,31,54,22,10,47,22,38,57,57		4, 3,35,22,38	
		47,35, 6,44,54,42,26		3,29
56″	55,31,55, 9,45,54, 7,33,40,23		4, 3,35,26, 7	
		47,35, 2,41,19,16,19		3,29
58″	55,31,55,57,20,56,48,52,56,42		4, 3,35,29,36	
		47,34,58,37,43,46,43		
60″	55,31,56,44,55,55,26,36,43,25			
exact	55,31,56,44,55,55,26,36,52,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°45′ 0″	55,31,56,44,55,55,26,36,52,31			
		47,34,54,34, 8,14,48		
2″	55,31,57,32,30,50, 0,45, 7,19		4, 3,35,36,28	
		47,34,50,30,32,38,20		3,29
4″	55,31,58,20, 5,40,31,17,45,39		4, 3,35,39,57	
		47,34,46,26,56,58,23		3,29
6″	55,31,59, 7,40,26,58,14,44, 2		4, 3,35,43,26	
		47,34,42,23,21,14,57		3,29
8″	55,31,59,55,15, 9,21,35,58,59		4, 3,35,46,55	
		47,34,38,19,45,28, 2		3,29
10″	55,32, 0,42,49,47,41,21,27, 1		4, 3,35,50,24	
		47,34,34,16, 9,37,38		3,29
12″	55,32, 1,30,24,21,57,31, 4,39		4, 3,35,53,53	
		47,34,30,12,33,43,45		3,29
14″	55,32, 2,17,58,52,10, 4,48,24		4, 3,35,57,22	
		47,34,26, 8,57,46,23		3,29
16″	55,32, 3, 5,33,18,19, 2,34,47		4, 3,36, 0,51	
		47,34,22, 5,21,45,32		3,29
18″	55,32, 3,53, 7,40,24,24,20,19		4, 3,36, 4,20	
		47,34,18, 1,45,41,12		3,29
20″	55,32, 4,40,41,58,26,10, 1,31		4, 3,36, 7,49	
		47,34,13,58, 9,33,23		3,29
22″	55,32, 5,28,16,12,24,19,34,54		4, 3,36,11,18	
		47,34, 9,54,33,22, 5		3,29
24″	55,32, 6,15,50,22,18,52,56,59		4, 3,36,14,47	
		47,34, 5,50,57, 7,18		3,29
26″	55,32, 7, 3,24,28, 9,50, 4,17		4, 3,36,18,16	
		47,34, 1,47,20,49, 2		3,29
28″	55,32, 7,50,58,29,57,10,53,19		4, 3,36,21,45	
		47,33,57,43,44,27,17		3,29
30″	55,32, 8,38,32,27,40,55,20,36		4, 3,36,25,14	
		47,33,53,40, 8, 2, 3		3,29
32″	55,32, 9,26, 6,21,21, 3,22,39		4, 3,36,28,43	
		47,33,49,36,31,33,20		3,29
34″	55,32,10,13,40,10,57,34,55,59		4, 3,36,32,12	
		47,33,45,32,55, 1, 8		3,29
36″	55,32,11, 1,13,56,30,29,57, 7		4, 3,36,35,41	
		47,33,41,29,18,25,27		3,29
38″	55,32,11,48,47,37,59,48,22,34		4, 3,36,39,10	
		47,33,37,25,41,46,17		3,29
40″	55,32,12,36,21,15,25,30, 8,51		4, 3,36,42,39	
		47,33,33,22, 5, 3,38		3,29
42″	55,32,13,23,54,48,47,35,12,29		4, 3,36,46, 8	
		47,33,29,18,28,17,30		3,29
44″	55,32,14,11,28,18, 6, 3,29,59		4, 3,36,49,37	
		47,33,25,14,51,27,53		3,29
46″	55,32,14,59, 1,43,20,54,57,52		4, 3,36,53, 6	
		47,33,21,11,14,34,47		3,29
48″	55,32,15,46,35, 4,32, 9,32,39		4, 3,36,56,35	
		47,33,17, 7,37,38,12		3,29
50″	55,32,16,34, 8,21,39,47,10,51		4, 3,37, 0, 4	
		47,33,13, 4, 0,38, 8		3,29
52″	55,32,17,21,41,34,43,47,48,59		4, 3,37, 3,33	
		47,33, 9, 0,23,34,35		3,29
54″	55,32,18, 9,14,43,44,11,23,34		4, 3,37, 7, 2	
		47,33, 4,56,46,27,33		3,29
56″	55,32,18,56,47,48,40,57,51, 7		4, 3,37,10,31	
		47,33, 0,53, 9,17, 2		3,29
58″	55,32,19,44,20,49,34, 7, 8, 9		4, 3,37,14, 0	
		47,32,56,49,32, 3, 2		
60″	55,32,20,31,53,46,23,39,11,11			
exact	55,32,20,31,53,46,23,39,32,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°46′ 0″	55,32,20,31,53,46,23,39,32,34			
		47,32,52,45,54,47,57		
2″	55,32,21,19,26,39, 9,34,20,31		4, 3,37,20,47	
		47,32,48,42,17,27,10		3,29
4″	55,32,22, 6,59,27,51,51,47,41		4, 3,37,24,16	
		47,32,44,38,40, 2,54		3,29
6″	55,32,22,54,32,12,30,31,50,35		4, 3,37,27,45	
		47,32,40,35, 2,35, 9		3,29
8″	55,32,23,42, 4,53, 5,34,25,44		4, 3,37,31,14	
		47,32,36,31,25, 3,55		3,29
10″	55,32,24,29,37,29,36,59,29,39		4, 3,37,34,43	
		47,32,32,27,47,29,12		3,29
12″	55,32,25,17,10, 2, 4,46,58,51		4, 3,37,38,12	
		47,32,28,24, 9,51, 0		3,29
14″	55,32,26, 4,42,30,28,56,49,51		4, 3,37,41,41	
		47,32,24,20,32, 9,19		3,29
16″	55,32,26,52,14,54,49,28,59,10		4, 3,37,45,10	
		47,32,20,16,54,24, 9		3,29
18″	55,32,27,39,47,15, 6,23,23,19		4, 3,37,48,39	
		47,32,16,13,16,35,30		3,29
20″	55,32,28,27,19,31,19,39,58,49		4, 3,37,52, 8	
		47,32,12, 9,38,43,22		3,29
22″	55,32,29,14,51,43,29,18,42,11		4, 3,37,55,37	
		47,32, 8, 6, 0,47,45		3,29
24″	55,32,30, 2,23,51,35,19,29,56		4, 3,37,59, 6	
		47,32, 4, 2,22,48,39		3,29
26″	55,32,30,49,55,55,37,42,18,35		4, 3,38, 2,35	
		47,31,59,58,44,46, 4		3,29
28″	55,32,31,37,27,55,36,27, 4,39		4, 3,38, 6, 4	
		47,31,55,55, 6,40, 0		3,29
30″	55,32,32,24,59,51,31,33,44,39		4, 3,38, 9,33	
		47,31,51,51,28,30,27		3,29
32″	55,32,33,12,31,43,23, 2,15, 6		4, 3,38,13, 2	
		47,31,47,47,50,17,25		3,29
34″	55,32,34, 0, 3,31,10,52,32,31		4, 3,38,16,31	
		47,31,43,44,12, 0,54		3,29
36″	55,32,34,47,35,14,55, 4,33,25		4, 3,38,20, 0	
		47,31,39,40,33,40,54		3,29
38″	55,32,35,35, 6,54,35,38,14,19		4, 3,38,23,29	
		47,31,35,36,55,17,25		3,29
40″	55,32,36,22,38,30,12,33,31,44		4, 3,38,26,58	
		47,31,31,33,16,50,27		3,29
42″	55,32,37,10,10, 1,45,50,22,11		4, 3,38,30,27	
		47,31,27,29,38,20, 0		3,29
44″	55,32,37,57,41,29,15,28,42,11		4, 3,38,33,56	
		47,31,23,25,59,46, 4		3,29
46″	55,32,38,45,12,52,41,28,28,15		4, 3,38,37,25	
		47,31,19,22,21, 8,39		3,29
48″	55,32,39,32,44,12, 3,49,36,54		4, 3,38,40,54	
		47,31,15,18,42,27,45		3,29
50″	55,32,40,20,15,27,22,32, 4,39		4, 3,38,44,23	
		47,31,11,15, 3,43,22		3,29
52″	55,32,41, 7,46,38,37,35,48, 1		4, 3,38,47,52	
		47,31, 7,11,24,55,30		3,29
54″	55,32,41,55,17,45,49, 0,43,31		4, 3,38,51,21	
		47,31, 3, 7,46, 4, 9		3,29
56″	55,32,42,42,48,48,56,46,47,40		4, 3,38,54,50	
		47,30,59, 4, 7, 9,19		3,29
58″	55,32,43,30,19,48, 0,53,56,59		4, 3,38,58,19	
		47,30,55, 0,28,11, 0		
60″	55,32,44,17,50,43, 1,22, 7,59			
exact	55,32,44,17,50,43, 1,22,37,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°47′ 0″	55,32,44,17,50,43, 1,22,37,55			
		47,30,50,56,49,12,34		
2″	55,32,45, 5,21,33,58,11,50,29		4, 3,39, 5, 2	
		47,30,46,53,10, 7,32		3,28
4″	55,32,45,52,52,20,51,21,58, 1		4, 3,39, 8,30	
		47,30,42,49,30,59, 2		3,28
6″	55,32,46,40,23, 3,40,52,57, 3		4, 3,39,11,58	
		47,30,38,45,51,47, 4		3,28
8″	55,32,47,27,53,42,26,44,44, 7		4, 3,39,15,26	
		47,30,34,42,12,31,38		3,28
10″	55,32,48,15,24,17, 8,57,15,45		4, 3,39,18,54	
		47,30,30,38,33,12,44		3,28
12″	55,32,49, 2,54,47,47,30,28,29		4, 3,39,22,22	
		47,30,26,34,53,50,22		3,28
14″	55,32,49,50,25,14,22,24,18,51		4, 3,39,25,50	
		47,30,22,31,14,24,32		3,28
16″	55,32,50,37,55,36,53,38,43,23		4, 3,39,29,18	
		47,30,18,27,34,55,14		3,28
18″	55,32,51,25,25,55,21,13,38,37		4, 3,39,32,46	
		47,30,14,23,55,22,28		3,28
20″	55,32,52,12,56, 9,45, 9, 1, 5		4, 3,39,36,14	
		47,30,10,20,15,46,14		3,28
22″	55,32,53, 0,26,20, 5,24,47,19		4, 3,39,39,42	
		47,30, 6,16,36, 6,32		3,28
24″	55,32,53,47,56,26,22, 0,53,51		4, 3,39,43,10	
		47,30, 2,12,56,23,22		3,28
26″	55,32,54,35,26,28,34,57,17,13		4, 3,39,46,38	
		47,29,58, 9,16,36,44		3,28
28″	55,32,55,22,56,26,44,13,53,57		4, 3,39,50, 6	
		47,29,54, 5,36,46,38		3,28
30″	55,32,56,10,26,20,49,50,40,35		4, 3,39,53,34	
		47,29,50, 1,56,53, 4		3,28
32″	55,32,56,57,56,10,51,47,33,39		4, 3,39,57, 2	
		47,29,45,58,16,56, 2		3,28
34″	55,32,57,45,25,56,50, 4,29,41		4, 3,40, 0,30	
		47,29,41,54,36,55,32		3,28
36″	55,32,58,32,55,38,44,41,25,13		4, 3,40, 3,58	
		47,29,37,50,56,51,34		3,28
38″	55,32,59,20,25,16,35,38,16,47		4, 3,40, 7,26	
		47,29,33,47,16,44, 8		3,28
40″	55,33, 0, 7,54,50,22,55, 0,55		4, 3,40,10,54	
		47,29,29,43,36,33,14		3,28
42″	55,33, 0,55,24,20, 6,31,34, 9		4, 3,40,14,22	
		47,29,25,39,56,18,52		3,28
44″	55,33, 1,42,53,45,46,27,53, 1		4, 3,40,17,50	
		47,29,21,36,16, 1, 2		3,28
46″	55,33, 2,30,23, 7,22,43,54, 3		4, 3,40,21,18	
		47,29,17,32,35,39,44		3,28
48″	55,33, 3,17,52,24,55,19,33,47		4, 3,40,24,46	
		47,29,13,28,55,14,58		3,28
50″	55,33, 4, 5,21,38,24,14,48,45		4, 3,40,28,14	
		47,29, 9,25,14,46,44		3,28
52″	55,33, 4,52,50,47,49,29,35,29		4, 3,40,31,42	
		47,29, 5,21,34,15, 2		3,28
54″	55,33, 5,40,19,53,11, 3,50,31		4, 3,40,35,10	
		47,29, 1,17,53,39,52		3,28
56″	55,33, 6,27,48,54,28,57,30,23		4, 3,40,38,38	
		47,28,57,14,13, 1,14		3,28
58″	55,33, 7,15,17,51,43,10,31,37		4, 3,40,42, 6	
		47,28,53,10,32,19, 8		
60″	55,33, 8, 2,46,44,53,42,50,45			
exact	55,33, 8, 2,46,44,53,42,24,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°48′ 0″	55,33, 8, 2,46,44,53,42,24,52			
		47,28,49, 6,51,30,53		
2″	55,33, 8,50,15,34, 0,33,55,45		4, 3,40,49,12	
		47,28,45, 3,10,41,41		3,28
4″	55,33, 9,37,44,19, 3,44,37,26		4, 3,40,52,40	
		47,28,40,59,29,49, 1		3,28
6″	55,33,10,25,13, 0, 3,14,26,27		4, 3,40,56, 8	
		47,28,36,55,48,52,53		3,28
8″	55,33,11,12,41,36,59, 3,19,20		4, 3,40,59,36	
		47,28,32,52, 7,53,17		3,28
10″	55,33,12, 0,10, 9,51,11,12,37		4, 3,41, 3, 4	
		47,28,28,48,26,50,13		3,28
12″	55,33,12,47,38,38,39,38, 2,50		4, 3,41, 6,32	
		47,28,24,44,45,43,41		3,28
14″	55,33,13,35, 7, 3,24,23,46,31		4, 3,41,10, 0	
		47,28,20,41, 4,33,41		3,28
16″	55,33,14,22,35,24, 5,28,20,12		4, 3,41,13,28	
		47,28,16,37,23,20,13		3,28
18″	55,33,15,10, 3,40,42,51,40,25		4, 3,41,16,56	
		47,28,12,33,42, 3,17		3,28
20″	55,33,15,57,31,53,16,33,43,42		4, 3,41,20,24	
		47,28, 8,30, 0,42,53		3,28
22″	55,33,16,45, 0, 1,46,34,26,35		4, 3,41,23,52	
		47,28, 4,26,19,19, 1		3,28
24″	55,33,17,32,28, 6,12,53,45,36		4, 3,41,27,20	
		47,28, 0,22,37,51,41		3,28
26″	55,33,18,19,56, 6,35,31,37,17		4, 3,41,30,48	
		47,27,56,18,56,20,53		3,28
28″	55,33,19, 7,24, 2,54,27,58,10		4, 3,41,34,16	
		47,27,52,15,14,46,37		3,28
30″	55,33,19,54,51,55, 9,42,44,47		4, 3,41,37,44	
		47,27,48,11,33, 8,53		3,28
32″	55,33,20,42,19,43,21,15,53,40		4, 3,41,41,12	
		47,27,44, 7,51,27,41		3,28
34″	55,33,21,29,47,27,29, 7,21,21		4, 3,41,44,40	
		47,27,40, 4, 9,43, 1		3,28
36″	55,33,22,17,15, 7,33,17, 4,22		4, 3,41,48, 8	
		47,27,36, 0,27,54,53		3,28
38″	55,33,23, 4,42,43,33,44,59,15		4, 3,41,51,36	
		47,27,31,56,46, 3,17		3,28
40″	55,33,23,52,10,15,30,31, 2,32		4, 3,41,55, 4	
		47,27,27,53, 4, 8,13		3,28
42″	55,33,24,39,37,43,23,35,10,45		4, 3,41,58,32	
		47,27,23,49,22, 9,41		3,28
44″	55,33,25,27, 5, 7,12,57,20,26		4, 3,42, 2, 0	
		47,27,19,45,40, 7,41		3,28
46″	55,33,26,14,32,26,58,37,28, 7		4, 3,42, 5,28	
		47,27,15,41,58, 2,13		3,28
48″	55,33,27, 1,59,42,40,35,30,20		4, 3,42, 8,56	
		47,27,11,38,15,53,17		3,28
50″	55,33,27,49,26,54,18,51,23,37		4, 3,42,12,24	
		47,27, 7,34,33,40,53		3,28
52″	55,33,28,36,54, 1,53,25, 4,30		4, 3,42,15,52	
		47,27, 3,30,51,25, 1		3,28
54″	55,33,29,24,21, 5,24,16,29,31		4, 3,42,19,20	
		47,26,59,27, 9, 5,41		3,28
56″	55,33,30,11,48, 4,51,25,35,12		4, 3,42,22,48	
		47,26,55,23,26,42,53		3,28
58″	55,33,30,59,15, 0,14,52,18, 5		4, 3,42,26,16	
		47,26,51,19,44,16,37		
60″	55,33,31,46,41,51,34,36,34,42			
exact	55,33,31,46,41,51,34,36,16,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°49′ 0″	55,33,31,46,41,51,34,36,16,33			
		47,26,47,16, 1,45, 7		
2″	55,33,32,34, 8,38,50,38, 1,40		4, 3,42,33,18	
		47,26,43,12,19,11,49		3,28
4″	55,33,33,21,35,22, 2,57,13,29		4, 3,42,36,46	
		47,26,39, 8,36,35, 3		3,28
6″	55,33,34, 9, 2, 1,11,33,48,32		4, 3,42,40,14	
		47,26,35, 4,53,54,49		3,28
8″	55,33,34,56,28,36,16,27,43,21		4, 3,42,43,42	
		47,26,31, 1,11,11, 7		3,28
10″	55,33,35,43,55, 7,17,38,54,28		4, 3,42,47,10	
		47,26,26,57,28,23,57		3,28
12″	55,33,36,31,21,34,15, 7,18,25		4, 3,42,50,38	
		47,26,22,53,45,33,19		3,28
14″	55,33,37,18,47,57, 8,52,51,44		4, 3,42,54, 6	
		47,26,18,50, 2,39,13		3,28
16″	55,33,38, 6,14,15,58,55,30,57		4, 3,42,57,34	
		47,26,14,46,19,41,39		3,28
18″	55,33,38,53,40,30,45,15,12,36		4, 3,43, 1, 2	
		47,26,10,42,36,40,37		3,28
20″	55,33,39,41, 6,41,27,51,53,13		4, 3,43, 4,30	
		47,26, 6,38,53,36, 7		3,28
22″	55,33,40,28,32,48, 6,45,29,20		4, 3,43, 7,58	
		47,26, 2,35,10,28, 9		3,28
24″	55,33,41,15,58,50,41,55,57,29		4, 3,43,11,26	
		47,25,58,31,27,16,43		3,28
26″	55,33,42, 3,24,49,13,23,14,12		4, 3,43,14,54	
		47,25,54,27,44, 1,49		3,28
28″	55,33,42,50,50,43,41, 7,16, 1		4, 3,43,18,22	
		47,25,50,24, 0,43,27		3,28
30″	55,33,43,38,16,34, 5, 7,59,28		4, 3,43,21,50	
		47,25,46,20,17,21,37		3,28
32″	55,33,44,25,42,20,25,25,21, 5		4, 3,43,25,18	
		47,25,42,16,33,56,19		3,28
34″	55,33,45,13, 8, 2,41,59,17,24		4, 3,43,28,46	
		47,25,38,12,50,27,33		3,28
36″	55,33,46, 0,33,40,54,49,44,57		4, 3,43,32,14	
		47,25,34, 9, 6,55,19		3,28
38″	55,33,46,47,59,15, 3,56,40,16		4, 3,43,35,42	
		47,25,30, 5,23,19,37		3,28
40″	55,33,47,35,24,45, 9,19,59,53		4, 3,43,39,10	
		47,25,26, 1,39,40,27		3,28
42″	55,33,48,22,50,11,10,59,40,20		4, 3,43,42,38	
		47,25,21,57,55,57,49		3,28
44″	55,33,49,10,15,33, 8,55,38, 9		4, 3,43,46, 6	
		47,25,17,54,12,11,43		3,28
46″	55,33,49,57,40,51, 3, 7,49,52		4, 3,43,49,34	
		47,25,13,50,28,22, 9		3,28
48″	55,33,50,45, 6, 4,53,36,12, 1		4, 3,43,53, 2	
		47,25, 9,46,44,29, 7		3,28
50″	55,33,51,32,31,14,40,20,41, 8		4, 3,43,56,30	
		47,25, 5,43, 0,32,37		3,28
52″	55,33,52,19,56,20,23,21,13,45		4, 3,43,59,58	
		47,25, 1,39,16,32,39		3,28
54″	55,33,53, 7,21,22, 2,37,46,24		4, 3,44, 3,26	
		47,24,57,35,32,29,13		3,28
56″	55,33,53,54,46,19,38,10,15,37		4, 3,44, 6,54	
		47,24,53,31,48,22,19		3,28
58″	55,33,54,42,11,13, 9,58,37,56		4, 3,44,10,22	
		47,24,49,28, 4,11,57		
60″	55,33,55,29,36, 2,38, 2,49,53			
exact	55,33,55,29,36, 2,38, 2,42,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°50′ 0″	55,33,55,29,36, 2,38, 2,42,52			
		47,24,45,24,19,57,30		
2″	55,33,56,17, 0,48, 2,22,40,22		4, 3,44,17,20	
		47,24,41,20,35,40,10		3,28
4″	55,33,57, 4,25,29,22,58,20,32		4, 3,44,20,48	
		47,24,37,16,51,19,22		3,28
6″	55,33,57,51,50, 6,39,49,39,54		4, 3,44,24,16	
		47,24,33,13, 6,55, 6		3,28
8″	55,33,58,39,14,39,52,56,35, 0		4, 3,44,27,44	
		47,24,29, 9,22,27,22		3,28
10″	55,33,59,26,39, 9, 2,19, 2,22		4, 3,44,31,12	
		47,24,25, 5,37,56,10		3,28
12″	55,34, 0,14, 3,34, 7,56,58,32		4, 3,44,34,40	
		47,24,21, 1,53,21,30		3,28
14″	55,34, 1, 1,27,55, 9,50,20, 2		4, 3,44,38, 8	
		47,24,16,58, 8,43,22		3,28
16″	55,34, 1,48,52,12, 7,59, 3,24		4, 3,44,41,36	
		47,24,12,54,24, 1,46		3,28
18″	55,34, 2,36,16,25, 2,23, 5,10		4, 3,44,45, 4	
		47,24, 8,50,39,16,42		3,28
20″	55,34, 3,23,40,33,53, 2,21,52		4, 3,44,48,32	
		47,24, 4,46,54,28,10		3,28
22″	55,34, 4,11, 4,38,39,56,50, 2		4, 3,44,52, 0	
		47,24, 0,43, 9,36,10		3,28
24″	55,34, 4,58,28,39,23, 6,26,12		4, 3,44,55,28	
		47,23,56,39,24,40,42		3,28
26″	55,34, 5,45,52,36, 2,31, 6,54		4, 3,44,58,56	
		47,23,52,35,39,41,46		3,28
28″	55,34, 6,33,16,28,38,10,48,40		4, 3,45, 2,24	
		47,23,48,31,54,39,22		3,28
30″	55,34, 7,20,40,17,10, 5,28, 2		4, 3,45, 5,52	
		47,23,44,28, 9,33,30		3,28
32″	55,34, 8, 8, 4, 1,38,15, 1,32		4, 3,45, 9,20	
		47,23,40,24,24,24,10		3,28
34″	55,34, 8,55,27,42, 2,39,25,42		4, 3,45,12,48	
		47,23,36,20,39,11,22		3,28
36″	55,34, 9,42,51,18,23,18,37, 4		4, 3,45,16,16	
		47,23,32,16,53,55, 6		3,28
38″	55,34,10,30,14,50,40,12,32,10		4, 3,45,19,44	
		47,23,28,13, 8,35,22		3,28
40″	55,34,11,17,38,18,53,21, 7,32		4, 3,45,23,12	
		47,23,24, 9,23,12,10		3,28
42″	55,34,12, 5, 1,43, 2,44,19,42		4, 3,45,26,40	
		47,23,20, 5,37,45,30		3,28
44″	55,34,12,52,25, 3, 8,22, 5,12		4, 3,45,30, 8	
		47,23,16, 1,52,15,22		3,28
46″	55,34,13,39,48,19,10,14,20,34		4, 3,45,33,36	
		47,23,11,58, 6,41,46		3,28
48″	55,34,14,27,11,31, 8,21, 2,20		4, 3,45,37, 4	
		47,23, 7,54,21, 4,42		3,28
50″	55,34,15,14,34,39, 2,42, 7, 2		4, 3,45,40,32	
		47,23, 3,50,35,24,10		3,28
52″	55,34,16, 1,57,42,53,17,31,12		4, 3,45,44, 0	
		47,22,59,46,49,40,10		3,28
54″	55,34,16,49,20,42,40, 7,11,22		4, 3,45,47,28	
		47,22,55,43, 3,52,42		3,28
56″	55,34,17,36,43,38,23,11, 4, 4		4, 3,45,50,56	
		47,22,51,39,18, 1,46		3,28
58″	55,34,18,24, 6,30, 2,29, 5,50		4, 3,45,54,24	
		47,22,47,35,32, 7,22		
60″	55,34,19,11,29,17,38, 1,13,12			
exact	55,34,19,11,29,17,38, 1,20,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°51′ 0″	55,34,19,11,29,17,38, 1,20,33			
		47,22,43,31,46,10,16		
2″	55,34,19,58,52, 1, 9,47,30,49		4, 3,46, 1,17	
		47,22,39,28, 0, 8,59		3,28
4″	55,34,20,46,14,40,37,47,39,48		4, 3,46, 4,45	
		47,22,35,24,14, 4,14		3,28
6″	55,34,21,33,37,16, 2, 1,44, 2		4, 3,46, 8,13	
		47,22,31,20,27,56, 1		3,28
8″	55,34,22,20,59,47,22,29,40, 3		4, 3,46,11,41	
		47,22,27,16,41,44,20		3,28
10″	55,34,23, 8,22,14,39,11,24,23		4, 3,46,15, 9	
		47,22,23,12,55,29,11		3,28
12″	55,34,23,55,44,37,52, 6,53,34		4, 3,46,18,37	
		47,22,19, 9, 9,10,34		3,28
14″	55,34,24,43, 6,57, 1,16, 4, 8		4, 3,46,22, 5	
		47,22,15, 5,22,48,29		3,28
16″	55,34,25,30,29,12, 6,38,52,37		4, 3,46,25,33	
		47,22,11, 1,36,22,56		3,28
18″	55,34,26,17,51,23, 8,15,15,33		4, 3,46,29, 1	
		47,22, 6,57,49,53,55		3,28
20″	55,34,27, 5,13,30, 6, 5, 9,28		4, 3,46,32,29	
		47,22, 2,54, 3,21,26		3,28
22″	55,34,27,52,35,33, 0, 8,30,54		4, 3,46,35,57	
		47,21,58,50,16,45,29		3,28
24″	55,34,28,39,57,31,50,25,16,23		4, 3,46,39,25	
		47,21,54,46,30, 6, 4		3,28
26″	55,34,29,27,19,26,36,55,22,27		4, 3,46,42,53	
		47,21,50,42,43,23,11		3,28
28″	55,34,30,14,41,17,19,38,45,38		4, 3,46,46,21	
		47,21,46,38,56,36,50		3,28
30″	55,34,31, 2, 3, 3,58,35,22,28		4, 3,46,49,49	
		47,21,42,35, 9,47, 1		3,28
32″	55,34,31,49,24,46,33,45, 9,29		4, 3,46,53,17	
		47,21,38,31,22,53,44		3,28
34″	55,34,32,36,46,25, 5, 8, 3,13		4, 3,46,56,45	
		47,21,34,27,35,56,59		3,28
36″	55,34,33,24, 7,59,32,44, 0,12		4, 3,47, 0,13	
		47,21,30,23,48,56,46		3,28
38″	55,34,34,11,29,29,56,32,56,58		4, 3,47, 3,41	
		47,21,26,20, 1,53, 5		3,28
40″	55,34,34,58,50,56,16,34,50, 3		4, 3,47, 7, 9	
		47,21,22,16,14,45,56		3,28
42″	55,34,35,46,12,18,32,49,35,59		4, 3,47,10,37	
		47,21,18,12,27,35,19		3,28
44″	55,34,36,33,33,36,45,17,11,18		4, 3,47,14, 5	
		47,21,14, 8,40,21,14		3,28
46″	55,34,37,20,54,50,53,57,32,32		4, 3,47,17,33	
		47,21,10, 4,53, 3,41		3,28
48″	55,34,38, 8,16, 0,58,50,36,13		4, 3,47,21, 1	
		47,21, 6, 1, 5,42,40		3,28
50″	55,34,38,55,37, 6,59,56,18,53		4, 3,47,24,29	
		47,21, 1,57,18,18,11		3,28
52″	55,34,39,42,58, 8,57,14,37, 4		4, 3,47,27,57	
		47,20,57,53,30,50,14		3,28
54″	55,34,40,30,19, 6,50,45,27,18		4, 3,47,31,25	
		47,20,53,49,43,18,49		3,28
56″	55,34,41,17,40, 0,40,28,46, 7		4, 3,47,34,53	
		47,20,49,45,55,43,56		3,28
58″	55,34,42, 5, 0,50,26,24,30, 3		4, 3,47,38,21	
		47,20,45,42, 8, 5,35		
60″	55,34,42,52,21,36, 8,32,35,38			
exact	55,34,42,52,21,36, 8,32,53,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°52′ 0″	55,34,42,52,21,36, 8,32,53,10			
		47,20,41,38,20,25,37		
2″	55,34,43,39,42,17,46,53,18,47		4, 3,47,45, 9	
		47,20,37,34,32,40,28		3,28
4″	55,34,44,27, 2,55,21,25,59,15		4, 3,47,48,37	
		47,20,33,30,44,51,51		3,28
6″	55,34,45,14,23,28,52,10,51, 6		4, 3,47,52, 5	
		47,20,29,26,56,59,46		3,28
8″	55,34,46, 1,43,58,19, 7,50,52		4, 3,47,55,33	
		47,20,25,23, 9, 4,13		3,28
10″	55,34,46,49, 4,23,42,16,55, 5		4, 3,47,59, 1	
		47,20,21,19,21, 5,12		3,28
12″	55,34,47,36,24,45, 1,38, 0,17		4, 3,48, 2,29	
		47,20,17,15,33, 2,43		3,28
14″	55,34,48,23,45, 2,17,11, 3, 0		4, 3,48, 5,57	
		47,20,13,11,44,56,46		3,28
16″	55,34,49,11, 5,15,28,55,59,46		4, 3,48, 9,25	
		47,20, 9, 7,56,47,21		3,28
18″	55,34,49,58,25,24,36,52,47, 7		4, 3,48,12,53	
		47,20, 5, 4, 8,34,28		3,28
20″	55,34,50,45,45,29,41, 1,21,35		4, 3,48,16,21	
		47,20, 1, 0,20,18, 7		3,28
22″	55,34,51,33, 5,30,41,21,39,42		4, 3,48,19,49	
		47,19,56,56,31,58,18		3,28
24″	55,34,52,20,25,27,37,53,38, 0		4, 3,48,23,17	
		47,19,52,52,43,35, 1		3,28
26″	55,34,53, 7,45,20,30,37,13, 1		4, 3,48,26,45	
		47,19,48,48,55, 8,16		3,28
28″	55,34,53,55, 5, 9,19,32,21,17		4, 3,48,30,13	
		47,19,44,45, 6,38, 3		3,28
30″	55,34,54,42,24,54, 4,38,59,20		4, 3,48,33,41	
		47,19,40,41,18, 4,22		3,28
32″	55,34,55,29,44,34,45,57, 3,42		4, 3,48,37, 9	
		47,19,36,37,29,27,13		3,28
34″	55,34,56,17, 4,11,23,26,30,55		4, 3,48,40,37	
		47,19,32,33,40,46,36		3,28
36″	55,34,57, 4,23,43,57, 7,17,31		4, 3,48,44, 5	
		47,19,28,29,52, 2,31		3,28
38″	55,34,57,51,43,12,26,59,20, 2		4, 3,48,47,33	
		47,19,24,26, 3,14,58		3,28
40″	55,34,58,39, 2,36,53, 2,35, 0		4, 3,48,51, 1	
		47,19,20,22,14,23,57		3,28
42″	55,34,59,26,21,57,15,16,58,57		4, 3,48,54,29	
		47,19,16,18,25,29,28		3,28
44″	55,35, 0,13,41,13,33,42,28,25		4, 3,48,57,57	
		47,19,12,14,36,31,31		3,28
46″	55,35, 1, 1, 0,25,48,18,59,56		4, 3,49, 1,25	
		47,19, 8,10,47,30, 6		3,28
48″	55,35, 1,48,19,33,59, 6,30, 2		4, 3,49, 4,53	
		47,19, 4, 6,58,25,13		3,28
50″	55,35, 2,35,38,38, 6, 4,55,15		4, 3,49, 8,21	
		47,19, 0, 3, 9,16,52		3,28
52″	55,35, 3,22,57,38, 9,14,12, 7		4, 3,49,11,49	
		47,18,55,59,20, 5, 3		3,28
54″	55,35, 4,10,16,34, 8,34,17,10		4, 3,49,15,17	
		47,18,51,55,30,49,46		3,28
56″	55,35, 4,57,35,26, 4, 5, 6,56		4, 3,49,18,45	
		47,18,47,51,41,31, 1		3,28
58″	55,35, 5,44,54,13,55,46,37,57		4, 3,49,22,13	
		47,18,43,47,52, 8,48		
60″	55,35, 6,32,12,57,43,38,46,45			
exact	55,35, 6,32,12,57,43,39,11, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°53′ 0″	55,35, 6,32,12,57,43,39,11, 4			
		47,18,39,44, 2,45,49		
2″	55,35, 7,19,31,37,27,41,56,53		4, 3,49,28,57	
		47,18,35,40,13,16,52		3,28
4″	55,35, 8, 6,50,13, 7,55,13,45		4, 3,49,32,25	
		47,18,31,36,23,44,27		3,28
6″	55,35, 8,54, 8,44,44,18,58,12		4, 3,49,35,53	
		47,18,27,32,34, 8,34		3,28
8″	55,35, 9,41,27,12,16,53, 6,46		4, 3,49,39,21	
		47,18,23,28,44,29,13		3,28
10″	55,35,10,28,45,35,45,37,35,59		4, 3,49,42,49	
		47,18,19,24,54,46,24		3,28
12″	55,35,11,16, 3,55,10,32,22,23		4, 3,49,46,17	
		47,18,15,21, 5, 0, 7		3,28
14″	55,35,12, 3,22,10,31,37,22,30		4, 3,49,49,45	
		47,18,11,17,15,10,22		3,28
16″	55,35,12,50,40,21,48,52,32,52		4, 3,49,53,13	
		47,18, 7,13,25,17, 9		3,28
18″	55,35,13,37,58,29, 2,17,50, 1		4, 3,49,56,41	
		47,18, 3, 9,35,20,28		3,28
20″	55,35,14,25,16,32,11,53,10,29		4, 3,50, 0, 9	
		47,17,59, 5,45,20,19		3,28
22″	55,35,15,12,34,31,17,38,30,48		4, 3,50, 3,37	
		47,17,55, 1,55,16,42		3,28
24″	55,35,15,59,52,26,19,33,47,30		4, 3,50, 7, 5	
		47,17,50,58, 5, 9,37		3,28
26″	55,35,16,47,10,17,17,38,57, 7		4, 3,50,10,33	
		47,17,46,54,14,59, 4		3,28
28″	55,35,17,34,28, 4,11,53,56,11		4, 3,50,14, 1	
		47,17,42,50,24,45, 3		3,28
30″	55,35,18,21,45,47, 2,18,41,14		4, 3,50,17,29	
		47,17,38,46,34,27,34		3,28
32″	55,35,19, 9, 3,25,48,53, 8,48		4, 3,50,20,57	
		47,17,34,42,44, 6,37		3,28
34″	55,35,19,56,21, 0,31,37,15,25		4, 3,50,24,25	
		47,17,30,38,53,42,12		3,28
36″	55,35,20,43,38,31,10,30,57,37		4, 3,50,27,53	
		47,17,26,35, 3,14,19		3,28
38″	55,35,21,30,55,57,45,34,11,56		4, 3,50,31,21	
		47,17,22,31,12,42,58		3,28
40″	55,35,22,18,13,20,16,46,54,54		4, 3,50,34,49	
		47,17,18,27,22, 8, 9		3,28
42″	55,35,23, 5,30,38,44, 9, 3, 3		4, 3,50,38,17	
		47,17,14,23,31,29,52		3,28
44″	55,35,23,52,47,53, 7,40,32,55		4, 3,50,41,45	
		47,17,10,19,40,48, 7		3,28
46″	55,35,24,40, 5, 3,27,21,21, 2		4, 3,50,45,13	
		47,17, 6,15,50, 2,54		3,28
48″	55,35,25,27,22, 9,43,11,23,56		4, 3,50,48,41	
		47,17, 2,11,59,14,13		3,28
50″	55,35,26,14,39,11,55,10,38, 9		4, 3,50,52, 9	
		47,16,58, 8, 8,22, 4		3,28
52″	55,35,27, 1,56,10, 3,19, 0,13		4, 3,50,55,37	
		47,16,54, 4,17,26,27		3,28
54″	55,35,27,49,13, 4, 7,36,26,40		4, 3,50,59, 5	
		47,16,50, 0,26,27,22		3,28
56″	55,35,28,36,29,54, 8, 2,54, 2		4, 3,51, 2,33	
		47,16,45,56,35,24,49		3,28
58″	55,35,29,23,46,40, 4,38,18,51		4, 3,51, 6, 1	
		47,16,41,52,44,18,48		
60″	55,35,30,11, 3,21,57,22,37,39			
exact	55,35,30,11, 3,21,57,23,11,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°54′ 0″	55,35,30,11, 3,21,57,23,11,31			
		47,16,37,48,53,13, 4		
2″	55,35,30,58,19,59,46,16,24,35		4, 3,51,12,41	
		47,16,33,45, 2, 0,23		3,27
4″	55,35,31,45,36,33,31,18,24,58		4, 3,51,16, 8	
		47,16,29,41,10,44,15		3,27
6″	55,35,32,32,53, 3,12,29, 9,13		4, 3,51,19,35	
		47,16,25,37,19,24,40		3,27
8″	55,35,33,20, 9,28,49,48,33,53		4, 3,51,23, 2	
		47,16,21,33,28, 1,38		3,27
10″	55,35,34, 7,25,50,23,16,35,31		4, 3,51,26,29	
		47,16,17,29,36,35, 9		3,27
12″	55,35,34,54,42, 7,52,53,10,40		4, 3,51,29,56	
		47,16,13,25,45, 5,13		3,27
14″	55,35,35,41,58,21,18,38,15,53		4, 3,51,33,23	
		47,16, 9,21,53,31,50		3,27
16″	55,35,36,29,14,30,40,31,47,43		4, 3,51,36,50	
		47,16, 5,18, 1,55, 0		3,27
18″	55,35,37,16,30,35,58,33,42,43		4, 3,51,40,17	
		47,16, 1,14,10,14,43		3,27
20″	55,35,38, 3,46,37,12,43,57,26		4, 3,51,43,44	
		47,15,57,10,18,30,59		3,27
22″	55,35,38,51, 2,34,23, 2,28,25		4, 3,51,47,11	
		47,15,53, 6,26,43,48		3,27
24″	55,35,39,38,18,27,29,29,12,13		4, 3,51,50,38	
		47,15,49, 2,34,53,10		3,27
26″	55,35,40,25,34,16,32, 4, 5,23		4, 3,51,54, 5	
		47,15,44,58,42,59, 5		3,27
28″	55,35,41,12,50, 1,30,47, 4,28		4, 3,51,57,32	
		47,15,40,54,51, 1,33		3,27
30″	55,35,42, 0, 5,42,25,38, 6, 1		4, 3,52, 0,59	
		47,15,36,50,59, 0,34		3,27
32″	55,35,42,47,21,19,16,37, 6,35		4, 3,52, 4,26	
		47,15,32,47, 6,56, 8		3,27
34″	55,35,43,34,36,52, 3,44, 2,43		4, 3,52, 7,53	
		47,15,28,43,14,48,15		3,27
36″	55,35,44,21,52,20,46,58,50,58		4, 3,52,11,20	
		47,15,24,39,22,36,55		3,27
38″	55,35,45, 9, 7,45,26,21,27,53		4, 3,52,14,47	
		47,15,20,35,30,22, 8		3,27
40″	55,35,45,56,23, 6, 1,51,50, 1		4, 3,52,18,14	
		47,15,16,31,38, 3,54		3,27
42″	55,35,46,43,38,22,33,29,53,55		4, 3,52,21,41	
		47,15,12,27,45,42,13		3,27
44″	55,35,47,30,53,35, 1,15,36, 8		4, 3,52,25, 8	
		47,15, 8,23,53,17, 5		3,27
46″	55,35,48,18, 8,43,25, 8,53,13		4, 3,52,28,35	
		47,15, 4,20, 0,48,30		3,27
48″	55,35,49, 5,23,47,45, 9,41,43		4, 3,52,32, 2	
		47,15, 0,16, 8,16,28		3,27
50″	55,35,49,52,38,48, 1,17,58,11		4, 3,52,35,29	
		47,14,56,12,15,40,59		3,27
52″	55,35,50,39,53,44,13,33,39,10		4, 3,52,38,56	
		47,14,52, 8,23, 2, 3		3,27
54″	55,35,51,27, 8,36,21,56,41,13		4, 3,52,42,23	
		47,14,48, 4,30,19,40		3,27
56″	55,35,52,14,23,24,26,27, 0,53		4, 3,52,45,50	
		47,14,44, 0,37,33,50		3,27
58″	55,35,53, 1,38, 8,27, 4,34,43		4, 3,52,49,17	
		47,14,39,56,44,44,33		
60″	55,35,53,48,52,48,23,49,19,16			
exact	55,35,53,48,52,48,23,48,58,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°55′ 0″	55,35,53,48,52,48,23,48,58,33			
		47,14,35,52,51,49,36		
2″	55,35,54,36, 7,24,16,40,48, 9		4, 3,52,56,20	
		47,14,31,48,58,53,16		3,27
4″	55,35,55,23,21,56, 5,39,41,25		4, 3,52,59,47	
		47,14,27,45, 5,53,29		3,27
6″	55,35,56,10,36,23,50,45,34,54		4, 3,53, 3,14	
		47,14,23,41,12,50,15		3,27
8″	55,35,56,57,50,47,31,58,25, 9		4, 3,53, 6,41	
		47,14,19,37,19,43,34		3,27
10″	55,35,57,45, 5, 7, 9,18, 8,43		4, 3,53,10, 8	
		47,14,15,33,26,33,26		3,27
12″	55,35,58,32,19,22,42,44,42, 9		4, 3,53,13,35	
		47,14,11,29,33,19,51		3,27
14″	55,35,59,19,33,34,12,18, 2, 0		4, 3,53,17, 2	
		47,14, 7,25,40, 2,49		3,27
16″	55,36, 0, 6,47,41,37,58, 4,49		4, 3,53,20,29	
		47,14, 3,21,46,42,20		3,27
18″	55,36, 0,54, 1,44,59,44,47, 9		4, 3,53,23,56	
		47,13,59,17,53,18,24		3,27
20″	55,36, 1,41,15,44,17,38, 5,33		4, 3,53,27,23	
		47,13,55,13,59,51, 1		3,27
22″	55,36, 2,28,29,39,31,37,56,34		4, 3,53,30,50	
		47,13,51,10, 6,20,11		3,27
24″	55,36, 3,15,43,30,41,44,16,45		4, 3,53,34,17	
		47,13,47, 6,12,45,54		3,27
26″	55,36, 4, 2,57,17,47,57, 2,39		4, 3,53,37,44	
		47,13,43, 2,19, 8,10		3,27
28″	55,36, 4,50,11, 0,50,16,10,49		4, 3,53,41,11	
		47,13,38,58,25,26,59		3,27
30″	55,36, 5,37,24,39,48,41,37,48		4, 3,53,44,38	
		47,13,34,54,31,42,21		3,27
32″	55,36, 6,24,38,14,43,13,20, 9		4, 3,53,48, 5	
		47,13,30,50,37,54,16		3,27
34″	55,36, 7,11,51,45,33,51,14,25		4, 3,53,51,32	
		47,13,26,46,44, 2,44		3,27
36″	55,36, 7,59, 5,12,20,35,17, 9		4, 3,53,54,59	
		47,13,22,42,50, 7,45		3,27
38″	55,36, 8,46,18,35, 3,25,24,54		4, 3,53,58,26	
		47,13,18,38,56, 9,19		3,27
40″	55,36, 9,33,31,53,42,21,34,13		4, 3,54, 1,53	
		47,13,14,35, 2, 7,26		3,27
42″	55,36,10,20,45, 8,17,23,41,39		4, 3,54, 5,20	
		47,13,10,31, 8, 2, 6		3,27
44″	55,36,11, 7,58,18,48,31,43,45		4, 3,54, 8,47	
		47,13, 6,27,13,53,19		3,27
46″	55,36,11,55,11,25,15,45,37, 4		4, 3,54,12,14	
		47,13, 2,23,19,41, 5		3,27
48″	55,36,12,42,24,27,39, 5,18, 9		4, 3,54,15,41	
		47,12,58,19,25,25,24		3,27
50″	55,36,13,29,37,25,58,30,43,33		4, 3,54,19, 8	
		47,12,54,15,31, 6,16		3,27
52″	55,36,14,16,50,20,14, 1,49,49		4, 3,54,22,35	
		47,12,50,11,36,43,41		3,27
54″	55,36,15, 4, 3,10,25,38,33,30		4, 3,54,26, 2	
		47,12,46, 7,42,17,39		3,27
56″	55,36,15,51,15,56,33,20,51, 9		4, 3,54,29,29	
		47,12,42, 3,47,48,10		3,27
58″	55,36,16,38,28,38,37, 8,39,19		4, 3,54,32,56	
		47,12,37,59,53,15,14		
60″	55,36,17,25,41,16,37, 1,54,33			
exact	55,36,17,25,41,16,37, 1,43, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°56′ 0″	55,36,17,25,41,16,37, 1,43, 6			
		47,12,33,55,58,37,39		
2″	55,36,18,12,53,50,33, 0,20,45		4, 3,54,39,54	
		47,12,29,52, 3,57,45		3,27
4″	55,36,19, 0, 6,20,25, 4,18,30		4, 3,54,43,21	
		47,12,25,48, 9,14,24		3,27
6″	55,36,19,47,18,46,13,13,32,54		4, 3,54,46,48	
		47,12,21,44,14,27,36		3,27
8″	55,36,20,34,31, 7,57,28, 0,30		4, 3,54,50,15	
		47,12,17,40,19,37,21		3,27
10″	55,36,21,21,43,25,37,47,37,51		4, 3,54,53,42	
		47,12,13,36,24,43,39		3,27
12″	55,36,22, 8,55,39,14,12,21,30		4, 3,54,57, 9	
		47,12, 9,32,29,46,30		3,27
14″	55,36,22,56, 7,48,46,42, 8, 0		4, 3,55, 0,36	
		47,12, 5,28,34,45,54		3,27
16″	55,36,23,43,19,54,15,16,53,54		4, 3,55, 4, 3	
		47,12, 1,24,39,41,51		3,27
18″	55,36,24,30,31,55,39,56,35,45		4, 3,55, 7,30	
		47,11,57,20,44,34,21		3,27
20″	55,36,25,17,43,53, 0,41,10, 6		4, 3,55,10,57	
		47,11,53,16,49,23,24		3,27
22″	55,36,26, 4,55,46,17,30,33,30		4, 3,55,14,24	
		47,11,49,12,54, 9, 0		3,27
24″	55,36,26,52, 7,35,30,24,42,30		4, 3,55,17,51	
		47,11,45, 8,58,51, 9		3,27
26″	55,36,27,39,19,20,39,23,33,39		4, 3,55,21,18	
		47,11,41, 5, 3,29,51		3,27
28″	55,36,28,26,31, 1,44,27, 3,30		4, 3,55,24,45	
		47,11,37, 1, 8, 5, 6		3,27
30″	55,36,29,13,42,38,45,35, 8,36		4, 3,55,28,12	
		47,11,32,57,12,36,54		3,27
32″	55,36,30, 0,54,11,42,47,45,30		4, 3,55,31,39	
		47,11,28,53,17, 5,15		3,27
34″	55,36,30,48, 5,40,36, 4,50,45		4, 3,55,35, 6	
		47,11,24,49,21,30, 9		3,27
36″	55,36,31,35,17, 5,25,26,20,54		4, 3,55,38,33	
		47,11,20,45,25,51,36		3,27
38″	55,36,32,22,28,26,10,52,12,30		4, 3,55,42, 0	
		47,11,16,41,30, 9,36		3,27
40″	55,36,33, 9,39,42,52,22,22, 6		4, 3,55,45,27	
		47,11,12,37,34,24, 9		3,27
42″	55,36,33,56,50,55,29,56,46,15		4, 3,55,48,54	
		47,11, 8,33,38,35,15		3,27
44″	55,36,34,44, 2, 4, 3,35,21,30		4, 3,55,52,21	
		47,11, 4,29,42,42,54		3,27
46″	55,36,35,31,13, 8,33,18, 4,24		4, 3,55,55,48	
		47,11, 0,25,46,47, 6		3,27
48″	55,36,36,18,24, 8,59, 4,51,30		4, 3,55,59,15	
		47,10,56,21,50,47,51		3,27
50″	55,36,37, 5,35, 5,20,55,39,21		4, 3,56, 2,42	
		47,10,52,17,54,45, 9		3,27
52″	55,36,37,52,45,57,38,50,24,30		4, 3,56, 6, 9	
		47,10,48,13,58,39, 0		3,27
54″	55,36,38,39,56,45,52,49, 3,30		4, 3,56, 9,36	
		47,10,44,10, 2,29,24		3,27
56″	55,36,39,27, 7,30, 2,51,32,54		4, 3,56,13, 3	
		47,10,40, 6, 6,16,21		3,27
58″	55,36,40,14,18,10, 8,57,49,15		4, 3,56,16,30	
		47,10,36, 2, 9,59,51		
60″	55,36,41, 1,28,46,11, 7,49, 6			
exact	55,36,41, 1,28,46,11, 7,42,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°57′ 0″	55,36,41, 1,28,46,11, 7,42,56			
		47,10,31,58,13,39,27		
2″	55,36,41,48,39,18, 9,21,22,23		4, 3,56,23,25	
		47,10,27,54,17,16, 2		3,27
4″	55,36,42,35,49,46, 3,38,38,25		4, 3,56,26,52	
		47,10,23,50,20,49,10		3,27
6″	55,36,43,23, 0, 9,53,59,27,35		4, 3,56,30,19	
		47,10,19,46,24,18,51		3,27
8″	55,36,44,10,10,29,40,23,46,26		4, 3,56,33,46	
		47,10,15,42,27,45, 5		3,27
10″	55,36,44,57,20,45,22,51,31,31		4, 3,56,37,13	
		47,10,11,38,31, 7,52		3,27
12″	55,36,45,44,30,57, 1,22,39,23		4, 3,56,40,40	
		47,10, 7,34,34,27,12		3,27
14″	55,36,46,31,41, 4,35,57, 6,35		4, 3,56,44, 7	
		47,10, 3,30,37,43, 5		3,27
16″	55,36,47,18,51, 8, 6,34,49,40		4, 3,56,47,34	
		47, 9,59,26,40,55,31		3,27
18″	55,36,48, 6, 1, 7,33,15,45,11		4, 3,56,51, 1	
		47, 9,55,22,44, 4,30		3,27
20″	55,36,48,53,11, 2,55,59,49,41		4, 3,56,54,28	
		47, 9,51,18,47,10, 2		3,27
22″	55,36,49,40,20,54,14,46,59,43		4, 3,56,57,55	
		47, 9,47,14,50,12, 7		3,27
24″	55,36,50,27,30,41,29,37,11,50		4, 3,57, 1,22	
		47, 9,43,10,53,10,45		3,27
26″	55,36,51,14,40,24,40,30,22,35		4, 3,57, 4,49	
		47, 9,39, 6,56, 5,56		3,27
28″	55,36,52, 1,50, 3,47,26,28,31		4, 3,57, 8,16	
		47, 9,35, 2,58,57,40		3,27
30″	55,36,52,48,59,38,50,25,26,11		4, 3,57,11,43	
		47, 9,30,59, 1,45,57		3,27
32″	55,36,53,36, 9, 9,49,27,12, 8		4, 3,57,15,10	
		47, 9,26,55, 4,30,47		3,27
34″	55,36,54,23,18,36,44,31,42,55		4, 3,57,18,37	
		47, 9,22,51, 7,12,10		3,27
36″	55,36,55,10,27,59,35,38,55, 5		4, 3,57,22, 4	
		47, 9,18,47, 9,50, 6		3,27
38″	55,36,55,57,37,18,22,48,45,11		4, 3,57,25,31	
		47, 9,14,43,12,24,35		3,27
40″	55,36,56,44,46,33, 6, 1, 9,46		4, 3,57,28,58	
		47, 9,10,39,14,55,37		3,27
42″	55,36,57,31,55,43,45,16, 5,23		4, 3,57,32,25	
		47, 9, 6,35,17,23,12		3,27
44″	55,36,58,19, 4,50,20,33,28,35		4, 3,57,35,52	
		47, 9, 2,31,19,47,20		3,27
46″	55,36,59, 6,13,52,51,53,15,55		4, 3,57,39,19	
		47, 8,58,27,22, 8, 1		3,27
48″	55,36,59,53,22,51,19,15,23,56		4, 3,57,42,46	
		47, 8,54,23,24,25,15		3,27
50″	55,37, 0,40,31,45,42,39,49,11		4, 3,57,46,13	
		47, 8,50,19,26,39, 2		3,27
52″	55,37, 1,27,40,36, 2, 6,28,13		4, 3,57,49,40	
		47, 8,46,15,28,49,22		3,27
54″	55,37, 2,14,49,22,17,35,17,35		4, 3,57,53, 7	
		47, 8,42,11,30,56,15		3,27
56″	55,37, 3, 1,58, 4,29, 6,13,50		4, 3,57,56,34	
		47, 8,38, 7,32,59,41		3,27
58″	55,37, 3,49, 6,42,36,39,13,31		4, 3,58, 0, 1	
		47, 8,34, 3,34,59,40		
60″	55,37, 4,36,15,16,40,14,13,11			
exact	55,37, 4,36,15,16,40,14,22,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°58′ 0″	55,37, 4,36,15,16,40,14,22,43			
		47, 8,29,59,36,57,13		
2″	55,37, 5,23,23,46,39,51,19,56		4, 3,58, 6,50	
		47, 8,25,55,38,50,23		3,27
4″	55,37, 6,10,32,12,35,30,10,19		4, 3,58,10,17	
		47, 8,21,51,40,40, 6		3,27
6″	55,37, 6,57,40,34,27,10,50,25		4, 3,58,13,44	
		47, 8,17,47,42,26,22		3,27
8″	55,37, 7,44,48,52,14,53,16,47		4, 3,58,17,11	
		47, 8,13,43,44, 9,11		3,27
10″	55,37, 8,31,57, 5,58,37,25,58		4, 3,58,20,38	
		47, 8, 9,39,45,48,33		3,27
12″	55,37, 9,19, 5,15,38,23,14,31		4, 3,58,24, 5	
		47, 8, 5,35,47,24,28		3,27
14″	55,37,10, 6,13,21,14,10,38,59		4, 3,58,27,32	
		47, 8, 1,31,48,56,56		3,27
16″	55,37,10,53,21,22,45,59,35,55		4, 3,58,30,59	
		47, 7,57,27,50,25,57		3,27
18″	55,37,11,40,29,20,13,50, 1,52		4, 3,58,34,26	
		47, 7,53,23,51,51,31		3,27
20″	55,37,12,27,37,13,37,41,53,23		4, 3,58,37,53	
		47, 7,49,19,53,13,38		3,27
22″	55,37,13,14,45, 2,57,35, 7, 1		4, 3,58,41,20	
		47, 7,45,15,54,32,18		3,27
24″	55,37,14, 1,52,48,13,29,39,19		4, 3,58,44,47	
		47, 7,41,11,55,47,31		3,27
26″	55,37,14,49, 0,29,25,25,26,50		4, 3,58,48,14	
		47, 7,37, 7,56,59,17		3,27
28″	55,37,15,36, 8, 6,33,22,26, 7		4, 3,58,51,41	
		47, 7,33, 3,58, 7,36		3,27
30″	55,37,16,23,15,39,37,20,33,43		4, 3,58,55, 8	
		47, 7,28,59,59,12,28		3,27
32″	55,37,17,10,23, 8,37,19,46,11		4, 3,58,58,35	
		47, 7,24,56, 0,13,53		3,27
34″	55,37,17,57,30,33,33,20, 0, 4		4, 3,59, 2, 2	
		47, 7,20,52, 1,11,51		3,27
36″	55,37,18,44,37,54,25,21,11,55		4, 3,59, 5,29	
		47, 7,16,48, 2, 6,22		3,27
38″	55,37,19,31,45,11,13,23,18,17		4, 3,59, 8,56	
		47, 7,12,44, 2,57,26		3,27
40″	55,37,20,18,52,23,57,26,15,43		4, 3,59,12,23	
		47, 7, 8,40, 3,45, 3		3,27
42″	55,37,21, 5,59,32,37,30, 0,46		4, 3,59,15,50	
		47, 7, 4,36, 4,29,13		3,27
44″	55,37,21,53, 6,37,13,34,29,59		4, 3,59,19,17	
		47, 7, 0,32, 5, 9,56		3,27
46″	55,37,22,40,13,37,45,39,39,55		4, 3,59,22,44	
		47, 6,56,28, 5,47,12		3,27
48″	55,37,23,27,20,34,13,45,27, 7		4, 3,59,26,11	
		47, 6,52,24, 6,21, 1		3,27
50″	55,37,24,14,27,26,37,51,48, 8		4, 3,59,29,38	
		47, 6,48,20, 6,51,23		3,27
52″	55,37,25, 1,34,14,57,58,39,31		4, 3,59,33, 5	
		47, 6,44,16, 7,18,18		3,27
54″	55,37,25,48,40,59,14, 5,57,49		4, 3,59,36,32	
		47, 6,40,12, 7,41,46		3,27
56″	55,37,26,35,47,39,26,13,39,35		4, 3,59,39,59	
		47, 6,36, 8, 8, 1,47		3,27
58″	55,37,27,22,54,15,34,21,41,22		4, 3,59,43,26	
		47, 6,32, 4, 8,18,21		
60″	55,37,28,10, 0,47,38,29,59,43			
exact	55,37,28,10, 0,47,38,30,13,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
67°59′ 0″	55,37,28,10, 0,47,38,30,13,59			
		47, 6,28, 0, 8,33,11		
2″	55,37,28,57, 7,15,38,38,47,10		4, 3,59,50,12	
		47, 6,23,56, 8,42,59		3,27
4″	55,37,29,44,13,39,34,47,30, 9		4, 3,59,53,39	
		47, 6,19,52, 8,49,20		3,27
6″	55,37,30,31,19,59,26,56,19,29		4, 3,59,57, 6	
		47, 6,15,48, 8,52,14		3,27
8″	55,37,31,18,26,15,15, 5,11,43		4, 4, 0, 0,33	
		47, 6,11,44, 8,51,41		3,27
10″	55,37,32, 5,32,26,59,14, 3,24		4, 4, 0, 4, 0	
		47, 6, 7,40, 8,47,41		3,27
12″	55,37,32,52,38,34,39,22,51, 5		4, 4, 0, 7,27	
		47, 6, 3,36, 8,40,14		3,27
14″	55,37,33,39,44,38,15,31,31,19		4, 4, 0,10,54	
		47, 5,59,32, 8,29,20		3,27
16″	55,37,34,26,50,37,47,40, 0,39		4, 4, 0,14,21	
		47, 5,55,28, 8,14,59		3,27
18″	55,37,35,13,56,33,15,48,15,38		4, 4, 0,17,48	
		47, 5,51,24, 7,57,11		3,27
20″	55,37,36, 1, 2,24,39,56,12,49		4, 4, 0,21,15	
		47, 5,47,20, 7,35,56		3,27
22″	55,37,36,48, 8,12, 0, 3,48,45		4, 4, 0,24,42	
		47, 5,43,16, 7,11,14		3,27
24″	55,37,37,35,13,55,16,10,59,59		4, 4, 0,28, 9	
		47, 5,39,12, 6,43, 5		3,27
26″	55,37,38,22,19,34,28,17,43, 4		4, 4, 0,31,36	
		47, 5,35, 8, 6,11,29		3,27
28″	55,37,39, 9,25, 9,36,23,54,33		4, 4, 0,35, 3	
		47, 5,31, 4, 5,36,26		3,27
30″	55,37,39,56,30,40,40,29,30,59		4, 4, 0,38,30	
		47, 5,27, 0, 4,57,56		3,27
32″	55,37,40,43,36, 7,40,34,28,55		4, 4, 0,41,57	
		47, 5,22,56, 4,15,59		3,27
34″	55,37,41,30,41,30,36,38,44,54		4, 4, 0,45,24	
		47, 5,18,52, 3,30,35		3,27
36″	55,37,42,17,46,49,28,42,15,29		4, 4, 0,48,51	
		47, 5,14,48, 2,41,44		3,27
38″	55,37,43, 4,52, 4,16,44,57,13		4, 4, 0,52,18	
		47, 5,10,44, 1,49,26		3,27
40″	55,37,43,51,57,15, 0,46,46,39		4, 4, 0,55,45	
		47, 5, 6,40, 0,53,41		3,27
42″	55,37,44,39, 2,21,40,47,40,20		4, 4, 0,59,12	
		47, 5, 2,35,59,54,29		3,27
44″	55,37,45,26, 7,24,16,47,34,49		4, 4, 1, 2,39	
		47, 4,58,31,58,51,50		3,27
46″	55,37,46,13,12,22,48,46,26,39		4, 4, 1, 6, 6	
		47, 4,54,27,57,45,44		3,27
48″	55,37,47, 0,17,17,16,44,12,23		4, 4, 1, 9,33	
		47, 4,50,23,56,36,11		3,27
50″	55,37,47,47,22, 7,40,40,48,34		4, 4, 1,13, 0	
		47, 4,46,19,55,23,11		3,27
52″	55,37,48,34,26,54, 0,36,11,45		4, 4, 1,16,27	
		47, 4,42,15,54, 6,44		3,27
54″	55,37,49,21,31,36,16,30,18,29		4, 4, 1,19,54	
		47, 4,38,11,52,46,50		3,27
56″	55,37,50, 8,36,14,28,23, 5,19		4, 4, 1,23,21	
		47, 4,34, 7,51,23,29		3,27
58″	55,37,50,55,40,48,36,14,28,48		4, 4, 1,26,48	
		47, 4,30, 3,49,56,41		
60″	55,37,51,42,45,18,40, 4,25,29			
exact	55,37,51,42,45,18,40, 4,55, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68° 0′ 0″	55,37,51,42,45,18,40, 4,55, 7			
		47, 4,25,59,48,29,36		
2″	55,37,52,29,49,44,39,53,24,43		4, 4, 1,33,29	
		47, 4,21,55,46,56, 7		3,26
4″	55,37,53,16,54, 6,35,40,20,50		4, 4, 1,36,55	
		47, 4,17,51,45,19,12		3,26
6″	55,37,54, 3,58,24,27,25,40, 2		4, 4, 1,40,21	
		47, 4,13,47,43,38,51		3,26
8″	55,37,54,51, 2,38,15, 9,18,53		4, 4, 1,43,47	
		47, 4, 9,43,41,55, 4		3,26
10″	55,37,55,38, 6,47,58,51,13,57		4, 4, 1,47,13	
		47, 4, 5,39,40, 7,51		3,26
12″	55,37,56,25,10,53,38,31,21,48		4, 4, 1,50,39	
		47, 4, 1,35,38,17,12		3,26
14″	55,37,57,12,14,55,14, 9,39, 0		4, 4, 1,54, 5	
		47, 3,57,31,36,23, 7		3,26
16″	55,37,57,59,18,52,45,46, 2, 7		4, 4, 1,57,31	
		47, 3,53,27,34,25,36		3,26
18″	55,37,58,46,22,46,13,20,27,43		4, 4, 2, 0,57	
		47, 3,49,23,32,24,39		3,26
20″	55,37,59,33,26,35,36,52,52,22		4, 4, 2, 4,23	
		47, 3,45,19,30,20,16		3,26
22″	55,38, 0,20,30,20,56,23,12,38		4, 4, 2, 7,49	
		47, 3,41,15,28,12,27		3,26
24″	55,38, 1, 7,34, 2,11,51,25, 5		4, 4, 2,11,15	
		47, 3,37,11,26, 1,12		3,26
26″	55,38, 1,54,37,39,23,17,26,17		4, 4, 2,14,41	
		47, 3,33, 7,23,46,31		3,26
28″	55,38, 2,41,41,12,30,41,12,48		4, 4, 2,18, 7	
		47, 3,29, 3,21,28,24		3,26
30″	55,38, 3,28,44,41,34, 2,41,12		4, 4, 2,21,33	
		47, 3,24,59,19, 6,51		3,26
32″	55,38, 4,15,48, 6,33,21,48, 3		4, 4, 2,24,59	
		47, 3,20,55,16,41,52		3,26
34″	55,38, 5, 2,51,27,28,38,29,55		4, 4, 2,28,25	
		47, 3,16,51,14,13,27		3,26
36″	55,38, 5,49,54,44,19,52,43,22		4, 4, 2,31,51	
		47, 3,12,47,11,41,36		3,26
38″	55,38, 6,36,57,57, 7, 4,24,58		4, 4, 2,35,17	
		47, 3, 8,43, 9, 6,19		3,26
40″	55,38, 7,24, 1, 5,50,13,31,17		4, 4, 2,38,43	
		47, 3, 4,39, 6,27,36		3,26
42″	55,38, 8,11, 4,10,29,19,58,53		4, 4, 2,42, 9	
		47, 3, 0,35, 3,45,27		3,26
44″	55,38, 8,58, 7,11, 4,23,44,20		4, 4, 2,45,35	
		47, 2,56,31, 0,59,52		3,26
46″	55,38, 9,45,10, 7,35,24,44,12		4, 4, 2,49, 1	
		47, 2,52,26,58,10,51		3,26
48″	55,38,10,32,13, 0, 2,22,55, 3		4, 4, 2,52,27	
		47, 2,48,22,55,18,24		3,26
50″	55,38,11,19,15,48,25,18,13,27		4, 4, 2,55,53	
		47, 2,44,18,52,22,31		3,26
52″	55,38,12, 6,18,32,44,10,35,58		4, 4, 2,59,19	
		47, 2,40,14,49,23,12		3,26
54″	55,38,12,53,21,12,58,59,59,10		4, 4, 3, 2,45	
		47, 2,36,10,46,20,27		3,26
56″	55,38,13,40,23,49, 9,46,19,37		4, 4, 3, 6,11	
		47, 2,32, 6,43,14,16		3,26
58″	55,38,14,27,26,21,16,29,33,53		4, 4, 3, 9,37	
		47, 2,28, 2,40, 4,39		
60″	55,38,15,14,28,49,19, 9,38,32			
exact	55,38,15,14,28,49,19, 9,11,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68° 1′ 0″	55,38,15,14,28,49,19, 9,11,28			
		47, 2,23,58,36,48,40		
2″	55,38,16, 1,31,13,17,46, 0, 8		4, 4, 3,16,41	
		47, 2,19,54,33,31,59		3,26
4″	55,38,16,48,33,33,12,19,32, 7		4, 4, 3,20, 7	
		47, 2,15,50,30,11,52		3,26
6″	55,38,17,35,35,49, 2,49,43,59		4, 4, 3,23,33	
		47, 2,11,46,26,48,19		3,26
8″	55,38,18,22,38, 0,49,16,32,18		4, 4, 3,26,59	
		47, 2, 7,42,23,21,20		3,26
10″	55,38,19, 9,40, 8,31,39,53,38		4, 4, 3,30,25	
		47, 2, 3,38,19,50,55		3,26
12″	55,38,19,56,42,12, 9,59,44,33		4, 4, 3,33,51	
		47, 1,59,34,16,17, 4		3,26
14″	55,38,20,43,44,11,44,16, 1,37		4, 4, 3,37,17	
		47, 1,55,30,12,39,47		3,26
16″	55,38,21,30,46, 7,14,28,41,24		4, 4, 3,40,43	
		47, 1,51,26, 8,59, 4		3,26
18″	55,38,22,17,47,58,40,37,40,28		4, 4, 3,44, 9	
		47, 1,47,22, 5,14,55		3,26
20″	55,38,23, 4,49,46, 2,42,55,23		4, 4, 3,47,35	
		47, 1,43,18, 1,27,20		3,26
22″	55,38,23,51,51,29,20,44,22,43		4, 4, 3,51, 1	
		47, 1,39,13,57,36,19		3,26
24″	55,38,24,38,53, 8,34,41,59, 2		4, 4, 3,54,27	
		47, 1,35, 9,53,41,52		3,26
26″	55,38,25,25,54,43,44,35,40,54		4, 4, 3,57,53	
		47, 1,31, 5,49,43,59		3,26
28″	55,38,26,12,56,14,50,25,24,53		4, 4, 4, 1,19	
		47, 1,27, 1,45,42,40		3,26
30″	55,38,26,59,57,41,52,11, 7,33		4, 4, 4, 4,45	
		47, 1,22,57,41,37,55		3,26
32″	55,38,27,46,59, 4,49,52,45,28		4, 4, 4, 8,11	
		47, 1,18,53,37,29,44		3,26
34″	55,38,28,34, 0,23,43,30,15,12		4, 4, 4,11,37	
		47, 1,14,49,33,18, 7		3,26
36″	55,38,29,21, 1,38,33, 3,33,19		4, 4, 4,15, 3	
		47, 1,10,45,29, 3, 4		3,26
38″	55,38,30, 8, 2,49,18,32,36,23		4, 4, 4,18,29	
		47, 1, 6,41,24,44,35		3,26
40″	55,38,30,55, 3,55,59,57,20,58		4, 4, 4,21,55	
		47, 1, 2,37,20,22,40		3,26
42″	55,38,31,42, 4,58,37,17,43,38		4, 4, 4,25,21	
		47, 0,58,33,15,57,19		3,26
44″	55,38,32,29, 5,57,10,33,40,57		4, 4, 4,28,47	
		47, 0,54,29,11,28,32		3,26
46″	55,38,33,16, 6,51,39,45, 9,29		4, 4, 4,32,13	
		47, 0,50,25, 6,56,19		3,26
48″	55,38,34, 3, 7,42, 4,52, 5,48		4, 4, 4,35,39	
		47, 0,46,21, 2,20,40		3,26
50″	55,38,34,50, 8,28,25,54,26,28		4, 4, 4,39, 5	
		47, 0,42,16,57,41,35		3,26
52″	55,38,35,37, 9,10,42,52, 8, 3		4, 4, 4,42,31	
		47, 0,38,12,52,59, 4		3,26
54″	55,38,36,24, 9,48,55,45, 7, 7		4, 4, 4,45,57	
		47, 0,34, 8,48,13, 7		3,26
56″	55,38,37,11,10,23, 4,33,20,14		4, 4, 4,49,23	
		47, 0,30, 4,43,23,44		3,26
58″	55,38,37,58,10,53, 9,16,43,58		4, 4, 4,52,49	
		47, 0,26, 0,38,30,55		
60″	55,38,38,45,11,19, 9,55,14,53			
exact	55,38,38,45,11,19, 9,54,55,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68° 2′ 0″	55,38,38,45,11,19, 9,54,55,12			
		47, 0,21,56,33,32,37		
2″	55,38,39,32,11,41, 6,28,27,49		4, 4, 4,59,49	
		47, 0,17,52,28,32,48		3,26
4″	55,38,40,19,11,58,58,57, 0,37		4, 4, 5, 3,15	
		47, 0,13,48,23,29,33		3,26
6″	55,38,41, 6,12,12,47,20,30,10		4, 4, 5, 6,41	
		47, 0, 9,44,18,22,52		3,26
8″	55,38,41,53,12,22,31,38,53, 2		4, 4, 5,10, 7	
		47, 0, 5,40,13,12,45		3,26
10″	55,38,42,40,12,28,11,52, 5,47		4, 4, 5,13,33	
		47, 0, 1,36, 7,59,12		3,26
12″	55,38,43,27,12,29,48, 0, 4,59		4, 4, 5,16,59	
		46,59,57,32, 2,42,13		3,26
14″	55,38,44,14,12,27,20, 2,47,12		4, 4, 5,20,25	
		46,59,53,27,57,21,48		3,26
16″	55,38,45, 1,12,20,48, 0, 9, 0		4, 4, 5,23,51	
		46,59,49,23,51,57,57		3,26
18″	55,38,45,48,12,10,11,52, 6,57		4, 4, 5,27,17	
		46,59,45,19,46,30,40		3,26
20″	55,38,46,35,11,55,31,38,37,37		4, 4, 5,30,43	
		46,59,41,15,40,59,57		3,26
22″	55,38,47,22,11,36,47,19,37,34		4, 4, 5,34, 9	
		46,59,37,11,35,25,48		3,26
24″	55,38,48, 9,11,13,58,55, 3,22		4, 4, 5,37,35	
		46,59,33, 7,29,48,13		3,26
26″	55,38,48,56,10,47, 6,24,51,35		4, 4, 5,41, 1	
		46,59,29, 3,24, 7,12		3,26
28″	55,38,49,43,10,16, 9,48,58,47		4, 4, 5,44,27	
		46,59,24,59,18,22,45		3,26
30″	55,38,50,30, 9,41, 9, 7,21,32		4, 4, 5,47,53	
		46,59,20,55,12,34,52		3,26
32″	55,38,51,17, 9, 2, 4,19,56,24		4, 4, 5,51,19	
		46,59,16,51, 6,43,33		3,26
34″	55,38,52, 4, 8,18,55,26,39,57		4, 4, 5,54,45	
		46,59,12,47, 0,48,48		3,26
36″	55,38,52,51, 7,31,42,27,28,45		4, 4, 5,58,11	
		46,59, 8,42,54,50,37		3,26
38″	55,38,53,38, 6,40,25,22,19,22		4, 4, 6, 1,37	
		46,59, 4,38,48,49, 0		3,26
40″	55,38,54,25, 5,45, 4,11, 8,22		4, 4, 6, 5, 3	
		46,59, 0,34,42,43,57		3,26
42″	55,38,55,12, 4,45,38,53,52,19		4, 4, 6, 8,29	
		46,58,56,30,36,35,28		3,26
44″	55,38,55,59, 3,42, 9,30,27,47		4, 4, 6,11,55	
		46,58,52,26,30,23,33		3,26
46″	55,38,56,46, 2,34,36, 0,51,20		4, 4, 6,15,21	
		46,58,48,22,24, 8,12		3,26
48″	55,38,57,33, 1,22,58,24,59,32		4, 4, 6,18,47	
		46,58,44,18,17,49,25		3,26
50″	55,38,58,20, 0, 7,16,42,48,57		4, 4, 6,22,13	
		46,58,40,14,11,27,12		3,26
52″	55,38,59, 6,58,47,30,54,16, 9		4, 4, 6,25,39	
		46,58,36,10, 5, 1,33		3,26
54″	55,38,59,53,57,23,40,59,17,42		4, 4, 6,29, 5	
		46,58,32, 5,58,32,28		3,26
56″	55,39, 0,40,55,55,46,57,50,10		4, 4, 6,32,31	
		46,58,28, 1,51,59,57		3,26
58″	55,39, 1,27,54,23,48,49,50, 7		4, 4, 6,35,57	
		46,58,23,57,45,24, 0		
60″	55,39, 2,14,52,47,46,35,14, 7			
exact	55,39, 2,14,52,47,46,35, 5,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68° 3′ 0″	55,39, 2,14,52,47,46,35, 5,27			
		46,58,19,53,38,43,42		
2″	55,39, 3, 1,51, 7,40,13,49, 9		4, 4, 6,42,52	
		46,58,15,49,32, 0,50		3,26
4″	55,39, 3,48,49,23,29,45,49,59		4, 4, 6,46,18	
		46,58,11,45,25,14,32		3,26
6″	55,39, 4,35,47,35,15,11, 4,31		4, 4, 6,49,44	
		46,58, 7,41,18,24,48		3,26
8″	55,39, 5,22,45,42,56,29,29,19		4, 4, 6,53,10	
		46,58, 3,37,11,31,38		3,26
10″	55,39, 6, 9,43,46,33,41, 0,57		4, 4, 6,56,36	
		46,57,59,33, 4,35, 2		3,26
12″	55,39, 6,56,41,46, 6,45,35,59		4, 4, 7, 0, 2	
		46,57,55,28,57,35, 0		3,26
14″	55,39, 7,43,39,41,35,43,10,59		4, 4, 7, 3,28	
		46,57,51,24,50,31,32		3,26
16″	55,39, 8,30,37,33, 0,33,42,31		4, 4, 7, 6,54	
		46,57,47,20,43,24,38		3,26
18″	55,39, 9,17,35,20,21,17, 7, 9		4, 4, 7,10,20	
		46,57,43,16,36,14,18		3,26
20″	55,39,10, 4,33, 3,37,53,21,27		4, 4, 7,13,46	
		46,57,39,12,29, 0,32		3,26
22″	55,39,10,51,30,42,50,22,21,59		4, 4, 7,17,12	
		46,57,35, 8,21,43,20		3,26
24″	55,39,11,38,28,17,58,44, 5,19		4, 4, 7,20,38	
		46,57,31, 4,14,22,42		3,26
26″	55,39,12,25,25,49, 2,58,28, 1		4, 4, 7,24, 4	
		46,57,27, 0, 6,58,38		3,26
28″	55,39,13,12,23,16, 3, 5,26,39		4, 4, 7,27,30	
		46,57,22,55,59,31, 8		3,26
30″	55,39,13,59,20,38,59, 4,57,47		4, 4, 7,30,56	
		46,57,18,51,52, 0,12		3,26
32″	55,39,14,46,17,57,50,56,57,59		4, 4, 7,34,22	
		46,57,14,47,44,25,50		3,26
34″	55,39,15,33,15,12,38,41,23,49		4, 4, 7,37,48	
		46,57,10,43,36,48, 2		3,26
36″	55,39,16,20,12,23,22,18,11,51		4, 4, 7,41,14	
		46,57, 6,39,29, 6,48		3,26
38″	55,39,17, 7, 9,30, 1,47,18,39		4, 4, 7,44,40	
		46,57, 2,35,21,22, 8		3,26
40″	55,39,17,54, 6,32,37, 8,40,47		4, 4, 7,48, 6	
		46,56,58,31,13,34, 2		3,26
42″	55,39,18,41, 3,31, 8,22,14,49		4, 4, 7,51,32	
		46,56,54,27, 5,42,30		3,26
44″	55,39,19,28, 0,25,35,27,57,19		4, 4, 7,54,58	
		46,56,50,22,57,47,32		3,26
46″	55,39,20,14,57,15,58,25,44,51		4, 4, 7,58,24	
		46,56,46,18,49,49, 8		3,26
48″	55,39,21, 1,54, 2,17,15,33,59		4, 4, 8, 1,50	
		46,56,42,14,41,47,18		3,26
50″	55,39,21,48,50,44,31,57,21,17		4, 4, 8, 5,16	
		46,56,38,10,33,42, 2		3,26
52″	55,39,22,35,47,22,42,31, 3,19		4, 4, 8, 8,42	
		46,56,34, 6,25,33,20		3,26
54″	55,39,23,22,43,56,48,56,36,39		4, 4, 8,12, 8	
		46,56,30, 2,17,21,12		3,26
56″	55,39,24, 9,40,26,51,13,57,51		4, 4, 8,15,34	
		46,56,25,58, 9, 5,38		3,26
58″	55,39,24,56,36,52,49,23, 3,29		4, 4, 8,19, 0	
		46,56,21,54, 0,46,38		
60″	55,39,25,43,33,14,43,23,50, 7			
exact	55,39,25,43,33,14,43,23,48,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68° 4′ 0″	55,39,25,43,33,14,43,23,48,15			
		46,56,17,49,52,24, 9		
2″	55,39,26,30,29,32,33,16,12,24		4, 4, 8,25,51	
		46,56,13,45,43,58,18		3,26
4″	55,39,27,17,25,46,19, 0,10,42		4, 4, 8,29,17	
		46,56, 9,41,35,29, 1		3,26
6″	55,39,28, 4,21,56, 0,35,39,43		4, 4, 8,32,43	
		46,56, 5,37,26,56,18		3,26
8″	55,39,28,51,18, 1,38, 2,36, 1		4, 4, 8,36, 9	
		46,56, 1,33,18,20, 9		3,26
10″	55,39,29,38,14, 3,11,20,56,10		4, 4, 8,39,35	
		46,55,57,29, 9,40,34		3,26
12″	55,39,30,25,10, 0,40,30,36,44		4, 4, 8,43, 1	
		46,55,53,25, 0,57,33		3,26
14″	55,39,31,12, 5,54, 5,31,34,17		4, 4, 8,46,27	
		46,55,49,20,52,11, 6		3,26
16″	55,39,31,59, 1,43,26,23,45,23		4, 4, 8,49,53	
		46,55,45,16,43,21,13		3,26
18″	55,39,32,45,57,28,43, 7, 6,36		4, 4, 8,53,19	
		46,55,41,12,34,27,54		3,26
20″	55,39,33,32,53, 9,55,41,34,30		4, 4, 8,56,45	
		46,55,37, 8,25,31, 9		3,26
22″	55,39,34,19,48,47, 4, 7, 5,39		4, 4, 9, 0,11	
		46,55,33, 4,16,30,58		3,26
24″	55,39,35, 6,44,20, 8,23,36,37		4, 4, 9, 3,37	
		46,55,29, 0, 7,27,21		3,26
26″	55,39,35,53,39,49, 8,31, 3,58		4, 4, 9, 7, 3	
		46,55,24,55,58,20,18		3,26
28″	55,39,36,40,35,14, 4,29,24,16		4, 4, 9,10,29	
		46,55,20,51,49, 9,49		3,26
30″	55,39,37,27,30,34,56,18,34, 5		4, 4, 9,13,55	
		46,55,16,47,39,55,54		3,26
32″	55,39,38,14,25,51,43,58,29,59		4, 4, 9,17,21	
		46,55,12,43,30,38,33		3,26
34″	55,39,39, 1,21, 4,27,29, 8,32		4, 4, 9,20,47	
		46,55, 8,39,21,17,46		3,26
36″	55,39,39,48,16,13, 6,50,26,18		4, 4, 9,24,13	
		46,55, 4,35,11,53,33		3,26
38″	55,39,40,35,11,17,42, 2,19,51		4, 4, 9,27,39	
		46,55, 0,31, 2,25,54		3,26
40″	55,39,41,22, 6,18,13, 4,45,45		4, 4, 9,31, 5	
		46,54,56,26,52,54,49		3,26
42″	55,39,42, 9, 1,14,39,57,40,34		4, 4, 9,34,31	
		46,54,52,22,43,20,18		3,26
44″	55,39,42,55,56, 7, 2,41, 0,52		4, 4, 9,37,57	
		46,54,48,18,33,42,21		3,26
46″	55,39,43,42,50,55,21,14,43,13		4, 4, 9,41,23	
		46,54,44,14,24, 0,58		3,26
48″	55,39,44,29,45,39,35,38,44,11		4, 4, 9,44,49	
		46,54,40,10,14,16, 9		3,26
50″	55,39,45,16,40,19,45,53, 0,20		4, 4, 9,48,15	
		46,54,36, 6, 4,27,54		3,26
52″	55,39,46, 3,34,55,51,57,28,14		4, 4, 9,51,41	
		46,54,32, 1,54,36,13		3,26
54″	55,39,46,50,29,27,53,52, 4,27		4, 4, 9,55, 7	
		46,54,27,57,44,41, 6		3,26
56″	55,39,47,37,23,55,51,36,45,33		4, 4, 9,58,33	
		46,54,23,53,34,42,33		3,26
58″	55,39,48,24,18,19,45,11,28, 6		4, 4,10, 1,59	
		46,54,19,49,24,40,34		
60″	55,39,49,11,12,39,34,36, 8,40			
exact	55,39,49,11,12,39,34,36,16,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68° 5′ 0″	55,39,49,11,12,39,34,36,16,33			
		46,54,15,45,14,36,10		
2″	55,39,49,58, 6,55,19,50,52,43		4, 4,10, 8,46	
		46,54,11,41, 4,27,24		3,26
4″	55,39,50,45, 1, 7, 0,55,20, 7		4, 4,10,12,12	
		46,54, 7,36,54,15,12		3,26
6″	55,39,51,31,55,14,37,49,35,19		4, 4,10,15,38	
		46,54, 3,32,43,59,34		3,26
8″	55,39,52,18,49,18,10,33,34,53		4, 4,10,19, 4	
		46,53,59,28,33,40,30		3,26
10″	55,39,53, 5,43,17,39, 7,15,23		4, 4,10,22,30	
		46,53,55,24,23,18, 0		3,26
12″	55,39,53,52,37,13, 3,30,33,23		4, 4,10,25,56	
		46,53,51,20,12,52, 4		3,26
14″	55,39,54,39,31, 4,23,43,25,27		4, 4,10,29,22	
		46,53,47,16, 2,22,42		3,26
16″	55,39,55,26,24,51,39,45,48, 9		4, 4,10,32,48	
		46,53,43,11,51,49,54		3,26
18″	55,39,56,13,18,34,51,37,38, 3		4, 4,10,36,14	
		46,53,39, 7,41,13,40		3,26
20″	55,39,57, 0,12,13,59,18,51,43		4, 4,10,39,40	
		46,53,35, 3,30,34, 0		3,26
22″	55,39,57,47, 5,49, 2,49,25,43		4, 4,10,43, 6	
		46,53,30,59,19,50,54		3,26
24″	55,39,58,33,59,20, 2, 9,16,37		4, 4,10,46,32	
		46,53,26,55, 9, 4,22		3,26
26″	55,39,59,20,52,46,57,18,20,59		4, 4,10,49,58	
		46,53,22,50,58,14,24		3,26
28″	55,40, 0, 7,46, 9,48,16,35,23		4, 4,10,53,24	
		46,53,18,46,47,21, 0		3,26
30″	55,40, 0,54,39,28,35, 3,56,23		4, 4,10,56,50	
		46,53,14,42,36,24,10		3,26
32″	55,40, 1,41,32,43,17,40,20,33		4, 4,11, 0,16	
		46,53,10,38,25,23,54		3,26
34″	55,40, 2,28,25,53,56, 5,44,27		4, 4,11, 3,42	
		46,53, 6,34,14,20,12		3,26
36″	55,40, 3,15,19, 0,30,20, 4,39		4, 4,11, 7, 8	
		46,53, 2,30, 3,13, 4		3,26
38″	55,40, 4, 2,12, 3, 0,23,17,43		4, 4,11,10,34	
		46,52,58,25,52, 2,30		3,26
40″	55,40, 4,49, 5, 1,26,15,20,13		4, 4,11,14, 0	
		46,52,54,21,40,48,30		3,26
42″	55,40, 5,35,57,55,47,56, 8,43		4, 4,11,17,26	
		46,52,50,17,29,31, 4		3,26
44″	55,40, 6,22,50,46, 5,25,39,47		4, 4,11,20,52	
		46,52,46,13,18,10,12		3,26
46″	55,40, 7, 9,43,32,18,43,49,59		4, 4,11,24,18	
		46,52,42, 9, 6,45,54		3,26
48″	55,40, 7,56,36,14,27,50,35,53		4, 4,11,27,44	
		46,52,38, 4,55,18,10		3,26
50″	55,40, 8,43,28,52,32,45,54, 3		4, 4,11,31,10	
		46,52,34, 0,43,47, 0		3,26
52″	55,40, 9,30,21,26,33,29,41, 3		4, 4,11,34,36	
		46,52,29,56,32,12,24		3,26
54″	55,40,10,17,13,56,30, 1,53,27		4, 4,11,38, 2	
		46,52,25,52,20,34,22		3,26
56″	55,40,11, 4, 6,22,22,22,27,49		4, 4,11,41,28	
		46,52,21,48, 8,52,54		3,26
58″	55,40,11,50,58,44,10,31,20,43		4, 4,11,44,54	
		46,52,17,43,57, 8, 0		
60″	55,40,12,37,51, 1,54,28,28,43			
exact	55,40,12,37,51, 1,54,28,50,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68° 6′ 0″	55,40,12,37,51, 1,54,28,50,15			
		46,52,13,39,45,22, 0		
2″	55,40,13,24,43,15,34,14,12,15		4, 4,11,51,36	
		46,52, 9,35,33,30,24		3,26
4″	55,40,14,11,35,25, 9,47,42,39		4, 4,11,55, 2	
		46,52, 5,31,21,35,22		3,26
6″	55,40,14,58,27,30,41, 9,18, 1		4, 4,11,58,28	
		46,52, 1,27, 9,36,54		3,26
8″	55,40,15,45,19,32, 8,18,54,55		4, 4,12, 1,54	
		46,51,57,22,57,35, 0		3,26
10″	55,40,16,32,11,29,31,16,29,55		4, 4,12, 5,20	
		46,51,53,18,45,29,40		3,26
12″	55,40,17,19, 3,22,50, 1,59,35		4, 4,12, 8,46	
		46,51,49,14,33,20,54		3,26
14″	55,40,18, 5,55,12, 4,35,20,29		4, 4,12,12,12	
		46,51,45,10,21, 8,42		3,26
16″	55,40,18,52,46,57,14,56,29,11		4, 4,12,15,38	
		46,51,41, 6, 8,53, 4		3,26
18″	55,40,19,39,38,38,21, 5,22,15		4, 4,12,19, 4	
		46,51,37, 1,56,34, 0		3,26
20″	55,40,20,26,30,15,23, 1,56,15		4, 4,12,22,30	
		46,51,32,57,44,11,30		3,26
22″	55,40,21,13,21,48,20,46, 7,45		4, 4,12,25,56	
		46,51,28,53,31,45,34		3,26
24″	55,40,22, 0,13,17,14,17,53,19		4, 4,12,29,22	
		46,51,24,49,19,16,12		3,26
26″	55,40,22,47, 4,42, 3,37, 9,31		4, 4,12,32,48	
		46,51,20,45, 6,43,24		3,26
28″	55,40,23,33,56, 2,48,43,52,55		4, 4,12,36,14	
		46,51,16,40,54, 7,10		3,26
30″	55,40,24,20,47,19,29,38, 0, 5		4, 4,12,39,40	
		46,51,12,36,41,27,30		3,26
32″	55,40,25, 7,38,32, 6,19,27,35		4, 4,12,43, 6	
		46,51, 8,32,28,44,24		3,26
34″	55,40,25,54,29,40,38,48,11,59		4, 4,12,46,32	
		46,51, 4,28,15,57,52		3,26
36″	55,40,26,41,20,45, 7, 4, 9,51		4, 4,12,49,58	
		46,51, 0,24, 3, 7,54		3,26
38″	55,40,27,28,11,45,31, 7,17,45		4, 4,12,53,24	
		46,50,56,19,50,14,30		3,26
40″	55,40,28,15, 2,41,50,57,32,15		4, 4,12,56,50	
		46,50,52,15,37,17,40		3,26
42″	55,40,29, 1,53,34, 6,34,49,55		4, 4,13, 0,16	
		46,50,48,11,24,17,24		3,26
44″	55,40,29,48,44,22,17,59, 7,19		4, 4,13, 3,42	
		46,50,44, 7,11,13,42		3,26
46″	55,40,30,35,35, 6,25,10,21, 1		4, 4,13, 7, 8	
		46,50,40, 2,58, 6,34		3,26
48″	55,40,31,22,25,46,28, 8,27,35		4, 4,13,10,34	
		46,50,35,58,44,56, 0		3,26
50″	55,40,32, 9,16,22,26,53,23,35		4, 4,13,14, 0	
		46,50,31,54,31,42, 0		3,26
52″	55,40,32,56, 6,54,21,25, 5,35		4, 4,13,17,26	
		46,50,27,50,18,24,34		3,26
54″	55,40,33,42,57,22,11,43,30, 9		4, 4,13,20,52	
		46,50,23,46, 5, 3,42		3,26
56″	55,40,34,29,47,45,57,48,33,51		4, 4,13,24,18	
		46,50,19,41,51,39,24		3,26
58″	55,40,35,16,38, 5,39,40,13,15		4, 4,13,27,44	
		46,50,15,37,38,11,40		
60″	55,40,36, 3,28,21,17,18,24,55			
exact	55,40,36, 3,28,21,17,18,56,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68° 7′ 0″	55,40,36, 3,28,21,17,18,56,10			
		46,50,11,33,24,43,53		
2″	55,40,36,50,18,32,50,43,40, 3		4, 4,13,34,21	
		46,50, 7,29,11, 9,32		3,25
4″	55,40,37,37, 8,40,19,54,49,35		4, 4,13,37,46	
		46,50, 3,24,57,31,46		3,25
6″	55,40,38,23,58,43,44,52,21,21		4, 4,13,41,11	
		46,49,59,20,43,50,35		3,25
8″	55,40,39,10,48,43, 5,36,11,56		4, 4,13,44,36	
		46,49,55,16,30, 5,59		3,25
10″	55,40,39,57,38,38,22, 6,17,55		4, 4,13,48, 1	
		46,49,51,12,16,17,58		3,25
12″	55,40,40,44,28,29,34,22,35,53		4, 4,13,51,26	
		46,49,47, 8, 2,26,32		3,25
14″	55,40,41,31,18,16,42,25, 2,25		4, 4,13,54,51	
		46,49,43, 3,48,31,41		3,25
16″	55,40,42,18, 7,59,46,13,34, 6		4, 4,13,58,16	
		46,49,38,59,34,33,25		3,25
18″	55,40,43, 4,57,38,45,48, 7,31		4, 4,14, 1,41	
		46,49,34,55,20,31,44		3,25
20″	55,40,43,51,47,13,41, 8,39,15		4, 4,14, 5, 6	
		46,49,30,51, 6,26,38		3,25
22″	55,40,44,38,36,44,32,15, 5,53		4, 4,14, 8,31	
		46,49,26,46,52,18, 7		3,25
24″	55,40,45,25,26,11,19, 7,24, 0		4, 4,14,11,56	
		46,49,22,42,38, 6,11		3,25
26″	55,40,46,12,15,34, 1,45,30,11		4, 4,14,15,21	
		46,49,18,38,23,50,50		3,25
28″	55,40,46,59, 4,52,40, 9,21, 1		4, 4,14,18,46	
		46,49,14,34, 9,32, 4		3,25
30″	55,40,47,45,54, 7,14,18,53, 5		4, 4,14,22,11	
		46,49,10,29,55, 9,53		3,25
32″	55,40,48,32,43,17,44,14, 2,58		4, 4,14,25,36	
		46,49, 6,25,40,44,17		3,25
34″	55,40,49,19,32,24, 9,54,47,15		4, 4,14,29, 1	
		46,49, 2,21,26,15,16		3,25
36″	55,40,50, 6,21,26,31,21, 2,31		4, 4,14,32,26	
		46,48,58,17,11,42,50		3,25
38″	55,40,50,53,10,24,48,32,45,21		4, 4,14,35,51	
		46,48,54,12,57, 6,59		3,25
40″	55,40,51,39,59,19, 1,29,52,20		4, 4,14,39,16	
		46,48,50, 8,42,27,43		3,25
42″	55,40,52,26,48, 9,10,12,20, 3		4, 4,14,42,41	
		46,48,46, 4,27,45, 2		3,25
44″	55,40,53,13,36,55,14,40, 5, 5		4, 4,14,46, 6	
		46,48,42, 0,12,58,56		3,25
46″	55,40,54, 0,25,37,14,53, 4, 1		4, 4,14,49,31	
		46,48,37,55,58, 9,25		3,25
48″	55,40,54,47,14,15,10,51,13,26		4, 4,14,52,56	
		46,48,33,51,43,16,29		3,25
50″	55,40,55,34, 2,49, 2,34,29,55		4, 4,14,56,21	
		46,48,29,47,28,20, 8		3,25
52″	55,40,56,20,51,18,50, 2,50, 3		4, 4,14,59,46	
		46,48,25,43,13,20,22		3,25
54″	55,40,57, 7,39,44,33,16,10,25		4, 4,15, 3,11	
		46,48,21,38,58,17,11		3,25
56″	55,40,57,54,28, 6,12,14,27,36		4, 4,15, 6,36	
		46,48,17,34,43,10,35		3,25
58″	55,40,58,41,16,23,46,57,38,11		4, 4,15,10, 1	
		46,48,13,30,28, 0,34		
60″	55,40,59,28, 4,37,17,25,38,45			
exact	55,40,59,28, 4,37,17,25, 8, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68° 8′ 0″	55,40,59,28, 4,37,17,25, 8, 5			
		46,48, 9,26,12,44, 3		
2″	55,41, 0,14,52,46,43,37,52, 8		4, 4,15,17, 3	
		46,48, 5,21,57,27, 0		3,25
4″	55,41, 1, 1,40,52, 5,35,19, 8		4, 4,15,20,28	
		46,48, 1,17,42, 6,32		3,25
6″	55,41, 1,48,28,53,23,17,25,40		4, 4,15,23,53	
		46,47,57,13,26,42,39		3,25
8″	55,41, 2,35,16,50,36,44, 8,19		4, 4,15,27,18	
		46,47,53, 9,11,15,21		3,25
10″	55,41, 3,22, 4,43,45,55,23,40		4, 4,15,30,43	
		46,47,49, 4,55,44,38		3,25
12″	55,41, 4, 8,52,32,50,51, 8,18		4, 4,15,34, 8	
		46,47,45, 0,40,10,30		3,25
14″	55,41, 4,55,40,17,51,31,18,48		4, 4,15,37,33	
		46,47,40,56,24,32,57		3,25
16″	55,41, 5,42,27,58,47,55,51,45		4, 4,15,40,58	
		46,47,36,52, 8,51,59		3,25
18″	55,41, 6,29,15,35,40, 4,43,44		4, 4,15,44,23	
		46,47,32,47,53, 7,36		3,25
20″	55,41, 7,16, 3, 8,27,57,51,20		4, 4,15,47,48	
		46,47,28,43,37,19,48		3,25
22″	55,41, 8, 2,50,37,11,35,11, 8		4, 4,15,51,13	
		46,47,24,39,21,28,35		3,25
24″	55,41, 8,49,38, 1,50,56,39,43		4, 4,15,54,38	
		46,47,20,35, 5,33,57		3,25
26″	55,41, 9,36,25,22,26, 2,13,40		4, 4,15,58, 3	
		46,47,16,30,49,35,54		3,25
28″	55,41,10,23,12,38,56,51,49,34		4, 4,16, 1,28	
		46,47,12,26,33,34,26		3,25
30″	55,41,11, 9,59,51,23,25,24, 0		4, 4,16, 4,53	
		46,47, 8,22,17,29,33		3,25
32″	55,41,11,56,46,59,45,42,53,33		4, 4,16, 8,18	
		46,47, 4,18, 1,21,15		3,25
34″	55,41,12,43,34, 4, 3,44,14,48		4, 4,16,11,43	
		46,47, 0,13,45, 9,32		3,25
36″	55,41,13,30,21, 4,17,29,24,20		4, 4,16,15, 8	
		46,46,56, 9,28,54,24		3,25
38″	55,41,14,17, 8, 0,26,58,18,44		4, 4,16,18,33	
		46,46,52, 5,12,35,51		3,25
40″	55,41,15, 3,54,52,32,10,54,35		4, 4,16,21,58	
		46,46,48, 0,56,13,53		3,25
42″	55,41,15,50,41,40,33, 7, 8,28		4, 4,16,25,23	
		46,46,43,56,39,48,30		3,25
44″	55,41,16,37,28,24,29,46,56,58		4, 4,16,28,48	
		46,46,39,52,23,19,42		3,25
46″	55,41,17,24,15, 4,22,10,16,40		4, 4,16,32,13	
		46,46,35,48, 6,47,29		3,25
48″	55,41,18,11, 1,40,10,17, 4, 9		4, 4,16,35,38	
		46,46,31,43,50,11,51		3,25
50″	55,41,18,57,48,11,54, 7,16, 0		4, 4,16,39, 3	
		46,46,27,39,33,32,48		3,25
52″	55,41,19,44,34,39,33,40,48,48		4, 4,16,42,28	
		46,46,23,35,16,50,20		3,25
54″	55,41,20,31,21, 3, 8,57,39, 8		4, 4,16,45,53	
		46,46,19,31, 0, 4,27		3,25
56″	55,41,21,18, 7,22,39,57,43,35		4, 4,16,49,18	
		46,46,15,26,43,15, 9		3,25
58″	55,41,22, 4,53,38, 6,40,58,44		4, 4,16,52,43	
		46,46,11,22,26,22,26		
60″	55,41,22,51,39,49,29, 7,21,10			
exact	55,41,22,51,39,49,29, 7, 6,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68° 9′ 0″	55,41,22,51,39,49,29, 7, 6,43			
		46,46, 7,18, 9,24,43		
2″	55,41,23,38,25,56,47,16,31,26		4, 4,16,59,39	
		46,46, 3,13,52,25, 4		3,25
4″	55,41,24,25,12, 0, 1, 8,56,30		4, 4,17, 3, 4	
		46,45,59, 9,35,22, 0		3,25
6″	55,41,25,11,57,59,10,44,18,30		4, 4,17, 6,29	
		46,45,55, 5,18,15,31		3,25
8″	55,41,25,58,43,54,16, 2,34, 1		4, 4,17, 9,54	
		46,45,51, 1, 1, 5,37		3,25
10″	55,41,26,45,29,45,17, 3,39,38		4, 4,17,13,19	
		46,45,46,56,43,52,18		3,25
12″	55,41,27,32,15,32,13,47,31,56		4, 4,17,16,44	
		46,45,42,52,26,35,34		3,25
14″	55,41,28,19, 1,15, 6,14, 7,30		4, 4,17,20, 9	
		46,45,38,48, 9,15,25		3,25
16″	55,41,29, 5,46,53,54,23,22,55		4, 4,17,23,34	
		46,45,34,43,51,51,51		3,25
18″	55,41,29,52,32,28,38,15,14,46		4, 4,17,26,59	
		46,45,30,39,34,24,52		3,25
20″	55,41,30,39,17,59,17,49,39,38		4, 4,17,30,24	
		46,45,26,35,16,54,28		3,25
22″	55,41,31,26, 3,25,53, 6,34, 6		4, 4,17,33,49	
		46,45,22,30,59,20,39		3,25
24″	55,41,32,12,48,48,24, 5,54,45		4, 4,17,37,14	
		46,45,18,26,41,43,25		3,25
26″	55,41,32,59,34, 6,50,47,38,10		4, 4,17,40,39	
		46,45,14,22,24, 2,46		3,25
28″	55,41,33,46,19,21,13,11,40,56		4, 4,17,44, 4	
		46,45,10,18, 6,18,42		3,25
30″	55,41,34,33, 4,31,31,17,59,38		4, 4,17,47,29	
		46,45, 6,13,48,31,13		3,25
32″	55,41,35,19,49,37,45, 6,30,51		4, 4,17,50,54	
		46,45, 2, 9,30,40,19		3,25
34″	55,41,36, 6,34,39,54,37,11,10		4, 4,17,54,19	
		46,44,58, 5,12,46, 0		3,25
36″	55,41,36,53,19,37,59,49,57,10		4, 4,17,57,44	
		46,44,54, 0,54,48,16		3,25
38″	55,41,37,40, 4,32, 0,44,45,26		4, 4,18, 1, 9	
		46,44,49,56,36,47, 7		3,25
40″	55,41,38,26,49,21,57,21,32,33		4, 4,18, 4,34	
		46,44,45,52,18,42,33		3,25
42″	55,41,39,13,34, 7,49,40,15, 6		4, 4,18, 7,59	
		46,44,41,48, 0,34,34		3,25
44″	55,41,40, 0,18,49,37,40,49,40		4, 4,18,11,24	
		46,44,37,43,42,23,10		3,25
46″	55,41,40,47, 3,27,21,23,12,50		4, 4,18,14,49	
		46,44,33,39,24, 8,21		3,25
48″	55,41,41,33,48, 1, 0,47,21,11		4, 4,18,18,14	
		46,44,29,35, 5,50, 7		3,25
50″	55,41,42,20,32,30,35,53,11,18		4, 4,18,21,39	
		46,44,25,30,47,28,28		3,25
52″	55,41,43, 7,16,56, 6,40,39,46		4, 4,18,25, 4	
		46,44,21,26,29, 3,24		3,25
54″	55,41,43,54, 1,17,33, 9,43,10		4, 4,18,28,29	
		46,44,17,22,10,34,55		3,25
56″	55,41,44,40,45,34,55,20,18, 5		4, 4,18,31,54	
		46,44,13,17,52, 3, 1		3,25
58″	55,41,45,27,29,48,13,12,21, 6		4, 4,18,35,19	
		46,44, 9,13,33,27,42		
60″	55,41,46,14,13,57,26,45,48,48			
exact	55,41,46,14,13,57,26,45,39,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°10′ 0″	55,41,46,14,13,57,26,45,39,48			
		46,44, 5, 9,14,48, 8		
2″	55,41,47, 0,58, 2,36, 0,27,56		4, 4,18,42,11	
		46,44, 1, 4,56, 5,57		3,25
4″	55,41,47,47,42, 3,40,56,33,53		4, 4,18,45,36	
		46,43,57, 0,37,20,21		3,25
6″	55,41,48,34,26, 0,41,33,54,14		4, 4,18,49, 1	
		46,43,52,56,18,31,20		3,25
8″	55,41,49,21, 9,53,37,52,25,34		4, 4,18,52,26	
		46,43,48,51,59,38,54		3,25
10″	55,41,50, 7,53,42,29,52, 4,28		4, 4,18,55,51	
		46,43,44,47,40,43, 3		3,25
12″	55,41,50,54,37,27,17,32,47,31		4, 4,18,59,16	
		46,43,40,43,21,43,47		3,25
14″	55,41,51,41,21, 8, 0,54,31,18		4, 4,19, 2,41	
		46,43,36,39, 2,41, 6		3,25
16″	55,41,52,28, 4,44,39,57,12,24		4, 4,19, 6, 6	
		46,43,32,34,43,35, 0		3,25
18″	55,41,53,14,48,17,14,40,47,24		4, 4,19, 9,31	
		46,43,28,30,24,25,29		3,25
20″	55,41,54, 1,31,45,45, 5,12,53		4, 4,19,12,56	
		46,43,24,26, 5,12,33		3,25
22″	55,41,54,48,15,10,11,10,25,26		4, 4,19,16,21	
		46,43,20,21,45,56,12		3,25
24″	55,41,55,34,58,30,32,56,21,38		4, 4,19,19,46	
		46,43,16,17,26,36,26		3,25
26″	55,41,56,21,41,46,50,22,58, 4		4, 4,19,23,11	
		46,43,12,13, 7,13,15		3,25
28″	55,41,57, 8,24,59, 3,30,11,19		4, 4,19,26,36	
		46,43, 8, 8,47,46,39		3,25
30″	55,41,57,55, 8, 7,12,17,57,58		4, 4,19,30, 1	
		46,43, 4, 4,28,16,38		3,25
32″	55,41,58,41,51,11,16,46,14,36		4, 4,19,33,26	
		46,43, 0, 0, 8,43,12		3,25
34″	55,41,59,28,34,11,16,54,57,48		4, 4,19,36,51	
		46,42,55,55,49, 6,21		3,25
36″	55,42, 0,15,17, 7,12,44, 4, 9		4, 4,19,40,16	
		46,42,51,51,29,26, 5		3,25
38″	55,42, 1, 1,59,59, 4,13,30,14		4, 4,19,43,41	
		46,42,47,47, 9,42,24		3,25
40″	55,42, 1,48,42,46,51,23,12,38		4, 4,19,47, 6	
		46,42,43,42,49,55,18		3,25
42″	55,42, 2,35,25,30,34,13, 7,56		4, 4,19,50,31	
		46,42,39,38,30, 4,47		3,25
44″	55,42, 3,22, 8,10,12,43,12,43		4, 4,19,53,56	
		46,42,35,34,10,10,51		3,25
46″	55,42, 4, 8,50,45,46,53,23,34		4, 4,19,57,21	
		46,42,31,29,50,13,30		3,25
48″	55,42, 4,55,33,17,16,43,37, 4		4, 4,20, 0,46	
		46,42,27,25,30,12,44		3,25
50″	55,42, 5,42,15,44,42,13,49,48		4, 4,20, 4,11	
		46,42,23,21,10, 8,33		3,25
52″	55,42, 6,28,58, 8, 3,23,58,21		4, 4,20, 7,36	
		46,42,19,16,50, 0,57		3,25
54″	55,42, 7,15,40,27,20,13,59,18		4, 4,20,11, 1	
		46,42,15,12,29,49,56		3,25
56″	55,42, 8, 2,22,42,32,43,49,14		4, 4,20,14,26	
		46,42,11, 8, 9,35,30		3,25
58″	55,42, 8,49, 4,53,40,53,24,44		4, 4,20,17,51	
		46,42, 7, 3,49,17,39		
60″	55,42, 9,35,47, 0,44,42,42,23			
exact	55,42, 9,35,47, 0,44,42,41,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°11′ 0″	55,42, 9,35,47, 0,44,42,41,58			
		46,42, 2,59,28,56,32		
2″	55,42,10,22,29, 3,44,11,38,30		4, 4,20,24,39	
		46,41,58,55, 8,31,53		3,25
4″	55,42,11, 9,11, 2,39,20,10,23		4, 4,20,28, 4	
		46,41,54,50,48, 3,49		3,25
6″	55,42,11,55,52,57,30, 8,14,12		4, 4,20,31,29	
		46,41,50,46,27,32,20		3,25
8″	55,42,12,42,34,48,16,35,46,32		4, 4,20,34,54	
		46,41,46,42, 6,57,26		3,25
10″	55,42,13,29,16,34,58,42,43,58		4, 4,20,38,19	
		46,41,42,37,46,19, 7		3,25
12″	55,42,14,15,58,17,36,29, 3, 5		4, 4,20,41,44	
		46,41,38,33,25,37,23		3,25
14″	55,42,15, 2,39,56, 9,54,40,28		4, 4,20,45, 9	
		46,41,34,29, 4,52,14		3,25
16″	55,42,15,49,21,30,38,59,32,42		4, 4,20,48,34	
		46,41,30,24,44, 3,40		3,25
18″	55,42,16,36, 3, 1, 3,43,36,22		4, 4,20,51,59	
		46,41,26,20,23,11,41		3,25
20″	55,42,17,22,44,27,24, 6,48, 3		4, 4,20,55,24	
		46,41,22,16, 2,16,17		3,25
22″	55,42,18, 9,25,49,40, 9, 4,20		4, 4,20,58,49	
		46,41,18,11,41,17,28		3,25
24″	55,42,18,56, 7, 7,51,50,21,48		4, 4,21, 2,14	
		46,41,14, 7,20,15,14		3,25
26″	55,42,19,42,48,21,59,10,37, 2		4, 4,21, 5,39	
		46,41,10, 2,59, 9,35		3,25
28″	55,42,20,29,29,32, 2, 9,46,37		4, 4,21, 9, 4	
		46,41, 5,58,38, 0,31		3,25
30″	55,42,21,16,10,38, 0,47,47, 8		4, 4,21,12,29	
		46,41, 1,54,16,48, 2		3,25
32″	55,42,22, 2,51,39,55, 4,35,10		4, 4,21,15,54	
		46,40,57,49,55,32, 8		3,25
34″	55,42,22,49,32,37,45, 0, 7,18		4, 4,21,19,19	
		46,40,53,45,34,12,49		3,25
36″	55,42,23,36,13,31,30,34,20, 7		4, 4,21,22,44	
		46,40,49,41,12,50, 5		3,25
38″	55,42,24,22,54,21,11,47,10,12		4, 4,21,26, 9	
		46,40,45,36,51,23,56		3,25
40″	55,42,25, 9,35, 6,48,38,34, 8		4, 4,21,29,34	
		46,40,41,32,29,54,22		3,25
42″	55,42,25,56,15,48,21, 8,28,30		4, 4,21,32,59	
		46,40,37,28, 8,21,23		3,25
44″	55,42,26,42,56,25,49,16,49,53		4, 4,21,36,24	
		46,40,33,23,46,44,59		3,25
46″	55,42,27,29,36,59,13, 3,34,52		4, 4,21,39,49	
		46,40,29,19,25, 5,10		3,25
48″	55,42,28,16,17,28,32,28,40, 2		4, 4,21,43,14	
		46,40,25,15, 3,21,56		3,25
50″	55,42,29, 2,57,53,47,32, 1,58		4, 4,21,46,39	
		46,40,21,10,41,35,17		3,25
52″	55,42,29,49,38,14,58,13,37,15		4, 4,21,50, 4	
		46,40,17, 6,19,45,13		3,25
54″	55,42,30,36,18,32, 4,33,22,28		4, 4,21,53,29	
		46,40,13, 1,57,51,44		3,25
56″	55,42,31,22,58,45, 6,31,14,12		4, 4,21,56,54	
		46,40, 8,57,35,54,50		3,25
58″	55,42,32, 9,38,54, 4, 7, 9, 2		4, 4,22, 0,19	
		46,40, 4,53,13,54,31		
60″	55,42,32,56,18,58,57,21, 3,33			
exact	55,42,32,56,18,58,57,21,14,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°12′ 0″	55,42,32,56,18,58,57,21,14,52			
		46,40, 0,48,51,52, 8		
2″	55,42,33,42,58,59,46,13, 7, 0		4, 4,22, 7, 2	
		46,39,56,44,29,45, 6		3,25
4″	55,42,34,29,38,56,30,42,52, 6		4, 4,22,10,27	
		46,39,52,40, 7,34,39		3,25
6″	55,42,35,16,18,49,10,50,26,45		4, 4,22,13,52	
		46,39,48,35,45,20,47		3,25
8″	55,42,36, 2,58,37,46,35,47,32		4, 4,22,17,17	
		46,39,44,31,23, 3,30		3,25
10″	55,42,36,49,38,22,17,58,51, 2		4, 4,22,20,42	
		46,39,40,27, 0,42,48		3,25
12″	55,42,37,36,18, 2,44,59,33,50		4, 4,22,24, 7	
		46,39,36,22,38,18,41		3,25
14″	55,42,38,22,57,39, 7,37,52,31		4, 4,22,27,32	
		46,39,32,18,15,51, 9		3,25
16″	55,42,39, 9,37,11,25,53,43,40		4, 4,22,30,57	
		46,39,28,13,53,20,12		3,25
18″	55,42,39,56,16,39,39,47, 3,52		4, 4,22,34,22	
		46,39,24, 9,30,45,50		3,25
20″	55,42,40,42,56, 3,49,17,49,42		4, 4,22,37,47	
		46,39,20, 5, 8, 8, 3		3,25
22″	55,42,41,29,35,23,54,25,57,45		4, 4,22,41,12	
		46,39,16, 0,45,26,51		3,25
24″	55,42,42,16,14,39,55,11,24,36		4, 4,22,44,37	
		46,39,11,56,22,42,14		3,25
26″	55,42,43, 2,53,51,51,34, 6,50		4, 4,22,48, 2	
		46,39, 7,51,59,54,12		3,25
28″	55,42,43,49,32,59,43,34, 1, 2		4, 4,22,51,27	
		46,39, 3,47,37, 2,45		3,25
30″	55,42,44,36,12, 3,31,11, 3,47		4, 4,22,54,52	
		46,38,59,43,14, 7,53		3,25
32″	55,42,45,22,51, 3,14,25,11,40		4, 4,22,58,17	
		46,38,55,38,51, 9,36		3,25
34″	55,42,46, 9,29,58,53,16,21,16		4, 4,23, 1,42	
		46,38,51,34,28, 7,54		3,25
36″	55,42,46,56, 8,50,27,44,29,10		4, 4,23, 5, 7	
		46,38,47,30, 5, 2,47		3,25
38″	55,42,47,42,47,37,57,49,31,57		4, 4,23, 8,32	
		46,38,43,25,41,54,15		3,25
40″	55,42,48,29,26,21,23,31,26,12		4, 4,23,11,57	
		46,38,39,21,18,42,18		3,25
42″	55,42,49,16, 5, 0,44,50, 8,30		4, 4,23,15,22	
		46,38,35,16,55,26,56		3,25
44″	55,42,50, 2,43,36, 1,45,35,26		4, 4,23,18,47	
		46,38,31,12,32, 8, 9		3,25
46″	55,42,50,49,22, 7,14,17,43,35		4, 4,23,22,12	
		46,38,27, 8, 8,45,57		3,25
48″	55,42,51,36, 0,34,22,26,29,32		4, 4,23,25,37	
		46,38,23, 3,45,20,20		3,25
50″	55,42,52,22,38,57,26,11,49,52		4, 4,23,29, 2	
		46,38,18,59,21,51,18		3,25
52″	55,42,53, 9,17,16,25,33,41,10		4, 4,23,32,27	
		46,38,14,54,58,18,51		3,25
54″	55,42,53,55,55,31,20,32, 0, 1		4, 4,23,35,52	
		46,38,10,50,34,42,59		3,25
56″	55,42,54,42,33,42,11, 6,43, 0		4, 4,23,39,17	
		46,38, 6,46,11, 3,42		3,25
58″	55,42,55,29,11,48,57,17,46,42		4, 4,23,42,42	
		46,38, 2,41,47,21, 0		
60″	55,42,56,15,49,51,39, 5, 7,42			
exact	55,42,56,15,49,51,39, 5,27, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°13′ 0″	55,42,56,15,49,51,39, 5,27, 9			
		46,37,58,37,23,37,11		
2″	55,42,57, 2,27,50,16,29, 4,20		4, 4,23,49,21	
		46,37,54,32,59,47,50		3,25
4″	55,42,57,49, 5,44,49,28,52,10		4, 4,23,52,46	
		46,37,50,28,35,55, 4		3,25
6″	55,42,58,35,43,35,18, 4,47,14		4, 4,23,56,11	
		46,37,46,24,11,58,53		3,25
8″	55,42,59,22,21,21,42,16,46, 7		4, 4,23,59,36	
		46,37,42,19,47,59,17		3,25
10″	55,43, 0, 8,59, 4, 2, 4,45,24		4, 4,24, 3, 1	
		46,37,38,15,23,56,16		3,25
12″	55,43, 0,55,36,42,17,28,41,40		4, 4,24, 6,26	
		46,37,34,10,59,49,50		3,25
14″	55,43, 1,42,14,16,28,28,31,30		4, 4,24, 9,51	
		46,37,30, 6,35,39,59		3,25
16″	55,43, 2,28,51,46,35, 4,11,29		4, 4,24,13,16	
		46,37,26, 2,11,26,43		3,25
18″	55,43, 3,15,29,12,37,15,38,12		4, 4,24,16,41	
		46,37,21,57,47,10, 2		3,25
20″	55,43, 4, 2, 6,34,35, 2,48,14		4, 4,24,20, 6	
		46,37,17,53,22,49,56		3,25
22″	55,43, 4,48,43,52,28,25,38,10		4, 4,24,23,31	
		46,37,13,48,58,26,25		3,25
24″	55,43, 5,35,21, 6,17,24, 4,35		4, 4,24,26,56	
		46,37, 9,44,33,59,29		3,25
26″	55,43, 6,21,58,16, 1,58, 4, 4		4, 4,24,30,21	
		46,37, 5,40, 9,29, 8		3,25
28″	55,43, 7, 8,35,21,42, 7,33,12		4, 4,24,33,46	
		46,37, 1,35,44,55,22		3,25
30″	55,43, 7,55,12,23,17,52,28,34		4, 4,24,37,11	
		46,36,57,31,20,18,11		3,25
32″	55,43, 8,41,49,20,49,12,46,45		4, 4,24,40,36	
		46,36,53,26,55,37,35		3,25
34″	55,43, 9,28,26,14,16, 8,24,20		4, 4,24,44, 1	
		46,36,49,22,30,53,34		3,25
36″	55,43,10,15, 3, 3,38,39,17,54		4, 4,24,47,26	
		46,36,45,18, 6, 6, 8		3,25
38″	55,43,11, 1,39,48,56,45,24, 2		4, 4,24,50,51	
		46,36,41,13,41,15,17		3,25
40″	55,43,11,48,16,30,10,26,39,19		4, 4,24,54,16	
		46,36,37, 9,16,21, 1		3,25
42″	55,43,12,34,53, 7,19,43, 0,20		4, 4,24,57,41	
		46,36,33, 4,51,23,20		3,25
44″	55,43,13,21,29,40,24,34,23,40		4, 4,25, 1, 6	
		46,36,29, 0,26,22,14		3,25
46″	55,43,14, 8, 6, 9,25, 0,45,54		4, 4,25, 4,31	
		46,36,24,56, 1,17,43		3,25
48″	55,43,14,54,42,34,21, 2, 3,37		4, 4,25, 7,56	
		46,36,20,51,36, 9,47		3,25
50″	55,43,15,41,18,55,12,38,13,24		4, 4,25,11,21	
		46,36,16,47,10,58,26		3,25
52″	55,43,16,27,55,11,59,49,11,50		4, 4,25,14,46	
		46,36,12,42,45,43,40		3,25
54″	55,43,17,14,31,24,42,34,55,30		4, 4,25,18,11	
		46,36, 8,38,20,25,29		3,25
56″	55,43,18, 1, 7,33,20,55,20,59		4, 4,25,21,36	
		46,36, 4,33,55, 3,53		3,25
58″	55,43,18,47,43,37,54,50,24,52		4, 4,25,25, 1	
		46,36, 0,29,29,38,52		
60″	55,43,19,34,19,38,24,20, 3,44			
exact	55,43,19,34,19,38,24,20,34,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°14′ 0″	55,43,19,34,19,38,24,20,34,27			
		46,35,56,25, 4,13,54		
2″	55,43,20,20,55,34,49,24,48,21		4, 4,25,31,36	
		46,35,52,20,38,42,18		3,24
4″	55,43,21, 7,31,27,10, 3,30,39		4, 4,25,35, 0	
		46,35,48,16,13, 7,18		3,24
6″	55,43,21,54, 7,15,26,16,37,57		4, 4,25,38,24	
		46,35,44,11,47,28,54		3,24
8″	55,43,22,40,42,59,38, 4, 6,51		4, 4,25,41,48	
		46,35,40, 7,21,47, 6		3,24
10″	55,43,23,27,18,39,45,25,53,57		4, 4,25,45,12	
		46,35,36, 2,56, 1,54		3,24
12″	55,43,24,13,54,15,48,21,55,51		4, 4,25,48,36	
		46,35,31,58,30,13,18		3,24
14″	55,43,25, 0,29,47,46,52, 9, 9		4, 4,25,52, 0	
		46,35,27,54, 4,21,18		3,24
16″	55,43,25,47, 5,15,40,56,30,27		4, 4,25,55,24	
		46,35,23,49,38,25,54		3,24
18″	55,43,26,33,40,39,30,34,56,21		4, 4,25,58,48	
		46,35,19,45,12,27, 6		3,24
20″	55,43,27,20,15,59,15,47,23,27		4, 4,26, 2,12	
		46,35,15,40,46,24,54		3,24
22″	55,43,28, 6,51,14,56,33,48,21		4, 4,26, 5,36	
		46,35,11,36,20,19,18		3,24
24″	55,43,28,53,26,26,32,54, 7,39		4, 4,26, 9, 0	
		46,35, 7,31,54,10,18		3,24
26″	55,43,29,40, 1,34, 4,48,17,57		4, 4,26,12,24	
		46,35, 3,27,27,57,54		3,24
28″	55,43,30,26,36,37,32,16,15,51		4, 4,26,15,48	
		46,34,59,23, 1,42, 6		3,24
30″	55,43,31,13,11,36,55,17,57,57		4, 4,26,19,12	
		46,34,55,18,35,22,54		3,24
32″	55,43,31,59,46,32,13,53,20,51		4, 4,26,22,36	
		46,34,51,14, 9, 0,18		3,24
34″	55,43,32,46,21,23,28, 2,21, 9		4, 4,26,26, 0	
		46,34,47, 9,42,34,18		3,24
36″	55,43,33,32,56,10,37,44,55,27		4, 4,26,29,24	
		46,34,43, 5,16, 4,54		3,24
38″	55,43,34,19,30,53,43, 1, 0,21		4, 4,26,32,48	
		46,34,39, 0,49,32, 6		3,24
40″	55,43,35, 6, 5,32,43,50,32,27		4, 4,26,36,12	
		46,34,34,56,22,55,54		3,24
42″	55,43,35,52,40, 7,40,13,28,21		4, 4,26,39,36	
		46,34,30,51,56,16,18		3,24
44″	55,43,36,39,14,38,32, 9,44,39		4, 4,26,43, 0	
		46,34,26,47,29,33,18		3,24
46″	55,43,37,25,49, 5,19,39,17,57		4, 4,26,46,24	
		46,34,22,43, 2,46,54		3,24
48″	55,43,38,12,23,28, 2,42, 4,51		4, 4,26,49,48	
		46,34,18,38,35,57, 6		3,24
50″	55,43,38,58,57,46,41,18, 1,57		4, 4,26,53,12	
		46,34,14,34, 9, 3,54		3,24
52″	55,43,39,45,32, 1,15,27, 5,51		4, 4,26,56,36	
		46,34,10,29,42, 7,18		3,24
54″	55,43,40,32, 6,11,45, 9,13, 9		4, 4,27, 0, 0	
		46,34, 6,25,15, 7,18		3,24
56″	55,43,41,18,40,18,10,24,20,27		4, 4,27, 3,24	
		46,34, 2,20,48, 3,54		3,24
58″	55,43,42, 5,14,20,31,12,24,21		4, 4,27, 6,48	
		46,33,58,16,20,57, 6		
60″	55,43,42,51,48,18,47,33,21,27			
exact	55,43,42,51,48,18,47,32,59,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°15′ 0″	55,43,42,51,48,18,47,32,59,22			
		46,33,54,11,53,44,31		
2″	55,43,43,38,22,12,59,26,43,53		4, 4,27,13,45	
		46,33,50, 7,26,30,46		3,24
4″	55,43,44,24,56, 3, 6,53,14,39		4, 4,27,17, 9	
		46,33,46, 2,59,13,37		3,24
6″	55,43,45,11,29,49, 9,52,28,16		4, 4,27,20,33	
		46,33,41,58,31,53, 4		3,24
8″	55,43,45,58, 3,31, 8,24,21,20		4, 4,27,23,57	
		46,33,37,54, 4,29, 7		3,24
10″	55,43,46,44,37, 9, 2,28,50,27		4, 4,27,27,21	
		46,33,33,49,37, 1,46		3,24
12″	55,43,47,31,10,42,52, 5,52,13		4, 4,27,30,45	
		46,33,29,45, 9,31, 1		3,24
14″	55,43,48,17,44,12,37,15,23,14		4, 4,27,34, 9	
		46,33,25,40,41,56,52		3,24
16″	55,43,49, 4,17,38,17,57,20, 6		4, 4,27,37,33	
		46,33,21,36,14,19,19		3,24
18″	55,43,49,50,50,59,54,11,39,25		4, 4,27,40,57	
		46,33,17,31,46,38,22		3,24
20″	55,43,50,37,24,17,25,58,17,47		4, 4,27,44,21	
		46,33,13,27,18,54, 1		3,24
22″	55,43,51,23,57,30,53,17,11,48		4, 4,27,47,45	
		46,33, 9,22,51, 6,16		3,24
24″	55,43,52,10,30,40,16, 8,18, 4		4, 4,27,51, 9	
		46,33, 5,18,23,15, 7		3,24
26″	55,43,52,57, 3,45,34,31,33,11		4, 4,27,54,33	
		46,33, 1,13,55,20,34		3,24
28″	55,43,53,43,36,46,48,26,53,45		4, 4,27,57,57	
		46,32,57, 9,27,22,37		3,24
30″	55,43,54,30, 9,43,57,54,16,22		4, 4,28, 1,21	
		46,32,53, 4,59,21,16		3,24
32″	55,43,55,16,42,37, 2,53,37,38		4, 4,28, 4,45	
		46,32,49, 0,31,16,31		3,24
34″	55,43,56, 3,15,26, 3,24,54, 9		4, 4,28, 8, 9	
		46,32,44,56, 3, 8,22		3,24
36″	55,43,56,49,48,10,59,28, 2,31		4, 4,28,11,33	
		46,32,40,51,34,56,49		3,24
38″	55,43,57,36,20,51,51, 2,59,20		4, 4,28,14,57	
		46,32,36,47, 6,41,52		3,24
40″	55,43,58,22,53,28,38, 9,41,12		4, 4,28,18,21	
		46,32,32,42,38,23,31		3,24
42″	55,43,59, 9,26, 1,20,48, 4,43		4, 4,28,21,45	
		46,32,28,38,10, 1,46		3,24
44″	55,43,59,55,58,29,58,58, 6,29		4, 4,28,25, 9	
		46,32,24,33,41,36,37		3,24
46″	55,44, 0,42,30,54,32,39,43, 6		4, 4,28,28,33	
		46,32,20,29,13, 8, 4		3,24
48″	55,44, 1,29, 3,15, 1,52,51,10		4, 4,28,31,57	
		46,32,16,24,44,36, 7		3,24
50″	55,44, 2,15,35,31,26,37,27,17		4, 4,28,35,21	
		46,32,12,20,16, 0,46		3,24
52″	55,44, 3, 2, 7,43,46,53,28, 3		4, 4,28,38,45	
		46,32, 8,15,47,22, 1		3,24
54″	55,44, 3,48,39,52, 2,40,50, 4		4, 4,28,42, 9	
		46,32, 4,11,18,39,52		3,24
56″	55,44, 4,35,11,56,13,59,29,56		4, 4,28,45,33	
		46,32, 0, 6,49,54,19		3,24
58″	55,44, 5,21,43,56,20,49,24,15		4, 4,28,48,57	
		46,31,56, 2,21, 5,22		
60″	55,44, 6, 8,15,52,23,10,29,37			
exact	55,44, 6, 8,15,52,23,10,11,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°16′ 0″	55,44, 6, 8,15,52,23,10,11,34			
		46,31,51,57,52,11,18		
2″	55,44, 6,54,47,44,21, 2,22,52		4, 4,28,55,51	
		46,31,47,53,23,15,27		3,24
4″	55,44, 7,41,19,32,14,25,38,19		4, 4,28,59,15	
		46,31,43,48,54,16,12		3,24
6″	55,44, 8,27,51,16, 3,19,54,31		4, 4,29, 2,39	
		46,31,39,44,25,13,33		3,24
8″	55,44, 9,14,22,55,47,45, 8, 4		4, 4,29, 6, 3	
		46,31,35,39,56, 7,30		3,24
10″	55,44,10, 0,54,31,27,41,15,34		4, 4,29, 9,27	
		46,31,31,35,26,58, 3		3,24
12″	55,44,10,47,26, 3, 3, 8,13,37		4, 4,29,12,51	
		46,31,27,30,57,45,12		3,24
14″	55,44,11,33,57,30,34, 5,58,49		4, 4,29,16,15	
		46,31,23,26,28,28,57		3,24
16″	55,44,12,20,28,54, 0,34,27,46		4, 4,29,19,39	
		46,31,19,21,59, 9,18		3,24
18″	55,44,13, 7, 0,13,22,33,37, 4		4, 4,29,23, 3	
		46,31,15,17,29,46,15		3,24
20″	55,44,13,53,31,28,40, 3,23,19		4, 4,29,26,27	
		46,31,11,13, 0,19,48		3,24
22″	55,44,14,40, 2,39,53, 3,43, 7		4, 4,29,29,51	
		46,31, 7, 8,30,49,57		3,24
24″	55,44,15,26,33,47, 1,34,33, 4		4, 4,29,33,15	
		46,31, 3, 4, 1,16,42		3,24
26″	55,44,16,13, 4,50, 5,35,49,46		4, 4,29,36,39	
		46,30,58,59,31,40, 3		3,24
28″	55,44,16,59,35,49, 5, 7,29,49		4, 4,29,40, 3	
		46,30,54,55, 2, 0, 0		3,24
30″	55,44,17,46, 6,44, 0, 9,29,49		4, 4,29,43,27	
		46,30,50,50,32,16,33		3,24
32″	55,44,18,32,37,34,50,41,46,22		4, 4,29,46,51	
		46,30,46,46, 2,29,42		3,24
34″	55,44,19,19, 8,21,36,44,16, 4		4, 4,29,50,15	
		46,30,42,41,32,39,27		3,24
36″	55,44,20, 5,39, 4,18,16,55,31		4, 4,29,53,39	
		46,30,38,37, 2,45,48		3,24
38″	55,44,20,52, 9,42,55,19,41,19		4, 4,29,57, 3	
		46,30,34,32,32,48,45		3,24
40″	55,44,21,38,40,17,27,52,30, 4		4, 4,30, 0,27	
		46,30,30,28, 2,48,18		3,24
42″	55,44,22,25,10,47,55,55,18,22		4, 4,30, 3,51	
		46,30,26,23,32,44,27		3,24
44″	55,44,23,11,41,14,19,28, 2,49		4, 4,30, 7,15	
		46,30,22,19, 2,37,12		3,24
46″	55,44,23,58,11,36,38,30,40, 1		4, 4,30,10,39	
		46,30,18,14,32,26,33		3,24
48″	55,44,24,44,41,54,53, 3, 6,34		4, 4,30,14, 3	
		46,30,14,10, 2,12,30		3,24
50″	55,44,25,31,12, 9, 3, 5,19, 4		4, 4,30,17,27	
		46,30,10, 5,31,55, 3		3,24
52″	55,44,26,17,42,19, 8,37,14, 7		4, 4,30,20,51	
		46,30, 6, 1, 1,34,12		3,24
54″	55,44,27, 4,12,25, 9,38,48,19		4, 4,30,24,15	
		46,30, 1,56,31, 9,57		3,24
56″	55,44,27,50,42,27, 6, 9,58,16		4, 4,30,27,39	
		46,29,57,52, 0,42,18		3,24
58″	55,44,28,37,12,24,58,10,40,34		4, 4,30,31, 3	
		46,29,53,47,30,11,15		
60″	55,44,29,23,42,18,45,40,51,49			
exact	55,44,29,23,42,18,45,40,47,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°17′ 0″	55,44,29,23,42,18,45,40,47,42			
		46,29,49,42,59,36,26		
2″	55,44,30,10,12, 8,28,40,24, 8		4, 4,30,37,52	
		46,29,45,38,28,58,34		3,24
4″	55,44,30,56,41,54, 7, 9,22,42		4, 4,30,41,16	
		46,29,41,33,58,17,18		3,24
6″	55,44,31,43,11,35,41, 7,40, 0		4, 4,30,44,40	
		46,29,37,29,27,32,38		3,24
8″	55,44,32,29,41,13,10,35,12,38		4, 4,30,48, 4	
		46,29,33,24,56,44,34		3,24
10″	55,44,33,16,10,46,35,31,57,12		4, 4,30,51,28	
		46,29,29,20,25,53, 6		3,24
12″	55,44,34, 2,40,15,55,57,50,18		4, 4,30,54,52	
		46,29,25,15,54,58,14		3,24
14″	55,44,34,49, 9,41,11,52,48,32		4, 4,30,58,16	
		46,29,21,11,23,59,58		3,24
16″	55,44,35,35,39, 2,23,16,48,30		4, 4,31, 1,40	
		46,29,17, 6,52,58,18		3,24
18″	55,44,36,22, 8,19,30, 9,46,48		4, 4,31, 5, 4	
		46,29,13, 2,21,53,14		3,24
20″	55,44,37, 8,37,32,32,31,40, 2		4, 4,31, 8,28	
		46,29, 8,57,50,44,46		3,24
22″	55,44,37,55, 6,41,30,22,24,48		4, 4,31,11,52	
		46,29, 4,53,19,32,54		3,24
24″	55,44,38,41,35,46,23,41,57,42		4, 4,31,15,16	
		46,29, 0,48,48,17,38		3,24
26″	55,44,39,28, 4,47,12,30,15,20		4, 4,31,18,40	
		46,28,56,44,16,58,58		3,24
28″	55,44,40,14,33,43,56,47,14,18		4, 4,31,22, 4	
		46,28,52,39,45,36,54		3,24
30″	55,44,41, 1, 2,36,36,32,51,12		4, 4,31,25,28	
		46,28,48,35,14,11,26		3,24
32″	55,44,41,47,31,25,11,47, 2,38		4, 4,31,28,52	
		46,28,44,30,42,42,34		3,24
34″	55,44,42,34, 0, 9,42,29,45,12		4, 4,31,32,16	
		46,28,40,26,11,10,18		3,24
36″	55,44,43,20,28,50, 8,40,55,30		4, 4,31,35,40	
		46,28,36,21,39,34,38		3,24
38″	55,44,44, 6,57,26,30,20,30, 8		4, 4,31,39, 4	
		46,28,32,17, 7,55,34		3,24
40″	55,44,44,53,25,58,47,28,25,42		4, 4,31,42,28	
		46,28,28,12,36,13, 6		3,24
42″	55,44,45,39,54,27, 0, 4,38,48		4, 4,31,45,52	
		46,28,24, 8, 4,27,14		3,24
44″	55,44,46,26,22,51, 8, 9, 6, 2		4, 4,31,49,16	
		46,28,20, 3,32,37,58		3,24
46″	55,44,47,12,51,11,11,41,44, 0		4, 4,31,52,40	
		46,28,15,59, 0,45,18		3,24
48″	55,44,47,59,19,27,10,42,29,18		4, 4,31,56, 4	
		46,28,11,54,28,49,14		3,24
50″	55,44,48,45,47,39, 5,11,18,32		4, 4,31,59,28	
		46,28, 7,49,56,49,46		3,24
52″	55,44,49,32,15,46,55, 8, 8,18		4, 4,32, 2,52	
		46,28, 3,45,24,46,54		3,24
54″	55,44,50,18,43,50,40,32,55,12		4, 4,32, 6,16	
		46,27,59,40,52,40,38		3,24
56″	55,44,51, 5,11,50,21,25,35,50		4, 4,32, 9,40	
		46,27,55,36,20,30,58		3,24
58″	55,44,51,51,39,45,57,46, 6,48		4, 4,32,13, 4	
		46,27,51,31,48,17,54		
60″	55,44,52,38, 7,37,29,34,24,42			
exact	55,44,52,38, 7,37,29,34,31,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°18′ 0″	55,44,52,38, 7,37,29,34,31,27			
		46,27,47,27,16, 2,12		
2″	55,44,53,24,35,24,56,50,33,39		4, 4,32,19,48	
		46,27,43,22,43,42,24		3,24
4″	55,44,54,11, 3, 8,19,34,16, 3		4, 4,32,23,12	
		46,27,39,18,11,19,12		3,24
6″	55,44,54,57,30,47,37,45,35,15		4, 4,32,26,36	
		46,27,35,13,38,52,36		3,24
8″	55,44,55,43,58,22,51,24,27,51		4, 4,32,30, 0	
		46,27,31, 9, 6,22,36		3,24
10″	55,44,56,30,25,54, 0,30,50,27		4, 4,32,33,24	
		46,27,27, 4,33,49,12		3,24
12″	55,44,57,16,53,21, 5, 4,39,39		4, 4,32,36,48	
		46,27,23, 0, 1,12,24		3,24
14″	55,44,58, 3,20,44, 5, 5,52, 3		4, 4,32,40,12	
		46,27,18,55,28,32,12		3,24
16″	55,44,58,49,48, 3, 0,34,24,15		4, 4,32,43,36	
		46,27,14,50,55,48,36		3,24
18″	55,44,59,36,15,17,51,30,12,51		4, 4,32,47, 0	
		46,27,10,46,23, 1,36		3,24
20″	55,45, 0,22,42,28,37,53,14,27		4, 4,32,50,24	
		46,27, 6,41,50,11,12		3,24
22″	55,45, 1, 9, 9,35,19,43,25,39		4, 4,32,53,48	
		46,27, 2,37,17,17,24		3,24
24″	55,45, 1,55,36,37,57, 0,43, 3		4, 4,32,57,12	
		46,26,58,32,44,20,12		3,24
26″	55,45, 2,42, 3,36,29,45, 3,15		4, 4,33, 0,36	
		46,26,54,28,11,19,36		3,24
28″	55,45, 3,28,30,30,57,56,22,51		4, 4,33, 4, 0	
		46,26,50,23,38,15,36		3,24
30″	55,45, 4,14,57,21,21,34,38,27		4, 4,33, 7,24	
		46,26,46,19, 5, 8,12		3,24
32″	55,45, 5, 1,24, 7,40,39,46,39		4, 4,33,10,48	
		46,26,42,14,31,57,24		3,24
34″	55,45, 5,47,50,49,55,11,44, 3		4, 4,33,14,12	
		46,26,38, 9,58,43,12		3,24
36″	55,45, 6,34,17,28, 5,10,27,15		4, 4,33,17,36	
		46,26,34, 5,25,25,36		3,24
38″	55,45, 7,20,44, 2,10,35,52,51		4, 4,33,21, 0	
		46,26,30, 0,52, 4,36		3,24
40″	55,45, 8, 7,10,32,11,27,57,27		4, 4,33,24,24	
		46,26,25,56,18,40,12		3,24
42″	55,45, 8,53,36,58, 7,46,37,39		4, 4,33,27,48	
		46,26,21,51,45,12,24		3,24
44″	55,45, 9,40, 3,19,59,31,50, 3		4, 4,33,31,12	
		46,26,17,47,11,41,12		3,24
46″	55,45,10,26,29,37,46,43,31,15		4, 4,33,34,36	
		46,26,13,42,38, 6,36		3,24
48″	55,45,11,12,55,51,29,21,37,51		4, 4,33,38, 0	
		46,26, 9,38, 4,28,36		3,24
50″	55,45,11,59,22, 1, 7,26, 6,27		4, 4,33,41,24	
		46,26, 5,33,30,47,12		3,24
52″	55,45,12,45,48, 6,40,56,53,39		4, 4,33,44,48	
		46,26, 1,28,57, 2,24		3,24
54″	55,45,13,32,14, 8, 9,53,56, 3		4, 4,33,48,12	
		46,25,57,24,23,14,12		3,24
56″	55,45,14,18,40, 5,34,17,10,15		4, 4,33,51,36	
		46,25,53,19,49,22,36		3,24
58″	55,45,15, 5, 5,58,54, 6,32,51		4, 4,33,55, 0	
		46,25,49,15,15,27,36		
60″	55,45,15,51,31,48, 9,22, 0,27			
exact	55,45,15,51,31,48, 9,22,13,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°19′ 0″	55,45,15,51,31,48, 9,22,13,33			
		46,25,45,10,41,30,48		
2″	55,45,16,37,57,33,20, 3,44,21		4, 4,34, 1,40	
		46,25,41, 6, 7,29, 8		3,24
4″	55,45,17,24,23,14,26,11,13,29		4, 4,34, 5, 4	
		46,25,37, 1,33,24, 4		3,24
6″	55,45,18,10,48,51,27,44,37,33		4, 4,34, 8,28	
		46,25,32,56,59,15,36		3,24
8″	55,45,18,57,14,24,24,43,53, 9		4, 4,34,11,52	
		46,25,28,52,25, 3,44		3,24
10″	55,45,19,43,39,53,17, 8,56,53		4, 4,34,15,16	
		46,25,24,47,50,48,28		3,24
12″	55,45,20,30, 5,18, 4,59,45,21		4, 4,34,18,40	
		46,25,20,43,16,29,48		3,24
14″	55,45,21,16,30,38,48,16,15, 9		4, 4,34,22, 4	
		46,25,16,38,42, 7,44		3,24
16″	55,45,22, 2,55,55,26,58,22,53		4, 4,34,25,28	
		46,25,12,34, 7,42,16		3,24
18″	55,45,22,49,21, 8, 1, 6, 5, 9		4, 4,34,28,52	
		46,25, 8,29,33,13,24		3,24
20″	55,45,23,35,46,16,30,39,18,33		4, 4,34,32,16	
		46,25, 4,24,58,41, 8		3,24
22″	55,45,24,22,11,20,55,37,59,41		4, 4,34,35,40	
		46,25, 0,20,24, 5,28		3,24
24″	55,45,25, 8,36,21,16, 2, 5, 9		4, 4,34,39, 4	
		46,24,56,15,49,26,24		3,24
26″	55,45,25,55, 1,17,31,51,31,33		4, 4,34,42,28	
		46,24,52,11,14,43,56		3,24
28″	55,45,26,41,26, 9,43, 6,15,29		4, 4,34,45,52	
		46,24,48, 6,39,58, 4		3,24
30″	55,45,27,27,50,57,49,46,13,33		4, 4,34,49,16	
		46,24,44, 2, 5, 8,48		3,24
32″	55,45,28,14,15,41,51,51,22,21		4, 4,34,52,40	
		46,24,39,57,30,16, 8		3,24
34″	55,45,29, 0,40,21,49,21,38,29		4, 4,34,56, 4	
		46,24,35,52,55,20, 4		3,24
36″	55,45,29,47, 4,57,42,16,58,33		4, 4,34,59,28	
		46,24,31,48,20,20,36		3,24
38″	55,45,30,33,29,29,30,37,19, 9		4, 4,35, 2,52	
		46,24,27,43,45,17,44		3,24
40″	55,45,31,19,53,57,14,22,36,53		4, 4,35, 6,16	
		46,24,23,39,10,11,28		3,24
42″	55,45,32, 6,18,20,53,32,48,21		4, 4,35, 9,40	
		46,24,19,34,35, 1,48		3,24
44″	55,45,32,52,42,40,28, 7,50, 9		4, 4,35,13, 4	
		46,24,15,29,59,48,44		3,24
46″	55,45,33,39, 6,55,58, 7,38,53		4, 4,35,16,28	
		46,24,11,25,24,32,16		3,24
48″	55,45,34,25,31, 7,23,32,11, 9		4, 4,35,19,52	
		46,24, 7,20,49,12,24		3,24
50″	55,45,35,11,55,14,44,21,23,33		4, 4,35,23,16	
		46,24, 3,16,13,49, 8		3,24
52″	55,45,35,58,19,18, 0,35,12,41		4, 4,35,26,40	
		46,23,59,11,38,22,28		3,24
54″	55,45,36,44,43,17,12,13,35, 9		4, 4,35,30, 4	
		46,23,55, 7, 2,52,24		3,24
56″	55,45,37,31, 7,12,19,16,27,33		4, 4,35,33,28	
		46,23,51, 2,27,18,56		3,24
58″	55,45,38,17,31, 3,21,43,46,29		4, 4,35,36,52	
		46,23,46,57,51,42, 4		
60″	55,45,39, 3,54,50,19,35,28,33			
exact	55,45,39, 3,54,50,19,35,51,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°20′ 0″	55,45,39, 3,54,50,19,35,51,44			
		46,23,42,53,16, 4,28		
2″	55,45,39,50,18,33,12,51,56,12		4, 4,35,43,28	
		46,23,38,48,40,21, 0		3,24
4″	55,45,40,36,42,12, 1,32,17,12		4, 4,35,46,52	
		46,23,34,44, 4,34, 8		3,24
6″	55,45,41,23, 5,46,45,36,51,20		4, 4,35,50,16	
		46,23,30,39,28,43,52		3,24
8″	55,45,42, 9,29,17,25, 5,35,12		4, 4,35,53,40	
		46,23,26,34,52,50,12		3,24
10″	55,45,42,55,52,43,59,58,25,24		4, 4,35,57, 4	
		46,23,22,30,16,53, 8		3,24
12″	55,45,43,42,16, 6,30,15,18,32		4, 4,36, 0,28	
		46,23,18,25,40,52,40		3,24
14″	55,45,44,28,39,24,55,56,11,12		4, 4,36, 3,52	
		46,23,14,21, 4,48,48		3,24
16″	55,45,45,15, 2,39,17, 1, 0, 0		4, 4,36, 7,16	
		46,23,10,16,28,41,32		3,24
18″	55,45,46, 1,25,49,33,29,41,32		4, 4,36,10,40	
		46,23, 6,11,52,30,52		3,24
20″	55,45,46,47,48,55,45,22,12,24		4, 4,36,14, 4	
		46,23, 2, 7,16,16,48		3,24
22″	55,45,47,34,11,57,52,38,29,12		4, 4,36,17,28	
		46,22,58, 2,39,59,20		3,24
24″	55,45,48,20,34,55,55,18,28,32		4, 4,36,20,52	
		46,22,53,58, 3,38,28		3,24
26″	55,45,49, 6,57,49,53,22, 7, 0		4, 4,36,24,16	
		46,22,49,53,27,14,12		3,24
28″	55,45,49,53,20,39,46,49,21,12		4, 4,36,27,40	
		46,22,45,48,50,46,32		3,24
30″	55,45,50,39,43,25,35,40, 7,44		4, 4,36,31, 4	
		46,22,41,44,14,15,28		3,24
32″	55,45,51,26, 6, 7,19,54,23,12		4, 4,36,34,28	
		46,22,37,39,37,41, 0		3,24
34″	55,45,52,12,28,44,59,32, 4,12		4, 4,36,37,52	
		46,22,33,35, 1, 3, 8		3,24
36″	55,45,52,58,51,18,34,33, 7,20		4, 4,36,41,16	
		46,22,29,30,24,21,52		3,24
38″	55,45,53,45,13,48, 4,57,29,12		4, 4,36,44,40	
		46,22,25,25,47,37,12		3,24
40″	55,45,54,31,36,13,30,45, 6,24		4, 4,36,48, 4	
		46,22,21,21,10,49, 8		3,24
42″	55,45,55,17,58,34,51,55,55,32		4, 4,36,51,28	
		46,22,17,16,33,57,40		3,24
44″	55,45,56, 4,20,52, 8,29,53,12		4, 4,36,54,52	
		46,22,13,11,57, 2,48		3,24
46″	55,45,56,50,43, 5,20,26,56, 0		4, 4,36,58,16	
		46,22, 9, 7,20, 4,32		3,24
48″	55,45,57,37, 5,14,27,47, 0,32		4, 4,37, 1,40	
		46,22, 5, 2,43, 2,52		3,24
50″	55,45,58,23,27,19,30,30, 3,24		4, 4,37, 5, 4	
		46,22, 0,58, 5,57,48		3,24
52″	55,45,59, 9,49,20,28,36, 1,12		4, 4,37, 8,28	
		46,21,56,53,28,49,20		3,24
54″	55,45,59,56,11,17,22, 4,50,32		4, 4,37,11,52	
		46,21,52,48,51,37,28		3,24
56″	55,46, 0,42,33,10,10,56,28, 0		4, 4,37,15,16	
		46,21,48,44,14,22,12		3,24
58″	55,46, 1,28,54,58,55,10,50,12		4, 4,37,18,40	
		46,21,44,39,37, 3,32		
60″	55,46, 2,15,16,43,34,47,53,44			
exact	55,46, 2,15,16,43,34,48,30,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°21′ 0″	55,46, 2,15,16,43,34,48,30,51			
		46,21,40,34,59,45,28		
2″	55,46, 3, 1,38,24, 9,48,16,19		4, 4,37,25,11	
		46,21,36,30,22,20,17		3,23
4″	55,46, 3,48, 0, 0,40,10,36,36		4, 4,37,28,34	
		46,21,32,25,44,51,43		3,23
6″	55,46, 4,34,21,33, 5,55,28,19		4, 4,37,31,57	
		46,21,28,21, 7,19,46		3,23
8″	55,46, 5,20,43, 1,27, 2,48, 5		4, 4,37,35,20	
		46,21,24,16,29,44,26		3,23
10″	55,46, 6, 7, 4,25,43,32,32,31		4, 4,37,38,43	
		46,21,20,11,52, 5,43		3,23
12″	55,46, 6,53,25,45,55,24,38,14		4, 4,37,42, 6	
		46,21,16, 7,14,23,37		3,23
14″	55,46, 7,39,47, 2, 2,39, 1,51		4, 4,37,45,29	
		46,21,12, 2,36,38, 8		3,23
16″	55,46, 8,26, 8,14, 5,15,39,59		4, 4,37,48,52	
		46,21, 7,57,58,49,16		3,23
18″	55,46, 9,12,29,22, 3,14,29,15		4, 4,37,52,15	
		46,21, 3,53,20,57, 1		3,23
20″	55,46, 9,58,50,25,56,35,26,16		4, 4,37,55,38	
		46,20,59,48,43, 1,23		3,23
22″	55,46,10,45,11,25,45,18,27,39		4, 4,37,59, 1	
		46,20,55,44, 5, 2,22		3,23
24″	55,46,11,31,32,21,29,23,30, 1		4, 4,38, 2,24	
		46,20,51,39,26,59,58		3,23
26″	55,46,12,17,53,13, 8,50,29,59		4, 4,38, 5,47	
		46,20,47,34,48,54,11		3,23
28″	55,46,13, 4,14, 0,43,39,24,10		4, 4,38, 9,10	
		46,20,43,30,10,45, 1		3,23
30″	55,46,13,50,34,44,13,50, 9,11		4, 4,38,12,33	
		46,20,39,25,32,32,28		3,23
32″	55,46,14,36,55,23,39,22,41,39		4, 4,38,15,56	
		46,20,35,20,54,16,32		3,23
34″	55,46,15,23,15,59, 0,16,58,11		4, 4,38,19,19	
		46,20,31,16,15,57,13		3,23
36″	55,46,16, 9,36,30,16,32,55,24		4, 4,38,22,42	
		46,20,27,11,37,34,31		3,23
38″	55,46,16,55,56,57,28,10,29,55		4, 4,38,26, 5	
		46,20,23, 6,59, 8,26		3,23
40″	55,46,17,42,17,20,35, 9,38,21		4, 4,38,29,28	
		46,20,19, 2,20,38,58		3,23
42″	55,46,18,28,37,39,37,30,17,19		4, 4,38,32,51	
		46,20,14,57,42, 6, 7		3,23
44″	55,46,19,14,57,54,35,12,23,26		4, 4,38,36,14	
		46,20,10,53, 3,29,53		3,23
46″	55,46,20, 1,18, 5,28,15,53,19		4, 4,38,39,37	
		46,20, 6,48,24,50,16		3,23
48″	55,46,20,47,38,12,16,40,43,35		4, 4,38,43, 0	
		46,20, 2,43,46, 7,16		3,23
50″	55,46,21,33,58,15, 0,26,50,51		4, 4,38,46,23	
		46,19,58,39, 7,20,53		3,23
52″	55,46,22,20,18,13,39,34,11,44		4, 4,38,49,46	
		46,19,54,34,28,31, 7		3,23
54″	55,46,23, 6,38, 8,14, 2,42,51		4, 4,38,53, 9	
		46,19,50,29,49,37,58		3,23
56″	55,46,23,52,57,58,43,52,20,49		4, 4,38,56,32	
		46,19,46,25,10,41,26		3,23
58″	55,46,24,39,17,45, 9, 3, 2,15		4, 4,38,59,55	
		46,19,42,20,31,41,31		
60″	55,46,25,25,37,27,29,34,43,46			
exact	55,46,25,25,37,27,29,34,22,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°22′ 0″	55,46,25,25,37,27,29,34,22,43			
		46,19,38,15,52,36, 1		
2″	55,46,26,11,57, 5,45,26,58,44		4, 4,39, 6,49	
		46,19,34,11,13,29,12		3,23
4″	55,46,26,58,16,39,56,40,27,56		4, 4,39,10,12	
		46,19,30, 6,34,19, 0		3,23
6″	55,46,27,44,36,10, 3,14,46,56		4, 4,39,13,35	
		46,19,26, 1,55, 5,25		3,23
8″	55,46,28,30,55,36, 5, 9,52,21		4, 4,39,16,58	
		46,19,21,57,15,48,27		3,23
10″	55,46,29,17,14,58, 2,25,40,48		4, 4,39,20,21	
		46,19,17,52,36,28, 6		3,23
12″	55,46,30, 3,34,15,55, 2, 8,54		4, 4,39,23,44	
		46,19,13,47,57, 4,22		3,23
14″	55,46,30,49,53,29,42,59,13,16		4, 4,39,27, 7	
		46,19, 9,43,17,37,15		3,23
16″	55,46,31,36,12,39,26,16,50,31		4, 4,39,30,30	
		46,19, 5,38,38, 6,45		3,23
18″	55,46,32,22,31,45, 4,54,57,16		4, 4,39,33,53	
		46,19, 1,33,58,32,52		3,23
20″	55,46,33, 8,50,46,38,53,30, 8		4, 4,39,37,16	
		46,18,57,29,18,55,36		3,23
22″	55,46,33,55, 9,44, 8,12,25,44		4, 4,39,40,39	
		46,18,53,24,39,14,57		3,23
24″	55,46,34,41,28,37,32,51,40,41		4, 4,39,44, 2	
		46,18,49,19,59,30,55		3,23
26″	55,46,35,27,47,26,52,51,11,36		4, 4,39,47,25	
		46,18,45,15,19,43,30		3,23
28″	55,46,36,14, 6,12, 8,10,55, 6		4, 4,39,50,48	
		46,18,41,10,39,52,42		3,23
30″	55,46,37, 0,24,53,18,50,47,48		4, 4,39,54,11	
		46,18,37, 5,59,58,31		3,23
32″	55,46,37,46,43,30,24,50,46,19		4, 4,39,57,34	
		46,18,33, 1,20, 0,57		3,23
34″	55,46,38,33, 2, 3,26,10,47,16		4, 4,40, 0,57	
		46,18,28,56,40, 0, 0		3,23
36″	55,46,39,19,20,32,22,50,47,16		4, 4,40, 4,20	
		46,18,24,51,59,55,40		3,23
38″	55,46,40, 5,38,57,14,50,42,56		4, 4,40, 7,43	
		46,18,20,47,19,47,57		3,23
40″	55,46,40,51,57,18, 2,10,30,53		4, 4,40,11, 6	
		46,18,16,42,39,36,51		3,23
42″	55,46,41,38,15,34,44,50, 7,44		4, 4,40,14,29	
		46,18,12,37,59,22,22		3,23
44″	55,46,42,24,33,47,22,49,30, 6		4, 4,40,17,52	
		46,18, 8,33,19, 4,30		3,23
46″	55,46,43,10,51,55,56, 8,34,36		4, 4,40,21,15	
		46,18, 4,28,38,43,15		3,23
48″	55,46,43,57,10, 0,24,47,17,51		4, 4,40,24,38	
		46,18, 0,23,58,18,37		3,23
50″	55,46,44,43,28, 0,48,45,36,28		4, 4,40,28, 1	
		46,17,56,19,17,50,36		3,23
52″	55,46,45,29,45,57, 8, 3,27, 4		4, 4,40,31,24	
		46,17,52,14,37,19,12		3,23
54″	55,46,46,16, 3,49,22,40,46,16		4, 4,40,34,47	
		46,17,48, 9,56,44,25		3,23
56″	55,46,47, 2,21,37,32,37,30,41		4, 4,40,38,10	
		46,17,44, 5,16, 6,15		3,23
58″	55,46,47,48,39,21,37,53,36,56		4, 4,40,41,33	
		46,17,40, 0,35,24,42		
60″	55,46,48,34,57, 1,38,29, 1,38			
exact	55,46,48,34,57, 1,38,28,46,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°23′ 0″	55,46,48,34,57, 1,38,28,46,19			
		46,17,35,55,54,38,21		
2″	55,46,49,21,14,37,34,23,24,40		4, 4,40,48,24	
		46,17,31,51,13,49,57		3,23
4″	55,46,50, 7,32, 9,25,37,14,37		4, 4,40,51,47	
		46,17,27,46,32,58,10		3,23
6″	55,46,50,53,49,37,12,10,12,47		4, 4,40,55,10	
		46,17,23,41,52, 3, 0		3,23
8″	55,46,51,40, 7, 0,54, 2,15,47		4, 4,40,58,33	
		46,17,19,37,11, 4,27		3,23
10″	55,46,52,26,24,20,31,13,20,14		4, 4,41, 1,56	
		46,17,15,32,30, 2,31		3,23
12″	55,46,53,12,41,36, 3,43,22,45		4, 4,41, 5,19	
		46,17,11,27,48,57,12		3,23
14″	55,46,53,58,58,47,31,32,19,57		4, 4,41, 8,42	
		46,17, 7,23, 7,48,30		3,23
16″	55,46,54,45,15,54,54,40, 8,27		4, 4,41,12, 5	
		46,17, 3,18,26,36,25		3,23
18″	55,46,55,31,32,58,13, 6,44,52		4, 4,41,15,28	
		46,16,59,13,45,20,57		3,23
20″	55,46,56,17,49,57,26,52, 5,49		4, 4,41,18,51	
		46,16,55, 9, 4, 2, 6		3,23
22″	55,46,57, 4, 6,52,35,56, 7,55		4, 4,41,22,14	
		46,16,51, 4,22,39,52		3,23
24″	55,46,57,50,23,43,40,18,47,47		4, 4,41,25,37	
		46,16,46,59,41,14,15		3,23
26″	55,46,58,36,40,30,40, 0, 2, 2		4, 4,41,29, 0	
		46,16,42,54,59,45,15		3,23
28″	55,46,59,22,57,13,34,59,47,17		4, 4,41,32,23	
		46,16,38,50,18,12,52		3,23
30″	55,47, 0, 9,13,52,25,18, 0, 9		4, 4,41,35,46	
		46,16,34,45,36,37, 6		3,23
32″	55,47, 0,55,30,27,10,54,37,15		4, 4,41,39, 9	
		46,16,30,40,54,57,57		3,23
34″	55,47, 1,41,46,57,51,49,35,12		4, 4,41,42,32	
		46,16,26,36,13,15,25		3,23
36″	55,47, 2,28, 3,24,28, 2,50,37		4, 4,41,45,55	
		46,16,22,31,31,29,30		3,23
38″	55,47, 3,14,19,46,59,34,20, 7		4, 4,41,49,18	
		46,16,18,26,49,40,12		3,23
40″	55,47, 4, 0,36, 5,26,24, 0,19		4, 4,41,52,41	
		46,16,14,22, 7,47,31		3,23
42″	55,47, 4,46,52,19,48,31,47,50		4, 4,41,56, 4	
		46,16,10,17,25,51,27		3,23
44″	55,47, 5,33, 8,30, 5,57,39,17		4, 4,41,59,27	
		46,16, 6,12,43,52, 0		3,23
46″	55,47, 6,19,24,36,18,41,31,17		4, 4,42, 2,50	
		46,16, 2, 8, 1,49,10		3,23
48″	55,47, 7, 5,40,38,26,43,20,27		4, 4,42, 6,13	
		46,15,58, 3,19,42,57		3,23
50″	55,47, 7,51,56,36,30, 3, 3,24		4, 4,42, 9,36	
		46,15,53,58,37,33,21		3,23
52″	55,47, 8,38,12,30,28,40,36,45		4, 4,42,12,59	
		46,15,49,53,55,20,22		3,23
54″	55,47, 9,24,28,20,22,35,57, 7		4, 4,42,16,22	
		46,15,45,49,13, 4, 0		3,23
56″	55,47,10,10,44, 6,11,49, 1, 7		4, 4,42,19,45	
		46,15,41,44,30,44,15		3,23
58″	55,47,10,56,59,47,56,19,45,22		4, 4,42,23, 8	
		46,15,37,39,48,21, 7		
60″	55,47,11,43,15,25,36, 8, 6,29			
exact	55,47,11,43,15,25,36, 8, 7,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°24′ 0″	55,47,11,43,15,25,36, 8, 7,37			
		46,15,33,35, 5,54,42		
2″	55,47,12,29,30,59,11,14, 2,19		4, 4,42,29,53	
		46,15,29,30,23,24,49		3,23
4″	55,47,13,15,46,28,41,37,27, 8		4, 4,42,33,16	
		46,15,25,25,40,51,33		3,23
6″	55,47,14, 2, 1,54, 7,18,18,41		4, 4,42,36,39	
		46,15,21,20,58,14,54		3,23
8″	55,47,14,48,17,15,28,16,33,35		4, 4,42,40, 2	
		46,15,17,16,15,34,52		3,23
10″	55,47,15,34,32,32,44,32, 8,27		4, 4,42,43,25	
		46,15,13,11,32,51,27		3,23
12″	55,47,16,20,47,45,56, 4,59,54		4, 4,42,46,48	
		46,15, 9, 6,50, 4,39		3,23
14″	55,47,17, 7, 2,55, 2,55, 4,33		4, 4,42,50,11	
		46,15, 5, 2, 7,14,28		3,23
16″	55,47,17,53,18, 0, 5, 2,19, 1		4, 4,42,53,34	
		46,15, 0,57,24,20,54		3,23
18″	55,47,18,39,33, 1, 2,26,39,55		4, 4,42,56,57	
		46,14,56,52,41,23,57		3,23
20″	55,47,19,25,47,57,55, 8, 3,52		4, 4,43, 0,20	
		46,14,52,47,58,23,37		3,23
22″	55,47,20,12, 2,50,43, 6,27,29		4, 4,43, 3,43	
		46,14,48,43,15,19,54		3,23
24″	55,47,20,58,17,39,26,21,47,23		4, 4,43, 7, 6	
		46,14,44,38,32,12,48		3,23
26″	55,47,21,44,32,24, 4,54, 0,11		4, 4,43,10,29	
		46,14,40,33,49, 2,19		3,23
28″	55,47,22,30,47, 4,38,43, 2,30		4, 4,43,13,52	
		46,14,36,29, 5,48,27		3,23
30″	55,47,23,17, 1,41, 7,48,50,57		4, 4,43,17,15	
		46,14,32,24,22,31,12		3,23
32″	55,47,24, 3,16,13,32,11,22, 9		4, 4,43,20,38	
		46,14,28,19,39,10,34		3,23
34″	55,47,24,49,30,41,51,50,32,43		4, 4,43,24, 1	
		46,14,24,14,55,46,33		3,23
36″	55,47,25,35,45, 6, 6,46,19,16		4, 4,43,27,24	
		46,14,20,10,12,19, 9		3,23
38″	55,47,26,21,59,26,16,58,38,25		4, 4,43,30,47	
		46,14,16, 5,28,48,22		3,23
40″	55,47,27, 8,13,42,22,27,26,47		4, 4,43,34,10	
		46,14,12, 0,45,14,12		3,23
42″	55,47,27,54,27,54,23,12,40,59		4, 4,43,37,33	
		46,14, 7,56, 1,36,39		3,23
44″	55,47,28,40,42, 2,19,14,17,38		4, 4,43,40,56	
		46,14, 3,51,17,55,43		3,23
46″	55,47,29,26,56, 6,10,32,13,21		4, 4,43,44,19	
		46,13,59,46,34,11,24		3,23
48″	55,47,30,13,10, 5,57, 6,24,45		4, 4,43,47,42	
		46,13,55,41,50,23,42		3,23
50″	55,47,30,59,24, 1,38,56,48,27		4, 4,43,51, 5	
		46,13,51,37, 6,32,37		3,23
52″	55,47,31,45,37,53,16, 3,21, 4		4, 4,43,54,28	
		46,13,47,32,22,38, 9		3,23
54″	55,47,32,31,51,40,48,25,59,13		4, 4,43,57,51	
		46,13,43,27,38,40,18		3,23
56″	55,47,33,18, 5,24,16, 4,39,31		4, 4,44, 1,14	
		46,13,39,22,54,39, 4		3,23
58″	55,47,34, 4,19, 3,38,59,18,35		4, 4,44, 4,37	
		46,13,35,18,10,34,27		
60″	55,47,34,50,32,38,57, 9,53, 2			
exact	55,47,34,50,32,38,57, 9,59,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°25′ 0″	55,47,34,50,32,38,57, 9,59,43			
		46,13,31,13,26,27,19		
2″	55,47,35,36,46,10,10,36,27, 2		4, 4,44,11,18	
		46,13,27, 8,42,16, 1		3,23
4″	55,47,36,22,59,37,19,18,43, 3		4, 4,44,14,41	
		46,13,23, 3,58, 1,20		3,23
6″	55,47,37, 9,13, 0,23,16,44,23		4, 4,44,18, 4	
		46,13,18,59,13,43,16		3,23
8″	55,47,37,55,26,19,22,30,27,39		4, 4,44,21,27	
		46,13,14,54,29,21,49		3,23
10″	55,47,38,41,39,34,16,59,49,28		4, 4,44,24,50	
		46,13,10,49,44,56,59		3,23
12″	55,47,39,27,52,45, 6,44,46,27		4, 4,44,28,13	
		46,13, 6,45, 0,28,46		3,23
14″	55,47,40,14, 5,51,51,45,15,13		4, 4,44,31,36	
		46,13, 2,40,15,57,10		3,23
16″	55,47,41, 0,18,54,32, 1,12,23		4, 4,44,34,59	
		46,12,58,35,31,22,11		3,23
18″	55,47,41,46,31,53, 7,32,34,34		4, 4,44,38,22	
		46,12,54,30,46,43,49		3,23
20″	55,47,42,32,44,47,38,19,18,23		4, 4,44,41,45	
		46,12,50,26, 2, 2, 4		3,23
22″	55,47,43,18,57,38, 4,21,20,27		4, 4,44,45, 8	
		46,12,46,21,17,16,56		3,23
24″	55,47,44, 5,10,24,25,38,37,23		4, 4,44,48,31	
		46,12,42,16,32,28,25		3,23
26″	55,47,44,51,23, 6,42,11, 5,48		4, 4,44,51,54	
		46,12,38,11,47,36,31		3,23
28″	55,47,45,37,35,44,53,58,42,19		4, 4,44,55,17	
		46,12,34, 7, 2,41,14		3,23
30″	55,47,46,23,48,19, 1, 1,23,33		4, 4,44,58,40	
		46,12,30, 2,17,42,34		3,23
32″	55,47,47,10, 0,49, 3,19, 6, 7		4, 4,45, 2, 3	
		46,12,25,57,32,40,31		3,23
34″	55,47,47,56,13,15, 0,51,46,38		4, 4,45, 5,26	
		46,12,21,52,47,35, 5		3,23
36″	55,47,48,42,25,36,53,39,21,43		4, 4,45, 8,49	
		46,12,17,48, 2,26,16		3,23
38″	55,47,49,28,37,54,41,41,47,59		4, 4,45,12,12	
		46,12,13,43,17,14, 4		3,23
40″	55,47,50,14,50, 8,24,59, 2, 3		4, 4,45,15,35	
		46,12, 9,38,31,58,29		3,23
42″	55,47,51, 1, 2,18, 3,31, 0,32		4, 4,45,18,58	
		46,12, 5,33,46,39,31		3,23
44″	55,47,51,47,14,23,37,17,40, 3		4, 4,45,22,21	
		46,12, 1,29, 1,17,10		3,23
46″	55,47,52,33,26,25, 6,18,57,13		4, 4,45,25,44	
		46,11,57,24,15,51,26		3,23
48″	55,47,53,19,38,22,30,34,48,39		4, 4,45,29, 7	
		46,11,53,19,30,22,19		3,23
50″	55,47,54, 5,50,15,50, 5,10,58		4, 4,45,32,30	
		46,11,49,14,44,49,49		3,23
52″	55,47,54,52, 2, 5, 4,50, 0,47		4, 4,45,35,53	
		46,11,45, 9,59,13,56		3,23
54″	55,47,55,38,13,50,14,49,14,43		4, 4,45,39,16	
		46,11,41, 5,13,34,40		3,23
56″	55,47,56,24,25,31,20, 2,49,23		4, 4,45,42,39	
		46,11,37, 0,27,52, 1		3,23
58″	55,47,57,10,37, 8,20,30,41,24		4, 4,45,46, 2	
		46,11,32,55,42, 5,59		
60″	55,47,57,56,48,41,16,12,47,23			
exact	55,47,57,56,48,41,16,13, 2,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°26′ 0″	55,47,57,56,48,41,16,13, 2,47			
		46,11,28,50,56,18,25		
2″	55,47,58,43, 0,10, 7, 9,21,12		4, 4,45,52,39	
		46,11,24,46,10,25,46		3,23
4″	55,47,59,29,11,34,53,19,46,58		4, 4,45,56, 2	
		46,11,20,41,24,29,44		3,23
6″	55,48, 0,15,22,55,34,44,16,42		4, 4,45,59,25	
		46,11,16,36,38,30,19		3,23
8″	55,48, 1, 1,34,12,11,22,47, 1		4, 4,46, 2,48	
		46,11,12,31,52,27,31		3,23
10″	55,48, 1,47,45,24,43,15,14,32		4, 4,46, 6,11	
		46,11, 8,27, 6,21,20		3,23
12″	55,48, 2,33,56,33,10,21,35,52		4, 4,46, 9,34	
		46,11, 4,22,20,11,46		3,23
14″	55,48, 3,20, 7,37,32,41,47,38		4, 4,46,12,57	
		46,11, 0,17,33,58,49		3,23
16″	55,48, 4, 6,18,37,50,15,46,27		4, 4,46,16,20	
		46,10,56,12,47,42,29		3,23
18″	55,48, 4,52,29,34, 3, 3,28,56		4, 4,46,19,43	
		46,10,52, 8, 1,22,46		3,23
20″	55,48, 5,38,40,26,11, 4,51,42		4, 4,46,23, 6	
		46,10,48, 3,14,59,40		3,23
22″	55,48, 6,24,51,14,14,19,51,22		4, 4,46,26,29	
		46,10,43,58,28,33,11		3,23
24″	55,48, 7,11, 1,58,12,48,24,33		4, 4,46,29,52	
		46,10,39,53,42, 3,19		3,23
26″	55,48, 7,57,12,38, 6,30,27,52		4, 4,46,33,15	
		46,10,35,48,55,30, 4		3,23
28″	55,48, 8,43,23,13,55,25,57,56		4, 4,46,36,38	
		46,10,31,44, 8,53,26		3,23
30″	55,48, 9,29,33,45,39,34,51,22		4, 4,46,40, 1	
		46,10,27,39,22,13,25		3,23
32″	55,48,10,15,44,13,18,57, 4,47		4, 4,46,43,24	
		46,10,23,34,35,30, 1		3,23
34″	55,48,11, 1,54,36,53,32,34,48		4, 4,46,46,47	
		46,10,19,29,48,43,14		3,23
36″	55,48,11,48, 4,56,23,21,18, 2		4, 4,46,50,10	
		46,10,15,25, 1,53, 4		3,23
38″	55,48,12,34,15,11,48,23,11, 6		4, 4,46,53,33	
		46,10,11,20,14,59,31		3,23
40″	55,48,13,20,25,23, 8,38,10,37		4, 4,46,56,56	
		46,10, 7,15,28, 2,35		3,23
42″	55,48,14, 6,35,30,24, 6,13,12		4, 4,47, 0,19	
		46,10, 3,10,41, 2,16		3,23
44″	55,48,14,52,45,33,34,47,15,28		4, 4,47, 3,42	
		46, 9,59, 5,53,58,34		3,23
46″	55,48,15,38,55,32,40,41,14, 2		4, 4,47, 7, 5	
		46, 9,55, 1, 6,51,29		3,23
48″	55,48,16,25, 5,27,41,48, 5,31		4, 4,47,10,28	
		46, 9,50,56,19,41, 1		3,23
50″	55,48,17,11,15,18,38, 7,46,32		4, 4,47,13,51	
		46, 9,46,51,32,27,10		3,23
52″	55,48,17,57,25, 5,29,40,13,42		4, 4,47,17,14	
		46, 9,42,46,45, 9,56		3,23
54″	55,48,18,43,34,48,16,25,23,38		4, 4,47,20,37	
		46, 9,38,41,57,49,19		3,23
56″	55,48,19,29,44,26,58,23,12,57		4, 4,47,24, 0	
		46, 9,34,37,10,25,19		3,23
58″	55,48,20,15,54, 1,35,33,38,16		4, 4,47,27,23	
		46, 9,30,32,22,57,56		
60″	55,48,21, 2, 3,32, 7,56,36,12			
exact	55,48,21, 2, 3,32, 7,57, 4, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°27′ 0″	55,48,21, 2, 3,32, 7,57, 4, 5			
		46, 9,26,27,35,30,16		
2″	55,48,21,48,12,58,35,32,34,21		4, 4,47,33,55	
		46, 9,22,22,47,56,21		3,22
4″	55,48,22,34,22,20,58,20,30,42		4, 4,47,37,17	
		46, 9,18,18, 0,19, 4		3,22
6″	55,48,23,20,31,39,16,20,49,46		4, 4,47,40,39	
		46, 9,14,13,12,38,25		3,22
8″	55,48,24, 6,40,53,29,33,28,11		4, 4,47,44, 1	
		46, 9,10, 8,24,54,24		3,22
10″	55,48,24,52,50, 3,37,58,22,35		4, 4,47,47,23	
		46, 9, 6, 3,37, 7, 1		3,22
12″	55,48,25,38,59, 9,41,35,29,36		4, 4,47,50,45	
		46, 9, 1,58,49,16,16		3,22
14″	55,48,26,25, 8,11,40,24,45,52		4, 4,47,54, 7	
		46, 8,57,54, 1,22, 9		3,22
16″	55,48,27,11,17, 9,34,26, 8, 1		4, 4,47,57,29	
		46, 8,53,49,13,24,40		3,22
18″	55,48,27,57,26, 3,23,39,32,41		4, 4,48, 0,51	
		46, 8,49,44,25,23,49		3,22
20″	55,48,28,43,34,53, 8, 4,56,30		4, 4,48, 4,13	
		46, 8,45,39,37,19,36		3,22
22″	55,48,29,29,43,38,47,42,16, 6		4, 4,48, 7,35	
		46, 8,41,34,49,12, 1		3,22
24″	55,48,30,15,52,20,22,31,28, 7		4, 4,48,10,57	
		46, 8,37,30, 1, 1, 4		3,22
26″	55,48,31, 2, 0,57,52,32,29,11		4, 4,48,14,19	
		46, 8,33,25,12,46,45		3,22
28″	55,48,31,48, 9,31,17,45,15,56		4, 4,48,17,41	
		46, 8,29,20,24,29, 4		3,22
30″	55,48,32,34,18, 0,38, 9,45, 0		4, 4,48,21, 3	
		46, 8,25,15,36, 8, 1		3,22
32″	55,48,33,20,26,25,53,45,53, 1		4, 4,48,24,25	
		46, 8,21,10,47,43,36		3,22
34″	55,48,34, 6,34,47, 4,33,36,37		4, 4,48,27,47	
		46, 8,17, 5,59,15,49		3,22
36″	55,48,34,52,43, 4,10,32,52,26		4, 4,48,31, 9	
		46, 8,13, 1,10,44,40		3,22
38″	55,48,35,38,51,17,11,43,37, 6		4, 4,48,34,31	
		46, 8, 8,56,22,10, 9		3,22
40″	55,48,36,24,59,26, 8, 5,47,15		4, 4,48,37,53	
		46, 8, 4,51,33,32,16		3,22
42″	55,48,37,11, 7,30,59,39,19,31		4, 4,48,41,15	
		46, 8, 0,46,44,51, 1		3,22
44″	55,48,37,57,15,31,46,24,10,32		4, 4,48,44,37	
		46, 7,56,41,56, 6,24		3,22
46″	55,48,38,43,23,28,28,20,16,56		4, 4,48,47,59	
		46, 7,52,37, 7,18,25		3,22
48″	55,48,39,29,31,21, 5,27,35,21		4, 4,48,51,21	
		46, 7,48,32,18,27, 4		3,22
50″	55,48,40,15,39, 9,37,46, 2,25		4, 4,48,54,43	
		46, 7,44,27,29,32,21		3,22
52″	55,48,41, 1,46,54, 5,15,34,46		4, 4,48,58, 5	
		46, 7,40,22,40,34,16		3,22
54″	55,48,41,47,54,34,27,56, 9, 2		4, 4,49, 1,27	
		46, 7,36,17,51,32,49		3,22
56″	55,48,42,34, 2,10,45,47,41,51		4, 4,49, 4,49	
		46, 7,32,13, 2,28, 0		3,22
58″	55,48,43,20, 9,42,58,50, 9,51		4, 4,49, 8,11	
		46, 7,28, 8,13,19,49		
60″	55,48,44, 6,17,11, 7, 3,29,40			
exact	55,48,44, 6,17,11, 7, 2,58, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°28′ 0″	55,48,44, 6,17,11, 7, 2,58, 0			
		46, 7,24, 3,24, 5, 4		
2″	55,48,44,52,24,35,10,27, 3, 4		4, 4,49,15, 7	
		46, 7,19,58,34,49,57		3,22
4″	55,48,45,38,31,55, 9, 1,53, 1		4, 4,49,18,29	
		46, 7,15,53,45,31,28		3,22
6″	55,48,46,24,39,11, 2,47,24,29		4, 4,49,21,51	
		46, 7,11,48,56, 9,37		3,22
8″	55,48,47,10,46,22,51,43,34, 6		4, 4,49,25,13	
		46, 7, 7,44, 6,44,24		3,22
10″	55,48,47,56,53,30,35,50,18,30		4, 4,49,28,35	
		46, 7, 3,39,17,15,49		3,22
12″	55,48,48,43, 0,34,15, 7,34,19		4, 4,49,31,57	
		46, 6,59,34,27,43,52		3,22
14″	55,48,49,29, 7,33,49,35,18,11		4, 4,49,35,19	
		46, 6,55,29,38, 8,33		3,22
16″	55,48,50,15,14,29,19,13,26,44		4, 4,49,38,41	
		46, 6,51,24,48,29,52		3,22
18″	55,48,51, 1,21,20,44, 1,56,36		4, 4,49,42, 3	
		46, 6,47,19,58,47,49		3,22
20″	55,48,51,47,28, 8, 4, 0,44,25		4, 4,49,45,25	
		46, 6,43,15, 9, 2,24		3,22
22″	55,48,52,33,34,51,19, 9,46,49		4, 4,49,48,47	
		46, 6,39,10,19,13,37		3,22
24″	55,48,53,19,41,30,29,29, 0,26		4, 4,49,52, 9	
		46, 6,35, 5,29,21,28		3,22
26″	55,48,54, 5,48, 5,34,58,21,54		4, 4,49,55,31	
		46, 6,31, 0,39,25,57		3,22
28″	55,48,54,51,54,36,35,37,47,51		4, 4,49,58,53	
		46, 6,26,55,49,27, 4		3,22
30″	55,48,55,38, 1, 3,31,27,14,55		4, 4,50, 2,15	
		46, 6,22,50,59,24,49		3,22
32″	55,48,56,24, 7,26,22,26,39,44		4, 4,50, 5,37	
		46, 6,18,46, 9,19,12		3,22
34″	55,48,57,10,13,45, 8,35,58,56		4, 4,50, 8,59	
		46, 6,14,41,19,10,13		3,22
36″	55,48,57,56,19,59,49,55, 9, 9		4, 4,50,12,21	
		46, 6,10,36,28,57,52		3,22
38″	55,48,58,42,26,10,26,24, 7, 1		4, 4,50,15,43	
		46, 6, 6,31,38,42, 9		3,22
40″	55,48,59,28,32,16,58, 2,49,10		4, 4,50,19, 5	
		46, 6, 2,26,48,23, 4		3,22
42″	55,49, 0,14,38,19,24,51,12,14		4, 4,50,22,27	
		46, 5,58,21,58, 0,37		3,22
44″	55,49, 1, 0,44,17,46,49,12,51		4, 4,50,25,49	
		46, 5,54,17, 7,34,48		3,22
46″	55,49, 1,46,50,12, 3,56,47,39		4, 4,50,29,11	
		46, 5,50,12,17, 5,37		3,22
48″	55,49, 2,32,56, 2,16,13,53,16		4, 4,50,32,33	
		46, 5,46, 7,26,33, 4		3,22
50″	55,49, 3,19, 1,48,23,40,26,20		4, 4,50,35,55	
		46, 5,42, 2,35,57, 9		3,22
52″	55,49, 4, 5, 7,30,26,16,23,29		4, 4,50,39,17	
		46, 5,37,57,45,17,52		3,22
54″	55,49, 4,51,13, 8,24, 1,41,21		4, 4,50,42,39	
		46, 5,33,52,54,35,13		3,22
56″	55,49, 5,37,18,42,16,56,16,34		4, 4,50,46, 1	
		46, 5,29,48, 3,49,12		3,22
58″	55,49, 6,23,24,12, 5, 0, 5,46		4, 4,50,49,23	
		46, 5,25,43,12,59,49		
60″	55,49, 7, 9,29,37,48,13, 5,35			
exact	55,49, 7, 9,29,37,48,12,46, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°29′ 0″	55,49, 7, 9,29,37,48,12,46, 0			
		46, 5,21,38,22, 5, 5		
2″	55,49, 7,55,34,59,26,34,51, 5		4, 4,50,56,14	
		46, 5,17,33,31, 8,51		3,22
4″	55,49, 8,41,40,17, 0, 5,59,56		4, 4,50,59,36	
		46, 5,13,28,40, 9,15		3,22
6″	55,49, 9,27,45,30,28,46, 9,11		4, 4,51, 2,58	
		46, 5, 9,23,49, 6,17		3,22
8″	55,49,10,13,50,39,52,35,15,28		4, 4,51, 6,20	
		46, 5, 5,18,57,59,57		3,22
10″	55,49,10,59,55,45,11,33,15,25		4, 4,51, 9,42	
		46, 5, 1,14, 6,50,15		3,22
12″	55,49,11,46, 0,46,25,40, 5,40		4, 4,51,13, 4	
		46, 4,57, 9,15,37,11		3,22
14″	55,49,12,32, 5,43,34,55,42,51		4, 4,51,16,26	
		46, 4,53, 4,24,20,45		3,22
16″	55,49,13,18,10,36,39,20, 3,36		4, 4,51,19,48	
		46, 4,48,59,33, 0,57		3,22
18″	55,49,14, 4,15,25,38,53, 4,33		4, 4,51,23,10	
		46, 4,44,54,41,37,47		3,22
20″	55,49,14,50,20,10,33,34,42,20		4, 4,51,26,32	
		46, 4,40,49,50,11,15		3,22
22″	55,49,15,36,24,51,23,24,53,35		4, 4,51,29,54	
		46, 4,36,44,58,41,21		3,22
24″	55,49,16,22,29,28, 8,23,34,56		4, 4,51,33,16	
		46, 4,32,40, 7, 8, 5		3,22
26″	55,49,17, 8,34, 0,48,30,43, 1		4, 4,51,36,38	
		46, 4,28,35,15,31,27		3,22
28″	55,49,17,54,38,29,23,46,14,28		4, 4,51,40, 0	
		46, 4,24,30,23,51,27		3,22
30″	55,49,18,40,42,53,54,10, 5,55		4, 4,51,43,22	
		46, 4,20,25,32, 8, 5		3,22
32″	55,49,19,26,47,14,19,42,14, 0		4, 4,51,46,44	
		46, 4,16,20,40,21,21		3,22
34″	55,49,20,12,51,30,40,22,35,21		4, 4,51,50, 6	
		46, 4,12,15,48,31,15		3,22
36″	55,49,20,58,55,42,56,11, 6,36		4, 4,51,53,28	
		46, 4, 8,10,56,37,47		3,22
38″	55,49,21,44,59,51, 7, 7,44,23		4, 4,51,56,50	
		46, 4, 4, 6, 4,40,57		3,22
40″	55,49,22,31, 3,55,13,12,25,20		4, 4,52, 0,12	
		46, 4, 0, 1,12,40,45		3,22
42″	55,49,23,17, 7,55,14,25, 6, 5		4, 4,52, 3,34	
		46, 3,55,56,20,37,11		3,22
44″	55,49,24, 3,11,51,10,45,43,16		4, 4,52, 6,56	
		46, 3,51,51,28,30,15		3,22
46″	55,49,24,49,15,43, 2,14,13,31		4, 4,52,10,18	
		46, 3,47,46,36,19,57		3,22
48″	55,49,25,35,19,30,48,50,33,28		4, 4,52,13,40	
		46, 3,43,41,44, 6,17		3,22
50″	55,49,26,21,23,14,30,34,39,45		4, 4,52,17, 2	
		46, 3,39,36,51,49,15		3,22
52″	55,49,27, 7,26,54, 7,26,29, 0		4, 4,52,20,24	
		46, 3,35,31,59,28,51		3,22
54″	55,49,27,53,30,29,39,25,57,51		4, 4,52,23,46	
		46, 3,31,27, 7, 5, 5		3,22
56″	55,49,28,39,34, 1, 6,33, 2,56		4, 4,52,27, 8	
		46, 3,27,22,14,37,57		3,22
58″	55,49,29,25,37,28,28,47,40,53		4, 4,52,30,30	
		46, 3,23,17,22, 7,27		
60″	55,49,30,11,40,51,46, 9,48,20			
exact	55,49,30,11,40,51,46, 9,36,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°30′ 0″	55,49,30,11,40,51,46, 9,36,42			
		46, 3,19,12,29,32,32		
2″	55,49,30,57,44,10,58,39, 9,14		4, 4,52,37,17	
		46, 3,15, 7,36,55,15		3,22
4″	55,49,31,43,47,26, 6,16, 4,29		4, 4,52,40,39	
		46, 3,11, 2,44,14,36		3,22
6″	55,49,32,29,50,37, 9, 0,19, 5		4, 4,52,44, 1	
		46, 3, 6,57,51,30,35		3,22
8″	55,49,33,15,53,44, 6,51,49,40		4, 4,52,47,23	
		46, 3, 2,52,58,43,12		3,22
10″	55,49,34, 1,56,46,59,50,32,52		4, 4,52,50,45	
		46, 2,58,48, 5,52,27		3,22
12″	55,49,34,47,59,45,47,56,25,19		4, 4,52,54, 7	
		46, 2,54,43,12,58,20		3,22
14″	55,49,35,34, 2,40,31, 9,23,39		4, 4,52,57,29	
		46, 2,50,38,20, 0,51		3,22
16″	55,49,36,20, 5,31, 9,29,24,30		4, 4,53, 0,51	
		46, 2,46,33,27, 0, 0		3,22
18″	55,49,37, 6, 8,17,42,56,24,30		4, 4,53, 4,13	
		46, 2,42,28,33,55,47		3,22
20″	55,49,37,52,11, 0,11,30,20,17		4, 4,53, 7,35	
		46, 2,38,23,40,48,12		3,22
22″	55,49,38,38,13,38,35,11, 8,29		4, 4,53,10,57	
		46, 2,34,18,47,37,15		3,22
24″	55,49,39,24,16,12,53,58,45,44		4, 4,53,14,19	
		46, 2,30,13,54,22,56		3,22
26″	55,49,40,10,18,43, 7,53, 8,40		4, 4,53,17,41	
		46, 2,26, 9, 1, 5,15		3,22
28″	55,49,40,56,21, 9,16,54,13,55		4, 4,53,21, 3	
		46, 2,22, 4, 7,44,12		3,22
30″	55,49,41,42,23,31,21, 1,58, 7		4, 4,53,24,25	
		46, 2,17,59,14,19,47		3,22
32″	55,49,42,28,25,49,20,16,17,54		4, 4,53,27,47	
		46, 2,13,54,20,52, 0		3,22
34″	55,49,43,14,28, 3,14,37, 9,54		4, 4,53,31, 9	
		46, 2, 9,49,27,20,51		3,22
36″	55,49,44, 0,30,13, 4, 4,30,45		4, 4,53,34,31	
		46, 2, 5,44,33,46,20		3,22
38″	55,49,44,46,32,18,48,38,17, 5		4, 4,53,37,53	
		46, 2, 1,39,40, 8,27		3,22
40″	55,49,45,32,34,20,28,18,25,32		4, 4,53,41,15	
		46, 1,57,34,46,27,12		3,22
42″	55,49,46,18,36,18, 3, 4,52,44		4, 4,53,44,37	
		46, 1,53,29,52,42,35		3,22
44″	55,49,47, 4,38,11,32,57,35,19		4, 4,53,47,59	
		46, 1,49,24,58,54,36		3,22
46″	55,49,47,50,40, 0,57,56,29,55		4, 4,53,51,21	
		46, 1,45,20, 5, 3,15		3,22
48″	55,49,48,36,41,46,18, 1,33,10		4, 4,53,54,43	
		46, 1,41,15,11, 8,32		3,22
50″	55,49,49,22,43,27,33,12,41,42		4, 4,53,58, 5	
		46, 1,37,10,17,10,27		3,22
52″	55,49,50, 8,45, 4,43,29,52, 9		4, 4,54, 1,27	
		46, 1,33, 5,23, 9, 0		3,22
54″	55,49,50,54,46,37,48,53, 1, 9		4, 4,54, 4,49	
		46, 1,29, 0,29, 4,11		3,22
56″	55,49,51,40,48, 6,49,22, 5,20		4, 4,54, 8,11	
		46, 1,24,55,34,56, 0		3,22
58″	55,49,52,26,49,31,44,57, 1,20		4, 4,54,11,33	
		46, 1,20,50,40,44,27		
60″	55,49,53,12,50,52,35,37,45,47			
exact	55,49,53,12,50,52,35,37,45,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°31′ 0″	55,49,53,12,50,52,35,37,45,49			
		46, 1,16,45,46,29,40		
2″	55,49,53,58,52, 9,21,24,15,29		4, 4,54,18,15	
		46, 1,12,40,52,11,25		3,22
4″	55,49,54,44,53,22, 2,16,26,54		4, 4,54,21,37	
		46, 1, 8,35,57,49,48		3,22
6″	55,49,55,30,54,30,38,14,16,42		4, 4,54,24,59	
		46, 1, 4,31, 3,24,49		3,22
8″	55,49,56,16,55,35, 9,17,41,31		4, 4,54,28,21	
		46, 1, 0,26, 8,56,28		3,22
10″	55,49,57, 2,56,35,35,26,37,59		4, 4,54,31,43	
		46, 0,56,21,14,24,45		3,22
12″	55,49,57,48,57,31,56,41, 2,44		4, 4,54,35, 5	
		46, 0,52,16,19,49,40		3,22
14″	55,49,58,34,58,24,13, 0,52,24		4, 4,54,38,27	
		46, 0,48,11,25,11,13		3,22
16″	55,49,59,20,59,12,24,26, 3,37		4, 4,54,41,49	
		46, 0,44, 6,30,29,24		3,22
18″	55,50, 0, 6,59,56,30,56,33, 1		4, 4,54,45,11	
		46, 0,40, 1,35,44,13		3,22
20″	55,50, 0,53, 0,36,32,32,17,14		4, 4,54,48,33	
		46, 0,35,56,40,55,40		3,22
22″	55,50, 1,39, 1,12,29,13,12,54		4, 4,54,51,55	
		46, 0,31,51,46, 3,45		3,22
24″	55,50, 2,25, 1,44,20,59,16,39		4, 4,54,55,17	
		46, 0,27,46,51, 8,28		3,22
26″	55,50, 3,11, 2,12, 7,50,25, 7		4, 4,54,58,39	
		46, 0,23,41,56, 9,49		3,22
28″	55,50, 3,57, 2,35,49,46,34,56		4, 4,55, 2, 1	
		46, 0,19,37, 1, 7,48		3,22
30″	55,50, 4,43, 2,55,26,47,42,44		4, 4,55, 5,23	
		46, 0,15,32, 6, 2,25		3,22
32″	55,50, 5,29, 3,10,58,53,45, 9		4, 4,55, 8,45	
		46, 0,11,27,10,53,40		3,22
34″	55,50, 6,15, 3,22,26, 4,38,49		4, 4,55,12, 7	
		46, 0, 7,22,15,41,33		3,22
36″	55,50, 7, 1, 3,29,48,20,20,22		4, 4,55,15,29	
		46, 0, 3,17,20,26, 4		3,22
38″	55,50, 7,47, 3,33, 5,40,46,26		4, 4,55,18,51	
		45,59,59,12,25, 7,13		3,22
40″	55,50, 8,33, 3,32,18, 5,53,39		4, 4,55,22,13	
		45,59,55, 7,29,45, 0		3,22
42″	55,50, 9,19, 3,27,25,35,38,39		4, 4,55,25,35	
		45,59,51, 2,34,19,25		3,22
44″	55,50,10, 5, 3,18,28, 9,58, 4		4, 4,55,28,57	
		45,59,46,57,38,50,28		3,22
46″	55,50,10,51, 3, 5,25,48,48,32		4, 4,55,32,19	
		45,59,42,52,43,18, 9		3,22
48″	55,50,11,37, 2,48,18,32, 6,41		4, 4,55,35,41	
		45,59,38,47,47,42,28		3,22
50″	55,50,12,23, 2,27, 6,19,49, 9		4, 4,55,39, 3	
		45,59,34,42,52, 3,25		3,22
52″	55,50,13, 9, 2, 1,49,11,52,34		4, 4,55,42,25	
		45,59,30,37,56,21, 0		3,22
54″	55,50,13,55, 1,32,27, 8,13,34		4, 4,55,45,47	
		45,59,26,33, 0,35,13		3,22
56″	55,50,14,41, 0,59, 0, 8,48,47		4, 4,55,49, 9	
		45,59,22,28, 4,46, 4		3,22
58″	55,50,15,27, 0,21,28,13,34,51		4, 4,55,52,31	
		45,59,18,23, 8,53,33		
60″	55,50,16,12,59,39,51,22,28,24			
exact	55,50,16,12,59,39,51,22,36,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°32′ 0″	55,50,16,12,59,39,51,22,36,12			
		45,59,14,18,12,58,43		
2″	55,50,16,58,58,54, 9,35,34,55		4, 4,55,59, 9	
		45,59,10,13,16,59,34		3,22
4″	55,50,17,44,58, 4,22,52,34,29		4, 4,56, 2,31	
		45,59, 6, 8,20,57, 3		3,22
6″	55,50,18,30,57,10,31,13,31,32		4, 4,56, 5,53	
		45,59, 2, 3,24,51,10		3,22
8″	55,50,19,16,56,12,34,38,22,42		4, 4,56, 9,15	
		45,58,57,58,28,41,55		3,22
10″	55,50,20, 2,55,10,33, 7, 4,37		4, 4,56,12,37	
		45,58,53,53,32,29,18		3,22
12″	55,50,20,48,54, 4,26,39,33,55		4, 4,56,15,59	
		45,58,49,48,36,13,19		3,22
14″	55,50,21,34,52,54,15,15,47,14		4, 4,56,19,21	
		45,58,45,43,39,53,58		3,22
16″	55,50,22,20,51,39,58,55,41,12		4, 4,56,22,43	
		45,58,41,38,43,31,15		3,22
18″	55,50,23, 6,50,21,37,39,12,27		4, 4,56,26, 5	
		45,58,37,33,47, 5,10		3,22
20″	55,50,23,52,48,59,11,26,17,37		4, 4,56,29,27	
		45,58,33,28,50,35,43		3,22
22″	55,50,24,38,47,32,40,16,53,20		4, 4,56,32,49	
		45,58,29,23,54, 2,54		3,22
24″	55,50,25,24,46, 2, 4,10,56,14		4, 4,56,36,11	
		45,58,25,18,57,26,43		3,22
26″	55,50,26,10,44,27,23, 8,22,57		4, 4,56,39,33	
		45,58,21,14, 0,47,10		3,22
28″	55,50,26,56,42,48,37, 9,10, 7		4, 4,56,42,55	
		45,58,17, 9, 4, 4,15		3,22
30″	55,50,27,42,41, 5,46,13,14,22		4, 4,56,46,17	
		45,58,13, 4, 7,17,58		3,22
32″	55,50,28,28,39,18,50,20,32,20		4, 4,56,49,39	
		45,58, 8,59,10,28,19		3,22
34″	55,50,29,14,37,27,49,31, 0,39		4, 4,56,53, 1	
		45,58, 4,54,13,35,18		3,22
36″	55,50,30, 0,35,32,43,44,35,57		4, 4,56,56,23	
		45,58, 0,49,16,38,55		3,22
38″	55,50,30,46,33,33,33, 1,14,52		4, 4,56,59,45	
		45,57,56,44,19,39,10		3,22
40″	55,50,31,32,31,30,17,20,54, 2		4, 4,57, 3, 7	
		45,57,52,39,22,36, 3		3,22
42″	55,50,32,18,29,22,56,43,30, 5		4, 4,57, 6,29	
		45,57,48,34,25,29,34		3,22
44″	55,50,33, 4,27,11,31, 8,59,39		4, 4,57, 9,51	
		45,57,44,29,28,19,43		3,22
46″	55,50,33,50,24,56, 0,37,19,22		4, 4,57,13,13	
		45,57,40,24,31, 6,30		3,22
48″	55,50,34,36,22,36,25, 8,25,52		4, 4,57,16,35	
		45,57,36,19,33,49,55		3,22
50″	55,50,35,22,20,12,44,42,15,47		4, 4,57,19,57	
		45,57,32,14,36,29,58		3,22
52″	55,50,36, 8,17,44,59,18,45,45		4, 4,57,23,19	
		45,57,28, 9,39, 6,39		3,22
54″	55,50,36,54,15,13, 8,57,52,24		4, 4,57,26,41	
		45,57,24, 4,41,39,58		3,22
56″	55,50,37,40,12,37,13,39,32,22		4, 4,57,30, 3	
		45,57,19,59,44, 9,55		3,22
58″	55,50,38,26, 9,57,13,23,42,17		4, 4,57,33,25	
		45,57,15,54,46,36,30		
60″	55,50,39,12, 7,13, 8,10,18,47			
exact	55,50,39,12, 7,13, 8,10,37,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°33′ 0″	55,50,39,12, 7,13, 8,10,37,52			
		45,57,11,49,49, 1,56		
2″	55,50,39,58, 4,24,57,59,39,48		4, 4,57,39,59	
		45,57, 7,44,51,21,57		3,22
4″	55,50,40,44, 1,32,42,51, 1,45		4, 4,57,43,21	
		45,57, 3,39,53,38,36		3,22
6″	55,50,41,29,58,36,22,44,40,21		4, 4,57,46,43	
		45,56,59,34,55,51,53		3,22
8″	55,50,42,15,55,35,57,40,32,14		4, 4,57,50, 5	
		45,56,55,29,58, 1,48		3,22
10″	55,50,43, 1,52,31,27,38,34, 2		4, 4,57,53,27	
		45,56,51,25, 0, 8,21		3,22
12″	55,50,43,47,49,22,52,38,42,23		4, 4,57,56,49	
		45,56,47,20, 2,11,32		3,22
14″	55,50,44,33,46,10,12,40,53,55		4, 4,58, 0,11	
		45,56,43,15, 4,11,21		3,22
16″	55,50,45,19,42,53,27,45, 5,16		4, 4,58, 3,33	
		45,56,39,10, 6, 7,48		3,22
18″	55,50,46, 5,39,32,37,51,13, 4		4, 4,58, 6,55	
		45,56,35, 5, 8, 0,53		3,22
20″	55,50,46,51,36, 7,42,59,13,57		4, 4,58,10,17	
		45,56,31, 0, 9,50,36		3,22
22″	55,50,47,37,32,38,43, 9, 4,33		4, 4,58,13,39	
		45,56,26,55,11,36,57		3,22
24″	55,50,48,23,29, 5,38,20,41,30		4, 4,58,17, 1	
		45,56,22,50,13,19,56		3,22
26″	55,50,49, 9,25,28,28,34, 1,26		4, 4,58,20,23	
		45,56,18,45,14,59,33		3,22
28″	55,50,49,55,21,47,13,49, 0,59		4, 4,58,23,45	
		45,56,14,40,16,35,48		3,22
30″	55,50,50,41,18, 1,54, 5,36,47		4, 4,58,27, 7	
		45,56,10,35,18, 8,41		3,22
32″	55,50,51,27,14,12,29,23,45,28		4, 4,58,30,29	
		45,56, 6,30,19,38,12		3,22
34″	55,50,52,13,10,18,59,43,23,40		4, 4,58,33,51	
		45,56, 2,25,21, 4,21		3,22
36″	55,50,52,59, 6,21,25, 4,28, 1		4, 4,58,37,13	
		45,55,58,20,22,27, 8		3,22
38″	55,50,53,45, 2,19,45,26,55, 9		4, 4,58,40,35	
		45,55,54,15,23,46,33		3,22
40″	55,50,54,30,58,14, 0,50,41,42		4, 4,58,43,57	
		45,55,50,10,25, 2,36		3,22
42″	55,50,55,16,54, 4,11,15,44,18		4, 4,58,47,19	
		45,55,46, 5,26,15,17		3,22
44″	55,50,56, 2,49,50,16,41,59,35		4, 4,58,50,41	
		45,55,42, 0,27,24,36		3,22
46″	55,50,56,48,45,32,17, 9,24,11		4, 4,58,54, 3	
		45,55,37,55,28,30,33		3,22
48″	55,50,57,34,41,10,12,37,54,44		4, 4,58,57,25	
		45,55,33,50,29,33, 8		3,22
50″	55,50,58,20,36,44, 3, 7,27,52		4, 4,59, 0,47	
		45,55,29,45,30,32,21		3,22
52″	55,50,59, 6,32,13,48,38, 0,13		4, 4,59, 4, 9	
		45,55,25,40,31,28,12		3,22
54″	55,50,59,52,27,39,29, 9,28,25		4, 4,59, 7,31	
		45,55,21,35,32,20,41		3,22
56″	55,51, 0,38,23, 1, 4,41,49, 6		4, 4,59,10,53	
		45,55,17,30,33, 9,48		3,22
58″	55,51, 1,24,18,18,35,14,58,54		4, 4,59,14,15	
		45,55,13,25,33,55,33		
60″	55,51, 2,10,13,32, 0,48,54,27			
exact	55,51, 2,10,13,32, 0,49,27,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°34′ 0″	55,51, 2,10,13,32, 0,49,27,59			
		45,55, 9,20,34,41,32		
2″	55,51, 2,56, 8,41,21,24, 9,31		4, 4,59,20,44	
		45,55, 5,15,35,20,48		3,21
4″	55,51, 3,42, 3,46,36,59,30,19		4, 4,59,24, 5	
		45,55, 1,10,35,56,43		3,21
6″	55,51, 4,27,58,47,47,35,27, 2		4, 4,59,27,26	
		45,54,57, 5,36,29,17		3,21
8″	55,51, 5,13,53,44,53,11,56,19		4, 4,59,30,47	
		45,54,53, 0,36,58,30		3,21
10″	55,51, 5,59,48,37,53,48,54,49		4, 4,59,34, 8	
		45,54,48,55,37,24,22		3,21
12″	55,51, 6,45,43,26,49,26,19,11		4, 4,59,37,29	
		45,54,44,50,37,46,53		3,21
14″	55,51, 7,31,38,11,40, 4, 6, 4		4, 4,59,40,50	
		45,54,40,45,38, 6, 3		3,21
16″	55,51, 8,17,32,52,25,42,12, 7		4, 4,59,44,11	
		45,54,36,40,38,21,52		3,21
18″	55,51, 9, 3,27,29, 6,20,33,59		4, 4,59,47,32	
		45,54,32,35,38,34,20		3,21
20″	55,51, 9,49,22, 1,41,59, 8,19		4, 4,59,50,53	
		45,54,28,30,38,43,27		3,21
22″	55,51,10,35,16,30,12,37,51,46		4, 4,59,54,14	
		45,54,24,25,38,49,13		3,21
24″	55,51,11,21,10,54,38,16,40,59		4, 4,59,57,35	
		45,54,20,20,38,51,38		3,21
26″	55,51,12, 7, 5,14,58,55,32,37		4, 5, 0, 0,56	
		45,54,16,15,38,50,42		3,21
28″	55,51,12,52,59,31,14,34,23,19		4, 5, 0, 4,17	
		45,54,12,10,38,46,25		3,21
30″	55,51,13,38,53,43,25,13, 9,44		4, 5, 0, 7,38	
		45,54, 8, 5,38,38,47		3,21
32″	55,51,14,24,47,51,30,51,48,31		4, 5, 0,10,59	
		45,54, 4, 0,38,27,48		3,21
34″	55,51,15,10,41,55,31,30,16,19		4, 5, 0,14,20	
		45,53,59,55,38,13,28		3,21
36″	55,51,15,56,35,55,27, 8,29,47		4, 5, 0,17,41	
		45,53,55,50,37,55,47		3,21
38″	55,51,16,42,29,51,17,46,25,34		4, 5, 0,21, 2	
		45,53,51,45,37,34,45		3,21
40″	55,51,17,28,23,43, 3,24, 0,19		4, 5, 0,24,23	
		45,53,47,40,37,10,22		3,21
42″	55,51,18,14,17,30,44, 1,10,41		4, 5, 0,27,44	
		45,53,43,35,36,42,38		3,21
44″	55,51,19, 0,11,14,19,37,53,19		4, 5, 0,31, 5	
		45,53,39,30,36,11,33		3,21
46″	55,51,19,46, 4,53,50,14, 4,52		4, 5, 0,34,26	
		45,53,35,25,35,37, 7		3,21
48″	55,51,20,31,58,29,15,49,41,59		4, 5, 0,37,47	
		45,53,31,20,34,59,20		3,21
50″	55,51,21,17,52, 0,36,24,41,19		4, 5, 0,41, 8	
		45,53,27,15,34,18,12		3,21
52″	55,51,22, 3,45,27,51,58,59,31		4, 5, 0,44,29	
		45,53,23,10,33,33,43		3,21
54″	55,51,22,49,38,51, 2,32,33,14		4, 5, 0,47,50	
		45,53,19, 5,32,45,53		3,21
56″	55,51,23,35,32,10, 8, 5,19, 7		4, 5, 0,51,11	
		45,53,15, 0,31,54,42		3,21
58″	55,51,24,21,25,25, 8,37,13,49		4, 5, 0,54,32	
		45,53,10,55,31, 0,10		
60″	55,51,25, 7,18,36, 4, 8,13,59			
exact	55,51,25, 7,18,36, 4, 7,50,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°35′ 0″	55,51,25, 7,18,36, 4, 7,50,50			
		45,53, 6,50,29,59,47		
2″	55,51,25,53,11,42,54,37,50,37		4, 5, 1, 1,24	
		45,53, 2,45,28,58,23		3,21
4″	55,51,26,39, 4,45,40, 6,49, 0		4, 5, 1, 4,45	
		45,52,58,40,27,53,38		3,21
6″	55,51,27,24,57,44,20,34,42,38		4, 5, 1, 8, 6	
		45,52,54,35,26,45,32		3,21
8″	55,51,28,10,50,38,56, 1,28,10		4, 5, 1,11,27	
		45,52,50,30,25,34, 5		3,21
10″	55,51,28,56,43,29,26,27, 2,15		4, 5, 1,14,48	
		45,52,46,25,24,19,17		3,21
12″	55,51,29,42,36,15,51,51,21,32		4, 5, 1,18, 9	
		45,52,42,20,23, 1, 8		3,21
14″	55,51,30,28,28,58,12,14,22,40		4, 5, 1,21,30	
		45,52,38,15,21,39,38		3,21
16″	55,51,31,14,21,36,27,36, 2,18		4, 5, 1,24,51	
		45,52,34,10,20,14,47		3,21
18″	55,51,32, 0,14,10,37,56,17, 5		4, 5, 1,28,12	
		45,52,30, 5,18,46,35		3,21
20″	55,51,32,46, 6,40,43,15, 3,40		4, 5, 1,31,33	
		45,52,26, 0,17,15, 2		3,21
22″	55,51,33,31,59, 6,43,32,18,42		4, 5, 1,34,54	
		45,52,21,55,15,40, 8		3,21
24″	55,51,34,17,51,28,38,47,58,50		4, 5, 1,38,15	
		45,52,17,50,14, 1,53		3,21
26″	55,51,35, 3,43,46,29, 2, 0,43		4, 5, 1,41,36	
		45,52,13,45,12,20,17		3,21
28″	55,51,35,49,36, 0,14,14,21, 0		4, 5, 1,44,57	
		45,52, 9,40,10,35,20		3,21
30″	55,51,36,35,28, 9,54,24,56,20		4, 5, 1,48,18	
		45,52, 5,35, 8,47, 2		3,21
32″	55,51,37,21,20,15,29,33,43,22		4, 5, 1,51,39	
		45,52, 1,30, 6,55,23		3,21
34″	55,51,38, 7,12,16,59,40,38,45		4, 5, 1,55, 0	
		45,51,57,25, 5, 0,23		3,21
36″	55,51,38,53, 4,14,24,45,39, 8		4, 5, 1,58,21	
		45,51,53,20, 3, 2, 2		3,21
38″	55,51,39,38,56, 7,44,48,41,10		4, 5, 2, 1,42	
		45,51,49,15, 1, 0,20		3,21
40″	55,51,40,24,47,56,59,49,41,30		4, 5, 2, 5, 3	
		45,51,45, 9,58,55,17		3,21
42″	55,51,41,10,39,42, 9,48,36,47		4, 5, 2, 8,24	
		45,51,41, 4,56,46,53		3,21
44″	55,51,41,56,31,23,14,45,23,40		4, 5, 2,11,45	
		45,51,36,59,54,35, 8		3,21
46″	55,51,42,42,23, 0,14,39,58,48		4, 5, 2,15, 6	
		45,51,32,54,52,20, 2		3,21
48″	55,51,43,28,14,33, 9,32,18,50		4, 5, 2,18,27	
		45,51,28,49,50, 1,35		3,21
50″	55,51,44,14, 6, 1,59,22,20,25		4, 5, 2,21,48	
		45,51,24,44,47,39,47		3,21
52″	55,51,44,59,57,26,44,10, 0,12		4, 5, 2,25, 9	
		45,51,20,39,45,14,38		3,21
54″	55,51,45,45,48,47,23,55,14,50		4, 5, 2,28,30	
		45,51,16,34,42,46, 8		3,21
56″	55,51,46,31,40, 3,58,38, 0,58		4, 5, 2,31,51	
		45,51,12,29,40,14,17		3,21
58″	55,51,47,17,31,16,28,18,15,15		4, 5, 2,35,12	
		45,51, 8,24,37,39, 5		
60″	55,51,48, 3,22,24,52,55,54,20			
exact	55,51,48, 3,22,24,52,55,37,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°36′ 0″	55,51,48, 3,22,24,52,55,37,54			
		45,51, 4,19,34,58,53		
2″	55,51,48,49,13,29,12,30,36,47		4, 5, 2,42, 0	
		45,51, 0,14,32,16,53		3,21
4″	55,51,49,35, 4,29,27, 2,53,40		4, 5, 2,45,21	
		45,50,56, 9,29,31,32		3,21
6″	55,51,50,20,55,25,36,32,25,12		4, 5, 2,48,42	
		45,50,52, 4,26,42,50		3,21
8″	55,51,51, 6,46,17,40,59, 8, 2		4, 5, 2,52, 3	
		45,50,47,59,23,50,47		3,21
10″	55,51,51,52,37, 5,40,22,58,49		4, 5, 2,55,24	
		45,50,43,54,20,55,23		3,21
12″	55,51,52,38,27,49,34,43,54,12		4, 5, 2,58,45	
		45,50,39,49,17,56,38		3,21
14″	55,51,53,24,18,29,24, 1,50,50		4, 5, 3, 2, 6	
		45,50,35,44,14,54,32		3,21
16″	55,51,54,10, 9, 5, 8,16,45,22		4, 5, 3, 5,27	
		45,50,31,39,11,49, 5		3,21
18″	55,51,54,55,59,36,47,28,34,27		4, 5, 3, 8,48	
		45,50,27,34, 8,40,17		3,21
20″	55,51,55,41,50, 4,21,37,14,44		4, 5, 3,12, 9	
		45,50,23,29, 5,28, 8		3,21
22″	55,51,56,27,40,27,50,42,42,52		4, 5, 3,15,30	
		45,50,19,24, 2,12,38		3,21
24″	55,51,57,13,30,47,14,44,55,30		4, 5, 3,18,51	
		45,50,15,18,58,53,47		3,21
26″	55,51,57,59,21, 2,33,43,49,17		4, 5, 3,22,12	
		45,50,11,13,55,31,35		3,21
28″	55,51,58,45,11,13,47,39,20,52		4, 5, 3,25,33	
		45,50, 7, 8,52, 6, 2		3,21
30″	55,51,59,31, 1,20,56,31,26,54		4, 5, 3,28,54	
		45,50, 3, 3,48,37, 8		3,21
32″	55,52, 0,16,51,24, 0,20, 4, 2		4, 5, 3,32,15	
		45,49,58,58,45, 4,53		3,21
34″	55,52, 1, 2,41,22,59, 5, 8,55		4, 5, 3,35,36	
		45,49,54,53,41,29,17		3,21
36″	55,52, 1,48,31,17,52,46,38,12		4, 5, 3,38,57	
		45,49,50,48,37,50,20		3,21
38″	55,52, 2,34,21, 8,41,24,28,32		4, 5, 3,42,18	
		45,49,46,43,34, 8, 2		3,21
40″	55,52, 3,20,10,55,24,58,36,34		4, 5, 3,45,39	
		45,49,42,38,30,22,23		3,21
42″	55,52, 4, 6, 0,38, 3,28,58,57		4, 5, 3,49, 0	
		45,49,38,33,26,33,23		3,21
44″	55,52, 4,51,50,16,36,55,32,20		4, 5, 3,52,21	
		45,49,34,28,22,41, 2		3,21
46″	55,52, 5,37,39,51, 5,18,13,22		4, 5, 3,55,42	
		45,49,30,23,18,45,20		3,21
48″	55,52, 6,23,29,21,28,36,58,42		4, 5, 3,59, 3	
		45,49,26,18,14,46,17		3,21
50″	55,52, 7, 9,18,47,46,51,44,59		4, 5, 4, 2,24	
		45,49,22,13,10,43,53		3,21
52″	55,52, 7,55, 8,10, 0, 2,28,52		4, 5, 4, 5,45	
		45,49,18, 8, 6,38, 8		3,21
54″	55,52, 8,40,57,28, 8, 9, 7, 0		4, 5, 4, 9, 6	
		45,49,14, 3, 2,29, 2		3,21
56″	55,52, 9,26,46,42,11,11,36, 2		4, 5, 4,12,27	
		45,49, 9,57,58,16,35		3,21
58″	55,52,10,12,35,52, 9, 9,52,37		4, 5, 4,15,48	
		45,49, 5,52,54, 0,47		
60″	55,52,10,58,24,58, 2, 3,53,24			
exact	55,52,10,58,24,58, 2, 3,47,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°37′ 0″	55,52,10,58,24,58, 2, 3,47,51			
		45,49, 1,47,49,41, 7		
2″	55,52,11,44,13,59,49,53,28,58		4, 5, 4,22,31	
		45,48,57,42,45,18,36		3,21
4″	55,52,12,30, 2,57,32,38,47,34		4, 5, 4,25,52	
		45,48,53,37,40,52,44		3,21
6″	55,52,13,15,51,51,10,19,40,18		4, 5, 4,29,13	
		45,48,49,32,36,23,31		3,21
8″	55,52,14, 1,40,40,42,56, 3,49		4, 5, 4,32,34	
		45,48,45,27,31,50,57		3,21
10″	55,52,14,47,29,26,10,27,54,46		4, 5, 4,35,55	
		45,48,41,22,27,15, 2		3,21
12″	55,52,15,33,18, 7,32,55, 9,48		4, 5, 4,39,16	
		45,48,37,17,22,35,46		3,21
14″	55,52,16,19, 6,44,50,17,45,34		4, 5, 4,42,37	
		45,48,33,12,17,53, 9		3,21
16″	55,52,17, 4,55,18, 2,35,38,43		4, 5, 4,45,58	
		45,48,29, 7,13, 7,11		3,21
18″	55,52,17,50,43,47, 9,48,45,54		4, 5, 4,49,19	
		45,48,25, 2, 8,17,52		3,21
20″	55,52,18,36,32,12,11,57, 3,46		4, 5, 4,52,40	
		45,48,20,57, 3,25,12		3,21
22″	55,52,19,22,20,33, 9, 0,28,58		4, 5, 4,56, 1	
		45,48,16,51,58,29,11		3,21
24″	55,52,20, 8, 8,50, 0,58,58, 9		4, 5, 4,59,22	
		45,48,12,46,53,29,49		3,21
26″	55,52,20,53,57, 2,47,52,27,58		4, 5, 5, 2,43	
		45,48, 8,41,48,27, 6		3,21
28″	55,52,21,39,45,11,29,40,55, 4		4, 5, 5, 6, 4	
		45,48, 4,36,43,21, 2		3,21
30″	55,52,22,25,33,16, 6,24,16, 6		4, 5, 5, 9,25	
		45,48, 0,31,38,11,37		3,21
32″	55,52,23,11,21,16,38, 2,27,43		4, 5, 5,12,46	
		45,47,56,26,32,58,51		3,21
34″	55,52,23,57, 9,13, 4,35,26,34		4, 5, 5,16, 7	
		45,47,52,21,27,42,44		3,21
36″	55,52,24,42,57, 5,26, 3, 9,18		4, 5, 5,19,28	
		45,47,48,16,22,23,16		3,21
38″	55,52,25,28,44,53,42,25,32,34		4, 5, 5,22,49	
		45,47,44,11,17, 0,27		3,21
40″	55,52,26,14,32,37,53,42,33, 1		4, 5, 5,26,10	
		45,47,40, 6,11,34,17		3,21
42″	55,52,27, 0,20,17,59,54, 7,18		4, 5, 5,29,31	
		45,47,36, 1, 6, 4,46		3,21
44″	55,52,27,46, 7,54, 1, 0,12, 4		4, 5, 5,32,52	
		45,47,31,56, 0,31,54		3,21
46″	55,52,28,31,55,25,57, 0,43,58		4, 5, 5,36,13	
		45,47,27,50,54,55,41		3,21
48″	55,52,29,17,42,53,47,55,39,39		4, 5, 5,39,34	
		45,47,23,45,49,16, 7		3,21
50″	55,52,30, 3,30,17,33,44,55,46		4, 5, 5,42,55	
		45,47,19,40,43,33,12		3,21
52″	55,52,30,49,17,37,14,28,28,58		4, 5, 5,46,16	
		45,47,15,35,37,46,56		3,21
54″	55,52,31,35, 4,52,50, 6,15,54		4, 5, 5,49,37	
		45,47,11,30,31,57,19		3,21
56″	55,52,32,20,52, 4,20,38,13,13		4, 5, 5,52,58	
		45,47, 7,25,26, 4,21		3,21
58″	55,52,33, 6,39,11,46, 4,17,34		4, 5, 5,56,19	
		45,47, 3,20,20, 8, 2		
60″	55,52,33,52,26,15, 6,24,25,36			
exact	55,52,33,52,26,15, 6,24,26,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°38′ 0″	55,52,33,52,26,15, 6,24,26,29			
		45,46,59,15,14, 8,41		
2″	55,52,34,38,13,14,21,38,35,10		4, 5, 6, 2,58	
		45,46,55,10, 8, 5,43		3,21
4″	55,52,35,24, 0, 9,31,46,40,53		4, 5, 6, 6,19	
		45,46,51, 5, 1,59,24		3,21
6″	55,52,36, 9,47, 0,36,48,40,17		4, 5, 6, 9,40	
		45,46,46,59,55,49,44		3,21
8″	55,52,36,55,33,47,36,44,30, 1		4, 5, 6,13, 1	
		45,46,42,54,49,36,43		3,21
10″	55,52,37,41,20,30,31,34, 6,44		4, 5, 6,16,22	
		45,46,38,49,43,20,21		3,21
12″	55,52,38,27, 7, 9,21,17,27, 5		4, 5, 6,19,43	
		45,46,34,44,37, 0,38		3,21
14″	55,52,39,12,53,44, 5,54,27,43		4, 5, 6,23, 4	
		45,46,30,39,30,37,34		3,21
16″	55,52,39,58,40,14,45,25, 5,17		4, 5, 6,26,25	
		45,46,26,34,24,11, 9		3,21
18″	55,52,40,44,26,41,19,49,16,26		4, 5, 6,29,46	
		45,46,22,29,17,41,23		3,21
20″	55,52,41,30,13, 3,49, 6,57,49		4, 5, 6,33, 7	
		45,46,18,24,11, 8,16		3,21
22″	55,52,42,15,59,22,13,18, 6, 5		4, 5, 6,36,28	
		45,46,14,19, 4,31,48		3,21
24″	55,52,43, 1,45,36,32,22,37,53		4, 5, 6,39,49	
		45,46,10,13,57,51,59		3,21
26″	55,52,43,47,31,46,46,20,29,52		4, 5, 6,43,10	
		45,46, 6, 8,51, 8,49		3,21
28″	55,52,44,33,17,52,55,11,38,41		4, 5, 6,46,31	
		45,46, 2, 3,44,22,18		3,21
30″	55,52,45,19, 3,54,58,56, 0,59		4, 5, 6,49,52	
		45,45,57,58,37,32,26		3,21
32″	55,52,46, 4,49,52,57,33,33,25		4, 5, 6,53,13	
		45,45,53,53,30,39,13		3,21
34″	55,52,46,50,35,46,51, 4,12,38		4, 5, 6,56,34	
		45,45,49,48,23,42,39		3,21
36″	55,52,47,36,21,36,39,27,55,17		4, 5, 6,59,55	
		45,45,45,43,16,42,44		3,21
38″	55,52,48,22, 7,22,22,44,38, 1		4, 5, 7, 3,16	
		45,45,41,38, 9,39,28		3,21
40″	55,52,49, 7,53, 4, 0,54,17,29		4, 5, 7, 6,37	
		45,45,37,33, 2,32,51		3,21
42″	55,52,49,53,38,41,33,56,50,20		4, 5, 7, 9,58	
		45,45,33,27,55,22,53		3,21
44″	55,52,50,39,24,15, 1,52,13,13		4, 5, 7,13,19	
		45,45,29,22,48, 9,34		3,21
46″	55,52,51,25, 9,44,24,40,22,47		4, 5, 7,16,40	
		45,45,25,17,40,52,54		3,21
48″	55,52,52,10,55, 9,42,21,15,41		4, 5, 7,20, 1	
		45,45,21,12,33,32,53		3,21
50″	55,52,52,56,40,30,54,54,48,34		4, 5, 7,23,22	
		45,45,17, 7,26, 9,31		3,21
52″	55,52,53,42,25,48, 2,20,58, 5		4, 5, 7,26,43	
		45,45,13, 2,18,42,48		3,21
54″	55,52,54,28,11, 1, 4,39,40,53		4, 5, 7,30, 4	
		45,45, 8,57,11,12,44		3,21
56″	55,52,55,13,56,10, 1,50,53,37		4, 5, 7,33,25	
		45,45, 4,52, 3,39,19		3,21
58″	55,52,55,59,41,14,53,54,32,56		4, 5, 7,36,46	
		45,45, 0,46,56, 2,33		
60″	55,52,56,45,26,15,40,50,35,29			
exact	55,52,56,45,26,15,40,50,46,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°39′ 0″	55,52,56,45,26,15,40,50,46,50			
		45,44,56,41,48,23,51		
2″	55,52,57,31,11,12,22,39,10,41		4, 5, 7,43,21	
		45,44,52,36,40,40,30		3,21
4″	55,52,58,16,56, 4,59,19,51,11		4, 5, 7,46,42	
		45,44,48,31,32,53,48		3,21
6″	55,52,59, 2,40,53,30,52,44,59		4, 5, 7,50, 3	
		45,44,44,26,25, 3,45		3,21
8″	55,52,59,48,25,37,57,17,48,44		4, 5, 7,53,24	
		45,44,40,21,17,10,21		3,21
10″	55,53, 0,34,10,18,18,34,59, 5		4, 5, 7,56,45	
		45,44,36,16, 9,13,36		3,21
12″	55,53, 1,19,54,54,34,44,12,41		4, 5, 8, 0, 6	
		45,44,32,11, 1,13,30		3,21
14″	55,53, 2, 5,39,26,45,45,26,11		4, 5, 8, 3,27	
		45,44,28, 5,53,10, 3		3,21
16″	55,53, 2,51,23,54,51,38,36,14		4, 5, 8, 6,48	
		45,44,24, 0,45, 3,15		3,21
18″	55,53, 3,37, 8,18,52,23,39,29		4, 5, 8,10, 9	
		45,44,19,55,36,53, 6		3,21
20″	55,53, 4,22,52,38,48, 0,32,35		4, 5, 8,13,30	
		45,44,15,50,28,39,36		3,21
22″	55,53, 5, 8,36,54,38,29,12,11		4, 5, 8,16,51	
		45,44,11,45,20,22,45		3,21
24″	55,53, 5,54,21, 6,23,49,34,56		4, 5, 8,20,12	
		45,44, 7,40,12, 2,33		3,21
26″	55,53, 6,40, 5,14, 4, 1,37,29		4, 5, 8,23,33	
		45,44, 3,35, 3,39, 0		3,21
28″	55,53, 7,25,49,17,39, 5,16,29		4, 5, 8,26,54	
		45,43,59,29,55,12, 6		3,21
30″	55,53, 8,11,33,17, 9, 0,28,35		4, 5, 8,30,15	
		45,43,55,24,46,41,51		3,21
32″	55,53, 8,57,17,12,33,47,10,26		4, 5, 8,33,36	
		45,43,51,19,38, 8,15		3,21
34″	55,53, 9,43, 1, 3,53,25,18,41		4, 5, 8,36,57	
		45,43,47,14,29,31,18		3,21
36″	55,53,10,28,44,51, 7,54,49,59		4, 5, 8,40,18	
		45,43,43, 9,20,51, 0		3,21
38″	55,53,11,14,28,34,17,15,40,59		4, 5, 8,43,39	
		45,43,39, 4,12, 7,21		3,21
40″	55,53,12, 0,12,13,21,27,48,20		4, 5, 8,47, 0	
		45,43,34,59, 3,20,21		3,21
42″	55,53,12,45,55,48,20,31, 8,41		4, 5, 8,50,21	
		45,43,30,53,54,30, 0		3,21
44″	55,53,13,31,39,19,14,25,38,41		4, 5, 8,53,42	
		45,43,26,48,45,36,18		3,21
46″	55,53,14,17,22,46, 3,11,14,59		4, 5, 8,57, 3	
		45,43,22,43,36,39,15		3,21
48″	55,53,15, 3, 6, 8,46,47,54,14		4, 5, 9, 0,24	
		45,43,18,38,27,38,51		3,21
50″	55,53,15,48,49,27,25,15,33, 5		4, 5, 9, 3,45	
		45,43,14,33,18,35, 6		3,21
52″	55,53,16,34,32,41,58,34, 8,11		4, 5, 9, 7, 6	
		45,43,10,28, 9,28, 0		3,21
54″	55,53,17,20,15,52,26,43,36,11		4, 5, 9,10,27	
		45,43, 6,23, 0,17,33		3,21
56″	55,53,18, 5,58,58,49,43,53,44		4, 5, 9,13,48	
		45,43, 2,17,51, 3,45		3,21
58″	55,53,18,51,42, 1, 7,34,57,29		4, 5, 9,17, 9	
		45,42,58,12,41,46,36		
60″	55,53,19,37,24,59,20,16,44, 5			
exact	55,53,19,37,24,59,20,17, 9, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°40′ 0″	55,53,19,37,24,59,20,17, 9, 6			
		45,42,54, 7,32,28,51		
2″	55,53,20,23, 7,53,27,49,37,57		4, 5, 9,23,39	
		45,42,50, 2,23, 5,12		3,21
4″	55,53,21, 8,50,43,30,12,43, 9		4, 5, 9,27, 0	
		45,42,45,57,13,38,12		3,21
6″	55,53,21,54,33,29,27,26,21,21		4, 5, 9,30,21	
		45,42,41,52, 4, 7,51		3,21
8″	55,53,22,40,16,11,19,30,29,12		4, 5, 9,33,42	
		45,42,37,46,54,34, 9		3,21
10″	55,53,23,25,58,49, 6,25, 3,21		4, 5, 9,37, 3	
		45,42,33,41,44,57, 6		3,21
12″	55,53,24,11,41,22,48,10, 0,27		4, 5, 9,40,24	
		45,42,29,36,35,16,42		3,21
14″	55,53,24,57,23,52,24,45,17, 9		4, 5, 9,43,45	
		45,42,25,31,25,32,57		3,21
16″	55,53,25,43, 6,17,56,10,50, 6		4, 5, 9,47, 6	
		45,42,21,26,15,45,51		3,21
18″	55,53,26,28,48,39,22,26,35,57		4, 5, 9,50,27	
		45,42,17,21, 5,55,24		3,21
20″	55,53,27,14,30,56,43,32,31,21		4, 5, 9,53,48	
		45,42,13,15,56, 1,36		3,21
22″	55,53,28, 0,13, 9,59,28,32,57		4, 5, 9,57, 9	
		45,42, 9,10,46, 4,27		3,21
24″	55,53,28,45,55,19,10,14,37,24		4, 5,10, 0,30	
		45,42, 5, 5,36, 3,57		3,21
26″	55,53,29,31,37,24,15,50,41,21		4, 5,10, 3,51	
		45,42, 1, 0,26, 0, 6		3,21
28″	55,53,30,17,19,25,16,16,41,27		4, 5,10, 7,12	
		45,41,56,55,15,52,54		3,21
30″	55,53,31, 3, 1,22,11,32,34,21		4, 5,10,10,33	
		45,41,52,50, 5,42,21		3,21
32″	55,53,31,48,43,15, 1,38,16,42		4, 5,10,13,54	
		45,41,48,44,55,28,27		3,21
34″	55,53,32,34,25, 3,46,33,45, 9		4, 5,10,17,15	
		45,41,44,39,45,11,12		3,21
36″	55,53,33,20, 6,48,26,18,56,21		4, 5,10,20,36	
		45,41,40,34,34,50,36		3,21
38″	55,53,34, 5,48,29, 0,53,46,57		4, 5,10,23,57	
		45,41,36,29,24,26,39		3,21
40″	55,53,34,51,30, 5,30,18,13,36		4, 5,10,27,18	
		45,41,32,24,13,59,21		3,21
42″	55,53,35,37,11,37,54,32,12,57		4, 5,10,30,39	
		45,41,28,19, 3,28,42		3,21
44″	55,53,36,22,53, 6,13,35,41,39		4, 5,10,34, 0	
		45,41,24,13,52,54,42		3,21
46″	55,53,37, 8,34,30,27,28,36,21		4, 5,10,37,21	
		45,41,20, 8,42,17,21		3,21
48″	55,53,37,54,15,50,36,10,53,42		4, 5,10,40,42	
		45,41,16, 3,31,36,39		3,21
50″	55,53,38,39,57, 6,39,42,30,21		4, 5,10,44, 3	
		45,41,11,58,20,52,36		3,21
52″	55,53,39,25,38,18,38, 3,22,57		4, 5,10,47,24	
		45,41, 7,53,10, 5,12		3,21
54″	55,53,40,11,19,26,31,13,28, 9		4, 5,10,50,45	
		45,41, 3,47,59,14,27		3,21
56″	55,53,40,57, 0,30,19,12,42,36		4, 5,10,54, 6	
		45,40,59,42,48,20,21		3,21
58″	55,53,41,42,41,30, 2, 1, 2,57		4, 5,10,57,27	
		45,40,55,37,37,22,54		
60″	55,53,42,28,22,25,39,38,25,51			
exact	55,53,42,28,22,25,39,39, 0,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°41′ 0″	55,53,42,28,22,25,39,39, 0,43			
		45,40,51,32,26,25,55		
2″	55,53,43,14, 3,17,12, 5,26,38		4, 5,11, 3,52	
		45,40,47,27,15,22, 3		3,20
4″	55,53,43,59,44, 4,39,20,48,41		4, 5,11, 7,12	
		45,40,43,22, 4,14,51		3,20
6″	55,53,44,45,24,48, 1,25, 3,32		4, 5,11,10,32	
		45,40,39,16,53, 4,19		3,20
8″	55,53,45,31, 5,27,18,18, 7,51		4, 5,11,13,52	
		45,40,35,11,41,50,27		3,20
10″	55,53,46,16,46, 2,29,59,58,18		4, 5,11,17,12	
		45,40,31, 6,30,33,15		3,20
12″	55,53,47, 2,26,33,36,30,31,33		4, 5,11,20,32	
		45,40,27, 1,19,12,43		3,20
14″	55,53,47,48, 7, 0,37,49,44,16		4, 5,11,23,52	
		45,40,22,56, 7,48,51		3,20
16″	55,53,48,33,47,23,33,57,33, 7		4, 5,11,27,12	
		45,40,18,50,56,21,39		3,20
18″	55,53,49,19,27,42,24,53,54,46		4, 5,11,30,32	
		45,40,14,45,44,51, 7		3,20
20″	55,53,50, 5, 7,57,10,38,45,53		4, 5,11,33,52	
		45,40,10,40,33,17,15		3,20
22″	55,53,50,50,48, 7,51,12, 3, 8		4, 5,11,37,12	
		45,40, 6,35,21,40, 3		3,20
24″	55,53,51,36,28,14,26,33,43,11		4, 5,11,40,32	
		45,40, 2,30, 9,59,31		3,20
26″	55,53,52,22, 8,16,56,43,42,42		4, 5,11,43,52	
		45,39,58,24,58,15,39		3,20
28″	55,53,53, 7,48,15,21,41,58,21		4, 5,11,47,12	
		45,39,54,19,46,28,27		3,20
30″	55,53,53,53,28, 9,41,28,26,48		4, 5,11,50,32	
		45,39,50,14,34,37,55		3,20
32″	55,53,54,39, 7,59,56, 3, 4,43		4, 5,11,53,52	
		45,39,46, 9,22,44, 3		3,20
34″	55,53,55,24,47,46, 5,25,48,46		4, 5,11,57,12	
		45,39,42, 4,10,46,51		3,20
36″	55,53,56,10,27,28, 9,36,35,37		4, 5,12, 0,32	
		45,39,37,58,58,46,19		3,20
38″	55,53,56,56, 7, 6, 8,35,21,56		4, 5,12, 3,52	
		45,39,33,53,46,42,27		3,20
40″	55,53,57,41,46,40, 2,22, 4,23		4, 5,12, 7,12	
		45,39,29,48,34,35,15		3,20
42″	55,53,58,27,26, 9,50,56,39,38		4, 5,12,10,32	
		45,39,25,43,22,24,43		3,20
44″	55,53,59,13, 5,35,34,19, 4,21		4, 5,12,13,52	
		45,39,21,38,10,10,51		3,20
46″	55,53,59,58,44,57,12,29,15,12		4, 5,12,17,12	
		45,39,17,32,57,53,39		3,20
48″	55,54, 0,44,24,14,45,27, 8,51		4, 5,12,20,32	
		45,39,13,27,45,33, 7		3,20
50″	55,54, 1,30, 3,28,13,12,41,58		4, 5,12,23,52	
		45,39, 9,22,33, 9,15		3,20
52″	55,54, 2,15,42,37,35,45,51,13		4, 5,12,27,12	
		45,39, 5,17,20,42, 3		3,20
54″	55,54, 3, 1,21,42,53, 6,33,16		4, 5,12,30,32	
		45,39, 1,12, 8,11,31		3,20
56″	55,54, 3,47, 0,44, 5,14,44,47		4, 5,12,33,52	
		45,38,57, 6,55,37,39		3,20
58″	55,54, 4,32,39,41,12,10,22,26		4, 5,12,37,12	
		45,38,53, 1,43, 0,27		
60″	55,54, 5,18,18,34,13,53,22,53			
exact	55,54, 5,18,18,34,13,52,56,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°42′ 0″	55,54, 5,18,18,34,13,52,56,17			
		45,38,48,56,30,17,18		
2″	55,54, 6, 3,57,23,10,23,13,35		4, 5,12,44, 2	
		45,38,44,51,17,33,16		3,20
4″	55,54, 6,49,36, 8, 1,40,46,51		4, 5,12,47,22	
		45,38,40,46, 4,45,54		3,20
6″	55,54, 7,35,14,48,47,45,32,45		4, 5,12,50,42	
		45,38,36,40,51,55,12		3,20
8″	55,54, 8,20,53,25,28,37,27,57		4, 5,12,54, 2	
		45,38,32,35,39, 1,10		3,20
10″	55,54, 9, 6,31,58, 4,16,29, 7		4, 5,12,57,22	
		45,38,28,30,26, 3,48		3,20
12″	55,54, 9,52,10,26,34,42,32,55		4, 5,13, 0,42	
		45,38,24,25,13, 3, 6		3,20
14″	55,54,10,37,48,50,59,55,36, 1		4, 5,13, 4, 2	
		45,38,20,19,59,59, 4		3,20
16″	55,54,11,23,27,11,19,55,35, 5		4, 5,13, 7,22	
		45,38,16,14,46,51,42		3,20
18″	55,54,12, 9, 5,27,34,42,26,47		4, 5,13,10,42	
		45,38,12, 9,33,41, 0		3,20
20″	55,54,12,54,43,39,44,16, 7,47		4, 5,13,14, 2	
		45,38, 8, 4,20,26,58		3,20
22″	55,54,13,40,21,47,48,36,34,45		4, 5,13,17,22	
		45,38, 3,59, 7, 9,36		3,20
24″	55,54,14,25,59,51,47,43,44,21		4, 5,13,20,42	
		45,37,59,53,53,48,54		3,20
26″	55,54,15,11,37,51,41,37,33,15		4, 5,13,24, 2	
		45,37,55,48,40,24,52		3,20
28″	55,54,15,57,15,47,30,17,58, 7		4, 5,13,27,22	
		45,37,51,43,26,57,30		3,20
30″	55,54,16,42,53,39,13,44,55,37		4, 5,13,30,42	
		45,37,47,38,13,26,48		3,20
32″	55,54,17,28,31,26,51,58,22,25		4, 5,13,34, 2	
		45,37,43,32,59,52,46		3,20
34″	55,54,18,14, 9,10,24,58,15,11		4, 5,13,37,22	
		45,37,39,27,46,15,24		3,20
36″	55,54,18,59,46,49,52,44,30,35		4, 5,13,40,42	
		45,37,35,22,32,34,42		3,20
38″	55,54,19,45,24,25,15,17, 5,17		4, 5,13,44, 2	
		45,37,31,17,18,50,40		3,20
40″	55,54,20,31, 1,56,32,35,55,57		4, 5,13,47,22	
		45,37,27,12, 5, 3,18		3,20
42″	55,54,21,16,39,23,44,40,59,15		4, 5,13,50,42	
		45,37,23, 6,51,12,36		3,20
44″	55,54,22, 2,16,46,51,32,11,51		4, 5,13,54, 2	
		45,37,19, 1,37,18,34		3,20
46″	55,54,22,47,54, 5,53, 9,30,25		4, 5,13,57,22	
		45,37,14,56,23,21,12		3,20
48″	55,54,23,33,31,20,49,32,51,37		4, 5,14, 0,42	
		45,37,10,51, 9,20,30		3,20
50″	55,54,24,19, 8,31,40,42,12, 7		4, 5,14, 4, 2	
		45,37, 6,45,55,16,28		3,20
52″	55,54,25, 4,45,38,26,37,28,35		4, 5,14, 7,22	
		45,37, 2,40,41, 9, 6		3,20
54″	55,54,25,50,22,41, 7,18,37,41		4, 5,14,10,42	
		45,36,58,35,26,58,24		3,20
56″	55,54,26,35,59,39,42,45,36, 5		4, 5,14,14, 2	
		45,36,54,30,12,44,22		3,20
58″	55,54,27,21,36,34,12,58,20,27		4, 5,14,17,22	
		45,36,50,24,58,27, 0		
60″	55,54,28, 7,13,24,37,56,47,27			
exact	55,54,28, 7,13,24,37,56,37,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°43′ 0″	55,54,28, 7,13,24,37,56,37,39			
		45,36,46,19,44, 5,14		
2″	55,54,28,52,50,10,57,40,42,53		4, 5,14,24, 6	
		45,36,42,14,29,41, 8		3,20
4″	55,54,29,38,26,53,12,10,24, 1		4, 5,14,27,26	
		45,36,38, 9,15,13,42		3,20
6″	55,54,30,24, 3,31,21,25,37,43		4, 5,14,30,46	
		45,36,34, 4, 0,42,56		3,20
8″	55,54,31, 9,40, 5,25,26,20,39		4, 5,14,34, 6	
		45,36,29,58,46, 8,50		3,20
10″	55,54,31,55,16,35,24,12,29,29		4, 5,14,37,26	
		45,36,25,53,31,31,24		3,20
12″	55,54,32,40,53, 1,17,44, 0,53		4, 5,14,40,46	
		45,36,21,48,16,50,38		3,20
14″	55,54,33,26,29,23, 6, 0,51,31		4, 5,14,44, 6	
		45,36,17,43, 2, 6,32		3,20
16″	55,54,34,12, 5,40,49, 2,58, 3		4, 5,14,47,26	
		45,36,13,37,47,19, 6		3,20
18″	55,54,34,57,41,54,26,50,17, 9		4, 5,14,50,46	
		45,36, 9,32,32,28,20		3,20
20″	55,54,35,43,18, 3,59,22,45,29		4, 5,14,54, 6	
		45,36, 5,27,17,34,14		3,20
22″	55,54,36,28,54, 9,26,40,19,43		4, 5,14,57,26	
		45,36, 1,22, 2,36,48		3,20
24″	55,54,37,14,30,10,48,42,56,31		4, 5,15, 0,46	
		45,35,57,16,47,36, 2		3,20
26″	55,54,38, 0, 6, 8, 5,30,32,33		4, 5,15, 4, 6	
		45,35,53,11,32,31,56		3,20
28″	55,54,38,45,42, 1,17, 3, 4,29		4, 5,15, 7,26	
		45,35,49, 6,17,24,30		3,20
30″	55,54,39,31,17,50,23,20,28,59		4, 5,15,10,46	
		45,35,45, 1, 2,13,44		3,20
32″	55,54,40,16,53,35,24,22,42,43		4, 5,15,14, 6	
		45,35,40,55,46,59,38		3,20
34″	55,54,41, 2,29,16,20, 9,42,21		4, 5,15,17,26	
		45,35,36,50,31,42,12		3,20
36″	55,54,41,48, 4,53,10,41,24,33		4, 5,15,20,46	
		45,35,32,45,16,21,26		3,20
38″	55,54,42,33,40,25,55,57,45,59		4, 5,15,24, 6	
		45,35,28,40, 0,57,20		3,20
40″	55,54,43,19,15,54,35,58,43,19		4, 5,15,27,26	
		45,35,24,34,45,29,54		3,20
42″	55,54,44, 4,51,19,10,44,13,13		4, 5,15,30,46	
		45,35,20,29,29,59, 8		3,20
44″	55,54,44,50,26,39,40,14,12,21		4, 5,15,34, 6	
		45,35,16,24,14,25, 2		3,20
46″	55,54,45,36, 1,56, 4,28,37,23		4, 5,15,37,26	
		45,35,12,18,58,47,36		3,20
48″	55,54,46,21,37, 8,23,27,24,59		4, 5,15,40,46	
		45,35, 8,13,43, 6,50		3,20
50″	55,54,47, 7,12,16,37,10,31,49		4, 5,15,44, 6	
		45,35, 4, 8,27,22,44		3,20
52″	55,54,47,52,47,20,45,37,54,33		4, 5,15,47,26	
		45,35, 0, 3,11,35,18		3,20
54″	55,54,48,38,22,20,48,49,29,51		4, 5,15,50,46	
		45,34,55,57,55,44,32		3,20
56″	55,54,49,23,57,16,46,45,14,23		4, 5,15,54, 6	
		45,34,51,52,39,50,26		3,20
58″	55,54,50, 9,32, 8,39,25, 4,49		4, 5,15,57,26	
		45,34,47,47,23,53, 0		
60″	55,54,50,55, 6,56,26,48,57,49			
exact	55,54,50,55, 6,56,26,48,53,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°44′ 0″	55,54,50,55, 6,56,26,48,53,54			
		45,34,43,42, 7,51,57		
2″	55,54,51,40,41,40, 8,56,45,51		4, 5,16, 4, 6	
		45,34,39,36,51,47,51		3,20
4″	55,54,52,26,16,19,45,48,33,42		4, 5,16, 7,26	
		45,34,35,31,35,40,25		3,20
6″	55,54,53,11,50,55,17,24,14, 7		4, 5,16,10,46	
		45,34,31,26,19,29,39		3,20
8″	55,54,53,57,25,26,43,43,43,46		4, 5,16,14, 6	
		45,34,27,21, 3,15,33		3,20
10″	55,54,54,42,59,54, 4,46,59,19		4, 5,16,17,26	
		45,34,23,15,46,58, 7		3,20
12″	55,54,55,28,34,17,20,33,57,26		4, 5,16,20,46	
		45,34,19,10,30,37,21		3,20
14″	55,54,56,14, 8,36,31, 4,34,47		4, 5,16,24, 6	
		45,34,15, 5,14,13,15		3,20
16″	55,54,56,59,42,51,36,18,48, 2		4, 5,16,27,26	
		45,34,10,59,57,45,49		3,20
18″	55,54,57,45,17, 2,36,16,33,51		4, 5,16,30,46	
		45,34, 6,54,41,15, 3		3,20
20″	55,54,58,30,51, 9,30,57,48,54		4, 5,16,34, 6	
		45,34, 2,49,24,40,57		3,20
22″	55,54,59,16,25,12,20,22,29,51		4, 5,16,37,26	
		45,33,58,44, 8, 3,31		3,20
24″	55,55, 0, 1,59,11, 4,30,33,22		4, 5,16,40,46	
		45,33,54,38,51,22,45		3,20
26″	55,55, 0,47,33, 5,43,21,56, 7		4, 5,16,44, 6	
		45,33,50,33,34,38,39		3,20
28″	55,55, 1,33, 6,56,16,56,34,46		4, 5,16,47,26	
		45,33,46,28,17,51,13		3,20
30″	55,55, 2,18,40,42,45,14,25,59		4, 5,16,50,46	
		45,33,42,23, 1, 0,27		3,20
32″	55,55, 3, 4,14,25, 8,15,26,26		4, 5,16,54, 6	
		45,33,38,17,44, 6,21		3,20
34″	55,55, 3,49,48, 3,25,59,32,47		4, 5,16,57,26	
		45,33,34,12,27, 8,55		3,20
36″	55,55, 4,35,21,37,38,26,41,42		4, 5,17, 0,46	
		45,33,30, 7,10, 8, 9		3,20
38″	55,55, 5,20,55, 7,45,36,49,51		4, 5,17, 4, 6	
		45,33,26, 1,53, 4, 3		3,20
40″	55,55, 6, 6,28,33,47,29,53,54		4, 5,17, 7,26	
		45,33,21,56,35,56,37		3,20
42″	55,55, 6,52, 1,55,44, 5,50,31		4, 5,17,10,46	
		45,33,17,51,18,45,51		3,20
44″	55,55, 7,37,35,13,35,24,36,22		4, 5,17,14, 6	
		45,33,13,46, 1,31,45		3,20
46″	55,55, 8,23, 8,27,21,26, 8, 7		4, 5,17,17,26	
		45,33, 9,40,44,14,19		3,20
48″	55,55, 9, 8,41,37, 2,10,22,26		4, 5,17,20,46	
		45,33, 5,35,26,53,33		3,20
50″	55,55, 9,54,14,42,37,37,15,59		4, 5,17,24, 6	
		45,33, 1,30, 9,29,27		3,20
52″	55,55,10,39,47,44, 7,46,45,26		4, 5,17,27,26	
		45,32,57,24,52, 2, 1		3,20
54″	55,55,11,25,20,41,32,38,47,27		4, 5,17,30,46	
		45,32,53,19,34,31,15		3,20
56″	55,55,12,10,53,34,52,13,18,42		4, 5,17,34, 6	
		45,32,49,14,16,57, 9		3,20
58″	55,55,12,56,26,24, 6,30,15,51		4, 5,17,37,26	
		45,32,45, 8,59,19,43		
60″	55,55,13,41,59, 9,15,29,35,34			
exact	55,55,13,41,59, 9,15,29,41,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°45′ 0″	55,55,13,41,59, 9,15,29,41,20			
		45,32,41, 3,41,39,43		
2″	55,55,14,27,31,50,19,11,21, 3		4, 5,17,44, 2	
		45,32,36,58,23,55,41		3,20
4″	55,55,15,13, 4,27,17,35,16,44		4, 5,17,47,22	
		45,32,32,53, 6, 8,19		3,20
6″	55,55,15,58,37, 0,10,41,25, 3		4, 5,17,50,42	
		45,32,28,47,48,17,37		3,20
8″	55,55,16,44, 9,28,58,29,42,40		4, 5,17,54, 2	
		45,32,24,42,30,23,35		3,20
10″	55,55,17,29,41,53,41, 0, 6,15		4, 5,17,57,22	
		45,32,20,37,12,26,13		3,20
12″	55,55,18,15,14,14,18,12,32,28		4, 5,18, 0,42	
		45,32,16,31,54,25,31		3,20
14″	55,55,19, 0,46,30,50, 6,57,59		4, 5,18, 4, 2	
		45,32,12,26,36,21,29		3,20
16″	55,55,19,46,18,43,16,43,19,28		4, 5,18, 7,22	
		45,32, 8,21,18,14, 7		3,20
18″	55,55,20,31,50,51,38, 1,33,35		4, 5,18,10,42	
		45,32, 4,16, 0, 3,25		3,20
20″	55,55,21,17,22,55,54, 1,37, 0		4, 5,18,14, 2	
		45,32, 0,10,41,49,23		3,20
22″	55,55,22, 2,54,56, 4,43,26,23		4, 5,18,17,22	
		45,31,56, 5,23,32, 1		3,20
24″	55,55,22,48,26,52,10, 6,58,24		4, 5,18,20,42	
		45,31,52, 0, 5,11,19		3,20
26″	55,55,23,33,58,44,10,12, 9,43		4, 5,18,24, 2	
		45,31,47,54,46,47,17		3,20
28″	55,55,24,19,30,32, 4,58,57, 0		4, 5,18,27,22	
		45,31,43,49,28,19,55		3,20
30″	55,55,25, 5, 2,15,54,27,16,55		4, 5,18,30,42	
		45,31,39,44, 9,49,13		3,20
32″	55,55,25,50,33,55,38,37, 6, 8		4, 5,18,34, 2	
		45,31,35,38,51,15,11		3,20
34″	55,55,26,36, 5,31,17,28,21,19		4, 5,18,37,22	
		45,31,31,33,32,37,49		3,20
36″	55,55,27,21,37, 2,51, 0,59, 8		4, 5,18,40,42	
		45,31,27,28,13,57, 7		3,20
38″	55,55,28, 7, 8,30,19,14,56,15		4, 5,18,44, 2	
		45,31,23,22,55,13, 5		3,20
40″	55,55,28,52,39,53,42,10, 9,20		4, 5,18,47,22	
		45,31,19,17,36,25,43		3,20
42″	55,55,29,38,11,12,59,46,35, 3		4, 5,18,50,42	
		45,31,15,12,17,35, 1		3,20
44″	55,55,30,23,42,28,12, 4,10, 4		4, 5,18,54, 2	
		45,31,11, 6,58,40,59		3,20
46″	55,55,31, 9,13,39,19, 2,51, 3		4, 5,18,57,22	
		45,31, 7, 1,39,43,37		3,20
48″	55,55,31,54,44,46,20,42,34,40		4, 5,19, 0,42	
		45,31, 2,56,20,42,55		3,20
50″	55,55,32,40,15,49,17, 3,17,35		4, 5,19, 4, 2	
		45,30,58,51, 1,38,53		3,20
52″	55,55,33,25,46,48, 8, 4,56,28		4, 5,19, 7,22	
		45,30,54,45,42,31,31		3,20
54″	55,55,34,11,17,42,53,47,27,59		4, 5,19,10,42	
		45,30,50,40,23,20,49		3,20
56″	55,55,34,56,48,33,34,10,48,48		4, 5,19,14, 2	
		45,30,46,35, 4, 6,47		3,20
58″	55,55,35,42,19,20, 9,14,55,35		4, 5,19,17,22	
		45,30,42,29,44,49,25		
60″	55,55,36,27,50, 2,38,59,45, 0			
exact	55,55,36,27,50, 2,39, 0, 3,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°46′ 0″	55,55,36,27,50, 2,39, 0, 3,30			
		45,30,38,24,25,30,45		
2″	55,55,37,13,20,41, 3,25,34,15		4, 5,19,23,53	
		45,30,34,19, 6, 6,52		3,20
4″	55,55,37,58,51,15,22,31,41, 7		4, 5,19,27,13	
		45,30,30,13,46,39,39		3,20
6″	55,55,38,44,21,45,36,18,20,46		4, 5,19,30,33	
		45,30,26, 8,27, 9, 6		3,20
8″	55,55,39,29,52,11,44,45,29,52		4, 5,19,33,53	
		45,30,22, 3, 7,35,13		3,20
10″	55,55,40,15,22,33,47,53, 5, 5		4, 5,19,37,13	
		45,30,17,57,47,58, 0		3,20
12″	55,55,41, 0,52,51,45,41, 3, 5		4, 5,19,40,33	
		45,30,13,52,28,17,27		3,20
14″	55,55,41,46,23, 5,38, 9,20,32		4, 5,19,43,53	
		45,30, 9,47, 8,33,34		3,20
16″	55,55,42,31,53,15,25,17,54, 6		4, 5,19,47,13	
		45,30, 5,41,48,46,21		3,20
18″	55,55,43,17,23,21, 7, 6,40,27		4, 5,19,50,33	
		45,30, 1,36,28,55,48		3,20
20″	55,55,44, 2,53,22,43,35,36,15		4, 5,19,53,53	
		45,29,57,31, 9, 1,55		3,20
22″	55,55,44,48,23,20,14,44,38,10		4, 5,19,57,13	
		45,29,53,25,49, 4,42		3,20
24″	55,55,45,33,53,13,40,33,42,52		4, 5,20, 0,33	
		45,29,49,20,29, 4, 9		3,20
26″	55,55,46,19,23, 3, 1, 2,47, 1		4, 5,20, 3,53	
		45,29,45,15, 9, 0,16		3,20
28″	55,55,47, 4,52,48,16,11,47,17		4, 5,20, 7,13	
		45,29,41, 9,48,53, 3		3,20
30″	55,55,47,50,22,29,26, 0,40,20		4, 5,20,10,33	
		45,29,37, 4,28,42,30		3,20
32″	55,55,48,35,52, 6,30,29,22,50		4, 5,20,13,53	
		45,29,32,59, 8,28,37		3,20
34″	55,55,49,21,21,39,29,37,51,27		4, 5,20,17,13	
		45,29,28,53,48,11,24		3,20
36″	55,55,50, 6,51, 8,23,26, 2,51		4, 5,20,20,33	
		45,29,24,48,27,50,51		3,20
38″	55,55,50,52,20,33,11,53,53,42		4, 5,20,23,53	
		45,29,20,43, 7,26,58		3,20
40″	55,55,51,37,49,53,55, 1,20,40		4, 5,20,27,13	
		45,29,16,37,46,59,45		3,20
42″	55,55,52,23,19,10,32,48,20,25		4, 5,20,30,33	
		45,29,12,32,26,29,12		3,20
44″	55,55,53, 8,48,23, 5,14,49,37		4, 5,20,33,53	
		45,29, 8,27, 5,55,19		3,20
46″	55,55,53,54,17,31,32,20,44,56		4, 5,20,37,13	
		45,29, 4,21,45,18, 6		3,20
48″	55,55,54,39,46,35,54, 6, 3, 2		4, 5,20,40,33	
		45,29, 0,16,24,37,33		3,20
50″	55,55,55,25,15,36,10,30,40,35		4, 5,20,43,53	
		45,28,56,11, 3,53,40		3,20
52″	55,55,56,10,44,32,21,34,34,15		4, 5,20,47,13	
		45,28,52, 5,43, 6,27		3,20
54″	55,55,56,56,13,24,27,17,40,42		4, 5,20,50,33	
		45,28,48, 0,22,15,54		3,20
56″	55,55,57,41,42,12,27,39,56,36		4, 5,20,53,53	
		45,28,43,55, 1,22, 1		3,20
58″	55,55,58,27,10,56,22,41,18,37		4, 5,20,57,13	
		45,28,39,49,40,24,48		
60″	55,55,59,12,39,36,12,21,43,25			
exact	55,55,59,12,39,36,12,22,11,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°47′ 0″	55,55,59,12,39,36,12,22,11,10			
		45,28,35,44,19,27,18		
2″	55,55,59,58, 8,11,56,41,38,28		4, 5,21, 3,40	
		45,28,31,38,58,23,38		3,19
4″	55,56, 0,43,36,43,35,40, 2, 6		4, 5,21, 6,59	
		45,28,27,33,37,16,39		3,19
6″	55,56, 1,29, 5,11, 9,17,18,45		4, 5,21,10,18	
		45,28,23,28,16, 6,21		3,19
8″	55,56, 2,14,33,34,37,33,25, 6		4, 5,21,13,37	
		45,28,19,22,54,52,44		3,19
10″	55,56, 3, 0, 1,54, 0,28,17,50		4, 5,21,16,56	
		45,28,15,17,33,35,48		3,19
12″	55,56, 3,45,30, 9,18, 1,53,38		4, 5,21,20,15	
		45,28,11,12,12,15,33		3,19
14″	55,56, 4,30,58,20,30,14, 9,11		4, 5,21,23,34	
		45,28, 7, 6,50,51,59		3,19
16″	55,56, 5,16,26,27,37, 5, 1,10		4, 5,21,26,53	
		45,28, 3, 1,29,25, 6		3,19
18″	55,56, 6, 1,54,30,38,34,26,16		4, 5,21,30,12	
		45,27,58,56, 7,54,54		3,19
20″	55,56, 6,47,22,29,34,42,21,10		4, 5,21,33,31	
		45,27,54,50,46,21,23		3,19
22″	55,56, 7,32,50,24,25,28,42,33		4, 5,21,36,50	
		45,27,50,45,24,44,33		3,19
24″	55,56, 8,18,18,15,10,53,27, 6		4, 5,21,40, 9	
		45,27,46,40, 3, 4,24		3,19
26″	55,56, 9, 3,46, 1,50,56,31,30		4, 5,21,43,28	
		45,27,42,34,41,20,56		3,19
28″	55,56, 9,49,13,44,25,37,52,26		4, 5,21,46,47	
		45,27,38,29,19,34, 9		3,19
30″	55,56,10,34,41,22,54,57,26,35		4, 5,21,50, 6	
		45,27,34,23,57,44, 3		3,19
32″	55,56,11,20, 8,57,18,55,10,38		4, 5,21,53,25	
		45,27,30,18,35,50,38		3,19
34″	55,56,12, 5,36,27,37,31, 1,16		4, 5,21,56,44	
		45,27,26,13,13,53,54		3,19
36″	55,56,12,51, 3,53,50,44,55,10		4, 5,22, 0, 3	
		45,27,22, 7,51,53,51		3,19
38″	55,56,13,36,31,15,58,36,49, 1		4, 5,22, 3,22	
		45,27,18, 2,29,50,29		3,19
40″	55,56,14,21,58,34, 1, 6,39,30		4, 5,22, 6,41	
		45,27,13,57, 7,43,48		3,19
42″	55,56,15, 7,25,47,58,14,23,18		4, 5,22,10, 0	
		45,27, 9,51,45,33,48		3,19
44″	55,56,15,52,52,57,49,59,57, 6		4, 5,22,13,19	
		45,27, 5,46,23,20,29		3,19
46″	55,56,16,38,20, 3,36,23,17,35		4, 5,22,16,38	
		45,27, 1,41, 1, 3,51		3,19
48″	55,56,17,23,47, 5,17,24,21,26		4, 5,22,19,57	
		45,26,57,35,38,43,54		3,19
50″	55,56,18, 9,14, 2,53, 3, 5,20		4, 5,22,23,16	
		45,26,53,30,16,20,38		3,19
52″	55,56,18,54,40,56,23,19,25,58		4, 5,22,26,35	
		45,26,49,24,53,54, 3		3,19
54″	55,56,19,40, 7,45,48,13,20, 1		4, 5,22,29,54	
		45,26,45,19,31,24, 9		3,19
56″	55,56,20,25,34,31, 7,44,44,10		4, 5,22,33,13	
		45,26,41,14, 8,50,56		3,19
58″	55,56,21,11, 1,12,21,53,35, 6		4, 5,22,36,32	
		45,26,37, 8,46,14,24		
60″	55,56,21,56,27,49,30,39,49,30			
exact	55,56,21,56,27,49,30,39,22,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°48′ 0″	55,56,21,56,27,49,30,39,22,24			
		45,26,33, 3,23,31,37		
2″	55,56,22,41,54,22,34, 2,54, 1		4, 5,22,43,22	
		45,26,28,58, 0,48,15		3,19
4″	55,56,23,27,20,51,32, 3,42,16		4, 5,22,46,41	
		45,26,24,52,38, 1,34		3,19
6″	55,56,24,12,47,16,24,41,43,50		4, 5,22,50, 0	
		45,26,20,47,15,11,34		3,19
8″	55,56,24,58,13,37,11,56,55,24		4, 5,22,53,19	
		45,26,16,41,52,18,15		3,19
10″	55,56,25,43,39,53,53,49,13,39		4, 5,22,56,38	
		45,26,12,36,29,21,37		3,19
12″	55,56,26,29, 6, 6,30,18,35,16		4, 5,22,59,57	
		45,26, 8,31, 6,21,40		3,19
14″	55,56,27,14,32,15, 1,24,56,56		4, 5,23, 3,16	
		45,26, 4,25,43,18,24		3,19
16″	55,56,27,59,58,19,27, 8,15,20		4, 5,23, 6,35	
		45,26, 0,20,20,11,49		3,19
18″	55,56,28,45,24,19,47,28,27, 9		4, 5,23, 9,54	
		45,25,56,14,57, 1,55		3,19
20″	55,56,29,30,50,16, 2,25,29, 4		4, 5,23,13,13	
		45,25,52, 9,33,48,42		3,19
22″	55,56,30,16,16, 8,11,59,17,46		4, 5,23,16,32	
		45,25,48, 4,10,32,10		3,19
24″	55,56,31, 1,41,56,16, 9,49,56		4, 5,23,19,51	
		45,25,43,58,47,12,19		3,19
26″	55,56,31,47, 7,40,14,57, 2,15		4, 5,23,23,10	
		45,25,39,53,23,49, 9		3,19
28″	55,56,32,32,33,20, 8,20,51,24		4, 5,23,26,29	
		45,25,35,48, 0,22,40		3,19
30″	55,56,33,17,58,55,56,21,14, 4		4, 5,23,29,48	
		45,25,31,42,36,52,52		3,19
32″	55,56,34, 3,24,27,38,58, 6,56		4, 5,23,33, 7	
		45,25,27,37,13,19,45		3,19
34″	55,56,34,48,49,55,16,11,26,41		4, 5,23,36,26	
		45,25,23,31,49,43,19		3,19
36″	55,56,35,34,15,18,48, 1,10, 0		4, 5,23,39,45	
		45,25,19,26,26, 3,34		3,19
38″	55,56,36,19,40,38,14,27,13,34		4, 5,23,43, 4	
		45,25,15,21, 2,20,30		3,19
40″	55,56,37, 5, 5,53,35,29,34, 4		4, 5,23,46,23	
		45,25,11,15,38,34, 7		3,19
42″	55,56,37,50,31, 4,51, 8, 8,11		4, 5,23,49,42	
		45,25, 7,10,14,44,25		3,19
44″	55,56,38,35,56,12, 1,22,52,36		4, 5,23,53, 1	
		45,25, 3, 4,50,51,24		3,19
46″	55,56,39,21,21,15, 6,13,44, 0		4, 5,23,56,20	
		45,24,58,59,26,55, 4		3,19
48″	55,56,40, 6,46,14, 5,40,39, 4		4, 5,23,59,39	
		45,24,54,54, 2,55,25		3,19
50″	55,56,40,52,11, 8,59,43,34,29		4, 5,24, 2,58	
		45,24,50,48,38,52,27		3,19
52″	55,56,41,37,35,59,48,22,26,56		4, 5,24, 6,17	
		45,24,46,43,14,46,10		3,19
54″	55,56,42,23, 0,46,31,37,13, 6		4, 5,24, 9,36	
		45,24,42,37,50,36,34		3,19
56″	55,56,43, 8,25,29, 9,27,49,40		4, 5,24,12,55	
		45,24,38,32,26,23,39		3,19
58″	55,56,43,53,50, 7,41,54,13,19		4, 5,24,16,14	
		45,24,34,27, 2, 7,25		
60″	55,56,44,39,14,42, 8,56,20,44			
exact	55,56,44,39,14,42, 8,56, 2,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°49′ 0″	55,56,44,39,14,42, 8,56, 2,32			
		45,24,30,21,37,45,56		
2″	55,56,45,24,39,12,30,33,48,28		4, 5,24,22,59	
		45,24,26,16,13,22,57		3,19
4″	55,56,46,10, 3,38,46,47,11,25		4, 5,24,26,18	
		45,24,22,10,48,56,39		3,19
6″	55,56,46,55,28, 0,57,36, 8, 4		4, 5,24,29,37	
		45,24,18, 5,24,27, 2		3,19
8″	55,56,47,40,52,19, 3, 0,35, 6		4, 5,24,32,56	
		45,24,13,59,59,54, 6		3,19
10″	55,56,48,26,16,33, 3, 0,29,12		4, 5,24,36,15	
		45,24, 9,54,35,17,51		3,19
12″	55,56,49,11,40,42,57,35,47, 3		4, 5,24,39,34	
		45,24, 5,49,10,38,17		3,19
14″	55,56,49,57, 4,48,46,46,25,20		4, 5,24,42,53	
		45,24, 1,43,45,55,24		3,19
16″	55,56,50,42,28,50,30,32,20,44		4, 5,24,46,12	
		45,23,57,38,21, 9,12		3,19
18″	55,56,51,27,52,48, 8,53,29,56		4, 5,24,49,31	
		45,23,53,32,56,19,41		3,19
20″	55,56,52,13,16,41,41,49,49,37		4, 5,24,52,50	
		45,23,49,27,31,26,51		3,19
22″	55,56,52,58,40,31, 9,21,16,28		4, 5,24,56, 9	
		45,23,45,22, 6,30,42		3,19
24″	55,56,53,44, 4,16,31,27,47,10		4, 5,24,59,28	
		45,23,41,16,41,31,14		3,19
26″	55,56,54,29,27,57,48, 9,18,24		4, 5,25, 2,47	
		45,23,37,11,16,28,27		3,19
28″	55,56,55,14,51,34,59,25,46,51		4, 5,25, 6, 6	
		45,23,33, 5,51,22,21		3,19
30″	55,56,56, 0,15, 8, 5,17, 9,12		4, 5,25, 9,25	
		45,23,29, 0,26,12,56		3,19
32″	55,56,56,45,38,37, 5,43,22, 8		4, 5,25,12,44	
		45,23,24,55, 1, 0,12		3,19
34″	55,56,57,31, 2, 2, 0,44,22,20		4, 5,25,16, 3	
		45,23,20,49,35,44, 9		3,19
36″	55,56,58,16,25,22,50,20, 6,29		4, 5,25,19,22	
		45,23,16,44,10,24,47		3,19
38″	55,56,59, 1,48,39,34,30,31,16		4, 5,25,22,41	
		45,23,12,38,45, 2, 6		3,19
40″	55,56,59,47,11,52,13,15,33,22		4, 5,25,26, 0	
		45,23, 8,33,19,36, 6		3,19
42″	55,57, 0,32,35, 0,46,35, 9,28		4, 5,25,29,19	
		45,23, 4,27,54, 6,47		3,19
44″	55,57, 1,17,58, 5,14,29,16,15		4, 5,25,32,38	
		45,23, 0,22,28,34, 9		3,19
46″	55,57, 2, 3,21, 5,36,57,50,24		4, 5,25,35,57	
		45,22,56,17, 2,58,12		3,19
48″	55,57, 2,48,44, 1,54, 0,48,36		4, 5,25,39,16	
		45,22,52,11,37,18,56		3,19
50″	55,57, 3,34, 6,54, 5,38, 7,32		4, 5,25,42,35	
		45,22,48, 6,11,36,21		3,19
52″	55,57, 4,19,29,42,11,49,43,53		4, 5,25,45,54	
		45,22,44, 0,45,50,27		3,19
54″	55,57, 5, 4,52,26,12,35,34,20		4, 5,25,49,13	
		45,22,39,55,20, 1,14		3,19
56″	55,57, 5,50,15, 6, 7,55,35,34		4, 5,25,52,32	
		45,22,35,49,54, 8,42		3,19
58″	55,57, 6,35,37,41,57,49,44,16		4, 5,25,55,51	
		45,22,31,44,28,12,51		
60″	55,57, 7,21, 0,13,42,17,57, 7			
exact	55,57, 7,21, 0,13,42,17,44, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°50′ 0″	55,57, 7,21, 0,13,42,17,44, 7			
		45,22,27,39, 2,12,30		
2″	55,57, 8, 6,22,41,21,19,56,37		4, 5,26, 2,33	
		45,22,23,33,36, 9,57		3,19
4″	55,57, 8,51,45, 4,54,56, 6,34		4, 5,26, 5,52	
		45,22,19,28,10, 4, 5		3,19
6″	55,57, 9,37, 7,24,23, 6,10,39		4, 5,26, 9,11	
		45,22,15,22,43,54,54		3,19
8″	55,57,10,22,29,39,45,50, 5,33		4, 5,26,12,30	
		45,22,11,17,17,42,24		3,19
10″	55,57,11, 7,51,51, 3, 7,47,57		4, 5,26,15,49	
		45,22, 7,11,51,26,35		3,19
12″	55,57,11,53,13,58,14,59,14,32		4, 5,26,19, 8	
		45,22, 3, 6,25, 7,27		3,19
14″	55,57,12,38,36, 1,21,24,21,59		4, 5,26,22,27	
		45,21,59, 0,58,45, 0		3,19
16″	55,57,13,23,58, 0,22,23, 6,59		4, 5,26,25,46	
		45,21,54,55,32,19,14		3,19
18″	55,57,14, 9,19,55,17,55,26,13		4, 5,26,29, 5	
		45,21,50,50, 5,50, 9		3,19
20″	55,57,14,54,41,46, 8, 1,16,22		4, 5,26,32,24	
		45,21,46,44,39,17,45		3,19
22″	55,57,15,40, 3,32,52,40,34, 7		4, 5,26,35,43	
		45,21,42,39,12,42, 2		3,19
24″	55,57,16,25,25,15,31,53,16, 9		4, 5,26,39, 2	
		45,21,38,33,46, 3, 0		3,19
26″	55,57,17,10,46,54, 5,39,19, 9		4, 5,26,42,21	
		45,21,34,28,19,20,39		3,19
28″	55,57,17,56, 8,28,33,58,39,48		4, 5,26,45,40	
		45,21,30,22,52,34,59		3,19
30″	55,57,18,41,29,58,56,51,14,47		4, 5,26,48,59	
		45,21,26,17,25,46, 0		3,19
32″	55,57,19,26,51,25,14,17, 0,47		4, 5,26,52,18	
		45,21,22,11,58,53,42		3,19
34″	55,57,20,12,12,47,26,15,54,29		4, 5,26,55,37	
		45,21,18, 6,31,58, 5		3,19
36″	55,57,20,57,34, 5,32,47,52,34		4, 5,26,58,56	
		45,21,14, 1, 4,59, 9		3,19
38″	55,57,21,42,55,19,33,52,51,43		4, 5,27, 2,15	
		45,21, 9,55,37,56,54		3,19
40″	55,57,22,28,16,29,29,30,48,37		4, 5,27, 5,34	
		45,21, 5,50,10,51,20		3,19
42″	55,57,23,13,37,35,19,41,39,57		4, 5,27, 8,53	
		45,21, 1,44,43,42,27		3,19
44″	55,57,23,58,58,37, 4,25,22,24		4, 5,27,12,12	
		45,20,57,39,16,30,15		3,19
46″	55,57,24,44,19,34,43,41,52,39		4, 5,27,15,31	
		45,20,53,33,49,14,44		3,19
48″	55,57,25,29,40,28,17,31, 7,23		4, 5,27,18,50	
		45,20,49,28,21,55,54		3,19
50″	55,57,26,15, 1,17,45,53, 3,17		4, 5,27,22, 9	
		45,20,45,22,54,33,45		3,19
52″	55,57,27, 0,22, 3, 8,47,37, 2		4, 5,27,25,28	
		45,20,41,17,27, 8,17		3,19
54″	55,57,27,45,42,44,26,14,45,19		4, 5,27,28,47	
		45,20,37,11,59,39,30		3,19
56″	55,57,28,31, 3,21,38,14,24,49		4, 5,27,32, 6	
		45,20,33, 6,32, 7,24		3,19
58″	55,57,29,16,23,54,44,46,32,13		4, 5,27,35,25	
		45,20,29, 1, 4,31,59		
60″	55,57,30, 1,44,23,45,51, 4,12			
exact	55,57,30, 1,44,23,45,51, 7, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°51′ 0″	55,57,30, 1,44,23,45,51, 7, 2			
		45,20,24,55,36,53,33		
2″	55,57,30,47, 4,48,41,28, 0,35		4, 5,27,42, 1	
		45,20,20,50, 9,11,32		3,19
4″	55,57,31,32,25, 9,31,37,12, 7		4, 5,27,45,20	
		45,20,16,44,41,26,12		3,19
6″	55,57,32,17,45,26,16,18,38,19		4, 5,27,48,39	
		45,20,12,39,13,37,33		3,19
8″	55,57,33, 3, 5,38,55,32,15,52		4, 5,27,51,58	
		45,20, 8,33,45,45,35		3,19
10″	55,57,33,48,25,47,29,18, 1,27		4, 5,27,55,17	
		45,20, 4,28,17,50,18		3,19
12″	55,57,34,33,45,51,57,35,51,45		4, 5,27,58,36	
		45,20, 0,22,49,51,42		3,19
14″	55,57,35,19, 5,52,20,25,43,27		4, 5,28, 1,55	
		45,19,56,17,21,49,47		3,19
16″	55,57,36, 4,25,48,37,47,33,14		4, 5,28, 5,14	
		45,19,52,11,53,44,33		3,19
18″	55,57,36,49,45,40,49,41,17,47		4, 5,28, 8,33	
		45,19,48, 6,25,36, 0		3,19
20″	55,57,37,35, 5,28,56, 6,53,47		4, 5,28,11,52	
		45,19,44, 0,57,24, 8		3,19
22″	55,57,38,20,25,12,57, 4,17,55		4, 5,28,15,11	
		45,19,39,55,29, 8,57		3,19
24″	55,57,39, 5,44,52,52,33,26,52		4, 5,28,18,30	
		45,19,35,50, 0,50,27		3,19
26″	55,57,39,51, 4,28,42,34,17,19		4, 5,28,21,49	
		45,19,31,44,32,28,38		3,19
28″	55,57,40,36,24, 0,27, 6,45,57		4, 5,28,25, 8	
		45,19,27,39, 4, 3,30		3,19
30″	55,57,41,21,43,28, 6,10,49,27		4, 5,28,28,27	
		45,19,23,33,35,35, 3		3,19
32″	55,57,42, 7, 2,51,39,46,24,30		4, 5,28,31,46	
		45,19,19,28, 7, 3,17		3,19
34″	55,57,42,52,22,11, 7,53,27,47		4, 5,28,35, 5	
		45,19,15,22,38,28,12		3,19
36″	55,57,43,37,41,26,30,31,55,59		4, 5,28,38,24	
		45,19,11,17, 9,49,48		3,19
38″	55,57,44,23, 0,37,47,41,45,47		4, 5,28,41,43	
		45,19, 7,11,41, 8, 5		3,19
40″	55,57,45, 8,19,44,59,22,53,52		4, 5,28,45, 2	
		45,19, 3, 6,12,23, 3		3,19
42″	55,57,45,53,38,48, 5,35,16,55		4, 5,28,48,21	
		45,18,59, 0,43,34,42		3,19
44″	55,57,46,38,57,47, 6,18,51,37		4, 5,28,51,40	
		45,18,54,55,14,43, 2		3,19
46″	55,57,47,24,16,42, 1,33,34,39		4, 5,28,54,59	
		45,18,50,49,45,48, 3		3,19
48″	55,57,48, 9,35,32,51,19,22,42		4, 5,28,58,18	
		45,18,46,44,16,49,45		3,19
50″	55,57,48,54,54,19,35,36,12,27		4, 5,29, 1,37	
		45,18,42,38,47,48, 8		3,19
52″	55,57,49,40,13, 2,14,24, 0,35		4, 5,29, 4,56	
		45,18,38,33,18,43,12		3,19
54″	55,57,50,25,31,40,47,42,43,47		4, 5,29, 8,15	
		45,18,34,27,49,34,57		3,19
56″	55,57,51,10,50,15,15,32,18,44		4, 5,29,11,34	
		45,18,30,22,20,23,23		3,19
58″	55,57,51,56, 8,45,37,52,42, 7		4, 5,29,14,53	
		45,18,26,16,51, 8,30		
60″	55,57,52,41,27,11,54,43,50,37			
exact	55,57,52,41,27,11,54,43,58,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°52′ 0″	55,57,52,41,27,11,54,43,58,27			
		45,18,22,11,21,51,20		
2″	55,57,53,26,45,34, 6, 5,49,47		4, 5,29,21,26	
		45,18,18, 5,52,29,54		3,19
4″	55,57,54,12, 3,52,11,58,19,41		4, 5,29,24,45	
		45,18,14, 0,23, 5, 9		3,19
6″	55,57,54,57,22, 6,12,21,24,50		4, 5,29,28, 4	
		45,18, 9,54,53,37, 5		3,19
8″	55,57,55,42,40,16, 7,15, 1,55		4, 5,29,31,23	
		45,18, 5,49,24, 5,42		3,19
10″	55,57,56,27,58,21,56,39, 7,37		4, 5,29,34,42	
		45,18, 1,43,54,31, 0		3,19
12″	55,57,57,13,16,23,40,33,38,37		4, 5,29,38, 1	
		45,17,57,38,24,52,59		3,19
14″	55,57,57,58,34,21,18,58,31,36		4, 5,29,41,20	
		45,17,53,32,55,11,39		3,19
16″	55,57,58,43,52,14,51,53,43,15		4, 5,29,44,39	
		45,17,49,27,25,27, 0		3,19
18″	55,57,59,29,10, 4,19,19,10,15		4, 5,29,47,58	
		45,17,45,21,55,39, 2		3,19
20″	55,58, 0,14,27,49,41,14,49,17		4, 5,29,51,17	
		45,17,41,16,25,47,45		3,19
22″	55,58, 0,59,45,30,57,40,37, 2		4, 5,29,54,36	
		45,17,37,10,55,53, 9		3,19
24″	55,58, 1,45, 3, 8, 8,36,30,11		4, 5,29,57,55	
		45,17,33, 5,25,55,14		3,19
26″	55,58, 2,30,20,41,14, 2,25,25		4, 5,30, 1,14	
		45,17,28,59,55,54, 0		3,19
28″	55,58, 3,15,38,10,13,58,19,25		4, 5,30, 4,33	
		45,17,24,54,25,49,27		3,19
30″	55,58, 4, 0,55,35, 8,24, 8,52		4, 5,30, 7,52	
		45,17,20,48,55,41,35		3,19
32″	55,58, 4,46,12,55,57,19,50,27		4, 5,30,11,11	
		45,17,16,43,25,30,24		3,19
34″	55,58, 5,31,30,12,40,45,20,51		4, 5,30,14,30	
		45,17,12,37,55,15,54		3,19
36″	55,58, 6,16,47,25,18,40,36,45		4, 5,30,17,49	
		45,17, 8,32,24,58, 5		3,19
38″	55,58, 7, 2, 4,33,51, 5,34,50		4, 5,30,21, 8	
		45,17, 4,26,54,36,57		3,19
40″	55,58, 7,47,21,38,18, 0,11,47		4, 5,30,24,27	
		45,17, 0,21,24,12,30		3,19
42″	55,58, 8,32,38,38,39,24,24,17		4, 5,30,27,46	
		45,16,56,15,53,44,44		3,19
44″	55,58, 9,17,55,34,55,18, 9, 1		4, 5,30,31, 5	
		45,16,52,10,23,13,39		3,19
46″	55,58,10, 3,12,27, 5,41,22,40		4, 5,30,34,24	
		45,16,48, 4,52,39,15		3,19
48″	55,58,10,48,29,15,10,34, 1,55		4, 5,30,37,43	
		45,16,43,59,22, 1,32		3,19
50″	55,58,11,33,45,59, 9,56, 3,27		4, 5,30,41, 2	
		45,16,39,53,51,20,30		3,19
52″	55,58,12,19, 2,39, 3,47,23,57		4, 5,30,44,21	
		45,16,35,48,20,36, 9		3,19
54″	55,58,13, 4,19,14,52, 8, 0, 6		4, 5,30,47,40	
		45,16,31,42,49,48,29		3,19
56″	55,58,13,49,35,46,34,57,48,35		4, 5,30,50,59	
		45,16,27,37,18,57,30		3,19
58″	55,58,14,34,52,14,12,16,46, 5		4, 5,30,54,18	
		45,16,23,31,48, 3,12		
60″	55,58,15,20, 8,37,44, 4,49,17			
exact	55,58,15,20, 8,37,44, 5,12,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°53′ 0″	55,58,15,20, 8,37,44, 5,12,47			
		45,16,19,26,17, 8, 5		
2″	55,58,16, 5,24,57,10,22,20,52		4, 5,31, 0,45	
		45,16,15,20,46, 7,20		3,19
4″	55,58,16,50,41,12,31, 8,28,12		4, 5,31, 4, 4	
		45,16,11,15,15, 3,16		3,19
6″	55,58,17,35,57,23,46,23,31,28		4, 5,31, 7,23	
		45,16, 7, 9,43,55,53		3,19
8″	55,58,18,21,13,30,56, 7,27,21		4, 5,31,10,42	
		45,16, 3, 4,12,45,11		3,19
10″	55,58,19, 6,29,34, 0,20,12,32		4, 5,31,14, 1	
		45,15,58,58,41,31,10		3,19
12″	55,58,19,51,45,32,59, 1,43,42		4, 5,31,17,20	
		45,15,54,53,10,13,50		3,19
14″	55,58,20,37, 1,27,52,11,57,32		4, 5,31,20,39	
		45,15,50,47,38,53,11		3,19
16″	55,58,21,22,17,18,39,50,50,43		4, 5,31,23,58	
		45,15,46,42, 7,29,13		3,19
18″	55,58,22, 7,33, 5,21,58,19,56		4, 5,31,27,17	
		45,15,42,36,36, 1,56		3,19
20″	55,58,22,52,48,47,58,34,21,52		4, 5,31,30,36	
		45,15,38,31, 4,31,20		3,19
22″	55,58,23,38, 4,26,29,38,53,12		4, 5,31,33,55	
		45,15,34,25,32,57,25		3,19
24″	55,58,24,23,20, 0,55,11,50,37		4, 5,31,37,14	
		45,15,30,20, 1,20,11		3,19
26″	55,58,25, 8,35,31,15,13,10,48		4, 5,31,40,33	
		45,15,26,14,29,39,38		3,19
28″	55,58,25,53,50,57,29,42,50,26		4, 5,31,43,52	
		45,15,22, 8,57,55,46		3,19
30″	55,58,26,39, 6,19,38,40,46,12		4, 5,31,47,11	
		45,15,18, 3,26, 8,35		3,19
32″	55,58,27,24,21,37,42, 6,54,47		4, 5,31,50,30	
		45,15,13,57,54,18, 5		3,19
34″	55,58,28, 9,36,51,40, 1,12,52		4, 5,31,53,49	
		45,15, 9,52,22,24,16		3,19
36″	55,58,28,54,52, 1,32,23,37, 8		4, 5,31,57, 8	
		45,15, 5,46,50,27, 8		3,19
38″	55,58,29,40, 7, 7,19,14, 4,16		4, 5,32, 0,27	
		45,15, 1,41,18,26,41		3,19
40″	55,58,30,25,22, 9, 0,32,30,57		4, 5,32, 3,46	
		45,14,57,35,46,22,55		3,19
42″	55,58,31,10,37, 6,36,18,53,52		4, 5,32, 7, 5	
		45,14,53,30,14,15,50		3,19
44″	55,58,31,55,52, 0, 6,33, 9,42		4, 5,32,10,24	
		45,14,49,24,42, 5,26		3,19
46″	55,58,32,41, 6,49,31,15,15, 8		4, 5,32,13,43	
		45,14,45,19, 9,51,43		3,19
48″	55,58,33,26,21,34,50,25, 6,51		4, 5,32,17, 2	
		45,14,41,13,37,34,41		3,19
50″	55,58,34,11,36,16, 4, 2,41,32		4, 5,32,20,21	
		45,14,37, 8, 5,14,20		3,19
52″	55,58,34,56,50,53,12, 7,55,52		4, 5,32,23,40	
		45,14,33, 2,32,50,40		3,19
54″	55,58,35,42, 5,26,14,40,46,32		4, 5,32,26,59	
		45,14,28,57, 0,23,41		3,19
56″	55,58,36,27,19,55,11,41,10,13		4, 5,32,30,18	
		45,14,24,51,27,53,23		3,19
58″	55,58,37,12,34,20, 3, 9, 3,36		4, 5,32,33,37	
		45,14,20,45,55,19,46		
60″	55,58,37,57,48,40,49, 4,23,22			
exact	55,58,37,57,48,40,49, 4,51,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°54′ 0″	55,58,37,57,48,40,49, 4,51,48			
		45,14,16,40,22,46, 3		
2″	55,58,38,43, 2,57,29,27,37,51		4, 5,32,40, 1	
		45,14,12,34,50, 6, 2		3,18
4″	55,58,39,28,17,10, 4,17,43,53		4, 5,32,43,19	
		45,14, 8,29,17,22,43		3,18
6″	55,58,40,13,31,18,33,35, 6,36		4, 5,32,46,37	
		45,14, 4,23,44,36, 6		3,18
8″	55,58,40,58,45,22,57,19,42,42		4, 5,32,49,55	
		45,14, 0,18,11,46,11		3,18
10″	55,58,41,43,59,23,15,31,28,53		4, 5,32,53,13	
		45,13,56,12,38,52,58		3,18
12″	55,58,42,29,13,19,28,10,21,51		4, 5,32,56,31	
		45,13,52, 7, 5,56,27		3,18
14″	55,58,43,14,27,11,35,16,18,18		4, 5,32,59,49	
		45,13,48, 1,32,56,38		3,18
16″	55,58,43,59,40,59,36,49,14,56		4, 5,33, 3, 7	
		45,13,43,55,59,53,31		3,18
18″	55,58,44,44,54,43,32,49, 8,27		4, 5,33, 6,25	
		45,13,39,50,26,47, 6		3,18
20″	55,58,45,30, 8,23,23,15,55,33		4, 5,33, 9,43	
		45,13,35,44,53,37,23		3,18
22″	55,58,46,15,21,59, 8, 9,32,56		4, 5,33,13, 1	
		45,13,31,39,20,24,22		3,18
24″	55,58,47, 0,35,30,47,29,57,18		4, 5,33,16,19	
		45,13,27,33,47, 8, 3		3,18
26″	55,58,47,45,48,58,21,17, 5,21		4, 5,33,19,37	
		45,13,23,28,13,48,26		3,18
28″	55,58,48,31, 2,21,49,30,53,47		4, 5,33,22,55	
		45,13,19,22,40,25,31		3,18
30″	55,58,49,16,15,41,12,11,19,18		4, 5,33,26,13	
		45,13,15,17, 6,59,18		3,18
32″	55,58,50, 1,28,56,29,18,18,36		4, 5,33,29,31	
		45,13,11,11,33,29,47		3,18
34″	55,58,50,46,42, 7,40,51,48,23		4, 5,33,32,49	
		45,13, 7, 5,59,56,58		3,18
36″	55,58,51,31,55,14,46,51,45,21		4, 5,33,36, 7	
		45,13, 3, 0,26,20,51		3,18
38″	55,58,52,17, 8,17,47,18, 6,12		4, 5,33,39,25	
		45,12,58,54,52,41,26		3,18
40″	55,58,53, 2,21,16,42,10,47,38		4, 5,33,42,43	
		45,12,54,49,18,58,43		3,18
42″	55,58,53,47,34,11,31,29,46,21		4, 5,33,46, 1	
		45,12,50,43,45,12,42		3,18
44″	55,58,54,32,47, 2,15,14,59, 3		4, 5,33,49,19	
		45,12,46,38,11,23,23		3,18
46″	55,58,55,17,59,48,53,26,22,26		4, 5,33,52,37	
		45,12,42,32,37,30,46		3,18
48″	55,58,56, 3,12,31,26, 3,53,12		4, 5,33,55,55	
		45,12,38,27, 3,34,51		3,18
50″	55,58,56,48,25, 9,53, 7,28, 3		4, 5,33,59,13	
		45,12,34,21,29,35,38		3,18
52″	55,58,57,33,37,44,14,37, 3,41		4, 5,34, 2,31	
		45,12,30,15,55,33, 7		3,18
54″	55,58,58,18,50,14,30,32,36,48		4, 5,34, 5,49	
		45,12,26,10,21,27,18		3,18
56″	55,58,59, 4, 2,40,40,54, 4, 6		4, 5,34, 9, 7	
		45,12,22, 4,47,18,11		3,18
58″	55,58,59,49,15, 2,45,41,22,17		4, 5,34,12,25	
		45,12,17,59,13, 5,46		
60″	55,59, 0,34,27,20,44,54,28, 3			
exact	55,59, 0,34,27,20,44,54, 4,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°55′ 0″	55,59, 0,34,27,20,44,54, 4,33			
		45,12,13,53,38,47,29		
2″	55,59, 1,19,39,34,38,32,52, 2		4, 5,34,19,11	
		45,12, 9,48, 4,28,18		3,18
4″	55,59, 2, 4,51,44,26,37,20,20		4, 5,34,22,29	
		45,12, 5,42,30, 5,49		3,18
6″	55,59, 2,50, 3,50, 9, 7,26, 9		4, 5,34,25,47	
		45,12, 1,36,55,40, 2		3,18
8″	55,59, 3,35,15,51,46, 3, 6,11		4, 5,34,29, 5	
		45,11,57,31,21,10,57		3,18
10″	55,59, 4,20,27,49,17,24,17, 8		4, 5,34,32,23	
		45,11,53,25,46,38,34		3,18
12″	55,59, 5, 5,39,42,43,10,55,42		4, 5,34,35,41	
		45,11,49,20,12, 2,53		3,18
14″	55,59, 5,50,51,32, 3,22,58,35		4, 5,34,38,59	
		45,11,45,14,37,23,54		3,18
16″	55,59, 6,36, 3,17,18, 0,22,29		4, 5,34,42,17	
		45,11,41, 9, 2,41,37		3,18
18″	55,59, 7,21,14,58,27, 3, 4, 6		4, 5,34,45,35	
		45,11,37, 3,27,56, 2		3,18
20″	55,59, 8, 6,26,35,30,31, 0, 8		4, 5,34,48,53	
		45,11,32,57,53, 7, 9		3,18
22″	55,59, 8,51,38, 8,28,24, 7,17		4, 5,34,52,11	
		45,11,28,52,18,14,58		3,18
24″	55,59, 9,36,49,37,20,42,22,15		4, 5,34,55,29	
		45,11,24,46,43,19,29		3,18
26″	55,59,10,22, 1, 2, 7,25,41,44		4, 5,34,58,47	
		45,11,20,41, 8,20,42		3,18
28″	55,59,11, 7,12,22,48,34, 2,26		4, 5,35, 2, 5	
		45,11,16,35,33,18,37		3,18
30″	55,59,11,52,23,39,24, 7,21, 3		4, 5,35, 5,23	
		45,11,12,29,58,13,14		3,18
32″	55,59,12,37,34,51,54, 5,34,17		4, 5,35, 8,41	
		45,11, 8,24,23, 4,33		3,18
34″	55,59,13,22,46, 0,18,28,38,50		4, 5,35,11,59	
		45,11, 4,18,47,52,34		3,18
36″	55,59,14, 7,57, 4,37,16,31,24		4, 5,35,15,17	
		45,11, 0,13,12,37,17		3,18
38″	55,59,14,53, 8, 4,50,29, 8,41		4, 5,35,18,35	
		45,10,56, 7,37,18,42		3,18
40″	55,59,15,38,19, 0,58, 6,27,23		4, 5,35,21,53	
		45,10,52, 2, 1,56,49		3,18
42″	55,59,16,23,29,53, 0, 8,24,12		4, 5,35,25,11	
		45,10,47,56,26,31,38		3,18
44″	55,59,17, 8,40,40,56,34,55,50		4, 5,35,28,29	
		45,10,43,50,51, 3, 9		3,18
46″	55,59,17,53,51,24,47,25,58,59		4, 5,35,31,47	
		45,10,39,45,15,31,22		3,18
48″	55,59,18,39, 2, 4,32,41,30,21		4, 5,35,35, 5	
		45,10,35,39,39,56,17		3,18
50″	55,59,19,24,12,40,12,21,26,38		4, 5,35,38,23	
		45,10,31,34, 4,17,54		3,18
52″	55,59,20, 9,23,11,46,25,44,32		4, 5,35,41,41	
		45,10,27,28,28,36,13		3,18
54″	55,59,20,54,33,39,14,54,20,45		4, 5,35,44,59	
		45,10,23,22,52,51,14		3,18
56″	55,59,21,39,44, 2,37,47,11,59		4, 5,35,48,17	
		45,10,19,17,17, 2,57		3,18
58″	55,59,22,24,54,21,55, 4,14,56		4, 5,35,51,35	
		45,10,15,11,41,11,22		
60″	55,59,23,10, 4,37, 6,45,26,18			
exact	55,59,23,10, 4,37, 6,45, 7,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°56′ 0″	55,59,23,10, 4,37, 6,45, 7,26			
		45,10,11, 6, 5,14,38		
2″	55,59,23,55,14,48,12,50,22, 4		4, 5,35,58,18	
		45,10, 7, 0,29,16,20		3,18
4″	55,59,24,40,24,55,13,19,38,24		4, 5,36, 1,36	
		45,10, 2,54,53,14,44		3,18
6″	55,59,25,25,34,58, 8,12,53, 8		4, 5,36, 4,54	
		45, 9,58,49,17, 9,50		3,18
8″	55,59,26,10,44,56,57,30, 2,58		4, 5,36, 8,12	
		45, 9,54,43,41, 1,38		3,18
10″	55,59,26,55,54,51,41,11, 4,36		4, 5,36,11,30	
		45, 9,50,38, 4,50, 8		3,18
12″	55,59,27,41, 4,42,19,15,54,44		4, 5,36,14,48	
		45, 9,46,32,28,35,20		3,18
14″	55,59,28,26,14,28,51,44,30, 4		4, 5,36,18, 6	
		45, 9,42,26,52,17,14		3,18
16″	55,59,29,11,24,11,18,36,47,18		4, 5,36,21,24	
		45, 9,38,21,15,55,50		3,18
18″	55,59,29,56,33,49,39,52,43, 8		4, 5,36,24,42	
		45, 9,34,15,39,31, 8		3,18
20″	55,59,30,41,43,23,55,32,14,16		4, 5,36,28, 0	
		45, 9,30,10, 3, 3, 8		3,18
22″	55,59,31,26,52,54, 5,35,17,24		4, 5,36,31,18	
		45, 9,26, 4,26,31,50		3,18
24″	55,59,32,12, 2,20,10, 1,49,14		4, 5,36,34,36	
		45, 9,21,58,49,57,14		3,18
26″	55,59,32,57,11,42, 8,51,46,28		4, 5,36,37,54	
		45, 9,17,53,13,19,20		3,18
28″	55,59,33,42,21, 0, 2, 5, 5,48		4, 5,36,41,12	
		45, 9,13,47,36,38, 8		3,18
30″	55,59,34,27,30,13,49,41,43,56		4, 5,36,44,30	
		45, 9, 9,41,59,53,38		3,18
32″	55,59,35,12,39,23,31,41,37,34		4, 5,36,47,48	
		45, 9, 5,36,23, 5,50		3,18
34″	55,59,35,57,48,29, 8, 4,43,24		4, 5,36,51, 6	
		45, 9, 1,30,46,14,44		3,18
36″	55,59,36,42,57,30,38,50,58, 8		4, 5,36,54,24	
		45, 8,57,25, 9,20,20		3,18
38″	55,59,37,28, 6,28, 4, 0,18,28		4, 5,36,57,42	
		45, 8,53,19,32,22,38		3,18
40″	55,59,38,13,15,21,23,32,41, 6		4, 5,37, 1, 0	
		45, 8,49,13,55,21,38		3,18
42″	55,59,38,58,24,10,37,28, 2,44		4, 5,37, 4,18	
		45, 8,45, 8,18,17,20		3,18
44″	55,59,39,43,32,55,45,46,20, 4		4, 5,37, 7,36	
		45, 8,41, 2,41, 9,44		3,18
46″	55,59,40,28,41,36,48,27,29,48		4, 5,37,10,54	
		45, 8,36,57, 3,58,50		3,18
48″	55,59,41,13,50,13,45,31,28,38		4, 5,37,14,12	
		45, 8,32,51,26,44,38		3,18
50″	55,59,41,58,58,46,36,58,13,16		4, 5,37,17,30	
		45, 8,28,45,49,27, 8		3,18
52″	55,59,42,44, 7,15,22,47,40,24		4, 5,37,20,48	
		45, 8,24,40,12, 6,20		3,18
54″	55,59,43,29,15,40, 2,59,46,44		4, 5,37,24, 6	
		45, 8,20,34,34,42,14		3,18
56″	55,59,44,14,24, 0,37,34,28,58		4, 5,37,27,24	
		45, 8,16,28,57,14,50		3,18
58″	55,59,44,59,32,17, 6,31,43,48		4, 5,37,30,42	
		45, 8,12,23,19,44, 8		
60″	55,59,45,44,40,29,29,51,27,56			
exact	55,59,45,44,40,29,29,51,24, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°57′ 0″	55,59,45,44,40,29,29,51,24, 7			
		45, 8, 8,17,42, 9,43		
2″	55,59,46,29,48,37,47,33,33,50		4, 5,37,37,19	
		45, 8, 4,12, 4,32,24		3,18
4″	55,59,47,14,56,41,59,38, 6,14		4, 5,37,40,37	
		45, 8, 0, 6,26,51,47		3,18
6″	55,59,48, 0, 4,42, 6, 4,58, 1		4, 5,37,43,55	
		45, 7,56, 0,49, 7,52		3,18
8″	55,59,48,45,12,38, 6,54, 5,53		4, 5,37,47,13	
		45, 7,51,55,11,20,39		3,18
10″	55,59,49,30,20,30, 2, 5,26,32		4, 5,37,50,31	
		45, 7,47,49,33,30, 8		3,18
12″	55,59,50,15,28,17,51,38,56,40		4, 5,37,53,49	
		45, 7,43,43,55,36,19		3,18
14″	55,59,51, 0,36, 1,35,34,32,59		4, 5,37,57, 7	
		45, 7,39,38,17,39,12		3,18
16″	55,59,51,45,43,41,13,52,12,11		4, 5,38, 0,25	
		45, 7,35,32,39,38,47		3,18
18″	55,59,52,30,51,16,46,31,50,58		4, 5,38, 3,43	
		45, 7,31,27, 1,35, 4		3,18
20″	55,59,53,15,58,48,13,33,26, 2		4, 5,38, 7, 1	
		45, 7,27,21,23,28, 3		3,18
22″	55,59,54, 1, 6,15,34,56,54, 5		4, 5,38,10,19	
		45, 7,23,15,45,17,44		3,18
24″	55,59,54,46,13,38,50,42,11,49		4, 5,38,13,37	
		45, 7,19,10, 7, 4, 7		3,18
26″	55,59,55,31,20,58, 0,49,15,56		4, 5,38,16,55	
		45, 7,15, 4,28,47,12		3,18
28″	55,59,56,16,28,13, 5,18, 3, 8		4, 5,38,20,13	
		45, 7,10,58,50,26,59		3,18
30″	55,59,57, 1,35,24, 4, 8,30, 7		4, 5,38,23,31	
		45, 7, 6,53,12, 3,28		3,18
32″	55,59,57,46,42,30,57,20,33,35		4, 5,38,26,49	
		45, 7, 2,47,33,36,39		3,18
34″	55,59,58,31,49,33,44,54,10,14		4, 5,38,30, 7	
		45, 6,58,41,55, 6,32		3,18
36″	55,59,59,16,56,32,26,49,16,46		4, 5,38,33,25	
		45, 6,54,36,16,33, 7		3,18
38″	56, 0, 0, 2, 3,27, 3, 5,49,53		4, 5,38,36,43	
		45, 6,50,30,37,56,24		3,18
40″	56, 0, 0,47,10,17,33,43,46,17		4, 5,38,40, 1	
		45, 6,46,24,59,16,23		3,18
42″	56, 0, 1,32,17, 3,58,43, 2,40		4, 5,38,43,19	
		45, 6,42,19,20,33, 4		3,18
44″	56, 0, 2,17,23,46,18, 3,35,44		4, 5,38,46,37	
		45, 6,38,13,41,46,27		3,18
46″	56, 0, 3, 2,30,24,31,45,22,11		4, 5,38,49,55	
		45, 6,34, 8, 2,56,32		3,18
48″	56, 0, 3,47,36,58,39,48,18,43		4, 5,38,53,13	
		45, 6,30, 2,24, 3,19		3,18
50″	56, 0, 4,32,43,28,42,12,22, 2		4, 5,38,56,31	
		45, 6,25,56,45, 6,48		3,18
52″	56, 0, 5,17,49,54,38,57,28,50		4, 5,38,59,49	
		45, 6,21,51, 6, 6,59		3,18
54″	56, 0, 6, 2,56,16,30, 3,35,49		4, 5,39, 3, 7	
		45, 6,17,45,27, 3,52		3,18
56″	56, 0, 6,48, 2,34,15,30,39,41		4, 5,39, 6,25	
		45, 6,13,39,47,57,27		3,18
58″	56, 0, 7,33, 8,47,55,18,37, 8		4, 5,39, 9,43	
		45, 6, 9,34, 8,47,44		
60″	56, 0, 8,18,14,57,29,27,24,52			
exact	56, 0, 8,18,14,57,29,27,25,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°58′ 0″	56, 0, 8,18,14,57,29,27,25,38			
		45, 6, 5,28,29,35, 0		
2″	56, 0, 9, 3,21, 2,57,57, 0,38		4, 5,39,16,17	
		45, 6, 1,22,50,18,43		3,18
4″	56, 0, 9,48,27, 4,20,47,19,21		4, 5,39,19,35	
		45, 5,57,17,10,59, 8		3,18
6″	56, 0,10,33,33, 1,37,58,18,29		4, 5,39,22,53	
		45, 5,53,11,31,36,15		3,18
8″	56, 0,11,18,38,54,49,29,54,44		4, 5,39,26,11	
		45, 5,49, 5,52,10, 4		3,18
10″	56, 0,12, 3,44,43,55,22, 4,48		4, 5,39,29,29	
		45, 5,45, 0,12,40,35		3,18
12″	56, 0,12,48,50,28,55,34,45,23		4, 5,39,32,47	
		45, 5,40,54,33, 7,48		3,18
14″	56, 0,13,33,56, 9,50, 7,53,11		4, 5,39,36, 5	
		45, 5,36,48,53,31,43		3,18
16″	56, 0,14,19, 1,46,39, 1,24,54		4, 5,39,39,23	
		45, 5,32,43,13,52,20		3,18
18″	56, 0,15, 4, 7,19,22,15,17,14		4, 5,39,42,41	
		45, 5,28,37,34, 9,39		3,18
20″	56, 0,15,49,12,47,59,49,26,53		4, 5,39,45,59	
		45, 5,24,31,54,23,40		3,18
22″	56, 0,16,34,18,12,31,43,50,33		4, 5,39,49,17	
		45, 5,20,26,14,34,23		3,18
24″	56, 0,17,19,23,32,57,58,24,56		4, 5,39,52,35	
		45, 5,16,20,34,41,48		3,18
26″	56, 0,18, 4,28,49,18,33, 6,44		4, 5,39,55,53	
		45, 5,12,14,54,45,55		3,18
28″	56, 0,18,49,34, 1,33,27,52,39		4, 5,39,59,11	
		45, 5, 8, 9,14,46,44		3,18
30″	56, 0,19,34,39, 9,42,42,39,23		4, 5,40, 2,29	
		45, 5, 4, 3,34,44,15		3,18
32″	56, 0,20,19,44,13,46,17,23,38		4, 5,40, 5,47	
		45, 4,59,57,54,38,28		3,18
34″	56, 0,21, 4,49,13,44,12, 2, 6		4, 5,40, 9, 5	
		45, 4,55,52,14,29,23		3,18
36″	56, 0,21,49,54, 9,36,26,31,29		4, 5,40,12,23	
		45, 4,51,46,34,17, 0		3,18
38″	56, 0,22,34,59, 1,23, 0,48,29		4, 5,40,15,41	
		45, 4,47,40,54, 1,19		3,18
40″	56, 0,23,20, 3,49, 3,54,49,48		4, 5,40,18,59	
		45, 4,43,35,13,42,20		3,18
42″	56, 0,24, 5, 8,32,39, 8,32, 8		4, 5,40,22,17	
		45, 4,39,29,33,20, 3		3,18
44″	56, 0,24,50,13,12, 8,41,52,11		4, 5,40,25,35	
		45, 4,35,23,52,54,28		3,18
46″	56, 0,25,35,17,47,32,34,46,39		4, 5,40,28,53	
		45, 4,31,18,12,25,35		3,18
48″	56, 0,26,20,22,18,50,47,12,14		4, 5,40,32,11	
		45, 4,27,12,31,53,24		3,18
50″	56, 0,27, 5,26,46, 3,19, 5,38		4, 5,40,35,29	
		45, 4,23, 6,51,17,55		3,18
52″	56, 0,27,50,31, 9,10,10,23,33		4, 5,40,38,47	
		45, 4,19, 1,10,39, 8		3,18
54″	56, 0,28,35,35,28,11,21, 2,41		4, 5,40,42, 5	
		45, 4,14,55,29,57, 3		3,18
56″	56, 0,29,20,39,43, 6,50,59,44		4, 5,40,45,23	
		45, 4,10,49,49,11,40		3,18
58″	56, 0,30, 5,43,53,56,40,11,24		4, 5,40,48,41	
		45, 4, 6,44, 8,22,59		
60″	56, 0,30,50,48, 0,40,48,34,23			
exact	56, 0,30,50,48, 0,40,48,50,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
68°59′ 0″	56, 0,30,50,48, 0,40,48,50,23			
		45, 4, 2,38,27,32,43		
2″	56, 0,31,35,52, 3,19,16,23, 6		4, 5,40,55, 9	
		45, 3,58,32,46,37,34		3,18
4″	56, 0,32,20,56, 1,52, 3, 0,40		4, 5,40,58,27	
		45, 3,54,27, 5,39, 7		3,18
6″	56, 0,33, 5,59,56,19, 8,39,47		4, 5,41, 1,45	
		45, 3,50,21,24,37,22		3,18
8″	56, 0,33,51, 3,46,40,33,17, 9		4, 5,41, 5, 3	
		45, 3,46,15,43,32,19		3,18
10″	56, 0,34,36, 7,32,56,16,49,28		4, 5,41, 8,21	
		45, 3,42,10, 2,23,58		3,18
12″	56, 0,35,21,11,15, 6,19,13,26		4, 5,41,11,39	
		45, 3,38, 4,21,12,19		3,18
14″	56, 0,36, 6,14,53,10,40,25,45		4, 5,41,14,57	
		45, 3,33,58,39,57,22		3,18
16″	56, 0,36,51,18,27, 9,20,23, 7		4, 5,41,18,15	
		45, 3,29,52,58,39, 7		3,18
18″	56, 0,37,36,21,57, 2,19, 2,14		4, 5,41,21,33	
		45, 3,25,47,17,17,34		3,18
20″	56, 0,38,21,25,22,49,36,19,48		4, 5,41,24,51	
		45, 3,21,41,35,52,43		3,18
22″	56, 0,39, 6,28,44,31,12,12,31		4, 5,41,28, 9	
		45, 3,17,35,54,24,34		3,18
24″	56, 0,39,51,32, 2, 7, 6,37, 5		4, 5,41,31,27	
		45, 3,13,30,12,53, 7		3,18
26″	56, 0,40,36,35,15,37,19,30,12		4, 5,41,34,45	
		45, 3, 9,24,31,18,22		3,18
28″	56, 0,41,21,38,25, 1,50,48,34		4, 5,41,38, 3	
		45, 3, 5,18,49,40,19		3,18
30″	56, 0,42, 6,41,30,20,40,28,53		4, 5,41,41,21	
		45, 3, 1,13, 7,58,58		3,18
32″	56, 0,42,51,44,31,33,48,27,51		4, 5,41,44,39	
		45, 2,57, 7,26,14,19		3,18
34″	56, 0,43,36,47,28,41,14,42,10		4, 5,41,47,57	
		45, 2,53, 1,44,26,22		3,18
36″	56, 0,44,21,50,21,42,59, 8,32		4, 5,41,51,15	
		45, 2,48,56, 2,35, 7		3,18
38″	56, 0,45, 6,53,10,39, 1,43,39		4, 5,41,54,33	
		45, 2,44,50,20,40,34		3,18
40″	56, 0,45,51,55,55,29,22,24,13		4, 5,41,57,51	
		45, 2,40,44,38,42,43		3,18
42″	56, 0,46,36,58,36,14, 1, 6,56		4, 5,42, 1, 9	
		45, 2,36,38,56,41,34		3,18
44″	56, 0,47,22, 1,12,52,57,48,30		4, 5,42, 4,27	
		45, 2,32,33,14,37, 7		3,18
46″	56, 0,48, 7, 3,45,26,12,25,37		4, 5,42, 7,45	
		45, 2,28,27,32,29,22		3,18
48″	56, 0,48,52, 6,13,53,44,54,59		4, 5,42,11, 3	
		45, 2,24,21,50,18,19		3,18
50″	56, 0,49,37, 8,38,15,35,13,18		4, 5,42,14,21	
		45, 2,20,16, 8, 3,58		3,18
52″	56, 0,50,22,10,58,31,43,17,16		4, 5,42,17,39	
		45, 2,16,10,25,46,19		3,18
54″	56, 0,51, 7,13,14,42, 9, 3,35		4, 5,42,20,57	
		45, 2,12, 4,43,25,22		3,18
56″	56, 0,51,52,15,26,46,52,28,57		4, 5,42,24,15	
		45, 2, 7,59, 1, 1, 7		3,18
58″	56, 0,52,37,17,34,45,53,30, 4		4, 5,42,27,33	
		45, 2, 3,53,18,33,34		
60″	56, 0,53,22,19,38,39,12, 3,38			
exact	56, 0,53,22,19,38,39,12,24, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69° 0′ 0″	56, 0,53,22,19,38,39,12,24, 5			
		45, 1,59,47,36, 5, 7		
2″	56, 0,54, 7,21,38,26,48,29,12		4, 5,42,33,58	
		45, 1,55,41,53,31, 9		3,18
4″	56, 0,54,52,23,34, 8,42, 0,21		4, 5,42,37,16	
		45, 1,51,36,10,53,53		3,18
6″	56, 0,55,37,25,25,44,52,54,14		4, 5,42,40,34	
		45, 1,47,30,28,13,19		3,18
8″	56, 0,56,22,27,13,15,21, 7,33		4, 5,42,43,52	
		45, 1,43,24,45,29,27		3,18
10″	56, 0,57, 7,28,56,40, 6,37, 0		4, 5,42,47,10	
		45, 1,39,19, 2,42,17		3,18
12″	56, 0,57,52,30,35,59, 9,19,17		4, 5,42,50,28	
		45, 1,35,13,19,51,49		3,18
14″	56, 0,58,37,32,11,12,29,11, 6		4, 5,42,53,46	
		45, 1,31, 7,36,58, 3		3,18
16″	56, 0,59,22,33,42,20, 6, 9, 9		4, 5,42,57, 4	
		45, 1,27, 1,54, 0,59		3,18
18″	56, 1, 0, 7,35, 9,22, 0,10, 8		4, 5,43, 0,22	
		45, 1,22,56,11, 0,37		3,18
20″	56, 1, 0,52,36,32,18,11,10,45		4, 5,43, 3,40	
		45, 1,18,50,27,56,57		3,18
22″	56, 1, 1,37,37,51, 8,39, 7,42		4, 5,43, 6,58	
		45, 1,14,44,44,49,59		3,18
24″	56, 1, 2,22,39, 5,53,23,57,41		4, 5,43,10,16	
		45, 1,10,39, 1,39,43		3,18
26″	56, 1, 3, 7,40,16,32,25,37,24		4, 5,43,13,34	
		45, 1, 6,33,18,26, 9		3,18
28″	56, 1, 3,52,41,23, 5,44, 3,33		4, 5,43,16,52	
		45, 1, 2,27,35, 9,17		3,18
30″	56, 1, 4,37,42,25,33,19,12,50		4, 5,43,20,10	
		45, 0,58,21,51,49, 7		3,18
32″	56, 1, 5,22,43,23,55,11, 1,57		4, 5,43,23,28	
		45, 0,54,16, 8,25,39		3,18
34″	56, 1, 6, 7,44,18,11,19,27,36		4, 5,43,26,46	
		45, 0,50,10,24,58,53		3,18
36″	56, 1, 6,52,45, 8,21,44,26,29		4, 5,43,30, 4	
		45, 0,46, 4,41,28,49		3,18
38″	56, 1, 7,37,45,54,26,25,55,18		4, 5,43,33,22	
		45, 0,41,58,57,55,27		3,18
40″	56, 1, 8,22,46,36,25,23,50,45		4, 5,43,36,40	
		45, 0,37,53,14,18,47		3,18
42″	56, 1, 9, 7,47,14,18,38, 9,32		4, 5,43,39,58	
		45, 0,33,47,30,38,49		3,18
44″	56, 1, 9,52,47,48, 6, 8,48,21		4, 5,43,43,16	
		45, 0,29,41,46,55,33		3,18
46″	56, 1,10,37,48,17,47,55,43,54		4, 5,43,46,34	
		45, 0,25,36, 3, 8,59		3,18
48″	56, 1,11,22,48,43,23,58,52,53		4, 5,43,49,52	
		45, 0,21,30,19,19, 7		3,18
50″	56, 1,12, 7,49, 4,54,18,12, 0		4, 5,43,53,10	
		45, 0,17,24,35,25,57		3,18
52″	56, 1,12,52,49,22,18,53,37,57		4, 5,43,56,28	
		45, 0,13,18,51,29,29		3,18
54″	56, 1,13,37,49,35,37,45, 7,26		4, 5,43,59,46	
		45, 0, 9,13, 7,29,43		3,18
56″	56, 1,14,22,49,44,50,52,37, 9		4, 5,44, 3, 4	
		45, 0, 5, 7,23,26,39		3,18
58″	56, 1,15, 7,49,49,58,16, 3,48		4, 5,44, 6,22	
		45, 0, 1, 1,39,20,17		
60″	56, 1,15,52,49,50,59,55,24, 5			
exact	56, 1,15,52,49,50,59,55,59,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69° 1′ 0″	56, 1,15,52,49,50,59,55,59,47			
		44,59,56,55,55,14,27		
2″	56, 1,16,37,49,47,55,51,14,14		4, 5,44,12,42	
		44,59,52,50,11, 1,45		3,17
4″	56, 1,17,22,49,40,46, 2,15,59		4, 5,44,15,59	
		44,59,48,44,26,45,46		3,17
6″	56, 1,18, 7,49,29,30,29, 1,45		4, 5,44,19,16	
		44,59,44,38,42,26,30		3,17
8″	56, 1,18,52,49,14, 9,11,28,15		4, 5,44,22,33	
		44,59,40,32,58, 3,57		3,17
10″	56, 1,19,37,48,54,42, 9,32,12		4, 5,44,25,50	
		44,59,36,27,13,38, 7		3,17
12″	56, 1,20,22,48,31, 9,23,10,19		4, 5,44,29, 7	
		44,59,32,21,29, 9, 0		3,17
14″	56, 1,21, 7,48, 3,30,52,19,19		4, 5,44,32,24	
		44,59,28,15,44,36,36		3,17
16″	56, 1,21,52,47,31,46,36,55,55		4, 5,44,35,41	
		44,59,24,10, 0, 0,55		3,17
18″	56, 1,22,37,46,55,56,36,56,50		4, 5,44,38,58	
		44,59,20, 4,15,21,57		3,17
20″	56, 1,23,22,46,16, 0,52,18,47		4, 5,44,42,15	
		44,59,15,58,30,39,42		3,17
22″	56, 1,24, 7,45,31,59,22,58,29		4, 5,44,45,32	
		44,59,11,52,45,54,10		3,17
24″	56, 1,24,52,44,43,52, 8,52,39		4, 5,44,48,49	
		44,59, 7,47, 1, 5,21		3,17
26″	56, 1,25,37,43,51,39, 9,58, 0		4, 5,44,52, 6	
		44,59, 3,41,16,13,15		3,17
28″	56, 1,26,22,42,55,20,26,11,15		4, 5,44,55,23	
		44,58,59,35,31,17,52		3,17
30″	56, 1,27, 7,41,54,55,57,29, 7		4, 5,44,58,40	
		44,58,55,29,46,19,12		3,17
32″	56, 1,27,52,40,50,25,43,48,19		4, 5,45, 1,57	
		44,58,51,24, 1,17,15		3,17
34″	56, 1,28,37,39,41,49,45, 5,34		4, 5,45, 5,14	
		44,58,47,18,16,12, 1		3,17
36″	56, 1,29,22,38,29, 8, 1,17,35		4, 5,45, 8,31	
		44,58,43,12,31, 3,30		3,17
38″	56, 1,30, 7,37,12,20,32,21, 5		4, 5,45,11,48	
		44,58,39, 6,45,51,42		3,17
40″	56, 1,30,52,35,51,27,18,12,47		4, 5,45,15, 5	
		44,58,35, 1, 0,36,37		3,17
42″	56, 1,31,37,34,26,28,18,49,24		4, 5,45,18,22	
		44,58,30,55,15,18,15		3,17
44″	56, 1,32,22,32,57,23,34, 7,39		4, 5,45,21,39	
		44,58,26,49,29,56,36		3,17
46″	56, 1,33, 7,31,24,13, 4, 4,15		4, 5,45,24,56	
		44,58,22,43,44,31,40		3,17
48″	56, 1,33,52,29,46,56,48,35,55		4, 5,45,28,13	
		44,58,18,37,59, 3,27		3,17
50″	56, 1,34,37,28, 5,34,47,39,22		4, 5,45,31,30	
		44,58,14,32,13,31,57		3,17
52″	56, 1,35,22,26,20, 7, 1,11,19		4, 5,45,34,47	
		44,58,10,26,27,57,10		3,17
54″	56, 1,36, 7,24,30,33,29, 8,29		4, 5,45,38, 4	
		44,58, 6,20,42,19, 6		3,17
56″	56, 1,36,52,22,36,54,11,27,35		4, 5,45,41,21	
		44,58, 2,14,56,37,45		3,17
58″	56, 1,37,37,20,39, 9, 8, 5,20		4, 5,45,44,38	
		44,57,58, 9,10,53, 7		
60″	56, 1,38,22,18,37,18,18,58,27			
exact	56, 1,38,22,18,37,18,18,37,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69° 2′ 0″	56, 1,38,22,18,37,18,18,37,55			
		44,57,54, 3,25, 2,58		
2″	56, 1,39, 7,16,31,21,43,40,53		4, 5,45,51,21	
		44,57,49,57,39,11,37		3,17
4″	56, 1,39,52,14,21,19,22,52,30		4, 5,45,54,38	
		44,57,45,51,53,16,59		3,17
6″	56, 1,40,37,12, 7,11,16, 9,29		4, 5,45,57,55	
		44,57,41,46, 7,19, 4		3,17
8″	56, 1,41,22, 9,48,57,23,28,33		4, 5,46, 1,12	
		44,57,37,40,21,17,52		3,17
10″	56, 1,42, 7, 7,26,37,44,46,25		4, 5,46, 4,29	
		44,57,33,34,35,13,23		3,17
12″	56, 1,42,52, 5, 0,12,19,59,48		4, 5,46, 7,46	
		44,57,29,28,49, 5,37		3,17
14″	56, 1,43,37, 2,29,41, 9, 5,25		4, 5,46,11, 3	
		44,57,25,23, 2,54,34		3,17
16″	56, 1,44,21,59,55, 4,11,59,59		4, 5,46,14,20	
		44,57,21,17,16,40,14		3,17
18″	56, 1,45, 6,57,16,21,28,40,13		4, 5,46,17,37	
		44,57,17,11,30,22,37		3,17
20″	56, 1,45,51,54,33,32,59, 2,50		4, 5,46,20,54	
		44,57,13, 5,44, 1,43		3,17
22″	56, 1,46,36,51,46,38,43, 4,33		4, 5,46,24,11	
		44,57, 8,59,57,37,32		3,17
24″	56, 1,47,21,48,55,38,40,42, 5		4, 5,46,27,28	
		44,57, 4,54,11,10, 4		3,17
26″	56, 1,48, 6,46, 0,32,51,52, 9		4, 5,46,30,45	
		44,57, 0,48,24,39,19		3,17
28″	56, 1,48,51,43, 1,21,16,31,28		4, 5,46,34, 2	
		44,56,56,42,38, 5,17		3,17
30″	56, 1,49,36,39,58, 3,54,36,45		4, 5,46,37,19	
		44,56,52,36,51,27,58		3,17
32″	56, 1,50,21,36,50,40,46, 4,43		4, 5,46,40,36	
		44,56,48,31, 4,47,22		3,17
34″	56, 1,51, 6,33,39,11,50,52, 5		4, 5,46,43,53	
		44,56,44,25,18, 3,29		3,17
36″	56, 1,51,51,30,23,37, 8,55,34		4, 5,46,47,10	
		44,56,40,19,31,16,19		3,17
38″	56, 1,52,36,27, 3,56,40,11,53		4, 5,46,50,27	
		44,56,36,13,44,25,52		3,17
40″	56, 1,53,21,23,40,10,24,37,45		4, 5,46,53,44	
		44,56,32, 7,57,32, 8		3,17
42″	56, 1,54, 6,20,12,18,22, 9,53		4, 5,46,57, 1	
		44,56,28, 2,10,35, 7		3,17
44″	56, 1,54,51,16,40,20,32,45, 0		4, 5,47, 0,18	
		44,56,23,56,23,34,49		3,17
46″	56, 1,55,36,13, 4,16,56,19,49		4, 5,47, 3,35	
		44,56,19,50,36,31,14		3,17
48″	56, 1,56,21, 9,24, 7,32,51, 3		4, 5,47, 6,52	
		44,56,15,44,49,24,22		3,17
50″	56, 1,57, 6, 5,39,52,22,15,25		4, 5,47,10, 9	
		44,56,11,39, 2,14,13		3,17
52″	56, 1,57,51, 1,51,31,24,29,38		4, 5,47,13,26	
		44,56, 7,33,15, 0,47		3,17
54″	56, 1,58,35,57,59, 4,39,30,25		4, 5,47,16,43	
		44,56, 3,27,27,44, 4		3,17
56″	56, 1,59,20,54, 2,32, 7,14,29		4, 5,47,20, 0	
		44,55,59,21,40,24, 4		3,17
58″	56, 2, 0, 5,50, 1,53,47,38,33		4, 5,47,23,17	
		44,55,55,15,53, 0,47		
60″	56, 2, 0,50,45,57, 9,40,39,20			
exact	56, 2, 0,50,45,57, 9,40,26,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69° 3′ 0″	56, 2, 0,50,45,57, 9,40,26,20			
		44,55,51,10, 5,32,54		
2″	56, 2, 1,35,41,48,19,45,59,14		4, 5,47,29,56	
		44,55,47, 4,18, 2,58		3,17
4″	56, 2, 2,20,37,35,24, 4, 2,12		4, 5,47,33,13	
		44,55,42,58,30,29,45		3,17
6″	56, 2, 3, 5,33,18,22,34,31,57		4, 5,47,36,30	
		44,55,38,52,42,53,15		3,17
8″	56, 2, 3,50,28,57,15,17,25,12		4, 5,47,39,47	
		44,55,34,46,55,13,28		3,17
10″	56, 2, 4,35,24,32, 2,12,38,40		4, 5,47,43, 4	
		44,55,30,41, 7,30,24		3,17
12″	56, 2, 5,20,20, 2,43,20, 9, 4		4, 5,47,46,21	
		44,55,26,35,19,44, 3		3,17
14″	56, 2, 6, 5,15,29,18,39,53, 7		4, 5,47,49,38	
		44,55,22,29,31,54,25		3,17
16″	56, 2, 6,50,10,51,48,11,47,32		4, 5,47,52,55	
		44,55,18,23,44, 1,30		3,17
18″	56, 2, 7,35, 6,10,11,55,49, 2		4, 5,47,56,12	
		44,55,14,17,56, 5,18		3,17
20″	56, 2, 8,20, 1,24,29,51,54,20		4, 5,47,59,29	
		44,55,10,12, 8, 5,49		3,17
22″	56, 2, 9, 4,56,34,42, 0, 0, 9		4, 5,48, 2,46	
		44,55, 6, 6,20, 3, 3		3,17
24″	56, 2, 9,49,51,40,48,20, 3,12		4, 5,48, 6, 3	
		44,55, 2, 0,31,57, 0		3,17
26″	56, 2,10,34,46,42,48,52, 0,12		4, 5,48, 9,20	
		44,54,57,54,43,47,40		3,17
28″	56, 2,11,19,41,40,43,35,47,52		4, 5,48,12,37	
		44,54,53,48,55,35, 3		3,17
30″	56, 2,12, 4,36,34,32,31,22,55		4, 5,48,15,54	
		44,54,49,43, 7,19, 9		3,17
32″	56, 2,12,49,31,24,15,38,42, 4		4, 5,48,19,11	
		44,54,45,37,18,59,58		3,17
34″	56, 2,13,34,26, 9,52,57,42, 2		4, 5,48,22,28	
		44,54,41,31,30,37,30		3,17
36″	56, 2,14,19,20,51,24,28,19,32		4, 5,48,25,45	
		44,54,37,25,42,11,45		3,17
38″	56, 2,15, 4,15,28,50,10,31,17		4, 5,48,29, 2	
		44,54,33,19,53,42,43		3,17
40″	56, 2,15,49,10, 2,10, 4,14, 0		4, 5,48,32,19	
		44,54,29,14, 5,10,24		3,17
42″	56, 2,16,34, 4,31,24, 9,24,24		4, 5,48,35,36	
		44,54,25, 8,16,34,48		3,17
44″	56, 2,17,18,58,56,32,25,59,12		4, 5,48,38,53	
		44,54,21, 2,27,55,55		3,17
46″	56, 2,18, 3,53,17,34,53,55, 7		4, 5,48,42,10	
		44,54,16,56,39,13,45		3,17
48″	56, 2,18,48,47,34,31,33, 8,52		4, 5,48,45,27	
		44,54,12,50,50,28,18		3,17
50″	56, 2,19,33,41,47,22,23,37,10		4, 5,48,48,44	
		44,54, 8,45, 1,39,34		3,17
52″	56, 2,20,18,35,56, 7,25,16,44		4, 5,48,52, 1	
		44,54, 4,39,12,47,33		3,17
54″	56, 2,21, 3,30, 0,46,38, 4,17		4, 5,48,55,18	
		44,54, 0,33,23,52,15		3,17
56″	56, 2,21,48,24, 1,20, 1,56,32		4, 5,48,58,35	
		44,53,56,27,34,53,40		3,17
58″	56, 2,22,33,17,57,47,36,50,12		4, 5,49, 1,52	
		44,53,52,21,45,51,48		
60″	56, 2,23,18,11,50, 9,22,42, 0			
exact	56, 2,23,18,11,50, 9,22,40,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69° 4′ 0″	56, 2,23,18,11,50, 9,22,40,10			
		44,53,48,15,56,46,30		
2″	56, 2,24, 3, 5,38,25,19,26,40		4, 5,49, 8,26	
		44,53,44,10, 7,38, 4		3,17
4″	56, 2,24,47,59,22,35,27, 4,44		4, 5,49,11,43	
		44,53,40, 4,18,26,21		3,17
6″	56, 2,25,32,53, 2,39,45,31, 5		4, 5,49,15, 0	
		44,53,35,58,29,11,21		3,17
8″	56, 2,26,17,46,38,38,14,42,26		4, 5,49,18,17	
		44,53,31,52,39,53, 4		3,17
10″	56, 2,27, 2,40,10,30,54,35,30		4, 5,49,21,34	
		44,53,27,46,50,31,30		3,17
12″	56, 2,27,47,33,38,17,45, 7, 0		4, 5,49,24,51	
		44,53,23,41, 1, 6,39		3,17
14″	56, 2,28,32,27, 1,58,46,13,39		4, 5,49,28, 8	
		44,53,19,35,11,38,31		3,17
16″	56, 2,29,17,20,21,33,57,52,10		4, 5,49,31,25	
		44,53,15,29,22, 7, 6		3,17
18″	56, 2,30, 2,13,37, 3,19,59,16		4, 5,49,34,42	
		44,53,11,23,32,32,24		3,17
20″	56, 2,30,47, 6,48,26,52,31,40		4, 5,49,37,59	
		44,53, 7,17,42,54,25		3,17
22″	56, 2,31,31,59,55,44,35,26, 5		4, 5,49,41,16	
		44,53, 3,11,53,13, 9		3,17
24″	56, 2,32,16,52,58,56,28,39,14		4, 5,49,44,33	
		44,52,59, 6, 3,28,36		3,17
26″	56, 2,33, 1,45,58, 2,32, 7,50		4, 5,49,47,50	
		44,52,55, 0,13,40,46		3,17
28″	56, 2,33,46,38,53, 2,45,48,36		4, 5,49,51, 7	
		44,52,50,54,23,49,39		3,17
30″	56, 2,34,31,31,43,57, 9,38,15		4, 5,49,54,24	
		44,52,46,48,33,55,15		3,17
32″	56, 2,35,16,24,30,45,43,33,30		4, 5,49,57,41	
		44,52,42,42,43,57,34		3,17
34″	56, 2,36, 1,17,13,28,27,31, 4		4, 5,50, 0,58	
		44,52,38,36,53,56,36		3,17
36″	56, 2,36,46, 9,52, 5,21,27,40		4, 5,50, 4,15	
		44,52,34,31, 3,52,21		3,17
38″	56, 2,37,31, 2,26,36,25,20, 1		4, 5,50, 7,32	
		44,52,30,25,13,44,49		3,17
40″	56, 2,38,15,54,57, 1,39, 4,50		4, 5,50,10,49	
		44,52,26,19,23,34, 0		3,17
42″	56, 2,39, 0,47,23,21, 2,38,50		4, 5,50,14, 6	
		44,52,22,13,33,19,54		3,17
44″	56, 2,39,45,39,45,34,35,58,44		4, 5,50,17,23	
		44,52,18, 7,43, 2,31		3,17
46″	56, 2,40,30,32, 3,42,19, 1,15		4, 5,50,20,40	
		44,52,14, 1,52,41,51		3,17
48″	56, 2,41,15,24,17,44,11,43, 6		4, 5,50,23,57	
		44,52, 9,56, 2,17,54		3,17
50″	56, 2,42, 0,16,27,40,14, 1, 0		4, 5,50,27,14	
		44,52, 5,50,11,50,40		3,17
52″	56, 2,42,45, 8,33,30,25,51,40		4, 5,50,30,31	
		44,52, 1,44,21,20, 9		3,17
54″	56, 2,43,30, 0,35,14,47,11,49		4, 5,50,33,48	
		44,51,57,38,30,46,21		3,17
56″	56, 2,44,14,52,32,53,17,58,10		4, 5,50,37, 5	
		44,51,53,32,40, 9,16		3,17
58″	56, 2,44,59,44,26,25,58, 7,26		4, 5,50,40,22	
		44,51,49,26,49,28,54		
60″	56, 2,45,44,36,15,52,47,36,20			
exact	56, 2,45,44,36,15,52,47,42, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69° 5′ 0″	56, 2,45,44,36,15,52,47,42, 1			
		44,51,45,20,58,46, 0		
2″	56, 2,46,29,28, 1,13,46,28, 1		4, 5,50,46,52	
		44,51,41,15, 7,59, 8		3,17
4″	56, 2,47,14,19,42,28,54,27, 9		4, 5,50,50, 9	
		44,51,37, 9,17, 8,59		3,17
6″	56, 2,47,59,11,19,38,11,36, 8		4, 5,50,53,26	
		44,51,33, 3,26,15,33		3,17
8″	56, 2,48,44, 2,52,41,37,51,41		4, 5,50,56,43	
		44,51,28,57,35,18,50		3,17
10″	56, 2,49,28,54,21,39,13,10,31		4, 5,51, 0, 0	
		44,51,24,51,44,18,50		3,17
12″	56, 2,50,13,45,46,30,57,29,21		4, 5,51, 3,17	
		44,51,20,45,53,15,33		3,17
14″	56, 2,50,58,37, 7,16,50,44,54		4, 5,51, 6,34	
		44,51,16,40, 2, 8,59		3,17
16″	56, 2,51,43,28,23,56,52,53,53		4, 5,51, 9,51	
		44,51,12,34,10,59, 8		3,17
18″	56, 2,52,28,19,36,31, 3,53, 1		4, 5,51,13, 8	
		44,51, 8,28,19,46, 0		3,17
20″	56, 2,53,13,10,44,59,23,39, 1		4, 5,51,16,25	
		44,51, 4,22,28,29,35		3,17
22″	56, 2,53,58, 1,49,21,52, 8,36		4, 5,51,19,42	
		44,51, 0,16,37, 9,53		3,17
24″	56, 2,54,42,52,49,38,29,18,29		4, 5,51,22,59	
		44,50,56,10,45,46,54		3,17
26″	56, 2,55,27,43,45,49,15, 5,23		4, 5,51,26,16	
		44,50,52, 4,54,20,38		3,17
28″	56, 2,56,12,34,37,54, 9,26, 1		4, 5,51,29,33	
		44,50,47,59, 2,51, 5		3,17
30″	56, 2,56,57,25,25,53,12,17, 6		4, 5,51,32,50	
		44,50,43,53,11,18,15		3,17
32″	56, 2,57,42,16, 9,46,23,35,21		4, 5,51,36, 7	
		44,50,39,47,19,42, 8		3,17
34″	56, 2,58,27, 6,49,33,43,17,29		4, 5,51,39,24	
		44,50,35,41,28, 2,44		3,17
36″	56, 2,59,11,57,25,15,11,20,13		4, 5,51,42,41	
		44,50,31,35,36,20, 3		3,17
38″	56, 2,59,56,47,56,50,47,40,16		4, 5,51,45,58	
		44,50,27,29,44,34, 5		3,17
40″	56, 3, 0,41,38,24,20,32,14,21		4, 5,51,49,15	
		44,50,23,23,52,44,50		3,17
42″	56, 3, 1,26,28,47,44,24,59,11		4, 5,51,52,32	
		44,50,19,18, 0,52,18		3,17
44″	56, 3, 2,11,19, 7, 2,25,51,29		4, 5,51,55,49	
		44,50,15,12, 8,56,29		3,17
46″	56, 3, 2,56, 9,22,14,34,47,58		4, 5,51,59, 6	
		44,50,11, 6,16,57,23		3,17
48″	56, 3, 3,40,59,33,20,51,45,21		4, 5,52, 2,23	
		44,50, 7, 0,24,55, 0		3,17
50″	56, 3, 4,25,49,40,21,16,40,21		4, 5,52, 5,40	
		44,50, 2,54,32,49,20		3,17
52″	56, 3, 5,10,39,43,15,49,29,41		4, 5,52, 8,57	
		44,49,58,48,40,40,23		3,17
54″	56, 3, 5,55,29,42, 4,30,10, 4		4, 5,52,12,14	
		44,49,54,42,48,28, 9		3,17
56″	56, 3, 6,40,19,36,47,18,38,13		4, 5,52,15,31	
		44,49,50,36,56,12,38		3,17
58″	56, 3, 7,25, 9,27,24,14,50,51		4, 5,52,18,48	
		44,49,46,31, 3,53,50		
60″	56, 3, 8, 9,59,13,55,18,44,41			
exact	56, 3, 8, 9,59,13,55,19, 1,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69° 6′ 0″	56, 3, 8, 9,59,13,55,19, 1,50			
		44,49,42,25,11,33,40		
2″	56, 3, 8,54,48,56,20,30,35,30		4, 5,52,25,13	
		44,49,38,19,19, 8,27		3,17
4″	56, 3, 9,39,38,34,39,49,43,57		4, 5,52,28,30	
		44,49,34,13,26,39,57		3,17
6″	56, 3,10,24,28, 8,53,16,23,54		4, 5,52,31,47	
		44,49,30, 7,34, 8,10		3,17
8″	56, 3,11, 9,17,39, 0,50,32, 4		4, 5,52,35, 4	
		44,49,26, 1,41,33, 6		3,17
10″	56, 3,11,54, 7, 5, 2,32, 5,10		4, 5,52,38,21	
		44,49,21,55,48,54,45		3,17
12″	56, 3,12,38,56,26,58,20,59,55		4, 5,52,41,38	
		44,49,17,49,56,13, 7		3,17
14″	56, 3,13,23,45,44,48,17,13, 2		4, 5,52,44,55	
		44,49,13,44, 3,28,12		3,17
16″	56, 3,14, 8,34,58,32,20,41,14		4, 5,52,48,12	
		44,49, 9,38,10,40, 0		3,17
18″	56, 3,14,53,24, 8,10,31,21,14		4, 5,52,51,29	
		44,49, 5,32,17,48,31		3,17
20″	56, 3,15,38,13,13,42,49, 9,45		4, 5,52,54,46	
		44,49, 1,26,24,53,45		3,17
22″	56, 3,16,23, 2,15, 9,14, 3,30		4, 5,52,58, 3	
		44,48,57,20,31,55,42		3,17
24″	56, 3,17, 7,51,12,29,45,59,12		4, 5,53, 1,20	
		44,48,53,14,38,54,22		3,17
26″	56, 3,17,52,40, 5,44,24,53,34		4, 5,53, 4,37	
		44,48,49, 8,45,49,45		3,17
28″	56, 3,18,37,28,54,53,10,43,19		4, 5,53, 7,54	
		44,48,45, 2,52,41,51		3,17
30″	56, 3,19,22,17,39,56, 3,25,10		4, 5,53,11,11	
		44,48,40,56,59,30,40		3,17
32″	56, 3,20, 7, 6,20,53, 2,55,50		4, 5,53,14,28	
		44,48,36,51, 6,16,12		3,17
34″	56, 3,20,51,54,57,44, 9,12, 2		4, 5,53,17,45	
		44,48,32,45,12,58,27		3,17
36″	56, 3,21,36,43,30,29,22,10,29		4, 5,53,21, 2	
		44,48,28,39,19,37,25		3,17
38″	56, 3,22,21,31,59, 8,41,47,54		4, 5,53,24,19	
		44,48,24,33,26,13, 6		3,17
40″	56, 3,23, 6,20,23,42, 8, 1, 0		4, 5,53,27,36	
		44,48,20,27,32,45,30		3,17
42″	56, 3,23,51, 8,44, 9,40,46,30		4, 5,53,30,53	
		44,48,16,21,39,14,37		3,17
44″	56, 3,24,35,57, 0,31,20, 1, 7		4, 5,53,34,10	
		44,48,12,15,45,40,27		3,17
46″	56, 3,25,20,45,12,47, 5,41,34		4, 5,53,37,27	
		44,48, 8, 9,52, 3, 0		3,17
48″	56, 3,26, 5,33,20,56,57,44,34		4, 5,53,40,44	
		44,48, 4, 3,58,22,16		3,17
50″	56, 3,26,50,21,25, 0,56, 6,50		4, 5,53,44, 1	
		44,47,59,58, 4,38,15		3,17
52″	56, 3,27,35, 9,24,59, 0,45, 5		4, 5,53,47,18	
		44,47,55,52,10,50,57		3,17
54″	56, 3,28,19,57,20,51,11,36, 2		4, 5,53,50,35	
		44,47,51,46,17, 0,22		3,17
56″	56, 3,29, 4,45,12,37,28,36,24		4, 5,53,53,52	
		44,47,47,40,23, 6,30		3,17
58″	56, 3,29,49,33, 0,17,51,42,54		4, 5,53,57, 9	
		44,47,43,34,29, 9,21		
60″	56, 3,30,34,20,43,52,20,52,15			
exact	56, 3,30,34,20,43,52,21,17, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69° 7′ 0″	56, 3,30,34,20,43,52,21,17, 0			
		44,47,39,28,35,11,45		
2″	56, 3,31,19, 8,23,20,56,28,45		4, 5,54, 3,30	
		44,47,35,22,41, 8,15		3,16
4″	56, 3,32, 3,55,58,43,37,37, 0		4, 5,54, 6,46	
		44,47,31,16,47, 1,29		3,16
6″	56, 3,32,48,43,30, 0,24,38,29		4, 5,54,10, 2	
		44,47,27,10,52,51,27		3,16
8″	56, 3,33,33,30,57,11,17,29,56		4, 5,54,13,18	
		44,47,23, 4,58,38, 9		3,16
10″	56, 3,34,18,18,20,16,16, 8, 5		4, 5,54,16,34	
		44,47,18,59, 4,21,35		3,16
12″	56, 3,35, 3, 5,39,15,20,29,40		4, 5,54,19,50	
		44,47,14,53,10, 1,45		3,16
14″	56, 3,35,47,52,54, 8,30,31,25		4, 5,54,23, 6	
		44,47,10,47,15,38,39		3,16
16″	56, 3,36,32,40, 4,55,46,10, 4		4, 5,54,26,22	
		44,47, 6,41,21,12,17		3,16
18″	56, 3,37,17,27,11,37, 7,22,21		4, 5,54,29,38	
		44,47, 2,35,26,42,39		3,16
20″	56, 3,38, 2,14,14,12,34, 5, 0		4, 5,54,32,54	
		44,46,58,29,32, 9,45		3,16
22″	56, 3,38,47, 1,12,42, 6,14,45		4, 5,54,36,10	
		44,46,54,23,37,33,35		3,16
24″	56, 3,39,31,48, 7, 5,43,48,20		4, 5,54,39,26	
		44,46,50,17,42,54, 9		3,16
26″	56, 3,40,16,34,57,23,26,42,29		4, 5,54,42,42	
		44,46,46,11,48,11,27		3,16
28″	56, 3,41, 1,21,43,35,14,53,56		4, 5,54,45,58	
		44,46,42, 5,53,25,29		3,16
30″	56, 3,41,46, 8,25,41, 8,19,25		4, 5,54,49,14	
		44,46,37,59,58,36,15		3,16
32″	56, 3,42,30,55, 3,41, 6,55,40		4, 5,54,52,30	
		44,46,33,54, 3,43,45		3,16
34″	56, 3,43,15,41,37,35,10,39,25		4, 5,54,55,46	
		44,46,29,48, 8,47,59		3,16
36″	56, 3,44, 0,28, 7,23,19,27,24		4, 5,54,59, 2	
		44,46,25,42,13,48,57		3,16
38″	56, 3,44,45,14,33, 5,33,16,21		4, 5,55, 2,18	
		44,46,21,36,18,46,39		3,16
40″	56, 3,45,30, 0,54,41,52, 3, 0		4, 5,55, 5,34	
		44,46,17,30,23,41, 5		3,16
42″	56, 3,46,14,47,12,12,15,44, 5		4, 5,55, 8,50	
		44,46,13,24,28,32,15		3,16
44″	56, 3,46,59,33,25,36,44,16,20		4, 5,55,12, 6	
		44,46, 9,18,33,20, 9		3,16
46″	56, 3,47,44,19,34,55,17,36,29		4, 5,55,15,22	
		44,46, 5,12,38, 4,47		3,16
48″	56, 3,48,29, 5,40, 7,55,41,16		4, 5,55,18,38	
		44,46, 1, 6,42,46, 9		3,16
50″	56, 3,49,13,51,41,14,38,27,25		4, 5,55,21,54	
		44,45,57, 0,47,24,15		3,16
52″	56, 3,49,58,37,38,15,25,51,40		4, 5,55,25,10	
		44,45,52,54,51,59, 5		3,16
54″	56, 3,50,43,23,31,10,17,50,45		4, 5,55,28,26	
		44,45,48,48,56,30,39		3,16
56″	56, 3,51,28, 9,19,59,14,21,24		4, 5,55,31,42	
		44,45,44,43, 0,58,57		3,16
58″	56, 3,52,12,55, 4,42,15,20,21		4, 5,55,34,58	
		44,45,40,37, 5,23,59		
60″	56, 3,52,57,40,45,19,20,44,20			
exact	56, 3,52,57,40,45,19,20,12,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69° 8′ 0″	56, 3,52,57,40,45,19,20,12,15			
		44,45,36,31, 9,42,28		
2″	56, 3,53,42,26,21,50,29,54,43		4, 5,55,41,43	
		44,45,32,25,14, 0,45		3,16
4″	56, 3,54,27,11,54,15,43,55,28		4, 5,55,44,59	
		44,45,28,19,18,15,46		3,16
6″	56, 3,55,11,57,22,35, 2,11,14		4, 5,55,48,15	
		44,45,24,13,22,27,31		3,16
8″	56, 3,55,56,42,46,48,24,38,45		4, 5,55,51,31	
		44,45,20, 7,26,36, 0		3,16
10″	56, 3,56,41,28, 6,55,51,14,45		4, 5,55,54,47	
		44,45,16, 1,30,41,13		3,16
12″	56, 3,57,26,13,22,57,21,55,58		4, 5,55,58, 3	
		44,45,11,55,34,43,10		3,16
14″	56, 3,58,10,58,34,52,56,39, 8		4, 5,56, 1,19	
		44,45, 7,49,38,41,51		3,16
16″	56, 3,58,55,43,42,42,35,20,59		4, 5,56, 4,35	
		44,45, 3,43,42,37,16		3,16
18″	56, 3,59,40,28,46,26,17,58,15		4, 5,56, 7,51	
		44,44,59,37,46,29,25		3,16
20″	56, 4, 0,25,13,46, 4, 4,27,40		4, 5,56,11, 7	
		44,44,55,31,50,18,18		3,16
22″	56, 4, 1, 9,58,41,35,54,45,58		4, 5,56,14,23	
		44,44,51,25,54, 3,55		3,16
24″	56, 4, 1,54,43,33, 1,48,49,53		4, 5,56,17,39	
		44,44,47,19,57,46,16		3,16
26″	56, 4, 2,39,28,20,21,46,36, 9		4, 5,56,20,55	
		44,44,43,14, 1,25,21		3,16
28″	56, 4, 3,24,13, 3,35,48, 1,30		4, 5,56,24,11	
		44,44,39, 8, 5, 1,10		3,16
30″	56, 4, 4, 8,57,42,43,53, 2,40		4, 5,56,27,27	
		44,44,35, 2, 8,33,43		3,16
32″	56, 4, 4,53,42,17,46, 1,36,23		4, 5,56,30,43	
		44,44,30,56,12, 3, 0		3,16
34″	56, 4, 5,38,26,48,42,13,39,23		4, 5,56,33,59	
		44,44,26,50,15,29, 1		3,16
36″	56, 4, 6,23,11,15,32,29, 8,24		4, 5,56,37,15	
		44,44,22,44,18,51,46		3,16
38″	56, 4, 7, 7,55,38,16,48, 0,10		4, 5,56,40,31	
		44,44,18,38,22,11,15		3,16
40″	56, 4, 7,52,39,56,55,10,11,25		4, 5,56,43,47	
		44,44,14,32,25,27,28		3,16
42″	56, 4, 8,37,24,11,27,35,38,53		4, 5,56,47, 3	
		44,44,10,26,28,40,25		3,16
44″	56, 4, 9,22, 8,21,54, 4,19,18		4, 5,56,50,19	
		44,44, 6,20,31,50, 6		3,16
46″	56, 4,10, 6,52,28,14,36, 9,24		4, 5,56,53,35	
		44,44, 2,14,34,56,31		3,16
48″	56, 4,10,51,36,30,29,11, 5,55		4, 5,56,56,51	
		44,43,58, 8,37,59,40		3,16
50″	56, 4,11,36,20,28,37,49, 5,35		4, 5,57, 0, 7	
		44,43,54, 2,40,59,33		3,16
52″	56, 4,12,21, 4,22,40,30, 5, 8		4, 5,57, 3,23	
		44,43,49,56,43,56,10		3,16
54″	56, 4,13, 5,48,12,37,14, 1,18		4, 5,57, 6,39	
		44,43,45,50,46,49,31		3,16
56″	56, 4,13,50,31,58,28, 0,50,49		4, 5,57, 9,55	
		44,43,41,44,49,39,36		3,16
58″	56, 4,14,35,15,40,12,50,30,25		4, 5,57,13,11	
		44,43,37,38,52,26,25		
60″	56, 4,15,19,59,17,51,42,56,50			
exact	56, 4,15,19,59,17,51,42,39,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69° 9′ 0″	56, 4,15,19,59,17,51,42,39,47			
		44,43,33,32,55, 8, 6		
2″	56, 4,16, 4,42,51,24,37,47,53		4, 5,57,19,50	
		44,43,29,26,57,48,16		3,16
4″	56, 4,16,49,26,20,51,35,36, 9		4, 5,57,23, 6	
		44,43,25,21, 0,25,10		3,16
6″	56, 4,17,34, 9,46,12,36, 1,19		4, 5,57,26,22	
		44,43,21,15, 2,58,48		3,16
8″	56, 4,18,18,53, 7,27,39, 0, 7		4, 5,57,29,38	
		44,43,17, 9, 5,29,10		3,16
10″	56, 4,19, 3,36,24,36,44,29,17		4, 5,57,32,54	
		44,43,13, 3, 7,56,16		3,16
12″	56, 4,19,48,19,37,39,52,25,33		4, 5,57,36,10	
		44,43, 8,57,10,20, 6		3,16
14″	56, 4,20,33, 2,46,37, 2,45,39		4, 5,57,39,26	
		44,43, 4,51,12,40,40		3,16
16″	56, 4,21,17,45,51,28,15,26,19		4, 5,57,42,42	
		44,43, 0,45,14,57,58		3,16
18″	56, 4,22, 2,28,52,13,30,24,17		4, 5,57,45,58	
		44,42,56,39,17,12, 0		3,16
20″	56, 4,22,47,11,48,52,47,36,17		4, 5,57,49,14	
		44,42,52,33,19,22,46		3,16
22″	56, 4,23,31,54,41,26, 6,59, 3		4, 5,57,52,30	
		44,42,48,27,21,30,16		3,16
24″	56, 4,24,16,37,29,53,28,29,19		4, 5,57,55,46	
		44,42,44,21,23,34,30		3,16
26″	56, 4,25, 1,20,14,14,52, 3,49		4, 5,57,59, 2	
		44,42,40,15,25,35,28		3,16
28″	56, 4,25,46, 2,54,30,17,39,17		4, 5,58, 2,18	
		44,42,36, 9,27,33,10		3,16
30″	56, 4,26,30,45,30,39,45,12,27		4, 5,58, 5,34	
		44,42,32, 3,29,27,36		3,16
32″	56, 4,27,15,28, 2,43,14,40, 3		4, 5,58, 8,50	
		44,42,27,57,31,18,46		3,16
34″	56, 4,28, 0,10,30,40,45,58,49		4, 5,58,12, 6	
		44,42,23,51,33, 6,40		3,16
36″	56, 4,28,44,52,54,32,19, 5,29		4, 5,58,15,22	
		44,42,19,45,34,51,18		3,16
38″	56, 4,29,29,35,14,17,53,56,47		4, 5,58,18,38	
		44,42,15,39,36,32,40		3,16
40″	56, 4,30,14,17,29,57,30,29,27		4, 5,58,21,54	
		44,42,11,33,38,10,46		3,16
42″	56, 4,30,58,59,41,31, 8,40,13		4, 5,58,25,10	
		44,42, 7,27,39,45,36		3,16
44″	56, 4,31,43,41,48,58,48,25,49		4, 5,58,28,26	
		44,42, 3,21,41,17,10		3,16
46″	56, 4,32,28,23,52,20,29,42,59		4, 5,58,31,42	
		44,41,59,15,42,45,28		3,16
48″	56, 4,33,13, 5,51,36,12,28,27		4, 5,58,34,58	
		44,41,55, 9,44,10,30		3,16
50″	56, 4,33,57,47,46,45,56,38,57		4, 5,58,38,14	
		44,41,51, 3,45,32,16		3,16
52″	56, 4,34,42,29,37,49,42,11,13		4, 5,58,41,30	
		44,41,46,57,46,50,46		3,16
54″	56, 4,35,27,11,24,47,29, 1,59		4, 5,58,44,46	
		44,41,42,51,48, 6, 0		3,16
56″	56, 4,36,11,53, 7,39,17, 7,59		4, 5,58,48, 2	
		44,41,38,45,49,17,58		3,16
58″	56, 4,36,56,34,46,25, 6,25,57		4, 5,58,51,18	
		44,41,34,39,50,26,40		
60″	56, 4,37,41,16,21, 4,56,52,37			
exact	56, 4,37,41,16,21, 4,56,39,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°10′ 0″	56, 4,37,41,16,21, 4,56,39,12			
		44,41,30,33,51,30,53		
2″	56, 4,38,25,57,51,38,48,10, 5		4, 5,58,57,54	
		44,41,26,27,52,32,59		3,16
4″	56, 4,39,10,39,18, 6,40,43, 4		4, 5,59, 1,10	
		44,41,22,21,53,31,49		3,16
6″	56, 4,39,55,20,40,28,34,14,53		4, 5,59, 4,26	
		44,41,18,15,54,27,23		3,16
8″	56, 4,40,40, 1,58,44,28,42,16		4, 5,59, 7,42	
		44,41,14, 9,55,19,41		3,16
10″	56, 4,41,24,43,12,54,24, 1,57		4, 5,59,10,58	
		44,41,10, 3,56, 8,43		3,16
12″	56, 4,42, 9,24,22,58,20,10,40		4, 5,59,14,14	
		44,41, 5,57,56,54,29		3,16
14″	56, 4,42,54, 5,28,56,17, 5, 9		4, 5,59,17,30	
		44,41, 1,51,57,36,59		3,16
16″	56, 4,43,38,46,30,48,14,42, 8		4, 5,59,20,46	
		44,40,57,45,58,16,13		3,16
18″	56, 4,44,23,27,28,34,12,58,21		4, 5,59,24, 2	
		44,40,53,39,58,52,11		3,16
20″	56, 4,45, 8, 8,22,14,11,50,32		4, 5,59,27,18	
		44,40,49,33,59,24,53		3,16
22″	56, 4,45,52,49,11,48,11,15,25		4, 5,59,30,34	
		44,40,45,27,59,54,19		3,16
24″	56, 4,46,37,29,57,16,11, 9,44		4, 5,59,33,50	
		44,40,41,22, 0,20,29		3,16
26″	56, 4,47,22,10,38,38,11,30,13		4, 5,59,37, 6	
		44,40,37,16, 0,43,23		3,16
28″	56, 4,48, 6,51,15,54,12,13,36		4, 5,59,40,22	
		44,40,33,10, 1, 3, 1		3,16
30″	56, 4,48,51,31,49, 4,13,16,37		4, 5,59,43,38	
		44,40,29, 4, 1,19,23		3,16
32″	56, 4,49,36,12,18, 8,14,36, 0		4, 5,59,46,54	
		44,40,24,58, 1,32,29		3,16
34″	56, 4,50,20,52,43, 6,16, 8,29		4, 5,59,50,10	
		44,40,20,52, 1,42,19		3,16
36″	56, 4,51, 5,33, 3,58,17,50,48		4, 5,59,53,26	
		44,40,16,46, 1,48,53		3,16
38″	56, 4,51,50,13,20,44,19,39,41		4, 5,59,56,42	
		44,40,12,40, 1,52,11		3,16
40″	56, 4,52,34,53,33,24,21,31,52		4, 5,59,59,58	
		44,40, 8,34, 1,52,13		3,16
42″	56, 4,53,19,33,41,58,23,24, 5		4, 6, 0, 3,14	
		44,40, 4,28, 1,48,59		3,16
44″	56, 4,54, 4,13,46,26,25,13, 4		4, 6, 0, 6,30	
		44,40, 0,22, 1,42,29		3,16
46″	56, 4,54,48,53,46,48,26,55,33		4, 6, 0, 9,46	
		44,39,56,16, 1,32,43		3,16
48″	56, 4,55,33,33,43, 4,28,28,16		4, 6, 0,13, 2	
		44,39,52,10, 1,19,41		3,16
50″	56, 4,56,18,13,35,14,29,47,57		4, 6, 0,16,18	
		44,39,48, 4, 1, 3,23		3,16
52″	56, 4,57, 2,53,23,18,30,51,20		4, 6, 0,19,34	
		44,39,43,58, 0,43,49		3,16
54″	56, 4,57,47,33, 7,16,31,35, 9		4, 6, 0,22,50	
		44,39,39,52, 0,20,59		3,16
56″	56, 4,58,32,12,47, 8,31,56, 8		4, 6, 0,26, 6	
		44,39,35,45,59,54,53		3,16
58″	56, 4,59,16,52,22,54,31,51, 1		4, 6, 0,29,22	
		44,39,31,39,59,25,31		
60″	56, 5, 0, 1,31,54,34,31,16,32			
exact	56, 5, 0, 1,31,54,34,31,17,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°11′ 0″	56, 5, 0, 1,31,54,34,31,17,33			
		44,39,27,33,58,53, 3		
2″	56, 5, 0,46,11,22, 8,30,10,36		4, 6, 0,35,53	
		44,39,23,27,58,17,10		3,16
4″	56, 5, 1,30,50,45,36,28,27,46		4, 6, 0,39, 9	
		44,39,19,21,57,38, 1		3,16
6″	56, 5, 2,15,30, 4,58,26, 5,47		4, 6, 0,42,25	
		44,39,15,15,56,55,36		3,16
8″	56, 5, 3, 0, 9,20,14,23, 1,23		4, 6, 0,45,41	
		44,39,11, 9,56, 9,55		3,16
10″	56, 5, 3,44,48,31,24,19,11,18		4, 6, 0,48,57	
		44,39, 7, 3,55,20,58		3,16
12″	56, 5, 4,29,27,38,28,14,32,16		4, 6, 0,52,13	
		44,39, 2,57,54,28,45		3,16
14″	56, 5, 5,14, 6,41,26, 9, 1, 1		4, 6, 0,55,29	
		44,38,58,51,53,33,16		3,16
16″	56, 5, 5,58,45,40,18, 2,34,17		4, 6, 0,58,45	
		44,38,54,45,52,34,31		3,16
18″	56, 5, 6,43,24,35, 3,55, 8,48		4, 6, 1, 2, 1	
		44,38,50,39,51,32,30		3,16
20″	56, 5, 7,28, 3,25,43,46,41,18		4, 6, 1, 5,17	
		44,38,46,33,50,27,13		3,16
22″	56, 5, 8,12,42,12,17,37, 8,31		4, 6, 1, 8,33	
		44,38,42,27,49,18,40		3,16
24″	56, 5, 8,57,20,54,45,26,27,11		4, 6, 1,11,49	
		44,38,38,21,48, 6,51		3,16
26″	56, 5, 9,41,59,33, 7,14,34, 2		4, 6, 1,15, 5	
		44,38,34,15,46,51,46		3,16
28″	56, 5,10,26,38, 7,23, 1,25,48		4, 6, 1,18,21	
		44,38,30, 9,45,33,25		3,16
30″	56, 5,11,11,16,37,32,46,59,13		4, 6, 1,21,37	
		44,38,26, 3,44,11,48		3,16
32″	56, 5,11,55,55, 3,36,31,11, 1		4, 6, 1,24,53	
		44,38,21,57,42,46,55		3,16
34″	56, 5,12,40,33,25,34,13,57,56		4, 6, 1,28, 9	
		44,38,17,51,41,18,46		3,16
36″	56, 5,13,25,11,43,25,55,16,42		4, 6, 1,31,25	
		44,38,13,45,39,47,21		3,16
38″	56, 5,14, 9,49,57,11,35, 4, 3		4, 6, 1,34,41	
		44,38, 9,39,38,12,40		3,16
40″	56, 5,14,54,28, 6,51,13,16,43		4, 6, 1,37,57	
		44,38, 5,33,36,34,43		3,16
42″	56, 5,15,39, 6,12,24,49,51,26		4, 6, 1,41,13	
		44,38, 1,27,34,53,30		3,16
44″	56, 5,16,23,44,13,52,24,44,56		4, 6, 1,44,29	
		44,37,57,21,33, 9, 1		3,16
46″	56, 5,17, 8,22,11,13,57,53,57		4, 6, 1,47,45	
		44,37,53,15,31,21,16		3,16
48″	56, 5,17,53, 0, 4,29,29,15,13		4, 6, 1,51, 1	
		44,37,49, 9,29,30,15		3,16
50″	56, 5,18,37,37,53,38,58,45,28		4, 6, 1,54,17	
		44,37,45, 3,27,35,58		3,16
52″	56, 5,19,22,15,38,42,26,21,26		4, 6, 1,57,33	
		44,37,40,57,25,38,25		3,16
54″	56, 5,20, 6,53,19,39,51,59,51		4, 6, 2, 0,49	
		44,37,36,51,23,37,36		3,16
56″	56, 5,20,51,30,56,31,15,37,27		4, 6, 2, 4, 5	
		44,37,32,45,21,33,31		3,16
58″	56, 5,21,36, 8,29,16,37,10,58		4, 6, 2, 7,21	
		44,37,28,39,19,26,10		
60″	56, 5,22,20,45,57,55,56,37, 8			
exact	56, 5,22,20,45,57,55,56,49,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°12′ 0″	56, 5,22,20,45,57,55,56,49,18			
		44,37,24,33,17,16,52		
2″	56, 5,23, 5,23,22,29,14, 6,10		4, 6, 2,13,47	
		44,37,20,27,15, 3, 5		3,16
4″	56, 5,23,50, 0,42,56,29, 9,15		4, 6, 2,17, 3	
		44,37,16,21,12,46, 2		3,16
6″	56, 5,24,34,37,59,17,41,55,17		4, 6, 2,20,19	
		44,37,12,15,10,25,43		3,16
8″	56, 5,25,19,15,11,32,52,21, 0		4, 6, 2,23,35	
		44,37, 8, 9, 8, 2, 8		3,16
10″	56, 5,26, 3,52,19,42, 0,23, 8		4, 6, 2,26,51	
		44,37, 4, 3, 5,35,17		3,16
12″	56, 5,26,48,29,23,45, 5,58,25		4, 6, 2,30, 7	
		44,36,59,57, 3, 5,10		3,16
14″	56, 5,27,33, 6,23,42, 9, 3,35		4, 6, 2,33,23	
		44,36,55,51, 0,31,47		3,16
16″	56, 5,28,17,43,19,33, 9,35,22		4, 6, 2,36,39	
		44,36,51,44,57,55, 8		3,16
18″	56, 5,29, 2,20,11,18, 7,30,30		4, 6, 2,39,55	
		44,36,47,38,55,15,13		3,16
20″	56, 5,29,46,56,58,57, 2,45,43		4, 6, 2,43,11	
		44,36,43,32,52,32, 2		3,16
22″	56, 5,30,31,33,42,29,55,17,45		4, 6, 2,46,27	
		44,36,39,26,49,45,35		3,16
24″	56, 5,31,16,10,21,56,45, 3,20		4, 6, 2,49,43	
		44,36,35,20,46,55,52		3,16
26″	56, 5,32, 0,46,57,17,31,59,12		4, 6, 2,52,59	
		44,36,31,14,44, 2,53		3,16
28″	56, 5,32,45,23,28,32,16, 2, 5		4, 6, 2,56,15	
		44,36,27, 8,41, 6,38		3,16
30″	56, 5,33,29,59,55,40,57, 8,43		4, 6, 2,59,31	
		44,36,23, 2,38, 7, 7		3,16
32″	56, 5,34,14,36,18,43,35,15,50		4, 6, 3, 2,47	
		44,36,18,56,35, 4,20		3,16
34″	56, 5,34,59,12,37,40,10,20,10		4, 6, 3, 6, 3	
		44,36,14,50,31,58,17		3,16
36″	56, 5,35,43,48,52,30,42,18,27		4, 6, 3, 9,19	
		44,36,10,44,28,48,58		3,16
38″	56, 5,36,28,25, 3,15,11, 7,25		4, 6, 3,12,35	
		44,36, 6,38,25,36,23		3,16
40″	56, 5,37,13, 1, 9,53,36,43,48		4, 6, 3,15,51	
		44,36, 2,32,22,20,32		3,16
42″	56, 5,37,57,37,12,25,59, 4,20		4, 6, 3,19, 7	
		44,35,58,26,19, 1,25		3,16
44″	56, 5,38,42,13,10,52,18, 5,45		4, 6, 3,22,23	
		44,35,54,20,15,39, 2		3,16
46″	56, 5,39,26,49, 5,12,33,44,47		4, 6, 3,25,39	
		44,35,50,14,12,13,23		3,16
48″	56, 5,40,11,24,55,26,45,58,10		4, 6, 3,28,55	
		44,35,46, 8, 8,44,28		3,16
50″	56, 5,40,56, 0,41,34,54,42,38		4, 6, 3,32,11	
		44,35,42, 2, 5,12,17		3,16
52″	56, 5,41,40,36,23,36,59,54,55		4, 6, 3,35,27	
		44,35,37,56, 1,36,50		3,16
54″	56, 5,42,25,12, 1,33, 1,31,45		4, 6, 3,38,43	
		44,35,33,49,57,58, 7		3,16
56″	56, 5,43, 9,47,35,22,59,29,52		4, 6, 3,41,59	
		44,35,29,43,54,16, 8		3,16
58″	56, 5,43,54,23, 5, 6,53,46, 0		4, 6, 3,45,15	
		44,35,25,37,50,30,53		
60″	56, 5,44,38,58,30,44,44,16,53			
exact	56, 5,44,38,58,30,44,44,36,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°13′ 0″	56, 5,44,38,58,30,44,44,36,22			
		44,35,21,31,46,44,34		
2″	56, 5,45,23,33,52,16,31,20,56		4, 6, 3,51,37	
		44,35,17,25,42,52,57		3,16
4″	56, 5,46, 8, 9, 9,42,14,13,53		4, 6, 3,54,53	
		44,35,13,19,38,58, 4		3,16
6″	56, 5,46,52,44,23, 1,53,11,57		4, 6, 3,58, 9	
		44,35, 9,13,34,59,55		3,16
8″	56, 5,47,37,19,32,15,28,11,52		4, 6, 4, 1,25	
		44,35, 5, 7,30,58,30		3,16
10″	56, 5,48,21,54,37,22,59,10,22		4, 6, 4, 4,41	
		44,35, 1, 1,26,53,49		3,16
12″	56, 5,49, 6,29,38,24,26, 4,11		4, 6, 4, 7,57	
		44,34,56,55,22,45,52		3,16
14″	56, 5,49,51, 4,35,19,48,50, 3		4, 6, 4,11,13	
		44,34,52,49,18,34,39		3,16
16″	56, 5,50,35,39,28, 9, 7,24,42		4, 6, 4,14,29	
		44,34,48,43,14,20,10		3,16
18″	56, 5,51,20,14,16,52,21,44,52		4, 6, 4,17,45	
		44,34,44,37,10, 2,25		3,16
20″	56, 5,52, 4,49, 1,29,31,47,17		4, 6, 4,21, 1	
		44,34,40,31, 5,41,24		3,16
22″	56, 5,52,49,23,42, 0,37,28,41		4, 6, 4,24,17	
		44,34,36,25, 1,17, 7		3,16
24″	56, 5,53,33,58,18,25,38,45,48		4, 6, 4,27,33	
		44,34,32,18,56,49,34		3,16
26″	56, 5,54,18,32,50,44,35,35,22		4, 6, 4,30,49	
		44,34,28,12,52,18,45		3,16
28″	56, 5,55, 3, 7,18,57,27,54, 7		4, 6, 4,34, 5	
		44,34,24, 6,47,44,40		3,16
30″	56, 5,55,47,41,43, 4,15,38,47		4, 6, 4,37,21	
		44,34,20, 0,43, 7,19		3,16
32″	56, 5,56,32,16, 3, 4,58,46, 6		4, 6, 4,40,37	
		44,34,15,54,38,26,42		3,16
34″	56, 5,57,16,50,18,59,37,12,48		4, 6, 4,43,53	
		44,34,11,48,33,42,49		3,16
36″	56, 5,58, 1,24,30,48,10,55,37		4, 6, 4,47, 9	
		44,34, 7,42,28,55,40		3,16
38″	56, 5,58,45,58,38,30,39,51,17		4, 6, 4,50,25	
		44,34, 3,36,24, 5,15		3,16
40″	56, 5,59,30,32,42, 7, 3,56,32		4, 6, 4,53,41	
		44,33,59,30,19,11,34		3,16
42″	56, 6, 0,15, 6,41,37,23, 8, 6		4, 6, 4,56,57	
		44,33,55,24,14,14,37		3,16
44″	56, 6, 0,59,40,37, 1,37,22,43		4, 6, 5, 0,13	
		44,33,51,18, 9,14,24		3,16
46″	56, 6, 1,44,14,28,19,46,37, 7		4, 6, 5, 3,29	
		44,33,47,12, 4,10,55		3,16
48″	56, 6, 2,28,48,15,31,50,48, 2		4, 6, 5, 6,45	
		44,33,43, 5,59, 4,10		3,16
50″	56, 6, 3,13,21,58,37,49,52,12		4, 6, 5,10, 1	
		44,33,38,59,53,54, 9		3,16
52″	56, 6, 3,57,55,37,37,43,46,21		4, 6, 5,13,17	
		44,33,34,53,48,40,52		3,16
54″	56, 6, 4,42,29,12,31,32,27,13		4, 6, 5,16,33	
		44,33,30,47,43,24,19		3,16
56″	56, 6, 5,27, 2,43,19,15,51,32		4, 6, 5,19,49	
		44,33,26,41,38, 4,30		3,16
58″	56, 6, 6,11,36,10, 0,53,56, 2		4, 6, 5,23, 5	
		44,33,22,35,32,41,25		
60″	56, 6, 6,56, 9,32,36,26,37,27			
exact	56, 6, 6,56, 9,32,36,27, 8, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°14′ 0″	56, 6, 6,56, 9,32,36,27, 8, 7			
		44,33,18,29,27,18,25		
2″	56, 6, 7,40,42,51, 5,54,26,32		4, 6, 5,29,22	
		44,33,14,23,21,49, 3		3,15
4″	56, 6, 8,25,16, 5,29,16,15,35		4, 6, 5,32,37	
		44,33,10,17,16,16,26		3,15
6″	56, 6, 9, 9,49,15,46,32,32, 1		4, 6, 5,35,52	
		44,33, 6,11,10,40,34		3,15
8″	56, 6, 9,54,22,21,57,43,12,35		4, 6, 5,39, 7	
		44,33, 2, 5, 5, 1,27		3,15
10″	56, 6,10,38,55,24, 2,48,14, 2		4, 6, 5,42,22	
		44,32,57,58,59,19, 5		3,15
12″	56, 6,11,23,28,22, 1,47,33, 7		4, 6, 5,45,37	
		44,32,53,52,53,33,28		3,15
14″	56, 6,12, 8, 1,15,54,41, 6,35		4, 6, 5,48,52	
		44,32,49,46,47,44,36		3,15
16″	56, 6,12,52,34, 5,41,28,51,11		4, 6, 5,52, 7	
		44,32,45,40,41,52,29		3,15
18″	56, 6,13,37, 6,51,22,10,43,40		4, 6, 5,55,22	
		44,32,41,34,35,57, 7		3,15
20″	56, 6,14,21,39,32,56,46,40,47		4, 6, 5,58,37	
		44,32,37,28,29,58,30		3,15
22″	56, 6,15, 6,12,10,25,16,39,17		4, 6, 6, 1,52	
		44,32,33,22,23,56,38		3,15
24″	56, 6,15,50,44,43,47,40,35,55		4, 6, 6, 5, 7	
		44,32,29,16,17,51,31		3,15
26″	56, 6,16,35,17,13, 3,58,27,26		4, 6, 6, 8,22	
		44,32,25,10,11,43, 9		3,15
28″	56, 6,17,19,49,38,14,10,10,35		4, 6, 6,11,37	
		44,32,21, 4, 5,31,32		3,15
30″	56, 6,18, 4,21,59,18,15,42, 7		4, 6, 6,14,52	
		44,32,16,57,59,16,40		3,15
32″	56, 6,18,48,54,16,16,14,58,47		4, 6, 6,18, 7	
		44,32,12,51,52,58,33		3,15
34″	56, 6,19,33,26,29, 8, 7,57,20		4, 6, 6,21,22	
		44,32, 8,45,46,37,11		3,15
36″	56, 6,20,17,58,37,53,54,34,31		4, 6, 6,24,37	
		44,32, 4,39,40,12,34		3,15
38″	56, 6,21, 2,30,42,33,34,47, 5		4, 6, 6,27,52	
		44,32, 0,33,33,44,42		3,15
40″	56, 6,21,47, 2,43, 7, 8,31,47		4, 6, 6,31, 7	
		44,31,56,27,27,13,35		3,15
42″	56, 6,22,31,34,39,34,35,45,22		4, 6, 6,34,22	
		44,31,52,21,20,39,13		3,15
44″	56, 6,23,16, 6,31,55,56,24,35		4, 6, 6,37,37	
		44,31,48,15,14, 1,36		3,15
46″	56, 6,24, 0,38,20,11,10,26,11		4, 6, 6,40,52	
		44,31,44, 9, 7,20,44		3,15
48″	56, 6,24,45,10, 4,20,17,46,55		4, 6, 6,44, 7	
		44,31,40, 3, 0,36,37		3,15
50″	56, 6,25,29,41,44,23,18,23,32		4, 6, 6,47,22	
		44,31,35,56,53,49,15		3,15
52″	56, 6,26,14,13,20,20,12,12,47		4, 6, 6,50,37	
		44,31,31,50,46,58,38		3,15
54″	56, 6,26,58,44,52,10,59,11,25		4, 6, 6,53,52	
		44,31,27,44,40, 4,46		3,15
56″	56, 6,27,43,16,19,55,39,16,11		4, 6, 6,57, 7	
		44,31,23,38,33, 7,39		3,15
58″	56, 6,28,27,47,43,34,12,23,50		4, 6, 7, 0,22	
		44,31,19,32,26, 7,17		
60″	56, 6,29,12,19, 3, 6,38,31, 7			
exact	56, 6,29,12,19, 3, 6,38, 1,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°15′ 0″	56, 6,29,12,19, 3, 6,38, 1,23			
		44,31,15,26,19, 0,40		
2″	56, 6,29,56,50,18,32,57, 2, 3		4, 6, 7, 7, 3	
		44,31,11,20,11,53,37		3,15
4″	56, 6,30,41,21,29,53, 8,55,40		4, 6, 7,10,18	
		44,31, 7,14, 4,43,19		3,15
6″	56, 6,31,25,52,37, 7,13,38,59		4, 6, 7,13,33	
		44,31, 3, 7,57,29,46		3,15
8″	56, 6,32,10,23,40,15,11, 8,45		4, 6, 7,16,48	
		44,30,59, 1,50,12,58		3,15
10″	56, 6,32,54,54,39,17, 1,21,43		4, 6, 7,20, 3	
		44,30,54,55,42,52,55		3,15
12″	56, 6,33,39,25,34,12,44,14,38		4, 6, 7,23,18	
		44,30,50,49,35,29,37		3,15
14″	56, 6,34,23,56,25, 2,19,44,15		4, 6, 7,26,33	
		44,30,46,43,28, 3, 4		3,15
16″	56, 6,35, 8,27,11,45,47,47,19		4, 6, 7,29,48	
		44,30,42,37,20,33,16		3,15
18″	56, 6,35,52,57,54,23, 8,20,35		4, 6, 7,33, 3	
		44,30,38,31,13, 0,13		3,15
20″	56, 6,36,37,28,32,54,21,20,48		4, 6, 7,36,18	
		44,30,34,25, 5,23,55		3,15
22″	56, 6,37,21,59, 7,19,26,44,43		4, 6, 7,39,33	
		44,30,30,18,57,44,22		3,15
24″	56, 6,38, 6,29,37,38,24,29, 5		4, 6, 7,42,48	
		44,30,26,12,50, 1,34		3,15
26″	56, 6,38,51, 0, 3,51,14,30,39		4, 6, 7,46, 3	
		44,30,22, 6,42,15,31		3,15
28″	56, 6,39,35,30,25,57,56,46,10		4, 6, 7,49,18	
		44,30,18, 0,34,26,13		3,15
30″	56, 6,40,20, 0,43,58,31,12,23		4, 6, 7,52,33	
		44,30,13,54,26,33,40		3,15
32″	56, 6,41, 4,30,57,52,57,46, 3		4, 6, 7,55,48	
		44,30, 9,48,18,37,52		3,15
34″	56, 6,41,49, 1, 7,41,16,23,55		4, 6, 7,59, 3	
		44,30, 5,42,10,38,49		3,15
36″	56, 6,42,33,31,13,23,27, 2,44		4, 6, 8, 2,18	
		44,30, 1,36, 2,36,31		3,15
38″	56, 6,43,18, 1,14,59,29,39,15		4, 6, 8, 5,33	
		44,29,57,29,54,30,58		3,15
40″	56, 6,44, 2,31,12,29,24,10,13		4, 6, 8, 8,48	
		44,29,53,23,46,22,10		3,15
42″	56, 6,44,47, 1, 5,53,10,32,23		4, 6, 8,12, 3	
		44,29,49,17,38,10, 7		3,15
44″	56, 6,45,31,30,55,10,48,42,30		4, 6, 8,15,18	
		44,29,45,11,29,54,49		3,15
46″	56, 6,46,16, 0,40,22,18,37,19		4, 6, 8,18,33	
		44,29,41, 5,21,36,16		3,15
48″	56, 6,47, 0,30,21,27,40,13,35		4, 6, 8,21,48	
		44,29,36,59,13,14,28		3,15
50″	56, 6,47,44,59,58,26,53,28, 3		4, 6, 8,25, 3	
		44,29,32,53, 4,49,25		3,15
52″	56, 6,48,29,29,31,19,58,17,28		4, 6, 8,28,18	
		44,29,28,46,56,21, 7		3,15
54″	56, 6,49,13,59, 0, 6,54,38,35		4, 6, 8,31,33	
		44,29,24,40,47,49,34		3,15
56″	56, 6,49,58,28,24,47,42,28, 9		4, 6, 8,34,48	
		44,29,20,34,39,14,46		3,15
58″	56, 6,50,42,57,45,22,21,42,55		4, 6, 8,38, 3	
		44,29,16,28,30,36,43		
60″	56, 6,51,27,27, 1,50,52,19,38			
exact	56, 6,51,27,27, 1,50,52, 0,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°16′ 0″	56, 6,51,27,27, 1,50,52, 0,27			
		44,29,12,22,21,53,32		
2″	56, 6,52,11,56,14,13,13,53,59		4, 6, 8,44,40	
		44,29, 8,16,13, 8,52		3,15
4″	56, 6,52,56,25,22,29,27, 2,51		4, 6, 8,47,55	
		44,29, 4,10, 4,20,57		3,15
6″	56, 6,53,40,54,26,39,31,23,48		4, 6, 8,51,10	
		44,29, 0, 3,55,29,47		3,15
8″	56, 6,54,25,23,26,43,26,53,35		4, 6, 8,54,25	
		44,28,55,57,46,35,22		3,15
10″	56, 6,55, 9,52,22,41,13,28,57		4, 6, 8,57,40	
		44,28,51,51,37,37,42		3,15
12″	56, 6,55,54,21,14,32,51, 6,39		4, 6, 9, 0,55	
		44,28,47,45,28,36,47		3,15
14″	56, 6,56,38,50, 2,18,19,43,26		4, 6, 9, 4,10	
		44,28,43,39,19,32,37		3,15
16″	56, 6,57,23,18,45,57,39,16, 3		4, 6, 9, 7,25	
		44,28,39,33,10,25,12		3,15
18″	56, 6,58, 7,47,25,30,49,41,15		4, 6, 9,10,40	
		44,28,35,27, 1,14,32		3,15
20″	56, 6,58,52,16, 0,57,50,55,47		4, 6, 9,13,55	
		44,28,31,20,52, 0,37		3,15
22″	56, 6,59,36,44,32,18,42,56,24		4, 6, 9,17,10	
		44,28,27,14,42,43,27		3,15
24″	56, 7, 0,21,12,59,33,25,39,51		4, 6, 9,20,25	
		44,28,23, 8,33,23, 2		3,15
26″	56, 7, 1, 5,41,22,41,59, 2,53		4, 6, 9,23,40	
		44,28,19, 2,23,59,22		3,15
28″	56, 7, 1,50, 9,41,44,23, 2,15		4, 6, 9,26,55	
		44,28,14,56,14,32,27		3,15
30″	56, 7, 2,34,37,56,40,37,34,42		4, 6, 9,30,10	
		44,28,10,50, 5, 2,17		3,15
32″	56, 7, 3,19, 6, 7,30,42,36,59		4, 6, 9,33,25	
		44,28, 6,43,55,28,52		3,15
34″	56, 7, 4, 3,34,14,14,38, 5,51		4, 6, 9,36,40	
		44,28, 2,37,45,52,12		3,15
36″	56, 7, 4,48, 2,16,52,23,58, 3		4, 6, 9,39,55	
		44,27,58,31,36,12,17		3,15
38″	56, 7, 5,32,30,15,24, 0,10,20		4, 6, 9,43,10	
		44,27,54,25,26,29, 7		3,15
40″	56, 7, 6,16,58, 9,49,26,39,27		4, 6, 9,46,25	
		44,27,50,19,16,42,42		3,15
42″	56, 7, 7, 1,26, 0, 8,43,22, 9		4, 6, 9,49,40	
		44,27,46,13, 6,53, 2		3,15
44″	56, 7, 7,45,53,46,21,50,15,11		4, 6, 9,52,55	
		44,27,42, 6,57, 0, 7		3,15
46″	56, 7, 8,30,21,28,28,47,15,18		4, 6, 9,56,10	
		44,27,38, 0,47, 3,57		3,15
48″	56, 7, 9,14,49, 6,29,34,19,15		4, 6, 9,59,25	
		44,27,33,54,37, 4,32		3,15
50″	56, 7, 9,59,16,40,24,11,23,47		4, 6,10, 2,40	
		44,27,29,48,27, 1,52		3,15
52″	56, 7,10,43,44,10,12,38,25,39		4, 6,10, 5,55	
		44,27,25,42,16,55,57		3,15
54″	56, 7,11,28,11,35,54,55,21,36		4, 6,10, 9,10	
		44,27,21,36, 6,46,47		3,15
56″	56, 7,12,12,38,57,31, 2, 8,23		4, 6,10,12,25	
		44,27,17,29,56,34,22		3,15
58″	56, 7,12,57, 6,15, 0,58,42,45		4, 6,10,15,40	
		44,27,13,23,46,18,42		
60″	56, 7,13,41,33,28,24,45, 1,27			
exact	56, 7,13,41,33,28,24,44,57, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°17′ 0″	56, 7,13,41,33,28,24,44,57, 7			
		44,27, 9,17,35,59,18		
2″	56, 7,14,26, 0,37,42,20,56,25		4, 6,10,22,12	
		44,27, 5,11,25,37, 6		3,15
4″	56, 7,15,10,27,42,53,46,33,31		4, 6,10,25,27	
		44,27, 1, 5,15,11,39		3,15
6″	56, 7,15,54,54,43,59, 1,45,10		4, 6,10,28,42	
		44,26,56,59, 4,42,57		3,15
8″	56, 7,16,39,21,40,58, 6,28, 7		4, 6,10,31,57	
		44,26,52,52,54,11, 0		3,15
10″	56, 7,17,23,48,33,51, 0,39, 7		4, 6,10,35,12	
		44,26,48,46,43,35,48		3,15
12″	56, 7,18, 8,15,22,37,44,14,55		4, 6,10,38,27	
		44,26,44,40,32,57,21		3,15
14″	56, 7,18,52,42, 7,18,17,12,16		4, 6,10,41,42	
		44,26,40,34,22,15,39		3,15
16″	56, 7,19,37, 8,47,52,39,27,55		4, 6,10,44,57	
		44,26,36,28,11,30,42		3,15
18″	56, 7,20,21,35,24,20,50,58,37		4, 6,10,48,12	
		44,26,32,22, 0,42,30		3,15
20″	56, 7,21, 6, 1,56,42,51,41, 7		4, 6,10,51,27	
		44,26,28,15,49,51, 3		3,15
22″	56, 7,21,50,28,24,58,41,32,10		4, 6,10,54,42	
		44,26,24, 9,38,56,21		3,15
24″	56, 7,22,34,54,49, 8,20,28,31		4, 6,10,57,57	
		44,26,20, 3,27,58,24		3,15
26″	56, 7,23,19,21, 9,11,48,26,55		4, 6,11, 1,12	
		44,26,15,57,16,57,12		3,15
28″	56, 7,24, 3,47,25, 9, 5,24, 7		4, 6,11, 4,27	
		44,26,11,51, 5,52,45		3,15
30″	56, 7,24,48,13,37, 0,11,16,52		4, 6,11, 7,42	
		44,26, 7,44,54,45, 3		3,15
32″	56, 7,25,32,39,44,45, 6, 1,55		4, 6,11,10,57	
		44,26, 3,38,43,34, 6		3,15
34″	56, 7,26,17, 5,48,23,49,36, 1		4, 6,11,14,12	
		44,25,59,32,32,19,54		3,15
36″	56, 7,27, 1,31,47,56,21,55,55		4, 6,11,17,27	
		44,25,55,26,21, 2,27		3,15
38″	56, 7,27,45,57,43,22,42,58,22		4, 6,11,20,42	
		44,25,51,20, 9,41,45		3,15
40″	56, 7,28,30,23,34,42,52,40, 7		4, 6,11,23,57	
		44,25,47,13,58,17,48		3,15
42″	56, 7,29,14,49,21,56,50,57,55		4, 6,11,27,12	
		44,25,43, 7,46,50,36		3,15
44″	56, 7,29,59,15, 5, 4,37,48,31		4, 6,11,30,27	
		44,25,39, 1,35,20, 9		3,15
46″	56, 7,30,43,40,44, 6,13, 8,40		4, 6,11,33,42	
		44,25,34,55,23,46,27		3,15
48″	56, 7,31,28, 6,19, 1,36,55, 7		4, 6,11,36,57	
		44,25,30,49,12, 9,30		3,15
50″	56, 7,32,12,31,49,50,49, 4,37		4, 6,11,40,12	
		44,25,26,43, 0,29,18		3,15
52″	56, 7,32,56,57,16,33,49,33,55		4, 6,11,43,27	
		44,25,22,36,48,45,51		3,15
54″	56, 7,33,41,22,39,10,38,19,46		4, 6,11,46,42	
		44,25,18,30,36,59, 9		3,15
56″	56, 7,34,25,47,57,41,15,18,55		4, 6,11,49,57	
		44,25,14,24,25, 9,12		3,15
58″	56, 7,35,10,13,12, 5,40,28, 7		4, 6,11,53,12	
		44,25,10,18,13,16, 0		
60″	56, 7,35,54,38,22,23,53,44, 7			
exact	56, 7,35,54,38,22,23,53,50,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°18′ 0″	56, 7,35,54,38,22,23,53,50,37			
		44,25, 6,12, 1,20,13		
2″	56, 7,36,39, 3,28,35,55,10,50		4, 6,11,59,39	
		44,25, 2, 5,49,20,34		3,15
4″	56, 7,37,23,28,30,41,44,31,24		4, 6,12, 2,54	
		44,24,57,59,37,17,40		3,15
6″	56, 7,38, 7,53,28,41,21,49, 4		4, 6,12, 6, 9	
		44,24,53,53,25,11,31		3,15
8″	56, 7,38,52,18,22,34,47, 0,35		4, 6,12, 9,24	
		44,24,49,47,13, 2, 7		3,15
10″	56, 7,39,36,43,12,22, 0, 2,42		4, 6,12,12,39	
		44,24,45,41, 0,49,28		3,15
12″	56, 7,40,21, 7,58, 3, 0,52,10		4, 6,12,15,54	
		44,24,41,34,48,33,34		3,15
14″	56, 7,41, 5,32,39,37,49,25,44		4, 6,12,19, 9	
		44,24,37,28,36,14,25		3,15
16″	56, 7,41,49,57,17, 6,25,40, 9		4, 6,12,22,24	
		44,24,33,22,23,52, 1		3,15
18″	56, 7,42,34,21,50,28,49,32,10		4, 6,12,25,39	
		44,24,29,16,11,26,22		3,15
20″	56, 7,43,18,46,19,45, 0,58,32		4, 6,12,28,54	
		44,24,25, 9,58,57,28		3,15
22″	56, 7,44, 3,10,44,54,59,56, 0		4, 6,12,32, 9	
		44,24,21, 3,46,25,19		3,15
24″	56, 7,44,47,35, 5,58,46,21,19		4, 6,12,35,24	
		44,24,16,57,33,49,55		3,15
26″	56, 7,45,31,59,22,56,20,11,14		4, 6,12,38,39	
		44,24,12,51,21,11,16		3,15
28″	56, 7,46,16,23,35,47,41,22,30		4, 6,12,41,54	
		44,24, 8,45, 8,29,22		3,15
30″	56, 7,47, 0,47,44,32,49,51,52		4, 6,12,45, 9	
		44,24, 4,38,55,44,13		3,15
32″	56, 7,47,45,11,49,11,45,36, 5		4, 6,12,48,24	
		44,24, 0,32,42,55,49		3,15
34″	56, 7,48,29,35,49,44,28,31,54		4, 6,12,51,39	
		44,23,56,26,30, 4,10		3,15
36″	56, 7,49,13,59,46,10,58,36, 4		4, 6,12,54,54	
		44,23,52,20,17, 9,16		3,15
38″	56, 7,49,58,23,38,31,15,45,20		4, 6,12,58, 9	
		44,23,48,14, 4,11, 7		3,15
40″	56, 7,50,42,47,26,45,19,56,27		4, 6,13, 1,24	
		44,23,44, 7,51, 9,43		3,15
42″	56, 7,51,27,11,10,53,11, 6,10		4, 6,13, 4,39	
		44,23,40, 1,38, 5, 4		3,15
44″	56, 7,52,11,34,50,54,49,11,14		4, 6,13, 7,54	
		44,23,35,55,24,57,10		3,15
46″	56, 7,52,55,58,26,50,14, 8,24		4, 6,13,11, 9	
		44,23,31,49,11,46, 1		3,15
48″	56, 7,53,40,21,58,39,25,54,25		4, 6,13,14,24	
		44,23,27,42,58,31,37		3,15
50″	56, 7,54,24,45,26,22,24,26, 2		4, 6,13,17,39	
		44,23,23,36,45,13,58		3,15
52″	56, 7,55, 9, 8,49,59, 9,40, 0		4, 6,13,20,54	
		44,23,19,30,31,53, 4		3,15
54″	56, 7,55,53,32, 9,29,41,33, 4		4, 6,13,24, 9	
		44,23,15,24,18,28,55		3,15
56″	56, 7,56,37,55,24,54, 0, 1,59		4, 6,13,27,24	
		44,23,11,18, 5, 1,31		3,15
58″	56, 7,57,22,18,36,12, 5, 3,30		4, 6,13,30,39	
		44,23, 7,11,51,30,52		
60″	56, 7,58, 6,41,43,23,56,34,22			
exact	56, 7,58, 6,41,43,23,56,47,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°19′ 0″	56, 7,58, 6,41,43,23,56,47,42			
		44,23, 3, 5,37,58,30		
2″	56, 7,58,51, 4,46,29,34,46,12		4, 6,13,37, 2	
		44,22,58,59,24,21,28		3,15
4″	56, 7,59,35,27,45,28,59, 7,40		4, 6,13,40,17	
		44,22,54,53,10,41,11		3,15
6″	56, 8, 0,19,50,40,22, 9,48,51		4, 6,13,43,32	
		44,22,50,46,56,57,39		3,15
8″	56, 8, 1, 4,13,31, 9, 6,46,30		4, 6,13,46,47	
		44,22,46,40,43,10,52		3,15
10″	56, 8, 1,48,36,17,49,49,57,22		4, 6,13,50, 2	
		44,22,42,34,29,20,50		3,15
12″	56, 8, 2,32,59, 0,24,19,18,12		4, 6,13,53,17	
		44,22,38,28,15,27,33		3,15
14″	56, 8, 3,17,21,38,52,34,45,45		4, 6,13,56,32	
		44,22,34,22, 1,31, 1		3,15
16″	56, 8, 4, 1,44,13,14,36,16,46		4, 6,13,59,47	
		44,22,30,15,47,31,14		3,15
18″	56, 8, 4,46, 6,43,30,23,48, 0		4, 6,14, 3, 2	
		44,22,26, 9,33,28,12		3,15
20″	56, 8, 5,30,29, 9,39,57,16,12		4, 6,14, 6,17	
		44,22,22, 3,19,21,55		3,15
22″	56, 8, 6,14,51,31,43,16,38, 7		4, 6,14, 9,32	
		44,22,17,57, 5,12,23		3,15
24″	56, 8, 6,59,13,49,40,21,50,30		4, 6,14,12,47	
		44,22,13,50,50,59,36		3,15
26″	56, 8, 7,43,36, 3,31,12,50, 6		4, 6,14,16, 2	
		44,22, 9,44,36,43,34		3,15
28″	56, 8, 8,27,58,13,15,49,33,40		4, 6,14,19,17	
		44,22, 5,38,22,24,17		3,15
30″	56, 8, 9,12,20,18,54,11,57,57		4, 6,14,22,32	
		44,22, 1,32, 8, 1,45		3,15
32″	56, 8, 9,56,42,20,26,19,59,42		4, 6,14,25,47	
		44,21,57,25,53,35,58		3,15
34″	56, 8,10,41, 4,17,52,13,35,40		4, 6,14,29, 2	
		44,21,53,19,39, 6,56		3,15
36″	56, 8,11,25,26,11,11,52,42,36		4, 6,14,32,17	
		44,21,49,13,24,34,39		3,15
38″	56, 8,12, 9,48, 0,25,17,17,15		4, 6,14,35,32	
		44,21,45, 7, 9,59, 7		3,15
40″	56, 8,12,54, 9,45,32,27,16,22		4, 6,14,38,47	
		44,21,41, 0,55,20,20		3,15
42″	56, 8,13,38,31,26,33,22,36,42		4, 6,14,42, 2	
		44,21,36,54,40,38,18		3,15
44″	56, 8,14,22,53, 3,28, 3,15, 0		4, 6,14,45,17	
		44,21,32,48,25,53, 1		3,15
46″	56, 8,15, 7,14,36,16,29, 8, 1		4, 6,14,48,32	
		44,21,28,42,11, 4,29		3,15
48″	56, 8,15,51,36, 4,58,40,12,30		4, 6,14,51,47	
		44,21,24,35,56,12,42		3,15
50″	56, 8,16,35,57,29,34,36,25,12		4, 6,14,55, 2	
		44,21,20,29,41,17,40		3,15
52″	56, 8,17,20,18,50, 4,17,42,52		4, 6,14,58,17	
		44,21,16,23,26,19,23		3,15
54″	56, 8,18, 4,40, 6,27,44, 2,15		4, 6,15, 1,32	
		44,21,12,17,11,17,51		3,15
56″	56, 8,18,49, 1,18,44,55,20, 6		4, 6,15, 4,47	
		44,21, 8,10,56,13, 4		3,15
58″	56, 8,19,33,22,26,55,51,33,10		4, 6,15, 8, 2	
		44,21, 4, 4,41, 5, 2		
60″	56, 8,20,17,43,31, 0,32,38,12			
exact	56, 8,20,17,43,31, 0,33, 2,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°20′ 0″	56, 8,20,17,43,31, 0,33, 2,37			
		44,20,59,58,25,56,26		
2″	56, 8,21, 2, 4,30,58,58,59, 3		4, 6,15,14,20	
		44,20,55,52,10,42, 6		3,15
4″	56, 8,21,46,25,26,51, 9,41, 9		4, 6,15,17,35	
		44,20,51,45,55,24,31		3,15
6″	56, 8,22,30,46,18,37, 5, 5,40		4, 6,15,20,50	
		44,20,47,39,40, 3,41		3,15
8″	56, 8,23,15, 7, 6,16,45, 9,21		4, 6,15,24, 5	
		44,20,43,33,24,39,36		3,15
10″	56, 8,23,59,27,49,50, 9,48,57		4, 6,15,27,20	
		44,20,39,27, 9,12,16		3,15
12″	56, 8,24,43,48,29,17,19, 1,13		4, 6,15,30,35	
		44,20,35,20,53,41,41		3,15
14″	56, 8,25,28, 9, 4,38,12,42,54		4, 6,15,33,50	
		44,20,31,14,38, 7,51		3,15
16″	56, 8,26,12,29,35,52,50,50,45		4, 6,15,37, 5	
		44,20,27, 8,22,30,46		3,15
18″	56, 8,26,56,50, 3, 1,13,21,31		4, 6,15,40,20	
		44,20,23, 2, 6,50,26		3,15
20″	56, 8,27,41,10,26, 3,20,11,57		4, 6,15,43,35	
		44,20,18,55,51, 6,51		3,15
22″	56, 8,28,25,30,44,59,11,18,48		4, 6,15,46,50	
		44,20,14,49,35,20, 1		3,15
24″	56, 8,29, 9,50,59,48,46,38,49		4, 6,15,50, 5	
		44,20,10,43,19,29,56		3,15
26″	56, 8,29,54,11,10,32, 6, 8,45		4, 6,15,53,20	
		44,20, 6,37, 3,36,36		3,15
28″	56, 8,30,38,31,17, 9, 9,45,21		4, 6,15,56,35	
		44,20, 2,30,47,40, 1		3,15
30″	56, 8,31,22,51,19,39,57,25,22		4, 6,15,59,50	
		44,19,58,24,31,40,11		3,15
32″	56, 8,32, 7,11,18, 4,29, 5,33		4, 6,16, 3, 5	
		44,19,54,18,15,37, 6		3,15
34″	56, 8,32,51,31,12,22,44,42,39		4, 6,16, 6,20	
		44,19,50,11,59,30,46		3,15
36″	56, 8,33,35,51, 2,34,44,13,25		4, 6,16, 9,35	
		44,19,46, 5,43,21,11		3,15
38″	56, 8,34,20,10,48,40,27,34,36		4, 6,16,12,50	
		44,19,41,59,27, 8,21		3,15
40″	56, 8,35, 4,30,30,39,54,42,57		4, 6,16,16, 5	
		44,19,37,53,10,52,16		3,15
42″	56, 8,35,48,50, 8,33, 5,35,13		4, 6,16,19,20	
		44,19,33,46,54,32,56		3,15
44″	56, 8,36,33, 9,42,20, 0, 8, 9		4, 6,16,22,35	
		44,19,29,40,38,10,21		3,15
46″	56, 8,37,17,29,12, 0,38,18,30		4, 6,16,25,50	
		44,19,25,34,21,44,31		3,15
48″	56, 8,38, 1,48,37,35, 0, 3, 1		4, 6,16,29, 5	
		44,19,21,28, 5,15,26		3,15
50″	56, 8,38,46, 7,59, 3, 5,18,27		4, 6,16,32,20	
		44,19,17,21,48,43, 6		3,15
52″	56, 8,39,30,27,16,24,54, 1,33		4, 6,16,35,35	
		44,19,13,15,32, 7,31		3,15
54″	56, 8,40,14,46,29,40,26, 9, 4		4, 6,16,38,50	
		44,19, 9, 9,15,28,41		3,15
56″	56, 8,40,59, 5,38,49,41,37,45		4, 6,16,42, 5	
		44,19, 5, 2,58,46,36		3,15
58″	56, 8,41,43,24,43,52,40,24,21		4, 6,16,45,20	
		44,19, 0,56,42, 1,16		
60″	56, 8,42,27,43,44,49,22,25,37			
exact	56, 8,42,27,43,44,49,22,57, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°21′ 0″	56, 8,42,27,43,44,49,22,57, 5			
		44,18,56,50,25,16,14		
2″	56, 8,43,12, 2,41,39,48,13,19		4, 6,16,51,34	
		44,18,52,44, 8,24,40		3,14
4″	56, 8,43,56,21,34,23,56,37,59		4, 6,16,54,48	
		44,18,48,37,51,29,52		3,14
6″	56, 8,44,40,40,23, 1,48, 7,51		4, 6,16,58, 2	
		44,18,44,31,34,31,50		3,14
8″	56, 8,45,24,59, 7,33,22,39,41		4, 6,17, 1,16	
		44,18,40,25,17,30,34		3,14
10″	56, 8,46, 9,17,47,58,40,10,15		4, 6,17, 4,30	
		44,18,36,19, 0,26, 4		3,14
12″	56, 8,46,53,36,24,17,40,36,19		4, 6,17, 7,44	
		44,18,32,12,43,18,20		3,14
14″	56, 8,47,37,54,56,30,23,54,39		4, 6,17,10,58	
		44,18,28, 6,26, 7,22		3,14
16″	56, 8,48,22,13,24,36,50, 2, 1		4, 6,17,14,12	
		44,18,24, 0, 8,53,10		3,14
18″	56, 8,49, 6,31,48,36,58,55,11		4, 6,17,17,26	
		44,18,19,53,51,35,44		3,14
20″	56, 8,49,50,50, 8,30,50,30,55		4, 6,17,20,40	
		44,18,15,47,34,15, 4		3,14
22″	56, 8,50,35, 8,24,18,24,45,59		4, 6,17,23,54	
		44,18,11,41,16,51,10		3,14
24″	56, 8,51,19,26,35,59,41,37, 9		4, 6,17,27, 8	
		44,18, 7,34,59,24, 2		3,14
26″	56, 8,52, 3,44,43,34,41, 1,11		4, 6,17,30,22	
		44,18, 3,28,41,53,40		3,14
28″	56, 8,52,48, 2,47, 3,22,54,51		4, 6,17,33,36	
		44,17,59,22,24,20, 4		3,14
30″	56, 8,53,32,20,46,25,47,14,55		4, 6,17,36,50	
		44,17,55,16, 6,43,14		3,14
32″	56, 8,54,16,38,41,41,53,58, 9		4, 6,17,40, 4	
		44,17,51, 9,49, 3,10		3,14
34″	56, 8,55, 0,56,32,51,43, 1,19		4, 6,17,43,18	
		44,17,47, 3,31,19,52		3,14
36″	56, 8,55,45,14,19,55,14,21,11		4, 6,17,46,32	
		44,17,42,57,13,33,20		3,14
38″	56, 8,56,29,32, 2,52,27,54,31		4, 6,17,49,46	
		44,17,38,50,55,43,34		3,14
40″	56, 8,57,13,49,41,43,23,38, 5		4, 6,17,53, 0	
		44,17,34,44,37,50,34		3,14
42″	56, 8,57,58, 7,16,28, 1,28,39		4, 6,17,56,14	
		44,17,30,38,19,54,20		3,14
44″	56, 8,58,42,24,47, 6,21,22,59		4, 6,17,59,28	
		44,17,26,32, 1,54,52		3,14
46″	56, 8,59,26,42,13,38,23,17,51		4, 6,18, 2,42	
		44,17,22,25,43,52,10		3,14
48″	56, 9, 0,10,59,36, 4, 7,10, 1		4, 6,18, 5,56	
		44,17,18,19,25,46,14		3,14
50″	56, 9, 0,55,16,54,23,32,56,15		4, 6,18, 9,10	
		44,17,14,13, 7,37, 4		3,14
52″	56, 9, 1,39,34, 8,36,40,33,19		4, 6,18,12,24	
		44,17,10, 6,49,24,40		3,14
54″	56, 9, 2,23,51,18,43,29,57,59		4, 6,18,15,38	
		44,17, 6, 0,31, 9, 2		3,14
56″	56, 9, 3, 8, 8,24,44, 1, 7, 1		4, 6,18,18,52	
		44,17, 1,54,12,50,10		3,14
58″	56, 9, 3,52,25,26,38,13,57,11		4, 6,18,22, 6	
		44,16,57,47,54,28, 4		
60″	56, 9, 4,36,42,24,26, 8,25,15			
exact	56, 9, 4,36,42,24,26, 8, 0,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°22′ 0″	56, 9, 4,36,42,24,26, 8, 0,22			
		44,16,53,41,36, 0,12		
2″	56, 9, 5,20,59,18, 7,44, 0,34		4, 6,18,28,44	
		44,16,49,35,17,31,28		3,14
4″	56, 9, 6, 5,16, 7,43, 1,32, 2		4, 6,18,31,58	
		44,16,45,28,58,59,30		3,14
6″	56, 9, 6,49,32,53,12, 0,31,32		4, 6,18,35,12	
		44,16,41,22,40,24,18		3,14
8″	56, 9, 7,33,49,34,34,40,55,50		4, 6,18,38,26	
		44,16,37,16,21,45,52		3,14
10″	56, 9, 8,18, 6,11,51, 2,41,42		4, 6,18,41,40	
		44,16,33,10, 3, 4,12		3,14
12″	56, 9, 9, 2,22,45, 1, 5,45,54		4, 6,18,44,54	
		44,16,29, 3,44,19,18		3,14
14″	56, 9, 9,46,39,14, 4,50, 5,12		4, 6,18,48, 8	
		44,16,24,57,25,31,10		3,14
16″	56, 9,10,30,55,39, 2,15,36,22		4, 6,18,51,22	
		44,16,20,51, 6,39,48		3,14
18″	56, 9,11,15,11,59,53,22,16,10		4, 6,18,54,36	
		44,16,16,44,47,45,12		3,14
20″	56, 9,11,59,28,16,38,10, 1,22		4, 6,18,57,50	
		44,16,12,38,28,47,22		3,14
22″	56, 9,12,43,44,29,16,38,48,44		4, 6,19, 1, 4	
		44,16, 8,32, 9,46,18		3,14
24″	56, 9,13,28, 0,37,48,48,35, 2		4, 6,19, 4,18	
		44,16, 4,25,50,42, 0		3,14
26″	56, 9,14,12,16,42,14,39,17, 2		4, 6,19, 7,32	
		44,16, 0,19,31,34,28		3,14
28″	56, 9,14,56,32,42,34,10,51,30		4, 6,19,10,46	
		44,15,56,13,12,23,42		3,14
30″	56, 9,15,40,48,38,47,23,15,12		4, 6,19,14, 0	
		44,15,52, 6,53, 9,42		3,14
32″	56, 9,16,25, 4,30,54,16,24,54		4, 6,19,17,14	
		44,15,48, 0,33,52,28		3,14
34″	56, 9,17, 9,20,18,54,50,17,22		4, 6,19,20,28	
		44,15,43,54,14,32, 0		3,14
36″	56, 9,17,53,36, 2,49, 4,49,22		4, 6,19,23,42	
		44,15,39,47,55, 8,18		3,14
38″	56, 9,18,37,51,42,36,59,57,40		4, 6,19,26,56	
		44,15,35,41,35,41,22		3,14
40″	56, 9,19,22, 7,18,18,35,39, 2		4, 6,19,30,10	
		44,15,31,35,16,11,12		3,14
42″	56, 9,20, 6,22,49,53,51,50,14		4, 6,19,33,24	
		44,15,27,28,56,37,48		3,14
44″	56, 9,20,50,38,17,22,48,28, 2		4, 6,19,36,38	
		44,15,23,22,37, 1,10		3,14
46″	56, 9,21,34,53,40,45,25,29,12		4, 6,19,39,52	
		44,15,19,16,17,21,18		3,14
48″	56, 9,22,19, 9, 0, 1,42,50,30		4, 6,19,43, 6	
		44,15,15, 9,57,38,12		3,14
50″	56, 9,23, 3,24,15,11,40,28,42		4, 6,19,46,20	
		44,15,11, 3,37,51,52		3,14
52″	56, 9,23,47,39,26,15,18,20,34		4, 6,19,49,34	
		44,15, 6,57,18, 2,18		3,14
54″	56, 9,24,31,54,33,12,36,22,52		4, 6,19,52,48	
		44,15, 2,50,58, 9,30		3,14
56″	56, 9,25,16, 9,36, 3,34,32,22		4, 6,19,56, 2	
		44,14,58,44,38,13,28		3,14
58″	56, 9,26, 0,24,34,48,12,45,50		4, 6,19,59,16	
		44,14,54,38,18,14,12		
60″	56, 9,26,44,39,29,26,31, 0, 2			
exact	56, 9,26,44,39,29,26,30,49,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°23′ 0″	56, 9,26,44,39,29,26,30,49,16			
		44,14,50,31,58,10,32		
2″	56, 9,27,28,54,19,58,28,59,48		4, 6,20, 5,48	
		44,14,46,25,38, 4,44		3,14
4″	56, 9,28,13, 9, 6,24, 7, 4,32		4, 6,20, 9, 2	
		44,14,42,19,17,55,42		3,14
6″	56, 9,28,57,23,48,43,25, 0,14		4, 6,20,12,16	
		44,14,38,12,57,43,26		3,14
8″	56, 9,29,41,38,26,56,22,43,40		4, 6,20,15,30	
		44,14,34, 6,37,27,56		3,14
10″	56, 9,30,25,53, 1, 3, 0,11,36		4, 6,20,18,44	
		44,14,30, 0,17, 9,12		3,14
12″	56, 9,31,10, 7,31, 3,17,20,48		4, 6,20,21,58	
		44,14,25,53,56,47,14		3,14
14″	56, 9,31,54,21,56,57,14, 8, 2		4, 6,20,25,12	
		44,14,21,47,36,22, 2		3,14
16″	56, 9,32,38,36,18,44,50,30, 4		4, 6,20,28,26	
		44,14,17,41,15,53,36		3,14
18″	56, 9,33,22,50,36,26, 6,23,40		4, 6,20,31,40	
		44,14,13,34,55,21,56		3,14
20″	56, 9,34, 7, 4,50, 1, 1,45,36		4, 6,20,34,54	
		44,14, 9,28,34,47, 2		3,14
22″	56, 9,34,51,18,59,29,36,32,38		4, 6,20,38, 8	
		44,14, 5,22,14, 8,54		3,14
24″	56, 9,35,35,33, 4,51,50,41,32		4, 6,20,41,22	
		44,14, 1,15,53,27,32		3,14
26″	56, 9,36,19,47, 6, 7,44, 9, 4		4, 6,20,44,36	
		44,13,57, 9,32,42,56		3,14
28″	56, 9,37, 4, 1, 3,17,16,52, 0		4, 6,20,47,50	
		44,13,53, 3,11,55, 6		3,14
30″	56, 9,37,48,14,56,20,28,47, 6		4, 6,20,51, 4	
		44,13,48,56,51, 4, 2		3,14
32″	56, 9,38,32,28,45,17,19,51, 8		4, 6,20,54,18	
		44,13,44,50,30, 9,44		3,14
34″	56, 9,39,16,42,30, 7,50, 0,52		4, 6,20,57,32	
		44,13,40,44, 9,12,12		3,14
36″	56, 9,40, 0,56,10,51,59,13, 4		4, 6,21, 0,46	
		44,13,36,37,48,11,26		3,14
38″	56, 9,40,45, 9,47,29,47,24,30		4, 6,21, 4, 0	
		44,13,32,31,27, 7,26		3,14
40″	56, 9,41,29,23,20, 1,14,31,56		4, 6,21, 7,14	
		44,13,28,25, 6, 0,12		3,14
42″	56, 9,42,13,36,48,26,20,32, 8		4, 6,21,10,28	
		44,13,24,18,44,49,44		3,14
44″	56, 9,42,57,50,12,45, 5,21,52		4, 6,21,13,42	
		44,13,20,12,23,36, 2		3,14
46″	56, 9,43,42, 3,32,57,28,57,54		4, 6,21,16,56	
		44,13,16, 6, 2,19, 6		3,14
48″	56, 9,44,26,16,49, 3,31,17, 0		4, 6,21,20,10	
		44,13,11,59,40,58,56		3,14
50″	56, 9,45,10,30, 1, 3,12,15,56		4, 6,21,23,24	
		44,13, 7,53,19,35,32		3,14
52″	56, 9,45,54,43, 8,56,31,51,28		4, 6,21,26,38	
		44,13, 3,46,58, 8,54		3,14
54″	56, 9,46,38,56,12,43,30, 0,22		4, 6,21,29,52	
		44,12,59,40,36,39, 2		3,14
56″	56, 9,47,23, 9,12,24, 6,39,24		4, 6,21,33, 6	
		44,12,55,34,15, 5,56		3,14
58″	56, 9,48, 7,22, 7,58,21,45,20		4, 6,21,36,20	
		44,12,51,27,53,29,36		
60″	56, 9,48,51,34,59,26,15,14,56			
exact	56, 9,48,51,34,59,26,15, 8, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°24′ 0″	56, 9,48,51,34,59,26,15, 8, 3			
		44,12,47,21,31,49,31		
2″	56, 9,49,35,47,46,47,46,57,34		4, 6,21,42,49	
		44,12,43,15,10, 6,42		3,14
4″	56, 9,50,20, 0,30, 2,57, 4,16		4, 6,21,46, 3	
		44,12,39, 8,48,20,39		3,14
6″	56, 9,51, 4,13, 9,11,45,24,55		4, 6,21,49,17	
		44,12,35, 2,26,31,22		3,14
8″	56, 9,51,48,25,44,14,11,56,17		4, 6,21,52,31	
		44,12,30,56, 4,38,51		3,14
10″	56, 9,52,32,38,15,10,16,35, 8		4, 6,21,55,45	
		44,12,26,49,42,43, 6		3,14
12″	56, 9,53,16,50,41,59,59,18,14		4, 6,21,58,59	
		44,12,22,43,20,44, 7		3,14
14″	56, 9,54, 1, 3, 4,43,20, 2,21		4, 6,22, 2,13	
		44,12,18,36,58,41,54		3,14
16″	56, 9,54,45,15,23,20,18,44,15		4, 6,22, 5,27	
		44,12,14,30,36,36,27		3,14
18″	56, 9,55,29,27,37,50,55,20,42		4, 6,22, 8,41	
		44,12,10,24,14,27,46		3,14
20″	56, 9,56,13,39,48,15, 9,48,28		4, 6,22,11,55	
		44,12, 6,17,52,15,51		3,14
22″	56, 9,56,57,51,54,33, 2, 4,19		4, 6,22,15, 9	
		44,12, 2,11,30, 0,42		3,14
24″	56, 9,57,42, 3,56,44,32, 5, 1		4, 6,22,18,23	
		44,11,58, 5, 7,42,19		3,14
26″	56, 9,58,26,15,54,49,39,47,20		4, 6,22,21,37	
		44,11,53,58,45,20,42		3,14
28″	56, 9,59,10,27,48,48,25, 8, 2		4, 6,22,24,51	
		44,11,49,52,22,55,51		3,14
30″	56, 9,59,54,39,38,40,48, 3,53		4, 6,22,28, 5	
		44,11,45,46, 0,27,46		3,14
32″	56,10, 0,38,51,24,26,48,31,39		4, 6,22,31,19	
		44,11,41,39,37,56,27		3,14
34″	56,10, 1,23, 3, 6, 6,26,28, 6		4, 6,22,34,33	
		44,11,37,33,15,21,54		3,14
36″	56,10, 2, 7,14,43,39,41,50, 0		4, 6,22,37,47	
		44,11,33,26,52,44, 7		3,14
38″	56,10, 2,51,26,17, 6,34,34, 7		4, 6,22,41, 1	
		44,11,29,20,30, 3, 6		3,14
40″	56,10, 3,35,37,46,27, 4,37,13		4, 6,22,44,15	
		44,11,25,14, 7,18,51		3,14
42″	56,10, 4,19,49,11,41,11,56, 4		4, 6,22,47,29	
		44,11,21, 7,44,31,22		3,14
44″	56,10, 5, 4, 0,32,48,56,27,26		4, 6,22,50,43	
		44,11,17, 1,21,40,39		3,14
46″	56,10, 5,48,11,49,50,18, 8, 5		4, 6,22,53,57	
		44,11,12,54,58,46,42		3,14
48″	56,10, 6,32,23, 2,45,16,54,47		4, 6,22,57,11	
		44,11, 8,48,35,49,31		3,14
50″	56,10, 7,16,34,11,33,52,44,18		4, 6,23, 0,25	
		44,11, 4,42,12,49, 6		3,14
52″	56,10, 8, 0,45,16,16, 5,33,24		4, 6,23, 3,39	
		44,11, 0,35,49,45,27		3,14
54″	56,10, 8,44,56,16,51,55,18,51		4, 6,23, 6,53	
		44,10,56,29,26,38,34		3,14
56″	56,10, 9,29, 7,13,21,21,57,25		4, 6,23,10, 7	
		44,10,52,23, 3,28,27		3,14
58″	56,10,10,13,18, 5,44,25,25,52		4, 6,23,13,21	
		44,10,48,16,40,15, 6		
60″	56,10,10,57,28,54, 1, 5,40,58			
exact	56,10,10,57,28,54, 1, 5,48,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°25′ 0″	56,10,10,57,28,54, 1, 5,48,34			
		44,10,44,10,16,59,23		
2″	56,10,11,41,39,38,11,22,47,57		4, 6,23,19,45	
		44,10,40, 3,53,39,38		3,14
4″	56,10,12,25,50,18,15,16,27,35		4, 6,23,22,59	
		44,10,35,57,30,16,39		3,14
6″	56,10,13,10, 0,54,12,46,44,14		4, 6,23,26,13	
		44,10,31,51, 6,50,26		3,14
8″	56,10,13,54,11,26, 3,53,34,40		4, 6,23,29,27	
		44,10,27,44,43,20,59		3,14
10″	56,10,14,38,21,53,48,36,55,39		4, 6,23,32,41	
		44,10,23,38,19,48,18		3,14
12″	56,10,15,22,32,17,26,56,43,57		4, 6,23,35,55	
		44,10,19,31,56,12,23		3,14
14″	56,10,16, 6,42,36,58,52,56,20		4, 6,23,39, 9	
		44,10,15,25,32,33,14		3,14
16″	56,10,16,50,52,52,24,25,29,34		4, 6,23,42,23	
		44,10,11,19, 8,50,51		3,14
18″	56,10,17,35, 3, 3,43,34,20,25		4, 6,23,45,37	
		44,10, 7,12,45, 5,14		3,14
20″	56,10,18,19,13,10,56,19,25,39		4, 6,23,48,51	
		44,10, 3, 6,21,16,23		3,14
22″	56,10,19, 3,23,14, 2,40,42, 2		4, 6,23,52, 5	
		44, 9,58,59,57,24,18		3,14
24″	56,10,19,47,33,13, 2,38, 6,20		4, 6,23,55,19	
		44, 9,54,53,33,28,59		3,14
26″	56,10,20,31,43, 7,56,11,35,19		4, 6,23,58,33	
		44, 9,50,47, 9,30,26		3,14
28″	56,10,21,15,52,58,43,21, 5,45		4, 6,24, 1,47	
		44, 9,46,40,45,28,39		3,14
30″	56,10,22, 0, 2,45,24, 6,34,24		4, 6,24, 5, 1	
		44, 9,42,34,21,23,38		3,14
32″	56,10,22,44,12,27,58,27,58, 2		4, 6,24, 8,15	
		44, 9,38,27,57,15,23		3,14
34″	56,10,23,28,22, 6,26,25,13,25		4, 6,24,11,29	
		44, 9,34,21,33, 3,54		3,14
36″	56,10,24,12,31,40,47,58,17,19		4, 6,24,14,43	
		44, 9,30,15, 8,49,11		3,14
38″	56,10,24,56,41,11, 3, 7, 6,30		4, 6,24,17,57	
		44, 9,26, 8,44,31,14		3,14
40″	56,10,25,40,50,37,11,51,37,44		4, 6,24,21,11	
		44, 9,22, 2,20,10, 3		3,14
42″	56,10,26,24,59,59,14,11,47,47		4, 6,24,24,25	
		44, 9,17,55,55,45,38		3,14
44″	56,10,27, 9, 9,17,10, 7,33,25		4, 6,24,27,39	
		44, 9,13,49,31,17,59		3,14
46″	56,10,27,53,18,30,59,38,51,24		4, 6,24,30,53	
		44, 9, 9,43, 6,47, 6		3,14
48″	56,10,28,37,27,40,42,45,38,30		4, 6,24,34, 7	
		44, 9, 5,36,42,12,59		3,14
50″	56,10,29,21,36,46,19,27,51,29		4, 6,24,37,21	
		44, 9, 1,30,17,35,38		3,14
52″	56,10,30, 5,45,47,49,45,27, 7		4, 6,24,40,35	
		44, 8,57,23,52,55, 3		3,14
54″	56,10,30,49,54,45,13,38,22,10		4, 6,24,43,49	
		44, 8,53,17,28,11,14		3,14
56″	56,10,31,34, 3,38,31, 6,33,24		4, 6,24,47, 3	
		44, 8,49,11, 3,24,11		3,14
58″	56,10,32,18,12,27,42, 9,57,35		4, 6,24,50,17	
		44, 8,45, 4,38,33,54		
60″	56,10,33, 2,21,12,46,48,31,29			
exact	56,10,33, 2,21,12,46,48,50,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°26′ 0″	56,10,33, 2,21,12,46,48,50,11			
		44, 8,40,58,13,42,24		
2″	56,10,33,46,29,53,45, 2,32,35		4, 6,24,56,36	
		44, 8,36,51,48,45,48		3,14
4″	56,10,34,30,38,30,36,51,18,23		4, 6,24,59,50	
		44, 8,32,45,23,45,58		3,14
6″	56,10,35,14,47, 3,22,15, 4,21		4, 6,25, 3, 4	
		44, 8,28,38,58,42,54		3,14
8″	56,10,35,58,55,32, 1,13,47,15		4, 6,25, 6,18	
		44, 8,24,32,33,36,36		3,14
10″	56,10,36,43, 3,56,33,47,23,51		4, 6,25, 9,32	
		44, 8,20,26, 8,27, 4		3,14
12″	56,10,37,27,12,16,59,55,50,55		4, 6,25,12,46	
		44, 8,16,19,43,14,18		3,14
14″	56,10,38,11,20,33,19,39, 5,13		4, 6,25,16, 0	
		44, 8,12,13,17,58,18		3,14
16″	56,10,38,55,28,45,32,57, 3,31		4, 6,25,19,14	
		44, 8, 8, 6,52,39, 4		3,14
18″	56,10,39,39,36,53,39,49,42,35		4, 6,25,22,28	
		44, 8, 4, 0,27,16,36		3,14
20″	56,10,40,23,44,57,40,16,59,11		4, 6,25,25,42	
		44, 7,59,54, 1,50,54		3,14
22″	56,10,41, 7,52,57,34,18,50, 5		4, 6,25,28,56	
		44, 7,55,47,36,21,58		3,14
24″	56,10,41,52, 0,53,21,55,12, 3		4, 6,25,32,10	
		44, 7,51,41,10,49,48		3,14
26″	56,10,42,36, 8,45, 3, 6, 1,51		4, 6,25,35,24	
		44, 7,47,34,45,14,24		3,14
28″	56,10,43,20,16,32,37,51,16,15		4, 6,25,38,38	
		44, 7,43,28,19,35,46		3,14
30″	56,10,44, 4,24,16, 6,10,52, 1		4, 6,25,41,52	
		44, 7,39,21,53,53,54		3,14
32″	56,10,44,48,31,55,28, 4,45,55		4, 6,25,45, 6	
		44, 7,35,15,28, 8,48		3,14
34″	56,10,45,32,39,30,43,32,54,43		4, 6,25,48,20	
		44, 7,31, 9, 2,20,28		3,14
36″	56,10,46,16,47, 1,52,35,15,11		4, 6,25,51,34	
		44, 7,27, 2,36,28,54		3,14
38″	56,10,47, 0,54,28,55,11,44, 5		4, 6,25,54,48	
		44, 7,22,56,10,34, 6		3,14
40″	56,10,47,45, 1,51,51,22,18,11		4, 6,25,58, 2	
		44, 7,18,49,44,36, 4		3,14
42″	56,10,48,29, 9,10,41, 6,54,15		4, 6,26, 1,16	
		44, 7,14,43,18,34,48		3,14
44″	56,10,49,13,16,25,24,25,29, 3		4, 6,26, 4,30	
		44, 7,10,36,52,30,18		3,14
46″	56,10,49,57,23,36, 1,17,59,21		4, 6,26, 7,44	
		44, 7, 6,30,26,22,34		3,14
48″	56,10,50,41,30,42,31,44,21,55		4, 6,26,10,58	
		44, 7, 2,24, 0,11,36		3,14
50″	56,10,51,25,37,44,55,44,33,31		4, 6,26,14,12	
		44, 6,58,17,33,57,24		3,14
52″	56,10,52, 9,44,43,13,18,30,55		4, 6,26,17,26	
		44, 6,54,11, 7,39,58		3,14
54″	56,10,52,53,51,37,24,26,10,53		4, 6,26,20,40	
		44, 6,50, 4,41,19,18		3,14
56″	56,10,53,37,58,27,29, 7,30,11		4, 6,26,23,54	
		44, 6,45,58,14,55,24		3,14
58″	56,10,54,22, 5,13,27,22,25,35		4, 6,26,27, 8	
		44, 6,41,51,48,28,16		
60″	56,10,55, 6,11,55,19,10,53,51			
exact	56,10,55, 6,11,55,19,11,19,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°27′ 0″	56,10,55, 6,11,55,19,11,19,51			
		44, 6,37,45,22, 0,49		
2″	56,10,55,50,18,33, 4,33,20,40		4, 6,26,33,23	
		44, 6,33,38,55,27,26		3,13
4″	56,10,56,34,25, 6,43,28,48, 6		4, 6,26,36,36	
		44, 6,29,32,28,50,50		3,13
6″	56,10,57,18,31,36,15,57,38,56		4, 6,26,39,49	
		44, 6,25,26, 2,11, 1		3,13
8″	56,10,58, 2,38, 1,41,59,49,57		4, 6,26,43, 2	
		44, 6,21,19,35,27,59		3,13
10″	56,10,58,46,44,23, 1,35,17,56		4, 6,26,46,15	
		44, 6,17,13, 8,41,44		3,13
12″	56,10,59,30,50,40,14,43,59,40		4, 6,26,49,28	
		44, 6,13, 6,41,52,16		3,13
14″	56,11, 0,14,56,53,21,25,51,56		4, 6,26,52,41	
		44, 6, 9, 0,14,59,35		3,13
16″	56,11, 0,59, 3, 2,21,40,51,31		4, 6,26,55,54	
		44, 6, 4,53,48, 3,41		3,13
18″	56,11, 1,43, 9, 7,15,28,55,12		4, 6,26,59, 7	
		44, 6, 0,47,21, 4,34		3,13
20″	56,11, 2,27,15, 8, 2,49,59,46		4, 6,27, 2,20	
		44, 5,56,40,54, 2,14		3,13
22″	56,11, 3,11,21, 4,43,44, 2, 0		4, 6,27, 5,33	
		44, 5,52,34,26,56,41		3,13
24″	56,11, 3,55,26,57,18,10,58,41		4, 6,27, 8,46	
		44, 5,48,27,59,47,55		3,13
26″	56,11, 4,39,32,45,46,10,46,36		4, 6,27,11,59	
		44, 5,44,21,32,35,56		3,13
28″	56,11, 5,23,38,30, 7,43,22,32		4, 6,27,15,12	
		44, 5,40,15, 5,20,44		3,13
30″	56,11, 6, 7,44,10,22,48,43,16		4, 6,27,18,25	
		44, 5,36, 8,38, 2,19		3,13
32″	56,11, 6,51,49,46,31,26,45,35		4, 6,27,21,38	
		44, 5,32, 2,10,40,41		3,13
34″	56,11, 7,35,55,18,33,37,26,16		4, 6,27,24,51	
		44, 5,27,55,43,15,50		3,13
36″	56,11, 8,20, 0,46,29,20,42, 6		4, 6,27,28, 4	
		44, 5,23,49,15,47,46		3,13
38″	56,11, 9, 4, 6,10,18,36,29,52		4, 6,27,31,17	
		44, 5,19,42,48,16,29		3,13
40″	56,11, 9,48,11,30, 1,24,46,21		4, 6,27,34,30	
		44, 5,15,36,20,41,59		3,13
42″	56,11,10,32,16,45,37,45,28,20		4, 6,27,37,43	
		44, 5,11,29,53, 4,16		3,13
44″	56,11,11,16,21,57, 7,38,32,36		4, 6,27,40,56	
		44, 5, 7,23,25,23,20		3,13
46″	56,11,12, 0,27, 4,31, 3,55,56		4, 6,27,44, 9	
		44, 5, 3,16,57,39,11		3,13
48″	56,11,12,44,32, 7,48, 1,35, 7		4, 6,27,47,22	
		44, 4,59,10,29,51,49		3,13
50″	56,11,13,28,37, 6,58,31,26,56		4, 6,27,50,35	
		44, 4,55, 4, 2, 1,14		3,13
52″	56,11,14,12,42, 2, 2,33,28,10		4, 6,27,53,48	
		44, 4,50,57,34, 7,26		3,13
54″	56,11,14,56,46,53, 0, 7,35,36		4, 6,27,57, 1	
		44, 4,46,51, 6,10,25		3,13
56″	56,11,15,40,51,39,51,13,46, 1		4, 6,28, 0,14	
		44, 4,42,44,38,10,11		3,13
58″	56,11,16,24,56,22,35,51,56,12		4, 6,28, 3,27	
		44, 4,38,38,10, 6,44		
60″	56,11,17, 9, 1, 1,14, 2, 2,56			
exact	56,11,17, 9, 1, 1,14, 1,32, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°28′ 0″	56,11,17, 9, 1, 1,14, 1,32, 1			
		44, 4,34,31,41,56,52		
2″	56,11,17,53, 5,35,45,43,28,53		4, 6,28,10, 5	
		44, 4,30,25,13,46,47		3,13
4″	56,11,18,37,10, 6,10,57,15,40		4, 6,28,13,18	
		44, 4,26,18,45,33,29		3,13
6″	56,11,19,21,14,32,29,42,49, 9		4, 6,28,16,31	
		44, 4,22,12,17,16,58		3,13
8″	56,11,20, 5,18,54,42, 0, 6, 7		4, 6,28,19,44	
		44, 4,18, 5,48,57,14		3,13
10″	56,11,20,49,23,12,47,49, 3,21		4, 6,28,22,57	
		44, 4,13,59,20,34,17		3,13
12″	56,11,21,33,27,26,47, 9,37,38		4, 6,28,26,10	
		44, 4, 9,52,52, 8, 7		3,13
14″	56,11,22,17,31,36,40, 1,45,45		4, 6,28,29,23	
		44, 4, 5,46,23,38,44		3,13
16″	56,11,23, 1,35,42,26,25,24,29		4, 6,28,32,36	
		44, 4, 1,39,55, 6, 8		3,13
18″	56,11,23,45,39,44, 6,20,30,37		4, 6,28,35,49	
		44, 3,57,33,26,30,19		3,13
20″	56,11,24,29,43,41,39,47, 0,56		4, 6,28,39, 2	
		44, 3,53,26,57,51,17		3,13
22″	56,11,25,13,47,35, 6,44,52,13		4, 6,28,42,15	
		44, 3,49,20,29, 9, 2		3,13
24″	56,11,25,57,51,24,27,14, 1,15		4, 6,28,45,28	
		44, 3,45,14, 0,23,34		3,13
26″	56,11,26,41,55, 9,41,14,24,49		4, 6,28,48,41	
		44, 3,41, 7,31,34,53		3,13
28″	56,11,27,25,58,50,48,45,59,42		4, 6,28,51,54	
		44, 3,37, 1, 2,42,59		3,13
30″	56,11,28,10, 2,27,49,48,42,41		4, 6,28,55, 7	
		44, 3,32,54,33,47,52		3,13
32″	56,11,28,54, 6, 0,44,22,30,33		4, 6,28,58,20	
		44, 3,28,48, 4,49,32		3,13
34″	56,11,29,38, 9,29,32,27,20, 5		4, 6,29, 1,33	
		44, 3,24,41,35,47,59		3,13
36″	56,11,30,22,12,54,14, 3, 8, 4		4, 6,29, 4,46	
		44, 3,20,35, 6,43,13		3,13
38″	56,11,31, 6,16,14,49, 9,51,17		4, 6,29, 7,59	
		44, 3,16,28,37,35,14		3,13
40″	56,11,31,50,19,31,17,47,26,31		4, 6,29,11,12	
		44, 3,12,22, 8,24, 2		3,13
42″	56,11,32,34,22,43,39,55,50,33		4, 6,29,14,25	
		44, 3, 8,15,39, 9,37		3,13
44″	56,11,33,18,25,51,55,35, 0,10		4, 6,29,17,38	
		44, 3, 4, 9, 9,51,59		3,13
46″	56,11,34, 2,28,56, 4,44,52, 9		4, 6,29,20,51	
		44, 3, 0, 2,40,31, 8		3,13
48″	56,11,34,46,31,56, 7,25,23,17		4, 6,29,24, 4	
		44, 2,55,56,11, 7, 4		3,13
50″	56,11,35,30,34,52, 3,36,30,21		4, 6,29,27,17	
		44, 2,51,49,41,39,47		3,13
52″	56,11,36,14,37,43,53,18,10, 8		4, 6,29,30,30	
		44, 2,47,43,12, 9,17		3,13
54″	56,11,36,58,40,31,36,30,19,25		4, 6,29,33,43	
		44, 2,43,36,42,35,34		3,13
56″	56,11,37,42,43,15,13,12,54,59		4, 6,29,36,56	
		44, 2,39,30,12,58,38		3,13
58″	56,11,38,26,45,54,43,25,53,37		4, 6,29,40, 9	
		44, 2,35,23,43,18,29		
60″	56,11,39,10,48,30, 7, 9,12, 6			
exact	56,11,39,10,48,30, 7, 8,48,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°29′ 0″	56,11,39,10,48,30, 7, 8,48,45			
		44, 2,31,17,13,32,49		
2″	56,11,39,54,51, 1,24,22,21,34		4, 6,29,46,43	
		44, 2,27,10,43,46, 6		3,13
4″	56,11,40,38,53,28,35, 6, 7,40		4, 6,29,49,56	
		44, 2,23, 4,13,56,10		3,13
6″	56,11,41,22,55,51,39,20, 3,50		4, 6,29,53, 9	
		44, 2,18,57,44, 3, 1		3,13
8″	56,11,42, 6,58,10,37, 4, 6,51		4, 6,29,56,22	
		44, 2,14,51,14, 6,39		3,13
10″	56,11,42,51, 0,25,28,18,13,30		4, 6,29,59,35	
		44, 2,10,44,44, 7, 4		3,13
12″	56,11,43,35, 2,36,13, 2,20,34		4, 6,30, 2,48	
		44, 2, 6,38,14, 4,16		3,13
14″	56,11,44,19, 4,42,51,16,24,50		4, 6,30, 6, 1	
		44, 2, 2,31,43,58,15		3,13
16″	56,11,45, 3, 6,45,23, 0,23, 5		4, 6,30, 9,14	
		44, 1,58,25,13,49, 1		3,13
18″	56,11,45,47, 8,43,48,14,12, 6		4, 6,30,12,27	
		44, 1,54,18,43,36,34		3,13
20″	56,11,46,31,10,38, 6,57,48,40		4, 6,30,15,40	
		44, 1,50,12,13,20,54		3,13
22″	56,11,47,15,12,28,19,11, 9,34		4, 6,30,18,53	
		44, 1,46, 5,43, 2, 1		3,13
24″	56,11,47,59,14,14,24,54,11,35		4, 6,30,22, 6	
		44, 1,41,59,12,39,55		3,13
26″	56,11,48,43,15,56,24, 6,51,30		4, 6,30,25,19	
		44, 1,37,52,42,14,36		3,13
28″	56,11,49,27,17,34,16,49, 6, 6		4, 6,30,28,32	
		44, 1,33,46,11,46, 4		3,13
30″	56,11,50,11,19, 8, 3, 0,52,10		4, 6,30,31,45	
		44, 1,29,39,41,14,19		3,13
32″	56,11,50,55,20,37,42,42, 6,29		4, 6,30,34,58	
		44, 1,25,33,10,39,21		3,13
34″	56,11,51,39,22, 3,15,52,45,50		4, 6,30,38,11	
		44, 1,21,26,40, 1,10		3,13
36″	56,11,52,23,23,24,42,32,47, 0		4, 6,30,41,24	
		44, 1,17,20, 9,19,46		3,13
38″	56,11,53, 7,24,42, 2,42, 6,46		4, 6,30,44,37	
		44, 1,13,13,38,35, 9		3,13
40″	56,11,53,51,25,55,16,20,41,55		4, 6,30,47,50	
		44, 1, 9, 7, 7,47,19		3,13
42″	56,11,54,35,27, 4,23,28,29,14		4, 6,30,51, 3	
		44, 1, 5, 0,36,56,16		3,13
44″	56,11,55,19,28, 9,24, 5,25,30		4, 6,30,54,16	
		44, 1, 0,54, 6, 2, 0		3,13
46″	56,11,56, 3,29,10,18,11,27,30		4, 6,30,57,29	
		44, 0,56,47,35, 4,31		3,13
48″	56,11,56,47,30, 7, 5,46,32, 1		4, 6,31, 0,42	
		44, 0,52,41, 4, 3,49		3,13
50″	56,11,57,31,30,59,46,50,35,50		4, 6,31, 3,55	
		44, 0,48,34,32,59,54		3,13
52″	56,11,58,15,31,48,21,23,35,44		4, 6,31, 7, 8	
		44, 0,44,28, 1,52,46		3,13
54″	56,11,58,59,32,32,49,25,28,30		4, 6,31,10,21	
		44, 0,40,21,30,42,25		3,13
56″	56,11,59,43,33,13,10,56,10,55		4, 6,31,13,34	
		44, 0,36,14,59,28,51		3,13
58″	56,12, 0,27,33,49,25,55,39,46		4, 6,31,16,47	
		44, 0,32, 8,28,12, 4		
60″	56,12, 1,11,34,21,34,23,51,50			
exact	56,12, 1,11,34,21,34,23,39,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°30′ 0″	56,12, 1,11,34,21,34,23,39,40			
		44, 0,28, 1,56,50,56		
2″	56,12, 1,55,34,49,36,20,30,36		4, 6,31,23,17	
		44, 0,23,55,25,27,39		3,13
4″	56,12, 2,39,35,13,31,45,58,15		4, 6,31,26,30	
		44, 0,19,48,54, 1, 9		3,13
6″	56,12, 3,23,35,33,20,39,59,24		4, 6,31,29,43	
		44, 0,15,42,22,31,26		3,13
8″	56,12, 4, 7,35,49, 3, 2,30,50		4, 6,31,32,56	
		44, 0,11,35,50,58,30		3,13
10″	56,12, 4,51,36, 0,38,53,29,20		4, 6,31,36, 9	
		44, 0, 7,29,19,22,21		3,13
12″	56,12, 5,35,36, 8, 8,12,51,41		4, 6,31,39,22	
		44, 0, 3,22,47,42,59		3,13
14″	56,12, 6,19,36,11,31, 0,34,40		4, 6,31,42,35	
		43,59,59,16,16, 0,24		3,13
16″	56,12, 7, 3,36,10,47,16,35, 4		4, 6,31,45,48	
		43,59,55, 9,44,14,36		3,13
18″	56,12, 7,47,36, 5,57, 0,49,40		4, 6,31,49, 1	
		43,59,51, 3,12,25,35		3,13
20″	56,12, 8,31,35,57, 0,13,15,15		4, 6,31,52,14	
		43,59,46,56,40,33,21		3,13
22″	56,12, 9,15,35,43,56,53,48,36		4, 6,31,55,27	
		43,59,42,50, 8,37,54		3,13
24″	56,12, 9,59,35,26,47, 2,26,30		4, 6,31,58,40	
		43,59,38,43,36,39,14		3,13
26″	56,12,10,43,35, 5,30,39, 5,44		4, 6,32, 1,53	
		43,59,34,37, 4,37,21		3,13
28″	56,12,11,27,34,40, 7,43,43, 5		4, 6,32, 5, 6	
		43,59,30,30,32,32,15		3,13
30″	56,12,12,11,34,10,38,16,15,20		4, 6,32, 8,19	
		43,59,26,24, 0,23,56		3,13
32″	56,12,12,55,33,37, 2,16,39,16		4, 6,32,11,32	
		43,59,22,17,28,12,24		3,13
34″	56,12,13,39,32,59,19,44,51,40		4, 6,32,14,45	
		43,59,18,10,55,57,39		3,13
36″	56,12,14,23,32,17,30,40,49,19		4, 6,32,17,58	
		43,59,14, 4,23,39,41		3,13
38″	56,12,15, 7,31,31,35, 4,29, 0		4, 6,32,21,11	
		43,59, 9,57,51,18,30		3,13
40″	56,12,15,51,30,41,32,55,47,30		4, 6,32,24,24	
		43,59, 5,51,18,54, 6		3,13
42″	56,12,16,35,29,47,24,14,41,36		4, 6,32,27,37	
		43,59, 1,44,46,26,29		3,13
44″	56,12,17,19,28,49, 9, 1, 8, 5		4, 6,32,30,50	
		43,58,57,38,13,55,39		3,13
46″	56,12,18, 3,27,46,47,15, 3,44		4, 6,32,34, 3	
		43,58,53,31,41,21,36		3,13
48″	56,12,18,47,26,40,18,56,25,20		4, 6,32,37,16	
		43,58,49,25, 8,44,20		3,13
50″	56,12,19,31,25,29,44, 5, 9,40		4, 6,32,40,29	
		43,58,45,18,36, 3,51		3,13
52″	56,12,20,15,24,15, 2,41,13,31		4, 6,32,43,42	
		43,58,41,12, 3,20, 9		3,13
54″	56,12,20,59,22,56,14,44,33,40		4, 6,32,46,55	
		43,58,37, 5,30,33,14		3,13
56″	56,12,21,43,21,33,20,15, 6,54		4, 6,32,50, 8	
		43,58,32,58,57,43, 6		3,13
58″	56,12,22,27,20, 6,19,12,50, 0		4, 6,32,53,21	
		43,58,28,52,24,49,45		
60″	56,12,23,11,18,35,11,37,39,45			
exact	56,12,23,11,18,35,11,37,41,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°31′ 0″	56,12,23,11,18,35,11,37,41,57			
		43,58,24,45,51,53,26		
2″	56,12,23,55,16,59,57,29,35,23		4, 6,32,59,46	
		43,58,20,39,18,53,40		3,13
4″	56,12,24,39,15,20,36,48,29, 3		4, 6,33, 2,59	
		43,58,16,32,45,50,41		3,13
6″	56,12,25,23,13,37, 9,34,19,44		4, 6,33, 6,12	
		43,58,12,26,12,44,29		3,13
8″	56,12,26, 7,11,49,35,47, 4,13		4, 6,33, 9,25	
		43,58, 8,19,39,35, 4		3,13
10″	56,12,26,51, 9,57,55,26,39,17		4, 6,33,12,38	
		43,58, 4,13, 6,22,26		3,13
12″	56,12,27,35, 8, 2, 8,33, 1,43		4, 6,33,15,51	
		43,58, 0, 6,33, 6,35		3,13
14″	56,12,28,19, 6, 2,15, 6, 8,18		4, 6,33,19, 4	
		43,57,55,59,59,47,31		3,13
16″	56,12,29, 3, 3,58,15, 5,55,49		4, 6,33,22,17	
		43,57,51,53,26,25,14		3,13
18″	56,12,29,47, 1,50, 8,32,21, 3		4, 6,33,25,30	
		43,57,47,46,52,59,44		3,13
20″	56,12,30,30,59,37,55,25,20,47		4, 6,33,28,43	
		43,57,43,40,19,31, 1		3,13
22″	56,12,31,14,57,21,35,44,51,48		4, 6,33,31,56	
		43,57,39,33,45,59, 5		3,13
24″	56,12,31,58,55, 1, 9,30,50,53		4, 6,33,35, 9	
		43,57,35,27,12,23,56		3,13
26″	56,12,32,42,52,36,36,43,14,49		4, 6,33,38,22	
		43,57,31,20,38,45,34		3,13
28″	56,12,33,26,50, 7,57,22, 0,23		4, 6,33,41,35	
		43,57,27,14, 5, 3,59		3,13
30″	56,12,34,10,47,35,11,27, 4,22		4, 6,33,44,48	
		43,57,23, 7,31,19,11		3,13
32″	56,12,34,54,44,58,18,58,23,33		4, 6,33,48, 1	
		43,57,19, 0,57,31,10		3,13
34″	56,12,35,38,42,17,19,55,54,43		4, 6,33,51,14	
		43,57,14,54,23,39,56		3,13
36″	56,12,36,22,39,32,14,19,34,39		4, 6,33,54,27	
		43,57,10,47,49,45,29		3,13
38″	56,12,37, 6,36,43, 2, 9,20, 8		4, 6,33,57,40	
		43,57, 6,41,15,47,49		3,13
40″	56,12,37,50,33,49,43,25, 7,57		4, 6,34, 0,53	
		43,57, 2,34,41,46,56		3,13
42″	56,12,38,34,30,52,18, 6,54,53		4, 6,34, 4, 6	
		43,56,58,28, 7,42,50		3,13
44″	56,12,39,18,27,50,46,14,37,43		4, 6,34, 7,19	
		43,56,54,21,33,35,31		3,13
46″	56,12,40, 2,24,45, 7,48,13,14		4, 6,34,10,32	
		43,56,50,14,59,24,59		3,13
48″	56,12,40,46,21,35,22,47,38,13		4, 6,34,13,45	
		43,56,46, 8,25,11,14		3,13
50″	56,12,41,30,18,21,31,12,49,27		4, 6,34,16,58	
		43,56,42, 1,50,54,16		3,13
52″	56,12,42,14,15, 3,33, 3,43,43		4, 6,34,20,11	
		43,56,37,55,16,34, 5		3,13
54″	56,12,42,58,11,41,28,20,17,48		4, 6,34,23,24	
		43,56,33,48,42,10,41		3,13
56″	56,12,43,42, 8,15,17, 2,28,29		4, 6,34,26,37	
		43,56,29,42, 7,44, 4		3,13
58″	56,12,44,26, 4,44,59,10,12,33		4, 6,34,29,50	
		43,56,25,35,33,14,14		
60″	56,12,45,10, 1,10,34,43,26,47			
exact	56,12,45,10, 1,10,34,43,40,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°32′ 0″	56,12,45,10, 1,10,34,43,40,22			
		43,56,21,28,58,42,36		
2″	56,12,45,53,57,32, 3,42,22,58		4, 6,34,36,10	
		43,56,17,22,24, 6,26		3,13
4″	56,12,46,37,53,49,26, 6,29,24		4, 6,34,39,23	
		43,56,13,15,49,27, 3		3,13
6″	56,12,47,21,50, 2,41,55,56,27		4, 6,34,42,36	
		43,56, 9, 9,14,44,27		3,13
8″	56,12,48, 5,46,11,51,10,40,54		4, 6,34,45,49	
		43,56, 5, 2,39,58,38		3,13
10″	56,12,48,49,42,16,53,50,39,32		4, 6,34,49, 2	
		43,56, 0,56, 5, 9,36		3,13
12″	56,12,49,33,38,17,49,55,49, 8		4, 6,34,52,15	
		43,55,56,49,30,17,21		3,13
14″	56,12,50,17,34,14,39,26, 6,29		4, 6,34,55,28	
		43,55,52,42,55,21,53		3,13
16″	56,12,51, 1,30, 7,22,21,28,22		4, 6,34,58,41	
		43,55,48,36,20,23,12		3,13
18″	56,12,51,45,25,55,58,41,51,34		4, 6,35, 1,54	
		43,55,44,29,45,21,18		3,13
20″	56,12,52,29,21,40,28,27,12,52		4, 6,35, 5, 7	
		43,55,40,23,10,16,11		3,13
22″	56,12,53,13,17,20,51,37,29, 3		4, 6,35, 8,20	
		43,55,36,16,35, 7,51		3,13
24″	56,12,53,57,12,57, 8,12,36,54		4, 6,35,11,33	
		43,55,32, 9,59,56,18		3,13
26″	56,12,54,41, 8,29,18,12,33,12		4, 6,35,14,46	
		43,55,28, 3,24,41,32		3,13
28″	56,12,55,25, 3,57,21,37,14,44		4, 6,35,17,59	
		43,55,23,56,49,23,33		3,13
30″	56,12,56, 8,59,21,18,26,38,17		4, 6,35,21,12	
		43,55,19,50,14, 2,21		3,13
32″	56,12,56,52,54,41, 8,40,40,38		4, 6,35,24,25	
		43,55,15,43,38,37,56		3,13
34″	56,12,57,36,49,56,52,19,18,34		4, 6,35,27,38	
		43,55,11,37, 3,10,18		3,13
36″	56,12,58,20,45, 8,29,22,28,52		4, 6,35,30,51	
		43,55, 7,30,27,39,27		3,13
38″	56,12,59, 4,40,15,59,50, 8,19		4, 6,35,34, 4	
		43,55, 3,23,52, 5,23		3,13
40″	56,12,59,48,35,19,23,42,13,42		4, 6,35,37,17	
		43,54,59,17,16,28, 6		3,13
42″	56,13, 0,32,30,18,40,58,41,48		4, 6,35,40,30	
		43,54,55,10,40,47,36		3,13
44″	56,13, 1,16,25,13,51,39,29,24		4, 6,35,43,43	
		43,54,51, 4, 5, 3,53		3,13
46″	56,13, 2, 0,20, 4,55,44,33,17		4, 6,35,46,56	
		43,54,46,57,29,16,57		3,13
48″	56,13, 2,44,14,51,53,13,50,14		4, 6,35,50, 9	
		43,54,42,50,53,26,48		3,13
50″	56,13, 3,28, 9,34,44, 7,17, 2		4, 6,35,53,22	
		43,54,38,44,17,33,26		3,13
52″	56,13, 4,12, 4,13,28,24,50,28		4, 6,35,56,35	
		43,54,34,37,41,36,51		3,13
54″	56,13, 4,55,58,48, 6, 6,27,19		4, 6,35,59,48	
		43,54,30,31, 5,37, 3		3,13
56″	56,13, 5,39,53,18,37,12, 4,22		4, 6,36, 3, 1	
		43,54,26,24,29,34, 2		3,13
58″	56,13, 6,23,47,45, 1,41,38,24		4, 6,36, 6,14	
		43,54,22,17,53,27,48		
60″	56,13, 7, 7,42, 7,19,35, 6,12			
exact	56,13, 7, 7,42, 7,19,35,27,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°33′ 0″	56,13, 7, 7,42, 7,19,35,27,19			
		43,54,18,11,17,20,40		
2″	56,13, 7,51,36,25,30,52,47,59		4, 6,36,12,30	
		43,54,14, 4,41, 8,10		3,13
4″	56,13, 8,35,30,39,35,33,56, 9		4, 6,36,15,43	
		43,54, 9,58, 4,52,27		3,13
6″	56,13, 9,19,24,49,33,38,48,36		4, 6,36,18,56	
		43,54, 5,51,28,33,31		3,13
8″	56,13,10, 3,18,55,25, 7,22, 7		4, 6,36,22, 9	
		43,54, 1,44,52,11,22		3,13
10″	56,13,10,47,12,57, 9,59,33,29		4, 6,36,25,22	
		43,53,57,38,15,46, 0		3,13
12″	56,13,11,31, 6,54,48,15,19,29		4, 6,36,28,35	
		43,53,53,31,39,17,25		3,13
14″	56,13,12,15, 0,48,19,54,36,54		4, 6,36,31,48	
		43,53,49,25, 2,45,37		3,13
16″	56,13,12,58,54,37,44,57,22,31		4, 6,36,35, 1	
		43,53,45,18,26,10,36		3,13
18″	56,13,13,42,48,23, 3,23,33, 7		4, 6,36,38,14	
		43,53,41,11,49,32,22		3,13
20″	56,13,14,26,42, 4,15,13, 5,29		4, 6,36,41,27	
		43,53,37, 5,12,50,55		3,13
22″	56,13,15,10,35,41,20,25,56,24		4, 6,36,44,40	
		43,53,32,58,36, 6,15		3,13
24″	56,13,15,54,29,14,19, 2, 2,39		4, 6,36,47,53	
		43,53,28,51,59,18,22		3,13
26″	56,13,16,38,22,43,11, 1,21, 1		4, 6,36,51, 6	
		43,53,24,45,22,27,16		3,13
28″	56,13,17,22,16, 7,56,23,48,17		4, 6,36,54,19	
		43,53,20,38,45,32,57		3,13
30″	56,13,18, 6, 9,28,35, 9,21,14		4, 6,36,57,32	
		43,53,16,32, 8,35,25		3,13
32″	56,13,18,50, 2,45, 7,17,56,39		4, 6,37, 0,45	
		43,53,12,25,31,34,40		3,13
34″	56,13,19,33,55,57,32,49,31,19		4, 6,37, 3,58	
		43,53, 8,18,54,30,42		3,13
36″	56,13,20,17,49, 5,51,44, 2, 1		4, 6,37, 7,11	
		43,53, 4,12,17,23,31		3,13
38″	56,13,21, 1,42,10, 4, 1,25,32		4, 6,37,10,24	
		43,53, 0, 5,40,13, 7		3,13
40″	56,13,21,45,35,10, 9,41,38,39		4, 6,37,13,37	
		43,52,55,59, 2,59,30		3,13
42″	56,13,22,29,28, 6, 8,44,38, 9		4, 6,37,16,50	
		43,52,51,52,25,42,40		3,13
44″	56,13,23,13,20,58, 1,10,20,49		4, 6,37,20, 3	
		43,52,47,45,48,22,37		3,13
46″	56,13,23,57,13,45,46,58,43,26		4, 6,37,23,16	
		43,52,43,39,10,59,21		3,13
48″	56,13,24,41, 6,29,26, 9,42,47		4, 6,37,26,29	
		43,52,39,32,33,32,52		3,13
50″	56,13,25,24,59, 8,58,43,15,39		4, 6,37,29,42	
		43,52,35,25,56, 3,10		3,13
52″	56,13,26, 8,51,44,24,39,18,49		4, 6,37,32,55	
		43,52,31,19,18,30,15		3,13
54″	56,13,26,52,44,15,43,57,49, 4		4, 6,37,36, 8	
		43,52,27,12,40,54, 7		3,13
56″	56,13,27,36,36,42,56,38,43,11		4, 6,37,39,21	
		43,52,23, 6, 3,14,46		3,13
58″	56,13,28,20,29, 6, 2,41,57,57		4, 6,37,42,34	
		43,52,18,59,25,32,12		
60″	56,13,29, 4,21,25, 2, 7,30, 9			
exact	56,13,29, 4,21,25, 2, 8, 2,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°34′ 0″	56,13,29, 4,21,25, 2, 8, 2,45			
		43,52,14,52,47,49,55		
2″	56,13,29,48,13,39,54,55,52,40		4, 6,37,48,45	
		43,52,10,46,10, 1,10		3,12
4″	56,13,30,32, 5,50,41, 5,53,50		4, 6,37,51,57	
		43,52, 6,39,32, 9,13		3,12
6″	56,13,31,15,57,57,20,38, 3, 3		4, 6,37,55, 9	
		43,52, 2,32,54,14, 4		3,12
8″	56,13,31,59,49,59,53,32,17, 7		4, 6,37,58,21	
		43,51,58,26,16,15,43		3,12
10″	56,13,32,43,41,58,19,48,32,50		4, 6,38, 1,33	
		43,51,54,19,38,14,10		3,12
12″	56,13,33,27,33,52,39,26,47, 0		4, 6,38, 4,45	
		43,51,50,13, 0, 9,25		3,12
14″	56,13,34,11,25,42,52,26,56,25		4, 6,38, 7,57	
		43,51,46, 6,22, 1,28		3,12
16″	56,13,34,55,17,28,58,48,57,53		4, 6,38,11, 9	
		43,51,41,59,43,50,19		3,12
18″	56,13,35,39, 9,10,58,32,48,12		4, 6,38,14,21	
		43,51,37,53, 5,35,58		3,12
20″	56,13,36,23, 0,48,51,38,24,10		4, 6,38,17,33	
		43,51,33,46,27,18,25		3,12
22″	56,13,37, 6,52,22,38, 5,42,35		4, 6,38,20,45	
		43,51,29,39,48,57,40		3,12
24″	56,13,37,50,43,52,17,54,40,15		4, 6,38,23,57	
		43,51,25,33,10,33,43		3,12
26″	56,13,38,34,35,17,51, 5,13,58		4, 6,38,27, 9	
		43,51,21,26,32, 6,34		3,12
28″	56,13,39,18,26,39,17,37,20,32		4, 6,38,30,21	
		43,51,17,19,53,36,13		3,12
30″	56,13,40, 2,17,56,37,30,56,45		4, 6,38,33,33	
		43,51,13,13,15, 2,40		3,12
32″	56,13,40,46, 9, 9,50,45,59,25		4, 6,38,36,45	
		43,51, 9, 6,36,25,55		3,12
34″	56,13,41,30, 0,18,57,22,25,20		4, 6,38,39,57	
		43,51, 4,59,57,45,58		3,12
36″	56,13,42,13,51,23,57,20,11,18		4, 6,38,43, 9	
		43,51, 0,53,19, 2,49		3,12
38″	56,13,42,57,42,24,50,39,14, 7		4, 6,38,46,21	
		43,50,56,46,40,16,28		3,12
40″	56,13,43,41,33,21,37,19,30,35		4, 6,38,49,33	
		43,50,52,40, 1,26,55		3,12
42″	56,13,44,25,24,14,17,20,57,30		4, 6,38,52,45	
		43,50,48,33,22,34,10		3,12
44″	56,13,45, 9,15, 2,50,43,31,40		4, 6,38,55,57	
		43,50,44,26,43,38,13		3,12
46″	56,13,45,53, 5,47,17,27, 9,53		4, 6,38,59, 9	
		43,50,40,20, 4,39, 4		3,12
48″	56,13,46,36,56,27,37,31,48,57		4, 6,39, 2,21	
		43,50,36,13,25,36,43		3,12
50″	56,13,47,20,47, 3,50,57,25,40		4, 6,39, 5,33	
		43,50,32, 6,46,31,10		3,12
52″	56,13,48, 4,37,35,57,43,56,50		4, 6,39, 8,45	
		43,50,28, 0, 7,22,25		3,12
54″	56,13,48,48,28, 3,57,51,19,15		4, 6,39,11,57	
		43,50,23,53,28,10,28		3,12
56″	56,13,49,32,18,27,51,19,29,43		4, 6,39,15, 9	
		43,50,19,46,48,55,19		3,12
58″	56,13,50,16, 8,47,38, 8,25, 2		4, 6,39,18,21	
		43,50,15,40, 9,36,58		
60″	56,13,50,59,59, 3,18,18, 2, 0			
exact	56,13,50,59,59, 3,18,17,34,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°35′ 0″	56,13,50,59,59, 3,18,17,34,15			
		43,50,11,33,30,12,34		
2″	56,13,51,43,49,14,51,47,46,49		4, 6,39,24,56	
		43,50, 7,26,50,47,38		3,12
4″	56,13,52,27,39,22,18,38,34,27		4, 6,39,28, 8	
		43,50, 3,20,11,19,30		3,12
6″	56,13,53,11,29,25,38,49,53,57		4, 6,39,31,20	
		43,49,59,13,31,48,10		3,12
8″	56,13,53,55,19,24,52,21,42, 7		4, 6,39,34,32	
		43,49,55, 6,52,13,38		3,12
10″	56,13,54,39, 9,19,59,13,55,45		4, 6,39,37,44	
		43,49,51, 0,12,35,54		3,12
12″	56,13,55,22,59,10,59,26,31,39		4, 6,39,40,56	
		43,49,46,53,32,54,58		3,12
14″	56,13,56, 6,48,57,52,59,26,37		4, 6,39,44, 8	
		43,49,42,46,53,10,50		3,12
16″	56,13,56,50,38,40,39,52,37,27		4, 6,39,47,20	
		43,49,38,40,13,23,30		3,12
18″	56,13,57,34,28,19,20, 6, 0,57		4, 6,39,50,32	
		43,49,34,33,33,32,58		3,12
20″	56,13,58,18,17,53,53,39,33,55		4, 6,39,53,44	
		43,49,30,26,53,39,14		3,12
22″	56,13,59, 2, 7,24,20,33,13, 9		4, 6,39,56,56	
		43,49,26,20,13,42,18		3,12
24″	56,13,59,45,56,50,40,46,55,27		4, 6,40, 0, 8	
		43,49,22,13,33,42,10		3,12
26″	56,14, 0,29,46,12,54,20,37,37		4, 6,40, 3,20	
		43,49,18, 6,53,38,50		3,12
28″	56,14, 1,13,35,31, 1,14,16,27		4, 6,40, 6,32	
		43,49,14, 0,13,32,18		3,12
30″	56,14, 1,57,24,45, 1,27,48,45		4, 6,40, 9,44	
		43,49, 9,53,33,22,34		3,12
32″	56,14, 2,41,13,54,55, 1,11,19		4, 6,40,12,56	
		43,49, 5,46,53, 9,38		3,12
34″	56,14, 3,25, 3, 0,41,54,20,57		4, 6,40,16, 8	
		43,49, 1,40,12,53,30		3,12
36″	56,14, 4, 8,52, 2,22, 7,14,27		4, 6,40,19,20	
		43,48,57,33,32,34,10		3,12
38″	56,14, 4,52,40,59,55,39,48,37		4, 6,40,22,32	
		43,48,53,26,52,11,38		3,12
40″	56,14, 5,36,29,53,22,32, 0,15		4, 6,40,25,44	
		43,48,49,20,11,45,54		3,12
42″	56,14, 6,20,18,42,42,43,46, 9		4, 6,40,28,56	
		43,48,45,13,31,16,58		3,12
44″	56,14, 7, 4, 7,27,56,15, 3, 7		4, 6,40,32, 8	
		43,48,41, 6,50,44,50		3,12
46″	56,14, 7,47,56, 9, 3, 5,47,57		4, 6,40,35,20	
		43,48,37, 0,10, 9,30		3,12
48″	56,14, 8,31,44,46, 3,15,57,27		4, 6,40,38,32	
		43,48,32,53,29,30,58		3,12
50″	56,14, 9,15,33,18,56,45,28,25		4, 6,40,41,44	
		43,48,28,46,48,49,14		3,12
52″	56,14, 9,59,21,47,43,34,17,39		4, 6,40,44,56	
		43,48,24,40, 8, 4,18		3,12
54″	56,14,10,43,10,12,23,42,21,57		4, 6,40,48, 8	
		43,48,20,33,27,16,10		3,12
56″	56,14,11,26,58,32,57, 9,38, 7		4, 6,40,51,20	
		43,48,16,26,46,24,50		3,12
58″	56,14,12,10,46,49,23,56, 2,57		4, 6,40,54,32	
		43,48,12,20, 5,30,18		
60″	56,14,12,54,35, 1,44, 1,33,15			
exact	56,14,12,54,35, 1,44, 1,17, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°36′ 0″	56,14,12,54,35, 1,44, 1,17, 2			
		43,48, 8,13,24,30,54		
2″	56,14,13,38,23, 9,57,25,47,56		4, 6,41, 1, 2	
		43,48, 4, 6,43,29,52		3,12
4″	56,14,14,22,11,14, 4, 9,17,48		4, 6,41, 4,14	
		43,48, 0, 0, 2,25,38		3,12
6″	56,14,15, 5,59,14, 4,11,43,26		4, 6,41, 7,26	
		43,47,55,53,21,18,12		3,12
8″	56,14,15,49,47, 9,57,33, 1,38		4, 6,41,10,38	
		43,47,51,46,40, 7,34		3,12
10″	56,14,16,33,35, 1,44,13, 9,12		4, 6,41,13,50	
		43,47,47,39,58,53,44		3,12
12″	56,14,17,17,22,49,24,12, 2,56		4, 6,41,17, 2	
		43,47,43,33,17,36,42		3,12
14″	56,14,18, 1,10,32,57,29,39,38		4, 6,41,20,14	
		43,47,39,26,36,16,28		3,12
16″	56,14,18,44,58,12,24, 5,56, 6		4, 6,41,23,26	
		43,47,35,19,54,53, 2		3,12
18″	56,14,19,28,45,47,44, 0,49, 8		4, 6,41,26,38	
		43,47,31,13,13,26,24		3,12
20″	56,14,20,12,33,18,57,14,15,32		4, 6,41,29,50	
		43,47,27, 6,31,56,34		3,12
22″	56,14,20,56,20,46, 3,46,12, 6		4, 6,41,33, 2	
		43,47,22,59,50,23,32		3,12
24″	56,14,21,40, 8, 9, 3,36,35,38		4, 6,41,36,14	
		43,47,18,53, 8,47,18		3,12
26″	56,14,22,23,55,27,56,45,22,56		4, 6,41,39,26	
		43,47,14,46,27, 7,52		3,12
28″	56,14,23, 7,42,42,43,12,30,48		4, 6,41,42,38	
		43,47,10,39,45,25,14		3,12
30″	56,14,23,51,29,53,22,57,56, 2		4, 6,41,45,50	
		43,47, 6,33, 3,39,24		3,12
32″	56,14,24,35,16,59,56, 1,35,26		4, 6,41,49, 2	
		43,47, 2,26,21,50,22		3,12
34″	56,14,25,19, 4, 2,22,23,25,48		4, 6,41,52,14	
		43,46,58,19,39,58, 8		3,12
36″	56,14,26, 2,51, 0,42, 3,23,56		4, 6,41,55,26	
		43,46,54,12,58, 2,42		3,12
38″	56,14,26,46,37,54,55, 1,26,38		4, 6,41,58,38	
		43,46,50, 6,16, 4, 4		3,12
40″	56,14,27,30,24,45, 1,17,30,42		4, 6,42, 1,50	
		43,46,45,59,34, 2,14		3,12
42″	56,14,28,14,11,31, 0,51,32,56		4, 6,42, 5, 2	
		43,46,41,52,51,57,12		3,12
44″	56,14,28,57,58,12,53,43,30, 8		4, 6,42, 8,14	
		43,46,37,46, 9,48,58		3,12
46″	56,14,29,41,44,50,39,53,19, 6		4, 6,42,11,26	
		43,46,33,39,27,37,32		3,12
48″	56,14,30,25,31,24,19,20,56,38		4, 6,42,14,38	
		43,46,29,32,45,22,54		3,12
50″	56,14,31, 9,17,53,52, 6,19,32		4, 6,42,17,50	
		43,46,25,26, 3, 5, 4		3,12
52″	56,14,31,53, 4,19,18, 9,24,36		4, 6,42,21, 2	
		43,46,21,19,20,44, 2		3,12
54″	56,14,32,36,50,40,37,30, 8,38		4, 6,42,24,14	
		43,46,17,12,38,19,48		3,12
56″	56,14,33,20,36,57,50, 8,28,26		4, 6,42,27,26	
		43,46,13, 5,55,52,22		3,12
58″	56,14,34, 4,23,10,56, 4,20,48		4, 6,42,30,38	
		43,46, 8,59,13,21,44		
60″	56,14,34,48, 9,19,55,17,42,32			
exact	56,14,34,48, 9,19,55,17,33,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°37′ 0″	56,14,34,48, 9,19,55,17,33,53			
		43,46, 4,52,30,47, 9		
2″	56,14,35,31,55,24,47,48,21, 2		4, 6,42,37, 4	
		43,46, 0,45,48,10, 5		3,12
4″	56,14,36,15,41,25,33,36,31, 7		4, 6,42,40,16	
		43,45,56,39, 5,29,49		3,12
6″	56,14,36,59,27,22,12,42, 0,56		4, 6,42,43,28	
		43,45,52,32,22,46,21		3,12
8″	56,14,37,43,13,14,45, 4,47,17		4, 6,42,46,40	
		43,45,48,25,39,59,41		3,12
10″	56,14,38,26,59, 3,10,44,46,58		4, 6,42,49,52	
		43,45,44,18,57, 9,49		3,12
12″	56,14,39,10,44,47,29,41,56,47		4, 6,42,53, 4	
		43,45,40,12,14,16,45		3,12
14″	56,14,39,54,30,27,41,56,13,32		4, 6,42,56,16	
		43,45,36, 5,31,20,29		3,12
16″	56,14,40,38,16, 3,47,27,34, 1		4, 6,42,59,28	
		43,45,31,58,48,21, 1		3,12
18″	56,14,41,22, 1,35,46,15,55, 2		4, 6,43, 2,40	
		43,45,27,52, 5,18,21		3,12
20″	56,14,42, 5,47, 3,38,21,13,23		4, 6,43, 5,52	
		43,45,23,45,22,12,29		3,12
22″	56,14,42,49,32,27,23,43,25,52		4, 6,43, 9, 4	
		43,45,19,38,39, 3,25		3,12
24″	56,14,43,33,17,47, 2,22,29,17		4, 6,43,12,16	
		43,45,15,31,55,51, 9		3,12
26″	56,14,44,17, 3, 2,34,18,20,26		4, 6,43,15,28	
		43,45,11,25,12,35,41		3,12
28″	56,14,45, 0,48,13,59,30,56, 7		4, 6,43,18,40	
		43,45, 7,18,29,17, 1		3,12
30″	56,14,45,44,33,21,18, 0,13, 8		4, 6,43,21,52	
		43,45, 3,11,45,55, 9		3,12
32″	56,14,46,28,18,24,29,46, 8,17		4, 6,43,25, 4	
		43,44,59, 5, 2,30, 5		3,12
34″	56,14,47,12, 3,23,34,48,38,22		4, 6,43,28,16	
		43,44,54,58,19, 1,49		3,12
36″	56,14,47,55,48,18,33, 7,40,11		4, 6,43,31,28	
		43,44,50,51,35,30,21		3,12
38″	56,14,48,39,33, 9,24,43,10,32		4, 6,43,34,40	
		43,44,46,44,51,55,41		3,12
40″	56,14,49,23,17,56, 9,35, 6,13		4, 6,43,37,52	
		43,44,42,38, 8,17,49		3,12
42″	56,14,50, 7, 2,38,47,43,24, 2		4, 6,43,41, 4	
		43,44,38,31,24,36,45		3,12
44″	56,14,50,50,47,17,19, 8, 0,47		4, 6,43,44,16	
		43,44,34,24,40,52,29		3,12
46″	56,14,51,34,31,51,43,48,53,16		4, 6,43,47,28	
		43,44,30,17,57, 5, 1		3,12
48″	56,14,52,18,16,22, 1,45,58,17		4, 6,43,50,40	
		43,44,26,11,13,14,21		3,12
50″	56,14,53, 2, 0,48,12,59,12,38		4, 6,43,53,52	
		43,44,22, 4,29,20,29		3,12
52″	56,14,53,45,45,10,17,28,33, 7		4, 6,43,57, 4	
		43,44,17,57,45,23,25		3,12
54″	56,14,54,29,29,28,15,13,56,32		4, 6,44, 0,16	
		43,44,13,51, 1,23, 9		3,12
56″	56,14,55,13,13,42, 6,15,19,41		4, 6,44, 3,28	
		43,44, 9,44,17,19,41		3,12
58″	56,14,55,56,57,51,50,32,39,22		4, 6,44, 6,40	
		43,44, 5,37,33,13, 1		
60″	56,14,56,40,41,57,28, 5,52,23			
exact	56,14,56,40,41,57,28, 5,55,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°38′ 0″	56,14,56,40,41,57,28, 5,55,15			
		43,44, 1,30,49, 3,35		
2″	56,14,57,24,25,58,58,54,58,50		4, 6,44,13, 1	
		43,43,57,24, 4,50,34		3,12
4″	56,14,58, 8, 9,56,22,59,49,24		4, 6,44,16,13	
		43,43,53,17,20,34,21		3,12
6″	56,14,58,51,53,49,40,20,23,45		4, 6,44,19,25	
		43,43,49,10,36,14,56		3,12
8″	56,14,59,35,37,38,50,56,38,41		4, 6,44,22,37	
		43,43,45, 3,51,52,19		3,12
10″	56,15, 0,19,21,23,54,48,31, 0		4, 6,44,25,49	
		43,43,40,57, 7,26,30		3,12
12″	56,15, 1, 3, 5, 4,51,55,57,30		4, 6,44,29, 1	
		43,43,36,50,22,57,29		3,12
14″	56,15, 1,46,48,41,42,18,54,59		4, 6,44,32,13	
		43,43,32,43,38,25,16		3,12
16″	56,15, 2,30,32,14,25,57,20,15		4, 6,44,35,25	
		43,43,28,36,53,49,51		3,12
18″	56,15, 3,14,15,43, 2,51,10, 6		4, 6,44,38,37	
		43,43,24,30, 9,11,14		3,12
20″	56,15, 3,57,59, 7,33, 0,21,20		4, 6,44,41,49	
		43,43,20,23,24,29,25		3,12
22″	56,15, 4,41,42,27,56,24,50,45		4, 6,44,45, 1	
		43,43,16,16,39,44,24		3,12
24″	56,15, 5,25,25,44,13, 4,35, 9		4, 6,44,48,13	
		43,43,12, 9,54,56,11		3,12
26″	56,15, 6, 9, 8,56,22,59,31,20		4, 6,44,51,25	
		43,43, 8, 3,10, 4,46		3,12
28″	56,15, 6,52,52, 4,26, 9,36, 6		4, 6,44,54,37	
		43,43, 3,56,25,10, 9		3,12
30″	56,15, 7,36,35, 8,22,34,46,15		4, 6,44,57,49	
		43,42,59,49,40,12,20		3,12
32″	56,15, 8,20,18, 8,12,14,58,35		4, 6,45, 1, 1	
		43,42,55,42,55,11,19		3,12
34″	56,15, 9, 4, 1, 3,55,10, 9,54		4, 6,45, 4,13	
		43,42,51,36,10, 7, 6		3,12
36″	56,15, 9,47,43,55,31,20,17, 0		4, 6,45, 7,25	
		43,42,47,29,24,59,41		3,12
38″	56,15,10,31,26,43, 0,45,16,41		4, 6,45,10,37	
		43,42,43,22,39,49, 4		3,12
40″	56,15,11,15, 9,26,23,25, 5,45		4, 6,45,13,49	
		43,42,39,15,54,35,15		3,12
42″	56,15,11,58,52, 5,39,19,41, 0		4, 6,45,17, 1	
		43,42,35, 9, 9,18,14		3,12
44″	56,15,12,42,34,40,48,28,59,14		4, 6,45,20,13	
		43,42,31, 2,23,58, 1		3,12
46″	56,15,13,26,17,11,50,52,57,15		4, 6,45,23,25	
		43,42,26,55,38,34,36		3,12
48″	56,15,14, 9,59,38,46,31,31,51		4, 6,45,26,37	
		43,42,22,48,53, 7,59		3,12
50″	56,15,14,53,42, 1,35,24,39,50		4, 6,45,29,49	
		43,42,18,42, 7,38,10		3,12
52″	56,15,15,37,24,20,17,32,18, 0		4, 6,45,33, 1	
		43,42,14,35,22, 5, 9		3,12
54″	56,15,16,21, 6,34,52,54,23, 9		4, 6,45,36,13	
		43,42,10,28,36,28,56		3,12
56″	56,15,17, 4,48,45,21,30,52, 5		4, 6,45,39,25	
		43,42, 6,21,50,49,31		3,12
58″	56,15,17,48,30,51,43,21,41,36		4, 6,45,42,37	
		43,42, 2,15, 5, 6,54		
60″	56,15,18,32,12,53,58,26,48,30			
exact	56,15,18,32,12,53,58,26,59,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°39′ 0″	56,15,18,32,12,53,58,26,59,15			
		43,41,58, 8,19,22,27		
2″	56,15,19,15,54,52, 6,46,21,42		4, 6,45,48,54	
		43,41,54, 1,33,33,33		3,12
4″	56,15,19,59,36,46, 8,19,55,15		4, 6,45,52, 6	
		43,41,49,54,47,41,27		3,12
6″	56,15,20,43,18,36, 3, 7,36,42		4, 6,45,55,18	
		43,41,45,48, 1,46, 9		3,12
8″	56,15,21,27, 0,21,51, 9,22,51		4, 6,45,58,30	
		43,41,41,41,15,47,39		3,12
10″	56,15,22,10,42, 3,32,25,10,30		4, 6,46, 1,42	
		43,41,37,34,29,45,57		3,12
12″	56,15,22,54,23,41, 6,54,56,27		4, 6,46, 4,54	
		43,41,33,27,43,41, 3		3,12
14″	56,15,23,38, 5,14,34,38,37,30		4, 6,46, 8, 6	
		43,41,29,20,57,32,57		3,12
16″	56,15,24,21,46,43,55,36,10,27		4, 6,46,11,18	
		43,41,25,14,11,21,39		3,12
18″	56,15,25, 5,28, 9, 9,47,32, 6		4, 6,46,14,30	
		43,41,21, 7,25, 7, 9		3,12
20″	56,15,25,49, 9,30,17,12,39,15		4, 6,46,17,42	
		43,41,17, 0,38,49,27		3,12
22″	56,15,26,32,50,47,17,51,28,42		4, 6,46,20,54	
		43,41,12,53,52,28,33		3,12
24″	56,15,27,16,32, 0,11,43,57,15		4, 6,46,24, 6	
		43,41, 8,47, 6, 4,27		3,12
26″	56,15,28, 0,13, 8,58,50, 1,42		4, 6,46,27,18	
		43,41, 4,40,19,37, 9		3,12
28″	56,15,28,43,54,13,39, 9,38,51		4, 6,46,30,30	
		43,41, 0,33,33, 6,39		3,12
30″	56,15,29,27,35,14,12,42,45,30		4, 6,46,33,42	
		43,40,56,26,46,32,57		3,12
32″	56,15,30,11,16,10,39,29,18,27		4, 6,46,36,54	
		43,40,52,19,59,56, 3		3,12
34″	56,15,30,54,57, 2,59,29,14,30		4, 6,46,40, 6	
		43,40,48,13,13,15,57		3,12
36″	56,15,31,38,37,51,12,42,30,27		4, 6,46,43,18	
		43,40,44, 6,26,32,39		3,12
38″	56,15,32,22,18,35,19, 9, 3, 6		4, 6,46,46,30	
		43,40,39,59,39,46, 9		3,12
40″	56,15,33, 5,59,15,18,48,49,15		4, 6,46,49,42	
		43,40,35,52,52,56,27		3,12
42″	56,15,33,49,39,51,11,41,45,42		4, 6,46,52,54	
		43,40,31,46, 6, 3,33		3,12
44″	56,15,34,33,20,22,57,47,49,15		4, 6,46,56, 6	
		43,40,27,39,19, 7,27		3,12
46″	56,15,35,17, 0,50,37, 6,56,42		4, 6,46,59,18	
		43,40,23,32,32, 8, 9		3,12
48″	56,15,36, 0,41,14, 9,39, 4,51		4, 6,47, 2,30	
		43,40,19,25,45, 5,39		3,12
50″	56,15,36,44,21,33,35,24,10,30		4, 6,47, 5,42	
		43,40,15,18,57,59,57		3,12
52″	56,15,37,28, 1,48,54,22,10,27		4, 6,47, 8,54	
		43,40,11,12,10,51, 3		3,12
54″	56,15,38,11,42, 0, 6,33, 1,30		4, 6,47,12, 6	
		43,40, 7, 5,23,38,57		3,12
56″	56,15,38,55,22, 7,11,56,40,27		4, 6,47,15,18	
		43,40, 2,58,36,23,39		3,12
58″	56,15,39,39, 2,10,10,33, 4, 6		4, 6,47,18,30	
		43,39,58,51,49, 5, 9		
60″	56,15,40,22,42, 9, 2,22, 9,15			
exact	56,15,40,22,42, 9, 2,22,31,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°40′ 0″	56,15,40,22,42, 9, 2,22,31,34			
		43,39,54,45, 1,46, 0		
2″	56,15,41, 6,22, 3,47,24,17,34		4, 6,47,24,42	
		43,39,50,38,14,21,18		3,12
4″	56,15,41,50, 1,54,25,38,38,52		4, 6,47,27,54	
		43,39,46,31,26,53,24		3,12
6″	56,15,42,33,41,40,57, 5,32,16		4, 6,47,31, 6	
		43,39,42,24,39,22,18		3,12
8″	56,15,43,17,21,23,21,44,54,34		4, 6,47,34,18	
		43,39,38,17,51,48, 0		3,12
10″	56,15,44, 1, 1, 1,39,36,42,34		4, 6,47,37,30	
		43,39,34,11, 4,10,30		3,12
12″	56,15,44,44,40,35,50,40,53, 4		4, 6,47,40,42	
		43,39,30, 4,16,29,48		3,12
14″	56,15,45,28,20, 5,54,57,22,52		4, 6,47,43,54	
		43,39,25,57,28,45,54		3,12
16″	56,15,46,11,59,31,52,26, 8,46		4, 6,47,47, 6	
		43,39,21,50,40,58,48		3,12
18″	56,15,46,55,38,53,43, 7, 7,34		4, 6,47,50,18	
		43,39,17,43,53, 8,30		3,12
20″	56,15,47,39,18,11,27, 0,16, 4		4, 6,47,53,30	
		43,39,13,37, 5,15, 0		3,12
22″	56,15,48,22,57,25, 4, 5,31, 4		4, 6,47,56,42	
		43,39, 9,30,17,18,18		3,12
24″	56,15,49, 6,36,34,34,22,49,22		4, 6,47,59,54	
		43,39, 5,23,29,18,24		3,12
26″	56,15,49,50,15,39,57,52, 7,46		4, 6,48, 3, 6	
		43,39, 1,16,41,15,18		3,12
28″	56,15,50,33,54,41,14,33,23, 4		4, 6,48, 6,18	
		43,38,57, 9,53, 9, 0		3,12
30″	56,15,51,17,33,38,24,26,32, 4		4, 6,48, 9,30	
		43,38,53, 3, 4,59,30		3,12
32″	56,15,52, 1,12,31,27,31,31,34		4, 6,48,12,42	
		43,38,48,56,16,46,48		3,12
34″	56,15,52,44,51,20,23,48,18,22		4, 6,48,15,54	
		43,38,44,49,28,30,54		3,12
36″	56,15,53,28,30, 5,13,16,49,16		4, 6,48,19, 6	
		43,38,40,42,40,11,48		3,12
38″	56,15,54,12, 8,45,55,57, 1, 4		4, 6,48,22,18	
		43,38,36,35,51,49,30		3,12
40″	56,15,54,55,47,22,31,48,50,34		4, 6,48,25,30	
		43,38,32,29, 3,24, 0		3,12
42″	56,15,55,39,25,55, 0,52,14,34		4, 6,48,28,42	
		43,38,28,22,14,55,18		3,12
44″	56,15,56,23, 4,23,23, 7, 9,52		4, 6,48,31,54	
		43,38,24,15,26,23,24		3,12
46″	56,15,57, 6,42,47,38,33,33,16		4, 6,48,35, 6	
		43,38,20, 8,37,48,18		3,12
48″	56,15,57,50,21, 7,47,11,21,34		4, 6,48,38,18	
		43,38,16, 1,49,10, 0		3,12
50″	56,15,58,33,59,23,49, 0,31,34		4, 6,48,41,30	
		43,38,11,55, 0,28,30		3,12
52″	56,15,59,17,37,35,44, 1, 0, 4		4, 6,48,44,42	
		43,38, 7,48,11,43,48		3,12
54″	56,16, 0, 1,15,43,32,12,43,52		4, 6,48,47,54	
		43,38, 3,41,22,55,54		3,12
56″	56,16, 0,44,53,47,13,35,39,46		4, 6,48,51, 6	
		43,37,59,34,34, 4,48		3,12
58″	56,16, 1,28,31,46,48, 9,44,34		4, 6,48,54,18	
		43,37,55,27,45,10,30		
60″	56,16, 2,12, 9,42,15,54,55, 4			
exact	56,16, 2,12, 9,42,15,55,25,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°41′ 0″	56,16, 2,12, 9,42,15,55,25,36			
		43,37,51,20,56,16,30		
2″	56,16, 2,55,47,33,36,51,42, 6		4, 6,49, 0,26	
		43,37,47,14, 7,16, 4		3,11
4″	56,16, 3,39,25,20,50,58,58,10		4, 6,49, 3,37	
		43,37,43, 7,18,12,27		3,11
6″	56,16, 4,23, 3, 3,58,17,10,37		4, 6,49, 6,48	
		43,37,39, 0,29, 5,39		3,11
8″	56,16, 5, 6,40,42,58,46,16,16		4, 6,49, 9,59	
		43,37,34,53,39,55,40		3,11
10″	56,16, 5,50,18,17,52,26,11,56		4, 6,49,13,10	
		43,37,30,46,50,42,30		3,11
12″	56,16, 6,33,55,48,39,16,54,26		4, 6,49,16,21	
		43,37,26,40, 1,26, 9		3,11
14″	56,16, 7,17,33,15,19,18,20,35		4, 6,49,19,32	
		43,37,22,33,12, 6,37		3,11
16″	56,16, 8, 1,10,37,52,30,27,12		4, 6,49,22,43	
		43,37,18,26,22,43,54		3,11
18″	56,16, 8,44,47,56,18,53,11, 6		4, 6,49,25,54	
		43,37,14,19,33,18, 0		3,11
20″	56,16, 9,28,25,10,38,26,29, 6		4, 6,49,29, 5	
		43,37,10,12,43,48,55		3,11
22″	56,16,10,12, 2,20,51,10,18, 1		4, 6,49,32,16	
		43,37, 6, 5,54,16,39		3,11
24″	56,16,10,55,39,26,57, 4,34,40		4, 6,49,35,27	
		43,37, 1,59, 4,41,12		3,11
26″	56,16,11,39,16,28,56, 9,15,52		4, 6,49,38,38	
		43,36,57,52,15, 2,34		3,11
28″	56,16,12,22,53,26,48,24,18,26		4, 6,49,41,49	
		43,36,53,45,25,20,45		3,11
30″	56,16,13, 6,30,20,33,49,39,11		4, 6,49,45, 0	
		43,36,49,38,35,35,45		3,11
32″	56,16,13,50, 7,10,12,25,14,56		4, 6,49,48,11	
		43,36,45,31,45,47,34		3,11
34″	56,16,14,33,43,55,44,11, 2,30		4, 6,49,51,22	
		43,36,41,24,55,56,12		3,11
36″	56,16,15,17,20,37, 9, 6,58,42		4, 6,49,54,33	
		43,36,37,18, 6, 1,39		3,11
38″	56,16,16, 0,57,14,27,13, 0,21		4, 6,49,57,44	
		43,36,33,11,16, 3,55		3,11
40″	56,16,16,44,33,47,38,29, 4,16		4, 6,50, 0,55	
		43,36,29, 4,26, 3, 0		3,11
42″	56,16,17,28,10,16,42,55, 7,16		4, 6,50, 4, 6	
		43,36,24,57,35,58,54		3,11
44″	56,16,18,11,46,41,40,31, 6,10		4, 6,50, 7,17	
		43,36,20,50,45,51,37		3,11
46″	56,16,18,55,23, 2,31,16,57,47		4, 6,50,10,28	
		43,36,16,43,55,41, 9		3,11
48″	56,16,19,38,59,19,15,12,38,56		4, 6,50,13,39	
		43,36,12,37, 5,27,30		3,11
50″	56,16,20,22,35,31,52,18, 6,26		4, 6,50,16,50	
		43,36, 8,30,15,10,40		3,11
52″	56,16,21, 6,11,40,22,33,17, 6		4, 6,50,20, 1	
		43,36, 4,23,24,50,39		3,11
54″	56,16,21,49,47,44,45,58, 7,45		4, 6,50,23,12	
		43,36, 0,16,34,27,27		3,11
56″	56,16,22,33,23,45, 2,32,35,12		4, 6,50,26,23	
		43,35,56, 9,44, 1, 4		3,11
58″	56,16,23,16,59,41,12,16,36,16		4, 6,50,29,34	
		43,35,52, 2,53,31,30		
60″	56,16,24, 0,35,33,15,10, 7,46			
exact	56,16,24, 0,35,33,15, 9,42,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°42′ 0″	56,16,24, 0,35,33,15, 9,42,24			
		43,35,47,56, 2,56,12		
2″	56,16,24,44,11,21,11,12,38,36		4, 6,50,36, 6	
		43,35,43,49,12,20, 6		3,11
4″	56,16,25,27,47, 5, 0,24,58,42		4, 6,50,39,17	
		43,35,39,42,21,40,49		3,11
6″	56,16,26,11,22,44,42,46,39,31		4, 6,50,42,28	
		43,35,35,35,30,58,21		3,11
8″	56,16,26,54,58,20,18,17,37,52		4, 6,50,45,39	
		43,35,31,28,40,12,42		3,11
10″	56,16,27,38,33,51,46,57,50,34		4, 6,50,48,50	
		43,35,27,21,49,23,52		3,11
12″	56,16,28,22, 9,19, 8,47,14,26		4, 6,50,52, 1	
		43,35,23,14,58,31,51		3,11
14″	56,16,29, 5,44,42,23,45,46,17		4, 6,50,55,12	
		43,35,19, 8, 7,36,39		3,11
16″	56,16,29,49,20, 1,31,53,22,56		4, 6,50,58,23	
		43,35,15, 1,16,38,16		3,11
18″	56,16,30,32,55,16,33,10, 1,12		4, 6,51, 1,34	
		43,35,10,54,25,36,42		3,11
20″	56,16,31,16,30,27,27,35,37,54		4, 6,51, 4,45	
		43,35, 6,47,34,31,57		3,11
22″	56,16,32, 0, 5,34,15,10, 9,51		4, 6,51, 7,56	
		43,35, 2,40,43,24, 1		3,11
24″	56,16,32,43,40,36,55,53,33,52		4, 6,51,11, 7	
		43,34,58,33,52,12,54		3,11
26″	56,16,33,27,15,35,29,45,46,46		4, 6,51,14,18	
		43,34,54,27, 0,58,36		3,11
28″	56,16,34,10,50,29,56,46,45,22		4, 6,51,17,29	
		43,34,50,20, 9,41, 7		3,11
30″	56,16,34,54,25,20,16,56,26,29		4, 6,51,20,40	
		43,34,46,13,18,20,27		3,11
32″	56,16,35,38, 0, 6,30,14,46,56		4, 6,51,23,51	
		43,34,42, 6,26,56,36		3,11
34″	56,16,36,21,34,48,36,41,43,32		4, 6,51,27, 2	
		43,34,37,59,35,29,34		3,11
36″	56,16,37, 5, 9,26,36,17,13, 6		4, 6,51,30,13	
		43,34,33,52,43,59,21		3,11
38″	56,16,37,48,44, 0,29, 1,12,27		4, 6,51,33,24	
		43,34,29,45,52,25,57		3,11
40″	56,16,38,32,18,30,14,53,38,24		4, 6,51,36,35	
		43,34,25,39, 0,49,22		3,11
42″	56,16,39,15,52,55,53,54,27,46		4, 6,51,39,46	
		43,34,21,32, 9, 9,36		3,11
44″	56,16,39,59,27,17,26, 3,37,22		4, 6,51,42,57	
		43,34,17,25,17,26,39		3,11
46″	56,16,40,43, 1,34,51,21, 4, 1		4, 6,51,46, 8	
		43,34,13,18,25,40,31		3,11
48″	56,16,41,26,35,48, 9,46,44,32		4, 6,51,49,19	
		43,34, 9,11,33,51,12		3,11
50″	56,16,42,10, 9,57,21,20,35,44		4, 6,51,52,30	
		43,34, 5, 4,41,58,42		3,11
52″	56,16,42,53,44, 2,26, 2,34,26		4, 6,51,55,41	
		43,34, 0,57,50, 3, 1		3,11
54″	56,16,43,37,18, 3,23,52,37,27		4, 6,51,58,52	
		43,33,56,50,58, 4, 9		3,11
56″	56,16,44,20,52, 0,14,50,41,36		4, 6,52, 2, 3	
		43,33,52,44, 6, 2, 6		3,11
58″	56,16,45, 4,25,52,58,56,43,42		4, 6,52, 5,14	
		43,33,48,37,13,56,52		
60″	56,16,45,47,59,41,36,10,40,34			
exact	56,16,45,47,59,41,36,10,30,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°43′ 0″	56,16,45,47,59,41,36,10,30,38			
		43,33,44,30,21,47,21		
2″	56,16,46,31,33,26, 6,32,17,59		4, 6,52,11,40	
		43,33,40,23,29,35,41		3,11
4″	56,16,47,15, 7, 6,30, 1,53,40		4, 6,52,14,51	
		43,33,36,16,37,20,50		3,11
6″	56,16,47,58,40,42,46,39,14,30		4, 6,52,18, 2	
		43,33,32, 9,45, 2,48		3,11
8″	56,16,48,42,14,14,56,24,17,18		4, 6,52,21,13	
		43,33,28, 2,52,41,35		3,11
10″	56,16,49,25,47,42,59,16,58,53		4, 6,52,24,24	
		43,33,23,56, 0,17,11		3,11
12″	56,16,50, 9,21, 6,55,17,16, 4		4, 6,52,27,35	
		43,33,19,49, 7,49,36		3,11
14″	56,16,50,52,54,26,44,25, 5,40		4, 6,52,30,46	
		43,33,15,42,15,18,50		3,11
16″	56,16,51,36,27,42,26,40,24,30		4, 6,52,33,57	
		43,33,11,35,22,44,53		3,11
18″	56,16,52,20, 0,54, 2, 3, 9,23		4, 6,52,37, 8	
		43,33, 7,28,30, 7,45		3,11
20″	56,16,53, 3,34, 1,30,33,17, 8		4, 6,52,40,19	
		43,33, 3,21,37,27,26		3,11
22″	56,16,53,47, 7, 4,52,10,44,34		4, 6,52,43,30	
		43,32,59,14,44,43,56		3,11
24″	56,16,54,30,40, 4, 6,55,28,30		4, 6,52,46,41	
		43,32,55, 7,51,57,15		3,11
26″	56,16,55,14,12,59,14,47,25,45		4, 6,52,49,52	
		43,32,51, 0,59, 7,23		3,11
28″	56,16,55,57,45,50,15,46,33, 8		4, 6,52,53, 3	
		43,32,46,54, 6,14,20		3,11
30″	56,16,56,41,18,37, 9,52,47,28		4, 6,52,56,14	
		43,32,42,47,13,18, 6		3,11
32″	56,16,57,24,51,19,57, 6, 5,34		4, 6,52,59,25	
		43,32,38,40,20,18,41		3,11
34″	56,16,58, 8,23,58,37,26,24,15		4, 6,53, 2,36	
		43,32,34,33,27,16, 5		3,11
36″	56,16,58,51,56,33,10,53,40,20		4, 6,53, 5,47	
		43,32,30,26,34,10,18		3,11
38″	56,16,59,35,29, 3,37,27,50,38		4, 6,53, 8,58	
		43,32,26,19,41, 1,20		3,11
40″	56,17, 0,19, 1,29,57, 8,51,58		4, 6,53,12, 9	
		43,32,22,12,47,49,11		3,11
42″	56,17, 1, 2,33,52, 9,56,41, 9		4, 6,53,15,20	
		43,32,18, 5,54,33,51		3,11
44″	56,17, 1,46, 6,10,15,51,15, 0		4, 6,53,18,31	
		43,32,13,59, 1,15,20		3,11
46″	56,17, 2,29,38,24,14,52,30,20		4, 6,53,21,42	
		43,32, 9,52, 7,53,38		3,11
48″	56,17, 3,13,10,34, 7, 0,23,58		4, 6,53,24,53	
		43,32, 5,45,14,28,45		3,11
50″	56,17, 3,56,42,39,52,14,52,43		4, 6,53,28, 4	
		43,32, 1,38,21, 0,41		3,11
52″	56,17, 4,40,14,41,30,35,53,24		4, 6,53,31,15	
		43,31,57,31,27,29,26		3,11
54″	56,17, 5,23,46,39, 2, 3,22,50		4, 6,53,34,26	
		43,31,53,24,33,55, 0		3,11
56″	56,17, 6, 7,18,32,26,37,17,50		4, 6,53,37,37	
		43,31,49,17,40,17,23		3,11
58″	56,17, 6,50,50,21,44,17,35,13		4, 6,53,40,48	
		43,31,45,10,46,36,35		
60″	56,17, 7,34,22, 6,55, 4,11,48			
exact	56,17, 7,34,22, 6,55, 4, 6,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°44′ 0″	56,17, 7,34,22, 6,55, 4, 6,43			
		43,31,41, 3,52,52,13		
2″	56,17, 8,17,53,47,58,56,58,56		4, 6,53,47,11	
		43,31,36,56,59, 5, 2		3,11
4″	56,17, 9, 1,25,24,55,56, 3,58		4, 6,53,50,22	
		43,31,32,50, 5,14,40		3,11
6″	56,17, 9,44,56,57,46, 1,18,38		4, 6,53,53,33	
		43,31,28,43,11,21, 7		3,11
8″	56,17,10,28,28,26,29,12,39,45		4, 6,53,56,44	
		43,31,24,36,17,24,23		3,11
10″	56,17,11,11,59,51, 5,30, 4, 8		4, 6,53,59,55	
		43,31,20,29,23,24,28		3,11
12″	56,17,11,55,31,11,34,53,28,36		4, 6,54, 3, 6	
		43,31,16,22,29,21,22		3,11
14″	56,17,12,39, 2,27,57,22,49,58		4, 6,54, 6,17	
		43,31,12,15,35,15, 5		3,11
16″	56,17,13,22,33,40,12,58, 5, 3		4, 6,54, 9,28	
		43,31, 8, 8,41, 5,37		3,11
18″	56,17,14, 6, 4,48,21,39,10,40		4, 6,54,12,39	
		43,31, 4, 1,46,52,58		3,11
20″	56,17,14,49,35,52,23,26, 3,38		4, 6,54,15,50	
		43,30,59,54,52,37, 8		3,11
22″	56,17,15,33, 6,52,18,18,40,46		4, 6,54,19, 1	
		43,30,55,47,58,18, 7		3,11
24″	56,17,16,16,37,48, 6,16,58,53		4, 6,54,22,12	
		43,30,51,41, 3,55,55		3,11
26″	56,17,17, 0, 8,39,47,20,54,48		4, 6,54,25,23	
		43,30,47,34, 9,30,32		3,11
28″	56,17,17,43,39,27,21,30,25,20		4, 6,54,28,34	
		43,30,43,27,15, 1,58		3,11
30″	56,17,18,27,10,10,48,45,27,18		4, 6,54,31,45	
		43,30,39,20,20,30,13		3,11
32″	56,17,19,10,40,50, 9, 5,57,31		4, 6,54,34,56	
		43,30,35,13,25,55,17		3,11
34″	56,17,19,54,11,25,22,31,52,48		4, 6,54,38, 7	
		43,30,31, 6,31,17,10		3,11
36″	56,17,20,37,41,56,29, 3, 9,58		4, 6,54,41,18	
		43,30,26,59,36,35,52		3,11
38″	56,17,21,21,12,23,28,39,45,50		4, 6,54,44,29	
		43,30,22,52,41,51,23		3,11
40″	56,17,22, 4,42,46,21,21,37,13		4, 6,54,47,40	
		43,30,18,45,47, 3,43		3,11
42″	56,17,22,48,13, 5, 7, 8,40,56		4, 6,54,50,51	
		43,30,14,38,52,12,52		3,11
44″	56,17,23,31,43,19,46, 0,53,48		4, 6,54,54, 2	
		43,30,10,31,57,18,50		3,11
46″	56,17,24,15,13,30,17,58,12,38		4, 6,54,57,13	
		43,30, 6,25, 2,21,37		3,11
48″	56,17,24,58,43,36,43, 0,34,15		4, 6,55, 0,24	
		43,30, 2,18, 7,21,13		3,11
50″	56,17,25,42,13,39, 1, 7,55,28		4, 6,55, 3,35	
		43,29,58,11,12,17,38		3,11
52″	56,17,26,25,43,37,12,20,13, 6		4, 6,55, 6,46	
		43,29,54, 4,17,10,52		3,11
54″	56,17,27, 9,13,31,16,37,23,58		4, 6,55, 9,57	
		43,29,49,57,22, 0,55		3,11
56″	56,17,27,52,43,21,13,59,24,53		4, 6,55,13, 8	
		43,29,45,50,26,47,47		3,11
58″	56,17,28,36,13, 7, 4,26,12,40		4, 6,55,16,19	
		43,29,41,43,31,31,28		
60″	56,17,29,19,42,48,47,57,44, 8			
exact	56,17,29,19,42,48,47,57,54,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°45′ 0″	56,17,29,19,42,48,47,57,54,40			
		43,29,37,36,36,13, 3		
2″	56,17,30, 3,12,26,24,34, 7,43		4, 6,55,22,36	
		43,29,33,29,40,50,27		3,11
4″	56,17,30,46,41,59,54,14,58,10		4, 6,55,25,47	
		43,29,29,22,45,24,40		3,11
6″	56,17,31,30,11,29,17, 0,22,50		4, 6,55,28,58	
		43,29,25,15,49,55,42		3,11
8″	56,17,32,13,40,54,32,50,18,32		4, 6,55,32, 9	
		43,29,21, 8,54,23,33		3,11
10″	56,17,32,57,10,15,41,44,42, 5		4, 6,55,35,20	
		43,29,17, 1,58,48,13		3,11
12″	56,17,33,40,39,32,43,43,30,18		4, 6,55,38,31	
		43,29,12,55, 3, 9,42		3,11
14″	56,17,34,24, 8,45,38,46,40, 0		4, 6,55,41,42	
		43,29, 8,48, 7,28, 0		3,11
16″	56,17,35, 7,37,54,26,54, 8, 0		4, 6,55,44,53	
		43,29, 4,41,11,43, 7		3,11
18″	56,17,35,51, 6,59, 8, 5,51, 7		4, 6,55,48, 4	
		43,29, 0,34,15,55, 3		3,11
20″	56,17,36,34,35,59,42,21,46,10		4, 6,55,51,15	
		43,28,56,27,20, 3,48		3,11
22″	56,17,37,18, 4,56, 9,41,49,58		4, 6,55,54,26	
		43,28,52,20,24, 9,22		3,11
24″	56,17,38, 1,33,48,30, 5,59,20		4, 6,55,57,37	
		43,28,48,13,28,11,45		3,11
26″	56,17,38,45, 2,36,43,34,11, 5		4, 6,56, 0,48	
		43,28,44, 6,32,10,57		3,11
28″	56,17,39,28,31,20,50, 6,22, 2		4, 6,56, 3,59	
		43,28,39,59,36, 6,58		3,11
30″	56,17,40,12, 0, 0,49,42,29, 0		4, 6,56, 7,10	
		43,28,35,52,39,59,48		3,11
32″	56,17,40,55,28,36,42,22,28,48		4, 6,56,10,21	
		43,28,31,45,43,49,27		3,11
34″	56,17,41,38,57, 8,28, 6,18,15		4, 6,56,13,32	
		43,28,27,38,47,35,55		3,11
36″	56,17,42,22,25,36, 6,53,54,10		4, 6,56,16,43	
		43,28,23,31,51,19,12		3,11
38″	56,17,43, 5,53,59,38,45,13,22		4, 6,56,19,54	
		43,28,19,24,54,59,18		3,11
40″	56,17,43,49,22,19, 3,40,12,40		4, 6,56,23, 5	
		43,28,15,17,58,36,13		3,11
42″	56,17,44,32,50,34,21,38,48,53		4, 6,56,26,16	
		43,28,11,11, 2, 9,57		3,11
44″	56,17,45,16,18,45,32,40,58,50		4, 6,56,29,27	
		43,28, 7, 4, 5,40,30		3,11
46″	56,17,45,59,46,52,36,46,39,20		4, 6,56,32,38	
		43,28, 2,57, 9, 7,52		3,11
48″	56,17,46,43,14,55,33,55,47,12		4, 6,56,35,49	
		43,27,58,50,12,32, 3		3,11
50″	56,17,47,26,42,54,24, 8,19,15		4, 6,56,39, 0	
		43,27,54,43,15,53, 3		3,11
52″	56,17,48,10,10,49, 7,24,12,18		4, 6,56,42,11	
		43,27,50,36,19,10,52		3,11
54″	56,17,48,53,38,39,43,43,23,10		4, 6,56,45,22	
		43,27,46,29,22,25,30		3,11
56″	56,17,49,37, 6,26,13, 5,48,40		4, 6,56,48,33	
		43,27,42,22,25,36,57		3,11
58″	56,17,50,20,34, 8,35,31,25,37		4, 6,56,51,44	
		43,27,38,15,28,45,13		
60″	56,17,51, 4, 1,46,51, 0,10,50			
exact	56,17,51, 4, 1,46,51, 0,26,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°46′ 0″	56,17,51, 4, 1,46,51, 0,26,16			
		43,27,34, 8,31,52, 7		
2″	56,17,51,47,29,20,59,32,18,23		4, 6,56,57,57	
		43,27,30, 1,34,54,10		3,11
4″	56,17,52,30,56,51, 1, 7,12,33		4, 6,57, 1, 8	
		43,27,25,54,37,53, 2		3,11
6″	56,17,53,14,24,16,55,45, 5,35		4, 6,57, 4,19	
		43,27,21,47,40,48,43		3,11
8″	56,17,53,57,51,38,43,25,54,18		4, 6,57, 7,30	
		43,27,17,40,43,41,13		3,11
10″	56,17,54,41,18,56,24, 9,35,31		4, 6,57,10,41	
		43,27,13,33,46,30,32		3,11
12″	56,17,55,24,46, 9,57,56, 6, 3		4, 6,57,13,52	
		43,27, 9,26,49,16,40		3,11
14″	56,17,56, 8,13,19,24,45,22,43		4, 6,57,17, 3	
		43,27, 5,19,51,59,37		3,11
16″	56,17,56,51,40,24,44,37,22,20		4, 6,57,20,14	
		43,27, 1,12,54,39,23		3,11
18″	56,17,57,35, 7,25,57,32, 1,43		4, 6,57,23,25	
		43,26,57, 5,57,15,58		3,11
20″	56,17,58,18,34,23, 3,29,17,41		4, 6,57,26,36	
		43,26,52,58,59,49,22		3,11
22″	56,17,59, 2, 1,16, 2,29, 7, 3		4, 6,57,29,47	
		43,26,48,52, 2,19,35		3,11
24″	56,17,59,45,28, 4,54,31,26,38		4, 6,57,32,58	
		43,26,44,45, 4,46,37		3,11
26″	56,18, 0,28,54,49,39,36,13,15		4, 6,57,36, 9	
		43,26,40,38, 7,10,28		3,11
28″	56,18, 1,12,21,30,17,43,23,43		4, 6,57,39,20	
		43,26,36,31, 9,31, 8		3,11
30″	56,18, 1,55,48, 6,48,52,54,51		4, 6,57,42,31	
		43,26,32,24,11,48,37		3,11
32″	56,18, 2,39,14,39,13, 4,43,28		4, 6,57,45,42	
		43,26,28,17,14, 2,55		3,11
34″	56,18, 3,22,41, 7,30,18,46,23		4, 6,57,48,53	
		43,26,24,10,16,14, 2		3,11
36″	56,18, 4, 6, 7,31,40,35, 0,25		4, 6,57,52, 4	
		43,26,20, 3,18,21,58		3,11
38″	56,18, 4,49,33,51,43,53,22,23		4, 6,57,55,15	
		43,26,15,56,20,26,43		3,11
40″	56,18, 5,33, 0, 7,40,13,49, 6		4, 6,57,58,26	
		43,26,11,49,22,28,17		3,11
42″	56,18, 6,16,26,19,29,36,17,23		4, 6,58, 1,37	
		43,26, 7,42,24,26,40		3,11
44″	56,18, 6,59,52,27,12, 0,44, 3		4, 6,58, 4,48	
		43,26, 3,35,26,21,52		3,11
46″	56,18, 7,43,18,30,47,27, 5,55		4, 6,58, 7,59	
		43,25,59,28,28,13,53		3,11
48″	56,18, 8,26,44,30,15,55,19,48		4, 6,58,11,10	
		43,25,55,21,30, 2,43		3,11
50″	56,18, 9,10,10,25,37,25,22,31		4, 6,58,14,21	
		43,25,51,14,31,48,22		3,11
52″	56,18, 9,53,36,16,51,57,10,53		4, 6,58,17,32	
		43,25,47, 7,33,30,50		3,11
54″	56,18,10,37, 2, 3,59,30,41,43		4, 6,58,20,43	
		43,25,43, 0,35,10, 7		3,11
56″	56,18,11,20,27,47, 0, 5,51,50		4, 6,58,23,54	
		43,25,38,53,36,46,13		3,11
58″	56,18,12, 3,53,25,53,42,38, 3		4, 6,58,27, 5	
		43,25,34,46,38,19, 8		
60″	56,18,12,47,19, 0,40,20,57,11			
exact	56,18,12,47,19, 0,40,21,20,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°47′ 0″	56,18,12,47,19, 0,40,21,20,55			
		43,25,30,39,39,51,39		
2″	56,18,13,30,44,31,20, 1,12,34		4, 6,58,33,14	
		43,25,26,32,41,18,25		3,10
4″	56,18,14,14, 9,57,52,42,30,59		4, 6,58,36,24	
		43,25,22,25,42,42, 1		3,10
6″	56,18,14,57,35,20,18,25,13, 0		4, 6,58,39,34	
		43,25,18,18,44, 2,27		3,10
8″	56,18,15,41, 0,38,37, 9,15,27		4, 6,58,42,44	
		43,25,14,11,45,19,43		3,10
10″	56,18,16,24,25,52,48,54,35,10		4, 6,58,45,54	
		43,25,10, 4,46,33,49		3,10
12″	56,18,17, 7,51, 2,53,41, 8,59		4, 6,58,49, 4	
		43,25, 5,57,47,44,45		3,10
14″	56,18,17,51,16, 8,51,28,53,44		4, 6,58,52,14	
		43,25, 1,50,48,52,31		3,10
16″	56,18,18,34,41,10,42,17,46,15		4, 6,58,55,24	
		43,24,57,43,49,57, 7		3,10
18″	56,18,19,18, 6, 8,26, 7,43,22		4, 6,58,58,34	
		43,24,53,36,50,58,33		3,10
20″	56,18,20, 1,31, 2, 2,58,41,55		4, 6,59, 1,44	
		43,24,49,29,51,56,49		3,10
22″	56,18,20,44,55,51,32,50,38,44		4, 6,59, 4,54	
		43,24,45,22,52,51,55		3,10
24″	56,18,21,28,20,36,55,43,30,39		4, 6,59, 8, 4	
		43,24,41,15,53,43,51		3,10
26″	56,18,22,11,45,18,11,37,14,30		4, 6,59,11,14	
		43,24,37, 8,54,32,37		3,10
28″	56,18,22,55, 9,55,20,31,47, 7		4, 6,59,14,24	
		43,24,33, 1,55,18,13		3,10
30″	56,18,23,38,34,28,22,27, 5,20		4, 6,59,17,34	
		43,24,28,54,56, 0,39		3,10
32″	56,18,24,21,58,57,17,23, 5,59		4, 6,59,20,44	
		43,24,24,47,56,39,55		3,10
34″	56,18,25, 5,23,22, 5,19,45,54		4, 6,59,23,54	
		43,24,20,40,57,16, 1		3,10
36″	56,18,25,48,47,42,46,17, 1,55		4, 6,59,27, 4	
		43,24,16,33,57,48,57		3,10
38″	56,18,26,32,11,59,20,14,50,52		4, 6,59,30,14	
		43,24,12,26,58,18,43		3,10
40″	56,18,27,15,36,11,47,13, 9,35		4, 6,59,33,24	
		43,24, 8,19,58,45,19		3,10
42″	56,18,27,59, 0,20, 7,11,54,54		4, 6,59,36,34	
		43,24, 4,12,59, 8,45		3,10
44″	56,18,28,42,24,24,20,11, 3,39		4, 6,59,39,44	
		43,24, 0, 5,59,29, 1		3,10
46″	56,18,29,25,48,24,26,10,32,40		4, 6,59,42,54	
		43,23,55,58,59,46, 7		3,10
48″	56,18,30, 9,12,20,25,10,18,47		4, 6,59,46, 4	
		43,23,51,52, 0, 0, 3		3,10
50″	56,18,30,52,36,12,17,10,18,50		4, 6,59,49,14	
		43,23,47,45, 0,10,49		3,10
52″	56,18,31,36, 0, 0, 2,10,29,39		4, 6,59,52,24	
		43,23,43,38, 0,18,25		3,10
54″	56,18,32,19,23,43,40,10,48, 4		4, 6,59,55,34	
		43,23,39,31, 0,22,51		3,10
56″	56,18,33, 2,47,23,11,11,10,55		4, 6,59,58,44	
		43,23,35,24, 0,24, 7		3,10
58″	56,18,33,46,10,58,35,11,35, 2		4, 7, 0, 1,54	
		43,23,31,17, 0,22,13		
60″	56,18,34,29,34,29,52,11,57,15			
exact	56,18,34,29,34,29,52,11,25,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°48′ 0″	56,18,34,29,34,29,52,11,25,48			
		43,23,27,10, 0,13,55		
2″	56,18,35,12,57,57, 2,11,39,43		4, 7, 0, 8,26	
		43,23,23, 3, 0, 5,29		3,10
4″	56,18,35,56,21,20, 5,11,45,12		4, 7, 0,11,36	
		43,23,18,55,59,53,53		3,10
6″	56,18,36,39,44,39, 1,11,39, 5		4, 7, 0,14,46	
		43,23,14,48,59,39, 7		3,10
8″	56,18,37,23, 7,53,50,11,18,12		4, 7, 0,17,56	
		43,23,10,41,59,21,11		3,10
10″	56,18,38, 6,31, 4,32,10,39,23		4, 7, 0,21, 6	
		43,23, 6,34,59, 0, 5		3,10
12″	56,18,38,49,54,11, 7, 9,39,28		4, 7, 0,24,16	
		43,23, 2,27,58,35,49		3,10
14″	56,18,39,33,17,13,35, 8,15,17		4, 7, 0,27,26	
		43,22,58,20,58, 8,23		3,10
16″	56,18,40,16,40,11,56, 6,23,40		4, 7, 0,30,36	
		43,22,54,13,57,37,47		3,10
18″	56,18,41, 0, 3, 6,10, 4, 1,27		4, 7, 0,33,46	
		43,22,50, 6,57, 4, 1		3,10
20″	56,18,41,43,25,56,17, 1, 5,28		4, 7, 0,36,56	
		43,22,45,59,56,27, 5		3,10
22″	56,18,42,26,48,42,16,57,32,33		4, 7, 0,40, 6	
		43,22,41,52,55,46,59		3,10
24″	56,18,43,10,11,24, 9,53,19,32		4, 7, 0,43,16	
		43,22,37,45,55, 3,43		3,10
26″	56,18,43,53,34, 1,55,48,23,15		4, 7, 0,46,26	
		43,22,33,38,54,17,17		3,10
28″	56,18,44,36,56,35,34,42,40,32		4, 7, 0,49,36	
		43,22,29,31,53,27,41		3,10
30″	56,18,45,20,19, 5, 6,36, 8,13		4, 7, 0,52,46	
		43,22,25,24,52,34,55		3,10
32″	56,18,46, 3,41,30,31,28,43, 8		4, 7, 0,55,56	
		43,22,21,17,51,38,59		3,10
34″	56,18,46,47, 3,51,49,20,22, 7		4, 7, 0,59, 6	
		43,22,17,10,50,39,53		3,10
36″	56,18,47,30,26, 9, 0,11, 2, 0		4, 7, 1, 2,16	
		43,22,13, 3,49,37,37		3,10
38″	56,18,48,13,48,22, 4, 0,39,37		4, 7, 1, 5,26	
		43,22, 8,56,48,32,11		3,10
40″	56,18,48,57,10,31, 0,49,11,48		4, 7, 1, 8,36	
		43,22, 4,49,47,23,35		3,10
42″	56,18,49,40,32,35,50,36,35,23		4, 7, 1,11,46	
		43,22, 0,42,46,11,49		3,10
44″	56,18,50,23,54,36,33,22,47,12		4, 7, 1,14,56	
		43,21,56,35,44,56,53		3,10
46″	56,18,51, 7,16,33, 9, 7,44, 5		4, 7, 1,18, 6	
		43,21,52,28,43,38,47		3,10
48″	56,18,51,50,38,25,37,51,22,52		4, 7, 1,21,16	
		43,21,48,21,42,17,31		3,10
50″	56,18,52,34, 0,13,59,33,40,23		4, 7, 1,24,26	
		43,21,44,14,40,53, 5		3,10
52″	56,18,53,17,21,58,14,14,33,28		4, 7, 1,27,36	
		43,21,40, 7,39,25,29		3,10
54″	56,18,54, 0,43,38,21,53,58,57		4, 7, 1,30,46	
		43,21,36, 0,37,54,43		3,10
56″	56,18,54,44, 5,14,22,31,53,40		4, 7, 1,33,56	
		43,21,31,53,36,20,47		3,10
58″	56,18,55,27,26,46,16, 8,14,27		4, 7, 1,37, 6	
		43,21,27,46,34,43,41		
60″	56,18,56,10,48,14, 2,42,58, 8			
exact	56,18,56,10,48,14, 2,42,35,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°49′ 0″	56,18,56,10,48,14, 2,42,35,44			
		43,21,23,39,33, 1,12		
2″	56,18,56,54, 9,37,42,15,36,56		4, 7, 1,43,34	
		43,21,19,32,31,17,38		3,10
4″	56,18,57,37,30,57,14,46,54,34		4, 7, 1,46,44	
		43,21,15,25,29,30,54		3,10
6″	56,18,58,20,52,12,40,16,25,28		4, 7, 1,49,54	
		43,21,11,18,27,41, 0		3,10
8″	56,18,59, 4,13,23,58,44, 6,28		4, 7, 1,53, 4	
		43,21, 7,11,25,47,56		3,10
10″	56,18,59,47,34,31,10, 9,54,24		4, 7, 1,56,14	
		43,21, 3, 4,23,51,42		3,10
12″	56,19, 0,30,55,34,14,33,46, 6		4, 7, 1,59,24	
		43,20,58,57,21,52,18		3,10
14″	56,19, 1,14,16,33,11,55,38,24		4, 7, 2, 2,34	
		43,20,54,50,19,49,44		3,10
16″	56,19, 1,57,37,28, 2,15,28, 8		4, 7, 2, 5,44	
		43,20,50,43,17,44, 0		3,10
18″	56,19, 2,40,58,18,45,33,12, 8		4, 7, 2, 8,54	
		43,20,46,36,15,35, 6		3,10
20″	56,19, 3,24,19, 5,21,48,47,14		4, 7, 2,12, 4	
		43,20,42,29,13,23, 2		3,10
22″	56,19, 4, 7,39,47,51, 2,10,16		4, 7, 2,15,14	
		43,20,38,22,11, 7,48		3,10
24″	56,19, 4,51, 0,26,13,13,18, 4		4, 7, 2,18,24	
		43,20,34,15, 8,49,24		3,10
26″	56,19, 5,34,21, 0,28,22, 7,28		4, 7, 2,21,34	
		43,20,30, 8, 6,27,50		3,10
28″	56,19, 6,17,41,30,36,28,35,18		4, 7, 2,24,44	
		43,20,26, 1, 4, 3, 6		3,10
30″	56,19, 7, 1, 1,56,37,32,38,24		4, 7, 2,27,54	
		43,20,21,54, 1,35,12		3,10
32″	56,19, 7,44,22,18,31,34,13,36		4, 7, 2,31, 4	
		43,20,17,46,59, 4, 8		3,10
34″	56,19, 8,27,42,36,18,33,17,44		4, 7, 2,34,14	
		43,20,13,39,56,29,54		3,10
36″	56,19, 9,11, 2,49,58,29,47,38		4, 7, 2,37,24	
		43,20, 9,32,53,52,30		3,10
38″	56,19, 9,54,22,59,31,23,40, 8		4, 7, 2,40,34	
		43,20, 5,25,51,11,56		3,10
40″	56,19,10,37,43, 4,57,14,52, 4		4, 7, 2,43,44	
		43,20, 1,18,48,28,12		3,10
42″	56,19,11,21, 3, 6,16, 3,20,16		4, 7, 2,46,54	
		43,19,57,11,45,41,18		3,10
44″	56,19,12, 4,23, 3,27,49, 1,34		4, 7, 2,50, 4	
		43,19,53, 4,42,51,14		3,10
46″	56,19,12,47,42,56,32,31,52,48		4, 7, 2,53,14	
		43,19,48,57,39,58, 0		3,10
48″	56,19,13,31, 2,45,30,11,50,48		4, 7, 2,56,24	
		43,19,44,50,37, 1,36		3,10
50″	56,19,14,14,22,30,20,48,52,24		4, 7, 2,59,34	
		43,19,40,43,34, 2, 2		3,10
52″	56,19,14,57,42,11, 4,22,54,26		4, 7, 3, 2,44	
		43,19,36,36,30,59,18		3,10
54″	56,19,15,41, 1,47,40,53,53,44		4, 7, 3, 5,54	
		43,19,32,29,27,53,24		3,10
56″	56,19,16,24,21,20,10,21,47, 8		4, 7, 3, 9, 4	
		43,19,28,22,24,44,20		3,10
58″	56,19,17, 7,40,48,32,46,31,28		4, 7, 3,12,14	
		43,19,24,15,21,32, 6		
60″	56,19,17,51, 0,12,48, 8, 3,34			
exact	56,19,17,51, 0,12,48, 7,53,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°50′ 0″	56,19,17,51, 0,12,48, 7,53,18			
		43,19,20, 8,18,15,43		
2″	56,19,18,34,19,32,56,26, 9, 1		4, 7, 3,18,37	
		43,19,16, 1,14,57, 6		3,10
4″	56,19,19,17,38,48,57,41, 6, 7		4, 7, 3,21,47	
		43,19,11,54,11,35,19		3,10
6″	56,19,20, 0,58, 0,51,52,41,26		4, 7, 3,24,57	
		43,19, 7,47, 8,10,22		3,10
8″	56,19,20,44,17, 8,39, 0,51,48		4, 7, 3,28, 7	
		43,19, 3,40, 4,42,15		3,10
10″	56,19,21,27,36,12,19, 5,34, 3		4, 7, 3,31,17	
		43,18,59,33, 1,10,58		3,10
12″	56,19,22,10,55,11,52, 6,45, 1		4, 7, 3,34,27	
		43,18,55,25,57,36,31		3,10
14″	56,19,22,54,14, 7,18, 4,21,32		4, 7, 3,37,37	
		43,18,51,18,53,58,54		3,10
16″	56,19,23,37,32,58,36,58,20,26		4, 7, 3,40,47	
		43,18,47,11,50,18, 7		3,10
18″	56,19,24,20,51,45,48,48,38,33		4, 7, 3,43,57	
		43,18,43, 4,46,34,10		3,10
20″	56,19,25, 4,10,28,53,35,12,43		4, 7, 3,47, 7	
		43,18,38,57,42,47, 3		3,10
22″	56,19,25,47,29, 7,51,17,59,46		4, 7, 3,50,17	
		43,18,34,50,38,56,46		3,10
24″	56,19,26,30,47,42,41,56,56,32		4, 7, 3,53,27	
		43,18,30,43,35, 3,19		3,10
26″	56,19,27,14, 6,13,25,31,59,51		4, 7, 3,56,37	
		43,18,26,36,31, 6,42		3,10
28″	56,19,27,57,24,40, 2, 3, 6,33		4, 7, 3,59,47	
		43,18,22,29,27, 6,55		3,10
30″	56,19,28,40,43, 2,31,30,13,28		4, 7, 4, 2,57	
		43,18,18,22,23, 3,58		3,10
32″	56,19,29,24, 1,20,53,53,17,26		4, 7, 4, 6, 7	
		43,18,14,15,18,57,51		3,10
34″	56,19,30, 7,19,35, 9,12,15,17		4, 7, 4, 9,17	
		43,18,10, 8,14,48,34		3,10
36″	56,19,30,50,37,45,17,27, 3,51		4, 7, 4,12,27	
		43,18, 6, 1,10,36, 7		3,10
38″	56,19,31,33,55,51,18,37,39,58		4, 7, 4,15,37	
		43,18, 1,54, 6,20,30		3,10
40″	56,19,32,17,13,53,12,44, 0,28		4, 7, 4,18,47	
		43,17,57,47, 2, 1,43		3,10
42″	56,19,33, 0,31,50,59,46, 2,11		4, 7, 4,21,57	
		43,17,53,39,57,39,46		3,10
44″	56,19,33,43,49,44,39,43,41,57		4, 7, 4,25, 7	
		43,17,49,32,53,14,39		3,10
46″	56,19,34,27, 7,34,12,36,56,36		4, 7, 4,28,17	
		43,17,45,25,48,46,22		3,10
48″	56,19,35,10,25,19,38,25,42,58		4, 7, 4,31,27	
		43,17,41,18,44,14,55		3,10
50″	56,19,35,53,43, 0,57, 9,57,53		4, 7, 4,34,37	
		43,17,37,11,39,40,18		3,10
52″	56,19,36,37, 0,38, 8,49,38,11		4, 7, 4,37,47	
		43,17,33, 4,35, 2,31		3,10
54″	56,19,37,20,18,11,13,24,40,42		4, 7, 4,40,57	
		43,17,28,57,30,21,34		3,10
56″	56,19,38, 3,35,40,10,55, 2,16		4, 7, 4,44, 7	
		43,17,24,50,25,37,27		3,10
58″	56,19,38,46,53, 5, 1,20,39,43		4, 7, 4,47,17	
		43,17,20,43,20,50,10		
60″	56,19,39,30,10,25,44,41,29,53			
exact	56,19,39,30,10,25,44,41,28,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°51′ 0″	56,19,39,30,10,25,44,41,28,47			
		43,17,16,36,15,59,45		
2″	56,19,40,13,27,42,20,57,28,32		4, 7, 4,53,36	
		43,17,12,29,11, 6, 9		3,10
4″	56,19,40,56,44,54,50, 8,34,41		4, 7, 4,56,46	
		43,17, 8,22, 6, 9,23		3,10
6″	56,19,41,40, 2, 3,12,14,44, 4		4, 7, 4,59,56	
		43,17, 4,15, 1, 9,27		3,10
8″	56,19,42,23,19, 7,27,15,53,31		4, 7, 5, 3, 6	
		43,17, 0, 7,56, 6,21		3,10
10″	56,19,43, 6,36, 7,35,11,59,52		4, 7, 5, 6,16	
		43,16,56, 0,51, 0, 5		3,10
12″	56,19,43,49,53, 3,36, 2,59,57		4, 7, 5, 9,26	
		43,16,51,53,45,50,39		3,10
14″	56,19,44,33, 9,55,29,48,50,36		4, 7, 5,12,36	
		43,16,47,46,40,38, 3		3,10
16″	56,19,45,16,26,43,16,29,28,39		4, 7, 5,15,46	
		43,16,43,39,35,22,17		3,10
18″	56,19,45,59,43,26,56, 4,50,56		4, 7, 5,18,56	
		43,16,39,32,30, 3,21		3,10
20″	56,19,46,43, 0, 6,28,34,54,17		4, 7, 5,22, 6	
		43,16,35,25,24,41,15		3,10
22″	56,19,47,26,16,41,53,59,35,32		4, 7, 5,25,16	
		43,16,31,18,19,15,59		3,10
24″	56,19,48, 9,33,13,12,18,51,31		4, 7, 5,28,26	
		43,16,27,11,13,47,33		3,10
26″	56,19,48,52,49,40,23,32,39, 4		4, 7, 5,31,36	
		43,16,23, 4, 8,15,57		3,10
28″	56,19,49,36, 6, 3,27,40,55, 1		4, 7, 5,34,46	
		43,16,18,57, 2,41,11		3,10
30″	56,19,50,19,22,22,24,43,36,12		4, 7, 5,37,56	
		43,16,14,49,57, 3,15		3,10
32″	56,19,51, 2,38,37,14,40,39,27		4, 7, 5,41, 6	
		43,16,10,42,51,22, 9		3,10
34″	56,19,51,45,54,47,57,32, 1,36		4, 7, 5,44,16	
		43,16, 6,35,45,37,53		3,10
36″	56,19,52,29,10,54,33,17,39,29		4, 7, 5,47,26	
		43,16, 2,28,39,50,27		3,10
38″	56,19,53,12,26,57, 1,57,29,56		4, 7, 5,50,36	
		43,15,58,21,33,59,51		3,10
40″	56,19,53,55,42,55,23,31,29,47		4, 7, 5,53,46	
		43,15,54,14,28, 6, 5		3,10
42″	56,19,54,38,58,49,37,59,35,52		4, 7, 5,56,56	
		43,15,50, 7,22, 9, 9		3,10
44″	56,19,55,22,14,39,45,21,45, 1		4, 7, 6, 0, 6	
		43,15,46, 0,16, 9, 3		3,10
46″	56,19,56, 5,30,25,45,37,54, 4		4, 7, 6, 3,16	
		43,15,41,53,10, 5,47		3,10
48″	56,19,56,48,46, 7,38,47,59,51		4, 7, 6, 6,26	
		43,15,37,46, 3,59,21		3,10
50″	56,19,57,32, 1,45,24,51,59,12		4, 7, 6, 9,36	
		43,15,33,38,57,49,45		3,10
52″	56,19,58,15,17,19, 3,49,48,57		4, 7, 6,12,46	
		43,15,29,31,51,36,59		3,10
54″	56,19,58,58,32,48,35,41,25,56		4, 7, 6,15,56	
		43,15,25,24,45,21, 3		3,10
56″	56,19,59,41,48,14, 0,26,46,59		4, 7, 6,19, 6	
		43,15,21,17,39, 1,57		3,10
58″	56,20, 0,25, 3,35,18, 5,48,56		4, 7, 6,22,16	
		43,15,17,10,32,39,41		
60″	56,20, 1, 8,18,52,28,38,28,37			
exact	56,20, 1, 8,18,52,28,38,40,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°52′ 0″	56,20, 1, 8,18,52,28,38,40,14			
		43,15,13, 3,26,15,33		
2″	56,20, 1,51,34, 5,32, 4,55,47		4, 7, 6,28,30	
		43,15, 8,56,19,47, 3		3,10
4″	56,20, 2,34,49,14,28,24,42,50		4, 7, 6,31,40	
		43,15, 4,49,13,15,23		3,10
6″	56,20, 3,18, 4,19,17,37,58,13		4, 7, 6,34,50	
		43,15, 0,42, 6,40,33		3,10
8″	56,20, 4, 1,19,19,59,44,38,46		4, 7, 6,38, 0	
		43,14,56,35, 0, 2,33		3,10
10″	56,20, 4,44,34,16,34,44,41,19		4, 7, 6,41,10	
		43,14,52,27,53,21,23		3,10
12″	56,20, 5,27,49, 9, 2,38, 2,42		4, 7, 6,44,20	
		43,14,48,20,46,37, 3		3,10
14″	56,20, 6,11, 3,57,23,24,39,45		4, 7, 6,47,30	
		43,14,44,13,39,49,33		3,10
16″	56,20, 6,54,18,41,37, 4,29,18		4, 7, 6,50,40	
		43,14,40, 6,32,58,53		3,10
18″	56,20, 7,37,33,21,43,37,28,11		4, 7, 6,53,50	
		43,14,35,59,26, 5, 3		3,10
20″	56,20, 8,20,47,57,43, 3,33,14		4, 7, 6,57, 0	
		43,14,31,52,19, 8, 3		3,10
22″	56,20, 9, 4, 2,29,35,22,41,17		4, 7, 7, 0,10	
		43,14,27,45,12, 7,53		3,10
24″	56,20, 9,47,16,57,20,34,49,10		4, 7, 7, 3,20	
		43,14,23,38, 5, 4,33		3,10
26″	56,20,10,30,31,20,58,39,53,43		4, 7, 7, 6,30	
		43,14,19,30,57,58, 3		3,10
28″	56,20,11,13,45,40,29,37,51,46		4, 7, 7, 9,40	
		43,14,15,23,50,48,23		3,10
30″	56,20,11,56,59,55,53,28,40, 9		4, 7, 7,12,50	
		43,14,11,16,43,35,33		3,10
32″	56,20,12,40,14, 7,10,12,15,42		4, 7, 7,16, 0	
		43,14, 7, 9,36,19,33		3,10
34″	56,20,13,23,28,14,19,48,35,15		4, 7, 7,19,10	
		43,14, 3, 2,29, 0,23		3,10
36″	56,20,14, 6,42,17,22,17,35,38		4, 7, 7,22,20	
		43,13,58,55,21,38, 3		3,10
38″	56,20,14,49,56,16,17,39,13,41		4, 7, 7,25,30	
		43,13,54,48,14,12,33		3,10
40″	56,20,15,33,10,11, 5,53,26,14		4, 7, 7,28,40	
		43,13,50,41, 6,43,53		3,10
42″	56,20,16,16,24, 1,47, 0,10, 7		4, 7, 7,31,50	
		43,13,46,33,59,12, 3		3,10
44″	56,20,16,59,37,48,20,59,22,10		4, 7, 7,35, 0	
		43,13,42,26,51,37, 3		3,10
46″	56,20,17,42,51,30,47,50,59,13		4, 7, 7,38,10	
		43,13,38,19,43,58,53		3,10
48″	56,20,18,26, 5, 9, 7,34,58, 6		4, 7, 7,41,20	
		43,13,34,12,36,17,33		3,10
50″	56,20,19, 9,18,43,20,11,15,39		4, 7, 7,44,30	
		43,13,30, 5,28,33, 3		3,10
52″	56,20,19,52,32,13,25,39,48,42		4, 7, 7,47,40	
		43,13,25,58,20,45,23		3,10
54″	56,20,20,35,45,39,24, 0,34, 5		4, 7, 7,50,50	
		43,13,21,51,12,54,33		3,10
56″	56,20,21,18,59, 1,15,13,28,38		4, 7, 7,54, 0	
		43,13,17,44, 5, 0,33		3,10
58″	56,20,22, 2,12,18,59,18,29,11		4, 7, 7,57,10	
		43,13,13,36,57, 3,23		
60″	56,20,22,45,25,32,36,15,32,34			
exact	56,20,22,45,25,32,36,15,53,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°53′ 0″	56,20,22,45,25,32,36,15,53,23			
		43,13, 9,29,49, 5,22		
2″	56,20,23,28,38,42, 6, 4,58,45		4, 7, 8, 3,20	
		43,13, 5,22,41, 2, 2		3,10
4″	56,20,24,11,51,47,28,46, 0,47		4, 7, 8, 6,30	
		43,13, 1,15,32,55,32		3,10
6″	56,20,24,55, 4,48,44,18,56,19		4, 7, 8, 9,40	
		43,12,57, 8,24,45,52		3,10
8″	56,20,25,38,17,45,52,43,42,11		4, 7, 8,12,50	
		43,12,53, 1,16,33, 2		3,10
10″	56,20,26,21,30,38,54, 0,15,13		4, 7, 8,16, 0	
		43,12,48,54, 8,17, 2		3,10
12″	56,20,27, 4,43,27,48, 8,32,15		4, 7, 8,19,10	
		43,12,44,46,59,57,52		3,10
14″	56,20,27,47,56,12,35, 8,30, 7		4, 7, 8,22,20	
		43,12,40,39,51,35,32		3,10
16″	56,20,28,31, 8,53,15, 0, 5,39		4, 7, 8,25,30	
		43,12,36,32,43,10, 2		3,10
18″	56,20,29,14,21,29,47,43,15,41		4, 7, 8,28,40	
		43,12,32,25,34,41,22		3,10
20″	56,20,29,57,34, 2,13,17,57, 3		4, 7, 8,31,50	
		43,12,28,18,26, 9,32		3,10
22″	56,20,30,40,46,30,31,44, 6,35		4, 7, 8,35, 0	
		43,12,24,11,17,34,32		3,10
24″	56,20,31,23,58,54,43, 1,41, 7		4, 7, 8,38,10	
		43,12,20, 4, 8,56,22		3,10
26″	56,20,32, 7,11,14,47,10,37,29		4, 7, 8,41,20	
		43,12,15,57, 0,15, 2		3,10
28″	56,20,32,50,23,30,44,10,52,31		4, 7, 8,44,30	
		43,12,11,49,51,30,32		3,10
30″	56,20,33,33,35,42,34, 2,23, 3		4, 7, 8,47,40	
		43,12, 7,42,42,42,52		3,10
32″	56,20,34,16,47,50,16,45, 5,55		4, 7, 8,50,50	
		43,12, 3,35,33,52, 2		3,10
34″	56,20,34,59,59,53,52,18,57,57		4, 7, 8,54, 0	
		43,11,59,28,24,58, 2		3,10
36″	56,20,35,43,11,53,20,43,55,59		4, 7, 8,57,10	
		43,11,55,21,16, 0,52		3,10
38″	56,20,36,26,23,48,41,59,56,51		4, 7, 9, 0,20	
		43,11,51,14, 7, 0,32		3,10
40″	56,20,37, 9,35,39,56, 6,57,23		4, 7, 9, 3,30	
		43,11,47, 6,57,57, 2		3,10
42″	56,20,37,52,47,27, 3, 4,54,25		4, 7, 9, 6,40	
		43,11,42,59,48,50,22		3,10
44″	56,20,38,35,59,10, 2,53,44,47		4, 7, 9, 9,50	
		43,11,38,52,39,40,32		3,10
46″	56,20,39,19,10,48,55,33,25,19		4, 7, 9,13, 0	
		43,11,34,45,30,27,32		3,10
48″	56,20,40, 2,22,23,41, 3,52,51		4, 7, 9,16,10	
		43,11,30,38,21,11,22		3,10
50″	56,20,40,45,33,54,19,25, 4,13		4, 7, 9,19,20	
		43,11,26,31,11,52, 2		3,10
52″	56,20,41,28,45,20,50,36,56,15		4, 7, 9,22,30	
		43,11,22,24, 2,29,32		3,10
54″	56,20,42,11,56,43,14,39,25,47		4, 7, 9,25,40	
		43,11,18,16,53, 3,52		3,10
56″	56,20,42,55, 8, 1,31,32,29,39		4, 7, 9,28,50	
		43,11,14, 9,43,35, 2		3,10
58″	56,20,43,38,19,15,41,16, 4,41		4, 7, 9,32, 0	
		43,11,10, 2,34, 3, 2		
60″	56,20,44,21,30,25,43,50, 7,43			
exact	56,20,44,21,30,25,43,50,41,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°54′ 0″	56,20,44,21,30,25,43,50,41,45			
		43,11, 5,55,24,31,29		
2″	56,20,45, 4,41,31,39,15,13,14		4, 7, 9,38, 5	
		43,11, 1,48,14,53,24		3, 9
4″	56,20,45,47,52,33,27,30, 6,38		4, 7, 9,41,14	
		43,10,57,41, 5,12,10		3, 9
6″	56,20,46,31, 3,31, 8,35,18,48		4, 7, 9,44,23	
		43,10,53,33,55,27,47		3, 9
8″	56,20,47,14,14,24,42,30,46,35		4, 7, 9,47,32	
		43,10,49,26,45,40,15		3, 9
10″	56,20,47,57,25,14, 9,16,26,50		4, 7, 9,50,41	
		43,10,45,19,35,49,34		3, 9
12″	56,20,48,40,35,59,28,52,16,24		4, 7, 9,53,50	
		43,10,41,12,25,55,44		3, 9
14″	56,20,49,23,46,40,41,18,12, 8		4, 7, 9,56,59	
		43,10,37, 5,15,58,45		3, 9
16″	56,20,50, 6,57,17,46,34,10,53		4, 7,10, 0, 8	
		43,10,32,58, 5,58,37		3, 9
18″	56,20,50,50, 7,50,44,40, 9,30		4, 7,10, 3,17	
		43,10,28,50,55,55,20		3, 9
20″	56,20,51,33,18,19,35,36, 4,50		4, 7,10, 6,26	
		43,10,24,43,45,48,54		3, 9
22″	56,20,52,16,28,44,19,21,53,44		4, 7,10, 9,35	
		43,10,20,36,35,39,19		3, 9
24″	56,20,52,59,39, 4,55,57,33, 3		4, 7,10,12,44	
		43,10,16,29,25,26,35		3, 9
26″	56,20,53,42,49,21,25,22,59,38		4, 7,10,15,53	
		43,10,12,22,15,10,42		3, 9
28″	56,20,54,25,59,33,47,38,10,20		4, 7,10,19, 2	
		43,10, 8,15, 4,51,40		3, 9
30″	56,20,55, 9, 9,42, 2,43, 2, 0		4, 7,10,22,11	
		43,10, 4, 7,54,29,29		3, 9
32″	56,20,55,52,19,46,10,37,31,29		4, 7,10,25,20	
		43,10, 0, 0,44, 4, 9		3, 9
34″	56,20,56,35,29,46,11,21,35,38		4, 7,10,28,29	
		43, 9,55,53,33,35,40		3, 9
36″	56,20,57,18,39,42, 4,55,11,18		4, 7,10,31,38	
		43, 9,51,46,23, 4, 2		3, 9
38″	56,20,58, 1,49,33,51,18,15,20		4, 7,10,34,47	
		43, 9,47,39,12,29,15		3, 9
40″	56,20,58,44,59,21,30,30,44,35		4, 7,10,37,56	
		43, 9,43,32, 1,51,19		3, 9
42″	56,20,59,28, 9, 5, 2,32,35,54		4, 7,10,41, 5	
		43, 9,39,24,51,10,14		3, 9
44″	56,21, 0,11,18,44,27,23,46, 8		4, 7,10,44,14	
		43, 9,35,17,40,26, 0		3, 9
46″	56,21, 0,54,28,19,45, 4,12, 8		4, 7,10,47,23	
		43, 9,31,10,29,38,37		3, 9
48″	56,21, 1,37,37,50,55,33,50,45		4, 7,10,50,32	
		43, 9,27, 3,18,48, 5		3, 9
50″	56,21, 2,20,47,17,58,52,38,50		4, 7,10,53,41	
		43, 9,22,56, 7,54,24		3, 9
52″	56,21, 3, 3,56,40,55, 0,33,14		4, 7,10,56,50	
		43, 9,18,48,56,57,34		3, 9
54″	56,21, 3,47, 5,59,43,57,30,48		4, 7,10,59,59	
		43, 9,14,41,45,57,35		3, 9
56″	56,21, 4,30,15,14,25,43,28,23		4, 7,11, 3, 8	
		43, 9,10,34,34,54,27		3, 9
58″	56,21, 5,13,24,25, 0,18,22,50		4, 7,11, 6,17	
		43, 9, 6,27,23,48,10		
60″	56,21, 5,56,33,31,27,42,11, 0			
exact	56,21, 5,56,33,31,27,41,46,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°55′ 0″	56,21, 5,56,33,31,27,41,46,36			
		43, 9, 2,20,12,36, 8		
2″	56,21, 6,39,42,33,47,54,22,44		4, 7,11,12,45	
		43, 8,58,13, 1,23,23		3, 9
4″	56,21, 7,22,51,32, 0,55,46, 7		4, 7,11,15,54	
		43, 8,54, 5,50, 7,29		3, 9
6″	56,21, 8, 6, 0,26, 6,45,53,36		4, 7,11,19, 3	
		43, 8,49,58,38,48,26		3, 9
8″	56,21, 8,49, 9,16, 5,24,42, 2		4, 7,11,22,12	
		43, 8,45,51,27,26,14		3, 9
10″	56,21, 9,32,18, 1,56,52, 8,16		4, 7,11,25,21	
		43, 8,41,44,16, 0,53		3, 9
12″	56,21,10,15,26,43,41, 8, 9, 9		4, 7,11,28,30	
		43, 8,37,37, 4,32,23		3, 9
14″	56,21,10,58,35,21,18,12,41,32		4, 7,11,31,39	
		43, 8,33,29,53, 0,44		3, 9
16″	56,21,11,41,43,54,48, 5,42,16		4, 7,11,34,48	
		43, 8,29,22,41,25,56		3, 9
18″	56,21,12,24,52,24,10,47, 8,12		4, 7,11,37,57	
		43, 8,25,15,29,47,59		3, 9
20″	56,21,13, 8, 0,49,26,16,56,11		4, 7,11,41, 6	
		43, 8,21, 8,18, 6,53		3, 9
22″	56,21,13,51, 9,10,34,35, 3, 4		4, 7,11,44,15	
		43, 8,17, 1, 6,22,38		3, 9
24″	56,21,14,34,17,27,35,41,25,42		4, 7,11,47,24	
		43, 8,12,53,54,35,14		3, 9
26″	56,21,15,17,25,40,29,36, 0,56		4, 7,11,50,33	
		43, 8, 8,46,42,44,41		3, 9
28″	56,21,16, 0,33,49,16,18,45,37		4, 7,11,53,42	
		43, 8, 4,39,30,50,59		3, 9
30″	56,21,16,43,41,53,55,49,36,36		4, 7,11,56,51	
		43, 8, 0,32,18,54, 8		3, 9
32″	56,21,17,26,49,54,28, 8,30,44		4, 7,12, 0, 0	
		43, 7,56,25, 6,54, 8		3, 9
34″	56,21,18, 9,57,50,53,15,24,52		4, 7,12, 3, 9	
		43, 7,52,17,54,50,59		3, 9
36″	56,21,18,53, 5,43,11,10,15,51		4, 7,12, 6,18	
		43, 7,48,10,42,44,41		3, 9
38″	56,21,19,36,13,31,21,53, 0,32		4, 7,12, 9,27	
		43, 7,44, 3,30,35,14		3, 9
40″	56,21,20,19,21,15,25,23,35,46		4, 7,12,12,36	
		43, 7,39,56,18,22,38		3, 9
42″	56,21,21, 2,28,55,21,41,58,24		4, 7,12,15,45	
		43, 7,35,49, 6, 6,53		3, 9
44″	56,21,21,45,36,31,10,48, 5,17		4, 7,12,18,54	
		43, 7,31,41,53,47,59		3, 9
46″	56,21,22,28,44, 2,52,41,53,16		4, 7,12,22, 3	
		43, 7,27,34,41,25,56		3, 9
48″	56,21,23,11,51,30,27,23,19,12		4, 7,12,25,12	
		43, 7,23,27,29, 0,44		3, 9
50″	56,21,23,54,58,53,54,52,19,56		4, 7,12,28,21	
		43, 7,19,20,16,32,23		3, 9
52″	56,21,24,38, 6,13,15, 8,52,19		4, 7,12,31,30	
		43, 7,15,13, 4, 0,53		3, 9
54″	56,21,25,21,13,28,28,12,53,12		4, 7,12,34,39	
		43, 7,11, 5,51,26,14		3, 9
56″	56,21,26, 4,20,39,34, 4,19,26		4, 7,12,37,48	
		43, 7, 6,58,38,48,26		3, 9
58″	56,21,26,47,27,46,32,43, 7,52		4, 7,12,40,57	
		43, 7, 2,51,26, 7,29		
60″	56,21,27,30,34,49,24, 9,15,21			
exact	56,21,27,30,34,49,24, 8,56,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°56′ 0″	56,21,27,30,34,49,24, 8,56,57			
		43, 6,58,44,13,21,35		
2″	56,21,28,13,41,48, 8,22,18,32		4, 7,12,47,21	
		43, 6,54,37, 0,34,14		3, 9
4″	56,21,28,56,48,42,45,22,52,46		4, 7,12,50,30	
		43, 6,50,29,47,43,44		3, 9
6″	56,21,29,39,55,33,15,10,36,30		4, 7,12,53,39	
		43, 6,46,22,34,50, 5		3, 9
8″	56,21,30,23, 2,19,37,45,26,35		4, 7,12,56,48	
		43, 6,42,15,21,53,17		3, 9
10″	56,21,31, 6, 9, 1,53, 7,19,52		4, 7,12,59,57	
		43, 6,38, 8, 8,53,20		3, 9
12″	56,21,31,49,15,40, 1,16,13,12		4, 7,13, 3, 6	
		43, 6,34, 0,55,50,14		3, 9
14″	56,21,32,32,22,14, 2,12, 3,26		4, 7,13, 6,15	
		43, 6,29,53,42,43,59		3, 9
16″	56,21,33,15,28,43,55,54,47,25		4, 7,13, 9,24	
		43, 6,25,46,29,34,35		3, 9
18″	56,21,33,58,35, 9,42,24,22, 0		4, 7,13,12,33	
		43, 6,21,39,16,22, 2		3, 9
20″	56,21,34,41,41,31,21,40,44, 2		4, 7,13,15,42	
		43, 6,17,32, 3, 6,20		3, 9
22″	56,21,35,24,47,48,53,43,50,22		4, 7,13,18,51	
		43, 6,13,24,49,47,29		3, 9
24″	56,21,36, 7,54, 2,18,33,37,51		4, 7,13,22, 0	
		43, 6, 9,17,36,25,29		3, 9
26″	56,21,36,51, 0,11,36,10, 3,20		4, 7,13,25, 9	
		43, 6, 5,10,23, 0,20		3, 9
28″	56,21,37,34, 6,16,46,33, 3,40		4, 7,13,28,18	
		43, 6, 1, 3, 9,32, 2		3, 9
30″	56,21,38,17,12,17,49,42,35,42		4, 7,13,31,27	
		43, 5,56,55,56, 0,35		3, 9
32″	56,21,39, 0,18,14,45,38,36,17		4, 7,13,34,36	
		43, 5,52,48,42,25,59		3, 9
34″	56,21,39,43,24, 7,34,21, 2,16		4, 7,13,37,45	
		43, 5,48,41,28,48,14		3, 9
36″	56,21,40,26,29,56,15,49,50,30		4, 7,13,40,54	
		43, 5,44,34,15, 7,20		3, 9
38″	56,21,41, 9,35,40,50, 4,57,50		4, 7,13,44, 3	
		43, 5,40,27, 1,23,17		3, 9
40″	56,21,41,52,41,21,17, 6,21, 7		4, 7,13,47,12	
		43, 5,36,19,47,36, 5		3, 9
42″	56,21,42,35,46,57,36,53,57,12		4, 7,13,50,21	
		43, 5,32,12,33,45,44		3, 9
44″	56,21,43,18,52,29,49,27,42,56		4, 7,13,53,30	
		43, 5,28, 5,19,52,14		3, 9
46″	56,21,44, 1,57,57,54,47,35,10		4, 7,13,56,39	
		43, 5,23,58, 5,55,35		3, 9
48″	56,21,44,45, 3,21,52,53,30,45		4, 7,13,59,48	
		43, 5,19,50,51,55,47		3, 9
50″	56,21,45,28, 8,41,43,45,26,32		4, 7,14, 2,57	
		43, 5,15,43,37,52,50		3, 9
52″	56,21,46,11,13,57,27,23,19,22		4, 7,14, 6, 6	
		43, 5,11,36,23,46,44		3, 9
54″	56,21,46,54,19, 9, 3,47, 6, 6		4, 7,14, 9,15	
		43, 5, 7,29, 9,37,29		3, 9
56″	56,21,47,37,24,16,32,56,43,35		4, 7,14,12,24	
		43, 5, 3,21,55,25, 5		3, 9
58″	56,21,48,20,29,19,54,52, 8,40		4, 7,14,15,33	
		43, 4,59,14,41, 9,32		
60″	56,21,49, 3,34,19, 9,33,18,12			
exact	56,21,49, 3,34,19, 9,33, 9,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°57′ 0″	56,21,49, 3,34,19, 9,33, 9,35			
		43, 4,55, 7,26,50, 6		
2″	56,21,49,46,39,14,16,59,59,41		4, 7,14,21,53	
		43, 4,51, 0,12,28,13		3, 9
4″	56,21,50,29,44, 5,17,12,27,54		4, 7,14,25, 2	
		43, 4,46,52,58, 3,11		3, 9
6″	56,21,51,12,48,52,10,10,31, 5		4, 7,14,28,11	
		43, 4,42,45,43,35, 0		3, 9
8″	56,21,51,55,53,34,55,54, 6, 5		4, 7,14,31,20	
		43, 4,38,38,29, 3,40		3, 9
10″	56,21,52,38,58,13,34,23, 9,45		4, 7,14,34,29	
		43, 4,34,31,14,29,11		3, 9
12″	56,21,53,22, 2,48, 5,37,38,56		4, 7,14,37,38	
		43, 4,30,23,59,51,33		3, 9
14″	56,21,54, 5, 7,18,29,37,30,29		4, 7,14,40,47	
		43, 4,26,16,45,10,46		3, 9
16″	56,21,54,48,11,44,46,22,41,15		4, 7,14,43,56	
		43, 4,22, 9,30,26,50		3, 9
18″	56,21,55,31,16, 6,55,53, 8, 5		4, 7,14,47, 5	
		43, 4,18, 2,15,39,45		3, 9
20″	56,21,56,14,20,24,58, 8,47,50		4, 7,14,50,14	
		43, 4,13,55, 0,49,31		3, 9
22″	56,21,56,57,24,38,53, 9,37,21		4, 7,14,53,23	
		43, 4, 9,47,45,56, 8		3, 9
24″	56,21,57,40,28,48,40,55,33,29		4, 7,14,56,32	
		43, 4, 5,40,30,59,36		3, 9
26″	56,21,58,23,32,54,21,26,33, 5		4, 7,14,59,41	
		43, 4, 1,33,15,59,55		3, 9
28″	56,21,59, 6,36,55,54,42,33, 0		4, 7,15, 2,50	
		43, 3,57,26, 0,57, 5		3, 9
30″	56,21,59,49,40,53,20,43,30, 5		4, 7,15, 5,59	
		43, 3,53,18,45,51, 6		3, 9
32″	56,22, 0,32,44,46,39,29,21,11		4, 7,15, 9, 8	
		43, 3,49,11,30,41,58		3, 9
34″	56,22, 1,15,48,35,51, 0, 3, 9		4, 7,15,12,17	
		43, 3,45, 4,15,29,41		3, 9
36″	56,22, 1,58,52,20,55,15,32,50		4, 7,15,15,26	
		43, 3,40,57, 0,14,15		3, 9
38″	56,22, 2,41,56, 1,52,15,47, 5		4, 7,15,18,35	
		43, 3,36,49,44,55,40		3, 9
40″	56,22, 3,24,59,38,42, 0,42,45		4, 7,15,21,44	
		43, 3,32,42,29,33,56		3, 9
42″	56,22, 4, 8, 3,11,24,30,16,41		4, 7,15,24,53	
		43, 3,28,35,14, 9, 3		3, 9
44″	56,22, 4,51, 6,39,59,44,25,44		4, 7,15,28, 2	
		43, 3,24,27,58,41, 1		3, 9
46″	56,22, 5,34,10, 4,27,43, 6,45		4, 7,15,31,11	
		43, 3,20,20,43, 9,50		3, 9
48″	56,22, 6,17,13,24,48,26,16,35		4, 7,15,34,20	
		43, 3,16,13,27,35,30		3, 9
50″	56,22, 7, 0,16,41, 1,53,52, 5		4, 7,15,37,29	
		43, 3,12, 6,11,58, 1		3, 9
52″	56,22, 7,43,19,53, 8, 5,50, 6		4, 7,15,40,38	
		43, 3, 7,58,56,17,23		3, 9
54″	56,22, 8,26,23, 1, 7, 2, 7,29		4, 7,15,43,47	
		43, 3, 3,51,40,33,36		3, 9
56″	56,22, 9, 9,26, 4,58,42,41, 5		4, 7,15,46,56	
		43, 2,59,44,24,46,40		3, 9
58″	56,22, 9,52,29, 4,43, 7,27,45		4, 7,15,50, 5	
		43, 2,55,37, 8,56,35		
60″	56,22,10,35,32, 0,20,16,24,20			
exact	56,22,10,35,32, 0,20,16,29, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°58′ 0″	56,22,10,35,32, 0,20,16,29, 4			
		43, 2,51,29,53, 3,56		
2″	56,22,11,18,34,51,50, 9,33, 0		4, 7,15,56,20	
		43, 2,47,22,37, 7,36		3, 9
4″	56,22,12, 1,37,39,12,46,40,36		4, 7,15,59,29	
		43, 2,43,15,21, 8, 7		3, 9
6″	56,22,12,44,40,22,28, 7,48,43		4, 7,16, 2,38	
		43, 2,39, 8, 5, 5,29		3, 9
8″	56,22,13,27,43, 1,36,12,54,12		4, 7,16, 5,47	
		43, 2,35, 0,48,59,42		3, 9
10″	56,22,14,10,45,36,37, 1,53,54		4, 7,16, 8,56	
		43, 2,30,53,32,50,46		3, 9
12″	56,22,14,53,48, 7,30,34,44,40		4, 7,16,12, 5	
		43, 2,26,46,16,38,41		3, 9
14″	56,22,15,36,50,34,16,51,23,21		4, 7,16,15,14	
		43, 2,22,39, 0,23,27		3, 9
16″	56,22,16,19,52,56,55,51,46,48		4, 7,16,18,23	
		43, 2,18,31,44, 5, 4		3, 9
18″	56,22,17, 2,55,15,27,35,51,52		4, 7,16,21,32	
		43, 2,14,24,27,43,32		3, 9
20″	56,22,17,45,57,29,52, 3,35,24		4, 7,16,24,41	
		43, 2,10,17,11,18,51		3, 9
22″	56,22,18,28,59,40, 9,14,54,15		4, 7,16,27,50	
		43, 2, 6, 9,54,51, 1		3, 9
24″	56,22,19,12, 1,46,19, 9,45,16		4, 7,16,30,59	
		43, 2, 2, 2,38,20, 2		3, 9
26″	56,22,19,55, 3,48,21,48, 5,18		4, 7,16,34, 8	
		43, 1,57,55,21,45,54		3, 9
28″	56,22,20,38, 5,46,17, 9,51,12		4, 7,16,37,17	
		43, 1,53,48, 5, 8,37		3, 9
30″	56,22,21,21, 7,40, 5,14,59,49		4, 7,16,40,26	
		43, 1,49,40,48,28,11		3, 9
32″	56,22,22, 4, 9,29,46, 3,28, 0		4, 7,16,43,35	
		43, 1,45,33,31,44,36		3, 9
34″	56,22,22,47,11,15,19,35,12,36		4, 7,16,46,44	
		43, 1,41,26,14,57,52		3, 9
36″	56,22,23,30,12,56,45,50,10,28		4, 7,16,49,53	
		43, 1,37,18,58, 7,59		3, 9
38″	56,22,24,13,14,34, 4,48,18,27		4, 7,16,53, 2	
		43, 1,33,11,41,14,57		3, 9
40″	56,22,24,56,16, 7,16,29,33,24		4, 7,16,56,11	
		43, 1,29, 4,24,18,46		3, 9
42″	56,22,25,39,17,36,20,53,52,10		4, 7,16,59,20	
		43, 1,24,57, 7,19,26		3, 9
44″	56,22,26,22,19, 1,18, 1,11,36		4, 7,17, 2,29	
		43, 1,20,49,50,16,57		3, 9
46″	56,22,27, 5,20,22, 7,51,28,33		4, 7,17, 5,38	
		43, 1,16,42,33,11,19		3, 9
48″	56,22,27,48,21,38,50,24,39,52		4, 7,17, 8,47	
		43, 1,12,35,16, 2,32		3, 9
50″	56,22,28,31,22,51,25,40,42,24		4, 7,17,11,56	
		43, 1, 8,27,58,50,36		3, 9
52″	56,22,29,14,23,59,53,39,33, 0		4, 7,17,15, 5	
		43, 1, 4,20,41,35,31		3, 9
54″	56,22,29,57,25, 4,14,21, 8,31		4, 7,17,18,14	
		43, 1, 0,13,24,17,17		3, 9
56″	56,22,30,40,26, 4,27,45,25,48		4, 7,17,21,23	
		43, 0,56, 6, 6,55,54		3, 9
58″	56,22,31,23,27, 0,33,52,21,42		4, 7,17,24,32	
		43, 0,51,58,49,31,22		
60″	56,22,32, 6,27,52,32,41,53, 4			
exact	56,22,32, 6,27,52,32,42, 7,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
69°59′ 0″	56,22,32, 6,27,52,32,42, 7,45			
		43, 0,47,51,32, 5,20		
2″	56,22,32,49,28,40,24,14,13, 5		4, 7,17,30,42	
		43, 0,43,44,14,34,38		3, 9
4″	56,22,33,32,29,24, 8,28,47,43		4, 7,17,33,51	
		43, 0,39,36,57, 0,47		3, 9
6″	56,22,34,15,30, 3,45,25,48,30		4, 7,17,37, 0	
		43, 0,35,29,39,23,47		3, 9
8″	56,22,34,58,30,39,15, 5,12,17		4, 7,17,40, 9	
		43, 0,31,22,21,43,38		3, 9
10″	56,22,35,41,31,10,37,26,55,55		4, 7,17,43,18	
		43, 0,27,15, 4, 0,20		3, 9
12″	56,22,36,24,31,37,52,30,56,15		4, 7,17,46,27	
		43, 0,23, 7,46,13,53		3, 9
14″	56,22,37, 7,32, 1, 0,17,10, 8		4, 7,17,49,36	
		43, 0,19, 0,28,24,17		3, 9
16″	56,22,37,50,32,20, 0,45,34,25		4, 7,17,52,45	
		43, 0,14,53,10,31,32		3, 9
18″	56,22,38,33,32,34,53,56, 5,57		4, 7,17,55,54	
		43, 0,10,45,52,35,38		3, 9
20″	56,22,39,16,32,45,39,48,41,35		4, 7,17,59, 3	
		43, 0, 6,38,34,36,35		3, 9
22″	56,22,39,59,32,52,18,23,18,10		4, 7,18, 2,12	
		43, 0, 2,31,16,34,23		3, 9
24″	56,22,40,42,32,54,49,39,52,33		4, 7,18, 5,21	
		42,59,58,23,58,29, 2		3, 9
26″	56,22,41,25,32,53,13,38,21,35		4, 7,18, 8,30	
		42,59,54,16,40,20,32		3, 9
28″	56,22,42, 8,32,47,30,18,42, 7		4, 7,18,11,39	
		42,59,50, 9,22, 8,53		3, 9
30″	56,22,42,51,32,37,39,40,51, 0		4, 7,18,14,48	
		42,59,46, 2, 3,54, 5		3, 9
32″	56,22,43,34,32,23,41,44,45, 5		4, 7,18,17,57	
		42,59,41,54,45,36, 8		3, 9
34″	56,22,44,17,32, 5,36,30,21,13		4, 7,18,21, 6	
		42,59,37,47,27,15, 2		3, 9
36″	56,22,45, 0,31,43,23,57,36,15		4, 7,18,24,15	
		42,59,33,40, 8,50,47		3, 9
38″	56,22,45,43,31,17, 4, 6,27, 2		4, 7,18,27,24	
		42,59,29,32,50,23,23		3, 9
40″	56,22,46,26,30,46,36,56,50,25		4, 7,18,30,33	
		42,59,25,25,31,52,50		3, 9
42″	56,22,47, 9,30,12, 2,28,43,15		4, 7,18,33,42	
		42,59,21,18,13,19, 8		3, 9
44″	56,22,47,52,29,33,20,42, 2,23		4, 7,18,36,51	
		42,59,17,10,54,42,17		3, 9
46″	56,22,48,35,28,50,31,36,44,40		4, 7,18,40, 0	
		42,59,13, 3,36, 2,17		3, 9
48″	56,22,49,18,28, 3,35,12,46,57		4, 7,18,43, 9	
		42,59, 8,56,17,19, 8		3, 9
50″	56,22,50, 1,27,12,31,30, 6, 5		4, 7,18,46,18	
		42,59, 4,48,58,32,50		3, 9
52″	56,22,50,44,26,17,20,28,38,55		4, 7,18,49,27	
		42,59, 0,41,39,43,23		3, 9
54″	56,22,51,27,25,18, 2, 8,22,18		4, 7,18,52,36	
		42,58,56,34,20,50,47		3, 9
56″	56,22,52,10,24,14,36,29,13, 5		4, 7,18,55,45	
		42,58,52,27, 1,55, 2		3, 9
58″	56,22,52,53,23, 7, 3,31, 8, 7		4, 7,18,58,54	
		42,58,48,19,42,56, 8		
60″	56,22,53,36,21,55,23,14, 4,15			
exact	56,22,53,36,21,55,23,14,25,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70° 0′ 0″	56,22,53,36,21,55,23,14,25,47			
		42,58,44,12,23,56,35		
2″	56,22,54,19,20,39,35,38,22,22		4, 7,19, 5, 0	
		42,58,40, 5, 4,51,35		3, 9
4″	56,22,55, 2,19,19,40,43,13,57		4, 7,19, 8, 9	
		42,58,35,57,45,43,26		3, 9
6″	56,22,55,45,17,55,38,28,57,23		4, 7,19,11,18	
		42,58,31,50,26,32, 8		3, 9
8″	56,22,56,28,16,27,28,55,29,31		4, 7,19,14,27	
		42,58,27,43, 7,17,41		3, 9
10″	56,22,57,11,14,55,12, 2,47,12		4, 7,19,17,36	
		42,58,23,35,48, 0, 5		3, 9
12″	56,22,57,54,13,18,47,50,47,17		4, 7,19,20,45	
		42,58,19,28,28,39,20		3, 9
14″	56,22,58,37,11,38,16,19,26,37		4, 7,19,23,54	
		42,58,15,21, 9,15,26		3, 9
16″	56,22,59,20, 9,53,37,28,42, 3		4, 7,19,27, 3	
		42,58,11,13,49,48,23		3, 9
18″	56,23, 0, 3, 8, 4,51,18,30,26		4, 7,19,30,12	
		42,58, 7, 6,30,18,11		3, 9
20″	56,23, 0,46, 6,11,57,48,48,37		4, 7,19,33,21	
		42,58, 2,59,10,44,50		3, 9
22″	56,23, 1,29, 4,14,56,59,33,27		4, 7,19,36,30	
		42,57,58,51,51, 8,20		3, 9
24″	56,23, 2,12, 2,13,48,50,41,47		4, 7,19,39,39	
		42,57,54,44,31,28,41		3, 9
26″	56,23, 2,55, 0, 8,33,22,10,28		4, 7,19,42,48	
		42,57,50,37,11,45,53		3, 9
28″	56,23, 3,37,57,59,10,33,56,21		4, 7,19,45,57	
		42,57,46,29,51,59,56		3, 9
30″	56,23, 4,20,55,45,40,25,56,17		4, 7,19,49, 6	
		42,57,42,22,32,10,50		3, 9
32″	56,23, 5, 3,53,28, 2,58, 7, 7		4, 7,19,52,15	
		42,57,38,15,12,18,35		3, 9
34″	56,23, 5,46,51, 6,18,10,25,42		4, 7,19,55,24	
		42,57,34, 7,52,23,11		3, 9
36″	56,23, 6,29,48,40,26, 2,48,53		4, 7,19,58,33	
		42,57,30, 0,32,24,38		3, 9
38″	56,23, 7,12,46,10,26,35,13,31		4, 7,20, 1,42	
		42,57,25,53,12,22,56		3, 9
40″	56,23, 7,55,43,36,19,47,36,27		4, 7,20, 4,51	
		42,57,21,45,52,18, 5		3, 9
42″	56,23, 8,38,40,58, 5,39,54,32		4, 7,20, 8, 0	
		42,57,17,38,32,10, 5		3, 9
44″	56,23, 9,21,38,15,44,12, 4,37		4, 7,20,11, 9	
		42,57,13,31,11,58,56		3, 9
46″	56,23,10, 4,35,29,15,24, 3,33		4, 7,20,14,18	
		42,57, 9,23,51,44,38		3, 9
48″	56,23,10,47,32,38,39,15,48,11		4, 7,20,17,27	
		42,57, 5,16,31,27,11		3, 9
50″	56,23,11,30,29,43,55,47,15,22		4, 7,20,20,36	
		42,57, 1, 9,11, 6,35		3, 9
52″	56,23,12,13,26,45, 4,58,21,57		4, 7,20,23,45	
		42,56,57, 1,50,42,50		3, 9
54″	56,23,12,56,23,42, 6,49, 4,47		4, 7,20,26,54	
		42,56,52,54,30,15,56		3, 9
56″	56,23,13,39,20,35, 1,19,20,43		4, 7,20,30, 3	
		42,56,48,47, 9,45,53		3, 9
58″	56,23,14,22,17,23,48,29, 6,36		4, 7,20,33,12	
		42,56,44,39,49,12,41		
60″	56,23,15, 5,14, 8,28,18,19,17			
exact	56,23,15, 5,14, 8,28,18,51, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70° 1′ 0″	56,23,15, 5,14, 8,28,18,51, 4			
		42,56,40,32,28,39,56		
2″	56,23,15,48,10,49, 0,47,31, 0		4, 7,20,39,14	
		42,56,36,25, 8, 0,42		3, 8
4″	56,23,16,31, 7,25,25,55,31,42		4, 7,20,42,22	
		42,56,32,17,47,18,20		3, 8
6″	56,23,17,14, 3,57,43,42,50, 2		4, 7,20,45,30	
		42,56,28,10,26,32,50		3, 8
8″	56,23,17,57, 0,25,54, 9,22,52		4, 7,20,48,38	
		42,56,24, 3, 5,44,12		3, 8
10″	56,23,18,39,56,49,57,15, 7, 4		4, 7,20,51,46	
		42,56,19,55,44,52,26		3, 8
12″	56,23,19,22,53, 9,52,59,59,30		4, 7,20,54,54	
		42,56,15,48,23,57,32		3, 8
14″	56,23,20, 5,49,25,41,23,57, 2		4, 7,20,58, 2	
		42,56,11,41, 2,59,30		3, 8
16″	56,23,20,48,45,37,22,26,56,32		4, 7,21, 1,10	
		42,56, 7,33,41,58,20		3, 8
18″	56,23,21,31,41,44,56, 8,54,52		4, 7,21, 4,18	
		42,56, 3,26,20,54, 2		3, 8
20″	56,23,22,14,37,48,22,29,48,54		4, 7,21, 7,26	
		42,55,59,18,59,46,36		3, 8
22″	56,23,22,57,33,47,41,29,35,30		4, 7,21,10,34	
		42,55,55,11,38,36, 2		3, 8
24″	56,23,23,40,29,42,53, 8,11,32		4, 7,21,13,42	
		42,55,51, 4,17,22,20		3, 8
26″	56,23,24,23,25,33,57,25,33,52		4, 7,21,16,50	
		42,55,46,56,56, 5,30		3, 8
28″	56,23,25, 6,21,20,54,21,39,22		4, 7,21,19,58	
		42,55,42,49,34,45,32		3, 8
30″	56,23,25,49,17, 3,43,56,24,54		4, 7,21,23, 6	
		42,55,38,42,13,22,26		3, 8
32″	56,23,26,32,12,42,26, 9,47,20		4, 7,21,26,14	
		42,55,34,34,51,56,12		3, 8
34″	56,23,27,15, 8,17, 1, 1,43,32		4, 7,21,29,22	
		42,55,30,27,30,26,50		3, 8
36″	56,23,27,58, 3,47,28,32,10,22		4, 7,21,32,30	
		42,55,26,20, 8,54,20		3, 8
38″	56,23,28,40,59,13,48,41, 4,42		4, 7,21,35,38	
		42,55,22,12,47,18,42		3, 8
40″	56,23,29,23,54,36, 1,28,23,24		4, 7,21,38,46	
		42,55,18, 5,25,39,56		3, 8
42″	56,23,30, 6,49,54, 6,54, 3,20		4, 7,21,41,54	
		42,55,13,58, 3,58, 2		3, 8
44″	56,23,30,49,45, 8, 4,58, 1,22		4, 7,21,45, 2	
		42,55, 9,50,42,13, 0		3, 8
46″	56,23,31,32,40,17,55,40,14,22		4, 7,21,48,10	
		42,55, 5,43,20,24,50		3, 8
48″	56,23,32,15,35,23,39, 0,39,12		4, 7,21,51,18	
		42,55, 1,35,58,33,32		3, 8
50″	56,23,32,58,30,25,14,59,12,44		4, 7,21,54,26	
		42,54,57,28,36,39, 6		3, 8
52″	56,23,33,41,25,22,43,35,51,50		4, 7,21,57,34	
		42,54,53,21,14,41,32		3, 8
54″	56,23,34,24,20,16, 4,50,33,22		4, 7,22, 0,42	
		42,54,49,13,52,40,50		3, 8
56″	56,23,35, 7,15, 5,18,43,14,12		4, 7,22, 3,50	
		42,54,45, 6,30,37, 0		3, 8
58″	56,23,35,50, 9,50,25,13,51,12		4, 7,22, 6,58	
		42,54,40,59, 8,30, 2		
60″	56,23,36,33, 4,31,24,22,21,14			
exact	56,23,36,33, 4,31,24,21,59,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70° 2′ 0″	56,23,36,33, 4,31,24,21,59,21			
		42,54,36,51,46,17,39		
2″	56,23,37,15,59, 8,16, 8,17, 0		4, 7,22,13,23	
		42,54,32,44,24, 4,16		3, 8
4″	56,23,37,58,53,41, 0,32,21,16		4, 7,22,16,31	
		42,54,28,37, 1,47,45		3, 8
6″	56,23,38,41,48, 9,37,34, 9, 1		4, 7,22,19,39	
		42,54,24,29,39,28, 6		3, 8
8″	56,23,39,24,42,34, 7,13,37, 7		4, 7,22,22,47	
		42,54,20,22,17, 5,19		3, 8
10″	56,23,40, 7,36,54,29,30,42,26		4, 7,22,25,55	
		42,54,16,14,54,39,24		3, 8
12″	56,23,40,50,31,10,44,25,21,50		4, 7,22,29, 3	
		42,54,12, 7,32,10,21		3, 8
14″	56,23,41,33,25,22,51,57,32,11		4, 7,22,32,11	
		42,54, 8, 0, 9,38,10		3, 8
16″	56,23,42,16,19,30,52, 7,10,21		4, 7,22,35,19	
		42,54, 3,52,47, 2,51		3, 8
18″	56,23,42,59,13,34,44,54,13,12		4, 7,22,38,27	
		42,53,59,45,24,24,24		3, 8
20″	56,23,43,42, 7,34,30,18,37,36		4, 7,22,41,35	
		42,53,55,38, 1,42,49		3, 8
22″	56,23,44,25, 1,30, 8,20,20,25		4, 7,22,44,43	
		42,53,51,30,38,58, 6		3, 8
24″	56,23,45, 7,55,21,38,59,18,31		4, 7,22,47,51	
		42,53,47,23,16,10,15		3, 8
26″	56,23,45,50,49, 9, 2,15,28,46		4, 7,22,50,59	
		42,53,43,15,53,19,16		3, 8
28″	56,23,46,33,42,52,18, 8,48, 2		4, 7,22,54, 7	
		42,53,39, 8,30,25, 9		3, 8
30″	56,23,47,16,36,31,26,39,13,11		4, 7,22,57,15	
		42,53,35, 1, 7,27,54		3, 8
32″	56,23,47,59,30, 6,27,46,41, 5		4, 7,23, 0,23	
		42,53,30,53,44,27,31		3, 8
34″	56,23,48,42,23,37,21,31, 8,36		4, 7,23, 3,31	
		42,53,26,46,21,24, 0		3, 8
36″	56,23,49,25,17, 4, 7,52,32,36		4, 7,23, 6,39	
		42,53,22,38,58,17,21		3, 8
38″	56,23,50, 8,10,26,46,50,49,57		4, 7,23, 9,47	
		42,53,18,31,35, 7,34		3, 8
40″	56,23,50,51, 3,45,18,25,57,31		4, 7,23,12,55	
		42,53,14,24,11,54,39		3, 8
42″	56,23,51,33,56,59,42,37,52,10		4, 7,23,16, 3	
		42,53,10,16,48,38,36		3, 8
44″	56,23,52,16,50, 9,59,26,30,46		4, 7,23,19,11	
		42,53, 6, 9,25,19,25		3, 8
46″	56,23,52,59,43,16, 8,51,50,11		4, 7,23,22,19	
		42,53, 2, 2, 1,57, 6		3, 8
48″	56,23,53,42,36,18,10,53,47,17		4, 7,23,25,27	
		42,52,57,54,38,31,39		3, 8
50″	56,23,54,25,29,16, 5,32,18,56		4, 7,23,28,35	
		42,52,53,47,15, 3, 4		3, 8
52″	56,23,55, 8,22, 9,52,47,22, 0		4, 7,23,31,43	
		42,52,49,39,51,31,21		3, 8
54″	56,23,55,51,14,59,32,38,53,21		4, 7,23,34,51	
		42,52,45,32,27,56,30		3, 8
56″	56,23,56,34, 7,45, 5, 6,49,51		4, 7,23,37,59	
		42,52,41,25, 4,18,31		3, 8
58″	56,23,57,17, 0,26,30,11, 8,22		4, 7,23,41, 7	
		42,52,37,17,40,37,24		
60″	56,23,57,59,53, 3,47,51,45,46			
exact	56,23,57,59,53, 3,47,51,34,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70° 3′ 0″	56,23,57,59,53, 3,47,51,34,10			
		42,52,33,10,16,51,58		
2″	56,23,58,42,45,36,58, 8,26, 8		4, 7,23,47,27	
		42,52,29, 2,53, 4,31		3, 8
4″	56,23,59,25,38, 6, 1, 1,30,39		4, 7,23,50,35	
		42,52,24,55,29,13,56		3, 8
6″	56,24, 0, 8,30,30,56,30,44,35		4, 7,23,53,43	
		42,52,20,48, 5,20,13		3, 8
8″	56,24, 0,51,22,51,44,36, 4,48		4, 7,23,56,51	
		42,52,16,40,41,23,22		3, 8
10″	56,24, 1,34,15, 8,25,17,28,10		4, 7,23,59,59	
		42,52,12,33,17,23,23		3, 8
12″	56,24, 2,17, 7,20,58,34,51,33		4, 7,24, 3, 7	
		42,52, 8,25,53,20,16		3, 8
14″	56,24, 2,59,59,29,24,28,11,49		4, 7,24, 6,15	
		42,52, 4,18,29,14, 1		3, 8
16″	56,24, 3,42,51,33,42,57,25,50		4, 7,24, 9,23	
		42,52, 0,11, 5, 4,38		3, 8
18″	56,24, 4,25,43,33,54, 2,30,28		4, 7,24,12,31	
		42,51,56, 3,40,52, 7		3, 8
20″	56,24, 5, 8,35,29,57,43,22,35		4, 7,24,15,39	
		42,51,51,56,16,36,28		3, 8
22″	56,24, 5,51,27,21,53,59,59, 3		4, 7,24,18,47	
		42,51,47,48,52,17,41		3, 8
24″	56,24, 6,34,19, 9,42,52,16,44		4, 7,24,21,55	
		42,51,43,41,27,55,46		3, 8
26″	56,24, 7,17,10,53,24,20,12,30		4, 7,24,25, 3	
		42,51,39,34, 3,30,43		3, 8
28″	56,24, 8, 0, 2,32,58,23,43,13		4, 7,24,28,11	
		42,51,35,26,39, 2,32		3, 8
30″	56,24, 8,42,54, 8,25, 2,45,45		4, 7,24,31,19	
		42,51,31,19,14,31,13		3, 8
32″	56,24, 9,25,45,39,44,17,16,58		4, 7,24,34,27	
		42,51,27,11,49,56,46		3, 8
34″	56,24,10, 8,37, 6,56, 7,13,44		4, 7,24,37,35	
		42,51,23, 4,25,19,11		3, 8
36″	56,24,10,51,28,30, 0,32,32,55		4, 7,24,40,43	
		42,51,18,57, 0,38,28		3, 8
38″	56,24,11,34,19,48,57,33,11,23		4, 7,24,43,51	
		42,51,14,49,35,54,37		3, 8
40″	56,24,12,17,11, 3,47, 9, 6, 0		4, 7,24,46,59	
		42,51,10,42,11, 7,38		3, 8
42″	56,24,13, 0, 2,14,29,20,13,38		4, 7,24,50, 7	
		42,51, 6,34,46,17,31		3, 8
44″	56,24,13,42,53,21, 4, 6,31, 9		4, 7,24,53,15	
		42,51, 2,27,21,24,16		3, 8
46″	56,24,14,25,44,23,31,27,55,25		4, 7,24,56,23	
		42,50,58,19,56,27,53		3, 8
48″	56,24,15, 8,35,21,51,24,23,18		4, 7,24,59,31	
		42,50,54,12,31,28,22		3, 8
50″	56,24,15,51,26,16, 3,55,51,40		4, 7,25, 2,39	
		42,50,50, 5, 6,25,43		3, 8
52″	56,24,16,34,17, 6, 9, 2,17,23		4, 7,25, 5,47	
		42,50,45,57,41,19,56		3, 8
54″	56,24,17,17, 7,52, 6,43,37,19		4, 7,25, 8,55	
		42,50,41,50,16,11, 1		3, 8
56″	56,24,17,59,58,33,56,59,48,20		4, 7,25,12, 3	
		42,50,37,42,50,58,58		3, 8
58″	56,24,18,42,49,11,39,50,47,18		4, 7,25,15,11	
		42,50,33,35,25,43,47		
60″	56,24,19,25,39,45,15,16,31, 5			
exact	56,24,19,25,39,45,15,16,26,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70° 4′ 0″	56,24,19,25,39,45,15,16,26,53			
		42,50,29,28, 0,25,11		
2″	56,24,20, 8,30,14,43,16,52, 4		4, 7,25,21,27	
		42,50,25,20,35, 3,44		3, 8
4″	56,24,20,51,20,40, 3,51,55,48		4, 7,25,24,35	
		42,50,21,13, 9,39, 9		3, 8
6″	56,24,21,34,11, 1,17, 1,34,57		4, 7,25,27,43	
		42,50,17, 5,44,11,26		3, 8
8″	56,24,22,17, 1,18,22,45,46,23		4, 7,25,30,51	
		42,50,12,58,18,40,35		3, 8
10″	56,24,22,59,51,31,21, 4,26,58		4, 7,25,33,59	
		42,50, 8,50,53, 6,36		3, 8
12″	56,24,23,42,41,40,11,57,33,34		4, 7,25,37, 7	
		42,50, 4,43,27,29,29		3, 8
14″	56,24,24,25,31,44,55,25, 3, 3		4, 7,25,40,15	
		42,50, 0,36, 1,49,14		3, 8
16″	56,24,25, 8,21,45,31,26,52,17		4, 7,25,43,23	
		42,49,56,28,36, 5,51		3, 8
18″	56,24,25,51,11,42, 0, 2,58, 8		4, 7,25,46,31	
		42,49,52,21,10,19,20		3, 8
20″	56,24,26,34, 1,34,21,13,17,28		4, 7,25,49,39	
		42,49,48,13,44,29,41		3, 8
22″	56,24,27,16,51,22,34,57,47, 9		4, 7,25,52,47	
		42,49,44, 6,18,36,54		3, 8
24″	56,24,27,59,41, 6,41,16,24, 3		4, 7,25,55,55	
		42,49,39,58,52,40,59		3, 8
26″	56,24,28,42,30,46,40, 9, 5, 2		4, 7,25,59, 3	
		42,49,35,51,26,41,56		3, 8
28″	56,24,29,25,20,22,31,35,46,58		4, 7,26, 2,11	
		42,49,31,44, 0,39,45		3, 8
30″	56,24,30, 8, 9,54,15,36,26,43		4, 7,26, 5,19	
		42,49,27,36,34,34,26		3, 8
32″	56,24,30,50,59,21,52,11, 1, 9		4, 7,26, 8,27	
		42,49,23,29, 8,25,59		3, 8
34″	56,24,31,33,48,45,21,19,27, 8		4, 7,26,11,35	
		42,49,19,21,42,14,24		3, 8
36″	56,24,32,16,38, 4,43, 1,41,32		4, 7,26,14,43	
		42,49,15,14,15,59,41		3, 8
38″	56,24,32,59,27,19,57,17,41,13		4, 7,26,17,51	
		42,49,11, 6,49,41,50		3, 8
40″	56,24,33,42,16,31, 4, 7,23, 3		4, 7,26,20,59	
		42,49, 6,59,23,20,51		3, 8
42″	56,24,34,25, 5,38, 3,30,43,54		4, 7,26,24, 7	
		42,49, 2,51,56,56,44		3, 8
44″	56,24,35, 7,54,40,55,27,40,38		4, 7,26,27,15	
		42,48,58,44,30,29,29		3, 8
46″	56,24,35,50,43,39,39,58,10, 7		4, 7,26,30,23	
		42,48,54,37, 3,59, 6		3, 8
48″	56,24,36,33,32,34,17, 2, 9,13		4, 7,26,33,31	
		42,48,50,29,37,25,35		3, 8
50″	56,24,37,16,21,24,46,39,34,48		4, 7,26,36,39	
		42,48,46,22,10,48,56		3, 8
52″	56,24,37,59,10,11, 8,50,23,44		4, 7,26,39,47	
		42,48,42,14,44, 9, 9		3, 8
54″	56,24,38,41,58,53,23,34,32,53		4, 7,26,42,55	
		42,48,38, 7,17,26,14		3, 8
56″	56,24,39,24,47,31,30,51,59, 7		4, 7,26,46, 3	
		42,48,33,59,50,40,11		3, 8
58″	56,24,40, 7,36, 5,30,42,39,18		4, 7,26,49,11	
		42,48,29,52,23,51, 0		
60″	56,24,40,50,24,35,23, 6,30,18			
exact	56,24,40,50,24,35,23, 6,36,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70° 5′ 0″	56,24,40,50,24,35,23, 6,36,42			
		42,48,25,44,56,59,31		
2″	56,24,41,33,13, 1, 8, 3,36,13		4, 7,26,55,23	
		42,48,21,37,30, 4, 8		3, 8
4″	56,24,42,16, 1,22,45,33,40,21		4, 7,26,58,31	
		42,48,17,30, 3, 5,37		3, 8
6″	56,24,42,58,49,40,15,36,45,58		4, 7,27, 1,39	
		42,48,13,22,36, 3,58		3, 8
8″	56,24,43,41,37,53,38,12,49,56		4, 7,27, 4,47	
		42,48, 9,15, 8,59,11		3, 8
10″	56,24,44,24,26, 2,53,21,49, 7		4, 7,27, 7,55	
		42,48, 5, 7,41,51,16		3, 8
12″	56,24,45, 7,14, 8, 1, 3,40,23		4, 7,27,11, 3	
		42,48, 1, 0,14,40,13		3, 8
14″	56,24,45,50, 2, 9, 1,18,20,36		4, 7,27,14,11	
		42,47,56,52,47,26, 2		3, 8
16″	56,24,46,32,50, 5,54, 5,46,38		4, 7,27,17,19	
		42,47,52,45,20, 8,43		3, 8
18″	56,24,47,15,37,58,39,25,55,21		4, 7,27,20,27	
		42,47,48,37,52,48,16		3, 8
20″	56,24,47,58,25,47,17,18,43,37		4, 7,27,23,35	
		42,47,44,30,25,24,41		3, 8
22″	56,24,48,41,13,31,47,44, 8,18		4, 7,27,26,43	
		42,47,40,22,57,57,58		3, 8
24″	56,24,49,24, 1,12,10,42, 6,16		4, 7,27,29,51	
		42,47,36,15,30,28, 7		3, 8
26″	56,24,50, 6,48,48,26,12,34,23		4, 7,27,32,59	
		42,47,32, 8, 2,55, 8		3, 8
28″	56,24,50,49,36,20,34,15,29,31		4, 7,27,36, 7	
		42,47,28, 0,35,19, 1		3, 8
30″	56,24,51,32,23,48,34,50,48,32		4, 7,27,39,15	
		42,47,23,53, 7,39,46		3, 8
32″	56,24,52,15,11,12,27,58,28,18		4, 7,27,42,23	
		42,47,19,45,39,57,23		3, 8
34″	56,24,52,57,58,32,13,38,25,41		4, 7,27,45,31	
		42,47,15,38,12,11,52		3, 8
36″	56,24,53,40,45,47,51,50,37,33		4, 7,27,48,39	
		42,47,11,30,44,23,13		3, 8
38″	56,24,54,23,32,59,22,35, 0,46		4, 7,27,51,47	
		42,47, 7,23,16,31,26		3, 8
40″	56,24,55, 6,20, 6,45,51,32,12		4, 7,27,54,55	
		42,47, 3,15,48,36,31		3, 8
42″	56,24,55,49, 7,10, 1,40, 8,43		4, 7,27,58, 3	
		42,46,59, 8,20,38,28		3, 8
44″	56,24,56,31,54, 9,10, 0,47,11		4, 7,28, 1,11	
		42,46,55, 0,52,37,17		3, 8
46″	56,24,57,14,41, 4,10,53,24,28		4, 7,28, 4,19	
		42,46,50,53,24,32,58		3, 8
48″	56,24,57,57,27,55, 4,17,57,26		4, 7,28, 7,27	
		42,46,46,45,56,25,31		3, 8
50″	56,24,58,40,14,41,50,14,22,57		4, 7,28,10,35	
		42,46,42,38,28,14,56		3, 8
52″	56,24,59,23, 1,24,28,42,37,53		4, 7,28,13,43	
		42,46,38,31, 0, 1,13		3, 8
54″	56,25, 0, 5,48, 2,59,42,39, 6		4, 7,28,16,51	
		42,46,34,23,31,44,22		3, 8
56″	56,25, 0,48,34,37,23,14,23,28		4, 7,28,19,59	
		42,46,30,16, 3,24,23		3, 8
58″	56,25, 1,31,21, 7,39,17,47,51		4, 7,28,23, 7	
		42,46,26, 8,35, 1,16		
60″	56,25, 2,14, 7,33,47,52,49, 7			
exact	56,25, 2,14, 7,33,47,53,10,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70° 6′ 0″	56,25, 2,14, 7,33,47,53,10,38			
		42,46,22, 1, 6,37,16		
2″	56,25, 2,56,53,55,48,59,47,54		4, 7,28,29,13	
		42,46,17,53,38, 8, 3		3, 8
4″	56,25, 3,39,40,13,42,37,55,57		4, 7,28,32,21	
		42,46,13,46, 9,35,42		3, 8
6″	56,25, 4,22,26,27,28,47,31,39		4, 7,28,35,29	
		42,46, 9,38,41, 0,13		3, 8
8″	56,25, 5, 5,12,37, 7,28,31,52		4, 7,28,38,37	
		42,46, 5,31,12,21,36		3, 8
10″	56,25, 5,47,58,42,38,40,53,28		4, 7,28,41,45	
		42,46, 1,23,43,39,51		3, 8
12″	56,25, 6,30,44,44, 2,24,33,19		4, 7,28,44,53	
		42,45,57,16,14,54,58		3, 8
14″	56,25, 7,13,30,41,18,39,28,17		4, 7,28,48, 1	
		42,45,53, 8,46, 6,57		3, 8
16″	56,25, 7,56,16,34,27,25,35,14		4, 7,28,51, 9	
		42,45,49, 1,17,15,48		3, 8
18″	56,25, 8,39, 2,23,28,42,51, 2		4, 7,28,54,17	
		42,45,44,53,48,21,31		3, 8
20″	56,25, 9,21,48, 8,22,31,12,33		4, 7,28,57,25	
		42,45,40,46,19,24, 6		3, 8
22″	56,25,10, 4,33,49, 8,50,36,39		4, 7,29, 0,33	
		42,45,36,38,50,23,33		3, 8
24″	56,25,10,47,19,25,47,41, 0,12		4, 7,29, 3,41	
		42,45,32,31,21,19,52		3, 8
26″	56,25,11,30, 4,58,19, 2,20, 4		4, 7,29, 6,49	
		42,45,28,23,52,13, 3		3, 8
28″	56,25,12,12,50,26,42,54,33, 7		4, 7,29, 9,57	
		42,45,24,16,23, 3, 6		3, 8
30″	56,25,12,55,35,50,59,17,36,13		4, 7,29,13, 5	
		42,45,20, 8,53,50, 1		3, 8
32″	56,25,13,38,21,11, 8,11,26,14		4, 7,29,16,13	
		42,45,16, 1,24,33,48		3, 8
34″	56,25,14,21, 6,27, 9,36, 0, 2		4, 7,29,19,21	
		42,45,11,53,55,14,27		3, 8
36″	56,25,15, 3,51,39, 3,31,14,29		4, 7,29,22,29	
		42,45, 7,46,25,51,58		3, 8
38″	56,25,15,46,36,46,49,57, 6,27		4, 7,29,25,37	
		42,45, 3,38,56,26,21		3, 8
40″	56,25,16,29,21,50,28,53,32,48		4, 7,29,28,45	
		42,44,59,31,26,57,36		3, 8
42″	56,25,17,12, 6,50, 0,20,30,24		4, 7,29,31,53	
		42,44,55,23,57,25,43		3, 8
44″	56,25,17,54,51,45,24,17,56, 7		4, 7,29,35, 1	
		42,44,51,16,27,50,42		3, 8
46″	56,25,18,37,36,36,40,45,46,49		4, 7,29,38, 9	
		42,44,47, 8,58,12,33		3, 8
48″	56,25,19,20,21,23,49,43,59,22		4, 7,29,41,17	
		42,44,43, 1,28,31,16		3, 8
50″	56,25,20, 3, 6, 6,51,12,30,38		4, 7,29,44,25	
		42,44,38,53,58,46,51		3, 8
52″	56,25,20,45,50,45,45,11,17,29		4, 7,29,47,33	
		42,44,34,46,28,59,18		3, 8
54″	56,25,21,28,35,20,31,40,16,47		4, 7,29,50,41	
		42,44,30,38,59, 8,37		3, 8
56″	56,25,22,11,19,51,10,39,25,24		4, 7,29,53,49	
		42,44,26,31,29,14,48		3, 8
58″	56,25,22,54, 4,17,42, 8,40,12		4, 7,29,56,57	
		42,44,22,23,59,17,51		
60″	56,25,23,36,48,40, 6, 7,58, 3			
exact	56,25,23,36,48,40, 6, 8,23,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70° 7′ 0″	56,25,23,36,48,40, 6, 8,23,32			
		42,44,18,16,29,20,41		
2″	56,25,24,19,32,58,22,37,44,13		4, 7,30, 3, 0	
		42,44,14, 8,59,17,41		3, 7
4″	56,25,25, 2,17,12,31,37, 1,54		4, 7,30, 6, 7	
		42,44,10, 1,29,11,34		3, 7
6″	56,25,25,45, 1,22,33, 6,13,28		4, 7,30, 9,14	
		42,44, 5,53,59, 2,20		3, 7
8″	56,25,26,27,45,28,27, 5,15,48		4, 7,30,12,21	
		42,44, 1,46,28,49,59		3, 7
10″	56,25,27,10,29,30,13,34, 5,47		4, 7,30,15,28	
		42,43,57,38,58,34,31		3, 7
12″	56,25,27,53,13,27,52,32,40,18		4, 7,30,18,35	
		42,43,53,31,28,15,56		3, 7
14″	56,25,28,35,57,21,24, 0,56,14		4, 7,30,21,42	
		42,43,49,23,57,54,14		3, 7
16″	56,25,29,18,41,10,47,58,50,28		4, 7,30,24,49	
		42,43,45,16,27,29,25		3, 7
18″	56,25,30, 1,24,56, 4,26,19,53		4, 7,30,27,56	
		42,43,41, 8,57, 1,29		3, 7
20″	56,25,30,44, 8,37,13,23,21,22		4, 7,30,31, 3	
		42,43,37, 1,26,30,26		3, 7
22″	56,25,31,26,52,14,14,49,51,48		4, 7,30,34,10	
		42,43,32,53,55,56,16		3, 7
24″	56,25,32, 9,35,47, 8,45,48, 4		4, 7,30,37,17	
		42,43,28,46,25,18,59		3, 7
26″	56,25,32,52,19,15,55,11, 7, 3		4, 7,30,40,24	
		42,43,24,38,54,38,35		3, 7
28″	56,25,33,35, 2,40,34, 5,45,38		4, 7,30,43,31	
		42,43,20,31,23,55, 4		3, 7
30″	56,25,34,17,46, 1, 5,29,40,42		4, 7,30,46,38	
		42,43,16,23,53, 8,26		3, 7
32″	56,25,35, 0,29,17,29,22,49, 8		4, 7,30,49,45	
		42,43,12,16,22,18,41		3, 7
34″	56,25,35,43,12,29,45,45, 7,49		4, 7,30,52,52	
		42,43, 8, 8,51,25,49		3, 7
36″	56,25,36,25,55,37,54,36,33,38		4, 7,30,55,59	
		42,43, 4, 1,20,29,50		3, 7
38″	56,25,37, 8,38,41,55,57, 3,28		4, 7,30,59, 6	
		42,42,59,53,49,30,44		3, 7
40″	56,25,37,51,21,41,49,46,34,12		4, 7,31, 2,13	
		42,42,55,46,18,28,31		3, 7
42″	56,25,38,34, 4,37,36, 5, 2,43		4, 7,31, 5,20	
		42,42,51,38,47,23,11		3, 7
44″	56,25,39,16,47,29,14,52,25,54		4, 7,31, 8,27	
		42,42,47,31,16,14,44		3, 7
46″	56,25,39,59,30,16,46, 8,40,38		4, 7,31,11,34	
		42,42,43,23,45, 3,10		3, 7
48″	56,25,40,42,13, 0, 9,53,43,48		4, 7,31,14,41	
		42,42,39,16,13,48,29		3, 7
50″	56,25,41,24,55,39,26, 7,32,17		4, 7,31,17,48	
		42,42,35, 8,42,30,41		3, 7
52″	56,25,42, 7,38,14,34,50, 2,58		4, 7,31,20,55	
		42,42,31, 1,11, 9,46		3, 7
54″	56,25,42,50,20,45,36, 1,12,44		4, 7,31,24, 2	
		42,42,26,53,39,45,44		3, 7
56″	56,25,43,33, 3,12,29,40,58,28		4, 7,31,27, 9	
		42,42,22,46, 8,18,35		3, 7
58″	56,25,44,15,45,35,15,49,17, 3		4, 7,31,30,16	
		42,42,18,38,36,48,19		
60″	56,25,44,58,27,53,54,26, 5,22			
exact	56,25,44,58,27,53,54,25,38, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70° 8′ 0″	56,25,44,58,27,53,54,25,38, 6			
		42,42,14,31, 5,12, 2		
2″	56,25,45,41,10, 8,25,30,50, 8		4, 7,31,36,42	
		42,42,10,23,33,35,20		3, 7
4″	56,25,46,23,52,18,49, 4,25,28		4, 7,31,39,49	
		42,42, 6,16, 1,55,31		3, 7
6″	56,25,47, 6,34,25, 5, 6,20,59		4, 7,31,42,56	
		42,42, 2, 8,30,12,35		3, 7
8″	56,25,47,49,16,27,13,36,33,34		4, 7,31,46, 3	
		42,41,58, 0,58,26,32		3, 7
10″	56,25,48,31,58,25,14,35, 0, 6		4, 7,31,49,10	
		42,41,53,53,26,37,22		3, 7
12″	56,25,49,14,40,19, 8, 1,37,28		4, 7,31,52,17	
		42,41,49,45,54,45, 5		3, 7
14″	56,25,49,57,22, 8,53,56,22,33		4, 7,31,55,24	
		42,41,45,38,22,49,41		3, 7
16″	56,25,50,40, 3,54,32,19,12,14		4, 7,31,58,31	
		42,41,41,30,50,51,10		3, 7
18″	56,25,51,22,45,36, 3,10, 3,24		4, 7,32, 1,38	
		42,41,37,23,18,49,32		3, 7
20″	56,25,52, 5,27,13,26,28,52,56		4, 7,32, 4,45	
		42,41,33,15,46,44,47		3, 7
22″	56,25,52,48, 8,46,42,15,37,43		4, 7,32, 7,52	
		42,41,29, 8,14,36,55		3, 7
24″	56,25,53,30,50,15,50,30,14,38		4, 7,32,10,59	
		42,41,25, 0,42,25,56		3, 7
26″	56,25,54,13,31,40,51,12,40,34		4, 7,32,14, 6	
		42,41,20,53,10,11,50		3, 7
28″	56,25,54,56,13, 1,44,22,52,24		4, 7,32,17,13	
		42,41,16,45,37,54,37		3, 7
30″	56,25,55,38,54,18,30, 0,47, 1		4, 7,32,20,20	
		42,41,12,38, 5,34,17		3, 7
32″	56,25,56,21,35,31, 8, 6,21,18		4, 7,32,23,27	
		42,41, 8,30,33,10,50		3, 7
34″	56,25,57, 4,16,39,38,39,32, 8		4, 7,32,26,34	
		42,41, 4,23, 0,44,16		3, 7
36″	56,25,57,46,57,44, 1,40,16,24		4, 7,32,29,41	
		42,41, 0,15,28,14,35		3, 7
38″	56,25,58,29,38,44,17, 8,30,59		4, 7,32,32,48	
		42,40,56, 7,55,41,47		3, 7
40″	56,25,59,12,19,40,25, 4,12,46		4, 7,32,35,55	
		42,40,52, 0,23, 5,52		3, 7
42″	56,25,59,55, 0,32,25,27,18,38		4, 7,32,39, 2	
		42,40,47,52,50,26,50		3, 7
44″	56,26, 0,37,41,20,18,17,45,28		4, 7,32,42, 9	
		42,40,43,45,17,44,41		3, 7
46″	56,26, 1,20,22, 4, 3,35,30, 9		4, 7,32,45,16	
		42,40,39,37,44,59,25		3, 7
48″	56,26, 2, 3, 2,43,41,20,29,34		4, 7,32,48,23	
		42,40,35,30,12,11, 2		3, 7
50″	56,26, 2,45,43,19,11,32,40,36		4, 7,32,51,30	
		42,40,31,22,39,19,32		3, 7
52″	56,26, 3,28,23,50,34,12, 0, 8		4, 7,32,54,37	
		42,40,27,15, 6,24,55		3, 7
54″	56,26, 4,11, 4,17,49,18,25, 3		4, 7,32,57,44	
		42,40,23, 7,33,27,11		3, 7
56″	56,26, 4,53,44,40,56,51,52,14		4, 7,33, 0,51	
		42,40,19, 0, 0,26,20		3, 7
58″	56,26, 5,36,24,59,56,52,18,34		4, 7,33, 3,58	
		42,40,14,52,27,22,22		
60″	56,26, 6,19, 5,14,49,19,40,56			
exact	56,26, 6,19, 5,14,49,19,24,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70° 9′ 0″	56,26, 6,19, 5,14,49,19,24,54			
		42,40,10,44,54,13,33		
2″	56,26, 7, 1,45,25,34,13,38,27		4, 7,33,10,19	
		42,40, 6,37,21, 3,14		3, 7
4″	56,26, 7,44,25,32,11,34,41,41		4, 7,33,13,26	
		42,40, 2,29,47,49,48		3, 7
6″	56,26, 8,27, 5,34,41,22,31,29		4, 7,33,16,33	
		42,39,58,22,14,33,15		3, 7
8″	56,26, 9, 9,45,33, 3,37, 4,44		4, 7,33,19,40	
		42,39,54,14,41,13,35		3, 7
10″	56,26, 9,52,25,27,18,18,18,19		4, 7,33,22,47	
		42,39,50, 7, 7,50,48		3, 7
12″	56,26,10,35, 5,17,25,26, 9, 7		4, 7,33,25,54	
		42,39,45,59,34,24,54		3, 7
14″	56,26,11,17,45, 3,25, 0,34, 1		4, 7,33,29, 1	
		42,39,41,52, 0,55,53		3, 7
16″	56,26,12, 0,24,45,17, 1,29,54		4, 7,33,32, 8	
		42,39,37,44,27,23,45		3, 7
18″	56,26,12,43, 4,23, 1,28,53,39		4, 7,33,35,15	
		42,39,33,36,53,48,30		3, 7
20″	56,26,13,25,43,56,38,22,42, 9		4, 7,33,38,22	
		42,39,29,29,20,10, 8		3, 7
22″	56,26,14, 8,23,26, 7,42,52,17		4, 7,33,41,29	
		42,39,25,21,46,28,39		3, 7
24″	56,26,14,51, 2,51,29,29,20,56		4, 7,33,44,36	
		42,39,21,14,12,44, 3		3, 7
26″	56,26,15,33,42,12,43,42, 4,59		4, 7,33,47,43	
		42,39,17, 6,38,56,20		3, 7
28″	56,26,16,16,21,29,50,21, 1,19		4, 7,33,50,50	
		42,39,12,59, 5, 5,30		3, 7
30″	56,26,16,59, 0,42,49,26, 6,49		4, 7,33,53,57	
		42,39, 8,51,31,11,33		3, 7
32″	56,26,17,41,39,51,40,57,18,22		4, 7,33,57, 4	
		42,39, 4,43,57,14,29		3, 7
34″	56,26,18,24,18,56,24,54,32,51		4, 7,34, 0,11	
		42,39, 0,36,23,14,18		3, 7
36″	56,26,19, 6,57,57, 1,17,47, 9		4, 7,34, 3,18	
		42,38,56,28,49,11, 0		3, 7
38″	56,26,19,49,36,53,30, 6,58, 9		4, 7,34, 6,25	
		42,38,52,21,15, 4,35		3, 7
40″	56,26,20,32,15,45,51,22, 2,44		4, 7,34, 9,32	
		42,38,48,13,40,55, 3		3, 7
42″	56,26,21,14,54,34, 5, 2,57,47		4, 7,34,12,39	
		42,38,44, 6, 6,42,24		3, 7
44″	56,26,21,57,33,18,11, 9,40,11		4, 7,34,15,46	
		42,38,39,58,32,26,38		3, 7
46″	56,26,22,40,11,58, 9,42, 6,49		4, 7,34,18,53	
		42,38,35,50,58, 7,45		3, 7
48″	56,26,23,22,50,34, 0,40,14,34		4, 7,34,22, 0	
		42,38,31,43,23,45,45		3, 7
50″	56,26,24, 5,29, 5,44, 4, 0,19		4, 7,34,25, 7	
		42,38,27,35,49,20,38		3, 7
52″	56,26,24,48, 7,33,19,53,20,57		4, 7,34,28,14	
		42,38,23,28,14,52,24		3, 7
54″	56,26,25,30,45,56,48, 8,13,21		4, 7,34,31,21	
		42,38,19,20,40,21, 3		3, 7
56″	56,26,26,13,24,16, 8,48,34,24		4, 7,34,34,28	
		42,38,15,13, 5,46,35		3, 7
58″	56,26,26,56, 2,31,21,54,20,59		4, 7,34,37,35	
		42,38,11, 5,31, 9, 0		
60″	56,26,27,38,40,42,27,25,29,59			
exact	56,26,27,38,40,42,27,25,22,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°10′ 0″	56,26,27,38,40,42,27,25,22,21			
		42,38, 6,57,56,27,32		
2″	56,26,28,21,18,49,25,21,49,53		4, 7,34,43,52	
		42,38, 2,50,21,43,40		3, 7
4″	56,26,29, 3,56,52,15,43,33,33		4, 7,34,46,59	
		42,37,58,42,46,56,41		3, 7
6″	56,26,29,46,34,50,58,30,30,14		4, 7,34,50, 6	
		42,37,54,35,12, 6,35		3, 7
8″	56,26,30,29,12,45,33,42,36,49		4, 7,34,53,13	
		42,37,50,27,37,13,22		3, 7
10″	56,26,31,11,50,36, 1,19,50,11		4, 7,34,56,20	
		42,37,46,20, 2,17, 2		3, 7
12″	56,26,31,54,28,22,21,22, 7,13		4, 7,34,59,27	
		42,37,42,12,27,17,35		3, 7
14″	56,26,32,37, 6, 4,33,49,24,48		4, 7,35, 2,34	
		42,37,38, 4,52,15, 1		3, 7
16″	56,26,33,19,43,42,38,41,39,49		4, 7,35, 5,41	
		42,37,33,57,17, 9,20		3, 7
18″	56,26,34, 2,21,16,35,58,49, 9		4, 7,35, 8,48	
		42,37,29,49,42, 0,32		3, 7
20″	56,26,34,44,58,46,25,40,49,41		4, 7,35,11,55	
		42,37,25,42, 6,48,37		3, 7
22″	56,26,35,27,36,12, 7,47,38,18		4, 7,35,15, 2	
		42,37,21,34,31,33,35		3, 7
24″	56,26,36,10,13,33,42,19,11,53		4, 7,35,18, 9	
		42,37,17,26,56,15,26		3, 7
26″	56,26,36,52,50,51, 9,15,27,19		4, 7,35,21,16	
		42,37,13,19,20,54,10		3, 7
28″	56,26,37,35,28, 4,28,36,21,29		4, 7,35,24,23	
		42,37, 9,11,45,29,47		3, 7
30″	56,26,38,18, 5,13,40,21,51,16		4, 7,35,27,30	
		42,37, 5, 4,10, 2,17		3, 7
32″	56,26,39, 0,42,18,44,31,53,33		4, 7,35,30,37	
		42,37, 0,56,34,31,40		3, 7
34″	56,26,39,43,19,19,41, 6,25,13		4, 7,35,33,44	
		42,36,56,48,58,57,56		3, 7
36″	56,26,40,25,56,16,30, 5,23, 9		4, 7,35,36,51	
		42,36,52,41,23,21, 5		3, 7
38″	56,26,41, 8,33, 9,11,28,44,14		4, 7,35,39,58	
		42,36,48,33,47,41, 7		3, 7
40″	56,26,41,51, 9,57,45,16,25,21		4, 7,35,43, 5	
		42,36,44,26,11,58, 2		3, 7
42″	56,26,42,33,46,42,11,28,23,23		4, 7,35,46,12	
		42,36,40,18,36,11,50		3, 7
44″	56,26,43,16,23,22,30, 4,35,13		4, 7,35,49,19	
		42,36,36,11, 0,22,31		3, 7
46″	56,26,43,58,59,58,41, 4,57,44		4, 7,35,52,26	
		42,36,32, 3,24,30, 5		3, 7
48″	56,26,44,41,36,30,44,29,27,49		4, 7,35,55,33	
		42,36,27,55,48,34,32		3, 7
50″	56,26,45,24,12,58,40,18, 2,21		4, 7,35,58,40	
		42,36,23,48,12,35,52		3, 7
52″	56,26,46, 6,49,22,28,30,38,13		4, 7,36, 1,47	
		42,36,19,40,36,34, 5		3, 7
54″	56,26,46,49,25,42, 9, 7,12,18		4, 7,36, 4,54	
		42,36,15,33, 0,29,11		3, 7
56″	56,26,47,32, 1,57,42, 7,41,29		4, 7,36, 8, 1	
		42,36,11,25,24,21,10		3, 7
58″	56,26,48,14,38, 9, 7,32, 2,39		4, 7,36,11, 8	
		42,36, 7,17,48,10, 2		
60″	56,26,48,57,14,16,25,20,12,41			
exact	56,26,48,57,14,16,25,20,16,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°11′ 0″	56,26,48,57,14,16,25,20,16,44			
		42,36, 3,10,11,56,13		
2″	56,26,49,39,50,19,35,32,12,57		4, 7,36,17,20	
		42,35,59, 2,35,38,53		3, 7
4″	56,26,50,22,26,18,38, 7,51,50		4, 7,36,20,27	
		42,35,54,54,59,18,26		3, 7
6″	56,26,51, 5, 2,13,33, 7,10,16		4, 7,36,23,34	
		42,35,50,47,22,54,52		3, 7
8″	56,26,51,47,38, 4,20,30, 5, 8		4, 7,36,26,41	
		42,35,46,39,46,28,11		3, 7
10″	56,26,52,30,13,51, 0,16,33,19		4, 7,36,29,48	
		42,35,42,32, 9,58,23		3, 7
12″	56,26,53,12,49,33,32,26,31,42		4, 7,36,32,55	
		42,35,38,24,33,25,28		3, 7
14″	56,26,53,55,25,11,56,59,57,10		4, 7,36,36, 2	
		42,35,34,16,56,49,26		3, 7
16″	56,26,54,38, 0,46,13,56,46,36		4, 7,36,39, 9	
		42,35,30, 9,20,10,17		3, 7
18″	56,26,55,20,36,16,23,16,56,53		4, 7,36,42,16	
		42,35,26, 1,43,28, 1		3, 7
20″	56,26,56, 3,11,42,25, 0,24,54		4, 7,36,45,23	
		42,35,21,54, 6,42,38		3, 7
22″	56,26,56,45,47, 4,19, 7, 7,32		4, 7,36,48,30	
		42,35,17,46,29,54, 8		3, 7
24″	56,26,57,28,22,22, 5,37, 1,40		4, 7,36,51,37	
		42,35,13,38,53, 2,31		3, 7
26″	56,26,58,10,57,35,44,30, 4,11		4, 7,36,54,44	
		42,35, 9,31,16, 7,47		3, 7
28″	56,26,58,53,32,45,15,46,11,58		4, 7,36,57,51	
		42,35, 5,23,39, 9,56		3, 7
30″	56,26,59,36, 7,50,39,25,21,54		4, 7,37, 0,58	
		42,35, 1,16, 2, 8,58		3, 7
32″	56,27, 0,18,42,51,55,27,30,52		4, 7,37, 4, 5	
		42,34,57, 8,25, 4,53		3, 7
34″	56,27, 1, 1,17,49, 3,52,35,45		4, 7,37, 7,12	
		42,34,53, 0,47,57,41		3, 7
36″	56,27, 1,43,52,42, 4,40,33,26		4, 7,37,10,19	
		42,34,48,53,10,47,22		3, 7
38″	56,27, 2,26,27,30,57,51,20,48		4, 7,37,13,26	
		42,34,44,45,33,33,56		3, 7
40″	56,27, 3, 9, 2,15,43,24,54,44		4, 7,37,16,33	
		42,34,40,37,56,17,23		3, 7
42″	56,27, 3,51,36,56,21,21,12, 7		4, 7,37,19,40	
		42,34,36,30,18,57,43		3, 7
44″	56,27, 4,34,11,32,51,40, 9,50		4, 7,37,22,47	
		42,34,32,22,41,34,56		3, 7
46″	56,27, 5,16,46, 5,14,21,44,46		4, 7,37,25,54	
		42,34,28,15, 4, 9, 2		3, 7
48″	56,27, 5,59,20,33,29,25,53,48		4, 7,37,29, 1	
		42,34,24, 7,26,40, 1		3, 7
50″	56,27, 6,41,54,57,36,52,33,49		4, 7,37,32, 8	
		42,34,19,59,49, 7,53		3, 7
52″	56,27, 7,24,29,17,36,41,41,42		4, 7,37,35,15	
		42,34,15,52,11,32,38		3, 7
54″	56,27, 8, 7, 3,33,28,53,14,20		4, 7,37,38,22	
		42,34,11,44,33,54,16		3, 7
56″	56,27, 8,49,37,45,13,27, 8,36		4, 7,37,41,29	
		42,34, 7,36,56,12,47		3, 7
58″	56,27, 9,32,11,52,50,23,21,23		4, 7,37,44,36	
		42,34, 3,29,18,28,11		
60″	56,27,10,14,45,56,19,41,49,34			
exact	56,27,10,14,45,56,19,42, 2,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°12′ 0″	56,27,10,14,45,56,19,42, 2,14			
		42,33,59,21,40,41,53		
2″	56,27,10,57,19,55,41,22,44, 7		4, 7,37,50,44	
		42,33,55,14, 2,51, 9		3, 7
4″	56,27,11,39,53,50,55,25,35,16		4, 7,37,53,51	
		42,33,51, 6,24,57,18		3, 7
6″	56,27,12,22,27,42, 1,50,32,34		4, 7,37,56,58	
		42,33,46,58,47, 0,20		3, 7
8″	56,27,13, 5, 1,29, 0,37,32,54		4, 7,38, 0, 5	
		42,33,42,51, 9, 0,15		3, 7
10″	56,27,13,47,35,11,51,46,33, 9		4, 7,38, 3,12	
		42,33,38,43,30,57, 3		3, 7
12″	56,27,14,30, 8,50,35,17,30,12		4, 7,38, 6,19	
		42,33,34,35,52,50,44		3, 7
14″	56,27,15,12,42,25,11,10,20,56		4, 7,38, 9,26	
		42,33,30,28,14,41,18		3, 7
16″	56,27,15,55,15,55,39,25, 2,14		4, 7,38,12,33	
		42,33,26,20,36,28,45		3, 7
18″	56,27,16,37,49,22, 0, 1,30,59		4, 7,38,15,40	
		42,33,22,12,58,13, 5		3, 7
20″	56,27,17,20,22,44,12,59,44, 4		4, 7,38,18,47	
		42,33,18, 5,19,54,18		3, 7
22″	56,27,18, 2,56, 2,18,19,38,22		4, 7,38,21,54	
		42,33,13,57,41,32,24		3, 7
24″	56,27,18,45,29,16,16, 1,10,46		4, 7,38,25, 1	
		42,33, 9,50, 3, 7,23		3, 7
26″	56,27,19,28, 2,26, 6, 4,18, 9		4, 7,38,28, 8	
		42,33, 5,42,24,39,15		3, 7
28″	56,27,20,10,35,31,48,28,57,24		4, 7,38,31,15	
		42,33, 1,34,46, 8, 0		3, 7
30″	56,27,20,53, 8,33,23,15, 5,24		4, 7,38,34,22	
		42,32,57,27, 7,33,38		3, 7
32″	56,27,21,35,41,30,50,22,39, 2		4, 7,38,37,29	
		42,32,53,19,28,56, 9		3, 7
34″	56,27,22,18,14,24, 9,51,35,11		4, 7,38,40,36	
		42,32,49,11,50,15,33		3, 7
36″	56,27,23, 0,47,13,21,41,50,44		4, 7,38,43,43	
		42,32,45, 4,11,31,50		3, 7
38″	56,27,23,43,19,58,25,53,22,34		4, 7,38,46,50	
		42,32,40,56,32,45, 0		3, 7
40″	56,27,24,25,52,39,22,26, 7,34		4, 7,38,49,57	
		42,32,36,48,53,55, 3		3, 7
42″	56,27,25, 8,25,16,11,20, 2,37		4, 7,38,53, 4	
		42,32,32,41,15, 1,59		3, 7
44″	56,27,25,50,57,48,52,35, 4,36		4, 7,38,56,11	
		42,32,28,33,36, 5,48		3, 7
46″	56,27,26,33,30,17,26,11,10,24		4, 7,38,59,18	
		42,32,24,25,57, 6,30		3, 7
48″	56,27,27,16, 2,41,52, 8,16,54		4, 7,39, 2,25	
		42,32,20,18,18, 4, 5		3, 7
50″	56,27,27,58,35, 2,10,26,20,59		4, 7,39, 5,32	
		42,32,16,10,38,58,33		3, 7
52″	56,27,28,41, 7,18,21, 5,19,32		4, 7,39, 8,39	
		42,32,12, 2,59,49,54		3, 7
54″	56,27,29,23,39,30,24, 5, 9,26		4, 7,39,11,46	
		42,32, 7,55,20,38, 8		3, 7
56″	56,27,30, 6,11,38,19,25,47,34		4, 7,39,14,53	
		42,32, 3,47,41,23,15		3, 7
58″	56,27,30,48,43,42, 7, 7,10,49		4, 7,39,18, 0	
		42,31,59,40, 2, 5,15		
60″	56,27,31,31,15,41,47, 9,16, 4			
exact	56,27,31,31,15,41,47, 9,40,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°13′ 0″	56,27,31,31,15,41,47, 9,40,51			
		42,31,55,32,22,46,47		
2″	56,27,32,13,47,37,19,32,27,38		4, 7,39,24, 3	
		42,31,51,24,43,22,44		3, 7
4″	56,27,32,56,19,28,44,15,50,22		4, 7,39,27,10	
		42,31,47,17, 3,55,34		3, 7
6″	56,27,33,38,51,16, 1,19,45,56		4, 7,39,30,17	
		42,31,43, 9,24,25,17		3, 7
8″	56,27,34,21,22,59,10,44,11,13		4, 7,39,33,24	
		42,31,39, 1,44,51,53		3, 7
10″	56,27,35, 3,54,38,12,29, 3, 6		4, 7,39,36,31	
		42,31,34,54, 5,15,22		3, 7
12″	56,27,35,46,26,13, 6,34,18,28		4, 7,39,39,38	
		42,31,30,46,25,35,44		3, 7
14″	56,27,36,28,57,43,52,59,54,12		4, 7,39,42,45	
		42,31,26,38,45,52,59		3, 7
16″	56,27,37,11,29,10,31,45,47,11		4, 7,39,45,52	
		42,31,22,31, 6, 7, 7		3, 7
18″	56,27,37,54, 0,33, 2,51,54,18		4, 7,39,48,59	
		42,31,18,23,26,18, 8		3, 7
20″	56,27,38,36,31,51,26,18,12,26		4, 7,39,52, 6	
		42,31,14,15,46,26, 2		3, 7
22″	56,27,39,19, 3, 5,42, 4,38,28		4, 7,39,55,13	
		42,31,10, 8, 6,30,49		3, 7
24″	56,27,40, 1,34,15,50,11, 9,17		4, 7,39,58,20	
		42,31, 6, 0,26,32,29		3, 7
26″	56,27,40,44, 5,21,50,37,41,46		4, 7,40, 1,27	
		42,31, 1,52,46,31, 2		3, 7
28″	56,27,41,26,36,23,43,24,12,48		4, 7,40, 4,34	
		42,30,57,45, 6,26,28		3, 7
30″	56,27,42, 9, 7,21,28,30,39,16		4, 7,40, 7,41	
		42,30,53,37,26,18,47		3, 7
32″	56,27,42,51,38,15, 5,56,58, 3		4, 7,40,10,48	
		42,30,49,29,46, 7,59		3, 7
34″	56,27,43,34, 9, 4,35,43, 6, 2		4, 7,40,13,55	
		42,30,45,22, 5,54, 4		3, 7
36″	56,27,44,16,39,49,57,49, 0, 6		4, 7,40,17, 2	
		42,30,41,14,25,37, 2		3, 7
38″	56,27,44,59,10,31,12,14,37, 8		4, 7,40,20, 9	
		42,30,37, 6,45,16,53		3, 7
40″	56,27,45,41,41, 8,18,59,54, 1		4, 7,40,23,16	
		42,30,32,59, 4,53,37		3, 7
42″	56,27,46,24,11,41,18, 4,47,38		4, 7,40,26,23	
		42,30,28,51,24,27,14		3, 7
44″	56,27,47, 6,42,10, 9,29,14,52		4, 7,40,29,30	
		42,30,24,43,43,57,44		3, 7
46″	56,27,47,49,12,34,53,13,12,36		4, 7,40,32,37	
		42,30,20,36, 3,25, 7		3, 7
48″	56,27,48,31,42,55,29,16,37,43		4, 7,40,35,44	
		42,30,16,28,22,49,23		3, 7
50″	56,27,49,14,13,11,57,39,27, 6		4, 7,40,38,51	
		42,30,12,20,42,10,32		3, 7
52″	56,27,49,56,43,24,18,21,37,38		4, 7,40,41,58	
		42,30, 8,13, 1,28,34		3, 7
54″	56,27,50,39,13,32,31,23, 6,12		4, 7,40,45, 5	
		42,30, 4, 5,20,43,29		3, 7
56″	56,27,51,21,43,36,36,43,49,41		4, 7,40,48,12	
		42,29,59,57,39,55,17		3, 7
58″	56,27,52, 4,13,36,34,23,44,58		4, 7,40,51,19	
		42,29,55,49,59, 3,58		
60″	56,27,52,46,43,32,24,22,48,56			
exact	56,27,52,46,43,32,24,23,22,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°14′ 0″	56,27,52,46,43,32,24,23,22,34			
		42,29,51,42,18,13,11		
2″	56,27,53,29,13,24, 6,41,35,45		4, 7,40,57,17	
		42,29,47,34,37,15,54		3, 6
4″	56,27,54,11,43,11,41,18,51,39		4, 7,41, 0,23	
		42,29,43,26,56,15,31		3, 6
6″	56,27,54,54,12,55, 8,15, 7,10		4, 7,41, 3,29	
		42,29,39,19,15,12, 2		3, 6
8″	56,27,55,36,42,34,27,30,19,12		4, 7,41, 6,35	
		42,29,35,11,34, 5,27		3, 6
10″	56,27,56,19,12, 9,39, 4,24,39		4, 7,41, 9,41	
		42,29,31, 3,52,55,46		3, 6
12″	56,27,57, 1,41,40,42,57,20,25		4, 7,41,12,47	
		42,29,26,56,11,42,59		3, 6
14″	56,27,57,44,11, 7,39, 9, 3,24		4, 7,41,15,53	
		42,29,22,48,30,27, 6		3, 6
16″	56,27,58,26,40,30,27,39,30,30		4, 7,41,18,59	
		42,29,18,40,49, 8, 7		3, 6
18″	56,27,59, 9, 9,49, 8,28,38,37		4, 7,41,22, 5	
		42,29,14,33, 7,46, 2		3, 6
20″	56,27,59,51,39, 3,41,36,24,39		4, 7,41,25,11	
		42,29,10,25,26,20,51		3, 6
22″	56,28, 0,34, 8,14, 7, 2,45,30		4, 7,41,28,17	
		42,29, 6,17,44,52,34		3, 6
24″	56,28, 1,16,37,20,24,47,38, 4		4, 7,41,31,23	
		42,29, 2,10, 3,21,11		3, 6
26″	56,28, 1,59, 6,22,34,50,59,15		4, 7,41,34,29	
		42,28,58, 2,21,46,42		3, 6
28″	56,28, 2,41,35,20,37,12,45,57		4, 7,41,37,35	
		42,28,53,54,40, 9, 7		3, 6
30″	56,28, 3,24, 4,14,31,52,55, 4		4, 7,41,40,41	
		42,28,49,46,58,28,26		3, 6
32″	56,28, 4, 6,33, 4,18,51,23,30		4, 7,41,43,47	
		42,28,45,39,16,44,39		3, 6
34″	56,28, 4,49, 1,49,58, 8, 8, 9		4, 7,41,46,53	
		42,28,41,31,34,57,46		3, 6
36″	56,28, 5,31,30,31,29,43, 5,55		4, 7,41,49,59	
		42,28,37,23,53, 7,47		3, 6
38″	56,28, 6,13,59, 8,53,36,13,42		4, 7,41,53, 5	
		42,28,33,16,11,14,42		3, 6
40″	56,28, 6,56,27,42, 9,47,28,24		4, 7,41,56,11	
		42,28,29, 8,29,18,31		3, 6
42″	56,28, 7,38,56,11,18,16,46,55		4, 7,41,59,17	
		42,28,25, 0,47,19,14		3, 6
44″	56,28, 8,21,24,36,19, 4, 6, 9		4, 7,42, 2,23	
		42,28,20,53, 5,16,51		3, 6
46″	56,28, 9, 3,52,57,12, 9,23, 0		4, 7,42, 5,29	
		42,28,16,45,23,11,22		3, 6
48″	56,28, 9,46,21,13,57,32,34,22		4, 7,42, 8,35	
		42,28,12,37,41, 2,47		3, 6
50″	56,28,10,28,49,26,35,13,37, 9		4, 7,42,11,41	
		42,28, 8,29,58,51, 6		3, 6
52″	56,28,11,11,17,35, 5,12,28,15		4, 7,42,14,47	
		42,28, 4,22,16,36,19		3, 6
54″	56,28,11,53,45,39,27,29, 4,34		4, 7,42,17,53	
		42,28, 0,14,34,18,26		3, 6
56″	56,28,12,36,13,39,42, 3,23, 0		4, 7,42,20,59	
		42,27,56, 6,51,57,27		3, 6
58″	56,28,13,18,41,35,48,55,20,27		4, 7,42,24, 5	
		42,27,51,59, 9,33,22		
60″	56,28,14, 1, 9,27,48, 4,53,49			
exact	56,28,14, 1, 9,27,48, 4,25,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°15′ 0″	56,28,14, 1, 9,27,48, 4,25,11			
		42,27,47,51,27, 3,20		
2″	56,28,14,43,37,15,39,31,28,31		4, 7,42,30,28	
		42,27,43,43,44,32,52		3, 6
4″	56,28,15,26, 4,59,23,16, 1,23		4, 7,42,33,34	
		42,27,39,36, 1,59,18		3, 6
6″	56,28,16, 8,32,38,59,18, 0,41		4, 7,42,36,40	
		42,27,35,28,19,22,38		3, 6
8″	56,28,16,51, 0,14,27,37,23,19		4, 7,42,39,46	
		42,27,31,20,36,42,52		3, 6
10″	56,28,17,33,27,45,48,14, 6,11		4, 7,42,42,52	
		42,27,27,12,54, 0, 0		3, 6
12″	56,28,18,15,55,13, 1, 8, 6,11		4, 7,42,45,58	
		42,27,23, 5,11,14, 2		3, 6
14″	56,28,18,58,22,36, 6,19,20,13		4, 7,42,49, 4	
		42,27,18,57,28,24,58		3, 6
16″	56,28,19,40,49,55, 3,47,45,11		4, 7,42,52,10	
		42,27,14,49,45,32,48		3, 6
18″	56,28,20,23,17, 9,53,33,17,59		4, 7,42,55,16	
		42,27,10,42, 2,37,32		3, 6
20″	56,28,21, 5,44,20,35,35,55,31		4, 7,42,58,22	
		42,27, 6,34,19,39,10		3, 6
22″	56,28,21,48,11,27, 9,55,34,41		4, 7,43, 1,28	
		42,27, 2,26,36,37,42		3, 6
24″	56,28,22,30,38,29,36,32,12,23		4, 7,43, 4,34	
		42,26,58,18,53,33, 8		3, 6
26″	56,28,23,13, 5,27,55,25,45,31		4, 7,43, 7,40	
		42,26,54,11,10,25,28		3, 6
28″	56,28,23,55,32,22, 6,36,10,59		4, 7,43,10,46	
		42,26,50, 3,27,14,42		3, 6
30″	56,28,24,37,59,12,10, 3,25,41		4, 7,43,13,52	
		42,26,45,55,44, 0,50		3, 6
32″	56,28,25,20,25,58, 5,47,26,31		4, 7,43,16,58	
		42,26,41,48, 0,43,52		3, 6
34″	56,28,26, 2,52,39,53,48,10,23		4, 7,43,20, 4	
		42,26,37,40,17,23,48		3, 6
36″	56,28,26,45,19,17,34, 5,34,11		4, 7,43,23,10	
		42,26,33,32,34, 0,38		3, 6
38″	56,28,27,27,45,51, 6,39,34,49		4, 7,43,26,16	
		42,26,29,24,50,34,22		3, 6
40″	56,28,28,10,12,20,31,30, 9,11		4, 7,43,29,22	
		42,26,25,17, 7, 5, 0		3, 6
42″	56,28,28,52,38,45,48,37,14,11		4, 7,43,32,28	
		42,26,21, 9,23,32,32		3, 6
44″	56,28,29,35, 5, 6,58, 0,46,43		4, 7,43,35,34	
		42,26,17, 1,39,56,58		3, 6
46″	56,28,30,17,31,23,59,40,43,41		4, 7,43,38,40	
		42,26,12,53,56,18,18		3, 6
48″	56,28,30,59,57,36,53,37, 1,59		4, 7,43,41,46	
		42,26, 8,46,12,36,32		3, 6
50″	56,28,31,42,23,45,39,49,38,31		4, 7,43,44,52	
		42,26, 4,38,28,51,40		3, 6
52″	56,28,32,24,49,50,18,18,30,11		4, 7,43,47,58	
		42,26, 0,30,45, 3,42		3, 6
54″	56,28,33, 7,15,50,49, 3,33,53		4, 7,43,51, 4	
		42,25,56,23, 1,12,38		3, 6
56″	56,28,33,49,41,47,12, 4,46,31		4, 7,43,54,10	
		42,25,52,15,17,18,28		3, 6
58″	56,28,34,32, 7,39,27,22, 4,59		4, 7,43,57,16	
		42,25,48, 7,33,21,12		
60″	56,28,35,14,33,27,34,55,26,11			
exact	56,28,35,14,33,27,34,55,14,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°16′ 0″	56,28,35,14,33,27,34,55,14,26			
		42,25,43,59,49,19,32		
2″	56,28,35,56,59,11,34,44,33,58		4, 7,44, 3,33	
		42,25,39,52, 5,15,59		3, 6
4″	56,28,36,39,24,51,26,49,49,57		4, 7,44, 6,39	
		42,25,35,44,21, 9,20		3, 6
6″	56,28,37,21,50,27,11,10,59,17		4, 7,44, 9,45	
		42,25,31,36,36,59,35		3, 6
8″	56,28,38, 4,15,58,47,47,58,52		4, 7,44,12,51	
		42,25,27,28,52,46,44		3, 6
10″	56,28,38,46,41,26,16,40,45,36		4, 7,44,15,57	
		42,25,23,21, 8,30,47		3, 6
12″	56,28,39,29, 6,49,37,49,16,23		4, 7,44,19, 3	
		42,25,19,13,24,11,44		3, 6
14″	56,28,40,11,32, 8,51,13,28, 7		4, 7,44,22, 9	
		42,25,15, 5,39,49,35		3, 6
16″	56,28,40,53,57,23,56,53,17,42		4, 7,44,25,15	
		42,25,10,57,55,24,20		3, 6
18″	56,28,41,36,22,34,54,48,42, 2		4, 7,44,28,21	
		42,25, 6,50,10,55,59		3, 6
20″	56,28,42,18,47,41,44,59,38, 1		4, 7,44,31,27	
		42,25, 2,42,26,24,32		3, 6
22″	56,28,43, 1,12,44,27,26, 2,33		4, 7,44,34,33	
		42,24,58,34,41,49,59		3, 6
24″	56,28,43,43,37,43, 2, 7,52,32		4, 7,44,37,39	
		42,24,54,26,57,12,20		3, 6
26″	56,28,44,26, 2,37,29, 5, 4,52		4, 7,44,40,45	
		42,24,50,19,12,31,35		3, 6
28″	56,28,45, 8,27,27,48,17,36,27		4, 7,44,43,51	
		42,24,46,11,27,47,44		3, 6
30″	56,28,45,50,52,13,59,45,24,11		4, 7,44,46,57	
		42,24,42, 3,43, 0,47		3, 6
32″	56,28,46,33,16,56, 3,28,24,58		4, 7,44,50, 3	
		42,24,37,55,58,10,44		3, 6
34″	56,28,47,15,41,33,59,26,35,42		4, 7,44,53, 9	
		42,24,33,48,13,17,35		3, 6
36″	56,28,47,58, 6, 7,47,39,53,17		4, 7,44,56,15	
		42,24,29,40,28,21,20		3, 6
38″	56,28,48,40,30,37,28, 8,14,37		4, 7,44,59,21	
		42,24,25,32,43,21,59		3, 6
40″	56,28,49,22,55, 3, 0,51,36,36		4, 7,45, 2,27	
		42,24,21,24,58,19,32		3, 6
42″	56,28,50, 5,19,24,25,49,56, 8		4, 7,45, 5,33	
		42,24,17,17,13,13,59		3, 6
44″	56,28,50,47,43,41,43, 3,10, 7		4, 7,45, 8,39	
		42,24,13, 9,28, 5,20		3, 6
46″	56,28,51,30, 7,54,52,31,15,27		4, 7,45,11,45	
		42,24, 9, 1,42,53,35		3, 6
48″	56,28,52,12,32, 3,54,14, 9, 2		4, 7,45,14,51	
		42,24, 4,53,57,38,44		3, 6
50″	56,28,52,54,56, 8,48,11,47,46		4, 7,45,17,57	
		42,24, 0,46,12,20,47		3, 6
52″	56,28,53,37,20, 9,34,24, 8,33		4, 7,45,21, 3	
		42,23,56,38,26,59,44		3, 6
54″	56,28,54,19,44, 6,12,51, 8,17		4, 7,45,24, 9	
		42,23,52,30,41,35,35		3, 6
56″	56,28,55, 2, 7,58,43,32,43,52		4, 7,45,27,15	
		42,23,48,22,56, 8,20		3, 6
58″	56,28,55,44,31,47, 6,28,52,12		4, 7,45,30,21	
		42,23,44,15,10,37,59		
60″	56,28,56,26,55,31,21,39,30,11			
exact	56,28,56,26,55,31,21,39,23,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°17′ 0″	56,28,56,26,55,31,21,39,23,58			
		42,23,40, 7,25, 4, 1		
2″	56,28,57, 9,19,11,29, 4,27,59		4, 7,45,36,34	
		42,23,35,59,39,27,27		3, 6
4″	56,28,57,51,42,47,28,43,55,26		4, 7,45,39,40	
		42,23,31,51,53,47,47		3, 6
6″	56,28,58,34, 6,19,20,37,43,13		4, 7,45,42,46	
		42,23,27,44, 8, 5, 1		3, 6
8″	56,28,59,16,29,47, 4,45,48,14		4, 7,45,45,52	
		42,23,23,36,22,19, 9		3, 6
10″	56,28,59,58,53,10,41, 8, 7,23		4, 7,45,48,58	
		42,23,19,28,36,30,11		3, 6
12″	56,29, 0,41,16,30, 9,44,37,34		4, 7,45,52, 4	
		42,23,15,20,50,38, 7		3, 6
14″	56,29, 1,23,39,45,30,35,15,41		4, 7,45,55,10	
		42,23,11,13, 4,42,57		3, 6
16″	56,29, 2, 6, 2,56,43,39,58,38		4, 7,45,58,16	
		42,23, 7, 5,18,44,41		3, 6
18″	56,29, 2,48,26, 3,48,58,43,19		4, 7,46, 1,22	
		42,23, 2,57,32,43,19		3, 6
20″	56,29, 3,30,49, 6,46,31,26,38		4, 7,46, 4,28	
		42,22,58,49,46,38,51		3, 6
22″	56,29, 4,13,12, 5,36,18, 5,29		4, 7,46, 7,34	
		42,22,54,42, 0,31,17		3, 6
24″	56,29, 4,55,35, 0,18,18,36,46		4, 7,46,10,40	
		42,22,50,34,14,20,37		3, 6
26″	56,29, 5,37,57,50,52,32,57,23		4, 7,46,13,46	
		42,22,46,26,28, 6,51		3, 6
28″	56,29, 6,20,20,37,19, 1, 4,14		4, 7,46,16,52	
		42,22,42,18,41,49,59		3, 6
30″	56,29, 7, 2,43,19,37,42,54,13		4, 7,46,19,58	
		42,22,38,10,55,30, 1		3, 6
32″	56,29, 7,45, 5,57,48,38,24,14		4, 7,46,23, 4	
		42,22,34, 3, 9, 6,57		3, 6
34″	56,29, 8,27,28,31,51,47,31,11		4, 7,46,26,10	
		42,22,29,55,22,40,47		3, 6
36″	56,29, 9, 9,51, 1,47,10,11,58		4, 7,46,29,16	
		42,22,25,47,36,11,31		3, 6
38″	56,29, 9,52,13,27,34,46,23,29		4, 7,46,32,22	
		42,22,21,39,49,39, 9		3, 6
40″	56,29,10,34,35,49,14,36, 2,38		4, 7,46,35,28	
		42,22,17,32, 3, 3,41		3, 6
42″	56,29,11,16,58, 6,46,39, 6,19		4, 7,46,38,34	
		42,22,13,24,16,25, 7		3, 6
44″	56,29,11,59,20,20,10,55,31,26		4, 7,46,41,40	
		42,22, 9,16,29,43,27		3, 6
46″	56,29,12,41,42,29,27,25,14,53		4, 7,46,44,46	
		42,22, 5, 8,42,58,41		3, 6
48″	56,29,13,24, 4,34,36, 8,13,34		4, 7,46,47,52	
		42,22, 1, 0,56,10,49		3, 6
50″	56,29,14, 6,26,35,37, 4,24,23		4, 7,46,50,58	
		42,21,56,53, 9,19,51		3, 6
52″	56,29,14,48,48,32,30,13,44,14		4, 7,46,54, 4	
		42,21,52,45,22,25,47		3, 6
54″	56,29,15,31,10,25,15,36,10, 1		4, 7,46,57,10	
		42,21,48,37,35,28,37		3, 6
56″	56,29,16,13,32,13,53,11,38,38		4, 7,47, 0,16	
		42,21,44,29,48,28,21		3, 6
58″	56,29,16,55,53,58,23, 0, 6,59		4, 7,47, 3,22	
		42,21,40,22, 1,24,59		
60″	56,29,17,38,15,38,45, 1,31,58			
exact	56,29,17,38,15,38,45, 1,35,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°18′ 0″	56,29,17,38,15,38,45, 1,35,21			
		42,21,36,14,14,19, 3		
2″	56,29,18,20,37,14,59,15,54,24		4, 7,47, 9,31	
		42,21,32, 6,27, 9,32		3, 6
4″	56,29,19, 2,58,47, 5,43, 3,56		4, 7,47,12,37	
		42,21,27,58,39,56,55		3, 6
6″	56,29,19,45,20,15, 4,23, 0,51		4, 7,47,15,43	
		42,21,23,50,52,41,12		3, 6
8″	56,29,20,27,41,38,55,15,42, 3		4, 7,47,18,49	
		42,21,19,43, 5,22,23		3, 6
10″	56,29,21,10, 2,58,38,21, 4,26		4, 7,47,21,55	
		42,21,15,35,18, 0,28		3, 6
12″	56,29,21,52,24,14,13,39, 4,54		4, 7,47,25, 1	
		42,21,11,27,30,35,27		3, 6
14″	56,29,22,34,45,25,41, 9,40,21		4, 7,47,28, 7	
		42,21, 7,19,43, 7,20		3, 6
16″	56,29,23,17, 6,33, 0,52,47,41		4, 7,47,31,13	
		42,21, 3,11,55,36, 7		3, 6
18″	56,29,23,59,27,36,12,48,23,48		4, 7,47,34,19	
		42,20,59, 4, 8, 1,48		3, 6
20″	56,29,24,41,48,35,16,56,25,36		4, 7,47,37,25	
		42,20,54,56,20,24,23		3, 6
22″	56,29,25,24, 9,30,13,16,49,59		4, 7,47,40,31	
		42,20,50,48,32,43,52		3, 6
24″	56,29,26, 6,30,21, 1,49,33,51		4, 7,47,43,37	
		42,20,46,40,45, 0,15		3, 6
26″	56,29,26,48,51, 7,42,34,34, 6		4, 7,47,46,43	
		42,20,42,32,57,13,32		3, 6
28″	56,29,27,31,11,50,15,31,47,38		4, 7,47,49,49	
		42,20,38,25, 9,23,43		3, 6
30″	56,29,28,13,32,28,40,41,11,21		4, 7,47,52,55	
		42,20,34,17,21,30,48		3, 6
32″	56,29,28,55,53, 2,58, 2,42, 9		4, 7,47,56, 1	
		42,20,30, 9,33,34,47		3, 6
34″	56,29,29,38,13,33, 7,36,16,56		4, 7,47,59, 7	
		42,20,26, 1,45,35,40		3, 6
36″	56,29,30,20,33,59, 9,21,52,36		4, 7,48, 2,13	
		42,20,21,53,57,33,27		3, 6
38″	56,29,31, 2,54,21, 3,19,26, 3		4, 7,48, 5,19	
		42,20,17,46, 9,28, 8		3, 6
40″	56,29,31,45,14,38,49,28,54,11		4, 7,48, 8,25	
		42,20,13,38,21,19,43		3, 6
42″	56,29,32,27,34,52,27,50,13,54		4, 7,48,11,31	
		42,20, 9,30,33, 8,12		3, 6
44″	56,29,33, 9,55, 1,58,23,22, 6		4, 7,48,14,37	
		42,20, 5,22,44,53,35		3, 6
46″	56,29,33,52,15, 7,21, 8,15,41		4, 7,48,17,43	
		42,20, 1,14,56,35,52		3, 6
48″	56,29,34,34,35, 8,36, 4,51,33		4, 7,48,20,49	
		42,19,57, 7, 8,15, 3		3, 6
50″	56,29,35,16,55, 5,43,13, 6,36		4, 7,48,23,55	
		42,19,52,59,19,51, 8		3, 6
52″	56,29,35,59,14,58,42,32,57,44		4, 7,48,27, 1	
		42,19,48,51,31,24, 7		3, 6
54″	56,29,36,41,34,47,34, 4,21,51		4, 7,48,30, 7	
		42,19,44,43,42,54, 0		3, 6
56″	56,29,37,23,54,32,17,47,15,51		4, 7,48,33,13	
		42,19,40,35,54,20,47		3, 6
58″	56,29,38, 6,14,12,53,41,36,38		4, 7,48,36,19	
		42,19,36,28, 5,44,28		
60″	56,29,38,48,33,49,21,47,21, 6			
exact	56,29,38,48,33,49,21,47,38, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°19′ 0″	56,29,38,48,33,49,21,47,38, 3			
		42,19,32,20,17, 6,54		
2″	56,29,39,30,53,21,42, 4,44,57		4, 7,48,42,23	
		42,19,28,12,28,24,31		3, 6
4″	56,29,40,13,12,49,54,33, 9,28		4, 7,48,45,29	
		42,19,24, 4,39,39, 2		3, 6
6″	56,29,40,55,32,13,59,12,48,30		4, 7,48,48,35	
		42,19,19,56,50,50,27		3, 6
8″	56,29,41,37,51,33,56, 3,38,57		4, 7,48,51,41	
		42,19,15,49, 1,58,46		3, 6
10″	56,29,42,20,10,49,45, 5,37,43		4, 7,48,54,47	
		42,19,11,41,13, 3,59		3, 6
12″	56,29,43, 2,30, 1,26,18,41,42		4, 7,48,57,53	
		42,19, 7,33,24, 6, 6		3, 6
14″	56,29,43,44,49, 8,59,42,47,48		4, 7,49, 0,59	
		42,19, 3,25,35, 5, 7		3, 6
16″	56,29,44,27, 8,12,25,17,52,55		4, 7,49, 4, 5	
		42,18,59,17,46, 1, 2		3, 6
18″	56,29,45, 9,27,11,43, 3,53,57		4, 7,49, 7,11	
		42,18,55, 9,56,53,51		3, 6
20″	56,29,45,51,46, 6,53, 0,47,48		4, 7,49,10,17	
		42,18,51, 2, 7,43,34		3, 6
22″	56,29,46,34, 4,57,55, 8,31,22		4, 7,49,13,23	
		42,18,46,54,18,30,11		3, 6
24″	56,29,47,16,23,44,49,27, 1,33		4, 7,49,16,29	
		42,18,42,46,29,13,42		3, 6
26″	56,29,47,58,42,27,35,56,15,15		4, 7,49,19,35	
		42,18,38,38,39,54, 7		3, 6
28″	56,29,48,41, 1, 6,14,36, 9,22		4, 7,49,22,41	
		42,18,34,30,50,31,26		3, 6
30″	56,29,49,23,19,40,45,26,40,48		4, 7,49,25,47	
		42,18,30,23, 1, 5,39		3, 6
32″	56,29,50, 5,38,11, 8,27,46,27		4, 7,49,28,53	
		42,18,26,15,11,36,46		3, 6
34″	56,29,50,47,56,37,23,39,23,13		4, 7,49,31,59	
		42,18,22, 7,22, 4,47		3, 6
36″	56,29,51,30,14,59,31, 1,28, 0		4, 7,49,35, 5	
		42,18,17,59,32,29,42		3, 6
38″	56,29,52,12,33,17,30,33,57,42		4, 7,49,38,11	
		42,18,13,51,42,51,31		3, 6
40″	56,29,52,54,51,31,22,16,49,13		4, 7,49,41,17	
		42,18, 9,43,53,10,14		3, 6
42″	56,29,53,37, 9,41, 6, 9,59,27		4, 7,49,44,23	
		42,18, 5,36, 3,25,51		3, 6
44″	56,29,54,19,27,46,42,13,25,18		4, 7,49,47,29	
		42,18, 1,28,13,38,22		3, 6
46″	56,29,55, 1,45,48,10,27, 3,40		4, 7,49,50,35	
		42,17,57,20,23,47,47		3, 6
48″	56,29,55,44, 3,45,30,50,51,27		4, 7,49,53,41	
		42,17,53,12,33,54, 6		3, 6
50″	56,29,56,26,21,38,43,24,45,33		4, 7,49,56,47	
		42,17,49, 4,43,57,19		3, 6
52″	56,29,57, 8,39,27,48, 8,42,52		4, 7,49,59,53	
		42,17,44,56,53,57,26		3, 6
54″	56,29,57,50,57,12,45, 2,40,18		4, 7,50, 2,59	
		42,17,40,49, 3,54,27		3, 6
56″	56,29,58,33,14,53,34, 6,34,45		4, 7,50, 6, 5	
		42,17,36,41,13,48,22		3, 6
58″	56,29,59,15,32,30,15,20,23, 7		4, 7,50, 9,11	
		42,17,32,33,23,39,11		
60″	56,29,59,57,50, 2,48,44, 2,18			
exact	56,29,59,57,50, 2,48,44,29,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°20′ 0″	56,29,59,57,50, 2,48,44,29,29			
		42,17,28,25,33,29,51		
2″	56,30, 0,40, 7,31,14,17,59,20		4, 7,50,15,10	
		42,17,24,17,43,14,41		3, 6
4″	56,30, 1,22,24,55,32, 1,14, 1		4, 7,50,18,16	
		42,17,20, 9,52,56,25		3, 6
6″	56,30, 2, 4,42,15,41,54,10,26		4, 7,50,21,22	
		42,17,16, 2, 2,35, 3		3, 6
8″	56,30, 2,46,59,31,43,56,45,29		4, 7,50,24,28	
		42,17,11,54,12,10,35		3, 6
10″	56,30, 3,29,16,43,38, 8,56, 4		4, 7,50,27,34	
		42,17, 7,46,21,43, 1		3, 6
12″	56,30, 4,11,33,51,24,30,39, 5		4, 7,50,30,40	
		42,17, 3,38,31,12,21		3, 6
14″	56,30, 4,53,50,55, 3, 1,51,26		4, 7,50,33,46	
		42,16,59,30,40,38,35		3, 6
16″	56,30, 5,36, 7,54,33,42,30, 1		4, 7,50,36,52	
		42,16,55,22,50, 1,43		3, 6
18″	56,30, 6,18,24,49,56,32,31,44		4, 7,50,39,58	
		42,16,51,14,59,21,45		3, 6
20″	56,30, 7, 0,41,41,11,31,53,29		4, 7,50,43, 4	
		42,16,47, 7, 8,38,41		3, 6
22″	56,30, 7,42,58,28,18,40,32,10		4, 7,50,46,10	
		42,16,42,59,17,52,31		3, 6
24″	56,30, 8,25,15,11,17,58,24,41		4, 7,50,49,16	
		42,16,38,51,27, 3,15		3, 6
26″	56,30, 9, 7,31,50, 9,25,27,56		4, 7,50,52,22	
		42,16,34,43,36,10,53		3, 6
28″	56,30, 9,49,48,24,53, 1,38,49		4, 7,50,55,28	
		42,16,30,35,45,15,25		3, 6
30″	56,30,10,32, 4,55,28,46,54,14		4, 7,50,58,34	
		42,16,26,27,54,16,51		3, 6
32″	56,30,11,14,21,21,56,41,11, 5		4, 7,51, 1,40	
		42,16,22,20, 3,15,11		3, 6
34″	56,30,11,56,37,44,16,44,26,16		4, 7,51, 4,46	
		42,16,18,12,12,10,25		3, 6
36″	56,30,12,38,54, 2,28,56,36,41		4, 7,51, 7,52	
		42,16,14, 4,21, 2,33		3, 6
38″	56,30,13,21,10,16,33,17,39,14		4, 7,51,10,58	
		42,16, 9,56,29,51,35		3, 6
40″	56,30,14, 3,26,26,29,47,30,49		4, 7,51,14, 4	
		42,16, 5,48,38,37,31		3, 6
42″	56,30,14,45,42,32,18,26, 8,20		4, 7,51,17,10	
		42,16, 1,40,47,20,21		3, 6
44″	56,30,15,27,58,33,59,13,28,41		4, 7,51,20,16	
		42,15,57,32,56, 0, 5		3, 6
46″	56,30,16,10,14,31,32, 9,28,46		4, 7,51,23,22	
		42,15,53,25, 4,36,43		3, 6
48″	56,30,16,52,30,24,57,14, 5,29		4, 7,51,26,28	
		42,15,49,17,13,10,15		3, 6
50″	56,30,17,34,46,14,14,27,15,44		4, 7,51,29,34	
		42,15,45, 9,21,40,41		3, 6
52″	56,30,18,17, 1,59,23,48,56,25		4, 7,51,32,40	
		42,15,41, 1,30, 8, 1		3, 6
54″	56,30,18,59,17,40,25,19, 4,26		4, 7,51,35,46	
		42,15,36,53,38,32,15		3, 6
56″	56,30,19,41,33,17,18,57,36,41		4, 7,51,38,52	
		42,15,32,45,46,53,23		3, 6
58″	56,30,20,23,48,50, 4,44,30, 4		4, 7,51,41,58	
		42,15,28,37,55,11,25		
60″	56,30,21, 6, 4,18,42,39,41,29			
exact	56,30,21, 6, 4,18,42,40,15, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°21′ 0″	56,30,21, 6, 4,18,42,40,15, 2			
		42,15,24,30, 3,30, 8		
2″	56,30,21,48,19,43,12,43,45,10		4, 7,51,47,53	
		42,15,20,22,11,42,15		3, 5
4″	56,30,22,30,35, 3,34,55,27,25		4, 7,51,50,58	
		42,15,16,14,19,51,17		3, 5
6″	56,30,23,12,50,19,49,15,18,42		4, 7,51,54, 3	
		42,15,12, 6,27,57,14		3, 5
8″	56,30,23,55, 5,31,55,43,15,56		4, 7,51,57, 8	
		42,15, 7,58,36, 0, 6		3, 5
10″	56,30,24,37,20,39,54,19,16, 2		4, 7,52, 0,13	
		42,15, 3,50,43,59,53		3, 5
12″	56,30,25,19,35,43,45, 3,15,55		4, 7,52, 3,18	
		42,14,59,42,51,56,35		3, 5
14″	56,30,26, 1,50,43,27,55,12,30		4, 7,52, 6,23	
		42,14,55,34,59,50,12		3, 5
16″	56,30,26,44, 5,39, 2,55, 2,42		4, 7,52, 9,28	
		42,14,51,27, 7,40,44		3, 5
18″	56,30,27,26,20,30,30, 2,43,26		4, 7,52,12,33	
		42,14,47,19,15,28,11		3, 5
20″	56,30,28, 8,35,17,49,18,11,37		4, 7,52,15,38	
		42,14,43,11,23,12,33		3, 5
22″	56,30,28,50,50, 1, 0,41,24,10		4, 7,52,18,43	
		42,14,39, 3,30,53,50		3, 5
24″	56,30,29,33, 4,40, 4,12,18, 0		4, 7,52,21,48	
		42,14,34,55,38,32, 2		3, 5
26″	56,30,30,15,19,14,59,50,50, 2		4, 7,52,24,53	
		42,14,30,47,46, 7, 9		3, 5
28″	56,30,30,57,33,45,47,36,57,11		4, 7,52,27,58	
		42,14,26,39,53,39,11		3, 5
30″	56,30,31,39,48,12,27,30,36,22		4, 7,52,31, 3	
		42,14,22,32, 1, 8, 8		3, 5
32″	56,30,32,22, 2,34,59,31,44,30		4, 7,52,34, 8	
		42,14,18,24, 8,34, 0		3, 5
34″	56,30,33, 4,16,53,23,40,18,30		4, 7,52,37,13	
		42,14,14,16,15,56,47		3, 5
36″	56,30,33,46,31, 7,39,56,15,17		4, 7,52,40,18	
		42,14,10, 8,23,16,29		3, 5
38″	56,30,34,28,45,17,48,19,31,46		4, 7,52,43,23	
		42,14, 6, 0,30,33, 6		3, 5
40″	56,30,35,10,59,23,48,50, 4,52		4, 7,52,46,28	
		42,14, 1,52,37,46,38		3, 5
42″	56,30,35,53,13,25,41,27,51,30		4, 7,52,49,33	
		42,13,57,44,44,57, 5		3, 5
44″	56,30,36,35,27,23,26,12,48,35		4, 7,52,52,38	
		42,13,53,36,52, 4,27		3, 5
46″	56,30,37,17,41,17, 3, 4,53, 2		4, 7,52,55,43	
		42,13,49,28,59, 8,44		3, 5
48″	56,30,37,59,55, 6,32, 4, 1,46		4, 7,52,58,48	
		42,13,45,21, 6, 9,56		3, 5
50″	56,30,38,42, 8,51,53,10,11,42		4, 7,53, 1,53	
		42,13,41,13,13, 8, 3		3, 5
52″	56,30,39,24,22,33, 6,23,19,45		4, 7,53, 4,58	
		42,13,37, 5,20, 3, 5		3, 5
54″	56,30,40, 6,36,10,11,43,22,50		4, 7,53, 8, 3	
		42,13,32,57,26,55, 2		3, 5
56″	56,30,40,48,49,43, 9,10,17,52		4, 7,53,11, 8	
		42,13,28,49,33,43,54		3, 5
58″	56,30,41,31, 3,11,58,44, 1,46		4, 7,53,14,13	
		42,13,24,41,40,29,41		
60″	56,30,42,13,16,36,40,24,31,27			
exact	56,30,42,13,16,36,40,24, 7,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°22′ 0″	56,30,42,13,16,36,40,24, 7,59			
		42,13,20,33,47,10, 2		
2″	56,30,42,55,29,57,14,11,18, 1		4, 7,53,20,32	
		42,13,16,25,53,49,30		3, 5
4″	56,30,43,37,43,13,40, 5, 7,31		4, 7,53,23,37	
		42,13,12,18, 0,25,53		3, 5
6″	56,30,44,19,56,25,58, 5,33,24		4, 7,53,26,42	
		42,13, 8,10, 6,59,11		3, 5
8″	56,30,45, 2, 9,34, 8,12,32,35		4, 7,53,29,47	
		42,13, 4, 2,13,29,24		3, 5
10″	56,30,45,44,22,38,10,26, 1,59		4, 7,53,32,52	
		42,12,59,54,19,56,32		3, 5
12″	56,30,46,26,35,38, 4,45,58,31		4, 7,53,35,57	
		42,12,55,46,26,20,35		3, 5
14″	56,30,47, 8,48,33,51,12,19, 6		4, 7,53,39, 2	
		42,12,51,38,32,41,33		3, 5
16″	56,30,47,51, 1,25,29,45, 0,39		4, 7,53,42, 7	
		42,12,47,30,38,59,26		3, 5
18″	56,30,48,33,14,13, 0,24, 0, 5		4, 7,53,45,12	
		42,12,43,22,45,14,14		3, 5
20″	56,30,49,15,26,56,23, 9,14,19		4, 7,53,48,17	
		42,12,39,14,51,25,57		3, 5
22″	56,30,49,57,39,35,38, 0,40,16		4, 7,53,51,22	
		42,12,35, 6,57,34,35		3, 5
24″	56,30,50,39,52,10,44,58,14,51		4, 7,53,54,27	
		42,12,30,59, 3,40, 8		3, 5
26″	56,30,51,22, 4,41,44, 1,54,59		4, 7,53,57,32	
		42,12,26,51, 9,42,36		3, 5
28″	56,30,52, 4,17, 8,35,11,37,35		4, 7,54, 0,37	
		42,12,22,43,15,41,59		3, 5
30″	56,30,52,46,29,31,18,27,19,34		4, 7,54, 3,42	
		42,12,18,35,21,38,17		3, 5
32″	56,30,53,28,41,49,53,48,57,51		4, 7,54, 6,47	
		42,12,14,27,27,31,30		3, 5
34″	56,30,54,10,54, 4,21,16,29,21		4, 7,54, 9,52	
		42,12,10,19,33,21,38		3, 5
36″	56,30,54,53, 6,14,40,49,50,59		4, 7,54,12,57	
		42,12, 6,11,39, 8,41		3, 5
38″	56,30,55,35,18,20,52,28,59,40		4, 7,54,16, 2	
		42,12, 2, 3,44,52,39		3, 5
40″	56,30,56,17,30,22,56,13,52,19		4, 7,54,19, 7	
		42,11,57,55,50,33,32		3, 5
42″	56,30,56,59,42,20,52, 4,25,51		4, 7,54,22,12	
		42,11,53,47,56,11,20		3, 5
44″	56,30,57,41,54,14,40, 0,37,11		4, 7,54,25,17	
		42,11,49,40, 1,46, 3		3, 5
46″	56,30,58,24, 6, 4,20, 2,23,14		4, 7,54,28,22	
		42,11,45,32, 7,17,41		3, 5
48″	56,30,59, 6,17,49,52, 9,40,55		4, 7,54,31,27	
		42,11,41,24,12,46,14		3, 5
50″	56,30,59,48,29,31,16,22,27, 9		4, 7,54,34,32	
		42,11,37,16,18,11,42		3, 5
52″	56,31, 0,30,41, 8,32,40,38,51		4, 7,54,37,37	
		42,11,33, 8,23,34, 5		3, 5
54″	56,31, 1,12,52,41,41, 4,12,56		4, 7,54,40,42	
		42,11,29, 0,28,53,23		3, 5
56″	56,31, 1,55, 4,10,41,33, 6,19		4, 7,54,43,47	
		42,11,24,52,34, 9,36		3, 5
58″	56,31, 2,37,15,35,34, 7,15,55		4, 7,54,46,52	
		42,11,20,44,39,22,44		
60″	56,31, 3,19,26,56,18,46,38,39			
exact	56,31, 3,19,26,56,18,46,29,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°23′ 0″	56,31, 3,19,26,56,18,46,29,35			
		42,11,16,36,44,31,49		
2″	56,31, 4, 1,38,12,55,31, 1,24		4, 7,54,53, 6	
		42,11,12,28,49,38,43		3, 5
4″	56,31, 4,43,49,25,24,20,40, 7		4, 7,54,56,11	
		42,11, 8,20,54,42,32		3, 5
6″	56,31, 5,26, 0,33,45,15,22,39		4, 7,54,59,16	
		42,11, 4,12,59,43,16		3, 5
8″	56,31, 6, 8,11,37,58,15, 5,55		4, 7,55, 2,21	
		42,11, 0, 5, 4,40,55		3, 5
10″	56,31, 6,50,22,38, 3,19,46,50		4, 7,55, 5,26	
		42,10,55,57, 9,35,29		3, 5
12″	56,31, 7,32,33,34, 0,29,22,19		4, 7,55, 8,31	
		42,10,51,49,14,26,58		3, 5
14″	56,31, 8,14,44,25,49,43,49,17		4, 7,55,11,36	
		42,10,47,41,19,15,22		3, 5
16″	56,31, 8,56,55,13,31, 3, 4,39		4, 7,55,14,41	
		42,10,43,33,24, 0,41		3, 5
18″	56,31, 9,39, 5,57, 4,27, 5,20		4, 7,55,17,46	
		42,10,39,25,28,42,55		3, 5
20″	56,31,10,21,16,36,29,55,48,15		4, 7,55,20,51	
		42,10,35,17,33,22, 4		3, 5
22″	56,31,11, 3,27,11,47,29,10,19		4, 7,55,23,56	
		42,10,31, 9,37,58, 8		3, 5
24″	56,31,11,45,37,42,57, 7, 8,27		4, 7,55,27, 1	
		42,10,27, 1,42,31, 7		3, 5
26″	56,31,12,27,48, 9,58,49,39,34		4, 7,55,30, 6	
		42,10,22,53,47, 1, 1		3, 5
28″	56,31,13, 9,58,32,52,36,40,35		4, 7,55,33,11	
		42,10,18,45,51,27,50		3, 5
30″	56,31,13,52, 8,51,38,28, 8,25		4, 7,55,36,16	
		42,10,14,37,55,51,34		3, 5
32″	56,31,14,34,19, 6,16,23,59,59		4, 7,55,39,21	
		42,10,10,30, 0,12,13		3, 5
34″	56,31,15,16,29,16,46,24,12,12		4, 7,55,42,26	
		42,10, 6,22, 4,29,47		3, 5
36″	56,31,15,58,39,23, 8,28,41,59		4, 7,55,45,31	
		42,10, 2,14, 8,44,16		3, 5
38″	56,31,16,40,49,25,22,37,26,15		4, 7,55,48,36	
		42, 9,58, 6,12,55,40		3, 5
40″	56,31,17,22,59,23,28,50,21,55		4, 7,55,51,41	
		42, 9,53,58,17, 3,59		3, 5
42″	56,31,18, 5, 9,17,27, 7,25,54		4, 7,55,54,46	
		42, 9,49,50,21, 9,13		3, 5
44″	56,31,18,47,19, 7,17,28,35, 7		4, 7,55,57,51	
		42, 9,45,42,25,11,22		3, 5
46″	56,31,19,29,28,52,59,53,46,29		4, 7,56, 0,56	
		42, 9,41,34,29,10,26		3, 5
48″	56,31,20,11,38,34,34,22,56,55		4, 7,56, 4, 1	
		42, 9,37,26,33, 6,25		3, 5
50″	56,31,20,53,48,12, 0,56, 3,20		4, 7,56, 7, 6	
		42, 9,33,18,36,59,19		3, 5
52″	56,31,21,35,57,45,19,33, 2,39		4, 7,56,10,11	
		42, 9,29,10,40,49, 8		3, 5
54″	56,31,22,18, 7,14,30,13,51,47		4, 7,56,13,16	
		42, 9,25, 2,44,35,52		3, 5
56″	56,31,23, 0,16,39,32,58,27,39		4, 7,56,16,21	
		42, 9,20,54,48,19,31		3, 5
58″	56,31,23,42,26, 0,27,46,47,10		4, 7,56,19,26	
		42, 9,16,46,52, 0, 5		
60″	56,31,24,24,35,17,14,38,47,15			
exact	56,31,24,24,35,17,14,38,49, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°24′ 0″	56,31,24,24,35,17,14,38,49, 3			
		42, 9,12,38,55,37,44		
2″	56,31,25, 6,44,29,53,34,26,47		4, 7,56,25,35	
		42, 9, 8,30,59,12, 9		3, 5
4″	56,31,25,48,53,38,24,33,38,56		4, 7,56,28,40	
		42, 9, 4,23, 2,43,29		3, 5
6″	56,31,26,31, 2,42,47,36,22,25		4, 7,56,31,45	
		42, 9, 0,15, 6,11,44		3, 5
8″	56,31,27,13,11,43, 2,42,34, 9		4, 7,56,34,50	
		42, 8,56, 7, 9,36,54		3, 5
10″	56,31,27,55,20,39, 9,52,11, 3		4, 7,56,37,55	
		42, 8,51,59,12,58,59		3, 5
12″	56,31,28,37,29,31, 9, 5,10, 2		4, 7,56,41, 0	
		42, 8,47,51,16,17,59		3, 5
14″	56,31,29,19,38,19, 0,21,28, 1		4, 7,56,44, 5	
		42, 8,43,43,19,33,54		3, 5
16″	56,31,30, 1,47, 2,43,41, 1,55		4, 7,56,47,10	
		42, 8,39,35,22,46,44		3, 5
18″	56,31,30,43,55,42,19, 3,48,39		4, 7,56,50,15	
		42, 8,35,27,25,56,29		3, 5
20″	56,31,31,26, 4,17,46,29,45, 8		4, 7,56,53,20	
		42, 8,31,19,29, 3, 9		3, 5
22″	56,31,32, 8,12,49, 5,58,48,17		4, 7,56,56,25	
		42, 8,27,11,32, 6,44		3, 5
24″	56,31,32,50,21,16,17,30,55, 1		4, 7,56,59,30	
		42, 8,23, 3,35, 7,14		3, 5
26″	56,31,33,32,29,39,21, 6, 2,15		4, 7,57, 2,35	
		42, 8,18,55,38, 4,39		3, 5
28″	56,31,34,14,37,58,16,44, 6,54		4, 7,57, 5,40	
		42, 8,14,47,40,58,59		3, 5
30″	56,31,34,56,46,13, 4,25, 5,53		4, 7,57, 8,45	
		42, 8,10,39,43,50,14		3, 5
32″	56,31,35,38,54,23,44, 8,56, 7		4, 7,57,11,50	
		42, 8, 6,31,46,38,24		3, 5
34″	56,31,36,21, 2,30,15,55,34,31		4, 7,57,14,55	
		42, 8, 2,23,49,23,29		3, 5
36″	56,31,37, 3,10,32,39,44,58, 0		4, 7,57,18, 0	
		42, 7,58,15,52, 5,29		3, 5
38″	56,31,37,45,18,30,55,37, 3,29		4, 7,57,21, 5	
		42, 7,54, 7,54,44,24		3, 5
40″	56,31,38,27,26,25, 3,31,47,53		4, 7,57,24,10	
		42, 7,49,59,57,20,14		3, 5
42″	56,31,39, 9,34,15, 3,29, 8, 7		4, 7,57,27,15	
		42, 7,45,51,59,52,59		3, 5
44″	56,31,39,51,42, 0,55,29, 1, 6		4, 7,57,30,20	
		42, 7,41,44, 2,22,39		3, 5
46″	56,31,40,33,49,42,39,31,23,45		4, 7,57,33,25	
		42, 7,37,36, 4,49,14		3, 5
48″	56,31,41,15,57,20,15,36,12,59		4, 7,57,36,30	
		42, 7,33,28, 7,12,44		3, 5
50″	56,31,41,58, 4,53,43,43,25,43		4, 7,57,39,35	
		42, 7,29,20, 9,33, 9		3, 5
52″	56,31,42,40,12,23, 3,52,58,52		4, 7,57,42,40	
		42, 7,25,12,11,50,29		3, 5
54″	56,31,43,22,19,48,16, 4,49,21		4, 7,57,45,45	
		42, 7,21, 4,14, 4,44		3, 5
56″	56,31,44, 4,27, 9,20,18,54, 5		4, 7,57,48,50	
		42, 7,16,56,16,15,54		3, 5
58″	56,31,44,46,34,26,16,35, 9,59		4, 7,57,51,55	
		42, 7,12,48,18,23,59		
60″	56,31,45,28,41,39, 4,53,33,58			
exact	56,31,45,28,41,39, 4,53,43,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°25′ 0″	56,31,45,28,41,39, 4,53,43,34			
		42, 7, 8,40,20,30, 5		
2″	56,31,46,10,48,47,45,14,13,39		4, 7,57,58, 0	
		42, 7, 4,32,22,32, 5		3, 5
4″	56,31,46,52,55,52,17,36,45,44		4, 7,58, 1, 5	
		42, 7, 0,24,24,31, 0		3, 5
6″	56,31,47,35, 2,52,42, 1,16,44		4, 7,58, 4,10	
		42, 6,56,16,26,26,50		3, 5
8″	56,31,48,17, 9,48,58,27,43,34		4, 7,58, 7,15	
		42, 6,52, 8,28,19,35		3, 5
10″	56,31,48,59,16,41, 6,56, 3, 9		4, 7,58,10,20	
		42, 6,48, 0,30, 9,15		3, 5
12″	56,31,49,41,23,29, 7,26,12,24		4, 7,58,13,25	
		42, 6,43,52,31,55,50		3, 5
14″	56,31,50,23,30,12,59,58, 8,14		4, 7,58,16,30	
		42, 6,39,44,33,39,20		3, 5
16″	56,31,51, 5,36,52,44,31,47,34		4, 7,58,19,35	
		42, 6,35,36,35,19,45		3, 5
18″	56,31,51,47,43,28,21, 7, 7,19		4, 7,58,22,40	
		42, 6,31,28,36,57, 5		3, 5
20″	56,31,52,29,49,59,49,44, 4,24		4, 7,58,25,45	
		42, 6,27,20,38,31,20		3, 5
22″	56,31,53,11,56,27,10,22,35,44		4, 7,58,28,50	
		42, 6,23,12,40, 2,30		3, 5
24″	56,31,53,54, 2,50,23, 2,38,14		4, 7,58,31,55	
		42, 6,19, 4,41,30,35		3, 5
26″	56,31,54,36, 9, 9,27,44, 8,49		4, 7,58,35, 0	
		42, 6,14,56,42,55,35		3, 5
28″	56,31,55,18,15,24,24,27, 4,24		4, 7,58,38, 5	
		42, 6,10,48,44,17,30		3, 5
30″	56,31,56, 0,21,35,13,11,21,54		4, 7,58,41,10	
		42, 6, 6,40,45,36,20		3, 5
32″	56,31,56,42,27,41,53,56,58,14		4, 7,58,44,15	
		42, 6, 2,32,46,52, 5		3, 5
34″	56,31,57,24,33,44,26,43,50,19		4, 7,58,47,20	
		42, 5,58,24,48, 4,45		3, 5
36″	56,31,58, 6,39,42,51,31,55, 4		4, 7,58,50,25	
		42, 5,54,16,49,14,20		3, 5
38″	56,31,58,48,45,37, 8,21, 9,24		4, 7,58,53,30	
		42, 5,50, 8,50,20,50		3, 5
40″	56,31,59,30,51,27,17,11,30,14		4, 7,58,56,35	
		42, 5,46, 0,51,24,15		3, 5
42″	56,32, 0,12,57,13,18, 2,54,29		4, 7,58,59,40	
		42, 5,41,52,52,24,35		3, 5
44″	56,32, 0,55, 2,55,10,55,19, 4		4, 7,59, 2,45	
		42, 5,37,44,53,21,50		3, 5
46″	56,32, 1,37, 8,32,55,48,40,54		4, 7,59, 5,50	
		42, 5,33,36,54,16, 0		3, 5
48″	56,32, 2,19,14, 6,32,42,56,54		4, 7,59, 8,55	
		42, 5,29,28,55, 7, 5		3, 5
50″	56,32, 3, 1,19,36, 1,38, 3,59		4, 7,59,12, 0	
		42, 5,25,20,55,55, 5		3, 5
52″	56,32, 3,43,25, 1,22,33,59, 4		4, 7,59,15, 5	
		42, 5,21,12,56,40, 0		3, 5
54″	56,32, 4,25,30,22,35,30,39, 4		4, 7,59,18,10	
		42, 5,17, 4,57,21,50		3, 5
56″	56,32, 5, 7,35,39,40,28, 0,54		4, 7,59,21,15	
		42, 5,12,56,58, 0,35		3, 5
58″	56,32, 5,49,40,52,37,26, 1,29		4, 7,59,24,20	
		42, 5, 8,48,58,36,15		
60″	56,32, 6,31,46, 1,26,24,37,44			
exact	56,32, 6,31,46, 1,26,24,58,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°26′ 0″	56,32, 6,31,46, 1,26,24,58,18			
		42, 5, 4,40,59,11, 5		
2″	56,32, 7,13,51, 6, 7,24, 9,23		4, 7,59,30,20	
		42, 5, 0,32,59,40,45		3, 5
4″	56,32, 7,55,56, 6,40,23,50, 8		4, 7,59,33,25	
		42, 4,56,25, 0, 7,20		3, 5
6″	56,32, 8,38, 1, 3, 5,23,57,28		4, 7,59,36,30	
		42, 4,52,17, 0,30,50		3, 5
8″	56,32, 9,20, 5,55,22,24,28,18		4, 7,59,39,35	
		42, 4,48, 9, 0,51,15		3, 5
10″	56,32,10, 2,10,43,31,25,19,33		4, 7,59,42,40	
		42, 4,44, 1, 1, 8,35		3, 5
12″	56,32,10,44,15,27,32,26,28, 8		4, 7,59,45,45	
		42, 4,39,53, 1,22,50		3, 5
14″	56,32,11,26,20, 7,25,27,50,58		4, 7,59,48,50	
		42, 4,35,45, 1,34, 0		3, 5
16″	56,32,12, 8,24,43,10,29,24,58		4, 7,59,51,55	
		42, 4,31,37, 1,42, 5		3, 5
18″	56,32,12,50,29,14,47,31, 7, 3		4, 7,59,55, 0	
		42, 4,27,29, 1,47, 5		3, 5
20″	56,32,13,32,33,42,16,32,54, 8		4, 7,59,58, 5	
		42, 4,23,21, 1,49, 0		3, 5
22″	56,32,14,14,38, 5,37,34,43, 8		4, 8, 0, 1,10	
		42, 4,19,13, 1,47,50		3, 5
24″	56,32,14,56,42,24,50,36,30,58		4, 8, 0, 4,15	
		42, 4,15, 5, 1,43,35		3, 5
26″	56,32,15,38,46,39,55,38,14,33		4, 8, 0, 7,20	
		42, 4,10,57, 1,36,15		3, 5
28″	56,32,16,20,50,50,52,39,50,48		4, 8, 0,10,25	
		42, 4, 6,49, 1,25,50		3, 5
30″	56,32,17, 2,54,57,41,41,16,38		4, 8, 0,13,30	
		42, 4, 2,41, 1,12,20		3, 5
32″	56,32,17,44,59, 0,22,42,28,58		4, 8, 0,16,35	
		42, 3,58,33, 0,55,45		3, 5
34″	56,32,18,27, 2,58,55,43,24,43		4, 8, 0,19,40	
		42, 3,54,25, 0,36, 5		3, 5
36″	56,32,19, 9, 6,53,20,44, 0,48		4, 8, 0,22,45	
		42, 3,50,17, 0,13,20		3, 5
38″	56,32,19,51,10,43,37,44,14, 8		4, 8, 0,25,50	
		42, 3,46, 8,59,47,30		3, 5
40″	56,32,20,33,14,29,46,44, 1,38		4, 8, 0,28,55	
		42, 3,42, 0,59,18,35		3, 5
42″	56,32,21,15,18,11,47,43,20,13		4, 8, 0,32, 0	
		42, 3,37,52,58,46,35		3, 5
44″	56,32,21,57,21,49,40,42, 6,48		4, 8, 0,35, 5	
		42, 3,33,44,58,11,30		3, 5
46″	56,32,22,39,25,23,25,40,18,18		4, 8, 0,38,10	
		42, 3,29,36,57,33,20		3, 5
48″	56,32,23,21,28,53, 2,37,51,38		4, 8, 0,41,15	
		42, 3,25,28,56,52, 5		3, 5
50″	56,32,24, 3,32,18,31,34,43,43		4, 8, 0,44,20	
		42, 3,21,20,56, 7,45		3, 5
52″	56,32,24,45,35,39,52,30,51,28		4, 8, 0,47,25	
		42, 3,17,12,55,20,20		3, 5
54″	56,32,25,27,38,57, 5,26,11,48		4, 8, 0,50,30	
		42, 3,13, 4,54,29,50		3, 5
56″	56,32,26, 9,42,10,10,20,41,38		4, 8, 0,53,35	
		42, 3, 8,56,53,36,15		3, 5
58″	56,32,26,51,45,19, 7,14,17,53		4, 8, 0,56,40	
		42, 3, 4,48,52,39,35		
60″	56,32,27,33,48,23,56, 6,57,28			
exact	56,32,27,33,48,23,56, 7,26,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°27′ 0″	56,32,27,33,48,23,56, 7,26,22			
		42, 3, 0,40,51,43, 2		
2″	56,32,28,15,51,24,36,59, 9,24		4, 8, 1, 2,36	
		42, 2,56,32,50,40,26		3, 4
4″	56,32,28,57,54,21, 9,49,49,50		4, 8, 1, 5,40	
		42, 2,52,24,49,34,46		3, 4
6″	56,32,29,39,57,13,34,39,24,36		4, 8, 1, 8,44	
		42, 2,48,16,48,26, 2		3, 4
8″	56,32,30,22, 0, 1,51,27,50,38		4, 8, 1,11,48	
		42, 2,44, 8,47,14,14		3, 4
10″	56,32,31, 4, 2,46, 0,15, 4,52		4, 8, 1,14,52	
		42, 2,40, 0,45,59,22		3, 4
12″	56,32,31,46, 5,26, 1, 1, 4,14		4, 8, 1,17,56	
		42, 2,35,52,44,41,26		3, 4
14″	56,32,32,28, 8, 1,53,45,45,40		4, 8, 1,21, 0	
		42, 2,31,44,43,20,26		3, 4
16″	56,32,33,10,10,33,38,29, 6, 6		4, 8, 1,24, 4	
		42, 2,27,36,41,56,22		3, 4
18″	56,32,33,52,13, 1,15,11, 2,28		4, 8, 1,27, 8	
		42, 2,23,28,40,29,14		3, 4
20″	56,32,34,34,15,24,43,51,31,42		4, 8, 1,30,12	
		42, 2,19,20,38,59, 2		3, 4
22″	56,32,35,16,17,44, 4,30,30,44		4, 8, 1,33,16	
		42, 2,15,12,37,25,46		3, 4
24″	56,32,35,58,19,59,17, 7,56,30		4, 8, 1,36,20	
		42, 2,11, 4,35,49,26		3, 4
26″	56,32,36,40,22,10,21,43,45,56		4, 8, 1,39,24	
		42, 2, 6,56,34,10, 2		3, 4
28″	56,32,37,22,24,17,18,17,55,58		4, 8, 1,42,28	
		42, 2, 2,48,32,27,34		3, 4
30″	56,32,38, 4,26,20, 6,50,23,32		4, 8, 1,45,32	
		42, 1,58,40,30,42, 2		3, 4
32″	56,32,38,46,28,18,47,21, 5,34		4, 8, 1,48,36	
		42, 1,54,32,28,53,26		3, 4
34″	56,32,39,28,30,13,19,49,59, 0		4, 8, 1,51,40	
		42, 1,50,24,27, 1,46		3, 4
36″	56,32,40,10,32, 3,44,17, 0,46		4, 8, 1,54,44	
		42, 1,46,16,25, 7, 2		3, 4
38″	56,32,40,52,33,50, 0,42, 7,48		4, 8, 1,57,48	
		42, 1,42, 8,23, 9,14		3, 4
40″	56,32,41,34,35,32, 9, 5,17, 2		4, 8, 2, 0,52	
		42, 1,38, 0,21, 8,22		3, 4
42″	56,32,42,16,37,10, 9,26,25,24		4, 8, 2, 3,56	
		42, 1,33,52,19, 4,26		3, 4
44″	56,32,42,58,38,44, 1,45,29,50		4, 8, 2, 7, 0	
		42, 1,29,44,16,57,26		3, 4
46″	56,32,43,40,40,13,46, 2,27,16		4, 8, 2,10, 4	
		42, 1,25,36,14,47,22		3, 4
48″	56,32,44,22,41,39,22,17,14,38		4, 8, 2,13, 8	
		42, 1,21,28,12,34,14		3, 4
50″	56,32,45, 4,43, 0,50,29,48,52		4, 8, 2,16,12	
		42, 1,17,20,10,18, 2		3, 4
52″	56,32,45,46,44,18,10,40, 6,54		4, 8, 2,19,16	
		42, 1,13,12, 7,58,46		3, 4
54″	56,32,46,28,45,31,22,48, 5,40		4, 8, 2,22,20	
		42, 1, 9, 4, 5,36,26		3, 4
56″	56,32,47,10,46,40,26,53,42, 6		4, 8, 2,25,24	
		42, 1, 4,56, 3,11, 2		3, 4
58″	56,32,47,52,47,45,22,56,53, 8		4, 8, 2,28,28	
		42, 1, 0,48, 0,42,34		
60″	56,32,48,34,48,46,10,57,35,42			
exact	56,32,48,34,48,46,10,57, 8,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°28′ 0″	56,32,48,34,48,46,10,57, 8,54			
		42, 0,56,39,58, 8,12		
2″	56,32,49,16,49,42,50,55,17, 6		4, 8, 2,34,47	
		42, 0,52,31,55,33,25		3, 4
4″	56,32,49,58,50,35,22,50,50,31		4, 8, 2,37,51	
		42, 0,48,23,52,55,34		3, 4
6″	56,32,50,40,51,23,46,43,46, 5		4, 8, 2,40,55	
		42, 0,44,15,50,14,39		3, 4
8″	56,32,51,22,52, 8, 2,34, 0,44		4, 8, 2,43,59	
		42, 0,40, 7,47,30,40		3, 4
10″	56,32,52, 4,52,48,10,21,31,24		4, 8, 2,47, 3	
		42, 0,35,59,44,43,37		3, 4
12″	56,32,52,46,53,24,10, 6,15, 1		4, 8, 2,50, 7	
		42, 0,31,51,41,53,30		3, 4
14″	56,32,53,28,53,56, 1,48, 8,31		4, 8, 2,53,11	
		42, 0,27,43,39, 0,19		3, 4
16″	56,32,54,10,54,23,45,27, 8,50		4, 8, 2,56,15	
		42, 0,23,35,36, 4, 4		3, 4
18″	56,32,54,52,54,47,21, 3,12,54		4, 8, 2,59,19	
		42, 0,19,27,33, 4,45		3, 4
20″	56,32,55,34,55, 6,48,36,17,39		4, 8, 3, 2,23	
		42, 0,15,19,30, 2,22		3, 4
22″	56,32,56,16,55,22, 8, 6,20, 1		4, 8, 3, 5,27	
		42, 0,11,11,26,56,55		3, 4
24″	56,32,56,58,55,33,19,33,16,56		4, 8, 3, 8,31	
		42, 0, 7, 3,23,48,24		3, 4
26″	56,32,57,40,55,40,22,57, 5,20		4, 8, 3,11,35	
		42, 0, 2,55,20,36,49		3, 4
28″	56,32,58,22,55,43,18,17,42, 9		4, 8, 3,14,39	
		41,59,58,47,17,22,10		3, 4
30″	56,32,59, 4,55,42, 5,35, 4,19		4, 8, 3,17,43	
		41,59,54,39,14, 4,27		3, 4
32″	56,32,59,46,55,36,44,49, 8,46		4, 8, 3,20,47	
		41,59,50,31,10,43,40		3, 4
34″	56,33, 0,28,55,27,15,59,52,26		4, 8, 3,23,51	
		41,59,46,23, 7,19,49		3, 4
36″	56,33, 1,10,55,13,39, 7,12,15		4, 8, 3,26,55	
		41,59,42,15, 3,52,54		3, 4
38″	56,33, 1,52,54,55,54,11, 5, 9		4, 8, 3,29,59	
		41,59,38, 7, 0,22,55		3, 4
40″	56,33, 2,34,54,34, 1,11,28, 4		4, 8, 3,33, 3	
		41,59,33,58,56,49,52		3, 4
42″	56,33, 3,16,54, 8, 0, 8,17,56		4, 8, 3,36, 7	
		41,59,29,50,53,13,45		3, 4
44″	56,33, 3,58,53,37,51, 1,31,41		4, 8, 3,39,11	
		41,59,25,42,49,34,34		3, 4
46″	56,33, 4,40,53, 3,33,51, 6,15		4, 8, 3,42,15	
		41,59,21,34,45,52,19		3, 4
48″	56,33, 5,22,52,25, 8,36,58,34		4, 8, 3,45,19	
		41,59,17,26,42, 7, 0		3, 4
50″	56,33, 6, 4,51,42,35,19, 5,34		4, 8, 3,48,23	
		41,59,13,18,38,18,37		3, 4
52″	56,33, 6,46,50,55,53,57,24,11		4, 8, 3,51,27	
		41,59, 9,10,34,27,10		3, 4
54″	56,33, 7,28,50, 5, 4,31,51,21		4, 8, 3,54,31	
		41,59, 5, 2,30,32,39		3, 4
56″	56,33, 8,10,49,10, 7, 2,24, 0		4, 8, 3,57,35	
		41,59, 0,54,26,35, 4		3, 4
58″	56,33, 8,52,48,11, 1,28,59, 4		4, 8, 4, 0,39	
		41,58,56,46,22,34,25		
60″	56,33, 9,34,47, 7,47,51,33,29			
exact	56,33, 9,34,47, 7,47,51,15, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°29′ 0″	56,33, 9,34,47, 7,47,51,15, 1			
		41,58,52,38,18,28,50		
2″	56,33,10,16,46, 0,26, 9,43,51		4, 8, 4, 6,54	
		41,58,48,30,14,21,56		3, 4
4″	56,33,10,58,44,48,56,24, 5,47		4, 8, 4, 9,58	
		41,58,44,22,10,11,58		3, 4
6″	56,33,11,40,43,33,18,34,17,45		4, 8, 4,13, 2	
		41,58,40,14, 5,58,56		3, 4
8″	56,33,12,22,42,13,32,40,16,41		4, 8, 4,16, 6	
		41,58,36, 6, 1,42,50		3, 4
10″	56,33,13, 4,40,49,38,41,59,31		4, 8, 4,19,10	
		41,58,31,57,57,23,40		3, 4
12″	56,33,13,46,39,21,36,39,23,11		4, 8, 4,22,14	
		41,58,27,49,53, 1,26		3, 4
14″	56,33,14,28,37,49,26,32,24,37		4, 8, 4,25,18	
		41,58,23,41,48,36, 8		3, 4
16″	56,33,15,10,36,13, 8,21, 0,45		4, 8, 4,28,22	
		41,58,19,33,44, 7,46		3, 4
18″	56,33,15,52,34,32,42, 5, 8,31		4, 8, 4,31,26	
		41,58,15,25,39,36,20		3, 4
20″	56,33,16,34,32,48, 7,44,44,51		4, 8, 4,34,30	
		41,58,11,17,35, 1,50		3, 4
22″	56,33,17,16,30,59,25,19,46,41		4, 8, 4,37,34	
		41,58, 7, 9,30,24,16		3, 4
24″	56,33,17,58,29, 6,34,50,10,57		4, 8, 4,40,38	
		41,58, 3, 1,25,43,38		3, 4
26″	56,33,18,40,27, 9,36,15,54,35		4, 8, 4,43,42	
		41,57,58,53,20,59,56		3, 4
28″	56,33,19,22,25, 8,29,36,54,31		4, 8, 4,46,46	
		41,57,54,45,16,13,10		3, 4
30″	56,33,20, 4,23, 3,14,53, 7,41		4, 8, 4,49,50	
		41,57,50,37,11,23,20		3, 4
32″	56,33,20,46,20,53,52, 4,31, 1		4, 8, 4,52,54	
		41,57,46,29, 6,30,26		3, 4
34″	56,33,21,28,18,40,21,11, 1,27		4, 8, 4,55,58	
		41,57,42,21, 1,34,28		3, 4
36″	56,33,22,10,16,22,42,12,35,55		4, 8, 4,59, 2	
		41,57,38,12,56,35,26		3, 4
38″	56,33,22,52,14, 0,55, 9,11,21		4, 8, 5, 2, 6	
		41,57,34, 4,51,33,20		3, 4
40″	56,33,23,34,11,35, 0, 0,44,41		4, 8, 5, 5,10	
		41,57,29,56,46,28,10		3, 4
42″	56,33,24,16, 9, 4,56,47,12,51		4, 8, 5, 8,14	
		41,57,25,48,41,19,56		3, 4
44″	56,33,24,58, 6,30,45,28,32,47		4, 8, 5,11,18	
		41,57,21,40,36, 8,38		3, 4
46″	56,33,25,40, 3,52,26, 4,41,25		4, 8, 5,14,22	
		41,57,17,32,30,54,16		3, 4
48″	56,33,26,22, 1, 9,58,35,35,41		4, 8, 5,17,26	
		41,57,13,24,25,36,50		3, 4
50″	56,33,27, 3,58,23,23, 1,12,31		4, 8, 5,20,30	
		41,57, 9,16,20,16,20		3, 4
52″	56,33,27,45,55,32,39,21,28,51		4, 8, 5,23,34	
		41,57, 5, 8,14,52,46		3, 4
54″	56,33,28,27,52,37,47,36,21,37		4, 8, 5,26,38	
		41,57, 1, 0, 9,26, 8		3, 4
56″	56,33,29, 9,49,38,47,45,47,45		4, 8, 5,29,42	
		41,56,56,52, 3,56,26		3, 4
58″	56,33,29,51,46,35,39,49,44,11		4, 8, 5,32,46	
		41,56,52,43,58,23,40		
60″	56,33,30,33,43,28,23,48, 7,51			
exact	56,33,30,33,43,28,23,48, 1,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°30′ 0″	56,33,30,33,43,28,23,48, 1,50			
		41,56,48,35,52,47,13		
2″	56,33,31,15,40,16,59,40,49, 3		4, 8, 5,38,56	
		41,56,44,27,47, 8,17		3, 4
4″	56,33,31,57,37, 1,27,27,57,20		4, 8, 5,42, 0	
		41,56,40,19,41,26,17		3, 4
6″	56,33,32,39,33,41,47, 9,23,37		4, 8, 5,45, 4	
		41,56,36,11,35,41,13		3, 4
8″	56,33,33,21,30,17,58,45, 4,50		4, 8, 5,48, 8	
		41,56,32, 3,29,53, 5		3, 4
10″	56,33,34, 3,26,50, 2,14,57,55		4, 8, 5,51,12	
		41,56,27,55,24, 1,53		3, 4
12″	56,33,34,45,23,17,57,38,59,48		4, 8, 5,54,16	
		41,56,23,47,18, 7,37		3, 4
14″	56,33,35,27,19,41,44,57, 7,25		4, 8, 5,57,20	
		41,56,19,39,12,10,17		3, 4
16″	56,33,36, 9,16, 1,24, 9,17,42		4, 8, 6, 0,24	
		41,56,15,31, 6, 9,53		3, 4
18″	56,33,36,51,12,16,55,15,27,35		4, 8, 6, 3,28	
		41,56,11,23, 0, 6,25		3, 4
20″	56,33,37,33, 8,28,18,15,34, 0		4, 8, 6, 6,32	
		41,56, 7,14,53,59,53		3, 4
22″	56,33,38,15, 4,35,33, 9,33,53		4, 8, 6, 9,36	
		41,56, 3, 6,47,50,17		3, 4
24″	56,33,38,57, 0,38,39,57,24,10		4, 8, 6,12,40	
		41,55,58,58,41,37,37		3, 4
26″	56,33,39,38,56,37,38,39, 1,47		4, 8, 6,15,44	
		41,55,54,50,35,21,53		3, 4
28″	56,33,40,20,52,32,29,14,23,40		4, 8, 6,18,48	
		41,55,50,42,29, 3, 5		3, 4
30″	56,33,41, 2,48,23,11,43,26,45		4, 8, 6,21,52	
		41,55,46,34,22,41,13		3, 4
32″	56,33,41,44,44, 9,46, 6, 7,58		4, 8, 6,24,56	
		41,55,42,26,16,16,17		3, 4
34″	56,33,42,26,39,52,12,22,24,15		4, 8, 6,28, 0	
		41,55,38,18, 9,48,17		3, 4
36″	56,33,43, 8,35,30,30,32,12,32		4, 8, 6,31, 4	
		41,55,34,10, 3,17,13		3, 4
38″	56,33,43,50,31, 4,40,35,29,45		4, 8, 6,34, 8	
		41,55,30, 1,56,43, 5		3, 4
40″	56,33,44,32,26,34,42,32,12,50		4, 8, 6,37,12	
		41,55,25,53,50, 5,53		3, 4
42″	56,33,45,14,22, 0,36,22,18,43		4, 8, 6,40,16	
		41,55,21,45,43,25,37		3, 4
44″	56,33,45,56,17,22,22, 5,44,20		4, 8, 6,43,20	
		41,55,17,37,36,42,17		3, 4
46″	56,33,46,38,12,39,59,42,26,37		4, 8, 6,46,24	
		41,55,13,29,29,55,53		3, 4
48″	56,33,47,20, 7,53,29,12,22,30		4, 8, 6,49,28	
		41,55, 9,21,23, 6,25		3, 4
50″	56,33,48, 2, 3, 2,50,35,28,55		4, 8, 6,52,32	
		41,55, 5,13,16,13,53		3, 4
52″	56,33,48,43,58, 8, 3,51,42,48		4, 8, 6,55,36	
		41,55, 1, 5, 9,18,17		3, 4
54″	56,33,49,25,53, 9, 9, 1, 1, 5		4, 8, 6,58,40	
		41,54,56,57, 2,19,37		3, 4
56″	56,33,50, 7,48, 6, 6, 3,20,42		4, 8, 7, 1,44	
		41,54,52,48,55,17,53		3, 4
58″	56,33,50,49,42,58,54,58,38,35		4, 8, 7, 4,48	
		41,54,48,40,48,13, 5		
60″	56,33,51,31,37,47,35,46,51,40			
exact	56,33,51,31,37,47,35,46,54,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°31′ 0″	56,33,51,31,37,47,35,46,54,30			
		41,54,44,32,41, 5,36		
2″	56,33,52,13,32,32, 8,28, 0, 6		4, 8, 7,10,54	
		41,54,40,24,33,54,42		3, 4
4″	56,33,52,55,27,12,33, 1,54,48		4, 8, 7,13,58	
		41,54,36,16,26,40,44		3, 4
6″	56,33,53,37,21,48,49,28,35,32		4, 8, 7,17, 2	
		41,54,32, 8,19,23,42		3, 4
8″	56,33,54,19,16,20,57,47,59,14		4, 8, 7,20, 6	
		41,54,28, 0,12, 3,36		3, 4
10″	56,33,55, 1,10,48,58, 0, 2,50		4, 8, 7,23,10	
		41,54,23,52, 4,40,26		3, 4
12″	56,33,55,43, 5,12,50, 4,43,16		4, 8, 7,26,14	
		41,54,19,43,57,14,12		3, 4
14″	56,33,56,24,59,32,34, 1,57,28		4, 8, 7,29,18	
		41,54,15,35,49,44,54		3, 4
16″	56,33,57, 6,53,48, 9,51,42,22		4, 8, 7,32,22	
		41,54,11,27,42,12,32		3, 4
18″	56,33,57,48,47,59,37,33,54,54		4, 8, 7,35,26	
		41,54, 7,19,34,37, 6		3, 4
20″	56,33,58,30,42, 6,57, 8,32, 0		4, 8, 7,38,30	
		41,54, 3,11,26,58,36		3, 4
22″	56,33,59,12,36,10, 8,35,30,36		4, 8, 7,41,34	
		41,53,59, 3,19,17, 2		3, 4
24″	56,33,59,54,30, 9,11,54,47,38		4, 8, 7,44,38	
		41,53,54,55,11,32,24		3, 4
26″	56,34, 0,36,24, 4, 7, 6,20, 2		4, 8, 7,47,42	
		41,53,50,47, 3,44,42		3, 4
28″	56,34, 1,18,17,54,54,10, 4,44		4, 8, 7,50,46	
		41,53,46,38,55,53,56		3, 4
30″	56,34, 2, 0,11,41,33, 5,58,40		4, 8, 7,53,50	
		41,53,42,30,48, 0, 6		3, 4
32″	56,34, 2,42, 5,24, 3,53,58,46		4, 8, 7,56,54	
		41,53,38,22,40, 3,12		3, 4
34″	56,34, 3,23,59, 2,26,34, 1,58		4, 8, 7,59,58	
		41,53,34,14,32, 3,14		3, 4
36″	56,34, 4, 5,52,36,41, 6, 5,12		4, 8, 8, 3, 2	
		41,53,30, 6,24, 0,12		3, 4
38″	56,34, 4,47,46, 6,47,30, 5,24		4, 8, 8, 6, 6	
		41,53,25,58,15,54, 6		3, 4
40″	56,34, 5,29,39,32,45,45,59,30		4, 8, 8, 9,10	
		41,53,21,50, 7,44,56		3, 4
42″	56,34, 6,11,32,54,35,53,44,26		4, 8, 8,12,14	
		41,53,17,41,59,32,42		3, 4
44″	56,34, 6,53,26,12,17,53,17, 8		4, 8, 8,15,18	
		41,53,13,33,51,17,24		3, 4
46″	56,34, 7,35,19,25,51,44,34,32		4, 8, 8,18,22	
		41,53, 9,25,42,59, 2		3, 4
48″	56,34, 8,17,12,35,17,27,33,34		4, 8, 8,21,26	
		41,53, 5,17,34,37,36		3, 4
50″	56,34, 8,59, 5,40,35, 2,11,10		4, 8, 8,24,30	
		41,53, 1, 9,26,13, 6		3, 4
52″	56,34, 9,40,58,41,44,28,24,16		4, 8, 8,27,34	
		41,52,57, 1,17,45,32		3, 4
54″	56,34,10,22,51,38,45,46, 9,48		4, 8, 8,30,38	
		41,52,52,53, 9,14,54		3, 4
56″	56,34,11, 4,44,31,38,55,24,42		4, 8, 8,33,42	
		41,52,48,45, 0,41,12		3, 4
58″	56,34,11,46,37,20,23,56, 5,54		4, 8, 8,36,46	
		41,52,44,36,52, 4,26		
60″	56,34,12,28,30, 5, 0,48,10,20			
exact	56,34,12,28,30, 5, 0,48,26,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°32′ 0″	56,34,12,28,30, 5, 0,48,26,10			
		41,52,40,28,43,26,16		
2″	56,34,13,10,22,45,29,31,52,26		4, 8, 8,42,47	
		41,52,36,20,34,43,29		3, 4
4″	56,34,13,52,15,21,50, 6,35,55		4, 8, 8,45,51	
		41,52,32,12,25,57,38		3, 4
6″	56,34,14,34, 7,54, 2,32,33,33		4, 8, 8,48,55	
		41,52,28, 4,17, 8,43		3, 4
8″	56,34,15,16, 0,22, 6,49,42,16		4, 8, 8,51,59	
		41,52,23,56, 8,16,44		3, 4
10″	56,34,15,57,52,46, 2,57,59, 0		4, 8, 8,55, 3	
		41,52,19,47,59,21,41		3, 4
12″	56,34,16,39,45, 5,50,57,20,41		4, 8, 8,58, 7	
		41,52,15,39,50,23,34		3, 4
14″	56,34,17,21,37,21,30,47,44,15		4, 8, 9, 1,11	
		41,52,11,31,41,22,23		3, 4
16″	56,34,18, 3,29,33, 2,29, 6,38		4, 8, 9, 4,15	
		41,52, 7,23,32,18, 8		3, 4
18″	56,34,18,45,21,40,26, 1,24,46		4, 8, 9, 7,19	
		41,52, 3,15,23,10,49		3, 4
20″	56,34,19,27,13,43,41,24,35,35		4, 8, 9,10,23	
		41,51,59, 7,14, 0,26		3, 4
22″	56,34,20, 9, 5,42,48,38,36, 1		4, 8, 9,13,27	
		41,51,54,59, 4,46,59		3, 4
24″	56,34,20,50,57,37,47,43,23, 0		4, 8, 9,16,31	
		41,51,50,50,55,30,28		3, 4
26″	56,34,21,32,49,28,38,38,53,28		4, 8, 9,19,35	
		41,51,46,42,46,10,53		3, 4
28″	56,34,22,14,41,15,21,25, 4,21		4, 8, 9,22,39	
		41,51,42,34,36,48,14		3, 4
30″	56,34,22,56,32,57,56, 1,52,35		4, 8, 9,25,43	
		41,51,38,26,27,22,31		3, 4
32″	56,34,23,38,24,36,22,29,15, 6		4, 8, 9,28,47	
		41,51,34,18,17,53,44		3, 4
34″	56,34,24,20,16,10,40,47, 8,50		4, 8, 9,31,51	
		41,51,30,10, 8,21,53		3, 4
36″	56,34,25, 2, 7,40,50,55,30,43		4, 8, 9,34,55	
		41,51,26, 1,58,46,58		3, 4
38″	56,34,25,43,59, 6,52,54,17,41		4, 8, 9,37,59	
		41,51,21,53,49, 8,59		3, 4
40″	56,34,26,25,50,28,46,43,26,40		4, 8, 9,41, 3	
		41,51,17,45,39,27,56		3, 4
42″	56,34,27, 7,41,46,32,22,54,36		4, 8, 9,44, 7	
		41,51,13,37,29,43,49		3, 4
44″	56,34,27,49,33, 0, 9,52,38,25		4, 8, 9,47,11	
		41,51, 9,29,19,56,38		3, 4
46″	56,34,28,31,24, 9,39,12,35, 3		4, 8, 9,50,15	
		41,51, 5,21,10, 6,23		3, 4
48″	56,34,29,13,15,15, 0,22,41,26		4, 8, 9,53,19	
		41,51, 1,13, 0,13, 4		3, 4
50″	56,34,29,55, 6,16,13,22,54,30		4, 8, 9,56,23	
		41,50,57, 4,50,16,41		3, 4
52″	56,34,30,36,57,13,18,13,11,11		4, 8, 9,59,27	
		41,50,52,56,40,17,14		3, 4
54″	56,34,31,18,48, 6,14,53,28,25		4, 8,10, 2,31	
		41,50,48,48,30,14,43		3, 4
56″	56,34,32, 0,38,55, 3,23,43, 8		4, 8,10, 5,35	
		41,50,44,40,20, 9, 8		3, 4
58″	56,34,32,42,29,39,43,43,52,16		4, 8,10, 8,39	
		41,50,40,32,10, 0,29		
60″	56,34,33,24,20,20,15,53,52,45			
exact	56,34,33,24,20,20,15,54,17,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°33′ 0″	56,34,33,24,20,20,15,54,17,58			
		41,50,36,23,59,51,29		
2″	56,34,34, 6,10,56,39,54, 9,27		4, 8,10,14,35	
		41,50,32,15,49,36,54		3, 4
4″	56,34,34,48, 1,28,55,43,46,21		4, 8,10,17,39	
		41,50,28, 7,39,19,15		3, 4
6″	56,34,35,29,51,57, 3,23, 5,36		4, 8,10,20,43	
		41,50,23,59,28,58,32		3, 4
8″	56,34,36,11,42,21, 2,52, 4, 8		4, 8,10,23,47	
		41,50,19,51,18,34,45		3, 4
10″	56,34,36,53,32,40,54,10,38,53		4, 8,10,26,51	
		41,50,15,43, 8, 7,54		3, 4
12″	56,34,37,35,22,56,37,18,46,47		4, 8,10,29,55	
		41,50,11,34,57,37,59		3, 4
14″	56,34,38,17,13, 8,12,16,24,46		4, 8,10,32,59	
		41,50, 7,26,47, 5, 0		3, 4
16″	56,34,38,59, 3,15,39, 3,29,46		4, 8,10,36, 3	
		41,50, 3,18,36,28,57		3, 4
18″	56,34,39,40,53,18,57,39,58,43		4, 8,10,39, 7	
		41,49,59,10,25,49,50		3, 4
20″	56,34,40,22,43,18, 8, 5,48,33		4, 8,10,42,11	
		41,49,55, 2,15, 7,39		3, 4
22″	56,34,41, 4,33,13,10,20,56,12		4, 8,10,45,15	
		41,49,50,54, 4,22,24		3, 4
24″	56,34,41,46,23, 4, 4,25,18,36		4, 8,10,48,19	
		41,49,46,45,53,34, 5		3, 4
26″	56,34,42,28,12,50,50,18,52,41		4, 8,10,51,23	
		41,49,42,37,42,42,42		3, 4
28″	56,34,43,10, 2,33,28, 1,35,23		4, 8,10,54,27	
		41,49,38,29,31,48,15		3, 4
30″	56,34,43,51,52,11,57,33,23,38		4, 8,10,57,31	
		41,49,34,21,20,50,44		3, 4
32″	56,34,44,33,41,46,18,54,14,22		4, 8,11, 0,35	
		41,49,30,13, 9,50, 9		3, 4
34″	56,34,45,15,31,16,32, 4, 4,31		4, 8,11, 3,39	
		41,49,26, 4,58,46,30		3, 4
36″	56,34,45,57,20,42,37, 2,51, 1		4, 8,11, 6,43	
		41,49,21,56,47,39,47		3, 4
38″	56,34,46,39,10, 4,33,50,30,48		4, 8,11, 9,47	
		41,49,17,48,36,30, 0		3, 4
40″	56,34,47,20,59,22,22,27, 0,48		4, 8,11,12,51	
		41,49,13,40,25,17, 9		3, 4
42″	56,34,48, 2,48,36, 2,52,17,57		4, 8,11,15,55	
		41,49, 9,32,14, 1,14		3, 4
44″	56,34,48,44,37,45,35, 6,19,11		4, 8,11,18,59	
		41,49, 5,24, 2,42,15		3, 4
46″	56,34,49,26,26,50,59, 9, 1,26		4, 8,11,22, 3	
		41,49, 1,15,51,20,12		3, 4
48″	56,34,50, 8,15,52,15, 0,21,38		4, 8,11,25, 7	
		41,48,57, 7,39,55, 5		3, 4
50″	56,34,50,50, 4,49,22,40,16,43		4, 8,11,28,11	
		41,48,52,59,28,26,54		3, 4
52″	56,34,51,31,53,42,22, 8,43,37		4, 8,11,31,15	
		41,48,48,51,16,55,39		3, 4
54″	56,34,52,13,42,31,13,25,39,16		4, 8,11,34,19	
		41,48,44,43, 5,21,20		3, 4
56″	56,34,52,55,31,15,56,31, 0,36		4, 8,11,37,23	
		41,48,40,34,53,43,57		3, 4
58″	56,34,53,37,19,56,31,24,44,33		4, 8,11,40,27	
		41,48,36,26,42, 3,30		
60″	56,34,54,19, 8,32,58, 6,48, 3			
exact	56,34,54,19, 8,32,58, 7,19, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°34′ 0″	56,34,54,19, 8,32,58, 7,19, 8			
		41,48,32,18,30,23,30		
2″	56,34,55, 0,57, 5,16,37,42,38		4, 8,11,46,19	
		41,48,28,10,18,37,11		3, 3
4″	56,34,55,42,45,33,26,56,19,49		4, 8,11,49,22	
		41,48,24, 2, 6,47,49		3, 3
6″	56,34,56,24,33,57,29, 3, 7,38		4, 8,11,52,25	
		41,48,19,53,54,55,24		3, 3
8″	56,34,57, 6,22,17,22,58, 3, 2		4, 8,11,55,28	
		41,48,15,45,42,59,56		3, 3
10″	56,34,57,48,10,33, 8,41, 2,58		4, 8,11,58,31	
		41,48,11,37,31, 1,25		3, 3
12″	56,34,58,29,58,44,46,12, 4,23		4, 8,12, 1,34	
		41,48, 7,29,18,59,51		3, 3
14″	56,34,59,11,46,52,15,31, 4,14		4, 8,12, 4,37	
		41,48, 3,21, 6,55,14		3, 3
16″	56,34,59,53,34,55,36,37,59,28		4, 8,12, 7,40	
		41,47,59,12,54,47,34		3, 3
18″	56,35, 0,35,22,54,49,32,47, 2		4, 8,12,10,43	
		41,47,55, 4,42,36,51		3, 3
20″	56,35, 1,17,10,49,54,15,23,53		4, 8,12,13,46	
		41,47,50,56,30,23, 5		3, 3
22″	56,35, 1,58,58,40,50,45,46,58		4, 8,12,16,49	
		41,47,46,48,18, 6,16		3, 3
24″	56,35, 2,40,46,27,39, 3,53,14		4, 8,12,19,52	
		41,47,42,40, 5,46,24		3, 3
26″	56,35, 3,22,34,10,19, 9,39,38		4, 8,12,22,55	
		41,47,38,31,53,23,29		3, 3
28″	56,35, 4, 4,21,48,51, 3, 3, 7		4, 8,12,25,58	
		41,47,34,23,40,57,31		3, 3
30″	56,35, 4,46, 9,23,14,44, 0,38		4, 8,12,29, 1	
		41,47,30,15,28,28,30		3, 3
32″	56,35, 5,27,56,53,30,12,29, 8		4, 8,12,32, 4	
		41,47,26, 7,15,56,26		3, 3
34″	56,35, 6, 9,44,19,37,28,25,34		4, 8,12,35, 7	
		41,47,21,59, 3,21,19		3, 3
36″	56,35, 6,51,31,41,36,31,46,53		4, 8,12,38,10	
		41,47,17,50,50,43, 9		3, 3
38″	56,35, 7,33,18,59,27,22,30, 2		4, 8,12,41,13	
		41,47,13,42,38, 1,56		3, 3
40″	56,35, 8,15, 6,13,10, 0,31,58		4, 8,12,44,16	
		41,47, 9,34,25,17,40		3, 3
42″	56,35, 8,56,53,22,44,25,49,38		4, 8,12,47,19	
		41,47, 5,26,12,30,21		3, 3
44″	56,35, 9,38,40,28,10,38,19,59		4, 8,12,50,22	
		41,47, 1,17,59,39,59		3, 3
46″	56,35,10,20,27,29,28,37,59,58		4, 8,12,53,25	
		41,46,57, 9,46,46,34		3, 3
48″	56,35,11, 2,14,26,38,24,46,32		4, 8,12,56,28	
		41,46,53, 1,33,50, 6		3, 3
50″	56,35,11,44, 1,19,39,58,36,38		4, 8,12,59,31	
		41,46,48,53,20,50,35		3, 3
52″	56,35,12,25,48, 8,33,19,27,13		4, 8,13, 2,34	
		41,46,44,45, 7,48, 1		3, 3
54″	56,35,13, 7,34,53,18,27,15,14		4, 8,13, 5,37	
		41,46,40,36,54,42,24		3, 3
56″	56,35,13,49,21,33,55,21,57,38		4, 8,13, 8,40	
		41,46,36,28,41,33,44		3, 3
58″	56,35,14,31, 8,10,24, 3,31,22		4, 8,13,11,43	
		41,46,32,20,28,22, 1		
60″	56,35,15,12,54,42,44,31,53,23			
exact	56,35,15,12,54,42,44,31,26,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°35′ 0″	56,35,15,12,54,42,44,31,26,54			
		41,46,28,12,15, 4,36		
2″	56,35,15,54,41,10,56,46,31,30		4, 8,13,17,59	
		41,46,24, 4, 1,46,37		3, 3
4″	56,35,16,36,27,35, 0,48,18, 7		4, 8,13,21, 2	
		41,46,19,55,48,25,35		3, 3
6″	56,35,17,18,13,54,56,36,43,42		4, 8,13,24, 5	
		41,46,15,47,35, 1,30		3, 3
8″	56,35,18, 0, 0,10,44,11,45,12		4, 8,13,27, 8	
		41,46,11,39,21,34,22		3, 3
10″	56,35,18,41,46,22,23,33,19,34		4, 8,13,30,11	
		41,46, 7,31, 8, 4,11		3, 3
12″	56,35,19,23,32,29,54,41,23,45		4, 8,13,33,14	
		41,46, 3,22,54,30,57		3, 3
14″	56,35,20, 5,18,33,17,35,54,42		4, 8,13,36,17	
		41,45,59,14,40,54,40		3, 3
16″	56,35,20,47, 4,32,32,16,49,22		4, 8,13,39,20	
		41,45,55, 6,27,15,20		3, 3
18″	56,35,21,28,50,27,38,44, 4,42		4, 8,13,42,23	
		41,45,50,58,13,32,57		3, 3
20″	56,35,22,10,36,18,36,57,37,39		4, 8,13,45,26	
		41,45,46,49,59,47,31		3, 3
22″	56,35,22,52,22, 5,26,57,25,10		4, 8,13,48,29	
		41,45,42,41,45,59, 2		3, 3
24″	56,35,23,34, 7,48, 8,43,24,12		4, 8,13,51,32	
		41,45,38,33,32, 7,30		3, 3
26″	56,35,24,15,53,26,42,15,31,42		4, 8,13,54,35	
		41,45,34,25,18,12,55		3, 3
28″	56,35,24,57,39, 1, 7,33,44,37		4, 8,13,57,38	
		41,45,30,17, 4,15,17		3, 3
30″	56,35,25,39,24,31,24,37,59,54		4, 8,14, 0,41	
		41,45,26, 8,50,14,36		3, 3
32″	56,35,26,21, 9,57,33,28,14,30		4, 8,14, 3,44	
		41,45,22, 0,36,10,52		3, 3
34″	56,35,27, 2,55,19,34, 4,25,22		4, 8,14, 6,47	
		41,45,17,52,22, 4, 5		3, 3
36″	56,35,27,44,40,37,26,26,29,27		4, 8,14, 9,50	
		41,45,13,44, 7,54,15		3, 3
38″	56,35,28,26,25,51,10,34,23,42		4, 8,14,12,53	
		41,45, 9,35,53,41,22		3, 3
40″	56,35,29, 8,11, 0,46,28, 5, 4		4, 8,14,15,56	
		41,45, 5,27,39,25,26		3, 3
42″	56,35,29,49,56, 6,14, 7,30,30		4, 8,14,18,59	
		41,45, 1,19,25, 6,27		3, 3
44″	56,35,30,31,41, 7,33,32,36,57		4, 8,14,22, 2	
		41,44,57,11,10,44,25		3, 3
46″	56,35,31,13,26, 4,44,43,21,22		4, 8,14,25, 5	
		41,44,53, 2,56,19,20		3, 3
48″	56,35,31,55,10,57,47,39,40,42		4, 8,14,28, 8	
		41,44,48,54,41,51,12		3, 3
50″	56,35,32,36,55,46,42,21,31,54		4, 8,14,31,11	
		41,44,44,46,27,20, 1		3, 3
52″	56,35,33,18,40,31,28,48,51,55		4, 8,14,34,14	
		41,44,40,38,12,45,47		3, 3
54″	56,35,34, 0,25,12, 7, 1,37,42		4, 8,14,37,17	
		41,44,36,29,58, 8,30		3, 3
56″	56,35,34,42, 9,48,36,59,46,12		4, 8,14,40,20	
		41,44,32,21,43,28,10		3, 3
58″	56,35,35,23,54,20,58,43,14,22		4, 8,14,43,23	
		41,44,28,13,28,44,47		
60″	56,35,36, 5,38,49,12,11,59, 9			
exact	56,35,36, 5,38,49,12,11,46,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°36′ 0″	56,35,36, 5,38,49,12,11,46,32			
		41,44,24, 5,13,57, 3		
2″	56,35,36,47,23,13,17,25,43,35		4, 8,14,49,34	
		41,44,19,56,59, 7,29		3, 3
4″	56,35,37,29, 7,33,14,24,51, 4		4, 8,14,52,37	
		41,44,15,48,44,14,52		3, 3
6″	56,35,38,10,51,49, 3, 9, 5,56		4, 8,14,55,40	
		41,44,11,40,29,19,12		3, 3
8″	56,35,38,52,36, 0,43,38,25, 8		4, 8,14,58,43	
		41,44, 7,32,14,20,29		3, 3
10″	56,35,39,34,20, 8,15,52,45,37		4, 8,15, 1,46	
		41,44, 3,23,59,18,43		3, 3
12″	56,35,40,16, 4,11,39,52, 4,20		4, 8,15, 4,49	
		41,43,59,15,44,13,54		3, 3
14″	56,35,40,57,48,10,55,36,18,14		4, 8,15, 7,52	
		41,43,55, 7,29, 6, 2		3, 3
16″	56,35,41,39,32, 6, 3, 5,24,16		4, 8,15,10,55	
		41,43,50,59,13,55, 7		3, 3
18″	56,35,42,21,15,57, 2,19,19,23		4, 8,15,13,58	
		41,43,46,50,58,41, 9		3, 3
20″	56,35,43, 2,59,43,53,18, 0,32		4, 8,15,17, 1	
		41,43,42,42,43,24, 8		3, 3
22″	56,35,43,44,43,26,36, 1,24,40		4, 8,15,20, 4	
		41,43,38,34,28, 4, 4		3, 3
24″	56,35,44,26,27, 5,10,29,28,44		4, 8,15,23, 7	
		41,43,34,26,12,40,57		3, 3
26″	56,35,45, 8,10,39,36,42, 9,41		4, 8,15,26,10	
		41,43,30,17,57,14,47		3, 3
28″	56,35,45,49,54, 9,54,39,24,28		4, 8,15,29,13	
		41,43,26, 9,41,45,34		3, 3
30″	56,35,46,31,37,36, 4,21,10, 2		4, 8,15,32,16	
		41,43,22, 1,26,13,18		3, 3
32″	56,35,47,13,20,58, 5,47,23,20		4, 8,15,35,19	
		41,43,17,53,10,37,59		3, 3
34″	56,35,47,55, 4,15,58,58, 1,19		4, 8,15,38,22	
		41,43,13,44,54,59,37		3, 3
36″	56,35,48,36,47,29,43,53, 0,56		4, 8,15,41,25	
		41,43, 9,36,39,18,12		3, 3
38″	56,35,49,18,30,39,20,32,19, 8		4, 8,15,44,28	
		41,43, 5,28,23,33,44		3, 3
40″	56,35,50, 0,13,44,48,55,52,52		4, 8,15,47,31	
		41,43, 1,20, 7,46,13		3, 3
42″	56,35,50,41,56,46, 9, 3,39, 5		4, 8,15,50,34	
		41,42,57,11,51,55,39		3, 3
44″	56,35,51,23,39,43,20,55,34,44		4, 8,15,53,37	
		41,42,53, 3,36, 2, 2		3, 3
46″	56,35,52, 5,22,36,24,31,36,46		4, 8,15,56,40	
		41,42,48,55,20, 5,22		3, 3
48″	56,35,52,47, 5,25,19,51,42, 8		4, 8,15,59,43	
		41,42,44,47, 4, 5,39		3, 3
50″	56,35,53,28,48,10, 6,55,47,47		4, 8,16, 2,46	
		41,42,40,38,48, 2,53		3, 3
52″	56,35,54,10,30,50,45,43,50,40		4, 8,16, 5,49	
		41,42,36,30,31,57, 4		3, 3
54″	56,35,54,52,13,27,16,15,47,44		4, 8,16, 8,52	
		41,42,32,22,15,48,12		3, 3
56″	56,35,55,33,55,59,38,31,35,56		4, 8,16,11,55	
		41,42,28,13,59,36,17		3, 3
58″	56,35,56,15,38,27,52,31,12,13		4, 8,16,14,58	
		41,42,24, 5,43,21,19		
60″	56,35,56,57,20,51,58,14,33,32			
exact	56,35,56,57,20,51,58,14,31,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°37′ 0″	56,35,56,57,20,51,58,14,31,23			
		41,42,19,57,27, 3, 7		
2″	56,35,57,39, 3,11,55,41,34,30		4, 8,16,21, 4	
		41,42,15,49,10,42, 3		3, 3
4″	56,35,58,20,45,27,44,52,16,33		4, 8,16,24, 7	
		41,42,11,40,54,17,56		3, 3
6″	56,35,59, 2,27,39,25,46,34,29		4, 8,16,27,10	
		41,42, 7,32,37,50,46		3, 3
8″	56,35,59,44, 9,46,58,24,25,15		4, 8,16,30,13	
		41,42, 3,24,21,20,33		3, 3
10″	56,36, 0,25,51,50,22,45,45,48		4, 8,16,33,16	
		41,41,59,16, 4,47,17		3, 3
12″	56,36, 1, 7,33,49,38,50,33, 5		4, 8,16,36,19	
		41,41,55, 7,48,10,58		3, 3
14″	56,36, 1,49,15,44,46,38,44, 3		4, 8,16,39,22	
		41,41,50,59,31,31,36		3, 3
16″	56,36, 2,30,57,35,46,10,15,39		4, 8,16,42,25	
		41,41,46,51,14,49,11		3, 3
18″	56,36, 3,12,39,22,37,25, 4,50		4, 8,16,45,28	
		41,41,42,42,58, 3,43		3, 3
20″	56,36, 3,54,21, 5,20,23, 8,33		4, 8,16,48,31	
		41,41,38,34,41,15,12		3, 3
22″	56,36, 4,36, 2,43,55, 4,23,45		4, 8,16,51,34	
		41,41,34,26,24,23,38		3, 3
24″	56,36, 5,17,44,18,21,28,47,23		4, 8,16,54,37	
		41,41,30,18, 7,29, 1		3, 3
26″	56,36, 5,59,25,48,39,36,16,24		4, 8,16,57,40	
		41,41,26, 9,50,31,21		3, 3
28″	56,36, 6,41, 7,14,49,26,47,45		4, 8,17, 0,43	
		41,41,22, 1,33,30,38		3, 3
30″	56,36, 7,22,48,36,51, 0,18,23		4, 8,17, 3,46	
		41,41,17,53,16,26,52		3, 3
32″	56,36, 8, 4,29,54,44,16,45,15		4, 8,17, 6,49	
		41,41,13,44,59,20, 3		3, 3
34″	56,36, 8,46,11, 8,29,16, 5,18		4, 8,17, 9,52	
		41,41, 9,36,42,10,11		3, 3
36″	56,36, 9,27,52,18, 5,58,15,29		4, 8,17,12,55	
		41,41, 5,28,24,57,16		3, 3
38″	56,36,10, 9,33,23,34,23,12,45		4, 8,17,15,58	
		41,41, 1,20, 7,41,18		3, 3
40″	56,36,10,51,14,24,54,30,54, 3		4, 8,17,19, 1	
		41,40,57,11,50,22,17		3, 3
42″	56,36,11,32,55,22, 6,21,16,20		4, 8,17,22, 4	
		41,40,53, 3,33, 0,13		3, 3
44″	56,36,12,14,36,15, 9,54,16,33		4, 8,17,25, 7	
		41,40,48,55,15,35, 6		3, 3
46″	56,36,12,56,17, 4, 5, 9,51,39		4, 8,17,28,10	
		41,40,44,46,58, 6,56		3, 3
48″	56,36,13,37,57,48,52, 7,58,35		4, 8,17,31,13	
		41,40,40,38,40,35,43		3, 3
50″	56,36,14,19,38,29,30,48,34,18		4, 8,17,34,16	
		41,40,36,30,23, 1,27		3, 3
52″	56,36,15, 1,19, 6, 1,11,35,45		4, 8,17,37,19	
		41,40,32,22, 5,24, 8		3, 3
54″	56,36,15,42,59,38,23,16,59,53		4, 8,17,40,22	
		41,40,28,13,47,43,46		3, 3
56″	56,36,16,24,40, 6,37, 4,43,39		4, 8,17,43,25	
		41,40,24, 5,30, 0,21		3, 3
58″	56,36,17, 6,20,30,42,34,44, 0		4, 8,17,46,28	
		41,40,19,57,12,13,53		
60″	56,36,17,48, 0,50,39,46,57,53			
exact	56,36,17,48, 0,50,39,47, 2,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°38′ 0″	56,36,17,48, 0,50,39,47, 2,50			
		41,40,15,48,54,25, 4		
2″	56,36,18,29,41, 6,28,41,27,54		4, 8,17,52,30	
		41,40,11,40,36,32,34		3, 3
4″	56,36,19,11,21,18, 9,18, 0,28		4, 8,17,55,33	
		41,40, 7,32,18,37, 1		3, 3
6″	56,36,19,53, 1,25,41,36,37,29		4, 8,17,58,36	
		41,40, 3,24, 0,38,25		3, 3
8″	56,36,20,34,41,29, 5,37,15,54		4, 8,18, 1,39	
		41,39,59,15,42,36,46		3, 3
10″	56,36,21,16,21,28,21,19,52,40		4, 8,18, 4,42	
		41,39,55, 7,24,32, 4		3, 3
12″	56,36,21,58, 1,23,28,44,24,44		4, 8,18, 7,45	
		41,39,50,59, 6,24,19		3, 3
14″	56,36,22,39,41,14,27,50,49, 3		4, 8,18,10,48	
		41,39,46,50,48,13,31		3, 3
16″	56,36,23,21,21, 1,18,39, 2,34		4, 8,18,13,51	
		41,39,42,42,29,59,40		3, 3
18″	56,36,24, 3, 0,44, 1, 9, 2,14		4, 8,18,16,54	
		41,39,38,34,11,42,46		3, 3
20″	56,36,24,44,40,22,35,20,45, 0		4, 8,18,19,57	
		41,39,34,25,53,22,49		3, 3
22″	56,36,25,26,19,57, 1,14, 7,49		4, 8,18,23, 0	
		41,39,30,17,34,59,49		3, 3
24″	56,36,26, 7,59,27,18,49, 7,38		4, 8,18,26, 3	
		41,39,26, 9,16,33,46		3, 3
26″	56,36,26,49,38,53,28, 5,41,24		4, 8,18,29, 6	
		41,39,22, 0,58, 4,40		3, 3
28″	56,36,27,31,18,15,29, 3,46, 4		4, 8,18,32, 9	
		41,39,17,52,39,32,31		3, 3
30″	56,36,28,12,57,33,21,43,18,35		4, 8,18,35,12	
		41,39,13,44,20,57,19		3, 3
32″	56,36,28,54,36,47, 6, 4,15,54		4, 8,18,38,15	
		41,39, 9,36, 2,19, 4		3, 3
34″	56,36,29,36,15,56,42, 6,34,58		4, 8,18,41,18	
		41,39, 5,27,43,37,46		3, 3
36″	56,36,30,17,55, 2, 9,50,12,44		4, 8,18,44,21	
		41,39, 1,19,24,53,25		3, 3
38″	56,36,30,59,34, 3,29,15, 6, 9		4, 8,18,47,24	
		41,38,57,11, 6, 6, 1		3, 3
40″	56,36,31,41,13, 0,40,21,12,10		4, 8,18,50,27	
		41,38,53, 2,47,15,34		3, 3
42″	56,36,32,22,51,53,43, 8,27,44		4, 8,18,53,30	
		41,38,48,54,28,22, 4		3, 3
44″	56,36,33, 4,30,42,37,36,49,48		4, 8,18,56,33	
		41,38,44,46, 9,25,31		3, 3
46″	56,36,33,46, 9,27,23,46,15,19		4, 8,18,59,36	
		41,38,40,37,50,25,55		3, 3
48″	56,36,34,27,48, 8, 1,36,41,14		4, 8,19, 2,39	
		41,38,36,29,31,23,16		3, 3
50″	56,36,35, 9,26,44,31, 8, 4,30		4, 8,19, 5,42	
		41,38,32,21,12,17,34		3, 3
52″	56,36,35,51, 5,16,52,20,22, 4		4, 8,19, 8,45	
		41,38,28,12,53, 8,49		3, 3
54″	56,36,36,32,43,45, 5,13,30,53		4, 8,19,11,48	
		41,38,24, 4,33,57, 1		3, 3
56″	56,36,37,14,22, 9, 9,47,27,54		4, 8,19,14,51	
		41,38,19,56,14,42,10		3, 3
58″	56,36,37,56, 0,29, 6, 2,10, 4		4, 8,19,17,54	
		41,38,15,47,55,24,16		
60″	56,36,38,37,38,44,53,57,34,20			
exact	56,36,38,37,38,44,53,57,50,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°39′ 0″	56,36,38,37,38,44,53,57,50,20			
		41,38,11,39,36, 5,10		
2″	56,36,39,19,16,56,33,33,55,30		4, 8,19,23,51	
		41,38, 7,31,16,41,19		3, 3
4″	56,36,40, 0,55, 4, 4,50,36,49		4, 8,19,26,54	
		41,38, 3,22,57,14,25		3, 3
6″	56,36,40,42,33, 7,27,47,51,14		4, 8,19,29,57	
		41,37,59,14,37,44,28		3, 3
8″	56,36,41,24,11, 6,42,25,35,42		4, 8,19,33, 0	
		41,37,55, 6,18,11,28		3, 3
10″	56,36,42, 5,49, 1,48,43,47,10		4, 8,19,36, 3	
		41,37,50,57,58,35,25		3, 3
12″	56,36,42,47,26,52,46,42,22,35		4, 8,19,39, 6	
		41,37,46,49,38,56,19		3, 3
14″	56,36,43,29, 4,39,36,21,18,54		4, 8,19,42, 9	
		41,37,42,41,19,14,10		3, 3
16″	56,36,44,10,42,22,17,40,33, 4		4, 8,19,45,12	
		41,37,38,32,59,28,58		3, 3
18″	56,36,44,52,20, 0,50,40, 2, 2		4, 8,19,48,15	
		41,37,34,24,39,40,43		3, 3
20″	56,36,45,33,57,35,15,19,42,45		4, 8,19,51,18	
		41,37,30,16,19,49,25		3, 3
22″	56,36,46,15,35, 5,31,39,32,10		4, 8,19,54,21	
		41,37,26, 7,59,55, 4		3, 3
24″	56,36,46,57,12,31,39,39,27,14		4, 8,19,57,24	
		41,37,21,59,39,57,40		3, 3
26″	56,36,47,38,49,53,39,19,24,54		4, 8,20, 0,27	
		41,37,17,51,19,57,13		3, 3
28″	56,36,48,20,27,11,30,39,22, 7		4, 8,20, 3,30	
		41,37,13,42,59,53,43		3, 3
30″	56,36,49, 2, 4,25,13,39,15,50		4, 8,20, 6,33	
		41,37, 9,34,39,47,10		3, 3
32″	56,36,49,43,41,34,48,19, 3, 0		4, 8,20, 9,36	
		41,37, 5,26,19,37,34		3, 3
34″	56,36,50,25,18,40,14,38,40,34		4, 8,20,12,39	
		41,37, 1,17,59,24,55		3, 3
36″	56,36,51, 6,55,41,32,38, 5,29		4, 8,20,15,42	
		41,36,57, 9,39, 9,13		3, 3
38″	56,36,51,48,32,38,42,17,14,42		4, 8,20,18,45	
		41,36,53, 1,18,50,28		3, 3
40″	56,36,52,30, 9,31,43,36, 5,10		4, 8,20,21,48	
		41,36,48,52,58,28,40		3, 3
42″	56,36,53,11,46,20,36,34,33,50		4, 8,20,24,51	
		41,36,44,44,38, 3,49		3, 3
44″	56,36,53,53,23, 5,21,12,37,39		4, 8,20,27,54	
		41,36,40,36,17,35,55		3, 3
46″	56,36,54,34,59,45,57,30,13,34		4, 8,20,30,57	
		41,36,36,27,57, 4,58		3, 3
48″	56,36,55,16,36,22,25,27,18,32		4, 8,20,34, 0	
		41,36,32,19,36,30,58		3, 3
50″	56,36,55,58,12,54,45, 3,49,30		4, 8,20,37, 3	
		41,36,28,11,15,53,55		3, 3
52″	56,36,56,39,49,22,56,19,43,25		4, 8,20,40, 6	
		41,36,24, 2,55,13,49		3, 3
54″	56,36,57,21,25,46,59,14,57,14		4, 8,20,43, 9	
		41,36,19,54,34,30,40		3, 3
56″	56,36,58, 3, 2, 6,53,49,27,54		4, 8,20,46,12	
		41,36,15,46,13,44,28		3, 3
58″	56,36,58,44,38,22,40, 3,12,22		4, 8,20,49,15	
		41,36,11,37,52,55,13		
60″	56,36,59,26,14,34,17,56, 7,35			
exact	56,36,59,26,14,34,17,56,31,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°40′ 0″	56,36,59,26,14,34,17,56,31,25			
		41,36, 7,29,32, 5,42		
2″	56,37, 0, 7,50,41,47,28,37, 7		4, 8,20,55, 8	
		41,36, 3,21,11,10,34		3, 2
4″	56,37, 0,49,26,45, 8,39,47,41		4, 8,20,58,10	
		41,35,59,12,50,12,24		3, 2
6″	56,37, 1,31, 2,44,21,30, 0, 5		4, 8,21, 1,12	
		41,35,55, 4,29,11,12		3, 2
8″	56,37, 2,12,38,39,25,59,11,17		4, 8,21, 4,14	
		41,35,50,56, 8, 6,58		3, 2
10″	56,37, 2,54,14,30,22, 7,18,15		4, 8,21, 7,16	
		41,35,46,47,46,59,42		3, 2
12″	56,37, 3,35,50,17, 9,54,17,57		4, 8,21,10,18	
		41,35,42,39,25,49,24		3, 2
14″	56,37, 4,17,25,59,49,20, 7,21		4, 8,21,13,20	
		41,35,38,31, 4,36, 4		3, 2
16″	56,37, 4,59, 1,38,20,24,43,25		4, 8,21,16,22	
		41,35,34,22,43,19,42		3, 2
18″	56,37, 5,40,37,12,43, 8, 3, 7		4, 8,21,19,24	
		41,35,30,14,22, 0,18		3, 2
20″	56,37, 6,22,12,42,57,30, 3,25		4, 8,21,22,26	
		41,35,26, 6, 0,37,52		3, 2
22″	56,37, 7, 3,48, 9, 3,30,41,17		4, 8,21,25,28	
		41,35,21,57,39,12,24		3, 2
24″	56,37, 7,45,23,31, 1, 9,53,41		4, 8,21,28,30	
		41,35,17,49,17,43,54		3, 2
26″	56,37, 8,26,58,48,50,27,37,35		4, 8,21,31,32	
		41,35,13,40,56,12,22		3, 2
28″	56,37, 9, 8,34, 2,31,23,49,57		4, 8,21,34,34	
		41,35, 9,32,34,37,48		3, 2
30″	56,37, 9,50, 9,12, 3,58,27,45		4, 8,21,37,36	
		41,35, 5,24,13, 0,12		3, 2
32″	56,37,10,31,44,17,28,11,27,57		4, 8,21,40,38	
		41,35, 1,15,51,19,34		3, 2
34″	56,37,11,13,19,18,44, 2,47,31		4, 8,21,43,40	
		41,34,57, 7,29,35,54		3, 2
36″	56,37,11,54,54,15,51,32,23,25		4, 8,21,46,42	
		41,34,52,59, 7,49,12		3, 2
38″	56,37,12,36,29, 8,50,40,12,37		4, 8,21,49,44	
		41,34,48,50,45,59,28		3, 2
40″	56,37,13,18, 3,57,41,26,12, 5		4, 8,21,52,46	
		41,34,44,42,24, 6,42		3, 2
42″	56,37,13,59,38,42,23,50,18,47		4, 8,21,55,48	
		41,34,40,34, 2,10,54		3, 2
44″	56,37,14,41,13,22,57,52,29,41		4, 8,21,58,50	
		41,34,36,25,40,12, 4		3, 2
46″	56,37,15,22,47,59,23,32,41,45		4, 8,22, 1,52	
		41,34,32,17,18,10,12		3, 2
48″	56,37,16, 4,22,31,40,50,51,57		4, 8,22, 4,54	
		41,34,28, 8,56, 5,18		3, 2
50″	56,37,16,45,56,59,49,46,57,15		4, 8,22, 7,56	
		41,34,24, 0,33,57,22		3, 2
52″	56,37,17,27,31,23,50,20,54,37		4, 8,22,10,58	
		41,34,19,52,11,46,24		3, 2
54″	56,37,18, 9, 5,43,42,32,41, 1		4, 8,22,14, 0	
		41,34,15,43,49,32,24		3, 2
56″	56,37,18,50,39,59,26,22,13,25		4, 8,22,17, 2	
		41,34,11,35,27,15,22		3, 2
58″	56,37,19,32,14,11, 1,49,28,47		4, 8,22,20, 4	
		41,34, 7,27, 4,55,18		
60″	56,37,20,13,48,18,28,54,24, 5			
exact	56,37,20,13,48,18,28,53,51,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°41′ 0″	56,37,20,13,48,18,28,53,51,42			
		41,34, 3,18,42,28,55		
2″	56,37,20,55,22,21,47,36,20,37		4, 8,22,26,21	
		41,33,59,10,20, 2,34		3, 2
4″	56,37,21,36,56,20,57,56,23,11		4, 8,22,29,23	
		41,33,55, 1,57,33,11		3, 2
6″	56,37,22,18,30,15,59,53,56,22		4, 8,22,32,25	
		41,33,50,53,35, 0,46		3, 2
8″	56,37,23, 0, 4, 6,53,28,57, 8		4, 8,22,35,27	
		41,33,46,45,12,25,19		3, 2
10″	56,37,23,41,37,53,38,41,22,27		4, 8,22,38,29	
		41,33,42,36,49,46,50		3, 2
12″	56,37,24,23,11,36,15,31, 9,17		4, 8,22,41,31	
		41,33,38,28,27, 5,19		3, 2
14″	56,37,25, 4,45,14,43,58,14,36		4, 8,22,44,33	
		41,33,34,20, 4,20,46		3, 2
16″	56,37,25,46,18,49, 4, 2,35,22		4, 8,22,47,35	
		41,33,30,11,41,33,11		3, 2
18″	56,37,26,27,52,19,15,44, 8,33		4, 8,22,50,37	
		41,33,26, 3,18,42,34		3, 2
20″	56,37,27, 9,25,45,19, 2,51, 7		4, 8,22,53,39	
		41,33,21,54,55,48,55		3, 2
22″	56,37,27,50,59, 7,13,58,40, 2		4, 8,22,56,41	
		41,33,17,46,32,52,14		3, 2
24″	56,37,28,32,32,25, 0,31,32,16		4, 8,22,59,43	
		41,33,13,38, 9,52,31		3, 2
26″	56,37,29,14, 5,38,38,41,24,47		4, 8,23, 2,45	
		41,33, 9,29,46,49,46		3, 2
28″	56,37,29,55,38,48, 8,28,14,33		4, 8,23, 5,47	
		41,33, 5,21,23,43,59		3, 2
30″	56,37,30,37,11,53,29,51,58,32		4, 8,23, 8,49	
		41,33, 1,13, 0,35,10		3, 2
32″	56,37,31,18,44,54,42,52,33,42		4, 8,23,11,51	
		41,32,57, 4,37,23,19		3, 2
34″	56,37,32, 0,17,51,47,29,57, 1		4, 8,23,14,53	
		41,32,52,56,14, 8,26		3, 2
36″	56,37,32,41,50,44,43,44, 5,27		4, 8,23,17,55	
		41,32,48,47,50,50,31		3, 2
38″	56,37,33,23,23,33,31,34,55,58		4, 8,23,20,57	
		41,32,44,39,27,29,34		3, 2
40″	56,37,34, 4,56,18,11, 2,25,32		4, 8,23,23,59	
		41,32,40,31, 4, 5,35		3, 2
42″	56,37,34,46,28,58,42, 6,31, 7		4, 8,23,27, 1	
		41,32,36,22,40,38,34		3, 2
44″	56,37,35,28, 1,35, 4,47, 9,41		4, 8,23,30, 3	
		41,32,32,14,17, 8,31		3, 2
46″	56,37,36, 9,34, 7,19, 4,18,12		4, 8,23,33, 5	
		41,32,28, 5,53,35,26		3, 2
48″	56,37,36,51, 6,35,24,57,53,38		4, 8,23,36, 7	
		41,32,23,57,29,59,19		3, 2
50″	56,37,37,32,38,59,22,27,52,57		4, 8,23,39, 9	
		41,32,19,49, 6,20,10		3, 2
52″	56,37,38,14,11,19,11,34,13, 7		4, 8,23,42,11	
		41,32,15,40,42,37,59		3, 2
54″	56,37,38,55,43,34,52,16,51, 6		4, 8,23,45,13	
		41,32,11,32,18,52,46		3, 2
56″	56,37,39,37,15,46,24,35,43,52		4, 8,23,48,15	
		41,32, 7,23,55, 4,31		3, 2
58″	56,37,40,18,47,53,48,30,48,23		4, 8,23,51,17	
		41,32, 3,15,31,13,14		
60″	56,37,41, 0,19,57, 4, 2, 1,37			
exact	56,37,41, 0,19,57, 4, 1,44,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°42′ 0″	56,37,41, 0,19,57, 4, 1,44,52			
		41,31,59, 7, 7,17, 6		
2″	56,37,41,41,51,56,11, 9, 1,58		4, 8,23,57,28	
		41,31,54,58,43,19,38		3, 2
4″	56,37,42,23,23,51, 9,52,21,36		4, 8,24, 0,30	
		41,31,50,50,19,19, 8		3, 2
6″	56,37,43, 4,55,42, 0,11,40,44		4, 8,24, 3,32	
		41,31,46,41,55,15,36		3, 2
8″	56,37,43,46,27,28,42, 6,56,20		4, 8,24, 6,34	
		41,31,42,33,31, 9, 2		3, 2
10″	56,37,44,27,59,11,15,38, 5,22		4, 8,24, 9,36	
		41,31,38,25, 6,59,26		3, 2
12″	56,37,45, 9,30,49,40,45, 4,48		4, 8,24,12,38	
		41,31,34,16,42,46,48		3, 2
14″	56,37,45,51, 2,23,57,27,51,36		4, 8,24,15,40	
		41,31,30, 8,18,31, 8		3, 2
16″	56,37,46,32,33,54, 5,46,22,44		4, 8,24,18,42	
		41,31,25,59,54,12,26		3, 2
18″	56,37,47,14, 5,20, 5,40,35,10		4, 8,24,21,44	
		41,31,21,51,29,50,42		3, 2
20″	56,37,47,55,36,41,57,10,25,52		4, 8,24,24,46	
		41,31,17,43, 5,25,56		3, 2
22″	56,37,48,37, 7,59,40,15,51,48		4, 8,24,27,48	
		41,31,13,34,40,58, 8		3, 2
24″	56,37,49,18,39,13,14,56,49,56		4, 8,24,30,50	
		41,31, 9,26,16,27,18		3, 2
26″	56,37,50, 0,10,22,41,13,17,14		4, 8,24,33,52	
		41,31, 5,17,51,53,26		3, 2
28″	56,37,50,41,41,27,59, 5,10,40		4, 8,24,36,54	
		41,31, 1, 9,27,16,32		3, 2
30″	56,37,51,23,12,29, 8,32,27,12		4, 8,24,39,56	
		41,30,57, 1, 2,36,36		3, 2
32″	56,37,52, 4,43,26, 9,35, 3,48		4, 8,24,42,58	
		41,30,52,52,37,53,38		3, 2
34″	56,37,52,46,14,19, 2,12,57,26		4, 8,24,46, 0	
		41,30,48,44,13, 7,38		3, 2
36″	56,37,53,27,45, 7,46,26, 5, 4		4, 8,24,49, 2	
		41,30,44,35,48,18,36		3, 2
38″	56,37,54, 9,15,52,22,14,23,40		4, 8,24,52, 4	
		41,30,40,27,23,26,32		3, 2
40″	56,37,54,50,46,32,49,37,50,12		4, 8,24,55, 6	
		41,30,36,18,58,31,26		3, 2
42″	56,37,55,32,17, 9, 8,36,21,38		4, 8,24,58, 8	
		41,30,32,10,33,33,18		3, 2
44″	56,37,56,13,47,41,19, 9,54,56		4, 8,25, 1,10	
		41,30,28, 2, 8,32, 8		3, 2
46″	56,37,56,55,18, 9,21,18,27, 4		4, 8,25, 4,12	
		41,30,23,53,43,27,56		3, 2
48″	56,37,57,36,48,33,15, 1,55, 0		4, 8,25, 7,14	
		41,30,19,45,18,20,42		3, 2
50″	56,37,58,18,18,53, 0,20,15,42		4, 8,25,10,16	
		41,30,15,36,53,10,26		3, 2
52″	56,37,58,59,49, 8,37,13,26, 8		4, 8,25,13,18	
		41,30,11,28,27,57, 8		3, 2
54″	56,37,59,41,19,20, 5,41,23,16		4, 8,25,16,20	
		41,30, 7,20, 2,40,48		3, 2
56″	56,38, 0,22,49,27,25,44, 4, 4		4, 8,25,19,22	
		41,30, 3,11,37,21,26		3, 2
58″	56,38, 1, 4,19,30,37,21,25,30		4, 8,25,22,24	
		41,29,59, 3,11,59, 2		
60″	56,38, 1,45,49,29,40,33,24,32			
exact	56,38, 1,45,49,29,40,33,12,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°43′ 0″	56,38, 1,45,49,29,40,33,12,43			
		41,29,54,54,46,32,31		
2″	56,38, 2,27,19,24,35,19,45,14		4, 8,25,28,31	
		41,29,50,46,21, 4, 0		3, 2
4″	56,38, 3, 8,49,15,21,40,49,14		4, 8,25,31,33	
		41,29,46,37,55,32,27		3, 2
6″	56,38, 3,50,19, 1,59,36,21,41		4, 8,25,34,35	
		41,29,42,29,29,57,52		3, 2
8″	56,38, 4,31,48,44,29, 6,19,33		4, 8,25,37,37	
		41,29,38,21, 4,20,15		3, 2
10″	56,38, 5,13,18,22,50,10,39,48		4, 8,25,40,39	
		41,29,34,12,38,39,36		3, 2
12″	56,38, 5,54,47,57, 2,49,19,24		4, 8,25,43,41	
		41,29,30, 4,12,55,55		3, 2
14″	56,38, 6,36,17,27, 7, 2,15,19		4, 8,25,46,43	
		41,29,25,55,47, 9,12		3, 2
16″	56,38, 7,17,46,53, 2,49,24,31		4, 8,25,49,45	
		41,29,21,47,21,19,27		3, 2
18″	56,38, 7,59,16,14,50,10,43,58		4, 8,25,52,47	
		41,29,17,38,55,26,40		3, 2
20″	56,38, 8,40,45,32,29, 6,10,38		4, 8,25,55,49	
		41,29,13,30,29,30,51		3, 2
22″	56,38, 9,22,14,45,59,35,41,29		4, 8,25,58,51	
		41,29, 9,22, 3,32, 0		3, 2
24″	56,38,10, 3,43,55,21,39,13,29		4, 8,26, 1,53	
		41,29, 5,13,37,30, 7		3, 2
26″	56,38,10,45,13, 0,35,16,43,36		4, 8,26, 4,55	
		41,29, 1, 5,11,25,12		3, 2
28″	56,38,11,26,42, 1,40,28, 8,48		4, 8,26, 7,57	
		41,28,56,56,45,17,15		3, 2
30″	56,38,12, 8,10,58,37,13,26, 3		4, 8,26,10,59	
		41,28,52,48,19, 6,16		3, 2
32″	56,38,12,49,39,51,25,32,32,19		4, 8,26,14, 1	
		41,28,48,39,52,52,15		3, 2
34″	56,38,13,31, 8,40, 5,25,24,34		4, 8,26,17, 3	
		41,28,44,31,26,35,12		3, 2
36″	56,38,14,12,37,24,36,51,59,46		4, 8,26,20, 5	
		41,28,40,23, 0,15, 7		3, 2
38″	56,38,14,54, 6, 4,59,52,14,53		4, 8,26,23, 7	
		41,28,36,14,33,52, 0		3, 2
40″	56,38,15,35,34,41,14,26, 6,53		4, 8,26,26, 9	
		41,28,32, 6, 7,25,51		3, 2
42″	56,38,16,17, 3,13,20,33,32,44		4, 8,26,29,11	
		41,28,27,57,40,56,40		3, 2
44″	56,38,16,58,31,41,18,14,29,24		4, 8,26,32,13	
		41,28,23,49,14,24,27		3, 2
46″	56,38,17,40, 0, 5, 7,28,53,51		4, 8,26,35,15	
		41,28,19,40,47,49,12		3, 2
48″	56,38,18,21,28,24,48,16,43, 3		4, 8,26,38,17	
		41,28,15,32,21,10,55		3, 2
50″	56,38,19, 2,56,40,20,37,53,58		4, 8,26,41,19	
		41,28,11,23,54,29,36		3, 2
52″	56,38,19,44,24,51,44,32,23,34		4, 8,26,44,21	
		41,28, 7,15,27,45,15		3, 2
54″	56,38,20,25,52,59, 0, 0, 8,49		4, 8,26,47,23	
		41,28, 3, 7, 0,57,52		3, 2
56″	56,38,21, 7,21, 2, 7, 1, 6,41		4, 8,26,50,25	
		41,27,58,58,34, 7,27		3, 2
58″	56,38,21,48,49, 1, 5,35,14, 8		4, 8,26,53,27	
		41,27,54,50, 7,14, 0		
60″	56,38,22,30,16,55,55,42,28, 8			
exact	56,38,22,30,16,55,55,42,25, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°44′ 0″	56,38,22,30,16,55,55,42,25, 7			
		41,27,50,41,40,17,26		
2″	56,38,23,11,44,46,37,22,42,33		4, 8,26,59,30	
		41,27,46,33,13,17,56		3, 2
4″	56,38,23,53,12,33,10,36, 0,29		4, 8,27, 2,32	
		41,27,42,24,46,15,24		3, 2
6″	56,38,24,34,40,15,35,22,15,53		4, 8,27, 5,34	
		41,27,38,16,19, 9,50		3, 2
8″	56,38,25,16, 7,53,51,41,25,43		4, 8,27, 8,36	
		41,27,34, 7,52, 1,14		3, 2
10″	56,38,25,57,35,27,59,33,26,57		4, 8,27,11,38	
		41,27,29,59,24,49,36		3, 2
12″	56,38,26,39, 2,57,58,58,16,33		4, 8,27,14,40	
		41,27,25,50,57,34,56		3, 2
14″	56,38,27,20,30,23,49,55,51,29		4, 8,27,17,42	
		41,27,21,42,30,17,14		3, 2
16″	56,38,28, 1,57,45,32,26, 8,43		4, 8,27,20,44	
		41,27,17,34, 2,56,30		3, 2
18″	56,38,28,43,25, 3, 6,29, 5,13		4, 8,27,23,46	
		41,27,13,25,35,32,44		3, 2
20″	56,38,29,24,52,16,32, 4,37,57		4, 8,27,26,48	
		41,27, 9,17, 8, 5,56		3, 2
22″	56,38,30, 6,19,25,49,12,43,53		4, 8,27,29,50	
		41,27, 5, 8,40,36, 6		3, 2
24″	56,38,30,47,46,30,57,53,19,59		4, 8,27,32,52	
		41,27, 1, 0,13, 3,14		3, 2
26″	56,38,31,29,13,31,58, 6,23,13		4, 8,27,35,54	
		41,26,56,51,45,27,20		3, 2
28″	56,38,32,10,40,28,49,51,50,33		4, 8,27,38,56	
		41,26,52,43,17,48,24		3, 2
30″	56,38,32,52, 7,21,33, 9,38,57		4, 8,27,41,58	
		41,26,48,34,50, 6,26		3, 2
32″	56,38,33,33,34,10, 7,59,45,23		4, 8,27,45, 0	
		41,26,44,26,22,21,26		3, 2
34″	56,38,34,15, 0,54,34,22, 6,49		4, 8,27,48, 2	
		41,26,40,17,54,33,24		3, 2
36″	56,38,34,56,27,34,52,16,40,13		4, 8,27,51, 4	
		41,26,36, 9,26,42,20		3, 2
38″	56,38,35,37,54,11, 1,43,22,33		4, 8,27,54, 6	
		41,26,32, 0,58,48,14		3, 2
40″	56,38,36,19,20,43, 2,42,10,47		4, 8,27,57, 8	
		41,26,27,52,30,51, 6		3, 2
42″	56,38,37, 0,47,10,55,13, 1,53		4, 8,28, 0,10	
		41,26,23,44, 2,50,56		3, 2
44″	56,38,37,42,13,34,39,15,52,49		4, 8,28, 3,12	
		41,26,19,35,34,47,44		3, 2
46″	56,38,38,23,39,54,14,50,40,33		4, 8,28, 6,14	
		41,26,15,27, 6,41,30		3, 2
48″	56,38,39, 5, 6, 9,41,57,22, 3		4, 8,28, 9,16	
		41,26,11,18,38,32,14		3, 2
50″	56,38,39,46,32,21, 0,35,54,17		4, 8,28,12,18	
		41,26, 7,10,10,19,56		3, 2
52″	56,38,40,27,58,28,10,46,14,13		4, 8,28,15,20	
		41,26, 3, 1,42, 4,36		3, 2
54″	56,38,41, 9,24,31,12,28,18,49		4, 8,28,18,22	
		41,25,58,53,13,46,14		3, 2
56″	56,38,41,50,50,30, 5,42, 5, 3		4, 8,28,21,24	
		41,25,54,44,45,24,50		3, 2
58″	56,38,42,32,16,24,50,27,29,53		4, 8,28,24,26	
		41,25,50,36,17, 0,24		
60″	56,38,43,13,42,15,26,44,30,17			
exact	56,38,43,13,42,15,26,44,40, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°45′ 0″	56,38,43,13,42,15,26,44,40, 4			
		41,25,46,27,48,34, 7		
2″	56,38,43,55, 8, 1,54,33,14,11		4, 8,28,30,24	
		41,25,42,19,20, 3,43		3, 2
4″	56,38,44,36,33,44,13,53,17,54		4, 8,28,33,26	
		41,25,38,10,51,30,17		3, 2
6″	56,38,45,17,59,22,24,44,48,11		4, 8,28,36,28	
		41,25,34, 2,22,53,49		3, 2
8″	56,38,45,59,24,56,27, 7,42, 0		4, 8,28,39,30	
		41,25,29,53,54,14,19		3, 2
10″	56,38,46,40,50,26,21, 1,56,19		4, 8,28,42,32	
		41,25,25,45,25,31,47		3, 2
12″	56,38,47,22,15,52, 6,27,28, 6		4, 8,28,45,34	
		41,25,21,36,56,46,13		3, 2
14″	56,38,48, 3,41,13,43,24,14,19		4, 8,28,48,36	
		41,25,17,28,27,57,37		3, 2
16″	56,38,48,45, 6,31,11,52,11,56		4, 8,28,51,38	
		41,25,13,19,59, 5,59		3, 2
18″	56,38,49,26,31,44,31,51,17,55		4, 8,28,54,40	
		41,25, 9,11,30,11,19		3, 2
20″	56,38,50, 7,56,53,43,21,29,14		4, 8,28,57,42	
		41,25, 5, 3, 1,13,37		3, 2
22″	56,38,50,49,21,58,46,22,42,51		4, 8,29, 0,44	
		41,25, 0,54,32,12,53		3, 2
24″	56,38,51,30,46,59,40,54,55,44		4, 8,29, 3,46	
		41,24,56,46, 3, 9, 7		3, 2
26″	56,38,52,12,11,56,26,58, 4,51		4, 8,29, 6,48	
		41,24,52,37,34, 2,19		3, 2
28″	56,38,52,53,36,49, 4,32, 7,10		4, 8,29, 9,50	
		41,24,48,29, 4,52,29		3, 2
30″	56,38,53,35, 1,37,33,36,59,39		4, 8,29,12,52	
		41,24,44,20,35,39,37		3, 2
32″	56,38,54,16,26,21,54,12,39,16		4, 8,29,15,54	
		41,24,40,12, 6,23,43		3, 2
34″	56,38,54,57,51, 2, 6,19, 2,59		4, 8,29,18,56	
		41,24,36, 3,37, 4,47		3, 2
36″	56,38,55,39,15,38, 9,56, 7,46		4, 8,29,21,58	
		41,24,31,55, 7,42,49		3, 2
38″	56,38,56,20,40,10, 5, 3,50,35		4, 8,29,25, 0	
		41,24,27,46,38,17,49		3, 2
40″	56,38,57, 2, 4,37,51,42, 8,24		4, 8,29,28, 2	
		41,24,23,38, 8,49,47		3, 2
42″	56,38,57,43,29, 1,29,50,58,11		4, 8,29,31, 4	
		41,24,19,29,39,18,43		3, 2
44″	56,38,58,24,53,20,59,30,16,54		4, 8,29,34, 6	
		41,24,15,21, 9,44,37		3, 2
46″	56,38,59, 6,17,36,20,40, 1,31		4, 8,29,37, 8	
		41,24,11,12,40, 7,29		3, 2
48″	56,38,59,47,41,47,33,20, 9, 0		4, 8,29,40,10	
		41,24, 7, 4,10,27,19		3, 2
50″	56,39, 0,29, 5,54,37,30,36,19		4, 8,29,43,12	
		41,24, 2,55,40,44, 7		3, 2
52″	56,39, 1,10,29,57,33,11,20,26		4, 8,29,46,14	
		41,23,58,47,10,57,53		3, 2
54″	56,39, 1,51,53,56,20,22,18,19		4, 8,29,49,16	
		41,23,54,38,41, 8,37		3, 2
56″	56,39, 2,33,17,50,59, 3,26,56		4, 8,29,52,18	
		41,23,50,30,11,16,19		3, 2
58″	56,39, 3,14,41,41,29,14,43,15		4, 8,29,55,20	
		41,23,46,21,41,20,59		
60″	56,39, 3,56, 5,27,50,56, 4,14			
exact	56,39, 3,56, 5,27,50,56,23,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°46′ 0″	56,39, 3,56, 5,27,50,56,23,40			
		41,23,42,13,11,24,51		
2″	56,39, 4,37,29,10, 4, 7,48,31		4, 8,30, 1,14	
		41,23,38, 4,41,23,37		3, 2
4″	56,39, 5,18,52,48, 8,49,12, 8		4, 8,30, 4,16	
		41,23,33,56,11,19,21		3, 2
6″	56,39, 6, 0,16,22, 5, 0,31,29		4, 8,30, 7,18	
		41,23,29,47,41,12, 3		3, 2
8″	56,39, 6,41,39,51,52,41,43,32		4, 8,30,10,20	
		41,23,25,39,11, 1,43		3, 2
10″	56,39, 7,23, 3,17,31,52,45,15		4, 8,30,13,22	
		41,23,21,30,40,48,21		3, 2
12″	56,39, 8, 4,26,39, 2,33,33,36		4, 8,30,16,24	
		41,23,17,22,10,31,57		3, 2
14″	56,39, 8,45,49,56,24,44, 5,33		4, 8,30,19,26	
		41,23,13,13,40,12,31		3, 2
16″	56,39, 9,27,13, 9,38,24,18, 4		4, 8,30,22,28	
		41,23, 9, 5, 9,50, 3		3, 2
18″	56,39,10, 8,36,18,43,34, 8, 7		4, 8,30,25,30	
		41,23, 4,56,39,24,33		3, 2
20″	56,39,10,49,59,23,40,13,32,40		4, 8,30,28,32	
		41,23, 0,48, 8,56, 1		3, 2
22″	56,39,11,31,22,24,28,22,28,41		4, 8,30,31,34	
		41,22,56,39,38,24,27		3, 2
24″	56,39,12,12,45,21, 8, 0,53, 8		4, 8,30,34,36	
		41,22,52,31, 7,49,51		3, 2
26″	56,39,12,54, 8,13,39, 8,42,59		4, 8,30,37,38	
		41,22,48,22,37,12,13		3, 2
28″	56,39,13,35,31, 2, 1,45,55,12		4, 8,30,40,40	
		41,22,44,14, 6,31,33		3, 2
30″	56,39,14,16,53,46,15,52,26,45		4, 8,30,43,42	
		41,22,40, 5,35,47,51		3, 2
32″	56,39,14,58,16,26,21,28,14,36		4, 8,30,46,44	
		41,22,35,57, 5, 1, 7		3, 2
34″	56,39,15,39,39, 2,18,33,15,43		4, 8,30,49,46	
		41,22,31,48,34,11,21		3, 2
36″	56,39,16,21, 1,34, 7, 7,27, 4		4, 8,30,52,48	
		41,22,27,40, 3,18,33		3, 2
38″	56,39,17, 2,24, 1,47,10,45,37		4, 8,30,55,50	
		41,22,23,31,32,22,43		3, 2
40″	56,39,17,43,46,25,18,43, 8,20		4, 8,30,58,52	
		41,22,19,23, 1,23,51		3, 2
42″	56,39,18,25, 8,44,41,44,32,11		4, 8,31, 1,54	
		41,22,15,14,30,21,57		3, 2
44″	56,39,19, 6,30,59,56,14,54, 8		4, 8,31, 4,56	
		41,22,11, 5,59,17, 1		3, 2
46″	56,39,19,47,53,11, 2,14,11, 9		4, 8,31, 7,58	
		41,22, 6,57,28, 9, 3		3, 2
48″	56,39,20,29,15,17,59,42,20,12		4, 8,31,11, 0	
		41,22, 2,48,56,58, 3		3, 2
50″	56,39,21,10,37,20,48,39,18,15		4, 8,31,14, 2	
		41,21,58,40,25,44, 1		3, 2
52″	56,39,21,51,59,19,29, 5, 2,16		4, 8,31,17, 4	
		41,21,54,31,54,26,57		3, 2
54″	56,39,22,33,21,14, 0,59,29,13		4, 8,31,20, 6	
		41,21,50,23,23, 6,51		3, 2
56″	56,39,23,14,43, 4,24,22,36, 4		4, 8,31,23, 8	
		41,21,46,14,51,43,43		3, 2
58″	56,39,23,56, 4,50,39,14,19,47		4, 8,31,26,10	
		41,21,42, 6,20,17,33		
60″	56,39,24,37,26,32,45,34,37,20			
exact	56,39,24,37,26,32,45,35,10, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°47′ 0″	56,39,24,37,26,32,45,35,10, 9			
		41,21,37,57,48,51,54		
2″	56,39,25,18,48,10,43,24, 2, 3		4, 8,31,31,59	
		41,21,33,49,17,19,55		3, 1
4″	56,39,26, 0, 9,44,32,41,21,58		4, 8,31,35, 0	
		41,21,29,40,45,44,55		3, 1
6″	56,39,26,41,31,14,13,27, 6,53		4, 8,31,38, 1	
		41,21,25,32,14, 6,54		3, 1
8″	56,39,27,22,52,39,45,41,13,47		4, 8,31,41, 2	
		41,21,21,23,42,25,52		3, 1
10″	56,39,28, 4,14, 1, 9,23,39,39		4, 8,31,44, 3	
		41,21,17,15,10,41,49		3, 1
12″	56,39,28,45,35,18,24,34,21,28		4, 8,31,47, 4	
		41,21,13, 6,38,54,45		3, 1
14″	56,39,29,26,56,31,31,13,16,13		4, 8,31,50, 5	
		41,21, 8,58, 7, 4,40		3, 1
16″	56,39,30, 8,17,40,29,20,20,53		4, 8,31,53, 6	
		41,21, 4,49,35,11,34		3, 1
18″	56,39,30,49,38,45,18,55,32,27		4, 8,31,56, 7	
		41,21, 0,41, 3,15,27		3, 1
20″	56,39,31,30,59,45,59,58,47,54		4, 8,31,59, 8	
		41,20,56,32,31,16,19		3, 1
22″	56,39,32,12,20,42,32,30, 4,13		4, 8,32, 2, 9	
		41,20,52,23,59,14,10		3, 1
24″	56,39,32,53,41,34,56,29,18,23		4, 8,32, 5,10	
		41,20,48,15,27, 9, 0		3, 1
26″	56,39,33,35, 2,23,11,56,27,23		4, 8,32, 8,11	
		41,20,44, 6,55, 0,49		3, 1
28″	56,39,34,16,23, 7,18,51,28,12		4, 8,32,11,12	
		41,20,39,58,22,49,37		3, 1
30″	56,39,34,57,43,47,17,14,17,49		4, 8,32,14,13	
		41,20,35,49,50,35,24		3, 1
32″	56,39,35,39, 4,23, 7, 4,53,13		4, 8,32,17,14	
		41,20,31,41,18,18,10		3, 1
34″	56,39,36,20,24,54,48,23,11,23		4, 8,32,20,15	
		41,20,27,32,45,57,55		3, 1
36″	56,39,37, 1,45,22,21, 9, 9,18		4, 8,32,23,16	
		41,20,23,24,13,34,39		3, 1
38″	56,39,37,43, 5,45,45,22,43,57		4, 8,32,26,17	
		41,20,19,15,41, 8,22		3, 1
40″	56,39,38,24,26, 5, 1, 3,52,19		4, 8,32,29,18	
		41,20,15, 7, 8,39, 4		3, 1
42″	56,39,39, 5,46,20, 8,12,31,23		4, 8,32,32,19	
		41,20,10,58,36, 6,45		3, 1
44″	56,39,39,47, 6,31, 6,48,38, 8		4, 8,32,35,20	
		41,20, 6,50, 3,31,25		3, 1
46″	56,39,40,28,26,37,56,52, 9,33		4, 8,32,38,21	
		41,20, 2,41,30,53, 4		3, 1
48″	56,39,41, 9,46,40,38,23, 2,37		4, 8,32,41,22	
		41,19,58,32,58,11,42		3, 1
50″	56,39,41,51, 6,39,11,21,14,19		4, 8,32,44,23	
		41,19,54,24,25,27,19		3, 1
52″	56,39,42,32,26,33,35,46,41,38		4, 8,32,47,24	
		41,19,50,15,52,39,55		3, 1
54″	56,39,43,13,46,23,51,39,21,33		4, 8,32,50,25	
		41,19,46, 7,19,49,30		3, 1
56″	56,39,43,55, 6, 9,58,59,11, 3		4, 8,32,53,26	
		41,19,41,58,46,56, 4		3, 1
58″	56,39,44,36,25,51,57,46, 7, 7		4, 8,32,56,27	
		41,19,37,50,13,59,37		
60″	56,39,45,17,45,29,48, 0, 6,44			
exact	56,39,45,17,45,29,47,59,41,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°48′ 0″	56,39,45,17,45,29,47,59,41,53			
		41,19,33,41,40,57,32		
2″	56,39,45,59, 5, 3,29,40,39,25		4, 8,33, 2,39	
		41,19,29,33, 7,54,53		3, 1
4″	56,39,46,40,24,33, 2,48,34,18		4, 8,33, 5,40	
		41,19,25,24,34,49,13		3, 1
6″	56,39,47,21,43,58,27,23,23,31		4, 8,33, 8,41	
		41,19,21,16, 1,40,32		3, 1
8″	56,39,48, 3, 3,19,43,25, 4, 3		4, 8,33,11,42	
		41,19,17, 7,28,28,50		3, 1
10″	56,39,48,44,22,36,50,53,32,53		4, 8,33,14,43	
		41,19,12,58,55,14, 7		3, 1
12″	56,39,49,25,41,49,49,48,47, 0		4, 8,33,17,44	
		41,19, 8,50,21,56,23		3, 1
14″	56,39,50, 7, 0,58,40,10,43,23		4, 8,33,20,45	
		41,19, 4,41,48,35,38		3, 1
16″	56,39,50,48,20, 3,21,59,19, 1		4, 8,33,23,46	
		41,19, 0,33,15,11,52		3, 1
18″	56,39,51,29,39, 3,55,14,30,53		4, 8,33,26,47	
		41,18,56,24,41,45, 5		3, 1
20″	56,39,52,10,58, 0,19,56,15,58		4, 8,33,29,48	
		41,18,52,16, 8,15,17		3, 1
22″	56,39,52,52,16,52,36, 4,31,15		4, 8,33,32,49	
		41,18,48, 7,34,42,28		3, 1
24″	56,39,53,33,35,40,43,39,13,43		4, 8,33,35,50	
		41,18,43,59, 1, 6,38		3, 1
26″	56,39,54,14,54,24,42,40,20,21		4, 8,33,38,51	
		41,18,39,50,27,27,47		3, 1
28″	56,39,54,56,13, 4,33, 7,48, 8		4, 8,33,41,52	
		41,18,35,41,53,45,55		3, 1
30″	56,39,55,37,31,40,15, 1,34, 3		4, 8,33,44,53	
		41,18,31,33,20, 1, 2		3, 1
32″	56,39,56,18,50,11,48,21,35, 5		4, 8,33,47,54	
		41,18,27,24,46,13, 8		3, 1
34″	56,39,57, 0, 8,39,13, 7,48,13		4, 8,33,50,55	
		41,18,23,16,12,22,13		3, 1
36″	56,39,57,41,27, 2,29,20,10,26		4, 8,33,53,56	
		41,18,19, 7,38,28,17		3, 1
38″	56,39,58,22,45,21,36,58,38,43		4, 8,33,56,57	
		41,18,14,59, 4,31,20		3, 1
40″	56,39,59, 4, 3,36,36, 3,10, 3		4, 8,33,59,58	
		41,18,10,50,30,31,22		3, 1
42″	56,39,59,45,21,47,26,33,41,25		4, 8,34, 2,59	
		41,18, 6,41,56,28,23		3, 1
44″	56,40, 0,26,39,54, 8,30, 9,48		4, 8,34, 6, 0	
		41,18, 2,33,22,22,23		3, 1
46″	56,40, 1, 7,57,56,41,52,32,11		4, 8,34, 9, 1	
		41,17,58,24,48,13,22		3, 1
48″	56,40, 1,49,15,55, 6,40,45,33		4, 8,34,12, 2	
		41,17,54,16,14, 1,20		3, 1
50″	56,40, 2,30,33,49,22,54,46,53		4, 8,34,15, 3	
		41,17,50, 7,39,46,17		3, 1
52″	56,40, 3,11,51,39,30,34,33,10		4, 8,34,18, 4	
		41,17,45,59, 5,28,13		3, 1
54″	56,40, 3,53, 9,25,29,40, 1,23		4, 8,34,21, 5	
		41,17,41,50,31, 7, 8		3, 1
56″	56,40, 4,34,27, 7,20,11, 8,31		4, 8,34,24, 6	
		41,17,37,41,56,43, 2		3, 1
58″	56,40, 5,15,44,45, 2, 7,51,33		4, 8,34,27, 7	
		41,17,33,33,22,15,55		
60″	56,40, 5,57, 2,18,35,30, 7,28			
exact	56,40, 5,57, 2,18,35,29,49,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°49′ 0″	56,40, 5,57, 2,18,35,29,49,21			
		41,17,29,24,47,44, 1		
2″	56,40, 6,38,19,48, 0,17,33,22		4, 8,34,33,15	
		41,17,25,16,13,10,46		3, 1
4″	56,40, 7,19,37,13,16,30,44, 8		4, 8,34,36,16	
		41,17,21, 7,38,34,30		3, 1
6″	56,40, 8, 0,54,34,24, 9,18,38		4, 8,34,39,17	
		41,17,16,59, 3,55,13		3, 1
8″	56,40, 8,42,11,51,23,13,13,51		4, 8,34,42,18	
		41,17,12,50,29,12,55		3, 1
10″	56,40, 9,23,29, 4,13,42,26,46		4, 8,34,45,19	
		41,17, 8,41,54,27,36		3, 1
12″	56,40,10, 4,46,12,55,36,54,22		4, 8,34,48,20	
		41,17, 4,33,19,39,16		3, 1
14″	56,40,10,46, 3,17,28,56,33,38		4, 8,34,51,21	
		41,17, 0,24,44,47,55		3, 1
16″	56,40,11,27,20,17,53,41,21,33		4, 8,34,54,22	
		41,16,56,16, 9,53,33		3, 1
18″	56,40,12, 8,37,14, 9,51,15, 6		4, 8,34,57,23	
		41,16,52, 7,34,56,10		3, 1
20″	56,40,12,49,54, 6,17,26,11,16		4, 8,35, 0,24	
		41,16,47,58,59,55,46		3, 1
22″	56,40,13,31,10,54,16,26, 7, 2		4, 8,35, 3,25	
		41,16,43,50,24,52,21		3, 1
24″	56,40,14,12,27,38, 6,50,59,23		4, 8,35, 6,26	
		41,16,39,41,49,45,55		3, 1
26″	56,40,14,53,44,17,48,40,45,18		4, 8,35, 9,27	
		41,16,35,33,14,36,28		3, 1
28″	56,40,15,35, 0,53,21,55,21,46		4, 8,35,12,28	
		41,16,31,24,39,24, 0		3, 1
30″	56,40,16,16,17,24,46,34,45,46		4, 8,35,15,29	
		41,16,27,16, 4, 8,31		3, 1
32″	56,40,16,57,33,52, 2,38,54,17		4, 8,35,18,30	
		41,16,23, 7,28,50, 1		3, 1
34″	56,40,17,38,50,15,10, 7,44,18		4, 8,35,21,31	
		41,16,18,58,53,28,30		3, 1
36″	56,40,18,20, 6,34, 9, 1,12,48		4, 8,35,24,32	
		41,16,14,50,18, 3,58		3, 1
38″	56,40,19, 1,22,48,59,19,16,46		4, 8,35,27,33	
		41,16,10,41,42,36,25		3, 1
40″	56,40,19,42,38,59,41, 1,53,11		4, 8,35,30,34	
		41,16, 6,33, 7, 5,51		3, 1
42″	56,40,20,23,55, 6,14, 8,59, 2		4, 8,35,33,35	
		41,16, 2,24,31,32,16		3, 1
44″	56,40,21, 5,11, 8,38,40,31,18		4, 8,35,36,36	
		41,15,58,15,55,55,40		3, 1
46″	56,40,21,46,27, 6,54,36,26,58		4, 8,35,39,37	
		41,15,54, 7,20,16, 3		3, 1
48″	56,40,22,27,43, 1, 1,56,43, 1		4, 8,35,42,38	
		41,15,49,58,44,33,25		3, 1
50″	56,40,23, 8,58,51, 0,41,16,26		4, 8,35,45,39	
		41,15,45,50, 8,47,46		3, 1
52″	56,40,23,50,14,36,50,50, 4,12		4, 8,35,48,40	
		41,15,41,41,32,59, 6		3, 1
54″	56,40,24,31,30,18,32,23, 3,18		4, 8,35,51,41	
		41,15,37,32,57, 7,25		3, 1
56″	56,40,25,12,45,56, 5,20,10,43		4, 8,35,54,42	
		41,15,33,24,21,12,43		3, 1
58″	56,40,25,54, 1,29,29,41,23,26		4, 8,35,57,43	
		41,15,29,15,45,15, 0		
60″	56,40,26,35,16,58,45,26,38,26			
exact	56,40,26,35,16,58,45,26,31, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°50′ 0″	56,40,26,35,16,58,45,26,31, 9			
		41,15,25, 7, 9,13,38		
2″	56,40,27,16,32,23,52,35,44,47		4, 8,36, 3,47	
		41,15,20,58,33, 9,51		3, 1
4″	56,40,27,57,47,44,51, 8,54,38		4, 8,36, 6,48	
		41,15,16,49,57, 3, 3		3, 1
6″	56,40,28,39, 3, 1,41, 5,57,41		4, 8,36, 9,49	
		41,15,12,41,20,53,14		3, 1
8″	56,40,29,20,18,14,22,26,50,55		4, 8,36,12,50	
		41,15, 8,32,44,40,24		3, 1
10″	56,40,30, 1,33,22,55,11,31,19		4, 8,36,15,51	
		41,15, 4,24, 8,24,33		3, 1
12″	56,40,30,42,48,27,19,19,55,52		4, 8,36,18,52	
		41,15, 0,15,32, 5,41		3, 1
14″	56,40,31,24, 3,27,34,52, 1,33		4, 8,36,21,53	
		41,14,56, 6,55,43,48		3, 1
16″	56,40,32, 5,18,23,41,47,45,21		4, 8,36,24,54	
		41,14,51,58,19,18,54		3, 1
18″	56,40,32,46,33,15,40, 7, 4,15		4, 8,36,27,55	
		41,14,47,49,42,50,59		3, 1
20″	56,40,33,27,48, 3,29,49,55,14		4, 8,36,30,56	
		41,14,43,41, 6,20, 3		3, 1
22″	56,40,34, 9, 2,47,10,56,15,17		4, 8,36,33,57	
		41,14,39,32,29,46, 6		3, 1
24″	56,40,34,50,17,26,43,26, 1,23		4, 8,36,36,58	
		41,14,35,23,53, 9, 8		3, 1
26″	56,40,35,31,32, 2, 7,19,10,31		4, 8,36,39,59	
		41,14,31,15,16,29, 9		3, 1
28″	56,40,36,12,46,33,22,35,39,40		4, 8,36,43, 0	
		41,14,27, 6,39,46, 9		3, 1
30″	56,40,36,54, 1, 0,29,15,25,49		4, 8,36,46, 1	
		41,14,22,58, 3, 0, 8		3, 1
32″	56,40,37,35,15,23,27,18,25,57		4, 8,36,49, 2	
		41,14,18,49,26,11, 6		3, 1
34″	56,40,38,16,29,42,16,44,37, 3		4, 8,36,52, 3	
		41,14,14,40,49,19, 3		3, 1
36″	56,40,38,57,43,56,57,33,56, 6		4, 8,36,55, 4	
		41,14,10,32,12,23,59		3, 1
38″	56,40,39,38,58, 7,29,46,20, 5		4, 8,36,58, 5	
		41,14, 6,23,35,25,54		3, 1
40″	56,40,40,20,12,13,53,21,45,59		4, 8,37, 1, 6	
		41,14, 2,14,58,24,48		3, 1
42″	56,40,41, 1,26,16, 8,20,10,47		4, 8,37, 4, 7	
		41,13,58, 6,21,20,41		3, 1
44″	56,40,41,42,40,14,14,41,31,28		4, 8,37, 7, 8	
		41,13,53,57,44,13,33		3, 1
46″	56,40,42,23,54, 8,12,25,45, 1		4, 8,37,10, 9	
		41,13,49,49, 7, 3,24		3, 1
48″	56,40,43, 5, 7,58, 1,32,48,25		4, 8,37,13,10	
		41,13,45,40,29,50,14		3, 1
50″	56,40,43,46,21,43,42, 2,38,39		4, 8,37,16,11	
		41,13,41,31,52,34, 3		3, 1
52″	56,40,44,27,35,25,13,55,12,42		4, 8,37,19,12	
		41,13,37,23,15,14,51		3, 1
54″	56,40,45, 8,49, 2,37,10,27,33		4, 8,37,22,13	
		41,13,33,14,37,52,38		3, 1
56″	56,40,45,50, 2,35,51,48,20,11		4, 8,37,25,14	
		41,13,29, 6, 0,27,24		3, 1
58″	56,40,46,31,16, 4,57,48,47,35		4, 8,37,28,15	
		41,13,24,57,22,59, 9		
60″	56,40,47,12,29,29,55,11,46,44			
exact	56,40,47,12,29,29,55,11,54, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°51′ 0″	56,40,47,12,29,29,55,11,54, 7			
		41,13,20,48,45,28,39		
2″	56,40,47,53,42,50,43,57,22,46		4, 8,37,34,13	
		41,13,16,40, 7,54,26		3, 1
4″	56,40,48,34,56, 7,24, 5,17,12		4, 8,37,37,14	
		41,13,12,31,30,17,12		3, 1
6″	56,40,49,16, 9,19,55,35,34,24		4, 8,37,40,15	
		41,13, 8,22,52,36,57		3, 1
8″	56,40,49,57,22,28,18,28,11,21		4, 8,37,43,16	
		41,13, 4,14,14,53,41		3, 1
10″	56,40,50,38,35,32,32,43, 5, 2		4, 8,37,46,17	
		41,13, 0, 5,37, 7,24		3, 1
12″	56,40,51,19,48,32,38,20,12,26		4, 8,37,49,18	
		41,12,55,56,59,18, 6		3, 1
14″	56,40,52, 1, 1,28,35,19,30,32		4, 8,37,52,19	
		41,12,51,48,21,25,47		3, 1
16″	56,40,52,42,14,20,23,40,56,19		4, 8,37,55,20	
		41,12,47,39,43,30,27		3, 1
18″	56,40,53,23,27, 8, 3,24,26,46		4, 8,37,58,21	
		41,12,43,31, 5,32, 6		3, 1
20″	56,40,54, 4,39,51,34,29,58,52		4, 8,38, 1,22	
		41,12,39,22,27,30,44		3, 1
22″	56,40,54,45,52,30,56,57,29,36		4, 8,38, 4,23	
		41,12,35,13,49,26,21		3, 1
24″	56,40,55,27, 5, 6,10,46,55,57		4, 8,38, 7,24	
		41,12,31, 5,11,18,57		3, 1
26″	56,40,56, 8,17,37,15,58,14,54		4, 8,38,10,25	
		41,12,26,56,33, 8,32		3, 1
28″	56,40,56,49,30, 4,12,31,23,26		4, 8,38,13,26	
		41,12,22,47,54,55, 6		3, 1
30″	56,40,57,30,42,27, 0,26,18,32		4, 8,38,16,27	
		41,12,18,39,16,38,39		3, 1
32″	56,40,58,11,54,45,39,42,57,11		4, 8,38,19,28	
		41,12,14,30,38,19,11		3, 1
34″	56,40,58,53, 7, 0,10,21,16,22		4, 8,38,22,29	
		41,12,10,21,59,56,42		3, 1
36″	56,40,59,34,19,10,32,21,13, 4		4, 8,38,25,30	
		41,12, 6,13,21,31,12		3, 1
38″	56,41, 0,15,31,16,45,42,44,16		4, 8,38,28,31	
		41,12, 2, 4,43, 2,41		3, 1
40″	56,41, 0,56,43,18,50,25,46,57		4, 8,38,31,32	
		41,11,57,56, 4,31, 9		3, 1
42″	56,41, 1,37,55,16,46,30,18, 6		4, 8,38,34,33	
		41,11,53,47,25,56,36		3, 1
44″	56,41, 2,19, 7,10,33,56,14,42		4, 8,38,37,34	
		41,11,49,38,47,19, 2		3, 1
46″	56,41, 3, 0,19, 0,12,43,33,44		4, 8,38,40,35	
		41,11,45,30, 8,38,27		3, 1
48″	56,41, 3,41,30,45,42,52,12,11		4, 8,38,43,36	
		41,11,41,21,29,54,51		3, 1
50″	56,41, 4,22,42,27, 4,22, 7, 2		4, 8,38,46,37	
		41,11,37,12,51, 8,14		3, 1
52″	56,41, 5, 3,54, 4,17,13,15,16		4, 8,38,49,38	
		41,11,33, 4,12,18,36		3, 1
54″	56,41, 5,45, 5,37,21,25,33,52		4, 8,38,52,39	
		41,11,28,55,33,25,57		3, 1
56″	56,41, 6,26,17, 6,16,58,59,49		4, 8,38,55,40	
		41,11,24,46,54,30,17		3, 1
58″	56,41, 7, 7,28,31, 3,53,30, 6		4, 8,38,58,41	
		41,11,20,38,15,31,36		
60″	56,41, 7,48,39,51,42, 9, 1,42			
exact	56,41, 7,48,39,51,42, 9,13, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°52′ 0″	56,41, 7,48,39,51,42, 9,13, 8			
		41,11,16,29,36,31,20		
2″	56,41, 8,29,51, 8,11,45,44,28		4, 8,39, 4,36	
		41,11,12,20,57,26,44		3, 1
4″	56,41, 9,11, 2,20,32,43,11,12		4, 8,39, 7,37	
		41,11, 8,12,18,19, 7		3, 1
6″	56,41, 9,52,13,28,45, 1,30,19		4, 8,39,10,38	
		41,11, 4, 3,39, 8,29		3, 1
8″	56,41,10,33,24,32,48,40,38,48		4, 8,39,13,39	
		41,10,59,54,59,54,50		3, 1
10″	56,41,11,14,35,32,43,40,33,38		4, 8,39,16,40	
		41,10,55,46,20,38,10		3, 1
12″	56,41,11,55,46,28,30, 1,11,48		4, 8,39,19,41	
		41,10,51,37,41,18,29		3, 1
14″	56,41,12,36,57,20, 7,42,30,17		4, 8,39,22,42	
		41,10,47,29, 1,55,47		3, 1
16″	56,41,13,18, 8, 7,36,44,26, 4		4, 8,39,25,43	
		41,10,43,20,22,30, 4		3, 1
18″	56,41,13,59,18,50,57, 6,56, 8		4, 8,39,28,44	
		41,10,39,11,43, 1,20		3, 1
20″	56,41,14,40,29,30, 8,49,57,28		4, 8,39,31,45	
		41,10,35, 3, 3,29,35		3, 1
22″	56,41,15,21,40, 5,11,53,27, 3		4, 8,39,34,46	
		41,10,30,54,23,54,49		3, 1
24″	56,41,16, 2,50,36, 6,17,21,52		4, 8,39,37,47	
		41,10,26,45,44,17, 2		3, 1
26″	56,41,16,44, 1, 2,52, 1,38,54		4, 8,39,40,48	
		41,10,22,37, 4,36,14		3, 1
28″	56,41,17,25,11,25,29, 6,15, 8		4, 8,39,43,49	
		41,10,18,28,24,52,25		3, 1
30″	56,41,18, 6,21,43,57,31, 7,33		4, 8,39,46,50	
		41,10,14,19,45, 5,35		3, 1
32″	56,41,18,47,31,58,17,16,13, 8		4, 8,39,49,51	
		41,10,10,11, 5,15,44		3, 1
34″	56,41,19,28,42, 8,28,21,28,52		4, 8,39,52,52	
		41,10, 6, 2,25,22,52		3, 1
36″	56,41,20, 9,52,14,30,46,51,44		4, 8,39,55,53	
		41,10, 1,53,45,26,59		3, 1
38″	56,41,20,51, 2,16,24,32,18,43		4, 8,39,58,54	
		41, 9,57,45, 5,28, 5		3, 1
40″	56,41,21,32,12,14, 9,37,46,48		4, 8,40, 1,55	
		41, 9,53,36,25,26,10		3, 1
42″	56,41,22,13,22, 7,46, 3,12,58		4, 8,40, 4,56	
		41, 9,49,27,45,21,14		3, 1
44″	56,41,22,54,31,57,13,48,34,12		4, 8,40, 7,57	
		41, 9,45,19, 5,13,17		3, 1
46″	56,41,23,35,41,42,32,53,47,29		4, 8,40,10,58	
		41, 9,41,10,25, 2,19		3, 1
48″	56,41,24,16,51,23,43,18,49,48		4, 8,40,13,59	
		41, 9,37, 1,44,48,20		3, 1
50″	56,41,24,58, 1, 0,45, 3,38, 8		4, 8,40,17, 0	
		41, 9,32,53, 4,31,20		3, 1
52″	56,41,25,39,10,33,38, 8, 9,28		4, 8,40,20, 1	
		41, 9,28,44,24,11,19		3, 1
54″	56,41,26,20,20, 2,22,32,20,47		4, 8,40,23, 2	
		41, 9,24,35,43,48,17		3, 1
56″	56,41,27, 1,29,26,58,16, 9, 4		4, 8,40,26, 3	
		41, 9,20,27, 3,22,14		3, 1
58″	56,41,27,42,38,47,25,19,31,18		4, 8,40,29, 4	
		41, 9,16,18,22,53,10		
60″	56,41,28,23,48, 3,43,42,24,28			
exact	56,41,28,23,48, 3,43,42,51,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°53′ 0″	56,41,28,23,48, 3,43,42,51,20			
		41, 9,12, 9,42,23,58		
2″	56,41,29, 4,57,15,53,25,15,18		4, 8,40,34,54	
		41, 9, 8, 1, 1,49, 4		3, 1
4″	56,41,29,46, 6,23,54,27, 4,22		4, 8,40,37,55	
		41, 9, 3,52,21,11, 9		3, 1
6″	56,41,30,27,15,27,46,48,15,31		4, 8,40,40,56	
		41, 8,59,43,40,30,13		3, 1
8″	56,41,31, 8,24,27,30,28,45,44		4, 8,40,43,57	
		41, 8,55,34,59,46,16		3, 1
10″	56,41,31,49,33,23, 5,28,32, 0		4, 8,40,46,58	
		41, 8,51,26,18,59,18		3, 1
12″	56,41,32,30,42,14,31,47,31,18		4, 8,40,49,59	
		41, 8,47,17,38, 9,19		3, 1
14″	56,41,33,11,51, 1,49,25,40,37		4, 8,40,53, 0	
		41, 8,43, 8,57,16,19		3, 1
16″	56,41,33,52,59,44,58,22,56,56		4, 8,40,56, 1	
		41, 8,39, 0,16,20,18		3, 1
18″	56,41,34,34, 8,23,58,39,17,14		4, 8,40,59, 2	
		41, 8,34,51,35,21,16		3, 1
20″	56,41,35,15,16,58,50,14,38,30		4, 8,41, 2, 3	
		41, 8,30,42,54,19,13		3, 1
22″	56,41,35,56,25,29,33, 8,57,43		4, 8,41, 5, 4	
		41, 8,26,34,13,14, 9		3, 1
24″	56,41,36,37,33,56, 7,22,11,52		4, 8,41, 8, 5	
		41, 8,22,25,32, 6, 4		3, 1
26″	56,41,37,18,42,18,32,54,17,56		4, 8,41,11, 6	
		41, 8,18,16,50,54,58		3, 1
28″	56,41,37,59,50,36,49,45,12,54		4, 8,41,14, 7	
		41, 8,14, 8, 9,40,51		3, 1
30″	56,41,38,40,58,50,57,54,53,45		4, 8,41,17, 8	
		41, 8, 9,59,28,23,43		3, 1
32″	56,41,39,22, 7, 0,57,23,17,28		4, 8,41,20, 9	
		41, 8, 5,50,47, 3,34		3, 1
34″	56,41,40, 3,15, 6,48,10,21, 2		4, 8,41,23,10	
		41, 8, 1,42, 5,40,24		3, 1
36″	56,41,40,44,23, 8,30,16, 1,26		4, 8,41,26,11	
		41, 7,57,33,24,14,13		3, 1
38″	56,41,41,25,31, 6, 3,40,15,39		4, 8,41,29,12	
		41, 7,53,24,42,45, 1		3, 1
40″	56,41,42, 6,38,59,28,23, 0,40		4, 8,41,32,13	
		41, 7,49,16, 1,12,48		3, 1
42″	56,41,42,47,46,48,44,24,13,28		4, 8,41,35,14	
		41, 7,45, 7,19,37,34		3, 1
44″	56,41,43,28,54,33,51,43,51, 2		4, 8,41,38,15	
		41, 7,40,58,37,59,19		3, 1
46″	56,41,44,10, 2,14,50,21,50,21		4, 8,41,41,16	
		41, 7,36,49,56,18, 3		3, 1
48″	56,41,44,51, 9,51,40,18, 8,24		4, 8,41,44,17	
		41, 7,32,41,14,33,46		3, 1
50″	56,41,45,32,17,24,21,32,42,10		4, 8,41,47,18	
		41, 7,28,32,32,46,28		3, 1
52″	56,41,46,13,24,52,54, 5,28,38		4, 8,41,50,19	
		41, 7,24,23,50,56, 9		3, 1
54″	56,41,46,54,32,17,17,56,24,47		4, 8,41,53,20	
		41, 7,20,15, 9, 2,49		3, 1
56″	56,41,47,35,39,37,33, 5,27,36		4, 8,41,56,21	
		41, 7,16, 6,27, 6,28		3, 1
58″	56,41,48,16,46,53,39,32,34, 4		4, 8,41,59,22	
		41, 7,11,57,45, 7, 6		
60″	56,41,48,57,54, 5,37,17,41,10			
exact	56,41,48,57,54, 5,37,18,19,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°54′ 0″	56,41,48,57,54, 5,37,18,19,57			
		41, 7, 7,49, 3, 8,49		
2″	56,41,49,39, 1,13,26,21,28,46		4, 8,42, 5, 7	
		41, 7, 3,40,21, 3,42		3, 0
4″	56,41,50,20, 8,17, 6,42,32,28		4, 8,42, 8, 7	
		41, 6,59,31,38,55,35		3, 0
6″	56,41,51, 1,15,16,38,21,28, 3		4, 8,42,11, 7	
		41, 6,55,22,56,44,28		3, 0
8″	56,41,51,42,22,12, 1,18,12,31		4, 8,42,14, 7	
		41, 6,51,14,14,30,21		3, 0
10″	56,41,52,23,29, 3,15,32,42,52		4, 8,42,17, 7	
		41, 6,47, 5,32,13,14		3, 0
12″	56,41,53, 4,35,50,21, 4,56, 6		4, 8,42,20, 7	
		41, 6,42,56,49,53, 7		3, 0
14″	56,41,53,45,42,33,17,54,49,13		4, 8,42,23, 7	
		41, 6,38,48, 7,30, 0		3, 0
16″	56,41,54,26,49,12, 6, 2,19,13		4, 8,42,26, 7	
		41, 6,34,39,25, 3,53		3, 0
18″	56,41,55, 7,55,46,45,27,23, 6		4, 8,42,29, 7	
		41, 6,30,30,42,34,46		3, 0
20″	56,41,55,49, 2,17,16, 9,57,52		4, 8,42,32, 7	
		41, 6,26,22, 0, 2,39		3, 0
22″	56,41,56,30, 8,43,38,10, 0,31		4, 8,42,35, 7	
		41, 6,22,13,17,27,32		3, 0
24″	56,41,57,11,15, 5,51,27,28, 3		4, 8,42,38, 7	
		41, 6,18, 4,34,49,25		3, 0
26″	56,41,57,52,21,23,56, 2,17,28		4, 8,42,41, 7	
		41, 6,13,55,52, 8,18		3, 0
28″	56,41,58,33,27,37,51,54,25,46		4, 8,42,44, 7	
		41, 6, 9,47, 9,24,11		3, 0
30″	56,41,59,14,33,47,39, 3,49,57		4, 8,42,47, 7	
		41, 6, 5,38,26,37, 4		3, 0
32″	56,41,59,55,39,53,17,30,27, 1		4, 8,42,50, 7	
		41, 6, 1,29,43,46,57		3, 0
34″	56,42, 0,36,45,54,47,14,13,58		4, 8,42,53, 7	
		41, 5,57,21, 0,53,50		3, 0
36″	56,42, 1,17,51,52, 8,15, 7,48		4, 8,42,56, 7	
		41, 5,53,12,17,57,43		3, 0
38″	56,42, 1,58,57,45,20,33, 5,31		4, 8,42,59, 7	
		41, 5,49, 3,34,58,36		3, 0
40″	56,42, 2,40, 3,34,24, 8, 4, 7		4, 8,43, 2, 7	
		41, 5,44,54,51,56,29		3, 0
42″	56,42, 3,21, 9,19,19, 0, 0,36		4, 8,43, 5, 7	
		41, 5,40,46, 8,51,22		3, 0
44″	56,42, 4, 2,15, 0, 5, 8,51,58		4, 8,43, 8, 7	
		41, 5,36,37,25,43,15		3, 0
46″	56,42, 4,43,20,36,42,34,35,13		4, 8,43,11, 7	
		41, 5,32,28,42,32, 8		3, 0
48″	56,42, 5,24,26, 9,11,17, 7,21		4, 8,43,14, 7	
		41, 5,28,19,59,18, 1		3, 0
50″	56,42, 6, 5,31,37,31,16,25,22		4, 8,43,17, 7	
		41, 5,24,11,16, 0,54		3, 0
52″	56,42, 6,46,37, 1,42,32,26,16		4, 8,43,20, 7	
		41, 5,20, 2,32,40,47		3, 0
54″	56,42, 7,27,42,21,45, 5, 7, 3		4, 8,43,23, 7	
		41, 5,15,53,49,17,40		3, 0
56″	56,42, 8, 8,47,37,38,54,24,43		4, 8,43,26, 7	
		41, 5,11,45, 5,51,33		3, 0
58″	56,42, 8,49,52,49,24, 0,16,16		4, 8,43,29, 7	
		41, 5, 7,36,22,22,26		
60″	56,42, 9,30,57,57, 0,22,38,42			
exact	56,42, 9,30,57,57, 0,22,18,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°55′ 0″	56,42, 9,30,57,57, 0,22,18,27			
		41, 5, 3,27,38,48,10		
2″	56,42,10,12, 3, 0,28, 1, 6,37		4, 8,43,35,15	
		41, 4,59,18,55,12,55		3, 0
4″	56,42,10,53, 7,59,46,56,19,32		4, 8,43,38,15	
		41, 4,55,10,11,34,40		3, 0
6″	56,42,11,34,12,54,57, 7,54,12		4, 8,43,41,15	
		41, 4,51, 1,27,53,25		3, 0
8″	56,42,12,15,17,45,58,35,47,37		4, 8,43,44,15	
		41, 4,46,52,44, 9,10		3, 0
10″	56,42,12,56,22,32,51,19,56,47		4, 8,43,47,15	
		41, 4,42,44, 0,21,55		3, 0
12″	56,42,13,37,27,15,35,20,18,42		4, 8,43,50,15	
		41, 4,38,35,16,31,40		3, 0
14″	56,42,14,18,31,54,10,36,50,22		4, 8,43,53,15	
		41, 4,34,26,32,38,25		3, 0
16″	56,42,14,59,36,28,37, 9,28,47		4, 8,43,56,15	
		41, 4,30,17,48,42,10		3, 0
18″	56,42,15,40,40,58,54,58,10,57		4, 8,43,59,15	
		41, 4,26, 9, 4,42,55		3, 0
20″	56,42,16,21,45,25, 4, 2,53,52		4, 8,44, 2,15	
		41, 4,22, 0,20,40,40		3, 0
22″	56,42,17, 2,49,47, 4,23,34,32		4, 8,44, 5,15	
		41, 4,17,51,36,35,25		3, 0
24″	56,42,17,43,54, 4,56, 0, 9,57		4, 8,44, 8,15	
		41, 4,13,42,52,27,10		3, 0
26″	56,42,18,24,58,18,38,52,37, 7		4, 8,44,11,15	
		41, 4, 9,34, 8,15,55		3, 0
28″	56,42,19, 6, 2,28,13, 0,53, 2		4, 8,44,14,15	
		41, 4, 5,25,24, 1,40		3, 0
30″	56,42,19,47, 6,33,38,24,54,42		4, 8,44,17,15	
		41, 4, 1,16,39,44,25		3, 0
32″	56,42,20,28,10,34,55, 4,39, 7		4, 8,44,20,15	
		41, 3,57, 7,55,24,10		3, 0
34″	56,42,21, 9,14,32, 3, 0, 3,17		4, 8,44,23,15	
		41, 3,52,59,11, 0,55		3, 0
36″	56,42,21,50,18,25, 2,11, 4,12		4, 8,44,26,15	
		41, 3,48,50,26,34,40		3, 0
38″	56,42,22,31,22,13,52,37,38,52		4, 8,44,29,15	
		41, 3,44,41,42, 5,25		3, 0
40″	56,42,23,12,25,58,34,19,44,17		4, 8,44,32,15	
		41, 3,40,32,57,33,10		3, 0
42″	56,42,23,53,29,39, 7,17,17,27		4, 8,44,35,15	
		41, 3,36,24,12,57,55		3, 0
44″	56,42,24,34,33,15,31,30,15,22		4, 8,44,38,15	
		41, 3,32,15,28,19,40		3, 0
46″	56,42,25,15,36,47,46,58,35, 2		4, 8,44,41,15	
		41, 3,28, 6,43,38,25		3, 0
48″	56,42,25,56,40,15,53,42,13,27		4, 8,44,44,15	
		41, 3,23,57,58,54,10		3, 0
50″	56,42,26,37,43,39,51,41, 7,37		4, 8,44,47,15	
		41, 3,19,49,14, 6,55		3, 0
52″	56,42,27,18,46,59,40,55,14,32		4, 8,44,50,15	
		41, 3,15,40,29,16,40		3, 0
54″	56,42,27,59,50,15,21,24,31,12		4, 8,44,53,15	
		41, 3,11,31,44,23,25		3, 0
56″	56,42,28,40,53,26,53, 8,54,37		4, 8,44,56,15	
		41, 3, 7,22,59,27,10		3, 0
58″	56,42,29,21,56,34,16, 8,21,47		4, 8,44,59,15	
		41, 3, 3,14,14,27,55		
60″	56,42,30, 2,59,37,30,22,49,42			
exact	56,42,30, 2,59,37,30,22,34,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°56′ 0″	56,42,30, 2,59,37,30,22,34,27			
		41, 2,59, 5,29,24,16		
2″	56,42,30,44, 2,36,35,51,58,43		4, 8,45, 5,20	
		41, 2,54,56,44,18,56		3, 0
4″	56,42,31,25, 5,31,32,36,17,39		4, 8,45, 8,20	
		41, 2,50,47,59,10,36		3, 0
6″	56,42,32, 6, 8,22,20,35,28,15		4, 8,45,11,20	
		41, 2,46,39,13,59,16		3, 0
8″	56,42,32,47,11, 8,59,49,27,31		4, 8,45,14,20	
		41, 2,42,30,28,44,56		3, 0
10″	56,42,33,28,13,51,30,18,12,27		4, 8,45,17,20	
		41, 2,38,21,43,27,36		3, 0
12″	56,42,34, 9,16,29,52, 1,40, 3		4, 8,45,20,20	
		41, 2,34,12,58, 7,16		3, 0
14″	56,42,34,50,19, 4, 4,59,47,19		4, 8,45,23,20	
		41, 2,30, 4,12,43,56		3, 0
16″	56,42,35,31,21,34, 9,12,31,15		4, 8,45,26,20	
		41, 2,25,55,27,17,36		3, 0
18″	56,42,36,12,24, 0, 4,39,48,51		4, 8,45,29,20	
		41, 2,21,46,41,48,16		3, 0
20″	56,42,36,53,26,21,51,21,37, 7		4, 8,45,32,20	
		41, 2,17,37,56,15,56		3, 0
22″	56,42,37,34,28,39,29,17,53, 3		4, 8,45,35,20	
		41, 2,13,29,10,40,36		3, 0
24″	56,42,38,15,30,52,58,28,33,39		4, 8,45,38,20	
		41, 2, 9,20,25, 2,16		3, 0
26″	56,42,38,56,33, 2,18,53,35,55		4, 8,45,41,20	
		41, 2, 5,11,39,20,56		3, 0
28″	56,42,39,37,35, 7,30,32,56,51		4, 8,45,44,20	
		41, 2, 1, 2,53,36,36		3, 0
30″	56,42,40,18,37, 8,33,26,33,27		4, 8,45,47,20	
		41, 1,56,54, 7,49,16		3, 0
32″	56,42,40,59,39, 5,27,34,22,43		4, 8,45,50,20	
		41, 1,52,45,21,58,56		3, 0
34″	56,42,41,40,40,58,12,56,21,39		4, 8,45,53,20	
		41, 1,48,36,36, 5,36		3, 0
36″	56,42,42,21,42,46,49,32,27,15		4, 8,45,56,20	
		41, 1,44,27,50, 9,16		3, 0
38″	56,42,43, 2,44,31,17,22,36,31		4, 8,45,59,20	
		41, 1,40,19, 4, 9,56		3, 0
40″	56,42,43,43,46,11,36,26,46,27		4, 8,46, 2,20	
		41, 1,36,10,18, 7,36		3, 0
42″	56,42,44,24,47,47,46,44,54, 3		4, 8,46, 5,20	
		41, 1,32, 1,32, 2,16		3, 0
44″	56,42,45, 5,49,19,48,16,56,19		4, 8,46, 8,20	
		41, 1,27,52,45,53,56		3, 0
46″	56,42,45,46,50,47,41, 2,50,15		4, 8,46,11,20	
		41, 1,23,43,59,42,36		3, 0
48″	56,42,46,27,52,11,25, 2,32,51		4, 8,46,14,20	
		41, 1,19,35,13,28,16		3, 0
50″	56,42,47, 8,53,31, 0,16, 1, 7		4, 8,46,17,20	
		41, 1,15,26,27,10,56		3, 0
52″	56,42,47,49,54,46,26,43,12, 3		4, 8,46,20,20	
		41, 1,11,17,40,50,36		3, 0
54″	56,42,48,30,55,57,44,24, 2,39		4, 8,46,23,20	
		41, 1, 7, 8,54,27,16		3, 0
56″	56,42,49,11,57, 4,53,18,29,55		4, 8,46,26,20	
		41, 1, 3, 0, 8, 0,56		3, 0
58″	56,42,49,52,58, 7,53,26,30,51		4, 8,46,29,20	
		41, 0,58,51,21,31,36		
60″	56,42,50,33,59, 6,44,48, 2,27			
exact	56,42,50,33,59, 6,44,48, 3,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°57′ 0″	56,42,50,33,59, 6,44,48, 3,45			
		41, 0,54,42,34,59,24		
2″	56,42,51,15, 0, 1,27,23, 3, 9		4, 8,46,35,19	
		41, 0,50,33,48,24, 5		3, 0
4″	56,42,51,56, 0,52, 1,11,27,14		4, 8,46,38,19	
		41, 0,46,25, 1,45,46		3, 0
6″	56,42,52,37, 1,38,26,13,13, 0		4, 8,46,41,19	
		41, 0,42,16,15, 4,27		3, 0
8″	56,42,53,18, 2,20,42,28,17,27		4, 8,46,44,19	
		41, 0,38, 7,28,20, 8		3, 0
10″	56,42,53,59, 2,58,49,56,37,35		4, 8,46,47,19	
		41, 0,33,58,41,32,49		3, 0
12″	56,42,54,40, 3,32,48,38,10,24		4, 8,46,50,19	
		41, 0,29,49,54,42,30		3, 0
14″	56,42,55,21, 4, 2,38,32,52,54		4, 8,46,53,19	
		41, 0,25,41, 7,49,11		3, 0
16″	56,42,56, 2, 4,28,19,40,42, 5		4, 8,46,56,19	
		41, 0,21,32,20,52,52		3, 0
18″	56,42,56,43, 4,49,52, 1,34,57		4, 8,46,59,19	
		41, 0,17,23,33,53,33		3, 0
20″	56,42,57,24, 5, 7,15,35,28,30		4, 8,47, 2,19	
		41, 0,13,14,46,51,14		3, 0
22″	56,42,58, 5, 5,20,30,22,19,44		4, 8,47, 5,19	
		41, 0, 9, 5,59,45,55		3, 0
24″	56,42,58,46, 5,29,36,22, 5,39		4, 8,47, 8,19	
		41, 0, 4,57,12,37,36		3, 0
26″	56,42,59,27, 5,34,33,34,43,15		4, 8,47,11,19	
		41, 0, 0,48,25,26,17		3, 0
28″	56,43, 0, 8, 5,35,22, 0, 9,32		4, 8,47,14,19	
		40,59,56,39,38,11,58		3, 0
30″	56,43, 0,49, 5,32, 1,38,21,30		4, 8,47,17,19	
		40,59,52,30,50,54,39		3, 0
32″	56,43, 1,30, 5,24,32,29,16, 9		4, 8,47,20,19	
		40,59,48,22, 3,34,20		3, 0
34″	56,43, 2,11, 5,12,54,32,50,29		4, 8,47,23,19	
		40,59,44,13,16,11, 1		3, 0
36″	56,43, 2,52, 4,57, 7,49, 1,30		4, 8,47,26,19	
		40,59,40, 4,28,44,42		3, 0
38″	56,43, 3,33, 4,37,12,17,46,12		4, 8,47,29,19	
		40,59,35,55,41,15,23		3, 0
40″	56,43, 4,14, 4,13, 7,59, 1,35		4, 8,47,32,19	
		40,59,31,46,53,43, 4		3, 0
42″	56,43, 4,55, 3,44,54,52,44,39		4, 8,47,35,19	
		40,59,27,38, 6, 7,45		3, 0
44″	56,43, 5,36, 3,12,32,58,52,24		4, 8,47,38,19	
		40,59,23,29,18,29,26		3, 0
46″	56,43, 6,17, 2,36, 2,17,21,50		4, 8,47,41,19	
		40,59,19,20,30,48, 7		3, 0
48″	56,43, 6,58, 1,55,22,48, 9,57		4, 8,47,44,19	
		40,59,15,11,43, 3,48		3, 0
50″	56,43, 7,39, 1,10,34,31,13,45		4, 8,47,47,19	
		40,59,11, 2,55,16,29		3, 0
52″	56,43, 8,20, 0,21,37,26,30,14		4, 8,47,50,19	
		40,59, 6,54, 7,26,10		3, 0
54″	56,43, 9, 0,59,28,31,33,56,24		4, 8,47,53,19	
		40,59, 2,45,19,32,51		3, 0
56″	56,43, 9,41,58,31,16,53,29,15		4, 8,47,56,19	
		40,58,58,36,31,36,32		3, 0
58″	56,43,10,22,57,29,53,25, 5,47		4, 8,47,59,19	
		40,58,54,27,43,37,13		
60″	56,43,11, 3,56,24,21, 8,43, 0			
exact	56,43,11, 3,56,24,21, 8,50,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°58′ 0″	56,43,11, 3,56,24,21, 8,50,22			
		40,58,50,18,55,35,50		
2″	56,43,11,44,55,14,40, 4,26,12		4, 8,48, 5,14	
		40,58,46,10, 7,30,36		3, 0
4″	56,43,12,25,54, 0,50,11,56,48		4, 8,48, 8,14	
		40,58,42, 1,19,22,22		3, 0
6″	56,43,13, 6,52,42,51,31,19,10		4, 8,48,11,14	
		40,58,37,52,31,11, 8		3, 0
8″	56,43,13,47,51,20,44, 2,30,18		4, 8,48,14,14	
		40,58,33,43,42,56,54		3, 0
10″	56,43,14,28,49,54,27,45,27,12		4, 8,48,17,14	
		40,58,29,34,54,39,40		3, 0
12″	56,43,15, 9,48,24, 2,40, 6,52		4, 8,48,20,14	
		40,58,25,26, 6,19,26		3, 0
14″	56,43,15,50,46,49,28,46,26,18		4, 8,48,23,14	
		40,58,21,17,17,56,12		3, 0
16″	56,43,16,31,45,10,46, 4,22,30		4, 8,48,26,14	
		40,58,17, 8,29,29,58		3, 0
18″	56,43,17,12,43,27,54,33,52,28		4, 8,48,29,14	
		40,58,12,59,41, 0,44		3, 0
20″	56,43,17,53,41,40,54,14,53,12		4, 8,48,32,14	
		40,58, 8,50,52,28,30		3, 0
22″	56,43,18,34,39,49,45, 7,21,42		4, 8,48,35,14	
		40,58, 4,42, 3,53,16		3, 0
24″	56,43,19,15,37,54,27,11,14,58		4, 8,48,38,14	
		40,58, 0,33,15,15, 2		3, 0
26″	56,43,19,56,35,55, 0,26,30, 0		4, 8,48,41,14	
		40,57,56,24,26,33,48		3, 0
28″	56,43,20,37,33,51,24,53, 3,48		4, 8,48,44,14	
		40,57,52,15,37,49,34		3, 0
30″	56,43,21,18,31,43,40,30,53,22		4, 8,48,47,14	
		40,57,48, 6,49, 2,20		3, 0
32″	56,43,21,59,29,31,47,19,55,42		4, 8,48,50,14	
		40,57,43,58, 0,12, 6		3, 0
34″	56,43,22,40,27,15,45,20, 7,48		4, 8,48,53,14	
		40,57,39,49,11,18,52		3, 0
36″	56,43,23,21,24,55,34,31,26,40		4, 8,48,56,14	
		40,57,35,40,22,22,38		3, 0
38″	56,43,24, 2,22,31,14,53,49,18		4, 8,48,59,14	
		40,57,31,31,33,23,24		3, 0
40″	56,43,24,43,20, 2,46,27,12,42		4, 8,49, 2,14	
		40,57,27,22,44,21,10		3, 0
42″	56,43,25,24,17,30, 9,11,33,52		4, 8,49, 5,14	
		40,57,23,13,55,15,56		3, 0
44″	56,43,26, 5,14,53,23, 6,49,48		4, 8,49, 8,14	
		40,57,19, 5, 6, 7,42		3, 0
46″	56,43,26,46,12,12,28,12,57,30		4, 8,49,11,14	
		40,57,14,56,16,56,28		3, 0
48″	56,43,27,27, 9,27,24,29,53,58		4, 8,49,14,14	
		40,57,10,47,27,42,14		3, 0
50″	56,43,28, 8, 6,38,11,57,36,12		4, 8,49,17,14	
		40,57, 6,38,38,25, 0		3, 0
52″	56,43,28,49, 3,44,50,36, 1,12		4, 8,49,20,14	
		40,57, 2,29,49, 4,46		3, 0
54″	56,43,29,30, 0,47,20,25, 5,58		4, 8,49,23,14	
		40,56,58,20,59,41,32		3, 0
56″	56,43,30,10,57,45,41,24,47,30		4, 8,49,26,14	
		40,56,54,12,10,15,18		3, 0
58″	56,43,30,51,54,39,53,35, 2,48		4, 8,49,29,14	
		40,56,50, 3,20,46, 4		
60″	56,43,31,32,51,29,56,55,48,52			
exact	56,43,31,32,51,29,56,56, 6,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
70°59′ 0″	56,43,31,32,51,29,56,56, 6,31			
		40,56,45,54,31,15,52		
2″	56,43,32,13,48,15,51,27,22,23		4, 8,49,35, 5	
		40,56,41,45,41,40,47		3, 0
4″	56,43,32,54,44,57,37, 9, 3,10		4, 8,49,38, 5	
		40,56,37,36,52, 2,42		3, 0
6″	56,43,33,35,41,35,14, 1, 5,52		4, 8,49,41, 5	
		40,56,33,28, 2,21,37		3, 0
8″	56,43,34,16,38, 8,42, 3,27,29		4, 8,49,44, 5	
		40,56,29,19,12,37,32		3, 0
10″	56,43,34,57,34,38, 1,16, 5, 1		4, 8,49,47, 5	
		40,56,25,10,22,50,27		3, 0
12″	56,43,35,38,31, 3,11,38,55,28		4, 8,49,50, 5	
		40,56,21, 1,33, 0,22		3, 0
14″	56,43,36,19,27,24,13,11,55,50		4, 8,49,53, 5	
		40,56,16,52,43, 7,17		3, 0
16″	56,43,37, 0,23,41, 5,55, 3, 7		4, 8,49,56, 5	
		40,56,12,43,53,11,12		3, 0
18″	56,43,37,41,19,53,49,48,14,19		4, 8,49,59, 5	
		40,56, 8,35, 3,12, 7		3, 0
20″	56,43,38,22,16, 2,24,51,26,26		4, 8,50, 2, 5	
		40,56, 4,26,13,10, 2		3, 0
22″	56,43,39, 3,12, 6,51, 4,36,28		4, 8,50, 5, 5	
		40,56, 0,17,23, 4,57		3, 0
24″	56,43,39,44, 8, 7, 8,27,41,25		4, 8,50, 8, 5	
		40,55,56, 8,32,56,52		3, 0
26″	56,43,40,25, 4, 3,17, 0,38,17		4, 8,50,11, 5	
		40,55,51,59,42,45,47		3, 0
28″	56,43,41, 5,59,55,16,43,24, 4		4, 8,50,14, 5	
		40,55,47,50,52,31,42		3, 0
30″	56,43,41,46,55,43, 7,35,55,46		4, 8,50,17, 5	
		40,55,43,42, 2,14,37		3, 0
32″	56,43,42,27,51,26,49,38,10,23		4, 8,50,20, 5	
		40,55,39,33,11,54,32		3, 0
34″	56,43,43, 8,47, 6,22,50, 4,55		4, 8,50,23, 5	
		40,55,35,24,21,31,27		3, 0
36″	56,43,43,49,42,41,47,11,36,22		4, 8,50,26, 5	
		40,55,31,15,31, 5,22		3, 0
38″	56,43,44,30,38,13, 2,42,41,44		4, 8,50,29, 5	
		40,55,27, 6,40,36,17		3, 0
40″	56,43,45,11,33,40, 9,23,18, 1		4, 8,50,32, 5	
		40,55,22,57,50, 4,12		3, 0
42″	56,43,45,52,29, 3, 7,13,22,13		4, 8,50,35, 5	
		40,55,18,48,59,29, 7		3, 0
44″	56,43,46,33,24,21,56,12,51,20		4, 8,50,38, 5	
		40,55,14,40, 8,51, 2		3, 0
46″	56,43,47,14,19,36,36,21,42,22		4, 8,50,41, 5	
		40,55,10,31,18, 9,57		3, 0
48″	56,43,47,55,14,47, 7,39,52,19		4, 8,50,44, 5	
		40,55, 6,22,27,25,52		3, 0
50″	56,43,48,36, 9,53,30, 7,18,11		4, 8,50,47, 5	
		40,55, 2,13,36,38,47		3, 0
52″	56,43,49,17, 4,55,43,43,56,58		4, 8,50,50, 5	
		40,54,58, 4,45,48,42		3, 0
54″	56,43,49,57,59,53,48,29,45,40		4, 8,50,53, 5	
		40,54,53,55,54,55,37		3, 0
56″	56,43,50,38,54,47,44,24,41,17		4, 8,50,56, 5	
		40,54,49,47, 3,59,32		3, 0
58″	56,43,51,19,49,37,31,28,40,49		4, 8,50,59, 5	
		40,54,45,38,13, 0,27		
60″	56,43,52, 0,44,23, 9,41,41,16			
exact	56,43,52, 0,44,23, 9,42,12,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71° 0′ 0″	56,43,52, 0,44,23, 9,42,12,37			
		40,54,41,29,22, 1,44		
2″	56,43,52,41,39, 4,39, 4,14,21		4, 8,51, 4,51	
		40,54,37,20,30,56,53		2,59
4″	56,43,53,22,33,41,59,35,11,14		4, 8,51, 7,50	
		40,54,33,11,39,49, 3		2,59
6″	56,43,54, 3,28,15,11,15, 0,17		4, 8,51,10,49	
		40,54,29, 2,48,38,14		2,59
8″	56,43,54,44,22,44,14, 3,38,31		4, 8,51,13,48	
		40,54,24,53,57,24,26		2,59
10″	56,43,55,25,17, 9, 8, 1, 2,57		4, 8,51,16,47	
		40,54,20,45, 6, 7,39		2,59
12″	56,43,56, 6,11,29,53, 7,10,36		4, 8,51,19,46	
		40,54,16,36,14,47,53		2,59
14″	56,43,56,47, 5,46,29,21,58,29		4, 8,51,22,45	
		40,54,12,27,23,25, 8		2,59
16″	56,43,57,27,59,58,56,45,23,37		4, 8,51,25,44	
		40,54, 8,18,31,59,24		2,59
18″	56,43,58, 8,54, 7,15,17,23, 1		4, 8,51,28,43	
		40,54, 4, 9,40,30,41		2,59
20″	56,43,58,49,48,11,24,57,53,42		4, 8,51,31,42	
		40,54, 0, 0,48,58,59		2,59
22″	56,43,59,30,42,11,25,46,52,41		4, 8,51,34,41	
		40,53,55,51,57,24,18		2,59
24″	56,44, 0,11,36, 7,17,44,16,59		4, 8,51,37,40	
		40,53,51,43, 5,46,38		2,59
26″	56,44, 0,52,29,59, 0,50, 3,37		4, 8,51,40,39	
		40,53,47,34,14, 5,59		2,59
28″	56,44, 1,33,23,46,35, 4, 9,36		4, 8,51,43,38	
		40,53,43,25,22,22,21		2,59
30″	56,44, 2,14,17,30, 0,26,31,57		4, 8,51,46,37	
		40,53,39,16,30,35,44		2,59
32″	56,44, 2,55,11, 9,16,57, 7,41		4, 8,51,49,36	
		40,53,35, 7,38,46, 8		2,59
34″	56,44, 3,36, 4,44,24,35,53,49		4, 8,51,52,35	
		40,53,30,58,46,53,33		2,59
36″	56,44, 4,16,58,15,23,22,47,22		4, 8,51,55,34	
		40,53,26,49,54,57,59		2,59
38″	56,44, 4,57,51,42,13,17,45,21		4, 8,51,58,33	
		40,53,22,41, 2,59,26		2,59
40″	56,44, 5,38,45, 4,54,20,44,47		4, 8,52, 1,32	
		40,53,18,32,10,57,54		2,59
42″	56,44, 6,19,38,23,26,31,42,41		4, 8,52, 4,31	
		40,53,14,23,18,53,23		2,59
44″	56,44, 7, 0,31,37,49,50,36, 4		4, 8,52, 7,30	
		40,53,10,14,26,45,53		2,59
46″	56,44, 7,41,24,48, 4,17,21,57		4, 8,52,10,29	
		40,53, 6, 5,34,35,24		2,59
48″	56,44, 8,22,17,54, 9,51,57,21		4, 8,52,13,28	
		40,53, 1,56,42,21,56		2,59
50″	56,44, 9, 3,10,56, 6,34,19,17		4, 8,52,16,27	
		40,52,57,47,50, 5,29		2,59
52″	56,44, 9,44, 3,53,54,24,24,46		4, 8,52,19,26	
		40,52,53,38,57,46, 3		2,59
54″	56,44,10,24,56,47,33,22,10,49		4, 8,52,22,25	
		40,52,49,30, 5,23,38		2,59
56″	56,44,11, 5,49,37, 3,27,34,27		4, 8,52,25,24	
		40,52,45,21,12,58,14		2,59
58″	56,44,11,46,42,22,24,40,32,41		4, 8,52,28,23	
		40,52,41,12,20,29,51		
60″	56,44,12,27,35, 3,37, 1, 2,32			
exact	56,44,12,27,35, 3,37, 0,37,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71° 1′ 0″	56,44,12,27,35, 3,37, 0,37,19			
		40,52,37, 3,27,55,45		
2″	56,44,13, 8,27,40,40,28,33, 4		4, 8,52,34,32	
		40,52,32,54,35,21,13		2,59
4″	56,44,13,49,20,13,35, 3,54,17		4, 8,52,37,31	
		40,52,28,45,42,43,42		2,59
6″	56,44,14,30,12,42,20,46,37,59		4, 8,52,40,30	
		40,52,24,36,50, 3,12		2,59
8″	56,44,15,11, 5, 6,57,36,41,11		4, 8,52,43,29	
		40,52,20,27,57,19,43		2,59
10″	56,44,15,51,57,27,25,34, 0,54		4, 8,52,46,28	
		40,52,16,19, 4,33,15		2,59
12″	56,44,16,32,49,43,44,38,34, 9		4, 8,52,49,27	
		40,52,12,10,11,43,48		2,59
14″	56,44,17,13,41,55,54,50,17,57		4, 8,52,52,26	
		40,52, 8, 1,18,51,22		2,59
16″	56,44,17,54,34, 3,56, 9, 9,19		4, 8,52,55,25	
		40,52, 3,52,25,55,57		2,59
18″	56,44,18,35,26, 7,48,35, 5,16		4, 8,52,58,24	
		40,51,59,43,32,57,33		2,59
20″	56,44,19,16,18, 7,32, 8, 2,49		4, 8,53, 1,23	
		40,51,55,34,39,56,10		2,59
22″	56,44,19,57,10, 3, 6,47,58,59		4, 8,53, 4,22	
		40,51,51,25,46,51,48		2,59
24″	56,44,20,38, 1,54,32,34,50,47		4, 8,53, 7,21	
		40,51,47,16,53,44,27		2,59
26″	56,44,21,18,53,41,49,28,35,14		4, 8,53,10,20	
		40,51,43, 8, 0,34, 7		2,59
28″	56,44,21,59,45,24,57,29, 9,21		4, 8,53,13,19	
		40,51,38,59, 7,20,48		2,59
30″	56,44,22,40,37, 3,56,36,30, 9		4, 8,53,16,18	
		40,51,34,50,14, 4,30		2,59
32″	56,44,23,21,28,38,46,50,34,39		4, 8,53,19,17	
		40,51,30,41,20,45,13		2,59
34″	56,44,24, 2,20, 9,28,11,19,52		4, 8,53,22,16	
		40,51,26,32,27,22,57		2,59
36″	56,44,24,43,11,36, 0,38,42,49		4, 8,53,25,15	
		40,51,22,23,33,57,42		2,59
38″	56,44,25,24, 2,58,24,12,40,31		4, 8,53,28,14	
		40,51,18,14,40,29,28		2,59
40″	56,44,26, 4,54,16,38,53, 9,59		4, 8,53,31,13	
		40,51,14, 5,46,58,15		2,59
42″	56,44,26,45,45,30,44,40, 8,14		4, 8,53,34,12	
		40,51, 9,56,53,24, 3		2,59
44″	56,44,27,26,36,40,41,33,32,17		4, 8,53,37,11	
		40,51, 5,47,59,46,52		2,59
46″	56,44,28, 7,27,46,29,33,19, 9		4, 8,53,40,10	
		40,51, 1,39, 6, 6,42		2,59
48″	56,44,28,48,18,48, 8,39,25,51		4, 8,53,43, 9	
		40,50,57,30,12,23,33		2,59
50″	56,44,29,29, 9,45,38,51,49,24		4, 8,53,46, 8	
		40,50,53,21,18,37,25		2,59
52″	56,44,30,10, 0,39, 0,10,26,49		4, 8,53,49, 7	
		40,50,49,12,24,48,18		2,59
54″	56,44,30,50,51,28,12,35,15, 7		4, 8,53,52, 6	
		40,50,45, 3,30,56,12		2,59
56″	56,44,31,31,42,13,16, 6,11,19		4, 8,53,55, 5	
		40,50,40,54,37, 1, 7		2,59
58″	56,44,32,12,32,54,10,43,12,26		4, 8,53,58, 4	
		40,50,36,45,43, 3, 3		
60″	56,44,32,53,23,30,56,26,15,29			
exact	56,44,32,53,23,30,56,25,57,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71° 2′ 0″	56,44,32,53,23,30,56,25,57,29			
		40,50,32,36,49, 0,10		
2″	56,44,33,34,14, 3,33,14,57,39		4, 8,54, 4, 9	
		40,50,28,27,54,56, 1		2,59
4″	56,44,34,15, 4,32, 1, 9,53,40		4, 8,54, 7, 8	
		40,50,24,19, 0,48,53		2,59
6″	56,44,34,55,54,56,20,10,42,33		4, 8,54,10, 7	
		40,50,20,10, 6,38,46		2,59
8″	56,44,35,36,45,16,30,17,21,19		4, 8,54,13, 6	
		40,50,16, 1,12,25,40		2,59
10″	56,44,36,17,35,32,31,29,46,59		4, 8,54,16, 5	
		40,50,11,52,18, 9,35		2,59
12″	56,44,36,58,25,44,23,47,56,34		4, 8,54,19, 4	
		40,50, 7,43,23,50,31		2,59
14″	56,44,37,39,15,52, 7,11,47, 5		4, 8,54,22, 3	
		40,50, 3,34,29,28,28		2,59
16″	56,44,38,20, 5,55,41,41,15,33		4, 8,54,25, 2	
		40,49,59,25,35, 3,26		2,59
18″	56,44,39, 0,55,55, 7,16,18,59		4, 8,54,28, 1	
		40,49,55,16,40,35,25		2,59
20″	56,44,39,41,45,50,23,56,54,24		4, 8,54,31, 0	
		40,49,51, 7,46, 4,25		2,59
22″	56,44,40,22,35,41,31,42,58,49		4, 8,54,33,59	
		40,49,46,58,51,30,26		2,59
24″	56,44,41, 3,25,28,30,34,29,15		4, 8,54,36,58	
		40,49,42,49,56,53,28		2,59
26″	56,44,41,44,15,11,20,31,22,43		4, 8,54,39,57	
		40,49,38,41, 2,13,31		2,59
28″	56,44,42,25, 4,50, 1,33,36,14		4, 8,54,42,56	
		40,49,34,32, 7,30,35		2,59
30″	56,44,43, 5,54,24,33,41, 6,49		4, 8,54,45,55	
		40,49,30,23,12,44,40		2,59
32″	56,44,43,46,43,54,56,53,51,29		4, 8,54,48,54	
		40,49,26,14,17,55,46		2,59
34″	56,44,44,27,33,21,11,11,47,15		4, 8,54,51,53	
		40,49,22, 5,23, 3,53		2,59
36″	56,44,45, 8,22,43,16,34,51, 8		4, 8,54,54,52	
		40,49,17,56,28, 9, 1		2,59
38″	56,44,45,49,12, 1,13, 3, 0, 9		4, 8,54,57,51	
		40,49,13,47,33,11,10		2,59
40″	56,44,46,30, 1,15, 0,36,11,19		4, 8,55, 0,50	
		40,49, 9,38,38,10,20		2,59
42″	56,44,47,10,50,24,39,14,21,39		4, 8,55, 3,49	
		40,49, 5,29,43, 6,31		2,59
44″	56,44,47,51,39,30, 8,57,28,10		4, 8,55, 6,48	
		40,49, 1,20,47,59,43		2,59
46″	56,44,48,32,28,31,29,45,27,53		4, 8,55, 9,47	
		40,48,57,11,52,49,56		2,59
48″	56,44,49,13,17,28,41,38,17,49		4, 8,55,12,46	
		40,48,53, 2,57,37,10		2,59
50″	56,44,49,54, 6,21,44,35,54,59		4, 8,55,15,45	
		40,48,48,54, 2,21,25		2,59
52″	56,44,50,34,55,10,38,38,16,24		4, 8,55,18,44	
		40,48,44,45, 7, 2,41		2,59
54″	56,44,51,15,43,55,23,45,19, 5		4, 8,55,21,43	
		40,48,40,36,11,40,58		2,59
56″	56,44,51,56,32,35,59,57, 0, 3		4, 8,55,24,42	
		40,48,36,27,16,16,16		2,59
58″	56,44,52,37,21,12,27,13,16,19		4, 8,55,27,41	
		40,48,32,18,20,48,35		
60″	56,44,53,18, 9,44,45,34, 4,54			
exact	56,44,53,18, 9,44,45,33,58,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71° 3′ 0″	56,44,53,18, 9,44,45,33,58,11			
		40,48,28, 9,25,17,15		
2″	56,44,53,58,58,12,54,59,15,26		4, 8,55,33,41	
		40,48,24, 0,29,43,34		2,59
4″	56,44,54,39,46,36,55,28,59, 0		4, 8,55,36,40	
		40,48,19,51,34, 6,54		2,59
6″	56,44,55,20,34,56,47, 3, 5,54		4, 8,55,39,39	
		40,48,15,42,38,27,15		2,59
8″	56,44,56, 1,23,12,29,41,33, 9		4, 8,55,42,38	
		40,48,11,33,42,44,37		2,59
10″	56,44,56,42,11,24, 3,24,17,46		4, 8,55,45,37	
		40,48, 7,24,46,59, 0		2,59
12″	56,44,57,22,59,31,28,11,16,46		4, 8,55,48,36	
		40,48, 3,15,51,10,24		2,59
14″	56,44,58, 3,47,34,44, 2,27,10		4, 8,55,51,35	
		40,47,59, 6,55,18,49		2,59
16″	56,44,58,44,35,33,50,57,45,59		4, 8,55,54,34	
		40,47,54,57,59,24,15		2,59
18″	56,44,59,25,23,28,48,57,10,14		4, 8,55,57,33	
		40,47,50,49, 3,26,42		2,59
20″	56,45, 0, 6,11,19,38, 0,36,56		4, 8,56, 0,32	
		40,47,46,40, 7,26,10		2,59
22″	56,45, 0,46,59, 6,18, 8, 3, 6		4, 8,56, 3,31	
		40,47,42,31,11,22,39		2,59
24″	56,45, 1,27,46,48,49,19,25,45		4, 8,56, 6,30	
		40,47,38,22,15,16, 9		2,59
26″	56,45, 2, 8,34,27,11,34,41,54		4, 8,56, 9,29	
		40,47,34,13,19, 6,40		2,59
28″	56,45, 2,49,22, 1,24,53,48,34		4, 8,56,12,28	
		40,47,30, 4,22,54,12		2,59
30″	56,45, 3,30, 9,31,29,16,42,46		4, 8,56,15,27	
		40,47,25,55,26,38,45		2,59
32″	56,45, 4,10,56,57,24,43,21,31		4, 8,56,18,26	
		40,47,21,46,30,20,19		2,59
34″	56,45, 4,51,44,19,11,13,41,50		4, 8,56,21,25	
		40,47,17,37,33,58,54		2,59
36″	56,45, 5,32,31,36,48,47,40,44		4, 8,56,24,24	
		40,47,13,28,37,34,30		2,59
38″	56,45, 6,13,18,50,17,25,15,14		4, 8,56,27,23	
		40,47, 9,19,41, 7, 7		2,59
40″	56,45, 6,54, 5,59,37, 6,22,21		4, 8,56,30,22	
		40,47, 5,10,44,36,45		2,59
42″	56,45, 7,34,53, 4,47,50,59, 6		4, 8,56,33,21	
		40,47, 1, 1,48, 3,24		2,59
44″	56,45, 8,15,40, 5,49,39, 2,30		4, 8,56,36,20	
		40,46,56,52,51,27, 4		2,59
46″	56,45, 8,56,27, 2,42,30,29,34		4, 8,56,39,19	
		40,46,52,43,54,47,45		2,59
48″	56,45, 9,37,13,55,26,25,17,19		4, 8,56,42,18	
		40,46,48,34,58, 5,27		2,59
50″	56,45,10,18, 0,44, 1,23,22,46		4, 8,56,45,17	
		40,46,44,26, 1,20,10		2,59
52″	56,45,10,58,47,28,27,24,42,56		4, 8,56,48,16	
		40,46,40,17, 4,31,54		2,59
54″	56,45,11,39,34, 8,44,29,14,50		4, 8,56,51,15	
		40,46,36, 8, 7,40,39		2,59
56″	56,45,12,20,20,44,52,36,55,29		4, 8,56,54,14	
		40,46,31,59,10,46,25		2,59
58″	56,45,13, 1, 7,16,51,47,41,54		4, 8,56,57,13	
		40,46,27,50,13,49,12		
60″	56,45,13,41,53,44,42, 1,31, 6			
exact	56,45,13,41,53,44,42, 1,32,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71° 4′ 0″	56,45,13,41,53,44,42, 1,32,46			
		40,46,23,41,16,49,18		
2″	56,45,14,22,40, 8,23,18,22, 4		4, 8,57, 3, 9	
		40,46,19,32,19,46, 9		2,59
4″	56,45,15, 3,26,27,55,38, 8,13		4, 8,57, 6, 8	
		40,46,15,23,22,40, 1		2,59
6″	56,45,15,44,12,43,19, 0,48,14		4, 8,57, 9, 7	
		40,46,11,14,25,30,54		2,59
8″	56,45,16,24,58,54,33,26,19, 8		4, 8,57,12, 6	
		40,46, 7, 5,28,18,48		2,59
10″	56,45,17, 5,45, 1,38,54,37,56		4, 8,57,15, 5	
		40,46, 2,56,31, 3,43		2,59
12″	56,45,17,46,31, 4,35,25,41,39		4, 8,57,18, 4	
		40,45,58,47,33,45,39		2,59
14″	56,45,18,27,17, 3,22,59,27,18		4, 8,57,21, 3	
		40,45,54,38,36,24,36		2,59
16″	56,45,19, 8, 2,58, 1,35,51,54		4, 8,57,24, 2	
		40,45,50,29,39, 0,34		2,59
18″	56,45,19,48,48,48,31,14,52,28		4, 8,57,27, 1	
		40,45,46,20,41,33,33		2,59
20″	56,45,20,29,34,34,51,56,26, 1		4, 8,57,30, 0	
		40,45,42,11,44, 3,33		2,59
22″	56,45,21,10,20,17, 3,40,29,34		4, 8,57,32,59	
		40,45,38, 2,46,30,34		2,59
24″	56,45,21,51, 5,55, 6,27, 0, 8		4, 8,57,35,58	
		40,45,33,53,48,54,36		2,59
26″	56,45,22,31,51,29, 0,15,54,44		4, 8,57,38,57	
		40,45,29,44,51,15,39		2,59
28″	56,45,23,12,36,58,45, 7,10,23		4, 8,57,41,56	
		40,45,25,35,53,33,43		2,59
30″	56,45,23,53,22,24,21, 0,44, 6		4, 8,57,44,55	
		40,45,21,26,55,48,48		2,59
32″	56,45,24,34, 7,45,47,56,32,54		4, 8,57,47,54	
		40,45,17,17,58, 0,54		2,59
34″	56,45,25,14,53, 3, 5,54,33,48		4, 8,57,50,53	
		40,45,13, 9, 0,10, 1		2,59
36″	56,45,25,55,38,16,14,54,43,49		4, 8,57,53,52	
		40,45, 9, 0, 2,16, 9		2,59
38″	56,45,26,36,23,25,14,56,59,58		4, 8,57,56,51	
		40,45, 4,51, 4,19,18		2,59
40″	56,45,27,17, 8,30, 6, 1,19,16		4, 8,57,59,50	
		40,45, 0,42, 6,19,28		2,59
42″	56,45,27,57,53,30,48, 7,38,44		4, 8,58, 2,49	
		40,44,56,33, 8,16,39		2,59
44″	56,45,28,38,38,27,21,15,55,23		4, 8,58, 5,48	
		40,44,52,24,10,10,51		2,59
46″	56,45,29,19,23,19,45,26, 6,14		4, 8,58, 8,47	
		40,44,48,15,12, 2, 4		2,59
48″	56,45,30, 0, 8, 8, 0,38, 8,18		4, 8,58,11,46	
		40,44,44, 6,13,50,18		2,59
50″	56,45,30,40,52,52, 6,51,58,36		4, 8,58,14,45	
		40,44,39,57,15,35,33		2,59
52″	56,45,31,21,37,32, 4, 7,34, 9		4, 8,58,17,44	
		40,44,35,48,17,17,49		2,59
54″	56,45,32, 2,22, 7,52,24,51,58		4, 8,58,20,43	
		40,44,31,39,18,57, 6		2,59
56″	56,45,32,43, 6,39,31,43,49, 4		4, 8,58,23,42	
		40,44,27,30,20,33,24		2,59
58″	56,45,33,23,51, 7, 2, 4,22,28		4, 8,58,26,41	
		40,44,23,21,22, 6,43		
60″	56,45,34, 4,35,30,23,26,29,11			
exact	56,45,34, 4,35,30,23,26,42,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71° 5′ 0″	56,45,34, 4,35,30,23,26,42,49			
		40,44,19,12,23,38,34		
2″	56,45,34,45,19,49,35,50,21,23		4, 8,58,32,32	
		40,44,15, 3,25, 6, 2		2,59
4″	56,45,35,26, 4, 4,39,15,27,25		4, 8,58,35,31	
		40,44,10,54,26,30,31		2,59
6″	56,45,36, 6,48,15,33,41,57,56		4, 8,58,38,30	
		40,44, 6,45,27,52, 1		2,59
8″	56,45,36,47,32,22,19, 9,49,57		4, 8,58,41,29	
		40,44, 2,36,29,10,32		2,59
10″	56,45,37,28,16,24,55,39, 0,29		4, 8,58,44,28	
		40,43,58,27,30,26, 4		2,59
12″	56,45,38, 9, 0,23,23, 9,26,33		4, 8,58,47,27	
		40,43,54,18,31,38,37		2,59
14″	56,45,38,49,44,17,41,41, 5,10		4, 8,58,50,26	
		40,43,50, 9,32,48,11		2,59
16″	56,45,39,30,28, 7,51,13,53,21		4, 8,58,53,25	
		40,43,46, 0,33,54,46		2,59
18″	56,45,40,11,11,53,51,47,48, 7		4, 8,58,56,24	
		40,43,41,51,34,58,22		2,59
20″	56,45,40,51,55,35,43,22,46,29		4, 8,58,59,23	
		40,43,37,42,35,58,59		2,59
22″	56,45,41,32,39,13,25,58,45,28		4, 8,59, 2,22	
		40,43,33,33,36,56,37		2,59
24″	56,45,42,13,22,46,59,35,42, 5		4, 8,59, 5,21	
		40,43,29,24,37,51,16		2,59
26″	56,45,42,54, 6,16,24,13,33,21		4, 8,59, 8,20	
		40,43,25,15,38,42,56		2,59
28″	56,45,43,34,49,41,39,52,16,17		4, 8,59,11,19	
		40,43,21, 6,39,31,37		2,59
30″	56,45,44,15,33, 2,46,31,47,54		4, 8,59,14,18	
		40,43,16,57,40,17,19		2,59
32″	56,45,44,56,16,19,44,12, 5,13		4, 8,59,17,17	
		40,43,12,48,41, 0, 2		2,59
34″	56,45,45,36,59,32,32,53, 5,15		4, 8,59,20,16	
		40,43, 8,39,41,39,46		2,59
36″	56,45,46,17,42,41,12,34,45, 1		4, 8,59,23,15	
		40,43, 4,30,42,16,31		2,59
38″	56,45,46,58,25,45,43,17, 1,32		4, 8,59,26,14	
		40,43, 0,21,42,50,17		2,59
40″	56,45,47,39, 8,46, 4,59,51,49		4, 8,59,29,13	
		40,42,56,12,43,21, 4		2,59
42″	56,45,48,19,51,42,17,43,12,53		4, 8,59,32,12	
		40,42,52, 3,43,48,52		2,59
44″	56,45,49, 0,34,34,21,27, 1,45		4, 8,59,35,11	
		40,42,47,54,44,13,41		2,59
46″	56,45,49,41,17,22,16,11,15,26		4, 8,59,38,10	
		40,42,43,45,44,35,31		2,59
48″	56,45,50,22, 0, 6, 1,55,50,57		4, 8,59,41, 9	
		40,42,39,36,44,54,22		2,59
50″	56,45,51, 2,42,45,38,40,45,19		4, 8,59,44, 8	
		40,42,35,27,45,10,14		2,59
52″	56,45,51,43,25,21, 6,25,55,33		4, 8,59,47, 7	
		40,42,31,18,45,23, 7		2,59
54″	56,45,52,24, 7,52,25,11,18,40		4, 8,59,50, 6	
		40,42,27, 9,45,33, 1		2,59
56″	56,45,53, 4,50,19,34,56,51,41		4, 8,59,53, 5	
		40,42,23, 0,45,39,56		2,59
58″	56,45,53,45,32,42,35,42,31,37		4, 8,59,56, 4	
		40,42,18,51,45,43,52		
60″	56,45,54,26,15, 1,27,28,15,29			
exact	56,45,54,26,15, 1,27,28,38, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71° 6′ 0″	56,45,54,26,15, 1,27,28,38, 9			
		40,42,14,42,45,47,21		
2″	56,45,55, 6,57,16,10,14,25,30		4, 9, 0, 1,51	
		40,42,10,33,45,45,30		2,59
4″	56,45,55,47,39,26,44, 0,11, 0		4, 9, 0, 4,50	
		40,42, 6,24,45,40,40		2,59
6″	56,45,56,28,21,33, 8,45,51,40		4, 9, 0, 7,49	
		40,42, 2,15,45,32,51		2,59
8″	56,45,57, 9, 3,35,24,31,24,31		4, 9, 0,10,48	
		40,41,58, 6,45,22, 3		2,59
10″	56,45,57,49,45,33,31,16,46,34		4, 9, 0,13,47	
		40,41,53,57,45, 8,16		2,59
12″	56,45,58,30,27,27,29, 1,54,50		4, 9, 0,16,46	
		40,41,49,48,44,51,30		2,59
14″	56,45,59,11, 9,17,17,46,46,20		4, 9, 0,19,45	
		40,41,45,39,44,31,45		2,59
16″	56,45,59,51,51, 2,57,31,18, 5		4, 9, 0,22,44	
		40,41,41,30,44, 9, 1		2,59
18″	56,46, 0,32,32,44,28,15,27, 6		4, 9, 0,25,43	
		40,41,37,21,43,43,18		2,59
20″	56,46, 1,13,14,21,49,59,10,24		4, 9, 0,28,42	
		40,41,33,12,43,14,36		2,59
22″	56,46, 1,53,55,55, 2,42,25, 0		4, 9, 0,31,41	
		40,41,29, 3,42,42,55		2,59
24″	56,46, 2,34,37,24, 6,25, 7,55		4, 9, 0,34,40	
		40,41,24,54,42, 8,15		2,59
26″	56,46, 3,15,18,49, 1, 7,16,10		4, 9, 0,37,39	
		40,41,20,45,41,30,36		2,59
28″	56,46, 3,56, 0, 9,46,48,46,46		4, 9, 0,40,38	
		40,41,16,36,40,49,58		2,59
30″	56,46, 4,36,41,26,23,29,36,44		4, 9, 0,43,37	
		40,41,12,27,40, 6,21		2,59
32″	56,46, 5,17,22,38,51, 9,43, 5		4, 9, 0,46,36	
		40,41, 8,18,39,19,45		2,59
34″	56,46, 5,58, 3,47, 9,49, 2,50		4, 9, 0,49,35	
		40,41, 4, 9,38,30,10		2,59
36″	56,46, 6,38,44,51,19,27,33, 0		4, 9, 0,52,34	
		40,41, 0, 0,37,37,36		2,59
38″	56,46, 7,19,25,51,20, 5,10,36		4, 9, 0,55,33	
		40,40,55,51,36,42, 3		2,59
40″	56,46, 8, 0, 6,47,11,41,52,39		4, 9, 0,58,32	
		40,40,51,42,35,43,31		2,59
42″	56,46, 8,40,47,38,54,17,36,10		4, 9, 1, 1,31	
		40,40,47,33,34,42, 0		2,59
44″	56,46, 9,21,28,26,27,52,18,10		4, 9, 1, 4,30	
		40,40,43,24,33,37,30		2,59
46″	56,46,10, 2, 9, 9,52,25,55,40		4, 9, 1, 7,29	
		40,40,39,15,32,30, 1		2,59
48″	56,46,10,42,49,49, 7,58,25,41		4, 9, 1,10,28	
		40,40,35, 6,31,19,33		2,59
50″	56,46,11,23,30,24,14,29,45,14		4, 9, 1,13,27	
		40,40,30,57,30, 6, 6		2,59
52″	56,46,12, 4,10,55,11,59,51,20		4, 9, 1,16,26	
		40,40,26,48,28,49,40		2,59
54″	56,46,12,44,51,22, 0,28,41, 0		4, 9, 1,19,25	
		40,40,22,39,27,30,15		2,59
56″	56,46,13,25,31,44,39,56,11,15		4, 9, 1,22,24	
		40,40,18,30,26, 7,51		2,59
58″	56,46,14, 6,12, 3,10,22,19, 6		4, 9, 1,25,23	
		40,40,14,21,24,42,28		
60″	56,46,14,46,52,17,31,47, 1,34			
exact	56,46,14,46,52,17,31,47,36,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71° 7′ 0″	56,46,14,46,52,17,31,47,36,51			
		40,40,10,12,23,17,54		
2″	56,46,15,27,32,27,44,10,54,45		4, 9, 1,31, 5	
		40,40, 6, 3,21,46,49		2,58
4″	56,46,16, 8,12,33,47,32,41,34		4, 9, 1,34, 3	
		40,40, 1,54,20,12,46		2,58
6″	56,46,16,48,52,35,41,52,54,20		4, 9, 1,37, 1	
		40,39,57,45,18,35,45		2,58
8″	56,46,17,29,32,33,27,11,30, 5		4, 9, 1,39,59	
		40,39,53,36,16,55,46		2,58
10″	56,46,18,10,12,27, 3,28,25,51		4, 9, 1,42,57	
		40,39,49,27,15,12,49		2,58
12″	56,46,18,50,52,16,30,43,38,40		4, 9, 1,45,55	
		40,39,45,18,13,26,54		2,58
14″	56,46,19,31,32, 1,48,57, 5,34		4, 9, 1,48,53	
		40,39,41, 9,11,38, 1		2,58
16″	56,46,20,12,11,42,58, 8,43,35		4, 9, 1,51,51	
		40,39,37, 0, 9,46,10		2,58
18″	56,46,20,52,51,19,58,18,29,45		4, 9, 1,54,49	
		40,39,32,51, 7,51,21		2,58
20″	56,46,21,33,30,52,49,26,21, 6		4, 9, 1,57,47	
		40,39,28,42, 5,53,34		2,58
22″	56,46,22,14,10,21,31,32,14,40		4, 9, 2, 0,45	
		40,39,24,33, 3,52,49		2,58
24″	56,46,22,54,49,46, 4,36, 7,29		4, 9, 2, 3,43	
		40,39,20,24, 1,49, 6		2,58
26″	56,46,23,35,29, 6,28,37,56,35		4, 9, 2, 6,41	
		40,39,16,14,59,42,25		2,58
28″	56,46,24,16, 8,22,43,37,39, 0		4, 9, 2, 9,39	
		40,39,12, 5,57,32,46		2,58
30″	56,46,24,56,47,34,49,35,11,46		4, 9, 2,12,37	
		40,39, 7,56,55,20, 9		2,58
32″	56,46,25,37,26,42,46,30,31,55		4, 9, 2,15,35	
		40,39, 3,47,53, 4,34		2,58
34″	56,46,26,18, 5,46,34,23,36,29		4, 9, 2,18,33	
		40,38,59,38,50,46, 1		2,58
36″	56,46,26,58,44,46,13,14,22,30		4, 9, 2,21,31	
		40,38,55,29,48,24,30		2,58
38″	56,46,27,39,23,41,43, 2,47, 0		4, 9, 2,24,29	
		40,38,51,20,46, 0, 1		2,58
40″	56,46,28,20, 2,33, 3,48,47, 1		4, 9, 2,27,27	
		40,38,47,11,43,32,34		2,58
42″	56,46,29, 0,41,20,15,32,19,35		4, 9, 2,30,25	
		40,38,43, 2,41, 2, 9		2,58
44″	56,46,29,41,20, 3,18,13,21,44		4, 9, 2,33,23	
		40,38,38,53,38,28,46		2,58
46″	56,46,30,21,58,42,11,51,50,30		4, 9, 2,36,21	
		40,38,34,44,35,52,25		2,58
48″	56,46,31, 2,37,16,56,27,42,55		4, 9, 2,39,19	
		40,38,30,35,33,13, 6		2,58
50″	56,46,31,43,15,47,32, 0,56, 1		4, 9, 2,42,17	
		40,38,26,26,30,30,49		2,58
52″	56,46,32,23,54,13,58,31,26,50		4, 9, 2,45,15	
		40,38,22,17,27,45,34		2,58
54″	56,46,33, 4,32,36,15,59,12,24		4, 9, 2,48,13	
		40,38,18, 8,24,57,21		2,58
56″	56,46,33,45,10,54,24,24, 9,45		4, 9, 2,51,11	
		40,38,13,59,22, 6,10		2,58
58″	56,46,34,25,49, 8,23,46,15,55		4, 9, 2,54, 9	
		40,38, 9,50,19,12, 1		
60″	56,46,35, 6,27,18,14, 5,27,56			
exact	56,46,35, 6,27,18,14, 5, 5,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71° 8′ 0″	56,46,35, 6,27,18,14, 5, 5,16			
		40,38, 5,41,16,12,31		
2″	56,46,35,47, 5,23,55,21,17,47		4, 9, 3, 0,14	
		40,38, 1,32,13,12,17		2,58
4″	56,46,36,27,43,25,27,34,30, 4		4, 9, 3, 3,12	
		40,37,57,23,10, 9, 5		2,58
6″	56,46,37, 8,21,22,50,44,39, 9		4, 9, 3, 6,10	
		40,37,53,14, 7, 2,55		2,58
8″	56,46,37,48,59,16, 4,51,42, 4		4, 9, 3, 9, 8	
		40,37,49, 5, 3,53,47		2,58
10″	56,46,38,29,37, 5, 9,55,35,51		4, 9, 3,12, 6	
		40,37,44,56, 0,41,41		2,58
12″	56,46,39,10,14,50, 5,56,17,32		4, 9, 3,15, 4	
		40,37,40,46,57,26,37		2,58
14″	56,46,39,50,52,30,52,53,44, 9		4, 9, 3,18, 2	
		40,37,36,37,54, 8,35		2,58
16″	56,46,40,31,30, 7,30,47,52,44		4, 9, 3,21, 0	
		40,37,32,28,50,47,35		2,58
18″	56,46,41,12, 7,39,59,38,40,19		4, 9, 3,23,58	
		40,37,28,19,47,23,37		2,58
20″	56,46,41,52,45, 8,19,26, 3,56		4, 9, 3,26,56	
		40,37,24,10,43,56,41		2,58
22″	56,46,42,33,22,32,30,10, 0,37		4, 9, 3,29,54	
		40,37,20, 1,40,26,47		2,58
24″	56,46,43,13,59,52,31,50,27,24		4, 9, 3,32,52	
		40,37,15,52,36,53,55		2,58
26″	56,46,43,54,37, 8,24,27,21,19		4, 9, 3,35,50	
		40,37,11,43,33,18, 5		2,58
28″	56,46,44,35,14,20, 8, 0,39,24		4, 9, 3,38,48	
		40,37, 7,34,29,39,17		2,58
30″	56,46,45,15,51,27,42,30,18,41		4, 9, 3,41,46	
		40,37, 3,25,25,57,31		2,58
32″	56,46,45,56,28,31, 7,56,16,12		4, 9, 3,44,44	
		40,36,59,16,22,12,47		2,58
34″	56,46,46,37, 5,30,24,18,28,59		4, 9, 3,47,42	
		40,36,55, 7,18,25, 5		2,58
36″	56,46,47,17,42,25,31,36,54, 4		4, 9, 3,50,40	
		40,36,50,58,14,34,25		2,58
38″	56,46,47,58,19,16,29,51,28,29		4, 9, 3,53,38	
		40,36,46,49,10,40,47		2,58
40″	56,46,48,38,56, 3,19, 2, 9,16		4, 9, 3,56,36	
		40,36,42,40, 6,44,11		2,58
42″	56,46,49,19,32,45,59, 8,53,27		4, 9, 3,59,34	
		40,36,38,31, 2,44,37		2,58
44″	56,46,50, 0, 9,24,30,11,38, 4		4, 9, 4, 2,32	
		40,36,34,21,58,42, 5		2,58
46″	56,46,50,40,45,58,52,10,20, 9		4, 9, 4, 5,30	
		40,36,30,12,54,36,35		2,58
48″	56,46,51,21,22,29, 5, 4,56,44		4, 9, 4, 8,28	
		40,36,26, 3,50,28, 7		2,58
50″	56,46,52, 1,58,55, 8,55,24,51		4, 9, 4,11,26	
		40,36,21,54,46,16,41		2,58
52″	56,46,52,42,35,17, 3,41,41,32		4, 9, 4,14,24	
		40,36,17,45,42, 2,17		2,58
54″	56,46,53,23,11,34,49,23,43,49		4, 9, 4,17,22	
		40,36,13,36,37,44,55		2,58
56″	56,46,54, 3,47,48,26, 1,28,44		4, 9, 4,20,20	
		40,36, 9,27,33,24,35		2,58
58″	56,46,54,44,23,57,53,34,53,19		4, 9, 4,23,18	
		40,36, 5,18,29, 1,17		
60″	56,46,55,25, 0, 3,12, 3,54,36			
exact	56,46,55,25, 0, 3,12, 3,38, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71° 9′ 0″	56,46,55,25, 0, 3,12, 3,38, 1			
		40,36, 1, 9,24,33,27		
2″	56,46,56, 5,36, 4,21,28,11,28		4, 9, 4,29,19	
		40,35,57, 0,20, 4, 8		2,58
4″	56,46,56,46,12, 1,21,48,15,36		4, 9, 4,32,17	
		40,35,52,51,15,31,51		2,58
6″	56,46,57,26,47,54,13, 3,47,27		4, 9, 4,35,15	
		40,35,48,42,10,56,36		2,58
8″	56,46,58, 7,23,42,55,14,44, 3		4, 9, 4,38,13	
		40,35,44,33, 6,18,23		2,58
10″	56,46,58,47,59,27,28,21, 2,26		4, 9, 4,41,11	
		40,35,40,24, 1,37,12		2,58
12″	56,46,59,28,35, 7,52,22,39,38		4, 9, 4,44, 9	
		40,35,36,14,56,53, 3		2,58
14″	56,47, 0, 9,10,44, 7,19,32,41		4, 9, 4,47, 7	
		40,35,32, 5,52, 5,56		2,58
16″	56,47, 0,49,46,16,13,11,38,37		4, 9, 4,50, 5	
		40,35,27,56,47,15,51		2,58
18″	56,47, 1,30,21,44, 9,58,54,28		4, 9, 4,53, 3	
		40,35,23,47,42,22,48		2,58
20″	56,47, 2,10,57, 7,57,41,17,16		4, 9, 4,56, 1	
		40,35,19,38,37,26,47		2,58
22″	56,47, 2,51,32,27,36,18,44, 3		4, 9, 4,58,59	
		40,35,15,29,32,27,48		2,58
24″	56,47, 3,32, 7,43, 5,51,11,51		4, 9, 5, 1,57	
		40,35,11,20,27,25,51		2,58
26″	56,47, 4,12,42,54,26,18,37,42		4, 9, 5, 4,55	
		40,35, 7,11,22,20,56		2,58
28″	56,47, 4,53,18, 1,37,40,58,38		4, 9, 5, 7,53	
		40,35, 3, 2,17,13, 3		2,58
30″	56,47, 5,33,53, 4,39,58,11,41		4, 9, 5,10,51	
		40,34,58,53,12, 2,12		2,58
32″	56,47, 6,14,28, 3,33,10,13,53		4, 9, 5,13,49	
		40,34,54,44, 6,48,23		2,58
34″	56,47, 6,55, 2,58,17,17, 2,16		4, 9, 5,16,47	
		40,34,50,35, 1,31,36		2,58
36″	56,47, 7,35,37,48,52,18,33,52		4, 9, 5,19,45	
		40,34,46,25,56,11,51		2,58
38″	56,47, 8,16,12,35,18,14,45,43		4, 9, 5,22,43	
		40,34,42,16,50,49, 8		2,58
40″	56,47, 8,56,47,17,35, 5,34,51		4, 9, 5,25,41	
		40,34,38, 7,45,23,27		2,58
42″	56,47, 9,37,21,55,42,50,58,18		4, 9, 5,28,39	
		40,34,33,58,39,54,48		2,58
44″	56,47,10,17,56,29,41,30,53, 6		4, 9, 5,31,37	
		40,34,29,49,34,23,11		2,58
46″	56,47,10,58,30,59,31, 5,16,17		4, 9, 5,34,35	
		40,34,25,40,28,48,36		2,58
48″	56,47,11,39, 5,25,11,34, 4,53		4, 9, 5,37,33	
		40,34,21,31,23,11, 3		2,58
50″	56,47,12,19,39,46,42,57,15,56		4, 9, 5,40,31	
		40,34,17,22,17,30,32		2,58
52″	56,47,13, 0,14, 4, 5,14,46,28		4, 9, 5,43,29	
		40,34,13,13,11,47, 3		2,58
54″	56,47,13,40,48,17,18,26,33,31		4, 9, 5,46,27	
		40,34, 9, 4, 6, 0,36		2,58
56″	56,47,14,21,22,26,22,32,34, 7		4, 9, 5,49,25	
		40,34, 4,55, 0,11,11		2,58
58″	56,47,15, 1,56,31,17,32,45,18		4, 9, 5,52,23	
		40,34, 0,45,54,18,48		
60″	56,47,15,42,30,32, 3,27, 4, 6			
exact	56,47,15,42,30,32, 3,26,58, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°10′ 0″	56,47,15,42,30,32, 3,26,58, 1			
		40,33,56,36,48,22,59		
2″	56,47,16,23, 4,28,40,15,21, 0		4, 9, 5,58,20	
		40,33,52,27,42,24,39		2,58
4″	56,47,17, 3,38,21, 7,57,45,39		4, 9, 6, 1,18	
		40,33,48,18,36,23,21		2,58
6″	56,47,17,44,12, 9,26,34, 9, 0		4, 9, 6, 4,16	
		40,33,44, 9,30,19, 5		2,58
8″	56,47,18,24,45,53,36, 4,28, 5		4, 9, 6, 7,14	
		40,33,40, 0,24,11,51		2,58
10″	56,47,19, 5,19,33,36,28,39,56		4, 9, 6,10,12	
		40,33,35,51,18, 1,39		2,58
12″	56,47,19,45,53, 9,27,46,41,35		4, 9, 6,13,10	
		40,33,31,42,11,48,29		2,58
14″	56,47,20,26,26,41, 9,58,30, 4		4, 9, 6,16, 8	
		40,33,27,33, 5,32,21		2,58
16″	56,47,21, 7, 0, 8,43, 4, 2,25		4, 9, 6,19, 6	
		40,33,23,23,59,13,15		2,58
18″	56,47,21,47,33,32, 7, 3,15,40		4, 9, 6,22, 4	
		40,33,19,14,52,51,11		2,58
20″	56,47,22,28, 6,51,21,56, 6,51		4, 9, 6,25, 2	
		40,33,15, 5,46,26, 9		2,58
22″	56,47,23, 8,40, 6,27,42,33, 0		4, 9, 6,28, 0	
		40,33,10,56,39,58, 9		2,58
24″	56,47,23,49,13,17,24,22,31, 9		4, 9, 6,30,58	
		40,33, 6,47,33,27,11		2,58
26″	56,47,24,29,46,24,11,55,58,20		4, 9, 6,33,56	
		40,33, 2,38,26,53,15		2,58
28″	56,47,25,10,19,26,50,22,51,35		4, 9, 6,36,54	
		40,32,58,29,20,16,21		2,58
30″	56,47,25,50,52,25,19,43, 7,56		4, 9, 6,39,52	
		40,32,54,20,13,36,29		2,58
32″	56,47,26,31,25,19,39,56,44,25		4, 9, 6,42,50	
		40,32,50,11, 6,53,39		2,58
34″	56,47,27,11,58, 9,51, 3,38, 4		4, 9, 6,45,48	
		40,32,46, 2, 0, 7,51		2,58
36″	56,47,27,52,30,55,53, 3,45,55		4, 9, 6,48,46	
		40,32,41,52,53,19, 5		2,58
38″	56,47,28,33, 3,37,45,57, 5, 0		4, 9, 6,51,44	
		40,32,37,43,46,27,21		2,58
40″	56,47,29,13,36,15,29,43,32,21		4, 9, 6,54,42	
		40,32,33,34,39,32,39		2,58
42″	56,47,29,54, 8,49, 4,23, 5, 0		4, 9, 6,57,40	
		40,32,29,25,32,34,59		2,58
44″	56,47,30,34,41,18,29,55,39,59		4, 9, 7, 0,38	
		40,32,25,16,25,34,21		2,58
46″	56,47,31,15,13,43,46,21,14,20		4, 9, 7, 3,36	
		40,32,21, 7,18,30,45		2,58
48″	56,47,31,55,46, 4,53,39,45, 5		4, 9, 7, 6,34	
		40,32,16,58,11,24,11		2,58
50″	56,47,32,36,18,21,51,51, 9,16		4, 9, 7, 9,32	
		40,32,12,49, 4,14,39		2,58
52″	56,47,33,16,50,34,40,55,23,55		4, 9, 7,12,30	
		40,32, 8,39,57, 2, 9		2,58
54″	56,47,33,57,22,43,20,52,26, 4		4, 9, 7,15,28	
		40,32, 4,30,49,46,41		2,58
56″	56,47,34,37,54,47,51,42,12,45		4, 9, 7,18,26	
		40,32, 0,21,42,28,15		2,58
58″	56,47,35,18,26,48,13,24,41, 0		4, 9, 7,21,24	
		40,31,56,12,35, 6,51		
60″	56,47,35,58,58,44,25,59,47,51			
exact	56,47,35,58,58,44,25,59,56,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°11′ 0″	56,47,35,58,58,44,25,59,56,26			
		40,31,52, 3,27,43,25		
2″	56,47,36,39,30,36,29,27,39,51		4, 9, 7,27,16	
		40,31,47,54,20,16, 9		2,58
4″	56,47,37,20, 2,24,23,47,56, 0		4, 9, 7,30,14	
		40,31,43,45,12,45,55		2,58
6″	56,47,38, 0,34, 8, 9, 0,41,55		4, 9, 7,33,12	
		40,31,39,36, 5,12,43		2,58
8″	56,47,38,41, 5,47,45, 5,54,38		4, 9, 7,36,10	
		40,31,35,26,57,36,33		2,58
10″	56,47,39,21,37,23,12, 3,31,11		4, 9, 7,39, 8	
		40,31,31,17,49,57,25		2,58
12″	56,47,40, 2, 8,54,29,53,28,36		4, 9, 7,42, 6	
		40,31,27, 8,42,15,19		2,58
14″	56,47,40,42,40,21,38,35,43,55		4, 9, 7,45, 4	
		40,31,22,59,34,30,15		2,58
16″	56,47,41,23,11,44,38,10,14,10		4, 9, 7,48, 2	
		40,31,18,50,26,42,13		2,58
18″	56,47,42, 3,43, 3,28,36,56,23		4, 9, 7,51, 0	
		40,31,14,41,18,51,13		2,58
20″	56,47,42,44,14,18, 9,55,47,36		4, 9, 7,53,58	
		40,31,10,32,10,57,15		2,58
22″	56,47,43,24,45,28,42, 6,44,51		4, 9, 7,56,56	
		40,31, 6,23, 3, 0,19		2,58
24″	56,47,44, 5,16,35, 5, 9,45,10		4, 9, 7,59,54	
		40,31, 2,13,55, 0,25		2,58
26″	56,47,44,45,47,37,19, 4,45,35		4, 9, 8, 2,52	
		40,30,58, 4,46,57,33		2,58
28″	56,47,45,26,18,35,23,51,43, 8		4, 9, 8, 5,50	
		40,30,53,55,38,51,43		2,58
30″	56,47,46, 6,49,29,19,30,34,51		4, 9, 8, 8,48	
		40,30,49,46,30,42,55		2,58
32″	56,47,46,47,20,19, 6, 1,17,46		4, 9, 8,11,46	
		40,30,45,37,22,31, 9		2,58
34″	56,47,47,27,51, 4,43,23,48,55		4, 9, 8,14,44	
		40,30,41,28,14,16,25		2,58
36″	56,47,48, 8,21,46,11,38, 5,20		4, 9, 8,17,42	
		40,30,37,19, 5,58,43		2,58
38″	56,47,48,48,52,23,30,44, 4, 3		4, 9, 8,20,40	
		40,30,33, 9,57,38, 3		2,58
40″	56,47,49,29,22,56,40,41,42, 6		4, 9, 8,23,38	
		40,30,29, 0,49,14,25		2,58
42″	56,47,50, 9,53,25,41,30,56,31		4, 9, 8,26,36	
		40,30,24,51,40,47,49		2,58
44″	56,47,50,50,23,50,33,11,44,20		4, 9, 8,29,34	
		40,30,20,42,32,18,15		2,58
46″	56,47,51,30,54,11,15,44, 2,35		4, 9, 8,32,32	
		40,30,16,33,23,45,43		2,58
48″	56,47,52,11,24,27,49, 7,48,18		4, 9, 8,35,30	
		40,30,12,24,15,10,13		2,58
50″	56,47,52,51,54,40,13,22,58,31		4, 9, 8,38,28	
		40,30, 8,15, 6,31,45		2,58
52″	56,47,53,32,24,48,28,29,30,16		4, 9, 8,41,26	
		40,30, 4, 5,57,50,19		2,58
54″	56,47,54,12,54,52,34,27,20,35		4, 9, 8,44,24	
		40,29,59,56,49, 5,55		2,58
56″	56,47,54,53,24,52,31,16,26,30		4, 9, 8,47,22	
		40,29,55,47,40,18,33		2,58
58″	56,47,55,33,54,48,18,56,45, 3		4, 9, 8,50,20	
		40,29,51,38,31,28,13		
60″	56,47,56,14,24,39,57,28,13,16			
exact	56,47,56,14,24,39,57,28,32,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°12′ 0″	56,47,56,14,24,39,57,28,32,45			
		40,29,47,29,22,37, 0		
2″	56,47,56,54,54,27,26,51, 9,45		4, 9, 8,56, 7	
		40,29,43,20,13,40,53		2,58
4″	56,47,57,35,24,10,47, 4,50,38		4, 9, 8,59, 5	
		40,29,39,11, 4,41,48		2,58
6″	56,47,58,15,53,49,58, 9,32,26		4, 9, 9, 2, 3	
		40,29,35, 1,55,39,45		2,58
8″	56,47,58,56,23,25, 0, 5,12,11		4, 9, 9, 5, 1	
		40,29,30,52,46,34,44		2,58
10″	56,47,59,36,52,55,52,51,46,55		4, 9, 9, 7,59	
		40,29,26,43,37,26,45		2,58
12″	56,48, 0,17,22,22,36,29,13,40		4, 9, 9,10,57	
		40,29,22,34,28,15,48		2,58
14″	56,48, 0,57,51,45,10,57,29,28		4, 9, 9,13,55	
		40,29,18,25,19, 1,53		2,58
16″	56,48, 1,38,21, 3,36,16,31,21		4, 9, 9,16,53	
		40,29,14,16, 9,45, 0		2,58
18″	56,48, 2,18,50,17,52,26,16,21		4, 9, 9,19,51	
		40,29,10, 7, 0,25, 9		2,58
20″	56,48, 2,59,19,27,59,26,41,30		4, 9, 9,22,49	
		40,29, 5,57,51, 2,20		2,58
22″	56,48, 3,39,48,33,57,17,43,50		4, 9, 9,25,47	
		40,29, 1,48,41,36,33		2,58
24″	56,48, 4,20,17,35,45,59,20,23		4, 9, 9,28,45	
		40,28,57,39,32, 7,48		2,58
26″	56,48, 5, 0,46,33,25,31,28,11		4, 9, 9,31,43	
		40,28,53,30,22,36, 5		2,58
28″	56,48, 5,41,15,26,55,54, 4,16		4, 9, 9,34,41	
		40,28,49,21,13, 1,24		2,58
30″	56,48, 6,21,44,16,17, 7, 5,40		4, 9, 9,37,39	
		40,28,45,12, 3,23,45		2,58
32″	56,48, 7, 2,13, 1,29,10,29,25		4, 9, 9,40,37	
		40,28,41, 2,53,43, 8		2,58
34″	56,48, 7,42,41,42,32, 4,12,33		4, 9, 9,43,35	
		40,28,36,53,43,59,33		2,58
36″	56,48, 8,23,10,19,25,48,12, 6		4, 9, 9,46,33	
		40,28,32,44,34,13, 0		2,58
38″	56,48, 9, 3,38,52,10,22,25, 6		4, 9, 9,49,31	
		40,28,28,35,24,23,29		2,58
40″	56,48, 9,44, 7,20,45,46,48,35		4, 9, 9,52,29	
		40,28,24,26,14,31, 0		2,58
42″	56,48,10,24,35,45,12, 1,19,35		4, 9, 9,55,27	
		40,28,20,17, 4,35,33		2,58
44″	56,48,11, 5, 4, 5,29, 5,55, 8		4, 9, 9,58,25	
		40,28,16, 7,54,37, 8		2,58
46″	56,48,11,45,32,21,37, 0,32,16		4, 9,10, 1,23	
		40,28,11,58,44,35,45		2,58
48″	56,48,12,26, 0,33,35,45, 8, 1		4, 9,10, 4,21	
		40,28, 7,49,34,31,24		2,58
50″	56,48,13, 6,28,41,25,19,39,25		4, 9,10, 7,19	
		40,28, 3,40,24,24, 5		2,58
52″	56,48,13,46,56,45, 5,44, 3,30		4, 9,10,10,17	
		40,27,59,31,14,13,48		2,58
54″	56,48,14,27,24,44,36,58,17,18		4, 9,10,13,15	
		40,27,55,22, 4, 0,33		2,58
56″	56,48,15, 7,52,39,59, 2,17,51		4, 9,10,16,13	
		40,27,51,12,53,44,20		2,58
58″	56,48,15,48,20,31,11,56, 2,11		4, 9,10,19,11	
		40,27,47, 3,43,25, 9		
60″	56,48,16,28,48,18,15,39,27,20			
exact	56,48,16,28,48,18,15,39,54,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°13′ 0″	56,48,16,28,48,18,15,39,54,45			
		40,27,42,54,33, 6, 1		
2″	56,48,17, 9,16, 1,10,13, 0,46		4, 9,10,24,54	
		40,27,38,45,22,41, 7		2,57
4″	56,48,17,49,43,39,55,35,41,53		4, 9,10,27,51	
		40,27,34,36,12,13,16		2,57
6″	56,48,18,30,11,14,31,47,55, 9		4, 9,10,30,48	
		40,27,30,27, 1,42,28		2,57
8″	56,48,19,10,38,44,58,49,37,37		4, 9,10,33,45	
		40,27,26,17,51, 8,43		2,57
10″	56,48,19,51, 6,11,16,40,46,20		4, 9,10,36,42	
		40,27,22, 8,40,32, 1		2,57
12″	56,48,20,31,33,33,25,21,18,21		4, 9,10,39,39	
		40,27,17,59,29,52,22		2,57
14″	56,48,21,12, 0,51,24,51,10,43		4, 9,10,42,36	
		40,27,13,50,19, 9,46		2,57
16″	56,48,21,52,28, 5,15,10,20,29		4, 9,10,45,33	
		40,27, 9,41, 8,24,13		2,57
18″	56,48,22,32,55,14,56,18,44,42		4, 9,10,48,30	
		40,27, 5,31,57,35,43		2,57
20″	56,48,23,13,22,20,28,16,20,25		4, 9,10,51,27	
		40,27, 1,22,46,44,16		2,57
22″	56,48,23,53,49,21,51, 3, 4,41		4, 9,10,54,24	
		40,26,57,13,35,49,52		2,57
24″	56,48,24,34,16,19, 4,38,54,33		4, 9,10,57,21	
		40,26,53, 4,24,52,31		2,57
26″	56,48,25,14,43,12, 9, 3,47, 4		4, 9,11, 0,18	
		40,26,48,55,13,52,13		2,57
28″	56,48,25,55,10, 1, 4,17,39,17		4, 9,11, 3,15	
		40,26,44,46, 2,48,58		2,57
30″	56,48,26,35,36,45,50,20,28,15		4, 9,11, 6,12	
		40,26,40,36,51,42,46		2,57
32″	56,48,27,16, 3,26,27,12,11, 1		4, 9,11, 9, 9	
		40,26,36,27,40,33,37		2,57
34″	56,48,27,56,30, 2,54,52,44,38		4, 9,11,12, 6	
		40,26,32,18,29,21,31		2,57
36″	56,48,28,36,56,35,13,22, 6, 9		4, 9,11,15, 3	
		40,26,28, 9,18, 6,28		2,57
38″	56,48,29,17,23, 3,22,40,12,37		4, 9,11,18, 0	
		40,26,24, 0, 6,48,28		2,57
40″	56,48,29,57,49,27,22,47, 1, 5		4, 9,11,20,57	
		40,26,19,50,55,27,31		2,57
42″	56,48,30,38,15,47,13,42,28,36		4, 9,11,23,54	
		40,26,15,41,44, 3,37		2,57
44″	56,48,31,18,42, 2,55,26,32,13		4, 9,11,26,51	
		40,26,11,32,32,36,46		2,57
46″	56,48,31,59, 8,14,27,59, 8,59		4, 9,11,29,48	
		40,26, 7,23,21, 6,58		2,57
48″	56,48,32,39,34,21,51,20,15,57		4, 9,11,32,45	
		40,26, 3,14, 9,34,13		2,57
50″	56,48,33,20, 0,25, 5,29,50,10		4, 9,11,35,42	
		40,25,59, 4,57,58,31		2,57
52″	56,48,34, 0,26,24,10,27,48,41		4, 9,11,38,39	
		40,25,54,55,46,19,52		2,57
54″	56,48,34,40,52,19, 6,14, 8,33		4, 9,11,41,36	
		40,25,50,46,34,38,16		2,57
56″	56,48,35,21,18, 9,52,48,46,49		4, 9,11,44,33	
		40,25,46,37,22,53,43		2,57
58″	56,48,36, 1,43,56,30,11,40,32		4, 9,11,47,30	
		40,25,42,28,11, 6,13		
60″	56,48,36,42, 9,38,58,22,46,45			
exact	56,48,36,42, 9,38,58,22,18,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°14′ 0″	56,48,36,42, 9,38,58,22,18,29			
		40,25,38,18,59,12,45		
2″	56,48,37,22,35,17,17,21,31,14		4, 9,11,53,36	
		40,25,34, 9,47,19, 9		2,57
4″	56,48,38, 3, 0,51,27, 8,50,23		4, 9,11,56,33	
		40,25,30, 0,35,22,36		2,57
6″	56,48,38,43,26,21,27,44,12,59		4, 9,11,59,30	
		40,25,25,51,23,23, 6		2,57
8″	56,48,39,23,51,47,19, 7,36, 5		4, 9,12, 2,27	
		40,25,21,42,11,20,39		2,57
10″	56,48,40, 4,17, 9, 1,18,56,44		4, 9,12, 5,24	
		40,25,17,32,59,15,15		2,57
12″	56,48,40,44,42,26,34,18,11,59		4, 9,12, 8,21	
		40,25,13,23,47, 6,54		2,57
14″	56,48,41,25, 7,39,58, 5,18,53		4, 9,12,11,18	
		40,25, 9,14,34,55,36		2,57
16″	56,48,42, 5,32,49,12,40,14,29		4, 9,12,14,15	
		40,25, 5, 5,22,41,21		2,57
18″	56,48,42,45,57,54,18, 2,55,50		4, 9,12,17,12	
		40,25, 0,56,10,24, 9		2,57
20″	56,48,43,26,22,55,14,13,19,59		4, 9,12,20, 9	
		40,24,56,46,58, 4, 0		2,57
22″	56,48,44, 6,47,52, 1,11,23,59		4, 9,12,23, 6	
		40,24,52,37,45,40,54		2,57
24″	56,48,44,47,12,44,38,57, 4,53		4, 9,12,26, 3	
		40,24,48,28,33,14,51		2,57
26″	56,48,45,27,37,33, 7,30,19,44		4, 9,12,29, 0	
		40,24,44,19,20,45,51		2,57
28″	56,48,46, 8, 2,17,26,51, 5,35		4, 9,12,31,57	
		40,24,40,10, 8,13,54		2,57
30″	56,48,46,48,26,57,36,59,19,29		4, 9,12,34,54	
		40,24,36, 0,55,39, 0		2,57
32″	56,48,47,28,51,33,37,54,58,29		4, 9,12,37,51	
		40,24,31,51,43, 1, 9		2,57
34″	56,48,48, 9,16, 5,29,37,59,38		4, 9,12,40,48	
		40,24,27,42,30,20,21		2,57
36″	56,48,48,49,40,33,12, 8,19,59		4, 9,12,43,45	
		40,24,23,33,17,36,36		2,57
38″	56,48,49,30, 4,56,45,25,56,35		4, 9,12,46,42	
		40,24,19,24, 4,49,54		2,57
40″	56,48,50,10,29,16, 9,30,46,29		4, 9,12,49,39	
		40,24,15,14,52, 0,15		2,57
42″	56,48,50,50,53,31,24,22,46,44		4, 9,12,52,36	
		40,24,11, 5,39, 7,39		2,57
44″	56,48,51,31,17,42,30, 1,54,23		4, 9,12,55,33	
		40,24, 6,56,26,12, 6		2,57
46″	56,48,52,11,41,49,26,28, 6,29		4, 9,12,58,30	
		40,24, 2,47,13,13,36		2,57
48″	56,48,52,52, 5,52,13,41,20, 5		4, 9,13, 1,27	
		40,23,58,38, 0,12, 9		2,57
50″	56,48,53,32,29,50,51,41,32,14		4, 9,13, 4,24	
		40,23,54,28,47, 7,45		2,57
52″	56,48,54,12,53,45,20,28,39,59		4, 9,13, 7,21	
		40,23,50,19,34, 0,24		2,57
54″	56,48,54,53,17,35,40, 2,40,23		4, 9,13,10,18	
		40,23,46,10,20,50, 6		2,57
56″	56,48,55,33,41,21,50,23,30,29		4, 9,13,13,15	
		40,23,42, 1, 7,36,51		2,57
58″	56,48,56,14, 5, 3,51,31, 7,20		4, 9,13,16,12	
		40,23,37,51,54,20,39		
60″	56,48,56,54,28,41,43,25,27,59			
exact	56,48,56,54,28,41,43,25, 8,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°15′ 0″	56,48,56,54,28,41,43,25, 8,22			
		40,23,33,42,40,59,29		
2″	56,48,57,34,52,15,26, 6, 7,51		4, 9,13,22,14	
		40,23,29,33,27,37,15		2,57
4″	56,48,58,15,15,44,59,33,45, 6		4, 9,13,25,11	
		40,23,25,24,14,12, 4		2,57
6″	56,48,58,55,39,10,23,47,57,10		4, 9,13,28, 8	
		40,23,21,15, 0,43,56		2,57
8″	56,48,59,36, 2,31,38,48,41, 6		4, 9,13,31, 5	
		40,23,17, 5,47,12,51		2,57
10″	56,49, 0,16,25,48,44,35,53,57		4, 9,13,34, 2	
		40,23,12,56,33,38,49		2,57
12″	56,49, 0,56,49, 1,41, 9,32,46		4, 9,13,36,59	
		40,23, 8,47,20, 1,50		2,57
14″	56,49, 1,37,12,10,28,29,34,36		4, 9,13,39,56	
		40,23, 4,38, 6,21,54		2,57
16″	56,49, 2,17,35,15, 6,35,56,30		4, 9,13,42,53	
		40,23, 0,28,52,39, 1		2,57
18″	56,49, 2,57,58,15,35,28,35,31		4, 9,13,45,50	
		40,22,56,19,38,53,11		2,57
20″	56,49, 3,38,21,11,55, 7,28,42		4, 9,13,48,47	
		40,22,52,10,25, 4,24		2,57
22″	56,49, 4,18,44, 4, 5,32,33, 6		4, 9,13,51,44	
		40,22,48, 1,11,12,40		2,57
24″	56,49, 4,59, 6,52, 6,43,45,46		4, 9,13,54,41	
		40,22,43,51,57,17,59		2,57
26″	56,49, 5,39,29,35,58,41, 3,45		4, 9,13,57,38	
		40,22,39,42,43,20,21		2,57
28″	56,49, 6,19,52,15,41,24,24, 6		4, 9,14, 0,35	
		40,22,35,33,29,19,46		2,57
30″	56,49, 7, 0,14,51,14,53,43,52		4, 9,14, 3,32	
		40,22,31,24,15,16,14		2,57
32″	56,49, 7,40,37,22,39, 9, 0, 6		4, 9,14, 6,29	
		40,22,27,15, 1, 9,45		2,57
34″	56,49, 8,20,59,49,54,10, 9,51		4, 9,14, 9,26	
		40,22,23, 5,47, 0,19		2,57
36″	56,49, 9, 1,22,12,59,57,10,10		4, 9,14,12,23	
		40,22,18,56,32,47,56		2,57
38″	56,49, 9,41,44,31,56,29,58, 6		4, 9,14,15,20	
		40,22,14,47,18,32,36		2,57
40″	56,49,10,22, 6,46,43,48,30,42		4, 9,14,18,17	
		40,22,10,38, 4,14,19		2,57
42″	56,49,11, 2,28,57,21,52,45, 1		4, 9,14,21,14	
		40,22, 6,28,49,53, 5		2,57
44″	56,49,11,42,51, 3,50,42,38, 6		4, 9,14,24,11	
		40,22, 2,19,35,28,54		2,57
46″	56,49,12,23,13, 6,10,18, 7, 0		4, 9,14,27, 8	
		40,21,58,10,21, 1,46		2,57
48″	56,49,13, 3,35, 4,20,39, 8,46		4, 9,14,30, 5	
		40,21,54, 1, 6,31,41		2,57
50″	56,49,13,43,56,58,21,45,40,27		4, 9,14,33, 2	
		40,21,49,51,51,58,39		2,57
52″	56,49,14,24,18,48,13,37,39, 6		4, 9,14,35,59	
		40,21,45,42,37,22,40		2,57
54″	56,49,15, 4,40,33,56,15, 1,46		4, 9,14,38,56	
		40,21,41,33,22,43,44		2,57
56″	56,49,15,45, 2,15,29,37,45,30		4, 9,14,41,53	
		40,21,37,24, 8, 1,51		2,57
58″	56,49,16,25,23,52,53,45,47,21		4, 9,14,44,50	
		40,21,33,14,53,17, 1		
60″	56,49,17, 5,45,26, 8,39, 4,22			
exact	56,49,17, 5,45,26, 8,38,57, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°16′ 0″	56,49,17, 5,45,26, 8,38,57, 7			
		40,21,29, 5,38,28,28		
2″	56,49,17,46, 6,55,14,17,25,35		4, 9,14,50,47	
		40,21,24,56,23,37,41		2,57
4″	56,49,18,26,28,20,10,41, 3,16		4, 9,14,53,44	
		40,21,20,47, 8,43,57		2,57
6″	56,49,19, 6,49,40,57,49,47,13		4, 9,14,56,41	
		40,21,16,37,53,47,16		2,57
8″	56,49,19,47,10,57,35,43,34,29		4, 9,14,59,38	
		40,21,12,28,38,47,38		2,57
10″	56,49,20,27,32,10, 4,22,22, 7		4, 9,15, 2,35	
		40,21, 8,19,23,45, 3		2,57
12″	56,49,21, 7,53,18,23,46, 7,10		4, 9,15, 5,32	
		40,21, 4,10, 8,39,31		2,57
14″	56,49,21,48,14,22,33,54,46,41		4, 9,15, 8,29	
		40,21, 0, 0,53,31, 2		2,57
16″	56,49,22,28,35,22,34,48,17,43		4, 9,15,11,26	
		40,20,55,51,38,19,36		2,57
18″	56,49,23, 8,56,18,26,26,37,19		4, 9,15,14,23	
		40,20,51,42,23, 5,13		2,57
20″	56,49,23,49,17,10, 8,49,42,32		4, 9,15,17,20	
		40,20,47,33, 7,47,53		2,57
22″	56,49,24,29,37,57,41,57,30,25		4, 9,15,20,17	
		40,20,43,23,52,27,36		2,57
24″	56,49,25, 9,58,41, 5,49,58, 1		4, 9,15,23,14	
		40,20,39,14,37, 4,22		2,57
26″	56,49,25,50,19,20,20,27, 2,23		4, 9,15,26,11	
		40,20,35, 5,21,38,11		2,57
28″	56,49,26,30,39,55,25,48,40,34		4, 9,15,29, 8	
		40,20,30,56, 6, 9, 3		2,57
30″	56,49,27,11, 0,26,21,54,49,37		4, 9,15,32, 5	
		40,20,26,46,50,36,58		2,57
32″	56,49,27,51,20,53, 8,45,26,35		4, 9,15,35, 2	
		40,20,22,37,35, 1,56		2,57
34″	56,49,28,31,41,15,46,20,28,31		4, 9,15,37,59	
		40,20,18,28,19,23,57		2,57
36″	56,49,29,12, 1,34,14,39,52,28		4, 9,15,40,56	
		40,20,14,19, 3,43, 1		2,57
38″	56,49,29,52,21,48,33,43,35,29		4, 9,15,43,53	
		40,20,10, 9,47,59, 8		2,57
40″	56,49,30,32,41,58,43,31,34,37		4, 9,15,46,50	
		40,20, 6, 0,32,12,18		2,57
42″	56,49,31,13, 2, 4,44, 3,46,55		4, 9,15,49,47	
		40,20, 1,51,16,22,31		2,57
44″	56,49,31,53,22, 6,35,20, 9,26		4, 9,15,52,44	
		40,19,57,42, 0,29,47		2,57
46″	56,49,32,33,42, 4,17,20,39,13		4, 9,15,55,41	
		40,19,53,32,44,34, 6		2,57
48″	56,49,33,14, 1,57,50, 5,13,19		4, 9,15,58,38	
		40,19,49,23,28,35,28		2,57
50″	56,49,33,54,21,47,13,33,48,47		4, 9,16, 1,35	
		40,19,45,14,12,33,53		2,57
52″	56,49,34,34,41,32,27,46,22,40		4, 9,16, 4,32	
		40,19,41, 4,56,29,21		2,57
54″	56,49,35,15, 1,13,32,42,52, 1		4, 9,16, 7,29	
		40,19,36,55,40,21,52		2,57
56″	56,49,35,55,20,50,28,23,13,53		4, 9,16,10,26	
		40,19,32,46,24,11,26		2,57
58″	56,49,36,35,40,23,14,47,25,19		4, 9,16,13,23	
		40,19,28,37, 7,58, 3		
60″	56,49,37,15,59,51,51,55,23,22			
exact	56,49,37,15,59,51,51,55,25,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°17′ 0″	56,49,37,15,59,51,51,55,25,45			
		40,19,24,27,51,42, 0		
2″	56,49,37,56,19,16,19,47, 7,45		4, 9,16,19,15	
		40,19,20,18,35,22,45		2,57
4″	56,49,38,36,38,36,38,22,30,30		4, 9,16,22,12	
		40,19,16, 9,19, 0,33		2,57
6″	56,49,39,16,57,52,47,41,31, 3		4, 9,16,25, 9	
		40,19,12, 0, 2,35,24		2,57
8″	56,49,39,57,17, 4,47,44, 6,27		4, 9,16,28, 6	
		40,19, 7,50,46, 7,18		2,57
10″	56,49,40,37,36,12,38,30,13,45		4, 9,16,31, 3	
		40,19, 3,41,29,36,15		2,57
12″	56,49,41,17,55,16,19,59,50, 0		4, 9,16,34, 0	
		40,18,59,32,13, 2,15		2,57
14″	56,49,41,58,14,15,52,12,52,15		4, 9,16,36,57	
		40,18,55,22,56,25,18		2,57
16″	56,49,42,38,33,11,15, 9,17,33		4, 9,16,39,54	
		40,18,51,13,39,45,24		2,57
18″	56,49,43,18,52, 2,28,49, 2,57		4, 9,16,42,51	
		40,18,47, 4,23, 2,33		2,57
20″	56,49,43,59,10,49,33,12, 5,30		4, 9,16,45,48	
		40,18,42,55, 6,16,45		2,57
22″	56,49,44,39,29,32,28,18,22,15		4, 9,16,48,45	
		40,18,38,45,49,28, 0		2,57
24″	56,49,45,19,48,11,14, 7,50,15		4, 9,16,51,42	
		40,18,34,36,32,36,18		2,57
26″	56,49,46, 0, 6,45,50,40,26,33		4, 9,16,54,39	
		40,18,30,27,15,41,39		2,57
28″	56,49,46,40,25,16,17,56, 8,12		4, 9,16,57,36	
		40,18,26,17,58,44, 3		2,57
30″	56,49,47,20,43,42,35,54,52,15		4, 9,17, 0,33	
		40,18,22, 8,41,43,30		2,57
32″	56,49,48, 1, 2, 4,44,36,35,45		4, 9,17, 3,30	
		40,18,17,59,24,40, 0		2,57
34″	56,49,48,41,20,22,44, 1,15,45		4, 9,17, 6,27	
		40,18,13,50, 7,33,33		2,57
36″	56,49,49,21,38,36,34, 8,49,18		4, 9,17, 9,24	
		40,18, 9,40,50,24, 9		2,57
38″	56,49,50, 1,56,46,14,59,13,27		4, 9,17,12,21	
		40,18, 5,31,33,11,48		2,57
40″	56,49,50,42,14,51,46,32,25,15		4, 9,17,15,18	
		40,18, 1,22,15,56,30		2,57
42″	56,49,51,22,32,53, 8,48,21,45		4, 9,17,18,15	
		40,17,57,12,58,38,15		2,57
44″	56,49,52, 2,50,50,21,47, 0, 0		4, 9,17,21,12	
		40,17,53, 3,41,17, 3		2,57
46″	56,49,52,43, 8,43,25,28,17, 3		4, 9,17,24, 9	
		40,17,48,54,23,52,54		2,57
48″	56,49,53,23,26,32,19,52, 9,57		4, 9,17,27, 6	
		40,17,44,45, 6,25,48		2,57
50″	56,49,54, 3,44,17, 4,58,35,45		4, 9,17,30, 3	
		40,17,40,35,48,55,45		2,57
52″	56,49,54,44, 1,57,40,47,31,30		4, 9,17,33, 0	
		40,17,36,26,31,22,45		2,57
54″	56,49,55,24,19,34, 7,18,54,15		4, 9,17,35,57	
		40,17,32,17,13,46,48		2,57
56″	56,49,56, 4,37, 6,24,32,41, 3		4, 9,17,38,54	
		40,17,28, 7,56, 7,54		2,57
58″	56,49,56,44,54,34,32,28,48,57		4, 9,17,41,51	
		40,17,23,58,38,26, 3		
60″	56,49,57,25,11,58,31, 7,15, 0			
exact	56,49,57,25,11,58,31, 7,23,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°18′ 0″	56,49,57,25,11,58,31, 7,23,39			
		40,17,19,49,20,42,21		
2″	56,49,58, 5,29,18,20,28, 6, 0		4, 9,17,47,39	
		40,17,15,40, 2,54,42		2,57
4″	56,49,58,45,46,34, 0,31, 0,42		4, 9,17,50,36	
		40,17,11,30,45, 4, 6		2,57
6″	56,49,59,26, 3,45,31,16, 4,48		4, 9,17,53,33	
		40,17, 7,21,27,10,33		2,57
8″	56,50, 0, 6,20,52,52,43,15,21		4, 9,17,56,30	
		40,17, 3,12, 9,14, 3		2,57
10″	56,50, 0,46,37,56, 4,52,29,24		4, 9,17,59,27	
		40,16,59, 2,51,14,36		2,57
12″	56,50, 1,26,54,55, 7,43,44, 0		4, 9,18, 2,24	
		40,16,54,53,33,12,12		2,57
14″	56,50, 2, 7,11,50, 1,16,56,12		4, 9,18, 5,21	
		40,16,50,44,15, 6,51		2,57
16″	56,50, 2,47,28,40,45,32, 3, 3		4, 9,18, 8,18	
		40,16,46,34,56,58,33		2,57
18″	56,50, 3,27,45,27,20,29, 1,36		4, 9,18,11,15	
		40,16,42,25,38,47,18		2,57
20″	56,50, 4, 8, 2, 9,46, 7,48,54		4, 9,18,14,12	
		40,16,38,16,20,33, 6		2,57
22″	56,50, 4,48,18,48, 2,28,22, 0		4, 9,18,17, 9	
		40,16,34, 7, 2,15,57		2,57
24″	56,50, 5,28,35,22, 9,30,37,57		4, 9,18,20, 6	
		40,16,29,57,43,55,51		2,57
26″	56,50, 6, 8,51,52, 7,14,33,48		4, 9,18,23, 3	
		40,16,25,48,25,32,48		2,57
28″	56,50, 6,49, 8,17,55,40, 6,36		4, 9,18,26, 0	
		40,16,21,39, 7, 6,48		2,57
30″	56,50, 7,29,24,39,34,47,13,24		4, 9,18,28,57	
		40,16,17,29,48,37,51		2,57
32″	56,50, 8, 9,40,57, 4,35,51,15		4, 9,18,31,54	
		40,16,13,20,30, 5,57		2,57
34″	56,50, 8,49,57,10,25, 5,57,12		4, 9,18,34,51	
		40,16, 9,11,11,31, 6		2,57
36″	56,50, 9,30,13,19,36,17,28,18		4, 9,18,37,48	
		40,16, 5, 1,52,53,18		2,57
38″	56,50,10,10,29,24,38,10,21,36		4, 9,18,40,45	
		40,16, 0,52,34,12,33		2,57
40″	56,50,10,50,45,25,30,44,34, 9		4, 9,18,43,42	
		40,15,56,43,15,28,51		2,57
42″	56,50,11,31, 1,22,14, 0, 3, 0		4, 9,18,46,39	
		40,15,52,33,56,42,12		2,57
44″	56,50,12,11,17,14,47,56,45,12		4, 9,18,49,36	
		40,15,48,24,37,52,36		2,57
46″	56,50,12,51,33, 3,12,34,37,48		4, 9,18,52,33	
		40,15,44,15,19, 0, 3		2,57
48″	56,50,13,31,48,47,27,53,37,51		4, 9,18,55,30	
		40,15,40, 6, 0, 4,33		2,57
50″	56,50,14,12, 4,27,33,53,42,24		4, 9,18,58,27	
		40,15,35,56,41, 6, 6		2,57
52″	56,50,14,52,20, 3,30,34,48,30		4, 9,19, 1,24	
		40,15,31,47,22, 4,42		2,57
54″	56,50,15,32,35,35,17,56,53,12		4, 9,19, 4,21	
		40,15,27,38, 3, 0,21		2,57
56″	56,50,16,12,51, 2,55,59,53,33		4, 9,19, 7,18	
		40,15,23,28,43,53, 3		2,57
58″	56,50,16,53, 6,26,24,43,46,36		4, 9,19,10,15	
		40,15,19,19,24,42,48		
60″	56,50,17,33,21,45,44, 8,29,24			
exact	56,50,17,33,21,45,44, 8,48,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°19′ 0″	56,50,17,33,21,45,44, 8,48,31			
		40,15,15,10, 5,31,49		
2″	56,50,18,13,37, 0,54,14,20,20		4, 9,19,15,59	
		40,15,11, 0,46,15,50		2,57
4″	56,50,18,53,52,11,55, 0,36,10		4, 9,19,18,56	
		40,15, 6,51,26,56,54		2,57
6″	56,50,19,34, 7,18,46,27,33, 4		4, 9,19,21,53	
		40,15, 2,42, 7,35, 1		2,57
8″	56,50,20,14,22,21,28,35, 8, 5		4, 9,19,24,50	
		40,14,58,32,48,10,11		2,57
10″	56,50,20,54,37,20, 1,23,18,16		4, 9,19,27,47	
		40,14,54,23,28,42,24		2,57
12″	56,50,21,34,52,14,24,52, 0,40		4, 9,19,30,44	
		40,14,50,14, 9,11,40		2,57
14″	56,50,22,15, 7, 4,39, 1,12,20		4, 9,19,33,41	
		40,14,46, 4,49,37,59		2,57
16″	56,50,22,55,21,50,43,50,50,19		4, 9,19,36,38	
		40,14,41,55,30, 1,21		2,57
18″	56,50,23,35,36,32,39,20,51,40		4, 9,19,39,35	
		40,14,37,46,10,21,46		2,57
20″	56,50,24,15,51,10,25,31,13,26		4, 9,19,42,32	
		40,14,33,36,50,39,14		2,57
22″	56,50,24,56, 5,44, 2,21,52,40		4, 9,19,45,29	
		40,14,29,27,30,53,45		2,57
24″	56,50,25,36,20,13,29,52,46,25		4, 9,19,48,26	
		40,14,25,18,11, 5,19		2,57
26″	56,50,26,16,34,38,48, 3,51,44		4, 9,19,51,23	
		40,14,21, 8,51,13,56		2,57
28″	56,50,26,56,48,59,56,55, 5,40		4, 9,19,54,20	
		40,14,16,59,31,19,36		2,57
30″	56,50,27,37, 3,16,56,26,25,16		4, 9,19,57,17	
		40,14,12,50,11,22,19		2,57
32″	56,50,28,17,17,29,46,37,47,35		4, 9,20, 0,14	
		40,14, 8,40,51,22, 5		2,57
34″	56,50,28,57,31,38,27,29, 9,40		4, 9,20, 3,11	
		40,14, 4,31,31,18,54		2,57
36″	56,50,29,37,45,42,59, 0,28,34		4, 9,20, 6, 8	
		40,14, 0,22,11,12,46		2,57
38″	56,50,30,17,59,43,21,11,41,20		4, 9,20, 9, 5	
		40,13,56,12,51, 3,41		2,57
40″	56,50,30,58,13,39,34, 2,45, 1		4, 9,20,12, 2	
		40,13,52, 3,30,51,39		2,57
42″	56,50,31,38,27,31,37,33,36,40		4, 9,20,14,59	
		40,13,47,54,10,36,40		2,57
44″	56,50,32,18,41,19,31,44,13,20		4, 9,20,17,56	
		40,13,43,44,50,18,44		2,57
46″	56,50,32,58,55, 3,16,34,32, 4		4, 9,20,20,53	
		40,13,39,35,29,57,51		2,57
48″	56,50,33,39, 8,42,52, 4,29,55		4, 9,20,23,50	
		40,13,35,26, 9,34, 1		2,57
50″	56,50,34,19,22,18,18,14, 3,56		4, 9,20,26,47	
		40,13,31,16,49, 7,14		2,57
52″	56,50,34,59,35,49,35, 3,11,10		4, 9,20,29,44	
		40,13,27, 7,28,37,30		2,57
54″	56,50,35,39,49,16,42,31,48,40		4, 9,20,32,41	
		40,13,22,58, 8, 4,49		2,57
56″	56,50,36,20, 2,39,40,39,53,29		4, 9,20,35,38	
		40,13,18,48,47,29,11		2,57
58″	56,50,37, 0,15,58,29,27,22,40		4, 9,20,38,35	
		40,13,14,39,26,50,36		
60″	56,50,37,40,29,13, 8,54,13,16			
exact	56,50,37,40,29,13, 8,54,46,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°20′ 0″	56,50,37,40,29,13, 8,54,46,24			
		40,13,10,30, 6,12,39		
2″	56,50,38,20,42,23,39, 0,59, 3		4, 9,20,44,14	
		40,13, 6,20,45,28,25		2,56
4″	56,50,39, 0,55,29,59,46,27,28		4, 9,20,47,10	
		40,13, 2,11,24,41,15		2,56
6″	56,50,39,41, 8,32,11,11, 8,43		4, 9,20,50, 6	
		40,12,58, 2, 3,51, 9		2,56
8″	56,50,40,21,21,30,13,14,59,52		4, 9,20,53, 2	
		40,12,53,52,42,58, 7		2,56
10″	56,50,41, 1,34,24, 5,57,57,59		4, 9,20,55,58	
		40,12,49,43,22, 2, 9		2,56
12″	56,50,41,41,47,13,49,20, 0, 8		4, 9,20,58,54	
		40,12,45,34, 1, 3,15		2,56
14″	56,50,42,21,59,59,23,21, 3,23		4, 9,21, 1,50	
		40,12,41,24,40, 1,25		2,56
16″	56,50,43, 2,12,40,48, 1, 4,48		4, 9,21, 4,46	
		40,12,37,15,18,56,39		2,56
18″	56,50,43,42,25,18, 3,20, 1,27		4, 9,21, 7,42	
		40,12,33, 5,57,48,57		2,56
20″	56,50,44,22,37,51, 9,17,50,24		4, 9,21,10,38	
		40,12,28,56,36,38,19		2,56
22″	56,50,45, 2,50,20, 5,54,28,43		4, 9,21,13,34	
		40,12,24,47,15,24,45		2,56
24″	56,50,45,43, 2,44,53, 9,53,28		4, 9,21,16,30	
		40,12,20,37,54, 8,15		2,56
26″	56,50,46,23,15, 5,31, 4, 1,43		4, 9,21,19,26	
		40,12,16,28,32,48,49		2,56
28″	56,50,47, 3,27,21,59,36,50,32		4, 9,21,22,22	
		40,12,12,19,11,26,27		2,56
30″	56,50,47,43,39,34,18,48,16,59		4, 9,21,25,18	
		40,12, 8, 9,50, 1, 9		2,56
32″	56,50,48,23,51,42,28,38,18, 8		4, 9,21,28,14	
		40,12, 4, 0,28,32,55		2,56
34″	56,50,49, 4, 3,46,29, 6,51, 3		4, 9,21,31,10	
		40,11,59,51, 7, 1,45		2,56
36″	56,50,49,44,15,46,20,13,52,48		4, 9,21,34, 6	
		40,11,55,41,45,27,39		2,56
38″	56,50,50,24,27,42, 1,59,20,27		4, 9,21,37, 2	
		40,11,51,32,23,50,37		2,56
40″	56,50,51, 4,39,33,34,23,11, 4		4, 9,21,39,58	
		40,11,47,23, 2,10,39		2,56
42″	56,50,51,44,51,20,57,25,21,43		4, 9,21,42,54	
		40,11,43,13,40,27,45		2,56
44″	56,50,52,25, 3, 4,11, 5,49,28		4, 9,21,45,50	
		40,11,39, 4,18,41,55		2,56
46″	56,50,53, 5,14,43,15,24,31,23		4, 9,21,48,46	
		40,11,34,54,56,53, 9		2,56
48″	56,50,53,45,26,18,10,21,24,32		4, 9,21,51,42	
		40,11,30,45,35, 1,27		2,56
50″	56,50,54,25,37,48,55,56,25,59		4, 9,21,54,38	
		40,11,26,36,13, 6,49		2,56
52″	56,50,55, 5,49,15,32, 9,32,48		4, 9,21,57,34	
		40,11,22,26,51, 9,15		2,56
54″	56,50,55,46, 0,37,59, 0,42, 3		4, 9,22, 0,30	
		40,11,18,17,29, 8,45		2,56
56″	56,50,56,26,11,56,16,29,50,48		4, 9,22, 3,26	
		40,11,14, 8, 7, 5,19		2,56
58″	56,50,57, 6,23,10,24,36,56, 7		4, 9,22, 6,22	
		40,11, 9,58,44,58,57		
60″	56,50,57,46,34,20,23,21,55, 4			
exact	56,50,57,46,34,20,23,21,31,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°21′ 0″	56,50,57,46,34,20,23,21,31,43			
		40,11, 5,49,22,47, 9		
2″	56,50,58,26,45,26,12,44,18,52		4, 9,22,12,24	
		40,11, 1,40, 0,34,45		2,56
4″	56,50,59, 6,56,27,52,44,53,37		4, 9,22,15,20	
		40,10,57,30,38,19,25		2,56
6″	56,50,59,47, 7,25,23,23,13, 2		4, 9,22,18,16	
		40,10,53,21,16, 1, 9		2,56
8″	56,51, 0,27,18,18,44,39,14,11		4, 9,22,21,12	
		40,10,49,11,53,39,57		2,56
10″	56,51, 1, 7,29, 7,56,32,54, 8		4, 9,22,24, 8	
		40,10,45, 2,31,15,49		2,56
12″	56,51, 1,47,39,52,59, 4, 9,57		4, 9,22,27, 4	
		40,10,40,53, 8,48,45		2,56
14″	56,51, 2,27,50,33,52,12,58,42		4, 9,22,30, 0	
		40,10,36,43,46,18,45		2,56
16″	56,51, 3, 8, 1,10,35,59,17,27		4, 9,22,32,56	
		40,10,32,34,23,45,49		2,56
18″	56,51, 3,48,11,43,10,23, 3,16		4, 9,22,35,52	
		40,10,28,25, 1, 9,57		2,56
20″	56,51, 4,28,22,11,35,24,13,13		4, 9,22,38,48	
		40,10,24,15,38,31, 9		2,56
22″	56,51, 5, 8,32,35,51, 2,44,22		4, 9,22,41,44	
		40,10,20, 6,15,49,25		2,56
24″	56,51, 5,48,42,55,57,18,33,47		4, 9,22,44,40	
		40,10,15,56,53, 4,45		2,56
26″	56,51, 6,28,53,11,54,11,38,32		4, 9,22,47,36	
		40,10,11,47,30,17, 9		2,56
28″	56,51, 7, 9, 3,23,41,41,55,41		4, 9,22,50,32	
		40,10, 7,38, 7,26,37		2,56
30″	56,51, 7,49,13,31,19,49,22,18		4, 9,22,53,28	
		40,10, 3,28,44,33, 9		2,56
32″	56,51, 8,29,23,34,48,33,55,27		4, 9,22,56,24	
		40, 9,59,19,21,36,45		2,56
34″	56,51, 9, 9,33,34, 7,55,32,12		4, 9,22,59,20	
		40, 9,55, 9,58,37,25		2,56
36″	56,51, 9,49,43,29,17,54, 9,37		4, 9,23, 2,16	
		40, 9,51, 0,35,35, 9		2,56
38″	56,51,10,29,53,20,18,29,44,46		4, 9,23, 5,12	
		40, 9,46,51,12,29,57		2,56
40″	56,51,11,10, 3, 7, 9,42,14,43		4, 9,23, 8, 8	
		40, 9,42,41,49,21,49		2,56
42″	56,51,11,50,12,49,51,31,36,32		4, 9,23,11, 4	
		40, 9,38,32,26,10,45		2,56
44″	56,51,12,30,22,28,23,57,47,17		4, 9,23,14, 0	
		40, 9,34,23, 2,56,45		2,56
46″	56,51,13,10,32, 2,47, 0,44, 2		4, 9,23,16,56	
		40, 9,30,13,39,39,49		2,56
48″	56,51,13,50,41,33, 0,40,23,51		4, 9,23,19,52	
		40, 9,26, 4,16,19,57		2,56
50″	56,51,14,30,50,59, 4,56,43,48		4, 9,23,22,48	
		40, 9,21,54,52,57, 9		2,56
52″	56,51,15,11, 0,20,59,49,40,57		4, 9,23,25,44	
		40, 9,17,45,29,31,25		2,56
54″	56,51,15,51, 9,38,45,19,12,22		4, 9,23,28,40	
		40, 9,13,36, 6, 2,45		2,56
56″	56,51,16,31,18,52,21,25,15, 7		4, 9,23,31,36	
		40, 9, 9,26,42,31, 9		2,56
58″	56,51,17,11,28, 1,48, 7,46,16		4, 9,23,34,32	
		40, 9, 5,17,18,56,37		
60″	56,51,17,51,37, 7, 5,26,42,53			
exact	56,51,17,51,37, 7, 5,26,27,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°22′ 0″	56,51,17,51,37, 7, 5,26,27,14			
		40, 9, 1, 7,55,17,34		
2″	56,51,18,31,46, 8,13,21,44,48		4, 9,23,40,30	
		40, 8,56,58,31,37, 4		2,56
4″	56,51,19,11,55, 5,11,53,21,52		4, 9,23,43,26	
		40, 8,52,49, 7,53,38		2,56
6″	56,51,19,52, 3,58, 1, 1,15,30		4, 9,23,46,22	
		40, 8,48,39,44, 7,16		2,56
8″	56,51,20,32,12,46,40,45,22,46		4, 9,23,49,18	
		40, 8,44,30,20,17,58		2,56
10″	56,51,21,12,21,31,11, 5,40,44		4, 9,23,52,14	
		40, 8,40,20,56,25,44		2,56
12″	56,51,21,52,30,11,32, 2, 6,28		4, 9,23,55,10	
		40, 8,36,11,32,30,34		2,56
14″	56,51,22,32,38,47,43,34,37, 2		4, 9,23,58, 6	
		40, 8,32, 2, 8,32,28		2,56
16″	56,51,23,12,47,19,45,43, 9,30		4, 9,24, 1, 2	
		40, 8,27,52,44,31,26		2,56
18″	56,51,23,52,55,47,38,27,40,56		4, 9,24, 3,58	
		40, 8,23,43,20,27,28		2,56
20″	56,51,24,33, 4,11,21,48, 8,24		4, 9,24, 6,54	
		40, 8,19,33,56,20,34		2,56
22″	56,51,25,13,12,30,55,44,28,58		4, 9,24, 9,50	
		40, 8,15,24,32,10,44		2,56
24″	56,51,25,53,20,46,20,16,39,42		4, 9,24,12,46	
		40, 8,11,15, 7,57,58		2,56
26″	56,51,26,33,28,57,35,24,37,40		4, 9,24,15,42	
		40, 8, 7, 5,43,42,16		2,56
28″	56,51,27,13,37, 4,41, 8,19,56		4, 9,24,18,38	
		40, 8, 2,56,19,23,38		2,56
30″	56,51,27,53,45, 7,37,27,43,34		4, 9,24,21,34	
		40, 7,58,46,55, 2, 4		2,56
32″	56,51,28,33,53, 6,24,22,45,38		4, 9,24,24,30	
		40, 7,54,37,30,37,34		2,56
34″	56,51,29,14, 1, 1, 1,53,23,12		4, 9,24,27,26	
		40, 7,50,28, 6,10, 8		2,56
36″	56,51,29,54, 8,51,29,59,33,20		4, 9,24,30,22	
		40, 7,46,18,41,39,46		2,56
38″	56,51,30,34,16,37,48,41,13, 6		4, 9,24,33,18	
		40, 7,42, 9,17, 6,28		2,56
40″	56,51,31,14,24,19,57,58,19,34		4, 9,24,36,14	
		40, 7,37,59,52,30,14		2,56
42″	56,51,31,54,31,57,57,50,49,48		4, 9,24,39,10	
		40, 7,33,50,27,51, 4		2,56
44″	56,51,32,34,39,31,48,18,40,52		4, 9,24,42, 6	
		40, 7,29,41, 3, 8,58		2,56
46″	56,51,33,14,47, 1,29,21,49,50		4, 9,24,45, 2	
		40, 7,25,31,38,23,56		2,56
48″	56,51,33,54,54,27, 1, 0,13,46		4, 9,24,47,58	
		40, 7,21,22,13,35,58		2,56
50″	56,51,34,35, 1,48,23,13,49,44		4, 9,24,50,54	
		40, 7,17,12,48,45, 4		2,56
52″	56,51,35,15, 9, 5,36, 2,34,48		4, 9,24,53,50	
		40, 7,13, 3,23,51,14		2,56
54″	56,51,35,55,16,18,39,26,26, 2		4, 9,24,56,46	
		40, 7, 8,53,58,54,28		2,56
56″	56,51,36,35,23,27,33,25,20,30		4, 9,24,59,42	
		40, 7, 4,44,33,54,46		2,56
58″	56,51,37,15,30,32,17,59,15,16		4, 9,25, 2,38	
		40, 7, 0,35, 8,52, 8		
60″	56,51,37,55,37,32,53, 8, 7,24			
exact	56,51,37,55,37,32,53, 8, 4, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°23′ 0″	56,51,37,55,37,32,53, 8, 4, 4			
		40, 6,56,25,43,46,13		
2″	56,51,38,35,44,29,18,51,50,17		4, 9,25, 8,31	
		40, 6,52,16,18,37,42		2,56
4″	56,51,39,15,51,21,35,10,27,59		4, 9,25,11,27	
		40, 6,48, 6,53,26,15		2,56
6″	56,51,39,55,58, 9,42, 3,54,14		4, 9,25,14,23	
		40, 6,43,57,28,11,52		2,56
8″	56,51,40,36, 4,53,39,32, 6, 6		4, 9,25,17,19	
		40, 6,39,48, 2,54,33		2,56
10″	56,51,41,16,11,33,27,35, 0,39		4, 9,25,20,15	
		40, 6,35,38,37,34,18		2,56
12″	56,51,41,56,18, 9, 6,12,34,57		4, 9,25,23,11	
		40, 6,31,29,12,11, 7		2,56
14″	56,51,42,36,24,40,35,24,46, 4		4, 9,25,26, 7	
		40, 6,27,19,46,45, 0		2,56
16″	56,51,43,16,31, 7,55,11,31, 4		4, 9,25,29, 3	
		40, 6,23,10,21,15,57		2,56
18″	56,51,43,56,37,31, 5,32,47, 1		4, 9,25,31,59	
		40, 6,19, 0,55,43,58		2,56
20″	56,51,44,36,43,50, 6,28,30,59		4, 9,25,34,55	
		40, 6,14,51,30, 9, 3		2,56
22″	56,51,45,16,50, 4,57,58,40, 2		4, 9,25,37,51	
		40, 6,10,42, 4,31,12		2,56
24″	56,51,45,56,56,15,40, 3,11,14		4, 9,25,40,47	
		40, 6, 6,32,38,50,25		2,56
26″	56,51,46,37, 2,22,12,42, 1,39		4, 9,25,43,43	
		40, 6, 2,23,13, 6,42		2,56
28″	56,51,47,17, 8,24,35,55, 8,21		4, 9,25,46,39	
		40, 5,58,13,47,20, 3		2,56
30″	56,51,47,57,14,22,49,42,28,24		4, 9,25,49,35	
		40, 5,54, 4,21,30,28		2,56
32″	56,51,48,37,20,16,54, 3,58,52		4, 9,25,52,31	
		40, 5,49,54,55,37,57		2,56
34″	56,51,49,17,26, 6,48,59,36,49		4, 9,25,55,27	
		40, 5,45,45,29,42,30		2,56
36″	56,51,49,57,31,52,34,29,19,19		4, 9,25,58,23	
		40, 5,41,36, 3,44, 7		2,56
38″	56,51,50,37,37,34,10,33, 3,26		4, 9,26, 1,19	
		40, 5,37,26,37,42,48		2,56
40″	56,51,51,17,43,11,37,10,46,14		4, 9,26, 4,15	
		40, 5,33,17,11,38,33		2,56
42″	56,51,51,57,48,44,54,22,24,47		4, 9,26, 7,11	
		40, 5,29, 7,45,31,22		2,56
44″	56,51,52,37,54,14, 2, 7,56, 9		4, 9,26,10, 7	
		40, 5,24,58,19,21,15		2,56
46″	56,51,53,17,59,39, 0,27,17,24		4, 9,26,13, 3	
		40, 5,20,48,53, 8,12		2,56
48″	56,51,53,58, 4,59,49,20,25,36		4, 9,26,15,59	
		40, 5,16,39,26,52,13		2,56
50″	56,51,54,38,10,16,28,47,17,49		4, 9,26,18,55	
		40, 5,12,30, 0,33,18		2,56
52″	56,51,55,18,15,28,58,47,51, 7		4, 9,26,21,51	
		40, 5, 8,20,34,11,27		2,56
54″	56,51,55,58,20,37,19,22, 2,34		4, 9,26,24,47	
		40, 5, 4,11, 7,46,40		2,56
56″	56,51,56,38,25,41,30,29,49,14		4, 9,26,27,43	
		40, 5, 0, 1,41,18,57		2,56
58″	56,51,57,18,30,41,32,11, 8,11		4, 9,26,30,39	
		40, 4,55,52,14,48,18		
60″	56,51,57,58,35,37,24,25,56,29			
exact	56,51,57,58,35,37,24,26, 1,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°24′ 0″	56,51,57,58,35,37,24,26, 1,45			
		40, 4,51,42,48,15,21		
2″	56,51,58,38,40,29, 7,14,17, 6		4, 9,26,36,28	
		40, 4,47,33,21,38,53		2,56
4″	56,51,59,18,45,16,40,35,55,59		4, 9,26,39,24	
		40, 4,43,23,54,59,29		2,56
6″	56,51,59,58,50, 0, 4,30,55,28		4, 9,26,42,20	
		40, 4,39,14,28,17, 9		2,56
8″	56,52, 0,38,54,39,18,59,12,37		4, 9,26,45,16	
		40, 4,35, 5, 1,31,53		2,56
10″	56,52, 1,18,59,14,24, 0,44,30		4, 9,26,48,12	
		40, 4,30,55,34,43,41		2,56
12″	56,52, 1,59, 3,45,19,35,28,11		4, 9,26,51, 8	
		40, 4,26,46, 7,52,33		2,56
14″	56,52, 2,39, 8,12, 5,43,20,44		4, 9,26,54, 4	
		40, 4,22,36,40,58,29		2,56
16″	56,52, 3,19,12,34,42,24,19,13		4, 9,26,57, 0	
		40, 4,18,27,14, 1,29		2,56
18″	56,52, 3,59,16,53, 9,38,20,42		4, 9,26,59,56	
		40, 4,14,17,47, 1,33		2,56
20″	56,52, 4,39,21, 7,27,25,22,15		4, 9,27, 2,52	
		40, 4,10, 8,19,58,41		2,56
22″	56,52, 5,19,25,17,35,45,20,56		4, 9,27, 5,48	
		40, 4, 5,58,52,52,53		2,56
24″	56,52, 5,59,29,23,34,38,13,49		4, 9,27, 8,44	
		40, 4, 1,49,25,44, 9		2,56
26″	56,52, 6,39,33,25,24, 3,57,58		4, 9,27,11,40	
		40, 3,57,39,58,32,29		2,56
28″	56,52, 7,19,37,23, 4, 2,30,27		4, 9,27,14,36	
		40, 3,53,30,31,17,53		2,56
30″	56,52, 7,59,41,16,34,33,48,20		4, 9,27,17,32	
		40, 3,49,21, 4, 0,21		2,56
32″	56,52, 8,39,45, 5,55,37,48,41		4, 9,27,20,28	
		40, 3,45,11,36,39,53		2,56
34″	56,52, 9,19,48,51, 7,14,28,34		4, 9,27,23,24	
		40, 3,41, 2, 9,16,29		2,56
36″	56,52, 9,59,52,32, 9,23,45, 3		4, 9,27,26,20	
		40, 3,36,52,41,50, 9		2,56
38″	56,52,10,39,56, 9, 2, 5,35,12		4, 9,27,29,16	
		40, 3,32,43,14,20,53		2,56
40″	56,52,11,19,59,41,45,19,56, 5		4, 9,27,32,12	
		40, 3,28,33,46,48,41		2,56
42″	56,52,12, 0, 3,10,19, 6,44,46		4, 9,27,35, 8	
		40, 3,24,24,19,13,33		2,56
44″	56,52,12,40, 6,34,43,25,58,19		4, 9,27,38, 4	
		40, 3,20,14,51,35,29		2,56
46″	56,52,13,20, 9,54,58,17,33,48		4, 9,27,41, 0	
		40, 3,16, 5,23,54,29		2,56
48″	56,52,14, 0,13,11, 3,41,28,17		4, 9,27,43,56	
		40, 3,11,55,56,10,33		2,56
50″	56,52,14,40,16,22,59,37,38,50		4, 9,27,46,52	
		40, 3, 7,46,28,23,41		2,56
52″	56,52,15,20,19,30,46, 6, 2,31		4, 9,27,49,48	
		40, 3, 3,37, 0,33,53		2,56
54″	56,52,16, 0,22,34,23, 6,36,24		4, 9,27,52,44	
		40, 2,59,27,32,41, 9		2,56
56″	56,52,16,40,25,33,50,39,17,33		4, 9,27,55,40	
		40, 2,55,18, 4,45,29		2,56
58″	56,52,17,20,28,29, 8,44, 3, 2		4, 9,27,58,36	
		40, 2,51, 8,36,46,53		
60″	56,52,18, 0,31,20,17,20,49,55			
exact	56,52,18, 0,31,20,17,21, 8, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°25′ 0″	56,52,18, 0,31,20,17,21, 8, 8			
		40, 2,46,59, 8,47,16		
2″	56,52,18,40,34, 7,16,29,55,24		4, 9,28, 4,20	
		40, 2,42,49,40,42,56		2,56
4″	56,52,19,20,36,50, 6,10,38,20		4, 9,28, 7,16	
		40, 2,38,40,12,35,40		2,56
6″	56,52,20, 0,39,28,46,23,14, 0		4, 9,28,10,12	
		40, 2,34,30,44,25,28		2,56
8″	56,52,20,40,42, 3,17, 7,39,28		4, 9,28,13, 8	
		40, 2,30,21,16,12,20		2,56
10″	56,52,21,20,44,33,38,23,51,48		4, 9,28,16, 4	
		40, 2,26,11,47,56,16		2,56
12″	56,52,22, 0,46,59,50,11,48, 4		4, 9,28,19, 0	
		40, 2,22, 2,19,37,16		2,56
14″	56,52,22,40,49,21,52,31,25,20		4, 9,28,21,56	
		40, 2,17,52,51,15,20		2,56
16″	56,52,23,20,51,39,45,22,40,40		4, 9,28,24,52	
		40, 2,13,43,22,50,28		2,56
18″	56,52,24, 0,53,53,28,45,31, 8		4, 9,28,27,48	
		40, 2, 9,33,54,22,40		2,56
20″	56,52,24,40,56, 3, 2,39,53,48		4, 9,28,30,44	
		40, 2, 5,24,25,51,56		2,56
22″	56,52,25,20,58, 8,27, 5,45,44		4, 9,28,33,40	
		40, 2, 1,14,57,18,16		2,56
24″	56,52,26, 1, 0, 9,42, 3, 4, 0		4, 9,28,36,36	
		40, 1,57, 5,28,41,40		2,56
26″	56,52,26,41, 2, 6,47,31,45,40		4, 9,28,39,32	
		40, 1,52,56, 0, 2, 8		2,56
28″	56,52,27,21, 3,59,43,31,47,48		4, 9,28,42,28	
		40, 1,48,46,31,19,40		2,56
30″	56,52,28, 1, 5,48,30, 3, 7,28		4, 9,28,45,24	
		40, 1,44,37, 2,34,16		2,56
32″	56,52,28,41, 7,33, 7, 5,41,44		4, 9,28,48,20	
		40, 1,40,27,33,45,56		2,56
34″	56,52,29,21, 9,13,34,39,27,40		4, 9,28,51,16	
		40, 1,36,18, 4,54,40		2,56
36″	56,52,30, 1,10,49,52,44,22,20		4, 9,28,54,12	
		40, 1,32, 8,36, 0,28		2,56
38″	56,52,30,41,12,22, 1,20,22,48		4, 9,28,57, 8	
		40, 1,27,59, 7, 3,20		2,56
40″	56,52,31,21,13,50, 0,27,26, 8		4, 9,29, 0, 4	
		40, 1,23,49,38, 3,16		2,56
42″	56,52,32, 1,15,13,50, 5,29,24		4, 9,29, 3, 0	
		40, 1,19,40, 9, 0,16		2,56
44″	56,52,32,41,16,33,30,14,29,40		4, 9,29, 5,56	
		40, 1,15,30,39,54,20		2,56
46″	56,52,33,21,17,49, 0,54,24, 0		4, 9,29, 8,52	
		40, 1,11,21,10,45,28		2,56
48″	56,52,34, 1,19, 0,22, 5, 9,28		4, 9,29,11,48	
		40, 1, 7,11,41,33,40		2,56
50″	56,52,34,41,20, 7,33,46,43, 8		4, 9,29,14,44	
		40, 1, 3, 2,12,18,56		2,56
52″	56,52,35,21,21,10,35,59, 2, 4		4, 9,29,17,40	
		40, 0,58,52,43, 1,16		2,56
54″	56,52,36, 1,22, 9,28,42, 3,20		4, 9,29,20,36	
		40, 0,54,43,13,40,40		2,56
56″	56,52,36,41,23, 4,11,55,44, 0		4, 9,29,23,32	
		40, 0,50,33,44,17, 8		2,56
58″	56,52,37,21,23,54,45,40, 1, 8		4, 9,29,26,28	
		40, 0,46,24,14,50,40		
60″	56,52,38, 1,24,41, 9,54,51,48			
exact	56,52,38, 1,24,41, 9,55,19,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°26′ 0″	56,52,38, 1,24,41, 9,55,19,30			
		40, 0,42,14,45,24,14		
2″	56,52,38,41,25,23,24,40,43,44		4, 9,29,32, 7	
		40, 0,38, 5,15,52, 7		2,56
4″	56,52,39,21,26, 1,29,56,35,51		4, 9,29,35, 3	
		40, 0,33,55,46,17, 4		2,56
6″	56,52,40, 1,26,35,25,42,52,55		4, 9,29,37,59	
		40, 0,29,46,16,39, 5		2,56
8″	56,52,40,41,27, 5,11,59,32, 0		4, 9,29,40,55	
		40, 0,25,36,46,58,10		2,56
10″	56,52,41,21,27,30,48,46,30,10		4, 9,29,43,51	
		40, 0,21,27,17,14,19		2,56
12″	56,52,42, 1,27,52,16, 3,44,29		4, 9,29,46,47	
		40, 0,17,17,47,27,32		2,56
14″	56,52,42,41,28, 9,33,51,12, 1		4, 9,29,49,43	
		40, 0,13, 8,17,37,49		2,56
16″	56,52,43,21,28,22,42, 8,49,50		4, 9,29,52,39	
		40, 0, 8,58,47,45,10		2,56
18″	56,52,44, 1,28,31,40,56,35, 0		4, 9,29,55,35	
		40, 0, 4,49,17,49,35		2,56
20″	56,52,44,41,28,36,30,14,24,35		4, 9,29,58,31	
		40, 0, 0,39,47,51, 4		2,56
22″	56,52,45,21,28,37,10, 2,15,39		4, 9,30, 1,27	
		39,59,56,30,17,49,37		2,56
24″	56,52,46, 1,28,33,40,20, 5,16		4, 9,30, 4,23	
		39,59,52,20,47,45,14		2,56
26″	56,52,46,41,28,26, 1, 7,50,30		4, 9,30, 7,19	
		39,59,48,11,17,37,55		2,56
28″	56,52,47,21,28,14,12,25,28,25		4, 9,30,10,15	
		39,59,44, 1,47,27,40		2,56
30″	56,52,48, 1,27,58,14,12,56, 5		4, 9,30,13,11	
		39,59,39,52,17,14,29		2,56
32″	56,52,48,41,27,38, 6,30,10,34		4, 9,30,16, 7	
		39,59,35,42,46,58,22		2,56
34″	56,52,49,21,27,13,49,17, 8,56		4, 9,30,19, 3	
		39,59,31,33,16,39,19		2,56
36″	56,52,50, 1,26,45,22,33,48,15		4, 9,30,21,59	
		39,59,27,23,46,17,20		2,56
38″	56,52,50,41,26,12,46,20, 5,35		4, 9,30,24,55	
		39,59,23,14,15,52,25		2,56
40″	56,52,51,21,25,36, 0,35,58, 0		4, 9,30,27,51	
		39,59,19, 4,45,24,34		2,56
42″	56,52,52, 1,24,55, 5,21,22,34		4, 9,30,30,47	
		39,59,14,55,14,53,47		2,56
44″	56,52,52,41,24,10, 0,36,16,21		4, 9,30,33,43	
		39,59,10,45,44,20, 4		2,56
46″	56,52,53,21,23,20,46,20,36,25		4, 9,30,36,39	
		39,59, 6,36,13,43,25		2,56
48″	56,52,54, 1,22,27,22,34,19,50		4, 9,30,39,35	
		39,59, 2,26,43, 3,50		2,56
50″	56,52,54,41,21,29,49,17,23,40		4, 9,30,42,31	
		39,58,58,17,12,21,19		2,56
52″	56,52,55,21,20,28, 6,29,44,59		4, 9,30,45,27	
		39,58,54, 7,41,35,52		2,56
54″	56,52,56, 1,19,22,14,11,20,51		4, 9,30,48,23	
		39,58,49,58,10,47,29		2,56
56″	56,52,56,41,18,12,12,22, 8,20		4, 9,30,51,19	
		39,58,45,48,39,56,10		2,56
58″	56,52,57,21,16,58, 1, 2, 4,30		4, 9,30,54,15	
		39,58,41,39, 9, 1,55		
60″	56,52,58, 1,15,39,40,11, 6,25			
exact	56,52,58, 1,15,39,40,11,40,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°27′ 0″	56,52,58, 1,15,39,40,11,40,31			
		39,58,37,29,38, 8,32		
2″	56,52,58,41,14,17, 9,49,49, 3		4, 9,30,59,50	
		39,58,33,20, 7, 8,42		2,55
4″	56,52,59,21,12,50,29,56,57,45		4, 9,31, 2,45	
		39,58,29,10,36, 5,57		2,55
6″	56,53, 0, 1,11,19,40,33, 3,42		4, 9,31, 5,40	
		39,58,25, 1, 5, 0,17		2,55
8″	56,53, 0,41, 9,44,41,38, 3,59		4, 9,31, 8,35	
		39,58,20,51,33,51,42		2,55
10″	56,53, 1,21, 8, 5,33,11,55,41		4, 9,31,11,30	
		39,58,16,42, 2,40,12		2,55
12″	56,53, 2, 1, 6,22,15,14,35,53		4, 9,31,14,25	
		39,58,12,32,31,25,47		2,55
14″	56,53, 2,41, 4,34,47,46, 1,40		4, 9,31,17,20	
		39,58, 8,23, 0, 8,27		2,55
16″	56,53, 3,21, 2,43,10,46,10, 7		4, 9,31,20,15	
		39,58, 4,13,28,48,12		2,55
18″	56,53, 4, 1, 0,47,24,14,58,19		4, 9,31,23,10	
		39,58, 0, 3,57,25, 2		2,55
20″	56,53, 4,40,58,47,28,12,23,21		4, 9,31,26, 5	
		39,57,55,54,25,58,57		2,55
22″	56,53, 5,20,56,43,22,38,22,18		4, 9,31,29, 0	
		39,57,51,44,54,29,57		2,55
24″	56,53, 6, 0,54,35, 7,32,52,15		4, 9,31,31,55	
		39,57,47,35,22,58, 2		2,55
26″	56,53, 6,40,52,22,42,55,50,17		4, 9,31,34,50	
		39,57,43,25,51,23,12		2,55
28″	56,53, 7,20,50, 6, 8,47,13,29		4, 9,31,37,45	
		39,57,39,16,19,45,27		2,55
30″	56,53, 8, 0,47,45,25, 6,58,56		4, 9,31,40,40	
		39,57,35, 6,48, 4,47		2,55
32″	56,53, 8,40,45,20,31,55, 3,43		4, 9,31,43,35	
		39,57,30,57,16,21,12		2,55
34″	56,53, 9,20,42,51,29,11,24,55		4, 9,31,46,30	
		39,57,26,47,44,34,42		2,55
36″	56,53,10, 0,40,18,16,55,59,37		4, 9,31,49,25	
		39,57,22,38,12,45,17		2,55
38″	56,53,10,40,37,40,55, 8,44,54		4, 9,31,52,20	
		39,57,18,28,40,52,57		2,55
40″	56,53,11,20,34,59,23,49,37,51		4, 9,31,55,15	
		39,57,14,19, 8,57,42		2,55
42″	56,53,12, 0,32,13,42,58,35,33		4, 9,31,58,10	
		39,57,10, 9,36,59,32		2,55
44″	56,53,12,40,29,23,52,35,35, 5		4, 9,32, 1, 5	
		39,57, 6, 0, 4,58,27		2,55
46″	56,53,13,20,26,29,52,40,33,32		4, 9,32, 4, 0	
		39,57, 1,50,32,54,27		2,55
48″	56,53,14, 0,23,31,43,13,27,59		4, 9,32, 6,55	
		39,56,57,41, 0,47,32		2,55
50″	56,53,14,40,20,29,24,14,15,31		4, 9,32, 9,50	
		39,56,53,31,28,37,42		2,55
52″	56,53,15,20,17,22,55,42,53,13		4, 9,32,12,45	
		39,56,49,21,56,24,57		2,55
54″	56,53,16, 0,14,12,17,39,18,10		4, 9,32,15,40	
		39,56,45,12,24, 9,17		2,55
56″	56,53,16,40,10,57,30, 3,27,27		4, 9,32,18,35	
		39,56,41, 2,51,50,42		2,55
58″	56,53,17,20, 7,38,32,55,18, 9		4, 9,32,21,30	
		39,56,36,53,19,29,12		
60″	56,53,18, 0, 4,15,26,14,47,21			
exact	56,53,18, 0, 4,15,26,14,24,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°28′ 0″	56,53,18, 0, 4,15,26,14,24,15			
		39,56,32,43,47, 2,27		
2″	56,53,18,40, 0,48,10, 1,26,42		4, 9,32,27,29	
		39,56,28,34,14,34,58		2,55
4″	56,53,19,19,57,16,44,16, 1,40		4, 9,32,30,24	
		39,56,24,24,42, 4,34		2,55
6″	56,53,19,59,53,41, 8,58, 6,14		4, 9,32,33,19	
		39,56,20,15, 9,31,15		2,55
8″	56,53,20,39,50, 1,24, 7,37,29		4, 9,32,36,14	
		39,56,16, 5,36,55, 1		2,55
10″	56,53,21,19,46,17,29,44,32,30		4, 9,32,39, 9	
		39,56,11,56, 4,15,52		2,55
12″	56,53,21,59,42,29,25,48,48,22		4, 9,32,42, 4	
		39,56, 7,46,31,33,48		2,55
14″	56,53,22,39,38,37,12,20,22,10		4, 9,32,44,59	
		39,56, 3,36,58,48,49		2,55
16″	56,53,23,19,34,40,49,19,10,59		4, 9,32,47,54	
		39,55,59,27,26, 0,55		2,55
18″	56,53,23,59,30,40,16,45,11,54		4, 9,32,50,49	
		39,55,55,17,53,10, 6		2,55
20″	56,53,24,39,26,35,34,38,22, 0		4, 9,32,53,44	
		39,55,51, 8,20,16,22		2,55
22″	56,53,25,19,22,26,42,58,38,22		4, 9,32,56,39	
		39,55,46,58,47,19,43		2,55
24″	56,53,25,59,18,13,41,45,58, 5		4, 9,32,59,34	
		39,55,42,49,14,20, 9		2,55
26″	56,53,26,39,13,56,31, 0,18,14		4, 9,33, 2,29	
		39,55,38,39,41,17,40		2,55
28″	56,53,27,19, 9,35,10,41,35,54		4, 9,33, 5,24	
		39,55,34,30, 8,12,16		2,55
30″	56,53,27,59, 5, 9,40,49,48,10		4, 9,33, 8,19	
		39,55,30,20,35, 3,57		2,55
32″	56,53,28,39, 0,40, 1,24,52, 7		4, 9,33,11,14	
		39,55,26,11, 1,52,43		2,55
34″	56,53,29,18,56, 6,12,26,44,50		4, 9,33,14, 9	
		39,55,22, 1,28,38,34		2,55
36″	56,53,29,58,51,28,13,55,23,24		4, 9,33,17, 4	
		39,55,17,51,55,21,30		2,55
38″	56,53,30,38,46,46, 5,50,44,54		4, 9,33,19,59	
		39,55,13,42,22, 1,31		2,55
40″	56,53,31,18,41,59,48,12,46,25		4, 9,33,22,54	
		39,55, 9,32,48,38,37		2,55
42″	56,53,31,58,37, 9,21, 1,25, 2		4, 9,33,25,49	
		39,55, 5,23,15,12,48		2,55
44″	56,53,32,38,32,14,44,16,37,50		4, 9,33,28,44	
		39,55, 1,13,41,44, 4		2,55
46″	56,53,33,18,27,15,57,58,21,54		4, 9,33,31,39	
		39,54,57, 4, 8,12,25		2,55
48″	56,53,33,58,22,13, 2, 6,34,19		4, 9,33,34,34	
		39,54,52,54,34,37,51		2,55
50″	56,53,34,38,17, 5,56,41,12,10		4, 9,33,37,29	
		39,54,48,45, 1, 0,22		2,55
52″	56,53,35,18,11,54,41,42,12,32		4, 9,33,40,24	
		39,54,44,35,27,19,58		2,55
54″	56,53,35,58, 6,39,17, 9,32,30		4, 9,33,43,19	
		39,54,40,25,53,36,39		2,55
56″	56,53,36,38, 1,19,43, 3, 9, 9		4, 9,33,46,14	
		39,54,36,16,19,50,25		2,55
58″	56,53,37,17,55,55,59,22,59,34		4, 9,33,49, 9	
		39,54,32, 6,46, 1,16		
60″	56,53,37,57,50,28, 6, 9, 0,50			
exact	56,53,37,57,50,28, 6, 8,52,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°29′ 0″	56,53,37,57,50,28, 6, 8,52,10			
		39,54,27,57,12, 8,16		
2″	56,53,38,37,44,56, 3,21, 0,26		4, 9,33,55, 2	
		39,54,23,47,38,13,14		2,55
4″	56,53,39,17,39,19,50,59,13,40		4, 9,33,57,57	
		39,54,19,38, 4,15,17		2,55
6″	56,53,39,57,33,39,29, 3,28,57		4, 9,34, 0,52	
		39,54,15,28,30,14,25		2,55
8″	56,53,40,37,27,54,57,33,43,22		4, 9,34, 3,47	
		39,54,11,18,56,10,38		2,55
10″	56,53,41,17,22, 6,16,29,54, 0		4, 9,34, 6,42	
		39,54, 7, 9,22, 3,56		2,55
12″	56,53,41,57,16,13,25,51,57,56		4, 9,34, 9,37	
		39,54, 2,59,47,54,19		2,55
14″	56,53,42,37,10,16,25,39,52,15		4, 9,34,12,32	
		39,53,58,50,13,41,47		2,55
16″	56,53,43,17, 4,15,15,53,34, 2		4, 9,34,15,27	
		39,53,54,40,39,26,20		2,55
18″	56,53,43,56,58, 9,56,33, 0,22		4, 9,34,18,22	
		39,53,50,31, 5, 7,58		2,55
20″	56,53,44,36,52, 0,27,38, 8,20		4, 9,34,21,17	
		39,53,46,21,30,46,41		2,55
22″	56,53,45,16,45,46,49, 8,55, 1		4, 9,34,24,12	
		39,53,42,11,56,22,29		2,55
24″	56,53,45,56,39,29, 1, 5,17,30		4, 9,34,27, 7	
		39,53,38, 2,21,55,22		2,55
26″	56,53,46,36,33, 7, 3,27,12,52		4, 9,34,30, 2	
		39,53,33,52,47,25,20		2,55
28″	56,53,47,16,26,40,56,14,38,12		4, 9,34,32,57	
		39,53,29,43,12,52,23		2,55
30″	56,53,47,56,20,10,39,27,30,35		4, 9,34,35,52	
		39,53,25,33,38,16,31		2,55
32″	56,53,48,36,13,36,13, 5,47, 6		4, 9,34,38,47	
		39,53,21,24, 3,37,44		2,55
34″	56,53,49,16, 6,57,37, 9,24,50		4, 9,34,41,42	
		39,53,17,14,28,56, 2		2,55
36″	56,53,49,56, 0,14,51,38,20,52		4, 9,34,44,37	
		39,53,13, 4,54,11,25		2,55
38″	56,53,50,35,53,27,56,32,32,17		4, 9,34,47,32	
		39,53, 8,55,19,23,53		2,55
40″	56,53,51,15,46,36,51,51,56,10		4, 9,34,50,27	
		39,53, 4,45,44,33,26		2,55
42″	56,53,51,55,39,41,37,36,29,36		4, 9,34,53,22	
		39,53, 0,36, 9,40, 4		2,55
44″	56,53,52,35,32,42,13,46, 9,40		4, 9,34,56,17	
		39,52,56,26,34,43,47		2,55
46″	56,53,53,15,25,38,40,20,53,27		4, 9,34,59,12	
		39,52,52,16,59,44,35		2,55
48″	56,53,53,55,18,30,57,20,38, 2		4, 9,35, 2, 7	
		39,52,48, 7,24,42,28		2,55
50″	56,53,54,35,11,19, 4,45,20,30		4, 9,35, 5, 2	
		39,52,43,57,49,37,26		2,55
52″	56,53,55,15, 4, 3, 2,34,57,56		4, 9,35, 7,57	
		39,52,39,48,14,29,29		2,55
54″	56,53,55,54,56,42,50,49,27,25		4, 9,35,10,52	
		39,52,35,38,39,18,37		2,55
56″	56,53,56,34,49,18,29,28,46, 2		4, 9,35,13,47	
		39,52,31,29, 4, 4,50		2,55
58″	56,53,57,14,41,49,58,32,50,52		4, 9,35,16,42	
		39,52,27,19,28,48, 8		
60″	56,53,57,54,34,17,18, 1,39, 0			
exact	56,53,57,54,34,17,18, 1,34, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°30′ 0″	56,53,57,54,34,17,18, 1,34, 8			
		39,52,23, 9,53,28,15		
2″	56,53,58,34,26,40,27,55, 2,23		4, 9,35,22,32	
		39,52,19, 0,18, 5,43		2,55
4″	56,53,59,14,18,59,28,13, 8, 6		4, 9,35,25,27	
		39,52,14,50,42,40,16		2,55
6″	56,53,59,54,11,14,18,55,48,22		4, 9,35,28,22	
		39,52,10,41, 7,11,54		2,55
8″	56,54, 0,34, 3,25, 0, 3, 0,16		4, 9,35,31,17	
		39,52, 6,31,31,40,37		2,55
10″	56,54, 1,13,55,31,31,34,40,53		4, 9,35,34,12	
		39,52, 2,21,56, 6,25		2,55
12″	56,54, 1,53,47,33,53,30,47,18		4, 9,35,37, 7	
		39,51,58,12,20,29,18		2,55
14″	56,54, 2,33,39,32, 5,51,16,36		4, 9,35,40, 2	
		39,51,54, 2,44,49,16		2,55
16″	56,54, 3,13,31,26, 8,36, 5,52		4, 9,35,42,57	
		39,51,49,53, 9, 6,19		2,55
18″	56,54, 3,53,23,16, 1,45,12,11		4, 9,35,45,52	
		39,51,45,43,33,20,27		2,55
20″	56,54, 4,33,15, 1,45,18,32,38		4, 9,35,48,47	
		39,51,41,33,57,31,40		2,55
22″	56,54, 5,13, 6,43,19,16, 4,18		4, 9,35,51,42	
		39,51,37,24,21,39,58		2,55
24″	56,54, 5,52,58,20,43,37,44,16		4, 9,35,54,37	
		39,51,33,14,45,45,21		2,55
26″	56,54, 6,32,49,53,58,23,29,37		4, 9,35,57,32	
		39,51,29, 5, 9,47,49		2,55
28″	56,54, 7,12,41,23, 3,33,17,26		4, 9,36, 0,27	
		39,51,24,55,33,47,22		2,55
30″	56,54, 7,52,32,47,59, 7, 4,48		4, 9,36, 3,22	
		39,51,20,45,57,44, 0		2,55
32″	56,54, 8,32,24, 8,45, 4,48,48		4, 9,36, 6,17	
		39,51,16,36,21,37,43		2,55
34″	56,54, 9,12,15,25,21,26,26,31		4, 9,36, 9,12	
		39,51,12,26,45,28,31		2,55
36″	56,54, 9,52, 6,37,48,11,55, 2		4, 9,36,12, 7	
		39,51, 8,17, 9,16,24		2,55
38″	56,54,10,31,57,46, 5,21,11,26		4, 9,36,15, 2	
		39,51, 4, 7,33, 1,22		2,55
40″	56,54,11,11,48,50,12,54,12,48		4, 9,36,17,57	
		39,50,59,57,56,43,25		2,55
42″	56,54,11,51,39,50,10,50,56,13		4, 9,36,20,52	
		39,50,55,48,20,22,33		2,55
44″	56,54,12,31,30,45,59,11,18,46		4, 9,36,23,47	
		39,50,51,38,43,58,46		2,55
46″	56,54,13,11,21,37,37,55,17,32		4, 9,36,26,42	
		39,50,47,29, 7,32, 4		2,55
48″	56,54,13,51,12,25, 7, 2,49,36		4, 9,36,29,37	
		39,50,43,19,31, 2,27		2,55
50″	56,54,14,31, 3, 8,26,33,52, 3		4, 9,36,32,32	
		39,50,39, 9,54,29,55		2,55
52″	56,54,15,10,53,47,36,28,21,58		4, 9,36,35,27	
		39,50,35, 0,17,54,28		2,55
54″	56,54,15,50,44,22,36,46,16,26		4, 9,36,38,22	
		39,50,30,50,41,16, 6		2,55
56″	56,54,16,30,34,53,27,27,32,32		4, 9,36,41,17	
		39,50,26,41, 4,34,49		2,55
58″	56,54,17,10,25,20, 8,32, 7,21		4, 9,36,44,12	
		39,50,22,31,27,50,37		
60″	56,54,17,50,15,42,39,59,57,58			
exact	56,54,17,50,15,42,40, 0, 8,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°31′ 0″	56,54,17,50,15,42,40, 0, 8,27			
		39,50,18,21,51, 4,41		
2″	56,54,18,30, 6, 1, 1,51,13, 8		4, 9,36,49,57	
		39,50,14,12,14,14,44		2,55
4″	56,54,19, 9,56,15,14, 5,27,52		4, 9,36,52,52	
		39,50,10, 2,37,21,52		2,55
6″	56,54,19,49,46,25,16,42,49,44		4, 9,36,55,47	
		39,50, 5,53, 0,26, 5		2,55
8″	56,54,20,29,36,31, 9,43,15,49		4, 9,36,58,42	
		39,50, 1,43,23,27,23		2,55
10″	56,54,21, 9,26,32,53, 6,43,12		4, 9,37, 1,37	
		39,49,57,33,46,25,46		2,55
12″	56,54,21,49,16,30,26,53, 8,58		4, 9,37, 4,32	
		39,49,53,24, 9,21,14		2,55
14″	56,54,22,29, 6,23,51, 2,30,12		4, 9,37, 7,27	
		39,49,49,14,32,13,47		2,55
16″	56,54,23, 8,56,13, 5,34,43,59		4, 9,37,10,22	
		39,49,45, 4,55, 3,25		2,55
18″	56,54,23,48,45,58,10,29,47,24		4, 9,37,13,17	
		39,49,40,55,17,50, 8		2,55
20″	56,54,24,28,35,39, 5,47,37,32		4, 9,37,16,12	
		39,49,36,45,40,33,56		2,55
22″	56,54,25, 8,25,15,51,28,11,28		4, 9,37,19, 7	
		39,49,32,36, 3,14,49		2,55
24″	56,54,25,48,14,48,27,31,26,17		4, 9,37,22, 2	
		39,49,28,26,25,52,47		2,55
26″	56,54,26,28, 4,16,53,57,19, 4		4, 9,37,24,57	
		39,49,24,16,48,27,50		2,55
28″	56,54,27, 7,53,41,10,45,46,54		4, 9,37,27,52	
		39,49,20, 7,10,59,58		2,55
30″	56,54,27,47,43, 1,17,56,46,52		4, 9,37,30,47	
		39,49,15,57,33,29,11		2,55
32″	56,54,28,27,32,17,15,30,16, 3		4, 9,37,33,42	
		39,49,11,47,55,55,29		2,55
34″	56,54,29, 7,21,29, 3,26,11,32		4, 9,37,36,37	
		39,49, 7,38,18,18,52		2,55
36″	56,54,29,47,10,36,41,44,30,24		4, 9,37,39,32	
		39,49, 3,28,40,39,20		2,55
38″	56,54,30,26,59,40,10,25, 9,44		4, 9,37,42,27	
		39,48,59,19, 2,56,53		2,55
40″	56,54,31, 6,48,39,29,28, 6,37		4, 9,37,45,22	
		39,48,55, 9,25,11,31		2,55
42″	56,54,31,46,37,34,38,53,18, 8		4, 9,37,48,17	
		39,48,50,59,47,23,14		2,55
44″	56,54,32,26,26,25,38,40,41,22		4, 9,37,51,12	
		39,48,46,50, 9,32, 2		2,55
46″	56,54,33, 6,15,12,28,50,13,24		4, 9,37,54, 7	
		39,48,42,40,31,37,55		2,55
48″	56,54,33,46, 3,55, 9,21,51,19		4, 9,37,57, 2	
		39,48,38,30,53,40,53		2,55
50″	56,54,34,25,52,33,40,15,32,12		4, 9,37,59,57	
		39,48,34,21,15,40,56		2,55
52″	56,54,35, 5,41, 8, 1,31,13, 8		4, 9,38, 2,52	
		39,48,30,11,37,38, 4		2,55
54″	56,54,35,45,29,38,13, 8,51,12		4, 9,38, 5,47	
		39,48,26, 1,59,32,17		2,55
56″	56,54,36,25,18, 4,15, 8,23,29		4, 9,38, 8,42	
		39,48,21,52,21,23,35		2,55
58″	56,54,37, 5, 6,26, 7,29,47, 4		4, 9,38,11,37	
		39,48,17,42,43,11,58		
60″	56,54,37,44,54,43,50,12,59, 2			
exact	56,54,37,44,54,43,50,13,21,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°32′ 0″	56,54,37,44,54,43,50,13,21,53			
		39,48,13,33, 4,59,51		
2″	56,54,38,24,42,57,23,18,21,44		4, 9,38,17,17	
		39,48, 9,23,26,42,34		2,55
4″	56,54,39, 4,31, 6,46,45, 4,18		4, 9,38,20,12	
		39,48, 5,13,48,22,22		2,55
6″	56,54,39,44,19,12, 0,33,26,40		4, 9,38,23, 7	
		39,48, 1, 4, 9,59,15		2,55
8″	56,54,40,24, 7,13, 4,43,25,55		4, 9,38,26, 2	
		39,47,56,54,31,33,13		2,55
10″	56,54,41, 3,55, 9,59,14,59, 8		4, 9,38,28,57	
		39,47,52,44,53, 4,16		2,55
12″	56,54,41,43,43, 2,44, 8, 3,24		4, 9,38,31,52	
		39,47,48,35,14,32,24		2,55
14″	56,54,42,23,30,51,19,22,35,48		4, 9,38,34,47	
		39,47,44,25,35,57,37		2,55
16″	56,54,43, 3,18,35,44,58,33,25		4, 9,38,37,42	
		39,47,40,15,57,19,55		2,55
18″	56,54,43,43, 6,16, 0,55,53,20		4, 9,38,40,37	
		39,47,36, 6,18,39,18		2,55
20″	56,54,44,22,53,52, 7,14,32,38		4, 9,38,43,32	
		39,47,31,56,39,55,46		2,55
22″	56,54,45, 2,41,24, 3,54,28,24		4, 9,38,46,27	
		39,47,27,47, 1, 9,19		2,55
24″	56,54,45,42,28,51,50,55,37,43		4, 9,38,49,22	
		39,47,23,37,22,19,57		2,55
26″	56,54,46,22,16,15,28,17,57,40		4, 9,38,52,17	
		39,47,19,27,43,27,40		2,55
28″	56,54,47, 2, 3,34,56, 1,25,20		4, 9,38,55,12	
		39,47,15,18, 4,32,28		2,55
30″	56,54,47,41,50,50,14, 5,57,48		4, 9,38,58, 7	
		39,47,11, 8,25,34,21		2,55
32″	56,54,48,21,38, 1,22,31,32, 9		4, 9,39, 1, 2	
		39,47, 6,58,46,33,19		2,55
34″	56,54,49, 1,25, 8,21,18, 5,28		4, 9,39, 3,57	
		39,47, 2,49, 7,29,22		2,55
36″	56,54,49,41,12,11,10,25,34,50		4, 9,39, 6,52	
		39,46,58,39,28,22,30		2,55
38″	56,54,50,20,59, 9,49,53,57,20		4, 9,39, 9,47	
		39,46,54,29,49,12,43		2,55
40″	56,54,51, 0,46, 4,19,43,10, 3		4, 9,39,12,42	
		39,46,50,20,10, 0, 1		2,55
42″	56,54,51,40,32,54,39,53,10, 4		4, 9,39,15,37	
		39,46,46,10,30,44,24		2,55
44″	56,54,52,20,19,40,50,23,54,28		4, 9,39,18,32	
		39,46,42, 0,51,25,52		2,55
46″	56,54,53, 0, 6,22,51,15,20,20		4, 9,39,21,27	
		39,46,37,51,12, 4,25		2,55
48″	56,54,53,39,53, 0,42,27,24,45		4, 9,39,24,22	
		39,46,33,41,32,40, 3		2,55
50″	56,54,54,19,39,34,24, 0, 4,48		4, 9,39,27,17	
		39,46,29,31,53,12,46		2,55
52″	56,54,54,59,26, 3,55,53,17,34		4, 9,39,30,12	
		39,46,25,22,13,42,34		2,55
54″	56,54,55,39,12,29,18, 7, 0, 8		4, 9,39,33, 7	
		39,46,21,12,34, 9,27		2,55
56″	56,54,56,18,58,50,30,41, 9,35		4, 9,39,36, 2	
		39,46,17, 2,54,33,25		2,55
58″	56,54,56,58,45, 7,33,35,43, 0		4, 9,39,38,57	
		39,46,12,53,14,54,28		
60″	56,54,57,38,31,20,26,50,37,28			
exact	56,54,57,38,31,20,26,51, 9,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°33′ 0″	56,54,57,38,31,20,26,51, 9,32			
		39,46, 8,43,35,16, 3		
2″	56,54,58,18,17,29,10,26,25,35		4, 9,39,44,32	
		39,46, 4,33,55,31,31		2,54
4″	56,54,58,58, 3,33,44,21,57, 6		4, 9,39,47,26	
		39,46, 0,24,15,44, 5		2,54
6″	56,54,59,37,49,34, 8,37,41,11		4, 9,39,50,20	
		39,45,56,14,35,53,45		2,54
8″	56,55, 0,17,35,30,23,13,34,56		4, 9,39,53,14	
		39,45,52, 4,56, 0,31		2,54
10″	56,55, 0,57,21,22,28, 9,35,27		4, 9,39,56, 8	
		39,45,47,55,16, 4,23		2,54
12″	56,55, 1,37, 7,10,23,25,39,50		4, 9,39,59, 2	
		39,45,43,45,36, 5,21		2,54
14″	56,55, 2,16,52,54, 9, 1,45,11		4, 9,40, 1,56	
		39,45,39,35,56, 3,25		2,54
16″	56,55, 2,56,38,33,44,57,48,36		4, 9,40, 4,50	
		39,45,35,26,15,58,35		2,54
18″	56,55, 3,36,24, 9,11,13,47,11		4, 9,40, 7,44	
		39,45,31,16,35,50,51		2,54
20″	56,55, 4,16, 9,40,27,49,38, 2		4, 9,40,10,38	
		39,45,27, 6,55,40,13		2,54
22″	56,55, 4,55,55, 7,34,45,18,15		4, 9,40,13,32	
		39,45,22,57,15,26,41		2,54
24″	56,55, 5,35,40,30,32, 0,44,56		4, 9,40,16,26	
		39,45,18,47,35,10,15		2,54
26″	56,55, 6,15,25,49,19,35,55,11		4, 9,40,19,20	
		39,45,14,37,54,50,55		2,54
28″	56,55, 6,55,11, 3,57,30,46, 6		4, 9,40,22,14	
		39,45,10,28,14,28,41		2,54
30″	56,55, 7,34,56,14,25,45,14,47		4, 9,40,25, 8	
		39,45, 6,18,34, 3,33		2,54
32″	56,55, 8,14,41,20,44,19,18,20		4, 9,40,28, 2	
		39,45, 2, 8,53,35,31		2,54
34″	56,55, 8,54,26,22,53,12,53,51		4, 9,40,30,56	
		39,44,57,59,13, 4,35		2,54
36″	56,55, 9,34,11,20,52,25,58,26		4, 9,40,33,50	
		39,44,53,49,32,30,45		2,54
38″	56,55,10,13,56,14,41,58,29,11		4, 9,40,36,44	
		39,44,49,39,51,54, 1		2,54
40″	56,55,10,53,41, 4,21,50,23,12		4, 9,40,39,38	
		39,44,45,30,11,14,23		2,54
42″	56,55,11,33,25,49,52, 1,37,35		4, 9,40,42,32	
		39,44,41,20,30,31,51		2,54
44″	56,55,12,13,10,31,12,32, 9,26		4, 9,40,45,26	
		39,44,37,10,49,46,25		2,54
46″	56,55,12,52,55, 8,23,21,55,51		4, 9,40,48,20	
		39,44,33, 1, 8,58, 5		2,54
48″	56,55,13,32,39,41,24,30,53,56		4, 9,40,51,14	
		39,44,28,51,28, 6,51		2,54
50″	56,55,14,12,24,10,15,59, 0,47		4, 9,40,54, 8	
		39,44,24,41,47,12,43		2,54
52″	56,55,14,52, 8,34,57,46,13,30		4, 9,40,57, 2	
		39,44,20,32, 6,15,41		2,54
54″	56,55,15,31,52,55,29,52,29,11		4, 9,40,59,56	
		39,44,16,22,25,15,45		2,54
56″	56,55,16,11,37,11,52,17,44,56		4, 9,41, 2,50	
		39,44,12,12,44,12,55		2,54
58″	56,55,16,51,21,24, 5, 1,57,51		4, 9,41, 5,44	
		39,44, 8, 3, 3, 7,11		
60″	56,55,17,31, 5,32, 8, 5, 5, 2			
exact	56,55,17,31, 5,32, 8, 4,35, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°34′ 0″	56,55,17,31, 5,32, 8, 4,35, 3			
		39,44, 3,53,21,55,32		
2″	56,55,18,10,49,36, 1,26,30,35		4, 9,41,11,43	
		39,43,59,43,40,43,49		2,54
4″	56,55,18,50,33,35,45, 7,14,24		4, 9,41,14,37	
		39,43,55,33,59,29,12		2,54
6″	56,55,19,30,17,31,19, 6,43,36		4, 9,41,17,31	
		39,43,51,24,18,11,41		2,54
8″	56,55,20,10, 1,22,43,24,55,17		4, 9,41,20,25	
		39,43,47,14,36,51,16		2,54
10″	56,55,20,49,45, 9,58, 1,46,33		4, 9,41,23,19	
		39,43,43, 4,55,27,57		2,54
12″	56,55,21,29,28,53, 2,57,14,30		4, 9,41,26,13	
		39,43,38,55,14, 1,44		2,54
14″	56,55,22, 9,12,31,58,11,16,14		4, 9,41,29, 7	
		39,43,34,45,32,32,37		2,54
16″	56,55,22,48,56, 6,43,43,48,51		4, 9,41,32, 1	
		39,43,30,35,51, 0,36		2,54
18″	56,55,23,28,39,37,19,34,49,27		4, 9,41,34,55	
		39,43,26,26, 9,25,41		2,54
20″	56,55,24, 8,23, 3,45,44,15, 8		4, 9,41,37,49	
		39,43,22,16,27,47,52		2,54
22″	56,55,24,48, 6,26, 2,12, 3, 0		4, 9,41,40,43	
		39,43,18, 6,46, 7, 9		2,54
24″	56,55,25,27,49,44, 8,58,10, 9		4, 9,41,43,37	
		39,43,13,57, 4,23,32		2,54
26″	56,55,26, 7,32,58, 6, 2,33,41		4, 9,41,46,31	
		39,43, 9,47,22,37, 1		2,54
28″	56,55,26,47,16, 7,53,25,10,42		4, 9,41,49,25	
		39,43, 5,37,40,47,36		2,54
30″	56,55,27,26,59,13,31, 5,58,18		4, 9,41,52,19	
		39,43, 1,27,58,55,17		2,54
32″	56,55,28, 6,42,14,59, 4,53,35		4, 9,41,55,13	
		39,42,57,18,17, 0, 4		2,54
34″	56,55,28,46,25,12,17,21,53,39		4, 9,41,58, 7	
		39,42,53, 8,35, 1,57		2,54
36″	56,55,29,26, 8, 5,25,56,55,36		4, 9,42, 1, 1	
		39,42,48,58,53, 0,56		2,54
38″	56,55,30, 5,50,54,24,49,56,32		4, 9,42, 3,55	
		39,42,44,49,10,57, 1		2,54
40″	56,55,30,45,33,39,14, 0,53,33		4, 9,42, 6,49	
		39,42,40,39,28,50,12		2,54
42″	56,55,31,25,16,19,53,29,43,45		4, 9,42, 9,43	
		39,42,36,29,46,40,29		2,54
44″	56,55,32, 4,58,56,23,16,24,14		4, 9,42,12,37	
		39,42,32,20, 4,27,52		2,54
46″	56,55,32,44,41,28,43,20,52, 6		4, 9,42,15,31	
		39,42,28,10,22,12,21		2,54
48″	56,55,33,24,23,56,53,43, 4,27		4, 9,42,18,25	
		39,42,24, 0,39,53,56		2,54
50″	56,55,34, 4, 6,20,54,22,58,23		4, 9,42,21,19	
		39,42,19,50,57,32,37		2,54
52″	56,55,34,43,48,40,45,20,31, 0		4, 9,42,24,13	
		39,42,15,41,15, 8,24		2,54
54″	56,55,35,23,30,56,26,35,39,24		4, 9,42,27, 7	
		39,42,11,31,32,41,17		2,54
56″	56,55,36, 3,13, 7,58, 8,20,41		4, 9,42,30, 1	
		39,42, 7,21,50,11,16		2,54
58″	56,55,36,42,55,15,19,58,31,57		4, 9,42,32,55	
		39,42, 3,12, 7,38,21		
60″	56,55,37,22,37,18,32, 6,10,18			
exact	56,55,37,22,37,18,32, 5,50,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°35′ 0″	56,55,37,22,37,18,32, 5,50,27			
		39,41,59, 2,25, 0,36		
2″	56,55,38, 2,19,17,34,30,51, 3		4, 9,42,38,50	
		39,41,54,52,42,21,46		2,54
4″	56,55,38,42, 1,12,27,13,12,49		4, 9,42,41,44	
		39,41,50,42,59,40, 2		2,54
6″	56,55,39,21,43, 3,10,12,52,51		4, 9,42,44,38	
		39,41,46,33,16,55,24		2,54
8″	56,55,40, 1,24,49,43,29,48,15		4, 9,42,47,32	
		39,41,42,23,34, 7,52		2,54
10″	56,55,40,41, 6,32, 7, 3,56, 7		4, 9,42,50,26	
		39,41,38,13,51,17,26		2,54
12″	56,55,41,20,48,10,20,55,13,33		4, 9,42,53,20	
		39,41,34, 4, 8,24, 6		2,54
14″	56,55,42, 0,29,44,25, 3,37,39		4, 9,42,56,14	
		39,41,29,54,25,27,52		2,54
16″	56,55,42,40,11,14,19,29, 5,31		4, 9,42,59, 8	
		39,41,25,44,42,28,44		2,54
18″	56,55,43,19,52,40, 4,11,34,15		4, 9,43, 2, 2	
		39,41,21,34,59,26,42		2,54
20″	56,55,43,59,34, 1,39,11, 0,57		4, 9,43, 4,56	
		39,41,17,25,16,21,46		2,54
22″	56,55,44,39,15,19, 4,27,22,43		4, 9,43, 7,50	
		39,41,13,15,33,13,56		2,54
24″	56,55,45,18,56,32,20, 0,36,39		4, 9,43,10,44	
		39,41, 9, 5,50, 3,12		2,54
26″	56,55,45,58,37,41,25,50,39,51		4, 9,43,13,38	
		39,41, 4,56, 6,49,34		2,54
28″	56,55,46,38,18,46,21,57,29,25		4, 9,43,16,32	
		39,41, 0,46,23,33, 2		2,54
30″	56,55,47,17,59,47, 8,21, 2,27		4, 9,43,19,26	
		39,40,56,36,40,13,36		2,54
32″	56,55,47,57,40,43,45, 1,16, 3		4, 9,43,22,20	
		39,40,52,26,56,51,16		2,54
34″	56,55,48,37,21,36,11,58, 7,19		4, 9,43,25,14	
		39,40,48,17,13,26, 2		2,54
36″	56,55,49,17, 2,24,29,11,33,21		4, 9,43,28, 8	
		39,40,44, 7,29,57,54		2,54
38″	56,55,49,56,43, 8,36,41,31,15		4, 9,43,31, 2	
		39,40,39,57,46,26,52		2,54
40″	56,55,50,36,23,48,34,27,58, 7		4, 9,43,33,56	
		39,40,35,48, 2,52,56		2,54
42″	56,55,51,16, 4,24,22,30,51, 3		4, 9,43,36,50	
		39,40,31,38,19,16, 6		2,54
44″	56,55,51,55,44,56, 0,50, 7, 9		4, 9,43,39,44	
		39,40,27,28,35,36,22		2,54
46″	56,55,52,35,25,23,29,25,43,31		4, 9,43,42,38	
		39,40,23,18,51,53,44		2,54
48″	56,55,53,15, 5,46,48,17,37,15		4, 9,43,45,32	
		39,40,19, 9, 8, 8,12		2,54
50″	56,55,53,54,46, 5,57,25,45,27		4, 9,43,48,26	
		39,40,14,59,24,19,46		2,54
52″	56,55,54,34,26,20,56,50, 5,13		4, 9,43,51,20	
		39,40,10,49,40,28,26		2,54
54″	56,55,55,14, 6,31,46,30,33,39		4, 9,43,54,14	
		39,40, 6,39,56,34,12		2,54
56″	56,55,55,53,46,38,26,27, 7,51		4, 9,43,57, 8	
		39,40, 2,30,12,37, 4		2,54
58″	56,55,56,33,26,40,56,39,44,55		4, 9,44, 0, 2	
		39,39,58,20,28,37, 2		
60″	56,55,57,13, 6,39,17, 8,21,57			
exact	56,55,57,13, 6,39,17, 8,16,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°36′ 0″	56,55,57,13, 6,39,17, 8,16,15			
		39,39,54,10,44,33,32		
2″	56,55,57,52,46,33,27,52,49,47		4, 9,44, 5,52	
		39,39,50, 1, 0,27,40		2,54
4″	56,55,58,32,26,23,28,53,17,27		4, 9,44, 8,46	
		39,39,45,51,16,18,54		2,54
6″	56,55,59,12, 6, 9,20, 9,36,21		4, 9,44,11,40	
		39,39,41,41,32, 7,14		2,54
8″	56,55,59,51,45,51, 1,41,43,35		4, 9,44,14,34	
		39,39,37,31,47,52,40		2,54
10″	56,56, 0,31,25,28,33,29,36,15		4, 9,44,17,28	
		39,39,33,22, 3,35,12		2,54
12″	56,56, 1,11, 5, 1,55,33,11,27		4, 9,44,20,22	
		39,39,29,12,19,14,50		2,54
14″	56,56, 1,50,44,31, 7,52,26,17		4, 9,44,23,16	
		39,39,25, 2,34,51,34		2,54
16″	56,56, 2,30,23,56,10,27,17,51		4, 9,44,26,10	
		39,39,20,52,50,25,24		2,54
18″	56,56, 3,10, 3,17, 3,17,43,15		4, 9,44,29, 4	
		39,39,16,43, 5,56,20		2,54
20″	56,56, 3,49,42,33,46,23,39,35		4, 9,44,31,58	
		39,39,12,33,21,24,22		2,54
22″	56,56, 4,29,21,46,19,45, 3,57		4, 9,44,34,52	
		39,39, 8,23,36,49,30		2,54
24″	56,56, 5, 9, 0,54,43,21,53,27		4, 9,44,37,46	
		39,39, 4,13,52,11,44		2,54
26″	56,56, 5,48,39,58,57,14, 5,11		4, 9,44,40,40	
		39,39, 0, 4, 7,31, 4		2,54
28″	56,56, 6,28,18,59, 1,21,36,15		4, 9,44,43,34	
		39,38,55,54,22,47,30		2,54
30″	56,56, 7, 7,57,54,55,44,23,45		4, 9,44,46,28	
		39,38,51,44,38, 1, 2		2,54
32″	56,56, 7,47,36,46,40,22,24,47		4, 9,44,49,22	
		39,38,47,34,53,11,40		2,54
34″	56,56, 8,27,15,34,15,15,36,27		4, 9,44,52,16	
		39,38,43,25, 8,19,24		2,54
36″	56,56, 9, 6,54,17,40,23,55,51		4, 9,44,55,10	
		39,38,39,15,23,24,14		2,54
38″	56,56, 9,46,32,56,55,47,20, 5		4, 9,44,58, 4	
		39,38,35, 5,38,26,10		2,54
40″	56,56,10,26,11,32, 1,25,46,15		4, 9,45, 0,58	
		39,38,30,55,53,25,12		2,54
42″	56,56,11, 5,50, 2,57,19,11,27		4, 9,45, 3,52	
		39,38,26,46, 8,21,20		2,54
44″	56,56,11,45,28,29,43,27,32,47		4, 9,45, 6,46	
		39,38,22,36,23,14,34		2,54
46″	56,56,12,25, 6,52,19,50,47,21		4, 9,45, 9,40	
		39,38,18,26,38, 4,54		2,54
48″	56,56,13, 4,45,10,46,28,52,15		4, 9,45,12,34	
		39,38,14,16,52,52,20		2,54
50″	56,56,13,44,23,25, 3,21,44,35		4, 9,45,15,28	
		39,38,10, 7, 7,36,52		2,54
52″	56,56,14,24, 1,35,10,29,21,27		4, 9,45,18,22	
		39,38, 5,57,22,18,30		2,54
54″	56,56,15, 3,39,41, 7,51,39,57		4, 9,45,21,16	
		39,38, 1,47,36,57,14		2,54
56″	56,56,15,43,17,42,55,28,37,11		4, 9,45,24,10	
		39,37,57,37,51,33, 4		2,54
58″	56,56,16,22,55,40,33,20,10,15		4, 9,45,27, 4	
		39,37,53,28, 6, 6, 0		
60″	56,56,17, 2,33,34, 1,26,16,15			
exact	56,56,17, 2,33,34, 1,26,21,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°37′ 0″	56,56,17, 2,33,34, 1,26,21,24			
		39,37,49,18,20,36,37		
2″	56,56,17,42,11,23,19,46,58, 1		4, 9,45,32,49	
		39,37,45, 8,35, 3,48		2,54
4″	56,56,18,21,49, 8,28,22, 1,49		4, 9,45,35,43	
		39,37,40,58,49,28, 5		2,54
6″	56,56,19, 1,26,49,27,11,29,54		4, 9,45,38,37	
		39,37,36,49, 3,49,28		2,54
8″	56,56,19,41, 4,26,16,15,19,22		4, 9,45,41,31	
		39,37,32,39,18, 7,57		2,54
10″	56,56,20,20,41,58,55,33,27,19		4, 9,45,44,25	
		39,37,28,29,32,23,32		2,54
12″	56,56,21, 0,19,27,25, 5,50,51		4, 9,45,47,19	
		39,37,24,19,46,36,13		2,54
14″	56,56,21,39,56,51,44,52,27, 4		4, 9,45,50,13	
		39,37,20,10, 0,46, 0		2,54
16″	56,56,22,19,34,11,54,53,13, 4		4, 9,45,53, 7	
		39,37,16, 0,14,52,53		2,54
18″	56,56,22,59,11,27,55, 8, 5,57		4, 9,45,56, 1	
		39,37,11,50,28,56,52		2,54
20″	56,56,23,38,48,39,45,37, 2,49		4, 9,45,58,55	
		39,37, 7,40,42,57,57		2,54
22″	56,56,24,18,25,47,26,20, 0,46		4, 9,46, 1,49	
		39,37, 3,30,56,56, 8		2,54
24″	56,56,24,58, 2,50,57,16,56,54		4, 9,46, 4,43	
		39,36,59,21,10,51,25		2,54
26″	56,56,25,37,39,50,18,27,48,19		4, 9,46, 7,37	
		39,36,55,11,24,43,48		2,54
28″	56,56,26,17,16,45,29,52,32, 7		4, 9,46,10,31	
		39,36,51, 1,38,33,17		2,54
30″	56,56,26,56,53,36,31,31, 5,24		4, 9,46,13,25	
		39,36,46,51,52,19,52		2,54
32″	56,56,27,36,30,23,23,23,25,16		4, 9,46,16,19	
		39,36,42,42, 6, 3,33		2,54
34″	56,56,28,16, 7, 6, 5,29,28,49		4, 9,46,19,13	
		39,36,38,32,19,44,20		2,54
36″	56,56,28,55,43,44,37,49,13, 9		4, 9,46,22, 7	
		39,36,34,22,33,22,13		2,54
38″	56,56,29,35,20,19, 0,22,35,22		4, 9,46,25, 1	
		39,36,30,12,46,57,12		2,54
40″	56,56,30,14,56,49,13, 9,32,34		4, 9,46,27,55	
		39,36,26, 3, 0,29,17		2,54
42″	56,56,30,54,33,15,16,10, 1,51		4, 9,46,30,49	
		39,36,21,53,13,58,28		2,54
44″	56,56,31,34, 9,37, 9,24, 0,19		4, 9,46,33,43	
		39,36,17,43,27,24,45		2,54
46″	56,56,32,13,45,54,52,51,25, 4		4, 9,46,36,37	
		39,36,13,33,40,48, 8		2,54
48″	56,56,32,53,22, 8,26,32,13,12		4, 9,46,39,31	
		39,36, 9,23,54, 8,37		2,54
50″	56,56,33,32,58,17,50,26,21,49		4, 9,46,42,25	
		39,36, 5,14, 7,26,12		2,54
52″	56,56,34,12,34,23, 4,33,48, 1		4, 9,46,45,19	
		39,36, 1, 4,20,40,53		2,54
54″	56,56,34,52,10,24, 8,54,28,54		4, 9,46,48,13	
		39,35,56,54,33,52,40		2,54
56″	56,56,35,31,46,21, 3,28,21,34		4, 9,46,51, 7	
		39,35,52,44,47, 1,33		2,54
58″	56,56,36,11,22,13,48,15,23, 7		4, 9,46,54, 1	
		39,35,48,35, 0, 7,32		
60″	56,56,36,50,58, 2,23,15,30,39			
exact	56,56,36,50,58, 2,23,15,43,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°38′ 0″	56,56,36,50,58, 2,23,15,43,19			
		39,35,44,25,13,12, 7		
2″	56,56,37,30,33,46,48,28,55,26		4, 9,46,59,42	
		39,35,40,15,26,12,25		2,54
4″	56,56,38,10, 9,27, 3,55, 7,51		4, 9,47, 2,36	
		39,35,36, 5,39, 9,49		2,54
6″	56,56,38,49,45, 3, 9,34,17,40		4, 9,47, 5,30	
		39,35,31,55,52, 4,19		2,54
8″	56,56,39,29,20,35, 5,26,21,59		4, 9,47, 8,24	
		39,35,27,46, 4,55,55		2,54
10″	56,56,40, 8,56, 2,51,31,17,54		4, 9,47,11,18	
		39,35,23,36,17,44,37		2,54
12″	56,56,40,48,31,26,27,49, 2,31		4, 9,47,14,12	
		39,35,19,26,30,30,25		2,54
14″	56,56,41,28, 6,45,54,19,32,56		4, 9,47,17, 6	
		39,35,15,16,43,13,19		2,54
16″	56,56,42, 7,42, 1,11, 2,46,15		4, 9,47,20, 0	
		39,35,11, 6,55,53,19		2,54
18″	56,56,42,47,17,12,17,58,39,34		4, 9,47,22,54	
		39,35, 6,57, 8,30,25		2,54
20″	56,56,43,26,52,19,15, 7, 9,59		4, 9,47,25,48	
		39,35, 2,47,21, 4,37		2,54
22″	56,56,44, 6,27,22, 2,28,14,36		4, 9,47,28,42	
		39,34,58,37,33,35,55		2,54
24″	56,56,44,46, 2,20,40, 1,50,31		4, 9,47,31,36	
		39,34,54,27,46, 4,19		2,54
26″	56,56,45,25,37,15, 7,47,54,50		4, 9,47,34,30	
		39,34,50,17,58,29,49		2,54
28″	56,56,46, 5,12, 5,25,46,24,39		4, 9,47,37,24	
		39,34,46, 8,10,52,25		2,54
30″	56,56,46,44,46,51,33,57,17, 4		4, 9,47,40,18	
		39,34,41,58,23,12, 7		2,54
32″	56,56,47,24,21,33,32,20,29,11		4, 9,47,43,12	
		39,34,37,48,35,28,55		2,54
34″	56,56,48, 3,56,11,20,55,58, 6		4, 9,47,46, 6	
		39,34,33,38,47,42,49		2,54
36″	56,56,48,43,30,44,59,43,40,55		4, 9,47,49, 0	
		39,34,29,28,59,53,49		2,54
38″	56,56,49,23, 5,14,28,43,34,44		4, 9,47,51,54	
		39,34,25,19,12, 1,55		2,54
40″	56,56,50, 2,39,39,47,55,36,39		4, 9,47,54,48	
		39,34,21, 9,24, 7, 7		2,54
42″	56,56,50,42,14, 0,57,19,43,46		4, 9,47,57,42	
		39,34,16,59,36, 9,25		2,54
44″	56,56,51,21,48,17,56,55,53,11		4, 9,48, 0,36	
		39,34,12,49,48, 8,49		2,54
46″	56,56,52, 1,22,30,46,44, 2, 0		4, 9,48, 3,30	
		39,34, 8,40, 0, 5,19		2,54
48″	56,56,52,40,56,39,26,44, 7,19		4, 9,48, 6,24	
		39,34, 4,30,11,58,55		2,54
50″	56,56,53,20,30,43,56,56, 6,14		4, 9,48, 9,18	
		39,34, 0,20,23,49,37		2,54
52″	56,56,54, 0, 4,44,17,19,55,51		4, 9,48,12,12	
		39,33,56,10,35,37,25		2,54
54″	56,56,54,39,38,40,27,55,33,16		4, 9,48,15, 6	
		39,33,52, 0,47,22,19		2,54
56″	56,56,55,19,12,32,28,42,55,35		4, 9,48,18, 0	
		39,33,47,50,59, 4,19		2,54
58″	56,56,55,58,46,20,19,41,59,54		4, 9,48,20,54	
		39,33,43,41,10,43,25		
60″	56,56,56,38,20, 4, 0,52,43,19			
exact	56,56,56,38,20, 4, 0,53, 7,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°39′ 0″	56,56,56,38,20, 4, 0,53, 7,54			
		39,33,39,31,22,22,19		
2″	56,56,57,17,53,43,32,15,30,13		4, 9,48,26,30	
		39,33,35,21,33,55,49		2,54
4″	56,56,57,57,27,18,53,49,26, 2		4, 9,48,29,24	
		39,33,31,11,45,26,25		2,54
6″	56,56,58,37, 0,50, 5,34,52,27		4, 9,48,32,18	
		39,33,27, 1,56,54, 7		2,54
8″	56,56,59,16,34,17, 7,31,46,34		4, 9,48,35,12	
		39,33,22,52, 8,18,55		2,54
10″	56,56,59,56, 7,39,59,40, 5,29		4, 9,48,38, 6	
		39,33,18,42,19,40,49		2,54
12″	56,57, 0,35,40,58,41,59,46,18		4, 9,48,41, 0	
		39,33,14,32,30,59,49		2,54
14″	56,57, 1,15,14,13,14,30,46, 7		4, 9,48,43,54	
		39,33,10,22,42,15,55		2,54
16″	56,57, 1,54,47,23,37,13, 2, 2		4, 9,48,46,48	
		39,33, 6,12,53,29, 7		2,54
18″	56,57, 2,34,20,29,50, 6,31, 9		4, 9,48,49,42	
		39,33, 2, 3, 4,39,25		2,54
20″	56,57, 3,13,53,31,53,11,10,34		4, 9,48,52,36	
		39,32,57,53,15,46,49		2,54
22″	56,57, 3,53,26,29,46,26,57,23		4, 9,48,55,30	
		39,32,53,43,26,51,19		2,54
24″	56,57, 4,32,59,23,29,53,48,42		4, 9,48,58,24	
		39,32,49,33,37,52,55		2,54
26″	56,57, 5,12,32,13, 3,31,41,37		4, 9,49, 1,18	
		39,32,45,23,48,51,37		2,54
28″	56,57, 5,52, 4,58,27,20,33,14		4, 9,49, 4,12	
		39,32,41,13,59,47,25		2,54
30″	56,57, 6,31,37,39,41,20,20,39		4, 9,49, 7, 6	
		39,32,37, 4,10,40,19		2,54
32″	56,57, 7,11,10,16,45,31, 0,58		4, 9,49,10, 0	
		39,32,32,54,21,30,19		2,54
34″	56,57, 7,50,42,49,39,52,31,17		4, 9,49,12,54	
		39,32,28,44,32,17,25		2,54
36″	56,57, 8,30,15,18,24,24,48,42		4, 9,49,15,48	
		39,32,24,34,43, 1,37		2,54
38″	56,57, 9, 9,47,42,59, 7,50,19		4, 9,49,18,42	
		39,32,20,24,53,42,55		2,54
40″	56,57, 9,49,20, 3,24, 1,33,14		4, 9,49,21,36	
		39,32,16,15, 4,21,19		2,54
42″	56,57,10,28,52,19,39, 5,54,33		4, 9,49,24,30	
		39,32,12, 5,14,56,49		2,54
44″	56,57,11, 8,24,31,44,20,51,22		4, 9,49,27,24	
		39,32, 7,55,25,29,25		2,54
46″	56,57,11,47,56,39,39,46,20,47		4, 9,49,30,18	
		39,32, 3,45,35,59, 7		2,54
48″	56,57,12,27,28,43,25,22,19,54		4, 9,49,33,12	
		39,31,59,35,46,25,55		2,54
50″	56,57,13, 7, 0,43, 1, 8,45,49		4, 9,49,36, 6	
		39,31,55,25,56,49,49		2,54
52″	56,57,13,46,32,38,27, 5,35,38		4, 9,49,39, 0	
		39,31,51,16, 7,10,49		2,54
54″	56,57,14,26, 4,29,43,12,46,27		4, 9,49,41,54	
		39,31,47, 6,17,28,55		2,54
56″	56,57,15, 5,36,16,49,30,15,22		4, 9,49,44,48	
		39,31,42,56,27,44, 7		2,54
58″	56,57,15,45, 7,59,45,57,59,29		4, 9,49,47,42	
		39,31,38,46,37,56,25		
60″	56,57,16,24,39,38,32,35,55,54			
exact	56,57,16,24,39,38,32,36,29,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°40′ 0″	56,57,16,24,39,38,32,36,29,32			
		39,31,34,36,48, 9,32		
2″	56,57,17, 4,11,13, 9,24,39, 4		4, 9,49,53,14	
		39,31,30,26,58,16,18		2,53
4″	56,57,17,43,42,43,36,22,55,22		4, 9,49,56, 7	
		39,31,26,17, 8,20,11		2,53
6″	56,57,18,23,14, 9,53,31,15,33		4, 9,49,59, 0	
		39,31,22, 7,18,21,11		2,53
8″	56,57,19, 2,45,32, 0,49,36,44		4, 9,50, 1,53	
		39,31,17,57,28,19,18		2,53
10″	56,57,19,42,16,49,58,17,56, 2		4, 9,50, 4,46	
		39,31,13,47,38,14,32		2,53
12″	56,57,20,21,48, 3,45,56,10,34		4, 9,50, 7,39	
		39,31, 9,37,48, 6,53		2,53
14″	56,57,21, 1,19,13,23,44,17,27		4, 9,50,10,32	
		39,31, 5,27,57,56,21		2,53
16″	56,57,21,40,50,18,51,42,13,48		4, 9,50,13,25	
		39,31, 1,18, 7,42,56		2,53
18″	56,57,22,20,21,20, 9,49,56,44		4, 9,50,16,18	
		39,30,57, 8,17,26,38		2,53
20″	56,57,22,59,52,17,18, 7,23,22		4, 9,50,19,11	
		39,30,52,58,27, 7,27		2,53
22″	56,57,23,39,23,10,16,34,30,49		4, 9,50,22, 4	
		39,30,48,48,36,45,23		2,53
24″	56,57,24,18,53,59, 5,11,16,12		4, 9,50,24,57	
		39,30,44,38,46,20,26		2,53
26″	56,57,24,58,24,43,43,57,36,38		4, 9,50,27,50	
		39,30,40,28,55,52,36		2,53
28″	56,57,25,37,55,24,12,53,29,14		4, 9,50,30,43	
		39,30,36,19, 5,21,53		2,53
30″	56,57,26,17,26, 0,31,58,51, 7		4, 9,50,33,36	
		39,30,32, 9,14,48,17		2,53
32″	56,57,26,56,56,32,41,13,39,24		4, 9,50,36,29	
		39,30,27,59,24,11,48		2,53
34″	56,57,27,36,27, 0,40,37,51,12		4, 9,50,39,22	
		39,30,23,49,33,32,26		2,53
36″	56,57,28,15,57,24,30,11,23,38		4, 9,50,42,15	
		39,30,19,39,42,50,11		2,53
38″	56,57,28,55,27,44, 9,54,13,49		4, 9,50,45, 8	
		39,30,15,29,52, 5, 3		2,53
40″	56,57,29,34,57,59,39,46,18,52		4, 9,50,48, 1	
		39,30,11,20, 1,17, 2		2,53
42″	56,57,30,14,28,10,59,47,35,54		4, 9,50,50,54	
		39,30, 7,10,10,26, 8		2,53
44″	56,57,30,53,58,18, 9,58, 2, 2		4, 9,50,53,47	
		39,30, 3, 0,19,32,21		2,53
46″	56,57,31,33,28,21,10,17,34,23		4, 9,50,56,40	
		39,29,58,50,28,35,41		2,53
48″	56,57,32,12,58,20, 0,46,10, 4		4, 9,50,59,33	
		39,29,54,40,37,36, 8		2,53
50″	56,57,32,52,28,14,41,23,46,12		4, 9,51, 2,26	
		39,29,50,30,46,33,42		2,53
52″	56,57,33,31,58, 5,12,10,19,54		4, 9,51, 5,19	
		39,29,46,20,55,28,23		2,53
54″	56,57,34,11,27,51,33, 5,48,17		4, 9,51, 8,12	
		39,29,42,11, 4,20,11		2,53
56″	56,57,34,50,57,33,44,10, 8,28		4, 9,51,11, 5	
		39,29,38, 1,13, 9, 6		2,53
58″	56,57,35,30,27,11,45,23,17,34		4, 9,51,13,58	
		39,29,33,51,21,55, 8		
60″	56,57,36, 9,56,45,36,45,12,42			
exact	56,57,36, 9,56,45,36,44,51, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°41′ 0″	56,57,36, 9,56,45,36,44,51, 4			
		39,29,29,41,30,36, 0		
2″	56,57,36,49,26,15,18,15,27, 4		4, 9,51,19,53	
		39,29,25,31,39,16, 7		2,53
4″	56,57,37,28,55,40,49,54,43,11		4, 9,51,22,46	
		39,29,21,21,47,53,21		2,53
6″	56,57,38, 8,25, 2,11,42,36,32		4, 9,51,25,39	
		39,29,17,11,56,27,42		2,53
8″	56,57,38,47,54,19,23,39, 4,14		4, 9,51,28,32	
		39,29,13, 2, 4,59,10		2,53
10″	56,57,39,27,23,32,25,44, 3,24		4, 9,51,31,25	
		39,29, 8,52,13,27,45		2,53
12″	56,57,40, 6,52,41,17,57,31, 9		4, 9,51,34,18	
		39,29, 4,42,21,53,27		2,53
14″	56,57,40,46,21,46, 0,19,24,36		4, 9,51,37,11	
		39,29, 0,32,30,16,16		2,53
16″	56,57,41,25,50,46,32,49,40,52		4, 9,51,40, 4	
		39,28,56,22,38,36,12		2,53
18″	56,57,42, 5,19,42,55,28,17, 4		4, 9,51,42,57	
		39,28,52,12,46,53,15		2,53
20″	56,57,42,44,48,35, 8,15,10,19		4, 9,51,45,50	
		39,28,48, 2,55, 7,25		2,53
22″	56,57,43,24,17,23,11,10,17,44		4, 9,51,48,43	
		39,28,43,53, 3,18,42		2,53
24″	56,57,44, 3,46, 7, 4,13,36,26		4, 9,51,51,36	
		39,28,39,43,11,27, 6		2,53
26″	56,57,44,43,14,46,47,25, 3,32		4, 9,51,54,29	
		39,28,35,33,19,32,37		2,53
28″	56,57,45,22,43,22,20,44,36, 9		4, 9,51,57,22	
		39,28,31,23,27,35,15		2,53
30″	56,57,46, 2,11,53,44,12,11,24		4, 9,52, 0,15	
		39,28,27,13,35,35, 0		2,53
32″	56,57,46,41,40,20,57,47,46,24		4, 9,52, 3, 8	
		39,28,23, 3,43,31,52		2,53
34″	56,57,47,21, 8,44, 1,31,18,16		4, 9,52, 6, 1	
		39,28,18,53,51,25,51		2,53
36″	56,57,48, 0,37, 2,55,22,44, 7		4, 9,52, 8,54	
		39,28,14,43,59,16,57		2,53
38″	56,57,48,40, 5,17,39,22, 1, 4		4, 9,52,11,47	
		39,28,10,34, 7, 5,10		2,53
40″	56,57,49,19,33,28,13,29, 6,14		4, 9,52,14,40	
		39,28, 6,24,14,50,30		2,53
42″	56,57,49,59, 1,34,37,43,56,44		4, 9,52,17,33	
		39,28, 2,14,22,32,57		2,53
44″	56,57,50,38,29,36,52, 6,29,41		4, 9,52,20,26	
		39,27,58, 4,30,12,31		2,53
46″	56,57,51,17,57,34,56,36,42,12		4, 9,52,23,19	
		39,27,53,54,37,49,12		2,53
48″	56,57,51,57,25,28,51,14,31,24		4, 9,52,26,12	
		39,27,49,44,45,23, 0		2,53
50″	56,57,52,36,53,18,35,59,54,24		4, 9,52,29, 5	
		39,27,45,34,52,53,55		2,53
52″	56,57,53,16,21, 4,10,52,48,19		4, 9,52,31,58	
		39,27,41,25, 0,21,57		2,53
54″	56,57,53,55,48,45,35,53,10,16		4, 9,52,34,51	
		39,27,37,15, 7,47, 6		2,53
56″	56,57,54,35,16,22,51, 0,57,22		4, 9,52,37,44	
		39,27,33, 5,15, 9,22		2,53
58″	56,57,55,14,43,55,56,16, 6,44		4, 9,52,40,37	
		39,27,28,55,22,28,45		
60″	56,57,55,54,11,24,51,38,35,29			
exact	56,57,55,54,11,24,51,38,23,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°42′ 0″	56,57,55,54,11,24,51,38,23,51			
		39,27,24,45,29,44, 3		
2″	56,57,56,33,38,49,37, 8, 7,54		4, 9,52,46,27	
		39,27,20,35,36,57,36		2,53
4″	56,57,57,13, 6,10,12,45, 5,30		4, 9,52,49,20	
		39,27,16,25,44, 8,16		2,53
6″	56,57,57,52,33,26,38,29,13,46		4, 9,52,52,13	
		39,27,12,15,51,16, 3		2,53
8″	56,57,58,32, 0,38,54,20,29,49		4, 9,52,55, 6	
		39,27, 8, 5,58,20,57		2,53
10″	56,57,59,11,27,47, 0,18,50,46		4, 9,52,57,59	
		39,27, 3,56, 5,22,58		2,53
12″	56,57,59,50,54,50,56,24,13,44		4, 9,53, 0,52	
		39,26,59,46,12,22, 6		2,53
14″	56,58, 0,30,21,50,42,36,35,50		4, 9,53, 3,45	
		39,26,55,36,19,18,21		2,53
16″	56,58, 1, 9,48,46,18,55,54,11		4, 9,53, 6,38	
		39,26,51,26,26,11,43		2,53
18″	56,58, 1,49,15,37,45,22, 5,54		4, 9,53, 9,31	
		39,26,47,16,33, 2,12		2,53
20″	56,58, 2,28,42,25, 1,55, 8, 6		4, 9,53,12,24	
		39,26,43, 6,39,49,48		2,53
22″	56,58, 3, 8, 9, 8, 8,34,57,54		4, 9,53,15,17	
		39,26,38,56,46,34,31		2,53
24″	56,58, 3,47,35,47, 5,21,32,25		4, 9,53,18,10	
		39,26,34,46,53,16,21		2,53
26″	56,58, 4,27, 2,21,52,14,48,46		4, 9,53,21, 3	
		39,26,30,36,59,55,18		2,53
28″	56,58, 5, 6,28,52,29,14,44, 4		4, 9,53,23,56	
		39,26,26,27, 6,31,22		2,53
30″	56,58, 5,45,55,18,56,21,15,26		4, 9,53,26,49	
		39,26,22,17,13, 4,33		2,53
32″	56,58, 6,25,21,41,13,34,19,59		4, 9,53,29,42	
		39,26,18, 7,19,34,51		2,53
34″	56,58, 7, 4,47,59,20,53,54,50		4, 9,53,32,35	
		39,26,13,57,26, 2,16		2,53
36″	56,58, 7,44,14,13,18,19,57, 6		4, 9,53,35,28	
		39,26, 9,47,32,26,48		2,53
38″	56,58, 8,23,40,23, 5,52,23,54		4, 9,53,38,21	
		39,26, 5,37,38,48,27		2,53
40″	56,58, 9, 3, 6,28,43,31,12,21		4, 9,53,41,14	
		39,26, 1,27,45, 7,13		2,53
42″	56,58, 9,42,32,30,11,16,19,34		4, 9,53,44, 7	
		39,25,57,17,51,23, 6		2,53
44″	56,58,10,21,58,27,29, 7,42,40		4, 9,53,47, 0	
		39,25,53, 7,57,36, 6		2,53
46″	56,58,11, 1,24,20,37, 5,18,46		4, 9,53,49,53	
		39,25,48,58, 3,46,13		2,53
48″	56,58,11,40,50, 9,35, 9, 4,59		4, 9,53,52,46	
		39,25,44,48, 9,53,27		2,53
50″	56,58,12,20,15,54,23,18,58,26		4, 9,53,55,39	
		39,25,40,38,15,57,48		2,53
52″	56,58,12,59,41,35, 1,34,56,14		4, 9,53,58,32	
		39,25,36,28,21,59,16		2,53
54″	56,58,13,39, 7,11,29,56,55,30		4, 9,54, 1,25	
		39,25,32,18,27,57,51		2,53
56″	56,58,14,18,32,43,48,24,53,21		4, 9,54, 4,18	
		39,25,28, 8,33,53,33		2,53
58″	56,58,14,57,58,11,56,58,46,54		4, 9,54, 7,11	
		39,25,23,58,39,46,22		
60″	56,58,15,37,23,35,55,38,33,16			
exact	56,58,15,37,23,35,55,38,27,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°43′ 0″	56,58,15,37,23,35,55,38,27,46			
		39,25,19,48,45,35,55		
2″	56,58,16,16,48,55,44,24, 3,41		4, 9,54,12,57	
		39,25,15,38,51,22,58		2,53
4″	56,58,16,56,14,11,23,15,26,39		4, 9,54,15,50	
		39,25,11,28,57, 7, 8		2,53
6″	56,58,17,35,39,22,52,12,33,47		4, 9,54,18,43	
		39,25, 7,19, 2,48,25		2,53
8″	56,58,18,15, 4,30,11,15,22,12		4, 9,54,21,36	
		39,25, 3, 9, 8,26,49		2,53
10″	56,58,18,54,29,33,20,23,49, 1		4, 9,54,24,29	
		39,24,58,59,14, 2,20		2,53
12″	56,58,19,33,54,32,19,37,51,21		4, 9,54,27,22	
		39,24,54,49,19,34,58		2,53
14″	56,58,20,13,19,27, 8,57,26,19		4, 9,54,30,15	
		39,24,50,39,25, 4,43		2,53
16″	56,58,20,52,44,17,48,22,31, 2		4, 9,54,33, 8	
		39,24,46,29,30,31,35		2,53
18″	56,58,21,32, 9, 4,17,53, 2,37		4, 9,54,36, 1	
		39,24,42,19,35,55,34		2,53
20″	56,58,22,11,33,46,37,28,58,11		4, 9,54,38,54	
		39,24,38, 9,41,16,40		2,53
22″	56,58,22,50,58,24,47,10,14,51		4, 9,54,41,47	
		39,24,33,59,46,34,53		2,53
24″	56,58,23,30,22,58,46,56,49,44		4, 9,54,44,40	
		39,24,29,49,51,50,13		2,53
26″	56,58,24, 9,47,28,36,48,39,57		4, 9,54,47,33	
		39,24,25,39,57, 2,40		2,53
28″	56,58,24,49,11,54,16,45,42,37		4, 9,54,50,26	
		39,24,21,30, 2,12,14		2,53
30″	56,58,25,28,36,15,46,47,54,51		4, 9,54,53,19	
		39,24,17,20, 7,18,55		2,53
32″	56,58,26, 8, 0,33, 6,55,13,46		4, 9,54,56,12	
		39,24,13,10,12,22,43		2,53
34″	56,58,26,47,24,46,17, 7,36,29		4, 9,54,59, 5	
		39,24, 9, 0,17,23,38		2,53
36″	56,58,27,26,48,55,17,25, 0, 7		4, 9,55, 1,58	
		39,24, 4,50,22,21,40		2,53
38″	56,58,28, 6,13, 0, 7,47,21,47		4, 9,55, 4,51	
		39,24, 0,40,27,16,49		2,53
40″	56,58,28,45,37, 0,48,14,38,36		4, 9,55, 7,44	
		39,23,56,30,32, 9, 5		2,53
42″	56,58,29,25, 0,57,18,46,47,41		4, 9,55,10,37	
		39,23,52,20,36,58,28		2,53
44″	56,58,30, 4,24,49,39,23,46, 9		4, 9,55,13,30	
		39,23,48,10,41,44,58		2,53
46″	56,58,30,43,48,37,50, 5,31, 7		4, 9,55,16,23	
		39,23,44, 0,46,28,35		2,53
48″	56,58,31,23,12,21,50,51,59,42		4, 9,55,19,16	
		39,23,39,50,51, 9,19		2,53
50″	56,58,32, 2,36, 1,41,43, 9, 1		4, 9,55,22, 9	
		39,23,35,40,55,47,10		2,53
52″	56,58,32,41,59,37,22,38,56,11		4, 9,55,25, 2	
		39,23,31,31, 0,22, 8		2,53
54″	56,58,33,21,23, 8,53,39,18,19		4, 9,55,27,55	
		39,23,27,21, 4,54,13		2,53
56″	56,58,34, 0,46,36,14,44,12,32		4, 9,55,30,48	
		39,23,23,11, 9,23,25		2,53
58″	56,58,34,40, 9,59,25,53,35,57		4, 9,55,33,41	
		39,23,19, 1,13,49,44		
60″	56,58,35,19,33,18,27, 7,25,41			
exact	56,58,35,19,33,18,27, 7,31, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°44′ 0″	56,58,35,19,33,18,27, 7,31, 8			
		39,23,14,51,18,13,56		
2″	56,58,35,58,56,33,18,25,45, 4		4, 9,55,39,23	
		39,23,10,41,22,34,33		2,53
4″	56,58,36,38,19,43,59,48,19,37		4, 9,55,42,16	
		39,23, 6,31,26,52,17		2,53
6″	56,58,37,17,42,50,31,15,11,54		4, 9,55,45, 9	
		39,23, 2,21,31, 7, 8		2,53
8″	56,58,37,57, 5,52,52,46,19, 2		4, 9,55,48, 2	
		39,22,58,11,35,19, 6		2,53
10″	56,58,38,36,28,51, 4,21,38, 8		4, 9,55,50,55	
		39,22,54, 1,39,28,11		2,53
12″	56,58,39,15,51,45, 6, 1, 6,19		4, 9,55,53,48	
		39,22,49,51,43,34,23		2,53
14″	56,58,39,55,14,34,57,44,40,42		4, 9,55,56,41	
		39,22,45,41,47,37,42		2,53
16″	56,58,40,34,37,20,39,32,18,24		4, 9,55,59,34	
		39,22,41,31,51,38, 8		2,53
18″	56,58,41,14, 0, 2,11,23,56,32		4, 9,56, 2,27	
		39,22,37,21,55,35,41		2,53
20″	56,58,41,53,22,39,33,19,32,13		4, 9,56, 5,20	
		39,22,33,11,59,30,21		2,53
22″	56,58,42,32,45,12,45,19, 2,34		4, 9,56, 8,13	
		39,22,29, 2, 3,22, 8		2,53
24″	56,58,43,12, 7,41,47,22,24,42		4, 9,56,11, 6	
		39,22,24,52, 7,11, 2		2,53
26″	56,58,43,51,30, 6,39,29,35,44		4, 9,56,13,59	
		39,22,20,42,10,57, 3		2,53
28″	56,58,44,30,52,27,21,40,32,47		4, 9,56,16,52	
		39,22,16,32,14,40,11		2,53
30″	56,58,45,10,14,43,53,55,12,58		4, 9,56,19,45	
		39,22,12,22,18,20,26		2,53
32″	56,58,45,49,36,56,16,13,33,24		4, 9,56,22,38	
		39,22, 8,12,21,57,48		2,53
34″	56,58,46,28,59, 4,28,35,31,12		4, 9,56,25,31	
		39,22, 4, 2,25,32,17		2,53
36″	56,58,47, 8,21, 8,31, 1, 3,29		4, 9,56,28,24	
		39,21,59,52,29, 3,53		2,53
38″	56,58,47,47,43, 8,23,30, 7,22		4, 9,56,31,17	
		39,21,55,42,32,32,36		2,53
40″	56,58,48,27, 5, 4, 6, 2,39,58		4, 9,56,34,10	
		39,21,51,32,35,58,26		2,53
42″	56,58,49, 6,26,55,38,38,38,24		4, 9,56,37, 3	
		39,21,47,22,39,21,23		2,53
44″	56,58,49,45,48,43, 1,17,59,47		4, 9,56,39,56	
		39,21,43,12,42,41,27		2,53
46″	56,58,50,25,10,26,14, 0,41,14		4, 9,56,42,49	
		39,21,39, 2,45,58,38		2,53
48″	56,58,51, 4,32, 5,16,46,39,52		4, 9,56,45,42	
		39,21,34,52,49,12,56		2,53
50″	56,58,51,43,53,40, 9,35,52,48		4, 9,56,48,35	
		39,21,30,42,52,24,21		2,53
52″	56,58,52,23,15,10,52,28,17, 9		4, 9,56,51,28	
		39,21,26,32,55,32,53		2,53
54″	56,58,53, 2,36,37,25,23,50, 2		4, 9,56,54,21	
		39,21,22,22,58,38,32		2,53
56″	56,58,53,41,57,59,48,22,28,34		4, 9,56,57,14	
		39,21,18,13, 1,41,18		2,53
58″	56,58,54,21,19,18, 1,24, 9,52		4, 9,57, 0, 7	
		39,21,14, 3, 4,41,11		
60″	56,58,55, 0,40,32, 4,28,51, 3			
exact	56,58,55, 0,40,32, 4,29,10,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°45′ 0″	56,58,55, 0,40,32, 4,29,10,51			
		39,21, 9,53, 7,40,20		
2″	56,58,55,40, 1,41,57,36,51,11		4, 9,57, 5,44	
		39,21, 5,43,10,34,36		2,53
4″	56,58,56,19,22,47,40,47,25,47		4, 9,57, 8,37	
		39,21, 1,33,13,25,59		2,53
6″	56,58,56,58,43,49,14, 0,51,46		4, 9,57,11,30	
		39,20,57,23,16,14,29		2,53
8″	56,58,57,38, 4,46,37,17, 6,15		4, 9,57,14,23	
		39,20,53,13,19, 0, 6		2,53
10″	56,58,58,17,25,39,50,36, 6,21		4, 9,57,17,16	
		39,20,49, 3,21,42,50		2,53
12″	56,58,58,56,46,28,53,57,49,11		4, 9,57,20, 9	
		39,20,44,53,24,22,41		2,53
14″	56,58,59,36, 7,13,47,22,11,52		4, 9,57,23, 2	
		39,20,40,43,26,59,39		2,53
16″	56,59, 0,15,27,54,30,49,11,31		4, 9,57,25,55	
		39,20,36,33,29,33,44		2,53
18″	56,59, 0,54,48,31, 4,18,45,15		4, 9,57,28,48	
		39,20,32,23,32, 4,56		2,53
20″	56,59, 1,34, 9, 3,27,50,50,11		4, 9,57,31,41	
		39,20,28,13,34,33,15		2,53
22″	56,59, 2,13,29,31,41,25,23,26		4, 9,57,34,34	
		39,20,24, 3,36,58,41		2,53
24″	56,59, 2,52,49,55,45, 2,22, 7		4, 9,57,37,27	
		39,20,19,53,39,21,14		2,53
26″	56,59, 3,32,10,15,38,41,43,21		4, 9,57,40,20	
		39,20,15,43,41,40,54		2,53
28″	56,59, 4,11,30,31,22,23,24,15		4, 9,57,43,13	
		39,20,11,33,43,57,41		2,53
30″	56,59, 4,50,50,42,56, 7,21,56		4, 9,57,46, 6	
		39,20, 7,23,46,11,35		2,53
32″	56,59, 5,30,10,50,19,53,33,31		4, 9,57,48,59	
		39,20, 3,13,48,22,36		2,53
34″	56,59, 6, 9,30,53,33,41,56, 7		4, 9,57,51,52	
		39,19,59, 3,50,30,44		2,53
36″	56,59, 6,48,50,52,37,32,26,51		4, 9,57,54,45	
		39,19,54,53,52,35,59		2,53
38″	56,59, 7,28,10,47,31,25, 2,50		4, 9,57,57,38	
		39,19,50,43,54,38,21		2,53
40″	56,59, 8, 7,30,38,15,19,41,11		4, 9,58, 0,31	
		39,19,46,33,56,37,50		2,53
42″	56,59, 8,46,50,24,49,16,19, 1		4, 9,58, 3,24	
		39,19,42,23,58,34,26		2,53
44″	56,59, 9,26,10, 7,13,14,53,27		4, 9,58, 6,17	
		39,19,38,14, 0,28, 9		2,53
46″	56,59,10, 5,29,45,27,15,21,36		4, 9,58, 9,10	
		39,19,34, 4, 2,18,59		2,53
48″	56,59,10,44,49,19,31,17,40,35		4, 9,58,12, 3	
		39,19,29,54, 4, 6,56		2,53
50″	56,59,11,24, 8,49,25,21,47,31		4, 9,58,14,56	
		39,19,25,44, 5,52, 0		2,53
52″	56,59,12, 3,28,15, 9,27,39,31		4, 9,58,17,49	
		39,19,21,34, 7,34,11		2,53
54″	56,59,12,42,47,36,43,35,13,42		4, 9,58,20,42	
		39,19,17,24, 9,13,29		2,53
56″	56,59,13,22, 6,54, 7,44,27,11		4, 9,58,23,35	
		39,19,13,14,10,49,54		2,53
58″	56,59,14, 1,26, 7,21,55,17, 5		4, 9,58,26,28	
		39,19, 9, 4,12,23,26		
60″	56,59,14,40,45,16,26, 7,40,31			
exact	56,59,14,40,45,16,26, 8,12,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°46′ 0″	56,59,14,40,45,16,26, 8,12,18			
		39,19, 4,54,13,57,27		
2″	56,59,15,20, 4,21,20,22, 9,45		4, 9,58,32, 0	
		39,19, 0,44,15,25,27		2,52
4″	56,59,15,59,23,22, 4,37,35,12		4, 9,58,34,52	
		39,18,56,34,16,50,35		2,52
6″	56,59,16,38,42,18,38,54,25,47		4, 9,58,37,44	
		39,18,52,24,18,12,51		2,52
8″	56,59,17,18, 1,11, 3,12,38,38		4, 9,58,40,36	
		39,18,48,14,19,32,15		2,52
10″	56,59,17,57,19,59,17,32,10,53		4, 9,58,43,28	
		39,18,44, 4,20,48,47		2,52
12″	56,59,18,36,38,43,21,52,59,40		4, 9,58,46,20	
		39,18,39,54,22, 2,27		2,52
14″	56,59,19,15,57,23,16,15, 2, 7		4, 9,58,49,12	
		39,18,35,44,23,13,15		2,52
16″	56,59,19,55,15,59, 0,38,15,22		4, 9,58,52, 4	
		39,18,31,34,24,21,11		2,52
18″	56,59,20,34,34,30,35, 2,36,33		4, 9,58,54,56	
		39,18,27,24,25,26,15		2,52
20″	56,59,21,13,52,57,59,28, 2,48		4, 9,58,57,48	
		39,18,23,14,26,28,27		2,52
22″	56,59,21,53,11,21,13,54,31,15		4, 9,59, 0,40	
		39,18,19, 4,27,27,47		2,52
24″	56,59,22,32,29,40,18,21,59, 2		4, 9,59, 3,32	
		39,18,14,54,28,24,15		2,52
26″	56,59,23,11,47,55,12,50,23,17		4, 9,59, 6,24	
		39,18,10,44,29,17,51		2,52
28″	56,59,23,51, 6, 5,57,19,41, 8		4, 9,59, 9,16	
		39,18, 6,34,30, 8,35		2,52
30″	56,59,24,30,24,12,31,49,49,43		4, 9,59,12, 8	
		39,18, 2,24,30,56,27		2,52
32″	56,59,25, 9,42,14,56,20,46,10		4, 9,59,15, 0	
		39,17,58,14,31,41,27		2,52
34″	56,59,25,49, 0,13,10,52,27,37		4, 9,59,17,52	
		39,17,54, 4,32,23,35		2,52
36″	56,59,26,28,18, 7,15,24,51,12		4, 9,59,20,44	
		39,17,49,54,33, 2,51		2,52
38″	56,59,27, 7,35,57, 9,57,54, 3		4, 9,59,23,36	
		39,17,45,44,33,39,15		2,52
40″	56,59,27,46,53,42,54,31,33,18		4, 9,59,26,28	
		39,17,41,34,34,12,47		2,52
42″	56,59,28,26,11,24,29, 5,46, 5		4, 9,59,29,20	
		39,17,37,24,34,43,27		2,52
44″	56,59,29, 5,29, 1,53,40,29,32		4, 9,59,32,12	
		39,17,33,14,35,11,15		2,52
46″	56,59,29,44,46,35, 8,15,40,47		4, 9,59,35, 4	
		39,17,29, 4,35,36,11		2,52
48″	56,59,30,24, 4, 4,12,51,16,58		4, 9,59,37,56	
		39,17,24,54,35,58,15		2,52
50″	56,59,31, 3,21,29, 7,27,15,13		4, 9,59,40,48	
		39,17,20,44,36,17,27		2,52
52″	56,59,31,42,38,49,52, 3,32,40		4, 9,59,43,40	
		39,17,16,34,36,33,47		2,52
54″	56,59,32,21,56, 6,26,40, 6,27		4, 9,59,46,32	
		39,17,12,24,36,47,15		2,52
56″	56,59,33, 1,13,18,51,16,53,42		4, 9,59,49,24	
		39,17, 8,14,36,57,51		2,52
58″	56,59,33,40,30,27, 5,53,51,33		4, 9,59,52,16	
		39,17, 4, 4,37, 5,35		
60″	56,59,34,19,47,31,10,30,57, 8			
exact	56,59,34,19,47,31,10,30,29,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°47′ 0″	56,59,34,19,47,31,10,30,29,24			
		39,16,59,54,37, 7,32		
2″	56,59,34,59, 4,31, 5, 7,36,56		4, 9,59,58,11	
		39,16,55,44,37, 9,21		2,52
4″	56,59,35,38,21,26,49,44,46,17		4,10, 0, 1, 3	
		39,16,51,34,37, 8,18		2,52
6″	56,59,36,17,38,18,24,21,54,35		4,10, 0, 3,55	
		39,16,47,24,37, 4,23		2,52
8″	56,59,36,56,55, 5,48,58,58,58		4,10, 0, 6,47	
		39,16,43,14,36,57,36		2,52
10″	56,59,37,36,11,49, 3,35,56,34		4,10, 0, 9,39	
		39,16,39, 4,36,47,57		2,52
12″	56,59,38,15,28,28, 8,12,44,31		4,10, 0,12,31	
		39,16,34,54,36,35,26		2,52
14″	56,59,38,54,45, 3, 2,49,19,57		4,10, 0,15,23	
		39,16,30,44,36,20, 3		2,52
16″	56,59,39,34, 1,33,47,25,40, 0		4,10, 0,18,15	
		39,16,26,34,36, 1,48		2,52
18″	56,59,40,13,18, 0,22, 1,41,48		4,10, 0,21, 7	
		39,16,22,24,35,40,41		2,52
20″	56,59,40,52,34,22,46,37,22,29		4,10, 0,23,59	
		39,16,18,14,35,16,42		2,52
22″	56,59,41,31,50,41, 1,12,39,11		4,10, 0,26,51	
		39,16,14, 4,34,49,51		2,52
24″	56,59,42,11, 6,55, 5,47,29, 2		4,10, 0,29,43	
		39,16, 9,54,34,20, 8		2,52
26″	56,59,42,50,23, 5, 0,21,49,10		4,10, 0,32,35	
		39,16, 5,44,33,47,33		2,52
28″	56,59,43,29,39,10,44,55,36,43		4,10, 0,35,27	
		39,16, 1,34,33,12, 6		2,52
30″	56,59,44, 8,55,12,19,28,48,49		4,10, 0,38,19	
		39,15,57,24,32,33,47		2,52
32″	56,59,44,48,11, 9,44, 1,22,36		4,10, 0,41,11	
		39,15,53,14,31,52,36		2,52
34″	56,59,45,27,27, 2,58,33,15,12		4,10, 0,44, 3	
		39,15,49, 4,31, 8,33		2,52
36″	56,59,46, 6,42,52, 3, 4,23,45		4,10, 0,46,55	
		39,15,44,54,30,21,38		2,52
38″	56,59,46,45,58,36,57,34,45,23		4,10, 0,49,47	
		39,15,40,44,29,31,51		2,52
40″	56,59,47,25,14,17,42, 4,17,14		4,10, 0,52,39	
		39,15,36,34,28,39,12		2,52
42″	56,59,48, 4,29,54,16,32,56,26		4,10, 0,55,31	
		39,15,32,24,27,43,41		2,52
44″	56,59,48,43,45,26,41, 0,40, 7		4,10, 0,58,23	
		39,15,28,14,26,45,18		2,52
46″	56,59,49,23, 0,54,55,27,25,25		4,10, 1, 1,15	
		39,15,24, 4,25,44, 3		2,52
48″	56,59,50, 2,16,18,59,53, 9,28		4,10, 1, 4, 7	
		39,15,19,54,24,39,56		2,52
50″	56,59,50,41,31,38,54,17,49,24		4,10, 1, 6,59	
		39,15,15,44,23,32,57		2,52
52″	56,59,51,20,46,54,38,41,22,21		4,10, 1, 9,51	
		39,15,11,34,22,23, 6		2,52
54″	56,59,52, 0, 2, 6,13, 3,45,27		4,10, 1,12,43	
		39,15, 7,24,21,10,23		2,52
56″	56,59,52,39,17,13,37,24,55,50		4,10, 1,15,35	
		39,15, 3,14,19,54,48		2,52
58″	56,59,53,18,32,16,51,44,50,38		4,10, 1,18,27	
		39,14,59, 4,18,36,21		
60″	56,59,53,57,47,15,56, 3,26,59			
exact	56,59,53,57,47,15,56, 3, 4,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°48′ 0″	56,59,53,57,47,15,56, 3, 4,36			
		39,14,54,54,17,12,52		
2″	56,59,54,37, 2,10,50,20,17,28		4,10, 1,24,19	
		39,14,50,44,15,48,33		2,52
4″	56,59,55,16,17, 1,34,36, 6, 1		4,10, 1,27,11	
		39,14,46,34,14,21,22		2,52
6″	56,59,55,55,31,48, 8,50,27,23		4,10, 1,30, 3	
		39,14,42,24,12,51,19		2,52
8″	56,59,56,34,46,30,33, 3,18,42		4,10, 1,32,55	
		39,14,38,14,11,18,24		2,52
10″	56,59,57,14, 1, 8,47,14,37, 6		4,10, 1,35,47	
		39,14,34, 4, 9,42,37		2,52
12″	56,59,57,53,15,42,51,24,19,43		4,10, 1,38,39	
		39,14,29,54, 8, 3,58		2,52
14″	56,59,58,32,30,12,45,32,23,41		4,10, 1,41,31	
		39,14,25,44, 6,22,27		2,52
16″	56,59,59,11,44,38,29,38,46, 8		4,10, 1,44,23	
		39,14,21,34, 4,38, 4		2,52
18″	56,59,59,50,59, 0, 3,43,24,12		4,10, 1,47,15	
		39,14,17,24, 2,50,49		2,52
20″	57, 0, 0,30,13,17,27,46,15, 1		4,10, 1,50, 7	
		39,14,13,14, 1, 0,42		2,52
22″	57, 0, 1, 9,27,30,41,47,15,43		4,10, 1,52,59	
		39,14, 9, 3,59, 7,43		2,52
24″	57, 0, 1,48,41,39,45,46,23,26		4,10, 1,55,51	
		39,14, 4,53,57,11,52		2,52
26″	57, 0, 2,27,55,44,39,43,35,18		4,10, 1,58,43	
		39,14, 0,43,55,13, 9		2,52
28″	57, 0, 3, 7, 9,45,23,38,48,27		4,10, 2, 1,35	
		39,13,56,33,53,11,34		2,52
30″	57, 0, 3,46,23,41,57,32, 0, 1		4,10, 2, 4,27	
		39,13,52,23,51, 7, 7		2,52
32″	57, 0, 4,25,37,34,21,23, 7, 8		4,10, 2, 7,19	
		39,13,48,13,48,59,48		2,52
34″	57, 0, 5, 4,51,22,35,12, 6,56		4,10, 2,10,11	
		39,13,44, 3,46,49,37		2,52
36″	57, 0, 5,44, 5, 6,38,58,56,33		4,10, 2,13, 3	
		39,13,39,53,44,36,34		2,52
38″	57, 0, 6,23,18,46,32,43,33, 7		4,10, 2,15,55	
		39,13,35,43,42,20,39		2,52
40″	57, 0, 7, 2,32,22,16,25,53,46		4,10, 2,18,47	
		39,13,31,33,40, 1,52		2,52
42″	57, 0, 7,41,45,53,50, 5,55,38		4,10, 2,21,39	
		39,13,27,23,37,40,13		2,52
44″	57, 0, 8,20,59,21,13,43,35,51		4,10, 2,24,31	
		39,13,23,13,35,15,42		2,52
46″	57, 0, 9, 0,12,44,27,18,51,33		4,10, 2,27,23	
		39,13,19, 3,32,48,19		2,52
48″	57, 0, 9,39,26, 3,30,51,39,52		4,10, 2,30,15	
		39,13,14,53,30,18, 4		2,52
50″	57, 0,10,18,39,18,24,21,57,56		4,10, 2,33, 7	
		39,13,10,43,27,44,57		2,52
52″	57, 0,10,57,52,29, 7,49,42,53		4,10, 2,35,59	
		39,13, 6,33,25, 8,58		2,52
54″	57, 0,11,37, 5,35,41,14,51,51		4,10, 2,38,51	
		39,13, 2,23,22,30, 7		2,52
56″	57, 0,12,16,18,38, 4,37,21,58		4,10, 2,41,43	
		39,12,58,13,19,48,24		2,52
58″	57, 0,12,55,31,36,17,57,10,22		4,10, 2,44,35	
		39,12,54, 3,17, 3,49		
60″	57, 0,13,34,44,30,21,14,14,11			
exact	57, 0,13,34,44,30,21,14, 8,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°49′ 0″	57, 0,13,34,44,30,21,14, 8,53			
		39,12,49,53,14,15,46		
2″	57, 0,14,13,57,20,14,28,24,39		4,10, 2,50,21	
		39,12,45,43,11,25,25		2,52
4″	57, 0,14,53,10, 5,57,39,50, 4		4,10, 2,53,13	
		39,12,41,33, 8,32,12		2,52
6″	57, 0,15,32,22,47,30,48,22,16		4,10, 2,56, 5	
		39,12,37,23, 5,36, 7		2,52
8″	57, 0,16,11,35,24,53,53,58,23		4,10, 2,58,57	
		39,12,33,13, 2,37,10		2,52
10″	57, 0,16,50,47,58, 6,56,35,33		4,10, 3, 1,49	
		39,12,29, 2,59,35,21		2,52
12″	57, 0,17,30, 0,27, 9,56,10,54		4,10, 3, 4,41	
		39,12,24,52,56,30,40		2,52
14″	57, 0,18, 9,12,52, 2,52,41,34		4,10, 3, 7,33	
		39,12,20,42,53,23, 7		2,52
16″	57, 0,18,48,25,12,45,46, 4,41		4,10, 3,10,25	
		39,12,16,32,50,12,42		2,52
18″	57, 0,19,27,37,29,18,36,17,23		4,10, 3,13,17	
		39,12,12,22,46,59,25		2,52
20″	57, 0,20, 6,49,41,41,23,16,48		4,10, 3,16, 9	
		39,12, 8,12,43,43,16		2,52
22″	57, 0,20,46, 1,49,54, 7, 0, 4		4,10, 3,19, 1	
		39,12, 4, 2,40,24,15		2,52
24″	57, 0,21,25,13,53,56,47,24,19		4,10, 3,21,53	
		39,11,59,52,37, 2,22		2,52
26″	57, 0,22, 4,25,53,49,24,26,41		4,10, 3,24,45	
		39,11,55,42,33,37,37		2,52
28″	57, 0,22,43,37,49,31,58, 4,18		4,10, 3,27,37	
		39,11,51,32,30,10, 0		2,52
30″	57, 0,23,22,49,41, 4,28,14,18		4,10, 3,30,29	
		39,11,47,22,26,39,31		2,52
32″	57, 0,24, 2, 1,28,26,54,53,49		4,10, 3,33,21	
		39,11,43,12,23, 6,10		2,52
34″	57, 0,24,41,13,11,39,17,59,59		4,10, 3,36,13	
		39,11,39, 2,19,29,57		2,52
36″	57, 0,25,20,24,50,41,37,29,56		4,10, 3,39, 5	
		39,11,34,52,15,50,52		2,52
38″	57, 0,25,59,36,25,33,53,20,48		4,10, 3,41,57	
		39,11,30,42,12, 8,55		2,52
40″	57, 0,26,38,47,56,16, 5,29,43		4,10, 3,44,49	
		39,11,26,32, 8,24, 6		2,52
42″	57, 0,27,17,59,22,48,13,53,49		4,10, 3,47,41	
		39,11,22,22, 4,36,25		2,52
44″	57, 0,27,57,10,45,10,18,30,14		4,10, 3,50,33	
		39,11,18,12, 0,45,52		2,52
46″	57, 0,28,36,22, 3,22,19,16, 6		4,10, 3,53,25	
		39,11,14, 1,56,52,27		2,52
48″	57, 0,29,15,33,17,24,16, 8,33		4,10, 3,56,17	
		39,11, 9,51,52,56,10		2,52
50″	57, 0,29,54,44,27,16, 9, 4,43		4,10, 3,59, 9	
		39,11, 5,41,48,57, 1		2,52
52″	57, 0,30,33,55,32,57,58, 1,44		4,10, 4, 2, 1	
		39,11, 1,31,44,55, 0		2,52
54″	57, 0,31,13, 6,34,29,42,56,44		4,10, 4, 4,53	
		39,10,57,21,40,50, 7		2,52
56″	57, 0,31,52,17,31,51,23,46,51		4,10, 4, 7,45	
		39,10,53,11,36,42,22		2,52
58″	57, 0,32,31,28,25, 3, 0,29,13		4,10, 4,10,37	
		39,10,49, 1,32,31,45		
60″	57, 0,33,10,39,14, 4,33, 0,58			
exact	57, 0,33,10,39,14, 4,33, 1,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°50′ 0″	57, 0,33,10,39,14, 4,33, 1,46			
		39,10,44,51,28,18,29		
2″	57, 0,33,49,49,58,56, 1,20,15		4,10, 4,16,19	
		39,10,40,41,24, 2,10		2,52
4″	57, 0,34,29, 0,39,37,25,22,25		4,10, 4,19,11	
		39,10,36,31,19,42,59		2,52
6″	57, 0,35, 8,11,16, 8,45, 5,24		4,10, 4,22, 3	
		39,10,32,21,15,20,56		2,52
8″	57, 0,35,47,21,48,30, 0,26,20		4,10, 4,24,55	
		39,10,28,11,10,56, 1		2,52
10″	57, 0,36,26,32,16,41,11,22,21		4,10, 4,27,47	
		39,10,24, 1, 6,28,14		2,52
12″	57, 0,37, 5,42,40,42,17,50,35		4,10, 4,30,39	
		39,10,19,51, 1,57,35		2,52
14″	57, 0,37,44,53, 0,33,19,48,10		4,10, 4,33,31	
		39,10,15,40,57,24, 4		2,52
16″	57, 0,38,24, 3,16,14,17,12,14		4,10, 4,36,23	
		39,10,11,30,52,47,41		2,52
18″	57, 0,39, 3,13,27,45, 9,59,55		4,10, 4,39,15	
		39,10, 7,20,48, 8,26		2,52
20″	57, 0,39,42,23,35, 5,58, 8,21		4,10, 4,42, 7	
		39,10, 3,10,43,26,19		2,52
22″	57, 0,40,21,33,38,16,41,34,40		4,10, 4,44,59	
		39, 9,59, 0,38,41,20		2,52
24″	57, 0,41, 0,43,37,17,20,16, 0		4,10, 4,47,51	
		39, 9,54,50,33,53,29		2,52
26″	57, 0,41,39,53,32, 7,54, 9,29		4,10, 4,50,43	
		39, 9,50,40,29, 2,46		2,52
28″	57, 0,42,19, 3,22,48,23,12,15		4,10, 4,53,35	
		39, 9,46,30,24, 9,11		2,52
30″	57, 0,42,58,13, 9,18,47,21,26		4,10, 4,56,27	
		39, 9,42,20,19,12,44		2,52
32″	57, 0,43,37,22,51,39, 6,34,10		4,10, 4,59,19	
		39, 9,38,10,14,13,25		2,52
34″	57, 0,44,16,32,29,49,20,47,35		4,10, 5, 2,11	
		39, 9,34, 0, 9,11,14		2,52
36″	57, 0,44,55,42, 3,49,29,58,49		4,10, 5, 5, 3	
		39, 9,29,50, 4, 6,11		2,52
38″	57, 0,45,34,51,33,39,34, 5, 0		4,10, 5, 7,55	
		39, 9,25,39,58,58,16		2,52
40″	57, 0,46,14, 0,59,19,33, 3,16		4,10, 5,10,47	
		39, 9,21,29,53,47,29		2,52
42″	57, 0,46,53,10,20,49,26,50,45		4,10, 5,13,39	
		39, 9,17,19,48,33,50		2,52
44″	57, 0,47,32,19,38, 9,15,24,35		4,10, 5,16,31	
		39, 9,13, 9,43,17,19		2,52
46″	57, 0,48,11,28,51,18,58,41,54		4,10, 5,19,23	
		39, 9, 8,59,37,57,56		2,52
48″	57, 0,48,50,38, 0,18,36,39,50		4,10, 5,22,15	
		39, 9, 4,49,32,35,41		2,52
50″	57, 0,49,29,47, 5, 8, 9,15,31		4,10, 5,25, 7	
		39, 9, 0,39,27,10,34		2,52
52″	57, 0,50, 8,56, 5,47,36,26, 5		4,10, 5,27,59	
		39, 8,56,29,21,42,35		2,52
54″	57, 0,50,48, 5, 2,16,58, 8,40		4,10, 5,30,51	
		39, 8,52,19,16,11,44		2,52
56″	57, 0,51,27,13,54,36,14,20,24		4,10, 5,33,43	
		39, 8,48, 9,10,38, 1		2,52
58″	57, 0,52, 6,22,42,45,24,58,25		4,10, 5,36,35	
		39, 8,43,59, 5, 1,26		
60″	57, 0,52,45,31,26,44,29,59,51			
exact	57, 0,52,45,31,26,44,30,11,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°51′ 0″	57, 0,52,45,31,26,44,30,11,21			
		39, 8,39,48,59,23,20		
2″	57, 0,53,24,40, 6,33,29,34,41		4,10, 5,42,13	
		39, 8,35,38,53,41, 7		2,52
4″	57, 0,54, 3,48,42,12,23,15,48		4,10, 5,45, 5	
		39, 8,31,28,47,56, 2		2,52
6″	57, 0,54,42,57,13,41,11,11,50		4,10, 5,47,57	
		39, 8,27,18,42, 8, 5		2,52
8″	57, 0,55,22, 5,40,59,53,19,55		4,10, 5,50,49	
		39, 8,23, 8,36,17,16		2,52
10″	57, 0,56, 1,14, 4, 8,29,37,11		4,10, 5,53,41	
		39, 8,18,58,30,23,35		2,52
12″	57, 0,56,40,22,23, 7, 0, 0,46		4,10, 5,56,33	
		39, 8,14,48,24,27, 2		2,52
14″	57, 0,57,19,30,37,55,24,27,48		4,10, 5,59,25	
		39, 8,10,38,18,27,37		2,52
16″	57, 0,57,58,38,48,33,42,55,25		4,10, 6, 2,17	
		39, 8, 6,28,12,25,20		2,52
18″	57, 0,58,37,46,55, 1,55,20,45		4,10, 6, 5, 9	
		39, 8, 2,18, 6,20,11		2,52
20″	57, 0,59,16,54,57,20, 1,40,56		4,10, 6, 8, 1	
		39, 7,58, 8, 0,12,10		2,52
22″	57, 0,59,56, 2,55,28, 1,53, 6		4,10, 6,10,53	
		39, 7,53,57,54, 1,17		2,52
24″	57, 1, 0,35,10,49,25,55,54,23		4,10, 6,13,45	
		39, 7,49,47,47,47,32		2,52
26″	57, 1, 1,14,18,39,13,43,41,55		4,10, 6,16,37	
		39, 7,45,37,41,30,55		2,52
28″	57, 1, 1,53,26,24,51,25,12,50		4,10, 6,19,29	
		39, 7,41,27,35,11,26		2,52
30″	57, 1, 2,32,34, 6,19, 0,24,16		4,10, 6,22,21	
		39, 7,37,17,28,49, 5		2,52
32″	57, 1, 3,11,41,43,36,29,13,21		4,10, 6,25,13	
		39, 7,33, 7,22,23,52		2,52
34″	57, 1, 3,50,49,16,43,51,37,13		4,10, 6,28, 5	
		39, 7,28,57,15,55,47		2,52
36″	57, 1, 4,29,56,45,41, 7,33, 0		4,10, 6,30,57	
		39, 7,24,47, 9,24,50		2,52
38″	57, 1, 5, 9, 4,10,28,16,57,50		4,10, 6,33,49	
		39, 7,20,37, 2,51, 1		2,52
40″	57, 1, 5,48,11,31, 5,19,48,51		4,10, 6,36,41	
		39, 7,16,26,56,14,20		2,52
42″	57, 1, 6,27,18,47,32,16, 3,11		4,10, 6,39,33	
		39, 7,12,16,49,34,47		2,52
44″	57, 1, 7, 6,25,59,49, 5,37,58		4,10, 6,42,25	
		39, 7, 8, 6,42,52,22		2,52
46″	57, 1, 7,45,33, 7,55,48,30,20		4,10, 6,45,17	
		39, 7, 3,56,36, 7, 5		2,52
48″	57, 1, 8,24,40,11,52,24,37,25		4,10, 6,48, 9	
		39, 6,59,46,29,18,56		2,52
50″	57, 1, 9, 3,47,11,38,53,56,21		4,10, 6,51, 1	
		39, 6,55,36,22,27,55		2,52
52″	57, 1, 9,42,54, 7,15,16,24,16		4,10, 6,53,53	
		39, 6,51,26,15,34, 2		2,52
54″	57, 1,10,22, 0,58,41,31,58,18		4,10, 6,56,45	
		39, 6,47,16, 8,37,17		2,52
56″	57, 1,11, 1, 7,45,57,40,35,35		4,10, 6,59,37	
		39, 6,43, 6, 1,37,40		2,52
58″	57, 1,11,40,14,29, 3,42,13,15		4,10, 7, 2,29	
		39, 6,38,55,54,35,11		
60″	57, 1,12,19,21, 7,59,36,48,26			
exact	57, 1,12,19,21, 7,59,37,14,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°52′ 0″	57, 1,12,19,21, 7,59,37,14,16			
		39, 6,34,45,47,32,34		
2″	57, 1,12,58,27,42,45,24,46,50		4,10, 7, 8, 1	
		39, 6,30,35,40,24,33		2,52
4″	57, 1,13,37,34,13,21, 5,11,23		4,10, 7,10,53	
		39, 6,26,25,33,13,40		2,52
6″	57, 1,14,16,40,39,46,38,25, 3		4,10, 7,13,45	
		39, 6,22,15,25,59,55		2,52
8″	57, 1,14,55,47, 2, 2, 4,24,58		4,10, 7,16,37	
		39, 6,18, 5,18,43,18		2,52
10″	57, 1,15,34,53,20, 7,23, 8,16		4,10, 7,19,29	
		39, 6,13,55,11,23,49		2,52
12″	57, 1,16,13,59,34, 2,34,32, 5		4,10, 7,22,21	
		39, 6, 9,45, 4, 1,28		2,52
14″	57, 1,16,53, 5,43,47,38,33,33		4,10, 7,25,13	
		39, 6, 5,34,56,36,15		2,52
16″	57, 1,17,32,11,49,22,35, 9,48		4,10, 7,28, 5	
		39, 6, 1,24,49, 8,10		2,52
18″	57, 1,18,11,17,50,47,24,17,58		4,10, 7,30,57	
		39, 5,57,14,41,37,13		2,52
20″	57, 1,18,50,23,48, 2, 5,55,11		4,10, 7,33,49	
		39, 5,53, 4,34, 3,24		2,52
22″	57, 1,19,29,29,41, 6,39,58,35		4,10, 7,36,41	
		39, 5,48,54,26,26,43		2,52
24″	57, 1,20, 8,35,30, 1, 6,25,18		4,10, 7,39,33	
		39, 5,44,44,18,47,10		2,52
26″	57, 1,20,47,41,14,45,25,12,28		4,10, 7,42,25	
		39, 5,40,34,11, 4,45		2,52
28″	57, 1,21,26,46,55,19,36,17,13		4,10, 7,45,17	
		39, 5,36,24, 3,19,28		2,52
30″	57, 1,22, 5,52,31,43,39,36,41		4,10, 7,48, 9	
		39, 5,32,13,55,31,19		2,52
32″	57, 1,22,44,58, 3,57,35, 8, 0		4,10, 7,51, 1	
		39, 5,28, 3,47,40,18		2,52
34″	57, 1,23,24, 3,32, 1,22,48,18		4,10, 7,53,53	
		39, 5,23,53,39,46,25		2,52
36″	57, 1,24, 3, 8,55,55, 2,34,43		4,10, 7,56,45	
		39, 5,19,43,31,49,40		2,52
38″	57, 1,24,42,14,15,38,34,24,23		4,10, 7,59,37	
		39, 5,15,33,23,50, 3		2,52
40″	57, 1,25,21,19,31,11,58,14,26		4,10, 8, 2,29	
		39, 5,11,23,15,47,34		2,52
42″	57, 1,26, 0,24,42,35,14, 2, 0		4,10, 8, 5,21	
		39, 5, 7,13, 7,42,13		2,52
44″	57, 1,26,39,29,49,48,21,44,13		4,10, 8, 8,13	
		39, 5, 3, 2,59,34, 0		2,52
46″	57, 1,27,18,34,52,51,21,18,13		4,10, 8,11, 5	
		39, 4,58,52,51,22,55		2,52
48″	57, 1,27,57,39,51,44,12,41, 8		4,10, 8,13,57	
		39, 4,54,42,43, 8,58		2,52
50″	57, 1,28,36,44,46,26,55,50, 6		4,10, 8,16,49	
		39, 4,50,32,34,52, 9		2,52
52″	57, 1,29,15,49,36,59,30,42,15		4,10, 8,19,41	
		39, 4,46,22,26,32,28		2,52
54″	57, 1,29,54,54,23,21,57,14,43		4,10, 8,22,33	
		39, 4,42,12,18, 9,55		2,52
56″	57, 1,30,33,59, 5,34,15,24,38		4,10, 8,25,25	
		39, 4,38, 2, 9,44,30		2,52
58″	57, 1,31,13, 3,43,36,25, 9, 8		4,10, 8,28,17	
		39, 4,33,52, 1,16,13		
60″	57, 1,31,52, 8,17,28,26,25,21			
exact	57, 1,31,52, 8,17,28,26,55,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°53′ 0″	57, 1,31,52, 8,17,28,26,55,43			
		39, 4,29,41,52,48,30		
2″	57, 1,32,31,12,47,10,19,44,13		4,10, 8,33,46	
		39, 4,25,31,44,14,44		2,51
4″	57, 1,33,10,17,12,42, 3,58,57		4,10, 8,36,37	
		39, 4,21,21,35,38, 7		2,51
6″	57, 1,33,49,21,34, 3,39,37, 4		4,10, 8,39,28	
		39, 4,17,11,26,58,39		2,51
8″	57, 1,34,28,25,51,15, 6,35,43		4,10, 8,42,19	
		39, 4,13, 1,18,16,20		2,51
10″	57, 1,35, 7,30, 4,16,24,52, 3		4,10, 8,45,10	
		39, 4, 8,51, 9,31,10		2,51
12″	57, 1,35,46,34,13, 7,34,23,13		4,10, 8,48, 1	
		39, 4, 4,41, 0,43, 9		2,51
14″	57, 1,36,25,38,17,48,35, 6,22		4,10, 8,50,52	
		39, 4, 0,30,51,52,17		2,51
16″	57, 1,37, 4,42,18,19,26,58,39		4,10, 8,53,43	
		39, 3,56,20,42,58,34		2,51
18″	57, 1,37,43,46,14,40, 9,57,13		4,10, 8,56,34	
		39, 3,52,10,34, 2, 0		2,51
20″	57, 1,38,22,50, 6,50,43,59,13		4,10, 8,59,25	
		39, 3,48, 0,25, 2,35		2,51
22″	57, 1,39, 1,53,54,51, 9, 1,48		4,10, 9, 2,16	
		39, 3,43,50,16, 0,19		2,51
24″	57, 1,39,40,57,38,41,25, 2, 7		4,10, 9, 5, 7	
		39, 3,39,40, 6,55,12		2,51
26″	57, 1,40,20, 1,18,21,31,57,19		4,10, 9, 7,58	
		39, 3,35,29,57,47,14		2,51
28″	57, 1,40,59, 4,53,51,29,44,33		4,10, 9,10,49	
		39, 3,31,19,48,36,25		2,51
30″	57, 1,41,38, 8,25,11,18,20,58		4,10, 9,13,40	
		39, 3,27, 9,39,22,45		2,51
32″	57, 1,42,17,11,52,20,57,43,43		4,10, 9,16,31	
		39, 3,22,59,30, 6,14		2,51
34″	57, 1,42,56,15,15,20,27,49,57		4,10, 9,19,22	
		39, 3,18,49,20,46,52		2,51
36″	57, 1,43,35,18,34, 9,48,36,49		4,10, 9,22,13	
		39, 3,14,39,11,24,39		2,51
38″	57, 1,44,14,21,48,49, 0, 1,28		4,10, 9,25, 4	
		39, 3,10,29, 1,59,35		2,51
40″	57, 1,44,53,24,59,18, 2, 1, 3		4,10, 9,27,55	
		39, 3, 6,18,52,31,40		2,51
42″	57, 1,45,32,28, 5,36,54,32,43		4,10, 9,30,46	
		39, 3, 2, 8,43, 0,54		2,51
44″	57, 1,46,11,31, 7,45,37,33,37		4,10, 9,33,37	
		39, 2,57,58,33,27,17		2,51
46″	57, 1,46,50,34, 5,44,11, 0,54		4,10, 9,36,28	
		39, 2,53,48,23,50,49		2,51
48″	57, 1,47,29,36,59,32,34,51,43		4,10, 9,39,19	
		39, 2,49,38,14,11,30		2,51
50″	57, 1,48, 8,39,49,10,49, 3,13		4,10, 9,42,10	
		39, 2,45,28, 4,29,20		2,51
52″	57, 1,48,47,42,34,38,53,32,33		4,10, 9,45, 1	
		39, 2,41,17,54,44,19		2,51
54″	57, 1,49,26,45,15,56,48,16,52		4,10, 9,47,52	
		39, 2,37, 7,44,56,27		2,51
56″	57, 1,50, 5,47,53, 4,33,13,19		4,10, 9,50,43	
		39, 2,32,57,35, 5,44		2,51
58″	57, 1,50,44,50,26, 2, 8,19, 3		4,10, 9,53,34	
		39, 2,28,47,25,12,10		
60″	57, 1,51,23,52,54,49,33,31,13			
exact	57, 1,51,23,52,54,49,33, 9,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°54′ 0″	57, 1,51,23,52,54,49,33, 9,30			
		39, 2,24,37,15,13,24		
2″	57, 1,52, 2,55,19,26,48,22,54		4,10, 9,59,25	
		39, 2,20,27, 5,13,59		2,51
4″	57, 1,52,41,57,39,53,53,36,53		4,10,10, 2,16	
		39, 2,16,16,55,11,43		2,51
6″	57, 1,53,20,59,56,10,48,48,36		4,10,10, 5, 7	
		39, 2,12, 6,45, 6,36		2,51
8″	57, 1,54, 0, 2, 8,17,33,55,12		4,10,10, 7,58	
		39, 2, 7,56,34,58,38		2,51
10″	57, 1,54,39, 4,16,14, 8,53,50		4,10,10,10,49	
		39, 2, 3,46,24,47,49		2,51
12″	57, 1,55,18, 6,20, 0,33,41,39		4,10,10,13,40	
		39, 1,59,36,14,34, 9		2,51
14″	57, 1,55,57, 8,19,36,48,15,48		4,10,10,16,31	
		39, 1,55,26, 4,17,38		2,51
16″	57, 1,56,36,10,15, 2,52,33,26		4,10,10,19,22	
		39, 1,51,15,53,58,16		2,51
18″	57, 1,57,15,12, 6,18,46,31,42		4,10,10,22,13	
		39, 1,47, 5,43,36, 3		2,51
20″	57, 1,57,54,13,53,24,30, 7,45		4,10,10,25, 4	
		39, 1,42,55,33,10,59		2,51
22″	57, 1,58,33,15,36,20, 3,18,44		4,10,10,27,55	
		39, 1,38,45,22,43, 4		2,51
24″	57, 1,59,12,17,15, 5,26, 1,48		4,10,10,30,46	
		39, 1,34,35,12,12,18		2,51
26″	57, 1,59,51,18,49,40,38,14, 6		4,10,10,33,37	
		39, 1,30,25, 1,38,41		2,51
28″	57, 2, 0,30,20,20, 5,39,52,47		4,10,10,36,28	
		39, 1,26,14,51, 2,13		2,51
30″	57, 2, 1, 9,21,46,20,30,55, 0		4,10,10,39,19	
		39, 1,22, 4,40,22,54		2,51
32″	57, 2, 1,48,23, 8,25,11,17,54		4,10,10,42,10	
		39, 1,17,54,29,40,44		2,51
34″	57, 2, 2,27,24,26,19,40,58,38		4,10,10,45, 1	
		39, 1,13,44,18,55,43		2,51
36″	57, 2, 3, 6,25,40, 3,59,54,21		4,10,10,47,52	
		39, 1, 9,34, 8, 7,51		2,51
38″	57, 2, 3,45,26,49,38, 8, 2,12		4,10,10,50,43	
		39, 1, 5,23,57,17, 8		2,51
40″	57, 2, 4,24,27,55, 2, 5,19,20		4,10,10,53,34	
		39, 1, 1,13,46,23,34		2,51
42″	57, 2, 5, 3,28,56,15,51,42,54		4,10,10,56,25	
		39, 0,57, 3,35,27, 9		2,51
44″	57, 2, 5,42,29,53,19,27,10, 3		4,10,10,59,16	
		39, 0,52,53,24,27,53		2,51
46″	57, 2, 6,21,30,46,12,51,37,56		4,10,11, 2, 7	
		39, 0,48,43,13,25,46		2,51
48″	57, 2, 7, 0,31,34,56, 5, 3,42		4,10,11, 4,58	
		39, 0,44,33, 2,20,48		2,51
50″	57, 2, 7,39,32,19,29, 7,24,30		4,10,11, 7,49	
		39, 0,40,22,51,12,59		2,51
52″	57, 2, 8,18,32,59,51,58,37,29		4,10,11,10,40	
		39, 0,36,12,40, 2,19		2,51
54″	57, 2, 8,57,33,36, 4,38,39,48		4,10,11,13,31	
		39, 0,32, 2,28,48,48		2,51
56″	57, 2, 9,36,34, 8, 7, 7,28,36		4,10,11,16,22	
		39, 0,27,52,17,32,26		2,51
58″	57, 2,10,15,34,35,59,25, 1, 2		4,10,11,19,13	
		39, 0,23,42, 6,13,13		
60″	57, 2,10,54,34,59,41,31,14,15			
exact	57, 2,10,54,34,59,41,30,57,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°55′ 0″	57, 2,10,54,34,59,41,30,57,57			
		39, 0,19,31,54,49,34		
2″	57, 2,11,33,35,19,13,25,47,31		4,10,11,25, 0	
		39, 0,15,21,43,24,34		2,51
4″	57, 2,12,12,35,34,35, 9,12, 5		4,10,11,27,51	
		39, 0,11,11,31,56,43		2,51
6″	57, 2,12,51,35,45,46,41, 8,48		4,10,11,30,42	
		39, 0, 7, 1,20,26, 1		2,51
8″	57, 2,13,30,35,52,48, 1,34,49		4,10,11,33,33	
		39, 0, 2,51, 8,52,28		2,51
10″	57, 2,14, 9,35,55,39,10,27,17		4,10,11,36,24	
		38,59,58,40,57,16, 4		2,51
12″	57, 2,14,48,35,54,20, 7,43,21		4,10,11,39,15	
		38,59,54,30,45,36,49		2,51
14″	57, 2,15,27,35,48,50,53,20,10		4,10,11,42, 6	
		38,59,50,20,33,54,43		2,51
16″	57, 2,16, 6,35,39,11,27,14,53		4,10,11,44,57	
		38,59,46,10,22, 9,46		2,51
18″	57, 2,16,45,35,25,21,49,24,39		4,10,11,47,48	
		38,59,42, 0,10,21,58		2,51
20″	57, 2,17,24,35, 7,21,59,46,37		4,10,11,50,39	
		38,59,37,49,58,31,19		2,51
22″	57, 2,18, 3,34,45,11,58,17,56		4,10,11,53,30	
		38,59,33,39,46,37,49		2,51
24″	57, 2,18,42,34,18,51,44,55,45		4,10,11,56,21	
		38,59,29,29,34,41,28		2,51
26″	57, 2,19,21,33,48,21,19,37,13		4,10,11,59,12	
		38,59,25,19,22,42,16		2,51
28″	57, 2,20, 0,33,13,40,42,19,29		4,10,12, 2, 3	
		38,59,21, 9,10,40,13		2,51
30″	57, 2,20,39,32,34,49,52,59,42		4,10,12, 4,54	
		38,59,16,58,58,35,19		2,51
32″	57, 2,21,18,31,51,48,51,35, 1		4,10,12, 7,45	
		38,59,12,48,46,27,34		2,51
34″	57, 2,21,57,31, 4,37,38, 2,35		4,10,12,10,36	
		38,59, 8,38,34,16,58		2,51
36″	57, 2,22,36,30,13,16,12,19,33		4,10,12,13,27	
		38,59, 4,28,22, 3,31		2,51
38″	57, 2,23,15,29,17,44,34,23, 4		4,10,12,16,18	
		38,59, 0,18, 9,47,13		2,51
40″	57, 2,23,54,28,18, 2,44,10,17		4,10,12,19, 9	
		38,58,56, 7,57,28, 4		2,51
42″	57, 2,24,33,27,14,10,41,38,21		4,10,12,22, 0	
		38,58,51,57,45, 6, 4		2,51
44″	57, 2,25,12,26, 6, 8,26,44,25		4,10,12,24,51	
		38,58,47,47,32,41,13		2,51
46″	57, 2,25,51,24,53,55,59,25,38		4,10,12,27,42	
		38,58,43,37,20,13,31		2,51
48″	57, 2,26,30,23,37,33,19,39, 9		4,10,12,30,33	
		38,58,39,27, 7,42,58		2,51
50″	57, 2,27, 9,22,17, 0,27,22, 7		4,10,12,33,24	
		38,58,35,16,55, 9,34		2,51
52″	57, 2,27,48,20,52,17,22,31,41		4,10,12,36,15	
		38,58,31, 6,42,33,19		2,51
54″	57, 2,28,27,19,23,24, 5, 5, 0		4,10,12,39, 6	
		38,58,26,56,29,54,13		2,51
56″	57, 2,29, 6,17,50,20,34,59,13		4,10,12,41,57	
		38,58,22,46,17,12,16		2,51
58″	57, 2,29,45,16,13, 6,52,11,29		4,10,12,44,48	
		38,58,18,36, 4,27,28		
60″	57, 2,30,24,14,31,42,56,38,57			
exact	57, 2,30,24,14,31,42,56,32, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°56′ 0″	57, 2,30,24,14,31,42,56,32, 1			
		38,58,14,25,51,39,17		
2″	57, 2,31, 3,12,46, 8,48,11,18		4,10,12,50,31	
		38,58,10,15,38,48,46		2,51
4″	57, 2,31,42,10,56,24,27, 0, 4		4,10,12,53,22	
		38,58, 6, 5,25,55,24		2,51
6″	57, 2,32,21, 9, 2,29,52,55,28		4,10,12,56,13	
		38,58, 1,55,12,59,11		2,51
8″	57, 2,33, 0, 7, 4,25, 5,54,39		4,10,12,59, 4	
		38,57,57,45, 0, 0, 7		2,51
10″	57, 2,33,39, 5, 2,10, 5,54,46		4,10,13, 1,55	
		38,57,53,34,46,58,12		2,51
12″	57, 2,34,18, 2,55,44,52,52,58		4,10,13, 4,46	
		38,57,49,24,33,53,26		2,51
14″	57, 2,34,57, 0,45, 9,26,46,24		4,10,13, 7,37	
		38,57,45,14,20,45,49		2,51
16″	57, 2,35,35,58,30,23,47,32,13		4,10,13,10,28	
		38,57,41, 4, 7,35,21		2,51
18″	57, 2,36,14,56,11,27,55, 7,34		4,10,13,13,19	
		38,57,36,53,54,22, 2		2,51
20″	57, 2,36,53,53,48,21,49,29,36		4,10,13,16,10	
		38,57,32,43,41, 5,52		2,51
22″	57, 2,37,32,51,21, 5,30,35,28		4,10,13,19, 1	
		38,57,28,33,27,46,51		2,51
24″	57, 2,38,11,48,49,38,58,22,19		4,10,13,21,52	
		38,57,24,23,14,24,59		2,51
26″	57, 2,38,50,46,14, 2,12,47,18		4,10,13,24,43	
		38,57,20,13, 1, 0,16		2,51
28″	57, 2,39,29,43,34,15,13,47,34		4,10,13,27,34	
		38,57,16, 2,47,32,42		2,51
30″	57, 2,40, 8,40,50,18, 1,20,16		4,10,13,30,25	
		38,57,11,52,34, 2,17		2,51
32″	57, 2,40,47,38, 2,10,35,22,33		4,10,13,33,16	
		38,57, 7,42,20,29, 1		2,51
34″	57, 2,41,26,35, 9,52,55,51,34		4,10,13,36, 7	
		38,57, 3,32, 6,52,54		2,51
36″	57, 2,42, 5,32,13,25, 2,44,28		4,10,13,38,58	
		38,56,59,21,53,13,56		2,51
38″	57, 2,42,44,29,12,46,55,58,24		4,10,13,41,49	
		38,56,55,11,39,32, 7		2,51
40″	57, 2,43,23,26, 7,58,35,30,31		4,10,13,44,40	
		38,56,51, 1,25,47,27		2,51
42″	57, 2,44, 2,22,59, 0, 1,17,58		4,10,13,47,31	
		38,56,46,51,11,59,56		2,51
44″	57, 2,44,41,19,45,51,13,17,54		4,10,13,50,22	
		38,56,42,40,58, 9,34		2,51
46″	57, 2,45,20,16,28,32,11,27,28		4,10,13,53,13	
		38,56,38,30,44,16,21		2,51
48″	57, 2,45,59,13, 7, 2,55,43,49		4,10,13,56, 4	
		38,56,34,20,30,20,17		2,51
50″	57, 2,46,38, 9,41,23,26, 4, 6		4,10,13,58,55	
		38,56,30,10,16,21,22		2,51
52″	57, 2,47,17, 6,11,33,42,25,28		4,10,14, 1,46	
		38,56,26, 0, 2,19,36		2,51
54″	57, 2,47,56, 2,37,33,44,45, 4		4,10,14, 4,37	
		38,56,21,49,48,14,59		2,51
56″	57, 2,48,34,58,59,23,33, 0, 3		4,10,14, 7,28	
		38,56,17,39,34, 7,31		2,51
58″	57, 2,49,13,55,17, 3, 7, 7,34		4,10,14,10,19	
		38,56,13,29,19,57,12		
60″	57, 2,49,52,51,30,32,27, 4,46			
exact	57, 2,49,52,51,30,32,27,11,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°57′ 0″	57, 2,49,52,51,30,32,27,11,13			
		38,56, 9,19, 5,44,49		
2″	57, 2,50,31,47,39,51,32,56, 2		4,10,14,15,57	
		38,56, 5, 8,51,28,52		2,51
4″	57, 2,51,10,43,45, 0,24,24,54		4,10,14,18,48	
		38,56, 0,58,37,10, 4		2,51
6″	57, 2,51,49,39,45,59, 1,34,58		4,10,14,21,39	
		38,55,56,48,22,48,25		2,51
8″	57, 2,52,28,35,42,47,24,23,23		4,10,14,24,30	
		38,55,52,38, 8,23,55		2,51
10″	57, 2,53, 7,31,35,25,32,47,18		4,10,14,27,21	
		38,55,48,27,53,56,34		2,51
12″	57, 2,53,46,27,23,53,26,43,52		4,10,14,30,12	
		38,55,44,17,39,26,22		2,51
14″	57, 2,54,25,23, 8,11, 6,10,14		4,10,14,33, 3	
		38,55,40, 7,24,53,19		2,51
16″	57, 2,55, 4,18,48,18,31, 3,33		4,10,14,35,54	
		38,55,35,57,10,17,25		2,51
18″	57, 2,55,43,14,24,15,41,20,58		4,10,14,38,45	
		38,55,31,46,55,38,40		2,51
20″	57, 2,56,22, 9,56, 2,36,59,38		4,10,14,41,36	
		38,55,27,36,40,57, 4		2,51
22″	57, 2,57, 1, 5,23,39,17,56,42		4,10,14,44,27	
		38,55,23,26,26,12,37		2,51
24″	57, 2,57,40, 0,47, 5,44, 9,19		4,10,14,47,18	
		38,55,19,16,11,25,19		2,51
26″	57, 2,58,18,56, 6,21,55,34,38		4,10,14,50, 9	
		38,55,15, 5,56,35,10		2,51
28″	57, 2,58,57,51,21,27,52, 9,48		4,10,14,53, 0	
		38,55,10,55,41,42,10		2,51
30″	57, 2,59,36,46,32,23,33,51,58		4,10,14,55,51	
		38,55, 6,45,26,46,19		2,51
32″	57, 3, 0,15,41,39, 9, 0,38,17		4,10,14,58,42	
		38,55, 2,35,11,47,37		2,51
34″	57, 3, 0,54,36,41,44,12,25,54		4,10,15, 1,33	
		38,54,58,24,56,46, 4		2,51
36″	57, 3, 1,33,31,40, 9, 9,11,58		4,10,15, 4,24	
		38,54,54,14,41,41,40		2,51
38″	57, 3, 2,12,26,34,23,50,53,38		4,10,15, 7,15	
		38,54,50, 4,26,34,25		2,51
40″	57, 3, 2,51,21,24,28,17,28, 3		4,10,15,10, 6	
		38,54,45,54,11,24,19		2,51
42″	57, 3, 3,30,16,10,22,28,52,22		4,10,15,12,57	
		38,54,41,43,56,11,22		2,51
44″	57, 3, 4, 9,10,52, 6,25, 3,44		4,10,15,15,48	
		38,54,37,33,40,55,34		2,51
46″	57, 3, 4,48, 5,29,40, 5,59,18		4,10,15,18,39	
		38,54,33,23,25,36,55		2,51
48″	57, 3, 5,27, 0, 3, 3,31,36,13		4,10,15,21,30	
		38,54,29,13,10,15,25		2,51
50″	57, 3, 6, 5,54,32,16,41,51,38		4,10,15,24,21	
		38,54,25, 2,54,51, 4		2,51
52″	57, 3, 6,44,48,57,19,36,42,42		4,10,15,27,12	
		38,54,20,52,39,23,52		2,51
54″	57, 3, 7,23,43,18,12,16, 6,34		4,10,15,30, 3	
		38,54,16,42,23,53,49		2,51
56″	57, 3, 8, 2,37,34,54,40, 0,23		4,10,15,32,54	
		38,54,12,32, 8,20,55		2,51
58″	57, 3, 8,41,31,47,26,48,21,18		4,10,15,35,45	
		38,54, 8,21,52,45,10		
60″	57, 3, 9,20,25,55,48,41, 6,28			
exact	57, 3, 9,20,25,55,48,41,23,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°58′ 0″	57, 3, 9,20,25,55,48,41,23,41			
		38,54, 4,11,37, 8,29		
2″	57, 3, 9,59,20, 0, 0,18,32,10		4,10,15,41,18	
		38,54, 0, 1,21,27,11		2,51
4″	57, 3,10,38,14, 0, 1,39,59,21		4,10,15,44, 9	
		38,53,55,51, 5,43, 2		2,51
6″	57, 3,11,17, 7,55,52,45,42,23		4,10,15,47, 0	
		38,53,51,40,49,56, 2		2,51
8″	57, 3,11,56, 1,47,33,35,38,25		4,10,15,49,51	
		38,53,47,30,34, 6,11		2,51
10″	57, 3,12,34,55,35, 4, 9,44,36		4,10,15,52,42	
		38,53,43,20,18,13,29		2,51
12″	57, 3,13,13,49,18,24,27,58, 5		4,10,15,55,33	
		38,53,39,10, 2,17,56		2,51
14″	57, 3,13,52,42,57,34,30,16, 1		4,10,15,58,24	
		38,53,34,59,46,19,32		2,51
16″	57, 3,14,31,36,32,34,16,35,33		4,10,16, 1,15	
		38,53,30,49,30,18,17		2,51
18″	57, 3,15,10,30, 3,23,46,53,50		4,10,16, 4, 6	
		38,53,26,39,14,14,11		2,51
20″	57, 3,15,49,23,30, 3, 1, 8, 1		4,10,16, 6,57	
		38,53,22,28,58, 7,14		2,51
22″	57, 3,16,28,16,52,31,59,15,15		4,10,16, 9,48	
		38,53,18,18,41,57,26		2,51
24″	57, 3,17, 7,10,10,50,41,12,41		4,10,16,12,39	
		38,53,14, 8,25,44,47		2,51
26″	57, 3,17,46, 3,24,59, 6,57,28		4,10,16,15,30	
		38,53, 9,58, 9,29,17		2,51
28″	57, 3,18,24,56,34,57,16,26,45		4,10,16,18,21	
		38,53, 5,47,53,10,56		2,51
30″	57, 3,19, 3,49,40,45, 9,37,41		4,10,16,21,12	
		38,53, 1,37,36,49,44		2,51
32″	57, 3,19,42,42,42,22,46,27,25		4,10,16,24, 3	
		38,52,57,27,20,25,41		2,51
34″	57, 3,20,21,35,39,50, 6,53, 6		4,10,16,26,54	
		38,52,53,17, 3,58,47		2,51
36″	57, 3,21, 0,28,33, 7,10,51,53		4,10,16,29,45	
		38,52,49, 6,47,29, 2		2,51
38″	57, 3,21,39,21,22,13,58,20,55		4,10,16,32,36	
		38,52,44,56,30,56,26		2,51
40″	57, 3,22,18,14, 7,10,29,17,21		4,10,16,35,27	
		38,52,40,46,14,20,59		2,51
42″	57, 3,22,57, 6,47,56,43,38,20		4,10,16,38,18	
		38,52,36,35,57,42,41		2,51
44″	57, 3,23,35,59,24,32,41,21, 1		4,10,16,41, 9	
		38,52,32,25,41, 1,32		2,51
46″	57, 3,24,14,51,56,58,22,22,33		4,10,16,44, 0	
		38,52,28,15,24,17,32		2,51
48″	57, 3,24,53,44,25,13,46,40, 5		4,10,16,46,51	
		38,52,24, 5, 7,30,41		2,51
50″	57, 3,25,32,36,49,18,54,10,46		4,10,16,49,42	
		38,52,19,54,50,40,59		2,51
52″	57, 3,26,11,29, 9,13,44,51,45		4,10,16,52,33	
		38,52,15,44,33,48,26		2,51
54″	57, 3,26,50,21,24,58,18,40,11		4,10,16,55,24	
		38,52,11,34,16,53, 2		2,51
56″	57, 3,27,29,13,36,32,35,33,13		4,10,16,58,15	
		38,52, 7,23,59,54,47		2,51
58″	57, 3,28, 8, 5,43,56,35,28, 0		4,10,17, 1, 6	
		38,52, 3,13,42,53,41		
60″	57, 3,28,46,57,47,10,18,21,41			
exact	57, 3,28,46,57,47,10,18,46, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
71°59′ 0″	57, 3,28,46,57,47,10,18,46, 9			
		38,51,59, 3,25,52,33		
2″	57, 3,29,25,49,46,13,44,38,42		4,10,17, 6,35	
		38,51,54,53, 8,45,58		2,50
4″	57, 3,30, 4,41,41, 6,53,24,40		4,10,17, 9,25	
		38,51,50,42,51,36,33		2,50
6″	57, 3,30,43,33,31,49,45, 1,13		4,10,17,12,15	
		38,51,46,32,34,24,18		2,50
8″	57, 3,31,22,25,18,22,19,25,31		4,10,17,15, 5	
		38,51,42,22,17, 9,13		2,50
10″	57, 3,32, 1,17, 0,44,36,34,44		4,10,17,17,55	
		38,51,38,11,59,51,18		2,50
12″	57, 3,32,40, 8,38,56,36,26, 2		4,10,17,20,45	
		38,51,34, 1,42,30,33		2,50
14″	57, 3,33,19, 0,12,58,18,56,35		4,10,17,23,35	
		38,51,29,51,25, 6,58		2,50
16″	57, 3,33,57,51,42,49,44, 3,33		4,10,17,26,25	
		38,51,25,41, 7,40,33		2,50
18″	57, 3,34,36,43, 8,30,51,44, 6		4,10,17,29,15	
		38,51,21,30,50,11,18		2,50
20″	57, 3,35,15,34,30, 1,41,55,24		4,10,17,32, 5	
		38,51,17,20,32,39,13		2,50
22″	57, 3,35,54,25,47,22,14,34,37		4,10,17,34,55	
		38,51,13,10,15, 4,18		2,50
24″	57, 3,36,33,17, 0,32,29,38,55		4,10,17,37,45	
		38,51, 8,59,57,26,33		2,50
26″	57, 3,37,12, 8, 9,32,27, 5,28		4,10,17,40,35	
		38,51, 4,49,39,45,58		2,50
28″	57, 3,37,50,59,14,22, 6,51,26		4,10,17,43,25	
		38,51, 0,39,22, 2,33		2,50
30″	57, 3,38,29,50,15, 1,28,53,59		4,10,17,46,15	
		38,50,56,29, 4,16,18		2,50
32″	57, 3,39, 8,41,11,30,33,10,17		4,10,17,49, 5	
		38,50,52,18,46,27,13		2,50
34″	57, 3,39,47,32, 3,49,19,37,30		4,10,17,51,55	
		38,50,48, 8,28,35,18		2,50
36″	57, 3,40,26,22,51,57,48,12,48		4,10,17,54,45	
		38,50,43,58,10,40,33		2,50
38″	57, 3,41, 5,13,35,55,58,53,21		4,10,17,57,35	
		38,50,39,47,52,42,58		2,50
40″	57, 3,41,44, 4,15,43,51,36,19		4,10,18, 0,25	
		38,50,35,37,34,42,33		2,50
42″	57, 3,42,22,54,51,21,26,18,52		4,10,18, 3,15	
		38,50,31,27,16,39,18		2,50
44″	57, 3,43, 1,45,22,48,42,58,10		4,10,18, 6, 5	
		38,50,27,16,58,33,13		2,50
46″	57, 3,43,40,35,50, 5,41,31,23		4,10,18, 8,55	
		38,50,23, 6,40,24,18		2,50
48″	57, 3,44,19,26,13,12,21,55,41		4,10,18,11,45	
		38,50,18,56,22,12,33		2,50
50″	57, 3,44,58,16,32, 8,44, 8,14		4,10,18,14,35	
		38,50,14,46, 3,57,58		2,50
52″	57, 3,45,37, 6,46,54,48, 6,12		4,10,18,17,25	
		38,50,10,35,45,40,33		2,50
54″	57, 3,46,15,56,57,30,33,46,45		4,10,18,20,15	
		38,50, 6,25,27,20,18		2,50
56″	57, 3,46,54,47, 3,56, 1, 7, 3		4,10,18,23, 5	
		38,50, 2,15, 8,57,13		2,50
58″	57, 3,47,33,37, 6,11,10, 4,16		4,10,18,25,55	
		38,49,58, 4,50,31,18		
60″	57, 3,48,12,27, 4,16, 0,35,34			
exact	57, 3,48,12,27, 4,16, 0, 3,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72° 0′ 0″	57, 3,48,12,27, 4,16, 0, 3,58			
		38,49,53,54,31,59,19		
2″	57, 3,48,51,16,58,10,32, 3,17		4,10,18,31,47	
		38,49,49,44,13,27,32		2,50
4″	57, 3,49,30, 6,47,54,45,30,49		4,10,18,34,37	
		38,49,45,33,54,52,55		2,50
6″	57, 3,50, 8,56,33,28,40,23,44		4,10,18,37,27	
		38,49,41,23,36,15,28		2,50
8″	57, 3,50,47,46,14,52,16,39,12		4,10,18,40,17	
		38,49,37,13,17,35,11		2,50
10″	57, 3,51,26,35,52, 5,34,14,23		4,10,18,43, 7	
		38,49,33, 2,58,52, 4		2,50
12″	57, 3,52, 5,25,25, 8,33, 6,27		4,10,18,45,57	
		38,49,28,52,40, 6, 7		2,50
14″	57, 3,52,44,14,54, 1,13,12,34		4,10,18,48,47	
		38,49,24,42,21,17,20		2,50
16″	57, 3,53,23, 4,18,43,34,29,54		4,10,18,51,37	
		38,49,20,32, 2,25,43		2,50
18″	57, 3,54, 1,53,39,15,36,55,37		4,10,18,54,27	
		38,49,16,21,43,31,16		2,50
20″	57, 3,54,40,42,55,37,20,26,53		4,10,18,57,17	
		38,49,12,11,24,33,59		2,50
22″	57, 3,55,19,32, 7,48,45, 0,52		4,10,19, 0, 7	
		38,49, 8, 1, 5,33,52		2,50
24″	57, 3,55,58,21,15,49,50,34,44		4,10,19, 2,57	
		38,49, 3,50,46,30,55		2,50
26″	57, 3,56,37,10,19,40,37, 5,39		4,10,19, 5,47	
		38,48,59,40,27,25, 8		2,50
28″	57, 3,57,15,59,19,21, 4,30,47		4,10,19, 8,37	
		38,48,55,30, 8,16,31		2,50
30″	57, 3,57,54,48,14,51,12,47,18		4,10,19,11,27	
		38,48,51,19,49, 5, 4		2,50
32″	57, 3,58,33,37, 6,11, 1,52,22		4,10,19,14,17	
		38,48,47, 9,29,50,47		2,50
34″	57, 3,59,12,25,53,20,31,43, 9		4,10,19,17, 7	
		38,48,42,59,10,33,40		2,50
36″	57, 3,59,51,14,36,19,42,16,49		4,10,19,19,57	
		38,48,38,48,51,13,43		2,50
38″	57, 4, 0,30, 3,15, 8,33,30,32		4,10,19,22,47	
		38,48,34,38,31,50,56		2,50
40″	57, 4, 1, 8,51,49,47, 5,21,28		4,10,19,25,37	
		38,48,30,28,12,25,19		2,50
42″	57, 4, 1,47,40,20,15,17,46,47		4,10,19,28,27	
		38,48,26,17,52,56,52		2,50
44″	57, 4, 2,26,28,46,33,10,43,39		4,10,19,31,17	
		38,48,22, 7,33,25,35		2,50
46″	57, 4, 3, 5,17, 8,40,44, 9,14		4,10,19,34, 7	
		38,48,17,57,13,51,28		2,50
48″	57, 4, 3,44, 5,26,37,58, 0,42		4,10,19,36,57	
		38,48,13,46,54,14,31		2,50
50″	57, 4, 4,22,53,40,24,52,15,13		4,10,19,39,47	
		38,48, 9,36,34,34,44		2,50
52″	57, 4, 5, 1,41,50, 1,26,49,57		4,10,19,42,37	
		38,48, 5,26,14,52, 7		2,50
54″	57, 4, 5,40,29,55,27,41,42, 4		4,10,19,45,27	
		38,48, 1,15,55, 6,40		2,50
56″	57, 4, 6,19,17,56,43,36,48,44		4,10,19,48,17	
		38,47,57, 5,35,18,23		2,50
58″	57, 4, 6,58, 5,53,49,12, 7, 7		4,10,19,51, 7	
		38,47,52,55,15,27,16		
60″	57, 4, 7,36,53,46,44,27,34,23			
exact	57, 4, 7,36,53,46,44,27,11, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72° 1′ 0″	57, 4, 7,36,53,46,44,27,11, 5			
		38,47,48,44,55,31, 3		
2″	57, 4, 8,15,41,35,29,22,42, 8		4,10,19,56,55	
		38,47,44,34,35,34, 8		2,50
4″	57, 4, 8,54,29,20, 3,58,16,16		4,10,19,59,45	
		38,47,40,24,15,34,23		2,50
6″	57, 4, 9,33,17, 0,28,13,50,39		4,10,20, 2,35	
		38,47,36,13,55,31,48		2,50
8″	57, 4,10,12, 4,36,42, 9,22,27		4,10,20, 5,25	
		38,47,32, 3,35,26,23		2,50
10″	57, 4,10,50,52, 8,45,44,48,50		4,10,20, 8,15	
		38,47,27,53,15,18, 8		2,50
12″	57, 4,11,29,39,36,39, 0, 6,58		4,10,20,11, 5	
		38,47,23,42,55, 7, 3		2,50
14″	57, 4,12, 8,27, 0,21,55,14, 1		4,10,20,13,55	
		38,47,19,32,34,53, 8		2,50
16″	57, 4,12,47,14,19,54,30, 7, 9		4,10,20,16,45	
		38,47,15,22,14,36,23		2,50
18″	57, 4,13,26, 1,35,16,44,43,32		4,10,20,19,35	
		38,47,11,11,54,16,48		2,50
20″	57, 4,14, 4,48,46,28,39, 0,20		4,10,20,22,25	
		38,47, 7, 1,33,54,23		2,50
22″	57, 4,14,43,35,53,30,12,54,43		4,10,20,25,15	
		38,47, 2,51,13,29, 8		2,50
24″	57, 4,15,22,22,56,21,26,23,51		4,10,20,28, 5	
		38,46,58,40,53, 1, 3		2,50
26″	57, 4,16, 1, 9,55, 2,19,24,54		4,10,20,30,55	
		38,46,54,30,32,30, 8		2,50
28″	57, 4,16,39,56,49,32,51,55, 2		4,10,20,33,45	
		38,46,50,20,11,56,23		2,50
30″	57, 4,17,18,43,39,53, 3,51,25		4,10,20,36,35	
		38,46,46, 9,51,19,48		2,50
32″	57, 4,17,57,30,26, 2,55,11,13		4,10,20,39,25	
		38,46,41,59,30,40,23		2,50
34″	57, 4,18,36,17, 8, 2,25,51,36		4,10,20,42,15	
		38,46,37,49, 9,58, 8		2,50
36″	57, 4,19,15, 3,45,51,35,49,44		4,10,20,45, 5	
		38,46,33,38,49,13, 3		2,50
38″	57, 4,19,53,50,19,30,25, 2,47		4,10,20,47,55	
		38,46,29,28,28,25, 8		2,50
40″	57, 4,20,32,36,48,58,53,27,55		4,10,20,50,45	
		38,46,25,18, 7,34,23		2,50
42″	57, 4,21,11,23,14,17, 1, 2,18		4,10,20,53,35	
		38,46,21, 7,46,40,48		2,50
44″	57, 4,21,50, 9,35,24,47,43, 6		4,10,20,56,25	
		38,46,16,57,25,44,23		2,50
46″	57, 4,22,28,55,52,22,13,27,29		4,10,20,59,15	
		38,46,12,47, 4,45, 8		2,50
48″	57, 4,23, 7,42, 5, 9,18,12,37		4,10,21, 2, 5	
		38,46, 8,36,43,43, 3		2,50
50″	57, 4,23,46,28,13,46, 1,55,40		4,10,21, 4,55	
		38,46, 4,26,22,38, 8		2,50
52″	57, 4,24,25,14,18,12,24,33,48		4,10,21, 7,45	
		38,46, 0,16, 1,30,23		2,50
54″	57, 4,25, 4, 0,18,28,26, 4,11		4,10,21,10,35	
		38,45,56, 5,40,19,48		2,50
56″	57, 4,25,42,46,14,34, 6,23,59		4,10,21,13,25	
		38,45,51,55,19, 6,23		2,50
58″	57, 4,26,21,32, 6,29,25,30,22		4,10,21,16,15	
		38,45,47,44,57,50, 8		
60″	57, 4,27, 0,17,54,14,23,20,30			
exact	57, 4,27, 0,17,54,14,23,10, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72° 2′ 0″	57, 4,27, 0,17,54,14,23,10, 5			
		38,45,43,34,36,30, 3		
2″	57, 4,27,39, 3,37,48,59,40, 8		4,10,21,21,58	
		38,45,39,24,15, 8, 5		2,50
4″	57, 4,28,17,49,17,13,14,48,13		4,10,21,24,48	
		38,45,35,13,53,43,17		2,50
6″	57, 4,28,56,34,52,27, 8,31,30		4,10,21,27,38	
		38,45,31, 3,32,15,39		2,50
8″	57, 4,29,35,20,23,30,40,47, 9		4,10,21,30,28	
		38,45,26,53,10,45,11		2,50
10″	57, 4,30,14, 5,50,23,51,32,20		4,10,21,33,18	
		38,45,22,42,49,11,53		2,50
12″	57, 4,30,52,51,13, 6,40,44,13		4,10,21,36, 8	
		38,45,18,32,27,35,45		2,50
14″	57, 4,31,31,36,31,39, 8,19,58		4,10,21,38,58	
		38,45,14,22, 5,56,47		2,50
16″	57, 4,32,10,21,46, 1,14,16,45		4,10,21,41,48	
		38,45,10,11,44,14,59		2,50
18″	57, 4,32,49, 6,56,12,58,31,44		4,10,21,44,38	
		38,45, 6, 1,22,30,21		2,50
20″	57, 4,33,27,52, 2,14,21, 2, 5		4,10,21,47,28	
		38,45, 1,51, 0,42,53		2,50
22″	57, 4,34, 6,37, 4, 5,21,44,58		4,10,21,50,18	
		38,44,57,40,38,52,35		2,50
24″	57, 4,34,45,22, 1,46, 0,37,33		4,10,21,53, 8	
		38,44,53,30,16,59,27		2,50
26″	57, 4,35,24, 6,55,16,17,37, 0		4,10,21,55,58	
		38,44,49,19,55, 3,29		2,50
28″	57, 4,36, 2,51,44,36,12,40,29		4,10,21,58,48	
		38,44,45, 9,33, 4,41		2,50
30″	57, 4,36,41,36,29,45,45,45,10		4,10,22, 1,38	
		38,44,40,59,11, 3, 3		2,50
32″	57, 4,37,20,21,10,44,56,48,13		4,10,22, 4,28	
		38,44,36,48,48,58,35		2,50
34″	57, 4,37,59, 5,47,33,45,46,48		4,10,22, 7,18	
		38,44,32,38,26,51,17		2,50
36″	57, 4,38,37,50,20,12,12,38, 5		4,10,22,10, 8	
		38,44,28,28, 4,41, 9		2,50
38″	57, 4,39,16,34,48,40,17,19,14		4,10,22,12,58	
		38,44,24,17,42,28,11		2,50
40″	57, 4,39,55,19,12,57,59,47,25		4,10,22,15,48	
		38,44,20, 7,20,12,23		2,50
42″	57, 4,40,34, 3,33, 5,19,59,48		4,10,22,18,38	
		38,44,15,56,57,53,45		2,50
44″	57, 4,41,12,47,49, 2,17,53,33		4,10,22,21,28	
		38,44,11,46,35,32,17		2,50
46″	57, 4,41,51,32, 0,48,53,25,50		4,10,22,24,18	
		38,44, 7,36,13, 7,59		2,50
48″	57, 4,42,30,16, 8,25, 6,33,49		4,10,22,27, 8	
		38,44, 3,25,50,40,51		2,50
50″	57, 4,43, 9, 0,11,50,57,14,40		4,10,22,29,58	
		38,43,59,15,28,10,53		2,50
52″	57, 4,43,47,44,11, 6,25,25,33		4,10,22,32,48	
		38,43,55, 5, 5,38, 5		2,50
54″	57, 4,44,26,28, 6,11,31, 3,38		4,10,22,35,38	
		38,43,50,54,43, 2,27		2,50
56″	57, 4,45, 5,11,57, 6,14, 6, 5		4,10,22,38,28	
		38,43,46,44,20,23,59		2,50
58″	57, 4,45,43,55,43,50,34,30, 4		4,10,22,41,18	
		38,43,42,33,57,42,41		
60″	57, 4,46,22,39,26,24,32,12,45			
exact	57, 4,46,22,39,26,24,32,12,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72° 3′ 0″	57, 4,46,22,39,26,24,32,12,11			
		38,43,38,23,34,58,37		
2″	57, 4,47, 1,23, 4,48, 7,10,48		4,10,22,46,57	
		38,43,34,13,12,11,40		2,50
4″	57, 4,47,40, 6,39, 1,19,22,28		4,10,22,49,47	
		38,43,30, 2,49,21,53		2,50
6″	57, 4,48,18,50, 9, 4, 8,44,21		4,10,22,52,37	
		38,43,25,52,26,29,16		2,50
8″	57, 4,48,57,33,34,56,35,13,37		4,10,22,55,27	
		38,43,21,42, 3,33,49		2,50
10″	57, 4,49,36,16,56,38,38,47,26		4,10,22,58,17	
		38,43,17,31,40,35,32		2,50
12″	57, 4,50,15, 0,14,10,19,22,58		4,10,23, 1, 7	
		38,43,13,21,17,34,25		2,50
14″	57, 4,50,53,43,27,31,36,57,23		4,10,23, 3,57	
		38,43, 9,10,54,30,28		2,50
16″	57, 4,51,32,26,36,42,31,27,51		4,10,23, 6,47	
		38,43, 5, 0,31,23,41		2,50
18″	57, 4,52,11, 9,41,43, 2,51,32		4,10,23, 9,37	
		38,43, 0,50, 8,14, 4		2,50
20″	57, 4,52,49,52,42,33,11, 5,36		4,10,23,12,27	
		38,42,56,39,45, 1,37		2,50
22″	57, 4,53,28,35,39,12,56, 7,13		4,10,23,15,17	
		38,42,52,29,21,46,20		2,50
24″	57, 4,54, 7,18,31,42,17,53,33		4,10,23,18, 7	
		38,42,48,18,58,28,13		2,50
26″	57, 4,54,46, 1,20, 1,16,21,46		4,10,23,20,57	
		38,42,44, 8,35, 7,16		2,50
28″	57, 4,55,24,44, 4, 9,51,29, 2		4,10,23,23,47	
		38,42,39,58,11,43,29		2,50
30″	57, 4,56, 3,26,44, 8, 3,12,31		4,10,23,26,37	
		38,42,35,47,48,16,52		2,50
32″	57, 4,56,42, 9,19,55,51,29,23		4,10,23,29,27	
		38,42,31,37,24,47,25		2,50
34″	57, 4,57,20,51,51,33,16,16,48		4,10,23,32,17	
		38,42,27,27, 1,15, 8		2,50
36″	57, 4,57,59,34,19, 0,17,31,56		4,10,23,35, 7	
		38,42,23,16,37,40, 1		2,50
38″	57, 4,58,38,16,42,16,55,11,57		4,10,23,37,57	
		38,42,19, 6,14, 2, 4		2,50
40″	57, 4,59,16,59, 1,23, 9,14, 1		4,10,23,40,47	
		38,42,14,55,50,21,17		2,50
42″	57, 4,59,55,41,16,18,59,35,18		4,10,23,43,37	
		38,42,10,45,26,37,40		2,50
44″	57, 5, 0,34,23,27, 4,26,12,58		4,10,23,46,27	
		38,42, 6,35, 2,51,13		2,50
46″	57, 5, 1,13, 5,33,39,29, 4,11		4,10,23,49,17	
		38,42, 2,24,39, 1,56		2,50
48″	57, 5, 1,51,47,36, 4, 8, 6, 7		4,10,23,52, 7	
		38,41,58,14,15, 9,49		2,50
50″	57, 5, 2,30,29,34,18,23,15,56		4,10,23,54,57	
		38,41,54, 3,51,14,52		2,50
52″	57, 5, 3, 9,11,28,22,14,30,48		4,10,23,57,47	
		38,41,49,53,27,17, 5		2,50
54″	57, 5, 3,47,53,18,15,41,47,53		4,10,24, 0,37	
		38,41,45,43, 3,16,28		2,50
56″	57, 5, 4,26,35, 3,58,45, 4,21		4,10,24, 3,27	
		38,41,41,32,39,13, 1		2,50
58″	57, 5, 5, 5,16,45,31,24,17,22		4,10,24, 6,17	
		38,41,37,22,15, 6,44		
60″	57, 5, 5,43,58,22,53,39,24, 6			
exact	57, 5, 5,43,58,22,53,39,37,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72° 4′ 0″	57, 5, 5,43,58,22,53,39,37,13			
		38,41,33,11,50,59, 2		
2″	57, 5, 6,22,39,56, 5,30,36,15		4,10,24,11,51	
		38,41,29, 1,26,47,11		2,50
4″	57, 5, 7, 1,21,25, 6,57,23,26		4,10,24,14,41	
		38,41,24,51, 2,32,30		2,50
6″	57, 5, 7,40, 2,49,57,59,55,56		4,10,24,17,31	
		38,41,20,40,38,14,59		2,50
8″	57, 5, 8,18,44,10,38,38,10,55		4,10,24,20,21	
		38,41,16,30,13,54,38		2,50
10″	57, 5, 8,57,25,27, 8,52, 5,33		4,10,24,23,11	
		38,41,12,19,49,31,27		2,50
12″	57, 5, 9,36, 6,39,28,41,37, 0		4,10,24,26, 1	
		38,41, 8, 9,25, 5,26		2,50
14″	57, 5,10,14,47,47,38, 6,42,26		4,10,24,28,51	
		38,41, 3,59, 0,36,35		2,50
16″	57, 5,10,53,28,51,37, 7,19, 1		4,10,24,31,41	
		38,40,59,48,36, 4,54		2,50
18″	57, 5,11,32, 9,51,25,43,23,55		4,10,24,34,31	
		38,40,55,38,11,30,23		2,50
20″	57, 5,12,10,50,47, 3,54,54,18		4,10,24,37,21	
		38,40,51,27,46,53, 2		2,50
22″	57, 5,12,49,31,38,31,41,47,20		4,10,24,40,11	
		38,40,47,17,22,12,51		2,50
24″	57, 5,13,28,12,25,49, 4, 0,11		4,10,24,43, 1	
		38,40,43, 6,57,29,50		2,50
26″	57, 5,14, 6,53, 8,56, 1,30, 1		4,10,24,45,51	
		38,40,38,56,32,43,59		2,50
28″	57, 5,14,45,33,47,52,34,14, 0		4,10,24,48,41	
		38,40,34,46, 7,55,18		2,50
30″	57, 5,15,24,14,22,38,42, 9,18		4,10,24,51,31	
		38,40,30,35,43, 3,47		2,50
32″	57, 5,16, 2,54,53,14,25,13, 5		4,10,24,54,21	
		38,40,26,25,18, 9,26		2,50
34″	57, 5,16,41,35,19,39,43,22,31		4,10,24,57,11	
		38,40,22,14,53,12,15		2,50
36″	57, 5,17,20,15,41,54,36,34,46		4,10,25, 0, 1	
		38,40,18, 4,28,12,14		2,50
38″	57, 5,17,58,55,59,59, 4,47, 0		4,10,25, 2,51	
		38,40,13,54, 3, 9,23		2,50
40″	57, 5,18,37,36,13,53, 7,56,23		4,10,25, 5,41	
		38,40, 9,43,38, 3,42		2,50
42″	57, 5,19,16,16,23,36,46, 0, 5		4,10,25, 8,31	
		38,40, 5,33,12,55,11		2,50
44″	57, 5,19,54,56,29, 9,58,55,16		4,10,25,11,21	
		38,40, 1,22,47,43,50		2,50
46″	57, 5,20,33,36,30,32,46,39, 6		4,10,25,14,11	
		38,39,57,12,22,29,39		2,50
48″	57, 5,21,12,16,27,45, 9, 8,45		4,10,25,17, 1	
		38,39,53, 1,57,12,38		2,50
50″	57, 5,21,50,56,20,47, 6,21,23		4,10,25,19,51	
		38,39,48,51,31,52,47		2,50
52″	57, 5,22,29,36, 9,38,38,14,10		4,10,25,22,41	
		38,39,44,41, 6,30, 6		2,50
54″	57, 5,23, 8,15,54,19,44,44,16		4,10,25,25,31	
		38,39,40,30,41, 4,35		2,50
56″	57, 5,23,46,55,34,50,25,48,51		4,10,25,28,21	
		38,39,36,20,15,36,14		2,50
58″	57, 5,24,25,35,11,10,41,25, 5		4,10,25,31,11	
		38,39,32, 9,50, 5, 3		
60″	57, 5,25, 4,14,43,20,31,30, 8			
exact	57, 5,25, 4,14,43,20,31,53,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72° 5′ 0″	57, 5,25, 4,14,43,20,31,53,41			
		38,39,27,59,24,33,34		
2″	57, 5,25,42,54,11,19,56,27,15		4,10,25,36,40	
		38,39,23,48,58,56,54		2,50
4″	57, 5,26,21,33,35, 8,55,24, 9		4,10,25,39,30	
		38,39,19,38,33,17,24		2,50
6″	57, 5,27, 0,12,54,47,28,41,33		4,10,25,42,20	
		38,39,15,28, 7,35, 4		2,50
8″	57, 5,27,38,52,10,15,36,16,37		4,10,25,45,10	
		38,39,11,17,41,49,54		2,50
10″	57, 5,28,17,31,21,33,18, 6,31		4,10,25,48, 0	
		38,39, 7, 7,16, 1,54		2,50
12″	57, 5,28,56,10,28,40,34, 8,25		4,10,25,50,50	
		38,39, 2,56,50,11, 4		2,50
14″	57, 5,29,34,49,31,37,24,19,29		4,10,25,53,40	
		38,38,58,46,24,17,24		2,50
16″	57, 5,30,13,28,30,23,48,36,53		4,10,25,56,30	
		38,38,54,35,58,20,54		2,50
18″	57, 5,30,52, 7,24,59,46,57,47		4,10,25,59,20	
		38,38,50,25,32,21,34		2,50
20″	57, 5,31,30,46,15,25,19,19,21		4,10,26, 2,10	
		38,38,46,15, 6,19,24		2,50
22″	57, 5,32, 9,25, 1,40,25,38,45		4,10,26, 5, 0	
		38,38,42, 4,40,14,24		2,50
24″	57, 5,32,48, 3,43,45, 5,53, 9		4,10,26, 7,50	
		38,38,37,54,14, 6,34		2,50
26″	57, 5,33,26,42,21,39,19,59,43		4,10,26,10,40	
		38,38,33,43,47,55,54		2,50
28″	57, 5,34, 5,20,55,23, 7,55,37		4,10,26,13,30	
		38,38,29,33,21,42,24		2,50
30″	57, 5,34,43,59,24,56,29,38, 1		4,10,26,16,20	
		38,38,25,22,55,26, 4		2,50
32″	57, 5,35,22,37,50,19,25, 4, 5		4,10,26,19,10	
		38,38,21,12,29, 6,54		2,50
34″	57, 5,36, 1,16,11,31,54,10,59		4,10,26,22, 0	
		38,38,17, 2, 2,44,54		2,50
36″	57, 5,36,39,54,28,33,56,55,53		4,10,26,24,50	
		38,38,12,51,36,20, 4		2,50
38″	57, 5,37,18,32,41,25,33,15,57		4,10,26,27,40	
		38,38, 8,41, 9,52,24		2,50
40″	57, 5,37,57,10,50, 6,43, 8,21		4,10,26,30,30	
		38,38, 4,30,43,21,54		2,50
42″	57, 5,38,35,48,54,37,26,30,15		4,10,26,33,20	
		38,38, 0,20,16,48,34		2,50
44″	57, 5,39,14,26,54,57,43,18,49		4,10,26,36,10	
		38,37,56, 9,50,12,24		2,50
46″	57, 5,39,53, 4,51, 7,33,31,13		4,10,26,39, 0	
		38,37,51,59,23,33,24		2,50
48″	57, 5,40,31,42,43, 6,57, 4,37		4,10,26,41,50	
		38,37,47,48,56,51,34		2,50
50″	57, 5,41,10,20,30,55,53,56,11		4,10,26,44,40	
		38,37,43,38,30, 6,54		2,50
52″	57, 5,41,48,58,14,34,24, 3, 5		4,10,26,47,30	
		38,37,39,28, 3,19,24		2,50
54″	57, 5,42,27,35,54, 2,27,22,29		4,10,26,50,20	
		38,37,35,17,36,29, 4		2,50
56″	57, 5,43, 6,13,29,20, 3,51,33		4,10,26,53,10	
		38,37,31, 7, 9,35,54		2,50
58″	57, 5,43,44,51, 0,27,13,27,27		4,10,26,56, 0	
		38,37,26,56,42,39,54		
60″	57, 5,44,23,28,27,23,56, 7,21			
exact	57, 5,44,23,28,27,23,56,38,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72° 6′ 0″	57, 5,44,23,28,27,23,56,38,43			
		38,37,22,46,15,44,32		
2″	57, 5,45, 2, 5,50,10,12,23,15		4,10,27, 1,25	
		38,37,18,35,48,43, 7		2,49
4″	57, 5,45,40,43, 8,46, 1, 6,22		4,10,27, 4,14	
		38,37,14,25,21,38,53		2,49
6″	57, 5,46,19,20,23,11,22,45,15		4,10,27, 7, 3	
		38,37,10,14,54,31,50		2,49
8″	57, 5,46,57,57,33,26,17,17, 5		4,10,27, 9,52	
		38,37, 6, 4,27,21,58		2,49
10″	57, 5,47,36,34,39,30,44,39, 3		4,10,27,12,41	
		38,37, 1,54, 0, 9,17		2,49
12″	57, 5,48,15,11,41,24,44,48,20		4,10,27,15,30	
		38,36,57,43,32,53,47		2,49
14″	57, 5,48,53,48,39, 8,17,42, 7		4,10,27,18,19	
		38,36,53,33, 5,35,28		2,49
16″	57, 5,49,32,25,32,41,23,17,35		4,10,27,21, 8	
		38,36,49,22,38,14,20		2,49
18″	57, 5,50,11, 2,22, 4, 1,31,55		4,10,27,23,57	
		38,36,45,12,10,50,23		2,49
20″	57, 5,50,49,39, 7,16,12,22,18		4,10,27,26,46	
		38,36,41, 1,43,23,37		2,49
22″	57, 5,51,28,15,48,17,55,45,55		4,10,27,29,35	
		38,36,36,51,15,54, 2		2,49
24″	57, 5,52, 6,52,25, 9,11,39,57		4,10,27,32,24	
		38,36,32,40,48,21,38		2,49
26″	57, 5,52,45,28,57,50, 0, 1,35		4,10,27,35,13	
		38,36,28,30,20,46,25		2,49
28″	57, 5,53,24, 5,26,20,20,48, 0		4,10,27,38, 2	
		38,36,24,19,53, 8,23		2,49
30″	57, 5,54, 2,41,50,40,13,56,23		4,10,27,40,51	
		38,36,20, 9,25,27,32		2,49
32″	57, 5,54,41,18,10,49,39,23,55		4,10,27,43,40	
		38,36,15,58,57,43,52		2,49
34″	57, 5,55,19,54,26,48,37, 7,47		4,10,27,46,29	
		38,36,11,48,29,57,23		2,49
36″	57, 5,55,58,30,38,37, 7, 5,10		4,10,27,49,18	
		38,36, 7,38, 2, 8, 5		2,49
38″	57, 5,56,37, 6,46,15, 9,13,15		4,10,27,52, 7	
		38,36, 3,27,34,15,58		2,49
40″	57, 5,57,15,42,49,42,43,29,13		4,10,27,54,56	
		38,35,59,17, 6,21, 2		2,49
42″	57, 5,57,54,18,48,59,49,50,15		4,10,27,57,45	
		38,35,55, 6,38,23,17		2,49
44″	57, 5,58,32,54,44, 6,28,13,32		4,10,28, 0,34	
		38,35,50,56,10,22,43		2,49
46″	57, 5,59,11,30,35, 2,38,36,15		4,10,28, 3,23	
		38,35,46,45,42,19,20		2,49
48″	57, 5,59,50, 6,21,48,20,55,35		4,10,28, 6,12	
		38,35,42,35,14,13, 8		2,49
50″	57, 6, 0,28,42, 4,23,35, 8,43		4,10,28, 9, 1	
		38,35,38,24,46, 4, 7		2,49
52″	57, 6, 1, 7,17,42,48,21,12,50		4,10,28,11,50	
		38,35,34,14,17,52,17		2,49
54″	57, 6, 1,45,53,17, 2,39, 5, 7		4,10,28,14,39	
		38,35,30, 3,49,37,38		2,49
56″	57, 6, 2,24,28,47, 6,28,42,45		4,10,28,17,28	
		38,35,25,53,21,20,10		2,49
58″	57, 6, 3, 3, 4,12,59,50, 2,55		4,10,28,20,17	
		38,35,21,42,52,59,53		
60″	57, 6, 3,41,39,34,42,43, 2,48			
exact	57, 6, 3,41,39,34,42,42,38, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72° 7′ 0″	57, 6, 3,41,39,34,42,42,38, 8			
		38,35,17,32,24,34,12		
2″	57, 6, 4,20,14,52,15, 7,12,20		4,10,28,26, 5	
		38,35,13,21,56, 8, 7		2,49
4″	57, 6, 4,58,50, 5,37, 3,20,27		4,10,28,28,54	
		38,35, 9,11,27,39,13		2,49
6″	57, 6, 5,37,25,14,48,30,59,40		4,10,28,31,43	
		38,35, 5, 0,59, 7,30		2,49
8″	57, 6, 6,16, 0,19,49,30, 7,10		4,10,28,34,32	
		38,35, 0,50,30,32,58		2,49
10″	57, 6, 6,54,35,20,40, 0,40, 8		4,10,28,37,21	
		38,34,56,40, 1,55,37		2,49
12″	57, 6, 7,33,10,17,20, 2,35,45		4,10,28,40,10	
		38,34,52,29,33,15,27		2,49
14″	57, 6, 8,11,45, 9,49,35,51,12		4,10,28,42,59	
		38,34,48,19, 4,32,28		2,49
16″	57, 6, 8,50,19,58, 8,40,23,40		4,10,28,45,48	
		38,34,44, 8,35,46,40		2,49
18″	57, 6, 9,28,54,42,17,16,10,20		4,10,28,48,37	
		38,34,39,58, 6,58, 3		2,49
20″	57, 6,10, 7,29,22,15,23, 8,23		4,10,28,51,26	
		38,34,35,47,38, 6,37		2,49
22″	57, 6,10,46, 3,58, 3, 1,15, 0		4,10,28,54,15	
		38,34,31,37, 9,12,22		2,49
24″	57, 6,11,24,38,29,40,10,27,22		4,10,28,57, 4	
		38,34,27,26,40,15,18		2,49
26″	57, 6,12, 3,12,57, 6,50,42,40		4,10,28,59,53	
		38,34,23,16,11,15,25		2,49
28″	57, 6,12,41,47,20,23, 1,58, 5		4,10,29, 2,42	
		38,34,19, 5,42,12,43		2,49
30″	57, 6,13,20,21,39,28,44,10,48		4,10,29, 5,31	
		38,34,14,55,13, 7,12		2,49
32″	57, 6,13,58,55,54,23,57,18, 0		4,10,29, 8,20	
		38,34,10,44,43,58,52		2,49
34″	57, 6,14,37,30, 5, 8,41,16,52		4,10,29,11, 9	
		38,34, 6,34,14,47,43		2,49
36″	57, 6,15,16, 4,11,42,56, 4,35		4,10,29,13,58	
		38,34, 2,23,45,33,45		2,49
38″	57, 6,15,54,38,14, 6,41,38,20		4,10,29,16,47	
		38,33,58,13,16,16,58		2,49
40″	57, 6,16,33,12,12,19,57,55,18		4,10,29,19,36	
		38,33,54, 2,46,57,22		2,49
42″	57, 6,17,11,46, 6,22,44,52,40		4,10,29,22,25	
		38,33,49,52,17,34,57		2,49
44″	57, 6,17,50,19,56,15, 2,27,37		4,10,29,25,14	
		38,33,45,41,48, 9,43		2,49
46″	57, 6,18,28,53,41,56,50,37,20		4,10,29,28, 3	
		38,33,41,31,18,41,40		2,49
48″	57, 6,19, 7,27,23,28, 9,19, 0		4,10,29,30,52	
		38,33,37,20,49,10,48		2,49
50″	57, 6,19,46, 1, 0,48,58,29,48		4,10,29,33,41	
		38,33,33,10,19,37, 7		2,49
52″	57, 6,20,24,34,33,59,18, 6,55		4,10,29,36,30	
		38,33,28,59,50, 0,37		2,49
54″	57, 6,21, 3, 8, 2,59, 8, 7,32		4,10,29,39,19	
		38,33,24,49,20,21,18		2,49
56″	57, 6,21,41,41,27,48,28,28,50		4,10,29,42, 8	
		38,33,20,38,50,39,10		2,49
58″	57, 6,22,20,14,48,27,19, 8, 0		4,10,29,44,57	
		38,33,16,28,20,54,13		
60″	57, 6,22,58,48, 4,55,40, 2,13			
exact	57, 6,22,58,48, 4,55,39,46,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72° 8′ 0″	57, 6,22,58,48, 4,55,39,46,22			
		38,33,12,17,51, 4,52		
2″	57, 6,23,37,21,17,13,30,51,14		4,10,29,50,41	
		38,33, 8, 7,21,14,11		2,49
4″	57, 6,24,15,54,25,20,52, 5,25		4,10,29,53,30	
		38,33, 3,56,51,20,41		2,49
6″	57, 6,24,54,27,29,17,43,26, 6		4,10,29,56,19	
		38,32,59,46,21,24,22		2,49
8″	57, 6,25,33, 0,29, 4, 4,50,28		4,10,29,59, 8	
		38,32,55,35,51,25,14		2,49
10″	57, 6,26,11,33,24,39,56,15,42		4,10,30, 1,57	
		38,32,51,25,21,23,17		2,49
12″	57, 6,26,50, 6,16, 5,17,38,59		4,10,30, 4,46	
		38,32,47,14,51,18,31		2,49
14″	57, 6,27,28,39, 3,20, 8,57,30		4,10,30, 7,35	
		38,32,43, 4,21,10,56		2,49
16″	57, 6,28, 7,11,46,24,30, 8,26		4,10,30,10,24	
		38,32,38,53,51, 0,32		2,49
18″	57, 6,28,45,44,25,18,21, 8,58		4,10,30,13,13	
		38,32,34,43,20,47,19		2,49
20″	57, 6,29,24,17, 0, 1,41,56,17		4,10,30,16, 2	
		38,32,30,32,50,31,17		2,49
22″	57, 6,30, 2,49,30,34,32,27,34		4,10,30,18,51	
		38,32,26,22,20,12,26		2,49
24″	57, 6,30,41,21,56,56,52,40, 0		4,10,30,21,40	
		38,32,22,11,49,50,46		2,49
26″	57, 6,31,19,54,19, 8,42,30,46		4,10,30,24,29	
		38,32,18, 1,19,26,17		2,49
28″	57, 6,31,58,26,37,10, 1,57, 3		4,10,30,27,18	
		38,32,13,50,48,58,59		2,49
30″	57, 6,32,36,58,51, 0,50,56, 2		4,10,30,30, 7	
		38,32, 9,40,18,28,52		2,49
32″	57, 6,33,15,31, 0,41, 9,24,54		4,10,30,32,56	
		38,32, 5,29,47,55,56		2,49
34″	57, 6,33,54, 3, 6,10,57,20,50		4,10,30,35,45	
		38,32, 1,19,17,20,11		2,49
36″	57, 6,34,32,35, 7,30,14,41, 1		4,10,30,38,34	
		38,31,57, 8,46,41,37		2,49
38″	57, 6,35,11, 7, 4,39, 1,22,38		4,10,30,41,23	
		38,31,52,58,16, 0,14		2,49
40″	57, 6,35,49,38,57,37,17,22,52		4,10,30,44,12	
		38,31,48,47,45,16, 2		2,49
42″	57, 6,36,28,10,46,25, 2,38,54		4,10,30,47, 1	
		38,31,44,37,14,29, 1		2,49
44″	57, 6,37, 6,42,31, 2,17, 7,55		4,10,30,49,50	
		38,31,40,26,43,39,11		2,49
46″	57, 6,37,45,14,11,29, 0,47, 6		4,10,30,52,39	
		38,31,36,16,12,46,32		2,49
48″	57, 6,38,23,45,47,45,13,33,38		4,10,30,55,28	
		38,31,32, 5,41,51, 4		2,49
50″	57, 6,39, 2,17,19,50,55,24,42		4,10,30,58,17	
		38,31,27,55,10,52,47		2,49
52″	57, 6,39,40,48,47,46, 6,17,29		4,10,31, 1, 6	
		38,31,23,44,39,51,41		2,49
54″	57, 6,40,19,20,11,30,46, 9,10		4,10,31, 3,55	
		38,31,19,34, 8,47,46		2,49
56″	57, 6,40,57,51,31, 4,54,56,56		4,10,31, 6,44	
		38,31,15,23,37,41, 2		2,49
58″	57, 6,41,36,22,46,28,32,37,58		4,10,31, 9,33	
		38,31,11,13, 6,31,29		
60″	57, 6,42,14,53,57,41,39, 9,27			
exact	57, 6,42,14,53,57,41,39, 6,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72° 9′ 0″	57, 6,42,14,53,57,41,39, 6,34			
		38,31, 7, 2,35,18,49		
2″	57, 6,42,53,25, 4,44,14,25,23		4,10,31,15,12	
		38,31, 2,52, 4, 3,37		2,49
4″	57, 6,43,31,56, 7,36,18,29, 0		4,10,31,18, 1	
		38,30,58,41,32,45,36		2,49
6″	57, 6,44,10,27, 6,17,51,14,36		4,10,31,20,50	
		38,30,54,31, 1,24,46		2,49
8″	57, 6,44,48,58, 0,48,52,39,22		4,10,31,23,39	
		38,30,50,20,30, 1, 7		2,49
10″	57, 6,45,27,28,51, 9,22,40,29		4,10,31,26,28	
		38,30,46, 9,58,34,39		2,49
12″	57, 6,46, 5,59,37,19,21,15, 8		4,10,31,29,17	
		38,30,41,59,27, 5,22		2,49
14″	57, 6,46,44,30,19,18,48,20,30		4,10,31,32, 6	
		38,30,37,48,55,33,16		2,49
16″	57, 6,47,23, 0,57, 7,43,53,46		4,10,31,34,55	
		38,30,33,38,23,58,21		2,49
18″	57, 6,48, 1,31,30,46, 7,52, 7		4,10,31,37,44	
		38,30,29,27,52,20,37		2,49
20″	57, 6,48,40, 2, 0,14, 0,12,44		4,10,31,40,33	
		38,30,25,17,20,40, 4		2,49
22″	57, 6,49,18,32,25,31,20,52,48		4,10,31,43,22	
		38,30,21, 6,48,56,42		2,49
24″	57, 6,49,57, 2,46,38, 9,49,30		4,10,31,46,11	
		38,30,16,56,17,10,31		2,49
26″	57, 6,50,35,33, 3,34,27, 0, 1		4,10,31,49, 0	
		38,30,12,45,45,21,31		2,49
28″	57, 6,51,14, 3,16,20,12,21,32		4,10,31,51,49	
		38,30, 8,35,13,29,42		2,49
30″	57, 6,51,52,33,24,55,25,51,14		4,10,31,54,38	
		38,30, 4,24,41,35, 4		2,49
32″	57, 6,52,31, 3,29,20, 7,26,18		4,10,31,57,27	
		38,30, 0,14, 9,37,37		2,49
34″	57, 6,53, 9,33,29,34,17, 3,55		4,10,32, 0,16	
		38,29,56, 3,37,37,21		2,49
36″	57, 6,53,48, 3,25,37,54,41,16		4,10,32, 3, 5	
		38,29,51,53, 5,34,16		2,49
38″	57, 6,54,26,33,17,31, 0,15,32		4,10,32, 5,54	
		38,29,47,42,33,28,22		2,49
40″	57, 6,55, 5, 3, 5,13,33,43,54		4,10,32, 8,43	
		38,29,43,32, 1,19,39		2,49
42″	57, 6,55,43,32,48,45,35, 3,33		4,10,32,11,32	
		38,29,39,21,29, 8, 7		2,49
44″	57, 6,56,22, 2,28, 7, 4,11,40		4,10,32,14,21	
		38,29,35,10,56,53,46		2,49
46″	57, 6,57, 0,32, 3,18, 1, 5,26		4,10,32,17,10	
		38,29,31, 0,24,36,36		2,49
48″	57, 6,57,39, 1,34,18,25,42, 2		4,10,32,19,59	
		38,29,26,49,52,16,37		2,49
50″	57, 6,58,17,31, 1, 8,17,58,39		4,10,32,22,48	
		38,29,22,39,19,53,49		2,49
52″	57, 6,58,56, 0,23,47,37,52,28		4,10,32,25,37	
		38,29,18,28,47,28,12		2,49
54″	57, 6,59,34,29,42,16,25,20,40		4,10,32,28,26	
		38,29,14,18,14,59,46		2,49
56″	57, 7, 0,12,58,56,34,40,20,26		4,10,32,31,15	
		38,29,10, 7,42,28,31		2,49
58″	57, 7, 0,51,28, 6,42,22,48,57		4,10,32,34, 4	
		38,29, 5,57, 9,54,27		
60″	57, 7, 1,29,57,12,39,32,43,24			
exact	57, 7, 1,29,57,12,39,32,50,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°10′ 0″	57, 7, 1,29,57,12,39,32,50,31			
		38,29, 1,46,37,18,21		
2″	57, 7, 2, 8,26,14,26,10, 8,52		4,10,32,39,38	
		38,28,57,36, 4,38,43		2,49
4″	57, 7, 2,46,55,12, 2,14,47,35		4,10,32,42,27	
		38,28,53,25,31,56,16		2,49
6″	57, 7, 3,25,24, 5,27,46,43,51		4,10,32,45,16	
		38,28,49,14,59,11, 0		2,49
8″	57, 7, 4, 3,52,54,42,45,54,51		4,10,32,48, 5	
		38,28,45, 4,26,22,55		2,49
10″	57, 7, 4,42,21,39,47,12,17,46		4,10,32,50,54	
		38,28,40,53,53,32, 1		2,49
12″	57, 7, 5,20,50,20,41, 5,49,47		4,10,32,53,43	
		38,28,36,43,20,38,18		2,49
14″	57, 7, 5,59,18,57,24,26,28, 5		4,10,32,56,32	
		38,28,32,32,47,41,46		2,49
16″	57, 7, 6,37,47,29,57,14, 9,51		4,10,32,59,21	
		38,28,28,22,14,42,25		2,49
18″	57, 7, 7,16,15,58,19,28,52,16		4,10,33, 2,10	
		38,28,24,11,41,40,15		2,49
20″	57, 7, 7,54,44,22,31,10,32,31		4,10,33, 4,59	
		38,28,20, 1, 8,35,16		2,49
22″	57, 7, 8,33,12,42,32,19, 7,47		4,10,33, 7,48	
		38,28,15,50,35,27,28		2,49
24″	57, 7, 9,11,40,58,22,54,35,15		4,10,33,10,37	
		38,28,11,40, 2,16,51		2,49
26″	57, 7, 9,50, 9,10, 2,56,52, 6		4,10,33,13,26	
		38,28, 7,29,29, 3,25		2,49
28″	57, 7,10,28,37,17,32,25,55,31		4,10,33,16,15	
		38,28, 3,18,55,47,10		2,49
30″	57, 7,11, 7, 5,20,51,21,42,41		4,10,33,19, 4	
		38,27,59, 8,22,28, 6		2,49
32″	57, 7,11,45,33,19,59,44,10,47		4,10,33,21,53	
		38,27,54,57,49, 6,13		2,49
34″	57, 7,12,24, 1,14,57,33,17, 0		4,10,33,24,42	
		38,27,50,47,15,41,31		2,49
36″	57, 7,13, 2,29, 5,44,48,58,31		4,10,33,27,31	
		38,27,46,36,42,14, 0		2,49
38″	57, 7,13,40,56,52,21,31,12,31		4,10,33,30,20	
		38,27,42,26, 8,43,40		2,49
40″	57, 7,14,19,24,34,47,39,56,11		4,10,33,33, 9	
		38,27,38,15,35,10,31		2,49
42″	57, 7,14,57,52,13, 3,15, 6,42		4,10,33,35,58	
		38,27,34, 5, 1,34,33		2,49
44″	57, 7,15,36,19,47, 8,16,41,15		4,10,33,38,47	
		38,27,29,54,27,55,46		2,49
46″	57, 7,16,14,47,17, 2,44,37, 1		4,10,33,41,36	
		38,27,25,43,54,14,10		2,49
48″	57, 7,16,53,14,42,46,38,51,11		4,10,33,44,25	
		38,27,21,33,20,29,45		2,49
50″	57, 7,17,31,42, 4,19,59,20,56		4,10,33,47,14	
		38,27,17,22,46,42,31		2,49
52″	57, 7,18,10, 9,21,42,46, 3,27		4,10,33,50, 3	
		38,27,13,12,12,52,28		2,49
54″	57, 7,18,48,36,34,54,58,55,55		4,10,33,52,52	
		38,27, 9, 1,38,59,36		2,49
56″	57, 7,19,27, 3,43,56,37,55,31		4,10,33,55,41	
		38,27, 4,51, 5, 3,55		2,49
58″	57, 7,20, 5,30,48,47,42,59,26		4,10,33,58,30	
		38,27, 0,40,31, 5,25		
60″	57, 7,20,43,57,49,28,14, 4,51			
exact	57, 7,20,43,57,49,28,14,18,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°11′ 0″	57, 7,20,43,57,49,28,14,18,42			
		38,26,56,29,57, 5,45		
2″	57, 7,21,22,24,45,58,11,24,27		4,10,34, 4, 0	
		38,26,52,19,23, 1,45		2,49
4″	57, 7,22, 0,51,38,17,34,26,12		4,10,34, 6,49	
		38,26,48, 8,48,54,56		2,49
6″	57, 7,22,39,18,26,26,23,21, 8		4,10,34, 9,38	
		38,26,43,58,14,45,18		2,49
8″	57, 7,23,17,45,10,24,38, 6,26		4,10,34,12,27	
		38,26,39,47,40,32,51		2,49
10″	57, 7,23,56,11,50,12,18,39,17		4,10,34,15,16	
		38,26,35,37, 6,17,35		2,49
12″	57, 7,24,34,38,25,49,24,56,52		4,10,34,18, 5	
		38,26,31,26,31,59,30		2,49
14″	57, 7,25,13, 4,57,15,56,56,22		4,10,34,20,54	
		38,26,27,15,57,38,36		2,49
16″	57, 7,25,51,31,24,31,54,34,58		4,10,34,23,43	
		38,26,23, 5,23,14,53		2,49
18″	57, 7,26,29,57,47,37,17,49,51		4,10,34,26,32	
		38,26,18,54,48,48,21		2,49
20″	57, 7,27, 8,24, 6,32, 6,38,12		4,10,34,29,21	
		38,26,14,44,14,19, 0		2,49
22″	57, 7,27,46,50,21,16,20,57,12		4,10,34,32,10	
		38,26,10,33,39,46,50		2,49
24″	57, 7,28,25,16,31,50, 0,44, 2		4,10,34,34,59	
		38,26, 6,23, 5,11,51		2,49
26″	57, 7,29, 3,42,38,13, 5,55,53		4,10,34,37,48	
		38,26, 2,12,30,34, 3		2,49
28″	57, 7,29,42, 8,40,25,36,29,56		4,10,34,40,37	
		38,25,58, 1,55,53,26		2,49
30″	57, 7,30,20,34,38,27,32,23,22		4,10,34,43,26	
		38,25,53,51,21,10, 0		2,49
32″	57, 7,30,59, 0,32,18,53,33,22		4,10,34,46,15	
		38,25,49,40,46,23,45		2,49
34″	57, 7,31,37,26,21,59,39,57, 7		4,10,34,49, 4	
		38,25,45,30,11,34,41		2,49
36″	57, 7,32,15,52, 7,29,51,31,48		4,10,34,51,53	
		38,25,41,19,36,42,48		2,49
38″	57, 7,32,54,17,48,49,28,14,36		4,10,34,54,42	
		38,25,37, 9, 1,48, 6		2,49
40″	57, 7,33,32,43,25,58,30, 2,42		4,10,34,57,31	
		38,25,32,58,26,50,35		2,49
42″	57, 7,34,11, 8,58,56,56,53,17		4,10,35, 0,20	
		38,25,28,47,51,50,15		2,49
44″	57, 7,34,49,34,27,44,48,43,32		4,10,35, 3, 9	
		38,25,24,37,16,47, 6		2,49
46″	57, 7,35,27,59,52,22, 5,30,38		4,10,35, 5,58	
		38,25,20,26,41,41, 8		2,49
48″	57, 7,36, 6,25,12,48,47,11,46		4,10,35, 8,47	
		38,25,16,16, 6,32,21		2,49
50″	57, 7,36,44,50,29, 4,53,44, 7		4,10,35,11,36	
		38,25,12, 5,31,20,45		2,49
52″	57, 7,37,23,15,41,10,25, 4,52		4,10,35,14,25	
		38,25, 7,54,56, 6,20		2,49
54″	57, 7,38, 1,40,49, 5,21,11,12		4,10,35,17,14	
		38,25, 3,44,20,49, 6		2,49
56″	57, 7,38,40, 5,52,49,42, 0,18		4,10,35,20, 3	
		38,24,59,33,45,29, 3		2,49
58″	57, 7,39,18,30,52,23,27,29,21		4,10,35,22,52	
		38,24,55,23,10, 6,11		
60″	57, 7,39,56,55,47,46,37,35,32			
exact	57, 7,39,56,55,47,46,38, 0,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°12′ 0″	57, 7,39,56,55,47,46,38, 0,18			
		38,24,51,12,34,43,18		
2″	57, 7,40,35,20,38,59,12,43,36		4,10,35,28,17	
		38,24,47, 1,59,15, 1		2,48
4″	57, 7,41,13,45,26, 1,11,58,37		4,10,35,31, 5	
		38,24,42,51,23,43,56		2,48
6″	57, 7,41,52,10, 8,52,35,42,33		4,10,35,33,53	
		38,24,38,40,48,10, 3		2,48
8″	57, 7,42,30,34,47,33,23,52,36		4,10,35,36,41	
		38,24,34,30,12,33,22		2,48
10″	57, 7,43, 8,59,22, 3,36,25,58		4,10,35,39,29	
		38,24,30,19,36,53,53		2,48
12″	57, 7,43,47,23,52,23,13,19,51		4,10,35,42,17	
		38,24,26, 9, 1,11,36		2,48
14″	57, 7,44,25,48,18,32,14,31,27		4,10,35,45, 5	
		38,24,21,58,25,26,31		2,48
16″	57, 7,45, 4,12,40,30,39,57,58		4,10,35,47,53	
		38,24,17,47,49,38,38		2,48
18″	57, 7,45,42,36,58,18,29,36,36		4,10,35,50,41	
		38,24,13,37,13,47,57		2,48
20″	57, 7,46,21, 1,11,55,43,24,33		4,10,35,53,29	
		38,24, 9,26,37,54,28		2,48
22″	57, 7,46,59,25,21,22,21,19, 1		4,10,35,56,17	
		38,24, 5,16, 1,58,11		2,48
24″	57, 7,47,37,49,26,38,23,17,12		4,10,35,59, 5	
		38,24, 1, 5,25,59, 6		2,48
26″	57, 7,48,16,13,27,43,49,16,18		4,10,36, 1,53	
		38,23,56,54,49,57,13		2,48
28″	57, 7,48,54,37,24,38,39,13,31		4,10,36, 4,41	
		38,23,52,44,13,52,32		2,48
30″	57, 7,49,33, 1,17,22,53, 6, 3		4,10,36, 7,29	
		38,23,48,33,37,45, 3		2,48
32″	57, 7,50,11,25, 5,56,30,51, 6		4,10,36,10,17	
		38,23,44,23, 1,34,46		2,48
34″	57, 7,50,49,48,50,19,32,25,52		4,10,36,13, 5	
		38,23,40,12,25,21,41		2,48
36″	57, 7,51,28,12,30,31,57,47,33		4,10,36,15,53	
		38,23,36, 1,49, 5,48		2,48
38″	57, 7,52, 6,36, 6,33,46,53,21		4,10,36,18,41	
		38,23,31,51,12,47, 7		2,48
40″	57, 7,52,44,59,38,24,59,40,28		4,10,36,21,29	
		38,23,27,40,36,25,38		2,48
42″	57, 7,53,23,23, 6, 5,36, 6, 6		4,10,36,24,17	
		38,23,23,30, 0, 1,21		2,48
44″	57, 7,54, 1,46,29,35,36, 7,27		4,10,36,27, 5	
		38,23,19,19,23,34,16		2,48
46″	57, 7,54,40, 9,48,54,59,41,43		4,10,36,29,53	
		38,23,15, 8,47, 4,23		2,48
48″	57, 7,55,18,33, 4, 3,46,46, 6		4,10,36,32,41	
		38,23,10,58,10,31,42		2,48
50″	57, 7,55,56,56,15, 1,57,17,48		4,10,36,35,29	
		38,23, 6,47,33,56,13		2,48
52″	57, 7,56,35,19,21,49,31,14, 1		4,10,36,38,17	
		38,23, 2,36,57,17,56		2,48
54″	57, 7,57,13,42,24,26,28,31,57		4,10,36,41, 5	
		38,22,58,26,20,36,51		2,48
56″	57, 7,57,52, 5,22,52,49, 8,48		4,10,36,43,53	
		38,22,54,15,43,52,58		2,48
58″	57, 7,58,30,28,17, 8,33, 1,46		4,10,36,46,41	
		38,22,50, 5, 7, 6,17		
60″	57, 7,59, 8,51, 7,13,40, 8, 3			
exact	57, 7,59, 8,51, 7,13,39,33,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°13′ 0″	57, 7,59, 8,51, 7,13,39,33,10			
		38,22,45,54,30,13,18		
2″	57, 7,59,47,13,53, 8, 9,46,28		4,10,36,52,30	
		38,22,41,43,53,20,48		2,48
4″	57, 8, 0,25,36,34,52, 3, 7,16		4,10,36,55,18	
		38,22,37,33,16,25,30		2,48
6″	57, 8, 1, 3,59,12,25,19,32,46		4,10,36,58, 6	
		38,22,33,22,39,27,24		2,48
8″	57, 8, 1,42,21,45,47,59, 0,10		4,10,37, 0,54	
		38,22,29,12, 2,26,30		2,48
10″	57, 8, 2,20,44,15, 0, 1,26,40		4,10,37, 3,42	
		38,22,25, 1,25,22,48		2,48
12″	57, 8, 2,59, 6,40, 1,26,49,28		4,10,37, 6,30	
		38,22,20,50,48,16,18		2,48
14″	57, 8, 3,37,29, 0,52,15, 5,46		4,10,37, 9,18	
		38,22,16,40,11, 7, 0		2,48
16″	57, 8, 4,15,51,17,32,26,12,46		4,10,37,12, 6	
		38,22,12,29,33,54,54		2,48
18″	57, 8, 4,54,13,30, 2, 0, 7,40		4,10,37,14,54	
		38,22, 8,18,56,40, 0		2,48
20″	57, 8, 5,32,35,38,20,56,47,40		4,10,37,17,42	
		38,22, 4, 8,19,22,18		2,48
22″	57, 8, 6,10,57,42,29,16, 9,58		4,10,37,20,30	
		38,21,59,57,42, 1,48		2,48
24″	57, 8, 6,49,19,42,26,58,11,46		4,10,37,23,18	
		38,21,55,47, 4,38,30		2,48
26″	57, 8, 7,27,41,38,14, 2,50,16		4,10,37,26, 6	
		38,21,51,36,27,12,24		2,48
28″	57, 8, 8, 6, 3,29,50,30, 2,40		4,10,37,28,54	
		38,21,47,25,49,43,30		2,48
30″	57, 8, 8,44,25,17,16,19,46,10		4,10,37,31,42	
		38,21,43,15,12,11,48		2,48
32″	57, 8, 9,22,47, 0,31,31,57,58		4,10,37,34,30	
		38,21,39, 4,34,37,18		2,48
34″	57, 8,10, 1, 8,39,36, 6,35,16		4,10,37,37,18	
		38,21,34,53,57, 0, 0		2,48
36″	57, 8,10,39,30,14,30, 3,35,16		4,10,37,40, 6	
		38,21,30,43,19,19,54		2,48
38″	57, 8,11,17,51,45,13,22,55,10		4,10,37,42,54	
		38,21,26,32,41,37, 0		2,48
40″	57, 8,11,56,13,11,46, 4,32,10		4,10,37,45,42	
		38,21,22,22, 3,51,18		2,48
42″	57, 8,12,34,34,34, 8, 8,23,28		4,10,37,48,30	
		38,21,18,11,26, 2,48		2,48
44″	57, 8,13,12,55,52,19,34,26,16		4,10,37,51,18	
		38,21,14, 0,48,11,30		2,48
46″	57, 8,13,51,17, 6,20,22,37,46		4,10,37,54, 6	
		38,21, 9,50,10,17,24		2,48
48″	57, 8,14,29,38,16,10,32,55,10		4,10,37,56,54	
		38,21, 5,39,32,20,30		2,48
50″	57, 8,15, 7,59,21,50, 5,15,40		4,10,37,59,42	
		38,21, 1,28,54,20,48		2,48
52″	57, 8,15,46,20,23,18,59,36,28		4,10,38, 2,30	
		38,20,57,18,16,18,18		2,48
54″	57, 8,16,24,41,20,37,15,54,46		4,10,38, 5,18	
		38,20,53, 7,38,13, 0		2,48
56″	57, 8,17, 3, 2,13,44,54, 7,46		4,10,38, 8, 6	
		38,20,48,57, 0, 4,54		2,48
58″	57, 8,17,41,23, 2,41,54,12,40		4,10,38,10,54	
		38,20,44,46,21,54, 0		
60″	57, 8,18,19,43,47,28,16, 6,40			
exact	57, 8,18,19,43,47,28,15,43,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°14′ 0″	57, 8,18,19,43,47,28,15,43,53			
		38,20,40,35,43,38, 2		
2″	57, 8,18,58, 4,28, 3,59,21,55		4,10,38,16,38	
		38,20,36,25, 5,21,24		2,48
4″	57, 8,19,36,25, 4,29, 4,43,19		4,10,38,19,26	
		38,20,32,14,27, 1,58		2,48
6″	57, 8,20,14,45,36,43,31,45,17		4,10,38,22,14	
		38,20,28, 3,48,39,44		2,48
8″	57, 8,20,53, 6, 4,47,20,25, 1		4,10,38,25, 2	
		38,20,23,53,10,14,42		2,48
10″	57, 8,21,31,26,28,40,30,39,43		4,10,38,27,50	
		38,20,19,42,31,46,52		2,48
12″	57, 8,22, 9,46,48,23, 2,26,35		4,10,38,30,38	
		38,20,15,31,53,16,14		2,48
14″	57, 8,22,48, 7, 3,54,55,42,49		4,10,38,33,26	
		38,20,11,21,14,42,48		2,48
16″	57, 8,23,26,27,15,16,10,25,37		4,10,38,36,14	
		38,20, 7,10,36, 6,34		2,48
18″	57, 8,24, 4,47,22,26,46,32,11		4,10,38,39, 2	
		38,20, 2,59,57,27,32		2,48
20″	57, 8,24,43, 7,25,26,43,59,43		4,10,38,41,50	
		38,19,58,49,18,45,42		2,48
22″	57, 8,25,21,27,24,16, 2,45,25		4,10,38,44,38	
		38,19,54,38,40, 1, 4		2,48
24″	57, 8,25,59,47,18,54,42,46,29		4,10,38,47,26	
		38,19,50,28, 1,13,38		2,48
26″	57, 8,26,38, 7, 9,22,44, 0, 7		4,10,38,50,14	
		38,19,46,17,22,23,24		2,48
28″	57, 8,27,16,26,55,40, 6,23,31		4,10,38,53, 2	
		38,19,42, 6,43,30,22		2,48
30″	57, 8,27,54,46,37,46,49,53,53		4,10,38,55,50	
		38,19,37,56, 4,34,32		2,48
32″	57, 8,28,33, 6,15,42,54,28,25		4,10,38,58,38	
		38,19,33,45,25,35,54		2,48
34″	57, 8,29,11,25,49,28,20, 4,19		4,10,39, 1,26	
		38,19,29,34,46,34,28		2,48
36″	57, 8,29,49,45,19, 3, 6,38,47		4,10,39, 4,14	
		38,19,25,24, 7,30,14		2,48
38″	57, 8,30,28, 4,44,27,14, 9, 1		4,10,39, 7, 2	
		38,19,21,13,28,23,12		2,48
40″	57, 8,31, 6,24, 5,40,42,32,13		4,10,39, 9,50	
		38,19,17, 2,49,13,22		2,48
42″	57, 8,31,44,43,22,43,31,45,35		4,10,39,12,38	
		38,19,12,52,10, 0,44		2,48
44″	57, 8,32,23, 2,35,35,41,46,19		4,10,39,15,26	
		38,19, 8,41,30,45,18		2,48
46″	57, 8,33, 1,21,44,17,12,31,37		4,10,39,18,14	
		38,19, 4,30,51,27, 4		2,48
48″	57, 8,33,39,40,48,48, 3,58,41		4,10,39,21, 2	
		38,19, 0,20,12, 6, 2		2,48
50″	57, 8,34,17,59,49, 8,16, 4,43		4,10,39,23,50	
		38,18,56, 9,32,42,12		2,48
52″	57, 8,34,56,18,45,17,48,46,55		4,10,39,26,38	
		38,18,51,58,53,15,34		2,48
54″	57, 8,35,34,37,37,16,42, 2,29		4,10,39,29,26	
		38,18,47,48,13,46, 8		2,48
56″	57, 8,36,12,56,25, 4,55,48,37		4,10,39,32,14	
		38,18,43,37,34,13,54		2,48
58″	57, 8,36,51,15, 8,42,30, 2,31		4,10,39,35, 2	
		38,18,39,26,54,38,52		
60″	57, 8,37,29,33,48, 9,24,41,23			
exact	57, 8,37,29,33,48, 9,24,27,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°15′ 0″	57, 8,37,29,33,48, 9,24,27,43			
		38,18,35,16,14,59,47		
2″	57, 8,38, 7,52,23,25,39,27,30		4,10,39,40,42	
		38,18,31, 5,35,19, 5		2,48
4″	57, 8,38,46,10,54,31,14,46,35		4,10,39,43,30	
		38,18,26,54,55,35,35		2,48
6″	57, 8,39,24,29,21,26,10,22,10		4,10,39,46,18	
		38,18,22,44,15,49,17		2,48
8″	57, 8,40, 2,47,44,10,26,11,27		4,10,39,49, 6	
		38,18,18,33,36, 0,11		2,48
10″	57, 8,40,41, 6, 2,44, 2,11,38		4,10,39,51,54	
		38,18,14,22,56, 8,17		2,48
12″	57, 8,41,19,24,17, 6,58,19,55		4,10,39,54,42	
		38,18,10,12,16,13,35		2,48
14″	57, 8,41,57,42,27,19,14,33,30		4,10,39,57,30	
		38,18, 6, 1,36,16, 5		2,48
16″	57, 8,42,36, 0,33,20,50,49,35		4,10,40, 0,18	
		38,18, 1,50,56,15,47		2,48
18″	57, 8,43,14,18,35,11,47, 5,22		4,10,40, 3, 6	
		38,17,57,40,16,12,41		2,48
20″	57, 8,43,52,36,32,52, 3,18, 3		4,10,40, 5,54	
		38,17,53,29,36, 6,47		2,48
22″	57, 8,44,30,54,26,21,39,24,50		4,10,40, 8,42	
		38,17,49,18,55,58, 5		2,48
24″	57, 8,45, 9,12,15,40,35,22,55		4,10,40,11,30	
		38,17,45, 8,15,46,35		2,48
26″	57, 8,45,47,30, 0,48,51, 9,30		4,10,40,14,18	
		38,17,40,57,35,32,17		2,48
28″	57, 8,46,25,47,41,46,26,41,47		4,10,40,17, 6	
		38,17,36,46,55,15,11		2,48
30″	57, 8,47, 4, 5,18,33,21,56,58		4,10,40,19,54	
		38,17,32,36,14,55,17		2,48
32″	57, 8,47,42,22,51, 9,36,52,15		4,10,40,22,42	
		38,17,28,25,34,32,35		2,48
34″	57, 8,48,20,40,19,35,11,24,50		4,10,40,25,30	
		38,17,24,14,54, 7, 5		2,48
36″	57, 8,48,58,57,43,50, 5,31,55		4,10,40,28,18	
		38,17,20, 4,13,38,47		2,48
38″	57, 8,49,37,15, 3,54,19,10,42		4,10,40,31, 6	
		38,17,15,53,33, 7,41		2,48
40″	57, 8,50,15,32,19,47,52,18,23		4,10,40,33,54	
		38,17,11,42,52,33,47		2,48
42″	57, 8,50,53,49,31,30,44,52,10		4,10,40,36,42	
		38,17, 7,32,11,57, 5		2,48
44″	57, 8,51,32, 6,39, 2,56,49,15		4,10,40,39,30	
		38,17, 3,21,31,17,35		2,48
46″	57, 8,52,10,23,42,24,28, 6,50		4,10,40,42,18	
		38,16,59,10,50,35,17		2,48
48″	57, 8,52,48,40,41,35,18,42, 7		4,10,40,45, 6	
		38,16,55, 0, 9,50,11		2,48
50″	57, 8,53,26,57,36,35,28,32,18		4,10,40,47,54	
		38,16,50,49,29, 2,17		2,48
52″	57, 8,54, 5,14,27,24,57,34,35		4,10,40,50,42	
		38,16,46,38,48,11,35		2,48
54″	57, 8,54,43,31,14, 3,45,46,10		4,10,40,53,30	
		38,16,42,28, 7,18, 5		2,48
56″	57, 8,55,21,47,56,31,53, 4,15		4,10,40,56,18	
		38,16,38,17,26,21,47		2,48
58″	57, 8,56, 0, 4,34,49,19,26, 2		4,10,40,59, 6	
		38,16,34, 6,45,22,41		
60″	57, 8,56,38,21, 8,56, 4,48,43			
exact	57, 8,56,38,21, 8,56, 4,48,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°16′ 0″	57, 8,56,38,21, 8,56, 4,48,39			
		38,16,29,56, 4,20,51		
2″	57, 8,57,16,37,38,52, 9, 9,30		4,10,41, 4,41	
		38,16,25,45,23,16,10		2,48
4″	57, 8,57,54,54, 4,37,32,25,40		4,10,41, 7,29	
		38,16,21,34,42, 8,41		2,48
6″	57, 8,58,33,10,26,12,14,34,21		4,10,41,10,17	
		38,16,17,24, 0,58,24		2,48
8″	57, 8,59,11,26,43,36,15,32,45		4,10,41,13, 5	
		38,16,13,13,19,45,19		2,48
10″	57, 8,59,49,42,56,49,35,18, 4		4,10,41,15,53	
		38,16, 9, 2,38,29,26		2,48
12″	57, 9, 0,27,59, 5,52,13,47,30		4,10,41,18,41	
		38,16, 4,51,57,10,45		2,48
14″	57, 9, 1, 6,15,10,44,10,58,15		4,10,41,21,29	
		38,16, 0,41,15,49,16		2,48
16″	57, 9, 1,44,31,11,25,26,47,31		4,10,41,24,17	
		38,15,56,30,34,24,59		2,48
18″	57, 9, 2,22,47, 7,56, 1,12,30		4,10,41,27, 5	
		38,15,52,19,52,57,54		2,48
20″	57, 9, 3, 1, 3, 0,15,54,10,24		4,10,41,29,53	
		38,15,48, 9,11,28, 1		2,48
22″	57, 9, 3,39,18,48,25, 5,38,25		4,10,41,32,41	
		38,15,43,58,29,55,20		2,48
24″	57, 9, 4,17,34,32,23,35,33,45		4,10,41,35,29	
		38,15,39,47,48,19,51		2,48
26″	57, 9, 4,55,50,12,11,23,53,36		4,10,41,38,17	
		38,15,35,37, 6,41,34		2,48
28″	57, 9, 5,34, 5,47,48,30,35,10		4,10,41,41, 5	
		38,15,31,26,25, 0,29		2,48
30″	57, 9, 6,12,21,19,14,55,35,39		4,10,41,43,53	
		38,15,27,15,43,16,36		2,48
32″	57, 9, 6,50,36,46,30,38,52,15		4,10,41,46,41	
		38,15,23, 5, 1,29,55		2,48
34″	57, 9, 7,28,52, 9,35,40,22,10		4,10,41,49,29	
		38,15,18,54,19,40,26		2,48
36″	57, 9, 8, 7, 7,28,30, 0, 2,36		4,10,41,52,17	
		38,15,14,43,37,48, 9		2,48
38″	57, 9, 8,45,22,43,13,37,50,45		4,10,41,55, 5	
		38,15,10,32,55,53, 4		2,48
40″	57, 9, 9,23,37,53,46,33,43,49		4,10,41,57,53	
		38,15, 6,22,13,55,11		2,48
42″	57, 9,10, 1,53, 0, 8,47,39, 0		4,10,42, 0,41	
		38,15, 2,11,31,54,30		2,48
44″	57, 9,10,40, 8, 2,20,19,33,30		4,10,42, 3,29	
		38,14,58, 0,49,51, 1		2,48
46″	57, 9,11,18,23, 0,21, 9,24,31		4,10,42, 6,17	
		38,14,53,50, 7,44,44		2,48
48″	57, 9,11,56,37,54,11,17, 9,15		4,10,42, 9, 5	
		38,14,49,39,25,35,39		2,48
50″	57, 9,12,34,52,43,50,42,44,54		4,10,42,11,53	
		38,14,45,28,43,23,46		2,48
52″	57, 9,13,13, 7,29,19,26, 8,40		4,10,42,14,41	
		38,14,41,18, 1, 9, 5		2,48
54″	57, 9,13,51,22,10,37,27,17,45		4,10,42,17,29	
		38,14,37, 7,18,51,36		2,48
56″	57, 9,14,29,36,47,44,46, 9,21		4,10,42,20,17	
		38,14,32,56,36,31,19		2,48
58″	57, 9,15, 7,51,20,41,22,40,40		4,10,42,23, 5	
		38,14,28,45,54, 8,14		
60″	57, 9,15,46, 5,49,27,16,48,54			
exact	57, 9,15,46, 5,49,27,16,59,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°17′ 0″	57, 9,15,46, 5,49,27,16,59,24			
		38,14,24,35,11,43,32		
2″	57, 9,16,24,20,14, 2,28,42,56		4,10,42,28,35	
		38,14,20,24,29,14,57		2,48
4″	57, 9,17, 2,34,34,26,57,57,53		4,10,42,31,23	
		38,14,16,13,46,43,34		2,48
6″	57, 9,17,40,48,50,40,44,41,27		4,10,42,34,11	
		38,14,12, 3, 4, 9,23		2,48
8″	57, 9,18,19, 3, 2,43,48,50,50		4,10,42,36,59	
		38,14, 7,52,21,32,24		2,48
10″	57, 9,18,57,17,10,36,10,23,14		4,10,42,39,47	
		38,14, 3,41,38,52,37		2,48
12″	57, 9,19,35,31,14,17,49,15,51		4,10,42,42,35	
		38,13,59,30,56,10, 2		2,48
14″	57, 9,20,13,45,13,48,45,25,53		4,10,42,45,23	
		38,13,55,20,13,24,39		2,48
16″	57, 9,20,51,59, 9, 8,58,50,32		4,10,42,48,11	
		38,13,51, 9,30,36,28		2,48
18″	57, 9,21,30,13, 0,18,29,27, 0		4,10,42,50,59	
		38,13,46,58,47,45,29		2,48
20″	57, 9,22, 8,26,47,17,17,12,29		4,10,42,53,47	
		38,13,42,48, 4,51,42		2,48
22″	57, 9,22,46,40,30, 5,22, 4,11		4,10,42,56,35	
		38,13,38,37,21,55, 7		2,48
24″	57, 9,23,24,54, 8,42,43,59,18		4,10,42,59,23	
		38,13,34,26,38,55,44		2,48
26″	57, 9,24, 3, 7,43, 9,22,55, 2		4,10,43, 2,11	
		38,13,30,15,55,53,33		2,48
28″	57, 9,24,41,21,13,25,18,48,35		4,10,43, 4,59	
		38,13,26, 5,12,48,34		2,48
30″	57, 9,25,19,34,39,30,31,37, 9		4,10,43, 7,47	
		38,13,21,54,29,40,47		2,48
32″	57, 9,25,57,48, 1,25, 1,17,56		4,10,43,10,35	
		38,13,17,43,46,30,12		2,48
34″	57, 9,26,36, 1,19, 8,47,48, 8		4,10,43,13,23	
		38,13,13,33, 3,16,49		2,48
36″	57, 9,27,14,14,32,41,51, 4,57		4,10,43,16,11	
		38,13, 9,22,20, 0,38		2,48
38″	57, 9,27,52,27,42, 4,11, 5,35		4,10,43,18,59	
		38,13, 5,11,36,41,39		2,48
40″	57, 9,28,30,40,47,15,47,47,14		4,10,43,21,47	
		38,13, 1, 0,53,19,52		2,48
42″	57, 9,29, 8,53,48,16,41, 7, 6		4,10,43,24,35	
		38,12,56,50, 9,55,17		2,48
44″	57, 9,29,47, 6,45, 6,51, 2,23		4,10,43,27,23	
		38,12,52,39,26,27,54		2,48
46″	57, 9,30,25,19,37,46,17,30,17		4,10,43,30,11	
		38,12,48,28,42,57,43		2,48
48″	57, 9,31, 3,32,26,15, 0,28, 0		4,10,43,32,59	
		38,12,44,17,59,24,44		2,48
50″	57, 9,31,41,45,10,32,59,52,44		4,10,43,35,47	
		38,12,40, 7,15,48,57		2,48
52″	57, 9,32,19,57,50,40,15,41,41		4,10,43,38,35	
		38,12,35,56,32,10,22		2,48
54″	57, 9,32,58,10,26,36,47,52, 3		4,10,43,41,23	
		38,12,31,45,48,28,59		2,48
56″	57, 9,33,36,22,58,22,36,21, 2		4,10,43,44,11	
		38,12,27,35, 4,44,48		2,48
58″	57, 9,34,14,35,25,57,41, 5,50		4,10,43,46,59	
		38,12,23,24,20,57,49		
60″	57, 9,34,52,47,49,22, 2, 3,39			
exact	57, 9,34,52,47,49,22, 2,21,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°18′ 0″	57, 9,34,52,47,49,22, 2,21,23			
		38,12,19,13,37,10, 7		
2″	57, 9,35,31, 0, 8,35,39,31,30		4,10,43,52,25	
		38,12,15, 2,53,17,42		2,48
4″	57, 9,36, 9,12,23,38,32,49,12		4,10,43,55,13	
		38,12,10,52, 9,22,29		2,48
6″	57, 9,36,47,24,34,30,42,11,41		4,10,43,58, 1	
		38,12, 6,41,25,24,28		2,48
8″	57, 9,37,25,36,41,12, 7,36, 9		4,10,44, 0,49	
		38,12, 2,30,41,23,39		2,48
10″	57, 9,38, 3,48,43,42,48,59,48		4,10,44, 3,37	
		38,11,58,19,57,20, 2		2,48
12″	57, 9,38,42, 0,42, 2,46,19,50		4,10,44, 6,25	
		38,11,54, 9,13,13,37		2,48
14″	57, 9,39,20,12,36,11,59,33,27		4,10,44, 9,13	
		38,11,49,58,29, 4,24		2,48
16″	57, 9,39,58,24,26,10,28,37,51		4,10,44,12, 1	
		38,11,45,47,44,52,23		2,48
18″	57, 9,40,36,36,11,58,13,30,14		4,10,44,14,49	
		38,11,41,37, 0,37,34		2,48
20″	57, 9,41,14,47,53,35,14, 7,48		4,10,44,17,37	
		38,11,37,26,16,19,57		2,48
22″	57, 9,41,52,59,31, 1,30,27,45		4,10,44,20,25	
		38,11,33,15,31,59,32		2,48
24″	57, 9,42,31,11, 4,17, 2,27,17		4,10,44,23,13	
		38,11,29, 4,47,36,19		2,48
26″	57, 9,43, 9,22,33,21,50, 3,36		4,10,44,26, 1	
		38,11,24,54, 3,10,18		2,48
28″	57, 9,43,47,33,58,15,53,13,54		4,10,44,28,49	
		38,11,20,43,18,41,29		2,48
30″	57, 9,44,25,45,18,59,11,55,23		4,10,44,31,37	
		38,11,16,32,34, 9,52		2,48
32″	57, 9,45, 3,56,35,31,46, 5,15		4,10,44,34,25	
		38,11,12,21,49,35,27		2,48
34″	57, 9,45,42, 7,47,53,35,40,42		4,10,44,37,13	
		38,11, 8,11, 4,58,14		2,48
36″	57, 9,46,20,18,56, 4,40,38,56		4,10,44,40, 1	
		38,11, 4, 0,20,18,13		2,48
38″	57, 9,46,58,30, 0, 5, 0,57, 9		4,10,44,42,49	
		38,10,59,49,35,35,24		2,48
40″	57, 9,47,36,40,59,54,36,32,33		4,10,44,45,37	
		38,10,55,38,50,49,47		2,48
42″	57, 9,48,14,51,55,33,27,22,20		4,10,44,48,25	
		38,10,51,28, 6, 1,22		2,48
44″	57, 9,48,53, 2,47, 1,33,23,42		4,10,44,51,13	
		38,10,47,17,21,10, 9		2,48
46″	57, 9,49,31,13,34,18,54,33,51		4,10,44,54, 1	
		38,10,43, 6,36,16, 8		2,48
48″	57, 9,50, 9,24,17,25,30,49,59		4,10,44,56,49	
		38,10,38,55,51,19,19		2,48
50″	57, 9,50,47,34,56,21,22, 9,18		4,10,44,59,37	
		38,10,34,45, 6,19,42		2,48
52″	57, 9,51,25,45,31, 6,28,29, 0		4,10,45, 2,25	
		38,10,30,34,21,17,17		2,48
54″	57, 9,52, 3,56, 1,40,49,46,17		4,10,45, 5,13	
		38,10,26,23,36,12, 4		2,48
56″	57, 9,52,42, 6,28, 4,25,58,21		4,10,45, 8, 1	
		38,10,22,12,51, 4, 3		2,48
58″	57, 9,53,20,16,50,17,17, 2,24		4,10,45,10,49	
		38,10,18, 2, 5,53,14		
60″	57, 9,53,58,27, 8,19,22,55,38			
exact	57, 9,53,58,27, 8,19,23,24,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°19′ 0″	57, 9,53,58,27, 8,19,23,24,47			
		38,10,13,51,20,42,53		
2″	57, 9,54,36,37,22,10,44, 7,40		4,10,45,16,10	
		38,10, 9,40,35,26,43		2,47
4″	57, 9,55,14,47,31,51,19,34,23		4,10,45,18,57	
		38,10, 5,29,50, 7,46		2,47
6″	57, 9,55,52,57,37,21, 9,42, 9		4,10,45,21,44	
		38,10, 1,19, 4,46, 2		2,47
8″	57, 9,56,31, 7,38,40,14,28,11		4,10,45,24,31	
		38, 9,57, 8,19,21,31		2,47
10″	57, 9,57, 9,17,35,48,33,49,42		4,10,45,27,18	
		38, 9,52,57,33,54,13		2,47
12″	57, 9,57,47,27,28,46, 7,43,55		4,10,45,30, 5	
		38, 9,48,46,48,24, 8		2,47
14″	57, 9,58,25,37,17,32,56, 8, 3		4,10,45,32,52	
		38, 9,44,36, 2,51,16		2,47
16″	57, 9,59, 3,47, 2, 8,58,59,19		4,10,45,35,39	
		38, 9,40,25,17,15,37		2,47
18″	57, 9,59,41,56,42,34,16,14,56		4,10,45,38,26	
		38, 9,36,14,31,37,11		2,47
20″	57,10, 0,20, 6,18,48,47,52, 7		4,10,45,41,13	
		38, 9,32, 3,45,55,58		2,47
22″	57,10, 0,58,15,50,52,33,48, 5		4,10,45,44, 0	
		38, 9,27,53, 0,11,58		2,47
24″	57,10, 1,36,25,18,45,34, 0, 3		4,10,45,46,47	
		38, 9,23,42,14,25,11		2,47
26″	57,10, 2,14,34,42,27,48,25,14		4,10,45,49,34	
		38, 9,19,31,28,35,37		2,47
28″	57,10, 2,52,44, 1,59,17, 0,51		4,10,45,52,21	
		38, 9,15,20,42,43,16		2,47
30″	57,10, 3,30,53,17,19,59,44, 7		4,10,45,55, 8	
		38, 9,11, 9,56,48, 8		2,47
32″	57,10, 4, 9, 2,28,29,56,32,15		4,10,45,57,55	
		38, 9, 6,59,10,50,13		2,47
34″	57,10, 4,47,11,35,29, 7,22,28		4,10,46, 0,42	
		38, 9, 2,48,24,49,31		2,47
36″	57,10, 5,25,20,38,17,32,11,59		4,10,46, 3,29	
		38, 8,58,37,38,46, 2		2,47
38″	57,10, 6, 3,29,36,55,10,58, 1		4,10,46, 6,16	
		38, 8,54,26,52,39,46		2,47
40″	57,10, 6,41,38,31,22, 3,37,47		4,10,46, 9, 3	
		38, 8,50,16, 6,30,43		2,47
42″	57,10, 7,19,47,21,38,10, 8,30		4,10,46,11,50	
		38, 8,46, 5,20,18,53		2,47
44″	57,10, 7,57,56, 7,43,30,27,23		4,10,46,14,37	
		38, 8,41,54,34, 4,16		2,47
46″	57,10, 8,36, 4,49,38, 4,31,39		4,10,46,17,24	
		38, 8,37,43,47,46,52		2,47
48″	57,10, 9,14,13,27,21,52,18,31		4,10,46,20,11	
		38, 8,33,33, 1,26,41		2,47
50″	57,10, 9,52,22, 0,54,53,45,12		4,10,46,22,58	
		38, 8,29,22,15, 3,43		2,47
52″	57,10,10,30,30,30,17, 8,48,55		4,10,46,25,45	
		38, 8,25,11,28,37,58		2,47
54″	57,10,11, 8,38,55,28,37,26,53		4,10,46,28,32	
		38, 8,21, 0,42, 9,26		2,47
56″	57,10,11,46,47,16,29,19,36,19		4,10,46,31,19	
		38, 8,16,49,55,38, 7		2,47
58″	57,10,12,24,55,33,19,15,14,26		4,10,46,34, 6	
		38, 8,12,39, 9, 4, 1		
60″	57,10,13, 3, 3,45,58,24,18,27			
exact	57,10,13, 3, 3,45,58,23,48,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°20′ 0″	57,10,13, 3, 3,45,58,23,48,29			
		38, 8, 8,28,22,24, 8		
2″	57,10,13,41,11,54,26,46,12,37		4,10,46,39,51	
		38, 8, 4,17,35,44,17		2,47
4″	57,10,14,19,19,58,44,21,56,54		4,10,46,42,38	
		38, 8, 0, 6,49, 1,39		2,47
6″	57,10,14,57,27,58,51,10,58,33		4,10,46,45,25	
		38, 7,55,56, 2,16,14		2,47
8″	57,10,15,35,35,54,47,13,14,47		4,10,46,48,12	
		38, 7,51,45,15,28, 2		2,47
10″	57,10,16,13,43,46,32,28,42,49		4,10,46,50,59	
		38, 7,47,34,28,37, 3		2,47
12″	57,10,16,51,51,34, 6,57,19,52		4,10,46,53,46	
		38, 7,43,23,41,43,17		2,47
14″	57,10,17,29,59,17,30,39, 3, 9		4,10,46,56,33	
		38, 7,39,12,54,46,44		2,47
16″	57,10,18, 8, 6,56,43,33,49,53		4,10,46,59,20	
		38, 7,35, 2, 7,47,24		2,47
18″	57,10,18,46,14,31,45,41,37,17		4,10,47, 2, 7	
		38, 7,30,51,20,45,17		2,47
20″	57,10,19,24,22, 2,37, 2,22,34		4,10,47, 4,54	
		38, 7,26,40,33,40,23		2,47
22″	57,10,20, 2,29,29,17,36, 2,57		4,10,47, 7,41	
		38, 7,22,29,46,32,42		2,47
24″	57,10,20,40,36,51,47,22,35,39		4,10,47,10,28	
		38, 7,18,18,59,22,14		2,47
26″	57,10,21,18,44,10, 6,21,57,53		4,10,47,13,15	
		38, 7,14, 8,12, 8,59		2,47
28″	57,10,21,56,51,24,14,34, 6,52		4,10,47,16, 2	
		38, 7, 9,57,24,52,57		2,47
30″	57,10,22,34,58,34,11,58,59,49		4,10,47,18,49	
		38, 7, 5,46,37,34, 8		2,47
32″	57,10,23,13, 5,39,58,36,33,57		4,10,47,21,36	
		38, 7, 1,35,50,12,32		2,47
34″	57,10,23,51,12,41,34,26,46,29		4,10,47,24,23	
		38, 6,57,25, 2,48, 9		2,47
36″	57,10,24,29,19,38,59,29,34,38		4,10,47,27,10	
		38, 6,53,14,15,20,59		2,47
38″	57,10,25, 7,26,32,13,44,55,37		4,10,47,29,57	
		38, 6,49, 3,27,51, 2		2,47
40″	57,10,25,45,33,21,17,12,46,39		4,10,47,32,44	
		38, 6,44,52,40,18,18		2,47
42″	57,10,26,23,40, 6, 9,53, 4,57		4,10,47,35,31	
		38, 6,40,41,52,42,47		2,47
44″	57,10,27, 1,46,46,51,45,47,44		4,10,47,38,18	
		38, 6,36,31, 5, 4,29		2,47
46″	57,10,27,39,53,23,22,50,52,13		4,10,47,41, 5	
		38, 6,32,20,17,23,24		2,47
48″	57,10,28,17,59,55,43, 8,15,37		4,10,47,43,52	
		38, 6,28, 9,29,39,32		2,47
50″	57,10,28,56, 6,23,52,37,55, 9		4,10,47,46,39	
		38, 6,23,58,41,52,53		2,47
52″	57,10,29,34,12,47,51,19,48, 2		4,10,47,49,26	
		38, 6,19,47,54, 3,27		2,47
54″	57,10,30,12,19, 7,39,13,51,29		4,10,47,52,13	
		38, 6,15,37, 6,11,14		2,47
56″	57,10,30,50,25,23,16,20, 2,43		4,10,47,55, 0	
		38, 6,11,26,18,16,14		2,47
58″	57,10,31,28,31,34,42,38,18,57		4,10,47,57,47	
		38, 6, 7,15,30,18,27		
60″	57,10,32, 6,37,41,58, 8,37,24			
exact	57,10,32, 6,37,41,58, 8,20,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°21′ 0″	57,10,32, 6,37,41,58, 8,20,10			
		38, 6, 3, 4,42,16,10		
2″	57,10,32,44,43,45, 2,50,36,20		4,10,48, 3,27	
		38, 5,58,53,54,12,43		2,47
4″	57,10,33,22,49,43,56,44,49, 3		4,10,48, 6,14	
		38, 5,54,43, 6, 6,29		2,47
6″	57,10,34, 0,55,38,39,50,55,32		4,10,48, 9, 1	
		38, 5,50,32,17,57,28		2,47
8″	57,10,34,39, 1,29,12, 8,53, 0		4,10,48,11,48	
		38, 5,46,21,29,45,40		2,47
10″	57,10,35,17, 7,15,33,38,38,40		4,10,48,14,35	
		38, 5,42,10,41,31, 5		2,47
12″	57,10,35,55,12,57,44,20, 9,45		4,10,48,17,22	
		38, 5,37,59,53,13,43		2,47
14″	57,10,36,33,18,35,44,13,23,28		4,10,48,20, 9	
		38, 5,33,49, 4,53,34		2,47
16″	57,10,37,11,24, 9,33,18,17, 2		4,10,48,22,56	
		38, 5,29,38,16,30,38		2,47
18″	57,10,37,49,29,39,11,34,47,40		4,10,48,25,43	
		38, 5,25,27,28, 4,55		2,47
20″	57,10,38,27,35, 4,39, 2,52,35		4,10,48,28,30	
		38, 5,21,16,39,36,25		2,47
22″	57,10,39, 5,40,25,55,42,29, 0		4,10,48,31,17	
		38, 5,17, 5,51, 5, 8		2,47
24″	57,10,39,43,45,43, 1,33,34, 8		4,10,48,34, 4	
		38, 5,12,55, 2,31, 4		2,47
26″	57,10,40,21,50,55,56,36, 5,12		4,10,48,36,51	
		38, 5, 8,44,13,54,13		2,47
28″	57,10,40,59,56, 4,40,49,59,25		4,10,48,39,38	
		38, 5, 4,33,25,14,35		2,47
30″	57,10,41,38, 1, 9,14,15,14, 0		4,10,48,42,25	
		38, 5, 0,22,36,32,10		2,47
32″	57,10,42,16, 6, 9,36,51,46,10		4,10,48,45,12	
		38, 4,56,11,47,46,58		2,47
34″	57,10,42,54,11, 5,48,39,33, 8		4,10,48,47,59	
		38, 4,52, 0,58,58,59		2,47
36″	57,10,43,32,15,57,49,38,32, 7		4,10,48,50,46	
		38, 4,47,50,10, 8,13		2,47
38″	57,10,44,10,20,45,39,48,40,20		4,10,48,53,33	
		38, 4,43,39,21,14,40		2,47
40″	57,10,44,48,25,29,19, 9,55, 0		4,10,48,56,20	
		38, 4,39,28,32,18,20		2,47
42″	57,10,45,26,30, 8,47,42,13,20		4,10,48,59, 7	
		38, 4,35,17,43,19,13		2,47
44″	57,10,46, 4,34,44, 5,25,32,33		4,10,49, 1,54	
		38, 4,31, 6,54,17,19		2,47
46″	57,10,46,42,39,15,12,19,49,52		4,10,49, 4,41	
		38, 4,26,56, 5,12,38		2,47
48″	57,10,47,20,43,42, 8,25, 2,30		4,10,49, 7,28	
		38, 4,22,45,16, 5,10		2,47
50″	57,10,47,58,48, 4,53,41, 7,40		4,10,49,10,15	
		38, 4,18,34,26,54,55		2,47
52″	57,10,48,36,52,23,28, 8, 2,35		4,10,49,13, 2	
		38, 4,14,23,37,41,53		2,47
54″	57,10,49,14,56,37,51,45,44,28		4,10,49,15,49	
		38, 4,10,12,48,26, 4		2,47
56″	57,10,49,53, 0,48, 4,34,10,32		4,10,49,18,36	
		38, 4, 6, 1,59, 7,28		2,47
58″	57,10,50,31, 4,54, 6,33,18, 0		4,10,49,21,23	
		38, 4, 1,51, 9,46, 5		
60″	57,10,51, 9, 8,55,57,43, 4, 5			
exact	57,10,51, 9, 8,55,57,42,56,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°22′ 0″	57,10,51, 9, 8,55,57,42,56,13			
		38, 3,57,40,20,21,15		
2″	57,10,51,47,12,53,38, 3,17,28		4,10,49,26,59	
		38, 3,53,29,30,54,16		2,47
4″	57,10,52,25,16,47, 7,34,11,44		4,10,49,29,46	
		38, 3,49,18,41,24,30		2,47
6″	57,10,53, 3,20,36,26,15,36,14		4,10,49,32,33	
		38, 3,45, 7,51,51,57		2,47
8″	57,10,53,41,24,21,34, 7,28,11		4,10,49,35,20	
		38, 3,40,57, 2,16,37		2,47
10″	57,10,54,19,28, 2,31, 9,44,48		4,10,49,38, 7	
		38, 3,36,46,12,38,30		2,47
12″	57,10,54,57,31,39,17,22,23,18		4,10,49,40,54	
		38, 3,32,35,22,57,36		2,47
14″	57,10,55,35,35,11,52,45,20,54		4,10,49,43,41	
		38, 3,28,24,33,13,55		2,47
16″	57,10,56,13,38,40,17,18,34,49		4,10,49,46,28	
		38, 3,24,13,43,27,27		2,47
18″	57,10,56,51,42, 4,31, 2, 2,16		4,10,49,49,15	
		38, 3,20, 2,53,38,12		2,47
20″	57,10,57,29,45,24,33,55,40,28		4,10,49,52, 2	
		38, 3,15,52, 3,46,10		2,47
22″	57,10,58, 7,48,40,25,59,26,38		4,10,49,54,49	
		38, 3,11,41,13,51,21		2,47
24″	57,10,58,45,51,52, 7,13,17,59		4,10,49,57,36	
		38, 3, 7,30,23,53,45		2,47
26″	57,10,59,23,54,59,37,37,11,44		4,10,50, 0,23	
		38, 3, 3,19,33,53,22		2,47
28″	57,11, 0, 1,58, 2,57,11, 5, 6		4,10,50, 3,10	
		38, 2,59, 8,43,50,12		2,47
30″	57,11, 0,40, 1, 2, 5,54,55,18		4,10,50, 5,57	
		38, 2,54,57,53,44,15		2,47
32″	57,11, 1,18, 3,57, 3,48,39,33		4,10,50, 8,44	
		38, 2,50,47, 3,35,31		2,47
34″	57,11, 1,56, 6,47,50,52,15, 4		4,10,50,11,31	
		38, 2,46,36,13,24, 0		2,47
36″	57,11, 2,34, 9,34,27, 5,39, 4		4,10,50,14,18	
		38, 2,42,25,23, 9,42		2,47
38″	57,11, 3,12,12,16,52,28,48,46		4,10,50,17, 5	
		38, 2,38,14,32,52,37		2,47
40″	57,11, 3,50,14,55, 7, 1,41,23		4,10,50,19,52	
		38, 2,34, 3,42,32,45		2,47
42″	57,11, 4,28,17,29,10,44,14, 8		4,10,50,22,39	
		38, 2,29,52,52,10, 6		2,47
44″	57,11, 5, 6,19,59, 3,36,24,14		4,10,50,25,26	
		38, 2,25,42, 1,44,40		2,47
46″	57,11, 5,44,22,24,45,38, 8,54		4,10,50,28,13	
		38, 2,21,31,11,16,27		2,47
48″	57,11, 6,22,24,46,16,49,25,21		4,10,50,31, 0	
		38, 2,17,20,20,45,27		2,47
50″	57,11, 7, 0,27, 3,37,10,10,48		4,10,50,33,47	
		38, 2,13, 9,30,11,40		2,47
52″	57,11, 7,38,29,16,46,40,22,28		4,10,50,36,34	
		38, 2, 8,58,39,35, 6		2,47
54″	57,11, 8,16,31,25,45,19,57,34		4,10,50,39,21	
		38, 2, 4,47,48,55,45		2,47
56″	57,11, 8,54,33,30,33, 8,53,19		4,10,50,42, 8	
		38, 2, 0,36,58,13,37		2,47
58″	57,11, 9,32,35,31,10, 7, 6,56		4,10,50,44,55	
		38, 1,56,26, 7,28,42		
60″	57,11,10,10,37,27,36,14,35,38			
exact	57,11,10,10,37,27,36,14,41,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°23′ 0″	57,11,10,10,37,27,36,14,41,48			
		38, 1,52,15,16,41,41		
2″	57,11,10,48,39,19,51,31,23,29		4,10,50,50,26	
		38, 1,48, 4,25,51,15		2,47
4″	57,11,11,26,41, 7,55,57,14,44		4,10,50,53,13	
		38, 1,43,53,34,58, 2		2,47
6″	57,11,12, 4,42,51,49,32,12,46		4,10,50,56, 0	
		38, 1,39,42,44, 2, 2		2,47
8″	57,11,12,42,44,31,32,16,14,48		4,10,50,58,47	
		38, 1,35,31,53, 3,15		2,47
10″	57,11,13,20,46, 7, 4, 9,18, 3		4,10,51, 1,34	
		38, 1,31,21, 2, 1,41		2,47
12″	57,11,13,58,47,38,25,11,19,44		4,10,51, 4,21	
		38, 1,27,10,10,57,20		2,47
14″	57,11,14,36,49, 5,35,22,17, 4		4,10,51, 7, 8	
		38, 1,22,59,19,50,12		2,47
16″	57,11,15,14,50,28,34,42, 7,16		4,10,51, 9,55	
		38, 1,18,48,28,40,17		2,47
18″	57,11,15,52,51,47,23,10,47,33		4,10,51,12,42	
		38, 1,14,37,37,27,35		2,47
20″	57,11,16,30,53, 2, 0,48,15, 8		4,10,51,15,29	
		38, 1,10,26,46,12, 6		2,47
22″	57,11,17, 8,54,12,27,34,27,14		4,10,51,18,16	
		38, 1, 6,15,54,53,50		2,47
24″	57,11,17,46,55,18,43,29,21, 4		4,10,51,21, 3	
		38, 1, 2, 5, 3,32,47		2,47
26″	57,11,18,24,56,20,48,32,53,51		4,10,51,23,50	
		38, 0,57,54,12, 8,57		2,47
28″	57,11,19, 2,57,18,42,45, 2,48		4,10,51,26,37	
		38, 0,53,43,20,42,20		2,47
30″	57,11,19,40,58,12,26, 5,45, 8		4,10,51,29,24	
		38, 0,49,32,29,12,56		2,47
32″	57,11,20,18,59, 1,58,34,58, 4		4,10,51,32,11	
		38, 0,45,21,37,40,45		2,47
34″	57,11,20,56,59,47,20,12,38,49		4,10,51,34,58	
		38, 0,41,10,46, 5,47		2,47
36″	57,11,21,35, 0,28,30,58,44,36		4,10,51,37,45	
		38, 0,36,59,54,28, 2		2,47
38″	57,11,22,13, 1, 5,30,53,12,38		4,10,51,40,32	
		38, 0,32,49, 2,47,30		2,47
40″	57,11,22,51, 1,38,19,56, 0, 8		4,10,51,43,19	
		38, 0,28,38,11, 4,11		2,47
42″	57,11,23,29, 2, 6,58, 7, 4,19		4,10,51,46, 6	
		38, 0,24,27,19,18, 5		2,47
44″	57,11,24, 7, 2,31,25,26,22,24		4,10,51,48,53	
		38, 0,20,16,27,29,12		2,47
46″	57,11,24,45, 2,51,41,53,51,36		4,10,51,51,40	
		38, 0,16, 5,35,37,32		2,47
48″	57,11,25,23, 3, 7,47,29,29, 8		4,10,51,54,27	
		38, 0,11,54,43,43, 5		2,47
50″	57,11,26, 1, 3,19,42,13,12,13		4,10,51,57,14	
		38, 0, 7,43,51,45,51		2,47
52″	57,11,26,39, 3,27,26, 4,58, 4		4,10,52, 0, 1	
		38, 0, 3,32,59,45,50		2,47
54″	57,11,27,17, 3,30,59, 4,43,54		4,10,52, 2,48	
		37,59,59,22, 7,43, 2		2,47
56″	57,11,27,55, 3,30,21,12,26,56		4,10,52, 5,35	
		37,59,55,11,15,37,27		2,47
58″	57,11,28,33, 3,25,32,28, 4,23		4,10,52, 8,22	
		37,59,51, 0,23,29, 5		
60″	57,11,29,11, 3,16,32,51,33,28			
exact	57,11,29,11, 3,16,32,51,50,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°24′ 0″	57,11,29,11, 3,16,32,51,50,50			
		37,59,46,49,31,19,47		
2″	57,11,29,49, 3, 3,22,23,10,37		4,10,52,13,48	
		37,59,42,38,39, 5,59		2,47
4″	57,11,30,27, 2,46, 1, 2,16,36		4,10,52,16,35	
		37,59,38,27,46,49,24		2,47
6″	57,11,31, 5, 2,24,28,49, 6, 0		4,10,52,19,22	
		37,59,34,16,54,30, 2		2,47
8″	57,11,31,43, 1,58,45,43,36, 2		4,10,52,22, 9	
		37,59,30, 6, 2, 7,53		2,47
10″	57,11,32,21, 1,28,51,45,43,55		4,10,52,24,56	
		37,59,25,55, 9,42,57		2,47
12″	57,11,32,59, 0,54,46,55,26,52		4,10,52,27,43	
		37,59,21,44,17,15,14		2,47
14″	57,11,33,37, 0,16,31,12,42, 6		4,10,52,30,30	
		37,59,17,33,24,44,44		2,47
16″	57,11,34,14,59,34, 4,37,26,50		4,10,52,33,17	
		37,59,13,22,32,11,27		2,47
18″	57,11,34,52,58,47,27, 9,38,17		4,10,52,36, 4	
		37,59, 9,11,39,35,23		2,47
20″	57,11,35,30,57,56,38,49,13,40		4,10,52,38,51	
		37,59, 5, 0,46,56,32		2,47
22″	57,11,36, 8,57, 1,39,36,10,12		4,10,52,41,38	
		37,59, 0,49,54,14,54		2,47
24″	57,11,36,46,56, 2,29,30,25, 6		4,10,52,44,25	
		37,58,56,39, 1,30,29		2,47
26″	57,11,37,24,54,59, 8,31,55,35		4,10,52,47,12	
		37,58,52,28, 8,43,17		2,47
28″	57,11,38, 2,53,51,36,40,38,52		4,10,52,49,59	
		37,58,48,17,15,53,18		2,47
30″	57,11,38,40,52,39,53,56,32,10		4,10,52,52,46	
		37,58,44, 6,23, 0,32		2,47
32″	57,11,39,18,51,24, 0,19,32,42		4,10,52,55,33	
		37,58,39,55,30, 4,59		2,47
34″	57,11,39,56,50, 3,55,49,37,41		4,10,52,58,20	
		37,58,35,44,37, 6,39		2,47
36″	57,11,40,34,48,39,40,26,44,20		4,10,53, 1, 7	
		37,58,31,33,44, 5,32		2,47
38″	57,11,41,12,47,11,14,10,49,52		4,10,53, 3,54	
		37,58,27,22,51, 1,38		2,47
40″	57,11,41,50,45,38,37, 1,51,30		4,10,53, 6,41	
		37,58,23,11,57,54,57		2,47
42″	57,11,42,28,44, 1,48,59,46,27		4,10,53, 9,28	
		37,58,19, 1, 4,45,29		2,47
44″	57,11,43, 6,42,20,50, 4,31,56		4,10,53,12,15	
		37,58,14,50,11,33,14		2,47
46″	57,11,43,44,40,35,40,16, 5,10		4,10,53,15, 2	
		37,58,10,39,18,18,12		2,47
48″	57,11,44,22,38,46,19,34,23,22		4,10,53,17,49	
		37,58, 6,28,25, 0,23		2,47
50″	57,11,45, 0,36,52,47,59,23,45		4,10,53,20,36	
		37,58, 2,17,31,39,47		2,47
52″	57,11,45,38,34,55, 5,31, 3,32		4,10,53,23,23	
		37,57,58, 6,38,16,24		2,47
54″	57,11,46,16,32,53,12, 9,19,56		4,10,53,26,10	
		37,57,53,55,44,50,14		2,47
56″	57,11,46,54,30,47, 7,54,10,10		4,10,53,28,57	
		37,57,49,44,51,21,17		2,47
58″	57,11,47,32,28,36,52,45,31,27		4,10,53,31,44	
		37,57,45,33,57,49,33		
60″	57,11,48,10,26,22,26,43,21, 0			
exact	57,11,48,10,26,22,26,43,46, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°25′ 0″	57,11,48,10,26,22,26,43,46, 2			
		37,57,41,23, 4,17,49		
2″	57,11,48,48,24, 3,49,48, 3,51		4,10,53,37, 6	
		37,57,37,12,10,40,43		2,47
4″	57,11,49,26,21,41, 1,58,44,34		4,10,53,39,53	
		37,57,33, 1,17, 0,50		2,47
6″	57,11,50, 4,19,14, 3,15,45,24		4,10,53,42,40	
		37,57,28,50,23,18,10		2,47
8″	57,11,50,42,16,42,53,39, 3,34		4,10,53,45,27	
		37,57,24,39,29,32,43		2,47
10″	57,11,51,20,14, 7,33, 8,36,17		4,10,53,48,14	
		37,57,20,28,35,44,29		2,47
12″	57,11,51,58,11,28, 1,44,20,46		4,10,53,51, 1	
		37,57,16,17,41,53,28		2,47
14″	57,11,52,36, 8,44,19,26,14,14		4,10,53,53,48	
		37,57,12, 6,47,59,40		2,47
16″	57,11,53,14, 5,56,26,14,13,54		4,10,53,56,35	
		37,57, 7,55,54, 3, 5		2,47
18″	57,11,53,52, 3, 4,22, 8,16,59		4,10,53,59,22	
		37,57, 3,45, 0, 3,43		2,47
20″	57,11,54,30, 0, 8, 7, 8,20,42		4,10,54, 2, 9	
		37,56,59,34, 6, 1,34		2,47
22″	57,11,55, 7,57, 7,41,14,22,16		4,10,54, 4,56	
		37,56,55,23,11,56,38		2,47
24″	57,11,55,45,54, 3, 4,26,18,54		4,10,54, 7,43	
		37,56,51,12,17,48,55		2,47
26″	57,11,56,23,50,54,16,44, 7,49		4,10,54,10,30	
		37,56,47, 1,23,38,25		2,47
28″	57,11,57, 1,47,41,18, 7,46,14		4,10,54,13,17	
		37,56,42,50,29,25, 8		2,47
30″	57,11,57,39,44,24, 8,37,11,22		4,10,54,16, 4	
		37,56,38,39,35, 9, 4		2,47
32″	57,11,58,17,41, 2,48,12,20,26		4,10,54,18,51	
		37,56,34,28,40,50,13		2,47
34″	57,11,58,55,37,37,16,53,10,39		4,10,54,21,38	
		37,56,30,17,46,28,35		2,47
36″	57,11,59,33,34, 7,34,39,39,14		4,10,54,24,25	
		37,56,26, 6,52, 4,10		2,47
38″	57,12, 0,11,30,33,41,31,43,24		4,10,54,27,12	
		37,56,21,55,57,36,58		2,47
40″	57,12, 0,49,26,55,37,29,20,22		4,10,54,29,59	
		37,56,17,45, 3, 6,59		2,47
42″	57,12, 1,27,23,13,22,32,27,21		4,10,54,32,46	
		37,56,13,34, 8,34,13		2,47
44″	57,12, 2, 5,19,26,56,41, 1,34		4,10,54,35,33	
		37,56, 9,23,13,58,40		2,47
46″	57,12, 2,43,15,36,19,55, 0,14		4,10,54,38,20	
		37,56, 5,12,19,20,20		2,47
48″	57,12, 3,21,11,41,32,14,20,34		4,10,54,41, 7	
		37,56, 1, 1,24,39,13		2,47
50″	57,12, 3,59, 7,42,33,38,59,47		4,10,54,43,54	
		37,55,56,50,29,55,19		2,47
52″	57,12, 4,37, 3,39,24, 8,55, 6		4,10,54,46,41	
		37,55,52,39,35, 8,38		2,47
54″	57,12, 5,14,59,32, 3,44, 3,44		4,10,54,49,28	
		37,55,48,28,40,19,10		2,47
56″	57,12, 5,52,55,20,32,24,22,54		4,10,54,52,15	
		37,55,44,17,45,26,55		2,47
58″	57,12, 6,30,51, 4,50, 9,49,49		4,10,54,55, 2	
		37,55,40, 6,50,31,53		
60″	57,12, 7, 8,46,44,57, 0,21,42			
exact	57,12, 7, 8,46,44,57, 0,58,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°26′ 0″	57,12, 7, 8,46,44,57, 0,58,51			
		37,55,35,55,55,38, 5		
2″	57,12, 7,46,42,20,52,56,36,56		4,10,55, 0,19	
		37,55,31,45, 0,37,46		2,46
4″	57,12, 8,24,37,52,37,57,14,42		4,10,55, 3, 5	
		37,55,27,34, 5,34,41		2,46
6″	57,12, 9, 2,33,20,12, 2,49,23		4,10,55, 5,51	
		37,55,23,23,10,28,50		2,46
8″	57,12, 9,40,28,43,35,13,18,13		4,10,55, 8,37	
		37,55,19,12,15,20,13		2,46
10″	57,12,10,18,24, 2,47,28,38,26		4,10,55,11,23	
		37,55,15, 1,20, 8,50		2,46
12″	57,12,10,56,19,17,48,48,47,16		4,10,55,14, 9	
		37,55,10,50,24,54,41		2,46
14″	57,12,11,34,14,28,39,13,41,57		4,10,55,16,55	
		37,55, 6,39,29,37,46		2,46
16″	57,12,12,12, 9,35,18,43,19,43		4,10,55,19,41	
		37,55, 2,28,34,18, 5		2,46
18″	57,12,12,50, 4,37,47,17,37,48		4,10,55,22,27	
		37,54,58,17,38,55,38		2,46
20″	57,12,13,27,59,36, 4,56,33,26		4,10,55,25,13	
		37,54,54, 6,43,30,25		2,46
22″	57,12,14, 5,54,30,11,40, 3,51		4,10,55,27,59	
		37,54,49,55,48, 2,26		2,46
24″	57,12,14,43,49,20, 7,28, 6,17		4,10,55,30,45	
		37,54,45,44,52,31,41		2,46
26″	57,12,15,21,44, 5,52,20,37,58		4,10,55,33,31	
		37,54,41,33,56,58,10		2,46
28″	57,12,15,59,38,47,26,17,36, 8		4,10,55,36,17	
		37,54,37,23, 1,21,53		2,46
30″	57,12,16,37,33,24,49,18,58, 1		4,10,55,39, 3	
		37,54,33,12, 5,42,50		2,46
32″	57,12,17,15,27,58, 1,24,40,51		4,10,55,41,49	
		37,54,29, 1,10, 1, 1		2,46
34″	57,12,17,53,22,27, 2,34,41,52		4,10,55,44,35	
		37,54,24,50,14,16,26		2,46
36″	57,12,18,31,16,51,52,48,58,18		4,10,55,47,21	
		37,54,20,39,18,29, 5		2,46
38″	57,12,19, 9,11,12,32, 7,27,23		4,10,55,50, 7	
		37,54,16,28,22,38,58		2,46
40″	57,12,19,47, 5,29, 0,30, 6,21		4,10,55,52,53	
		37,54,12,17,26,46, 5		2,46
42″	57,12,20,24,59,41,17,56,52,26		4,10,55,55,39	
		37,54, 8, 6,30,50,26		2,46
44″	57,12,21, 2,53,49,24,27,42,52		4,10,55,58,25	
		37,54, 3,55,34,52, 1		2,46
46″	57,12,21,40,47,53,20, 2,34,53		4,10,56, 1,11	
		37,53,59,44,38,50,50		2,46
48″	57,12,22,18,41,53, 4,41,25,43		4,10,56, 3,57	
		37,53,55,33,42,46,53		2,46
50″	57,12,22,56,35,48,38,24,12,36		4,10,56, 6,43	
		37,53,51,22,46,40,10		2,46
52″	57,12,23,34,29,40, 1,10,52,46		4,10,56, 9,29	
		37,53,47,11,50,30,41		2,46
54″	57,12,24,12,23,27,13, 1,23,27		4,10,56,12,15	
		37,53,43, 0,54,18,26		2,46
56″	57,12,24,50,17,10,13,55,41,53		4,10,56,15, 1	
		37,53,38,49,58, 3,25		2,46
58″	57,12,25,28,10,49, 3,53,45,18		4,10,56,17,47	
		37,53,34,39, 1,45,38		
60″	57,12,26, 6, 4,23,42,55,30,56			
exact	57,12,26, 6, 4,23,42,55, 9,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°27′ 0″	57,12,26, 6, 4,23,42,55, 9,33			
		37,53,30,28, 5,22,52		
2″	57,12,26,43,57,54,11, 0,32,25		4,10,56,23,27	
		37,53,26,17, 8,59,25		2,46
4″	57,12,27,21,51,20,28, 9,31,50		4,10,56,26,13	
		37,53,22, 6,12,33,12		2,46
6″	57,12,27,59,44,42,34,22, 5, 2		4,10,56,28,59	
		37,53,17,55,16, 4,13		2,46
8″	57,12,28,37,38, 0,29,38, 9,15		4,10,56,31,45	
		37,53,13,44,19,32,28		2,46
10″	57,12,29,15,31,14,13,57,41,43		4,10,56,34,31	
		37,53, 9,33,22,57,57		2,46
12″	57,12,29,53,24,23,47,20,39,40		4,10,56,37,17	
		37,53, 5,22,26,20,40		2,46
14″	57,12,30,31,17,29, 9,47, 0,20		4,10,56,40, 3	
		37,53, 1,11,29,40,37		2,46
16″	57,12,31, 9,10,30,21,16,40,57		4,10,56,42,49	
		37,52,57, 0,32,57,48		2,46
18″	57,12,31,47, 3,27,21,49,38,45		4,10,56,45,35	
		37,52,52,49,36,12,13		2,46
20″	57,12,32,24,56,20,11,25,50,58		4,10,56,48,21	
		37,52,48,38,39,23,52		2,46
22″	57,12,33, 2,49, 8,50, 5,14,50		4,10,56,51, 7	
		37,52,44,27,42,32,45		2,46
24″	57,12,33,40,41,53,17,47,47,35		4,10,56,53,53	
		37,52,40,16,45,38,52		2,46
26″	57,12,34,18,34,33,34,33,26,27		4,10,56,56,39	
		37,52,36, 5,48,42,13		2,46
28″	57,12,34,56,27, 9,40,22, 8,40		4,10,56,59,25	
		37,52,31,54,51,42,48		2,46
30″	57,12,35,34,19,41,35,13,51,28		4,10,57, 2,11	
		37,52,27,43,54,40,37		2,46
32″	57,12,36,12,12, 9,19, 8,32, 5		4,10,57, 4,57	
		37,52,23,32,57,35,40		2,46
34″	57,12,36,50, 4,32,52, 6, 7,45		4,10,57, 7,43	
		37,52,19,22, 0,27,57		2,46
36″	57,12,37,27,56,52,14, 6,35,42		4,10,57,10,29	
		37,52,15,11, 3,17,28		2,46
38″	57,12,38, 5,49, 7,25, 9,53,10		4,10,57,13,15	
		37,52,11, 0, 6, 4,13		2,46
40″	57,12,38,43,41,18,25,15,57,23		4,10,57,16, 1	
		37,52, 6,49, 8,48,12		2,46
42″	57,12,39,21,33,25,14,24,45,35		4,10,57,18,47	
		37,52, 2,38,11,29,25		2,46
44″	57,12,39,59,25,27,52,36,15, 0		4,10,57,21,33	
		37,51,58,27,14, 7,52		2,46
46″	57,12,40,37,17,26,19,50,22,52		4,10,57,24,19	
		37,51,54,16,16,43,33		2,46
48″	57,12,41,15, 9,20,36, 7, 6,25		4,10,57,27, 5	
		37,51,50, 5,19,16,28		2,46
50″	57,12,41,53, 1,10,41,26,22,53		4,10,57,29,51	
		37,51,45,54,21,46,37		2,46
52″	57,12,42,30,52,56,35,48, 9,30		4,10,57,32,37	
		37,51,41,43,24,14, 0		2,46
54″	57,12,43, 8,44,38,19,12,23,30		4,10,57,35,23	
		37,51,37,32,26,38,37		2,46
56″	57,12,43,46,36,15,51,39, 2, 7		4,10,57,38, 9	
		37,51,33,21,29, 0,28		2,46
58″	57,12,44,24,27,49,13, 8, 2,35		4,10,57,40,55	
		37,51,29,10,31,19,33		
60″	57,12,45, 2,19,18,23,39,22, 8			
exact	57,12,45, 2,19,18,23,39, 7,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°28′ 0″	57,12,45, 2,19,18,23,39, 7,11			
		37,51,24,59,33,34,29		
2″	57,12,45,40,10,43,23,12,41,40		4,10,57,46,31	
		37,51,20,48,35,47,58		2,46
4″	57,12,46,18, 2, 4,11,48,29,38		4,10,57,49,17	
		37,51,16,37,37,58,41		2,46
6″	57,12,46,55,53,20,49,26,28,19		4,10,57,52, 3	
		37,51,12,26,40, 6,38		2,46
8″	57,12,47,33,44,33,16, 6,34,57		4,10,57,54,49	
		37,51, 8,15,42,11,49		2,46
10″	57,12,48,11,35,41,31,48,46,46		4,10,57,57,35	
		37,51, 4, 4,44,14,14		2,46
12″	57,12,48,49,26,45,36,33, 1, 0		4,10,58, 0,21	
		37,50,59,53,46,13,53		2,46
14″	57,12,49,27,17,45,30,19,14,53		4,10,58, 3, 7	
		37,50,55,42,48,10,46		2,46
16″	57,12,50, 5, 8,41,13, 7,25,39		4,10,58, 5,53	
		37,50,51,31,50, 4,53		2,46
18″	57,12,50,42,59,32,44,57,30,32		4,10,58, 8,39	
		37,50,47,20,51,56,14		2,46
20″	57,12,51,20,50,20, 5,49,26,46		4,10,58,11,25	
		37,50,43, 9,53,44,49		2,46
22″	57,12,51,58,41, 3,15,43,11,35		4,10,58,14,11	
		37,50,38,58,55,30,38		2,46
24″	57,12,52,36,31,42,14,38,42,13		4,10,58,16,57	
		37,50,34,47,57,13,41		2,46
26″	57,12,53,14,22,17, 2,35,55,54		4,10,58,19,43	
		37,50,30,36,58,53,58		2,46
28″	57,12,53,52,12,47,39,34,49,52		4,10,58,22,29	
		37,50,26,26, 0,31,29		2,46
30″	57,12,54,30, 3,14, 5,35,21,21		4,10,58,25,15	
		37,50,22,15, 2, 6,14		2,46
32″	57,12,55, 7,53,36,20,37,27,35		4,10,58,28, 1	
		37,50,18, 4, 3,38,13		2,46
34″	57,12,55,45,43,54,24,41, 5,48		4,10,58,30,47	
		37,50,13,53, 5, 7,26		2,46
36″	57,12,56,23,34, 8,17,46,13,14		4,10,58,33,33	
		37,50, 9,42, 6,33,53		2,46
38″	57,12,57, 1,24,17,59,52,47, 7		4,10,58,36,19	
		37,50, 5,31, 7,57,34		2,46
40″	57,12,57,39,14,23,31, 0,44,41		4,10,58,39, 5	
		37,50, 1,20, 9,18,29		2,46
42″	57,12,58,17, 4,24,51,10, 3,10		4,10,58,41,51	
		37,49,57, 9,10,36,38		2,46
44″	57,12,58,54,54,22, 0,20,39,48		4,10,58,44,37	
		37,49,52,58,11,52, 1		2,46
46″	57,12,59,32,44,14,58,32,31,49		4,10,58,47,23	
		37,49,48,47,13, 4,38		2,46
48″	57,13, 0,10,34, 3,45,45,36,27		4,10,58,50, 9	
		37,49,44,36,14,14,29		2,46
50″	57,13, 0,48,23,48,21,59,50,56		4,10,58,52,55	
		37,49,40,25,15,21,34		2,46
52″	57,13, 1,26,13,28,47,15,12,30		4,10,58,55,41	
		37,49,36,14,16,25,53		2,46
54″	57,13, 2, 4, 3, 5, 1,31,38,23		4,10,58,58,27	
		37,49,32, 3,17,27,26		2,46
56″	57,13, 2,41,52,37, 4,49, 5,49		4,10,59, 1,13	
		37,49,27,52,18,26,13		2,46
58″	57,13, 3,19,42, 4,57, 7,32, 2		4,10,59, 3,59	
		37,49,23,41,19,22,14		
60″	57,13, 3,57,31,28,38,26,54,16			
exact	57,13, 3,57,31,28,38,26,49,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°29′ 0″	57,13, 3,57,31,28,38,26,49,36			
		37,49,19,30,20,15,12		
2″	57,13, 4,35,20,48, 8,47, 4,48		4,10,59, 9,31	
		37,49,15,19,21, 5,41		2,46
4″	57,13, 5,13,10, 3,28, 8,10,29		4,10,59,12,17	
		37,49,11, 8,21,53,24		2,46
6″	57,13, 5,50,59,14,36,30, 3,53		4,10,59,15, 3	
		37,49, 6,57,22,38,21		2,46
8″	57,13, 6,28,48,21,33,52,42,14		4,10,59,17,49	
		37,49, 2,46,23,20,32		2,46
10″	57,13, 7, 6,37,24,20,16, 2,46		4,10,59,20,35	
		37,48,58,35,23,59,57		2,46
12″	57,13, 7,44,26,22,55,40, 2,43		4,10,59,23,21	
		37,48,54,24,24,36,36		2,46
14″	57,13, 8,22,15,17,20, 4,39,19		4,10,59,26, 7	
		37,48,50,13,25,10,29		2,46
16″	57,13, 9, 0, 4, 7,33,29,49,48		4,10,59,28,53	
		37,48,46, 2,25,41,36		2,46
18″	57,13, 9,37,52,53,35,55,31,24		4,10,59,31,39	
		37,48,41,51,26, 9,57		2,46
20″	57,13,10,15,41,35,27,21,41,21		4,10,59,34,25	
		37,48,37,40,26,35,32		2,46
22″	57,13,10,53,30,13, 7,48,16,53		4,10,59,37,11	
		37,48,33,29,26,58,21		2,46
24″	57,13,11,31,18,46,37,15,15,14		4,10,59,39,57	
		37,48,29,18,27,18,24		2,46
26″	57,13,12, 9, 7,15,55,42,33,38		4,10,59,42,43	
		37,48,25, 7,27,35,41		2,46
28″	57,13,12,46,55,41, 3,10, 9,19		4,10,59,45,29	
		37,48,20,56,27,50,12		2,46
30″	57,13,13,24,44, 1,59,37,59,31		4,10,59,48,15	
		37,48,16,45,28, 1,57		2,46
32″	57,13,14, 2,32,18,45, 6, 1,28		4,10,59,51, 1	
		37,48,12,34,28,10,56		2,46
34″	57,13,14,40,20,31,19,34,12,24		4,10,59,53,47	
		37,48, 8,23,28,17, 9		2,46
36″	57,13,15,18, 8,39,43, 2,29,33		4,10,59,56,33	
		37,48, 4,12,28,20,36		2,46
38″	57,13,15,55,56,43,55,30,50, 9		4,10,59,59,19	
		37,48, 0, 1,28,21,17		2,46
40″	57,13,16,33,44,43,56,59,11,26		4,11, 0, 2, 5	
		37,47,55,50,28,19,12		2,46
42″	57,13,17,11,32,39,47,27,30,38		4,11, 0, 4,51	
		37,47,51,39,28,14,21		2,46
44″	57,13,17,49,20,31,26,55,44,59		4,11, 0, 7,37	
		37,47,47,28,28, 6,44		2,46
46″	57,13,18,27, 8,18,55,23,51,43		4,11, 0,10,23	
		37,47,43,17,27,56,21		2,46
48″	57,13,19, 4,56, 2,12,51,48, 4		4,11, 0,13, 9	
		37,47,39, 6,27,43,12		2,46
50″	57,13,19,42,43,41,19,19,31,16		4,11, 0,15,55	
		37,47,34,55,27,27,17		2,46
52″	57,13,20,20,31,16,14,46,58,33		4,11, 0,18,41	
		37,47,30,44,27, 8,36		2,46
54″	57,13,20,58,18,46,59,14, 7, 9		4,11, 0,21,27	
		37,47,26,33,26,47, 9		2,46
56″	57,13,21,36, 6,13,32,40,54,18		4,11, 0,24,13	
		37,47,22,22,26,22,56		2,46
58″	57,13,22,13,53,35,55, 7,17,14		4,11, 0,26,59	
		37,47,18,11,25,55,57		
60″	57,13,22,51,40,54, 6,33,13,11			
exact	57,13,22,51,40,54, 6,33,23,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°30′ 0″	57,13,22,51,40,54, 6,33,23,27			
		37,47,14, 0,25,27,20		
2″	57,13,23,29,28, 8, 6,58,50,47		4,11, 0,32,26	
		37,47, 9,49,24,54,54		2,46
4″	57,13,24, 7,15,17,56,23,45,41		4,11, 0,35,12	
		37,47, 5,38,24,19,42		2,46
6″	57,13,24,45, 2,23,34,48, 5,23		4,11, 0,37,58	
		37,47, 1,27,23,41,44		2,46
8″	57,13,25,22,49,25, 2,11,47, 7		4,11, 0,40,44	
		37,46,57,16,23, 1, 0		2,46
10″	57,13,26, 0,36,22,18,34,48, 7		4,11, 0,43,30	
		37,46,53, 5,22,17,30		2,46
12″	57,13,26,38,23,15,23,57, 5,37		4,11, 0,46,16	
		37,46,48,54,21,31,14		2,46
14″	57,13,27,16,10, 4,18,18,36,51		4,11, 0,49, 2	
		37,46,44,43,20,42,12		2,46
16″	57,13,27,53,56,49, 1,39,19, 3		4,11, 0,51,48	
		37,46,40,32,19,50,24		2,46
18″	57,13,28,31,43,29,33,59, 9,27		4,11, 0,54,34	
		37,46,36,21,18,55,50		2,46
20″	57,13,29, 9,30, 5,55,18, 5,17		4,11, 0,57,20	
		37,46,32,10,17,58,30		2,46
22″	57,13,29,47,16,38, 5,36, 3,47		4,11, 1, 0, 6	
		37,46,27,59,16,58,24		2,46
24″	57,13,30,25, 3, 6, 4,53, 2,11		4,11, 1, 2,52	
		37,46,23,48,15,55,32		2,46
26″	57,13,31, 2,49,29,53, 8,57,43		4,11, 1, 5,38	
		37,46,19,37,14,49,54		2,46
28″	57,13,31,40,35,49,30,23,47,37		4,11, 1, 8,24	
		37,46,15,26,13,41,30		2,46
30″	57,13,32,18,22, 4,56,37,29, 7		4,11, 1,11,10	
		37,46,11,15,12,30,20		2,46
32″	57,13,32,56, 8,16,11,49,59,27		4,11, 1,13,56	
		37,46, 7, 4,11,16,24		2,46
34″	57,13,33,33,54,23,16, 1,15,51		4,11, 1,16,42	
		37,46, 2,53, 9,59,42		2,46
36″	57,13,34,11,40,26, 9,11,15,33		4,11, 1,19,28	
		37,45,58,42, 8,40,14		2,46
38″	57,13,34,49,26,24,51,19,55,47		4,11, 1,22,14	
		37,45,54,31, 7,18, 0		2,46
40″	57,13,35,27,12,19,22,27,13,47		4,11, 1,25, 0	
		37,45,50,20, 5,53, 0		2,46
42″	57,13,36, 4,58, 9,42,33, 6,47		4,11, 1,27,46	
		37,45,46, 9, 4,25,14		2,46
44″	57,13,36,42,43,55,51,37,32, 1		4,11, 1,30,32	
		37,45,41,58, 2,54,42		2,46
46″	57,13,37,20,29,37,49,40,26,43		4,11, 1,33,18	
		37,45,37,47, 1,21,24		2,46
48″	57,13,37,58,15,15,36,41,48, 7		4,11, 1,36, 4	
		37,45,33,35,59,45,20		2,46
50″	57,13,38,36, 0,49,12,41,33,27		4,11, 1,38,50	
		37,45,29,24,58, 6,30		2,46
52″	57,13,39,13,46,18,37,39,39,57		4,11, 1,41,36	
		37,45,25,13,56,24,54		2,46
54″	57,13,39,51,31,43,51,36, 4,51		4,11, 1,44,22	
		37,45,21, 2,54,40,32		2,46
56″	57,13,40,29,17, 4,54,30,45,23		4,11, 1,47, 8	
		37,45,16,51,52,53,24		2,46
58″	57,13,41, 7, 2,21,46,23,38,47		4,11, 1,49,54	
		37,45,12,40,51, 3,30		
60″	57,13,41,44,47,34,27,14,42,17			
exact	57,13,41,44,47,34,27,15, 4,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°31′ 0″	57,13,41,44,47,34,27,15, 4,11			
		37,45, 8,29,49,13,10		
2″	57,13,42,22,32,42,57, 4,17,21		4,11, 1,55,16	
		37,45, 4,18,47,17,54		2,46
4″	57,13,43, 0,17,47,15,51,35,15		4,11, 1,58, 2	
		37,45, 0, 7,45,19,52		2,46
6″	57,13,43,38, 2,47,23,36,55, 7		4,11, 2, 0,48	
		37,44,55,56,43,19, 4		2,46
8″	57,13,44,15,47,43,20,20,14,11		4,11, 2, 3,34	
		37,44,51,45,41,15,30		2,46
10″	57,13,44,53,32,35, 6, 1,29,41		4,11, 2, 6,20	
		37,44,47,34,39, 9,10		2,46
12″	57,13,45,31,17,22,40,40,38,51		4,11, 2, 9, 6	
		37,44,43,23,37, 0, 4		2,46
14″	57,13,46, 9, 2, 6, 4,17,38,55		4,11, 2,11,52	
		37,44,39,12,34,48,12		2,46
16″	57,13,46,46,46,45,16,52,27, 7		4,11, 2,14,38	
		37,44,35, 1,32,33,34		2,46
18″	57,13,47,24,31,20,18,25, 0,41		4,11, 2,17,24	
		37,44,30,50,30,16,10		2,46
20″	57,13,48, 2,15,51, 8,55,16,51		4,11, 2,20,10	
		37,44,26,39,27,56, 0		2,46
22″	57,13,48,40, 0,17,48,23,12,51		4,11, 2,22,56	
		37,44,22,28,25,33, 4		2,46
24″	57,13,49,17,44,40,16,48,45,55		4,11, 2,25,42	
		37,44,18,17,23, 7,22		2,46
26″	57,13,49,55,28,58,34,11,53,17		4,11, 2,28,28	
		37,44,14, 6,20,38,54		2,46
28″	57,13,50,33,13,12,40,32,32,11		4,11, 2,31,14	
		37,44, 9,55,18, 7,40		2,46
30″	57,13,51,10,57,22,35,50,39,51		4,11, 2,34, 0	
		37,44, 5,44,15,33,40		2,46
32″	57,13,51,48,41,28,20, 6,13,31		4,11, 2,36,46	
		37,44, 1,33,12,56,54		2,46
34″	57,13,52,26,25,29,53,19,10,25		4,11, 2,39,32	
		37,43,57,22,10,17,22		2,46
36″	57,13,53, 4, 9,27,15,29,27,47		4,11, 2,42,18	
		37,43,53,11, 7,35, 4		2,46
38″	57,13,53,41,53,20,26,37, 2,51		4,11, 2,45, 4	
		37,43,49, 0, 4,50, 0		2,46
40″	57,13,54,19,37, 9,26,41,52,51		4,11, 2,47,50	
		37,43,44,49, 2, 2,10		2,46
42″	57,13,54,57,20,54,15,43,55, 1		4,11, 2,50,36	
		37,43,40,37,59,11,34		2,46
44″	57,13,55,35, 4,34,53,43, 6,35		4,11, 2,53,22	
		37,43,36,26,56,18,12		2,46
46″	57,13,56,12,48,11,20,39,24,47		4,11, 2,56, 8	
		37,43,32,15,53,22, 4		2,46
48″	57,13,56,50,31,43,36,32,46,51		4,11, 2,58,54	
		37,43,28, 4,50,23,10		2,46
50″	57,13,57,28,15,11,41,23,10, 1		4,11, 3, 1,40	
		37,43,23,53,47,21,30		2,46
52″	57,13,58, 5,58,35,35,10,31,31		4,11, 3, 4,26	
		37,43,19,42,44,17, 4		2,46
54″	57,13,58,43,41,55,17,54,48,35		4,11, 3, 7,12	
		37,43,15,31,41, 9,52		2,46
56″	57,13,59,21,25,10,49,35,58,27		4,11, 3, 9,58	
		37,43,11,20,37,59,54		2,46
58″	57,13,59,59, 8,22,10,13,58,21		4,11, 3,12,44	
		37,43, 7, 9,34,47,10		
60″	57,14, 0,36,51,29,19,48,45,31			
exact	57,14, 0,36,51,29,19,49,16, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°32′ 0″	57,14, 0,36,51,29,19,49,16, 3			
		37,43, 2,58,31,35, 0		
2″	57,14, 1,14,34,32,18,20,51, 3		4,11, 3,18, 2	
		37,42,58,47,28,16,58		2,45
4″	57,14, 1,52,17,31, 5,49, 8, 1		4,11, 3,20,47	
		37,42,54,36,24,56,11		2,45
6″	57,14, 2,30, 0,25,42,14, 4,12		4,11, 3,23,32	
		37,42,50,25,21,32,39		2,45
8″	57,14, 3, 7,43,16, 7,35,36,51		4,11, 3,26,17	
		37,42,46,14,18, 6,22		2,45
10″	57,14, 3,45,26, 2,21,53,43,13		4,11, 3,29, 2	
		37,42,42, 3,14,37,20		2,45
12″	57,14, 4,23, 8,44,25, 8,20,33		4,11, 3,31,47	
		37,42,37,52,11, 5,33		2,45
14″	57,14, 5, 0,51,22,17,19,26, 6		4,11, 3,34,32	
		37,42,33,41, 7,31, 1		2,45
16″	57,14, 5,38,33,55,58,26,57, 7		4,11, 3,37,17	
		37,42,29,30, 3,53,44		2,45
18″	57,14, 6,16,16,25,28,30,50,51		4,11, 3,40, 2	
		37,42,25,19, 0,13,42		2,45
20″	57,14, 6,53,58,50,47,31, 4,33		4,11, 3,42,47	
		37,42,21, 7,56,30,55		2,45
22″	57,14, 7,31,41,11,55,27,35,28		4,11, 3,45,32	
		37,42,16,56,52,45,23		2,45
24″	57,14, 8, 9,23,28,52,20,20,51		4,11, 3,48,17	
		37,42,12,45,48,57, 6		2,45
26″	57,14, 8,47, 5,41,38, 9,17,57		4,11, 3,51, 2	
		37,42, 8,34,45, 6, 4		2,45
28″	57,14, 9,24,47,50,12,54,24, 1		4,11, 3,53,47	
		37,42, 4,23,41,12,17		2,45
30″	57,14,10, 2,29,54,36,35,36,18		4,11, 3,56,32	
		37,42, 0,12,37,15,45		2,45
32″	57,14,10,40,11,54,49,12,52, 3		4,11, 3,59,17	
		37,41,56, 1,33,16,28		2,45
34″	57,14,11,17,53,50,50,46, 8,31		4,11, 4, 2, 2	
		37,41,51,50,29,14,26		2,45
36″	57,14,11,55,35,42,41,15,22,57		4,11, 4, 4,47	
		37,41,47,39,25, 9,39		2,45
38″	57,14,12,33,17,30,20,40,32,36		4,11, 4, 7,32	
		37,41,43,28,21, 2, 7		2,45
40″	57,14,13,10,59,13,49, 1,34,43		4,11, 4,10,17	
		37,41,39,17,16,51,50		2,45
42″	57,14,13,48,40,53, 6,18,26,33		4,11, 4,13, 2	
		37,41,35, 6,12,38,48		2,45
44″	57,14,14,26,22,28,12,31, 5,21		4,11, 4,15,47	
		37,41,30,55, 8,23, 1		2,45
46″	57,14,15, 4, 3,59, 7,39,28,22		4,11, 4,18,32	
		37,41,26,44, 4, 4,29		2,45
48″	57,14,15,41,45,25,51,43,32,51		4,11, 4,21,17	
		37,41,22,32,59,43,12		2,45
50″	57,14,16,19,26,48,24,43,16, 3		4,11, 4,24, 2	
		37,41,18,21,55,19,10		2,45
52″	57,14,16,57, 8, 6,46,38,35,13		4,11, 4,26,47	
		37,41,14,10,50,52,23		2,45
54″	57,14,17,34,49,20,57,29,27,36		4,11, 4,29,32	
		37,41, 9,59,46,22,51		2,45
56″	57,14,18,12,30,30,57,15,50,27		4,11, 4,32,17	
		37,41, 5,48,41,50,34		2,45
58″	57,14,18,50,11,36,45,57,41, 1		4,11, 4,35, 2	
		37,41, 1,37,37,15,32		
60″	57,14,19,27,52,38,23,34,56,33			
exact	57,14,19,27,52,38,23,34,32,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°33′ 0″	57,14,19,27,52,38,23,34,32,11			
		37,40,57,26,32,35, 7		
2″	57,14,20, 5,33,35,50, 7, 7,18		4,11, 4,40,43	
		37,40,53,15,27,54,24		2,45
4″	57,14,20,43,14,29, 5,35, 1,42		4,11, 4,43,28	
		37,40,49, 4,23,10,56		2,45
6″	57,14,21,20,55,18, 9,58,12,38		4,11, 4,46,13	
		37,40,44,53,18,24,43		2,45
8″	57,14,21,58,36, 3, 3,16,37,21		4,11, 4,48,58	
		37,40,40,42,13,35,45		2,45
10″	57,14,22,36,16,43,45,30,13, 6		4,11, 4,51,43	
		37,40,36,31, 8,44, 2		2,45
12″	57,14,23,13,57,20,16,38,57, 8		4,11, 4,54,28	
		37,40,32,20, 3,49,34		2,45
14″	57,14,23,51,37,52,36,42,46,42		4,11, 4,57,13	
		37,40,28, 8,58,52,21		2,45
16″	57,14,24,29,18,20,45,41,39, 3		4,11, 4,59,58	
		37,40,23,57,53,52,23		2,45
18″	57,14,25, 6,58,44,43,35,31,26		4,11, 5, 2,43	
		37,40,19,46,48,49,40		2,45
20″	57,14,25,44,39, 4,30,24,21, 6		4,11, 5, 5,28	
		37,40,15,35,43,44,12		2,45
22″	57,14,26,22,19,20, 6, 8, 5,18		4,11, 5, 8,13	
		37,40,11,24,38,35,59		2,45
24″	57,14,26,59,59,31,30,46,41,17		4,11, 5,10,58	
		37,40, 7,13,33,25, 1		2,45
26″	57,14,27,37,39,38,44,20, 6,18		4,11, 5,13,43	
		37,40, 3, 2,28,11,18		2,45
28″	57,14,28,15,19,41,46,48,17,36		4,11, 5,16,28	
		37,39,58,51,22,54,50		2,45
30″	57,14,28,52,59,40,38,11,12,26		4,11, 5,19,13	
		37,39,54,40,17,35,37		2,45
32″	57,14,29,30,39,35,18,28,48, 3		4,11, 5,21,58	
		37,39,50,29,12,13,39		2,45
34″	57,14,30, 8,19,25,47,41, 1,42		4,11, 5,24,43	
		37,39,46,18, 6,48,56		2,45
36″	57,14,30,45,59,12, 5,47,50,38		4,11, 5,27,28	
		37,39,42, 7, 1,21,28		2,45
38″	57,14,31,23,38,54,12,49,12, 6		4,11, 5,30,13	
		37,39,37,55,55,51,15		2,45
40″	57,14,32, 1,18,32, 8,45, 3,21		4,11, 5,32,58	
		37,39,33,44,50,18,17		2,45
42″	57,14,32,38,58, 5,53,35,21,38		4,11, 5,35,43	
		37,39,29,33,44,42,34		2,45
44″	57,14,33,16,37,35,27,20, 4,12		4,11, 5,38,28	
		37,39,25,22,39, 4, 6		2,45
46″	57,14,33,54,17, 0,49,59, 8,18		4,11, 5,41,13	
		37,39,21,11,33,22,53		2,45
48″	57,14,34,31,56,22, 1,32,31,11		4,11, 5,43,58	
		37,39,17, 0,27,38,55		2,45
50″	57,14,35, 9,35,39, 2, 0,10, 6		4,11, 5,46,43	
		37,39,12,49,21,52,12		2,45
52″	57,14,35,47,14,51,51,22, 2,18		4,11, 5,49,28	
		37,39, 8,38,16, 2,44		2,45
54″	57,14,36,24,54, 0,29,38, 5, 2		4,11, 5,52,13	
		37,39, 4,27,10,10,31		2,45
56″	57,14,37, 2,33, 4,56,48,15,33		4,11, 5,54,58	
		37,39, 0,16, 4,15,33		2,45
58″	57,14,37,40,12, 5,12,52,31, 6		4,11, 5,57,43	
		37,38,56, 4,58,17,50		
60″	57,14,38,17,51, 1,17,50,48,56			
exact	57,14,38,17,51, 1,17,50,34,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°34′ 0″	57,14,38,17,51, 1,17,50,34,28			
		37,38,51,53,52,15,49		
2″	57,14,38,55,29,53,11,42,50,17		4,11, 6, 3,19	
		37,38,47,42,46,12,30		2,45
4″	57,14,39,33, 8,40,54,29, 2,47		4,11, 6, 6, 4	
		37,38,43,31,40, 6,26		2,45
6″	57,14,40,10,47,24,26, 9, 9,13		4,11, 6, 8,49	
		37,38,39,20,33,57,37		2,45
8″	57,14,40,48,26, 3,46,43, 6,50		4,11, 6,11,34	
		37,38,35, 9,27,46, 3		2,45
10″	57,14,41,26, 4,38,56,10,52,53		4,11, 6,14,19	
		37,38,30,58,21,31,44		2,45
12″	57,14,42, 3,43, 9,54,32,24,37		4,11, 6,17, 4	
		37,38,26,47,15,14,40		2,45
14″	57,14,42,41,21,36,41,47,39,17		4,11, 6,19,49	
		37,38,22,36, 8,54,51		2,45
16″	57,14,43,18,59,59,17,56,34, 8		4,11, 6,22,34	
		37,38,18,25, 2,32,17		2,45
18″	57,14,43,56,38,17,42,59, 6,25		4,11, 6,25,19	
		37,38,14,13,56, 6,58		2,45
20″	57,14,44,34,16,31,56,55,13,23		4,11, 6,28, 4	
		37,38,10, 2,49,38,54		2,45
22″	57,14,45,11,54,41,59,44,52,17		4,11, 6,30,49	
		37,38, 5,51,43, 8, 5		2,45
24″	57,14,45,49,32,47,51,28, 0,22		4,11, 6,33,34	
		37,38, 1,40,36,34,31		2,45
26″	57,14,46,27,10,49,32, 4,34,53		4,11, 6,36,19	
		37,37,57,29,29,58,12		2,45
28″	57,14,47, 4,48,47, 1,34,33, 5		4,11, 6,39, 4	
		37,37,53,18,23,19, 8		2,45
30″	57,14,47,42,26,40,19,57,52,13		4,11, 6,41,49	
		37,37,49, 7,16,37,19		2,45
32″	57,14,48,20, 4,29,27,14,29,32		4,11, 6,44,34	
		37,37,44,56, 9,52,45		2,45
34″	57,14,48,57,42,14,23,24,22,17		4,11, 6,47,19	
		37,37,40,45, 3, 5,26		2,45
36″	57,14,49,35,19,55, 8,27,27,43		4,11, 6,50, 4	
		37,37,36,33,56,15,22		2,45
38″	57,14,50,12,57,31,42,23,43, 5		4,11, 6,52,49	
		37,37,32,22,49,22,33		2,45
40″	57,14,50,50,35, 4, 5,13, 5,38		4,11, 6,55,34	
		37,37,28,11,42,26,59		2,45
42″	57,14,51,28,12,32,16,55,32,37		4,11, 6,58,19	
		37,37,24, 0,35,28,40		2,45
44″	57,14,52, 5,49,56,17,31, 1,17		4,11, 7, 1, 4	
		37,37,19,49,28,27,36		2,45
46″	57,14,52,43,27,16, 6,59,28,53		4,11, 7, 3,49	
		37,37,15,38,21,23,47		2,45
48″	57,14,53,21, 4,31,45,20,52,40		4,11, 7, 6,34	
		37,37,11,27,14,17,13		2,45
50″	57,14,53,58,41,43,12,35, 9,53		4,11, 7, 9,19	
		37,37, 7,16, 7, 7,54		2,45
52″	57,14,54,36,18,50,28,42,17,47		4,11, 7,12, 4	
		37,37, 3, 4,59,55,50		2,45
54″	57,14,55,13,55,53,33,42,13,37		4,11, 7,14,49	
		37,36,58,53,52,41, 1		2,45
56″	57,14,55,51,32,52,27,34,54,38		4,11, 7,17,34	
		37,36,54,42,45,23,27		2,45
58″	57,14,56,29, 9,47,10,20,18, 5		4,11, 7,20,19	
		37,36,50,31,38, 3, 8		
60″	57,14,57, 6,46,37,41,58,21,13			
exact	57,14,57, 6,46,37,41,58,13,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°35′ 0″	57,14,57, 6,46,37,41,58,13,41			
		37,36,46,20,30,39,23		
2″	57,14,57,44,23,24, 2,28,53, 4		4,11, 7,25,51	
		37,36,42, 9,23,13,32		2,45
4″	57,14,58,22, 0, 6,11,52, 6,36		4,11, 7,28,36	
		37,36,37,58,15,44,56		2,45
6″	57,14,58,59,36,44,10, 7,51,32		4,11, 7,31,21	
		37,36,33,47, 8,13,35		2,45
8″	57,14,59,37,13,17,57,16, 5, 7		4,11, 7,34, 6	
		37,36,29,36, 0,39,29		2,45
10″	57,15, 0,14,49,47,33,16,44,36		4,11, 7,36,51	
		37,36,25,24,53, 2,38		2,45
12″	57,15, 0,52,26,12,58, 9,47,14		4,11, 7,39,36	
		37,36,21,13,45,23, 2		2,45
14″	57,15, 1,30, 2,34,11,55,10,16		4,11, 7,42,21	
		37,36,17, 2,37,40,41		2,45
16″	57,15, 2, 7,38,51,14,32,50,57		4,11, 7,45, 6	
		37,36,12,51,29,55,35		2,45
18″	57,15, 2,45,15, 4, 6, 2,46,32		4,11, 7,47,51	
		37,36, 8,40,22, 7,44		2,45
20″	57,15, 3,22,51,12,46,24,54,16		4,11, 7,50,36	
		37,36, 4,29,14,17, 8		2,45
22″	57,15, 4, 0,27,17,15,39,11,24		4,11, 7,53,21	
		37,36, 0,18, 6,23,47		2,45
24″	57,15, 4,38, 3,17,33,45,35,11		4,11, 7,56, 6	
		37,35,56, 6,58,27,41		2,45
26″	57,15, 5,15,39,13,40,44, 2,52		4,11, 7,58,51	
		37,35,51,55,50,28,50		2,45
28″	57,15, 5,53,15, 5,36,34,31,42		4,11, 8, 1,36	
		37,35,47,44,42,27,14		2,45
30″	57,15, 6,30,50,53,21,16,58,56		4,11, 8, 4,21	
		37,35,43,33,34,22,53		2,45
32″	57,15, 7, 8,26,36,54,51,21,49		4,11, 8, 7, 6	
		37,35,39,22,26,15,47		2,45
34″	57,15, 7,46, 2,16,17,17,37,36		4,11, 8, 9,51	
		37,35,35,11,18, 5,56		2,45
36″	57,15, 8,23,37,51,28,35,43,32		4,11, 8,12,36	
		37,35,31, 0, 9,53,20		2,45
38″	57,15, 9, 1,13,22,28,45,36,52		4,11, 8,15,21	
		37,35,26,49, 1,37,59		2,45
40″	57,15, 9,38,48,49,17,47,14,51		4,11, 8,18, 6	
		37,35,22,37,53,19,53		2,45
42″	57,15,10,16,24,11,55,40,34,44		4,11, 8,20,51	
		37,35,18,26,44,59, 2		2,45
44″	57,15,10,53,59,30,22,25,33,46		4,11, 8,23,36	
		37,35,14,15,36,35,26		2,45
46″	57,15,11,31,34,44,38, 2, 9,12		4,11, 8,26,21	
		37,35,10, 4,28, 9, 5		2,45
48″	57,15,12, 9, 9,54,42,30,18,17		4,11, 8,29, 6	
		37,35, 5,53,19,39,59		2,45
50″	57,15,12,46,45, 0,35,49,58,16		4,11, 8,31,51	
		37,35, 1,42,11, 8, 8		2,45
52″	57,15,13,24,20, 2,18, 1, 6,24		4,11, 8,34,36	
		37,34,57,31, 2,33,32		2,45
54″	57,15,14, 1,54,59,49, 3,39,56		4,11, 8,37,21	
		37,34,53,19,53,56,11		2,45
56″	57,15,14,39,29,53, 8,57,36, 7		4,11, 8,40, 6	
		37,34,49, 8,45,16, 5		2,45
58″	57,15,15,17, 4,42,17,42,52,12		4,11, 8,42,51	
		37,34,44,57,36,33,14		
60″	57,15,15,54,39,27,15,19,25,26			
exact	57,15,15,54,39,27,15,19,29,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°36′ 0″	57,15,15,54,39,27,15,19,29,25			
		37,34,40,46,27,48, 8		
2″	57,15,16,32,14, 8, 1,47,17,33		4,11, 8,48,18	
		37,34,36,35,18,59,50		2,45
4″	57,15,17, 9,48,44,37, 6,17,23		4,11, 8,51, 3	
		37,34,32,24,10, 8,47		2,45
6″	57,15,17,47,23,17, 1,16,26,10		4,11, 8,53,48	
		37,34,28,13, 1,14,59		2,45
8″	57,15,18,24,57,45,14,17,41, 9		4,11, 8,56,33	
		37,34,24, 1,52,18,26		2,45
10″	57,15,19, 2,32, 9,16, 9,59,35		4,11, 8,59,18	
		37,34,19,50,43,19, 8		2,45
12″	57,15,19,40, 6,29, 6,53,18,43		4,11, 9, 2, 3	
		37,34,15,39,34,17, 5		2,45
14″	57,15,20,17,40,44,46,27,35,48		4,11, 9, 4,48	
		37,34,11,28,25,12,17		2,45
16″	57,15,20,55,14,56,14,52,48, 5		4,11, 9, 7,33	
		37,34, 7,17,16, 4,44		2,45
18″	57,15,21,32,49, 3,32, 8,52,49		4,11, 9,10,18	
		37,34, 3, 6, 6,54,26		2,45
20″	57,15,22,10,23, 6,38,15,47,15		4,11, 9,13, 3	
		37,33,58,54,57,41,23		2,45
22″	57,15,22,47,57, 5,33,13,28,38		4,11, 9,15,48	
		37,33,54,43,48,25,35		2,45
24″	57,15,23,25,31, 0,17, 1,54,13		4,11, 9,18,33	
		37,33,50,32,39, 7, 2		2,45
26″	57,15,24, 3, 4,50,49,41, 1,15		4,11, 9,21,18	
		37,33,46,21,29,45,44		2,45
28″	57,15,24,40,38,37,11,10,46,59		4,11, 9,24, 3	
		37,33,42,10,20,21,41		2,45
30″	57,15,25,18,12,19,21,31, 8,40		4,11, 9,26,48	
		37,33,37,59,10,54,53		2,45
32″	57,15,25,55,45,57,20,42, 3,33		4,11, 9,29,33	
		37,33,33,48, 1,25,20		2,45
34″	57,15,26,33,19,31, 8,43,28,53		4,11, 9,32,18	
		37,33,29,36,51,53, 2		2,45
36″	57,15,27,10,53, 0,45,35,21,55		4,11, 9,35, 3	
		37,33,25,25,42,17,59		2,45
38″	57,15,27,48,26,26,11,17,39,54		4,11, 9,37,48	
		37,33,21,14,32,40,11		2,45
40″	57,15,28,25,59,47,25,50,20, 5		4,11, 9,40,33	
		37,33,17, 3,22,59,38		2,45
42″	57,15,29, 3,33, 4,29,13,19,43		4,11, 9,43,18	
		37,33,12,52,13,16,20		2,45
44″	57,15,29,41, 6,17,21,26,36, 3		4,11, 9,46, 3	
		37,33, 8,41, 3,30,17		2,45
46″	57,15,30,18,39,26, 2,30, 6,20		4,11, 9,48,48	
		37,33, 4,29,53,41,29		2,45
48″	57,15,30,56,12,30,32,23,47,49		4,11, 9,51,33	
		37,33, 0,18,43,49,56		2,45
50″	57,15,31,33,45,30,51, 7,37,45		4,11, 9,54,18	
		37,32,56, 7,33,55,38		2,45
52″	57,15,32,11,18,26,58,41,33,23		4,11, 9,57, 3	
		37,32,51,56,23,58,35		2,45
54″	57,15,32,48,51,18,55, 5,31,58		4,11, 9,59,48	
		37,32,47,45,13,58,47		2,45
56″	57,15,33,26,24, 6,40,19,30,45		4,11,10, 2,33	
		37,32,43,34, 3,56,14		2,45
58″	57,15,34, 3,56,50,14,23,26,59		4,11,10, 5,18	
		37,32,39,22,53,50,56		
60″	57,15,34,41,29,29,37,17,17,55			
exact	57,15,34,41,29,29,37,17,30, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°37′ 0″	57,15,34,41,29,29,37,17,30, 7			
		37,32,35,11,43,44,21		
2″	57,15,35,19, 2, 4,49, 1,14,28		4,11,10,10,41	
		37,32,31, 0,33,33,40		2,45
4″	57,15,35,56,34,35,49,34,48, 8		4,11,10,13,26	
		37,32,26,49,23,20,14		2,45
6″	57,15,36,34, 7, 2,38,58, 8,22		4,11,10,16,11	
		37,32,22,38,13, 4, 3		2,45
8″	57,15,37,11,39,25,17,11,12,25		4,11,10,18,56	
		37,32,18,27, 2,45, 7		2,45
10″	57,15,37,49,11,43,44,13,57,32		4,11,10,21,41	
		37,32,14,15,52,23,26		2,45
12″	57,15,38,26,43,58, 0, 6,20,58		4,11,10,24,26	
		37,32,10, 4,41,59, 0		2,45
14″	57,15,39, 4,16, 8, 4,48,19,58		4,11,10,27,11	
		37,32, 5,53,31,31,49		2,45
16″	57,15,39,41,48,13,58,19,51,47		4,11,10,29,56	
		37,32, 1,42,21, 1,53		2,45
18″	57,15,40,19,20,15,40,40,53,40		4,11,10,32,41	
		37,31,57,31,10,29,12		2,45
20″	57,15,40,56,52,13,11,51,22,52		4,11,10,35,26	
		37,31,53,19,59,53,46		2,45
22″	57,15,41,34,24, 6,31,51,16,38		4,11,10,38,11	
		37,31,49, 8,49,15,35		2,45
24″	57,15,42,11,55,55,40,40,32,13		4,11,10,40,56	
		37,31,44,57,38,34,39		2,45
26″	57,15,42,49,27,40,38,19, 6,52		4,11,10,43,41	
		37,31,40,46,27,50,58		2,45
28″	57,15,43,26,59,21,24,46,57,50		4,11,10,46,26	
		37,31,36,35,17, 4,32		2,45
30″	57,15,44, 4,30,58, 0, 4, 2,22		4,11,10,49,11	
		37,31,32,24, 6,15,21		2,45
32″	57,15,44,42, 2,30,24,10,17,43		4,11,10,51,56	
		37,31,28,12,55,23,25		2,45
34″	57,15,45,19,33,58,37, 5,41, 8		4,11,10,54,41	
		37,31,24, 1,44,28,44		2,45
36″	57,15,45,57, 5,22,38,50, 9,52		4,11,10,57,26	
		37,31,19,50,33,31,18		2,45
38″	57,15,46,34,36,42,29,23,41,10		4,11,11, 0,11	
		37,31,15,39,22,31, 7		2,45
40″	57,15,47,12, 7,58, 8,46,12,17		4,11,11, 2,56	
		37,31,11,28,11,28,11		2,45
42″	57,15,47,49,39, 9,36,57,40,28		4,11,11, 5,41	
		37,31, 7,17, 0,22,30		2,45
44″	57,15,48,27,10,16,53,58, 2,58		4,11,11, 8,26	
		37,31, 3, 5,49,14, 4		2,45
46″	57,15,49, 4,41,19,59,47,17, 2		4,11,11,11,11	
		37,30,58,54,38, 2,53		2,45
48″	57,15,49,42,12,18,54,25,19,55		4,11,11,13,56	
		37,30,54,43,26,48,57		2,45
50″	57,15,50,19,43,13,37,52, 8,52		4,11,11,16,41	
		37,30,50,32,15,32,16		2,45
52″	57,15,50,57,14, 4,10, 7,41, 8		4,11,11,19,26	
		37,30,46,21, 4,12,50		2,45
54″	57,15,51,34,44,50,31,11,53,58		4,11,11,22,11	
		37,30,42, 9,52,50,39		2,45
56″	57,15,52,12,15,32,41, 4,44,37		4,11,11,24,56	
		37,30,37,58,41,25,43		2,45
58″	57,15,52,49,46,10,39,46,10,20		4,11,11,27,41	
		37,30,33,47,29,58, 2		
60″	57,15,53,27,16,44,27,16, 8,22			
exact	57,15,53,27,16,44,27,16,33, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°38′ 0″	57,15,53,27,16,44,27,16,33, 4			
		37,30,29,36,18,30,19		
2″	57,15,54, 4,47,14, 3,35, 3,23		4,11,11,32,59	
		37,30,25,25, 6,57,20		2,45
4″	57,15,54,42,17,39,28,42, 0,43		4,11,11,35,44	
		37,30,21,13,55,21,36		2,45
6″	57,15,55,19,48, 0,42,37,22,19		4,11,11,38,29	
		37,30,17, 2,43,43, 7		2,45
8″	57,15,55,57,18,17,45,21, 5,26		4,11,11,41,14	
		37,30,12,51,32, 1,53		2,45
10″	57,15,56,34,48,30,36,53, 7,19		4,11,11,43,59	
		37,30, 8,40,20,17,54		2,45
12″	57,15,57,12,18,39,17,13,25,13		4,11,11,46,44	
		37,30, 4,29, 8,31,10		2,45
14″	57,15,57,49,48,43,46,21,56,23		4,11,11,49,29	
		37,30, 0,17,56,41,41		2,45
16″	57,15,58,27,18,44, 4,18,38, 4		4,11,11,52,14	
		37,29,56, 6,44,49,27		2,45
18″	57,15,59, 4,48,40,11, 3,27,31		4,11,11,54,59	
		37,29,51,55,32,54,28		2,45
20″	57,15,59,42,18,32, 6,36,21,59		4,11,11,57,44	
		37,29,47,44,20,56,44		2,45
22″	57,16, 0,19,48,19,50,57,18,43		4,11,12, 0,29	
		37,29,43,33, 8,56,15		2,45
24″	57,16, 0,57,18, 3,24, 6,14,58		4,11,12, 3,14	
		37,29,39,21,56,53, 1		2,45
26″	57,16, 1,34,47,42,46, 3, 7,59		4,11,12, 5,59	
		37,29,35,10,44,47, 2		2,45
28″	57,16, 2,12,17,17,56,47,55, 1		4,11,12, 8,44	
		37,29,30,59,32,38,18		2,45
30″	57,16, 2,49,46,48,56,20,33,19		4,11,12,11,29	
		37,29,26,48,20,26,49		2,45
32″	57,16, 3,27,16,15,44,41, 0, 8		4,11,12,14,14	
		37,29,22,37, 8,12,35		2,45
34″	57,16, 4, 4,45,38,21,49,12,43		4,11,12,16,59	
		37,29,18,25,55,55,36		2,45
36″	57,16, 4,42,14,56,47,45, 8,19		4,11,12,19,44	
		37,29,14,14,43,35,52		2,45
38″	57,16, 5,19,44,11, 2,28,44,11		4,11,12,22,29	
		37,29,10, 3,31,13,23		2,45
40″	57,16, 5,57,13,21, 5,59,57,34		4,11,12,25,14	
		37,29, 5,52,18,48, 9		2,45
42″	57,16, 6,34,42,26,58,18,45,43		4,11,12,27,59	
		37,29, 1,41, 6,20,10		2,45
44″	57,16, 7,12,11,28,39,25, 5,53		4,11,12,30,44	
		37,28,57,29,53,49,26		2,45
46″	57,16, 7,49,40,26, 9,18,55,19		4,11,12,33,29	
		37,28,53,18,41,15,57		2,45
48″	57,16, 8,27, 9,19,28, 0,11,16		4,11,12,36,14	
		37,28,49, 7,28,39,43		2,45
50″	57,16, 9, 4,38, 8,35,28,50,59		4,11,12,38,59	
		37,28,44,56,16, 0,44		2,45
52″	57,16, 9,42, 6,53,31,44,51,43		4,11,12,41,44	
		37,28,40,45, 3,19, 0		2,45
54″	57,16,10,19,35,34,16,48,10,43		4,11,12,44,29	
		37,28,36,33,50,34,31		2,45
56″	57,16,10,57, 4,10,50,38,45,14		4,11,12,47,14	
		37,28,32,22,37,47,17		2,45
58″	57,16,11,34,32,43,13,16,32,31		4,11,12,49,59	
		37,28,28,11,24,57,18		
60″	57,16,12,12, 1,11,24,41,29,49			
exact	57,16,12,12, 1,11,24,42, 4,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°39′ 0″	57,16,12,12, 1,11,24,42, 4,26			
		37,28,24, 0,12, 8,22		
2″	57,16,12,49,29,35,24,54,12,48		4,11,12,55,13	
		37,28,19,48,59,13, 9		2,44
4″	57,16,13,26,57,55,13,53,25,57		4,11,12,57,57	
		37,28,15,37,46,15,12		2,44
6″	57,16,14, 4,26,10,51,39,41, 9		4,11,13, 0,41	
		37,28,11,26,33,14,31		2,44
8″	57,16,14,41,54,22,18,12,55,40		4,11,13, 3,25	
		37,28, 7,15,20,11, 6		2,44
10″	57,16,15,19,22,29,33,33, 6,46		4,11,13, 6, 9	
		37,28, 3, 4, 7, 4,57		2,44
12″	57,16,15,56,50,32,37,40,11,43		4,11,13, 8,53	
		37,27,58,52,53,56, 4		2,44
14″	57,16,16,34,18,31,30,34, 7,47		4,11,13,11,37	
		37,27,54,41,40,44,27		2,44
16″	57,16,17,11,46,26,12,14,52,14		4,11,13,14,21	
		37,27,50,30,27,30, 6		2,44
18″	57,16,17,49,14,16,42,42,22,20		4,11,13,17, 5	
		37,27,46,19,14,13, 1		2,44
20″	57,16,18,26,42, 3, 1,56,35,21		4,11,13,19,49	
		37,27,42, 8, 0,53,12		2,44
22″	57,16,19, 4, 9,45, 9,57,28,33		4,11,13,22,33	
		37,27,37,56,47,30,39		2,44
24″	57,16,19,41,37,23, 6,44,59,12		4,11,13,25,17	
		37,27,33,45,34, 5,22		2,44
26″	57,16,20,19, 4,56,52,19, 4,34		4,11,13,28, 1	
		37,27,29,34,20,37,21		2,44
28″	57,16,20,56,32,26,26,39,41,55		4,11,13,30,45	
		37,27,25,23, 7, 6,36		2,44
30″	57,16,21,33,59,51,49,46,48,31		4,11,13,33,29	
		37,27,21,11,53,33, 7		2,44
32″	57,16,22,11,27,13, 1,40,21,38		4,11,13,36,13	
		37,27,17, 0,39,56,54		2,44
34″	57,16,22,48,54,30, 2,20,18,32		4,11,13,38,57	
		37,27,12,49,26,17,57		2,44
36″	57,16,23,26,21,42,51,46,36,29		4,11,13,41,41	
		37,27, 8,38,12,36,16		2,44
38″	57,16,24, 3,48,51,29,59,12,45		4,11,13,44,25	
		37,27, 4,26,58,51,51		2,44
40″	57,16,24,41,15,55,56,58, 4,36		4,11,13,47, 9	
		37,27, 0,15,45, 4,42		2,44
42″	57,16,25,18,42,56,12,43, 9,18		4,11,13,49,53	
		37,26,56, 4,31,14,49		2,44
44″	57,16,25,56, 9,52,17,14,24, 7		4,11,13,52,37	
		37,26,51,53,17,22,12		2,44
46″	57,16,26,33,36,44,10,31,46,19		4,11,13,55,21	
		37,26,47,42, 3,26,51		2,44
48″	57,16,27,11, 3,31,52,35,13,10		4,11,13,58, 5	
		37,26,43,30,49,28,46		2,44
50″	57,16,27,48,30,15,23,24,41,56		4,11,14, 0,49	
		37,26,39,19,35,27,57		2,44
52″	57,16,28,25,56,54,43, 0, 9,53		4,11,14, 3,33	
		37,26,35, 8,21,24,24		2,44
54″	57,16,29, 3,23,29,51,21,34,17		4,11,14, 6,17	
		37,26,30,57, 7,18, 7		2,44
56″	57,16,29,40,50, 0,48,28,52,24		4,11,14, 9, 1	
		37,26,26,45,53, 9, 6		2,44
58″	57,16,30,18,16,27,34,22, 1,30		4,11,14,11,45	
		37,26,22,34,38,57,21		
60″	57,16,30,55,42,50, 9, 0,58,51			
exact	57,16,30,55,42,50, 9, 0,39,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°40′ 0″	57,16,30,55,42,50, 9, 0,39,14			
		37,26,18,23,24,40,45		
2″	57,16,31,33, 9, 8,32,25,19,59		4,11,14,17,21	
		37,26,14,12,10,23,24		2,44
4″	57,16,32,10,35,22,44,35,43,23		4,11,14,20, 5	
		37,26,10, 0,56, 3,19		2,44
6″	57,16,32,48, 1,32,45,31,46,42		4,11,14,22,49	
		37,26, 5,49,41,40,30		2,44
8″	57,16,33,25,27,38,35,13,27,12		4,11,14,25,33	
		37,26, 1,38,27,14,57		2,44
10″	57,16,34, 2,53,40,13,40,42, 9		4,11,14,28,17	
		37,25,57,27,12,46,40		2,44
12″	57,16,34,40,19,37,40,53,28,49		4,11,14,31, 1	
		37,25,53,15,58,15,39		2,44
14″	57,16,35,17,45,30,56,51,44,28		4,11,14,33,45	
		37,25,49, 4,43,41,54		2,44
16″	57,16,35,55,11,20, 1,35,26,22		4,11,14,36,29	
		37,25,44,53,29, 5,25		2,44
18″	57,16,36,32,37, 4,55, 4,31,47		4,11,14,39,13	
		37,25,40,42,14,26,12		2,44
20″	57,16,37,10, 2,45,37,18,57,59		4,11,14,41,57	
		37,25,36,30,59,44,15		2,44
22″	57,16,37,47,28,22, 8,18,42,14		4,11,14,44,41	
		37,25,32,19,44,59,34		2,44
24″	57,16,38,24,53,54,28, 3,41,48		4,11,14,47,25	
		37,25,28, 8,30,12, 9		2,44
26″	57,16,39, 2,19,22,36,33,53,57		4,11,14,50, 9	
		37,25,23,57,15,22, 0		2,44
28″	57,16,39,39,44,46,33,49,15,57		4,11,14,52,53	
		37,25,19,46, 0,29, 7		2,44
30″	57,16,40,17,10, 6,19,49,45, 4		4,11,14,55,37	
		37,25,15,34,45,33,30		2,44
32″	57,16,40,54,35,21,54,35,18,34		4,11,14,58,21	
		37,25,11,23,30,35, 9		2,44
34″	57,16,41,32, 0,33,18, 5,53,43		4,11,15, 1, 5	
		37,25, 7,12,15,34, 4		2,44
36″	57,16,42, 9,25,40,30,21,27,47		4,11,15, 3,49	
		37,25, 3, 1, 0,30,15		2,44
38″	57,16,42,46,50,43,31,21,58, 2		4,11,15, 6,33	
		37,24,58,49,45,23,42		2,44
40″	57,16,43,24,15,42,21, 7,21,44		4,11,15, 9,17	
		37,24,54,38,30,14,25		2,44
42″	57,16,44, 1,40,36,59,37,36, 9		4,11,15,12, 1	
		37,24,50,27,15, 2,24		2,44
44″	57,16,44,39, 5,27,26,52,38,33		4,11,15,14,45	
		37,24,46,15,59,47,39		2,44
46″	57,16,45,16,30,13,42,52,26,12		4,11,15,17,29	
		37,24,42, 4,44,30,10		2,44
48″	57,16,45,53,54,55,47,36,56,22		4,11,15,20,13	
		37,24,37,53,29, 9,57		2,44
50″	57,16,46,31,19,33,41, 6, 6,19		4,11,15,22,57	
		37,24,33,42,13,47, 0		2,44
52″	57,16,47, 8,44, 7,23,19,53,19		4,11,15,25,41	
		37,24,29,30,58,21,19		2,44
54″	57,16,47,46, 8,36,54,18,14,38		4,11,15,28,25	
		37,24,25,19,42,52,54		2,44
56″	57,16,48,23,33, 2,14, 1, 7,32		4,11,15,31, 9	
		37,24,21, 8,27,21,45		2,44
58″	57,16,49, 0,57,23,22,28,29,17		4,11,15,33,53	
		37,24,16,57,11,47,52		
60″	57,16,49,38,21,40,19,40,17, 9			
exact	57,16,49,38,21,40,19,40, 1,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°41′ 0″	57,16,49,38,21,40,19,40, 1,22			
		37,24,12,45,56, 9,47		
2″	57,16,50,15,45,53, 5,36,11, 9		4,11,15,39,26	
		37,24, 8,34,40,30,21		2,44
4″	57,16,50,53,10, 1,40,16,41,30		4,11,15,42,10	
		37,24, 4,23,24,48,11		2,44
6″	57,16,51,30,34, 6, 3,41,29,41		4,11,15,44,54	
		37,24, 0,12, 9, 3,17		2,44
8″	57,16,52, 7,58, 6,15,50,32,58		4,11,15,47,38	
		37,23,56, 0,53,15,39		2,44
10″	57,16,52,45,22, 2,16,43,48,37		4,11,15,50,22	
		37,23,51,49,37,25,17		2,44
12″	57,16,53,22,45,54, 6,21,13,54		4,11,15,53, 6	
		37,23,47,38,21,32,11		2,44
14″	57,16,54, 0, 9,41,44,42,46, 5		4,11,15,55,50	
		37,23,43,27, 5,36,21		2,44
16″	57,16,54,37,33,25,11,48,22,26		4,11,15,58,34	
		37,23,39,15,49,37,47		2,44
18″	57,16,55,14,57, 4,27,38, 0,13		4,11,16, 1,18	
		37,23,35, 4,33,36,29		2,44
20″	57,16,55,52,20,39,32,11,36,42		4,11,16, 4, 2	
		37,23,30,53,17,32,27		2,44
22″	57,16,56,29,44,10,25,29, 9, 9		4,11,16, 6,46	
		37,23,26,42, 1,25,41		2,44
24″	57,16,57, 7, 7,37, 7,30,34,50		4,11,16, 9,30	
		37,23,22,30,45,16,11		2,44
26″	57,16,57,44,30,59,38,15,51, 1		4,11,16,12,14	
		37,23,18,19,29, 3,57		2,44
28″	57,16,58,21,54,17,57,44,54,58		4,11,16,14,58	
		37,23,14, 8,12,48,59		2,44
30″	57,16,58,59,17,32, 5,57,43,57		4,11,16,17,42	
		37,23, 9,56,56,31,17		2,44
32″	57,16,59,36,40,42, 2,54,15,14		4,11,16,20,26	
		37,23, 5,45,40,10,51		2,44
34″	57,17, 0,14, 3,47,48,34,26, 5		4,11,16,23,10	
		37,23, 1,34,23,47,41		2,44
36″	57,17, 0,51,26,49,22,58,13,46		4,11,16,25,54	
		37,22,57,23, 7,21,47		2,44
38″	57,17, 1,28,49,46,46, 5,35,33		4,11,16,28,38	
		37,22,53,11,50,53, 9		2,44
40″	57,17, 2, 6,12,39,57,56,28,42		4,11,16,31,22	
		37,22,49, 0,34,21,47		2,44
42″	57,17, 2,43,35,28,58,30,50,29		4,11,16,34, 6	
		37,22,44,49,17,47,41		2,44
44″	57,17, 3,20,58,13,47,48,38,10		4,11,16,36,50	
		37,22,40,38, 1,10,51		2,44
46″	57,17, 3,58,20,54,25,49,49, 1		4,11,16,39,34	
		37,22,36,26,44,31,17		2,44
48″	57,17, 4,35,43,30,52,34,20,18		4,11,16,42,18	
		37,22,32,15,27,48,59		2,44
50″	57,17, 5,13, 6, 3, 8, 2, 9,17		4,11,16,45, 2	
		37,22,28, 4,11, 3,57		2,44
52″	57,17, 5,50,28,31,12,13,13,14		4,11,16,47,46	
		37,22,23,52,54,16,11		2,44
54″	57,17, 6,27,50,55, 5, 7,29,25		4,11,16,50,30	
		37,22,19,41,37,25,41		2,44
56″	57,17, 7, 5,13,14,46,44,55, 6		4,11,16,53,14	
		37,22,15,30,20,32,27		2,44
58″	57,17, 7,42,35,30,17, 5,27,33		4,11,16,55,58	
		37,22,11,19, 3,36,29		
60″	57,17, 8,19,57,41,36, 9, 4, 2			
exact	57,17, 8,19,57,41,36, 9, 3,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°42′ 0″	57,17, 8,19,57,41,36, 9, 3,35			
		37,22, 7, 7,46,37,46		
2″	57,17, 8,57,19,48,43,55,41,21		4,11,17, 1,26	
		37,22, 2,56,29,36,20		2,44
4″	57,17, 9,34,41,51,40,25,17,41		4,11,17, 4,10	
		37,21,58,45,12,32,10		2,44
6″	57,17,10,12, 3,50,25,37,49,51		4,11,17, 6,54	
		37,21,54,33,55,25,16		2,44
8″	57,17,10,49,25,44,59,33,15, 7		4,11,17, 9,38	
		37,21,50,22,38,15,38		2,44
10″	57,17,11,26,47,35,22,11,30,45		4,11,17,12,22	
		37,21,46,11,21, 3,16		2,44
12″	57,17,12, 4, 9,21,33,32,34, 1		4,11,17,15, 6	
		37,21,42, 0, 3,48,10		2,44
14″	57,17,12,41,31, 3,33,36,22,11		4,11,17,17,50	
		37,21,37,48,46,30,20		2,44
16″	57,17,13,18,52,41,22,22,52,31		4,11,17,20,34	
		37,21,33,37,29, 9,46		2,44
18″	57,17,13,56,14,14,59,52, 2,17		4,11,17,23,18	
		37,21,29,26,11,46,28		2,44
20″	57,17,14,33,35,44,26, 3,48,45		4,11,17,26, 2	
		37,21,25,14,54,20,26		2,44
22″	57,17,15,10,57, 9,40,58, 9,11		4,11,17,28,46	
		37,21,21, 3,36,51,40		2,44
24″	57,17,15,48,18,30,44,35, 0,51		4,11,17,31,30	
		37,21,16,52,19,20,10		2,44
26″	57,17,16,25,39,47,36,54,21, 1		4,11,17,34,14	
		37,21,12,41, 1,45,56		2,44
28″	57,17,17, 3, 1, 0,17,56, 6,57		4,11,17,36,58	
		37,21, 8,29,44, 8,58		2,44
30″	57,17,17,40,22, 8,47,40,15,55		4,11,17,39,42	
		37,21, 4,18,26,29,16		2,44
32″	57,17,18,17,43,13, 6, 6,45,11		4,11,17,42,26	
		37,21, 0, 7, 8,46,50		2,44
34″	57,17,18,55, 4,13,13,15,32, 1		4,11,17,45,10	
		37,20,55,55,51, 1,40		2,44
36″	57,17,19,32,25, 9, 9, 6,33,41		4,11,17,47,54	
		37,20,51,44,33,13,46		2,44
38″	57,17,20, 9,46, 0,53,39,47,27		4,11,17,50,38	
		37,20,47,33,15,23, 8		2,44
40″	57,17,20,47, 6,48,26,55,10,35		4,11,17,53,22	
		37,20,43,21,57,29,46		2,44
42″	57,17,21,24,27,31,48,52,40,21		4,11,17,56, 6	
		37,20,39,10,39,33,40		2,44
44″	57,17,22, 1,48,10,59,32,14, 1		4,11,17,58,50	
		37,20,34,59,21,34,50		2,44
46″	57,17,22,39, 8,45,58,53,48,51		4,11,18, 1,34	
		37,20,30,48, 3,33,16		2,44
48″	57,17,23,16,29,16,46,57,22, 7		4,11,18, 4,18	
		37,20,26,36,45,28,58		2,44
50″	57,17,23,53,49,43,23,42,51, 5		4,11,18, 7, 2	
		37,20,22,25,27,21,56		2,44
52″	57,17,24,31,10, 5,49,10,13, 1		4,11,18, 9,46	
		37,20,18,14, 9,12,10		2,44
54″	57,17,25, 8,30,24, 3,19,25,11		4,11,18,12,30	
		37,20,14, 2,50,59,40		2,44
56″	57,17,25,45,50,38, 6,10,24,51		4,11,18,15,14	
		37,20, 9,51,32,44,26		2,44
58″	57,17,26,23,10,47,57,43, 9,17		4,11,18,17,58	
		37,20, 5,40,14,26,28		
60″	57,17,27, 0,30,53,37,57,35,45			
exact	57,17,27, 0,30,53,37,57,47,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°43′ 0″	57,17,27, 0,30,53,37,57,47,34			
		37,20, 1,28,56, 7, 0		
2″	57,17,27,37,50,55, 6,53,54,34		4,11,18,23,21	
		37,19,57,17,37,43,39		2,44
4″	57,17,28,15,10,52,24,31,38,13		4,11,18,26, 5	
		37,19,53, 6,19,17,34		2,44
6″	57,17,28,52,30,45,30,50,55,47		4,11,18,28,49	
		37,19,48,55, 0,48,45		2,44
8″	57,17,29,29,50,34,25,51,44,32		4,11,18,31,33	
		37,19,44,43,42,17,12		2,44
10″	57,17,30, 7,10,19, 9,34, 1,44		4,11,18,34,17	
		37,19,40,32,23,42,55		2,44
12″	57,17,30,44,29,59,41,57,44,39		4,11,18,37, 1	
		37,19,36,21, 5, 5,54		2,44
14″	57,17,31,21,49,36, 3, 2,50,33		4,11,18,39,45	
		37,19,32, 9,46,26, 9		2,44
16″	57,17,31,59, 9, 8,12,49,16,42		4,11,18,42,29	
		37,19,27,58,27,43,40		2,44
18″	57,17,32,36,28,36,11,17, 0,22		4,11,18,45,13	
		37,19,23,47, 8,58,27		2,44
20″	57,17,33,13,47,59,58,25,58,49		4,11,18,47,57	
		37,19,19,35,50,10,30		2,44
22″	57,17,33,51, 7,19,34,16, 9,19		4,11,18,50,41	
		37,19,15,24,31,19,49		2,44
24″	57,17,34,28,26,34,58,47,29, 8		4,11,18,53,25	
		37,19,11,13,12,26,24		2,44
26″	57,17,35, 5,45,46,11,59,55,32		4,11,18,56, 9	
		37,19, 7, 1,53,30,15		2,44
28″	57,17,35,43, 4,53,13,53,25,47		4,11,18,58,53	
		37,19, 2,50,34,31,22		2,44
30″	57,17,36,20,23,56, 4,27,57, 9		4,11,19, 1,37	
		37,18,58,39,15,29,45		2,44
32″	57,17,36,57,42,54,43,43,26,54		4,11,19, 4,21	
		37,18,54,27,56,25,24		2,44
34″	57,17,37,35, 1,49,11,39,52,18		4,11,19, 7, 5	
		37,18,50,16,37,18,19		2,44
36″	57,17,38,12,20,39,28,17,10,37		4,11,19, 9,49	
		37,18,46, 5,18, 8,30		2,44
38″	57,17,38,49,39,25,33,35,19, 7		4,11,19,12,33	
		37,18,41,53,58,55,57		2,44
40″	57,17,39,26,58, 7,27,34,15, 4		4,11,19,15,17	
		37,18,37,42,39,40,40		2,44
42″	57,17,40, 4,16,45,10,13,55,44		4,11,19,18, 1	
		37,18,33,31,20,22,39		2,44
44″	57,17,40,41,35,18,41,34,18,23		4,11,19,20,45	
		37,18,29,20, 1, 1,54		2,44
46″	57,17,41,18,53,48, 1,35,20,17		4,11,19,23,29	
		37,18,25, 8,41,38,25		2,44
48″	57,17,41,56,12,13,10,16,58,42		4,11,19,26,13	
		37,18,20,57,22,12,12		2,44
50″	57,17,42,33,30,34, 7,39,10,54		4,11,19,28,57	
		37,18,16,46, 2,43,15		2,44
52″	57,17,43,10,48,50,53,41,54, 9		4,11,19,31,41	
		37,18,12,34,43,11,34		2,44
54″	57,17,43,48, 7, 3,28,25, 5,43		4,11,19,34,25	
		37,18, 8,23,23,37, 9		2,44
56″	57,17,44,25,25,11,51,48,42,52		4,11,19,37, 9	
		37,18, 4,12, 4, 0, 0		2,44
58″	57,17,45, 2,43,16, 3,52,42,52		4,11,19,39,53	
		37,18, 0, 0,44,20, 7		
60″	57,17,45,40, 1,16, 4,37, 2,59			
exact	57,17,45,40, 1,16, 4,37,23,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°44′ 0″	57,17,45,40, 1,16, 4,37,23,50			
		37,17,55,49,24,39,45		
2″	57,17,46,17,19,11,54, 2, 3,35		4,11,19,45,11	
		37,17,51,38, 4,54,34		2,44
4″	57,17,46,54,37, 3,32, 6,58, 9		4,11,19,47,55	
		37,17,47,26,45, 6,39		2,44
6″	57,17,47,31,54,50,58,52, 4,48		4,11,19,50,39	
		37,17,43,15,25,16, 0		2,44
8″	57,17,48, 9,12,34,14,17,20,48		4,11,19,53,23	
		37,17,39, 4, 5,22,37		2,44
10″	57,17,48,46,30,13,18,22,43,25		4,11,19,56, 7	
		37,17,34,52,45,26,30		2,44
12″	57,17,49,23,47,48,11, 8, 9,55		4,11,19,58,51	
		37,17,30,41,25,27,39		2,44
14″	57,17,50, 1, 5,18,52,33,37,34		4,11,20, 1,35	
		37,17,26,30, 5,26, 4		2,44
16″	57,17,50,38,22,45,22,39, 3,38		4,11,20, 4,19	
		37,17,22,18,45,21,45		2,44
18″	57,17,51,15,40, 7,41,24,25,23		4,11,20, 7, 3	
		37,17,18, 7,25,14,42		2,44
20″	57,17,51,52,57,25,48,49,40, 5		4,11,20, 9,47	
		37,17,13,56, 5, 4,55		2,44
22″	57,17,52,30,14,39,44,54,45, 0		4,11,20,12,31	
		37,17, 9,44,44,52,24		2,44
24″	57,17,53, 7,31,49,29,39,37,24		4,11,20,15,15	
		37,17, 5,33,24,37, 9		2,44
26″	57,17,53,44,48,55, 3, 4,14,33		4,11,20,17,59	
		37,17, 1,22, 4,19,10		2,44
28″	57,17,54,22, 5,56,25, 8,33,43		4,11,20,20,43	
		37,16,57,10,43,58,27		2,44
30″	57,17,54,59,22,53,35,52,32,10		4,11,20,23,27	
		37,16,52,59,23,35, 0		2,44
32″	57,17,55,36,39,46,35,16, 7,10		4,11,20,26,11	
		37,16,48,48, 3, 8,49		2,44
34″	57,17,56,13,56,35,23,19,15,59		4,11,20,28,55	
		37,16,44,36,42,39,54		2,44
36″	57,17,56,51,13,20, 0, 1,55,53		4,11,20,31,39	
		37,16,40,25,22, 8,15		2,44
38″	57,17,57,28,30, 0,25,24, 4, 8		4,11,20,34,23	
		37,16,36,14, 1,33,52		2,44
40″	57,17,58, 5,46,36,39,25,38, 0		4,11,20,37, 7	
		37,16,32, 2,40,56,45		2,44
42″	57,17,58,43, 3, 8,42, 6,34,45		4,11,20,39,51	
		37,16,27,51,20,16,54		2,44
44″	57,17,59,20,19,36,33,26,51,39		4,11,20,42,35	
		37,16,23,39,59,34,19		2,44
46″	57,17,59,57,36, 0,13,26,25,58		4,11,20,45,19	
		37,16,19,28,38,49, 0		2,44
48″	57,18, 0,34,52,19,42, 5,14,58		4,11,20,48, 3	
		37,16,15,17,18, 0,57		2,44
50″	57,18, 1,12, 8,34,59,23,15,55		4,11,20,50,47	
		37,16,11, 5,57,10,10		2,44
52″	57,18, 1,49,24,46, 5,20,26, 5		4,11,20,53,31	
		37,16, 6,54,36,16,39		2,44
54″	57,18, 2,26,40,52,59,56,42,44		4,11,20,56,15	
		37,16, 2,43,15,20,24		2,44
56″	57,18, 3, 3,56,55,43,12, 3, 8		4,11,20,58,59	
		37,15,58,31,54,21,25		2,44
58″	57,18, 3,41,12,54,15, 6,24,33		4,11,21, 1,43	
		37,15,54,20,33,19,42		
60″	57,18, 4,18,28,48,35,39,44,15			
exact	57,18, 4,18,28,48,35,40,11,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°45′ 0″	57,18, 4,18,28,48,35,40,11,51			
		37,15,50, 9,12,18,21		
2″	57,18, 4,55,44,38,44,52,30,12		4,11,21, 6,57	
		37,15,45,57,51,11,24		2,43
4″	57,18, 5,33, 0,24,42,43,41,36		4,11,21, 9,40	
		37,15,41,46,30, 1,44		2,43
6″	57,18, 6,10,16, 6,29,13,43,20		4,11,21,12,23	
		37,15,37,35, 8,49,21		2,43
8″	57,18, 6,47,31,44, 4,22,32,41		4,11,21,15, 6	
		37,15,33,23,47,34,15		2,43
10″	57,18, 7,24,47,17,28,10, 6,56		4,11,21,17,49	
		37,15,29,12,26,16,26		2,43
12″	57,18, 8, 2, 2,46,40,36,23,22		4,11,21,20,32	
		37,15,25, 1, 4,55,54		2,43
14″	57,18, 8,39,18,11,41,41,19,16		4,11,21,23,15	
		37,15,20,49,43,32,39		2,43
16″	57,18, 9,16,33,32,31,24,51,55		4,11,21,25,58	
		37,15,16,38,22, 6,41		2,43
18″	57,18, 9,53,48,49, 9,46,58,36		4,11,21,28,41	
		37,15,12,27, 0,38, 0		2,43
20″	57,18,10,31, 4, 1,36,47,36,36		4,11,21,31,24	
		37,15, 8,15,39, 6,36		2,43
22″	57,18,11, 8,19, 9,52,26,43,12		4,11,21,34, 7	
		37,15, 4, 4,17,32,29		2,43
24″	57,18,11,45,34,13,56,44,15,41		4,11,21,36,50	
		37,14,59,52,55,55,39		2,43
26″	57,18,12,22,49,13,49,40,11,20		4,11,21,39,33	
		37,14,55,41,34,16, 6		2,43
28″	57,18,13, 0, 4, 9,31,14,27,26		4,11,21,42,16	
		37,14,51,30,12,33,50		2,43
30″	57,18,13,37,19, 1, 1,27, 1,16		4,11,21,44,59	
		37,14,47,18,50,48,51		2,43
32″	57,18,14,14,33,48,20,17,50, 7		4,11,21,47,42	
		37,14,43, 7,29, 1, 9		2,43
34″	57,18,14,51,48,31,27,46,51,16		4,11,21,50,25	
		37,14,38,56, 7,10,44		2,43
36″	57,18,15,29, 3,10,23,54, 2, 0		4,11,21,53, 8	
		37,14,34,44,45,17,36		2,43
38″	57,18,16, 6,17,45, 8,39,19,36		4,11,21,55,51	
		37,14,30,33,23,21,45		2,43
40″	57,18,16,43,32,15,42, 2,41,21		4,11,21,58,34	
		37,14,26,22, 1,23,11		2,43
42″	57,18,17,20,46,42, 4, 4, 4,32		4,11,22, 1,17	
		37,14,22,10,39,21,54		2,43
44″	57,18,17,58, 1, 4,14,43,26,26		4,11,22, 4, 0	
		37,14,17,59,17,17,54		2,43
46″	57,18,18,35,15,22,14, 0,44,20		4,11,22, 6,43	
		37,14,13,47,55,11,11		2,43
48″	57,18,19,12,29,36, 1,55,55,31		4,11,22, 9,26	
		37,14, 9,36,33, 1,45		2,43
50″	57,18,19,49,43,45,38,28,57,16		4,11,22,12, 9	
		37,14, 5,25,10,49,36		2,43
52″	57,18,20,26,57,51, 3,39,46,52		4,11,22,14,52	
		37,14, 1,13,48,34,44		2,43
54″	57,18,21, 4,11,52,17,28,21,36		4,11,22,17,35	
		37,13,57, 2,26,17, 9		2,43
56″	57,18,21,41,25,49,19,54,38,45		4,11,22,20,18	
		37,13,52,51, 3,56,51		2,43
58″	57,18,22,18,39,42,10,58,35,36		4,11,22,23, 1	
		37,13,48,39,41,33,50		
60″	57,18,22,55,53,30,50,40, 9,26			
exact	57,18,22,55,53,30,50,39,39,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°46′ 0″	57,18,22,55,53,30,50,39,39,57			
		37,13,44,28,19, 5, 5		
2″	57,18,23,33, 7,15,18,58,45, 2		4,11,22,28,39	
		37,13,40,16,56,36,26		2,43
4″	57,18,24,10,20,55,35,55,21,28		4,11,22,31,22	
		37,13,36, 5,34, 5, 4		2,43
6″	57,18,24,47,34,31,41,29,26,32		4,11,22,34, 5	
		37,13,31,54,11,30,59		2,43
8″	57,18,25,24,48, 3,35,40,57,31		4,11,22,36,48	
		37,13,27,42,48,54,11		2,43
10″	57,18,26, 2, 1,31,18,29,51,42		4,11,22,39,31	
		37,13,23,31,26,14,40		2,43
12″	57,18,26,39,14,54,49,56, 6,22		4,11,22,42,14	
		37,13,19,20, 3,32,26		2,43
14″	57,18,27,16,28,14, 9,59,38,48		4,11,22,44,57	
		37,13,15, 8,40,47,29		2,43
16″	57,18,27,53,41,29,18,40,26,17		4,11,22,47,40	
		37,13,10,57,17,59,49		2,43
18″	57,18,28,30,54,40,15,58,26, 6		4,11,22,50,23	
		37,13, 6,45,55, 9,26		2,43
20″	57,18,29, 8, 7,47, 1,53,35,32		4,11,22,53, 6	
		37,13, 2,34,32,16,20		2,43
22″	57,18,29,45,20,49,36,25,51,52		4,11,22,55,49	
		37,12,58,23, 9,20,31		2,43
24″	57,18,30,22,33,47,59,35,12,23		4,11,22,58,32	
		37,12,54,11,46,21,59		2,43
26″	57,18,30,59,46,42,11,21,34,22		4,11,23, 1,15	
		37,12,50, 0,23,20,44		2,43
28″	57,18,31,36,59,32,11,44,55, 6		4,11,23, 3,58	
		37,12,45,49, 0,16,46		2,43
30″	57,18,32,14,12,18, 0,45,11,52		4,11,23, 6,41	
		37,12,41,37,37,10, 5		2,43
32″	57,18,32,51,24,59,38,22,21,57		4,11,23, 9,24	
		37,12,37,26,14, 0,41		2,43
34″	57,18,33,28,37,37, 4,36,22,38		4,11,23,12, 7	
		37,12,33,14,50,48,34		2,43
36″	57,18,34, 5,50,10,19,27,11,12		4,11,23,14,50	
		37,12,29, 3,27,33,44		2,43
38″	57,18,34,43, 2,39,22,54,44,56		4,11,23,17,33	
		37,12,24,52, 4,16,11		2,43
40″	57,18,35,20,15, 4,14,59, 1, 7		4,11,23,20,16	
		37,12,20,40,40,55,55		2,43
42″	57,18,35,57,27,24,55,39,57, 2		4,11,23,22,59	
		37,12,16,29,17,32,56		2,43
44″	57,18,36,34,39,41,24,57,29,58		4,11,23,25,42	
		37,12,12,17,54, 7,14		2,43
46″	57,18,37,11,51,53,42,51,37,12		4,11,23,28,25	
		37,12, 8, 6,30,38,49		2,43
48″	57,18,37,49, 4, 1,49,22,16, 1		4,11,23,31, 8	
		37,12, 3,55, 7, 7,41		2,43
50″	57,18,38,26,16, 5,44,29,23,42		4,11,23,33,51	
		37,11,59,43,43,33,50		2,43
52″	57,18,39, 3,28, 5,28,12,57,32		4,11,23,36,34	
		37,11,55,32,19,57,16		2,43
54″	57,18,39,40,40, 1, 0,32,54,48		4,11,23,39,17	
		37,11,51,20,56,17,59		2,43
56″	57,18,40,17,51,52,21,29,12,47		4,11,23,42, 0	
		37,11,47, 9,32,35,59		2,43
58″	57,18,40,55, 3,39,31, 1,48,46		4,11,23,44,43	
		37,11,42,58, 8,51,16		
60″	57,18,41,32,15,22,29,10,40, 2			
exact	57,18,41,32,15,22,29,10,25,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°47′ 0″	57,18,41,32,15,22,29,10,25,23			
		37,11,38,46,45, 2,14		
2″	57,18,42, 9,27, 1,15,55,27,37		4,11,23,50,15	
		37,11,34,35,21,11,59		2,43
4″	57,18,42,46,38,35,51,16,39,36		4,11,23,52,58	
		37,11,30,23,57,19, 1		2,43
6″	57,18,43,23,50, 6,15,13,58,37		4,11,23,55,41	
		37,11,26,12,33,23,20		2,43
8″	57,18,44, 1, 1,32,27,47,21,57		4,11,23,58,24	
		37,11,22, 1, 9,24,56		2,43
10″	57,18,44,38,12,54,28,56,46,53		4,11,24, 1, 7	
		37,11,17,49,45,23,49		2,43
12″	57,18,45,15,24,12,18,42,10,42		4,11,24, 3,50	
		37,11,13,38,21,19,59		2,43
14″	57,18,45,52,35,25,57, 3,30,41		4,11,24, 6,33	
		37,11, 9,26,57,13,26		2,43
16″	57,18,46,29,46,35,24, 0,44, 7		4,11,24, 9,16	
		37,11, 5,15,33, 4,10		2,43
18″	57,18,47, 6,57,40,39,33,48,17		4,11,24,11,59	
		37,11, 1, 4, 8,52,11		2,43
20″	57,18,47,44, 8,41,43,42,40,28		4,11,24,14,42	
		37,10,56,52,44,37,29		2,43
22″	57,18,48,21,19,38,36,27,17,57		4,11,24,17,25	
		37,10,52,41,20,20, 4		2,43
24″	57,18,48,58,30,31,17,47,38, 1		4,11,24,20, 8	
		37,10,48,29,55,59,56		2,43
26″	57,18,49,35,41,19,47,43,37,57		4,11,24,22,51	
		37,10,44,18,31,37, 5		2,43
28″	57,18,50,12,52, 4, 6,15,15, 2		4,11,24,25,34	
		37,10,40, 7, 7,11,31		2,43
30″	57,18,50,50, 2,44,13,22,26,33		4,11,24,28,17	
		37,10,35,55,42,43,14		2,43
32″	57,18,51,27,13,20, 9, 5, 9,47		4,11,24,31, 0	
		37,10,31,44,18,12,14		2,43
34″	57,18,52, 4,23,51,53,23,22, 1		4,11,24,33,43	
		37,10,27,32,53,38,31		2,43
36″	57,18,52,41,34,19,26,17, 0,32		4,11,24,36,26	
		37,10,23,21,29, 2, 5		2,43
38″	57,18,53,18,44,42,47,46, 2,37		4,11,24,39, 9	
		37,10,19,10, 4,22,56		2,43
40″	57,18,53,55,55, 1,57,50,25,33		4,11,24,41,52	
		37,10,14,58,39,41, 4		2,43
42″	57,18,54,33, 5,16,56,30, 6,37		4,11,24,44,35	
		37,10,10,47,14,56,29		2,43
44″	57,18,55,10,15,27,43,45, 3, 6		4,11,24,47,18	
		37,10, 6,35,50, 9,11		2,43
46″	57,18,55,47,25,34,19,35,12,17		4,11,24,50, 1	
		37,10, 2,24,25,19,10		2,43
48″	57,18,56,24,35,36,44, 0,31,27		4,11,24,52,44	
		37, 9,58,13, 0,26,26		2,43
50″	57,18,57, 1,45,34,57, 0,57,53		4,11,24,55,27	
		37, 9,54, 1,35,30,59		2,43
52″	57,18,57,38,55,28,58,36,28,52		4,11,24,58,10	
		37, 9,49,50,10,32,49		2,43
54″	57,18,58,16, 5,18,48,47, 1,41		4,11,25, 0,53	
		37, 9,45,38,45,31,56		2,43
56″	57,18,58,53,15, 4,27,32,33,37		4,11,25, 3,36	
		37, 9,41,27,20,28,20		2,43
58″	57,18,59,30,24,45,54,53, 1,57		4,11,25, 6,19	
		37, 9,37,15,55,22, 1		
60″	57,19, 0, 7,34,23,10,48,23,58			
exact	57,19, 0, 7,34,23,10,48,14,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°48′ 0″	57,19, 0, 7,34,23,10,48,14,20			
		37, 9,33, 4,30,12, 7		
2″	57,19, 0,44,43,56,15,18,26,27		4,11,25,11,47	
		37, 9,28,53, 5, 0,20		2,43
4″	57,19, 1,21,53,25, 8,23,26,47		4,11,25,14,30	
		37, 9,24,41,39,45,50		2,43
6″	57,19, 1,59, 2,49,50, 3,12,37		4,11,25,17,13	
		37, 9,20,30,14,28,37		2,43
8″	57,19, 2,36,12,10,20,17,41,14		4,11,25,19,56	
		37, 9,16,18,49, 8,41		2,43
10″	57,19, 3,13,21,26,39, 6,49,55		4,11,25,22,39	
		37, 9,12, 7,23,46, 2		2,43
12″	57,19, 3,50,30,38,46,30,35,57		4,11,25,25,22	
		37, 9, 7,55,58,20,40		2,43
14″	57,19, 4,27,39,46,42,28,56,37		4,11,25,28, 5	
		37, 9, 3,44,32,52,35		2,43
16″	57,19, 5, 4,48,50,27, 1,49,12		4,11,25,30,48	
		37, 8,59,33, 7,21,47		2,43
18″	57,19, 5,41,57,50, 0, 9,10,59		4,11,25,33,31	
		37, 8,55,21,41,48,16		2,43
20″	57,19, 6,19, 6,45,21,50,59,15		4,11,25,36,14	
		37, 8,51,10,16,12, 2		2,43
22″	57,19, 6,56,15,36,32, 7,11,17		4,11,25,38,57	
		37, 8,46,58,50,33, 5		2,43
24″	57,19, 7,33,24,23,30,57,44,22		4,11,25,41,40	
		37, 8,42,47,24,51,25		2,43
26″	57,19, 8,10,33, 6,18,22,35,47		4,11,25,44,23	
		37, 8,38,35,59, 7, 2		2,43
28″	57,19, 8,47,41,44,54,21,42,49		4,11,25,47, 6	
		37, 8,34,24,33,19,56		2,43
30″	57,19, 9,24,50,19,18,55, 2,45		4,11,25,49,49	
		37, 8,30,13, 7,30, 7		2,43
32″	57,19,10, 1,58,49,32, 2,32,52		4,11,25,52,32	
		37, 8,26, 1,41,37,35		2,43
34″	57,19,10,39, 7,15,33,44,10,27		4,11,25,55,15	
		37, 8,21,50,15,42,20		2,43
36″	57,19,11,16,15,37,23,59,52,47		4,11,25,57,58	
		37, 8,17,38,49,44,22		2,43
38″	57,19,11,53,23,55, 2,49,37, 9		4,11,26, 0,41	
		37, 8,13,27,23,43,41		2,43
40″	57,19,12,30,32, 8,30,13,20,50		4,11,26, 3,24	
		37, 8, 9,15,57,40,17		2,43
42″	57,19,13, 7,40,17,46,11, 1, 7		4,11,26, 6, 7	
		37, 8, 5, 4,31,34,10		2,43
44″	57,19,13,44,48,22,50,42,35,17		4,11,26, 8,50	
		37, 8, 0,53, 5,25,20		2,43
46″	57,19,14,21,56,23,43,48, 0,37		4,11,26,11,33	
		37, 7,56,41,39,13,47		2,43
48″	57,19,14,59, 4,20,25,27,14,24		4,11,26,14,16	
		37, 7,52,30,12,59,31		2,43
50″	57,19,15,36,12,12,55,40,13,55		4,11,26,16,59	
		37, 7,48,18,46,42,32		2,43
52″	57,19,16,13,20, 1,14,26,56,27		4,11,26,19,42	
		37, 7,44, 7,20,22,50		2,43
54″	57,19,16,50,27,45,21,47,19,17		4,11,26,22,25	
		37, 7,39,55,54, 0,25		2,43
56″	57,19,17,27,35,25,17,41,19,42		4,11,26,25, 8	
		37, 7,35,44,27,35,17		2,43
58″	57,19,18, 4,43, 1, 2, 8,54,59		4,11,26,27,51	
		37, 7,31,33, 1, 7,26		
60″	57,19,18,41,50,32,35,10, 2,25			
exact	57,19,18,41,50,32,35,10, 1,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°49′ 0″	57,19,18,41,50,32,35,10, 1,54			
		37, 7,27,21,34,37, 2		
2″	57,19,19,18,57,59,56,44,38,56		4,11,26,33,15	
		37, 7,23,10, 8, 3,47		2,43
4″	57,19,19,56, 5,23, 6,52,42,43		4,11,26,35,58	
		37, 7,18,58,41,27,49		2,43
6″	57,19,20,33,12,42, 5,34,10,32		4,11,26,38,41	
		37, 7,14,47,14,49, 8		2,43
8″	57,19,21,10,19,56,52,48,59,40		4,11,26,41,24	
		37, 7,10,35,48, 7,44		2,43
10″	57,19,21,47,27, 7,28,37, 7,24		4,11,26,44, 7	
		37, 7, 6,24,21,23,37		2,43
12″	57,19,22,24,34,13,52,58,31, 1		4,11,26,46,50	
		37, 7, 2,12,54,36,47		2,43
14″	57,19,23, 1,41,16, 5,53, 7,48		4,11,26,49,33	
		37, 6,58, 1,27,47,14		2,43
16″	57,19,23,38,48,14, 7,20,55, 2		4,11,26,52,16	
		37, 6,53,50, 0,54,58		2,43
18″	57,19,24,15,55, 7,57,21,50, 0		4,11,26,54,59	
		37, 6,49,38,33,59,59		2,43
20″	57,19,24,53, 1,57,35,55,49,59		4,11,26,57,42	
		37, 6,45,27, 7, 2,17		2,43
22″	57,19,25,30, 8,43, 3, 2,52,16		4,11,27, 0,25	
		37, 6,41,15,40, 1,52		2,43
24″	57,19,26, 7,15,24,18,42,54, 8		4,11,27, 3, 8	
		37, 6,37, 4,12,58,44		2,43
26″	57,19,26,44,22, 1,22,55,52,52		4,11,27, 5,51	
		37, 6,32,52,45,52,53		2,43
28″	57,19,27,21,28,34,15,41,45,45		4,11,27, 8,34	
		37, 6,28,41,18,44,19		2,43
30″	57,19,27,58,35, 2,57, 0,30, 4		4,11,27,11,17	
		37, 6,24,29,51,33, 2		2,43
32″	57,19,28,35,41,27,26,52, 3, 6		4,11,27,14, 0	
		37, 6,20,18,24,19, 2		2,43
34″	57,19,29,12,47,47,45,16,22, 8		4,11,27,16,43	
		37, 6,16, 6,57, 2,19		2,43
36″	57,19,29,49,54, 3,52,13,24,27		4,11,27,19,26	
		37, 6,11,55,29,42,53		2,43
38″	57,19,30,27, 0,15,47,43, 7,20		4,11,27,22, 9	
		37, 6, 7,44, 2,20,44		2,43
40″	57,19,31, 4, 6,23,31,45,28, 4		4,11,27,24,52	
		37, 6, 3,32,34,55,52		2,43
42″	57,19,31,41,12,27, 4,20,23,56		4,11,27,27,35	
		37, 5,59,21, 7,28,17		2,43
44″	57,19,32,18,18,26,25,27,52,13		4,11,27,30,18	
		37, 5,55, 9,39,57,59		2,43
46″	57,19,32,55,24,21,35, 7,50,12		4,11,27,33, 1	
		37, 5,50,58,12,24,58		2,43
48″	57,19,33,32,30,12,33,20,15,10		4,11,27,35,44	
		37, 5,46,46,44,49,14		2,43
50″	57,19,34, 9,35,59,20, 5, 4,24		4,11,27,38,27	
		37, 5,42,35,17,10,47		2,43
52″	57,19,34,46,41,41,55,22,15,11		4,11,27,41,10	
		37, 5,38,23,49,29,37		2,43
54″	57,19,35,23,47,20,19,11,44,48		4,11,27,43,53	
		37, 5,34,12,21,45,44		2,43
56″	57,19,36, 0,52,54,31,33,30,32		4,11,27,46,36	
		37, 5,30, 0,53,59, 8		2,43
58″	57,19,36,37,58,24,32,27,29,40		4,11,27,49,19	
		37, 5,25,49,26, 9,49		
60″	57,19,37,15, 3,50,21,53,39,29			
exact	57,19,37,15, 3,50,21,53,52, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°50′ 0″	57,19,37,15, 3,50,21,53,52, 5			
		37, 5,21,37,58,19,15		
2″	57,19,37,52, 9,11,59,52,11,20		4,11,27,54,38	
		37, 5,17,26,30,24,37		2,43
4″	57,19,38,29,14,29,26,22,35,57		4,11,27,57,21	
		37, 5,13,15, 2,27,16		2,43
6″	57,19,39, 6,19,42,41,25, 3,13		4,11,28, 0, 4	
		37, 5, 9, 3,34,27,12		2,43
8″	57,19,39,43,24,51,44,59,30,25		4,11,28, 2,47	
		37, 5, 4,52, 6,24,25		2,43
10″	57,19,40,20,29,56,37, 5,54,50		4,11,28, 5,30	
		37, 5, 0,40,38,18,55		2,43
12″	57,19,40,57,34,57,17,44,13,45		4,11,28, 8,13	
		37, 4,56,29,10,10,42		2,43
14″	57,19,41,34,39,53,46,54,24,27		4,11,28,10,56	
		37, 4,52,17,41,59,46		2,43
16″	57,19,42,11,44,46, 4,36,24,13		4,11,28,13,39	
		37, 4,48, 6,13,46, 7		2,43
18″	57,19,42,48,49,34,10,50,10,20		4,11,28,16,22	
		37, 4,43,54,45,29,45		2,43
20″	57,19,43,25,54,18, 5,35,40, 5		4,11,28,19, 5	
		37, 4,39,43,17,10,40		2,43
22″	57,19,44, 2,58,57,48,52,50,45		4,11,28,21,48	
		37, 4,35,31,48,48,52		2,43
24″	57,19,44,40, 3,33,20,41,39,37		4,11,28,24,31	
		37, 4,31,20,20,24,21		2,43
26″	57,19,45,17, 8, 4,41, 2, 3,58		4,11,28,27,14	
		37, 4,27, 8,51,57, 7		2,43
28″	57,19,45,54,12,31,49,54, 1, 5		4,11,28,29,57	
		37, 4,22,57,23,27,10		2,43
30″	57,19,46,31,16,54,47,17,28,15		4,11,28,32,40	
		37, 4,18,45,54,54,30		2,43
32″	57,19,47, 8,21,13,33,12,22,45		4,11,28,35,23	
		37, 4,14,34,26,19, 7		2,43
34″	57,19,47,45,25,28, 7,38,41,52		4,11,28,38, 6	
		37, 4,10,22,57,41, 1		2,43
36″	57,19,48,22,29,38,30,36,22,53		4,11,28,40,49	
		37, 4, 6,11,29, 0,12		2,43
38″	57,19,48,59,33,44,42, 5,23, 5		4,11,28,43,32	
		37, 4, 2, 0, 0,16,40		2,43
40″	57,19,49,36,37,46,42, 5,39,45		4,11,28,46,15	
		37, 3,57,48,31,30,25		2,43
42″	57,19,50,13,41,44,30,37,10,10		4,11,28,48,58	
		37, 3,53,37, 2,41,27		2,43
44″	57,19,50,50,45,38, 7,39,51,37		4,11,28,51,41	
		37, 3,49,25,33,49,46		2,43
46″	57,19,51,27,49,27,33,13,41,23		4,11,28,54,24	
		37, 3,45,14, 4,55,22		2,43
48″	57,19,52, 4,53,12,47,18,36,45		4,11,28,57, 7	
		37, 3,41, 2,35,58,15		2,43
50″	57,19,52,41,56,53,49,54,35, 0		4,11,28,59,50	
		37, 3,36,51, 6,58,25		2,43
52″	57,19,53,19, 0,30,41, 1,33,25		4,11,29, 2,33	
		37, 3,32,39,37,55,52		2,43
54″	57,19,53,56, 4, 3,20,39,29,17		4,11,29, 5,16	
		37, 3,28,28, 8,50,36		2,43
56″	57,19,54,33, 7,31,48,48,19,53		4,11,29, 7,59	
		37, 3,24,16,39,42,37		2,43
58″	57,19,55,10,10,56, 5,28, 2,30		4,11,29,10,42	
		37, 3,20, 5,10,31,55		
60″	57,19,55,47,14,16,10,38,34,25			
exact	57,19,55,47,14,16,10,38,57,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°51′ 0″	57,19,55,47,14,16,10,38,57,51			
		37, 3,15,53,41,21, 6		
2″	57,19,56,24,17,32, 4,20,18,57		4,11,29,15,56	
		37, 3,11,42,12, 5,10		2,43
4″	57,19,57, 1,20,43,46,32,24, 7		4,11,29,18,39	
		37, 3, 7,30,42,46,31		2,43
6″	57,19,57,38,23,51,17,15,10,38		4,11,29,21,22	
		37, 3, 3,19,13,25, 9		2,43
8″	57,19,58,15,26,54,36,28,35,47		4,11,29,24, 5	
		37, 2,59, 7,44, 1, 4		2,43
10″	57,19,58,52,29,53,44,12,36,51		4,11,29,26,48	
		37, 2,54,56,14,34,16		2,43
12″	57,19,59,29,32,48,40,27,11, 7		4,11,29,29,31	
		37, 2,50,44,45, 4,45		2,43
14″	57,20, 0, 6,35,39,25,12,15,52		4,11,29,32,14	
		37, 2,46,33,15,32,31		2,43
16″	57,20, 0,43,38,25,58,27,48,23		4,11,29,34,57	
		37, 2,42,21,45,57,34		2,43
18″	57,20, 1,20,41, 8,20,13,45,57		4,11,29,37,40	
		37, 2,38,10,16,19,54		2,43
20″	57,20, 1,57,43,46,30,30, 5,51		4,11,29,40,23	
		37, 2,33,58,46,39,31		2,43
22″	57,20, 2,34,46,20,29,16,45,22		4,11,29,43, 6	
		37, 2,29,47,16,56,25		2,43
24″	57,20, 3,11,48,50,16,33,41,47		4,11,29,45,49	
		37, 2,25,35,47,10,36		2,43
26″	57,20, 3,48,51,15,52,20,52,23		4,11,29,48,32	
		37, 2,21,24,17,22, 4		2,43
28″	57,20, 4,25,53,37,16,38,14,27		4,11,29,51,15	
		37, 2,17,12,47,30,49		2,43
30″	57,20, 5, 2,55,54,29,25,45,16		4,11,29,53,58	
		37, 2,13, 1,17,36,51		2,43
32″	57,20, 5,39,58, 7,30,43,22, 7		4,11,29,56,41	
		37, 2, 8,49,47,40,10		2,43
34″	57,20, 6,17, 0,16,20,31, 2,17		4,11,29,59,24	
		37, 2, 4,38,17,40,46		2,43
36″	57,20, 6,54, 2,20,58,48,43, 3		4,11,30, 2, 7	
		37, 2, 0,26,47,38,39		2,43
38″	57,20, 7,31, 4,21,25,36,21,42		4,11,30, 4,50	
		37, 1,56,15,17,33,49		2,43
40″	57,20, 8, 8, 6,17,40,53,55,31		4,11,30, 7,33	
		37, 1,52, 3,47,26,16		2,43
42″	57,20, 8,45, 8, 9,44,41,21,47		4,11,30,10,16	
		37, 1,47,52,17,16, 0		2,43
44″	57,20, 9,22, 9,57,36,58,37,47		4,11,30,12,59	
		37, 1,43,40,47, 3, 1		2,43
46″	57,20, 9,59,11,41,17,45,40,48		4,11,30,15,42	
		37, 1,39,29,16,47,19		2,43
48″	57,20,10,36,13,20,47, 2,28, 7		4,11,30,18,25	
		37, 1,35,17,46,28,54		2,43
50″	57,20,11,13,14,56, 4,48,57, 1		4,11,30,21, 8	
		37, 1,31, 6,16, 7,46		2,43
52″	57,20,11,50,16,27,11, 5, 4,47		4,11,30,23,51	
		37, 1,26,54,45,43,55		2,43
54″	57,20,12,27,17,54, 5,50,48,42		4,11,30,26,34	
		37, 1,22,43,15,17,21		2,43
56″	57,20,13, 4,19,16,49, 6, 6, 3		4,11,30,29,17	
		37, 1,18,31,44,48, 4		2,43
58″	57,20,13,41,20,35,20,50,54, 7		4,11,30,32, 0	
		37, 1,14,20,14,16, 4		
60″	57,20,14,18,21,49,41, 5,10,11			
exact	57,20,14,18,21,49,41, 5,41, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°52′ 0″	57,20,14,18,21,49,41, 5,41, 6			
		37, 1,10, 8,43,44,52		
2″	57,20,14,55,22,59,49,49,25,58		4,11,30,37,10	
		37, 1, 5,57,13, 7,42		2,42
4″	57,20,15,32,24, 5,47, 2,33,40		4,11,30,39,52	
		37, 1, 1,45,42,27,50		2,42
6″	57,20,16, 9,25, 7,32,45, 1,30		4,11,30,42,34	
		37, 0,57,34,11,45,16		2,42
8″	57,20,16,46,26, 5, 6,56,46,46		4,11,30,45,16	
		37, 0,53,22,41, 0, 0		2,42
10″	57,20,17,23,26,58,29,37,46,46		4,11,30,47,58	
		37, 0,49,11,10,12, 2		2,42
12″	57,20,18, 0,27,47,40,47,58,48		4,11,30,50,40	
		37, 0,44,59,39,21,22		2,42
14″	57,20,18,37,28,32,40,27,20,10		4,11,30,53,22	
		37, 0,40,48, 8,28, 0		2,42
16″	57,20,19,14,29,13,28,35,48,10		4,11,30,56, 4	
		37, 0,36,36,37,31,56		2,42
18″	57,20,19,51,29,50, 5,13,20, 6		4,11,30,58,46	
		37, 0,32,25, 6,33,10		2,42
20″	57,20,20,28,30,22,30,19,53,16		4,11,31, 1,28	
		37, 0,28,13,35,31,42		2,42
22″	57,20,21, 5,30,50,43,55,24,58		4,11,31, 4,10	
		37, 0,24, 2, 4,27,32		2,42
24″	57,20,21,42,31,14,45,59,52,30		4,11,31, 6,52	
		37, 0,19,50,33,20,40		2,42
26″	57,20,22,19,31,34,36,33,13,10		4,11,31, 9,34	
		37, 0,15,39, 2,11, 6		2,42
28″	57,20,22,56,31,50,15,35,24,16		4,11,31,12,16	
		37, 0,11,27,30,58,50		2,42
30″	57,20,23,33,32, 1,43, 6,23, 6		4,11,31,14,58	
		37, 0, 7,15,59,43,52		2,42
32″	57,20,24,10,32, 8,59, 6, 6,58		4,11,31,17,40	
		37, 0, 3, 4,28,26,12		2,42
34″	57,20,24,47,32,12, 3,34,33,10		4,11,31,20,22	
		36,59,58,52,57, 5,50		2,42
36″	57,20,25,24,32,10,56,31,39, 0		4,11,31,23, 4	
		36,59,54,41,25,42,46		2,42
38″	57,20,26, 1,32, 5,37,57,21,46		4,11,31,25,46	
		36,59,50,29,54,17, 0		2,42
40″	57,20,26,38,31,56, 7,51,38,46		4,11,31,28,28	
		36,59,46,18,22,48,32		2,42
42″	57,20,27,15,31,42,26,14,27,18		4,11,31,31,10	
		36,59,42, 6,51,17,22		2,42
44″	57,20,27,52,31,24,33, 5,44,40		4,11,31,33,52	
		36,59,37,55,19,43,30		2,42
46″	57,20,28,29,31, 2,28,25,28,10		4,11,31,36,34	
		36,59,33,43,48, 6,56		2,42
48″	57,20,29, 6,30,36,12,13,35, 6		4,11,31,39,16	
		36,59,29,32,16,27,40		2,42
50″	57,20,29,43,30, 5,44,30, 2,46		4,11,31,41,58	
		36,59,25,20,44,45,42		2,42
52″	57,20,30,20,29,31, 5,14,48,28		4,11,31,44,40	
		36,59,21, 9,13, 1, 2		2,42
54″	57,20,30,57,28,52,14,27,49,30		4,11,31,47,22	
		36,59,16,57,41,13,40		2,42
56″	57,20,31,34,28, 9,12, 9, 3,10		4,11,31,50, 4	
		36,59,12,46, 9,23,36		2,42
58″	57,20,32,11,27,21,58,18,26,46		4,11,31,52,46	
		36,59, 8,34,37,30,50		
60″	57,20,32,48,26,30,32,55,57,36			
exact	57,20,32,48,26,30,32,55,32,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°53′ 0″	57,20,32,48,26,30,32,55,32,39			
		36,59, 4,23, 5,32,51		
2″	57,20,33,25,25,34,56, 1, 5,30		4,11,31,58,19	
		36,59, 0,11,33,34,32		2,42
4″	57,20,34, 2,24,35, 7,34,40, 2		4,11,32, 1, 1	
		36,58,56, 0, 1,33,31		2,42
6″	57,20,34,39,23,31, 7,36,13,33		4,11,32, 3,43	
		36,58,51,48,29,29,48		2,42
8″	57,20,35,16,22,22,56, 5,43,21		4,11,32, 6,25	
		36,58,47,36,57,23,23		2,42
10″	57,20,35,53,21,10,33, 3, 6,44		4,11,32, 9, 7	
		36,58,43,25,25,14,16		2,42
12″	57,20,36,30,19,53,58,28,21, 0		4,11,32,11,49	
		36,58,39,13,53, 2,27		2,42
14″	57,20,37, 7,18,33,12,21,23,27		4,11,32,14,31	
		36,58,35, 2,20,47,56		2,42
16″	57,20,37,44,17, 8,14,42,11,23		4,11,32,17,13	
		36,58,30,50,48,30,43		2,42
18″	57,20,38,21,15,39, 5,30,42, 6		4,11,32,19,55	
		36,58,26,39,16,10,48		2,42
20″	57,20,38,58,14, 5,44,46,52,54		4,11,32,22,37	
		36,58,22,27,43,48,11		2,42
22″	57,20,39,35,12,28,12,30,41, 5		4,11,32,25,19	
		36,58,18,16,11,22,52		2,42
24″	57,20,40,12,10,46,28,42, 3,57		4,11,32,28, 1	
		36,58,14, 4,38,54,51		2,42
26″	57,20,40,49, 9, 0,33,20,58,48		4,11,32,30,43	
		36,58, 9,53, 6,24, 8		2,42
28″	57,20,41,26, 7,10,26,27,22,56		4,11,32,33,25	
		36,58, 5,41,33,50,43		2,42
30″	57,20,42, 3, 5,16, 8, 1,13,39		4,11,32,36, 7	
		36,58, 1,30, 1,14,36		2,42
32″	57,20,42,40, 3,17,38, 2,28,15		4,11,32,38,49	
		36,57,57,18,28,35,47		2,42
34″	57,20,43,17, 1,14,56,31, 4, 2		4,11,32,41,31	
		36,57,53, 6,55,54,16		2,42
36″	57,20,43,53,59, 8, 3,26,58,18		4,11,32,44,13	
		36,57,48,55,23,10, 3		2,42
38″	57,20,44,30,56,56,58,50, 8,21		4,11,32,46,55	
		36,57,44,43,50,23, 8		2,42
40″	57,20,45, 7,54,41,42,40,31,29		4,11,32,49,37	
		36,57,40,32,17,33,31		2,42
42″	57,20,45,44,52,22,14,58, 5, 0		4,11,32,52,19	
		36,57,36,20,44,41,12		2,42
44″	57,20,46,21,49,58,35,42,46,12		4,11,32,55, 1	
		36,57,32, 9,11,46,11		2,42
46″	57,20,46,58,47,30,44,54,32,23		4,11,32,57,43	
		36,57,27,57,38,48,28		2,42
48″	57,20,47,35,44,58,42,33,20,51		4,11,33, 0,25	
		36,57,23,46, 5,48, 3		2,42
50″	57,20,48,12,42,22,28,39, 8,54		4,11,33, 3, 7	
		36,57,19,34,32,44,56		2,42
52″	57,20,48,49,39,42, 3,11,53,50		4,11,33, 5,49	
		36,57,15,22,59,39, 7		2,42
54″	57,20,49,26,36,57,26,11,32,57		4,11,33, 8,31	
		36,57,11,11,26,30,36		2,42
56″	57,20,50, 3,34, 8,37,38, 3,33		4,11,33,11,13	
		36,57, 6,59,53,19,23		2,42
58″	57,20,50,40,31,15,37,31,22,56		4,11,33,13,55	
		36,57, 2,48,20, 5,28		
60″	57,20,51,17,28,18,25,51,28,24			
exact	57,20,51,17,28,18,25,51,12,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°54′ 0″	57,20,51,17,28,18,25,51,12,19			
		36,56,58,36,46,47,20		
2″	57,20,51,54,25,17, 2,37,59,39		4,11,33,19,24	
		36,56,54,25,13,27,56		2,42
4″	57,20,52,31,22,11,27,51,27,35		4,11,33,22, 6	
		36,56,50,13,40, 5,50		2,42
6″	57,20,53, 8,19, 1,41,31,33,25		4,11,33,24,48	
		36,56,46, 2, 6,41, 2		2,42
8″	57,20,53,45,15,47,43,38,14,27		4,11,33,27,30	
		36,56,41,50,33,13,32		2,42
10″	57,20,54,22,12,29,34,11,27,59		4,11,33,30,12	
		36,56,37,38,59,43,20		2,42
12″	57,20,54,59, 9, 7,13,11,11,19		4,11,33,32,54	
		36,56,33,27,26,10,26		2,42
14″	57,20,55,36, 5,40,40,37,21,45		4,11,33,35,36	
		36,56,29,15,52,34,50		2,42
16″	57,20,56,13, 2, 9,56,29,56,35		4,11,33,38,18	
		36,56,25, 4,18,56,32		2,42
18″	57,20,56,49,58,35, 0,48,53, 7		4,11,33,41, 0	
		36,56,20,52,45,15,32		2,42
20″	57,20,57,26,54,55,53,34, 8,39		4,11,33,43,42	
		36,56,16,41,11,31,50		2,42
22″	57,20,58, 3,51,12,34,45,40,29		4,11,33,46,24	
		36,56,12,29,37,45,26		2,42
24″	57,20,58,40,47,25, 4,23,25,55		4,11,33,49, 6	
		36,56, 8,18, 3,56,20		2,42
26″	57,20,59,17,43,33,22,27,22,15		4,11,33,51,48	
		36,56, 4, 6,30, 4,32		2,42
28″	57,20,59,54,39,37,28,57,26,47		4,11,33,54,30	
		36,55,59,54,56,10, 2		2,42
30″	57,21, 0,31,35,37,23,53,36,49		4,11,33,57,12	
		36,55,55,43,22,12,50		2,42
32″	57,21, 1, 8,31,33, 7,15,49,39		4,11,33,59,54	
		36,55,51,31,48,12,56		2,42
34″	57,21, 1,45,27,24,39, 4, 2,35		4,11,34, 2,36	
		36,55,47,20,14,10,20		2,42
36″	57,21, 2,22,23,11,59,18,12,55		4,11,34, 5,18	
		36,55,43, 8,40, 5, 2		2,42
38″	57,21, 2,59,18,55, 7,58,17,57		4,11,34, 8, 0	
		36,55,38,57, 5,57, 2		2,42
40″	57,21, 3,36,14,34, 5, 4,14,59		4,11,34,10,42	
		36,55,34,45,31,46,20		2,42
42″	57,21, 4,13,10, 8,50,36, 1,19		4,11,34,13,24	
		36,55,30,33,57,32,56		2,42
44″	57,21, 4,50, 5,39,24,33,34,15		4,11,34,16, 6	
		36,55,26,22,23,16,50		2,42
46″	57,21, 5,27, 1, 5,46,56,51, 5		4,11,34,18,48	
		36,55,22,10,48,58, 2		2,42
48″	57,21, 6, 3,56,27,57,45,49, 7		4,11,34,21,30	
		36,55,17,59,14,36,32		2,42
50″	57,21, 6,40,51,45,57, 0,25,39		4,11,34,24,12	
		36,55,13,47,40,12,20		2,42
52″	57,21, 7,17,46,59,44,40,37,59		4,11,34,26,54	
		36,55, 9,36, 5,45,26		2,42
54″	57,21, 7,54,42, 9,20,46,23,25		4,11,34,29,36	
		36,55, 5,24,31,15,50		2,42
56″	57,21, 8,31,37,14,45,17,39,15		4,11,34,32,18	
		36,55, 1,12,56,43,32		2,42
58″	57,21, 9, 8,32,15,58,14,22,47		4,11,34,35, 0	
		36,54,57, 1,22, 8,32		
60″	57,21, 9,45,27,12,59,36,31,19			
exact	57,21, 9,45,27,12,59,36,28,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°55′ 0″	57,21, 9,45,27,12,59,36,28,52			
		36,54,52,49,47,30,39		
2″	57,21,10,22,22, 5,49,23,59,31		4,11,34,40,24	
		36,54,48,38,12,50,15		2,42
4″	57,21,10,59,16,54,27,36,49,46		4,11,34,43, 6	
		36,54,44,26,38, 7, 9		2,42
6″	57,21,11,36,11,38,54,14,56,55		4,11,34,45,48	
		36,54,40,15, 3,21,21		2,42
8″	57,21,12,13, 6,19, 9,18,18,16		4,11,34,48,30	
		36,54,36, 3,28,32,51		2,42
10″	57,21,12,50, 0,55,12,46,51, 7		4,11,34,51,12	
		36,54,31,51,53,41,39		2,42
12″	57,21,13,26,55,27, 4,40,32,46		4,11,34,53,54	
		36,54,27,40,18,47,45		2,42
14″	57,21,14, 3,49,54,44,59,20,31		4,11,34,56,36	
		36,54,23,28,43,51, 9		2,42
16″	57,21,14,40,44,18,13,43,11,40		4,11,34,59,18	
		36,54,19,17, 8,51,51		2,42
18″	57,21,15,17,38,37,30,52, 3,31		4,11,35, 2, 0	
		36,54,15, 5,33,49,51		2,42
20″	57,21,15,54,32,52,36,25,53,22		4,11,35, 4,42	
		36,54,10,53,58,45, 9		2,42
22″	57,21,16,31,27, 3,30,24,38,31		4,11,35, 7,24	
		36,54, 6,42,23,37,45		2,42
24″	57,21,17, 8,21,10,12,48,16,16		4,11,35,10, 6	
		36,54, 2,30,48,27,39		2,42
26″	57,21,17,45,15,12,43,36,43,55		4,11,35,12,48	
		36,53,58,19,13,14,51		2,42
28″	57,21,18,22, 9,11, 2,49,58,46		4,11,35,15,30	
		36,53,54, 7,37,59,21		2,42
30″	57,21,18,59, 3, 5,10,27,58, 7		4,11,35,18,12	
		36,53,49,56, 2,41, 9		2,42
32″	57,21,19,35,56,55, 6,30,39,16		4,11,35,20,54	
		36,53,45,44,27,20,15		2,42
34″	57,21,20,12,50,40,50,57,59,31		4,11,35,23,36	
		36,53,41,32,51,56,39		2,42
36″	57,21,20,49,44,22,23,49,56,10		4,11,35,26,18	
		36,53,37,21,16,30,21		2,42
38″	57,21,21,26,37,59,45, 6,26,31		4,11,35,29, 0	
		36,53,33, 9,41, 1,21		2,42
40″	57,21,22, 3,31,32,54,47,27,52		4,11,35,31,42	
		36,53,28,58, 5,29,39		2,42
42″	57,21,22,40,25, 1,52,52,57,31		4,11,35,34,24	
		36,53,24,46,29,55,15		2,42
44″	57,21,23,17,18,26,39,22,52,46		4,11,35,37, 6	
		36,53,20,34,54,18, 9		2,42
46″	57,21,23,54,11,47,14,17,10,55		4,11,35,39,48	
		36,53,16,23,18,38,21		2,42
48″	57,21,24,31, 5, 3,37,35,49,16		4,11,35,42,30	
		36,53,12,11,42,55,51		2,42
50″	57,21,25, 7,58,15,49,18,45, 7		4,11,35,45,12	
		36,53, 8, 0, 7,10,39		2,42
52″	57,21,25,44,51,23,49,25,55,46		4,11,35,47,54	
		36,53, 3,48,31,22,45		2,42
54″	57,21,26,21,44,27,37,57,18,31		4,11,35,50,36	
		36,52,59,36,55,32, 9		2,42
56″	57,21,26,58,37,27,14,52,50,40		4,11,35,53,18	
		36,52,55,25,19,38,51		2,42
58″	57,21,27,35,30,22,40,12,29,31		4,11,35,56, 0	
		36,52,51,13,43,42,51		
60″	57,21,28,12,23,13,53,56,12,22			
exact	57,21,28,12,23,13,53,56,19,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°56′ 0″	57,21,28,12,23,13,53,56,19,59			
		36,52,47, 2, 7,45, 4		
2″	57,21,28,49,16, 0,56, 4, 5, 3		4,11,36, 1,19	
		36,52,42,50,31,43,45		2,42
4″	57,21,29,26, 8,43,46,35,48,48		4,11,36, 4, 1	
		36,52,38,38,55,39,44		2,42
6″	57,21,30, 3, 1,22,25,31,28,32		4,11,36, 6,43	
		36,52,34,27,19,33, 1		2,42
8″	57,21,30,39,53,56,52,51, 1,33		4,11,36, 9,25	
		36,52,30,15,43,23,36		2,42
10″	57,21,31,16,46,27, 8,34,25, 9		4,11,36,12, 7	
		36,52,26, 4, 7,11,29		2,42
12″	57,21,31,53,38,53,12,41,36,38		4,11,36,14,49	
		36,52,21,52,30,56,40		2,42
14″	57,21,32,30,31,15, 5,12,33,18		4,11,36,17,31	
		36,52,17,40,54,39, 9		2,42
16″	57,21,33, 7,23,32,46, 7,12,27		4,11,36,20,13	
		36,52,13,29,18,18,56		2,42
18″	57,21,33,44,15,46,15,25,31,23		4,11,36,22,55	
		36,52, 9,17,41,56, 1		2,42
20″	57,21,34,21, 7,55,33, 7,27,24		4,11,36,25,37	
		36,52, 5, 6, 5,30,24		2,42
22″	57,21,34,58, 0, 0,39,12,57,48		4,11,36,28,19	
		36,52, 0,54,29, 2, 5		2,42
24″	57,21,35,34,52, 1,33,41,59,53		4,11,36,31, 1	
		36,51,56,42,52,31, 4		2,42
26″	57,21,36,11,43,58,16,34,30,57		4,11,36,33,43	
		36,51,52,31,15,57,21		2,42
28″	57,21,36,48,35,50,47,50,28,18		4,11,36,36,25	
		36,51,48,19,39,20,56		2,42
30″	57,21,37,25,27,39, 7,29,49,14		4,11,36,39, 7	
		36,51,44, 8, 2,41,49		2,42
32″	57,21,38, 2,19,23,15,32,31, 3		4,11,36,41,49	
		36,51,39,56,26, 0, 0		2,42
34″	57,21,38,39,11, 3,11,58,31, 3		4,11,36,44,31	
		36,51,35,44,49,15,29		2,42
36″	57,21,39,16, 2,38,56,47,46,32		4,11,36,47,13	
		36,51,31,33,12,28,16		2,42
38″	57,21,39,52,54,10,30, 0,14,48		4,11,36,49,55	
		36,51,27,21,35,38,21		2,42
40″	57,21,40,29,45,37,51,35,53, 9		4,11,36,52,37	
		36,51,23, 9,58,45,44		2,42
42″	57,21,41, 6,37, 1, 1,34,38,53		4,11,36,55,19	
		36,51,18,58,21,50,25		2,42
44″	57,21,41,43,28,19,59,56,29,18		4,11,36,58, 1	
		36,51,14,46,44,52,24		2,42
46″	57,21,42,20,19,34,46,41,21,42		4,11,37, 0,43	
		36,51,10,35, 7,51,41		2,42
48″	57,21,42,57,10,45,21,49,13,23		4,11,37, 3,25	
		36,51, 6,23,30,48,16		2,42
50″	57,21,43,34, 1,51,45,20, 1,39		4,11,37, 6, 7	
		36,51, 2,11,53,42, 9		2,42
52″	57,21,44,10,52,53,57,13,43,48		4,11,37, 8,49	
		36,50,58, 0,16,33,20		2,42
54″	57,21,44,47,43,51,57,30,17, 8		4,11,37,11,31	
		36,50,53,48,39,21,49		2,42
56″	57,21,45,24,34,45,46, 9,38,57		4,11,37,14,13	
		36,50,49,37, 2, 7,36		2,42
58″	57,21,46, 1,25,35,23,11,46,33		4,11,37,16,55	
		36,50,45,25,24,50,41		
60″	57,21,46,38,16,20,48,36,37,14			
exact	57,21,46,38,16,20,48,36,52,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°57′ 0″	57,21,46,38,16,20,48,36,52,23			
		36,50,41,13,47,32,54		
2″	57,21,47,15, 7, 2, 2,24,25,17		4,11,37,22,10	
		36,50,37, 2,10,10,44		2,42
4″	57,21,47,51,57,39, 4,34,36, 1		4,11,37,24,52	
		36,50,32,50,32,45,52		2,42
6″	57,21,48,28,48,11,55, 7,21,53		4,11,37,27,34	
		36,50,28,38,55,18,18		2,42
8″	57,21,49, 5,38,40,34, 2,40,11		4,11,37,30,16	
		36,50,24,27,17,48, 2		2,42
10″	57,21,49,42,29, 5, 1,20,28,13		4,11,37,32,58	
		36,50,20,15,40,15, 4		2,42
12″	57,21,50,19,19,25,17, 0,43,17		4,11,37,35,40	
		36,50,16, 4, 2,39,24		2,42
14″	57,21,50,56, 9,41,21, 3,22,41		4,11,37,38,22	
		36,50,11,52,25, 1, 2		2,42
16″	57,21,51,32,59,53,13,28,23,43		4,11,37,41, 4	
		36,50, 7,40,47,19,58		2,42
18″	57,21,52, 9,50, 0,54,15,43,41		4,11,37,43,46	
		36,50, 3,29, 9,36,12		2,42
20″	57,21,52,46,40, 4,23,25,19,53		4,11,37,46,28	
		36,49,59,17,31,49,44		2,42
22″	57,21,53,23,30, 3,40,57, 9,37		4,11,37,49,10	
		36,49,55, 5,54, 0,34		2,42
24″	57,21,54, 0,19,58,46,51,10,11		4,11,37,51,52	
		36,49,50,54,16, 8,42		2,42
26″	57,21,54,37, 9,49,41, 7,18,53		4,11,37,54,34	
		36,49,46,42,38,14, 8		2,42
28″	57,21,55,13,59,36,23,45,33, 1		4,11,37,57,16	
		36,49,42,31, 0,16,52		2,42
30″	57,21,55,50,49,18,54,45,49,53		4,11,37,59,58	
		36,49,38,19,22,16,54		2,42
32″	57,21,56,27,38,57,14, 8, 6,47		4,11,38, 2,40	
		36,49,34, 7,44,14,14		2,42
34″	57,21,57, 4,28,31,21,52,21, 1		4,11,38, 5,22	
		36,49,29,56, 6, 8,52		2,42
36″	57,21,57,41,18, 1,17,58,29,53		4,11,38, 8, 4	
		36,49,25,44,28, 0,48		2,42
38″	57,21,58,18, 7,27, 2,26,30,41		4,11,38,10,46	
		36,49,21,32,49,50, 2		2,42
40″	57,21,58,54,56,48,35,16,20,43		4,11,38,13,28	
		36,49,17,21,11,36,34		2,42
42″	57,21,59,31,46, 5,56,27,57,17		4,11,38,16,10	
		36,49,13, 9,33,20,24		2,42
44″	57,22, 0, 8,35,19, 6, 1,17,41		4,11,38,18,52	
		36,49, 8,57,55, 1,32		2,42
46″	57,22, 0,45,24,28, 3,56,19,13		4,11,38,21,34	
		36,49, 4,46,16,39,58		2,42
48″	57,22, 1,22,13,32,50,12,59,11		4,11,38,24,16	
		36,49, 0,34,38,15,42		2,42
50″	57,22, 1,59, 2,33,24,51,14,53		4,11,38,26,58	
		36,48,56,22,59,48,44		2,42
52″	57,22, 2,35,51,29,47,51, 3,37		4,11,38,29,40	
		36,48,52,11,21,19, 4		2,42
54″	57,22, 3,12,40,21,59,12,22,41		4,11,38,32,22	
		36,48,47,59,42,46,42		2,42
56″	57,22, 3,49,29, 9,58,55, 9,23		4,11,38,35, 4	
		36,48,43,48, 4,11,38		2,42
58″	57,22, 4,26,17,53,46,59,21, 1		4,11,38,37,46	
		36,48,39,36,25,33,52		
60″	57,22, 5, 3, 6,33,23,24,54,53			
exact	57,22, 5, 3, 6,33,23,25,21,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°58′ 0″	57,22, 5, 3, 6,33,23,25,21,43			
		36,48,35,24,46,56,26		
2″	57,22, 5,39,55, 8,48,12,18, 9		4,11,38,42,56	
		36,48,31,13, 8,13,30		2,41
4″	57,22, 6,16,43,40, 1,20,31,39		4,11,38,45,37	
		36,48,27, 1,29,27,53		2,41
6″	57,22, 6,53,32, 7, 2,49,59,32		4,11,38,48,18	
		36,48,22,49,50,39,35		2,41
8″	57,22, 7,30,20,29,52,40,39, 7		4,11,38,50,59	
		36,48,18,38,11,48,36		2,41
10″	57,22, 8, 7, 8,48,30,52,27,43		4,11,38,53,40	
		36,48,14,26,32,54,56		2,41
12″	57,22, 8,43,57, 2,57,25,22,39		4,11,38,56,21	
		36,48,10,14,53,58,35		2,41
14″	57,22, 9,20,45,13,12,19,21,14		4,11,38,59, 2	
		36,48, 6, 3,14,59,33		2,41
16″	57,22, 9,57,33,19,15,34,20,47		4,11,39, 1,43	
		36,48, 1,51,35,57,50		2,41
18″	57,22,10,34,21,21, 7,10,18,37		4,11,39, 4,24	
		36,47,57,39,56,53,26		2,41
20″	57,22,11,11, 9,18,47, 7,12, 3		4,11,39, 7, 5	
		36,47,53,28,17,46,21		2,41
22″	57,22,11,47,57,12,15,24,58,24		4,11,39, 9,46	
		36,47,49,16,38,36,35		2,41
24″	57,22,12,24,45, 1,32, 3,34,59		4,11,39,12,27	
		36,47,45, 4,59,24, 8		2,41
26″	57,22,13, 1,32,46,37, 2,59, 7		4,11,39,15, 8	
		36,47,40,53,20, 9, 0		2,41
28″	57,22,13,38,20,27,30,23, 8, 7		4,11,39,17,49	
		36,47,36,41,40,51,11		2,41
30″	57,22,14,15, 8, 4,12, 3,59,18		4,11,39,20,30	
		36,47,32,30, 1,30,41		2,41
32″	57,22,14,51,55,36,42, 5,29,59		4,11,39,23,11	
		36,47,28,18,22, 7,30		2,41
34″	57,22,15,28,43, 5, 0,27,37,29		4,11,39,25,52	
		36,47,24, 6,42,41,38		2,41
36″	57,22,16, 5,30,29, 7,10,19, 7		4,11,39,28,33	
		36,47,19,55, 3,13, 5		2,41
38″	57,22,16,42,17,49, 2,13,32,12		4,11,39,31,14	
		36,47,15,43,23,41,51		2,41
40″	57,22,17,19, 5, 4,45,37,14, 3		4,11,39,33,55	
		36,47,11,31,44, 7,56		2,41
42″	57,22,17,55,52,16,17,21,21,59		4,11,39,36,36	
		36,47, 7,20, 4,31,20		2,41
44″	57,22,18,32,39,23,37,25,53,19		4,11,39,39,17	
		36,47, 3, 8,24,52, 3		2,41
46″	57,22,19, 9,26,26,45,50,45,22		4,11,39,41,58	
		36,46,58,56,45,10, 5		2,41
48″	57,22,19,46,13,25,42,35,55,27		4,11,39,44,39	
		36,46,54,45, 5,25,26		2,41
50″	57,22,20,23, 0,20,27,41,20,53		4,11,39,47,20	
		36,46,50,33,25,38, 6		2,41
52″	57,22,20,59,47,11, 1, 6,58,59		4,11,39,50, 1	
		36,46,46,21,45,48, 5		2,41
54″	57,22,21,36,33,57,22,52,47, 4		4,11,39,52,42	
		36,46,42,10, 5,55,23		2,41
56″	57,22,22,13,20,39,32,58,42,27		4,11,39,55,23	
		36,46,37,58,26, 0, 0		2,41
58″	57,22,22,50, 7,17,31,24,42,27		4,11,39,58, 4	
		36,46,33,46,46, 1,56		
60″	57,22,23,26,53,51,18,10,44,23			
exact	57,22,23,26,53,51,18,10,12,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
72°59′ 0″	57,22,23,26,53,51,18,10,12,39			
		36,46,29,35, 5,57,59		
2″	57,22,24, 3,40,20,53,16,10,38		4,11,40, 3,38	
		36,46,25,23,25,54,21		2,41
4″	57,22,24,40,26,46,16,42, 4,59		4,11,40, 6,19	
		36,46,21,11,45,48, 2		2,41
6″	57,22,25,17,13, 7,28,27,53, 1		4,11,40, 9, 0	
		36,46,17, 0, 5,39, 2		2,41
8″	57,22,25,53,59,24,28,33,32, 3		4,11,40,11,41	
		36,46,12,48,25,27,21		2,41
10″	57,22,26,30,45,37,16,58,59,24		4,11,40,14,22	
		36,46, 8,36,45,12,59		2,41
12″	57,22,27, 7,31,45,53,44,12,23		4,11,40,17, 3	
		36,46, 4,25, 4,55,56		2,41
14″	57,22,27,44,17,50,18,49, 8,19		4,11,40,19,44	
		36,46, 0,13,24,36,12		2,41
16″	57,22,28,21, 3,50,32,13,44,31		4,11,40,22,25	
		36,45,56, 1,44,13,47		2,41
18″	57,22,28,57,49,46,33,57,58,18		4,11,40,25, 6	
		36,45,51,50, 3,48,41		2,41
20″	57,22,29,34,35,38,24, 1,46,59		4,11,40,27,47	
		36,45,47,38,23,20,54		2,41
22″	57,22,30,11,21,26, 2,25, 7,53		4,11,40,30,28	
		36,45,43,26,42,50,26		2,41
24″	57,22,30,48, 7, 9,29, 7,58,19		4,11,40,33, 9	
		36,45,39,15, 2,17,17		2,41
26″	57,22,31,24,52,48,44,10,15,36		4,11,40,35,50	
		36,45,35, 3,21,41,27		2,41
28″	57,22,32, 1,38,23,47,31,57, 3		4,11,40,38,31	
		36,45,30,51,41, 2,56		2,41
30″	57,22,32,38,23,54,39,12,59,59		4,11,40,41,12	
		36,45,26,40, 0,21,44		2,41
32″	57,22,33,15, 9,21,19,13,21,43		4,11,40,43,53	
		36,45,22,28,19,37,51		2,41
34″	57,22,33,51,54,43,47,32,59,34		4,11,40,46,34	
		36,45,18,16,38,51,17		2,41
36″	57,22,34,28,40, 2, 4,11,50,51		4,11,40,49,15	
		36,45,14, 4,58, 2, 2		2,41
38″	57,22,35, 5,25,16, 9, 9,52,53		4,11,40,51,56	
		36,45, 9,53,17,10, 6		2,41
40″	57,22,35,42,10,26, 2,27, 2,59		4,11,40,54,37	
		36,45, 5,41,36,15,29		2,41
42″	57,22,36,18,55,31,44, 3,18,28		4,11,40,57,18	
		36,45, 1,29,55,18,11		2,41
44″	57,22,36,55,40,33,13,58,36,39		4,11,40,59,59	
		36,44,57,18,14,18,12		2,41
46″	57,22,37,32,25,30,32,12,54,51		4,11,41, 2,40	
		36,44,53, 6,33,15,32		2,41
48″	57,22,38, 9,10,23,38,46,10,23		4,11,41, 5,21	
		36,44,48,54,52,10,11		2,41
50″	57,22,38,45,55,12,33,38,20,34		4,11,41, 8, 2	
		36,44,44,43,11, 2, 9		2,41
52″	57,22,39,22,39,57,16,49,22,43		4,11,41,10,43	
		36,44,40,31,29,51,26		2,41
54″	57,22,39,59,24,37,48,19,14, 9		4,11,41,13,24	
		36,44,36,19,48,38, 2		2,41
56″	57,22,40,36, 9,14, 8, 7,52,11		4,11,41,16, 5	
		36,44,32, 8, 7,21,57		2,41
58″	57,22,41,12,53,46,16,15,14, 8		4,11,41,18,46	
		36,44,27,56,26, 3,11		
60″	57,22,41,49,38,14,12,41,17,19			
exact	57,22,41,49,38,14,12,40,58,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73° 0′ 0″	57,22,41,49,38,14,12,40,58,49			
		36,44,23,44,44,39,51		
2″	57,22,42,26,22,37,57,25,38,40		4,11,41,24,15	
		36,44,19,33, 3,15,36		2,41
4″	57,22,43, 3, 6,57,30,28,54,16		4,11,41,26,56	
		36,44,15,21,21,48,40		2,41
6″	57,22,43,39,51,12,51,50,42,56		4,11,41,29,37	
		36,44,11, 9,40,19, 3		2,41
8″	57,22,44,16,35,24, 1,31, 1,59		4,11,41,32,18	
		36,44, 6,57,58,46,45		2,41
10″	57,22,44,53,19,30,59,29,48,44		4,11,41,34,59	
		36,44, 2,46,17,11,46		2,41
12″	57,22,45,30, 3,33,45,47, 0,30		4,11,41,37,40	
		36,43,58,34,35,34, 6		2,41
14″	57,22,46, 6,47,32,20,22,34,36		4,11,41,40,21	
		36,43,54,22,53,53,45		2,41
16″	57,22,46,43,31,26,43,16,28,21		4,11,41,43, 2	
		36,43,50,11,12,10,43		2,41
18″	57,22,47,20,15,16,54,28,39, 4		4,11,41,45,43	
		36,43,45,59,30,25, 0		2,41
20″	57,22,47,56,59, 2,53,59, 4, 4		4,11,41,48,24	
		36,43,41,47,48,36,36		2,41
22″	57,22,48,33,42,44,41,47,40,40		4,11,41,51, 5	
		36,43,37,36, 6,45,31		2,41
24″	57,22,49,10,26,22,17,54,26,11		4,11,41,53,46	
		36,43,33,24,24,51,45		2,41
26″	57,22,49,47, 9,55,42,19,17,56		4,11,41,56,27	
		36,43,29,12,42,55,18		2,41
28″	57,22,50,23,53,24,55, 2,13,14		4,11,41,59, 8	
		36,43,25, 1, 0,56,10		2,41
30″	57,22,51, 0,36,49,56, 3, 9,24		4,11,42, 1,49	
		36,43,20,49,18,54,21		2,41
32″	57,22,51,37,20,10,45,22, 3,45		4,11,42, 4,30	
		36,43,16,37,36,49,51		2,41
34″	57,22,52,14, 3,27,22,58,53,36		4,11,42, 7,11	
		36,43,12,25,54,42,40		2,41
36″	57,22,52,50,46,39,48,53,36,16		4,11,42, 9,52	
		36,43, 8,14,12,32,48		2,41
38″	57,22,53,27,29,48, 3, 6, 9, 4		4,11,42,12,33	
		36,43, 4, 2,30,20,15		2,41
40″	57,22,54, 4,12,52, 5,36,29,19		4,11,42,15,14	
		36,42,59,50,48, 5, 1		2,41
42″	57,22,54,40,55,51,56,24,34,20		4,11,42,17,55	
		36,42,55,39, 5,47, 6		2,41
44″	57,22,55,17,38,47,35,30,21,26		4,11,42,20,36	
		36,42,51,27,23,26,30		2,41
46″	57,22,55,54,21,39, 2,53,47,56		4,11,42,23,17	
		36,42,47,15,41, 3,13		2,41
48″	57,22,56,31, 4,26,18,34,51, 9		4,11,42,25,58	
		36,42,43, 3,58,37,15		2,41
50″	57,22,57, 7,47, 9,22,33,28,24		4,11,42,28,39	
		36,42,38,52,16, 8,36		2,41
52″	57,22,57,44,29,48,14,49,37, 0		4,11,42,31,20	
		36,42,34,40,33,37,16		2,41
54″	57,22,58,21,12,22,55,23,14,16		4,11,42,34, 1	
		36,42,30,28,51, 3,15		2,41
56″	57,22,58,57,54,53,24,14,17,31		4,11,42,36,42	
		36,42,26,17, 8,26,33		2,41
58″	57,22,59,34,37,19,41,22,44, 4		4,11,42,39,23	
		36,42,22, 5,25,47,10		
60″	57,23, 0,11,19,41,46,48,31,14			
exact	57,23, 0,11,19,41,46,48,22,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73° 1′ 0″	57,23, 0,11,19,41,46,48,22,51			
		36,42,17,53,43, 4,19		
2″	57,23, 0,48, 1,59,40,31,27,10		4,11,42,44,47	
		36,42,13,42, 0,19,32		2,41
4″	57,23, 1,24,44,13,22,31,46,42		4,11,42,47,28	
		36,42, 9,30,17,32, 4		2,41
6″	57,23, 2, 1,26,22,52,49,18,46		4,11,42,50, 9	
		36,42, 5,18,34,41,55		2,41
8″	57,23, 2,38, 8,28,11,24, 0,41		4,11,42,52,50	
		36,42, 1, 6,51,49, 5		2,41
10″	57,23, 3,14,50,29,18,15,49,46		4,11,42,55,31	
		36,41,56,55, 8,53,34		2,41
12″	57,23, 3,51,32,26,13,24,43,20		4,11,42,58,12	
		36,41,52,43,25,55,22		2,41
14″	57,23, 4,28,14,18,56,50,38,42		4,11,43, 0,53	
		36,41,48,31,42,54,29		2,41
16″	57,23, 5, 4,56, 7,28,33,33,11		4,11,43, 3,34	
		36,41,44,19,59,50,55		2,41
18″	57,23, 5,41,37,51,48,33,24, 6		4,11,43, 6,15	
		36,41,40, 8,16,44,40		2,41
20″	57,23, 6,18,19,31,56,50, 8,46		4,11,43, 8,56	
		36,41,35,56,33,35,44		2,41
22″	57,23, 6,55, 1, 7,53,23,44,30		4,11,43,11,37	
		36,41,31,44,50,24, 7		2,41
24″	57,23, 7,31,42,39,38,14, 8,37		4,11,43,14,18	
		36,41,27,33, 7, 9,49		2,41
26″	57,23, 8, 8,24, 7,11,21,18,26		4,11,43,16,59	
		36,41,23,21,23,52,50		2,41
28″	57,23, 8,45, 5,30,32,45,11,16		4,11,43,19,40	
		36,41,19, 9,40,33,10		2,41
30″	57,23, 9,21,46,49,42,25,44,26		4,11,43,22,21	
		36,41,14,57,57,10,49		2,41
32″	57,23, 9,58,28, 4,40,22,55,15		4,11,43,25, 2	
		36,41,10,46,13,45,47		2,41
34″	57,23,10,35, 9,15,26,36,41, 2		4,11,43,27,43	
		36,41, 6,34,30,18, 4		2,41
36″	57,23,11,11,50,22, 1, 6,59, 6		4,11,43,30,24	
		36,41, 2,22,46,47,40		2,41
38″	57,23,11,48,31,24,23,53,46,46		4,11,43,33, 5	
		36,40,58,11, 3,14,35		2,41
40″	57,23,12,25,12,22,34,57, 1,21		4,11,43,35,46	
		36,40,53,59,19,38,49		2,41
42″	57,23,13, 1,53,16,34,16,40,10		4,11,43,38,27	
		36,40,49,47,36, 0,22		2,41
44″	57,23,13,38,34, 6,21,52,40,32		4,11,43,41, 8	
		36,40,45,35,52,19,14		2,41
46″	57,23,14,15,14,51,57,44,59,46		4,11,43,43,49	
		36,40,41,24, 8,35,25		2,41
48″	57,23,14,51,55,33,21,53,35,11		4,11,43,46,30	
		36,40,37,12,24,48,55		2,41
50″	57,23,15,28,36,10,34,18,24, 6		4,11,43,49,11	
		36,40,33, 0,40,59,44		2,41
52″	57,23,16, 5,16,43,34,59,23,50		4,11,43,51,52	
		36,40,28,48,57, 7,52		2,41
54″	57,23,16,41,57,12,23,56,31,42		4,11,43,54,33	
		36,40,24,37,13,13,19		2,41
56″	57,23,17,18,37,37, 1, 9,45, 1		4,11,43,57,14	
		36,40,20,25,29,16, 5		2,41
58″	57,23,17,55,17,57,26,39, 1, 6		4,11,43,59,55	
		36,40,16,13,45,16,10		
60″	57,23,18,31,58,13,40,24,17,16			
exact	57,23,18,31,58,13,40,24,16,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73° 2′ 0″	57,23,18,31,58,13,40,24,16,24			
		36,40,12, 2, 1,13,42		
2″	57,23,19, 8,38,25,42,25,30, 6		4,11,44, 5,15	
		36,40, 7,50,17, 8,27		2,41
4″	57,23,19,45,18,33,32,42,38,33		4,11,44, 7,56	
		36,40, 3,38,33, 0,31		2,41
6″	57,23,20,21,58,37,11,15,39, 4		4,11,44,10,37	
		36,39,59,26,48,49,54		2,41
8″	57,23,20,58,38,36,38, 4,28,58		4,11,44,13,18	
		36,39,55,15, 4,36,36		2,41
10″	57,23,21,35,18,31,53, 9, 5,34		4,11,44,15,59	
		36,39,51, 3,20,20,37		2,41
12″	57,23,22,11,58,22,56,29,26,11		4,11,44,18,40	
		36,39,46,51,36, 1,57		2,41
14″	57,23,22,48,38, 9,48, 5,28, 8		4,11,44,21,21	
		36,39,42,39,51,40,36		2,41
16″	57,23,23,25,17,52,27,57, 8,44		4,11,44,24, 2	
		36,39,38,28, 7,16,34		2,41
18″	57,23,24, 1,57,30,56, 4,25,18		4,11,44,26,43	
		36,39,34,16,22,49,51		2,41
20″	57,23,24,38,37, 5,12,27,15, 9		4,11,44,29,24	
		36,39,30, 4,38,20,27		2,41
22″	57,23,25,15,16,35,17, 5,35,36		4,11,44,32, 5	
		36,39,25,52,53,48,22		2,41
24″	57,23,25,51,56, 1, 9,59,23,58		4,11,44,34,46	
		36,39,21,41, 9,13,36		2,41
26″	57,23,26,28,35,22,51, 8,37,34		4,11,44,37,27	
		36,39,17,29,24,36, 9		2,41
28″	57,23,27, 5,14,40,20,33,13,43		4,11,44,40, 8	
		36,39,13,17,39,56, 1		2,41
30″	57,23,27,41,53,53,38,13, 9,44		4,11,44,42,49	
		36,39, 9, 5,55,13,12		2,41
32″	57,23,28,18,33, 2,44, 8,22,56		4,11,44,45,30	
		36,39, 4,54,10,27,42		2,41
34″	57,23,28,55,12, 7,38,18,50,38		4,11,44,48,11	
		36,39, 0,42,25,39,31		2,41
36″	57,23,29,31,51, 8,20,44,30, 9		4,11,44,50,52	
		36,38,56,30,40,48,39		2,41
38″	57,23,30, 8,30, 4,51,25,18,48		4,11,44,53,33	
		36,38,52,18,55,55, 6		2,41
40″	57,23,30,45, 8,57,10,21,13,54		4,11,44,56,14	
		36,38,48, 7,10,58,52		2,41
42″	57,23,31,21,47,45,17,32,12,46		4,11,44,58,55	
		36,38,43,55,25,59,57		2,41
44″	57,23,31,58,26,29,12,58,12,43		4,11,45, 1,36	
		36,38,39,43,40,58,21		2,41
46″	57,23,32,35, 5, 8,56,39,11, 4		4,11,45, 4,17	
		36,38,35,31,55,54, 4		2,41
48″	57,23,33,11,43,44,28,35, 5, 8		4,11,45, 6,58	
		36,38,31,20,10,47, 6		2,41
50″	57,23,33,48,22,15,48,45,52,14		4,11,45, 9,39	
		36,38,27, 8,25,37,27		2,41
52″	57,23,34,25, 0,42,57,11,29,41		4,11,45,12,20	
		36,38,22,56,40,25, 7		2,41
54″	57,23,35, 1,39, 5,53,51,54,48		4,11,45,15, 1	
		36,38,18,44,55,10, 6		2,41
56″	57,23,35,38,17,24,38,47, 4,54		4,11,45,17,42	
		36,38,14,33, 9,52,24		2,41
58″	57,23,36,14,55,39,11,56,57,18		4,11,45,20,23	
		36,38,10,21,24,32, 1		
60″	57,23,36,51,33,49,33,21,29,19			
exact	57,23,36,51,33,49,33,21,40, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73° 3′ 0″	57,23,36,51,33,49,33,21,40, 6			
		36,38, 6, 9,39,10,17		
2″	57,23,37,28,11,55,43, 0,50,23		4,11,45,25,38	
		36,38, 1,57,53,44,39		2,41
4″	57,23,38, 4,49,57,40,54,35, 2		4,11,45,28,19	
		36,37,57,46, 8,16,20		2,41
6″	57,23,38,41,27,55,27, 2,51,22		4,11,45,31, 0	
		36,37,53,34,22,45,20		2,41
8″	57,23,39,18, 5,49, 1,25,36,42		4,11,45,33,41	
		36,37,49,22,37,11,39		2,41
10″	57,23,39,54,43,38,24, 2,48,21		4,11,45,36,22	
		36,37,45,10,51,35,17		2,41
12″	57,23,40,31,21,23,34,54,23,38		4,11,45,39, 3	
		36,37,40,59, 5,56,14		2,41
14″	57,23,41, 7,59, 4,34, 0,19,52		4,11,45,41,44	
		36,37,36,47,20,14,30		2,41
16″	57,23,41,44,36,41,21,20,34,22		4,11,45,44,25	
		36,37,32,35,34,30, 5		2,41
18″	57,23,42,21,14,13,56,55, 4,27		4,11,45,47, 6	
		36,37,28,23,48,42,59		2,41
20″	57,23,42,57,51,42,20,43,47,26		4,11,45,49,47	
		36,37,24,12, 2,53,12		2,41
22″	57,23,43,34,29, 6,32,46,40,38		4,11,45,52,28	
		36,37,20, 0,17, 0,44		2,41
24″	57,23,44,11, 6,26,33, 3,41,22		4,11,45,55, 9	
		36,37,15,48,31, 5,35		2,41
26″	57,23,44,47,43,42,21,34,46,57		4,11,45,57,50	
		36,37,11,36,45, 7,45		2,41
28″	57,23,45,24,20,53,58,19,54,42		4,11,46, 0,31	
		36,37, 7,24,59, 7,14		2,41
30″	57,23,46, 0,58, 1,23,19, 1,56		4,11,46, 3,12	
		36,37, 3,13,13, 4, 2		2,41
32″	57,23,46,37,35, 4,36,32, 5,58		4,11,46, 5,53	
		36,36,59, 1,26,58, 9		2,41
34″	57,23,47,14,12, 3,37,59, 4, 7		4,11,46, 8,34	
		36,36,54,49,40,49,35		2,41
36″	57,23,47,50,48,58,27,39,53,42		4,11,46,11,15	
		36,36,50,37,54,38,20		2,41
38″	57,23,48,27,25,49, 5,34,32, 2		4,11,46,13,56	
		36,36,46,26, 8,24,24		2,41
40″	57,23,49, 4, 2,35,31,42,56,26		4,11,46,16,37	
		36,36,42,14,22, 7,47		2,41
42″	57,23,49,40,39,17,46, 5, 4,13		4,11,46,19,18	
		36,36,38, 2,35,48,29		2,41
44″	57,23,50,17,15,55,48,40,52,42		4,11,46,21,59	
		36,36,33,50,49,26,30		2,41
46″	57,23,50,53,52,29,39,30,19,12		4,11,46,24,40	
		36,36,29,39, 3, 1,50		2,41
48″	57,23,51,30,28,59,18,33,21, 2		4,11,46,27,21	
		36,36,25,27,16,34,29		2,41
50″	57,23,52, 7, 5,24,45,49,55,31		4,11,46,30, 2	
		36,36,21,15,30, 4,27		2,41
52″	57,23,52,43,41,46, 1,19,59,58		4,11,46,32,43	
		36,36,17, 3,43,31,44		2,41
54″	57,23,53,20,18, 3, 5, 3,31,42		4,11,46,35,24	
		36,36,12,51,56,56,20		2,41
56″	57,23,53,56,54,15,57, 0,28, 2		4,11,46,38, 5	
		36,36, 8,40,10,18,15		2,41
58″	57,23,54,33,30,24,37,10,46,17		4,11,46,40,46	
		36,36, 4,28,23,37,29		
60″	57,23,55,10, 6,29, 5,34,23,46			
exact	57,23,55,10, 6,29, 5,34,43,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73° 4′ 0″	57,23,55,10, 6,29, 5,34,43,37			
		36,36, 0,16,36,56,23		
2″	57,23,55,46,42,29,22,11,40, 0		4,11,46,45,57	
		36,35,56, 4,50,10,26		2,41
4″	57,23,56,23,18,25,27, 1,50,26		4,11,46,48,38	
		36,35,51,53, 3,21,48		2,41
6″	57,23,56,59,54,17,20, 5,12,14		4,11,46,51,19	
		36,35,47,41,16,30,29		2,41
8″	57,23,57,36,30, 5, 1,21,42,43		4,11,46,54, 0	
		36,35,43,29,29,36,29		2,41
10″	57,23,58,13, 5,48,30,51,19,12		4,11,46,56,41	
		36,35,39,17,42,39,48		2,41
12″	57,23,58,49,41,27,48,33,59, 0		4,11,46,59,22	
		36,35,35, 5,55,40,26		2,41
14″	57,23,59,26,17, 2,54,29,39,26		4,11,47, 2, 3	
		36,35,30,54, 8,38,23		2,41
16″	57,24, 0, 2,52,33,48,38,17,49		4,11,47, 4,44	
		36,35,26,42,21,33,39		2,41
18″	57,24, 0,39,28, 0,30,59,51,28		4,11,47, 7,25	
		36,35,22,30,34,26,14		2,41
20″	57,24, 1,16, 3,23, 1,34,17,42		4,11,47,10, 6	
		36,35,18,18,47,16, 8		2,41
22″	57,24, 1,52,38,41,20,21,33,50		4,11,47,12,47	
		36,35,14, 7, 0, 3,21		2,41
24″	57,24, 2,29,13,55,27,21,37,11		4,11,47,15,28	
		36,35, 9,55,12,47,53		2,41
26″	57,24, 3, 5,49, 5,22,34,25, 4		4,11,47,18, 9	
		36,35, 5,43,25,29,44		2,41
28″	57,24, 3,42,24,11, 5,59,54,48		4,11,47,20,50	
		36,35, 1,31,38, 8,54		2,41
30″	57,24, 4,18,59,12,37,38, 3,42		4,11,47,23,31	
		36,34,57,19,50,45,23		2,41
32″	57,24, 4,55,34, 9,57,28,49, 5		4,11,47,26,12	
		36,34,53, 8, 3,19,11		2,41
34″	57,24, 5,32, 9, 3, 5,32, 8,16		4,11,47,28,53	
		36,34,48,56,15,50,18		2,41
36″	57,24, 6, 8,43,52, 1,47,58,34		4,11,47,31,34	
		36,34,44,44,28,18,44		2,41
38″	57,24, 6,45,18,36,46,16,17,18		4,11,47,34,15	
		36,34,40,32,40,44,29		2,41
40″	57,24, 7,21,53,17,18,57, 1,47		4,11,47,36,56	
		36,34,36,20,53, 7,33		2,41
42″	57,24, 7,58,27,53,39,50, 9,20		4,11,47,39,37	
		36,34,32, 9, 5,27,56		2,41
44″	57,24, 8,35, 2,25,48,55,37,16		4,11,47,42,18	
		36,34,27,57,17,45,38		2,41
46″	57,24, 9,11,36,53,46,13,22,54		4,11,47,44,59	
		36,34,23,45,30, 0,39		2,41
48″	57,24, 9,48,11,17,31,43,23,33		4,11,47,47,40	
		36,34,19,33,42,12,59		2,41
50″	57,24,10,24,45,37, 5,25,36,32		4,11,47,50,21	
		36,34,15,21,54,22,38		2,41
52″	57,24,11, 1,19,52,27,19,59,10		4,11,47,53, 2	
		36,34,11,10, 6,29,36		2,41
54″	57,24,11,37,54, 3,37,26,28,46		4,11,47,55,43	
		36,34, 6,58,18,33,53		2,41
56″	57,24,12,14,28,10,35,45, 2,39		4,11,47,58,24	
		36,34, 2,46,30,35,29		2,41
58″	57,24,12,51, 2,13,22,15,38, 8		4,11,48, 1, 5	
		36,33,58,34,42,34,24		
60″	57,24,13,27,36,11,56,58,12,32			
exact	57,24,13,27,36,11,56,58,45,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73° 5′ 0″	57,24,13,27,36,11,56,58,45,39			
		36,33,54,22,54,34,17		
2″	57,24,14, 4,10, 6,19,53,19,56		4,11,48, 6,11	
		36,33,50,11, 6,28, 6		2,40
4″	57,24,14,40,43,56,30,59,48, 2		4,11,48, 8,51	
		36,33,45,59,18,19,15		2,40
6″	57,24,15,17,17,42,30,18, 7,17		4,11,48,11,31	
		36,33,41,47,30, 7,44		2,40
8″	57,24,15,53,51,24,17,48,15, 1		4,11,48,14,11	
		36,33,37,35,41,53,33		2,40
10″	57,24,16,30,25, 1,53,30, 8,34		4,11,48,16,51	
		36,33,33,23,53,36,42		2,40
12″	57,24,17, 6,58,35,17,23,45,16		4,11,48,19,31	
		36,33,29,12, 5,17,11		2,40
14″	57,24,17,43,32, 4,29,29, 2,27		4,11,48,22,11	
		36,33,25, 0,16,55, 0		2,40
16″	57,24,18,20, 5,29,29,45,57,27		4,11,48,24,51	
		36,33,20,48,28,30, 9		2,40
18″	57,24,18,56,38,50,18,14,27,36		4,11,48,27,31	
		36,33,16,36,40, 2,38		2,40
20″	57,24,19,33,12, 6,54,54,30,14		4,11,48,30,11	
		36,33,12,24,51,32,27		2,40
22″	57,24,20, 9,45,19,19,46, 2,41		4,11,48,32,51	
		36,33, 8,13, 2,59,36		2,40
24″	57,24,20,46,18,27,32,49, 2,17		4,11,48,35,31	
		36,33, 4, 1,14,24, 5		2,40
26″	57,24,21,22,51,31,34, 3,26,22		4,11,48,38,11	
		36,32,59,49,25,45,54		2,40
28″	57,24,21,59,24,31,23,29,12,16		4,11,48,40,51	
		36,32,55,37,37, 5, 3		2,40
30″	57,24,22,35,57,27, 1, 6,17,19		4,11,48,43,31	
		36,32,51,25,48,21,32		2,40
32″	57,24,23,12,30,18,26,54,38,51		4,11,48,46,11	
		36,32,47,13,59,35,21		2,40
34″	57,24,23,49, 3, 5,40,54,14,12		4,11,48,48,51	
		36,32,43, 2,10,46,30		2,40
36″	57,24,24,25,35,48,43, 5, 0,42		4,11,48,51,31	
		36,32,38,50,21,54,59		2,40
38″	57,24,25, 2, 8,27,33,26,55,41		4,11,48,54,11	
		36,32,34,38,33, 0,48		2,40
40″	57,24,25,38,41, 2,11,59,56,29		4,11,48,56,51	
		36,32,30,26,44, 3,57		2,40
42″	57,24,26,15,13,32,38,44, 0,26		4,11,48,59,31	
		36,32,26,14,55, 4,26		2,40
44″	57,24,26,51,45,58,53,39, 4,52		4,11,49, 2,11	
		36,32,22, 3, 6, 2,15		2,40
46″	57,24,27,28,18,20,56,45, 7, 7		4,11,49, 4,51	
		36,32,17,51,16,57,24		2,40
48″	57,24,28, 4,50,38,48, 2, 4,31		4,11,49, 7,31	
		36,32,13,39,27,49,53		2,40
50″	57,24,28,41,22,52,27,29,54,24		4,11,49,10,11	
		36,32, 9,27,38,39,42		2,40
52″	57,24,29,17,55, 1,55, 8,34, 6		4,11,49,12,51	
		36,32, 5,15,49,26,51		2,40
54″	57,24,29,54,27, 7,10,58, 0,57		4,11,49,15,31	
		36,32, 1, 4, 0,11,20		2,40
56″	57,24,30,30,59, 8,14,58,12,17		4,11,49,18,11	
		36,31,56,52,10,53, 9		2,40
58″	57,24,31, 7,31, 5, 7, 9, 5,26		4,11,49,20,51	
		36,31,52,40,21,32,18		
60″	57,24,31,44, 2,57,47,30,37,44			
exact	57,24,31,44, 2,57,47,30,13,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73° 6′ 0″	57,24,31,44, 2,57,47,30,13,52			
		36,31,48,28,32, 6,19		
2″	57,24,32,20,34,46,16, 2,20,11		4,11,49,26,20	
		36,31,44,16,42,39,59		2,40
4″	57,24,32,57, 6,30,32,45, 0,10		4,11,49,29, 0	
		36,31,40, 4,53,10,59		2,40
6″	57,24,33,33,38,10,37,38,11, 9		4,11,49,31,40	
		36,31,35,53, 3,39,19		2,40
8″	57,24,34,10, 9,46,30,41,50,28		4,11,49,34,20	
		36,31,31,41,14, 4,59		2,40
10″	57,24,34,46,41,18,11,55,55,27		4,11,49,37, 0	
		36,31,27,29,24,27,59		2,40
12″	57,24,35,23,12,45,41,20,23,26		4,11,49,39,40	
		36,31,23,17,34,48,19		2,40
14″	57,24,35,59,44, 8,58,55,11,45		4,11,49,42,20	
		36,31,19, 5,45, 5,59		2,40
16″	57,24,36,36,15,28, 4,40,17,44		4,11,49,45, 0	
		36,31,14,53,55,20,59		2,40
18″	57,24,37,12,46,42,58,35,38,43		4,11,49,47,40	
		36,31,10,42, 5,33,19		2,40
20″	57,24,37,49,17,53,40,41,12, 2		4,11,49,50,20	
		36,31, 6,30,15,42,59		2,40
22″	57,24,38,25,49, 0,10,56,55, 1		4,11,49,53, 0	
		36,31, 2,18,25,49,59		2,40
24″	57,24,39, 2,20, 2,29,22,45, 0		4,11,49,55,40	
		36,30,58, 6,35,54,19		2,40
26″	57,24,39,38,51, 0,35,58,39,19		4,11,49,58,20	
		36,30,53,54,45,55,59		2,40
28″	57,24,40,15,21,54,30,44,35,18		4,11,50, 1, 0	
		36,30,49,42,55,54,59		2,40
30″	57,24,40,51,52,44,13,40,30,17		4,11,50, 3,40	
		36,30,45,31, 5,51,19		2,40
32″	57,24,41,28,23,29,44,46,21,36		4,11,50, 6,20	
		36,30,41,19,15,44,59		2,40
34″	57,24,42, 4,54,11, 4, 2, 6,35		4,11,50, 9, 0	
		36,30,37, 7,25,35,59		2,40
36″	57,24,42,41,24,48,11,27,42,34		4,11,50,11,40	
		36,30,32,55,35,24,19		2,40
38″	57,24,43,17,55,21, 7, 3, 6,53		4,11,50,14,20	
		36,30,28,43,45, 9,59		2,40
40″	57,24,43,54,25,49,50,48,16,52		4,11,50,17, 0	
		36,30,24,31,54,52,59		2,40
42″	57,24,44,30,56,14,22,43, 9,51		4,11,50,19,40	
		36,30,20,20, 4,33,19		2,40
44″	57,24,45, 7,26,34,42,47,43,10		4,11,50,22,20	
		36,30,16, 8,14,10,59		2,40
46″	57,24,45,43,56,50,51, 1,54, 9		4,11,50,25, 0	
		36,30,11,56,23,45,59		2,40
48″	57,24,46,20,27, 2,47,25,40, 8		4,11,50,27,40	
		36,30, 7,44,33,18,19		2,40
50″	57,24,46,56,57,10,31,58,58,27		4,11,50,30,20	
		36,30, 3,32,42,47,59		2,40
52″	57,24,47,33,27,14, 4,41,46,26		4,11,50,33, 0	
		36,29,59,20,52,14,59		2,40
54″	57,24,48, 9,57,13,25,34, 1,25		4,11,50,35,40	
		36,29,55, 9, 1,39,19		2,40
56″	57,24,48,46,27, 8,34,35,40,44		4,11,50,38,20	
		36,29,50,57,11, 0,59		2,40
58″	57,24,49,22,56,59,31,46,41,43		4,11,50,41, 0	
		36,29,46,45,20,19,59		
60″	57,24,49,59,26,46,17, 7, 1,42			
exact	57,24,49,59,26,46,17, 6,45, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73° 7′ 0″	57,24,49,59,26,46,17, 6,45, 3			
		36,29,42,33,29,34,45		
2″	57,24,50,35,56,28,50,36,19,48		4,11,50,46,25	
		36,29,38,21,38,48,20		2,40
4″	57,24,51,12,26, 7,12,15, 8, 8		4,11,50,49, 5	
		36,29,34, 9,47,59,15		2,40
6″	57,24,51,48,55,41,22, 3, 7,23		4,11,50,51,45	
		36,29,29,57,57, 7,30		2,40
8″	57,24,52,25,25,11,20, 0,14,53		4,11,50,54,25	
		36,29,25,46, 6,13, 5		2,40
10″	57,24,53, 1,54,37, 6, 6,27,58		4,11,50,57, 5	
		36,29,21,34,15,16, 0		2,40
12″	57,24,53,38,23,58,40,21,43,58		4,11,50,59,45	
		36,29,17,22,24,16,15		2,40
14″	57,24,54,14,53,16, 2,46, 0,13		4,11,51, 2,25	
		36,29,13,10,33,13,50		2,40
16″	57,24,54,51,22,29,13,19,14, 3		4,11,51, 5, 5	
		36,29, 8,58,42, 8,45		2,40
18″	57,24,55,27,51,38,12, 1,22,48		4,11,51, 7,45	
		36,29, 4,46,51, 1, 0		2,40
20″	57,24,56, 4,20,42,58,52,23,48		4,11,51,10,25	
		36,29, 0,34,59,50,35		2,40
22″	57,24,56,40,49,43,33,52,14,23		4,11,51,13, 5	
		36,28,56,23, 8,37,30		2,40
24″	57,24,57,17,18,39,57, 0,51,53		4,11,51,15,45	
		36,28,52,11,17,21,45		2,40
26″	57,24,57,53,47,32, 8,18,13,38		4,11,51,18,25	
		36,28,47,59,26, 3,20		2,40
28″	57,24,58,30,16,20, 7,44,16,58		4,11,51,21, 5	
		36,28,43,47,34,42,15		2,40
30″	57,24,59, 6,45, 3,55,18,59,13		4,11,51,23,45	
		36,28,39,35,43,18,30		2,40
32″	57,24,59,43,13,43,31, 2,17,43		4,11,51,26,25	
		36,28,35,23,51,52, 5		2,40
34″	57,25, 0,19,42,18,54,54, 9,48		4,11,51,29, 5	
		36,28,31,12, 0,23, 0		2,40
36″	57,25, 0,56,10,50, 6,54,32,48		4,11,51,31,45	
		36,28,27, 0, 8,51,15		2,40
38″	57,25, 1,32,39,17, 7, 3,24, 3		4,11,51,34,25	
		36,28,22,48,17,16,50		2,40
40″	57,25, 2, 9, 7,39,55,20,40,53		4,11,51,37, 5	
		36,28,18,36,25,39,45		2,40
42″	57,25, 2,45,35,58,31,46,20,38		4,11,51,39,45	
		36,28,14,24,34, 0, 0		2,40
44″	57,25, 3,22, 4,12,56,20,20,38		4,11,51,42,25	
		36,28,10,12,42,17,35		2,40
46″	57,25, 3,58,32,23, 9, 2,38,13		4,11,51,45, 5	
		36,28, 6, 0,50,32,30		2,40
48″	57,25, 4,35, 0,29, 9,53,10,43		4,11,51,47,45	
		36,28, 1,48,58,44,45		2,40
50″	57,25, 5,11,28,30,58,51,55,28		4,11,51,50,25	
		36,27,57,37, 6,54,20		2,40
52″	57,25, 5,47,56,28,35,58,49,48		4,11,51,53, 5	
		36,27,53,25,15, 1,15		2,40
54″	57,25, 6,24,24,22, 1,13,51, 3		4,11,51,55,45	
		36,27,49,13,23, 5,30		2,40
56″	57,25, 7, 0,52,11,14,36,56,33		4,11,51,58,25	
		36,27,45, 1,31, 7, 5		2,40
58″	57,25, 7,37,19,56,16, 8, 3,38		4,11,52, 1, 5	
		36,27,40,49,39, 6, 0		
60″	57,25, 8,13,47,37, 5,47, 9,38			
exact	57,25, 8,13,47,37, 5,47, 4,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73° 8′ 0″	57,25, 8,13,47,37, 5,47, 4,57			
		36,27,36,37,47, 1,54		
2″	57,25, 8,50,15,13,43,34, 6,51		4,11,52, 6,25	
		36,27,32,25,54,55,29		2,40
4″	57,25, 9,26,42,46, 9,29, 2,20		4,11,52, 9, 5	
		36,27,28,14, 2,46,24		2,40
6″	57,25,10, 3,10,14,23,31,48,44		4,11,52,11,45	
		36,27,24, 2,10,34,39		2,40
8″	57,25,10,39,37,38,25,42,23,23		4,11,52,14,25	
		36,27,19,50,18,20,14		2,40
10″	57,25,11,16, 4,58,16, 0,43,37		4,11,52,17, 5	
		36,27,15,38,26, 3, 9		2,40
12″	57,25,11,52,32,13,54,26,46,46		4,11,52,19,45	
		36,27,11,26,33,43,24		2,40
14″	57,25,12,28,59,25,21, 0,30,10		4,11,52,22,25	
		36,27, 7,14,41,20,59		2,40
16″	57,25,13, 5,26,32,35,41,51, 9		4,11,52,25, 5	
		36,27, 3, 2,48,55,54		2,40
18″	57,25,13,41,53,35,38,30,47, 3		4,11,52,27,45	
		36,26,58,50,56,28, 9		2,40
20″	57,25,14,18,20,34,29,27,15,12		4,11,52,30,25	
		36,26,54,39, 3,57,44		2,40
22″	57,25,14,54,47,29, 8,31,12,56		4,11,52,33, 5	
		36,26,50,27,11,24,39		2,40
24″	57,25,15,31,14,19,35,42,37,35		4,11,52,35,45	
		36,26,46,15,18,48,54		2,40
26″	57,25,16, 7,41, 5,51, 1,26,29		4,11,52,38,25	
		36,26,42, 3,26,10,29		2,40
28″	57,25,16,44, 7,47,54,27,36,58		4,11,52,41, 5	
		36,26,37,51,33,29,24		2,40
30″	57,25,17,20,34,25,46, 1, 6,22		4,11,52,43,45	
		36,26,33,39,40,45,39		2,40
32″	57,25,17,57, 0,59,25,41,52, 1		4,11,52,46,25	
		36,26,29,27,47,59,14		2,40
34″	57,25,18,33,27,28,53,29,51,15		4,11,52,49, 5	
		36,26,25,15,55,10, 9		2,40
36″	57,25,19, 9,53,54, 9,25, 1,24		4,11,52,51,45	
		36,26,21, 4, 2,18,24		2,40
38″	57,25,19,46,20,15,13,27,19,48		4,11,52,54,25	
		36,26,16,52, 9,23,59		2,40
40″	57,25,20,22,46,32, 5,36,43,47		4,11,52,57, 5	
		36,26,12,40,16,26,54		2,40
42″	57,25,20,59,12,44,45,53,10,41		4,11,52,59,45	
		36,26, 8,28,23,27, 9		2,40
44″	57,25,21,35,38,53,14,16,37,50		4,11,53, 2,25	
		36,26, 4,16,30,24,44		2,40
46″	57,25,22,12, 4,57,30,47, 2,34		4,11,53, 5, 5	
		36,26, 0, 4,37,19,39		2,40
48″	57,25,22,48,30,57,35,24,22,13		4,11,53, 7,45	
		36,25,55,52,44,11,54		2,40
50″	57,25,23,24,56,53,28, 8,34, 7		4,11,53,10,25	
		36,25,51,40,51, 1,29		2,40
52″	57,25,24, 1,22,45, 8,59,35,36		4,11,53,13, 5	
		36,25,47,28,57,48,24		2,40
54″	57,25,24,37,48,32,37,57,24, 0		4,11,53,15,45	
		36,25,43,17, 4,32,39		2,40
56″	57,25,25,14,14,15,55, 1,56,39		4,11,53,18,25	
		36,25,39, 5,11,14,14		2,40
58″	57,25,25,50,39,55, 0,13,10,53		4,11,53,21, 5	
		36,25,34,53,17,53, 9		
60″	57,25,26,27, 5,29,53,31, 4, 2			
exact	57,25,26,27, 5,29,53,31, 8,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73° 9′ 0″	57,25,26,27, 5,29,53,31, 8,25			
		36,25,30,41,24,30, 4		
2″	57,25,27, 3,31, 0,34,55,38,29		4,11,53,26,21	
		36,25,26,29,31, 3,43		2,40
4″	57,25,27,39,56,27, 4,26,42,12		4,11,53,29, 1	
		36,25,22,17,37,34,42		2,40
6″	57,25,28,16,21,49,22, 4,16,54		4,11,53,31,41	
		36,25,18, 5,44, 3, 1		2,40
8″	57,25,28,52,47, 7,27,48,19,55		4,11,53,34,21	
		36,25,13,53,50,28,40		2,40
10″	57,25,29,29,12,21,21,38,48,35		4,11,53,37, 1	
		36,25, 9,41,56,51,39		2,40
12″	57,25,30, 5,37,31, 3,35,40,14		4,11,53,39,41	
		36,25, 5,30, 3,11,58		2,40
14″	57,25,30,42, 2,36,33,38,52,12		4,11,53,42,21	
		36,25, 1,18, 9,29,37		2,40
16″	57,25,31,18,27,37,51,48,21,49		4,11,53,45, 1	
		36,24,57, 6,15,44,36		2,40
18″	57,25,31,54,52,34,58, 4, 6,25		4,11,53,47,41	
		36,24,52,54,21,56,55		2,40
20″	57,25,32,31,17,27,52,26, 3,20		4,11,53,50,21	
		36,24,48,42,28, 6,34		2,40
22″	57,25,33, 7,42,16,34,54, 9,54		4,11,53,53, 1	
		36,24,44,30,34,13,33		2,40
24″	57,25,33,44, 7, 1, 5,28,23,27		4,11,53,55,41	
		36,24,40,18,40,17,52		2,40
26″	57,25,34,20,31,41,24, 8,41,19		4,11,53,58,21	
		36,24,36, 6,46,19,31		2,40
28″	57,25,34,56,56,17,30,55, 0,50		4,11,54, 1, 1	
		36,24,31,54,52,18,30		2,40
30″	57,25,35,33,20,49,25,47,19,20		4,11,54, 3,41	
		36,24,27,42,58,14,49		2,40
32″	57,25,36, 9,45,17, 8,45,34, 9		4,11,54, 6,21	
		36,24,23,31, 4, 8,28		2,40
34″	57,25,36,46, 9,40,39,49,42,37		4,11,54, 9, 1	
		36,24,19,19, 9,59,27		2,40
36″	57,25,37,22,33,59,58,59,42, 4		4,11,54,11,41	
		36,24,15, 7,15,47,46		2,40
38″	57,25,37,58,58,15, 6,15,29,50		4,11,54,14,21	
		36,24,10,55,21,33,25		2,40
40″	57,25,38,35,22,26, 1,37, 3,15		4,11,54,17, 1	
		36,24, 6,43,27,16,24		2,40
42″	57,25,39,11,46,32,45, 4,19,39		4,11,54,19,41	
		36,24, 2,31,32,56,43		2,40
44″	57,25,39,48,10,35,16,37,16,22		4,11,54,22,21	
		36,23,58,19,38,34,22		2,40
46″	57,25,40,24,34,33,36,15,50,44		4,11,54,25, 1	
		36,23,54, 7,44, 9,21		2,40
48″	57,25,41, 0,58,27,44, 0, 0, 5		4,11,54,27,41	
		36,23,49,55,49,41,40		2,40
50″	57,25,41,37,22,17,39,49,41,45		4,11,54,30,21	
		36,23,45,43,55,11,19		2,40
52″	57,25,42,13,46, 3,23,44,53, 4		4,11,54,33, 1	
		36,23,41,32, 0,38,18		2,40
54″	57,25,42,50, 9,44,55,45,31,22		4,11,54,35,41	
		36,23,37,20, 6, 2,37		2,40
56″	57,25,43,26,33,22,15,51,33,59		4,11,54,38,21	
		36,23,33, 8,11,24,16		2,40
58″	57,25,44, 2,56,55,24, 2,58,15		4,11,54,41, 1	
		36,23,28,56,16,43,15		
60″	57,25,44,39,20,24,20,19,41,30			
exact	57,25,44,39,20,24,20,19,59,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°10′ 0″	57,25,44,39,20,24,20,19,59,18			
		36,23,24,44,22, 1,34		
2″	57,25,45,15,43,49, 4,42, 0,52		4,11,54,46,12	
		36,23,20,32,27,15,22		2,40
4″	57,25,45,52, 7, 9,37, 9,16,14		4,11,54,48,52	
		36,23,16,20,32,26,30		2,40
6″	57,25,46,28,30,25,57,41,42,44		4,11,54,51,32	
		36,23,12, 8,37,34,58		2,40
8″	57,25,47, 4,53,38, 6,19,17,42		4,11,54,54,12	
		36,23, 7,56,42,40,46		2,40
10″	57,25,47,41,16,46, 3, 1,58,28		4,11,54,56,52	
		36,23, 3,44,47,43,54		2,40
12″	57,25,48,17,39,49,47,49,42,22		4,11,54,59,32	
		36,22,59,32,52,44,22		2,40
14″	57,25,48,54, 2,49,20,42,26,44		4,11,55, 2,12	
		36,22,55,20,57,42,10		2,40
16″	57,25,49,30,25,44,41,40, 8,54		4,11,55, 4,52	
		36,22,51, 9, 2,37,18		2,40
18″	57,25,50, 6,48,35,50,42,46,12		4,11,55, 7,32	
		36,22,46,57, 7,29,46		2,40
20″	57,25,50,43,11,22,47,50,15,58		4,11,55,10,12	
		36,22,42,45,12,19,34		2,40
22″	57,25,51,19,34, 5,33, 2,35,32		4,11,55,12,52	
		36,22,38,33,17, 6,42		2,40
24″	57,25,51,55,56,44, 6,19,42,14		4,11,55,15,32	
		36,22,34,21,21,51,10		2,40
26″	57,25,52,32,19,18,27,41,33,24		4,11,55,18,12	
		36,22,30, 9,26,32,58		2,40
28″	57,25,53, 8,41,48,37, 8, 6,22		4,11,55,20,52	
		36,22,25,57,31,12, 6		2,40
30″	57,25,53,45, 4,14,34,39,18,28		4,11,55,23,32	
		36,22,21,45,35,48,34		2,40
32″	57,25,54,21,26,36,20,15, 7, 2		4,11,55,26,12	
		36,22,17,33,40,22,22		2,40
34″	57,25,54,57,48,53,53,55,29,24		4,11,55,28,52	
		36,22,13,21,44,53,30		2,40
36″	57,25,55,34,11, 7,15,40,22,54		4,11,55,31,32	
		36,22, 9, 9,49,21,58		2,40
38″	57,25,56,10,33,16,25,29,44,52		4,11,55,34,12	
		36,22, 4,57,53,47,46		2,40
40″	57,25,56,46,55,21,23,23,32,38		4,11,55,36,52	
		36,22, 0,45,58,10,54		2,40
42″	57,25,57,23,17,22, 9,21,43,32		4,11,55,39,32	
		36,21,56,34, 2,31,22		2,40
44″	57,25,57,59,39,18,43,24,14,54		4,11,55,42,12	
		36,21,52,22, 6,49,10		2,40
46″	57,25,58,36, 1,11, 5,31, 4, 4		4,11,55,44,52	
		36,21,48,10,11, 4,18		2,40
48″	57,25,59,12,22,59,15,42, 8,22		4,11,55,47,32	
		36,21,43,58,15,16,46		2,40
50″	57,25,59,48,44,43,13,57,25, 8		4,11,55,50,12	
		36,21,39,46,19,26,34		2,40
52″	57,26, 0,25, 6,23, 0,16,51,42		4,11,55,52,52	
		36,21,35,34,23,33,42		2,40
54″	57,26, 1, 1,27,58,34,40,25,24		4,11,55,55,32	
		36,21,31,22,27,38,10		2,40
56″	57,26, 1,37,49,29,57, 8, 3,34		4,11,55,58,12	
		36,21,27,10,31,39,58		2,40
58″	57,26, 2,14,10,57, 7,39,43,32		4,11,56, 0,52	
		36,21,22,58,35,39, 6		
60″	57,26, 2,50,32,20, 6,15,22,38			
exact	57,26, 2,50,32,20, 6,15,50,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°11′ 0″	57,26, 2,50,32,20, 6,15,50,33			
		36,21,18,46,39,38,40		
2″	57,26, 3,26,53,38,52,55,29,13		4,11,56, 5,58	
		36,21,14,34,43,32,42		2,39
4″	57,26, 4, 3,14,53,27,39, 1,55		4,11,56, 8,37	
		36,21,10,22,47,24, 5		2,39
6″	57,26, 4,39,36, 3,50,26,26, 0		4,11,56,11,16	
		36,21, 6,10,51,12,49		2,39
8″	57,26, 5,15,57,10, 1,17,38,49		4,11,56,13,55	
		36,21, 1,58,54,58,54		2,39
10″	57,26, 5,52,18,12, 0,12,37,43		4,11,56,16,34	
		36,20,57,46,58,42,20		2,39
12″	57,26, 6,28,39, 9,47,11,20, 3		4,11,56,19,13	
		36,20,53,35, 2,23, 7		2,39
14″	57,26, 7, 5, 0, 3,22,13,43,10		4,11,56,21,52	
		36,20,49,23, 6, 1,15		2,39
16″	57,26, 7,41,20,52,45,19,44,25		4,11,56,24,31	
		36,20,45,11, 9,36,44		2,39
18″	57,26, 8,17,41,37,56,29,21, 9		4,11,56,27,10	
		36,20,40,59,13, 9,34		2,39
20″	57,26, 8,54, 2,18,55,42,30,43		4,11,56,29,49	
		36,20,36,47,16,39,45		2,39
22″	57,26, 9,30,22,55,42,59,10,28		4,11,56,32,28	
		36,20,32,35,20, 7,17		2,39
24″	57,26,10, 6,43,28,18,19,17,45		4,11,56,35, 7	
		36,20,28,23,23,32,10		2,39
26″	57,26,10,43, 3,56,41,42,49,55		4,11,56,37,46	
		36,20,24,11,26,54,24		2,39
28″	57,26,11,19,24,20,53, 9,44,19		4,11,56,40,25	
		36,20,19,59,30,13,59		2,39
30″	57,26,11,55,44,40,52,39,58,18		4,11,56,43, 4	
		36,20,15,47,33,30,55		2,39
32″	57,26,12,32, 4,56,40,13,29,13		4,11,56,45,43	
		36,20,11,35,36,45,12		2,39
34″	57,26,13, 8,25, 8,15,50,14,25		4,11,56,48,22	
		36,20, 7,23,39,56,50		2,39
36″	57,26,13,44,45,15,39,30,11,15		4,11,56,51, 1	
		36,20, 3,11,43, 5,49		2,39
38″	57,26,14,21, 5,18,51,13,17, 4		4,11,56,53,40	
		36,19,58,59,46,12, 9		2,39
40″	57,26,14,57,25,17,50,59,29,13		4,11,56,56,19	
		36,19,54,47,49,15,50		2,39
42″	57,26,15,33,45,12,38,48,45, 3		4,11,56,58,58	
		36,19,50,35,52,16,52		2,39
44″	57,26,16,10, 5, 3,14,41, 1,55		4,11,57, 1,37	
		36,19,46,23,55,15,15		2,39
46″	57,26,16,46,24,49,38,36,17,10		4,11,57, 4,16	
		36,19,42,11,58,10,59		2,39
48″	57,26,17,22,44,31,50,34,28, 9		4,11,57, 6,55	
		36,19,38, 0, 1, 4, 4		2,39
50″	57,26,17,59, 4, 9,50,35,32,13		4,11,57, 9,34	
		36,19,33,48, 3,54,30		2,39
52″	57,26,18,35,23,43,38,39,26,43		4,11,57,12,13	
		36,19,29,36, 6,42,17		2,39
54″	57,26,19,11,43,13,14,46, 9, 0		4,11,57,14,52	
		36,19,25,24, 9,27,25		2,39
56″	57,26,19,48, 2,38,38,55,36,25		4,11,57,17,31	
		36,19,21,12,12, 9,54		2,39
58″	57,26,20,24,21,59,51, 7,46,19		4,11,57,20,10	
		36,19,17, 0,14,49,44		
60″	57,26,21, 0,41,16,51,22,36, 3			
exact	57,26,21, 0,41,16,51,22, 4, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°12′ 0″	57,26,21, 0,41,16,51,22, 4, 9			
		36,19,12,48,17,23,42		
2″	57,26,21,37, 0,29,39,39,27,51		4,11,57,25,40	
		36,19, 8,36,19,58, 2		2,39
4″	57,26,22,13,19,38,15,59,25,53		4,11,57,28,19	
		36,19, 4,24,22,29,43		2,39
6″	57,26,22,49,38,42,40,21,55,36		4,11,57,30,58	
		36,19, 0,12,24,58,45		2,39
8″	57,26,23,25,57,42,52,46,54,21		4,11,57,33,37	
		36,18,56, 0,27,25, 8		2,39
10″	57,26,24, 2,16,38,53,14,19,29		4,11,57,36,16	
		36,18,51,48,29,48,52		2,39
12″	57,26,24,38,35,30,41,44, 8,21		4,11,57,38,55	
		36,18,47,36,32, 9,57		2,39
14″	57,26,25,14,54,18,18,16,18,18		4,11,57,41,34	
		36,18,43,24,34,28,23		2,39
16″	57,26,25,51,13, 1,42,50,46,41		4,11,57,44,13	
		36,18,39,12,36,44,10		2,39
18″	57,26,26,27,31,40,55,27,30,51		4,11,57,46,52	
		36,18,35, 0,38,57,18		2,39
20″	57,26,27, 3,50,15,56, 6,28, 9		4,11,57,49,31	
		36,18,30,48,41, 7,47		2,39
22″	57,26,27,40, 8,46,44,47,35,56		4,11,57,52,10	
		36,18,26,36,43,15,37		2,39
24″	57,26,28,16,27,13,21,30,51,33		4,11,57,54,49	
		36,18,22,24,45,20,48		2,39
26″	57,26,28,52,45,35,46,16,12,21		4,11,57,57,28	
		36,18,18,12,47,23,20		2,39
28″	57,26,29,29, 3,53,59, 3,35,41		4,11,58, 0, 7	
		36,18,14, 0,49,23,13		2,39
30″	57,26,30, 5,22, 7,59,52,58,54		4,11,58, 2,46	
		36,18, 9,48,51,20,27		2,39
32″	57,26,30,41,40,17,48,44,19,21		4,11,58, 5,25	
		36,18, 5,36,53,15, 2		2,39
34″	57,26,31,17,58,23,25,37,34,23		4,11,58, 8, 4	
		36,18, 1,24,55, 6,58		2,39
36″	57,26,31,54,16,24,50,32,41,21		4,11,58,10,43	
		36,17,57,12,56,56,15		2,39
38″	57,26,32,30,34,22, 3,29,37,36		4,11,58,13,22	
		36,17,53, 0,58,42,53		2,39
40″	57,26,33, 6,52,15, 4,28,20,29		4,11,58,16, 1	
		36,17,48,49, 0,26,52		2,39
42″	57,26,33,43,10, 3,53,28,47,21		4,11,58,18,40	
		36,17,44,37, 2, 8,12		2,39
44″	57,26,34,19,27,48,30,30,55,33		4,11,58,21,19	
		36,17,40,25, 3,46,53		2,39
46″	57,26,34,55,45,28,55,34,42,26		4,11,58,23,58	
		36,17,36,13, 5,22,55		2,39
48″	57,26,35,32, 3, 5, 8,40, 5,21		4,11,58,26,37	
		36,17,32, 1, 6,56,18		2,39
50″	57,26,36, 8,20,37, 9,47, 1,39		4,11,58,29,16	
		36,17,27,49, 8,27, 2		2,39
52″	57,26,36,44,38, 4,58,55,28,41		4,11,58,31,55	
		36,17,23,37, 9,55, 7		2,39
54″	57,26,37,20,55,28,36, 5,23,48		4,11,58,34,34	
		36,17,19,25,11,20,33		2,39
56″	57,26,37,57,12,48, 1,16,44,21		4,11,58,37,13	
		36,17,15,13,12,43,20		2,39
58″	57,26,38,33,30, 3,14,29,27,41		4,11,58,39,52	
		36,17,11, 1,14, 3,28		
60″	57,26,39, 9,47,14,15,43,31, 9			
exact	57,26,39, 9,47,14,15,43,11,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°13′ 0″	57,26,39, 9,47,14,15,43,11,10			
		36,17, 6,49,15,18,57		
2″	57,26,39,46, 4,21, 4,58,30, 7		4,11,58,45,17	
		36,17, 2,37,16,33,40		2,39
4″	57,26,40,22,21,23,42,15, 3,47		4,11,58,47,56	
		36,16,58,25,17,45,44		2,39
6″	57,26,40,58,38,22, 7,32,49,31		4,11,58,50,35	
		36,16,54,13,18,55, 9		2,39
8″	57,26,41,34,55,16,20,51,44,40		4,11,58,53,14	
		36,16,50, 1,20, 1,55		2,39
10″	57,26,42,11,12, 6,22,11,46,35		4,11,58,55,53	
		36,16,45,49,21, 6, 2		2,39
12″	57,26,42,47,28,52,11,32,52,37		4,11,58,58,32	
		36,16,41,37,22, 7,30		2,39
14″	57,26,43,23,45,33,48,55, 0, 7		4,11,59, 1,11	
		36,16,37,25,23, 6,19		2,39
16″	57,26,44, 0, 2,11,14,18, 6,26		4,11,59, 3,50	
		36,16,33,13,24, 2,29		2,39
18″	57,26,44,36,18,44,27,42, 8,55		4,11,59, 6,29	
		36,16,29, 1,24,56, 0		2,39
20″	57,26,45,12,35,13,29, 7, 4,55		4,11,59, 9, 8	
		36,16,24,49,25,46,52		2,39
22″	57,26,45,48,51,38,18,32,51,47		4,11,59,11,47	
		36,16,20,37,26,35, 5		2,39
24″	57,26,46,25, 7,58,55,59,26,52		4,11,59,14,26	
		36,16,16,25,27,20,39		2,39
26″	57,26,47, 1,24,15,21,26,47,31		4,11,59,17, 5	
		36,16,12,13,28, 3,34		2,39
28″	57,26,47,37,40,27,34,54,51, 5		4,11,59,19,44	
		36,16, 8, 1,28,43,50		2,39
30″	57,26,48,13,56,35,36,23,34,55		4,11,59,22,23	
		36,16, 3,49,29,21,27		2,39
32″	57,26,48,50,12,39,25,52,56,22		4,11,59,25, 2	
		36,15,59,37,29,56,25		2,39
34″	57,26,49,26,28,39, 3,22,52,47		4,11,59,27,41	
		36,15,55,25,30,28,44		2,39
36″	57,26,50, 2,44,34,28,53,21,31		4,11,59,30,20	
		36,15,51,13,30,58,24		2,39
38″	57,26,50,39, 0,25,42,24,19,55		4,11,59,32,59	
		36,15,47, 1,31,25,25		2,39
40″	57,26,51,15,16,12,43,55,45,20		4,11,59,35,38	
		36,15,42,49,31,49,47		2,39
42″	57,26,51,51,31,55,33,27,35, 7		4,11,59,38,17	
		36,15,38,37,32,11,30		2,39
44″	57,26,52,27,47,34,10,59,46,37		4,11,59,40,56	
		36,15,34,25,32,30,34		2,39
46″	57,26,53, 4, 3, 8,36,32,17,11		4,11,59,43,35	
		36,15,30,13,32,46,59		2,39
48″	57,26,53,40,18,38,50, 5, 4,10		4,11,59,46,14	
		36,15,26, 1,33, 0,45		2,39
50″	57,26,54,16,34, 4,51,38, 4,55		4,11,59,48,53	
		36,15,21,49,33,11,52		2,39
52″	57,26,54,52,49,26,41,11,16,47		4,11,59,51,32	
		36,15,17,37,33,20,20		2,39
54″	57,26,55,29, 4,44,18,44,37, 7		4,11,59,54,11	
		36,15,13,25,33,26, 9		2,39
56″	57,26,56, 5,19,57,44,18, 3,16		4,11,59,56,50	
		36,15, 9,13,33,29,19		2,39
58″	57,26,56,41,35, 6,57,51,32,35		4,11,59,59,29	
		36,15, 5, 1,33,29,50		
60″	57,26,57,17,50,11,59,25, 2,25			
exact	57,26,57,17,50,11,59,24,51,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°14′ 0″	57,26,57,17,50,11,59,24,51,46			
		36,15, 0,49,33,26,44		
2″	57,26,57,54, 5,12,48,58,18,30		4,12, 0, 4,50	
		36,14,56,37,33,21,54		2,39
4″	57,26,58,30,20, 9,26,31,40,24		4,12, 0, 7,29	
		36,14,52,25,33,14,25		2,39
6″	57,26,59, 6,35, 1,52, 4,54,49		4,12, 0,10, 8	
		36,14,48,13,33, 4,17		2,39
8″	57,26,59,42,49,50, 5,37,59, 6		4,12, 0,12,47	
		36,14,44, 1,32,51,30		2,39
10″	57,27, 0,19, 4,34, 7,10,50,36		4,12, 0,15,26	
		36,14,39,49,32,36, 4		2,39
12″	57,27, 0,55,19,13,56,43,26,40		4,12, 0,18, 5	
		36,14,35,37,32,17,59		2,39
14″	57,27, 1,31,33,49,34,15,44,39		4,12, 0,20,44	
		36,14,31,25,31,57,15		2,39
16″	57,27, 2, 7,48,20,59,47,41,54		4,12, 0,23,23	
		36,14,27,13,31,33,52		2,39
18″	57,27, 2,44, 2,48,13,19,15,46		4,12, 0,26, 2	
		36,14,23, 1,31, 7,50		2,39
20″	57,27, 3,20,17,11,14,50,23,36		4,12, 0,28,41	
		36,14,18,49,30,39, 9		2,39
22″	57,27, 3,56,31,30, 4,21, 2,45		4,12, 0,31,20	
		36,14,14,37,30, 7,49		2,39
24″	57,27, 4,32,45,44,41,51,10,34		4,12, 0,33,59	
		36,14,10,25,29,33,50		2,39
26″	57,27, 5, 8,59,55, 7,20,44,24		4,12, 0,36,38	
		36,14, 6,13,28,57,12		2,39
28″	57,27, 5,45,14, 1,20,49,41,36		4,12, 0,39,17	
		36,14, 2, 1,28,17,55		2,39
30″	57,27, 6,21,28, 3,22,17,59,31		4,12, 0,41,56	
		36,13,57,49,27,35,59		2,39
32″	57,27, 6,57,42, 1,11,45,35,30		4,12, 0,44,35	
		36,13,53,37,26,51,24		2,39
34″	57,27, 7,33,55,54,49,12,26,54		4,12, 0,47,14	
		36,13,49,25,26, 4,10		2,39
36″	57,27, 8,10, 9,44,14,38,31, 4		4,12, 0,49,53	
		36,13,45,13,25,14,17		2,39
38″	57,27, 8,46,23,29,28, 3,45,21		4,12, 0,52,32	
		36,13,41, 1,24,21,45		2,39
40″	57,27, 9,22,37,10,29,28, 7, 6		4,12, 0,55,11	
		36,13,36,49,23,26,34		2,39
42″	57,27, 9,58,50,47,18,51,33,40		4,12, 0,57,50	
		36,13,32,37,22,28,44		2,39
44″	57,27,10,35, 4,19,56,14, 2,24		4,12, 1, 0,29	
		36,13,28,25,21,28,15		2,39
46″	57,27,11,11,17,48,21,35,30,39		4,12, 1, 3, 8	
		36,13,24,13,20,25, 7		2,39
48″	57,27,11,47,31,12,34,55,55,46		4,12, 1, 5,47	
		36,13,20, 1,19,19,20		2,39
50″	57,27,12,23,44,32,36,15,15, 6		4,12, 1, 8,26	
		36,13,15,49,18,10,54		2,39
52″	57,27,12,59,57,48,25,33,26, 0		4,12, 1,11, 5	
		36,13,11,37,16,59,49		2,39
54″	57,27,13,36,11, 0, 2,50,25,49		4,12, 1,13,44	
		36,13, 7,25,15,46, 5		2,39
56″	57,27,14,12,24, 7,28, 6,11,54		4,12, 1,16,23	
		36,13, 3,13,14,29,42		2,39
58″	57,27,14,48,37,10,41,20,41,36		4,12, 1,19, 2	
		36,12,59, 1,13,10,40		
60″	57,27,15,24,50, 9,42,33,52,16			
exact	57,27,15,24,50, 9,42,33,55, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°15′ 0″	57,27,15,24,50, 9,42,33,55, 8			
		36,12,54,49,11,49,21		
2″	57,27,16, 1, 3, 4,31,45,44,29		4,12, 1,24,18	
		36,12,50,37,10,25, 3		2,39
4″	57,27,16,37,15,55, 8,56, 9,32		4,12, 1,26,57	
		36,12,46,25, 8,58, 6		2,39
6″	57,27,17,13,28,41,34, 5, 7,38		4,12, 1,29,36	
		36,12,42,13, 7,28,30		2,39
8″	57,27,17,49,41,23,47,12,36, 8		4,12, 1,32,15	
		36,12,38, 1, 5,56,15		2,39
10″	57,27,18,25,54, 1,48,18,32,23		4,12, 1,34,54	
		36,12,33,49, 4,21,21		2,39
12″	57,27,19, 2, 6,35,37,22,53,44		4,12, 1,37,33	
		36,12,29,37, 2,43,48		2,39
14″	57,27,19,38,19, 5,14,25,37,32		4,12, 1,40,12	
		36,12,25,25, 1, 3,36		2,39
16″	57,27,20,14,31,30,39,26,41, 8		4,12, 1,42,51	
		36,12,21,12,59,20,45		2,39
18″	57,27,20,50,43,51,52,26, 1,53		4,12, 1,45,30	
		36,12,17, 0,57,35,15		2,39
20″	57,27,21,26,56, 8,53,23,37, 8		4,12, 1,48, 9	
		36,12,12,48,55,47, 6		2,39
22″	57,27,22, 3, 8,21,42,19,24,14		4,12, 1,50,48	
		36,12, 8,36,53,56,18		2,39
24″	57,27,22,39,20,30,19,13,20,32		4,12, 1,53,27	
		36,12, 4,24,52, 2,51		2,39
26″	57,27,23,15,32,34,44, 5,23,23		4,12, 1,56, 6	
		36,12, 0,12,50, 6,45		2,39
28″	57,27,23,51,44,34,56,55,30, 8		4,12, 1,58,45	
		36,11,56, 0,48, 8, 0		2,39
30″	57,27,24,27,56,30,57,43,38, 8		4,12, 2, 1,24	
		36,11,51,48,46, 6,36		2,39
32″	57,27,25, 4, 8,22,46,29,44,44		4,12, 2, 4, 3	
		36,11,47,36,44, 2,33		2,39
34″	57,27,25,40,20,10,23,13,47,17		4,12, 2, 6,42	
		36,11,43,24,41,55,51		2,39
36″	57,27,26,16,31,53,47,55,43, 8		4,12, 2, 9,21	
		36,11,39,12,39,46,30		2,39
38″	57,27,26,52,43,33, 0,35,29,38		4,12, 2,12, 0	
		36,11,35, 0,37,34,30		2,39
40″	57,27,27,28,55, 8, 1,13, 4, 8		4,12, 2,14,39	
		36,11,30,48,35,19,51		2,39
42″	57,27,28, 5, 6,38,49,48,23,59		4,12, 2,17,18	
		36,11,26,36,33, 2,33		2,39
44″	57,27,28,41,18, 5,26,21,26,32		4,12, 2,19,57	
		36,11,22,24,30,42,36		2,39
46″	57,27,29,17,29,27,50,52, 9, 8		4,12, 2,22,36	
		36,11,18,12,28,20, 0		2,39
48″	57,27,29,53,40,46, 3,20,29, 8		4,12, 2,25,15	
		36,11,14, 0,25,54,45		2,39
50″	57,27,30,29,52, 0, 3,46,23,53		4,12, 2,27,54	
		36,11, 9,48,23,26,51		2,39
52″	57,27,31, 6, 3, 9,52, 9,50,44		4,12, 2,30,33	
		36,11, 5,36,20,56,18		2,39
54″	57,27,31,42,14,15,28,30,47, 2		4,12, 2,33,12	
		36,11, 1,24,18,23, 6		2,39
56″	57,27,32,18,25,16,52,49,10, 8		4,12, 2,35,51	
		36,10,57,12,15,47,15		2,39
58″	57,27,32,54,36,14, 5, 4,57,23		4,12, 2,38,30	
		36,10,53, 0,13, 8,45		
60″	57,27,33,30,47, 7, 5,18, 6, 8			
exact	57,27,33,30,47, 7, 5,18,19,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°16′ 0″	57,27,33,30,47, 7, 5,18,19,36			
		36,10,48,48,10,29, 6		
2″	57,27,34, 6,57,55,53,28,48,42		4,12, 2,43,41	
		36,10,44,36, 7,45,25		2,39
4″	57,27,34,43, 8,40,29,36,34, 7		4,12, 2,46,20	
		36,10,40,24, 4,59, 5		2,39
6″	57,27,35,19,19,20,53,41,33,12		4,12, 2,48,59	
		36,10,36,12, 2,10, 6		2,39
8″	57,27,35,55,29,57, 5,43,43,18		4,12, 2,51,38	
		36,10,31,59,59,18,28		2,39
10″	57,27,36,31,40,29, 5,43, 1,46		4,12, 2,54,17	
		36,10,27,47,56,24,11		2,39
12″	57,27,37, 7,50,56,53,39,25,57		4,12, 2,56,56	
		36,10,23,35,53,27,15		2,39
14″	57,27,37,44, 1,20,29,32,53,12		4,12, 2,59,35	
		36,10,19,23,50,27,40		2,39
16″	57,27,38,20,11,39,53,23,20,52		4,12, 3, 2,14	
		36,10,15,11,47,25,26		2,39
18″	57,27,38,56,21,55, 5,10,46,18		4,12, 3, 4,53	
		36,10,10,59,44,20,33		2,39
20″	57,27,39,32,32, 6, 4,55, 6,51		4,12, 3, 7,32	
		36,10, 6,47,41,13, 1		2,39
22″	57,27,40, 8,42,12,52,36,19,52		4,12, 3,10,11	
		36,10, 2,35,38, 2,50		2,39
24″	57,27,40,44,52,15,28,14,22,42		4,12, 3,12,50	
		36, 9,58,23,34,50, 0		2,39
26″	57,27,41,21, 2,13,51,49,12,42		4,12, 3,15,29	
		36, 9,54,11,31,34,31		2,39
28″	57,27,41,57,12, 8, 3,20,47,13		4,12, 3,18, 8	
		36, 9,49,59,28,16,23		2,39
30″	57,27,42,33,21,58, 2,49, 3,36		4,12, 3,20,47	
		36, 9,45,47,24,55,36		2,39
32″	57,27,43, 9,31,43,50,13,59,12		4,12, 3,23,26	
		36, 9,41,35,21,32,10		2,39
34″	57,27,43,45,41,25,25,35,31,22		4,12, 3,26, 5	
		36, 9,37,23,18, 6, 5		2,39
36″	57,27,44,21,51, 2,48,53,37,27		4,12, 3,28,44	
		36, 9,33,11,14,37,21		2,39
38″	57,27,44,58, 0,36, 0, 8,14,48		4,12, 3,31,23	
		36, 9,28,59,11, 5,58		2,39
40″	57,27,45,34,10, 4,59,19,20,46		4,12, 3,34, 2	
		36, 9,24,47, 7,31,56		2,39
42″	57,27,46,10,19,29,46,26,52,42		4,12, 3,36,41	
		36, 9,20,35, 3,55,15		2,39
44″	57,27,46,46,28,50,21,30,47,57		4,12, 3,39,20	
		36, 9,16,23, 0,15,55		2,39
46″	57,27,47,22,38, 6,44,31, 3,52		4,12, 3,41,59	
		36, 9,12,10,56,33,56		2,39
48″	57,27,47,58,47,18,55,27,37,48		4,12, 3,44,38	
		36, 9, 7,58,52,49,18		2,39
50″	57,27,48,34,56,26,54,20,27, 6		4,12, 3,47,17	
		36, 9, 3,46,49, 2, 1		2,39
52″	57,27,49,11, 5,30,41, 9,29, 7		4,12, 3,49,56	
		36, 8,59,34,45,12, 5		2,39
54″	57,27,49,47,14,30,15,54,41,12		4,12, 3,52,35	
		36, 8,55,22,41,19,30		2,39
56″	57,27,50,23,23,25,38,36, 0,42		4,12, 3,55,14	
		36, 8,51,10,37,24,16		2,39
58″	57,27,50,59,32,16,49,13,24,58		4,12, 3,57,53	
		36, 8,46,58,33,26,23		
60″	57,27,51,35,41, 3,47,46,51,21			
exact	57,27,51,35,41, 3,47,47,12,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°17′ 0″	57,27,51,35,41, 3,47,47,12,34			
		36, 8,42,46,29,28,17		
2″	57,27,52,11,49,46,34,16,40,51		4,12, 4, 3, 0	
		36, 8,38,34,25,25,17		2,39
4″	57,27,52,47,58,25, 8,42, 6, 8		4,12, 4, 5,39	
		36, 8,34,22,21,19,38		2,39
6″	57,27,53,24, 6,59,31, 3,25,46		4,12, 4, 8,18	
		36, 8,30,10,17,11,20		2,39
8″	57,27,54, 0,15,29,41,20,37, 6		4,12, 4,10,57	
		36, 8,25,58,13, 0,23		2,39
10″	57,27,54,36,23,55,39,33,37,29		4,12, 4,13,36	
		36, 8,21,46, 8,46,47		2,39
12″	57,27,55,12,32,17,25,42,24,16		4,12, 4,16,15	
		36, 8,17,34, 4,30,32		2,39
14″	57,27,55,48,40,34,59,46,54,48		4,12, 4,18,54	
		36, 8,13,22, 0,11,38		2,39
16″	57,27,56,24,48,48,21,47, 6,26		4,12, 4,21,33	
		36, 8, 9, 9,55,50, 5		2,39
18″	57,27,57, 0,56,57,31,42,56,31		4,12, 4,24,12	
		36, 8, 4,57,51,25,53		2,39
20″	57,27,57,37, 5, 2,29,34,22,24		4,12, 4,26,51	
		36, 8, 0,45,46,59, 2		2,39
22″	57,27,58,13,13, 3,15,21,21,26		4,12, 4,29,30	
		36, 7,56,33,42,29,32		2,39
24″	57,27,58,49,20,59,49, 3,50,58		4,12, 4,32, 9	
		36, 7,52,21,37,57,23		2,39
26″	57,27,59,25,28,52,10,41,48,21		4,12, 4,34,48	
		36, 7,48, 9,33,22,35		2,39
28″	57,28, 0, 1,36,40,20,15,10,56		4,12, 4,37,27	
		36, 7,43,57,28,45, 8		2,39
30″	57,28, 0,37,44,24,17,43,56, 4		4,12, 4,40, 6	
		36, 7,39,45,24, 5, 2		2,39
32″	57,28, 1,13,52, 4, 3, 8, 1, 6		4,12, 4,42,45	
		36, 7,35,33,19,22,17		2,39
34″	57,28, 1,49,59,39,36,27,23,23		4,12, 4,45,24	
		36, 7,31,21,14,36,53		2,39
36″	57,28, 2,26, 7,10,57,42, 0,16		4,12, 4,48, 3	
		36, 7,27, 9, 9,48,50		2,39
38″	57,28, 3, 2,14,38, 6,51,49, 6		4,12, 4,50,42	
		36, 7,22,57, 4,58, 8		2,39
40″	57,28, 3,38,22, 1, 3,56,47,14		4,12, 4,53,21	
		36, 7,18,45, 0, 4,47		2,39
42″	57,28, 4,14,29,19,48,56,52, 1		4,12, 4,56, 0	
		36, 7,14,32,55, 8,47		2,39
44″	57,28, 4,50,36,34,21,52, 0,48		4,12, 4,58,39	
		36, 7,10,20,50,10, 8		2,39
46″	57,28, 5,26,43,44,42,42,10,56		4,12, 5, 1,18	
		36, 7, 6, 8,45, 8,50		2,39
48″	57,28, 6, 2,50,50,51,27,19,46		4,12, 5, 3,57	
		36, 7, 1,56,40, 4,53		2,39
50″	57,28, 6,38,57,52,48, 7,24,39		4,12, 5, 6,36	
		36, 6,57,44,34,58,17		2,39
52″	57,28, 7,15, 4,50,32,42,22,56		4,12, 5, 9,15	
		36, 6,53,32,29,49, 2		2,39
54″	57,28, 7,51,11,44, 5,12,11,58		4,12, 5,11,54	
		36, 6,49,20,24,37, 8		2,39
56″	57,28, 8,27,18,33,25,36,49, 6		4,12, 5,14,33	
		36, 6,45, 8,19,22,35		2,39
58″	57,28, 9, 3,25,18,33,56,11,41		4,12, 5,17,12	
		36, 6,40,56,14, 5,23		
60″	57,28, 9,39,31,59,30,10,17, 4			
exact	57,28, 9,39,31,59,30,10,50,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°18′ 0″	57,28, 9,39,31,59,30,10,50,31			
		36, 6,36,44, 8,49,12		
2″	57,28,10,15,38,36,14,19,39,43		4,12, 5,22,14	
		36, 6,32,32, 3,26,58		2,38
4″	57,28,10,51,45, 8,46,23, 6,41		4,12, 5,24,52	
		36, 6,28,19,58, 2, 6		2,38
6″	57,28,11,27,51,37, 6,21, 8,47		4,12, 5,27,30	
		36, 6,24, 7,52,34,36		2,38
8″	57,28,12, 3,58, 1,14,13,43,23		4,12, 5,30, 8	
		36, 6,19,55,47, 4,28		2,38
10″	57,28,12,40, 4,21,10, 0,47,51		4,12, 5,32,46	
		36, 6,15,43,41,31,42		2,38
12″	57,28,13,16,10,36,53,42,19,33		4,12, 5,35,24	
		36, 6,11,31,35,56,18		2,38
14″	57,28,13,52,16,48,25,18,15,51		4,12, 5,38, 2	
		36, 6, 7,19,30,18,16		2,38
16″	57,28,14,28,22,55,44,48,34, 7		4,12, 5,40,40	
		36, 6, 3, 7,24,37,36		2,38
18″	57,28,15, 4,28,58,52,13,11,43		4,12, 5,43,18	
		36, 5,58,55,18,54,18		2,38
20″	57,28,15,40,34,57,47,32, 6, 1		4,12, 5,45,56	
		36, 5,54,43,13, 8,22		2,38
22″	57,28,16,16,40,52,30,45,14,23		4,12, 5,48,34	
		36, 5,50,31, 7,19,48		2,38
24″	57,28,16,52,46,43, 1,52,34,11		4,12, 5,51,12	
		36, 5,46,19, 1,28,36		2,38
26″	57,28,17,28,52,29,20,54, 2,47		4,12, 5,53,50	
		36, 5,42, 6,55,34,46		2,38
28″	57,28,18, 4,58,11,27,49,37,33		4,12, 5,56,28	
		36, 5,37,54,49,38,18		2,38
30″	57,28,18,41, 3,49,22,39,15,51		4,12, 5,59, 6	
		36, 5,33,42,43,39,12		2,38
32″	57,28,19,17, 9,23, 5,22,55, 3		4,12, 6, 1,44	
		36, 5,29,30,37,37,28		2,38
34″	57,28,19,53,14,52,36, 0,32,31		4,12, 6, 4,22	
		36, 5,25,18,31,33, 6		2,38
36″	57,28,20,29,20,17,54,32, 5,37		4,12, 6, 7, 0	
		36, 5,21, 6,25,26, 6		2,38
38″	57,28,21, 5,25,39, 0,57,31,43		4,12, 6, 9,38	
		36, 5,16,54,19,16,28		2,38
40″	57,28,21,41,30,55,55,16,48,11		4,12, 6,12,16	
		36, 5,12,42,13, 4,12		2,38
42″	57,28,22,17,36, 8,37,29,52,23		4,12, 6,14,54	
		36, 5, 8,30, 6,49,18		2,38
44″	57,28,22,53,41,17, 7,36,41,41		4,12, 6,17,32	
		36, 5, 4,18, 0,31,46		2,38
46″	57,28,23,29,46,21,25,37,13,27		4,12, 6,20,10	
		36, 5, 0, 5,54,11,36		2,38
48″	57,28,24, 5,51,21,31,31,25, 3		4,12, 6,22,48	
		36, 4,55,53,47,48,48		2,38
50″	57,28,24,41,56,17,25,19,13,51		4,12, 6,25,26	
		36, 4,51,41,41,23,22		2,38
52″	57,28,25,18, 1, 9, 7, 0,37,13		4,12, 6,28, 4	
		36, 4,47,29,34,55,18		2,38
54″	57,28,25,54, 5,56,36,35,32,31		4,12, 6,30,42	
		36, 4,43,17,28,24,36		2,38
56″	57,28,26,30,10,39,54, 3,57, 7		4,12, 6,33,20	
		36, 4,39, 5,21,51,16		2,38
58″	57,28,27, 6,15,18,59,25,48,23		4,12, 6,35,58	
		36, 4,34,53,15,15,18		
60″	57,28,27,42,19,53,52,41, 3,41			
exact	57,28,27,42,19,53,52,40,39, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°19′ 0″	57,28,27,42,19,53,52,40,39, 5			
		36, 4,30,41, 8,34,10		
2″	57,28,28,18,24,24,33,49,13,15		4,12, 6,41,24	
		36, 4,26,29, 1,52,46		2,38
4″	57,28,28,54,28,51, 2,51, 6, 1		4,12, 6,44, 2	
		36, 4,22,16,55, 8,44		2,38
6″	57,28,29,30,33,13,19,46,14,45		4,12, 6,46,40	
		36, 4,18, 4,48,22, 4		2,38
8″	57,28,30, 6,37,31,24,34,36,49		4,12, 6,49,18	
		36, 4,13,52,41,32,46		2,38
10″	57,28,30,42,41,45,17,16, 9,35		4,12, 6,51,56	
		36, 4, 9,40,34,40,50		2,38
12″	57,28,31,18,45,54,57,50,50,25		4,12, 6,54,34	
		36, 4, 5,28,27,46,16		2,38
14″	57,28,31,54,50, 0,26,18,36,41		4,12, 6,57,12	
		36, 4, 1,16,20,49, 4		2,38
16″	57,28,32,30,54, 1,42,39,25,45		4,12, 6,59,50	
		36, 3,57, 4,13,49,14		2,38
18″	57,28,33, 6,57,58,46,53,14,59		4,12, 7, 2,28	
		36, 3,52,52, 6,46,46		2,38
20″	57,28,33,43, 1,51,39, 0, 1,45		4,12, 7, 5, 6	
		36, 3,48,39,59,41,40		2,38
22″	57,28,34,19, 5,40,18,59,43,25		4,12, 7, 7,44	
		36, 3,44,27,52,33,56		2,38
24″	57,28,34,55, 9,24,46,52,17,21		4,12, 7,10,22	
		36, 3,40,15,45,23,34		2,38
26″	57,28,35,31,13, 5, 2,37,40,55		4,12, 7,13, 0	
		36, 3,36, 3,38,10,34		2,38
28″	57,28,36, 7,16,41, 6,15,51,29		4,12, 7,15,38	
		36, 3,31,51,30,54,56		2,38
30″	57,28,36,43,20,12,57,46,46,25		4,12, 7,18,16	
		36, 3,27,39,23,36,40		2,38
32″	57,28,37,19,23,40,37,10,23, 5		4,12, 7,20,54	
		36, 3,23,27,16,15,46		2,38
34″	57,28,37,55,27, 4, 4,26,38,51		4,12, 7,23,32	
		36, 3,19,15, 8,52,14		2,38
36″	57,28,38,31,30,23,19,35,31, 5		4,12, 7,26,10	
		36, 3,15, 3, 1,26, 4		2,38
38″	57,28,39, 7,33,38,22,36,57, 9		4,12, 7,28,48	
		36, 3,10,50,53,57,16		2,38
40″	57,28,39,43,36,49,13,30,54,25		4,12, 7,31,26	
		36, 3, 6,38,46,25,50		2,38
42″	57,28,40,19,39,55,52,17,20,15		4,12, 7,34, 4	
		36, 3, 2,26,38,51,46		2,38
44″	57,28,40,55,42,58,18,56,12, 1		4,12, 7,36,42	
		36, 2,58,14,31,15, 4		2,38
46″	57,28,41,31,45,56,33,27,27, 5		4,12, 7,39,20	
		36, 2,54, 2,23,35,44		2,38
48″	57,28,42, 7,48,50,35,51, 2,49		4,12, 7,41,58	
		36, 2,49,50,15,53,46		2,38
50″	57,28,42,43,51,40,26, 6,56,35		4,12, 7,44,36	
		36, 2,45,38, 8, 9,10		2,38
52″	57,28,43,19,54,26, 4,15, 5,45		4,12, 7,47,14	
		36, 2,41,26, 0,21,56		2,38
54″	57,28,43,55,57, 7,30,15,27,41		4,12, 7,49,52	
		36, 2,37,13,52,32, 4		2,38
56″	57,28,44,31,59,44,44, 7,59,45		4,12, 7,52,30	
		36, 2,33, 1,44,39,34		2,38
58″	57,28,45, 8, 2,17,45,52,39,19		4,12, 7,55, 8	
		36, 2,28,49,36,44,26		
60″	57,28,45,44, 4,46,35,29,23,45			
exact	57,28,45,44, 4,46,35,29,12,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°20′ 0″	57,28,45,44, 4,46,35,29,12,58			
		36, 2,24,37,28,45,29		
2″	57,28,46,20, 7,11,12,57,58,27		4,12, 8, 0,29	
		36, 2,20,25,20,45, 0		2,38
4″	57,28,46,56, 9,31,38,18,43,27		4,12, 8, 3, 7	
		36, 2,16,13,12,41,53		2,38
6″	57,28,47,32,11,47,51,31,25,20		4,12, 8, 5,45	
		36, 2,12, 1, 4,36, 8		2,38
8″	57,28,48, 8,13,59,52,36, 1,28		4,12, 8, 8,23	
		36, 2, 7,48,56,27,45		2,38
10″	57,28,48,44,16, 7,41,32,29,13		4,12, 8,11, 1	
		36, 2, 3,36,48,16,44		2,38
12″	57,28,49,20,18,11,18,20,45,57		4,12, 8,13,39	
		36, 1,59,24,40, 3, 5		2,38
14″	57,28,49,56,20,10,43, 0,49, 2		4,12, 8,16,17	
		36, 1,55,12,31,46,48		2,38
16″	57,28,50,32,22, 5,55,32,35,50		4,12, 8,18,55	
		36, 1,51, 0,23,27,53		2,38
18″	57,28,51, 8,23,56,55,56, 3,43		4,12, 8,21,33	
		36, 1,46,48,15, 6,20		2,38
20″	57,28,51,44,25,43,44,11,10, 3		4,12, 8,24,11	
		36, 1,42,36, 6,42, 9		2,38
22″	57,28,52,20,27,26,20,17,52,12		4,12, 8,26,49	
		36, 1,38,23,58,15,20		2,38
24″	57,28,52,56,29, 4,44,16, 7,32		4,12, 8,29,27	
		36, 1,34,11,49,45,53		2,38
26″	57,28,53,32,30,38,56, 5,53,25		4,12, 8,32, 5	
		36, 1,29,59,41,13,48		2,38
28″	57,28,54, 8,32, 8,55,47, 7,13		4,12, 8,34,43	
		36, 1,25,47,32,39, 5		2,38
30″	57,28,54,44,33,34,43,19,46,18		4,12, 8,37,21	
		36, 1,21,35,24, 1,44		2,38
32″	57,28,55,20,34,56,18,43,48, 2		4,12, 8,39,59	
		36, 1,17,23,15,21,45		2,38
34″	57,28,55,56,36,13,41,59, 9,47		4,12, 8,42,37	
		36, 1,13,11, 6,39, 8		2,38
36″	57,28,56,32,37,26,53, 5,48,55		4,12, 8,45,15	
		36, 1, 8,58,57,53,53		2,38
38″	57,28,57, 8,38,35,52, 3,42,48		4,12, 8,47,53	
		36, 1, 4,46,49, 6, 0		2,38
40″	57,28,57,44,39,40,38,52,48,48		4,12, 8,50,31	
		36, 1, 0,34,40,15,29		2,38
42″	57,28,58,20,40,41,13,33, 4,17		4,12, 8,53, 9	
		36, 0,56,22,31,22,20		2,38
44″	57,28,58,56,41,37,36, 4,26,37		4,12, 8,55,47	
		36, 0,52,10,22,26,33		2,38
46″	57,28,59,32,42,29,46,26,53,10		4,12, 8,58,25	
		36, 0,47,58,13,28, 8		2,38
48″	57,29, 0, 8,43,17,44,40,21,18		4,12, 9, 1, 3	
		36, 0,43,46, 4,27, 5		2,38
50″	57,29, 0,44,44, 1,30,44,48,23		4,12, 9, 3,41	
		36, 0,39,33,55,23,24		2,38
52″	57,29, 1,20,44,41, 4,40,11,47		4,12, 9, 6,19	
		36, 0,35,21,46,17, 5		2,38
54″	57,29, 1,56,45,16,26,26,28,52		4,12, 9, 8,57	
		36, 0,31, 9,37, 8, 8		2,38
56″	57,29, 2,32,45,47,36, 3,37, 0		4,12, 9,11,35	
		36, 0,26,57,27,56,33		2,38
58″	57,29, 3, 8,46,14,33,31,33,33		4,12, 9,14,13	
		36, 0,22,45,18,42,20		
60″	57,29, 3,44,46,37,18,50,15,53			
exact	57,29, 3,44,46,37,18,50,16, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°21′ 0″	57,29, 3,44,46,37,18,50,16, 1			
		36, 0,18,33, 9,25,27		
2″	57,29, 4,20,46,55,51,59,41,28		4,12, 9,19,29	
		36, 0,14,21, 0, 5,58		2,38
4″	57,29, 4,56,47,10,12,59,47,26		4,12, 9,22, 7	
		36, 0,10, 8,50,43,51		2,38
6″	57,29, 5,32,47,20,21,50,31,17		4,12, 9,24,45	
		36, 0, 5,56,41,19, 6		2,38
8″	57,29, 6, 8,47,26,18,31,50,23		4,12, 9,27,23	
		36, 0, 1,44,31,51,43		2,38
10″	57,29, 6,44,47,28, 3, 3,42, 6		4,12, 9,30, 1	
		35,59,57,32,22,21,42		2,38
12″	57,29, 7,20,47,25,35,26, 3,48		4,12, 9,32,39	
		35,59,53,20,12,49, 3		2,38
14″	57,29, 7,56,47,18,55,38,52,51		4,12, 9,35,17	
		35,59,49, 8, 3,13,46		2,38
16″	57,29, 8,32,47, 8, 3,42, 6,37		4,12, 9,37,55	
		35,59,44,55,53,35,51		2,38
18″	57,29, 9, 8,46,52,59,35,42,28		4,12, 9,40,33	
		35,59,40,43,43,55,18		2,38
20″	57,29, 9,44,46,33,43,19,37,46		4,12, 9,43,11	
		35,59,36,31,34,12, 7		2,38
22″	57,29,10,20,46,10,14,53,49,53		4,12, 9,45,49	
		35,59,32,19,24,26,18		2,38
24″	57,29,10,56,45,42,34,18,16,11		4,12, 9,48,27	
		35,59,28, 7,14,37,51		2,38
26″	57,29,11,32,45,10,41,32,54, 2		4,12, 9,51, 5	
		35,59,23,55, 4,46,46		2,38
28″	57,29,12, 8,44,34,36,37,40,48		4,12, 9,53,43	
		35,59,19,42,54,53, 3		2,38
30″	57,29,12,44,43,54,19,32,33,51		4,12, 9,56,21	
		35,59,15,30,44,56,42		2,38
32″	57,29,13,20,43, 9,50,17,30,33		4,12, 9,58,59	
		35,59,11,18,34,57,43		2,38
34″	57,29,13,56,42,21, 8,52,28,16		4,12,10, 1,37	
		35,59, 7, 6,24,56, 6		2,38
36″	57,29,14,32,41,28,15,17,24,22		4,12,10, 4,15	
		35,59, 2,54,14,51,51		2,38
38″	57,29,15, 8,40,31, 9,32,16,13		4,12,10, 6,53	
		35,58,58,42, 4,44,58		2,38
40″	57,29,15,44,39,29,51,37, 1,11		4,12,10, 9,31	
		35,58,54,29,54,35,27		2,38
42″	57,29,16,20,38,24,21,31,36,38		4,12,10,12, 9	
		35,58,50,17,44,23,18		2,38
44″	57,29,16,56,37,14,39,15,59,56		4,12,10,14,47	
		35,58,46, 5,34, 8,31		2,38
46″	57,29,17,32,36, 0,44,50, 8,27		4,12,10,17,25	
		35,58,41,53,23,51, 6		2,38
48″	57,29,18, 8,34,42,38,13,59,33		4,12,10,20, 3	
		35,58,37,41,13,31, 3		2,38
50″	57,29,18,44,33,20,19,27,30,36		4,12,10,22,41	
		35,58,33,29, 3, 8,22		2,38
52″	57,29,19,20,31,53,48,30,38,58		4,12,10,25,19	
		35,58,29,16,52,43, 3		2,38
54″	57,29,19,56,30,23, 5,23,22, 1		4,12,10,27,57	
		35,58,25, 4,42,15, 6		2,38
56″	57,29,20,32,28,48,10, 5,37, 7		4,12,10,30,35	
		35,58,20,52,31,44,31		2,38
58″	57,29,21, 8,27, 9, 2,37,21,38		4,12,10,33,13	
		35,58,16,40,21,11,18		
60″	57,29,21,44,25,25,42,58,32,56			
exact	57,29,21,44,25,25,42,58,41,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°22′ 0″	57,29,21,44,25,25,42,58,41,11			
		35,58,12,28,10,36,23		
2″	57,29,22,20,23,38,11, 9,17,34		4,12,10,38,25	
		35,58, 8,15,59,57,58		2,38
4″	57,29,22,56,21,46,27, 9,15,32		4,12,10,41, 3	
		35,58, 4, 3,49,16,55		2,38
6″	57,29,23,32,19,50,30,58,32,27		4,12,10,43,41	
		35,57,59,51,38,33,14		2,38
8″	57,29,24, 8,17,50,22,37, 5,41		4,12,10,46,19	
		35,57,55,39,27,46,55		2,38
10″	57,29,24,44,15,46, 2, 4,52,36		4,12,10,48,57	
		35,57,51,27,16,57,58		2,38
12″	57,29,25,20,13,37,29,21,50,34		4,12,10,51,35	
		35,57,47,15, 6, 6,23		2,38
14″	57,29,25,56,11,24,44,27,56,57		4,12,10,54,13	
		35,57,43, 2,55,12,10		2,38
16″	57,29,26,32, 9, 7,47,23, 9, 7		4,12,10,56,51	
		35,57,38,50,44,15,19		2,38
18″	57,29,27, 8, 6,46,38, 7,24,26		4,12,10,59,29	
		35,57,34,38,33,15,50		2,38
20″	57,29,27,44, 4,21,16,40,40,16		4,12,11, 2, 7	
		35,57,30,26,22,13,43		2,38
22″	57,29,28,20, 1,51,43, 2,53,59		4,12,11, 4,45	
		35,57,26,14,11, 8,58		2,38
24″	57,29,28,55,59,17,57,14, 2,57		4,12,11, 7,23	
		35,57,22, 2, 0, 1,35		2,38
26″	57,29,29,31,56,39,59,14, 4,32		4,12,11,10, 1	
		35,57,17,49,48,51,34		2,38
28″	57,29,30, 7,53,57,49, 2,56, 6		4,12,11,12,39	
		35,57,13,37,37,38,55		2,38
30″	57,29,30,43,51,11,26,40,35, 1		4,12,11,15,17	
		35,57, 9,25,26,23,38		2,38
32″	57,29,31,19,48,20,52, 6,58,39		4,12,11,17,55	
		35,57, 5,13,15, 5,43		2,38
34″	57,29,31,55,45,26, 5,22, 4,22		4,12,11,20,33	
		35,57, 1, 1, 3,45,10		2,38
36″	57,29,32,31,42,27, 6,25,49,32		4,12,11,23,11	
		35,56,56,48,52,21,59		2,38
38″	57,29,33, 7,39,23,55,18,11,31		4,12,11,25,49	
		35,56,52,36,40,56,10		2,38
40″	57,29,33,43,36,16,31,59, 7,41		4,12,11,28,27	
		35,56,48,24,29,27,43		2,38
42″	57,29,34,19,33, 4,56,28,35,24		4,12,11,31, 5	
		35,56,44,12,17,56,38		2,38
44″	57,29,34,55,29,49, 8,46,32, 2		4,12,11,33,43	
		35,56,40, 0, 6,22,55		2,38
46″	57,29,35,31,26,29, 8,52,54,57		4,12,11,36,21	
		35,56,35,47,54,46,34		2,38
48″	57,29,36, 7,23, 4,56,47,41,31		4,12,11,38,59	
		35,56,31,35,43, 7,35		2,38
50″	57,29,36,43,19,36,32,30,49, 6		4,12,11,41,37	
		35,56,27,23,31,25,58		2,38
52″	57,29,37,19,16, 3,56, 2,15, 4		4,12,11,44,15	
		35,56,23,11,19,41,43		2,38
54″	57,29,37,55,12,27, 7,21,56,47		4,12,11,46,53	
		35,56,18,59, 7,54,50		2,38
56″	57,29,38,31, 8,46, 6,29,51,37		4,12,11,49,31	
		35,56,14,46,56, 5,19		2,38
58″	57,29,39, 7, 5, 0,53,25,56,56		4,12,11,52, 9	
		35,56,10,34,44,13,10		
60″	57,29,39,43, 1,11,28,10,10, 6			
exact	57,29,39,43, 1,11,28,10,30,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°23′ 0″	57,29,39,43, 1,11,28,10,30,33			
		35,56, 6,22,32,20,34		
2″	57,29,40,18,57,17,50,42,51, 7		4,12,11,57,16	
		35,56, 2,10,20,23,18		2,38
4″	57,29,40,54,53,20, 1, 3,14,25		4,12,11,59,54	
		35,55,57,58, 8,23,24		2,38
6″	57,29,41,30,49,17,59,11,37,49		4,12,12, 2,32	
		35,55,53,45,56,20,52		2,38
8″	57,29,42, 6,45,11,45, 7,58,41		4,12,12, 5,10	
		35,55,49,33,44,15,42		2,38
10″	57,29,42,42,41, 1,18,52,14,23		4,12,12, 7,48	
		35,55,45,21,32, 7,54		2,38
12″	57,29,43,18,36,46,40,24,22,17		4,12,12,10,26	
		35,55,41, 9,19,57,28		2,38
14″	57,29,43,54,32,27,49,44,19,45		4,12,12,13, 4	
		35,55,36,57, 7,44,24		2,38
16″	57,29,44,30,28, 4,46,52, 4, 9		4,12,12,15,42	
		35,55,32,44,55,28,42		2,38
18″	57,29,45, 6,23,37,31,47,32,51		4,12,12,18,20	
		35,55,28,32,43,10,22		2,38
20″	57,29,45,42,19, 6, 4,30,43,13		4,12,12,20,58	
		35,55,24,20,30,49,24		2,38
22″	57,29,46,18,14,30,25, 1,32,37		4,12,12,23,36	
		35,55,20, 8,18,25,48		2,38
24″	57,29,46,54, 9,50,33,19,58,25		4,12,12,26,14	
		35,55,15,56, 5,59,34		2,38
26″	57,29,47,30, 5, 6,29,25,57,59		4,12,12,28,52	
		35,55,11,43,53,30,42		2,38
28″	57,29,48, 6, 0,18,13,19,28,41		4,12,12,31,30	
		35,55, 7,31,40,59,12		2,38
30″	57,29,48,41,55,25,45, 0,27,53		4,12,12,34, 8	
		35,55, 3,19,28,25, 4		2,38
32″	57,29,49,17,50,29, 4,28,52,57		4,12,12,36,46	
		35,54,59, 7,15,48,18		2,38
34″	57,29,49,53,45,28,11,44,41,15		4,12,12,39,24	
		35,54,54,55, 3, 8,54		2,38
36″	57,29,50,29,40,23, 6,47,50, 9		4,12,12,42, 2	
		35,54,50,42,50,26,52		2,38
38″	57,29,51, 5,35,13,49,38,17, 1		4,12,12,44,40	
		35,54,46,30,37,42,12		2,38
40″	57,29,51,41,30, 0,20,15,59,13		4,12,12,47,18	
		35,54,42,18,24,54,54		2,38
42″	57,29,52,17,24,42,38,40,54, 7		4,12,12,49,56	
		35,54,38, 6,12, 4,58		2,38
44″	57,29,52,53,19,20,44,52,59, 5		4,12,12,52,34	
		35,54,33,53,59,12,24		2,38
46″	57,29,53,29,13,54,38,52,11,29		4,12,12,55,12	
		35,54,29,41,46,17,12		2,38
48″	57,29,54, 5, 8,24,20,38,28,41		4,12,12,57,50	
		35,54,25,29,33,19,22		2,38
50″	57,29,54,41, 2,49,50,11,48, 3		4,12,13, 0,28	
		35,54,21,17,20,18,54		2,38
52″	57,29,55,16,57,11, 7,32, 6,57		4,12,13, 3, 6	
		35,54,17, 5, 7,15,48		2,38
54″	57,29,55,52,51,28,12,39,22,45		4,12,13, 5,44	
		35,54,12,52,54,10, 4		2,38
56″	57,29,56,28,45,41, 5,33,32,49		4,12,13, 8,22	
		35,54, 8,40,41, 1,42		2,38
58″	57,29,57, 4,39,49,46,14,34,31		4,12,13,11, 0	
		35,54, 4,28,27,50,42		
60″	57,29,57,40,33,54,14,42,25,13			
exact	57,29,57,40,33,54,14,42,55,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°24′ 0″	57,29,57,40,33,54,14,42,55,22			
		35,54, 0,16,14,40,19		
2″	57,29,58,16,27,54,30,57,35,41		4,12,13,16, 2	
		35,53,56, 4, 1,24,17		2,37
4″	57,29,58,52,21,50,34,58,59,58		4,12,13,18,39	
		35,53,51,51,48, 5,38		2,37
6″	57,29,59,28,15,42,26,47, 5,36		4,12,13,21,16	
		35,53,47,39,34,44,22		2,37
8″	57,30, 0, 4, 9,30, 6,21,49,58		4,12,13,23,53	
		35,53,43,27,21,20,29		2,37
10″	57,30, 0,40, 3,13,33,43,10,27		4,12,13,26,30	
		35,53,39,15, 7,53,59		2,37
12″	57,30, 1,15,56,52,48,51, 4,26		4,12,13,29, 7	
		35,53,35, 2,54,24,52		2,37
14″	57,30, 1,51,50,27,51,45,29,18		4,12,13,31,44	
		35,53,30,50,40,53, 8		2,37
16″	57,30, 2,27,43,58,42,26,22,26		4,12,13,34,21	
		35,53,26,38,27,18,47		2,37
18″	57,30, 3, 3,37,25,20,53,41,13		4,12,13,36,58	
		35,53,22,26,13,41,49		2,37
20″	57,30, 3,39,30,47,47, 7,23, 2		4,12,13,39,35	
		35,53,18,14, 0, 2,14		2,37
22″	57,30, 4,15,24, 6, 1, 7,25,16		4,12,13,42,12	
		35,53,14, 1,46,20, 2		2,37
24″	57,30, 4,51,17,20, 2,53,45,18		4,12,13,44,49	
		35,53, 9,49,32,35,13		2,37
26″	57,30, 5,27,10,29,52,26,20,31		4,12,13,47,26	
		35,53, 5,37,18,47,47		2,37
28″	57,30, 6, 3, 3,35,29,45, 8,18		4,12,13,50, 3	
		35,53, 1,25, 4,57,44		2,37
30″	57,30, 6,38,56,36,54,50, 6, 2		4,12,13,52,40	
		35,52,57,12,51, 5, 4		2,37
32″	57,30, 7,14,49,34, 7,41,11, 6		4,12,13,55,17	
		35,52,53, 0,37, 9,47		2,37
34″	57,30, 7,50,42,27, 8,18,20,53		4,12,13,57,54	
		35,52,48,48,23,11,53		2,37
36″	57,30, 8,26,35,15,56,41,32,46		4,12,14, 0,31	
		35,52,44,36, 9,11,22		2,37
38″	57,30, 9, 2,28, 0,32,50,44, 8		4,12,14, 3, 8	
		35,52,40,23,55, 8,14		2,37
40″	57,30, 9,38,20,40,56,45,52,22		4,12,14, 5,45	
		35,52,36,11,41, 2,29		2,37
42″	57,30,10,14,13,17, 8,26,54,51		4,12,14, 8,22	
		35,52,31,59,26,54, 7		2,37
44″	57,30,10,50, 5,49, 7,53,48,58		4,12,14,10,59	
		35,52,27,47,12,43, 8		2,37
46″	57,30,11,25,58,16,55, 6,32, 6		4,12,14,13,36	
		35,52,23,34,58,29,32		2,37
48″	57,30,12, 1,50,40,30, 5, 1,38		4,12,14,16,13	
		35,52,19,22,44,13,19		2,37
50″	57,30,12,37,42,59,52,49,14,57		4,12,14,18,50	
		35,52,15,10,29,54,29		2,37
52″	57,30,13,13,35,15, 3,19, 9,26		4,12,14,21,27	
		35,52,10,58,15,33, 2		2,37
54″	57,30,13,49,27,26, 1,34,42,28		4,12,14,24, 4	
		35,52, 6,46, 1, 8,58		2,37
56″	57,30,14,25,19,32,47,35,51,26		4,12,14,26,41	
		35,52, 2,33,46,42,17		2,37
58″	57,30,15, 1,11,35,21,22,33,43		4,12,14,29,18	
		35,51,58,21,32,12,59		
60″	57,30,15,37, 3,33,42,54,46,42			
exact	57,30,15,37, 3,33,42,54,15,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°25′ 0″	57,30,15,37, 3,33,42,54,15,59			
		35,51,54, 9,17,37,56		
2″	57,30,16,12,55,27,52,11,53,55		4,12,14,34,44	
		35,51,49,57, 3, 3,12		2,37
4″	57,30,16,48,47,17,49,14,57, 7		4,12,14,37,21	
		35,51,45,44,48,25,51		2,37
6″	57,30,17,24,39, 3,34, 3,22,58		4,12,14,39,58	
		35,51,41,32,33,45,53		2,37
8″	57,30,18, 0,30,45, 6,37, 8,51		4,12,14,42,35	
		35,51,37,20,19, 3,18		2,37
10″	57,30,18,36,22,22,26,56,12, 9		4,12,14,45,12	
		35,51,33, 8, 4,18, 6		2,37
12″	57,30,19,12,13,55,35, 0,30,15		4,12,14,47,49	
		35,51,28,55,49,30,17		2,37
14″	57,30,19,48, 5,24,30,50, 0,32		4,12,14,50,26	
		35,51,24,43,34,39,51		2,37
16″	57,30,20,23,56,49,14,24,40,23		4,12,14,53, 3	
		35,51,20,31,19,46,48		2,37
18″	57,30,20,59,48, 9,45,44,27,11		4,12,14,55,40	
		35,51,16,19, 4,51, 8		2,37
20″	57,30,21,35,39,26, 4,49,18,19		4,12,14,58,17	
		35,51,12, 6,49,52,51		2,37
22″	57,30,22,11,30,38,11,39,11,10		4,12,15, 0,54	
		35,51, 7,54,34,51,57		2,37
24″	57,30,22,47,21,46, 6,14, 3, 7		4,12,15, 3,31	
		35,51, 3,42,19,48,26		2,37
26″	57,30,23,23,12,49,48,33,51,33		4,12,15, 6, 8	
		35,50,59,30, 4,42,18		2,37
28″	57,30,23,59, 3,49,18,38,33,51		4,12,15, 8,45	
		35,50,55,17,49,33,33		2,37
30″	57,30,24,34,54,44,36,28, 7,24		4,12,15,11,22	
		35,50,51, 5,34,22,11		2,37
32″	57,30,25,10,45,35,42, 2,29,35		4,12,15,13,59	
		35,50,46,53,19, 8,12		2,37
34″	57,30,25,46,36,22,35,21,37,47		4,12,15,16,36	
		35,50,42,41, 3,51,36		2,37
36″	57,30,26,22,27, 5,16,25,29,23		4,12,15,19,13	
		35,50,38,28,48,32,23		2,37
38″	57,30,26,58,17,43,45,14, 1,46		4,12,15,21,50	
		35,50,34,16,33,10,33		2,37
40″	57,30,27,34, 8,18, 1,47,12,19		4,12,15,24,27	
		35,50,30, 4,17,46, 6		2,37
42″	57,30,28, 9,58,48, 6, 4,58,25		4,12,15,27, 4	
		35,50,25,52, 2,19, 2		2,37
44″	57,30,28,45,49,13,58, 7,17,27		4,12,15,29,41	
		35,50,21,39,46,49,21		2,37
46″	57,30,29,21,39,35,37,54, 6,48		4,12,15,32,18	
		35,50,17,27,31,17, 3		2,37
48″	57,30,29,57,29,53, 5,25,23,51		4,12,15,34,55	
		35,50,13,15,15,42, 8		2,37
50″	57,30,30,33,20, 6,20,41, 5,59		4,12,15,37,32	
		35,50, 9, 3, 0, 4,36		2,37
52″	57,30,31, 9,10,15,23,41,10,35		4,12,15,40, 9	
		35,50, 4,50,44,24,27		2,37
54″	57,30,31,45, 0,20,14,25,35, 2		4,12,15,42,46	
		35,50, 0,38,28,41,41		2,37
56″	57,30,32,20,50,20,52,54,16,43		4,12,15,45,23	
		35,49,56,26,12,56,18		2,37
58″	57,30,32,56,40,17,19, 7,13, 1		4,12,15,48, 0	
		35,49,52,13,57, 8,18		
60″	57,30,33,32,30, 9,33, 4,21,19			
exact	57,30,33,32,30, 9,33, 4, 1,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°26′ 0″	57,30,33,32,30, 9,33, 4, 1,55			
		35,49,48, 1,41,15,43		
2″	57,30,34, 8,19,57,34,45,17,38		4,12,15,53,21	
		35,49,43,49,25,22,22		2,37
4″	57,30,34,44, 9,41,24,10,40, 0		4,12,15,55,58	
		35,49,39,37, 9,26,24		2,37
6″	57,30,35,19,59,21, 1,20, 6,24		4,12,15,58,35	
		35,49,35,24,53,27,49		2,37
8″	57,30,35,55,48,56,26,13,34,13		4,12,16, 1,12	
		35,49,31,12,37,26,37		2,37
10″	57,30,36,31,38,27,38,51, 0,50		4,12,16, 3,49	
		35,49,27, 0,21,22,48		2,37
12″	57,30,37, 7,27,54,39,12,23,38		4,12,16, 6,26	
		35,49,22,48, 5,16,22		2,37
14″	57,30,37,43,17,17,27,17,40, 0		4,12,16, 9, 3	
		35,49,18,35,49, 7,19		2,37
16″	57,30,38,19, 6,36, 3, 6,47,19		4,12,16,11,40	
		35,49,14,23,32,55,39		2,37
18″	57,30,38,54,55,50,26,39,42,58		4,12,16,14,17	
		35,49,10,11,16,41,22		2,37
20″	57,30,39,30,45, 0,37,56,24,20		4,12,16,16,54	
		35,49, 5,59, 0,24,28		2,37
22″	57,30,40, 6,34, 6,36,56,48,48		4,12,16,19,31	
		35,49, 1,46,44, 4,57		2,37
24″	57,30,40,42,23, 8,23,40,53,45		4,12,16,22, 8	
		35,48,57,34,27,42,49		2,37
26″	57,30,41,18,12, 5,58, 8,36,34		4,12,16,24,45	
		35,48,53,22,11,18, 4		2,37
28″	57,30,41,54, 0,59,20,19,54,38		4,12,16,27,22	
		35,48,49, 9,54,50,42		2,37
30″	57,30,42,29,49,48,30,14,45,20		4,12,16,29,59	
		35,48,44,57,38,20,43		2,37
32″	57,30,43, 5,38,33,27,53, 6, 3		4,12,16,32,36	
		35,48,40,45,21,48, 7		2,37
34″	57,30,43,41,27,14,13,14,54,10		4,12,16,35,13	
		35,48,36,33, 5,12,54		2,37
36″	57,30,44,17,15,50,46,20, 7, 4		4,12,16,37,50	
		35,48,32,20,48,35, 4		2,37
38″	57,30,44,53, 4,23, 7, 8,42, 8		4,12,16,40,27	
		35,48,28, 8,31,54,37		2,37
40″	57,30,45,28,52,51,15,40,36,45		4,12,16,43, 4	
		35,48,23,56,15,11,33		2,37
42″	57,30,46, 4,41,15,11,55,48,18		4,12,16,45,41	
		35,48,19,43,58,25,52		2,37
44″	57,30,46,40,29,34,55,54,14,10		4,12,16,48,18	
		35,48,15,31,41,37,34		2,37
46″	57,30,47,16,17,50,27,35,51,44		4,12,16,50,55	
		35,48,11,19,24,46,39		2,37
48″	57,30,47,52, 6, 1,47, 0,38,23		4,12,16,53,32	
		35,48, 7, 7, 7,53, 7		2,37
50″	57,30,48,27,54, 8,54, 8,31,30		4,12,16,56, 9	
		35,48, 2,54,50,56,58		2,37
52″	57,30,49, 3,42,11,48,59,28,28		4,12,16,58,46	
		35,47,58,42,33,58,12		2,37
54″	57,30,49,39,30,10,31,33,26,40		4,12,17, 1,23	
		35,47,54,30,16,56,49		2,37
56″	57,30,50,15,18, 5, 1,50,23,29		4,12,17, 4, 0	
		35,47,50,17,59,52,49		2,37
58″	57,30,50,51, 5,55,19,50,16,18		4,12,17, 6,37	
		35,47,46, 5,42,46,12		
60″	57,30,51,26,53,41,25,33, 2,30			
exact	57,30,51,26,53,41,25,32,51,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°27′ 0″	57,30,51,26,53,41,25,32,51,50			
		35,47,41,53,25,36, 0		
2″	57,30,52, 2,41,23,18,58,27,50		4,12,17,11,54	
		35,47,37,41, 8,24, 6		2,37
4″	57,30,52,38,29, 1, 0, 6,51,56		4,12,17,14,31	
		35,47,33,28,51, 9,35		2,37
6″	57,30,53,14,16,34,28,58, 1,31		4,12,17,17, 8	
		35,47,29,16,33,52,27		2,37
8″	57,30,53,50, 4, 3,45,31,53,58		4,12,17,19,45	
		35,47,25, 4,16,32,42		2,37
10″	57,30,54,25,51,28,49,48,26,40		4,12,17,22,22	
		35,47,20,51,59,10,20		2,37
12″	57,30,55, 1,38,49,41,47,37, 0		4,12,17,24,59	
		35,47,16,39,41,45,21		2,37
14″	57,30,55,37,26, 6,21,29,22,21		4,12,17,27,36	
		35,47,12,27,24,17,45		2,37
16″	57,30,56,13,13,18,48,53,40, 6		4,12,17,30,13	
		35,47, 8,15, 6,47,32		2,37
18″	57,30,56,49, 0,27, 4, 0,27,38		4,12,17,32,50	
		35,47, 4, 2,49,14,42		2,37
20″	57,30,57,24,47,31, 6,49,42,20		4,12,17,35,27	
		35,46,59,50,31,39,15		2,37
22″	57,30,58, 0,34,30,57,21,21,35		4,12,17,38, 4	
		35,46,55,38,14, 1,11		2,37
24″	57,30,58,36,21,26,35,35,22,46		4,12,17,40,41	
		35,46,51,25,56,20,30		2,37
26″	57,30,59,12, 8,18, 1,31,43,16		4,12,17,43,18	
		35,46,47,13,38,37,12		2,37
28″	57,30,59,47,55, 5,15,10,20,28		4,12,17,45,55	
		35,46,43, 1,20,51,17		2,37
30″	57,31, 0,23,41,48,16,31,11,45		4,12,17,48,32	
		35,46,38,49, 3, 2,45		2,37
32″	57,31, 0,59,28,27, 5,34,14,30		4,12,17,51, 9	
		35,46,34,36,45,11,36		2,37
34″	57,31, 1,35,15, 1,42,19,26, 6		4,12,17,53,46	
		35,46,30,24,27,17,50		2,37
36″	57,31, 2,11, 1,32, 6,46,43,56		4,12,17,56,23	
		35,46,26,12, 9,21,27		2,37
38″	57,31, 2,46,47,58,18,56, 5,23		4,12,17,59, 0	
		35,46,21,59,51,22,27		2,37
40″	57,31, 3,22,34,20,18,47,27,50		4,12,18, 1,37	
		35,46,17,47,33,20,50		2,37
42″	57,31, 3,58,20,38, 6,20,48,40		4,12,18, 4,14	
		35,46,13,35,15,16,36		2,37
44″	57,31, 4,34, 6,51,41,36, 5,16		4,12,18, 6,51	
		35,46, 9,22,57, 9,45		2,37
46″	57,31, 5, 9,53, 1, 4,33,15, 1		4,12,18, 9,28	
		35,46, 5,10,39, 0,17		2,37
48″	57,31, 5,45,39, 6,15,12,15,18		4,12,18,12, 5	
		35,46, 0,58,20,48,12		2,37
50″	57,31, 6,21,25, 7,13,33, 3,30		4,12,18,14,42	
		35,45,56,46, 2,33,30		2,37
52″	57,31, 6,57,11, 3,59,35,37, 0		4,12,18,17,19	
		35,45,52,33,44,16,11		2,37
54″	57,31, 7,32,56,56,33,19,53,11		4,12,18,19,56	
		35,45,48,21,25,56,15		2,37
56″	57,31, 8, 8,42,44,54,45,49,26		4,12,18,22,33	
		35,45,44, 9, 7,33,42		2,37
58″	57,31, 8,44,28,29, 3,53,23, 8		4,12,18,25,10	
		35,45,39,56,49, 8,32		
60″	57,31, 9,20,14, 9, 0,42,31,40			
exact	57,31, 9,20,14, 9, 0,42,33,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°28′ 0″	57,31, 9,20,14, 9, 0,42,33,34			
		35,45,35,44,30,41, 3		
2″	57,31, 9,55,59,44,45,13,14,37		4,12,18,30,22	
		35,45,31,32,12,10,41		2,37
4″	57,31,10,31,45,16,17,25,25,18		4,12,18,32,59	
		35,45,27,19,53,37,42		2,37
6″	57,31,11, 7,30,43,37,19, 3, 0		4,12,18,35,36	
		35,45,23, 7,35, 2, 6		2,37
8″	57,31,11,43,16, 6,44,54, 5, 6		4,12,18,38,13	
		35,45,18,55,16,23,53		2,37
10″	57,31,12,19, 1,25,40,10,28,59		4,12,18,40,50	
		35,45,14,42,57,43, 3		2,37
12″	57,31,12,54,46,40,23, 8,12, 2		4,12,18,43,27	
		35,45,10,30,38,59,36		2,37
14″	57,31,13,30,31,50,53,47,11,38		4,12,18,46, 4	
		35,45, 6,18,20,13,32		2,37
16″	57,31,14, 6,16,57,12, 7,25,10		4,12,18,48,41	
		35,45, 2, 6, 1,24,51		2,37
18″	57,31,14,42, 1,59,18, 8,50, 1		4,12,18,51,18	
		35,44,57,53,42,33,33		2,37
20″	57,31,15,17,46,57,11,51,23,34		4,12,18,53,55	
		35,44,53,41,23,39,38		2,37
22″	57,31,15,53,31,50,53,15, 3,12		4,12,18,56,32	
		35,44,49,29, 4,43, 6		2,37
24″	57,31,16,29,16,40,22,19,46,18		4,12,18,59, 9	
		35,44,45,16,45,43,57		2,37
26″	57,31,17, 5, 1,25,39, 5,30,15		4,12,19, 1,46	
		35,44,41, 4,26,42,11		2,37
28″	57,31,17,40,46, 6,43,32,12,26		4,12,19, 4,23	
		35,44,36,52, 7,37,48		2,37
30″	57,31,18,16,30,43,35,39,50,14		4,12,19, 7, 0	
		35,44,32,39,48,30,48		2,37
32″	57,31,18,52,15,16,15,28,21, 2		4,12,19, 9,37	
		35,44,28,27,29,21,11		2,37
34″	57,31,19,27,59,44,42,57,42,13		4,12,19,12,14	
		35,44,24,15,10, 8,57		2,37
36″	57,31,20, 3,44, 8,58, 7,51,10		4,12,19,14,51	
		35,44,20, 2,50,54, 6		2,37
38″	57,31,20,39,28,29, 0,58,45,16		4,12,19,17,28	
		35,44,15,50,31,36,38		2,37
40″	57,31,21,15,12,44,51,30,21,54		4,12,19,20, 5	
		35,44,11,38,12,16,33		2,37
42″	57,31,21,50,56,56,29,42,38,27		4,12,19,22,42	
		35,44, 7,25,52,53,51		2,37
44″	57,31,22,26,41, 3,55,35,32,18		4,12,19,25,19	
		35,44, 3,13,33,28,32		2,37
46″	57,31,23, 2,25, 7, 9, 9, 0,50		4,12,19,27,56	
		35,43,59, 1,14, 0,36		2,37
48″	57,31,23,38, 9, 6,10,23, 1,26		4,12,19,30,33	
		35,43,54,48,54,30, 3		2,37
50″	57,31,24,13,53, 0,59,17,31,29		4,12,19,33,10	
		35,43,50,36,34,56,53		2,37
52″	57,31,24,49,36,51,35,52,28,22		4,12,19,35,47	
		35,43,46,24,15,21, 6		2,37
54″	57,31,25,25,20,38, 0, 7,49,28		4,12,19,38,24	
		35,43,42,11,55,42,42		2,37
56″	57,31,26, 1, 4,20,12, 3,32,10		4,12,19,41, 1	
		35,43,37,59,36, 1,41		2,37
58″	57,31,26,36,47,58,11,39,33,51		4,12,19,43,38	
		35,43,33,47,16,18, 3		
60″	57,31,27,12,31,31,58,55,51,54			
exact	57,31,27,12,31,31,58,56, 4, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°29′ 0″	57,31,27,12,31,31,58,56, 4, 7			
		35,43,29,34,56,33,12		
2″	57,31,27,48,15, 1,33,52,37,19		4,12,19,48,45	
		35,43,25,22,36,44,27		2,37
4″	57,31,28,23,58,26,56,29,21,46		4,12,19,51,22	
		35,43,21,10,16,53, 5		2,37
6″	57,31,28,59,41,48, 6,46,14,51		4,12,19,53,59	
		35,43,16,57,56,59, 6		2,37
8″	57,31,29,35,25, 5, 4,43,13,57		4,12,19,56,36	
		35,43,12,45,37, 2,30		2,37
10″	57,31,30,11, 8,17,50,20,16,27		4,12,19,59,13	
		35,43, 8,33,17, 3,17		2,37
12″	57,31,30,46,51,26,23,37,19,44		4,12,20, 1,50	
		35,43, 4,20,57, 1,27		2,37
14″	57,31,31,22,34,30,44,34,21,11		4,12,20, 4,27	
		35,43, 0, 8,36,57, 0		2,37
16″	57,31,31,58,17,30,53,11,18,11		4,12,20, 7, 4	
		35,42,55,56,16,49,56		2,37
18″	57,31,32,34, 0,26,49,28, 8, 7		4,12,20, 9,41	
		35,42,51,43,56,40,15		2,37
20″	57,31,33, 9,43,18,33,24,48,22		4,12,20,12,18	
		35,42,47,31,36,27,57		2,37
22″	57,31,33,45,26, 6, 5, 1,16,19		4,12,20,14,55	
		35,42,43,19,16,13, 2		2,37
24″	57,31,34,21, 8,49,24,17,29,21		4,12,20,17,32	
		35,42,39, 6,55,55,30		2,37
26″	57,31,34,56,51,28,31,13,24,51		4,12,20,20, 9	
		35,42,34,54,35,35,21		2,37
28″	57,31,35,32,34, 3,25,49, 0,12		4,12,20,22,46	
		35,42,30,42,15,12,35		2,37
30″	57,31,36, 8,16,34, 8, 4,12,47		4,12,20,25,23	
		35,42,26,29,54,47,12		2,37
32″	57,31,36,43,59, 0,37,58,59,59		4,12,20,28, 0	
		35,42,22,17,34,19,12		2,37
34″	57,31,37,19,41,22,55,33,19,11		4,12,20,30,37	
		35,42,18, 5,13,48,35		2,37
36″	57,31,37,55,23,41, 0,47, 7,46		4,12,20,33,14	
		35,42,13,52,53,15,21		2,37
38″	57,31,38,31, 5,54,53,40,23, 7		4,12,20,35,51	
		35,42, 9,40,32,39,30		2,37
40″	57,31,39, 6,48, 4,34,13, 2,37		4,12,20,38,28	
		35,42, 5,28,12, 1, 2		2,37
42″	57,31,39,42,30,10, 2,25, 3,39		4,12,20,41, 5	
		35,42, 1,15,51,19,57		2,37
44″	57,31,40,18,12,11,18,16,23,36		4,12,20,43,42	
		35,41,57, 3,30,36,15		2,37
46″	57,31,40,53,54, 8,21,46,59,51		4,12,20,46,19	
		35,41,52,51, 9,49,56		2,37
48″	57,31,41,29,36, 1,12,56,49,47		4,12,20,48,56	
		35,41,48,38,49, 1, 0		2,37
50″	57,31,42, 5,17,49,51,45,50,47		4,12,20,51,33	
		35,41,44,26,28, 9,27		2,37
52″	57,31,42,40,59,34,18,14, 0,14		4,12,20,54,10	
		35,41,40,14, 7,15,17		2,37
54″	57,31,43,16,41,14,32,21,15,31		4,12,20,56,47	
		35,41,36, 1,46,18,30		2,37
56″	57,31,43,52,22,50,34, 7,34, 1		4,12,20,59,24	
		35,41,31,49,25,19, 6		2,37
58″	57,31,44,28, 4,22,23,32,53, 7		4,12,21, 2, 1	
		35,41,27,37, 4,17, 5		
60″	57,31,45, 3,45,50, 0,37,10,12			
exact	57,31,45, 3,45,50, 0,37,29,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°30′ 0″	57,31,45, 3,45,50, 0,37,29,37			
		35,41,23,24,43,14,45		
2″	57,31,45,39,27,13,25,20,44,22		4,12,21, 7, 4	
		35,41,19,12,22, 7,41		2,37
4″	57,31,46,15, 8,32,37,42,52, 3		4,12,21, 9,41	
		35,41,15, 0, 0,58, 0		2,37
6″	57,31,46,50,49,47,37,43,50, 3		4,12,21,12,18	
		35,41,10,47,39,45,42		2,37
8″	57,31,47,26,30,58,25,23,35,45		4,12,21,14,55	
		35,41, 6,35,18,30,47		2,37
10″	57,31,48, 2,12, 5, 0,42, 6,32		4,12,21,17,32	
		35,41, 2,22,57,13,15		2,37
12″	57,31,48,37,53, 7,23,39,19,47		4,12,21,20, 9	
		35,40,58,10,35,53, 6		2,37
14″	57,31,49,13,34, 5,34,15,12,53		4,12,21,22,46	
		35,40,53,58,14,30,20		2,37
16″	57,31,49,49,14,59,32,29,43,13		4,12,21,25,23	
		35,40,49,45,53, 4,57		2,37
18″	57,31,50,24,55,49,18,22,48,10		4,12,21,28, 0	
		35,40,45,33,31,36,57		2,37
20″	57,31,51, 0,36,34,51,54,25, 7		4,12,21,30,37	
		35,40,41,21,10, 6,20		2,37
22″	57,31,51,36,17,16,13, 4,31,27		4,12,21,33,14	
		35,40,37, 8,48,33, 6		2,37
24″	57,31,52,11,57,53,21,53, 4,33		4,12,21,35,51	
		35,40,32,56,26,57,15		2,37
26″	57,31,52,47,38,26,18,20, 1,48		4,12,21,38,28	
		35,40,28,44, 5,18,47		2,37
28″	57,31,53,23,18,55, 2,25,20,35		4,12,21,41, 5	
		35,40,24,31,43,37,42		2,37
30″	57,31,53,58,59,19,34, 8,58,17		4,12,21,43,42	
		35,40,20,19,21,54, 0		2,37
32″	57,31,54,34,39,39,53,30,52,17		4,12,21,46,19	
		35,40,16, 7, 0, 7,41		2,37
34″	57,31,55,10,19,56, 0,30,59,58		4,12,21,48,56	
		35,40,11,54,38,18,45		2,37
36″	57,31,55,46, 0, 7,55, 9,18,43		4,12,21,51,33	
		35,40, 7,42,16,27,12		2,37
38″	57,31,56,21,40,15,37,25,45,55		4,12,21,54,10	
		35,40, 3,29,54,33, 2		2,37
40″	57,31,56,57,20,19, 7,20,18,57		4,12,21,56,47	
		35,39,59,17,32,36,15		2,37
42″	57,31,57,33, 0,18,24,52,55,12		4,12,21,59,24	
		35,39,55, 5,10,36,51		2,37
44″	57,31,58, 8,40,13,30, 3,32, 3		4,12,22, 2, 1	
		35,39,50,52,48,34,50		2,37
46″	57,31,58,44,20, 4,22,52, 6,53		4,12,22, 4,38	
		35,39,46,40,26,30,12		2,37
48″	57,31,59,19,59,51, 3,18,37, 5		4,12,22, 7,15	
		35,39,42,28, 4,22,57		2,37
50″	57,31,59,55,39,33,31,23, 0, 2		4,12,22, 9,52	
		35,39,38,15,42,13, 5		2,37
52″	57,32, 0,31,19,11,47, 5,13, 7		4,12,22,12,29	
		35,39,34, 3,20, 0,36		2,37
54″	57,32, 1, 6,58,45,50,25,13,43		4,12,22,15, 6	
		35,39,29,50,57,45,30		2,37
56″	57,32, 1,42,38,15,41,22,59,13		4,12,22,17,43	
		35,39,25,38,35,27,47		2,37
58″	57,32, 2,18,17,41,19,58,27, 0		4,12,22,20,20	
		35,39,21,26,13, 7,27		
60″	57,32, 2,53,57, 2,46,11,34,27			
exact	57,32, 2,53,57, 2,46,12, 5,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°31′ 0″	57,32, 2,53,57, 2,46,12, 5,27			
		35,39,17,13,50,48, 0		
2″	57,32, 3,29,36,20, 0, 2,53,27		4,12,22,25,18	
		35,39,13, 1,28,22,42		2,36
4″	57,32, 4, 5,15,33, 1,31,16, 9		4,12,22,27,54	
		35,39, 8,49, 5,54,48		2,36
6″	57,32, 4,40,54,41,50,37,10,57		4,12,22,30,30	
		35,39, 4,36,43,24,18		2,36
8″	57,32, 5,16,33,46,27,20,35,15		4,12,22,33, 6	
		35,39, 0,24,20,51,12		2,36
10″	57,32, 5,52,12,46,51,41,26,27		4,12,22,35,42	
		35,38,56,11,58,15,30		2,36
12″	57,32, 6,27,51,43, 3,39,41,57		4,12,22,38,18	
		35,38,51,59,35,37,12		2,36
14″	57,32, 7, 3,30,35, 3,15,19, 9		4,12,22,40,54	
		35,38,47,47,12,56,18		2,36
16″	57,32, 7,39, 9,22,50,28,15,27		4,12,22,43,30	
		35,38,43,34,50,12,48		2,36
18″	57,32, 8,14,48, 6,25,18,28,15		4,12,22,46, 6	
		35,38,39,22,27,26,42		2,36
20″	57,32, 8,50,26,45,47,45,54,57		4,12,22,48,42	
		35,38,35,10, 4,38, 0		2,36
22″	57,32, 9,26, 5,20,57,50,32,57		4,12,22,51,18	
		35,38,30,57,41,46,42		2,36
24″	57,32,10, 1,43,51,55,32,19,39		4,12,22,53,54	
		35,38,26,45,18,52,48		2,36
26″	57,32,10,37,22,18,40,51,12,27		4,12,22,56,30	
		35,38,22,32,55,56,18		2,36
28″	57,32,11,13, 0,41,13,47, 8,45		4,12,22,59, 6	
		35,38,18,20,32,57,12		2,36
30″	57,32,11,48,38,59,34,20, 5,57		4,12,23, 1,42	
		35,38,14, 8, 9,55,30		2,36
32″	57,32,12,24,17,13,42,30, 1,27		4,12,23, 4,18	
		35,38, 9,55,46,51,12		2,36
34″	57,32,12,59,55,23,38,16,52,39		4,12,23, 6,54	
		35,38, 5,43,23,44,18		2,36
36″	57,32,13,35,33,29,21,40,36,57		4,12,23, 9,30	
		35,38, 1,31, 0,34,48		2,36
38″	57,32,14,11,11,30,52,41,11,45		4,12,23,12, 6	
		35,37,57,18,37,22,42		2,36
40″	57,32,14,46,49,28,11,18,34,27		4,12,23,14,42	
		35,37,53, 6,14, 8, 0		2,36
42″	57,32,15,22,27,21,17,32,42,27		4,12,23,17,18	
		35,37,48,53,50,50,42		2,36
44″	57,32,15,58, 5,10,11,23,33, 9		4,12,23,19,54	
		35,37,44,41,27,30,48		2,36
46″	57,32,16,33,42,54,52,51, 3,57		4,12,23,22,30	
		35,37,40,29, 4, 8,18		2,36
48″	57,32,17, 9,20,35,21,55,12,15		4,12,23,25, 6	
		35,37,36,16,40,43,12		2,36
50″	57,32,17,44,58,11,38,35,55,27		4,12,23,27,42	
		35,37,32, 4,17,15,30		2,36
52″	57,32,18,20,35,43,42,53,10,57		4,12,23,30,18	
		35,37,27,51,53,45,12		2,36
54″	57,32,18,56,13,11,34,46,56, 9		4,12,23,32,54	
		35,37,23,39,30,12,18		2,36
56″	57,32,19,31,50,35,14,17, 8,27		4,12,23,35,30	
		35,37,19,27, 6,36,48		2,36
58″	57,32,20, 7,27,54,41,23,45,15		4,12,23,38, 6	
		35,37,15,14,42,58,42		
60″	57,32,20,43, 5, 9,56, 6,43,57			
exact	57,32,20,43, 5, 9,56, 6,16, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°32′ 0″	57,32,20,43, 5, 9,56, 6,16, 8			
		35,37,11, 2,19,15,15		
2″	57,32,21,18,42,20,58,25,31,23		4,12,23,43,28	
		35,37, 6,49,55,31,47		2,36
4″	57,32,21,54,19,27,48,21, 3,10		4,12,23,46, 4	
		35,37, 2,37,31,45,43		2,36
6″	57,32,22,29,56,30,25,52,48,53		4,12,23,48,40	
		35,36,58,25, 7,57, 3		2,36
8″	57,32,23, 5,33,28,51, 0,45,56		4,12,23,51,16	
		35,36,54,12,44, 5,47		2,36
10″	57,32,23,41,10,23, 3,44,51,43		4,12,23,53,52	
		35,36,50, 0,20,11,55		2,36
12″	57,32,24,16,47,13, 4, 5, 3,38		4,12,23,56,28	
		35,36,45,47,56,15,27		2,36
14″	57,32,24,52,23,58,52, 1,19, 5		4,12,23,59, 4	
		35,36,41,35,32,16,23		2,36
16″	57,32,25,28, 0,40,27,33,35,28		4,12,24, 1,40	
		35,36,37,23, 8,14,43		2,36
18″	57,32,26, 3,37,17,50,41,50,11		4,12,24, 4,16	
		35,36,33,10,44,10,27		2,36
20″	57,32,26,39,13,51, 1,26, 0,38		4,12,24, 6,52	
		35,36,28,58,20, 3,35		2,36
22″	57,32,27,14,50,19,59,46, 4,13		4,12,24, 9,28	
		35,36,24,45,55,54, 7		2,36
24″	57,32,27,50,26,44,45,41,58,20		4,12,24,12, 4	
		35,36,20,33,31,42, 3		2,36
26″	57,32,28,26, 3, 5,19,13,40,23		4,12,24,14,40	
		35,36,16,21, 7,27,23		2,36
28″	57,32,29, 1,39,21,40,21, 7,46		4,12,24,17,16	
		35,36,12, 8,43,10, 7		2,36
30″	57,32,29,37,15,33,49, 4,17,53		4,12,24,19,52	
		35,36, 7,56,18,50,15		2,36
32″	57,32,30,12,51,41,45,23, 8, 8		4,12,24,22,28	
		35,36, 3,43,54,27,47		2,36
34″	57,32,30,48,27,45,29,17,35,55		4,12,24,25, 4	
		35,35,59,31,30, 2,43		2,36
36″	57,32,31,24, 3,45, 0,47,38,38		4,12,24,27,40	
		35,35,55,19, 5,35, 3		2,36
38″	57,32,31,59,39,40,19,53,13,41		4,12,24,30,16	
		35,35,51, 6,41, 4,47		2,36
40″	57,32,32,35,15,31,26,34,18,28		4,12,24,32,52	
		35,35,46,54,16,31,55		2,36
42″	57,32,33,10,51,18,20,50,50,23		4,12,24,35,28	
		35,35,42,41,51,56,27		2,36
44″	57,32,33,46,27, 1, 2,42,46,50		4,12,24,38, 4	
		35,35,38,29,27,18,23		2,36
46″	57,32,34,22, 2,39,32,10, 5,13		4,12,24,40,40	
		35,35,34,17, 2,37,43		2,36
48″	57,32,34,57,38,13,49,12,42,56		4,12,24,43,16	
		35,35,30, 4,37,54,27		2,36
50″	57,32,35,33,13,43,53,50,37,23		4,12,24,45,52	
		35,35,25,52,13, 8,35		2,36
52″	57,32,36, 8,49, 9,46, 3,45,58		4,12,24,48,28	
		35,35,21,39,48,20, 7		2,36
54″	57,32,36,44,24,31,25,52, 6, 5		4,12,24,51, 4	
		35,35,17,27,23,29, 3		2,36
56″	57,32,37,19,59,48,53,15,35, 8		4,12,24,53,40	
		35,35,13,14,58,35,23		2,36
58″	57,32,37,55,35, 2, 8,14,10,31		4,12,24,56,16	
		35,35, 9, 2,33,39, 7		
60″	57,32,38,31,10,11,10,47,49,38			
exact	57,32,38,31,10,11,10,47,35,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°33′ 0″	57,32,38,31,10,11,10,47,35,22			
		35,35, 4,50, 8,38,50		
2″	57,32,39, 6,45,16, 0,56,14,12		4,12,25, 1,33	
		35,35, 0,37,43,37,17		2,36
4″	57,32,39,42,20,16,38,39,51,29		4,12,25, 4, 9	
		35,34,56,25,18,33, 8		2,36
6″	57,32,40,17,55,13, 3,58,24,37		4,12,25, 6,45	
		35,34,52,12,53,26,23		2,36
8″	57,32,40,53,30, 5,16,51,51, 0		4,12,25, 9,21	
		35,34,48, 0,28,17, 2		2,36
10″	57,32,41,29, 4,53,17,20, 8, 2		4,12,25,11,57	
		35,34,43,48, 3, 5, 5		2,36
12″	57,32,42, 4,39,37, 5,23,13, 7		4,12,25,14,33	
		35,34,39,35,37,50,32		2,36
14″	57,32,42,40,14,16,41, 1, 3,39		4,12,25,17, 9	
		35,34,35,23,12,33,23		2,36
16″	57,32,43,15,48,52, 4,13,37, 2		4,12,25,19,45	
		35,34,31,10,47,13,38		2,36
18″	57,32,43,51,23,23,15, 0,50,40		4,12,25,22,21	
		35,34,26,58,21,51,17		2,36
20″	57,32,44,26,57,50,13,22,41,57		4,12,25,24,57	
		35,34,22,45,56,26,20		2,36
22″	57,32,45, 2,32,12,59,19, 8,17		4,12,25,27,33	
		35,34,18,33,30,58,47		2,36
24″	57,32,45,38, 6,31,32,50, 7, 4		4,12,25,30, 9	
		35,34,14,21, 5,28,38		2,36
26″	57,32,46,13,40,45,53,55,35,42		4,12,25,32,45	
		35,34,10, 8,39,55,53		2,36
28″	57,32,46,49,14,56, 2,35,31,35		4,12,25,35,21	
		35,34, 5,56,14,20,32		2,36
30″	57,32,47,24,49, 1,58,49,52, 7		4,12,25,37,57	
		35,34, 1,43,48,42,35		2,36
32″	57,32,48, 0,23, 3,42,38,34,42		4,12,25,40,33	
		35,33,57,31,23, 2, 2		2,36
34″	57,32,48,35,57, 1,14, 1,36,44		4,12,25,43, 9	
		35,33,53,18,57,18,53		2,36
36″	57,32,49,11,30,54,32,58,55,37		4,12,25,45,45	
		35,33,49, 6,31,33, 8		2,36
38″	57,32,49,47, 4,43,39,30,28,45		4,12,25,48,21	
		35,33,44,54, 5,44,47		2,36
40″	57,32,50,22,38,28,33,36,13,32		4,12,25,50,57	
		35,33,40,41,39,53,50		2,36
42″	57,32,50,58,12, 9,15,16, 7,22		4,12,25,53,33	
		35,33,36,29,14, 0,17		2,36
44″	57,32,51,33,45,45,44,30, 7,39		4,12,25,56, 9	
		35,33,32,16,48, 4, 8		2,36
46″	57,32,52, 9,19,18, 1,18,11,47		4,12,25,58,45	
		35,33,28, 4,22, 5,23		2,36
48″	57,32,52,44,52,46, 5,40,17,10		4,12,26, 1,21	
		35,33,23,51,56, 4, 2		2,36
50″	57,32,53,20,26, 9,57,36,21,12		4,12,26, 3,57	
		35,33,19,39,30, 0, 5		2,36
52″	57,32,53,55,59,29,37, 6,21,17		4,12,26, 6,33	
		35,33,15,27, 3,53,32		2,36
54″	57,32,54,31,32,45, 4,10,14,49		4,12,26, 9, 9	
		35,33,11,14,37,44,23		2,36
56″	57,32,55, 7, 5,56,18,47,59,12		4,12,26,11,45	
		35,33, 7, 2,11,32,38		2,36
58″	57,32,55,42,39, 3,20,59,31,50		4,12,26,14,21	
		35,33, 2,49,45,18,17		
60″	57,32,56,18,12, 6,10,44,50, 7			
exact	57,32,56,18,12, 6,10,44,46, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°34′ 0″	57,32,56,18,12, 6,10,44,46, 4			
		35,32,58,37,19, 1, 1		
2″	57,32,56,53,45, 4,48, 3,47, 5		4,12,26,19,33	
		35,32,54,24,52,41,28		2,36
4″	57,32,57,29,17,59,12,56,28,33		4,12,26,22, 9	
		35,32,50,12,26,19,19		2,36
6″	57,32,58, 4,50,49,25,22,47,52		4,12,26,24,45	
		35,32,45,59,59,54,34		2,36
8″	57,32,58,40,23,35,25,22,42,26		4,12,26,27,21	
		35,32,41,47,33,27,13		2,36
10″	57,32,59,15,56,17,12,56, 9,39		4,12,26,29,57	
		35,32,37,35, 6,57,16		2,36
12″	57,32,59,51,28,54,48, 3, 6,55		4,12,26,32,33	
		35,32,33,22,40,24,43		2,36
14″	57,33, 0,27, 1,28,10,43,31,38		4,12,26,35, 9	
		35,32,29,10,13,49,34		2,36
16″	57,33, 1, 2,33,57,20,57,21,12		4,12,26,37,45	
		35,32,24,57,47,11,49		2,36
18″	57,33, 1,38, 6,22,18,44,33, 1		4,12,26,40,21	
		35,32,20,45,20,31,28		2,36
20″	57,33, 2,13,38,43, 4, 5, 4,29		4,12,26,42,57	
		35,32,16,32,53,48,31		2,36
22″	57,33, 2,49,10,59,36,58,53, 0		4,12,26,45,33	
		35,32,12,20,27, 2,58		2,36
24″	57,33, 3,24,43,11,57,25,55,58		4,12,26,48, 9	
		35,32, 8, 8, 0,14,49		2,36
26″	57,33, 4, 0,15,20, 5,26,10,47		4,12,26,50,45	
		35,32, 3,55,33,24, 4		2,36
28″	57,33, 4,35,47,24, 0,59,34,51		4,12,26,53,21	
		35,31,59,43, 6,30,43		2,36
30″	57,33, 5,11,19,23,44, 6, 5,34		4,12,26,55,57	
		35,31,55,30,39,34,46		2,36
32″	57,33, 5,46,51,19,14,45,40,20		4,12,26,58,33	
		35,31,51,18,12,36,13		2,36
34″	57,33, 6,22,23,10,32,58,16,33		4,12,27, 1, 9	
		35,31,47, 5,45,35, 4		2,36
36″	57,33, 6,57,54,57,38,43,51,37		4,12,27, 3,45	
		35,31,42,53,18,31,19		2,36
38″	57,33, 7,33,26,40,32, 2,22,56		4,12,27, 6,21	
		35,31,38,40,51,24,58		2,36
40″	57,33, 8, 8,58,19,12,53,47,54		4,12,27, 8,57	
		35,31,34,28,24,16, 1		2,36
42″	57,33, 8,44,29,53,41,18, 3,55		4,12,27,11,33	
		35,31,30,15,57, 4,28		2,36
44″	57,33, 9,20, 1,23,57,15, 8,23		4,12,27,14, 9	
		35,31,26, 3,29,50,19		2,36
46″	57,33, 9,55,32,50, 0,44,58,42		4,12,27,16,45	
		35,31,21,51, 2,33,34		2,36
48″	57,33,10,31, 4,11,51,47,32,16		4,12,27,19,21	
		35,31,17,38,35,14,13		2,36
50″	57,33,11, 6,35,29,30,22,46,29		4,12,27,21,57	
		35,31,13,26, 7,52,16		2,36
52″	57,33,11,42, 6,42,56,30,38,45		4,12,27,24,33	
		35,31, 9,13,40,27,43		2,36
54″	57,33,12,17,37,52,10,11, 6,28		4,12,27,27, 9	
		35,31, 5, 1,13, 0,34		2,36
56″	57,33,12,53, 8,57,11,24, 7, 2		4,12,27,29,45	
		35,31, 0,48,45,30,49		2,36
58″	57,33,13,28,39,58, 0, 9,37,51		4,12,27,32,21	
		35,30,56,36,17,58,28		
60″	57,33,14, 4,10,54,36,27,36,19			
exact	57,33,14, 4,10,54,36,27,40,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°35′ 0″	57,33,14, 4,10,54,36,27,40,21			
		35,30,52,23,50,24, 9		
2″	57,33,14,39,41,47, 0,18, 4,30		4,12,27,37,29	
		35,30,48,11,22,46,40		2,36
4″	57,33,15,15,12,35,11,40,51,10		4,12,27,40, 5	
		35,30,43,58,55, 6,35		2,36
6″	57,33,15,50,43,19,10,35,57,45		4,12,27,42,41	
		35,30,39,46,27,23,54		2,36
8″	57,33,16,26,13,58,57, 3,21,39		4,12,27,45,17	
		35,30,35,33,59,38,37		2,36
10″	57,33,17, 1,44,34,31, 3, 0,16		4,12,27,47,53	
		35,30,31,21,31,50,44		2,36
12″	57,33,17,37,15, 5,52,34,51, 0		4,12,27,50,29	
		35,30,27, 9, 4, 0,15		2,36
14″	57,33,18,12,45,33, 1,38,51,15		4,12,27,53, 5	
		35,30,22,56,36, 7,10		2,36
16″	57,33,18,48,15,55,58,14,58,25		4,12,27,55,41	
		35,30,18,44, 8,11,29		2,36
18″	57,33,19,23,46,14,42,23, 9,54		4,12,27,58,17	
		35,30,14,31,40,13,12		2,36
20″	57,33,19,59,16,29,14, 3,23, 6		4,12,28, 0,53	
		35,30,10,19,12,12,19		2,36
22″	57,33,20,34,46,39,33,15,35,25		4,12,28, 3,29	
		35,30, 6, 6,44, 8,50		2,36
24″	57,33,21,10,16,45,39,59,44,15		4,12,28, 6, 5	
		35,30, 1,54,16, 2,45		2,36
26″	57,33,21,45,46,47,34,15,47, 0		4,12,28, 8,41	
		35,29,57,41,47,54, 4		2,36
28″	57,33,22,21,16,45,16, 3,41, 4		4,12,28,11,17	
		35,29,53,29,19,42,47		2,36
30″	57,33,22,56,46,38,45,23,23,51		4,12,28,13,53	
		35,29,49,16,51,28,54		2,36
32″	57,33,23,32,16,28, 2,14,52,45		4,12,28,16,29	
		35,29,45, 4,23,12,25		2,36
34″	57,33,24, 7,46,13, 6,38, 5,10		4,12,28,19, 5	
		35,29,40,51,54,53,20		2,36
36″	57,33,24,43,15,53,58,32,58,30		4,12,28,21,41	
		35,29,36,39,26,31,39		2,36
38″	57,33,25,18,45,30,37,59,30, 9		4,12,28,24,17	
		35,29,32,26,58, 7,22		2,36
40″	57,33,25,54,15, 3, 4,57,37,31		4,12,28,26,53	
		35,29,28,14,29,40,29		2,36
42″	57,33,26,29,44,31,19,27,18, 0		4,12,28,29,29	
		35,29,24, 2, 1,11, 0		2,36
44″	57,33,27, 5,13,55,21,28,29, 0		4,12,28,32, 5	
		35,29,19,49,32,38,55		2,36
46″	57,33,27,40,43,15,11, 1, 7,55		4,12,28,34,41	
		35,29,15,37, 4, 4,14		2,36
48″	57,33,28,16,12,30,48, 5,12, 9		4,12,28,37,17	
		35,29,11,24,35,26,57		2,36
50″	57,33,28,51,41,42,12,40,39, 6		4,12,28,39,53	
		35,29, 7,12, 6,47, 4		2,36
52″	57,33,29,27,10,49,24,47,26,10		4,12,28,42,29	
		35,29, 2,59,38, 4,35		2,36
54″	57,33,30, 2,39,52,24,25,30,45		4,12,28,45, 5	
		35,28,58,47, 9,19,30		2,36
56″	57,33,30,38, 8,51,11,34,50,15		4,12,28,47,41	
		35,28,54,34,40,31,49		2,36
58″	57,33,31,13,37,45,46,15,22, 4		4,12,28,50,17	
		35,28,50,22,11,41,32		
60″	57,33,31,49, 6,36, 8,27, 3,36			
exact	57,33,31,49, 6,36, 8,27,19,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°36′ 0″	57,33,31,49, 6,36, 8,27,19,32			
		35,28,46, 9,42,50,30		
2″	57,33,32,24,35,22,18,10,10, 2		4,12,28,55,20	
		35,28,41,57,13,55,10		2,36
4″	57,33,33, 0, 4, 4,15,24, 5,12		4,12,28,57,56	
		35,28,37,44,44,57,14		2,36
6″	57,33,33,35,32,42, 0, 9, 2,26		4,12,29, 0,32	
		35,28,33,32,15,56,42		2,36
8″	57,33,34,11, 1,15,32,24,59, 8		4,12,29, 3, 8	
		35,28,29,19,46,53,34		2,36
10″	57,33,34,46,29,44,52,11,52,42		4,12,29, 5,44	
		35,28,25, 7,17,47,50		2,36
12″	57,33,35,21,58, 9,59,29,40,32		4,12,29, 8,20	
		35,28,20,54,48,39,30		2,36
14″	57,33,35,57,26,30,54,18,20, 2		4,12,29,10,56	
		35,28,16,42,19,28,34		2,36
16″	57,33,36,32,54,47,36,37,48,36		4,12,29,13,32	
		35,28,12,29,50,15, 2		2,36
18″	57,33,37, 8,23, 0, 6,28, 3,38		4,12,29,16, 8	
		35,28, 8,17,20,58,54		2,36
20″	57,33,37,43,51, 8,23,49, 2,32		4,12,29,18,44	
		35,28, 4, 4,51,40,10		2,36
22″	57,33,38,19,19,12,28,40,42,42		4,12,29,21,20	
		35,27,59,52,22,18,50		2,36
24″	57,33,38,54,47,12,21, 3, 1,32		4,12,29,23,56	
		35,27,55,39,52,54,54		2,36
26″	57,33,39,30,15, 8, 0,55,56,26		4,12,29,26,32	
		35,27,51,27,23,28,22		2,36
28″	57,33,40, 5,42,59,28,19,24,48		4,12,29,29, 8	
		35,27,47,14,53,59,14		2,36
30″	57,33,40,41,10,46,43,13,24, 2		4,12,29,31,44	
		35,27,43, 2,24,27,30		2,36
32″	57,33,41,16,38,29,45,37,51,32		4,12,29,34,20	
		35,27,38,49,54,53,10		2,36
34″	57,33,41,52, 6, 8,35,32,44,42		4,12,29,36,56	
		35,27,34,37,25,16,14		2,36
36″	57,33,42,27,33,43,12,58, 0,56		4,12,29,39,32	
		35,27,30,24,55,36,42		2,36
38″	57,33,43, 3, 1,13,37,53,37,38		4,12,29,42, 8	
		35,27,26,12,25,54,34		2,36
40″	57,33,43,38,28,39,50,19,32,12		4,12,29,44,44	
		35,27,21,59,56, 9,50		2,36
42″	57,33,44,13,56, 1,50,15,42, 2		4,12,29,47,20	
		35,27,17,47,26,22,30		2,36
44″	57,33,44,49,23,19,37,42, 4,32		4,12,29,49,56	
		35,27,13,34,56,32,34		2,36
46″	57,33,45,24,50,33,12,38,37, 6		4,12,29,52,32	
		35,27, 9,22,26,40, 2		2,36
48″	57,33,46, 0,17,42,35, 5,17, 8		4,12,29,55, 8	
		35,27, 5, 9,56,44,54		2,36
50″	57,33,46,35,44,47,45, 2, 2, 2		4,12,29,57,44	
		35,27, 0,57,26,47,10		2,36
52″	57,33,47,11,11,48,42,28,49,12		4,12,30, 0,20	
		35,26,56,44,56,46,50		2,36
54″	57,33,47,46,38,45,27,25,36, 2		4,12,30, 2,56	
		35,26,52,32,26,43,54		2,36
56″	57,33,48,22, 5,37,59,52,19,56		4,12,30, 5,32	
		35,26,48,19,56,38,22		2,36
58″	57,33,48,57,32,26,19,48,58,18		4,12,30, 8, 8	
		35,26,44, 7,26,30,14		
60″	57,33,49,32,59,10,27,15,28,32			
exact	57,33,49,32,59,10,27,15,54, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°37′ 0″	57,33,49,32,59,10,27,15,54, 9			
		35,26,39,54,56,22,25		
2″	57,33,50, 8,25,50,22,12,16,34		4,12,30,13, 7	
		35,26,35,42,26, 9,18		2,35
4″	57,33,50,43,52,26, 4,38,25,52		4,12,30,15,42	
		35,26,31,29,55,53,36		2,35
6″	57,33,51,19,18,57,34,34,19,28		4,12,30,18,17	
		35,26,27,17,25,35,19		2,35
8″	57,33,51,54,45,24,51,59,54,47		4,12,30,20,52	
		35,26,23, 4,55,14,27		2,35
10″	57,33,52,30,11,47,56,55, 9,14		4,12,30,23,27	
		35,26,18,52,24,51, 0		2,35
12″	57,33,53, 5,38, 6,49,20, 0,14		4,12,30,26, 2	
		35,26,14,39,54,24,58		2,35
14″	57,33,53,41, 4,21,29,14,25,12		4,12,30,28,37	
		35,26,10,27,23,56,21		2,35
16″	57,33,54,16,30,31,56,38,21,33		4,12,30,31,12	
		35,26, 6,14,53,25, 9		2,35
18″	57,33,54,51,56,38,11,31,46,42		4,12,30,33,47	
		35,26, 2, 2,22,51,22		2,35
20″	57,33,55,27,22,40,13,54,38, 4		4,12,30,36,22	
		35,25,57,49,52,15, 0		2,35
22″	57,33,56, 2,48,38, 3,46,53, 4		4,12,30,38,57	
		35,25,53,37,21,36, 3		2,35
24″	57,33,56,38,14,31,41, 8,29, 7		4,12,30,41,32	
		35,25,49,24,50,54,31		2,35
26″	57,33,57,13,40,21, 5,59,23,38		4,12,30,44, 7	
		35,25,45,12,20,10,24		2,35
28″	57,33,57,49, 6, 6,18,19,34, 2		4,12,30,46,42	
		35,25,40,59,49,23,42		2,35
30″	57,33,58,24,31,47,18, 8,57,44		4,12,30,49,17	
		35,25,36,47,18,34,25		2,35
32″	57,33,58,59,57,24, 5,27,32, 9		4,12,30,51,52	
		35,25,32,34,47,42,33		2,35
34″	57,33,59,35,22,56,40,15,14,42		4,12,30,54,27	
		35,25,28,22,16,48, 6		2,35
36″	57,34, 0,10,48,25, 2,32, 2,48		4,12,30,57, 2	
		35,25,24, 9,45,51, 4		2,35
38″	57,34, 0,46,13,49,12,17,53,52		4,12,30,59,37	
		35,25,19,57,14,51,27		2,35
40″	57,34, 1,21,39, 9, 9,32,45,19		4,12,31, 2,12	
		35,25,15,44,43,49,15		2,35
42″	57,34, 1,57, 4,24,54,16,34,34		4,12,31, 4,47	
		35,25,11,32,12,44,28		2,35
44″	57,34, 2,32,29,36,26,29,19, 2		4,12,31, 7,22	
		35,25, 7,19,41,37, 6		2,35
46″	57,34, 3, 7,54,43,46,10,56, 8		4,12,31, 9,57	
		35,25, 3, 7,10,27, 9		2,35
48″	57,34, 3,43,19,46,53,21,23,17		4,12,31,12,32	
		35,24,58,54,39,14,37		2,35
50″	57,34, 4,18,44,45,48, 0,37,54		4,12,31,15, 7	
		35,24,54,42, 7,59,30		2,35
52″	57,34, 4,54, 9,40,30, 8,37,24		4,12,31,17,42	
		35,24,50,29,36,41,48		2,35
54″	57,34, 5,29,34,30,59,45,19,12		4,12,31,20,17	
		35,24,46,17, 5,21,31		2,35
56″	57,34, 6, 4,59,17,16,50,40,43		4,12,31,22,52	
		35,24,42, 4,33,58,39		2,35
58″	57,34, 6,40,23,59,21,24,39,22		4,12,31,25,27	
		35,24,37,52, 2,33,12		
60″	57,34, 7,15,48,37,13,27,12,34			
exact	57,34, 7,15,48,37,13,26,43,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°38′ 0″	57,34, 7,15,48,37,13,26,43,58			
		35,24,33,39,31, 2,10		
2″	57,34, 7,51,13,10,52,57,46, 8		4,12,31,30,49	
		35,24,29,26,59,31,21		2,35
4″	57,34, 8,26,37,40,19,57,17,29		4,12,31,33,24	
		35,24,25,14,27,57,57		2,35
6″	57,34, 9, 2, 2, 5,34,25,15,26		4,12,31,35,59	
		35,24,21, 1,56,21,58		2,35
8″	57,34, 9,37,26,26,36,21,37,24		4,12,31,38,34	
		35,24,16,49,24,43,24		2,35
10″	57,34,10,12,50,43,25,46,20,48		4,12,31,41, 9	
		35,24,12,36,53, 2,15		2,35
12″	57,34,10,48,14,56, 2,39,23, 3		4,12,31,43,44	
		35,24, 8,24,21,18,31		2,35
14″	57,34,11,23,39, 4,27, 0,41,34		4,12,31,46,19	
		35,24, 4,11,49,32,12		2,35
16″	57,34,11,59, 3, 8,38,50,13,46		4,12,31,48,54	
		35,23,59,59,17,43,18		2,35
18″	57,34,12,34,27, 8,38, 7,57, 4		4,12,31,51,29	
		35,23,55,46,45,51,49		2,35
20″	57,34,13, 9,51, 4,24,53,48,53		4,12,31,54, 4	
		35,23,51,34,13,57,45		2,35
22″	57,34,13,45,14,55,59, 7,46,38		4,12,31,56,39	
		35,23,47,21,42, 1, 6		2,35
24″	57,34,14,20,38,43,20,49,47,44		4,12,31,59,14	
		35,23,43, 9,10, 1,52		2,35
26″	57,34,14,56, 2,26,29,59,49,36		4,12,32, 1,49	
		35,23,38,56,38, 0, 3		2,35
28″	57,34,15,31,26, 5,26,37,49,39		4,12,32, 4,24	
		35,23,34,44, 5,55,39		2,35
30″	57,34,16, 6,49,40,10,43,45,18		4,12,32, 6,59	
		35,23,30,31,33,48,40		2,35
32″	57,34,16,42,13,10,42,17,33,58		4,12,32, 9,34	
		35,23,26,19, 1,39, 6		2,35
34″	57,34,17,17,36,37, 1,19,13, 4		4,12,32,12, 9	
		35,23,22, 6,29,26,57		2,35
36″	57,34,17,52,59,59, 7,48,40, 1		4,12,32,14,44	
		35,23,17,53,57,12,13		2,35
38″	57,34,18,28,23,17, 1,45,52,14		4,12,32,17,19	
		35,23,13,41,24,54,54		2,35
40″	57,34,19, 3,46,30,43,10,47, 8		4,12,32,19,54	
		35,23, 9,28,52,35, 0		2,35
42″	57,34,19,39, 9,40,12, 3,22, 8		4,12,32,22,29	
		35,23, 5,16,20,12,31		2,35
44″	57,34,20,14,32,45,28,23,34,39		4,12,32,25, 4	
		35,23, 1, 3,47,47,27		2,35
46″	57,34,20,49,55,46,32,11,22, 6		4,12,32,27,39	
		35,22,56,51,15,19,48		2,35
48″	57,34,21,25,18,43,23,26,41,54		4,12,32,30,14	
		35,22,52,38,42,49,34		2,35
50″	57,34,22, 0,41,36, 2, 9,31,28		4,12,32,32,49	
		35,22,48,26,10,16,45		2,35
52″	57,34,22,36, 4,24,28,19,48,13		4,12,32,35,24	
		35,22,44,13,37,41,21		2,35
54″	57,34,23,11,27, 8,41,57,29,34		4,12,32,37,59	
		35,22,40, 1, 5, 3,22		2,35
56″	57,34,23,46,49,48,43, 2,32,56		4,12,32,40,34	
		35,22,35,48,32,22,48		2,35
58″	57,34,24,22,12,24,31,34,55,44		4,12,32,43, 9	
		35,22,31,35,59,39,39		
60″	57,34,24,57,34,56, 7,34,35,23			
exact	57,34,24,57,34,56, 7,34,17,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°39′ 0″	57,34,24,57,34,56, 7,34,17,56			
		35,22,27,23,26,52, 5		
2″	57,34,25,32,57,23,31, 1,10, 1		4,12,32,48,26	
		35,22,23,10,54, 3,39		2,35
4″	57,34,26, 8,19,46,41,55,13,40		4,12,32,51, 1	
		35,22,18,58,21,12,38		2,35
6″	57,34,26,43,42, 5,40,16,26,18		4,12,32,53,36	
		35,22,14,45,48,19, 2		2,35
8″	57,34,27,19, 4,20,26, 4,45,20		4,12,32,56,11	
		35,22,10,33,15,22,51		2,35
10″	57,34,27,54,26,30,59,20, 8,11		4,12,32,58,46	
		35,22, 6,20,42,24, 5		2,35
12″	57,34,28,29,48,37,20, 2,32,16		4,12,33, 1,21	
		35,22, 2, 8, 9,22,44		2,35
14″	57,34,29, 5,10,39,28,11,55, 0		4,12,33, 3,56	
		35,21,57,55,36,18,48		2,35
16″	57,34,29,40,32,37,23,48,13,48		4,12,33, 6,31	
		35,21,53,43, 3,12,17		2,35
18″	57,34,30,15,54,31, 6,51,26, 5		4,12,33, 9, 6	
		35,21,49,30,30, 3,11		2,35
20″	57,34,30,51,16,20,37,21,29,16		4,12,33,11,41	
		35,21,45,17,56,51,30		2,35
22″	57,34,31,26,38, 5,55,18,20,46		4,12,33,14,16	
		35,21,41, 5,23,37,14		2,35
24″	57,34,32, 1,59,47, 0,41,58, 0		4,12,33,16,51	
		35,21,36,52,50,20,23		2,35
26″	57,34,32,37,21,23,53,32,18,23		4,12,33,19,26	
		35,21,32,40,17, 0,57		2,35
28″	57,34,33,12,42,56,33,49,19,20		4,12,33,22, 1	
		35,21,28,27,43,38,56		2,35
30″	57,34,33,48, 4,25, 1,32,58,16		4,12,33,24,36	
		35,21,24,15,10,14,20		2,35
32″	57,34,34,23,25,49,16,43,12,36		4,12,33,27,11	
		35,21,20, 2,36,47, 9		2,35
34″	57,34,34,58,47, 9,19,19,59,45		4,12,33,29,46	
		35,21,15,50, 3,17,23		2,35
36″	57,34,35,34, 8,25, 9,23,17, 8		4,12,33,32,21	
		35,21,11,37,29,45, 2		2,35
38″	57,34,36, 9,29,36,46,53, 2,10		4,12,33,34,56	
		35,21, 7,24,56,10, 6		2,35
40″	57,34,36,44,50,44,11,49,12,16		4,12,33,37,31	
		35,21, 3,12,22,32,35		2,35
42″	57,34,37,20,11,47,24,11,44,51		4,12,33,40, 6	
		35,20,58,59,48,52,29		2,35
44″	57,34,37,55,32,46,24, 0,37,20		4,12,33,42,41	
		35,20,54,47,15, 9,48		2,35
46″	57,34,38,30,53,41,11,15,47, 8		4,12,33,45,16	
		35,20,50,34,41,24,32		2,35
48″	57,34,39, 6,14,31,45,57,11,40		4,12,33,47,51	
		35,20,46,22, 7,36,41		2,35
50″	57,34,39,41,35,18, 8, 4,48,21		4,12,33,50,26	
		35,20,42, 9,33,46,15		2,35
52″	57,34,40,16,56, 0,17,38,34,36		4,12,33,53, 1	
		35,20,37,56,59,53,14		2,35
54″	57,34,40,52,16,38,14,38,27,50		4,12,33,55,36	
		35,20,33,44,25,57,38		2,35
56″	57,34,41,27,37,11,59, 4,25,28		4,12,33,58,11	
		35,20,29,31,51,59,27		2,35
58″	57,34,42, 2,57,41,30,56,24,55		4,12,34, 0,46	
		35,20,25,19,17,58,41		
60″	57,34,42,38,18, 6,50,14,23,36			
exact	57,34,42,38,18, 6,50,14,14,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°40′ 0″	57,34,42,38,18, 6,50,14,14,17			
		35,20,21, 6,43,54,27		
2″	57,34,43,13,38,27,56,58, 8,44		4,12,34, 5,59	
		35,20,16,54, 9,48,28		2,35
4″	57,34,43,48,58,44,51, 7,57,12		4,12,34, 8,34	
		35,20,12,41,35,39,54		2,35
6″	57,34,44,24,18,57,32,43,37, 6		4,12,34,11, 9	
		35,20, 8,29, 1,28,45		2,35
8″	57,34,44,59,39, 6, 1,45, 5,51		4,12,34,13,44	
		35,20, 4,16,27,15, 1		2,35
10″	57,34,45,34,59,10,18,12,20,52		4,12,34,16,19	
		35,20, 0, 3,52,58,42		2,35
12″	57,34,46,10,19,10,22, 5,19,34		4,12,34,18,54	
		35,19,55,51,18,39,48		2,35
14″	57,34,46,45,39, 6,13,23,59,22		4,12,34,21,29	
		35,19,51,38,44,18,19		2,35
16″	57,34,47,20,58,57,52, 8,17,41		4,12,34,24, 4	
		35,19,47,26, 9,54,15		2,35
18″	57,34,47,56,18,45,18,18,11,56		4,12,34,26,39	
		35,19,43,13,35,27,36		2,35
20″	57,34,48,31,38,28,31,53,39,32		4,12,34,29,14	
		35,19,39, 1, 0,58,22		2,35
22″	57,34,49, 6,58, 7,32,54,37,54		4,12,34,31,49	
		35,19,34,48,26,26,33		2,35
24″	57,34,49,42,17,42,21,21, 4,27		4,12,34,34,24	
		35,19,30,35,51,52, 9		2,35
26″	57,34,50,17,37,12,57,12,56,36		4,12,34,36,59	
		35,19,26,23,17,15,10		2,35
28″	57,34,50,52,56,39,20,30,11,46		4,12,34,39,34	
		35,19,22,10,42,35,36		2,35
30″	57,34,51,28,16, 1,31,12,47,22		4,12,34,42, 9	
		35,19,17,58, 7,53,27		2,35
32″	57,34,52, 3,35,19,29,20,40,49		4,12,34,44,44	
		35,19,13,45,33, 8,43		2,35
34″	57,34,52,38,54,33,14,53,49,32		4,12,34,47,19	
		35,19, 9,32,58,21,24		2,35
36″	57,34,53,14,13,42,47,52,10,56		4,12,34,49,54	
		35,19, 5,20,23,31,30		2,35
38″	57,34,53,49,32,48, 8,15,42,26		4,12,34,52,29	
		35,19, 1, 7,48,39, 1		2,35
40″	57,34,54,24,51,49,16, 4,21,27		4,12,34,55, 4	
		35,18,56,55,13,43,57		2,35
42″	57,34,55, 0,10,46,11,18, 5,24		4,12,34,57,39	
		35,18,52,42,38,46,18		2,35
44″	57,34,55,35,29,38,53,56,51,42		4,12,35, 0,14	
		35,18,48,30, 3,46, 4		2,35
46″	57,34,56,10,48,27,24, 0,37,46		4,12,35, 2,49	
		35,18,44,17,28,43,15		2,35
48″	57,34,56,46, 7,11,41,29,21, 1		4,12,35, 5,24	
		35,18,40, 4,53,37,51		2,35
50″	57,34,57,21,25,51,46,22,58,52		4,12,35, 7,59	
		35,18,35,52,18,29,52		2,35
52″	57,34,57,56,44,27,38,41,28,44		4,12,35,10,34	
		35,18,31,39,43,19,18		2,35
54″	57,34,58,32, 2,59,18,24,48, 2		4,12,35,13, 9	
		35,18,27,27, 8, 6, 9		2,35
56″	57,34,59, 7,21,26,45,32,54,11		4,12,35,15,44	
		35,18,23,14,32,50,25		2,35
58″	57,34,59,42,39,50, 0, 5,44,36		4,12,35,18,19	
		35,18,19, 1,57,32, 6		
60″	57,35, 0,17,58, 9, 2, 3,16,42			
exact	57,35, 0,17,58, 9, 2, 3,20,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°41′ 0″	57,35, 0,17,58, 9, 2, 3,20,27			
		35,18,14,49,22,11,37		
2″	57,35, 0,53,16,23,51,25,32, 4		4,12,35,23,27	
		35,18,10,36,46,48,10		2,35
4″	57,35, 1,28,34,34,28,12,20,14		4,12,35,26, 2	
		35,18, 6,24,11,22, 8		2,35
6″	57,35, 2, 3,52,40,52,23,42,22		4,12,35,28,37	
		35,18, 2,11,35,53,31		2,35
8″	57,35, 2,39,10,43, 3,59,35,53		4,12,35,31,12	
		35,17,57,59, 0,22,19		2,35
10″	57,35, 3,14,28,41, 2,59,58,12		4,12,35,33,47	
		35,17,53,46,24,48,32		2,35
12″	57,35, 3,49,46,34,49,24,46,44		4,12,35,36,22	
		35,17,49,33,49,12,10		2,35
14″	57,35, 4,25, 4,24,23,13,58,54		4,12,35,38,57	
		35,17,45,21,13,33,13		2,35
16″	57,35, 5, 0,22, 9,44,27,32, 7		4,12,35,41,32	
		35,17,41, 8,37,51,41		2,35
18″	57,35, 5,35,39,50,53, 5,23,48		4,12,35,44, 7	
		35,17,36,56, 2, 7,34		2,35
20″	57,35, 6,10,57,27,49, 7,31,22		4,12,35,46,42	
		35,17,32,43,26,20,52		2,35
22″	57,35, 6,46,15, 0,32,33,52,14		4,12,35,49,17	
		35,17,28,30,50,31,35		2,35
24″	57,35, 7,21,32,29, 3,24,23,49		4,12,35,51,52	
		35,17,24,18,14,39,43		2,35
26″	57,35, 7,56,49,53,21,39, 3,32		4,12,35,54,27	
		35,17,20, 5,38,45,16		2,35
28″	57,35, 8,32, 7,13,27,17,48,48		4,12,35,57, 2	
		35,17,15,53, 2,48,14		2,35
30″	57,35, 9, 7,24,29,20,20,37, 2		4,12,35,59,37	
		35,17,11,40,26,48,37		2,35
32″	57,35, 9,42,41,41, 0,47,25,39		4,12,36, 2,12	
		35,17, 7,27,50,46,25		2,35
34″	57,35,10,17,58,48,28,38,12, 4		4,12,36, 4,47	
		35,17, 3,15,14,41,38		2,35
36″	57,35,10,53,15,51,43,52,53,42		4,12,36, 7,22	
		35,16,59, 2,38,34,16		2,35
38″	57,35,11,28,32,50,46,31,27,58		4,12,36, 9,57	
		35,16,54,50, 2,24,19		2,35
40″	57,35,12, 3,49,45,36,33,52,17		4,12,36,12,32	
		35,16,50,37,26,11,47		2,35
42″	57,35,12,39, 6,36,14, 0, 4, 4		4,12,36,15, 7	
		35,16,46,24,49,56,40		2,35
44″	57,35,13,14,23,22,38,50, 0,44		4,12,36,17,42	
		35,16,42,12,13,38,58		2,35
46″	57,35,13,49,40, 4,51, 3,39,42		4,12,36,20,17	
		35,16,37,59,37,18,41		2,35
48″	57,35,14,24,56,42,50,40,58,23		4,12,36,22,52	
		35,16,33,47, 0,55,49		2,35
50″	57,35,15, 0,13,16,37,41,54,12		4,12,36,25,27	
		35,16,29,34,24,30,22		2,35
52″	57,35,15,35,29,46,12, 6,24,34		4,12,36,28, 2	
		35,16,25,21,48, 2,20		2,35
54″	57,35,16,10,46,11,33,54,26,54		4,12,36,30,37	
		35,16,21, 9,11,31,43		2,35
56″	57,35,16,46, 2,32,43, 5,58,37		4,12,36,33,12	
		35,16,16,56,34,58,31		2,35
58″	57,35,17,21,18,49,39,40,57, 8		4,12,36,35,47	
		35,16,12,43,58,22,44		
60″	57,35,17,56,35, 2,23,39,19,52			
exact	57,35,17,56,35, 2,23,39,33, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°42′ 0″	57,35,17,56,35, 2,23,39,33, 8			
		35,16, 8,31,21,45,51		
2″	57,35,18,31,51,10,55, 1,18,59		4,12,36,40,50	
		35,16, 4,18,45, 5, 1		2,35
4″	57,35,19, 7, 7,15,13,46,24, 0		4,12,36,43,25	
		35,16, 0, 6, 8,21,36		2,35
6″	57,35,19,42,23,15,19,54,45,36		4,12,36,46, 0	
		35,15,55,53,31,35,36		2,35
8″	57,35,20,17,39,11,13,26,21,12		4,12,36,48,35	
		35,15,51,40,54,47, 1		2,35
10″	57,35,20,52,55, 2,54,21, 8,13		4,12,36,51,10	
		35,15,47,28,17,55,51		2,35
12″	57,35,21,28,10,50,22,39, 4, 4		4,12,36,53,45	
		35,15,43,15,41, 2, 6		2,35
14″	57,35,22, 3,26,33,38,20, 6,10		4,12,36,56,20	
		35,15,39, 3, 4, 5,46		2,35
16″	57,35,22,38,42,12,41,24,11,56		4,12,36,58,55	
		35,15,34,50,27, 6,51		2,35
18″	57,35,23,13,57,47,31,51,18,47		4,12,37, 1,30	
		35,15,30,37,50, 5,21		2,35
20″	57,35,23,49,13,18, 9,41,24, 8		4,12,37, 4, 5	
		35,15,26,25,13, 1,16		2,35
22″	57,35,24,24,28,44,34,54,25,24		4,12,37, 6,40	
		35,15,22,12,35,54,36		2,35
24″	57,35,24,59,44, 6,47,30,20, 0		4,12,37, 9,15	
		35,15,17,59,58,45,21		2,35
26″	57,35,25,34,59,24,47,29, 5,21		4,12,37,11,50	
		35,15,13,47,21,33,31		2,35
28″	57,35,26,10,14,38,34,50,38,52		4,12,37,14,25	
		35,15, 9,34,44,19, 6		2,35
30″	57,35,26,45,29,48, 9,34,57,58		4,12,37,17, 0	
		35,15, 5,22, 7, 2, 6		2,35
32″	57,35,27,20,44,53,31,42, 0, 4		4,12,37,19,35	
		35,15, 1, 9,29,42,31		2,35
34″	57,35,27,55,59,54,41,11,42,35		4,12,37,22,10	
		35,14,56,56,52,20,21		2,35
36″	57,35,28,31,14,51,38, 4, 2,56		4,12,37,24,45	
		35,14,52,44,14,55,36		2,35
38″	57,35,29, 6,29,44,22,18,58,32		4,12,37,27,20	
		35,14,48,31,37,28,16		2,35
40″	57,35,29,41,44,32,53,56,26,48		4,12,37,29,55	
		35,14,44,18,59,58,21		2,35
42″	57,35,30,16,59,17,12,56,25, 9		4,12,37,32,30	
		35,14,40, 6,22,25,51		2,35
44″	57,35,30,52,13,57,19,18,51, 0		4,12,37,35, 5	
		35,14,35,53,44,50,46		2,35
46″	57,35,31,27,28,33,13, 3,41,46		4,12,37,37,40	
		35,14,31,41, 7,13, 6		2,35
48″	57,35,32, 2,43, 4,54,10,54,52		4,12,37,40,15	
		35,14,27,28,29,32,51		2,35
50″	57,35,32,37,57,32,22,40,27,43		4,12,37,42,50	
		35,14,23,15,51,50, 1		2,35
52″	57,35,33,13,11,55,38,32,17,44		4,12,37,45,25	
		35,14,19, 3,14, 4,36		2,35
54″	57,35,33,48,26,14,41,46,22,20		4,12,37,48, 0	
		35,14,14,50,36,16,36		2,35
56″	57,35,34,23,40,29,32,22,38,56		4,12,37,50,35	
		35,14,10,37,58,26, 1		2,35
58″	57,35,34,58,54,40,10,21, 4,57		4,12,37,53,10	
		35,14, 6,25,20,32,51		
60″	57,35,35,34, 8,46,35,41,37,48			
exact	57,35,35,34, 8,46,35,41,58,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°43′ 0″	57,35,35,34, 8,46,35,41,58,15			
		35,14, 2,12,42,39,28		
2″	57,35,36, 9,22,48,48,24,37,43		4,12,37,58, 9	
		35,13,58, 0, 4,41,19		2,35
4″	57,35,36,44,36,46,48,29,19, 2		4,12,38, 0,44	
		35,13,53,47,26,40,35		2,35
6″	57,35,37,19,50,40,35,55,59,37		4,12,38, 3,19	
		35,13,49,34,48,37,16		2,35
8″	57,35,37,55, 4,30,10,44,36,53		4,12,38, 5,54	
		35,13,45,22,10,31,22		2,35
10″	57,35,38,30,18,15,32,55, 8,15		4,12,38, 8,29	
		35,13,41, 9,32,22,53		2,35
12″	57,35,39, 5,31,56,42,27,31, 8		4,12,38,11, 4	
		35,13,36,56,54,11,49		2,35
14″	57,35,39,40,45,33,39,21,42,57		4,12,38,13,39	
		35,13,32,44,15,58,10		2,35
16″	57,35,40,15,59, 6,23,37,41, 7		4,12,38,16,14	
		35,13,28,31,37,41,56		2,35
18″	57,35,40,51,12,34,55,15,23, 3		4,12,38,18,49	
		35,13,24,18,59,23, 7		2,35
20″	57,35,41,26,25,59,14,14,46,10		4,12,38,21,24	
		35,13,20, 6,21, 1,43		2,35
22″	57,35,42, 1,39,19,20,35,47,53		4,12,38,23,59	
		35,13,15,53,42,37,44		2,35
24″	57,35,42,36,52,35,14,18,25,37		4,12,38,26,34	
		35,13,11,41, 4,11,10		2,35
26″	57,35,43,12, 5,46,55,22,36,47		4,12,38,29, 9	
		35,13, 7,28,25,42, 1		2,35
28″	57,35,43,47,18,54,23,48,18,48		4,12,38,31,44	
		35,13, 3,15,47,10,17		2,35
30″	57,35,44,22,31,57,39,35,29, 5		4,12,38,34,19	
		35,12,59, 3, 8,35,58		2,35
32″	57,35,44,57,44,56,42,44, 5, 3		4,12,38,36,54	
		35,12,54,50,29,59, 4		2,35
34″	57,35,45,32,57,51,33,14, 4, 7		4,12,38,39,29	
		35,12,50,37,51,19,35		2,35
36″	57,35,46, 8,10,42,11, 5,23,42		4,12,38,42, 4	
		35,12,46,25,12,37,31		2,35
38″	57,35,46,43,23,28,36,18, 1,13		4,12,38,44,39	
		35,12,42,12,33,52,52		2,35
40″	57,35,47,18,36,10,48,51,54, 5		4,12,38,47,14	
		35,12,37,59,55, 5,38		2,35
42″	57,35,47,53,48,48,48,46,59,43		4,12,38,49,49	
		35,12,33,47,16,15,49		2,35
44″	57,35,48,29, 1,22,36, 3,15,32		4,12,38,52,24	
		35,12,29,34,37,23,25		2,35
46″	57,35,49, 4,13,52,10,40,38,57		4,12,38,54,59	
		35,12,25,21,58,28,26		2,35
48″	57,35,49,39,26,17,32,39, 7,23		4,12,38,57,34	
		35,12,21, 9,19,30,52		2,35
50″	57,35,50,14,38,38,41,58,38,15		4,12,39, 0, 9	
		35,12,16,56,40,30,43		2,35
52″	57,35,50,49,50,55,38,39, 8,58		4,12,39, 2,44	
		35,12,12,44, 1,27,59		2,35
54″	57,35,51,25, 3, 8,22,40,36,57		4,12,39, 5,19	
		35,12, 8,31,22,22,40		2,35
56″	57,35,52, 0,15,16,54, 2,59,37		4,12,39, 7,54	
		35,12, 4,18,43,14,46		2,35
58″	57,35,52,35,27,21,12,46,14,23		4,12,39,10,29	
		35,12, 0, 6, 4, 4,17		
60″	57,35,53,10,39,21,18,50,18,40			
exact	57,35,53,10,39,21,18,50,51, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°44′ 0″	57,35,53,10,39,21,18,50,51, 0			
		35,11,55,53,24,54,48		
2″	57,35,53,45,51,17,12,15,45,48		4,12,39,15,23	
		35,11,51,40,45,39,25		2,34
4″	57,35,54,21, 3, 8,53, 1,25,13		4,12,39,17,57	
		35,11,47,28, 6,21,28		2,34
6″	57,35,54,56,14,56,21, 7,46,41		4,12,39,20,31	
		35,11,43,15,27, 0,57		2,34
8″	57,35,55,31,26,39,36,34,47,38		4,12,39,23, 5	
		35,11,39, 2,47,37,52		2,34
10″	57,35,56, 6,38,18,39,22,25,30		4,12,39,25,39	
		35,11,34,50, 8,12,13		2,34
12″	57,35,56,41,49,53,29,30,37,43		4,12,39,28,13	
		35,11,30,37,28,44, 0		2,34
14″	57,35,57,17, 1,24, 6,59,21,43		4,12,39,30,47	
		35,11,26,24,49,13,13		2,34
16″	57,35,57,52,12,50,31,48,34,56		4,12,39,33,21	
		35,11,22,12, 9,39,52		2,34
18″	57,35,58,27,24,12,43,58,14,48		4,12,39,35,55	
		35,11,17,59,30, 3,57		2,34
20″	57,35,59, 2,35,30,43,28,18,45		4,12,39,38,29	
		35,11,13,46,50,25,28		2,34
22″	57,35,59,37,46,44,30,18,44,13		4,12,39,41, 3	
		35,11, 9,34,10,44,25		2,34
24″	57,36, 0,12,57,54, 4,29,28,38		4,12,39,43,37	
		35,11, 5,21,31, 0,48		2,34
26″	57,36, 0,48, 8,59,26, 0,29,26		4,12,39,46,11	
		35,11, 1, 8,51,14,37		2,34
28″	57,36, 1,23,20, 0,34,51,44, 3		4,12,39,48,45	
		35,10,56,56,11,25,52		2,34
30″	57,36, 1,58,30,57,31, 3, 9,55		4,12,39,51,19	
		35,10,52,43,31,34,33		2,34
32″	57,36, 2,33,41,50,14,34,44,28		4,12,39,53,53	
		35,10,48,30,51,40,40		2,34
34″	57,36, 3, 8,52,38,45,26,25, 8		4,12,39,56,27	
		35,10,44,18,11,44,13		2,34
36″	57,36, 3,44, 3,23, 3,38, 9,21		4,12,39,59, 1	
		35,10,40, 5,31,45,12		2,34
38″	57,36, 4,19,14, 3, 9, 9,54,33		4,12,40, 1,35	
		35,10,35,52,51,43,37		2,34
40″	57,36, 4,54,24,39, 2, 1,38,10		4,12,40, 4, 9	
		35,10,31,40,11,39,28		2,34
42″	57,36, 5,29,35,10,42,13,17,38		4,12,40, 6,43	
		35,10,27,27,31,32,45		2,34
44″	57,36, 6, 4,45,38, 9,44,50,23		4,12,40, 9,17	
		35,10,23,14,51,23,28		2,34
46″	57,36, 6,39,56, 1,24,36,13,51		4,12,40,11,51	
		35,10,19, 2,11,11,37		2,34
48″	57,36, 7,15, 6,20,26,47,25,28		4,12,40,14,25	
		35,10,14,49,30,57,12		2,34
50″	57,36, 7,50,16,35,16,18,22,40		4,12,40,16,59	
		35,10,10,36,50,40,13		2,34
52″	57,36, 8,25,26,45,53, 9, 2,53		4,12,40,19,33	
		35,10, 6,24,10,20,40		2,34
54″	57,36, 9, 0,36,52,17,19,23,33		4,12,40,22, 7	
		35,10, 2,11,29,58,33		2,34
56″	57,36, 9,35,46,54,28,49,22, 6		4,12,40,24,41	
		35, 9,57,58,49,33,52		2,34
58″	57,36,10,10,56,52,27,38,55,58		4,12,40,27,15	
		35, 9,53,46, 9, 6,37		
60″	57,36,10,46, 6,46,13,48, 2,35			
exact	57,36,10,46, 6,46,13,47,35,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°45′ 0″	57,36,10,46, 6,46,13,47,35,51			
		35, 9,49,33,28,34, 8		
2″	57,36,11,21,16,35,47,16, 9,59		4,12,40,32,33	
		35, 9,45,20,48, 1,35		2,34
4″	57,36,11,56,26,21, 8, 4,11,34		4,12,40,35, 7	
		35, 9,41, 8, 7,26,28		2,34
6″	57,36,12,31,36, 2,16,11,38, 2		4,12,40,37,41	
		35, 9,36,55,26,48,47		2,34
8″	57,36,13, 6,45,39,11,38,26,49		4,12,40,40,15	
		35, 9,32,42,46, 8,32		2,34
10″	57,36,13,41,55,11,54,24,35,21		4,12,40,42,49	
		35, 9,28,30, 5,25,43		2,34
12″	57,36,14,17, 4,40,24,30, 1, 4		4,12,40,45,23	
		35, 9,24,17,24,40,20		2,34
14″	57,36,14,52,14, 4,41,54,41,24		4,12,40,47,57	
		35, 9,20, 4,43,52,23		2,34
16″	57,36,15,27,23,24,46,38,33,47		4,12,40,50,31	
		35, 9,15,52, 3, 1,52		2,34
18″	57,36,16, 2,32,40,38,41,35,39		4,12,40,53, 5	
		35, 9,11,39,22, 8,47		2,34
20″	57,36,16,37,41,52,18, 3,44,26		4,12,40,55,39	
		35, 9, 7,26,41,13, 8		2,34
22″	57,36,17,12,50,59,44,44,57,34		4,12,40,58,13	
		35, 9, 3,14, 0,14,55		2,34
24″	57,36,17,48, 0, 2,58,45,12,29		4,12,41, 0,47	
		35, 8,59, 1,19,14, 8		2,34
26″	57,36,18,23, 9, 2, 0, 4,26,37		4,12,41, 3,21	
		35, 8,54,48,38,10,47		2,34
28″	57,36,18,58,17,56,48,42,37,24		4,12,41, 5,55	
		35, 8,50,35,57, 4,52		2,34
30″	57,36,19,33,26,47,24,39,42,16		4,12,41, 8,29	
		35, 8,46,23,15,56,23		2,34
32″	57,36,20, 8,35,33,47,55,38,39		4,12,41,11, 3	
		35, 8,42,10,34,45,20		2,34
34″	57,36,20,43,44,15,58,30,23,59		4,12,41,13,37	
		35, 8,37,57,53,31,43		2,34
36″	57,36,21,18,52,53,56,23,55,42		4,12,41,16,11	
		35, 8,33,45,12,15,32		2,34
38″	57,36,21,54, 1,27,41,36,11,14		4,12,41,18,45	
		35, 8,29,32,30,56,47		2,34
40″	57,36,22,29, 9,57,14, 7, 8, 1		4,12,41,21,19	
		35, 8,25,19,49,35,28		2,34
42″	57,36,23, 4,18,22,33,56,43,29		4,12,41,23,53	
		35, 8,21, 7, 8,11,35		2,34
44″	57,36,23,39,26,43,41, 4,55, 4		4,12,41,26,27	
		35, 8,16,54,26,45, 8		2,34
46″	57,36,24,14,35, 0,35,31,40,12		4,12,41,29, 1	
		35, 8,12,41,45,16, 7		2,34
48″	57,36,24,49,43,13,17,16,56,19		4,12,41,31,35	
		35, 8, 8,29, 3,44,32		2,34
50″	57,36,25,24,51,21,46,20,40,51		4,12,41,34, 9	
		35, 8, 4,16,22,10,23		2,34
52″	57,36,25,59,59,26, 2,42,51,14		4,12,41,36,43	
		35, 8, 0, 3,40,33,40		2,34
54″	57,36,26,35, 7,26, 6,23,24,54		4,12,41,39,17	
		35, 7,55,50,58,54,23		2,34
56″	57,36,27,10,15,21,57,22,19,17		4,12,41,41,51	
		35, 7,51,38,17,12,32		2,34
58″	57,36,27,45,23,13,35,39,31,49		4,12,41,44,25	
		35, 7,47,25,35,28, 7		
60″	57,36,28,20,31, 1, 1,14,59,56			
exact	57,36,28,20,31, 1, 1,14,46,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°46′ 0″	57,36,28,20,31, 1, 1,14,46,31			
		35, 7,43,12,53,39,47		
2″	57,36,28,55,38,44,14, 8,26,18		4,12,41,49,38	
		35, 7,39, 0,11,50, 9		2,34
4″	57,36,29,30,46,23,14,20,16,27		4,12,41,52,12	
		35, 7,34,47,29,57,57		2,34
6″	57,36,30, 5,53,58, 1,50,14,24		4,12,41,54,46	
		35, 7,30,34,48, 3,11		2,34
8″	57,36,30,41, 1,28,36,38,17,35		4,12,41,57,20	
		35, 7,26,22, 6, 5,51		2,34
10″	57,36,31,16, 8,54,58,44,23,26		4,12,41,59,54	
		35, 7,22, 9,24, 5,57		2,34
12″	57,36,31,51,16,17, 8, 8,29,23		4,12,42, 2,28	
		35, 7,17,56,42, 3,29		2,34
14″	57,36,32,26,23,35, 4,50,32,52		4,12,42, 5, 2	
		35, 7,13,43,59,58,27		2,34
16″	57,36,33, 1,30,48,48,50,31,19		4,12,42, 7,36	
		35, 7, 9,31,17,50,51		2,34
18″	57,36,33,36,37,58,20, 8,22,10		4,12,42,10,10	
		35, 7, 5,18,35,40,41		2,34
20″	57,36,34,11,45, 3,38,44, 2,51		4,12,42,12,44	
		35, 7, 1, 5,53,27,57		2,34
22″	57,36,34,46,52, 4,44,37,30,48		4,12,42,15,18	
		35, 6,56,53,11,12,39		2,34
24″	57,36,35,21,59, 1,37,48,43,27		4,12,42,17,52	
		35, 6,52,40,28,54,47		2,34
26″	57,36,35,57, 5,54,18,17,38,14		4,12,42,20,26	
		35, 6,48,27,46,34,21		2,34
28″	57,36,36,32,12,42,46, 4,12,35		4,12,42,23, 0	
		35, 6,44,15, 4,11,21		2,34
30″	57,36,37, 7,19,27, 1, 8,23,56		4,12,42,25,34	
		35, 6,40, 2,21,45,47		2,34
32″	57,36,37,42,26, 7, 3,30, 9,43		4,12,42,28, 8	
		35, 6,35,49,39,17,39		2,34
34″	57,36,38,17,32,42,53, 9,27,22		4,12,42,30,42	
		35, 6,31,36,56,46,57		2,34
36″	57,36,38,52,39,14,30, 6,14,19		4,12,42,33,16	
		35, 6,27,24,14,13,41		2,34
38″	57,36,39,27,45,41,54,20,28, 0		4,12,42,35,50	
		35, 6,23,11,31,37,51		2,34
40″	57,36,40, 2,52, 5, 5,52, 5,51		4,12,42,38,24	
		35, 6,18,58,48,59,27		2,34
42″	57,36,40,37,58,24, 4,41, 5,18		4,12,42,40,58	
		35, 6,14,46, 6,18,29		2,34
44″	57,36,41,13, 4,38,50,47,23,47		4,12,42,43,32	
		35, 6,10,33,23,34,57		2,34
46″	57,36,41,48,10,49,24,10,58,44		4,12,42,46, 6	
		35, 6, 6,20,40,48,51		2,34
48″	57,36,42,23,16,55,44,51,47,35		4,12,42,48,40	
		35, 6, 2, 7,58, 0,11		2,34
50″	57,36,42,58,22,57,52,49,47,46		4,12,42,51,14	
		35, 5,57,55,15, 8,57		2,34
52″	57,36,43,33,28,55,48, 4,56,43		4,12,42,53,48	
		35, 5,53,42,32,15, 9		2,34
54″	57,36,44, 8,34,49,30,37,11,52		4,12,42,56,22	
		35, 5,49,29,49,18,47		2,34
56″	57,36,44,43,40,39, 0,26,30,39		4,12,42,58,56	
		35, 5,45,17, 6,19,51		2,34
58″	57,36,45,18,46,24,17,32,50,30		4,12,43, 1,30	
		35, 5,41, 4,23,18,21		
60″	57,36,45,53,52, 5,21,56, 8,51			
exact	57,36,45,53,52, 5,21,56, 5,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°47′ 0″	57,36,45,53,52, 5,21,56, 5,58			
		35, 5,36,51,40,14, 3		
2″	57,36,46,28,57,42,13,36,20, 1		4,12,43, 6,38	
		35, 5,32,38,57, 7,25		2,34
4″	57,36,47, 4, 3,14,52,33,27,26		4,12,43, 9,12	
		35, 5,28,26,13,58,13		2,34
6″	57,36,47,39, 8,43,18,47,25,39		4,12,43,11,46	
		35, 5,24,13,30,46,27		2,34
8″	57,36,48,14,14, 7,32,18,12, 6		4,12,43,14,20	
		35, 5,20, 0,47,32, 7		2,34
10″	57,36,48,49,19,27,33, 5,44,13		4,12,43,16,54	
		35, 5,15,48, 4,15,13		2,34
12″	57,36,49,24,24,43,21, 9,59,26		4,12,43,19,28	
		35, 5,11,35,20,55,45		2,34
14″	57,36,49,59,29,54,56,30,55,11		4,12,43,22, 2	
		35, 5, 7,22,37,33,43		2,34
16″	57,36,50,34,35, 2,19, 8,28,54		4,12,43,24,36	
		35, 5, 3, 9,54, 9, 7		2,34
18″	57,36,51, 9,40, 5,29, 2,38, 1		4,12,43,27,10	
		35, 4,58,57,10,41,57		2,34
20″	57,36,51,44,45, 4,26,13,19,58		4,12,43,29,44	
		35, 4,54,44,27,12,13		2,34
22″	57,36,52,19,49,59,10,40,32,11		4,12,43,32,18	
		35, 4,50,31,43,39,55		2,34
24″	57,36,52,54,54,49,42,24,12, 6		4,12,43,34,52	
		35, 4,46,19, 0, 5, 3		2,34
26″	57,36,53,29,59,36, 1,24,17, 9		4,12,43,37,26	
		35, 4,42, 6,16,27,37		2,34
28″	57,36,54, 5, 4,18, 7,40,44,46		4,12,43,40, 0	
		35, 4,37,53,32,47,37		2,34
30″	57,36,54,40, 8,56, 1,13,32,23		4,12,43,42,34	
		35, 4,33,40,49, 5, 3		2,34
32″	57,36,55,15,13,29,42, 2,37,26		4,12,43,45, 8	
		35, 4,29,28, 5,19,55		2,34
34″	57,36,55,50,17,59,10, 7,57,21		4,12,43,47,42	
		35, 4,25,15,21,32,13		2,34
36″	57,36,56,25,22,24,25,29,29,34		4,12,43,50,16	
		35, 4,21, 2,37,41,57		2,34
38″	57,36,57, 0,26,45,28, 7,11,31		4,12,43,52,50	
		35, 4,16,49,53,49, 7		2,34
40″	57,36,57,35,31, 2,18, 1, 0,38		4,12,43,55,24	
		35, 4,12,37, 9,53,43		2,34
42″	57,36,58,10,35,14,55,10,54,21		4,12,43,57,58	
		35, 4, 8,24,25,55,45		2,34
44″	57,36,58,45,39,23,19,36,50, 6		4,12,44, 0,32	
		35, 4, 4,11,41,55,13		2,34
46″	57,36,59,20,43,27,31,18,45,19		4,12,44, 3, 6	
		35, 3,59,58,57,52, 7		2,34
48″	57,36,59,55,47,27,30,16,37,26		4,12,44, 5,40	
		35, 3,55,46,13,46,27		2,34
50″	57,37, 0,30,51,23,16,30,23,53		4,12,44, 8,14	
		35, 3,51,33,29,38,13		2,34
52″	57,37, 1, 5,55,14,50, 0, 2, 6		4,12,44,10,48	
		35, 3,47,20,45,27,25		2,34
54″	57,37, 1,40,59, 2,10,45,29,31		4,12,44,13,22	
		35, 3,43, 8, 1,14, 3		2,34
56″	57,37, 2,16, 2,45,18,46,43,34		4,12,44,15,56	
		35, 3,38,55,16,58, 7		2,34
58″	57,37, 2,51, 6,24,14, 3,41,41		4,12,44,18,30	
		35, 3,34,42,32,39,37		
60″	57,37, 3,26, 9,58,56,36,21,18			
exact	57,37, 3,26, 9,58,56,36,26,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°48′ 0″	57,37, 3,26, 9,58,56,36,26,29			
		35, 3,30,29,48,19,16		
2″	57,37, 4, 1,13,29,26,24,45,45		4,12,44,23,34	
		35, 3,26,17, 3,55,42		2,34
4″	57,37, 4,36,16,55,43,28,41,27		4,12,44,26, 8	
		35, 3,22, 4,19,29,34		2,34
6″	57,37, 5,11,20,17,47,48,11, 1		4,12,44,28,42	
		35, 3,17,51,35, 0,52		2,34
8″	57,37, 5,46,23,35,39,23,11,53		4,12,44,31,16	
		35, 3,13,38,50,29,36		2,34
10″	57,37, 6,21,26,49,18,13,41,29		4,12,44,33,50	
		35, 3, 9,26, 5,55,46		2,34
12″	57,37, 6,56,29,58,44,19,37,15		4,12,44,36,24	
		35, 3, 5,13,21,19,22		2,34
14″	57,37, 7,31,33, 3,57,40,56,37		4,12,44,38,58	
		35, 3, 1, 0,36,40,24		2,34
16″	57,37, 8, 6,36, 4,58,17,37, 1		4,12,44,41,32	
		35, 2,56,47,51,58,52		2,34
18″	57,37, 8,41,39, 1,46, 9,35,53		4,12,44,44, 6	
		35, 2,52,35, 7,14,46		2,34
20″	57,37, 9,16,41,54,21,16,50,39		4,12,44,46,40	
		35, 2,48,22,22,28, 6		2,34
22″	57,37, 9,51,44,42,43,39,18,45		4,12,44,49,14	
		35, 2,44, 9,37,38,52		2,34
24″	57,37,10,26,47,26,53,16,57,37		4,12,44,51,48	
		35, 2,39,56,52,47, 4		2,34
26″	57,37,11, 1,50, 6,50, 9,44,41		4,12,44,54,22	
		35, 2,35,44, 7,52,42		2,34
28″	57,37,11,36,52,42,34,17,37,23		4,12,44,56,56	
		35, 2,31,31,22,55,46		2,34
30″	57,37,12,11,55,14, 5,40,33, 9		4,12,44,59,30	
		35, 2,27,18,37,56,16		2,34
32″	57,37,12,46,57,41,24,18,29,25		4,12,45, 2, 4	
		35, 2,23, 5,52,54,12		2,34
34″	57,37,13,22, 0, 4,30,11,23,37		4,12,45, 4,38	
		35, 2,18,53, 7,49,34		2,34
36″	57,37,13,57, 2,23,23,19,13,11		4,12,45, 7,12	
		35, 2,14,40,22,42,22		2,34
38″	57,37,14,32, 4,38, 3,41,55,33		4,12,45, 9,46	
		35, 2,10,27,37,32,36		2,34
40″	57,37,15, 7, 6,48,31,19,28, 9		4,12,45,12,20	
		35, 2, 6,14,52,20,16		2,34
42″	57,37,15,42, 8,54,46,11,48,25		4,12,45,14,54	
		35, 2, 2, 2, 7, 5,22		2,34
44″	57,37,16,17,10,56,48,18,53,47		4,12,45,17,28	
		35, 1,57,49,21,47,54		2,34
46″	57,37,16,52,12,54,37,40,41,41		4,12,45,20, 2	
		35, 1,53,36,36,27,52		2,34
48″	57,37,17,27,14,48,14,17, 9,33		4,12,45,22,36	
		35, 1,49,23,51, 5,16		2,34
50″	57,37,18, 2,16,37,38, 8,14,49		4,12,45,25,10	
		35, 1,45,11, 5,40, 6		2,34
52″	57,37,18,37,18,22,49,13,54,55		4,12,45,27,44	
		35, 1,40,58,20,12,22		2,34
54″	57,37,19,12,20, 3,47,34, 7,17		4,12,45,30,18	
		35, 1,36,45,34,42, 4		2,34
56″	57,37,19,47,21,40,33, 8,49,21		4,12,45,32,52	
		35, 1,32,32,49, 9,12		2,34
58″	57,37,20,22,23,13, 5,57,58,33		4,12,45,35,26	
		35, 1,28,20, 3,33,46		
60″	57,37,20,57,24,41,26, 1,32,19			
exact	57,37,20,57,24,41,26, 1,49,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°49′ 0″	57,37,20,57,24,41,26, 1,49,38			
		35, 1,24, 7,17,57,43		
2″	57,37,21,32,26, 5,33,19,47,21		4,12,45,40,25	
		35, 1,19,54,32,17,18		2,34
4″	57,37,22, 7,27,25,27,52, 4,39		4,12,45,42,59	
		35, 1,15,41,46,34,19		2,34
6″	57,37,22,42,28,41, 9,38,38,58		4,12,45,45,33	
		35, 1,11,29, 0,48,46		2,34
8″	57,37,23,17,29,52,38,39,27,44		4,12,45,48, 7	
		35, 1, 7,16,15, 0,39		2,34
10″	57,37,23,52,30,59,54,54,28,23		4,12,45,50,41	
		35, 1, 3, 3,29, 9,58		2,34
12″	57,37,24,27,32, 2,58,23,38,21		4,12,45,53,15	
		35, 0,58,50,43,16,43		2,34
14″	57,37,25, 2,33, 1,49, 6,55, 4		4,12,45,55,49	
		35, 0,54,37,57,20,54		2,34
16″	57,37,25,37,33,56,27, 4,15,58		4,12,45,58,23	
		35, 0,50,25,11,22,31		2,34
18″	57,37,26,12,34,46,52,15,38,29		4,12,46, 0,57	
		35, 0,46,12,25,21,34		2,34
20″	57,37,26,47,35,33, 4,41, 0, 3		4,12,46, 3,31	
		35, 0,41,59,39,18, 3		2,34
22″	57,37,27,22,36,15, 4,20,18, 6		4,12,46, 6, 5	
		35, 0,37,46,53,11,58		2,34
24″	57,37,27,57,36,52,51,13,30, 4		4,12,46, 8,39	
		35, 0,33,34, 7, 3,19		2,34
26″	57,37,28,32,37,26,25,20,33,23		4,12,46,11,13	
		35, 0,29,21,20,52, 6		2,34
28″	57,37,29, 7,37,55,46,41,25,29		4,12,46,13,47	
		35, 0,25, 8,34,38,19		2,34
30″	57,37,29,42,38,20,55,16, 3,48		4,12,46,16,21	
		35, 0,20,55,48,21,58		2,34
32″	57,37,30,17,38,41,51, 4,25,46		4,12,46,18,55	
		35, 0,16,43, 2, 3, 3		2,34
34″	57,37,30,52,38,58,34, 6,28,49		4,12,46,21,29	
		35, 0,12,30,15,41,34		2,34
36″	57,37,31,27,39,11, 4,22,10,23		4,12,46,24, 3	
		35, 0, 8,17,29,17,31		2,34
38″	57,37,32, 2,39,19,21,51,27,54		4,12,46,26,37	
		35, 0, 4, 4,42,50,54		2,34
40″	57,37,32,37,39,23,26,34,18,48		4,12,46,29,11	
		34,59,59,51,56,21,43		2,34
42″	57,37,33,12,39,23,18,30,40,31		4,12,46,31,45	
		34,59,55,39, 9,49,58		2,34
44″	57,37,33,47,39,18,57,40,30,29		4,12,46,34,19	
		34,59,51,26,23,15,39		2,34
46″	57,37,34,22,39,10,24, 3,46, 8		4,12,46,36,53	
		34,59,47,13,36,38,46		2,34
48″	57,37,34,57,38,57,37,40,24,54		4,12,46,39,27	
		34,59,43, 0,49,59,19		2,34
50″	57,37,35,32,38,40,38,30,24,13		4,12,46,42, 1	
		34,59,38,48, 3,17,18		2,34
52″	57,37,36, 7,38,19,26,33,41,31		4,12,46,44,35	
		34,59,34,35,16,32,43		2,34
54″	57,37,36,42,37,54, 1,50,14,14		4,12,46,47, 9	
		34,59,30,22,29,45,34		2,34
56″	57,37,37,17,37,24,24,19,59,48		4,12,46,49,43	
		34,59,26, 9,42,55,51		2,34
58″	57,37,37,52,36,50,34, 2,55,39		4,12,46,52,17	
		34,59,21,56,56, 3,34		
60″	57,37,38,27,36,12,30,58,59,13			
exact	57,37,38,27,36,12,30,59,26,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°50′ 0″	57,37,38,27,36,12,30,59,26,14			
		34,59,17,44, 9,11,44		
2″	57,37,39, 2,35,30,15, 8,37,58		4,12,46,57,12	
		34,59,13,31,22,14,32		2,33
4″	57,37,39,37,34,43,46,30,52,30		4,12,46,59,45	
		34,59, 9,18,35,14,47		2,33
6″	57,37,40,12,33,53, 5, 6, 7,17		4,12,47, 2,18	
		34,59, 5, 5,48,12,29		2,33
8″	57,37,40,47,32,58,10,54,19,46		4,12,47, 4,51	
		34,59, 0,53, 1, 7,38		2,33
10″	57,37,41,22,31,59, 3,55,27,24		4,12,47, 7,24	
		34,58,56,40,14, 0,14		2,33
12″	57,37,41,57,30,55,44, 9,27,38		4,12,47, 9,57	
		34,58,52,27,26,50,17		2,33
14″	57,37,42,32,29,48,11,36,17,55		4,12,47,12,30	
		34,58,48,14,39,37,47		2,33
16″	57,37,43, 7,28,36,26,15,55,42		4,12,47,15, 3	
		34,58,44, 1,52,22,44		2,33
18″	57,37,43,42,27,20,28, 8,18,26		4,12,47,17,36	
		34,58,39,49, 5, 5, 8		2,33
20″	57,37,44,17,26, 0,17,13,23,34		4,12,47,20, 9	
		34,58,35,36,17,44,59		2,33
22″	57,37,44,52,24,35,53,31, 8,33		4,12,47,22,42	
		34,58,31,23,30,22,17		2,33
24″	57,37,45,27,23, 7,17, 1,30,50		4,12,47,25,15	
		34,58,27,10,42,57, 2		2,33
26″	57,37,46, 2,21,34,27,44,27,52		4,12,47,27,48	
		34,58,22,57,55,29,14		2,33
28″	57,37,46,37,19,57,25,39,57, 6		4,12,47,30,21	
		34,58,18,45, 7,58,53		2,33
30″	57,37,47,12,18,16,10,47,55,59		4,12,47,32,54	
		34,58,14,32,20,25,59		2,33
32″	57,37,47,47,16,30,43, 8,21,58		4,12,47,35,27	
		34,58,10,19,32,50,32		2,33
34″	57,37,48,22,14,41, 2,41,12,30		4,12,47,38, 0	
		34,58, 6, 6,45,12,32		2,33
36″	57,37,48,57,12,47, 9,26,25, 2		4,12,47,40,33	
		34,58, 1,53,57,31,59		2,33
38″	57,37,49,32,10,49, 3,23,57, 1		4,12,47,43, 6	
		34,57,57,41, 9,48,53		2,33
40″	57,37,50, 7, 8,46,44,33,45,54		4,12,47,45,39	
		34,57,53,28,22, 3,14		2,33
42″	57,37,50,42, 6,40,12,55,49, 8		4,12,47,48,12	
		34,57,49,15,34,15, 2		2,33
44″	57,37,51,17, 4,29,28,30, 4,10		4,12,47,50,45	
		34,57,45, 2,46,24,17		2,33
46″	57,37,51,52, 2,14,31,16,28,27		4,12,47,53,18	
		34,57,40,49,58,30,59		2,33
48″	57,37,52,26,59,55,21,14,59,26		4,12,47,55,51	
		34,57,36,37,10,35, 8		2,33
50″	57,37,53, 1,57,31,58,25,34,34		4,12,47,58,24	
		34,57,32,24,22,36,44		2,33
52″	57,37,53,36,55, 4,22,48,11,18		4,12,48, 0,57	
		34,57,28,11,34,35,47		2,33
54″	57,37,54,11,52,32,34,22,47, 5		4,12,48, 3,30	
		34,57,23,58,46,32,17		2,33
56″	57,37,54,46,49,56,33, 9,19,22		4,12,48, 6, 3	
		34,57,19,45,58,26,14		2,33
58″	57,37,55,21,47,16,19, 7,45,36		4,12,48, 8,36	
		34,57,15,33,10,17,38		
60″	57,37,55,56,44,31,52,18, 3,14			
exact	57,37,55,56,44,31,52,17,36,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°51′ 0″	57,37,55,56,44,31,52,17,36,27			
		34,57,11,20,22, 3,36		
2″	57,37,56,31,41,43,12,39,40, 3		4,12,48,13,54	
		34,57, 7, 7,33,49,42		2,33
4″	57,37,57, 6,38,50,20,13,29,45		4,12,48,16,27	
		34,57, 2,54,45,33,15		2,33
6″	57,37,57,41,35,53,14,59, 3, 0		4,12,48,19, 0	
		34,56,58,41,57,14,15		2,33
8″	57,37,58,16,32,51,56,56,17,15		4,12,48,21,33	
		34,56,54,29, 8,52,42		2,33
10″	57,37,58,51,29,46,26, 5, 9,57		4,12,48,24, 6	
		34,56,50,16,20,28,36		2,33
12″	57,37,59,26,26,36,42,25,38,33		4,12,48,26,39	
		34,56,46, 3,32, 1,57		2,33
14″	57,38, 0, 1,23,22,45,57,40,30		4,12,48,29,12	
		34,56,41,50,43,32,45		2,33
16″	57,38, 0,36,20, 4,36,41,13,15		4,12,48,31,45	
		34,56,37,37,55, 1, 0		2,33
18″	57,38, 1,11,16,42,14,36,14,15		4,12,48,34,18	
		34,56,33,25, 6,26,42		2,33
20″	57,38, 1,46,13,15,39,42,40,57		4,12,48,36,51	
		34,56,29,12,17,49,51		2,33
22″	57,38, 2,21, 9,44,52, 0,30,48		4,12,48,39,24	
		34,56,24,59,29,10,27		2,33
24″	57,38, 2,56, 6, 9,51,29,41,15		4,12,48,41,57	
		34,56,20,46,40,28,30		2,33
26″	57,38, 3,31, 2,30,38,10, 9,45		4,12,48,44,30	
		34,56,16,33,51,44, 0		2,33
28″	57,38, 4, 5,58,47,12, 1,53,45		4,12,48,47, 3	
		34,56,12,21, 2,56,57		2,33
30″	57,38, 4,40,54,59,33, 4,50,42		4,12,48,49,36	
		34,56, 8, 8,14, 7,21		2,33
32″	57,38, 5,15,51, 7,41,18,58, 3		4,12,48,52, 9	
		34,56, 3,55,25,15,12		2,33
34″	57,38, 5,50,47,11,36,44,13,15		4,12,48,54,42	
		34,55,59,42,36,20,30		2,33
36″	57,38, 6,25,43,11,19,20,33,45		4,12,48,57,15	
		34,55,55,29,47,23,15		2,33
38″	57,38, 7, 0,39, 6,49, 7,57, 0		4,12,48,59,48	
		34,55,51,16,58,23,27		2,33
40″	57,38, 7,35,34,58, 6, 6,20,27		4,12,49, 2,21	
		34,55,47, 4, 9,21, 6		2,33
42″	57,38, 8,10,30,45,10,15,41,33		4,12,49, 4,54	
		34,55,42,51,20,16,12		2,33
44″	57,38, 8,45,26,28, 1,35,57,45		4,12,49, 7,27	
		34,55,38,38,31, 8,45		2,33
46″	57,38, 9,20,22, 6,40, 7, 6,30		4,12,49,10, 0	
		34,55,34,25,41,58,45		2,33
48″	57,38, 9,55,17,41, 5,49, 5,15		4,12,49,12,33	
		34,55,30,12,52,46,12		2,33
50″	57,38,10,30,13,11,18,41,51,27		4,12,49,15, 6	
		34,55,26, 0, 3,31, 6		2,33
52″	57,38,11, 5, 8,37,18,45,22,33		4,12,49,17,39	
		34,55,21,47,14,13,27		2,33
54″	57,38,11,40, 3,59, 5,59,36, 0		4,12,49,20,12	
		34,55,17,34,24,53,15		2,33
56″	57,38,12,14,59,16,40,24,29,15		4,12,49,22,45	
		34,55,13,21,35,30,30		2,33
58″	57,38,12,49,54,30, 1,59,59,45		4,12,49,25,18	
		34,55, 9, 8,46, 5,12		
60″	57,38,13,24,49,39,10,46, 4,57			
exact	57,38,13,24,49,39,10,45,49,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°52′ 0″	57,38,13,24,49,39,10,45,49,42			
		34,55, 4,55,56,35,39		
2″	57,38,13,59,44,44, 6,42,25,21		4,12,49,30,31	
		34,55, 0,43, 7, 5, 8		2,33
4″	57,38,14,34,39,44,49,49,30,29		4,12,49,33, 4	
		34,54,56,30,17,32, 4		2,33
6″	57,38,15, 9,34,41,20, 7, 2,33		4,12,49,35,37	
		34,54,52,17,27,56,27		2,33
8″	57,38,15,44,29,33,37,34,59, 0		4,12,49,38,10	
		34,54,48, 4,38,18,17		2,33
10″	57,38,16,19,24,21,42,13,17,17		4,12,49,40,43	
		34,54,43,51,48,37,34		2,33
12″	57,38,16,54,19, 5,34, 1,54,51		4,12,49,43,16	
		34,54,39,38,58,54,18		2,33
14″	57,38,17,29,13,45,13, 0,49, 9		4,12,49,45,49	
		34,54,35,26, 9, 8,29		2,33
16″	57,38,18, 4, 8,20,39, 9,57,38		4,12,49,48,22	
		34,54,31,13,19,20, 7		2,33
18″	57,38,18,39, 2,51,52,29,17,45		4,12,49,50,55	
		34,54,27, 0,29,29,12		2,33
20″	57,38,19,13,57,18,52,58,46,57		4,12,49,53,28	
		34,54,22,47,39,35,44		2,33
22″	57,38,19,48,51,41,40,38,22,41		4,12,49,56, 1	
		34,54,18,34,49,39,43		2,33
24″	57,38,20,23,46, 0,15,28, 2,24		4,12,49,58,34	
		34,54,14,21,59,41, 9		2,33
26″	57,38,20,58,40,14,37,27,43,33		4,12,50, 1, 7	
		34,54,10, 9, 9,40, 2		2,33
28″	57,38,21,33,34,24,46,37,23,35		4,12,50, 3,40	
		34,54, 5,56,19,36,22		2,33
30″	57,38,22, 8,28,30,42,56,59,57		4,12,50, 6,13	
		34,54, 1,43,29,30, 9		2,33
32″	57,38,22,43,22,32,26,26,30, 6		4,12,50, 8,46	
		34,53,57,30,39,21,23		2,33
34″	57,38,23,18,16,29,57, 5,51,29		4,12,50,11,19	
		34,53,53,17,49,10, 4		2,33
36″	57,38,23,53,10,23,14,55, 1,33		4,12,50,13,52	
		34,53,49, 4,58,56,12		2,33
38″	57,38,24,28, 4,12,19,53,57,45		4,12,50,16,25	
		34,53,44,52, 8,39,47		2,33
40″	57,38,25, 2,57,57,12, 2,37,32		4,12,50,18,58	
		34,53,40,39,18,20,49		2,33
42″	57,38,25,37,51,37,51,20,58,21		4,12,50,21,31	
		34,53,36,26,27,59,18		2,33
44″	57,38,26,12,45,14,17,48,57,39		4,12,50,24, 4	
		34,53,32,13,37,35,14		2,33
46″	57,38,26,47,38,46,31,26,32,53		4,12,50,26,37	
		34,53,28, 0,47, 8,37		2,33
48″	57,38,27,22,32,14,32,13,41,30		4,12,50,29,10	
		34,53,23,47,56,39,27		2,33
50″	57,38,27,57,25,38,20,10,20,57		4,12,50,31,43	
		34,53,19,35, 6, 7,44		2,33
52″	57,38,28,32,18,57,55,16,28,41		4,12,50,34,16	
		34,53,15,22,15,33,28		2,33
54″	57,38,29, 7,12,13,17,32, 2, 9		4,12,50,36,49	
		34,53,11, 9,24,56,39		2,33
56″	57,38,29,42, 5,24,26,56,58,48		4,12,50,39,22	
		34,53, 6,56,34,17,17		2,33
58″	57,38,30,16,58,31,23,31,16, 5		4,12,50,41,55	
		34,53, 2,43,43,35,22		
60″	57,38,30,51,51,34, 7,14,51,27			
exact	57,38,30,51,51,34, 7,14,44,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°53′ 0″	57,38,30,51,51,34, 7,14,44,44			
		34,52,58,30,52,50,12		
2″	57,38,31,26,44,32,38, 7,34,56		4,12,50,47, 3	
		34,52,54,18, 2, 3, 9		2,33
4″	57,38,32, 1,37,26,56, 9,38, 5		4,12,50,49,36	
		34,52,50, 5,11,13,33		2,33
6″	57,38,32,36,30,17, 1,20,51,38		4,12,50,52, 9	
		34,52,45,52,20,21,24		2,33
8″	57,38,33,11,23, 2,53,41,13, 2		4,12,50,54,42	
		34,52,41,39,29,26,42		2,33
10″	57,38,33,46,15,44,33,10,39,44		4,12,50,57,15	
		34,52,37,26,38,29,27		2,33
12″	57,38,34,21, 8,21,59,49, 9,11		4,12,50,59,48	
		34,52,33,13,47,29,39		2,33
14″	57,38,34,56, 0,55,13,36,38,50		4,12,51, 2,21	
		34,52,29, 0,56,27,18		2,33
16″	57,38,35,30,53,24,14,33, 6, 8		4,12,51, 4,54	
		34,52,24,48, 5,22,24		2,33
18″	57,38,36, 5,45,49, 2,38,28,32		4,12,51, 7,27	
		34,52,20,35,14,14,57		2,33
20″	57,38,36,40,38, 9,37,52,43,29		4,12,51,10, 0	
		34,52,16,22,23, 4,57		2,33
22″	57,38,37,15,30,26, 0,15,48,26		4,12,51,12,33	
		34,52,12, 9,31,52,24		2,33
24″	57,38,37,50,22,38, 9,47,40,50		4,12,51,15, 6	
		34,52, 7,56,40,37,18		2,33
26″	57,38,38,25,14,46, 6,28,18, 8		4,12,51,17,39	
		34,52, 3,43,49,19,39		2,33
28″	57,38,39, 0, 6,49,50,17,37,47		4,12,51,20,12	
		34,51,59,30,57,59,27		2,33
30″	57,38,39,34,58,49,21,15,37,14		4,12,51,22,45	
		34,51,55,18, 6,36,42		2,33
32″	57,38,40, 9,50,44,39,22,13,56		4,12,51,25,18	
		34,51,51, 5,15,11,24		2,33
34″	57,38,40,44,42,35,44,37,25,20		4,12,51,27,51	
		34,51,46,52,23,43,33		2,33
36″	57,38,41,19,34,22,37, 1, 8,53		4,12,51,30,24	
		34,51,42,39,32,13, 9		2,33
38″	57,38,41,54,26, 5,16,33,22, 2		4,12,51,32,57	
		34,51,38,26,40,40,12		2,33
40″	57,38,42,29,17,43,43,14, 2,14		4,12,51,35,30	
		34,51,34,13,49, 4,42		2,33
42″	57,38,43, 4, 9,17,57, 3, 6,56		4,12,51,38, 3	
		34,51,30, 0,57,26,39		2,33
44″	57,38,43,39, 0,47,58, 0,33,35		4,12,51,40,36	
		34,51,25,48, 5,46, 3		2,33
46″	57,38,44,13,52,13,46, 6,19,38		4,12,51,43, 9	
		34,51,21,35,14, 2,54		2,33
48″	57,38,44,48,43,35,21,20,22,32		4,12,51,45,42	
		34,51,17,22,22,17,12		2,33
50″	57,38,45,23,34,52,43,42,39,44		4,12,51,48,15	
		34,51,13, 9,30,28,57		2,33
52″	57,38,45,58,26, 5,53,13, 8,41		4,12,51,50,48	
		34,51, 8,56,38,38, 9		2,33
54″	57,38,46,33,17,14,49,51,46,50		4,12,51,53,21	
		34,51, 4,43,46,44,48		2,33
56″	57,38,47, 8, 8,19,33,38,31,38		4,12,51,55,54	
		34,51, 0,30,54,48,54		2,33
58″	57,38,47,42,59,20, 4,33,20,32		4,12,51,58,27	
		34,50,56,18, 2,50,27		
60″	57,38,48,17,50,16,22,36,10,59			
exact	57,38,48,17,50,16,22,36, 9,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°54′ 0″	57,38,48,17,50,16,22,36, 9,38			
		34,50,52, 5,10,49,32		
2″	57,38,48,52,41, 8,27,46,59,10		4,12,52, 3,31	
		34,50,47,52,18,46, 1		2,33
4″	57,38,49,27,31,56,20, 5,45,11		4,12,52, 6, 4	
		34,50,43,39,26,39,57		2,33
6″	57,38,50, 2,22,39,59,32,25, 8		4,12,52, 8,37	
		34,50,39,26,34,31,20		2,33
8″	57,38,50,37,13,19,26, 6,56,28		4,12,52,11,10	
		34,50,35,13,42,20,10		2,33
10″	57,38,51,12, 3,54,39,49,16,38		4,12,52,13,43	
		34,50,31, 0,50, 6,27		2,33
12″	57,38,51,46,54,25,40,39,23, 5		4,12,52,16,16	
		34,50,26,47,57,50,11		2,33
14″	57,38,52,21,44,52,28,37,13,16		4,12,52,18,49	
		34,50,22,35, 5,31,22		2,33
16″	57,38,52,56,35,15, 3,42,44,38		4,12,52,21,22	
		34,50,18,22,13,10, 0		2,33
18″	57,38,53,31,25,33,25,55,54,38		4,12,52,23,55	
		34,50,14, 9,20,46, 5		2,33
20″	57,38,54, 6,15,47,35,16,40,43		4,12,52,26,28	
		34,50, 9,56,28,19,37		2,33
22″	57,38,54,41, 5,57,31,45, 0,20		4,12,52,29, 1	
		34,50, 5,43,35,50,36		2,33
24″	57,38,55,15,56, 3,15,20,50,56		4,12,52,31,34	
		34,50, 1,30,43,19, 2		2,33
26″	57,38,55,50,46, 4,46, 4, 9,58		4,12,52,34, 7	
		34,49,57,17,50,44,55		2,33
28″	57,38,56,25,36, 2, 3,54,54,53		4,12,52,36,40	
		34,49,53, 4,58, 8,15		2,33
30″	57,38,57, 0,25,55, 8,53, 3, 8		4,12,52,39,13	
		34,49,48,52, 5,29, 2		2,33
32″	57,38,57,35,15,44, 0,58,32,10		4,12,52,41,46	
		34,49,44,39,12,47,16		2,33
34″	57,38,58,10, 5,28,40,11,19,26		4,12,52,44,19	
		34,49,40,26,20, 2,57		2,33
36″	57,38,58,44,55, 9, 6,31,22,23		4,12,52,46,52	
		34,49,36,13,27,16, 5		2,33
38″	57,38,59,19,44,45,19,58,38,28		4,12,52,49,25	
		34,49,32, 0,34,26,40		2,33
40″	57,38,59,54,34,17,20,33, 5, 8		4,12,52,51,58	
		34,49,27,47,41,34,42		2,33
42″	57,39, 0,29,23,45, 8,14,39,50		4,12,52,54,31	
		34,49,23,34,48,40,11		2,33
44″	57,39, 1, 4,13, 8,43, 3,20, 1		4,12,52,57, 4	
		34,49,19,21,55,43, 7		2,33
46″	57,39, 1,39, 2,28, 4,59, 3, 8		4,12,52,59,37	
		34,49,15, 9, 2,43,30		2,33
48″	57,39, 2,13,51,43,14, 1,46,38		4,12,53, 2,10	
		34,49,10,56, 9,41,20		2,33
50″	57,39, 2,48,40,54,10,11,27,58		4,12,53, 4,43	
		34,49, 6,43,16,36,37		2,33
52″	57,39, 3,23,30, 0,53,28, 4,35		4,12,53, 7,16	
		34,49, 2,30,23,29,21		2,33
54″	57,39, 3,58,19, 3,23,51,33,56		4,12,53, 9,49	
		34,48,58,17,30,19,32		2,33
56″	57,39, 4,33, 8, 1,41,21,53,28		4,12,53,12,22	
		34,48,54, 4,37, 7,10		2,33
58″	57,39, 5, 7,56,55,45,59, 0,38		4,12,53,14,55	
		34,48,49,51,43,52,15		
60″	57,39, 5,42,45,45,37,42,52,53			
exact	57,39, 5,42,45,45,37,43, 1,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°55′ 0″	57,39, 5,42,45,45,37,43, 1,46			
		34,48,45,38,50,35,58		
2″	57,39, 6,17,34,31,16,33,37,44		4,12,53,19,55	
		34,48,41,25,57,16, 3		2,33
4″	57,39, 6,52,23,12,42,30,53,47		4,12,53,22,28	
		34,48,37,13, 3,53,35		2,33
6″	57,39, 7,27,11,49,55,34,47,22		4,12,53,25, 1	
		34,48,33, 0,10,28,34		2,33
8″	57,39, 8, 2, 0,22,55,45,15,56		4,12,53,27,34	
		34,48,28,47,17, 1, 0		2,33
10″	57,39, 8,36,48,51,43, 2,16,56		4,12,53,30, 7	
		34,48,24,34,23,30,53		2,33
12″	57,39, 9,11,37,16,17,25,47,49		4,12,53,32,40	
		34,48,20,21,29,58,13		2,33
14″	57,39, 9,46,25,36,38,55,46, 2		4,12,53,35,13	
		34,48,16, 8,36,23, 0		2,33
16″	57,39,10,21,13,52,47,32, 9, 2		4,12,53,37,46	
		34,48,11,55,42,45,14		2,33
18″	57,39,10,56, 2, 4,43,14,54,16		4,12,53,40,19	
		34,48, 7,42,49, 4,55		2,33
20″	57,39,11,30,50,12,26, 3,59,11		4,12,53,42,52	
		34,48, 3,29,55,22, 3		2,33
22″	57,39,12, 5,38,15,55,59,21,14		4,12,53,45,25	
		34,47,59,17, 1,36,38		2,33
24″	57,39,12,40,26,15,13, 0,57,52		4,12,53,47,58	
		34,47,55, 4, 7,48,40		2,33
26″	57,39,13,15,14,10,17, 8,46,32		4,12,53,50,31	
		34,47,50,51,13,58, 9		2,33
28″	57,39,13,50, 2, 1, 8,22,44,41		4,12,53,53, 4	
		34,47,46,38,20, 5, 5		2,33
30″	57,39,14,24,49,47,46,42,49,46		4,12,53,55,37	
		34,47,42,25,26, 9,28		2,33
32″	57,39,14,59,37,30,12, 8,59,14		4,12,53,58,10	
		34,47,38,12,32,11,18		2,33
34″	57,39,15,34,25, 8,24,41,10,32		4,12,54, 0,43	
		34,47,33,59,38,10,35		2,33
36″	57,39,16, 9,12,42,24,19,21, 7		4,12,54, 3,16	
		34,47,29,46,44, 7,19		2,33
38″	57,39,16,44, 0,12,11, 3,28,26		4,12,54, 5,49	
		34,47,25,33,50, 1,30		2,33
40″	57,39,17,18,47,37,44,53,29,56		4,12,54, 8,22	
		34,47,21,20,55,53, 8		2,33
42″	57,39,17,53,34,59, 5,49,23, 4		4,12,54,10,55	
		34,47,17, 8, 1,42,13		2,33
44″	57,39,18,28,22,16,13,51, 5,17		4,12,54,13,28	
		34,47,12,55, 7,28,45		2,33
46″	57,39,19, 3, 9,29, 8,58,34, 2		4,12,54,16, 1	
		34,47, 8,42,13,12,44		2,33
48″	57,39,19,37,56,37,51,11,46,46		4,12,54,18,34	
		34,47, 4,29,18,54,10		2,33
50″	57,39,20,12,43,42,20,30,40,56		4,12,54,21, 7	
		34,47, 0,16,24,33, 3		2,33
52″	57,39,20,47,30,42,36,55,13,59		4,12,54,23,40	
		34,46,56, 3,30, 9,23		2,33
54″	57,39,21,22,17,38,40,25,23,22		4,12,54,26,13	
		34,46,51,50,35,43,10		2,33
56″	57,39,21,57, 4,30,31, 1, 6,32		4,12,54,28,46	
		34,46,47,37,41,14,24		2,33
58″	57,39,22,31,51,18, 8,42,20,56		4,12,54,31,19	
		34,46,43,24,46,43, 5		
60″	57,39,23, 6,38, 1,33,29, 4, 1			
exact	57,39,23, 6,38, 1,33,29,27,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°56′ 0″	57,39,23, 6,38, 1,33,29,27,49			
		34,46,39,11,52,11,49		
2″	57,39,23,41,24,40,45,21,39,38		4,12,54,36,14	
		34,46,34,58,57,35,35		2,33
4″	57,39,24,16,11,15,44,19,15,13		4,12,54,38,47	
		34,46,30,46, 2,56,48		2,33
6″	57,39,24,50,57,46,30,22,12, 1		4,12,54,41,20	
		34,46,26,33, 8,15,28		2,33
8″	57,39,25,25,44,13, 3,30,27,29		4,12,54,43,53	
		34,46,22,20,13,31,35		2,33
10″	57,39,26, 0,30,35,23,43,59, 4		4,12,54,46,26	
		34,46,18, 7,18,45, 9		2,33
12″	57,39,26,35,16,53,31, 2,44,13		4,12,54,48,59	
		34,46,13,54,23,56,10		2,33
14″	57,39,27,10, 3, 7,25,26,40,23		4,12,54,51,32	
		34,46, 9,41,29, 4,38		2,33
16″	57,39,27,44,49,17, 6,55,45, 1		4,12,54,54, 5	
		34,46, 5,28,34,10,33		2,33
18″	57,39,28,19,35,22,35,29,55,34		4,12,54,56,38	
		34,46, 1,15,39,13,55		2,33
20″	57,39,28,54,21,23,51, 9, 9,29		4,12,54,59,11	
		34,45,57, 2,44,14,44		2,33
22″	57,39,29,29, 7,20,53,53,24,13		4,12,55, 1,44	
		34,45,52,49,49,13, 0		2,33
24″	57,39,30, 3,53,13,43,42,37,13		4,12,55, 4,17	
		34,45,48,36,54, 8,43		2,33
26″	57,39,30,38,39, 2,20,36,45,56		4,12,55, 6,50	
		34,45,44,23,59, 1,53		2,33
28″	57,39,31,13,24,46,44,35,47,49		4,12,55, 9,23	
		34,45,40,11, 3,52,30		2,33
30″	57,39,31,48,10,26,55,39,40,19		4,12,55,11,56	
		34,45,35,58, 8,40,34		2,33
32″	57,39,32,22,56, 2,53,48,20,53		4,12,55,14,29	
		34,45,31,45,13,26, 5		2,33
34″	57,39,32,57,41,34,39, 1,46,58		4,12,55,17, 2	
		34,45,27,32,18, 9, 3		2,33
36″	57,39,33,32,27, 2,11,19,56, 1		4,12,55,19,35	
		34,45,23,19,22,49,28		2,33
38″	57,39,34, 7,12,25,30,42,45,29		4,12,55,22, 8	
		34,45,19, 6,27,27,20		2,33
40″	57,39,34,41,57,44,37,10,12,49		4,12,55,24,41	
		34,45,14,53,32, 2,39		2,33
42″	57,39,35,16,42,59,30,42,15,28		4,12,55,27,14	
		34,45,10,40,36,35,25		2,33
44″	57,39,35,51,28,10,11,18,50,53		4,12,55,29,47	
		34,45, 6,27,41, 5,38		2,33
46″	57,39,36,26,13,16,38,59,56,31		4,12,55,32,20	
		34,45, 2,14,45,33,18		2,33
48″	57,39,37, 0,58,18,53,45,29,49		4,12,55,34,53	
		34,44,58, 1,49,58,25		2,33
50″	57,39,37,35,43,16,55,35,28,14		4,12,55,37,26	
		34,44,53,48,54,20,59		2,33
52″	57,39,38,10,28,10,44,29,49,13		4,12,55,39,59	
		34,44,49,35,58,41, 0		2,33
54″	57,39,38,45,13, 0,20,28,30,13		4,12,55,42,32	
		34,44,45,23, 2,58,28		2,33
56″	57,39,39,19,57,45,43,31,28,41		4,12,55,45, 5	
		34,44,41,10, 7,13,23		2,33
58″	57,39,39,54,42,26,53,38,42, 4		4,12,55,47,38	
		34,44,36,57,11,25,45		
60″	57,39,40,29,27, 3,50,50, 7,49			
exact	57,39,40,29,27, 3,50,50,43,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°57′ 0″	57,39,40,29,27, 3,50,50,43,52			
		34,44,32,44,15,39,24		
2″	57,39,41, 4,11,36,35, 6,23,16		4,12,55,52,28	
		34,44,28,31,19,46,56		2,32
4″	57,39,41,38,56, 5, 6,26,10,12		4,12,55,55, 0	
		34,44,24,18,23,51,56		2,32
6″	57,39,42,13,40,29,24,50, 2, 8		4,12,55,57,32	
		34,44,20, 5,27,54,24		2,32
8″	57,39,42,48,24,49,30,17,56,32		4,12,56, 0, 4	
		34,44,15,52,31,54,20		2,32
10″	57,39,43,23, 9, 5,22,49,50,52		4,12,56, 2,36	
		34,44,11,39,35,51,44		2,32
12″	57,39,43,57,53,17, 2,25,42,36		4,12,56, 5, 8	
		34,44, 7,26,39,46,36		2,32
14″	57,39,44,32,37,24,29, 5,29,12		4,12,56, 7,40	
		34,44, 3,13,43,38,56		2,32
16″	57,39,45, 7,21,27,42,49, 8, 8		4,12,56,10,12	
		34,43,59, 0,47,28,44		2,32
18″	57,39,45,42, 5,26,43,36,36,52		4,12,56,12,44	
		34,43,54,47,51,16, 0		2,32
20″	57,39,46,16,49,21,31,27,52,52		4,12,56,15,16	
		34,43,50,34,55, 0,44		2,32
22″	57,39,46,51,33,12, 6,22,53,36		4,12,56,17,48	
		34,43,46,21,58,42,56		2,32
24″	57,39,47,26,16,58,28,21,36,32		4,12,56,20,20	
		34,43,42, 9, 2,22,36		2,32
26″	57,39,48, 1, 0,40,37,23,59, 8		4,12,56,22,52	
		34,43,37,56, 5,59,44		2,32
28″	57,39,48,35,44,18,33,29,58,52		4,12,56,25,24	
		34,43,33,43, 9,34,20		2,32
30″	57,39,49,10,27,52,16,39,33,12		4,12,56,27,56	
		34,43,29,30,13, 6,24		2,32
32″	57,39,49,45,11,21,46,52,39,36		4,12,56,30,28	
		34,43,25,17,16,35,56		2,32
34″	57,39,50,19,54,47, 4, 9,15,32		4,12,56,33, 0	
		34,43,21, 4,20, 2,56		2,32
36″	57,39,50,54,38, 8, 8,29,18,28		4,12,56,35,32	
		34,43,16,51,23,27,24		2,32
38″	57,39,51,29,21,24,59,52,45,52		4,12,56,38, 4	
		34,43,12,38,26,49,20		2,32
40″	57,39,52, 4, 4,37,38,19,35,12		4,12,56,40,36	
		34,43, 8,25,30, 8,44		2,32
42″	57,39,52,38,47,46, 3,49,43,56		4,12,56,43, 8	
		34,43, 4,12,33,25,36		2,32
44″	57,39,53,13,30,50,16,23, 9,32		4,12,56,45,40	
		34,42,59,59,36,39,56		2,32
46″	57,39,53,48,13,50,15,59,49,28		4,12,56,48,12	
		34,42,55,46,39,51,44		2,32
48″	57,39,54,22,56,46, 2,39,41,12		4,12,56,50,44	
		34,42,51,33,43, 1, 0		2,32
50″	57,39,54,57,39,37,36,22,42,12		4,12,56,53,16	
		34,42,47,20,46, 7,44		2,32
52″	57,39,55,32,22,24,57, 8,49,56		4,12,56,55,48	
		34,42,43, 7,49,11,56		2,32
54″	57,39,56, 7, 5, 8, 4,58, 1,52		4,12,56,58,20	
		34,42,38,54,52,13,36		2,32
56″	57,39,56,41,47,46,59,50,15,28		4,12,57, 0,52	
		34,42,34,41,55,12,44		2,32
58″	57,39,57,16,30,21,41,45,28,12		4,12,57, 3,24	
		34,42,30,28,58, 9,20		
60″	57,39,57,51,12,52,10,43,37,32			
exact	57,39,57,51,12,52,10,43,15,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°58′ 0″	57,39,57,51,12,52,10,43,15,14			
		34,42,26,16, 1, 1, 2		
2″	57,39,58,25,55,18,26,44,16,16		4,12,57, 8,37	
		34,42,22, 3, 3,52,25		2,32
4″	57,39,59, 0,37,40,29,48, 8,41		4,12,57,11, 9	
		34,42,17,50, 6,41,16		2,32
6″	57,39,59,35,19,58,19,54,49,57		4,12,57,13,41	
		34,42,13,37, 9,27,35		2,32
8″	57,40, 0,10, 2,11,57, 4,17,32		4,12,57,16,13	
		34,42, 9,24,12,11,22		2,32
10″	57,40, 0,44,44,21,21,16,28,54		4,12,57,18,45	
		34,42, 5,11,14,52,37		2,32
12″	57,40, 1,19,26,26,32,31,21,31		4,12,57,21,17	
		34,42, 0,58,17,31,20		2,32
14″	57,40, 1,54, 8,27,30,48,52,51		4,12,57,23,49	
		34,41,56,45,20, 7,31		2,32
16″	57,40, 2,28,50,24,16, 9, 0,22		4,12,57,26,21	
		34,41,52,32,22,41,10		2,32
18″	57,40, 3, 3,32,16,48,31,41,32		4,12,57,28,53	
		34,41,48,19,25,12,17		2,32
20″	57,40, 3,38,14, 5, 7,56,53,49		4,12,57,31,25	
		34,41,44, 6,27,40,52		2,32
22″	57,40, 4,12,55,49,14,24,34,41		4,12,57,33,57	
		34,41,39,53,30, 6,55		2,32
24″	57,40, 4,47,37,29, 7,54,41,36		4,12,57,36,29	
		34,41,35,40,32,30,26		2,32
26″	57,40, 5,22,19, 4,48,27,12, 2		4,12,57,39, 1	
		34,41,31,27,34,51,25		2,32
28″	57,40, 5,57, 0,36,16, 2, 3,27		4,12,57,41,33	
		34,41,27,14,37, 9,52		2,32
30″	57,40, 6,31,42, 3,30,39,13,19		4,12,57,44, 5	
		34,41,23, 1,39,25,47		2,32
32″	57,40, 7, 6,23,26,32,18,39, 6		4,12,57,46,37	
		34,41,18,48,41,39,10		2,32
34″	57,40, 7,41, 4,45,21, 0,18,16		4,12,57,49, 9	
		34,41,14,35,43,50, 1		2,32
36″	57,40, 8,15,45,59,56,44, 8,17		4,12,57,51,41	
		34,41,10,22,45,58,20		2,32
38″	57,40, 8,50,27,10,19,30, 6,37		4,12,57,54,13	
		34,41, 6, 9,48, 4, 7		2,32
40″	57,40, 9,25, 8,16,29,18,10,44		4,12,57,56,45	
		34,41, 1,56,50, 7,22		2,32
42″	57,40, 9,59,49,18,26, 8,18, 6		4,12,57,59,17	
		34,40,57,43,52, 8, 5		2,32
44″	57,40,10,34,30,16,10, 0,26,11		4,12,58, 1,49	
		34,40,53,30,54, 6,16		2,32
46″	57,40,11, 9,11, 9,40,54,32,27		4,12,58, 4,21	
		34,40,49,17,56, 1,55		2,32
48″	57,40,11,43,51,58,58,50,34,22		4,12,58, 6,53	
		34,40,45, 4,57,55, 2		2,32
50″	57,40,12,18,32,44, 3,48,29,24		4,12,58, 9,25	
		34,40,40,51,59,45,37		2,32
52″	57,40,12,53,13,24,55,48,15, 1		4,12,58,11,57	
		34,40,36,39, 1,33,40		2,32
54″	57,40,13,27,54, 1,34,49,48,41		4,12,58,14,29	
		34,40,32,26, 3,19,11		2,32
56″	57,40,14, 2,34,34, 0,53, 7,52		4,12,58,17, 1	
		34,40,28,13, 5, 2,10		2,32
58″	57,40,14,37,15, 2,13,58,10, 2		4,12,58,19,33	
		34,40,24, 0, 6,42,37		
60″	57,40,15,11,55,26,14, 4,52,39			
exact	57,40,15,11,55,26,14, 4,36,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
73°59′ 0″	57,40,15,11,55,26,14, 4,36,41			
		34,40,19,47, 8,19, 0		
2″	57,40,15,46,35,46, 1,12,55,41		4,12,58,24,42	
		34,40,15,34, 9,54,18		2,32
4″	57,40,16,21,16, 1,35,22,49,59		4,12,58,27,14	
		34,40,11,21,11,27, 4		2,32
6″	57,40,16,55,56,12,56,34,17, 3		4,12,58,29,46	
		34,40, 7, 8,12,57,18		2,32
8″	57,40,17,30,36,20, 4,47,14,21		4,12,58,32,18	
		34,40, 2,55,14,25, 0		2,32
10″	57,40,18, 5,16,23, 0, 1,39,21		4,12,58,34,50	
		34,39,58,42,15,50,10		2,32
12″	57,40,18,39,56,21,42,17,29,31		4,12,58,37,22	
		34,39,54,29,17,12,48		2,32
14″	57,40,19,14,36,16,11,34,42,19		4,12,58,39,54	
		34,39,50,16,18,32,54		2,32
16″	57,40,19,49,16, 6,27,53,15,13		4,12,58,42,26	
		34,39,46, 3,19,50,28		2,32
18″	57,40,20,23,55,52,31,13, 5,41		4,12,58,44,58	
		34,39,41,50,21, 5,30		2,32
20″	57,40,20,58,35,34,21,34,11,11		4,12,58,47,30	
		34,39,37,37,22,18, 0		2,32
22″	57,40,21,33,15,11,58,56,29,11		4,12,58,50, 2	
		34,39,33,24,23,27,58		2,32
24″	57,40,22, 7,54,45,23,19,57, 9		4,12,58,52,34	
		34,39,29,11,24,35,24		2,32
26″	57,40,22,42,34,14,34,44,32,33		4,12,58,55, 6	
		34,39,24,58,25,40,18		2,32
28″	57,40,23,17,13,39,33,10,12,51		4,12,58,57,38	
		34,39,20,45,26,42,40		2,32
30″	57,40,23,51,53, 0,18,36,55,31		4,12,59, 0,10	
		34,39,16,32,27,42,30		2,32
32″	57,40,24,26,32,16,51, 4,38, 1		4,12,59, 2,42	
		34,39,12,19,28,39,48		2,32
34″	57,40,25, 1,11,29,10,33,17,49		4,12,59, 5,14	
		34,39, 8, 6,29,34,34		2,32
36″	57,40,25,35,50,37,17, 2,52,23		4,12,59, 7,46	
		34,39, 3,53,30,26,48		2,32
38″	57,40,26,10,29,41,10,33,19,11		4,12,59,10,18	
		34,38,59,40,31,16,30		2,32
40″	57,40,26,45, 8,40,51, 4,35,41		4,12,59,12,50	
		34,38,55,27,32, 3,40		2,32
42″	57,40,27,19,47,36,18,36,39,21		4,12,59,15,22	
		34,38,51,14,32,48,18		2,32
44″	57,40,27,54,26,27,33, 9,27,39		4,12,59,17,54	
		34,38,47, 1,33,30,24		2,32
46″	57,40,28,29, 5,14,34,42,58, 3		4,12,59,20,26	
		34,38,42,48,34, 9,58		2,32
48″	57,40,29, 3,43,57,23,17, 8, 1		4,12,59,22,58	
		34,38,38,35,34,47, 0		2,32
50″	57,40,29,38,22,35,58,51,55, 1		4,12,59,25,30	
		34,38,34,22,35,21,30		2,32
52″	57,40,30,13, 1,10,21,27,16,31		4,12,59,28, 2	
		34,38,30, 9,35,53,28		2,32
54″	57,40,30,47,39,40,31, 3, 9,59		4,12,59,30,34	
		34,38,25,56,36,22,54		2,32
56″	57,40,31,22,18, 6,27,39,32,53		4,12,59,33, 6	
		34,38,21,43,36,49,48		2,32
58″	57,40,31,56,56,28,11,16,22,41		4,12,59,35,38	
		34,38,17,30,37,14,10		
60″	57,40,32,31,34,45,41,53,36,51			
exact	57,40,32,31,34,45,41,53,32,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74° 0′ 0″	57,40,32,31,34,45,41,53,32,14			
		34,38,13,17,37,35,39		
2″	57,40,33, 6,12,58,59,31, 7,53		4,12,59,40,42	
		34,38, 9, 4,37,54,57		2,32
4″	57,40,33,40,51, 8, 4, 9, 2,50		4,12,59,43,14	
		34,38, 4,51,38,11,43		2,32
6″	57,40,34,15,29,12,55,47,14,33		4,12,59,45,46	
		34,38, 0,38,38,25,57		2,32
8″	57,40,34,50, 7,13,34,25,40,30		4,12,59,48,18	
		34,37,56,25,38,37,39		2,32
10″	57,40,35,24,45,10, 0, 4,18, 9		4,12,59,50,50	
		34,37,52,12,38,46,49		2,32
12″	57,40,35,59,23, 2,12,43, 4,58		4,12,59,53,22	
		34,37,47,59,38,53,27		2,32
14″	57,40,36,34, 0,50,12,21,58,25		4,12,59,55,54	
		34,37,43,46,38,57,33		2,32
16″	57,40,37, 8,38,33,59, 0,55,58		4,12,59,58,26	
		34,37,39,33,38,59, 7		2,32
18″	57,40,37,43,16,13,32,39,55, 5		4,13, 0, 0,58	
		34,37,35,20,38,58, 9		2,32
20″	57,40,38,17,53,48,53,18,53,14		4,13, 0, 3,30	
		34,37,31, 7,38,54,39		2,32
22″	57,40,38,52,31,20, 0,57,47,53		4,13, 0, 6, 2	
		34,37,26,54,38,48,37		2,32
24″	57,40,39,27, 8,46,55,36,36,30		4,13, 0, 8,34	
		34,37,22,41,38,40, 3		2,32
26″	57,40,40, 1,46, 9,37,15,16,33		4,13, 0,11, 6	
		34,37,18,28,38,28,57		2,32
28″	57,40,40,36,23,28, 5,53,45,30		4,13, 0,13,38	
		34,37,14,15,38,15,19		2,32
30″	57,40,41,11, 0,42,21,32, 0,49		4,13, 0,16,10	
		34,37,10, 2,37,59, 9		2,32
32″	57,40,41,45,37,52,24, 9,59,58		4,13, 0,18,42	
		34,37, 5,49,37,40,27		2,32
34″	57,40,42,20,14,58,13,47,40,25		4,13, 0,21,14	
		34,37, 1,36,37,19,13		2,32
36″	57,40,42,54,51,59,50,24,59,38		4,13, 0,23,46	
		34,36,57,23,36,55,27		2,32
38″	57,40,43,29,28,57,14, 1,55, 5		4,13, 0,26,18	
		34,36,53,10,36,29, 9		2,32
40″	57,40,44, 4, 5,50,24,38,24,14		4,13, 0,28,50	
		34,36,48,57,36, 0,19		2,32
42″	57,40,44,38,42,39,22,14,24,33		4,13, 0,31,22	
		34,36,44,44,35,28,57		2,32
44″	57,40,45,13,19,24, 6,49,53,30		4,13, 0,33,54	
		34,36,40,31,34,55, 3		2,32
46″	57,40,45,47,56, 4,38,24,48,33		4,13, 0,36,26	
		34,36,36,18,34,18,37		2,32
48″	57,40,46,22,32,40,56,59, 7,10		4,13, 0,38,58	
		34,36,32, 5,33,39,39		2,32
50″	57,40,46,57, 9,13, 2,32,46,49		4,13, 0,41,30	
		34,36,27,52,32,58, 9		2,32
52″	57,40,47,31,45,40,55, 5,44,58		4,13, 0,44, 2	
		34,36,23,39,32,14, 7		2,32
54″	57,40,48, 6,22, 4,34,37,59, 5		4,13, 0,46,34	
		34,36,19,26,31,27,33		2,32
56″	57,40,48,40,58,24, 1, 9,26,38		4,13, 0,49, 6	
		34,36,15,13,30,38,27		2,32
58″	57,40,49,15,34,39,14,40, 5, 5		4,13, 0,51,38	
		34,36,11, 0,29,46,49		
60″	57,40,49,50,10,50,15, 9,51,54			
exact	57,40,49,50,10,50,15, 9,55,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74° 1′ 0″	57,40,49,50,10,50,15, 9,55,20			
		34,36, 6,47,28,53,16		
2″	57,40,50,24,46,57, 2,38,48,36		4,13, 0,56,38	
		34,36, 2,34,27,56,38		2,32
4″	57,40,50,59,22,59,37, 6,45,14		4,13, 0,59,10	
		34,35,58,21,26,57,28		2,32
6″	57,40,51,33,58,57,58,33,42,42		4,13, 1, 1,42	
		34,35,54, 8,25,55,46		2,32
8″	57,40,52, 8,34,52, 6,59,38,28		4,13, 1, 4,14	
		34,35,49,55,24,51,32		2,32
10″	57,40,52,43,10,42, 2,24,30, 0		4,13, 1, 6,46	
		34,35,45,42,23,44,46		2,32
12″	57,40,53,17,46,27,44,48,14,46		4,13, 1, 9,18	
		34,35,41,29,22,35,28		2,32
14″	57,40,53,52,22, 9,14,10,50,14		4,13, 1,11,50	
		34,35,37,16,21,23,38		2,32
16″	57,40,54,26,57,46,30,32,13,52		4,13, 1,14,22	
		34,35,33, 3,20, 9,16		2,32
18″	57,40,55, 1,33,19,33,52,23, 8		4,13, 1,16,54	
		34,35,28,50,18,52,22		2,32
20″	57,40,55,36, 8,48,24,11,15,30		4,13, 1,19,26	
		34,35,24,37,17,32,56		2,32
22″	57,40,56,10,44,13, 1,28,48,26		4,13, 1,21,58	
		34,35,20,24,16,10,58		2,32
24″	57,40,56,45,19,33,25,44,59,24		4,13, 1,24,30	
		34,35,16,11,14,46,28		2,32
26″	57,40,57,19,54,49,36,59,45,52		4,13, 1,27, 2	
		34,35,11,58,13,19,26		2,32
28″	57,40,57,54,30, 1,35,13, 5,18		4,13, 1,29,34	
		34,35, 7,45,11,49,52		2,32
30″	57,40,58,29, 5, 9,20,24,55,10		4,13, 1,32, 6	
		34,35, 3,32,10,17,46		2,32
32″	57,40,59, 3,40,12,52,35,12,56		4,13, 1,34,38	
		34,34,59,19, 8,43, 8		2,32
34″	57,40,59,38,15,12,11,43,56, 4		4,13, 1,37,10	
		34,34,55, 6, 7, 5,58		2,32
36″	57,41, 0,12,50, 7,17,51, 2, 2		4,13, 1,39,42	
		34,34,50,53, 5,26,16		2,32
38″	57,41, 0,47,24,58,10,56,28,18		4,13, 1,42,14	
		34,34,46,40, 3,44, 2		2,32
40″	57,41, 1,21,59,44,51, 0,12,20		4,13, 1,44,46	
		34,34,42,27, 1,59,16		2,32
42″	57,41, 1,56,34,27,18, 2,11,36		4,13, 1,47,18	
		34,34,38,14, 0,11,58		2,32
44″	57,41, 2,31, 9, 5,32, 2,23,34		4,13, 1,49,50	
		34,34,34, 0,58,22, 8		2,32
46″	57,41, 3, 5,43,39,33, 0,45,42		4,13, 1,52,22	
		34,34,29,47,56,29,46		2,32
48″	57,41, 3,40,18, 9,20,57,15,28		4,13, 1,54,54	
		34,34,25,34,54,34,52		2,32
50″	57,41, 4,14,52,34,55,51,50,20		4,13, 1,57,26	
		34,34,21,21,52,37,26		2,32
52″	57,41, 4,49,26,56,17,44,27,46		4,13, 1,59,58	
		34,34,17, 8,50,37,28		2,32
54″	57,41, 5,24, 1,13,26,35, 5,14		4,13, 2, 2,30	
		34,34,12,55,48,34,58		2,32
56″	57,41, 5,58,35,26,22,23,40,12		4,13, 2, 5, 2	
		34,34, 8,42,46,29,56		2,32
58″	57,41, 6,33, 9,35, 5,10,10, 8		4,13, 2, 7,34	
		34,34, 4,29,44,22,22		
60″	57,41, 7, 7,43,39,34,54,32,30			
exact	57,41, 7, 7,43,39,34,54,48,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74° 2′ 0″	57,41, 7, 7,43,39,34,54,48,45			
		34,34, 0,16,42,14,10		
2″	57,41, 7,42,17,39,51,37, 2,55		4,13, 2,12,29	
		34,33,56, 3,40, 1,41		2,32
4″	57,41, 8,16,51,35,55,17, 4,36		4,13, 2,15, 1	
		34,33,51,50,37,46,40		2,32
6″	57,41, 8,51,25,27,45,54,51,16		4,13, 2,17,33	
		34,33,47,37,35,29, 7		2,32
8″	57,41, 9,25,59,15,23,30,20,23		4,13, 2,20, 5	
		34,33,43,24,33, 9, 2		2,32
10″	57,41,10, 0,32,58,48, 3,29,25		4,13, 2,22,37	
		34,33,39,11,30,46,25		2,32
12″	57,41,10,35, 6,37,59,34,15,50		4,13, 2,25, 9	
		34,33,34,58,28,21,16		2,32
14″	57,41,11, 9,40,12,58, 2,37, 6		4,13, 2,27,41	
		34,33,30,45,25,53,35		2,32
16″	57,41,11,44,13,43,43,28,30,41		4,13, 2,30,13	
		34,33,26,32,23,23,22		2,32
18″	57,41,12,18,47,10,15,51,54, 3		4,13, 2,32,45	
		34,33,22,19,20,50,37		2,32
20″	57,41,12,53,20,32,35,12,44,40		4,13, 2,35,17	
		34,33,18, 6,18,15,20		2,32
22″	57,41,13,27,53,50,41,31, 0, 0		4,13, 2,37,49	
		34,33,13,53,15,37,31		2,32
24″	57,41,14, 2,27, 4,34,46,37,31		4,13, 2,40,21	
		34,33, 9,40,12,57,10		2,32
26″	57,41,14,37, 0,14,14,59,34,41		4,13, 2,42,53	
		34,33, 5,27,10,14,17		2,32
28″	57,41,15,11,33,19,42, 9,48,58		4,13, 2,45,25	
		34,33, 1,14, 7,28,52		2,32
30″	57,41,15,46, 6,20,56,17,17,50		4,13, 2,47,57	
		34,32,57, 1, 4,40,55		2,32
32″	57,41,16,20,39,17,57,21,58,45		4,13, 2,50,29	
		34,32,52,48, 1,50,26		2,32
34″	57,41,16,55,12,10,45,23,49,11		4,13, 2,53, 1	
		34,32,48,34,58,57,25		2,32
36″	57,41,17,29,44,59,20,22,46,36		4,13, 2,55,33	
		34,32,44,21,56, 1,52		2,32
38″	57,41,18, 4,17,43,42,18,48,28		4,13, 2,58, 5	
		34,32,40, 8,53, 3,47		2,32
40″	57,41,18,38,50,23,51,11,52,15		4,13, 3, 0,37	
		34,32,35,55,50, 3,10		2,32
42″	57,41,19,13,22,59,47, 1,55,25		4,13, 3, 3, 9	
		34,32,31,42,47, 0, 1		2,32
44″	57,41,19,47,55,31,29,48,55,26		4,13, 3, 5,41	
		34,32,27,29,43,54,20		2,32
46″	57,41,20,22,27,58,59,32,49,46		4,13, 3, 8,13	
		34,32,23,16,40,46, 7		2,32
48″	57,41,20,57, 0,22,16,13,35,53		4,13, 3,10,45	
		34,32,19, 3,37,35,22		2,32
50″	57,41,21,31,32,41,19,51,11,15		4,13, 3,13,17	
		34,32,14,50,34,22, 5		2,32
52″	57,41,22, 6, 4,56,10,25,33,20		4,13, 3,15,49	
		34,32,10,37,31, 6,16		2,32
54″	57,41,22,40,37, 6,47,56,39,36		4,13, 3,18,21	
		34,32, 6,24,27,47,55		2,32
56″	57,41,23,15, 9,13,12,24,27,31		4,13, 3,20,53	
		34,32, 2,11,24,27, 2		2,32
58″	57,41,23,49,41,15,23,48,54,33		4,13, 3,23,25	
		34,31,57,58,21, 3,37		
60″	57,41,24,24,13,13,22, 9,58,10			
exact	57,41,24,24,13,13,22,10,24,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74° 3′ 0″	57,41,24,24,13,13,22,10,24,38			
		34,31,53,45,17,40,40		
2″	57,41,24,58,45, 7, 7,28, 5,18		4,13, 3,28,16	
		34,31,49,32,14,12,24		2,31
4″	57,41,25,33,16,56,39,42,17,42		4,13, 3,30,47	
		34,31,45,19,10,41,37		2,31
6″	57,41,26, 7,48,41,58,52,59,19		4,13, 3,33,18	
		34,31,41, 6, 7, 8,19		2,31
8″	57,41,26,42,20,23, 5, 0, 7,38		4,13, 3,35,49	
		34,31,36,53, 3,32,30		2,31
10″	57,41,27,16,51,59,58, 3,40, 8		4,13, 3,38,20	
		34,31,32,39,59,54,10		2,31
12″	57,41,27,51,23,32,38, 3,34,18		4,13, 3,40,51	
		34,31,28,26,56,13,19		2,31
14″	57,41,28,25,55, 1, 4,59,47,37		4,13, 3,43,22	
		34,31,24,13,52,29,57		2,31
16″	57,41,29, 0,26,25,18,52,17,34		4,13, 3,45,53	
		34,31,20, 0,48,44, 4		2,31
18″	57,41,29,34,57,45,19,41, 1,38		4,13, 3,48,24	
		34,31,15,47,44,55,40		2,31
20″	57,41,30, 9,29, 1, 7,25,57,18		4,13, 3,50,55	
		34,31,11,34,41, 4,45		2,31
22″	57,41,30,44, 0,12,42, 7, 2, 3		4,13, 3,53,26	
		34,31, 7,21,37,11,19		2,31
24″	57,41,31,18,31,20, 3,44,13,22		4,13, 3,55,57	
		34,31, 3, 8,33,15,22		2,31
26″	57,41,31,53, 2,23,12,17,28,44		4,13, 3,58,28	
		34,30,58,55,29,16,54		2,31
28″	57,41,32,27,33,22, 7,46,45,38		4,13, 4, 0,59	
		34,30,54,42,25,15,55		2,31
30″	57,41,33, 2, 4,16,50,12, 1,33		4,13, 4, 3,30	
		34,30,50,29,21,12,25		2,31
32″	57,41,33,36,35, 7,19,33,13,58		4,13, 4, 6, 1	
		34,30,46,16,17, 6,24		2,31
34″	57,41,34,11, 5,53,35,50,20,22		4,13, 4, 8,32	
		34,30,42, 3,12,57,52		2,31
36″	57,41,34,45,36,35,39, 3,18,14		4,13, 4,11, 3	
		34,30,37,50, 8,46,49		2,31
38″	57,41,35,20, 7,13,29,12, 5, 3		4,13, 4,13,34	
		34,30,33,37, 4,33,15		2,31
40″	57,41,35,54,37,47, 6,16,38,18		4,13, 4,16, 5	
		34,30,29,24, 0,17,10		2,31
42″	57,41,36,29, 8,16,30,16,55,28		4,13, 4,18,36	
		34,30,25,10,55,58,34		2,31
44″	57,41,37, 3,38,41,41,12,54, 2		4,13, 4,21, 7	
		34,30,20,57,51,37,27		2,31
46″	57,41,37,38, 9, 2,39, 4,31,29		4,13, 4,23,38	
		34,30,16,44,47,13,49		2,31
48″	57,41,38,12,39,19,23,51,45,18		4,13, 4,26, 9	
		34,30,12,31,42,47,40		2,31
50″	57,41,38,47, 9,31,55,34,32,58		4,13, 4,28,40	
		34,30, 8,18,38,19, 0		2,31
52″	57,41,39,21,39,40,14,12,51,58		4,13, 4,31,11	
		34,30, 4, 5,33,47,49		2,31
54″	57,41,39,56, 9,44,19,46,39,47		4,13, 4,33,42	
		34,29,59,52,29,14, 7		2,31
56″	57,41,40,30,39,44,12,15,53,54		4,13, 4,36,13	
		34,29,55,39,24,37,54		2,31
58″	57,41,41, 5, 9,39,51,40,31,48		4,13, 4,38,44	
		34,29,51,26,19,59,10		
60″	57,41,41,39,39,31,18, 0,30,58			
exact	57,41,41,39,39,31,18, 0, 4,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74° 4′ 0″	57,41,41,39,39,31,18, 0, 4,28			
		34,29,47,13,15,15, 4		
2″	57,41,42,14, 9,18,31,15,19,32		4,13, 4,43,57	
		34,29,43, 0,10,31, 7		2,31
4″	57,41,42,48,39, 1,31,25,50,39		4,13, 4,46,28	
		34,29,38,47, 5,44,39		2,31
6″	57,41,43,23, 8,40,18,31,35,18		4,13, 4,48,59	
		34,29,34,34, 0,55,40		2,31
8″	57,41,43,57,38,14,52,32,30,58		4,13, 4,51,30	
		34,29,30,20,56, 4,10		2,31
10″	57,41,44,32, 7,45,13,28,35, 8		4,13, 4,54, 1	
		34,29,26, 7,51,10, 9		2,31
12″	57,41,45, 6,37,11,21,19,45,17		4,13, 4,56,32	
		34,29,21,54,46,13,37		2,31
14″	57,41,45,41, 6,33,16, 5,58,54		4,13, 4,59, 3	
		34,29,17,41,41,14,34		2,31
16″	57,41,46,15,35,50,57,47,13,28		4,13, 5, 1,34	
		34,29,13,28,36,13, 0		2,31
18″	57,41,46,50, 5, 4,26,23,26,28		4,13, 5, 4, 5	
		34,29, 9,15,31, 8,55		2,31
20″	57,41,47,24,34,13,41,54,35,23		4,13, 5, 6,36	
		34,29, 5, 2,26, 2,19		2,31
22″	57,41,47,59, 3,18,44,20,37,42		4,13, 5, 9, 7	
		34,29, 0,49,20,53,12		2,31
24″	57,41,48,33,32,19,33,41,30,54		4,13, 5,11,38	
		34,28,56,36,15,41,34		2,31
26″	57,41,49, 8, 1,16, 9,57,12,28		4,13, 5,14, 9	
		34,28,52,23,10,27,25		2,31
28″	57,41,49,42,30, 8,33, 7,39,53		4,13, 5,16,40	
		34,28,48,10, 5,10,45		2,31
30″	57,41,50,16,58,56,43,12,50,38		4,13, 5,19,11	
		34,28,43,56,59,51,34		2,31
32″	57,41,50,51,27,40,40,12,42,12		4,13, 5,21,42	
		34,28,39,43,54,29,52		2,31
34″	57,41,51,25,56,20,24, 7,12, 4		4,13, 5,24,13	
		34,28,35,30,49, 5,39		2,31
36″	57,41,52, 0,24,55,54,56,17,43		4,13, 5,26,44	
		34,28,31,17,43,38,55		2,31
38″	57,41,52,34,53,27,12,39,56,38		4,13, 5,29,15	
		34,28,27, 4,38, 9,40		2,31
40″	57,41,53, 9,21,54,17,18, 6,18		4,13, 5,31,46	
		34,28,22,51,32,37,54		2,31
42″	57,41,53,43,50,17, 8,50,44,12		4,13, 5,34,17	
		34,28,18,38,27, 3,37		2,31
44″	57,41,54,18,18,35,47,17,47,49		4,13, 5,36,48	
		34,28,14,25,21,26,49		2,31
46″	57,41,54,52,46,50,12,39,14,38		4,13, 5,39,19	
		34,28,10,12,15,47,30		2,31
48″	57,41,55,27,15, 0,24,55, 2, 8		4,13, 5,41,50	
		34,28, 5,59,10, 5,40		2,31
50″	57,41,56, 1,43, 6,24, 5, 7,48		4,13, 5,44,21	
		34,28, 1,46, 4,21,19		2,31
52″	57,41,56,36,11, 8,10, 9,29, 7		4,13, 5,46,52	
		34,27,57,32,58,34,27		2,31
54″	57,41,57,10,39, 5,43, 8, 3,34		4,13, 5,49,23	
		34,27,53,19,52,45, 4		2,31
56″	57,41,57,45, 6,59, 3, 0,48,38		4,13, 5,51,54	
		34,27,49, 6,46,53,10		2,31
58″	57,41,58,19,34,48, 9,47,41,48		4,13, 5,54,25	
		34,27,44,53,40,58,45		
60″	57,41,58,54, 2,33, 3,28,40,33			
exact	57,41,58,54, 2,33, 3,28,19,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74° 5′ 0″	57,41,58,54, 2,33, 3,28,19,10			
		34,27,40,40,34,59,43		
2″	57,41,59,28,30,13,44, 3,18,53		4,13, 5,59,35	
		34,27,36,27,29, 0, 8		2,31
4″	57,42, 0, 2,57,50,11,32,19, 1		4,13, 6, 2, 6	
		34,27,32,14,22,58, 2		2,31
6″	57,42, 0,37,25,22,25,55,17, 3		4,13, 6, 4,37	
		34,27,28, 1,16,53,25		2,31
8″	57,42, 1,11,52,50,27,12,10,28		4,13, 6, 7, 8	
		34,27,23,48,10,46,17		2,31
10″	57,42, 1,46,20,14,15,22,56,45		4,13, 6, 9,39	
		34,27,19,35, 4,36,38		2,31
12″	57,42, 2,20,47,33,50,27,33,23		4,13, 6,12,10	
		34,27,15,21,58,24,28		2,31
14″	57,42, 2,55,14,49,12,25,57,51		4,13, 6,14,41	
		34,27,11, 8,52, 9,47		2,31
16″	57,42, 3,29,42, 0,21,18, 7,38		4,13, 6,17,12	
		34,27, 6,55,45,52,35		2,31
18″	57,42, 4, 4, 9, 7,17, 4, 0,13		4,13, 6,19,43	
		34,27, 2,42,39,32,52		2,31
20″	57,42, 4,38,36, 9,59,43,33, 5		4,13, 6,22,14	
		34,26,58,29,33,10,38		2,31
22″	57,42, 5,13, 3, 8,29,16,43,43		4,13, 6,24,45	
		34,26,54,16,26,45,53		2,31
24″	57,42, 5,47,30, 2,45,43,29,36		4,13, 6,27,16	
		34,26,50, 3,20,18,37		2,31
26″	57,42, 6,21,56,52,49, 3,48,13		4,13, 6,29,47	
		34,26,45,50,13,48,50		2,31
28″	57,42, 6,56,23,38,39,17,37, 3		4,13, 6,32,18	
		34,26,41,37, 7,16,32		2,31
30″	57,42, 7,30,50,20,16,24,53,35		4,13, 6,34,49	
		34,26,37,24, 0,41,43		2,31
32″	57,42, 8, 5,16,57,40,25,35,18		4,13, 6,37,20	
		34,26,33,10,54, 4,23		2,31
34″	57,42, 8,39,43,30,51,19,39,41		4,13, 6,39,51	
		34,26,28,57,47,24,32		2,31
36″	57,42, 9,14, 9,59,49, 7, 4,13		4,13, 6,42,22	
		34,26,24,44,40,42,10		2,31
38″	57,42, 9,48,36,24,33,47,46,23		4,13, 6,44,53	
		34,26,20,31,33,57,17		2,31
40″	57,42,10,23, 2,45, 5,21,43,40		4,13, 6,47,24	
		34,26,16,18,27, 9,53		2,31
42″	57,42,10,57,29, 1,23,48,53,33		4,13, 6,49,55	
		34,26,12, 5,20,19,58		2,31
44″	57,42,11,31,55,13,29, 9,13,31		4,13, 6,52,26	
		34,26, 7,52,13,27,32		2,31
46″	57,42,12, 6,21,21,21,22,41, 3		4,13, 6,54,57	
		34,26, 3,39, 6,32,35		2,31
48″	57,42,12,40,47,25, 0,29,13,38		4,13, 6,57,28	
		34,25,59,25,59,35, 7		2,31
50″	57,42,13,15,13,24,26,28,48,45		4,13, 6,59,59	
		34,25,55,12,52,35, 8		2,31
52″	57,42,13,49,39,19,39,21,23,53		4,13, 7, 2,30	
		34,25,50,59,45,32,38		2,31
54″	57,42,14,24, 5,10,39, 6,56,31		4,13, 7, 5, 1	
		34,25,46,46,38,27,37		2,31
56″	57,42,14,58,30,57,25,45,24, 8		4,13, 7, 7,32	
		34,25,42,33,31,20, 5		2,31
58″	57,42,15,32,56,39,59,16,44,13		4,13, 7,10, 3	
		34,25,38,20,24,10, 2		
60″	57,42,16, 7,22,18,19,40,54,15			
exact	57,42,16, 7,22,18,19,40,49, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74° 6′ 0″	57,42,16, 7,22,18,19,40,49, 0			
		34,25,34, 7,16,56,53		
2″	57,42,16,41,47,52,26,57,45,53		4,13, 7,15, 7	
		34,25,29,54, 9,41,46		2,31
4″	57,42,17,16,13,22,21, 7,27,39		4,13, 7,17,38	
		34,25,25,41, 2,24, 8		2,31
6″	57,42,17,50,38,48, 2, 9,51,47		4,13, 7,20, 9	
		34,25,21,27,55, 3,59		2,31
8″	57,42,18,25, 4, 9,30, 4,55,46		4,13, 7,22,40	
		34,25,17,14,47,41,19		2,31
10″	57,42,18,59,29,26,44,52,37, 5		4,13, 7,25,11	
		34,25,13, 1,40,16, 8		2,31
12″	57,42,19,33,54,39,46,32,53,13		4,13, 7,27,42	
		34,25, 8,48,32,48,26		2,31
14″	57,42,20, 8,19,48,35, 5,41,39		4,13, 7,30,13	
		34,25, 4,35,25,18,13		2,31
16″	57,42,20,42,44,53,10,30,59,52		4,13, 7,32,44	
		34,25, 0,22,17,45,29		2,31
18″	57,42,21,17, 9,53,32,48,45,21		4,13, 7,35,15	
		34,24,56, 9,10,10,14		2,31
20″	57,42,21,51,34,49,41,58,55,35		4,13, 7,37,46	
		34,24,51,56, 2,32,28		2,31
22″	57,42,22,25,59,41,38, 1,28, 3		4,13, 7,40,17	
		34,24,47,42,54,52,11		2,31
24″	57,42,23, 0,24,29,20,56,20,14		4,13, 7,42,48	
		34,24,43,29,47, 9,23		2,31
26″	57,42,23,34,49,12,50,43,29,37		4,13, 7,45,19	
		34,24,39,16,39,24, 4		2,31
28″	57,42,24, 9,13,52, 7,22,53,41		4,13, 7,47,50	
		34,24,35, 3,31,36,14		2,31
30″	57,42,24,43,38,27,10,54,29,55		4,13, 7,50,21	
		34,24,30,50,23,45,53		2,31
32″	57,42,25,18, 2,58, 1,18,15,48		4,13, 7,52,52	
		34,24,26,37,15,53, 1		2,31
34″	57,42,25,52,27,24,38,34, 8,49		4,13, 7,55,23	
		34,24,22,24, 7,57,38		2,31
36″	57,42,26,26,51,47, 2,42, 6,27		4,13, 7,57,54	
		34,24,18,10,59,59,44		2,31
38″	57,42,27, 1,16, 5,13,42, 6,11		4,13, 8, 0,25	
		34,24,13,57,51,59,19		2,31
40″	57,42,27,35,40,19,11,34, 5,30		4,13, 8, 2,56	
		34,24, 9,44,43,56,23		2,31
42″	57,42,28,10, 4,28,56,18, 1,53		4,13, 8, 5,27	
		34,24, 5,31,35,50,56		2,31
44″	57,42,28,44,28,34,27,53,52,49		4,13, 8, 7,58	
		34,24, 1,18,27,42,58		2,31
46″	57,42,29,18,52,35,46,21,35,47		4,13, 8,10,29	
		34,23,57, 5,19,32,29		2,31
48″	57,42,29,53,16,32,51,41, 8,16		4,13, 8,13, 0	
		34,23,52,52,11,19,29		2,31
50″	57,42,30,27,40,25,43,52,27,45		4,13, 8,15,31	
		34,23,48,39, 3, 3,58		2,31
52″	57,42,31, 2, 4,14,22,55,31,43		4,13, 8,18, 2	
		34,23,44,25,54,45,56		2,31
54″	57,42,31,36,27,58,48,50,17,39		4,13, 8,20,33	
		34,23,40,12,46,25,23		2,31
56″	57,42,32,10,51,39, 1,36,43, 2		4,13, 8,23, 4	
		34,23,35,59,38, 2,19		2,31
58″	57,42,32,45,15,15, 1,14,45,21		4,13, 8,25,35	
		34,23,31,46,29,36,44		
60″	57,42,33,19,38,46,47,44,22, 5			
exact	57,42,33,19,38,46,47,44,23,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74° 7′ 0″	57,42,33,19,38,46,47,44,23,38			
		34,23,27,33,21, 8,55		
2″	57,42,33,54, 2,14,21, 5,32,33		4,13, 8,30,35	
		34,23,23,20,12,38,20		2,31
4″	57,42,34,28,25,37,41,18,10,53		4,13, 8,33, 6	
		34,23,19, 7, 4, 5,14		2,31
6″	57,42,35, 2,48,56,48,22,16, 7		4,13, 8,35,37	
		34,23,14,53,55,29,37		2,31
8″	57,42,35,37,12,11,42,17,45,44		4,13, 8,38, 8	
		34,23,10,40,46,51,29		2,31
10″	57,42,36,11,35,22,23, 4,37,13		4,13, 8,40,39	
		34,23, 6,27,38,10,50		2,31
12″	57,42,36,45,58,28,50,42,48, 3		4,13, 8,43,10	
		34,23, 2,14,29,27,40		2,31
14″	57,42,37,20,21,31, 5,12,15,43		4,13, 8,45,41	
		34,22,58, 1,20,41,59		2,31
16″	57,42,37,54,44,29, 6,32,57,42		4,13, 8,48,12	
		34,22,53,48,11,53,47		2,31
18″	57,42,38,29, 7,22,54,44,51,29		4,13, 8,50,43	
		34,22,49,35, 3, 3, 4		2,31
20″	57,42,39, 3,30,12,29,47,54,33		4,13, 8,53,14	
		34,22,45,21,54, 9,50		2,31
22″	57,42,39,37,52,57,51,42, 4,23		4,13, 8,55,45	
		34,22,41, 8,45,14, 5		2,31
24″	57,42,40,12,15,39, 0,27,18,28		4,13, 8,58,16	
		34,22,36,55,36,15,49		2,31
26″	57,42,40,46,38,15,56, 3,34,17		4,13, 9, 0,47	
		34,22,32,42,27,15, 2		2,31
28″	57,42,41,21, 0,48,38,30,49,19		4,13, 9, 3,18	
		34,22,28,29,18,11,44		2,31
30″	57,42,41,55,23,17, 7,49, 1, 3		4,13, 9, 5,49	
		34,22,24,16, 9, 5,55		2,31
32″	57,42,42,29,45,41,23,58, 6,58		4,13, 9, 8,20	
		34,22,20, 2,59,57,35		2,31
34″	57,42,43, 4, 8, 1,26,58, 4,33		4,13, 9,10,51	
		34,22,15,49,50,46,44		2,31
36″	57,42,43,38,30,17,16,48,51,17		4,13, 9,13,22	
		34,22,11,36,41,33,22		2,31
38″	57,42,44,12,52,28,53,30,24,39		4,13, 9,15,53	
		34,22, 7,23,32,17,29		2,31
40″	57,42,44,47,14,36,17, 2,42, 8		4,13, 9,18,24	
		34,22, 3,10,22,59, 5		2,31
42″	57,42,45,21,36,39,27,25,41,13		4,13, 9,20,55	
		34,21,58,57,13,38,10		2,31
44″	57,42,45,55,58,38,24,39,19,23		4,13, 9,23,26	
		34,21,54,44, 4,14,44		2,31
46″	57,42,46,30,20,33, 8,43,34, 7		4,13, 9,25,57	
		34,21,50,30,54,48,47		2,31
48″	57,42,47, 4,42,23,39,38,22,54		4,13, 9,28,28	
		34,21,46,17,45,20,19		2,31
50″	57,42,47,39, 4, 9,57,23,43,13		4,13, 9,30,59	
		34,21,42, 4,35,49,20		2,31
52″	57,42,48,13,25,52, 1,59,32,33		4,13, 9,33,30	
		34,21,37,51,26,15,50		2,31
54″	57,42,48,47,47,29,53,25,48,23		4,13, 9,36, 1	
		34,21,33,38,16,39,49		2,31
56″	57,42,49,22, 9, 3,31,42,28,12		4,13, 9,38,32	
		34,21,29,25, 7, 1,17		2,31
58″	57,42,49,56,30,32,56,49,29,29		4,13, 9,41, 3	
		34,21,25,11,57,20,14		
60″	57,42,50,30,51,58, 8,46,49,43			
exact	57,42,50,30,51,58, 8,47, 2, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74° 8′ 0″	57,42,50,30,51,58, 8,47, 2, 7			
		34,21,20,58,47,38, 6		
2″	57,42,51, 5,13,19, 7,34,40,13		4,13, 9,45,58	
		34,21,16,45,37,52, 8		2,31
4″	57,42,51,39,34,35,53,12,32,21		4,13, 9,48,29	
		34,21,12,32,28, 3,39		2,31
6″	57,42,52,13,55,48,25,40,36, 0		4,13, 9,51, 0	
		34,21, 8,19,18,12,39		2,31
8″	57,42,52,48,16,56,44,58,48,39		4,13, 9,53,31	
		34,21, 4, 6, 8,19, 8		2,31
10″	57,42,53,22,38, 0,51, 7, 7,47		4,13, 9,56, 2	
		34,20,59,52,58,23, 6		2,31
12″	57,42,53,56,59, 0,44, 5,30,53		4,13, 9,58,33	
		34,20,55,39,48,24,33		2,31
14″	57,42,54,31,19,56,23,53,55,26		4,13,10, 1, 4	
		34,20,51,26,38,23,29		2,31
16″	57,42,55, 5,40,47,50,32,18,55		4,13,10, 3,35	
		34,20,47,13,28,19,54		2,31
18″	57,42,55,40, 1,35, 4, 0,38,49		4,13,10, 6, 6	
		34,20,43, 0,18,13,48		2,31
20″	57,42,56,14,22,18, 4,18,52,37		4,13,10, 8,37	
		34,20,38,47, 8, 5,11		2,31
22″	57,42,56,48,42,56,51,26,57,48		4,13,10,11, 8	
		34,20,34,33,57,54, 3		2,31
24″	57,42,57,23, 3,31,25,24,51,51		4,13,10,13,39	
		34,20,30,20,47,40,24		2,31
26″	57,42,57,57,24, 1,46,12,32,15		4,13,10,16,10	
		34,20,26, 7,37,24,14		2,31
28″	57,42,58,31,44,27,53,49,56,29		4,13,10,18,41	
		34,20,21,54,27, 5,33		2,31
30″	57,42,59, 6, 4,49,48,17, 2, 2		4,13,10,21,12	
		34,20,17,41,16,44,21		2,31
32″	57,42,59,40,25, 7,29,33,46,23		4,13,10,23,43	
		34,20,13,28, 6,20,38		2,31
34″	57,43, 0,14,45,20,57,40, 7, 1		4,13,10,26,14	
		34,20, 9,14,55,54,24		2,31
36″	57,43, 0,49, 5,30,12,36, 1,25		4,13,10,28,45	
		34,20, 5, 1,45,25,39		2,31
38″	57,43, 1,23,25,35,14,21,27, 4		4,13,10,31,16	
		34,20, 0,48,34,54,23		2,31
40″	57,43, 1,57,45,36, 2,56,21,27		4,13,10,33,47	
		34,19,56,35,24,20,36		2,31
42″	57,43, 2,32, 5,32,38,20,42, 3		4,13,10,36,18	
		34,19,52,22,13,44,18		2,31
44″	57,43, 3, 6,25,25, 0,34,26,21		4,13,10,38,49	
		34,19,48, 9, 3, 5,29		2,31
46″	57,43, 3,40,45,13, 9,37,31,50		4,13,10,41,20	
		34,19,43,55,52,24, 9		2,31
48″	57,43, 4,15, 4,57, 5,29,55,59		4,13,10,43,51	
		34,19,39,42,41,40,18		2,31
50″	57,43, 4,49,24,36,48,11,36,17		4,13,10,46,22	
		34,19,35,29,30,53,56		2,31
52″	57,43, 5,23,44,12,17,42,30,13		4,13,10,48,53	
		34,19,31,16,20, 5, 3		2,31
54″	57,43, 5,58, 3,43,34, 2,35,16		4,13,10,51,24	
		34,19,27, 3, 9,13,39		2,31
56″	57,43, 6,32,23,10,37,11,48,55		4,13,10,53,55	
		34,19,22,49,58,19,44		2,31
58″	57,43, 7, 6,42,33,27,10, 8,39		4,13,10,56,26	
		34,19,18,36,47,23,18		
60″	57,43, 7,41, 1,52, 3,57,31,57			
exact	57,43, 7,41, 1,52, 3,57,52,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74° 9′ 0″	57,43, 7,41, 1,52, 3,57,52,54			
		34,19,14,23,36,26,46		
2″	57,43, 8,15,21, 6,27,34,19,40		4,13,11, 1,17	
		34,19,10,10,25,25,29		2,31
4″	57,43, 8,49,40,16,37,59,45, 9		4,13,11, 3,48	
		34,19, 5,57,14,21,41		2,31
6″	57,43, 9,23,59,22,35,14, 6,50		4,13,11, 6,19	
		34,19, 1,44, 3,15,22		2,31
8″	57,43, 9,58,18,24,19,17,22,12		4,13,11, 8,50	
		34,18,57,30,52, 6,32		2,31
10″	57,43,10,32,37,21,50, 9,28,44		4,13,11,11,21	
		34,18,53,17,40,55,11		2,31
12″	57,43,11, 6,56,15, 7,50,23,55		4,13,11,13,52	
		34,18,49, 4,29,41,19		2,31
14″	57,43,11,41,15, 4,12,20, 5,14		4,13,11,16,23	
		34,18,44,51,18,24,56		2,31
16″	57,43,12,15,33,49, 3,38,30,10		4,13,11,18,54	
		34,18,40,38, 7, 6, 2		2,31
18″	57,43,12,49,52,29,41,45,36,12		4,13,11,21,25	
		34,18,36,24,55,44,37		2,31
20″	57,43,13,24,11, 6, 6,41,20,49		4,13,11,23,56	
		34,18,32,11,44,20,41		2,31
22″	57,43,13,58,29,38,18,25,41,30		4,13,11,26,27	
		34,18,27,58,32,54,14		2,31
24″	57,43,14,32,48, 6,16,58,35,44		4,13,11,28,58	
		34,18,23,45,21,25,16		2,31
26″	57,43,15, 7, 6,30, 2,20, 1, 0		4,13,11,31,29	
		34,18,19,32, 9,53,47		2,31
28″	57,43,15,41,24,49,34,29,54,47		4,13,11,34, 0	
		34,18,15,18,58,19,47		2,31
30″	57,43,16,15,43, 4,53,28,14,34		4,13,11,36,31	
		34,18,11, 5,46,43,16		2,31
32″	57,43,16,50, 1,15,59,14,57,50		4,13,11,39, 2	
		34,18, 6,52,35, 4,14		2,31
34″	57,43,17,24,19,22,51,50, 2, 4		4,13,11,41,33	
		34,18, 2,39,23,22,41		2,31
36″	57,43,17,58,37,25,31,13,24,45		4,13,11,44, 4	
		34,17,58,26,11,38,37		2,31
38″	57,43,18,32,55,23,57,25, 3,22		4,13,11,46,35	
		34,17,54,12,59,52, 2		2,31
40″	57,43,19, 7,13,18,10,24,55,24		4,13,11,49, 6	
		34,17,49,59,48, 2,56		2,31
42″	57,43,19,41,31, 8,10,12,58,20		4,13,11,51,37	
		34,17,45,46,36,11,19		2,31
44″	57,43,20,15,48,53,56,49, 9,39		4,13,11,54, 8	
		34,17,41,33,24,17,11		2,31
46″	57,43,20,50, 6,35,30,13,26,50		4,13,11,56,39	
		34,17,37,20,12,20,32		2,31
48″	57,43,21,24,24,12,50,25,47,22		4,13,11,59,10	
		34,17,33, 7, 0,21,22		2,31
50″	57,43,21,58,41,45,57,26, 8,44		4,13,12, 1,41	
		34,17,28,53,48,19,41		2,31
52″	57,43,22,32,59,14,51,14,28,25		4,13,12, 4,12	
		34,17,24,40,36,15,29		2,31
54″	57,43,23, 7,16,39,31,50,43,54		4,13,12, 6,43	
		34,17,20,27,24, 8,46		2,31
56″	57,43,23,41,33,59,59,14,52,40		4,13,12, 9,14	
		34,17,16,14,11,59,32		2,31
58″	57,43,24,15,51,16,13,26,52,12		4,13,12,11,45	
		34,17,12, 0,59,47,47		
60″	57,43,24,50, 8,28,14,26,39,59			
exact	57,43,24,50, 8,28,14,27,13,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°10′ 0″	57,43,24,50, 8,28,14,27,13,51			
		34,17, 7,47,47,37,13		
2″	57,43,25,24,25,36, 2,14,51, 4		4,13,12,16,31	
		34,17, 3,34,35,20,42		2,30
4″	57,43,25,58,42,39,36,50,11,46		4,13,12,19, 1	
		34,16,59,21,23, 1,41		2,30
6″	57,43,26,32,59,38,58,13,13,27		4,13,12,21,31	
		34,16,55, 8,10,40,10		2,30
8″	57,43,27, 7,16,34, 6,23,53,37		4,13,12,24, 1	
		34,16,50,54,58,16, 9		2,30
10″	57,43,27,41,33,25, 1,22, 9,46		4,13,12,26,31	
		34,16,46,41,45,49,38		2,30
12″	57,43,28,15,50,11,43, 7,59,24		4,13,12,29, 1	
		34,16,42,28,33,20,37		2,30
14″	57,43,28,50, 6,54,11,41,20, 1		4,13,12,31,31	
		34,16,38,15,20,49, 6		2,30
16″	57,43,29,24,23,32,27, 2, 9, 7		4,13,12,34, 1	
		34,16,34, 2, 8,15, 5		2,30
18″	57,43,29,58,40, 6,29,10,24,12		4,13,12,36,31	
		34,16,29,48,55,38,34		2,30
20″	57,43,30,32,56,36,18, 6, 2,46		4,13,12,39, 1	
		34,16,25,35,42,59,33		2,30
22″	57,43,31, 7,13, 1,53,49, 2,19		4,13,12,41,31	
		34,16,21,22,30,18, 2		2,30
24″	57,43,31,41,29,23,16,19,20,21		4,13,12,44, 1	
		34,16,17, 9,17,34, 1		2,30
26″	57,43,32,15,45,40,25,36,54,22		4,13,12,46,31	
		34,16,12,56, 4,47,30		2,30
28″	57,43,32,50, 1,53,21,41,41,52		4,13,12,49, 1	
		34,16, 8,42,51,58,29		2,30
30″	57,43,33,24,18, 2, 4,33,40,21		4,13,12,51,31	
		34,16, 4,29,39, 6,58		2,30
32″	57,43,33,58,34, 6,34,12,47,19		4,13,12,54, 1	
		34,16, 0,16,26,12,57		2,30
34″	57,43,34,32,50, 6,50,39, 0,16		4,13,12,56,31	
		34,15,56, 3,13,16,26		2,30
36″	57,43,35, 7, 6, 2,53,52,16,42		4,13,12,59, 1	
		34,15,51,50, 0,17,25		2,30
38″	57,43,35,41,21,54,43,52,34, 7		4,13,13, 1,31	
		34,15,47,36,47,15,54		2,30
40″	57,43,36,15,37,42,20,39,50, 1		4,13,13, 4, 1	
		34,15,43,23,34,11,53		2,30
42″	57,43,36,49,53,25,44,14, 1,54		4,13,13, 6,31	
		34,15,39,10,21, 5,22		2,30
44″	57,43,37,24, 9, 4,54,35, 7,16		4,13,13, 9, 1	
		34,15,34,57, 7,56,21		2,30
46″	57,43,37,58,24,39,51,43, 3,37		4,13,13,11,31	
		34,15,30,43,54,44,50		2,30
48″	57,43,38,32,40,10,35,37,48,27		4,13,13,14, 1	
		34,15,26,30,41,30,49		2,30
50″	57,43,39, 6,55,37, 6,19,19,16		4,13,13,16,31	
		34,15,22,17,28,14,18		2,30
52″	57,43,39,41,10,59,23,47,33,34		4,13,13,19, 1	
		34,15,18, 4,14,55,17		2,30
54″	57,43,40,15,26,17,28, 2,28,51		4,13,13,21,31	
		34,15,13,51, 1,33,46		2,30
56″	57,43,40,49,41,31,19, 4, 2,37		4,13,13,24, 1	
		34,15, 9,37,48, 9,45		2,30
58″	57,43,41,23,56,40,56,52,12,22		4,13,13,26,31	
		34,15, 5,24,34,43,14		
60″	57,43,41,58,11,46,21,26,55,36			
exact	57,43,41,58,11,46,21,26,32,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°11′ 0″	57,43,41,58,11,46,21,26,32,15			
		34,15, 1,11,21,11,47		
2″	57,43,42,32,26,47,32,47,44, 2		4,13,13,31,40	
		34,14,56,58, 7,40, 7		2,30
4″	57,43,43, 6,41,44,30,55,24, 9		4,13,13,34,10	
		34,14,52,44,54, 5,57		2,30
6″	57,43,43,40,56,37,15,49,30, 6		4,13,13,36,40	
		34,14,48,31,40,29,17		2,30
8″	57,43,44,15,11,25,47,29,59,23		4,13,13,39,10	
		34,14,44,18,26,50, 7		2,30
10″	57,43,44,49,26,10, 5,56,49,30		4,13,13,41,40	
		34,14,40, 5,13, 8,27		2,30
12″	57,43,45,23,40,50,11, 9,57,57		4,13,13,44,10	
		34,14,35,51,59,24,17		2,30
14″	57,43,45,57,55,26, 3, 9,22,14		4,13,13,46,40	
		34,14,31,38,45,37,37		2,30
16″	57,43,46,32, 9,57,41,54,59,51		4,13,13,49,10	
		34,14,27,25,31,48,27		2,30
18″	57,43,47, 6,24,25, 7,26,48,18		4,13,13,51,40	
		34,14,23,12,17,56,47		2,30
20″	57,43,47,40,38,48,19,44,45, 5		4,13,13,54,10	
		34,14,18,59, 4, 2,37		2,30
22″	57,43,48,14,53, 7,18,48,47,42		4,13,13,56,40	
		34,14,14,45,50, 5,57		2,30
24″	57,43,48,49, 7,22, 4,38,53,39		4,13,13,59,10	
		34,14,10,32,36, 6,47		2,30
26″	57,43,49,23,21,32,37,15, 0,26		4,13,14, 1,40	
		34,14, 6,19,22, 5, 7		2,30
28″	57,43,49,57,35,38,56,37, 5,33		4,13,14, 4,10	
		34,14, 2, 6, 8, 0,57		2,30
30″	57,43,50,31,49,41, 2,45, 6,30		4,13,14, 6,40	
		34,13,57,52,53,54,17		2,30
32″	57,43,51, 6, 3,38,55,39, 0,47		4,13,14, 9,10	
		34,13,53,39,39,45, 7		2,30
34″	57,43,51,40,17,32,35,18,45,54		4,13,14,11,40	
		34,13,49,26,25,33,27		2,30
36″	57,43,52,14,31,22, 1,44,19,21		4,13,14,14,10	
		34,13,45,13,11,19,17		2,30
38″	57,43,52,48,45, 7,14,55,38,38		4,13,14,16,40	
		34,13,40,59,57, 2,37		2,30
40″	57,43,53,22,58,48,14,52,41,15		4,13,14,19,10	
		34,13,36,46,42,43,27		2,30
42″	57,43,53,57,12,25, 1,35,24,42		4,13,14,21,40	
		34,13,32,33,28,21,47		2,30
44″	57,43,54,31,25,57,35, 3,46,29		4,13,14,24,10	
		34,13,28,20,13,57,37		2,30
46″	57,43,55, 5,39,25,55,17,44, 6		4,13,14,26,40	
		34,13,24, 6,59,30,57		2,30
48″	57,43,55,39,52,50, 2,17,15, 3		4,13,14,29,10	
		34,13,19,53,45, 1,47		2,30
50″	57,43,56,14, 6, 9,56, 2,16,50		4,13,14,31,40	
		34,13,15,40,30,30, 7		2,30
52″	57,43,56,48,19,25,36,32,46,57		4,13,14,34,10	
		34,13,11,27,15,55,57		2,30
54″	57,43,57,22,32,37, 3,48,42,54		4,13,14,36,40	
		34,13, 7,14, 1,19,17		2,30
56″	57,43,57,56,45,44,17,50, 2,11		4,13,14,39,10	
		34,13, 3, 0,46,40, 7		2,30
58″	57,43,58,30,58,47,18,36,42,18		4,13,14,41,40	
		34,12,58,47,31,58,27		
60″	57,43,59, 5,11,46, 6, 8,40,45			
exact	57,43,59, 5,11,46, 6, 8,24,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°12′ 0″	57,43,59, 5,11,46, 6, 8,24,47			
		34,12,54,34,17,12,46		
2″	57,43,59,39,24,40,40,25,37,33		4,13,14,46,45	
		34,12,50,21, 2,26, 1		2,30
4″	57,44, 0,13,37,31, 1,28, 3,34		4,13,14,49,15	
		34,12,46, 7,47,36,46		2,30
6″	57,44, 0,47,50,17, 9,15,40,20		4,13,14,51,45	
		34,12,41,54,32,45, 1		2,30
8″	57,44, 1,22, 2,59, 3,48,25,21		4,13,14,54,15	
		34,12,37,41,17,50,46		2,30
10″	57,44, 1,56,15,36,45, 6,16, 7		4,13,14,56,45	
		34,12,33,28, 2,54, 1		2,30
12″	57,44, 2,30,28,10,13, 9,10, 8		4,13,14,59,15	
		34,12,29,14,47,54,46		2,30
14″	57,44, 3, 4,40,39,27,57, 4,54		4,13,15, 1,45	
		34,12,25, 1,32,53, 1		2,30
16″	57,44, 3,38,53, 4,29,29,57,55		4,13,15, 4,15	
		34,12,20,48,17,48,46		2,30
18″	57,44, 4,13, 5,25,17,47,46,41		4,13,15, 6,45	
		34,12,16,35, 2,42, 1		2,30
20″	57,44, 4,47,17,41,52,50,28,42		4,13,15, 9,15	
		34,12,12,21,47,32,46		2,30
22″	57,44, 5,21,29,54,14,38, 1,28		4,13,15,11,45	
		34,12, 8, 8,32,21, 1		2,30
24″	57,44, 5,55,42, 2,23,10,22,29		4,13,15,14,15	
		34,12, 3,55,17, 6,46		2,30
26″	57,44, 6,29,54, 6,18,27,29,15		4,13,15,16,45	
		34,11,59,42, 1,50, 1		2,30
28″	57,44, 7, 4, 6, 6, 0,29,19,16		4,13,15,19,15	
		34,11,55,28,46,30,46		2,30
30″	57,44, 7,38,18, 1,29,15,50, 2		4,13,15,21,45	
		34,11,51,15,31, 9, 1		2,30
32″	57,44, 8,12,29,52,44,46,59, 3		4,13,15,24,15	
		34,11,47, 2,15,44,46		2,30
34″	57,44, 8,46,41,39,47, 2,43,49		4,13,15,26,45	
		34,11,42,49, 0,18, 1		2,30
36″	57,44, 9,20,53,22,36, 3, 1,50		4,13,15,29,15	
		34,11,38,35,44,48,46		2,30
38″	57,44, 9,55, 5, 1,11,47,50,36		4,13,15,31,45	
		34,11,34,22,29,17, 1		2,30
40″	57,44,10,29,16,35,34,17, 7,37		4,13,15,34,15	
		34,11,30, 9,13,42,46		2,30
42″	57,44,11, 3,28, 5,43,30,50,23		4,13,15,36,45	
		34,11,25,55,58, 6, 1		2,30
44″	57,44,11,37,39,31,39,28,56,24		4,13,15,39,15	
		34,11,21,42,42,26,46		2,30
46″	57,44,12,11,50,53,22,11,23,10		4,13,15,41,45	
		34,11,17,29,26,45, 1		2,30
48″	57,44,12,46, 2,10,51,38, 8,11		4,13,15,44,15	
		34,11,13,16,11, 0,46		2,30
50″	57,44,13,20,13,24, 7,49, 8,57		4,13,15,46,45	
		34,11, 9, 2,55,14, 1		2,30
52″	57,44,13,54,24,33,10,44,22,58		4,13,15,49,15	
		34,11, 4,49,39,24,46		2,30
54″	57,44,14,28,35,38, 0,23,47,44		4,13,15,51,45	
		34,11, 0,36,23,33, 1		2,30
56″	57,44,15, 2,46,38,36,47,20,45		4,13,15,54,15	
		34,10,56,23, 7,38,46		2,30
58″	57,44,15,36,57,34,59,54,59,31		4,13,15,56,45	
		34,10,52, 9,51,42, 1		
60″	57,44,16,11, 8,27, 9,46,41,32			
exact	57,44,16,11, 8,27, 9,46,37,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°13′ 0″	57,44,16,11, 8,27, 9,46,37,34			
		34,10,47,56,35,42,29		
2″	57,44,16,45,19,15, 6,22,20, 3		4,13,16, 1,45	
		34,10,43,43,19,40,44		2,30
4″	57,44,17,19,29,58,49,42, 0,47		4,13,16, 4,15	
		34,10,39,30, 3,36,29		2,30
6″	57,44,17,53,40,38,19,45,37,16		4,13,16, 6,45	
		34,10,35,16,47,29,44		2,30
8″	57,44,18,27,51,13,36,33, 7, 0		4,13,16, 9,15	
		34,10,31, 3,31,20,29		2,30
10″	57,44,19, 2, 1,44,40, 4,27,29		4,13,16,11,45	
		34,10,26,50,15, 8,44		2,30
12″	57,44,19,36,12,11,30,19,36,13		4,13,16,14,15	
		34,10,22,36,58,54,29		2,30
14″	57,44,20,10,22,34, 7,18,30,42		4,13,16,16,45	
		34,10,18,23,42,37,44		2,30
16″	57,44,20,44,32,52,31, 1, 8,26		4,13,16,19,15	
		34,10,14,10,26,18,29		2,30
18″	57,44,21,18,43, 6,41,27,26,55		4,13,16,21,45	
		34,10, 9,57, 9,56,44		2,30
20″	57,44,21,52,53,16,38,37,23,39		4,13,16,24,15	
		34,10, 5,43,53,32,29		2,30
22″	57,44,22,27, 3,22,22,30,56, 8		4,13,16,26,45	
		34,10, 1,30,37, 5,44		2,30
24″	57,44,23, 1,13,23,53, 8, 1,52		4,13,16,29,15	
		34, 9,57,17,20,36,29		2,30
26″	57,44,23,35,23,21,10,28,38,21		4,13,16,31,45	
		34, 9,53, 4, 4, 4,44		2,30
28″	57,44,24, 9,33,14,14,32,43, 5		4,13,16,34,15	
		34, 9,48,50,47,30,29		2,30
30″	57,44,24,43,43, 3, 5,20,13,34		4,13,16,36,45	
		34, 9,44,37,30,53,44		2,30
32″	57,44,25,17,52,47,42,51, 7,18		4,13,16,39,15	
		34, 9,40,24,14,14,29		2,30
34″	57,44,25,52, 2,28, 7, 5,21,47		4,13,16,41,45	
		34, 9,36,10,57,32,44		2,30
36″	57,44,26,26,12, 4,18, 2,54,31		4,13,16,44,15	
		34, 9,31,57,40,48,29		2,30
38″	57,44,27, 0,21,36,15,43,43, 0		4,13,16,46,45	
		34, 9,27,44,24, 1,44		2,30
40″	57,44,27,34,31, 4, 0, 7,44,44		4,13,16,49,15	
		34, 9,23,31, 7,12,29		2,30
42″	57,44,28, 8,40,27,31,14,57,13		4,13,16,51,45	
		34, 9,19,17,50,20,44		2,30
44″	57,44,28,42,49,46,49, 5,17,57		4,13,16,54,15	
		34, 9,15, 4,33,26,29		2,30
46″	57,44,29,16,59, 1,53,38,44,26		4,13,16,56,45	
		34, 9,10,51,16,29,44		2,30
48″	57,44,29,51, 8,12,44,55,14,10		4,13,16,59,15	
		34, 9, 6,37,59,30,29		2,30
50″	57,44,30,25,17,19,22,54,44,39		4,13,17, 1,45	
		34, 9, 2,24,42,28,44		2,30
52″	57,44,30,59,26,21,47,37,13,23		4,13,17, 4,15	
		34, 8,58,11,25,24,29		2,30
54″	57,44,31,33,35,19,59, 2,37,52		4,13,17, 6,45	
		34, 8,53,58, 8,17,44		2,30
56″	57,44,32, 7,44,13,57,10,55,36		4,13,17, 9,15	
		34, 8,49,44,51, 8,29		2,30
58″	57,44,32,41,53, 3,42, 2, 4, 5		4,13,17,11,45	
		34, 8,45,31,33,56,44		
60″	57,44,33,16, 1,49,13,36, 0,49			
exact	57,44,33,16, 1,49,13,36, 6, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°14′ 0″	57,44,33,16, 1,49,13,36, 6, 8			
		34, 8,41,18,16,43,14		
2″	57,44,33,50,10,30,31,52,49,22		4,13,17,16,41	
		34, 8,37, 4,59,26,33		2,30
4″	57,44,34,24,19, 7,36,52,15,55		4,13,17,19,11	
		34, 8,32,51,42, 7,22		2,30
6″	57,44,34,58,27,40,28,34,23,17		4,13,17,21,41	
		34, 8,28,38,24,45,41		2,30
8″	57,44,35,32,36, 9, 6,59, 8,58		4,13,17,24,11	
		34, 8,24,25, 7,21,30		2,30
10″	57,44,36, 6,44,33,32, 6,30,28		4,13,17,26,41	
		34, 8,20,11,49,54,49		2,30
12″	57,44,36,40,52,53,43,56,25,17		4,13,17,29,11	
		34, 8,15,58,32,25,38		2,30
14″	57,44,37,15, 1, 9,42,28,50,55		4,13,17,31,41	
		34, 8,11,45,14,53,57		2,30
16″	57,44,37,49, 9,21,27,43,44,52		4,13,17,34,11	
		34, 8, 7,31,57,19,46		2,30
18″	57,44,38,23,17,28,59,41, 4,38		4,13,17,36,41	
		34, 8, 3,18,39,43, 5		2,30
20″	57,44,38,57,25,32,18,20,47,43		4,13,17,39,11	
		34, 7,59, 5,22, 3,54		2,30
22″	57,44,39,31,33,31,23,42,51,37		4,13,17,41,41	
		34, 7,54,52, 4,22,13		2,30
24″	57,44,40, 5,41,26,15,47,13,50		4,13,17,44,11	
		34, 7,50,38,46,38, 2		2,30
26″	57,44,40,39,49,16,54,33,51,52		4,13,17,46,41	
		34, 7,46,25,28,51,21		2,30
28″	57,44,41,13,57, 3,20, 2,43,13		4,13,17,49,11	
		34, 7,42,12,11, 2,10		2,30
30″	57,44,41,48, 4,45,32,13,45,23		4,13,17,51,41	
		34, 7,37,58,53,10,29		2,30
32″	57,44,42,22,12,23,31, 6,55,52		4,13,17,54,11	
		34, 7,33,45,35,16,18		2,30
34″	57,44,42,56,19,57,16,42,12,10		4,13,17,56,41	
		34, 7,29,32,17,19,37		2,30
36″	57,44,43,30,27,26,48,59,31,47		4,13,17,59,11	
		34, 7,25,18,59,20,26		2,30
38″	57,44,44, 4,34,52, 7,58,52,13		4,13,18, 1,41	
		34, 7,21, 5,41,18,45		2,30
40″	57,44,44,38,42,13,13,40,10,58		4,13,18, 4,11	
		34, 7,16,52,23,14,34		2,30
42″	57,44,45,12,49,30, 6, 3,25,32		4,13,18, 6,41	
		34, 7,12,39, 5, 7,53		2,30
44″	57,44,45,46,56,42,45, 8,33,25		4,13,18, 9,11	
		34, 7, 8,25,46,58,42		2,30
46″	57,44,46,21, 3,51,10,55,32, 7		4,13,18,11,41	
		34, 7, 4,12,28,47, 1		2,30
48″	57,44,46,55,10,55,23,24,19, 8		4,13,18,14,11	
		34, 6,59,59,10,32,50		2,30
50″	57,44,47,29,17,55,22,34,51,58		4,13,18,16,41	
		34, 6,55,45,52,16, 9		2,30
52″	57,44,48, 3,24,51, 8,27, 8, 7		4,13,18,19,11	
		34, 6,51,32,33,56,58		2,30
54″	57,44,48,37,31,42,41, 1, 5, 5		4,13,18,21,41	
		34, 6,47,19,15,35,17		2,30
56″	57,44,49,11,38,30, 0,16,40,22		4,13,18,24,11	
		34, 6,43, 5,57,11, 6		2,30
58″	57,44,49,45,45,13, 6,13,51,28		4,13,18,26,41	
		34, 6,38,52,38,44,25		
60″	57,44,50,19,51,51,58,52,35,53			
exact	57,44,50,19,51,51,58,52,55,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°15′ 0″	57,44,50,19,51,51,58,52,55,27			
		34, 6,34,39,20,17,22		
2″	57,44,50,53,58,26,38,13,12,49		4,13,18,31,32	
		34, 6,30,26, 1,45,50		2,30
4″	57,44,51,28, 4,57, 4,14,58,39		4,13,18,34, 2	
		34, 6,26,12,43,11,48		2,30
6″	57,44,52, 2,11,23,16,58,10,27		4,13,18,36,32	
		34, 6,21,59,24,35,16		2,30
8″	57,44,52,36,17,45,16,22,45,43		4,13,18,39, 2	
		34, 6,17,46, 5,56,14		2,30
10″	57,44,53,10,24, 3, 2,28,41,57		4,13,18,41,32	
		34, 6,13,32,47,14,42		2,30
12″	57,44,53,44,30,16,35,15,56,39		4,13,18,44, 2	
		34, 6, 9,19,28,30,40		2,30
14″	57,44,54,18,36,25,54,44,27,19		4,13,18,46,32	
		34, 6, 5, 6, 9,44, 8		2,30
16″	57,44,54,52,42,31, 0,54,11,27		4,13,18,49, 2	
		34, 6, 0,52,50,55, 6		2,30
18″	57,44,55,26,48,31,53,45, 6,33		4,13,18,51,32	
		34, 5,56,39,32, 3,34		2,30
20″	57,44,56, 0,54,28,33,17,10, 7		4,13,18,54, 2	
		34, 5,52,26,13, 9,32		2,30
22″	57,44,56,35, 0,20,59,30,19,39		4,13,18,56,32	
		34, 5,48,12,54,13, 0		2,30
24″	57,44,57, 9, 6, 9,12,24,32,39		4,13,18,59, 2	
		34, 5,43,59,35,13,58		2,30
26″	57,44,57,43,11,53,11,59,46,37		4,13,19, 1,32	
		34, 5,39,46,16,12,26		2,30
28″	57,44,58,17,17,32,58,15,59, 3		4,13,19, 4, 2	
		34, 5,35,32,57, 8,24		2,30
30″	57,44,58,51,23, 8,31,13, 7,27		4,13,19, 6,32	
		34, 5,31,19,38, 1,52		2,30
32″	57,44,59,25,28,39,50,51, 9,19		4,13,19, 9, 2	
		34, 5,27, 6,18,52,50		2,30
34″	57,44,59,59,34, 6,57,10, 2, 9		4,13,19,11,32	
		34, 5,22,52,59,41,18		2,30
36″	57,45, 0,33,39,29,50, 9,43,27		4,13,19,14, 2	
		34, 5,18,39,40,27,16		2,30
38″	57,45, 1, 7,44,48,29,50,10,43		4,13,19,16,32	
		34, 5,14,26,21,10,44		2,30
40″	57,45, 1,41,50, 2,56,11,21,27		4,13,19,19, 2	
		34, 5,10,13, 1,51,42		2,30
42″	57,45, 2,15,55,13, 9,13,13, 9		4,13,19,21,32	
		34, 5, 5,59,42,30,10		2,30
44″	57,45, 2,50, 0,19, 8,55,43,19		4,13,19,24, 2	
		34, 5, 1,46,23, 6, 8		2,30
46″	57,45, 3,24, 5,20,55,18,49,27		4,13,19,26,32	
		34, 4,57,33, 3,39,36		2,30
48″	57,45, 3,58,10,18,28,22,29, 3		4,13,19,29, 2	
		34, 4,53,19,44,10,34		2,30
50″	57,45, 4,32,15,11,48, 6,39,37		4,13,19,31,32	
		34, 4,49, 6,24,39, 2		2,30
52″	57,45, 5, 6,20, 0,54,31,18,39		4,13,19,34, 2	
		34, 4,44,53, 5, 5, 0		2,30
54″	57,45, 5,40,24,45,47,36,23,39		4,13,19,36,32	
		34, 4,40,39,45,28,28		2,30
56″	57,45, 6,14,29,26,27,21,52, 7		4,13,19,39, 2	
		34, 4,36,26,25,49,26		2,30
58″	57,45, 6,48,34, 2,53,47,41,33		4,13,19,41,32	
		34, 4,32,13, 6, 7,54		
60″	57,45, 7,22,38,35, 6,53,49,27			
exact	57,45, 7,22,38,35, 6,54,19,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°16′ 0″	57,45, 7,22,38,35, 6,54,19,58			
		34, 4,27,59,46,27, 9		
2″	57,45, 7,56,43, 3, 6,40,47, 7		4,13,19,46,18	
		34, 4,23,46,26,40,51		2,29
4″	57,45, 8,30,47,26,53, 7,27,58		4,13,19,48,47	
		34, 4,19,33, 6,52, 4		2,29
6″	57,45, 9, 4,51,46,26,14,20, 2		4,13,19,51,16	
		34, 4,15,19,47, 0,48		2,29
8″	57,45, 9,38,56, 1,46, 1,20,50		4,13,19,53,45	
		34, 4,11, 6,27, 7, 3		2,29
10″	57,45,10,13, 0,12,52,28,27,53		4,13,19,56,14	
		34, 4, 6,53, 7,10,49		2,29
12″	57,45,10,47, 4,19,45,35,38,42		4,13,19,58,43	
		34, 4, 2,39,47,12, 6		2,29
14″	57,45,11,21, 8,22,25,22,50,48		4,13,20, 1,12	
		34, 3,58,26,27,10,54		2,29
16″	57,45,11,55,12,20,51,50, 1,42		4,13,20, 3,41	
		34, 3,54,13, 7, 7,13		2,29
18″	57,45,12,29,16,15, 4,57, 8,55		4,13,20, 6,10	
		34, 3,49,59,47, 1, 3		2,29
20″	57,45,13, 3,20, 5, 4,44, 9,58		4,13,20, 8,39	
		34, 3,45,46,26,52,24		2,29
22″	57,45,13,37,23,50,51,11, 2,22		4,13,20,11, 8	
		34, 3,41,33, 6,41,16		2,29
24″	57,45,14,11,27,32,24,17,43,38		4,13,20,13,37	
		34, 3,37,19,46,27,39		2,29
26″	57,45,14,45,31, 9,44, 4,11,17		4,13,20,16, 6	
		34, 3,33, 6,26,11,33		2,29
28″	57,45,15,19,34,42,50,30,22,50		4,13,20,18,35	
		34, 3,28,53, 5,52,58		2,29
30″	57,45,15,53,38,11,43,36,15,48		4,13,20,21, 4	
		34, 3,24,39,45,31,54		2,29
32″	57,45,16,27,41,36,23,21,47,42		4,13,20,23,33	
		34, 3,20,26,25, 8,21		2,29
34″	57,45,17, 1,44,56,49,46,56, 3		4,13,20,26, 2	
		34, 3,16,13, 4,42,19		2,29
36″	57,45,17,35,48,13, 2,51,38,22		4,13,20,28,31	
		34, 3,11,59,44,13,48		2,29
38″	57,45,18, 9,51,25, 2,35,52,10		4,13,20,31, 0	
		34, 3, 7,46,23,42,48		2,29
40″	57,45,18,43,54,32,48,59,34,58		4,13,20,33,29	
		34, 3, 3,33, 3, 9,19		2,29
42″	57,45,19,17,57,36,22, 2,44,17		4,13,20,35,58	
		34, 2,59,19,42,33,21		2,29
44″	57,45,19,52, 0,35,41,45,17,38		4,13,20,38,27	
		34, 2,55, 6,21,54,54		2,29
46″	57,45,20,26, 3,30,48, 7,12,32		4,13,20,40,56	
		34, 2,50,53, 1,13,58		2,29
48″	57,45,21, 0, 6,21,41, 8,26,30		4,13,20,43,25	
		34, 2,46,39,40,30,33		2,29
50″	57,45,21,34, 9, 8,20,48,57, 3		4,13,20,45,54	
		34, 2,42,26,19,44,39		2,29
52″	57,45,22, 8,11,50,47, 8,41,42		4,13,20,48,23	
		34, 2,38,12,58,56,16		2,29
54″	57,45,22,42,14,29, 0, 7,37,58		4,13,20,50,52	
		34, 2,33,59,38, 5,24		2,29
56″	57,45,23,16,17, 2,59,45,43,22		4,13,20,53,21	
		34, 2,29,46,17,12, 3		2,29
58″	57,45,23,50,19,32,46, 2,55,25		4,13,20,55,50	
		34, 2,25,32,56,16,13		
60″	57,45,24,24,21,58,18,59,11,38			
exact	57,45,24,24,21,58,18,58,43,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°17′ 0″	57,45,24,24,21,58,18,58,43,32			
		34, 2,21,19,35,14,57		
2″	57,45,24,58,24,19,38,33,58,29		4,13,21, 1, 0	
		34, 2,17, 6,14,13,57		2,29
4″	57,45,25,32,26,36,44,48,12,26		4,13,21, 3,29	
		34, 2,12,52,53,10,28		2,29
6″	57,45,26, 6,28,49,37,41,22,54		4,13,21, 5,58	
		34, 2, 8,39,32, 4,30		2,29
8″	57,45,26,40,30,58,17,13,27,24		4,13,21, 8,27	
		34, 2, 4,26,10,56, 3		2,29
10″	57,45,27,14,33, 2,43,24,23,27		4,13,21,10,56	
		34, 2, 0,12,49,45, 7		2,29
12″	57,45,27,48,35, 2,56,14, 8,34		4,13,21,13,25	
		34, 1,55,59,28,31,42		2,29
14″	57,45,28,22,36,58,55,42,40,16		4,13,21,15,54	
		34, 1,51,46, 7,15,48		2,29
16″	57,45,28,56,38,50,41,49,56, 4		4,13,21,18,23	
		34, 1,47,32,45,57,25		2,29
18″	57,45,29,30,40,38,14,35,53,29		4,13,21,20,52	
		34, 1,43,19,24,36,33		2,29
20″	57,45,30, 4,42,21,34, 0,30, 2		4,13,21,23,21	
		34, 1,39, 6, 3,13,12		2,29
22″	57,45,30,38,44, 0,40, 3,43,14		4,13,21,25,50	
		34, 1,34,52,41,47,22		2,29
24″	57,45,31,12,45,35,32,45,30,36		4,13,21,28,19	
		34, 1,30,39,20,19, 3		2,29
26″	57,45,31,46,47, 6,12, 5,49,39		4,13,21,30,48	
		34, 1,26,25,58,48,15		2,29
28″	57,45,32,20,48,32,38, 4,37,54		4,13,21,33,17	
		34, 1,22,12,37,14,58		2,29
30″	57,45,32,54,49,54,50,41,52,52		4,13,21,35,46	
		34, 1,17,59,15,39,12		2,29
32″	57,45,33,28,51,12,49,57,32, 4		4,13,21,38,15	
		34, 1,13,45,54, 0,57		2,29
34″	57,45,34, 2,52,26,35,51,33, 1		4,13,21,40,44	
		34, 1, 9,32,32,20,13		2,29
36″	57,45,34,36,53,36, 8,23,53,14		4,13,21,43,13	
		34, 1, 5,19,10,37, 0		2,29
38″	57,45,35,10,54,41,27,34,30,14		4,13,21,45,42	
		34, 1, 1, 5,48,51,18		2,29
40″	57,45,35,44,55,42,33,23,21,32		4,13,21,48,11	
		34, 0,56,52,27, 3, 7		2,29
42″	57,45,36,18,56,39,25,50,24,39		4,13,21,50,40	
		34, 0,52,39, 5,12,27		2,29
44″	57,45,36,52,57,32, 4,55,37, 6		4,13,21,53, 9	
		34, 0,48,25,43,19,18		2,29
46″	57,45,37,26,58,20,30,38,56,24		4,13,21,55,38	
		34, 0,44,12,21,23,40		2,29
48″	57,45,38, 0,59, 4,43, 0,20, 4		4,13,21,58, 7	
		34, 0,39,58,59,25,33		2,29
50″	57,45,38,34,59,44,41,59,45,37		4,13,22, 0,36	
		34, 0,35,45,37,24,57		2,29
52″	57,45,39, 9, 0,20,27,37,10,34		4,13,22, 3, 5	
		34, 0,31,32,15,21,52		2,29
54″	57,45,39,43, 0,51,59,52,32,26		4,13,22, 5,34	
		34, 0,27,18,53,16,18		2,29
56″	57,45,40,17, 1,19,18,45,48,44		4,13,22, 8, 3	
		34, 0,23, 5,31, 8,15		2,29
58″	57,45,40,51, 1,42,24,16,56,59		4,13,22,10,32	
		34, 0,18,52, 8,57,43		
60″	57,45,41,25, 2, 1,16,25,54,42			
exact	57,45,41,25, 2, 1,16,25,39,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°18′ 0″	57,45,41,25, 2, 1,16,25,39,27			
		34, 0,14,38,46,43, 3		
2″	57,45,41,59, 2,15,55,12,22,30		4,13,22,15,37	
		34, 0,10,25,24,27,26		2,29
4″	57,45,42,33, 2,26,20,36,49,56		4,13,22,18, 6	
		34, 0, 6,12, 2, 9,20		2,29
6″	57,45,43, 7, 2,32,32,38,59,16		4,13,22,20,35	
		34, 0, 1,58,39,48,45		2,29
8″	57,45,43,41, 2,34,31,18,48, 1		4,13,22,23, 4	
		33,59,57,45,17,25,41		2,29
10″	57,45,44,15, 2,32,16,36,13,42		4,13,22,25,33	
		33,59,53,31,55, 0, 8		2,29
12″	57,45,44,49, 2,25,48,31,13,50		4,13,22,28, 2	
		33,59,49,18,32,32, 6		2,29
14″	57,45,45,23, 2,15, 7, 3,45,56		4,13,22,30,31	
		33,59,45, 5,10, 1,35		2,29
16″	57,45,45,57, 2, 0,12,13,47,31		4,13,22,33, 0	
		33,59,40,51,47,28,35		2,29
18″	57,45,46,31, 1,41, 4, 1,16, 6		4,13,22,35,29	
		33,59,36,38,24,53, 6		2,29
20″	57,45,47, 5, 1,17,42,26, 9,12		4,13,22,37,58	
		33,59,32,25, 2,15, 8		2,29
22″	57,45,47,39, 0,50, 7,28,24,20		4,13,22,40,27	
		33,59,28,11,39,34,41		2,29
24″	57,45,48,13, 0,18,19, 7,59, 1		4,13,22,42,56	
		33,59,23,58,16,51,45		2,29
26″	57,45,48,46,59,42,17,24,50,46		4,13,22,45,25	
		33,59,19,44,54, 6,20		2,29
28″	57,45,49,20,59, 2, 2,18,57, 6		4,13,22,47,54	
		33,59,15,31,31,18,26		2,29
30″	57,45,49,54,58,17,33,50,15,32		4,13,22,50,23	
		33,59,11,18, 8,28, 3		2,29
32″	57,45,50,28,57,28,51,58,43,35		4,13,22,52,52	
		33,59, 7, 4,45,35,11		2,29
34″	57,45,51, 2,56,35,56,44,18,46		4,13,22,55,21	
		33,59, 2,51,22,39,50		2,29
36″	57,45,51,36,55,38,48, 6,58,36		4,13,22,57,50	
		33,58,58,37,59,42, 0		2,29
38″	57,45,52,10,54,37,26, 6,40,36		4,13,23, 0,19	
		33,58,54,24,36,41,41		2,29
40″	57,45,52,44,53,31,50,43,22,17		4,13,23, 2,48	
		33,58,50,11,13,38,53		2,29
42″	57,45,53,18,52,22, 1,57, 1,10		4,13,23, 5,17	
		33,58,45,57,50,33,36		2,29
44″	57,45,53,52,51, 7,59,47,34,46		4,13,23, 7,46	
		33,58,41,44,27,25,50		2,29
46″	57,45,54,26,49,49,44,15, 0,36		4,13,23,10,15	
		33,58,37,31, 4,15,35		2,29
48″	57,45,55, 0,48,27,15,19,16,11		4,13,23,12,44	
		33,58,33,17,41, 2,51		2,29
50″	57,45,55,34,47, 0,33, 0,19, 2		4,13,23,15,13	
		33,58,29, 4,17,47,38		2,29
52″	57,45,56, 8,45,29,37,18, 6,40		4,13,23,17,42	
		33,58,24,50,54,29,56		2,29
54″	57,45,56,42,43,54,28,12,36,36		4,13,23,20,11	
		33,58,20,37,31, 9,45		2,29
56″	57,45,57,16,42,15, 5,43,46,21		4,13,23,22,40	
		33,58,16,24, 7,47, 5		2,29
58″	57,45,57,50,40,31,29,51,33,26		4,13,23,25, 9	
		33,58,12,10,44,21,56		
60″	57,45,58,24,38,43,40,35,55,22			
exact	57,45,58,24,38,43,40,35,50,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°19′ 0″	57,45,58,24,38,43,40,35,50,30			
		33,58, 7,57,20,53,46		
2″	57,45,58,58,36,51,37,56,44,16		4,13,23,30, 9	
		33,58, 3,43,57,23,37		2,29
4″	57,45,59,32,34,55,21,54, 7,53		4,13,23,32,38	
		33,57,59,30,33,50,59		2,29
6″	57,46, 0, 6,32,54,52,27,58,52		4,13,23,35, 7	
		33,57,55,17,10,15,52		2,29
8″	57,46, 0,40,30,50, 9,38,14,44		4,13,23,37,36	
		33,57,51, 3,46,38,16		2,29
10″	57,46, 1,14,28,41,13,24,53, 0		4,13,23,40, 5	
		33,57,46,50,22,58,11		2,29
12″	57,46, 1,48,26,28, 3,47,51,11		4,13,23,42,34	
		33,57,42,36,59,15,37		2,29
14″	57,46, 2,22,24,10,40,47, 6,48		4,13,23,45, 3	
		33,57,38,23,35,30,34		2,29
16″	57,46, 2,56,21,49, 4,22,37,22		4,13,23,47,32	
		33,57,34,10,11,43, 2		2,29
18″	57,46, 3,30,19,23,14,34,20,24		4,13,23,50, 1	
		33,57,29,56,47,53, 1		2,29
20″	57,46, 4, 4,16,53,11,22,13,25		4,13,23,52,30	
		33,57,25,43,24, 0,31		2,29
22″	57,46, 4,38,14,18,54,46,13,56		4,13,23,54,59	
		33,57,21,30, 0, 5,32		2,29
24″	57,46, 5,12,11,40,24,46,19,28		4,13,23,57,28	
		33,57,17,16,36, 8, 4		2,29
26″	57,46, 5,46, 8,57,41,22,27,32		4,13,23,59,57	
		33,57,13, 3,12, 8, 7		2,29
28″	57,46, 6,20, 6,10,44,34,35,39		4,13,24, 2,26	
		33,57, 8,49,48, 5,41		2,29
30″	57,46, 6,54, 3,19,34,22,41,20		4,13,24, 4,55	
		33,57, 4,36,24, 0,46		2,29
32″	57,46, 7,28, 0,24,10,46,42, 6		4,13,24, 7,24	
		33,57, 0,22,59,53,22		2,29
34″	57,46, 8, 1,57,24,33,46,35,28		4,13,24, 9,53	
		33,56,56, 9,35,43,29		2,29
36″	57,46, 8,35,54,20,43,22,18,57		4,13,24,12,22	
		33,56,51,56,11,31, 7		2,29
38″	57,46, 9, 9,51,12,39,33,50, 4		4,13,24,14,51	
		33,56,47,42,47,16,16		2,29
40″	57,46, 9,43,48, 0,22,21, 6,20		4,13,24,17,20	
		33,56,43,29,22,58,56		2,29
42″	57,46,10,17,44,43,51,44, 5,16		4,13,24,19,49	
		33,56,39,15,58,39, 7		2,29
44″	57,46,10,51,41,23, 7,42,44,23		4,13,24,22,18	
		33,56,35, 2,34,16,49		2,29
46″	57,46,11,25,37,58,10,17, 1,12		4,13,24,24,47	
		33,56,30,49, 9,52, 2		2,29
48″	57,46,11,59,34,28,59,26,53,14		4,13,24,27,16	
		33,56,26,35,45,24,46		2,29
50″	57,46,12,33,30,55,35,12,18, 0		4,13,24,29,45	
		33,56,22,22,20,55, 1		2,29
52″	57,46,13, 7,27,17,57,33,13, 1		4,13,24,32,14	
		33,56,18, 8,56,22,47		2,29
54″	57,46,13,41,23,36, 6,29,35,48		4,13,24,34,43	
		33,56,13,55,31,48, 4		2,29
56″	57,46,14,15,19,50, 2, 1,23,52		4,13,24,37,12	
		33,56, 9,42, 7,10,52		2,29
58″	57,46,14,49,15,59,44, 8,34,44		4,13,24,39,41	
		33,56, 5,28,42,31,11		
60″	57,46,15,23,12, 5,12,51, 5,55			
exact	57,46,15,23,12, 5,12,51, 8,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°20′ 0″	57,46,15,23,12, 5,12,51, 8,54			
		33,56, 1,15,17,49,25		
2″	57,46,15,57, 8, 6,28, 8,58,19		4,13,24,44,37	
		33,55,57, 1,53, 4,48		2,29
4″	57,46,16,31, 4, 3,30, 2, 3, 7		4,13,24,47, 6	
		33,55,52,48,28,17,42		2,29
6″	57,46,17, 4,59,56,18,30,20,49		4,13,24,49,35	
		33,55,48,35, 3,28, 7		2,29
8″	57,46,17,38,55,44,53,33,48,56		4,13,24,52, 4	
		33,55,44,21,38,36, 3		2,29
10″	57,46,18,12,51,29,15,12,24,59		4,13,24,54,33	
		33,55,40, 8,13,41,30		2,29
12″	57,46,18,46,47, 9,23,26, 6,29		4,13,24,57, 2	
		33,55,35,54,48,44,28		2,29
14″	57,46,19,20,42,45,18,14,50,57		4,13,24,59,31	
		33,55,31,41,23,44,57		2,29
16″	57,46,19,54,38,16,59,38,35,54		4,13,25, 2, 0	
		33,55,27,27,58,42,57		2,29
18″	57,46,20,28,33,44,27,37,18,51		4,13,25, 4,29	
		33,55,23,14,33,38,28		2,29
20″	57,46,21, 2,29, 7,42,10,57,19		4,13,25, 6,58	
		33,55,19, 1, 8,31,30		2,29
22″	57,46,21,36,24,26,43,19,28,49		4,13,25, 9,27	
		33,55,14,47,43,22, 3		2,29
24″	57,46,22,10,19,41,31, 2,50,52		4,13,25,11,56	
		33,55,10,34,18,10, 7		2,29
26″	57,46,22,44,14,52, 5,21, 0,59		4,13,25,14,25	
		33,55, 6,20,52,55,42		2,29
28″	57,46,23,18, 9,58,26,13,56,41		4,13,25,16,54	
		33,55, 2, 7,27,38,48		2,29
30″	57,46,23,52, 5, 0,33,41,35,29		4,13,25,19,23	
		33,54,57,54, 2,19,25		2,29
32″	57,46,24,25,59,58,27,43,54,54		4,13,25,21,52	
		33,54,53,40,36,57,33		2,29
34″	57,46,24,59,54,52, 8,20,52,27		4,13,25,24,21	
		33,54,49,27,11,33,12		2,29
36″	57,46,25,33,49,41,35,32,25,39		4,13,25,26,50	
		33,54,45,13,46, 6,22		2,29
38″	57,46,26, 7,44,26,49,18,32, 1		4,13,25,29,19	
		33,54,41, 0,20,37, 3		2,29
40″	57,46,26,41,39, 7,49,39, 9, 4		4,13,25,31,48	
		33,54,36,46,55, 5,15		2,29
42″	57,46,27,15,33,44,36,34,14,19		4,13,25,34,17	
		33,54,32,33,29,30,58		2,29
44″	57,46,27,49,28,17,10, 3,45,17		4,13,25,36,46	
		33,54,28,20, 3,54,12		2,29
46″	57,46,28,23,22,45,30, 7,39,29		4,13,25,39,15	
		33,54,24, 6,38,14,57		2,29
48″	57,46,28,57,17, 9,36,45,54,26		4,13,25,41,44	
		33,54,19,53,12,33,13		2,29
50″	57,46,29,31,11,29,29,58,27,39		4,13,25,44,13	
		33,54,15,39,46,49, 0		2,29
52″	57,46,30, 5, 5,45, 9,45,16,39		4,13,25,46,42	
		33,54,11,26,21, 2,18		2,29
54″	57,46,30,38,59,56,36, 6,18,57		4,13,25,49,11	
		33,54, 7,12,55,13, 7		2,29
56″	57,46,31,12,54, 3,49, 1,32, 4		4,13,25,51,40	
		33,54, 2,59,29,21,27		2,29
58″	57,46,31,46,48, 6,48,30,53,31		4,13,25,54, 9	
		33,53,58,46, 3,27,18		
60″	57,46,32,20,42, 5,34,34,20,49			
exact	57,46,32,20,42, 5,34,34,36,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°21′ 0″	57,46,32,20,42, 5,34,34,36,23			
		33,53,54,32,37,32,20		
2″	57,46,32,54,36, 0, 7,12, 8,43		4,13,25,59, 0	
		33,53,50,19,11,33,20		2,29
4″	57,46,33,28,29,50,26,23,42, 3		4,13,26, 1,29	
		33,53,46, 5,45,31,51		2,29
6″	57,46,34, 2,23,36,32, 9,13,54		4,13,26, 3,58	
		33,53,41,52,19,27,53		2,29
8″	57,46,34,36,17,18,24,28,41,47		4,13,26, 6,27	
		33,53,37,38,53,21,26		2,29
10″	57,46,35,10,10,56, 3,22, 3,13		4,13,26, 8,56	
		33,53,33,25,27,12,30		2,29
12″	57,46,35,44, 4,29,28,49,15,43		4,13,26,11,25	
		33,53,29,12, 1, 1, 5		2,29
14″	57,46,36,17,57,58,40,50,16,48		4,13,26,13,54	
		33,53,24,58,34,47,11		2,29
16″	57,46,36,51,51,23,39,25, 3,59		4,13,26,16,23	
		33,53,20,45, 8,30,48		2,29
18″	57,46,37,25,44,44,24,33,34,47		4,13,26,18,52	
		33,53,16,31,42,11,56		2,29
20″	57,46,37,59,38, 0,56,15,46,43		4,13,26,21,21	
		33,53,12,18,15,50,35		2,29
22″	57,46,38,33,31,13,14,31,37,18		4,13,26,23,50	
		33,53, 8, 4,49,26,45		2,29
24″	57,46,39, 7,24,21,19,21, 4, 3		4,13,26,26,19	
		33,53, 3,51,23, 0,26		2,29
26″	57,46,39,41,17,25,10,44, 4,29		4,13,26,28,48	
		33,52,59,37,56,31,38		2,29
28″	57,46,40,15,10,24,48,40,36, 7		4,13,26,31,17	
		33,52,55,24,30, 0,21		2,29
30″	57,46,40,49, 3,20,13,10,36,28		4,13,26,33,46	
		33,52,51,11, 3,26,35		2,29
32″	57,46,41,22,56,11,24,14, 3, 3		4,13,26,36,15	
		33,52,46,57,36,50,20		2,29
34″	57,46,41,56,48,58,21,50,53,23		4,13,26,38,44	
		33,52,42,44,10,11,36		2,29
36″	57,46,42,30,41,41, 6, 1, 4,59		4,13,26,41,13	
		33,52,38,30,43,30,23		2,29
38″	57,46,43, 4,34,19,36,44,35,22		4,13,26,43,42	
		33,52,34,17,16,46,41		2,29
40″	57,46,43,38,26,53,54, 1,22, 3		4,13,26,46,11	
		33,52,30, 3,50, 0,30		2,29
42″	57,46,44,12,19,23,57,51,22,33		4,13,26,48,40	
		33,52,25,50,23,11,50		2,29
44″	57,46,44,46,11,49,48,14,34,23		4,13,26,51, 9	
		33,52,21,36,56,20,41		2,29
46″	57,46,45,20, 4,11,25,10,55, 4		4,13,26,53,38	
		33,52,17,23,29,27, 3		2,29
48″	57,46,45,53,56,28,48,40,22, 7		4,13,26,56, 7	
		33,52,13,10, 2,30,56		2,29
50″	57,46,46,27,48,41,58,42,53, 3		4,13,26,58,36	
		33,52, 8,56,35,32,20		2,29
52″	57,46,47, 1,40,50,55,18,25,23		4,13,27, 1, 5	
		33,52, 4,43, 8,31,15		2,29
54″	57,46,47,35,32,55,38,26,56,38		4,13,27, 3,34	
		33,52, 0,29,41,27,41		2,29
56″	57,46,48, 9,24,56, 8, 8,24,19		4,13,27, 6, 3	
		33,51,56,16,14,21,38		2,29
58″	57,46,48,43,16,52,24,22,45,57		4,13,27, 8,32	
		33,51,52, 2,47,13, 6		
60″	57,46,49,17, 8,44,27, 9,59, 3			
exact	57,46,49,17, 8,44,27,10,24, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°22′ 0″	57,46,49,17, 8,44,27,10,24, 7			
		33,51,47,49,20, 4,48		
2″	57,46,49,51, 0,32,16,30,28,55		4,13,27,13,18	
		33,51,43,35,52,51,30		2,29
4″	57,46,50,24,52,15,52,23,20,25		4,13,27,15,47	
		33,51,39,22,25,35,43		2,29
6″	57,46,50,58,43,55,14,48,56, 8		4,13,27,18,16	
		33,51,35, 8,58,17,27		2,29
8″	57,46,51,32,35,30,23,47,13,35		4,13,27,20,45	
		33,51,30,55,30,56,42		2,29
10″	57,46,52, 6,27, 1,19,18,10,17		4,13,27,23,14	
		33,51,26,42, 3,33,28		2,29
12″	57,46,52,40,18,28, 1,21,43,45		4,13,27,25,43	
		33,51,22,28,36, 7,45		2,29
14″	57,46,53,14, 9,50,29,57,51,30		4,13,27,28,12	
		33,51,18,15, 8,39,33		2,29
16″	57,46,53,48, 1, 8,45, 6,31, 3		4,13,27,30,41	
		33,51,14, 1,41, 8,52		2,29
18″	57,46,54,21,52,22,46,47,39,55		4,13,27,33,10	
		33,51, 9,48,13,35,42		2,29
20″	57,46,54,55,43,32,35, 1,15,37		4,13,27,35,39	
		33,51, 5,34,46, 0, 3		2,29
22″	57,46,55,29,34,38, 9,47,15,40		4,13,27,38, 8	
		33,51, 1,21,18,21,55		2,29
24″	57,46,56, 3,25,39,31, 5,37,35		4,13,27,40,37	
		33,50,57, 7,50,41,18		2,29
26″	57,46,56,37,16,36,38,56,18,53		4,13,27,43, 6	
		33,50,52,54,22,58,12		2,29
28″	57,46,57,11, 7,29,33,19,17, 5		4,13,27,45,35	
		33,50,48,40,55,12,37		2,29
30″	57,46,57,44,58,18,14,14,29,42		4,13,27,48, 4	
		33,50,44,27,27,24,33		2,29
32″	57,46,58,18,49, 2,41,41,54,15		4,13,27,50,33	
		33,50,40,13,59,34, 0		2,29
34″	57,46,58,52,39,42,55,41,28,15		4,13,27,53, 2	
		33,50,36, 0,31,40,58		2,29
36″	57,46,59,26,30,18,56,13, 9,13		4,13,27,55,31	
		33,50,31,47, 3,45,27		2,29
38″	57,47, 0, 0,20,50,43,16,54,40		4,13,27,58, 0	
		33,50,27,33,35,47,27		2,29
40″	57,47, 0,34,11,18,16,52,42, 7		4,13,28, 0,29	
		33,50,23,20, 7,46,58		2,29
42″	57,47, 1, 8, 1,41,37, 0,29, 5		4,13,28, 2,58	
		33,50,19, 6,39,44, 0		2,29
44″	57,47, 1,41,52, 0,43,40,13, 5		4,13,28, 5,27	
		33,50,14,53,11,38,33		2,29
46″	57,47, 2,15,42,15,36,51,51,38		4,13,28, 7,56	
		33,50,10,39,43,30,37		2,29
48″	57,47, 2,49,32,26,16,35,22,15		4,13,28,10,25	
		33,50, 6,26,15,20,12		2,29
50″	57,47, 3,23,22,32,42,50,42,27		4,13,28,12,54	
		33,50, 2,12,47, 7,18		2,29
52″	57,47, 3,57,12,34,55,37,49,45		4,13,28,15,23	
		33,49,57,59,18,51,55		2,29
54″	57,47, 4,31, 2,32,54,56,41,40		4,13,28,17,52	
		33,49,53,45,50,34, 3		2,29
56″	57,47, 5, 4,52,26,40,47,15,43		4,13,28,20,21	
		33,49,49,32,22,13,42		2,29
58″	57,47, 5,38,42,16,13, 9,29,25		4,13,28,22,50	
		33,49,45,18,53,50,52		
60″	57,47, 6,12,32, 1,32, 3,20,17			
exact	57,47, 6,12,32, 1,32, 3,52,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°23′ 0″	57,47, 6,12,32, 1,32, 3,52,45			
		33,49,41, 5,25,29,10		
2″	57,47, 6,46,21,42,37,29,21,55		4,13,28,27,32	
		33,49,36,51,57, 1,38		2,28
4″	57,47, 7,20,11,19,29,26,23,33		4,13,28,30, 0	
		33,49,32,38,28,31,38		2,28
6″	57,47, 7,54, 0,52, 7,54,55,11		4,13,28,32,28	
		33,49,28,24,59,59,10		2,28
8″	57,47, 8,27,50,20,32,54,54,21		4,13,28,34,56	
		33,49,24,11,31,24,14		2,28
10″	57,47, 9, 1,39,44,44,26,18,35		4,13,28,37,24	
		33,49,19,58, 2,46,50		2,28
12″	57,47, 9,35,29, 4,42,29, 5,25		4,13,28,39,52	
		33,49,15,44,34, 6,58		2,28
14″	57,47,10, 9,18,20,27, 3,12,23		4,13,28,42,20	
		33,49,11,31, 5,24,38		2,28
16″	57,47,10,43, 7,31,58, 8,37, 1		4,13,28,44,48	
		33,49, 7,17,36,39,50		2,28
18″	57,47,11,16,56,39,15,45,16,51		4,13,28,47,16	
		33,49, 3, 4, 7,52,34		2,28
20″	57,47,11,50,45,42,19,53, 9,25		4,13,28,49,44	
		33,48,58,50,39, 2,50		2,28
22″	57,47,12,24,34,41,10,32,12,15		4,13,28,52,12	
		33,48,54,37,10,10,38		2,28
24″	57,47,12,58,23,35,47,42,22,53		4,13,28,54,40	
		33,48,50,23,41,15,58		2,28
26″	57,47,13,32,12,26,11,23,38,51		4,13,28,57, 8	
		33,48,46,10,12,18,50		2,28
28″	57,47,14, 6, 1,12,21,35,57,41		4,13,28,59,36	
		33,48,41,56,43,19,14		2,28
30″	57,47,14,39,49,54,18,19,16,55		4,13,29, 2, 4	
		33,48,37,43,14,17,10		2,28
32″	57,47,15,13,38,32, 1,33,34, 5		4,13,29, 4,32	
		33,48,33,29,45,12,38		2,28
34″	57,47,15,47,27, 5,31,18,46,43		4,13,29, 7, 0	
		33,48,29,16,16, 5,38		2,28
36″	57,47,16,21,15,34,47,34,52,21		4,13,29, 9,28	
		33,48,25, 2,46,56,10		2,28
38″	57,47,16,55, 3,59,50,21,48,31		4,13,29,11,56	
		33,48,20,49,17,44,14		2,28
40″	57,47,17,28,52,20,39,39,32,45		4,13,29,14,24	
		33,48,16,35,48,29,50		2,28
42″	57,47,18, 2,40,37,15,28, 2,35		4,13,29,16,52	
		33,48,12,22,19,12,58		2,28
44″	57,47,18,36,28,49,37,47,15,33		4,13,29,19,20	
		33,48, 8, 8,49,53,38		2,28
46″	57,47,19,10,16,57,46,37, 9,11		4,13,29,21,48	
		33,48, 3,55,20,31,50		2,28
48″	57,47,19,44, 5, 1,41,57,41, 1		4,13,29,24,16	
		33,47,59,41,51, 7,34		2,28
50″	57,47,20,17,53, 1,23,48,48,35		4,13,29,26,44	
		33,47,55,28,21,40,50		2,28
52″	57,47,20,51,40,56,52,10,29,25		4,13,29,29,12	
		33,47,51,14,52,11,38		2,28
54″	57,47,21,25,28,48, 7, 2,41, 3		4,13,29,31,40	
		33,47,47, 1,22,39,58		2,28
56″	57,47,21,59,16,35, 8,25,21, 1		4,13,29,34, 8	
		33,47,42,47,53, 5,50		2,28
58″	57,47,22,33, 4,17,56,18,26,51		4,13,29,36,36	
		33,47,38,34,23,29,14		
60″	57,47,23, 6,51,56,30,41,56, 5			
exact	57,47,23, 6,51,56,30,41,32,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°24′ 0″	57,47,23, 6,51,56,30,41,32,26			
		33,47,34,20,53,47,44		
2″	57,47,23,40,39,30,51,35,20,10		4,13,29,41,41	
		33,47,30, 7,24, 6, 3		2,28
4″	57,47,24,14,27, 0,58,59,26,13		4,13,29,44, 9	
		33,47,25,53,54,21,54		2,28
6″	57,47,24,48,14,26,52,53,48, 7		4,13,29,46,37	
		33,47,21,40,24,35,17		2,28
8″	57,47,25,22, 1,48,33,18,23,24		4,13,29,49, 5	
		33,47,17,26,54,46,12		2,28
10″	57,47,25,55,49, 6, 0,13, 9,36		4,13,29,51,33	
		33,47,13,13,24,54,39		2,28
12″	57,47,26,29,36,19,13,38, 4,15		4,13,29,54, 1	
		33,47, 8,59,55, 0,38		2,28
14″	57,47,27, 3,23,28,13,33, 4,53		4,13,29,56,29	
		33,47, 4,46,25, 4, 9		2,28
16″	57,47,27,37,10,32,59,58, 9, 2		4,13,29,58,57	
		33,47, 0,32,55, 5,12		2,28
18″	57,47,28,10,57,33,32,53,14,14		4,13,30, 1,25	
		33,46,56,19,25, 3,47		2,28
20″	57,47,28,44,44,29,52,18,18, 1		4,13,30, 3,53	
		33,46,52, 5,54,59,54		2,28
22″	57,47,29,18,31,21,58,13,17,55		4,13,30, 6,21	
		33,46,47,52,24,53,33		2,28
24″	57,47,29,52,18, 9,50,38,11,28		4,13,30, 8,49	
		33,46,43,38,54,44,44		2,28
26″	57,47,30,26, 4,53,29,32,56,12		4,13,30,11,17	
		33,46,39,25,24,33,27		2,28
28″	57,47,30,59,51,32,54,57,29,39		4,13,30,13,45	
		33,46,35,11,54,19,42		2,28
30″	57,47,31,33,38, 8, 6,51,49,21		4,13,30,16,13	
		33,46,30,58,24, 3,29		2,28
32″	57,47,32, 7,24,39, 5,15,52,50		4,13,30,18,41	
		33,46,26,44,53,44,48		2,28
34″	57,47,32,41,11, 5,50, 9,37,38		4,13,30,21, 9	
		33,46,22,31,23,23,39		2,28
36″	57,47,33,14,57,28,21,33, 1,17		4,13,30,23,37	
		33,46,18,17,53, 0, 2		2,28
38″	57,47,33,48,43,46,39,26, 1,19		4,13,30,26, 5	
		33,46,14, 4,22,33,57		2,28
40″	57,47,34,22,30, 0,43,48,35,16		4,13,30,28,33	
		33,46, 9,50,52, 5,24		2,28
42″	57,47,34,56,16,10,34,40,40,40		4,13,30,31, 1	
		33,46, 5,37,21,34,23		2,28
44″	57,47,35,30, 2,16,12, 2,15, 3		4,13,30,33,29	
		33,46, 1,23,51, 0,54		2,28
46″	57,47,36, 3,48,17,35,53,15,57		4,13,30,35,57	
		33,45,57,10,20,24,57		2,28
48″	57,47,36,37,34,14,46,13,40,54		4,13,30,38,25	
		33,45,52,56,49,46,32		2,28
50″	57,47,37,11,20, 7,43, 3,27,26		4,13,30,40,53	
		33,45,48,43,19, 5,39		2,28
52″	57,47,37,45, 5,56,26,22,33, 5		4,13,30,43,21	
		33,45,44,29,48,22,18		2,28
54″	57,47,38,18,51,40,56,10,55,23		4,13,30,45,49	
		33,45,40,16,17,36,29		2,28
56″	57,47,38,52,37,21,12,28,31,52		4,13,30,48,17	
		33,45,36, 2,46,48,12		2,28
58″	57,47,39,26,22,57,15,15,20, 4		4,13,30,50,45	
		33,45,31,49,15,57,27		
60″	57,47,40, 0, 8,29, 4,31,17,31			
exact	57,47,40, 0, 8,29, 4,31, 2,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°25′ 0″	57,47,40, 0, 8,29, 4,31, 2,48			
		33,45,27,35,45, 2,49		
2″	57,47,40,33,53,56,40,16, 5,37		4,13,30,55,46	
		33,45,23,22,14, 7, 3		2,28
4″	57,47,41, 7,39,20, 2,30,12,40		4,13,30,58,14	
		33,45,19, 8,43, 8,49		2,28
6″	57,47,41,41,24,39,11,13,21,29		4,13,31, 0,42	
		33,45,14,55,12, 8, 7		2,28
8″	57,47,42,15, 9,54, 6,25,29,36		4,13,31, 3,10	
		33,45,10,41,41, 4,57		2,28
10″	57,47,42,48,55, 4,48, 6,34,33		4,13,31, 5,38	
		33,45, 6,28, 9,59,19		2,28
12″	57,47,43,22,40,11,16,16,33,52		4,13,31, 8, 6	
		33,45, 2,14,38,51,13		2,28
14″	57,47,43,56,25,13,30,55,25, 5		4,13,31,10,34	
		33,44,58, 1, 7,40,39		2,28
16″	57,47,44,30,10,11,32, 3, 5,44		4,13,31,13, 2	
		33,44,53,47,36,27,37		2,28
18″	57,47,45, 3,55, 5,19,39,33,21		4,13,31,15,30	
		33,44,49,34, 5,12, 7		2,28
20″	57,47,45,37,39,54,53,44,45,28		4,13,31,17,58	
		33,44,45,20,33,54, 9		2,28
22″	57,47,46,11,24,40,14,18,39,37		4,13,31,20,26	
		33,44,41, 7, 2,33,43		2,28
24″	57,47,46,45, 9,21,21,21,13,20		4,13,31,22,54	
		33,44,36,53,31,10,49		2,28
26″	57,47,47,18,53,58,14,52,24, 9		4,13,31,25,22	
		33,44,32,39,59,45,27		2,28
28″	57,47,47,52,38,30,54,52, 9,36		4,13,31,27,50	
		33,44,28,26,28,17,37		2,28
30″	57,47,48,26,22,59,21,20,27,13		4,13,31,30,18	
		33,44,24,12,56,47,19		2,28
32″	57,47,49, 0, 7,23,34,17,14,32		4,13,31,32,46	
		33,44,19,59,25,14,33		2,28
34″	57,47,49,33,51,43,33,42,29, 5		4,13,31,35,14	
		33,44,15,45,53,39,19		2,28
36″	57,47,50, 7,35,59,19,36, 8,24		4,13,31,37,42	
		33,44,11,32,22, 1,37		2,28
38″	57,47,50,41,20,10,51,58,10, 1		4,13,31,40,10	
		33,44, 7,18,50,21,27		2,28
40″	57,47,51,15, 4,18,10,48,31,28		4,13,31,42,38	
		33,44, 3, 5,18,38,49		2,28
42″	57,47,51,48,48,21,16, 7,10,17		4,13,31,45, 6	
		33,43,58,51,46,53,43		2,28
44″	57,47,52,22,32,20, 7,54, 4, 0		4,13,31,47,34	
		33,43,54,38,15, 6, 9		2,28
46″	57,47,52,56,16,14,46, 9,10, 9		4,13,31,50, 2	
		33,43,50,24,43,16, 7		2,28
48″	57,47,53,30, 0, 5,10,52,26,16		4,13,31,52,30	
		33,43,46,11,11,23,37		2,28
50″	57,47,54, 3,43,51,22, 3,49,53		4,13,31,54,58	
		33,43,41,57,39,28,39		2,28
52″	57,47,54,37,27,33,19,43,18,32		4,13,31,57,26	
		33,43,37,44, 7,31,13		2,28
54″	57,47,55,11,11,11, 3,50,49,45		4,13,31,59,54	
		33,43,33,30,35,31,19		2,28
56″	57,47,55,44,54,44,34,26,21, 4		4,13,32, 2,22	
		33,43,29,17, 3,28,57		2,28
58″	57,47,56,18,38,13,51,29,50, 1		4,13,32, 4,50	
		33,43,25, 3,31,24, 7		
60″	57,47,56,52,21,38,55, 1,14, 8			
exact	57,47,56,52,21,38,55, 1,12,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°26′ 0″	57,47,56,52,21,38,55, 1,12,58			
		33,43,20,49,59,16,44		
2″	57,47,57,26, 4,59,45, 0,29,42		4,13,32, 9,46	
		33,43,16,36,27, 6,58		2,28
4″	57,47,57,59,48,16,21,27,36,40		4,13,32,12,14	
		33,43,12,22,54,54,44		2,28
6″	57,47,58,33,31,28,44,22,31,24		4,13,32,14,42	
		33,43, 8, 9,22,40, 2		2,28
8″	57,47,59, 7,14,36,53,45,11,26		4,13,32,17,10	
		33,43, 3,55,50,22,52		2,28
10″	57,47,59,40,57,40,49,35,34,18		4,13,32,19,38	
		33,42,59,42,18, 3,14		2,28
12″	57,48, 0,14,40,40,31,53,37,32		4,13,32,22, 6	
		33,42,55,28,45,41, 8		2,28
14″	57,48, 0,48,23,36, 0,39,18,40		4,13,32,24,34	
		33,42,51,15,13,16,34		2,28
16″	57,48, 1,22, 6,27,15,52,35,14		4,13,32,27, 2	
		33,42,47, 1,40,49,32		2,28
18″	57,48, 1,55,49,14,17,33,24,46		4,13,32,29,30	
		33,42,42,48, 8,20, 2		2,28
20″	57,48, 2,29,31,57, 5,41,44,48		4,13,32,31,58	
		33,42,38,34,35,48, 4		2,28
22″	57,48, 3, 3,14,35,40,17,32,52		4,13,32,34,26	
		33,42,34,21, 3,13,38		2,28
24″	57,48, 3,36,57,10, 1,20,46,30		4,13,32,36,54	
		33,42,30, 7,30,36,44		2,28
26″	57,48, 4,10,39,40, 8,51,23,14		4,13,32,39,22	
		33,42,25,53,57,57,22		2,28
28″	57,48, 4,44,22, 6, 2,49,20,36		4,13,32,41,50	
		33,42,21,40,25,15,32		2,28
30″	57,48, 5,18, 4,27,43,14,36, 8		4,13,32,44,18	
		33,42,17,26,52,31,14		2,28
32″	57,48, 5,51,46,45,10, 7, 7,22		4,13,32,46,46	
		33,42,13,13,19,44,28		2,28
34″	57,48, 6,25,28,58,23,26,51,50		4,13,32,49,14	
		33,42, 8,59,46,55,14		2,28
36″	57,48, 6,59,11, 7,23,13,47, 4		4,13,32,51,42	
		33,42, 4,46,14, 3,32		2,28
38″	57,48, 7,32,53,12, 9,27,50,36		4,13,32,54,10	
		33,42, 0,32,41, 9,22		2,28
40″	57,48, 8, 6,35,12,42, 8,59,58		4,13,32,56,38	
		33,41,56,19, 8,12,44		2,28
42″	57,48, 8,40,17, 9, 1,17,12,42		4,13,32,59, 6	
		33,41,52, 5,35,13,38		2,28
44″	57,48, 9,13,59, 1, 6,52,26,20		4,13,33, 1,34	
		33,41,47,52, 2,12, 4		2,28
46″	57,48, 9,47,40,48,58,54,38,24		4,13,33, 4, 2	
		33,41,43,38,29, 8, 2		2,28
48″	57,48,10,21,22,32,37,23,46,26		4,13,33, 6,30	
		33,41,39,24,56, 1,32		2,28
50″	57,48,10,55, 4,12, 2,19,47,58		4,13,33, 8,58	
		33,41,35,11,22,52,34		2,28
52″	57,48,11,28,45,47,13,42,40,32		4,13,33,11,26	
		33,41,30,57,49,41, 8		2,28
54″	57,48,12, 2,27,18,11,32,21,40		4,13,33,13,54	
		33,41,26,44,16,27,14		2,28
56″	57,48,12,36, 8,44,55,48,48,54		4,13,33,16,22	
		33,41,22,30,43,10,52		2,28
58″	57,48,13, 9,50, 7,26,31,59,46		4,13,33,18,50	
		33,41,18,17, 9,52, 2		
60″	57,48,13,43,31,25,43,41,51,48			
exact	57,48,13,43,31,25,43,42, 1,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°27′ 0″	57,48,13,43,31,25,43,42, 1,35			
		33,41,14, 3,36,31,48		
2″	57,48,14,17,12,39,47,18,33,23		4,13,33,23,41	
		33,41, 9,50, 3, 8, 7		2,28
4″	57,48,14,50,53,49,37,21,41,30		4,13,33,26, 9	
		33,41, 5,36,29,41,58		2,28
6″	57,48,15,24,34,55,13,51,23,28		4,13,33,28,37	
		33,41, 1,22,56,13,21		2,28
8″	57,48,15,58,15,56,36,47,36,49		4,13,33,31, 5	
		33,40,57, 9,22,42,16		2,28
10″	57,48,16,31,56,53,46,10,19, 5		4,13,33,33,33	
		33,40,52,55,49, 8,43		2,28
12″	57,48,17, 5,37,46,41,59,27,48		4,13,33,36, 1	
		33,40,48,42,15,32,42		2,28
14″	57,48,17,39,18,35,24,15, 0,30		4,13,33,38,29	
		33,40,44,28,41,54,13		2,28
16″	57,48,18,12,59,19,52,56,54,43		4,13,33,40,57	
		33,40,40,15, 8,13,16		2,28
18″	57,48,18,46,40, 0, 8, 5, 7,59		4,13,33,43,25	
		33,40,36, 1,34,29,51		2,28
20″	57,48,19,20,20,36, 9,39,37,50		4,13,33,45,53	
		33,40,31,48, 0,43,58		2,28
22″	57,48,19,54, 1, 7,57,40,21,48		4,13,33,48,21	
		33,40,27,34,26,55,37		2,28
24″	57,48,20,27,41,35,32, 7,17,25		4,13,33,50,49	
		33,40,23,20,53, 4,48		2,28
26″	57,48,21, 1,21,58,53, 0,22,13		4,13,33,53,17	
		33,40,19, 7,19,11,31		2,28
28″	57,48,21,35, 2,18, 0,19,33,44		4,13,33,55,45	
		33,40,14,53,45,15,46		2,28
30″	57,48,22, 8,42,32,54, 4,49,30		4,13,33,58,13	
		33,40,10,40,11,17,33		2,28
32″	57,48,22,42,22,43,34,16, 7, 3		4,13,34, 0,41	
		33,40, 6,26,37,16,52		2,28
34″	57,48,23,16, 2,50, 0,53,23,55		4,13,34, 3, 9	
		33,40, 2,13, 3,13,43		2,28
36″	57,48,23,49,42,52,13,56,37,38		4,13,34, 5,37	
		33,39,57,59,29, 8, 6		2,28
38″	57,48,24,23,22,50,13,25,45,44		4,13,34, 8, 5	
		33,39,53,45,55, 0, 1		2,28
40″	57,48,24,57, 2,43,59,20,45,45		4,13,34,10,33	
		33,39,49,32,20,49,28		2,28
42″	57,48,25,30,42,33,31,41,35,13		4,13,34,13, 1	
		33,39,45,18,46,36,27		2,28
44″	57,48,26, 4,22,18,50,28,11,40		4,13,34,15,29	
		33,39,41, 5,12,20,58		2,28
46″	57,48,26,38, 1,59,55,40,32,38		4,13,34,17,57	
		33,39,36,51,38, 3, 1		2,28
48″	57,48,27,11,41,36,47,18,35,39		4,13,34,20,25	
		33,39,32,38, 3,42,36		2,28
50″	57,48,27,45,21, 9,25,22,18,15		4,13,34,22,53	
		33,39,28,24,29,19,43		2,28
52″	57,48,28,19, 0,37,49,51,37,58		4,13,34,25,21	
		33,39,24,10,54,54,22		2,28
54″	57,48,28,52,40, 2, 0,46,32,20		4,13,34,27,49	
		33,39,19,57,20,26,33		2,28
56″	57,48,29,26,19,21,58, 6,58,53		4,13,34,30,17	
		33,39,15,43,45,56,16		2,28
58″	57,48,29,59,58,37,41,52,55, 9		4,13,34,32,45	
		33,39,11,30,11,23,31		
60″	57,48,30,33,37,49,12, 4,18,40			
exact	57,48,30,33,37,49,12, 4,36,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°28′ 0″	57,48,30,33,37,49,12, 4,36,47			
		33,39, 7,16,36,50,21		
2″	57,48,31, 7,16,56,28,41,27, 8		4,13,34,37,32	
		33,39, 3, 3, 2,12,49		2,28
4″	57,48,31,40,55,59,31,43,39,57		4,13,34,40, 0	
		33,38,58,49,27,32,49		2,28
6″	57,48,32,14,34,58,21,11,12,46		4,13,34,42,28	
		33,38,54,35,52,50,21		2,28
8″	57,48,32,48,13,52,57, 4, 3, 7		4,13,34,44,56	
		33,38,50,22,18, 5,25		2,28
10″	57,48,33,21,52,43,19,22, 8,32		4,13,34,47,24	
		33,38,46, 8,43,18, 1		2,28
12″	57,48,33,55,31,29,28, 5,26,33		4,13,34,49,52	
		33,38,41,55, 8,28, 9		2,28
14″	57,48,34,29,10,11,23,13,54,42		4,13,34,52,20	
		33,38,37,41,33,35,49		2,28
16″	57,48,35, 2,48,49, 4,47,30,31		4,13,34,54,48	
		33,38,33,27,58,41, 1		2,28
18″	57,48,35,36,27,22,32,46,11,32		4,13,34,57,16	
		33,38,29,14,23,43,45		2,28
20″	57,48,36,10, 5,51,47, 9,55,17		4,13,34,59,44	
		33,38,25, 0,48,44, 1		2,28
22″	57,48,36,43,44,16,47,58,39,18		4,13,35, 2,12	
		33,38,20,47,13,41,49		2,28
24″	57,48,37,17,22,37,35,12,21, 7		4,13,35, 4,40	
		33,38,16,33,38,37, 9		2,28
26″	57,48,37,51, 0,54, 8,50,58,16		4,13,35, 7, 8	
		33,38,12,20, 3,30, 1		2,28
28″	57,48,38,24,39, 6,28,54,28,17		4,13,35, 9,36	
		33,38, 8, 6,28,20,25		2,28
30″	57,48,38,58,17,14,35,22,48,42		4,13,35,12, 4	
		33,38, 3,52,53, 8,21		2,28
32″	57,48,39,31,55,18,28,15,57, 3		4,13,35,14,32	
		33,37,59,39,17,53,49		2,28
34″	57,48,40, 5,33,18, 7,33,50,52		4,13,35,17, 0	
		33,37,55,25,42,36,49		2,28
36″	57,48,40,39,11,13,33,16,27,41		4,13,35,19,28	
		33,37,51,12, 7,17,21		2,28
38″	57,48,41,12,49, 4,45,23,45, 2		4,13,35,21,56	
		33,37,46,58,31,55,25		2,28
40″	57,48,41,46,26,51,43,55,40,27		4,13,35,24,24	
		33,37,42,44,56,31, 1		2,28
42″	57,48,42,20, 4,34,28,52,11,28		4,13,35,26,52	
		33,37,38,31,21, 4, 9		2,28
44″	57,48,42,53,42,13, 0,13,15,37		4,13,35,29,20	
		33,37,34,17,45,34,49		2,28
46″	57,48,43,27,19,47,17,58,50,26		4,13,35,31,48	
		33,37,30, 4,10, 3, 1		2,28
48″	57,48,44, 0,57,17,22, 8,53,27		4,13,35,34,16	
		33,37,25,50,34,28,45		2,28
50″	57,48,44,34,34,43,12,43,22,12		4,13,35,36,44	
		33,37,21,36,58,52, 1		2,28
52″	57,48,45, 8,12, 4,49,42,14,13		4,13,35,39,12	
		33,37,17,23,23,12,49		2,28
54″	57,48,45,41,49,22,13, 5,27, 2		4,13,35,41,40	
		33,37,13, 9,47,31, 9		2,28
56″	57,48,46,15,26,35,22,52,58,11		4,13,35,44, 8	
		33,37, 8,56,11,47, 1		2,28
58″	57,48,46,49, 3,44,19, 4,45,12		4,13,35,46,36	
		33,37, 4,42,36, 0,25		
60″	57,48,47,22,40,49, 1,40,45,37			
exact	57,48,47,22,40,49, 1,41,16,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°29′ 0″	57,48,47,22,40,49, 1,41,16,13			
		33,37, 0,29, 0,14,40		
2″	57,48,47,56,17,49,30,41,30,53		4,13,35,51,18	
		33,36,56,15,24,23,22		2,27
4″	57,48,48,29,54,45,46, 5,54,15		4,13,35,53,45	
		33,36,52, 1,48,29,37		2,27
6″	57,48,49, 3,31,37,47,54,23,52		4,13,35,56,12	
		33,36,47,48,12,33,25		2,27
8″	57,48,49,37, 8,25,36, 6,57,17		4,13,35,58,39	
		33,36,43,34,36,34,46		2,27
10″	57,48,50,10,45, 9,10,43,32, 3		4,13,36, 1, 6	
		33,36,39,21, 0,33,40		2,27
12″	57,48,50,44,21,48,31,44, 5,43		4,13,36, 3,33	
		33,36,35, 7,24,30, 7		2,27
14″	57,48,51,17,58,23,39, 8,35,50		4,13,36, 6, 0	
		33,36,30,53,48,24, 7		2,27
16″	57,48,51,51,34,54,32,56,59,57		4,13,36, 8,27	
		33,36,26,40,12,15,40		2,27
18″	57,48,52,25,11,21,13, 9,15,37		4,13,36,10,54	
		33,36,22,26,36, 4,46		2,27
20″	57,48,52,58,47,43,39,45,20,23		4,13,36,13,21	
		33,36,18,12,59,51,25		2,27
22″	57,48,53,32,24, 1,52,45,11,48		4,13,36,15,48	
		33,36,13,59,23,35,37		2,27
24″	57,48,54, 6, 0,15,52, 8,47,25		4,13,36,18,15	
		33,36, 9,45,47,17,22		2,27
26″	57,48,54,39,36,25,37,56, 4,47		4,13,36,20,42	
		33,36, 5,32,10,56,40		2,27
28″	57,48,55,13,12,31,10, 7, 1,27		4,13,36,23, 9	
		33,36, 1,18,34,33,31		2,27
30″	57,48,55,46,48,32,28,41,34,58		4,13,36,25,36	
		33,35,57, 4,58, 7,55		2,27
32″	57,48,56,20,24,29,33,39,42,53		4,13,36,28, 3	
		33,35,52,51,21,39,52		2,27
34″	57,48,56,54, 0,22,25, 1,22,45		4,13,36,30,30	
		33,35,48,37,45, 9,22		2,27
36″	57,48,57,27,36,11, 2,46,32, 7		4,13,36,32,57	
		33,35,44,24, 8,36,25		2,27
38″	57,48,58, 1,11,55,26,55, 8,32		4,13,36,35,24	
		33,35,40,10,32, 1, 1		2,27
40″	57,48,58,34,47,35,37,27, 9,33		4,13,36,37,51	
		33,35,35,56,55,23,10		2,27
42″	57,48,59, 8,23,11,34,22,32,43		4,13,36,40,18	
		33,35,31,43,18,42,52		2,27
44″	57,48,59,41,58,43,17,41,15,35		4,13,36,42,45	
		33,35,27,29,42, 0, 7		2,27
46″	57,49, 0,15,34,10,47,23,15,42		4,13,36,45,12	
		33,35,23,16, 5,14,55		2,27
48″	57,49, 0,49, 9,34, 3,28,30,37		4,13,36,47,39	
		33,35,19, 2,28,27,16		2,27
50″	57,49, 1,22,44,53, 5,56,57,53		4,13,36,50, 6	
		33,35,14,48,51,37,10		2,27
52″	57,49, 1,56,20, 7,54,48,35, 3		4,13,36,52,33	
		33,35,10,35,14,44,37		2,27
54″	57,49, 2,29,55,18,30, 3,19,40		4,13,36,55, 0	
		33,35, 6,21,37,49,37		2,27
56″	57,49, 3, 3,30,24,51,41, 9,17		4,13,36,57,27	
		33,35, 2, 8, 0,52,10		2,27
58″	57,49, 3,37, 5,26,59,42, 1,27		4,13,36,59,54	
		33,34,57,54,23,52,16		
60″	57,49, 4,10,40,24,54, 5,53,43			
exact	57,49, 4,10,40,24,54, 5,27, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°30′ 0″	57,49, 4,10,40,24,54, 5,27, 5			
		33,34,53,40,46,47, 6		
2″	57,49, 4,44,15,18,34,52,14,11		4,13,37, 4,59	
		33,34,49,27, 9,42, 7		2,27
4″	57,49, 5,17,50, 8, 2, 1,56,18		4,13,37, 7,26	
		33,34,45,13,32,34,41		2,27
6″	57,49, 5,51,24,53,15,34,30,59		4,13,37, 9,53	
		33,34,40,59,55,24,48		2,27
8″	57,49, 6,24,59,34,15,29,55,47		4,13,37,12,20	
		33,34,36,46,18,12,28		2,27
10″	57,49, 6,58,34,11, 1,48, 8,15		4,13,37,14,47	
		33,34,32,32,40,57,41		2,27
12″	57,49, 7,32, 8,43,34,29, 5,56		4,13,37,17,14	
		33,34,28,19, 3,40,27		2,27
14″	57,49, 8, 5,43,11,53,32,46,23		4,13,37,19,41	
		33,34,24, 5,26,20,46		2,27
16″	57,49, 8,39,17,35,58,59, 7, 9		4,13,37,22, 8	
		33,34,19,51,48,58,38		2,27
18″	57,49, 9,12,51,55,50,48, 5,47		4,13,37,24,35	
		33,34,15,38,11,34, 3		2,27
20″	57,49, 9,46,26,11,28,59,39,50		4,13,37,27, 2	
		33,34,11,24,34, 7, 1		2,27
22″	57,49,10,20, 0,22,53,33,46,51		4,13,37,29,29	
		33,34, 7,10,56,37,32		2,27
24″	57,49,10,53,34,30, 4,30,24,23		4,13,37,31,56	
		33,34, 2,57,19, 5,36		2,27
26″	57,49,11,27, 8,33, 1,49,29,59		4,13,37,34,23	
		33,33,58,43,41,31,13		2,27
28″	57,49,12, 0,42,31,45,31, 1,12		4,13,37,36,50	
		33,33,54,30, 3,54,23		2,27
30″	57,49,12,34,16,26,15,34,55,35		4,13,37,39,17	
		33,33,50,16,26,15, 6		2,27
32″	57,49,13, 7,50,16,32, 1,10,41		4,13,37,41,44	
		33,33,46, 2,48,33,22		2,27
34″	57,49,13,41,24, 2,34,49,44, 3		4,13,37,44,11	
		33,33,41,49,10,49,11		2,27
36″	57,49,14,14,57,44,24, 0,33,14		4,13,37,46,38	
		33,33,37,35,33, 2,33		2,27
38″	57,49,14,48,31,21,59,33,35,47		4,13,37,49, 5	
		33,33,33,21,55,13,28		2,27
40″	57,49,15,22, 4,55,21,28,49,15		4,13,37,51,32	
		33,33,29, 8,17,21,56		2,27
42″	57,49,15,55,38,24,29,46,11,11		4,13,37,53,59	
		33,33,24,54,39,27,57		2,27
44″	57,49,16,29,11,49,24,25,39, 8		4,13,37,56,26	
		33,33,20,41, 1,31,31		2,27
46″	57,49,17, 2,45,10, 5,27,10,39		4,13,37,58,53	
		33,33,16,27,23,32,38		2,27
48″	57,49,17,36,18,26,32,50,43,17		4,13,38, 1,20	
		33,33,12,13,45,31,18		2,27
50″	57,49,18, 9,51,38,46,36,14,35		4,13,38, 3,47	
		33,33, 8, 0, 7,27,31		2,27
52″	57,49,18,43,24,46,46,43,42, 6		4,13,38, 6,14	
		33,33, 3,46,29,21,17		2,27
54″	57,49,19,16,57,50,33,13, 3,23		4,13,38, 8,41	
		33,32,59,32,51,12,36		2,27
56″	57,49,19,50,30,50, 6, 4,15,59		4,13,38,11, 8	
		33,32,55,19,13, 1,28		2,27
58″	57,49,20,24, 3,45,25,17,17,27		4,13,38,13,35	
		33,32,51, 5,34,47,53		
60″	57,49,20,57,36,36,30,52, 5,20			
exact	57,49,20,57,36,36,30,51,46, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°31′ 0″	57,49,20,57,36,36,30,51,46, 4			
		33,32,46,51,56,29,56		
2″	57,49,21,31, 9,23,22,48,16, 0		4,13,38,18,36	
		33,32,42,38,18,11,20		2,27
4″	57,49,22, 4,42, 6, 1, 6,27,20		4,13,38,21, 3	
		33,32,38,24,39,50,17		2,27
6″	57,49,22,38,14,44,25,46,17,37		4,13,38,23,30	
		33,32,34,11, 1,26,47		2,27
8″	57,49,23,11,47,18,36,47,44,24		4,13,38,25,57	
		33,32,29,57,23, 0,50		2,27
10″	57,49,23,45,19,48,34,10,45,14		4,13,38,28,24	
		33,32,25,43,44,32,26		2,27
12″	57,49,24,18,52,14,17,55,17,40		4,13,38,30,51	
		33,32,21,30, 6, 1,35		2,27
14″	57,49,24,52,24,35,48, 1,19,15		4,13,38,33,18	
		33,32,17,16,27,28,17		2,27
16″	57,49,25,25,56,53, 4,28,47,32		4,13,38,35,45	
		33,32,13, 2,48,52,32		2,27
18″	57,49,25,59,29, 6, 7,17,40, 4		4,13,38,38,12	
		33,32, 8,49,10,14,20		2,27
20″	57,49,26,33, 1,14,56,27,54,24		4,13,38,40,39	
		33,32, 4,35,31,33,41		2,27
22″	57,49,27, 6,33,19,31,59,28, 5		4,13,38,43, 6	
		33,32, 0,21,52,50,35		2,27
24″	57,49,27,40, 5,19,53,52,18,40		4,13,38,45,33	
		33,31,56, 8,14, 5, 2		2,27
26″	57,49,28,13,37,16, 2, 6,23,42		4,13,38,48, 0	
		33,31,51,54,35,17, 2		2,27
28″	57,49,28,47, 9, 7,56,41,40,44		4,13,38,50,27	
		33,31,47,40,56,26,35		2,27
30″	57,49,29,20,40,55,37,38, 7,19		4,13,38,52,54	
		33,31,43,27,17,33,41		2,27
32″	57,49,29,54,12,39, 4,55,41, 0		4,13,38,55,21	
		33,31,39,13,38,38,20		2,27
34″	57,49,30,27,44,18,18,34,19,20		4,13,38,57,48	
		33,31,34,59,59,40,32		2,27
36″	57,49,31, 1,15,53,18,33,59,52		4,13,39, 0,15	
		33,31,30,46,20,40,17		2,27
38″	57,49,31,34,47,24, 4,54,40, 9		4,13,39, 2,42	
		33,31,26,32,41,37,35		2,27
40″	57,49,32, 8,18,50,37,36,17,44		4,13,39, 5, 9	
		33,31,22,19, 2,32,26		2,27
42″	57,49,32,41,50,12,56,38,50,10		4,13,39, 7,36	
		33,31,18, 5,23,24,50		2,27
44″	57,49,33,15,21,31, 2, 2,15, 0		4,13,39,10, 3	
		33,31,13,51,44,14,47		2,27
46″	57,49,33,48,52,44,53,46,29,47		4,13,39,12,30	
		33,31, 9,38, 5, 2,17		2,27
48″	57,49,34,22,23,54,31,51,32, 4		4,13,39,14,57	
		33,31, 5,24,25,47,20		2,27
50″	57,49,34,55,54,59,56,17,19,24		4,13,39,17,24	
		33,31, 1,10,46,29,56		2,27
52″	57,49,35,29,26, 1, 7, 3,49,20		4,13,39,19,51	
		33,30,56,57, 7,10, 5		2,27
54″	57,49,36, 2,56,58, 4,10,59,25		4,13,39,22,18	
		33,30,52,43,27,47,47		2,27
56″	57,49,36,36,27,50,47,38,47,12		4,13,39,24,45	
		33,30,48,29,48,23, 2		2,27
58″	57,49,37, 9,58,39,17,27,10,14		4,13,39,27,12	
		33,30,44,16, 8,55,50		
60″	57,49,37,43,29,23,33,36, 6, 4			
exact	57,49,37,43,29,23,33,35,59,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°32′ 0″	57,49,37,43,29,23,33,35,59,23			
		33,30,40, 2,29,25,32		
2″	57,49,38,17, 0, 3,36, 5,24,55		4,13,39,32, 8	
		33,30,35,48,49,53,24		2,27
4″	57,49,38,50,30,39,24,55,18,19		4,13,39,34,35	
		33,30,31,35,10,18,49		2,27
6″	57,49,39,24, 1,11, 0, 5,37, 8		4,13,39,37, 2	
		33,30,27,21,30,41,47		2,27
8″	57,49,39,57,31,38,21,36,18,55		4,13,39,39,29	
		33,30,23, 7,51, 2,18		2,27
10″	57,49,40,31, 2, 1,29,27,21,13		4,13,39,41,56	
		33,30,18,54,11,20,22		2,27
12″	57,49,41, 4,32,20,23,38,41,35		4,13,39,44,23	
		33,30,14,40,31,35,59		2,27
14″	57,49,41,38, 2,35, 4,10,17,34		4,13,39,46,50	
		33,30,10,26,51,49, 9		2,27
16″	57,49,42,11,32,45,31, 2, 6,43		4,13,39,49,17	
		33,30, 6,13,11,59,52		2,27
18″	57,49,42,45, 2,51,44,14, 6,35		4,13,39,51,44	
		33,30, 1,59,32, 8, 8		2,27
20″	57,49,43,18,32,53,43,46,14,43		4,13,39,54,11	
		33,29,57,45,52,13,57		2,27
22″	57,49,43,52, 2,51,29,38,28,40		4,13,39,56,38	
		33,29,53,32,12,17,19		2,27
24″	57,49,44,25,32,45, 1,50,45,59		4,13,39,59, 5	
		33,29,49,18,32,18,14		2,27
26″	57,49,44,59, 2,34,20,23, 4,13		4,13,40, 1,32	
		33,29,45, 4,52,16,42		2,27
28″	57,49,45,32,32,19,25,15,20,55		4,13,40, 3,59	
		33,29,40,51,12,12,43		2,27
30″	57,49,46, 6, 2, 0,16,27,33,38		4,13,40, 6,26	
		33,29,36,37,32, 6,17		2,27
32″	57,49,46,39,31,36,53,59,39,55		4,13,40, 8,53	
		33,29,32,23,51,57,24		2,27
34″	57,49,47,13, 1, 9,17,51,37,19		4,13,40,11,20	
		33,29,28,10,11,46, 4		2,27
36″	57,49,47,46,30,37,28, 3,23,23		4,13,40,13,47	
		33,29,23,56,31,32,17		2,27
38″	57,49,48,20, 0, 1,24,34,55,40		4,13,40,16,14	
		33,29,19,42,51,16, 3		2,27
40″	57,49,48,53,29,21, 7,26,11,43		4,13,40,18,41	
		33,29,15,29,10,57,22		2,27
42″	57,49,49,26,58,36,36,37, 9, 5		4,13,40,21, 8	
		33,29,11,15,30,36,14		2,27
44″	57,49,50, 0,27,47,52, 7,45,19		4,13,40,23,35	
		33,29, 7, 1,50,12,39		2,27
46″	57,49,50,33,56,54,53,57,57,58		4,13,40,26, 2	
		33,29, 2,48, 9,46,37		2,27
48″	57,49,51, 7,25,57,42, 7,44,35		4,13,40,28,29	
		33,28,58,34,29,18, 8		2,27
50″	57,49,51,40,54,56,16,37, 2,43		4,13,40,30,56	
		33,28,54,20,48,47,12		2,27
52″	57,49,52,14,23,50,37,25,49,55		4,13,40,33,23	
		33,28,50, 7, 8,13,49		2,27
54″	57,49,52,47,52,40,44,34, 3,44		4,13,40,35,50	
		33,28,45,53,27,37,59		2,27
56″	57,49,53,21,21,26,38, 1,41,43		4,13,40,38,17	
		33,28,41,39,46,59,42		2,27
58″	57,49,53,54,50, 8,17,48,41,25		4,13,40,40,44	
		33,28,37,26, 6,18,58		
60″	57,49,54,28,18,45,43,55, 0,23			
exact	57,49,54,28,18,45,43,55, 2,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°33′ 0″	57,49,54,28,18,45,43,55, 2,49			
		33,28,33,12,25,36,10		
2″	57,49,55, 1,47,18,56,20,38,59		4,13,40,45,36	
		33,28,28,58,44,50,34		2,27
4″	57,49,55,35,15,47,55, 5,29,33		4,13,40,48, 3	
		33,28,24,45, 4, 2,31		2,27
6″	57,49,56, 8,44,12,40, 9,32, 4		4,13,40,50,30	
		33,28,20,31,23,12, 1		2,27
8″	57,49,56,42,12,33,11,32,44, 5		4,13,40,52,57	
		33,28,16,17,42,19, 4		2,27
10″	57,49,57,15,40,49,29,15, 3, 9		4,13,40,55,24	
		33,28,12, 4, 1,23,40		2,27
12″	57,49,57,49, 9, 1,33,16,26,49		4,13,40,57,51	
		33,28, 7,50,20,25,49		2,27
14″	57,49,58,22,37, 9,23,36,52,38		4,13,41, 0,18	
		33,28, 3,36,39,25,31		2,27
16″	57,49,58,56, 5,13, 0,16,18, 9		4,13,41, 2,45	
		33,27,59,22,58,22,46		2,27
18″	57,49,59,29,33,12,23,14,40,55		4,13,41, 5,12	
		33,27,55, 9,17,17,34		2,27
20″	57,50, 0, 3, 1, 7,32,31,58,29		4,13,41, 7,39	
		33,27,50,55,36, 9,55		2,27
22″	57,50, 0,36,28,58,28, 8, 8,24		4,13,41,10, 6	
		33,27,46,41,54,59,49		2,27
24″	57,50, 1, 9,56,45,10, 3, 8,13		4,13,41,12,33	
		33,27,42,28,13,47,16		2,27
26″	57,50, 1,43,24,27,38,16,55,29		4,13,41,15, 0	
		33,27,38,14,32,32,16		2,27
28″	57,50, 2,16,52, 5,52,49,27,45		4,13,41,17,27	
		33,27,34, 0,51,14,49		2,27
30″	57,50, 2,50,19,39,53,40,42,34		4,13,41,19,54	
		33,27,29,47, 9,54,55		2,27
32″	57,50, 3,23,47, 9,40,50,37,29		4,13,41,22,21	
		33,27,25,33,28,32,34		2,27
34″	57,50, 3,57,14,35,14,19,10, 3		4,13,41,24,48	
		33,27,21,19,47, 7,46		2,27
36″	57,50, 4,30,41,56,34, 6,17,49		4,13,41,27,15	
		33,27,17, 6, 5,40,31		2,27
38″	57,50, 5, 4, 9,13,40,11,58,20		4,13,41,29,42	
		33,27,12,52,24,10,49		2,27
40″	57,50, 5,37,36,26,32,36, 9, 9		4,13,41,32, 9	
		33,27, 8,38,42,38,40		2,27
42″	57,50, 6,11, 3,35,11,18,47,49		4,13,41,34,36	
		33,27, 4,25, 1, 4, 4		2,27
44″	57,50, 6,44,30,39,36,19,51,53		4,13,41,37, 3	
		33,27, 0,11,19,27, 1		2,27
46″	57,50, 7,17,57,39,47,39,18,54		4,13,41,39,30	
		33,26,55,57,37,47,31		2,27
48″	57,50, 7,51,24,35,45,17, 6,25		4,13,41,41,57	
		33,26,51,43,56, 5,34		2,27
50″	57,50, 8,24,51,27,29,13,11,59		4,13,41,44,24	
		33,26,47,30,14,21,10		2,27
52″	57,50, 8,58,18,14,59,27,33, 9		4,13,41,46,51	
		33,26,43,16,32,34,19		2,27
54″	57,50, 9,31,44,58,16, 0, 7,28		4,13,41,49,18	
		33,26,39, 2,50,45, 1		2,27
56″	57,50,10, 5,11,37,18,50,52,29		4,13,41,51,45	
		33,26,34,49, 8,53,16		2,27
58″	57,50,10,38,38,12, 7,59,45,45		4,13,41,54,12	
		33,26,30,35,26,59, 4		
60″	57,50,11,12, 4,42,43,26,44,49			
exact	57,50,11,12, 4,42,43,27, 1,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°34′ 0″	57,50,11,12, 4,42,43,27, 1,41			
		33,26,26,21,45, 4,11		
2″	57,50,11,45,31, 9, 5,12, 5,52		4,13,41,58,58	
		33,26,22, 8, 3, 5,13		2,27
4″	57,50,12,18,57,31,13,15,11, 5		4,13,42, 1,25	
		33,26,17,54,21, 3,48		2,27
6″	57,50,12,52,23,49, 7,36,14,53		4,13,42, 3,52	
		33,26,13,40,38,59,56		2,27
8″	57,50,13,25,50, 2,48,15,14,49		4,13,42, 6,19	
		33,26, 9,26,56,53,37		2,27
10″	57,50,13,59,16,12,15,12, 8,26		4,13,42, 8,46	
		33,26, 5,13,14,44,51		2,27
12″	57,50,14,32,42,17,28,26,53,17		4,13,42,11,13	
		33,26, 0,59,32,33,38		2,27
14″	57,50,15, 6, 8,18,27,59,26,55		4,13,42,13,40	
		33,25,56,45,50,19,58		2,27
16″	57,50,15,39,34,15,13,49,46,53		4,13,42,16, 7	
		33,25,52,32, 8, 3,51		2,27
18″	57,50,16,13, 0, 7,45,57,50,44		4,13,42,18,34	
		33,25,48,18,25,45,17		2,27
20″	57,50,16,46,25,56, 4,23,36, 1		4,13,42,21, 1	
		33,25,44, 4,43,24,16		2,27
22″	57,50,17,19,51,40, 9, 7, 0,17		4,13,42,23,28	
		33,25,39,51, 1, 0,48		2,27
24″	57,50,17,53,17,20, 0, 8, 1, 5		4,13,42,25,55	
		33,25,35,37,18,34,53		2,27
26″	57,50,18,26,42,55,37,26,35,58		4,13,42,28,22	
		33,25,31,23,36, 6,31		2,27
28″	57,50,19, 0, 8,27, 1, 2,42,29		4,13,42,30,49	
		33,25,27, 9,53,35,42		2,27
30″	57,50,19,33,33,54,10,56,18,11		4,13,42,33,16	
		33,25,22,56,11, 2,26		2,27
32″	57,50,20, 6,59,17, 7, 7,20,37		4,13,42,35,43	
		33,25,18,42,28,26,43		2,27
34″	57,50,20,40,24,35,49,35,47,20		4,13,42,38,10	
		33,25,14,28,45,48,33		2,27
36″	57,50,21,13,49,50,18,21,35,53		4,13,42,40,37	
		33,25,10,15, 3, 7,56		2,27
38″	57,50,21,47,15, 0,33,24,43,49		4,13,42,43, 4	
		33,25, 6, 1,20,24,52		2,27
40″	57,50,22,20,40, 6,34,45, 8,41		4,13,42,45,31	
		33,25, 1,47,37,39,21		2,27
42″	57,50,22,54, 5, 8,22,22,48, 2		4,13,42,47,58	
		33,24,57,33,54,51,23		2,27
44″	57,50,23,27,30, 5,56,17,39,25		4,13,42,50,25	
		33,24,53,20,12, 0,58		2,27
46″	57,50,24, 0,54,59,16,29,40,23		4,13,42,52,52	
		33,24,49, 6,29, 8, 6		2,27
48″	57,50,24,34,19,48,22,58,48,29		4,13,42,55,19	
		33,24,44,52,46,12,47		2,27
50″	57,50,25, 7,44,33,15,45, 1,16		4,13,42,57,46	
		33,24,40,39, 3,15, 1		2,27
52″	57,50,25,41, 9,13,54,48,16,17		4,13,43, 0,13	
		33,24,36,25,20,14,48		2,27
54″	57,50,26,14,33,50,20, 8,31, 5		4,13,43, 2,40	
		33,24,32,11,37,12, 8		2,27
56″	57,50,26,47,58,22,31,45,43,13		4,13,43, 5, 7	
		33,24,27,57,54, 7, 1		2,27
58″	57,50,27,21,22,50,29,39,50,14		4,13,43, 7,34	
		33,24,23,44,10,59,27		
60″	57,50,27,54,47,14,13,50,49,41			
exact	57,50,27,54,47,14,13,51,10,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°35′ 0″	57,50,27,54,47,14,13,51,10,49			
		33,24,19,30,27,51,54		
2″	57,50,28,28,11,33,44,19, 2,43		4,13,43,12,17	
		33,24,15,16,44,39,37		2,27
4″	57,50,29, 1,35,49, 1, 3,42,20		4,13,43,14,44	
		33,24,11, 3, 1,24,53		2,27
6″	57,50,29,35, 0, 0, 4, 5, 7,13		4,13,43,17,11	
		33,24, 6,49,18, 7,42		2,27
8″	57,50,30, 8,24, 6,53,23,14,55		4,13,43,19,38	
		33,24, 2,35,34,48, 4		2,27
10″	57,50,30,41,48, 9,28,58, 2,59		4,13,43,22, 5	
		33,23,58,21,51,25,59		2,27
12″	57,50,31,15,12, 7,50,49,28,58		4,13,43,24,32	
		33,23,54, 8, 8, 1,27		2,27
14″	57,50,31,48,36, 1,58,57,30,25		4,13,43,26,59	
		33,23,49,54,24,34,28		2,27
16″	57,50,32,21,59,51,53,22, 4,53		4,13,43,29,26	
		33,23,45,40,41, 5, 2		2,27
18″	57,50,32,55,23,37,34, 3, 9,55		4,13,43,31,53	
		33,23,41,26,57,33, 9		2,27
20″	57,50,33,28,47,19, 1, 0,43, 4		4,13,43,34,20	
		33,23,37,13,13,58,49		2,27
22″	57,50,34, 2,10,56,14,14,41,53		4,13,43,36,47	
		33,23,32,59,30,22, 2		2,27
24″	57,50,34,35,34,29,13,45, 3,55		4,13,43,39,14	
		33,23,28,45,46,42,48		2,27
26″	57,50,35, 8,57,57,59,31,46,43		4,13,43,41,41	
		33,23,24,32, 3, 1, 7		2,27
28″	57,50,35,42,21,22,31,34,47,50		4,13,43,44, 8	
		33,23,20,18,19,16,59		2,27
30″	57,50,36,15,44,42,49,54, 4,49		4,13,43,46,35	
		33,23,16, 4,35,30,24		2,27
32″	57,50,36,49, 7,58,54,29,35,13		4,13,43,49, 2	
		33,23,11,50,51,41,22		2,27
34″	57,50,37,22,31,10,45,21,16,35		4,13,43,51,29	
		33,23, 7,37, 7,49,53		2,27
36″	57,50,37,55,54,18,22,29, 6,28		4,13,43,53,56	
		33,23, 3,23,23,55,57		2,27
38″	57,50,38,29,17,21,45,53, 2,25		4,13,43,56,23	
		33,22,59, 9,39,59,34		2,27
40″	57,50,39, 2,40,20,55,33, 1,59		4,13,43,58,50	
		33,22,54,55,56, 0,44		2,27
42″	57,50,39,36, 3,15,51,29, 2,43		4,13,44, 1,17	
		33,22,50,42,11,59,27		2,27
44″	57,50,40, 9,26, 6,33,41, 2,10		4,13,44, 3,44	
		33,22,46,28,27,55,43		2,27
46″	57,50,40,42,48,53, 2, 8,57,53		4,13,44, 6,11	
		33,22,42,14,43,49,32		2,27
48″	57,50,41,16,11,35,16,52,47,25		4,13,44, 8,38	
		33,22,38, 0,59,40,54		2,27
50″	57,50,41,49,34,13,17,52,28,19		4,13,44,11, 5	
		33,22,33,47,15,29,49		2,27
52″	57,50,42,22,56,47, 5, 7,58, 8		4,13,44,13,32	
		33,22,29,33,31,16,17		2,27
54″	57,50,42,56,19,16,38,39,14,25		4,13,44,15,59	
		33,22,25,19,47, 0,18		2,27
56″	57,50,43,29,41,41,58,26,14,43		4,13,44,18,26	
		33,22,21, 6, 2,41,52		2,27
58″	57,50,44, 3, 4, 3, 4,28,56,35		4,13,44,20,53	
		33,22,16,52,18,20,59		
60″	57,50,44,36,26,19,56,47,17,34			
exact	57,50,44,36,26,19,56,47,54,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°36′ 0″	57,50,44,36,26,19,56,47,54,38			
		33,22,12,38,34, 1,37		
2″	57,50,45, 9,48,32,35,21,56,15		4,13,44,25,30	
		33,22, 8,24,49,36, 7		2,26
4″	57,50,45,43,10,41, 0,11,32,22		4,13,44,27,56	
		33,22, 4,11, 5, 8,11		2,26
6″	57,50,46,16,32,45,11,16,40,33		4,13,44,30,22	
		33,21,59,57,20,37,49		2,26
8″	57,50,46,49,54,45, 8,37,18,22		4,13,44,32,48	
		33,21,55,43,36, 5, 1		2,26
10″	57,50,47,23,16,40,52,13,23,23		4,13,44,35,14	
		33,21,51,29,51,29,47		2,26
12″	57,50,47,56,38,32,22, 4,53,10		4,13,44,37,40	
		33,21,47,16, 6,52, 7		2,26
14″	57,50,48,30, 0,19,38,11,45,17		4,13,44,40, 6	
		33,21,43, 2,22,12, 1		2,26
16″	57,50,49, 3,22, 2,40,33,57,18		4,13,44,42,32	
		33,21,38,48,37,29,29		2,26
18″	57,50,49,36,43,41,29,11,26,47		4,13,44,44,58	
		33,21,34,34,52,44,31		2,26
20″	57,50,50,10, 5,16, 4, 4,11,18		4,13,44,47,24	
		33,21,30,21, 7,57, 7		2,26
22″	57,50,50,43,26,46,25,12, 8,25		4,13,44,49,50	
		33,21,26, 7,23, 7,17		2,26
24″	57,50,51,16,48,12,32,35,15,42		4,13,44,52,16	
		33,21,21,53,38,15, 1		2,26
26″	57,50,51,50, 9,34,26,13,30,43		4,13,44,54,42	
		33,21,17,39,53,20,19		2,26
28″	57,50,52,23,30,52, 6, 6,51, 2		4,13,44,57, 8	
		33,21,13,26, 8,23,11		2,26
30″	57,50,52,56,52, 5,32,15,14,13		4,13,44,59,34	
		33,21, 9,12,23,23,37		2,26
32″	57,50,53,30,13,14,44,38,37,50		4,13,45, 2, 0	
		33,21, 4,58,38,21,37		2,26
34″	57,50,54, 3,34,19,43,16,59,27		4,13,45, 4,26	
		33,21, 0,44,53,17,11		2,26
36″	57,50,54,36,55,20,28,10,16,38		4,13,45, 6,52	
		33,20,56,31, 8,10,19		2,26
38″	57,50,55,10,16,16,59,18,26,57		4,13,45, 9,18	
		33,20,52,17,23, 1, 1		2,26
40″	57,50,55,43,37, 9,16,41,27,58		4,13,45,11,44	
		33,20,48, 3,37,49,17		2,26
42″	57,50,56,16,57,57,20,19,17,15		4,13,45,14,10	
		33,20,43,49,52,35, 7		2,26
44″	57,50,56,50,18,41,10,11,52,22		4,13,45,16,36	
		33,20,39,36, 7,18,31		2,26
46″	57,50,57,23,39,20,46,19,10,53		4,13,45,19, 2	
		33,20,35,22,21,59,29		2,26
48″	57,50,57,56,59,56, 8,41,10,22		4,13,45,21,28	
		33,20,31, 8,36,38, 1		2,26
50″	57,50,58,30,20,27,17,17,48,23		4,13,45,23,54	
		33,20,26,54,51,14, 7		2,26
52″	57,50,59, 3,40,54,12, 9, 2,30		4,13,45,26,20	
		33,20,22,41, 5,47,47		2,26
54″	57,50,59,37, 1,16,53,14,50,17		4,13,45,28,46	
		33,20,18,27,20,19, 1		2,26
56″	57,51, 0,10,21,35,20,35, 9,18		4,13,45,31,12	
		33,20,14,13,34,47,49		2,26
58″	57,51, 0,43,41,49,34, 9,57, 7		4,13,45,33,38	
		33,20, 9,59,49,14,11		
60″	57,51, 1,17, 1,59,33,59,11,18			
exact	57,51, 1,17, 1,59,33,58,47, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°37′ 0″	57,51, 1,17, 1,59,33,58,47, 7			
		33,20, 5,46, 3,35,40		
2″	57,51, 1,50,22, 5,20, 2,22,47		4,13,45,38,39	
		33,20, 1,32,17,57, 1		2,26
4″	57,51, 2,23,42, 6,52,20,19,48		4,13,45,41, 5	
		33,19,57,18,32,15,56		2,26
6″	57,51, 2,57, 2, 4,10,52,35,44		4,13,45,43,31	
		33,19,53, 4,46,32,25		2,26
8″	57,51, 3,30,21,57,15,39, 8, 9		4,13,45,45,57	
		33,19,48,51, 0,46,28		2,26
10″	57,51, 4, 3,41,46, 6,39,54,37		4,13,45,48,23	
		33,19,44,37,14,58, 5		2,26
12″	57,51, 4,37, 1,30,43,54,52,42		4,13,45,50,49	
		33,19,40,23,29, 7,16		2,26
14″	57,51, 5,10,21,11, 7,23,59,58		4,13,45,53,15	
		33,19,36, 9,43,14, 1		2,26
16″	57,51, 5,43,40,47,17, 7,13,59		4,13,45,55,41	
		33,19,31,55,57,18,20		2,26
18″	57,51, 6,17, 0,19,13, 4,32,19		4,13,45,58, 7	
		33,19,27,42,11,20,13		2,26
20″	57,51, 6,50,19,46,55,15,52,32		4,13,46, 0,33	
		33,19,23,28,25,19,40		2,26
22″	57,51, 7,23,39,10,23,41,12,12		4,13,46, 2,59	
		33,19,19,14,39,16,41		2,26
24″	57,51, 7,56,58,29,38,20,28,53		4,13,46, 5,25	
		33,19,15, 0,53,11,16		2,26
26″	57,51, 8,30,17,44,39,13,40, 9		4,13,46, 7,51	
		33,19,10,47, 7, 3,25		2,26
28″	57,51, 9, 3,36,55,26,20,43,34		4,13,46,10,17	
		33,19, 6,33,20,53, 8		2,26
30″	57,51, 9,36,56, 1,59,41,36,42		4,13,46,12,43	
		33,19, 2,19,34,40,25		2,26
32″	57,51,10,10,15, 4,19,16,17, 7		4,13,46,15, 9	
		33,18,58, 5,48,25,16		2,26
34″	57,51,10,43,34, 2,25, 4,42,23		4,13,46,17,35	
		33,18,53,52, 2, 7,41		2,26
36″	57,51,11,16,52,56,17, 6,50, 4		4,13,46,20, 1	
		33,18,49,38,15,47,40		2,26
38″	57,51,11,50,11,45,55,22,37,44		4,13,46,22,27	
		33,18,45,24,29,25,13		2,26
40″	57,51,12,23,30,31,19,52, 2,57		4,13,46,24,53	
		33,18,41,10,43, 0,20		2,26
42″	57,51,12,56,49,12,30,35, 3,17		4,13,46,27,19	
		33,18,36,56,56,33, 1		2,26
44″	57,51,13,30, 7,49,27,31,36,18		4,13,46,29,45	
		33,18,32,43,10, 3,16		2,26
46″	57,51,14, 3,26,22,10,41,39,34		4,13,46,32,11	
		33,18,28,29,23,31, 5		2,26
48″	57,51,14,36,44,50,40, 5,10,39		4,13,46,34,37	
		33,18,24,15,36,56,28		2,26
50″	57,51,15,10, 3,14,55,42, 7, 7		4,13,46,37, 3	
		33,18,20, 1,50,19,25		2,26
52″	57,51,15,43,21,34,57,32,26,32		4,13,46,39,29	
		33,18,15,48, 3,39,56		2,26
54″	57,51,16,16,39,50,45,36, 6,28		4,13,46,41,55	
		33,18,11,34,16,58, 1		2,26
56″	57,51,16,49,58, 2,19,53, 4,29		4,13,46,44,21	
		33,18, 7,20,30,13,40		2,26
58″	57,51,17,23,16, 9,40,23,18, 9		4,13,46,46,47	
		33,18, 3, 6,43,26,53		
60″	57,51,17,56,34,12,47, 6,45, 2			
exact	57,51,17,56,34,12,47, 6,31,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°38′ 0″	57,51,17,56,34,12,47, 6,31,47			
		33,17,58,52,56,36,22		
2″	57,51,18,29,52,11,40, 3, 8, 9		4,13,46,51,43	
		33,17,54,39, 9,44,39		2,26
4″	57,51,19, 3,10, 6,19,12,52,48		4,13,46,54, 9	
		33,17,50,25,22,50,30		2,26
6″	57,51,19,36,27,56,44,35,43,18		4,13,46,56,35	
		33,17,46,11,35,53,55		2,26
8″	57,51,20, 9,45,42,56,11,37,13		4,13,46,59, 1	
		33,17,41,57,48,54,54		2,26
10″	57,51,20,43, 3,24,54, 0,32, 7		4,13,47, 1,27	
		33,17,37,44, 1,53,27		2,26
12″	57,51,21,16,21, 2,38, 2,25,34		4,13,47, 3,53	
		33,17,33,30,14,49,34		2,26
14″	57,51,21,49,38,36, 8,17,15, 8		4,13,47, 6,19	
		33,17,29,16,27,43,15		2,26
16″	57,51,22,22,56, 5,24,44,58,23		4,13,47, 8,45	
		33,17,25, 2,40,34,30		2,26
18″	57,51,22,56,13,30,27,25,32,53		4,13,47,11,11	
		33,17,20,48,53,23,19		2,26
20″	57,51,23,29,30,51,16,18,56,12		4,13,47,13,37	
		33,17,16,35, 6, 9,42		2,26
22″	57,51,24, 2,48, 7,51,25, 5,54		4,13,47,16, 3	
		33,17,12,21,18,53,39		2,26
24″	57,51,24,36, 5,20,12,43,59,33		4,13,47,18,29	
		33,17, 8, 7,31,35,10		2,26
26″	57,51,25, 9,22,28,20,15,34,43		4,13,47,20,55	
		33,17, 3,53,44,14,15		2,26
28″	57,51,25,42,39,32,13,59,48,58		4,13,47,23,21	
		33,16,59,39,56,50,54		2,26
30″	57,51,26,15,56,31,53,56,39,52		4,13,47,25,47	
		33,16,55,26, 9,25, 7		2,26
32″	57,51,26,49,13,27,20, 6, 4,59		4,13,47,28,13	
		33,16,51,12,21,56,54		2,26
34″	57,51,27,22,30,18,32,28, 1,53		4,13,47,30,39	
		33,16,46,58,34,26,15		2,26
36″	57,51,27,55,47, 5,31, 2,28, 8		4,13,47,33, 5	
		33,16,42,44,46,53,10		2,26
38″	57,51,28,29, 3,48,15,49,21,18		4,13,47,35,31	
		33,16,38,30,59,17,39		2,26
40″	57,51,29, 2,20,26,46,48,38,57		4,13,47,37,57	
		33,16,34,17,11,39,42		2,26
42″	57,51,29,35,37, 1, 4, 0,18,39		4,13,47,40,23	
		33,16,30, 3,23,59,19		2,26
44″	57,51,30, 8,53,31, 7,24,17,58		4,13,47,42,49	
		33,16,25,49,36,16,30		2,26
46″	57,51,30,42, 9,56,57, 0,34,28		4,13,47,45,15	
		33,16,21,35,48,31,15		2,26
48″	57,51,31,15,26,18,32,49, 5,43		4,13,47,47,41	
		33,16,17,22, 0,43,34		2,26
50″	57,51,31,48,42,35,54,49,49,17		4,13,47,50, 7	
		33,16,13, 8,12,53,27		2,26
52″	57,51,32,21,58,49, 3, 2,42,44		4,13,47,52,33	
		33,16, 8,54,25, 0,54		2,26
54″	57,51,32,55,14,57,57,27,43,38		4,13,47,54,59	
		33,16, 4,40,37, 5,55		2,26
56″	57,51,33,28,31, 2,38, 4,49,33		4,13,47,57,25	
		33,16, 0,26,49, 8,30		2,26
58″	57,51,34, 1,47, 3, 4,53,58, 3		4,13,47,59,51	
		33,15,56,13, 1, 8,39		
60″	57,51,34,35, 2,59,17,55, 6,42			
exact	57,51,34,35, 2,59,17,55, 1,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°39′ 0″	57,51,34,35, 2,59,17,55, 1,44			
		33,15,51,59,13, 6, 2		
2″	57,51,35, 8,18,51,17, 8, 7,46		4,13,48, 4,43	
		33,15,47,45,25, 1,19		2,26
4″	57,51,35,41,34,39, 2,33, 9, 5		4,13,48, 7, 9	
		33,15,43,31,36,54,10		2,26
6″	57,51,36,14,50,22,34,10, 3,15		4,13,48, 9,35	
		33,15,39,17,48,44,35		2,26
8″	57,51,36,48, 6, 1,51,58,47,50		4,13,48,12, 1	
		33,15,35, 4, 0,32,34		2,26
10″	57,51,37,21,21,36,55,59,20,24		4,13,48,14,27	
		33,15,30,50,12,18, 7		2,26
12″	57,51,37,54,37, 7,46,11,38,31		4,13,48,16,53	
		33,15,26,36,24, 1,14		2,26
14″	57,51,38,27,52,34,22,35,39,45		4,13,48,19,19	
		33,15,22,22,35,41,55		2,26
16″	57,51,39, 1, 7,56,45,11,21,40		4,13,48,21,45	
		33,15,18, 8,47,20,10		2,26
18″	57,51,39,34,23,14,53,58,41,50		4,13,48,24,11	
		33,15,13,54,58,55,59		2,26
20″	57,51,40, 7,38,28,48,57,37,49		4,13,48,26,37	
		33,15, 9,41,10,29,22		2,26
22″	57,51,40,40,53,38,30, 8, 7,11		4,13,48,29, 3	
		33,15, 5,27,22, 0,19		2,26
24″	57,51,41,14, 8,43,57,30, 7,30		4,13,48,31,29	
		33,15, 1,13,33,28,50		2,26
26″	57,51,41,47,23,45,11, 3,36,20		4,13,48,33,55	
		33,14,56,59,44,54,55		2,26
28″	57,51,42,20,38,42,10,48,31,15		4,13,48,36,21	
		33,14,52,45,56,18,34		2,26
30″	57,51,42,53,53,34,56,44,49,49		4,13,48,38,47	
		33,14,48,32, 7,39,47		2,26
32″	57,51,43,27, 8,23,28,52,29,36		4,13,48,41,13	
		33,14,44,18,18,58,34		2,26
34″	57,51,44, 0,23, 7,47,11,28,10		4,13,48,43,39	
		33,14,40, 4,30,14,55		2,26
36″	57,51,44,33,37,47,51,41,43, 5		4,13,48,46, 5	
		33,14,35,50,41,28,50		2,26
38″	57,51,45, 6,52,23,42,23,11,55		4,13,48,48,31	
		33,14,31,36,52,40,19		2,26
40″	57,51,45,40, 6,55,19,15,52,14		4,13,48,50,57	
		33,14,27,23, 3,49,22		2,26
42″	57,51,46,13,21,22,42,19,41,36		4,13,48,53,23	
		33,14,23, 9,14,55,59		2,26
44″	57,51,46,46,35,45,51,34,37,35		4,13,48,55,49	
		33,14,18,55,26, 0,10		2,26
46″	57,51,47,19,50, 4,47, 0,37,45		4,13,48,58,15	
		33,14,14,41,37, 1,55		2,26
48″	57,51,47,53, 4,19,28,37,39,40		4,13,49, 0,41	
		33,14,10,27,48, 1,14		2,26
50″	57,51,48,26,18,29,56,25,40,54		4,13,49, 3, 7	
		33,14, 6,13,58,58, 7		2,26
52″	57,51,48,59,32,36,10,24,39, 1		4,13,49, 5,33	
		33,14, 2, 0, 9,52,34		2,26
54″	57,51,49,32,46,38,10,34,31,35		4,13,49, 7,59	
		33,13,57,46,20,44,35		2,26
56″	57,51,50, 6, 0,35,56,55,16,10		4,13,49,10,25	
		33,13,53,32,31,34,10		2,26
58″	57,51,50,39,14,29,29,26,50,20		4,13,49,12,51	
		33,13,49,18,42,21,19		
60″	57,51,51,12,28,18,48, 9,11,39			
exact	57,51,51,12,28,18,48, 9,19,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°40′ 0″	57,51,51,12,28,18,48, 9,19,40			
		33,13,45, 4,53, 7, 0		
2″	57,51,51,45,42, 3,53, 2,26,40		4,13,49,17,38	
		33,13,40,51, 3,49,22		2,26
4″	57,51,52,18,55,44,44, 6,16, 2		4,13,49,20, 4	
		33,13,36,37,14,29,18		2,26
6″	57,51,52,52, 9,21,21,20,45,20		4,13,49,22,30	
		33,13,32,23,25, 6,48		2,26
8″	57,51,53,25,22,53,44,45,52, 8		4,13,49,24,56	
		33,13,28, 9,35,41,52		2,26
10″	57,51,53,58,36,21,54,21,34, 0		4,13,49,27,22	
		33,13,23,55,46,14,30		2,26
12″	57,51,54,31,49,45,50, 7,48,30		4,13,49,29,48	
		33,13,19,41,56,44,42		2,26
14″	57,51,55, 5, 3, 5,32, 4,33,12		4,13,49,32,14	
		33,13,15,28, 7,12,28		2,26
16″	57,51,55,38,16,21, 0,11,45,40		4,13,49,34,40	
		33,13,11,14,17,37,48		2,26
18″	57,51,56,11,29,32,14,29,23,28		4,13,49,37, 6	
		33,13, 7, 0,28, 0,42		2,26
20″	57,51,56,44,42,39,14,57,24,10		4,13,49,39,32	
		33,13, 2,46,38,21,10		2,26
22″	57,51,57,17,55,42, 1,35,45,20		4,13,49,41,58	
		33,12,58,32,48,39,12		2,26
24″	57,51,57,51, 8,40,34,24,24,32		4,13,49,44,24	
		33,12,54,18,58,54,48		2,26
26″	57,51,58,24,21,34,53,23,19,20		4,13,49,46,50	
		33,12,50, 5, 9, 7,58		2,26
28″	57,51,58,57,34,24,58,32,27,18		4,13,49,49,16	
		33,12,45,51,19,18,42		2,26
30″	57,51,59,30,47,10,49,51,46, 0		4,13,49,51,42	
		33,12,41,37,29,27, 0		2,26
32″	57,52, 0, 3,59,52,27,21,13, 0		4,13,49,54, 8	
		33,12,37,23,39,32,52		2,26
34″	57,52, 0,37,12,29,51, 0,45,52		4,13,49,56,34	
		33,12,33, 9,49,36,18		2,26
36″	57,52, 1,10,25, 3, 0,50,22,10		4,13,49,59, 0	
		33,12,28,55,59,37,18		2,26
38″	57,52, 1,43,37,31,56,49,59,28		4,13,50, 1,26	
		33,12,24,42, 9,35,52		2,26
40″	57,52, 2,16,49,56,38,59,35,20		4,13,50, 3,52	
		33,12,20,28,19,32, 0		2,26
42″	57,52, 2,50, 2,17, 7,19, 7,20		4,13,50, 6,18	
		33,12,16,14,29,25,42		2,26
44″	57,52, 3,23,14,33,21,48,33, 2		4,13,50, 8,44	
		33,12,12, 0,39,16,58		2,26
46″	57,52, 3,56,26,45,22,27,50, 0		4,13,50,11,10	
		33,12, 7,46,49, 5,48		2,26
48″	57,52, 4,29,38,53, 9,16,55,48		4,13,50,13,36	
		33,12, 3,32,58,52,12		2,26
50″	57,52, 5, 2,50,56,42,15,48, 0		4,13,50,16, 2	
		33,11,59,19, 8,36,10		2,26
52″	57,52, 5,36, 2,56, 1,24,24,10		4,13,50,18,28	
		33,11,55, 5,18,17,42		2,26
54″	57,52, 6, 9,14,51, 6,42,41,52		4,13,50,20,54	
		33,11,50,51,27,56,48		2,26
56″	57,52, 6,42,26,41,58,10,38,40		4,13,50,23,20	
		33,11,46,37,37,33,28		2,26
58″	57,52, 7,15,38,28,35,48,12, 8		4,13,50,25,46	
		33,11,42,23,47, 7,42		
60″	57,52, 7,48,50,10,59,35,19,50			
exact	57,52, 7,48,50,10,59,35,37,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°41′ 0″	57,52, 7,48,50,10,59,35,37,48			
		33,11,38, 9,56,41,34		
2″	57,52, 8,22, 1,49, 9,32,19,22		4,13,50,30,29	
		33,11,33,56, 6,11, 5		2,26
4″	57,52, 8,55,13,23, 5,38,30,27		4,13,50,32,55	
		33,11,29,42,15,38,10		2,26
6″	57,52, 9,28,24,52,47,54, 8,37		4,13,50,35,21	
		33,11,25,28,25, 2,49		2,26
8″	57,52,10, 1,36,18,16,19,11,26		4,13,50,37,47	
		33,11,21,14,34,25, 2		2,26
10″	57,52,10,34,47,39,30,53,36,28		4,13,50,40,13	
		33,11,17, 0,43,44,49		2,26
12″	57,52,11, 7,58,56,31,37,21,17		4,13,50,42,39	
		33,11,12,46,53, 2,10		2,26
14″	57,52,11,41,10, 9,18,30,23,27		4,13,50,45, 5	
		33,11, 8,33, 2,17, 5		2,26
16″	57,52,12,14,21,17,51,32,40,32		4,13,50,47,31	
		33,11, 4,19,11,29,34		2,26
18″	57,52,12,47,32,22,10,44,10, 6		4,13,50,49,57	
		33,11, 0, 5,20,39,37		2,26
20″	57,52,13,20,43,22,16, 4,49,43		4,13,50,52,23	
		33,10,55,51,29,47,14		2,26
22″	57,52,13,53,54,18, 7,34,36,57		4,13,50,54,49	
		33,10,51,37,38,52,25		2,26
24″	57,52,14,27, 5, 9,45,13,29,22		4,13,50,57,15	
		33,10,47,23,47,55,10		2,26
26″	57,52,15, 0,15,57, 9, 1,24,32		4,13,50,59,41	
		33,10,43, 9,56,55,29		2,26
28″	57,52,15,33,26,40,18,58,20, 1		4,13,51, 2, 7	
		33,10,38,56, 5,53,22		2,26
30″	57,52,16, 6,37,19,15, 4,13,23		4,13,51, 4,33	
		33,10,34,42,14,48,49		2,26
32″	57,52,16,39,47,53,57,19, 2,12		4,13,51, 6,59	
		33,10,30,28,23,41,50		2,26
34″	57,52,17,12,58,24,25,42,44, 2		4,13,51, 9,25	
		33,10,26,14,32,32,25		2,26
36″	57,52,17,46, 8,50,40,15,16,27		4,13,51,11,51	
		33,10,22, 0,41,20,34		2,26
38″	57,52,18,19,19,12,40,56,37, 1		4,13,51,14,17	
		33,10,17,46,50, 6,17		2,26
40″	57,52,18,52,29,30,27,46,43,18		4,13,51,16,43	
		33,10,13,32,58,49,34		2,26
42″	57,52,19,25,39,44, 0,45,32,52		4,13,51,19, 9	
		33,10, 9,19, 7,30,25		2,26
44″	57,52,19,58,49,53,19,53, 3,17		4,13,51,21,35	
		33,10, 5, 5,16, 8,50		2,26
46″	57,52,20,31,59,58,25, 9,12, 7		4,13,51,24, 1	
		33,10, 0,51,24,44,49		2,26
48″	57,52,21, 5, 9,59,16,33,56,56		4,13,51,26,27	
		33, 9,56,37,33,18,22		2,26
50″	57,52,21,38,19,55,54, 7,15,18		4,13,51,28,53	
		33, 9,52,23,41,49,29		2,26
52″	57,52,22,11,29,48,17,49, 4,47		4,13,51,31,19	
		33, 9,48, 9,50,18,10		2,26
54″	57,52,22,44,39,36,27,39,22,57		4,13,51,33,45	
		33, 9,43,55,58,44,25		2,26
56″	57,52,23,17,49,20,23,38, 7,22		4,13,51,36,11	
		33, 9,39,42, 7, 8,14		2,26
58″	57,52,23,50,59, 0, 5,45,15,36		4,13,51,38,37	
		33, 9,35,28,15,29,37		
60″	57,52,24,24, 8,35,34, 0,45,13			
exact	57,52,24,24, 8,35,34, 1,18, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°42′ 0″	57,52,24,24, 8,35,34, 1,18, 1			
		33, 9,31,14,23,52, 3		
2″	57,52,24,57,18, 6,48,25,10, 4		4,13,51,43,14	
		33, 9,27, 0,32, 8,49		2,25
4″	57,52,25,30,27,33,48,57,18,53		4,13,51,45,39	
		33, 9,22,46,40,23,10		2,25
6″	57,52,26, 3,36,56,35,37,42, 3		4,13,51,48, 4	
		33, 9,18,32,48,35, 6		2,25
8″	57,52,26,36,46,15, 8,26,17, 9		4,13,51,50,29	
		33, 9,14,18,56,44,37		2,25
10″	57,52,27, 9,55,29,27,23, 1,46		4,13,51,52,54	
		33, 9,10, 5, 4,51,43		2,25
12″	57,52,27,43, 4,39,32,27,53,29		4,13,51,55,19	
		33, 9, 5,51,12,56,24		2,25
14″	57,52,28,16,13,45,23,40,49,53		4,13,51,57,44	
		33, 9, 1,37,20,58,40		2,25
16″	57,52,28,49,22,47, 1, 1,48,33		4,13,52, 0, 9	
		33, 8,57,23,28,58,31		2,25
18″	57,52,29,22,31,44,24,30,47, 4		4,13,52, 2,34	
		33, 8,53, 9,36,55,57		2,25
20″	57,52,29,55,40,37,34, 7,43, 1		4,13,52, 4,59	
		33, 8,48,55,44,50,58		2,25
22″	57,52,30,28,49,26,29,52,33,59		4,13,52, 7,24	
		33, 8,44,41,52,43,34		2,25
24″	57,52,31, 1,58,11,11,45,17,33		4,13,52, 9,49	
		33, 8,40,28, 0,33,45		2,25
26″	57,52,31,35, 6,51,39,45,51,18		4,13,52,12,14	
		33, 8,36,14, 8,21,31		2,25
28″	57,52,32, 8,15,27,53,54,12,49		4,13,52,14,39	
		33, 8,32, 0,16, 6,52		2,25
30″	57,52,32,41,23,59,54,10,19,41		4,13,52,17, 4	
		33, 8,27,46,23,49,48		2,25
32″	57,52,33,14,32,27,40,34, 9,29		4,13,52,19,29	
		33, 8,23,32,31,30,19		2,25
34″	57,52,33,47,40,51,13, 5,39,48		4,13,52,21,54	
		33, 8,19,18,39, 8,25		2,25
36″	57,52,34,20,49,10,31,44,48,13		4,13,52,24,19	
		33, 8,15, 4,46,44, 6		2,25
38″	57,52,34,53,57,25,36,31,32,19		4,13,52,26,44	
		33, 8,10,50,54,17,22		2,25
40″	57,52,35,27, 5,36,27,25,49,41		4,13,52,29, 9	
		33, 8, 6,37, 1,48,13		2,25
42″	57,52,36, 0,13,43, 4,27,37,54		4,13,52,31,34	
		33, 8, 2,23, 9,16,39		2,25
44″	57,52,36,33,21,45,27,36,54,33		4,13,52,33,59	
		33, 7,58, 9,16,42,40		2,25
46″	57,52,37, 6,29,43,36,53,37,13		4,13,52,36,24	
		33, 7,53,55,24, 6,16		2,25
48″	57,52,37,39,37,37,32,17,43,29		4,13,52,38,49	
		33, 7,49,41,31,27,27		2,25
50″	57,52,38,12,45,27,13,49,10,56		4,13,52,41,14	
		33, 7,45,27,38,46,13		2,25
52″	57,52,38,45,53,12,41,27,57, 9		4,13,52,43,39	
		33, 7,41,13,46, 2,34		2,25
54″	57,52,39,19, 0,53,55,13,59,43		4,13,52,46, 4	
		33, 7,36,59,53,16,30		2,25
56″	57,52,39,52, 8,30,55, 7,16,13		4,13,52,48,29	
		33, 7,32,46, 0,28, 1		2,25
58″	57,52,40,25,16, 3,41, 7,44,14		4,13,52,50,54	
		33, 7,28,32, 7,37, 7		
60″	57,52,40,58,23,32,13,15,21,21			
exact	57,52,40,58,23,32,13,14,51,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°43′ 0″	57,52,40,58,23,32,13,14,51,44			
		33, 7,24,18,14,40,47		
2″	57,52,41,31,30,56,31,29,32,31		4,13,52,55,55	
		33, 7,20, 4,21,44,52		2,25
4″	57,52,42, 4,38,16,35,51,17,23		4,13,52,58,20	
		33, 7,15,50,28,46,32		2,25
6″	57,52,42,37,45,32,26,20, 3,55		4,13,53, 0,45	
		33, 7,11,36,35,45,47		2,25
8″	57,52,43,10,52,44, 2,55,49,42		4,13,53, 3,10	
		33, 7, 7,22,42,42,37		2,25
10″	57,52,43,43,59,51,25,38,32,19		4,13,53, 5,35	
		33, 7, 3, 8,49,37, 2		2,25
12″	57,52,44,17, 6,54,34,28, 9,21		4,13,53, 8, 0	
		33, 6,58,54,56,29, 2		2,25
14″	57,52,44,50,13,53,29,24,38,23		4,13,53,10,25	
		33, 6,54,41, 3,18,37		2,25
16″	57,52,45,23,20,48,10,27,57, 0		4,13,53,12,50	
		33, 6,50,27,10, 5,47		2,25
18″	57,52,45,56,27,38,37,38, 2,47		4,13,53,15,15	
		33, 6,46,13,16,50,32		2,25
20″	57,52,46,29,34,24,50,54,53,19		4,13,53,17,40	
		33, 6,41,59,23,32,52		2,25
22″	57,52,47, 2,41, 6,50,18,26,11		4,13,53,20, 5	
		33, 6,37,45,30,12,47		2,25
24″	57,52,47,35,47,44,35,48,38,58		4,13,53,22,30	
		33, 6,33,31,36,50,17		2,25
26″	57,52,48, 8,54,18, 7,25,29,15		4,13,53,24,55	
		33, 6,29,17,43,25,22		2,25
28″	57,52,48,42, 0,47,25, 8,54,37		4,13,53,27,20	
		33, 6,25, 3,49,58, 2		2,25
30″	57,52,49,15, 7,12,28,58,52,39		4,13,53,29,45	
		33, 6,20,49,56,28,17		2,25
32″	57,52,49,48,13,33,18,55,20,56		4,13,53,32,10	
		33, 6,16,36, 2,56, 7		2,25
34″	57,52,50,21,19,49,54,58,17, 3		4,13,53,34,35	
		33, 6,12,22, 9,21,32		2,25
36″	57,52,50,54,26, 2,17, 7,38,35		4,13,53,37, 0	
		33, 6, 8, 8,15,44,32		2,25
38″	57,52,51,27,32,10,25,23,23, 7		4,13,53,39,25	
		33, 6, 3,54,22, 5, 7		2,25
40″	57,52,52, 0,38,14,19,45,28,14		4,13,53,41,50	
		33, 5,59,40,28,23,17		2,25
42″	57,52,52,33,44,14, 0,13,51,31		4,13,53,44,15	
		33, 5,55,26,34,39, 2		2,25
44″	57,52,53, 6,50, 9,26,48,30,33		4,13,53,46,40	
		33, 5,51,12,40,52,22		2,25
46″	57,52,53,39,56, 0,39,29,22,55		4,13,53,49, 5	
		33, 5,46,58,47, 3,17		2,25
48″	57,52,54,13, 1,47,38,16,26,12		4,13,53,51,30	
		33, 5,42,44,53,11,47		2,25
50″	57,52,54,46, 7,30,23, 9,37,59		4,13,53,53,55	
		33, 5,38,30,59,17,52		2,25
52″	57,52,55,19,13, 8,54, 8,55,51		4,13,53,56,20	
		33, 5,34,17, 5,21,32		2,25
54″	57,52,55,52,18,43,11,14,17,23		4,13,53,58,45	
		33, 5,30, 3,11,22,47		2,25
56″	57,52,56,25,24,13,14,25,40,10		4,13,54, 1,10	
		33, 5,25,49,17,21,37		2,25
58″	57,52,56,58,29,39, 3,43, 1,47		4,13,54, 3,35	
		33, 5,21,35,23,18, 2		
60″	57,52,57,31,35, 0,39, 6,19,49			
exact	57,52,57,31,35, 0,39, 5,59,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°44′ 0″	57,52,57,31,35, 0,39, 5,59,59			
		33, 5,17,21,29,10, 6		
2″	57,52,58, 4,40,18, 0,35,10, 5		4,13,54, 8,32	
		33, 5,13, 7,35, 1,34		2,25
4″	57,52,58,37,45,31, 8,10,11,39		4,13,54,10,57	
		33, 5, 8,53,40,50,37		2,25
6″	57,52,59,10,50,40, 1,51, 2,16		4,13,54,13,22	
		33, 5, 4,39,46,37,15		2,25
8″	57,52,59,43,55,44,41,37,39,31		4,13,54,15,47	
		33, 5, 0,25,52,21,28		2,25
10″	57,53, 0,17, 0,45, 7,30, 0,59		4,13,54,18,12	
		33, 4,56,11,58, 3,16		2,25
12″	57,53, 0,50, 5,41,19,28, 4,15		4,13,54,20,37	
		33, 4,51,58, 3,42,39		2,25
14″	57,53, 1,23,10,33,17,31,46,54		4,13,54,23, 2	
		33, 4,47,44, 9,19,37		2,25
16″	57,53, 1,56,15,21, 1,41, 6,31		4,13,54,25,27	
		33, 4,43,30,14,54,10		2,25
18″	57,53, 2,29,20, 4,31,56, 0,41		4,13,54,27,52	
		33, 4,39,16,20,26,18		2,25
20″	57,53, 3, 2,24,43,48,16,26,59		4,13,54,30,17	
		33, 4,35, 2,25,56, 1		2,25
22″	57,53, 3,35,29,18,50,42,23, 0		4,13,54,32,42	
		33, 4,30,48,31,23,19		2,25
24″	57,53, 4, 8,33,49,39,13,46,19		4,13,54,35, 7	
		33, 4,26,34,36,48,12		2,25
26″	57,53, 4,41,38,16,13,50,34,31		4,13,54,37,32	
		33, 4,22,20,42,10,40		2,25
28″	57,53, 5,14,42,38,34,32,45,11		4,13,54,39,57	
		33, 4,18, 6,47,30,43		2,25
30″	57,53, 5,47,46,56,41,20,15,54		4,13,54,42,22	
		33, 4,13,52,52,48,21		2,25
32″	57,53, 6,20,51,10,34,13, 4,15		4,13,54,44,47	
		33, 4, 9,38,58, 3,34		2,25
34″	57,53, 6,53,55,20,13,11, 7,49		4,13,54,47,12	
		33, 4, 5,25, 3,16,22		2,25
36″	57,53, 7,26,59,25,38,14,24,11		4,13,54,49,37	
		33, 4, 1,11, 8,26,45		2,25
38″	57,53, 8, 0, 3,26,49,22,50,56		4,13,54,52, 2	
		33, 3,56,57,13,34,43		2,25
40″	57,53, 8,33, 7,23,46,36,25,39		4,13,54,54,27	
		33, 3,52,43,18,40,16		2,25
42″	57,53, 9, 6,11,16,29,55, 5,55		4,13,54,56,52	
		33, 3,48,29,23,43,24		2,25
44″	57,53, 9,39,15, 4,59,18,49,19		4,13,54,59,17	
		33, 3,44,15,28,44, 7		2,25
46″	57,53,10,12,18,49,14,47,33,26		4,13,55, 1,42	
		33, 3,40, 1,33,42,25		2,25
48″	57,53,10,45,22,29,16,21,15,51		4,13,55, 4, 7	
		33, 3,35,47,38,38,18		2,25
50″	57,53,11,18,26, 5, 3,59,54, 9		4,13,55, 6,32	
		33, 3,31,33,43,31,46		2,25
52″	57,53,11,51,29,36,37,43,25,55		4,13,55, 8,57	
		33, 3,27,19,48,22,49		2,25
54″	57,53,12,24,33, 3,57,31,48,44		4,13,55,11,22	
		33, 3,23, 5,53,11,27		2,25
56″	57,53,12,57,36,27, 3,25, 0,11		4,13,55,13,47	
		33, 3,18,51,57,57,40		2,25
58″	57,53,13,30,39,45,55,22,57,51		4,13,55,16,12	
		33, 3,14,38, 2,41,28		
60″	57,53,14, 3,43, 0,33,25,39,19			
exact	57,53,14, 3,43, 0,33,25,33,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°45′ 0″	57,53,14, 3,43, 0,33,25,33,25			
		33, 3,10,24, 7,22,17		
2″	57,53,14,36,46,10,57,32,55,42		4,13,55,21, 4	
		33, 3, 6,10,12, 1,13		2,25
4″	57,53,15, 9,49,17, 7,44,56,55		4,13,55,23,29	
		33, 3, 1,56,16,37,44		2,25
6″	57,53,15,42,52,19, 4, 1,34,39		4,13,55,25,54	
		33, 2,57,42,21,11,50		2,25
8″	57,53,16,15,55,16,46,22,46,29		4,13,55,28,19	
		33, 2,53,28,25,43,31		2,25
10″	57,53,16,48,58,10,14,48,30, 0		4,13,55,30,44	
		33, 2,49,14,30,12,47		2,25
12″	57,53,17,22, 0,59,29,18,42,47		4,13,55,33, 9	
		33, 2,45, 0,34,39,38		2,25
14″	57,53,17,55, 3,44,29,53,22,25		4,13,55,35,34	
		33, 2,40,46,39, 4, 4		2,25
16″	57,53,18,28, 6,25,16,32,26,29		4,13,55,37,59	
		33, 2,36,32,43,26, 5		2,25
18″	57,53,19, 1, 9, 1,49,15,52,34		4,13,55,40,24	
		33, 2,32,18,47,45,41		2,25
20″	57,53,19,34,11,34, 8, 3,38,15		4,13,55,42,49	
		33, 2,28, 4,52, 2,52		2,25
22″	57,53,20, 7,14, 2,12,55,41, 7		4,13,55,45,14	
		33, 2,23,50,56,17,38		2,25
24″	57,53,20,40,16,26, 3,51,58,45		4,13,55,47,39	
		33, 2,19,37, 0,29,59		2,25
26″	57,53,21,13,18,45,40,52,28,44		4,13,55,50, 4	
		33, 2,15,23, 4,39,55		2,25
28″	57,53,21,46,21, 1, 3,57, 8,39		4,13,55,52,29	
		33, 2,11, 9, 8,47,26		2,25
30″	57,53,22,19,23,12,13, 5,56, 5		4,13,55,54,54	
		33, 2, 6,55,12,52,32		2,25
32″	57,53,22,52,25,19, 8,18,48,37		4,13,55,57,19	
		33, 2, 2,41,16,55,13		2,25
34″	57,53,23,25,27,21,49,35,43,50		4,13,55,59,44	
		33, 1,58,27,20,55,29		2,25
36″	57,53,23,58,29,20,16,56,39,19		4,13,56, 2, 9	
		33, 1,54,13,24,53,20		2,25
38″	57,53,24,31,31,14,30,21,32,39		4,13,56, 4,34	
		33, 1,49,59,28,48,46		2,25
40″	57,53,25, 4,33, 4,29,50,21,25		4,13,56, 6,59	
		33, 1,45,45,32,41,47		2,25
42″	57,53,25,37,34,50,15,23, 3,12		4,13,56, 9,24	
		33, 1,41,31,36,32,23		2,25
44″	57,53,26,10,36,31,46,59,35,35		4,13,56,11,49	
		33, 1,37,17,40,20,34		2,25
46″	57,53,26,43,38, 9, 4,39,56, 9		4,13,56,14,14	
		33, 1,33, 3,44, 6,20		2,25
48″	57,53,27,16,39,42, 8,24, 2,29		4,13,56,16,39	
		33, 1,28,49,47,49,41		2,25
50″	57,53,27,49,41,10,58,11,52,10		4,13,56,19, 4	
		33, 1,24,35,51,30,37		2,25
52″	57,53,28,22,42,35,34, 3,22,47		4,13,56,21,29	
		33, 1,20,21,55, 9, 8		2,25
54″	57,53,28,55,43,55,55,58,31,55		4,13,56,23,54	
		33, 1,16, 7,58,45,14		2,25
56″	57,53,29,28,45,12, 3,57,17, 9		4,13,56,26,19	
		33, 1,11,54, 2,18,55		2,25
58″	57,53,30, 1,46,23,57,59,36, 4		4,13,56,28,44	
		33, 1, 7,40, 5,50,11		
60″	57,53,30,34,47,31,38, 5,26,15			
exact	57,53,30,34,47,31,38, 5,32,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°46′ 0″	57,53,30,34,47,31,38, 5,32,16			
		33, 1, 3,26, 9,19,41		
2″	57,53,31, 7,48,35, 4,14,51,57		4,13,56,33,31	
		33, 0,59,12,12,46,10		2,25
4″	57,53,31,40,49,34,16,27,38, 7		4,13,56,35,56	
		33, 0,54,58,16,10,14		2,25
6″	57,53,32,13,50,29,14,43,48,21		4,13,56,38,21	
		33, 0,50,44,19,31,53		2,25
8″	57,53,32,46,51,19,59, 3,20,14		4,13,56,40,46	
		33, 0,46,30,22,51, 7		2,25
10″	57,53,33,19,52, 6,29,26,11,21		4,13,56,43,11	
		33, 0,42,16,26, 7,56		2,25
12″	57,53,33,52,52,48,45,52,19,17		4,13,56,45,36	
		33, 0,38, 2,29,22,20		2,25
14″	57,53,34,25,53,26,48,21,41,37		4,13,56,48, 1	
		33, 0,33,48,32,34,19		2,25
16″	57,53,34,58,54, 0,36,54,15,56		4,13,56,50,26	
		33, 0,29,34,35,43,53		2,25
18″	57,53,35,31,54,30,11,29,59,49		4,13,56,52,51	
		33, 0,25,20,38,51, 2		2,25
20″	57,53,36, 4,54,55,32, 8,50,51		4,13,56,55,16	
		33, 0,21, 6,41,55,46		2,25
22″	57,53,36,37,55,16,38,50,46,37		4,13,56,57,41	
		33, 0,16,52,44,58, 5		2,25
24″	57,53,37,10,55,33,31,35,44,42		4,13,57, 0, 6	
		33, 0,12,38,47,57,59		2,25
26″	57,53,37,43,55,46,10,23,42,41		4,13,57, 2,31	
		33, 0, 8,24,50,55,28		2,25
28″	57,53,38,16,55,54,35,14,38, 9		4,13,57, 4,56	
		33, 0, 4,10,53,50,32		2,25
30″	57,53,38,49,55,58,46, 8,28,41		4,13,57, 7,21	
		32,59,59,56,56,43,11		2,25
32″	57,53,39,22,55,58,43, 5,11,52		4,13,57, 9,46	
		32,59,55,42,59,33,25		2,25
34″	57,53,39,55,55,54,26, 4,45,17		4,13,57,12,11	
		32,59,51,29, 2,21,14		2,25
36″	57,53,40,28,55,45,55, 7, 6,31		4,13,57,14,36	
		32,59,47,15, 5, 6,38		2,25
38″	57,53,41, 1,55,33,10,12,13, 9		4,13,57,17, 1	
		32,59,43, 1, 7,49,37		2,25
40″	57,53,41,34,55,16,11,20, 2,46		4,13,57,19,26	
		32,59,38,47,10,30,11		2,25
42″	57,53,42, 7,54,54,58,30,32,57		4,13,57,21,51	
		32,59,34,33,13, 8,20		2,25
44″	57,53,42,40,54,29,31,43,41,17		4,13,57,24,16	
		32,59,30,19,15,44, 4		2,25
46″	57,53,43,13,53,59,50,59,25,21		4,13,57,26,41	
		32,59,26, 5,18,17,23		2,25
48″	57,53,43,46,53,25,56,17,42,44		4,13,57,29, 6	
		32,59,21,51,20,48,17		2,25
50″	57,53,44,19,52,47,47,38,31, 1		4,13,57,31,31	
		32,59,17,37,23,16,46		2,25
52″	57,53,44,52,52, 5,25, 1,47,47		4,13,57,33,56	
		32,59,13,23,25,42,50		2,25
54″	57,53,45,25,51,18,48,27,30,37		4,13,57,36,21	
		32,59, 9, 9,28, 6,29		2,25
56″	57,53,45,58,50,27,57,55,37, 6		4,13,57,38,46	
		32,59, 4,55,30,27,43		2,25
58″	57,53,46,31,49,32,53,26, 4,49		4,13,57,41,11	
		32,59, 0,41,32,46,32		
60″	57,53,47, 4,48,33,34,58,51,21			
exact	57,53,47, 4,48,33,34,59, 6,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°47′ 0″	57,53,47, 4,48,33,34,59, 6,23			
		32,58,56,27,35, 4,36		
2″	57,53,47,37,47,30, 2,34,10,59		4,13,57,45,53	
		32,58,52,13,37,18,43		2,25
4″	57,53,48,10,46,22,16,11,29,42		4,13,57,48,18	
		32,58,47,59,39,30,25		2,25
6″	57,53,48,43,45,10,15,51, 0, 7		4,13,57,50,43	
		32,58,43,45,41,39,42		2,25
8″	57,53,49,16,43,54, 1,32,39,49		4,13,57,53, 8	
		32,58,39,31,43,46,34		2,25
10″	57,53,49,49,42,33,33,16,26,23		4,13,57,55,33	
		32,58,35,17,45,51, 1		2,25
12″	57,53,50,22,41, 8,51, 2,17,24		4,13,57,57,58	
		32,58,31, 3,47,53, 3		2,25
14″	57,53,50,55,39,39,54,50,10,27		4,13,58, 0,23	
		32,58,26,49,49,52,40		2,25
16″	57,53,51,28,38, 6,44,40, 3, 7		4,13,58, 2,48	
		32,58,22,35,51,49,52		2,25
18″	57,53,52, 1,36,29,20,31,52,59		4,13,58, 5,13	
		32,58,18,21,53,44,39		2,25
20″	57,53,52,34,34,47,42,25,37,38		4,13,58, 7,38	
		32,58,14, 7,55,37, 1		2,25
22″	57,53,53, 7,33, 1,50,21,14,39		4,13,58,10, 3	
		32,58, 9,53,57,26,58		2,25
24″	57,53,53,40,31,11,44,18,41,37		4,13,58,12,28	
		32,58, 5,39,59,14,30		2,25
26″	57,53,54,13,29,17,24,17,56, 7		4,13,58,14,53	
		32,58, 1,26, 0,59,37		2,25
28″	57,53,54,46,27,18,50,18,55,44		4,13,58,17,18	
		32,57,57,12, 2,42,19		2,25
30″	57,53,55,19,25,16, 2,21,38, 3		4,13,58,19,43	
		32,57,52,58, 4,22,36		2,25
32″	57,53,55,52,23, 9, 0,26, 0,39		4,13,58,22, 8	
		32,57,48,44, 6, 0,28		2,25
34″	57,53,56,25,20,57,44,32, 1, 7		4,13,58,24,33	
		32,57,44,30, 7,35,55		2,25
36″	57,53,56,58,18,42,14,39,37, 2		4,13,58,26,58	
		32,57,40,16, 9, 8,57		2,25
38″	57,53,57,31,16,22,30,48,45,59		4,13,58,29,23	
		32,57,36, 2,10,39,34		2,25
40″	57,53,58, 4,13,58,32,59,25,33		4,13,58,31,48	
		32,57,31,48,12, 7,46		2,25
42″	57,53,58,37,11,30,21,11,33,19		4,13,58,34,13	
		32,57,27,34,13,33,33		2,25
44″	57,53,59,10, 8,57,55,25, 6,52		4,13,58,36,38	
		32,57,23,20,14,56,55		2,25
46″	57,53,59,43, 6,21,15,40, 3,47		4,13,58,39, 3	
		32,57,19, 6,16,17,52		2,25
48″	57,54, 0,16, 3,40,21,56,21,39		4,13,58,41,28	
		32,57,14,52,17,36,24		2,25
50″	57,54, 0,49, 0,55,14,13,58, 3		4,13,58,43,53	
		32,57,10,38,18,52,31		2,25
52″	57,54, 1,21,58, 5,52,32,50,34		4,13,58,46,18	
		32,57, 6,24,20, 6,13		2,25
54″	57,54, 1,54,55,12,16,52,56,47		4,13,58,48,43	
		32,57, 2,10,21,17,30		2,25
56″	57,54, 2,27,52,14,27,14,14,17		4,13,58,51, 8	
		32,56,57,56,22,26,22		2,25
58″	57,54, 3, 0,49,12,23,36,40,39		4,13,58,53,33	
		32,56,53,42,23,32,49		
60″	57,54, 3,33,46, 6, 6, 0,13,28			
exact	57,54, 3,33,46, 6, 6, 0,35,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°48′ 0″	57,54, 3,33,46, 6, 6, 0,35,16			
		32,56,49,28,24,39,23		
2″	57,54, 4, 6,42,55,34,25,14,39		4,13,58,58,11	
		32,56,45,14,25,41,12		2,25
4″	57,54, 4,39,39,40,48,50,55,51		4,13,59, 0,36	
		32,56,41, 0,26,40,36		2,25
6″	57,54, 5,12,36,21,49,17,36,27		4,13,59, 3, 1	
		32,56,36,46,27,37,35		2,25
8″	57,54, 5,45,32,58,35,45,14, 2		4,13,59, 5,26	
		32,56,32,32,28,32, 9		2,25
10″	57,54, 6,18,29,31, 8,13,46,11		4,13,59, 7,51	
		32,56,28,18,29,24,18		2,25
12″	57,54, 6,51,25,59,26,43,10,29		4,13,59,10,16	
		32,56,24, 4,30,14, 2		2,25
14″	57,54, 7,24,22,23,31,13,24,31		4,13,59,12,41	
		32,56,19,50,31, 1,21		2,25
16″	57,54, 7,57,18,43,21,44,25,52		4,13,59,15, 6	
		32,56,15,36,31,46,15		2,25
18″	57,54, 8,30,14,58,58,16,12, 7		4,13,59,17,31	
		32,56,11,22,32,28,44		2,25
20″	57,54, 9, 3,11,10,20,48,40,51		4,13,59,19,56	
		32,56, 7, 8,33, 8,48		2,25
22″	57,54, 9,36, 7,17,29,21,49,39		4,13,59,22,21	
		32,56, 2,54,33,46,27		2,25
24″	57,54,10, 9, 3,20,23,55,36, 6		4,13,59,24,46	
		32,55,58,40,34,21,41		2,25
26″	57,54,10,41,59,19, 4,29,57,47		4,13,59,27,11	
		32,55,54,26,34,54,30		2,25
28″	57,54,11,14,55,13,31, 4,52,17		4,13,59,29,36	
		32,55,50,12,35,24,54		2,25
30″	57,54,11,47,51, 3,43,40,17,11		4,13,59,32, 1	
		32,55,45,58,35,52,53		2,25
32″	57,54,12,20,46,49,42,16,10, 4		4,13,59,34,26	
		32,55,41,44,36,18,27		2,25
34″	57,54,12,53,42,31,26,52,28,31		4,13,59,36,51	
		32,55,37,30,36,41,36		2,25
36″	57,54,13,26,38, 8,57,29,10, 7		4,13,59,39,16	
		32,55,33,16,37, 2,20		2,25
38″	57,54,13,59,33,42,14, 6,12,27		4,13,59,41,41	
		32,55,29, 2,37,20,39		2,25
40″	57,54,14,32,29,11,16,43,33, 6		4,13,59,44, 6	
		32,55,24,48,37,36,33		2,25
42″	57,54,15, 5,24,36, 5,21, 9,39		4,13,59,46,31	
		32,55,20,34,37,50, 2		2,25
44″	57,54,15,38,19,56,39,58,59,41		4,13,59,48,56	
		32,55,16,20,38, 1, 6		2,25
46″	57,54,16,11,15,13, 0,37, 0,47		4,13,59,51,21	
		32,55,12, 6,38, 9,45		2,25
48″	57,54,16,44,10,25, 7,15,10,32		4,13,59,53,46	
		32,55, 7,52,38,15,59		2,25
50″	57,54,17,17, 5,32,59,53,26,31		4,13,59,56,11	
		32,55, 3,38,38,19,48		2,25
52″	57,54,17,50, 0,36,38,31,46,19		4,13,59,58,36	
		32,54,59,24,38,21,12		2,25
54″	57,54,18,22,55,36, 3,10, 7,31		4,14, 0, 1, 1	
		32,54,55,10,38,20,11		2,25
56″	57,54,18,55,50,31,13,48,27,42		4,14, 0, 3,26	
		32,54,50,56,38,16,45		2,25
58″	57,54,19,28,45,22,10,26,44,27		4,14, 0, 5,51	
		32,54,46,42,38,10,54		
60″	57,54,20, 1,40, 8,53, 4,55,21			
exact	57,54,20, 1,40, 8,53, 5,28, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°49′ 0″	57,54,20, 1,40, 8,53, 5,28, 1			
		32,54,42,28,38, 6,19		
2″	57,54,20,34,34,51,21,43,34,20		4,14, 0,10,25	
		32,54,38,14,37,55,54		2,24
4″	57,54,21, 7,29,29,36,21,30,14		4,14, 0,12,49	
		32,54,34, 0,37,43, 5		2,24
6″	57,54,21,40,24, 3,36,59,13,19		4,14, 0,15,13	
		32,54,29,46,37,27,52		2,24
8″	57,54,22,13,18,33,23,36,41,11		4,14, 0,17,37	
		32,54,25,32,37,10,15		2,24
10″	57,54,22,46,12,58,56,13,51,26		4,14, 0,20, 1	
		32,54,21,18,36,50,14		2,24
12″	57,54,23,19, 7,20,14,50,41,40		4,14, 0,22,25	
		32,54,17, 4,36,27,49		2,24
14″	57,54,23,52, 1,37,19,27, 9,29		4,14, 0,24,49	
		32,54,12,50,36, 3, 0		2,24
16″	57,54,24,24,55,50,10, 3,12,29		4,14, 0,27,13	
		32,54, 8,36,35,35,47		2,24
18″	57,54,24,57,49,58,46,38,48,16		4,14, 0,29,37	
		32,54, 4,22,35, 6,10		2,24
20″	57,54,25,30,44, 3, 9,13,54,26		4,14, 0,32, 1	
		32,54, 0, 8,34,34, 9		2,24
22″	57,54,26, 3,38, 3,17,48,28,35		4,14, 0,34,25	
		32,53,55,54,33,59,44		2,24
24″	57,54,26,36,31,59,12,22,28,19		4,14, 0,36,49	
		32,53,51,40,33,22,55		2,24
26″	57,54,27, 9,25,50,52,55,51,14		4,14, 0,39,13	
		32,53,47,26,32,43,42		2,24
28″	57,54,27,42,19,38,19,28,34,56		4,14, 0,41,37	
		32,53,43,12,32, 2, 5		2,24
30″	57,54,28,15,13,21,32, 0,37, 1		4,14, 0,44, 1	
		32,53,38,58,31,18, 4		2,24
32″	57,54,28,48, 7, 0,30,31,55, 5		4,14, 0,46,25	
		32,53,34,44,30,31,39		2,24
34″	57,54,29,21, 0,35,15, 2,26,44		4,14, 0,48,49	
		32,53,30,30,29,42,50		2,24
36″	57,54,29,53,54, 5,45,32, 9,34		4,14, 0,51,13	
		32,53,26,16,28,51,37		2,24
38″	57,54,30,26,47,32, 2, 1, 1,11		4,14, 0,53,37	
		32,53,22, 2,27,58, 0		2,24
40″	57,54,30,59,40,54, 4,28,59,11		4,14, 0,56, 1	
		32,53,17,48,27, 1,59		2,24
42″	57,54,31,32,34,11,52,56, 1,10		4,14, 0,58,25	
		32,53,13,34,26, 3,34		2,24
44″	57,54,32, 5,27,25,27,22, 4,44		4,14, 1, 0,49	
		32,53, 9,20,25, 2,45		2,24
46″	57,54,32,38,20,34,47,47, 7,29		4,14, 1, 3,13	
		32,53, 5, 6,23,59,32		2,24
48″	57,54,33,11,13,39,54,11, 7, 1		4,14, 1, 5,37	
		32,53, 0,52,22,53,55		2,24
50″	57,54,33,44, 6,40,46,34, 0,56		4,14, 1, 8, 1	
		32,52,56,38,21,45,54		2,24
52″	57,54,34,16,59,37,24,55,46,50		4,14, 1,10,25	
		32,52,52,24,20,35,29		2,24
54″	57,54,34,49,52,29,49,16,22,19		4,14, 1,12,49	
		32,52,48,10,19,22,40		2,24
56″	57,54,35,22,45,17,59,35,44,59		4,14, 1,15,13	
		32,52,43,56,18, 7,27		2,24
58″	57,54,35,55,38, 1,55,53,52,26		4,14, 1,17,37	
		32,52,39,42,16,49,50		
60″	57,54,36,28,30,41,38,10,42,16			
exact	57,54,36,28,30,41,38,10,23,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°50′ 0″	57,54,36,28,30,41,38,10,23,22			
		32,52,35,28,15,27,45		
2″	57,54,37, 1,23,17, 6,25,51, 7		4,14, 1,22,33	
		32,52,31,14,14, 5,12		2,24
4″	57,54,37,34,15,48,20,39,56,19		4,14, 1,24,57	
		32,52,27, 0,12,40,15		2,24
6″	57,54,38, 7, 8,15,20,52,36,34		4,14, 1,27,21	
		32,52,22,46,11,12,54		2,24
8″	57,54,38,40, 0,38, 7, 3,49,28		4,14, 1,29,45	
		32,52,18,32, 9,43, 9		2,24
10″	57,54,39,12,52,56,39,13,32,37		4,14, 1,32, 9	
		32,52,14,18, 8,11, 0		2,24
12″	57,54,39,45,45,10,57,21,43,37		4,14, 1,34,33	
		32,52,10, 4, 6,36,27		2,24
14″	57,54,40,18,37,21, 1,28,20, 4		4,14, 1,36,57	
		32,52, 5,50, 4,59,30		2,24
16″	57,54,40,51,29,26,51,33,19,34		4,14, 1,39,21	
		32,52, 1,36, 3,20, 9		2,24
18″	57,54,41,24,21,28,27,36,39,43		4,14, 1,41,45	
		32,51,57,22, 1,38,24		2,24
20″	57,54,41,57,13,25,49,38,18, 7		4,14, 1,44, 9	
		32,51,53, 7,59,54,15		2,24
22″	57,54,42,30, 5,18,57,38,12,22		4,14, 1,46,33	
		32,51,48,53,58, 7,42		2,24
24″	57,54,43, 2,57, 7,51,36,20, 4		4,14, 1,48,57	
		32,51,44,39,56,18,45		2,24
26″	57,54,43,35,48,52,31,32,38,49		4,14, 1,51,21	
		32,51,40,25,54,27,24		2,24
28″	57,54,44, 8,40,32,57,27, 6,13		4,14, 1,53,45	
		32,51,36,11,52,33,39		2,24
30″	57,54,44,41,32, 9, 9,19,39,52		4,14, 1,56, 9	
		32,51,31,57,50,37,30		2,24
32″	57,54,45,14,23,41, 7,10,17,22		4,14, 1,58,33	
		32,51,27,43,48,38,57		2,24
34″	57,54,45,47,15, 8,50,58,56,19		4,14, 2, 0,57	
		32,51,23,29,46,38, 0		2,24
36″	57,54,46,20, 6,32,20,45,34,19		4,14, 2, 3,21	
		32,51,19,15,44,34,39		2,24
38″	57,54,46,52,57,51,36,30, 8,58		4,14, 2, 5,45	
		32,51,15, 1,42,28,54		2,24
40″	57,54,47,25,49, 6,38,12,37,52		4,14, 2, 8, 9	
		32,51,10,47,40,20,45		2,24
42″	57,54,47,58,40,17,25,52,58,37		4,14, 2,10,33	
		32,51, 6,33,38,10,12		2,24
44″	57,54,48,31,31,23,59,31, 8,49		4,14, 2,12,57	
		32,51, 2,19,35,57,15		2,24
46″	57,54,49, 4,22,26,19, 7, 6, 4		4,14, 2,15,21	
		32,50,58, 5,33,41,54		2,24
48″	57,54,49,37,13,24,24,40,47,58		4,14, 2,17,45	
		32,50,53,51,31,24, 9		2,24
50″	57,54,50,10, 4,18,16,12,12, 7		4,14, 2,20, 9	
		32,50,49,37,29, 4, 0		2,24
52″	57,54,50,42,55, 7,53,41,16, 7		4,14, 2,22,33	
		32,50,45,23,26,41,27		2,24
54″	57,54,51,15,45,53,17, 7,57,34		4,14, 2,24,57	
		32,50,41, 9,24,16,30		2,24
56″	57,54,51,48,36,34,26,32,14, 4		4,14, 2,27,21	
		32,50,36,55,21,49, 9		2,24
58″	57,54,52,21,27,11,21,54, 3,13		4,14, 2,29,45	
		32,50,32,41,19,19,24		
60″	57,54,52,54,17,44, 3,13,22,37			
exact	57,54,52,54,17,44, 3,13, 9,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°51′ 0″	57,54,52,54,17,44, 3,13, 9,41			
		32,50,28,27,16,46, 0		
2″	57,54,53,27, 8,12,30,29,55,41		4,14, 2,34,37	
		32,50,24,13,14,11,23		2,24
4″	57,54,53,59,58,36,43,44, 7, 4		4,14, 2,37, 1	
		32,50,19,59,11,34,22		2,24
6″	57,54,54,32,48,56,42,55,41,26		4,14, 2,39,25	
		32,50,15,45, 8,54,57		2,24
8″	57,54,55, 5,39,12,28, 4,36,23		4,14, 2,41,49	
		32,50,11,31, 6,13, 8		2,24
10″	57,54,55,38,29,23,59,10,49,31		4,14, 2,44,13	
		32,50, 7,17, 3,28,55		2,24
12″	57,54,56,11,19,31,16,14,18,26		4,14, 2,46,37	
		32,50, 3, 3, 0,42,18		2,24
14″	57,54,56,44, 9,34,19,15, 0,44		4,14, 2,49, 1	
		32,49,58,48,57,53,17		2,24
16″	57,54,57,16,59,33, 8,12,54, 1		4,14, 2,51,25	
		32,49,54,34,55, 1,52		2,24
18″	57,54,57,49,49,27,43, 7,55,53		4,14, 2,53,49	
		32,49,50,20,52, 8, 3		2,24
20″	57,54,58,22,39,18, 4, 0, 3,56		4,14, 2,56,13	
		32,49,46, 6,49,11,50		2,24
22″	57,54,58,55,29, 4,10,49,15,46		4,14, 2,58,37	
		32,49,41,52,46,13,13		2,24
24″	57,54,59,28,18,46, 3,35,28,59		4,14, 3, 1, 1	
		32,49,37,38,43,12,12		2,24
26″	57,55, 0, 1, 8,23,42,18,41,11		4,14, 3, 3,25	
		32,49,33,24,40, 8,47		2,24
28″	57,55, 0,33,57,57, 6,58,49,58		4,14, 3, 5,49	
		32,49,29,10,37, 2,58		2,24
30″	57,55, 1, 6,47,26,17,35,52,56		4,14, 3, 8,13	
		32,49,24,56,33,54,45		2,24
32″	57,55, 1,39,36,51,14, 9,47,41		4,14, 3,10,37	
		32,49,20,42,30,44, 8		2,24
34″	57,55, 2,12,26,11,56,40,31,49		4,14, 3,13, 1	
		32,49,16,28,27,31, 7		2,24
36″	57,55, 2,45,15,28,25, 8, 2,56		4,14, 3,15,25	
		32,49,12,14,24,15,42		2,24
38″	57,55, 3,18, 4,40,39,32,18,38		4,14, 3,17,49	
		32,49, 8, 0,20,57,53		2,24
40″	57,55, 3,50,53,48,39,53,16,31		4,14, 3,20,13	
		32,49, 3,46,17,37,40		2,24
42″	57,55, 4,23,42,52,26,10,54,11		4,14, 3,22,37	
		32,48,59,32,14,15, 3		2,24
44″	57,55, 4,56,31,51,58,25, 9,14		4,14, 3,25, 1	
		32,48,55,18,10,50, 2		2,24
46″	57,55, 5,29,20,47,16,35,59,16		4,14, 3,27,25	
		32,48,51, 4, 7,22,37		2,24
48″	57,55, 6, 2, 9,38,20,43,21,53		4,14, 3,29,49	
		32,48,46,50, 3,52,48		2,24
50″	57,55, 6,34,58,25,10,47,14,41		4,14, 3,32,13	
		32,48,42,36, 0,20,35		2,24
52″	57,55, 7, 7,47, 7,46,47,35,16		4,14, 3,34,37	
		32,48,38,21,56,45,58		2,24
54″	57,55, 7,40,35,46, 8,44,21,14		4,14, 3,37, 1	
		32,48,34, 7,53, 8,57		2,24
56″	57,55, 8,13,24,20,16,37,30,11		4,14, 3,39,25	
		32,48,29,53,49,29,32		2,24
58″	57,55, 8,46,12,50,10,26,59,43		4,14, 3,41,49	
		32,48,25,39,45,47,43		
60″	57,55, 9,19, 1,15,50,12,47,26			
exact	57,55, 9,19, 1,15,50,12,44,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°52′ 0″	57,55, 9,19, 1,15,50,12,44,59			
		32,48,21,25,42, 3,23		
2″	57,55, 9,51,49,37,15,54,48,22		4,14, 3,46,37	
		32,48,17,11,38,16,46		2,24
4″	57,55,10,24,37,54,27,33, 5, 8		4,14, 3,49, 1	
		32,48,12,57,34,27,45		2,24
6″	57,55,10,57,26, 7,25, 7,32,53		4,14, 3,51,25	
		32,48, 8,43,30,36,20		2,24
8″	57,55,11,30,14,16, 8,38, 9,13		4,14, 3,53,49	
		32,48, 4,29,26,42,31		2,24
10″	57,55,12, 3, 2,20,38, 4,51,44		4,14, 3,56,13	
		32,48, 0,15,22,46,18		2,24
12″	57,55,12,35,50,20,53,27,38, 2		4,14, 3,58,37	
		32,47,56, 1,18,47,41		2,24
14″	57,55,13, 8,38,16,54,46,25,43		4,14, 4, 1, 1	
		32,47,51,47,14,46,40		2,24
16″	57,55,13,41,26, 8,42, 1,12,23		4,14, 4, 3,25	
		32,47,47,33,10,43,15		2,24
18″	57,55,14,14,13,56,15,11,55,38		4,14, 4, 5,49	
		32,47,43,19, 6,37,26		2,24
20″	57,55,14,47, 1,39,34,18,33, 4		4,14, 4, 8,13	
		32,47,39, 5, 2,29,13		2,24
22″	57,55,15,19,49,18,39,21, 2,17		4,14, 4,10,37	
		32,47,34,50,58,18,36		2,24
24″	57,55,15,52,36,53,30,19,20,53		4,14, 4,13, 1	
		32,47,30,36,54, 5,35		2,24
26″	57,55,16,25,24,24, 7,13,26,28		4,14, 4,15,25	
		32,47,26,22,49,50,10		2,24
28″	57,55,16,58,11,50,30, 3,16,38		4,14, 4,17,49	
		32,47,22, 8,45,32,21		2,24
30″	57,55,17,30,59,12,38,48,48,59		4,14, 4,20,13	
		32,47,17,54,41,12, 8		2,24
32″	57,55,18, 3,46,30,33,30, 1, 7		4,14, 4,22,37	
		32,47,13,40,36,49,31		2,24
34″	57,55,18,36,33,44,14, 6,50,38		4,14, 4,25, 1	
		32,47, 9,26,32,24,30		2,24
36″	57,55,19, 9,20,53,40,39,15, 8		4,14, 4,27,25	
		32,47, 5,12,27,57, 5		2,24
38″	57,55,19,42, 7,58,53, 7,12,13		4,14, 4,29,49	
		32,47, 0,58,23,27,16		2,24
40″	57,55,20,14,54,59,51,30,39,29		4,14, 4,32,13	
		32,46,56,44,18,55, 3		2,24
42″	57,55,20,47,41,56,35,49,34,32		4,14, 4,34,37	
		32,46,52,30,14,20,26		2,24
44″	57,55,21,20,28,49, 6, 3,54,58		4,14, 4,37, 1	
		32,46,48,16, 9,43,25		2,24
46″	57,55,21,53,15,37,22,13,38,23		4,14, 4,39,25	
		32,46,44, 2, 5, 4, 0		2,24
48″	57,55,22,26, 2,21,24,18,42,23		4,14, 4,41,49	
		32,46,39,48, 0,22,11		2,24
50″	57,55,22,58,49, 1,12,19, 4,34		4,14, 4,44,13	
		32,46,35,33,55,37,58		2,24
52″	57,55,23,31,35,36,46,14,42,32		4,14, 4,46,37	
		32,46,31,19,50,51,21		2,24
54″	57,55,24, 4,22, 8, 6, 5,33,53		4,14, 4,49, 1	
		32,46,27, 5,46, 2,20		2,24
56″	57,55,24,37, 8,35,11,51,36,13		4,14, 4,51,25	
		32,46,22,51,41,10,55		2,24
58″	57,55,25, 9,54,58, 3,32,47, 8		4,14, 4,53,49	
		32,46,18,37,36,17, 6		
60″	57,55,25,42,41,16,41, 9, 4,14			
exact	57,55,25,42,41,16,41, 9,16,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°53′ 0″	57,55,25,42,41,16,41, 9,16,55			
		32,46,14,23,31,22,13		
2″	57,55,26,15,27,31, 4,40,39, 8		4,14, 4,58,31	
		32,46,10, 9,26,23,42		2,24
4″	57,55,26,48,13,41,14, 7, 2,50		4,14, 5, 0,55	
		32,46, 5,55,21,22,47		2,24
6″	57,55,27,20,59,47, 9,28,25,37		4,14, 5, 3,19	
		32,46, 1,41,16,19,28		2,24
8″	57,55,27,53,45,48,50,44,45, 5		4,14, 5, 5,43	
		32,45,57,27,11,13,45		2,24
10″	57,55,28,26,31,46,17,55,58,50		4,14, 5, 8, 7	
		32,45,53,13, 6, 5,38		2,24
12″	57,55,28,59,17,39,31, 2, 4,28		4,14, 5,10,31	
		32,45,48,59, 0,55, 7		2,24
14″	57,55,29,32, 3,28,30, 2,59,35		4,14, 5,12,55	
		32,45,44,44,55,42,12		2,24
16″	57,55,30, 4,49,13,14,58,41,47		4,14, 5,15,19	
		32,45,40,30,50,26,53		2,24
18″	57,55,30,37,34,53,45,49, 8,40		4,14, 5,17,43	
		32,45,36,16,45, 9,10		2,24
20″	57,55,31,10,20,30, 2,34,17,50		4,14, 5,20, 7	
		32,45,32, 2,39,49, 3		2,24
22″	57,55,31,43, 6, 2, 5,14, 6,53		4,14, 5,22,31	
		32,45,27,48,34,26,32		2,24
24″	57,55,32,15,51,29,53,48,33,25		4,14, 5,24,55	
		32,45,23,34,29, 1,37		2,24
26″	57,55,32,48,36,53,28,17,35, 2		4,14, 5,27,19	
		32,45,19,20,23,34,18		2,24
28″	57,55,33,21,22,12,48,41, 9,20		4,14, 5,29,43	
		32,45,15, 6,18, 4,35		2,24
30″	57,55,33,54, 7,27,54,59,13,55		4,14, 5,32, 7	
		32,45,10,52,12,32,28		2,24
32″	57,55,34,26,52,38,47,11,46,23		4,14, 5,34,31	
		32,45, 6,38, 6,57,57		2,24
34″	57,55,34,59,37,45,25,18,44,20		4,14, 5,36,55	
		32,45, 2,24, 1,21, 2		2,24
36″	57,55,35,32,22,47,49,20, 5,22		4,14, 5,39,19	
		32,44,58, 9,55,41,43		2,24
38″	57,55,36, 5, 7,45,59,15,47, 5		4,14, 5,41,43	
		32,44,53,55,50, 0, 0		2,24
40″	57,55,36,37,52,39,55, 5,47, 5		4,14, 5,44, 7	
		32,44,49,41,44,15,53		2,24
42″	57,55,37,10,37,29,36,50, 2,58		4,14, 5,46,31	
		32,44,45,27,38,29,22		2,24
44″	57,55,37,43,22,15, 4,28,32,20		4,14, 5,48,55	
		32,44,41,13,32,40,27		2,24
46″	57,55,38,16, 6,56,18, 1,12,47		4,14, 5,51,19	
		32,44,36,59,26,49, 8		2,24
48″	57,55,38,48,51,33,17,28, 1,55		4,14, 5,53,43	
		32,44,32,45,20,55,25		2,24
50″	57,55,39,21,36, 6, 2,48,57,20		4,14, 5,56, 7	
		32,44,28,31,14,59,18		2,24
52″	57,55,39,54,20,34,34, 3,56,38		4,14, 5,58,31	
		32,44,24,17, 9, 0,47		2,24
54″	57,55,40,27, 4,58,51,12,57,25		4,14, 6, 0,55	
		32,44,20, 3, 2,59,52		2,24
56″	57,55,40,59,49,18,54,15,57,17		4,14, 6, 3,19	
		32,44,15,48,56,56,33		2,24
58″	57,55,41,32,33,34,43,12,53,50		4,14, 6, 5,43	
		32,44,11,34,50,50,50		
60″	57,55,42, 5,17,46,18, 3,44,40			
exact	57,55,42, 5,17,46,18, 4, 2,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°54′ 0″	57,55,42, 5,17,46,18, 4, 2,49			
		32,44, 7,20,44,44,49		
2″	57,55,42,38, 1,53,38,48,47,38		4,14, 6,10,21	
		32,44, 3, 6,38,34,28		2,24
4″	57,55,43,10,45,56,45,27,22, 6		4,14, 6,12,45	
		32,43,58,52,32,21,43		2,24
6″	57,55,43,43,29,55,37,59,43,49		4,14, 6,15, 9	
		32,43,54,38,26, 6,34		2,24
8″	57,55,44,16,13,50,16,25,50,23		4,14, 6,17,33	
		32,43,50,24,19,49, 1		2,24
10″	57,55,44,48,57,40,40,45,39,24		4,14, 6,19,57	
		32,43,46,10,13,29, 4		2,24
12″	57,55,45,21,41,26,50,59, 8,28		4,14, 6,22,21	
		32,43,41,56, 7, 6,43		2,24
14″	57,55,45,54,25, 8,47, 6,15,11		4,14, 6,24,45	
		32,43,37,42, 0,41,58		2,24
16″	57,55,46,27, 8,46,29, 6,57, 9		4,14, 6,27, 9	
		32,43,33,27,54,14,49		2,24
18″	57,55,46,59,52,19,57, 1,11,58		4,14, 6,29,33	
		32,43,29,13,47,45,16		2,24
20″	57,55,47,32,35,49,10,48,57,14		4,14, 6,31,57	
		32,43,24,59,41,13,19		2,24
22″	57,55,48, 5,19,14,10,30,10,33		4,14, 6,34,21	
		32,43,20,45,34,38,58		2,24
24″	57,55,48,38, 2,34,56, 4,49,31		4,14, 6,36,45	
		32,43,16,31,28, 2,13		2,24
26″	57,55,49,10,45,51,27,32,51,44		4,14, 6,39, 9	
		32,43,12,17,21,23, 4		2,24
28″	57,55,49,43,29, 3,44,54,14,48		4,14, 6,41,33	
		32,43, 8, 3,14,41,31		2,24
30″	57,55,50,16,12,11,48, 8,56,19		4,14, 6,43,57	
		32,43, 3,49, 7,57,34		2,24
32″	57,55,50,48,55,15,37,16,53,53		4,14, 6,46,21	
		32,42,59,35, 1,11,13		2,24
34″	57,55,51,21,38,15,12,18, 5, 6		4,14, 6,48,45	
		32,42,55,20,54,22,28		2,24
36″	57,55,51,54,21,10,33,12,27,34		4,14, 6,51, 9	
		32,42,51, 6,47,31,19		2,24
38″	57,55,52,27, 4, 1,39,59,58,53		4,14, 6,53,33	
		32,42,46,52,40,37,46		2,24
40″	57,55,52,59,46,48,32,40,36,39		4,14, 6,55,57	
		32,42,42,38,33,41,49		2,24
42″	57,55,53,32,29,31,11,14,18,28		4,14, 6,58,21	
		32,42,38,24,26,43,28		2,24
44″	57,55,54, 5,12, 9,35,41, 1,56		4,14, 7, 0,45	
		32,42,34,10,19,42,43		2,24
46″	57,55,54,37,54,43,46, 0,44,39		4,14, 7, 3, 9	
		32,42,29,56,12,39,34		2,24
48″	57,55,55,10,37,13,42,13,24,13		4,14, 7, 5,33	
		32,42,25,42, 5,34, 1		2,24
50″	57,55,55,43,19,39,24,18,58,14		4,14, 7, 7,57	
		32,42,21,27,58,26, 4		2,24
52″	57,55,56,16, 2, 0,52,17,24,18		4,14, 7,10,21	
		32,42,17,13,51,15,43		2,24
54″	57,55,56,48,44,18, 6, 8,40, 1		4,14, 7,12,45	
		32,42,12,59,44, 2,58		2,24
56″	57,55,57,21,26,31, 5,52,42,59		4,14, 7,15, 9	
		32,42, 8,45,36,47,49		2,24
58″	57,55,57,54, 8,39,51,29,30,48		4,14, 7,17,33	
		32,42, 4,31,29,30,16		
60″	57,55,58,26,50,44,22,59, 1, 4			
exact	57,55,58,26,50,44,22,59,29,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°55′ 0″	57,55,58,26,50,44,22,59,29,38			
		32,42, 0,17,22,13,32		
2″	57,55,58,59,32,44,40,21,43,10		4,14, 7,22, 7	
		32,41,56, 3,14,51,25		2,23
4″	57,55,59,32,14,40,43,36,34,35		4,14, 7,24,30	
		32,41,51,49, 7,26,55		2,23
6″	57,56, 0, 4,56,32,32,44, 1,30		4,14, 7,26,53	
		32,41,47,35, 0, 0, 2		2,23
8″	57,56, 0,37,38,20, 7,44, 1,32		4,14, 7,29,16	
		32,41,43,20,52,30,46		2,23
10″	57,56, 1,10,20, 3,28,36,32,18		4,14, 7,31,39	
		32,41,39, 6,44,59, 7		2,23
12″	57,56, 1,43, 1,42,35,21,31,25		4,14, 7,34, 2	
		32,41,34,52,37,25, 5		2,23
14″	57,56, 2,15,43,17,27,58,56,30		4,14, 7,36,25	
		32,41,30,38,29,48,40		2,23
16″	57,56, 2,48,24,48, 6,28,45,10		4,14, 7,38,48	
		32,41,26,24,22, 9,52		2,23
18″	57,56, 3,21, 6,14,30,50,55, 2		4,14, 7,41,11	
		32,41,22,10,14,28,41		2,23
20″	57,56, 3,53,47,36,41, 5,23,43		4,14, 7,43,34	
		32,41,17,56, 6,45, 7		2,23
22″	57,56, 4,26,28,54,37,12, 8,50		4,14, 7,45,57	
		32,41,13,41,58,59,10		2,23
24″	57,56, 4,59,10, 8,19,11, 8, 0		4,14, 7,48,20	
		32,41, 9,27,51,10,50		2,23
26″	57,56, 5,31,51,17,47, 2,18,50		4,14, 7,50,43	
		32,41, 5,13,43,20, 7		2,23
28″	57,56, 6, 4,32,23, 0,45,38,57		4,14, 7,53, 6	
		32,41, 0,59,35,27, 1		2,23
30″	57,56, 6,37,13,24, 0,21, 5,58		4,14, 7,55,29	
		32,40,56,45,27,31,32		2,23
32″	57,56, 7, 9,54,20,45,48,37,30		4,14, 7,57,52	
		32,40,52,31,19,33,40		2,23
34″	57,56, 7,42,35,13,17, 8,11,10		4,14, 8, 0,15	
		32,40,48,17,11,33,25		2,23
36″	57,56, 8,15,16, 1,34,19,44,35		4,14, 8, 2,38	
		32,40,44, 3, 3,30,47		2,23
38″	57,56, 8,47,56,45,37,23,15,22		4,14, 8, 5, 1	
		32,40,39,48,55,25,46		2,23
40″	57,56, 9,20,37,25,26,18,41, 8		4,14, 8, 7,24	
		32,40,35,34,47,18,22		2,23
42″	57,56, 9,53,18, 1, 1, 5,59,30		4,14, 8, 9,47	
		32,40,31,20,39, 8,35		2,23
44″	57,56,10,25,58,32,21,45, 8, 5		4,14, 8,12,10	
		32,40,27, 6,30,56,25		2,23
46″	57,56,10,58,38,59,28,16, 4,30		4,14, 8,14,33	
		32,40,22,52,22,41,52		2,23
48″	57,56,11,31,19,22,20,38,46,22		4,14, 8,16,56	
		32,40,18,38,14,24,56		2,23
50″	57,56,12, 3,59,40,58,53,11,18		4,14, 8,19,19	
		32,40,14,24, 6, 5,37		2,23
52″	57,56,12,36,39,55,22,59,16,55		4,14, 8,21,42	
		32,40,10, 9,57,43,55		2,23
54″	57,56,13, 9,20, 5,32,57, 0,50		4,14, 8,24, 5	
		32,40, 5,55,49,19,50		2,23
56″	57,56,13,42, 0,11,28,46,20,40		4,14, 8,26,28	
		32,40, 1,41,40,53,22		2,23
58″	57,56,14,14,40,13,10,27,14, 2		4,14, 8,28,51	
		32,39,57,27,32,24,31		
60″	57,56,14,47,20,10,37,59,38,33			
exact	57,56,14,47,20,10,37,59,14, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°56′ 0″	57,56,14,47,20,10,37,59,14, 0			
		32,39,53,13,23,50,40		
2″	57,56,15,20, 0, 3,51,23, 4,40		4,14, 8,33,47	
		32,39,48,59,15,16,53		2,23
4″	57,56,15,52,39,52,50,38,21,33		4,14, 8,36,10	
		32,39,44,45, 6,40,43		2,23
6″	57,56,16,25,19,37,35,45, 2,16		4,14, 8,38,33	
		32,39,40,30,58, 2,10		2,23
8″	57,56,16,57,59,18, 6,43, 4,26		4,14, 8,40,56	
		32,39,36,16,49,21,14		2,23
10″	57,56,17,30,38,54,23,32,25,40		4,14, 8,43,19	
		32,39,32, 2,40,37,55		2,23
12″	57,56,18, 3,18,26,26,13, 3,35		4,14, 8,45,42	
		32,39,27,48,31,52,13		2,23
14″	57,56,18,35,57,54,14,44,55,48		4,14, 8,48, 5	
		32,39,23,34,23, 4, 8		2,23
16″	57,56,19, 8,37,17,49, 7,59,56		4,14, 8,50,28	
		32,39,19,20,14,13,40		2,23
18″	57,56,19,41,16,37, 9,22,13,36		4,14, 8,52,51	
		32,39,15, 6, 5,20,49		2,23
20″	57,56,20,13,55,52,15,27,34,25		4,14, 8,55,14	
		32,39,10,51,56,25,35		2,23
22″	57,56,20,46,35, 3, 7,24, 0, 0		4,14, 8,57,37	
		32,39, 6,37,47,27,58		2,23
24″	57,56,21,19,14, 9,45,11,27,58		4,14, 9, 0, 0	
		32,39, 2,23,38,27,58		2,23
26″	57,56,21,51,53,12, 8,49,55,56		4,14, 9, 2,23	
		32,38,58, 9,29,25,35		2,23
28″	57,56,22,24,32,10,18,19,21,31		4,14, 9, 4,46	
		32,38,53,55,20,20,49		2,23
30″	57,56,22,57,11, 4,13,39,42,20		4,14, 9, 7, 9	
		32,38,49,41,11,13,40		2,23
32″	57,56,23,29,49,53,54,50,56, 0		4,14, 9, 9,32	
		32,38,45,27, 2, 4, 8		2,23
34″	57,56,24, 2,28,39,21,53, 0, 8		4,14, 9,11,55	
		32,38,41,12,52,52,13		2,23
36″	57,56,24,35, 7,20,34,45,52,21		4,14, 9,14,18	
		32,38,36,58,43,37,55		2,23
38″	57,56,25, 7,45,57,33,29,30,16		4,14, 9,16,41	
		32,38,32,44,34,21,14		2,23
40″	57,56,25,40,24,30,18, 3,51,30		4,14, 9,19, 4	
		32,38,28,30,25, 2,10		2,23
42″	57,56,26,13, 2,58,48,28,53,40		4,14, 9,21,27	
		32,38,24,16,15,40,43		2,23
44″	57,56,26,45,41,23, 4,44,34,23		4,14, 9,23,50	
		32,38,20, 2, 6,16,53		2,23
46″	57,56,27,18,19,43, 6,50,51,16		4,14, 9,26,13	
		32,38,15,47,56,50,40		2,23
48″	57,56,27,50,57,58,54,47,41,56		4,14, 9,28,36	
		32,38,11,33,47,22, 4		2,23
50″	57,56,28,23,36,10,28,35, 4, 0		4,14, 9,30,59	
		32,38, 7,19,37,51, 5		2,23
52″	57,56,28,56,14,17,48,12,55, 5		4,14, 9,33,22	
		32,38, 3, 5,28,17,43		2,23
54″	57,56,29,28,52,20,53,41,12,48		4,14, 9,35,45	
		32,37,58,51,18,41,58		2,23
56″	57,56,30, 1,30,19,44,59,54,46		4,14, 9,38, 8	
		32,37,54,37, 9, 3,50		2,23
58″	57,56,30,34, 8,14,22, 8,58,36		4,14, 9,40,31	
		32,37,50,22,59,23,19		
60″	57,56,31, 6,46, 4,45, 8,21,55			
exact	57,56,31, 6,46, 4,45, 8, 2,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°57′ 0″	57,56,31, 6,46, 4,45, 8, 2,15			
		32,37,46, 8,49,38,32		
2″	57,56,31,39,23,50,53,57,40,47		4,14, 9,45,24	
		32,37,41,54,39,53, 8		2,23
4″	57,56,32,12, 1,32,48,37,33,55		4,14, 9,47,47	
		32,37,37,40,30, 5,21		2,23
6″	57,56,32,44,39,10,29, 7,39,16		4,14, 9,50,10	
		32,37,33,26,20,15,11		2,23
8″	57,56,33,17,16,43,55,27,54,27		4,14, 9,52,33	
		32,37,29,12,10,22,38		2,23
10″	57,56,33,49,54,13, 7,38,17, 5		4,14, 9,54,56	
		32,37,24,58, 0,27,42		2,23
12″	57,56,34,22,31,38, 5,38,44,47		4,14, 9,57,19	
		32,37,20,43,50,30,23		2,23
14″	57,56,34,55, 8,58,49,29,15,10		4,14, 9,59,42	
		32,37,16,29,40,30,41		2,23
16″	57,56,35,27,46,15,19, 9,45,51		4,14,10, 2, 5	
		32,37,12,15,30,28,36		2,23
18″	57,56,36, 0,23,27,34,40,14,27		4,14,10, 4,28	
		32,37, 8, 1,20,24, 8		2,23
20″	57,56,36,33, 0,35,36, 0,38,35		4,14,10, 6,51	
		32,37, 3,47,10,17,17		2,23
22″	57,56,37, 5,37,39,23,10,55,52		4,14,10, 9,14	
		32,36,59,33, 0, 8, 3		2,23
24″	57,56,37,38,14,38,56,11, 3,55		4,14,10,11,37	
		32,36,55,18,49,56,26		2,23
26″	57,56,38,10,51,34,15, 1, 0,21		4,14,10,14, 0	
		32,36,51, 4,39,42,26		2,23
28″	57,56,38,43,28,25,19,40,42,47		4,14,10,16,23	
		32,36,46,50,29,26, 3		2,23
30″	57,56,39,16, 5,12,10,10, 8,50		4,14,10,18,46	
		32,36,42,36,19, 7,17		2,23
32″	57,56,39,48,41,54,46,29,16, 7		4,14,10,21, 9	
		32,36,38,22, 8,46, 8		2,23
34″	57,56,40,21,18,33, 8,38, 2,15		4,14,10,23,32	
		32,36,34, 7,58,22,36		2,23
36″	57,56,40,53,55, 7,16,36,24,51		4,14,10,25,55	
		32,36,29,53,47,56,41		2,23
38″	57,56,41,26,31,37,10,24,21,32		4,14,10,28,18	
		32,36,25,39,37,28,23		2,23
40″	57,56,41,59, 8, 2,50, 1,49,55		4,14,10,30,41	
		32,36,21,25,26,57,42		2,23
42″	57,56,42,31,44,24,15,28,47,37		4,14,10,33, 4	
		32,36,17,11,16,24,38		2,23
44″	57,56,43, 4,20,41,26,45,12,15		4,14,10,35,27	
		32,36,12,57, 5,49,11		2,23
46″	57,56,43,36,56,54,23,51, 1,26		4,14,10,37,50	
		32,36, 8,42,55,11,21		2,23
48″	57,56,44, 9,33, 3, 6,46,12,47		4,14,10,40,13	
		32,36, 4,28,44,31, 8		2,23
50″	57,56,44,42, 9, 7,35,30,43,55		4,14,10,42,36	
		32,36, 0,14,33,48,32		2,23
52″	57,56,45,14,45, 7,50, 4,32,27		4,14,10,44,59	
		32,35,56, 0,23, 3,33		2,23
54″	57,56,45,47,21, 3,50,27,36, 0		4,14,10,47,22	
		32,35,51,46,12,16,11		2,23
56″	57,56,46,19,56,55,36,39,52,11		4,14,10,49,45	
		32,35,47,32, 1,26,26		2,23
58″	57,56,46,52,32,43, 8,41,18,37		4,14,10,52, 8	
		32,35,43,17,50,34,18		
60″	57,56,47,25, 8,26,26,31,52,55			
exact	57,56,47,25, 8,26,26,31,50,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°58′ 0″	57,56,47,25, 8,26,26,31,50,19			
		32,35,39, 3,39,39,28		
2″	57,56,47,57,44, 5,30,11,29,47		4,14,10,56,55	
		32,35,34,49,28,42,33		2,23
4″	57,56,48,30,19,40,19,40,12,20		4,14,10,59,18	
		32,35,30,35,17,43,15		2,23
6″	57,56,49, 2,55,10,54,57,55,35		4,14,11, 1,41	
		32,35,26,21, 6,41,34		2,23
8″	57,56,49,35,30,37,16, 4,37, 9		4,14,11, 4, 4	
		32,35,22, 6,55,37,30		2,23
10″	57,56,50, 8, 5,59,23, 0,14,39		4,14,11, 6,27	
		32,35,17,52,44,31, 3		2,23
12″	57,56,50,40,41,17,15,44,45,42		4,14,11, 8,50	
		32,35,13,38,33,22,13		2,23
14″	57,56,51,13,16,30,54,18, 7,55		4,14,11,11,13	
		32,35, 9,24,22,11, 0		2,23
16″	57,56,51,45,51,40,18,40,18,55		4,14,11,13,36	
		32,35, 5,10,10,57,24		2,23
18″	57,56,52,18,26,45,28,51,16,19		4,14,11,15,59	
		32,35, 0,55,59,41,25		2,23
20″	57,56,52,51, 1,46,24,50,57,44		4,14,11,18,22	
		32,34,56,41,48,23, 3		2,23
22″	57,56,53,23,36,43, 6,39,20,47		4,14,11,20,45	
		32,34,52,27,37, 2,18		2,23
24″	57,56,53,56,11,35,34,16,23, 5		4,14,11,23, 8	
		32,34,48,13,25,39,10		2,23
26″	57,56,54,28,46,23,47,42, 2,15		4,14,11,25,31	
		32,34,43,59,14,13,39		2,23
28″	57,56,55, 1,21, 7,46,56,15,54		4,14,11,27,54	
		32,34,39,45, 2,45,45		2,23
30″	57,56,55,33,55,47,31,59, 1,39		4,14,11,30,17	
		32,34,35,30,51,15,28		2,23
32″	57,56,56, 6,30,23, 2,50,17, 7		4,14,11,32,40	
		32,34,31,16,39,42,48		2,23
34″	57,56,56,39, 4,54,19,29,59,55		4,14,11,35, 3	
		32,34,27, 2,28, 7,45		2,23
36″	57,56,57,11,39,21,21,58, 7,40		4,14,11,37,26	
		32,34,22,48,16,30,19		2,23
38″	57,56,57,44,13,44,10,14,37,59		4,14,11,39,49	
		32,34,18,34, 4,50,30		2,23
40″	57,56,58,16,48, 2,44,19,28,29		4,14,11,42,12	
		32,34,14,19,53, 8,18		2,23
42″	57,56,58,49,22,17, 4,12,36,47		4,14,11,44,35	
		32,34,10, 5,41,23,43		2,23
44″	57,56,59,21,56,27, 9,54, 0,30		4,14,11,46,58	
		32,34, 5,51,29,36,45		2,23
46″	57,56,59,54,30,33, 1,23,37,15		4,14,11,49,21	
		32,34, 1,37,17,47,24		2,23
48″	57,57, 0,27, 4,34,38,41,24,39		4,14,11,51,44	
		32,33,57,23, 5,55,40		2,23
50″	57,57, 0,59,38,32, 1,47,20,19		4,14,11,54, 7	
		32,33,53, 8,54, 1,33		2,23
52″	57,57, 1,32,12,25,10,41,21,52		4,14,11,56,30	
		32,33,48,54,42, 5, 3		2,23
54″	57,57, 2, 4,46,14, 5,23,26,55		4,14,11,58,53	
		32,33,44,40,30, 6,10		2,23
56″	57,57, 2,37,19,58,45,53,33, 5		4,14,12, 1,16	
		32,33,40,26,18, 4,54		2,23
58″	57,57, 3, 9,53,39,12,11,37,59		4,14,12, 3,39	
		32,33,36,12, 6, 1,15		
60″	57,57, 3,42,27,15,24,17,39,14			
exact	57,57, 3,42,27,15,24,17,43,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
74°59′ 0″	57,57, 3,42,27,15,24,17,43,54			
		32,33,31,57,53,55,48		
2″	57,57, 4,15, 0,47,22,11,39,42		4,14,12, 8,22	
		32,33,27,43,41,47,26		2,23
4″	57,57, 4,47,34,15, 5,53,27, 8		4,14,12,10,45	
		32,33,23,29,29,36,41		2,23
6″	57,57, 5,20, 7,38,35,23, 3,49		4,14,12,13, 8	
		32,33,19,15,17,23,33		2,23
8″	57,57, 5,52,40,57,50,40,27,22		4,14,12,15,31	
		32,33,15, 1, 5, 8, 2		2,23
10″	57,57, 6,25,14,12,51,45,35,24		4,14,12,17,54	
		32,33,10,46,52,50, 8		2,23
12″	57,57, 6,57,47,23,38,38,25,32		4,14,12,20,17	
		32,33, 6,32,40,29,51		2,23
14″	57,57, 7,30,20,30,11,18,55,23		4,14,12,22,40	
		32,33, 2,18,28, 7,11		2,23
16″	57,57, 8, 2,53,32,29,47, 2,34		4,14,12,25, 3	
		32,32,58, 4,15,42, 8		2,23
18″	57,57, 8,35,26,30,34, 2,44,42		4,14,12,27,26	
		32,32,53,50, 3,14,42		2,23
20″	57,57, 9, 7,59,24,24, 5,59,24		4,14,12,29,49	
		32,32,49,35,50,44,53		2,23
22″	57,57, 9,40,32,13,59,56,44,17		4,14,12,32,12	
		32,32,45,21,38,12,41		2,23
24″	57,57,10,13, 4,59,21,34,56,58		4,14,12,34,35	
		32,32,41, 7,25,38, 6		2,23
26″	57,57,10,45,37,40,29, 0,35, 4		4,14,12,36,58	
		32,32,36,53,13, 1, 8		2,23
28″	57,57,11,18,10,17,22,13,36,12		4,14,12,39,21	
		32,32,32,39, 0,21,47		2,23
30″	57,57,11,50,42,50, 1,13,57,59		4,14,12,41,44	
		32,32,28,24,47,40, 3		2,23
32″	57,57,12,23,15,18,26, 1,38, 2		4,14,12,44, 7	
		32,32,24,10,34,55,56		2,23
34″	57,57,12,55,47,42,36,36,33,58		4,14,12,46,30	
		32,32,19,56,22, 9,26		2,23
36″	57,57,13,28,20, 2,32,58,43,24		4,14,12,48,53	
		32,32,15,42, 9,20,33		2,23
38″	57,57,14, 0,52,18,15, 8, 3,57		4,14,12,51,16	
		32,32,11,27,56,29,17		2,23
40″	57,57,14,33,24,29,43, 4,33,14		4,14,12,53,39	
		32,32, 7,13,43,35,38		2,23
42″	57,57,15, 5,56,36,56,48, 8,52		4,14,12,56, 2	
		32,32, 2,59,30,39,36		2,23
44″	57,57,15,38,28,39,56,18,48,28		4,14,12,58,25	
		32,31,58,45,17,41,11		2,23
46″	57,57,16,11, 0,38,41,36,29,39		4,14,13, 0,48	
		32,31,54,31, 4,40,23		2,23
48″	57,57,16,43,32,33,12,41,10, 2		4,14,13, 3,11	
		32,31,50,16,51,37,12		2,23
50″	57,57,17,16, 4,23,29,32,47,14		4,14,13, 5,34	
		32,31,46, 2,38,31,38		2,23
52″	57,57,17,48,36, 9,32,11,18,52		4,14,13, 7,57	
		32,31,41,48,25,23,41		2,23
54″	57,57,18,21, 7,51,20,36,42,33		4,14,13,10,20	
		32,31,37,34,12,13,21		2,23
56″	57,57,18,53,39,28,54,48,55,54		4,14,13,12,43	
		32,31,33,19,59, 0,38		2,23
58″	57,57,19,26,11, 2,14,47,56,32		4,14,13,15, 6	
		32,31,29, 5,45,45,32		
60″	57,57,19,58,42,31,20,33,42, 4			
exact	57,57,19,58,42,31,20,33,58,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75° 0′ 0″	57,57,19,58,42,31,20,33,58,19			
		32,31,24,51,32,29,50		
2″	57,57,20,31,13,56,12, 6,28, 9		4,14,13,19,44	
		32,31,20,37,19,10, 6		2,23
4″	57,57,21, 3,45,16,49,25,38,15		4,14,13,22, 7	
		32,31,16,23, 5,47,59		2,23
6″	57,57,21,36,16,33,12,31,26,14		4,14,13,24,30	
		32,31,12, 8,52,23,29		2,23
8″	57,57,22, 8,47,45,21,23,49,43		4,14,13,26,53	
		32,31, 7,54,38,56,36		2,23
10″	57,57,22,41,18,53,16, 2,46,19		4,14,13,29,16	
		32,31, 3,40,25,27,20		2,23
12″	57,57,23,13,49,56,56,28,13,39		4,14,13,31,39	
		32,30,59,26,11,55,41		2,23
14″	57,57,23,46,20,56,22,40, 9,20		4,14,13,34, 2	
		32,30,55,11,58,21,39		2,23
16″	57,57,24,18,51,51,34,38,30,59		4,14,13,36,25	
		32,30,50,57,44,45,14		2,23
18″	57,57,24,51,22,42,32,23,16,13		4,14,13,38,48	
		32,30,46,43,31, 6,26		2,23
20″	57,57,25,23,53,29,15,54,22,39		4,14,13,41,11	
		32,30,42,29,17,25,15		2,23
22″	57,57,25,56,24,11,45,11,47,54		4,14,13,43,34	
		32,30,38,15, 3,41,41		2,23
24″	57,57,26,28,54,50, 0,15,29,35		4,14,13,45,57	
		32,30,34, 0,49,55,44		2,23
26″	57,57,27, 1,25,24, 1, 5,25,19		4,14,13,48,20	
		32,30,29,46,36, 7,24		2,23
28″	57,57,27,33,55,53,47,41,32,43		4,14,13,50,43	
		32,30,25,32,22,16,41		2,23
30″	57,57,28, 6,26,19,20, 3,49,24		4,14,13,53, 6	
		32,30,21,18, 8,23,35		2,23
32″	57,57,28,38,56,40,38,12,12,59		4,14,13,55,29	
		32,30,17, 3,54,28, 6		2,23
34″	57,57,29,11,26,57,42, 6,41, 5		4,14,13,57,52	
		32,30,12,49,40,30,14		2,23
36″	57,57,29,43,57,10,31,47,11,19		4,14,14, 0,15	
		32,30, 8,35,26,29,59		2,23
38″	57,57,30,16,27,19, 7,13,41,18		4,14,14, 2,38	
		32,30, 4,21,12,27,21		2,23
40″	57,57,30,48,57,23,28,26, 8,39		4,14,14, 5, 1	
		32,30, 0, 6,58,22,20		2,23
42″	57,57,31,21,27,23,35,24,30,59		4,14,14, 7,24	
		32,29,55,52,44,14,56		2,23
44″	57,57,31,53,57,19,28, 8,45,55		4,14,14, 9,47	
		32,29,51,38,30, 5, 9		2,23
46″	57,57,32,26,27,11, 6,38,51, 4		4,14,14,12,10	
		32,29,47,24,15,52,59		2,23
48″	57,57,32,58,56,58,30,54,44, 3		4,14,14,14,33	
		32,29,43,10, 1,38,26		2,23
50″	57,57,33,31,26,41,40,56,22,29		4,14,14,16,56	
		32,29,38,55,47,21,30		2,23
52″	57,57,34, 3,56,20,36,43,43,59		4,14,14,19,19	
		32,29,34,41,33, 2,11		2,23
54″	57,57,34,36,25,55,18,16,46,10		4,14,14,21,42	
		32,29,30,27,18,40,29		2,23
56″	57,57,35, 8,55,25,45,35,26,39		4,14,14,24, 5	
		32,29,26,13, 4,16,24		2,23
58″	57,57,35,41,24,51,58,39,43, 3		4,14,14,26,28	
		32,29,21,58,49,49,56		
60″	57,57,36,13,54,13,57,29,32,59			
exact	57,57,36,13,54,13,57,29,58,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75° 1′ 0″	57,57,36,13,54,13,57,29,58,37			
		32,29,17,44,35,23,55		
2″	57,57,36,46,23,31,42, 5,22,32		4,14,14,31, 2	
		32,29,13,30,20,52,53		2,23
4″	57,57,37,18,52,45,12,26,15,25		4,14,14,33,25	
		32,29, 9,16, 6,19,28		2,23
6″	57,57,37,51,21,54,28,32,34,53		4,14,14,35,48	
		32,29, 5, 1,51,43,40		2,23
8″	57,57,38,23,50,59,30,24,18,33		4,14,14,38,11	
		32,29, 0,47,37, 5,29		2,23
10″	57,57,38,56,20, 0,18, 1,24, 2		4,14,14,40,34	
		32,28,56,33,22,24,55		2,23
12″	57,57,39,28,48,56,51,23,48,57		4,14,14,42,57	
		32,28,52,19, 7,41,58		2,23
14″	57,57,40, 1,17,49,10,31,30,55		4,14,14,45,20	
		32,28,48, 4,52,56,38		2,23
16″	57,57,40,33,46,37,15,24,27,33		4,14,14,47,43	
		32,28,43,50,38, 8,55		2,23
18″	57,57,41, 6,15,21, 6, 2,36,28		4,14,14,50, 6	
		32,28,39,36,23,18,49		2,23
20″	57,57,41,38,44, 0,42,25,55,17		4,14,14,52,29	
		32,28,35,22, 8,26,20		2,23
22″	57,57,42,11,12,36, 4,34,21,37		4,14,14,54,52	
		32,28,31, 7,53,31,28		2,23
24″	57,57,42,43,41, 7,12,27,53, 5		4,14,14,57,15	
		32,28,26,53,38,34,13		2,23
26″	57,57,43,16, 9,34, 6, 6,27,18		4,14,14,59,38	
		32,28,22,39,23,34,35		2,23
28″	57,57,43,48,37,56,45,30, 1,53		4,14,15, 2, 1	
		32,28,18,25, 8,32,34		2,23
30″	57,57,44,21, 6,15,10,38,34,27		4,14,15, 4,24	
		32,28,14,10,53,28,10		2,23
32″	57,57,44,53,34,29,21,32, 2,37		4,14,15, 6,47	
		32,28, 9,56,38,21,23		2,23
34″	57,57,45,26, 2,39,18,10,24, 0		4,14,15, 9,10	
		32,28, 5,42,23,12,13		2,23
36″	57,57,45,58,30,45, 0,33,36,13		4,14,15,11,33	
		32,28, 1,28, 8, 0,40		2,23
38″	57,57,46,30,58,46,28,41,36,53		4,14,15,13,56	
		32,27,57,13,52,46,44		2,23
40″	57,57,47, 3,26,43,42,34,23,37		4,14,15,16,19	
		32,27,52,59,37,30,25		2,23
42″	57,57,47,35,54,36,42,11,54, 2		4,14,15,18,42	
		32,27,48,45,22,11,43		2,23
44″	57,57,48, 8,22,25,27,34, 5,45		4,14,15,21, 5	
		32,27,44,31, 6,50,38		2,23
46″	57,57,48,40,50, 9,58,40,56,23		4,14,15,23,28	
		32,27,40,16,51,27,10		2,23
48″	57,57,49,13,17,50,15,32,23,33		4,14,15,25,51	
		32,27,36, 2,36, 1,19		2,23
50″	57,57,49,45,45,26,18, 8,24,52		4,14,15,28,14	
		32,27,31,48,20,33, 5		2,23
52″	57,57,50,18,12,58, 6,28,57,57		4,14,15,30,37	
		32,27,27,34, 5, 2,28		2,23
54″	57,57,50,50,40,25,40,34, 0,25		4,14,15,33, 0	
		32,27,23,19,49,29,28		2,23
56″	57,57,51,23, 7,49, 0,23,29,53		4,14,15,35,23	
		32,27,19, 5,33,54, 5		2,23
58″	57,57,51,55,35, 8, 5,57,23,58		4,14,15,37,46	
		32,27,14,51,18,16,19		
60″	57,57,52,28, 2,22,57,15,40,17			
exact	57,57,52,28, 2,22,57,16,19,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75° 2′ 0″	57,57,52,28, 2,22,57,16,19,30			
		32,27,10,37, 2,40,21		
2″	57,57,53, 0,29,33,34,18,59,51		4,14,15,42,14	
		32,27, 6,22,46,58, 7		2,22
4″	57,57,53,32,56,39,57, 5,57,58		4,14,15,44,36	
		32,27, 2, 8,31,13,31		2,22
6″	57,57,54, 5,23,42, 5,37,11,29		4,14,15,46,58	
		32,26,57,54,15,26,33		2,22
8″	57,57,54,37,50,39,59,52,38, 2		4,14,15,49,20	
		32,26,53,39,59,37,13		2,22
10″	57,57,55,10,17,33,39,52,15,15		4,14,15,51,42	
		32,26,49,25,43,45,31		2,22
12″	57,57,55,42,44,23, 5,36, 0,46		4,14,15,54, 4	
		32,26,45,11,27,51,27		2,22
14″	57,57,56,15,11, 8,17, 3,52,13		4,14,15,56,26	
		32,26,40,57,11,55, 1		2,22
16″	57,57,56,47,37,49,14,15,47,14		4,14,15,58,48	
		32,26,36,42,55,56,13		2,22
18″	57,57,57,20, 4,25,57,11,43,27		4,14,16, 1,10	
		32,26,32,28,39,55, 3		2,22
20″	57,57,57,52,30,58,25,51,38,30		4,14,16, 3,32	
		32,26,28,14,23,51,31		2,22
22″	57,57,58,24,57,26,40,15,30, 1		4,14,16, 5,54	
		32,26,24, 0, 7,45,37		2,22
24″	57,57,58,57,23,50,40,23,15,38		4,14,16, 8,16	
		32,26,19,45,51,37,21		2,22
26″	57,57,59,29,50,10,26,14,52,59		4,14,16,10,38	
		32,26,15,31,35,26,43		2,22
28″	57,58, 0, 2,16,25,57,50,19,42		4,14,16,13, 0	
		32,26,11,17,19,13,43		2,22
30″	57,58, 0,34,42,37,15, 9,33,25		4,14,16,15,22	
		32,26, 7, 3, 2,58,21		2,22
32″	57,58, 1, 7, 8,44,18,12,31,46		4,14,16,17,44	
		32,26, 2,48,46,40,37		2,22
34″	57,58, 1,39,34,47, 6,59,12,23		4,14,16,20, 6	
		32,25,58,34,30,20,31		2,22
36″	57,58, 2,12, 0,45,41,29,32,54		4,14,16,22,28	
		32,25,54,20,13,58, 3		2,22
38″	57,58, 2,44,26,40, 1,43,30,57		4,14,16,24,50	
		32,25,50, 5,57,33,13		2,22
40″	57,58, 3,16,52,30, 7,41, 4,10		4,14,16,27,12	
		32,25,45,51,41, 6, 1		2,22
42″	57,58, 3,49,18,15,59,22,10,11		4,14,16,29,34	
		32,25,41,37,24,36,27		2,22
44″	57,58, 4,21,43,57,36,46,46,38		4,14,16,31,56	
		32,25,37,23, 8, 4,31		2,22
46″	57,58, 4,54, 9,34,59,54,51, 9		4,14,16,34,18	
		32,25,33, 8,51,30,13		2,22
48″	57,58, 5,26,35, 8, 8,46,21,22		4,14,16,36,40	
		32,25,28,54,34,53,33		2,22
50″	57,58, 5,59, 0,37, 3,21,14,55		4,14,16,39, 2	
		32,25,24,40,18,14,31		2,22
52″	57,58, 6,31,26, 1,43,39,29,26		4,14,16,41,24	
		32,25,20,26, 1,33, 7		2,22
54″	57,58, 7, 3,51,22, 9,41, 2,33		4,14,16,43,46	
		32,25,16,11,44,49,21		2,22
56″	57,58, 7,36,16,38,21,25,51,54		4,14,16,46, 8	
		32,25,11,57,28, 3,13		2,22
58″	57,58, 8, 8,41,50,18,53,55, 7		4,14,16,48,30	
		32,25, 7,43,11,14,43		
60″	57,58, 8,41, 6,58, 2, 5, 9,50			
exact	57,58, 8,41, 6,58, 2, 4,45,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75° 3′ 0″	57,58, 8,41, 6,58, 2, 4,45,26			
		32,25, 3,28,54,21,27		
2″	57,58, 9,13,32, 1,30,59, 6,53		4,14,16,53,23	
		32,24,59,14,37,28, 4		2,22
4″	57,58, 9,45,57, 0,45,36,34,57		4,14,16,55,45	
		32,24,55, 0,20,32,19		2,22
6″	57,58,10,18,21,55,45,57, 7,16		4,14,16,58, 7	
		32,24,50,46, 3,34,12		2,22
8″	57,58,10,50,46,46,32, 0,41,28		4,14,17, 0,29	
		32,24,46,31,46,33,43		2,22
10″	57,58,11,23,11,33, 3,47,15,11		4,14,17, 2,51	
		32,24,42,17,29,30,52		2,22
12″	57,58,11,55,36,15,21,16,46, 3		4,14,17, 5,13	
		32,24,38, 3,12,25,39		2,22
14″	57,58,12,28, 0,53,24,29,11,42		4,14,17, 7,35	
		32,24,33,48,55,18, 4		2,22
16″	57,58,13, 0,25,27,13,24,29,46		4,14,17, 9,57	
		32,24,29,34,38, 8, 7		2,22
18″	57,58,13,32,49,56,48, 2,37,53		4,14,17,12,19	
		32,24,25,20,20,55,48		2,22
20″	57,58,14, 5,14,22, 8,23,33,41		4,14,17,14,41	
		32,24,21, 6, 3,41, 7		2,22
22″	57,58,14,37,38,43,14,27,14,48		4,14,17,17, 3	
		32,24,16,51,46,24, 4		2,22
24″	57,58,15,10, 3, 0, 6,13,38,52		4,14,17,19,25	
		32,24,12,37,29, 4,39		2,22
26″	57,58,15,42,27,12,43,42,43,31		4,14,17,21,47	
		32,24, 8,23,11,42,52		2,22
28″	57,58,16,14,51,21, 6,54,26,23		4,14,17,24, 9	
		32,24, 4, 8,54,18,43		2,22
30″	57,58,16,47,15,25,15,48,45, 6		4,14,17,26,31	
		32,23,59,54,36,52,12		2,22
32″	57,58,17,19,39,25,10,25,37,18		4,14,17,28,53	
		32,23,55,40,19,23,19		2,22
34″	57,58,17,52, 3,20,50,45, 0,37		4,14,17,31,15	
		32,23,51,26, 1,52, 4		2,22
36″	57,58,18,24,27,12,16,46,52,41		4,14,17,33,37	
		32,23,47,11,44,18,27		2,22
38″	57,58,18,56,50,59,28,31,11, 8		4,14,17,35,59	
		32,23,42,57,26,42,28		2,22
40″	57,58,19,29,14,42,25,57,53,36		4,14,17,38,21	
		32,23,38,43, 9, 4, 7		2,22
42″	57,58,20, 1,38,21, 9, 6,57,43		4,14,17,40,43	
		32,23,34,28,51,23,24		2,22
44″	57,58,20,34, 1,55,37,58,21, 7		4,14,17,43, 5	
		32,23,30,14,33,40,19		2,22
46″	57,58,21, 6,25,25,52,32, 1,26		4,14,17,45,27	
		32,23,26, 0,15,54,52		2,22
48″	57,58,21,38,48,51,52,47,56,18		4,14,17,47,49	
		32,23,21,45,58, 7, 3		2,22
50″	57,58,22,11,12,13,38,46, 3,21		4,14,17,50,11	
		32,23,17,31,40,16,52		2,22
52″	57,58,22,43,35,31,10,26,20,13		4,14,17,52,33	
		32,23,13,17,22,24,19		2,22
54″	57,58,23,15,58,44,27,48,44,32		4,14,17,54,55	
		32,23, 9, 3, 4,29,24		2,22
56″	57,58,23,48,21,53,30,53,13,56		4,14,17,57,17	
		32,23, 4,48,46,32, 7		2,22
58″	57,58,24,20,44,58,19,39,46, 3		4,14,17,59,39	
		32,23, 0,34,28,32,28		
60″	57,58,24,53, 7,58,54, 8,18,31			
exact	57,58,24,53, 7,58,54, 8,10,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75° 4′ 0″	57,58,24,53, 7,58,54, 8,10,33			
		32,22,56,20,10,29,35		
2″	57,58,25,25,30,55,14,18,40, 8		4,14,18, 4,26	
		32,22,52, 5,52,25, 9		2,22
4″	57,58,25,57,53,47,20,11, 5,17		4,14,18, 6,48	
		32,22,47,51,34,18,21		2,22
6″	57,58,26,30,16,35,11,45,23,38		4,14,18, 9,10	
		32,22,43,37,16, 9,11		2,22
8″	57,58,27, 2,39,18,49, 1,32,49		4,14,18,11,32	
		32,22,39,22,57,57,39		2,22
10″	57,58,27,35, 1,58,11,59,30,28		4,14,18,13,54	
		32,22,35, 8,39,43,45		2,22
12″	57,58,28, 7,24,33,20,39,14,13		4,14,18,16,16	
		32,22,30,54,21,27,29		2,22
14″	57,58,28,39,47, 4,15, 0,41,42		4,14,18,18,38	
		32,22,26,40, 3, 8,51		2,22
16″	57,58,29,12, 9,30,55, 3,50,33		4,14,18,21, 0	
		32,22,22,25,44,47,51		2,22
18″	57,58,29,44,31,53,20,48,38,24		4,14,18,23,22	
		32,22,18,11,26,24,29		2,22
20″	57,58,30,16,54,11,32,15, 2,53		4,14,18,25,44	
		32,22,13,57, 7,58,45		2,22
22″	57,58,30,49,16,25,29,23, 1,38		4,14,18,28, 6	
		32,22, 9,42,49,30,39		2,22
24″	57,58,31,21,38,35,12,12,32,17		4,14,18,30,28	
		32,22, 5,28,31, 0,11		2,22
26″	57,58,31,54, 0,40,40,43,32,28		4,14,18,32,50	
		32,22, 1,14,12,27,21		2,22
28″	57,58,32,26,22,41,54,55,59,49		4,14,18,35,12	
		32,21,56,59,53,52, 9		2,22
30″	57,58,32,58,44,38,54,49,51,58		4,14,18,37,34	
		32,21,52,45,35,14,35		2,22
32″	57,58,33,31, 6,31,40,25, 6,33		4,14,18,39,56	
		32,21,48,31,16,34,39		2,22
34″	57,58,34, 3,28,20,11,41,41,12		4,14,18,42,18	
		32,21,44,16,57,52,21		2,22
36″	57,58,34,35,50, 4,28,39,33,33		4,14,18,44,40	
		32,21,40, 2,39, 7,41		2,22
38″	57,58,35, 8,11,44,31,18,41,14		4,14,18,47, 2	
		32,21,35,48,20,20,39		2,22
40″	57,58,35,40,33,20,19,39, 1,53		4,14,18,49,24	
		32,21,31,34, 1,31,15		2,22
42″	57,58,36,12,54,51,53,40,33, 8		4,14,18,51,46	
		32,21,27,19,42,39,29		2,22
44″	57,58,36,45,16,19,13,23,12,37		4,14,18,54, 8	
		32,21,23, 5,23,45,21		2,22
46″	57,58,37,17,37,42,18,46,57,58		4,14,18,56,30	
		32,21,18,51, 4,48,51		2,22
48″	57,58,37,49,59, 1, 9,51,46,49		4,14,18,58,52	
		32,21,14,36,45,49,59		2,22
50″	57,58,38,22,20,15,46,37,36,48		4,14,19, 1,14	
		32,21,10,22,26,48,45		2,22
52″	57,58,38,54,41,26, 9, 4,25,33		4,14,19, 3,36	
		32,21, 6, 8, 7,45, 9		2,22
54″	57,58,39,27, 2,32,17,12,10,42		4,14,19, 5,58	
		32,21, 1,53,48,39,11		2,22
56″	57,58,39,59,23,34,11, 0,49,53		4,14,19, 8,20	
		32,20,57,39,29,30,51		2,22
58″	57,58,40,31,44,31,50,30,20,44		4,14,19,10,42	
		32,20,53,25,10,20, 9		
60″	57,58,41, 4, 5,25,15,40,40,53			
exact	57,58,41, 4, 5,25,15,40,38,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75° 5′ 0″	57,58,41, 4, 5,25,15,40,38,41			
		32,20,49,10,51, 7, 1		
2″	57,58,41,36,26,14,26,31,45,42		4,14,19,15,25	
		32,20,44,56,31,51,36		2,22
4″	57,58,42, 8,46,59,23, 3,37,18		4,14,19,17,47	
		32,20,40,42,12,33,49		2,22
6″	57,58,42,41, 7,40, 5,16,11, 7		4,14,19,20, 9	
		32,20,36,27,53,13,40		2,22
8″	57,58,43,13,28,16,33, 9,24,47		4,14,19,22,31	
		32,20,32,13,33,51, 9		2,22
10″	57,58,43,45,48,48,46,43,15,56		4,14,19,24,53	
		32,20,27,59,14,26,16		2,22
12″	57,58,44,18, 9,16,45,57,42,12		4,14,19,27,15	
		32,20,23,44,54,59, 1		2,22
14″	57,58,44,50,29,40,30,52,41,13		4,14,19,29,37	
		32,20,19,30,35,29,24		2,22
16″	57,58,45,22,50, 0, 1,28,10,37		4,14,19,31,59	
		32,20,15,16,15,57,25		2,22
18″	57,58,45,55,10,15,17,44, 8, 2		4,14,19,34,21	
		32,20,11, 1,56,23, 4		2,22
20″	57,58,46,27,30,26,19,40,31, 6		4,14,19,36,43	
		32,20, 6,47,36,46,21		2,22
22″	57,58,46,59,50,33, 7,17,17,27		4,14,19,39, 5	
		32,20, 2,33,17, 7,16		2,22
24″	57,58,47,32,10,35,40,34,24,43		4,14,19,41,27	
		32,19,58,18,57,25,49		2,22
26″	57,58,48, 4,30,33,59,31,50,32		4,14,19,43,49	
		32,19,54, 4,37,42, 0		2,22
28″	57,58,48,36,50,28, 4, 9,32,32		4,14,19,46,11	
		32,19,49,50,17,55,49		2,22
30″	57,58,49, 9,10,17,54,27,28,21		4,14,19,48,33	
		32,19,45,35,58, 7,16		2,22
32″	57,58,49,41,30, 3,30,25,35,37		4,14,19,50,55	
		32,19,41,21,38,16,21		2,22
34″	57,58,50,13,49,44,52, 3,51,58		4,14,19,53,17	
		32,19,37, 7,18,23, 4		2,22
36″	57,58,50,46, 9,21,59,22,15, 2		4,14,19,55,39	
		32,19,32,52,58,27,25		2,22
38″	57,58,51,18,28,54,52,20,42,27		4,14,19,58, 1	
		32,19,28,38,38,29,24		2,22
40″	57,58,51,50,48,23,30,59,11,51		4,14,20, 0,23	
		32,19,24,24,18,29, 1		2,22
42″	57,58,52,23, 7,47,55,17,40,52		4,14,20, 2,45	
		32,19,20, 9,58,26,16		2,22
44″	57,58,52,55,27, 8, 5,16, 7, 8		4,14,20, 5, 7	
		32,19,15,55,38,21, 9		2,22
46″	57,58,53,27,46,24, 0,54,28,17		4,14,20, 7,29	
		32,19,11,41,18,13,40		2,22
48″	57,58,54, 0, 5,35,42,12,41,57		4,14,20, 9,51	
		32,19, 7,26,58, 3,49		2,22
50″	57,58,54,32,24,43, 9,10,45,46		4,14,20,12,13	
		32,19, 3,12,37,51,36		2,22
52″	57,58,55, 4,43,46,21,48,37,22		4,14,20,14,35	
		32,18,58,58,17,37, 1		2,22
54″	57,58,55,37, 2,45,20, 6,14,23		4,14,20,16,57	
		32,18,54,43,57,20, 4		2,22
56″	57,58,56, 9,21,40, 4, 3,34,27		4,14,20,19,19	
		32,18,50,29,37, 0,45		2,22
58″	57,58,56,41,40,30,33,40,35,12		4,14,20,21,41	
		32,18,46,15,16,39, 4		
60″	57,58,57,13,59,16,48,57,14,16			
exact	57,58,57,13,59,16,48,57,23,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75° 6′ 0″	57,58,57,13,59,16,48,57,23,25			
		32,18,42, 0,56,16, 7		
2″	57,58,57,46,17,58,49,53,39,32		4,14,20,26,19	
		32,18,37,46,35,49,48		2,22
4″	57,58,58,18,36,36,36,29,29,20		4,14,20,28,41	
		32,18,33,32,15,21, 7		2,22
6″	57,58,58,50,55,10, 8,44,50,27		4,14,20,31, 3	
		32,18,29,17,54,50, 4		2,22
8″	57,58,59,23,13,39,26,39,40,31		4,14,20,33,25	
		32,18,25, 3,34,16,39		2,22
10″	57,58,59,55,32, 4,30,13,57,10		4,14,20,35,47	
		32,18,20,49,13,40,52		2,22
12″	57,59, 0,27,50,25,19,27,38, 2		4,14,20,38, 9	
		32,18,16,34,53, 2,43		2,22
14″	57,59, 1, 0, 8,41,54,20,40,45		4,14,20,40,31	
		32,18,12,20,32,22,12		2,22
16″	57,59, 1,32,26,54,14,53, 2,57		4,14,20,42,53	
		32,18, 8, 6,11,39,19		2,22
18″	57,59, 2, 4,45, 2,21, 4,42,16		4,14,20,45,15	
		32,18, 3,51,50,54, 4		2,22
20″	57,59, 2,37, 3, 6,12,55,36,20		4,14,20,47,37	
		32,17,59,37,30, 6,27		2,22
22″	57,59, 3, 9,21, 5,50,25,42,47		4,14,20,49,59	
		32,17,55,23, 9,16,28		2,22
24″	57,59, 3,41,39, 1,13,34,59,15		4,14,20,52,21	
		32,17,51, 8,48,24, 7		2,22
26″	57,59, 4,13,56,52,22,23,23,22		4,14,20,54,43	
		32,17,46,54,27,29,24		2,22
28″	57,59, 4,46,14,39,16,50,52,46		4,14,20,57, 5	
		32,17,42,40, 6,32,19		2,22
30″	57,59, 5,18,32,21,56,57,25, 5		4,14,20,59,27	
		32,17,38,25,45,32,52		2,22
32″	57,59, 5,50,50, 0,22,42,57,57		4,14,21, 1,49	
		32,17,34,11,24,31, 3		2,22
34″	57,59, 6,23, 7,34,34, 7,29, 0		4,14,21, 4,11	
		32,17,29,57, 3,26,52		2,22
36″	57,59, 6,55,25, 4,31,10,55,52		4,14,21, 6,33	
		32,17,25,42,42,20,19		2,22
38″	57,59, 7,27,42,30,13,53,16,11		4,14,21, 8,55	
		32,17,21,28,21,11,24		2,22
40″	57,59, 7,59,59,51,42,14,27,35		4,14,21,11,17	
		32,17,17,14, 0, 0, 7		2,22
42″	57,59, 8,32,17, 8,56,14,27,42		4,14,21,13,39	
		32,17,12,59,38,46,28		2,22
44″	57,59, 9, 4,34,21,55,53,14,10		4,14,21,16, 1	
		32,17, 8,45,17,30,27		2,22
46″	57,59, 9,36,51,30,41,10,44,37		4,14,21,18,23	
		32,17, 4,30,56,12, 4		2,22
48″	57,59,10, 9, 8,35,12, 6,56,41		4,14,21,20,45	
		32,17, 0,16,34,51,19		2,22
50″	57,59,10,41,25,35,28,41,48, 0		4,14,21,23, 7	
		32,16,56, 2,13,28,12		2,22
52″	57,59,11,13,42,31,30,55,16,12		4,14,21,25,29	
		32,16,51,47,52, 2,43		2,22
54″	57,59,11,45,59,23,18,47,18,55		4,14,21,27,51	
		32,16,47,33,30,34,52		2,22
56″	57,59,12,18,16,10,52,17,53,47		4,14,21,30,13	
		32,16,43,19, 9, 4,39		2,22
58″	57,59,12,50,32,54,11,26,58,26		4,14,21,32,35	
		32,16,39, 4,47,32, 4		
60″	57,59,13,22,49,33,16,14,30,30			
exact	57,59,13,22,49,33,16,14,48, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75° 7′ 0″	57,59,13,22,49,33,16,14,48, 2			
		32,16,34,50,25,59,12		
2″	57,59,13,55, 6, 8, 6,40,47,14		4,14,21,37, 9	
		32,16,30,36, 4,22, 3		2,22
4″	57,59,14,27,22,38,42,45, 9,17		4,14,21,39,31	
		32,16,26,21,42,42,32		2,22
6″	57,59,14,59,39, 5, 4,27,51,49		4,14,21,41,53	
		32,16,22, 7,21, 0,39		2,22
8″	57,59,15,31,55,27,11,48,52,28		4,14,21,44,15	
		32,16,17,52,59,16,24		2,22
10″	57,59,16, 4,11,45, 4,48, 8,52		4,14,21,46,37	
		32,16,13,38,37,29,47		2,22
12″	57,59,16,36,27,58,43,25,38,39		4,14,21,48,59	
		32,16, 9,24,15,40,48		2,22
14″	57,59,17, 8,44, 8, 7,41,19,27		4,14,21,51,21	
		32,16, 5, 9,53,49,27		2,22
16″	57,59,17,41, 0,13,17,35, 8,54		4,14,21,53,43	
		32,16, 0,55,31,55,44		2,22
18″	57,59,18,13,16,14,13, 7, 4,38		4,14,21,56, 5	
		32,15,56,41, 9,59,39		2,22
20″	57,59,18,45,32,10,54,17, 4,17		4,14,21,58,27	
		32,15,52,26,48, 1,12		2,22
22″	57,59,19,17,48, 3,21, 5, 5,29		4,14,22, 0,49	
		32,15,48,12,26, 0,23		2,22
24″	57,59,19,50, 3,51,33,31, 5,52		4,14,22, 3,11	
		32,15,43,58, 3,57,12		2,22
26″	57,59,20,22,19,35,31,35, 3, 4		4,14,22, 5,33	
		32,15,39,43,41,51,39		2,22
28″	57,59,20,54,35,15,15,16,54,43		4,14,22, 7,55	
		32,15,35,29,19,43,44		2,22
30″	57,59,21,26,50,50,44,36,38,27		4,14,22,10,17	
		32,15,31,14,57,33,27		2,22
32″	57,59,21,59, 6,21,59,34,11,54		4,14,22,12,39	
		32,15,27, 0,35,20,48		2,22
34″	57,59,22,31,21,49, 0, 9,32,42		4,14,22,15, 1	
		32,15,22,46,13, 5,47		2,22
36″	57,59,23, 3,37,11,46,22,38,29		4,14,22,17,23	
		32,15,18,31,50,48,24		2,22
38″	57,59,23,35,52,30,18,13,26,53		4,14,22,19,45	
		32,15,14,17,28,28,39		2,22
40″	57,59,24, 8, 7,44,35,41,55,32		4,14,22,22, 7	
		32,15,10, 3, 6, 6,32		2,22
42″	57,59,24,40,22,54,38,48, 2, 4		4,14,22,24,29	
		32,15, 5,48,43,42, 3		2,22
44″	57,59,25,12,38, 0,27,31,44, 7		4,14,22,26,51	
		32,15, 1,34,21,15,12		2,22
46″	57,59,25,44,53, 2, 1,52,59,19		4,14,22,29,13	
		32,14,57,19,58,45,59		2,22
48″	57,59,26,17, 7,59,21,51,45,18		4,14,22,31,35	
		32,14,53, 5,36,14,24		2,22
50″	57,59,26,49,22,52,27,27,59,42		4,14,22,33,57	
		32,14,48,51,13,40,27		2,22
52″	57,59,27,21,37,41,18,41,40, 9		4,14,22,36,19	
		32,14,44,36,51, 4, 8		2,22
54″	57,59,27,53,52,25,55,32,44,17		4,14,22,38,41	
		32,14,40,22,28,25,27		2,22
56″	57,59,28,26, 7, 6,18, 1, 9,44		4,14,22,41, 3	
		32,14,36, 8, 5,44,24		2,22
58″	57,59,28,58,21,42,26, 6,54, 8		4,14,22,43,25	
		32,14,31,53,43, 0,59		
60″	57,59,29,30,36,14,19,49,55, 7			
exact	57,59,29,30,36,14,19,50,25,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75° 8′ 0″	57,59,29,30,36,14,19,50,25,34			
		32,14,27,39,20,18,35		
2″	57,59,30, 2,50,41,59,10,44, 9		4,14,22,47,54	
		32,14,23,24,57,30,41		2,21
4″	57,59,30,35, 5, 5,24, 8,14,50		4,14,22,50,15	
		32,14,19,10,34,40,26		2,21
6″	57,59,31, 7,19,24,34,42,55,16		4,14,22,52,36	
		32,14,14,56,11,47,50		2,21
8″	57,59,31,39,33,39,30,54,43, 6		4,14,22,54,57	
		32,14,10,41,48,52,53		2,21
10″	57,59,32,11,47,50,12,43,35,59		4,14,22,57,18	
		32,14, 6,27,25,55,35		2,21
12″	57,59,32,44, 1,56,40, 9,31,34		4,14,22,59,39	
		32,14, 2,13, 2,55,56		2,21
14″	57,59,33,16,15,58,53,12,27,30		4,14,23, 2, 0	
		32,13,57,58,39,53,56		2,21
16″	57,59,33,48,29,56,51,52,21,26		4,14,23, 4,21	
		32,13,53,44,16,49,35		2,21
18″	57,59,34,20,43,50,36, 9,11, 1		4,14,23, 6,42	
		32,13,49,29,53,42,53		2,21
20″	57,59,34,52,57,40, 6, 2,53,54		4,14,23, 9, 3	
		32,13,45,15,30,33,50		2,21
22″	57,59,35,25,11,25,21,33,27,44		4,14,23,11,24	
		32,13,41, 1, 7,22,26		2,21
24″	57,59,35,57,25, 6,22,40,50,10		4,14,23,13,45	
		32,13,36,46,44, 8,41		2,21
26″	57,59,36,29,38,43, 9,24,58,51		4,14,23,16, 6	
		32,13,32,32,20,52,35		2,21
28″	57,59,37, 1,52,15,41,45,51,26		4,14,23,18,27	
		32,13,28,17,57,34, 8		2,21
30″	57,59,37,34, 5,43,59,43,25,34		4,14,23,20,48	
		32,13,24, 3,34,13,20		2,21
32″	57,59,38, 6,19, 8, 3,17,38,54		4,14,23,23, 9	
		32,13,19,49,10,50,11		2,21
34″	57,59,38,38,32,27,52,28,29, 5		4,14,23,25,30	
		32,13,15,34,47,24,41		2,21
36″	57,59,39,10,45,43,27,15,53,46		4,14,23,27,51	
		32,13,11,20,23,56,50		2,21
38″	57,59,39,42,58,54,47,39,50,36		4,14,23,30,12	
		32,13, 7, 6, 0,26,38		2,21
40″	57,59,40,15,12, 1,53,40,17,14		4,14,23,32,33	
		32,13, 2,51,36,54, 5		2,21
42″	57,59,40,47,25, 4,45,17,11,19		4,14,23,34,54	
		32,12,58,37,13,19,11		2,21
44″	57,59,41,19,38, 3,22,30,30,30		4,14,23,37,15	
		32,12,54,22,49,41,56		2,21
46″	57,59,41,51,50,57,45,20,12,26		4,14,23,39,36	
		32,12,50, 8,26, 2,20		2,21
48″	57,59,42,24, 3,47,53,46,14,46		4,14,23,41,57	
		32,12,45,54, 2,20,23		2,21
50″	57,59,42,56,16,33,47,48,35, 9		4,14,23,44,18	
		32,12,41,39,38,36, 5		2,21
52″	57,59,43,28,29,15,27,27,11,14		4,14,23,46,39	
		32,12,37,25,14,49,26		2,21
54″	57,59,44, 0,41,52,52,42, 0,40		4,14,23,49, 0	
		32,12,33,10,51, 0,26		2,21
56″	57,59,44,32,54,26, 3,33, 1, 6		4,14,23,51,21	
		32,12,28,56,27, 9, 5		2,21
58″	57,59,45, 5, 6,55, 0, 0,10,11		4,14,23,53,42	
		32,12,24,42, 3,15,23		
60″	57,59,45,37,19,19,42, 3,25,34			
exact	57,59,45,37,19,19,42, 2,58,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75° 9′ 0″	57,59,45,37,19,19,42, 2,58,45			
		32,12,20,27,39,16,35		
2″	57,59,46, 9,31,40, 9,42,15,20		4,14,23,58,34	
		32,12,16,13,15,18, 1		2,21
4″	57,59,46,41,43,56,22,57,33,21		4,14,24, 0,55	
		32,12,11,58,51,17, 6		2,21
6″	57,59,47,13,56, 8,21,48,50,27		4,14,24, 3,16	
		32,12, 7,44,27,13,50		2,21
8″	57,59,47,46, 8,16, 6,16, 4,17		4,14,24, 5,37	
		32,12, 3,30, 3, 8,13		2,21
10″	57,59,48,18,20,19,36,19,12,30		4,14,24, 7,58	
		32,11,59,15,39, 0,15		2,21
12″	57,59,48,50,32,18,51,58,12,45		4,14,24,10,19	
		32,11,55, 1,14,49,56		2,21
14″	57,59,49,22,44,13,53,13, 2,41		4,14,24,12,40	
		32,11,50,46,50,37,16		2,21
16″	57,59,49,54,56, 4,40, 3,39,57		4,14,24,15, 1	
		32,11,46,32,26,22,15		2,21
18″	57,59,50,27, 7,51,12,30, 2,12		4,14,24,17,22	
		32,11,42,18, 2, 4,53		2,21
20″	57,59,50,59,19,33,30,32, 7, 5		4,14,24,19,43	
		32,11,38, 3,37,45,10		2,21
22″	57,59,51,31,31,11,34, 9,52,15		4,14,24,22, 4	
		32,11,33,49,13,23, 6		2,21
24″	57,59,52, 3,42,45,23,23,15,21		4,14,24,24,25	
		32,11,29,34,48,58,41		2,21
26″	57,59,52,35,54,14,58,12,14, 2		4,14,24,26,46	
		32,11,25,20,24,31,55		2,21
28″	57,59,53, 8, 5,40,18,36,45,57		4,14,24,29, 7	
		32,11,21, 6, 0, 2,48		2,21
30″	57,59,53,40,17, 1,24,36,48,45		4,14,24,31,28	
		32,11,16,51,35,31,20		2,21
32″	57,59,54,12,28,18,16,12,20, 5		4,14,24,33,49	
		32,11,12,37,10,57,31		2,21
34″	57,59,54,44,39,30,53,23,17,36		4,14,24,36,10	
		32,11, 8,22,46,21,21		2,21
36″	57,59,55,16,50,39,16, 9,38,57		4,14,24,38,31	
		32,11, 4, 8,21,42,50		2,21
38″	57,59,55,49, 1,43,24,31,21,47		4,14,24,40,52	
		32,10,59,53,57, 1,58		2,21
40″	57,59,56,21,12,43,18,28,23,45		4,14,24,43,13	
		32,10,55,39,32,18,45		2,21
42″	57,59,56,53,23,38,58, 0,42,30		4,14,24,45,34	
		32,10,51,25, 7,33,11		2,21
44″	57,59,57,25,34,30,23, 8,15,41		4,14,24,47,55	
		32,10,47,10,42,45,16		2,21
46″	57,59,57,57,45,17,33,51, 0,57		4,14,24,50,16	
		32,10,42,56,17,55, 0		2,21
48″	57,59,58,29,56, 0,30, 8,55,57		4,14,24,52,37	
		32,10,38,41,53, 2,23		2,21
50″	57,59,59, 2, 6,39,12, 1,58,20		4,14,24,54,58	
		32,10,34,27,28, 7,25		2,21
52″	57,59,59,34,17,13,39,30, 5,45		4,14,24,57,19	
		32,10,30,13, 3,10, 6		2,21
54″	58, 0, 0, 6,27,43,52,33,15,51		4,14,24,59,40	
		32,10,25,58,38,10,26		2,21
56″	58, 0, 0,38,38, 9,51,11,26,17		4,14,25, 2, 1	
		32,10,21,44,13, 8,25		2,21
58″	58, 0, 1,10,48,31,35,24,34,42		4,14,25, 4,22	
		32,10,17,29,48, 4, 3		
60″	58, 0, 1,42,58,49, 5,12,38,45			
exact	58, 0, 1,42,58,49, 5,12,20, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°10′ 0″	58, 0, 1,42,58,49, 5,12,20, 7			
		32,10,13,15,22,55,33		
2″	58, 0, 2,15, 9, 2,20,35,15,40		4,14,25, 9,10	
		32,10, 9, 0,57,46,23		2,21
4″	58, 0, 2,47,19,11,21,33, 2, 3		4,14,25,11,31	
		32,10, 4,46,32,34,52		2,21
6″	58, 0, 3,19,29,16, 8, 5,36,55		4,14,25,13,52	
		32,10, 0,32, 7,21, 0		2,21
8″	58, 0, 3,51,39,16,40,12,57,55		4,14,25,16,13	
		32, 9,56,17,42, 4,47		2,21
10″	58, 0, 4,23,49,12,57,55, 2,42		4,14,25,18,34	
		32, 9,52, 3,16,46,13		2,21
12″	58, 0, 4,55,59, 5, 1,11,48,55		4,14,25,20,55	
		32, 9,47,48,51,25,18		2,21
14″	58, 0, 5,28, 8,52,50, 3,14,13		4,14,25,23,16	
		32, 9,43,34,26, 2, 2		2,21
16″	58, 0, 6, 0,18,36,24,29,16,15		4,14,25,25,37	
		32, 9,39,20, 0,36,25		2,21
18″	58, 0, 6,32,28,15,44,29,52,40		4,14,25,27,58	
		32, 9,35, 5,35, 8,27		2,21
20″	58, 0, 7, 4,37,50,50, 5, 1, 7		4,14,25,30,19	
		32, 9,30,51, 9,38, 8		2,21
22″	58, 0, 7,36,47,21,41,14,39,15		4,14,25,32,40	
		32, 9,26,36,44, 5,28		2,21
24″	58, 0, 8, 8,56,48,17,58,44,43		4,14,25,35, 1	
		32, 9,22,22,18,30,27		2,21
26″	58, 0, 8,41, 6,10,40,17,15,10		4,14,25,37,22	
		32, 9,18, 7,52,53, 5		2,21
28″	58, 0, 9,13,15,28,48,10, 8,15		4,14,25,39,43	
		32, 9,13,53,27,13,22		2,21
30″	58, 0, 9,45,24,42,41,37,21,37		4,14,25,42, 4	
		32, 9, 9,39, 1,31,18		2,21
32″	58, 0,10,17,33,52,20,38,52,55		4,14,25,44,25	
		32, 9, 5,24,35,46,53		2,21
34″	58, 0,10,49,42,57,45,14,39,48		4,14,25,46,46	
		32, 9, 1,10,10, 0, 7		2,21
36″	58, 0,11,21,51,58,55,24,39,55		4,14,25,49, 7	
		32, 8,56,55,44,11, 0		2,21
38″	58, 0,11,54, 0,55,51, 8,50,55		4,14,25,51,28	
		32, 8,52,41,18,19,32		2,21
40″	58, 0,12,26, 9,48,32,27,10,27		4,14,25,53,49	
		32, 8,48,26,52,25,43		2,21
42″	58, 0,12,58,18,36,59,19,36,10		4,14,25,56,10	
		32, 8,44,12,26,29,33		2,21
44″	58, 0,13,30,27,21,11,46, 5,43		4,14,25,58,31	
		32, 8,39,58, 0,31, 2		2,21
46″	58, 0,14, 2,36, 1, 9,46,36,45		4,14,26, 0,52	
		32, 8,35,43,34,30,10		2,21
48″	58, 0,14,34,44,36,53,21, 6,55		4,14,26, 3,13	
		32, 8,31,29, 8,26,57		2,21
50″	58, 0,15, 6,53, 8,22,29,33,52		4,14,26, 5,34	
		32, 8,27,14,42,21,23		2,21
52″	58, 0,15,39, 1,35,37,11,55,15		4,14,26, 7,55	
		32, 8,23, 0,16,13,28		2,21
54″	58, 0,16,11, 9,58,37,28, 8,43		4,14,26,10,16	
		32, 8,18,45,50, 3,12		2,21
56″	58, 0,16,43,18,17,23,18,11,55		4,14,26,12,37	
		32, 8,14,31,23,50,35		2,21
58″	58, 0,17,15,26,31,54,42, 2,30		4,14,26,14,58	
		32, 8,10,16,57,35,37		
60″	58, 0,17,47,34,42,11,39,38, 7			
exact	58, 0,17,47,34,42,11,39,31,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°11′ 0″	58, 0,17,47,34,42,11,39,31,52			
		32, 8, 6, 2,31,17,47		
2″	58, 0,18,19,42,48,14,10,49,39		4,14,26,19,41	
		32, 8, 1,48, 4,58, 6		2,21
4″	58, 0,18,51,50,50, 2,15,47,45		4,14,26,22, 2	
		32, 7,57,33,38,36, 4		2,21
6″	58, 0,19,23,58,47,35,54,23,49		4,14,26,24,23	
		32, 7,53,19,12,11,41		2,21
8″	58, 0,19,56, 6,40,55, 6,35,30		4,14,26,26,44	
		32, 7,49, 4,45,44,57		2,21
10″	58, 0,20,28,14,29,59,52,20,27		4,14,26,29, 5	
		32, 7,44,50,19,15,52		2,21
12″	58, 0,21, 0,22,14,50,11,36,19		4,14,26,31,26	
		32, 7,40,35,52,44,26		2,21
14″	58, 0,21,32,29,55,26, 4,20,45		4,14,26,33,47	
		32, 7,36,21,26,10,39		2,21
16″	58, 0,22, 4,37,31,47,30,31,24		4,14,26,36, 8	
		32, 7,32, 6,59,34,31		2,21
18″	58, 0,22,36,45, 3,54,30, 5,55		4,14,26,38,29	
		32, 7,27,52,32,56, 2		2,21
20″	58, 0,23, 8,52,31,47, 3, 1,57		4,14,26,40,50	
		32, 7,23,38, 6,15,12		2,21
22″	58, 0,23,40,59,55,25, 9,17, 9		4,14,26,43,11	
		32, 7,19,23,39,32, 1		2,21
24″	58, 0,24,13, 7,14,48,48,49,10		4,14,26,45,32	
		32, 7,15, 9,12,46,29		2,21
26″	58, 0,24,45,14,29,58, 1,35,39		4,14,26,47,53	
		32, 7,10,54,45,58,36		2,21
28″	58, 0,25,17,21,40,52,47,34,15		4,14,26,50,14	
		32, 7, 6,40,19, 8,22		2,21
30″	58, 0,25,49,28,47,33, 6,42,37		4,14,26,52,35	
		32, 7, 2,25,52,15,47		2,21
32″	58, 0,26,21,35,49,58,58,58,24		4,14,26,54,56	
		32, 6,58,11,25,20,51		2,21
34″	58, 0,26,53,42,48,10,24,19,15		4,14,26,57,17	
		32, 6,53,56,58,23,34		2,21
36″	58, 0,27,25,49,42, 7,22,42,49		4,14,26,59,38	
		32, 6,49,42,31,23,56		2,21
38″	58, 0,27,57,56,31,49,54, 6,45		4,14,27, 1,59	
		32, 6,45,28, 4,21,57		2,21
40″	58, 0,28,30, 3,17,17,58,28,42		4,14,27, 4,20	
		32, 6,41,13,37,17,37		2,21
42″	58, 0,29, 2, 9,58,31,35,46,19		4,14,27, 6,41	
		32, 6,36,59,10,10,56		2,21
44″	58, 0,29,34,16,35,30,45,57,15		4,14,27, 9, 2	
		32, 6,32,44,43, 1,54		2,21
46″	58, 0,30, 6,23, 8,15,28,59, 9		4,14,27,11,23	
		32, 6,28,30,15,50,31		2,21
48″	58, 0,30,38,29,36,45,44,49,40		4,14,27,13,44	
		32, 6,24,15,48,36,47		2,21
50″	58, 0,31,10,36, 1, 1,33,26,27		4,14,27,16, 5	
		32, 6,20, 1,21,20,42		2,21
52″	58, 0,31,42,42,21, 2,54,47, 9		4,14,27,18,26	
		32, 6,15,46,54, 2,16		2,21
54″	58, 0,32,14,48,36,49,48,49,25		4,14,27,20,47	
		32, 6,11,32,26,41,29		2,21
56″	58, 0,32,46,54,48,22,15,30,54		4,14,27,23, 8	
		32, 6, 7,17,59,18,21		2,21
58″	58, 0,33,19, 0,55,40,14,49,15		4,14,27,25,29	
		32, 6, 3, 3,31,52,52		
60″	58, 0,33,51, 6,58,43,46,42, 7			
exact	58, 0,33,51, 6,58,43,46,46, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°12′ 0″	58, 0,33,51, 6,58,43,46,46, 1			
		32, 5,58,49, 4,25,37		
2″	58, 0,34,23,12,57,32,51,11,38		4,14,27,30, 8	
		32, 5,54,34,36,55,29		2,21
4″	58, 0,34,55,18,52, 7,28, 7, 7		4,14,27,32,29	
		32, 5,50,20, 9,23, 0		2,21
6″	58, 0,35,27,24,42,27,37,30, 7		4,14,27,34,50	
		32, 5,46, 5,41,48,10		2,21
8″	58, 0,35,59,30,28,33,19,18,17		4,14,27,37,11	
		32, 5,41,51,14,10,59		2,21
10″	58, 0,36,31,36,10,24,33,29,16		4,14,27,39,32	
		32, 5,37,36,46,31,27		2,21
12″	58, 0,37, 3,41,48, 1,20, 0,43		4,14,27,41,53	
		32, 5,33,22,18,49,34		2,21
14″	58, 0,37,35,47,21,23,38,50,17		4,14,27,44,14	
		32, 5,29, 7,51, 5,20		2,21
16″	58, 0,38, 7,52,50,31,29,55,37		4,14,27,46,35	
		32, 5,24,53,23,18,45		2,21
18″	58, 0,38,39,58,15,24,53,14,22		4,14,27,48,56	
		32, 5,20,38,55,29,49		2,21
20″	58, 0,39,12, 3,36, 3,48,44,11		4,14,27,51,17	
		32, 5,16,24,27,38,32		2,21
22″	58, 0,39,44, 8,52,28,16,22,43		4,14,27,53,38	
		32, 5,12, 9,59,44,54		2,21
24″	58, 0,40,16,14, 4,38,16, 7,37		4,14,27,55,59	
		32, 5, 7,55,31,48,55		2,21
26″	58, 0,40,48,19,12,33,47,56,32		4,14,27,58,20	
		32, 5, 3,41, 3,50,35		2,21
28″	58, 0,41,20,24,16,14,51,47, 7		4,14,28, 0,41	
		32, 4,59,26,35,49,54		2,21
30″	58, 0,41,52,29,15,41,27,37, 1		4,14,28, 3, 2	
		32, 4,55,12, 7,46,52		2,21
32″	58, 0,42,24,34,10,53,35,23,53		4,14,28, 5,23	
		32, 4,50,57,39,41,29		2,21
34″	58, 0,42,56,39, 1,51,15, 5,22		4,14,28, 7,44	
		32, 4,46,43,11,33,45		2,21
36″	58, 0,43,28,43,48,34,26,39, 7		4,14,28,10, 5	
		32, 4,42,28,43,23,40		2,21
38″	58, 0,44, 0,48,31, 3,10, 2,47		4,14,28,12,26	
		32, 4,38,14,15,11,14		2,21
40″	58, 0,44,32,53, 9,17,25,14, 1		4,14,28,14,47	
		32, 4,33,59,46,56,27		2,21
42″	58, 0,45, 4,57,43,17,12,10,28		4,14,28,17, 8	
		32, 4,29,45,18,39,19		2,21
44″	58, 0,45,37, 2,13, 2,30,49,47		4,14,28,19,29	
		32, 4,25,30,50,19,50		2,21
46″	58, 0,46, 9, 6,38,33,21, 9,37		4,14,28,21,50	
		32, 4,21,16,21,58, 0		2,21
48″	58, 0,46,41,10,59,49,43, 7,37		4,14,28,24,11	
		32, 4,17, 1,53,33,49		2,21
50″	58, 0,47,13,15,16,51,36,41,26		4,14,28,26,32	
		32, 4,12,47,25, 7,17		2,21
52″	58, 0,47,45,19,29,39, 1,48,43		4,14,28,28,53	
		32, 4, 8,32,56,38,24		2,21
54″	58, 0,48,17,23,38,11,58,27, 7		4,14,28,31,14	
		32, 4, 4,18,28, 7,10		2,21
56″	58, 0,48,49,27,42,30,26,34,17		4,14,28,33,35	
		32, 4, 0, 3,59,33,35		2,21
58″	58, 0,49,21,31,42,34,26, 7,52		4,14,28,35,56	
		32, 3,55,49,30,57,39		
60″	58, 0,49,53,35,38,23,57, 5,31			
exact	58, 0,49,53,35,38,23,57,24,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°13′ 0″	58, 0,49,53,35,38,23,57,24,18			
		32, 3,51,35, 2,21,22		
2″	58, 0,50,25,39,29,58,59,45,40		4,14,28,40,29	
		32, 3,47,20,33,40,53		2,21
4″	58, 0,50,57,43,17,19,33,26,33		4,14,28,42,50	
		32, 3,43, 6, 4,58, 3		2,21
6″	58, 0,51,29,47, 0,25,38,24,36		4,14,28,45,11	
		32, 3,38,51,36,12,52		2,21
8″	58, 0,52, 1,50,39,17,14,37,28		4,14,28,47,32	
		32, 3,34,37, 7,25,20		2,21
10″	58, 0,52,33,54,13,54,22, 2,48		4,14,28,49,53	
		32, 3,30,22,38,35,27		2,21
12″	58, 0,53, 5,57,44,17, 0,38,15		4,14,28,52,14	
		32, 3,26, 8, 9,43,13		2,21
14″	58, 0,53,38, 1,10,25,10,21,28		4,14,28,54,35	
		32, 3,21,53,40,48,38		2,21
16″	58, 0,54,10, 4,32,18,51,10, 6		4,14,28,56,56	
		32, 3,17,39,11,51,42		2,21
18″	58, 0,54,42, 7,49,58, 3, 1,48		4,14,28,59,17	
		32, 3,13,24,42,52,25		2,21
20″	58, 0,55,14,11, 3,22,45,54,13		4,14,29, 1,38	
		32, 3, 9,10,13,50,47		2,21
22″	58, 0,55,46,14,12,32,59,45, 0		4,14,29, 3,59	
		32, 3, 4,55,44,46,48		2,21
24″	58, 0,56,18,17,17,28,44,31,48		4,14,29, 6,20	
		32, 3, 0,41,15,40,28		2,21
26″	58, 0,56,50,20,18,10, 0,12,16		4,14,29, 8,41	
		32, 2,56,26,46,31,47		2,21
28″	58, 0,57,22,23,14,36,46,44, 3		4,14,29,11, 2	
		32, 2,52,12,17,20,45		2,21
30″	58, 0,57,54,26, 6,49, 4, 4,48		4,14,29,13,23	
		32, 2,47,57,48, 7,22		2,21
32″	58, 0,58,26,28,54,46,52,12,10		4,14,29,15,44	
		32, 2,43,43,18,51,38		2,21
34″	58, 0,58,58,31,38,30,11, 3,48		4,14,29,18, 5	
		32, 2,39,28,49,33,33		2,21
36″	58, 0,59,30,34,17,59, 0,37,21		4,14,29,20,26	
		32, 2,35,14,20,13, 7		2,21
38″	58, 1, 0, 2,36,53,13,20,50,28		4,14,29,22,47	
		32, 2,30,59,50,50,20		2,21
40″	58, 1, 0,34,39,24,13,11,40,48		4,14,29,25, 8	
		32, 2,26,45,21,25,12		2,21
42″	58, 1, 1, 6,41,50,58,33, 6, 0		4,14,29,27,29	
		32, 2,22,30,51,57,43		2,21
44″	58, 1, 1,38,44,13,29,25, 3,43		4,14,29,29,50	
		32, 2,18,16,22,27,53		2,21
46″	58, 1, 2,10,46,31,45,47,31,36		4,14,29,32,11	
		32, 2,14, 1,52,55,42		2,21
48″	58, 1, 2,42,48,45,47,40,27,18		4,14,29,34,32	
		32, 2, 9,47,23,21,10		2,21
50″	58, 1, 3,14,50,55,35, 3,48,28		4,14,29,36,53	
		32, 2, 5,32,53,44,17		2,21
52″	58, 1, 3,46,53, 1, 7,57,32,45		4,14,29,39,14	
		32, 2, 1,18,24, 5, 3		2,21
54″	58, 1, 4,18,55, 2,26,21,37,48		4,14,29,41,35	
		32, 1,57, 3,54,23,28		2,21
56″	58, 1, 4,50,56,59,30,16, 1,16		4,14,29,43,56	
		32, 1,52,49,24,39,32		2,21
58″	58, 1, 5,22,58,52,19,40,40,48		4,14,29,46,17	
		32, 1,48,34,54,53,15		
60″	58, 1, 5,55, 0,40,54,35,34, 3			
exact	58, 1, 5,55, 0,40,54,35,58,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°14′ 0″	58, 1, 5,55, 0,40,54,35,58,14			
		32, 1,44,20,25, 7,23		
2″	58, 1, 6,27, 2,25,15, 1, 5,37		4,14,29,50,46	
		32, 1,40, 5,55,16,37		2,20
4″	58, 1, 6,59, 4, 5,20,56,22,14		4,14,29,53, 6	
		32, 1,35,51,25,23,31		2,20
6″	58, 1, 7,31, 5,41,12,21,45,45		4,14,29,55,26	
		32, 1,31,36,55,28, 5		2,20
8″	58, 1, 8, 3, 7,12,49,17,13,50		4,14,29,57,46	
		32, 1,27,22,25,30,19		2,20
10″	58, 1, 8,35, 8,40,11,42,44, 9		4,14,30, 0, 6	
		32, 1,23, 7,55,30,13		2,20
12″	58, 1, 9, 7,10, 3,19,38,14,22		4,14,30, 2,26	
		32, 1,18,53,25,27,47		2,20
14″	58, 1, 9,39,11,22,13, 3,42, 9		4,14,30, 4,46	
		32, 1,14,38,55,23, 1		2,20
16″	58, 1,10,11,12,36,51,59, 5,10		4,14,30, 7, 6	
		32, 1,10,24,25,15,55		2,20
18″	58, 1,10,43,13,47,16,24,21, 5		4,14,30, 9,26	
		32, 1, 6, 9,55, 6,29		2,20
20″	58, 1,11,15,14,53,26,19,27,34		4,14,30,11,46	
		32, 1, 1,55,24,54,43		2,20
22″	58, 1,11,47,15,55,21,44,22,17		4,14,30,14, 6	
		32, 0,57,40,54,40,37		2,20
24″	58, 1,12,19,16,53, 2,39, 2,54		4,14,30,16,26	
		32, 0,53,26,24,24,11		2,20
26″	58, 1,12,51,17,46,29, 3,27, 5		4,14,30,18,46	
		32, 0,49,11,54, 5,25		2,20
28″	58, 1,13,23,18,35,40,57,32,30		4,14,30,21, 6	
		32, 0,44,57,23,44,19		2,20
30″	58, 1,13,55,19,20,38,21,16,49		4,14,30,23,26	
		32, 0,40,42,53,20,53		2,20
32″	58, 1,14,27,20, 1,21,14,37,42		4,14,30,25,46	
		32, 0,36,28,22,55, 7		2,20
34″	58, 1,14,59,20,37,49,37,32,49		4,14,30,28, 6	
		32, 0,32,13,52,27, 1		2,20
36″	58, 1,15,31,21,10, 3,29,59,50		4,14,30,30,26	
		32, 0,27,59,21,56,35		2,20
38″	58, 1,16, 3,21,38, 2,51,56,25		4,14,30,32,46	
		32, 0,23,44,51,23,49		2,20
40″	58, 1,16,35,22, 1,47,43,20,14		4,14,30,35, 6	
		32, 0,19,30,20,48,43		2,20
42″	58, 1,17, 7,22,21,18, 4, 8,57		4,14,30,37,26	
		32, 0,15,15,50,11,17		2,20
44″	58, 1,17,39,22,36,33,54,20,14		4,14,30,39,46	
		32, 0,11, 1,19,31,31		2,20
46″	58, 1,18,11,22,47,35,13,51,45		4,14,30,42, 6	
		32, 0, 6,46,48,49,25		2,20
48″	58, 1,18,43,22,54,22, 2,41,10		4,14,30,44,26	
		32, 0, 2,32,18, 4,59		2,20
50″	58, 1,19,15,22,56,54,20,46, 9		4,14,30,46,46	
		31,59,58,17,47,18,13		2,20
52″	58, 1,19,47,22,55,12, 8, 4,22		4,14,30,49, 6	
		31,59,54, 3,16,29, 7		2,20
54″	58, 1,20,19,22,49,15,24,33,29		4,14,30,51,26	
		31,59,49,48,45,37,41		2,20
56″	58, 1,20,51,22,39, 4,10,11,10		4,14,30,53,46	
		31,59,45,34,14,43,55		2,20
58″	58, 1,21,23,22,24,38,24,55, 5		4,14,30,56, 6	
		31,59,41,19,43,47,49		
60″	58, 1,21,55,22, 5,58, 8,42,54			
exact	58, 1,21,55,22, 5,58, 8, 9, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°15′ 0″	58, 1,21,55,22, 5,58, 8, 9, 5			
		31,59,37, 5,12,45,58		
2″	58, 1,22,27,21,43, 3,20,55, 3		4,14,31, 0,59	
		31,59,32,50,41,44,59		2,20
4″	58, 1,22,59,21,15,54, 2,40, 2		4,14,31, 3,19	
		31,59,28,36,10,41,40		2,20
6″	58, 1,23,31,20,44,30,13,21,42		4,14,31, 5,39	
		31,59,24,21,39,36, 1		2,20
8″	58, 1,24, 3,20, 8,51,52,57,43		4,14,31, 7,59	
		31,59,20, 7, 8,28, 2		2,20
10″	58, 1,24,35,19,28,59, 1,25,45		4,14,31,10,19	
		31,59,15,52,37,17,43		2,20
12″	58, 1,25, 7,18,44,51,38,43,28		4,14,31,12,39	
		31,59,11,38, 6, 5, 4		2,20
14″	58, 1,25,39,17,56,29,44,48,32		4,14,31,14,59	
		31,59, 7,23,34,50, 5		2,20
16″	58, 1,26,11,17, 3,53,19,38,37		4,14,31,17,19	
		31,59, 3, 9, 3,32,46		2,20
18″	58, 1,26,43,16, 7, 2,23,11,23		4,14,31,19,39	
		31,58,58,54,32,13, 7		2,20
20″	58, 1,27,15,15, 5,56,55,24,30		4,14,31,21,59	
		31,58,54,40, 0,51, 8		2,20
22″	58, 1,27,47,14, 0,36,56,15,38		4,14,31,24,19	
		31,58,50,25,29,26,49		2,20
24″	58, 1,28,19,12,51, 2,25,42,27		4,14,31,26,39	
		31,58,46,10,58, 0,10		2,20
26″	58, 1,28,51,11,37,13,23,42,37		4,14,31,28,59	
		31,58,41,56,26,31,11		2,20
28″	58, 1,29,23,10,19, 9,50,13,48		4,14,31,31,19	
		31,58,37,41,54,59,52		2,20
30″	58, 1,29,55, 8,56,51,45,13,40		4,14,31,33,39	
		31,58,33,27,23,26,13		2,20
32″	58, 1,30,27, 7,30,19, 8,39,53		4,14,31,35,59	
		31,58,29,12,51,50,14		2,20
34″	58, 1,30,59, 5,59,32, 0,30, 7		4,14,31,38,19	
		31,58,24,58,20,11,55		2,20
36″	58, 1,31,31, 4,24,30,20,42, 2		4,14,31,40,39	
		31,58,20,43,48,31,16		2,20
38″	58, 1,32, 3, 2,45,14, 9,13,18		4,14,31,42,59	
		31,58,16,29,16,48,17		2,20
40″	58, 1,32,35, 1, 1,43,26, 1,35		4,14,31,45,19	
		31,58,12,14,45, 2,58		2,20
42″	58, 1,33, 6,59,13,58,11, 4,33		4,14,31,47,39	
		31,58, 8, 0,13,15,19		2,20
44″	58, 1,33,38,57,21,58,24,19,52		4,14,31,49,59	
		31,58, 3,45,41,25,20		2,20
46″	58, 1,34,10,55,25,44, 5,45,12		4,14,31,52,19	
		31,57,59,31, 9,33, 1		2,20
48″	58, 1,34,42,53,25,15,15,18,13		4,14,31,54,39	
		31,57,55,16,37,38,22		2,20
50″	58, 1,35,14,51,20,31,52,56,35		4,14,31,56,59	
		31,57,51, 2, 5,41,23		2,20
52″	58, 1,35,46,49,11,33,58,37,58		4,14,31,59,19	
		31,57,46,47,33,42, 4		2,20
54″	58, 1,36,18,46,58,21,32,20, 2		4,14,32, 1,39	
		31,57,42,33, 1,40,25		2,20
56″	58, 1,36,50,44,40,54,34, 0,27		4,14,32, 3,59	
		31,57,38,18,29,36,26		2,20
58″	58, 1,37,22,42,19,13, 3,36,53		4,14,32, 6,19	
		31,57,34, 3,57,30, 7		
60″	58, 1,37,54,39,53,17, 1, 7, 0			
exact	58, 1,37,54,39,53,17, 0,47,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°16′ 0″	58, 1,37,54,39,53,17, 0,47,54			
		31,57,29,49,25,19,28		
2″	58, 1,38,26,37,23, 6,26, 7,22		4,14,32,11, 7	
		31,57,25,34,53, 8,21		2,20
4″	58, 1,38,58,34,48,41,19,15,43		4,14,32,13,27	
		31,57,21,20,20,54,54		2,20
6″	58, 1,39,30,32,10, 1,40,10,37		4,14,32,15,47	
		31,57,17, 5,48,39, 7		2,20
8″	58, 1,40, 2,29,27, 7,28,49,44		4,14,32,18, 7	
		31,57,12,51,16,21, 0		2,20
10″	58, 1,40,34,26,39,58,45,10,44		4,14,32,20,27	
		31,57, 8,36,44, 0,33		2,20
12″	58, 1,41, 6,23,48,35,29,11,17		4,14,32,22,47	
		31,57, 4,22,11,37,46		2,20
14″	58, 1,41,38,20,52,57,40,49, 3		4,14,32,25, 7	
		31,57, 0, 7,39,12,39		2,20
16″	58, 1,42,10,17,53, 5,20, 1,42		4,14,32,27,27	
		31,56,55,53, 6,45,12		2,20
18″	58, 1,42,42,14,48,58,26,46,54		4,14,32,29,47	
		31,56,51,38,34,15,25		2,20
20″	58, 1,43,14,11,40,37, 1, 2,19		4,14,32,32, 7	
		31,56,47,24, 1,43,18		2,20
22″	58, 1,43,46, 8,28, 1, 2,45,37		4,14,32,34,27	
		31,56,43, 9,29, 8,51		2,20
24″	58, 1,44,18, 5,11,10,31,54,28		4,14,32,36,47	
		31,56,38,54,56,32, 4		2,20
26″	58, 1,44,50, 1,50, 5,28,26,32		4,14,32,39, 7	
		31,56,34,40,23,52,57		2,20
28″	58, 1,45,21,58,24,45,52,19,29		4,14,32,41,27	
		31,56,30,25,51,11,30		2,20
30″	58, 1,45,53,54,55,11,43,30,59		4,14,32,43,47	
		31,56,26,11,18,27,43		2,20
32″	58, 1,46,25,51,21,23, 1,58,42		4,14,32,46, 7	
		31,56,21,56,45,41,36		2,20
34″	58, 1,46,57,47,43,19,47,40,18		4,14,32,48,27	
		31,56,17,42,12,53, 9		2,20
36″	58, 1,47,29,44, 1, 2, 0,33,27		4,14,32,50,47	
		31,56,13,27,40, 2,22		2,20
38″	58, 1,48, 1,40,14,29,40,35,49		4,14,32,53, 7	
		31,56, 9,13, 7, 9,15		2,20
40″	58, 1,48,33,36,23,42,47,45, 4		4,14,32,55,27	
		31,56, 4,58,34,13,48		2,20
42″	58, 1,49, 5,32,28,41,21,58,52		4,14,32,57,47	
		31,56, 0,44, 1,16, 1		2,20
44″	58, 1,49,37,28,29,25,23,14,53		4,14,33, 0, 7	
		31,55,56,29,28,15,54		2,20
46″	58, 1,50, 9,24,25,54,51,30,47		4,14,33, 2,27	
		31,55,52,14,55,13,27		2,20
48″	58, 1,50,41,20,18, 9,46,44,14		4,14,33, 4,47	
		31,55,48, 0,22, 8,40		2,20
50″	58, 1,51,13,16, 6,10, 8,52,54		4,14,33, 7, 7	
		31,55,43,45,49, 1,33		2,20
52″	58, 1,51,45,11,49,55,57,54,27		4,14,33, 9,27	
		31,55,39,31,15,52, 6		2,20
54″	58, 1,52,17, 7,29,27,13,46,33		4,14,33,11,47	
		31,55,35,16,42,40,19		2,20
56″	58, 1,52,49, 3, 4,43,56,26,52		4,14,33,14, 7	
		31,55,31, 2, 9,26,12		2,20
58″	58, 1,53,20,58,35,46, 5,53, 4		4,14,33,16,27	
		31,55,26,47,36, 9,45		
60″	58, 1,53,52,54, 2,33,42, 2,49			
exact	58, 1,53,52,54, 2,33,41,55,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°17′ 0″	58, 1,53,52,54, 2,33,41,55,30			
		31,55,22,33, 2,50,11		
2″	58, 1,54,24,49,25, 6,44,45,41		4,14,33,21,10	
		31,55,18,18,29,29, 1		2,20
4″	58, 1,54,56,44,43,25,14,14,42		4,14,33,23,30	
		31,55,14, 3,56, 5,31		2,20
6″	58, 1,55,28,39,57,29,10,20,13		4,14,33,25,50	
		31,55, 9,49,22,39,41		2,20
8″	58, 1,56, 0,35, 7,18,32,59,54		4,14,33,28,10	
		31,55, 5,34,49,11,31		2,20
10″	58, 1,56,32,30,12,53,22,11,25		4,14,33,30,30	
		31,55, 1,20,15,41, 1		2,20
12″	58, 1,57, 4,25,14,13,37,52,26		4,14,33,32,50	
		31,54,57, 5,42, 8,11		2,20
14″	58, 1,57,36,20,11,19,20, 0,37		4,14,33,35,10	
		31,54,52,51, 8,33, 1		2,20
16″	58, 1,58, 8,15, 4,10,28,33,38		4,14,33,37,30	
		31,54,48,36,34,55,31		2,20
18″	58, 1,58,40, 9,52,47, 3,29, 9		4,14,33,39,50	
		31,54,44,22, 1,15,41		2,20
20″	58, 1,59,12, 4,37, 9, 4,44,50		4,14,33,42,10	
		31,54,40, 7,27,33,31		2,20
22″	58, 1,59,43,59,17,16,32,18,21		4,14,33,44,30	
		31,54,35,52,53,49, 1		2,20
24″	58, 2, 0,15,53,53, 9,26, 7,22		4,14,33,46,50	
		31,54,31,38,20, 2,11		2,20
26″	58, 2, 0,47,48,24,47,46, 9,33		4,14,33,49,10	
		31,54,27,23,46,13, 1		2,20
28″	58, 2, 1,19,42,52,11,32,22,34		4,14,33,51,30	
		31,54,23, 9,12,21,31		2,20
30″	58, 2, 1,51,37,15,20,44,44, 5		4,14,33,53,50	
		31,54,18,54,38,27,41		2,20
32″	58, 2, 2,23,31,34,15,23,11,46		4,14,33,56,10	
		31,54,14,40, 4,31,31		2,20
34″	58, 2, 2,55,25,48,55,27,43,17		4,14,33,58,30	
		31,54,10,25,30,33, 1		2,20
36″	58, 2, 3,27,19,59,20,58,16,18		4,14,34, 0,50	
		31,54, 6,10,56,32,11		2,20
38″	58, 2, 3,59,14, 5,31,54,48,29		4,14,34, 3,10	
		31,54, 1,56,22,29, 1		2,20
40″	58, 2, 4,31, 8, 7,28,17,17,30		4,14,34, 5,30	
		31,53,57,41,48,23,31		2,20
42″	58, 2, 5, 3, 2, 5,10, 5,41, 1		4,14,34, 7,50	
		31,53,53,27,14,15,41		2,20
44″	58, 2, 5,34,55,58,37,19,56,42		4,14,34,10,10	
		31,53,49,12,40, 5,31		2,20
46″	58, 2, 6, 6,49,47,50, 0, 2,13		4,14,34,12,30	
		31,53,44,58, 5,53, 1		2,20
48″	58, 2, 6,38,43,32,48, 5,55,14		4,14,34,14,50	
		31,53,40,43,31,38,11		2,20
50″	58, 2, 7,10,37,13,31,37,33,25		4,14,34,17,10	
		31,53,36,28,57,21, 1		2,20
52″	58, 2, 7,42,30,50, 0,34,54,26		4,14,34,19,30	
		31,53,32,14,23, 1,31		2,20
54″	58, 2, 8,14,24,22,14,57,55,57		4,14,34,21,50	
		31,53,27,59,48,39,41		2,20
56″	58, 2, 8,46,17,50,14,46,35,38		4,14,34,24,10	
		31,53,23,45,14,15,31		2,20
58″	58, 2, 9,18,11,14, 0, 0,51, 9		4,14,34,26,30	
		31,53,19,30,39,49, 1		
60″	58, 2, 9,50, 4,33,30,40,40,10			
exact	58, 2, 9,50, 4,33,30,40,42,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°18′ 0″	58, 2, 9,50, 4,33,30,40,42,30			
		31,53,15,16, 5,20,28		
2″	58, 2,10,21,57,48,46,46, 2,58		4,14,34,31, 8	
		31,53,11, 1,30,49,20		2,20
4″	58, 2,10,53,50,59,48,16,52,18		4,14,34,33,28	
		31,53, 6,46,56,15,52		2,20
6″	58, 2,11,25,44, 6,35,13, 8,10		4,14,34,35,48	
		31,53, 2,32,21,40, 4		2,20
8″	58, 2,11,57,37, 9, 7,34,48,14		4,14,34,38, 8	
		31,52,58,17,47, 1,56		2,20
10″	58, 2,12,29,30, 7,25,21,50,10		4,14,34,40,28	
		31,52,54, 3,12,21,28		2,20
12″	58, 2,13, 1,23, 1,28,34,11,38		4,14,34,42,48	
		31,52,49,48,37,38,40		2,20
14″	58, 2,13,33,15,51,17,11,50,18		4,14,34,45, 8	
		31,52,45,34, 2,53,32		2,20
16″	58, 2,14, 5, 8,36,51,14,43,50		4,14,34,47,28	
		31,52,41,19,28, 6, 4		2,20
18″	58, 2,14,37, 1,18,10,42,49,54		4,14,34,49,48	
		31,52,37, 4,53,16,16		2,20
20″	58, 2,15, 8,53,55,15,36, 6,10		4,14,34,52, 8	
		31,52,32,50,18,24, 8		2,20
22″	58, 2,15,40,46,28, 5,54,30,18		4,14,34,54,28	
		31,52,28,35,43,29,40		2,20
24″	58, 2,16,12,38,56,41,37,59,58		4,14,34,56,48	
		31,52,24,21, 8,32,52		2,20
26″	58, 2,16,44,31,21, 2,46,32,50		4,14,34,59, 8	
		31,52,20, 6,33,33,44		2,20
28″	58, 2,17,16,23,41, 9,20, 6,34		4,14,35, 1,28	
		31,52,15,51,58,32,16		2,20
30″	58, 2,17,48,15,57, 1,18,38,50		4,14,35, 3,48	
		31,52,11,37,23,28,28		2,20
32″	58, 2,18,20, 8, 8,38,42, 7,18		4,14,35, 6, 8	
		31,52, 7,22,48,22,20		2,20
34″	58, 2,18,52, 0,16, 1,30,29,38		4,14,35, 8,28	
		31,52, 3, 8,13,13,52		2,20
36″	58, 2,19,23,52,19, 9,43,43,30		4,14,35,10,48	
		31,51,58,53,38, 3, 4		2,20
38″	58, 2,19,55,44,18, 3,21,46,34		4,14,35,13, 8	
		31,51,54,39, 2,49,56		2,20
40″	58, 2,20,27,36,12,42,24,36,30		4,14,35,15,28	
		31,51,50,24,27,34,28		2,20
42″	58, 2,20,59,28, 3, 6,52,10,58		4,14,35,17,48	
		31,51,46, 9,52,16,40		2,20
44″	58, 2,21,31,19,49,16,44,27,38		4,14,35,20, 8	
		31,51,41,55,16,56,32		2,20
46″	58, 2,22, 3,11,31,12, 1,24,10		4,14,35,22,28	
		31,51,37,40,41,34, 4		2,20
48″	58, 2,22,35, 3, 8,52,42,58,14		4,14,35,24,48	
		31,51,33,26, 6, 9,16		2,20
50″	58, 2,23, 6,54,42,18,49, 7,30		4,14,35,27, 8	
		31,51,29,11,30,42, 8		2,20
52″	58, 2,23,38,46,11,30,19,49,38		4,14,35,29,28	
		31,51,24,56,55,12,40		2,20
54″	58, 2,24,10,37,36,27,15, 2,18		4,14,35,31,48	
		31,51,20,42,19,40,52		2,20
56″	58, 2,24,42,28,57, 9,34,43,10		4,14,35,34, 8	
		31,51,16,27,44, 6,44		2,20
58″	58, 2,25,14,20,13,37,18,49,54		4,14,35,36,28	
		31,51,12,13, 8,30,16		
60″	58, 2,25,46,11,25,50,27,20,10			
exact	58, 2,25,46,11,25,50,27,29,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°19′ 0″	58, 2,25,46,11,25,50,27,29,16			
		31,51, 7,58,32,52,37		
2″	58, 2,26,18, 2,33,49, 0,21,53		4,14,35,41, 2	
		31,51, 3,43,57,11,35		2,20
4″	58, 2,26,49,53,37,32,57,33,28		4,14,35,43,22	
		31,50,59,29,21,28,13		2,20
6″	58, 2,27,21,44,37, 2,19, 1,41		4,14,35,45,42	
		31,50,55,14,45,42,31		2,20
8″	58, 2,27,53,35,32,17, 4,44,12		4,14,35,48, 2	
		31,50,51, 0, 9,54,29		2,20
10″	58, 2,28,25,26,23,17,14,38,41		4,14,35,50,22	
		31,50,46,45,34, 4, 7		2,20
12″	58, 2,28,57,17,10, 2,48,42,48		4,14,35,52,42	
		31,50,42,30,58,11,25		2,20
14″	58, 2,29,29, 7,52,33,46,54,13		4,14,35,55, 2	
		31,50,38,16,22,16,23		2,20
16″	58, 2,30, 0,58,30,50, 9,10,36		4,14,35,57,22	
		31,50,34, 1,46,19, 1		2,20
18″	58, 2,30,32,49, 4,51,55,29,37		4,14,35,59,42	
		31,50,29,47,10,19,19		2,20
20″	58, 2,31, 4,39,34,39, 5,48,56		4,14,36, 2, 2	
		31,50,25,32,34,17,17		2,20
22″	58, 2,31,36,30, 0,11,40, 6,13		4,14,36, 4,22	
		31,50,21,17,58,12,55		2,20
24″	58, 2,32, 8,20,21,29,38,19, 8		4,14,36, 6,42	
		31,50,17, 3,22, 6,13		2,20
26″	58, 2,32,40,10,38,33, 0,25,21		4,14,36, 9, 2	
		31,50,12,48,45,57,11		2,20
28″	58, 2,33,12, 0,51,21,46,22,32		4,14,36,11,22	
		31,50, 8,34, 9,45,49		2,20
30″	58, 2,33,43,50,59,55,56, 8,21		4,14,36,13,42	
		31,50, 4,19,33,32, 7		2,20
32″	58, 2,34,15,41, 4,15,29,40,28		4,14,36,16, 2	
		31,50, 0, 4,57,16, 5		2,20
34″	58, 2,34,47,31, 4,20,26,56,33		4,14,36,18,22	
		31,49,55,50,20,57,43		2,20
36″	58, 2,35,19,21, 0,10,47,54,16		4,14,36,20,42	
		31,49,51,35,44,37, 1		2,20
38″	58, 2,35,51,10,51,46,32,31,17		4,14,36,23, 2	
		31,49,47,21, 8,13,59		2,20
40″	58, 2,36,23, 0,39, 7,40,45,16		4,14,36,25,22	
		31,49,43, 6,31,48,37		2,20
42″	58, 2,36,54,50,22,14,12,33,53		4,14,36,27,42	
		31,49,38,51,55,20,55		2,20
44″	58, 2,37,26,40, 1, 6, 7,54,48		4,14,36,30, 2	
		31,49,34,37,18,50,53		2,20
46″	58, 2,37,58,29,35,43,26,45,41		4,14,36,32,22	
		31,49,30,22,42,18,31		2,20
48″	58, 2,38,30,19, 6, 6, 9, 4,12		4,14,36,34,42	
		31,49,26, 8, 5,43,49		2,20
50″	58, 2,39, 2, 8,32,14,14,48, 1		4,14,36,37, 2	
		31,49,21,53,29, 6,47		2,20
52″	58, 2,39,33,57,54, 7,43,54,48		4,14,36,39,22	
		31,49,17,38,52,27,25		2,20
54″	58, 2,40, 5,47,11,46,36,22,13		4,14,36,41,42	
		31,49,13,24,15,45,43		2,20
56″	58, 2,40,37,36,25,10,52, 7,56		4,14,36,44, 2	
		31,49, 9, 9,39, 1,41		2,20
58″	58, 2,41, 9,25,34,20,31, 9,37		4,14,36,46,22	
		31,49, 4,55, 2,15,19		
60″	58, 2,41,41,14,39,15,33,24,56			
exact	58, 2,41,41,14,39,15,33,46, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°20′ 0″	58, 2,41,41,14,39,15,33,46, 1			
		31,49, 0,40,25,28,59		
2″	58, 2,42,13, 3,39,55,59,15, 0		4,14,36,50,51	
		31,48,56,25,48,38, 8		2,20
4″	58, 2,42,44,52,36,21,47,53, 8		4,14,36,53,11	
		31,48,52,11,11,44,57		2,20
6″	58, 2,43,16,41,28,32,59,38, 5		4,14,36,55,31	
		31,48,47,56,34,49,26		2,20
8″	58, 2,43,48,30,16,29,34,27,31		4,14,36,57,51	
		31,48,43,41,57,51,35		2,20
10″	58, 2,44,20,19, 0,11,32,19, 6		4,14,37, 0,11	
		31,48,39,27,20,51,24		2,20
12″	58, 2,44,52, 7,39,38,53,10,30		4,14,37, 2,31	
		31,48,35,12,43,48,53		2,20
14″	58, 2,45,23,56,14,51,36,59,23		4,14,37, 4,51	
		31,48,30,58, 6,44, 2		2,20
16″	58, 2,45,55,44,45,49,43,43,25		4,14,37, 7,11	
		31,48,26,43,29,36,51		2,20
18″	58, 2,46,27,33,12,33,13,20,16		4,14,37, 9,31	
		31,48,22,28,52,27,20		2,20
20″	58, 2,46,59,21,35, 2, 5,47,36		4,14,37,11,51	
		31,48,18,14,15,15,29		2,20
22″	58, 2,47,31, 9,53,16,21, 3, 5		4,14,37,14,11	
		31,48,13,59,38, 1,18		2,20
24″	58, 2,48, 2,58, 7,15,59, 4,23		4,14,37,16,31	
		31,48, 9,45, 0,44,47		2,20
26″	58, 2,48,34,46,17, 0,59,49,10		4,14,37,18,51	
		31,48, 5,30,23,25,56		2,20
28″	58, 2,49, 6,34,22,31,23,15, 6		4,14,37,21,11	
		31,48, 1,15,46, 4,45		2,20
30″	58, 2,49,38,22,23,47, 9,19,51		4,14,37,23,31	
		31,47,57, 1, 8,41,14		2,20
32″	58, 2,50,10,10,20,48,18, 1, 5		4,14,37,25,51	
		31,47,52,46,31,15,23		2,20
34″	58, 2,50,41,58,13,34,49,16,28		4,14,37,28,11	
		31,47,48,31,53,47,12		2,20
36″	58, 2,51,13,46, 2, 6,43, 3,40		4,14,37,30,31	
		31,47,44,17,16,16,41		2,20
38″	58, 2,51,45,33,46,23,59,20,21		4,14,37,32,51	
		31,47,40, 2,38,43,50		2,20
40″	58, 2,52,17,21,26,26,38, 4,11		4,14,37,35,11	
		31,47,35,48, 1, 8,39		2,20
42″	58, 2,52,49, 9, 2,14,39,12,50		4,14,37,37,31	
		31,47,31,33,23,31, 8		2,20
44″	58, 2,53,20,56,33,48, 2,43,58		4,14,37,39,51	
		31,47,27,18,45,51,17		2,20
46″	58, 2,53,52,44, 1, 6,48,35,15		4,14,37,42,11	
		31,47,23, 4, 8, 9, 6		2,20
48″	58, 2,54,24,31,24,10,56,44,21		4,14,37,44,31	
		31,47,18,49,30,24,35		2,20
50″	58, 2,54,56,18,43, 0,27, 8,56		4,14,37,46,51	
		31,47,14,34,52,37,44		2,20
52″	58, 2,55,28, 5,57,35,19,46,40		4,14,37,49,11	
		31,47,10,20,14,48,33		2,20
54″	58, 2,55,59,53, 7,55,34,35,13		4,14,37,51,31	
		31,47, 6, 5,36,57, 2		2,20
56″	58, 2,56,31,40,14, 1,11,32,15		4,14,37,53,51	
		31,47, 1,50,59, 3,11		2,20
58″	58, 2,57, 3,27,15,52,10,35,26		4,14,37,56,11	
		31,46,57,36,21, 7, 0		
60″	58, 2,57,35,14,13,28,31,42,26			
exact	58, 2,57,35,14,13,28,32,12,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°21′ 0″	58, 2,57,35,14,13,28,32,12,42			
		31,46,53,21,43,11,53		
2″	58, 2,58, 7, 1, 6,50,15,24,35		4,14,38, 0,36	
		31,46,49, 7, 5,11,17		2,19
4″	58, 2,58,38,47,55,57,20,35,52		4,14,38, 2,55	
		31,46,44,52,27, 8,22		2,19
6″	58, 2,59,10,34,40,49,47,44,14		4,14,38, 5,14	
		31,46,40,37,49, 3, 8		2,19
8″	58, 2,59,42,21,21,27,36,47,22		4,14,38, 7,33	
		31,46,36,23,10,55,35		2,19
10″	58, 3, 0,14, 7,57,50,47,42,57		4,14,38, 9,52	
		31,46,32, 8,32,45,43		2,19
12″	58, 3, 0,45,54,29,59,20,28,40		4,14,38,12,11	
		31,46,27,53,54,33,32		2,19
14″	58, 3, 1,17,40,57,53,15, 2,12		4,14,38,14,30	
		31,46,23,39,16,19, 2		2,19
16″	58, 3, 1,49,27,21,32,31,21,14		4,14,38,16,49	
		31,46,19,24,38, 2,13		2,19
18″	58, 3, 2,21,13,40,57, 9,23,27		4,14,38,19, 8	
		31,46,15, 9,59,43, 5		2,19
20″	58, 3, 2,52,59,56, 7, 9, 6,32		4,14,38,21,27	
		31,46,10,55,21,21,38		2,19
22″	58, 3, 3,24,46, 7, 2,30,28,10		4,14,38,23,46	
		31,46, 6,40,42,57,52		2,19
24″	58, 3, 3,56,32,13,43,13,26, 2		4,14,38,26, 5	
		31,46, 2,26, 4,31,47		2,19
26″	58, 3, 4,28,18,16, 9,17,57,49		4,14,38,28,24	
		31,45,58,11,26, 3,23		2,19
28″	58, 3, 5, 0, 4,14,20,44, 1,12		4,14,38,30,43	
		31,45,53,56,47,32,40		2,19
30″	58, 3, 5,31,50, 8,17,31,33,52		4,14,38,33, 2	
		31,45,49,42, 8,59,38		2,19
32″	58, 3, 6, 3,35,57,59,40,33,30		4,14,38,35,21	
		31,45,45,27,30,24,17		2,19
34″	58, 3, 6,35,21,43,27,10,57,47		4,14,38,37,40	
		31,45,41,12,51,46,37		2,19
36″	58, 3, 7, 7, 7,24,40, 2,44,24		4,14,38,39,59	
		31,45,36,58,13, 6,38		2,19
38″	58, 3, 7,38,53, 1,38,15,51, 2		4,14,38,42,18	
		31,45,32,43,34,24,20		2,19
40″	58, 3, 8,10,38,34,21,50,15,22		4,14,38,44,37	
		31,45,28,28,55,39,43		2,19
42″	58, 3, 8,42,24, 2,50,45,55, 5		4,14,38,46,56	
		31,45,24,14,16,52,47		2,19
44″	58, 3, 9,14, 9,27, 5, 2,47,52		4,14,38,49,15	
		31,45,19,59,38, 3,32		2,19
46″	58, 3, 9,45,54,47, 4,40,51,24		4,14,38,51,34	
		31,45,15,44,59,11,58		2,19
48″	58, 3,10,17,40, 2,49,40, 3,22		4,14,38,53,53	
		31,45,11,30,20,18, 5		2,19
50″	58, 3,10,49,25,14,20, 0,21,27		4,14,38,56,12	
		31,45, 7,15,41,21,53		2,19
52″	58, 3,11,21,10,21,35,41,43,20		4,14,38,58,31	
		31,45, 3, 1, 2,23,22		2,19
54″	58, 3,11,52,55,24,36,44, 6,42		4,14,39, 0,50	
		31,44,58,46,23,22,32		2,19
56″	58, 3,12,24,40,23,23, 7,29,14		4,14,39, 3, 9	
		31,44,54,31,44,19,23		2,19
58″	58, 3,12,56,25,17,54,51,48,37		4,14,39, 5,28	
		31,44,50,17, 5,13,55		
60″	58, 3,13,28,10, 8,11,57, 2,32			
exact	58, 3,13,28,10, 8,11,56,39, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°22′ 0″	58, 3,13,28,10, 8,11,56,39, 8			
		31,44,46, 2,26, 3,39		
2″	58, 3,13,59,54,54,14,22,42,47		4,14,39,10,16	
		31,44,41,47,46,53,23		2,19
4″	58, 3,14,31,39,36, 2, 9,36,10		4,14,39,12,35	
		31,44,37,33, 7,40,48		2,19
6″	58, 3,15, 3,24,13,35,17,16,58		4,14,39,14,54	
		31,44,33,18,28,25,54		2,19
8″	58, 3,15,35, 8,46,53,45,42,52		4,14,39,17,13	
		31,44,29, 3,49, 8,41		2,19
10″	58, 3,16, 6,53,15,57,34,51,33		4,14,39,19,32	
		31,44,24,49, 9,49, 9		2,19
12″	58, 3,16,38,37,40,46,44,40,42		4,14,39,21,51	
		31,44,20,34,30,27,18		2,19
14″	58, 3,17,10,22, 1,21,15, 8, 0		4,14,39,24,10	
		31,44,16,19,51, 3, 8		2,19
16″	58, 3,17,42, 6,17,41, 6,11, 8		4,14,39,26,29	
		31,44,12, 5,11,36,39		2,19
18″	58, 3,18,13,50,29,46,17,47,47		4,14,39,28,48	
		31,44, 7,50,32, 7,51		2,19
20″	58, 3,18,45,34,37,36,49,55,38		4,14,39,31, 7	
		31,44, 3,35,52,36,44		2,19
22″	58, 3,19,17,18,41,12,42,32,22		4,14,39,33,26	
		31,43,59,21,13, 3,18		2,19
24″	58, 3,19,49, 2,40,33,55,35,40		4,14,39,35,45	
		31,43,55, 6,33,27,33		2,19
26″	58, 3,20,20,46,35,40,29, 3,13		4,14,39,38, 4	
		31,43,50,51,53,49,29		2,19
28″	58, 3,20,52,30,26,32,22,52,42		4,14,39,40,23	
		31,43,46,37,14, 9, 6		2,19
30″	58, 3,21,24,14,13, 9,37, 1,48		4,14,39,42,42	
		31,43,42,22,34,26,24		2,19
32″	58, 3,21,55,57,55,32,11,28,12		4,14,39,45, 1	
		31,43,38, 7,54,41,23		2,19
34″	58, 3,22,27,41,33,40, 6, 9,35		4,14,39,47,20	
		31,43,33,53,14,54, 3		2,19
36″	58, 3,22,59,25, 7,33,21, 3,38		4,14,39,49,39	
		31,43,29,38,35, 4,24		2,19
38″	58, 3,23,31, 8,37,11,56, 8, 2		4,14,39,51,58	
		31,43,25,23,55,12,26		2,19
40″	58, 3,24, 2,52, 2,35,51,20,28		4,14,39,54,17	
		31,43,21, 9,15,18, 9		2,19
42″	58, 3,24,34,35,23,45, 6,38,37		4,14,39,56,36	
		31,43,16,54,35,21,33		2,19
44″	58, 3,25, 6,18,40,39,42, 0,10		4,14,39,58,55	
		31,43,12,39,55,22,38		2,19
46″	58, 3,25,38, 1,53,19,37,22,48		4,14,40, 1,14	
		31,43, 8,25,15,21,24		2,19
48″	58, 3,26, 9,45, 1,44,52,44,12		4,14,40, 3,33	
		31,43, 4,10,35,17,51		2,19
50″	58, 3,26,41,28, 5,55,28, 2, 3		4,14,40, 5,52	
		31,42,59,55,55,11,59		2,19
52″	58, 3,27,13,11, 5,51,23,14, 2		4,14,40, 8,11	
		31,42,55,41,15, 3,48		2,19
54″	58, 3,27,44,54, 1,32,38,17,50		4,14,40,10,30	
		31,42,51,26,34,53,18		2,19
56″	58, 3,28,16,36,52,59,13,11, 8		4,14,40,12,49	
		31,42,47,11,54,40,29		2,19
58″	58, 3,28,48,19,40,11, 7,51,37		4,14,40,15, 8	
		31,42,42,57,14,25,21		
60″	58, 3,29,20, 2,23, 8,22,16,58			
exact	58, 3,29,20, 2,23, 8,22, 4,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°23′ 0″	58, 3,29,20, 2,23, 8,22, 4,54			
		31,42,38,42,34, 6,36		
2″	58, 3,29,51,45, 1,50,56,11,30		4,14,40,19,51	
		31,42,34,27,53,46,45		2,19
4″	58, 3,30,23,27,36,18,49,58,15		4,14,40,22,10	
		31,42,30,13,13,24,35		2,19
6″	58, 3,30,55,10, 6,32, 3,22,50		4,14,40,24,29	
		31,42,25,58,33, 0, 6		2,19
8″	58, 3,31,26,52,32,30,36,22,56		4,14,40,26,48	
		31,42,21,43,52,33,18		2,19
10″	58, 3,31,58,34,54,14,28,56,14		4,14,40,29, 7	
		31,42,17,29,12, 4,11		2,19
12″	58, 3,32,30,17,11,43,41, 0,25		4,14,40,31,26	
		31,42,13,14,31,32,45		2,19
14″	58, 3,33, 1,59,24,58,12,33,10		4,14,40,33,45	
		31,42, 8,59,50,59, 0		2,19
16″	58, 3,33,33,41,33,58, 3,32,10		4,14,40,36, 4	
		31,42, 4,45,10,22,56		2,19
18″	58, 3,34, 5,23,38,43,13,55, 6		4,14,40,38,23	
		31,42, 0,30,29,44,33		2,19
20″	58, 3,34,37, 5,39,13,43,39,39		4,14,40,40,42	
		31,41,56,15,49, 3,51		2,19
22″	58, 3,35, 8,47,35,29,32,43,30		4,14,40,43, 1	
		31,41,52, 1, 8,20,50		2,19
24″	58, 3,35,40,29,27,30,41, 4,20		4,14,40,45,20	
		31,41,47,46,27,35,30		2,19
26″	58, 3,36,12,11,15,17, 8,39,50		4,14,40,47,39	
		31,41,43,31,46,47,51		2,19
28″	58, 3,36,43,52,58,48,55,27,41		4,14,40,49,58	
		31,41,39,17, 5,57,53		2,19
30″	58, 3,37,15,34,38, 6, 1,25,34		4,14,40,52,17	
		31,41,35, 2,25, 5,36		2,19
32″	58, 3,37,47,16,13, 8,26,31,10		4,14,40,54,36	
		31,41,30,47,44,11, 0		2,19
34″	58, 3,38,18,57,43,56,10,42,10		4,14,40,56,55	
		31,41,26,33, 3,14, 5		2,19
36″	58, 3,38,50,39,10,29,13,56,15		4,14,40,59,14	
		31,41,22,18,22,14,51		2,19
38″	58, 3,39,22,20,32,47,36,11, 6		4,14,41, 1,33	
		31,41,18, 3,41,13,18		2,19
40″	58, 3,39,54, 1,50,51,17,24,24		4,14,41, 3,52	
		31,41,13,49, 0, 9,26		2,19
42″	58, 3,40,25,43, 4,40,17,33,50		4,14,41, 6,11	
		31,41, 9,34,19, 3,15		2,19
44″	58, 3,40,57,24,14,14,36,37, 5		4,14,41, 8,30	
		31,41, 5,19,37,54,45		2,19
46″	58, 3,41,29, 5,19,34,14,31,50		4,14,41,10,49	
		31,41, 1, 4,56,43,56		2,19
48″	58, 3,42, 0,46,20,39,11,15,46		4,14,41,13, 8	
		31,40,56,50,15,30,48		2,19
50″	58, 3,42,32,27,17,29,26,46,34		4,14,41,15,27	
		31,40,52,35,34,15,21		2,19
52″	58, 3,43, 4, 8,10, 5, 1, 1,55		4,14,41,17,46	
		31,40,48,20,52,57,35		2,19
54″	58, 3,43,35,48,58,25,53,59,30		4,14,41,20, 5	
		31,40,44, 6,11,37,30		2,19
56″	58, 3,44, 7,29,42,32, 5,37, 0		4,14,41,22,24	
		31,40,39,51,30,15, 6		2,19
58″	58, 3,44,39,10,22,23,35,52, 6		4,14,41,24,43	
		31,40,35,36,48,50,23		
60″	58, 3,45,10,50,58, 0,24,42,29			
exact	58, 3,45,10,50,58, 0,24,39,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°24′ 0″	58, 3,45,10,50,58, 0,24,39,26			
		31,40,31,22, 7,23, 5		
2″	58, 3,45,42,31,29,22,32, 2,31		4,14,41,29,21	
		31,40,27, 7,25,53,44		2,19
4″	58, 3,46,14,11,56,29,57,56,15		4,14,41,31,40	
		31,40,22,52,44,22, 4		2,19
6″	58, 3,46,45,52,19,22,42,18,19		4,14,41,33,59	
		31,40,18,38, 2,48, 5		2,19
8″	58, 3,47,17,32,38, 0,45, 6,24		4,14,41,36,18	
		31,40,14,23,21,11,47		2,19
10″	58, 3,47,49,12,52,24, 6,18,11		4,14,41,38,37	
		31,40,10, 8,39,33,10		2,19
12″	58, 3,48,20,53, 2,32,45,51,21		4,14,41,40,56	
		31,40, 5,53,57,52,14		2,19
14″	58, 3,48,52,33, 8,26,43,43,35		4,14,41,43,15	
		31,40, 1,39,16, 8,59		2,19
16″	58, 3,49,24,13,10, 5,59,52,34		4,14,41,45,34	
		31,39,57,24,34,23,25		2,19
18″	58, 3,49,55,53, 7,30,34,15,59		4,14,41,47,53	
		31,39,53, 9,52,35,32		2,19
20″	58, 3,50,27,33, 0,40,26,51,31		4,14,41,50,12	
		31,39,48,55,10,45,20		2,19
22″	58, 3,50,59,12,49,35,37,36,51		4,14,41,52,31	
		31,39,44,40,28,52,49		2,19
24″	58, 3,51,30,52,34,16, 6,29,40		4,14,41,54,50	
		31,39,40,25,46,57,59		2,19
26″	58, 3,52, 2,32,14,41,53,27,39		4,14,41,57, 9	
		31,39,36,11, 5, 0,50		2,19
28″	58, 3,52,34,11,50,52,58,28,29		4,14,41,59,28	
		31,39,31,56,23, 1,22		2,19
30″	58, 3,53, 5,51,22,49,21,29,51		4,14,42, 1,47	
		31,39,27,41,40,59,35		2,19
32″	58, 3,53,37,30,50,31, 2,29,26		4,14,42, 4, 6	
		31,39,23,26,58,55,29		2,19
34″	58, 3,54, 9,10,13,58, 1,24,55		4,14,42, 6,25	
		31,39,19,12,16,49, 4		2,19
36″	58, 3,54,40,49,33,10,18,13,59		4,14,42, 8,44	
		31,39,14,57,34,40,20		2,19
38″	58, 3,55,12,28,48, 7,52,54,19		4,14,42,11, 3	
		31,39,10,42,52,29,17		2,19
40″	58, 3,55,44, 7,58,50,45,23,36		4,14,42,13,22	
		31,39, 6,28,10,15,55		2,19
42″	58, 3,56,15,47, 5,18,55,39,31		4,14,42,15,41	
		31,39, 2,13,28, 0,14		2,19
44″	58, 3,56,47,26, 7,32,23,39,45		4,14,42,18, 0	
		31,38,57,58,45,42,14		2,19
46″	58, 3,57,19, 5, 5,31, 9,21,59		4,14,42,20,19	
		31,38,53,44, 3,21,55		2,19
48″	58, 3,57,50,43,59,15,12,43,54		4,14,42,22,38	
		31,38,49,29,20,59,17		2,19
50″	58, 3,58,22,22,48,44,33,43,11		4,14,42,24,57	
		31,38,45,14,38,34,20		2,19
52″	58, 3,58,54, 1,33,59,12,17,31		4,14,42,27,16	
		31,38,40,59,56, 7, 4		2,19
54″	58, 3,59,25,40,14,59, 8,24,35		4,14,42,29,35	
		31,38,36,45,13,37,29		2,19
56″	58, 3,59,57,18,51,44,22, 2, 4		4,14,42,31,54	
		31,38,32,30,31, 5,35		2,19
58″	58, 4, 0,28,57,24,14,53, 7,39		4,14,42,34,13	
		31,38,28,15,48,31,22		
60″	58, 4, 1, 0,35,52,30,41,39, 1			
exact	58, 4, 1, 0,35,52,30,41,41,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°25′ 0″	58, 4, 1, 0,35,52,30,41,41,55			
		31,38,24, 1, 5,55,23		
2″	58, 4, 1,32,14,16,31,47,37,18		4,14,42,38,47	
		31,38,19,46,23,16,36		2,19
4″	58, 4, 2, 3,52,36,18,10,53,54		4,14,42,41, 6	
		31,38,15,31,40,35,30		2,19
6″	58, 4, 2,35,30,51,49,51,29,24		4,14,42,43,25	
		31,38,11,16,57,52, 5		2,19
8″	58, 4, 3, 7, 9, 3, 6,49,21,29		4,14,42,45,44	
		31,38, 7, 2,15, 6,21		2,19
10″	58, 4, 3,38,47,10, 9, 4,27,50		4,14,42,48, 3	
		31,38, 2,47,32,18,18		2,19
12″	58, 4, 4,10,25,12,56,36,46, 8		4,14,42,50,22	
		31,37,58,32,49,27,56		2,19
14″	58, 4, 4,42, 3,11,29,26,14, 4		4,14,42,52,41	
		31,37,54,18, 6,35,15		2,19
16″	58, 4, 5,13,41, 5,47,32,49,19		4,14,42,55, 0	
		31,37,50, 3,23,40,15		2,19
18″	58, 4, 5,45,18,55,50,56,29,34		4,14,42,57,19	
		31,37,45,48,40,42,56		2,19
20″	58, 4, 6,16,56,41,39,37,12,30		4,14,42,59,38	
		31,37,41,33,57,43,18		2,19
22″	58, 4, 6,48,34,23,13,34,55,48		4,14,43, 1,57	
		31,37,37,19,14,41,21		2,19
24″	58, 4, 7,20,12, 0,32,49,37, 9		4,14,43, 4,16	
		31,37,33, 4,31,37, 5		2,19
26″	58, 4, 7,51,49,33,37,21,14,14		4,14,43, 6,35	
		31,37,28,49,48,30,30		2,19
28″	58, 4, 8,23,27, 2,27, 9,44,44		4,14,43, 8,54	
		31,37,24,35, 5,21,36		2,19
30″	58, 4, 8,55, 4,27, 2,15, 6,20		4,14,43,11,13	
		31,37,20,20,22,10,23		2,19
32″	58, 4, 9,26,41,47,22,37,16,43		4,14,43,13,32	
		31,37,16, 5,38,56,51		2,19
34″	58, 4, 9,58,19, 3,28,16,13,34		4,14,43,15,51	
		31,37,11,50,55,41, 0		2,19
36″	58, 4,10,29,56,15,19,11,54,34		4,14,43,18,10	
		31,37, 7,36,12,22,50		2,19
38″	58, 4,11, 1,33,22,55,24,17,24		4,14,43,20,29	
		31,37, 3,21,29, 2,21		2,19
40″	58, 4,11,33,10,26,16,53,19,45		4,14,43,22,48	
		31,36,59, 6,45,39,33		2,19
42″	58, 4,12, 4,47,25,23,38,59,18		4,14,43,25, 7	
		31,36,54,52, 2,14,26		2,19
44″	58, 4,12,36,24,20,15,41,13,44		4,14,43,27,26	
		31,36,50,37,18,47, 0		2,19
46″	58, 4,13, 8, 1,10,53, 0, 0,44		4,14,43,29,45	
		31,36,46,22,35,17,15		2,19
48″	58, 4,13,39,37,57,15,35,17,59		4,14,43,32, 4	
		31,36,42, 7,51,45,11		2,19
50″	58, 4,14,11,14,39,23,27, 3,10		4,14,43,34,23	
		31,36,37,53, 8,10,48		2,19
52″	58, 4,14,42,51,17,16,35,13,58		4,14,43,36,42	
		31,36,33,38,24,34, 6		2,19
54″	58, 4,15,14,27,50,54,59,48, 4		4,14,43,39, 1	
		31,36,29,23,40,55, 5		2,19
56″	58, 4,15,46, 4,20,18,40,43, 9		4,14,43,41,20	
		31,36,25, 8,57,13,45		2,19
58″	58, 4,16,17,40,45,27,37,56,54		4,14,43,43,39	
		31,36,20,54,13,30, 6		
60″	58, 4,16,49,17, 6,21,51,27, 0			
exact	58, 4,16,49,17, 6,21,51,41,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°26′ 0″	58, 4,16,49,17, 6,21,51,41,27			
		31,36,16,39,29,45,52		
2″	58, 4,17,20,53,23, 1,21,27,19		4,14,43,48, 9	
		31,36,12,24,45,57,43		2,19
4″	58, 4,17,52,29,35,26, 7,25, 2		4,14,43,50,28	
		31,36, 8,10, 2, 7,15		2,19
6″	58, 4,18,24, 5,43,36, 9,32,17		4,14,43,52,47	
		31,36, 3,55,18,14,28		2,19
8″	58, 4,18,55,41,47,31,27,46,45		4,14,43,55, 6	
		31,35,59,40,34,19,22		2,19
10″	58, 4,19,27,17,47,12, 2, 6, 7		4,14,43,57,25	
		31,35,55,25,50,21,57		2,19
12″	58, 4,19,58,53,42,37,52,28, 4		4,14,43,59,44	
		31,35,51,11, 6,22,13		2,19
14″	58, 4,20,30,29,33,48,58,50,17		4,14,44, 2, 3	
		31,35,46,56,22,20,10		2,19
16″	58, 4,21, 2, 5,20,45,21,10,27		4,14,44, 4,22	
		31,35,42,41,38,15,48		2,19
18″	58, 4,21,33,41, 3,26,59,26,15		4,14,44, 6,41	
		31,35,38,26,54, 9, 7		2,19
20″	58, 4,22, 5,16,41,53,53,35,22		4,14,44, 9, 0	
		31,35,34,12,10, 0, 7		2,19
22″	58, 4,22,36,52,16, 6, 3,35,29		4,14,44,11,19	
		31,35,29,57,25,48,48		2,19
24″	58, 4,23, 8,27,46, 3,29,24,17		4,14,44,13,38	
		31,35,25,42,41,35,10		2,19
26″	58, 4,23,40, 3,11,46,10,59,27		4,14,44,15,57	
		31,35,21,27,57,19,13		2,19
28″	58, 4,24,11,38,33,14, 8,18,40		4,14,44,18,16	
		31,35,17,13,13, 0,57		2,19
30″	58, 4,24,43,13,50,27,21,19,37		4,14,44,20,35	
		31,35,12,58,28,40,22		2,19
32″	58, 4,25,14,49, 3,25,49,59,59		4,14,44,22,54	
		31,35, 8,43,44,17,28		2,19
34″	58, 4,25,46,24,12, 9,34,17,27		4,14,44,25,13	
		31,35, 4,28,59,52,15		2,19
36″	58, 4,26,17,59,16,38,34, 9,42		4,14,44,27,32	
		31,35, 0,14,15,24,43		2,19
38″	58, 4,26,49,34,16,52,49,34,25		4,14,44,29,51	
		31,34,55,59,30,54,52		2,19
40″	58, 4,27,21, 9,12,52,20,29,17		4,14,44,32,10	
		31,34,51,44,46,22,42		2,19
42″	58, 4,27,52,44, 4,37, 6,51,59		4,14,44,34,29	
		31,34,47,30, 1,48,13		2,19
44″	58, 4,28,24,18,52, 7, 8,40,12		4,14,44,36,48	
		31,34,43,15,17,11,25		2,19
46″	58, 4,28,55,53,35,22,25,51,37		4,14,44,39, 7	
		31,34,39, 0,32,32,18		2,19
48″	58, 4,29,27,28,14,22,58,23,55		4,14,44,41,26	
		31,34,34,45,47,50,52		2,19
50″	58, 4,29,59, 2,49, 8,46,14,47		4,14,44,43,45	
		31,34,30,31, 3, 7, 7		2,19
52″	58, 4,30,30,37,19,39,49,21,54		4,14,44,46, 4	
		31,34,26,16,18,21, 3		2,19
54″	58, 4,31, 2,11,45,56, 7,42,57		4,14,44,48,23	
		31,34,22, 1,33,32,40		2,19
56″	58, 4,31,33,46, 7,57,41,15,37		4,14,44,50,42	
		31,34,17,46,48,41,58		2,19
58″	58, 4,32, 5,20,25,44,29,57,35		4,14,44,53, 1	
		31,34,13,32, 3,48,57		
60″	58, 4,32,36,54,39,16,33,46,32			
exact	58, 4,32,36,54,39,16,34,16,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°27′ 0″	58, 4,32,36,54,39,16,34,16,55			
		31,34, 9,17,18,56,51		
2″	58, 4,33, 8,28,48,33,53,13,46		4,14,44,57,25	
		31,34, 5, 2,33,59,26		2,18
4″	58, 4,33,40, 2,53,36,27,13,12		4,14,44,59,43	
		31,34, 0,47,48,59,43		2,18
6″	58, 4,34,11,36,54,24,16,12,55		4,14,45, 2, 1	
		31,33,56,33, 3,57,42		2,18
8″	58, 4,34,43,10,50,57,20,10,37		4,14,45, 4,19	
		31,33,52,18,18,53,23		2,18
10″	58, 4,35,14,44,43,15,39, 4, 0		4,14,45, 6,37	
		31,33,48, 3,33,46,46		2,18
12″	58, 4,35,46,18,31,19,12,50,46		4,14,45, 8,55	
		31,33,43,48,48,37,51		2,18
14″	58, 4,36,17,52,15, 8, 1,28,37		4,14,45,11,13	
		31,33,39,34, 3,26,38		2,18
16″	58, 4,36,49,25,54,42, 4,55,15		4,14,45,13,31	
		31,33,35,19,18,13, 7		2,18
18″	58, 4,37,20,59,30, 1,23, 8,22		4,14,45,15,49	
		31,33,31, 4,32,57,18		2,18
20″	58, 4,37,52,33, 1, 5,56, 5,40		4,14,45,18, 7	
		31,33,26,49,47,39,11		2,18
22″	58, 4,38,24, 6,27,55,43,44,51		4,14,45,20,25	
		31,33,22,35, 2,18,46		2,18
24″	58, 4,38,55,39,50,30,46, 3,37		4,14,45,22,43	
		31,33,18,20,16,56, 3		2,18
26″	58, 4,39,27,13, 8,51, 2,59,40		4,14,45,25, 1	
		31,33,14, 5,31,31, 2		2,18
28″	58, 4,39,58,46,22,56,34,30,42		4,14,45,27,19	
		31,33, 9,50,46, 3,43		2,18
30″	58, 4,40,30,19,32,47,20,34,25		4,14,45,29,37	
		31,33, 5,36, 0,34, 6		2,18
32″	58, 4,41, 1,52,38,23,21, 8,31		4,14,45,31,55	
		31,33, 1,21,15, 2,11		2,18
34″	58, 4,41,33,25,39,44,36,10,42		4,14,45,34,13	
		31,32,57, 6,29,27,58		2,18
36″	58, 4,42, 4,58,36,51, 5,38,40		4,14,45,36,31	
		31,32,52,51,43,51,27		2,18
38″	58, 4,42,36,31,29,42,49,30, 7		4,14,45,38,49	
		31,32,48,36,58,12,38		2,18
40″	58, 4,43, 8, 4,18,19,47,42,45		4,14,45,41, 7	
		31,32,44,22,12,31,31		2,18
42″	58, 4,43,39,37, 2,42, 0,14,16		4,14,45,43,25	
		31,32,40, 7,26,48, 6		2,18
44″	58, 4,44,11, 9,42,49,27, 2,22		4,14,45,45,43	
		31,32,35,52,41, 2,23		2,18
46″	58, 4,44,42,42,18,42, 8, 4,45		4,14,45,48, 1	
		31,32,31,37,55,14,22		2,18
48″	58, 4,45,14,14,50,20, 3,19, 7		4,14,45,50,19	
		31,32,27,23, 9,24, 3		2,18
50″	58, 4,45,45,47,17,43,12,43,10		4,14,45,52,37	
		31,32,23, 8,23,31,26		2,18
52″	58, 4,46,17,19,40,51,36,14,36		4,14,45,54,55	
		31,32,18,53,37,36,31		2,18
54″	58, 4,46,48,51,59,45,13,51, 7		4,14,45,57,13	
		31,32,14,38,51,39,18		2,18
56″	58, 4,47,20,24,14,24, 5,30,25		4,14,45,59,31	
		31,32,10,24, 5,39,47		2,18
58″	58, 4,47,51,56,24,48,11,10,12		4,14,46, 1,49	
		31,32, 6, 9,19,37,58		
60″	58, 4,48,23,28,30,57,30,48,10			
exact	58, 4,48,23,28,30,57,30,17, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°28′ 0″	58, 4,48,23,28,30,57,30,17, 0			
		31,32, 1,54,33,30,40		
2″	58, 4,48,55, 0,32,52, 3,47,40		4,14,46, 6,37	
		31,31,57,39,47,24, 3		2,18
4″	58, 4,49,26,32,30,31,51,11,43		4,14,46, 8,55	
		31,31,53,25, 1,15, 8		2,18
6″	58, 4,49,58, 4,23,56,52,26,51		4,14,46,11,13	
		31,31,49,10,15, 3,55		2,18
8″	58, 4,50,29,36,13, 7, 7,30,46		4,14,46,13,31	
		31,31,44,55,28,50,24		2,18
10″	58, 4,51, 1, 7,58, 2,36,21,10		4,14,46,15,49	
		31,31,40,40,42,34,35		2,18
12″	58, 4,51,32,39,38,43,18,55,45		4,14,46,18, 7	
		31,31,36,25,56,16,28		2,18
14″	58, 4,52, 4,11,15, 9,15,12,13		4,14,46,20,25	
		31,31,32,11, 9,56, 3		2,18
16″	58, 4,52,35,42,47,20,25, 8,16		4,14,46,22,43	
		31,31,27,56,23,33,20		2,18
18″	58, 4,53, 7,14,15,16,48,41,36		4,14,46,25, 1	
		31,31,23,41,37, 8,19		2,18
20″	58, 4,53,38,45,38,58,25,49,55		4,14,46,27,19	
		31,31,19,26,50,41, 0		2,18
22″	58, 4,54,10,16,58,25,16,30,55		4,14,46,29,37	
		31,31,15,12, 4,11,23		2,18
24″	58, 4,54,41,48,13,37,20,42,18		4,14,46,31,55	
		31,31,10,57,17,39,28		2,18
26″	58, 4,55,13,19,24,34,38,21,46		4,14,46,34,13	
		31,31, 6,42,31, 5,15		2,18
28″	58, 4,55,44,50,31,17, 9,27, 1		4,14,46,36,31	
		31,31, 2,27,44,28,44		2,18
30″	58, 4,56,16,21,33,44,53,55,45		4,14,46,38,49	
		31,30,58,12,57,49,55		2,18
32″	58, 4,56,47,52,31,57,51,45,40		4,14,46,41, 7	
		31,30,53,58,11, 8,48		2,18
34″	58, 4,57,19,23,25,56, 2,54,28		4,14,46,43,25	
		31,30,49,43,24,25,23		2,18
36″	58, 4,57,50,54,15,39,27,19,51		4,14,46,45,43	
		31,30,45,28,37,39,40		2,18
38″	58, 4,58,22,25, 1, 8, 4,59,31		4,14,46,48, 1	
		31,30,41,13,50,51,39		2,18
40″	58, 4,58,53,55,42,21,55,51,10		4,14,46,50,19	
		31,30,36,59, 4, 1,20		2,18
42″	58, 4,59,25,26,19,20,59,52,30		4,14,46,52,37	
		31,30,32,44,17, 8,43		2,18
44″	58, 4,59,56,56,52, 5,17, 1,13		4,14,46,54,55	
		31,30,28,29,30,13,48		2,18
46″	58, 5, 0,28,27,20,34,47,15, 1		4,14,46,57,13	
		31,30,24,14,43,16,35		2,18
48″	58, 5, 0,59,57,44,49,30,31,36		4,14,46,59,31	
		31,30,19,59,56,17, 4		2,18
50″	58, 5, 1,31,28, 4,49,26,48,40		4,14,47, 1,49	
		31,30,15,45, 9,15,15		2,18
52″	58, 5, 2, 2,58,20,34,36, 3,55		4,14,47, 4, 7	
		31,30,11,30,22,11, 8		2,18
54″	58, 5, 2,34,28,32, 4,58,15, 3		4,14,47, 6,25	
		31,30, 7,15,35, 4,43		2,18
56″	58, 5, 3, 5,58,39,20,33,19,46		4,14,47, 8,43	
		31,30, 3, 0,47,56, 0		2,18
58″	58, 5, 3,37,28,42,21,21,15,46		4,14,47,11, 1	
		31,29,58,46, 0,44,59		
60″	58, 5, 4, 8,58,41, 7,22, 0,45			
exact	58, 5, 4, 8,58,41, 7,21,40,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°29′ 0″	58, 5, 4, 8,58,41, 7,21,40,18			
		31,29,54,31,13,29,38		
2″	58, 5, 4,40,28,35,38,35, 9,56		4,14,47,15,44	
		31,29,50,16,26,13,54		2,18
4″	58, 5, 5,11,58,25,55, 1,23,50		4,14,47,18, 2	
		31,29,46, 1,38,55,52		2,18
6″	58, 5, 5,43,28,11,56,40,19,42		4,14,47,20,20	
		31,29,41,46,51,35,32		2,18
8″	58, 5, 6,14,57,53,43,31,55,14		4,14,47,22,38	
		31,29,37,32, 4,12,54		2,18
10″	58, 5, 6,46,27,31,15,36, 8, 8		4,14,47,24,56	
		31,29,33,17,16,47,58		2,18
12″	58, 5, 7,17,57, 4,32,52,56, 6		4,14,47,27,14	
		31,29,29, 2,29,20,44		2,18
14″	58, 5, 7,49,26,33,35,22,16,50		4,14,47,29,32	
		31,29,24,47,41,51,12		2,18
16″	58, 5, 8,20,55,58,23, 4, 8, 2		4,14,47,31,50	
		31,29,20,32,54,19,22		2,18
18″	58, 5, 8,52,25,18,55,58,27,24		4,14,47,34, 8	
		31,29,16,18, 6,45,14		2,18
20″	58, 5, 9,23,54,35,14, 5,12,38		4,14,47,36,26	
		31,29,12, 3,19, 8,48		2,18
22″	58, 5, 9,55,23,47,17,24,21,26		4,14,47,38,44	
		31,29, 7,48,31,30, 4		2,18
24″	58, 5,10,26,52,55, 5,55,51,30		4,14,47,41, 2	
		31,29, 3,33,43,49, 2		2,18
26″	58, 5,10,58,21,58,39,39,40,32		4,14,47,43,20	
		31,28,59,18,56, 5,42		2,18
28″	58, 5,11,29,50,57,58,35,46,14		4,14,47,45,38	
		31,28,55, 4, 8,20, 4		2,18
30″	58, 5,12, 1,19,53, 2,44, 6,18		4,14,47,47,56	
		31,28,50,49,20,32, 8		2,18
32″	58, 5,12,32,48,43,52, 4,38,26		4,14,47,50,14	
		31,28,46,34,32,41,54		2,18
34″	58, 5,13, 4,17,30,26,37,20,20		4,14,47,52,32	
		31,28,42,19,44,49,22		2,18
36″	58, 5,13,35,46,12,46,22, 9,42		4,14,47,54,50	
		31,28,38, 4,56,54,32		2,18
38″	58, 5,14, 7,14,50,51,19, 4,14		4,14,47,57, 8	
		31,28,33,50, 8,57,24		2,18
40″	58, 5,14,38,43,24,41,28, 1,38		4,14,47,59,26	
		31,28,29,35,20,57,58		2,18
42″	58, 5,15,10,11,54,16,48,59,36		4,14,48, 1,44	
		31,28,25,20,32,56,14		2,18
44″	58, 5,15,41,40,19,37,21,55,50		4,14,48, 4, 2	
		31,28,21, 5,44,52,12		2,18
46″	58, 5,16,13, 8,40,43, 6,48, 2		4,14,48, 6,20	
		31,28,16,50,56,45,52		2,18
48″	58, 5,16,44,36,57,34, 3,33,54		4,14,48, 8,38	
		31,28,12,36, 8,37,14		2,18
50″	58, 5,17,16, 5,10,10,12,11, 8		4,14,48,10,56	
		31,28, 8,21,20,26,18		2,18
52″	58, 5,17,47,33,18,31,32,37,26		4,14,48,13,14	
		31,28, 4, 6,32,13, 4		2,18
54″	58, 5,18,19, 1,22,38, 4,50,30		4,14,48,15,32	
		31,27,59,51,43,57,32		2,18
56″	58, 5,18,50,29,22,29,48,48, 2		4,14,48,17,50	
		31,27,55,36,55,39,42		2,18
58″	58, 5,19,21,57,18, 6,44,27,44		4,14,48,20, 8	
		31,27,51,22, 7,19,34		
60″	58, 5,19,53,25, 9,28,51,47,18			
exact	58, 5,19,53,25, 9,28,51,35,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°30′ 0″	58, 5,19,53,25, 9,28,51,35,13			
		31,27,47, 7,18,56, 4		
2″	58, 5,20,24,52,56,36,10,31,17		4,14,48,24,47	
		31,27,42,52,30,31,17		2,18
4″	58, 5,20,56,20,39,28,41, 2,34		4,14,48,27, 5	
		31,27,38,37,42, 4,12		2,18
6″	58, 5,21,27,48,18, 6,23, 6,46		4,14,48,29,23	
		31,27,34,22,53,34,49		2,18
8″	58, 5,21,59,15,52,29,16,41,35		4,14,48,31,41	
		31,27,30, 8, 5, 3, 8		2,18
10″	58, 5,22,30,43,22,37,21,44,43		4,14,48,33,59	
		31,27,25,53,16,29, 9		2,18
12″	58, 5,23, 2,10,48,30,38,13,52		4,14,48,36,17	
		31,27,21,38,27,52,52		2,18
14″	58, 5,23,33,38,10, 9, 6, 6,44		4,14,48,38,35	
		31,27,17,23,39,14,17		2,18
16″	58, 5,24, 5, 5,27,32,45,21, 1		4,14,48,40,53	
		31,27,13, 8,50,33,24		2,18
18″	58, 5,24,36,32,40,41,35,54,25		4,14,48,43,11	
		31,27, 8,54, 1,50,13		2,18
20″	58, 5,25, 7,59,49,35,37,44,38		4,14,48,45,29	
		31,27, 4,39,13, 4,44		2,18
22″	58, 5,25,39,26,54,14,50,49,22		4,14,48,47,47	
		31,27, 0,24,24,16,57		2,18
24″	58, 5,26,10,53,54,39,15, 6,19		4,14,48,50, 5	
		31,26,56, 9,35,26,52		2,18
26″	58, 5,26,42,20,50,48,50,33,11		4,14,48,52,23	
		31,26,51,54,46,34,29		2,18
28″	58, 5,27,13,47,42,43,37, 7,40		4,14,48,54,41	
		31,26,47,39,57,39,48		2,18
30″	58, 5,27,45,14,30,23,34,47,28		4,14,48,56,59	
		31,26,43,25, 8,42,49		2,18
32″	58, 5,28,16,41,13,48,43,30,17		4,14,48,59,17	
		31,26,39,10,19,43,32		2,18
34″	58, 5,28,48, 7,52,59, 3,13,49		4,14,49, 1,35	
		31,26,34,55,30,41,57		2,18
36″	58, 5,29,19,34,27,54,33,55,46		4,14,49, 3,53	
		31,26,30,40,41,38, 4		2,18
38″	58, 5,29,51, 0,58,35,15,33,50		4,14,49, 6,11	
		31,26,26,25,52,31,53		2,18
40″	58, 5,30,22,27,25, 1, 8, 5,43		4,14,49, 8,29	
		31,26,22,11, 3,23,24		2,18
42″	58, 5,30,53,53,47,12,11,29, 7		4,14,49,10,47	
		31,26,17,56,14,12,37		2,18
44″	58, 5,31,25,20, 5, 8,25,41,44		4,14,49,13, 5	
		31,26,13,41,24,59,32		2,18
46″	58, 5,31,56,46,18,49,50,41,16		4,14,49,15,23	
		31,26, 9,26,35,44, 9		2,18
48″	58, 5,32,28,12,28,16,26,25,25		4,14,49,17,41	
		31,26, 5,11,46,26,28		2,18
50″	58, 5,32,59,38,33,28,12,51,53		4,14,49,19,59	
		31,26, 0,56,57, 6,29		2,18
52″	58, 5,33,31, 4,34,25, 9,58,22		4,14,49,22,17	
		31,25,56,42, 7,44,12		2,18
54″	58, 5,34, 2,30,31, 7,17,42,34		4,14,49,24,35	
		31,25,52,27,18,19,37		2,18
56″	58, 5,34,33,56,23,34,36, 2,11		4,14,49,26,53	
		31,25,48,12,28,52,44		2,18
58″	58, 5,35, 5,22,11,47, 4,54,55		4,14,49,29,11	
		31,25,43,57,39,23,33		
60″	58, 5,35,36,47,55,44,44,18,28			
exact	58, 5,35,36,47,55,44,44,20, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°31′ 0″	58, 5,35,36,47,55,44,44,20, 0			
		31,25,39,42,49,52,20		
2″	58, 5,36, 8,13,35,27,34,12,20		4,14,49,33,45	
		31,25,35,28, 0,18,35		2,18
4″	58, 5,36,39,39,10,55,34,30,55		4,14,49,36, 3	
		31,25,31,13,10,42,32		2,18
6″	58, 5,37,11, 4,42, 8,45,13,27		4,14,49,38,21	
		31,25,26,58,21, 4,11		2,18
8″	58, 5,37,42,30, 9, 7, 6,17,38		4,14,49,40,39	
		31,25,22,43,31,23,32		2,18
10″	58, 5,38,13,55,31,50,37,41,10		4,14,49,42,57	
		31,25,18,28,41,40,35		2,18
12″	58, 5,38,45,20,50,19,19,21,45		4,14,49,45,15	
		31,25,14,13,51,55,20		2,18
14″	58, 5,39,16,46, 4,33,11,17, 5		4,14,49,47,33	
		31,25, 9,59, 2, 7,47		2,18
16″	58, 5,39,48,11,14,32,13,24,52		4,14,49,49,51	
		31,25, 5,44,12,17,56		2,18
18″	58, 5,40,19,36,20,16,25,42,48		4,14,49,52, 9	
		31,25, 1,29,22,25,47		2,18
20″	58, 5,40,51, 1,21,45,48, 8,35		4,14,49,54,27	
		31,24,57,14,32,31,20		2,18
22″	58, 5,41,22,26,19, 0,20,39,55		4,14,49,56,45	
		31,24,52,59,42,34,35		2,18
24″	58, 5,41,53,51,12, 0, 3,14,30		4,14,49,59, 3	
		31,24,48,44,52,35,32		2,18
26″	58, 5,42,25,16, 0,44,55,50, 2		4,14,50, 1,21	
		31,24,44,30, 2,34,11		2,18
28″	58, 5,42,56,40,45,14,58,24,13		4,14,50, 3,39	
		31,24,40,15,12,30,32		2,18
30″	58, 5,43,28, 5,25,30,10,54,45		4,14,50, 5,57	
		31,24,36, 0,22,24,35		2,18
32″	58, 5,43,59,30, 1,30,33,19,20		4,14,50, 8,15	
		31,24,31,45,32,16,20		2,18
34″	58, 5,44,30,54,33,16, 5,35,40		4,14,50,10,33	
		31,24,27,30,42, 5,47		2,18
36″	58, 5,45, 2,19, 0,46,47,41,27		4,14,50,12,51	
		31,24,23,15,51,52,56		2,18
38″	58, 5,45,33,43,24, 2,39,34,23		4,14,50,15, 9	
		31,24,19, 1, 1,37,47		2,18
40″	58, 5,46, 5, 7,43, 3,41,12,10		4,14,50,17,27	
		31,24,14,46,11,20,20		2,18
42″	58, 5,46,36,31,57,49,52,32,30		4,14,50,19,45	
		31,24,10,31,21, 0,35		2,18
44″	58, 5,47, 7,56, 8,21,13,33, 5		4,14,50,22, 3	
		31,24, 6,16,30,38,32		2,18
46″	58, 5,47,39,20,14,37,44,11,37		4,14,50,24,21	
		31,24, 2, 1,40,14,11		2,18
48″	58, 5,48,10,44,16,39,24,25,48		4,14,50,26,39	
		31,23,57,46,49,47,32		2,18
50″	58, 5,48,42, 8,14,26,14,13,20		4,14,50,28,57	
		31,23,53,31,59,18,35		2,18
52″	58, 5,49,13,32, 7,58,13,31,55		4,14,50,31,15	
		31,23,49,17, 8,47,20		2,18
54″	58, 5,49,44,55,57,15,22,19,15		4,14,50,33,33	
		31,23,45, 2,18,13,47		2,18
56″	58, 5,50,16,19,42,17,40,33, 2		4,14,50,35,51	
		31,23,40,47,27,37,56		2,18
58″	58, 5,50,47,43,23, 5, 8,10,58		4,14,50,38, 9	
		31,23,36,32,36,59,47		
60″	58, 5,51,19, 6,59,37,45,10,45			
exact	58, 5,51,19, 6,59,37,45,22,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°32′ 0″	58, 5,51,19, 6,59,37,45,22,46			
		31,23,32,17,46,20,44		
2″	58, 5,51,50,30,31,55,31,43,30		4,14,50,42,38	
		31,23,28, 2,55,38, 6		2,18
4″	58, 5,52,21,53,59,58,27,21,36		4,14,50,44,56	
		31,23,23,48, 4,53,10		2,18
6″	58, 5,52,53,17,23,46,32,14,46		4,14,50,47,14	
		31,23,19,33,14, 5,56		2,18
8″	58, 5,53,24,40,43,19,46,20,42		4,14,50,49,32	
		31,23,15,18,23,16,24		2,18
10″	58, 5,53,56, 3,58,38, 9,37, 6		4,14,50,51,50	
		31,23,11, 3,32,24,34		2,18
12″	58, 5,54,27,27, 9,41,42, 1,40		4,14,50,54, 8	
		31,23, 6,48,41,30,26		2,18
14″	58, 5,54,58,50,16,30,23,32, 6		4,14,50,56,26	
		31,23, 2,33,50,34, 0		2,18
16″	58, 5,55,30,13,19, 4,14, 6, 6		4,14,50,58,44	
		31,22,58,18,59,35,16		2,18
18″	58, 5,56, 1,36,17,23,13,41,22		4,14,51, 1, 2	
		31,22,54, 4, 8,34,14		2,18
20″	58, 5,56,32,59,11,27,22,15,36		4,14,51, 3,20	
		31,22,49,49,17,30,54		2,18
22″	58, 5,57, 4,22, 1,16,39,46,30		4,14,51, 5,38	
		31,22,45,34,26,25,16		2,18
24″	58, 5,57,35,44,46,51, 6,11,46		4,14,51, 7,56	
		31,22,41,19,35,17,20		2,18
26″	58, 5,58, 7, 7,28,10,41,29, 6		4,14,51,10,14	
		31,22,37, 4,44, 7, 6		2,18
28″	58, 5,58,38,30, 5,15,25,36,12		4,14,51,12,32	
		31,22,32,49,52,54,34		2,18
30″	58, 5,59, 9,52,38, 5,18,30,46		4,14,51,14,50	
		31,22,28,35, 1,39,44		2,18
32″	58, 5,59,41,15, 6,40,20,10,30		4,14,51,17, 8	
		31,22,24,20,10,22,36		2,18
34″	58, 6, 0,12,37,31, 0,30,33, 6		4,14,51,19,26	
		31,22,20, 5,19, 3,10		2,18
36″	58, 6, 0,43,59,51, 5,49,36,16		4,14,51,21,44	
		31,22,15,50,27,41,26		2,18
38″	58, 6, 1,15,22, 6,56,17,17,42		4,14,51,24, 2	
		31,22,11,35,36,17,24		2,18
40″	58, 6, 1,46,44,18,31,53,35, 6		4,14,51,26,20	
		31,22, 7,20,44,51, 4		2,18
42″	58, 6, 2,18, 6,25,52,38,26,10		4,14,51,28,38	
		31,22, 3, 5,53,22,26		2,18
44″	58, 6, 2,49,28,28,58,31,48,36		4,14,51,30,56	
		31,21,58,51, 1,51,30		2,18
46″	58, 6, 3,20,50,27,49,33,40, 6		4,14,51,33,14	
		31,21,54,36,10,18,16		2,18
48″	58, 6, 3,52,12,22,25,43,58,22		4,14,51,35,32	
		31,21,50,21,18,42,44		2,18
50″	58, 6, 4,23,34,12,47, 2,41, 6		4,14,51,37,50	
		31,21,46, 6,27, 4,54		2,18
52″	58, 6, 4,54,55,58,53,29,46, 0		4,14,51,40, 8	
		31,21,41,51,35,24,46		2,18
54″	58, 6, 5,26,17,40,45, 5,10,46		4,14,51,42,26	
		31,21,37,36,43,42,20		2,18
56″	58, 6, 5,57,39,18,21,48,53, 6		4,14,51,44,44	
		31,21,33,21,51,57,36		2,18
58″	58, 6, 6,29, 0,51,43,40,50,42		4,14,51,47, 2	
		31,21,29, 7, 0,10,34		
60″	58, 6, 7, 0,22,20,50,41, 1,16			
exact	58, 6, 7, 0,22,20,50,41,21,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°33′ 0″	58, 6, 7, 0,22,20,50,41,21,30			
		31,21,24,52, 8,23,36		
2″	58, 6, 7,31,43,45,42,49,45, 6		4,14,51,51,27	
		31,21,20,37,16,32, 9		2,18
4″	58, 6, 8, 3, 5, 6,20, 6,17,15		4,14,51,53,45	
		31,21,16,22,24,38,24		2,18
6″	58, 6, 8,34,26,22,42,30,55,39		4,14,51,56, 3	
		31,21,12, 7,32,42,21		2,18
8″	58, 6, 9, 5,47,34,50, 3,38, 0		4,14,51,58,21	
		31,21, 7,52,40,44, 0		2,18
10″	58, 6, 9,37, 8,42,42,44,22, 0		4,14,52, 0,39	
		31,21, 3,37,48,43,21		2,18
12″	58, 6,10, 8,29,46,20,33, 5,21		4,14,52, 2,57	
		31,20,59,22,56,40,24		2,18
14″	58, 6,10,39,50,45,43,29,45,45		4,14,52, 5,15	
		31,20,55, 8, 4,35, 9		2,18
16″	58, 6,11,11,11,40,51,34,20,54		4,14,52, 7,33	
		31,20,50,53,12,27,36		2,18
18″	58, 6,11,42,32,31,44,46,48,30		4,14,52, 9,51	
		31,20,46,38,20,17,45		2,18
20″	58, 6,12,13,53,18,23, 7, 6,15		4,14,52,12, 9	
		31,20,42,23,28, 5,36		2,18
22″	58, 6,12,45,14, 0,46,35,11,51		4,14,52,14,27	
		31,20,38, 8,35,51, 9		2,18
24″	58, 6,13,16,34,38,55,11, 3, 0		4,14,52,16,45	
		31,20,33,53,43,34,24		2,18
26″	58, 6,13,47,55,12,48,54,37,24		4,14,52,19, 3	
		31,20,29,38,51,15,21		2,18
28″	58, 6,14,19,15,42,27,45,52,45		4,14,52,21,21	
		31,20,25,23,58,54, 0		2,18
30″	58, 6,14,50,36, 7,51,44,46,45		4,14,52,23,39	
		31,20,21, 9, 6,30,21		2,18
32″	58, 6,15,21,56,29, 0,51,17, 6		4,14,52,25,57	
		31,20,16,54,14, 4,24		2,18
34″	58, 6,15,53,16,45,55, 5,21,30		4,14,52,28,15	
		31,20,12,39,21,36, 9		2,18
36″	58, 6,16,24,36,58,34,26,57,39		4,14,52,30,33	
		31,20, 8,24,29, 5,36		2,18
38″	58, 6,16,55,57, 6,58,56, 3,15		4,14,52,32,51	
		31,20, 4, 9,36,32,45		2,18
40″	58, 6,17,27,17,11, 8,32,36, 0		4,14,52,35, 9	
		31,19,59,54,43,57,36		2,18
42″	58, 6,17,58,37,11, 3,16,33,36		4,14,52,37,27	
		31,19,55,39,51,20, 9		2,18
44″	58, 6,18,29,57, 6,43, 7,53,45		4,14,52,39,45	
		31,19,51,24,58,40,24		2,18
46″	58, 6,19, 1,16,58, 8, 6,34, 9		4,14,52,42, 3	
		31,19,47,10, 5,58,21		2,18
48″	58, 6,19,32,36,45,18,12,32,30		4,14,52,44,21	
		31,19,42,55,13,14, 0		2,18
50″	58, 6,20, 3,56,28,13,25,46,30		4,14,52,46,39	
		31,19,38,40,20,27,21		2,18
52″	58, 6,20,35,16, 6,53,46,13,51		4,14,52,48,57	
		31,19,34,25,27,38,24		2,18
54″	58, 6,21, 6,35,41,19,13,52,15		4,14,52,51,15	
		31,19,30,10,34,47, 9		2,18
56″	58, 6,21,37,55,11,29,48,39,24		4,14,52,53,33	
		31,19,25,55,41,53,36		2,18
58″	58, 6,22, 9,14,37,25,30,33, 0		4,14,52,55,51	
		31,19,21,40,48,57,45		
60″	58, 6,22,40,33,59, 6,19,30,45			
exact	58, 6,22,40,33,59, 6,20, 4, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°34′ 0″	58, 6,22,40,33,59, 6,20, 4, 3			
		31,19,17,25,56, 3,16		
2″	58, 6,23,11,53,16,32,16, 7,19		4,14,53, 0,11	
		31,19,13,11, 3, 3, 5		2,17
4″	58, 6,23,43,12,29,43,19,10,24		4,14,53, 2,28	
		31,19, 8,56,10, 0,37		2,17
6″	58, 6,24,14,31,38,39,29,11, 1		4,14,53, 4,45	
		31,19, 4,41,16,55,52		2,17
8″	58, 6,24,45,50,43,20,46, 6,53		4,14,53, 7, 2	
		31,19, 0,26,23,48,50		2,17
10″	58, 6,25,17, 9,43,47, 9,55,43		4,14,53, 9,19	
		31,18,56,11,30,39,31		2,17
12″	58, 6,25,48,28,39,58,40,35,14		4,14,53,11,36	
		31,18,51,56,37,27,55		2,17
14″	58, 6,26,19,47,31,55,18, 3, 9		4,14,53,13,53	
		31,18,47,41,44,14, 2		2,17
16″	58, 6,26,51, 6,19,37, 2,17,11		4,14,53,16,10	
		31,18,43,26,50,57,52		2,17
18″	58, 6,27,22,25, 3, 3,53,15, 3		4,14,53,18,27	
		31,18,39,11,57,39,25		2,17
20″	58, 6,27,53,43,42,15,50,54,28		4,14,53,20,44	
		31,18,34,57, 4,18,41		2,17
22″	58, 6,28,25, 2,17,12,55,13, 9		4,14,53,23, 1	
		31,18,30,42,10,55,40		2,17
24″	58, 6,28,56,20,47,55, 6, 8,49		4,14,53,25,18	
		31,18,26,27,17,30,22		2,17
26″	58, 6,29,27,39,14,22,23,39,11		4,14,53,27,35	
		31,18,22,12,24, 2,47		2,17
28″	58, 6,29,58,57,36,34,47,41,58		4,14,53,29,52	
		31,18,17,57,30,32,55		2,17
30″	58, 6,30,30,15,54,32,18,14,53		4,14,53,32, 9	
		31,18,13,42,37, 0,46		2,17
32″	58, 6,31, 1,34, 8,14,55,15,39		4,14,53,34,26	
		31,18, 9,27,43,26,20		2,17
34″	58, 6,31,32,52,17,42,38,41,59		4,14,53,36,43	
		31,18, 5,12,49,49,37		2,17
36″	58, 6,32, 4,10,22,55,28,31,36		4,14,53,39, 0	
		31,18, 0,57,56,10,37		2,17
38″	58, 6,32,35,28,23,53,24,42,13		4,14,53,41,17	
		31,17,56,43, 2,29,20		2,17
40″	58, 6,33, 6,46,20,36,27,11,33		4,14,53,43,34	
		31,17,52,28, 8,45,46		2,17
42″	58, 6,33,38, 4,13, 4,35,57,19		4,14,53,45,51	
		31,17,48,13,14,59,55		2,17
44″	58, 6,34, 9,22, 1,17,50,57,14		4,14,53,48, 8	
		31,17,43,58,21,11,47		2,17
46″	58, 6,34,40,39,45,16,12, 9, 1		4,14,53,50,25	
		31,17,39,43,27,21,22		2,17
48″	58, 6,35,11,57,24,59,39,30,23		4,14,53,52,42	
		31,17,35,28,33,28,40		2,17
50″	58, 6,35,43,15, 0,28,12,59, 3		4,14,53,54,59	
		31,17,31,13,39,33,41		2,17
52″	58, 6,36,14,32,31,41,52,32,44		4,14,53,57,16	
		31,17,26,58,45,36,25		2,17
54″	58, 6,36,45,49,58,40,38, 9, 9		4,14,53,59,33	
		31,17,22,43,51,36,52		2,17
56″	58, 6,37,17, 7,21,24,29,46, 1		4,14,54, 1,50	
		31,17,18,28,57,35, 2		2,17
58″	58, 6,37,48,24,39,53,27,21, 3		4,14,54, 4, 7	
		31,17,14,14, 3,30,55		
60″	58, 6,38,19,41,54, 7,30,51,58			
exact	58, 6,38,19,41,54, 7,30,28, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°35′ 0″	58, 6,38,19,41,54, 7,30,28, 7			
		31,17, 9,59, 9,22, 4		
2″	58, 6,38,50,59, 4, 6,39,50,11		4,14,54, 8,50	
		31,17, 5,44,15,13,14		2,17
4″	58, 6,39,22,16, 9,50,55, 3,25		4,14,54,11, 7	
		31,17, 1,29,21, 2, 7		2,17
6″	58, 6,39,53,33,11,20,16, 5,32		4,14,54,13,24	
		31,16,57,14,26,48,43		2,17
8″	58, 6,40,24,50, 8,34,42,54,15		4,14,54,15,41	
		31,16,52,59,32,33, 2		2,17
10″	58, 6,40,56, 7, 1,34,15,27,17		4,14,54,17,58	
		31,16,48,44,38,15, 4		2,17
12″	58, 6,41,27,23,50,18,53,42,21		4,14,54,20,15	
		31,16,44,29,43,54,49		2,17
14″	58, 6,41,58,40,34,48,37,37,10		4,14,54,22,32	
		31,16,40,14,49,32,17		2,17
16″	58, 6,42,29,57,15, 3,27, 9,27		4,14,54,24,49	
		31,16,35,59,55, 7,28		2,17
18″	58, 6,43, 1,13,51, 3,22,16,55		4,14,54,27, 6	
		31,16,31,45, 0,40,22		2,17
20″	58, 6,43,32,30,22,48,22,57,17		4,14,54,29,23	
		31,16,27,30, 6,10,59		2,17
22″	58, 6,44, 3,46,50,18,29, 8,16		4,14,54,31,40	
		31,16,23,15,11,39,19		2,17
24″	58, 6,44,35, 3,13,33,40,47,35		4,14,54,33,57	
		31,16,19, 0,17, 5,22		2,17
26″	58, 6,45, 6,19,32,33,57,52,57		4,14,54,36,14	
		31,16,14,45,22,29, 8		2,17
28″	58, 6,45,37,35,47,19,20,22, 5		4,14,54,38,31	
		31,16,10,30,27,50,37		2,17
30″	58, 6,46, 8,51,57,49,48,12,42		4,14,54,40,48	
		31,16, 6,15,33, 9,49		2,17
32″	58, 6,46,40, 8, 4, 5,21,22,31		4,14,54,43, 5	
		31,16, 2, 0,38,26,44		2,17
34″	58, 6,47,11,24, 6, 5,59,49,15		4,14,54,45,22	
		31,15,57,45,43,41,22		2,17
36″	58, 6,47,42,40, 3,51,43,30,37		4,14,54,47,39	
		31,15,53,30,48,53,43		2,17
38″	58, 6,48,13,55,57,22,32,24,20		4,14,54,49,56	
		31,15,49,15,54, 3,47		2,17
40″	58, 6,48,45,11,46,38,26,28, 7		4,14,54,52,13	
		31,15,45, 0,59,11,34		2,17
42″	58, 6,49,16,27,31,39,25,39,41		4,14,54,54,30	
		31,15,40,46, 4,17, 4		2,17
44″	58, 6,49,47,43,12,25,29,56,45		4,14,54,56,47	
		31,15,36,31, 9,20,17		2,17
46″	58, 6,50,18,58,48,56,39,17, 2		4,14,54,59, 4	
		31,15,32,16,14,21,13		2,17
48″	58, 6,50,50,14,21,12,53,38,15		4,14,55, 1,21	
		31,15,28, 1,19,19,52		2,17
50″	58, 6,51,21,29,49,14,12,58, 7		4,14,55, 3,38	
		31,15,23,46,24,16,14		2,17
52″	58, 6,51,52,45,13, 0,37,14,21		4,14,55, 5,55	
		31,15,19,31,29,10,19		2,17
54″	58, 6,52,24, 0,32,32, 6,24,40		4,14,55, 8,12	
		31,15,15,16,34, 2, 7		2,17
56″	58, 6,52,55,15,47,48,40,26,47		4,14,55,10,29	
		31,15,11, 1,38,51,38		2,17
58″	58, 6,53,26,30,58,50,19,18,25		4,14,55,12,46	
		31,15, 6,46,43,38,52		
60″	58, 6,53,57,46, 5,37, 2,57,17			
exact	58, 6,53,57,46, 5,37, 2,41,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°36′ 0″	58, 6,53,57,46, 5,37, 2,41,19			
		31,15, 2,31,48,22,19		
2″	58, 6,54,29, 1, 8, 8,51, 3,38		4,14,55,17,25	
		31,14,58,16,53, 4,54		2,17
4″	58, 6,55, 0,16, 6,25,44, 8,32		4,14,55,19,42	
		31,14,54, 1,57,45,12		2,17
6″	58, 6,55,31,31, 0,27,41,53,44		4,14,55,21,59	
		31,14,49,47, 2,23,13		2,17
8″	58, 6,56, 2,45,50,14,44,16,57		4,14,55,24,16	
		31,14,45,32, 6,58,57		2,17
10″	58, 6,56,34, 0,35,46,51,15,54		4,14,55,26,33	
		31,14,41,17,11,32,24		2,17
12″	58, 6,57, 5,15,17, 4, 2,48,18		4,14,55,28,50	
		31,14,37, 2,16, 3,34		2,17
14″	58, 6,57,36,29,54, 6,18,51,52		4,14,55,31, 7	
		31,14,32,47,20,32,27		2,17
16″	58, 6,58, 7,44,26,53,39,24,19		4,14,55,33,24	
		31,14,28,32,24,59, 3		2,17
18″	58, 6,58,38,58,55,26, 4,23,22		4,14,55,35,41	
		31,14,24,17,29,23,22		2,17
20″	58, 6,59,10,13,19,43,33,46,44		4,14,55,37,58	
		31,14,20, 2,33,45,24		2,17
22″	58, 6,59,41,27,39,46, 7,32, 8		4,14,55,40,15	
		31,14,15,47,38, 5, 9		2,17
24″	58, 7, 0,12,41,55,33,45,37,17		4,14,55,42,32	
		31,14,11,32,42,22,37		2,17
26″	58, 7, 0,43,56, 7, 6,27,59,54		4,14,55,44,49	
		31,14, 7,17,46,37,48		2,17
28″	58, 7, 1,15,10,14,24,14,37,42		4,14,55,47, 6	
		31,14, 3, 2,50,50,42		2,17
30″	58, 7, 1,46,24,17,27, 5,28,24		4,14,55,49,23	
		31,13,58,47,55, 1,19		2,17
32″	58, 7, 2,17,38,16,15, 0,29,43		4,14,55,51,40	
		31,13,54,32,59, 9,39		2,17
34″	58, 7, 2,48,52,10,47,59,39,22		4,14,55,53,57	
		31,13,50,18, 3,15,42		2,17
36″	58, 7, 3,20, 6, 1, 6, 2,55, 4		4,14,55,56,14	
		31,13,46, 3, 7,19,28		2,17
38″	58, 7, 3,51,19,47, 9,10,14,32		4,14,55,58,31	
		31,13,41,48,11,20,57		2,17
40″	58, 7, 4,22,33,28,57,21,35,29		4,14,56, 0,48	
		31,13,37,33,15,20, 9		2,17
42″	58, 7, 4,53,47, 6,30,36,55,38		4,14,56, 3, 5	
		31,13,33,18,19,17, 4		2,17
44″	58, 7, 5,25, 0,39,48,56,12,42		4,14,56, 5,22	
		31,13,29, 3,23,11,42		2,17
46″	58, 7, 5,56,14, 8,52,19,24,24		4,14,56, 7,39	
		31,13,24,48,27, 4, 3		2,17
48″	58, 7, 6,27,27,33,40,46,28,27		4,14,56, 9,56	
		31,13,20,33,30,54, 7		2,17
50″	58, 7, 6,58,40,54,14,17,22,34		4,14,56,12,13	
		31,13,16,18,34,41,54		2,17
52″	58, 7, 7,29,54,10,32,52, 4,28		4,14,56,14,30	
		31,13,12, 3,38,27,24		2,17
54″	58, 7, 8, 1, 7,22,36,30,31,52		4,14,56,16,47	
		31,13, 7,48,42,10,37		2,17
56″	58, 7, 8,32,20,30,25,12,42,29		4,14,56,19, 4	
		31,13, 3,33,45,51,33		2,17
58″	58, 7, 9, 3,33,33,58,58,34, 2		4,14,56,21,21	
		31,12,59,18,49,30,12		
60″	58, 7, 9,34,46,33,17,48, 4,14			
exact	58, 7, 9,34,46,33,17,48, 1, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°37′ 0″	58, 7, 9,34,46,33,17,48, 1, 7			
		31,12,55, 3,53, 6,21		
2″	58, 7,10, 5,59,28,21,41, 7,28		4,14,56,25,55	
		31,12,50,48,56,40,26		2,17
4″	58, 7,10,37,12,19,10,37,47,54		4,14,56,28,12	
		31,12,46,34, 0,12,14		2,17
6″	58, 7,11, 8,25, 5,44,38, 0, 8		4,14,56,30,29	
		31,12,42,19, 3,41,45		2,17
8″	58, 7,11,39,37,48, 3,41,41,53		4,14,56,32,46	
		31,12,38, 4, 7, 8,59		2,17
10″	58, 7,12,10,50,26, 7,48,50,52		4,14,56,35, 3	
		31,12,33,49,10,33,56		2,17
12″	58, 7,12,42, 2,59,56,59,24,48		4,14,56,37,20	
		31,12,29,34,13,56,36		2,17
14″	58, 7,13,13,15,29,31,13,21,24		4,14,56,39,37	
		31,12,25,19,17,16,59		2,17
16″	58, 7,13,44,27,54,50,30,38,23		4,14,56,41,54	
		31,12,21, 4,20,35, 5		2,17
18″	58, 7,14,15,40,15,54,51,13,28		4,14,56,44,11	
		31,12,16,49,23,50,54		2,17
20″	58, 7,14,46,52,32,44,15, 4,22		4,14,56,46,28	
		31,12,12,34,27, 4,26		2,17
22″	58, 7,15,18, 4,45,18,42, 8,48		4,14,56,48,45	
		31,12, 8,19,30,15,41		2,17
24″	58, 7,15,49,16,53,38,12,24,29		4,14,56,51, 2	
		31,12, 4, 4,33,24,39		2,17
26″	58, 7,16,20,28,57,42,45,49, 8		4,14,56,53,19	
		31,11,59,49,36,31,20		2,17
28″	58, 7,16,51,40,57,32,22,20,28		4,14,56,55,36	
		31,11,55,34,39,35,44		2,17
30″	58, 7,17,22,52,53, 7, 1,56,12		4,14,56,57,53	
		31,11,51,19,42,37,51		2,17
32″	58, 7,17,54, 4,44,26,44,34, 3		4,14,57, 0,10	
		31,11,47, 4,45,37,41		2,17
34″	58, 7,18,25,16,31,31,30,11,44		4,14,57, 2,27	
		31,11,42,49,48,35,14		2,17
36″	58, 7,18,56,28,14,21,18,46,58		4,14,57, 4,44	
		31,11,38,34,51,30,30		2,17
38″	58, 7,19,27,39,52,56,10,17,28		4,14,57, 7, 1	
		31,11,34,19,54,23,29		2,17
40″	58, 7,19,58,51,27,16, 4,40,57		4,14,57, 9,18	
		31,11,30, 4,57,14,11		2,17
42″	58, 7,20,30, 2,57,21, 1,55, 8		4,14,57,11,35	
		31,11,25,50, 0, 2,36		2,17
44″	58, 7,21, 1,14,23,11, 1,57,44		4,14,57,13,52	
		31,11,21,35, 2,48,44		2,17
46″	58, 7,21,32,25,44,46, 4,46,28		4,14,57,16, 9	
		31,11,17,20, 5,32,35		2,17
48″	58, 7,22, 3,37, 2, 6,10,19, 3		4,14,57,18,26	
		31,11,13, 5, 8,14, 9		2,17
50″	58, 7,22,34,48,15,11,18,33,12		4,14,57,20,43	
		31,11, 8,50,10,53,26		2,17
52″	58, 7,23, 5,59,24, 1,29,26,38		4,14,57,23, 0	
		31,11, 4,35,13,30,26		2,17
54″	58, 7,23,37,10,28,36,42,57, 4		4,14,57,25,17	
		31,11, 0,20,16, 5, 9		2,17
56″	58, 7,24, 8,21,28,56,59, 2,13		4,14,57,27,34	
		31,10,56, 5,18,37,35		2,17
58″	58, 7,24,39,32,25, 2,17,39,48		4,14,57,29,51	
		31,10,51,50,21, 7,44		
60″	58, 7,25,10,43,16,52,38,47,32			
exact	58, 7,25,10,43,16,52,38,54,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°38′ 0″	58, 7,25,10,43,16,52,38,54,53			
		31,10,47,35,23,36,30		
2″	58, 7,25,41,54, 4,28, 2,31,23		4,14,57,34,20	
		31,10,43,20,26, 2,10		2,17
4″	58, 7,26,13, 4,47,48,28,33,33		4,14,57,36,37	
		31,10,39, 5,28,25,33		2,17
6″	58, 7,26,44,15,26,53,56,59, 6		4,14,57,38,54	
		31,10,34,50,30,46,39		2,17
8″	58, 7,27,15,26, 1,44,27,45,45		4,14,57,41,11	
		31,10,30,35,33, 5,28		2,17
10″	58, 7,27,46,36,32,20, 0,51,13		4,14,57,43,28	
		31,10,26,20,35,22, 0		2,17
12″	58, 7,28,17,46,58,40,36,13,13		4,14,57,45,45	
		31,10,22, 5,37,36,15		2,17
14″	58, 7,28,48,57,20,46,13,49,28		4,14,57,48, 2	
		31,10,17,50,39,48,13		2,17
16″	58, 7,29,20, 7,38,36,53,37,41		4,14,57,50,19	
		31,10,13,35,41,57,54		2,17
18″	58, 7,29,51,17,52,12,35,35,35		4,14,57,52,36	
		31,10, 9,20,44, 5,18		2,17
20″	58, 7,30,22,28, 1,33,19,40,53		4,14,57,54,53	
		31,10, 5, 5,46,10,25		2,17
22″	58, 7,30,53,38, 6,39, 5,51,18		4,14,57,57,10	
		31,10, 0,50,48,13,15		2,17
24″	58, 7,31,24,48, 7,29,54, 4,33		4,14,57,59,27	
		31, 9,56,35,50,13,48		2,17
26″	58, 7,31,55,58, 4, 5,44,18,21		4,14,58, 1,44	
		31, 9,52,20,52,12, 4		2,17
28″	58, 7,32,27, 7,56,26,36,30,25		4,14,58, 4, 1	
		31, 9,48, 5,54, 8, 3		2,17
30″	58, 7,32,58,17,44,32,30,38,28		4,14,58, 6,18	
		31, 9,43,50,56, 1,45		2,17
32″	58, 7,33,29,27,28,23,26,40,13		4,14,58, 8,35	
		31, 9,39,35,57,53,10		2,17
34″	58, 7,34, 0,37, 7,59,24,33,23		4,14,58,10,52	
		31, 9,35,20,59,42,18		2,17
36″	58, 7,34,31,46,43,20,24,15,41		4,14,58,13, 9	
		31, 9,31, 6, 1,29, 9		2,17
38″	58, 7,35, 2,56,14,26,25,44,50		4,14,58,15,26	
		31, 9,26,51, 3,13,43		2,17
40″	58, 7,35,34, 5,41,17,28,58,33		4,14,58,17,43	
		31, 9,22,36, 4,56, 0		2,17
42″	58, 7,36, 5,15, 3,53,33,54,33		4,14,58,20, 0	
		31, 9,18,21, 6,36, 0		2,17
44″	58, 7,36,36,24,22,14,40,30,33		4,14,58,22,17	
		31, 9,14, 6, 8,13,43		2,17
46″	58, 7,37, 7,33,36,20,48,44,16		4,14,58,24,34	
		31, 9, 9,51, 9,49, 9		2,17
48″	58, 7,37,38,42,46,11,58,33,25		4,14,58,26,51	
		31, 9, 5,36,11,22,18		2,17
50″	58, 7,38, 9,51,51,48, 9,55,43		4,14,58,29, 8	
		31, 9, 1,21,12,53,10		2,17
52″	58, 7,38,41, 0,53, 9,22,48,53		4,14,58,31,25	
		31, 8,57, 6,14,21,45		2,17
54″	58, 7,39,12, 9,50,15,37,10,38		4,14,58,33,42	
		31, 8,52,51,15,48, 3		2,17
56″	58, 7,39,43,18,43, 6,52,58,41		4,14,58,35,59	
		31, 8,48,36,17,12, 4		2,17
58″	58, 7,40,14,27,31,43,10,10,45		4,14,58,38,16	
		31, 8,44,21,18,33,48		
60″	58, 7,40,45,36,16, 4,28,44,33			
exact	58, 7,40,45,36,16, 4,28,59,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°39′ 0″	58, 7,40,45,36,16, 4,28,59,52			
		31, 8,40, 6,19,55, 6		
2″	58, 7,41,16,44,56,10,48,54,58		4,14,58,42,41	
		31, 8,35,51,21,12,25		2,17
4″	58, 7,41,47,53,32, 2,10, 7,23		4,14,58,44,58	
		31, 8,31,36,22,27,27		2,17
6″	58, 7,42,19, 2, 3,38,32,34,50		4,14,58,47,15	
		31, 8,27,21,23,40,12		2,17
8″	58, 7,42,50,10,30,59,56,15, 2		4,14,58,49,32	
		31, 8,23, 6,24,50,40		2,17
10″	58, 7,43,21,18,54, 6,21, 5,42		4,14,58,51,49	
		31, 8,18,51,25,58,51		2,17
12″	58, 7,43,52,27,12,57,47, 4,33		4,14,58,54, 6	
		31, 8,14,36,27, 4,45		2,17
14″	58, 7,44,23,35,27,34,14, 9,18		4,14,58,56,23	
		31, 8,10,21,28, 8,22		2,17
16″	58, 7,44,54,43,37,55,42,17,40		4,14,58,58,40	
		31, 8, 6, 6,29, 9,42		2,17
18″	58, 7,45,25,51,44, 2,11,27,22		4,14,59, 0,57	
		31, 8, 1,51,30, 8,45		2,17
20″	58, 7,45,56,59,45,53,41,36, 7		4,14,59, 3,14	
		31, 7,57,36,31, 5,31		2,17
22″	58, 7,46,28, 7,43,30,12,41,38		4,14,59, 5,31	
		31, 7,53,21,32, 0, 0		2,17
24″	58, 7,46,59,15,36,51,44,41,38		4,14,59, 7,48	
		31, 7,49, 6,32,52,12		2,17
26″	58, 7,47,30,23,25,58,17,33,50		4,14,59,10, 5	
		31, 7,44,51,33,42, 7		2,17
28″	58, 7,48, 1,31,10,49,51,15,57		4,14,59,12,22	
		31, 7,40,36,34,29,45		2,17
30″	58, 7,48,32,38,51,26,25,45,42		4,14,59,14,39	
		31, 7,36,21,35,15, 6		2,17
32″	58, 7,49, 3,46,27,48, 1, 0,48		4,14,59,16,56	
		31, 7,32, 6,35,58,10		2,17
34″	58, 7,49,34,53,59,54,36,58,58		4,14,59,19,13	
		31, 7,27,51,36,38,57		2,17
36″	58, 7,50, 6, 1,27,46,13,37,55		4,14,59,21,30	
		31, 7,23,36,37,17,27		2,17
38″	58, 7,50,37, 8,51,22,50,55,22		4,14,59,23,47	
		31, 7,19,21,37,53,40		2,17
40″	58, 7,51, 8,16,10,44,28,49, 2		4,14,59,26, 4	
		31, 7,15, 6,38,27,36		2,17
42″	58, 7,51,39,23,25,51, 7,16,38		4,14,59,28,21	
		31, 7,10,51,38,59,15		2,17
44″	58, 7,52,10,30,36,42,46,15,53		4,14,59,30,38	
		31, 7, 6,36,39,28,37		2,17
46″	58, 7,52,41,37,43,19,25,44,30		4,14,59,32,55	
		31, 7, 2,21,39,55,42		2,17
48″	58, 7,53,12,44,45,41, 5,40,12		4,14,59,35,12	
		31, 6,58, 6,40,20,30		2,17
50″	58, 7,53,43,51,43,47,46, 0,42		4,14,59,37,29	
		31, 6,53,51,40,43, 1		2,17
52″	58, 7,54,14,58,37,39,26,43,43		4,14,59,39,46	
		31, 6,49,36,41, 3,15		2,17
54″	58, 7,54,46, 5,27,16, 7,46,58		4,14,59,42, 3	
		31, 6,45,21,41,21,12		2,17
56″	58, 7,55,17,12,12,37,49, 8,10		4,14,59,44,20	
		31, 6,41, 6,41,36,52		2,17
58″	58, 7,55,48,18,53,44,30,45, 2		4,14,59,46,37	
		31, 6,36,51,41,50,15		
60″	58, 7,56,19,25,30,36,12,35,17			
exact	58, 7,56,19,25,30,36,13, 3,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°40′ 0″	58, 7,56,19,25,30,36,13, 3,15			
		31, 6,32,36,42, 4,28		
2″	58, 7,56,50,32, 3,12,55, 7,43		4,14,59,50,57	
		31, 6,28,21,42,13,31		2,16
4″	58, 7,57,21,38,31,34,37,21,14		4,14,59,53,13	
		31, 6,24, 6,42,20,18		2,16
6″	58, 7,57,52,44,55,41,19,41,32		4,14,59,55,29	
		31, 6,19,51,42,24,49		2,16
8″	58, 7,58,23,51,15,33, 2, 6,21		4,14,59,57,45	
		31, 6,15,36,42,27, 4		2,16
10″	58, 7,58,54,57,31, 9,44,33,25		4,15, 0, 0, 1	
		31, 6,11,21,42,27, 3		2,16
12″	58, 7,59,26, 3,42,31,27, 0,28		4,15, 0, 2,17	
		31, 6, 7, 6,42,24,46		2,16
14″	58, 7,59,57, 9,49,38, 9,25,14		4,15, 0, 4,33	
		31, 6, 2,51,42,20,13		2,16
16″	58, 8, 0,28,15,52,29,51,45,27		4,15, 0, 6,49	
		31, 5,58,36,42,13,24		2,16
18″	58, 8, 0,59,21,51, 6,33,58,51		4,15, 0, 9, 5	
		31, 5,54,21,42, 4,19		2,16
20″	58, 8, 1,30,27,45,28,16, 3,10		4,15, 0,11,21	
		31, 5,50, 6,41,52,58		2,16
22″	58, 8, 2, 1,33,35,34,57,56, 8		4,15, 0,13,37	
		31, 5,45,51,41,39,21		2,16
24″	58, 8, 2,32,39,21,26,39,35,29		4,15, 0,15,53	
		31, 5,41,36,41,23,28		2,16
26″	58, 8, 3, 3,45, 3, 3,20,58,57		4,15, 0,18, 9	
		31, 5,37,21,41, 5,19		2,16
28″	58, 8, 3,34,50,40,25, 2, 4,16		4,15, 0,20,25	
		31, 5,33, 6,40,44,54		2,16
30″	58, 8, 4, 5,56,13,31,42,49,10		4,15, 0,22,41	
		31, 5,28,51,40,22,13		2,16
32″	58, 8, 4,37, 1,42,23,23,11,23		4,15, 0,24,57	
		31, 5,24,36,39,57,16		2,16
34″	58, 8, 5, 8, 7, 7, 0, 3, 8,39		4,15, 0,27,13	
		31, 5,20,21,39,30, 3		2,16
36″	58, 8, 5,39,12,27,21,42,38,42		4,15, 0,29,29	
		31, 5,16, 6,39, 0,34		2,16
38″	58, 8, 6,10,17,43,28,21,39,16		4,15, 0,31,45	
		31, 5,11,51,38,28,49		2,16
40″	58, 8, 6,41,22,55,20, 0, 8, 5		4,15, 0,34, 1	
		31, 5, 7,36,37,54,48		2,16
42″	58, 8, 7,12,28, 2,56,38, 2,53		4,15, 0,36,17	
		31, 5, 3,21,37,18,31		2,16
44″	58, 8, 7,43,33, 6,18,15,21,24		4,15, 0,38,33	
		31, 4,59, 6,36,39,58		2,16
46″	58, 8, 8,14,38, 5,24,52, 1,22		4,15, 0,40,49	
		31, 4,54,51,35,59, 9		2,16
48″	58, 8, 8,45,43, 0,16,28, 0,31		4,15, 0,43, 5	
		31, 4,50,36,35,16, 4		2,16
50″	58, 8, 9,16,47,50,53, 3,16,35		4,15, 0,45,21	
		31, 4,46,21,34,30,43		2,16
52″	58, 8, 9,47,52,37,14,37,47,18		4,15, 0,47,37	
		31, 4,42, 6,33,43, 6		2,16
54″	58, 8,10,18,57,19,21,11,30,24		4,15, 0,49,53	
		31, 4,37,51,32,53,13		2,16
56″	58, 8,10,50, 1,57,12,44,23,37		4,15, 0,52, 9	
		31, 4,33,36,32, 1, 4		2,16
58″	58, 8,11,21, 6,30,49,16,24,41		4,15, 0,54,25	
		31, 4,29,21,31, 6,39		
60″	58, 8,11,52,11, 0,10,47,31,20			
exact	58, 8,11,52,11, 0,10,47, 2, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°41′ 0″	58, 8,11,52,11, 0,10,47, 2, 4			
		31, 4,25, 6,30, 6,57		
2″	58, 8,12,23,15,25,17,17, 9, 1		4,15, 0,59, 9	
		31, 4,20,51,29, 7,48		2,16
4″	58, 8,12,54,19,46, 8,46,16,49		4,15, 1, 1,25	
		31, 4,16,36,28, 6,23		2,16
6″	58, 8,13,25,24, 2,45,14,23,12		4,15, 1, 3,41	
		31, 4,12,21,27, 2,42		2,16
8″	58, 8,13,56,28,15, 6,41,25,54		4,15, 1, 5,57	
		31, 4, 8, 6,25,56,45		2,16
10″	58, 8,14,27,32,23,13, 7,22,39		4,15, 1, 8,13	
		31, 4, 3,51,24,48,32		2,16
12″	58, 8,14,58,36,27, 4,32,11,11		4,15, 1,10,29	
		31, 3,59,36,23,38, 3		2,16
14″	58, 8,15,29,40,26,40,55,49,14		4,15, 1,12,45	
		31, 3,55,21,22,25,18		2,16
16″	58, 8,16, 0,44,22, 2,18,14,32		4,15, 1,15, 1	
		31, 3,51, 6,21,10,17		2,16
18″	58, 8,16,31,48,13, 8,39,24,49		4,15, 1,17,17	
		31, 3,46,51,19,53, 0		2,16
20″	58, 8,17, 2,51,59,59,59,17,49		4,15, 1,19,33	
		31, 3,42,36,18,33,27		2,16
22″	58, 8,17,33,55,42,36,17,51,16		4,15, 1,21,49	
		31, 3,38,21,17,11,38		2,16
24″	58, 8,18, 4,59,20,57,35, 2,54		4,15, 1,24, 5	
		31, 3,34, 6,15,47,33		2,16
26″	58, 8,18,36, 2,55, 3,50,50,27		4,15, 1,26,21	
		31, 3,29,51,14,21,12		2,16
28″	58, 8,19, 7, 6,24,55, 5,11,39		4,15, 1,28,37	
		31, 3,25,36,12,52,35		2,16
30″	58, 8,19,38, 9,50,31,18, 4,14		4,15, 1,30,53	
		31, 3,21,21,11,21,42		2,16
32″	58, 8,20, 9,13,11,52,29,25,56		4,15, 1,33, 9	
		31, 3,17, 6, 9,48,33		2,16
34″	58, 8,20,40,16,28,58,39,14,29		4,15, 1,35,25	
		31, 3,12,51, 8,13, 8		2,16
36″	58, 8,21,11,19,41,49,47,27,37		4,15, 1,37,41	
		31, 3, 8,36, 6,35,27		2,16
38″	58, 8,21,42,22,50,25,54, 3, 4		4,15, 1,39,57	
		31, 3, 4,21, 4,55,30		2,16
40″	58, 8,22,13,25,54,46,58,58,34		4,15, 1,42,13	
		31, 3, 0, 6, 3,13,17		2,16
42″	58, 8,22,44,28,54,53, 2,11,51		4,15, 1,44,29	
		31, 2,55,51, 1,28,48		2,16
44″	58, 8,23,15,31,50,44, 3,40,39		4,15, 1,46,45	
		31, 2,51,35,59,42, 3		2,16
46″	58, 8,23,46,34,42,20, 3,22,42		4,15, 1,49, 1	
		31, 2,47,20,57,53, 2		2,16
48″	58, 8,24,17,37,29,41, 1,15,44		4,15, 1,51,17	
		31, 2,43, 5,56, 1,45		2,16
50″	58, 8,24,48,40,12,46,57,17,29		4,15, 1,53,33	
		31, 2,38,50,54, 8,12		2,16
52″	58, 8,25,19,42,51,37,51,25,41		4,15, 1,55,49	
		31, 2,34,35,52,12,23		2,16
54″	58, 8,25,50,45,26,13,43,38, 4		4,15, 1,58, 5	
		31, 2,30,20,50,14,18		2,16
56″	58, 8,26,21,47,56,34,33,52,22		4,15, 2, 0,21	
		31, 2,26, 5,48,13,57		2,16
58″	58, 8,26,52,50,22,40,22, 6,19		4,15, 2, 2,37	
		31, 2,21,50,46,11,20		
60″	58, 8,27,23,52,44,31, 8,17,39			
exact	58, 8,27,23,52,44,31, 8, 3,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°42′ 0″	58, 8,27,23,52,44,31, 8, 3,18			
		31, 2,17,35,44, 4,52		
2″	58, 8,27,54,55, 2, 6,52, 8,10		4,15, 2, 7,15	
		31, 2,13,20,41,57,37		2,16
4″	58, 8,28,25,57,15,27,34, 5,47		4,15, 2, 9,31	
		31, 2, 9, 5,39,48, 6		2,16
6″	58, 8,28,56,59,24,33,13,53,53		4,15, 2,11,47	
		31, 2, 4,50,37,36,19		2,16
8″	58, 8,29,28, 1,29,23,51,30,12		4,15, 2,14, 3	
		31, 2, 0,35,35,22,16		2,16
10″	58, 8,29,59, 3,29,59,26,52,28		4,15, 2,16,19	
		31, 1,56,20,33, 5,57		2,16
12″	58, 8,30,30, 5,26,19,59,58,25		4,15, 2,18,35	
		31, 1,52, 5,30,47,22		2,16
14″	58, 8,31, 1, 7,18,25,30,45,47		4,15, 2,20,51	
		31, 1,47,50,28,26,31		2,16
16″	58, 8,31,32, 9, 6,15,59,12,18		4,15, 2,23, 7	
		31, 1,43,35,26, 3,24		2,16
18″	58, 8,32, 3,10,49,51,25,15,42		4,15, 2,25,23	
		31, 1,39,20,23,38, 1		2,16
20″	58, 8,32,34,12,29,11,48,53,43		4,15, 2,27,39	
		31, 1,35, 5,21,10,22		2,16
22″	58, 8,33, 5,14, 4,17,10, 4, 5		4,15, 2,29,55	
		31, 1,30,50,18,40,27		2,16
24″	58, 8,33,36,15,35, 7,28,44,32		4,15, 2,32,11	
		31, 1,26,35,16, 8,16		2,16
26″	58, 8,34, 7,17, 1,42,44,52,48		4,15, 2,34,27	
		31, 1,22,20,13,33,49		2,16
28″	58, 8,34,38,18,24, 2,58,26,37		4,15, 2,36,43	
		31, 1,18, 5,10,57, 6		2,16
30″	58, 8,35, 9,19,42, 8, 9,23,43		4,15, 2,38,59	
		31, 1,13,50, 8,18, 7		2,16
32″	58, 8,35,40,20,55,58,17,41,50		4,15, 2,41,15	
		31, 1, 9,35, 5,36,52		2,16
34″	58, 8,36,11,22, 5,33,23,18,42		4,15, 2,43,31	
		31, 1, 5,20, 2,53,21		2,16
36″	58, 8,36,42,23,10,53,26,12, 3		4,15, 2,45,47	
		31, 1, 1, 5, 0, 7,34		2,16
38″	58, 8,37,13,24,11,58,26,19,37		4,15, 2,48, 3	
		31, 0,56,49,57,19,31		2,16
40″	58, 8,37,44,25, 8,48,23,39, 8		4,15, 2,50,19	
		31, 0,52,34,54,29,12		2,16
42″	58, 8,38,15,26, 1,23,18, 8,20		4,15, 2,52,35	
		31, 0,48,19,51,36,37		2,16
44″	58, 8,38,46,26,49,43, 9,44,57		4,15, 2,54,51	
		31, 0,44, 4,48,41,46		2,16
46″	58, 8,39,17,27,33,47,58,26,43		4,15, 2,57, 7	
		31, 0,39,49,45,44,39		2,16
48″	58, 8,39,48,28,13,37,44,11,22		4,15, 2,59,23	
		31, 0,35,34,42,45,16		2,16
50″	58, 8,40,19,28,49,12,26,56,38		4,15, 3, 1,39	
		31, 0,31,19,39,43,37		2,16
52″	58, 8,40,50,29,20,32, 6,40,15		4,15, 3, 3,55	
		31, 0,27, 4,36,39,42		2,16
54″	58, 8,41,21,29,47,36,43,19,57		4,15, 3, 6,11	
		31, 0,22,49,33,33,31		2,16
56″	58, 8,41,52,30,10,26,16,53,28		4,15, 3, 8,27	
		31, 0,18,34,30,25, 4		2,16
58″	58, 8,42,23,30,29, 0,47,18,32		4,15, 3,10,43	
		31, 0,14,19,27,14,21		
60″	58, 8,42,54,30,43,20,14,32,53			
exact	58, 8,42,54,30,43,20,14,23,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°43′ 0″	58, 8,42,54,30,43,20,14,23,50			
		31, 0,10, 4,24, 0,33		
2″	58, 8,43,25,30,53,24,38,24,23		4,15, 3,15,17	
		31, 0, 5,49,20,45,16		2,16
4″	58, 8,43,56,30,59,13,59, 9,39		4,15, 3,17,33	
		31, 0, 1,34,17,27,43		2,16
6″	58, 8,44,27,31, 0,48,16,37,22		4,15, 3,19,49	
		30,59,57,19,14, 7,54		2,16
8″	58, 8,44,58,30,58, 7,30,45,16		4,15, 3,22, 5	
		30,59,53, 4,10,45,49		2,16
10″	58, 8,45,29,30,51,11,41,31, 5		4,15, 3,24,21	
		30,59,48,49, 7,21,28		2,16
12″	58, 8,46, 0,30,40, 0,48,52,33		4,15, 3,26,37	
		30,59,44,34, 3,54,51		2,16
14″	58, 8,46,31,30,24,34,52,47,24		4,15, 3,28,53	
		30,59,40,19, 0,25,58		2,16
16″	58, 8,47, 2,30, 4,53,53,13,22		4,15, 3,31, 9	
		30,59,36, 3,56,54,49		2,16
18″	58, 8,47,33,29,40,57,50, 8,11		4,15, 3,33,25	
		30,59,31,48,53,21,24		2,16
20″	58, 8,48, 4,29,12,46,43,29,35		4,15, 3,35,41	
		30,59,27,33,49,45,43		2,16
22″	58, 8,48,35,28,40,20,33,15,18		4,15, 3,37,57	
		30,59,23,18,46, 7,46		2,16
24″	58, 8,49, 6,28, 3,39,19,23, 4		4,15, 3,40,13	
		30,59,19, 3,42,27,33		2,16
26″	58, 8,49,37,27,22,43, 1,50,37		4,15, 3,42,29	
		30,59,14,48,38,45, 4		2,16
28″	58, 8,50, 8,26,37,31,40,35,41		4,15, 3,44,45	
		30,59,10,33,35, 0,19		2,16
30″	58, 8,50,39,25,48, 5,15,36, 0		4,15, 3,47, 1	
		30,59, 6,18,31,13,18		2,16
32″	58, 8,51,10,24,54,23,46,49,18		4,15, 3,49,17	
		30,59, 2, 3,27,24, 1		2,16
34″	58, 8,51,41,23,56,27,14,13,19		4,15, 3,51,33	
		30,58,57,48,23,32,28		2,16
36″	58, 8,52,12,22,54,15,37,45,47		4,15, 3,53,49	
		30,58,53,33,19,38,39		2,16
38″	58, 8,52,43,21,47,48,57,24,26		4,15, 3,56, 5	
		30,58,49,18,15,42,34		2,16
40″	58, 8,53,14,20,37, 7,13, 7, 0		4,15, 3,58,21	
		30,58,45, 3,11,44,13		2,16
42″	58, 8,53,45,19,22,10,24,51,13		4,15, 4, 0,37	
		30,58,40,48, 7,43,36		2,16
44″	58, 8,54,16,18, 2,58,32,34,49		4,15, 4, 2,53	
		30,58,36,33, 3,40,43		2,16
46″	58, 8,54,47,16,39,31,36,15,32		4,15, 4, 5, 9	
		30,58,32,17,59,35,34		2,16
48″	58, 8,55,18,15,11,49,35,51, 6		4,15, 4, 7,25	
		30,58,28, 2,55,28, 9		2,16
50″	58, 8,55,49,13,39,52,31,19,15		4,15, 4, 9,41	
		30,58,23,47,51,18,28		2,16
52″	58, 8,56,20,12, 3,40,22,37,43		4,15, 4,11,57	
		30,58,19,32,47, 6,31		2,16
54″	58, 8,56,51,10,23,13, 9,44,14		4,15, 4,14,13	
		30,58,15,17,42,52,18		2,16
56″	58, 8,57,22, 8,38,30,52,36,32		4,15, 4,16,29	
		30,58,11, 2,38,35,49		2,16
58″	58, 8,57,53, 6,49,33,31,12,21		4,15, 4,18,45	
		30,58, 6,47,34,17, 4		
60″	58, 8,58,24, 4,56,21, 5,29,25			
exact	58, 8,58,24, 4,56,21, 5,30,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°44′ 0″	58, 8,58,24, 4,56,21, 5,30,28			
		30,58, 2,32,29,56,20		
2″	58, 8,58,55, 2,58,53,35,26,48		4,15, 4,23,15	
		30,57,58,17,25,33, 5		2,16
4″	58, 8,59,26, 0,57,11, 0,59,53		4,15, 4,25,31	
		30,57,54, 2,21, 7,34		2,16
6″	58, 8,59,56,58,51,13,22, 7,27		4,15, 4,27,47	
		30,57,49,47,16,39,47		2,16
8″	58, 9, 0,27,56,41, 0,38,47,14		4,15, 4,30, 3	
		30,57,45,32,12, 9,44		2,16
10″	58, 9, 0,58,54,26,32,50,56,58		4,15, 4,32,19	
		30,57,41,17, 7,37,25		2,16
12″	58, 9, 1,29,52, 7,49,58,34,23		4,15, 4,34,35	
		30,57,37, 2, 3, 2,50		2,16
14″	58, 9, 2, 0,49,44,52, 1,37,13		4,15, 4,36,51	
		30,57,32,46,58,25,59		2,16
16″	58, 9, 2,31,47,17,39, 0, 3,12		4,15, 4,39, 7	
		30,57,28,31,53,46,52		2,16
18″	58, 9, 3, 2,44,46,10,53,50, 4		4,15, 4,41,23	
		30,57,24,16,49, 5,29		2,16
20″	58, 9, 3,33,42,10,27,42,55,33		4,15, 4,43,39	
		30,57,20, 1,44,21,50		2,16
22″	58, 9, 4, 4,39,30,29,27,17,23		4,15, 4,45,55	
		30,57,15,46,39,35,55		2,16
24″	58, 9, 4,35,36,46,16, 6,53,18		4,15, 4,48,11	
		30,57,11,31,34,47,44		2,16
26″	58, 9, 5, 6,33,57,47,41,41, 2		4,15, 4,50,27	
		30,57, 7,16,29,57,17		2,16
28″	58, 9, 5,37,31, 5, 4,11,38,19		4,15, 4,52,43	
		30,57, 3, 1,25, 4,34		2,16
30″	58, 9, 6, 8,28, 8, 5,36,42,53		4,15, 4,54,59	
		30,56,58,46,20, 9,35		2,16
32″	58, 9, 6,39,25, 6,51,56,52,28		4,15, 4,57,15	
		30,56,54,31,15,12,20		2,16
34″	58, 9, 7,10,22, 1,23,12, 4,48		4,15, 4,59,31	
		30,56,50,16,10,12,49		2,16
36″	58, 9, 7,41,18,51,39,22,17,37		4,15, 5, 1,47	
		30,56,46, 1, 5,11, 2		2,16
38″	58, 9, 8,12,15,37,40,27,28,39		4,15, 5, 4, 3	
		30,56,41,46, 0, 6,59		2,16
40″	58, 9, 8,43,12,19,26,27,35,38		4,15, 5, 6,19	
		30,56,37,30,55, 0,40		2,16
42″	58, 9, 9,14, 8,56,57,22,36,18		4,15, 5, 8,35	
		30,56,33,15,49,52, 5		2,16
44″	58, 9, 9,45, 5,30,13,12,28,23		4,15, 5,10,51	
		30,56,29, 0,44,41,14		2,16
46″	58, 9,10,16, 1,59,13,57, 9,37		4,15, 5,13, 7	
		30,56,24,45,39,28, 7		2,16
48″	58, 9,10,46,58,23,59,36,37,44		4,15, 5,15,23	
		30,56,20,30,34,12,44		2,16
50″	58, 9,11,17,54,44,30,10,50,28		4,15, 5,17,39	
		30,56,16,15,28,55, 5		2,16
52″	58, 9,11,48,51, 0,45,39,45,33		4,15, 5,19,55	
		30,56,12, 0,23,35,10		2,16
54″	58, 9,12,19,47,12,46, 3,20,43		4,15, 5,22,11	
		30,56, 7,45,18,12,59		2,16
56″	58, 9,12,50,43,20,31,21,33,42		4,15, 5,24,27	
		30,56, 3,30,12,48,32		2,16
58″	58, 9,13,21,39,24, 1,34,22,14		4,15, 5,26,43	
		30,55,59,15, 7,21,49		
60″	58, 9,13,52,35,23,16,41,44, 3			
exact	58, 9,13,52,35,23,16,41,59,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°45′ 0″	58, 9,13,52,35,23,16,41,59,55			
		30,55,55, 0, 1,54,33		
2″	58, 9,14,23,31,18,16,43,54,28		4,15, 5,31, 7	
		30,55,50,44,56,23,26		2,16
4″	58, 9,14,54,27, 9, 1,40,17,54		4,15, 5,33,23	
		30,55,46,29,50,50, 3		2,16
6″	58, 9,15,25,22,55,31,31, 7,57		4,15, 5,35,39	
		30,55,42,14,45,14,24		2,16
8″	58, 9,15,56,18,37,46,16,22,21		4,15, 5,37,55	
		30,55,37,59,39,36,29		2,16
10″	58, 9,16,27,14,15,45,55,58,50		4,15, 5,40,11	
		30,55,33,44,33,56,18		2,16
12″	58, 9,16,58, 9,49,30,29,55, 8		4,15, 5,42,27	
		30,55,29,29,28,13,51		2,16
14″	58, 9,17,29, 5,18,59,58, 8,59		4,15, 5,44,43	
		30,55,25,14,22,29, 8		2,16
16″	58, 9,18, 0, 0,44,14,20,38, 7		4,15, 5,46,59	
		30,55,20,59,16,42, 9		2,16
18″	58, 9,18,30,56, 5,13,37,20,16		4,15, 5,49,15	
		30,55,16,44,10,52,54		2,16
20″	58, 9,19, 1,51,21,57,48,13,10		4,15, 5,51,31	
		30,55,12,29, 5, 1,23		2,16
22″	58, 9,19,32,46,34,26,53,14,33		4,15, 5,53,47	
		30,55, 8,13,59, 7,36		2,16
24″	58, 9,20, 3,41,42,40,52,22, 9		4,15, 5,56, 3	
		30,55, 3,58,53,11,33		2,16
26″	58, 9,20,34,36,46,39,45,33,42		4,15, 5,58,19	
		30,54,59,43,47,13,14		2,16
28″	58, 9,21, 5,31,46,23,32,46,56		4,15, 6, 0,35	
		30,54,55,28,41,12,39		2,16
30″	58, 9,21,36,26,41,52,13,59,35		4,15, 6, 2,51	
		30,54,51,13,35, 9,48		2,16
32″	58, 9,22, 7,21,33, 5,49, 9,23		4,15, 6, 5, 7	
		30,54,46,58,29, 4,41		2,16
34″	58, 9,22,38,16,20, 4,18,14, 4		4,15, 6, 7,23	
		30,54,42,43,22,57,18		2,16
36″	58, 9,23, 9,11, 2,47,41,11,22		4,15, 6, 9,39	
		30,54,38,28,16,47,39		2,16
38″	58, 9,23,40, 5,41,15,57,59, 1		4,15, 6,11,55	
		30,54,34,13,10,35,44		2,16
40″	58, 9,24,11, 0,15,29, 8,34,45		4,15, 6,14,11	
		30,54,29,58, 4,21,33		2,16
42″	58, 9,24,41,54,45,27,12,56,18		4,15, 6,16,27	
		30,54,25,42,58, 5, 6		2,16
44″	58, 9,25,12,49,11,10,11, 1,24		4,15, 6,18,43	
		30,54,21,27,51,46,23		2,16
46″	58, 9,25,43,43,32,38, 2,47,47		4,15, 6,20,59	
		30,54,17,12,45,25,24		2,16
48″	58, 9,26,14,37,49,50,48,13,11		4,15, 6,23,15	
		30,54,12,57,39, 2, 9		2,16
50″	58, 9,26,45,32, 2,48,27,15,20		4,15, 6,25,31	
		30,54, 8,42,32,36,38		2,16
52″	58, 9,27,16,26,11,30,59,51,58		4,15, 6,27,47	
		30,54, 4,27,26, 8,51		2,16
54″	58, 9,27,47,20,15,58,26, 0,49		4,15, 6,30, 3	
		30,54, 0,12,19,38,48		2,16
56″	58, 9,28,18,14,16,10,45,39,37		4,15, 6,32,19	
		30,53,55,57,13, 6,29		2,16
58″	58, 9,28,49, 8,12, 7,58,46, 6		4,15, 6,34,35	
		30,53,51,42, 6,31,54		
60″	58, 9,29,20, 2, 3,50, 5,18, 0			
exact	58, 9,29,20, 2, 3,50, 5,38,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°46′ 0″	58, 9,29,20, 2, 3,50, 5,38,52			
		30,53,47,26,59,57,31		
2″	58, 9,29,50,55,51,17, 5,36,23		4,15, 6,38,56	
		30,53,43,11,53,18,35		2,16
4″	58, 9,30,21,49,34,28,58,54,58		4,15, 6,41,12	
		30,53,38,56,46,37,23		2,16
6″	58, 9,30,52,43,13,25,45,32,21		4,15, 6,43,28	
		30,53,34,41,39,53,55		2,16
8″	58, 9,31,23,36,48, 7,25,26,16		4,15, 6,45,44	
		30,53,30,26,33, 8,11		2,16
10″	58, 9,31,54,30,18,33,58,34,27		4,15, 6,48, 0	
		30,53,26,11,26,20,11		2,16
12″	58, 9,32,25,23,44,45,24,54,38		4,15, 6,50,16	
		30,53,21,56,19,29,55		2,16
14″	58, 9,32,56,17, 6,41,44,24,33		4,15, 6,52,32	
		30,53,17,41,12,37,23		2,16
16″	58, 9,33,27,10,24,22,57, 1,56		4,15, 6,54,48	
		30,53,13,26, 5,42,35		2,16
18″	58, 9,33,58, 3,37,49, 2,44,31		4,15, 6,57, 4	
		30,53, 9,10,58,45,31		2,16
20″	58, 9,34,28,56,47, 0, 1,30, 2		4,15, 6,59,20	
		30,53, 4,55,51,46,11		2,16
22″	58, 9,34,59,49,51,55,53,16,13		4,15, 7, 1,36	
		30,53, 0,40,44,44,35		2,16
24″	58, 9,35,30,42,52,36,38, 0,48		4,15, 7, 3,52	
		30,52,56,25,37,40,43		2,16
26″	58, 9,36, 1,35,49, 2,15,41,31		4,15, 7, 6, 8	
		30,52,52,10,30,34,35		2,16
28″	58, 9,36,32,28,41,12,46,16, 6		4,15, 7, 8,24	
		30,52,47,55,23,26,11		2,16
30″	58, 9,37, 3,21,29, 8, 9,42,17		4,15, 7,10,40	
		30,52,43,40,16,15,31		2,16
32″	58, 9,37,34,14,12,48,25,57,48		4,15, 7,12,56	
		30,52,39,25, 9, 2,35		2,16
34″	58, 9,38, 5, 6,52,13,35, 0,23		4,15, 7,15,12	
		30,52,35,10, 1,47,23		2,16
36″	58, 9,38,35,59,27,23,36,47,46		4,15, 7,17,28	
		30,52,30,54,54,29,55		2,16
38″	58, 9,39, 6,51,58,18,31,17,41		4,15, 7,19,44	
		30,52,26,39,47,10,11		2,16
40″	58, 9,39,37,44,24,58,18,27,52		4,15, 7,22, 0	
		30,52,22,24,39,48,11		2,16
42″	58, 9,40, 8,36,47,22,58,16, 3		4,15, 7,24,16	
		30,52,18, 9,32,23,55		2,16
44″	58, 9,40,39,29, 5,32,30,39,58		4,15, 7,26,32	
		30,52,13,54,24,57,23		2,16
46″	58, 9,41,10,21,19,26,55,37,21		4,15, 7,28,48	
		30,52, 9,39,17,28,35		2,16
48″	58, 9,41,41,13,29, 6,13, 5,56		4,15, 7,31, 4	
		30,52, 5,24, 9,57,31		2,16
50″	58, 9,42,12, 5,34,30,23, 3,27		4,15, 7,33,20	
		30,52, 1, 9, 2,24,11		2,16
52″	58, 9,42,42,57,35,39,25,27,38		4,15, 7,35,36	
		30,51,56,53,54,48,35		2,16
54″	58, 9,43,13,49,32,33,20,16,13		4,15, 7,37,52	
		30,51,52,38,47,10,43		2,16
56″	58, 9,43,44,41,25,12, 7,26,56		4,15, 7,40, 8	
		30,51,48,23,39,30,35		2,16
58″	58, 9,44,15,33,13,35,46,57,31		4,15, 7,42,24	
		30,51,44, 8,31,48,11		
60″	58, 9,44,46,24,57,44,18,45,42			
exact	58, 9,44,46,24,57,44,19,23,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°47′ 0″	58, 9,44,46,24,57,44,19,23,53			
		30,51,39,53,24, 7,34		
2″	58, 9,45,17,16,37,37,43,31,27		4,15, 7,46,39	
		30,51,35,38,16,20,55		2,15
4″	58, 9,45,48, 8,13,15,59,52,22		4,15, 7,48,54	
		30,51,31,23, 8,32, 1		2,15
6″	58, 9,46,18,59,44,39, 8,24,23		4,15, 7,51, 9	
		30,51,27, 8, 0,40,52		2,15
8″	58, 9,46,49,51,11,47, 9, 5,15		4,15, 7,53,24	
		30,51,22,52,52,47,28		2,15
10″	58, 9,47,20,42,34,40, 1,52,43		4,15, 7,55,39	
		30,51,18,37,44,51,49		2,15
12″	58, 9,47,51,33,53,17,46,44,32		4,15, 7,57,54	
		30,51,14,22,36,53,55		2,15
14″	58, 9,48,22,25, 7,40,23,38,27		4,15, 8, 0, 9	
		30,51,10, 7,28,53,46		2,15
16″	58, 9,48,53,16,17,47,52,32,13		4,15, 8, 2,24	
		30,51, 5,52,20,51,22		2,15
18″	58, 9,49,24, 7,23,40,13,23,35		4,15, 8, 4,39	
		30,51, 1,37,12,46,43		2,15
20″	58, 9,49,54,58,25,17,26,10,18		4,15, 8, 6,54	
		30,50,57,22, 4,39,49		2,15
22″	58, 9,50,25,49,22,39,30,50, 7		4,15, 8, 9, 9	
		30,50,53, 6,56,30,40		2,15
24″	58, 9,50,56,40,15,46,27,20,47		4,15, 8,11,24	
		30,50,48,51,48,19,16		2,15
26″	58, 9,51,27,31, 4,38,15,40, 3		4,15, 8,13,39	
		30,50,44,36,40, 5,37		2,15
28″	58, 9,51,58,21,49,14,55,45,40		4,15, 8,15,54	
		30,50,40,21,31,49,43		2,15
30″	58, 9,52,29,12,29,36,27,35,23		4,15, 8,18, 9	
		30,50,36, 6,23,31,34		2,15
32″	58, 9,53, 0, 3, 5,42,51, 6,57		4,15, 8,20,24	
		30,50,31,51,15,11,10		2,15
34″	58, 9,53,30,53,37,34, 6,18, 7		4,15, 8,22,39	
		30,50,27,36, 6,48,31		2,15
36″	58, 9,54, 1,44, 5,10,13, 6,38		4,15, 8,24,54	
		30,50,23,20,58,23,37		2,15
38″	58, 9,54,32,34,28,31,11,30,15		4,15, 8,27, 9	
		30,50,19, 5,49,56,28		2,15
40″	58, 9,55, 3,24,47,37, 1,26,43		4,15, 8,29,24	
		30,50,14,50,41,27, 4		2,15
42″	58, 9,55,34,15, 2,27,42,53,47		4,15, 8,31,39	
		30,50,10,35,32,55,25		2,15
44″	58, 9,56, 5, 5,13, 3,15,49,12		4,15, 8,33,54	
		30,50, 6,20,24,21,31		2,15
46″	58, 9,56,35,55,19,23,40,10,43		4,15, 8,36, 9	
		30,50, 2, 5,15,45,22		2,15
48″	58, 9,57, 6,45,21,28,55,56, 5		4,15, 8,38,24	
		30,49,57,50, 7, 6,58		2,15
50″	58, 9,57,37,35,19,19, 3, 3, 3		4,15, 8,40,39	
		30,49,53,34,58,26,19		2,15
52″	58, 9,58, 8,25,12,54, 1,29,22		4,15, 8,42,54	
		30,49,49,19,49,43,25		2,15
54″	58, 9,58,39,15, 2,13,51,12,47		4,15, 8,45, 9	
		30,49,45, 4,40,58,16		2,15
56″	58, 9,59,10, 4,47,18,32,11, 3		4,15, 8,47,24	
		30,49,40,49,32,10,52		2,15
58″	58, 9,59,40,54,28, 8, 4,21,55		4,15, 8,49,39	
		30,49,36,34,23,21,13		
60″	58,10, 0,11,44, 4,42,27,43, 8			
exact	58,10, 0,11,44, 4,42,27,21,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°48′ 0″	58,10, 0,11,44, 4,42,27,21,31			
		30,49,32,19,14,27, 3		
2″	58,10, 0,42,33,37, 1,41,48,34		4,15, 8,54,18	
		30,49,28, 4, 5,32,45		2,15
4″	58,10, 1,13,23, 5, 5,47,21,19		4,15, 8,56,33	
		30,49,23,48,56,36,12		2,15
6″	58,10, 1,44,12,28,54,43,57,31		4,15, 8,58,48	
		30,49,19,33,47,37,24		2,15
8″	58,10, 2,15, 1,48,28,31,34,55		4,15, 9, 1, 3	
		30,49,15,18,38,36,21		2,15
10″	58,10, 2,45,51, 3,47,10,11,16		4,15, 9, 3,18	
		30,49,11, 3,29,33, 3		2,15
12″	58,10, 3,16,40,14,50,39,44,19		4,15, 9, 5,33	
		30,49, 6,48,20,27,30		2,15
14″	58,10, 3,47,29,21,39, 0,11,49		4,15, 9, 7,48	
		30,49, 2,33,11,19,42		2,15
16″	58,10, 4,18,18,24,12,11,31,31		4,15, 9,10, 3	
		30,48,58,18, 2, 9,39		2,15
18″	58,10, 4,49, 7,22,30,13,41,10		4,15, 9,12,18	
		30,48,54, 2,52,57,21		2,15
20″	58,10, 5,19,56,16,33, 6,38,31		4,15, 9,14,33	
		30,48,49,47,43,42,48		2,15
22″	58,10, 5,50,45, 6,20,50,21,19		4,15, 9,16,48	
		30,48,45,32,34,26, 0		2,15
24″	58,10, 6,21,33,51,53,24,47,19		4,15, 9,19, 3	
		30,48,41,17,25, 6,57		2,15
26″	58,10, 6,52,22,33,10,49,54,16		4,15, 9,21,18	
		30,48,37, 2,15,45,39		2,15
28″	58,10, 7,23,11,10,13, 5,39,55		4,15, 9,23,33	
		30,48,32,47, 6,22, 6		2,15
30″	58,10, 7,53,59,43, 0,12, 2, 1		4,15, 9,25,48	
		30,48,28,31,56,56,18		2,15
32″	58,10, 8,24,48,11,32, 8,58,19		4,15, 9,28, 3	
		30,48,24,16,47,28,15		2,15
34″	58,10, 8,55,36,35,48,56,26,34		4,15, 9,30,18	
		30,48,20, 1,37,57,57		2,15
36″	58,10, 9,26,24,55,50,34,24,31		4,15, 9,32,33	
		30,48,15,46,28,25,24		2,15
38″	58,10, 9,57,13,11,37, 2,49,55		4,15, 9,34,48	
		30,48,11,31,18,50,36		2,15
40″	58,10,10,28, 1,23, 8,21,40,31		4,15, 9,37, 3	
		30,48, 7,16, 9,13,33		2,15
42″	58,10,10,58,49,30,24,30,54, 4		4,15, 9,39,18	
		30,48, 3, 0,59,34,15		2,15
44″	58,10,11,29,37,33,25,30,28,19		4,15, 9,41,33	
		30,47,58,45,49,52,42		2,15
46″	58,10,12, 0,25,32,11,20,21, 1		4,15, 9,43,48	
		30,47,54,30,40, 8,54		2,15
48″	58,10,12,31,13,26,42, 0,29,55		4,15, 9,46, 3	
		30,47,50,15,30,22,51		2,15
50″	58,10,13, 2, 1,16,57,30,52,46		4,15, 9,48,18	
		30,47,46, 0,20,34,33		2,15
52″	58,10,13,32,49, 2,57,51,27,19		4,15, 9,50,33	
		30,47,41,45,10,44, 0		2,15
54″	58,10,14, 3,36,44,43, 2,11,19		4,15, 9,52,48	
		30,47,37,30, 0,51,12		2,15
56″	58,10,14,34,24,22,13, 3, 2,31		4,15, 9,55, 3	
		30,47,33,14,50,56, 9		2,15
58″	58,10,15, 5,11,55,27,53,58,40		4,15, 9,57,18	
		30,47,28,59,40,58,51		
60″	58,10,15,35,59,24,27,34,57,31			
exact	58,10,15,35,59,24,27,34,48,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°49′ 0″	58,10,15,35,59,24,27,34,48,14			
		30,47,24,44,30,58,18		
2″	58,10,16, 6,46,49,12, 5,46,32		4,15,10, 1,52	
		30,47,20,29,20,56,26		2,15
4″	58,10,16,37,34, 9,41,26,42,58		4,15,10, 4, 7	
		30,47,16,14,10,52,19		2,15
6″	58,10,17, 8,21,25,55,37,35,17		4,15,10, 6,22	
		30,47,11,59, 0,45,57		2,15
8″	58,10,17,39, 8,37,54,38,21,14		4,15,10, 8,37	
		30,47, 7,43,50,37,20		2,15
10″	58,10,18, 9,55,45,38,28,58,34		4,15,10,10,52	
		30,47, 3,28,40,26,28		2,15
12″	58,10,18,40,42,49, 7, 9,25, 2		4,15,10,13, 7	
		30,46,59,13,30,13,21		2,15
14″	58,10,19,11,29,48,20,39,38,23		4,15,10,15,22	
		30,46,54,58,19,57,59		2,15
16″	58,10,19,42,16,43,18,59,36,22		4,15,10,17,37	
		30,46,50,43, 9,40,22		2,15
18″	58,10,20,13, 3,34, 2, 9,16,44		4,15,10,19,52	
		30,46,46,27,59,20,30		2,15
20″	58,10,20,43,50,20,30, 8,37,14		4,15,10,22, 7	
		30,46,42,12,48,58,23		2,15
22″	58,10,21,14,37, 2,42,57,35,37		4,15,10,24,22	
		30,46,37,57,38,34, 1		2,15
24″	58,10,21,45,23,40,40,36, 9,38		4,15,10,26,37	
		30,46,33,42,28, 7,24		2,15
26″	58,10,22,16,10,14,23, 4,17, 2		4,15,10,28,52	
		30,46,29,27,17,38,32		2,15
28″	58,10,22,46,56,43,50,21,55,34		4,15,10,31, 7	
		30,46,25,12, 7, 7,25		2,15
30″	58,10,23,17,43, 9, 2,29, 2,59		4,15,10,33,22	
		30,46,20,56,56,34, 3		2,15
32″	58,10,23,48,29,29,59,25,37, 2		4,15,10,35,37	
		30,46,16,41,45,58,26		2,15
34″	58,10,24,19,15,46,41,11,35,28		4,15,10,37,52	
		30,46,12,26,35,20,34		2,15
36″	58,10,24,50, 1,59, 7,46,56, 2		4,15,10,40, 7	
		30,46, 8,11,24,40,27		2,15
38″	58,10,25,20,48, 7,19,11,36,29		4,15,10,42,22	
		30,46, 3,56,13,58, 5		2,15
40″	58,10,25,51,34,11,15,25,34,34		4,15,10,44,37	
		30,45,59,41, 3,13,28		2,15
42″	58,10,26,22,20,10,56,28,48, 2		4,15,10,46,52	
		30,45,55,25,52,26,36		2,15
44″	58,10,26,53, 6, 6,22,21,14,38		4,15,10,49, 7	
		30,45,51,10,41,37,29		2,15
46″	58,10,27,23,51,57,33, 2,52, 7		4,15,10,51,22	
		30,45,46,55,30,46, 7		2,15
48″	58,10,27,54,37,44,28,33,38,14		4,15,10,53,37	
		30,45,42,40,19,52,30		2,15
50″	58,10,28,25,23,27, 8,53,30,44		4,15,10,55,52	
		30,45,38,25, 8,56,38		2,15
52″	58,10,28,56, 9, 5,34, 2,27,22		4,15,10,58, 7	
		30,45,34, 9,57,58,31		2,15
54″	58,10,29,26,54,39,44, 0,25,53		4,15,11, 0,22	
		30,45,29,54,46,58, 9		2,15
56″	58,10,29,57,40, 9,38,47,24, 2		4,15,11, 2,37	
		30,45,25,39,35,55,32		2,15
58″	58,10,30,28,25,35,18,23,19,34		4,15,11, 4,52	
		30,45,21,24,24,50,40		
60″	58,10,30,59,10,56,42,48,10,14			
exact	58,10,30,59,10,56,42,48,10,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°50′ 0″	58,10,30,59,10,56,42,48,10,28			
		30,45,17, 9,13,43,37		
2″	58,10,31,29,56,13,52, 1,54, 5		4,15,11, 9,21	
		30,45,12,54, 2,34,16		2,15
4″	58,10,32, 0,41,26,46, 4,28,21		4,15,11,11,36	
		30,45, 8,38,51,22,40		2,15
6″	58,10,32,31,26,35,24,55,51, 1		4,15,11,13,51	
		30,45, 4,23,40, 8,49		2,15
8″	58,10,33, 2,11,39,48,35,59,50		4,15,11,16, 6	
		30,45, 0, 8,28,52,43		2,15
10″	58,10,33,32,56,39,57, 4,52,33		4,15,11,18,21	
		30,44,55,53,17,34,22		2,15
12″	58,10,34, 3,41,35,50,22,26,55		4,15,11,20,36	
		30,44,51,38, 6,13,46		2,15
14″	58,10,34,34,26,27,28,28,40,41		4,15,11,22,51	
		30,44,47,22,54,50,55		2,15
16″	58,10,35, 5,11,14,51,23,31,36		4,15,11,25, 6	
		30,44,43, 7,43,25,49		2,15
18″	58,10,35,35,55,57,59, 6,57,25		4,15,11,27,21	
		30,44,38,52,31,58,28		2,15
20″	58,10,36, 6,40,36,51,38,55,53		4,15,11,29,36	
		30,44,34,37,20,28,52		2,15
22″	58,10,36,37,25,11,28,59,24,45		4,15,11,31,51	
		30,44,30,22, 8,57, 1		2,15
24″	58,10,37, 8, 9,41,51, 8,21,46		4,15,11,34, 6	
		30,44,26, 6,57,22,55		2,15
26″	58,10,37,38,54, 7,58, 5,44,41		4,15,11,36,21	
		30,44,21,51,45,46,34		2,15
28″	58,10,38, 9,38,29,49,51,31,15		4,15,11,38,36	
		30,44,17,36,34, 7,58		2,15
30″	58,10,38,40,22,47,26,25,39,13		4,15,11,40,51	
		30,44,13,21,22,27, 7		2,15
32″	58,10,39,11, 7, 0,47,48, 6,20		4,15,11,43, 6	
		30,44, 9, 6,10,44, 1		2,15
34″	58,10,39,41,51, 9,53,58,50,21		4,15,11,45,21	
		30,44, 4,50,58,58,40		2,15
36″	58,10,40,12,35,14,44,57,49, 1		4,15,11,47,36	
		30,44, 0,35,47,11, 4		2,15
38″	58,10,40,43,19,15,20,45, 0, 5		4,15,11,49,51	
		30,43,56,20,35,21,13		2,15
40″	58,10,41,14, 3,11,41,20,21,18		4,15,11,52, 6	
		30,43,52, 5,23,29, 7		2,15
42″	58,10,41,44,47, 3,46,43,50,25		4,15,11,54,21	
		30,43,47,50,11,34,46		2,15
44″	58,10,42,15,30,51,36,55,25,11		4,15,11,56,36	
		30,43,43,34,59,38,10		2,15
46″	58,10,42,46,14,35,11,55, 3,21		4,15,11,58,51	
		30,43,39,19,47,39,19		2,15
48″	58,10,43,16,58,14,31,42,42,40		4,15,12, 1, 6	
		30,43,35, 4,35,38,13		2,15
50″	58,10,43,47,41,49,36,18,20,53		4,15,12, 3,21	
		30,43,30,49,23,34,52		2,15
52″	58,10,44,18,25,20,25,41,55,45		4,15,12, 5,36	
		30,43,26,34,11,29,16		2,15
54″	58,10,44,49, 8,46,59,53,25, 1		4,15,12, 7,51	
		30,43,22,18,59,21,25		2,15
56″	58,10,45,19,52, 9,18,52,46,26		4,15,12,10, 6	
		30,43,18, 3,47,11,19		2,15
58″	58,10,45,50,35,27,22,39,57,45		4,15,12,12,21	
		30,43,13,48,34,58,58		
60″	58,10,46,21,18,41,11,14,56,43			
exact	58,10,46,21,18,41,11,15, 4,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°51′ 0″	58,10,46,21,18,41,11,15, 4,35			
		30,43, 9,33,22,45,21		
2″	58,10,46,52, 1,50,44,37,49,56		4,15,12,16,46	
		30,43, 5,18,10,28,35		2,15
4″	58,10,47,22,44,56, 2,48,18,31		4,15,12,19, 1	
		30,43, 1, 2,58, 9,34		2,15
6″	58,10,47,53,27,57, 5,46,28, 5		4,15,12,21,16	
		30,42,56,47,45,48,18		2,15
8″	58,10,48,24,10,53,53,32,16,23		4,15,12,23,31	
		30,42,52,32,33,24,47		2,15
10″	58,10,48,54,53,46,26, 5,41,10		4,15,12,25,46	
		30,42,48,17,20,59, 1		2,15
12″	58,10,49,25,36,34,43,26,40,11		4,15,12,28, 1	
		30,42,44, 2, 8,31, 0		2,15
14″	58,10,49,56,19,18,45,35,11,11		4,15,12,30,16	
		30,42,39,46,56, 0,44		2,15
16″	58,10,50,27, 1,58,32,31,11,55		4,15,12,32,31	
		30,42,35,31,43,28,13		2,15
18″	58,10,50,57,44,34, 4,14,40, 8		4,15,12,34,46	
		30,42,31,16,30,53,27		2,15
20″	58,10,51,28,27, 5,20,45,33,35		4,15,12,37, 1	
		30,42,27, 1,18,16,26		2,15
22″	58,10,51,59, 9,32,22, 3,50, 1		4,15,12,39,16	
		30,42,22,46, 5,37,10		2,15
24″	58,10,52,29,51,55, 8, 9,27,11		4,15,12,41,31	
		30,42,18,30,52,55,39		2,15
26″	58,10,53, 0,34,13,39, 2,22,50		4,15,12,43,46	
		30,42,14,15,40,11,53		2,15
28″	58,10,53,31,16,27,54,42,34,43		4,15,12,46, 1	
		30,42,10, 0,27,25,52		2,15
30″	58,10,54, 1,58,37,55,10, 0,35		4,15,12,48,16	
		30,42, 5,45,14,37,36		2,15
32″	58,10,54,32,40,43,40,24,38,11		4,15,12,50,31	
		30,42, 1,30, 1,47, 5		2,15
34″	58,10,55, 3,22,45,10,26,25,16		4,15,12,52,46	
		30,41,57,14,48,54,19		2,15
36″	58,10,55,34, 4,42,25,15,19,35		4,15,12,55, 1	
		30,41,52,59,35,59,18		2,15
38″	58,10,56, 4,46,35,24,51,18,53		4,15,12,57,16	
		30,41,48,44,23, 2, 2		2,15
40″	58,10,56,35,28,24, 9,14,20,55		4,15,12,59,31	
		30,41,44,29,10, 2,31		2,15
42″	58,10,57, 6,10, 8,38,24,23,26		4,15,13, 1,46	
		30,41,40,13,57, 0,45		2,15
44″	58,10,57,36,51,48,52,21,24,11		4,15,13, 4, 1	
		30,41,35,58,43,56,44		2,15
46″	58,10,58, 7,33,24,51, 5,20,55		4,15,13, 6,16	
		30,41,31,43,30,50,28		2,15
48″	58,10,58,38,14,56,34,36,11,23		4,15,13, 8,31	
		30,41,27,28,17,41,57		2,15
50″	58,10,59, 8,56,24, 2,53,53,20		4,15,13,10,46	
		30,41,23,13, 4,31,11		2,15
52″	58,10,59,39,37,47,15,58,24,31		4,15,13,13, 1	
		30,41,18,57,51,18,10		2,15
54″	58,11, 0,10,19, 6,13,49,42,41		4,15,13,15,16	
		30,41,14,42,38, 2,54		2,15
56″	58,11, 0,41, 0,20,56,27,45,35		4,15,13,17,31	
		30,41,10,27,24,45,23		2,15
58″	58,11, 1,11,41,31,23,52,30,58		4,15,13,19,46	
		30,41, 6,12,11,25,37		
60″	58,11, 1,42,22,37,36, 3,56,35			
exact	58,11, 1,42,22,37,36, 4,16,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°52′ 0″	58,11, 1,42,22,37,36, 4,16,57			
		30,41, 1,56,58, 5,51		
2″	58,11, 2,13, 3,39,33, 2,22,48		4,15,13,24, 6	
		30,40,57,41,44,41,45		2,15
4″	58,11, 2,43,44,37,14,47, 4,33		4,15,13,26,21	
		30,40,53,26,31,15,24		2,15
6″	58,11, 3,14,25,30,41,18,19,57		4,15,13,28,36	
		30,40,49,11,17,46,48		2,15
8″	58,11, 3,45, 6,19,52,36, 6,45		4,15,13,30,51	
		30,40,44,56, 4,15,57		2,15
10″	58,11, 4,15,47, 4,48,40,22,42		4,15,13,33, 6	
		30,40,40,40,50,42,51		2,15
12″	58,11, 4,46,27,45,29,31, 5,33		4,15,13,35,21	
		30,40,36,25,37, 7,30		2,15
14″	58,11, 5,17, 8,21,55, 8,13, 3		4,15,13,37,36	
		30,40,32,10,23,29,54		2,15
16″	58,11, 5,47,48,54, 5,31,42,57		4,15,13,39,51	
		30,40,27,55, 9,50, 3		2,15
18″	58,11, 6,18,29,22, 0,41,33, 0		4,15,13,42, 6	
		30,40,23,39,56, 7,57		2,15
20″	58,11, 6,49, 9,45,40,37,40,57		4,15,13,44,21	
		30,40,19,24,42,23,36		2,15
22″	58,11, 7,19,50, 5, 5,20, 4,33		4,15,13,46,36	
		30,40,15, 9,28,37, 0		2,15
24″	58,11, 7,50,30,20,14,48,41,33		4,15,13,48,51	
		30,40,10,54,14,48, 9		2,15
26″	58,11, 8,21,10,31, 9, 3,29,42		4,15,13,51, 6	
		30,40, 6,39, 0,57, 3		2,15
28″	58,11, 8,51,50,37,48, 4,26,45		4,15,13,53,21	
		30,40, 2,23,47, 3,42		2,15
30″	58,11, 9,22,30,40,11,51,30,27		4,15,13,55,36	
		30,39,58, 8,33, 8, 6		2,15
32″	58,11, 9,53,10,38,20,24,38,33		4,15,13,57,51	
		30,39,53,53,19,10,15		2,15
34″	58,11,10,23,50,32,13,43,48,48		4,15,14, 0, 6	
		30,39,49,38, 5,10, 9		2,15
36″	58,11,10,54,30,21,51,48,58,57		4,15,14, 2,21	
		30,39,45,22,51, 7,48		2,15
38″	58,11,11,25,10, 7,14,40, 6,45		4,15,14, 4,36	
		30,39,41, 7,37, 3,12		2,15
40″	58,11,11,55,49,48,22,17, 9,57		4,15,14, 6,51	
		30,39,36,52,22,56,21		2,15
42″	58,11,12,26,29,25,14,40, 6,18		4,15,14, 9, 6	
		30,39,32,37, 8,47,15		2,15
44″	58,11,12,57, 8,57,51,48,53,33		4,15,14,11,21	
		30,39,28,21,54,35,54		2,15
46″	58,11,13,27,48,26,13,43,29,27		4,15,14,13,36	
		30,39,24, 6,40,22,18		2,15
48″	58,11,13,58,27,50,20,23,51,45		4,15,14,15,51	
		30,39,19,51,26, 6,27		2,15
50″	58,11,14,29, 7,10,11,49,58,12		4,15,14,18, 6	
		30,39,15,36,11,48,21		2,15
52″	58,11,14,59,46,25,48, 1,46,33		4,15,14,20,21	
		30,39,11,20,57,28, 0		2,15
54″	58,11,15,30,25,37, 8,59,14,33		4,15,14,22,36	
		30,39, 7, 5,43, 5,24		2,15
56″	58,11,16, 1, 4,44,14,42,19,57		4,15,14,24,51	
		30,39, 2,50,28,40,33		2,15
58″	58,11,16,31,43,47, 5,11, 0,30		4,15,14,27, 6	
		30,38,58,35,14,13,27		
60″	58,11,17, 2,22,45,40,25,13,57			
exact	58,11,17, 2,22,45,40,25,43,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°53′ 0″	58,11,17, 2,22,45,40,25,43,51			
		30,38,54,19,59,47,25		
2″	58,11,17,33, 1,40, 0,25,31,16		4,15,14,31,21	
		30,38,50, 4,45,16, 4		2,14
4″	58,11,18, 3,40,30, 5,10,47,20		4,15,14,33,35	
		30,38,45,49,30,42,29		2,14
6″	58,11,18,34,19,15,54,41,29,49		4,15,14,35,49	
		30,38,41,34,16, 6,40		2,14
8″	58,11,19, 4,57,57,28,57,36,29		4,15,14,38, 3	
		30,38,37,19, 1,28,37		2,14
10″	58,11,19,35,36,34,47,59, 5, 6		4,15,14,40,17	
		30,38,33, 3,46,48,20		2,14
12″	58,11,20, 6,15, 7,51,45,53,26		4,15,14,42,31	
		30,38,28,48,32, 5,49		2,14
14″	58,11,20,36,53,36,40,17,59,15		4,15,14,44,45	
		30,38,24,33,17,21, 4		2,14
16″	58,11,21, 7,32, 1,13,35,20,19		4,15,14,46,59	
		30,38,20,18, 2,34, 5		2,14
18″	58,11,21,38,10,21,31,37,54,24		4,15,14,49,13	
		30,38,16, 2,47,44,52		2,14
20″	58,11,22, 8,48,37,34,25,39,16		4,15,14,51,27	
		30,38,11,47,32,53,25		2,14
22″	58,11,22,39,26,49,21,58,32,41		4,15,14,53,41	
		30,38, 7,32,17,59,44		2,14
24″	58,11,23,10, 4,56,54,16,32,25		4,15,14,55,55	
		30,38, 3,17, 3, 3,49		2,14
26″	58,11,23,40,43, 0,11,19,36,14		4,15,14,58, 9	
		30,37,59, 1,48, 5,40		2,14
28″	58,11,24,11,20,59,13, 7,41,54		4,15,15, 0,23	
		30,37,54,46,33, 5,17		2,14
30″	58,11,24,41,58,53,59,40,47,11		4,15,15, 2,37	
		30,37,50,31,18, 2,40		2,14
32″	58,11,25,12,36,44,30,58,49,51		4,15,15, 4,51	
		30,37,46,16, 2,57,49		2,14
34″	58,11,25,43,14,30,47, 1,47,40		4,15,15, 7, 5	
		30,37,42, 0,47,50,44		2,14
36″	58,11,26,13,52,12,47,49,38,24		4,15,15, 9,19	
		30,37,37,45,32,41,25		2,14
38″	58,11,26,44,29,50,33,22,19,49		4,15,15,11,33	
		30,37,33,30,17,29,52		2,14
40″	58,11,27,15, 7,24, 3,39,49,41		4,15,15,13,47	
		30,37,29,15, 2,16, 5		2,14
42″	58,11,27,45,44,53,18,42, 5,46		4,15,15,16, 1	
		30,37,24,59,47, 0, 4		2,14
44″	58,11,28,16,22,18,18,29, 5,50		4,15,15,18,15	
		30,37,20,44,31,41,49		2,14
46″	58,11,28,46,59,39, 3, 0,47,39		4,15,15,20,29	
		30,37,16,29,16,21,20		2,14
48″	58,11,29,17,36,55,32,17, 8,59		4,15,15,22,43	
		30,37,12,14, 0,58,37		2,14
50″	58,11,29,48,14, 7,46,18, 7,36		4,15,15,24,57	
		30,37, 7,58,45,33,40		2,14
52″	58,11,30,18,51,15,45, 3,41,16		4,15,15,27,11	
		30,37, 3,43,30, 6,29		2,14
54″	58,11,30,49,28,19,28,33,47,45		4,15,15,29,25	
		30,36,59,28,14,37, 4		2,14
56″	58,11,31,20, 5,18,56,48,24,49		4,15,15,31,39	
		30,36,55,12,59, 5,25		2,14
58″	58,11,31,50,42,14, 9,47,30,14		4,15,15,33,53	
		30,36,50,57,43,31,32		
60″	58,11,32,21,19, 5, 7,31, 1,46			
exact	58,11,32,21,19, 5, 7,30,31,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°54′ 0″	58,11,32,21,19, 5, 7,30,31,35			
		30,36,46,42,27,52,24		
2″	58,11,32,51,55,51,49,58,23,59		4,15,15,38,32	
		30,36,42,27,12,13,52		2,14
4″	58,11,33,22,32,34,17,10,37,51		4,15,15,40,46	
		30,36,38,11,56,33, 6		2,14
6″	58,11,33,53, 9,12,29, 7,10,57		4,15,15,43, 0	
		30,36,33,56,40,50, 6		2,14
8″	58,11,34,23,45,46,25,48, 1, 3		4,15,15,45,14	
		30,36,29,41,25, 4,52		2,14
10″	58,11,34,54,22,16, 7,13, 5,55		4,15,15,47,28	
		30,36,25,26, 9,17,24		2,14
12″	58,11,35,24,58,41,33,22,23,19		4,15,15,49,42	
		30,36,21,10,53,27,42		2,14
14″	58,11,35,55,35, 2,44,15,51, 1		4,15,15,51,56	
		30,36,16,55,37,35,46		2,14
16″	58,11,36,26,11,19,39,53,26,47		4,15,15,54,10	
		30,36,12,40,21,41,36		2,14
18″	58,11,36,56,47,32,20,15, 8,23		4,15,15,56,24	
		30,36, 8,25, 5,45,12		2,14
20″	58,11,37,27,23,40,45,20,53,35		4,15,15,58,38	
		30,36, 4, 9,49,46,34		2,14
22″	58,11,37,57,59,44,55,10,40, 9		4,15,16, 0,52	
		30,35,59,54,33,45,42		2,14
24″	58,11,38,28,35,44,49,44,25,51		4,15,16, 3, 6	
		30,35,55,39,17,42,36		2,14
26″	58,11,38,59,11,40,29, 2, 8,27		4,15,16, 5,20	
		30,35,51,24, 1,37,16		2,14
28″	58,11,39,29,47,31,53, 3,45,43		4,15,16, 7,34	
		30,35,47, 8,45,29,42		2,14
30″	58,11,40, 0,23,19, 1,49,15,25		4,15,16, 9,48	
		30,35,42,53,29,19,54		2,14
32″	58,11,40,30,59, 1,55,18,35,19		4,15,16,12, 2	
		30,35,38,38,13, 7,52		2,14
34″	58,11,41, 1,34,40,33,31,43,11		4,15,16,14,16	
		30,35,34,22,56,53,36		2,14
36″	58,11,41,32,10,14,56,28,36,47		4,15,16,16,30	
		30,35,30, 7,40,37, 6		2,14
38″	58,11,42, 2,45,45, 4, 9,13,53		4,15,16,18,44	
		30,35,25,52,24,18,22		2,14
40″	58,11,42,33,21,10,56,33,32,15		4,15,16,20,58	
		30,35,21,37, 7,57,24		2,14
42″	58,11,43, 3,56,32,33,41,29,39		4,15,16,23,12	
		30,35,17,21,51,34,12		2,14
44″	58,11,43,34,31,49,55,33, 3,51		4,15,16,25,26	
		30,35,13, 6,35, 8,46		2,14
46″	58,11,44, 5, 7, 3, 2, 8,12,37		4,15,16,27,40	
		30,35, 8,51,18,41, 6		2,14
48″	58,11,44,35,42,11,53,26,53,43		4,15,16,29,54	
		30,35, 4,36, 2,11,12		2,14
50″	58,11,45, 6,17,16,29,29, 4,55		4,15,16,32, 8	
		30,35, 0,20,45,39, 4		2,14
52″	58,11,45,36,52,16,50,14,43,59		4,15,16,34,22	
		30,34,56, 5,29, 4,42		2,14
54″	58,11,46, 7,27,12,55,43,48,41		4,15,16,36,36	
		30,34,51,50,12,28, 6		2,14
56″	58,11,46,38, 2, 4,45,56,16,47		4,15,16,38,50	
		30,34,47,34,55,49,16		2,14
58″	58,11,47, 8,36,52,20,52, 6, 3		4,15,16,41, 4	
		30,34,43,19,39, 8,12		
60″	58,11,47,39,11,35,40,31,14,15			
exact	58,11,47,39,11,35,40,30,56,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°55′ 0″	58,11,47,39,11,35,40,30,56,24			
		30,34,39, 4,22,23, 8		
2″	58,11,48, 9,46,14,44,53,19,32		4,15,16,45,38	
		30,34,34,49, 5,37,30		2,14
4″	58,11,48,40,20,49,33,58,57, 2		4,15,16,47,52	
		30,34,30,33,48,49,38		2,14
6″	58,11,49,10,55,20, 7,47,46,40		4,15,16,50, 6	
		30,34,26,18,31,59,32		2,14
8″	58,11,49,41,29,46,26,19,46,12		4,15,16,52,20	
		30,34,22, 3,15, 7,12		2,14
10″	58,11,50,12, 4, 8,29,34,53,24		4,15,16,54,34	
		30,34,17,47,58,12,38		2,14
12″	58,11,50,42,38,26,17,33, 6, 2		4,15,16,56,48	
		30,34,13,32,41,15,50		2,14
14″	58,11,51,13,12,39,50,14,21,52		4,15,16,59, 2	
		30,34, 9,17,24,16,48		2,14
16″	58,11,51,43,46,49, 7,38,38,40		4,15,17, 1,16	
		30,34, 5, 2, 7,15,32		2,14
18″	58,11,52,14,20,54, 9,45,54,12		4,15,17, 3,30	
		30,34, 0,46,50,12, 2		2,14
20″	58,11,52,44,54,54,56,36, 6,14		4,15,17, 5,44	
		30,33,56,31,33, 6,18		2,14
22″	58,11,53,15,28,51,28, 9,12,32		4,15,17, 7,58	
		30,33,52,16,15,58,20		2,14
24″	58,11,53,46, 2,43,44,25,10,52		4,15,17,10,12	
		30,33,48, 0,58,48, 8		2,14
26″	58,11,54,16,36,31,45,23,59, 0		4,15,17,12,26	
		30,33,43,45,41,35,42		2,14
28″	58,11,54,47,10,15,31, 5,34,42		4,15,17,14,40	
		30,33,39,30,24,21, 2		2,14
30″	58,11,55,17,43,55, 1,29,55,44		4,15,17,16,54	
		30,33,35,15, 7, 4, 8		2,14
32″	58,11,55,48,17,30,16,36,59,52		4,15,17,19, 8	
		30,33,30,59,49,45, 0		2,14
34″	58,11,56,18,51, 1,16,26,44,52		4,15,17,21,22	
		30,33,26,44,32,23,38		2,14
36″	58,11,56,49,24,28, 0,59, 8,30		4,15,17,23,36	
		30,33,22,29,15, 0, 2		2,14
38″	58,11,57,19,57,50,30,14, 8,32		4,15,17,25,50	
		30,33,18,13,57,34,12		2,14
40″	58,11,57,50,31, 8,44,11,42,44		4,15,17,28, 4	
		30,33,13,58,40, 6, 8		2,14
42″	58,11,58,21, 4,22,42,51,48,52		4,15,17,30,18	
		30,33, 9,43,22,35,50		2,14
44″	58,11,58,51,37,32,26,14,24,42		4,15,17,32,32	
		30,33, 5,28, 5, 3,18		2,14
46″	58,11,59,22,10,37,54,19,28, 0		4,15,17,34,46	
		30,33, 1,12,47,28,32		2,14
48″	58,11,59,52,43,39, 7, 6,56,32		4,15,17,37, 0	
		30,32,56,57,29,51,32		2,14
50″	58,12, 0,23,16,36, 4,36,48, 4		4,15,17,39,14	
		30,32,52,42,12,12,18		2,14
52″	58,12, 0,53,49,28,46,49, 0,22		4,15,17,41,28	
		30,32,48,26,54,30,50		2,14
54″	58,12, 1,24,22,17,13,43,31,12		4,15,17,43,42	
		30,32,44,11,36,47, 8		2,14
56″	58,12, 1,54,55, 1,25,20,18,20		4,15,17,45,56	
		30,32,39,56,19, 1,12		2,14
58″	58,12, 2,25,27,41,21,39,19,32		4,15,17,48,10	
		30,32,35,41, 1,13, 2		
60″	58,12, 2,56, 0,17, 2,40,32,34			
exact	58,12, 2,56, 0,17, 2,40,24,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°56′ 0″	58,12, 2,56, 0,17, 2,40,24,31			
		30,32,31,25,43,21,57		
2″	58,12, 3,26,32,48,28,23,46,28		4,15,17,52,40	
		30,32,27,10,25,29,17		2,14
4″	58,12, 3,57, 5,15,38,49,15,45		4,15,17,54,54	
		30,32,22,55, 7,34,23		2,14
6″	58,12, 4,27,37,38,33,56,50, 8		4,15,17,57, 8	
		30,32,18,39,49,37,15		2,14
8″	58,12, 4,58, 9,57,13,46,27,23		4,15,17,59,22	
		30,32,14,24,31,37,53		2,14
10″	58,12, 5,28,42,11,38,18, 5,16		4,15,18, 1,36	
		30,32,10, 9,13,36,17		2,14
12″	58,12, 5,59,14,21,47,31,41,33		4,15,18, 3,50	
		30,32, 5,53,55,32,27		2,14
14″	58,12, 6,29,46,27,41,27,14, 0		4,15,18, 6, 4	
		30,32, 1,38,37,26,23		2,14
16″	58,12, 7, 0,18,29,20, 4,40,23		4,15,18, 8,18	
		30,31,57,23,19,18, 5		2,14
18″	58,12, 7,30,50,26,43,23,58,28		4,15,18,10,32	
		30,31,53, 8, 1, 7,33		2,14
20″	58,12, 8, 1,22,19,51,25, 6, 1		4,15,18,12,46	
		30,31,48,52,42,54,47		2,14
22″	58,12, 8,31,54, 8,44, 8, 0,48		4,15,18,15, 0	
		30,31,44,37,24,39,47		2,14
24″	58,12, 9, 2,25,53,21,32,40,35		4,15,18,17,14	
		30,31,40,22, 6,22,33		2,14
26″	58,12, 9,32,57,33,43,39, 3, 8		4,15,18,19,28	
		30,31,36, 6,48, 3, 5		2,14
28″	58,12,10, 3,29, 9,50,27, 6,13		4,15,18,21,42	
		30,31,31,51,29,41,23		2,14
30″	58,12,10,34, 0,41,41,56,47,36		4,15,18,23,56	
		30,31,27,36,11,17,27		2,14
32″	58,12,11, 4,32, 9,18, 8, 5, 3		4,15,18,26,10	
		30,31,23,20,52,51,17		2,14
34″	58,12,11,35, 3,32,39, 0,56,20		4,15,18,28,24	
		30,31,19, 5,34,22,53		2,14
36″	58,12,12, 5,34,51,44,35,19,13		4,15,18,30,38	
		30,31,14,50,15,52,15		2,14
38″	58,12,12,36, 6, 6,34,51,11,28		4,15,18,32,52	
		30,31,10,34,57,19,23		2,14
40″	58,12,13, 6,37,17, 9,48,30,51		4,15,18,35, 6	
		30,31, 6,19,38,44,17		2,14
42″	58,12,13,37, 8,23,29,27,15, 8		4,15,18,37,20	
		30,31, 2, 4,20, 6,57		2,14
44″	58,12,14, 7,39,25,33,47,22, 5		4,15,18,39,34	
		30,30,57,49, 1,27,23		2,14
46″	58,12,14,38,10,23,22,48,49,28		4,15,18,41,48	
		30,30,53,33,42,45,35		2,14
48″	58,12,15, 8,41,16,56,31,35, 3		4,15,18,44, 2	
		30,30,49,18,24, 1,33		2,14
50″	58,12,15,39,12, 6,14,55,36,36		4,15,18,46,16	
		30,30,45, 3, 5,15,17		2,14
52″	58,12,16, 9,42,51,18, 0,51,53		4,15,18,48,30	
		30,30,40,47,46,26,47		2,14
54″	58,12,16,40,13,32, 5,47,18,40		4,15,18,50,44	
		30,30,36,32,27,36, 3		2,14
56″	58,12,17,10,44, 8,38,14,54,43		4,15,18,52,58	
		30,30,32,17, 8,43, 5		2,14
58″	58,12,17,41,14,40,55,23,37,48		4,15,18,55,12	
		30,30,28, 1,49,47,53		
60″	58,12,18,11,45, 8,57,13,25,41			
exact	58,12,18,11,45, 8,57,13,32,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°57′ 0″	58,12,18,11,45, 8,57,13,32,11			
		30,30,23,46,30,51,10		
2″	58,12,18,42,15,32,43,44,23,21		4,15,18,59,36	
		30,30,19,31,11,51,34		2,14
4″	58,12,19,12,45,52,14,56,14,55		4,15,19, 1,50	
		30,30,15,15,52,49,44		2,14
6″	58,12,19,43,16, 7,30,49, 4,39		4,15,19, 4, 4	
		30,30,11, 0,33,45,40		2,14
8″	58,12,20,13,46,18,31,22,50,19		4,15,19, 6,18	
		30,30, 6,45,14,39,22		2,14
10″	58,12,20,44,16,25,16,37,29,41		4,15,19, 8,32	
		30,30, 2,29,55,30,50		2,14
12″	58,12,21,14,46,27,46,33, 0,31		4,15,19,10,46	
		30,29,58,14,36,20, 4		2,14
14″	58,12,21,45,16,26, 1, 9,20,35		4,15,19,13, 0	
		30,29,53,59,17, 7, 4		2,14
16″	58,12,22,15,46,20, 0,26,27,39		4,15,19,15,14	
		30,29,49,43,57,51,50		2,14
18″	58,12,22,46,16, 9,44,24,19,29		4,15,19,17,28	
		30,29,45,28,38,34,22		2,14
20″	58,12,23,16,45,55,13, 2,53,51		4,15,19,19,42	
		30,29,41,13,19,14,40		2,14
22″	58,12,23,47,15,36,26,22, 8,31		4,15,19,21,56	
		30,29,36,57,59,52,44		2,14
24″	58,12,24,17,45,13,24,22, 1,15		4,15,19,24,10	
		30,29,32,42,40,28,34		2,14
26″	58,12,24,48,14,46, 7, 2,29,49		4,15,19,26,24	
		30,29,28,27,21, 2,10		2,14
28″	58,12,25,18,44,14,34,23,31,59		4,15,19,28,38	
		30,29,24,12, 1,33,32		2,14
30″	58,12,25,49,13,38,46,25, 5,31		4,15,19,30,52	
		30,29,19,56,42, 2,40		2,14
32″	58,12,26,19,42,58,43, 7, 8,11		4,15,19,33, 6	
		30,29,15,41,22,29,34		2,14
34″	58,12,26,50,12,14,24,29,37,45		4,15,19,35,20	
		30,29,11,26, 2,54,14		2,14
36″	58,12,27,20,41,25,50,32,31,59		4,15,19,37,34	
		30,29, 7,10,43,16,40		2,14
38″	58,12,27,51,10,33, 1,15,48,39		4,15,19,39,48	
		30,29, 2,55,23,36,52		2,14
40″	58,12,28,21,39,35,56,39,25,31		4,15,19,42, 2	
		30,28,58,40, 3,54,50		2,14
42″	58,12,28,52, 8,34,36,43,20,21		4,15,19,44,16	
		30,28,54,24,44,10,34		2,14
44″	58,12,29,22,37,29, 1,27,30,55		4,15,19,46,30	
		30,28,50, 9,24,24, 4		2,14
46″	58,12,29,53, 6,19,10,51,54,59		4,15,19,48,44	
		30,28,45,54, 4,35,20		2,14
48″	58,12,30,23,35, 5, 4,56,30,19		4,15,19,50,58	
		30,28,41,38,44,44,22		2,14
50″	58,12,30,54, 3,46,43,41,14,41		4,15,19,53,12	
		30,28,37,23,24,51,10		2,14
52″	58,12,31,24,32,24, 7, 6, 5,51		4,15,19,55,26	
		30,28,33, 8, 4,55,44		2,14
54″	58,12,31,55, 0,57,15,11, 1,35		4,15,19,57,40	
		30,28,28,52,44,58, 4		2,14
56″	58,12,32,25,29,26, 7,55,59,39		4,15,19,59,54	
		30,28,24,37,24,58,10		2,14
58″	58,12,32,55,57,50,45,20,57,49		4,15,20, 2, 8	
		30,28,20,22, 4,56, 2		
60″	58,12,33,26,26,11, 7,25,53,51			
exact	58,12,33,26,26,11, 7,26, 5,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°58′ 0″	58,12,33,26,26,11, 7,26, 5,37			
		30,28,16, 6,44,53, 9		
2″	58,12,33,56,54,27,14,10,58,46		4,15,20, 6,29	
		30,28,11,51,24,46,40		2,14
4″	58,12,34,27,22,39, 5,35,45,26		4,15,20, 8,43	
		30,28, 7,36, 4,37,57		2,14
6″	58,12,34,57,50,46,41,40,23,23		4,15,20,10,57	
		30,28, 3,20,44,27, 0		2,14
8″	58,12,35,28,18,50, 2,24,50,23		4,15,20,13,11	
		30,27,59, 5,24,13,49		2,14
10″	58,12,35,58,46,49, 7,49, 4,12		4,15,20,15,25	
		30,27,54,50, 3,58,24		2,14
12″	58,12,36,29,14,43,57,53, 2,36		4,15,20,17,39	
		30,27,50,34,43,40,45		2,14
14″	58,12,36,59,42,34,32,36,43,21		4,15,20,19,53	
		30,27,46,19,23,20,52		2,14
16″	58,12,37,30,10,20,52, 0, 4,13		4,15,20,22, 7	
		30,27,42, 4, 2,58,45		2,14
18″	58,12,38, 0,38, 2,56, 3, 2,58		4,15,20,24,21	
		30,27,37,48,42,34,24		2,14
20″	58,12,38,31, 5,40,44,45,37,22		4,15,20,26,35	
		30,27,33,33,22, 7,49		2,14
22″	58,12,39, 1,33,14,18, 7,45,11		4,15,20,28,49	
		30,27,29,18, 1,39, 0		2,14
24″	58,12,39,32, 0,43,36, 9,24,11		4,15,20,31, 3	
		30,27,25, 2,41, 7,57		2,14
26″	58,12,40, 2,28, 8,38,50,32, 8		4,15,20,33,17	
		30,27,20,47,20,34,40		2,14
28″	58,12,40,32,55,29,26,11, 6,48		4,15,20,35,31	
		30,27,16,31,59,59, 9		2,14
30″	58,12,41, 3,22,45,58,11, 5,57		4,15,20,37,45	
		30,27,12,16,39,21,24		2,14
32″	58,12,41,33,49,58,14,50,27,21		4,15,20,39,59	
		30,27, 8, 1,18,41,25		2,14
34″	58,12,42, 4,17, 6,16, 9, 8,46		4,15,20,42,13	
		30,27, 3,45,57,59,12		2,14
36″	58,12,42,34,44,10, 2, 7, 7,58		4,15,20,44,27	
		30,26,59,30,37,14,45		2,14
38″	58,12,43, 5,11, 9,32,44,22,43		4,15,20,46,41	
		30,26,55,15,16,28, 4		2,14
40″	58,12,43,35,38, 4,48, 0,50,47		4,15,20,48,55	
		30,26,50,59,55,39, 9		2,14
42″	58,12,44, 6, 4,55,47,56,29,56		4,15,20,51, 9	
		30,26,46,44,34,48, 0		2,14
44″	58,12,44,36,31,42,32,31,17,56		4,15,20,53,23	
		30,26,42,29,13,54,37		2,14
46″	58,12,45, 6,58,25, 1,45,12,33		4,15,20,55,37	
		30,26,38,13,52,59, 0		2,14
48″	58,12,45,37,25, 3,15,38,11,33		4,15,20,57,51	
		30,26,33,58,32, 1, 9		2,14
50″	58,12,46, 7,51,37,14,10,12,42		4,15,21, 0, 5	
		30,26,29,43,11, 1, 4		2,14
52″	58,12,46,38,18, 6,57,21,13,46		4,15,21, 2,19	
		30,26,25,27,49,58,45		2,14
54″	58,12,47, 8,44,32,25,11,12,31		4,15,21, 4,33	
		30,26,21,12,28,54,12		2,14
56″	58,12,47,39,10,53,37,40, 6,43		4,15,21, 6,47	
		30,26,16,57, 7,47,25		2,14
58″	58,12,48, 9,37,10,34,47,54, 8		4,15,21, 9, 1	
		30,26,12,41,46,38,24		
60″	58,12,48,40, 3,23,16,34,32,32			
exact	58,12,48,40, 3,23,16,35, 0,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
75°59′ 0″	58,12,48,40, 3,23,16,35, 0,59			
		30,26, 8,26,25,30,12		
2″	58,12,49,10,29,31,43, 0,31,11		4,15,21,13,16	
		30,26, 4,11, 4,16,56		2,14
4″	58,12,49,40,55,35,54, 4,48, 7		4,15,21,15,30	
		30,25,59,55,43, 1,26		2,14
6″	58,12,50,11,21,35,49,47,49,33		4,15,21,17,44	
		30,25,55,40,21,43,42		2,14
8″	58,12,50,41,47,31,30, 9,33,15		4,15,21,19,58	
		30,25,51,25, 0,23,44		2,14
10″	58,12,51,12,13,22,55, 9,56,59		4,15,21,22,12	
		30,25,47, 9,39, 1,32		2,14
12″	58,12,51,42,39,10, 4,48,58,31		4,15,21,24,26	
		30,25,42,54,17,37, 6		2,14
14″	58,12,52,13, 4,52,59, 6,35,37		4,15,21,26,40	
		30,25,38,38,56,10,26		2,14
16″	58,12,52,43,30,31,38, 2,46, 3		4,15,21,28,54	
		30,25,34,23,34,41,32		2,14
18″	58,12,53,13,56, 6, 1,37,27,35		4,15,21,31, 8	
		30,25,30, 8,13,10,24		2,14
20″	58,12,53,44,21,36, 9,50,37,59		4,15,21,33,22	
		30,25,25,52,51,37, 2		2,14
22″	58,12,54,14,47, 2, 2,42,15, 1		4,15,21,35,36	
		30,25,21,37,30, 1,26		2,14
24″	58,12,54,45,12,23,40,12,16,27		4,15,21,37,50	
		30,25,17,22, 8,23,36		2,14
26″	58,12,55,15,37,41, 2,20,40, 3		4,15,21,40, 4	
		30,25,13, 6,46,43,32		2,14
28″	58,12,55,46, 2,54, 9, 7,23,35		4,15,21,42,18	
		30,25, 8,51,25, 1,14		2,14
30″	58,12,56,16,28, 3, 0,32,24,49		4,15,21,44,32	
		30,25, 4,36, 3,16,42		2,14
32″	58,12,56,46,53, 7,36,35,41,31		4,15,21,46,46	
		30,25, 0,20,41,29,56		2,14
34″	58,12,57,17,18, 7,57,17,11,27		4,15,21,49, 0	
		30,24,56, 5,19,40,56		2,14
36″	58,12,57,47,43, 4, 2,36,52,23		4,15,21,51,14	
		30,24,51,49,57,49,42		2,14
38″	58,12,58,18, 7,55,52,34,42, 5		4,15,21,53,28	
		30,24,47,34,35,56,14		2,14
40″	58,12,58,48,32,43,27,10,38,19		4,15,21,55,42	
		30,24,43,19,14, 0,32		2,14
42″	58,12,59,18,57,26,46,24,38,51		4,15,21,57,56	
		30,24,39, 3,52, 2,36		2,14
44″	58,12,59,49,22, 5,50,16,41,27		4,15,22, 0,10	
		30,24,34,48,30, 2,26		2,14
46″	58,13, 0,19,46,40,38,46,43,53		4,15,22, 2,24	
		30,24,30,33, 8, 0, 2		2,14
48″	58,13, 0,50,11,11,11,54,43,55		4,15,22, 4,38	
		30,24,26,17,45,55,24		2,14
50″	58,13, 1,20,35,37,29,40,39,19		4,15,22, 6,52	
		30,24,22, 2,23,48,32		2,14
52″	58,13, 1,50,59,59,32, 4,27,51		4,15,22, 9, 6	
		30,24,17,47, 1,39,26		2,14
54″	58,13, 2,21,24,17,19, 6, 7,17		4,15,22,11,20	
		30,24,13,31,39,28, 6		2,14
56″	58,13, 2,51,48,30,50,45,35,23		4,15,22,13,34	
		30,24, 9,16,17,14,32		2,14
58″	58,13, 3,22,12,40, 7, 2,49,55		4,15,22,15,48	
		30,24, 5, 0,54,58,44		
60″	58,13, 3,52,36,45, 7,57,48,39			
exact	58,13, 3,52,36,45, 7,58,24,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76° 0′ 0″	58,13, 3,52,36,45, 7,58,24,33			
		30,24, 0,45,32,44,39		
2″	58,13, 4,23, 0,45,53,31, 9,12		4,15,22,19,59	
		30,23,56,30,10,24,40		2,13
4″	58,13, 4,53,24,42,23,41,33,52		4,15,22,22,12	
		30,23,52,14,48, 2,28		2,13
6″	58,13, 5,23,48,34,38,29,36,20		4,15,22,24,25	
		30,23,47,59,25,38, 3		2,13
8″	58,13, 5,54,12,22,37,55,14,23		4,15,22,26,38	
		30,23,43,44, 3,11,25		2,13
10″	58,13, 6,24,36, 6,21,58,25,48		4,15,22,28,51	
		30,23,39,28,40,42,34		2,13
12″	58,13, 6,54,59,45,50,39, 8,22		4,15,22,31, 4	
		30,23,35,13,18,11,30		2,13
14″	58,13, 7,25,23,21, 3,57,19,52		4,15,22,33,17	
		30,23,30,57,55,38,13		2,13
16″	58,13, 7,55,46,52, 1,52,58, 5		4,15,22,35,30	
		30,23,26,42,33, 2,43		2,13
18″	58,13, 8,26,10,18,44,26, 0,48		4,15,22,37,43	
		30,23,22,27,10,25, 0		2,13
20″	58,13, 8,56,33,41,11,36,25,48		4,15,22,39,56	
		30,23,18,11,47,45, 4		2,13
22″	58,13, 9,26,56,59,23,24,10,52		4,15,22,42, 9	
		30,23,13,56,25, 2,55		2,13
24″	58,13, 9,57,20,13,19,49,13,47		4,15,22,44,22	
		30,23, 9,41, 2,18,33		2,13
26″	58,13,10,27,43,23, 0,51,32,20		4,15,22,46,35	
		30,23, 5,25,39,31,58		2,13
28″	58,13,10,58, 6,28,26,31, 4,18		4,15,22,48,48	
		30,23, 1,10,16,43,10		2,13
30″	58,13,11,28,29,29,36,47,47,28		4,15,22,51, 1	
		30,22,56,54,53,52, 9		2,13
32″	58,13,11,58,52,26,31,41,39,37		4,15,22,53,14	
		30,22,52,39,30,58,55		2,13
34″	58,13,12,29,15,19,11,12,38,32		4,15,22,55,27	
		30,22,48,24, 8, 3,28		2,13
36″	58,13,12,59,38, 7,35,20,42, 0		4,15,22,57,40	
		30,22,44, 8,45, 5,48		2,13
38″	58,13,13,30, 0,51,44, 5,47,48		4,15,22,59,53	
		30,22,39,53,22, 5,55		2,13
40″	58,13,14, 0,23,31,37,27,53,43		4,15,23, 2, 6	
		30,22,35,37,59, 3,49		2,13
42″	58,13,14,30,46, 7,15,26,57,32		4,15,23, 4,19	
		30,22,31,22,35,59,30		2,13
44″	58,13,15, 1, 8,38,38, 2,57, 2		4,15,23, 6,32	
		30,22,27, 7,12,52,58		2,13
46″	58,13,15,31,31, 5,45,15,50, 0		4,15,23, 8,45	
		30,22,22,51,49,44,13		2,13
48″	58,13,16, 1,53,28,37, 5,34,13		4,15,23,10,58	
		30,22,18,36,26,33,15		2,13
50″	58,13,16,32,15,47,13,32, 7,28		4,15,23,13,11	
		30,22,14,21, 3,20, 4		2,13
52″	58,13,17, 2,38, 1,34,35,27,32		4,15,23,15,24	
		30,22,10, 5,40, 4,40		2,13
54″	58,13,17,33, 0,11,40,15,32,12		4,15,23,17,37	
		30,22, 5,50,16,47, 3		2,13
56″	58,13,18, 3,22,17,30,32,19,15		4,15,23,19,50	
		30,22, 1,34,53,27,13		2,13
58″	58,13,18,33,44,19, 5,25,46,28		4,15,23,22, 3	
		30,21,57,19,30, 5,10		
60″	58,13,19, 4, 6,16,24,55,51,38			
exact	58,13,19, 4, 6,16,24,55,32,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76° 1′ 0″	58,13,19, 4, 6,16,24,55,32,29			
		30,21,53, 4, 6,38,52		
2″	58,13,19,34,28, 9,29, 2,11,21		4,15,23,26,37	
		30,21,48,48,43,12,15		2,13
4″	58,13,20, 4,49,58,17,45,23,36		4,15,23,28,50	
		30,21,44,33,19,43,25		2,13
6″	58,13,20,35,11,42,51, 5, 7, 1		4,15,23,31, 3	
		30,21,40,17,56,12,22		2,13
8″	58,13,21, 5,33,23, 9, 1,19,23		4,15,23,33,16	
		30,21,36, 2,32,39, 6		2,13
10″	58,13,21,35,54,59,11,33,58,29		4,15,23,35,29	
		30,21,31,47, 9, 3,37		2,13
12″	58,13,22, 6,16,30,58,43, 2, 6		4,15,23,37,42	
		30,21,27,31,45,25,55		2,13
14″	58,13,22,36,37,58,30,28,28, 1		4,15,23,39,55	
		30,21,23,16,21,46, 0		2,13
16″	58,13,23, 6,59,21,46,50,14, 1		4,15,23,42, 8	
		30,21,19, 0,58, 3,52		2,13
18″	58,13,23,37,20,40,47,48,17,53		4,15,23,44,21	
		30,21,14,45,34,19,31		2,13
20″	58,13,24, 7,41,55,33,22,37,24		4,15,23,46,34	
		30,21,10,30,10,32,57		2,13
22″	58,13,24,38, 3, 6, 3,33,10,21		4,15,23,48,47	
		30,21, 6,14,46,44,10		2,13
24″	58,13,25, 8,24,12,18,19,54,31		4,15,23,51, 0	
		30,21, 1,59,22,53,10		2,13
26″	58,13,25,38,45,14,17,42,47,41		4,15,23,53,13	
		30,20,57,43,58,59,57		2,13
28″	58,13,26, 9, 6,12, 1,41,47,38		4,15,23,55,26	
		30,20,53,28,35, 4,31		2,13
30″	58,13,26,39,27, 5,30,16,52, 9		4,15,23,57,39	
		30,20,49,13,11, 6,52		2,13
32″	58,13,27, 9,47,54,43,27,59, 1		4,15,23,59,52	
		30,20,44,57,47, 7, 0		2,13
34″	58,13,27,40, 8,39,41,15, 6, 1		4,15,24, 2, 5	
		30,20,40,42,23, 4,55		2,13
36″	58,13,28,10,29,20,23,38,10,56		4,15,24, 4,18	
		30,20,36,26,59, 0,37		2,13
38″	58,13,28,40,49,56,50,37,11,33		4,15,24, 6,31	
		30,20,32,11,34,54, 6		2,13
40″	58,13,29,11,10,29, 2,12, 5,39		4,15,24, 8,44	
		30,20,27,56,10,45,22		2,13
42″	58,13,29,41,30,56,58,22,51, 1		4,15,24,10,57	
		30,20,23,40,46,34,25		2,13
44″	58,13,30,11,51,20,39, 9,25,26		4,15,24,13,10	
		30,20,19,25,22,21,15		2,13
46″	58,13,30,42,11,40, 4,31,46,41		4,15,24,15,23	
		30,20,15, 9,58, 5,52		2,13
48″	58,13,31,12,31,55,14,29,52,33		4,15,24,17,36	
		30,20,10,54,33,48,16		2,13
50″	58,13,31,42,52, 6, 9, 3,40,49		4,15,24,19,49	
		30,20, 6,39, 9,28,27		2,13
52″	58,13,32,13,12,12,48,13, 9,16		4,15,24,22, 2	
		30,20, 2,23,45, 6,25		2,13
54″	58,13,32,43,32,15,11,58,15,41		4,15,24,24,15	
		30,19,58, 8,20,42,10		2,13
56″	58,13,33,13,52,13,20,18,57,51		4,15,24,26,28	
		30,19,53,52,56,15,42		2,13
58″	58,13,33,44,12, 7,13,15,13,33		4,15,24,28,41	
		30,19,49,37,31,47, 1		
60″	58,13,34,14,31,56,50,47, 0,34			
exact	58,13,34,14,31,56,50,46,51, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76° 2′ 0″	58,13,34,14,31,56,50,46,51, 3			
		30,19,45,22, 7,15, 9		
2″	58,13,34,44,51,42,12,54, 6,12		4,15,24,33,10	
		30,19,41, 6,42,41,59		2,13
4″	58,13,35,15,11,23,19,36,48,11		4,15,24,35,23	
		30,19,36,51,18, 6,36		2,13
6″	58,13,35,45,31, 0,10,54,54,47		4,15,24,37,36	
		30,19,32,35,53,29, 0		2,13
8″	58,13,36,15,50,32,46,48,23,47		4,15,24,39,49	
		30,19,28,20,28,49,11		2,13
10″	58,13,36,46,10, 1, 7,17,12,58		4,15,24,42, 2	
		30,19,24, 5, 4, 7, 9		2,13
12″	58,13,37,16,29,25,12,21,20, 7		4,15,24,44,15	
		30,19,19,49,39,22,54		2,13
14″	58,13,37,46,48,45, 2, 0,43, 1		4,15,24,46,28	
		30,19,15,34,14,36,26		2,13
16″	58,13,38,17, 8, 0,36,15,19,27		4,15,24,48,41	
		30,19,11,18,49,47,45		2,13
18″	58,13,38,47,27,11,55, 5, 7,12		4,15,24,50,54	
		30,19, 7, 3,24,56,51		2,13
20″	58,13,39,17,46,18,58,30, 4, 3		4,15,24,53, 7	
		30,19, 2,48, 0, 3,44		2,13
22″	58,13,39,48, 5,21,46,30, 7,47		4,15,24,55,20	
		30,18,58,32,35, 8,24		2,13
24″	58,13,40,18,24,20,19, 5,16,11		4,15,24,57,33	
		30,18,54,17,10,10,51		2,13
26″	58,13,40,48,43,14,36,15,27, 2		4,15,24,59,46	
		30,18,50, 1,45,11, 5		2,13
28″	58,13,41,19, 2, 4,38, 0,38, 7		4,15,25, 1,59	
		30,18,45,46,20, 9, 6		2,13
30″	58,13,41,49,20,50,24,20,47,13		4,15,25, 4,12	
		30,18,41,30,55, 4,54		2,13
32″	58,13,42,19,39,31,55,15,52, 7		4,15,25, 6,25	
		30,18,37,15,29,58,29		2,13
34″	58,13,42,49,58, 9,10,45,50,36		4,15,25, 8,38	
		30,18,33, 0, 4,49,51		2,13
36″	58,13,43,20,16,42,10,50,40,27		4,15,25,10,51	
		30,18,28,44,39,39, 0		2,13
38″	58,13,43,50,35,10,55,30,19,27		4,15,25,13, 4	
		30,18,24,29,14,25,56		2,13
40″	58,13,44,20,53,35,24,44,45,23		4,15,25,15,17	
		30,18,20,13,49,10,39		2,13
42″	58,13,44,51,11,55,38,33,56, 2		4,15,25,17,30	
		30,18,15,58,23,53, 9		2,13
44″	58,13,45,21,30,11,36,57,49,11		4,15,25,19,43	
		30,18,11,42,58,33,26		2,13
46″	58,13,45,51,48,23,19,56,22,37		4,15,25,21,56	
		30,18, 7,27,33,11,30		2,13
48″	58,13,46,22, 6,30,47,29,34, 7		4,15,25,24, 9	
		30,18, 3,12, 7,47,21		2,13
50″	58,13,46,52,24,33,59,37,21,28		4,15,25,26,22	
		30,17,58,56,42,20,59		2,13
52″	58,13,47,22,42,32,56,19,42,27		4,15,25,28,35	
		30,17,54,41,16,52,24		2,13
54″	58,13,47,53, 0,27,37,36,34,51		4,15,25,30,48	
		30,17,50,25,51,21,36		2,13
56″	58,13,48,23,18,18, 3,27,56,27		4,15,25,33, 1	
		30,17,46,10,25,48,35		2,13
58″	58,13,48,53,36, 4,13,53,45, 2		4,15,25,35,14	
		30,17,41,55, 0,13,21		
60″	58,13,49,23,53,46, 8,53,58,23			
exact	58,13,49,23,53,46, 8,53,56,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76° 3′ 0″	58,13,49,23,53,46, 8,53,56,29			
		30,17,37,39,34,35,52		
2″	58,13,49,54,11,23,48,28,32,21		4,15,25,39,39	
		30,17,33,24, 8,56,13		2,13
4″	58,13,50,24,28,57,12,37,28,34		4,15,25,41,52	
		30,17,29, 8,43,14,21		2,13
6″	58,13,50,54,46,26,21,20,42,55		4,15,25,44, 5	
		30,17,24,53,17,30,16		2,13
8″	58,13,51,25, 3,51,14,38,13,11		4,15,25,46,18	
		30,17,20,37,51,43,58		2,13
10″	58,13,51,55,21,11,52,29,57, 9		4,15,25,48,31	
		30,17,16,22,25,55,27		2,13
12″	58,13,52,25,38,28,14,55,52,36		4,15,25,50,44	
		30,17,12, 7, 0, 4,43		2,13
14″	58,13,52,55,55,40,21,55,57,19		4,15,25,52,57	
		30,17, 7,51,34,11,46		2,13
16″	58,13,53,26,12,48,13,30, 9, 5		4,15,25,55,10	
		30,17, 3,36, 8,16,36		2,13
18″	58,13,53,56,29,51,49,38,25,41		4,15,25,57,23	
		30,16,59,20,42,19,13		2,13
20″	58,13,54,26,46,51,10,20,44,54		4,15,25,59,36	
		30,16,55, 5,16,19,37		2,13
22″	58,13,54,57, 3,46,15,37, 4,31		4,15,26, 1,49	
		30,16,50,49,50,17,48		2,13
24″	58,13,55,27,20,37, 5,27,22,19		4,15,26, 4, 2	
		30,16,46,34,24,13,46		2,13
26″	58,13,55,57,37,23,39,51,36, 5		4,15,26, 6,15	
		30,16,42,18,58, 7,31		2,13
28″	58,13,56,27,54, 5,58,49,43,36		4,15,26, 8,28	
		30,16,38, 3,31,59, 3		2,13
30″	58,13,56,58,10,44, 2,21,42,39		4,15,26,10,41	
		30,16,33,48, 5,48,22		2,13
32″	58,13,57,28,27,17,50,27,31, 1		4,15,26,12,54	
		30,16,29,32,39,35,28		2,13
34″	58,13,57,58,43,47,23, 7, 6,29		4,15,26,15, 7	
		30,16,25,17,13,20,21		2,13
36″	58,13,58,29, 0,12,40,20,26,50		4,15,26,17,20	
		30,16,21, 1,47, 3, 1		2,13
38″	58,13,58,59,16,33,42, 7,29,51		4,15,26,19,33	
		30,16,16,46,20,43,28		2,13
40″	58,13,59,29,32,50,28,28,13,19		4,15,26,21,46	
		30,16,12,30,54,21,42		2,13
42″	58,13,59,59,49, 2,59,22,35, 1		4,15,26,23,59	
		30,16, 8,15,27,57,43		2,13
44″	58,14, 0,30, 5,11,14,50,32,44		4,15,26,26,12	
		30,16, 4, 0, 1,31,31		2,13
46″	58,14, 1, 0,21,15,14,52, 4,15		4,15,26,28,25	
		30,15,59,44,35, 3, 6		2,13
48″	58,14, 1,30,37,14,59,27, 7,21		4,15,26,30,38	
		30,15,55,29, 8,32,28		2,13
50″	58,14, 2, 0,53,10,28,35,39,49		4,15,26,32,51	
		30,15,51,13,41,59,37		2,13
52″	58,14, 2,31, 9, 1,42,17,39,26		4,15,26,35, 4	
		30,15,46,58,15,24,33		2,13
54″	58,14, 3, 1,24,48,40,33, 3,59		4,15,26,37,17	
		30,15,42,42,48,47,16		2,13
56″	58,14, 3,31,40,31,23,21,51,15		4,15,26,39,30	
		30,15,38,27,22, 7,46		2,13
58″	58,14, 4, 1,56, 9,50,43,59, 1		4,15,26,41,43	
		30,15,34,11,55,26, 3		
60″	58,14, 4,32,11,44, 2,39,25, 4			
exact	58,14, 4,32,11,44, 2,39,35, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76° 4′ 0″	58,14, 4,32,11,44, 2,39,35, 3			
		30,15,29,56,28,43,19		
2″	58,14, 5, 2,27,13,59, 8,18,22		4,15,26,46, 3	
		30,15,25,41, 1,57,16		2,13
4″	58,14, 5,32,42,39,40,10,15,38		4,15,26,48,16	
		30,15,21,25,35, 9, 0		2,13
6″	58,14, 6, 2,58, 1, 5,45,24,38		4,15,26,50,29	
		30,15,17,10, 8,18,31		2,13
8″	58,14, 6,33,13,18,15,53,43, 9		4,15,26,52,42	
		30,15,12,54,41,25,49		2,13
10″	58,14, 7, 3,28,31,10,35, 8,58		4,15,26,54,55	
		30,15, 8,39,14,30,54		2,13
12″	58,14, 7,33,43,39,49,49,39,52		4,15,26,57, 8	
		30,15, 4,23,47,33,46		2,13
14″	58,14, 8, 3,58,44,13,37,13,38		4,15,26,59,21	
		30,15, 0, 8,20,34,25		2,13
16″	58,14, 8,34,13,44,21,57,48, 3		4,15,27, 1,34	
		30,14,55,52,53,32,51		2,13
18″	58,14, 9, 4,28,40,14,51,20,54		4,15,27, 3,47	
		30,14,51,37,26,29, 4		2,13
20″	58,14, 9,34,43,31,52,17,49,58		4,15,27, 6, 0	
		30,14,47,21,59,23, 4		2,13
22″	58,14,10, 4,58,19,14,17,13, 2		4,15,27, 8,13	
		30,14,43, 6,32,14,51		2,13
24″	58,14,10,35,13, 2,20,49,27,53		4,15,27,10,26	
		30,14,38,51, 5, 4,25		2,13
26″	58,14,11, 5,27,41,11,54,32,18		4,15,27,12,39	
		30,14,34,35,37,51,46		2,13
28″	58,14,11,35,42,15,47,32,24, 4		4,15,27,14,52	
		30,14,30,20,10,36,54		2,13
30″	58,14,12, 5,56,46, 7,43, 0,58		4,15,27,17, 5	
		30,14,26, 4,43,19,49		2,13
32″	58,14,12,36,11,12,12,26,20,47		4,15,27,19,18	
		30,14,21,49,16, 0,31		2,13
34″	58,14,13, 6,25,34, 1,42,21,18		4,15,27,21,31	
		30,14,17,33,48,39, 0		2,13
36″	58,14,13,36,39,51,35,31, 0,18		4,15,27,23,44	
		30,14,13,18,21,15,16		2,13
38″	58,14,14, 6,54, 4,53,52,15,34		4,15,27,25,57	
		30,14, 9, 2,53,49,19		2,13
40″	58,14,14,37, 8,13,56,46, 4,53		4,15,27,28,10	
		30,14, 4,47,26,21, 9		2,13
42″	58,14,15, 7,22,18,44,12,26, 2		4,15,27,30,23	
		30,14, 0,31,58,50,46		2,13
44″	58,14,15,37,36,19,16,11,16,48		4,15,27,32,36	
		30,13,56,16,31,18,10		2,13
46″	58,14,16, 7,50,15,32,42,34,58		4,15,27,34,49	
		30,13,52, 1, 3,43,21		2,13
48″	58,14,16,38, 4, 7,33,46,18,19		4,15,27,37, 2	
		30,13,47,45,36, 6,19		2,13
50″	58,14,17, 8,17,55,19,22,24,38		4,15,27,39,15	
		30,13,43,30, 8,27, 4		2,13
52″	58,14,17,38,31,38,49,30,51,42		4,15,27,41,28	
		30,13,39,14,40,45,36		2,13
54″	58,14,18, 8,45,18, 4,11,37,18		4,15,27,43,41	
		30,13,34,59,13, 1,55		2,13
56″	58,14,18,38,58,53, 3,24,39,13		4,15,27,45,54	
		30,13,30,43,45,16, 1		2,13
58″	58,14,19, 9,12,23,47, 9,55,14		4,15,27,48, 7	
		30,13,26,28,17,27,54		
60″	58,14,19,39,25,50,15,27,23, 8			
exact	58,14,19,39,25,50,15,27,43, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76° 5′ 0″	58,14,19,39,25,50,15,27,43, 3			
		30,13,22,12,49,39,51		
2″	58,14,20, 9,39,12,28,17,22,54		4,15,27,52,23	
		30,13,17,57,21,47,28		2,13
4″	58,14,20,39,52,30,25,39,10,22		4,15,27,54,36	
		30,13,13,41,53,52,52		2,13
6″	58,14,21,10, 5,44, 7,33, 3,14		4,15,27,56,49	
		30,13, 9,26,25,56, 3		2,13
8″	58,14,21,40,18,53,33,58,59,17		4,15,27,59, 2	
		30,13, 5,10,57,57, 1		2,13
10″	58,14,22,10,31,58,44,56,56,18		4,15,28, 1,15	
		30,13, 0,55,29,55,46		2,13
12″	58,14,22,40,44,59,40,26,52, 4		4,15,28, 3,28	
		30,12,56,40, 1,52,18		2,13
14″	58,14,23,10,57,56,20,28,44,22		4,15,28, 5,41	
		30,12,52,24,33,46,37		2,13
16″	58,14,23,41,10,48,45, 2,30,59		4,15,28, 7,54	
		30,12,48, 9, 5,38,43		2,13
18″	58,14,24,11,23,36,54, 8, 9,42		4,15,28,10, 7	
		30,12,43,53,37,28,36		2,13
20″	58,14,24,41,36,20,47,45,38,18		4,15,28,12,20	
		30,12,39,38, 9,16,16		2,13
22″	58,14,25,11,49, 0,25,54,54,34		4,15,28,14,33	
		30,12,35,22,41, 1,43		2,13
24″	58,14,25,42, 1,35,48,35,56,17		4,15,28,16,46	
		30,12,31, 7,12,44,57		2,13
26″	58,14,26,12,14, 6,55,48,41,14		4,15,28,18,59	
		30,12,26,51,44,25,58		2,13
28″	58,14,26,42,26,33,47,33, 7,12		4,15,28,21,12	
		30,12,22,36,16, 4,46		2,13
30″	58,14,27,12,38,56,23,49,11,58		4,15,28,23,25	
		30,12,18,20,47,41,21		2,13
32″	58,14,27,42,51,14,44,36,53,19		4,15,28,25,38	
		30,12,14, 5,19,15,43		2,13
34″	58,14,28,13, 3,28,49,56, 9, 2		4,15,28,27,51	
		30,12, 9,49,50,47,52		2,13
36″	58,14,28,43,15,38,39,46,56,54		4,15,28,30, 4	
		30,12, 5,34,22,17,48		2,13
38″	58,14,29,13,27,44,14, 9,14,42		4,15,28,32,17	
		30,12, 1,18,53,45,31		2,13
40″	58,14,29,43,39,45,33, 3, 0,13		4,15,28,34,30	
		30,11,57, 3,25,11, 1		2,13
42″	58,14,30,13,51,42,36,28,11,14		4,15,28,36,43	
		30,11,52,47,56,34,18		2,13
44″	58,14,30,44, 3,35,24,24,45,32		4,15,28,38,56	
		30,11,48,32,27,55,22		2,13
46″	58,14,31,14,15,23,56,52,40,54		4,15,28,41, 9	
		30,11,44,16,59,14,13		2,13
48″	58,14,31,44,27, 8,13,51,55, 7		4,15,28,43,22	
		30,11,40, 1,30,30,51		2,13
50″	58,14,32,14,38,48,15,22,25,58		4,15,28,45,35	
		30,11,35,46, 1,45,16		2,13
52″	58,14,32,44,50,24, 1,24,11,14		4,15,28,47,48	
		30,11,31,30,32,57,28		2,13
54″	58,14,33,15, 1,55,31,57, 8,42		4,15,28,50, 1	
		30,11,27,15, 4, 7,27		2,13
56″	58,14,33,45,13,22,47, 1,16, 9		4,15,28,52,14	
		30,11,22,59,35,15,13		2,13
58″	58,14,34,15,24,45,46,36,31,22		4,15,28,54,27	
		30,11,18,44, 6,20,46		
60″	58,14,34,45,36, 4,30,42,52, 8			
exact	58,14,34,45,36, 4,30,43,26,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76° 6′ 0″	58,14,34,45,36, 4,30,43,26,47			
		30,11,14,28,37,27,48		
2″	58,14,35,15,47,18,59,20,54,35		4,15,28,58,37	
		30,11,10,13, 8,29,11		2,12
4″	58,14,35,45,58,29,12,29,23,46		4,15,29, 0,49	
		30,11, 5,57,39,28,22		2,12
6″	58,14,36,16, 9,35,10, 8,52, 8		4,15,29, 3, 1	
		30,11, 1,42,10,25,21		2,12
8″	58,14,36,46,20,36,52,19,17,29		4,15,29, 5,13	
		30,10,57,26,41,20, 8		2,12
10″	58,14,37,16,31,34,19, 0,37,37		4,15,29, 7,25	
		30,10,53,11,12,12,43		2,12
12″	58,14,37,46,42,27,30,12,50,20		4,15,29, 9,37	
		30,10,48,55,43, 3, 6		2,12
14″	58,14,38,16,53,16,25,55,53,26		4,15,29,11,49	
		30,10,44,40,13,51,17		2,12
16″	58,14,38,47, 4, 1, 6, 9,44,43		4,15,29,14, 1	
		30,10,40,24,44,37,16		2,12
18″	58,14,39,17,14,41,30,54,21,59		4,15,29,16,13	
		30,10,36, 9,15,21, 3		2,12
20″	58,14,39,47,25,17,40, 9,43, 2		4,15,29,18,25	
		30,10,31,53,46, 2,38		2,12
22″	58,14,40,17,35,49,33,55,45,40		4,15,29,20,37	
		30,10,27,38,16,42, 1		2,12
24″	58,14,40,47,46,17,12,12,27,41		4,15,29,22,49	
		30,10,23,22,47,19,12		2,12
26″	58,14,41,17,56,40,34,59,46,53		4,15,29,25, 1	
		30,10,19, 7,17,54,11		2,12
28″	58,14,41,48, 6,59,42,17,41, 4		4,15,29,27,13	
		30,10,14,51,48,26,58		2,12
30″	58,14,42,18,17,14,34, 6, 8, 2		4,15,29,29,25	
		30,10,10,36,18,57,33		2,12
32″	58,14,42,48,27,25,10,25, 5,35		4,15,29,31,37	
		30,10, 6,20,49,25,56		2,12
34″	58,14,43,18,37,31,31,14,31,31		4,15,29,33,49	
		30,10, 2, 5,19,52, 7		2,12
36″	58,14,43,48,47,33,36,34,23,38		4,15,29,36, 1	
		30, 9,57,49,50,16, 6		2,12
38″	58,14,44,18,57,31,26,24,39,44		4,15,29,38,13	
		30, 9,53,34,20,37,53		2,12
40″	58,14,44,49, 7,25, 0,45,17,37		4,15,29,40,25	
		30, 9,49,18,50,57,28		2,12
42″	58,14,45,19,17,14,19,36,15, 5		4,15,29,42,37	
		30, 9,45, 3,21,14,51		2,12
44″	58,14,45,49,26,59,22,57,29,56		4,15,29,44,49	
		30, 9,40,47,51,30, 2		2,12
46″	58,14,46,19,36,40,10,48,59,58		4,15,29,47, 1	
		30, 9,36,32,21,43, 1		2,12
48″	58,14,46,49,46,16,43,10,42,59		4,15,29,49,13	
		30, 9,32,16,51,53,48		2,12
50″	58,14,47,19,55,49, 0, 2,36,47		4,15,29,51,25	
		30, 9,28, 1,22, 2,23		2,12
52″	58,14,47,50, 5,17, 1,24,39,10		4,15,29,53,37	
		30, 9,23,45,52, 8,46		2,12
54″	58,14,48,20,14,40,47,16,47,56		4,15,29,55,49	
		30, 9,19,30,22,12,57		2,12
56″	58,14,48,50,24, 0,17,39, 0,53		4,15,29,58, 1	
		30, 9,15,14,52,14,56		2,12
58″	58,14,49,20,33,15,32,31,15,49		4,15,30, 0,13	
		30, 9,10,59,22,14,43		
60″	58,14,49,50,42,26,31,53,30,32			
exact	58,14,49,50,42,26,31,53, 2,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76° 7′ 0″	58,14,49,50,42,26,31,53, 2,39			
		30, 9, 6,43,52, 9,30		
2″	58,14,50,20,51,33,15,45,12, 9		4,15,30, 4,47	
		30, 9, 2,28,22, 4,43		2,12
4″	58,14,50,51, 0,35,44, 7,16,52		4,15,30, 6,59	
		30, 8,58,12,51,57,44		2,12
6″	58,14,51,21, 9,33,56,59,14,36		4,15,30, 9,11	
		30, 8,53,57,21,48,33		2,12
8″	58,14,51,51,18,27,54,21, 3, 9		4,15,30,11,23	
		30, 8,49,41,51,37,10		2,12
10″	58,14,52,21,27,17,36,12,40,19		4,15,30,13,35	
		30, 8,45,26,21,23,35		2,12
12″	58,14,52,51,36, 3, 2,34, 3,54		4,15,30,15,47	
		30, 8,41,10,51, 7,48		2,12
14″	58,14,53,21,44,44,13,25,11,42		4,15,30,17,59	
		30, 8,36,55,20,49,49		2,12
16″	58,14,53,51,53,21, 8,46, 1,31		4,15,30,20,11	
		30, 8,32,39,50,29,38		2,12
18″	58,14,54,22, 1,53,48,36,31, 9		4,15,30,22,23	
		30, 8,28,24,20, 7,15		2,12
20″	58,14,54,52,10,22,12,56,38,24		4,15,30,24,35	
		30, 8,24, 8,49,42,40		2,12
22″	58,14,55,22,18,46,21,46,21, 4		4,15,30,26,47	
		30, 8,19,53,19,15,53		2,12
24″	58,14,55,52,27, 6,15, 5,36,57		4,15,30,28,59	
		30, 8,15,37,48,46,54		2,12
26″	58,14,56,22,35,21,52,54,23,51		4,15,30,31,11	
		30, 8,11,22,18,15,43		2,12
28″	58,14,56,52,43,33,15,12,39,34		4,15,30,33,23	
		30, 8, 7, 6,47,42,20		2,12
30″	58,14,57,22,51,40,22, 0,21,54		4,15,30,35,35	
		30, 8, 2,51,17, 6,45		2,12
32″	58,14,57,52,59,43,13,17,28,39		4,15,30,37,47	
		30, 7,58,35,46,28,58		2,12
34″	58,14,58,23, 7,41,49, 3,57,37		4,15,30,39,59	
		30, 7,54,20,15,48,59		2,12
36″	58,14,58,53,15,36, 9,19,46,36		4,15,30,42,11	
		30, 7,50, 4,45, 6,48		2,12
38″	58,14,59,23,23,26,14, 4,53,24		4,15,30,44,23	
		30, 7,45,49,14,22,25		2,12
40″	58,14,59,53,31,12, 3,19,15,49		4,15,30,46,35	
		30, 7,41,33,43,35,50		2,12
42″	58,15, 0,23,38,53,37, 2,51,39		4,15,30,48,47	
		30, 7,37,18,12,47, 3		2,12
44″	58,15, 0,53,46,30,55,15,38,42		4,15,30,50,59	
		30, 7,33, 2,41,56, 4		2,12
46″	58,15, 1,23,54, 3,57,57,34,46		4,15,30,53,11	
		30, 7,28,47,11, 2,53		2,12
48″	58,15, 1,54, 1,32,45, 8,37,39		4,15,30,55,23	
		30, 7,24,31,40, 7,30		2,12
50″	58,15, 2,24, 8,57,16,48,45, 9		4,15,30,57,35	
		30, 7,20,16, 9, 9,55		2,12
52″	58,15, 2,54,16,17,32,57,55, 4		4,15,30,59,47	
		30, 7,16, 0,38,10, 8		2,12
54″	58,15, 3,24,23,33,33,36, 5,12		4,15,31, 1,59	
		30, 7,11,45, 7, 8, 9		2,12
56″	58,15, 3,54,30,45,18,43,13,21		4,15,31, 4,11	
		30, 7, 7,29,36, 3,58		2,12
58″	58,15, 4,24,37,52,48,19,17,19		4,15,31, 6,23	
		30, 7, 3,14, 4,57,35		
60″	58,15, 4,54,44,56, 2,24,14,54			
exact	58,15, 4,54,44,56, 2,23,57, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76° 8′ 0″	58,15, 4,54,44,56, 2,23,57, 2			
		30, 6,58,58,33,47,18		
2″	58,15, 5,24,51,55, 0,57,44,20		4,15,31,10,53	
		30, 6,54,43, 2,36,25		2,12
4″	58,15, 5,54,58,49,44, 0,20,45		4,15,31,13, 5	
		30, 6,50,27,31,23,20		2,12
6″	58,15, 6,25, 5,40,11,31,44, 5		4,15,31,15,17	
		30, 6,46,12, 0, 8, 3		2,12
8″	58,15, 6,55,12,26,23,31,52, 8		4,15,31,17,29	
		30, 6,41,56,28,50,34		2,12
10″	58,15, 7,25,19, 8,20, 0,42,42		4,15,31,19,41	
		30, 6,37,40,57,30,53		2,12
12″	58,15, 7,55,25,46, 0,58,13,35		4,15,31,21,53	
		30, 6,33,25,26, 9, 0		2,12
14″	58,15, 8,25,32,19,26,24,22,35		4,15,31,24, 5	
		30, 6,29, 9,54,44,55		2,12
16″	58,15, 8,55,38,48,36,19, 7,30		4,15,31,26,17	
		30, 6,24,54,23,18,38		2,12
18″	58,15, 9,25,45,13,30,42,26, 8		4,15,31,28,29	
		30, 6,20,38,51,50, 9		2,12
20″	58,15, 9,55,51,34, 9,34,16,17		4,15,31,30,41	
		30, 6,16,23,20,19,28		2,12
22″	58,15,10,25,57,50,32,54,35,45		4,15,31,32,53	
		30, 6,12, 7,48,46,35		2,12
24″	58,15,10,56, 4, 2,40,43,22,20		4,15,31,35, 5	
		30, 6, 7,52,17,11,30		2,12
26″	58,15,11,26,10,10,33, 0,33,50		4,15,31,37,17	
		30, 6, 3,36,45,34,13		2,12
28″	58,15,11,56,16,14, 9,46, 8, 3		4,15,31,39,29	
		30, 5,59,21,13,54,44		2,12
30″	58,15,12,26,22,13,31, 0, 2,47		4,15,31,41,41	
		30, 5,55, 5,42,13, 3		2,12
32″	58,15,12,56,28, 8,36,42,15,50		4,15,31,43,53	
		30, 5,50,50,10,29,10		2,12
34″	58,15,13,26,33,59,26,52,45, 0		4,15,31,46, 5	
		30, 5,46,34,38,43, 5		2,12
36″	58,15,13,56,39,46, 1,31,28, 5		4,15,31,48,17	
		30, 5,42,19, 6,54,48		2,12
38″	58,15,14,26,45,28,20,38,22,53		4,15,31,50,29	
		30, 5,38, 3,35, 4,19		2,12
40″	58,15,14,56,51, 6,24,13,27,12		4,15,31,52,41	
		30, 5,33,48, 3,11,38		2,12
42″	58,15,15,26,56,40,12,16,38,50		4,15,31,54,53	
		30, 5,29,32,31,16,45		2,12
44″	58,15,15,57, 2, 9,44,47,55,35		4,15,31,57, 5	
		30, 5,25,16,59,19,40		2,12
46″	58,15,16,27, 7,35, 1,47,15,15		4,15,31,59,17	
		30, 5,21, 1,27,20,23		2,12
48″	58,15,16,57,12,56, 3,14,35,38		4,15,32, 1,29	
		30, 5,16,45,55,18,54		2,12
50″	58,15,17,27,18,12,49, 9,54,32		4,15,32, 3,41	
		30, 5,12,30,23,15,13		2,12
52″	58,15,17,57,23,25,19,33, 9,45		4,15,32, 5,53	
		30, 5, 8,14,51, 9,20		2,12
54″	58,15,18,27,28,33,34,24,19, 5		4,15,32, 8, 5	
		30, 5, 3,59,19, 1,15		2,12
56″	58,15,18,57,33,37,33,43,20,20		4,15,32,10,17	
		30, 4,59,43,46,50,58		2,12
58″	58,15,19,27,38,37,17,30,11,18		4,15,32,12,29	
		30, 4,55,28,14,38,29		
60″	58,15,19,57,43,32,45,44,49,47			
exact	58,15,19,57,43,32,45,44,46,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76° 9′ 0″	58,15,19,57,43,32,45,44,46,24			
		30, 4,51,12,42,23,30		
2″	58,15,20,27,48,23,58,27, 9,54		4,15,32,16,54	
		30, 4,46,57,10, 6,36		2,12
4″	58,15,20,57,53,10,55,37,16,30		4,15,32,19, 6	
		30, 4,42,41,37,47,30		2,12
6″	58,15,21,27,57,53,37,15, 4, 0		4,15,32,21,18	
		30, 4,38,26, 5,26,12		2,12
8″	58,15,21,58, 2,32, 3,20,30,12		4,15,32,23,30	
		30, 4,34,10,33, 2,42		2,12
10″	58,15,22,28, 7, 6,13,53,32,54		4,15,32,25,42	
		30, 4,29,55, 0,37, 0		2,12
12″	58,15,22,58,11,36, 8,54, 9,54		4,15,32,27,54	
		30, 4,25,39,28, 9, 6		2,12
14″	58,15,23,28,16, 1,48,22,19, 0		4,15,32,30, 6	
		30, 4,21,23,55,39, 0		2,12
16″	58,15,23,58,20,23,12,17,58, 0		4,15,32,32,18	
		30, 4,17, 8,23, 6,42		2,12
18″	58,15,24,28,24,40,20,41, 4,42		4,15,32,34,30	
		30, 4,12,52,50,32,12		2,12
20″	58,15,24,58,28,53,13,31,36,54		4,15,32,36,42	
		30, 4, 8,37,17,55,30		2,12
22″	58,15,25,28,33, 1,50,49,32,24		4,15,32,38,54	
		30, 4, 4,21,45,16,36		2,12
24″	58,15,25,58,37, 6,12,34,49, 0		4,15,32,41, 6	
		30, 4, 0, 6,12,35,30		2,12
26″	58,15,26,28,41, 6,18,47,24,30		4,15,32,43,18	
		30, 3,55,50,39,52,12		2,12
28″	58,15,26,58,45, 2, 9,27,16,42		4,15,32,45,30	
		30, 3,51,35, 7, 6,42		2,12
30″	58,15,27,28,48,53,44,34,23,24		4,15,32,47,42	
		30, 3,47,19,34,19, 0		2,12
32″	58,15,27,58,52,41, 4, 8,42,24		4,15,32,49,54	
		30, 3,43, 4, 1,29, 6		2,12
34″	58,15,28,28,56,24, 8,10,11,30		4,15,32,52, 6	
		30, 3,38,48,28,37, 0		2,12
36″	58,15,28,59, 0, 2,56,38,48,30		4,15,32,54,18	
		30, 3,34,32,55,42,42		2,12
38″	58,15,29,29, 3,37,29,34,31,12		4,15,32,56,30	
		30, 3,30,17,22,46,12		2,12
40″	58,15,29,59, 7, 7,46,57,17,24		4,15,32,58,42	
		30, 3,26, 1,49,47,30		2,12
42″	58,15,30,29,10,33,48,47, 4,54		4,15,33, 0,54	
		30, 3,21,46,16,46,36		2,12
44″	58,15,30,59,13,55,35, 3,51,30		4,15,33, 3, 6	
		30, 3,17,30,43,43,30		2,12
46″	58,15,31,29,17,13, 5,47,35, 0		4,15,33, 5,18	
		30, 3,13,15,10,38,12		2,12
48″	58,15,31,59,20,26,20,58,13,12		4,15,33, 7,30	
		30, 3, 8,59,37,30,42		2,12
50″	58,15,32,29,23,35,20,35,43,54		4,15,33, 9,42	
		30, 3, 4,44, 4,21, 0		2,12
52″	58,15,32,59,26,40, 4,40, 4,54		4,15,33,11,54	
		30, 3, 0,28,31, 9, 6		2,12
54″	58,15,33,29,29,40,33,11,14, 0		4,15,33,14, 6	
		30, 2,56,12,57,55, 0		2,12
56″	58,15,33,59,32,36,46, 9, 9, 0		4,15,33,16,18	
		30, 2,51,57,24,38,42		2,12
58″	58,15,34,29,35,28,43,33,47,42		4,15,33,18,30	
		30, 2,47,41,51,20,12		
60″	58,15,34,59,38,16,25,25, 7,54			
exact	58,15,34,59,38,16,25,25,17,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°10′ 0″	58,15,34,59,38,16,25,25,17,14			
		30, 2,43,26,18, 0,28		
2″	58,15,35,29,40,59,51,43,17,42		4,15,33,22,50	
		30, 2,39,10,44,37,38		2,12
4″	58,15,35,59,43,39, 2,27,55,20		4,15,33,25, 2	
		30, 2,34,55,11,12,36		2,12
6″	58,15,36,29,46,13,57,39, 7,56		4,15,33,27,14	
		30, 2,30,39,37,45,22		2,12
8″	58,15,36,59,48,44,37,16,53,18		4,15,33,29,26	
		30, 2,26,24, 4,15,56		2,12
10″	58,15,37,29,51,11, 1,21, 9,14		4,15,33,31,38	
		30, 2,22, 8,30,44,18		2,12
12″	58,15,37,59,53,33, 9,51,53,32		4,15,33,33,50	
		30, 2,17,52,57,10,28		2,12
14″	58,15,38,29,55,51, 2,49, 4, 0		4,15,33,36, 2	
		30, 2,13,37,23,34,26		2,12
16″	58,15,38,59,58, 4,40,12,38,26		4,15,33,38,14	
		30, 2, 9,21,49,56,12		2,12
18″	58,15,39,30, 0,14, 2, 2,34,38		4,15,33,40,26	
		30, 2, 5, 6,16,15,46		2,12
20″	58,15,40, 0, 2,19, 8,18,50,24		4,15,33,42,38	
		30, 2, 0,50,42,33, 8		2,12
22″	58,15,40,30, 4,19,59, 1,23,32		4,15,33,44,50	
		30, 1,56,35, 8,48,18		2,12
24″	58,15,41, 0, 6,16,34,10,11,50		4,15,33,47, 2	
		30, 1,52,19,35, 1,16		2,12
26″	58,15,41,30, 8, 8,53,45,13, 6		4,15,33,49,14	
		30, 1,48, 4, 1,12, 2		2,12
28″	58,15,42, 0, 9,56,57,46,25, 8		4,15,33,51,26	
		30, 1,43,48,27,20,36		2,12
30″	58,15,42,30,11,40,46,13,45,44		4,15,33,53,38	
		30, 1,39,32,53,26,58		2,12
32″	58,15,43, 0,13,20,19, 7,12,42		4,15,33,55,50	
		30, 1,35,17,19,31, 8		2,12
34″	58,15,43,30,14,55,36,26,43,50		4,15,33,58, 2	
		30, 1,31, 1,45,33, 6		2,12
36″	58,15,44, 0,16,26,38,12,16,56		4,15,34, 0,14	
		30, 1,26,46,11,32,52		2,12
38″	58,15,44,30,17,53,24,23,49,48		4,15,34, 2,26	
		30, 1,22,30,37,30,26		2,12
40″	58,15,45, 0,19,15,55, 1,20,14		4,15,34, 4,38	
		30, 1,18,15, 3,25,48		2,12
42″	58,15,45,30,20,34,10, 4,46, 2		4,15,34, 6,50	
		30, 1,13,59,29,18,58		2,12
44″	58,15,46, 0,21,48, 9,34, 5, 0		4,15,34, 9, 2	
		30, 1, 9,43,55, 9,56		2,12
46″	58,15,46,30,22,57,53,29,14,56		4,15,34,11,14	
		30, 1, 5,28,20,58,42		2,12
48″	58,15,47, 0,24, 3,21,50,13,38		4,15,34,13,26	
		30, 1, 1,12,46,45,16		2,12
50″	58,15,47,30,25, 4,34,36,58,54		4,15,34,15,38	
		30, 0,56,57,12,29,38		2,12
52″	58,15,48, 0,26, 1,31,49,28,32		4,15,34,17,50	
		30, 0,52,41,38,11,48		2,12
54″	58,15,48,30,26,54,13,27,40,20		4,15,34,20, 2	
		30, 0,48,26, 3,51,46		2,12
56″	58,15,49, 0,27,42,39,31,32, 6		4,15,34,22,14	
		30, 0,44,10,29,29,32		2,12
58″	58,15,49,30,28,26,50, 1, 1,38		4,15,34,24,26	
		30, 0,39,54,55, 5, 6		
60″	58,15,50, 0,29, 6,44,56, 6,44			
exact	58,15,50, 0,29, 6,44,56,26, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°11′ 0″	58,15,50, 0,29, 6,44,56,26, 7			
		30, 0,35,39,20,40,32		
2″	58,15,50,30,29,42,24,17, 6,39		4,15,34,28,41	
		30, 0,31,23,46,11,51		2,12
4″	58,15,51, 0,30,13,48, 3,18,30		4,15,34,30,53	
		30, 0,27, 8,11,40,58		2,12
6″	58,15,51,30,30,40,56,14,59,28		4,15,34,33, 5	
		30, 0,22,52,37, 7,53		2,12
8″	58,15,52, 0,31, 3,48,52, 7,21		4,15,34,35,17	
		30, 0,18,37, 2,32,36		2,12
10″	58,15,52,30,31,22,25,54,39,57		4,15,34,37,29	
		30, 0,14,21,27,55, 7		2,12
12″	58,15,53, 0,31,36,47,22,35, 4		4,15,34,39,41	
		30, 0,10, 5,53,15,26		2,12
14″	58,15,53,30,31,46,53,15,50,30		4,15,34,41,53	
		30, 0, 5,50,18,33,33		2,12
16″	58,15,54, 0,31,52,43,34,24, 3		4,15,34,44, 5	
		30, 0, 1,34,43,49,28		2,12
18″	58,15,54,30,31,54,18,18,13,31		4,15,34,46,17	
		29,59,57,19, 9, 3,11		2,12
20″	58,15,55, 0,31,51,37,27,16,42		4,15,34,48,29	
		29,59,53, 3,34,14,42		2,12
22″	58,15,55,30,31,44,41, 1,31,24		4,15,34,50,41	
		29,59,48,47,59,24, 1		2,12
24″	58,15,56, 0,31,33,29, 0,55,25		4,15,34,52,53	
		29,59,44,32,24,31, 8		2,12
26″	58,15,56,30,31,18, 1,25,26,33		4,15,34,55, 5	
		29,59,40,16,49,36, 3		2,12
28″	58,15,57, 0,30,58,18,15, 2,36		4,15,34,57,17	
		29,59,36, 1,14,38,46		2,12
30″	58,15,57,30,30,34,19,29,41,22		4,15,34,59,29	
		29,59,31,45,39,39,17		2,12
32″	58,15,58, 0,30, 6, 5, 9,20,39		4,15,35, 1,41	
		29,59,27,30, 4,37,36		2,12
34″	58,15,58,30,29,33,35,13,58,15		4,15,35, 3,53	
		29,59,23,14,29,33,43		2,12
36″	58,15,59, 0,28,56,49,43,31,58		4,15,35, 6, 5	
		29,59,18,58,54,27,38		2,12
38″	58,15,59,30,28,15,48,37,59,36		4,15,35, 8,17	
		29,59,14,43,19,19,21		2,12
40″	58,16, 0, 0,27,30,31,57,18,57		4,15,35,10,29	
		29,59,10,27,44, 8,52		2,12
42″	58,16, 0,30,26,40,59,41,27,49		4,15,35,12,41	
		29,59, 6,12, 8,56,11		2,12
44″	58,16, 1, 0,25,47,11,50,24, 0		4,15,35,14,53	
		29,59, 1,56,33,41,18		2,12
46″	58,16, 1,30,24,49, 8,24, 5,18		4,15,35,17, 5	
		29,58,57,40,58,24,13		2,12
48″	58,16, 2, 0,23,46,49,22,29,31		4,15,35,19,17	
		29,58,53,25,23, 4,56		2,12
50″	58,16, 2,30,22,40,14,45,34,27		4,15,35,21,29	
		29,58,49, 9,47,43,27		2,12
52″	58,16, 3, 0,21,29,24,33,17,54		4,15,35,23,41	
		29,58,44,54,12,19,46		2,12
54″	58,16, 3,30,20,14,18,45,37,40		4,15,35,25,53	
		29,58,40,38,36,53,53		2,12
56″	58,16, 4, 0,18,54,57,22,31,33		4,15,35,28, 5	
		29,58,36,23, 1,25,48		2,12
58″	58,16, 4,30,17,31,20,23,57,21		4,15,35,30,17	
		29,58,32, 7,25,55,31		
60″	58,16, 5, 0,16, 3,27,49,52,52			
exact	58,16, 5, 0,16, 3,27,50,19,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°12′ 0″	58,16, 5, 0,16, 3,27,50,19,39			
		29,58,27,51,50,26, 1		
2″	58,16, 5,30,14,31,19,40,45,40		4,15,35,34,28	
		29,58,23,36,14,51,33		2,11
4″	58,16, 6, 0,12,54,55,55,37,13		4,15,35,36,39	
		29,58,19,20,39,14,54		2,11
6″	58,16, 6,30,11,14,16,34,52, 7		4,15,35,38,50	
		29,58,15, 5, 3,36, 4		2,11
8″	58,16, 7, 0, 9,29,21,38,28,11		4,15,35,41, 1	
		29,58,10,49,27,55, 3		2,11
10″	58,16, 7,30, 7,40,11, 6,23,14		4,15,35,43,12	
		29,58, 6,33,52,11,51		2,11
12″	58,16, 8, 0, 5,46,44,58,35, 5		4,15,35,45,23	
		29,58, 2,18,16,26,28		2,11
14″	58,16, 8,30, 3,49, 3,15, 1,33		4,15,35,47,34	
		29,57,58, 2,40,38,54		2,11
16″	58,16, 9, 0, 1,47, 5,55,40,27		4,15,35,49,45	
		29,57,53,47, 4,49, 9		2,11
18″	58,16, 9,29,59,40,53, 0,29,36		4,15,35,51,56	
		29,57,49,31,28,57,13		2,11
20″	58,16, 9,59,57,30,24,29,26,49		4,15,35,54, 7	
		29,57,45,15,53, 3, 6		2,11
22″	58,16,10,29,55,15,40,22,29,55		4,15,35,56,18	
		29,57,41, 0,17, 6,48		2,11
24″	58,16,10,59,52,56,40,39,36,43		4,15,35,58,29	
		29,57,36,44,41, 8,19		2,11
26″	58,16,11,29,50,33,25,20,45, 2		4,15,36, 0,40	
		29,57,32,29, 5, 7,39		2,11
28″	58,16,11,59,48, 5,54,25,52,41		4,15,36, 2,51	
		29,57,28,13,29, 4,48		2,11
30″	58,16,12,29,45,34, 7,54,57,29		4,15,36, 5, 2	
		29,57,23,57,52,59,46		2,11
32″	58,16,12,59,42,58, 5,47,57,15		4,15,36, 7,13	
		29,57,19,42,16,52,33		2,11
34″	58,16,13,29,40,17,48, 4,49,48		4,15,36, 9,24	
		29,57,15,26,40,43, 9		2,11
36″	58,16,13,59,37,33,14,45,32,57		4,15,36,11,35	
		29,57,11,11, 4,31,34		2,11
38″	58,16,14,29,34,44,25,50, 4,31		4,15,36,13,46	
		29,57, 6,55,28,17,48		2,11
40″	58,16,14,59,31,51,21,18,22,19		4,15,36,15,57	
		29,57, 2,39,52, 1,51		2,11
42″	58,16,15,29,28,54, 1,10,24,10		4,15,36,18, 8	
		29,56,58,24,15,43,43		2,11
44″	58,16,15,59,25,52,25,26, 7,53		4,15,36,20,19	
		29,56,54, 8,39,23,24		2,11
46″	58,16,16,29,22,46,34, 5,31,17		4,15,36,22,30	
		29,56,49,53, 3, 0,54		2,11
48″	58,16,16,59,19,36,27, 8,32,11		4,15,36,24,41	
		29,56,45,37,26,36,13		2,11
50″	58,16,17,29,16,22, 4,35, 8,24		4,15,36,26,52	
		29,56,41,21,50, 9,21		2,11
52″	58,16,17,59,13, 3,26,25,17,45		4,15,36,29, 3	
		29,56,37, 6,13,40,18		2,11
54″	58,16,18,29, 9,40,32,38,58, 3		4,15,36,31,14	
		29,56,32,50,37, 9, 4		2,11
56″	58,16,18,59, 6,13,23,16, 7, 7		4,15,36,33,25	
		29,56,28,35, 0,35,39		2,11
58″	58,16,19,29, 2,41,58,16,42,46		4,15,36,35,36	
		29,56,24,19,24, 0, 3		
60″	58,16,19,58,59, 6,17,40,42,49			
exact	58,16,19,58,59, 6,17,40,14,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°13′ 0″	58,16,19,58,59, 6,17,40,14,32			
		29,56,20, 3,47,19,16		
2″	58,16,20,28,55,26,21,27,33,48		4,15,36,40,10	
		29,56,15,48,10,39, 6		2,11
4″	58,16,20,58,51,42, 9,38,12,54		4,15,36,42,21	
		29,56,11,32,33,56,45		2,11
6″	58,16,21,28,47,53,42,12, 9,39		4,15,36,44,32	
		29,56, 7,16,57,12,13		2,11
8″	58,16,21,58,44, 0,59, 9,21,52		4,15,36,46,43	
		29,56, 3, 1,20,25,30		2,11
10″	58,16,22,28,40, 4, 0,29,47,22		4,15,36,48,54	
		29,55,58,45,43,36,36		2,11
12″	58,16,22,58,36, 2,46,13,23,58		4,15,36,51, 5	
		29,55,54,30, 6,45,31		2,11
14″	58,16,23,28,31,57,16,20, 9,29		4,15,36,53,16	
		29,55,50,14,29,52,15		2,11
16″	58,16,23,58,27,47,30,50, 1,44		4,15,36,55,27	
		29,55,45,58,52,56,48		2,11
18″	58,16,24,28,23,33,29,42,58,32		4,15,36,57,38	
		29,55,41,43,15,59,10		2,11
20″	58,16,24,58,19,15,12,58,57,42		4,15,36,59,49	
		29,55,37,27,38,59,21		2,11
22″	58,16,25,28,14,52,40,37,57, 3		4,15,37, 2, 0	
		29,55,33,12, 1,57,21		2,11
24″	58,16,25,58,10,25,52,39,54,24		4,15,37, 4,11	
		29,55,28,56,24,53,10		2,11
26″	58,16,26,28, 5,54,49, 4,47,34		4,15,37, 6,22	
		29,55,24,40,47,46,48		2,11
28″	58,16,26,58, 1,19,29,52,34,22		4,15,37, 8,33	
		29,55,20,25,10,38,15		2,11
30″	58,16,27,27,56,39,55, 3,12,37		4,15,37,10,44	
		29,55,16, 9,33,27,31		2,11
32″	58,16,27,57,51,56, 4,36,40, 8		4,15,37,12,55	
		29,55,11,53,56,14,36		2,11
34″	58,16,28,27,47, 7,58,32,54,44		4,15,37,15, 6	
		29,55, 7,38,18,59,30		2,11
36″	58,16,28,57,42,15,36,51,54,14		4,15,37,17,17	
		29,55, 3,22,41,42,13		2,11
38″	58,16,29,27,37,18,59,33,36,27		4,15,37,19,28	
		29,54,59, 7, 4,22,45		2,11
40″	58,16,29,57,32,18, 6,37,59,12		4,15,37,21,39	
		29,54,54,51,27, 1, 6		2,11
42″	58,16,30,27,27,12,58, 5, 0,18		4,15,37,23,50	
		29,54,50,35,49,37,16		2,11
44″	58,16,30,57,22, 3,33,54,37,34		4,15,37,26, 1	
		29,54,46,20,12,11,15		2,11
46″	58,16,31,27,16,49,54, 6,48,49		4,15,37,28,12	
		29,54,42, 4,34,43, 3		2,11
48″	58,16,31,57,11,31,58,41,31,52		4,15,37,30,23	
		29,54,37,48,57,12,40		2,11
50″	58,16,32,27, 6, 9,47,38,44,32		4,15,37,32,34	
		29,54,33,33,19,40, 6		2,11
52″	58,16,32,57, 0,43,20,58,24,38		4,15,37,34,45	
		29,54,29,17,42, 5,21		2,11
54″	58,16,33,26,55,12,38,40,29,59		4,15,37,36,56	
		29,54,25, 2, 4,28,25		2,11
56″	58,16,33,56,49,37,40,44,58,24		4,15,37,39, 7	
		29,54,20,46,26,49,18		2,11
58″	58,16,34,26,43,58,27,11,47,42		4,15,37,41,18	
		29,54,16,30,49, 8, 0		
60″	58,16,34,56,38,14,58, 0,55,42			
exact	58,16,34,56,38,14,58, 0,37,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°14′ 0″	58,16,34,56,38,14,58, 0,37,33			
		29,54,12,15,11,22,37		
2″	58,16,35,26,32,27,13,12, 0,10		4,15,37,45,47	
		29,54, 7,59,33,36,50		2,11
4″	58,16,35,56,26,35,12,45,37, 0		4,15,37,47,58	
		29,54, 3,43,55,48,52		2,11
6″	58,16,36,26,20,38,56,41,25,52		4,15,37,50, 9	
		29,53,59,28,17,58,43		2,11
8″	58,16,36,56,14,38,24,59,24,35		4,15,37,52,20	
		29,53,55,12,40, 6,23		2,11
10″	58,16,37,26, 8,33,37,39,30,58		4,15,37,54,31	
		29,53,50,57, 2,11,52		2,11
12″	58,16,37,56, 2,24,34,41,42,50		4,15,37,56,42	
		29,53,46,41,24,15,10		2,11
14″	58,16,38,25,56,11,16, 5,58, 0		4,15,37,58,53	
		29,53,42,25,46,16,17		2,11
16″	58,16,38,55,49,53,41,52,14,17		4,15,38, 1, 4	
		29,53,38,10, 8,15,13		2,11
18″	58,16,39,25,43,31,52, 0,29,30		4,15,38, 3,15	
		29,53,33,54,30,11,58		2,11
20″	58,16,39,55,37, 5,46,30,41,28		4,15,38, 5,26	
		29,53,29,38,52, 6,32		2,11
22″	58,16,40,25,30,35,25,22,48, 0		4,15,38, 7,37	
		29,53,25,23,13,58,55		2,11
24″	58,16,40,55,24, 0,48,36,46,55		4,15,38, 9,48	
		29,53,21, 7,35,49, 7		2,11
26″	58,16,41,25,17,21,56,12,36, 2		4,15,38,11,59	
		29,53,16,51,57,37, 8		2,11
28″	58,16,41,55,10,38,48,10,13,10		4,15,38,14,10	
		29,53,12,36,19,22,58		2,11
30″	58,16,42,25, 3,51,24,29,36, 8		4,15,38,16,21	
		29,53, 8,20,41, 6,37		2,11
32″	58,16,42,54,56,59,45,10,42,45		4,15,38,18,32	
		29,53, 4, 5, 2,48, 5		2,11
34″	58,16,43,24,50, 3,50,13,30,50		4,15,38,20,43	
		29,52,59,49,24,27,22		2,11
36″	58,16,43,54,43, 3,39,37,58,12		4,15,38,22,54	
		29,52,55,33,46, 4,28		2,11
38″	58,16,44,24,35,59,13,24, 2,40		4,15,38,25, 5	
		29,52,51,18, 7,39,23		2,11
40″	58,16,44,54,28,50,31,31,42, 3		4,15,38,27,16	
		29,52,47, 2,29,12, 7		2,11
42″	58,16,45,24,21,37,34, 0,54,10		4,15,38,29,27	
		29,52,42,46,50,42,40		2,11
44″	58,16,45,54,14,20,20,51,36,50		4,15,38,31,38	
		29,52,38,31,12,11, 2		2,11
46″	58,16,46,24, 6,58,52, 3,47,52		4,15,38,33,49	
		29,52,34,15,33,37,13		2,11
48″	58,16,46,53,59,33, 7,37,25, 5		4,15,38,36, 0	
		29,52,29,59,55, 1,13		2,11
50″	58,16,47,23,52, 3, 7,32,26,18		4,15,38,38,11	
		29,52,25,44,16,23, 2		2,11
52″	58,16,47,53,44,28,51,48,49,20		4,15,38,40,22	
		29,52,21,28,37,42,40		2,11
54″	58,16,48,23,36,50,20,26,32, 0		4,15,38,42,33	
		29,52,17,12,59, 0, 7		2,11
56″	58,16,48,53,29, 7,33,25,32, 7		4,15,38,44,44	
		29,52,12,57,20,15,23		2,11
58″	58,16,49,23,21,20,30,45,47,30		4,15,38,46,55	
		29,52, 8,41,41,28,28		
60″	58,16,49,53,13,29,12,27,15,58			
exact	58,16,49,53,13,29,12,27, 5,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°15′ 0″	58,16,49,53,13,29,12,27, 5,30			
		29,52, 4,26, 2,38,24		
2″	58,16,50,23, 5,33,38,29,43,54		4,15,38,51,20	
		29,52, 0,10,23,47, 4		2,11
4″	58,16,50,52,57,33,48,53,30,58		4,15,38,53,31	
		29,51,55,54,44,53,33		2,11
6″	58,16,51,22,49,29,43,38,24,31		4,15,38,55,42	
		29,51,51,39, 5,57,51		2,11
8″	58,16,51,52,41,21,22,44,22,22		4,15,38,57,53	
		29,51,47,23,26,59,58		2,11
10″	58,16,52,22,33, 8,46,11,22,20		4,15,39, 0, 4	
		29,51,43, 7,47,59,54		2,11
12″	58,16,52,52,24,51,53,59,22,14		4,15,39, 2,15	
		29,51,38,52, 8,57,39		2,11
14″	58,16,53,22,16,30,46, 8,19,53		4,15,39, 4,26	
		29,51,34,36,29,53,13		2,11
16″	58,16,53,52, 8, 5,22,38,13, 6		4,15,39, 6,37	
		29,51,30,20,50,46,36		2,11
18″	58,16,54,21,59,35,43,28,59,42		4,15,39, 8,48	
		29,51,26, 5,11,37,48		2,11
20″	58,16,54,51,51, 1,48,40,37,30		4,15,39,10,59	
		29,51,21,49,32,26,49		2,11
22″	58,16,55,21,42,23,38,13, 4,19		4,15,39,13,10	
		29,51,17,33,53,13,39		2,11
24″	58,16,55,51,33,41,12, 6,17,58		4,15,39,15,21	
		29,51,13,18,13,58,18		2,11
26″	58,16,56,21,24,54,30,20,16,16		4,15,39,17,32	
		29,51, 9, 2,34,40,46		2,11
28″	58,16,56,51,16, 3,32,54,57, 2		4,15,39,19,43	
		29,51, 4,46,55,21, 3		2,11
30″	58,16,57,21, 7, 8,19,50,18, 5		4,15,39,21,54	
		29,51, 0,31,15,59, 9		2,11
32″	58,16,57,50,58, 8,51, 6,17,14		4,15,39,24, 5	
		29,50,56,15,36,35, 4		2,11
34″	58,16,58,20,49, 5, 6,42,52,18		4,15,39,26,16	
		29,50,51,59,57, 8,48		2,11
36″	58,16,58,50,39,57, 6,40, 1, 6		4,15,39,28,27	
		29,50,47,44,17,40,21		2,11
38″	58,16,59,20,30,44,50,57,41,27		4,15,39,30,38	
		29,50,43,28,38, 9,43		2,11
40″	58,16,59,50,21,28,19,35,51,10		4,15,39,32,49	
		29,50,39,12,58,36,54		2,11
42″	58,17, 0,20,12, 7,32,34,28, 4		4,15,39,35, 0	
		29,50,34,57,19, 1,54		2,11
44″	58,17, 0,50, 2,42,29,53,29,58		4,15,39,37,11	
		29,50,30,41,39,24,43		2,11
46″	58,17, 1,19,53,13,11,32,54,41		4,15,39,39,22	
		29,50,26,25,59,45,21		2,11
48″	58,17, 1,49,43,39,37,32,40, 2		4,15,39,41,33	
		29,50,22,10,20, 3,48		2,11
50″	58,17, 2,19,34, 1,47,52,43,50		4,15,39,43,44	
		29,50,17,54,40,20, 4		2,11
52″	58,17, 2,49,24,19,42,33, 3,54		4,15,39,45,55	
		29,50,13,39, 0,34, 9		2,11
54″	58,17, 3,19,14,33,21,33,38, 3		4,15,39,48, 6	
		29,50, 9,23,20,46, 3		2,11
56″	58,17, 3,49, 4,42,44,54,24, 6		4,15,39,50,17	
		29,50, 5, 7,40,55,46		2,11
58″	58,17, 4,18,54,47,52,35,19,52		4,15,39,52,28	
		29,50, 0,52, 1, 3,18		
60″	58,17, 4,48,44,48,44,36,23,10			
exact	58,17, 4,48,44,48,44,36,25,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°16′ 0″	58,17, 4,48,44,48,44,36,25,20			
		29,49,56,36,21, 8,57		
2″	58,17, 5,18,34,45,20,57,34,17		4,15,39,56,48	
		29,49,52,20,41,12, 9		2,11
4″	58,17, 5,48,24,37,41,38,46,26		4,15,39,58,59	
		29,49,48, 5, 1,13,10		2,11
6″	58,17, 6,18,14,25,46,39,59,36		4,15,40, 1,10	
		29,49,43,49,21,12, 0		2,11
8″	58,17, 6,48, 4, 9,36, 1,11,36		4,15,40, 3,21	
		29,49,39,33,41, 8,39		2,11
10″	58,17, 7,17,53,49, 9,42,20,15		4,15,40, 5,32	
		29,49,35,18, 1, 3, 7		2,11
12″	58,17, 7,47,43,24,27,43,23,22		4,15,40, 7,43	
		29,49,31, 2,20,55,24		2,11
14″	58,17, 8,17,32,55,30, 4,18,46		4,15,40, 9,54	
		29,49,26,46,40,45,30		2,11
16″	58,17, 8,47,22,22,16,45, 4,16		4,15,40,12, 5	
		29,49,22,31, 0,33,25		2,11
18″	58,17, 9,17,11,44,47,45,37,41		4,15,40,14,16	
		29,49,18,15,20,19, 9		2,11
20″	58,17, 9,47, 1, 3, 3, 5,56,50		4,15,40,16,27	
		29,49,13,59,40, 2,42		2,11
22″	58,17,10,16,50,17, 2,45,59,32		4,15,40,18,38	
		29,49, 9,43,59,44, 4		2,11
24″	58,17,10,46,39,26,46,45,43,36		4,15,40,20,49	
		29,49, 5,28,19,23,15		2,11
26″	58,17,11,16,28,32,15, 5, 6,51		4,15,40,23, 0	
		29,49, 1,12,39, 0,15		2,11
28″	58,17,11,46,17,33,27,44, 7, 6		4,15,40,25,11	
		29,48,56,56,58,35, 4		2,11
30″	58,17,12,16, 6,30,24,42,42,10		4,15,40,27,22	
		29,48,52,41,18, 7,42		2,11
32″	58,17,12,45,55,23, 6, 0,49,52		4,15,40,29,33	
		29,48,48,25,37,38, 9		2,11
34″	58,17,13,15,44,11,31,38,28, 1		4,15,40,31,44	
		29,48,44, 9,57, 6,25		2,11
36″	58,17,13,45,32,55,41,35,34,26		4,15,40,33,55	
		29,48,39,54,16,32,30		2,11
38″	58,17,14,15,21,35,35,52, 6,56		4,15,40,36, 6	
		29,48,35,38,35,56,24		2,11
40″	58,17,14,45,10,11,14,28, 3,20		4,15,40,38,17	
		29,48,31,22,55,18, 7		2,11
42″	58,17,15,14,58,42,37,23,21,27		4,15,40,40,28	
		29,48,27, 7,14,37,39		2,11
44″	58,17,15,44,47, 9,44,37,59, 6		4,15,40,42,39	
		29,48,22,51,33,55, 0		2,11
46″	58,17,16,14,35,32,36,11,54, 6		4,15,40,44,50	
		29,48,18,35,53,10,10		2,11
48″	58,17,16,44,23,51,12, 5, 4,16		4,15,40,47, 1	
		29,48,14,20,12,23, 9		2,11
50″	58,17,17,14,12, 5,32,17,27,25		4,15,40,49,12	
		29,48,10, 4,31,33,57		2,11
52″	58,17,17,44, 0,15,36,49, 1,22		4,15,40,51,23	
		29,48, 5,48,50,42,34		2,11
54″	58,17,18,13,48,21,25,39,43,56		4,15,40,53,34	
		29,48, 1,33, 9,49, 0		2,11
56″	58,17,18,43,36,22,58,49,32,56		4,15,40,55,45	
		29,47,57,17,28,53,15		2,11
58″	58,17,19,13,24,20,16,18,26,11		4,15,40,57,56	
		29,47,53, 1,47,55,19		
60″	58,17,19,43,12,13,18, 6,21,30			
exact	58,17,19,43,12,13,18, 6,34, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°17′ 0″	58,17,19,43,12,13,18, 6,34, 3			
		29,47,48,46, 6,56,37		
2″	58,17,20,13, 0, 2, 4,13,30,40		4,15,41, 2,11	
		29,47,44,30,25,54,26		2,11
4″	58,17,20,42,47,46,34,39,25, 6		4,15,41, 4,22	
		29,47,40,14,44,50, 4		2,11
6″	58,17,21,12,35,26,49,24,15,10		4,15,41, 6,33	
		29,47,35,59, 3,43,31		2,11
8″	58,17,21,42,23, 2,48,27,58,41		4,15,41, 8,44	
		29,47,31,43,22,34,47		2,11
10″	58,17,22,12,10,34,31,50,33,28		4,15,41,10,55	
		29,47,27,27,41,23,52		2,11
12″	58,17,22,41,58, 1,59,31,57,20		4,15,41,13, 6	
		29,47,23,12, 0,10,46		2,11
14″	58,17,23,11,45,25,11,32, 8, 6		4,15,41,15,17	
		29,47,18,56,18,55,29		2,11
16″	58,17,23,41,32,44, 7,51, 3,35		4,15,41,17,28	
		29,47,14,40,37,38, 1		2,11
18″	58,17,24,11,19,58,48,28,41,36		4,15,41,19,39	
		29,47,10,24,56,18,22		2,11
20″	58,17,24,41, 7, 9,13,24,59,58		4,15,41,21,50	
		29,47, 6, 9,14,56,32		2,11
22″	58,17,25,10,54,15,22,39,56,30		4,15,41,24, 1	
		29,47, 1,53,33,32,31		2,11
24″	58,17,25,40,41,17,16,13,29, 1		4,15,41,26,12	
		29,46,57,37,52, 6,19		2,11
26″	58,17,26,10,28,14,54, 5,35,20		4,15,41,28,23	
		29,46,53,22,10,37,56		2,11
28″	58,17,26,40,15, 8,16,16,13,16		4,15,41,30,34	
		29,46,49, 6,29, 7,22		2,11
30″	58,17,27,10, 1,57,22,45,20,38		4,15,41,32,45	
		29,46,44,50,47,34,37		2,11
32″	58,17,27,39,48,42,13,32,55,15		4,15,41,34,56	
		29,46,40,35, 5,59,41		2,11
34″	58,17,28, 9,35,22,48,38,54,56		4,15,41,37, 7	
		29,46,36,19,24,22,34		2,11
36″	58,17,28,39,21,59, 8, 3,17,30		4,15,41,39,18	
		29,46,32, 3,42,43,16		2,11
38″	58,17,29, 9, 8,31,11,46, 0,46		4,15,41,41,29	
		29,46,27,48, 1, 1,47		2,11
40″	58,17,29,38,54,58,59,47, 2,33		4,15,41,43,40	
		29,46,23,32,19,18, 7		2,11
42″	58,17,30, 8,41,22,32, 6,20,40		4,15,41,45,51	
		29,46,19,16,37,32,16		2,11
44″	58,17,30,38,27,41,48,43,52,56		4,15,41,48, 2	
		29,46,15, 0,55,44,14		2,11
46″	58,17,31, 8,13,56,49,39,37,10		4,15,41,50,13	
		29,46,10,45,13,54, 1		2,11
48″	58,17,31,38, 0, 7,34,53,31,11		4,15,41,52,24	
		29,46, 6,29,32, 1,37		2,11
50″	58,17,32, 7,46,14, 4,25,32,48		4,15,41,54,35	
		29,46, 2,13,50, 7, 2		2,11
52″	58,17,32,37,32,16,18,15,39,50		4,15,41,56,46	
		29,45,57,58, 8,10,16		2,11
54″	58,17,33, 7,18,14,16,23,50, 6		4,15,41,58,57	
		29,45,53,42,26,11,19		2,11
56″	58,17,33,37, 4, 7,58,50, 1,25		4,15,42, 1, 8	
		29,45,49,26,44,10,11		2,11
58″	58,17,34, 6,49,57,25,34,11,36		4,15,42, 3,19	
		29,45,45,11, 2, 6,52		
60″	58,17,34,36,35,42,36,36,18,28			
exact	58,17,34,36,35,42,36,36,38,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°18′ 0″	58,17,34,36,35,42,36,36,38,46			
		29,45,40,55,20, 3,44		
2″	58,17,35, 6,21,23,31,56,42,30		4,15,42, 7,30	
		29,45,36,39,37,56,14		2,11
4″	58,17,35,36, 7, 0,11,34,38,44		4,15,42, 9,41	
		29,45,32,23,55,46,33		2,11
6″	58,17,36, 5,52,32,35,30,25,17		4,15,42,11,52	
		29,45,28, 8,13,34,41		2,11
8″	58,17,36,35,38, 0,43,43,59,58		4,15,42,14, 3	
		29,45,23,52,31,20,38		2,11
10″	58,17,37, 5,23,24,36,15,20,36		4,15,42,16,14	
		29,45,19,36,49, 4,24		2,11
12″	58,17,37,35, 8,44,13, 4,25, 0		4,15,42,18,25	
		29,45,15,21, 6,45,59		2,11
14″	58,17,38, 4,53,59,34,11,10,59		4,15,42,20,36	
		29,45,11, 5,24,25,23		2,11
16″	58,17,38,34,39,10,39,35,36,22		4,15,42,22,47	
		29,45, 6,49,42, 2,36		2,11
18″	58,17,39, 4,24,17,29,17,38,58		4,15,42,24,58	
		29,45, 2,33,59,37,38		2,11
20″	58,17,39,34, 9,20, 3,17,16,36		4,15,42,27, 9	
		29,44,58,18,17,10,29		2,11
22″	58,17,40, 3,54,18,21,34,27, 5		4,15,42,29,20	
		29,44,54, 2,34,41, 9		2,11
24″	58,17,40,33,39,12,24, 9, 8,14		4,15,42,31,31	
		29,44,49,46,52, 9,38		2,11
26″	58,17,41, 3,24, 2,11, 1,17,52		4,15,42,33,42	
		29,44,45,31, 9,35,56		2,11
28″	58,17,41,33, 8,47,42,10,53,48		4,15,42,35,53	
		29,44,41,15,27, 0, 3		2,11
30″	58,17,42, 2,53,28,57,37,53,51		4,15,42,38, 4	
		29,44,36,59,44,21,59		2,11
32″	58,17,42,32,38, 5,57,22,15,50		4,15,42,40,15	
		29,44,32,44, 1,41,44		2,11
34″	58,17,43, 2,22,38,41,23,57,34		4,15,42,42,26	
		29,44,28,28,18,59,18		2,11
36″	58,17,43,32, 7, 7, 9,42,56,52		4,15,42,44,37	
		29,44,24,12,36,14,41		2,11
38″	58,17,44, 1,51,31,22,19,11,33		4,15,42,46,48	
		29,44,19,56,53,27,53		2,11
40″	58,17,44,31,35,51,19,12,39,26		4,15,42,48,59	
		29,44,15,41,10,38,54		2,11
42″	58,17,45, 1,20, 7, 0,23,18,20		4,15,42,51,10	
		29,44,11,25,27,47,44		2,11
44″	58,17,45,31, 4,18,25,51, 6, 4		4,15,42,53,21	
		29,44, 7, 9,44,54,23		2,11
46″	58,17,46, 0,48,25,35,36, 0,27		4,15,42,55,32	
		29,44, 2,54, 1,58,51		2,11
48″	58,17,46,30,32,28,29,37,59,18		4,15,42,57,43	
		29,43,58,38,19, 1, 8		2,11
50″	58,17,47, 0,16,27, 7,57, 0,26		4,15,42,59,54	
		29,43,54,22,36, 1,14		2,11
52″	58,17,47,30, 0,21,30,33, 1,40		4,15,43, 2, 5	
		29,43,50, 6,52,59, 9		2,11
54″	58,17,47,59,44,11,37,26, 0,49		4,15,43, 4,16	
		29,43,45,51, 9,54,53		2,11
56″	58,17,48,29,27,57,28,35,55,42		4,15,43, 6,27	
		29,43,41,35,26,48,26		2,11
58″	58,17,48,59,11,39, 4, 2,44, 8		4,15,43, 8,38	
		29,43,37,19,43,39,48		
60″	58,17,49,28,55,16,23,46,23,56			
exact	58,17,49,28,55,16,23,46,56,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°19′ 0″	58,17,49,28,55,16,23,46,56,39			
		29,43,33, 4, 0,32,37		
2″	58,17,49,58,38,49,27,47,29,16		4,15,43,12,44	
		29,43,28,48,17,19,53		2,10
4″	58,17,50,28,22,18,16, 4,49, 9		4,15,43,14,54	
		29,43,24,32,34, 4,59		2,10
6″	58,17,50,58, 5,42,48,38,54, 8		4,15,43,17, 4	
		29,43,20,16,50,47,55		2,10
8″	58,17,51,27,49, 3, 5,29,42, 3		4,15,43,19,14	
		29,43,16, 1, 7,28,41		2,10
10″	58,17,51,57,32,19, 6,37,10,44		4,15,43,21,24	
		29,43,11,45,24, 7,17		2,10
12″	58,17,52,27,15,30,52, 1,18, 1		4,15,43,23,34	
		29,43, 7,29,40,43,43		2,10
14″	58,17,52,56,58,38,21,42, 1,44		4,15,43,25,44	
		29,43, 3,13,57,17,59		2,10
16″	58,17,53,26,41,41,35,39,19,43		4,15,43,27,54	
		29,42,58,58,13,50, 5		2,10
18″	58,17,53,56,24,40,33,53, 9,48		4,15,43,30, 4	
		29,42,54,42,30,20, 1		2,10
20″	58,17,54,26, 7,35,16,23,29,49		4,15,43,32,14	
		29,42,50,26,46,47,47		2,10
22″	58,17,54,55,50,25,43,10,17,36		4,15,43,34,24	
		29,42,46,11, 3,13,23		2,10
24″	58,17,55,25,33,11,54,13,30,59		4,15,43,36,34	
		29,42,41,55,19,36,49		2,10
26″	58,17,55,55,15,53,49,33, 7,48		4,15,43,38,44	
		29,42,37,39,35,58, 5		2,10
28″	58,17,56,24,58,31,29, 9, 5,53		4,15,43,40,54	
		29,42,33,23,52,17,11		2,10
30″	58,17,56,54,41, 4,53, 1,23, 4		4,15,43,43, 4	
		29,42,29, 8, 8,34, 7		2,10
32″	58,17,57,24,23,34, 1, 9,57,11		4,15,43,45,14	
		29,42,24,52,24,48,53		2,10
34″	58,17,57,54, 5,58,53,34,46, 4		4,15,43,47,24	
		29,42,20,36,41, 1,29		2,10
36″	58,17,58,23,48,19,30,15,47,33		4,15,43,49,34	
		29,42,16,20,57,11,55		2,10
38″	58,17,58,53,30,35,51,12,59,28		4,15,43,51,44	
		29,42,12, 5,13,20,11		2,10
40″	58,17,59,23,12,47,56,26,19,39		4,15,43,53,54	
		29,42, 7,49,29,26,17		2,10
42″	58,17,59,52,54,55,45,55,45,56		4,15,43,56, 4	
		29,42, 3,33,45,30,13		2,10
44″	58,18, 0,22,36,59,19,41,16, 9		4,15,43,58,14	
		29,41,59,18, 1,31,59		2,10
46″	58,18, 0,52,18,58,37,42,48, 8		4,15,44, 0,24	
		29,41,55, 2,17,31,35		2,10
48″	58,18, 1,22, 0,53,40, 0,19,43		4,15,44, 2,34	
		29,41,50,46,33,29, 1		2,10
50″	58,18, 1,51,42,44,26,33,48,44		4,15,44, 4,44	
		29,41,46,30,49,24,17		2,10
52″	58,18, 2,21,24,30,57,23,13, 1		4,15,44, 6,54	
		29,41,42,15, 5,17,23		2,10
54″	58,18, 2,51, 6,13,12,28,30,24		4,15,44, 9, 4	
		29,41,37,59,21, 8,19		2,10
56″	58,18, 3,20,47,51,11,49,38,43		4,15,44,11,14	
		29,41,33,43,36,57, 5		2,10
58″	58,18, 3,50,29,24,55,26,35,48		4,15,44,13,24	
		29,41,29,27,52,43,41		
60″	58,18, 4,20,10,54,23,19,19,29			
exact	58,18, 4,20,10,54,23,18,55, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°20′ 0″	58,18, 4,20,10,54,23,18,55, 1			
		29,41,25,12, 8,25,37		
2″	58,18, 4,49,52,19,35,27,20,38		4,15,44,17,53	
		29,41,20,56,24, 7,44		2,10
4″	58,18, 5,19,33,40,31,51,28,22		4,15,44,20, 3	
		29,41,16,40,39,47,41		2,10
6″	58,18, 5,49,14,57,12,31,16, 3		4,15,44,22,13	
		29,41,12,24,55,25,28		2,10
8″	58,18, 6,18,56, 9,37,26,41,31		4,15,44,24,23	
		29,41, 8, 9,11, 1, 5		2,10
10″	58,18, 6,48,37,17,46,37,42,36		4,15,44,26,33	
		29,41, 3,53,26,34,32		2,10
12″	58,18, 7,18,18,21,40, 4,17, 8		4,15,44,28,43	
		29,40,59,37,42, 5,49		2,10
14″	58,18, 7,47,59,21,17,46,22,57		4,15,44,30,53	
		29,40,55,21,57,34,56		2,10
16″	58,18, 8,17,40,16,39,43,57,53		4,15,44,33, 3	
		29,40,51, 6,13, 1,53		2,10
18″	58,18, 8,47,21, 7,45,56,59,46		4,15,44,35,13	
		29,40,46,50,28,26,40		2,10
20″	58,18, 9,17, 1,54,36,25,26,26		4,15,44,37,23	
		29,40,42,34,43,49,17		2,10
22″	58,18, 9,46,42,37,11, 9,15,43		4,15,44,39,33	
		29,40,38,18,59, 9,44		2,10
24″	58,18,10,16,23,15,30, 8,25,27		4,15,44,41,43	
		29,40,34, 3,14,28, 1		2,10
26″	58,18,10,46, 3,49,33,22,53,28		4,15,44,43,53	
		29,40,29,47,29,44, 8		2,10
28″	58,18,11,15,44,19,20,52,37,36		4,15,44,46, 3	
		29,40,25,31,44,58, 5		2,10
30″	58,18,11,45,24,44,52,37,35,41		4,15,44,48,13	
		29,40,21,16, 0, 9,52		2,10
32″	58,18,12,15, 5, 6, 8,37,45,33		4,15,44,50,23	
		29,40,17, 0,15,19,29		2,10
34″	58,18,12,44,45,23, 8,53, 5, 2		4,15,44,52,33	
		29,40,12,44,30,26,56		2,10
36″	58,18,13,14,25,35,53,23,31,58		4,15,44,54,43	
		29,40, 8,28,45,32,13		2,10
38″	58,18,13,44, 5,44,22, 9, 4,11		4,15,44,56,53	
		29,40, 4,13, 0,35,20		2,10
40″	58,18,14,13,45,48,35, 9,39,31		4,15,44,59, 3	
		29,39,59,57,15,36,17		2,10
42″	58,18,14,43,25,48,32,25,15,48		4,15,45, 1,13	
		29,39,55,41,30,35, 4		2,10
44″	58,18,15,13, 5,44,13,55,50,52		4,15,45, 3,23	
		29,39,51,25,45,31,41		2,10
46″	58,18,15,42,45,35,39,41,22,33		4,15,45, 5,33	
		29,39,47,10, 0,26, 8		2,10
48″	58,18,16,12,25,22,49,41,48,41		4,15,45, 7,43	
		29,39,42,54,15,18,25		2,10
50″	58,18,16,42, 5, 5,43,57, 7, 6		4,15,45, 9,53	
		29,39,38,38,30, 8,32		2,10
52″	58,18,17,11,44,44,22,27,15,38		4,15,45,12, 3	
		29,39,34,22,44,56,29		2,10
54″	58,18,17,41,24,18,45,12,12, 7		4,15,45,14,13	
		29,39,30, 6,59,42,16		2,10
56″	58,18,18,11, 3,48,52,11,54,23		4,15,45,16,23	
		29,39,25,51,14,25,53		2,10
58″	58,18,18,40,43,14,43,26,20,16		4,15,45,18,33	
		29,39,21,35,29, 7,20		
60″	58,18,19,10,22,36,18,55,27,36			
exact	58,18,19,10,22,36,18,55,11,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°21′ 0″	58,18,19,10,22,36,18,55,11,16			
		29,39,17,19,43,45, 5		
2″	58,18,19,40, 1,53,38,38,56,21		4,15,45,22,58	
		29,39,13, 3,58,22, 7		2,10
4″	58,18,20, 9,41, 6,42,37,18,28		4,15,45,25, 8	
		29,39, 8,48,12,56,59		2,10
6″	58,18,20,39,20,15,30,50,15,27		4,15,45,27,18	
		29,39, 4,32,27,29,41		2,10
8″	58,18,21, 8,59,20, 3,17,45, 8		4,15,45,29,28	
		29,39, 0,16,42, 0,13		2,10
10″	58,18,21,38,38,20,19,59,45,21		4,15,45,31,38	
		29,38,56, 0,56,28,35		2,10
12″	58,18,22, 8,17,16,20,56,13,56		4,15,45,33,48	
		29,38,51,45,10,54,47		2,10
14″	58,18,22,37,56, 8, 6, 7, 8,43		4,15,45,35,58	
		29,38,47,29,25,18,49		2,10
16″	58,18,23, 7,34,55,35,32,27,32		4,15,45,38, 8	
		29,38,43,13,39,40,41		2,10
18″	58,18,23,37,13,38,49,12, 8,13		4,15,45,40,18	
		29,38,38,57,54, 0,23		2,10
20″	58,18,24, 6,52,17,47, 6, 8,36		4,15,45,42,28	
		29,38,34,42, 8,17,55		2,10
22″	58,18,24,36,30,52,29,14,26,31		4,15,45,44,38	
		29,38,30,26,22,33,17		2,10
24″	58,18,25, 6, 9,22,55,36,59,48		4,15,45,46,48	
		29,38,26,10,36,46,29		2,10
26″	58,18,25,35,47,49, 6,13,46,17		4,15,45,48,58	
		29,38,21,54,50,57,31		2,10
28″	58,18,26, 5,26,11, 1, 4,43,48		4,15,45,51, 8	
		29,38,17,39, 5, 6,23		2,10
30″	58,18,26,35, 4,28,40, 9,50,11		4,15,45,53,18	
		29,38,13,23,19,13, 5		2,10
32″	58,18,27, 4,42,42, 3,29, 3,16		4,15,45,55,28	
		29,38, 9, 7,33,17,37		2,10
34″	58,18,27,34,20,51,11, 2,20,53		4,15,45,57,38	
		29,38, 4,51,47,19,59		2,10
36″	58,18,28, 3,58,56, 2,49,40,52		4,15,45,59,48	
		29,38, 0,36, 1,20,11		2,10
38″	58,18,28,33,36,56,38,51, 1, 3		4,15,46, 1,58	
		29,37,56,20,15,18,13		2,10
40″	58,18,29, 3,14,52,59, 6,19,16		4,15,46, 4, 8	
		29,37,52, 4,29,14, 5		2,10
42″	58,18,29,32,52,45, 3,35,33,21		4,15,46, 6,18	
		29,37,47,48,43, 7,47		2,10
44″	58,18,30, 2,30,32,52,18,41, 8		4,15,46, 8,28	
		29,37,43,32,56,59,19		2,10
46″	58,18,30,32, 8,16,25,15,40,27		4,15,46,10,38	
		29,37,39,17,10,48,41		2,10
48″	58,18,31, 1,45,55,42,26,29, 8		4,15,46,12,48	
		29,37,35, 1,24,35,53		2,10
50″	58,18,31,31,23,30,43,51, 5, 1		4,15,46,14,58	
		29,37,30,45,38,20,55		2,10
52″	58,18,32, 1, 1, 1,29,29,25,56		4,15,46,17, 8	
		29,37,26,29,52, 3,47		2,10
54″	58,18,32,30,38,27,59,21,29,43		4,15,46,19,18	
		29,37,22,14, 5,44,29		2,10
56″	58,18,33, 0,15,50,13,27,14,12		4,15,46,21,28	
		29,37,17,58,19,23, 1		2,10
58″	58,18,33,29,53, 8,11,46,37,13		4,15,46,23,38	
		29,37,13,42,32,59,23		
60″	58,18,33,59,30,21,54,19,36,36			
exact	58,18,33,59,30,21,54,19,32,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°22′ 0″	58,18,33,59,30,21,54,19,32,55			
		29,37, 9,26,46,33,20		
2″	58,18,34,29, 7,31,21, 6, 6,15		4,15,46,27,58	
		29,37, 5,11, 0, 5,22		2,10
4″	58,18,34,58,44,36,32, 6,11,37		4,15,46,30, 8	
		29,37, 0,55,13,35,14		2,10
6″	58,18,35,28,21,37,27,19,46,51		4,15,46,32,18	
		29,36,56,39,27, 2,56		2,10
8″	58,18,35,57,58,34, 6,46,49,47		4,15,46,34,28	
		29,36,52,23,40,28,28		2,10
10″	58,18,36,27,35,26,30,27,18,15		4,15,46,36,38	
		29,36,48, 7,53,51,50		2,10
12″	58,18,36,57,12,14,38,21,10, 5		4,15,46,38,48	
		29,36,43,52, 7,13, 2		2,10
14″	58,18,37,26,48,58,30,28,23, 7		4,15,46,40,58	
		29,36,39,36,20,32, 4		2,10
16″	58,18,37,56,25,38, 6,48,55,11		4,15,46,43, 8	
		29,36,35,20,33,48,56		2,10
18″	58,18,38,26, 2,13,27,22,44, 7		4,15,46,45,18	
		29,36,31, 4,47, 3,38		2,10
20″	58,18,38,55,38,44,32, 9,47,45		4,15,46,47,28	
		29,36,26,49, 0,16,10		2,10
22″	58,18,39,25,15,11,21,10, 3,55		4,15,46,49,38	
		29,36,22,33,13,26,32		2,10
24″	58,18,39,54,51,33,54,23,30,27		4,15,46,51,48	
		29,36,18,17,26,34,44		2,10
26″	58,18,40,24,27,52,11,50, 5,11		4,15,46,53,58	
		29,36,14, 1,39,40,46		2,10
28″	58,18,40,54, 4, 6,13,29,45,57		4,15,46,56, 8	
		29,36, 9,45,52,44,38		2,10
30″	58,18,41,23,40,15,59,22,30,35		4,15,46,58,18	
		29,36, 5,30, 5,46,20		2,10
32″	58,18,41,53,16,21,29,28,16,55		4,15,47, 0,28	
		29,36, 1,14,18,45,52		2,10
34″	58,18,42,22,52,22,43,47, 2,47		4,15,47, 2,38	
		29,35,56,58,31,43,14		2,10
36″	58,18,42,52,28,19,42,18,46, 1		4,15,47, 4,48	
		29,35,52,42,44,38,26		2,10
38″	58,18,43,22, 4,12,25, 3,24,27		4,15,47, 6,58	
		29,35,48,26,57,31,28		2,10
40″	58,18,43,51,40, 0,52, 0,55,55		4,15,47, 9, 8	
		29,35,44,11,10,22,20		2,10
42″	58,18,44,21,15,45, 3,11,18,15		4,15,47,11,18	
		29,35,39,55,23,11, 2		2,10
44″	58,18,44,50,51,24,58,34,29,17		4,15,47,13,28	
		29,35,35,39,35,57,34		2,10
46″	58,18,45,20,27, 0,38,10,26,51		4,15,47,15,38	
		29,35,31,23,48,41,56		2,10
48″	58,18,45,50, 2,32, 1,59, 8,47		4,15,47,17,48	
		29,35,27, 8, 1,24, 8		2,10
50″	58,18,46,19,37,59,10, 0,32,55		4,15,47,19,58	
		29,35,22,52,14, 4,10		2,10
52″	58,18,46,49,13,22, 2,14,37, 5		4,15,47,22, 8	
		29,35,18,36,26,42, 2		2,10
54″	58,18,47,18,48,40,38,41,19, 7		4,15,47,24,18	
		29,35,14,20,39,17,44		2,10
56″	58,18,47,48,23,54,59,20,36,51		4,15,47,26,28	
		29,35,10, 4,51,51,16		2,10
58″	58,18,48,17,59, 5, 4,12,28, 7		4,15,47,28,38	
		29,35, 5,49, 4,22,38		
60″	58,18,48,47,34,10,53,16,50,45			
exact	58,18,48,47,34,10,53,16,57,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°23′ 0″	58,18,48,47,34,10,53,16,57,37			
		29,35, 1,33,16,52,42		
2″	58,18,49,17, 9,12,26,33,50,19		4,15,47,32,53	
		29,34,57,17,29,19,49		2,10
4″	58,18,49,46,44, 9,44, 3,10, 8		4,15,47,35, 3	
		29,34,53, 1,41,44,46		2,10
6″	58,18,50,16,19, 2,45,44,54,54		4,15,47,37,13	
		29,34,48,45,54, 7,33		2,10
8″	58,18,50,45,53,51,31,39, 2,27		4,15,47,39,23	
		29,34,44,30, 6,28,10		2,10
10″	58,18,51,15,28,36, 1,45,30,37		4,15,47,41,33	
		29,34,40,14,18,46,37		2,10
12″	58,18,51,45, 3,16,16, 4,17,14		4,15,47,43,43	
		29,34,35,58,31, 2,54		2,10
14″	58,18,52,14,37,52,14,35,20, 8		4,15,47,45,53	
		29,34,31,42,43,17, 1		2,10
16″	58,18,52,44,12,23,57,18,37, 9		4,15,47,48, 3	
		29,34,27,26,55,28,58		2,10
18″	58,18,53,13,46,51,24,14, 6, 7		4,15,47,50,13	
		29,34,23,11, 7,38,45		2,10
20″	58,18,53,43,21,14,35,21,44,52		4,15,47,52,23	
		29,34,18,55,19,46,22		2,10
22″	58,18,54,12,55,33,30,41,31,14		4,15,47,54,33	
		29,34,14,39,31,51,49		2,10
24″	58,18,54,42,29,48,10,13,23, 3		4,15,47,56,43	
		29,34,10,23,43,55, 6		2,10
26″	58,18,55,12, 3,58,33,57,18, 9		4,15,47,58,53	
		29,34, 6, 7,55,56,13		2,10
28″	58,18,55,41,38, 4,41,53,14,22		4,15,48, 1, 3	
		29,34, 1,52, 7,55,10		2,10
30″	58,18,56,11,12, 6,34, 1, 9,32		4,15,48, 3,13	
		29,33,57,36,19,51,57		2,10
32″	58,18,56,40,46, 4,10,21, 1,29		4,15,48, 5,23	
		29,33,53,20,31,46,34		2,10
34″	58,18,57,10,19,57,30,52,48, 3		4,15,48, 7,33	
		29,33,49, 4,43,39, 1		2,10
36″	58,18,57,39,53,46,35,36,27, 4		4,15,48, 9,43	
		29,33,44,48,55,29,18		2,10
38″	58,18,58, 9,27,31,24,31,56,22		4,15,48,11,53	
		29,33,40,33, 7,17,25		2,10
40″	58,18,58,39, 1,11,57,39,13,47		4,15,48,14, 3	
		29,33,36,17,19, 3,22		2,10
42″	58,18,59, 8,34,48,14,58,17, 9		4,15,48,16,13	
		29,33,32, 1,30,47, 9		2,10
44″	58,18,59,38, 8,20,16,29, 4,18		4,15,48,18,23	
		29,33,27,45,42,28,46		2,10
46″	58,19, 0, 7,41,48, 2,11,33, 4		4,15,48,20,33	
		29,33,23,29,54, 8,13		2,10
48″	58,19, 0,37,15,11,32, 5,41,17		4,15,48,22,43	
		29,33,19,14, 5,45,30		2,10
50″	58,19, 1, 6,48,30,46,11,26,47		4,15,48,24,53	
		29,33,14,58,17,20,37		2,10
52″	58,19, 1,36,21,45,44,28,47,24		4,15,48,27, 3	
		29,33,10,42,28,53,34		2,10
54″	58,19, 2, 5,54,56,26,57,40,58		4,15,48,29,13	
		29,33, 6,26,40,24,21		2,10
56″	58,19, 2,35,28, 2,53,38, 5,19		4,15,48,31,23	
		29,33, 2,10,51,52,58		2,10
58″	58,19, 3, 5, 1, 5, 4,29,58,17		4,15,48,33,33	
		29,32,57,55, 3,19,25		
60″	58,19, 3,34,34, 2,59,33,17,42			
exact	58,19, 3,34,34, 2,59,33,33, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°24′ 0″	58,19, 3,34,34, 2,59,33,33, 7			
		29,32,53,39,14,45,33		
2″	58,19, 4, 4, 6,56,38,48,18,40		4,15,48,37,44	
		29,32,49,23,26, 7,49		2,10
4″	58,19, 4,33,39,46, 2,14,26,29		4,15,48,39,54	
		29,32,45, 7,37,27,55		2,10
6″	58,19, 5, 3,12,31, 9,51,54,24		4,15,48,42, 4	
		29,32,40,51,48,45,51		2,10
8″	58,19, 5,32,45,12, 1,40,40,15		4,15,48,44,14	
		29,32,36,36, 0, 1,37		2,10
10″	58,19, 6, 2,17,48,37,40,41,52		4,15,48,46,24	
		29,32,32,20,11,15,13		2,10
12″	58,19, 6,31,50,20,57,51,57, 5		4,15,48,48,34	
		29,32,28, 4,22,26,39		2,10
14″	58,19, 7, 1,22,49, 2,14,23,44		4,15,48,50,44	
		29,32,23,48,33,35,55		2,10
16″	58,19, 7,30,55,12,50,47,59,39		4,15,48,52,54	
		29,32,19,32,44,43, 1		2,10
18″	58,19, 8, 0,27,32,23,32,42,40		4,15,48,55, 4	
		29,32,15,16,55,47,57		2,10
20″	58,19, 8,29,59,47,40,28,30,37		4,15,48,57,14	
		29,32,11, 1, 6,50,43		2,10
22″	58,19, 8,59,31,58,41,35,21,20		4,15,48,59,24	
		29,32, 6,45,17,51,19		2,10
24″	58,19, 9,29, 4, 5,26,53,12,39		4,15,49, 1,34	
		29,32, 2,29,28,49,45		2,10
26″	58,19, 9,58,36, 7,56,22, 2,24		4,15,49, 3,44	
		29,31,58,13,39,46, 1		2,10
28″	58,19,10,28, 8, 6,10, 1,48,25		4,15,49, 5,54	
		29,31,53,57,50,40, 7		2,10
30″	58,19,10,57,40, 0, 7,52,28,32		4,15,49, 8, 4	
		29,31,49,42, 1,32, 3		2,10
32″	58,19,11,27,11,49,49,54, 0,35		4,15,49,10,14	
		29,31,45,26,12,21,49		2,10
34″	58,19,11,56,43,35,16, 6,22,24		4,15,49,12,24	
		29,31,41,10,23, 9,25		2,10
36″	58,19,12,26,15,16,26,29,31,49		4,15,49,14,34	
		29,31,36,54,33,54,51		2,10
38″	58,19,12,55,46,53,21, 3,26,40		4,15,49,16,44	
		29,31,32,38,44,38, 7		2,10
40″	58,19,13,25,18,25,59,48, 4,47		4,15,49,18,54	
		29,31,28,22,55,19,13		2,10
42″	58,19,13,54,49,54,22,43,24, 0		4,15,49,21, 4	
		29,31,24, 7, 5,58, 9		2,10
44″	58,19,14,24,21,18,29,49,22, 9		4,15,49,23,14	
		29,31,19,51,16,34,55		2,10
46″	58,19,14,53,52,38,21, 5,57, 4		4,15,49,25,24	
		29,31,15,35,27, 9,31		2,10
48″	58,19,15,23,23,53,56,33, 6,35		4,15,49,27,34	
		29,31,11,19,37,41,57		2,10
50″	58,19,15,52,55, 5,16,10,48,32		4,15,49,29,44	
		29,31, 7, 3,48,12,13		2,10
52″	58,19,16,22,26,12,19,59, 0,45		4,15,49,31,54	
		29,31, 2,47,58,40,19		2,10
54″	58,19,16,51,57,15, 7,57,41, 4		4,15,49,34, 4	
		29,30,58,32, 9, 6,15		2,10
56″	58,19,17,21,28,13,40, 6,47,19		4,15,49,36,14	
		29,30,54,16,19,30, 1		2,10
58″	58,19,17,50,59, 7,56,26,17,20		4,15,49,38,24	
		29,30,50, 0,29,51,37		
60″	58,19,18,20,29,57,56,56, 8,57			
exact	58,19,18,20,29,57,56,56,37,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°25′ 0″	58,19,18,20,29,57,56,56,37,18			
		29,30,45,44,40,14,12		
2″	58,19,18,50, 0,43,41,36,51,30		4,15,49,42,30	
		29,30,41,28,50,31,42		2, 9
4″	58,19,19,19,31,25,10,27,23,12		4,15,49,44,39	
		29,30,37,13, 0,47, 3		2, 9
6″	58,19,19,49, 2, 2,23,28,10,15		4,15,49,46,48	
		29,30,32,57,11, 0,15		2, 9
8″	58,19,20,18,32,35,20,39,10,30		4,15,49,48,57	
		29,30,28,41,21,11,18		2, 9
10″	58,19,20,48, 3, 4, 2, 0,21,48		4,15,49,51, 6	
		29,30,24,25,31,20,12		2, 9
12″	58,19,21,17,33,28,27,31,42, 0		4,15,49,53,15	
		29,30,20, 9,41,26,57		2, 9
14″	58,19,21,47, 3,48,37,13, 8,57		4,15,49,55,24	
		29,30,15,53,51,31,33		2, 9
16″	58,19,22,16,34, 4,31, 4,40,30		4,15,49,57,33	
		29,30,11,38, 1,34, 0		2, 9
18″	58,19,22,46, 4,16, 9, 6,14,30		4,15,49,59,42	
		29,30, 7,22,11,34,18		2, 9
20″	58,19,23,15,34,23,31,17,48,48		4,15,50, 1,51	
		29,30, 3, 6,21,32,27		2, 9
22″	58,19,23,45, 4,26,37,39,21,15		4,15,50, 4, 0	
		29,29,58,50,31,28,27		2, 9
24″	58,19,24,14,34,25,28,10,49,42		4,15,50, 6, 9	
		29,29,54,34,41,22,18		2, 9
26″	58,19,24,44, 4,20, 2,52,12, 0		4,15,50, 8,18	
		29,29,50,18,51,14, 0		2, 9
28″	58,19,25,13,34,10,21,43,26, 0		4,15,50,10,27	
		29,29,46, 3, 1, 3,33		2, 9
30″	58,19,25,43, 3,56,24,44,29,33		4,15,50,12,36	
		29,29,41,47,10,50,57		2, 9
32″	58,19,26,12,33,38,11,55,20,30		4,15,50,14,45	
		29,29,37,31,20,36,12		2, 9
34″	58,19,26,42, 3,15,43,15,56,42		4,15,50,16,54	
		29,29,33,15,30,19,18		2, 9
36″	58,19,27,11,32,48,58,46,16, 0		4,15,50,19, 3	
		29,29,28,59,40, 0,15		2, 9
38″	58,19,27,41, 2,17,58,26,16,15		4,15,50,21,12	
		29,29,24,43,49,39, 3		2, 9
40″	58,19,28,10,31,42,42,15,55,18		4,15,50,23,21	
		29,29,20,27,59,15,42		2, 9
42″	58,19,28,40, 1, 3,10,15,11, 0		4,15,50,25,30	
		29,29,16,12, 8,50,12		2, 9
44″	58,19,29, 9,30,19,22,24, 1,12		4,15,50,27,39	
		29,29,11,56,18,22,33		2, 9
46″	58,19,29,38,59,31,18,42,23,45		4,15,50,29,48	
		29,29, 7,40,27,52,45		2, 9
48″	58,19,30, 8,28,38,59,10,16,30		4,15,50,31,57	
		29,29, 3,24,37,20,48		2, 9
50″	58,19,30,37,57,42,23,47,37,18		4,15,50,34, 6	
		29,28,59, 8,46,46,42		2, 9
52″	58,19,31, 7,26,41,32,34,24, 0		4,15,50,36,15	
		29,28,54,52,56,10,27		2, 9
54″	58,19,31,36,55,36,25,30,34,27		4,15,50,38,24	
		29,28,50,37, 5,32, 3		2, 9
56″	58,19,32, 6,24,27, 2,36, 6,30		4,15,50,40,33	
		29,28,46,21,14,51,30		2, 9
58″	58,19,32,35,53,13,23,50,58, 0		4,15,50,42,42	
		29,28,42, 5,24, 8,48		
60″	58,19,33, 5,21,55,29,15, 6,48			
exact	58,19,33, 5,21,55,29,14,38,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°26′ 0″	58,19,33, 5,21,55,29,14,38,11			
		29,28,37,49,33,21, 0		
2″	58,19,33,34,50,33,18,47,59,11		4,15,50,47,11	
		29,28,33,33,42,33,49		2, 9
4″	58,19,34, 4,19, 6,52,30,33, 0		4,15,50,49,20	
		29,28,29,17,51,44,29		2, 9
6″	58,19,34,33,47,36,10,22,17,29		4,15,50,51,29	
		29,28,25, 2, 0,53, 0		2, 9
8″	58,19,35, 3,16, 1,12,23,10,29		4,15,50,53,38	
		29,28,20,46, 9,59,22		2, 9
10″	58,19,35,32,44,21,58,33, 9,51		4,15,50,55,47	
		29,28,16,30,19, 3,35		2, 9
12″	58,19,36, 2,12,38,28,52,13,26		4,15,50,57,56	
		29,28,12,14,28, 5,39		2, 9
14″	58,19,36,31,40,50,43,20,19, 5		4,15,51, 0, 5	
		29,28, 7,58,37, 5,34		2, 9
16″	58,19,37, 1, 8,58,41,57,24,39		4,15,51, 2,14	
		29,28, 3,42,46, 3,20		2, 9
18″	58,19,37,30,37, 2,24,43,27,59		4,15,51, 4,23	
		29,27,59,26,54,58,57		2, 9
20″	58,19,38, 0, 5, 1,51,38,26,56		4,15,51, 6,32	
		29,27,55,11, 3,52,25		2, 9
22″	58,19,38,29,32,57, 2,42,19,21		4,15,51, 8,41	
		29,27,50,55,12,43,44		2, 9
24″	58,19,38,59, 0,47,57,55, 3, 5		4,15,51,10,50	
		29,27,46,39,21,32,54		2, 9
26″	58,19,39,28,28,34,37,16,35,59		4,15,51,12,59	
		29,27,42,23,30,19,55		2, 9
28″	58,19,39,57,56,17, 0,46,55,54		4,15,51,15, 8	
		29,27,38, 7,39, 4,47		2, 9
30″	58,19,40,27,23,55, 8,26, 0,41		4,15,51,17,17	
		29,27,33,51,47,47,30		2, 9
32″	58,19,40,56,51,29, 0,13,48,11		4,15,51,19,26	
		29,27,29,35,56,28, 4		2, 9
34″	58,19,41,26,18,58,36,10,16,15		4,15,51,21,35	
		29,27,25,20, 5, 6,29		2, 9
36″	58,19,41,55,46,23,56,15,22,44		4,15,51,23,44	
		29,27,21, 4,13,42,45		2, 9
38″	58,19,42,25,13,45, 0,29, 5,29		4,15,51,25,53	
		29,27,16,48,22,16,52		2, 9
40″	58,19,42,54,41, 1,48,51,22,21		4,15,51,28, 2	
		29,27,12,32,30,48,50		2, 9
42″	58,19,43,24, 8,14,21,22,11,11		4,15,51,30,11	
		29,27, 8,16,39,18,39		2, 9
44″	58,19,43,53,35,22,38, 1,29,50		4,15,51,32,20	
		29,27, 4, 0,47,46,19		2, 9
46″	58,19,44,23, 2,26,38,49,16, 9		4,15,51,34,29	
		29,26,59,44,56,11,50		2, 9
48″	58,19,44,52,29,26,23,45,27,59		4,15,51,36,38	
		29,26,55,29, 4,35,12		2, 9
50″	58,19,45,21,56,21,52,50, 3,11		4,15,51,38,47	
		29,26,51,13,12,56,25		2, 9
52″	58,19,45,51,23,13, 6, 2,59,36		4,15,51,40,56	
		29,26,46,57,21,15,29		2, 9
54″	58,19,46,20,50, 0, 3,24,15, 5		4,15,51,43, 5	
		29,26,42,41,29,32,24		2, 9
56″	58,19,46,50,16,42,44,53,47,29		4,15,51,45,14	
		29,26,38,25,37,47,10		2, 9
58″	58,19,47,19,43,21,10,31,34,39		4,15,51,47,23	
		29,26,34, 9,45,59,47		
60″	58,19,47,49, 9,55,20,17,34,26			
exact	58,19,47,49, 9,55,20,17,13,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°27′ 0″	58,19,47,49, 9,55,20,17,13,55			
		29,26,29,53,54, 8,16		
2″	58,19,48,18,36,25,14,11,22,11		4,15,51,51,48	
		29,26,25,38, 2,16,28		2, 9
4″	58,19,48,48, 2,50,52,13,38,39		4,15,51,53,57	
		29,26,21,22,10,22,31		2, 9
6″	58,19,49,17,29,12,14,24, 1,10		4,15,51,56, 6	
		29,26,17, 6,18,26,25		2, 9
8″	58,19,49,46,55,29,20,42,27,35		4,15,51,58,15	
		29,26,12,50,26,28,10		2, 9
10″	58,19,50,16,21,42,11, 8,55,45		4,15,52, 0,24	
		29,26, 8,34,34,27,46		2, 9
12″	58,19,50,45,47,50,45,43,23,31		4,15,52, 2,33	
		29,26, 4,18,42,25,13		2, 9
14″	58,19,51,15,13,55, 4,25,48,44		4,15,52, 4,42	
		29,26, 0, 2,50,20,31		2, 9
16″	58,19,51,44,39,55, 7,16, 9,15		4,15,52, 6,51	
		29,25,55,46,58,13,40		2, 9
18″	58,19,52,14, 5,50,54,14,22,55		4,15,52, 9, 0	
		29,25,51,31, 6, 4,40		2, 9
20″	58,19,52,43,31,42,25,20,27,35		4,15,52,11, 9	
		29,25,47,15,13,53,31		2, 9
22″	58,19,53,12,57,29,40,34,21, 6		4,15,52,13,18	
		29,25,42,59,21,40,13		2, 9
24″	58,19,53,42,23,12,39,56, 1,19		4,15,52,15,27	
		29,25,38,43,29,24,46		2, 9
26″	58,19,54,11,48,51,23,25,26, 5		4,15,52,17,36	
		29,25,34,27,37, 7,10		2, 9
28″	58,19,54,41,14,25,51, 2,33,15		4,15,52,19,45	
		29,25,30,11,44,47,25		2, 9
30″	58,19,55,10,39,56, 2,47,20,40		4,15,52,21,54	
		29,25,25,55,52,25,31		2, 9
32″	58,19,55,40, 5,21,58,39,46,11		4,15,52,24, 3	
		29,25,21,40, 0, 1,28		2, 9
34″	58,19,56, 9,30,43,38,39,47,39		4,15,52,26,12	
		29,25,17,24, 7,35,16		2, 9
36″	58,19,56,38,56, 1, 2,47,22,55		4,15,52,28,21	
		29,25,13, 8,15, 6,55		2, 9
38″	58,19,57, 8,21,14,11, 2,29,50		4,15,52,30,30	
		29,25, 8,52,22,36,25		2, 9
40″	58,19,57,37,46,23, 3,25, 6,15		4,15,52,32,39	
		29,25, 4,36,30, 3,46		2, 9
42″	58,19,58, 7,11,27,39,55,10, 1		4,15,52,34,48	
		29,25, 0,20,37,28,58		2, 9
44″	58,19,58,36,36,28, 0,32,38,59		4,15,52,36,57	
		29,24,56, 4,44,52, 1		2, 9
46″	58,19,59, 6, 1,24, 5,17,31, 0		4,15,52,39, 6	
		29,24,51,48,52,12,55		2, 9
48″	58,19,59,35,26,15,54, 9,43,55		4,15,52,41,15	
		29,24,47,32,59,31,40		2, 9
50″	58,20, 0, 4,51, 3,27, 9,15,35		4,15,52,43,24	
		29,24,43,17, 6,48,16		2, 9
52″	58,20, 0,34,15,46,44,16, 3,51		4,15,52,45,33	
		29,24,39, 1,14, 2,43		2, 9
54″	58,20, 1, 3,40,25,45,30, 6,34		4,15,52,47,42	
		29,24,34,45,21,15, 1		2, 9
56″	58,20, 1,33, 5, 0,30,51,21,35		4,15,52,49,51	
		29,24,30,29,28,25,10		2, 9
58″	58,20, 2, 2,29,31, 0,19,46,45		4,15,52,52, 0	
		29,24,26,13,35,33,10		
60″	58,20, 2,31,53,57,13,55,19,55			
exact	58,20, 2,31,53,57,13,55,12,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°28′ 0″	58,20, 2,31,53,57,13,55,12,48			
		29,24,21,57,42,38,21		
2″	58,20, 3, 1,18,19,11,37,51, 9		4,15,52,56,20	
		29,24,17,41,49,42, 1		2, 9
4″	58,20, 3,30,42,36,53,27,33,10		4,15,52,58,29	
		29,24,13,25,56,43,32		2, 9
6″	58,20, 4, 0, 6,50,19,24,16,42		4,15,53, 0,38	
		29,24, 9,10, 3,42,54		2, 9
8″	58,20, 4,29,30,59,29,27,59,36		4,15,53, 2,47	
		29,24, 4,54,10,40, 7		2, 9
10″	58,20, 4,58,55, 4,23,38,39,43		4,15,53, 4,56	
		29,24, 0,38,17,35,11		2, 9
12″	58,20, 5,28,19, 5, 1,56,14,54		4,15,53, 7, 5	
		29,23,56,22,24,28, 6		2, 9
14″	58,20, 5,57,43, 1,24,20,43, 0		4,15,53, 9,14	
		29,23,52, 6,31,18,52		2, 9
16″	58,20, 6,27, 6,53,30,52, 1,52		4,15,53,11,23	
		29,23,47,50,38, 7,29		2, 9
18″	58,20, 6,56,30,41,21,30, 9,21		4,15,53,13,32	
		29,23,43,34,44,53,57		2, 9
20″	58,20, 7,25,54,24,56,15, 3,18		4,15,53,15,41	
		29,23,39,18,51,38,16		2, 9
22″	58,20, 7,55,18, 4,15, 6,41,34		4,15,53,17,50	
		29,23,35, 2,58,20,26		2, 9
24″	58,20, 8,24,41,39,18, 5, 2, 0		4,15,53,19,59	
		29,23,30,47, 5, 0,27		2, 9
26″	58,20, 8,54, 5,10, 5,10, 2,27		4,15,53,22, 8	
		29,23,26,31,11,38,19		2, 9
28″	58,20, 9,23,28,36,36,21,40,46		4,15,53,24,17	
		29,23,22,15,18,14, 2		2, 9
30″	58,20, 9,52,51,58,51,39,54,48		4,15,53,26,26	
		29,23,17,59,24,47,36		2, 9
32″	58,20,10,22,15,16,51, 4,42,24		4,15,53,28,35	
		29,23,13,43,31,19, 1		2, 9
34″	58,20,10,51,38,30,34,36, 1,25		4,15,53,30,44	
		29,23, 9,27,37,48,17		2, 9
36″	58,20,11,21, 1,40, 2,13,49,42		4,15,53,32,53	
		29,23, 5,11,44,15,24		2, 9
38″	58,20,11,50,24,45,13,58, 5, 6		4,15,53,35, 2	
		29,23, 0,55,50,40,22		2, 9
40″	58,20,12,19,47,46, 9,48,45,28		4,15,53,37,11	
		29,22,56,39,57, 3,11		2, 9
42″	58,20,12,49,10,42,49,45,48,39		4,15,53,39,20	
		29,22,52,24, 3,23,51		2, 9
44″	58,20,13,18,33,35,13,49,12,30		4,15,53,41,29	
		29,22,48, 8, 9,42,22		2, 9
46″	58,20,13,47,56,23,21,58,54,52		4,15,53,43,38	
		29,22,43,52,15,58,44		2, 9
48″	58,20,14,17,19, 7,14,14,53,36		4,15,53,45,47	
		29,22,39,36,22,12,57		2, 9
50″	58,20,14,46,41,46,50,37, 6,33		4,15,53,47,56	
		29,22,35,20,28,25, 1		2, 9
52″	58,20,15,16, 4,22,11, 5,31,34		4,15,53,50, 5	
		29,22,31, 4,34,34,56		2, 9
54″	58,20,15,45,26,53,15,40, 6,30		4,15,53,52,14	
		29,22,26,48,40,42,42		2, 9
56″	58,20,16,14,49,20, 4,20,49,12		4,15,53,54,23	
		29,22,22,32,46,48,19		2, 9
58″	58,20,16,44,11,42,37, 7,37,31		4,15,53,56,32	
		29,22,18,16,52,51,47		
60″	58,20,17,13,34, 0,54, 0,29,18			
exact	58,20,17,13,34, 0,54, 0,33,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°29′ 0″	58,20,17,13,34, 0,54, 0,33,16			
		29,22,14, 0,58,53,36		
2″	58,20,17,42,56,14,54,59,26,52		4,15,54, 0,47	
		29,22, 9,45, 4,52,49		2, 9
4″	58,20,18,12,18,24,40, 4,19,41		4,15,54, 2,56	
		29,22, 5,29,10,49,53		2, 9
6″	58,20,18,41,40,30, 9,15, 9,34		4,15,54, 5, 5	
		29,22, 1,13,16,44,48		2, 9
8″	58,20,19,11, 2,31,22,31,54,22		4,15,54, 7,14	
		29,21,56,57,22,37,34		2, 9
10″	58,20,19,40,24,28,19,54,31,56		4,15,54, 9,23	
		29,21,52,41,28,28,11		2, 9
12″	58,20,20, 9,46,21, 1,23, 0, 7		4,15,54,11,32	
		29,21,48,25,34,16,39		2, 9
14″	58,20,20,39, 8, 9,26,57,16,46		4,15,54,13,41	
		29,21,44, 9,40, 2,58		2, 9
16″	58,20,21, 8,29,53,36,37,19,44		4,15,54,15,50	
		29,21,39,53,45,47, 8		2, 9
18″	58,20,21,37,51,33,30,23, 6,52		4,15,54,17,59	
		29,21,35,37,51,29, 9		2, 9
20″	58,20,22, 7,13, 9, 8,14,36, 1		4,15,54,20, 8	
		29,21,31,21,57, 9, 1		2, 9
22″	58,20,22,36,34,40,30,11,45, 2		4,15,54,22,17	
		29,21,27, 6, 2,46,44		2, 9
24″	58,20,23, 5,56, 7,36,14,31,46		4,15,54,24,26	
		29,21,22,50, 8,22,18		2, 9
26″	58,20,23,35,17,30,26,22,54, 4		4,15,54,26,35	
		29,21,18,34,13,55,43		2, 9
28″	58,20,24, 4,38,49, 0,36,49,47		4,15,54,28,44	
		29,21,14,18,19,26,59		2, 9
30″	58,20,24,34, 0, 3,18,56,16,46		4,15,54,30,53	
		29,21,10, 2,24,56, 6		2, 9
32″	58,20,25, 3,21,13,21,21,12,52		4,15,54,33, 2	
		29,21, 5,46,30,23, 4		2, 9
34″	58,20,25,32,42,19, 7,51,35,56		4,15,54,35,11	
		29,21, 1,30,35,47,53		2, 9
36″	58,20,26, 2, 3,20,38,27,23,49		4,15,54,37,20	
		29,20,57,14,41,10,33		2, 9
38″	58,20,26,31,24,17,53, 8,34,22		4,15,54,39,29	
		29,20,52,58,46,31, 4		2, 9
40″	58,20,27, 0,45,10,51,55, 5,26		4,15,54,41,38	
		29,20,48,42,51,49,26		2, 9
42″	58,20,27,30, 5,59,34,46,54,52		4,15,54,43,47	
		29,20,44,26,57, 5,39		2, 9
44″	58,20,27,59,26,44, 1,44, 0,31		4,15,54,45,56	
		29,20,40,11, 2,19,43		2, 9
46″	58,20,28,28,47,24,12,46,20,14		4,15,54,48, 5	
		29,20,35,55, 7,31,38		2, 9
48″	58,20,28,58, 8, 0, 7,53,51,52		4,15,54,50,14	
		29,20,31,39,12,41,24		2, 9
50″	58,20,29,27,28,31,47, 6,33,16		4,15,54,52,23	
		29,20,27,23,17,49, 1		2, 9
52″	58,20,29,56,48,59,10,24,22,17		4,15,54,54,32	
		29,20,23, 7,22,54,29		2, 9
54″	58,20,30,26, 9,22,17,47,16,46		4,15,54,56,41	
		29,20,18,51,27,57,48		2, 9
56″	58,20,30,55,29,41, 9,15,14,34		4,15,54,58,50	
		29,20,14,35,32,58,58		2, 9
58″	58,20,31,24,49,55,44,48,13,32		4,15,55, 0,59	
		29,20,10,19,37,57,59		
60″	58,20,31,54,10, 6, 4,26,11,31			
exact	58,20,31,54,10, 6, 4,26,23,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°30′ 0″	58,20,31,54,10, 6, 4,26,23,54			
		29,20, 6, 3,42,56,20		
2″	58,20,32,23,30,12, 8, 9,20,14		4,15,55, 5,10	
		29,20, 1,47,47,51,10		2, 9
4″	58,20,32,52,50,13,55,57,11,24		4,15,55, 7,19	
		29,19,57,31,52,43,51		2, 9
6″	58,20,33,22,10,11,27,49,55,15		4,15,55, 9,28	
		29,19,53,15,57,34,23		2, 9
8″	58,20,33,51,30, 4,43,47,29,38		4,15,55,11,37	
		29,19,49, 0, 2,22,46		2, 9
10″	58,20,34,20,49,53,43,49,52,24		4,15,55,13,46	
		29,19,44,44, 7, 9, 0		2, 9
12″	58,20,34,50, 9,38,27,57, 1,24		4,15,55,15,55	
		29,19,40,28,11,53, 5		2, 9
14″	58,20,35,19,29,18,56, 8,54,29		4,15,55,18, 4	
		29,19,36,12,16,35, 1		2, 9
16″	58,20,35,48,48,55, 8,25,29,30		4,15,55,20,13	
		29,19,31,56,21,14,48		2, 9
18″	58,20,36,18, 8,27, 4,46,44,18		4,15,55,22,22	
		29,19,27,40,25,52,26		2, 9
20″	58,20,36,47,27,54,45,12,36,44		4,15,55,24,31	
		29,19,23,24,30,27,55		2, 9
22″	58,20,37,16,47,18, 9,43, 4,39		4,15,55,26,40	
		29,19,19, 8,35, 1,15		2, 9
24″	58,20,37,46, 6,37,18,18, 5,54		4,15,55,28,49	
		29,19,14,52,39,32,26		2, 9
26″	58,20,38,15,25,52,10,57,38,20		4,15,55,30,58	
		29,19,10,36,44, 1,28		2, 9
28″	58,20,38,44,45, 2,47,41,39,48		4,15,55,33, 7	
		29,19, 6,20,48,28,21		2, 9
30″	58,20,39,14, 4, 9, 8,30, 8, 9		4,15,55,35,16	
		29,19, 2, 4,52,53, 5		2, 9
32″	58,20,39,43,23,11,13,23, 1,14		4,15,55,37,25	
		29,18,57,48,57,15,40		2, 9
34″	58,20,40,12,42, 9, 2,20,16,54		4,15,55,39,34	
		29,18,53,33, 1,36, 6		2, 9
36″	58,20,40,42, 1, 2,35,21,53, 0		4,15,55,41,43	
		29,18,49,17, 5,54,23		2, 9
38″	58,20,41,11,19,51,52,27,47,23		4,15,55,43,52	
		29,18,45, 1,10,10,31		2, 9
40″	58,20,41,40,38,36,53,37,57,54		4,15,55,46, 1	
		29,18,40,45,14,24,30		2, 9
42″	58,20,42, 9,57,17,38,52,22,24		4,15,55,48,10	
		29,18,36,29,18,36,20		2, 9
44″	58,20,42,39,15,54, 8,10,58,44		4,15,55,50,19	
		29,18,32,13,22,46, 1		2, 9
46″	58,20,43, 8,34,26,21,33,44,45		4,15,55,52,28	
		29,18,27,57,26,53,33		2, 9
48″	58,20,43,37,52,54,19, 0,38,18		4,15,55,54,37	
		29,18,23,41,30,58,56		2, 9
50″	58,20,44, 7,11,18, 0,31,37,14		4,15,55,56,46	
		29,18,19,25,35, 2,10		2, 9
52″	58,20,44,36,29,37,26, 6,39,24		4,15,55,58,55	
		29,18,15, 9,39, 3,15		2, 9
54″	58,20,45, 5,47,52,35,45,42,39		4,15,56, 1, 4	
		29,18,10,53,43, 2,11		2, 9
56″	58,20,45,35, 6, 3,29,28,44,50		4,15,56, 3,13	
		29,18, 6,37,46,58,58		2, 9
58″	58,20,46, 4,24,10, 7,15,43,48		4,15,56, 5,22	
		29,18, 2,21,50,53,36		
60″	58,20,46,33,42,12,29, 6,37,24			
exact	58,20,46,33,42,12,29, 7, 3,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°31′ 0″	58,20,46,33,42,12,29, 7, 3,28			
		29,17,58, 5,54,48,55		
2″	58,20,47, 3, 0,10,35, 1,52,23		4,15,56, 9,28	
		29,17,53,49,58,39,27		2, 9
4″	58,20,47,32,18, 4,25, 0,31,50		4,15,56,11,37	
		29,17,49,34, 2,27,50		2, 9
6″	58,20,48, 1,35,53,59, 2,59,40		4,15,56,13,46	
		29,17,45,18, 6,14, 4		2, 9
8″	58,20,48,30,53,39,17, 9,13,44		4,15,56,15,55	
		29,17,41, 2, 9,58, 9		2, 9
10″	58,20,49, 0,11,20,19,19,11,53		4,15,56,18, 4	
		29,17,36,46,13,40, 5		2, 9
12″	58,20,49,29,28,57, 5,32,51,58		4,15,56,20,13	
		29,17,32,30,17,19,52		2, 9
14″	58,20,49,58,46,29,35,50,11,50		4,15,56,22,22	
		29,17,28,14,20,57,30		2, 9
16″	58,20,50,28, 3,57,50,11, 9,20		4,15,56,24,31	
		29,17,23,58,24,32,59		2, 9
18″	58,20,50,57,21,21,48,35,42,19		4,15,56,26,40	
		29,17,19,42,28, 6,19		2, 9
20″	58,20,51,26,38,41,31, 3,48,38		4,15,56,28,49	
		29,17,15,26,31,37,30		2, 9
22″	58,20,51,55,55,56,57,35,26, 8		4,15,56,30,58	
		29,17,11,10,35, 6,32		2, 9
24″	58,20,52,25,13, 8, 8,10,32,40		4,15,56,33, 7	
		29,17, 6,54,38,33,25		2, 9
26″	58,20,52,54,30,15, 2,49, 6, 5		4,15,56,35,16	
		29,17, 2,38,41,58, 9		2, 9
28″	58,20,53,23,47,17,41,31, 4,14		4,15,56,37,25	
		29,16,58,22,45,20,44		2, 9
30″	58,20,53,53, 4,16, 4,16,24,58		4,15,56,39,34	
		29,16,54, 6,48,41,10		2, 9
32″	58,20,54,22,21,10,11, 5, 6, 8		4,15,56,41,43	
		29,16,49,50,51,59,27		2, 9
34″	58,20,54,51,38, 0, 1,57, 5,35		4,15,56,43,52	
		29,16,45,34,55,15,35		2, 9
36″	58,20,55,20,54,45,36,52,21,10		4,15,56,46, 1	
		29,16,41,18,58,29,34		2, 9
38″	58,20,55,50,11,26,55,50,50,44		4,15,56,48,10	
		29,16,37, 3, 1,41,24		2, 9
40″	58,20,56,19,28, 3,58,52,32, 8		4,15,56,50,19	
		29,16,32,47, 4,51, 5		2, 9
42″	58,20,56,48,44,36,45,57,23,13		4,15,56,52,28	
		29,16,28,31, 7,58,37		2, 9
44″	58,20,57,18, 1, 5,17, 5,21,50		4,15,56,54,37	
		29,16,24,15,11, 4, 0		2, 9
46″	58,20,57,47,17,29,32,16,25,50		4,15,56,56,46	
		29,16,19,59,14, 7,14		2, 9
48″	58,20,58,16,33,49,31,30,33, 4		4,15,56,58,55	
		29,16,15,43,17, 8,19		2, 9
50″	58,20,58,45,50, 5,14,47,41,23		4,15,57, 1, 4	
		29,16,11,27,20, 7,15		2, 9
52″	58,20,59,15, 6,16,42, 7,48,38		4,15,57, 3,13	
		29,16, 7,11,23, 4, 2		2, 9
54″	58,20,59,44,22,23,53,30,52,40		4,15,57, 5,22	
		29,16, 2,55,25,58,40		2, 9
56″	58,21, 0,13,38,26,48,56,51,20		4,15,57, 7,31	
		29,15,58,39,28,51, 9		2, 9
58″	58,21, 0,42,54,25,28,25,42,29		4,15,57, 9,40	
		29,15,54,23,31,41,29		
60″	58,21, 1,12,10,19,51,57,23,58			
exact	58,21, 1,12,10,19,51,58, 0,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°32′ 0″	58,21, 1,12,10,19,51,58, 0,52			
		29,15,50, 7,34,33,39		
2″	58,21, 1,41,26, 9,59,32,34,31		4,15,57,13,41	
		29,15,45,51,37,19,58		2, 8
4″	58,21, 2,10,41,55,51, 9,54,29		4,15,57,15,49	
		29,15,41,35,40, 4, 9		2, 8
6″	58,21, 2,39,57,37,26,49,58,38		4,15,57,17,57	
		29,15,37,19,42,46,12		2, 8
8″	58,21, 3, 9,13,14,46,32,44,50		4,15,57,20, 5	
		29,15,33, 3,45,26, 7		2, 8
10″	58,21, 3,38,28,47,50,18,10,57		4,15,57,22,13	
		29,15,28,47,48, 3,54		2, 8
12″	58,21, 4, 7,44,16,38, 6,14,51		4,15,57,24,21	
		29,15,24,31,50,39,33		2, 8
14″	58,21, 4,36,59,41, 9,56,54,24		4,15,57,26,29	
		29,15,20,15,53,13, 4		2, 8
16″	58,21, 5, 6,15, 1,25,50, 7,28		4,15,57,28,37	
		29,15,15,59,55,44,27		2, 8
18″	58,21, 5,35,30,17,25,45,51,55		4,15,57,30,45	
		29,15,11,43,58,13,42		2, 8
20″	58,21, 6, 4,45,29, 9,44, 5,37		4,15,57,32,53	
		29,15, 7,28, 0,40,49		2, 8
22″	58,21, 6,34, 0,36,37,44,46,26		4,15,57,35, 1	
		29,15, 3,12, 3, 5,48		2, 8
24″	58,21, 7, 3,15,39,49,47,52,14		4,15,57,37, 9	
		29,14,58,56, 5,28,39		2, 8
26″	58,21, 7,32,30,38,45,53,20,53		4,15,57,39,17	
		29,14,54,40, 7,49,22		2, 8
28″	58,21, 8, 1,45,33,26, 1,10,15		4,15,57,41,25	
		29,14,50,24,10, 7,57		2, 8
30″	58,21, 8,31, 0,23,50,11,18,12		4,15,57,43,33	
		29,14,46, 8,12,24,24		2, 8
32″	58,21, 9, 0,15, 9,58,23,42,36		4,15,57,45,41	
		29,14,41,52,14,38,43		2, 8
34″	58,21, 9,29,29,51,50,38,21,19		4,15,57,47,49	
		29,14,37,36,16,50,54		2, 8
36″	58,21, 9,58,44,29,26,55,12,13		4,15,57,49,57	
		29,14,33,20,19, 0,57		2, 8
38″	58,21,10,27,59, 2,47,14,13,10		4,15,57,52, 5	
		29,14,29, 4,21, 8,52		2, 8
40″	58,21,10,57,13,31,51,35,22, 2		4,15,57,54,13	
		29,14,24,48,23,14,39		2, 8
42″	58,21,11,26,27,56,39,58,36,41		4,15,57,56,21	
		29,14,20,32,25,18,18		2, 8
44″	58,21,11,55,42,17,12,23,54,59		4,15,57,58,29	
		29,14,16,16,27,19,49		2, 8
46″	58,21,12,24,56,33,28,51,14,48		4,15,58, 0,37	
		29,14,12, 0,29,19,12		2, 8
48″	58,21,12,54,10,45,29,20,34, 0		4,15,58, 2,45	
		29,14, 7,44,31,16,27		2, 8
50″	58,21,13,23,24,53,13,51,50,27		4,15,58, 4,53	
		29,14, 3,28,33,11,34		2, 8
52″	58,21,13,52,38,56,42,25, 2, 1		4,15,58, 7, 1	
		29,13,59,12,35, 4,33		2, 8
54″	58,21,14,21,52,55,55, 0, 6,34		4,15,58, 9, 9	
		29,13,54,56,36,55,24		2, 8
56″	58,21,14,51, 6,50,51,37, 1,58		4,15,58,11,17	
		29,13,50,40,38,44, 7		2, 8
58″	58,21,15,20,20,41,32,15,46, 5		4,15,58,13,25	
		29,13,46,24,40,30,42		
60″	58,21,15,49,34,27,56,56,16,47			
exact	58,21,15,49,34,27,56,55,55,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°33′ 0″	58,21,15,49,34,27,56,55,55,11			
		29,13,42, 8,42,12,55		
2″	58,21,16,18,48,10, 5,38, 8, 6		4,15,58,17,50	
		29,13,37,52,43,55, 5		2, 8
4″	58,21,16,48, 1,47,58,22, 3,11		4,15,58,19,58	
		29,13,33,36,45,35, 7		2, 8
6″	58,21,17,17,15,21,35, 7,38,18		4,15,58,22, 6	
		29,13,29,20,47,13, 1		2, 8
8″	58,21,17,46,28,50,55,54,51,19		4,15,58,24,14	
		29,13,25, 4,48,48,47		2, 8
10″	58,21,18,15,42,16, 0,43,40, 6		4,15,58,26,22	
		29,13,20,48,50,22,25		2, 8
12″	58,21,18,44,55,36,49,34, 2,31		4,15,58,28,30	
		29,13,16,32,51,53,55		2, 8
14″	58,21,19,14, 8,53,22,25,56,26		4,15,58,30,38	
		29,13,12,16,53,23,17		2, 8
16″	58,21,19,43,22, 5,39,19,19,43		4,15,58,32,46	
		29,13, 8, 0,54,50,31		2, 8
18″	58,21,20,12,35,13,40,14,10,14		4,15,58,34,54	
		29,13, 3,44,56,15,37		2, 8
20″	58,21,20,41,48,17,25,10,25,51		4,15,58,37, 2	
		29,12,59,28,57,38,35		2, 8
22″	58,21,21,11, 1,16,54, 8, 4,26		4,15,58,39,10	
		29,12,55,12,58,59,25		2, 8
24″	58,21,21,40,14,12, 7, 7, 3,51		4,15,58,41,18	
		29,12,50,57, 0,18, 7		2, 8
26″	58,21,22, 9,27, 3, 4, 7,21,58		4,15,58,43,26	
		29,12,46,41, 1,34,41		2, 8
28″	58,21,22,38,39,49,45, 8,56,39		4,15,58,45,34	
		29,12,42,25, 2,49, 7		2, 8
30″	58,21,23, 7,52,32,10,11,45,46		4,15,58,47,42	
		29,12,38, 9, 4, 1,25		2, 8
32″	58,21,23,37, 5,10,19,15,47,11		4,15,58,49,50	
		29,12,33,53, 5,11,35		2, 8
34″	58,21,24, 6,17,44,12,20,58,46		4,15,58,51,58	
		29,12,29,37, 6,19,37		2, 8
36″	58,21,24,35,30,13,49,27,18,23		4,15,58,54, 6	
		29,12,25,21, 7,25,31		2, 8
38″	58,21,25, 4,42,39,10,34,43,54		4,15,58,56,14	
		29,12,21, 5, 8,29,17		2, 8
40″	58,21,25,33,55, 0,15,43,13,11		4,15,58,58,22	
		29,12,16,49, 9,30,55		2, 8
42″	58,21,26, 3, 7,17, 4,52,44, 6		4,15,59, 0,30	
		29,12,12,33,10,30,25		2, 8
44″	58,21,26,32,19,29,38, 3,14,31		4,15,59, 2,38	
		29,12, 8,17,11,27,47		2, 8
46″	58,21,27, 1,31,37,55,14,42,18		4,15,59, 4,46	
		29,12, 4, 1,12,23, 1		2, 8
48″	58,21,27,30,43,41,56,27, 5,19		4,15,59, 6,54	
		29,11,59,45,13,16, 7		2, 8
50″	58,21,27,59,55,41,41,40,21,26		4,15,59, 9, 2	
		29,11,55,29,14, 7, 5		2, 8
52″	58,21,28,29, 7,37,10,54,28,31		4,15,59,11,10	
		29,11,51,13,14,55,55		2, 8
54″	58,21,28,58,19,28,24, 9,24,26		4,15,59,13,18	
		29,11,46,57,15,42,37		2, 8
56″	58,21,29,27,31,15,21,25, 7, 3		4,15,59,15,26	
		29,11,42,41,16,27,11		2, 8
58″	58,21,29,56,42,58, 2,41,34,14		4,15,59,17,34	
		29,11,38,25,17, 9,37		
60″	58,21,30,25,54,36,27,58,43,51			
exact	58,21,30,25,54,36,27,58,35,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°34′ 0″	58,21,30,25,54,36,27,58,35,39			
		29,11,34, 9,17,49, 1		
2″	58,21,30,55, 6,10,37,16,24,40		4,15,59,21,53	
		29,11,29,53,18,27, 8		2, 8
4″	58,21,31,24,17,40,30,34,51,48		4,15,59,24, 1	
		29,11,25,37,19, 3, 7		2, 8
6″	58,21,31,53,29, 6, 7,53,54,55		4,15,59,26, 9	
		29,11,21,21,19,36,58		2, 8
8″	58,21,32,22,40,27,29,13,31,53		4,15,59,28,17	
		29,11,17, 5,20, 8,41		2, 8
10″	58,21,32,51,51,44,34,33,40,34		4,15,59,30,25	
		29,11,12,49,20,38,16		2, 8
12″	58,21,33,21, 2,57,23,54,18,50		4,15,59,32,33	
		29,11, 8,33,21, 5,43		2, 8
14″	58,21,33,50,14, 5,57,15,24,33		4,15,59,34,41	
		29,11, 4,17,21,31, 2		2, 8
16″	58,21,34,19,25,10,14,36,55,35		4,15,59,36,49	
		29,11, 0, 1,21,54,13		2, 8
18″	58,21,34,48,36,10,15,58,49,48		4,15,59,38,57	
		29,10,55,45,22,15,16		2, 8
20″	58,21,35,17,47, 6, 1,21, 5, 4		4,15,59,41, 5	
		29,10,51,29,22,34,11		2, 8
22″	58,21,35,46,57,57,30,43,39,15		4,15,59,43,13	
		29,10,47,13,22,50,58		2, 8
24″	58,21,36,16, 8,44,44, 6,30,13		4,15,59,45,21	
		29,10,42,57,23, 5,37		2, 8
26″	58,21,36,45,19,27,41,29,35,50		4,15,59,47,29	
		29,10,38,41,23,18, 8		2, 8
28″	58,21,37,14,30, 6,22,52,53,58		4,15,59,49,37	
		29,10,34,25,23,28,31		2, 8
30″	58,21,37,43,40,40,48,16,22,29		4,15,59,51,45	
		29,10,30, 9,23,36,46		2, 8
32″	58,21,38,12,51,10,57,39,59,15		4,15,59,53,53	
		29,10,25,53,23,42,53		2, 8
34″	58,21,38,42, 1,36,51, 3,42, 8		4,15,59,56, 1	
		29,10,21,37,23,46,52		2, 8
36″	58,21,39,11,11,58,28,27,29, 0		4,15,59,58, 9	
		29,10,17,21,23,48,43		2, 8
38″	58,21,39,40,22,15,49,51,17,43		4,16, 0, 0,17	
		29,10,13, 5,23,48,26		2, 8
40″	58,21,40, 9,32,28,55,15, 6, 9		4,16, 0, 2,25	
		29,10, 8,49,23,46, 1		2, 8
42″	58,21,40,38,42,37,44,38,52,10		4,16, 0, 4,33	
		29,10, 4,33,23,41,28		2, 8
44″	58,21,41, 7,52,42,18, 2,33,38		4,16, 0, 6,41	
		29,10, 0,17,23,34,47		2, 8
46″	58,21,41,37, 2,42,35,26, 8,25		4,16, 0, 8,49	
		29, 9,56, 1,23,25,58		2, 8
48″	58,21,42, 6,12,38,36,49,34,23		4,16, 0,10,57	
		29, 9,51,45,23,15, 1		2, 8
50″	58,21,42,35,22,30,22,12,49,24		4,16, 0,13, 5	
		29, 9,47,29,23, 1,56		2, 8
52″	58,21,43, 4,32,17,51,35,51,20		4,16, 0,15,13	
		29, 9,43,13,22,46,43		2, 8
54″	58,21,43,33,42, 1, 4,58,38, 3		4,16, 0,17,21	
		29, 9,38,57,22,29,22		2, 8
56″	58,21,44, 2,51,40, 2,21, 7,25		4,16, 0,19,29	
		29, 9,34,41,22, 9,53		2, 8
58″	58,21,44,32, 1,14,43,43,17,18		4,16, 0,21,37	
		29, 9,30,25,21,48,16		
60″	58,21,45, 1,10,45, 9, 5, 5,34			
exact	58,21,45, 1,10,45, 9, 5, 1,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°35′ 0″	58,21,45, 1,10,45, 9, 5, 1,42			
		29, 9,26, 9,21,24,19		
2″	58,21,45,30,20,11,18,26,26, 1		4,16, 0,25,53	
		29, 9,21,53,20,58,26		2, 8
4″	58,21,45,59,29,33,11,47,24,27		4,16, 0,28, 1	
		29, 9,17,37,20,30,25		2, 8
6″	58,21,46,28,38,50,49, 7,54,52		4,16, 0,30, 9	
		29, 9,13,21,20, 0,16		2, 8
8″	58,21,46,57,48, 4,10,27,55, 8		4,16, 0,32,17	
		29, 9, 9, 5,19,27,59		2, 8
10″	58,21,47,26,57,13,15,47,23, 7		4,16, 0,34,25	
		29, 9, 4,49,18,53,34		2, 8
12″	58,21,47,56, 6,18, 5, 6,16,41		4,16, 0,36,33	
		29, 9, 0,33,18,17, 1		2, 8
14″	58,21,48,25,15,18,38,24,33,42		4,16, 0,38,41	
		29, 8,56,17,17,38,20		2, 8
16″	58,21,48,54,24,14,55,42,12, 2		4,16, 0,40,49	
		29, 8,52, 1,16,57,31		2, 8
18″	58,21,49,23,33, 6,56,59, 9,33		4,16, 0,42,57	
		29, 8,47,45,16,14,34		2, 8
20″	58,21,49,52,41,54,42,15,24, 7		4,16, 0,45, 5	
		29, 8,43,29,15,29,29		2, 8
22″	58,21,50,21,50,38,11,30,53,36		4,16, 0,47,13	
		29, 8,39,13,14,42,16		2, 8
24″	58,21,50,50,59,17,24,45,35,52		4,16, 0,49,21	
		29, 8,34,57,13,52,55		2, 8
26″	58,21,51,20, 7,52,21,59,28,47		4,16, 0,51,29	
		29, 8,30,41,13, 1,26		2, 8
28″	58,21,51,49,16,23, 3,12,30,13		4,16, 0,53,37	
		29, 8,26,25,12, 7,49		2, 8
30″	58,21,52,18,24,49,28,24,38, 2		4,16, 0,55,45	
		29, 8,22, 9,11,12, 4		2, 8
32″	58,21,52,47,33,11,37,35,50, 6		4,16, 0,57,53	
		29, 8,17,53,10,14,11		2, 8
34″	58,21,53,16,41,29,30,46, 4,17		4,16, 1, 0, 1	
		29, 8,13,37, 9,14,10		2, 8
36″	58,21,53,45,49,43, 7,55,18,27		4,16, 1, 2, 9	
		29, 8, 9,21, 8,12, 1		2, 8
38″	58,21,54,14,57,52,29, 3,30,28		4,16, 1, 4,17	
		29, 8, 5, 5, 7, 7,44		2, 8
40″	58,21,54,44, 5,57,34,10,38,12		4,16, 1, 6,25	
		29, 8, 0,49, 6, 1,19		2, 8
42″	58,21,55,13,13,58,23,16,39,31		4,16, 1, 8,33	
		29, 7,56,33, 4,52,46		2, 8
44″	58,21,55,42,21,54,56,21,32,17		4,16, 1,10,41	
		29, 7,52,17, 3,42, 5		2, 8
46″	58,21,56,11,29,47,13,25,14,22		4,16, 1,12,49	
		29, 7,48, 1, 2,29,16		2, 8
48″	58,21,56,40,37,35,14,27,43,38		4,16, 1,14,57	
		29, 7,43,45, 1,14,19		2, 8
50″	58,21,57, 9,45,18,59,28,57,57		4,16, 1,17, 5	
		29, 7,39,28,59,57,14		2, 8
52″	58,21,57,38,52,58,28,28,55,11		4,16, 1,19,13	
		29, 7,35,12,58,38, 1		2, 8
54″	58,21,58, 8, 0,33,41,27,33,12		4,16, 1,21,21	
		29, 7,30,56,57,16,40		2, 8
56″	58,21,58,37, 8, 4,38,24,49,52		4,16, 1,23,29	
		29, 7,26,40,55,53,11		2, 8
58″	58,21,59, 6,15,31,19,20,43, 3		4,16, 1,25,37	
		29, 7,22,24,54,27,34		
60″	58,21,59,35,22,53,44,15,10,37			
exact	58,21,59,35,22,53,44,15,22,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°36′ 0″	58,21,59,35,22,53,44,15,22,56			
		29, 7,18, 8,53, 1, 8		
2″	58,22, 0, 4,30,11,53, 8,24, 4		4,16, 1,29,47	
		29, 7,13,52,51,31,21		2, 8
4″	58,22, 0,33,37,25,45,59,55,25		4,16, 1,31,55	
		29, 7, 9,36,49,59,26		2, 8
6″	58,22, 1, 2,44,35,22,49,54,51		4,16, 1,34, 3	
		29, 7, 5,20,48,25,23		2, 8
8″	58,22, 1,31,51,40,43,38,20,14		4,16, 1,36,11	
		29, 7, 1, 4,46,49,12		2, 8
10″	58,22, 2, 0,58,41,48,25, 9,26		4,16, 1,38,19	
		29, 6,56,48,45,10,53		2, 8
12″	58,22, 2,30, 5,38,37,10,20,19		4,16, 1,40,27	
		29, 6,52,32,43,30,26		2, 8
14″	58,22, 2,59,12,31, 9,53,50,45		4,16, 1,42,35	
		29, 6,48,16,41,47,51		2, 8
16″	58,22, 3,28,19,19,26,35,38,36		4,16, 1,44,43	
		29, 6,44, 0,40, 3, 8		2, 8
18″	58,22, 3,57,26, 3,27,15,41,44		4,16, 1,46,51	
		29, 6,39,44,38,16,17		2, 8
20″	58,22, 4,26,32,43,11,53,58, 1		4,16, 1,48,59	
		29, 6,35,28,36,27,18		2, 8
22″	58,22, 4,55,39,18,40,30,25,19		4,16, 1,51, 7	
		29, 6,31,12,34,36,11		2, 8
24″	58,22, 5,24,45,49,53, 5, 1,30		4,16, 1,53,15	
		29, 6,26,56,32,42,56		2, 8
26″	58,22, 5,53,52,16,49,37,44,26		4,16, 1,55,23	
		29, 6,22,40,30,47,33		2, 8
28″	58,22, 6,22,58,39,30, 8,31,59		4,16, 1,57,31	
		29, 6,18,24,28,50, 2		2, 8
30″	58,22, 6,52, 4,57,54,37,22, 1		4,16, 1,59,39	
		29, 6,14, 8,26,50,23		2, 8
32″	58,22, 7,21,11,12, 3, 4,12,24		4,16, 2, 1,47	
		29, 6, 9,52,24,48,36		2, 8
34″	58,22, 7,50,17,21,55,29, 1, 0		4,16, 2, 3,55	
		29, 6, 5,36,22,44,41		2, 8
36″	58,22, 8,19,23,27,31,51,45,41		4,16, 2, 6, 3	
		29, 6, 1,20,20,38,38		2, 8
38″	58,22, 8,48,29,28,52,12,24,19		4,16, 2, 8,11	
		29, 5,57, 4,18,30,27		2, 8
40″	58,22, 9,17,35,25,56,30,54,46		4,16, 2,10,19	
		29, 5,52,48,16,20, 8		2, 8
42″	58,22, 9,46,41,18,44,47,14,54		4,16, 2,12,27	
		29, 5,48,32,14, 7,41		2, 8
44″	58,22,10,15,47, 7,17, 1,22,35		4,16, 2,14,35	
		29, 5,44,16,11,53, 6		2, 8
46″	58,22,10,44,52,51,33,13,15,41		4,16, 2,16,43	
		29, 5,40, 0, 9,36,23		2, 8
48″	58,22,11,13,58,31,33,22,52, 4		4,16, 2,18,51	
		29, 5,35,44, 7,17,32		2, 8
50″	58,22,11,43, 4, 7,17,30, 9,36		4,16, 2,20,59	
		29, 5,31,28, 4,56,33		2, 8
52″	58,22,12,12, 9,38,45,35, 6, 9		4,16, 2,23, 7	
		29, 5,27,12, 2,33,26		2, 8
54″	58,22,12,41,15, 5,57,37,39,35		4,16, 2,25,15	
		29, 5,22,56, 0, 8,11		2, 8
56″	58,22,13,10,20,28,53,37,47,46		4,16, 2,27,23	
		29, 5,18,39,57,40,48		2, 8
58″	58,22,13,39,25,47,33,35,28,34		4,16, 2,29,31	
		29, 5,14,23,55,11,17		
60″	58,22,14, 8,31, 1,57,30,39,51			
exact	58,22,14, 8,31, 1,57,30,59, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°37′ 0″	58,22,14, 8,31, 1,57,30,59, 9			
		29, 5,10, 7,52,41,50		
2″	58,22,14,37,36,12, 5,23,40,59		4,16, 2,33,37	
		29, 5, 5,51,50, 8,13		2, 8
4″	58,22,15, 6,41,17,57,13,49,12		4,16, 2,35,45	
		29, 5, 1,35,47,32,28		2, 8
6″	58,22,15,35,46,19,33, 1,21,40		4,16, 2,37,53	
		29, 4,57,19,44,54,35		2, 8
8″	58,22,16, 4,51,16,52,46,16,15		4,16, 2,40, 1	
		29, 4,53, 3,42,14,34		2, 8
10″	58,22,16,33,56, 9,56,28,30,49		4,16, 2,42, 9	
		29, 4,48,47,39,32,25		2, 8
12″	58,22,17, 3, 0,58,44, 8, 3,14		4,16, 2,44,17	
		29, 4,44,31,36,48, 8		2, 8
14″	58,22,17,32, 5,43,15,44,51,22		4,16, 2,46,25	
		29, 4,40,15,34, 1,43		2, 8
16″	58,22,18, 1,10,23,31,18,53, 5		4,16, 2,48,33	
		29, 4,35,59,31,13,10		2, 8
18″	58,22,18,30,14,59,30,50, 6,15		4,16, 2,50,41	
		29, 4,31,43,28,22,29		2, 8
20″	58,22,18,59,19,31,14,18,28,44		4,16, 2,52,49	
		29, 4,27,27,25,29,40		2, 8
22″	58,22,19,28,23,58,41,43,58,24		4,16, 2,54,57	
		29, 4,23,11,22,34,43		2, 8
24″	58,22,19,57,28,21,53, 6,33, 7		4,16, 2,57, 5	
		29, 4,18,55,19,37,38		2, 8
26″	58,22,20,26,32,40,48,26,10,45		4,16, 2,59,13	
		29, 4,14,39,16,38,25		2, 8
28″	58,22,20,55,36,55,27,42,49,10		4,16, 3, 1,21	
		29, 4,10,23,13,37, 4		2, 8
30″	58,22,21,24,41, 5,50,56,26,14		4,16, 3, 3,29	
		29, 4, 6, 7,10,33,35		2, 8
32″	58,22,21,53,45,11,58, 6,59,49		4,16, 3, 5,37	
		29, 4, 1,51, 7,27,58		2, 8
34″	58,22,22,22,49,13,49,14,27,47		4,16, 3, 7,45	
		29, 3,57,35, 4,20,13		2, 8
36″	58,22,22,51,53,11,24,18,48, 0		4,16, 3, 9,53	
		29, 3,53,19, 1,10,20		2, 8
38″	58,22,23,20,57, 4,43,19,58,20		4,16, 3,12, 1	
		29, 3,49, 2,57,58,19		2, 8
40″	58,22,23,50, 0,53,46,17,56,39		4,16, 3,14, 9	
		29, 3,44,46,54,44,10		2, 8
42″	58,22,24,19, 4,38,33,12,40,49		4,16, 3,16,17	
		29, 3,40,30,51,27,53		2, 8
44″	58,22,24,48, 8,19, 4, 4, 8,42		4,16, 3,18,25	
		29, 3,36,14,48, 9,28		2, 8
46″	58,22,25,17,11,55,18,52,18,10		4,16, 3,20,33	
		29, 3,31,58,44,48,55		2, 8
48″	58,22,25,46,15,27,17,37, 7, 5		4,16, 3,22,41	
		29, 3,27,42,41,26,14		2, 8
50″	58,22,26,15,18,55, 0,18,33,19		4,16, 3,24,49	
		29, 3,23,26,38, 1,25		2, 8
52″	58,22,26,44,22,18,26,56,34,44		4,16, 3,26,57	
		29, 3,19,10,34,34,28		2, 8
54″	58,22,27,13,25,37,37,31, 9,12		4,16, 3,29, 5	
		29, 3,14,54,31, 5,23		2, 8
56″	58,22,27,42,28,52,32, 2,14,35		4,16, 3,31,13	
		29, 3,10,38,27,34,10		2, 8
58″	58,22,28,11,32, 3,10,29,48,45		4,16, 3,33,21	
		29, 3, 6,22,24, 0,49		
60″	58,22,28,40,35, 9,32,53,49,34			
exact	58,22,28,40,35, 9,32,54,20,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°38′ 0″	58,22,28,40,35, 9,32,54,20,18			
		29, 3, 2, 6,20,28,44		
2″	58,22,29, 9,38,11,39,14,49, 2		4,16, 3,37,22	
		29, 2,57,50,16,51,22		2, 7
4″	58,22,29,38,41, 9,29,31,40,24		4,16, 3,39,29	
		29, 2,53,34,13,11,53		2, 7
6″	58,22,30, 7,44, 3, 3,44,52,17		4,16, 3,41,36	
		29, 2,49,18, 9,30,17		2, 7
8″	58,22,30,36,46,52,21,54,22,34		4,16, 3,43,43	
		29, 2,45, 2, 5,46,34		2, 7
10″	58,22,31, 5,49,37,24, 0, 9, 8		4,16, 3,45,50	
		29, 2,40,46, 2, 0,44		2, 7
12″	58,22,31,34,52,18,10, 2, 9,52		4,16, 3,47,57	
		29, 2,36,29,58,12,47		2, 7
14″	58,22,32, 3,54,54,40, 0,22,39		4,16, 3,50, 4	
		29, 2,32,13,54,22,43		2, 7
16″	58,22,32,32,57,26,53,54,45,22		4,16, 3,52,11	
		29, 2,27,57,50,30,32		2, 7
18″	58,22,33, 1,59,54,51,45,15,54		4,16, 3,54,18	
		29, 2,23,41,46,36,14		2, 7
20″	58,22,33,31, 2,18,33,31,52, 8		4,16, 3,56,25	
		29, 2,19,25,42,39,49		2, 7
22″	58,22,34, 0, 4,37,59,14,31,57		4,16, 3,58,32	
		29, 2,15, 9,38,41,17		2, 7
24″	58,22,34,29, 6,53, 8,53,13,14		4,16, 4, 0,39	
		29, 2,10,53,34,40,38		2, 7
26″	58,22,34,58, 9, 4, 2,27,53,52		4,16, 4, 2,46	
		29, 2, 6,37,30,37,52		2, 7
28″	58,22,35,27,11,10,39,58,31,44		4,16, 4, 4,53	
		29, 2, 2,21,26,32,59		2, 7
30″	58,22,35,56,13,13, 1,25, 4,43		4,16, 4, 7, 0	
		29, 1,58, 5,22,25,59		2, 7
32″	58,22,36,25,15,11, 6,47,30,42		4,16, 4, 9, 7	
		29, 1,53,49,18,16,52		2, 7
34″	58,22,36,54,17, 4,56, 5,47,34		4,16, 4,11,14	
		29, 1,49,33,14, 5,38		2, 7
36″	58,22,37,23,18,54,29,19,53,12		4,16, 4,13,21	
		29, 1,45,17, 9,52,17		2, 7
38″	58,22,37,52,20,39,46,29,45,29		4,16, 4,15,28	
		29, 1,41, 1, 5,36,49		2, 7
40″	58,22,38,21,22,20,47,35,22,18		4,16, 4,17,35	
		29, 1,36,45, 1,19,14		2, 7
42″	58,22,38,50,23,57,32,36,41,32		4,16, 4,19,42	
		29, 1,32,28,56,59,32		2, 7
44″	58,22,39,19,25,30, 1,33,41, 4		4,16, 4,21,49	
		29, 1,28,12,52,37,43		2, 7
46″	58,22,39,48,26,58,14,26,18,47		4,16, 4,23,56	
		29, 1,23,56,48,13,47		2, 7
48″	58,22,40,17,28,22,11,14,32,34		4,16, 4,26, 3	
		29, 1,19,40,43,47,44		2, 7
50″	58,22,40,46,29,41,51,58,20,18		4,16, 4,28,10	
		29, 1,15,24,39,19,34		2, 7
52″	58,22,41,15,30,57,16,37,39,52		4,16, 4,30,17	
		29, 1,11, 8,34,49,17		2, 7
54″	58,22,41,44,32, 8,25,12,29, 9		4,16, 4,32,24	
		29, 1, 6,52,30,16,53		2, 7
56″	58,22,42,13,33,15,17,42,46, 2		4,16, 4,34,31	
		29, 1, 2,36,25,42,22		2, 7
58″	58,22,42,42,34,17,54, 8,28,24		4,16, 4,36,38	
		29, 0,58,20,21, 5,44		
60″	58,22,43,11,35,16,14,29,34, 8			
exact	58,22,43,11,35,16,14,29, 6,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°39′ 0″	58,22,43,11,35,16,14,29, 6,36			
		29, 0,54, 4,16,24,11		
2″	58,22,43,40,36,10,18,45,30,47		4,16, 4,41, 3	
		29, 0,49,48,11,43, 8		2, 7
4″	58,22,44, 9,37, 0, 6,57,13,55		4,16, 4,43,10	
		29, 0,45,32, 6,59,58		2, 7
6″	58,22,44,38,37,45,39, 4,13,53		4,16, 4,45,17	
		29, 0,41,16, 2,14,41		2, 7
8″	58,22,45, 7,38,26,55, 6,28,34		4,16, 4,47,24	
		29, 0,36,59,57,27,17		2, 7
10″	58,22,45,36,39, 3,55, 3,55,51		4,16, 4,49,31	
		29, 0,32,43,52,37,46		2, 7
12″	58,22,46, 5,39,36,38,56,33,37		4,16, 4,51,38	
		29, 0,28,27,47,46, 8		2, 7
14″	58,22,46,34,40, 5, 6,44,19,45		4,16, 4,53,45	
		29, 0,24,11,42,52,23		2, 7
16″	58,22,47, 3,40,29,18,27,12, 8		4,16, 4,55,52	
		29, 0,19,55,37,56,31		2, 7
18″	58,22,47,32,40,49,14, 5, 8,39		4,16, 4,57,59	
		29, 0,15,39,32,58,32		2, 7
20″	58,22,48, 1,41, 4,53,38, 7,11		4,16, 5, 0, 6	
		29, 0,11,23,27,58,26		2, 7
22″	58,22,48,30,41,16,17, 6, 5,37		4,16, 5, 2,13	
		29, 0, 7, 7,22,56,13		2, 7
24″	58,22,48,59,41,23,24,29, 1,50		4,16, 5, 4,20	
		29, 0, 2,51,17,51,53		2, 7
26″	58,22,49,28,41,26,15,46,53,43		4,16, 5, 6,27	
		28,59,58,35,12,45,26		2, 7
28″	58,22,49,57,41,24,50,59,39, 9		4,16, 5, 8,34	
		28,59,54,19, 7,36,52		2, 7
30″	58,22,50,26,41,19,10, 7,16, 1		4,16, 5,10,41	
		28,59,50, 3, 2,26,11		2, 7
32″	58,22,50,55,41, 9,13, 9,42,12		4,16, 5,12,48	
		28,59,45,46,57,13,23		2, 7
34″	58,22,51,24,40,55, 0, 6,55,35		4,16, 5,14,55	
		28,59,41,30,51,58,28		2, 7
36″	58,22,51,53,40,36,30,58,54, 3		4,16, 5,17, 2	
		28,59,37,14,46,41,26		2, 7
38″	58,22,52,22,40,13,45,45,35,29		4,16, 5,19, 9	
		28,59,32,58,41,22,17		2, 7
40″	58,22,52,51,39,46,44,26,57,46		4,16, 5,21,16	
		28,59,28,42,36, 1, 1		2, 7
42″	58,22,53,20,39,15,27, 2,58,47		4,16, 5,23,23	
		28,59,24,26,30,37,38		2, 7
44″	58,22,53,49,38,39,53,33,36,25		4,16, 5,25,30	
		28,59,20,10,25,12, 8		2, 7
46″	58,22,54,18,38, 0, 3,58,48,33		4,16, 5,27,37	
		28,59,15,54,19,44,31		2, 7
48″	58,22,54,47,37,15,58,18,33, 4		4,16, 5,29,44	
		28,59,11,38,14,14,47		2, 7
50″	58,22,55,16,36,27,36,32,47,51		4,16, 5,31,51	
		28,59, 7,22, 8,42,56		2, 7
52″	58,22,55,45,35,34,58,41,30,47		4,16, 5,33,58	
		28,59, 3, 6, 3, 8,58		2, 7
54″	58,22,56,14,34,38, 4,44,39,45		4,16, 5,36, 5	
		28,58,58,49,57,32,53		2, 7
56″	58,22,56,43,33,36,54,42,12,38		4,16, 5,38,12	
		28,58,54,33,51,54,41		2, 7
58″	58,22,57,12,32,31,28,34, 7,19		4,16, 5,40,19	
		28,58,50,17,46,14,22		
60″	58,22,57,41,31,21,46,20,21,41			
exact	58,22,57,41,31,21,46,20, 8,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°40′ 0″	58,22,57,41,31,21,46,20, 8,23			
		28,58,46, 1,40,30,31		
2″	58,22,58,10,30, 7,48, 0,38,54		4,16, 5,44,38	
		28,58,41,45,34,45,53		2, 7
4″	58,22,58,39,28,49,33,35,24,47		4,16, 5,46,45	
		28,58,37,29,28,59, 8		2, 7
6″	58,22,59, 8,27,27, 3, 4,23,55		4,16, 5,48,52	
		28,58,33,13,23,10,16		2, 7
8″	58,22,59,37,26, 0,16,27,34,11		4,16, 5,50,59	
		28,58,28,57,17,19,17		2, 7
10″	58,23, 0, 6,24,29,13,44,53,28		4,16, 5,53, 6	
		28,58,24,41,11,26,11		2, 7
12″	58,23, 0,35,22,53,54,56,19,39		4,16, 5,55,13	
		28,58,20,25, 5,30,58		2, 7
14″	58,23, 1, 4,21,14,20, 1,50,37		4,16, 5,57,20	
		28,58,16, 8,59,33,38		2, 7
16″	58,23, 1,33,19,30,29, 1,24,15		4,16, 5,59,27	
		28,58,11,52,53,34,11		2, 7
18″	58,23, 2, 2,17,42,21,54,58,26		4,16, 6, 1,34	
		28,58, 7,36,47,32,37		2, 7
20″	58,23, 2,31,15,49,58,42,31, 3		4,16, 6, 3,41	
		28,58, 3,20,41,28,56		2, 7
22″	58,23, 3, 0,13,53,19,23,59,59		4,16, 6, 5,48	
		28,57,59, 4,35,23, 8		2, 7
24″	58,23, 3,29,11,52,23,59,23, 7		4,16, 6, 7,55	
		28,57,54,48,29,15,13		2, 7
26″	58,23, 3,58, 9,47,12,28,38,20		4,16, 6,10, 2	
		28,57,50,32,23, 5,11		2, 7
28″	58,23, 4,27, 7,37,44,51,43,31		4,16, 6,12, 9	
		28,57,46,16,16,53, 2		2, 7
30″	58,23, 4,56, 5,24, 1, 8,36,33		4,16, 6,14,16	
		28,57,42, 0,10,38,46		2, 7
32″	58,23, 5,25, 3, 6, 1,19,15,19		4,16, 6,16,23	
		28,57,37,44, 4,22,23		2, 7
34″	58,23, 5,54, 0,43,45,23,37,42		4,16, 6,18,30	
		28,57,33,27,58, 3,53		2, 7
36″	58,23, 6,22,58,17,13,21,41,35		4,16, 6,20,37	
		28,57,29,11,51,43,16		2, 7
38″	58,23, 6,51,55,46,25,13,24,51		4,16, 6,22,44	
		28,57,24,55,45,20,32		2, 7
40″	58,23, 7,20,53,11,20,58,45,23		4,16, 6,24,51	
		28,57,20,39,38,55,41		2, 7
42″	58,23, 7,49,50,32, 0,37,41, 4		4,16, 6,26,58	
		28,57,16,23,32,28,43		2, 7
44″	58,23, 8,18,47,48,24,10, 9,47		4,16, 6,29, 5	
		28,57,12, 7,25,59,38		2, 7
46″	58,23, 8,47,45, 0,31,36, 9,25		4,16, 6,31,12	
		28,57, 7,51,19,28,26		2, 7
48″	58,23, 9,16,42, 8,22,55,37,51		4,16, 6,33,19	
		28,57, 3,35,12,55, 7		2, 7
50″	58,23, 9,45,39,11,58, 8,32,58		4,16, 6,35,26	
		28,56,59,19, 6,19,41		2, 7
52″	58,23,10,14,36,11,17,14,52,39		4,16, 6,37,33	
		28,56,55, 2,59,42, 8		2, 7
54″	58,23,10,43,33, 6,20,14,34,47		4,16, 6,39,40	
		28,56,50,46,53, 2,28		2, 7
56″	58,23,11,12,29,57, 7, 7,37,15		4,16, 6,41,47	
		28,56,46,30,46,20,41		2, 7
58″	58,23,11,41,26,43,37,53,57,56		4,16, 6,43,54	
		28,56,42,14,39,36,47		
60″	58,23,12,10,23,25,52,33,34,43			
exact	58,23,12,10,23,25,52,33,26,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°41′ 0″	58,23,12,10,23,25,52,33,26,15			
		28,56,37,58,32,50, 5		
2″	58,23,12,39,20, 3,51, 6,16,20		4,16, 6,48,10	
		28,56,33,42,26, 1,55		2, 7
4″	58,23,13, 8,16,37,33,32,18,15		4,16, 6,50,17	
		28,56,29,26,19,11,38		2, 7
6″	58,23,13,37,13, 6,59,51,29,53		4,16, 6,52,24	
		28,56,25,10,12,19,14		2, 7
8″	58,23,14, 6, 9,32,10, 3,49, 7		4,16, 6,54,31	
		28,56,20,54, 5,24,43		2, 7
10″	58,23,14,35, 5,53, 4, 9,13,50		4,16, 6,56,38	
		28,56,16,37,58,28, 5		2, 7
12″	58,23,15, 4, 2, 9,42, 7,41,55		4,16, 6,58,45	
		28,56,12,21,51,29,20		2, 7
14″	58,23,15,32,58,22, 3,59,11,15		4,16, 7, 0,52	
		28,56, 8, 5,44,28,28		2, 7
16″	58,23,16, 1,54,30, 9,43,39,43		4,16, 7, 2,59	
		28,56, 3,49,37,25,29		2, 7
18″	58,23,16,30,50,33,59,21, 5,12		4,16, 7, 5, 6	
		28,55,59,33,30,20,23		2, 7
20″	58,23,16,59,46,33,32,51,25,35		4,16, 7, 7,13	
		28,55,55,17,23,13,10		2, 7
22″	58,23,17,28,42,28,50,14,38,45		4,16, 7, 9,20	
		28,55,51, 1,16, 3,50		2, 7
24″	58,23,17,57,38,19,51,30,42,35		4,16, 7,11,27	
		28,55,46,45, 8,52,23		2, 7
26″	58,23,18,26,34, 6,36,39,34,58		4,16, 7,13,34	
		28,55,42,29, 1,38,49		2, 7
28″	58,23,18,55,29,49, 5,41,13,47		4,16, 7,15,41	
		28,55,38,12,54,23, 8		2, 7
30″	58,23,19,24,25,27,18,35,36,55		4,16, 7,17,48	
		28,55,33,56,47, 5,20		2, 7
32″	58,23,19,53,21, 1,15,22,42,15		4,16, 7,19,55	
		28,55,29,40,39,45,25		2, 7
34″	58,23,20,22,16,30,56, 2,27,40		4,16, 7,22, 2	
		28,55,25,24,32,23,23		2, 7
36″	58,23,20,51,11,56,20,34,51, 3		4,16, 7,24, 9	
		28,55,21, 8,24,59,14		2, 7
38″	58,23,21,20, 7,17,28,59,50,17		4,16, 7,26,16	
		28,55,16,52,17,32,58		2, 7
40″	58,23,21,49, 2,34,21,17,23,15		4,16, 7,28,23	
		28,55,12,36,10, 4,35		2, 7
42″	58,23,22,17,57,46,57,27,27,50		4,16, 7,30,30	
		28,55, 8,20, 2,34, 5		2, 7
44″	58,23,22,46,52,55,17,30, 1,55		4,16, 7,32,37	
		28,55, 4, 3,55, 1,28		2, 7
46″	58,23,23,15,47,59,21,25, 3,23		4,16, 7,34,44	
		28,54,59,47,47,26,44		2, 7
48″	58,23,23,44,42,59, 9,12,30, 7		4,16, 7,36,51	
		28,54,55,31,39,49,53		2, 7
50″	58,23,24,13,37,54,40,52,20, 0		4,16, 7,38,58	
		28,54,51,15,32,10,55		2, 7
52″	58,23,24,42,32,45,56,24,30,55		4,16, 7,41, 5	
		28,54,46,59,24,29,50		2, 7
54″	58,23,25,11,27,32,55,49, 0,45		4,16, 7,43,12	
		28,54,42,43,16,46,38		2, 7
56″	58,23,25,40,22,15,39, 5,47,23		4,16, 7,45,19	
		28,54,38,27, 9, 1,19		2, 7
58″	58,23,26, 9,16,54, 6,14,48,42		4,16, 7,47,26	
		28,54,34,11, 1,13,53		
60″	58,23,26,38,11,28,17,16, 2,35			
exact	58,23,26,38,11,28,17,16,11, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°42′ 0″	58,23,26,38,11,28,17,16,11, 0			
		28,54,29,54,53,25,13		
2″	58,23,27, 7, 5,58,12, 9,36,13		4,16, 7,51,36	
		28,54,25,38,45,33,37		2, 7
4″	58,23,27,36, 0,23,50,55, 9,50		4,16, 7,53,43	
		28,54,21,22,37,39,54		2, 7
6″	58,23,28, 4,54,45,13,32,49,44		4,16, 7,55,50	
		28,54,17, 6,29,44, 4		2, 7
8″	58,23,28,33,49, 2,20, 2,33,48		4,16, 7,57,57	
		28,54,12,50,21,46, 7		2, 7
10″	58,23,29, 2,43,15,10,24,19,55		4,16, 8, 0, 4	
		28,54, 8,34,13,46, 3		2, 7
12″	58,23,29,31,37,23,44,38, 5,58		4,16, 8, 2,11	
		28,54, 4,18, 5,43,52		2, 7
14″	58,23,30, 0,31,28, 2,43,49,50		4,16, 8, 4,18	
		28,54, 0, 1,57,39,34		2, 7
16″	58,23,30,29,25,28, 4,41,29,24		4,16, 8, 6,25	
		28,53,55,45,49,33, 9		2, 7
18″	58,23,30,58,19,23,50,31, 2,33		4,16, 8, 8,32	
		28,53,51,29,41,24,37		2, 7
20″	58,23,31,27,13,15,20,12,27,10		4,16, 8,10,39	
		28,53,47,13,33,13,58		2, 7
22″	58,23,31,56, 7, 2,33,45,41, 8		4,16, 8,12,46	
		28,53,42,57,25, 1,12		2, 7
24″	58,23,32,25, 0,45,31,10,42,20		4,16, 8,14,53	
		28,53,38,41,16,46,19		2, 7
26″	58,23,32,53,54,24,12,27,28,39		4,16, 8,17, 0	
		28,53,34,25, 8,29,19		2, 7
28″	58,23,33,22,47,58,37,35,57,58		4,16, 8,19, 7	
		28,53,30, 9, 0,10,12		2, 7
30″	58,23,33,51,41,28,46,36, 8,10		4,16, 8,21,14	
		28,53,25,52,51,48,58		2, 7
32″	58,23,34,20,34,54,39,27,57, 8		4,16, 8,23,21	
		28,53,21,36,43,25,37		2, 7
34″	58,23,34,49,28,16,16,11,22,45		4,16, 8,25,28	
		28,53,17,20,35, 0, 9		2, 7
36″	58,23,35,18,21,33,36,46,22,54		4,16, 8,27,35	
		28,53,13, 4,26,32,34		2, 7
38″	58,23,35,47,14,46,41,12,55,28		4,16, 8,29,42	
		28,53, 8,48,18, 2,52		2, 7
40″	58,23,36,16, 7,55,29,30,58,20		4,16, 8,31,49	
		28,53, 4,32, 9,31, 3		2, 7
42″	58,23,36,45, 1, 0, 1,40,29,23		4,16, 8,33,56	
		28,53, 0,16, 0,57, 7		2, 7
44″	58,23,37,13,54, 0,17,41,26,30		4,16, 8,36, 3	
		28,52,55,59,52,21, 4		2, 7
46″	58,23,37,42,46,56,17,33,47,34		4,16, 8,38,10	
		28,52,51,43,43,42,54		2, 7
48″	58,23,38,11,39,48, 1,17,30,28		4,16, 8,40,17	
		28,52,47,27,35, 2,37		2, 7
50″	58,23,38,40,32,35,28,52,33, 5		4,16, 8,42,24	
		28,52,43,11,26,20,13		2, 7
52″	58,23,39, 9,25,18,40,18,53,18		4,16, 8,44,31	
		28,52,38,55,17,35,42		2, 7
54″	58,23,39,38,17,57,35,36,29, 0		4,16, 8,46,38	
		28,52,34,39, 8,49, 4		2, 7
56″	58,23,40, 7,10,32,14,45,18, 4		4,16, 8,48,45	
		28,52,30,23, 0, 0,19		2, 7
58″	58,23,40,36, 3, 2,37,45,18,23		4,16, 8,50,52	
		28,52,26, 6,51, 9,27		
60″	58,23,41, 4,55,28,44,36,27,50			
exact	58,23,41, 4,55,28,44,36,43,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°43′ 0″	58,23,41, 4,55,28,44,36,43,37			
		28,52,21,50,42,18,16		
2″	58,23,41,33,47,50,35,19, 1,53		4,16, 8,54,58	
		28,52,17,34,33,23,18		2, 7
4″	58,23,42, 2,40, 8, 9,52,25,11		4,16, 8,57, 5	
		28,52,13,18,24,26,13		2, 7
6″	58,23,42,31,32,21,28,16,51,24		4,16, 8,59,12	
		28,52, 9, 2,15,27, 1		2, 7
8″	58,23,43, 0,24,30,30,32,18,25		4,16, 9, 1,19	
		28,52, 4,46, 6,25,42		2, 7
10″	58,23,43,29,16,35,16,38,44, 7		4,16, 9, 3,26	
		28,52, 0,29,57,22,16		2, 7
12″	58,23,43,58, 8,35,46,36, 6,23		4,16, 9, 5,33	
		28,51,56,13,48,16,43		2, 7
14″	58,23,44,27, 0,32, 0,24,23, 6		4,16, 9, 7,40	
		28,51,51,57,39, 9, 3		2, 7
16″	58,23,44,55,52,23,58, 3,32, 9		4,16, 9, 9,47	
		28,51,47,41,29,59,16		2, 7
18″	58,23,45,24,44,11,39,33,31,25		4,16, 9,11,54	
		28,51,43,25,20,47,22		2, 7
20″	58,23,45,53,35,55, 4,54,18,47		4,16, 9,14, 1	
		28,51,39, 9,11,33,21		2, 7
22″	58,23,46,22,27,34,14, 5,52, 8		4,16, 9,16, 8	
		28,51,34,53, 2,17,13		2, 7
24″	58,23,46,51,19, 9, 7, 8, 9,21		4,16, 9,18,15	
		28,51,30,36,52,58,58		2, 7
26″	58,23,47,20,10,39,44, 1, 8,19		4,16, 9,20,22	
		28,51,26,20,43,38,36		2, 7
28″	58,23,47,49, 2, 6, 4,44,46,55		4,16, 9,22,29	
		28,51,22, 4,34,16, 7		2, 7
30″	58,23,48,17,53,28, 9,19, 3, 2		4,16, 9,24,36	
		28,51,17,48,24,51,31		2, 7
32″	58,23,48,46,44,45,57,43,54,33		4,16, 9,26,43	
		28,51,13,32,15,24,48		2, 7
34″	58,23,49,15,35,59,29,59,19,21		4,16, 9,28,50	
		28,51, 9,16, 5,55,58		2, 7
36″	58,23,49,44,27, 8,46, 5,15,19		4,16, 9,30,57	
		28,51, 4,59,56,25, 1		2, 7
38″	58,23,50,13,18,13,46, 1,40,20		4,16, 9,33, 4	
		28,51, 0,43,46,51,57		2, 7
40″	58,23,50,42, 9,14,29,48,32,17		4,16, 9,35,11	
		28,50,56,27,37,16,46		2, 7
42″	58,23,51,11, 0,10,57,25,49, 3		4,16, 9,37,18	
		28,50,52,11,27,39,28		2, 7
44″	58,23,51,39,51, 3, 8,53,28,31		4,16, 9,39,25	
		28,50,47,55,18, 0, 3		2, 7
46″	58,23,52, 8,41,51, 4,11,28,34		4,16, 9,41,32	
		28,50,43,39, 8,18,31		2, 7
48″	58,23,52,37,32,34,43,19,47, 5		4,16, 9,43,39	
		28,50,39,22,58,34,52		2, 7
50″	58,23,53, 6,23,14, 6,18,21,57		4,16, 9,45,46	
		28,50,35, 6,48,49, 6		2, 7
52″	58,23,53,35,13,49,13, 7,11, 3		4,16, 9,47,53	
		28,50,30,50,39, 1,13		2, 7
54″	58,23,54, 4, 4,20, 3,46,12,16		4,16, 9,50, 0	
		28,50,26,34,29,11,13		2, 7
56″	58,23,54,32,54,46,38,15,23,29		4,16, 9,52, 7	
		28,50,22,18,19,19, 6		2, 7
58″	58,23,55, 1,45, 8,56,34,42,35		4,16, 9,54,14	
		28,50,18, 2, 9,24,52		
60″	58,23,55,30,35,26,58,44, 7,27			
exact	58,23,55,30,35,26,58,44,35,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°44′ 0″	58,23,55,30,35,26,58,44,35,21			
		28,50,13,45,59,31,33		
2″	58,23,55,59,25,40,44,44, 6,54		4,16, 9,58,15	
		28,50, 9,29,49,33,18		2, 6
4″	58,23,56,28,15,50,14,33,40,12		4,16,10, 0,21	
		28,50, 5,13,39,32,57		2, 6
6″	58,23,56,57, 5,55,28,13,13, 9		4,16,10, 2,27	
		28,50, 0,57,29,30,30		2, 6
8″	58,23,57,25,55,56,25,42,43,39		4,16,10, 4,33	
		28,49,56,41,19,25,57		2, 6
10″	58,23,57,54,45,53, 7, 2, 9,36		4,16,10, 6,39	
		28,49,52,25, 9,19,18		2, 6
12″	58,23,58,23,35,45,32,11,28,54		4,16,10, 8,45	
		28,49,48, 8,59,10,33		2, 6
14″	58,23,58,52,25,33,41,10,39,27		4,16,10,10,51	
		28,49,43,52,48,59,42		2, 6
16″	58,23,59,21,15,17,33,59,39, 9		4,16,10,12,57	
		28,49,39,36,38,46,45		2, 6
18″	58,23,59,50, 4,57,10,38,25,54		4,16,10,15, 3	
		28,49,35,20,28,31,42		2, 6
20″	58,24, 0,18,54,32,31, 6,57,36		4,16,10,17, 9	
		28,49,31, 4,18,14,33		2, 6
22″	58,24, 0,47,44, 3,35,25,12, 9		4,16,10,19,15	
		28,49,26,48, 7,55,18		2, 6
24″	58,24, 1,16,33,30,23,33, 7,27		4,16,10,21,21	
		28,49,22,31,57,33,57		2, 6
26″	58,24, 1,45,22,52,55,30,41,24		4,16,10,23,27	
		28,49,18,15,47,10,30		2, 6
28″	58,24, 2,14,12,11,11,17,51,54		4,16,10,25,33	
		28,49,13,59,36,44,57		2, 6
30″	58,24, 2,43, 1,25,10,54,36,51		4,16,10,27,39	
		28,49, 9,43,26,17,18		2, 6
32″	58,24, 3,11,50,34,54,20,54, 9		4,16,10,29,45	
		28,49, 5,27,15,47,33		2, 6
34″	58,24, 3,40,39,40,21,36,41,42		4,16,10,31,51	
		28,49, 1,11, 5,15,42		2, 6
36″	58,24, 4, 9,28,41,32,41,57,24		4,16,10,33,57	
		28,48,56,54,54,41,45		2, 6
38″	58,24, 4,38,17,38,27,36,39, 9		4,16,10,36, 3	
		28,48,52,38,44, 5,42		2, 6
40″	58,24, 5, 7, 6,31, 6,20,44,51		4,16,10,38, 9	
		28,48,48,22,33,27,33		2, 6
42″	58,24, 5,35,55,19,28,54,12,24		4,16,10,40,15	
		28,48,44, 6,22,47,18		2, 6
44″	58,24, 6, 4,44, 3,35,16,59,42		4,16,10,42,21	
		28,48,39,50,12, 4,57		2, 6
46″	58,24, 6,33,32,43,25,29, 4,39		4,16,10,44,27	
		28,48,35,34, 1,20,30		2, 6
48″	58,24, 7, 2,21,18,59,30,25, 9		4,16,10,46,33	
		28,48,31,17,50,33,57		2, 6
50″	58,24, 7,31, 9,50,17,20,59, 6		4,16,10,48,39	
		28,48,27, 1,39,45,18		2, 6
52″	58,24, 7,59,58,17,19, 0,44,24		4,16,10,50,45	
		28,48,22,45,28,54,33		2, 6
54″	58,24, 8,28,46,40, 4,29,38,57		4,16,10,52,51	
		28,48,18,29,18, 1,42		2, 6
56″	58,24, 8,57,34,58,33,47,40,39		4,16,10,54,57	
		28,48,14,13, 7, 6,45		2, 6
58″	58,24, 9,26,23,12,46,54,47,24		4,16,10,57, 3	
		28,48, 9,56,56, 9,42		
60″	58,24, 9,55,11,22,43,50,57, 6			
exact	58,24, 9,55,11,22,43,50,27,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°45′ 0″	58,24, 9,55,11,22,43,50,27,37			
		28,48, 5,40,45, 7,26		
2″	58,24,10,23,59,28,24,35,35, 3		4,16,11, 1,27	
		28,48, 1,24,34, 5,59		2, 6
4″	58,24,10,52,47,29,49, 9,41, 2		4,16,11, 3,33	
		28,47,57, 8,23, 2,26		2, 6
6″	58,24,11,21,35,26,57,32,43,28		4,16,11, 5,39	
		28,47,52,52,11,56,47		2, 6
8″	58,24,11,50,23,19,49,44,40,15		4,16,11, 7,45	
		28,47,48,36, 0,49, 2		2, 6
10″	58,24,12,19,11, 8,25,45,29,17		4,16,11, 9,51	
		28,47,44,19,49,39,11		2, 6
12″	58,24,12,47,58,52,45,35, 8,28		4,16,11,11,57	
		28,47,40, 3,38,27,14		2, 6
14″	58,24,13,16,46,32,49,13,35,42		4,16,11,14, 3	
		28,47,35,47,27,13,11		2, 6
16″	58,24,13,45,34, 8,36,40,48,53		4,16,11,16, 9	
		28,47,31,31,15,57, 2		2, 6
18″	58,24,14,14,21,40, 7,56,45,55		4,16,11,18,15	
		28,47,27,15, 4,38,47		2, 6
20″	58,24,14,43, 9, 7,23, 1,24,42		4,16,11,20,21	
		28,47,22,58,53,18,26		2, 6
22″	58,24,15,11,56,30,21,54,43, 8		4,16,11,22,27	
		28,47,18,42,41,55,59		2, 6
24″	58,24,15,40,43,49, 4,36,39, 7		4,16,11,24,33	
		28,47,14,26,30,31,26		2, 6
26″	58,24,16, 9,31, 3,31, 7,10,33		4,16,11,26,39	
		28,47,10,10,19, 4,47		2, 6
28″	58,24,16,38,18,13,41,26,15,20		4,16,11,28,45	
		28,47, 5,54, 7,36, 2		2, 6
30″	58,24,17, 7, 5,19,35,33,51,22		4,16,11,30,51	
		28,47, 1,37,56, 5,11		2, 6
32″	58,24,17,35,52,21,13,29,56,33		4,16,11,32,57	
		28,46,57,21,44,32,14		2, 6
34″	58,24,18, 4,39,18,35,14,28,47		4,16,11,35, 3	
		28,46,53, 5,32,57,11		2, 6
36″	58,24,18,33,26,11,40,47,25,58		4,16,11,37, 9	
		28,46,48,49,21,20, 2		2, 6
38″	58,24,19, 2,13, 0,30, 8,46, 0		4,16,11,39,15	
		28,46,44,33, 9,40,47		2, 6
40″	58,24,19,30,59,45, 3,18,26,47		4,16,11,41,21	
		28,46,40,16,57,59,26		2, 6
42″	58,24,19,59,46,25,20,16,26,13		4,16,11,43,27	
		28,46,36, 0,46,15,59		2, 6
44″	58,24,20,28,33, 1,21, 2,42,12		4,16,11,45,33	
		28,46,31,44,34,30,26		2, 6
46″	58,24,20,57,19,33, 5,37,12,38		4,16,11,47,39	
		28,46,27,28,22,42,47		2, 6
48″	58,24,21,26, 6, 0,33,59,55,25		4,16,11,49,45	
		28,46,23,12,10,53, 2		2, 6
50″	58,24,21,54,52,23,46,10,48,27		4,16,11,51,51	
		28,46,18,55,59, 1,11		2, 6
52″	58,24,22,23,38,42,42, 9,49,38		4,16,11,53,57	
		28,46,14,39,47, 7,14		2, 6
54″	58,24,22,52,24,57,21,56,56,52		4,16,11,56, 3	
		28,46,10,23,35,11,11		2, 6
56″	58,24,23,21,11, 7,45,32, 8, 3		4,16,11,58, 9	
		28,46, 6, 7,23,13, 2		2, 6
58″	58,24,23,49,57,13,52,55,21, 5		4,16,12, 0,15	
		28,46, 1,51,11,12,47		
60″	58,24,24,18,43,15,44, 6,33,52			
exact	58,24,24,18,43,15,44, 6,12, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°46′ 0″	58,24,24,18,43,15,44, 6,12, 8			
		28,45,57,34,59, 8,15		
2″	58,24,24,47,29,13,19, 5,20,23		4,16,12, 4,35	
		28,45,53,18,47, 3,40		2, 6
4″	58,24,25,16,15, 6,37,52,24, 3		4,16,12, 6,41	
		28,45,49, 2,34,56,59		2, 6
6″	58,24,25,45, 0,55,40,27,21, 2		4,16,12, 8,47	
		28,45,44,46,22,48,12		2, 6
8″	58,24,26,13,46,40,26,50, 9,14		4,16,12,10,53	
		28,45,40,30,10,37,19		2, 6
10″	58,24,26,42,32,20,57, 0,46,33		4,16,12,12,59	
		28,45,36,13,58,24,20		2, 6
12″	58,24,27,11,17,57,10,59,10,53		4,16,12,15, 5	
		28,45,31,57,46, 9,15		2, 6
14″	58,24,27,40, 3,29, 8,45,20, 8		4,16,12,17,11	
		28,45,27,41,33,52, 4		2, 6
16″	58,24,28, 8,48,56,50,19,12,12		4,16,12,19,17	
		28,45,23,25,21,32,47		2, 6
18″	58,24,28,37,34,20,15,40,44,59		4,16,12,21,23	
		28,45,19, 9, 9,11,24		2, 6
20″	58,24,29, 6,19,39,24,49,56,23		4,16,12,23,29	
		28,45,14,52,56,47,55		2, 6
22″	58,24,29,35, 4,54,17,46,44,18		4,16,12,25,35	
		28,45,10,36,44,22,20		2, 6
24″	58,24,30, 3,50, 4,54,31, 6,38		4,16,12,27,41	
		28,45, 6,20,31,54,39		2, 6
26″	58,24,30,32,35,11,15, 3, 1,17		4,16,12,29,47	
		28,45, 2, 4,19,24,52		2, 6
28″	58,24,31, 1,20,13,19,22,26, 9		4,16,12,31,53	
		28,44,57,48, 6,52,59		2, 6
30″	58,24,31,30, 5,11, 7,29,19, 8		4,16,12,33,59	
		28,44,53,31,54,19, 0		2, 6
32″	58,24,31,58,50, 4,39,23,38, 8		4,16,12,36, 5	
		28,44,49,15,41,42,55		2, 6
34″	58,24,32,27,34,53,55, 5,21, 3		4,16,12,38,11	
		28,44,44,59,29, 4,44		2, 6
36″	58,24,32,56,19,38,54,34,25,47		4,16,12,40,17	
		28,44,40,43,16,24,27		2, 6
38″	58,24,33,25, 4,19,37,50,50,14		4,16,12,42,23	
		28,44,36,27, 3,42, 4		2, 6
40″	58,24,33,53,48,56, 4,54,32,18		4,16,12,44,29	
		28,44,32,10,50,57,35		2, 6
42″	58,24,34,22,33,28,15,45,29,53		4,16,12,46,35	
		28,44,27,54,38,11, 0		2, 6
44″	58,24,34,51,17,56,10,23,40,53		4,16,12,48,41	
		28,44,23,38,25,22,19		2, 6
46″	58,24,35,20, 2,19,48,49, 3,12		4,16,12,50,47	
		28,44,19,22,12,31,32		2, 6
48″	58,24,35,48,46,39,11, 1,34,44		4,16,12,52,53	
		28,44,15, 5,59,38,39		2, 6
50″	58,24,36,17,30,54,17, 1,13,23		4,16,12,54,59	
		28,44,10,49,46,43,40		2, 6
52″	58,24,36,46,15, 5, 6,47,57, 3		4,16,12,57, 5	
		28,44, 6,33,33,46,35		2, 6
54″	58,24,37,14,59,11,40,21,43,38		4,16,12,59,11	
		28,44, 2,17,20,47,24		2, 6
56″	58,24,37,43,43,13,57,42,31, 2		4,16,13, 1,17	
		28,43,58, 1, 7,46, 7		2, 6
58″	58,24,38,12,27,11,58,50,17, 9		4,16,13, 3,23	
		28,43,53,44,54,42,44		
60″	58,24,38,41,11, 5,43,44,59,53			
exact	58,24,38,41,11, 5,43,44,50,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°47′ 0″	58,24,38,41,11, 5,43,44,50,47			
		28,43,49,28,41,36,21		
2″	58,24,39, 9,54,55,12,26,27, 8		4,16,13, 7,38	
		28,43,45,12,28,28,43		2, 6
4″	58,24,39,38,38,40,24,54,55,51		4,16,13, 9,44	
		28,43,40,56,15,18,59		2, 6
6″	58,24,40, 7,22,21,21,10,14,50		4,16,13,11,50	
		28,43,36,40, 2, 7, 9		2, 6
8″	58,24,40,36, 5,58, 1,12,21,59		4,16,13,13,56	
		28,43,32,23,48,53,13		2, 6
10″	58,24,41, 4,49,30,25, 1,15,12		4,16,13,16, 2	
		28,43,28, 7,35,37,11		2, 6
12″	58,24,41,33,32,58,32,36,52,23		4,16,13,18, 8	
		28,43,23,51,22,19, 3		2, 6
14″	58,24,42, 2,16,22,23,59,11,26		4,16,13,20,14	
		28,43,19,35, 8,58,49		2, 6
16″	58,24,42,30,59,41,59, 8,10,15		4,16,13,22,20	
		28,43,15,18,55,36,29		2, 6
18″	58,24,42,59,42,57,18, 3,46,44		4,16,13,24,26	
		28,43,11, 2,42,12, 3		2, 6
20″	58,24,43,28,26, 8,20,45,58,47		4,16,13,26,32	
		28,43, 6,46,28,45,31		2, 6
22″	58,24,43,57, 9,15, 7,14,44,18		4,16,13,28,38	
		28,43, 2,30,15,16,53		2, 6
24″	58,24,44,25,52,17,37,30, 1,11		4,16,13,30,44	
		28,42,58,14, 1,46, 9		2, 6
26″	58,24,44,54,35,15,51,31,47,20		4,16,13,32,50	
		28,42,53,57,48,13,19		2, 6
28″	58,24,45,23,18, 9,49,20, 0,39		4,16,13,34,56	
		28,42,49,41,34,38,23		2, 6
30″	58,24,45,52, 0,59,30,54,39, 2		4,16,13,37, 2	
		28,42,45,25,21, 1,21		2, 6
32″	58,24,46,20,43,44,56,15,40,23		4,16,13,39, 8	
		28,42,41, 9, 7,22,13		2, 6
34″	58,24,46,49,26,26, 5,23, 2,36		4,16,13,41,14	
		28,42,36,52,53,40,59		2, 6
36″	58,24,47,18, 9, 2,58,16,43,35		4,16,13,43,20	
		28,42,32,36,39,57,39		2, 6
38″	58,24,47,46,51,35,34,56,41,14		4,16,13,45,26	
		28,42,28,20,26,12,13		2, 6
40″	58,24,48,15,34, 3,55,22,53,27		4,16,13,47,32	
		28,42,24, 4,12,24,41		2, 6
42″	58,24,48,44,16,27,59,35,18, 8		4,16,13,49,38	
		28,42,19,47,58,35, 3		2, 6
44″	58,24,49,12,58,47,47,33,53,11		4,16,13,51,44	
		28,42,15,31,44,43,19		2, 6
46″	58,24,49,41,41, 3,19,18,36,30		4,16,13,53,50	
		28,42,11,15,30,49,29		2, 6
48″	58,24,50,10,23,14,34,49,25,59		4,16,13,55,56	
		28,42, 6,59,16,53,33		2, 6
50″	58,24,50,39, 5,21,34, 6,19,32		4,16,13,58, 2	
		28,42, 2,43, 2,55,31		2, 6
52″	58,24,51, 7,47,24,17, 9,15, 3		4,16,14, 0, 8	
		28,41,58,26,48,55,23		2, 6
54″	58,24,51,36,29,22,43,58,10,26		4,16,14, 2,14	
		28,41,54,10,34,53, 9		2, 6
56″	58,24,52, 5,11,16,54,33, 3,35		4,16,14, 4,20	
		28,41,49,54,20,48,49		2, 6
58″	58,24,52,33,53, 6,48,53,52,24		4,16,14, 6,26	
		28,41,45,38, 6,42,23		
60″	58,24,53, 2,34,52,27, 0,34,47			
exact	58,24,53, 2,34,52,27, 0,35,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°48′ 0″	58,24,53, 2,34,52,27, 0,35,43			
		28,41,41,21,52,34, 3		
2″	58,24,53,31,16,33,48,53, 9,46		4,16,14,10,36	
		28,41,37, 5,38,23,27		2, 6
4″	58,24,53,59,58,10,54,31,33,13		4,16,14,12,42	
		28,41,32,49,24,10,45		2, 6
6″	58,24,54,28,39,43,43,55,43,58		4,16,14,14,48	
		28,41,28,33, 9,55,57		2, 6
8″	58,24,54,57,21,12,17, 5,39,55		4,16,14,16,54	
		28,41,24,16,55,39, 3		2, 6
10″	58,24,55,26, 2,36,34, 1,18,58		4,16,14,19, 0	
		28,41,20, 0,41,20, 3		2, 6
12″	58,24,55,54,43,56,34,42,39, 1		4,16,14,21, 6	
		28,41,15,44,26,58,57		2, 6
14″	58,24,56,23,25,12,19, 9,37,58		4,16,14,23,12	
		28,41,11,28,12,35,45		2, 6
16″	58,24,56,52, 6,23,47,22,13,43		4,16,14,25,18	
		28,41, 7,11,58,10,27		2, 6
18″	58,24,57,20,47,30,59,20,24,10		4,16,14,27,24	
		28,41, 2,55,43,43, 3		2, 6
20″	58,24,57,49,28,33,55, 4, 7,13		4,16,14,29,30	
		28,40,58,39,29,13,33		2, 6
22″	58,24,58,18, 9,32,34,33,20,46		4,16,14,31,36	
		28,40,54,23,14,41,57		2, 6
24″	58,24,58,46,50,26,57,48, 2,43		4,16,14,33,42	
		28,40,50, 7, 0, 8,15		2, 6
26″	58,24,59,15,31,17, 4,48,10,58		4,16,14,35,48	
		28,40,45,50,45,32,27		2, 6
28″	58,24,59,44,12, 2,55,33,43,25		4,16,14,37,54	
		28,40,41,34,30,54,33		2, 6
30″	58,25, 0,12,52,44,30, 4,37,58		4,16,14,40, 0	
		28,40,37,18,16,14,33		2, 6
32″	58,25, 0,41,33,21,48,20,52,31		4,16,14,42, 6	
		28,40,33, 2, 1,32,27		2, 6
34″	58,25, 1,10,13,54,50,22,24,58		4,16,14,44,12	
		28,40,28,45,46,48,15		2, 6
36″	58,25, 1,38,54,23,36, 9,13,13		4,16,14,46,18	
		28,40,24,29,32, 1,57		2, 6
38″	58,25, 2, 7,34,48, 5,41,15,10		4,16,14,48,24	
		28,40,20,13,17,13,33		2, 6
40″	58,25, 2,36,15, 8,18,58,28,43		4,16,14,50,30	
		28,40,15,57, 2,23, 3		2, 6
42″	58,25, 3, 4,55,24,16, 0,51,46		4,16,14,52,36	
		28,40,11,40,47,30,27		2, 6
44″	58,25, 3,33,35,35,56,48,22,13		4,16,14,54,42	
		28,40, 7,24,32,35,45		2, 6
46″	58,25, 4, 2,15,43,21,20,57,58		4,16,14,56,48	
		28,40, 3, 8,17,38,57		2, 6
48″	58,25, 4,30,55,46,29,38,36,55		4,16,14,58,54	
		28,39,58,52, 2,40, 3		2, 6
50″	58,25, 4,59,35,45,21,41,16,58		4,16,15, 1, 0	
		28,39,54,35,47,39, 3		2, 6
52″	58,25, 5,28,15,39,57,28,56, 1		4,16,15, 3, 6	
		28,39,50,19,32,35,57		2, 6
54″	58,25, 5,56,55,30,17, 1,31,58		4,16,15, 5,12	
		28,39,46, 3,17,30,45		2, 6
56″	58,25, 6,25,35,16,20,19, 2,43		4,16,15, 7,18	
		28,39,41,47, 2,23,27		2, 6
58″	58,25, 6,54,14,58, 7,21,26,10		4,16,15, 9,24	
		28,39,37,30,47,14, 3		
60″	58,25, 7,22,54,35,38, 8,40,13			
exact	58,25, 7,22,54,35,38, 8,49,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°49′ 0″	58,25, 7,22,54,35,38, 8,49,21			
		28,39,33,14,32, 3,43		
2″	58,25, 7,51,34, 8,52,40,53, 4		4,16,15,13,30	
		28,39,28,58,16,50,13		2, 6
4″	58,25, 8,20,13,37,50,57,43,17		4,16,15,15,36	
		28,39,24,42, 1,34,37		2, 6
6″	58,25, 8,48,53, 2,32,59,17,54		4,16,15,17,42	
		28,39,20,25,46,16,55		2, 6
8″	58,25, 9,17,32,22,58,45,34,49		4,16,15,19,48	
		28,39,16, 9,30,57, 7		2, 6
10″	58,25, 9,46,11,39, 8,16,31,56		4,16,15,21,54	
		28,39,11,53,15,35,13		2, 6
12″	58,25,10,14,50,51, 1,32, 7, 9		4,16,15,24, 0	
		28,39, 7,37, 0,11,13		2, 6
14″	58,25,10,43,29,58,38,32,18,22		4,16,15,26, 6	
		28,39, 3,20,44,45, 7		2, 6
16″	58,25,11,12, 9, 1,59,17, 3,29		4,16,15,28,12	
		28,38,59, 4,29,16,55		2, 6
18″	58,25,11,40,48, 1, 3,46,20,24		4,16,15,30,18	
		28,38,54,48,13,46,37		2, 6
20″	58,25,12, 9,26,55,52, 0, 7, 1		4,16,15,32,24	
		28,38,50,31,58,14,13		2, 6
22″	58,25,12,38, 5,46,23,58,21,14		4,16,15,34,30	
		28,38,46,15,42,39,43		2, 6
24″	58,25,13, 6,44,32,39,41, 0,57		4,16,15,36,36	
		28,38,41,59,27, 3, 7		2, 6
26″	58,25,13,35,23,14,39, 8, 4, 4		4,16,15,38,42	
		28,38,37,43,11,24,25		2, 6
28″	58,25,14, 4, 1,52,22,19,28,29		4,16,15,40,48	
		28,38,33,26,55,43,37		2, 6
30″	58,25,14,32,40,25,49,15,12, 6		4,16,15,42,54	
		28,38,29,10,40, 0,43		2, 6
32″	58,25,15, 1,18,54,59,55,12,49		4,16,15,45, 0	
		28,38,24,54,24,15,43		2, 6
34″	58,25,15,29,57,19,54,19,28,32		4,16,15,47, 6	
		28,38,20,38, 8,28,37		2, 6
36″	58,25,15,58,35,40,32,27,57, 9		4,16,15,49,12	
		28,38,16,21,52,39,25		2, 6
38″	58,25,16,27,13,56,54,20,36,34		4,16,15,51,18	
		28,38,12, 5,36,48, 7		2, 6
40″	58,25,16,55,52, 8,59,57,24,41		4,16,15,53,24	
		28,38, 7,49,20,54,43		2, 6
42″	58,25,17,24,30,16,49,18,19,24		4,16,15,55,30	
		28,38, 3,33, 4,59,13		2, 6
44″	58,25,17,53, 8,20,22,23,18,37		4,16,15,57,36	
		28,37,59,16,49, 1,37		2, 6
46″	58,25,18,21,46,19,39,12,20,14		4,16,15,59,42	
		28,37,55, 0,33, 1,55		2, 6
48″	58,25,18,50,24,14,39,45,22, 9		4,16,16, 1,48	
		28,37,50,44,17, 0, 7		2, 6
50″	58,25,19,19, 2, 5,24, 2,22,16		4,16,16, 3,54	
		28,37,46,28, 0,56,13		2, 6
52″	58,25,19,47,39,51,52, 3,18,29		4,16,16, 6, 0	
		28,37,42,11,44,50,13		2, 6
54″	58,25,20,16,17,34, 3,48, 8,42		4,16,16, 8, 6	
		28,37,37,55,28,42, 7		2, 6
56″	58,25,20,44,55,11,59,16,50,49		4,16,16,10,12	
		28,37,33,39,12,31,55		2, 6
58″	58,25,21,13,32,45,38,29,22,44		4,16,16,12,18	
		28,37,29,22,56,19,37		
60″	58,25,21,42,10,15, 1,25,42,21			
exact	58,25,21,42,10,15, 1,26, 4,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°50′ 0″	58,25,21,42,10,15, 1,26, 4,18			
		28,37,25, 6,40, 7,40		
2″	58,25,22,10,47,40, 8, 6,11,58		4,16,16,16,19	
		28,37,20,50,23,51,21		2, 6
4″	58,25,22,39,25, 0,58,30, 3,19		4,16,16,18,25	
		28,37,16,34, 7,32,56		2, 6
6″	58,25,23, 8, 2,17,32,37,36,15		4,16,16,20,31	
		28,37,12,17,51,12,25		2, 6
8″	58,25,23,36,39,29,50,28,48,40		4,16,16,22,37	
		28,37, 8, 1,34,49,48		2, 6
10″	58,25,24, 5,16,37,52, 3,38,28		4,16,16,24,43	
		28,37, 3,45,18,25, 5		2, 6
12″	58,25,24,33,53,41,37,22, 3,33		4,16,16,26,49	
		28,36,59,29, 1,58,16		2, 6
14″	58,25,25, 2,30,41, 6,24, 1,49		4,16,16,28,55	
		28,36,55,12,45,29,21		2, 6
16″	58,25,25,31, 7,36,19, 9,31,10		4,16,16,31, 1	
		28,36,50,56,28,58,20		2, 6
18″	58,25,25,59,44,27,15,38,29,30		4,16,16,33, 7	
		28,36,46,40,12,25,13		2, 6
20″	58,25,26,28,21,13,55,50,54,43		4,16,16,35,13	
		28,36,42,23,55,50, 0		2, 6
22″	58,25,26,56,57,56,19,46,44,43		4,16,16,37,19	
		28,36,38, 7,39,12,41		2, 6
24″	58,25,27,25,34,34,27,25,57,24		4,16,16,39,25	
		28,36,33,51,22,33,16		2, 6
26″	58,25,27,54,11, 8,18,48,30,40		4,16,16,41,31	
		28,36,29,35, 5,51,45		2, 6
28″	58,25,28,22,47,37,53,54,22,25		4,16,16,43,37	
		28,36,25,18,49, 8, 8		2, 6
30″	58,25,28,51,24, 3,12,43,30,33		4,16,16,45,43	
		28,36,21, 2,32,22,25		2, 6
32″	58,25,29,20, 0,24,15,15,52,58		4,16,16,47,49	
		28,36,16,46,15,34,36		2, 6
34″	58,25,29,48,36,41, 1,31,27,34		4,16,16,49,55	
		28,36,12,29,58,44,41		2, 6
36″	58,25,30,17,12,53,31,30,12,15		4,16,16,52, 1	
		28,36, 8,13,41,52,40		2, 6
38″	58,25,30,45,49, 1,45,12, 4,55		4,16,16,54, 7	
		28,36, 3,57,24,58,33		2, 6
40″	58,25,31,14,25, 5,42,37, 3,28		4,16,16,56,13	
		28,35,59,41, 8, 2,20		2, 6
42″	58,25,31,43, 1, 5,23,45, 5,48		4,16,16,58,19	
		28,35,55,24,51, 4, 1		2, 6
44″	58,25,32,11,37, 0,48,36, 9,49		4,16,17, 0,25	
		28,35,51, 8,34, 3,36		2, 6
46″	58,25,32,40,12,51,57,10,13,25		4,16,17, 2,31	
		28,35,46,52,17, 1, 5		2, 6
48″	58,25,33, 8,48,38,49,27,14,30		4,16,17, 4,37	
		28,35,42,35,59,56,28		2, 6
50″	58,25,33,37,24,21,25,27,10,58		4,16,17, 6,43	
		28,35,38,19,42,49,45		2, 6
52″	58,25,34, 5,59,59,45,10, 0,43		4,16,17, 8,49	
		28,35,34, 3,25,40,56		2, 6
54″	58,25,34,34,35,33,48,35,41,39		4,16,17,10,55	
		28,35,29,47, 8,30, 1		2, 6
56″	58,25,35, 3,11, 3,35,44,11,40		4,16,17,13, 1	
		28,35,25,30,51,17, 0		2, 6
58″	58,25,35,31,46,29, 6,35,28,40		4,16,17,15, 7	
		28,35,21,14,34, 1,53		
60″	58,25,36, 0,21,50,21, 9,30,33			
exact	58,25,36, 0,21,50,21,10, 3,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°51′ 0″	58,25,36, 0,21,50,21,10, 3,30			
		28,35,16,58,16,48,16		
2″	58,25,36,28,57, 7,19,26,51,46		4,16,17,19, 3	
		28,35,12,41,59,29,13		2, 5
4″	58,25,36,57,32,20, 1,26,20,59		4,16,17,21, 8	
		28,35, 8,25,42, 8, 5		2, 5
6″	58,25,37,26, 7,28,27, 8,29, 4		4,16,17,23,13	
		28,35, 4, 9,24,44,52		2, 5
8″	58,25,37,54,42,32,36,33,13,56		4,16,17,25,18	
		28,34,59,53, 7,19,34		2, 5
10″	58,25,38,23,17,32,29,40,33,30		4,16,17,27,23	
		28,34,55,36,49,52,11		2, 5
12″	58,25,38,51,52,28, 6,30,25,41		4,16,17,29,28	
		28,34,51,20,32,22,43		2, 5
14″	58,25,39,20,27,19,27, 2,48,24		4,16,17,31,33	
		28,34,47, 4,14,51,10		2, 5
16″	58,25,39,49, 2, 6,31,17,39,34		4,16,17,33,38	
		28,34,42,47,57,17,32		2, 5
18″	58,25,40,17,36,49,19,14,57, 6		4,16,17,35,43	
		28,34,38,31,39,41,49		2, 5
20″	58,25,40,46,11,27,50,54,38,55		4,16,17,37,48	
		28,34,34,15,22, 4, 1		2, 5
22″	58,25,41,14,46, 2, 6,16,42,56		4,16,17,39,53	
		28,34,29,59, 4,24, 8		2, 5
24″	58,25,41,43,20,32, 5,21, 7, 4		4,16,17,41,58	
		28,34,25,42,46,42,10		2, 5
26″	58,25,42,11,54,57,48, 7,49,14		4,16,17,44, 3	
		28,34,21,26,28,58, 7		2, 5
28″	58,25,42,40,29,19,14,36,47,21		4,16,17,46, 8	
		28,34,17,10,11,11,59		2, 5
30″	58,25,43, 9, 3,36,24,47,59,20		4,16,17,48,13	
		28,34,12,53,53,23,46		2, 5
32″	58,25,43,37,37,49,18,41,23, 6		4,16,17,50,18	
		28,34, 8,37,35,33,28		2, 5
34″	58,25,44, 6,11,57,56,16,56,34		4,16,17,52,23	
		28,34, 4,21,17,41, 5		2, 5
36″	58,25,44,34,46, 2,17,34,37,39		4,16,17,54,28	
		28,34, 0, 4,59,46,37		2, 5
38″	58,25,45, 3,20, 2,22,34,24,16		4,16,17,56,33	
		28,33,55,48,41,50, 4		2, 5
40″	58,25,45,31,53,58,11,16,14,20		4,16,17,58,38	
		28,33,51,32,23,51,26		2, 5
42″	58,25,46, 0,27,49,43,40, 5,46		4,16,18, 0,43	
		28,33,47,16, 5,50,43		2, 5
44″	58,25,46,29, 1,36,59,45,56,29		4,16,18, 2,48	
		28,33,42,59,47,47,55		2, 5
46″	58,25,46,57,35,19,59,33,44,24		4,16,18, 4,53	
		28,33,38,43,29,43, 2		2, 5
48″	58,25,47,26, 8,58,43, 3,27,26		4,16,18, 6,58	
		28,33,34,27,11,36, 4		2, 5
50″	58,25,47,54,42,33,10,15, 3,30		4,16,18, 9, 3	
		28,33,30,10,53,27, 1		2, 5
52″	58,25,48,23,16, 3,21, 8,30,31		4,16,18,11, 8	
		28,33,25,54,35,15,53		2, 5
54″	58,25,48,51,49,29,15,43,46,24		4,16,18,13,13	
		28,33,21,38,17, 2,40		2, 5
56″	58,25,49,20,22,50,54, 0,49, 4		4,16,18,15,18	
		28,33,17,21,58,47,22		2, 5
58″	58,25,49,48,56, 8,15,59,36,26		4,16,18,17,23	
		28,33,13, 5,40,29,59		
60″	58,25,50,17,29,21,21,40, 6,25			
exact	58,25,50,17,29,21,21,39,40, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°52′ 0″	58,25,50,17,29,21,21,39,40, 4			
		28,33, 8,49,22, 7,51		
2″	58,25,50,46, 2,30,11, 1,47,55		4,16,18,21,43	
		28,33, 4,33, 3,46, 8		2, 5
4″	58,25,51,14,35,34,44, 5,34, 3		4,16,18,23,48	
		28,33, 0,16,45,22,20		2, 5
6″	58,25,51,43, 8,35, 0,50,56,23		4,16,18,25,53	
		28,32,56, 0,26,56,27		2, 5
8″	58,25,52,11,41,31, 1,17,52,50		4,16,18,27,58	
		28,32,51,44, 8,28,29		2, 5
10″	58,25,52,40,14,22,45,26,21,19		4,16,18,30, 3	
		28,32,47,27,49,58,26		2, 5
12″	58,25,53, 8,47,10,13,16,19,45		4,16,18,32, 8	
		28,32,43,11,31,26,18		2, 5
14″	58,25,53,37,19,53,24,47,46, 3		4,16,18,34,13	
		28,32,38,55,12,52, 5		2, 5
16″	58,25,54, 5,52,32,20, 0,38, 8		4,16,18,36,18	
		28,32,34,38,54,15,47		2, 5
18″	58,25,54,34,25, 6,58,54,53,55		4,16,18,38,23	
		28,32,30,22,35,37,24		2, 5
20″	58,25,55, 2,57,37,21,30,31,19		4,16,18,40,28	
		28,32,26, 6,16,56,56		2, 5
22″	58,25,55,31,30, 3,27,47,28,15		4,16,18,42,33	
		28,32,21,49,58,14,23		2, 5
24″	58,25,56, 0, 2,25,17,45,42,38		4,16,18,44,38	
		28,32,17,33,39,29,45		2, 5
26″	58,25,56,28,34,42,51,25,12,23		4,16,18,46,43	
		28,32,13,17,20,43, 2		2, 5
28″	58,25,56,57, 6,56, 8,45,55,25		4,16,18,48,48	
		28,32, 9, 1, 1,54,14		2, 5
30″	58,25,57,25,39, 5, 9,47,49,39		4,16,18,50,53	
		28,32, 4,44,43, 3,21		2, 5
32″	58,25,57,54,11, 9,54,30,53, 0		4,16,18,52,58	
		28,32, 0,28,24,10,23		2, 5
34″	58,25,58,22,43,10,22,55, 3,23		4,16,18,55, 3	
		28,31,56,12, 5,15,20		2, 5
36″	58,25,58,51,15, 6,35, 0,18,43		4,16,18,57, 8	
		28,31,51,55,46,18,12		2, 5
38″	58,25,59,19,46,58,30,46,36,55		4,16,18,59,13	
		28,31,47,39,27,18,59		2, 5
40″	58,25,59,48,18,46,10,13,55,54		4,16,19, 1,18	
		28,31,43,23, 8,17,41		2, 5
42″	58,26, 0,16,50,29,33,22,13,35		4,16,19, 3,23	
		28,31,39, 6,49,14,18		2, 5
44″	58,26, 0,45,22, 8,40,11,27,53		4,16,19, 5,28	
		28,31,34,50,30, 8,50		2, 5
46″	58,26, 1,13,53,43,30,41,36,43		4,16,19, 7,33	
		28,31,30,34,11, 1,17		2, 5
48″	58,26, 1,42,25,14, 4,52,38, 0		4,16,19, 9,38	
		28,31,26,17,51,51,39		2, 5
50″	58,26, 2,10,56,40,22,44,29,39		4,16,19,11,43	
		28,31,22, 1,32,39,56		2, 5
52″	58,26, 2,39,28, 2,24,17, 9,35		4,16,19,13,48	
		28,31,17,45,13,26, 8		2, 5
54″	58,26, 3, 7,59,20, 9,30,35,43		4,16,19,15,53	
		28,31,13,28,54,10,15		2, 5
56″	58,26, 3,36,30,33,38,24,45,58		4,16,19,17,58	
		28,31, 9,12,34,52,17		2, 5
58″	58,26, 4, 5, 1,42,50,59,38,15		4,16,19,20, 3	
		28,31, 4,56,15,32,14		
60″	58,26, 4,33,32,47,47,15,10,29			
exact	58,26, 4,33,32,47,47,14,57,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°53′ 0″	58,26, 4,33,32,47,47,14,57,26			
		28,31, 0,39,56, 8,46		
2″	58,26, 5, 2, 3,48,27,11, 6,12		4,16,19,24,18	
		28,30,56,23,36,44,28		2, 5
4″	58,26, 5,30,34,44,50,47,50,40		4,16,19,26,23	
		28,30,52, 7,17,18, 5		2, 5
6″	58,26, 5,59, 5,36,58, 5, 8,45		4,16,19,28,28	
		28,30,47,50,57,49,37		2, 5
8″	58,26, 6,27,36,24,49, 2,58,22		4,16,19,30,33	
		28,30,43,34,38,19, 4		2, 5
10″	58,26, 6,56, 7, 8,23,41,17,26		4,16,19,32,38	
		28,30,39,18,18,46,26		2, 5
12″	58,26, 7,24,37,47,42, 0, 3,52		4,16,19,34,43	
		28,30,35, 1,59,11,43		2, 5
14″	58,26, 7,53, 8,22,43,59,15,35		4,16,19,36,48	
		28,30,30,45,39,34,55		2, 5
16″	58,26, 8,21,38,53,29,38,50,30		4,16,19,38,53	
		28,30,26,29,19,56, 2		2, 5
18″	58,26, 8,50, 9,19,58,58,46,32		4,16,19,40,58	
		28,30,22,13, 0,15, 4		2, 5
20″	58,26, 9,18,39,42,11,59, 1,36		4,16,19,43, 3	
		28,30,17,56,40,32, 1		2, 5
22″	58,26, 9,47,10, 0, 8,39,33,37		4,16,19,45, 8	
		28,30,13,40,20,46,53		2, 5
24″	58,26,10,15,40,13,49, 0,20,30		4,16,19,47,13	
		28,30, 9,24, 0,59,40		2, 5
26″	58,26,10,44,10,23,13, 1,20,10		4,16,19,49,18	
		28,30, 5, 7,41,10,22		2, 5
28″	58,26,11,12,40,28,20,42,30,32		4,16,19,51,23	
		28,30, 0,51,21,18,59		2, 5
30″	58,26,11,41,10,29,12, 3,49,31		4,16,19,53,28	
		28,29,56,35, 1,25,31		2, 5
32″	58,26,12, 9,40,25,47, 5,15, 2		4,16,19,55,33	
		28,29,52,18,41,29,58		2, 5
34″	58,26,12,38,10,18, 5,46,45, 0		4,16,19,57,38	
		28,29,48, 2,21,32,20		2, 5
36″	58,26,13, 6,40, 6, 8, 8,17,20		4,16,19,59,43	
		28,29,43,46, 1,32,37		2, 5
38″	58,26,13,35, 9,49,54, 9,49,57		4,16,20, 1,48	
		28,29,39,29,41,30,49		2, 5
40″	58,26,14, 3,39,29,23,51,20,46		4,16,20, 3,53	
		28,29,35,13,21,26,56		2, 5
42″	58,26,14,32, 9, 4,37,12,47,42		4,16,20, 5,58	
		28,29,30,57, 1,20,58		2, 5
44″	58,26,15, 0,38,35,34,14, 8,40		4,16,20, 8, 3	
		28,29,26,40,41,12,55		2, 5
46″	58,26,15,29, 8, 2,14,55,21,35		4,16,20,10, 8	
		28,29,22,24,21, 2,47		2, 5
48″	58,26,15,57,37,24,39,16,24,22		4,16,20,12,13	
		28,29,18, 8, 0,50,34		2, 5
50″	58,26,16,26, 6,42,47,17,14,56		4,16,20,14,18	
		28,29,13,51,40,36,16		2, 5
52″	58,26,16,54,35,56,38,57,51,12		4,16,20,16,23	
		28,29, 9,35,20,19,53		2, 5
54″	58,26,17,23, 5, 6,14,18,11, 5		4,16,20,18,28	
		28,29, 5,19, 0, 1,25		2, 5
56″	58,26,17,51,34,11,33,18,12,30		4,16,20,20,33	
		28,29, 1, 2,39,40,52		2, 5
58″	58,26,18,20, 3,12,35,57,53,22		4,16,20,22,38	
		28,28,56,46,19,18,14		
60″	58,26,18,48,32, 9,22,17,11,36			
exact	58,26,18,48,32, 9,22,17, 9,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°54′ 0″	58,26,18,48,32, 9,22,17, 9,18			
		28,28,52,29,58,53,20		
2″	58,26,19,17, 1, 1,52,16, 2,38		4,16,20,26,48	
		28,28,48,13,38,26,32		2, 5
4″	58,26,19,45,29,50, 5,54,29,10		4,16,20,28,53	
		28,28,43,57,17,57,39		2, 5
6″	58,26,20,13,58,34, 3,12,26,49		4,16,20,30,58	
		28,28,39,40,57,26,41		2, 5
8″	58,26,20,42,27,13,44, 9,53,30		4,16,20,33, 3	
		28,28,35,24,36,53,38		2, 5
10″	58,26,21,10,55,49, 8,46,47, 8		4,16,20,35, 8	
		28,28,31, 8,16,18,30		2, 5
12″	58,26,21,39,24,20,17, 3, 5,38		4,16,20,37,13	
		28,28,26,51,55,41,17		2, 5
14″	58,26,22, 7,52,47, 8,58,46,55		4,16,20,39,18	
		28,28,22,35,35, 1,59		2, 5
16″	58,26,22,36,21, 9,44,33,48,54		4,16,20,41,23	
		28,28,18,19,14,20,36		2, 5
18″	58,26,23, 4,49,28, 3,48, 9,30		4,16,20,43,28	
		28,28,14, 2,53,37, 8		2, 5
20″	58,26,23,33,17,42, 6,41,46,38		4,16,20,45,33	
		28,28, 9,46,32,51,35		2, 5
22″	58,26,24, 1,45,51,53,14,38,13		4,16,20,47,38	
		28,28, 5,30,12, 3,57		2, 5
24″	58,26,24,30,13,57,23,26,42,10		4,16,20,49,43	
		28,28, 1,13,51,14,14		2, 5
26″	58,26,24,58,41,58,37,17,56,24		4,16,20,51,48	
		28,27,56,57,30,22,26		2, 5
28″	58,26,25,27, 9,55,34,48,18,50		4,16,20,53,53	
		28,27,52,41, 9,28,33		2, 5
30″	58,26,25,55,37,48,15,57,47,23		4,16,20,55,58	
		28,27,48,24,48,32,35		2, 5
32″	58,26,26,24, 5,36,40,46,19,58		4,16,20,58, 3	
		28,27,44, 8,27,34,32		2, 5
34″	58,26,26,52,33,20,49,13,54,30		4,16,21, 0, 8	
		28,27,39,52, 6,34,24		2, 5
36″	58,26,27,21, 1, 0,41,20,28,54		4,16,21, 2,13	
		28,27,35,35,45,32,11		2, 5
38″	58,26,27,49,28,36,17, 6, 1, 5		4,16,21, 4,18	
		28,27,31,19,24,27,53		2, 5
40″	58,26,28,17,56, 7,36,30,28,58		4,16,21, 6,23	
		28,27,27, 3, 3,21,30		2, 5
42″	58,26,28,46,23,34,39,33,50,28		4,16,21, 8,28	
		28,27,22,46,42,13, 2		2, 5
44″	58,26,29,14,50,57,26,16, 3,30		4,16,21,10,33	
		28,27,18,30,21, 2,29		2, 5
46″	58,26,29,43,18,15,56,37, 5,59		4,16,21,12,38	
		28,27,14,13,59,49,51		2, 5
48″	58,26,30,11,45,30,10,36,55,50		4,16,21,14,43	
		28,27, 9,57,38,35, 8		2, 5
50″	58,26,30,40,12,40, 8,15,30,58		4,16,21,16,48	
		28,27, 5,41,17,18,20		2, 5
52″	58,26,31, 8,39,45,49,32,49,18		4,16,21,18,53	
		28,27, 1,24,55,59,27		2, 5
54″	58,26,31,37, 6,47,14,28,48,45		4,16,21,20,58	
		28,26,57, 8,34,38,29		2, 5
56″	58,26,32, 5,33,44,23, 3,27,14		4,16,21,23, 3	
		28,26,52,52,13,15,26		2, 5
58″	58,26,32,34, 0,37,15,16,42,40		4,16,21,25, 8	
		28,26,48,35,51,50,18		
60″	58,26,33, 2,27,25,51, 8,32,58			
exact	58,26,33, 2,27,25,51, 8,39,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°55′ 0″	58,26,33, 2,27,25,51, 8,39,36			
		28,26,44,19,30,23,55		
2″	58,26,33,30,54,10,10,39, 3,31		4,16,21,29,14	
		28,26,40, 3, 8,54,41		2, 5
4″	58,26,33,59,20,50,13,47,58,12		4,16,21,31,19	
		28,26,35,46,47,23,22		2, 5
6″	58,26,34,27,47,26, 0,35,21,34		4,16,21,33,24	
		28,26,31,30,25,49,58		2, 5
8″	58,26,34,56,13,57,31, 1,11,32		4,16,21,35,29	
		28,26,27,14, 4,14,29		2, 5
10″	58,26,35,24,40,24,45, 5,26, 1		4,16,21,37,34	
		28,26,22,57,42,36,55		2, 5
12″	58,26,35,53, 6,47,42,48, 2,56		4,16,21,39,39	
		28,26,18,41,20,57,16		2, 5
14″	58,26,36,21,33, 6,24, 9, 0,12		4,16,21,41,44	
		28,26,14,24,59,15,32		2, 5
16″	58,26,36,49,59,20,49, 8,15,44		4,16,21,43,49	
		28,26,10, 8,37,31,43		2, 5
18″	58,26,37,18,25,30,57,45,47,27		4,16,21,45,54	
		28,26, 5,52,15,45,49		2, 5
20″	58,26,37,46,51,36,50, 1,33,16		4,16,21,47,59	
		28,26, 1,35,53,57,50		2, 5
22″	58,26,38,15,17,38,25,55,31, 6		4,16,21,50, 4	
		28,25,57,19,32, 7,46		2, 5
24″	58,26,38,43,43,35,45,27,38,52		4,16,21,52, 9	
		28,25,53, 3,10,15,37		2, 5
26″	58,26,39,12, 9,28,48,37,54,29		4,16,21,54,14	
		28,25,48,46,48,21,23		2, 5
28″	58,26,39,40,35,17,35,26,15,52		4,16,21,56,19	
		28,25,44,30,26,25, 4		2, 5
30″	58,26,40, 9, 1, 2, 5,52,40,56		4,16,21,58,24	
		28,25,40,14, 4,26,40		2, 5
32″	58,26,40,37,26,42,19,57, 7,36		4,16,22, 0,29	
		28,25,35,57,42,26,11		2, 5
34″	58,26,41, 5,52,18,17,39,33,47		4,16,22, 2,34	
		28,25,31,41,20,23,37		2, 5
36″	58,26,41,34,17,49,58,59,57,24		4,16,22, 4,39	
		28,25,27,24,58,18,58		2, 5
38″	58,26,42, 2,43,17,23,58,16,22		4,16,22, 6,44	
		28,25,23, 8,36,12,14		2, 5
40″	58,26,42,31, 8,40,32,34,28,36		4,16,22, 8,49	
		28,25,18,52,14, 3,25		2, 5
42″	58,26,42,59,33,59,24,48,32, 1		4,16,22,10,54	
		28,25,14,35,51,52,31		2, 5
44″	58,26,43,27,59,14, 0,40,24,32		4,16,22,12,59	
		28,25,10,19,29,39,32		2, 5
46″	58,26,43,56,24,24,20,10, 4, 4		4,16,22,15, 4	
		28,25, 6, 3, 7,24,28		2, 5
48″	58,26,44,24,49,30,23,17,28,32		4,16,22,17, 9	
		28,25, 1,46,45, 7,19		2, 5
50″	58,26,44,53,14,32,10, 2,35,51		4,16,22,19,14	
		28,24,57,30,22,48, 5		2, 5
52″	58,26,45,21,39,29,40,25,23,56		4,16,22,21,19	
		28,24,53,14, 0,26,46		2, 5
54″	58,26,45,50, 4,22,54,25,50,42		4,16,22,23,24	
		28,24,48,57,38, 3,22		2, 5
56″	58,26,46,18,29,11,52, 3,54, 4		4,16,22,25,29	
		28,24,44,41,15,37,53		2, 5
58″	58,26,46,46,53,56,33,19,31,57		4,16,22,27,34	
		28,24,40,24,53,10,19		
60″	58,26,47,15,18,36,58,12,42,16			
exact	58,26,47,15,18,36,58,13, 2,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°56′ 0″	58,26,47,15,18,36,58,13, 2,35			
		28,24,36, 8,30,42,51		
2″	58,26,47,43,43,13, 6,43,45,26		4,16,22,31,35	
		28,24,31,52, 8,11,16		2, 5
4″	58,26,48,12, 7,44,58,51,56,42		4,16,22,33,40	
		28,24,27,35,45,37,36		2, 5
6″	58,26,48,40,32,12,34,37,34,18		4,16,22,35,45	
		28,24,23,19,23, 1,51		2, 5
8″	58,26,49, 8,56,35,54, 0,36, 9		4,16,22,37,50	
		28,24,19, 3, 0,24, 1		2, 5
10″	58,26,49,37,20,54,57, 1, 0,10		4,16,22,39,55	
		28,24,14,46,37,44, 6		2, 5
12″	58,26,50, 5,45, 9,43,38,44,16		4,16,22,42, 0	
		28,24,10,30,15, 2, 6		2, 5
14″	58,26,50,34, 9,20,13,53,46,22		4,16,22,44, 5	
		28,24, 6,13,52,18, 1		2, 5
16″	58,26,51, 2,33,26,27,46, 4,23		4,16,22,46,10	
		28,24, 1,57,29,31,51		2, 5
18″	58,26,51,30,57,28,25,15,36,14		4,16,22,48,15	
		28,23,57,41, 6,43,36		2, 5
20″	58,26,51,59,21,26, 6,22,19,50		4,16,22,50,20	
		28,23,53,24,43,53,16		2, 5
22″	58,26,52,27,45,19,31, 6,13, 6		4,16,22,52,25	
		28,23,49, 8,21, 0,51		2, 5
24″	58,26,52,56, 9, 8,39,27,13,57		4,16,22,54,30	
		28,23,44,51,58, 6,21		2, 5
26″	58,26,53,24,32,53,31,25,20,18		4,16,22,56,35	
		28,23,40,35,35, 9,46		2, 5
28″	58,26,53,52,56,34, 7, 0,30, 4		4,16,22,58,40	
		28,23,36,19,12,11, 6		2, 5
30″	58,26,54,21,20,10,26,12,41,10		4,16,23, 0,45	
		28,23,32, 2,49,10,21		2, 5
32″	58,26,54,49,43,42,29, 1,51,31		4,16,23, 2,50	
		28,23,27,46,26, 7,31		2, 5
34″	58,26,55,18, 7,10,15,27,59, 2		4,16,23, 4,55	
		28,23,23,30, 3, 2,36		2, 5
36″	58,26,55,46,30,33,45,31, 1,38		4,16,23, 7, 0	
		28,23,19,13,39,55,36		2, 5
38″	58,26,56,14,53,52,59,10,57,14		4,16,23, 9, 5	
		28,23,14,57,16,46,31		2, 5
40″	58,26,56,43,17, 7,56,27,43,45		4,16,23,11,10	
		28,23,10,40,53,35,21		2, 5
42″	58,26,57,11,40,18,37,21,19, 6		4,16,23,13,15	
		28,23, 6,24,30,22, 6		2, 5
44″	58,26,57,40, 3,25, 1,51,41,12		4,16,23,15,20	
		28,23, 2, 8, 7, 6,46		2, 5
46″	58,26,58, 8,26,27, 9,58,47,58		4,16,23,17,25	
		28,22,57,51,43,49,21		2, 5
48″	58,26,58,36,49,25, 1,42,37,19		4,16,23,19,30	
		28,22,53,35,20,29,51		2, 5
50″	58,26,59, 5,12,18,37, 3, 7,10		4,16,23,21,35	
		28,22,49,18,57, 8,16		2, 5
52″	58,26,59,33,35, 7,56, 0,15,26		4,16,23,23,40	
		28,22,45, 2,33,44,36		2, 5
54″	58,27, 0, 1,57,52,58,34, 0, 2		4,16,23,25,45	
		28,22,40,46,10,18,51		2, 5
56″	58,27, 0,30,20,33,44,44,18,53		4,16,23,27,50	
		28,22,36,29,46,51, 1		2, 5
58″	58,27, 0,58,43,10,14,31, 9,54		4,16,23,29,55	
		28,22,32,13,23,21, 6		
60″	58,27, 1,27, 5,42,27,54,31, 0			
exact	58,27, 1,27, 5,42,27,55, 2,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°57′ 0″	58,27, 1,27, 5,42,27,55, 2,45			
		28,22,27,56,59,52,28		
2″	58,27, 1,55,28,10,24,54,55,13		4,16,23,33,51	
		28,22,23,40,36,18,37		2, 4
4″	58,27, 2,23,50,34, 5,31,13,50		4,16,23,35,55	
		28,22,19,24,12,42,42		2, 4
6″	58,27, 2,52,12,53,29,43,56,32		4,16,23,37,59	
		28,22,15, 7,49, 4,43		2, 4
8″	58,27, 3,20,35, 8,37,33, 1,15		4,16,23,40, 3	
		28,22,10,51,25,24,40		2, 4
10″	58,27, 3,48,57,19,28,58,25,55		4,16,23,42, 7	
		28,22, 6,35, 1,42,33		2, 4
12″	58,27, 4,17,19,26, 4, 0, 8,28		4,16,23,44,11	
		28,22, 2,18,37,58,22		2, 4
14″	58,27, 4,45,41,28,22,38, 6,50		4,16,23,46,15	
		28,21,58, 2,14,12, 7		2, 4
16″	58,27, 5,14, 3,26,24,52,18,57		4,16,23,48,19	
		28,21,53,45,50,23,48		2, 4
18″	58,27, 5,42,25,20,10,42,42,45		4,16,23,50,23	
		28,21,49,29,26,33,25		2, 4
20″	58,27, 6,10,47, 9,40, 9,16,10		4,16,23,52,27	
		28,21,45,13, 2,40,58		2, 4
22″	58,27, 6,39, 8,54,53,11,57, 8		4,16,23,54,31	
		28,21,40,56,38,46,27		2, 4
24″	58,27, 7, 7,30,35,49,50,43,35		4,16,23,56,35	
		28,21,36,40,14,49,52		2, 4
26″	58,27, 7,35,52,12,30, 5,33,27		4,16,23,58,39	
		28,21,32,23,50,51,13		2, 4
28″	58,27, 8, 4,13,44,53,56,24,40		4,16,24, 0,43	
		28,21,28, 7,26,50,30		2, 4
30″	58,27, 8,32,35,13, 1,23,15,10		4,16,24, 2,47	
		28,21,23,51, 2,47,43		2, 4
32″	58,27, 9, 0,56,36,52,26, 2,53		4,16,24, 4,51	
		28,21,19,34,38,42,52		2, 4
34″	58,27, 9,29,17,56,27, 4,45,45		4,16,24, 6,55	
		28,21,15,18,14,35,57		2, 4
36″	58,27, 9,57,39,11,45,19,21,42		4,16,24, 8,59	
		28,21,11, 1,50,26,58		2, 4
38″	58,27,10,26, 0,22,47, 9,48,40		4,16,24,11, 3	
		28,21, 6,45,26,15,55		2, 4
40″	58,27,10,54,21,29,32,36, 4,35		4,16,24,13, 7	
		28,21, 2,29, 2, 2,48		2, 4
42″	58,27,11,22,42,32, 1,38, 7,23		4,16,24,15,11	
		28,20,58,12,37,47,37		2, 4
44″	58,27,11,51, 3,30,14,15,55, 0		4,16,24,17,15	
		28,20,53,56,13,30,22		2, 4
46″	58,27,12,19,24,24,10,29,25,22		4,16,24,19,19	
		28,20,49,39,49,11, 3		2, 4
48″	58,27,12,47,45,13,50,18,36,25		4,16,24,21,23	
		28,20,45,23,24,49,40		2, 4
50″	58,27,13,16, 5,59,13,43,26, 5		4,16,24,23,27	
		28,20,41, 7, 0,26,13		2, 4
52″	58,27,13,44,26,40,20,43,52,18		4,16,24,25,31	
		28,20,36,50,36, 0,42		2, 4
54″	58,27,14,12,47,17,11,19,53, 0		4,16,24,27,35	
		28,20,32,34,11,33, 7		2, 4
56″	58,27,14,41, 7,49,45,31,26, 7		4,16,24,29,39	
		28,20,28,17,47, 3,28		2, 4
58″	58,27,15, 9,28,18, 3,18,29,35		4,16,24,31,43	
		28,20,24, 1,22,31,45		
60″	58,27,15,37,48,42, 4,41, 1,20			
exact	58,27,15,37,48,42, 4,40,34,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°58′ 0″	58,27,15,37,48,42, 4,40,34,55			
		28,20,19,44,57,55, 8		
2″	58,27,16, 6, 9, 1,49,38,30, 3		4,16,24,36, 2	
		28,20,15,28,33,19, 6		2, 4
4″	58,27,16,34,29,17,18,11,49, 9		4,16,24,38, 6	
		28,20,11,12, 8,41, 0		2, 4
6″	58,27,17, 2,49,28,30,20,30, 9		4,16,24,40,10	
		28,20, 6,55,44, 0,50		2, 4
8″	58,27,17,31, 9,35,26, 4,30,59		4,16,24,42,14	
		28,20, 2,39,19,18,36		2, 4
10″	58,27,17,59,29,38, 5,23,49,35		4,16,24,44,18	
		28,19,58,22,54,34,18		2, 4
12″	58,27,18,27,49,36,28,18,23,53		4,16,24,46,22	
		28,19,54, 6,29,47,56		2, 4
14″	58,27,18,56, 9,30,34,48,11,49		4,16,24,48,26	
		28,19,49,50, 4,59,30		2, 4
16″	58,27,19,24,29,20,24,53,11,19		4,16,24,50,30	
		28,19,45,33,40, 9, 0		2, 4
18″	58,27,19,52,49, 5,58,33,20,19		4,16,24,52,34	
		28,19,41,17,15,16,26		2, 4
20″	58,27,20,21, 8,47,15,48,36,45		4,16,24,54,38	
		28,19,37, 0,50,21,48		2, 4
22″	58,27,20,49,28,24,16,38,58,33		4,16,24,56,42	
		28,19,32,44,25,25, 6		2, 4
24″	58,27,21,17,47,57, 1, 4,23,39		4,16,24,58,46	
		28,19,28,28, 0,26,20		2, 4
26″	58,27,21,46, 7,25,29, 4,49,59		4,16,25, 0,50	
		28,19,24,11,35,25,30		2, 4
28″	58,27,22,14,26,49,40,40,15,29		4,16,25, 2,54	
		28,19,19,55,10,22,36		2, 4
30″	58,27,22,42,46, 9,35,50,38, 5		4,16,25, 4,58	
		28,19,15,38,45,17,38		2, 4
32″	58,27,23,11, 5,25,14,35,55,43		4,16,25, 7, 2	
		28,19,11,22,20,10,36		2, 4
34″	58,27,23,39,24,36,36,56, 6,19		4,16,25, 9, 6	
		28,19, 7, 5,55, 1,30		2, 4
36″	58,27,24, 7,43,43,42,51, 7,49		4,16,25,11,10	
		28,19, 2,49,29,50,20		2, 4
38″	58,27,24,36, 2,46,32,20,58, 9		4,16,25,13,14	
		28,18,58,33, 4,37, 6		2, 4
40″	58,27,25, 4,21,45, 5,25,35,15		4,16,25,15,18	
		28,18,54,16,39,21,48		2, 4
42″	58,27,25,32,40,39,22, 4,57, 3		4,16,25,17,22	
		28,18,50, 0,14, 4,26		2, 4
44″	58,27,26, 0,59,29,22,19, 1,29		4,16,25,19,26	
		28,18,45,43,48,45, 0		2, 4
46″	58,27,26,29,18,15, 6, 7,46,29		4,16,25,21,30	
		28,18,41,27,23,23,30		2, 4
48″	58,27,26,57,36,56,33,31, 9,59		4,16,25,23,34	
		28,18,37,10,57,59,56		2, 4
50″	58,27,27,25,55,33,44,29, 9,55		4,16,25,25,38	
		28,18,32,54,32,34,18		2, 4
52″	58,27,27,54,14, 6,39, 1,44,13		4,16,25,27,42	
		28,18,28,38, 7, 6,36		2, 4
54″	58,27,28,22,32,35,17, 8,50,49		4,16,25,29,46	
		28,18,24,21,41,36,50		2, 4
56″	58,27,28,50,50,59,38,50,27,39		4,16,25,31,50	
		28,18,20, 5,16, 5, 0		2, 4
58″	58,27,29,19, 9,19,44, 6,32,39		4,16,25,33,54	
		28,18,15,48,50,31, 6		
60″	58,27,29,47,27,35,32,57, 3,45			
exact	58,27,29,47,27,35,32,56,44,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
76°59′ 0″	58,27,29,47,27,35,32,56,44,11			
		28,18,11,32,24,53,11		
2″	58,27,30,15,45,47, 5,21,37,22		4,16,25,38, 9	
		28,18, 7,15,59,15, 2		2, 4
4″	58,27,30,44, 3,54,21,20,52,24		4,16,25,40,13	
		28,18, 2,59,33,34,49		2, 4
6″	58,27,31,12,21,57,20,54,27,13		4,16,25,42,17	
		28,17,58,43, 7,52,32		2, 4
8″	58,27,31,40,39,56, 4, 2,19,45		4,16,25,44,21	
		28,17,54,26,42, 8,11		2, 4
10″	58,27,32, 8,57,50,30,44,27,56		4,16,25,46,25	
		28,17,50,10,16,21,46		2, 4
12″	58,27,32,37,15,40,41, 0,49,42		4,16,25,48,29	
		28,17,45,53,50,33,17		2, 4
14″	58,27,33, 5,33,26,34,51,22,59		4,16,25,50,33	
		28,17,41,37,24,42,44		2, 4
16″	58,27,33,33,51, 8,12,16, 5,43		4,16,25,52,37	
		28,17,37,20,58,50, 7		2, 4
18″	58,27,34, 2, 8,45,33,14,55,50		4,16,25,54,41	
		28,17,33, 4,32,55,26		2, 4
20″	58,27,34,30,26,18,37,47,51,16		4,16,25,56,45	
		28,17,28,48, 6,58,41		2, 4
22″	58,27,34,58,43,47,25,54,49,57		4,16,25,58,49	
		28,17,24,31,40,59,52		2, 4
24″	58,27,35,27, 1,11,57,35,49,49		4,16,26, 0,53	
		28,17,20,15,14,58,59		2, 4
26″	58,27,35,55,18,32,12,50,48,48		4,16,26, 2,57	
		28,17,15,58,48,56, 2		2, 4
28″	58,27,36,23,35,48,11,39,44,50		4,16,26, 5, 1	
		28,17,11,42,22,51, 1		2, 4
30″	58,27,36,51,52,59,54, 2,35,51		4,16,26, 7, 5	
		28,17, 7,25,56,43,56		2, 4
32″	58,27,37,20,10, 7,19,59,19,47		4,16,26, 9, 9	
		28,17, 3, 9,30,34,47		2, 4
34″	58,27,37,48,27,10,29,29,54,34		4,16,26,11,13	
		28,16,58,53, 4,23,34		2, 4
36″	58,27,38,16,44, 9,22,34,18, 8		4,16,26,13,17	
		28,16,54,36,38,10,17		2, 4
38″	58,27,38,45, 1, 3,59,12,28,25		4,16,26,15,21	
		28,16,50,20,11,54,56		2, 4
40″	58,27,39,13,17,54,19,24,23,21		4,16,26,17,25	
		28,16,46, 3,45,37,31		2, 4
42″	58,27,39,41,34,40,23,10, 0,52		4,16,26,19,29	
		28,16,41,47,19,18, 2		2, 4
44″	58,27,40, 9,51,22,10,29,18,54		4,16,26,21,33	
		28,16,37,30,52,56,29		2, 4
46″	58,27,40,38, 7,59,41,22,15,23		4,16,26,23,37	
		28,16,33,14,26,32,52		2, 4
48″	58,27,41, 6,24,32,55,48,48,15		4,16,26,25,41	
		28,16,28,58, 0, 7,11		2, 4
50″	58,27,41,34,41, 1,53,48,55,26		4,16,26,27,45	
		28,16,24,41,33,39,26		2, 4
52″	58,27,42, 2,57,26,35,22,34,52		4,16,26,29,49	
		28,16,20,25, 7, 9,37		2, 4
54″	58,27,42,31,13,47, 0,29,44,29		4,16,26,31,53	
		28,16,16, 8,40,37,44		2, 4
56″	58,27,42,59,30, 3, 9,10,22,13		4,16,26,33,57	
		28,16,11,52,14, 3,47		2, 4
58″	58,27,43,27,46,15, 1,24,26, 0		4,16,26,36, 1	
		28,16, 7,35,47,27,46		
60″	58,27,43,56, 2,22,37,11,53,46			
exact	58,27,43,56, 2,22,37,11,45,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77° 0′ 0″	58,27,43,56, 2,22,37,11,45,55			
		28,16, 3,19,20,48,57		
2″	58,27,44,24,18,25,56,32,34,52		4,16,26,40,11	
		28,15,59, 2,54, 8,46		2, 4
4″	58,27,44,52,34,24,59,26,43,38		4,16,26,42,15	
		28,15,54,46,27,26,31		2, 4
6″	58,27,45,20,50,19,45,54,10, 9		4,16,26,44,19	
		28,15,50,30, 0,42,12		2, 4
8″	58,27,45,49, 6,10,15,54,52,21		4,16,26,46,23	
		28,15,46,13,33,55,49		2, 4
10″	58,27,46,17,21,56,29,28,48,10		4,16,26,48,27	
		28,15,41,57, 7, 7,22		2, 4
12″	58,27,46,45,37,38,26,35,55,32		4,16,26,50,31	
		28,15,37,40,40,16,51		2, 4
14″	58,27,47,13,53,16, 7,16,12,23		4,16,26,52,35	
		28,15,33,24,13,24,16		2, 4
16″	58,27,47,42, 8,49,31,29,36,39		4,16,26,54,39	
		28,15,29, 7,46,29,37		2, 4
18″	58,27,48,10,24,18,39,16, 6,16		4,16,26,56,43	
		28,15,24,51,19,32,54		2, 4
20″	58,27,48,38,39,43,30,35,39,10		4,16,26,58,47	
		28,15,20,34,52,34, 7		2, 4
22″	58,27,49, 6,55, 4, 5,28,13,17		4,16,27, 0,51	
		28,15,16,18,25,33,16		2, 4
24″	58,27,49,35,10,20,23,53,46,33		4,16,27, 2,55	
		28,15,12, 1,58,30,21		2, 4
26″	58,27,50, 3,25,32,25,52,16,54		4,16,27, 4,59	
		28,15, 7,45,31,25,22		2, 4
28″	58,27,50,31,40,40,11,23,42,16		4,16,27, 7, 3	
		28,15, 3,29, 4,18,19		2, 4
30″	58,27,50,59,55,43,40,28, 0,35		4,16,27, 9, 7	
		28,14,59,12,37, 9,12		2, 4
32″	58,27,51,28,10,42,53, 5, 9,47		4,16,27,11,11	
		28,14,54,56, 9,58, 1		2, 4
34″	58,27,51,56,25,37,49,15, 7,48		4,16,27,13,15	
		28,14,50,39,42,44,46		2, 4
36″	58,27,52,24,40,28,28,57,52,34		4,16,27,15,19	
		28,14,46,23,15,29,27		2, 4
38″	58,27,52,52,55,14,52,13,22, 1		4,16,27,17,23	
		28,14,42, 6,48,12, 4		2, 4
40″	58,27,53,21, 9,56,59, 1,34, 5		4,16,27,19,27	
		28,14,37,50,20,52,37		2, 4
42″	58,27,53,49,24,34,49,22,26,42		4,16,27,21,31	
		28,14,33,33,53,31, 6		2, 4
44″	58,27,54,17,39, 8,23,15,57,48		4,16,27,23,35	
		28,14,29,17,26, 7,31		2, 4
46″	58,27,54,45,53,37,40,42, 5,19		4,16,27,25,39	
		28,14,25, 0,58,41,52		2, 4
48″	58,27,55,14, 8, 2,41,40,47,11		4,16,27,27,43	
		28,14,20,44,31,14, 9		2, 4
50″	58,27,55,42,22,23,26,12, 1,20		4,16,27,29,47	
		28,14,16,28, 3,44,22		2, 4
52″	58,27,56,10,36,39,54,15,45,42		4,16,27,31,51	
		28,14,12,11,36,12,31		2, 4
54″	58,27,56,38,50,52, 5,51,58,13		4,16,27,33,55	
		28,14, 7,55, 8,38,36		2, 4
56″	58,27,57, 7, 5, 0, 1, 0,36,49		4,16,27,35,59	
		28,14, 3,38,41, 2,37		2, 4
58″	58,27,57,35,19, 3,39,41,39,26		4,16,27,38, 3	
		28,13,59,22,13,24,34		
60″	58,27,58, 3,33, 3, 1,55, 4, 0			
exact	58,27,58, 3,33, 3, 1,55, 5,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77° 1′ 0″	58,27,58, 3,33, 3, 1,55, 5,50			
		28,13,55, 5,45,44,47		
2″	58,27,58,31,46,58, 7,40,50,37		4,16,27,42, 9	
		28,13,50,49,18, 2,38		2, 4
4″	58,27,59, 0, 0,48,56,58,53,15		4,16,27,44,13	
		28,13,46,32,50,18,25		2, 4
6″	58,27,59,28,14,35,29,49,11,40		4,16,27,46,17	
		28,13,42,16,22,32, 8		2, 4
8″	58,27,59,56,28,17,46,11,43,48		4,16,27,48,21	
		28,13,37,59,54,43,47		2, 4
10″	58,28, 0,24,41,55,46, 6,27,35		4,16,27,50,25	
		28,13,33,43,26,53,22		2, 4
12″	58,28, 0,52,55,29,29,33,20,57		4,16,27,52,29	
		28,13,29,26,59, 0,53		2, 4
14″	58,28, 1,21, 8,58,56,32,21,50		4,16,27,54,33	
		28,13,25,10,31, 6,20		2, 4
16″	58,28, 1,49,22,24, 7, 3,28,10		4,16,27,56,37	
		28,13,20,54, 3, 9,43		2, 4
18″	58,28, 2,17,35,45, 1, 6,37,53		4,16,27,58,41	
		28,13,16,37,35,11, 2		2, 4
20″	58,28, 2,45,49, 1,38,41,48,55		4,16,28, 0,45	
		28,13,12,21, 7,10,17		2, 4
22″	58,28, 3,14, 2,13,59,48,59,12		4,16,28, 2,49	
		28,13, 8, 4,39, 7,28		2, 4
24″	58,28, 3,42,15,22, 4,28, 6,40		4,16,28, 4,53	
		28,13, 3,48,11, 2,35		2, 4
26″	58,28, 4,10,28,25,52,39, 9,15		4,16,28, 6,57	
		28,12,59,31,42,55,38		2, 4
28″	58,28, 4,38,41,25,24,22, 4,53		4,16,28, 9, 1	
		28,12,55,15,14,46,37		2, 4
30″	58,28, 5, 6,54,20,39,36,51,30		4,16,28,11, 5	
		28,12,50,58,46,35,32		2, 4
32″	58,28, 5,35, 7,11,38,23,27, 2		4,16,28,13, 9	
		28,12,46,42,18,22,23		2, 4
34″	58,28, 6, 3,19,58,20,41,49,25		4,16,28,15,13	
		28,12,42,25,50, 7,10		2, 4
36″	58,28, 6,31,32,40,46,31,56,35		4,16,28,17,17	
		28,12,38, 9,21,49,53		2, 4
38″	58,28, 6,59,45,18,55,53,46,28		4,16,28,19,21	
		28,12,33,52,53,30,32		2, 4
40″	58,28, 7,27,57,52,48,47,17, 0		4,16,28,21,25	
		28,12,29,36,25, 9, 7		2, 4
42″	58,28, 7,56,10,22,25,12,26, 7		4,16,28,23,29	
		28,12,25,19,56,45,38		2, 4
44″	58,28, 8,24,22,47,45, 9,11,45		4,16,28,25,33	
		28,12,21, 3,28,20, 5		2, 4
46″	58,28, 8,52,35, 8,48,37,31,50		4,16,28,27,37	
		28,12,16,46,59,52,28		2, 4
48″	58,28, 9,20,47,25,35,37,24,18		4,16,28,29,41	
		28,12,12,30,31,22,47		2, 4
50″	58,28, 9,48,59,38, 6, 8,47, 5		4,16,28,31,45	
		28,12, 8,14, 2,51, 2		2, 4
52″	58,28,10,17,11,46,20,11,38, 7		4,16,28,33,49	
		28,12, 3,57,34,17,13		2, 4
54″	58,28,10,45,23,50,17,45,55,20		4,16,28,35,53	
		28,11,59,41, 5,41,20		2, 4
56″	58,28,11,13,35,49,58,51,36,40		4,16,28,37,57	
		28,11,55,24,37, 3,23		2, 4
58″	58,28,11,41,47,45,23,28,40, 3		4,16,28,40, 1	
		28,11,51, 8, 8,23,22		
60″	58,28,12, 9,59,36,31,37, 3,25			
exact	58,28,12, 9,59,36,31,37,19,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77° 2′ 0″	58,28,12, 9,59,36,31,37,19,55			
		28,11,46,51,39,43, 2		
2″	58,28,12,38,11,23,23,17, 2,57		4,16,28,44, 1	
		28,11,42,35,10,59, 1		2, 4
4″	58,28,13, 6,23, 5,58,28, 1,58		4,16,28,46, 5	
		28,11,38,18,42,12,56		2, 4
6″	58,28,13,34,34,44,17,10,14,54		4,16,28,48, 9	
		28,11,34, 2,13,24,47		2, 4
8″	58,28,14, 2,46,18,19,23,39,41		4,16,28,50,13	
		28,11,29,45,44,34,34		2, 4
10″	58,28,14,30,57,48, 5, 8,14,15		4,16,28,52,17	
		28,11,25,29,15,42,17		2, 4
12″	58,28,14,59, 9,13,34,23,56,32		4,16,28,54,21	
		28,11,21,12,46,47,56		2, 4
14″	58,28,15,27,20,34,47,10,44,28		4,16,28,56,25	
		28,11,16,56,17,51,31		2, 4
16″	58,28,15,55,31,51,43,28,35,59		4,16,28,58,29	
		28,11,12,39,48,53, 2		2, 4
18″	58,28,16,23,43, 4,23,17,29, 1		4,16,29, 0,33	
		28,11, 8,23,19,52,29		2, 4
20″	58,28,16,51,54,12,46,37,21,30		4,16,29, 2,37	
		28,11, 4, 6,50,49,52		2, 4
22″	58,28,17,20, 5,16,53,28,11,22		4,16,29, 4,41	
		28,10,59,50,21,45,11		2, 4
24″	58,28,17,48,16,16,43,49,56,33		4,16,29, 6,45	
		28,10,55,33,52,38,26		2, 4
26″	58,28,18,16,27,12,17,42,34,59		4,16,29, 8,49	
		28,10,51,17,23,29,37		2, 4
28″	58,28,18,44,38, 3,35, 6, 4,36		4,16,29,10,53	
		28,10,47, 0,54,18,44		2, 4
30″	58,28,19,12,48,50,36, 0,23,20		4,16,29,12,57	
		28,10,42,44,25, 5,47		2, 4
32″	58,28,19,40,59,33,20,25,29, 7		4,16,29,15, 1	
		28,10,38,27,55,50,46		2, 4
34″	58,28,20, 9,10,11,48,21,19,53		4,16,29,17, 5	
		28,10,34,11,26,33,41		2, 4
36″	58,28,20,37,20,45,59,47,53,34		4,16,29,19, 9	
		28,10,29,54,57,14,32		2, 4
38″	58,28,21, 5,31,15,54,45, 8, 6		4,16,29,21,13	
		28,10,25,38,27,53,19		2, 4
40″	58,28,21,33,41,41,33,13, 1,25		4,16,29,23,17	
		28,10,21,21,58,30, 2		2, 4
42″	58,28,22, 1,52, 2,55,11,31,27		4,16,29,25,21	
		28,10,17, 5,29, 4,41		2, 4
44″	58,28,22,30, 2,20, 0,40,36, 8		4,16,29,27,25	
		28,10,12,48,59,37,16		2, 4
46″	58,28,22,58,12,32,49,40,13,24		4,16,29,29,29	
		28,10, 8,32,30, 7,47		2, 4
48″	58,28,23,26,22,41,22,10,21,11		4,16,29,31,33	
		28,10, 4,16, 0,36,14		2, 4
50″	58,28,23,54,32,45,38,10,57,25		4,16,29,33,37	
		28, 9,59,59,31, 2,37		2, 4
52″	58,28,24,22,42,45,37,42, 0, 2		4,16,29,35,41	
		28, 9,55,43, 1,26,56		2, 4
54″	58,28,24,50,52,41,20,43,26,58		4,16,29,37,45	
		28, 9,51,26,31,49,11		2, 4
56″	58,28,25,19, 2,32,47,15,16, 9		4,16,29,39,49	
		28, 9,47,10, 2, 9,22		2, 4
58″	58,28,25,47,12,19,57,17,25,31		4,16,29,41,53	
		28, 9,42,53,32,27,29		
60″	58,28,26,15,22, 2,50,49,53, 0			
exact	58,28,26,15,22, 2,50,50,14,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77° 3′ 0″	58,28,26,15,22, 2,50,50,14,29			
		28, 9,38,37, 2,46, 2		
2″	58,28,26,43,31,41,27,53, 0,31		4,16,29,45,49	
		28, 9,34,20,33, 0,13		2, 4
4″	58,28,27,11,41,15,48,26, 0,44		4,16,29,47,53	
		28, 9,30, 4, 3,12,20		2, 4
6″	58,28,27,39,50,45,52,29,13, 4		4,16,29,49,57	
		28, 9,25,47,33,22,23		2, 4
8″	58,28,28, 8, 0,11,40, 2,35,27		4,16,29,52, 1	
		28, 9,21,31, 3,30,22		2, 4
10″	58,28,28,36, 9,33,11, 6, 5,49		4,16,29,54, 5	
		28, 9,17,14,33,36,17		2, 4
12″	58,28,29, 4,18,50,25,39,42, 6		4,16,29,56, 9	
		28, 9,12,58, 3,40, 8		2, 4
14″	58,28,29,32,28, 3,23,43,22,14		4,16,29,58,13	
		28, 9, 8,41,33,41,55		2, 4
16″	58,28,30, 0,37,12, 5,17, 4, 9		4,16,30, 0,17	
		28, 9, 4,25, 3,41,38		2, 4
18″	58,28,30,28,46,16,30,20,45,47		4,16,30, 2,21	
		28, 9, 0, 8,33,39,17		2, 4
20″	58,28,30,56,55,16,38,54,25, 4		4,16,30, 4,25	
		28, 8,55,52, 3,34,52		2, 4
22″	58,28,31,25, 4,12,30,57,59,56		4,16,30, 6,29	
		28, 8,51,35,33,28,23		2, 4
24″	58,28,31,53,13, 4, 6,31,28,19		4,16,30, 8,33	
		28, 8,47,19, 3,19,50		2, 4
26″	58,28,32,21,21,51,25,34,48, 9		4,16,30,10,37	
		28, 8,43, 2,33, 9,13		2, 4
28″	58,28,32,49,30,34,28, 7,57,22		4,16,30,12,41	
		28, 8,38,46, 2,56,32		2, 4
30″	58,28,33,17,39,13,14,10,53,54		4,16,30,14,45	
		28, 8,34,29,32,41,47		2, 4
32″	58,28,33,45,47,47,43,43,35,41		4,16,30,16,49	
		28, 8,30,13, 2,24,58		2, 4
34″	58,28,34,13,56,17,56,46, 0,39		4,16,30,18,53	
		28, 8,25,56,32, 6, 5		2, 4
36″	58,28,34,42, 4,43,53,18, 6,44		4,16,30,20,57	
		28, 8,21,40, 1,45, 8		2, 4
38″	58,28,35,10,13, 5,33,19,51,52		4,16,30,23, 1	
		28, 8,17,23,31,22, 7		2, 4
40″	58,28,35,38,21,22,56,51,13,59		4,16,30,25, 5	
		28, 8,13, 7, 0,57, 2		2, 4
42″	58,28,36, 6,29,36, 3,52,11, 1		4,16,30,27, 9	
		28, 8, 8,50,30,29,53		2, 4
44″	58,28,36,34,37,44,54,22,40,54		4,16,30,29,13	
		28, 8, 4,34, 0, 0,40		2, 4
46″	58,28,37, 2,45,49,28,22,41,34		4,16,30,31,17	
		28, 8, 0,17,29,29,23		2, 4
48″	58,28,37,30,53,49,45,52,10,57		4,16,30,33,21	
		28, 7,56, 0,58,56, 2		2, 4
50″	58,28,37,59, 1,45,46,51, 6,59		4,16,30,35,25	
		28, 7,51,44,28,20,37		2, 4
52″	58,28,38,27, 9,37,31,19,27,36		4,16,30,37,29	
		28, 7,47,27,57,43, 8		2, 4
54″	58,28,38,55,17,24,59,17,10,44		4,16,30,39,33	
		28, 7,43,11,27, 3,35		2, 4
56″	58,28,39,23,25, 8,10,44,14,19		4,16,30,41,37	
		28, 7,38,54,56,21,58		2, 4
58″	58,28,39,51,32,47, 5,40,36,17		4,16,30,43,41	
		28, 7,34,38,25,38,17		
60″	58,28,40,19,40,21,44, 6,14,34			
exact	58,28,40,19,40,21,44, 6,46, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77° 4′ 0″	58,28,40,19,40,21,44, 6,46, 9			
		28, 7,30,21,54,56, 8		
2″	58,28,40,47,47,52, 6, 1,42,17		4,16,30,47,33	
		28, 7,26, 5,24, 8,35		2, 3
4″	58,28,41,15,55,18,11,25,50,52		4,16,30,49,36	
		28, 7,21,48,53,18,59		2, 3
6″	58,28,41,44, 2,40, 0,19, 9,51		4,16,30,51,39	
		28, 7,17,32,22,27,20		2, 3
8″	58,28,42,12, 9,57,32,41,37,11		4,16,30,53,42	
		28, 7,13,15,51,33,38		2, 3
10″	58,28,42,40,17,10,48,33,10,49		4,16,30,55,45	
		28, 7, 8,59,20,37,53		2, 3
12″	58,28,43, 8,24,19,47,53,48,42		4,16,30,57,48	
		28, 7, 4,42,49,40, 5		2, 3
14″	58,28,43,36,31,24,30,43,28,47		4,16,30,59,51	
		28, 7, 0,26,18,40,14		2, 3
16″	58,28,44, 4,38,24,57, 2, 9, 1		4,16,31, 1,54	
		28, 6,56, 9,47,38,20		2, 3
18″	58,28,44,32,45,21, 6,49,47,21		4,16,31, 3,57	
		28, 6,51,53,16,34,23		2, 3
20″	58,28,45, 0,52,13, 0, 6,21,44		4,16,31, 6, 0	
		28, 6,47,36,45,28,23		2, 3
22″	58,28,45,28,59, 0,36,51,50, 7		4,16,31, 8, 3	
		28, 6,43,20,14,20,20		2, 3
24″	58,28,45,57, 5,43,57, 6,10,27		4,16,31,10, 6	
		28, 6,39, 3,43,10,14		2, 3
26″	58,28,46,25,12,23, 0,49,20,41		4,16,31,12, 9	
		28, 6,34,47,11,58, 5		2, 3
28″	58,28,46,53,18,57,48, 1,18,46		4,16,31,14,12	
		28, 6,30,30,40,43,53		2, 3
30″	58,28,47,21,25,28,18,42, 2,39		4,16,31,16,15	
		28, 6,26,14, 9,27,38		2, 3
32″	58,28,47,49,31,54,32,51,30,17		4,16,31,18,18	
		28, 6,21,57,38, 9,20		2, 3
34″	58,28,48,17,38,16,30,29,39,37		4,16,31,20,21	
		28, 6,17,41, 6,48,59		2, 3
36″	58,28,48,45,44,34,11,36,28,36		4,16,31,22,24	
		28, 6,13,24,35,26,35		2, 3
38″	58,28,49,13,50,47,36,11,55,11		4,16,31,24,27	
		28, 6, 9, 8, 4, 2, 8		2, 3
40″	58,28,49,41,56,56,44,15,57,19		4,16,31,26,30	
		28, 6, 4,51,32,35,38		2, 3
42″	58,28,50,10, 3, 1,35,48,32,57		4,16,31,28,33	
		28, 6, 0,35, 1, 7, 5		2, 3
44″	58,28,50,38, 9, 2,10,49,40, 2		4,16,31,30,36	
		28, 5,56,18,29,36,29		2, 3
46″	58,28,51, 6,14,58,29,19,16,31		4,16,31,32,39	
		28, 5,52, 1,58, 3,50		2, 3
48″	58,28,51,34,20,50,31,17,20,21		4,16,31,34,42	
		28, 5,47,45,26,29, 8		2, 3
50″	58,28,52, 2,26,38,16,43,49,29		4,16,31,36,45	
		28, 5,43,28,54,52,23		2, 3
52″	58,28,52,30,32,21,45,38,41,52		4,16,31,38,48	
		28, 5,39,12,23,13,35		2, 3
54″	58,28,52,58,38, 0,58, 1,55,27		4,16,31,40,51	
		28, 5,34,55,51,32,44		2, 3
56″	58,28,53,26,43,35,53,53,28,11		4,16,31,42,54	
		28, 5,30,39,19,49,50		2, 3
58″	58,28,53,54,49, 6,33,13,18, 1		4,16,31,44,57	
		28, 5,26,22,48, 4,53		
60″	58,28,54,22,54,32,56, 1,22,54			
exact	58,28,54,22,54,32,56, 1, 1,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77° 5′ 0″	58,28,54,22,54,32,56, 1, 1,51			
		28, 5,22, 6,16,15,41		
2″	58,28,54,50,59,55, 2,17,17,32		4,16,31,49,12	
		28, 5,17,49,44,26,29		2, 3
4″	58,28,55,19, 5,12,52, 1,44, 1		4,16,31,51,15	
		28, 5,13,33,12,35,14		2, 3
6″	58,28,55,47,10,26,25,14,19,15		4,16,31,53,18	
		28, 5, 9,16,40,41,56		2, 3
8″	58,28,56,15,15,35,41,55, 1,11		4,16,31,55,21	
		28, 5, 5, 0, 8,46,35		2, 3
10″	58,28,56,43,20,40,42, 3,47,46		4,16,31,57,24	
		28, 5, 0,43,36,49,11		2, 3
12″	58,28,57,11,25,41,25,40,36,57		4,16,31,59,27	
		28, 4,56,27, 4,49,44		2, 3
14″	58,28,57,39,30,37,52,45,26,41		4,16,32, 1,30	
		28, 4,52,10,32,48,14		2, 3
16″	58,28,58, 7,35,30, 3,18,14,55		4,16,32, 3,33	
		28, 4,47,54, 0,44,41		2, 3
18″	58,28,58,35,40,17,57,18,59,36		4,16,32, 5,36	
		28, 4,43,37,28,39, 5		2, 3
20″	58,28,59, 3,45, 1,34,47,38,41		4,16,32, 7,39	
		28, 4,39,20,56,31,26		2, 3
22″	58,28,59,31,49,40,55,44,10, 7		4,16,32, 9,42	
		28, 4,35, 4,24,21,44		2, 3
24″	58,28,59,59,54,16, 0, 8,31,51		4,16,32,11,45	
		28, 4,30,47,52, 9,59		2, 3
26″	58,29, 0,27,58,46,48, 0,41,50		4,16,32,13,48	
		28, 4,26,31,19,56,11		2, 3
28″	58,29, 0,56, 3,13,19,20,38, 1		4,16,32,15,51	
		28, 4,22,14,47,40,20		2, 3
30″	58,29, 1,24, 7,35,34, 8,18,21		4,16,32,17,54	
		28, 4,17,58,15,22,26		2, 3
32″	58,29, 1,52,11,53,32,23,40,47		4,16,32,19,57	
		28, 4,13,41,43, 2,29		2, 3
34″	58,29, 2,20,16, 7,14, 6,43,16		4,16,32,22, 0	
		28, 4, 9,25,10,40,29		2, 3
36″	58,29, 2,48,20,16,39,17,23,45		4,16,32,24, 3	
		28, 4, 5, 8,38,16,26		2, 3
38″	58,29, 3,16,24,21,47,55,40,11		4,16,32,26, 6	
		28, 4, 0,52, 5,50,20		2, 3
40″	58,29, 3,44,28,22,40, 1,30,31		4,16,32,28, 9	
		28, 3,56,35,33,22,11		2, 3
42″	58,29, 4,12,32,19,15,34,52,42		4,16,32,30,12	
		28, 3,52,19, 0,51,59		2, 3
44″	58,29, 4,40,36,11,34,35,44,41		4,16,32,32,15	
		28, 3,48, 2,28,19,44		2, 3
46″	58,29, 5, 8,39,59,37, 4, 4,25		4,16,32,34,18	
		28, 3,43,45,55,45,26		2, 3
48″	58,29, 5,36,43,43,22,59,49,51		4,16,32,36,21	
		28, 3,39,29,23, 9, 5		2, 3
50″	58,29, 6, 4,47,22,52,22,58,56		4,16,32,38,24	
		28, 3,35,12,50,30,41		2, 3
52″	58,29, 6,32,50,58, 5,13,29,37		4,16,32,40,27	
		28, 3,30,56,17,50,14		2, 3
54″	58,29, 7, 0,54,29, 1,31,19,51		4,16,32,42,30	
		28, 3,26,39,45, 7,44		2, 3
56″	58,29, 7,28,57,55,41,16,27,35		4,16,32,44,33	
		28, 3,22,23,12,23,11		2, 3
58″	58,29, 7,57, 1,18, 4,28,50,46		4,16,32,46,36	
		28, 3,18, 6,39,36,35		
60″	58,29, 8,25, 4,36,11, 8,27,21			
exact	58,29, 8,25, 4,36,11, 8,18,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77° 6′ 0″	58,29, 8,25, 4,36,11, 8,18,52			
		28, 3,13,50, 6,47, 0		
2″	58,29, 8,53, 7,50, 1,15, 5,52		4,16,32,50,46	
		28, 3, 9,33,33,56,14		2, 3
4″	58,29, 9,21,10,59,34,49, 2, 6		4,16,32,52,49	
		28, 3, 5,17, 1, 3,25		2, 3
6″	58,29, 9,49,14, 4,51,50, 5,31		4,16,32,54,52	
		28, 3, 1, 0,28, 8,33		2, 3
8″	58,29,10,17,17, 5,52,18,14, 4		4,16,32,56,55	
		28, 2,56,43,55,11,38		2, 3
10″	58,29,10,45,20, 2,36,13,25,42		4,16,32,58,58	
		28, 2,52,27,22,12,40		2, 3
12″	58,29,11,13,22,55, 3,35,38,22		4,16,33, 1, 1	
		28, 2,48,10,49,11,39		2, 3
14″	58,29,11,41,25,43,14,24,50, 1		4,16,33, 3, 4	
		28, 2,43,54,16, 8,35		2, 3
16″	58,29,12, 9,28,27, 8,40,58,36		4,16,33, 5, 7	
		28, 2,39,37,43, 3,28		2, 3
18″	58,29,12,37,31, 6,46,24, 2, 4		4,16,33, 7,10	
		28, 2,35,21, 9,56,18		2, 3
20″	58,29,13, 5,33,42, 7,33,58,22		4,16,33, 9,13	
		28, 2,31, 4,36,47, 5		2, 3
22″	58,29,13,33,36,13,12,10,45,27		4,16,33,11,16	
		28, 2,26,48, 3,35,49		2, 3
24″	58,29,14, 1,38,40, 0,14,21,16		4,16,33,13,19	
		28, 2,22,31,30,22,30		2, 3
26″	58,29,14,29,41, 2,31,44,43,46		4,16,33,15,22	
		28, 2,18,14,57, 7, 8		2, 3
28″	58,29,14,57,43,20,46,41,50,54		4,16,33,17,25	
		28, 2,13,58,23,49,43		2, 3
30″	58,29,15,25,45,34,45, 5,40,37		4,16,33,19,28	
		28, 2, 9,41,50,30,15		2, 3
32″	58,29,15,53,47,44,26,56,10,52		4,16,33,21,31	
		28, 2, 5,25,17, 8,44		2, 3
34″	58,29,16,21,49,49,52,13,19,36		4,16,33,23,34	
		28, 2, 1, 8,43,45,10		2, 3
36″	58,29,16,49,51,51, 0,57, 4,46		4,16,33,25,37	
		28, 1,56,52,10,19,33		2, 3
38″	58,29,17,17,53,47,53, 7,24,19		4,16,33,27,40	
		28, 1,52,35,36,51,53		2, 3
40″	58,29,17,45,55,40,28,44,16,12		4,16,33,29,43	
		28, 1,48,19, 3,22,10		2, 3
42″	58,29,18,13,57,28,47,47,38,22		4,16,33,31,46	
		28, 1,44, 2,29,50,24		2, 3
44″	58,29,18,41,59,12,50,17,28,46		4,16,33,33,49	
		28, 1,39,45,56,16,35		2, 3
46″	58,29,19,10, 0,52,36,13,45,21		4,16,33,35,52	
		28, 1,35,29,22,40,43		2, 3
48″	58,29,19,38, 2,28, 5,36,26, 4		4,16,33,37,55	
		28, 1,31,12,49, 2,48		2, 3
50″	58,29,20, 6, 3,59,18,25,28,52		4,16,33,39,58	
		28, 1,26,56,15,22,50		2, 3
52″	58,29,20,34, 5,26,14,40,51,42		4,16,33,42, 1	
		28, 1,22,39,41,40,49		2, 3
54″	58,29,21, 2, 6,48,54,22,32,31		4,16,33,44, 4	
		28, 1,18,23, 7,56,45		2, 3
56″	58,29,21,30, 8, 7,17,30,29,16		4,16,33,46, 7	
		28, 1,14, 6,34,10,38		2, 3
58″	58,29,21,58, 9,21,24, 4,39,54		4,16,33,48,10	
		28, 1, 9,50, 0,22,28		
60″	58,29,22,26,10,31,14, 5, 2,22			
exact	58,29,22,26,10,31,14, 5, 4,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77° 7′ 0″	58,29,22,26,10,31,14, 5, 4,47			
		28, 1, 5,33,26,32,28		
2″	58,29,22,54,11,36,47,31,37,15		4,16,33,52,15	
		28, 1, 1,16,52,40,13		2, 3
4″	58,29,23,22,12,38, 4,24,17,28		4,16,33,54,18	
		28, 0,57, 0,18,45,55		2, 3
6″	58,29,23,50,13,35, 4,43, 3,23		4,16,33,56,21	
		28, 0,52,43,44,49,34		2, 3
8″	58,29,24,18,14,27,48,27,52,57		4,16,33,58,24	
		28, 0,48,27,10,51,10		2, 3
10″	58,29,24,46,15,16,15,38,44, 7		4,16,34, 0,27	
		28, 0,44,10,36,50,43		2, 3
12″	58,29,25,14,16, 0,26,15,34,50		4,16,34, 2,30	
		28, 0,39,54, 2,48,13		2, 3
14″	58,29,25,42,16,40,20,18,23, 3		4,16,34, 4,33	
		28, 0,35,37,28,43,40		2, 3
16″	58,29,26,10,17,15,57,47, 6,43		4,16,34, 6,36	
		28, 0,31,20,54,37, 4		2, 3
18″	58,29,26,38,17,47,18,41,43,47		4,16,34, 8,39	
		28, 0,27, 4,20,28,25		2, 3
20″	58,29,27, 6,18,14,23, 2,12,12		4,16,34,10,42	
		28, 0,22,47,46,17,43		2, 3
22″	58,29,27,34,18,37,10,48,29,55		4,16,34,12,45	
		28, 0,18,31,12, 4,58		2, 3
24″	58,29,28, 2,18,55,42, 0,34,53		4,16,34,14,48	
		28, 0,14,14,37,50,10		2, 3
26″	58,29,28,30,19, 9,56,38,25, 3		4,16,34,16,51	
		28, 0, 9,58, 3,33,19		2, 3
28″	58,29,28,58,19,19,54,41,58,22		4,16,34,18,54	
		28, 0, 5,41,29,14,25		2, 3
30″	58,29,29,26,19,25,36,11,12,47		4,16,34,20,57	
		28, 0, 1,24,54,53,28		2, 3
32″	58,29,29,54,19,27, 1, 6, 6,15		4,16,34,23, 0	
		27,59,57, 8,20,30,28		2, 3
34″	58,29,30,22,19,24, 9,26,36,43		4,16,34,25, 3	
		27,59,52,51,46, 5,25		2, 3
36″	58,29,30,50,19,17, 1,12,42, 8		4,16,34,27, 6	
		27,59,48,35,11,38,19		2, 3
38″	58,29,31,18,19, 5,36,24,20,27		4,16,34,29, 9	
		27,59,44,18,37, 9,10		2, 3
40″	58,29,31,46,18,49,55, 1,29,37		4,16,34,31,12	
		27,59,40, 2, 2,37,58		2, 3
42″	58,29,32,14,18,29,57, 4, 7,35		4,16,34,33,15	
		27,59,35,45,28, 4,43		2, 3
44″	58,29,32,42,18, 5,42,32,12,18		4,16,34,35,18	
		27,59,31,28,53,29,25		2, 3
46″	58,29,33,10,17,37,11,25,41,43		4,16,34,37,21	
		27,59,27,12,18,52, 4		2, 3
48″	58,29,33,38,17, 4,23,44,33,47		4,16,34,39,24	
		27,59,22,55,44,12,40		2, 3
50″	58,29,34, 6,16,27,19,28,46,27		4,16,34,41,27	
		27,59,18,39, 9,31,13		2, 3
52″	58,29,34,34,15,45,58,38,17,40		4,16,34,43,30	
		27,59,14,22,34,47,43		2, 3
54″	58,29,35, 2,15, 0,21,13, 5,23		4,16,34,45,33	
		27,59,10, 6, 0, 2,10		2, 3
56″	58,29,35,30,14,10,27,13, 7,33		4,16,34,47,36	
		27,59, 5,49,25,14,34		2, 3
58″	58,29,35,58,13,16,16,38,22, 7		4,16,34,49,39	
		27,59, 1,32,50,24,55		
60″	58,29,36,26,12,17,49,28,47, 2			
exact	58,29,36,26,12,17,49,28,57,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77° 8′ 0″	58,29,36,26,12,17,49,28,57,31			
		27,58,57,16,15,34,24		
2″	58,29,36,54,11,15, 5,44,31,55		4,16,34,53,39	
		27,58,52,59,40,40,45		2, 3
4″	58,29,37,22,10, 8, 5,25,12,40		4,16,34,55,42	
		27,58,48,43, 5,45, 3		2, 3
6″	58,29,37,50, 8,56,48,30,57,43		4,16,34,57,45	
		27,58,44,26,30,47,18		2, 3
8″	58,29,38,18, 7,41,15, 1,45, 1		4,16,34,59,48	
		27,58,40, 9,55,47,30		2, 3
10″	58,29,38,46, 6,21,24,57,32,31		4,16,35, 1,51	
		27,58,35,53,20,45,39		2, 3
12″	58,29,39,14, 4,57,18,18,18,10		4,16,35, 3,54	
		27,58,31,36,45,41,45		2, 3
14″	58,29,39,42, 3,28,55, 3,59,55		4,16,35, 5,57	
		27,58,27,20,10,35,48		2, 3
16″	58,29,40,10, 1,56,15,14,35,43		4,16,35, 8, 0	
		27,58,23, 3,35,27,48		2, 3
18″	58,29,40,38, 0,19,18,50, 3,31		4,16,35,10, 3	
		27,58,18,47, 0,17,45		2, 3
20″	58,29,41, 5,58,38, 5,50,21,16		4,16,35,12, 6	
		27,58,14,30,25, 5,39		2, 3
22″	58,29,41,33,56,52,36,15,26,55		4,16,35,14, 9	
		27,58,10,13,49,51,30		2, 3
24″	58,29,42, 1,55, 2,50, 5,18,25		4,16,35,16,12	
		27,58, 5,57,14,35,18		2, 3
26″	58,29,42,29,53, 8,47,19,53,43		4,16,35,18,15	
		27,58, 1,40,39,17, 3		2, 3
28″	58,29,42,57,51,10,27,59,10,46		4,16,35,20,18	
		27,57,57,24, 3,56,45		2, 3
30″	58,29,43,25,49, 7,52, 3, 7,31		4,16,35,22,21	
		27,57,53, 7,28,34,24		2, 3
32″	58,29,43,53,47, 0,59,31,41,55		4,16,35,24,24	
		27,57,48,50,53,10, 0		2, 3
34″	58,29,44,21,44,49,50,24,51,55		4,16,35,26,27	
		27,57,44,34,17,43,33		2, 3
36″	58,29,44,49,42,34,24,42,35,28		4,16,35,28,30	
		27,57,40,17,42,15, 3		2, 3
38″	58,29,45,17,40,14,42,24,50,31		4,16,35,30,33	
		27,57,36, 1, 6,44,30		2, 3
40″	58,29,45,45,37,50,43,31,35, 1		4,16,35,32,36	
		27,57,31,44,31,11,54		2, 3
42″	58,29,46,13,35,22,28, 2,46,55		4,16,35,34,39	
		27,57,27,27,55,37,15		2, 3
44″	58,29,46,41,32,49,55,58,24,10		4,16,35,36,42	
		27,57,23,11,20, 0,33		2, 3
46″	58,29,47, 9,30,13, 7,18,24,43		4,16,35,38,45	
		27,57,18,54,44,21,48		2, 3
48″	58,29,47,37,27,32, 2, 2,46,31		4,16,35,40,48	
		27,57,14,38, 8,41, 0		2, 3
50″	58,29,48, 5,24,46,40,11,27,31		4,16,35,42,51	
		27,57,10,21,32,58, 9		2, 3
52″	58,29,48,33,21,57, 1,44,25,40		4,16,35,44,54	
		27,57, 6, 4,57,13,15		2, 3
54″	58,29,49, 1,19, 3, 6,41,38,55		4,16,35,46,57	
		27,57, 1,48,21,26,18		2, 3
56″	58,29,49,29,16, 4,55, 3, 5,13		4,16,35,49, 0	
		27,56,57,31,45,37,18		2, 3
58″	58,29,49,57,13, 2,26,48,42,31		4,16,35,51, 3	
		27,56,53,15, 9,46,15		
60″	58,29,50,25, 9,55,41,58,28,46			
exact	58,29,50,25, 9,55,41,58,45,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77° 9′ 0″	58,29,50,25, 9,55,41,58,45,22			
		27,56,48,58,33,55, 9		
2″	58,29,50,53, 6,44,40,32,40,31		4,16,35,54,59	
		27,56,44,41,58, 0,10		2, 3
4″	58,29,51,21, 3,29,22,30,40,41		4,16,35,57, 2	
		27,56,40,25,22, 3, 8		2, 3
6″	58,29,51,49, 0, 9,47,52,43,49		4,16,35,59, 5	
		27,56,36, 8,46, 4, 3		2, 3
8″	58,29,52,16,56,45,56,38,47,52		4,16,36, 1, 8	
		27,56,31,52,10, 2,55		2, 3
10″	58,29,52,44,53,17,48,48,50,47		4,16,36, 3,11	
		27,56,27,35,33,59,44		2, 3
12″	58,29,53,12,49,45,24,22,50,31		4,16,36, 5,14	
		27,56,23,18,57,54,30		2, 3
14″	58,29,53,40,46, 8,43,20,45, 1		4,16,36, 7,17	
		27,56,19, 2,21,47,13		2, 3
16″	58,29,54, 8,42,27,45,42,32,14		4,16,36, 9,20	
		27,56,14,45,45,37,53		2, 3
18″	58,29,54,36,38,42,31,28,10, 7		4,16,36,11,23	
		27,56,10,29, 9,26,30		2, 3
20″	58,29,55, 4,34,53, 0,37,36,37		4,16,36,13,26	
		27,56, 6,12,33,13, 4		2, 3
22″	58,29,55,32,30,59,13,10,49,41		4,16,36,15,29	
		27,56, 1,55,56,57,35		2, 3
24″	58,29,56, 0,27, 1, 9, 7,47,16		4,16,36,17,32	
		27,55,57,39,20,40, 3		2, 3
26″	58,29,56,28,22,58,48,28,27,19		4,16,36,19,35	
		27,55,53,22,44,20,28		2, 3
28″	58,29,56,56,18,52,11,12,47,47		4,16,36,21,38	
		27,55,49, 6, 7,58,50		2, 3
30″	58,29,57,24,14,41,17,20,46,37		4,16,36,23,41	
		27,55,44,49,31,35, 9		2, 3
32″	58,29,57,52,10,26, 6,52,21,46		4,16,36,25,44	
		27,55,40,32,55, 9,25		2, 3
34″	58,29,58,20, 6, 6,39,47,31,11		4,16,36,27,47	
		27,55,36,16,18,41,38		2, 3
36″	58,29,58,48, 1,42,56, 6,12,49		4,16,36,29,50	
		27,55,31,59,42,11,48		2, 3
38″	58,29,59,15,57,14,55,48,24,37		4,16,36,31,53	
		27,55,27,43, 5,39,55		2, 3
40″	58,29,59,43,52,42,38,54, 4,32		4,16,36,33,56	
		27,55,23,26,29, 5,59		2, 3
42″	58,30, 0,11,48, 6, 5,23,10,31		4,16,36,35,59	
		27,55,19, 9,52,30, 0		2, 3
44″	58,30, 0,39,43,25,15,15,40,31		4,16,36,38, 2	
		27,55,14,53,15,51,58		2, 3
46″	58,30, 1, 7,38,40, 8,31,32,29		4,16,36,40, 5	
		27,55,10,36,39,11,53		2, 3
48″	58,30, 1,35,33,50,45,10,44,22		4,16,36,42, 8	
		27,55, 6,20, 2,29,45		2, 3
50″	58,30, 2, 3,28,57, 5,13,14, 7		4,16,36,44,11	
		27,55, 2, 3,25,45,34		2, 3
52″	58,30, 2,31,23,59, 8,38,59,41		4,16,36,46,14	
		27,54,57,46,48,59,20		2, 3
54″	58,30, 2,59,18,56,55,27,59, 1		4,16,36,48,17	
		27,54,53,30,12,11, 3		2, 3
56″	58,30, 3,27,13,50,25,40,10, 4		4,16,36,50,20	
		27,54,49,13,35,20,43		2, 3
58″	58,30, 3,55, 8,39,39,15,30,47		4,16,36,52,23	
		27,54,44,56,58,28,20		
60″	58,30, 4,23, 3,24,36,13,59, 7			
exact	58,30, 4,23, 3,24,36,14,26,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°10′ 0″	58,30, 4,23, 3,24,36,14,26,56			
		27,54,40,40,21,37, 5		
2″	58,30, 4,50,58, 5,16,36, 4, 1		4,16,36,56,15	
		27,54,36,23,44,40,50		2, 2
4″	58,30, 5,18,52,41,40,20,44,51		4,16,36,58,17	
		27,54,32, 7, 7,42,33		2, 2
6″	58,30, 5,46,47,13,47,28,27,24		4,16,37, 0,19	
		27,54,27,50,30,42,14		2, 2
8″	58,30, 6,14,41,41,37,59, 9,38		4,16,37, 2,21	
		27,54,23,33,53,39,53		2, 2
10″	58,30, 6,42,36, 5,11,52,49,31		4,16,37, 4,23	
		27,54,19,17,16,35,30		2, 2
12″	58,30, 7,10,30,24,29, 9,25, 1		4,16,37, 6,25	
		27,54,15, 0,39,29, 5		2, 2
14″	58,30, 7,38,24,39,29,48,54, 6		4,16,37, 8,27	
		27,54,10,44, 2,20,38		2, 2
16″	58,30, 8, 6,18,50,13,51,14,44		4,16,37,10,29	
		27,54, 6,27,25,10, 9		2, 2
18″	58,30, 8,34,12,56,41,16,24,53		4,16,37,12,31	
		27,54, 2,10,47,57,38		2, 2
20″	58,30, 9, 2, 6,58,52, 4,22,31		4,16,37,14,33	
		27,53,57,54,10,43, 5		2, 2
22″	58,30, 9,30, 0,56,46,15, 5,36		4,16,37,16,35	
		27,53,53,37,33,26,30		2, 2
24″	58,30, 9,57,54,50,23,48,32, 6		4,16,37,18,37	
		27,53,49,20,56, 7,53		2, 2
26″	58,30,10,25,48,39,44,44,39,59		4,16,37,20,39	
		27,53,45, 4,18,47,14		2, 2
28″	58,30,10,53,42,24,49, 3,27,13		4,16,37,22,41	
		27,53,40,47,41,24,33		2, 2
30″	58,30,11,21,36, 5,36,44,51,46		4,16,37,24,43	
		27,53,36,31, 3,59,50		2, 2
32″	58,30,11,49,29,42, 7,48,51,36		4,16,37,26,45	
		27,53,32,14,26,33, 5		2, 2
34″	58,30,12,17,23,14,22,15,24,41		4,16,37,28,47	
		27,53,27,57,49, 4,18		2, 2
36″	58,30,12,45,16,42,20, 4,28,59		4,16,37,30,49	
		27,53,23,41,11,33,29		2, 2
38″	58,30,13,13,10, 6, 1,16, 2,28		4,16,37,32,51	
		27,53,19,24,34, 0,38		2, 2
40″	58,30,13,41, 3,25,25,50, 3, 6		4,16,37,34,53	
		27,53,15, 7,56,25,45		2, 2
42″	58,30,14, 8,56,40,33,46,28,51		4,16,37,36,55	
		27,53,10,51,18,48,50		2, 2
44″	58,30,14,36,49,51,25, 5,17,41		4,16,37,38,57	
		27,53, 6,34,41, 9,53		2, 2
46″	58,30,15, 4,42,57,59,46,27,34		4,16,37,40,59	
		27,53, 2,18, 3,28,54		2, 2
48″	58,30,15,32,36, 0,17,49,56,28		4,16,37,43, 1	
		27,52,58, 1,25,45,53		2, 2
50″	58,30,16, 0,28,58,19,15,42,21		4,16,37,45, 3	
		27,52,53,44,48, 0,50		2, 2
52″	58,30,16,28,21,52, 4, 3,43,11		4,16,37,47, 5	
		27,52,49,28,10,13,45		2, 2
54″	58,30,16,56,14,41,32,13,56,56		4,16,37,49, 7	
		27,52,45,11,32,24,38		2, 2
56″	58,30,17,24, 7,26,43,46,21,34		4,16,37,51, 9	
		27,52,40,54,54,33,29		2, 2
58″	58,30,17,52, 0, 7,38,40,55, 3		4,16,37,53,11	
		27,52,36,38,16,40,18		
60″	58,30,18,19,52,44,16,57,35,21			
exact	58,30,18,19,52,44,16,57,11, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°11′ 0″	58,30,18,19,52,44,16,57,11, 9			
		27,52,32,21,38,42,30		
2″	58,30,18,47,45,16,38,35,53,39		4,16,37,57,25	
		27,52,28, 5, 0,45, 5		2, 2
4″	58,30,19,15,37,44,43,36,38,44		4,16,37,59,27	
		27,52,23,48,22,45,38		2, 2
6″	58,30,19,43,30, 8,31,59,24,22		4,16,38, 1,29	
		27,52,19,31,44,44, 9		2, 2
8″	58,30,20,11,22,28, 3,44, 8,31		4,16,38, 3,31	
		27,52,15,15, 6,40,38		2, 2
10″	58,30,20,39,14,43,18,50,49, 9		4,16,38, 5,33	
		27,52,10,58,28,35, 5		2, 2
12″	58,30,21, 7, 6,54,17,19,24,14		4,16,38, 7,35	
		27,52, 6,41,50,27,30		2, 2
14″	58,30,21,34,59, 0,59, 9,51,44		4,16,38, 9,37	
		27,52, 2,25,12,17,53		2, 2
16″	58,30,22, 2,51, 3,24,22, 9,37		4,16,38,11,39	
		27,51,58, 8,34, 6,14		2, 2
18″	58,30,22,30,43, 1,32,56,15,51		4,16,38,13,41	
		27,51,53,51,55,52,33		2, 2
20″	58,30,22,58,34,55,24,52, 8,24		4,16,38,15,43	
		27,51,49,35,17,36,50		2, 2
22″	58,30,23,26,26,45, 0, 9,45,14		4,16,38,17,45	
		27,51,45,18,39,19, 5		2, 2
24″	58,30,23,54,18,30,18,49, 4,19		4,16,38,19,47	
		27,51,41, 2, 0,59,18		2, 2
26″	58,30,24,22,10,11,20,50, 3,37		4,16,38,21,49	
		27,51,36,45,22,37,29		2, 2
28″	58,30,24,50, 1,48, 6,12,41, 6		4,16,38,23,51	
		27,51,32,28,44,13,38		2, 2
30″	58,30,25,17,53,20,34,56,54,44		4,16,38,25,53	
		27,51,28,12, 5,47,45		2, 2
32″	58,30,25,45,44,48,47, 2,42,29		4,16,38,27,55	
		27,51,23,55,27,19,50		2, 2
34″	58,30,26,13,36,12,42,30, 2,19		4,16,38,29,57	
		27,51,19,38,48,49,53		2, 2
36″	58,30,26,41,27,32,21,18,52,12		4,16,38,31,59	
		27,51,15,22,10,17,54		2, 2
38″	58,30,27, 9,18,47,43,29,10, 6		4,16,38,34, 1	
		27,51,11, 5,31,43,53		2, 2
40″	58,30,27,37, 9,58,49, 0,53,59		4,16,38,36, 3	
		27,51, 6,48,53, 7,50		2, 2
42″	58,30,28, 5, 1, 5,37,54, 1,49		4,16,38,38, 5	
		27,51, 2,32,14,29,45		2, 2
44″	58,30,28,32,52, 8,10, 8,31,34		4,16,38,40, 7	
		27,50,58,15,35,49,38		2, 2
46″	58,30,29, 0,43, 6,25,44,21,12		4,16,38,42, 9	
		27,50,53,58,57, 7,29		2, 2
48″	58,30,29,28,34, 0,24,41,28,41		4,16,38,44,11	
		27,50,49,42,18,23,18		2, 2
50″	58,30,29,56,24,50, 6,59,51,59		4,16,38,46,13	
		27,50,45,25,39,37, 5		2, 2
52″	58,30,30,24,15,35,32,39,29, 4		4,16,38,48,15	
		27,50,41, 9, 0,48,50		2, 2
54″	58,30,30,52, 6,16,41,40,17,54		4,16,38,50,17	
		27,50,36,52,21,58,33		2, 2
56″	58,30,31,19,56,53,34, 2,16,27		4,16,38,52,19	
		27,50,32,35,43, 6,14		2, 2
58″	58,30,31,47,47,26, 9,45,22,41		4,16,38,54,21	
		27,50,28,19, 4,11,53		
60″	58,30,32,15,37,54,28,49,34,34			
exact	58,30,32,15,37,54,28,49,17,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°12′ 0″	58,30,32,15,37,54,28,49,17,22			
		27,50,24, 2,25,13,48		
2″	58,30,32,43,28,18,31,14,31,10		4,16,38,58,31	
		27,50,19,45,46,15,17		2, 2
4″	58,30,33,11,18,38,17, 0,46,27		4,16,39, 0,33	
		27,50,15,29, 7,14,44		2, 2
6″	58,30,33,39, 8,53,46, 8, 1,11		4,16,39, 2,35	
		27,50,11,12,28,12, 9		2, 2
8″	58,30,34, 6,59, 4,58,36,13,20		4,16,39, 4,37	
		27,50, 6,55,49, 7,32		2, 2
10″	58,30,34,34,49,11,54,25,20,52		4,16,39, 6,39	
		27,50, 2,39,10, 0,53		2, 2
12″	58,30,35, 2,39,14,33,35,21,45		4,16,39, 8,41	
		27,49,58,22,30,52,12		2, 2
14″	58,30,35,30,29,12,56, 6,13,57		4,16,39,10,43	
		27,49,54, 5,51,41,29		2, 2
16″	58,30,35,58,19, 7, 1,57,55,26		4,16,39,12,45	
		27,49,49,49,12,28,44		2, 2
18″	58,30,36,26, 8,56,51,10,24,10		4,16,39,14,47	
		27,49,45,32,33,13,57		2, 2
20″	58,30,36,53,58,42,23,43,38, 7		4,16,39,16,49	
		27,49,41,15,53,57, 8		2, 2
22″	58,30,37,21,48,23,39,37,35,15		4,16,39,18,51	
		27,49,36,59,14,38,17		2, 2
24″	58,30,37,49,38, 0,38,52,13,32		4,16,39,20,53	
		27,49,32,42,35,17,24		2, 2
26″	58,30,38,17,27,33,21,27,30,56		4,16,39,22,55	
		27,49,28,25,55,54,29		2, 2
28″	58,30,38,45,17, 1,47,23,25,25		4,16,39,24,57	
		27,49,24, 9,16,29,32		2, 2
30″	58,30,39,13, 6,25,56,39,54,57		4,16,39,26,59	
		27,49,19,52,37, 2,33		2, 2
32″	58,30,39,40,55,45,49,16,57,30		4,16,39,29, 1	
		27,49,15,35,57,33,32		2, 2
34″	58,30,40, 8,45, 1,25,14,31, 2		4,16,39,31, 3	
		27,49,11,19,18, 2,29		2, 2
36″	58,30,40,36,34,12,44,32,33,31		4,16,39,33, 5	
		27,49, 7, 2,38,29,24		2, 2
38″	58,30,41, 4,23,19,47,11, 2,55		4,16,39,35, 7	
		27,49, 2,45,58,54,17		2, 2
40″	58,30,41,32,12,22,33, 9,57,12		4,16,39,37, 9	
		27,48,58,29,19,17, 8		2, 2
42″	58,30,42, 0, 1,21, 2,29,14,20		4,16,39,39,11	
		27,48,54,12,39,37,57		2, 2
44″	58,30,42,27,50,15,15, 8,52,17		4,16,39,41,13	
		27,48,49,55,59,56,44		2, 2
46″	58,30,42,55,39, 5,11, 8,49, 1		4,16,39,43,15	
		27,48,45,39,20,13,29		2, 2
48″	58,30,43,23,27,50,50,29, 2,30		4,16,39,45,17	
		27,48,41,22,40,28,12		2, 2
50″	58,30,43,51,16,32,13, 9,30,42		4,16,39,47,19	
		27,48,37, 6, 0,40,53		2, 2
52″	58,30,44,19, 5, 9,19,10,11,35		4,16,39,49,21	
		27,48,32,49,20,51,32		2, 2
54″	58,30,44,46,53,42, 8,31, 3, 7		4,16,39,51,23	
		27,48,28,32,41, 0, 9		2, 2
56″	58,30,45,14,42,10,41,12, 3,16		4,16,39,53,25	
		27,48,24,16, 1, 6,44		2, 2
58″	58,30,45,42,30,34,57,13,10, 0		4,16,39,55,27	
		27,48,19,59,21,11,17		
60″	58,30,46,10,18,54,56,34,21,17			
exact	58,30,46,10,18,54,56,34,15,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°13′ 0″	58,30,46,10,18,54,56,34,15,13			
		27,48,15,42,41,13,17		
2″	58,30,46,38, 7,10,39,15,28,30		4,16,39,59,32	
		27,48,11,26, 1,13,45		2, 2
4″	58,30,47, 5,55,22, 5,16,42,15		4,16,40, 1,34	
		27,48, 7, 9,21,12,11		2, 2
6″	58,30,47,33,43,29,14,37,54,26		4,16,40, 3,36	
		27,48, 2,52,41, 8,35		2, 2
8″	58,30,48, 1,31,32, 7,19, 3, 1		4,16,40, 5,38	
		27,47,58,36, 1, 2,57		2, 2
10″	58,30,48,29,19,30,43,20, 5,58		4,16,40, 7,40	
		27,47,54,19,20,55,17		2, 2
12″	58,30,48,57, 7,25, 2,41, 1,15		4,16,40, 9,42	
		27,47,50, 2,40,45,35		2, 2
14″	58,30,49,24,55,15, 5,21,46,50		4,16,40,11,44	
		27,47,45,46, 0,33,51		2, 2
16″	58,30,49,52,43, 0,51,22,20,41		4,16,40,13,46	
		27,47,41,29,20,20, 5		2, 2
18″	58,30,50,20,30,42,20,42,40,46		4,16,40,15,48	
		27,47,37,12,40, 4,17		2, 2
20″	58,30,50,48,18,19,33,22,45, 3		4,16,40,17,50	
		27,47,32,55,59,46,27		2, 2
22″	58,30,51,16, 5,52,29,22,31,30		4,16,40,19,52	
		27,47,28,39,19,26,35		2, 2
24″	58,30,51,43,53,21, 8,41,58, 5		4,16,40,21,54	
		27,47,24,22,39, 4,41		2, 2
26″	58,30,52,11,40,45,31,21, 2,46		4,16,40,23,56	
		27,47,20, 5,58,40,45		2, 2
28″	58,30,52,39,28, 5,37,19,43,31		4,16,40,25,58	
		27,47,15,49,18,14,47		2, 2
30″	58,30,53, 7,15,21,26,37,58,18		4,16,40,28, 0	
		27,47,11,32,37,46,47		2, 2
32″	58,30,53,35, 2,32,59,15,45, 5		4,16,40,30, 2	
		27,47, 7,15,57,16,45		2, 2
34″	58,30,54, 2,49,40,15,13, 1,50		4,16,40,32, 4	
		27,47, 2,59,16,44,41		2, 2
36″	58,30,54,30,36,43,14,29,46,31		4,16,40,34, 6	
		27,46,58,42,36,10,35		2, 2
38″	58,30,54,58,23,41,57, 5,57, 6		4,16,40,36, 8	
		27,46,54,25,55,34,27		2, 2
40″	58,30,55,26,10,36,23, 1,31,33		4,16,40,38,10	
		27,46,50, 9,14,56,17		2, 2
42″	58,30,55,53,57,26,32,16,27,50		4,16,40,40,12	
		27,46,45,52,34,16, 5		2, 2
44″	58,30,56,21,44,12,24,50,43,55		4,16,40,42,14	
		27,46,41,35,53,33,51		2, 2
46″	58,30,56,49,30,54, 0,44,17,46		4,16,40,44,16	
		27,46,37,19,12,49,35		2, 2
48″	58,30,57,17,17,31,19,57, 7,21		4,16,40,46,18	
		27,46,33, 2,32, 3,17		2, 2
50″	58,30,57,45, 4, 4,22,29,10,38		4,16,40,48,20	
		27,46,28,45,51,14,57		2, 2
52″	58,30,58,12,50,33, 8,20,25,35		4,16,40,50,22	
		27,46,24,29,10,24,35		2, 2
54″	58,30,58,40,36,57,37,30,50,10		4,16,40,52,24	
		27,46,20,12,29,32,11		2, 2
56″	58,30,59, 8,23,17,50, 0,22,21		4,16,40,54,26	
		27,46,15,55,48,37,45		2, 2
58″	58,30,59,36, 9,33,45,49, 0, 6		4,16,40,56,28	
		27,46,11,39, 7,41,17		
60″	58,31, 0, 3,55,45,24,56,41,23			
exact	58,31, 0, 3,55,45,24,56,44,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°14′ 0″	58,31, 0, 3,55,45,24,56,44,45			
		27,46, 7,22,26,43,19		
2″	58,31, 0,31,41,52,47,23,28, 4		4,16,41, 0,29	
		27,46, 3, 5,45,42,50		2, 2
4″	58,31, 0,59,27,55,53, 9,10,54		4,16,41, 2,31	
		27,45,58,49, 4,40,19		2, 2
6″	58,31, 1,27,13,54,42,13,51,13		4,16,41, 4,33	
		27,45,54,32,23,35,46		2, 2
8″	58,31, 1,54,59,49,14,37,26,59		4,16,41, 6,35	
		27,45,50,15,42,29,11		2, 2
10″	58,31, 2,22,45,39,30,19,56,10		4,16,41, 8,37	
		27,45,45,59, 1,20,34		2, 2
12″	58,31, 2,50,31,25,29,21,16,44		4,16,41,10,39	
		27,45,41,42,20, 9,55		2, 2
14″	58,31, 3,18,17, 7,11,41,26,39		4,16,41,12,41	
		27,45,37,25,38,57,14		2, 2
16″	58,31, 3,46, 2,44,37,20,23,53		4,16,41,14,43	
		27,45,33, 8,57,42,31		2, 2
18″	58,31, 4,13,48,17,46,18, 6,24		4,16,41,16,45	
		27,45,28,52,16,25,46		2, 2
20″	58,31, 4,41,33,46,38,34,32,10		4,16,41,18,47	
		27,45,24,35,35, 6,59		2, 2
22″	58,31, 5, 9,19,11,14, 9,39, 9		4,16,41,20,49	
		27,45,20,18,53,46,10		2, 2
24″	58,31, 5,37, 4,31,33, 3,25,19		4,16,41,22,51	
		27,45,16, 2,12,23,19		2, 2
26″	58,31, 6, 4,49,47,35,15,48,38		4,16,41,24,53	
		27,45,11,45,30,58,26		2, 2
28″	58,31, 6,32,34,59,20,46,47, 4		4,16,41,26,55	
		27,45, 7,28,49,31,31		2, 2
30″	58,31, 7, 0,20, 6,49,36,18,35		4,16,41,28,57	
		27,45, 3,12, 8, 2,34		2, 2
32″	58,31, 7,28, 5,10, 1,44,21, 9		4,16,41,30,59	
		27,44,58,55,26,31,35		2, 2
34″	58,31, 7,55,50, 8,57,10,52,44		4,16,41,33, 1	
		27,44,54,38,44,58,34		2, 2
36″	58,31, 8,23,35, 3,35,55,51,18		4,16,41,35, 3	
		27,44,50,22, 3,23,31		2, 2
38″	58,31, 8,51,19,53,57,59,14,49		4,16,41,37, 5	
		27,44,46, 5,21,46,26		2, 2
40″	58,31, 9,19, 4,40, 3,21, 1,15		4,16,41,39, 7	
		27,44,41,48,40, 7,19		2, 2
42″	58,31, 9,46,49,21,52, 1, 8,34		4,16,41,41, 9	
		27,44,37,31,58,26,10		2, 2
44″	58,31,10,14,33,59,23,59,34,44		4,16,41,43,11	
		27,44,33,15,16,42,59		2, 2
46″	58,31,10,42,18,32,39,16,17,43		4,16,41,45,13	
		27,44,28,58,34,57,46		2, 2
48″	58,31,11,10, 3, 1,37,51,15,29		4,16,41,47,15	
		27,44,24,41,53,10,31		2, 2
50″	58,31,11,37,47,26,19,44,26, 0		4,16,41,49,17	
		27,44,20,25,11,21,14		2, 2
52″	58,31,12, 5,31,46,44,55,47,14		4,16,41,51,19	
		27,44,16, 8,29,29,55		2, 2
54″	58,31,12,33,16, 2,53,25,17, 9		4,16,41,53,21	
		27,44,11,51,47,36,34		2, 2
56″	58,31,13, 1, 0,14,45,12,53,43		4,16,41,55,23	
		27,44, 7,35, 5,41,11		2, 2
58″	58,31,13,28,44,22,20,18,34,54		4,16,41,57,25	
		27,44, 3,18,23,43,46		
60″	58,31,13,56,28,25,38,42,18,40			
exact	58,31,13,56,28,25,38,42,36,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°15′ 0″	58,31,13,56,28,25,38,42,36,21			
		27,43,59, 1,41,46,14		
2″	58,31,14,24,12,24,40,24,22,35		4,16,42, 1,21	
		27,43,54,44,59,44,53		2, 2
4″	58,31,14,51,56,19,25,24, 7,28		4,16,42, 3,23	
		27,43,50,28,17,41,30		2, 2
6″	58,31,15,19,40, 9,53,41,48,58		4,16,42, 5,25	
		27,43,46,11,35,36, 5		2, 2
8″	58,31,15,47,23,56, 5,17,25, 3		4,16,42, 7,27	
		27,43,41,54,53,28,38		2, 2
10″	58,31,16,15, 7,38, 0,10,53,41		4,16,42, 9,29	
		27,43,37,38,11,19, 9		2, 2
12″	58,31,16,42,51,15,38,22,12,50		4,16,42,11,31	
		27,43,33,21,29, 7,38		2, 2
14″	58,31,17,10,34,48,59,51,20,28		4,16,42,13,33	
		27,43,29, 4,46,54, 5		2, 2
16″	58,31,17,38,18,18, 4,38,14,33		4,16,42,15,35	
		27,43,24,48, 4,38,30		2, 2
18″	58,31,18, 6, 1,42,52,42,53, 3		4,16,42,17,37	
		27,43,20,31,22,20,53		2, 2
20″	58,31,18,33,45, 3,24, 5,13,56		4,16,42,19,39	
		27,43,16,14,40, 1,14		2, 2
22″	58,31,19, 1,28,19,38,45,15,10		4,16,42,21,41	
		27,43,11,57,57,39,33		2, 2
24″	58,31,19,29,11,31,36,42,54,43		4,16,42,23,43	
		27,43, 7,41,15,15,50		2, 2
26″	58,31,19,56,54,39,17,58,10,33		4,16,42,25,45	
		27,43, 3,24,32,50, 5		2, 2
28″	58,31,20,24,37,42,42,31, 0,38		4,16,42,27,47	
		27,42,59, 7,50,22,18		2, 2
30″	58,31,20,52,20,41,50,21,22,56		4,16,42,29,49	
		27,42,54,51, 7,52,29		2, 2
32″	58,31,21,20, 3,36,41,29,15,25		4,16,42,31,51	
		27,42,50,34,25,20,38		2, 2
34″	58,31,21,47,46,27,15,54,36, 3		4,16,42,33,53	
		27,42,46,17,42,46,45		2, 2
36″	58,31,22,15,29,13,33,37,22,48		4,16,42,35,55	
		27,42,42, 1, 0,10,50		2, 2
38″	58,31,22,43,11,55,34,37,33,38		4,16,42,37,57	
		27,42,37,44,17,32,53		2, 2
40″	58,31,23,10,54,33,18,55, 6,31		4,16,42,39,59	
		27,42,33,27,34,52,54		2, 2
42″	58,31,23,38,37, 6,46,29,59,25		4,16,42,42, 1	
		27,42,29,10,52,10,53		2, 2
44″	58,31,24, 6,19,35,57,22,10,18		4,16,42,44, 3	
		27,42,24,54, 9,26,50		2, 2
46″	58,31,24,34, 2, 0,51,31,37, 8		4,16,42,46, 5	
		27,42,20,37,26,40,45		2, 2
48″	58,31,25, 1,44,21,28,58,17,53		4,16,42,48, 7	
		27,42,16,20,43,52,38		2, 2
50″	58,31,25,29,26,37,49,42,10,31		4,16,42,50, 9	
		27,42,12, 4, 1, 2,29		2, 2
52″	58,31,25,57, 8,49,53,43,13, 0		4,16,42,52,11	
		27,42, 7,47,18,10,18		2, 2
54″	58,31,26,24,50,57,41, 1,23,18		4,16,42,54,13	
		27,42, 3,30,35,16, 5		2, 2
56″	58,31,26,52,33, 1,11,36,39,23		4,16,42,56,15	
		27,41,59,13,52,19,50		2, 2
58″	58,31,27,20,15, 0,25,28,59,13		4,16,42,58,17	
		27,41,54,57, 9,21,33		
60″	58,31,27,47,56,55,22,38,20,46			
exact	58,31,27,47,56,55,22,38,50,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°16′ 0″	58,31,27,47,56,55,22,38,50,48			
		27,41,50,40,26,24,24		
2″	58,31,28,15,38,46, 3, 5,15,12		4,16,43, 2, 8	
		27,41,46,23,43,22,16		2, 1
4″	58,31,28,43,20,32,26,48,37,28		4,16,43, 4, 9	
		27,41,42, 7, 0,18, 7		2, 1
6″	58,31,29,11, 2,14,33,48,55,35		4,16,43, 6,10	
		27,41,37,50,17,11,57		2, 1
8″	58,31,29,38,43,52,24, 6, 7,32		4,16,43, 8,11	
		27,41,33,33,34, 3,46		2, 1
10″	58,31,30, 6,25,25,57,40,11,18		4,16,43,10,12	
		27,41,29,16,50,53,34		2, 1
12″	58,31,30,34, 6,55,14,31, 4,52		4,16,43,12,13	
		27,41,25, 0, 7,41,21		2, 1
14″	58,31,31, 1,48,20,14,38,46,13		4,16,43,14,14	
		27,41,20,43,24,27, 7		2, 1
16″	58,31,31,29,29,40,58, 3,13,20		4,16,43,16,15	
		27,41,16,26,41,10,52		2, 1
18″	58,31,31,57,10,57,24,44,24,12		4,16,43,18,16	
		27,41,12, 9,57,52,36		2, 1
20″	58,31,32,24,52, 9,34,42,16,48		4,16,43,20,17	
		27,41, 7,53,14,32,19		2, 1
22″	58,31,32,52,33,17,27,56,49, 7		4,16,43,22,18	
		27,41, 3,36,31,10, 1		2, 1
24″	58,31,33,20,14,21, 4,27,59, 8		4,16,43,24,19	
		27,40,59,19,47,45,42		2, 1
26″	58,31,33,47,55,20,24,15,44,50		4,16,43,26,20	
		27,40,55, 3, 4,19,22		2, 1
28″	58,31,34,15,36,15,27,20, 4,12		4,16,43,28,21	
		27,40,50,46,20,51, 1		2, 1
30″	58,31,34,43,17, 6,13,40,55,13		4,16,43,30,22	
		27,40,46,29,37,20,39		2, 1
32″	58,31,35,10,57,52,43,18,15,52		4,16,43,32,23	
		27,40,42,12,53,48,16		2, 1
34″	58,31,35,38,38,34,56,12, 4, 8		4,16,43,34,24	
		27,40,37,56,10,13,52		2, 1
36″	58,31,36, 6,19,12,52,22,18, 0		4,16,43,36,25	
		27,40,33,39,26,37,27		2, 1
38″	58,31,36,33,59,46,31,48,55,27		4,16,43,38,26	
		27,40,29,22,42,59, 1		2, 1
40″	58,31,37, 1,40,15,54,31,54,28		4,16,43,40,27	
		27,40,25, 5,59,18,34		2, 1
42″	58,31,37,29,20,41, 0,31,13, 2		4,16,43,42,28	
		27,40,20,49,15,36, 6		2, 1
44″	58,31,37,57, 1, 1,49,46,49, 8		4,16,43,44,29	
		27,40,16,32,31,51,37		2, 1
46″	58,31,38,24,41,18,22,18,40,45		4,16,43,46,30	
		27,40,12,15,48, 5, 7		2, 1
48″	58,31,38,52,21,30,38, 6,45,52		4,16,43,48,31	
		27,40, 7,59, 4,16,36		2, 1
50″	58,31,39,20, 1,38,37,11, 2,28		4,16,43,50,32	
		27,40, 3,42,20,26, 4		2, 1
52″	58,31,39,47,41,42,19,31,28,32		4,16,43,52,33	
		27,39,59,25,36,33,31		2, 1
54″	58,31,40,15,21,41,45, 8, 2, 3		4,16,43,54,34	
		27,39,55, 8,52,38,57		2, 1
56″	58,31,40,43, 1,36,54, 0,41, 0		4,16,43,56,35	
		27,39,50,52, 8,42,22		2, 1
58″	58,31,41,10,41,27,46, 9,23,22		4,16,43,58,36	
		27,39,46,35,24,43,46		
60″	58,31,41,38,21,14,21,34, 7, 8			
exact	58,31,41,38,21,14,21,33,39,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°17′ 0″	58,31,41,38,21,14,21,33,39,14			
		27,39,42,18,40,40, 9		
2″	58,31,42, 6, 0,56,40,14,19,23		4,16,44, 2,50	
		27,39,38, 1,56,37,19		2, 1
4″	58,31,42,33,40,34,42,10,56,42		4,16,44, 4,51	
		27,39,33,45,12,32,28		2, 1
6″	58,31,43, 1,20, 8,27,23,29,10		4,16,44, 6,52	
		27,39,29,28,28,25,36		2, 1
8″	58,31,43,28,59,37,55,51,54,46		4,16,44, 8,53	
		27,39,25,11,44,16,43		2, 1
10″	58,31,43,56,39, 3, 7,36,11,29		4,16,44,10,54	
		27,39,20,55, 0, 5,49		2, 1
12″	58,31,44,24,18,24, 2,36,17,18		4,16,44,12,55	
		27,39,16,38,15,52,54		2, 1
14″	58,31,44,51,57,40,40,52,10,12		4,16,44,14,56	
		27,39,12,21,31,37,58		2, 1
16″	58,31,45,19,36,53, 2,23,48,10		4,16,44,16,57	
		27,39, 8, 4,47,21, 1		2, 1
18″	58,31,45,47,16, 1, 7,11, 9,11		4,16,44,18,58	
		27,39, 3,48, 3, 2, 3		2, 1
20″	58,31,46,14,55, 4,55,14,11,14		4,16,44,20,59	
		27,38,59,31,18,41, 4		2, 1
22″	58,31,46,42,34, 4,26,32,52,18		4,16,44,23, 0	
		27,38,55,14,34,18, 4		2, 1
24″	58,31,47,10,12,59,41, 7,10,22		4,16,44,25, 1	
		27,38,50,57,49,53, 3		2, 1
26″	58,31,47,37,51,50,38,57, 3,25		4,16,44,27, 2	
		27,38,46,41, 5,26, 1		2, 1
28″	58,31,48, 5,30,37,20, 2,29,26		4,16,44,29, 3	
		27,38,42,24,20,56,58		2, 1
30″	58,31,48,33, 9,19,44,23,26,24		4,16,44,31, 4	
		27,38,38, 7,36,25,54		2, 1
32″	58,31,49, 0,47,57,51,59,52,18		4,16,44,33, 5	
		27,38,33,50,51,52,49		2, 1
34″	58,31,49,28,26,31,42,51,45, 7		4,16,44,35, 6	
		27,38,29,34, 7,17,43		2, 1
36″	58,31,49,56, 5, 1,16,59, 2,50		4,16,44,37, 7	
		27,38,25,17,22,40,36		2, 1
38″	58,31,50,23,43,26,34,21,43,26		4,16,44,39, 8	
		27,38,21, 0,38, 1,28		2, 1
40″	58,31,50,51,21,47,34,59,44,54		4,16,44,41, 9	
		27,38,16,43,53,20,19		2, 1
42″	58,31,51,19, 0, 4,18,53, 5,13		4,16,44,43,10	
		27,38,12,27, 8,37, 9		2, 1
44″	58,31,51,46,38,16,46, 1,42,22		4,16,44,45,11	
		27,38, 8,10,23,51,58		2, 1
46″	58,31,52,14,16,24,56,25,34,20		4,16,44,47,12	
		27,38, 3,53,39, 4,46		2, 1
48″	58,31,52,41,54,28,50, 4,39, 6		4,16,44,49,13	
		27,37,59,36,54,15,33		2, 1
50″	58,31,53, 9,32,28,26,58,54,39		4,16,44,51,14	
		27,37,55,20, 9,24,19		2, 1
52″	58,31,53,37,10,23,47, 8,18,58		4,16,44,53,15	
		27,37,51, 3,24,31, 4		2, 1
54″	58,31,54, 4,48,14,50,32,50, 2		4,16,44,55,16	
		27,37,46,46,39,35,48		2, 1
56″	58,31,54,32,26, 1,37,12,25,50		4,16,44,57,17	
		27,37,42,29,54,38,31		2, 1
58″	58,31,55, 0, 3,44, 7, 7, 4,21		4,16,44,59,18	
		27,37,38,13, 9,39,13		
60″	58,31,55,27,41,22,20,16,43,34			
exact	58,31,55,27,41,22,20,16,23,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°18′ 0″	58,31,55,27,41,22,20,16,23,10			
		27,37,33,56,24,35,49		
2″	58,31,55,55,18,56,16,40,58,59		4,16,45, 3,28	
		27,37,29,39,39,32,21		2, 1
4″	58,31,56,22,56,25,56,20,31,20		4,16,45, 5,29	
		27,37,25,22,54,26,52		2, 1
6″	58,31,56,50,33,51,19,14,58,12		4,16,45, 7,30	
		27,37,21, 6, 9,19,22		2, 1
8″	58,31,57,18,11,12,25,24,17,34		4,16,45, 9,31	
		27,37,16,49,24, 9,51		2, 1
10″	58,31,57,45,48,29,14,48,27,25		4,16,45,11,32	
		27,37,12,32,38,58,19		2, 1
12″	58,31,58,13,25,41,47,27,25,44		4,16,45,13,33	
		27,37, 8,15,53,44,46		2, 1
14″	58,31,58,41, 2,50, 3,21,10,30		4,16,45,15,34	
		27,37, 3,59, 8,29,12		2, 1
16″	58,31,59, 8,39,54, 2,29,39,42		4,16,45,17,35	
		27,36,59,42,23,11,37		2, 1
18″	58,31,59,36,16,53,44,52,51,19		4,16,45,19,36	
		27,36,55,25,37,52, 1		2, 1
20″	58,32, 0, 3,53,49,10,30,43,20		4,16,45,21,37	
		27,36,51, 8,52,30,24		2, 1
22″	58,32, 0,31,30,40,19,23,13,44		4,16,45,23,38	
		27,36,46,52, 7, 6,46		2, 1
24″	58,32, 0,59, 7,27,11,30,20,30		4,16,45,25,39	
		27,36,42,35,21,41, 7		2, 1
26″	58,32, 1,26,44, 9,46,52, 1,37		4,16,45,27,40	
		27,36,38,18,36,13,27		2, 1
28″	58,32, 1,54,20,48, 5,28,15, 4		4,16,45,29,41	
		27,36,34, 1,50,43,46		2, 1
30″	58,32, 2,21,57,22, 7,18,58,50		4,16,45,31,42	
		27,36,29,45, 5,12, 4		2, 1
32″	58,32, 2,49,33,51,52,24,10,54		4,16,45,33,43	
		27,36,25,28,19,38,21		2, 1
34″	58,32, 3,17,10,17,20,43,49,15		4,16,45,35,44	
		27,36,21,11,34, 2,37		2, 1
36″	58,32, 3,44,46,38,32,17,51,52		4,16,45,37,45	
		27,36,16,54,48,24,52		2, 1
38″	58,32, 4,12,22,55,27, 6,16,44		4,16,45,39,46	
		27,36,12,38, 2,45, 6		2, 1
40″	58,32, 4,39,59, 8, 5, 9, 1,50		4,16,45,41,47	
		27,36, 8,21,17, 3,19		2, 1
42″	58,32, 5, 7,35,16,26,26, 5, 9		4,16,45,43,48	
		27,36, 4, 4,31,19,31		2, 1
44″	58,32, 5,35,11,20,30,57,24,40		4,16,45,45,49	
		27,35,59,47,45,33,42		2, 1
46″	58,32, 6, 2,47,20,18,42,58,22		4,16,45,47,50	
		27,35,55,30,59,45,52		2, 1
48″	58,32, 6,30,23,15,49,42,44,14		4,16,45,49,51	
		27,35,51,14,13,56, 1		2, 1
50″	58,32, 6,57,59, 7, 3,56,40,15		4,16,45,51,52	
		27,35,46,57,28, 4, 9		2, 1
52″	58,32, 7,25,34,54, 1,24,44,24		4,16,45,53,53	
		27,35,42,40,42,10,16		2, 1
54″	58,32, 7,53,10,36,42, 6,54,40		4,16,45,55,54	
		27,35,38,23,56,14,22		2, 1
56″	58,32, 8,20,46,15, 6, 3, 9, 2		4,16,45,57,55	
		27,35,34, 7,10,16,27		2, 1
58″	58,32, 8,48,21,49,13,13,25,29		4,16,45,59,56	
		27,35,29,50,24,16,31		
60″	58,32, 9,15,57,19, 3,37,42, 0			
exact	58,32, 9,15,57,19, 3,37,34,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°19′ 0″	58,32, 9,15,57,19, 3,37,34,32			
		27,35,25,33,38,13,47		
2″	58,32, 9,43,32,44,37,15,48,19		4,16,46, 4, 1	
		27,35,21,16,52, 9,46		2, 1
4″	58,32,10,11, 8, 5,54, 7,58, 5		4,16,46, 6, 2	
		27,35,17, 0, 6, 3,44		2, 1
6″	58,32,10,38,43,22,54,14, 1,49		4,16,46, 8, 3	
		27,35,12,43,19,55,41		2, 1
8″	58,32,11, 6,18,35,37,33,57,30		4,16,46,10, 4	
		27,35, 8,26,33,45,37		2, 1
10″	58,32,11,33,53,44, 4, 7,43, 7		4,16,46,12, 5	
		27,35, 4, 9,47,33,32		2, 1
12″	58,32,12, 1,28,48,13,55,16,39		4,16,46,14, 6	
		27,34,59,53, 1,19,26		2, 1
14″	58,32,12,29, 3,48, 6,56,36, 5		4,16,46,16, 7	
		27,34,55,36,15, 3,19		2, 1
16″	58,32,12,56,38,43,43,11,39,24		4,16,46,18, 8	
		27,34,51,19,28,45,11		2, 1
18″	58,32,13,24,13,35, 2,40,24,35		4,16,46,20, 9	
		27,34,47, 2,42,25, 2		2, 1
20″	58,32,13,51,48,22, 5,22,49,37		4,16,46,22,10	
		27,34,42,45,56, 2,52		2, 1
22″	58,32,14,19,23, 4,51,18,52,29		4,16,46,24,11	
		27,34,38,29, 9,38,41		2, 1
24″	58,32,14,46,57,43,20,28,31,10		4,16,46,26,12	
		27,34,34,12,23,12,29		2, 1
26″	58,32,15,14,32,17,32,51,43,39		4,16,46,28,13	
		27,34,29,55,36,44,16		2, 1
28″	58,32,15,42, 6,47,28,28,27,55		4,16,46,30,14	
		27,34,25,38,50,14, 2		2, 1
30″	58,32,16, 9,41,13, 7,18,41,57		4,16,46,32,15	
		27,34,21,22, 3,41,47		2, 1
32″	58,32,16,37,15,34,29,22,23,44		4,16,46,34,16	
		27,34,17, 5,17, 7,31		2, 1
34″	58,32,17, 4,49,51,34,39,31,15		4,16,46,36,17	
		27,34,12,48,30,31,14		2, 1
36″	58,32,17,32,24, 4,23,10, 2,29		4,16,46,38,18	
		27,34, 8,31,43,52,56		2, 1
38″	58,32,17,59,58,12,54,53,55,25		4,16,46,40,19	
		27,34, 4,14,57,12,37		2, 1
40″	58,32,18,27,32,17, 9,51, 8, 2		4,16,46,42,20	
		27,33,59,58,10,30,17		2, 1
42″	58,32,18,55, 6,17, 8, 1,38,19		4,16,46,44,21	
		27,33,55,41,23,45,56		2, 1
44″	58,32,19,22,40,12,49,25,24,15		4,16,46,46,22	
		27,33,51,24,36,59,34		2, 1
46″	58,32,19,50,14, 4,14, 2,23,49		4,16,46,48,23	
		27,33,47, 7,50,11,11		2, 1
48″	58,32,20,17,47,51,21,52,35, 0		4,16,46,50,24	
		27,33,42,51, 3,20,47		2, 1
50″	58,32,20,45,21,34,12,55,55,47		4,16,46,52,25	
		27,33,38,34,16,28,22		2, 1
52″	58,32,21,12,55,12,47,12,24, 9		4,16,46,54,26	
		27,33,34,17,29,33,56		2, 1
54″	58,32,21,40,28,47, 4,41,58, 5		4,16,46,56,27	
		27,33,30, 0,42,37,29		2, 1
56″	58,32,22, 8, 2,17, 5,24,35,34		4,16,46,58,28	
		27,33,25,43,55,39, 1		2, 1
58″	58,32,22,35,35,42,49,20,14,35		4,16,47, 0,29	
		27,33,21,27, 8,38,32		
60″	58,32,23, 3, 9, 4,16,28,53, 7			
exact	58,32,23, 3, 9, 4,16,28,55,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°20′ 0″	58,32,23, 3, 9, 4,16,28,55,36			
		27,33,17,10,21,36,21		
2″	58,32,23,30,42,21,26,50,31,57		4,16,47, 4,29	
		27,33,12,53,34,31,52		2, 1
4″	58,32,23,58,15,34,20,25, 3,49		4,16,47, 6,30	
		27,33, 8,36,47,25,22		2, 1
6″	58,32,24,25,48,42,57,12,29,11		4,16,47, 8,31	
		27,33, 4,20, 0,16,51		2, 1
8″	58,32,24,53,21,47,17,12,46, 2		4,16,47,10,32	
		27,33, 0, 3,13, 6,19		2, 1
10″	58,32,25,20,54,47,20,25,52,21		4,16,47,12,33	
		27,32,55,46,25,53,46		2, 1
12″	58,32,25,48,27,43, 6,51,46, 7		4,16,47,14,34	
		27,32,51,29,38,39,12		2, 1
14″	58,32,26,16, 0,34,36,30,25,19		4,16,47,16,35	
		27,32,47,12,51,22,37		2, 1
16″	58,32,26,43,33,21,49,21,47,56		4,16,47,18,36	
		27,32,42,56, 4, 4, 1		2, 1
18″	58,32,27,11, 6, 4,45,25,51,57		4,16,47,20,37	
		27,32,38,39,16,43,24		2, 1
20″	58,32,27,38,38,43,24,42,35,21		4,16,47,22,38	
		27,32,34,22,29,20,46		2, 1
22″	58,32,28, 6,11,17,47,11,56, 7		4,16,47,24,39	
		27,32,30, 5,41,56, 7		2, 1
24″	58,32,28,33,43,47,52,53,52,14		4,16,47,26,40	
		27,32,25,48,54,29,27		2, 1
26″	58,32,29, 1,16,13,41,48,21,41		4,16,47,28,41	
		27,32,21,32, 7, 0,46		2, 1
28″	58,32,29,28,48,35,13,55,22,27		4,16,47,30,42	
		27,32,17,15,19,30, 4		2, 1
30″	58,32,29,56,20,52,29,14,52,31		4,16,47,32,43	
		27,32,12,58,31,57,21		2, 1
32″	58,32,30,23,53, 5,27,46,49,52		4,16,47,34,44	
		27,32, 8,41,44,22,37		2, 1
34″	58,32,30,51,25,14, 9,31,12,29		4,16,47,36,45	
		27,32, 4,24,56,45,52		2, 1
36″	58,32,31,18,57,18,34,27,58,21		4,16,47,38,46	
		27,32, 0, 8, 9, 7, 6		2, 1
38″	58,32,31,46,29,18,42,37, 5,27		4,16,47,40,47	
		27,31,55,51,21,26,19		2, 1
40″	58,32,32,14, 1,14,33,58,31,46		4,16,47,42,48	
		27,31,51,34,33,43,31		2, 1
42″	58,32,32,41,33, 6, 8,32,15,17		4,16,47,44,49	
		27,31,47,17,45,58,42		2, 1
44″	58,32,33, 9, 4,53,26,18,13,59		4,16,47,46,50	
		27,31,43, 0,58,11,52		2, 1
46″	58,32,33,36,36,36,27,16,25,51		4,16,47,48,51	
		27,31,38,44,10,23, 1		2, 1
48″	58,32,34, 4, 8,15,11,26,48,52		4,16,47,50,52	
		27,31,34,27,22,32, 9		2, 1
50″	58,32,34,31,39,49,38,49,21, 1		4,16,47,52,53	
		27,31,30,10,34,39,16		2, 1
52″	58,32,34,59,11,19,49,24, 0,17		4,16,47,54,54	
		27,31,25,53,46,44,22		2, 1
54″	58,32,35,26,42,45,43,10,44,39		4,16,47,56,55	
		27,31,21,36,58,47,27		2, 1
56″	58,32,35,54,14, 7,20, 9,32, 6		4,16,47,58,56	
		27,31,17,20,10,48,31		2, 1
58″	58,32,36,21,45,24,40,20,20,37		4,16,48, 0,57	
		27,31,13, 3,22,47,34		
60″	58,32,36,49,16,37,43,43, 8,11			
exact	58,32,36,49,16,37,43,43,19, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°21′ 0″	58,32,36,49,16,37,43,43,19, 5			
		27,31, 8,46,34,45,54		
2″	58,32,37,16,47,46,30,18, 4,59		4,16,48, 4,53	
		27,31, 4,29,46,41, 1		2, 1
4″	58,32,37,44,18,51, 0, 4,46, 0		4,16,48, 6,54	
		27,31, 0,12,58,34, 7		2, 1
6″	58,32,38,11,49,51,13, 3,20, 7		4,16,48, 8,55	
		27,30,55,56,10,25,12		2, 1
8″	58,32,38,39,20,47, 9,13,45,19		4,16,48,10,56	
		27,30,51,39,22,14,16		2, 1
10″	58,32,39, 6,51,38,48,35,59,35		4,16,48,12,57	
		27,30,47,22,34, 1,19		2, 1
12″	58,32,39,34,22,26,11,10, 0,54		4,16,48,14,58	
		27,30,43, 5,45,46,21		2, 1
14″	58,32,40, 1,53, 9,16,55,47,15		4,16,48,16,59	
		27,30,38,48,57,29,22		2, 1
16″	58,32,40,29,23,48, 5,53,16,37		4,16,48,19, 0	
		27,30,34,32, 9,10,22		2, 1
18″	58,32,40,56,54,22,38, 2,26,59		4,16,48,21, 1	
		27,30,30,15,20,49,21		2, 1
20″	58,32,41,24,24,52,53,23,16,20		4,16,48,23, 2	
		27,30,25,58,32,26,19		2, 1
22″	58,32,41,51,55,18,51,55,42,39		4,16,48,25, 3	
		27,30,21,41,44, 1,16		2, 1
24″	58,32,42,19,25,40,33,39,43,55		4,16,48,27, 4	
		27,30,17,24,55,34,12		2, 1
26″	58,32,42,46,55,57,58,35,18, 7		4,16,48,29, 5	
		27,30,13, 8, 7, 5, 7		2, 1
28″	58,32,43,14,26,11, 6,42,23,14		4,16,48,31, 6	
		27,30, 8,51,18,34, 1		2, 1
30″	58,32,43,41,56,19,58, 0,57,15		4,16,48,33, 7	
		27,30, 4,34,30, 0,54		2, 1
32″	58,32,44, 9,26,24,32,30,58, 9		4,16,48,35, 8	
		27,30, 0,17,41,25,46		2, 1
34″	58,32,44,36,56,24,50,12,23,55		4,16,48,37, 9	
		27,29,56, 0,52,48,37		2, 1
36″	58,32,45, 4,26,20,51, 5,12,32		4,16,48,39,10	
		27,29,51,44, 4, 9,27		2, 1
38″	58,32,45,31,56,12,35, 9,21,59		4,16,48,41,11	
		27,29,47,27,15,28,16		2, 1
40″	58,32,45,59,26, 0, 2,24,50,15		4,16,48,43,12	
		27,29,43,10,26,45, 4		2, 1
42″	58,32,46,26,55,43,12,51,35,19		4,16,48,45,13	
		27,29,38,53,37,59,51		2, 1
44″	58,32,46,54,25,22, 6,29,35,10		4,16,48,47,14	
		27,29,34,36,49,12,37		2, 1
46″	58,32,47,21,54,56,43,18,47,47		4,16,48,49,15	
		27,29,30,20, 0,23,22		2, 1
48″	58,32,47,49,24,27, 3,19,11, 9		4,16,48,51,16	
		27,29,26, 3,11,32, 6		2, 1
50″	58,32,48,16,53,53, 6,30,43,15		4,16,48,53,17	
		27,29,21,46,22,38,49		2, 1
52″	58,32,48,44,23,14,52,53,22, 4		4,16,48,55,18	
		27,29,17,29,33,43,31		2, 1
54″	58,32,49,11,52,32,22,27, 5,35		4,16,48,57,19	
		27,29,13,12,44,46,12		2, 1
56″	58,32,49,39,21,45,35,11,51,47		4,16,48,59,20	
		27,29, 8,55,55,46,52		2, 1
58″	58,32,50, 6,50,54,31, 7,38,39		4,16,49, 1,21	
		27,29, 4,39, 6,45,31		
60″	58,32,50,34,19,59,10,14,24,10			
exact	58,32,50,34,19,59,10,14,48, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°22′ 0″	58,32,50,34,19,59,10,14,48, 4			
		27,29, 0,22,17,44,45		
2″	58,32,51, 1,48,59,32,32,32,49		4,16,49, 5,12	
		27,28,56, 5,28,39,33		2, 1
4″	58,32,51,29,17,55,38, 1,12,22		4,16,49, 7,13	
		27,28,51,48,39,32,20		2, 1
6″	58,32,51,56,46,47,26,40,44,42		4,16,49, 9,14	
		27,28,47,31,50,23, 6		2, 1
8″	58,32,52,24,15,34,58,31, 7,48		4,16,49,11,15	
		27,28,43,15, 1,11,51		2, 1
10″	58,32,52,51,44,18,13,32,19,39		4,16,49,13,16	
		27,28,38,58,11,58,35		2, 1
12″	58,32,53,19,12,57,11,44,18,14		4,16,49,15,17	
		27,28,34,41,22,43,18		2, 1
14″	58,32,53,46,41,31,53, 7, 1,32		4,16,49,17,18	
		27,28,30,24,33,26, 0		2, 1
16″	58,32,54,14,10, 2,17,40,27,32		4,16,49,19,19	
		27,28,26, 7,44, 6,41		2, 1
18″	58,32,54,41,38,28,25,24,34,13		4,16,49,21,20	
		27,28,21,50,54,45,21		2, 1
20″	58,32,55, 9, 6,50,16,19,19,34		4,16,49,23,21	
		27,28,17,34, 5,22, 0		2, 1
22″	58,32,55,36,35, 7,50,24,41,34		4,16,49,25,22	
		27,28,13,17,15,56,38		2, 1
24″	58,32,56, 4, 3,21, 7,40,38,12		4,16,49,27,23	
		27,28, 9, 0,26,29,15		2, 1
26″	58,32,56,31,31,30, 8, 7, 7,27		4,16,49,29,24	
		27,28, 4,43,36,59,51		2, 1
28″	58,32,56,58,59,34,51,44, 7,18		4,16,49,31,25	
		27,28, 0,26,47,28,26		2, 1
30″	58,32,57,26,27,35,18,31,35,44		4,16,49,33,26	
		27,27,56, 9,57,55, 0		2, 1
32″	58,32,57,53,55,31,28,29,30,44		4,16,49,35,27	
		27,27,51,53, 8,19,33		2, 1
34″	58,32,58,21,23,23,21,37,50,17		4,16,49,37,28	
		27,27,47,36,18,42, 5		2, 1
36″	58,32,58,48,51,10,57,56,32,22		4,16,49,39,29	
		27,27,43,19,29, 2,36		2, 1
38″	58,32,59,16,18,54,17,25,34,58		4,16,49,41,30	
		27,27,39, 2,39,21, 6		2, 1
40″	58,32,59,43,46,33,20, 4,56, 4		4,16,49,43,31	
		27,27,34,45,49,37,35		2, 1
42″	58,33, 0,11,14, 8, 5,54,33,39		4,16,49,45,32	
		27,27,30,28,59,52, 3		2, 1
44″	58,33, 0,38,41,38,34,54,25,42		4,16,49,47,33	
		27,27,26,12,10, 4,30		2, 1
46″	58,33, 1, 6, 9, 4,47, 4,30,12		4,16,49,49,34	
		27,27,21,55,20,14,56		2, 1
48″	58,33, 1,33,36,26,42,24,45, 8		4,16,49,51,35	
		27,27,17,38,30,23,21		2, 1
50″	58,33, 2, 1, 3,44,20,55, 8,29		4,16,49,53,36	
		27,27,13,21,40,29,45		2, 1
52″	58,33, 2,28,30,57,42,35,38,14		4,16,49,55,37	
		27,27, 9, 4,50,34, 8		2, 1
54″	58,33, 2,55,58, 6,47,26,12,22		4,16,49,57,38	
		27,27, 4,48, 0,36,30		2, 1
56″	58,33, 3,23,25,11,35,26,48,52		4,16,49,59,39	
		27,27, 0,31,10,36,51		2, 1
58″	58,33, 3,50,52,12, 6,37,25,43		4,16,50, 1,40	
		27,26,56,14,20,35,11		
60″	58,33, 4,18,19, 8,20,58, 0,54			
exact	58,33, 4,18,19, 8,20,58,36, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°23′ 0″	58,33, 4,18,19, 8,20,58,36, 2			
		27,26,51,57,30,35,16		
2″	58,33, 4,45,46, 0,18,29,11,18		4,16,50, 5,26	
		27,26,47,40,40,29,50		2, 0
4″	58,33, 5,13,12,47,59, 9,41, 8		4,16,50, 7,26	
		27,26,43,23,50,22,24		2, 0
6″	58,33, 5,40,39,31,23, 0, 3,32		4,16,50, 9,26	
		27,26,39, 7, 0,12,58		2, 0
8″	58,33, 6, 8, 6,10,30, 0,16,30		4,16,50,11,26	
		27,26,34,50,10, 1,32		2, 0
10″	58,33, 6,35,32,45,20,10,18, 2		4,16,50,13,26	
		27,26,30,33,19,48, 6		2, 0
12″	58,33, 7, 2,59,15,53,30, 6, 8		4,16,50,15,26	
		27,26,26,16,29,32,40		2, 0
14″	58,33, 7,30,25,42, 9,59,38,48		4,16,50,17,26	
		27,26,21,59,39,15,14		2, 0
16″	58,33, 7,57,52, 4, 9,38,54, 2		4,16,50,19,26	
		27,26,17,42,48,55,48		2, 0
18″	58,33, 8,25,18,21,52,27,49,50		4,16,50,21,26	
		27,26,13,25,58,34,22		2, 0
20″	58,33, 8,52,44,35,18,26,24,12		4,16,50,23,26	
		27,26, 9, 9, 8,10,56		2, 0
22″	58,33, 9,20,10,44,27,34,35, 8		4,16,50,25,26	
		27,26, 4,52,17,45,30		2, 0
24″	58,33, 9,47,36,49,19,52,20,38		4,16,50,27,26	
		27,26, 0,35,27,18, 4		2, 0
26″	58,33,10,15, 2,49,55,19,38,42		4,16,50,29,26	
		27,25,56,18,36,48,38		2, 0
28″	58,33,10,42,28,46,13,56,27,20		4,16,50,31,26	
		27,25,52, 1,46,17,12		2, 0
30″	58,33,11, 9,54,38,15,42,44,32		4,16,50,33,26	
		27,25,47,44,55,43,46		2, 0
32″	58,33,11,37,20,26, 0,38,28,18		4,16,50,35,26	
		27,25,43,28, 5, 8,20		2, 0
34″	58,33,12, 4,46, 9,28,43,36,38		4,16,50,37,26	
		27,25,39,11,14,30,54		2, 0
36″	58,33,12,32,11,48,39,58, 7,32		4,16,50,39,26	
		27,25,34,54,23,51,28		2, 0
38″	58,33,12,59,37,23,34,21,59, 0		4,16,50,41,26	
		27,25,30,37,33,10, 2		2, 0
40″	58,33,13,27, 2,54,11,55, 9, 2		4,16,50,43,26	
		27,25,26,20,42,26,36		2, 0
42″	58,33,13,54,28,20,32,37,35,38		4,16,50,45,26	
		27,25,22, 3,51,41,10		2, 0
44″	58,33,14,21,53,42,36,29,16,48		4,16,50,47,26	
		27,25,17,47, 0,53,44		2, 0
46″	58,33,14,49,19, 0,23,30,10,32		4,16,50,49,26	
		27,25,13,30,10, 4,18		2, 0
48″	58,33,15,16,44,13,53,40,14,50		4,16,50,51,26	
		27,25, 9,13,19,12,52		2, 0
50″	58,33,15,44, 9,23, 6,59,27,42		4,16,50,53,26	
		27,25, 4,56,28,19,26		2, 0
52″	58,33,16,11,34,28, 3,27,47, 8		4,16,50,55,26	
		27,25, 0,39,37,24, 0		2, 0
54″	58,33,16,38,59,28,43, 5,11, 8		4,16,50,57,26	
		27,24,56,22,46,26,34		2, 0
56″	58,33,17, 6,24,25, 5,51,37,42		4,16,50,59,26	
		27,24,52, 5,55,27, 8		2, 0
58″	58,33,17,33,49,17,11,47, 4,50		4,16,51, 1,26	
		27,24,47,49, 4,25,42		
60″	58,33,18, 1,14, 5, 0,51,30,32			
exact	58,33,18, 1,14, 5, 0,51, 6,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°24′ 0″	58,33,18, 1,14, 5, 0,51, 6,54			
		27,24,43,32,13,19,48		
2″	58,33,18,28,38,48,33, 4,26,42		4,16,51, 5,35	
		27,24,39,15,22,14,13		2, 0
4″	58,33,18,56, 3,27,48,26,40,55		4,16,51, 7,35	
		27,24,34,58,31, 6,38		2, 0
6″	58,33,19,23,28, 2,46,57,47,33		4,16,51, 9,35	
		27,24,30,41,39,57, 3		2, 0
8″	58,33,19,50,52,33,28,37,44,36		4,16,51,11,35	
		27,24,26,24,48,45,28		2, 0
10″	58,33,20,18,16,59,53,26,30, 4		4,16,51,13,35	
		27,24,22, 7,57,31,53		2, 0
12″	58,33,20,45,41,22, 1,24, 1,57		4,16,51,15,35	
		27,24,17,51, 6,16,18		2, 0
14″	58,33,21,13, 5,39,52,30,18,15		4,16,51,17,35	
		27,24,13,34,14,58,43		2, 0
16″	58,33,21,40,29,53,26,45,16,58		4,16,51,19,35	
		27,24, 9,17,23,39, 8		2, 0
18″	58,33,22, 7,54, 2,44, 8,56, 6		4,16,51,21,35	
		27,24, 5, 0,32,17,33		2, 0
20″	58,33,22,35,18, 7,44,41,13,39		4,16,51,23,35	
		27,24, 0,43,40,53,58		2, 0
22″	58,33,23, 2,42, 8,28,22, 7,37		4,16,51,25,35	
		27,23,56,26,49,28,23		2, 0
24″	58,33,23,30, 6, 4,55,11,36, 0		4,16,51,27,35	
		27,23,52, 9,58, 0,48		2, 0
26″	58,33,23,57,29,57, 5, 9,36,48		4,16,51,29,35	
		27,23,47,53, 6,31,13		2, 0
28″	58,33,24,24,53,44,58,16, 8, 1		4,16,51,31,35	
		27,23,43,36,14,59,38		2, 0
30″	58,33,24,52,17,28,34,31, 7,39		4,16,51,33,35	
		27,23,39,19,23,26, 3		2, 0
32″	58,33,25,19,41, 7,53,54,33,42		4,16,51,35,35	
		27,23,35, 2,31,50,28		2, 0
34″	58,33,25,47, 4,42,56,26,24,10		4,16,51,37,35	
		27,23,30,45,40,12,53		2, 0
36″	58,33,26,14,28,13,42, 6,37, 3		4,16,51,39,35	
		27,23,26,28,48,33,18		2, 0
38″	58,33,26,41,51,40,10,55,10,21		4,16,51,41,35	
		27,23,22,11,56,51,43		2, 0
40″	58,33,27, 9,15, 2,22,52, 2, 4		4,16,51,43,35	
		27,23,17,55, 5, 8, 8		2, 0
42″	58,33,27,36,38,20,17,57,10,12		4,16,51,45,35	
		27,23,13,38,13,22,33		2, 0
44″	58,33,28, 4, 1,33,56,10,32,45		4,16,51,47,35	
		27,23, 9,21,21,34,58		2, 0
46″	58,33,28,31,24,43,17,32, 7,43		4,16,51,49,35	
		27,23, 5, 4,29,45,23		2, 0
48″	58,33,28,58,47,48,22, 1,53, 6		4,16,51,51,35	
		27,23, 0,47,37,53,48		2, 0
50″	58,33,29,26,10,49, 9,39,46,54		4,16,51,53,35	
		27,22,56,30,46, 0,13		2, 0
52″	58,33,29,53,33,45,40,25,47, 7		4,16,51,55,35	
		27,22,52,13,54, 4,38		2, 0
54″	58,33,30,20,56,37,54,19,51,45		4,16,51,57,35	
		27,22,47,57, 2, 7, 3		2, 0
56″	58,33,30,48,19,25,51,21,58,48		4,16,51,59,35	
		27,22,43,40,10, 7,28		2, 0
58″	58,33,31,15,42, 9,31,32, 6,16		4,16,52, 1,35	
		27,22,39,23,18, 5,53		
60″	58,33,31,43, 4,48,54,50,12, 9			
exact	58,33,31,43, 4,48,54,49,54,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°25′ 0″	58,33,31,43, 4,48,54,49,54,59			
		27,22,35, 6,26, 0,41		
2″	58,33,32,10,27,24, 1,15,55,40		4,16,52, 5,40	
		27,22,30,49,33,55, 1		2, 0
4″	58,33,32,37,49,54,50,49,50,41		4,16,52, 7,40	
		27,22,26,32,41,47,21		2, 0
6″	58,33,33, 5,12,21,23,31,38, 2		4,16,52, 9,40	
		27,22,22,15,49,37,41		2, 0
8″	58,33,33,32,34,43,39,21,15,43		4,16,52,11,40	
		27,22,17,58,57,26, 1		2, 0
10″	58,33,33,59,57, 1,38,18,41,44		4,16,52,13,40	
		27,22,13,42, 5,12,21		2, 0
12″	58,33,34,27,19,15,20,23,54, 5		4,16,52,15,40	
		27,22, 9,25,12,56,41		2, 0
14″	58,33,34,54,41,24,45,36,50,46		4,16,52,17,40	
		27,22, 5, 8,20,39, 1		2, 0
16″	58,33,35,22, 3,29,53,57,29,47		4,16,52,19,40	
		27,22, 0,51,28,19,21		2, 0
18″	58,33,35,49,25,30,45,25,49, 8		4,16,52,21,40	
		27,21,56,34,35,57,41		2, 0
20″	58,33,36,16,47,27,20, 1,46,49		4,16,52,23,40	
		27,21,52,17,43,34, 1		2, 0
22″	58,33,36,44, 9,19,37,45,20,50		4,16,52,25,40	
		27,21,48, 0,51, 8,21		2, 0
24″	58,33,37,11,31, 7,38,36,29,11		4,16,52,27,40	
		27,21,43,43,58,40,41		2, 0
26″	58,33,37,38,52,51,22,35, 9,52		4,16,52,29,40	
		27,21,39,27, 6,11, 1		2, 0
28″	58,33,38, 6,14,30,49,41,20,53		4,16,52,31,40	
		27,21,35,10,13,39,21		2, 0
30″	58,33,38,33,36, 5,59,55, 0,14		4,16,52,33,40	
		27,21,30,53,21, 5,41		2, 0
32″	58,33,39, 0,57,36,53,16, 5,55		4,16,52,35,40	
		27,21,26,36,28,30, 1		2, 0
34″	58,33,39,28,19, 3,29,44,35,56		4,16,52,37,40	
		27,21,22,19,35,52,21		2, 0
36″	58,33,39,55,40,25,49,20,28,17		4,16,52,39,40	
		27,21,18, 2,43,12,41		2, 0
38″	58,33,40,23, 1,43,52, 3,40,58		4,16,52,41,40	
		27,21,13,45,50,31, 1		2, 0
40″	58,33,40,50,22,57,37,54,11,59		4,16,52,43,40	
		27,21, 9,28,57,47,21		2, 0
42″	58,33,41,17,44, 7, 6,51,59,20		4,16,52,45,40	
		27,21, 5,12, 5, 1,41		2, 0
44″	58,33,41,45, 5,12,18,57, 1, 1		4,16,52,47,40	
		27,21, 0,55,12,14, 1		2, 0
46″	58,33,42,12,26,13,14, 9,15, 2		4,16,52,49,40	
		27,20,56,38,19,24,21		2, 0
48″	58,33,42,39,47, 9,52,28,39,23		4,16,52,51,40	
		27,20,52,21,26,32,41		2, 0
50″	58,33,43, 7, 8, 2,13,55,12, 4		4,16,52,53,40	
		27,20,48, 4,33,39, 1		2, 0
52″	58,33,43,34,28,50,18,28,51, 5		4,16,52,55,40	
		27,20,43,47,40,43,21		2, 0
54″	58,33,44, 1,49,34, 6, 9,34,26		4,16,52,57,40	
		27,20,39,30,47,45,41		2, 0
56″	58,33,44,29,10,13,36,57,20, 7		4,16,52,59,40	
		27,20,35,13,54,46, 1		2, 0
58″	58,33,44,56,30,48,50,52, 6, 8		4,16,53, 1,40	
		27,20,30,57, 1,44,21		
60″	58,33,45,23,51,19,47,53,50,29			
exact	58,33,45,23,51,19,47,53,45, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°26′ 0″	58,33,45,23,51,19,47,53,45, 0			
		27,20,26,40, 8,40,17		
2″	58,33,45,51,11,46,28, 2,25,17		4,16,53, 5,41	
		27,20,22,23,15,34,36		2, 0
4″	58,33,46,18,32, 8,51,17,59,53		4,16,53, 7,41	
		27,20,18, 6,22,26,55		2, 0
6″	58,33,46,45,52,26,57,40,26,48		4,16,53, 9,41	
		27,20,13,49,29,17,14		2, 0
8″	58,33,47,13,12,40,47, 9,44, 2		4,16,53,11,41	
		27,20, 9,32,36, 5,33		2, 0
10″	58,33,47,40,32,50,19,45,49,35		4,16,53,13,41	
		27,20, 5,15,42,51,52		2, 0
12″	58,33,48, 7,52,55,35,28,41,27		4,16,53,15,41	
		27,20, 0,58,49,36,11		2, 0
14″	58,33,48,35,12,56,34,18,17,38		4,16,53,17,41	
		27,19,56,41,56,18,30		2, 0
16″	58,33,49, 2,32,53,16,14,36, 8		4,16,53,19,41	
		27,19,52,25, 2,58,49		2, 0
18″	58,33,49,29,52,45,41,17,34,57		4,16,53,21,41	
		27,19,48, 8, 9,37, 8		2, 0
20″	58,33,49,57,12,33,49,27,12, 5		4,16,53,23,41	
		27,19,43,51,16,13,27		2, 0
22″	58,33,50,24,32,17,40,43,25,32		4,16,53,25,41	
		27,19,39,34,22,47,46		2, 0
24″	58,33,50,51,51,57,15, 6,13,18		4,16,53,27,41	
		27,19,35,17,29,20, 5		2, 0
26″	58,33,51,19,11,32,32,35,33,23		4,16,53,29,41	
		27,19,31, 0,35,50,24		2, 0
28″	58,33,51,46,31, 3,33,11,23,47		4,16,53,31,41	
		27,19,26,43,42,18,43		2, 0
30″	58,33,52,13,50,30,16,53,42,30		4,16,53,33,41	
		27,19,22,26,48,45, 2		2, 0
32″	58,33,52,41, 9,52,43,42,27,32		4,16,53,35,41	
		27,19,18, 9,55, 9,21		2, 0
34″	58,33,53, 8,29,10,53,37,36,53		4,16,53,37,41	
		27,19,13,53, 1,31,40		2, 0
36″	58,33,53,35,48,24,46,39, 8,33		4,16,53,39,41	
		27,19, 9,36, 7,51,59		2, 0
38″	58,33,54, 3, 7,34,22,47, 0,32		4,16,53,41,41	
		27,19, 5,19,14,10,18		2, 0
40″	58,33,54,30,26,39,42, 1,10,50		4,16,53,43,41	
		27,19, 1, 2,20,26,37		2, 0
42″	58,33,54,57,45,40,44,21,37,27		4,16,53,45,41	
		27,18,56,45,26,40,56		2, 0
44″	58,33,55,25, 4,37,29,48,18,23		4,16,53,47,41	
		27,18,52,28,32,53,15		2, 0
46″	58,33,55,52,23,29,58,21,11,38		4,16,53,49,41	
		27,18,48,11,39, 3,34		2, 0
48″	58,33,56,19,42,18,10, 0,15,12		4,16,53,51,41	
		27,18,43,54,45,11,53		2, 0
50″	58,33,56,47, 1, 2, 4,45,27, 5		4,16,53,53,41	
		27,18,39,37,51,18,12		2, 0
52″	58,33,57,14,19,41,42,36,45,17		4,16,53,55,41	
		27,18,35,20,57,22,31		2, 0
54″	58,33,57,41,38,17, 3,34, 7,48		4,16,53,57,41	
		27,18,31, 4, 3,24,50		2, 0
56″	58,33,58, 8,56,48, 7,37,32,38		4,16,53,59,41	
		27,18,26,47, 9,25, 9		2, 0
58″	58,33,58,36,15,14,54,46,57,47		4,16,54, 1,41	
		27,18,22,30,15,23,28		
60″	58,33,59, 3,33,37,25, 2,21,15			
exact	58,33,59, 3,33,37,25, 2,32, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°27′ 0″	58,33,59, 3,33,37,25, 2,32, 7			
		27,18,18,13,21,20,55		
2″	58,33,59,30,51,55,38,23,53, 2		4,16,54, 5,36	
		27,18,13,56,27,15,19		2, 0
4″	58,33,59,58,10, 9,34,51, 8,21		4,16,54, 7,36	
		27,18, 9,39,33, 7,43		2, 0
6″	58,34, 0,25,28,19,14,24,16, 4		4,16,54, 9,36	
		27,18, 5,22,38,58, 7		2, 0
8″	58,34, 0,52,46,24,37, 3,14,11		4,16,54,11,36	
		27,18, 1, 5,44,46,31		2, 0
10″	58,34, 1,20, 4,25,42,48, 0,42		4,16,54,13,36	
		27,17,56,48,50,32,55		2, 0
12″	58,34, 1,47,22,22,31,38,33,37		4,16,54,15,36	
		27,17,52,31,56,17,19		2, 0
14″	58,34, 2,14,40,15, 3,34,50,56		4,16,54,17,36	
		27,17,48,15, 1,59,43		2, 0
16″	58,34, 2,41,58, 3,18,36,50,39		4,16,54,19,36	
		27,17,43,58, 7,40, 7		2, 0
18″	58,34, 3, 9,15,47,16,44,30,46		4,16,54,21,36	
		27,17,39,41,13,18,31		2, 0
20″	58,34, 3,36,33,26,57,57,49,17		4,16,54,23,36	
		27,17,35,24,18,54,55		2, 0
22″	58,34, 4, 3,51, 2,22,16,44,12		4,16,54,25,36	
		27,17,31, 7,24,29,19		2, 0
24″	58,34, 4,31, 8,33,29,41,13,31		4,16,54,27,36	
		27,17,26,50,30, 1,43		2, 0
26″	58,34, 4,58,26, 0,20,11,15,14		4,16,54,29,36	
		27,17,22,33,35,32, 7		2, 0
28″	58,34, 5,25,43,22,53,46,47,21		4,16,54,31,36	
		27,17,18,16,41, 0,31		2, 0
30″	58,34, 5,53, 0,41,10,27,47,52		4,16,54,33,36	
		27,17,13,59,46,26,55		2, 0
32″	58,34, 6,20,17,55,10,14,14,47		4,16,54,35,36	
		27,17, 9,42,51,51,19		2, 0
34″	58,34, 6,47,35, 4,53, 6, 6, 6		4,16,54,37,36	
		27,17, 5,25,57,13,43		2, 0
36″	58,34, 7,14,52,10,19, 3,19,49		4,16,54,39,36	
		27,17, 1, 9, 2,34, 7		2, 0
38″	58,34, 7,42, 9,11,28, 5,53,56		4,16,54,41,36	
		27,16,56,52, 7,52,31		2, 0
40″	58,34, 8, 9,26, 8,20,13,46,27		4,16,54,43,36	
		27,16,52,35,13, 8,55		2, 0
42″	58,34, 8,36,43, 0,55,26,55,22		4,16,54,45,36	
		27,16,48,18,18,23,19		2, 0
44″	58,34, 9, 3,59,49,13,45,18,41		4,16,54,47,36	
		27,16,44, 1,23,35,43		2, 0
46″	58,34, 9,31,16,33,15, 8,54,24		4,16,54,49,36	
		27,16,39,44,28,46, 7		2, 0
48″	58,34, 9,58,33,12,59,37,40,31		4,16,54,51,36	
		27,16,35,27,33,54,31		2, 0
50″	58,34,10,25,49,48,27,11,35, 2		4,16,54,53,36	
		27,16,31,10,39, 0,55		2, 0
52″	58,34,10,53, 6,19,37,50,35,57		4,16,54,55,36	
		27,16,26,53,44, 5,19		2, 0
54″	58,34,11,20,22,46,31,34,41,16		4,16,54,57,36	
		27,16,22,36,49, 7,43		2, 0
56″	58,34,11,47,39, 9, 8,23,48,59		4,16,54,59,36	
		27,16,18,19,54, 8, 7		2, 0
58″	58,34,12,14,55,27,28,17,57, 6		4,16,55, 1,36	
		27,16,14, 2,59, 6,31		
60″	58,34,12,42,11,41,31,17, 3,37			
exact	58,34,12,42,11,41,31,17,21,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°28′ 0″	58,34,12,42,11,41,31,17,21,55			
		27,16, 9,46, 4, 4,58		
2″	58,34,13, 9,27,51,17,21,26,53		4,16,55, 5,27	
		27,16, 5,29, 8,59,31		2, 0
4″	58,34,13,36,43,56,46,30,26,24		4,16,55, 7,27	
		27,16, 1,12,13,52, 4		2, 0
6″	58,34,14, 3,59,57,58,44,18,28		4,16,55, 9,27	
		27,15,56,55,18,42,37		2, 0
8″	58,34,14,31,15,54,54, 3, 1, 5		4,16,55,11,27	
		27,15,52,38,23,31,10		2, 0
10″	58,34,14,58,31,47,32,26,32,15		4,16,55,13,27	
		27,15,48,21,28,17,43		2, 0
12″	58,34,15,25,47,35,53,54,49,58		4,16,55,15,27	
		27,15,44, 4,33, 2,16		2, 0
14″	58,34,15,53, 3,19,58,27,52,14		4,16,55,17,27	
		27,15,39,47,37,44,49		2, 0
16″	58,34,16,20,18,59,46, 5,37, 3		4,16,55,19,27	
		27,15,35,30,42,25,22		2, 0
18″	58,34,16,47,34,35,16,48, 2,25		4,16,55,21,27	
		27,15,31,13,47, 3,55		2, 0
20″	58,34,17,14,50, 6,30,35, 6,20		4,16,55,23,27	
		27,15,26,56,51,40,28		2, 0
22″	58,34,17,42, 5,33,27,26,46,48		4,16,55,25,27	
		27,15,22,39,56,15, 1		2, 0
24″	58,34,18, 9,20,56, 7,23, 1,49		4,16,55,27,27	
		27,15,18,23, 0,47,34		2, 0
26″	58,34,18,36,36,14,30,23,49,23		4,16,55,29,27	
		27,15,14, 6, 5,18, 7		2, 0
28″	58,34,19, 3,51,28,36,29, 7,30		4,16,55,31,27	
		27,15, 9,49, 9,46,40		2, 0
30″	58,34,19,31, 6,38,25,38,54,10		4,16,55,33,27	
		27,15, 5,32,14,13,13		2, 0
32″	58,34,19,58,21,43,57,53, 7,23		4,16,55,35,27	
		27,15, 1,15,18,37,46		2, 0
34″	58,34,20,25,36,45,13,11,45, 9		4,16,55,37,27	
		27,14,56,58,23, 0,19		2, 0
36″	58,34,20,52,51,42,11,34,45,28		4,16,55,39,27	
		27,14,52,41,27,20,52		2, 0
38″	58,34,21,20, 6,34,53, 2, 6,20		4,16,55,41,27	
		27,14,48,24,31,39,25		2, 0
40″	58,34,21,47,21,23,17,33,45,45		4,16,55,43,27	
		27,14,44, 7,35,55,58		2, 0
42″	58,34,22,14,36, 7,25, 9,41,43		4,16,55,45,27	
		27,14,39,50,40,10,31		2, 0
44″	58,34,22,41,50,47,15,49,52,14		4,16,55,47,27	
		27,14,35,33,44,23, 4		2, 0
46″	58,34,23, 9, 5,22,49,34,15,18		4,16,55,49,27	
		27,14,31,16,48,33,37		2, 0
48″	58,34,23,36,19,54, 6,22,48,55		4,16,55,51,27	
		27,14,26,59,52,42,10		2, 0
50″	58,34,24, 3,34,21, 6,15,31, 5		4,16,55,53,27	
		27,14,22,42,56,48,43		2, 0
52″	58,34,24,30,48,43,49,12,19,48		4,16,55,55,27	
		27,14,18,26, 0,53,16		2, 0
54″	58,34,24,58, 3, 2,15,13,13, 4		4,16,55,57,27	
		27,14,14, 9, 4,55,49		2, 0
56″	58,34,25,25,17,16,24,18, 8,53		4,16,55,59,27	
		27,14, 9,52, 8,56,22		2, 0
58″	58,34,25,52,31,26,16,27, 5,15		4,16,56, 1,27	
		27,14, 5,35,12,54,55		
60″	58,34,26,19,45,31,51,40, 0,10			
exact	58,34,26,19,45,31,51,40,30,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°29′ 0″	58,34,26,19,45,31,51,40,30,23			
		27,14, 1,18,16,54,45		
2″	58,34,26,46,59,33, 9,57,25, 8		4,16,56, 5,13	
		27,13,57, 1,20,49,32		1,59
4″	58,34,27,14,13,30,11,18,14,40		4,16,56, 7,12	
		27,13,52,44,24,42,20		1,59
6″	58,34,27,41,27,22,55,42,57, 0		4,16,56, 9,11	
		27,13,48,27,28,33, 9		1,59
8″	58,34,28, 8,41,11,23,11,30, 9		4,16,56,11,10	
		27,13,44,10,32,21,59		1,59
10″	58,34,28,35,54,55,33,43,52, 8		4,16,56,13, 9	
		27,13,39,53,36, 8,50		1,59
12″	58,34,29, 3, 8,35,27,20, 0,58		4,16,56,15, 8	
		27,13,35,36,39,53,42		1,59
14″	58,34,29,30,22,11, 3,59,54,40		4,16,56,17, 7	
		27,13,31,19,43,36,35		1,59
16″	58,34,29,57,35,42,23,43,31,15		4,16,56,19, 6	
		27,13,27, 2,47,17,29		1,59
18″	58,34,30,24,49, 9,26,30,48,44		4,16,56,21, 5	
		27,13,22,45,50,56,24		1,59
20″	58,34,30,52, 2,32,12,21,45, 8		4,16,56,23, 4	
		27,13,18,28,54,33,20		1,59
22″	58,34,31,19,15,50,41,16,18,28		4,16,56,25, 3	
		27,13,14,11,58, 8,17		1,59
24″	58,34,31,46,29, 4,53,14,26,45		4,16,56,27, 2	
		27,13, 9,55, 1,41,15		1,59
26″	58,34,32,13,42,14,48,16, 8, 0		4,16,56,29, 1	
		27,13, 5,38, 5,12,14		1,59
28″	58,34,32,40,55,20,26,21,20,14		4,16,56,31, 0	
		27,13, 1,21, 8,41,14		1,59
30″	58,34,33, 8, 8,21,47,30, 1,28		4,16,56,32,59	
		27,12,57, 4,12, 8,15		1,59
32″	58,34,33,35,21,18,51,42, 9,43		4,16,56,34,58	
		27,12,52,47,15,33,17		1,59
34″	58,34,34, 2,34,11,38,57,43, 0		4,16,56,36,57	
		27,12,48,30,18,56,20		1,59
36″	58,34,34,29,47, 0, 9,16,39,20		4,16,56,38,56	
		27,12,44,13,22,17,24		1,59
38″	58,34,34,56,59,44,22,38,56,44		4,16,56,40,55	
		27,12,39,56,25,36,29		1,59
40″	58,34,35,24,12,24,19, 4,33,13		4,16,56,42,54	
		27,12,35,39,28,53,35		1,59
42″	58,34,35,51,24,59,58,33,26,48		4,16,56,44,53	
		27,12,31,22,32, 8,42		1,59
44″	58,34,36,18,37,31,21, 5,35,30		4,16,56,46,52	
		27,12,27, 5,35,21,50		1,59
46″	58,34,36,45,49,58,26,40,57,20		4,16,56,48,51	
		27,12,22,48,38,32,59		1,59
48″	58,34,37,13, 2,21,15,19,30,19		4,16,56,50,50	
		27,12,18,31,41,42, 9		1,59
50″	58,34,37,40,14,39,47, 1,12,28		4,16,56,52,49	
		27,12,14,14,44,49,20		1,59
52″	58,34,38, 7,26,54, 1,46, 1,48		4,16,56,54,48	
		27,12, 9,57,47,54,32		1,59
54″	58,34,38,34,39, 3,59,33,56,20		4,16,56,56,47	
		27,12, 5,40,50,57,45		1,59
56″	58,34,39, 1,51, 9,40,24,54, 5		4,16,56,58,46	
		27,12, 1,23,53,58,59		1,59
58″	58,34,39,29, 3,11, 4,18,53, 4		4,16,57, 0,45	
		27,11,57, 6,56,58,14		
60″	58,34,39,56,15, 8,11,15,51,18			
exact	58,34,39,56,15, 8,11,15,24, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°30′ 0″	58,34,39,56,15, 8,11,15,24, 0			
		27,11,52,49,59,52,38		
2″	58,34,40,23,27, 1, 1,15,16,38		4,16,57, 4,54	
		27,11,48,33, 2,47,44		1,59
4″	58,34,40,50,38,49,34,18, 4,22		4,16,57, 6,53	
		27,11,44,16, 5,40,51		1,59
6″	58,34,41,17,50,33,50,23,45,13		4,16,57, 8,52	
		27,11,39,59, 8,31,59		1,59
8″	58,34,41,45, 2,13,49,32,17,12		4,16,57,10,51	
		27,11,35,42,11,21, 8		1,59
10″	58,34,42,12,13,49,31,43,38,20		4,16,57,12,50	
		27,11,31,25,14, 8,18		1,59
12″	58,34,42,39,25,20,56,57,46,38		4,16,57,14,49	
		27,11,27, 8,16,53,29		1,59
14″	58,34,43, 6,36,48, 5,14,40, 7		4,16,57,16,48	
		27,11,22,51,19,36,41		1,59
16″	58,34,43,33,48,10,56,34,16,48		4,16,57,18,47	
		27,11,18,34,22,17,54		1,59
18″	58,34,44, 0,59,29,30,56,34,42		4,16,57,20,46	
		27,11,14,17,24,57, 8		1,59
20″	58,34,44,28,10,43,48,21,31,50		4,16,57,22,45	
		27,11,10, 0,27,34,23		1,59
22″	58,34,44,55,21,53,48,49, 6,13		4,16,57,24,44	
		27,11, 5,43,30, 9,39		1,59
24″	58,34,45,22,32,59,32,19,15,52		4,16,57,26,43	
		27,11, 1,26,32,42,56		1,59
26″	58,34,45,49,44, 0,58,51,58,48		4,16,57,28,42	
		27,10,57, 9,35,14,14		1,59
28″	58,34,46,16,54,58, 8,27,13, 2		4,16,57,30,41	
		27,10,52,52,37,43,33		1,59
30″	58,34,46,44, 5,51, 1, 4,56,35		4,16,57,32,40	
		27,10,48,35,40,10,53		1,59
32″	58,34,47,11,16,39,36,45, 7,28		4,16,57,34,39	
		27,10,44,18,42,36,14		1,59
34″	58,34,47,38,27,23,55,27,43,42		4,16,57,36,38	
		27,10,40, 1,44,59,36		1,59
36″	58,34,48, 5,38, 3,57,12,43,18		4,16,57,38,37	
		27,10,35,44,47,20,59		1,59
38″	58,34,48,32,48,39,42, 0, 4,17		4,16,57,40,36	
		27,10,31,27,49,40,23		1,59
40″	58,34,48,59,59,11, 9,49,44,40		4,16,57,42,35	
		27,10,27,10,51,57,48		1,59
42″	58,34,49,27, 9,38,20,41,42,28		4,16,57,44,34	
		27,10,22,53,54,13,14		1,59
44″	58,34,49,54,20, 1,14,35,55,42		4,16,57,46,33	
		27,10,18,36,56,26,41		1,59
46″	58,34,50,21,30,19,51,32,22,23		4,16,57,48,32	
		27,10,14,19,58,38, 9		1,59
48″	58,34,50,48,40,34,11,31, 0,32		4,16,57,50,31	
		27,10,10, 3, 0,47,38		1,59
50″	58,34,51,15,50,44,14,31,48,10		4,16,57,52,30	
		27,10, 5,46, 2,55, 8		1,59
52″	58,34,51,43, 0,50, 0,34,43,18		4,16,57,54,29	
		27,10, 1,29, 5, 0,39		1,59
54″	58,34,52,10,10,51,29,39,43,57		4,16,57,56,28	
		27, 9,57,12, 7, 4,11		1,59
56″	58,34,52,37,20,48,41,46,48, 8		4,16,57,58,27	
		27, 9,52,55, 9, 5,44		1,59
58″	58,34,53, 4,30,41,36,55,53,52		4,16,58, 0,26	
		27, 9,48,38,11, 5,18		
60″	58,34,53,31,40,30,15, 6,59,10			
exact	58,34,53,31,40,30,15, 6,39,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°31′ 0″	58,34,53,31,40,30,15, 6,39,38			
		27, 9,44,21,13, 0,57		
2″	58,34,53,58,50,14,36,19,40,35		4,16,58, 4,31	
		27, 9,40, 4,14,56,26		1,59
4″	58,34,54,25,59,54,40,34,37, 1		4,16,58, 6,30	
		27, 9,35,47,16,49,56		1,59
6″	58,34,54,53, 9,30,27,51,26,57		4,16,58, 8,29	
		27, 9,31,30,18,41,27		1,59
8″	58,34,55,20,19, 1,58,10, 8,24		4,16,58,10,28	
		27, 9,27,13,20,30,59		1,59
10″	58,34,55,47,28,29,11,30,39,23		4,16,58,12,27	
		27, 9,22,56,22,18,32		1,59
12″	58,34,56,14,37,52, 7,52,57,55		4,16,58,14,26	
		27, 9,18,39,24, 4, 6		1,59
14″	58,34,56,41,47,10,47,17, 2, 1		4,16,58,16,25	
		27, 9,14,22,25,47,41		1,59
16″	58,34,57, 8,56,25, 9,42,49,42		4,16,58,18,24	
		27, 9,10, 5,27,29,17		1,59
18″	58,34,57,36, 5,35,15,10,18,59		4,16,58,20,23	
		27, 9, 5,48,29, 8,54		1,59
20″	58,34,58, 3,14,41, 3,39,27,53		4,16,58,22,22	
		27, 9, 1,31,30,46,32		1,59
22″	58,34,58,30,23,42,35,10,14,25		4,16,58,24,21	
		27, 8,57,14,32,22,11		1,59
24″	58,34,58,57,32,39,49,42,36,36		4,16,58,26,20	
		27, 8,52,57,33,55,51		1,59
26″	58,34,59,24,41,32,47,16,32,27		4,16,58,28,19	
		27, 8,48,40,35,27,32		1,59
28″	58,34,59,51,50,21,27,51,59,59		4,16,58,30,18	
		27, 8,44,23,36,57,14		1,59
30″	58,35, 0,18,59, 5,51,28,57,13		4,16,58,32,17	
		27, 8,40, 6,38,24,57		1,59
32″	58,35, 0,46, 7,45,58, 7,22,10		4,16,58,34,16	
		27, 8,35,49,39,50,41		1,59
34″	58,35, 1,13,16,21,47,47,12,51		4,16,58,36,15	
		27, 8,31,32,41,14,26		1,59
36″	58,35, 1,40,24,53,20,28,27,17		4,16,58,38,14	
		27, 8,27,15,42,36,12		1,59
38″	58,35, 2, 7,33,20,36,11, 3,29		4,16,58,40,13	
		27, 8,22,58,43,55,59		1,59
40″	58,35, 2,34,41,43,34,54,59,28		4,16,58,42,12	
		27, 8,18,41,45,13,47		1,59
42″	58,35, 3, 1,50, 2,16,40,13,15		4,16,58,44,11	
		27, 8,14,24,46,29,36		1,59
44″	58,35, 3,28,58,16,41,26,42,51		4,16,58,46,10	
		27, 8,10, 7,47,43,26		1,59
46″	58,35, 3,56, 6,26,49,14,26,17		4,16,58,48, 9	
		27, 8, 5,50,48,55,17		1,59
48″	58,35, 4,23,14,32,40, 3,21,34		4,16,58,50, 8	
		27, 8, 1,33,50, 5, 9		1,59
50″	58,35, 4,50,22,34,13,53,26,43		4,16,58,52, 7	
		27, 7,57,16,51,13, 2		1,59
52″	58,35, 5,17,30,31,30,44,39,45		4,16,58,54, 6	
		27, 7,52,59,52,18,56		1,59
54″	58,35, 5,44,38,24,30,36,58,41		4,16,58,56, 5	
		27, 7,48,42,53,22,51		1,59
56″	58,35, 6,11,46,13,13,30,21,32		4,16,58,58, 4	
		27, 7,44,25,54,24,47		1,59
58″	58,35, 6,38,53,57,39,24,46,19		4,16,59, 0, 3	
		27, 7,40, 8,55,24,44		
60″	58,35, 7, 6, 1,37,48,20,11, 3			
exact	58,35, 7, 6, 1,37,48,20, 4,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°32′ 0″	58,35, 7, 6, 1,37,48,20, 4,37			
		27, 7,35,51,56,22, 4		
2″	58,35, 7,33, 9,13,40,16,26,41		4,16,59, 4, 3	
		27, 7,31,34,57,18, 1		1,59
4″	58,35, 8, 0,16,45,15,13,44,42		4,16,59, 6, 2	
		27, 7,27,17,58,11,59		1,59
6″	58,35, 8,27,24,12,33,11,56,41		4,16,59, 8, 1	
		27, 7,23, 0,59, 3,58		1,59
8″	58,35, 8,54,31,35,34,11, 0,39		4,16,59,10, 0	
		27, 7,18,43,59,53,58		1,59
10″	58,35, 9,21,38,54,18,10,54,37		4,16,59,11,59	
		27, 7,14,27, 0,41,59		1,59
12″	58,35, 9,48,46, 8,45,11,36,36		4,16,59,13,58	
		27, 7,10,10, 1,28, 1		1,59
14″	58,35,10,15,53,18,55,13, 4,37		4,16,59,15,57	
		27, 7, 5,53, 2,12, 4		1,59
16″	58,35,10,43, 0,24,48,15,16,41		4,16,59,17,56	
		27, 7, 1,36, 2,54, 8		1,59
18″	58,35,11,10, 7,26,24,18,10,49		4,16,59,19,55	
		27, 6,57,19, 3,34,13		1,59
20″	58,35,11,37,14,23,43,21,45, 2		4,16,59,21,54	
		27, 6,53, 2, 4,12,19		1,59
22″	58,35,12, 4,21,16,45,25,57,21		4,16,59,23,53	
		27, 6,48,45, 4,48,26		1,59
24″	58,35,12,31,28, 5,30,30,45,47		4,16,59,25,52	
		27, 6,44,28, 5,22,34		1,59
26″	58,35,12,58,34,49,58,36, 8,21		4,16,59,27,51	
		27, 6,40,11, 5,54,43		1,59
28″	58,35,13,25,41,30, 9,42, 3, 4		4,16,59,29,50	
		27, 6,35,54, 6,24,53		1,59
30″	58,35,13,52,48, 6, 3,48,27,57		4,16,59,31,49	
		27, 6,31,37, 6,53, 4		1,59
32″	58,35,14,19,54,37,40,55,21, 1		4,16,59,33,48	
		27, 6,27,20, 7,19,16		1,59
34″	58,35,14,47, 1, 5, 1, 2,40,17		4,16,59,35,47	
		27, 6,23, 3, 7,43,29		1,59
36″	58,35,15,14, 7,28, 4,10,23,46		4,16,59,37,46	
		27, 6,18,46, 8, 5,43		1,59
38″	58,35,15,41,13,46,50,18,29,29		4,16,59,39,45	
		27, 6,14,29, 8,25,58		1,59
40″	58,35,16, 8,20, 1,19,26,55,27		4,16,59,41,44	
		27, 6,10,12, 8,44,14		1,59
42″	58,35,16,35,26,11,31,35,39,41		4,16,59,43,43	
		27, 6, 5,55, 9, 0,31		1,59
44″	58,35,17, 2,32,17,26,44,40,12		4,16,59,45,42	
		27, 6, 1,38, 9,14,49		1,59
46″	58,35,17,29,38,19, 4,53,55, 1		4,16,59,47,41	
		27, 5,57,21, 9,27, 8		1,59
48″	58,35,17,56,44,16,26, 3,22, 9		4,16,59,49,40	
		27, 5,53, 4, 9,37,28		1,59
50″	58,35,18,23,50, 9,30,12,59,37		4,16,59,51,39	
		27, 5,48,47, 9,45,49		1,59
52″	58,35,18,50,55,58,17,22,45,26		4,16,59,53,38	
		27, 5,44,30, 9,52,11		1,59
54″	58,35,19,18, 1,42,47,32,37,37		4,16,59,55,37	
		27, 5,40,13, 9,56,34		1,59
56″	58,35,19,45, 7,23, 0,42,34,11		4,16,59,57,36	
		27, 5,35,56, 9,58,58		1,59
58″	58,35,20,12,12,58,56,52,33, 9		4,16,59,59,35	
		27, 5,31,39, 9,59,23		
60″	58,35,20,39,18,30,36, 2,32,32			
exact	58,35,20,39,18,30,36, 2,36,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°33′ 0″	58,35,20,39,18,30,36, 2,36,44			
		27, 5,27,22, 9,58,20		
2″	58,35,21, 6,23,57,58,12,35, 4		4,17, 0, 3,30	
		27, 5,23, 5, 9,54,50		1,59
4″	58,35,21,33,29,21, 3,22,29,54		4,17, 0, 5,29	
		27, 5,18,48, 9,49,21		1,59
6″	58,35,22, 0,34,39,51,32,19,15		4,17, 0, 7,28	
		27, 5,14,31, 9,41,53		1,59
8″	58,35,22,27,39,54,22,42, 1, 8		4,17, 0, 9,27	
		27, 5,10,14, 9,32,26		1,59
10″	58,35,22,54,45, 4,36,51,33,34		4,17, 0,11,26	
		27, 5, 5,57, 9,21, 0		1,59
12″	58,35,23,21,50,10,34, 0,54,34		4,17, 0,13,25	
		27, 5, 1,40, 9, 7,35		1,59
14″	58,35,23,48,55,12,14,10, 2, 9		4,17, 0,15,24	
		27, 4,57,23, 8,52,11		1,59
16″	58,35,24,16, 0, 9,37,18,54,20		4,17, 0,17,23	
		27, 4,53, 6, 8,34,48		1,59
18″	58,35,24,43, 5, 2,43,27,29, 8		4,17, 0,19,22	
		27, 4,48,49, 8,15,26		1,59
20″	58,35,25,10, 9,51,32,35,44,34		4,17, 0,21,21	
		27, 4,44,32, 7,54, 5		1,59
22″	58,35,25,37,14,36, 4,43,38,39		4,17, 0,23,20	
		27, 4,40,15, 7,30,45		1,59
24″	58,35,26, 4,19,16,19,51, 9,24		4,17, 0,25,19	
		27, 4,35,58, 7, 5,26		1,59
26″	58,35,26,31,23,52,17,58,14,50		4,17, 0,27,18	
		27, 4,31,41, 6,38, 8		1,59
28″	58,35,26,58,28,23,59, 4,52,58		4,17, 0,29,17	
		27, 4,27,24, 6, 8,51		1,59
30″	58,35,27,25,32,51,23,11, 1,49		4,17, 0,31,16	
		27, 4,23, 7, 5,37,35		1,59
32″	58,35,27,52,37,14,30,16,39,24		4,17, 0,33,15	
		27, 4,18,50, 5, 4,20		1,59
34″	58,35,28,19,41,33,20,21,43,44		4,17, 0,35,14	
		27, 4,14,33, 4,29, 6		1,59
36″	58,35,28,46,45,47,53,26,12,50		4,17, 0,37,13	
		27, 4,10,16, 3,51,53		1,59
38″	58,35,29,13,49,58, 9,30, 4,43		4,17, 0,39,12	
		27, 4, 5,59, 3,12,41		1,59
40″	58,35,29,40,54, 4, 8,33,17,24		4,17, 0,41,11	
		27, 4, 1,42, 2,31,30		1,59
42″	58,35,30, 7,58, 5,50,35,48,54		4,17, 0,43,10	
		27, 3,57,25, 1,48,20		1,59
44″	58,35,30,35, 2, 3,15,37,37,14		4,17, 0,45, 9	
		27, 3,53, 8, 1, 3,11		1,59
46″	58,35,31, 2, 5,56,23,38,40,25		4,17, 0,47, 8	
		27, 3,48,51, 0,16, 3		1,59
48″	58,35,31,29, 9,45,14,38,56,28		4,17, 0,49, 7	
		27, 3,44,33,59,26,56		1,59
50″	58,35,31,56,13,29,48,38,23,24		4,17, 0,51, 6	
		27, 3,40,16,58,35,50		1,59
52″	58,35,32,23,17,10, 5,36,59,14		4,17, 0,53, 5	
		27, 3,35,59,57,42,45		1,59
54″	58,35,32,50,20,46, 5,34,41,59		4,17, 0,55, 4	
		27, 3,31,42,56,47,41		1,59
56″	58,35,33,17,24,17,48,31,29,40		4,17, 0,57, 3	
		27, 3,27,25,55,50,38		1,59
58″	58,35,33,44,27,45,14,27,20,18		4,17, 0,59, 2	
		27, 3,23, 8,54,51,36		
60″	58,35,34,11,31, 8,23,22,11,54			
exact	58,35,34,11,31, 8,23,22,24,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°34′ 0″	58,35,34,11,31, 8,23,22,24,13			
		27, 3,18,51,53,52, 4		
2″	58,35,34,38,34,27,15,16,16,17		4,17, 1, 2,53	
		27, 3,14,34,52,49,11		1,59
4″	58,35,35, 5,37,41,50, 9, 5,28		4,17, 1, 4,52	
		27, 3,10,17,51,44,19		1,59
6″	58,35,35,32,40,52, 8, 0,49,47		4,17, 1, 6,51	
		27, 3, 6, 0,50,37,28		1,59
8″	58,35,35,59,43,58, 8,51,27,15		4,17, 1, 8,50	
		27, 3, 1,43,49,28,38		1,59
10″	58,35,36,26,46,59,52,40,55,53		4,17, 1,10,49	
		27, 2,57,26,48,17,49		1,59
12″	58,35,36,53,49,57,19,29,13,42		4,17, 1,12,48	
		27, 2,53, 9,47, 5, 1		1,59
14″	58,35,37,20,52,50,29,16,18,43		4,17, 1,14,47	
		27, 2,48,52,45,50,14		1,59
16″	58,35,37,47,55,39,22, 2, 8,57		4,17, 1,16,46	
		27, 2,44,35,44,33,28		1,59
18″	58,35,38,14,58,23,57,46,42,25		4,17, 1,18,45	
		27, 2,40,18,43,14,43		1,59
20″	58,35,38,42, 1, 4,16,29,57, 8		4,17, 1,20,44	
		27, 2,36, 1,41,53,59		1,59
22″	58,35,39, 9, 3,40,18,11,51, 7		4,17, 1,22,43	
		27, 2,31,44,40,31,16		1,59
24″	58,35,39,36, 6,12, 2,52,22,23		4,17, 1,24,42	
		27, 2,27,27,39, 6,34		1,59
26″	58,35,40, 3, 8,39,30,31,28,57		4,17, 1,26,41	
		27, 2,23,10,37,39,53		1,59
28″	58,35,40,30,11, 2,41, 9, 8,50		4,17, 1,28,40	
		27, 2,18,53,36,11,13		1,59
30″	58,35,40,57,13,21,34,45,20, 3		4,17, 1,30,39	
		27, 2,14,36,34,40,34		1,59
32″	58,35,41,24,15,36,11,20, 0,37		4,17, 1,32,38	
		27, 2,10,19,33, 7,56		1,59
34″	58,35,41,51,17,46,30,53, 8,33		4,17, 1,34,37	
		27, 2, 6, 2,31,33,19		1,59
36″	58,35,42,18,19,52,33,24,41,52		4,17, 1,36,36	
		27, 2, 1,45,29,56,43		1,59
38″	58,35,42,45,21,54,18,54,38,35		4,17, 1,38,35	
		27, 1,57,28,28,18, 8		1,59
40″	58,35,43,12,23,51,47,22,56,43		4,17, 1,40,34	
		27, 1,53,11,26,37,34		1,59
42″	58,35,43,39,25,44,58,49,34,17		4,17, 1,42,33	
		27, 1,48,54,24,55, 1		1,59
44″	58,35,44, 6,27,33,53,14,29,18		4,17, 1,44,32	
		27, 1,44,37,23,10,29		1,59
46″	58,35,44,33,29,18,30,37,39,47		4,17, 1,46,31	
		27, 1,40,20,21,23,58		1,59
48″	58,35,45, 0,30,58,50,59, 3,45		4,17, 1,48,30	
		27, 1,36, 3,19,35,28		1,59
50″	58,35,45,27,32,34,54,18,39,13		4,17, 1,50,29	
		27, 1,31,46,17,44,59		1,59
52″	58,35,45,54,34, 6,40,36,24,12		4,17, 1,52,28	
		27, 1,27,29,15,52,31		1,59
54″	58,35,46,21,35,34, 9,52,16,43		4,17, 1,54,27	
		27, 1,23,12,13,58, 4		1,59
56″	58,35,46,48,36,57,22, 6,14,47		4,17, 1,56,26	
		27, 1,18,55,12, 1,38		1,59
58″	58,35,47,15,38,16,17,18,16,25		4,17, 1,58,25	
		27, 1,14,38,10, 3,13		
60″	58,35,47,42,39,30,55,28,19,38			
exact	58,35,47,42,39,30,55,28,45,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°35′ 0″	58,35,47,42,39,30,55,28,45,45			
		27, 1,10,21, 8, 5,39		
2″	58,35,48, 9,40,41,16,36,51,24		4,17, 2, 2,11	
		27, 1, 6, 4, 6, 3,28		1,59
4″	58,35,48,36,41,47,20,42,54,52		4,17, 2, 4,10	
		27, 1, 1,47, 3,59,18		1,59
6″	58,35,49, 3,42,49, 7,46,54,10		4,17, 2, 6, 9	
		27, 0,57,30, 1,53, 9		1,59
8″	58,35,49,30,43,46,37,48,47,19		4,17, 2, 8, 8	
		27, 0,53,12,59,45, 1		1,59
10″	58,35,49,57,44,39,50,48,32,20		4,17, 2,10, 7	
		27, 0,48,55,57,34,54		1,59
12″	58,35,50,24,45,28,46,46, 7,14		4,17, 2,12, 6	
		27, 0,44,38,55,22,48		1,59
14″	58,35,50,51,46,13,25,41,30, 2		4,17, 2,14, 5	
		27, 0,40,21,53, 8,43		1,59
16″	58,35,51,18,46,53,47,34,38,45		4,17, 2,16, 4	
		27, 0,36, 4,50,52,39		1,59
18″	58,35,51,45,47,29,52,25,31,24		4,17, 2,18, 3	
		27, 0,31,47,48,34,36		1,59
20″	58,35,52,12,48, 1,40,14, 6, 0		4,17, 2,20, 2	
		27, 0,27,30,46,14,34		1,59
22″	58,35,52,39,48,29,11, 0,20,34		4,17, 2,22, 1	
		27, 0,23,13,43,52,33		1,59
24″	58,35,53, 6,48,52,24,44,13, 7		4,17, 2,24, 0	
		27, 0,18,56,41,28,33		1,59
26″	58,35,53,33,49,11,21,25,41,40		4,17, 2,25,59	
		27, 0,14,39,39, 2,34		1,59
28″	58,35,54, 0,49,26, 1, 4,44,14		4,17, 2,27,58	
		27, 0,10,22,36,34,36		1,59
30″	58,35,54,27,49,36,23,41,18,50		4,17, 2,29,57	
		27, 0, 6, 5,34, 4,39		1,59
32″	58,35,54,54,49,42,29,15,23,29		4,17, 2,31,56	
		27, 0, 1,48,31,32,43		1,59
34″	58,35,55,21,49,44,17,46,56,12		4,17, 2,33,55	
		26,59,57,31,28,58,48		1,59
36″	58,35,55,48,49,41,49,15,55, 0		4,17, 2,35,54	
		26,59,53,14,26,22,54		1,59
38″	58,35,56,15,49,35, 3,42,17,54		4,17, 2,37,53	
		26,59,48,57,23,45, 1		1,59
40″	58,35,56,42,49,24, 1, 6, 2,55		4,17, 2,39,52	
		26,59,44,40,21, 5, 9		1,59
42″	58,35,57, 9,49, 8,41,27, 8, 4		4,17, 2,41,51	
		26,59,40,23,18,23,18		1,59
44″	58,35,57,36,48,49, 4,45,31,22		4,17, 2,43,50	
		26,59,36, 6,15,39,28		1,59
46″	58,35,58, 3,48,25,11, 1,10,50		4,17, 2,45,49	
		26,59,31,49,12,53,39		1,59
48″	58,35,58,30,47,57, 0,14, 4,29		4,17, 2,47,48	
		26,59,27,32,10, 5,51		1,59
50″	58,35,58,57,47,24,32,24,10,20		4,17, 2,49,47	
		26,59,23,15, 7,16, 4		1,59
52″	58,35,59,24,46,47,47,31,26,24		4,17, 2,51,46	
		26,59,18,58, 4,24,18		1,59
54″	58,35,59,51,46, 6,45,35,50,42		4,17, 2,53,45	
		26,59,14,41, 1,30,33		1,59
56″	58,36, 0,18,45,21,26,37,21,15		4,17, 2,55,44	
		26,59,10,23,58,34,49		1,59
58″	58,36, 0,45,44,31,50,35,56, 4		4,17, 2,57,43	
		26,59, 6, 6,55,37, 6		
60″	58,36, 1,12,43,37,57,31,33,10			
exact	58,36, 1,12,43,37,57,32,10,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°36′ 0″	58,36, 1,12,43,37,57,32,10,30			
		26,59, 1,49,52,41,25		
2″	58,36, 1,39,42,39,47,24,51,55		4,17, 3, 1,24	
		26,58,57,32,49,40, 1		1,58
4″	58,36, 2, 6,41,37,20,14,31,56		4,17, 3, 3,22	
		26,58,53,15,46,36,39		1,58
6″	58,36, 2,33,40,30,36, 1, 8,35		4,17, 3, 5,20	
		26,58,48,58,43,31,19		1,58
8″	58,36, 3, 0,39,19,34,44,39,54		4,17, 3, 7,18	
		26,58,44,41,40,24, 1		1,58
10″	58,36, 3,27,38, 4,16,25, 3,55		4,17, 3, 9,16	
		26,58,40,24,37,14,45		1,58
12″	58,36, 3,54,36,44,41, 2,18,40		4,17, 3,11,14	
		26,58,36, 7,34, 3,31		1,58
14″	58,36, 4,21,35,20,48,36,22,11		4,17, 3,13,12	
		26,58,31,50,30,50,19		1,58
16″	58,36, 4,48,33,52,39, 7,12,30		4,17, 3,15,10	
		26,58,27,33,27,35, 9		1,58
18″	58,36, 5,15,32,20,12,34,47,39		4,17, 3,17, 8	
		26,58,23,16,24,18, 1		1,58
20″	58,36, 5,42,30,43,28,59, 5,40		4,17, 3,19, 6	
		26,58,18,59,20,58,55		1,58
22″	58,36, 6, 9,29, 2,28,20, 4,35		4,17, 3,21, 4	
		26,58,14,42,17,37,51		1,58
24″	58,36, 6,36,27,17,10,37,42,26		4,17, 3,23, 2	
		26,58,10,25,14,14,49		1,58
26″	58,36, 7, 3,25,27,35,51,57,15		4,17, 3,25, 0	
		26,58, 6, 8,10,49,49		1,58
28″	58,36, 7,30,23,33,44, 2,47, 4		4,17, 3,26,58	
		26,58, 1,51, 7,22,51		1,58
30″	58,36, 7,57,21,35,35,10, 9,55		4,17, 3,28,56	
		26,57,57,34, 3,53,55		1,58
32″	58,36, 8,24,19,33, 9,14, 3,50		4,17, 3,30,54	
		26,57,53,17, 0,23, 1		1,58
34″	58,36, 8,51,17,26,26,14,26,51		4,17, 3,32,52	
		26,57,48,59,56,50, 9		1,58
36″	58,36, 9,18,15,15,26,11,17, 0		4,17, 3,34,50	
		26,57,44,42,53,15,19		1,58
38″	58,36, 9,45,13, 0, 9, 4,32,19		4,17, 3,36,48	
		26,57,40,25,49,38,31		1,58
40″	58,36,10,12,10,40,34,54,10,50		4,17, 3,38,46	
		26,57,36, 8,45,59,45		1,58
42″	58,36,10,39, 8,16,43,40,10,35		4,17, 3,40,44	
		26,57,31,51,42,19, 1		1,58
44″	58,36,11, 6, 5,48,35,22,29,36		4,17, 3,42,42	
		26,57,27,34,38,36,19		1,58
46″	58,36,11,33, 3,16,10, 1, 5,55		4,17, 3,44,40	
		26,57,23,17,34,51,39		1,58
48″	58,36,12, 0, 0,39,27,35,57,34		4,17, 3,46,38	
		26,57,19, 0,31, 5, 1		1,58
50″	58,36,12,26,57,58,28, 7, 2,35		4,17, 3,48,36	
		26,57,14,43,27,16,25		1,58
52″	58,36,12,53,55,13,11,34,19, 0		4,17, 3,50,34	
		26,57,10,26,23,25,51		1,58
54″	58,36,13,20,52,23,37,57,44,51		4,17, 3,52,32	
		26,57, 6, 9,19,33,19		1,58
56″	58,36,13,47,49,29,47,17,18,10		4,17, 3,54,30	
		26,57, 1,52,15,38,49		1,58
58″	58,36,14,14,46,31,39,32,56,59		4,17, 3,56,28	
		26,56,57,35,11,42,21		
60″	58,36,14,41,43,29,14,44,39,20			
exact	58,36,14,41,43,29,14,44,18, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°37′ 0″	58,36,14,41,43,29,14,44,18, 5			
		26,56,53,18, 7,41,43		
2″	58,36,15, 8,40,22,32,51,59,48		4,17, 4, 0,32	
		26,56,49, 1, 3,41,11		1,58
4″	58,36,15,35,37,11,33,55,40,59		4,17, 4, 2,30	
		26,56,44,43,59,38,41		1,58
6″	58,36,16, 2,33,56,17,55,19,40		4,17, 4, 4,28	
		26,56,40,26,55,34,13		1,58
8″	58,36,16,29,30,36,44,50,53,53		4,17, 4, 6,26	
		26,56,36, 9,51,27,47		1,58
10″	58,36,16,56,27,12,54,42,21,40		4,17, 4, 8,24	
		26,56,31,52,47,19,23		1,58
12″	58,36,17,23,23,44,47,29,41, 3		4,17, 4,10,22	
		26,56,27,35,43, 9, 1		1,58
14″	58,36,17,50,20,12,23,12,50, 4		4,17, 4,12,20	
		26,56,23,18,38,56,41		1,58
16″	58,36,18,17,16,35,41,51,46,45		4,17, 4,14,18	
		26,56,19, 1,34,42,23		1,58
18″	58,36,18,44,12,54,43,26,29, 8		4,17, 4,16,16	
		26,56,14,44,30,26, 7		1,58
20″	58,36,19,11, 9, 9,27,56,55,15		4,17, 4,18,14	
		26,56,10,27,26, 7,53		1,58
22″	58,36,19,38, 5,19,55,23, 3, 8		4,17, 4,20,12	
		26,56, 6,10,21,47,41		1,58
24″	58,36,20, 5, 1,26, 5,44,50,49		4,17, 4,22,10	
		26,56, 1,53,17,25,31		1,58
26″	58,36,20,31,57,27,59, 2,16,20		4,17, 4,24, 8	
		26,55,57,36,13, 1,23		1,58
28″	58,36,20,58,53,25,35,15,17,43		4,17, 4,26, 6	
		26,55,53,19, 8,35,17		1,58
30″	58,36,21,25,49,18,54,23,53, 0		4,17, 4,28, 4	
		26,55,49, 2, 4, 7,13		1,58
32″	58,36,21,52,45, 7,56,28, 0,13		4,17, 4,30, 2	
		26,55,44,44,59,37,11		1,58
34″	58,36,22,19,40,52,41,27,37,24		4,17, 4,32, 0	
		26,55,40,27,55, 5,11		1,58
36″	58,36,22,46,36,33, 9,22,42,35		4,17, 4,33,58	
		26,55,36,10,50,31,13		1,58
38″	58,36,23,13,32, 9,20,13,13,48		4,17, 4,35,56	
		26,55,31,53,45,55,17		1,58
40″	58,36,23,40,27,41,13,59, 9, 5		4,17, 4,37,54	
		26,55,27,36,41,17,23		1,58
42″	58,36,24, 7,23, 8,50,40,26,28		4,17, 4,39,52	
		26,55,23,19,36,37,31		1,58
44″	58,36,24,34,18,32,10,17, 3,59		4,17, 4,41,50	
		26,55,19, 2,31,55,41		1,58
46″	58,36,25, 1,13,51,12,48,59,40		4,17, 4,43,48	
		26,55,14,45,27,11,53		1,58
48″	58,36,25,28, 9, 5,58,16,11,33		4,17, 4,45,46	
		26,55,10,28,22,26, 7		1,58
50″	58,36,25,55, 4,16,26,38,37,40		4,17, 4,47,44	
		26,55, 6,11,17,38,23		1,58
52″	58,36,26,21,59,22,37,56,16, 3		4,17, 4,49,42	
		26,55, 1,54,12,48,41		1,58
54″	58,36,26,48,54,24,32, 9, 4,44		4,17, 4,51,40	
		26,54,57,37, 7,57, 1		1,58
56″	58,36,27,15,49,22, 9,17, 1,45		4,17, 4,53,38	
		26,54,53,20, 3, 3,23		1,58
58″	58,36,27,42,44,15,29,20, 5, 8		4,17, 4,55,36	
		26,54,49, 2,58, 7,47		
60″	58,36,28, 9,39, 4,32,18,12,55			
exact	58,36,28, 9,39, 4,32,17,58,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°38′ 0″	58,36,28, 9,39, 4,32,17,58,35			
		26,54,44,45,53, 8,54		
2″	58,36,28,36,33,49,18,11, 7,29		4,17, 4,59,36	
		26,54,40,28,48, 9,18		1,58
4″	58,36,29, 3,28,29,46,59,16,47		4,17, 5, 1,34	
		26,54,36,11,43, 7,44		1,58
6″	58,36,29,30,23, 5,58,42,24,31		4,17, 5, 3,32	
		26,54,31,54,38, 4,12		1,58
8″	58,36,29,57,17,37,53,20,28,43		4,17, 5, 5,30	
		26,54,27,37,32,58,42		1,58
10″	58,36,30,24,12, 5,30,53,27,25		4,17, 5, 7,28	
		26,54,23,20,27,51,14		1,58
12″	58,36,30,51, 6,28,51,21,18,39		4,17, 5, 9,26	
		26,54,19, 3,22,41,48		1,58
14″	58,36,31,18, 0,47,54,44, 0,27		4,17, 5,11,24	
		26,54,14,46,17,30,24		1,58
16″	58,36,31,44,55, 2,41, 1,30,51		4,17, 5,13,22	
		26,54,10,29,12,17, 2		1,58
18″	58,36,32,11,49,13,10,13,47,53		4,17, 5,15,20	
		26,54, 6,12, 7, 1,42		1,58
20″	58,36,32,38,43,19,22,20,49,35		4,17, 5,17,18	
		26,54, 1,55, 1,44,24		1,58
22″	58,36,33, 5,37,21,17,22,33,59		4,17, 5,19,16	
		26,53,57,37,56,25, 8		1,58
24″	58,36,33,32,31,18,55,18,59, 7		4,17, 5,21,14	
		26,53,53,20,51, 3,54		1,58
26″	58,36,33,59,25,12,16,10, 3, 1		4,17, 5,23,12	
		26,53,49, 3,45,40,42		1,58
28″	58,36,34,26,19, 1,19,55,43,43		4,17, 5,25,10	
		26,53,44,46,40,15,32		1,58
30″	58,36,34,53,12,46, 6,35,59,15		4,17, 5,27, 8	
		26,53,40,29,34,48,24		1,58
32″	58,36,35,20, 6,26,36,10,47,39		4,17, 5,29, 6	
		26,53,36,12,29,19,18		1,58
34″	58,36,35,47, 0, 2,48,40, 6,57		4,17, 5,31, 4	
		26,53,31,55,23,48,14		1,58
36″	58,36,36,13,53,34,44, 3,55,11		4,17, 5,33, 2	
		26,53,27,38,18,15,12		1,58
38″	58,36,36,40,47, 2,22,22,10,23		4,17, 5,35, 0	
		26,53,23,21,12,40,12		1,58
40″	58,36,37, 7,40,25,43,34,50,35		4,17, 5,36,58	
		26,53,19, 4, 7, 3,14		1,58
42″	58,36,37,34,33,44,47,41,53,49		4,17, 5,38,56	
		26,53,14,47, 1,24,18		1,58
44″	58,36,38, 1,26,59,34,43,18, 7		4,17, 5,40,54	
		26,53,10,29,55,43,24		1,58
46″	58,36,38,28,20,10, 4,39, 1,31		4,17, 5,42,52	
		26,53, 6,12,50, 0,32		1,58
48″	58,36,38,55,13,16,17,29, 2, 3		4,17, 5,44,50	
		26,53, 1,55,44,15,42		1,58
50″	58,36,39,22, 6,18,13,13,17,45		4,17, 5,46,48	
		26,52,57,38,38,28,54		1,58
52″	58,36,39,48,59,15,51,51,46,39		4,17, 5,48,46	
		26,52,53,21,32,40, 8		1,58
54″	58,36,40,15,52, 9,13,24,26,47		4,17, 5,50,44	
		26,52,49, 4,26,49,24		1,58
56″	58,36,40,42,44,58,17,51,16,11		4,17, 5,52,42	
		26,52,44,47,20,56,42		1,58
58″	58,36,41, 9,37,43, 5,12,12,53		4,17, 5,54,40	
		26,52,40,30,15, 2, 2		
60″	58,36,41,36,30,23,35,27,14,55			
exact	58,36,41,36,30,23,35,27,12,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°39′ 0″	58,36,41,36,30,23,35,27,12,35			
		26,52,36,13, 9, 5,19		
2″	58,36,42, 3,22,59,48,36,17,54		4,17, 5,58,35	
		26,52,31,56, 3, 6,44		1,58
4″	58,36,42,30,15,31,44,39,24,38		4,17, 6, 0,33	
		26,52,27,38,57, 6,11		1,58
6″	58,36,42,57, 7,59,23,36,30,49		4,17, 6, 2,31	
		26,52,23,21,51, 3,40		1,58
8″	58,36,43,24, 0,22,45,27,34,29		4,17, 6, 4,29	
		26,52,19, 4,44,59,11		1,58
10″	58,36,43,50,52,41,50,12,33,40		4,17, 6, 6,27	
		26,52,14,47,38,52,44		1,58
12″	58,36,44,17,44,56,37,51,26,24		4,17, 6, 8,25	
		26,52,10,30,32,44,19		1,58
14″	58,36,44,44,37, 7, 8,24,10,43		4,17, 6,10,23	
		26,52, 6,13,26,33,56		1,58
16″	58,36,45,11,29,13,21,50,44,39		4,17, 6,12,21	
		26,52, 1,56,20,21,35		1,58
18″	58,36,45,38,21,15,18,11, 6,14		4,17, 6,14,19	
		26,51,57,39,14, 7,16		1,58
20″	58,36,46, 5,13,12,57,25,13,30		4,17, 6,16,17	
		26,51,53,22, 7,50,59		1,58
22″	58,36,46,32, 5, 6,19,33, 4,29		4,17, 6,18,15	
		26,51,49, 5, 1,32,44		1,58
24″	58,36,46,58,56,55,24,34,37,13		4,17, 6,20,13	
		26,51,44,47,55,12,31		1,58
26″	58,36,47,25,48,40,12,29,49,44		4,17, 6,22,11	
		26,51,40,30,48,50,20		1,58
28″	58,36,47,52,40,20,43,18,40, 4		4,17, 6,24, 9	
		26,51,36,13,42,26,11		1,58
30″	58,36,48,19,31,56,57, 1, 6,15		4,17, 6,26, 7	
		26,51,31,56,36, 0, 4		1,58
32″	58,36,48,46,23,28,53,37, 6,19		4,17, 6,28, 5	
		26,51,27,39,29,31,59		1,58
34″	58,36,49,13,14,56,33, 6,38,18		4,17, 6,30, 3	
		26,51,23,22,23, 1,56		1,58
36″	58,36,49,40, 6,19,55,29,40,14		4,17, 6,32, 1	
		26,51,19, 5,16,29,55		1,58
38″	58,36,50, 6,57,39, 0,46,10, 9		4,17, 6,33,59	
		26,51,14,48, 9,55,56		1,58
40″	58,36,50,33,48,53,48,56, 6, 5		4,17, 6,35,57	
		26,51,10,31, 3,19,59		1,58
42″	58,36,51, 0,40, 4,19,59,26, 4		4,17, 6,37,55	
		26,51, 6,13,56,42, 4		1,58
44″	58,36,51,27,31,10,33,56, 8, 8		4,17, 6,39,53	
		26,51, 1,56,50, 2,11		1,58
46″	58,36,51,54,22,12,30,46,10,19		4,17, 6,41,51	
		26,50,57,39,43,20,20		1,58
48″	58,36,52,21,13,10,10,29,30,39		4,17, 6,43,49	
		26,50,53,22,36,36,31		1,58
50″	58,36,52,48, 4, 3,33, 6, 7,10		4,17, 6,45,47	
		26,50,49, 5,29,50,44		1,58
52″	58,36,53,14,54,52,38,35,57,54		4,17, 6,47,45	
		26,50,44,48,23, 2,59		1,58
54″	58,36,53,41,45,37,26,59, 0,53		4,17, 6,49,43	
		26,50,40,31,16,13,16		1,58
56″	58,36,54, 8,36,17,58,15,14, 9		4,17, 6,51,41	
		26,50,36,14, 9,21,35		1,58
58″	58,36,54,35,26,54,12,24,35,44		4,17, 6,53,39	
		26,50,31,57, 2,27,56		
60″	58,36,55, 2,17,26, 9,27, 3,40			
exact	58,36,55, 2,17,26, 9,27,11, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°40′ 0″	58,36,55, 2,17,26, 9,27,11, 8			
		26,50,27,39,55,33,19		
2″	58,36,55,29, 7,53,49,22,44,27		4,17, 6,57,30	
		26,50,23,22,48,35,49		1,58
4″	58,36,55,55,58,17,12,11,20,16		4,17, 6,59,28	
		26,50,19, 5,41,36,21		1,58
6″	58,36,56,22,48,36,17,52,56,37		4,17, 7, 1,26	
		26,50,14,48,34,34,55		1,58
8″	58,36,56,49,38,51, 6,27,31,32		4,17, 7, 3,24	
		26,50,10,31,27,31,31		1,58
10″	58,36,57,16,29, 1,37,55, 3, 3		4,17, 7, 5,22	
		26,50, 6,14,20,26, 9		1,58
12″	58,36,57,43,19, 7,52,15,29,12		4,17, 7, 7,20	
		26,50, 1,57,13,18,49		1,58
14″	58,36,58,10, 9, 9,49,28,48, 1		4,17, 7, 9,18	
		26,49,57,40, 6, 9,31		1,58
16″	58,36,58,36,59, 7,29,34,57,32		4,17, 7,11,16	
		26,49,53,22,58,58,15		1,58
18″	58,36,59, 3,49, 0,52,33,55,47		4,17, 7,13,14	
		26,49,49, 5,51,45, 1		1,58
20″	58,36,59,30,38,49,58,25,40,48		4,17, 7,15,12	
		26,49,44,48,44,29,49		1,58
22″	58,36,59,57,28,34,47,10,10,37		4,17, 7,17,10	
		26,49,40,31,37,12,39		1,58
24″	58,37, 0,24,18,15,18,47,23,16		4,17, 7,19, 8	
		26,49,36,14,29,53,31		1,58
26″	58,37, 0,51, 7,51,33,17,16,47		4,17, 7,21, 6	
		26,49,31,57,22,32,25		1,58
28″	58,37, 1,17,57,23,30,39,49,12		4,17, 7,23, 4	
		26,49,27,40,15, 9,21		1,58
30″	58,37, 1,44,46,51,10,54,58,33		4,17, 7,25, 2	
		26,49,23,23, 7,44,19		1,58
32″	58,37, 2,11,36,14,34, 2,42,52		4,17, 7,27, 0	
		26,49,19, 6, 0,17,19		1,58
34″	58,37, 2,38,25,33,40, 3, 0,11		4,17, 7,28,58	
		26,49,14,48,52,48,21		1,58
36″	58,37, 3, 5,14,48,28,55,48,32		4,17, 7,30,56	
		26,49,10,31,45,17,25		1,58
38″	58,37, 3,32, 3,59, 0,41, 5,57		4,17, 7,32,54	
		26,49, 6,14,37,44,31		1,58
40″	58,37, 3,58,53, 5,15,18,50,28		4,17, 7,34,52	
		26,49, 1,57,30, 9,39		1,58
42″	58,37, 4,25,42, 7,12,49, 0, 7		4,17, 7,36,50	
		26,48,57,40,22,32,49		1,58
44″	58,37, 4,52,31, 4,53,11,32,56		4,17, 7,38,48	
		26,48,53,23,14,54, 1		1,58
46″	58,37, 5,19,19,58,16,26,26,57		4,17, 7,40,46	
		26,48,49, 6, 7,13,15		1,58
48″	58,37, 5,46, 8,47,22,33,40,12		4,17, 7,42,44	
		26,48,44,48,59,30,31		1,58
50″	58,37, 6,12,57,32,11,33,10,43		4,17, 7,44,42	
		26,48,40,31,51,45,49		1,58
52″	58,37, 6,39,46,12,43,24,56,32		4,17, 7,46,40	
		26,48,36,14,43,59, 9		1,58
54″	58,37, 7, 6,34,48,58, 8,55,41		4,17, 7,48,38	
		26,48,31,57,36,10,31		1,58
56″	58,37, 7,33,23,20,55,45, 6,12		4,17, 7,50,36	
		26,48,27,40,28,19,55		1,58
58″	58,37, 8, 0,11,48,36,13,26, 7		4,17, 7,52,34	
		26,48,23,23,20,27,21		
60″	58,37, 8,27, 0,11,59,33,53,28			
exact	58,37, 8,27, 0,11,59,34,15,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°41′ 0″	58,37, 8,27, 0,11,59,34,15,45			
		26,48,19, 6,12,35,14		
2″	58,37, 8,53,48,31, 5,46,50,59		4,17, 7,56,19	
		26,48,14,49, 4,38,55		1,58
4″	58,37, 9,20,36,45,54,51,29,54		4,17, 7,58,17	
		26,48,10,31,56,40,38		1,58
6″	58,37, 9,47,24,56,26,48,10,32		4,17, 8, 0,15	
		26,48, 6,14,48,40,23		1,58
8″	58,37,10,14,13, 2,41,36,50,55		4,17, 8, 2,13	
		26,48, 1,57,40,38,10		1,58
10″	58,37,10,41, 1, 4,39,17,29, 5		4,17, 8, 4,11	
		26,47,57,40,32,33,59		1,58
12″	58,37,11, 7,49, 2,19,50, 3, 4		4,17, 8, 6, 9	
		26,47,53,23,24,27,50		1,58
14″	58,37,11,34,36,55,43,14,30,54		4,17, 8, 8, 7	
		26,47,49, 6,16,19,43		1,58
16″	58,37,12, 1,24,44,49,30,50,37		4,17, 8,10, 5	
		26,47,44,49, 8, 9,38		1,58
18″	58,37,12,28,12,29,38,39, 0,15		4,17, 8,12, 3	
		26,47,40,31,59,57,35		1,58
20″	58,37,12,55, 0,10,10,38,57,50		4,17, 8,14, 1	
		26,47,36,14,51,43,34		1,58
22″	58,37,13,21,47,46,25,30,41,24		4,17, 8,15,59	
		26,47,31,57,43,27,35		1,58
24″	58,37,13,48,35,18,23,14, 8,59		4,17, 8,17,57	
		26,47,27,40,35, 9,38		1,58
26″	58,37,14,15,22,46, 3,49,18,37		4,17, 8,19,55	
		26,47,23,23,26,49,43		1,58
28″	58,37,14,42,10, 9,27,16, 8,20		4,17, 8,21,53	
		26,47,19, 6,18,27,50		1,58
30″	58,37,15, 8,57,28,33,34,36,10		4,17, 8,23,51	
		26,47,14,49,10, 3,59		1,58
32″	58,37,15,35,44,43,22,44,40, 9		4,17, 8,25,49	
		26,47,10,32, 1,38,10		1,58
34″	58,37,16, 2,31,53,54,46,18,19		4,17, 8,27,47	
		26,47, 6,14,53,10,23		1,58
36″	58,37,16,29,19, 0, 9,39,28,42		4,17, 8,29,45	
		26,47, 1,57,44,40,38		1,58
38″	58,37,16,56, 6, 2, 7,24, 9,20		4,17, 8,31,43	
		26,46,57,40,36, 8,55		1,58
40″	58,37,17,22,52,59,48, 0,18,15		4,17, 8,33,41	
		26,46,53,23,27,35,14		1,58
42″	58,37,17,49,39,53,11,27,53,29		4,17, 8,35,39	
		26,46,49, 6,18,59,35		1,58
44″	58,37,18,16,26,42,17,46,53, 4		4,17, 8,37,37	
		26,46,44,49,10,21,58		1,58
46″	58,37,18,43,13,27, 6,57,15, 2		4,17, 8,39,35	
		26,46,40,32, 1,42,23		1,58
48″	58,37,19,10, 0, 7,38,58,57,25		4,17, 8,41,33	
		26,46,36,14,53, 0,50		1,58
50″	58,37,19,36,46,43,53,51,58,15		4,17, 8,43,31	
		26,46,31,57,44,17,19		1,58
52″	58,37,20, 3,33,15,51,36,15,34		4,17, 8,45,29	
		26,46,27,40,35,31,50		1,58
54″	58,37,20,30,19,43,32,11,47,24		4,17, 8,47,27	
		26,46,23,23,26,44,23		1,58
56″	58,37,20,57, 6, 6,55,38,31,47		4,17, 8,49,25	
		26,46,19, 6,17,54,58		1,58
58″	58,37,21,23,52,26, 1,56,26,45		4,17, 8,51,23	
		26,46,14,49, 9, 3,35		
60″	58,37,21,50,38,40,51, 5,30,20			
exact	58,37,21,50,38,40,51, 5,58,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°42′ 0″	58,37,21,50,38,40,51, 5,58,29			
		26,46,10,32, 0,13,27		
2″	58,37,22,17,24,51,23, 6,11,56		4,17, 8,55, 4	
		26,46, 6,14,51,18,23		1,57
4″	58,37,22,44,10,57,37,57,30,19		4,17, 8,57, 1	
		26,46, 1,57,42,21,22		1,57
6″	58,37,23,10,56,59,35,39,51,41		4,17, 8,58,58	
		26,45,57,40,33,22,24		1,57
8″	58,37,23,37,42,57,16,13,14, 5		4,17, 9, 0,55	
		26,45,53,23,24,21,29		1,57
10″	58,37,24, 4,28,50,39,37,35,34		4,17, 9, 2,52	
		26,45,49, 6,15,18,37		1,57
12″	58,37,24,31,14,39,45,52,54,11		4,17, 9, 4,49	
		26,45,44,49, 6,13,48		1,57
14″	58,37,24,58, 0,24,34,59, 7,59		4,17, 9, 6,46	
		26,45,40,31,57, 7, 2		1,57
16″	58,37,25,24,46, 5, 6,56,15, 1		4,17, 9, 8,43	
		26,45,36,14,47,58,19		1,57
18″	58,37,25,51,31,41,21,44,13,20		4,17, 9,10,40	
		26,45,31,57,38,47,39		1,57
20″	58,37,26,18,17,13,19,23, 0,59		4,17, 9,12,37	
		26,45,27,40,29,35, 2		1,57
22″	58,37,26,45, 2,40,59,52,36, 1		4,17, 9,14,34	
		26,45,23,23,20,20,28		1,57
24″	58,37,27,11,48, 4,23,12,56,29		4,17, 9,16,31	
		26,45,19, 6,11, 3,57		1,57
26″	58,37,27,38,33,23,29,24, 0,26		4,17, 9,18,28	
		26,45,14,49, 1,45,29		1,57
28″	58,37,28, 5,18,38,18,25,45,55		4,17, 9,20,25	
		26,45,10,31,52,25, 4		1,57
30″	58,37,28,32, 3,48,50,18,10,59		4,17, 9,22,22	
		26,45, 6,14,43, 2,42		1,57
32″	58,37,28,58,48,55, 5, 1,13,41		4,17, 9,24,19	
		26,45, 1,57,33,38,23		1,57
34″	58,37,29,25,33,57, 2,34,52, 4		4,17, 9,26,16	
		26,44,57,40,24,12, 7		1,57
36″	58,37,29,52,18,54,42,59, 4,11		4,17, 9,28,13	
		26,44,53,23,14,43,54		1,57
38″	58,37,30,19, 3,48, 6,13,48, 5		4,17, 9,30,10	
		26,44,49, 6, 5,13,44		1,57
40″	58,37,30,45,48,37,12,19, 1,49		4,17, 9,32, 7	
		26,44,44,48,55,41,37		1,57
42″	58,37,31,12,33,22, 1,14,43,26		4,17, 9,34, 4	
		26,44,40,31,46, 7,33		1,57
44″	58,37,31,39,18, 2,33, 0,50,59		4,17, 9,36, 1	
		26,44,36,14,36,31,32		1,57
46″	58,37,32, 6, 2,38,47,37,22,31		4,17, 9,37,58	
		26,44,31,57,26,53,34		1,57
48″	58,37,32,32,47,10,45, 4,16, 5		4,17, 9,39,55	
		26,44,27,40,17,13,39		1,57
50″	58,37,32,59,31,38,25,21,29,44		4,17, 9,41,52	
		26,44,23,23, 7,31,47		1,57
52″	58,37,33,26,16, 1,48,29, 1,31		4,17, 9,43,49	
		26,44,19, 5,57,47,58		1,57
54″	58,37,33,53, 0,20,54,26,49,29		4,17, 9,45,46	
		26,44,14,48,48, 2,12		1,57
56″	58,37,34,19,44,35,43,14,51,41		4,17, 9,47,43	
		26,44,10,31,38,14,29		1,57
58″	58,37,34,46,28,46,14,53, 6,10		4,17, 9,49,40	
		26,44, 6,14,28,24,49		
60″	58,37,35,13,12,52,29,21,30,59			
exact	58,37,35,13,12,52,29,21, 1,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°43′ 0″	58,37,35,13,12,52,29,21, 1,50			
		26,44, 1,57,18,30,18		
2″	58,37,35,39,56,54,26,39,32, 8		4,17, 9,53,45	
		26,43,57,40, 8,36,33		1,57
4″	58,37,36, 6,40,52, 6,48, 8,41		4,17, 9,55,42	
		26,43,53,22,58,40,51		1,57
6″	58,37,36,33,24,45,29,46,49,32		4,17, 9,57,39	
		26,43,49, 5,48,43,12		1,57
8″	58,37,37, 0, 8,34,35,35,32,44		4,17, 9,59,36	
		26,43,44,48,38,43,36		1,57
10″	58,37,37,26,52,19,24,14,16,20		4,17,10, 1,33	
		26,43,40,31,28,42, 3		1,57
12″	58,37,37,53,35,59,55,42,58,23		4,17,10, 3,30	
		26,43,36,14,18,38,33		1,57
14″	58,37,38,20,19,36,10, 1,36,56		4,17,10, 5,27	
		26,43,31,57, 8,33, 6		1,57
16″	58,37,38,47, 3, 8, 7,10,10, 2		4,17,10, 7,24	
		26,43,27,39,58,25,42		1,57
18″	58,37,39,13,46,35,47, 8,35,44		4,17,10, 9,21	
		26,43,23,22,48,16,21		1,57
20″	58,37,39,40,29,59, 9,56,52, 5		4,17,10,11,18	
		26,43,19, 5,38, 5, 3		1,57
22″	58,37,40, 7,13,18,15,34,57, 8		4,17,10,13,15	
		26,43,14,48,27,51,48		1,57
24″	58,37,40,33,56,33, 4, 2,48,56		4,17,10,15,12	
		26,43,10,31,17,36,36		1,57
26″	58,37,41, 0,39,43,35,20,25,32		4,17,10,17, 9	
		26,43, 6,14, 7,19,27		1,57
28″	58,37,41,27,22,49,49,27,44,59		4,17,10,19, 6	
		26,43, 1,56,57, 0,21		1,57
30″	58,37,41,54, 5,51,46,24,45,20		4,17,10,21, 3	
		26,42,57,39,46,39,18		1,57
32″	58,37,42,20,48,49,26,11,24,38		4,17,10,23, 0	
		26,42,53,22,36,16,18		1,57
34″	58,37,42,47,31,42,48,47,40,56		4,17,10,24,57	
		26,42,49, 5,25,51,21		1,57
36″	58,37,43,14,14,31,54,13,32,17		4,17,10,26,54	
		26,42,44,48,15,24,27		1,57
38″	58,37,43,40,57,16,42,28,56,44		4,17,10,28,51	
		26,42,40,31, 4,55,36		1,57
40″	58,37,44, 7,39,57,13,33,52,20		4,17,10,30,48	
		26,42,36,13,54,24,48		1,57
42″	58,37,44,34,22,33,27,28,17, 8		4,17,10,32,45	
		26,42,31,56,43,52, 3		1,57
44″	58,37,45, 1, 5, 5,24,12, 9,11		4,17,10,34,42	
		26,42,27,39,33,17,21		1,57
46″	58,37,45,27,47,33, 3,45,26,32		4,17,10,36,39	
		26,42,23,22,22,40,42		1,57
48″	58,37,45,54,29,56,26, 8, 7,14		4,17,10,38,36	
		26,42,19, 5,12, 2, 6		1,57
50″	58,37,46,21,12,15,31,20, 9,20		4,17,10,40,33	
		26,42,14,48, 1,21,33		1,57
52″	58,37,46,47,54,30,19,21,30,53		4,17,10,42,30	
		26,42,10,30,50,39, 3		1,57
54″	58,37,47,14,36,40,50,12, 9,56		4,17,10,44,27	
		26,42, 6,13,39,54,36		1,57
56″	58,37,47,41,18,47, 3,52, 4,32		4,17,10,46,24	
		26,42, 1,56,29, 8,12		1,57
58″	58,37,48, 8, 0,49, 0,21,12,44		4,17,10,48,21	
		26,41,57,39,18,19,51		
60″	58,37,48,34,42,46,39,39,32,35			
exact	58,37,48,34,42,46,39,39,18,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°44′ 0″	58,37,48,34,42,46,39,39,18,50			
		26,41,53,22, 7,28, 7		
2″	58,37,49, 1,24,40, 1,46,46,57		4,17,10,52,20	
		26,41,49, 4,56,35,47		1,57
4″	58,37,49,28, 6,29, 6,43,22,44		4,17,10,54,17	
		26,41,44,47,45,41,30		1,57
6″	58,37,49,54,48,13,54,29, 4,14		4,17,10,56,14	
		26,41,40,30,34,45,16		1,57
8″	58,37,50,21,29,54,25, 3,49,30		4,17,10,58,11	
		26,41,36,13,23,47, 5		1,57
10″	58,37,50,48,11,30,38,27,36,35		4,17,11, 0, 8	
		26,41,31,56,12,46,57		1,57
12″	58,37,51,14,53, 2,34,40,23,32		4,17,11, 2, 5	
		26,41,27,39, 1,44,52		1,57
14″	58,37,51,41,34,30,13,42, 8,24		4,17,11, 4, 2	
		26,41,23,21,50,40,50		1,57
16″	58,37,52, 8,15,53,35,32,49,14		4,17,11, 5,59	
		26,41,19, 4,39,34,51		1,57
18″	58,37,52,34,57,12,40,12,24, 5		4,17,11, 7,56	
		26,41,14,47,28,26,55		1,57
20″	58,37,53, 1,38,27,27,40,51, 0		4,17,11, 9,53	
		26,41,10,30,17,17, 2		1,57
22″	58,37,53,28,19,37,57,58, 8, 2		4,17,11,11,50	
		26,41, 6,13, 6, 5,12		1,57
24″	58,37,53,55, 0,44,11, 4,13,14		4,17,11,13,47	
		26,41, 1,55,54,51,25		1,57
26″	58,37,54,21,41,46, 6,59, 4,39		4,17,11,15,44	
		26,40,57,38,43,35,41		1,57
28″	58,37,54,48,22,43,45,42,40,20		4,17,11,17,41	
		26,40,53,21,32,18, 0		1,57
30″	58,37,55,15, 3,37, 7,14,58,20		4,17,11,19,38	
		26,40,49, 4,20,58,22		1,57
32″	58,37,55,41,44,26,11,35,56,42		4,17,11,21,35	
		26,40,44,47, 9,36,47		1,57
34″	58,37,56, 8,25,10,58,45,33,29		4,17,11,23,32	
		26,40,40,29,58,13,15		1,57
36″	58,37,56,35, 5,51,28,43,46,44		4,17,11,25,29	
		26,40,36,12,46,47,46		1,57
38″	58,37,57, 1,46,27,41,30,34,30		4,17,11,27,26	
		26,40,31,55,35,20,20		1,57
40″	58,37,57,28,26,59,37, 5,54,50		4,17,11,29,23	
		26,40,27,38,23,50,57		1,57
42″	58,37,57,55, 7,27,15,29,45,47		4,17,11,31,20	
		26,40,23,21,12,19,37		1,57
44″	58,37,58,21,47,50,36,42, 5,24		4,17,11,33,17	
		26,40,19, 4, 0,46,20		1,57
46″	58,37,58,48,28, 9,40,42,51,44		4,17,11,35,14	
		26,40,14,46,49,11, 6		1,57
48″	58,37,59,15, 8,24,27,32, 2,50		4,17,11,37,11	
		26,40,10,29,37,33,55		1,57
50″	58,37,59,41,48,34,57, 9,36,45		4,17,11,39, 8	
		26,40, 6,12,25,54,47		1,57
52″	58,38, 0, 8,28,41, 9,35,31,32		4,17,11,41, 5	
		26,40, 1,55,14,13,42		1,57
54″	58,38, 0,35, 8,43, 4,49,45,14		4,17,11,43, 2	
		26,39,57,38, 2,30,40		1,57
56″	58,38, 1, 1,48,40,42,52,15,54		4,17,11,44,59	
		26,39,53,20,50,45,41		1,57
58″	58,38, 1,28,28,34, 3,43, 1,35		4,17,11,46,56	
		26,39,49, 3,38,58,45		
60″	58,38, 1,55, 8,23, 7,22, 0,20			
exact	58,38, 1,55, 8,23, 7,21,53, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°45′ 0″	58,38, 1,55, 8,23, 7,21,53, 0			
		26,39,44,46,27, 9,16		
2″	58,38, 2,21,48, 7,53,49, 2,16		4,17,11,50,51	
		26,39,40,29,15,18,25		1,57
4″	58,38, 2,48,27,48,23, 4,20,41		4,17,11,52,48	
		26,39,36,12, 3,25,37		1,57
6″	58,38, 3,15, 7,24,35, 7,46,18		4,17,11,54,45	
		26,39,31,54,51,30,52		1,57
8″	58,38, 3,41,46,56,29,59,17,10		4,17,11,56,42	
		26,39,27,37,39,34,10		1,57
10″	58,38, 4, 8,26,24, 7,38,51,20		4,17,11,58,39	
		26,39,23,20,27,35,31		1,57
12″	58,38, 4,35, 5,47,28, 6,26,51		4,17,12, 0,36	
		26,39,19, 3,15,34,55		1,57
14″	58,38, 5, 1,45, 6,31,22, 1,46		4,17,12, 2,33	
		26,39,14,46, 3,32,22		1,57
16″	58,38, 5,28,24,21,17,25,34, 8		4,17,12, 4,30	
		26,39,10,28,51,27,52		1,57
18″	58,38, 5,55, 3,31,46,17, 2, 0		4,17,12, 6,27	
		26,39, 6,11,39,21,25		1,57
20″	58,38, 6,21,42,37,57,56,23,25		4,17,12, 8,24	
		26,39, 1,54,27,13, 1		1,57
22″	58,38, 6,48,21,39,52,23,36,26		4,17,12,10,21	
		26,38,57,37,15, 2,40		1,57
24″	58,38, 7,15, 0,37,29,38,39, 6		4,17,12,12,18	
		26,38,53,20, 2,50,22		1,57
26″	58,38, 7,41,39,30,49,41,29,28		4,17,12,14,15	
		26,38,49, 2,50,36, 7		1,57
28″	58,38, 8, 8,18,19,52,32, 5,35		4,17,12,16,12	
		26,38,44,45,38,19,55		1,57
30″	58,38, 8,34,57, 4,38,10,25,30		4,17,12,18, 9	
		26,38,40,28,26, 1,46		1,57
32″	58,38, 9, 1,35,45, 6,36,27,16		4,17,12,20, 6	
		26,38,36,11,13,41,40		1,57
34″	58,38, 9,28,14,21,17,50, 8,56		4,17,12,22, 3	
		26,38,31,54, 1,19,37		1,57
36″	58,38, 9,54,52,53,11,51,28,33		4,17,12,24, 0	
		26,38,27,36,48,55,37		1,57
38″	58,38,10,21,31,20,48,40,24,10		4,17,12,25,57	
		26,38,23,19,36,29,40		1,57
40″	58,38,10,48, 9,44, 8,16,53,50		4,17,12,27,54	
		26,38,19, 2,24, 1,46		1,57
42″	58,38,11,14,48, 3,10,40,55,36		4,17,12,29,51	
		26,38,14,45,11,31,55		1,57
44″	58,38,11,41,26,17,55,52,27,31		4,17,12,31,48	
		26,38,10,27,59, 0, 7		1,57
46″	58,38,12, 8, 4,28,23,51,27,38		4,17,12,33,45	
		26,38, 6,10,46,26,22		1,57
48″	58,38,12,34,42,34,34,37,54, 0		4,17,12,35,42	
		26,38, 1,53,33,50,40		1,57
50″	58,38,13, 1,20,36,28,11,44,40		4,17,12,37,39	
		26,37,57,36,21,13, 1		1,57
52″	58,38,13,27,58,34, 4,32,57,41		4,17,12,39,36	
		26,37,53,19, 8,33,25		1,57
54″	58,38,13,54,36,27,23,41,31, 6		4,17,12,41,33	
		26,37,49, 1,55,51,52		1,57
56″	58,38,14,21,14,16,25,37,22,58		4,17,12,43,30	
		26,37,44,44,43, 8,22		1,57
58″	58,38,14,47,52, 1,10,20,31,20		4,17,12,45,27	
		26,37,40,27,30,22,55		
60″	58,38,15,14,29,41,37,50,54,15			
exact	58,38,15,14,29,41,37,50,58,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°46′ 0″	58,38,15,14,29,41,37,50,58,21			
		26,37,36,10,17,36, 7		
2″	58,38,15,41, 7,17,48, 8,34,28		4,17,12,49,17	
		26,37,31,53, 4,46,50		1,57
4″	58,38,16, 7,44,49,41,13,21,18		4,17,12,51,14	
		26,37,27,35,51,55,36		1,57
6″	58,38,16,34,22,17,17, 5,16,54		4,17,12,53,11	
		26,37,23,18,39, 2,25		1,57
8″	58,38,17, 0,59,40,35,44,19,19		4,17,12,55, 8	
		26,37,19, 1,26, 7,17		1,57
10″	58,38,17,27,36,59,37,10,26,36		4,17,12,57, 5	
		26,37,14,44,13,10,12		1,57
12″	58,38,17,54,14,14,21,23,36,48		4,17,12,59, 2	
		26,37,10,27, 0,11,10		1,57
14″	58,38,18,20,51,24,48,23,47,58		4,17,13, 0,59	
		26,37, 6, 9,47,10,11		1,57
16″	58,38,18,47,28,30,58,10,58, 9		4,17,13, 2,56	
		26,37, 1,52,34, 7,15		1,57
18″	58,38,19,14, 5,32,50,45, 5,24		4,17,13, 4,53	
		26,36,57,35,21, 2,22		1,57
20″	58,38,19,40,42,30,26, 6, 7,46		4,17,13, 6,50	
		26,36,53,18, 7,55,32		1,57
22″	58,38,20, 7,19,23,44,14, 3,18		4,17,13, 8,47	
		26,36,49, 0,54,46,45		1,57
24″	58,38,20,33,56,12,45, 8,50, 3		4,17,13,10,44	
		26,36,44,43,41,36, 1		1,57
26″	58,38,21, 0,32,57,28,50,26, 4		4,17,13,12,41	
		26,36,40,26,28,23,20		1,57
28″	58,38,21,27, 9,37,55,18,49,24		4,17,13,14,38	
		26,36,36, 9,15, 8,42		1,57
30″	58,38,21,53,46,14, 4,33,58, 6		4,17,13,16,35	
		26,36,31,52, 1,52, 7		1,57
32″	58,38,22,20,22,45,56,35,50,13		4,17,13,18,32	
		26,36,27,34,48,33,35		1,57
34″	58,38,22,46,59,13,31,24,23,48		4,17,13,20,29	
		26,36,23,17,35,13, 6		1,57
36″	58,38,23,13,35,36,48,59,36,54		4,17,13,22,26	
		26,36,19, 0,21,50,40		1,57
38″	58,38,23,40,11,55,49,21,27,34		4,17,13,24,23	
		26,36,14,43, 8,26,17		1,57
40″	58,38,24, 6,48,10,32,29,53,51		4,17,13,26,20	
		26,36,10,25,54,59,57		1,57
42″	58,38,24,33,24,20,58,24,53,48		4,17,13,28,17	
		26,36, 6, 8,41,31,40		1,57
44″	58,38,25, 0, 0,27, 7, 6,25,28		4,17,13,30,14	
		26,36, 1,51,28, 1,26		1,57
46″	58,38,25,26,36,28,58,34,26,54		4,17,13,32,11	
		26,35,57,34,14,29,15		1,57
48″	58,38,25,53,12,26,32,48,56, 9		4,17,13,34, 8	
		26,35,53,17, 0,55, 7		1,57
50″	58,38,26,19,48,19,49,49,51,16		4,17,13,36, 5	
		26,35,48,59,47,19, 2		1,57
52″	58,38,26,46,24, 8,49,37,10,18		4,17,13,38, 2	
		26,35,44,42,33,41, 0		1,57
54″	58,38,27,12,59,53,32,10,51,18		4,17,13,39,59	
		26,35,40,25,20, 1, 1		1,57
56″	58,38,27,39,35,33,57,30,52,19		4,17,13,41,56	
		26,35,36, 8, 6,19, 5		1,57
58″	58,38,28, 6,11,10, 5,37,11,24		4,17,13,43,53	
		26,35,31,50,52,35,12		
60″	58,38,28,32,46,41,56,29,46,36			
exact	58,38,28,32,46,41,56,29,59,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°47′ 0″	58,38,28,32,46,41,56,29,59,26			
		26,35,27,33,38,50,59		
2″	58,38,28,59,22, 9,30, 8,50,25		4,17,13,47,39	
		26,35,23,16,25, 3,20		1,57
4″	58,38,29,25,57,32,46,33,53,45		4,17,13,49,36	
		26,35,18,59,11,13,44		1,57
6″	58,38,29,52,32,51,45,45, 7,29		4,17,13,51,33	
		26,35,14,41,57,22,11		1,57
8″	58,38,30,19, 8, 6,27,42,29,40		4,17,13,53,30	
		26,35,10,24,43,28,41		1,57
10″	58,38,30,45,43,16,52,25,58,21		4,17,13,55,27	
		26,35, 6, 7,29,33,14		1,57
12″	58,38,31,12,18,22,59,55,31,35		4,17,13,57,24	
		26,35, 1,50,15,35,50		1,57
14″	58,38,31,38,53,24,50,11, 7,25		4,17,13,59,21	
		26,34,57,33, 1,36,29		1,57
16″	58,38,32, 5,28,22,23,12,43,54		4,17,14, 1,18	
		26,34,53,15,47,35,11		1,57
18″	58,38,32,32, 3,15,39, 0,19, 5		4,17,14, 3,15	
		26,34,48,58,33,31,56		1,57
20″	58,38,32,58,38, 4,37,33,51, 1		4,17,14, 5,12	
		26,34,44,41,19,26,44		1,57
22″	58,38,33,25,12,49,18,53,17,45		4,17,14, 7, 9	
		26,34,40,24, 5,19,35		1,57
24″	58,38,33,51,47,29,42,58,37,20		4,17,14, 9, 6	
		26,34,36, 6,51,10,29		1,57
26″	58,38,34,18,22, 5,49,49,47,49		4,17,14,11, 3	
		26,34,31,49,36,59,26		1,57
28″	58,38,34,44,56,37,39,26,47,15		4,17,14,13, 0	
		26,34,27,32,22,46,26		1,57
30″	58,38,35,11,31, 5,11,49,33,41		4,17,14,14,57	
		26,34,23,15, 8,31,29		1,57
32″	58,38,35,38, 5,28,26,58, 5,10		4,17,14,16,54	
		26,34,18,57,54,14,35		1,57
34″	58,38,36, 4,39,47,24,52,19,45		4,17,14,18,51	
		26,34,14,40,39,55,44		1,57
36″	58,38,36,31,14, 2, 5,32,15,29		4,17,14,20,48	
		26,34,10,23,25,34,56		1,57
38″	58,38,36,57,48,12,28,57,50,25		4,17,14,22,45	
		26,34, 6, 6,11,12,11		1,57
40″	58,38,37,24,22,18,35, 9, 2,36		4,17,14,24,42	
		26,34, 1,48,56,47,29		1,57
42″	58,38,37,50,56,20,24, 5,50, 5		4,17,14,26,39	
		26,33,57,31,42,20,50		1,57
44″	58,38,38,17,30,17,55,48,10,55		4,17,14,28,36	
		26,33,53,14,27,52,14		1,57
46″	58,38,38,44, 4,11,10,16, 3, 9		4,17,14,30,33	
		26,33,48,57,13,21,41		1,57
48″	58,38,39,10,38, 0, 7,29,24,50		4,17,14,32,30	
		26,33,44,39,58,49,11		1,57
50″	58,38,39,37,11,44,47,28,14, 1		4,17,14,34,27	
		26,33,40,22,44,14,44		1,57
52″	58,38,40, 3,45,25,10,12,28,45		4,17,14,36,24	
		26,33,36, 5,29,38,20		1,57
54″	58,38,40,30,19, 1,15,42, 7, 5		4,17,14,38,21	
		26,33,31,48,14,59,59		1,57
56″	58,38,40,56,52,33, 3,57, 7, 4		4,17,14,40,18	
		26,33,27,31, 0,19,41		1,57
58″	58,38,41,23,26, 0,34,57,26,45		4,17,14,42,15	
		26,33,23,13,45,37,26		
60″	58,38,41,49,59,23,48,43, 4,11			
exact	58,38,41,49,59,23,48,43,31,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°48′ 0″	58,38,41,49,59,23,48,43,31,18			
		26,33,18,56,30,56,14		
2″	58,38,42,16,32,42,45,14,27,32		4,17,14,45,56	
		26,33,14,39,16,10,18		1,56
4″	58,38,42,43, 5,57,24,30,37,50		4,17,14,47,52	
		26,33,10,22, 1,22,26		1,56
6″	58,38,43, 9,39, 7,46,32, 0,16		4,17,14,49,48	
		26,33, 6, 4,46,32,38		1,56
8″	58,38,43,36,12,13,51,18,32,54		4,17,14,51,44	
		26,33, 1,47,31,40,54		1,56
10″	58,38,44, 2,45,15,38,50,13,48		4,17,14,53,40	
		26,32,57,30,16,47,14		1,56
12″	58,38,44,29,18,13, 9, 7, 1, 2		4,17,14,55,36	
		26,32,53,13, 1,51,38		1,56
14″	58,38,44,55,51, 6,22, 8,52,40		4,17,14,57,32	
		26,32,48,55,46,54, 6		1,56
16″	58,38,45,22,23,55,17,55,46,46		4,17,14,59,28	
		26,32,44,38,31,54,38		1,56
18″	58,38,45,48,56,39,56,27,41,24		4,17,15, 1,24	
		26,32,40,21,16,53,14		1,56
20″	58,38,46,15,29,20,17,44,34,38		4,17,15, 3,20	
		26,32,36, 4, 1,49,54		1,56
22″	58,38,46,42, 1,56,21,46,24,32		4,17,15, 5,16	
		26,32,31,46,46,44,38		1,56
24″	58,38,47, 8,34,28, 8,33, 9,10		4,17,15, 7,12	
		26,32,27,29,31,37,26		1,56
26″	58,38,47,35, 6,55,38, 4,46,36		4,17,15, 9, 8	
		26,32,23,12,16,28,18		1,56
28″	58,38,48, 1,39,18,50,21,14,54		4,17,15,11, 4	
		26,32,18,55, 1,17,14		1,56
30″	58,38,48,28,11,37,45,22,32, 8		4,17,15,13, 0	
		26,32,14,37,46, 4,14		1,56
32″	58,38,48,54,43,52,23, 8,36,22		4,17,15,14,56	
		26,32,10,20,30,49,18		1,56
34″	58,38,49,21,16, 2,43,39,25,40		4,17,15,16,52	
		26,32, 6, 3,15,32,26		1,56
36″	58,38,49,47,48, 8,46,54,58, 6		4,17,15,18,48	
		26,32, 1,46, 0,13,38		1,56
38″	58,38,50,14,20,10,32,55,11,44		4,17,15,20,44	
		26,31,57,28,44,52,54		1,56
40″	58,38,50,40,52, 8, 1,40, 4,38		4,17,15,22,40	
		26,31,53,11,29,30,14		1,56
42″	58,38,51, 7,24, 1,13, 9,34,52		4,17,15,24,36	
		26,31,48,54,14, 5,38		1,56
44″	58,38,51,33,55,50, 7,23,40,30		4,17,15,26,32	
		26,31,44,36,58,39, 6		1,56
46″	58,38,52, 0,27,34,44,22,19,36		4,17,15,28,28	
		26,31,40,19,43,10,38		1,56
48″	58,38,52,26,59,15, 4, 5,30,14		4,17,15,30,24	
		26,31,36, 2,27,40,14		1,56
50″	58,38,52,53,30,51, 6,33,10,28		4,17,15,32,20	
		26,31,31,45,12, 7,54		1,56
52″	58,38,53,20, 2,22,51,45,18,22		4,17,15,34,16	
		26,31,27,27,56,33,38		1,56
54″	58,38,53,46,33,50,19,41,52, 0		4,17,15,36,12	
		26,31,23,10,40,57,26		1,56
56″	58,38,54,13, 5,13,30,22,49,26		4,17,15,38, 8	
		26,31,18,53,25,19,18		1,56
58″	58,38,54,39,36,32,23,48, 8,44		4,17,15,40, 4	
		26,31,14,36, 9,39,14		
60″	58,38,55, 6, 7,46,59,57,47,58			
exact	58,38,55, 6, 7,46,59,57,19,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°49′ 0″	58,38,55, 6, 7,46,59,57,19,32			
		26,31,10,18,53,54,13		
2″	58,38,55,32,38,57,18,51,13,45		4,17,15,44, 8	
		26,31, 6, 1,38,10, 5		1,56
4″	58,38,55,59,10, 3,20,29,23,50		4,17,15,46, 4	
		26,31, 1,44,22,24, 1		1,56
6″	58,38,56,25,41, 5, 4,51,47,51		4,17,15,48, 0	
		26,30,57,27, 6,36, 1		1,56
8″	58,38,56,52,12, 2,31,58,23,52		4,17,15,49,56	
		26,30,53, 9,50,46, 5		1,56
10″	58,38,57,18,42,55,41,49, 9,57		4,17,15,51,52	
		26,30,48,52,34,54,13		1,56
12″	58,38,57,45,13,44,34,24, 4,10		4,17,15,53,48	
		26,30,44,35,19, 0,25		1,56
14″	58,38,58,11,44,29, 9,43, 4,35		4,17,15,55,44	
		26,30,40,18, 3, 4,41		1,56
16″	58,38,58,38,15, 9,27,46, 9,16		4,17,15,57,40	
		26,30,36, 0,47, 7, 1		1,56
18″	58,38,59, 4,45,45,28,33,16,17		4,17,15,59,36	
		26,30,31,43,31, 7,25		1,56
20″	58,38,59,31,16,17,12, 4,23,42		4,17,16, 1,32	
		26,30,27,26,15, 5,53		1,56
22″	58,38,59,57,46,44,38,19,29,35		4,17,16, 3,28	
		26,30,23, 8,59, 2,25		1,56
24″	58,39, 0,24,17, 7,47,18,32, 0		4,17,16, 5,24	
		26,30,18,51,42,57, 1		1,56
26″	58,39, 0,50,47,26,39, 1,29, 1		4,17,16, 7,20	
		26,30,14,34,26,49,41		1,56
28″	58,39, 1,17,17,41,13,28,18,42		4,17,16, 9,16	
		26,30,10,17,10,40,25		1,56
30″	58,39, 1,43,47,51,30,38,59, 7		4,17,16,11,12	
		26,30, 5,59,54,29,13		1,56
32″	58,39, 2,10,17,57,30,33,28,20		4,17,16,13, 8	
		26,30, 1,42,38,16, 5		1,56
34″	58,39, 2,36,47,59,13,11,44,25		4,17,16,15, 4	
		26,29,57,25,22, 1, 1		1,56
36″	58,39, 3, 3,17,56,38,33,45,26		4,17,16,17, 0	
		26,29,53, 8, 5,44, 1		1,56
38″	58,39, 3,29,47,49,46,39,29,27		4,17,16,18,56	
		26,29,48,50,49,25, 5		1,56
40″	58,39, 3,56,17,38,37,28,54,32		4,17,16,20,52	
		26,29,44,33,33, 4,13		1,56
42″	58,39, 4,22,47,23,11, 1,58,45		4,17,16,22,48	
		26,29,40,16,16,41,25		1,56
44″	58,39, 4,49,17, 3,27,18,40,10		4,17,16,24,44	
		26,29,35,59, 0,16,41		1,56
46″	58,39, 5,15,46,39,26,18,56,51		4,17,16,26,40	
		26,29,31,41,43,50, 1		1,56
48″	58,39, 5,42,16,11, 8, 2,46,52		4,17,16,28,36	
		26,29,27,24,27,21,25		1,56
50″	58,39, 6, 8,45,38,32,30, 8,17		4,17,16,30,32	
		26,29,23, 7,10,50,53		1,56
52″	58,39, 6,35,15, 1,39,40,59,10		4,17,16,32,28	
		26,29,18,49,54,18,25		1,56
54″	58,39, 7, 1,44,20,29,35,17,35		4,17,16,34,24	
		26,29,14,32,37,44, 1		1,56
56″	58,39, 7,28,13,35, 2,13, 1,36		4,17,16,36,20	
		26,29,10,15,21, 7,41		1,56
58″	58,39, 7,54,42,45,17,34, 9,17		4,17,16,38,16	
		26,29, 5,58, 4,29,25		
60″	58,39, 8,21,11,51,15,38,38,42			
exact	58,39, 8,21,11,51,15,38,20,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°50′ 0″	58,39, 8,21,11,51,15,38,20,14			
		26,29, 1,40,47,47,18		
2″	58,39, 8,47,40,52,56,26, 7,32		4,17,16,42,15	
		26,28,57,23,31, 5, 3		1,56
4″	58,39, 9,14, 9,50,19,57,12,35		4,17,16,44,11	
		26,28,53, 6,14,20,52		1,56
6″	58,39, 9,40,38,43,26,11,33,27		4,17,16,46, 7	
		26,28,48,48,57,34,45		1,56
8″	58,39,10, 7, 7,32,15, 9, 8,12		4,17,16,48, 3	
		26,28,44,31,40,46,42		1,56
10″	58,39,10,33,36,16,46,49,54,54		4,17,16,49,59	
		26,28,40,14,23,56,43		1,56
12″	58,39,11, 0, 4,57, 1,13,51,37		4,17,16,51,55	
		26,28,35,57, 7, 4,48		1,56
14″	58,39,11,26,33,32,58,20,56,25		4,17,16,53,51	
		26,28,31,39,50,10,57		1,56
16″	58,39,11,53, 2, 4,38,11, 7,22		4,17,16,55,47	
		26,28,27,22,33,15,10		1,56
18″	58,39,12,19,30,32, 0,44,22,32		4,17,16,57,43	
		26,28,23, 5,16,17,27		1,56
20″	58,39,12,45,58,55, 6, 0,39,59		4,17,16,59,39	
		26,28,18,47,59,17,48		1,56
22″	58,39,13,12,27,13,53,59,57,47		4,17,17, 1,35	
		26,28,14,30,42,16,13		1,56
24″	58,39,13,38,55,28,24,42,14, 0		4,17,17, 3,31	
		26,28,10,13,25,12,42		1,56
26″	58,39,14, 5,23,38,38, 7,26,42		4,17,17, 5,27	
		26,28, 5,56, 8, 7,15		1,56
28″	58,39,14,31,51,44,34,15,33,57		4,17,17, 7,23	
		26,28, 1,38,50,59,52		1,56
30″	58,39,14,58,19,46,13, 6,33,49		4,17,17, 9,19	
		26,27,57,21,33,50,33		1,56
32″	58,39,15,24,47,43,34,40,24,22		4,17,17,11,15	
		26,27,53, 4,16,39,18		1,56
34″	58,39,15,51,15,36,38,57, 3,40		4,17,17,13,11	
		26,27,48,46,59,26, 7		1,56
36″	58,39,16,17,43,25,25,56,29,47		4,17,17,15, 7	
		26,27,44,29,42,11, 0		1,56
38″	58,39,16,44,11, 9,55,38,40,47		4,17,17,17, 3	
		26,27,40,12,24,53,57		1,56
40″	58,39,17,10,38,50, 8, 3,34,44		4,17,17,18,59	
		26,27,35,55, 7,34,58		1,56
42″	58,39,17,37, 6,26, 3,11, 9,42		4,17,17,20,55	
		26,27,31,37,50,14, 3		1,56
44″	58,39,18, 3,33,57,41, 1,23,45		4,17,17,22,51	
		26,27,27,20,32,51,12		1,56
46″	58,39,18,30, 1,25, 1,34,14,57		4,17,17,24,47	
		26,27,23, 3,15,26,25		1,56
48″	58,39,18,56,28,48, 4,49,41,22		4,17,17,26,43	
		26,27,18,45,57,59,42		1,56
50″	58,39,19,22,56, 6,50,47,41, 4		4,17,17,28,39	
		26,27,14,28,40,31, 3		1,56
52″	58,39,19,49,23,21,19,28,12, 7		4,17,17,30,35	
		26,27,10,11,23, 0,28		1,56
54″	58,39,20,15,50,31,30,51,12,35		4,17,17,32,31	
		26,27, 5,54, 5,27,57		1,56
56″	58,39,20,42,17,37,24,56,40,32		4,17,17,34,27	
		26,27, 1,36,47,53,30		1,56
58″	58,39,21, 8,44,39, 1,44,34, 2		4,17,17,36,23	
		26,26,57,19,30,17, 7		
60″	58,39,21,35,11,36,21,14,51, 9			
exact	58,39,21,35,11,36,21,14,40, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°51′ 0″	58,39,21,35,11,36,21,14,40, 3			
		26,26,53, 2,12,37,48		
2″	58,39,22, 1,38,29,23,27,17,51		4,17,17,40,18	
		26,26,48,44,54,57,30		1,56
4″	58,39,22,28, 5,18, 8,22,15,21		4,17,17,42,14	
		26,26,44,27,37,15,16		1,56
6″	58,39,22,54,32, 2,35,59,30,37		4,17,17,44,10	
		26,26,40,10,19,31, 6		1,56
8″	58,39,23,20,58,42,46,19, 1,43		4,17,17,46, 6	
		26,26,35,53, 1,45, 0		1,56
10″	58,39,23,47,25,18,39,20,46,43		4,17,17,48, 2	
		26,26,31,35,43,56,58		1,56
12″	58,39,24,13,51,50,15, 4,43,41		4,17,17,49,58	
		26,26,27,18,26, 7, 0		1,56
14″	58,39,24,40,18,17,33,30,50,41		4,17,17,51,54	
		26,26,23, 1, 8,15, 6		1,56
16″	58,39,25, 6,44,40,34,39, 5,47		4,17,17,53,50	
		26,26,18,43,50,21,16		1,56
18″	58,39,25,33,10,59,18,29,27, 3		4,17,17,55,46	
		26,26,14,26,32,25,30		1,56
20″	58,39,25,59,37,13,45, 1,52,33		4,17,17,57,42	
		26,26,10, 9,14,27,48		1,56
22″	58,39,26,26, 3,23,54,16,20,21		4,17,17,59,38	
		26,26, 5,51,56,28,10		1,56
24″	58,39,26,52,29,29,46,12,48,31		4,17,18, 1,34	
		26,26, 1,34,38,26,36		1,56
26″	58,39,27,18,55,31,20,51,15, 7		4,17,18, 3,30	
		26,25,57,17,20,23, 6		1,56
28″	58,39,27,45,21,28,38,11,38,13		4,17,18, 5,26	
		26,25,53, 0, 2,17,40		1,56
30″	58,39,28,11,47,21,38,13,55,53		4,17,18, 7,22	
		26,25,48,42,44,10,18		1,56
32″	58,39,28,38,13,10,20,58, 6,11		4,17,18, 9,18	
		26,25,44,25,26, 1, 0		1,56
34″	58,39,29, 4,38,54,46,24, 7,11		4,17,18,11,14	
		26,25,40, 8, 7,49,46		1,56
36″	58,39,29,31, 4,34,54,31,56,57		4,17,18,13,10	
		26,25,35,50,49,36,36		1,56
38″	58,39,29,57,30,10,45,21,33,33		4,17,18,15, 6	
		26,25,31,33,31,21,30		1,56
40″	58,39,30,23,55,42,18,52,55, 3		4,17,18,17, 2	
		26,25,27,16,13, 4,28		1,56
42″	58,39,30,50,21, 9,35, 5,59,31		4,17,18,18,58	
		26,25,22,58,54,45,30		1,56
44″	58,39,31,16,46,32,34, 0,45, 1		4,17,18,20,54	
		26,25,18,41,36,24,36		1,56
46″	58,39,31,43,11,51,15,37, 9,37		4,17,18,22,50	
		26,25,14,24,18, 1,46		1,56
48″	58,39,32, 9,37, 5,39,55,11,23		4,17,18,24,46	
		26,25,10, 6,59,37, 0		1,56
50″	58,39,32,36, 2,15,46,54,48,23		4,17,18,26,42	
		26,25, 5,49,41,10,18		1,56
52″	58,39,33, 2,27,21,36,35,58,41		4,17,18,28,38	
		26,25, 1,32,22,41,40		1,56
54″	58,39,33,28,52,23, 8,58,40,21		4,17,18,30,34	
		26,24,57,15, 4,11, 6		1,56
56″	58,39,33,55,17,20,24, 2,51,27		4,17,18,32,30	
		26,24,52,57,45,38,36		1,56
58″	58,39,34,21,42,13,21,48,30, 3		4,17,18,34,26	
		26,24,48,40,27, 4,10		
60″	58,39,34,48, 7, 2, 2,15,34,13			
exact	58,39,34,48, 7, 2, 2,15,36, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°52′ 0″	58,39,34,48, 7, 2, 2,15,36, 7			
		26,24,44,23, 8,28, 6		
2″	58,39,35,14,31,46,25,24, 4,13		4,17,18,38,16	
		26,24,40, 5,49,49,50		1,56
4″	58,39,35,40,56,26,31,13,54, 3		4,17,18,40,12	
		26,24,35,48,31, 9,38		1,56
6″	58,39,36, 7,21, 2,19,45, 3,41		4,17,18,42, 8	
		26,24,31,31,12,27,30		1,56
8″	58,39,36,33,45,33,50,57,31,11		4,17,18,44, 4	
		26,24,27,13,53,43,26		1,56
10″	58,39,37, 0,10, 1, 4,51,14,37		4,17,18,46, 0	
		26,24,22,56,34,57,26		1,56
12″	58,39,37,26,34,24, 1,26,12, 3		4,17,18,47,56	
		26,24,18,39,16, 9,30		1,56
14″	58,39,37,52,58,42,40,42,21,33		4,17,18,49,52	
		26,24,14,21,57,19,38		1,56
16″	58,39,38,19,22,57, 2,39,41,11		4,17,18,51,48	
		26,24,10, 4,38,27,50		1,56
18″	58,39,38,45,47, 7, 7,18, 9, 1		4,17,18,53,44	
		26,24, 5,47,19,34, 6		1,56
20″	58,39,39,12,11,12,54,37,43, 7		4,17,18,55,40	
		26,24, 1,30, 0,38,26		1,56
22″	58,39,39,38,35,14,24,38,21,33		4,17,18,57,36	
		26,23,57,12,41,40,50		1,56
24″	58,39,40, 4,59,11,37,20, 2,23		4,17,18,59,32	
		26,23,52,55,22,41,18		1,56
26″	58,39,40,31,23, 4,32,42,43,41		4,17,19, 1,28	
		26,23,48,38, 3,39,50		1,56
28″	58,39,40,57,46,53,10,46,23,31		4,17,19, 3,24	
		26,23,44,20,44,36,26		1,56
30″	58,39,41,24,10,37,31,30,59,57		4,17,19, 5,20	
		26,23,40, 3,25,31, 6		1,56
32″	58,39,41,50,34,17,34,56,31, 3		4,17,19, 7,16	
		26,23,35,46, 6,23,50		1,56
34″	58,39,42,16,57,53,21, 2,54,53		4,17,19, 9,12	
		26,23,31,28,47,14,38		1,56
36″	58,39,42,43,21,24,49,50, 9,31		4,17,19,11, 8	
		26,23,27,11,28, 3,30		1,56
38″	58,39,43, 9,44,52, 1,18,13, 1		4,17,19,13, 4	
		26,23,22,54, 8,50,26		1,56
40″	58,39,43,36, 8,14,55,27, 3,27		4,17,19,15, 0	
		26,23,18,36,49,35,26		1,56
42″	58,39,44, 2,31,33,32,16,38,53		4,17,19,16,56	
		26,23,14,19,30,18,30		1,56
44″	58,39,44,28,54,47,51,46,57,23		4,17,19,18,52	
		26,23,10, 2,10,59,38		1,56
46″	58,39,44,55,17,57,53,57,57, 1		4,17,19,20,48	
		26,23, 5,44,51,38,50		1,56
48″	58,39,45,21,41, 3,38,49,35,51		4,17,19,22,44	
		26,23, 1,27,32,16, 6		1,56
50″	58,39,45,48, 4, 5, 6,21,51,57		4,17,19,24,40	
		26,22,57,10,12,51,26		1,56
52″	58,39,46,14,27, 2,16,34,43,23		4,17,19,26,36	
		26,22,52,52,53,24,50		1,56
54″	58,39,46,40,49,55, 9,28, 8,13		4,17,19,28,32	
		26,22,48,35,33,56,18		1,56
56″	58,39,47, 7,12,43,45, 2, 4,31		4,17,19,30,28	
		26,22,44,18,14,25,50		1,56
58″	58,39,47,33,35,28, 3,16,30,21		4,17,19,32,24	
		26,22,40, 0,54,53,26		
60″	58,39,47,59,58, 8, 4,11,23,47			
exact	58,39,47,59,58, 8, 4,11,36,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°53′ 0″	58,39,47,59,58, 8, 4,11,36,10			
		26,22,35,43,35,20,32		
2″	58,39,48,26,20,43,47,46,56,42		4,17,19,36, 9	
		26,22,31,26,15,44,23		1,56
4″	58,39,48,52,43,15,14, 2,41, 5		4,17,19,38, 5	
		26,22,27, 8,56, 6,18		1,56
6″	58,39,49,19, 5,42,22,58,47,23		4,17,19,40, 1	
		26,22,22,51,36,26,17		1,56
8″	58,39,49,45,28, 5,14,35,13,40		4,17,19,41,57	
		26,22,18,34,16,44,20		1,56
10″	58,39,50,11,50,23,48,51,58, 0		4,17,19,43,53	
		26,22,14,16,57, 0,27		1,56
12″	58,39,50,38,12,38, 5,48,58,27		4,17,19,45,49	
		26,22, 9,59,37,14,38		1,56
14″	58,39,51, 4,34,48, 5,26,13, 5		4,17,19,47,45	
		26,22, 5,42,17,26,53		1,56
16″	58,39,51,30,56,53,47,43,39,58		4,17,19,49,41	
		26,22, 1,24,57,37,12		1,56
18″	58,39,51,57,18,55,12,41,17,10		4,17,19,51,37	
		26,21,57, 7,37,45,35		1,56
20″	58,39,52,23,40,52,20,19, 2,45		4,17,19,53,33	
		26,21,52,50,17,52, 2		1,56
22″	58,39,52,50, 2,45,10,36,54,47		4,17,19,55,29	
		26,21,48,32,57,56,33		1,56
24″	58,39,53,16,24,33,43,34,51,20		4,17,19,57,25	
		26,21,44,15,37,59, 8		1,56
26″	58,39,53,42,46,17,59,12,50,28		4,17,19,59,21	
		26,21,39,58,17,59,47		1,56
28″	58,39,54, 9, 7,57,57,30,50,15		4,17,20, 1,17	
		26,21,35,40,57,58,30		1,56
30″	58,39,54,35,29,33,38,28,48,45		4,17,20, 3,13	
		26,21,31,23,37,55,17		1,56
32″	58,39,55, 1,51, 5, 2, 6,44, 2		4,17,20, 5, 9	
		26,21,27, 6,17,50, 8		1,56
34″	58,39,55,28,12,32, 8,24,34,10		4,17,20, 7, 5	
		26,21,22,48,57,43, 3		1,56
36″	58,39,55,54,33,54,57,22,17,13		4,17,20, 9, 1	
		26,21,18,31,37,34, 2		1,56
38″	58,39,56,20,55,13,28,59,51,15		4,17,20,10,57	
		26,21,14,14,17,23, 5		1,56
40″	58,39,56,47,16,27,43,17,14,20		4,17,20,12,53	
		26,21, 9,56,57,10,12		1,56
42″	58,39,57,13,37,37,40,14,24,32		4,17,20,14,49	
		26,21, 5,39,36,55,23		1,56
44″	58,39,57,39,58,43,19,51,19,55		4,17,20,16,45	
		26,21, 1,22,16,38,38		1,56
46″	58,39,58, 6,19,44,42, 7,58,33		4,17,20,18,41	
		26,20,57, 4,56,19,57		1,56
48″	58,39,58,32,40,41,47, 4,18,30		4,17,20,20,37	
		26,20,52,47,35,59,20		1,56
50″	58,39,58,59, 1,34,34,40,17,50		4,17,20,22,33	
		26,20,48,30,15,36,47		1,56
52″	58,39,59,25,22,23, 4,55,54,37		4,17,20,24,29	
		26,20,44,12,55,12,18		1,56
54″	58,39,59,51,43, 7,17,51, 6,55		4,17,20,26,25	
		26,20,39,55,34,45,53		1,56
56″	58,40, 0,18, 3,47,13,25,52,48		4,17,20,28,21	
		26,20,35,38,14,17,32		1,56
58″	58,40, 0,44,24,22,51,40,10,20		4,17,20,30,17	
		26,20,31,20,53,47,15		
60″	58,40, 1,10,44,54,12,33,57,35			
exact	58,40, 1,10,44,54,12,34,18,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°54′ 0″	58,40, 1,10,44,54,12,34,18,26			
		26,20,27, 3,33,17,27		
2″	58,40, 1,37, 5,21,16, 7,35,53		4,17,20,33,58	
		26,20,22,46,12,43,29		1,56
4″	58,40, 2, 3,25,44, 2,20,19,22		4,17,20,35,54	
		26,20,18,28,52, 7,35		1,56
6″	58,40, 2,29,46, 2,31,12,26,57		4,17,20,37,50	
		26,20,14,11,31,29,45		1,56
8″	58,40, 2,56, 6,16,42,43,56,42		4,17,20,39,46	
		26,20, 9,54,10,49,59		1,56
10″	58,40, 3,22,26,26,36,54,46,41		4,17,20,41,42	
		26,20, 5,36,50, 8,17		1,56
12″	58,40, 3,48,46,32,13,44,54,58		4,17,20,43,38	
		26,20, 1,19,29,24,39		1,56
14″	58,40, 4,15, 6,33,33,14,19,37		4,17,20,45,34	
		26,19,57, 2, 8,39, 5		1,56
16″	58,40, 4,41,26,30,35,22,58,42		4,17,20,47,30	
		26,19,52,44,47,51,35		1,56
18″	58,40, 5, 7,46,23,20,10,50,17		4,17,20,49,26	
		26,19,48,27,27, 2, 9		1,56
20″	58,40, 5,34, 6,11,47,37,52,26		4,17,20,51,22	
		26,19,44,10, 6,10,47		1,56
22″	58,40, 6, 0,25,55,57,44, 3,13		4,17,20,53,18	
		26,19,39,52,45,17,29		1,56
24″	58,40, 6,26,45,35,50,29,20,42		4,17,20,55,14	
		26,19,35,35,24,22,15		1,56
26″	58,40, 6,53, 5,11,25,53,42,57		4,17,20,57,10	
		26,19,31,18, 3,25, 5		1,56
28″	58,40, 7,19,24,42,43,57, 8, 2		4,17,20,59, 6	
		26,19,27, 0,42,25,59		1,56
30″	58,40, 7,45,44, 9,44,39,34, 1		4,17,21, 1, 2	
		26,19,22,43,21,24,57		1,56
32″	58,40, 8,12, 3,32,28, 0,58,58		4,17,21, 2,58	
		26,19,18,26, 0,21,59		1,56
34″	58,40, 8,38,22,50,54, 1,20,57		4,17,21, 4,54	
		26,19,14, 8,39,17, 5		1,56
36″	58,40, 9, 4,42, 5, 2,40,38, 2		4,17,21, 6,50	
		26,19, 9,51,18,10,15		1,56
38″	58,40, 9,31, 1,14,53,58,48,17		4,17,21, 8,46	
		26,19, 5,33,57, 1,29		1,56
40″	58,40, 9,57,20,20,27,55,49,46		4,17,21,10,42	
		26,19, 1,16,35,50,47		1,56
42″	58,40,10,23,39,21,44,31,40,33		4,17,21,12,38	
		26,18,56,59,14,38, 9		1,56
44″	58,40,10,49,58,18,43,46,18,42		4,17,21,14,34	
		26,18,52,41,53,23,35		1,56
46″	58,40,11,16,17,11,25,39,42,17		4,17,21,16,30	
		26,18,48,24,32, 7, 5		1,56
48″	58,40,11,42,35,59,50,11,49,22		4,17,21,18,26	
		26,18,44, 7,10,48,39		1,56
50″	58,40,12, 8,54,43,57,22,38, 1		4,17,21,20,22	
		26,18,39,49,49,28,17		1,56
52″	58,40,12,35,13,23,47,12, 6,18		4,17,21,22,18	
		26,18,35,32,28, 5,59		1,56
54″	58,40,13, 1,31,59,19,40,12,17		4,17,21,24,14	
		26,18,31,15, 6,41,45		1,56
56″	58,40,13,27,50,30,34,46,54, 2		4,17,21,26,10	
		26,18,26,57,45,15,35		1,56
58″	58,40,13,54, 8,57,32,32, 9,37		4,17,21,28, 6	
		26,18,22,40,23,47,29		
60″	58,40,14,20,27,20,12,55,57, 6			
exact	58,40,14,20,27,20,12,56,31,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°55′ 0″	58,40,14,20,27,20,12,56,31,43			
		26,18,18,23, 2,21,13		
2″	58,40,14,46,45,38,35,58,52,56		4,17,21,31,42	
		26,18,14, 5,40,49,31		1,55
4″	58,40,15,13, 3,52,41,39,42,27		4,17,21,33,37	
		26,18, 9,48,19,15,54		1,55
6″	58,40,15,39,22, 2,29,58,58,21		4,17,21,35,32	
		26,18, 5,30,57,40,22		1,55
8″	58,40,16, 5,40, 8, 0,56,38,43		4,17,21,37,27	
		26,18, 1,13,36, 2,55		1,55
10″	58,40,16,31,58, 9,14,32,41,38		4,17,21,39,22	
		26,17,56,56,14,23,33		1,55
12″	58,40,16,58,16, 6,10,47, 5,11		4,17,21,41,17	
		26,17,52,38,52,42,16		1,55
14″	58,40,17,24,33,58,49,39,47,27		4,17,21,43,12	
		26,17,48,21,30,59, 4		1,55
16″	58,40,17,50,51,47,11,10,46,31		4,17,21,45, 7	
		26,17,44, 4, 9,13,57		1,55
18″	58,40,18,17, 9,31,15,20, 0,28		4,17,21,47, 2	
		26,17,39,46,47,26,55		1,55
20″	58,40,18,43,27,11, 2, 7,27,23		4,17,21,48,57	
		26,17,35,29,25,37,58		1,55
22″	58,40,19, 9,44,46,31,33, 5,21		4,17,21,50,52	
		26,17,31,12, 3,47, 6		1,55
24″	58,40,19,36, 2,17,43,36,52,27		4,17,21,52,47	
		26,17,26,54,41,54,19		1,55
26″	58,40,20, 2,19,44,38,18,46,46		4,17,21,54,42	
		26,17,22,37,19,59,37		1,55
28″	58,40,20,28,37, 7,15,38,46,23		4,17,21,56,37	
		26,17,18,19,58, 3, 0		1,55
30″	58,40,20,54,54,25,35,36,49,23		4,17,21,58,32	
		26,17,14, 2,36, 4,28		1,55
32″	58,40,21,21,11,39,38,12,53,51		4,17,22, 0,27	
		26,17, 9,45,14, 4, 1		1,55
34″	58,40,21,47,28,49,23,26,57,52		4,17,22, 2,22	
		26,17, 5,27,52, 1,39		1,55
36″	58,40,22,13,45,54,51,18,59,31		4,17,22, 4,17	
		26,17, 1,10,29,57,22		1,55
38″	58,40,22,40, 2,56, 1,48,56,53		4,17,22, 6,12	
		26,16,56,53, 7,51,10		1,55
40″	58,40,23, 6,19,52,54,56,48, 3		4,17,22, 8, 7	
		26,16,52,35,45,43, 3		1,55
42″	58,40,23,32,36,45,30,42,31, 6		4,17,22,10, 2	
		26,16,48,18,23,33, 1		1,55
44″	58,40,23,58,53,33,49, 6, 4, 7		4,17,22,11,57	
		26,16,44, 1, 1,21, 4		1,55
46″	58,40,24,25,10,17,50, 7,25,11		4,17,22,13,52	
		26,16,39,43,39, 7,12		1,55
48″	58,40,24,51,26,57,33,46,32,23		4,17,22,15,47	
		26,16,35,26,16,51,25		1,55
50″	58,40,25,17,43,33, 0, 3,23,48		4,17,22,17,42	
		26,16,31, 8,54,33,43		1,55
52″	58,40,25,44, 0, 4, 8,57,57,31		4,17,22,19,37	
		26,16,26,51,32,14, 6		1,55
54″	58,40,26,10,16,31, 0,30,11,37		4,17,22,21,32	
		26,16,22,34, 9,52,34		1,55
56″	58,40,26,36,32,53,34,40, 4,11		4,17,22,23,27	
		26,16,18,16,47,29, 7		1,55
58″	58,40,27, 2,49,11,51,27,33,18		4,17,22,25,22	
		26,16,13,59,25, 3,45		
60″	58,40,27,29, 5,25,50,52,37, 3			
exact	58,40,27,29, 5,25,50,52,15,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°56′ 0″	58,40,27,29, 5,25,50,52,15,22			
		26,16, 9,42, 2,34,10		
2″	58,40,27,55,21,35,32,54,49,32		4,17,22,29,21	
		26,16, 5,24,40, 4,49		1,55
4″	58,40,28,21,37,40,57,34,54,21		4,17,22,31,16	
		26,16, 1, 7,17,33,33		1,55
6″	58,40,28,47,53,42, 4,52,27,54		4,17,22,33,11	
		26,15,56,49,55, 0,22		1,55
8″	58,40,29,14, 9,38,54,47,28,16		4,17,22,35, 6	
		26,15,52,32,32,25,16		1,55
10″	58,40,29,40,25,31,27,19,53,32		4,17,22,37, 1	
		26,15,48,15, 9,48,15		1,55
12″	58,40,30, 6,41,19,42,29,41,47		4,17,22,38,56	
		26,15,43,57,47, 9,19		1,55
14″	58,40,30,32,57, 3,40,16,51, 6		4,17,22,40,51	
		26,15,39,40,24,28,28		1,55
16″	58,40,30,59,12,43,20,41,19,34		4,17,22,42,46	
		26,15,35,23, 1,45,42		1,55
18″	58,40,31,25,28,18,43,43, 5,16		4,17,22,44,41	
		26,15,31, 5,39, 1, 1		1,55
20″	58,40,31,51,43,49,49,22, 6,17		4,17,22,46,36	
		26,15,26,48,16,14,25		1,55
22″	58,40,32,17,59,16,37,38,20,42		4,17,22,48,31	
		26,15,22,30,53,25,54		1,55
24″	58,40,32,44,14,39, 8,31,46,36		4,17,22,50,26	
		26,15,18,13,30,35,28		1,55
26″	58,40,33,10,29,57,22, 2,22, 4		4,17,22,52,21	
		26,15,13,56, 7,43, 7		1,55
28″	58,40,33,36,45,11,18,10, 5,11		4,17,22,54,16	
		26,15, 9,38,44,48,51		1,55
30″	58,40,34, 3, 0,20,56,54,54, 2		4,17,22,56,11	
		26,15, 5,21,21,52,40		1,55
32″	58,40,34,29,15,26,18,16,46,42		4,17,22,58, 6	
		26,15, 1, 3,58,54,34		1,55
34″	58,40,34,55,30,27,22,15,41,16		4,17,23, 0, 1	
		26,14,56,46,35,54,33		1,55
36″	58,40,35,21,45,24, 8,51,35,49		4,17,23, 1,56	
		26,14,52,29,12,52,37		1,55
38″	58,40,35,48, 0,16,38, 4,28,26		4,17,23, 3,51	
		26,14,48,11,49,48,46		1,55
40″	58,40,36,14,15, 4,49,54,17,12		4,17,23, 5,46	
		26,14,43,54,26,43, 0		1,55
42″	58,40,36,40,29,48,44,21, 0,12		4,17,23, 7,41	
		26,14,39,37, 3,35,19		1,55
44″	58,40,37, 6,44,28,21,24,35,31		4,17,23, 9,36	
		26,14,35,19,40,25,43		1,55
46″	58,40,37,32,59, 3,41, 5, 1,14		4,17,23,11,31	
		26,14,31, 2,17,14,12		1,55
48″	58,40,37,59,13,34,43,22,15,26		4,17,23,13,26	
		26,14,26,44,54, 0,46		1,55
50″	58,40,38,25,28, 1,28,16,16,12		4,17,23,15,21	
		26,14,22,27,30,45,25		1,55
52″	58,40,38,51,42,23,55,47, 1,37		4,17,23,17,16	
		26,14,18,10, 7,28, 9		1,55
54″	58,40,39,17,56,42, 5,54,29,46		4,17,23,19,11	
		26,14,13,52,44, 8,58		1,55
56″	58,40,39,44,10,55,58,38,38,44		4,17,23,21, 6	
		26,14, 9,35,20,47,52		1,55
58″	58,40,40,10,25, 5,33,59,26,36		4,17,23,23, 1	
		26,14, 5,17,57,24,51		
60″	58,40,40,36,39,10,51,56,51,27			
exact	58,40,40,36,39,10,51,56,39,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°57′ 0″	58,40,40,36,39,10,51,56,39,17			
		26,14, 1, 0,33,58,41		
2″	58,40,41, 2,53,11,52,30,37,58		4,17,23,26,55	
		26,13,56,43,10,31,46		1,55
4″	58,40,41,29, 7, 8,35,41, 9,44		4,17,23,28,50	
		26,13,52,25,47, 2,56		1,55
6″	58,40,41,55,21, 1, 1,28,12,40		4,17,23,30,45	
		26,13,48, 8,23,32,11		1,55
8″	58,40,42,21,34,49, 9,51,44,51		4,17,23,32,40	
		26,13,43,50,59,59,31		1,55
10″	58,40,42,47,48,33, 0,51,44,22		4,17,23,34,35	
		26,13,39,33,36,24,56		1,55
12″	58,40,43,14, 2,12,34,28, 9,18		4,17,23,36,30	
		26,13,35,16,12,48,26		1,55
14″	58,40,43,40,15,47,50,40,57,44		4,17,23,38,25	
		26,13,30,58,49,10, 1		1,55
16″	58,40,44, 6,29,18,49,30, 7,45		4,17,23,40,20	
		26,13,26,41,25,29,41		1,55
18″	58,40,44,32,42,45,30,55,37,26		4,17,23,42,15	
		26,13,22,24, 1,47,26		1,55
20″	58,40,44,58,56, 7,54,57,24,52		4,17,23,44,10	
		26,13,18, 6,38, 3,16		1,55
22″	58,40,45,25, 9,26, 1,35,28, 8		4,17,23,46, 5	
		26,13,13,49,14,17,11		1,55
24″	58,40,45,51,22,39,50,49,45,19		4,17,23,48, 0	
		26,13, 9,31,50,29,11		1,55
26″	58,40,46,17,35,49,22,40,14,30		4,17,23,49,55	
		26,13, 5,14,26,39,16		1,55
28″	58,40,46,43,48,54,37, 6,53,46		4,17,23,51,50	
		26,13, 0,57, 2,47,26		1,55
30″	58,40,47,10, 1,55,34, 9,41,12		4,17,23,53,45	
		26,12,56,39,38,53,41		1,55
32″	58,40,47,36,14,52,13,48,34,53		4,17,23,55,40	
		26,12,52,22,14,58, 1		1,55
34″	58,40,48, 2,27,44,36, 3,32,54		4,17,23,57,35	
		26,12,48, 4,51, 0,26		1,55
36″	58,40,48,28,40,32,40,54,33,20		4,17,23,59,30	
		26,12,43,47,27, 0,56		1,55
38″	58,40,48,54,53,16,28,21,34,16		4,17,24, 1,25	
		26,12,39,30, 2,59,31		1,55
40″	58,40,49,21, 5,55,58,24,33,47		4,17,24, 3,20	
		26,12,35,12,38,56,11		1,55
42″	58,40,49,47,18,31,11, 3,29,58		4,17,24, 5,15	
		26,12,30,55,14,50,56		1,55
44″	58,40,50,13,31, 2, 6,18,20,54		4,17,24, 7,10	
		26,12,26,37,50,43,46		1,55
46″	58,40,50,39,43,28,44, 9, 4,40		4,17,24, 9, 5	
		26,12,22,20,26,34,41		1,55
48″	58,40,51, 5,55,51, 4,35,39,21		4,17,24,11, 0	
		26,12,18, 3, 2,23,41		1,55
50″	58,40,51,32, 8, 9, 7,38, 3, 2		4,17,24,12,55	
		26,12,13,45,38,10,46		1,55
52″	58,40,51,58,20,22,53,16,13,48		4,17,24,14,50	
		26,12, 9,28,13,55,56		1,55
54″	58,40,52,24,32,32,21,30, 9,44		4,17,24,16,45	
		26,12, 5,10,49,39,11		1,55
56″	58,40,52,50,44,37,32,19,48,55		4,17,24,18,40	
		26,12, 0,53,25,20,31		1,55
58″	58,40,53,16,56,38,25,45, 9,26		4,17,24,20,35	
		26,11,56,36, 0,59,56		
60″	58,40,53,43, 8,35, 1,46, 9,22			
exact	58,40,53,43, 8,35, 1,46, 3,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°58′ 0″	58,40,53,43, 8,35, 1,46, 3,57			
		26,11,52,18,36,37, 5		
2″	58,40,54, 9,20,27,20,22,41, 2		4,17,24,24,25	
		26,11,48, 1,12,12,40		1,55
4″	58,40,54,35,32,15,21,34,53,42		4,17,24,26,20	
		26,11,43,43,47,46,20		1,55
6″	58,40,55, 1,43,59, 5,22,40, 2		4,17,24,28,15	
		26,11,39,26,23,18, 5		1,55
8″	58,40,55,27,55,38,31,45,58, 7		4,17,24,30,10	
		26,11,35, 8,58,47,55		1,55
10″	58,40,55,54, 7,13,40,44,46, 2		4,17,24,32, 5	
		26,11,30,51,34,15,50		1,55
12″	58,40,56,20,18,44,32,19, 1,52		4,17,24,34, 0	
		26,11,26,34, 9,41,50		1,55
14″	58,40,56,46,30,11, 6,28,43,42		4,17,24,35,55	
		26,11,22,16,45, 5,55		1,55
16″	58,40,57,12,41,33,23,13,49,37		4,17,24,37,50	
		26,11,17,59,20,28, 5		1,55
18″	58,40,57,38,52,51,22,34,17,42		4,17,24,39,45	
		26,11,13,41,55,48,20		1,55
20″	58,40,58, 5, 4, 5, 4,30, 6, 2		4,17,24,41,40	
		26,11, 9,24,31, 6,40		1,55
22″	58,40,58,31,15,14,29, 1,12,42		4,17,24,43,35	
		26,11, 5, 7, 6,23, 5		1,55
24″	58,40,58,57,26,19,36, 7,35,47		4,17,24,45,30	
		26,11, 0,49,41,37,35		1,55
26″	58,40,59,23,37,20,25,49,13,22		4,17,24,47,25	
		26,10,56,32,16,50,10		1,55
28″	58,40,59,49,48,16,58, 6, 3,32		4,17,24,49,20	
		26,10,52,14,52, 0,50		1,55
30″	58,41, 0,15,59, 9,12,58, 4,22		4,17,24,51,15	
		26,10,47,57,27, 9,35		1,55
32″	58,41, 0,42, 9,57,10,25,13,57		4,17,24,53,10	
		26,10,43,40, 2,16,25		1,55
34″	58,41, 1, 8,20,40,50,27,30,22		4,17,24,55, 5	
		26,10,39,22,37,21,20		1,55
36″	58,41, 1,34,31,20,13, 4,51,42		4,17,24,57, 0	
		26,10,35, 5,12,24,20		1,55
38″	58,41, 2, 0,41,55,18,17,16, 2		4,17,24,58,55	
		26,10,30,47,47,25,25		1,55
40″	58,41, 2,26,52,26, 6, 4,41,27		4,17,25, 0,50	
		26,10,26,30,22,24,35		1,55
42″	58,41, 2,53, 2,52,36,27, 6, 2		4,17,25, 2,45	
		26,10,22,12,57,21,50		1,55
44″	58,41, 3,19,13,14,49,24,27,52		4,17,25, 4,40	
		26,10,17,55,32,17,10		1,55
46″	58,41, 3,45,23,32,44,56,45, 2		4,17,25, 6,35	
		26,10,13,38, 7,10,35		1,55
48″	58,41, 4,11,33,46,23, 3,55,37		4,17,25, 8,30	
		26,10, 9,20,42, 2, 5		1,55
50″	58,41, 4,37,43,55,43,45,57,42		4,17,25,10,25	
		26,10, 5, 3,16,51,40		1,55
52″	58,41, 5, 3,54, 0,47, 2,49,22		4,17,25,12,20	
		26,10, 0,45,51,39,20		1,55
54″	58,41, 5,30, 4, 1,32,54,28,42		4,17,25,14,15	
		26, 9,56,28,26,25, 5		1,55
56″	58,41, 5,56,13,58, 1,20,53,47		4,17,25,16,10	
		26, 9,52,11, 1, 8,55		1,55
58″	58,41, 6,22,23,50,12,22, 2,42		4,17,25,18, 5	
		26, 9,47,53,35,50,50		
60″	58,41, 6,48,33,38, 5,57,53,32			
exact	58,41, 6,48,33,38, 5,58, 0,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
77°59′ 0″	58,41, 6,48,33,38, 5,58, 0,22			
		26, 9,43,36,10,31,44		
2″	58,41, 7,14,43,21,42, 8,32, 6		4,17,25,21,50	
		26, 9,39,18,45, 9,54		1,55
4″	58,41, 7,40,53, 1, 0,53,42, 0		4,17,25,23,45	
		26, 9,35, 1,19,46, 9		1,55
6″	58,41, 8, 7, 2,36, 2,13,28, 9		4,17,25,25,40	
		26, 9,30,43,54,20,29		1,55
8″	58,41, 8,33,12, 6,46, 7,48,38		4,17,25,27,35	
		26, 9,26,26,28,52,54		1,55
10″	58,41, 8,59,21,33,12,36,41,32		4,17,25,29,30	
		26, 9,22, 9, 3,23,24		1,55
12″	58,41, 9,25,30,55,21,40, 4,56		4,17,25,31,25	
		26, 9,17,51,37,51,59		1,55
14″	58,41, 9,51,40,13,13,17,56,55		4,17,25,33,20	
		26, 9,13,34,12,18,39		1,55
16″	58,41,10,17,49,26,47,30,15,34		4,17,25,35,15	
		26, 9, 9,16,46,43,24		1,55
18″	58,41,10,43,58,36, 4,16,58,58		4,17,25,37,10	
		26, 9, 4,59,21, 6,14		1,55
20″	58,41,11,10, 7,41, 3,38, 5,12		4,17,25,39, 5	
		26, 9, 0,41,55,27, 9		1,55
22″	58,41,11,36,16,41,45,33,32,21		4,17,25,41, 0	
		26, 8,56,24,29,46, 9		1,55
24″	58,41,12, 2,25,38,10, 3,18,30		4,17,25,42,55	
		26, 8,52, 7, 4, 3,14		1,55
26″	58,41,12,28,34,30,17, 7,21,44		4,17,25,44,50	
		26, 8,47,49,38,18,24		1,55
28″	58,41,12,54,43,18, 6,45,40, 8		4,17,25,46,45	
		26, 8,43,32,12,31,39		1,55
30″	58,41,13,20,52, 1,38,58,11,47		4,17,25,48,40	
		26, 8,39,14,46,42,59		1,55
32″	58,41,13,47, 0,40,53,44,54,46		4,17,25,50,35	
		26, 8,34,57,20,52,24		1,55
34″	58,41,14,13, 9,15,51, 5,47,10		4,17,25,52,30	
		26, 8,30,39,54,59,54		1,55
36″	58,41,14,39,17,46,31, 0,47, 4		4,17,25,54,25	
		26, 8,26,22,29, 5,29		1,55
38″	58,41,15, 5,26,12,53,29,52,33		4,17,25,56,20	
		26, 8,22, 5, 3, 9, 9		1,55
40″	58,41,15,31,34,34,58,33, 1,42		4,17,25,58,15	
		26, 8,17,47,37,10,54		1,55
42″	58,41,15,57,42,52,46,10,12,36		4,17,26, 0,10	
		26, 8,13,30,11,10,44		1,55
44″	58,41,16,23,51, 6,16,21,23,20		4,17,26, 2, 5	
		26, 8, 9,12,45, 8,39		1,55
46″	58,41,16,49,59,15,29, 6,31,59		4,17,26, 4, 0	
		26, 8, 4,55,19, 4,39		1,55
48″	58,41,17,16, 7,20,24,25,36,38		4,17,26, 5,55	
		26, 8, 0,37,52,58,44		1,55
50″	58,41,17,42,15,21, 2,18,35,22		4,17,26, 7,50	
		26, 7,56,20,26,50,54		1,55
52″	58,41,18, 8,23,17,22,45,26,16		4,17,26, 9,45	
		26, 7,52, 3, 0,41, 9		1,55
54″	58,41,18,34,31, 9,25,46, 7,25		4,17,26,11,40	
		26, 7,47,45,34,29,29		1,55
56″	58,41,19, 0,38,57,11,20,36,54		4,17,26,13,35	
		26, 7,43,28, 8,15,54		1,55
58″	58,41,19,26,46,40,39,28,52,48		4,17,26,15,30	
		26, 7,39,10,42, 0,24		
60″	58,41,19,52,54,19,50,10,53,12			
exact	58,41,19,52,54,19,50,11,10, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78° 0′ 0″	58,41,19,52,54,19,50,11,10, 9			
		26, 7,34,53,15,44,59		
2″	58,41,20,19, 1,54,43,26,55, 8		4,17,26,19,11	
		26, 7,30,35,49,25,48		1,55
4″	58,41,20,45, 9,25,19,16,20,56		4,17,26,21, 6	
		26, 7,26,18,23, 4,42		1,55
6″	58,41,21,11,16,51,37,39,25,38		4,17,26,23, 1	
		26, 7,22, 0,56,41,41		1,55
8″	58,41,21,37,24,13,38,36, 7,19		4,17,26,24,56	
		26, 7,17,43,30,16,45		1,55
10″	58,41,22, 3,31,31,22, 6,24, 4		4,17,26,26,51	
		26, 7,13,26, 3,49,54		1,55
12″	58,41,22,29,38,44,48,10,13,58		4,17,26,28,46	
		26, 7, 9, 8,37,21, 8		1,55
14″	58,41,22,55,45,53,56,47,35, 6		4,17,26,30,41	
		26, 7, 4,51,10,50,27		1,55
16″	58,41,23,21,52,58,47,58,25,33		4,17,26,32,36	
		26, 7, 0,33,44,17,51		1,55
18″	58,41,23,47,59,59,21,42,43,24		4,17,26,34,31	
		26, 6,56,16,17,43,20		1,55
20″	58,41,24,14, 6,55,38, 0,26,44		4,17,26,36,26	
		26, 6,51,58,51, 6,54		1,55
22″	58,41,24,40,13,47,36,51,33,38		4,17,26,38,21	
		26, 6,47,41,24,28,33		1,55
24″	58,41,25, 6,20,35,18,16, 2,11		4,17,26,40,16	
		26, 6,43,23,57,48,17		1,55
26″	58,41,25,32,27,18,42,13,50,28		4,17,26,42,11	
		26, 6,39, 6,31, 6, 6		1,55
28″	58,41,25,58,33,57,48,44,56,34		4,17,26,44, 6	
		26, 6,34,49, 4,22, 0		1,55
30″	58,41,26,24,40,32,37,49,18,34		4,17,26,46, 1	
		26, 6,30,31,37,35,59		1,55
32″	58,41,26,50,47, 3, 9,26,54,33		4,17,26,47,56	
		26, 6,26,14,10,48, 3		1,55
34″	58,41,27,16,53,29,23,37,42,36		4,17,26,49,51	
		26, 6,21,56,43,58,12		1,55
36″	58,41,27,42,59,51,20,21,40,48		4,17,26,51,46	
		26, 6,17,39,17, 6,26		1,55
38″	58,41,28, 9, 6, 8,59,38,47,14		4,17,26,53,41	
		26, 6,13,21,50,12,45		1,55
40″	58,41,28,35,12,22,21,28,59,59		4,17,26,55,36	
		26, 6, 9, 4,23,17, 9		1,55
42″	58,41,29, 1,18,31,25,52,17, 8		4,17,26,57,31	
		26, 6, 4,46,56,19,38		1,55
44″	58,41,29,27,24,36,12,48,36,46		4,17,26,59,26	
		26, 6, 0,29,29,20,12		1,55
46″	58,41,29,53,30,36,42,17,56,58		4,17,27, 1,21	
		26, 5,56,12, 2,18,51		1,55
48″	58,41,30,19,36,32,54,20,15,49		4,17,27, 3,16	
		26, 5,51,54,35,15,35		1,55
50″	58,41,30,45,42,24,48,55,31,24		4,17,27, 5,11	
		26, 5,47,37, 8,10,24		1,55
52″	58,41,31,11,48,12,26, 3,41,48		4,17,27, 7, 6	
		26, 5,43,19,41, 3,18		1,55
54″	58,41,31,37,53,55,45,44,45, 6		4,17,27, 9, 1	
		26, 5,39, 2,13,54,17		1,55
56″	58,41,32, 3,59,34,47,58,39,23		4,17,27,10,56	
		26, 5,34,44,46,43,21		1,55
58″	58,41,32,30, 5, 9,32,45,22,44		4,17,27,12,51	
		26, 5,30,27,19,30,30		
60″	58,41,32,56,10,40, 0, 4,53,14			
exact	58,41,32,56,10,40, 0, 5,25,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78° 1′ 0″	58,41,32,56,10,40, 0, 5,25,27			
		26, 5,26, 9,52,19,11		
2″	58,41,33,22,16, 6, 9,57,44,38		4,17,27,16,26	
		26, 5,21,52,25, 2,45		1,54
4″	58,41,33,48,21,28, 2,22,47,23		4,17,27,18,20	
		26, 5,17,34,57,44,25		1,54
6″	58,41,34,14,26,45,37,20,31,48		4,17,27,20,14	
		26, 5,13,17,30,24,11		1,54
8″	58,41,34,40,31,58,54,50,55,59		4,17,27,22, 8	
		26, 5, 9, 0, 3, 2, 3		1,54
10″	58,41,35, 6,37, 7,54,53,58, 2		4,17,27,24, 2	
		26, 5, 4,42,35,38, 1		1,54
12″	58,41,35,32,42,12,37,29,36, 3		4,17,27,25,56	
		26, 5, 0,25, 8,12, 5		1,54
14″	58,41,35,58,47,13, 2,37,48, 8		4,17,27,27,50	
		26, 4,56, 7,40,44,15		1,54
16″	58,41,36,24,52, 9,10,18,32,23		4,17,27,29,44	
		26, 4,51,50,13,14,31		1,54
18″	58,41,36,50,57, 1, 0,31,46,54		4,17,27,31,38	
		26, 4,47,32,45,42,53		1,54
20″	58,41,37,17, 1,48,33,17,29,47		4,17,27,33,32	
		26, 4,43,15,18, 9,21		1,54
22″	58,41,37,43, 6,31,48,35,39, 8		4,17,27,35,26	
		26, 4,38,57,50,33,55		1,54
24″	58,41,38, 9,11,10,46,26,13, 3		4,17,27,37,20	
		26, 4,34,40,22,56,35		1,54
26″	58,41,38,35,15,45,26,49, 9,38		4,17,27,39,14	
		26, 4,30,22,55,17,21		1,54
28″	58,41,39, 1,20,15,49,44,26,59		4,17,27,41, 8	
		26, 4,26, 5,27,36,13		1,54
30″	58,41,39,27,24,41,55,12, 3,12		4,17,27,43, 2	
		26, 4,21,47,59,53,11		1,54
32″	58,41,39,53,29, 3,43,11,56,23		4,17,27,44,56	
		26, 4,17,30,32, 8,15		1,54
34″	58,41,40,19,33,21,13,44, 4,38		4,17,27,46,50	
		26, 4,13,13, 4,21,25		1,54
36″	58,41,40,45,37,34,26,48,26, 3		4,17,27,48,44	
		26, 4, 8,55,36,32,41		1,54
38″	58,41,41,11,41,43,22,24,58,44		4,17,27,50,38	
		26, 4, 4,38, 8,42, 3		1,54
40″	58,41,41,37,45,48, 0,33,40,47		4,17,27,52,32	
		26, 4, 0,20,40,49,31		1,54
42″	58,41,42, 3,49,48,21,14,30,18		4,17,27,54,26	
		26, 3,56, 3,12,55, 5		1,54
44″	58,41,42,29,53,44,24,27,25,23		4,17,27,56,20	
		26, 3,51,45,44,58,45		1,54
46″	58,41,42,55,57,36,10,12,24, 8		4,17,27,58,14	
		26, 3,47,28,17, 0,31		1,54
48″	58,41,43,22, 1,23,38,29,24,39		4,17,28, 0, 8	
		26, 3,43,10,49, 0,23		1,54
50″	58,41,43,48, 5, 6,49,18,25, 2		4,17,28, 2, 2	
		26, 3,38,53,20,58,21		1,54
52″	58,41,44,14, 8,45,42,39,23,23		4,17,28, 3,56	
		26, 3,34,35,52,54,25		1,54
54″	58,41,44,40,12,20,18,32,17,48		4,17,28, 5,50	
		26, 3,30,18,24,48,35		1,54
56″	58,41,45, 6,15,50,36,57, 6,23		4,17,28, 7,44	
		26, 3,26, 0,56,40,51		1,54
58″	58,41,45,32,19,16,37,53,47,14		4,17,28, 9,38	
		26, 3,21,43,28,31,13		
60″	58,41,45,58,22,38,21,22,18,27			
exact	58,41,45,58,22,38,21,21,49, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78° 2′ 0″	58,41,45,58,22,38,21,21,49, 4			
		26, 3,17,26, 0,16,42		
2″	58,41,46,24,25,55,47,22, 5,46		4,17,28,13,37	
		26, 3,13, 8,32, 3, 5		1,54
4″	58,41,46,50,29, 8,55,54, 8,51		4,17,28,15,31	
		26, 3, 8,51, 3,47,34		1,54
6″	58,41,47,16,32,17,46,57,56,25		4,17,28,17,25	
		26, 3, 4,33,35,30, 9		1,54
8″	58,41,47,42,35,22,20,33,26,34		4,17,28,19,19	
		26, 3, 0,16, 7,10,50		1,54
10″	58,41,48, 8,38,22,36,40,37,24		4,17,28,21,13	
		26, 2,55,58,38,49,37		1,54
12″	58,41,48,34,41,18,35,19,27, 1		4,17,28,23, 7	
		26, 2,51,41,10,26,30		1,54
14″	58,41,49, 0,44,10,16,29,53,31		4,17,28,25, 1	
		26, 2,47,23,42, 1,29		1,54
16″	58,41,49,26,46,57,40,11,55, 0		4,17,28,26,55	
		26, 2,43, 6,13,34,34		1,54
18″	58,41,49,52,49,40,46,25,29,34		4,17,28,28,49	
		26, 2,38,48,45, 5,45		1,54
20″	58,41,50,18,52,19,35,10,35,19		4,17,28,30,43	
		26, 2,34,31,16,35, 2		1,54
22″	58,41,50,44,54,54, 6,27,10,21		4,17,28,32,37	
		26, 2,30,13,48, 2,25		1,54
24″	58,41,51,10,57,24,20,15,12,46		4,17,28,34,31	
		26, 2,25,56,19,27,54		1,54
26″	58,41,51,36,59,50,16,34,40,40		4,17,28,36,25	
		26, 2,21,38,50,51,29		1,54
28″	58,41,52, 3, 2,11,55,25,32, 9		4,17,28,38,19	
		26, 2,17,21,22,13,10		1,54
30″	58,41,52,29, 4,29,16,47,45,19		4,17,28,40,13	
		26, 2,13, 3,53,32,57		1,54
32″	58,41,52,55, 6,42,20,41,18,16		4,17,28,42, 7	
		26, 2, 8,46,24,50,50		1,54
34″	58,41,53,21, 8,51, 7, 6, 9, 6		4,17,28,44, 1	
		26, 2, 4,28,56, 6,49		1,54
36″	58,41,53,47,10,55,36, 2,15,55		4,17,28,45,55	
		26, 2, 0,11,27,20,54		1,54
38″	58,41,54,13,12,55,47,29,36,49		4,17,28,47,49	
		26, 1,55,53,58,33, 5		1,54
40″	58,41,54,39,14,51,41,28, 9,54		4,17,28,49,43	
		26, 1,51,36,29,43,22		1,54
42″	58,41,55, 5,16,43,17,57,53,16		4,17,28,51,37	
		26, 1,47,19, 0,51,45		1,54
44″	58,41,55,31,18,30,36,58,45, 1		4,17,28,53,31	
		26, 1,43, 1,31,58,14		1,54
46″	58,41,55,57,20,13,38,30,43,15		4,17,28,55,25	
		26, 1,38,44, 3, 2,49		1,54
48″	58,41,56,23,21,52,22,33,46, 4		4,17,28,57,19	
		26, 1,34,26,34, 5,30		1,54
50″	58,41,56,49,23,26,49, 7,51,34		4,17,28,59,13	
		26, 1,30, 9, 5, 6,17		1,54
52″	58,41,57,15,24,56,58,12,57,51		4,17,29, 1, 7	
		26, 1,25,51,36, 5,10		1,54
54″	58,41,57,41,26,22,49,49, 3, 1		4,17,29, 3, 1	
		26, 1,21,34, 7, 2, 9		1,54
56″	58,41,58, 7,27,44,23,56, 5,10		4,17,29, 4,55	
		26, 1,17,16,37,57,14		1,54
58″	58,41,58,33,29, 1,40,34, 2,24		4,17,29, 6,49	
		26, 1,12,59, 8,50,25		
60″	58,41,58,59,30,14,39,42,52,49			
exact	58,41,58,59,30,14,39,42,34,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78° 3′ 0″	58,41,58,59,30,14,39,42,34,17			
		26, 1, 8,41,39,39,53		
2″	58,41,59,25,31,23,21,22,14,10		4,17,29,10,43	
		26, 1, 4,24,10,29,10		1,54
4″	58,41,59,51,32,27,45,32,43,20		4,17,29,12,37	
		26, 1, 0, 6,41,16,33		1,54
6″	58,42, 0,17,33,27,52,13,59,53		4,17,29,14,31	
		26, 0,55,49,12, 2, 2		1,54
8″	58,42, 0,43,34,23,41,26, 1,55		4,17,29,16,25	
		26, 0,51,31,42,45,37		1,54
10″	58,42, 1, 9,35,15,13, 8,47,32		4,17,29,18,19	
		26, 0,47,14,13,27,18		1,54
12″	58,42, 1,35,36, 2,27,22,14,50		4,17,29,20,13	
		26, 0,42,56,44, 7, 5		1,54
14″	58,42, 2, 1,36,45,24, 6,21,55		4,17,29,22, 7	
		26, 0,38,39,14,44,58		1,54
16″	58,42, 2,27,37,24, 3,21, 6,53		4,17,29,24, 1	
		26, 0,34,21,45,20,57		1,54
18″	58,42, 2,53,37,58,25, 6,27,50		4,17,29,25,55	
		26, 0,30, 4,15,55, 2		1,54
20″	58,42, 3,19,38,28,29,22,22,52		4,17,29,27,49	
		26, 0,25,46,46,27,13		1,54
22″	58,42, 3,45,38,54,16, 8,50, 5		4,17,29,29,43	
		26, 0,21,29,16,57,30		1,54
24″	58,42, 4,11,39,15,45,25,47,35		4,17,29,31,37	
		26, 0,17,11,47,25,53		1,54
26″	58,42, 4,37,39,32,57,13,13,28		4,17,29,33,31	
		26, 0,12,54,17,52,22		1,54
28″	58,42, 5, 3,39,45,51,31, 5,50		4,17,29,35,25	
		26, 0, 8,36,48,16,57		1,54
30″	58,42, 5,29,39,54,28,19,22,47		4,17,29,37,19	
		26, 0, 4,19,18,39,38		1,54
32″	58,42, 5,55,39,58,47,38, 2,25		4,17,29,39,13	
		26, 0, 0, 1,49, 0,25		1,54
34″	58,42, 6,21,39,58,49,27, 2,50		4,17,29,41, 7	
		25,59,55,44,19,19,18		1,54
36″	58,42, 6,47,39,54,33,46,22, 8		4,17,29,43, 1	
		25,59,51,26,49,36,17		1,54
38″	58,42, 7,13,39,46, 0,35,58,25		4,17,29,44,55	
		25,59,47, 9,19,51,22		1,54
40″	58,42, 7,39,39,33, 9,55,49,47		4,17,29,46,49	
		25,59,42,51,50, 4,33		1,54
42″	58,42, 8, 5,39,16, 1,45,54,20		4,17,29,48,43	
		25,59,38,34,20,15,50		1,54
44″	58,42, 8,31,38,54,36, 6,10,10		4,17,29,50,37	
		25,59,34,16,50,25,13		1,54
46″	58,42, 8,57,38,28,52,56,35,23		4,17,29,52,31	
		25,59,29,59,20,32,42		1,54
48″	58,42, 9,23,37,58,52,17, 8, 5		4,17,29,54,25	
		25,59,25,41,50,38,17		1,54
50″	58,42, 9,49,37,24,34, 7,46,22		4,17,29,56,19	
		25,59,21,24,20,41,58		1,54
52″	58,42,10,15,36,45,58,28,28,20		4,17,29,58,13	
		25,59,17, 6,50,43,45		1,54
54″	58,42,10,41,36, 3, 5,19,12, 5		4,17,30, 0, 7	
		25,59,12,49,20,43,38		1,54
56″	58,42,11, 7,35,15,54,39,55,43		4,17,30, 2, 1	
		25,59, 8,31,50,41,37		1,54
58″	58,42,11,33,34,24,26,30,37,20		4,17,30, 3,55	
		25,59, 4,14,20,37,42		
60″	58,42,11,59,33,28,40,51,15, 2			
exact	58,42,11,59,33,28,40,51, 5, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78° 4′ 0″	58,42,11,59,33,28,40,51, 5, 3			
		25,58,59,56,50,31, 4		
2″	58,42,12,25,32,28,37,41,36, 7		4,17,30, 7,45	
		25,58,55,39,20,23,19		1,54
4″	58,42,12,51,31,24,17, 1,59,26		4,17,30, 9,39	
		25,58,51,21,50,13,40		1,54
6″	58,42,13,17,30,15,38,52,13, 6		4,17,30,11,33	
		25,58,47, 4,20, 2, 7		1,54
8″	58,42,13,43,29, 2,43,12,15,13		4,17,30,13,27	
		25,58,42,46,49,48,40		1,54
10″	58,42,14, 9,27,45,30, 2, 3,53		4,17,30,15,21	
		25,58,38,29,19,33,19		1,54
12″	58,42,14,35,26,23,59,21,37,12		4,17,30,17,15	
		25,58,34,11,49,16, 4		1,54
14″	58,42,15, 1,24,58,11,10,53,16		4,17,30,19, 9	
		25,58,29,54,18,56,55		1,54
16″	58,42,15,27,23,28, 5,29,50,11		4,17,30,21, 3	
		25,58,25,36,48,35,52		1,54
18″	58,42,15,53,21,53,42,18,26, 3		4,17,30,22,57	
		25,58,21,19,18,12,55		1,54
20″	58,42,16,19,20,15, 1,36,38,58		4,17,30,24,51	
		25,58,17, 1,47,48, 4		1,54
22″	58,42,16,45,18,32, 3,24,27, 2		4,17,30,26,45	
		25,58,12,44,17,21,19		1,54
24″	58,42,17,11,16,44,47,41,48,21		4,17,30,28,39	
		25,58, 8,26,46,52,40		1,54
26″	58,42,17,37,14,53,14,28,41, 1		4,17,30,30,33	
		25,58, 4, 9,16,22, 7		1,54
28″	58,42,18, 3,12,57,23,45, 3, 8		4,17,30,32,27	
		25,57,59,51,45,49,40		1,54
30″	58,42,18,29,10,57,15,30,52,48		4,17,30,34,21	
		25,57,55,34,15,15,19		1,54
32″	58,42,18,55, 8,52,49,46, 8, 7		4,17,30,36,15	
		25,57,51,16,44,39, 4		1,54
34″	58,42,19,21, 6,44, 6,30,47,11		4,17,30,38, 9	
		25,57,46,59,14, 0,55		1,54
36″	58,42,19,47, 4,31, 5,44,48, 6		4,17,30,40, 3	
		25,57,42,41,43,20,52		1,54
38″	58,42,20,13, 2,13,47,28, 8,58		4,17,30,41,57	
		25,57,38,24,12,38,55		1,54
40″	58,42,20,38,59,52,11,40,47,53		4,17,30,43,51	
		25,57,34, 6,41,55, 4		1,54
42″	58,42,21, 4,57,26,18,22,42,57		4,17,30,45,45	
		25,57,29,49,11, 9,19		1,54
44″	58,42,21,30,54,56, 7,33,52,16		4,17,30,47,39	
		25,57,25,31,40,21,40		1,54
46″	58,42,21,56,52,21,39,14,13,56		4,17,30,49,33	
		25,57,21,14, 9,32, 7		1,54
48″	58,42,22,22,49,42,53,23,46, 3		4,17,30,51,27	
		25,57,16,56,38,40,40		1,54
50″	58,42,22,48,46,59,50, 2,26,43		4,17,30,53,21	
		25,57,12,39, 7,47,19		1,54
52″	58,42,23,14,44,12,29,10,14, 2		4,17,30,55,15	
		25,57, 8,21,36,52, 4		1,54
54″	58,42,23,40,41,20,50,47, 6, 6		4,17,30,57, 9	
		25,57, 4, 4, 5,54,55		1,54
56″	58,42,24, 6,38,24,54,53, 1, 1		4,17,30,59, 3	
		25,56,59,46,34,55,52		1,54
58″	58,42,24,32,35,24,41,27,56,53		4,17,31, 0,57	
		25,56,55,29, 3,54,55		
60″	58,42,24,58,32,20,10,31,51,48			
exact	58,42,24,58,32,20,10,31,55,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78° 5′ 0″	58,42,24,58,32,20,10,31,55,51			
		25,56,51,11,32,52,37		
2″	58,42,25,24,29,11,22, 4,48,28		4,17,31, 4,42	
		25,56,46,54, 1,47,55		1,54
4″	58,42,25,50,25,58,16, 6,36,23		4,17,31, 6,36	
		25,56,42,36,30,41,19		1,54
6″	58,42,26,16,22,40,52,37,17,42		4,17,31, 8,30	
		25,56,38,18,59,32,49		1,54
8″	58,42,26,42,19,19,11,36,50,31		4,17,31,10,24	
		25,56,34, 1,28,22,25		1,54
10″	58,42,27, 8,15,53,13, 5,12,56		4,17,31,12,18	
		25,56,29,43,57,10, 7		1,54
12″	58,42,27,34,12,22,57, 2,23, 3		4,17,31,14,12	
		25,56,25,26,25,55,55		1,54
14″	58,42,28, 0, 8,48,23,28,18,58		4,17,31,16, 6	
		25,56,21, 8,54,39,49		1,54
16″	58,42,28,26, 5, 9,32,22,58,47		4,17,31,18, 0	
		25,56,16,51,23,21,49		1,54
18″	58,42,28,52, 1,26,23,46,20,36		4,17,31,19,54	
		25,56,12,33,52, 1,55		1,54
20″	58,42,29,17,57,38,57,38,22,31		4,17,31,21,48	
		25,56, 8,16,20,40, 7		1,54
22″	58,42,29,43,53,47,13,59, 2,38		4,17,31,23,42	
		25,56, 3,58,49,16,25		1,54
24″	58,42,30, 9,49,51,12,48,19, 3		4,17,31,25,36	
		25,55,59,41,17,50,49		1,54
26″	58,42,30,35,45,50,54, 6, 9,52		4,17,31,27,30	
		25,55,55,23,46,23,19		1,54
28″	58,42,31, 1,41,46,17,52,33,11		4,17,31,29,24	
		25,55,51, 6,14,53,55		1,54
30″	58,42,31,27,37,37,24, 7,27, 6		4,17,31,31,18	
		25,55,46,48,43,22,37		1,54
32″	58,42,31,53,33,24,12,50,49,43		4,17,31,33,12	
		25,55,42,31,11,49,25		1,54
34″	58,42,32,19,29, 6,44, 2,39, 8		4,17,31,35, 6	
		25,55,38,13,40,14,19		1,54
36″	58,42,32,45,24,44,57,42,53,27		4,17,31,37, 0	
		25,55,33,56, 8,37,19		1,54
38″	58,42,33,11,20,18,53,51,30,46		4,17,31,38,54	
		25,55,29,38,36,58,25		1,54
40″	58,42,33,37,15,48,32,28,29,11		4,17,31,40,48	
		25,55,25,21, 5,17,37		1,54
42″	58,42,34, 3,11,13,53,33,46,48		4,17,31,42,42	
		25,55,21, 3,33,34,55		1,54
44″	58,42,34,29, 6,34,57, 7,21,43		4,17,31,44,36	
		25,55,16,46, 1,50,19		1,54
46″	58,42,34,55, 1,51,43, 9,12, 2		4,17,31,46,30	
		25,55,12,28,30, 3,49		1,54
48″	58,42,35,20,57, 4,11,39,15,51		4,17,31,48,24	
		25,55, 8,10,58,15,25		1,54
50″	58,42,35,46,52,12,22,37,31,16		4,17,31,50,18	
		25,55, 3,53,26,25, 7		1,54
52″	58,42,36,12,47,16,16, 3,56,23		4,17,31,52,12	
		25,54,59,35,54,32,55		1,54
54″	58,42,36,38,42,15,51,58,29,18		4,17,31,54, 6	
		25,54,55,18,22,38,49		1,54
56″	58,42,37, 4,37,11,10,21, 8, 7		4,17,31,56, 0	
		25,54,51, 0,50,42,49		1,54
58″	58,42,37,30,32, 2,11,11,50,56		4,17,31,57,54	
		25,54,46,43,18,44,55		
60″	58,42,37,56,26,48,54,30,35,51			
exact	58,42,37,56,26,48,54,30,51,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78° 6′ 0″	58,42,37,56,26,48,54,30,51,50			
		25,54,42,25,46,46,53		
2″	58,42,38,22,21,31,20,17,38,43		4,17,32, 1,34	
		25,54,38, 8,14,45,19		1,54
4″	58,42,38,48,16, 9,28,32,24, 2		4,17,32, 3,28	
		25,54,33,50,42,41,51		1,54
6″	58,42,39,14,10,43,19,15, 5,53		4,17,32, 5,22	
		25,54,29,33,10,36,29		1,54
8″	58,42,39,40, 5,12,52,25,42,22		4,17,32, 7,16	
		25,54,25,15,38,29,13		1,54
10″	58,42,40, 5,59,38, 8, 4,11,35		4,17,32, 9,10	
		25,54,20,58, 6,20, 3		1,54
12″	58,42,40,31,53,59, 6,10,31,38		4,17,32,11, 4	
		25,54,16,40,34, 8,59		1,54
14″	58,42,40,57,48,15,46,44,40,37		4,17,32,12,58	
		25,54,12,23, 1,56, 1		1,54
16″	58,42,41,23,42,28, 9,46,36,38		4,17,32,14,52	
		25,54, 8, 5,29,41, 9		1,54
18″	58,42,41,49,36,36,15,16,17,47		4,17,32,16,46	
		25,54, 3,47,57,24,23		1,54
20″	58,42,42,15,30,40, 3,13,42,10		4,17,32,18,40	
		25,53,59,30,25, 5,43		1,54
22″	58,42,42,41,24,39,33,38,47,53		4,17,32,20,34	
		25,53,55,12,52,45, 9		1,54
24″	58,42,43, 7,18,34,46,31,33, 2		4,17,32,22,28	
		25,53,50,55,20,22,41		1,54
26″	58,42,43,33,12,25,41,51,55,43		4,17,32,24,22	
		25,53,46,37,47,58,19		1,54
28″	58,42,43,59, 6,12,19,39,54, 2		4,17,32,26,16	
		25,53,42,20,15,32, 3		1,54
30″	58,42,44,24,59,54,39,55,26, 5		4,17,32,28,10	
		25,53,38, 2,43, 3,53		1,54
32″	58,42,44,50,53,32,42,38,29,58		4,17,32,30, 4	
		25,53,33,45,10,33,49		1,54
34″	58,42,45,16,47, 6,27,49, 3,47		4,17,32,31,58	
		25,53,29,27,38, 1,51		1,54
36″	58,42,45,42,40,35,55,27, 5,38		4,17,32,33,52	
		25,53,25,10, 5,27,59		1,54
38″	58,42,46, 8,34, 1, 5,32,33,37		4,17,32,35,46	
		25,53,20,52,32,52,13		1,54
40″	58,42,46,34,27,21,58, 5,25,50		4,17,32,37,40	
		25,53,16,35, 0,14,33		1,54
42″	58,42,47, 0,20,38,33, 5,40,23		4,17,32,39,34	
		25,53,12,17,27,34,59		1,54
44″	58,42,47,26,13,50,50,33,15,22		4,17,32,41,28	
		25,53, 7,59,54,53,31		1,54
46″	58,42,47,52, 6,58,50,28, 8,53		4,17,32,43,22	
		25,53, 3,42,22,10, 9		1,54
48″	58,42,48,18, 0, 2,32,50,19, 2		4,17,32,45,16	
		25,52,59,24,49,24,53		1,54
50″	58,42,48,43,53, 1,57,39,43,55		4,17,32,47,10	
		25,52,55, 7,16,37,43		1,54
52″	58,42,49, 9,45,57, 4,56,21,38		4,17,32,49, 4	
		25,52,50,49,43,48,39		1,54
54″	58,42,49,35,38,47,54,40,10,17		4,17,32,50,58	
		25,52,46,32,10,57,41		1,54
56″	58,42,50, 1,31,34,26,51, 7,58		4,17,32,52,52	
		25,52,42,14,38, 4,49		1,54
58″	58,42,50,27,24,16,41,29,12,47		4,17,32,54,46	
		25,52,37,57, 5,10, 3		
60″	58,42,50,53,16,54,38,34,22,50			
exact	58,42,50,53,16,54,38,34,48,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78° 7′ 0″	58,42,50,53,16,54,38,34,48,40			
		25,52,33,39,32,16,14		
2″	58,42,51,19, 9,28,18, 7, 4,54		4,17,32,58,21	
		25,52,29,21,59,17,53		1,53
4″	58,42,51,45, 1,57,40, 6,22,47		4,17,33, 0,14	
		25,52,25, 4,26,17,39		1,53
6″	58,42,52,10,54,22,44,32,40,26		4,17,33, 2, 7	
		25,52,20,46,53,15,32		1,53
8″	58,42,52,36,46,43,31,25,55,58		4,17,33, 4, 0	
		25,52,16,29,20,11,32		1,53
10″	58,42,53, 2,39, 0, 0,46, 7,30		4,17,33, 5,53	
		25,52,12,11,47, 5,39		1,53
12″	58,42,53,28,31,12,12,33,13, 9		4,17,33, 7,46	
		25,52, 7,54,13,57,53		1,53
14″	58,42,53,54,23,20, 6,47,11, 2		4,17,33, 9,39	
		25,52, 3,36,40,48,14		1,53
16″	58,42,54,20,15,23,43,27,59,16		4,17,33,11,32	
		25,51,59,19, 7,36,42		1,53
18″	58,42,54,46, 7,23, 2,35,35,58		4,17,33,13,25	
		25,51,55, 1,34,23,17		1,53
20″	58,42,55,11,59,18, 4, 9,59,15		4,17,33,15,18	
		25,51,50,44, 1, 7,59		1,53
22″	58,42,55,37,51, 8,48,11, 7,14		4,17,33,17,11	
		25,51,46,26,27,50,48		1,53
24″	58,42,56, 3,42,55,14,38,58, 2		4,17,33,19, 4	
		25,51,42, 8,54,31,44		1,53
26″	58,42,56,29,34,37,23,33,29,46		4,17,33,20,57	
		25,51,37,51,21,10,47		1,53
28″	58,42,56,55,26,15,14,54,40,33		4,17,33,22,50	
		25,51,33,33,47,47,57		1,53
30″	58,42,57,21,17,48,48,42,28,30		4,17,33,24,43	
		25,51,29,16,14,23,14		1,53
32″	58,42,57,47, 9,18, 4,56,51,44		4,17,33,26,36	
		25,51,24,58,40,56,38		1,53
34″	58,42,58,13, 0,43, 3,37,48,22		4,17,33,28,29	
		25,51,20,41, 7,28, 9		1,53
36″	58,42,58,38,52, 3,44,45,16,31		4,17,33,30,22	
		25,51,16,23,33,57,47		1,53
38″	58,42,59, 4,43,20, 8,19,14,18		4,17,33,32,15	
		25,51,12, 6, 0,25,32		1,53
40″	58,42,59,30,34,32,14,19,39,50		4,17,33,34, 8	
		25,51, 7,48,26,51,24		1,53
42″	58,42,59,56,25,40, 2,46,31,14		4,17,33,36, 1	
		25,51, 3,30,53,15,23		1,53
44″	58,43, 0,22,16,43,33,39,46,37		4,17,33,37,54	
		25,50,59,13,19,37,29		1,53
46″	58,43, 0,48, 7,42,46,59,24, 6		4,17,33,39,47	
		25,50,54,55,45,57,42		1,53
48″	58,43, 1,13,58,37,42,45,21,48		4,17,33,41,40	
		25,50,50,38,12,16, 2		1,53
50″	58,43, 1,39,49,28,20,57,37,50		4,17,33,43,33	
		25,50,46,20,38,32,29		1,53
52″	58,43, 2, 5,40,14,41,36,10,19		4,17,33,45,26	
		25,50,42, 3, 4,47, 3		1,53
54″	58,43, 2,31,30,56,44,40,57,22		4,17,33,47,19	
		25,50,37,45,30,59,44		1,53
56″	58,43, 2,57,21,34,30,11,57, 6		4,17,33,49,12	
		25,50,33,27,57,10,32		1,53
58″	58,43, 3,23,12, 7,58, 9, 7,38		4,17,33,51, 5	
		25,50,29,10,23,19,27		
60″	58,43, 3,49, 2,37, 8,32,27, 5			
exact	58,43, 3,49, 2,37, 8,31,52,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78° 8′ 0″	58,43, 3,49, 2,37, 8,31,52,41			
		25,50,24,52,49,23, 0		
2″	58,43, 4,14,53, 2, 1,21,15,41		4,17,33,55, 4	
		25,50,20,35,15,27,56		1,53
4″	58,43, 4,40,43,22,36,36,43,37		4,17,33,56,57	
		25,50,16,17,41,30,59		1,53
6″	58,43, 5, 6,33,38,54,18,14,36		4,17,33,58,50	
		25,50,12, 0, 7,32, 9		1,53
8″	58,43, 5,32,23,50,54,25,46,45		4,17,34, 0,43	
		25,50, 7,42,33,31,26		1,53
10″	58,43, 5,58,13,58,36,59,18,11		4,17,34, 2,36	
		25,50, 3,24,59,28,50		1,53
12″	58,43, 6,24, 4, 2, 1,58,47, 1		4,17,34, 4,29	
		25,49,59, 7,25,24,21		1,53
14″	58,43, 6,49,54, 1, 9,24,11,22		4,17,34, 6,22	
		25,49,54,49,51,17,59		1,53
16″	58,43, 7,15,43,55,59,15,29,21		4,17,34, 8,15	
		25,49,50,32,17, 9,44		1,53
18″	58,43, 7,41,33,46,31,32,39, 5		4,17,34,10, 8	
		25,49,46,14,42,59,36		1,53
20″	58,43, 8, 7,23,32,46,15,38,41		4,17,34,12, 1	
		25,49,41,57, 8,47,35		1,53
22″	58,43, 8,33,13,14,43,24,26,16		4,17,34,13,54	
		25,49,37,39,34,33,41		1,53
24″	58,43, 8,59, 2,52,22,58,59,57		4,17,34,15,47	
		25,49,33,22, 0,17,54		1,53
26″	58,43, 9,24,52,25,44,59,17,51		4,17,34,17,40	
		25,49,29, 4,26, 0,14		1,53
28″	58,43, 9,50,41,54,49,25,18, 5		4,17,34,19,33	
		25,49,24,46,51,40,41		1,53
30″	58,43,10,16,31,19,36,16,58,46		4,17,34,21,26	
		25,49,20,29,17,19,15		1,53
32″	58,43,10,42,20,40, 5,34,18, 1		4,17,34,23,19	
		25,49,16,11,42,55,56		1,53
34″	58,43,11, 8, 9,56,17,17,13,57		4,17,34,25,12	
		25,49,11,54, 8,30,44		1,53
36″	58,43,11,33,59, 8,11,25,44,41		4,17,34,27, 5	
		25,49, 7,36,34, 3,39		1,53
38″	58,43,11,59,48,15,47,59,48,20		4,17,34,28,58	
		25,49, 3,18,59,34,41		1,53
40″	58,43,12,25,37,19, 6,59,23, 1		4,17,34,30,51	
		25,48,59, 1,25, 3,50		1,53
42″	58,43,12,51,26,18, 8,24,26,51		4,17,34,32,44	
		25,48,54,43,50,31, 6		1,53
44″	58,43,13,17,15,12,52,14,57,57		4,17,34,34,37	
		25,48,50,26,15,56,29		1,53
46″	58,43,13,43, 4, 3,18,30,54,26		4,17,34,36,30	
		25,48,46, 8,41,19,59		1,53
48″	58,43,14, 8,52,49,27,12,14,25		4,17,34,38,23	
		25,48,41,51, 6,41,36		1,53
50″	58,43,14,34,41,31,18,18,56, 1		4,17,34,40,16	
		25,48,37,33,32, 1,20		1,53
52″	58,43,15, 0,30, 8,51,50,57,21		4,17,34,42, 9	
		25,48,33,15,57,19,11		1,53
54″	58,43,15,26,18,42, 7,48,16,32		4,17,34,44, 2	
		25,48,28,58,22,35, 9		1,53
56″	58,43,15,52, 7,11, 6,10,51,41		4,17,34,45,55	
		25,48,24,40,47,49,14		1,53
58″	58,43,16,17,55,35,46,58,40,55		4,17,34,47,48	
		25,48,20,23,13, 1,26		
60″	58,43,16,43,43,56,10,11,42,21			
exact	58,43,16,43,43,56,10,11,20,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78° 9′ 0″	58,43,16,43,43,56,10,11,20,47			
		25,48,16, 5,38, 9,34		
2″	58,43,17, 9,32,12,15,49,30,21		4,17,34,51,42	
		25,48,11,48, 3,17,52		1,53
4″	58,43,17,35,20,24, 3,52,48,13		4,17,34,53,35	
		25,48, 7,30,28,24,17		1,53
6″	58,43,18, 1, 8,31,34,21,12,30		4,17,34,55,28	
		25,48, 3,12,53,28,49		1,53
8″	58,43,18,26,56,34,47,14,41,19		4,17,34,57,21	
		25,47,58,55,18,31,28		1,53
10″	58,43,18,52,44,33,42,33,12,47		4,17,34,59,14	
		25,47,54,37,43,32,14		1,53
12″	58,43,19,18,32,28,20,16,45, 1		4,17,35, 1, 7	
		25,47,50,20, 8,31, 7		1,53
14″	58,43,19,44,20,18,40,25,16, 8		4,17,35, 3, 0	
		25,47,46, 2,33,28, 7		1,53
16″	58,43,20,10, 8, 4,42,58,44,15		4,17,35, 4,53	
		25,47,41,44,58,23,14		1,53
18″	58,43,20,35,55,46,27,57, 7,29		4,17,35, 6,46	
		25,47,37,27,23,16,28		1,53
20″	58,43,21, 1,43,23,55,20,23,57		4,17,35, 8,39	
		25,47,33, 9,48, 7,49		1,53
22″	58,43,21,27,30,57, 5, 8,31,46		4,17,35,10,32	
		25,47,28,52,12,57,17		1,53
24″	58,43,21,53,18,25,57,21,29, 3		4,17,35,12,25	
		25,47,24,34,37,44,52		1,53
26″	58,43,22,19, 5,50,31,59,13,55		4,17,35,14,18	
		25,47,20,17, 2,30,34		1,53
28″	58,43,22,44,53,10,49, 1,44,29		4,17,35,16,11	
		25,47,15,59,27,14,23		1,53
30″	58,43,23,10,40,26,48,28,58,52		4,17,35,18, 4	
		25,47,11,41,51,56,19		1,53
32″	58,43,23,36,27,38,30,20,55,11		4,17,35,19,57	
		25,47, 7,24,16,36,22		1,53
34″	58,43,24, 2,14,45,54,37,31,33		4,17,35,21,50	
		25,47, 3, 6,41,14,32		1,53
36″	58,43,24,28, 1,49, 1,18,46, 5		4,17,35,23,43	
		25,46,58,49, 5,50,49		1,53
38″	58,43,24,53,48,47,50,24,36,54		4,17,35,25,36	
		25,46,54,31,30,25,13		1,53
40″	58,43,25,19,35,42,21,55, 2, 7		4,17,35,27,29	
		25,46,50,13,54,57,44		1,53
42″	58,43,25,45,22,32,35,49,59,51		4,17,35,29,22	
		25,46,45,56,19,28,22		1,53
44″	58,43,26,11, 9,18,32, 9,28,13		4,17,35,31,15	
		25,46,41,38,43,57, 7		1,53
46″	58,43,26,36,56, 0,10,53,25,20		4,17,35,33, 8	
		25,46,37,21, 8,23,59		1,53
48″	58,43,27, 2,42,37,32, 1,49,19		4,17,35,35, 1	
		25,46,33, 3,32,48,58		1,53
50″	58,43,27,28,29,10,35,34,38,17		4,17,35,36,54	
		25,46,28,45,57,12, 4		1,53
52″	58,43,27,54,15,39,21,31,50,21		4,17,35,38,47	
		25,46,24,28,21,33,17		1,53
54″	58,43,28,20, 2, 3,49,53,23,38		4,17,35,40,40	
		25,46,20,10,45,52,37		1,53
56″	58,43,28,45,48,24, 0,39,16,15		4,17,35,42,33	
		25,46,15,53,10,10, 4		1,53
58″	58,43,29,11,34,39,53,49,26,19		4,17,35,44,26	
		25,46,11,35,34,25,38		
60″	58,43,29,37,20,51,29,23,51,57			
exact	58,43,29,37,20,51,29,23,40,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°10′ 0″	58,43,29,37,20,51,29,23,40,31			
		25,46, 7,17,58,38,15		
2″	58,43,30, 3, 6,58,47,22,18,46		4,17,35,48,15	
		25,46, 3, 0,22,50, 0		1,53
4″	58,43,30,28,53, 1,47,45, 8,46		4,17,35,50, 8	
		25,45,58,42,46,59,52		1,53
6″	58,43,30,54,39, 0,30,32, 8,38		4,17,35,52, 1	
		25,45,54,25,11, 7,51		1,53
8″	58,43,31,20,24,54,55,43,16,29		4,17,35,53,54	
		25,45,50, 7,35,13,57		1,53
10″	58,43,31,46,10,45, 3,18,30,26		4,17,35,55,47	
		25,45,45,49,59,18,10		1,53
12″	58,43,32,11,56,30,53,17,48,36		4,17,35,57,40	
		25,45,41,32,23,20,30		1,53
14″	58,43,32,37,42,12,25,41, 9, 6		4,17,35,59,33	
		25,45,37,14,47,20,57		1,53
16″	58,43,33, 3,27,49,40,28,30, 3		4,17,36, 1,26	
		25,45,32,57,11,19,31		1,53
18″	58,43,33,29,13,22,37,39,49,34		4,17,36, 3,19	
		25,45,28,39,35,16,12		1,53
20″	58,43,33,54,58,51,17,15, 5,46		4,17,36, 5,12	
		25,45,24,21,59,11, 0		1,53
22″	58,43,34,20,44,15,39,14,16,46		4,17,36, 7, 5	
		25,45,20, 4,23, 3,55		1,53
24″	58,43,34,46,29,35,43,37,20,41		4,17,36, 8,58	
		25,45,15,46,46,54,57		1,53
26″	58,43,35,12,14,51,30,24,15,38		4,17,36,10,51	
		25,45,11,29,10,44, 6		1,53
28″	58,43,35,38, 0, 2,59,34,59,44		4,17,36,12,44	
		25,45, 7,11,34,31,22		1,53
30″	58,43,36, 3,45,10,11, 9,31, 6		4,17,36,14,37	
		25,45, 2,53,58,16,45		1,53
32″	58,43,36,29,30,13, 5, 7,47,51		4,17,36,16,30	
		25,44,58,36,22, 0,15		1,53
34″	58,43,36,55,15,11,41,29,48, 6		4,17,36,18,23	
		25,44,54,18,45,41,52		1,53
36″	58,43,37,21, 0, 6, 0,15,29,58		4,17,36,20,16	
		25,44,50, 1, 9,21,36		1,53
38″	58,43,37,46,44,56, 1,24,51,34		4,17,36,22, 9	
		25,44,45,43,32,59,27		1,53
40″	58,43,38,12,29,41,44,57,51, 1		4,17,36,24, 2	
		25,44,41,25,56,35,25		1,53
42″	58,43,38,38,14,23,10,54,26,26		4,17,36,25,55	
		25,44,37, 8,20, 9,30		1,53
44″	58,43,39, 3,59, 0,19,14,35,56		4,17,36,27,48	
		25,44,32,50,43,41,42		1,53
46″	58,43,39,29,43,33, 9,58,17,38		4,17,36,29,41	
		25,44,28,33, 7,12, 1		1,53
48″	58,43,39,55,28, 1,43, 5,29,39		4,17,36,31,34	
		25,44,24,15,30,40,27		1,53
50″	58,43,40,21,12,25,58,36,10, 6		4,17,36,33,27	
		25,44,19,57,54, 7, 0		1,53
52″	58,43,40,46,56,45,56,30,17, 6		4,17,36,35,20	
		25,44,15,40,17,31,40		1,53
54″	58,43,41,12,41, 1,36,47,48,46		4,17,36,37,13	
		25,44,11,22,40,54,27		1,53
56″	58,43,41,38,25,12,59,28,43,13		4,17,36,39, 6	
		25,44, 7, 5, 4,15,21		1,53
58″	58,43,42, 4, 9,20, 4,32,58,34		4,17,36,40,59	
		25,44, 2,47,27,34,22		
60″	58,43,42,29,53,22,52, 0,32,56			
exact	58,43,42,29,53,22,52, 0,30, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°11′ 0″	58,43,42,29,53,22,52, 0,30, 2			
		25,43,58,29,50,51,25		
2″	58,43,42,55,37,21,21,51,21,27		4,17,36,44,44	
		25,43,54,12,14, 6,41		1,53
4″	58,43,43,21,21,15,34, 5,28, 8		4,17,36,46,37	
		25,43,49,54,37,20, 4		1,53
6″	58,43,43,47, 5, 5,28,42,48,12		4,17,36,48,30	
		25,43,45,37, 0,31,34		1,53
8″	58,43,44,12,48,51, 5,43,19,46		4,17,36,50,23	
		25,43,41,19,23,41,11		1,53
10″	58,43,44,38,32,32,25, 7, 0,57		4,17,36,52,16	
		25,43,37, 1,46,48,55		1,53
12″	58,43,45, 4,16, 9,26,53,49,52		4,17,36,54, 9	
		25,43,32,44, 9,54,46		1,53
14″	58,43,45,29,59,42,11, 3,44,38		4,17,36,56, 2	
		25,43,28,26,32,58,44		1,53
16″	58,43,45,55,43,10,37,36,43,22		4,17,36,57,55	
		25,43,24, 8,56, 0,49		1,53
18″	58,43,46,21,26,34,46,32,44,11		4,17,36,59,48	
		25,43,19,51,19, 1, 1		1,53
20″	58,43,46,47, 9,54,37,51,45,12		4,17,37, 1,41	
		25,43,15,33,41,59,20		1,53
22″	58,43,47,12,53,10,11,33,44,32		4,17,37, 3,34	
		25,43,11,16, 4,55,46		1,53
24″	58,43,47,38,36,21,27,38,40,18		4,17,37, 5,27	
		25,43, 6,58,27,50,19		1,53
26″	58,43,48, 4,19,28,26, 6,30,37		4,17,37, 7,20	
		25,43, 2,40,50,42,59		1,53
28″	58,43,48,30, 2,31, 6,57,13,36		4,17,37, 9,13	
		25,42,58,23,13,33,46		1,53
30″	58,43,48,55,45,29,30,10,47,22		4,17,37,11, 6	
		25,42,54, 5,36,22,40		1,53
32″	58,43,49,21,28,23,35,47,10, 2		4,17,37,12,59	
		25,42,49,47,59, 9,41		1,53
34″	58,43,49,47,11,13,23,46,19,43		4,17,37,14,52	
		25,42,45,30,21,54,49		1,53
36″	58,43,50,12,53,58,54, 8,14,32		4,17,37,16,45	
		25,42,41,12,44,38, 4		1,53
38″	58,43,50,38,36,40, 6,52,52,36		4,17,37,18,38	
		25,42,36,55, 7,19,26		1,53
40″	58,43,51, 4,19,17, 2, 0,12, 2		4,17,37,20,31	
		25,42,32,37,29,58,55		1,53
42″	58,43,51,30, 1,49,39,30,10,57		4,17,37,22,24	
		25,42,28,19,52,36,31		1,53
44″	58,43,51,55,44,17,59,22,47,28		4,17,37,24,17	
		25,42,24, 2,15,12,14		1,53
46″	58,43,52,21,26,42, 1,37,59,42		4,17,37,26,10	
		25,42,19,44,37,46, 4		1,53
48″	58,43,52,47, 9, 1,46,15,45,46		4,17,37,28, 3	
		25,42,15,27, 0,18, 1		1,53
50″	58,43,53,12,51,17,13,16, 3,47		4,17,37,29,56	
		25,42,11, 9,22,48, 5		1,53
52″	58,43,53,38,33,28,22,38,51,52		4,17,37,31,49	
		25,42, 6,51,45,16,16		1,53
54″	58,43,54, 4,15,35,14,24, 8, 8		4,17,37,33,42	
		25,42, 2,34, 7,42,34		1,53
56″	58,43,54,29,57,37,48,31,50,42		4,17,37,35,35	
		25,41,58,16,30, 6,59		1,53
58″	58,43,54,55,39,36, 5, 1,57,41		4,17,37,37,28	
		25,41,53,58,52,29,31		
60″	58,43,55,21,21,30, 3,54,27,12			
exact	58,43,55,21,21,30, 3,54,38, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°12′ 0″	58,43,55,21,21,30, 3,54,38, 5			
		25,41,49,41,14,51,26		
2″	58,43,55,47, 3,19,45, 9,29,31		4,17,37,41, 8	
		25,41,45,23,37,10,18		1,53
4″	58,43,56,12,45, 5, 8,46,39,49		4,17,37,43, 1	
		25,41,41, 5,59,27,17		1,53
6″	58,43,56,38,26,46,14,46, 7, 6		4,17,37,44,54	
		25,41,36,48,21,42,23		1,53
8″	58,43,57, 4, 8,23, 3, 7,49,29		4,17,37,46,47	
		25,41,32,30,43,55,36		1,53
10″	58,43,57,29,49,55,33,51,45, 5		4,17,37,48,40	
		25,41,28,13, 6, 6,56		1,53
12″	58,43,57,55,31,23,46,57,52, 1		4,17,37,50,33	
		25,41,23,55,28,16,23		1,53
14″	58,43,58,21,12,47,42,26, 8,24		4,17,37,52,26	
		25,41,19,37,50,23,57		1,53
16″	58,43,58,46,54, 7,20,16,32,21		4,17,37,54,19	
		25,41,15,20,12,29,38		1,53
18″	58,43,59,12,35,22,40,29, 1,59		4,17,37,56,12	
		25,41,11, 2,34,33,26		1,53
20″	58,43,59,38,16,33,43, 3,35,25		4,17,37,58, 5	
		25,41, 6,44,56,35,21		1,53
22″	58,44, 0, 3,57,40,28, 0,10,46		4,17,37,59,58	
		25,41, 2,27,18,35,23		1,53
24″	58,44, 0,29,38,42,55,18,46, 9		4,17,38, 1,51	
		25,40,58, 9,40,33,32		1,53
26″	58,44, 0,55,19,41, 4,59,19,41		4,17,38, 3,44	
		25,40,53,52, 2,29,48		1,53
28″	58,44, 1,21, 0,34,57, 1,49,29		4,17,38, 5,37	
		25,40,49,34,24,24,11		1,53
30″	58,44, 1,46,41,24,31,26,13,40		4,17,38, 7,30	
		25,40,45,16,46,16,41		1,53
32″	58,44, 2,12,22, 9,48,12,30,21		4,17,38, 9,23	
		25,40,40,59, 8, 7,18		1,53
34″	58,44, 2,38, 2,50,47,20,37,39		4,17,38,11,16	
		25,40,36,41,29,56, 2		1,53
36″	58,44, 3, 3,43,27,28,50,33,41		4,17,38,13, 9	
		25,40,32,23,51,42,53		1,53
38″	58,44, 3,29,23,59,52,42,16,34		4,17,38,15, 2	
		25,40,28, 6,13,27,51		1,53
40″	58,44, 3,55, 4,27,58,55,44,25		4,17,38,16,55	
		25,40,23,48,35,10,56		1,53
42″	58,44, 4,20,44,51,47,30,55,21		4,17,38,18,48	
		25,40,19,30,56,52, 8		1,53
44″	58,44, 4,46,25,11,18,27,47,29		4,17,38,20,41	
		25,40,15,13,18,31,27		1,53
46″	58,44, 5,12, 5,26,31,46,18,56		4,17,38,22,34	
		25,40,10,55,40, 8,53		1,53
48″	58,44, 5,37,45,37,27,26,27,49		4,17,38,24,27	
		25,40, 6,38, 1,44,26		1,53
50″	58,44, 6, 3,25,44, 5,28,12,15		4,17,38,26,20	
		25,40, 2,20,23,18, 6		1,53
52″	58,44, 6,29, 5,46,25,51,30,21		4,17,38,28,13	
		25,39,58, 2,44,49,53		1,53
54″	58,44, 6,54,45,44,28,36,20,14		4,17,38,30, 6	
		25,39,53,45, 6,19,47		1,53
56″	58,44, 7,20,25,38,13,42,40, 1		4,17,38,31,59	
		25,39,49,27,27,47,48		1,53
58″	58,44, 7,46, 5,27,41,10,27,49		4,17,38,33,52	
		25,39,45, 9,49,13,56		
60″	58,44, 8,11,45,12,50,59,41,45			
exact	58,44, 8,11,45,12,51, 0, 4, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°13′ 0″	58,44, 8,11,45,12,51, 0, 4, 6			
		25,39,40,52,10,40,39		
2″	58,44, 8,37,24,53,43,10,44,45		4,17,38,37,27	
		25,39,36,34,32, 3,12		1,53
4″	58,44, 9, 3, 4,30,17,42,47,57		4,17,38,39,20	
		25,39,32,16,53,23,52		1,53
6″	58,44, 9,28,44, 2,34,36,11,49		4,17,38,41,13	
		25,39,27,59,14,42,39		1,53
8″	58,44, 9,54,23,30,33,50,54,28		4,17,38,43, 6	
		25,39,23,41,35,59,33		1,53
10″	58,44,10,20, 2,54,15,26,54, 1		4,17,38,44,59	
		25,39,19,23,57,14,34		1,53
12″	58,44,10,45,42,13,39,24, 8,35		4,17,38,46,52	
		25,39,15, 6,18,27,42		1,53
14″	58,44,11,11,21,28,45,42,36,17		4,17,38,48,45	
		25,39,10,48,39,38,57		1,53
16″	58,44,11,37, 0,39,34,22,15,14		4,17,38,50,38	
		25,39, 6,31, 0,48,19		1,53
18″	58,44,12, 2,39,46, 5,23, 3,33		4,17,38,52,31	
		25,39, 2,13,21,55,48		1,53
20″	58,44,12,28,18,48,18,44,59,21		4,17,38,54,24	
		25,38,57,55,43, 1,24		1,53
22″	58,44,12,53,57,46,14,28, 0,45		4,17,38,56,17	
		25,38,53,38, 4, 5, 7		1,53
24″	58,44,13,19,36,39,52,32, 5,52		4,17,38,58,10	
		25,38,49,20,25, 6,57		1,53
26″	58,44,13,45,15,29,12,57,12,49		4,17,39, 0, 3	
		25,38,45, 2,46, 6,54		1,53
28″	58,44,14,10,54,14,15,43,19,43		4,17,39, 1,56	
		25,38,40,45, 7, 4,58		1,53
30″	58,44,14,36,32,55, 0,50,24,41		4,17,39, 3,49	
		25,38,36,27,28, 1, 9		1,53
32″	58,44,15, 2,11,31,28,18,25,50		4,17,39, 5,42	
		25,38,32, 9,48,55,27		1,53
34″	58,44,15,27,50, 3,38, 7,21,17		4,17,39, 7,35	
		25,38,27,52, 9,47,52		1,53
36″	58,44,15,53,28,31,30,17, 9, 9		4,17,39, 9,28	
		25,38,23,34,30,38,24		1,53
38″	58,44,16,19, 6,55, 4,47,47,33		4,17,39,11,21	
		25,38,19,16,51,27, 3		1,53
40″	58,44,16,44,45,14,21,39,14,36		4,17,39,13,14	
		25,38,14,59,12,13,49		1,53
42″	58,44,17,10,23,29,20,51,28,25		4,17,39,15, 7	
		25,38,10,41,32,58,42		1,53
44″	58,44,17,36, 1,40, 2,24,27, 7		4,17,39,17, 0	
		25,38, 6,23,53,41,42		1,53
46″	58,44,18, 1,39,46,26,18, 8,49		4,17,39,18,53	
		25,38, 2, 6,14,22,49		1,53
48″	58,44,18,27,17,48,32,32,31,38		4,17,39,20,46	
		25,37,57,48,35, 2, 3		1,53
50″	58,44,18,52,55,46,21, 7,33,41		4,17,39,22,39	
		25,37,53,30,55,39,24		1,53
52″	58,44,19,18,33,39,52, 3,13, 5		4,17,39,24,32	
		25,37,49,13,16,14,52		1,53
54″	58,44,19,44,11,29, 5,19,27,57		4,17,39,26,25	
		25,37,44,55,36,48,27		1,53
56″	58,44,20, 9,49,14, 0,56,16,24		4,17,39,28,18	
		25,37,40,37,57,20, 9		1,53
58″	58,44,20,35,26,54,38,53,36,33		4,17,39,30,11	
		25,37,36,20,17,49,58		
60″	58,44,21, 1, 4,30,59,11,26,31			
exact	58,44,21, 1, 4,30,59,11,58, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°14′ 0″	58,44,21, 1, 4,30,59,11,58, 4			
		25,37,32, 2,38,21,25		
2″	58,44,21,26,42, 3, 1,50,19,29		4,17,39,33,42	
		25,37,27,44,58,47,43		1,52
4″	58,44,21,52,19,30,46,49, 7,12		4,17,39,35,34	
		25,37,23,27,19,12, 9		1,52
6″	58,44,22,17,56,54,14, 8,19,21		4,17,39,37,26	
		25,37,19, 9,39,34,43		1,52
8″	58,44,22,43,34,13,23,47,54, 4		4,17,39,39,18	
		25,37,14,51,59,55,25		1,52
10″	58,44,23, 9,11,28,15,47,49,29		4,17,39,41,10	
		25,37,10,34,20,14,15		1,52
12″	58,44,23,34,48,38,50, 8, 3,44		4,17,39,43, 2	
		25,37, 6,16,40,31,13		1,52
14″	58,44,24, 0,25,45, 6,48,34,57		4,17,39,44,54	
		25,37, 1,59, 0,46,19		1,52
16″	58,44,24,26, 2,47, 5,49,21,16		4,17,39,46,46	
		25,36,57,41,20,59,33		1,52
18″	58,44,24,51,39,44,47,10,20,49		4,17,39,48,38	
		25,36,53,23,41,10,55		1,52
20″	58,44,25,17,16,38,10,51,31,44		4,17,39,50,30	
		25,36,49, 6, 1,20,25		1,52
22″	58,44,25,42,53,27,16,52,52, 9		4,17,39,52,22	
		25,36,44,48,21,28, 3		1,52
24″	58,44,26, 8,30,12, 5,14,20,12		4,17,39,54,14	
		25,36,40,30,41,33,49		1,52
26″	58,44,26,34, 6,52,35,55,54, 1		4,17,39,56, 6	
		25,36,36,13, 1,37,43		1,52
28″	58,44,26,59,43,28,48,57,31,44		4,17,39,57,58	
		25,36,31,55,21,39,45		1,52
30″	58,44,27,25,20, 0,44,19,11,29		4,17,39,59,50	
		25,36,27,37,41,39,55		1,52
32″	58,44,27,50,56,28,22, 0,51,24		4,17,40, 1,42	
		25,36,23,20, 1,38,13		1,52
34″	58,44,28,16,32,51,42, 2,29,37		4,17,40, 3,34	
		25,36,19, 2,21,34,39		1,52
36″	58,44,28,42, 9,10,44,24, 4,16		4,17,40, 5,26	
		25,36,14,44,41,29,13		1,52
38″	58,44,29, 7,45,25,29, 5,33,29		4,17,40, 7,18	
		25,36,10,27, 1,21,55		1,52
40″	58,44,29,33,21,35,56, 6,55,24		4,17,40, 9,10	
		25,36, 6, 9,21,12,45		1,52
42″	58,44,29,58,57,42, 5,28, 8, 9		4,17,40,11, 2	
		25,36, 1,51,41, 1,43		1,52
44″	58,44,30,24,33,43,57, 9, 9,52		4,17,40,12,54	
		25,35,57,34, 0,48,49		1,52
46″	58,44,30,50, 9,41,31, 9,58,41		4,17,40,14,46	
		25,35,53,16,20,34, 3		1,52
48″	58,44,31,15,45,34,47,30,32,44		4,17,40,16,38	
		25,35,48,58,40,17,25		1,52
50″	58,44,31,41,21,23,46,10,50, 9		4,17,40,18,30	
		25,35,44,40,59,58,55		1,52
52″	58,44,32, 6,57, 8,27,10,49, 4		4,17,40,20,22	
		25,35,40,23,19,38,33		1,52
54″	58,44,32,32,32,48,50,30,27,37		4,17,40,22,14	
		25,35,36, 5,39,16,19		1,52
56″	58,44,32,58, 8,24,56, 9,43,56		4,17,40,24, 6	
		25,35,31,47,58,52,13		1,52
58″	58,44,33,23,43,56,44, 8,36, 9		4,17,40,25,58	
		25,35,27,30,18,26,15		
60″	58,44,33,49,19,24,14,27, 2,24			
exact	58,44,33,49,19,24,14,26,40,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°15′ 0″	58,44,33,49,19,24,14,26,40,41			
		25,35,23,12,37,56, 5		
2″	58,44,34,14,54,47,27, 4,36,46		4,17,40,29,51	
		25,35,18,54,57,26,14		1,52
4″	58,44,34,40,30, 6,22, 2, 3, 0		4,17,40,31,43	
		25,35,14,37,16,54,31		1,52
6″	58,44,35, 6, 5,20,59,18,57,31		4,17,40,33,35	
		25,35,10,19,36,20,56		1,52
8″	58,44,35,31,40,31,18,55,18,27		4,17,40,35,27	
		25,35, 6, 1,55,45,29		1,52
10″	58,44,35,57,15,37,20,51, 3,56		4,17,40,37,19	
		25,35, 1,44,15, 8,10		1,52
12″	58,44,36,22,50,39, 5, 6,12, 6		4,17,40,39,11	
		25,34,57,26,34,28,59		1,52
14″	58,44,36,48,25,36,31,40,41, 5		4,17,40,41, 3	
		25,34,53, 8,53,47,56		1,52
16″	58,44,37,14, 0,29,40,34,29, 1		4,17,40,42,55	
		25,34,48,51,13, 5, 1		1,52
18″	58,44,37,39,35,18,31,47,34, 2		4,17,40,44,47	
		25,34,44,33,32,20,14		1,52
20″	58,44,38, 5,10, 3, 5,19,54,16		4,17,40,46,39	
		25,34,40,15,51,33,35		1,52
22″	58,44,38,30,44,43,21,11,27,51		4,17,40,48,31	
		25,34,35,58,10,45, 4		1,52
24″	58,44,38,56,19,19,19,22,12,55		4,17,40,50,23	
		25,34,31,40,29,54,41		1,52
26″	58,44,39,21,53,50,59,52, 7,36		4,17,40,52,15	
		25,34,27,22,49, 2,26		1,52
28″	58,44,39,47,28,18,22,41,10, 2		4,17,40,54, 7	
		25,34,23, 5, 8, 8,19		1,52
30″	58,44,40,13, 2,41,27,49,18,21		4,17,40,55,59	
		25,34,18,47,27,12,20		1,52
32″	58,44,40,38,37, 0,15,16,30,41		4,17,40,57,51	
		25,34,14,29,46,14,29		1,52
34″	58,44,41, 4,11,14,45, 2,45,10		4,17,40,59,43	
		25,34,10,12, 5,14,46		1,52
36″	58,44,41,29,45,24,57, 7,59,56		4,17,41, 1,35	
		25,34, 5,54,24,13,11		1,52
38″	58,44,41,55,19,30,51,32,13, 7		4,17,41, 3,27	
		25,34, 1,36,43, 9,44		1,52
40″	58,44,42,20,53,32,28,15,22,51		4,17,41, 5,19	
		25,33,57,19, 2, 4,25		1,52
42″	58,44,42,46,27,29,47,17,27,16		4,17,41, 7,11	
		25,33,53, 1,20,57,14		1,52
44″	58,44,43,12, 1,22,48,38,24,30		4,17,41, 9, 3	
		25,33,48,43,39,48,11		1,52
46″	58,44,43,37,35,11,32,18,12,41		4,17,41,10,55	
		25,33,44,25,58,37,16		1,52
48″	58,44,44, 3, 8,55,58,16,49,57		4,17,41,12,47	
		25,33,40, 8,17,24,29		1,52
50″	58,44,44,28,42,36, 6,34,14,26		4,17,41,14,39	
		25,33,35,50,36, 9,50		1,52
52″	58,44,44,54,16,11,57,10,24,16		4,17,41,16,31	
		25,33,31,32,54,53,19		1,52
54″	58,44,45,19,49,43,30, 5,17,35		4,17,41,18,23	
		25,33,27,15,13,34,56		1,52
56″	58,44,45,45,23,10,45,18,52,31		4,17,41,20,15	
		25,33,22,57,32,14,41		1,52
58″	58,44,46,10,56,33,42,51, 7,12		4,17,41,22, 7	
		25,33,18,39,50,52,34		
60″	58,44,46,36,29,52,22,41,59,46			
exact	58,44,46,36,29,52,22,41,43,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°16′ 0″	58,44,46,36,29,52,22,41,43,13			
		25,33,14,22, 9,27, 0		
2″	58,44,47, 2, 3, 6,44,51,10,13		4,17,41,25,56	
		25,33,10, 4,28, 1, 4		1,52
4″	58,44,47,27,36,16,49,19,11,17		4,17,41,27,48	
		25,33, 5,46,46,33,16		1,52
6″	58,44,47,53, 9,22,36, 5,44,33		4,17,41,29,40	
		25,33, 1,29, 5, 3,36		1,52
8″	58,44,48,18,42,24, 5,10,48, 9		4,17,41,31,32	
		25,32,57,11,23,32, 4		1,52
10″	58,44,48,44,15,21,16,34,20,13		4,17,41,33,24	
		25,32,52,53,41,58,40		1,52
12″	58,44,49, 9,48,14,10,16,18,53		4,17,41,35,16	
		25,32,48,36, 0,23,24		1,52
14″	58,44,49,35,21, 2,46,16,42,17		4,17,41,37, 8	
		25,32,44,18,18,46,16		1,52
16″	58,44,50, 0,53,47, 4,35,28,33		4,17,41,39, 0	
		25,32,40, 0,37, 7,16		1,52
18″	58,44,50,26,26,27, 5,12,35,49		4,17,41,40,52	
		25,32,35,42,55,26,24		1,52
20″	58,44,50,51,59, 2,48, 8, 2,13		4,17,41,42,44	
		25,32,31,25,13,43,40		1,52
22″	58,44,51,17,31,34,13,21,45,53		4,17,41,44,36	
		25,32,27, 7,31,59, 4		1,52
24″	58,44,51,43, 4, 1,20,53,44,57		4,17,41,46,28	
		25,32,22,49,50,12,36		1,52
26″	58,44,52, 8,36,24,10,43,57,33		4,17,41,48,20	
		25,32,18,32, 8,24,16		1,52
28″	58,44,52,34, 8,42,42,52,21,49		4,17,41,50,12	
		25,32,14,14,26,34, 4		1,52
30″	58,44,52,59,40,56,57,18,55,53		4,17,41,52, 4	
		25,32, 9,56,44,42, 0		1,52
32″	58,44,53,25,13, 6,54, 3,37,53		4,17,41,53,56	
		25,32, 5,39, 2,48, 4		1,52
34″	58,44,53,50,45,12,33, 6,25,57		4,17,41,55,48	
		25,32, 1,21,20,52,16		1,52
36″	58,44,54,16,17,13,54,27,18,13		4,17,41,57,40	
		25,31,57, 3,38,54,36		1,52
38″	58,44,54,41,49,10,58, 6,12,49		4,17,41,59,32	
		25,31,52,45,56,55, 4		1,52
40″	58,44,55, 7,21, 3,44, 3, 7,53		4,17,42, 1,24	
		25,31,48,28,14,53,40		1,52
42″	58,44,55,32,52,52,12,18, 1,33		4,17,42, 3,16	
		25,31,44,10,32,50,24		1,52
44″	58,44,55,58,24,36,22,50,51,57		4,17,42, 5, 8	
		25,31,39,52,50,45,16		1,52
46″	58,44,56,23,56,16,15,41,37,13		4,17,42, 7, 0	
		25,31,35,35, 8,38,16		1,52
48″	58,44,56,49,27,51,50,50,15,29		4,17,42, 8,52	
		25,31,31,17,26,29,24		1,52
50″	58,44,57,14,59,23, 8,16,44,53		4,17,42,10,44	
		25,31,26,59,44,18,40		1,52
52″	58,44,57,40,30,50, 8, 1, 3,33		4,17,42,12,36	
		25,31,22,42, 2, 6, 4		1,52
54″	58,44,58, 6, 2,12,50, 3, 9,37		4,17,42,14,28	
		25,31,18,24,19,51,36		1,52
56″	58,44,58,31,33,31,14,23, 1,13		4,17,42,16,20	
		25,31,14, 6,37,35,16		1,52
58″	58,44,58,57, 4,45,21, 0,36,29		4,17,42,18,12	
		25,31, 9,48,55,17, 4		
60″	58,44,59,22,35,55, 9,55,53,33			
exact	58,44,59,22,35,55, 9,55,47,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°17′ 0″	58,44,59,22,35,55, 9,55,47,38			
		25,31, 5,31,12,56,33		
2″	58,44,59,48, 7, 0,41, 8,44,11		4,17,42,21,57	
		25,31, 1,13,30,34,36		1,52
4″	58,45, 0,13,38, 1,54,39,18,47		4,17,42,23,49	
		25,30,56,55,48,10,47		1,52
6″	58,45, 0,39, 8,58,50,27,29,34		4,17,42,25,41	
		25,30,52,38, 5,45, 6		1,52
8″	58,45, 1, 4,39,51,28,33,14,40		4,17,42,27,33	
		25,30,48,20,23,17,33		1,52
10″	58,45, 1,30,10,39,48,56,32,13		4,17,42,29,25	
		25,30,44, 2,40,48, 8		1,52
12″	58,45, 1,55,41,23,51,37,20,21		4,17,42,31,17	
		25,30,39,44,58,16,51		1,52
14″	58,45, 2,21,12, 3,36,35,37,12		4,17,42,33, 9	
		25,30,35,27,15,43,42		1,52
16″	58,45, 2,46,42,39, 3,51,20,54		4,17,42,35, 1	
		25,30,31, 9,33, 8,41		1,52
18″	58,45, 3,12,13,10,13,24,29,35		4,17,42,36,53	
		25,30,26,51,50,31,48		1,52
20″	58,45, 3,37,43,37, 5,15, 1,23		4,17,42,38,45	
		25,30,22,34, 7,53, 3		1,52
22″	58,45, 4, 3,13,59,39,22,54,26		4,17,42,40,37	
		25,30,18,16,25,12,26		1,52
24″	58,45, 4,28,44,17,55,48, 6,52		4,17,42,42,29	
		25,30,13,58,42,29,57		1,52
26″	58,45, 4,54,14,31,54,30,36,49		4,17,42,44,21	
		25,30, 9,40,59,45,36		1,52
28″	58,45, 5,19,44,41,35,30,22,25		4,17,42,46,13	
		25,30, 5,23,16,59,23		1,52
30″	58,45, 5,45,14,46,58,47,21,48		4,17,42,48, 5	
		25,30, 1, 5,34,11,18		1,52
32″	58,45, 6,10,44,48, 4,21,33, 6		4,17,42,49,57	
		25,29,56,47,51,21,21		1,52
34″	58,45, 6,36,14,44,52,12,54,27		4,17,42,51,49	
		25,29,52,30, 8,29,32		1,52
36″	58,45, 7, 1,44,37,22,21,23,59		4,17,42,53,41	
		25,29,48,12,25,35,51		1,52
38″	58,45, 7,27,14,25,34,46,59,50		4,17,42,55,33	
		25,29,43,54,42,40,18		1,52
40″	58,45, 7,52,44, 9,29,29,40, 8		4,17,42,57,25	
		25,29,39,36,59,42,53		1,52
42″	58,45, 8,18,13,49, 6,29,23, 1		4,17,42,59,17	
		25,29,35,19,16,43,36		1,52
44″	58,45, 8,43,43,24,25,46, 6,37		4,17,43, 1, 9	
		25,29,31, 1,33,42,27		1,52
46″	58,45, 9, 9,12,55,27,19,49, 4		4,17,43, 3, 1	
		25,29,26,43,50,39,26		1,52
48″	58,45, 9,34,42,22,11,10,28,30		4,17,43, 4,53	
		25,29,22,26, 7,34,33		1,52
50″	58,45,10, 0,11,44,37,18, 3, 3		4,17,43, 6,45	
		25,29,18, 8,24,27,48		1,52
52″	58,45,10,25,41, 2,45,42,30,51		4,17,43, 8,37	
		25,29,13,50,41,19,11		1,52
54″	58,45,10,51,10,16,36,23,50, 2		4,17,43,10,29	
		25,29, 9,32,58, 8,42		1,52
56″	58,45,11,16,39,26, 9,21,58,44		4,17,43,12,21	
		25,29, 5,15,14,56,21		1,52
58″	58,45,11,42, 8,31,24,36,55, 5		4,17,43,14,13	
		25,29, 0,57,31,42, 8		
60″	58,45,12, 7,37,32,22, 8,37,13			
exact	58,45,12, 7,37,32,22, 8,46,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°18′ 0″	58,45,12, 7,37,32,22, 8,46,31			
		25,28,56,39,48,27, 4		
2″	58,45,12,33, 6,29, 1,57,13,35		4,17,43,17,52	
		25,28,52,22, 5, 9,12		1,52
4″	58,45,12,58,35,21,24, 2,22,47		4,17,43,19,44	
		25,28,48, 4,21,49,28		1,52
6″	58,45,13,24, 4, 9,28,24,12,15		4,17,43,21,36	
		25,28,43,46,38,27,52		1,52
8″	58,45,13,49,32,53,15, 2,40, 7		4,17,43,23,28	
		25,28,39,28,55, 4,24		1,52
10″	58,45,14,15, 1,32,43,57,44,31		4,17,43,25,20	
		25,28,35,11,11,39, 4		1,52
12″	58,45,14,40,30, 7,55, 9,23,35		4,17,43,27,12	
		25,28,30,53,28,11,52		1,52
14″	58,45,15, 5,58,38,48,37,35,27		4,17,43,29, 4	
		25,28,26,35,44,42,48		1,52
16″	58,45,15,31,27, 5,24,22,18,15		4,17,43,30,56	
		25,28,22,18, 1,11,52		1,52
18″	58,45,15,56,55,27,42,23,30, 7		4,17,43,32,48	
		25,28,18, 0,17,39, 4		1,52
20″	58,45,16,22,23,45,42,41, 9,11		4,17,43,34,40	
		25,28,13,42,34, 4,24		1,52
22″	58,45,16,47,51,59,25,15,13,35		4,17,43,36,32	
		25,28, 9,24,50,27,52		1,52
24″	58,45,17,13,20, 8,50, 5,41,27		4,17,43,38,24	
		25,28, 5, 7, 6,49,28		1,52
26″	58,45,17,38,48,13,57,12,30,55		4,17,43,40,16	
		25,28, 0,49,23, 9,12		1,52
28″	58,45,18, 4,16,14,46,35,40, 7		4,17,43,42, 8	
		25,27,56,31,39,27, 4		1,52
30″	58,45,18,29,44,11,18,15, 7,11		4,17,43,44, 0	
		25,27,52,13,55,43, 4		1,52
32″	58,45,18,55,12, 3,32,10,50,15		4,17,43,45,52	
		25,27,47,56,11,57,12		1,52
34″	58,45,19,20,39,51,28,22,47,27		4,17,43,47,44	
		25,27,43,38,28, 9,28		1,52
36″	58,45,19,46, 7,35, 6,50,56,55		4,17,43,49,36	
		25,27,39,20,44,19,52		1,52
38″	58,45,20,11,35,14,27,35,16,47		4,17,43,51,28	
		25,27,35, 3, 0,28,24		1,52
40″	58,45,20,37, 2,49,30,35,45,11		4,17,43,53,20	
		25,27,30,45,16,35, 4		1,52
42″	58,45,21, 2,30,20,15,52,20,15		4,17,43,55,12	
		25,27,26,27,32,39,52		1,52
44″	58,45,21,27,57,46,43,25, 0, 7		4,17,43,57, 4	
		25,27,22, 9,48,42,48		1,52
46″	58,45,21,53,25, 8,53,13,42,55		4,17,43,58,56	
		25,27,17,52, 4,43,52		1,52
48″	58,45,22,18,52,26,45,18,26,47		4,17,44, 0,48	
		25,27,13,34,20,43, 4		1,52
50″	58,45,22,44,19,40,19,39, 9,51		4,17,44, 2,40	
		25,27, 9,16,36,40,24		1,52
52″	58,45,23, 9,46,49,36,15,50,15		4,17,44, 4,32	
		25,27, 4,58,52,35,52		1,52
54″	58,45,23,35,13,54,35, 8,26, 7		4,17,44, 6,24	
		25,27, 0,41, 8,29,28		1,52
56″	58,45,24, 0,40,55,16,16,55,35		4,17,44, 8,16	
		25,26,56,23,24,21,12		1,52
58″	58,45,24,26, 7,51,39,41,16,47		4,17,44,10, 8	
		25,26,52, 5,40,11, 4		
60″	58,45,24,51,34,43,45,21,27,51			
exact	58,45,24,51,34,43,45,21,43, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°19′ 0″	58,45,24,51,34,43,45,21,43, 7			
		25,26,47,47,56, 0,54		
2″	58,45,25,17, 1,31,33,17,44, 1		4,17,44,13,43	
		25,26,43,30,11,47,11		1,52
4″	58,45,25,42,28,15, 3,29,31,12		4,17,44,15,35	
		25,26,39,12,27,31,36		1,52
6″	58,45,26, 7,54,54,15,57, 2,48		4,17,44,17,27	
		25,26,34,54,43,14, 9		1,52
8″	58,45,26,33,21,29,10,40,16,57		4,17,44,19,19	
		25,26,30,36,58,54,50		1,52
10″	58,45,26,58,47,59,47,39,11,47		4,17,44,21,11	
		25,26,26,19,14,33,39		1,52
12″	58,45,27,24,14,26, 6,53,45,26		4,17,44,23, 3	
		25,26,22, 1,30,10,36		1,52
14″	58,45,27,49,40,48, 8,23,56, 2		4,17,44,24,55	
		25,26,17,43,45,45,41		1,52
16″	58,45,28,15, 7, 5,52, 9,41,43		4,17,44,26,47	
		25,26,13,26, 1,18,54		1,52
18″	58,45,28,40,33,19,18,11, 0,37		4,17,44,28,39	
		25,26, 9, 8,16,50,15		1,52
20″	58,45,29, 5,59,28,26,27,50,52		4,17,44,30,31	
		25,26, 4,50,32,19,44		1,52
22″	58,45,29,31,25,33,17, 0,10,36		4,17,44,32,23	
		25,26, 0,32,47,47,21		1,52
24″	58,45,29,56,51,33,49,47,57,57		4,17,44,34,15	
		25,25,56,15, 3,13, 6		1,52
26″	58,45,30,22,17,30, 4,51,11, 3		4,17,44,36, 7	
		25,25,51,57,18,36,59		1,52
28″	58,45,30,47,43,22, 2, 9,48, 2		4,17,44,37,59	
		25,25,47,39,33,59, 0		1,52
30″	58,45,31,13, 9, 9,41,43,47, 2		4,17,44,39,51	
		25,25,43,21,49,19, 9		1,52
32″	58,45,31,38,34,53, 3,33, 6,11		4,17,44,41,43	
		25,25,39, 4, 4,37,26		1,52
34″	58,45,32, 4, 0,32, 7,37,43,37		4,17,44,43,35	
		25,25,34,46,19,53,51		1,52
36″	58,45,32,29,26, 6,53,57,37,28		4,17,44,45,27	
		25,25,30,28,35, 8,24		1,52
38″	58,45,32,54,51,37,22,32,45,52		4,17,44,47,19	
		25,25,26,10,50,21, 5		1,52
40″	58,45,33,20,17, 3,33,23, 6,57		4,17,44,49,11	
		25,25,21,53, 5,31,54		1,52
42″	58,45,33,45,42,25,26,28,38,51		4,17,44,51, 3	
		25,25,17,35,20,40,51		1,52
44″	58,45,34,11, 7,43, 1,49,19,42		4,17,44,52,55	
		25,25,13,17,35,47,56		1,52
46″	58,45,34,36,32,56,19,25, 7,38		4,17,44,54,47	
		25,25, 8,59,50,53, 9		1,52
48″	58,45,35, 1,58, 5,19,16, 0,47		4,17,44,56,39	
		25,25, 4,42, 5,56,30		1,52
50″	58,45,35,27,23,10, 1,21,57,17		4,17,44,58,31	
		25,25, 0,24,20,57,59		1,52
52″	58,45,35,52,48,10,25,42,55,16		4,17,45, 0,23	
		25,24,56, 6,35,57,36		1,52
54″	58,45,36,18,13, 6,32,18,52,52		4,17,45, 2,15	
		25,24,51,48,50,55,21		1,52
56″	58,45,36,43,37,58,21, 9,48,13		4,17,45, 4, 7	
		25,24,47,31, 5,51,14		1,52
58″	58,45,37, 9, 2,45,52,15,39,27		4,17,45, 5,59	
		25,24,43,13,20,45,15		
60″	58,45,37,34,27,29, 5,36,24,42			
exact	58,45,37,34,27,29, 5,36,51,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°20′ 0″	58,45,37,34,27,29, 5,36,51,18			
		25,24,38,55,35,40,25		
2″	58,45,37,59,52, 8, 1,12,31,43		4,17,45, 9,29	
		25,24,34,37,50,30,56		1,51
4″	58,45,38,25,16,42,39, 3, 2,39		4,17,45,11,20	
		25,24,30,20, 5,19,36		1,51
6″	58,45,38,50,41,12,59, 8,22,15		4,17,45,13,11	
		25,24,26, 2,20, 6,25		1,51
8″	58,45,39,16, 5,39, 1,28,28,40		4,17,45,15, 2	
		25,24,21,44,34,51,23		1,51
10″	58,45,39,41,30, 0,46, 3,20, 3		4,17,45,16,53	
		25,24,17,26,49,34,30		1,51
12″	58,45,40, 6,54,18,12,52,54,33		4,17,45,18,44	
		25,24,13, 9, 4,15,46		1,51
14″	58,45,40,32,18,31,21,57,10,19		4,17,45,20,35	
		25,24, 8,51,18,55,11		1,51
16″	58,45,40,57,42,40,13,16, 5,30		4,17,45,22,26	
		25,24, 4,33,33,32,45		1,51
18″	58,45,41,23, 6,44,46,49,38,15		4,17,45,24,17	
		25,24, 0,15,48, 8,28		1,51
20″	58,45,41,48,30,45, 2,37,46,43		4,17,45,26, 8	
		25,23,55,58, 2,42,20		1,51
22″	58,45,42,13,54,41, 0,40,29, 3		4,17,45,27,59	
		25,23,51,40,17,14,21		1,51
24″	58,45,42,39,18,32,40,57,43,24		4,17,45,29,50	
		25,23,47,22,31,44,31		1,51
26″	58,45,43, 4,42,20, 3,29,27,55		4,17,45,31,41	
		25,23,43, 4,46,12,50		1,51
28″	58,45,43,30, 6, 3, 8,15,40,45		4,17,45,33,32	
		25,23,38,47, 0,39,18		1,51
30″	58,45,43,55,29,41,55,16,20, 3		4,17,45,35,23	
		25,23,34,29,15, 3,55		1,51
32″	58,45,44,20,53,16,24,31,23,58		4,17,45,37,14	
		25,23,30,11,29,26,41		1,51
34″	58,45,44,46,16,46,36, 0,50,39		4,17,45,39, 5	
		25,23,25,53,43,47,36		1,51
36″	58,45,45,11,40,12,29,44,38,15		4,17,45,40,56	
		25,23,21,35,58, 6,40		1,51
38″	58,45,45,37, 3,34, 5,42,44,55		4,17,45,42,47	
		25,23,17,18,12,23,53		1,51
40″	58,45,46, 2,26,51,23,55, 8,48		4,17,45,44,38	
		25,23,13, 0,26,39,15		1,51
42″	58,45,46,27,50, 4,24,21,48, 3		4,17,45,46,29	
		25,23, 8,42,40,52,46		1,51
44″	58,45,46,53,13,13, 7, 2,40,49		4,17,45,48,20	
		25,23, 4,24,55, 4,26		1,51
46″	58,45,47,18,36,17,31,57,45,15		4,17,45,50,11	
		25,23, 0, 7, 9,14,15		1,51
48″	58,45,47,43,59,17,39, 6,59,30		4,17,45,52, 2	
		25,22,55,49,23,22,13		1,51
50″	58,45,48, 9,22,13,28,30,21,43		4,17,45,53,53	
		25,22,51,31,37,28,20		1,51
52″	58,45,48,34,45, 5, 0, 7,50, 3		4,17,45,55,44	
		25,22,47,13,51,32,36		1,51
54″	58,45,49, 0, 7,52,13,59,22,39		4,17,45,57,35	
		25,22,42,56, 5,35, 1		1,51
56″	58,45,49,25,30,35,10, 4,57,40		4,17,45,59,26	
		25,22,38,38,19,35,35		1,51
58″	58,45,49,50,53,13,48,24,33,15		4,17,46, 1,17	
		25,22,34,20,33,34,18		
60″	58,45,50,16,15,48, 8,58, 7,33			
exact	58,45,50,16,15,48, 8,57,35,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°21′ 0″	58,45,50,16,15,48, 8,57,35,39			
		25,22,30, 2,47,27,58		
2″	58,45,50,41,38,18,11,45, 3,37		4,17,46, 5,11	
		25,22,25,45, 1,22,47		1,51
4″	58,45,51, 7, 0,43,56,46,26,24		4,17,46, 7, 2	
		25,22,21,27,15,15,45		1,51
6″	58,45,51,32,23, 5,24, 1,42, 9		4,17,46, 8,53	
		25,22,17, 9,29, 6,52		1,51
8″	58,45,51,57,45,22,33,30,49, 1		4,17,46,10,44	
		25,22,12,51,42,56, 8		1,51
10″	58,45,52,23, 7,35,25,13,45, 9		4,17,46,12,35	
		25,22, 8,33,56,43,33		1,51
12″	58,45,52,48,29,43,59,10,28,42		4,17,46,14,26	
		25,22, 4,16,10,29, 7		1,51
14″	58,45,53,13,51,48,15,20,57,49		4,17,46,16,17	
		25,21,59,58,24,12,50		1,51
16″	58,45,53,39,13,48,13,45,10,39		4,17,46,18, 8	
		25,21,55,40,37,54,42		1,51
18″	58,45,54, 4,35,43,54,23, 5,21		4,17,46,19,59	
		25,21,51,22,51,34,43		1,51
20″	58,45,54,29,57,35,17,14,40, 4		4,17,46,21,50	
		25,21,47, 5, 5,12,53		1,51
22″	58,45,54,55,19,22,22,19,52,57		4,17,46,23,41	
		25,21,42,47,18,49,12		1,51
24″	58,45,55,20,41, 5, 9,38,42, 9		4,17,46,25,32	
		25,21,38,29,32,23,40		1,51
26″	58,45,55,46, 2,43,39,11, 5,49		4,17,46,27,23	
		25,21,34,11,45,56,17		1,51
28″	58,45,56,11,24,17,50,57, 2, 6		4,17,46,29,14	
		25,21,29,53,59,27, 3		1,51
30″	58,45,56,36,45,47,44,56,29, 9		4,17,46,31, 5	
		25,21,25,36,12,55,58		1,51
32″	58,45,57, 2, 7,13,21, 9,25, 7		4,17,46,32,56	
		25,21,21,18,26,23, 2		1,51
34″	58,45,57,27,28,34,39,35,48, 9		4,17,46,34,47	
		25,21,17, 0,39,48,15		1,51
36″	58,45,57,52,49,51,40,15,36,24		4,17,46,36,38	
		25,21,12,42,53,11,37		1,51
38″	58,45,58,18,11, 4,23, 8,48, 1		4,17,46,38,29	
		25,21, 8,25, 6,33, 8		1,51
40″	58,45,58,43,32,12,48,15,21, 9		4,17,46,40,20	
		25,21, 4, 7,19,52,48		1,51
42″	58,45,59, 8,53,16,55,35,13,57		4,17,46,42,11	
		25,20,59,49,33,10,37		1,51
44″	58,45,59,34,14,16,45, 8,24,34		4,17,46,44, 2	
		25,20,55,31,46,26,35		1,51
46″	58,45,59,59,35,12,16,54,51, 9		4,17,46,45,53	
		25,20,51,13,59,40,42		1,51
48″	58,46, 0,24,56, 3,30,54,31,51		4,17,46,47,44	
		25,20,46,56,12,52,58		1,51
50″	58,46, 0,50,16,50,27, 7,24,49		4,17,46,49,35	
		25,20,42,38,26, 3,23		1,51
52″	58,46, 1,15,37,33, 5,33,28,12		4,17,46,51,26	
		25,20,38,20,39,11,57		1,51
54″	58,46, 1,40,58,11,26,12,40, 9		4,17,46,53,17	
		25,20,34, 2,52,18,40		1,51
56″	58,46, 2, 6,18,45,29, 4,58,49		4,17,46,55, 8	
		25,20,29,45, 5,23,32		1,51
58″	58,46, 2,31,39,15,14,10,22,21		4,17,46,56,59	
		25,20,25,27,18,26,33		
60″	58,46, 2,56,59,40,41,28,48,54			
exact	58,46, 2,56,59,40,41,28,31,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°22′ 0″	58,46, 2,56,59,40,41,28,31,24			
		25,20,21, 9,31,25,55		
2″	58,46, 3,22,20, 1,50,59,57,19		4,17,47, 0,48	
		25,20,16,51,44,25, 7		1,51
4″	58,46, 3,47,40,18,42,44,22,26		4,17,47, 2,39	
		25,20,12,33,57,22,28		1,51
6″	58,46, 4,13, 0,31,16,41,44,54		4,17,47, 4,30	
		25,20, 8,16,10,17,58		1,51
8″	58,46, 4,38,20,39,32,52, 2,52		4,17,47, 6,21	
		25,20, 3,58,23,11,37		1,51
10″	58,46, 5, 3,40,43,31,15,14,29		4,17,47, 8,12	
		25,19,59,40,36, 3,25		1,51
12″	58,46, 5,29, 0,43,11,51,17,54		4,17,47,10, 3	
		25,19,55,22,48,53,22		1,51
14″	58,46, 5,54,20,38,34,40,11,16		4,17,47,11,54	
		25,19,51, 5, 1,41,28		1,51
16″	58,46, 6,19,40,29,39,41,52,44		4,17,47,13,45	
		25,19,46,47,14,27,43		1,51
18″	58,46, 6,45, 0,16,26,56,20,27		4,17,47,15,36	
		25,19,42,29,27,12, 7		1,51
20″	58,46, 7,10,19,58,56,23,32,34		4,17,47,17,27	
		25,19,38,11,39,54,40		1,51
22″	58,46, 7,35,39,37, 8, 3,27,14		4,17,47,19,18	
		25,19,33,53,52,35,22		1,51
24″	58,46, 8, 0,59,11, 1,56, 2,36		4,17,47,21, 9	
		25,19,29,36, 5,14,13		1,51
26″	58,46, 8,26,18,40,38, 1,16,49		4,17,47,23, 0	
		25,19,25,18,17,51,13		1,51
28″	58,46, 8,51,38, 5,56,19, 8, 2		4,17,47,24,51	
		25,19,21, 0,30,26,22		1,51
30″	58,46, 9,16,57,26,56,49,34,24		4,17,47,26,42	
		25,19,16,42,42,59,40		1,51
32″	58,46, 9,42,16,43,39,32,34, 4		4,17,47,28,33	
		25,19,12,24,55,31, 7		1,51
34″	58,46,10, 7,35,56, 4,28, 5,11		4,17,47,30,24	
		25,19, 8, 7, 8, 0,43		1,51
36″	58,46,10,32,55, 4,11,36, 5,54		4,17,47,32,15	
		25,19, 3,49,20,28,28		1,51
38″	58,46,10,58,14, 8, 0,56,34,22		4,17,47,34, 6	
		25,18,59,31,32,54,22		1,51
40″	58,46,11,23,33, 7,32,29,28,44		4,17,47,35,57	
		25,18,55,13,45,18,25		1,51
42″	58,46,11,48,52, 2,46,14,47, 9		4,17,47,37,48	
		25,18,50,55,57,40,37		1,51
44″	58,46,12,14,10,53,42,12,27,46		4,17,47,39,39	
		25,18,46,38,10, 0,58		1,51
46″	58,46,12,39,29,40,20,22,28,44		4,17,47,41,30	
		25,18,42,20,22,19,28		1,51
48″	58,46,13, 4,48,22,40,44,48,12		4,17,47,43,21	
		25,18,38, 2,34,36, 7		1,51
50″	58,46,13,30, 7, 0,43,19,24,19		4,17,47,45,12	
		25,18,33,44,46,50,55		1,51
52″	58,46,13,55,25,34,28, 6,15,14		4,17,47,47, 3	
		25,18,29,26,59, 3,52		1,51
54″	58,46,14,20,44, 3,55, 5,19, 6		4,17,47,48,54	
		25,18,25, 9,11,14,58		1,51
56″	58,46,14,46, 2,29, 4,16,34, 4		4,17,47,50,45	
		25,18,20,51,23,24,13		1,51
58″	58,46,15,11,20,49,55,39,58,17		4,17,47,52,36	
		25,18,16,33,35,31,37		
60″	58,46,15,36,39, 6,29,15,29,54			
exact	58,46,15,36,39, 6,29,15,24,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°23′ 0″	58,46,15,36,39, 6,29,15,24,24			
		25,18,12,15,47,36,36		
2″	58,46,16, 1,57,18,45, 3, 1, 0		4,17,47,56,20	
		25,18, 7,57,59,40,16		1,51
4″	58,46,16,27,15,26,43, 2,41,16		4,17,47,58,11	
		25,18, 3,40,11,42, 5		1,51
6″	58,46,16,52,33,30,23,14,23,21		4,17,48, 0, 2	
		25,17,59,22,23,42, 3		1,51
8″	58,46,17,17,51,29,45,38, 5,24		4,17,48, 1,53	
		25,17,55, 4,35,40,10		1,51
10″	58,46,17,43, 9,24,50,13,45,34		4,17,48, 3,44	
		25,17,50,46,47,36,26		1,51
12″	58,46,18, 8,27,15,37, 1,22, 0		4,17,48, 5,35	
		25,17,46,28,59,30,51		1,51
14″	58,46,18,33,45, 2, 6, 0,52,51		4,17,48, 7,26	
		25,17,42,11,11,23,25		1,51
16″	58,46,18,59, 2,44,17,12,16,16		4,17,48, 9,17	
		25,17,37,53,23,14, 8		1,51
18″	58,46,19,24,20,22,10,35,30,24		4,17,48,11, 8	
		25,17,33,35,35, 3, 0		1,51
20″	58,46,19,49,37,55,46,10,33,24		4,17,48,12,59	
		25,17,29,17,46,50, 1		1,51
22″	58,46,20,14,55,25, 3,57,23,25		4,17,48,14,50	
		25,17,24,59,58,35,11		1,51
24″	58,46,20,40,12,50, 3,55,58,36		4,17,48,16,41	
		25,17,20,42,10,18,30		1,51
26″	58,46,21, 5,30,10,46, 6,17, 6		4,17,48,18,32	
		25,17,16,24,21,59,58		1,51
28″	58,46,21,30,47,27,10,28,17, 4		4,17,48,20,23	
		25,17,12, 6,33,39,35		1,51
30″	58,46,21,56, 4,39,17, 1,56,39		4,17,48,22,14	
		25,17, 7,48,45,17,21		1,51
32″	58,46,22,21,21,47, 5,47,14, 0		4,17,48,24, 5	
		25,17, 3,30,56,53,16		1,51
34″	58,46,22,46,38,50,36,44, 7,16		4,17,48,25,56	
		25,16,59,13, 8,27,20		1,51
36″	58,46,23,11,55,49,49,52,34,36		4,17,48,27,47	
		25,16,54,55,19,59,33		1,51
38″	58,46,23,37,12,44,45,12,34, 9		4,17,48,29,38	
		25,16,50,37,31,29,55		1,51
40″	58,46,24, 2,29,35,22,44, 4, 4		4,17,48,31,29	
		25,16,46,19,42,58,26		1,51
42″	58,46,24,27,46,21,42,27, 2,30		4,17,48,33,20	
		25,16,42, 1,54,25, 6		1,51
44″	58,46,24,53, 3, 3,44,21,27,36		4,17,48,35,11	
		25,16,37,44, 5,49,55		1,51
46″	58,46,25,18,19,41,28,27,17,31		4,17,48,37, 2	
		25,16,33,26,17,12,53		1,51
48″	58,46,25,43,36,14,54,44,30,24		4,17,48,38,53	
		25,16,29, 8,28,34, 0		1,51
50″	58,46,26, 8,52,44, 3,13, 4,24		4,17,48,40,44	
		25,16,24,50,39,53,16		1,51
52″	58,46,26,34, 9, 8,53,52,57,40		4,17,48,42,35	
		25,16,20,32,51,10,41		1,51
54″	58,46,26,59,25,29,26,44, 8,21		4,17,48,44,26	
		25,16,16,15, 2,26,15		1,51
56″	58,46,27,24,41,45,41,46,34,36		4,17,48,46,17	
		25,16,11,57,13,39,58		1,51
58″	58,46,27,49,57,57,39, 0,14,34		4,17,48,48, 8	
		25,16, 7,39,24,51,50		
60″	58,46,28,15,14, 5,18,25, 6,24			
exact	58,46,28,15,14, 5,18,25,11,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°24′ 0″	58,46,28,15,14, 5,18,25,11,14			
		25,16, 3,21,36, 2,24		
2″	58,46,28,40,30, 8,40, 1,13,38		4,17,48,51,47	
		25,15,59, 3,47,10,37		1,51
4″	58,46,29, 5,46, 7,43,48,24,15		4,17,48,53,38	
		25,15,54,45,58,16,59		1,51
6″	58,46,29,31, 2, 2,29,46,41,14		4,17,48,55,29	
		25,15,50,28, 9,21,30		1,51
8″	58,46,29,56,17,52,57,56, 2,44		4,17,48,57,20	
		25,15,46,10,20,24,10		1,51
10″	58,46,30,21,33,39, 8,16,26,54		4,17,48,59,11	
		25,15,41,52,31,24,59		1,51
12″	58,46,30,46,49,21, 0,47,51,53		4,17,49, 1, 2	
		25,15,37,34,42,23,57		1,51
14″	58,46,31,12, 4,58,35,30,15,50		4,17,49, 2,53	
		25,15,33,16,53,21, 4		1,51
16″	58,46,31,37,20,31,52,23,36,54		4,17,49, 4,44	
		25,15,28,59, 4,16,20		1,51
18″	58,46,32, 2,36, 0,51,27,53,14		4,17,49, 6,35	
		25,15,24,41,15, 9,45		1,51
20″	58,46,32,27,51,25,32,43, 2,59		4,17,49, 8,26	
		25,15,20,23,26, 1,19		1,51
22″	58,46,32,53, 6,45,56, 9, 4,18		4,17,49,10,17	
		25,15,16, 5,36,51, 2		1,51
24″	58,46,33,18,22, 2, 1,45,55,20		4,17,49,12, 8	
		25,15,11,47,47,38,54		1,51
26″	58,46,33,43,37,13,49,33,34,14		4,17,49,13,59	
		25,15, 7,29,58,24,55		1,51
28″	58,46,34, 8,52,21,19,31,59, 9		4,17,49,15,50	
		25,15, 3,12, 9, 9, 5		1,51
30″	58,46,34,34, 7,24,31,41, 8,14		4,17,49,17,41	
		25,14,58,54,19,51,24		1,51
32″	58,46,34,59,22,23,26, 0,59,38		4,17,49,19,32	
		25,14,54,36,30,31,52		1,51
34″	58,46,35,24,37,18, 2,31,31,30		4,17,49,21,23	
		25,14,50,18,41,10,29		1,51
36″	58,46,35,49,52, 8,21,12,41,59		4,17,49,23,14	
		25,14,46, 0,51,47,15		1,51
38″	58,46,36,15, 6,54,22, 4,29,14		4,17,49,25, 5	
		25,14,41,43, 2,22,10		1,51
40″	58,46,36,40,21,36, 5, 6,51,24		4,17,49,26,56	
		25,14,37,25,12,55,14		1,51
42″	58,46,37, 5,36,13,30,19,46,38		4,17,49,28,47	
		25,14,33, 7,23,26,27		1,51
44″	58,46,37,30,50,46,37,43,13, 5		4,17,49,30,38	
		25,14,28,49,33,55,49		1,51
46″	58,46,37,56, 5,15,27,17, 8,54		4,17,49,32,29	
		25,14,24,31,44,23,20		1,51
48″	58,46,38,21,19,39,59, 1,32,14		4,17,49,34,20	
		25,14,20,13,54,49, 0		1,51
50″	58,46,38,46,34, 0,12,56,21,14		4,17,49,36,11	
		25,14,15,56, 5,12,49		1,51
52″	58,46,39,11,48,16, 9, 1,34, 3		4,17,49,38, 2	
		25,14,11,38,15,34,47		1,51
54″	58,46,39,37, 2,27,47,17, 8,50		4,17,49,39,53	
		25,14, 7,20,25,54,54		1,51
56″	58,46,40, 2,16,35, 7,43, 3,44		4,17,49,41,44	
		25,14, 3, 2,36,13,10		1,51
58″	58,46,40,27,30,38,10,19,16,54		4,17,49,43,35	
		25,13,58,44,46,29,35		
60″	58,46,40,52,44,36,55, 5,46,29			
exact	58,46,40,52,44,36,55, 5,59, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°25′ 0″	58,46,40,52,44,36,55, 5,59, 9			
		25,13,54,26,56,45,39		
2″	58,46,41,17,58,31,22, 2,44,48		4,17,49,47,10	
		25,13,50, 9, 6,58,29		1,51
4″	58,46,41,43,12,21,31, 9,43,17		4,17,49,49, 1	
		25,13,45,51,17, 9,28		1,51
6″	58,46,42, 8,26, 7,22,26,52,45		4,17,49,50,52	
		25,13,41,33,27,18,36		1,51
8″	58,46,42,33,39,48,55,54,11,21		4,17,49,52,43	
		25,13,37,15,37,25,53		1,51
10″	58,46,42,58,53,26,11,31,37,14		4,17,49,54,34	
		25,13,32,57,47,31,19		1,51
12″	58,46,43,24, 6,59, 9,19, 8,33		4,17,49,56,25	
		25,13,28,39,57,34,54		1,51
14″	58,46,43,49,20,27,49,16,43,27		4,17,49,58,16	
		25,13,24,22, 7,36,38		1,51
16″	58,46,44,14,33,52,11,24,20, 5		4,17,50, 0, 7	
		25,13,20, 4,17,36,31		1,51
18″	58,46,44,39,47,12,15,41,56,36		4,17,50, 1,58	
		25,13,15,46,27,34,33		1,51
20″	58,46,45, 5, 0,28, 2, 9,31, 9		4,17,50, 3,49	
		25,13,11,28,37,30,44		1,51
22″	58,46,45,30,13,39,30,47, 1,53		4,17,50, 5,40	
		25,13, 7,10,47,25, 4		1,51
24″	58,46,45,55,26,46,41,34,26,57		4,17,50, 7,31	
		25,13, 2,52,57,17,33		1,51
26″	58,46,46,20,39,49,34,31,44,30		4,17,50, 9,22	
		25,12,58,35, 7, 8,11		1,51
28″	58,46,46,45,52,48, 9,38,52,41		4,17,50,11,13	
		25,12,54,17,16,56,58		1,51
30″	58,46,47,11, 5,42,26,55,49,39		4,17,50,13, 4	
		25,12,49,59,26,43,54		1,51
32″	58,46,47,36,18,32,26,22,33,33		4,17,50,14,55	
		25,12,45,41,36,28,59		1,51
34″	58,46,48, 1,31,18, 7,59, 2,32		4,17,50,16,46	
		25,12,41,23,46,12,13		1,51
36″	58,46,48,26,43,59,31,45,14,45		4,17,50,18,37	
		25,12,37, 5,55,53,36		1,51
38″	58,46,48,51,56,36,37,41, 8,21		4,17,50,20,28	
		25,12,32,48, 5,33, 8		1,51
40″	58,46,49,17, 9, 9,25,46,41,29		4,17,50,22,19	
		25,12,28,30,15,10,49		1,51
42″	58,46,49,42,21,37,56, 1,52,18		4,17,50,24,10	
		25,12,24,12,24,46,39		1,51
44″	58,46,50, 7,34, 2, 8,26,38,57		4,17,50,26, 1	
		25,12,19,54,34,20,38		1,51
46″	58,46,50,32,46,22, 3, 0,59,35		4,17,50,27,52	
		25,12,15,36,43,52,46		1,51
48″	58,46,50,57,58,37,39,44,52,21		4,17,50,29,43	
		25,12,11,18,53,23, 3		1,51
50″	58,46,51,23,10,48,58,38,15,24		4,17,50,31,34	
		25,12, 7, 1, 2,51,29		1,51
52″	58,46,51,48,22,55,59,41, 6,53		4,17,50,33,25	
		25,12, 2,43,12,18, 4		1,51
54″	58,46,52,13,34,58,42,53,24,57		4,17,50,35,16	
		25,11,58,25,21,42,48		1,51
56″	58,46,52,38,46,57, 8,15, 7,45		4,17,50,37, 7	
		25,11,54, 7,31, 5,41		1,51
58″	58,46,53, 3,58,51,15,46,13,26		4,17,50,38,58	
		25,11,49,49,40,26,43		
60″	58,46,53,29,10,41, 5,26,40, 9			
exact	58,46,53,29,10,41, 5,27, 6, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°26′ 0″	58,46,53,29,10,41, 5,27, 6, 3			
		25,11,45,31,49,48,43		
2″	58,46,53,54,22,26,37,16,54,46		4,17,50,42,28	
		25,11,41,13,59, 6,15		1,51
4″	58,46,54,19,34, 7,51,16, 1, 1		4,17,50,44,19	
		25,11,36,56, 8,21,56		1,51
6″	58,46,54,44,45,44,47,24,22,57		4,17,50,46,10	
		25,11,32,38,17,35,46		1,51
8″	58,46,55, 9,57,17,25,41,58,43		4,17,50,48, 1	
		25,11,28,20,26,47,45		1,51
10″	58,46,55,35, 8,45,46, 8,46,28		4,17,50,49,52	
		25,11,24, 2,35,57,53		1,51
12″	58,46,56, 0,20, 9,48,44,44,21		4,17,50,51,43	
		25,11,19,44,45, 6,10		1,51
14″	58,46,56,25,31,29,33,29,50,31		4,17,50,53,34	
		25,11,15,26,54,12,36		1,51
16″	58,46,56,50,42,45, 0,24, 3, 7		4,17,50,55,25	
		25,11,11, 9, 3,17,11		1,51
18″	58,46,57,15,53,56, 9,27,20,18		4,17,50,57,16	
		25,11, 6,51,12,19,55		1,51
20″	58,46,57,41, 5, 3, 0,39,40,13		4,17,50,59, 7	
		25,11, 2,33,21,20,48		1,51
22″	58,46,58, 6,16, 5,34, 1, 1, 1		4,17,51, 0,58	
		25,10,58,15,30,19,50		1,51
24″	58,46,58,31,27, 3,49,31,20,51		4,17,51, 2,49	
		25,10,53,57,39,17, 1		1,51
26″	58,46,58,56,37,57,47,10,37,52		4,17,51, 4,40	
		25,10,49,39,48,12,21		1,51
28″	58,46,59,21,48,47,26,58,50,13		4,17,51, 6,31	
		25,10,45,21,57, 5,50		1,51
30″	58,46,59,46,59,32,48,55,56, 3		4,17,51, 8,22	
		25,10,41, 4, 5,57,28		1,51
32″	58,47, 0,12,10,13,53, 1,53,31		4,17,51,10,13	
		25,10,36,46,14,47,15		1,51
34″	58,47, 0,37,20,50,39,16,40,46		4,17,51,12, 4	
		25,10,32,28,23,35,11		1,51
36″	58,47, 1, 2,31,23, 7,40,15,57		4,17,51,13,55	
		25,10,28,10,32,21,16		1,51
38″	58,47, 1,27,41,51,18,12,37,13		4,17,51,15,46	
		25,10,23,52,41, 5,30		1,51
40″	58,47, 1,52,52,15,10,53,42,43		4,17,51,17,37	
		25,10,19,34,49,47,53		1,51
42″	58,47, 2,18, 2,34,45,43,30,36		4,17,51,19,28	
		25,10,15,16,58,28,25		1,51
44″	58,47, 2,43,12,50, 2,41,59, 1		4,17,51,21,19	
		25,10,10,59, 7, 7, 6		1,51
46″	58,47, 3, 8,23, 1, 1,49, 6, 7		4,17,51,23,10	
		25,10, 6,41,15,43,56		1,51
48″	58,47, 3,33,33, 7,43, 4,50, 3		4,17,51,25, 1	
		25,10, 2,23,24,18,55		1,51
50″	58,47, 3,58,43,10, 6,29, 8,58		4,17,51,26,52	
		25, 9,58, 5,32,52, 3		1,51
52″	58,47, 4,23,53, 8,12, 2, 1, 1		4,17,51,28,43	
		25, 9,53,47,41,23,20		1,51
54″	58,47, 4,49, 3, 1,59,43,24,21		4,17,51,30,34	
		25, 9,49,29,49,52,46		1,51
56″	58,47, 5,14,12,51,29,33,17, 7		4,17,51,32,25	
		25, 9,45,11,58,20,21		1,51
58″	58,47, 5,39,22,36,41,31,37,28		4,17,51,34,16	
		25, 9,40,54, 6,46, 5		
60″	58,47, 6, 4,32,17,35,38,23,33			
exact	58,47, 6, 4,32,17,35,39, 0,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°27′ 0″	58,47, 6, 4,32,17,35,39, 0,34			
		25, 9,36,36,15,13,57		
2″	58,47, 6,29,41,54,11,54,14,31		4,17,51,37,41	
		25, 9,32,18,23,36,16		1,50
4″	58,47, 6,54,51,26,30,17,50,47		4,17,51,39,31	
		25, 9,28, 0,31,56,45		1,50
6″	58,47, 7,20, 0,54,30,49,47,32		4,17,51,41,21	
		25, 9,23,42,40,15,24		1,50
8″	58,47, 7,45,10,18,13,30, 2,56		4,17,51,43,11	
		25, 9,19,24,48,32,13		1,50
10″	58,47, 8,10,19,37,38,18,35, 9		4,17,51,45, 1	
		25, 9,15, 6,56,47,12		1,50
12″	58,47, 8,35,28,52,45,15,22,21		4,17,51,46,51	
		25, 9,10,49, 5, 0,21		1,50
14″	58,47, 9, 0,38, 3,34,20,22,42		4,17,51,48,41	
		25, 9, 6,31,13,11,40		1,50
16″	58,47, 9,25,47,10, 5,33,34,22		4,17,51,50,31	
		25, 9, 2,13,21,21, 9		1,50
18″	58,47, 9,50,56,12,18,54,55,31		4,17,51,52,21	
		25, 8,57,55,29,28,48		1,50
20″	58,47,10,16, 5,10,14,24,24,19		4,17,51,54,11	
		25, 8,53,37,37,34,37		1,50
22″	58,47,10,41,14, 3,52, 1,58,56		4,17,51,56, 1	
		25, 8,49,19,45,38,36		1,50
24″	58,47,11, 6,22,53,11,47,37,32		4,17,51,57,51	
		25, 8,45, 1,53,40,45		1,50
26″	58,47,11,31,31,38,13,41,18,17		4,17,51,59,41	
		25, 8,40,44, 1,41, 4		1,50
28″	58,47,11,56,40,18,57,42,59,21		4,17,52, 1,31	
		25, 8,36,26, 9,39,33		1,50
30″	58,47,12,21,48,55,23,52,38,54		4,17,52, 3,21	
		25, 8,32, 8,17,36,12		1,50
32″	58,47,12,46,57,27,32,10,15, 6		4,17,52, 5,11	
		25, 8,27,50,25,31, 1		1,50
34″	58,47,13,12, 5,55,22,35,46, 7		4,17,52, 7, 1	
		25, 8,23,32,33,24, 0		1,50
36″	58,47,13,37,14,18,55, 9,10, 7		4,17,52, 8,51	
		25, 8,19,14,41,15, 9		1,50
38″	58,47,14, 2,22,38, 9,50,25,16		4,17,52,10,41	
		25, 8,14,56,49, 4,28		1,50
40″	58,47,14,27,30,53, 6,39,29,44		4,17,52,12,31	
		25, 8,10,38,56,51,57		1,50
42″	58,47,14,52,39, 3,45,36,21,41		4,17,52,14,21	
		25, 8, 6,21, 4,37,36		1,50
44″	58,47,15,17,47,10, 6,40,59,17		4,17,52,16,11	
		25, 8, 2, 3,12,21,25		1,50
46″	58,47,15,42,55,12, 9,53,20,42		4,17,52,18, 1	
		25, 7,57,45,20, 3,24		1,50
48″	58,47,16, 8, 3, 9,55,13,24, 6		4,17,52,19,51	
		25, 7,53,27,27,43,33		1,50
50″	58,47,16,33,11, 3,22,41, 7,39		4,17,52,21,41	
		25, 7,49, 9,35,21,52		1,50
52″	58,47,16,58,18,52,32,16,29,31		4,17,52,23,31	
		25, 7,44,51,42,58,21		1,50
54″	58,47,17,23,26,37,23,59,27,52		4,17,52,25,21	
		25, 7,40,33,50,33, 0		1,50
56″	58,47,17,48,34,17,57,50, 0,52		4,17,52,27,11	
		25, 7,36,15,58, 5,49		1,50
58″	58,47,18,13,41,54,13,48, 6,41		4,17,52,29, 1	
		25, 7,31,58, 5,36,48		
60″	58,47,18,38,49,26,11,53,43,29			
exact	58,47,18,38,49,26,11,53,21,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°28′ 0″	58,47,18,38,49,26,11,53,21,58			
		25, 7,27,40,13, 3,43		
2″	58,47,19, 3,56,53,52, 6,25,41		4,17,52,32,49	
		25, 7,23,22,20,30,54		1,50
4″	58,47,19,29, 4,17,14,26,56,35		4,17,52,34,39	
		25, 7,19, 4,27,56,15		1,50
6″	58,47,19,54,11,36,18,54,52,50		4,17,52,36,29	
		25, 7,14,46,35,19,46		1,50
8″	58,47,20,19,18,51, 5,30,12,36		4,17,52,38,19	
		25, 7,10,28,42,41,27		1,50
10″	58,47,20,44,26, 1,34,12,54, 3		4,17,52,40, 9	
		25, 7, 6,10,50, 1,18		1,50
12″	58,47,21, 9,33, 7,45, 2,55,21		4,17,52,41,59	
		25, 7, 1,52,57,19,19		1,50
14″	58,47,21,34,40, 9,38, 0,14,40		4,17,52,43,49	
		25, 6,57,35, 4,35,30		1,50
16″	58,47,21,59,47, 7,13, 4,50,10		4,17,52,45,39	
		25, 6,53,17,11,49,51		1,50
18″	58,47,22,24,54, 0,30,16,40, 1		4,17,52,47,29	
		25, 6,48,59,19, 2,22		1,50
20″	58,47,22,50, 0,49,29,35,42,23		4,17,52,49,19	
		25, 6,44,41,26,13, 3		1,50
22″	58,47,23,15, 7,34,11, 1,55,26		4,17,52,51, 9	
		25, 6,40,23,33,21,54		1,50
24″	58,47,23,40,14,14,34,35,17,20		4,17,52,52,59	
		25, 6,36, 5,40,28,55		1,50
26″	58,47,24, 5,20,50,40,15,46,15		4,17,52,54,49	
		25, 6,31,47,47,34, 6		1,50
28″	58,47,24,30,27,22,28, 3,20,21		4,17,52,56,39	
		25, 6,27,29,54,37,27		1,50
30″	58,47,24,55,33,49,57,57,57,48		4,17,52,58,29	
		25, 6,23,12, 1,38,58		1,50
32″	58,47,25,20,40,13, 9,59,36,46		4,17,53, 0,19	
		25, 6,18,54, 8,38,39		1,50
34″	58,47,25,45,46,32, 4, 8,15,25		4,17,53, 2, 9	
		25, 6,14,36,15,36,30		1,50
36″	58,47,26,10,52,46,40,23,51,55		4,17,53, 3,59	
		25, 6,10,18,22,32,31		1,50
38″	58,47,26,35,58,56,58,46,24,26		4,17,53, 5,49	
		25, 6, 6, 0,29,26,42		1,50
40″	58,47,27, 1, 5, 2,59,15,51, 8		4,17,53, 7,39	
		25, 6, 1,42,36,19, 3		1,50
42″	58,47,27,26,11, 4,41,52,10,11		4,17,53, 9,29	
		25, 5,57,24,43, 9,34		1,50
44″	58,47,27,51,17, 2, 6,35,19,45		4,17,53,11,19	
		25, 5,53, 6,49,58,15		1,50
46″	58,47,28,16,22,55,13,25,18, 0		4,17,53,13, 9	
		25, 5,48,48,56,45, 6		1,50
48″	58,47,28,41,28,44, 2,22, 3, 6		4,17,53,14,59	
		25, 5,44,31, 3,30, 7		1,50
50″	58,47,29, 6,34,28,33,25,33,13		4,17,53,16,49	
		25, 5,40,13,10,13,18		1,50
52″	58,47,29,31,40, 8,46,35,46,31		4,17,53,18,39	
		25, 5,35,55,16,54,39		1,50
54″	58,47,29,56,45,44,41,52,41,10		4,17,53,20,29	
		25, 5,31,37,23,34,10		1,50
56″	58,47,30,21,51,16,19,16,15,20		4,17,53,22,19	
		25, 5,27,19,30,11,51		1,50
58″	58,47,30,46,56,43,38,46,27,11		4,17,53,24, 9	
		25, 5,23, 1,36,47,42		
60″	58,47,31,12, 2, 6,40,23,14,53			
exact	58,47,31,12, 2, 6,40,23, 0,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°29′ 0″	58,47,31,12, 2, 6,40,23, 0,15			
		25, 5,18,43,43,20,22		
2″	58,47,31,37, 7,25,24, 6,20,37		4,17,53,27,53	
		25, 5,14,25,49,52,29		1,50
4″	58,47,32, 2,12,39,49,56,13, 6		4,17,53,29,43	
		25, 5,10, 7,56,22,46		1,50
6″	58,47,32,27,17,49,57,52,35,52		4,17,53,31,33	
		25, 5, 5,50, 2,51,13		1,50
8″	58,47,32,52,22,55,47,55,27, 5		4,17,53,33,23	
		25, 5, 1,32, 9,17,50		1,50
10″	58,47,33,17,27,57,20, 4,44,55		4,17,53,35,13	
		25, 4,57,14,15,42,37		1,50
12″	58,47,33,42,32,54,34,20,27,32		4,17,53,37, 3	
		25, 4,52,56,22, 5,34		1,50
14″	58,47,34, 7,37,47,30,42,33, 6		4,17,53,38,53	
		25, 4,48,38,28,26,41		1,50
16″	58,47,34,32,42,36, 9,10,59,47		4,17,53,40,43	
		25, 4,44,20,34,45,58		1,50
18″	58,47,34,57,47,20,29,45,45,45		4,17,53,42,33	
		25, 4,40, 2,41, 3,25		1,50
20″	58,47,35,22,52, 0,32,26,49,10		4,17,53,44,23	
		25, 4,35,44,47,19, 2		1,50
22″	58,47,35,47,56,36,17,14, 8,12		4,17,53,46,13	
		25, 4,31,26,53,32,49		1,50
24″	58,47,36,13, 1, 7,44, 7,41, 1		4,17,53,48, 3	
		25, 4,27, 8,59,44,46		1,50
26″	58,47,36,38, 5,34,53, 7,25,47		4,17,53,49,53	
		25, 4,22,51, 5,54,53		1,50
28″	58,47,37, 3, 9,57,44,13,20,40		4,17,53,51,43	
		25, 4,18,33,12, 3,10		1,50
30″	58,47,37,28,14,16,17,25,23,50		4,17,53,53,33	
		25, 4,14,15,18, 9,37		1,50
32″	58,47,37,53,18,30,32,43,33,27		4,17,53,55,23	
		25, 4, 9,57,24,14,14		1,50
34″	58,47,38,18,22,40,30, 7,47,41		4,17,53,57,13	
		25, 4, 5,39,30,17, 1		1,50
36″	58,47,38,43,26,46, 9,38, 4,42		4,17,53,59, 3	
		25, 4, 1,21,36,17,58		1,50
38″	58,47,39, 8,30,47,31,14,22,40		4,17,54, 0,53	
		25, 3,57, 3,42,17, 5		1,50
40″	58,47,39,33,34,44,34,56,39,45		4,17,54, 2,43	
		25, 3,52,45,48,14,22		1,50
42″	58,47,39,58,38,37,20,44,54, 7		4,17,54, 4,33	
		25, 3,48,27,54, 9,49		1,50
44″	58,47,40,23,42,25,48,39, 3,56		4,17,54, 6,23	
		25, 3,44,10, 0, 3,26		1,50
46″	58,47,40,48,46, 9,58,39, 7,22		4,17,54, 8,13	
		25, 3,39,52, 5,55,13		1,50
48″	58,47,41,13,49,49,50,45, 2,35		4,17,54,10, 3	
		25, 3,35,34,11,45,10		1,50
50″	58,47,41,38,53,25,24,56,47,45		4,17,54,11,53	
		25, 3,31,16,17,33,17		1,50
52″	58,47,42, 3,56,56,41,14,21, 2		4,17,54,13,43	
		25, 3,26,58,23,19,34		1,50
54″	58,47,42,29, 0,23,39,37,40,36		4,17,54,15,33	
		25, 3,22,40,29, 4, 1		1,50
56″	58,47,42,54, 3,46,20, 6,44,37		4,17,54,17,23	
		25, 3,18,22,34,46,38		1,50
58″	58,47,43,19, 7, 4,42,41,31,15		4,17,54,19,13	
		25, 3,14, 4,40,27,25		
60″	58,47,43,44,10,18,47,21,58,40			
exact	58,47,43,44,10,18,47,21,56, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°30′ 0″	58,47,43,44,10,18,47,21,56, 6			
		25, 3, 9,46,46, 6,16		
2″	58,47,44, 9,13,28,34, 8, 2,22		4,17,54,22,52	
		25, 3, 5,28,51,43,24		1,50
4″	58,47,44,34,16,34, 2,59,45,46		4,17,54,24,42	
		25, 3, 1,10,57,18,42		1,50
6″	58,47,44,59,19,35,13,57, 4,28		4,17,54,26,32	
		25, 2,56,53, 2,52,10		1,50
8″	58,47,45,24,22,32, 6,59,56,38		4,17,54,28,22	
		25, 2,52,35, 8,23,48		1,50
10″	58,47,45,49,25,24,42, 8,20,26		4,17,54,30,12	
		25, 2,48,17,13,53,36		1,50
12″	58,47,46,14,28,12,59,22,14, 2		4,17,54,32, 2	
		25, 2,43,59,19,21,34		1,50
14″	58,47,46,39,30,56,58,41,35,36		4,17,54,33,52	
		25, 2,39,41,24,47,42		1,50
16″	58,47,47, 4,33,36,40, 6,23,18		4,17,54,35,42	
		25, 2,35,23,30,12, 0		1,50
18″	58,47,47,29,36,12, 3,36,35,18		4,17,54,37,32	
		25, 2,31, 5,35,34,28		1,50
20″	58,47,47,54,38,43, 9,12, 9,46		4,17,54,39,22	
		25, 2,26,47,40,55, 6		1,50
22″	58,47,48,19,41, 9,56,53, 4,52		4,17,54,41,12	
		25, 2,22,29,46,13,54		1,50
24″	58,47,48,44,43,32,26,39,18,46		4,17,54,43, 2	
		25, 2,18,11,51,30,52		1,50
26″	58,47,49, 9,45,50,38,30,49,38		4,17,54,44,52	
		25, 2,13,53,56,46, 0		1,50
28″	58,47,49,34,48, 4,32,27,35,38		4,17,54,46,42	
		25, 2, 9,36, 1,59,18		1,50
30″	58,47,49,59,50,14, 8,29,34,56		4,17,54,48,32	
		25, 2, 5,18, 7,10,46		1,50
32″	58,47,50,24,52,19,26,36,45,42		4,17,54,50,22	
		25, 2, 1, 0,12,20,24		1,50
34″	58,47,50,49,54,20,26,49, 6, 6		4,17,54,52,12	
		25, 1,56,42,17,28,12		1,50
36″	58,47,51,14,56,17, 9, 6,34,18		4,17,54,54, 2	
		25, 1,52,24,22,34,10		1,50
38″	58,47,51,39,58, 9,33,29, 8,28		4,17,54,55,52	
		25, 1,48, 6,27,38,18		1,50
40″	58,47,52, 4,59,57,39,56,46,46		4,17,54,57,42	
		25, 1,43,48,32,40,36		1,50
42″	58,47,52,30, 1,41,28,29,27,22		4,17,54,59,32	
		25, 1,39,30,37,41, 4		1,50
44″	58,47,52,55, 3,20,59, 7, 8,26		4,17,55, 1,22	
		25, 1,35,12,42,39,42		1,50
46″	58,47,53,20, 4,56,11,49,48, 8		4,17,55, 3,12	
		25, 1,30,54,47,36,30		1,50
48″	58,47,53,45, 6,27, 6,37,24,38		4,17,55, 5, 2	
		25, 1,26,36,52,31,28		1,50
50″	58,47,54,10, 7,53,43,29,56, 6		4,17,55, 6,52	
		25, 1,22,18,57,24,36		1,50
52″	58,47,54,35, 9,16, 2,27,20,42		4,17,55, 8,42	
		25, 1,18, 1, 2,15,54		1,50
54″	58,47,55, 0,10,34, 3,29,36,36		4,17,55,10,32	
		25, 1,13,43, 7, 5,22		1,50
56″	58,47,55,25,11,47,46,36,41,58		4,17,55,12,22	
		25, 1, 9,25,11,53, 0		1,50
58″	58,47,55,50,12,57,11,48,34,58		4,17,55,14,12	
		25, 1, 5, 7,16,38,48		
60″	58,47,56,15,14, 2,19, 5,13,46			
exact	58,47,56,15,14, 2,19, 5,20,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°31′ 0″	58,47,56,15,14, 2,19, 5,20,55			
		25, 1, 0,49,21,23,45		
2″	58,47,56,40,15, 3, 8,26,44,40		4,17,55,17,47	
		25, 0,56,31,26, 5,58		1,50
4″	58,47,57, 5,15,59,39,52,50,38		4,17,55,19,37	
		25, 0,52,13,30,46,21		1,50
6″	58,47,57,30,16,51,53,23,36,59		4,17,55,21,27	
		25, 0,47,55,35,24,54		1,50
8″	58,47,57,55,17,39,48,59, 1,53		4,17,55,23,17	
		25, 0,43,37,40, 1,37		1,50
10″	58,47,58,20,18,23,26,39, 3,30		4,17,55,25, 7	
		25, 0,39,19,44,36,30		1,50
12″	58,47,58,45,19, 2,46,23,40, 0		4,17,55,26,57	
		25, 0,35, 1,49, 9,33		1,50
14″	58,47,59,10,19,37,48,12,49,33		4,17,55,28,47	
		25, 0,30,43,53,40,46		1,50
16″	58,47,59,35,20, 8,32, 6,30,19		4,17,55,30,37	
		25, 0,26,25,58,10, 9		1,50
18″	58,48, 0, 0,20,34,58, 4,40,28		4,17,55,32,27	
		25, 0,22, 8, 2,37,42		1,50
20″	58,48, 0,25,20,57, 6, 7,18,10		4,17,55,34,17	
		25, 0,17,50, 7, 3,25		1,50
22″	58,48, 0,50,21,14,56,14,21,35		4,17,55,36, 7	
		25, 0,13,32,11,27,18		1,50
24″	58,48, 1,15,21,28,28,25,48,53		4,17,55,37,57	
		25, 0, 9,14,15,49,21		1,50
26″	58,48, 1,40,21,37,42,41,38,14		4,17,55,39,47	
		25, 0, 4,56,20, 9,34		1,50
28″	58,48, 2, 5,21,42,39, 1,47,48		4,17,55,41,37	
		25, 0, 0,38,24,27,57		1,50
30″	58,48, 2,30,21,43,17,26,15,45		4,17,55,43,27	
		24,59,56,20,28,44,30		1,50
32″	58,48, 2,55,21,39,37,55, 0,15		4,17,55,45,17	
		24,59,52, 2,32,59,13		1,50
34″	58,48, 3,20,21,31,40,27,59,28		4,17,55,47, 7	
		24,59,47,44,37,12, 6		1,50
36″	58,48, 3,45,21,19,25, 5,11,34		4,17,55,48,57	
		24,59,43,26,41,23, 9		1,50
38″	58,48, 4,10,21, 2,51,46,34,43		4,17,55,50,47	
		24,59,39, 8,45,32,22		1,50
40″	58,48, 4,35,20,42, 0,32, 7, 5		4,17,55,52,37	
		24,59,34,50,49,39,45		1,50
42″	58,48, 5, 0,20,16,51,21,46,50		4,17,55,54,27	
		24,59,30,32,53,45,18		1,50
44″	58,48, 5,25,19,47,24,15,32, 8		4,17,55,56,17	
		24,59,26,14,57,49, 1		1,50
46″	58,48, 5,50,19,13,39,13,21, 9		4,17,55,58, 7	
		24,59,21,57, 1,50,54		1,50
48″	58,48, 6,15,18,35,36,15,12, 3		4,17,55,59,57	
		24,59,17,39, 5,50,57		1,50
50″	58,48, 6,40,17,53,15,21, 3, 0		4,17,56, 1,47	
		24,59,13,21, 9,49,10		1,50
52″	58,48, 7, 5,17, 6,36,30,52,10		4,17,56, 3,37	
		24,59, 9, 3,13,45,33		1,50
54″	58,48, 7,30,16,15,39,44,37,43		4,17,56, 5,27	
		24,59, 4,45,17,40, 6		1,50
56″	58,48, 7,55,15,20,25, 2,17,49		4,17,56, 7,17	
		24,59, 0,27,21,32,49		1,50
58″	58,48, 8,20,14,20,52,23,50,38		4,17,56, 9, 7	
		24,58,56, 9,25,23,42		
60″	58,48, 8,45,13,17, 1,49,14,20			
exact	58,48, 8,45,13,17, 1,49,36,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°32′ 0″	58,48, 8,45,13,17, 1,49,36,47			
		24,58,51,51,29,15,11		
2″	58,48, 9,10,12, 8,53,18,51,58		4,17,56,12,36	
		24,58,47,33,33, 2,35		1,50
4″	58,48, 9,35,10,56,26,51,54,33		4,17,56,14,26	
		24,58,43,15,36,48, 9		1,50
6″	58,48,10, 0, 9,39,42,28,42,42		4,17,56,16,16	
		24,58,38,57,40,31,53		1,50
8″	58,48,10,25, 8,18,40, 9,14,35		4,17,56,18, 6	
		24,58,34,39,44,13,47		1,50
10″	58,48,10,50, 6,53,19,53,28,22		4,17,56,19,56	
		24,58,30,21,47,53,51		1,50
12″	58,48,11,15, 5,23,41,41,22,13		4,17,56,21,46	
		24,58,26, 3,51,32, 5		1,50
14″	58,48,11,40, 3,49,45,32,54,18		4,17,56,23,36	
		24,58,21,45,55, 8,29		1,50
16″	58,48,12, 5, 2,11,31,28, 2,47		4,17,56,25,26	
		24,58,17,27,58,43, 3		1,50
18″	58,48,12,30, 0,28,59,26,45,50		4,17,56,27,16	
		24,58,13,10, 2,15,47		1,50
20″	58,48,12,54,58,42, 9,29, 1,37		4,17,56,29, 6	
		24,58, 8,52, 5,46,41		1,50
22″	58,48,13,19,56,51, 1,34,48,18		4,17,56,30,56	
		24,58, 4,34, 9,15,45		1,50
24″	58,48,13,44,54,55,35,44, 4, 3		4,17,56,32,46	
		24,58, 0,16,12,42,59		1,50
26″	58,48,14, 9,52,55,51,56,47, 2		4,17,56,34,36	
		24,57,55,58,16, 8,23		1,50
28″	58,48,14,34,50,51,50,12,55,25		4,17,56,36,26	
		24,57,51,40,19,31,57		1,50
30″	58,48,14,59,48,43,30,32,27,22		4,17,56,38,16	
		24,57,47,22,22,53,41		1,50
32″	58,48,15,24,46,30,52,55,21, 3		4,17,56,40, 6	
		24,57,43, 4,26,13,35		1,50
34″	58,48,15,49,44,13,57,21,34,38		4,17,56,41,56	
		24,57,38,46,29,31,39		1,50
36″	58,48,16,14,41,52,43,51, 6,17		4,17,56,43,46	
		24,57,34,28,32,47,53		1,50
38″	58,48,16,39,39,27,12,23,54,10		4,17,56,45,36	
		24,57,30,10,36, 2,17		1,50
40″	58,48,17, 4,36,57,22,59,56,27		4,17,56,47,26	
		24,57,25,52,39,14,51		1,50
42″	58,48,17,29,34,23,15,39,11,18		4,17,56,49,16	
		24,57,21,34,42,25,35		1,50
44″	58,48,17,54,31,44,50,21,36,53		4,17,56,51, 6	
		24,57,17,16,45,34,29		1,50
46″	58,48,18,19,29, 2, 7, 7,11,22		4,17,56,52,56	
		24,57,12,58,48,41,33		1,50
48″	58,48,18,44,26,15, 5,55,52,55		4,17,56,54,46	
		24,57, 8,40,51,46,47		1,50
50″	58,48,19, 9,23,23,46,47,39,42		4,17,56,56,36	
		24,57, 4,22,54,50,11		1,50
52″	58,48,19,34,20,28, 9,42,29,53		4,17,56,58,26	
		24,57, 0, 4,57,51,45		1,50
54″	58,48,19,59,17,28,14,40,21,38		4,17,57, 0,16	
		24,56,55,47, 0,51,29		1,50
56″	58,48,20,24,14,24, 1,41,13, 7		4,17,57, 2, 6	
		24,56,51,29, 3,49,23		1,50
58″	58,48,20,49,11,15,30,45, 2,30		4,17,57, 3,56	
		24,56,47,11, 6,45,27		
60″	58,48,21,14, 8, 2,41,51,47,57			
exact	58,48,21,14, 8, 2,41,52,16,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°33′ 0″	58,48,21,14, 8, 2,41,52,16,30			
		24,56,42,53, 9,42,56		
2″	58,48,21,39, 4,45,35, 1,59,26		4,17,57, 7,21	
		24,56,38,35,12,35,35		1,49
4″	58,48,22, 4, 1,24,10,14,35, 1		4,17,57, 9,10	
		24,56,34,17,15,26,25		1,49
6″	58,48,22,28,57,58,27,30, 1,26		4,17,57,10,59	
		24,56,29,59,18,15,26		1,49
8″	58,48,22,53,54,28,26,48,16,52		4,17,57,12,48	
		24,56,25,41,21, 2,38		1,49
10″	58,48,23,18,50,54, 8, 9,19,30		4,17,57,14,37	
		24,56,21,23,23,48, 1		1,49
12″	58,48,23,43,47,15,31,33, 7,31		4,17,57,16,26	
		24,56,17, 5,26,31,35		1,49
14″	58,48,24, 8,43,32,36,59,39, 6		4,17,57,18,15	
		24,56,12,47,29,13,20		1,49
16″	58,48,24,33,39,45,24,28,52,26		4,17,57,20, 4	
		24,56, 8,29,31,53,16		1,49
18″	58,48,24,58,35,53,54, 0,45,42		4,17,57,21,53	
		24,56, 4,11,34,31,23		1,49
20″	58,48,25,23,31,58, 5,35,17, 5		4,17,57,23,42	
		24,55,59,53,37, 7,41		1,49
22″	58,48,25,48,27,57,59,12,24,46		4,17,57,25,31	
		24,55,55,35,39,42,10		1,49
24″	58,48,26,13,23,53,34,52, 6,56		4,17,57,27,20	
		24,55,51,17,42,14,50		1,49
26″	58,48,26,38,19,44,52,34,21,46		4,17,57,29, 9	
		24,55,46,59,44,45,41		1,49
28″	58,48,27, 3,15,31,52,19, 7,27		4,17,57,30,58	
		24,55,42,41,47,14,43		1,49
30″	58,48,27,28,11,14,34, 6,22,10		4,17,57,32,47	
		24,55,38,23,49,41,56		1,49
32″	58,48,27,53, 6,52,57,56, 4, 6		4,17,57,34,36	
		24,55,34, 5,52, 7,20		1,49
34″	58,48,28,18, 2,27, 3,48,11,26		4,17,57,36,25	
		24,55,29,47,54,30,55		1,49
36″	58,48,28,42,57,56,51,42,42,21		4,17,57,38,14	
		24,55,25,29,56,52,41		1,49
38″	58,48,29, 7,53,22,21,39,35, 2		4,17,57,40, 3	
		24,55,21,11,59,12,38		1,49
40″	58,48,29,32,48,43,33,38,47,40		4,17,57,41,52	
		24,55,16,54, 1,30,46		1,49
42″	58,48,29,57,44, 0,27,40,18,26		4,17,57,43,41	
		24,55,12,36, 3,47, 5		1,49
44″	58,48,30,22,39,13, 3,44, 5,31		4,17,57,45,30	
		24,55, 8,18, 6, 1,35		1,49
46″	58,48,30,47,34,21,21,50, 7, 6		4,17,57,47,19	
		24,55, 4, 0, 8,14,16		1,49
48″	58,48,31,12,29,25,21,58,21,22		4,17,57,49, 8	
		24,54,59,42,10,25, 8		1,49
50″	58,48,31,37,24,25, 4, 8,46,30		4,17,57,50,57	
		24,54,55,24,12,34,11		1,49
52″	58,48,32, 2,19,20,28,21,20,41		4,17,57,52,46	
		24,54,51, 6,14,41,25		1,49
54″	58,48,32,27,14,11,34,36, 2, 6		4,17,57,54,35	
		24,54,46,48,16,46,50		1,49
56″	58,48,32,52, 8,58,22,52,48,56		4,17,57,56,24	
		24,54,42,30,18,50,26		1,49
58″	58,48,33,17, 3,40,53,11,39,22		4,17,57,58,13	
		24,54,38,12,20,52,13		
60″	58,48,33,41,58,19, 5,32,31,35			
exact	58,48,33,41,58,19, 5,32, 3,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°34′ 0″	58,48,33,41,58,19, 5,32, 3,37			
		24,54,33,54,22,49,22		
2″	58,48,34, 6,52,52,59,54,52,59		4,17,58, 2, 2	
		24,54,29,36,24,47,20		1,49
4″	58,48,34,31,47,22,36,19,40,19		4,17,58, 3,51	
		24,54,25,18,26,43,29		1,49
6″	58,48,34,56,41,47,54,46,23,48		4,17,58, 5,40	
		24,54,21, 0,28,37,49		1,49
8″	58,48,35,21,36, 8,55,15, 1,37		4,17,58, 7,29	
		24,54,16,42,30,30,20		1,49
10″	58,48,35,46,30,25,37,45,31,57		4,17,58, 9,18	
		24,54,12,24,32,21, 2		1,49
12″	58,48,36,11,24,38, 2,17,52,59		4,17,58,11, 7	
		24,54, 8, 6,34, 9,55		1,49
14″	58,48,36,36,18,46, 8,52, 2,54		4,17,58,12,56	
		24,54, 3,48,35,56,59		1,49
16″	58,48,37, 1,12,49,57,27,59,53		4,17,58,14,45	
		24,53,59,30,37,42,14		1,49
18″	58,48,37,26, 6,49,28, 5,42, 7		4,17,58,16,34	
		24,53,55,12,39,25,40		1,49
20″	58,48,37,51, 0,44,40,45, 7,47		4,17,58,18,23	
		24,53,50,54,41, 7,17		1,49
22″	58,48,38,15,54,35,35,26,15, 4		4,17,58,20,12	
		24,53,46,36,42,47, 5		1,49
24″	58,48,38,40,48,22,12, 9, 2, 9		4,17,58,22, 1	
		24,53,42,18,44,25, 4		1,49
26″	58,48,39, 5,42, 4,30,53,27,13		4,17,58,23,50	
		24,53,38, 0,46, 1,14		1,49
28″	58,48,39,30,35,42,31,39,28,27		4,17,58,25,39	
		24,53,33,42,47,35,35		1,49
30″	58,48,39,55,29,16,14,27, 4, 2		4,17,58,27,28	
		24,53,29,24,49, 8, 7		1,49
32″	58,48,40,20,22,45,39,16,12, 9		4,17,58,29,17	
		24,53,25, 6,50,38,50		1,49
34″	58,48,40,45,16,10,46, 6,50,59		4,17,58,31, 6	
		24,53,20,48,52, 7,44		1,49
36″	58,48,41,10, 9,31,34,58,58,43		4,17,58,32,55	
		24,53,16,30,53,34,49		1,49
38″	58,48,41,35, 2,48, 5,52,33,32		4,17,58,34,44	
		24,53,12,12,55, 0, 5		1,49
40″	58,48,41,59,56, 0,18,47,33,37		4,17,58,36,33	
		24,53, 7,54,56,23,32		1,49
42″	58,48,42,24,49, 8,13,43,57, 9		4,17,58,38,22	
		24,53, 3,36,57,45,10		1,49
44″	58,48,42,49,42,11,50,41,42,19		4,17,58,40,11	
		24,52,59,18,59, 4,59		1,49
46″	58,48,43,14,35,11, 9,40,47,18		4,17,58,42, 0	
		24,52,55, 1, 0,22,59		1,49
48″	58,48,43,39,28, 6,10,41,10,17		4,17,58,43,49	
		24,52,50,43, 1,39,10		1,49
50″	58,48,44, 4,20,56,53,42,49,27		4,17,58,45,38	
		24,52,46,25, 2,53,32		1,49
52″	58,48,44,29,13,43,18,45,42,59		4,17,58,47,27	
		24,52,42, 7, 4, 6, 5		1,49
54″	58,48,44,54, 6,25,25,49,49, 4		4,17,58,49,16	
		24,52,37,49, 5,16,49		1,49
56″	58,48,45,18,59, 3,14,55, 5,53		4,17,58,51, 5	
		24,52,33,31, 6,25,44		1,49
58″	58,48,45,43,51,36,46, 1,31,37		4,17,58,52,54	
		24,52,29,13, 7,32,50		
60″	58,48,46, 8,44, 5,59, 9, 4,27			
exact	58,48,46, 8,44, 5,59, 8,52,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°35′ 0″	58,48,46, 8,44, 5,59, 8,52,21			
		24,52,24,55, 8,36,48		
2″	58,48,46,33,36,30,54,17,29, 9		4,17,58,56,37	
		24,52,20,37, 9,40,11		1,49
4″	58,48,46,58,28,51,31,27, 9,20		4,17,58,58,26	
		24,52,16,19,10,41,45		1,49
6″	58,48,47,23,21, 7,50,37,51, 5		4,17,59, 0,15	
		24,52,12, 1,11,41,30		1,49
8″	58,48,47,48,13,19,51,49,32,35		4,17,59, 2, 4	
		24,52, 7,43,12,39,26		1,49
10″	58,48,48,13, 5,27,35, 2,12, 1		4,17,59, 3,53	
		24,52, 3,25,13,35,33		1,49
12″	58,48,48,37,57,31, 0,15,47,34		4,17,59, 5,42	
		24,51,59, 7,14,29,51		1,49
14″	58,48,49, 2,49,30, 7,30,17,25		4,17,59, 7,31	
		24,51,54,49,15,22,20		1,49
16″	58,48,49,27,41,24,56,45,39,45		4,17,59, 9,20	
		24,51,50,31,16,13, 0		1,49
18″	58,48,49,52,33,15,28, 1,52,45		4,17,59,11, 9	
		24,51,46,13,17, 1,51		1,49
20″	58,48,50,17,25, 1,41,18,54,36		4,17,59,12,58	
		24,51,41,55,17,48,53		1,49
22″	58,48,50,42,16,43,36,36,43,29		4,17,59,14,47	
		24,51,37,37,18,34, 6		1,49
24″	58,48,51, 7, 8,21,13,55,17,35		4,17,59,16,36	
		24,51,33,19,19,17,30		1,49
26″	58,48,51,31,59,54,33,14,35, 5		4,17,59,18,25	
		24,51,29, 1,19,59, 5		1,49
28″	58,48,51,56,51,23,34,34,34,10		4,17,59,20,14	
		24,51,24,43,20,38,51		1,49
30″	58,48,52,21,42,48,17,55,13, 1		4,17,59,22, 3	
		24,51,20,25,21,16,48		1,49
32″	58,48,52,46,34, 8,43,16,29,49		4,17,59,23,52	
		24,51,16, 7,21,52,56		1,49
34″	58,48,53,11,25,24,50,38,22,45		4,17,59,25,41	
		24,51,11,49,22,27,15		1,49
36″	58,48,53,36,16,36,40, 0,50, 0		4,17,59,27,30	
		24,51, 7,31,22,59,45		1,49
38″	58,48,54, 1, 7,44,11,23,49,45		4,17,59,29,19	
		24,51, 3,13,23,30,26		1,49
40″	58,48,54,25,58,47,24,47,20,11		4,17,59,31, 8	
		24,50,58,55,23,59,18		1,49
42″	58,48,54,50,49,46,20,11,19,29		4,17,59,32,57	
		24,50,54,37,24,26,21		1,49
44″	58,48,55,15,40,40,57,35,45,50		4,17,59,34,46	
		24,50,50,19,24,51,35		1,49
46″	58,48,55,40,31,31,17, 0,37,25		4,17,59,36,35	
		24,50,46, 1,25,15, 0		1,49
48″	58,48,56, 5,22,17,18,25,52,25		4,17,59,38,24	
		24,50,41,43,25,36,36		1,49
50″	58,48,56,30,12,59, 1,51,29, 1		4,17,59,40,13	
		24,50,37,25,25,56,23		1,49
52″	58,48,56,55, 3,36,27,17,25,24		4,17,59,42, 2	
		24,50,33, 7,26,14,21		1,49
54″	58,48,57,19,54, 9,34,43,39,45		4,17,59,43,51	
		24,50,28,49,26,30,30		1,49
56″	58,48,57,44,44,38,24,10,10,15		4,17,59,45,40	
		24,50,24,31,26,44,50		1,49
58″	58,48,58, 9,35, 2,55,36,55, 5		4,17,59,47,29	
		24,50,20,13,26,57,21		
60″	58,48,58,34,25,23, 9, 3,52,26			
exact	58,48,58,34,25,23, 9, 3,47,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°36′ 0″	58,48,58,34,25,23, 9, 3,47,40			
		24,50,15,55,27, 7,38		
2″	58,48,58,59,15,39, 4,30,55,18		4,17,59,51, 8	
		24,50,11,37,27,16,30		1,49
4″	58,48,59,24, 5,50,41,58,11,48		4,17,59,52,57	
		24,50, 7,19,27,23,33		1,49
6″	58,48,59,48,55,58, 1,25,35,21		4,17,59,54,46	
		24,50, 3, 1,27,28,47		1,49
8″	58,49, 0,13,46, 1, 2,53, 4, 8		4,17,59,56,35	
		24,49,58,43,27,32,12		1,49
10″	58,49, 0,38,35,59,46,20,36,20		4,17,59,58,24	
		24,49,54,25,27,33,48		1,49
12″	58,49, 1, 3,25,54,11,48,10, 8		4,18, 0, 0,13	
		24,49,50, 7,27,33,35		1,49
14″	58,49, 1,28,15,44,19,15,43,43		4,18, 0, 2, 2	
		24,49,45,49,27,31,33		1,49
16″	58,49, 1,53, 5,30, 8,43,15,16		4,18, 0, 3,51	
		24,49,41,31,27,27,42		1,49
18″	58,49, 2,17,55,11,40,10,42,58		4,18, 0, 5,40	
		24,49,37,13,27,22, 2		1,49
20″	58,49, 2,42,44,48,53,38, 5, 0		4,18, 0, 7,29	
		24,49,32,55,27,14,33		1,49
22″	58,49, 3, 7,34,21,49, 5,19,33		4,18, 0, 9,18	
		24,49,28,37,27, 5,15		1,49
24″	58,49, 3,32,23,50,26,32,24,48		4,18, 0,11, 7	
		24,49,24,19,26,54, 8		1,49
26″	58,49, 3,57,13,14,45,59,18,56		4,18, 0,12,56	
		24,49,20, 1,26,41,12		1,49
28″	58,49, 4,22, 2,34,47,26, 0, 8		4,18, 0,14,45	
		24,49,15,43,26,26,27		1,49
30″	58,49, 4,46,51,50,30,52,26,35		4,18, 0,16,34	
		24,49,11,25,26, 9,53		1,49
32″	58,49, 5,11,41, 1,56,18,36,28		4,18, 0,18,23	
		24,49, 7, 7,25,51,30		1,49
34″	58,49, 5,36,30, 9, 3,44,27,58		4,18, 0,20,12	
		24,49, 2,49,25,31,18		1,49
36″	58,49, 6, 1,19,11,53, 9,59,16		4,18, 0,22, 1	
		24,48,58,31,25, 9,17		1,49
38″	58,49, 6,26, 8,10,24,35, 8,33		4,18, 0,23,50	
		24,48,54,13,24,45,27		1,49
40″	58,49, 6,50,57, 4,37,59,54, 0		4,18, 0,25,39	
		24,48,49,55,24,19,48		1,49
42″	58,49, 7,15,45,54,33,24,13,48		4,18, 0,27,28	
		24,48,45,37,23,52,20		1,49
44″	58,49, 7,40,34,40,10,48, 6, 8		4,18, 0,29,17	
		24,48,41,19,23,23, 3		1,49
46″	58,49, 8, 5,23,21,30,11,29,11		4,18, 0,31, 6	
		24,48,37, 1,22,51,57		1,49
48″	58,49, 8,30,11,58,31,34,21, 8		4,18, 0,32,55	
		24,48,32,43,22,19, 2		1,49
50″	58,49, 8,55, 0,31,14,56,40,10		4,18, 0,34,44	
		24,48,28,25,21,44,18		1,49
52″	58,49, 9,19,48,59,40,18,24,28		4,18, 0,36,33	
		24,48,24, 7,21, 7,45		1,49
54″	58,49, 9,44,37,23,47,39,32,13		4,18, 0,38,22	
		24,48,19,49,20,29,23		1,49
56″	58,49,10, 9,25,43,37, 0, 1,36		4,18, 0,40,11	
		24,48,15,31,19,49,12		1,49
58″	58,49,10,34,13,59, 8,19,50,48		4,18, 0,42, 0	
		24,48,11,13,19, 7,12		
60″	58,49,10,59, 2,10,21,38,58, 0			
exact	58,49,10,59, 2,10,21,39, 5,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°37′ 0″	58,49,10,59, 2,10,21,39, 5,15			
		24,48, 6,55,18,24,13		
2″	58,49,11,23,50,17,16,57,29,28		4,18, 0,45,34	
		24,48, 2,37,17,38,39		1,49
4″	58,49,11,48,38,19,54,15, 8, 7		4,18, 0,47,23	
		24,47,58,19,16,51,16		1,49
6″	58,49,12,13,26,18,13,31,59,23		4,18, 0,49,12	
		24,47,54, 1,16, 2, 4		1,49
8″	58,49,12,38,14,12,14,48, 1,27		4,18, 0,51, 1	
		24,47,49,43,15,11, 3		1,49
10″	58,49,13, 3, 2, 1,58, 3,12,30		4,18, 0,52,50	
		24,47,45,25,14,18,13		1,49
12″	58,49,13,27,49,47,23,17,30,43		4,18, 0,54,39	
		24,47,41, 7,13,23,34		1,49
14″	58,49,13,52,37,28,30,30,54,17		4,18, 0,56,28	
		24,47,36,49,12,27, 6		1,49
16″	58,49,14,17,25, 5,19,43,21,23		4,18, 0,58,17	
		24,47,32,31,11,28,49		1,49
18″	58,49,14,42,12,37,50,54,50,12		4,18, 1, 0, 6	
		24,47,28,13,10,28,43		1,49
20″	58,49,15, 7, 0, 6, 4, 5,18,55		4,18, 1, 1,55	
		24,47,23,55, 9,26,48		1,49
22″	58,49,15,31,47,29,59,14,45,43		4,18, 1, 3,44	
		24,47,19,37, 8,23, 4		1,49
24″	58,49,15,56,34,49,36,23, 8,47		4,18, 1, 5,33	
		24,47,15,19, 7,17,31		1,49
26″	58,49,16,21,22, 4,55,30,26,18		4,18, 1, 7,22	
		24,47,11, 1, 6,10, 9		1,49
28″	58,49,16,46, 9,15,56,36,36,27		4,18, 1, 9,11	
		24,47, 6,43, 5, 0,58		1,49
30″	58,49,17,10,56,22,39,41,37,25		4,18, 1,11, 0	
		24,47, 2,25, 3,49,58		1,49
32″	58,49,17,35,43,25, 4,45,27,23		4,18, 1,12,49	
		24,46,58, 7, 2,37, 9		1,49
34″	58,49,18, 0,30,23,11,48, 4,32		4,18, 1,14,38	
		24,46,53,49, 1,22,31		1,49
36″	58,49,18,25,17,17, 0,49,27, 3		4,18, 1,16,27	
		24,46,49,31, 0, 6, 4		1,49
38″	58,49,18,50, 4, 6,31,49,33, 7		4,18, 1,18,16	
		24,46,45,12,58,47,48		1,49
40″	58,49,19,14,50,51,44,48,20,55		4,18, 1,20, 5	
		24,46,40,54,57,27,43		1,49
42″	58,49,19,39,37,32,39,45,48,38		4,18, 1,21,54	
		24,46,36,36,56, 5,49		1,49
44″	58,49,20, 4,24, 9,16,41,54,27		4,18, 1,23,43	
		24,46,32,18,54,42, 6		1,49
46″	58,49,20,29,10,41,35,36,36,33		4,18, 1,25,32	
		24,46,28, 0,53,16,34		1,49
48″	58,49,20,53,57, 9,36,29,53, 7		4,18, 1,27,21	
		24,46,23,42,51,49,13		1,49
50″	58,49,21,18,43,33,19,21,42,20		4,18, 1,29,10	
		24,46,19,24,50,20, 3		1,49
52″	58,49,21,43,29,52,44,12, 2,23		4,18, 1,30,59	
		24,46,15, 6,48,49, 4		1,49
54″	58,49,22, 8,16, 7,51, 0,51,27		4,18, 1,32,48	
		24,46,10,48,47,16,16		1,49
56″	58,49,22,33, 2,18,39,48, 7,43		4,18, 1,34,37	
		24,46, 6,30,45,41,39		1,49
58″	58,49,22,57,48,25,10,33,49,22		4,18, 1,36,26	
		24,46, 2,12,44, 5,13		
60″	58,49,23,22,34,27,23,17,54,35			
exact	58,49,23,22,34,27,23,18,11,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°38′ 0″	58,49,23,22,34,27,23,18,11,32			
		24,45,57,54,42,28,53		
2″	58,49,23,47,20,25,18, 0,40,25		4,18, 1,39,55	
		24,45,53,36,40,48,58		1,49
4″	58,49,24,12, 6,18,54,41,29,23		4,18, 1,41,44	
		24,45,49,18,39, 7,14		1,49
6″	58,49,24,36,52, 8,13,20,36,37		4,18, 1,43,33	
		24,45,45, 0,37,23,41		1,49
8″	58,49,25, 1,37,53,13,58, 0,18		4,18, 1,45,22	
		24,45,40,42,35,38,19		1,49
10″	58,49,25,26,23,33,56,33,38,37		4,18, 1,47,11	
		24,45,36,24,33,51, 8		1,49
12″	58,49,25,51, 9,10,21, 7,29,45		4,18, 1,49, 0	
		24,45,32, 6,32, 2, 8		1,49
14″	58,49,26,15,54,42,27,39,31,53		4,18, 1,50,49	
		24,45,27,48,30,11,19		1,49
16″	58,49,26,40,40,10,16, 9,43,12		4,18, 1,52,38	
		24,45,23,30,28,18,41		1,49
18″	58,49,27, 5,25,33,46,38, 1,53		4,18, 1,54,27	
		24,45,19,12,26,24,14		1,49
20″	58,49,27,30,10,52,59, 4,26, 7		4,18, 1,56,16	
		24,45,14,54,24,27,58		1,49
22″	58,49,27,54,56, 7,53,28,54, 5		4,18, 1,58, 5	
		24,45,10,36,22,29,53		1,49
24″	58,49,28,19,41,18,29,51,23,58		4,18, 1,59,54	
		24,45, 6,18,20,29,59		1,49
26″	58,49,28,44,26,24,48,11,53,57		4,18, 2, 1,43	
		24,45, 2, 0,18,28,16		1,49
28″	58,49,29, 9,11,26,48,30,22,13		4,18, 2, 3,32	
		24,44,57,42,16,24,44		1,49
30″	58,49,29,33,56,24,30,46,46,57		4,18, 2, 5,21	
		24,44,53,24,14,19,23		1,49
32″	58,49,29,58,41,17,55, 1, 6,20		4,18, 2, 7,10	
		24,44,49, 6,12,12,13		1,49
34″	58,49,30,23,26, 7, 1,13,18,33		4,18, 2, 8,59	
		24,44,44,48,10, 3,14		1,49
36″	58,49,30,48,10,51,49,23,21,47		4,18, 2,10,48	
		24,44,40,30, 7,52,26		1,49
38″	58,49,31,12,55,32,19,31,14,13		4,18, 2,12,37	
		24,44,36,12, 5,39,49		1,49
40″	58,49,31,37,40, 8,31,36,54, 2		4,18, 2,14,26	
		24,44,31,54, 3,25,23		1,49
42″	58,49,32, 2,24,40,25,40,19,25		4,18, 2,16,15	
		24,44,27,36, 1, 9, 8		1,49
44″	58,49,32,27, 9, 8, 1,41,28,33		4,18, 2,18, 4	
		24,44,23,17,58,51, 4		1,49
46″	58,49,32,51,53,31,19,40,19,37		4,18, 2,19,53	
		24,44,18,59,56,31,11		1,49
48″	58,49,33,16,37,50,19,36,50,48		4,18, 2,21,42	
		24,44,14,41,54, 9,29		1,49
50″	58,49,33,41,22, 5, 1,31, 0,17		4,18, 2,23,31	
		24,44,10,23,51,45,58		1,49
52″	58,49,34, 6, 6,15,25,22,46,15		4,18, 2,25,20	
		24,44, 6, 5,49,20,38		1,49
54″	58,49,34,30,50,21,31,12, 6,53		4,18, 2,27, 9	
		24,44, 1,47,46,53,29		1,49
56″	58,49,34,55,34,23,18,59, 0,22		4,18, 2,28,58	
		24,43,57,29,44,24,31		1,49
58″	58,49,35,20,18,20,48,43,24,53		4,18, 2,30,47	
		24,43,53,11,41,53,44		
60″	58,49,35,45, 2,14, 0,25,18,37			
exact	58,49,35,45, 2,14, 0,25,43,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°39′ 0″	58,49,35,45, 2,14, 0,25,43,40			
		24,43,48,53,39,24, 0		
2″	58,49,36, 9,46, 2,54, 5, 7,40		4,18, 2,34,12	
		24,43,44,35,36,49,48		1,48
4″	58,49,36,34,29,47,29,41,57,28		4,18, 2,36, 0	
		24,43,40,17,34,13,48		1,48
6″	58,49,36,59,13,27,47,16,11,16		4,18, 2,37,48	
		24,43,35,59,31,36, 0		1,48
8″	58,49,37,23,57, 3,46,47,47,16		4,18, 2,39,36	
		24,43,31,41,28,56,24		1,48
10″	58,49,37,48,40,35,28,16,43,40		4,18, 2,41,24	
		24,43,27,23,26,15, 0		1,48
12″	58,49,38,13,24, 2,51,42,58,40		4,18, 2,43,12	
		24,43,23, 5,23,31,48		1,48
14″	58,49,38,38, 7,25,57, 6,30,28		4,18, 2,45, 0	
		24,43,18,47,20,46,48		1,48
16″	58,49,39, 2,50,44,44,27,17,16		4,18, 2,46,48	
		24,43,14,29,18, 0, 0		1,48
18″	58,49,39,27,33,59,13,45,17,16		4,18, 2,48,36	
		24,43,10,11,15,11,24		1,48
20″	58,49,39,52,17, 9,25, 0,28,40		4,18, 2,50,24	
		24,43, 5,53,12,21, 0		1,48
22″	58,49,40,17, 0,15,18,12,49,40		4,18, 2,52,12	
		24,43, 1,35, 9,28,48		1,48
24″	58,49,40,41,43,16,53,22,18,28		4,18, 2,54, 0	
		24,42,57,17, 6,34,48		1,48
26″	58,49,41, 6,26,14,10,28,53,16		4,18, 2,55,48	
		24,42,52,59, 3,39, 0		1,48
28″	58,49,41,31, 9, 7, 9,32,32,16		4,18, 2,57,36	
		24,42,48,41, 0,41,24		1,48
30″	58,49,41,55,51,55,50,33,13,40		4,18, 2,59,24	
		24,42,44,22,57,42, 0		1,48
32″	58,49,42,20,34,40,13,30,55,40		4,18, 3, 1,12	
		24,42,40, 4,54,40,48		1,48
34″	58,49,42,45,17,20,18,25,36,28		4,18, 3, 3, 0	
		24,42,35,46,51,37,48		1,48
36″	58,49,43, 9,59,56, 5,17,14,16		4,18, 3, 4,48	
		24,42,31,28,48,33, 0		1,48
38″	58,49,43,34,42,27,34, 5,47,16		4,18, 3, 6,36	
		24,42,27,10,45,26,24		1,48
40″	58,49,43,59,24,54,44,51,13,40		4,18, 3, 8,24	
		24,42,22,52,42,18, 0		1,48
42″	58,49,44,24, 7,17,37,33,31,40		4,18, 3,10,12	
		24,42,18,34,39, 7,48		1,48
44″	58,49,44,48,49,36,12,12,39,28		4,18, 3,12, 0	
		24,42,14,16,35,55,48		1,48
46″	58,49,45,13,31,50,28,48,35,16		4,18, 3,13,48	
		24,42, 9,58,32,42, 0		1,48
48″	58,49,45,38,14, 0,27,21,17,16		4,18, 3,15,36	
		24,42, 5,40,29,26,24		1,48
50″	58,49,46, 2,56, 6, 7,50,43,40		4,18, 3,17,24	
		24,42, 1,22,26, 9, 0		1,48
52″	58,49,46,27,38, 7,30,16,52,40		4,18, 3,19,12	
		24,41,57, 4,22,49,48		1,48
54″	58,49,46,52,20, 4,34,39,42,28		4,18, 3,21, 0	
		24,41,52,46,19,28,48		1,48
56″	58,49,47,17, 1,57,20,59,11,16		4,18, 3,22,48	
		24,41,48,28,16, 6, 0		1,48
58″	58,49,47,41,43,45,49,15,17,16		4,18, 3,24,36	
		24,41,44,10,12,41,24		
60″	58,49,48, 6,25,29,59,27,58,40			
exact	58,49,48, 6,25,29,59,27,29,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°40′ 0″	58,49,48, 6,25,29,59,27,29,34			
		24,41,39,52, 9,11,57		
2″	58,49,48,31, 7, 9,51,36,41,31		4,18, 3,28,24	
		24,41,35,34, 5,43,33		1,48
4″	58,49,48,55,48,45,25,42,25, 4		4,18, 3,30,12	
		24,41,31,16, 2,13,21		1,48
6″	58,49,49,20,30,16,41,44,38,25		4,18, 3,32, 0	
		24,41,26,57,58,41,21		1,48
8″	58,49,49,45,11,43,39,43,19,46		4,18, 3,33,48	
		24,41,22,39,55, 7,33		1,48
10″	58,49,50, 9,53, 6,19,38,27,19		4,18, 3,35,36	
		24,41,18,21,51,31,57		1,48
12″	58,49,50,34,34,24,41,29,59,16		4,18, 3,37,24	
		24,41,14, 3,47,54,33		1,48
14″	58,49,50,59,15,38,45,17,53,49		4,18, 3,39,12	
		24,41, 9,45,44,15,21		1,48
16″	58,49,51,23,56,48,31, 2, 9,10		4,18, 3,41, 0	
		24,41, 5,27,40,34,21		1,48
18″	58,49,51,48,37,53,58,42,43,31		4,18, 3,42,48	
		24,41, 1, 9,36,51,33		1,48
20″	58,49,52,13,18,55, 8,19,35, 4		4,18, 3,44,36	
		24,40,56,51,33, 6,57		1,48
22″	58,49,52,37,59,51,59,52,42, 1		4,18, 3,46,24	
		24,40,52,33,29,20,33		1,48
24″	58,49,53, 2,40,44,33,22, 2,34		4,18, 3,48,12	
		24,40,48,15,25,32,21		1,48
26″	58,49,53,27,21,32,48,47,34,55		4,18, 3,50, 0	
		24,40,43,57,21,42,21		1,48
28″	58,49,53,52, 2,16,46, 9,17,16		4,18, 3,51,48	
		24,40,39,39,17,50,33		1,48
30″	58,49,54,16,42,56,25,27, 7,49		4,18, 3,53,36	
		24,40,35,21,13,56,57		1,48
32″	58,49,54,41,23,31,46,41, 4,46		4,18, 3,55,24	
		24,40,31, 3,10, 1,33		1,48
34″	58,49,55, 6, 4, 2,49,51, 6,19		4,18, 3,57,12	
		24,40,26,45, 6, 4,21		1,48
36″	58,49,55,30,44,29,34,57,10,40		4,18, 3,59, 0	
		24,40,22,27, 2, 5,21		1,48
38″	58,49,55,55,24,52, 1,59,16, 1		4,18, 4, 0,48	
		24,40,18, 8,58, 4,33		1,48
40″	58,49,56,20, 5,10,10,57,20,34		4,18, 4, 2,36	
		24,40,13,50,54, 1,57		1,48
42″	58,49,56,44,45,24, 1,51,22,31		4,18, 4, 4,24	
		24,40, 9,32,49,57,33		1,48
44″	58,49,57, 9,25,33,34,41,20, 4		4,18, 4, 6,12	
		24,40, 5,14,45,51,21		1,48
46″	58,49,57,34, 5,38,49,27,11,25		4,18, 4, 8, 0	
		24,40, 0,56,41,43,21		1,48
48″	58,49,57,58,45,39,46, 8,54,46		4,18, 4, 9,48	
		24,39,56,38,37,33,33		1,48
50″	58,49,58,23,25,36,24,46,28,19		4,18, 4,11,36	
		24,39,52,20,33,21,57		1,48
52″	58,49,58,48, 5,28,45,19,50,16		4,18, 4,13,24	
		24,39,48, 2,29, 8,33		1,48
54″	58,49,59,12,45,16,47,48,58,49		4,18, 4,15,12	
		24,39,43,44,24,53,21		1,48
56″	58,49,59,37,25, 0,32,13,52,10		4,18, 4,17, 0	
		24,39,39,26,20,36,21		1,48
58″	58,50, 0, 2, 4,39,58,34,28,31		4,18, 4,18,48	
		24,39,35, 8,16,17,33		
60″	58,50, 0,26,44,15, 6,50,46, 4			
exact	58,50, 0,26,44,15, 6,50,27,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°41′ 0″	58,50, 0,26,44,15, 6,50,27,50			
		24,39,30,50,11,55, 4		
2″	58,50, 0,51,23,45,57, 2,22,54		4,18, 4,22,31	
		24,39,26,32, 7,32,33		1,48
4″	58,50, 1,16, 3,12,29, 9,55,27		4,18, 4,24,19	
		24,39,22,14, 3, 8,14		1,48
6″	58,50, 1,40,42,34,43,13, 3,41		4,18, 4,26, 7	
		24,39,17,55,58,42, 7		1,48
8″	58,50, 2, 5,21,52,39,11,45,48		4,18, 4,27,55	
		24,39,13,37,54,14,12		1,48
10″	58,50, 2,30, 1, 6,17, 6, 0, 0		4,18, 4,29,43	
		24,39, 9,19,49,44,29		1,48
12″	58,50, 2,54,40,15,36,55,44,29		4,18, 4,31,31	
		24,39, 5, 1,45,12,58		1,48
14″	58,50, 3,19,19,20,38,40,57,27		4,18, 4,33,19	
		24,39, 0,43,40,39,39		1,48
16″	58,50, 3,43,58,21,22,21,37, 6		4,18, 4,35, 7	
		24,38,56,25,36, 4,32		1,48
18″	58,50, 4, 8,37,17,47,57,41,38		4,18, 4,36,55	
		24,38,52, 7,31,27,37		1,48
20″	58,50, 4,33,16, 9,55,29, 9,15		4,18, 4,38,43	
		24,38,47,49,26,48,54		1,48
22″	58,50, 4,57,54,57,44,55,58, 9		4,18, 4,40,31	
		24,38,43,31,22, 8,23		1,48
24″	58,50, 5,22,33,41,16,18, 6,32		4,18, 4,42,19	
		24,38,39,13,17,26, 4		1,48
26″	58,50, 5,47,12,20,29,35,32,36		4,18, 4,44, 7	
		24,38,34,55,12,41,57		1,48
28″	58,50, 6,11,50,55,24,48,14,33		4,18, 4,45,55	
		24,38,30,37, 7,56, 2		1,48
30″	58,50, 6,36,29,26, 1,56,10,35		4,18, 4,47,43	
		24,38,26,19, 3, 8,19		1,48
32″	58,50, 7, 1, 7,52,20,59,18,54		4,18, 4,49,31	
		24,38,22, 0,58,18,48		1,48
34″	58,50, 7,25,46,14,21,57,37,42		4,18, 4,51,19	
		24,38,17,42,53,27,29		1,48
36″	58,50, 7,50,24,32, 4,51, 5,11		4,18, 4,53, 7	
		24,38,13,24,48,34,22		1,48
38″	58,50, 8,15, 2,45,29,39,39,33		4,18, 4,54,55	
		24,38, 9, 6,43,39,27		1,48
40″	58,50, 8,39,40,54,36,23,19, 0		4,18, 4,56,43	
		24,38, 4,48,38,42,44		1,48
42″	58,50, 9, 4,18,59,25, 2, 1,44		4,18, 4,58,31	
		24,38, 0,30,33,44,13		1,48
44″	58,50, 9,28,56,59,55,35,45,57		4,18, 5, 0,19	
		24,37,56,12,28,43,54		1,48
46″	58,50, 9,53,34,56, 8, 4,29,51		4,18, 5, 2, 7	
		24,37,51,54,23,41,47		1,48
48″	58,50,10,18,12,48, 2,28,11,38		4,18, 5, 3,55	
		24,37,47,36,18,37,52		1,48
50″	58,50,10,42,50,35,38,46,49,30		4,18, 5, 5,43	
		24,37,43,18,13,32, 9		1,48
52″	58,50,11, 7,28,18,57, 0,21,39		4,18, 5, 7,31	
		24,37,39, 0, 8,24,38		1,48
54″	58,50,11,32, 5,57,57, 8,46,17		4,18, 5, 9,19	
		24,37,34,42, 3,15,19		1,48
56″	58,50,11,56,43,32,39,12, 1,36		4,18, 5,11, 7	
		24,37,30,23,58, 4,12		1,48
58″	58,50,12,21,21, 3, 3,10, 5,48		4,18, 5,12,55	
		24,37,26, 5,52,51,17		
60″	58,50,12,45,58,29, 9, 2,57, 5			
exact	58,50,12,45,58,29, 9, 2,47,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°42′ 0″	58,50,12,45,58,29, 9, 2,47,53			
		24,37,21,47,47,35,43		
2″	58,50,13,10,35,50,56,50,23,36		4,18, 5,16,34	
		24,37,17,29,42,19, 9		1,48
4″	58,50,13,35,13, 8,26,32,42,45		4,18, 5,18,22	
		24,37,13,11,37, 0,47		1,48
6″	58,50,13,59,50,21,38, 9,43,32		4,18, 5,20,10	
		24,37, 8,53,31,40,37		1,48
8″	58,50,14,24,27,30,31,41,24, 9		4,18, 5,21,58	
		24,37, 4,35,26,18,39		1,48
10″	58,50,14,49, 4,35, 7, 7,42,48		4,18, 5,23,46	
		24,37, 0,17,20,54,53		1,48
12″	58,50,15,13,41,35,24,28,37,41		4,18, 5,25,34	
		24,36,55,59,15,29,19		1,48
14″	58,50,15,38,18,31,23,44, 7, 0		4,18, 5,27,22	
		24,36,51,41,10, 1,57		1,48
16″	58,50,16, 2,55,23, 4,54, 8,57		4,18, 5,29,10	
		24,36,47,23, 4,32,47		1,48
18″	58,50,16,27,32,10,27,58,41,44		4,18, 5,30,58	
		24,36,43, 4,59, 1,49		1,48
20″	58,50,16,52, 8,53,32,57,43,33		4,18, 5,32,46	
		24,36,38,46,53,29, 3		1,48
22″	58,50,17,16,45,32,19,51,12,36		4,18, 5,34,34	
		24,36,34,28,47,54,29		1,48
24″	58,50,17,41,22, 6,48,39, 7, 5		4,18, 5,36,22	
		24,36,30,10,42,18, 7		1,48
26″	58,50,18, 5,58,36,59,21,25,12		4,18, 5,38,10	
		24,36,25,52,36,39,57		1,48
28″	58,50,18,30,35, 2,51,58, 5, 9		4,18, 5,39,58	
		24,36,21,34,30,59,59		1,48
30″	58,50,18,55,11,24,26,29, 5, 8		4,18, 5,41,46	
		24,36,17,16,25,18,13		1,48
32″	58,50,19,19,47,41,42,54,23,21		4,18, 5,43,34	
		24,36,12,58,19,34,39		1,48
34″	58,50,19,44,23,54,41,13,58, 0		4,18, 5,45,22	
		24,36, 8,40,13,49,17		1,48
36″	58,50,20, 9, 0, 3,21,27,47,17		4,18, 5,47,10	
		24,36, 4,22, 8, 2, 7		1,48
38″	58,50,20,33,36, 7,43,35,49,24		4,18, 5,48,58	
		24,36, 0, 4, 2,13, 9		1,48
40″	58,50,20,58,12, 7,47,38, 2,33		4,18, 5,50,46	
		24,35,55,45,56,22,23		1,48
42″	58,50,21,22,48, 3,33,34,24,56		4,18, 5,52,34	
		24,35,51,27,50,29,49		1,48
44″	58,50,21,47,23,55, 1,24,54,45		4,18, 5,54,22	
		24,35,47, 9,44,35,27		1,48
46″	58,50,22,11,59,42,11, 9,30,12		4,18, 5,56,10	
		24,35,42,51,38,39,17		1,48
48″	58,50,22,36,35,25, 2,48, 9,29		4,18, 5,57,58	
		24,35,38,33,32,41,19		1,48
50″	58,50,23, 1,11, 3,36,20,50,48		4,18, 5,59,46	
		24,35,34,15,26,41,33		1,48
52″	58,50,23,25,46,37,51,47,32,21		4,18, 6, 1,34	
		24,35,29,57,20,39,59		1,48
54″	58,50,23,50,22, 7,49, 8,12,20		4,18, 6, 3,22	
		24,35,25,39,14,36,37		1,48
56″	58,50,24,14,57,33,28,22,48,57		4,18, 6, 5,10	
		24,35,21,21, 8,31,27		1,48
58″	58,50,24,39,32,54,49,31,20,24		4,18, 6, 6,58	
		24,35,17, 3, 2,24,29		
60″	58,50,25, 4, 8,11,52,33,44,53			
exact	58,50,25, 4, 8,11,52,33,49,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°43′ 0″	58,50,25, 4, 8,11,52,33,49,51			
		24,35,12,44,56,16,15		
2″	58,50,25,28,43,24,37,30, 6, 6		4,18, 6,10,31	
		24,35, 8,26,50, 5,44		1,48
4″	58,50,25,53,18,33, 4,20,11,50		4,18, 6,12,19	
		24,35, 4, 8,43,53,25		1,48
6″	58,50,26,17,53,37,13, 4, 5,15		4,18, 6,14, 7	
		24,34,59,50,37,39,18		1,48
8″	58,50,26,42,28,37, 3,41,44,33		4,18, 6,15,55	
		24,34,55,32,31,23,23		1,48
10″	58,50,27, 7, 3,32,36,13, 7,56		4,18, 6,17,43	
		24,34,51,14,25, 5,40		1,48
12″	58,50,27,31,38,23,50,38,13,36		4,18, 6,19,31	
		24,34,46,56,18,46, 9		1,48
14″	58,50,27,56,13,10,46,56,59,45		4,18, 6,21,19	
		24,34,42,38,12,24,50		1,48
16″	58,50,28,20,47,53,25, 9,24,35		4,18, 6,23, 7	
		24,34,38,20, 6, 1,43		1,48
18″	58,50,28,45,22,31,45,15,26,18		4,18, 6,24,55	
		24,34,34, 1,59,36,48		1,48
20″	58,50,29, 9,57, 5,47,15, 3, 6		4,18, 6,26,43	
		24,34,29,43,53,10, 5		1,48
22″	58,50,29,34,31,35,31, 8,13,11		4,18, 6,28,31	
		24,34,25,25,46,41,34		1,48
24″	58,50,29,59, 6, 0,56,54,54,45		4,18, 6,30,19	
		24,34,21, 7,40,11,15		1,48
26″	58,50,30,23,40,22, 4,35, 6, 0		4,18, 6,32, 7	
		24,34,16,49,33,39, 8		1,48
28″	58,50,30,48,14,38,54, 8,45, 8		4,18, 6,33,55	
		24,34,12,31,27, 5,13		1,48
30″	58,50,31,12,48,51,25,35,50,21		4,18, 6,35,43	
		24,34, 8,13,20,29,30		1,48
32″	58,50,31,37,22,59,38,56,19,51		4,18, 6,37,31	
		24,34, 3,55,13,51,59		1,48
34″	58,50,32, 1,57, 3,34,10,11,50		4,18, 6,39,19	
		24,33,59,37, 7,12,40		1,48
36″	58,50,32,26,31, 3,11,17,24,30		4,18, 6,41, 7	
		24,33,55,19, 0,31,33		1,48
38″	58,50,32,51, 4,58,30,17,56, 3		4,18, 6,42,55	
		24,33,51, 0,53,48,38		1,48
40″	58,50,33,15,38,49,31,11,44,41		4,18, 6,44,43	
		24,33,46,42,47, 3,55		1,48
42″	58,50,33,40,12,36,13,58,48,36		4,18, 6,46,31	
		24,33,42,24,40,17,24		1,48
44″	58,50,34, 4,46,18,38,39, 6, 0		4,18, 6,48,19	
		24,33,38, 6,33,29, 5		1,48
46″	58,50,34,29,19,56,45,12,35, 5		4,18, 6,50, 7	
		24,33,33,48,26,38,58		1,48
48″	58,50,34,53,53,30,33,39,14, 3		4,18, 6,51,55	
		24,33,29,30,19,47, 3		1,48
50″	58,50,35,18,27, 0, 3,59, 1, 6		4,18, 6,53,43	
		24,33,25,12,12,53,20		1,48
52″	58,50,35,43, 0,25,16,11,54,26		4,18, 6,55,31	
		24,33,20,54, 5,57,49		1,48
54″	58,50,36, 7,33,46,10,17,52,15		4,18, 6,57,19	
		24,33,16,35,59, 0,30		1,48
56″	58,50,36,32, 7, 2,46,16,52,45		4,18, 6,59, 7	
		24,33,12,17,52, 1,23		1,48
58″	58,50,36,56,40,15, 4, 8,54, 8		4,18, 7, 0,55	
		24,33, 7,59,45, 0,28		
60″	58,50,37,21,13,23, 3,53,54,36			
exact	58,50,37,21,13,23, 3,54, 4,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°44′ 0″	58,50,37,21,13,23, 3,54, 4,38			
		24,33, 3,41,37,59, 2		
2″	58,50,37,45,46,26,45,32, 3,40		4,18, 7, 4,24	
		24,32,59,23,30,54,38		1,48
4″	58,50,38,10,19,26, 9, 2,58,18		4,18, 7, 6,12	
		24,32,55, 5,23,48,26		1,48
6″	58,50,38,34,52,21,14,26,46,44		4,18, 7, 8, 0	
		24,32,50,47,16,40,26		1,48
8″	58,50,38,59,25,12, 1,43,27,10		4,18, 7, 9,48	
		24,32,46,29, 9,30,38		1,48
10″	58,50,39,23,57,58,30,52,57,48		4,18, 7,11,36	
		24,32,42,11, 2,19, 2		1,48
12″	58,50,39,48,30,40,41,55,16,50		4,18, 7,13,24	
		24,32,37,52,55, 5,38		1,48
14″	58,50,40,13, 3,18,34,50,22,28		4,18, 7,15,12	
		24,32,33,34,47,50,26		1,48
16″	58,50,40,37,35,52, 9,38,12,54		4,18, 7,17, 0	
		24,32,29,16,40,33,26		1,48
18″	58,50,41, 2, 8,21,26,18,46,20		4,18, 7,18,48	
		24,32,24,58,33,14,38		1,48
20″	58,50,41,26,40,46,24,52, 0,58		4,18, 7,20,36	
		24,32,20,40,25,54, 2		1,48
22″	58,50,41,51,13, 7, 5,17,55, 0		4,18, 7,22,24	
		24,32,16,22,18,31,38		1,48
24″	58,50,42,15,45,23,27,36,26,38		4,18, 7,24,12	
		24,32,12, 4,11, 7,26		1,48
26″	58,50,42,40,17,35,31,47,34, 4		4,18, 7,26, 0	
		24,32, 7,46, 3,41,26		1,48
28″	58,50,43, 4,49,43,17,51,15,30		4,18, 7,27,48	
		24,32, 3,27,56,13,38		1,48
30″	58,50,43,29,21,46,45,47,29, 8		4,18, 7,29,36	
		24,31,59, 9,48,44, 2		1,48
32″	58,50,43,53,53,45,55,36,13,10		4,18, 7,31,24	
		24,31,54,51,41,12,38		1,48
34″	58,50,44,18,25,40,47,17,25,48		4,18, 7,33,12	
		24,31,50,33,33,39,26		1,48
36″	58,50,44,42,57,31,20,51, 5,14		4,18, 7,35, 0	
		24,31,46,15,26, 4,26		1,48
38″	58,50,45, 7,29,17,36,17, 9,40		4,18, 7,36,48	
		24,31,41,57,18,27,38		1,48
40″	58,50,45,32, 0,59,33,35,37,18		4,18, 7,38,36	
		24,31,37,39,10,49, 2		1,48
42″	58,50,45,56,32,37,12,46,26,20		4,18, 7,40,24	
		24,31,33,21, 3, 8,38		1,48
44″	58,50,46,21, 4,10,33,49,34,58		4,18, 7,42,12	
		24,31,29, 2,55,26,26		1,48
46″	58,50,46,45,35,39,36,45, 1,24		4,18, 7,44, 0	
		24,31,24,44,47,42,26		1,48
48″	58,50,47,10, 7, 4,21,32,43,50		4,18, 7,45,48	
		24,31,20,26,39,56,38		1,48
50″	58,50,47,34,38,24,48,12,40,28		4,18, 7,47,36	
		24,31,16, 8,32, 9, 2		1,48
52″	58,50,47,59, 9,40,56,44,49,30		4,18, 7,49,24	
		24,31,11,50,24,19,38		1,48
54″	58,50,48,23,40,52,47, 9, 9, 8		4,18, 7,51,12	
		24,31, 7,32,16,28,26		1,48
56″	58,50,48,48,12, 0,19,25,37,34		4,18, 7,53, 0	
		24,31, 3,14, 8,35,26		1,48
58″	58,50,49,12,43, 3,33,34,13, 0		4,18, 7,54,48	
		24,30,58,56, 0,40,38		
60″	58,50,49,37,14, 2,29,34,53,38			
exact	58,50,49,37,14, 2,29,35,13,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°45′ 0″	58,50,49,37,14, 2,29,35,13,53			
		24,30,54,37,52,46,26		
2″	58,50,50, 1,44,57, 7,28, 0,19		4,18, 7,58,13	
		24,30,50,19,44,48,13		1,48
4″	58,50,50,26,15,47,27,12,48,32		4,18, 8, 0, 1	
		24,30,46, 1,36,48,12		1,48
6″	58,50,50,50,46,33,28,49,36,44		4,18, 8, 1,49	
		24,30,41,43,28,46,23		1,48
8″	58,50,51,15,17,15,12,18,23, 7		4,18, 8, 3,37	
		24,30,37,25,20,42,46		1,48
10″	58,50,51,39,47,52,37,39, 5,53		4,18, 8, 5,25	
		24,30,33, 7,12,37,21		1,48
12″	58,50,52, 4,18,25,44,51,43,14		4,18, 8, 7,13	
		24,30,28,49, 4,30, 8		1,48
14″	58,50,52,28,48,54,33,56,13,22		4,18, 8, 9, 1	
		24,30,24,30,56,21, 7		1,48
16″	58,50,52,53,19,19, 4,52,34,29		4,18, 8,10,49	
		24,30,20,12,48,10,18		1,48
18″	58,50,53,17,49,39,17,40,44,47		4,18, 8,12,37	
		24,30,15,54,39,57,41		1,48
20″	58,50,53,42,19,55,12,20,42,28		4,18, 8,14,25	
		24,30,11,36,31,43,16		1,48
22″	58,50,54, 6,50, 6,48,52,25,44		4,18, 8,16,13	
		24,30, 7,18,23,27, 3		1,48
24″	58,50,54,31,20,14, 7,15,52,47		4,18, 8,18, 1	
		24,30, 3, 0,15, 9, 2		1,48
26″	58,50,54,55,50,17, 7,31, 1,49		4,18, 8,19,49	
		24,29,58,42, 6,49,13		1,48
28″	58,50,55,20,20,15,49,37,51, 2		4,18, 8,21,37	
		24,29,54,23,58,27,36		1,48
30″	58,50,55,44,50,10,13,36,18,38		4,18, 8,23,25	
		24,29,50, 5,50, 4,11		1,48
32″	58,50,56, 9,20, 0,19,26,22,49		4,18, 8,25,13	
		24,29,45,47,41,38,58		1,48
34″	58,50,56,33,49,46, 7, 8, 1,47		4,18, 8,27, 1	
		24,29,41,29,33,11,57		1,48
36″	58,50,56,58,19,27,36,41,13,44		4,18, 8,28,49	
		24,29,37,11,24,43, 8		1,48
38″	58,50,57,22,49, 4,48, 5,56,52		4,18, 8,30,37	
		24,29,32,53,16,12,31		1,48
40″	58,50,57,47,18,37,41,22, 9,23		4,18, 8,32,25	
		24,29,28,35, 7,40, 6		1,48
42″	58,50,58,11,48, 6,16,29,49,29		4,18, 8,34,13	
		24,29,24,16,59, 5,53		1,48
44″	58,50,58,36,17,30,33,28,55,22		4,18, 8,36, 1	
		24,29,19,58,50,29,52		1,48
46″	58,50,59, 0,46,50,32,19,25,14		4,18, 8,37,49	
		24,29,15,40,41,52, 3		1,48
48″	58,50,59,25,16, 6,13, 1,17,17		4,18, 8,39,37	
		24,29,11,22,33,12,26		1,48
50″	58,50,59,49,45,17,35,34,29,43		4,18, 8,41,25	
		24,29, 7, 4,24,31, 1		1,48
52″	58,51, 0,14,14,24,39,59, 0,44		4,18, 8,43,13	
		24,29, 2,46,15,47,48		1,48
54″	58,51, 0,38,43,27,26,14,48,32		4,18, 8,45, 1	
		24,28,58,28, 7, 2,47		1,48
56″	58,51, 1, 3,12,25,54,21,51,19		4,18, 8,46,49	
		24,28,54, 9,58,15,58		1,48
58″	58,51, 1,27,41,20, 4,20, 7,17		4,18, 8,48,37	
		24,28,49,51,49,27,21		
60″	58,51, 1,52,10, 9,56, 9,34,38			
exact	58,51, 1,52,10, 9,56,10,10, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°46′ 0″	58,51, 1,52,10, 9,56,10,10, 1			
		24,28,45,33,40,40,47		
2″	58,51, 2,16,38,55,29,50,50,48		4,18, 8,51,56	
		24,28,41,15,31,48,51		1,47
4″	58,51, 2,41, 7,36,45,22,39,39		4,18, 8,53,43	
		24,28,36,57,22,55, 8		1,47
6″	58,51, 3, 5,36,13,42,45,34,47		4,18, 8,55,30	
		24,28,32,39,13,59,38		1,47
8″	58,51, 3,30, 4,46,21,59,34,25		4,18, 8,57,17	
		24,28,28,21, 5, 2,21		1,47
10″	58,51, 3,54,33,14,43, 4,36,46		4,18, 8,59, 4	
		24,28,24, 2,56, 3,17		1,47
12″	58,51, 4,19, 1,38,46, 0,40, 3		4,18, 9, 0,51	
		24,28,19,44,47, 2,26		1,47
14″	58,51, 4,43,29,58,30,47,42,29		4,18, 9, 2,38	
		24,28,15,26,37,59,48		1,47
16″	58,51, 5, 7,58,13,57,25,42,17		4,18, 9, 4,25	
		24,28,11, 8,28,55,23		1,47
18″	58,51, 5,32,26,25, 5,54,37,40		4,18, 9, 6,12	
		24,28, 6,50,19,49,11		1,47
20″	58,51, 5,56,54,31,56,14,26,51		4,18, 9, 7,59	
		24,28, 2,32,10,41,12		1,47
22″	58,51, 6,21,22,34,28,25, 8, 3		4,18, 9, 9,46	
		24,27,58,14, 1,31,26		1,47
24″	58,51, 6,45,50,32,42,26,39,29		4,18, 9,11,33	
		24,27,53,55,52,19,53		1,47
26″	58,51, 7,10,18,26,38,18,59,22		4,18, 9,13,20	
		24,27,49,37,43, 6,33		1,47
28″	58,51, 7,34,46,16,16, 2, 5,55		4,18, 9,15, 7	
		24,27,45,19,33,51,26		1,47
30″	58,51, 7,59,14, 1,35,35,57,21		4,18, 9,16,54	
		24,27,41, 1,24,34,32		1,47
32″	58,51, 8,23,41,42,37, 0,31,53		4,18, 9,18,41	
		24,27,36,43,15,15,51		1,47
34″	58,51, 8,48, 9,19,20,15,47,44		4,18, 9,20,28	
		24,27,32,25, 5,55,23		1,47
36″	58,51, 9,12,36,51,45,21,43, 7		4,18, 9,22,15	
		24,27,28, 6,56,33, 8		1,47
38″	58,51, 9,37, 4,19,52,18,16,15		4,18, 9,24, 2	
		24,27,23,48,47, 9, 6		1,47
40″	58,51,10, 1,31,43,41, 5,25,21		4,18, 9,25,49	
		24,27,19,30,37,43,17		1,47
42″	58,51,10,25,59, 3,11,43, 8,38		4,18, 9,27,36	
		24,27,15,12,28,15,41		1,47
44″	58,51,10,50,26,18,24,11,24,19		4,18, 9,29,23	
		24,27,10,54,18,46,18		1,47
46″	58,51,11,14,53,29,18,30,10,37		4,18, 9,31,10	
		24,27, 6,36, 9,15, 8		1,47
48″	58,51,11,39,20,35,54,39,25,45		4,18, 9,32,57	
		24,27, 2,17,59,42,11		1,47
50″	58,51,12, 3,47,38,12,39, 7,56		4,18, 9,34,44	
		24,26,57,59,50, 7,27		1,47
52″	58,51,12,28,14,36,12,29,15,23		4,18, 9,36,31	
		24,26,53,41,40,30,56		1,47
54″	58,51,12,52,41,29,54, 9,46,19		4,18, 9,38,18	
		24,26,49,23,30,52,38		1,47
56″	58,51,13,17, 8,19,17,40,38,57		4,18, 9,40, 5	
		24,26,45, 5,21,12,33		1,47
58″	58,51,13,41,35, 4,23, 1,51,30		4,18, 9,41,52	
		24,26,40,47,11,30,41		
60″	58,51,14, 6, 1,45,10,13,22,11			
exact	58,51,14, 6, 1,45,10,12,56,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°47′ 0″	58,51,14, 6, 1,45,10,12,56,15			
		24,26,36,29, 1,44,28		
2″	58,51,14,30,28,21,39,14,40,43		4,18, 9,45,35	
		24,26,32,10,51,58,53		1,47
4″	58,51,14,54,54,53,50, 6,39,36		4,18, 9,47,22	
		24,26,27,52,42,11,31		1,47
6″	58,51,15,19,21,21,42,48,51, 7		4,18, 9,49, 9	
		24,26,23,34,32,22,22		1,47
8″	58,51,15,43,47,45,17,21,13,29		4,18, 9,50,56	
		24,26,19,16,22,31,26		1,47
10″	58,51,16, 8,14, 4,33,43,44,55		4,18, 9,52,43	
		24,26,14,58,12,38,43		1,47
12″	58,51,16,32,40,19,31,56,23,38		4,18, 9,54,30	
		24,26,10,40, 2,44,13		1,47
14″	58,51,16,57, 6,30,11,59, 7,51		4,18, 9,56,17	
		24,26, 6,21,52,47,56		1,47
16″	58,51,17,21,32,36,33,51,55,47		4,18, 9,58, 4	
		24,26, 2, 3,42,49,52		1,47
18″	58,51,17,45,58,38,37,34,45,39		4,18, 9,59,51	
		24,25,57,45,32,50, 1		1,47
20″	58,51,18,10,24,36,23, 7,35,40		4,18,10, 1,38	
		24,25,53,27,22,48,23		1,47
22″	58,51,18,34,50,29,50,30,24, 3		4,18,10, 3,25	
		24,25,49, 9,12,44,58		1,47
24″	58,51,18,59,16,18,59,43, 9, 1		4,18,10, 5,12	
		24,25,44,51, 2,39,46		1,47
26″	58,51,19,23,42, 3,50,45,48,47		4,18,10, 6,59	
		24,25,40,32,52,32,47		1,47
28″	58,51,19,48, 7,44,23,38,21,34		4,18,10, 8,46	
		24,25,36,14,42,24, 1		1,47
30″	58,51,20,12,33,20,38,20,45,35		4,18,10,10,33	
		24,25,31,56,32,13,28		1,47
32″	58,51,20,36,58,52,34,52,59, 3		4,18,10,12,20	
		24,25,27,38,22, 1, 8		1,47
34″	58,51,21, 1,24,20,13,15, 0,11		4,18,10,14, 7	
		24,25,23,20,11,47, 1		1,47
36″	58,51,21,25,49,43,33,26,47,12		4,18,10,15,54	
		24,25,19, 2, 1,31, 7		1,47
38″	58,51,21,50,15, 2,35,28,18,19		4,18,10,17,41	
		24,25,14,43,51,13,26		1,47
40″	58,51,22,14,40,17,19,19,31,45		4,18,10,19,28	
		24,25,10,25,40,53,58		1,47
42″	58,51,22,39, 5,27,45, 0,25,43		4,18,10,21,15	
		24,25, 6, 7,30,32,43		1,47
44″	58,51,23, 3,30,33,52,30,58,26		4,18,10,23, 2	
		24,25, 1,49,20, 9,41		1,47
46″	58,51,23,27,55,35,41,51, 8, 7		4,18,10,24,49	
		24,24,57,31, 9,44,52		1,47
48″	58,51,23,52,20,33,13, 0,52,59		4,18,10,26,36	
		24,24,53,12,59,18,16		1,47
50″	58,51,24,16,45,26,26, 0,11,15		4,18,10,28,23	
		24,24,48,54,48,49,53		1,47
52″	58,51,24,41,10,15,20,49, 1, 8		4,18,10,30,10	
		24,24,44,36,38,19,43		1,47
54″	58,51,25, 5,34,59,57,27,20,51		4,18,10,31,57	
		24,24,40,18,27,47,46		1,47
56″	58,51,25,29,59,40,15,55, 8,37		4,18,10,33,44	
		24,24,36, 0,17,14, 2		1,47
58″	58,51,25,54,24,16,16,12,22,39		4,18,10,35,31	
		24,24,31,42, 6,38,31		
60″	58,51,26,18,48,47,58,19, 1,10			
exact	58,51,26,18,48,47,58,18,46,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°48′ 0″	58,51,26,18,48,47,58,18,46,30			
		24,24,27,23,55,59,50		
2″	58,51,26,43,13,15,22,14,46,20		4,18,10,39,10	
		24,24,23, 5,45,20,40		1,47
4″	58,51,27, 7,37,38,28, 0, 7, 0		4,18,10,40,57	
		24,24,18,47,34,39,43		1,47
6″	58,51,27,32, 1,57,15,34,46,43		4,18,10,42,44	
		24,24,14,29,23,56,59		1,47
8″	58,51,27,56,26,11,44,58,43,42		4,18,10,44,31	
		24,24,10,11,13,12,28		1,47
10″	58,51,28,20,50,21,56,11,56,10		4,18,10,46,18	
		24,24, 5,53, 2,26,10		1,47
12″	58,51,28,45,14,27,49,14,22,20		4,18,10,48, 5	
		24,24, 1,34,51,38, 5		1,47
14″	58,51,29, 9,38,29,24, 6, 0,25		4,18,10,49,52	
		24,23,57,16,40,48,13		1,47
16″	58,51,29,34, 2,26,40,46,48,38		4,18,10,51,39	
		24,23,52,58,29,56,34		1,47
18″	58,51,29,58,26,19,39,16,45,12		4,18,10,53,26	
		24,23,48,40,19, 3, 8		1,47
20″	58,51,30,22,50, 8,19,35,48,20		4,18,10,55,13	
		24,23,44,22, 8, 7,55		1,47
22″	58,51,30,47,13,52,41,43,56,15		4,18,10,57, 0	
		24,23,40, 3,57,10,55		1,47
24″	58,51,31,11,37,32,45,41, 7,10		4,18,10,58,47	
		24,23,35,45,46,12, 8		1,47
26″	58,51,31,36, 1, 8,31,27,19,18		4,18,11, 0,34	
		24,23,31,27,35,11,34		1,47
28″	58,51,32, 0,24,39,59, 2,30,52		4,18,11, 2,21	
		24,23,27, 9,24, 9,13		1,47
30″	58,51,32,24,48, 7, 8,26,40, 5		4,18,11, 4, 8	
		24,23,22,51,13, 5, 5		1,47
32″	58,51,32,49,11,29,59,39,45,10		4,18,11, 5,55	
		24,23,18,33, 1,59,10		1,47
34″	58,51,33,13,34,48,32,41,44,20		4,18,11, 7,42	
		24,23,14,14,50,51,28		1,47
36″	58,51,33,37,58, 2,47,32,35,48		4,18,11, 9,29	
		24,23, 9,56,39,41,59		1,47
38″	58,51,34, 2,21,12,44,12,17,47		4,18,11,11,16	
		24,23, 5,38,28,30,43		1,47
40″	58,51,34,26,44,18,22,40,48,30		4,18,11,13, 3	
		24,23, 1,20,17,17,40		1,47
42″	58,51,34,51, 7,19,42,58, 6,10		4,18,11,14,50	
		24,22,57, 2, 6, 2,50		1,47
44″	58,51,35,15,30,16,45, 4, 9, 0		4,18,11,16,37	
		24,22,52,43,54,46,13		1,47
46″	58,51,35,39,53, 9,28,58,55,13		4,18,11,18,24	
		24,22,48,25,43,27,49		1,47
48″	58,51,36, 4,15,57,54,42,23, 2		4,18,11,20,11	
		24,22,44, 7,32, 7,38		1,47
50″	58,51,36,28,38,42, 2,14,30,40		4,18,11,21,58	
		24,22,39,49,20,45,40		1,47
52″	58,51,36,53, 1,21,51,35,16,20		4,18,11,23,45	
		24,22,35,31, 9,21,55		1,47
54″	58,51,37,17,23,57,22,44,38,15		4,18,11,25,32	
		24,22,31,12,57,56,23		1,47
56″	58,51,37,41,46,28,35,42,34,38		4,18,11,27,19	
		24,22,26,54,46,29, 4		1,47
58″	58,51,38, 6, 8,55,30,29, 3,42		4,18,11,29, 6	
		24,22,22,36,34,59,58		
60″	58,51,38,30,31,18, 7, 4, 3,40			
exact	58,51,38,30,31,18, 7, 4, 5,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°49′ 0″	58,51,38,30,31,18, 7, 4, 5,33			
		24,22,18,18,23,29,15		
2″	58,51,38,54,53,36,25,27,34,48		4,18,11,32,39	
		24,22,14, 0,11,56,36		1,47
4″	58,51,39,19,15,50,25,39,31,24		4,18,11,34,26	
		24,22, 9,42, 0,22,10		1,47
6″	58,51,39,43,38, 0, 7,39,53,34		4,18,11,36,13	
		24,22, 5,23,48,45,57		1,47
8″	58,51,40, 8, 0, 5,31,28,39,31		4,18,11,38, 0	
		24,22, 1, 5,37, 7,57		1,47
10″	58,51,40,32,22, 6,37, 5,47,28		4,18,11,39,47	
		24,21,56,47,25,28,10		1,47
12″	58,51,40,56,44, 3,24,31,15,38		4,18,11,41,34	
		24,21,52,29,13,46,36		1,47
14″	58,51,41,21, 5,55,53,45, 2,14		4,18,11,43,21	
		24,21,48,11, 2, 3,15		1,47
16″	58,51,41,45,27,44, 4,47, 5,29		4,18,11,45, 8	
		24,21,43,52,50,18, 7		1,47
18″	58,51,42, 9,49,27,57,37,23,36		4,18,11,46,55	
		24,21,39,34,38,31,12		1,47
20″	58,51,42,34,11, 7,32,15,54,48		4,18,11,48,42	
		24,21,35,16,26,42,30		1,47
22″	58,51,42,58,32,42,48,42,37,18		4,18,11,50,29	
		24,21,30,58,14,52, 1		1,47
24″	58,51,43,22,54,13,46,57,29,19		4,18,11,52,16	
		24,21,26,40, 2,59,45		1,47
26″	58,51,43,47,15,40,27, 0,29, 4		4,18,11,54, 3	
		24,21,22,21,51, 5,42		1,47
28″	58,51,44,11,37, 2,48,51,34,46		4,18,11,55,50	
		24,21,18, 3,39, 9,52		1,47
30″	58,51,44,35,58,20,52,30,44,38		4,18,11,57,37	
		24,21,13,45,27,12,15		1,47
32″	58,51,45, 0,19,34,37,57,56,53		4,18,11,59,24	
		24,21, 9,27,15,12,51		1,47
34″	58,51,45,24,40,44, 5,13, 9,44		4,18,12, 1,11	
		24,21, 5, 9, 3,11,40		1,47
36″	58,51,45,49, 1,49,14,16,21,24		4,18,12, 2,58	
		24,21, 0,50,51, 8,42		1,47
38″	58,51,46,13,22,50, 5, 7,30, 6		4,18,12, 4,45	
		24,20,56,32,39, 3,57		1,47
40″	58,51,46,37,43,46,37,46,34, 3		4,18,12, 6,32	
		24,20,52,14,26,57,25		1,47
42″	58,51,47, 2, 4,38,52,13,31,28		4,18,12, 8,19	
		24,20,47,56,14,49, 6		1,47
44″	58,51,47,26,25,26,48,28,20,34		4,18,12,10, 6	
		24,20,43,38, 2,39, 0		1,47
46″	58,51,47,50,46,10,26,30,59,34		4,18,12,11,53	
		24,20,39,19,50,27, 7		1,47
48″	58,51,48,15, 6,49,46,21,26,41		4,18,12,13,40	
		24,20,35, 1,38,13,27		1,47
50″	58,51,48,39,27,24,47,59,40, 8		4,18,12,15,27	
		24,20,30,43,25,58, 0		1,47
52″	58,51,49, 3,47,55,31,25,38, 8		4,18,12,17,14	
		24,20,26,25,13,40,46		1,47
54″	58,51,49,28, 8,21,56,39,18,54		4,18,12,19, 1	
		24,20,22, 7, 1,21,45		1,47
56″	58,51,49,52,28,44, 3,40,40,39		4,18,12,20,48	
		24,20,17,48,49, 0,57		1,47
58″	58,51,50,16,49, 1,52,29,41,36		4,18,12,22,35	
		24,20,13,30,36,38,22		
60″	58,51,50,41, 9,15,23, 6,19,58			
exact	58,51,50,41, 9,15,23, 6,28,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°50′ 0″	58,51,50,41, 9,15,23, 6,28,53			
		24,20, 9,12,24,15, 4		
2″	58,51,51, 5,29,24,35,30,43,57		4,18,12,26, 4	
		24,20, 4,54,11,49, 0		1,47
4″	58,51,51,29,49,29,29,42,32,57		4,18,12,27,51	
		24,20, 0,35,59,21, 9		1,47
6″	58,51,51,54, 9,30, 5,41,54, 6		4,18,12,29,38	
		24,19,56,17,46,51,31		1,47
8″	58,51,52,18,29,26,23,28,45,37		4,18,12,31,25	
		24,19,51,59,34,20, 6		1,47
10″	58,51,52,42,49,18,23, 3, 5,43		4,18,12,33,12	
		24,19,47,41,21,46,54		1,47
12″	58,51,53, 7, 9, 6, 4,24,52,37		4,18,12,34,59	
		24,19,43,23, 9,11,55		1,47
14″	58,51,53,31,28,49,27,34, 4,32		4,18,12,36,46	
		24,19,39, 4,56,35, 9		1,47
16″	58,51,53,55,48,28,32,30,39,41		4,18,12,38,33	
		24,19,34,46,43,56,36		1,47
18″	58,51,54,20, 8, 3,19,14,36,17		4,18,12,40,20	
		24,19,30,28,31,16,16		1,47
20″	58,51,54,44,27,33,47,45,52,33		4,18,12,42, 7	
		24,19,26,10,18,34, 9		1,47
22″	58,51,55, 8,46,59,58, 4,26,42		4,18,12,43,54	
		24,19,21,52, 5,50,15		1,47
24″	58,51,55,33, 6,21,50,10,16,57		4,18,12,45,41	
		24,19,17,33,53, 4,34		1,47
26″	58,51,55,57,25,39,24, 3,21,31		4,18,12,47,28	
		24,19,13,15,40,17, 6		1,47
28″	58,51,56,21,44,52,39,43,38,37		4,18,12,49,15	
		24,19, 8,57,27,27,51		1,47
30″	58,51,56,46, 4, 1,37,11, 6,28		4,18,12,51, 2	
		24,19, 4,39,14,36,49		1,47
32″	58,51,57,10,23, 6,16,25,43,17		4,18,12,52,49	
		24,19, 0,21, 1,44, 0		1,47
34″	58,51,57,34,42, 6,37,27,27,17		4,18,12,54,36	
		24,18,56, 2,48,49,24		1,47
36″	58,51,57,59, 1, 2,40,16,16,41		4,18,12,56,23	
		24,18,51,44,35,53, 1		1,47
38″	58,51,58,23,19,54,24,52, 9,42		4,18,12,58,10	
		24,18,47,26,22,54,51		1,47
40″	58,51,58,47,38,41,51,15, 4,33		4,18,12,59,57	
		24,18,43, 8, 9,54,54		1,47
42″	58,51,59,11,57,24,59,24,59,27		4,18,13, 1,44	
		24,18,38,49,56,53,10		1,47
44″	58,51,59,36,16, 3,49,21,52,37		4,18,13, 3,31	
		24,18,34,31,43,49,39		1,47
46″	58,52, 0, 0,34,38,21, 5,42,16		4,18,13, 5,18	
		24,18,30,13,30,44,21		1,47
48″	58,52, 0,24,53, 8,34,36,26,37		4,18,13, 7, 5	
		24,18,25,55,17,37,16		1,47
50″	58,52, 0,49,11,34,29,54, 3,53		4,18,13, 8,52	
		24,18,21,37, 4,28,24		1,47
52″	58,52, 1,13,29,56, 6,58,32,17		4,18,13,10,39	
		24,18,17,18,51,17,45		1,47
54″	58,52, 1,37,48,13,25,49,50, 2		4,18,13,12,26	
		24,18,13, 0,38, 5,19		1,47
56″	58,52, 2, 2, 6,26,26,27,55,21		4,18,13,14,13	
		24,18, 8,42,24,51, 6		1,47
58″	58,52, 2,26,24,35, 8,52,46,27		4,18,13,16, 0	
		24,18, 4,24,11,35, 6		
60″	58,52, 2,50,42,39,33, 4,21,33			
exact	58,52, 2,50,42,39,33, 4,42,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°51′ 0″	58,52, 2,50,42,39,33, 4,42,49			
		24,18, 0, 5,58,19,38		
2″	58,52, 3,15, 0,39,39, 3, 2,27		4,18,13,19,24	
		24,17,55,47,45, 0,14		1,47
4″	58,52, 3,39,18,35,26,48, 2,41		4,18,13,21,11	
		24,17,51,29,31,39, 3		1,47
6″	58,52, 4, 3,36,26,56,19,41,44		4,18,13,22,58	
		24,17,47,11,18,16, 5		1,47
8″	58,52, 4,27,54,14, 7,37,57,49		4,18,13,24,45	
		24,17,42,53, 4,51,20		1,47
10″	58,52, 4,52,11,57, 0,42,49, 9		4,18,13,26,32	
		24,17,38,34,51,24,48		1,47
12″	58,52, 5,16,29,35,35,34,13,57		4,18,13,28,19	
		24,17,34,16,37,56,29		1,47
14″	58,52, 5,40,47, 9,52,12,10,26		4,18,13,30, 6	
		24,17,29,58,24,26,23		1,47
16″	58,52, 6, 5, 4,39,50,36,36,49		4,18,13,31,53	
		24,17,25,40,10,54,30		1,47
18″	58,52, 6,29,22, 5,30,47,31,19		4,18,13,33,40	
		24,17,21,21,57,20,50		1,47
20″	58,52, 6,53,39,26,52,44,52, 9		4,18,13,35,27	
		24,17,17, 3,43,45,23		1,47
22″	58,52, 7,17,56,43,56,28,37,32		4,18,13,37,14	
		24,17,12,45,30, 8, 9		1,47
24″	58,52, 7,42,13,56,41,58,45,41		4,18,13,39, 1	
		24,17, 8,27,16,29, 8		1,47
26″	58,52, 8, 6,31, 5, 9,15,14,49		4,18,13,40,48	
		24,17, 4, 9, 2,48,20		1,47
28″	58,52, 8,30,48, 9,18,18, 3, 9		4,18,13,42,35	
		24,16,59,50,49, 5,45		1,47
30″	58,52, 8,55, 5, 9, 9, 7, 8,54		4,18,13,44,22	
		24,16,55,32,35,21,23		1,47
32″	58,52, 9,19,22, 4,41,42,30,17		4,18,13,46, 9	
		24,16,51,14,21,35,14		1,47
34″	58,52, 9,43,38,55,56, 4, 5,31		4,18,13,47,56	
		24,16,46,56, 7,47,18		1,47
36″	58,52,10, 7,55,42,52,11,52,49		4,18,13,49,43	
		24,16,42,37,53,57,35		1,47
38″	58,52,10,32,12,25,30, 5,50,24		4,18,13,51,30	
		24,16,38,19,40, 6, 5		1,47
40″	58,52,10,56,29, 3,49,45,56,29		4,18,13,53,17	
		24,16,34, 1,26,12,48		1,47
42″	58,52,11,20,45,37,51,12, 9,17		4,18,13,55, 4	
		24,16,29,43,12,17,44		1,47
44″	58,52,11,45, 2, 7,34,24,27, 1		4,18,13,56,51	
		24,16,25,24,58,20,53		1,47
46″	58,52,12, 9,18,32,59,22,47,54		4,18,13,58,38	
		24,16,21, 6,44,22,15		1,47
48″	58,52,12,33,34,54, 6, 7,10, 9		4,18,14, 0,25	
		24,16,16,48,30,21,50		1,47
50″	58,52,12,57,51,10,54,37,31,59		4,18,14, 2,12	
		24,16,12,30,16,19,38		1,47
52″	58,52,13,22, 7,23,24,53,51,37		4,18,14, 3,59	
		24,16, 8,12, 2,15,39		1,47
54″	58,52,13,46,23,31,36,56, 7,16		4,18,14, 5,46	
		24,16, 3,53,48, 9,53		1,47
56″	58,52,14,10,39,35,30,44,17, 9		4,18,14, 7,33	
		24,15,59,35,34, 2,20		1,47
58″	58,52,14,34,55,35, 6,18,19,29		4,18,14, 9,20	
		24,15,55,17,19,53, 0		
60″	58,52,14,59,11,30,23,38,12,29			
exact	58,52,14,59,11,30,23,38,44,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°52′ 0″	58,52,14,59,11,30,23,38,44,28			
		24,15,50,59, 5,45,20		
2″	58,52,15,23,27,21,22,44,29,48		4,18,14,12,39	
		24,15,46,40,51,32,41		1,46
4″	58,52,15,47,43, 8, 3,36, 2,29		4,18,14,14,25	
		24,15,42,22,37,18,16		1,46
6″	58,52,16,11,58,50,26,13,20,45		4,18,14,16,11	
		24,15,38, 4,23, 2, 5		1,46
8″	58,52,16,36,14,28,30,36,22,50		4,18,14,17,57	
		24,15,33,46, 8,44, 8		1,46
10″	58,52,17, 0,30, 2,16,45, 6,58		4,18,14,19,43	
		24,15,29,27,54,24,25		1,46
12″	58,52,17,24,45,31,44,39,31,23		4,18,14,21,29	
		24,15,25, 9,40, 2,56		1,46
14″	58,52,17,49, 0,56,54,19,34,19		4,18,14,23,15	
		24,15,20,51,25,39,41		1,46
16″	58,52,18,13,16,17,45,45,14, 0		4,18,14,25, 1	
		24,15,16,33,11,14,40		1,46
18″	58,52,18,37,31,34,18,56,28,40		4,18,14,26,47	
		24,15,12,14,56,47,53		1,46
20″	58,52,19, 1,46,46,33,53,16,33		4,18,14,28,33	
		24,15, 7,56,42,19,20		1,46
22″	58,52,19,26, 1,54,30,35,35,53		4,18,14,30,19	
		24,15, 3,38,27,49, 1		1,46
24″	58,52,19,50,16,58, 9, 3,24,54		4,18,14,32, 5	
		24,14,59,20,13,16,56		1,46
26″	58,52,20,14,31,57,29,16,41,50		4,18,14,33,51	
		24,14,55, 1,58,43, 5		1,46
28″	58,52,20,38,46,52,31,15,24,55		4,18,14,35,37	
		24,14,50,43,44, 7,28		1,46
30″	58,52,21, 3, 1,43,14,59,32,23		4,18,14,37,23	
		24,14,46,25,29,30, 5		1,46
32″	58,52,21,27,16,29,40,29, 2,28		4,18,14,39, 9	
		24,14,42, 7,14,50,56		1,46
34″	58,52,21,51,31,11,47,43,53,24		4,18,14,40,55	
		24,14,37,49, 0,10, 1		1,46
36″	58,52,22,15,45,49,36,44, 3,25		4,18,14,42,41	
		24,14,33,30,45,27,20		1,46
38″	58,52,22,40, 0,23, 7,29,30,45		4,18,14,44,27	
		24,14,29,12,30,42,53		1,46
40″	58,52,23, 4,14,52,20, 0,13,38		4,18,14,46,13	
		24,14,24,54,15,56,40		1,46
42″	58,52,23,28,29,17,14,16,10,18		4,18,14,47,59	
		24,14,20,36, 1, 8,41		1,46
44″	58,52,23,52,43,37,50,17,18,59		4,18,14,49,45	
		24,14,16,17,46,18,56		1,46
46″	58,52,24,16,57,54, 8, 3,37,55		4,18,14,51,31	
		24,14,11,59,31,27,25		1,46
48″	58,52,24,41,12, 6, 7,35, 5,20		4,18,14,53,17	
		24,14, 7,41,16,34, 8		1,46
50″	58,52,25, 5,26,13,48,51,39,28		4,18,14,55, 3	
		24,14, 3,23, 1,39, 5		1,46
52″	58,52,25,29,40,17,11,53,18,33		4,18,14,56,49	
		24,13,59, 4,46,42,16		1,46
54″	58,52,25,53,54,16,16,40, 0,49		4,18,14,58,35	
		24,13,54,46,31,43,41		1,46
56″	58,52,26,18, 8,11, 3,11,44,30		4,18,15, 0,21	
		24,13,50,28,16,43,20		1,46
58″	58,52,26,42,22, 1,31,28,27,50		4,18,15, 2, 7	
		24,13,46,10, 1,41,13		
60″	58,52,27, 6,35,47,41,30, 9, 3			
exact	58,52,27, 6,35,47,41,29,41,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°53′ 0″	58,52,27, 6,35,47,41,29,41,41			
		24,13,41,51,46,34,31		
2″	58,52,27,30,49,29,33,16,16,12		4,18,15, 5,50	
		24,13,37,33,31,28,41		1,46
4″	58,52,27,55, 3, 7, 6,47,44,53		4,18,15, 7,36	
		24,13,33,15,16,21, 5		1,46
6″	58,52,28,19,16,40,22, 4, 5,58		4,18,15, 9,22	
		24,13,28,57, 1,11,43		1,46
8″	58,52,28,43,30, 9,19, 5,17,41		4,18,15,11, 8	
		24,13,24,38,46, 0,35		1,46
10″	58,52,29, 7,43,33,57,51,18,16		4,18,15,12,54	
		24,13,20,20,30,47,41		1,46
12″	58,52,29,31,56,54,18,22, 5,57		4,18,15,14,40	
		24,13,16, 2,15,33, 1		1,46
14″	58,52,29,56,10,10,20,37,38,58		4,18,15,16,26	
		24,13,11,44, 0,16,35		1,46
16″	58,52,30,20,23,22, 4,37,55,33		4,18,15,18,12	
		24,13, 7,25,44,58,23		1,46
18″	58,52,30,44,36,29,30,22,53,56		4,18,15,19,58	
		24,13, 3, 7,29,38,25		1,46
20″	58,52,31, 8,49,32,37,52,32,21		4,18,15,21,44	
		24,12,58,49,14,16,41		1,46
22″	58,52,31,33, 2,31,27, 6,49, 2		4,18,15,23,30	
		24,12,54,30,58,53,11		1,46
24″	58,52,31,57,15,25,58, 5,42,13		4,18,15,25,16	
		24,12,50,12,43,27,55		1,46
26″	58,52,32,21,28,16,10,49,10, 8		4,18,15,27, 2	
		24,12,45,54,28, 0,53		1,46
28″	58,52,32,45,41, 2, 5,17,11, 1		4,18,15,28,48	
		24,12,41,36,12,32, 5		1,46
30″	58,52,33, 9,53,43,41,29,43, 6		4,18,15,30,34	
		24,12,37,17,57, 1,31		1,46
32″	58,52,33,34, 6,20,59,26,44,37		4,18,15,32,20	
		24,12,32,59,41,29,11		1,46
34″	58,52,33,58,18,53,59, 8,13,48		4,18,15,34, 6	
		24,12,28,41,25,55, 5		1,46
36″	58,52,34,22,31,22,40,34, 8,53		4,18,15,35,52	
		24,12,24,23,10,19,13		1,46
38″	58,52,34,46,43,47, 3,44,28, 6		4,18,15,37,38	
		24,12,20, 4,54,41,35		1,46
40″	58,52,35,10,56, 7, 8,39, 9,41		4,18,15,39,24	
		24,12,15,46,39, 2,11		1,46
42″	58,52,35,35, 8,22,55,18,11,52		4,18,15,41,10	
		24,12,11,28,23,21, 1		1,46
44″	58,52,35,59,20,34,23,41,32,53		4,18,15,42,56	
		24,12, 7,10, 7,38, 5		1,46
46″	58,52,36,23,32,41,33,49,10,58		4,18,15,44,42	
		24,12, 2,51,51,53,23		1,46
48″	58,52,36,47,44,44,25,41, 4,21		4,18,15,46,28	
		24,11,58,33,36, 6,55		1,46
50″	58,52,37,11,56,42,59,17,11,16		4,18,15,48,14	
		24,11,54,15,20,18,41		1,46
52″	58,52,37,36, 8,37,14,37,29,57		4,18,15,50, 0	
		24,11,49,57, 4,28,41		1,46
54″	58,52,38, 0,20,27,11,41,58,38		4,18,15,51,46	
		24,11,45,38,48,36,55		1,46
56″	58,52,38,24,32,12,50,30,35,33		4,18,15,53,32	
		24,11,41,20,32,43,23		1,46
58″	58,52,38,48,43,54,11, 3,18,56		4,18,15,55,18	
		24,11,37, 2,16,48, 5		
60″	58,52,39,12,55,31,13,20, 7, 1			
exact	58,52,39,12,55,31,13,19,53,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°54′ 0″	58,52,39,12,55,31,13,19,53,10			
		24,11,32,44, 0,49,33		
2″	58,52,39,37, 7, 3,57,20,42,43		4,18,15,58,56	
		24,11,28,25,44,50,37		1,46
4″	58,52,40, 1,18,32,23, 5,33,20		4,18,16, 0,42	
		24,11,24, 7,28,49,55		1,46
6″	58,52,40,25,29,56,30,34,23,15		4,18,16, 2,28	
		24,11,19,49,12,47,27		1,46
8″	58,52,40,49,41,16,19,47,10,42		4,18,16, 4,14	
		24,11,15,30,56,43,13		1,46
10″	58,52,41,13,52,31,50,43,53,55		4,18,16, 6, 0	
		24,11,11,12,40,37,13		1,46
12″	58,52,41,38, 3,43, 3,24,31, 8		4,18,16, 7,46	
		24,11, 6,54,24,29,27		1,46
14″	58,52,42, 2,14,49,57,49, 0,35		4,18,16, 9,32	
		24,11, 2,36, 8,19,55		1,46
16″	58,52,42,26,25,52,33,57,20,30		4,18,16,11,18	
		24,10,58,17,52, 8,37		1,46
18″	58,52,42,50,36,50,51,49,29, 7		4,18,16,13, 4	
		24,10,53,59,35,55,33		1,46
20″	58,52,43,14,47,44,51,25,24,40		4,18,16,14,50	
		24,10,49,41,19,40,43		1,46
22″	58,52,43,38,58,34,32,45, 5,23		4,18,16,16,36	
		24,10,45,23, 3,24, 7		1,46
24″	58,52,44, 3, 9,19,55,48,29,30		4,18,16,18,22	
		24,10,41, 4,47, 5,45		1,46
26″	58,52,44,27,20, 1, 0,35,35,15		4,18,16,20, 8	
		24,10,36,46,30,45,37		1,46
28″	58,52,44,51,30,37,47, 6,20,52		4,18,16,21,54	
		24,10,32,28,14,23,43		1,46
30″	58,52,45,15,41,10,15,20,44,35		4,18,16,23,40	
		24,10,28, 9,58, 0, 3		1,46
32″	58,52,45,39,51,38,25,18,44,38		4,18,16,25,26	
		24,10,23,51,41,34,37		1,46
34″	58,52,46, 4, 2, 2,17, 0,19,15		4,18,16,27,12	
		24,10,19,33,25, 7,25		1,46
36″	58,52,46,28,12,21,50,25,26,40		4,18,16,28,58	
		24,10,15,15, 8,38,27		1,46
38″	58,52,46,52,22,37, 5,34, 5, 7		4,18,16,30,44	
		24,10,10,56,52, 7,43		1,46
40″	58,52,47,16,32,48, 2,26,12,50		4,18,16,32,30	
		24,10, 6,38,35,35,13		1,46
42″	58,52,47,40,42,54,41, 1,48, 3		4,18,16,34,16	
		24,10, 2,20,19, 0,57		1,46
44″	58,52,48, 4,52,57, 1,20,49, 0		4,18,16,36, 2	
		24, 9,58, 2, 2,24,55		1,46
46″	58,52,48,29, 2,55, 3,23,13,55		4,18,16,37,48	
		24, 9,53,43,45,47, 7		1,46
48″	58,52,48,53,12,48,47, 9, 1, 2		4,18,16,39,34	
		24, 9,49,25,29, 7,33		1,46
50″	58,52,49,17,22,38,12,38, 8,35		4,18,16,41,20	
		24, 9,45, 7,12,26,13		1,46
52″	58,52,49,41,32,23,19,50,34,48		4,18,16,43, 6	
		24, 9,40,48,55,43, 7		1,46
54″	58,52,50, 5,42, 4, 8,46,17,55		4,18,16,44,52	
		24, 9,36,30,38,58,15		1,46
56″	58,52,50,29,51,40,39,25,16,10		4,18,16,46,38	
		24, 9,32,12,22,11,37		1,46
58″	58,52,50,54, 1,12,51,47,27,47		4,18,16,48,24	
		24, 9,27,54, 5,23,13		
60″	58,52,51,18,10,40,45,52,51, 0			
exact	58,52,51,18,10,40,45,52,48,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°55′ 0″	58,52,51,18,10,40,45,52,48,23			
		24, 9,23,35,48,32,46		
2″	58,52,51,42,20, 4,21,41,21, 9		4,18,16,51,57	
		24, 9,19,17,31,40,49		1,46
4″	58,52,52, 6,29,23,39,13, 1,58		4,18,16,53,43	
		24, 9,14,59,14,47, 6		1,46
6″	58,52,52,30,38,38,38,27,49, 4		4,18,16,55,29	
		24, 9,10,40,57,51,37		1,46
8″	58,52,52,54,47,49,19,25,40,41		4,18,16,57,15	
		24, 9, 6,22,40,54,22		1,46
10″	58,52,53,18,56,55,42, 6,35, 3		4,18,16,59, 1	
		24, 9, 2, 4,23,55,21		1,46
12″	58,52,53,43, 5,57,46,30,30,24		4,18,17, 0,47	
		24, 8,57,46, 6,54,34		1,46
14″	58,52,54, 7,14,55,32,37,24,58		4,18,17, 2,33	
		24, 8,53,27,49,52, 1		1,46
16″	58,52,54,31,23,49, 0,27,16,59		4,18,17, 4,19	
		24, 8,49, 9,32,47,42		1,46
18″	58,52,54,55,32,38,10, 0, 4,41		4,18,17, 6, 5	
		24, 8,44,51,15,41,37		1,46
20″	58,52,55,19,41,23, 1,15,46,18		4,18,17, 7,51	
		24, 8,40,32,58,33,46		1,46
22″	58,52,55,43,50, 3,34,14,20, 4		4,18,17, 9,37	
		24, 8,36,14,41,24, 9		1,46
24″	58,52,56, 7,58,39,48,55,44,13		4,18,17,11,23	
		24, 8,31,56,24,12,46		1,46
26″	58,52,56,32, 7,11,45,19,56,59		4,18,17,13, 9	
		24, 8,27,38, 6,59,37		1,46
28″	58,52,56,56,15,39,23,26,56,36		4,18,17,14,55	
		24, 8,23,19,49,44,42		1,46
30″	58,52,57,20,24, 2,43,16,41,18		4,18,17,16,41	
		24, 8,19, 1,32,28, 1		1,46
32″	58,52,57,44,32,21,44,49, 9,19		4,18,17,18,27	
		24, 8,14,43,15, 9,34		1,46
34″	58,52,58, 8,40,36,28, 4,18,53		4,18,17,20,13	
		24, 8,10,24,57,49,21		1,46
36″	58,52,58,32,48,46,53, 2, 8,14		4,18,17,21,59	
		24, 8, 6, 6,40,27,22		1,46
38″	58,52,58,56,56,52,59,42,35,36		4,18,17,23,45	
		24, 8, 1,48,23, 3,37		1,46
40″	58,52,59,21, 4,54,48, 5,39,13		4,18,17,25,31	
		24, 7,57,30, 5,38, 6		1,46
42″	58,52,59,45,12,52,18,11,17,19		4,18,17,27,17	
		24, 7,53,11,48,10,49		1,46
44″	58,53, 0, 9,20,45,29,59,28, 8		4,18,17,29, 3	
		24, 7,48,53,30,41,46		1,46
46″	58,53, 0,33,28,34,23,30, 9,54		4,18,17,30,49	
		24, 7,44,35,13,10,57		1,46
48″	58,53, 0,57,36,18,58,43,20,51		4,18,17,32,35	
		24, 7,40,16,55,38,22		1,46
50″	58,53, 1,21,43,59,15,38,59,13		4,18,17,34,21	
		24, 7,35,58,38, 4, 1		1,46
52″	58,53, 1,45,51,35,14,17, 3,14		4,18,17,36, 7	
		24, 7,31,40,20,27,54		1,46
54″	58,53, 2, 9,59, 6,54,37,31, 8		4,18,17,37,53	
		24, 7,27,22, 2,50, 1		1,46
56″	58,53, 2,34, 6,34,16,40,21, 9		4,18,17,39,39	
		24, 7,23, 3,45,10,22		1,46
58″	58,53, 2,58,13,57,20,25,31,31		4,18,17,41,25	
		24, 7,18,45,27,28,57		
60″	58,53, 3,22,21,16, 5,53, 0,28			
exact	58,53, 3,22,21,16, 5,53, 7,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°56′ 0″	58,53, 3,22,21,16, 5,53, 7,39			
		24, 7,14,27, 9,46,33		
2″	58,53, 3,46,28,30,33, 2,54,12		4,18,17,44,53	
		24, 7,10, 8,52, 1,40		1,46
4″	58,53, 4,10,35,40,41,54,55,52		4,18,17,46,39	
		24, 7, 5,50,34,15, 1		1,46
6″	58,53, 4,34,42,46,32,29,10,53		4,18,17,48,25	
		24, 7, 1,32,16,26,36		1,46
8″	58,53, 4,58,49,48, 4,45,37,29		4,18,17,50,11	
		24, 6,57,13,58,36,25		1,46
10″	58,53, 5,22,56,45,18,44,13,54		4,18,17,51,57	
		24, 6,52,55,40,44,28		1,46
12″	58,53, 5,47, 3,38,14,24,58,22		4,18,17,53,43	
		24, 6,48,37,22,50,45		1,46
14″	58,53, 6,11,10,26,51,47,49, 7		4,18,17,55,29	
		24, 6,44,19, 4,55,16		1,46
16″	58,53, 6,35,17,11,10,52,44,23		4,18,17,57,15	
		24, 6,40, 0,46,58, 1		1,46
18″	58,53, 6,59,23,51,11,39,42,24		4,18,17,59, 1	
		24, 6,35,42,28,59, 0		1,46
20″	58,53, 7,23,30,26,54, 8,41,24		4,18,18, 0,47	
		24, 6,31,24,10,58,13		1,46
22″	58,53, 7,47,36,58,18,19,39,37		4,18,18, 2,33	
		24, 6,27, 5,52,55,40		1,46
24″	58,53, 8,11,43,25,24,12,35,17		4,18,18, 4,19	
		24, 6,22,47,34,51,21		1,46
26″	58,53, 8,35,49,48,11,47,26,38		4,18,18, 6, 5	
		24, 6,18,29,16,45,16		1,46
28″	58,53, 8,59,56, 6,41, 4,11,54		4,18,18, 7,51	
		24, 6,14,10,58,37,25		1,46
30″	58,53, 9,24, 2,20,52, 2,49,19		4,18,18, 9,37	
		24, 6, 9,52,40,27,48		1,46
32″	58,53, 9,48, 8,30,44,43,17, 7		4,18,18,11,23	
		24, 6, 5,34,22,16,25		1,46
34″	58,53,10,12,14,36,19, 5,33,32		4,18,18,13, 9	
		24, 6, 1,16, 4, 3,16		1,46
36″	58,53,10,36,20,37,35, 9,36,48		4,18,18,14,55	
		24, 5,56,57,45,48,21		1,46
38″	58,53,11, 0,26,34,32,55,25, 9		4,18,18,16,41	
		24, 5,52,39,27,31,40		1,46
40″	58,53,11,24,32,27,12,22,56,49		4,18,18,18,27	
		24, 5,48,21, 9,13,13		1,46
42″	58,53,11,48,38,15,33,32,10, 2		4,18,18,20,13	
		24, 5,44, 2,50,53, 0		1,46
44″	58,53,12,12,43,59,36,23, 3, 2		4,18,18,21,59	
		24, 5,39,44,32,31, 1		1,46
46″	58,53,12,36,49,39,20,55,34, 3		4,18,18,23,45	
		24, 5,35,26,14, 7,16		1,46
48″	58,53,13, 0,55,14,47, 9,41,19		4,18,18,25,31	
		24, 5,31, 7,55,41,45		1,46
50″	58,53,13,25, 0,45,55, 5,23, 4		4,18,18,27,17	
		24, 5,26,49,37,14,28		1,46
52″	58,53,13,49, 6,12,44,42,37,32		4,18,18,29, 3	
		24, 5,22,31,18,45,25		1,46
54″	58,53,14,13,11,35,16, 1,22,57		4,18,18,30,49	
		24, 5,18,13, 0,14,36		1,46
56″	58,53,14,37,16,53,29, 1,37,33		4,18,18,32,35	
		24, 5,13,54,41,42, 1		1,46
58″	58,53,15, 1,22, 7,23,43,19,34		4,18,18,34,21	
		24, 5, 9,36,23, 7,40		
60″	58,53,15,25,27,17, 0, 6,27,14			
exact	58,53,15,25,27,17, 0, 6,42, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°57′ 0″	58,53,15,25,27,17, 0, 6,42, 3			
		24, 5, 5,18, 4,33,16		
2″	58,53,15,49,32,22,18,11,15,19		4,18,18,37,45	
		24, 5, 0,59,45,55,31		1,46
4″	58,53,16,13,37,23,17,57,10,50		4,18,18,39,31	
		24, 4,56,41,27,16, 0		1,46
6″	58,53,16,37,42,19,59,24,26,50		4,18,18,41,17	
		24, 4,52,23, 8,34,43		1,46
8″	58,53,17, 1,47,12,22,33, 1,33		4,18,18,43, 3	
		24, 4,48, 4,49,51,40		1,46
10″	58,53,17,25,52, 0,27,22,53,13		4,18,18,44,49	
		24, 4,43,46,31, 6,51		1,46
12″	58,53,17,49,56,44,13,54, 0, 4		4,18,18,46,35	
		24, 4,39,28,12,20,16		1,46
14″	58,53,18,14, 1,23,42, 6,20,20		4,18,18,48,21	
		24, 4,35, 9,53,31,55		1,46
16″	58,53,18,38, 5,58,51,59,52,15		4,18,18,50, 7	
		24, 4,30,51,34,41,48		1,46
18″	58,53,19, 2,10,29,43,34,34, 3		4,18,18,51,53	
		24, 4,26,33,15,49,55		1,46
20″	58,53,19,26,14,56,16,50,23,58		4,18,18,53,39	
		24, 4,22,14,56,56,16		1,46
22″	58,53,19,50,19,18,31,47,20,14		4,18,18,55,25	
		24, 4,17,56,38, 0,51		1,46
24″	58,53,20,14,23,36,28,25,21, 5		4,18,18,57,11	
		24, 4,13,38,19, 3,40		1,46
26″	58,53,20,38,27,50, 6,44,24,45		4,18,18,58,57	
		24, 4, 9,20, 0, 4,43		1,46
28″	58,53,21, 2,31,59,26,44,29,28		4,18,19, 0,43	
		24, 4, 5, 1,41, 4, 0		1,46
30″	58,53,21,26,36, 4,28,25,33,28		4,18,19, 2,29	
		24, 4, 0,43,22, 1,31		1,46
32″	58,53,21,50,40, 5,11,47,34,59		4,18,19, 4,15	
		24, 3,56,25, 2,57,16		1,46
34″	58,53,22,14,44, 1,36,50,32,15		4,18,19, 6, 1	
		24, 3,52, 6,43,51,15		1,46
36″	58,53,22,38,47,53,43,34,23,30		4,18,19, 7,47	
		24, 3,47,48,24,43,28		1,46
38″	58,53,23, 2,51,41,31,59, 6,58		4,18,19, 9,33	
		24, 3,43,30, 5,33,55		1,46
40″	58,53,23,26,55,25, 2, 4,40,53		4,18,19,11,19	
		24, 3,39,11,46,22,36		1,46
42″	58,53,23,50,59, 4,13,51, 3,29		4,18,19,13, 5	
		24, 3,34,53,27, 9,31		1,46
44″	58,53,24,15, 2,39, 7,18,13, 0		4,18,19,14,51	
		24, 3,30,35, 7,54,40		1,46
46″	58,53,24,39, 6, 9,42,26, 7,40		4,18,19,16,37	
		24, 3,26,16,48,38, 3		1,46
48″	58,53,25, 3, 9,35,59,14,45,43		4,18,19,18,23	
		24, 3,21,58,29,19,40		1,46
50″	58,53,25,27,12,57,57,44, 5,23		4,18,19,20, 9	
		24, 3,17,40, 9,59,31		1,46
52″	58,53,25,51,16,15,37,54, 4,54		4,18,19,21,55	
		24, 3,13,21,50,37,36		1,46
54″	58,53,26,15,19,28,59,44,42,30		4,18,19,23,41	
		24, 3, 9, 3,31,13,55		1,46
56″	58,53,26,39,22,38, 3,15,56,25		4,18,19,25,27	
		24, 3, 4,45,11,48,28		1,46
58″	58,53,27, 3,25,42,48,27,44,53		4,18,19,27,13	
		24, 3, 0,26,52,21,15		
60″	58,53,27,27,28,43,15,20, 6, 8			
exact	58,53,27,27,28,43,15,20,33,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°58′ 0″	58,53,27,27,28,43,15,20,33,29			
		24, 2,56, 8,32,55,16		
2″	58,53,27,51,31,39,23,53,28,45		4,18,19,30,32	
		24, 2,51,50,13,24,44		1,45
4″	58,53,28,15,34,31,14, 6,53,29		4,18,19,32,17	
		24, 2,47,31,53,52,27		1,45
6″	58,53,28,39,37,18,46, 0,45,56		4,18,19,34, 2	
		24, 2,43,13,34,18,25		1,45
8″	58,53,29, 3,40, 1,59,35, 4,21		4,18,19,35,47	
		24, 2,38,55,14,42,38		1,45
10″	58,53,29,27,42,40,54,49,46,59		4,18,19,37,32	
		24, 2,34,36,55, 5, 6		1,45
12″	58,53,29,51,45,15,31,44,52, 5		4,18,19,39,17	
		24, 2,30,18,35,25,49		1,45
14″	58,53,30,15,47,45,50,20,17,54		4,18,19,41, 2	
		24, 2,26, 0,15,44,47		1,45
16″	58,53,30,39,50,11,50,36, 2,41		4,18,19,42,47	
		24, 2,21,41,56, 2, 0		1,45
18″	58,53,31, 3,52,33,32,32, 4,41		4,18,19,44,32	
		24, 2,17,23,36,17,28		1,45
20″	58,53,31,27,54,50,56, 8,22, 9		4,18,19,46,17	
		24, 2,13, 5,16,31,11		1,45
22″	58,53,31,51,57, 4, 1,24,53,20		4,18,19,48, 2	
		24, 2, 8,46,56,43, 9		1,45
24″	58,53,32,15,59,12,48,21,36,29		4,18,19,49,47	
		24, 2, 4,28,36,53,22		1,45
26″	58,53,32,40, 1,17,16,58,29,51		4,18,19,51,32	
		24, 2, 0,10,17, 1,50		1,45
28″	58,53,33, 4, 3,17,27,15,31,41		4,18,19,53,17	
		24, 1,55,51,57, 8,33		1,45
30″	58,53,33,28, 5,13,19,12,40,14		4,18,19,55, 2	
		24, 1,51,33,37,13,31		1,45
32″	58,53,33,52, 7, 4,52,49,53,45		4,18,19,56,47	
		24, 1,47,15,17,16,44		1,45
34″	58,53,34,16, 8,52, 8, 7,10,29		4,18,19,58,32	
		24, 1,42,56,57,18,12		1,45
36″	58,53,34,40,10,35, 5, 4,28,41		4,18,20, 0,17	
		24, 1,38,38,37,17,55		1,45
38″	58,53,35, 4,12,13,43,41,46,36		4,18,20, 2, 2	
		24, 1,34,20,17,15,53		1,45
40″	58,53,35,28,13,48, 3,59, 2,29		4,18,20, 3,47	
		24, 1,30, 1,57,12, 6		1,45
42″	58,53,35,52,15,18, 5,56,14,35		4,18,20, 5,32	
		24, 1,25,43,37, 6,34		1,45
44″	58,53,36,16,16,43,49,33,21, 9		4,18,20, 7,17	
		24, 1,21,25,16,59,17		1,45
46″	58,53,36,40,18, 5,14,50,20,26		4,18,20, 9, 2	
		24, 1,17, 6,56,50,15		1,45
48″	58,53,37, 4,19,22,21,47,10,41		4,18,20,10,47	
		24, 1,12,48,36,39,28		1,45
50″	58,53,37,28,20,35,10,23,50, 9		4,18,20,12,32	
		24, 1, 8,30,16,26,56		1,45
52″	58,53,37,52,21,43,40,40,17, 5		4,18,20,14,17	
		24, 1, 4,11,56,12,39		1,45
54″	58,53,38,16,22,47,52,36,29,44		4,18,20,16, 2	
		24, 0,59,53,35,56,37		1,45
56″	58,53,38,40,23,47,46,12,26,21		4,18,20,17,47	
		24, 0,55,35,15,38,50		1,45
58″	58,53,39, 4,24,43,21,28, 5,11		4,18,20,19,32	
		24, 0,51,16,55,19,18		
60″	58,53,39,28,25,34,38,23,24,29			
exact	58,53,39,28,25,34,38,22,54,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
78°59′ 0″	58,53,39,28,25,34,38,22,54,42			
		24, 0,46,58,34,54,54		
2″	58,53,39,52,26,21,36,57,49,36		4,18,20,23,14	
		24, 0,42,40,14,31,40		1,45
4″	58,53,40,16,27, 4,17,12,21,16		4,18,20,24,59	
		24, 0,38,21,54, 6,41		1,45
6″	58,53,40,40,27,42,39, 6,27,57		4,18,20,26,44	
		24, 0,34, 3,33,39,57		1,45
8″	58,53,41, 4,28,16,42,40, 7,54		4,18,20,28,29	
		24, 0,29,45,13,11,28		1,45
10″	58,53,41,28,28,46,27,53,19,22		4,18,20,30,14	
		24, 0,25,26,52,41,14		1,45
12″	58,53,41,52,29,11,54,46, 0,36		4,18,20,31,59	
		24, 0,21, 8,32, 9,15		1,45
14″	58,53,42,16,29,33, 3,18, 9,51		4,18,20,33,44	
		24, 0,16,50,11,35,31		1,45
16″	58,53,42,40,29,49,53,29,45,22		4,18,20,35,29	
		24, 0,12,31,51, 0, 2		1,45
18″	58,53,43, 4,30, 2,25,20,45,24		4,18,20,37,14	
		24, 0, 8,13,30,22,48		1,45
20″	58,53,43,28,30,10,38,51, 8,12		4,18,20,38,59	
		24, 0, 3,55, 9,43,49		1,45
22″	58,53,43,52,30,14,34, 0,52, 1		4,18,20,40,44	
		23,59,59,36,49, 3, 5		1,45
24″	58,53,44,16,30,14,10,49,55, 6		4,18,20,42,29	
		23,59,55,18,28,20,36		1,45
26″	58,53,44,40,30, 9,29,18,15,42		4,18,20,44,14	
		23,59,51, 0, 7,36,22		1,45
28″	58,53,45, 4,30, 0,29,25,52, 4		4,18,20,45,59	
		23,59,46,41,46,50,23		1,45
30″	58,53,45,28,29,47,11,12,42,27		4,18,20,47,44	
		23,59,42,23,26, 2,39		1,45
32″	58,53,45,52,29,29,34,38,45, 6		4,18,20,49,29	
		23,59,38, 5, 5,13,10		1,45
34″	58,53,46,16,29, 7,39,43,58,16		4,18,20,51,14	
		23,59,33,46,44,21,56		1,45
36″	58,53,46,40,28,41,26,28,20,12		4,18,20,52,59	
		23,59,29,28,23,28,57		1,45
38″	58,53,47, 4,28,10,54,51,49, 9		4,18,20,54,44	
		23,59,25,10, 2,34,13		1,45
40″	58,53,47,28,27,36, 4,54,23,22		4,18,20,56,29	
		23,59,20,51,41,37,44		1,45
42″	58,53,47,52,26,56,56,36, 1, 6		4,18,20,58,14	
		23,59,16,33,20,39,30		1,45
44″	58,53,48,16,26,13,29,56,40,36		4,18,20,59,59	
		23,59,12,14,59,39,31		1,45
46″	58,53,48,40,25,25,44,56,20, 7		4,18,21, 1,44	
		23,59, 7,56,38,37,47		1,45
48″	58,53,49, 4,24,33,41,34,57,54		4,18,21, 3,29	
		23,59, 3,38,17,34,18		1,45
50″	58,53,49,28,23,37,19,52,32,12		4,18,21, 5,14	
		23,58,59,19,56,29, 4		1,45
52″	58,53,49,52,22,36,39,49, 1,16		4,18,21, 6,59	
		23,58,55, 1,35,22, 5		1,45
54″	58,53,50,16,21,31,41,24,23,21		4,18,21, 8,44	
		23,58,50,43,14,13,21		1,45
56″	58,53,50,40,20,22,24,38,36,42		4,18,21,10,29	
		23,58,46,24,53, 2,52		1,45
58″	58,53,51, 4,19, 8,49,31,39,34		4,18,21,12,14	
		23,58,42, 6,31,50,38		
60″	58,53,51,28,17,50,56, 3,30,12			
exact	58,53,51,28,17,50,56, 3, 9,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79° 0′ 0″	58,53,51,28,17,50,56, 3, 9,14			
		23,58,37,48,10,34,33		
2″	58,53,51,52,16,28,44,13,43,47		4,18,21,15,52	
		23,58,33,29,49,18,41		1,45
4″	58,53,52,16,15, 2,14, 3, 2,28		4,18,21,17,37	
		23,58,29,11,28, 1, 4		1,45
6″	58,53,52,40,13,31,25,31, 3,32		4,18,21,19,22	
		23,58,24,53, 6,41,42		1,45
8″	58,53,53, 4,11,56,18,37,45,14		4,18,21,21, 7	
		23,58,20,34,45,20,35		1,45
10″	58,53,53,28,10,16,53,23, 5,49		4,18,21,22,52	
		23,58,16,16,23,57,43		1,45
12″	58,53,53,52, 8,33, 9,47, 3,32		4,18,21,24,37	
		23,58,11,58, 2,33, 6		1,45
14″	58,53,54,16, 6,45, 7,49,36,38		4,18,21,26,22	
		23,58, 7,39,41, 6,44		1,45
16″	58,53,54,40, 4,52,47,30,43,22		4,18,21,28, 7	
		23,58, 3,21,19,38,37		1,45
18″	58,53,55, 4, 2,56, 8,50,21,59		4,18,21,29,52	
		23,57,59, 2,58, 8,45		1,45
20″	58,53,55,28, 0,55,11,48,30,44		4,18,21,31,37	
		23,57,54,44,36,37, 8		1,45
22″	58,53,55,51,58,49,56,25, 7,52		4,18,21,33,22	
		23,57,50,26,15, 3,46		1,45
24″	58,53,56,15,56,40,22,40,11,38		4,18,21,35, 7	
		23,57,46, 7,53,28,39		1,45
26″	58,53,56,39,54,26,30,33,40,17		4,18,21,36,52	
		23,57,41,49,31,51,47		1,45
28″	58,53,57, 3,52, 8,20, 5,32, 4		4,18,21,38,37	
		23,57,37,31,10,13,10		1,45
30″	58,53,57,27,49,45,51,15,45,14		4,18,21,40,22	
		23,57,33,12,48,32,48		1,45
32″	58,53,57,51,47,19, 4, 4,18, 2		4,18,21,42, 7	
		23,57,28,54,26,50,41		1,45
34″	58,53,58,15,44,47,58,31, 8,43		4,18,21,43,52	
		23,57,24,36, 5, 6,49		1,45
36″	58,53,58,39,42,12,34,36,15,32		4,18,21,45,37	
		23,57,20,17,43,21,12		1,45
38″	58,53,59, 3,39,32,52,19,36,44		4,18,21,47,22	
		23,57,15,59,21,33,50		1,45
40″	58,53,59,27,36,48,51,41,10,34		4,18,21,49, 7	
		23,57,11,40,59,44,43		1,45
42″	58,53,59,51,34, 0,32,40,55,17		4,18,21,50,52	
		23,57, 7,22,37,53,51		1,45
44″	58,54, 0,15,31, 7,55,18,49, 8		4,18,21,52,37	
		23,57, 3, 4,16, 1,14		1,45
46″	58,54, 0,39,28,10,59,34,50,22		4,18,21,54,22	
		23,56,58,45,54, 6,52		1,45
48″	58,54, 1, 3,25, 9,45,28,57,14		4,18,21,56, 7	
		23,56,54,27,32,10,45		1,45
50″	58,54, 1,27,22, 4,13, 1, 7,59		4,18,21,57,52	
		23,56,50, 9,10,12,53		1,45
52″	58,54, 1,51,18,54,22,11,20,52		4,18,21,59,37	
		23,56,45,50,48,13,16		1,45
54″	58,54, 2,15,15,40,12,59,34, 8		4,18,22, 1,22	
		23,56,41,32,26,11,54		1,45
56″	58,54, 2,39,12,21,45,25,46, 2		4,18,22, 3, 7	
		23,56,37,14, 4, 8,47		1,45
58″	58,54, 3, 3, 8,58,59,29,54,49		4,18,22, 4,52	
		23,56,32,55,42, 3,55		
60″	58,54, 3,27, 5,31,55,11,58,44			
exact	58,54, 3,27, 5,31,55,11,51,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79° 1′ 0″	58,54, 3,27, 5,31,55,11,51,28			
		23,56,28,37,19,56,33		
2″	58,54, 3,51, 2, 0,32,31,48, 1		4,18,22, 8,25	
		23,56,24,18,57,48, 8		1,45
4″	58,54, 4,14,58,24,51,29,36, 9		4,18,22,10,10	
		23,56,20, 0,35,37,58		1,45
6″	58,54, 4,38,54,44,52, 5,14, 7		4,18,22,11,55	
		23,56,15,42,13,26, 3		1,45
8″	58,54, 5, 2,51, 0,34,18,40,10		4,18,22,13,40	
		23,56,11,23,51,12,23		1,45
10″	58,54, 5,26,47,11,58, 9,52,33		4,18,22,15,25	
		23,56, 7, 5,28,56,58		1,45
12″	58,54, 5,50,43,19, 3,38,49,31		4,18,22,17,10	
		23,56, 2,47, 6,39,48		1,45
14″	58,54, 6,14,39,21,50,45,29,19		4,18,22,18,55	
		23,55,58,28,44,20,53		1,45
16″	58,54, 6,38,35,20,19,29,50,12		4,18,22,20,40	
		23,55,54,10,22, 0,13		1,45
18″	58,54, 7, 2,31,14,29,51,50,25		4,18,22,22,25	
		23,55,49,51,59,37,48		1,45
20″	58,54, 7,26,27, 4,21,51,28,13		4,18,22,24,10	
		23,55,45,33,37,13,38		1,45
22″	58,54, 7,50,22,49,55,28,41,51		4,18,22,25,55	
		23,55,41,15,14,47,43		1,45
24″	58,54, 8,14,18,31,10,43,29,34		4,18,22,27,40	
		23,55,36,56,52,20, 3		1,45
26″	58,54, 8,38,14, 8, 7,35,49,37		4,18,22,29,25	
		23,55,32,38,29,50,38		1,45
28″	58,54, 9, 2, 9,40,46, 5,40,15		4,18,22,31,10	
		23,55,28,20, 7,19,28		1,45
30″	58,54, 9,26, 5, 9, 6,12,59,43		4,18,22,32,55	
		23,55,24, 1,44,46,33		1,45
32″	58,54, 9,50, 0,33, 7,57,46,16		4,18,22,34,40	
		23,55,19,43,22,11,53		1,45
34″	58,54,10,13,55,52,51,19,58, 9		4,18,22,36,25	
		23,55,15,24,59,35,28		1,45
36″	58,54,10,37,51, 8,16,19,33,37		4,18,22,38,10	
		23,55,11, 6,36,57,18		1,45
38″	58,54,11, 1,46,19,22,56,30,55		4,18,22,39,55	
		23,55, 6,48,14,17,23		1,45
40″	58,54,11,25,41,26,11,10,48,18		4,18,22,41,40	
		23,55, 2,29,51,35,43		1,45
42″	58,54,11,49,36,28,41, 2,24, 1		4,18,22,43,25	
		23,54,58,11,28,52,18		1,45
44″	58,54,12,13,31,26,52,31,16,19		4,18,22,45,10	
		23,54,53,53, 6, 7, 8		1,45
46″	58,54,12,37,26,20,45,37,23,27		4,18,22,46,55	
		23,54,49,34,43,20,13		1,45
48″	58,54,13, 1,21,10,20,20,43,40		4,18,22,48,40	
		23,54,45,16,20,31,33		1,45
50″	58,54,13,25,15,55,36,41,15,13		4,18,22,50,25	
		23,54,40,57,57,41, 8		1,45
52″	58,54,13,49,10,36,34,38,56,21		4,18,22,52,10	
		23,54,36,39,34,48,58		1,45
54″	58,54,14,13, 5,13,14,13,45,19		4,18,22,53,55	
		23,54,32,21,11,55, 3		1,45
56″	58,54,14,36,59,45,35,25,40,22		4,18,22,55,40	
		23,54,28, 2,48,59,23		1,45
58″	58,54,15, 0,54,13,38,14,39,45		4,18,22,57,25	
		23,54,23,44,26, 1,58		
60″	58,54,15,24,48,37,22,40,41,43			
exact	58,54,15,24,48,37,22,40,46,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79° 2′ 0″	58,54,15,24,48,37,22,40,46,36			
		23,54,19,26, 3, 3,17		
2″	58,54,15,48,42,56,48,43,49,53		4,18,23, 0,53	
		23,54,15, 7,40, 2,24		1,45
4″	58,54,16,12,37,11,56,23,52,17		4,18,23, 2,38	
		23,54,10,49,16,59,46		1,45
6″	58,54,16,36,31,22,45,40,52, 3		4,18,23, 4,23	
		23,54, 6,30,53,55,23		1,45
8″	58,54,17, 0,25,29,16,34,47,26		4,18,23, 6, 8	
		23,54, 2,12,30,49,15		1,45
10″	58,54,17,24,19,31,29, 5,36,41		4,18,23, 7,53	
		23,53,57,54, 7,41,22		1,45
12″	58,54,17,48,13,29,23,13,18, 3		4,18,23, 9,38	
		23,53,53,35,44,31,44		1,45
14″	58,54,18,12, 7,22,58,57,49,47		4,18,23,11,23	
		23,53,49,17,21,20,21		1,45
16″	58,54,18,36, 1,12,16,19,10, 8		4,18,23,13, 8	
		23,53,44,58,58, 7,13		1,45
18″	58,54,18,59,54,57,15,17,17,21		4,18,23,14,53	
		23,53,40,40,34,52,20		1,45
20″	58,54,19,23,48,37,55,52, 9,41		4,18,23,16,38	
		23,53,36,22,11,35,42		1,45
22″	58,54,19,47,42,14,18, 3,45,23		4,18,23,18,23	
		23,53,32, 3,48,17,19		1,45
24″	58,54,20,11,35,46,21,52, 2,42		4,18,23,20, 8	
		23,53,27,45,24,57,11		1,45
26″	58,54,20,35,29,14, 7,16,59,53		4,18,23,21,53	
		23,53,23,27, 1,35,18		1,45
28″	58,54,20,59,22,37,34,18,35,11		4,18,23,23,38	
		23,53,19, 8,38,11,40		1,45
30″	58,54,21,23,15,56,42,56,46,51		4,18,23,25,23	
		23,53,14,50,14,46,17		1,45
32″	58,54,21,47, 9,11,33,11,33, 8		4,18,23,27, 8	
		23,53,10,31,51,19, 9		1,45
34″	58,54,22,11, 2,22, 5, 2,52,17		4,18,23,28,53	
		23,53, 6,13,27,50,16		1,45
36″	58,54,22,34,55,28,18,30,42,33		4,18,23,30,38	
		23,53, 1,55, 4,19,38		1,45
38″	58,54,22,58,48,30,13,35, 2,11		4,18,23,32,23	
		23,52,57,36,40,47,15		1,45
40″	58,54,23,22,41,27,50,15,49,26		4,18,23,34, 8	
		23,52,53,18,17,13, 7		1,45
42″	58,54,23,46,34,21, 8,33, 2,33		4,18,23,35,53	
		23,52,48,59,53,37,14		1,45
44″	58,54,24,10,27,10, 8,26,39,47		4,18,23,37,38	
		23,52,44,41,29,59,36		1,45
46″	58,54,24,34,19,54,49,56,39,23		4,18,23,39,23	
		23,52,40,23, 6,20,13		1,45
48″	58,54,24,58,12,35,13, 2,59,36		4,18,23,41, 8	
		23,52,36, 4,42,39, 5		1,45
50″	58,54,25,22, 5,11,17,45,38,41		4,18,23,42,53	
		23,52,31,46,18,56,12		1,45
52″	58,54,25,45,57,43, 4, 4,34,53		4,18,23,44,38	
		23,52,27,27,55,11,34		1,45
54″	58,54,26, 9,50,10,31,59,46,27		4,18,23,46,23	
		23,52,23, 9,31,25,11		1,45
56″	58,54,26,33,42,33,41,31,11,38		4,18,23,48, 8	
		23,52,18,51, 7,37, 3		1,45
58″	58,54,26,57,34,52,32,38,48,41		4,18,23,49,53	
		23,52,14,32,43,47,10		
60″	58,54,27,21,27, 7, 5,22,35,51			
exact	58,54,27,21,27, 7, 5,22,50,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79° 3′ 0″	58,54,27,21,27, 7, 5,22,50,40			
		23,52,10,14,19,57, 7		
2″	58,54,27,45,19,17,19,42,47,47		4,18,23,53,16	
		23,52, 5,55,56, 3,51		1,45
4″	58,54,28, 9,11,23,15,38,51,38		4,18,23,55, 1	
		23,52, 1,37,32, 8,50		1,45
6″	58,54,28,33, 3,24,53,11, 0,28		4,18,23,56,46	
		23,51,57,19, 8,12, 4		1,45
8″	58,54,28,56,55,22,12,19,12,32		4,18,23,58,31	
		23,51,53, 0,44,13,33		1,45
10″	58,54,29,20,47,15,13, 3,26, 5		4,18,24, 0,16	
		23,51,48,42,20,13,17		1,45
12″	58,54,29,44,39, 3,55,23,39,22		4,18,24, 2, 1	
		23,51,44,23,56,11,16		1,45
14″	58,54,30, 8,30,48,19,19,50,38		4,18,24, 3,46	
		23,51,40, 5,32, 7,30		1,45
16″	58,54,30,32,22,28,24,51,58, 8		4,18,24, 5,31	
		23,51,35,47, 8, 1,59		1,45
18″	58,54,30,56,14, 4,12, 0, 0, 7		4,18,24, 7,16	
		23,51,31,28,43,54,43		1,45
20″	58,54,31,20, 5,35,40,43,54,50		4,18,24, 9, 1	
		23,51,27,10,19,45,42		1,45
22″	58,54,31,43,57, 2,51, 3,40,32		4,18,24,10,46	
		23,51,22,51,55,34,56		1,45
24″	58,54,32, 7,48,25,42,59,15,28		4,18,24,12,31	
		23,51,18,33,31,22,25		1,45
26″	58,54,32,31,39,44,16,30,37,53		4,18,24,14,16	
		23,51,14,15, 7, 8, 9		1,45
28″	58,54,32,55,30,58,31,37,46, 2		4,18,24,16, 1	
		23,51, 9,56,42,52, 8		1,45
30″	58,54,33,19,22, 8,28,20,38,10		4,18,24,17,46	
		23,51, 5,38,18,34,22		1,45
32″	58,54,33,43,13,14, 6,39,12,32		4,18,24,19,31	
		23,51, 1,19,54,14,51		1,45
34″	58,54,34, 7, 4,15,26,33,27,23		4,18,24,21,16	
		23,50,57, 1,29,53,35		1,45
36″	58,54,34,30,55,12,28, 3,20,58		4,18,24,23, 1	
		23,50,52,43, 5,30,34		1,45
38″	58,54,34,54,46, 5,11, 8,51,32		4,18,24,24,46	
		23,50,48,24,41, 5,48		1,45
40″	58,54,35,18,36,53,35,49,57,20		4,18,24,26,31	
		23,50,44, 6,16,39,17		1,45
42″	58,54,35,42,27,37,42, 6,36,37		4,18,24,28,16	
		23,50,39,47,52,11, 1		1,45
44″	58,54,36, 6,18,17,29,58,47,38		4,18,24,30, 1	
		23,50,35,29,27,41, 0		1,45
46″	58,54,36,30, 8,52,59,26,28,38		4,18,24,31,46	
		23,50,31,11, 3, 9,14		1,45
48″	58,54,36,53,59,24,10,29,37,52		4,18,24,33,31	
		23,50,26,52,38,35,43		1,45
50″	58,54,37,17,49,51, 3, 8,13,35		4,18,24,35,16	
		23,50,22,34,14, 0,27		1,45
52″	58,54,37,41,40,13,37,22,14, 2		4,18,24,37, 1	
		23,50,18,15,49,23,26		1,45
54″	58,54,38, 5,30,31,53,11,37,28		4,18,24,38,46	
		23,50,13,57,24,44,40		1,45
56″	58,54,38,29,20,45,50,36,22, 8		4,18,24,40,31	
		23,50, 9,39, 0, 4, 9		1,45
58″	58,54,38,53,10,55,29,36,26,17		4,18,24,42,16	
		23,50, 5,20,35,21,53		
60″	58,54,39,17, 1, 0,50,11,48,10			
exact	58,54,39,17, 1, 0,50,12,10,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79° 4′ 0″	58,54,39,17, 1, 0,50,12,10,32			
		23,50, 1, 2,10,40,23		
2″	58,54,39,40,51, 1,52,22,50,55		4,18,24,45,35	
		23,49,56,43,45,54,48		1,45
4″	58,54,40, 4,40,58,36, 8,45,43		4,18,24,47,20	
		23,49,52,25,21, 7,28		1,45
6″	58,54,40,28,30,51, 1,29,53,11		4,18,24,49, 5	
		23,49,48, 6,56,18,23		1,45
8″	58,54,40,52,20,39, 8,26,11,34		4,18,24,50,50	
		23,49,43,48,31,27,33		1,45
10″	58,54,41,16,10,22,56,57,39, 7		4,18,24,52,35	
		23,49,39,30, 6,34,58		1,45
12″	58,54,41,40, 0, 2,27, 4,14, 5		4,18,24,54,20	
		23,49,35,11,41,40,38		1,45
14″	58,54,42, 3,49,37,38,45,54,43		4,18,24,56, 5	
		23,49,30,53,16,44,33		1,45
16″	58,54,42,27,39, 8,32, 2,39,16		4,18,24,57,50	
		23,49,26,34,51,46,43		1,45
18″	58,54,42,51,28,35, 6,54,25,59		4,18,24,59,35	
		23,49,22,16,26,47, 8		1,45
20″	58,54,43,15,17,57,23,21,13, 7		4,18,25, 1,20	
		23,49,17,58, 1,45,48		1,45
22″	58,54,43,39, 7,15,21,22,58,55		4,18,25, 3, 5	
		23,49,13,39,36,42,43		1,45
24″	58,54,44, 2,56,29, 0,59,41,38		4,18,25, 4,50	
		23,49, 9,21,11,37,53		1,45
26″	58,54,44,26,45,38,22,11,19,31		4,18,25, 6,35	
		23,49, 5, 2,46,31,18		1,45
28″	58,54,44,50,34,43,24,57,50,49		4,18,25, 8,20	
		23,49, 0,44,21,22,58		1,45
30″	58,54,45,14,23,44, 9,19,13,47		4,18,25,10, 5	
		23,48,56,25,56,12,53		1,45
32″	58,54,45,38,12,40,35,15,26,40		4,18,25,11,50	
		23,48,52, 7,31, 1, 3		1,45
34″	58,54,46, 2, 1,32,42,46,27,43		4,18,25,13,35	
		23,48,47,49, 5,47,28		1,45
36″	58,54,46,25,50,20,31,52,15,11		4,18,25,15,20	
		23,48,43,30,40,32, 8		1,45
38″	58,54,46,49,39, 4, 2,32,47,19		4,18,25,17, 5	
		23,48,39,12,15,15, 3		1,45
40″	58,54,47,13,27,43,14,48, 2,22		4,18,25,18,50	
		23,48,34,53,49,56,13		1,45
42″	58,54,47,37,16,18, 8,37,58,35		4,18,25,20,35	
		23,48,30,35,24,35,38		1,45
44″	58,54,48, 1, 4,48,44, 2,34,13		4,18,25,22,20	
		23,48,26,16,59,13,18		1,45
46″	58,54,48,24,53,15, 1, 1,47,31		4,18,25,24, 5	
		23,48,21,58,33,49,13		1,45
48″	58,54,48,48,41,36,59,35,36,44		4,18,25,25,50	
		23,48,17,40, 8,23,23		1,45
50″	58,54,49,12,29,54,39,44, 0, 7		4,18,25,27,35	
		23,48,13,21,42,55,48		1,45
52″	58,54,49,36,18, 8, 1,26,55,55		4,18,25,29,20	
		23,48, 9, 3,17,26,28		1,45
54″	58,54,50, 0, 6,17, 4,44,22,23		4,18,25,31, 5	
		23,48, 4,44,51,55,23		1,45
56″	58,54,50,23,54,21,49,36,17,46		4,18,25,32,50	
		23,48, 0,26,26,22,33		1,45
58″	58,54,50,47,42,22,16, 2,40,19		4,18,25,34,35	
		23,47,56, 8, 0,47,58		
60″	58,54,51,11,30,18,24, 3,28,17			
exact	58,54,51,11,30,18,24, 4, 3,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79° 5′ 0″	58,54,51,11,30,18,24, 4, 3,56			
		23,47,51,49,35,15,28		
2″	58,54,51,35,18,10,13,39,19,24		4,18,25,37,49	
		23,47,47,31, 9,37,39		1,44
4″	58,54,51,59, 5,57,44,48,57, 3		4,18,25,39,33	
		23,47,43,12,43,58, 6		1,44
6″	58,54,52,22,53,40,57,32,55, 9		4,18,25,41,17	
		23,47,38,54,18,16,49		1,44
8″	58,54,52,46,41,19,51,51,11,58		4,18,25,43, 1	
		23,47,34,35,52,33,48		1,44
10″	58,54,53,10,28,54,27,43,45,46		4,18,25,44,45	
		23,47,30,17,26,49, 3		1,44
12″	58,54,53,34,16,24,45,10,34,49		4,18,25,46,29	
		23,47,25,59, 1, 2,34		1,44
14″	58,54,53,58, 3,50,44,11,37,23		4,18,25,48,13	
		23,47,21,40,35,14,21		1,44
16″	58,54,54,21,51,12,24,46,51,44		4,18,25,49,57	
		23,47,17,22, 9,24,24		1,44
18″	58,54,54,45,38,29,46,56,16, 8		4,18,25,51,41	
		23,47,13, 3,43,32,43		1,44
20″	58,54,55, 9,25,42,50,39,48,51		4,18,25,53,25	
		23,47, 8,45,17,39,18		1,44
22″	58,54,55,33,12,51,35,57,28, 9		4,18,25,55, 9	
		23,47, 4,26,51,44, 9		1,44
24″	58,54,55,56,59,56, 2,49,12,18		4,18,25,56,53	
		23,47, 0, 8,25,47,16		1,44
26″	58,54,56,20,46,56,11,14,59,34		4,18,25,58,37	
		23,46,55,49,59,48,39		1,44
28″	58,54,56,44,33,52, 1,14,48,13		4,18,26, 0,21	
		23,46,51,31,33,48,18		1,44
30″	58,54,57, 8,20,43,32,48,36,31		4,18,26, 2, 5	
		23,46,47,13, 7,46,13		1,44
32″	58,54,57,32, 7,30,45,56,22,44		4,18,26, 3,49	
		23,46,42,54,41,42,24		1,44
34″	58,54,57,55,54,13,40,38, 5, 8		4,18,26, 5,33	
		23,46,38,36,15,36,51		1,44
36″	58,54,58,19,40,52,16,53,41,59		4,18,26, 7,17	
		23,46,34,17,49,29,34		1,44
38″	58,54,58,43,27,26,34,43,11,33		4,18,26, 9, 1	
		23,46,29,59,23,20,33		1,44
40″	58,54,59, 7,13,56,34, 6,32, 6		4,18,26,10,45	
		23,46,25,40,57, 9,48		1,44
42″	58,54,59,31, 0,22,15, 3,41,54		4,18,26,12,29	
		23,46,21,22,30,57,19		1,44
44″	58,54,59,54,46,43,37,34,39,13		4,18,26,14,13	
		23,46,17, 4, 4,43, 6		1,44
46″	58,55, 0,18,33, 0,41,39,22,19		4,18,26,15,57	
		23,46,12,45,38,27, 9		1,44
48″	58,55, 0,42,19,13,27,17,49,28		4,18,26,17,41	
		23,46, 8,27,12, 9,28		1,44
50″	58,55, 1, 6, 5,21,54,29,58,56		4,18,26,19,25	
		23,46, 4, 8,45,50, 3		1,44
52″	58,55, 1,29,51,26, 3,15,48,59		4,18,26,21, 9	
		23,45,59,50,19,28,54		1,44
54″	58,55, 1,53,37,25,53,35,17,53		4,18,26,22,53	
		23,45,55,31,53, 6, 1		1,44
56″	58,55, 2,17,23,21,25,28,23,54		4,18,26,24,37	
		23,45,51,13,26,41,24		1,44
58″	58,55, 2,41, 9,12,38,55, 5,18		4,18,26,26,21	
		23,45,46,55, 0,15, 3		
60″	58,55, 3, 4,54,59,33,55,20,21			
exact	58,55, 3, 4,54,59,33,54,59,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79° 6′ 0″	58,55, 3, 4,54,59,33,54,59,25			
		23,45,42,36,33,44,43		
2″	58,55, 3,28,40,42,10,28,44, 8		4,18,26,29,58	
		23,45,38,18, 7,14,45		1,44
4″	58,55, 3,52,26,20,28,35,58,53		4,18,26,31,42	
		23,45,33,59,40,43, 3		1,44
6″	58,55, 4,16,11,54,28,16,41,56		4,18,26,33,26	
		23,45,29,41,14, 9,37		1,44
8″	58,55, 4,39,57,24, 9,30,51,33		4,18,26,35,10	
		23,45,25,22,47,34,27		1,44
10″	58,55, 5, 3,42,49,32,18,26, 0		4,18,26,36,54	
		23,45,21, 4,20,57,33		1,44
12″	58,55, 5,27,28,10,36,39,23,33		4,18,26,38,38	
		23,45,16,45,54,18,55		1,44
14″	58,55, 5,51,13,27,22,33,42,28		4,18,26,40,22	
		23,45,12,27,27,38,33		1,44
16″	58,55, 6,14,58,39,50, 1,21, 1		4,18,26,42, 6	
		23,45, 8, 9, 0,56,27		1,44
18″	58,55, 6,38,43,47,59, 2,17,28		4,18,26,43,50	
		23,45, 3,50,34,12,37		1,44
20″	58,55, 7, 2,28,51,49,36,30, 5		4,18,26,45,34	
		23,44,59,32, 7,27, 3		1,44
22″	58,55, 7,26,13,51,21,43,57, 8		4,18,26,47,18	
		23,44,55,13,40,39,45		1,44
24″	58,55, 7,49,58,46,35,24,36,53		4,18,26,49, 2	
		23,44,50,55,13,50,43		1,44
26″	58,55, 8,13,43,37,30,38,27,36		4,18,26,50,46	
		23,44,46,36,46,59,57		1,44
28″	58,55, 8,37,28,24, 7,25,27,33		4,18,26,52,30	
		23,44,42,18,20, 7,27		1,44
30″	58,55, 9, 1,13, 6,25,45,35, 0		4,18,26,54,14	
		23,44,37,59,53,13,13		1,44
32″	58,55, 9,24,57,44,25,38,48,13		4,18,26,55,58	
		23,44,33,41,26,17,15		1,44
34″	58,55, 9,48,42,18, 7, 5, 5,28		4,18,26,57,42	
		23,44,29,22,59,19,33		1,44
36″	58,55,10,12,26,47,30, 4,25, 1		4,18,26,59,26	
		23,44,25, 4,32,20, 7		1,44
38″	58,55,10,36,11,12,34,36,45, 8		4,18,27, 1,10	
		23,44,20,46, 5,18,57		1,44
40″	58,55,10,59,55,33,20,42, 4, 5		4,18,27, 2,54	
		23,44,16,27,38,16, 3		1,44
42″	58,55,11,23,39,49,48,20,20, 8		4,18,27, 4,38	
		23,44,12, 9,11,11,25		1,44
44″	58,55,11,47,24, 1,57,31,31,33		4,18,27, 6,22	
		23,44, 7,50,44, 5, 3		1,44
46″	58,55,12,11, 8, 9,48,15,36,36		4,18,27, 8, 6	
		23,44, 3,32,16,56,57		1,44
48″	58,55,12,34,52,13,20,32,33,33		4,18,27, 9,50	
		23,43,59,13,49,47, 7		1,44
50″	58,55,12,58,36,12,34,22,20,40		4,18,27,11,34	
		23,43,54,55,22,35,33		1,44
52″	58,55,13,22,20, 7,29,44,56,13		4,18,27,13,18	
		23,43,50,36,55,22,15		1,44
54″	58,55,13,46, 3,58, 6,40,18,28		4,18,27,15, 2	
		23,43,46,18,28, 7,13		1,44
56″	58,55,14, 9,47,44,25, 8,25,41		4,18,27,16,46	
		23,43,42, 0, 0,50,27		1,44
58″	58,55,14,33,31,26,25, 9,16, 8		4,18,27,18,30	
		23,43,37,41,33,31,57		
60″	58,55,14,57,15, 4, 6,42,48, 5			
exact	58,55,14,57,15, 4, 6,42,36,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79° 7′ 0″	58,55,14,57,15, 4, 6,42,36,24			
		23,43,33,23, 6,10,31		
2″	58,55,15,20,58,37,29,48,46,55		4,18,27,22, 2	
		23,43,29, 4,38,48,29		1,44
4″	58,55,15,44,42, 6,34,27,35,24		4,18,27,23,46	
		23,43,24,46,11,24,43		1,44
6″	58,55,16, 8,25,31,20,39, 0, 7		4,18,27,25,30	
		23,43,20,27,43,59,13		1,44
8″	58,55,16,32, 8,51,48,22,59,20		4,18,27,27,14	
		23,43,16, 9,16,31,59		1,44
10″	58,55,16,55,52, 7,57,39,31,19		4,18,27,28,58	
		23,43,11,50,49, 3, 1		1,44
12″	58,55,17,19,35,19,48,28,34,20		4,18,27,30,42	
		23,43, 7,32,21,32,19		1,44
14″	58,55,17,43,18,27,20,50, 6,39		4,18,27,32,26	
		23,43, 3,13,53,59,53		1,44
16″	58,55,18, 7, 1,30,34,44, 6,32		4,18,27,34,10	
		23,42,58,55,26,25,43		1,44
18″	58,55,18,30,44,29,30,10,32,15		4,18,27,35,54	
		23,42,54,36,58,49,49		1,44
20″	58,55,18,54,27,24, 7, 9,22, 4		4,18,27,37,38	
		23,42,50,18,31,12,11		1,44
22″	58,55,19,18,10,14,25,40,34,15		4,18,27,39,22	
		23,42,46, 0, 3,32,49		1,44
24″	58,55,19,41,53, 0,25,44, 7, 4		4,18,27,41, 6	
		23,42,41,41,35,51,43		1,44
26″	58,55,20, 5,35,42, 7,19,58,47		4,18,27,42,50	
		23,42,37,23, 8, 8,53		1,44
28″	58,55,20,29,18,19,30,28, 7,40		4,18,27,44,34	
		23,42,33, 4,40,24,19		1,44
30″	58,55,20,53, 0,52,35, 8,31,59		4,18,27,46,18	
		23,42,28,46,12,38, 1		1,44
32″	58,55,21,16,43,21,21,21,10, 0		4,18,27,48, 2	
		23,42,24,27,44,49,59		1,44
34″	58,55,21,40,25,45,49, 5,59,59		4,18,27,49,46	
		23,42,20, 9,17, 0,13		1,44
36″	58,55,22, 4, 8, 5,58,23, 0,12		4,18,27,51,30	
		23,42,15,50,49, 8,43		1,44
38″	58,55,22,27,50,21,49,12, 8,55		4,18,27,53,14	
		23,42,11,32,21,15,29		1,44
40″	58,55,22,51,32,33,21,33,24,24		4,18,27,54,58	
		23,42, 7,13,53,20,31		1,44
42″	58,55,23,15,14,40,35,26,44,55		4,18,27,56,42	
		23,42, 2,55,25,23,49		1,44
44″	58,55,23,38,56,43,30,52, 8,44		4,18,27,58,26	
		23,41,58,36,57,25,23		1,44
46″	58,55,24, 2,38,42, 7,49,34, 7		4,18,28, 0,10	
		23,41,54,18,29,25,13		1,44
48″	58,55,24,26,20,36,26,18,59,20		4,18,28, 1,54	
		23,41,50, 0, 1,23,19		1,44
50″	58,55,24,50, 2,26,26,20,22,39		4,18,28, 3,38	
		23,41,45,41,33,19,41		1,44
52″	58,55,25,13,44,12, 7,53,42,20		4,18,28, 5,22	
		23,41,41,23, 5,14,19		1,44
54″	58,55,25,37,25,53,30,58,56,39		4,18,28, 7, 6	
		23,41,37, 4,37, 7,13		1,44
56″	58,55,26, 1, 7,30,35,36, 3,52		4,18,28, 8,50	
		23,41,32,46, 8,58,23		1,44
58″	58,55,26,24,49, 3,21,45, 2,15		4,18,28,10,34	
		23,41,28,27,40,47,49		
60″	58,55,26,48,30,31,49,25,50, 4			
exact	58,55,26,48,30,31,49,25,45, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79° 8′ 0″	58,55,26,48,30,31,49,25,45, 9			
		23,41,24, 9,12,35,12		
2″	58,55,27,12,11,55,58,38,20,21		4,18,28,14, 2	
		23,41,19,50,44,21,10		1,44
4″	58,55,27,35,53,15,49,22,41,31		4,18,28,15,46	
		23,41,15,32,16, 5,24		1,44
6″	58,55,27,59,34,31,21,38,46,55		4,18,28,17,30	
		23,41,11,13,47,47,54		1,44
8″	58,55,28,23,15,42,35,26,34,49		4,18,28,19,14	
		23,41, 6,55,19,28,40		1,44
10″	58,55,28,46,56,49,30,46, 3,29		4,18,28,20,58	
		23,41, 2,36,51, 7,42		1,44
12″	58,55,29,10,37,52, 7,37,11,11		4,18,28,22,42	
		23,40,58,18,22,45, 0		1,44
14″	58,55,29,34,18,50,25,59,56,11		4,18,28,24,26	
		23,40,53,59,54,20,34		1,44
16″	58,55,29,57,59,44,25,54,16,45		4,18,28,26,10	
		23,40,49,41,25,54,24		1,44
18″	58,55,30,21,40,34, 7,20,11, 9		4,18,28,27,54	
		23,40,45,22,57,26,30		1,44
20″	58,55,30,45,21,19,30,17,37,39		4,18,28,29,38	
		23,40,41, 4,28,56,52		1,44
22″	58,55,31, 9, 2, 0,34,46,34,31		4,18,28,31,22	
		23,40,36,46, 0,25,30		1,44
24″	58,55,31,32,42,37,20,47, 0, 1		4,18,28,33, 6	
		23,40,32,27,31,52,24		1,44
26″	58,55,31,56,23, 9,48,18,52,25		4,18,28,34,50	
		23,40,28, 9, 3,17,34		1,44
28″	58,55,32,20, 3,37,57,22, 9,59		4,18,28,36,34	
		23,40,23,50,34,41, 0		1,44
30″	58,55,32,43,44, 1,47,56,50,59		4,18,28,38,18	
		23,40,19,32, 6, 2,42		1,44
32″	58,55,33, 7,24,21,20, 2,53,41		4,18,28,40, 2	
		23,40,15,13,37,22,40		1,44
34″	58,55,33,31, 4,36,33,40,16,21		4,18,28,41,46	
		23,40,10,55, 8,40,54		1,44
36″	58,55,33,54,44,47,28,48,57,15		4,18,28,43,30	
		23,40, 6,36,39,57,24		1,44
38″	58,55,34,18,24,54, 5,28,54,39		4,18,28,45,14	
		23,40, 2,18,11,12,10		1,44
40″	58,55,34,42, 4,56,23,40, 6,49		4,18,28,46,58	
		23,39,57,59,42,25,12		1,44
42″	58,55,35, 5,44,54,23,22,32, 1		4,18,28,48,42	
		23,39,53,41,13,36,30		1,44
44″	58,55,35,29,24,48, 4,36, 8,31		4,18,28,50,26	
		23,39,49,22,44,46, 4		1,44
46″	58,55,35,53, 4,37,27,20,54,35		4,18,28,52,10	
		23,39,45, 4,15,53,54		1,44
48″	58,55,36,16,44,22,31,36,48,29		4,18,28,53,54	
		23,39,40,45,47, 0, 0		1,44
50″	58,55,36,40,24, 3,17,23,48,29		4,18,28,55,38	
		23,39,36,27,18, 4,22		1,44
52″	58,55,37, 4, 3,39,44,41,52,51		4,18,28,57,22	
		23,39,32, 8,49, 7, 0		1,44
54″	58,55,37,27,43,11,53,30,59,51		4,18,28,59, 6	
		23,39,27,50,20, 7,54		1,44
56″	58,55,37,51,22,39,43,51, 7,45		4,18,29, 0,50	
		23,39,23,31,51, 7, 4		1,44
58″	58,55,38,15, 2, 3,15,42,14,49		4,18,29, 2,34	
		23,39,19,13,22, 4,30		
60″	58,55,38,38,41,22,29, 4,19,19			
exact	58,55,38,38,41,22,29, 4,26,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79° 9′ 0″	58,55,38,38,41,22,29, 4,26,46			
		23,39,14,54,53, 1, 8		
2″	58,55,39, 2,20,37,23,57,27,54		4,18,29, 5,57	
		23,39,10,36,23,55,11		1,44
4″	58,55,39,25,59,48, 0,21,23, 5		4,18,29, 7,41	
		23,39, 6,17,54,47,30		1,44
6″	58,55,39,49,38,54,18,16,10,35		4,18,29, 9,25	
		23,39, 1,59,25,38, 5		1,44
8″	58,55,40,13,17,56,17,41,48,40		4,18,29,11, 9	
		23,38,57,40,56,26,56		1,44
10″	58,55,40,36,56,53,58,38,15,36		4,18,29,12,53	
		23,38,53,22,27,14, 3		1,44
12″	58,55,41, 0,35,47,21, 5,29,39		4,18,29,14,37	
		23,38,49, 3,57,59,26		1,44
14″	58,55,41,24,14,36,25, 3,29, 5		4,18,29,16,21	
		23,38,44,45,28,43, 5		1,44
16″	58,55,41,47,53,21,10,32,12,10		4,18,29,18, 5	
		23,38,40,26,59,25, 0		1,44
18″	58,55,42,11,32, 1,37,31,37,10		4,18,29,19,49	
		23,38,36, 8,30, 5,11		1,44
20″	58,55,42,35,10,37,46, 1,42,21		4,18,29,21,33	
		23,38,31,50, 0,43,38		1,44
22″	58,55,42,58,49, 9,36, 2,25,59		4,18,29,23,17	
		23,38,27,31,31,20,21		1,44
24″	58,55,43,22,27,37, 7,33,46,20		4,18,29,25, 1	
		23,38,23,13, 1,55,20		1,44
26″	58,55,43,46, 6, 0,20,35,41,40		4,18,29,26,45	
		23,38,18,54,32,28,35		1,44
28″	58,55,44, 9,44,19,15, 8,10,15		4,18,29,28,29	
		23,38,14,36, 3, 0, 6		1,44
30″	58,55,44,33,22,33,51,11,10,21		4,18,29,30,13	
		23,38,10,17,33,29,53		1,44
32″	58,55,44,57, 0,44, 8,44,40,14		4,18,29,31,57	
		23,38, 5,59, 3,57,56		1,44
34″	58,55,45,20,38,50, 7,48,38,10		4,18,29,33,41	
		23,38, 1,40,34,24,15		1,44
36″	58,55,45,44,16,51,48,23, 2,25		4,18,29,35,25	
		23,37,57,22, 4,48,50		1,44
38″	58,55,46, 7,54,49,10,27,51,15		4,18,29,37, 9	
		23,37,53, 3,35,11,41		1,44
40″	58,55,46,31,32,42,14, 3, 2,56		4,18,29,38,53	
		23,37,48,45, 5,32,48		1,44
42″	58,55,46,55,10,30,59, 8,35,44		4,18,29,40,37	
		23,37,44,26,35,52,11		1,44
44″	58,55,47,18,48,15,25,44,27,55		4,18,29,42,21	
		23,37,40, 8, 6, 9,50		1,44
46″	58,55,47,42,25,55,33,50,37,45		4,18,29,44, 5	
		23,37,35,49,36,25,45		1,44
48″	58,55,48, 6, 3,31,23,27, 3,30		4,18,29,45,49	
		23,37,31,31, 6,39,56		1,44
50″	58,55,48,29,41, 2,54,33,43,26		4,18,29,47,33	
		23,37,27,12,36,52,23		1,44
52″	58,55,48,53,18,30, 7,10,35,49		4,18,29,49,17	
		23,37,22,54, 7, 3, 6		1,44
54″	58,55,49,16,55,53, 1,17,38,55		4,18,29,51, 1	
		23,37,18,35,37,12, 5		1,44
56″	58,55,49,40,33,11,36,54,51, 0		4,18,29,52,45	
		23,37,14,17, 7,19,20		1,44
58″	58,55,50, 4,10,25,54, 2,10,20		4,18,29,54,29	
		23,37, 9,58,37,24,51		
60″	58,55,50,27,47,35,52,39,35,11			
exact	58,55,50,27,47,35,52,39,53,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°10′ 0″	58,55,50,27,47,35,52,39,53,14			
		23,37, 5,40, 7,30,42		
2″	58,55,50,51,24,41,32,47,23,56		4,18,29,57,47	
		23,37, 1,21,37,32,55		1,44
4″	58,55,51,15, 1,42,54,24,56,51		4,18,29,59,31	
		23,36,57, 3, 7,33,24		1,44
6″	58,55,51,38,38,39,57,32,30,15		4,18,30, 1,15	
		23,36,52,44,37,32, 9		1,44
8″	58,55,52, 2,15,32,42,10, 2,24		4,18,30, 2,59	
		23,36,48,26, 7,29,10		1,44
10″	58,55,52,25,52,21, 8,17,31,34		4,18,30, 4,43	
		23,36,44, 7,37,24,27		1,44
12″	58,55,52,49,29, 5,15,54,56, 1		4,18,30, 6,27	
		23,36,39,49, 7,18, 0		1,44
14″	58,55,53,13, 5,45, 5, 2,14, 1		4,18,30, 8,11	
		23,36,35,30,37, 9,49		1,44
16″	58,55,53,36,42,20,35,39,23,50		4,18,30, 9,55	
		23,36,31,12, 6,59,54		1,44
18″	58,55,54, 0,18,51,47,46,23,44		4,18,30,11,39	
		23,36,26,53,36,48,15		1,44
20″	58,55,54,23,55,18,41,23,11,59		4,18,30,13,23	
		23,36,22,35, 6,34,52		1,44
22″	58,55,54,47,31,41,16,29,46,51		4,18,30,15, 7	
		23,36,18,16,36,19,45		1,44
24″	58,55,55,11, 7,59,33, 6, 6,36		4,18,30,16,51	
		23,36,13,58, 6, 2,54		1,44
26″	58,55,55,34,44,13,31,12, 9,30		4,18,30,18,35	
		23,36, 9,39,35,44,19		1,44
28″	58,55,55,58,20,23,10,47,53,49		4,18,30,20,19	
		23,36, 5,21, 5,24, 0		1,44
30″	58,55,56,21,56,28,31,53,17,49		4,18,30,22, 3	
		23,36, 1, 2,35, 1,57		1,44
32″	58,55,56,45,32,29,34,28,19,46		4,18,30,23,47	
		23,35,56,44, 4,38,10		1,44
34″	58,55,57, 9, 8,26,18,32,57,56		4,18,30,25,31	
		23,35,52,25,34,12,39		1,44
36″	58,55,57,32,44,18,44, 7,10,35		4,18,30,27,15	
		23,35,48, 7, 3,45,24		1,44
38″	58,55,57,56,20, 6,51,10,55,59		4,18,30,28,59	
		23,35,43,48,33,16,25		1,44
40″	58,55,58,19,55,50,39,44,12,24		4,18,30,30,43	
		23,35,39,30, 2,45,42		1,44
42″	58,55,58,43,31,30, 9,46,58, 6		4,18,30,32,27	
		23,35,35,11,32,13,15		1,44
44″	58,55,59, 7, 7, 5,21,19,11,21		4,18,30,34,11	
		23,35,30,53, 1,39, 4		1,44
46″	58,55,59,30,42,36,14,20,50,25		4,18,30,35,55	
		23,35,26,34,31, 3, 9		1,44
48″	58,55,59,54,18, 2,48,51,53,34		4,18,30,37,39	
		23,35,22,16, 0,25,30		1,44
50″	58,56, 0,17,53,25, 4,52,19, 4		4,18,30,39,23	
		23,35,17,57,29,46, 7		1,44
52″	58,56, 0,41,28,43, 2,22, 5,11		4,18,30,41, 7	
		23,35,13,38,59, 5, 0		1,44
54″	58,56, 1, 5, 3,56,41,21,10,11		4,18,30,42,51	
		23,35, 9,20,28,22, 9		1,44
56″	58,56, 1,28,39, 6, 1,49,32,20		4,18,30,44,35	
		23,35, 5, 1,57,37,34		1,44
58″	58,56, 1,52,14,11, 3,47, 9,54		4,18,30,46,19	
		23,35, 0,43,26,51,15		
60″	58,56, 2,15,49,11,47,14, 1, 9			
exact	58,56, 2,15,49,11,47,14,27,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°11′ 0″	58,56, 2,15,49,11,47,14,27,25			
		23,34,56,24,56, 6,15		
2″	58,56, 2,39,24, 8,12,10,33,40		4,18,30,49,33	
		23,34,52, 6,25,16,42		1,43
4″	58,56, 3, 2,59, 0,18,35,50,22		4,18,30,51,16	
		23,34,47,47,54,25,26		1,43
6″	58,56, 3,26,33,48, 6,30,15,48		4,18,30,52,59	
		23,34,43,29,23,32,27		1,43
8″	58,56, 3,50, 8,31,35,53,48,15		4,18,30,54,42	
		23,34,39,10,52,37,45		1,43
10″	58,56, 4,13,43,10,46,46,26, 0		4,18,30,56,25	
		23,34,34,52,21,41,20		1,43
12″	58,56, 4,37,17,45,39, 8, 7,20		4,18,30,58, 8	
		23,34,30,33,50,43,12		1,43
14″	58,56, 5, 0,52,16,12,58,50,32		4,18,30,59,51	
		23,34,26,15,19,43,21		1,43
16″	58,56, 5,24,26,42,28,18,33,53		4,18,31, 1,34	
		23,34,21,56,48,41,47		1,43
18″	58,56, 5,48, 1, 4,25, 7,15,40		4,18,31, 3,17	
		23,34,17,38,17,38,30		1,43
20″	58,56, 6,11,35,22, 3,24,54,10		4,18,31, 5, 0	
		23,34,13,19,46,33,30		1,43
22″	58,56, 6,35, 9,35,23,11,27,40		4,18,31, 6,43	
		23,34, 9, 1,15,26,47		1,43
24″	58,56, 6,58,43,44,24,26,54,27		4,18,31, 8,26	
		23,34, 4,42,44,18,21		1,43
26″	58,56, 7,22,17,49, 7,11,12,48		4,18,31,10, 9	
		23,34, 0,24,13, 8,12		1,43
28″	58,56, 7,45,51,49,31,24,21, 0		4,18,31,11,52	
		23,33,56, 5,41,56,20		1,43
30″	58,56, 8, 9,25,45,37, 6,17,20		4,18,31,13,35	
		23,33,51,47,10,42,45		1,43
32″	58,56, 8,32,59,37,24,17, 0, 5		4,18,31,15,18	
		23,33,47,28,39,27,27		1,43
34″	58,56, 8,56,33,24,52,56,27,32		4,18,31,17, 1	
		23,33,43,10, 8,10,26		1,43
36″	58,56, 9,20, 7, 8, 3, 4,37,58		4,18,31,18,44	
		23,33,38,51,36,51,42		1,43
38″	58,56, 9,43,40,46,54,41,29,40		4,18,31,20,27	
		23,33,34,33, 5,31,15		1,43
40″	58,56,10, 7,14,21,27,47, 0,55		4,18,31,22,10	
		23,33,30,14,34, 9, 5		1,43
42″	58,56,10,30,47,51,42,21,10, 0		4,18,31,23,53	
		23,33,25,56, 2,45,12		1,43
44″	58,56,10,54,21,17,38,23,55,12		4,18,31,25,36	
		23,33,21,37,31,19,36		1,43
46″	58,56,11,17,54,39,15,55,14,48		4,18,31,27,19	
		23,33,17,18,59,52,17		1,43
48″	58,56,11,41,27,56,34,55, 7, 5		4,18,31,29, 2	
		23,33,13, 0,28,23,15		1,43
50″	58,56,12, 5, 1, 9,35,23,30,20		4,18,31,30,45	
		23,33, 8,41,56,52,30		1,43
52″	58,56,12,28,34,18,17,20,22,50		4,18,31,32,28	
		23,33, 4,23,25,20, 2		1,43
54″	58,56,12,52, 7,22,40,45,42,52		4,18,31,34,11	
		23,33, 0, 4,53,45,51		1,43
56″	58,56,13,15,40,22,45,39,28,43		4,18,31,35,54	
		23,32,55,46,22, 9,57		1,43
58″	58,56,13,39,13,18,32, 1,38,40		4,18,31,37,37	
		23,32,51,27,50,32,20		
60″	58,56,14, 2,46, 9,59,52,11, 0			
exact	58,56,14, 2,46, 9,59,51,43, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°12′ 0″	58,56,14, 2,46, 9,59,51,43, 0			
		23,32,47, 9,18,50, 8		
2″	58,56,14,26,18,57, 9,10,33, 8		4,18,31,41,14	
		23,32,42,50,47, 8,54		1,43
4″	58,56,14,49,51,39,59,57,42, 2		4,18,31,42,57	
		23,32,38,32,15,25,57		1,43
6″	58,56,15,13,24,18,32,13, 7,59		4,18,31,44,40	
		23,32,34,13,43,41,17		1,43
8″	58,56,15,36,56,52,45,56,49,16		4,18,31,46,23	
		23,32,29,55,11,54,54		1,43
10″	58,56,16, 0,29,22,41, 8,44,10		4,18,31,48, 6	
		23,32,25,36,40, 6,48		1,43
12″	58,56,16,24, 1,48,17,48,50,58		4,18,31,49,49	
		23,32,21,18, 8,16,59		1,43
14″	58,56,16,47,34, 9,35,57, 7,57		4,18,31,51,32	
		23,32,16,59,36,25,27		1,43
16″	58,56,17,11, 6,26,35,33,33,24		4,18,31,53,15	
		23,32,12,41, 4,32,12		1,43
18″	58,56,17,34,38,39,16,38, 5,36		4,18,31,54,58	
		23,32, 8,22,32,37,14		1,43
20″	58,56,17,58,10,47,39,10,42,50		4,18,31,56,41	
		23,32, 4, 4, 0,40,33		1,43
22″	58,56,18,21,42,51,43,11,23,23		4,18,31,58,24	
		23,31,59,45,28,42, 9		1,43
24″	58,56,18,45,14,51,28,40, 5,32		4,18,32, 0, 7	
		23,31,55,26,56,42, 2		1,43
26″	58,56,19, 8,46,46,55,36,47,34		4,18,32, 1,50	
		23,31,51, 8,24,40,12		1,43
28″	58,56,19,32,18,38, 4, 1,27,46		4,18,32, 3,33	
		23,31,46,49,52,36,39		1,43
30″	58,56,19,55,50,24,53,54, 4,25		4,18,32, 5,16	
		23,31,42,31,20,31,23		1,43
32″	58,56,20,19,22, 7,25,14,35,48		4,18,32, 6,59	
		23,31,38,12,48,24,24		1,43
34″	58,56,20,42,53,45,38, 3, 0,12		4,18,32, 8,42	
		23,31,33,54,16,15,42		1,43
36″	58,56,21, 6,25,19,32,19,15,54		4,18,32,10,25	
		23,31,29,35,44, 5,17		1,43
38″	58,56,21,29,56,49, 8, 3,21,11		4,18,32,12, 8	
		23,31,25,17,11,53, 9		1,43
40″	58,56,21,53,28,14,25,15,14,20		4,18,32,13,51	
		23,31,20,58,39,39,18		1,43
42″	58,56,22,16,59,35,23,54,53,38		4,18,32,15,34	
		23,31,16,40, 7,23,44		1,43
44″	58,56,22,40,30,52, 4, 2,17,22		4,18,32,17,17	
		23,31,12,21,35, 6,27		1,43
46″	58,56,23, 4, 2, 4,25,37,23,49		4,18,32,19, 0	
		23,31, 8, 3, 2,47,27		1,43
48″	58,56,23,27,33,12,28,40,11,16		4,18,32,20,43	
		23,31, 3,44,30,26,44		1,43
50″	58,56,23,51, 4,16,13,10,38, 0		4,18,32,22,26	
		23,30,59,25,58, 4,18		1,43
52″	58,56,24,14,35,15,39, 8,42,18		4,18,32,24, 9	
		23,30,55, 7,25,40, 9		1,43
54″	58,56,24,38, 6,10,46,34,22,27		4,18,32,25,52	
		23,30,50,48,53,14,17		1,43
56″	58,56,25, 1,37, 1,35,27,36,44		4,18,32,27,35	
		23,30,46,30,20,46,42		1,43
58″	58,56,25,25, 7,48, 5,48,23,26		4,18,32,29,18	
		23,30,42,11,48,17,24		
60″	58,56,25,48,38,30,17,36,40,50			
exact	58,56,25,48,38,30,17,36,24,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°13′ 0″	58,56,25,48,38,30,17,36,24,36			
		23,30,37,53,15,44,44		
2″	58,56,26,12, 9, 8,10,52, 9,20		4,18,32,32,50	
		23,30,33,34,43,11,54		1,43
4″	58,56,26,35,39,41,45,35,21,14		4,18,32,34,33	
		23,30,29,16,10,37,21		1,43
6″	58,56,26,59,10,11, 1,45,58,35		4,18,32,36,16	
		23,30,24,57,38, 1, 5		1,43
8″	58,56,27,22,40,35,59,23,59,40		4,18,32,37,59	
		23,30,20,39, 5,23, 6		1,43
10″	58,56,27,46,10,56,38,29,22,46		4,18,32,39,42	
		23,30,16,20,32,43,24		1,43
12″	58,56,28, 9,41,12,59, 2, 6,10		4,18,32,41,25	
		23,30,12, 2, 0, 1,59		1,43
14″	58,56,28,33,11,25, 1, 2, 8, 9		4,18,32,43, 8	
		23,30, 7,43,27,18,51		1,43
16″	58,56,28,56,41,32,44,29,27, 0		4,18,32,44,51	
		23,30, 3,24,54,34, 0		1,43
18″	58,56,29,20,11,36, 9,24, 1, 0		4,18,32,46,34	
		23,29,59, 6,21,47,26		1,43
20″	58,56,29,43,41,35,15,45,48,26		4,18,32,48,17	
		23,29,54,47,48,59, 9		1,43
22″	58,56,30, 7,11,30, 3,34,47,35		4,18,32,50, 0	
		23,29,50,29,16, 9, 9		1,43
24″	58,56,30,30,41,20,32,50,56,44		4,18,32,51,43	
		23,29,46,10,43,17,26		1,43
26″	58,56,30,54,11, 6,43,34,14,10		4,18,32,53,26	
		23,29,41,52,10,24, 0		1,43
28″	58,56,31,17,40,48,35,44,38,10		4,18,32,55, 9	
		23,29,37,33,37,28,51		1,43
30″	58,56,31,41,10,26, 9,22, 7, 1		4,18,32,56,52	
		23,29,33,15, 4,31,59		1,43
32″	58,56,32, 4,39,59,24,26,39, 0		4,18,32,58,35	
		23,29,28,56,31,33,24		1,43
34″	58,56,32,28, 9,28,20,58,12,24		4,18,33, 0,18	
		23,29,24,37,58,33, 6		1,43
36″	58,56,32,51,38,52,58,56,45,30		4,18,33, 2, 1	
		23,29,20,19,25,31, 5		1,43
38″	58,56,33,15, 8,13,18,22,16,35		4,18,33, 3,44	
		23,29,16, 0,52,27,21		1,43
40″	58,56,33,38,37,29,19,14,43,56		4,18,33, 5,27	
		23,29,11,42,19,21,54		1,43
42″	58,56,34, 2, 6,41, 1,34, 5,50		4,18,33, 7,10	
		23,29, 7,23,46,14,44		1,43
44″	58,56,34,25,35,48,25,20,20,34		4,18,33, 8,53	
		23,29, 3, 5,13, 5,51		1,43
46″	58,56,34,49, 4,51,30,33,26,25		4,18,33,10,36	
		23,28,58,46,39,55,15		1,43
48″	58,56,35,12,33,50,17,13,21,40		4,18,33,12,19	
		23,28,54,28, 6,42,56		1,43
50″	58,56,35,36, 2,44,45,20, 4,36		4,18,33,14, 2	
		23,28,50, 9,33,28,54		1,43
52″	58,56,35,59,31,34,54,53,33,30		4,18,33,15,45	
		23,28,45,51, 0,13, 9		1,43
54″	58,56,36,23, 0,20,45,53,46,39		4,18,33,17,28	
		23,28,41,32,26,55,41		1,43
56″	58,56,36,46,29, 2,18,20,42,20		4,18,33,19,11	
		23,28,37,13,53,36,30		1,43
58″	58,56,37, 9,57,39,32,14,18,50		4,18,33,20,54	
		23,28,32,55,20,15,36		
60″	58,56,37,33,26,12,27,34,34,26			
exact	58,56,37,33,26,12,27,34,27,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°14′ 0″	58,56,37,33,26,12,27,34,27,41			
		23,28,28,36,46,52,24		
2″	58,56,37,56,54,41, 4,21,20, 5		4,18,33,24,22	
		23,28,24,18,13,28, 2		1,43
4″	58,56,38,20,23, 5,22,34,48, 7		4,18,33,26, 5	
		23,28,19,59,40, 1,57		1,43
6″	58,56,38,43,51,25,22,14,50, 4		4,18,33,27,48	
		23,28,15,41, 6,34, 9		1,43
8″	58,56,39, 7,19,41, 3,21,24,13		4,18,33,29,31	
		23,28,11,22,33, 4,38		1,43
10″	58,56,39,30,47,52,25,54,28,51		4,18,33,31,14	
		23,28, 7, 3,59,33,24		1,43
12″	58,56,39,54,15,59,29,54, 2,15		4,18,33,32,57	
		23,28, 2,45,26, 0,27		1,43
14″	58,56,40,17,44, 2,15,20, 2,42		4,18,33,34,40	
		23,27,58,26,52,25,47		1,43
16″	58,56,40,41,12, 0,42,12,28,29		4,18,33,36,23	
		23,27,54, 8,18,49,24		1,43
18″	58,56,41, 4,39,54,50,31,17,53		4,18,33,38, 6	
		23,27,49,49,45,11,18		1,43
20″	58,56,41,28, 7,44,40,16,29,11		4,18,33,39,49	
		23,27,45,31,11,31,29		1,43
22″	58,56,41,51,35,30,11,28, 0,40		4,18,33,41,32	
		23,27,41,12,37,49,57		1,43
24″	58,56,42,15, 3,11,24, 5,50,37		4,18,33,43,15	
		23,27,36,54, 4, 6,42		1,43
26″	58,56,42,38,30,48,18, 9,57,19		4,18,33,44,58	
		23,27,32,35,30,21,44		1,43
28″	58,56,43, 1,58,20,53,40,19, 3		4,18,33,46,41	
		23,27,28,16,56,35, 3		1,43
30″	58,56,43,25,25,49,10,36,54, 6		4,18,33,48,24	
		23,27,23,58,22,46,39		1,43
32″	58,56,43,48,53,13, 8,59,40,45		4,18,33,50, 7	
		23,27,19,39,48,56,32		1,43
34″	58,56,44,12,20,32,48,48,37,17		4,18,33,51,50	
		23,27,15,21,15, 4,42		1,43
36″	58,56,44,35,47,48,10, 3,41,59		4,18,33,53,33	
		23,27,11, 2,41,11, 9		1,43
38″	58,56,44,59,14,59,12,44,53, 8		4,18,33,55,16	
		23,27, 6,44, 7,15,53		1,43
40″	58,56,45,22,42, 5,56,52, 9, 1		4,18,33,56,59	
		23,27, 2,25,33,18,54		1,43
42″	58,56,45,46, 9, 8,22,25,27,55		4,18,33,58,42	
		23,26,58, 6,59,20,12		1,43
44″	58,56,46, 9,36, 6,29,24,48, 7		4,18,34, 0,25	
		23,26,53,48,25,19,47		1,43
46″	58,56,46,33, 3, 0,17,50, 7,54		4,18,34, 2, 8	
		23,26,49,29,51,17,39		1,43
48″	58,56,46,56,29,49,47,41,25,33		4,18,34, 3,51	
		23,26,45,11,17,13,48		1,43
50″	58,56,47,19,56,34,58,58,39,21		4,18,34, 5,34	
		23,26,40,52,43, 8,14		1,43
52″	58,56,47,43,23,15,51,41,47,35		4,18,34, 7,17	
		23,26,36,34, 9, 0,57		1,43
54″	58,56,48, 6,49,52,25,50,48,32		4,18,34, 9, 0	
		23,26,32,15,34,51,57		1,43
56″	58,56,48,30,16,24,41,25,40,29		4,18,34,10,43	
		23,26,27,57, 0,41,14		1,43
58″	58,56,48,53,42,52,38,26,21,43		4,18,34,12,26	
		23,26,23,38,26,28,48		
60″	58,56,49,17, 9,16,16,52,50,31			
exact	58,56,49,17, 9,16,16,52,58,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°15′ 0″	58,56,49,17, 9,16,16,52,58,34			
		23,26,19,19,52,15,29		
2″	58,56,49,40,35,35,36,45,14, 3		4,18,34,15,48	
		23,26,15, 1,17,59,41		1,43
4″	58,56,50, 4, 1,50,38, 3,13,44		4,18,34,17,31	
		23,26,10,42,43,42,10		1,43
6″	58,56,50,27,28, 1,20,46,55,54		4,18,34,19,14	
		23,26, 6,24, 9,22,56		1,43
8″	58,56,50,50,54, 7,44,56,18,50		4,18,34,20,57	
		23,26, 2, 5,35, 1,59		1,43
10″	58,56,51,14,20, 9,50,31,20,49		4,18,34,22,40	
		23,25,57,47, 0,39,19		1,43
12″	58,56,51,37,46, 7,37,32, 0, 8		4,18,34,24,23	
		23,25,53,28,26,14,56		1,43
14″	58,56,52, 1,12, 1, 5,58,15, 4		4,18,34,26, 6	
		23,25,49, 9,51,48,50		1,43
16″	58,56,52,24,37,50,15,50, 3,54		4,18,34,27,49	
		23,25,44,51,17,21, 1		1,43
18″	58,56,52,48, 3,35, 7, 7,24,55		4,18,34,29,32	
		23,25,40,32,42,51,29		1,43
20″	58,56,53,11,29,15,39,50,16,24		4,18,34,31,15	
		23,25,36,14, 8,20,14		1,43
22″	58,56,53,34,54,51,53,58,36,38		4,18,34,32,58	
		23,25,31,55,33,47,16		1,43
24″	58,56,53,58,20,23,49,32,23,54		4,18,34,34,41	
		23,25,27,36,59,12,35		1,43
26″	58,56,54,21,45,51,26,31,36,29		4,18,34,36,24	
		23,25,23,18,24,36,11		1,43
28″	58,56,54,45,11,14,44,56,12,40		4,18,34,38, 7	
		23,25,18,59,49,58, 4		1,43
30″	58,56,55, 8,36,33,44,46,10,44		4,18,34,39,50	
		23,25,14,41,15,18,14		1,43
32″	58,56,55,32, 1,48,26, 1,28,58		4,18,34,41,33	
		23,25,10,22,40,36,41		1,43
34″	58,56,55,55,26,58,48,42, 5,39		4,18,34,43,16	
		23,25, 6, 4, 5,53,25		1,43
36″	58,56,56,18,52, 4,52,47,59, 4		4,18,34,44,59	
		23,25, 1,45,31, 8,26		1,43
38″	58,56,56,42,17, 6,38,19, 7,30		4,18,34,46,42	
		23,24,57,26,56,21,44		1,43
40″	58,56,57, 5,42, 4, 5,15,29,14		4,18,34,48,25	
		23,24,53, 8,21,33,19		1,43
42″	58,56,57,29, 6,57,13,37, 2,33		4,18,34,50, 8	
		23,24,48,49,46,43,11		1,43
44″	58,56,57,52,31,46, 3,23,45,44		4,18,34,51,51	
		23,24,44,31,11,51,20		1,43
46″	58,56,58,15,56,30,34,35,37, 4		4,18,34,53,34	
		23,24,40,12,36,57,46		1,43
48″	58,56,58,39,21,10,47,12,34,50		4,18,34,55,17	
		23,24,35,54, 2, 2,29		1,43
50″	58,56,59, 2,45,46,41,14,37,19		4,18,34,57, 0	
		23,24,31,35,27, 5,29		1,43
52″	58,56,59,26,10,18,16,41,42,48		4,18,34,58,43	
		23,24,27,16,52, 6,46		1,43
54″	58,56,59,49,34,45,33,33,49,34		4,18,35, 0,26	
		23,24,22,58,17, 6,20		1,43
56″	58,57, 0,12,59, 8,31,50,55,54		4,18,35, 2, 9	
		23,24,18,39,42, 4,11		1,43
58″	58,57, 0,36,23,27,11,33, 0, 5		4,18,35, 3,52	
		23,24,14,21, 7, 0,19		
60″	58,57, 0,59,47,41,32,40, 0,24			
exact	58,57, 0,59,47,41,32,40,14,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°16′ 0″	58,57, 0,59,47,41,32,40,14,30			
		23,24,10, 2,31,56,23		
2″	58,57, 1,23,11,51,35,12,10,53		4,18,35, 7,10	
		23,24, 5,43,56,49,13		1,43
4″	58,57, 1,46,35,57,19, 9, 0, 6		4,18,35, 8,53	
		23,24, 1,25,21,40,20		1,43
6″	58,57, 2, 9,59,58,44,30,40,26		4,18,35,10,36	
		23,23,57, 6,46,29,44		1,43
8″	58,57, 2,33,23,55,51,17,10,10		4,18,35,12,19	
		23,23,52,48,11,17,25		1,43
10″	58,57, 2,56,47,48,39,28,27,35		4,18,35,14, 2	
		23,23,48,29,36, 3,23		1,43
12″	58,57, 3,20,11,37, 9, 4,30,58		4,18,35,15,45	
		23,23,44,11, 0,47,38		1,43
14″	58,57, 3,43,35,21,20, 5,18,36		4,18,35,17,28	
		23,23,39,52,25,30,10		1,43
16″	58,57, 4, 6,59, 1,12,30,48,46		4,18,35,19,11	
		23,23,35,33,50,10,59		1,43
18″	58,57, 4,30,22,36,46,20,59,45		4,18,35,20,54	
		23,23,31,15,14,50, 5		1,43
20″	58,57, 4,53,46, 8, 1,35,49,50		4,18,35,22,37	
		23,23,26,56,39,27,28		1,43
22″	58,57, 5,17, 9,34,58,15,17,18		4,18,35,24,20	
		23,23,22,38, 4, 3, 8		1,43
24″	58,57, 5,40,32,57,36,19,20,26		4,18,35,26, 3	
		23,23,18,19,28,37, 5		1,43
26″	58,57, 6, 3,56,15,55,47,57,31		4,18,35,27,46	
		23,23,14, 0,53, 9,19		1,43
28″	58,57, 6,27,19,29,56,41, 6,50		4,18,35,29,29	
		23,23, 9,42,17,39,50		1,43
30″	58,57, 6,50,42,39,38,58,46,40		4,18,35,31,12	
		23,23, 5,23,42, 8,38		1,43
32″	58,57, 7,14, 5,45, 2,40,55,18		4,18,35,32,55	
		23,23, 1, 5, 6,35,43		1,43
34″	58,57, 7,37,28,46, 7,47,31, 1		4,18,35,34,38	
		23,22,56,46,31, 1, 5		1,43
36″	58,57, 8, 0,51,42,54,18,32, 6		4,18,35,36,21	
		23,22,52,27,55,24,44		1,43
38″	58,57, 8,24,14,35,22,13,56,50		4,18,35,38, 4	
		23,22,48, 9,19,46,40		1,43
40″	58,57, 8,47,37,23,31,33,43,30		4,18,35,39,47	
		23,22,43,50,44, 6,53		1,43
42″	58,57, 9,11, 0, 7,22,17,50,23		4,18,35,41,30	
		23,22,39,32, 8,25,23		1,43
44″	58,57, 9,34,22,46,54,26,15,46		4,18,35,43,13	
		23,22,35,13,32,42,10		1,43
46″	58,57, 9,57,45,22, 7,58,57,56		4,18,35,44,56	
		23,22,30,54,56,57,14		1,43
48″	58,57,10,21, 7,53, 2,55,55,10		4,18,35,46,39	
		23,22,26,36,21,10,35		1,43
50″	58,57,10,44,30,19,39,17, 5,45		4,18,35,48,22	
		23,22,22,17,45,22,13		1,43
52″	58,57,11, 7,52,41,57, 2,27,58		4,18,35,50, 5	
		23,22,17,59, 9,32, 8		1,43
54″	58,57,11,31,14,59,56,12, 0, 6		4,18,35,51,48	
		23,22,13,40,33,40,20		1,43
56″	58,57,11,54,37,13,36,45,40,26		4,18,35,53,31	
		23,22, 9,21,57,46,49		1,43
58″	58,57,12,17,59,22,58,43,27,15		4,18,35,55,14	
		23,22, 5, 3,21,51,35		
60″	58,57,12,41,21,28, 2, 5,18,50			
exact	58,57,12,41,21,28, 2, 5,43,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°17′ 0″	58,57,12,41,21,28, 2, 5,43,35			
		23,22, 0,44,45,57,26		
2″	58,57,13, 4,43,28,46,51,41, 1		4,18,35,58,27	
		23,21,56,26, 9,58,59		1,42
4″	58,57,13,28, 5,25,13, 1,40, 0		4,18,36, 0, 9	
		23,21,52, 7,33,58,50		1,42
6″	58,57,13,51,27,17,20,35,38,50		4,18,36, 1,51	
		23,21,47,48,57,56,59		1,42
8″	58,57,14,14,49, 5, 9,33,35,49		4,18,36, 3,33	
		23,21,43,30,21,53,26		1,42
10″	58,57,14,38,10,48,39,55,29,15		4,18,36, 5,15	
		23,21,39,11,45,48,11		1,42
12″	58,57,15, 1,32,27,51,41,17,26		4,18,36, 6,57	
		23,21,34,53, 9,41,14		1,42
14″	58,57,15,24,54, 2,44,50,58,40		4,18,36, 8,39	
		23,21,30,34,33,32,35		1,42
16″	58,57,15,48,15,33,19,24,31,15		4,18,36,10,21	
		23,21,26,15,57,22,14		1,42
18″	58,57,16,11,36,59,35,21,53,29		4,18,36,12, 3	
		23,21,21,57,21,10,11		1,42
20″	58,57,16,34,58,21,32,43, 3,40		4,18,36,13,45	
		23,21,17,38,44,56,26		1,42
22″	58,57,16,58,19,39,11,28, 0, 6		4,18,36,15,27	
		23,21,13,20, 8,40,59		1,42
24″	58,57,17,21,40,52,31,36,41, 5		4,18,36,17, 9	
		23,21, 9, 1,32,23,50		1,42
26″	58,57,17,45, 2, 1,33, 9, 4,55		4,18,36,18,51	
		23,21, 4,42,56, 4,59		1,42
28″	58,57,18, 8,23, 6,16, 5, 9,54		4,18,36,20,33	
		23,21, 0,24,19,44,26		1,42
30″	58,57,18,31,44, 6,40,24,54,20		4,18,36,22,15	
		23,20,56, 5,43,22,11		1,42
32″	58,57,18,55, 5, 2,46, 8,16,31		4,18,36,23,57	
		23,20,51,47, 6,58,14		1,42
34″	58,57,19,18,25,54,33,15,14,45		4,18,36,25,39	
		23,20,47,28,30,32,35		1,42
36″	58,57,19,41,46,42, 1,45,47,20		4,18,36,27,21	
		23,20,43, 9,54, 5,14		1,42
38″	58,57,20, 5, 7,25,11,39,52,34		4,18,36,29, 3	
		23,20,38,51,17,36,11		1,42
40″	58,57,20,28,28, 4, 2,57,28,45		4,18,36,30,45	
		23,20,34,32,41, 5,26		1,42
42″	58,57,20,51,48,38,35,38,34,11		4,18,36,32,27	
		23,20,30,14, 4,32,59		1,42
44″	58,57,21,15, 9, 8,49,43, 7,10		4,18,36,34, 9	
		23,20,25,55,27,58,50		1,42
46″	58,57,21,38,29,34,45,11, 6, 0		4,18,36,35,51	
		23,20,21,36,51,22,59		1,42
48″	58,57,22, 1,49,56,22, 2,28,59		4,18,36,37,33	
		23,20,17,18,14,45,26		1,42
50″	58,57,22,25,10,13,40,17,14,25		4,18,36,39,15	
		23,20,12,59,38, 6,11		1,42
52″	58,57,22,48,30,26,39,55,20,36		4,18,36,40,57	
		23,20, 8,41, 1,25,14		1,42
54″	58,57,23,11,50,35,20,56,45,50		4,18,36,42,39	
		23,20, 4,22,24,42,35		1,42
56″	58,57,23,35,10,39,43,21,28,25		4,18,36,44,21	
		23,20, 0, 3,47,58,14		1,42
58″	58,57,23,58,30,39,47, 9,26,39		4,18,36,46, 3	
		23,19,55,45,11,12,11		
60″	58,57,24,21,50,35,32,20,38,50			
exact	58,57,24,21,50,35,32,20, 4,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°18′ 0″	58,57,24,21,50,35,32,20, 4,51			
		23,19,51,26,34,21, 0		
2″	58,57,24,45,10,26,58,54,25,51		4,18,36,49,40	
		23,19,47, 7,57,31,20		1,42
4″	58,57,25, 8,30,14, 6,51,57,11		4,18,36,51,22	
		23,19,42,49,20,39,58		1,42
6″	58,57,25,31,49,56,56,12,37, 9		4,18,36,53, 4	
		23,19,38,30,43,46,54		1,42
8″	58,57,25,55, 9,35,26,56,24, 3		4,18,36,54,46	
		23,19,34,12, 6,52, 8		1,42
10″	58,57,26,18,29, 9,39, 3,16,11		4,18,36,56,28	
		23,19,29,53,29,55,40		1,42
12″	58,57,26,41,48,39,32,33,11,51		4,18,36,58,10	
		23,19,25,34,52,57,30		1,42
14″	58,57,27, 5, 8, 5, 7,26, 9,21		4,18,36,59,52	
		23,19,21,16,15,57,38		1,42
16″	58,57,27,28,27,26,23,42, 6,59		4,18,37, 1,34	
		23,19,16,57,38,56, 4		1,42
18″	58,57,27,51,46,43,21,21, 3, 3		4,18,37, 3,16	
		23,19,12,39, 1,52,48		1,42
20″	58,57,28,15, 5,56, 0,22,55,51		4,18,37, 4,58	
		23,19, 8,20,24,47,50		1,42
22″	58,57,28,38,25, 4,20,47,43,41		4,18,37, 6,40	
		23,19, 4, 1,47,41,10		1,42
24″	58,57,29, 1,44, 8,22,35,24,51		4,18,37, 8,22	
		23,18,59,43,10,32,48		1,42
26″	58,57,29,25, 3, 8, 5,45,57,39		4,18,37,10, 4	
		23,18,55,24,33,22,44		1,42
28″	58,57,29,48,22, 3,30,19,20,23		4,18,37,11,46	
		23,18,51, 5,56,10,58		1,42
30″	58,57,30,11,40,54,36,15,31,21		4,18,37,13,28	
		23,18,46,47,18,57,30		1,42
32″	58,57,30,34,59,41,23,34,28,51		4,18,37,15,10	
		23,18,42,28,41,42,20		1,42
34″	58,57,30,58,18,23,52,16,11,11		4,18,37,16,52	
		23,18,38,10, 4,25,28		1,42
36″	58,57,31,21,37, 2, 2,20,36,39		4,18,37,18,34	
		23,18,33,51,27, 6,54		1,42
38″	58,57,31,44,55,35,53,47,43,33		4,18,37,20,16	
		23,18,29,32,49,46,38		1,42
40″	58,57,32, 8,14, 5,26,37,30,11		4,18,37,21,58	
		23,18,25,14,12,24,40		1,42
42″	58,57,32,31,32,30,40,49,54,51		4,18,37,23,40	
		23,18,20,55,35, 1, 0		1,42
44″	58,57,32,54,50,51,36,24,55,51		4,18,37,25,22	
		23,18,16,36,57,35,38		1,42
46″	58,57,33,18, 9, 8,13,22,31,29		4,18,37,27, 4	
		23,18,12,18,20, 8,34		1,42
48″	58,57,33,41,27,20,31,42,40, 3		4,18,37,28,46	
		23,18, 7,59,42,39,48		1,42
50″	58,57,34, 4,45,28,31,25,19,51		4,18,37,30,28	
		23,18, 3,41, 5, 9,20		1,42
52″	58,57,34,28, 3,32,12,30,29,11		4,18,37,32,10	
		23,17,59,22,27,37,10		1,42
54″	58,57,34,51,21,31,34,58, 6,21		4,18,37,33,52	
		23,17,55, 3,50, 3,18		1,42
56″	58,57,35,14,39,26,38,48, 9,39		4,18,37,35,34	
		23,17,50,45,12,27,44		1,42
58″	58,57,35,37,57,17,24, 0,37,23		4,18,37,37,16	
		23,17,46,26,34,50,28		
60″	58,57,36, 1,15, 3,50,35,27,51			
exact	58,57,36, 1,15, 3,50,35, 8,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°19′ 0″	58,57,36, 1,15, 3,50,35, 8,12			
		23,17,42, 7,57, 9,28		
2″	58,57,36,24,32,45,58,32,17,40		4,18,37,40,48	
		23,17,37,49,19,28,40		1,42
4″	58,57,36,47,50,23,47,51,46,20		4,18,37,42,30	
		23,17,33,30,41,46,10		1,42
6″	58,57,37,11, 7,57,18,33,32,30		4,18,37,44,12	
		23,17,29,12, 4, 1,58		1,42
8″	58,57,37,34,25,26,30,37,34,28		4,18,37,45,54	
		23,17,24,53,26,16, 4		1,42
10″	58,57,37,57,42,51,24, 3,50,32		4,18,37,47,36	
		23,17,20,34,48,28,28		1,42
12″	58,57,38,21, 0,11,58,52,19, 0		4,18,37,49,18	
		23,17,16,16,10,39,10		1,42
14″	58,57,38,44,17,28,15, 2,58,10		4,18,37,51, 0	
		23,17,11,57,32,48,10		1,42
16″	58,57,39, 7,34,40,12,35,46,20		4,18,37,52,42	
		23,17, 7,38,54,55,28		1,42
18″	58,57,39,30,51,47,51,30,41,48		4,18,37,54,24	
		23,17, 3,20,17, 1, 4		1,42
20″	58,57,39,54, 8,51,11,47,42,52		4,18,37,56, 6	
		23,16,59, 1,39, 4,58		1,42
22″	58,57,40,17,25,50,13,26,47,50		4,18,37,57,48	
		23,16,54,43, 1, 7,10		1,42
24″	58,57,40,40,42,44,56,27,55, 0		4,18,37,59,30	
		23,16,50,24,23, 7,40		1,42
26″	58,57,41, 3,59,35,20,51, 2,40		4,18,38, 1,12	
		23,16,46, 5,45, 6,28		1,42
28″	58,57,41,27,16,21,26,36, 9, 8		4,18,38, 2,54	
		23,16,41,47, 7, 3,34		1,42
30″	58,57,41,50,33, 3,13,43,12,42		4,18,38, 4,36	
		23,16,37,28,28,58,58		1,42
32″	58,57,42,13,49,40,42,12,11,40		4,18,38, 6,18	
		23,16,33, 9,50,52,40		1,42
34″	58,57,42,37, 6,13,52, 3, 4,20		4,18,38, 8, 0	
		23,16,28,51,12,44,40		1,42
36″	58,57,43, 0,22,42,43,15,49, 0		4,18,38, 9,42	
		23,16,24,32,34,34,58		1,42
38″	58,57,43,23,39, 7,15,50,23,58		4,18,38,11,24	
		23,16,20,13,56,23,34		1,42
40″	58,57,43,46,55,27,29,46,47,32		4,18,38,13, 6	
		23,16,15,55,18,10,28		1,42
42″	58,57,44,10,11,43,25, 4,58, 0		4,18,38,14,48	
		23,16,11,36,39,55,40		1,42
44″	58,57,44,33,27,55, 1,44,53,40		4,18,38,16,30	
		23,16, 7,18, 1,39,10		1,42
46″	58,57,44,56,44, 2,19,46,32,50		4,18,38,18,12	
		23,16, 2,59,23,20,58		1,42
48″	58,57,45,20, 0, 5,19, 9,53,48		4,18,38,19,54	
		23,15,58,40,45, 1, 4		1,42
50″	58,57,45,43,16, 3,59,54,54,52		4,18,38,21,36	
		23,15,54,22, 6,39,28		1,42
52″	58,57,46, 6,31,58,22, 1,34,20		4,18,38,23,18	
		23,15,50, 3,28,16,10		1,42
54″	58,57,46,29,47,48,25,29,50,30		4,18,38,25, 0	
		23,15,45,44,49,51,10		1,42
56″	58,57,46,53, 3,34,10,19,41,40		4,18,38,26,42	
		23,15,41,26,11,24,28		1,42
58″	58,57,47,16,19,15,36,31, 6, 8		4,18,38,28,24	
		23,15,37, 7,32,56, 4		
60″	58,57,47,39,34,52,44, 4, 2,12			
exact	58,57,47,39,34,52,44, 3,54,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°20′ 0″	58,57,47,39,34,52,44, 3,54,27			
		23,15,32,48,54,25,10		
2″	58,57,48, 2,50,25,32,58,19,37		4,18,38,31,51	
		23,15,28,30,15,53,19		1,42
4″	58,57,48,26, 5,54, 3,14,12,56		4,18,38,33,33	
		23,15,24,11,37,19,46		1,42
6″	58,57,48,49,21,18,14,51,32,42		4,18,38,35,15	
		23,15,19,52,58,44,31		1,42
8″	58,57,49,12,36,38, 7,50,17,13		4,18,38,36,57	
		23,15,15,34,20, 7,34		1,42
10″	58,57,49,35,51,53,42,10,24,47		4,18,38,38,39	
		23,15,11,15,41,28,55		1,42
12″	58,57,49,59, 7, 4,57,51,53,42		4,18,38,40,21	
		23,15, 6,57, 2,48,34		1,42
14″	58,57,50,22,22,11,54,54,42,16		4,18,38,42, 3	
		23,15, 2,38,24, 6,31		1,42
16″	58,57,50,45,37,14,33,18,48,47		4,18,38,43,45	
		23,14,58,19,45,22,46		1,42
18″	58,57,51, 8,52,12,53, 4,11,33		4,18,38,45,27	
		23,14,54, 1, 6,37,19		1,42
20″	58,57,51,32, 7, 6,54,10,48,52		4,18,38,47, 9	
		23,14,49,42,27,50,10		1,42
22″	58,57,51,55,21,56,36,38,39, 2		4,18,38,48,51	
		23,14,45,23,49, 1,19		1,42
24″	58,57,52,18,36,42, 0,27,40,21		4,18,38,50,33	
		23,14,41, 5,10,10,46		1,42
26″	58,57,52,41,51,23, 5,37,51, 7		4,18,38,52,15	
		23,14,36,46,31,18,31		1,42
28″	58,57,53, 5, 5,59,52, 9, 9,38		4,18,38,53,57	
		23,14,32,27,52,24,34		1,42
30″	58,57,53,28,20,32,20, 1,34,12		4,18,38,55,39	
		23,14,28, 9,13,28,55		1,42
32″	58,57,53,51,35, 0,29,15, 3, 7		4,18,38,57,21	
		23,14,23,50,34,31,34		1,42
34″	58,57,54,14,49,24,19,49,34,41		4,18,38,59, 3	
		23,14,19,31,55,32,31		1,42
36″	58,57,54,38, 3,43,51,45, 7,12		4,18,39, 0,45	
		23,14,15,13,16,31,46		1,42
38″	58,57,55, 1,17,59, 5, 1,38,58		4,18,39, 2,27	
		23,14,10,54,37,29,19		1,42
40″	58,57,55,24,32, 9,59,39, 8,17		4,18,39, 4, 9	
		23,14, 6,35,58,25,10		1,42
42″	58,57,55,47,46,16,35,37,33,27		4,18,39, 5,51	
		23,14, 2,17,19,19,19		1,42
44″	58,57,56,11, 0,18,52,56,52,46		4,18,39, 7,33	
		23,13,57,58,40,11,46		1,42
46″	58,57,56,34,14,16,51,37, 4,32		4,18,39, 9,15	
		23,13,53,40, 1, 2,31		1,42
48″	58,57,56,57,28,10,31,38, 7, 3		4,18,39,10,57	
		23,13,49,21,21,51,34		1,42
50″	58,57,57,20,41,59,52,59,58,37		4,18,39,12,39	
		23,13,45, 2,42,38,55		1,42
52″	58,57,57,43,55,44,55,42,37,32		4,18,39,14,21	
		23,13,40,44, 3,24,34		1,42
54″	58,57,58, 7, 9,25,39,46, 2, 6		4,18,39,16, 3	
		23,13,36,25,24, 8,31		1,42
56″	58,57,58,30,23, 2, 5,10,10,37		4,18,39,17,45	
		23,13,32, 6,44,50,46		1,42
58″	58,57,58,53,36,34,11,55, 1,23		4,18,39,19,27	
		23,13,27,48, 5,31,19		
60″	58,57,59,16,50, 2, 0, 0,32,42			
exact	58,57,59,16,50, 2, 0, 0,35,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°21′ 0″	58,57,59,16,50, 2, 0, 0,35,17			
		23,13,23,29,26,10,29		
2″	58,57,59,40, 3,25,29,26,45,46		4,18,39,22,49	
		23,13,19,10,46,47,40		1,42
4″	58,58, 0, 3,16,44,40,13,33,26		4,18,39,24,31	
		23,13,14,52, 7,23, 9		1,42
6″	58,58, 0,26,29,59,32,20,56,35		4,18,39,26,13	
		23,13,10,33,27,56,56		1,42
8″	58,58, 0,49,43,10, 5,48,53,31		4,18,39,27,55	
		23,13, 6,14,48,29, 1		1,42
10″	58,58, 1,12,56,16,20,37,22,32		4,18,39,29,37	
		23,13, 1,56, 8,59,24		1,42
12″	58,58, 1,36, 9,18,16,46,21,56		4,18,39,31,19	
		23,12,57,37,29,28, 5		1,42
14″	58,58, 1,59,22,15,54,15,50, 1		4,18,39,33, 1	
		23,12,53,18,49,55, 4		1,42
16″	58,58, 2,22,35, 9,13, 5,45, 5		4,18,39,34,43	
		23,12,49, 0,10,20,21		1,42
18″	58,58, 2,45,47,58,13,16, 5,26		4,18,39,36,25	
		23,12,44,41,30,43,56		1,42
20″	58,58, 3, 9, 0,42,54,46,49,22		4,18,39,38, 7	
		23,12,40,22,51, 5,49		1,42
22″	58,58, 3,32,13,23,17,37,55,11		4,18,39,39,49	
		23,12,36, 4,11,26, 0		1,42
24″	58,58, 3,55,25,59,21,49,21,11		4,18,39,41,31	
		23,12,31,45,31,44,29		1,42
26″	58,58, 4,18,38,31, 7,21, 5,40		4,18,39,43,13	
		23,12,27,26,52, 1,16		1,42
28″	58,58, 4,41,50,58,34,13, 6,56		4,18,39,44,55	
		23,12,23, 8,12,16,21		1,42
30″	58,58, 5, 5, 3,21,42,25,23,17		4,18,39,46,37	
		23,12,18,49,32,29,44		1,42
32″	58,58, 5,28,15,40,31,57,53, 1		4,18,39,48,19	
		23,12,14,30,52,41,25		1,42
34″	58,58, 5,51,27,55, 2,50,34,26		4,18,39,50, 1	
		23,12,10,12,12,51,24		1,42
36″	58,58, 6,14,40, 5,15, 3,25,50		4,18,39,51,43	
		23,12, 5,53,32,59,41		1,42
38″	58,58, 6,37,52,11, 8,36,25,31		4,18,39,53,25	
		23,12, 1,34,53, 6,16		1,42
40″	58,58, 7, 1, 4,12,43,29,31,47		4,18,39,55, 7	
		23,11,57,16,13,11, 9		1,42
42″	58,58, 7,24,16, 9,59,42,42,56		4,18,39,56,49	
		23,11,52,57,33,14,20		1,42
44″	58,58, 7,47,28, 2,57,15,57,16		4,18,39,58,31	
		23,11,48,38,53,15,49		1,42
46″	58,58, 8,10,39,51,36, 9,13, 5		4,18,40, 0,13	
		23,11,44,20,13,15,36		1,42
48″	58,58, 8,33,51,35,56,22,28,41		4,18,40, 1,55	
		23,11,40, 1,33,13,41		1,42
50″	58,58, 8,57, 3,15,57,55,42,22		4,18,40, 3,37	
		23,11,35,42,53,10, 4		1,42
52″	58,58, 9,20,14,51,40,48,52,26		4,18,40, 5,19	
		23,11,31,24,13, 4,45		1,42
54″	58,58, 9,43,26,23, 5, 1,57,11		4,18,40, 7, 1	
		23,11,27, 5,32,57,44		1,42
56″	58,58,10, 6,37,50,10,34,54,55		4,18,40, 8,43	
		23,11,22,46,52,49, 1		1,42
58″	58,58,10,29,49,12,57,27,43,56		4,18,40,10,25	
		23,11,18,28,12,38,36		
60″	58,58,10,53, 0,31,25,40,22,32			
exact	58,58,10,53, 0,31,25,40,33,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°22′ 0″	58,58,10,53, 0,31,25,40,33,20			
		23,11,14, 9,32,27,46		
2″	58,58,11,16,11,45,35,13, 1, 6		4,18,40,13,43	
		23,11, 9,50,52,14, 3		1,42
4″	58,58,11,39,22,55,26, 5,15, 9		4,18,40,15,25	
		23,11, 5,32,11,58,38		1,42
6″	58,58,12, 2,34, 0,58,17,13,47		4,18,40,17, 7	
		23,11, 1,13,31,41,31		1,42
8″	58,58,12,25,45, 2,11,48,55,18		4,18,40,18,49	
		23,10,56,54,51,22,42		1,42
10″	58,58,12,48,55,59, 6,40,18, 0		4,18,40,20,31	
		23,10,52,36,11, 2,11		1,42
12″	58,58,13,12, 6,51,42,51,20,11		4,18,40,22,13	
		23,10,48,17,30,39,58		1,42
14″	58,58,13,35,17,40, 0,22, 0, 9		4,18,40,23,55	
		23,10,43,58,50,16, 3		1,42
16″	58,58,13,58,28,23,59,12,16,12		4,18,40,25,37	
		23,10,39,40, 9,50,26		1,42
18″	58,58,14,21,39, 3,39,22, 6,38		4,18,40,27,19	
		23,10,35,21,29,23, 7		1,42
20″	58,58,14,44,49,39, 0,51,29,45		4,18,40,29, 1	
		23,10,31, 2,48,54, 6		1,42
22″	58,58,15, 8, 0,10, 3,40,23,51		4,18,40,30,43	
		23,10,26,44, 8,23,23		1,42
24″	58,58,15,31,10,36,47,48,47,14		4,18,40,32,25	
		23,10,22,25,27,50,58		1,42
26″	58,58,15,54,20,59,13,16,38,12		4,18,40,34, 7	
		23,10,18, 6,47,16,51		1,42
28″	58,58,16,17,31,17,20, 3,55, 3		4,18,40,35,49	
		23,10,13,48, 6,41, 2		1,42
30″	58,58,16,40,41,31, 8,10,36, 5		4,18,40,37,31	
		23,10, 9,29,26, 3,31		1,42
32″	58,58,17, 3,51,40,37,36,39,36		4,18,40,39,13	
		23,10, 5,10,45,24,18		1,42
34″	58,58,17,27, 1,45,48,22, 3,54		4,18,40,40,55	
		23,10, 0,52, 4,43,23		1,42
36″	58,58,17,50,11,46,40,26,47,17		4,18,40,42,37	
		23, 9,56,33,24, 0,46		1,42
38″	58,58,18,13,21,43,13,50,48, 3		4,18,40,44,19	
		23, 9,52,14,43,16,27		1,42
40″	58,58,18,36,31,35,28,34, 4,30		4,18,40,46, 1	
		23, 9,47,56, 2,30,26		1,42
42″	58,58,18,59,41,23,24,36,34,56		4,18,40,47,43	
		23, 9,43,37,21,42,43		1,42
44″	58,58,19,22,51, 7, 1,58,17,39		4,18,40,49,25	
		23, 9,39,18,40,53,18		1,42
46″	58,58,19,46, 0,46,20,39,10,57		4,18,40,51, 7	
		23, 9,35, 0, 0, 2,11		1,42
48″	58,58,20, 9,10,21,20,39,13, 8		4,18,40,52,49	
		23, 9,30,41,19, 9,22		1,42
50″	58,58,20,32,19,52, 1,58,22,30		4,18,40,54,31	
		23, 9,26,22,38,14,51		1,42
52″	58,58,20,55,29,18,24,36,37,21		4,18,40,56,13	
		23, 9,22, 3,57,18,38		1,42
54″	58,58,21,18,38,40,28,33,55,59		4,18,40,57,55	
		23, 9,17,45,16,20,43		1,42
56″	58,58,21,41,47,58,13,50,16,42		4,18,40,59,37	
		23, 9,13,26,35,21, 6		1,42
58″	58,58,22, 4,57,11,40,25,37,48		4,18,41, 1,19	
		23, 9, 9, 7,54,19,47		
60″	58,58,22,28, 6,20,48,19,57,35			
exact	58,58,22,28, 6,20,48,20,22, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°23′ 0″	58,58,22,28, 6,20,48,20,22, 9			
		23, 9, 4,49,13,19,24		
2″	58,58,22,51,15,25,37,33,41,33		4,18,41, 4,32	
		23, 9, 0,30,32,14,52		1,42
4″	58,58,23,14,24,26, 8, 5,56,25		4,18,41, 6,14	
		23, 8,56,11,51, 8,38		1,42
6″	58,58,23,37,33,22,19,57, 5, 3		4,18,41, 7,56	
		23, 8,51,53,10, 0,42		1,42
8″	58,58,24, 0,42,14,13, 7, 5,45		4,18,41, 9,38	
		23, 8,47,34,28,51, 4		1,42
10″	58,58,24,23,51, 1,47,35,56,49		4,18,41,11,20	
		23, 8,43,15,47,39,44		1,42
12″	58,58,24,46,59,45, 3,23,36,33		4,18,41,13, 2	
		23, 8,38,57, 6,26,42		1,42
14″	58,58,25,10, 8,24, 0,30, 3,15		4,18,41,14,44	
		23, 8,34,38,25,11,58		1,42
16″	58,58,25,33,16,58,38,55,15,13		4,18,41,16,26	
		23, 8,30,19,43,55,32		1,42
18″	58,58,25,56,25,28,58,39,10,45		4,18,41,18, 8	
		23, 8,26, 1, 2,37,24		1,42
20″	58,58,26,19,33,54,59,41,48, 9		4,18,41,19,50	
		23, 8,21,42,21,17,34		1,42
22″	58,58,26,42,42,16,42, 3, 5,43		4,18,41,21,32	
		23, 8,17,23,39,56, 2		1,42
24″	58,58,27, 5,50,34, 5,43, 1,45		4,18,41,23,14	
		23, 8,13, 4,58,32,48		1,42
26″	58,58,27,28,58,47,10,41,34,33		4,18,41,24,56	
		23, 8, 8,46,17, 7,52		1,42
28″	58,58,27,52, 6,55,56,58,42,25		4,18,41,26,38	
		23, 8, 4,27,35,41,14		1,42
30″	58,58,28,15,15, 0,24,34,23,39		4,18,41,28,20	
		23, 8, 0, 8,54,12,54		1,42
32″	58,58,28,38,23, 0,33,28,36,33		4,18,41,30, 2	
		23, 7,55,50,12,42,52		1,42
34″	58,58,29, 1,30,56,23,41,19,25		4,18,41,31,44	
		23, 7,51,31,31,11, 8		1,42
36″	58,58,29,24,38,47,55,12,30,33		4,18,41,33,26	
		23, 7,47,12,49,37,42		1,42
38″	58,58,29,47,46,35, 8, 2, 8,15		4,18,41,35, 8	
		23, 7,42,54, 8, 2,34		1,42
40″	58,58,30,10,54,18, 2,10,10,49		4,18,41,36,50	
		23, 7,38,35,26,25,44		1,42
42″	58,58,30,34, 1,56,37,36,36,33		4,18,41,38,32	
		23, 7,34,16,44,47,12		1,42
44″	58,58,30,57, 9,30,54,21,23,45		4,18,41,40,14	
		23, 7,29,58, 3, 6,58		1,42
46″	58,58,31,20,17, 0,52,24,30,43		4,18,41,41,56	
		23, 7,25,39,21,25, 2		1,42
48″	58,58,31,43,24,26,31,45,55,45		4,18,41,43,38	
		23, 7,21,20,39,41,24		1,42
50″	58,58,32, 6,31,47,52,25,37, 9		4,18,41,45,20	
		23, 7,17, 1,57,56, 4		1,42
52″	58,58,32,29,39, 4,54,23,33,13		4,18,41,47, 2	
		23, 7,12,43,16, 9, 2		1,42
54″	58,58,32,52,46,17,37,39,42,15		4,18,41,48,44	
		23, 7, 8,24,34,20,18		1,42
56″	58,58,33,15,53,26, 2,14, 2,33		4,18,41,50,26	
		23, 7, 4, 5,52,29,52		1,42
58″	58,58,33,39, 0,30, 8, 6,32,25		4,18,41,52, 8	
		23, 6,59,47,10,37,44		
60″	58,58,34, 2, 7,29,55,17,10, 9			
exact	58,58,34, 2, 7,29,55,17,46,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°24′ 0″	58,58,34, 2, 7,29,55,17,46,10			
		23, 6,55,28,28,47,44		
2″	58,58,34,25,14,25,23,46,33,54		4,18,41,55,16	
		23, 6,51, 9,46,52,28		1,41
4″	58,58,34,48,21,16,33,33,26,22		4,18,41,56,57	
		23, 6,46,51, 4,55,31		1,41
6″	58,58,35,11,28, 3,24,38,21,53		4,18,41,58,38	
		23, 6,42,32,22,56,53		1,41
8″	58,58,35,34,34,45,57, 1,18,46		4,18,42, 0,19	
		23, 6,38,13,40,56,34		1,41
10″	58,58,35,57,41,24,10,42,15,20		4,18,42, 2, 0	
		23, 6,33,54,58,54,34		1,41
12″	58,58,36,20,47,58, 5,41, 9,54		4,18,42, 3,41	
		23, 6,29,36,16,50,53		1,41
14″	58,58,36,43,54,27,41,58, 0,47		4,18,42, 5,22	
		23, 6,25,17,34,45,31		1,41
16″	58,58,37, 7, 0,52,59,32,46,18		4,18,42, 7, 3	
		23, 6,20,58,52,38,28		1,41
18″	58,58,37,30, 7,13,58,25,24,46		4,18,42, 8,44	
		23, 6,16,40,10,29,44		1,41
20″	58,58,37,53,13,30,38,35,54,30		4,18,42,10,25	
		23, 6,12,21,28,19,19		1,41
22″	58,58,38,16,19,43, 0, 4,13,49		4,18,42,12, 6	
		23, 6, 8, 2,46, 7,13		1,41
24″	58,58,38,39,25,51, 2,50,21, 2		4,18,42,13,47	
		23, 6, 3,44, 3,53,26		1,41
26″	58,58,39, 2,31,54,46,54,14,28		4,18,42,15,28	
		23, 5,59,25,21,37,58		1,41
28″	58,58,39,25,37,54,12,15,52,26		4,18,42,17, 9	
		23, 5,55, 6,39,20,49		1,41
30″	58,58,39,48,43,49,18,55,13,15		4,18,42,18,50	
		23, 5,50,47,57, 1,59		1,41
32″	58,58,40,11,49,40, 6,52,15,14		4,18,42,20,31	
		23, 5,46,29,14,41,28		1,41
34″	58,58,40,34,55,26,36, 6,56,42		4,18,42,22,12	
		23, 5,42,10,32,19,16		1,41
36″	58,58,40,58, 1, 8,46,39,15,58		4,18,42,23,53	
		23, 5,37,51,49,55,23		1,41
38″	58,58,41,21, 6,46,38,29,11,21		4,18,42,25,34	
		23, 5,33,33, 7,29,49		1,41
40″	58,58,41,44,12,20,11,36,41,10		4,18,42,27,15	
		23, 5,29,14,25, 2,34		1,41
42″	58,58,42, 7,17,49,26, 1,43,44		4,18,42,28,56	
		23, 5,24,55,42,33,38		1,41
44″	58,58,42,30,23,14,21,44,17,22		4,18,42,30,37	
		23, 5,20,37, 0, 3, 1		1,41
46″	58,58,42,53,28,34,58,44,20,23		4,18,42,32,18	
		23, 5,16,18,17,30,43		1,41
48″	58,58,43,16,33,51,17, 1,51, 6		4,18,42,33,59	
		23, 5,11,59,34,56,44		1,41
50″	58,58,43,39,39, 3,16,36,47,50		4,18,42,35,40	
		23, 5, 7,40,52,21, 4		1,41
52″	58,58,44, 2,44,10,57,29, 8,54		4,18,42,37,21	
		23, 5, 3,22, 9,43,43		1,41
54″	58,58,44,25,49,14,19,38,52,37		4,18,42,39, 2	
		23, 4,59, 3,27, 4,41		1,41
56″	58,58,44,48,54,13,23, 5,57,18		4,18,42,40,43	
		23, 4,54,44,44,23,58		1,41
58″	58,58,45,11,59, 8, 7,50,21,16		4,18,42,42,24	
		23, 4,50,26, 1,41,34		
60″	58,58,45,35, 3,58,33,52, 2,50			
exact	58,58,45,35, 3,58,33,51,40,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°25′ 0″	58,58,45,35, 3,58,33,51,40,44			
		23, 4,46, 7,18,55, 8		
2″	58,58,45,58, 8,44,41,10,35,52		4,18,42,45,55	
		23, 4,41,48,36, 9,13		1,41
4″	58,58,46,21,13,26,29,46,45, 5		4,18,42,47,36	
		23, 4,37,29,53,21,37		1,41
6″	58,58,46,44,18, 3,59,40, 6,42		4,18,42,49,17	
		23, 4,33,11,10,32,20		1,41
8″	58,58,47, 7,22,37,10,50,39, 2		4,18,42,50,58	
		23, 4,28,52,27,41,22		1,41
10″	58,58,47,30,27, 6, 3,18,20,24		4,18,42,52,39	
		23, 4,24,33,44,48,43		1,41
12″	58,58,47,53,31,30,37, 3, 9, 7		4,18,42,54,20	
		23, 4,20,15, 1,54,23		1,41
14″	58,58,48,16,35,50,52, 5, 3,30		4,18,42,56, 1	
		23, 4,15,56,18,58,22		1,41
16″	58,58,48,39,40, 6,48,24, 1,52		4,18,42,57,42	
		23, 4,11,37,36, 0,40		1,41
18″	58,58,49, 2,44,18,26, 0, 2,32		4,18,42,59,23	
		23, 4, 7,18,53, 1,17		1,41
20″	58,58,49,25,48,25,44,53, 3,49		4,18,43, 1, 4	
		23, 4, 3, 0,10, 0,13		1,41
22″	58,58,49,48,52,28,45, 3, 4, 2		4,18,43, 2,45	
		23, 3,58,41,26,57,28		1,41
24″	58,58,50,11,56,27,26,30, 1,30		4,18,43, 4,26	
		23, 3,54,22,43,53, 2		1,41
26″	58,58,50,35, 0,21,49,13,54,32		4,18,43, 6, 7	
		23, 3,50, 4, 0,46,55		1,41
28″	58,58,50,58, 4,11,53,14,41,27		4,18,43, 7,48	
		23, 3,45,45,17,39, 7		1,41
30″	58,58,51,21, 7,57,38,32,20,34		4,18,43, 9,29	
		23, 3,41,26,34,29,38		1,41
32″	58,58,51,44,11,39, 5, 6,50,12		4,18,43,11,10	
		23, 3,37, 7,51,18,28		1,41
34″	58,58,52, 7,15,16,12,58, 8,40		4,18,43,12,51	
		23, 3,32,49, 8, 5,37		1,41
36″	58,58,52,30,18,49, 2, 6,14,17		4,18,43,14,32	
		23, 3,28,30,24,51, 5		1,41
38″	58,58,52,53,22,17,32,31, 5,22		4,18,43,16,13	
		23, 3,24,11,41,34,52		1,41
40″	58,58,53,16,25,41,44,12,40,14		4,18,43,17,54	
		23, 3,19,52,58,16,58		1,41
42″	58,58,53,39,29, 1,37,10,57,12		4,18,43,19,35	
		23, 3,15,34,14,57,23		1,41
44″	58,58,54, 2,32,17,11,25,54,35		4,18,43,21,16	
		23, 3,11,15,31,36, 7		1,41
46″	58,58,54,25,35,28,26,57,30,42		4,18,43,22,57	
		23, 3, 6,56,48,13,10		1,41
48″	58,58,54,48,38,35,23,45,43,52		4,18,43,24,38	
		23, 3, 2,38, 4,48,32		1,41
50″	58,58,55,11,41,38, 1,50,32,24		4,18,43,26,19	
		23, 2,58,19,21,22,13		1,41
52″	58,58,55,34,44,36,21,11,54,37		4,18,43,28, 0	
		23, 2,54, 0,37,54,13		1,41
54″	58,58,55,57,47,30,21,49,48,50		4,18,43,29,41	
		23, 2,49,41,54,24,32		1,41
56″	58,58,56,20,50,20, 3,44,13,22		4,18,43,31,22	
		23, 2,45,23,10,53,10		1,41
58″	58,58,56,43,53, 5,26,55, 6,32		4,18,43,33, 3	
		23, 2,41, 4,27,20, 7		
60″	58,58,57, 6,55,46,31,22,26,39			
exact	58,58,57, 6,55,46,31,22,12,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°26′ 0″	58,58,57, 6,55,46,31,22,12,11			
		23, 2,36,45,43,43,58		
2″	58,58,57,29,58,23,17, 5,56, 9		4,18,43,36,30	
		23, 2,32,27, 0, 7,28		1,41
4″	58,58,57,53, 0,55,44, 6, 3,37		4,18,43,38,11	
		23, 2,28, 8,16,29,17		1,41
6″	58,58,58,16, 3,23,52,22,32,54		4,18,43,39,52	
		23, 2,23,49,32,49,25		1,41
8″	58,58,58,39, 5,47,41,55,22,19		4,18,43,41,33	
		23, 2,19,30,49, 7,52		1,41
10″	58,58,59, 2, 8, 7,12,44,30,11		4,18,43,43,14	
		23, 2,15,12, 5,24,38		1,41
12″	58,58,59,25,10,22,24,49,54,49		4,18,43,44,55	
		23, 2,10,53,21,39,43		1,41
14″	58,58,59,48,12,33,18,11,34,32		4,18,43,46,36	
		23, 2, 6,34,37,53, 7		1,41
16″	58,59, 0,11,14,39,52,49,27,39		4,18,43,48,17	
		23, 2, 2,15,54, 4,50		1,41
18″	58,59, 0,34,16,42, 8,43,32,29		4,18,43,49,58	
		23, 1,57,57,10,14,52		1,41
20″	58,59, 0,57,18,40, 5,53,47,21		4,18,43,51,39	
		23, 1,53,38,26,23,13		1,41
22″	58,59, 1,20,20,33,44,20,10,34		4,18,43,53,20	
		23, 1,49,19,42,29,53		1,41
24″	58,59, 1,43,22,23, 4, 2,40,27		4,18,43,55, 1	
		23, 1,45, 0,58,34,52		1,41
26″	58,59, 2, 6,24, 8, 5, 1,15,19		4,18,43,56,42	
		23, 1,40,42,14,38,10		1,41
28″	58,59, 2,29,25,48,47,15,53,29		4,18,43,58,23	
		23, 1,36,23,30,39,47		1,41
30″	58,59, 2,52,27,25,10,46,33,16		4,18,44, 0, 4	
		23, 1,32, 4,46,39,43		1,41
32″	58,59, 3,15,28,57,15,33,12,59		4,18,44, 1,45	
		23, 1,27,46, 2,37,58		1,41
34″	58,59, 3,38,30,25, 1,35,50,57		4,18,44, 3,26	
		23, 1,23,27,18,34,32		1,41
36″	58,59, 4, 1,31,48,28,54,25,29		4,18,44, 5, 7	
		23, 1,19, 8,34,29,25		1,41
38″	58,59, 4,24,33, 7,37,28,54,54		4,18,44, 6,48	
		23, 1,14,49,50,22,37		1,41
40″	58,59, 4,47,34,22,27,19,17,31		4,18,44, 8,29	
		23, 1,10,31, 6,14, 8		1,41
42″	58,59, 5,10,35,32,58,25,31,39		4,18,44,10,10	
		23, 1, 6,12,22, 3,58		1,41
44″	58,59, 5,33,36,39,10,47,35,37		4,18,44,11,51	
		23, 1, 1,53,37,52, 7		1,41
46″	58,59, 5,56,37,41, 4,25,27,44		4,18,44,13,32	
		23, 0,57,34,53,38,35		1,41
48″	58,59, 6,19,38,38,39,19, 6,19		4,18,44,15,13	
		23, 0,53,16, 9,23,22		1,41
50″	58,59, 6,42,39,31,55,28,29,41		4,18,44,16,54	
		23, 0,48,57,25, 6,28		1,41
52″	58,59, 7, 5,40,20,52,53,36, 9		4,18,44,18,35	
		23, 0,44,38,40,47,53		1,41
54″	58,59, 7,28,41, 5,31,34,24, 2		4,18,44,20,16	
		23, 0,40,19,56,27,37		1,41
56″	58,59, 7,51,41,45,51,30,51,39		4,18,44,21,57	
		23, 0,36, 1,12, 5,40		1,41
58″	58,59, 8,14,42,21,52,42,57,19		4,18,44,23,38	
		23, 0,31,42,27,42, 2		
60″	58,59, 8,37,42,53,35,10,39,21			
exact	58,59, 8,37,42,53,35,10,37,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°27′ 0″	58,59, 8,37,42,53,35,10,37,41			
		23, 0,27,23,43,16,36		
2″	58,59, 9, 0,43,20,58,53,54,17		4,18,44,27, 0	
		23, 0,23, 4,58,49,36		1,41
4″	58,59, 9,23,43,44, 3,52,43,53		4,18,44,28,41	
		23, 0,18,46,14,20,55		1,41
6″	58,59, 9,46,44, 2,50, 7, 4,48		4,18,44,30,22	
		23, 0,14,27,29,50,33		1,41
8″	58,59,10, 9,44,17,17,36,55,21		4,18,44,32, 3	
		23, 0,10, 8,45,18,30		1,41
10″	58,59,10,32,44,27,26,22,13,51		4,18,44,33,44	
		23, 0, 5,50, 0,44,46		1,41
12″	58,59,10,55,44,33,16,22,58,37		4,18,44,35,25	
		23, 0, 1,31,16, 9,21		1,41
14″	58,59,11,18,44,34,47,39, 7,58		4,18,44,37, 6	
		22,59,57,12,31,32,15		1,41
16″	58,59,11,41,44,32, 0,10,40,13		4,18,44,38,47	
		22,59,52,53,46,53,28		1,41
18″	58,59,12, 4,44,24,53,57,33,41		4,18,44,40,28	
		22,59,48,35, 2,13, 0		1,41
20″	58,59,12,27,44,13,28,59,46,41		4,18,44,42, 9	
		22,59,44,16,17,30,51		1,41
22″	58,59,12,50,43,57,45,17,17,32		4,18,44,43,50	
		22,59,39,57,32,47, 1		1,41
24″	58,59,13,13,43,37,42,50, 4,33		4,18,44,45,31	
		22,59,35,38,48, 1,30		1,41
26″	58,59,13,36,43,13,21,38, 6, 3		4,18,44,47,12	
		22,59,31,20, 3,14,18		1,41
28″	58,59,13,59,42,44,41,41,20,21		4,18,44,48,53	
		22,59,27, 1,18,25,25		1,41
30″	58,59,14,22,42,11,42,59,45,46		4,18,44,50,34	
		22,59,22,42,33,34,51		1,41
32″	58,59,14,45,41,34,25,33,20,37		4,18,44,52,15	
		22,59,18,23,48,42,36		1,41
34″	58,59,15, 8,40,52,49,22, 3,13		4,18,44,53,56	
		22,59,14, 5, 3,48,40		1,41
36″	58,59,15,31,40, 6,54,25,51,53		4,18,44,55,37	
		22,59, 9,46,18,53, 3		1,41
38″	58,59,15,54,39,16,40,44,44,56		4,18,44,57,18	
		22,59, 5,27,33,55,45		1,41
40″	58,59,16,17,38,22, 8,18,40,41		4,18,44,58,59	
		22,59, 1, 8,48,56,46		1,41
42″	58,59,16,40,37,23,17, 7,37,27		4,18,45, 0,40	
		22,58,56,50, 3,56, 6		1,41
44″	58,59,17, 3,36,20, 7,11,33,33		4,18,45, 2,21	
		22,58,52,31,18,53,45		1,41
46″	58,59,17,26,35,12,38,30,27,18		4,18,45, 4, 2	
		22,58,48,12,33,49,43		1,41
48″	58,59,17,49,34, 0,51, 4,17, 1		4,18,45, 5,43	
		22,58,43,53,48,44, 0		1,41
50″	58,59,18,12,32,44,44,53, 1, 1		4,18,45, 7,24	
		22,58,39,35, 3,36,36		1,41
52″	58,59,18,35,31,24,19,56,37,37		4,18,45, 9, 5	
		22,58,35,16,18,27,31		1,41
54″	58,59,18,58,29,59,36,15, 5, 8		4,18,45,10,46	
		22,58,30,57,33,16,45		1,41
56″	58,59,19,21,28,30,33,48,21,53		4,18,45,12,27	
		22,58,26,38,48, 4,18		1,41
58″	58,59,19,44,26,57,12,36,26,11		4,18,45,14, 8	
		22,58,22,20, 2,50,10		
60″	58,59,20, 7,25,19,32,39,16,21			
exact	58,59,20, 7,25,19,32,39,25,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°28′ 0″	58,59,20, 7,25,19,32,39,25,26			
		22,58,18, 1,17,35,23		
2″	58,59,20,30,23,37,33,57, 0,49		4,18,45,17,25	
		22,58,13,42,32,17,58		1,41
4″	58,59,20,53,21,51,16,29,18,47		4,18,45,19, 6	
		22,58, 9,23,46,58,52		1,41
6″	58,59,21,16,20, 0,40,16,17,39		4,18,45,20,47	
		22,58, 5, 5, 1,38, 5		1,41
8″	58,59,21,39,18, 5,45,17,55,44		4,18,45,22,28	
		22,58, 0,46,16,15,37		1,41
10″	58,59,22, 2,16, 6,31,34,11,21		4,18,45,24, 9	
		22,57,56,27,30,51,28		1,41
12″	58,59,22,25,14, 2,59, 5, 2,49		4,18,45,25,50	
		22,57,52, 8,45,25,38		1,41
14″	58,59,22,48,11,55, 7,50,28,27		4,18,45,27,31	
		22,57,47,49,59,58, 7		1,41
16″	58,59,23,11, 9,42,57,50,26,34		4,18,45,29,12	
		22,57,43,31,14,28,55		1,41
18″	58,59,23,34, 7,26,29, 4,55,29		4,18,45,30,53	
		22,57,39,12,28,58, 2		1,41
20″	58,59,23,57, 5, 5,41,33,53,31		4,18,45,32,34	
		22,57,34,53,43,25,28		1,41
22″	58,59,24,20, 2,40,35,17,18,59		4,18,45,34,15	
		22,57,30,34,57,51,13		1,41
24″	58,59,24,43, 0,11,10,15,10,12		4,18,45,35,56	
		22,57,26,16,12,15,17		1,41
26″	58,59,25, 5,57,37,26,27,25,29		4,18,45,37,37	
		22,57,21,57,26,37,40		1,41
28″	58,59,25,28,54,59,23,54, 3, 9		4,18,45,39,18	
		22,57,17,38,40,58,22		1,41
30″	58,59,25,51,52,17, 2,35, 1,31		4,18,45,40,59	
		22,57,13,19,55,17,23		1,41
32″	58,59,26,14,49,30,22,30,18,54		4,18,45,42,40	
		22,57, 9, 1, 9,34,43		1,41
34″	58,59,26,37,46,39,23,39,53,37		4,18,45,44,21	
		22,57, 4,42,23,50,22		1,41
36″	58,59,27, 0,43,44, 6, 3,43,59		4,18,45,46, 2	
		22,57, 0,23,38, 4,20		1,41
38″	58,59,27,23,40,44,29,41,48,19		4,18,45,47,43	
		22,56,56, 4,52,16,37		1,41
40″	58,59,27,46,37,40,34,34, 4,56		4,18,45,49,24	
		22,56,51,46, 6,27,13		1,41
42″	58,59,28, 9,34,32,20,40,32, 9		4,18,45,51, 5	
		22,56,47,27,20,36, 8		1,41
44″	58,59,28,32,31,19,48, 1, 8,17		4,18,45,52,46	
		22,56,43, 8,34,43,22		1,41
46″	58,59,28,55,28, 2,56,35,51,39		4,18,45,54,27	
		22,56,38,49,48,48,55		1,41
48″	58,59,29,18,24,41,46,24,40,34		4,18,45,56, 8	
		22,56,34,31, 2,52,47		1,41
50″	58,59,29,41,21,16,17,27,33,21		4,18,45,57,49	
		22,56,30,12,16,54,58		1,41
52″	58,59,30, 4,17,46,29,44,28,19		4,18,45,59,30	
		22,56,25,53,30,55,28		1,41
54″	58,59,30,27,14,12,23,15,23,47		4,18,46, 1,11	
		22,56,21,34,44,54,17		1,41
56″	58,59,30,50,10,33,58, 0,18, 4		4,18,46, 2,52	
		22,56,17,15,58,51,25		1,41
58″	58,59,31,13, 6,51,13,59, 9,29		4,18,46, 4,33	
		22,56,12,57,12,46,52		
60″	58,59,31,36, 3, 4,11,11,56,21			
exact	58,59,31,36, 3, 4,11,12,14,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°29′ 0″	58,59,31,36, 3, 4,11,12,14,29			
		22,56, 8,38,26,42,42		
2″	58,59,31,58,59,12,49,38,57,11		4,18,46, 7,46	
		22,56, 4,19,40,34,56		1,41
4″	58,59,32,21,55,17, 9,19,32, 7		4,18,46, 9,27	
		22,56, 0, 0,54,25,29		1,41
6″	58,59,32,44,51,17,10,13,57,36		4,18,46,11, 8	
		22,55,55,42, 8,14,21		1,41
8″	58,59,33, 7,47,12,52,22,11,57		4,18,46,12,49	
		22,55,51,23,22, 1,32		1,41
10″	58,59,33,30,43, 4,15,44,13,29		4,18,46,14,30	
		22,55,47, 4,35,47, 2		1,41
12″	58,59,33,53,38,51,20,20, 0,31		4,18,46,16,11	
		22,55,42,45,49,30,51		1,41
14″	58,59,34,16,34,34, 6, 9,31,22		4,18,46,17,52	
		22,55,38,27, 3,12,59		1,41
16″	58,59,34,39,30,12,33,12,44,21		4,18,46,19,33	
		22,55,34, 8,16,53,26		1,41
18″	58,59,35, 2,25,46,41,29,37,47		4,18,46,21,14	
		22,55,29,49,30,32,12		1,41
20″	58,59,35,25,21,16,31, 0, 9,59		4,18,46,22,55	
		22,55,25,30,44, 9,17		1,41
22″	58,59,35,48,16,42, 1,44,19,16		4,18,46,24,36	
		22,55,21,11,57,44,41		1,41
24″	58,59,36,11,12, 3,13,42, 3,57		4,18,46,26,17	
		22,55,16,53,11,18,24		1,41
26″	58,59,36,34, 7,20, 6,53,22,21		4,18,46,27,58	
		22,55,12,34,24,50,26		1,41
28″	58,59,36,57, 2,32,41,18,12,47		4,18,46,29,39	
		22,55, 8,15,38,20,47		1,41
30″	58,59,37,19,57,40,56,56,33,34		4,18,46,31,20	
		22,55, 3,56,51,49,27		1,41
32″	58,59,37,42,52,44,53,48,23, 1		4,18,46,33, 1	
		22,54,59,38, 5,16,26		1,41
34″	58,59,38, 5,47,44,31,53,39,27		4,18,46,34,42	
		22,54,55,19,18,41,44		1,41
36″	58,59,38,28,42,39,51,12,21,11		4,18,46,36,23	
		22,54,51, 0,32, 5,21		1,41
38″	58,59,38,51,37,30,51,44,26,32		4,18,46,38, 4	
		22,54,46,41,45,27,17		1,41
40″	58,59,39,14,32,17,33,29,53,49		4,18,46,39,45	
		22,54,42,22,58,47,32		1,41
42″	58,59,39,37,26,59,56,28,41,21		4,18,46,41,26	
		22,54,38, 4,12, 6, 6		1,41
44″	58,59,40, 0,21,38, 0,40,47,27		4,18,46,43, 7	
		22,54,33,45,25,22,59		1,41
46″	58,59,40,23,16,11,46, 6,10,26		4,18,46,44,48	
		22,54,29,26,38,38,11		1,41
48″	58,59,40,46,10,41,12,44,48,37		4,18,46,46,29	
		22,54,25, 7,51,51,42		1,41
50″	58,59,41, 9, 5, 6,20,36,40,19		4,18,46,48,10	
		22,54,20,49, 5, 3,32		1,41
52″	58,59,41,31,59,27, 9,41,43,51		4,18,46,49,51	
		22,54,16,30,18,13,41		1,41
54″	58,59,41,54,53,43,39,59,57,32		4,18,46,51,32	
		22,54,12,11,31,22, 9		1,41
56″	58,59,42,17,47,55,51,31,19,41		4,18,46,53,13	
		22,54, 7,52,44,28,56		1,41
58″	58,59,42,40,42, 3,44,15,48,37		4,18,46,54,54	
		22,54, 3,33,57,34, 2		
60″	58,59,43, 3,36, 7,18,13,22,39			
exact	58,59,43, 3,36, 7,18,13,54,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°30′ 0″	58,59,43, 3,36, 7,18,13,54,52			
		22,53,59,15,10,40,54		
2″	58,59,43,26,30, 6,33,24,35,46		4,18,46,58, 1	
		22,53,54,56,23,42,53		1,40
4″	58,59,43,49,24, 1,29,48,18,39		4,18,46,59,41	
		22,53,50,37,36,43,12		1,40
6″	58,59,44,12,17,52, 7,25, 1,51		4,18,47, 1,21	
		22,53,46,18,49,41,51		1,40
8″	58,59,44,35,11,38,26,14,43,42		4,18,47, 3, 1	
		22,53,42, 0, 2,38,50		1,40
10″	58,59,44,58, 5,20,26,17,22,32		4,18,47, 4,41	
		22,53,37,41,15,34, 9		1,40
12″	58,59,45,20,58,58, 7,32,56,41		4,18,47, 6,21	
		22,53,33,22,28,27,48		1,40
14″	58,59,45,43,52,31,30, 1,24,29		4,18,47, 8, 1	
		22,53,29, 3,41,19,47		1,40
16″	58,59,46, 6,46, 0,33,42,44,16		4,18,47, 9,41	
		22,53,24,44,54,10, 6		1,40
18″	58,59,46,29,39,25,18,36,54,22		4,18,47,11,21	
		22,53,20,26, 6,58,45		1,40
20″	58,59,46,52,32,45,44,43,53, 7		4,18,47,13, 1	
		22,53,16, 7,19,45,44		1,40
22″	58,59,47,15,26, 1,52, 3,38,51		4,18,47,14,41	
		22,53,11,48,32,31, 3		1,40
24″	58,59,47,38,19,13,40,36, 9,54		4,18,47,16,21	
		22,53, 7,29,45,14,42		1,40
26″	58,59,48, 1,12,21,10,21,24,36		4,18,47,18, 1	
		22,53, 3,10,57,56,41		1,40
28″	58,59,48,24, 5,24,21,19,21,17		4,18,47,19,41	
		22,52,58,52,10,37, 0		1,40
30″	58,59,48,46,58,23,13,29,58,17		4,18,47,21,21	
		22,52,54,33,23,15,39		1,40
32″	58,59,49, 9,51,17,46,53,13,56		4,18,47,23, 1	
		22,52,50,14,35,52,38		1,40
34″	58,59,49,32,44, 8, 1,29, 6,34		4,18,47,24,41	
		22,52,45,55,48,27,57		1,40
36″	58,59,49,55,36,53,57,17,34,31		4,18,47,26,21	
		22,52,41,37, 1, 1,36		1,40
38″	58,59,50,18,29,35,34,18,36, 7		4,18,47,28, 1	
		22,52,37,18,13,33,35		1,40
40″	58,59,50,41,22,12,52,32, 9,42		4,18,47,29,41	
		22,52,32,59,26, 3,54		1,40
42″	58,59,51, 4,14,45,51,58,13,36		4,18,47,31,21	
		22,52,28,40,38,32,33		1,40
44″	58,59,51,27, 7,14,32,36,46, 9		4,18,47,33, 1	
		22,52,24,21,50,59,32		1,40
46″	58,59,51,49,59,38,54,27,45,41		4,18,47,34,41	
		22,52,20, 3, 3,24,51		1,40
48″	58,59,52,12,51,58,57,31,10,32		4,18,47,36,21	
		22,52,15,44,15,48,30		1,40
50″	58,59,52,35,44,14,41,46,59, 2		4,18,47,38, 1	
		22,52,11,25,28,10,29		1,40
52″	58,59,52,58,36,26, 7,15, 9,31		4,18,47,39,41	
		22,52, 7, 6,40,30,48		1,40
54″	58,59,53,21,28,33,13,55,40,19		4,18,47,41,21	
		22,52, 2,47,52,49,27		1,40
56″	58,59,53,44,20,36, 1,48,29,46		4,18,47,43, 1	
		22,51,58,29, 5, 6,26		1,40
58″	58,59,54, 7,12,34,30,53,36,12		4,18,47,44,41	
		22,51,54,10,17,21,45		
60″	58,59,54,30, 4,28,41,10,57,57			
exact	58,59,54,30, 4,28,41,10,27,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°31′ 0″	58,59,54,30, 4,28,41,10,27,33			
		22,51,49,51,29,32,21		
2″	58,59,54,52,56,18,32,39,59,54		4,18,47,48,12	
		22,51,45,32,41,44, 9		1,40
4″	58,59,55,15,48, 4, 5,21,44, 3		4,18,47,49,52	
		22,51,41,13,53,54,17		1,40
6″	58,59,55,38,39,45,19,15,38,20		4,18,47,51,32	
		22,51,36,55, 6, 2,45		1,40
8″	58,59,56, 1,31,22,14,21,41, 5		4,18,47,53,12	
		22,51,32,36,18, 9,33		1,40
10″	58,59,56,24,22,54,50,39,50,38		4,18,47,54,52	
		22,51,28,17,30,14,41		1,40
12″	58,59,56,47,14,23, 8,10, 5,19		4,18,47,56,32	
		22,51,23,58,42,18, 9		1,40
14″	58,59,57,10, 5,47, 6,52,23,28		4,18,47,58,12	
		22,51,19,39,54,19,57		1,40
16″	58,59,57,32,57, 6,46,46,43,25		4,18,47,59,52	
		22,51,15,21, 6,20, 5		1,40
18″	58,59,57,55,48,22, 7,53, 3,30		4,18,48, 1,32	
		22,51,11, 2,18,18,33		1,40
20″	58,59,58,18,39,33,10,11,22, 3		4,18,48, 3,12	
		22,51, 6,43,30,15,21		1,40
22″	58,59,58,41,30,39,53,41,37,24		4,18,48, 4,52	
		22,51, 2,24,42,10,29		1,40
24″	58,59,59, 4,21,42,18,23,47,53		4,18,48, 6,32	
		22,50,58, 5,54, 3,57		1,40
26″	58,59,59,27,12,40,24,17,51,50		4,18,48, 8,12	
		22,50,53,47, 5,55,45		1,40
28″	58,59,59,50, 3,34,11,23,47,35		4,18,48, 9,52	
		22,50,49,28,17,45,53		1,40
30″	59, 0, 0,12,54,23,39,41,33,28		4,18,48,11,32	
		22,50,45, 9,29,34,21		1,40
32″	59, 0, 0,35,45, 8,49,11, 7,49		4,18,48,13,12	
		22,50,40,50,41,21, 9		1,40
34″	59, 0, 0,58,35,49,39,52,28,58		4,18,48,14,52	
		22,50,36,31,53, 6,17		1,40
36″	59, 0, 1,21,26,26,11,45,35,15		4,18,48,16,32	
		22,50,32,13, 4,49,45		1,40
38″	59, 0, 1,44,16,58,24,50,25, 0		4,18,48,18,12	
		22,50,27,54,16,31,33		1,40
40″	59, 0, 2, 7, 7,26,19, 6,56,33		4,18,48,19,52	
		22,50,23,35,28,11,41		1,40
42″	59, 0, 2,29,57,49,54,35, 8,14		4,18,48,21,32	
		22,50,19,16,39,50, 9		1,40
44″	59, 0, 2,52,48, 9,11,14,58,23		4,18,48,23,12	
		22,50,14,57,51,26,57		1,40
46″	59, 0, 3,15,38,24, 9, 6,25,20		4,18,48,24,52	
		22,50,10,39, 3, 2, 5		1,40
48″	59, 0, 3,38,28,34,48, 9,27,25		4,18,48,26,32	
		22,50, 6,20,14,35,33		1,40
50″	59, 0, 4, 1,18,41, 8,24, 2,58		4,18,48,28,12	
		22,50, 2, 1,26, 7,21		1,40
52″	59, 0, 4,24, 8,43, 9,50,10,19		4,18,48,29,52	
		22,49,57,42,37,37,29		1,40
54″	59, 0, 4,46,58,40,52,27,47,48		4,18,48,31,32	
		22,49,53,23,49, 5,57		1,40
56″	59, 0, 5, 9,48,34,16,16,53,45		4,18,48,33,12	
		22,49,49, 5, 0,32,45		1,40
58″	59, 0, 5,32,38,23,21,17,26,30		4,18,48,34,52	
		22,49,44,46,11,57,53		
60″	59, 0, 5,55,28, 8, 7,29,24,23			
exact	59, 0, 5,55,28, 8, 7,29, 4,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°32′ 0″	59, 0, 5,55,28, 8, 7,29, 4,27			
		22,49,40,27,23,19,25		
2″	59, 0, 6,18,17,48,34,52,23,52		4,18,48,38,19	
		22,49,36, 8,34,41, 6		1,40
4″	59, 0, 6,41, 7,24,43,27, 4,58		4,18,48,39,59	
		22,49,31,49,46, 1, 7		1,40
6″	59, 0, 7, 3,56,56,33,13, 6, 5		4,18,48,41,39	
		22,49,27,30,57,19,28		1,40
8″	59, 0, 7,26,46,24, 4,10,25,33		4,18,48,43,19	
		22,49,23,12, 8,36, 9		1,40
10″	59, 0, 7,49,35,47,16,19, 1,42		4,18,48,44,59	
		22,49,18,53,19,51,10		1,40
12″	59, 0, 8,12,25, 6, 9,38,52,52		4,18,48,46,39	
		22,49,14,34,31, 4,31		1,40
14″	59, 0, 8,35,14,20,44, 9,57,23		4,18,48,48,19	
		22,49,10,15,42,16,12		1,40
16″	59, 0, 8,58, 3,30,59,52,13,35		4,18,48,49,59	
		22,49, 5,56,53,26,13		1,40
18″	59, 0, 9,20,52,36,56,45,39,48		4,18,48,51,39	
		22,49, 1,38, 4,34,34		1,40
20″	59, 0, 9,43,41,38,34,50,14,22		4,18,48,53,19	
		22,48,57,19,15,41,15		1,40
22″	59, 0,10, 6,30,35,54, 5,55,37		4,18,48,54,59	
		22,48,53, 0,26,46,16		1,40
24″	59, 0,10,29,19,28,54,32,41,53		4,18,48,56,39	
		22,48,48,41,37,49,37		1,40
26″	59, 0,10,52, 8,17,36,10,31,30		4,18,48,58,19	
		22,48,44,22,48,51,18		1,40
28″	59, 0,11,14,57, 1,58,59,22,48		4,18,48,59,59	
		22,48,40, 3,59,51,19		1,40
30″	59, 0,11,37,45,42, 2,59,14, 7		4,18,49, 1,39	
		22,48,35,45,10,49,40		1,40
32″	59, 0,12, 0,34,17,48,10, 3,47		4,18,49, 3,19	
		22,48,31,26,21,46,21		1,40
34″	59, 0,12,23,22,49,14,31,50, 8		4,18,49, 4,59	
		22,48,27, 7,32,41,22		1,40
36″	59, 0,12,46,11,16,22, 4,31,30		4,18,49, 6,39	
		22,48,22,48,43,34,43		1,40
38″	59, 0,13, 8,59,39,10,48, 6,13		4,18,49, 8,19	
		22,48,18,29,54,26,24		1,40
40″	59, 0,13,31,47,57,40,42,32,37		4,18,49, 9,59	
		22,48,14,11, 5,16,25		1,40
42″	59, 0,13,54,36,11,51,47,49, 2		4,18,49,11,39	
		22,48, 9,52,16, 4,46		1,40
44″	59, 0,14,17,24,21,44, 3,53,48		4,18,49,13,19	
		22,48, 5,33,26,51,27		1,40
46″	59, 0,14,40,12,27,17,30,45,15		4,18,49,14,59	
		22,48, 1,14,37,36,28		1,40
48″	59, 0,15, 3, 0,28,32, 8,21,43		4,18,49,16,39	
		22,47,56,55,48,19,49		1,40
50″	59, 0,15,25,48,25,27,56,41,32		4,18,49,18,19	
		22,47,52,36,59, 1,30		1,40
52″	59, 0,15,48,36,18, 4,55,43, 2		4,18,49,19,59	
		22,47,48,18, 9,41,31		1,40
54″	59, 0,16,11,24, 6,23, 5,24,33		4,18,49,21,39	
		22,47,43,59,20,19,52		1,40
56″	59, 0,16,34,11,50,22,25,44,25		4,18,49,23,19	
		22,47,39,40,30,56,33		1,40
58″	59, 0,16,56,59,30, 2,56,40,58		4,18,49,24,59	
		22,47,35,21,41,31,34		
60″	59, 0,17,19,47, 5,24,38,12,32			
exact	59, 0,17,19,47, 5,24,38, 8,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°33′ 0″	59, 0,17,19,47, 5,24,38, 8,26			
		22,47,31, 2,52, 4,29		
2″	59, 0,17,42,34,36,27,30,12,55		4,18,49,28,20	
		22,47,26,44, 2,36, 9		1,40
4″	59, 0,18, 5,22, 3,11,32,49, 4		4,18,49,30, 0	
		22,47,22,25,13, 6, 9		1,40
6″	59, 0,18,28, 9,25,36,45,55,13		4,18,49,31,40	
		22,47,18, 6,23,34,29		1,40
8″	59, 0,18,50,56,43,43, 9,29,42		4,18,49,33,20	
		22,47,13,47,34, 1, 9		1,40
10″	59, 0,19,13,43,57,30,43,30,51		4,18,49,35, 0	
		22,47, 9,28,44,26, 9		1,40
12″	59, 0,19,36,31, 6,59,27,57, 0		4,18,49,36,40	
		22,47, 5, 9,54,49,29		1,40
14″	59, 0,19,59,18,12, 9,22,46,29		4,18,49,38,20	
		22,47, 0,51, 5,11, 9		1,40
16″	59, 0,20,22, 5,13, 0,27,57,38		4,18,49,40, 0	
		22,46,56,32,15,31, 9		1,40
18″	59, 0,20,44,52, 9,32,43,28,47		4,18,49,41,40	
		22,46,52,13,25,49,29		1,40
20″	59, 0,21, 7,39, 1,46, 9,18,16		4,18,49,43,20	
		22,46,47,54,36, 6, 9		1,40
22″	59, 0,21,30,25,49,40,45,24,25		4,18,49,45, 0	
		22,46,43,35,46,21, 9		1,40
24″	59, 0,21,53,12,33,16,31,45,34		4,18,49,46,40	
		22,46,39,16,56,34,29		1,40
26″	59, 0,22,15,59,12,33,28,20, 3		4,18,49,48,20	
		22,46,34,58, 6,46, 9		1,40
28″	59, 0,22,38,45,47,31,35, 6,12		4,18,49,50, 0	
		22,46,30,39,16,56, 9		1,40
30″	59, 0,23, 1,32,18,10,52, 2,21		4,18,49,51,40	
		22,46,26,20,27, 4,29		1,40
32″	59, 0,23,24,18,44,31,19, 6,50		4,18,49,53,20	
		22,46,22, 1,37,11, 9		1,40
34″	59, 0,23,47, 5, 6,32,56,17,59		4,18,49,55, 0	
		22,46,17,42,47,16, 9		1,40
36″	59, 0,24, 9,51,24,15,43,34, 8		4,18,49,56,40	
		22,46,13,23,57,19,29		1,40
38″	59, 0,24,32,37,37,39,40,53,37		4,18,49,58,20	
		22,46, 9, 5, 7,21, 9		1,40
40″	59, 0,24,55,23,46,44,48,14,46		4,18,50, 0, 0	
		22,46, 4,46,17,21, 9		1,40
42″	59, 0,25,18, 9,51,31, 5,35,55		4,18,50, 1,40	
		22,46, 0,27,27,19,29		1,40
44″	59, 0,25,40,55,51,58,32,55,24		4,18,50, 3,20	
		22,45,56, 8,37,16, 9		1,40
46″	59, 0,26, 3,41,48, 7,10,11,33		4,18,50, 5, 0	
		22,45,51,49,47,11, 9		1,40
48″	59, 0,26,26,27,39,56,57,22,42		4,18,50, 6,40	
		22,45,47,30,57, 4,29		1,40
50″	59, 0,26,49,13,27,27,54,27,11		4,18,50, 8,20	
		22,45,43,12, 6,56, 9		1,40
52″	59, 0,27,11,59,10,40, 1,23,20		4,18,50,10, 0	
		22,45,38,53,16,46, 9		1,40
54″	59, 0,27,34,44,49,33,18, 9,29		4,18,50,11,40	
		22,45,34,34,26,34,29		1,40
56″	59, 0,27,57,30,24, 7,44,43,58		4,18,50,13,20	
		22,45,30,15,36,21, 9		1,40
58″	59, 0,28,20,15,54,23,21, 5, 7		4,18,50,15, 0	
		22,45,25,56,46, 6, 9		
60″	59, 0,28,43, 1,20,20, 7,11,16			
exact	59, 0,28,43, 1,20,20, 7,13,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°34′ 0″	59, 0,28,43, 1,20,20, 7,13,18			
		22,45,21,37,55,49,53		
2″	59, 0,29, 5,46,41,58, 3, 3,11		4,18,50,18,17	
		22,45,17,19, 5,31,36		1,40
4″	59, 0,29,28,31,59,17, 8,34,47		4,18,50,19,57	
		22,45,13, 0,15,11,39		1,40
6″	59, 0,29,51,17,12,17,23,46,26		4,18,50,21,37	
		22,45, 8,41,24,50, 2		1,40
8″	59, 0,30,14, 2,20,58,48,36,28		4,18,50,23,17	
		22,45, 4,22,34,26,45		1,40
10″	59, 0,30,36,47,25,21,23, 3,13		4,18,50,24,57	
		22,45, 0, 3,44, 1,48		1,40
12″	59, 0,30,59,32,25,25, 7, 5, 1		4,18,50,26,37	
		22,44,55,44,53,35,11		1,40
14″	59, 0,31,22,17,21,10, 0,40,12		4,18,50,28,17	
		22,44,51,26, 3, 6,54		1,40
16″	59, 0,31,45, 2,12,36, 3,47, 6		4,18,50,29,57	
		22,44,47, 7,12,36,57		1,40
18″	59, 0,32, 7,46,59,43,16,24, 3		4,18,50,31,37	
		22,44,42,48,22, 5,20		1,40
20″	59, 0,32,30,31,42,31,38,29,23		4,18,50,33,17	
		22,44,38,29,31,32, 3		1,40
22″	59, 0,32,53,16,21, 1,10, 1,26		4,18,50,34,57	
		22,44,34,10,40,57, 6		1,40
24″	59, 0,33,16, 0,55,11,50,58,32		4,18,50,36,37	
		22,44,29,51,50,20,29		1,40
26″	59, 0,33,38,45,25, 3,41,19, 1		4,18,50,38,17	
		22,44,25,32,59,42,12		1,40
28″	59, 0,34, 1,29,50,36,41, 1,13		4,18,50,39,57	
		22,44,21,14, 9, 2,15		1,40
30″	59, 0,34,24,14,11,50,50, 3,28		4,18,50,41,37	
		22,44,16,55,18,20,38		1,40
32″	59, 0,34,46,58,28,46, 8,24, 6		4,18,50,43,17	
		22,44,12,36,27,37,21		1,40
34″	59, 0,35, 9,42,41,22,36, 1,27		4,18,50,44,57	
		22,44, 8,17,36,52,24		1,40
36″	59, 0,35,32,26,49,40,12,53,51		4,18,50,46,37	
		22,44, 3,58,46, 5,47		1,40
38″	59, 0,35,55,10,53,38,58,59,38		4,18,50,48,17	
		22,43,59,39,55,17,30		1,40
40″	59, 0,36,17,54,53,18,54,17, 8		4,18,50,49,57	
		22,43,55,21, 4,27,33		1,40
42″	59, 0,36,40,38,48,39,58,44,41		4,18,50,51,37	
		22,43,51, 2,13,35,56		1,40
44″	59, 0,37, 3,22,39,42,12,20,37		4,18,50,53,17	
		22,43,46,43,22,42,39		1,40
46″	59, 0,37,26, 6,26,25,35, 3,16		4,18,50,54,57	
		22,43,42,24,31,47,42		1,40
48″	59, 0,37,48,50, 8,50, 6,50,58		4,18,50,56,37	
		22,43,38, 5,40,51, 5		1,40
50″	59, 0,38,11,33,46,55,47,42, 3		4,18,50,58,17	
		22,43,33,46,49,52,48		1,40
52″	59, 0,38,34,17,20,42,37,34,51		4,18,50,59,57	
		22,43,29,27,58,52,51		1,40
54″	59, 0,38,57, 0,50,10,36,27,42		4,18,51, 1,37	
		22,43,25, 9, 7,51,14		1,40
56″	59, 0,39,19,44,15,19,44,18,56		4,18,51, 3,17	
		22,43,20,50,16,47,57		1,40
58″	59, 0,39,42,27,36,10, 1, 6,53		4,18,51, 4,57	
		22,43,16,31,25,43, 0		
60″	59, 0,40, 5,10,52,41,26,49,53			
exact	59, 0,40, 5,10,52,41,27, 3,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°35′ 0″	59, 0,40, 5,10,52,41,27, 3,51			
		22,43,12,12,34,38, 1		
2″	59, 0,40,27,54, 4,54, 1,41,52		4,18,51, 8, 9	
		22,43, 7,53,43,29,52		1,40
4″	59, 0,40,50,37,12,47,45,11,44		4,18,51, 9,49	
		22,43, 3,34,52,20, 3		1,40
6″	59, 0,41,13,20,16,22,37,31,47		4,18,51,11,29	
		22,42,59,16, 1, 8,34		1,40
8″	59, 0,41,36, 3,15,38,38,40,21		4,18,51,13, 9	
		22,42,54,57, 9,55,25		1,40
10″	59, 0,41,58,46,10,35,48,35,46		4,18,51,14,49	
		22,42,50,38,18,40,36		1,40
12″	59, 0,42,21,29, 1,14, 7,16,22		4,18,51,16,29	
		22,42,46,19,27,24, 7		1,40
14″	59, 0,42,44,11,47,33,34,40,29		4,18,51,18, 9	
		22,42,42, 0,36, 5,58		1,40
16″	59, 0,43, 6,54,29,34,10,46,27		4,18,51,19,49	
		22,42,37,41,44,46, 9		1,40
18″	59, 0,43,29,37, 7,15,55,32,36		4,18,51,21,29	
		22,42,33,22,53,24,40		1,40
20″	59, 0,43,52,19,40,38,48,57,16		4,18,51,23, 9	
		22,42,29, 4, 2, 1,31		1,40
22″	59, 0,44,15, 2, 9,42,50,58,47		4,18,51,24,49	
		22,42,24,45,10,36,42		1,40
24″	59, 0,44,37,44,34,28, 1,35,29		4,18,51,26,29	
		22,42,20,26,19,10,13		1,40
26″	59, 0,45, 0,26,54,54,20,45,42		4,18,51,28, 9	
		22,42,16, 7,27,42, 4		1,40
28″	59, 0,45,23, 9,11, 1,48,27,46		4,18,51,29,49	
		22,42,11,48,36,12,15		1,40
30″	59, 0,45,45,51,22,50,24,40, 1		4,18,51,31,29	
		22,42, 7,29,44,40,46		1,40
32″	59, 0,46, 8,33,30,20, 9,20,47		4,18,51,33, 9	
		22,42, 3,10,53, 7,37		1,40
34″	59, 0,46,31,15,33,31, 2,28,24		4,18,51,34,49	
		22,41,58,52, 1,32,48		1,40
36″	59, 0,46,53,57,32,23, 4, 1,12		4,18,51,36,29	
		22,41,54,33, 9,56,19		1,40
38″	59, 0,47,16,39,26,56,13,57,31		4,18,51,38, 9	
		22,41,50,14,18,18,10		1,40
40″	59, 0,47,39,21,17,10,32,15,41		4,18,51,39,49	
		22,41,45,55,26,38,21		1,40
42″	59, 0,48, 2, 3, 3, 5,58,54, 2		4,18,51,41,29	
		22,41,41,36,34,56,52		1,40
44″	59, 0,48,24,44,44,42,33,50,54		4,18,51,43, 9	
		22,41,37,17,43,13,43		1,40
46″	59, 0,48,47,26,22, 0,17, 4,37		4,18,51,44,49	
		22,41,32,58,51,28,54		1,40
48″	59, 0,49,10, 7,54,59, 8,33,31		4,18,51,46,29	
		22,41,28,39,59,42,25		1,40
50″	59, 0,49,32,49,23,39, 8,15,56		4,18,51,48, 9	
		22,41,24,21, 7,54,16		1,40
52″	59, 0,49,55,30,48, 0,16,10,12		4,18,51,49,49	
		22,41,20, 2,16, 4,27		1,40
54″	59, 0,50,18,12, 8, 2,32,14,39		4,18,51,51,29	
		22,41,15,43,24,12,58		1,40
56″	59, 0,50,40,53,23,45,56,27,37		4,18,51,53, 9	
		22,41,11,24,32,19,49		1,40
58″	59, 0,51, 3,34,35,10,28,47,26		4,18,51,54,49	
		22,41, 7, 5,40,25, 0		
60″	59, 0,51,26,15,42,16, 9,12,26			
exact	59, 0,51,26,15,42,16, 9,35,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°36′ 0″	59, 0,51,26,15,42,16, 9,35,49			
		22,41, 2,46,48,31,13		
2″	59, 0,51,48,56,45, 2,58, 7, 2		4,18,51,57,57	
		22,40,58,27,56,33,16		1,39
4″	59, 0,52,11,37,43,30,54,40,18		4,18,51,59,36	
		22,40,54, 9, 4,33,40		1,39
6″	59, 0,52,34,18,37,39,59,13,58		4,18,52, 1,15	
		22,40,49,50,12,32,25		1,39
8″	59, 0,52,56,59,27,30,11,46,23		4,18,52, 2,54	
		22,40,45,31,20,29,31		1,39
10″	59, 0,53,19,40,13, 1,32,15,54		4,18,52, 4,33	
		22,40,41,12,28,24,58		1,39
12″	59, 0,53,42,20,54,14, 0,40,52		4,18,52, 6,12	
		22,40,36,53,36,18,46		1,39
14″	59, 0,54, 5, 1,31, 7,36,59,38		4,18,52, 7,51	
		22,40,32,34,44,10,55		1,39
16″	59, 0,54,27,42, 3,42,21,10,33		4,18,52, 9,30	
		22,40,28,15,52, 1,25		1,39
18″	59, 0,54,50,22,31,58,13,11,58		4,18,52,11, 9	
		22,40,23,56,59,50,16		1,39
20″	59, 0,55,13, 2,55,55,13, 2,14		4,18,52,12,48	
		22,40,19,38, 7,37,28		1,39
22″	59, 0,55,35,43,15,33,20,39,42		4,18,52,14,27	
		22,40,15,19,15,23, 1		1,39
24″	59, 0,55,58,23,30,52,36, 2,43		4,18,52,16, 6	
		22,40,11, 0,23, 6,55		1,39
26″	59, 0,56,21, 3,41,52,59, 9,38		4,18,52,17,45	
		22,40, 6,41,30,49,10		1,39
28″	59, 0,56,43,43,48,34,29,58,48		4,18,52,19,24	
		22,40, 2,22,38,29,46		1,39
30″	59, 0,57, 6,23,50,57, 8,28,34		4,18,52,21, 3	
		22,39,58, 3,46, 8,43		1,39
32″	59, 0,57,29, 3,49, 0,54,37,17		4,18,52,22,42	
		22,39,53,44,53,46, 1		1,39
34″	59, 0,57,51,43,42,45,48,23,18		4,18,52,24,21	
		22,39,49,26, 1,21,40		1,39
36″	59, 0,58,14,23,32,11,49,44,58		4,18,52,26, 0	
		22,39,45, 7, 8,55,40		1,39
38″	59, 0,58,37, 3,17,18,58,40,38		4,18,52,27,39	
		22,39,40,48,16,28, 1		1,39
40″	59, 0,58,59,42,58, 7,15, 8,39		4,18,52,29,18	
		22,39,36,29,23,58,43		1,39
42″	59, 0,59,22,22,34,36,39, 7,22		4,18,52,30,57	
		22,39,32,10,31,27,46		1,39
44″	59, 0,59,45, 2, 6,47,10,35, 8		4,18,52,32,36	
		22,39,27,51,38,55,10		1,39
46″	59, 1, 0, 7,41,34,38,49,30,18		4,18,52,34,15	
		22,39,23,32,46,20,55		1,39
48″	59, 1, 0,30,20,58,11,35,51,13		4,18,52,35,54	
		22,39,19,13,53,45, 1		1,39
50″	59, 1, 0,53, 0,17,25,29,36,14		4,18,52,37,33	
		22,39,14,55, 1, 7,28		1,39
52″	59, 1, 1,15,39,32,20,30,43,42		4,18,52,39,12	
		22,39,10,36, 8,28,16		1,39
54″	59, 1, 1,38,18,42,56,39,11,58		4,18,52,40,51	
		22,39, 6,17,15,47,25		1,39
56″	59, 1, 2, 0,57,49,13,54,59,23		4,18,52,42,30	
		22,39, 1,58,23, 4,55		1,39
58″	59, 1, 2,23,36,51,12,18, 4,18		4,18,52,44, 9	
		22,38,57,39,30,20,46		
60″	59, 1, 2,46,15,48,51,48,25, 4			
exact	59, 1, 2,46,15,48,51,47,55,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°37′ 0″	59, 1, 2,46,15,48,51,47,55,53			
		22,38,53,20,37,31,52		
2″	59, 1, 3, 8,54,42,12,25,27,45		4,18,52,47,39	
		22,38,49, 1,44,44,13		1,39
4″	59, 1, 3,31,33,31,14,10,11,58		4,18,52,49,18	
		22,38,44,42,51,54,55		1,39
6″	59, 1, 3,54,12,15,57, 2, 6,53		4,18,52,50,57	
		22,38,40,23,59, 3,58		1,39
8″	59, 1, 4,16,50,56,21, 1,10,51		4,18,52,52,36	
		22,38,36, 5, 6,11,22		1,39
10″	59, 1, 4,39,29,32,26, 7,22,13		4,18,52,54,15	
		22,38,31,46,13,17, 7		1,39
12″	59, 1, 5, 2, 8, 4,12,20,39,20		4,18,52,55,54	
		22,38,27,27,20,21,13		1,39
14″	59, 1, 5,24,46,31,39,41, 0,33		4,18,52,57,33	
		22,38,23, 8,27,23,40		1,39
16″	59, 1, 5,47,24,54,48, 8,24,13		4,18,52,59,12	
		22,38,18,49,34,24,28		1,39
18″	59, 1, 6,10, 3,13,37,42,48,41		4,18,53, 0,51	
		22,38,14,30,41,23,37		1,39
20″	59, 1, 6,32,41,28, 8,24,12,18		4,18,53, 2,30	
		22,38,10,11,48,21, 7		1,39
22″	59, 1, 6,55,19,38,20,12,33,25		4,18,53, 4, 9	
		22,38, 5,52,55,16,58		1,39
24″	59, 1, 7,17,57,44,13, 7,50,23		4,18,53, 5,48	
		22,38, 1,34, 2,11,10		1,39
26″	59, 1, 7,40,35,45,47,10, 1,33		4,18,53, 7,27	
		22,37,57,15, 9, 3,43		1,39
28″	59, 1, 8, 3,13,43, 2,19, 5,16		4,18,53, 9, 6	
		22,37,52,56,15,54,37		1,39
30″	59, 1, 8,25,51,35,58,34,59,53		4,18,53,10,45	
		22,37,48,37,22,43,52		1,39
32″	59, 1, 8,48,29,24,35,57,43,45		4,18,53,12,24	
		22,37,44,18,29,31,28		1,39
34″	59, 1, 9,11, 7, 8,54,27,15,13		4,18,53,14, 3	
		22,37,39,59,36,17,25		1,39
36″	59, 1, 9,33,44,48,54, 3,32,38		4,18,53,15,42	
		22,37,35,40,43, 1,43		1,39
38″	59, 1, 9,56,22,24,34,46,34,21		4,18,53,17,21	
		22,37,31,21,49,44,22		1,39
40″	59, 1,10,18,59,55,56,36,18,43		4,18,53,19, 0	
		22,37,27, 2,56,25,22		1,39
42″	59, 1,10,41,37,22,59,32,44, 5		4,18,53,20,39	
		22,37,22,44, 3, 4,43		1,39
44″	59, 1,11, 4,14,45,43,35,48,48		4,18,53,22,18	
		22,37,18,25, 9,42,25		1,39
46″	59, 1,11,26,52, 4, 8,45,31,13		4,18,53,23,57	
		22,37,14, 6,16,18,28		1,39
48″	59, 1,11,49,29,18,15, 1,49,41		4,18,53,25,36	
		22,37, 9,47,22,52,52		1,39
50″	59, 1,12,12, 6,28, 2,24,42,33		4,18,53,27,15	
		22,37, 5,28,29,25,37		1,39
52″	59, 1,12,34,43,33,30,54, 8,10		4,18,53,28,54	
		22,37, 1, 9,35,56,43		1,39
54″	59, 1,12,57,20,34,40,30, 4,53		4,18,53,30,33	
		22,36,56,50,42,26,10		1,39
56″	59, 1,13,19,57,31,31,12,31, 3		4,18,53,32,12	
		22,36,52,31,48,53,58		1,39
58″	59, 1,13,42,34,24, 3, 1,25, 1		4,18,53,33,51	
		22,36,48,12,55,20, 7		
60″	59, 1,14, 5,11,12,15,56,45, 8			
exact	59, 1,14, 5,11,12,15,56,21,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°38′ 0″	59, 1,14, 5,11,12,15,56,21,45			
		22,36,43,54, 1,42,19		
2″	59, 1,14,27,47,56, 9,58, 4, 4		4,18,53,37,17	
		22,36,39,35, 8, 5, 2		1,39
4″	59, 1,14,50,24,35,45, 6, 9, 6		4,18,53,38,56	
		22,36,35,16,14,26, 6		1,39
6″	59, 1,15,13, 1,11, 1,20,35,12		4,18,53,40,35	
		22,36,30,57,20,45,31		1,39
8″	59, 1,15,35,37,41,58,41,20,43		4,18,53,42,14	
		22,36,26,38,27, 3,17		1,39
10″	59, 1,15,58,14, 8,37, 8,24, 0		4,18,53,43,53	
		22,36,22,19,33,19,24		1,39
12″	59, 1,16,20,50,30,56,41,43,24		4,18,53,45,32	
		22,36,18, 0,39,33,52		1,39
14″	59, 1,16,43,26,48,57,21,17,16		4,18,53,47,11	
		22,36,13,41,45,46,41		1,39
16″	59, 1,17, 6, 3, 2,39, 7, 3,57		4,18,53,48,50	
		22,36, 9,22,51,57,51		1,39
18″	59, 1,17,28,39,12, 1,59, 1,48		4,18,53,50,29	
		22,36, 5, 3,58, 7,22		1,39
20″	59, 1,17,51,15,17, 5,57, 9,10		4,18,53,52, 8	
		22,36, 0,45, 4,15,14		1,39
22″	59, 1,18,13,51,17,51, 1,24,24		4,18,53,53,47	
		22,35,56,26,10,21,27		1,39
24″	59, 1,18,36,27,14,17,11,45,51		4,18,53,55,26	
		22,35,52, 7,16,26, 1		1,39
26″	59, 1,18,59, 3, 6,24,28,11,52		4,18,53,57, 5	
		22,35,47,48,22,28,56		1,39
28″	59, 1,19,21,38,54,12,50,40,48		4,18,53,58,44	
		22,35,43,29,28,30,12		1,39
30″	59, 1,19,44,14,37,42,19,11, 0		4,18,54, 0,23	
		22,35,39,10,34,29,49		1,39
32″	59, 1,20, 6,50,16,52,53,40,49		4,18,54, 2, 2	
		22,35,34,51,40,27,47		1,39
34″	59, 1,20,29,25,51,44,34, 8,36		4,18,54, 3,41	
		22,35,30,32,46,24, 6		1,39
36″	59, 1,20,52, 1,22,17,20,32,42		4,18,54, 5,20	
		22,35,26,13,52,18,46		1,39
38″	59, 1,21,14,36,48,31,12,51,28		4,18,54, 6,59	
		22,35,21,54,58,11,47		1,39
40″	59, 1,21,37,12,10,26,11, 3,15		4,18,54, 8,38	
		22,35,17,36, 4, 3, 9		1,39
42″	59, 1,21,59,47,28, 2,15, 6,24		4,18,54,10,17	
		22,35,13,17, 9,52,52		1,39
44″	59, 1,22,22,22,41,19,24,59,16		4,18,54,11,56	
		22,35, 8,58,15,40,56		1,39
46″	59, 1,22,44,57,50,17,40,40,12		4,18,54,13,35	
		22,35, 4,39,21,27,21		1,39
48″	59, 1,23, 7,32,54,57, 2, 7,33		4,18,54,15,14	
		22,35, 0,20,27,12, 7		1,39
50″	59, 1,23,30, 7,55,17,29,19,40		4,18,54,16,53	
		22,34,56, 1,32,55,14		1,39
52″	59, 1,23,52,42,51,19, 2,14,54		4,18,54,18,32	
		22,34,51,42,38,36,42		1,39
54″	59, 1,24,15,17,43, 1,40,51,36		4,18,54,20,11	
		22,34,47,23,44,16,31		1,39
56″	59, 1,24,37,52,30,25,25, 8, 7		4,18,54,21,50	
		22,34,43, 4,49,54,41		1,39
58″	59, 1,25, 0,27,13,30,15, 2,48		4,18,54,23,29	
		22,34,38,45,55,31,12		
60″	59, 1,25,23, 1,52,16,10,34, 0			
exact	59, 1,25,23, 1,52,16,10,22, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°39′ 0″	59, 1,25,23, 1,52,16,10,22, 3			
		22,34,34,27, 1, 4,57		
2″	59, 1,25,45,36,26,43,11,27, 0		4,18,54,26,50	
		22,34,30, 8, 6,38, 7		1,39
4″	59, 1,26, 8,10,56,51,18, 5, 7		4,18,54,28,29	
		22,34,25,49,12, 9,38		1,39
6″	59, 1,26,30,45,22,40,30,14,45		4,18,54,30, 8	
		22,34,21,30,17,39,30		1,39
8″	59, 1,26,53,19,44,10,47,54,15		4,18,54,31,47	
		22,34,17,11,23, 7,43		1,39
10″	59, 1,27,15,54, 1,22,11, 1,58		4,18,54,33,26	
		22,34,12,52,28,34,17		1,39
12″	59, 1,27,38,28,14,14,39,36,15		4,18,54,35, 5	
		22,34, 8,33,33,59,12		1,39
14″	59, 1,28, 1, 2,22,48,13,35,27		4,18,54,36,44	
		22,34, 4,14,39,22,28		1,39
16″	59, 1,28,23,36,27, 2,52,57,55		4,18,54,38,23	
		22,33,59,55,44,44, 5		1,39
18″	59, 1,28,46,10,26,58,37,42, 0		4,18,54,40, 2	
		22,33,55,36,50, 4, 3		1,39
20″	59, 1,29, 8,44,22,35,27,46, 3		4,18,54,41,41	
		22,33,51,17,55,22,22		1,39
22″	59, 1,29,31,18,13,53,23, 8,25		4,18,54,43,20	
		22,33,46,59, 0,39, 2		1,39
24″	59, 1,29,53,52, 0,52,23,47,27		4,18,54,44,59	
		22,33,42,40, 5,54, 3		1,39
26″	59, 1,30,16,25,43,32,29,41,30		4,18,54,46,38	
		22,33,38,21,11, 7,25		1,39
28″	59, 1,30,38,59,21,53,40,48,55		4,18,54,48,17	
		22,33,34, 2,16,19, 8		1,39
30″	59, 1,31, 1,32,55,55,57, 8, 3		4,18,54,49,56	
		22,33,29,43,21,29,12		1,39
32″	59, 1,31,24, 6,25,39,18,37,15		4,18,54,51,35	
		22,33,25,24,26,37,37		1,39
34″	59, 1,31,46,39,51, 3,45,14,52		4,18,54,53,14	
		22,33,21, 5,31,44,23		1,39
36″	59, 1,32, 9,13,12, 9,16,59,15		4,18,54,54,53	
		22,33,16,46,36,49,30		1,39
38″	59, 1,32,31,46,28,55,53,48,45		4,18,54,56,32	
		22,33,12,27,41,52,58		1,39
40″	59, 1,32,54,19,41,23,35,41,43		4,18,54,58,11	
		22,33, 8, 8,46,54,47		1,39
42″	59, 1,33,16,52,49,32,22,36,30		4,18,54,59,50	
		22,33, 3,49,51,54,57		1,39
44″	59, 1,33,39,25,53,22,14,31,27		4,18,55, 1,29	
		22,32,59,30,56,53,28		1,39
46″	59, 1,34, 1,58,52,53,11,24,55		4,18,55, 3, 8	
		22,32,55,12, 1,50,20		1,39
48″	59, 1,34,24,31,48, 5,13,15,15		4,18,55, 4,47	
		22,32,50,53, 6,45,33		1,39
50″	59, 1,34,47, 4,38,58,20, 0,48		4,18,55, 6,26	
		22,32,46,34,11,39, 7		1,39
52″	59, 1,35, 9,37,25,32,31,39,55		4,18,55, 8, 5	
		22,32,42,15,16,31, 2		1,39
54″	59, 1,35,32,10, 7,47,48,10,57		4,18,55, 9,44	
		22,32,37,56,21,21,18		1,39
56″	59, 1,35,54,42,45,44, 9,32,15		4,18,55,11,23	
		22,32,33,37,26, 9,55		1,39
58″	59, 1,36,17,15,19,21,35,42,10		4,18,55,13, 2	
		22,32,29,18,30,56,53		
60″	59, 1,36,39,47,48,40, 6,39, 3			
exact	59, 1,36,39,47,48,40, 6,36,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°40′ 0″	59, 1,36,39,47,48,40, 6,36,24			
		22,32,24,59,35,42, 8		
2″	59, 1,37, 2,20,13,39,42,18,32		4,18,55,16,19	
		22,32,20,40,40,25,49		1,39
4″	59, 1,37,24,52,34,20,22,44,21		4,18,55,17,58	
		22,32,16,21,45, 7,51		1,39
6″	59, 1,37,47,24,50,42, 7,52,12		4,18,55,19,37	
		22,32,12, 2,49,48,14		1,39
8″	59, 1,38, 9,57, 2,44,57,40,26		4,18,55,21,16	
		22,32, 7,43,54,26,58		1,39
10″	59, 1,38,32,29,10,28,52, 7,24		4,18,55,22,55	
		22,32, 3,24,59, 4, 3		1,39
12″	59, 1,38,55, 1,13,53,51,11,27		4,18,55,24,34	
		22,31,59, 6, 3,39,29		1,39
14″	59, 1,39,17,33,12,59,54,50,56		4,18,55,26,13	
		22,31,54,47, 8,13,16		1,39
16″	59, 1,39,40, 5, 7,47, 3, 4,12		4,18,55,27,52	
		22,31,50,28,12,45,24		1,39
18″	59, 1,40, 2,36,58,15,15,49,36		4,18,55,29,31	
		22,31,46, 9,17,15,53		1,39
20″	59, 1,40,25, 8,44,24,33, 5,29		4,18,55,31,10	
		22,31,41,50,21,44,43		1,39
22″	59, 1,40,47,40,26,14,54,50,12		4,18,55,32,49	
		22,31,37,31,26,11,54		1,39
24″	59, 1,41,10,12, 3,46,21, 2, 6		4,18,55,34,28	
		22,31,33,12,30,37,26		1,39
26″	59, 1,41,32,43,36,58,51,39,32		4,18,55,36, 7	
		22,31,28,53,35, 1,19		1,39
28″	59, 1,41,55,15, 5,52,26,40,51		4,18,55,37,46	
		22,31,24,34,39,23,33		1,39
30″	59, 1,42,17,46,30,27, 6, 4,24		4,18,55,39,25	
		22,31,20,15,43,44, 8		1,39
32″	59, 1,42,40,17,50,42,49,48,32		4,18,55,41, 4	
		22,31,15,56,48, 3, 4		1,39
34″	59, 1,43, 2,49, 6,39,37,51,36		4,18,55,42,43	
		22,31,11,37,52,20,21		1,39
36″	59, 1,43,25,20,18,17,30,11,57		4,18,55,44,22	
		22,31, 7,18,56,35,59		1,39
38″	59, 1,43,47,51,25,36,26,47,56		4,18,55,46, 1	
		22,31, 3, 0, 0,49,58		1,39
40″	59, 1,44,10,22,28,36,27,37,54		4,18,55,47,40	
		22,30,58,41, 5, 2,18		1,39
42″	59, 1,44,32,53,27,17,32,40,12		4,18,55,49,19	
		22,30,54,22, 9,12,59		1,39
44″	59, 1,44,55,24,21,39,41,53,11		4,18,55,50,58	
		22,30,50, 3,13,22, 1		1,39
46″	59, 1,45,17,55,11,42,55,15,12		4,18,55,52,37	
		22,30,45,44,17,29,24		1,39
48″	59, 1,45,40,25,57,27,12,44,36		4,18,55,54,16	
		22,30,41,25,21,35, 8		1,39
50″	59, 1,46, 2,56,38,52,34,19,44		4,18,55,55,55	
		22,30,37, 6,25,39,13		1,39
52″	59, 1,46,25,27,15,58,59,58,57		4,18,55,57,34	
		22,30,32,47,29,41,39		1,39
54″	59, 1,46,47,57,48,46,29,40,36		4,18,55,59,13	
		22,30,28,28,33,42,26		1,39
56″	59, 1,47,10,28,17,15, 3,23, 2		4,18,56, 0,52	
		22,30,24, 9,37,41,34		1,39
58″	59, 1,47,32,58,41,24,41, 4,36		4,18,56, 2,31	
		22,30,19,50,41,39, 3		
60″	59, 1,47,55,29, 1,15,22,43,39			
exact	59, 1,47,55,29, 1,15,22,55,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°41′ 0″	59, 1,47,55,29, 1,15,22,55,25			
		22,30,15,31,45,36,13		
2″	59, 1,48,17,59,16,47, 8,31,38		4,18,56, 5,43	
		22,30,11,12,49,30,30		1,39
4″	59, 1,48,40,29,27,59,58, 2, 8		4,18,56, 7,22	
		22,30, 6,53,53,23, 8		1,39
6″	59, 1,49, 2,59,34,53,51,25,16		4,18,56, 9, 1	
		22,30, 2,34,57,14, 7		1,39
8″	59, 1,49,25,29,37,28,48,39,23		4,18,56,10,40	
		22,29,58,16, 1, 3,27		1,39
10″	59, 1,49,47,59,35,44,49,42,50		4,18,56,12,19	
		22,29,53,57, 4,51, 8		1,39
12″	59, 1,50,10,29,29,41,54,33,58		4,18,56,13,58	
		22,29,49,38, 8,37,10		1,39
14″	59, 1,50,32,59,19,20, 3,11, 8		4,18,56,15,37	
		22,29,45,19,12,21,33		1,39
16″	59, 1,50,55,29, 4,39,15,32,41		4,18,56,17,16	
		22,29,41, 0,16, 4,17		1,39
18″	59, 1,51,17,58,45,39,31,36,58		4,18,56,18,55	
		22,29,36,41,19,45,22		1,39
20″	59, 1,51,40,28,22,20,51,22,20		4,18,56,20,34	
		22,29,32,22,23,24,48		1,39
22″	59, 1,52, 2,57,54,43,14,47, 8		4,18,56,22,13	
		22,29,28, 3,27, 2,35		1,39
24″	59, 1,52,25,27,22,46,41,49,43		4,18,56,23,52	
		22,29,23,44,30,38,43		1,39
26″	59, 1,52,47,56,46,31,12,28,26		4,18,56,25,31	
		22,29,19,25,34,13,12		1,39
28″	59, 1,53,10,26, 5,56,46,41,38		4,18,56,27,10	
		22,29,15, 6,37,46, 2		1,39
30″	59, 1,53,32,55,21, 3,24,27,40		4,18,56,28,49	
		22,29,10,47,41,17,13		1,39
32″	59, 1,53,55,24,31,51, 5,44,53		4,18,56,30,28	
		22,29, 6,28,44,46,45		1,39
34″	59, 1,54,17,53,38,19,50,31,38		4,18,56,32, 7	
		22,29, 2, 9,48,14,38		1,39
36″	59, 1,54,40,22,40,29,38,46,16		4,18,56,33,46	
		22,28,57,50,51,40,52		1,39
38″	59, 1,55, 2,51,38,20,30,27, 8		4,18,56,35,25	
		22,28,53,31,55, 5,27		1,39
40″	59, 1,55,25,20,31,52,25,32,35		4,18,56,37, 4	
		22,28,49,12,58,28,23		1,39
42″	59, 1,55,47,49,21, 5,24, 0,58		4,18,56,38,43	
		22,28,44,54, 1,49,40		1,39
44″	59, 1,56,10,18, 5,59,25,50,38		4,18,56,40,22	
		22,28,40,35, 5, 9,18		1,39
46″	59, 1,56,32,46,46,34,30,59,56		4,18,56,42, 1	
		22,28,36,16, 8,27,17		1,39
48″	59, 1,56,55,15,22,50,39,27,13		4,18,56,43,40	
		22,28,31,57,11,43,37		1,39
50″	59, 1,57,17,43,54,47,51,10,50		4,18,56,45,19	
		22,28,27,38,14,58,18		1,39
52″	59, 1,57,40,12,22,26, 6, 9, 8		4,18,56,46,58	
		22,28,23,19,18,11,20		1,39
54″	59, 1,58, 2,40,45,45,24,20,28		4,18,56,48,37	
		22,28,19, 0,21,22,43		1,39
56″	59, 1,58,25, 9, 4,45,45,43,11		4,18,56,50,16	
		22,28,14,41,24,32,27		1,39
58″	59, 1,58,47,37,19,27,10,15,38		4,18,56,51,55	
		22,28,10,22,27,40,32		
60″	59, 1,59,10, 5,29,49,37,56,10			
exact	59, 1,59,10, 5,29,49,38,20,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°42′ 0″	59, 1,59,10, 5,29,49,38,20,41			
		22,28, 6, 3,30,49,35		
2″	59, 1,59,32,33,35,53, 9,10,16		4,18,56,55, 2	
		22,28, 1,44,33,54,33		1,39
4″	59, 1,59,55, 1,37,37,43, 4,49		4,18,56,56,41	
		22,27,57,25,36,57,52		1,39
6″	59, 2, 0,17,29,35, 3,20, 2,41		4,18,56,58,20	
		22,27,53, 6,39,59,32		1,39
8″	59, 2, 0,39,57,28,10, 0, 2,13		4,18,56,59,59	
		22,27,48,47,42,59,33		1,39
10″	59, 2, 1, 2,25,16,57,43, 1,46		4,18,57, 1,38	
		22,27,44,28,45,57,55		1,39
12″	59, 2, 1,24,53, 1,26,28,59,41		4,18,57, 3,17	
		22,27,40, 9,48,54,38		1,39
14″	59, 2, 1,47,20,41,36,17,54,19		4,18,57, 4,56	
		22,27,35,50,51,49,42		1,39
16″	59, 2, 2, 9,48,17,27, 9,44, 1		4,18,57, 6,35	
		22,27,31,31,54,43, 7		1,39
18″	59, 2, 2,32,15,48,59, 4,27, 8		4,18,57, 8,14	
		22,27,27,12,57,34,53		1,39
20″	59, 2, 2,54,43,16,12, 2, 2, 1		4,18,57, 9,53	
		22,27,22,54, 0,25, 0		1,39
22″	59, 2, 3,17,10,39, 6, 2,27, 1		4,18,57,11,32	
		22,27,18,35, 3,13,28		1,39
24″	59, 2, 3,39,37,57,41, 5,40,29		4,18,57,13,11	
		22,27,14,16, 6, 0,17		1,39
26″	59, 2, 4, 2, 5,11,57,11,40,46		4,18,57,14,50	
		22,27, 9,57, 8,45,27		1,39
28″	59, 2, 4,24,32,21,54,20,26,13		4,18,57,16,29	
		22,27, 5,38,11,28,58		1,39
30″	59, 2, 4,46,59,27,32,31,55,11		4,18,57,18, 8	
		22,27, 1,19,14,10,50		1,39
32″	59, 2, 5, 9,26,28,51,46, 6, 1		4,18,57,19,47	
		22,26,57, 0,16,51, 3		1,39
34″	59, 2, 5,31,53,25,52, 2,57, 4		4,18,57,21,26	
		22,26,52,41,19,29,37		1,39
36″	59, 2, 5,54,20,18,33,22,26,41		4,18,57,23, 5	
		22,26,48,22,22, 6,32		1,39
38″	59, 2, 6,16,47, 6,55,44,33,13		4,18,57,24,44	
		22,26,44, 3,24,41,48		1,39
40″	59, 2, 6,39,13,50,59, 9,15, 1		4,18,57,26,23	
		22,26,39,44,27,15,25		1,39
42″	59, 2, 7, 1,40,30,43,36,30,26		4,18,57,28, 2	
		22,26,35,25,29,47,23		1,39
44″	59, 2, 7,24, 7, 6, 9, 6,17,49		4,18,57,29,41	
		22,26,31, 6,32,17,42		1,39
46″	59, 2, 7,46,33,37,15,38,35,31		4,18,57,31,20	
		22,26,26,47,34,46,22		1,39
48″	59, 2, 8, 9, 0, 4, 3,13,21,53		4,18,57,32,59	
		22,26,22,28,37,13,23		1,39
50″	59, 2, 8,31,26,26,31,50,35,16		4,18,57,34,38	
		22,26,18, 9,39,38,45		1,39
52″	59, 2, 8,53,52,44,41,30,14, 1		4,18,57,36,17	
		22,26,13,50,42, 2,28		1,39
54″	59, 2, 9,16,18,58,32,12,16,29		4,18,57,37,56	
		22,26, 9,31,44,24,32		1,39
56″	59, 2, 9,38,45, 8, 3,56,41, 1		4,18,57,39,35	
		22,26, 5,12,46,44,57		1,39
58″	59, 2,10, 1,11,13,16,43,25,58		4,18,57,41,14	
		22,26, 0,53,49, 3,43		
60″	59, 2,10,23,37,14,10,32,29,41			
exact	59, 2,10,23,37,14,10,33, 4,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°43′ 0″	59, 2,10,23,37,14,10,33, 4,47			
		22,25,56,34,51,24,36		
2″	59, 2,10,46, 3,10,45,24,29,23		4,18,57,44,16	
		22,25,52,15,53,40,20		1,38
4″	59, 2,11, 8,29, 3, 1,18, 9,43		4,18,57,45,54	
		22,25,47,56,55,54,26		1,38
6″	59, 2,11,30,54,50,58,14, 4, 9		4,18,57,47,32	
		22,25,43,37,58, 6,54		1,38
8″	59, 2,11,53,20,34,36,12,11, 3		4,18,57,49,10	
		22,25,39,19, 0,17,44		1,38
10″	59, 2,12,15,46,13,55,12,28,47		4,18,57,50,48	
		22,25,35, 0, 2,26,56		1,38
12″	59, 2,12,38,11,48,55,14,55,43		4,18,57,52,26	
		22,25,30,41, 4,34,30		1,38
14″	59, 2,13, 0,37,19,36,19,30,13		4,18,57,54, 4	
		22,25,26,22, 6,40,26		1,38
16″	59, 2,13,23, 2,45,58,26,10,39		4,18,57,55,42	
		22,25,22, 3, 8,44,44		1,38
18″	59, 2,13,45,28, 8, 1,34,55,23		4,18,57,57,20	
		22,25,17,44,10,47,24		1,38
20″	59, 2,14, 7,53,25,45,45,42,47		4,18,57,58,58	
		22,25,13,25,12,48,26		1,38
22″	59, 2,14,30,18,39,10,58,31,13		4,18,58, 0,36	
		22,25, 9, 6,14,47,50		1,38
24″	59, 2,14,52,43,48,17,13,19, 3		4,18,58, 2,14	
		22,25, 4,47,16,45,36		1,38
26″	59, 2,15,15, 8,53, 4,30, 4,39		4,18,58, 3,52	
		22,25, 0,28,18,41,44		1,38
28″	59, 2,15,37,33,53,32,48,46,23		4,18,58, 5,30	
		22,24,56, 9,20,36,14		1,38
30″	59, 2,15,59,58,49,42, 9,22,37		4,18,58, 7, 8	
		22,24,51,50,22,29, 6		1,38
32″	59, 2,16,22,23,41,32,31,51,43		4,18,58, 8,46	
		22,24,47,31,24,20,20		1,38
34″	59, 2,16,44,48,29, 3,56,12, 3		4,18,58,10,24	
		22,24,43,12,26, 9,56		1,38
36″	59, 2,17, 7,13,12,16,22,21,59		4,18,58,12, 2	
		22,24,38,53,27,57,54		1,38
38″	59, 2,17,29,37,51, 9,50,19,53		4,18,58,13,40	
		22,24,34,34,29,44,14		1,38
40″	59, 2,17,52, 2,25,44,20, 4, 7		4,18,58,15,18	
		22,24,30,15,31,28,56		1,38
42″	59, 2,18,14,26,55,59,51,33, 3		4,18,58,16,56	
		22,24,25,56,33,12, 0		1,38
44″	59, 2,18,36,51,21,56,24,45, 3		4,18,58,18,34	
		22,24,21,37,34,53,26		1,38
46″	59, 2,18,59,15,43,33,59,38,29		4,18,58,20,12	
		22,24,17,18,36,33,14		1,38
48″	59, 2,19,21,40, 0,52,36,11,43		4,18,58,21,50	
		22,24,12,59,38,11,24		1,38
50″	59, 2,19,44, 4,13,52,14,23, 7		4,18,58,23,28	
		22,24, 8,40,39,47,56		1,38
52″	59, 2,20, 6,28,22,32,54,11, 3		4,18,58,25, 6	
		22,24, 4,21,41,22,50		1,38
54″	59, 2,20,28,52,26,54,35,33,53		4,18,58,26,44	
		22,24, 0, 2,42,56, 6		1,38
56″	59, 2,20,51,16,26,57,18,29,59		4,18,58,28,22	
		22,23,55,43,44,27,44		1,38
58″	59, 2,21,13,40,22,41, 2,57,43		4,18,58,30, 0	
		22,23,51,24,45,57,44		
60″	59, 2,21,36, 4,14, 5,48,55,27			
exact	59, 2,21,36, 4,14, 5,48,31,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°44′ 0″	59, 2,21,36, 4,14, 5,48,31,16			
		22,23,47, 5,47,23,37		
2″	59, 2,21,58,28, 1,11,35,54,53		4,18,58,33,26	
		22,23,42,46,48,50,11		1,38
4″	59, 2,22,20,51,43,58,24,45, 4		4,18,58,35, 4	
		22,23,38,27,50,15, 7		1,38
6″	59, 2,22,43,15,22,26,15, 0,11		4,18,58,36,42	
		22,23,34, 8,51,38,25		1,38
8″	59, 2,23, 5,38,56,35, 6,38,36		4,18,58,38,20	
		22,23,29,49,53, 0, 5		1,38
10″	59, 2,23,28, 2,26,24,59,38,41		4,18,58,39,58	
		22,23,25,30,54,20, 7		1,38
12″	59, 2,23,50,25,51,55,53,58,48		4,18,58,41,36	
		22,23,21,11,55,38,31		1,38
14″	59, 2,24,12,49,13, 7,49,37,19		4,18,58,43,14	
		22,23,16,52,56,55,17		1,38
16″	59, 2,24,35,12,30, 0,46,32,36		4,18,58,44,52	
		22,23,12,33,58,10,25		1,38
18″	59, 2,24,57,35,42,34,44,43, 1		4,18,58,46,30	
		22,23, 8,14,59,23,55		1,38
20″	59, 2,25,19,58,50,49,44, 6,56		4,18,58,48, 8	
		22,23, 3,56, 0,35,47		1,38
22″	59, 2,25,42,21,54,45,44,42,43		4,18,58,49,46	
		22,22,59,37, 1,46, 1		1,38
24″	59, 2,26, 4,44,54,22,46,28,44		4,18,58,51,24	
		22,22,55,18, 2,54,37		1,38
26″	59, 2,26,27, 7,49,40,49,23,21		4,18,58,53, 2	
		22,22,50,59, 4, 1,35		1,38
28″	59, 2,26,49,30,40,39,53,24,56		4,18,58,54,40	
		22,22,46,40, 5, 6,55		1,38
30″	59, 2,27,11,53,27,19,58,31,51		4,18,58,56,18	
		22,22,42,21, 6,10,37		1,38
32″	59, 2,27,34,16, 9,41, 4,42,28		4,18,58,57,56	
		22,22,38, 2, 7,12,41		1,38
34″	59, 2,27,56,38,47,43,11,55, 9		4,18,58,59,34	
		22,22,33,43, 8,13, 7		1,38
36″	59, 2,28,19, 1,21,26,20, 8,16		4,18,59, 1,12	
		22,22,29,24, 9,11,55		1,38
38″	59, 2,28,41,23,50,50,29,20,11		4,18,59, 2,50	
		22,22,25, 5,10, 9, 5		1,38
40″	59, 2,29, 3,46,15,55,39,29,16		4,18,59, 4,28	
		22,22,20,46,11, 4,37		1,38
42″	59, 2,29,26, 8,36,41,50,33,53		4,18,59, 6, 6	
		22,22,16,27,11,58,31		1,38
44″	59, 2,29,48,30,53, 9, 2,32,24		4,18,59, 7,44	
		22,22,12, 8,12,50,47		1,38
46″	59, 2,30,10,53, 5,17,15,23,11		4,18,59, 9,22	
		22,22, 7,49,13,41,25		1,38
48″	59, 2,30,33,15,13, 6,29, 4,36		4,18,59,11, 0	
		22,22, 3,30,14,30,25		1,38
50″	59, 2,30,55,37,16,36,43,35, 1		4,18,59,12,38	
		22,21,59,11,15,17,47		1,38
52″	59, 2,31,17,59,15,47,58,52,48		4,18,59,14,16	
		22,21,54,52,16, 3,31		1,38
54″	59, 2,31,40,21,10,40,14,56,19		4,18,59,15,54	
		22,21,50,33,16,47,37		1,38
56″	59, 2,32, 2,43, 1,13,31,43,56		4,18,59,17,32	
		22,21,46,14,17,30, 5		1,38
58″	59, 2,32,25, 4,47,27,49,14, 1		4,18,59,19,10	
		22,21,41,55,18,10,55		
60″	59, 2,32,47,26,29,23, 7,24,56			
exact	59, 2,32,47,26,29,23, 7,14,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°45′ 0″	59, 2,32,47,26,29,23, 7,14,43			
		22,21,37,36,18,49, 0		
2″	59, 2,33, 9,48, 6,59,26, 3,43		4,18,59,22,30	
		22,21,33,17,19,26,30		1,38
4″	59, 2,33,32, 9,40,16,45,30,13		4,18,59,24, 8	
		22,21,28,58,20, 2,22		1,38
6″	59, 2,33,54,31, 9,15, 5,32,35		4,18,59,25,46	
		22,21,24,39,20,36,36		1,38
8″	59, 2,34,16,52,33,54,26, 9,11		4,18,59,27,24	
		22,21,20,20,21, 9,12		1,38
10″	59, 2,34,39,13,54,14,47,18,23		4,18,59,29, 2	
		22,21,16, 1,21,40,10		1,38
12″	59, 2,35, 1,35,10,16, 8,58,33		4,18,59,30,40	
		22,21,11,42,22, 9,30		1,38
14″	59, 2,35,23,56,21,58,31, 8, 3		4,18,59,32,18	
		22,21, 7,23,22,37,12		1,38
16″	59, 2,35,46,17,29,21,53,45,15		4,18,59,33,56	
		22,21, 3, 4,23, 3,16		1,38
18″	59, 2,36, 8,38,32,26,16,48,31		4,18,59,35,34	
		22,20,58,45,23,27,42		1,38
20″	59, 2,36,30,59,31,11,40,16,13		4,18,59,37,12	
		22,20,54,26,23,50,30		1,38
22″	59, 2,36,53,20,25,38, 4, 6,43		4,18,59,38,50	
		22,20,50, 7,24,11,40		1,38
24″	59, 2,37,15,41,15,45,28,18,23		4,18,59,40,28	
		22,20,45,48,24,31,12		1,38
26″	59, 2,37,38, 2, 1,33,52,49,35		4,18,59,42, 6	
		22,20,41,29,24,49, 6		1,38
28″	59, 2,38, 0,22,43, 3,17,38,41		4,18,59,43,44	
		22,20,37,10,25, 5,22		1,38
30″	59, 2,38,22,43,20,13,42,44, 3		4,18,59,45,22	
		22,20,32,51,25,20, 0		1,38
32″	59, 2,38,45, 3,53, 5, 8, 4, 3		4,18,59,47, 0	
		22,20,28,32,25,33, 0		1,38
34″	59, 2,39, 7,24,21,37,33,37, 3		4,18,59,48,38	
		22,20,24,13,25,44,22		1,38
36″	59, 2,39,29,44,45,50,59,21,25		4,18,59,50,16	
		22,20,19,54,25,54, 6		1,38
38″	59, 2,39,52, 5, 5,45,25,15,31		4,18,59,51,54	
		22,20,15,35,26, 2,12		1,38
40″	59, 2,40,14,25,21,20,51,17,43		4,18,59,53,32	
		22,20,11,16,26, 8,40		1,38
42″	59, 2,40,36,45,32,37,17,26,23		4,18,59,55,10	
		22,20, 6,57,26,13,30		1,38
44″	59, 2,40,59, 5,39,34,43,39,53		4,18,59,56,48	
		22,20, 2,38,26,16,42		1,38
46″	59, 2,41,21,25,42,13, 9,56,35		4,18,59,58,26	
		22,19,58,19,26,18,16		1,38
48″	59, 2,41,43,45,40,32,36,14,51		4,19, 0, 0, 4	
		22,19,54, 0,26,18,12		1,38
50″	59, 2,42, 6, 5,34,33, 2,33, 3		4,19, 0, 1,42	
		22,19,49,41,26,16,30		1,38
52″	59, 2,42,28,25,24,14,28,49,33		4,19, 0, 3,20	
		22,19,45,22,26,13,10		1,38
54″	59, 2,42,50,45, 9,36,55, 2,43		4,19, 0, 4,58	
		22,19,41, 3,26, 8,12		1,38
56″	59, 2,43,13, 4,50,40,21,10,55		4,19, 0, 6,36	
		22,19,36,44,26, 1,36		1,38
58″	59, 2,43,35,24,27,24,47,12,31		4,19, 0, 8,14	
		22,19,32,25,25,53,22		
60″	59, 2,43,57,43,59,50,13, 5,53			
exact	59, 2,43,57,43,59,50,13, 0,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°46′ 0″	59, 2,43,57,43,59,50,13, 0,42			
		22,19,28, 6,25,43, 8		
2″	59, 2,44,20, 3,27,56,38,43,50		4,19, 0,11,30	
		22,19,23,47,25,31,38		1,38
4″	59, 2,44,42,22,51,44, 4,15,28		4,19, 0,13, 8	
		22,19,19,28,25,18,30		1,38
6″	59, 2,45, 4,42,11,12,29,33,58		4,19, 0,14,46	
		22,19,15, 9,25, 3,44		1,38
8″	59, 2,45,27, 1,26,21,54,37,42		4,19, 0,16,24	
		22,19,10,50,24,47,20		1,38
10″	59, 2,45,49,20,37,12,19,25, 2		4,19, 0,18, 2	
		22,19, 6,31,24,29,18		1,38
12″	59, 2,46,11,39,43,43,43,54,20		4,19, 0,19,40	
		22,19, 2,12,24, 9,38		1,38
14″	59, 2,46,33,58,45,56, 8, 3,58		4,19, 0,21,18	
		22,18,57,53,23,48,20		1,38
16″	59, 2,46,56,17,43,49,31,52,18		4,19, 0,22,56	
		22,18,53,34,23,25,24		1,38
18″	59, 2,47,18,36,37,23,55,17,42		4,19, 0,24,34	
		22,18,49,15,23, 0,50		1,38
20″	59, 2,47,40,55,26,39,18,18,32		4,19, 0,26,12	
		22,18,44,56,22,34,38		1,38
22″	59, 2,48, 3,14,11,35,40,53,10		4,19, 0,27,50	
		22,18,40,37,22, 6,48		1,38
24″	59, 2,48,25,32,52,13, 2,59,58		4,19, 0,29,28	
		22,18,36,18,21,37,20		1,38
26″	59, 2,48,47,51,28,31,24,37,18		4,19, 0,31, 6	
		22,18,31,59,21, 6,14		1,38
28″	59, 2,49,10,10, 0,30,45,43,32		4,19, 0,32,44	
		22,18,27,40,20,33,30		1,38
30″	59, 2,49,32,28,28,11, 6,17, 2		4,19, 0,34,22	
		22,18,23,21,19,59, 8		1,38
32″	59, 2,49,54,46,51,32,26,16,10		4,19, 0,36, 0	
		22,18,19, 2,19,23, 8		1,38
34″	59, 2,50,17, 5,10,34,45,39,18		4,19, 0,37,38	
		22,18,14,43,18,45,30		1,38
36″	59, 2,50,39,23,25,18, 4,24,48		4,19, 0,39,16	
		22,18,10,24,18, 6,14		1,38
38″	59, 2,51, 1,41,35,42,22,31, 2		4,19, 0,40,54	
		22,18, 6, 5,17,25,20		1,38
40″	59, 2,51,23,59,41,47,39,56,22		4,19, 0,42,32	
		22,18, 1,46,16,42,48		1,38
42″	59, 2,51,46,17,43,33,56,39,10		4,19, 0,44,10	
		22,17,57,27,15,58,38		1,38
44″	59, 2,52, 8,35,41, 1,12,37,48		4,19, 0,45,48	
		22,17,53, 8,15,12,50		1,38
46″	59, 2,52,30,53,34, 9,27,50,38		4,19, 0,47,26	
		22,17,48,49,14,25,24		1,38
48″	59, 2,52,53,11,22,58,42,16, 2		4,19, 0,49, 4	
		22,17,44,30,13,36,20		1,38
50″	59, 2,53,15,29, 7,28,55,52,22		4,19, 0,50,42	
		22,17,40,11,12,45,38		1,38
52″	59, 2,53,37,46,47,40, 8,38, 0		4,19, 0,52,20	
		22,17,35,52,11,53,18		1,38
54″	59, 2,54, 0, 4,23,32,20,31,18		4,19, 0,53,58	
		22,17,31,33,10,59,20		1,38
56″	59, 2,54,22,21,55, 5,31,30,38		4,19, 0,55,36	
		22,17,27,14,10, 3,44		1,38
58″	59, 2,54,44,39,22,19,41,34,22		4,19, 0,57,14	
		22,17,22,55, 9, 6,30		
60″	59, 2,55, 6,56,45,14,50,40,52			
exact	59, 2,55, 6,56,45,14,50,45,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°47′ 0″	59, 2,55, 6,56,45,14,50,45,47			
		22,17,18,36, 8, 8,22		
2″	59, 2,55,29,14, 3,50,58,54, 9		4,19, 1, 0,26	
		22,17,14,17, 7, 7,56		1,38
4″	59, 2,55,51,31,18, 8, 6, 2, 5		4,19, 1, 2, 4	
		22,17, 9,58, 6, 5,52		1,38
6″	59, 2,56,13,48,28, 6,12, 7,57		4,19, 1, 3,42	
		22,17, 5,39, 5, 2,10		1,38
8″	59, 2,56,36, 5,33,45,17,10, 7		4,19, 1, 5,20	
		22,17, 1,20, 3,56,50		1,38
10″	59, 2,56,58,22,35, 5,21, 6,57		4,19, 1, 6,58	
		22,16,57, 1, 2,49,52		1,38
12″	59, 2,57,20,39,32, 6,23,56,49		4,19, 1, 8,36	
		22,16,52,42, 1,41,16		1,38
14″	59, 2,57,42,56,24,48,25,38, 5		4,19, 1,10,14	
		22,16,48,23, 0,31, 2		1,38
16″	59, 2,58, 5,13,13,11,26, 9, 7		4,19, 1,11,52	
		22,16,44, 3,59,19,10		1,38
18″	59, 2,58,27,29,57,15,25,28,17		4,19, 1,13,30	
		22,16,39,44,58, 5,40		1,38
20″	59, 2,58,49,46,37, 0,23,33,57		4,19, 1,15, 8	
		22,16,35,25,56,50,32		1,38
22″	59, 2,59,12, 3,12,26,20,24,29		4,19, 1,16,46	
		22,16,31, 6,55,33,46		1,38
24″	59, 2,59,34,19,43,33,15,58,15		4,19, 1,18,24	
		22,16,26,47,54,15,22		1,38
26″	59, 2,59,56,36,10,21,10,13,37		4,19, 1,20, 2	
		22,16,22,28,52,55,20		1,38
28″	59, 3, 0,18,52,32,50, 3, 8,57		4,19, 1,21,40	
		22,16,18, 9,51,33,40		1,38
30″	59, 3, 0,41, 8,50,59,54,42,37		4,19, 1,23,18	
		22,16,13,50,50,10,22		1,38
32″	59, 3, 1, 3,25, 4,50,44,52,59		4,19, 1,24,56	
		22,16, 9,31,48,45,26		1,38
34″	59, 3, 1,25,41,14,22,33,38,25		4,19, 1,26,34	
		22,16, 5,12,47,18,52		1,38
36″	59, 3, 1,47,57,19,35,20,57,17		4,19, 1,28,12	
		22,16, 0,53,45,50,40		1,38
38″	59, 3, 2,10,13,20,29, 6,47,57		4,19, 1,29,50	
		22,15,56,34,44,20,50		1,38
40″	59, 3, 2,32,29,17, 3,51, 8,47		4,19, 1,31,28	
		22,15,52,15,42,49,22		1,38
42″	59, 3, 2,54,45, 9,19,33,58, 9		4,19, 1,33, 6	
		22,15,47,56,41,16,16		1,38
44″	59, 3, 3,17, 0,57,16,15,14,25		4,19, 1,34,44	
		22,15,43,37,39,41,32		1,38
46″	59, 3, 3,39,16,40,53,54,55,57		4,19, 1,36,22	
		22,15,39,18,38, 5,10		1,38
48″	59, 3, 4, 1,32,20,12,33, 1, 7		4,19, 1,38, 0	
		22,15,34,59,36,27,10		1,38
50″	59, 3, 4,23,47,55,12, 9,28,17		4,19, 1,39,38	
		22,15,30,40,34,47,32		1,38
52″	59, 3, 4,46, 3,25,52,44,15,49		4,19, 1,41,16	
		22,15,26,21,33, 6,16		1,38
54″	59, 3, 5, 8,18,52,14,17,22, 5		4,19, 1,42,54	
		22,15,22, 2,31,23,22		1,38
56″	59, 3, 5,30,34,14,16,48,45,27		4,19, 1,44,32	
		22,15,17,43,29,38,50		1,38
58″	59, 3, 5,52,49,32, 0,18,24,17		4,19, 1,46,10	
		22,15,13,24,27,52,40		
60″	59, 3, 6,15, 4,45,24,46,16,57			
exact	59, 3, 6,15, 4,45,24,46,37,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°48′ 0″	59, 3, 6,15, 4,45,24,46,37,32			
		22,15, 9, 5,26, 7, 5		
2″	59, 3, 6,37,19,54,30,12,44,37		4,19, 1,49,16	
		22,15, 4,46,24,17,49		1,38
4″	59, 3, 6,59,34,59,16,37, 2,26		4,19, 1,50,54	
		22,15, 0,27,22,26,55		1,38
6″	59, 3, 7,21,49,59,43,59,29,21		4,19, 1,52,32	
		22,14,56, 8,20,34,23		1,38
8″	59, 3, 7,44, 4,55,52,20, 3,44		4,19, 1,54,10	
		22,14,51,49,18,40,13		1,38
10″	59, 3, 8, 6,19,47,41,38,43,57		4,19, 1,55,48	
		22,14,47,30,16,44,25		1,38
12″	59, 3, 8,28,34,35,11,55,28,22		4,19, 1,57,26	
		22,14,43,11,14,46,59		1,38
14″	59, 3, 8,50,49,18,23,10,15,21		4,19, 1,59, 4	
		22,14,38,52,12,47,55		1,38
16″	59, 3, 9,13, 3,57,15,23, 3,16		4,19, 2, 0,42	
		22,14,34,33,10,47,13		1,38
18″	59, 3, 9,35,18,31,48,33,50,29		4,19, 2, 2,20	
		22,14,30,14, 8,44,53		1,38
20″	59, 3, 9,57,33, 2, 2,42,35,22		4,19, 2, 3,58	
		22,14,25,55, 6,40,55		1,38
22″	59, 3,10,19,47,27,57,49,16,17		4,19, 2, 5,36	
		22,14,21,36, 4,35,19		1,38
24″	59, 3,10,42, 1,49,33,53,51,36		4,19, 2, 7,14	
		22,14,17,17, 2,28, 5		1,38
26″	59, 3,11, 4,16, 6,50,56,19,41		4,19, 2, 8,52	
		22,14,12,58, 0,19,13		1,38
28″	59, 3,11,26,30,19,48,56,38,54		4,19, 2,10,30	
		22,14, 8,38,58, 8,43		1,38
30″	59, 3,11,48,44,28,27,54,47,37		4,19, 2,12, 8	
		22,14, 4,19,55,56,35		1,38
32″	59, 3,12,10,58,32,47,50,44,12		4,19, 2,13,46	
		22,14, 0, 0,53,42,49		1,38
34″	59, 3,12,33,12,32,48,44,27, 1		4,19, 2,15,24	
		22,13,55,41,51,27,25		1,38
36″	59, 3,12,55,26,28,30,35,54,26		4,19, 2,17, 2	
		22,13,51,22,49,10,23		1,38
38″	59, 3,13,17,40,19,53,25, 4,49		4,19, 2,18,40	
		22,13,47, 3,46,51,43		1,38
40″	59, 3,13,39,54, 6,57,11,56,32		4,19, 2,20,18	
		22,13,42,44,44,31,25		1,38
42″	59, 3,14, 2, 7,49,41,56,27,57		4,19, 2,21,56	
		22,13,38,25,42, 9,29		1,38
44″	59, 3,14,24,21,28, 7,38,37,26		4,19, 2,23,34	
		22,13,34, 6,39,45,55		1,38
46″	59, 3,14,46,35, 2,14,18,23,21		4,19, 2,25,12	
		22,13,29,47,37,20,43		1,38
48″	59, 3,15, 8,48,32, 1,55,44, 4		4,19, 2,26,50	
		22,13,25,28,34,53,53		1,38
50″	59, 3,15,31, 1,57,30,30,37,57		4,19, 2,28,28	
		22,13,21, 9,32,25,25		1,38
52″	59, 3,15,53,15,18,40, 3, 3,22		4,19, 2,30, 6	
		22,13,16,50,29,55,19		1,38
54″	59, 3,16,15,28,35,30,32,58,41		4,19, 2,31,44	
		22,13,12,31,27,23,35		1,38
56″	59, 3,16,37,41,48, 2, 0,22,16		4,19, 2,33,22	
		22,13, 8,12,24,50,13		1,38
58″	59, 3,16,59,54,56,14,25,12,29		4,19, 2,35, 0	
		22,13, 3,53,22,15,13		
60″	59, 3,17,22, 8, 0, 7,47,27,42			
exact	59, 3,17,22, 8, 0, 7,47,54,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°49′ 0″	59, 3,17,22, 8, 0, 7,47,54,32			
		22,12,59,34,19,41,39		
2″	59, 3,17,44,20,59,42, 7,36,11		4,19, 2,38, 2	
		22,12,55,15,17, 3,37		1,37
4″	59, 3,18, 6,33,54,57,24,39,48		4,19, 2,39,39	
		22,12,50,56,14,23,58		1,37
6″	59, 3,18,28,46,45,53,39, 3,46		4,19, 2,41,16	
		22,12,46,37,11,42,42		1,37
8″	59, 3,18,50,59,32,30,50,46,28		4,19, 2,42,53	
		22,12,42,18, 8,59,49		1,37
10″	59, 3,19,13,12,14,48,59,46,17		4,19, 2,44,30	
		22,12,37,59, 6,15,19		1,37
12″	59, 3,19,35,24,52,48, 6, 1,36		4,19, 2,46, 7	
		22,12,33,40, 3,29,12		1,37
14″	59, 3,19,57,37,26,28, 9,30,48		4,19, 2,47,44	
		22,12,29,21, 0,41,28		1,37
16″	59, 3,20,19,49,55,49,10,12,16		4,19, 2,49,21	
		22,12,25, 1,57,52, 7		1,37
18″	59, 3,20,42, 2,20,51, 8, 4,23		4,19, 2,50,58	
		22,12,20,42,55, 1, 9		1,37
20″	59, 3,21, 4,14,41,34, 3, 5,32		4,19, 2,52,35	
		22,12,16,23,52, 8,34		1,37
22″	59, 3,21,26,26,57,57,55,14, 6		4,19, 2,54,12	
		22,12,12, 4,49,14,22		1,37
24″	59, 3,21,48,39,10, 2,44,28,28		4,19, 2,55,49	
		22,12, 7,45,46,18,33		1,37
26″	59, 3,22,10,51,17,48,30,47, 1		4,19, 2,57,26	
		22,12, 3,26,43,21, 7		1,37
28″	59, 3,22,33, 3,21,15,14, 8, 8		4,19, 2,59, 3	
		22,11,59, 7,40,22, 4		1,37
30″	59, 3,22,55,15,20,22,54,30,12		4,19, 3, 0,40	
		22,11,54,48,37,21,24		1,37
32″	59, 3,23,17,27,15,11,31,51,36		4,19, 3, 2,17	
		22,11,50,29,34,19, 7		1,37
34″	59, 3,23,39,39, 5,41, 6,10,43		4,19, 3, 3,54	
		22,11,46,10,31,15,13		1,37
36″	59, 3,24, 1,50,51,51,37,25,56		4,19, 3, 5,31	
		22,11,41,51,28, 9,42		1,37
38″	59, 3,24,24, 2,33,43, 5,35,38		4,19, 3, 7, 8	
		22,11,37,32,25, 2,34		1,37
40″	59, 3,24,46,14,11,15,30,38,12		4,19, 3, 8,45	
		22,11,33,13,21,53,49		1,37
42″	59, 3,25, 8,25,44,28,52,32, 1		4,19, 3,10,22	
		22,11,28,54,18,43,27		1,37
44″	59, 3,25,30,37,13,23,11,15,28		4,19, 3,11,59	
		22,11,24,35,15,31,28		1,37
46″	59, 3,25,52,48,37,58,26,46,56		4,19, 3,13,36	
		22,11,20,16,12,17,52		1,37
48″	59, 3,26,14,59,58,14,39, 4,48		4,19, 3,15,13	
		22,11,15,57, 9, 2,39		1,37
50″	59, 3,26,37,11,14,11,48, 7,27		4,19, 3,16,50	
		22,11,11,38, 5,45,49		1,37
52″	59, 3,26,59,22,25,49,53,53,16		4,19, 3,18,27	
		22,11, 7,19, 2,27,22		1,37
54″	59, 3,27,21,33,33, 8,56,20,38		4,19, 3,20, 4	
		22,11, 2,59,59, 7,18		1,37
56″	59, 3,27,43,44,36, 8,55,27,56		4,19, 3,21,41	
		22,10,58,40,55,45,37		1,37
58″	59, 3,28, 5,55,34,49,51,13,33		4,19, 3,23,18	
		22,10,54,21,52,22,19		
60″	59, 3,28,28, 6,29,11,43,35,52			
exact	59, 3,28,28, 6,29,11,43, 6,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°50′ 0″	59, 3,28,28, 6,29,11,43, 6,24			
		22,10,50, 2,48,54,25		
2″	59, 3,28,50,17,19,14,32, 0,49		4,19, 3,26,43	
		22,10,45,43,45,27,42		1,37
4″	59, 3,29,12,28, 4,58,17,28,31		4,19, 3,28,20	
		22,10,41,24,41,59,22		1,37
6″	59, 3,29,34,38,46,22,59,27,53		4,19, 3,29,57	
		22,10,37, 5,38,29,25		1,37
8″	59, 3,29,56,49,23,28,37,57,18		4,19, 3,31,34	
		22,10,32,46,34,57,51		1,37
10″	59, 3,30,18,59,56,15,12,55, 9		4,19, 3,33,11	
		22,10,28,27,31,24,40		1,37
12″	59, 3,30,41,10,24,42,44,19,49		4,19, 3,34,48	
		22,10,24, 8,27,49,52		1,37
14″	59, 3,31, 3,20,48,51,12, 9,41		4,19, 3,36,25	
		22,10,19,49,24,13,27		1,37
16″	59, 3,31,25,31, 8,40,36,23, 8		4,19, 3,38, 2	
		22,10,15,30,20,35,25		1,37
18″	59, 3,31,47,41,24,10,56,58,33		4,19, 3,39,39	
		22,10,11,11,16,55,46		1,37
20″	59, 3,32, 9,51,35,22,13,54,19		4,19, 3,41,16	
		22,10, 6,52,13,14,30		1,37
22″	59, 3,32,32, 1,42,14,27, 8,49		4,19, 3,42,53	
		22,10, 2,33, 9,31,37		1,37
24″	59, 3,32,54,11,44,47,36,40,26		4,19, 3,44,30	
		22, 9,58,14, 5,47, 7		1,37
26″	59, 3,33,16,21,43, 1,42,27,33		4,19, 3,46, 7	
		22, 9,53,55, 2, 1, 0		1,37
28″	59, 3,33,38,31,36,56,44,28,33		4,19, 3,47,44	
		22, 9,49,35,58,13,16		1,37
30″	59, 3,34, 0,41,26,32,42,41,49		4,19, 3,49,21	
		22, 9,45,16,54,23,55		1,37
32″	59, 3,34,22,51,11,49,37, 5,44		4,19, 3,50,58	
		22, 9,40,57,50,32,57		1,37
34″	59, 3,34,45, 0,52,47,27,38,41		4,19, 3,52,35	
		22, 9,36,38,46,40,22		1,37
36″	59, 3,35, 7,10,29,26,14,19, 3		4,19, 3,54,12	
		22, 9,32,19,42,46,10		1,37
38″	59, 3,35,29,20, 1,45,57, 5,13		4,19, 3,55,49	
		22, 9,28, 0,38,50,21		1,37
40″	59, 3,35,51,29,29,46,35,55,34		4,19, 3,57,26	
		22, 9,23,41,34,52,55		1,37
42″	59, 3,36,13,38,53,28,10,48,29		4,19, 3,59, 3	
		22, 9,19,22,30,53,52		1,37
44″	59, 3,36,35,48,12,50,41,42,21		4,19, 4, 0,40	
		22, 9,15, 3,26,53,12		1,37
46″	59, 3,36,57,57,27,54, 8,35,33		4,19, 4, 2,17	
		22, 9,10,44,22,50,55		1,37
48″	59, 3,37,20, 6,38,38,31,26,28		4,19, 4, 3,54	
		22, 9, 6,25,18,47, 1		1,37
50″	59, 3,37,42,15,45, 3,50,13,29		4,19, 4, 5,31	
		22, 9, 2, 6,14,41,30		1,37
52″	59, 3,38, 4,24,47,10, 4,54,59		4,19, 4, 7, 8	
		22, 8,57,47,10,34,22		1,37
54″	59, 3,38,26,33,44,57,15,29,21		4,19, 4, 8,45	
		22, 8,53,28, 6,25,37		1,37
56″	59, 3,38,48,42,38,25,21,54,58		4,19, 4,10,22	
		22, 8,49, 9, 2,15,15		1,37
58″	59, 3,39,10,51,27,34,24,10,13		4,19, 4,11,59	
		22, 8,44,49,58, 3,16		
60″	59, 3,39,33, 0,12,24,22,13,29			
exact	59, 3,39,33, 0,12,24,21,53,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°51′ 0″	59, 3,39,33, 0,12,24,21,53,44			
		22, 8,40,30,53,47,45		
2″	59, 3,39,55, 8,52,55,15,41,29		4,19, 4,15,20	
		22, 8,36,11,49,32,25		1,37
4″	59, 3,40,17,17,29, 7, 5,13,54		4,19, 4,16,57	
		22, 8,31,52,45,15,28		1,37
6″	59, 3,40,39,26, 0,59,50,29,22		4,19, 4,18,34	
		22, 8,27,33,40,56,54		1,37
8″	59, 3,41, 1,34,28,33,31,26,16		4,19, 4,20,11	
		22, 8,23,14,36,36,43		1,37
10″	59, 3,41,23,42,51,48, 8, 2,59		4,19, 4,21,48	
		22, 8,18,55,32,14,55		1,37
12″	59, 3,41,45,51,10,43,40,17,54		4,19, 4,23,25	
		22, 8,14,36,27,51,30		1,37
14″	59, 3,42, 7,59,25,20, 8, 9,24		4,19, 4,25, 2	
		22, 8,10,17,23,26,28		1,37
16″	59, 3,42,30, 7,35,37,31,35,52		4,19, 4,26,39	
		22, 8, 5,58,18,59,49		1,37
18″	59, 3,42,52,15,41,35,50,35,41		4,19, 4,28,16	
		22, 8, 1,39,14,31,33		1,37
20″	59, 3,43,14,23,43,15, 5, 7,14		4,19, 4,29,53	
		22, 7,57,20,10, 1,40		1,37
22″	59, 3,43,36,31,40,35,15, 8,54		4,19, 4,31,30	
		22, 7,53, 1, 5,30,10		1,37
24″	59, 3,43,58,39,33,36,20,39, 4		4,19, 4,33, 7	
		22, 7,48,42, 0,57, 3		1,37
26″	59, 3,44,20,47,22,18,21,36, 7		4,19, 4,34,44	
		22, 7,44,22,56,22,19		1,37
28″	59, 3,44,42,55, 6,41,17,58,26		4,19, 4,36,21	
		22, 7,40, 3,51,45,58		1,37
30″	59, 3,45, 5, 2,46,45, 9,44,24		4,19, 4,37,58	
		22, 7,35,44,47, 8, 0		1,37
32″	59, 3,45,27,10,22,29,56,52,24		4,19, 4,39,35	
		22, 7,31,25,42,28,25		1,37
34″	59, 3,45,49,17,53,55,39,20,49		4,19, 4,41,12	
		22, 7,27, 6,37,47,13		1,37
36″	59, 3,46,11,25,21, 2,17, 8, 2		4,19, 4,42,49	
		22, 7,22,47,33, 4,24		1,37
38″	59, 3,46,33,32,43,49,50,12,26		4,19, 4,44,26	
		22, 7,18,28,28,19,58		1,37
40″	59, 3,46,55,40, 2,18,18,32,24		4,19, 4,46, 3	
		22, 7,14, 9,23,33,55		1,37
42″	59, 3,47,17,47,16,27,42, 6,19		4,19, 4,47,40	
		22, 7, 9,50,18,46,15		1,37
44″	59, 3,47,39,54,26,18, 0,52,34		4,19, 4,49,17	
		22, 7, 5,31,13,56,58		1,37
46″	59, 3,48, 2, 1,31,49,14,49,32		4,19, 4,50,54	
		22, 7, 1,12, 9, 6, 4		1,37
48″	59, 3,48,24, 8,33, 1,23,55,36		4,19, 4,52,31	
		22, 6,56,53, 4,13,33		1,37
50″	59, 3,48,46,15,29,54,28, 9, 9		4,19, 4,54, 8	
		22, 6,52,33,59,19,25		1,37
52″	59, 3,49, 8,22,22,28,27,28,34		4,19, 4,55,45	
		22, 6,48,14,54,23,40		1,37
54″	59, 3,49,30,29,10,43,21,52,14		4,19, 4,57,22	
		22, 6,43,55,49,26,18		1,37
56″	59, 3,49,52,35,54,39,11,18,32		4,19, 4,58,59	
		22, 6,39,36,44,27,19		1,37
58″	59, 3,50,14,42,34,15,55,45,51		4,19, 5, 0,36	
		22, 6,35,17,39,26,43		
60″	59, 3,50,36,49, 9,33,35,12,34			
exact	59, 3,50,36,49, 9,33,35, 8,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°52′ 0″	59, 3,50,36,49, 9,33,35, 8,12			
		22, 6,30,58,34,24, 3		
2″	59, 3,50,58,55,40,32, 9,32,15		4,19, 5, 3,51	
		22, 6,26,39,29,20,12		1,37
4″	59, 3,51,21, 2, 7,11,38,52,27		4,19, 5, 5,28	
		22, 6,22,20,24,14,44		1,37
6″	59, 3,51,43, 8,29,32, 3, 7,11		4,19, 5, 7, 5	
		22, 6,18, 1,19, 7,39		1,37
8″	59, 3,52, 5,14,47,33,22,14,50		4,19, 5, 8,42	
		22, 6,13,42,13,58,57		1,37
10″	59, 3,52,27,21, 1,15,36,13,47		4,19, 5,10,19	
		22, 6, 9,23, 8,48,38		1,37
12″	59, 3,52,49,27,10,38,45, 2,25		4,19, 5,11,56	
		22, 6, 5, 4, 3,36,42		1,37
14″	59, 3,53,11,33,15,42,48,39, 7		4,19, 5,13,33	
		22, 6, 0,44,58,23, 9		1,37
16″	59, 3,53,33,39,16,27,47, 2,16		4,19, 5,15,10	
		22, 5,56,25,53, 7,59		1,37
18″	59, 3,53,55,45,12,53,40,10,15		4,19, 5,16,47	
		22, 5,52, 6,47,51,12		1,37
20″	59, 3,54,17,51, 5, 0,28, 1,27		4,19, 5,18,24	
		22, 5,47,47,42,32,48		1,37
22″	59, 3,54,39,56,52,48,10,34,15		4,19, 5,20, 1	
		22, 5,43,28,37,12,47		1,37
24″	59, 3,55, 2, 2,36,16,47,47, 2		4,19, 5,21,38	
		22, 5,39, 9,31,51, 9		1,37
26″	59, 3,55,24, 8,15,26,19,38,11		4,19, 5,23,15	
		22, 5,34,50,26,27,54		1,37
28″	59, 3,55,46,13,50,16,46, 6, 5		4,19, 5,24,52	
		22, 5,30,31,21, 3, 2		1,37
30″	59, 3,56, 8,19,20,48, 7, 9, 7		4,19, 5,26,29	
		22, 5,26,12,15,36,33		1,37
32″	59, 3,56,30,24,47, 0,22,45,40		4,19, 5,28, 6	
		22, 5,21,53,10, 8,27		1,37
34″	59, 3,56,52,30, 8,53,32,54, 7		4,19, 5,29,43	
		22, 5,17,34, 4,38,44		1,37
36″	59, 3,57,14,35,26,27,37,32,51		4,19, 5,31,20	
		22, 5,13,14,59, 7,24		1,37
38″	59, 3,57,36,40,39,42,36,40,15		4,19, 5,32,57	
		22, 5, 8,55,53,34,27		1,37
40″	59, 3,57,58,45,48,38,30,14,42		4,19, 5,34,34	
		22, 5, 4,36,47,59,53		1,37
42″	59, 3,58,20,50,53,15,18,14,35		4,19, 5,36,11	
		22, 5, 0,17,42,23,42		1,37
44″	59, 3,58,42,55,53,33, 0,38,17		4,19, 5,37,48	
		22, 4,55,58,36,45,54		1,37
46″	59, 3,59, 5, 0,49,31,37,24,11		4,19, 5,39,25	
		22, 4,51,39,31, 6,29		1,37
48″	59, 3,59,27, 5,41,11, 8,30,40		4,19, 5,41, 2	
		22, 4,47,20,25,25,27		1,37
50″	59, 3,59,49,10,28,31,33,56, 7		4,19, 5,42,39	
		22, 4,43, 1,19,42,48		1,37
52″	59, 4, 0,11,15,11,32,53,38,55		4,19, 5,44,16	
		22, 4,38,42,13,58,32		1,37
54″	59, 4, 0,33,19,50,15, 7,37,27		4,19, 5,45,53	
		22, 4,34,23, 8,12,39		1,37
56″	59, 4, 0,55,24,24,38,15,50, 6		4,19, 5,47,30	
		22, 4,30, 4, 2,25, 9		1,37
58″	59, 4, 1,17,28,54,42,18,15,15		4,19, 5,49, 7	
		22, 4,25,44,56,36, 2		
60″	59, 4, 1,39,33,20,27,14,51,17			
exact	59, 4, 1,39,33,20,27,14,52,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°53′ 0″	59, 4, 1,39,33,20,27,14,52,26			
		22, 4,21,25,50,45,39		
2″	59, 4, 2, 1,37,41,53, 5,38, 5		4,19, 5,52,18	
		22, 4,17, 6,44,53,21		1,37
4″	59, 4, 2,23,41,58,59,50,31,26		4,19, 5,53,55	
		22, 4,12,47,38,59,26		1,37
6″	59, 4, 2,45,46,11,47,29,30,52		4,19, 5,55,32	
		22, 4, 8,28,33, 3,54		1,37
8″	59, 4, 3, 7,50,20,16, 2,34,46		4,19, 5,57, 9	
		22, 4, 4, 9,27, 6,45		1,37
10″	59, 4, 3,29,54,24,25,29,41,31		4,19, 5,58,46	
		22, 3,59,50,21, 7,59		1,37
12″	59, 4, 3,51,58,24,15,50,49,30		4,19, 6, 0,23	
		22, 3,55,31,15, 7,36		1,37
14″	59, 4, 4,14, 2,19,47, 5,57, 6		4,19, 6, 2, 0	
		22, 3,51,12, 9, 5,36		1,37
16″	59, 4, 4,36, 6,10,59,15, 2,42		4,19, 6, 3,37	
		22, 3,46,53, 3, 1,59		1,37
18″	59, 4, 4,58, 9,57,52,18, 4,41		4,19, 6, 5,14	
		22, 3,42,33,56,56,45		1,37
20″	59, 4, 5,20,13,40,26,15, 1,26		4,19, 6, 6,51	
		22, 3,38,14,50,49,54		1,37
22″	59, 4, 5,42,17,18,41, 5,51,20		4,19, 6, 8,28	
		22, 3,33,55,44,41,26		1,37
24″	59, 4, 6, 4,20,52,36,50,32,46		4,19, 6,10, 5	
		22, 3,29,36,38,31,21		1,37
26″	59, 4, 6,26,24,22,13,29, 4, 7		4,19, 6,11,42	
		22, 3,25,17,32,19,39		1,37
28″	59, 4, 6,48,27,47,31, 1,23,46		4,19, 6,13,19	
		22, 3,20,58,26, 6,20		1,37
30″	59, 4, 7,10,31, 8,29,27,30, 6		4,19, 6,14,56	
		22, 3,16,39,19,51,24		1,37
32″	59, 4, 7,32,34,25, 8,47,21,30		4,19, 6,16,33	
		22, 3,12,20,13,34,51		1,37
34″	59, 4, 7,54,37,37,29, 0,56,21		4,19, 6,18,10	
		22, 3, 8, 1, 7,16,41		1,37
36″	59, 4, 8,16,40,45,30, 8,13, 2		4,19, 6,19,47	
		22, 3, 3,42, 0,56,54		1,37
38″	59, 4, 8,38,43,49,12, 9, 9,56		4,19, 6,21,24	
		22, 2,59,22,54,35,30		1,37
40″	59, 4, 9, 0,46,48,35, 3,45,26		4,19, 6,23, 1	
		22, 2,55, 3,48,12,29		1,37
42″	59, 4, 9,22,49,43,38,51,57,55		4,19, 6,24,38	
		22, 2,50,44,41,47,51		1,37
44″	59, 4, 9,44,52,34,23,33,45,46		4,19, 6,26,15	
		22, 2,46,25,35,21,36		1,37
46″	59, 4,10, 6,55,20,49, 9, 7,22		4,19, 6,27,52	
		22, 2,42, 6,28,53,44		1,37
48″	59, 4,10,28,58, 2,55,38, 1, 6		4,19, 6,29,29	
		22, 2,37,47,22,24,15		1,37
50″	59, 4,10,51, 0,40,43, 0,25,21		4,19, 6,31, 6	
		22, 2,33,28,15,53, 9		1,37
52″	59, 4,11,13, 3,14,11,16,18,30		4,19, 6,32,43	
		22, 2,29, 9, 9,20,26		1,37
54″	59, 4,11,35, 5,43,20,25,38,56		4,19, 6,34,20	
		22, 2,24,50, 2,46, 6		1,37
56″	59, 4,11,57, 8, 8,10,28,25, 2		4,19, 6,35,57	
		22, 2,20,30,56,10, 9		1,37
58″	59, 4,12,19,10,28,41,24,35,11		4,19, 6,37,34	
		22, 2,16,11,49,32,35		
60″	59, 4,12,41,12,44,53,14, 7,46			
exact	59, 4,12,41,12,44,53,14,20, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°54′ 0″	59, 4,12,41,12,44,53,14,20, 9			
		22, 2,11,52,42,54,56		
2″	59, 4,13, 3,14,56,45,57,15, 5		4,19, 6,40,41	
		22, 2, 7,33,36,14,15		1,37
4″	59, 4,13,25,17, 4,19,33,29,20		4,19, 6,42,18	
		22, 2, 3,14,29,31,57		1,37
6″	59, 4,13,47,19, 7,34, 3, 1,17		4,19, 6,43,55	
		22, 1,58,55,22,48, 2		1,37
8″	59, 4,14, 9,21, 6,29,25,49,19		4,19, 6,45,32	
		22, 1,54,36,16, 2,30		1,37
10″	59, 4,14,31,23, 1, 5,41,51,49		4,19, 6,47, 9	
		22, 1,50,17, 9,15,21		1,37
12″	59, 4,14,53,24,51,22,51, 7,10		4,19, 6,48,46	
		22, 1,45,58, 2,26,35		1,37
14″	59, 4,15,15,26,37,20,53,33,45		4,19, 6,50,23	
		22, 1,41,38,55,36,12		1,37
16″	59, 4,15,37,28,18,59,49, 9,57		4,19, 6,52, 0	
		22, 1,37,19,48,44,12		1,37
18″	59, 4,15,59,29,56,19,37,54, 9		4,19, 6,53,37	
		22, 1,33, 0,41,50,35		1,37
20″	59, 4,16,21,31,29,20,19,44,44		4,19, 6,55,14	
		22, 1,28,41,34,55,21		1,37
22″	59, 4,16,43,32,58, 1,54,40, 5		4,19, 6,56,51	
		22, 1,24,22,27,58,30		1,37
24″	59, 4,17, 5,34,22,24,22,38,35		4,19, 6,58,28	
		22, 1,20, 3,21, 0, 2		1,37
26″	59, 4,17,27,35,42,27,43,38,37		4,19, 7, 0, 5	
		22, 1,15,44,13,59,57		1,37
28″	59, 4,17,49,36,58,11,57,38,34		4,19, 7, 1,42	
		22, 1,11,25, 6,58,15		1,37
30″	59, 4,18,11,38, 9,37, 4,36,49		4,19, 7, 3,19	
		22, 1, 7, 5,59,54,56		1,37
32″	59, 4,18,33,39,16,43, 4,31,45		4,19, 7, 4,56	
		22, 1, 2,46,52,50, 0		1,37
34″	59, 4,18,55,40,19,29,57,21,45		4,19, 7, 6,33	
		22, 0,58,27,45,43,27		1,37
36″	59, 4,19,17,41,17,57,43, 5,12		4,19, 7, 8,10	
		22, 0,54, 8,38,35,17		1,37
38″	59, 4,19,39,42,12, 6,21,40,29		4,19, 7, 9,47	
		22, 0,49,49,31,25,30		1,37
40″	59, 4,20, 1,43, 1,55,53, 5,59		4,19, 7,11,24	
		22, 0,45,30,24,14, 6		1,37
42″	59, 4,20,23,43,47,26,17,20, 5		4,19, 7,13, 1	
		22, 0,41,11,17, 1, 5		1,37
44″	59, 4,20,45,44,28,37,34,21,10		4,19, 7,14,38	
		22, 0,36,52, 9,46,27		1,37
46″	59, 4,21, 7,45, 5,29,44, 7,37		4,19, 7,16,15	
		22, 0,32,33, 2,30,12		1,37
48″	59, 4,21,29,45,38, 2,46,37,49		4,19, 7,17,52	
		22, 0,28,13,55,12,20		1,37
50″	59, 4,21,51,46, 6,16,41,50, 9		4,19, 7,19,29	
		22, 0,23,54,47,52,51		1,37
52″	59, 4,22,13,46,30,11,29,43, 0		4,19, 7,21, 6	
		22, 0,19,35,40,31,45		1,37
54″	59, 4,22,35,46,49,47,10,14,45		4,19, 7,22,43	
		22, 0,15,16,33, 9, 2		1,37
56″	59, 4,22,57,47, 5, 3,43,23,47		4,19, 7,24,20	
		22, 0,10,57,25,44,42		1,37
58″	59, 4,23,19,47,16, 1, 9, 8,29		4,19, 7,25,57	
		22, 0, 6,38,18,18,45		
60″	59, 4,23,41,47,22,39,27,27,14			
exact	59, 4,23,41,47,22,39,27,56, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°55′ 0″	59, 4,23,41,47,22,39,27,56, 5			
		22, 0, 2,19,10,54,15		
2″	59, 4,24, 3,47,24,58,38,50,20		4,19, 7,28,58	
		21,59,58, 0, 3,25,17		1,37
4″	59, 4,24,25,47,22,58,42,15,37		4,19, 7,30,35	
		21,59,53,40,55,54,42		1,37
6″	59, 4,24,47,47,16,39,38,10,19		4,19, 7,32,12	
		21,59,49,21,48,22,30		1,37
8″	59, 4,25, 9,47, 6, 1,26,32,49		4,19, 7,33,49	
		21,59,45, 2,40,48,41		1,37
10″	59, 4,25,31,46,51, 4, 7,21,30		4,19, 7,35,26	
		21,59,40,43,33,13,15		1,37
12″	59, 4,25,53,46,31,47,40,34,45		4,19, 7,37, 3	
		21,59,36,24,25,36,12		1,37
14″	59, 4,26,15,46, 8,12, 6,10,57		4,19, 7,38,40	
		21,59,32, 5,17,57,32		1,37
16″	59, 4,26,37,45,40,17,24, 8,29		4,19, 7,40,17	
		21,59,27,46,10,17,15		1,37
18″	59, 4,26,59,45, 8, 3,34,25,44		4,19, 7,41,54	
		21,59,23,27, 2,35,21		1,37
20″	59, 4,27,21,44,31,30,37, 1, 5		4,19, 7,43,31	
		21,59,19, 7,54,51,50		1,37
22″	59, 4,27,43,43,50,38,31,52,55		4,19, 7,45, 8	
		21,59,14,48,47, 6,42		1,37
24″	59, 4,28, 5,43, 5,27,18,59,37		4,19, 7,46,45	
		21,59,10,29,39,19,57		1,37
26″	59, 4,28,27,42,15,56,58,19,34		4,19, 7,48,22	
		21,59, 6,10,31,31,35		1,37
28″	59, 4,28,49,41,22, 7,29,51, 9		4,19, 7,49,59	
		21,59, 1,51,23,41,36		1,37
30″	59, 4,29,11,40,23,58,53,32,45		4,19, 7,51,36	
		21,58,57,32,15,50, 0		1,37
32″	59, 4,29,33,39,21,31, 9,22,45		4,19, 7,53,13	
		21,58,53,13, 7,56,47		1,37
34″	59, 4,29,55,38,14,44,17,19,32		4,19, 7,54,50	
		21,58,48,54, 0, 1,57		1,37
36″	59, 4,30,17,37, 3,38,17,21,29		4,19, 7,56,27	
		21,58,44,34,52, 5,30		1,37
38″	59, 4,30,39,35,48,13, 9,26,59		4,19, 7,58, 4	
		21,58,40,15,44, 7,26		1,37
40″	59, 4,31, 1,34,28,28,53,34,25		4,19, 7,59,41	
		21,58,35,56,36, 7,45		1,37
42″	59, 4,31,23,33, 4,25,29,42,10		4,19, 8, 1,18	
		21,58,31,37,28, 6,27		1,37
44″	59, 4,31,45,31,36, 2,57,48,37		4,19, 8, 2,55	
		21,58,27,18,20, 3,32		1,37
46″	59, 4,32, 7,30, 3,21,17,52, 9		4,19, 8, 4,32	
		21,58,22,59,11,59, 0		1,37
48″	59, 4,32,29,28,26,20,29,51, 9		4,19, 8, 6, 9	
		21,58,18,40, 3,52,51		1,37
50″	59, 4,32,51,26,45, 0,33,44, 0		4,19, 8, 7,46	
		21,58,14,20,55,45, 5		1,37
52″	59, 4,33,13,24,59,21,29,29, 5		4,19, 8, 9,23	
		21,58,10, 1,47,35,42		1,37
54″	59, 4,33,35,23, 9,23,17, 4,47		4,19, 8,11, 0	
		21,58, 5,42,39,24,42		1,37
56″	59, 4,33,57,21,15, 5,56,29,29		4,19, 8,12,37	
		21,58, 1,23,31,12, 5		1,37
58″	59, 4,34,19,19,16,29,27,41,34		4,19, 8,14,14	
		21,57,57, 4,22,57,51		
60″	59, 4,34,41,17,13,33,50,39,25			
exact	59, 4,34,41,17,13,33,51,15,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°56′ 0″	59, 4,34,41,17,13,33,51,15,59			
		21,57,52,45,14,46, 0		
2″	59, 4,35, 3,15, 6,19, 6, 1,59		4,19, 8,17,11	
		21,57,48,26, 6,28,49		1,36
4″	59, 4,35,25,12,54,45,12,30,48		4,19, 8,18,47	
		21,57,44, 6,58,10, 2		1,36
6″	59, 4,35,47,10,38,52,10,40,50		4,19, 8,20,23	
		21,57,39,47,49,49,39		1,36
8″	59, 4,36, 9, 8,18,40, 0,30,29		4,19, 8,21,59	
		21,57,35,28,41,27,40		1,36
10″	59, 4,36,31, 5,54, 8,41,58, 9		4,19, 8,23,35	
		21,57,31, 9,33, 4, 5		1,36
12″	59, 4,36,53, 3,25,18,15, 2,14		4,19, 8,25,11	
		21,57,26,50,24,38,54		1,36
14″	59, 4,37,15, 0,52, 8,39,41, 8		4,19, 8,26,47	
		21,57,22,31,16,12, 7		1,36
16″	59, 4,37,36,58,14,39,55,53,15		4,19, 8,28,23	
		21,57,18,12, 7,43,44		1,36
18″	59, 4,37,58,55,32,52, 3,36,59		4,19, 8,29,59	
		21,57,13,52,59,13,45		1,36
20″	59, 4,38,20,52,46,45, 2,50,44		4,19, 8,31,35	
		21,57, 9,33,50,42,10		1,36
22″	59, 4,38,42,49,56,18,53,32,54		4,19, 8,33,11	
		21,57, 5,14,42, 8,59		1,36
24″	59, 4,39, 4,47, 1,33,35,41,53		4,19, 8,34,47	
		21,57, 0,55,33,34,12		1,36
26″	59, 4,39,26,44, 2,29, 9,16, 5		4,19, 8,36,23	
		21,56,56,36,24,57,49		1,36
28″	59, 4,39,48,40,59, 5,34,13,54		4,19, 8,37,59	
		21,56,52,17,16,19,50		1,36
30″	59, 4,40,10,37,51,22,50,33,44		4,19, 8,39,35	
		21,56,47,58, 7,40,15		1,36
32″	59, 4,40,32,34,39,20,58,13,59		4,19, 8,41,11	
		21,56,43,38,58,59, 4		1,36
34″	59, 4,40,54,31,22,59,57,13, 3		4,19, 8,42,47	
		21,56,39,19,50,16,17		1,36
36″	59, 4,41,16,28, 2,19,47,29,20		4,19, 8,44,23	
		21,56,35, 0,41,31,54		1,36
38″	59, 4,41,38,24,37,20,29, 1,14		4,19, 8,45,59	
		21,56,30,41,32,45,55		1,36
40″	59, 4,42, 0,21, 8, 2, 1,47, 9		4,19, 8,47,35	
		21,56,26,22,23,58,20		1,36
42″	59, 4,42,22,17,34,24,25,45,29		4,19, 8,49,11	
		21,56,22, 3,15, 9, 9		1,36
44″	59, 4,42,44,13,56,27,40,54,38		4,19, 8,50,47	
		21,56,17,44, 6,18,22		1,36
46″	59, 4,43, 6,10,14,11,47,13, 0		4,19, 8,52,23	
		21,56,13,24,57,25,59		1,36
48″	59, 4,43,28, 6,27,36,44,38,59		4,19, 8,53,59	
		21,56, 9, 5,48,32, 0		1,36
50″	59, 4,43,50, 2,36,42,33,10,59		4,19, 8,55,35	
		21,56, 4,46,39,36,25		1,36
52″	59, 4,44,11,58,41,29,12,47,24		4,19, 8,57,11	
		21,56, 0,27,30,39,14		1,36
54″	59, 4,44,33,54,41,56,43,26,38		4,19, 8,58,47	
		21,55,56, 8,21,40,27		1,36
56″	59, 4,44,55,50,38, 5, 5, 7, 5		4,19, 9, 0,23	
		21,55,51,49,12,40, 4		1,36
58″	59, 4,45,17,46,29,54,17,47, 9		4,19, 9, 1,59	
		21,55,47,30, 3,38, 5		
60″	59, 4,45,39,42,17,24,21,25,14			
exact	59, 4,45,39,42,17,24,21, 6,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°57′ 0″	59, 4,45,39,42,17,24,21, 6,40			
		21,55,43,10,54,32,32		
2″	59, 4,46, 1,38, 0,35,15,39,12		4,19, 9, 5,19	
		21,55,38,51,45,27,13		1,36
4″	59, 4,46,23,33,39,27, 1, 6,25		4,19, 9, 6,55	
		21,55,34,32,36,20,18		1,36
6″	59, 4,46,45,29,13,59,37,26,43		4,19, 9, 8,31	
		21,55,30,13,27,11,47		1,36
8″	59, 4,47, 7,24,44,13, 4,38,30		4,19, 9,10, 7	
		21,55,25,54,18, 1,40		1,36
10″	59, 4,47,29,20,10, 7,22,40,10		4,19, 9,11,43	
		21,55,21,35, 8,49,57		1,36
12″	59, 4,47,51,15,31,42,31,30, 7		4,19, 9,13,19	
		21,55,17,15,59,36,38		1,36
14″	59, 4,48,13,10,48,58,31, 6,45		4,19, 9,14,55	
		21,55,12,56,50,21,43		1,36
16″	59, 4,48,35, 6, 1,55,21,28,28		4,19, 9,16,31	
		21,55, 8,37,41, 5,12		1,36
18″	59, 4,48,57, 1,10,33, 2,33,40		4,19, 9,18, 7	
		21,55, 4,18,31,47, 5		1,36
20″	59, 4,49,18,56,14,51,34,20,45		4,19, 9,19,43	
		21,54,59,59,22,27,22		1,36
22″	59, 4,49,40,51,14,50,56,48, 7		4,19, 9,21,19	
		21,54,55,40,13, 6, 3		1,36
24″	59, 4,50, 2,46,10,31, 9,54,10		4,19, 9,22,55	
		21,54,51,21, 3,43, 8		1,36
26″	59, 4,50,24,41, 1,52,13,37,18		4,19, 9,24,31	
		21,54,47, 1,54,18,37		1,36
28″	59, 4,50,46,35,48,54, 7,55,55		4,19, 9,26, 7	
		21,54,42,42,44,52,30		1,36
30″	59, 4,51, 8,30,31,36,52,48,25		4,19, 9,27,43	
		21,54,38,23,35,24,47		1,36
32″	59, 4,51,30,25,10, 0,28,13,12		4,19, 9,29,19	
		21,54,34, 4,25,55,28		1,36
34″	59, 4,51,52,19,44, 4,54, 8,40		4,19, 9,30,55	
		21,54,29,45,16,24,33		1,36
36″	59, 4,52,14,14,13,50,10,33,13		4,19, 9,32,31	
		21,54,25,26, 6,52, 2		1,36
38″	59, 4,52,36, 8,39,16,17,25,15		4,19, 9,34, 7	
		21,54,21, 6,57,17,55		1,36
40″	59, 4,52,58, 3, 0,23,14,43,10		4,19, 9,35,43	
		21,54,16,47,47,42,12		1,36
42″	59, 4,53,19,57,17,11, 2,25,22		4,19, 9,37,19	
		21,54,12,28,38, 4,53		1,36
44″	59, 4,53,41,51,29,39,40,30,15		4,19, 9,38,55	
		21,54, 8, 9,28,25,58		1,36
46″	59, 4,54, 3,45,37,49, 8,56,13		4,19, 9,40,31	
		21,54, 3,50,18,45,27		1,36
48″	59, 4,54,25,39,41,39,27,41,40		4,19, 9,42, 7	
		21,53,59,31, 9, 3,20		1,36
50″	59, 4,54,47,33,41,10,36,45, 0		4,19, 9,43,43	
		21,53,55,11,59,19,37		1,36
52″	59, 4,55, 9,27,36,22,36, 4,37		4,19, 9,45,19	
		21,53,50,52,49,34,18		1,36
54″	59, 4,55,31,21,27,15,25,38,55		4,19, 9,46,55	
		21,53,46,33,39,47,23		1,36
56″	59, 4,55,53,15,13,49, 5,26,18		4,19, 9,48,31	
		21,53,42,14,29,58,52		1,36
58″	59, 4,56,15, 8,56, 3,35,25,10		4,19, 9,50, 7	
		21,53,37,55,20, 8,45		
60″	59, 4,56,37, 2,33,58,55,33,55			
exact	59, 4,56,37, 2,33,58,55,25,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°58′ 0″	59, 4,56,37, 2,33,58,55,25,58			
		21,53,33,36,10,16,12		
2″	59, 4,56,58,56, 7,35, 5,42,10		4,19, 9,53,22	
		21,53,29,17, 0,22,50		1,36
4″	59, 4,57,20,49,36,52, 6, 5, 0		4,19, 9,54,58	
		21,53,24,57,50,27,52		1,36
6″	59, 4,57,42,43, 1,49,56,32,52		4,19, 9,56,34	
		21,53,20,38,40,31,18		1,36
8″	59, 4,58, 4,36,22,28,37, 4,10		4,19, 9,58,10	
		21,53,16,19,30,33, 8		1,36
10″	59, 4,58,26,29,38,48, 7,37,18		4,19, 9,59,46	
		21,53,12, 0,20,33,22		1,36
12″	59, 4,58,48,22,50,48,28,10,40		4,19,10, 1,22	
		21,53, 7,41,10,32, 0		1,36
14″	59, 4,59,10,15,58,29,38,42,40		4,19,10, 2,58	
		21,53, 3,22, 0,29, 2		1,36
16″	59, 4,59,32, 9, 1,51,39,11,42		4,19,10, 4,34	
		21,52,59, 2,50,24,28		1,36
18″	59, 4,59,54, 2, 0,54,29,36,10		4,19,10, 6,10	
		21,52,54,43,40,18,18		1,36
20″	59, 5, 0,15,54,55,38, 9,54,28		4,19,10, 7,46	
		21,52,50,24,30,10,32		1,36
22″	59, 5, 0,37,47,46, 2,40, 5, 0		4,19,10, 9,22	
		21,52,46, 5,20, 1,10		1,36
24″	59, 5, 0,59,40,32, 8, 0, 6,10		4,19,10,10,58	
		21,52,41,46, 9,50,12		1,36
26″	59, 5, 1,21,33,13,54, 9,56,22		4,19,10,12,34	
		21,52,37,26,59,37,38		1,36
28″	59, 5, 1,43,25,51,21, 9,34, 0		4,19,10,14,10	
		21,52,33, 7,49,23,28		1,36
30″	59, 5, 2, 5,18,24,28,58,57,28		4,19,10,15,46	
		21,52,28,48,39, 7,42		1,36
32″	59, 5, 2,27,10,53,17,38, 5,10		4,19,10,17,22	
		21,52,24,29,28,50,20		1,36
34″	59, 5, 2,49, 3,17,47, 6,55,30		4,19,10,18,58	
		21,52,20,10,18,31,22		1,36
36″	59, 5, 3,10,55,37,57,25,26,52		4,19,10,20,34	
		21,52,15,51, 8,10,48		1,36
38″	59, 5, 3,32,47,53,48,33,37,40		4,19,10,22,10	
		21,52,11,31,57,48,38		1,36
40″	59, 5, 3,54,40, 5,20,31,26,18		4,19,10,23,46	
		21,52, 7,12,47,24,52		1,36
42″	59, 5, 4,16,32,12,33,18,51,10		4,19,10,25,22	
		21,52, 2,53,36,59,30		1,36
44″	59, 5, 4,38,24,15,26,55,50,40		4,19,10,26,58	
		21,51,58,34,26,32,32		1,36
46″	59, 5, 5, 0,16,14, 1,22,23,12		4,19,10,28,34	
		21,51,54,15,16, 3,58		1,36
48″	59, 5, 5,22, 8, 8,16,38,27,10		4,19,10,30,10	
		21,51,49,56, 5,33,48		1,36
50″	59, 5, 5,43,59,58,12,44, 0,58		4,19,10,31,46	
		21,51,45,36,55, 2, 2		1,36
52″	59, 5, 6, 5,51,43,49,39, 3, 0		4,19,10,33,22	
		21,51,41,17,44,28,40		1,36
54″	59, 5, 6,27,43,25, 7,23,31,40		4,19,10,34,58	
		21,51,36,58,33,53,42		1,36
56″	59, 5, 6,49,35, 2, 5,57,25,22		4,19,10,36,34	
		21,51,32,39,23,17, 8		1,36
58″	59, 5, 7,11,26,34,45,20,42,30		4,19,10,38,10	
		21,51,28,20,12,38,58		
60″	59, 5, 7,33,18, 3, 5,33,21,28			
exact	59, 5, 7,33,18, 3, 5,33,22,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
79°59′ 0″	59, 5, 7,33,18, 3, 5,33,22,48			
		21,51,24, 1, 1,59,24		
2″	59, 5, 7,55, 9,27, 6,35,22,12		4,19,10,41,20	
		21,51,19,41,51,18, 4		1,36
4″	59, 5, 8,17, 0,46,48,26,40,16		4,19,10,42,56	
		21,51,15,22,40,35, 8		1,36
6″	59, 5, 8,38,52, 2,11, 7,15,24		4,19,10,44,32	
		21,51,11, 3,29,50,36		1,36
8″	59, 5, 9, 0,43,13,14,37, 6, 0		4,19,10,46, 8	
		21,51, 6,44,19, 4,28		1,36
10″	59, 5, 9,22,34,19,58,56,10,28		4,19,10,47,44	
		21,51, 2,25, 8,16,44		1,36
12″	59, 5, 9,44,25,22,24, 4,27,12		4,19,10,49,20	
		21,50,58, 5,57,27,24		1,36
14″	59, 5,10, 6,16,20,30, 1,54,36		4,19,10,50,56	
		21,50,53,46,46,36,28		1,36
16″	59, 5,10,28, 7,14,16,48,31, 4		4,19,10,52,32	
		21,50,49,27,35,43,56		1,36
18″	59, 5,10,49,58, 3,44,24,15, 0		4,19,10,54, 8	
		21,50,45, 8,24,49,48		1,36
20″	59, 5,11,11,48,48,52,49, 4,48		4,19,10,55,44	
		21,50,40,49,13,54, 4		1,36
22″	59, 5,11,33,39,29,42, 2,58,52		4,19,10,57,20	
		21,50,36,30, 2,56,44		1,36
24″	59, 5,11,55,30, 6,12, 5,55,36		4,19,10,58,56	
		21,50,32,10,51,57,48		1,36
26″	59, 5,12,17,20,38,22,57,53,24		4,19,11, 0,32	
		21,50,27,51,40,57,16		1,36
28″	59, 5,12,39,11, 6,14,38,50,40		4,19,11, 2, 8	
		21,50,23,32,29,55, 8		1,36
30″	59, 5,13, 1, 1,29,47, 8,45,48		4,19,11, 3,44	
		21,50,19,13,18,51,24		1,36
32″	59, 5,13,22,51,49, 0,27,37,12		4,19,11, 5,20	
		21,50,14,54, 7,46, 4		1,36
34″	59, 5,13,44,42, 3,54,35,23,16		4,19,11, 6,56	
		21,50,10,34,56,39, 8		1,36
36″	59, 5,14, 6,32,14,29,32, 2,24		4,19,11, 8,32	
		21,50, 6,15,45,30,36		1,36
38″	59, 5,14,28,22,20,45,17,33, 0		4,19,11,10, 8	
		21,50, 1,56,34,20,28		1,36
40″	59, 5,14,50,12,22,41,51,53,28		4,19,11,11,44	
		21,49,57,37,23, 8,44		1,36
42″	59, 5,15,12, 2,20,19,15, 2,12		4,19,11,13,20	
		21,49,53,18,11,55,24		1,36
44″	59, 5,15,33,52,13,37,26,57,36		4,19,11,14,56	
		21,49,48,59, 0,40,28		1,36
46″	59, 5,15,55,42, 2,36,27,38, 4		4,19,11,16,32	
		21,49,44,39,49,23,56		1,36
48″	59, 5,16,17,31,47,16,17, 2, 0		4,19,11,18, 8	
		21,49,40,20,38, 5,48		1,36
50″	59, 5,16,39,21,27,36,55, 7,48		4,19,11,19,44	
		21,49,36, 1,26,46, 4		1,36
52″	59, 5,17, 1,11, 3,38,21,53,52		4,19,11,21,20	
		21,49,31,42,15,24,44		1,36
54″	59, 5,17,23, 0,35,20,37,18,36		4,19,11,22,56	
		21,49,27,23, 4, 1,48		1,36
56″	59, 5,17,44,50, 2,43,41,20,24		4,19,11,24,32	
		21,49,23, 3,52,37,16		1,36
58″	59, 5,18, 6,39,25,47,33,57,40		4,19,11,26, 8	
		21,49,18,44,41,11, 8		
60″	59, 5,18,28,28,44,32,15, 8,48			
exact	59, 5,18,28,28,44,32,15,17, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80° 0′ 0″	59, 5,18,28,28,44,32,15,17, 7			
		21,49,14,25,29,44,30		
2″	59, 5,18,50,17,58,57,45, 1,37		4,19,11,29,14	
		21,49,10, 6,18,15,16		1,36
4″	59, 5,19,12, 7, 9, 4, 3,16,53		4,19,11,30,50	
		21,49, 5,47, 6,44,26		1,36
6″	59, 5,19,33,56,14,51,10, 1,19		4,19,11,32,26	
		21,49, 1,27,55,12, 0		1,36
8″	59, 5,19,55,45,16,19, 5,13,19		4,19,11,34, 2	
		21,48,57, 8,43,37,58		1,36
10″	59, 5,20,17,34,13,27,48,51,17		4,19,11,35,38	
		21,48,52,49,32, 2,20		1,36
12″	59, 5,20,39,23, 6,17,20,53,37		4,19,11,37,14	
		21,48,48,30,20,25, 6		1,36
14″	59, 5,21, 1,11,54,47,41,18,43		4,19,11,38,50	
		21,48,44,11, 8,46,16		1,36
16″	59, 5,21,23, 0,38,58,50, 4,59		4,19,11,40,26	
		21,48,39,51,57, 5,50		1,36
18″	59, 5,21,44,49,18,50,47,10,49		4,19,11,42, 2	
		21,48,35,32,45,23,48		1,36
20″	59, 5,22, 6,37,54,23,32,34,37		4,19,11,43,38	
		21,48,31,13,33,40,10		1,36
22″	59, 5,22,28,26,25,37, 6,14,47		4,19,11,45,14	
		21,48,26,54,21,54,56		1,36
24″	59, 5,22,50,14,52,31,28, 9,43		4,19,11,46,50	
		21,48,22,35,10, 8, 6		1,36
26″	59, 5,23,12, 3,15, 6,38,17,49		4,19,11,48,26	
		21,48,18,15,58,19,40		1,36
28″	59, 5,23,33,51,33,22,36,37,29		4,19,11,50, 2	
		21,48,13,56,46,29,38		1,36
30″	59, 5,23,55,39,47,19,23, 7, 7		4,19,11,51,38	
		21,48, 9,37,34,38, 0		1,36
32″	59, 5,24,17,27,56,56,57,45, 7		4,19,11,53,14	
		21,48, 5,18,22,44,46		1,36
34″	59, 5,24,39,16, 2,15,20,29,53		4,19,11,54,50	
		21,48, 0,59,10,49,56		1,36
36″	59, 5,25, 1, 4, 3,14,31,19,49		4,19,11,56,26	
		21,47,56,39,58,53,30		1,36
38″	59, 5,25,22,51,59,54,30,13,19		4,19,11,58, 2	
		21,47,52,20,46,55,28		1,36
40″	59, 5,25,44,39,52,15,17, 8,47		4,19,11,59,38	
		21,47,48, 1,34,55,50		1,36
42″	59, 5,26, 6,27,40,16,52, 4,37		4,19,12, 1,14	
		21,47,43,42,22,54,36		1,36
44″	59, 5,26,28,15,23,59,14,59,13		4,19,12, 2,50	
		21,47,39,23,10,51,46		1,36
46″	59, 5,26,50, 3, 3,22,25,50,59		4,19,12, 4,26	
		21,47,35, 3,58,47,20		1,36
48″	59, 5,27,11,50,38,26,24,38,19		4,19,12, 6, 2	
		21,47,30,44,46,41,18		1,36
50″	59, 5,27,33,38, 9,11,11,19,37		4,19,12, 7,38	
		21,47,26,25,34,33,40		1,36
52″	59, 5,27,55,25,35,36,45,53,17		4,19,12, 9,14	
		21,47,22, 6,22,24,26		1,36
54″	59, 5,28,17,12,57,43, 8,17,43		4,19,12,10,50	
		21,47,17,47,10,13,36		1,36
56″	59, 5,28,39, 0,15,30,18,31,19		4,19,12,12,26	
		21,47,13,27,58, 1,10		1,36
58″	59, 5,29, 0,47,28,58,16,32,29		4,19,12,14, 2	
		21,47, 9, 8,45,47, 8		
60″	59, 5,29,22,34,38, 7, 2,19,37			
exact	59, 5,29,22,34,38, 7, 2,39,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80° 1′ 0″	59, 5,29,22,34,38, 7, 2,39,54			
		21,47, 4,49,33,33,50		
2″	59, 5,29,44,21,42,56,36,13,44		4,19,12,17, 3	
		21,47, 0,30,21,16,47		1,36
4″	59, 5,30, 6, 8,43,26,57,30,31		4,19,12,18,39	
		21,46,56,11, 8,58, 8		1,36
6″	59, 5,30,27,55,39,38, 6,28,39		4,19,12,20,15	
		21,46,51,51,56,37,53		1,36
8″	59, 5,30,49,42,31,30, 3, 6,32		4,19,12,21,51	
		21,46,47,32,44,16, 2		1,36
10″	59, 5,31,11,29,19, 2,47,22,34		4,19,12,23,27	
		21,46,43,13,31,52,35		1,36
12″	59, 5,31,33,16, 2,16,19,15, 9		4,19,12,25, 3	
		21,46,38,54,19,27,32		1,36
14″	59, 5,31,55, 2,41,10,38,42,41		4,19,12,26,39	
		21,46,34,35, 7, 0,53		1,36
16″	59, 5,32,16,49,15,45,45,43,34		4,19,12,28,15	
		21,46,30,15,54,32,38		1,36
18″	59, 5,32,38,35,46, 1,40,16,12		4,19,12,29,51	
		21,46,25,56,42, 2,47		1,36
20″	59, 5,33, 0,22,11,58,22,18,59		4,19,12,31,27	
		21,46,21,37,29,31,20		1,36
22″	59, 5,33,22, 8,33,35,51,50,19		4,19,12,33, 3	
		21,46,17,18,16,58,17		1,36
24″	59, 5,33,43,54,50,54, 8,48,36		4,19,12,34,39	
		21,46,12,59, 4,23,38		1,36
26″	59, 5,34, 5,41, 3,53,13,12,14		4,19,12,36,15	
		21,46, 8,39,51,47,23		1,36
28″	59, 5,34,27,27,12,33, 4,59,37		4,19,12,37,51	
		21,46, 4,20,39, 9,32		1,36
30″	59, 5,34,49,13,16,53,44, 9, 9		4,19,12,39,27	
		21,46, 0, 1,26,30, 5		1,36
32″	59, 5,35,10,59,16,55,10,39,14		4,19,12,41, 3	
		21,45,55,42,13,49, 2		1,36
34″	59, 5,35,32,45,12,37,24,28,16		4,19,12,42,39	
		21,45,51,23, 1, 6,23		1,36
36″	59, 5,35,54,31, 4, 0,25,34,39		4,19,12,44,15	
		21,45,47, 3,48,22, 8		1,36
38″	59, 5,36,16,16,51, 4,13,56,47		4,19,12,45,51	
		21,45,42,44,35,36,17		1,36
40″	59, 5,36,38, 2,33,48,49,33, 4		4,19,12,47,27	
		21,45,38,25,22,48,50		1,36
42″	59, 5,36,59,48,12,14,12,21,54		4,19,12,49, 3	
		21,45,34, 6, 9,59,47		1,36
44″	59, 5,37,21,33,46,20,22,21,41		4,19,12,50,39	
		21,45,29,46,57, 9, 8		1,36
46″	59, 5,37,43,19,16, 7,19,30,49		4,19,12,52,15	
		21,45,25,27,44,16,53		1,36
48″	59, 5,38, 5, 4,41,35, 3,47,42		4,19,12,53,51	
		21,45,21, 8,31,23, 2		1,36
50″	59, 5,38,26,50, 2,43,35,10,44		4,19,12,55,27	
		21,45,16,49,18,27,35		1,36
52″	59, 5,38,48,35,19,32,53,38,19		4,19,12,57, 3	
		21,45,12,30, 5,30,32		1,36
54″	59, 5,39,10,20,32, 2,59, 8,51		4,19,12,58,39	
		21,45, 8,10,52,31,53		1,36
56″	59, 5,39,32, 5,40,13,51,40,44		4,19,13, 0,15	
		21,45, 3,51,39,31,38		1,36
58″	59, 5,39,53,50,44, 5,31,12,22		4,19,13, 1,51	
		21,44,59,32,26,29,47		
60″	59, 5,40,15,35,43,37,57,42, 9			
exact	59, 5,40,15,35,43,37,58,13,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80° 2′ 0″	59, 5,40,15,35,43,37,58,13,14			
		21,44,55,13,13,29,49		
2″	59, 5,40,37,20,38,51,11,43, 3		4,19,13, 4,48	
		21,44,50,54, 0,25, 1		1,35
4″	59, 5,40,59, 5,29,45,12, 8, 4		4,19,13, 6,23	
		21,44,46,34,47,18,38		1,35
6″	59, 5,41,20,50,16,19,59,26,42		4,19,13, 7,58	
		21,44,42,15,34,10,40		1,35
8″	59, 5,41,42,34,58,35,33,37,22		4,19,13, 9,33	
		21,44,37,56,21, 1, 7		1,35
10″	59, 5,42, 4,19,36,31,54,38,29		4,19,13,11, 8	
		21,44,33,37, 7,49,59		1,35
12″	59, 5,42,26, 4,10, 9, 2,28,28		4,19,13,12,43	
		21,44,29,17,54,37,16		1,35
14″	59, 5,42,47,48,39,26,57, 5,44		4,19,13,14,18	
		21,44,24,58,41,22,58		1,35
16″	59, 5,43, 9,33, 4,25,38,28,42		4,19,13,15,53	
		21,44,20,39,28, 7, 5		1,35
18″	59, 5,43,31,17,25, 5, 6,35,47		4,19,13,17,28	
		21,44,16,20,14,49,37		1,35
20″	59, 5,43,53, 1,41,25,21,25,24		4,19,13,19, 3	
		21,44,12, 1, 1,30,34		1,35
22″	59, 5,44,14,45,53,26,22,55,58		4,19,13,20,38	
		21,44, 7,41,48, 9,56		1,35
24″	59, 5,44,36,30, 1, 8,11, 5,54		4,19,13,22,13	
		21,44, 3,22,34,47,43		1,35
26″	59, 5,44,58,14, 4,30,45,53,37		4,19,13,23,48	
		21,43,59, 3,21,23,55		1,35
28″	59, 5,45,19,58, 3,34, 7,17,32		4,19,13,25,23	
		21,43,54,44, 7,58,32		1,35
30″	59, 5,45,41,41,58,18,15,16, 4		4,19,13,26,58	
		21,43,50,24,54,31,34		1,35
32″	59, 5,46, 3,25,48,43, 9,47,38		4,19,13,28,33	
		21,43,46, 5,41, 3, 1		1,35
34″	59, 5,46,25, 9,34,48,50,50,39		4,19,13,30, 8	
		21,43,41,46,27,32,53		1,35
36″	59, 5,46,46,53,16,35,18,23,32		4,19,13,31,43	
		21,43,37,27,14, 1,10		1,35
38″	59, 5,47, 8,36,54, 2,32,24,42		4,19,13,33,18	
		21,43,33, 8, 0,27,52		1,35
40″	59, 5,47,30,20,27,10,32,52,34		4,19,13,34,53	
		21,43,28,48,46,52,59		1,35
42″	59, 5,47,52, 3,55,59,19,45,33		4,19,13,36,28	
		21,43,24,29,33,16,31		1,35
44″	59, 5,48,13,47,20,28,53, 2, 4		4,19,13,38, 3	
		21,43,20,10,19,38,28		1,35
46″	59, 5,48,35,30,40,39,12,40,32		4,19,13,39,38	
		21,43,15,51, 5,58,50		1,35
48″	59, 5,48,57,13,56,30,18,39,22		4,19,13,41,13	
		21,43,11,31,52,17,37		1,35
50″	59, 5,49,18,57, 8, 2,10,56,59		4,19,13,42,48	
		21,43, 7,12,38,34,49		1,35
52″	59, 5,49,40,40,15,14,49,31,48		4,19,13,44,23	
		21,43, 2,53,24,50,26		1,35
54″	59, 5,50, 2,23,18, 8,14,22,14		4,19,13,45,58	
		21,42,58,34,11, 4,28		1,35
56″	59, 5,50,24, 6,16,42,25,26,42		4,19,13,47,33	
		21,42,54,14,57,16,55		1,35
58″	59, 5,50,45,49,10,57,22,43,37		4,19,13,49, 8	
		21,42,49,55,43,27,47		
60″	59, 5,51, 7,32, 0,53, 6,11,24			
exact	59, 5,51, 7,32, 0,53, 5,50,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80° 3′ 0″	59, 5,51, 7,32, 0,53, 5,50,14			
		21,42,45,36,29,34,47		
2″	59, 5,51,29,14,46,29,35,25, 1		4,19,13,52,27	
		21,42,41,17,15,42,20		1,35
4″	59, 5,51,50,57,27,46,51, 7,21		4,19,13,54, 2	
		21,42,36,58, 1,48,18		1,35
6″	59, 5,52,12,40, 4,44,52,55,39		4,19,13,55,37	
		21,42,32,38,47,52,41		1,35
8″	59, 5,52,34,22,37,23,40,48,20		4,19,13,57,12	
		21,42,28,19,33,55,29		1,35
10″	59, 5,52,56, 5, 5,43,14,43,49		4,19,13,58,47	
		21,42,24, 0,19,56,42		1,35
12″	59, 5,53,17,47,29,43,34,40,31		4,19,14, 0,22	
		21,42,19,41, 5,56,20		1,35
14″	59, 5,53,39,29,49,24,40,36,51		4,19,14, 1,57	
		21,42,15,21,51,54,23		1,35
16″	59, 5,54, 1,12, 4,46,32,31,14		4,19,14, 3,32	
		21,42,11, 2,37,50,51		1,35
18″	59, 5,54,22,54,15,49,10,22, 5		4,19,14, 5, 7	
		21,42, 6,43,23,45,44		1,35
20″	59, 5,54,44,36,22,32,34, 7,49		4,19,14, 6,42	
		21,42, 2,24, 9,39, 2		1,35
22″	59, 5,55, 6,18,24,56,43,46,51		4,19,14, 8,17	
		21,41,58, 4,55,30,45		1,35
24″	59, 5,55,28, 0,23, 1,39,17,36		4,19,14, 9,52	
		21,41,53,45,41,20,53		1,35
26″	59, 5,55,49,42,16,47,20,38,29		4,19,14,11,27	
		21,41,49,26,27, 9,26		1,35
28″	59, 5,56,11,24, 6,13,47,47,55		4,19,14,13, 2	
		21,41,45, 7,12,56,24		1,35
30″	59, 5,56,33, 5,51,21, 0,44,19		4,19,14,14,37	
		21,41,40,47,58,41,47		1,35
32″	59, 5,56,54,47,32, 8,59,26, 6		4,19,14,16,12	
		21,41,36,28,44,25,35		1,35
34″	59, 5,57,16,29, 8,37,43,51,41		4,19,14,17,47	
		21,41,32, 9,30, 7,48		1,35
36″	59, 5,57,38,10,40,47,13,59,29		4,19,14,19,22	
		21,41,27,50,15,48,26		1,35
38″	59, 5,57,59,52, 8,37,29,47,55		4,19,14,20,57	
		21,41,23,31, 1,27,29		1,35
40″	59, 5,58,21,33,32, 8,31,15,24		4,19,14,22,32	
		21,41,19,11,47, 4,57		1,35
42″	59, 5,58,43,14,51,20,18,20,21		4,19,14,24, 7	
		21,41,14,52,32,40,50		1,35
44″	59, 5,59, 4,56, 6,12,51, 1,11		4,19,14,25,42	
		21,41,10,33,18,15, 8		1,35
46″	59, 5,59,26,37,16,46, 9,16,19		4,19,14,27,17	
		21,41, 6,14, 3,47,51		1,35
48″	59, 5,59,48,18,23, 0,13, 4,10		4,19,14,28,52	
		21,41, 1,54,49,18,59		1,35
50″	59, 6, 0, 9,59,24,55, 2,23, 9		4,19,14,30,27	
		21,40,57,35,34,48,32		1,35
52″	59, 6, 0,31,40,22,30,37,11,41		4,19,14,32, 2	
		21,40,53,16,20,16,30		1,35
54″	59, 6, 0,53,21,15,46,57,28,11		4,19,14,33,37	
		21,40,48,57, 5,42,53		1,35
56″	59, 6, 1,15, 2, 4,44, 3,11, 4		4,19,14,35,12	
		21,40,44,37,51, 7,41		1,35
58″	59, 6, 1,36,42,49,21,54,18,45		4,19,14,36,47	
		21,40,40,18,36,30,54		
60″	59, 6, 1,58,23,29,40,30,49,39			
exact	59, 6, 1,58,23,29,40,30,35, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80° 4′ 0″	59, 6, 1,58,23,29,40,30,35, 5			
		21,40,35,59,21,51, 7		
2″	59, 6, 2,20, 4, 5,39,52,26,12		4,19,14,40, 2	
		21,40,31,40, 7,11, 5		1,35
4″	59, 6, 2,41,44,37,19,59,37,17		4,19,14,41,37	
		21,40,27,20,52,29,28		1,35
6″	59, 6, 3, 3,25, 4,40,52, 6,45		4,19,14,43,12	
		21,40,23, 1,37,46,16		1,35
8″	59, 6, 3,25, 5,27,42,29,53, 1		4,19,14,44,47	
		21,40,18,42,23, 1,29		1,35
10″	59, 6, 3,46,45,46,24,52,54,30		4,19,14,46,22	
		21,40,14,23, 8,15, 7		1,35
12″	59, 6, 4, 8,26, 0,48, 1, 9,37		4,19,14,47,57	
		21,40,10, 3,53,27,10		1,35
14″	59, 6, 4,30, 6,10,51,54,36,47		4,19,14,49,32	
		21,40, 5,44,38,37,38		1,35
16″	59, 6, 4,51,46,16,36,33,14,25		4,19,14,51, 7	
		21,40, 1,25,23,46,31		1,35
18″	59, 6, 5,13,26,18, 1,57, 0,56		4,19,14,52,42	
		21,39,57, 6, 8,53,49		1,35
20″	59, 6, 5,35, 6,15, 8, 5,54,45		4,19,14,54,17	
		21,39,52,46,53,59,32		1,35
22″	59, 6, 5,56,46, 7,54,59,54,17		4,19,14,55,52	
		21,39,48,27,39, 3,40		1,35
24″	59, 6, 6,18,25,56,22,38,57,57		4,19,14,57,27	
		21,39,44, 8,24, 6,13		1,35
26″	59, 6, 6,40, 5,40,31, 3, 4,10		4,19,14,59, 2	
		21,39,39,49, 9, 7,11		1,35
28″	59, 6, 7, 1,45,20,20,12,11,21		4,19,15, 0,37	
		21,39,35,29,54, 6,34		1,35
30″	59, 6, 7,23,24,55,50, 6,17,55		4,19,15, 2,12	
		21,39,31,10,39, 4,22		1,35
32″	59, 6, 7,45, 4,27, 0,45,22,17		4,19,15, 3,47	
		21,39,26,51,24, 0,35		1,35
34″	59, 6, 8, 6,43,53,52, 9,22,52		4,19,15, 5,22	
		21,39,22,32, 8,55,13		1,35
36″	59, 6, 8,28,23,16,24,18,18, 5		4,19,15, 6,57	
		21,39,18,12,53,48,16		1,35
38″	59, 6, 8,50, 2,34,37,12, 6,21		4,19,15, 8,32	
		21,39,13,53,38,39,44		1,35
40″	59, 6, 9,11,41,48,30,50,46, 5		4,19,15,10, 7	
		21,39, 9,34,23,29,37		1,35
42″	59, 6, 9,33,20,58, 5,14,15,42		4,19,15,11,42	
		21,39, 5,15, 8,17,55		1,35
44″	59, 6, 9,55, 0, 3,20,22,33,37		4,19,15,13,17	
		21,39, 0,55,53, 4,38		1,35
46″	59, 6,10,16,39, 4,16,15,38,15		4,19,15,14,52	
		21,38,56,36,37,49,46		1,35
48″	59, 6,10,38,18, 0,52,53,28, 1		4,19,15,16,27	
		21,38,52,17,22,33,19		1,35
50″	59, 6,10,59,56,53,10,16, 1,20		4,19,15,18, 2	
		21,38,47,58, 7,15,17		1,35
52″	59, 6,11,21,35,41, 8,23,16,37		4,19,15,19,37	
		21,38,43,38,51,55,40		1,35
54″	59, 6,11,43,14,24,47,15,12,17		4,19,15,21,12	
		21,38,39,19,36,34,28		1,35
56″	59, 6,12, 4,53, 4, 6,51,46,45		4,19,15,22,47	
		21,38,35, 0,21,11,41		1,35
58″	59, 6,12,26,31,39, 7,12,58,26		4,19,15,24,22	
		21,38,30,41, 5,47,19		
60″	59, 6,12,48,10, 9,48,18,45,45			
exact	59, 6,12,48,10, 9,48,18,43, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80° 5′ 0″	59, 6,12,48,10, 9,48,18,43, 4			
		21,38,26,21,50,21,10		
2″	59, 6,13, 9,48,36,10, 9, 4,14		4,19,15,27,32	
		21,38,22, 2,34,53,38		1,35
4″	59, 6,13,31,26,58,12,43,57,52		4,19,15,29, 7	
		21,38,17,43,19,24,31		1,35
6″	59, 6,13,53, 5,15,56, 3,22,23		4,19,15,30,42	
		21,38,13,24, 3,53,49		1,35
8″	59, 6,14,14,43,29,20, 7,16,12		4,19,15,32,17	
		21,38, 9, 4,48,21,32		1,35
10″	59, 6,14,36,21,38,24,55,37,44		4,19,15,33,52	
		21,38, 4,45,32,47,40		1,35
12″	59, 6,14,57,59,43,10,28,25,24		4,19,15,35,27	
		21,38, 0,26,17,12,13		1,35
14″	59, 6,15,19,37,43,36,45,37,37		4,19,15,37, 2	
		21,37,56, 7, 1,35,11		1,35
16″	59, 6,15,41,15,39,43,47,12,48		4,19,15,38,37	
		21,37,51,47,45,56,34		1,35
18″	59, 6,16, 2,53,31,31,33, 9,22		4,19,15,40,12	
		21,37,47,28,30,16,22		1,35
20″	59, 6,16,24,31,19, 0, 3,25,44		4,19,15,41,47	
		21,37,43, 9,14,34,35		1,35
22″	59, 6,16,46, 9, 2, 9,18, 0,19		4,19,15,43,22	
		21,37,38,49,58,51,13		1,35
24″	59, 6,17, 7,46,40,59,16,51,32		4,19,15,44,57	
		21,37,34,30,43, 6,16		1,35
26″	59, 6,17,29,24,15,29,59,57,48		4,19,15,46,32	
		21,37,30,11,27,19,44		1,35
28″	59, 6,17,51, 1,45,41,27,17,32		4,19,15,48, 7	
		21,37,25,52,11,31,37		1,35
30″	59, 6,18,12,39,11,33,38,49, 9		4,19,15,49,42	
		21,37,21,32,55,41,55		1,35
32″	59, 6,18,34,16,33, 6,34,31, 4		4,19,15,51,17	
		21,37,17,13,39,50,38		1,35
34″	59, 6,18,55,53,50,20,14,21,42		4,19,15,52,52	
		21,37,12,54,23,57,46		1,35
36″	59, 6,19,17,31, 3,14,38,19,28		4,19,15,54,27	
		21,37, 8,35, 8, 3,19		1,35
38″	59, 6,19,39, 8,11,49,46,22,47		4,19,15,56, 2	
		21,37, 4,15,52, 7,17		1,35
40″	59, 6,20, 0,45,16, 5,38,30, 4		4,19,15,57,37	
		21,36,59,56,36, 9,40		1,35
42″	59, 6,20,22,22,16, 2,14,39,44		4,19,15,59,12	
		21,36,55,37,20,10,28		1,35
44″	59, 6,20,43,59,11,39,34,50,12		4,19,16, 0,47	
		21,36,51,18, 4, 9,41		1,35
46″	59, 6,21, 5,36, 2,57,38,59,53		4,19,16, 2,22	
		21,36,46,58,48, 7,19		1,35
48″	59, 6,21,27,12,49,56,27, 7,12		4,19,16, 3,57	
		21,36,42,39,32, 3,22		1,35
50″	59, 6,21,48,49,32,35,59,10,34		4,19,16, 5,32	
		21,36,38,20,15,57,50		1,35
52″	59, 6,22,10,26,10,56,15, 8,24		4,19,16, 7, 7	
		21,36,34, 0,59,50,43		1,35
54″	59, 6,22,32, 2,44,57,14,59, 7		4,19,16, 8,42	
		21,36,29,41,43,42, 1		1,35
56″	59, 6,22,53,39,14,38,58,41, 8		4,19,16,10,17	
		21,36,25,22,27,31,44		1,35
58″	59, 6,23,15,15,40, 1,26,12,52		4,19,16,11,52	
		21,36,21, 3,11,19,52		
60″	59, 6,23,36,52, 1, 4,37,32,44			
exact	59, 6,23,36,52, 1, 4,37,40,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80° 6′ 0″	59, 6,23,36,52, 1, 4,37,40,30			
		21,36,16,43,55, 7,20		
2″	59, 6,23,58,28,17,48,32,47,50		4,19,16,14,57	
		21,36,12,24,38,52,23		1,35
4″	59, 6,24,20, 4,30,13,11,40,13		4,19,16,16,32	
		21,36, 8, 5,22,35,51		1,35
6″	59, 6,24,41,40,38,18,34,16, 4		4,19,16,18, 7	
		21,36, 3,46, 6,17,44		1,35
8″	59, 6,25, 3,16,42, 4,40,33,48		4,19,16,19,42	
		21,35,59,26,49,58, 2		1,35
10″	59, 6,25,24,52,41,31,30,31,50		4,19,16,21,17	
		21,35,55, 7,33,36,45		1,35
12″	59, 6,25,46,28,36,39, 4, 8,35		4,19,16,22,52	
		21,35,50,48,17,13,53		1,35
14″	59, 6,26, 8, 4,27,27,21,22,28		4,19,16,24,27	
		21,35,46,29, 0,49,26		1,35
16″	59, 6,26,29,40,13,56,22,11,54		4,19,16,26, 2	
		21,35,42, 9,44,23,24		1,35
18″	59, 6,26,51,15,56, 6, 6,35,18		4,19,16,27,37	
		21,35,37,50,27,55,47		1,35
20″	59, 6,27,12,51,33,56,34,31, 5		4,19,16,29,12	
		21,35,33,31,11,26,35		1,35
22″	59, 6,27,34,27, 7,27,45,57,40		4,19,16,30,47	
		21,35,29,11,54,55,48		1,35
24″	59, 6,27,56, 2,36,39,40,53,28		4,19,16,32,22	
		21,35,24,52,38,23,26		1,35
26″	59, 6,28,17,38, 1,32,19,16,54		4,19,16,33,57	
		21,35,20,33,21,49,29		1,35
28″	59, 6,28,39,13,22, 5,41, 6,23		4,19,16,35,32	
		21,35,16,14, 5,13,57		1,35
30″	59, 6,29, 0,48,38,19,46,20,20		4,19,16,37, 7	
		21,35,11,54,48,36,50		1,35
32″	59, 6,29,22,23,50,14,34,57,10		4,19,16,38,42	
		21,35, 7,35,31,58, 8		1,35
34″	59, 6,29,43,58,57,50, 6,55,18		4,19,16,40,17	
		21,35, 3,16,15,17,51		1,35
36″	59, 6,30, 5,34, 1, 6,22,13, 9		4,19,16,41,52	
		21,34,58,56,58,35,59		1,35
38″	59, 6,30,27, 9, 0, 3,20,49, 8		4,19,16,43,27	
		21,34,54,37,41,52,32		1,35
40″	59, 6,30,48,43,54,41, 2,41,40		4,19,16,45, 2	
		21,34,50,18,25, 7,30		1,35
42″	59, 6,31,10,18,44,59,27,49,10		4,19,16,46,37	
		21,34,45,59, 8,20,53		1,35
44″	59, 6,31,31,53,30,58,36,10, 3		4,19,16,48,12	
		21,34,41,39,51,32,41		1,35
46″	59, 6,31,53,28,12,38,27,42,44		4,19,16,49,47	
		21,34,37,20,34,42,54		1,35
48″	59, 6,32,15, 2,49,59, 2,25,38		4,19,16,51,22	
		21,34,33, 1,17,51,32		1,35
50″	59, 6,32,36,37,23, 0,20,17,10		4,19,16,52,57	
		21,34,28,42, 0,58,35		1,35
52″	59, 6,32,58,11,51,42,21,15,45		4,19,16,54,32	
		21,34,24,22,44, 4, 3		1,35
54″	59, 6,33,19,46,16, 5, 5,19,48		4,19,16,56, 7	
		21,34,20, 3,27, 7,56		1,35
56″	59, 6,33,41,20,36, 8,32,27,44		4,19,16,57,42	
		21,34,15,44,10,10,14		1,35
58″	59, 6,34, 2,54,51,52,42,37,58		4,19,16,59,17	
		21,34,11,24,53,10,57		
60″	59, 6,34,24,29, 3,17,35,48,55			
exact	59, 6,34,24,29, 3,17,36, 4,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80° 7′ 0″	59, 6,34,24,29, 3,17,36, 4,47			
		21,34, 7, 5,36,11,58		
2″	59, 6,34,46, 3,10,23,12,16,45		4,19,17, 2,18	
		21,34, 2,46,19, 9,40		1,35
4″	59, 6,35, 7,37,13, 9,31,26,25		4,19,17, 3,53	
		21,33,58,27, 2, 5,47		1,35
6″	59, 6,35,29,11,11,36,33,32,12		4,19,17, 5,28	
		21,33,54, 7,45, 0,19		1,35
8″	59, 6,35,50,45, 5,44,18,32,31		4,19,17, 7, 3	
		21,33,49,48,27,53,16		1,35
10″	59, 6,36,12,18,55,32,46,25,47		4,19,17, 8,38	
		21,33,45,29,10,44,38		1,35
12″	59, 6,36,33,52,41, 1,57,10,25		4,19,17,10,13	
		21,33,41, 9,53,34,25		1,35
14″	59, 6,36,55,26,22,11,50,44,50		4,19,17,11,48	
		21,33,36,50,36,22,37		1,35
16″	59, 6,37,16,59,59, 2,27, 7,27		4,19,17,13,23	
		21,33,32,31,19, 9,14		1,35
18″	59, 6,37,38,33,31,33,46,16,41		4,19,17,14,58	
		21,33,28,12, 1,54,16		1,35
20″	59, 6,38, 0, 6,59,45,48,10,57		4,19,17,16,33	
		21,33,23,52,44,37,43		1,35
22″	59, 6,38,21,40,23,38,32,48,40		4,19,17,18, 8	
		21,33,19,33,27,19,35		1,35
24″	59, 6,38,43,13,43,12, 0, 8,15		4,19,17,19,43	
		21,33,15,14, 9,59,52		1,35
26″	59, 6,39, 4,46,58,26,10, 8, 7		4,19,17,21,18	
		21,33,10,54,52,38,34		1,35
28″	59, 6,39,26,20, 9,21, 2,46,41		4,19,17,22,53	
		21,33, 6,35,35,15,41		1,35
30″	59, 6,39,47,53,15,56,38, 2,22		4,19,17,24,28	
		21,33, 2,16,17,51,13		1,35
32″	59, 6,40, 9,26,18,12,55,53,35		4,19,17,26, 3	
		21,32,57,57, 0,25,10		1,35
34″	59, 6,40,30,59,16, 9,56,18,45		4,19,17,27,38	
		21,32,53,37,42,57,32		1,35
36″	59, 6,40,52,32, 9,47,39,16,17		4,19,17,29,13	
		21,32,49,18,25,28,19		1,35
38″	59, 6,41,14, 4,59, 6, 4,44,36		4,19,17,30,48	
		21,32,44,59, 7,57,31		1,35
40″	59, 6,41,35,37,44, 5,12,42, 7		4,19,17,32,23	
		21,32,40,39,50,25, 8		1,35
42″	59, 6,41,57,10,24,45, 3, 7,15		4,19,17,33,58	
		21,32,36,20,32,51,10		1,35
44″	59, 6,42,18,43, 1, 5,35,58,25		4,19,17,35,33	
		21,32,32, 1,15,15,37		1,35
46″	59, 6,42,40,15,33, 6,51,14, 2		4,19,17,37, 8	
		21,32,27,41,57,38,29		1,35
48″	59, 6,43, 1,48, 0,48,48,52,31		4,19,17,38,43	
		21,32,23,22,39,59,46		1,35
50″	59, 6,43,23,20,24,11,28,52,17		4,19,17,40,18	
		21,32,19, 3,22,19,28		1,35
52″	59, 6,43,44,52,43,14,51,11,45		4,19,17,41,53	
		21,32,14,44, 4,37,35		1,35
54″	59, 6,44, 6,24,57,58,55,49,20		4,19,17,43,28	
		21,32,10,24,46,54, 7		1,35
56″	59, 6,44,27,57, 8,23,42,43,27		4,19,17,45, 3	
		21,32, 6, 5,29, 9, 4		1,35
58″	59, 6,44,49,29,14,29,11,52,31		4,19,17,46,38	
		21,32, 1,46,11,22,26		
60″	59, 6,45,11, 1,16,15,23,14,57			
exact	59, 6,45,11, 1,16,15,23,44,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80° 8′ 0″	59, 6,45,11, 1,16,15,23,44,26			
		21,31,57,26,53,37,27		
2″	59, 6,45,32,33,13,42,17,21,53		4,19,17,49,34	
		21,31,53, 7,35,47,53		1,34
4″	59, 6,45,54, 5, 6,49,53, 9,46		4,19,17,51, 8	
		21,31,48,48,17,56,45		1,34
6″	59, 6,46,15,36,55,38,11, 6,31		4,19,17,52,42	
		21,31,44,29, 0, 4, 3		1,34
8″	59, 6,46,37, 8,40, 7,11,10,34		4,19,17,54,16	
		21,31,40, 9,42, 9,47		1,34
10″	59, 6,46,58,40,20,16,53,20,21		4,19,17,55,50	
		21,31,35,50,24,13,57		1,34
12″	59, 6,47,20,11,56, 7,17,34,18		4,19,17,57,24	
		21,31,31,31, 6,16,33		1,34
14″	59, 6,47,41,43,27,38,23,50,51		4,19,17,58,58	
		21,31,27,11,48,17,35		1,34
16″	59, 6,48, 3,14,54,50,12, 8,26		4,19,18, 0,32	
		21,31,22,52,30,17, 3		1,34
18″	59, 6,48,24,46,17,42,42,25,29		4,19,18, 2, 6	
		21,31,18,33,12,14,57		1,34
20″	59, 6,48,46,17,36,15,54,40,26		4,19,18, 3,40	
		21,31,14,13,54,11,17		1,34
22″	59, 6,49, 7,48,50,29,48,51,43		4,19,18, 5,14	
		21,31, 9,54,36, 6, 3		1,34
24″	59, 6,49,29,20, 0,24,24,57,46		4,19,18, 6,48	
		21,31, 5,35,17,59,15		1,34
26″	59, 6,49,50,51, 5,59,42,57, 1		4,19,18, 8,22	
		21,31, 1,15,59,50,53		1,34
28″	59, 6,50,12,22, 7,15,42,47,54		4,19,18, 9,56	
		21,30,56,56,41,40,57		1,34
30″	59, 6,50,33,53, 4,12,24,28,51		4,19,18,11,30	
		21,30,52,37,23,29,27		1,34
32″	59, 6,50,55,23,56,49,47,58,18		4,19,18,13, 4	
		21,30,48,18, 5,16,23		1,34
34″	59, 6,51,16,54,45, 7,53,14,41		4,19,18,14,38	
		21,30,43,58,47, 1,45		1,34
36″	59, 6,51,38,25,29, 6,40,16,26		4,19,18,16,12	
		21,30,39,39,28,45,33		1,34
38″	59, 6,51,59,56, 8,46, 9, 1,59		4,19,18,17,46	
		21,30,35,20,10,27,47		1,34
40″	59, 6,52,21,26,44, 6,19,29,46		4,19,18,19,20	
		21,30,31, 0,52, 8,27		1,34
42″	59, 6,52,42,57,15, 7,11,38,13		4,19,18,20,54	
		21,30,26,41,33,47,33		1,34
44″	59, 6,53, 4,27,41,48,45,25,46		4,19,18,22,28	
		21,30,22,22,15,25, 5		1,34
46″	59, 6,53,25,58, 4,11, 0,50,51		4,19,18,24, 2	
		21,30,18, 2,57, 1, 3		1,34
48″	59, 6,53,47,28,22,13,57,51,54		4,19,18,25,36	
		21,30,13,43,38,35,27		1,34
50″	59, 6,54, 8,58,35,57,36,27,21		4,19,18,27,10	
		21,30, 9,24,20, 8,17		1,34
52″	59, 6,54,30,28,45,21,56,35,38		4,19,18,28,44	
		21,30, 5, 5, 1,39,33		1,34
54″	59, 6,54,51,58,50,26,58,15,11		4,19,18,30,18	
		21,30, 0,45,43, 9,15		1,34
56″	59, 6,55,13,28,51,12,41,24,26		4,19,18,31,52	
		21,29,56,26,24,37,23		1,34
58″	59, 6,55,34,58,47,39, 6, 1,49		4,19,18,33,26	
		21,29,52, 7, 6, 3,57		
60″	59, 6,55,56,28,39,46,12, 5,46			
exact	59, 6,55,56,28,39,46,11,39, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80° 9′ 0″	59, 6,55,56,28,39,46,11,39, 1			
		21,29,47,47,47,26, 8		
2″	59, 6,56,17,58,27,33,59, 5, 9		4,19,18,36,45	
		21,29,43,28,28,49,23		1,34
4″	59, 6,56,39,28,11, 2,27,54,32		4,19,18,38,19	
		21,29,39, 9,10,11, 4		1,34
6″	59, 6,57, 0,57,50,11,38, 5,36		4,19,18,39,53	
		21,29,34,49,51,31,11		1,34
8″	59, 6,57,22,27,25, 1,29,36,47		4,19,18,41,27	
		21,29,30,30,32,49,44		1,34
10″	59, 6,57,43,56,55,32, 2,26,31		4,19,18,43, 1	
		21,29,26,11,14, 6,43		1,34
12″	59, 6,58, 5,26,21,43,16,33,14		4,19,18,44,35	
		21,29,21,51,55,22, 8		1,34
14″	59, 6,58,26,55,43,35,11,55,22		4,19,18,46, 9	
		21,29,17,32,36,35,59		1,34
16″	59, 6,58,48,25, 1, 7,48,31,21		4,19,18,47,43	
		21,29,13,13,17,48,16		1,34
18″	59, 6,59, 9,54,14,21, 6,19,37		4,19,18,49,17	
		21,29, 8,53,58,58,59		1,34
20″	59, 6,59,31,23,23,15, 5,18,36		4,19,18,50,51	
		21,29, 4,34,40, 8, 8		1,34
22″	59, 6,59,52,52,27,49,45,26,44		4,19,18,52,25	
		21,29, 0,15,21,15,43		1,34
24″	59, 7, 0,14,21,28, 5, 6,42,27		4,19,18,53,59	
		21,28,55,56, 2,21,44		1,34
26″	59, 7, 0,35,50,24, 1, 9, 4,11		4,19,18,55,33	
		21,28,51,36,43,26,11		1,34
28″	59, 7, 0,57,19,15,37,52,30,22		4,19,18,57, 7	
		21,28,47,17,24,29, 4		1,34
30″	59, 7, 1,18,48, 2,55,16,59,26		4,19,18,58,41	
		21,28,42,58, 5,30,23		1,34
32″	59, 7, 1,40,16,45,53,22,29,49		4,19,19, 0,15	
		21,28,38,38,46,30, 8		1,34
34″	59, 7, 2, 1,45,24,32, 8,59,57		4,19,19, 1,49	
		21,28,34,19,27,28,19		1,34
36″	59, 7, 2,23,13,58,51,36,28,16		4,19,19, 3,23	
		21,28,30, 0, 8,24,56		1,34
38″	59, 7, 2,44,42,28,51,44,53,12		4,19,19, 4,57	
		21,28,25,40,49,19,59		1,34
40″	59, 7, 3, 6,10,54,32,34,13,11		4,19,19, 6,31	
		21,28,21,21,30,13,28		1,34
42″	59, 7, 3,27,39,15,54, 4,26,39		4,19,19, 8, 5	
		21,28,17, 2,11, 5,23		1,34
44″	59, 7, 3,49, 7,32,56,15,32, 2		4,19,19, 9,39	
		21,28,12,42,51,55,44		1,34
46″	59, 7, 4,10,35,45,39, 7,27,46		4,19,19,11,13	
		21,28, 8,23,32,44,31		1,34
48″	59, 7, 4,32, 3,54, 2,40,12,17		4,19,19,12,47	
		21,28, 4, 4,13,31,44		1,34
50″	59, 7, 4,53,31,58, 6,53,44, 1		4,19,19,14,21	
		21,27,59,44,54,17,23		1,34
52″	59, 7, 5,14,59,57,51,48, 1,24		4,19,19,15,55	
		21,27,55,25,35, 1,28		1,34
54″	59, 7, 5,36,27,53,17,23, 2,52		4,19,19,17,29	
		21,27,51, 6,15,43,59		1,34
56″	59, 7, 5,57,55,44,23,38,46,51		4,19,19,19, 3	
		21,27,46,46,56,24,56		1,34
58″	59, 7, 6,19,23,31,10,35,11,47		4,19,19,20,37	
		21,27,42,27,37, 4,19		
60″	59, 7, 6,40,51,13,38,12,16, 6			
exact	59, 7, 6,40,51,13,38,11,59,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°10′ 0″	59, 7, 6,40,51,13,38,11,59,11			
		21,27,38, 8,17,40,24		
2″	59, 7, 7, 2,18,51,46,29,39,35		4,19,19,23,51	
		21,27,33,48,58,16,33		1,34
4″	59, 7, 7,23,46,25,35,27,56, 8		4,19,19,25,25	
		21,27,29,29,38,51, 8		1,34
6″	59, 7, 7,45,13,55, 5, 6,47,16		4,19,19,26,59	
		21,27,25,10,19,24, 9		1,34
8″	59, 7, 8, 6,41,20,15,26,11,25		4,19,19,28,33	
		21,27,20,50,59,55,36		1,34
10″	59, 7, 8,28, 8,41, 6,26, 7, 1		4,19,19,30, 7	
		21,27,16,31,40,25,29		1,34
12″	59, 7, 8,49,35,57,38, 6,32,30		4,19,19,31,41	
		21,27,12,12,20,53,48		1,34
14″	59, 7, 9,11, 3, 9,50,27,26,18		4,19,19,33,15	
		21,27, 7,53, 1,20,33		1,34
16″	59, 7, 9,32,30,17,43,28,46,51		4,19,19,34,49	
		21,27, 3,33,41,45,44		1,34
18″	59, 7, 9,53,57,21,17,10,32,35		4,19,19,36,23	
		21,26,59,14,22, 9,21		1,34
20″	59, 7,10,15,24,20,31,32,41,56		4,19,19,37,57	
		21,26,54,55, 2,31,24		1,34
22″	59, 7,10,36,51,15,26,35,13,20		4,19,19,39,31	
		21,26,50,35,42,51,53		1,34
24″	59, 7,10,58,18, 6, 2,18, 5,13		4,19,19,41, 5	
		21,26,46,16,23,10,48		1,34
26″	59, 7,11,19,44,52,18,41,16, 1		4,19,19,42,39	
		21,26,41,57, 3,28, 9		1,34
28″	59, 7,11,41,11,34,15,44,44,10		4,19,19,44,13	
		21,26,37,37,43,43,56		1,34
30″	59, 7,12, 2,38,11,53,28,28, 6		4,19,19,45,47	
		21,26,33,18,23,58, 9		1,34
32″	59, 7,12,24, 4,45,11,52,26,15		4,19,19,47,21	
		21,26,28,59, 4,10,48		1,34
34″	59, 7,12,45,31,14,10,56,37, 3		4,19,19,48,55	
		21,26,24,39,44,21,53		1,34
36″	59, 7,13, 6,57,38,50,40,58,56		4,19,19,50,29	
		21,26,20,20,24,31,24		1,34
38″	59, 7,13,28,23,59,11, 5,30,20		4,19,19,52, 3	
		21,26,16, 1, 4,39,21		1,34
40″	59, 7,13,49,50,15,12,10, 9,41		4,19,19,53,37	
		21,26,11,41,44,45,44		1,34
42″	59, 7,14,11,16,26,53,54,55,25		4,19,19,55,11	
		21,26, 7,22,24,50,33		1,34
44″	59, 7,14,32,42,34,16,19,45,58		4,19,19,56,45	
		21,26, 3, 3, 4,53,48		1,34
46″	59, 7,14,54, 8,37,19,24,39,46		4,19,19,58,19	
		21,25,58,43,44,55,29		1,34
48″	59, 7,15,15,34,36, 3, 9,35,15		4,19,19,59,53	
		21,25,54,24,24,55,36		1,34
50″	59, 7,15,37, 0,30,27,34,30,51		4,19,20, 1,27	
		21,25,50, 5, 4,54, 9		1,34
52″	59, 7,15,58,26,20,32,39,25, 0		4,19,20, 3, 1	
		21,25,45,45,44,51, 8		1,34
54″	59, 7,16,19,52, 6,18,24,16, 8		4,19,20, 4,35	
		21,25,41,26,24,46,33		1,34
56″	59, 7,16,41,17,47,44,49, 2,41		4,19,20, 6, 9	
		21,25,37, 7, 4,40,24		1,34
58″	59, 7,17, 2,43,24,51,53,43, 5		4,19,20, 7,43	
		21,25,32,47,44,32,41		
60″	59, 7,17,24, 8,57,39,38,15,46			
exact	59, 7,17,24, 8,57,39,38, 6,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°11′ 0″	59, 7,17,24, 8,57,39,38, 6,42			
		21,25,28,28,24,22,37		
2″	59, 7,17,45,34,26, 8, 2,29,19		4,19,20,10,53	
		21,25,24, 9, 4,11,44		1,34
4″	59, 7,18, 6,59,50,17, 6,41, 3		4,19,20,12,27	
		21,25,19,49,43,59,17		1,34
6″	59, 7,18,28,25,10, 6,50,40,20		4,19,20,14, 1	
		21,25,15,30,23,45,16		1,34
8″	59, 7,18,49,50,25,37,14,25,36		4,19,20,15,35	
		21,25,11,11, 3,29,41		1,34
10″	59, 7,19,11,15,36,48,17,55,17		4,19,20,17, 9	
		21,25, 6,51,43,12,32		1,34
12″	59, 7,19,32,40,43,40, 1, 7,49		4,19,20,18,43	
		21,25, 2,32,22,53,49		1,34
14″	59, 7,19,54, 5,46,12,24, 1,38		4,19,20,20,17	
		21,24,58,13, 2,33,32		1,34
16″	59, 7,20,15,30,44,25,26,35,10		4,19,20,21,51	
		21,24,53,53,42,11,41		1,34
18″	59, 7,20,36,55,38,19, 8,46,51		4,19,20,23,25	
		21,24,49,34,21,48,16		1,34
20″	59, 7,20,58,20,27,53,30,35, 7		4,19,20,24,59	
		21,24,45,15, 1,23,17		1,34
22″	59, 7,21,19,45,13, 8,31,58,24		4,19,20,26,33	
		21,24,40,55,40,56,44		1,34
24″	59, 7,21,41, 9,54, 4,12,55, 8		4,19,20,28, 7	
		21,24,36,36,20,28,37		1,34
26″	59, 7,22, 2,34,30,40,33,23,45		4,19,20,29,41	
		21,24,32,16,59,58,56		1,34
28″	59, 7,22,23,59, 2,57,33,22,41		4,19,20,31,15	
		21,24,27,57,39,27,41		1,34
30″	59, 7,22,45,23,30,55,12,50,22		4,19,20,32,49	
		21,24,23,38,18,54,52		1,34
32″	59, 7,23, 6,47,54,33,31,45,14		4,19,20,34,23	
		21,24,19,18,58,20,29		1,34
34″	59, 7,23,28,12,13,52,30, 5,43		4,19,20,35,57	
		21,24,14,59,37,44,32		1,34
36″	59, 7,23,49,36,28,52, 7,50,15		4,19,20,37,31	
		21,24,10,40,17, 7, 1		1,34
38″	59, 7,24,11, 0,39,32,24,57,16		4,19,20,39, 5	
		21,24, 6,20,56,27,56		1,34
40″	59, 7,24,32,24,45,53,21,25,12		4,19,20,40,39	
		21,24, 2, 1,35,47,17		1,34
42″	59, 7,24,53,48,47,54,57,12,29		4,19,20,42,13	
		21,23,57,42,15, 5, 4		1,34
44″	59, 7,25,15,12,45,37,12,17,33		4,19,20,43,47	
		21,23,53,22,54,21,17		1,34
46″	59, 7,25,36,36,39, 0, 6,38,50		4,19,20,45,21	
		21,23,49, 3,33,35,56		1,34
48″	59, 7,25,58, 0,28, 3,40,14,46		4,19,20,46,55	
		21,23,44,44,12,49, 1		1,34
50″	59, 7,26,19,24,12,47,53, 3,47		4,19,20,48,29	
		21,23,40,24,52, 0,32		1,34
52″	59, 7,26,40,47,53,12,45, 4,19		4,19,20,50, 3	
		21,23,36, 5,31,10,29		1,34
54″	59, 7,27, 2,11,29,18,16,14,48		4,19,20,51,37	
		21,23,31,46,10,18,52		1,34
56″	59, 7,27,23,35, 1, 4,26,33,40		4,19,20,53,11	
		21,23,27,26,49,25,41		1,34
58″	59, 7,27,44,58,28,31,15,59,21		4,19,20,54,45	
		21,23,23, 7,28,30,56		
60″	59, 7,28, 6,21,51,38,44,30,17			
exact	59, 7,28, 6,21,51,38,44,34,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°12′ 0″	59, 7,28, 6,21,51,38,44,34,25			
		21,23,18,48, 7,35, 9		
2″	59, 7,28,27,45,10,26,52, 9,34		4,19,20,57,50	
		21,23,14,28,46,37,19		1,34
4″	59, 7,28,49, 8,24,55,38,46,53		4,19,20,59,24	
		21,23,10, 9,25,37,55		1,34
6″	59, 7,29,10,31,35, 5, 4,24,48		4,19,21, 0,58	
		21,23, 5,50, 4,36,57		1,34
8″	59, 7,29,31,54,40,55, 9, 1,45		4,19,21, 2,32	
		21,23, 1,30,43,34,25		1,34
10″	59, 7,29,53,17,42,25,52,36,10		4,19,21, 4, 6	
		21,22,57,11,22,30,19		1,34
12″	59, 7,30,14,40,39,37,15, 6,29		4,19,21, 5,40	
		21,22,52,52, 1,24,39		1,34
14″	59, 7,30,36, 3,32,29,16,31, 8		4,19,21, 7,14	
		21,22,48,32,40,17,25		1,34
16″	59, 7,30,57,26,21, 1,56,48,33		4,19,21, 8,48	
		21,22,44,13,19, 8,37		1,34
18″	59, 7,31,18,49, 5,15,15,57,10		4,19,21,10,22	
		21,22,39,53,57,58,15		1,34
20″	59, 7,31,40,11,45, 9,13,55,25		4,19,21,11,56	
		21,22,35,34,36,46,19		1,34
22″	59, 7,32, 1,34,20,43,50,41,44		4,19,21,13,30	
		21,22,31,15,15,32,49		1,34
24″	59, 7,32,22,56,51,59, 6,14,33		4,19,21,15, 4	
		21,22,26,55,54,17,45		1,34
26″	59, 7,32,44,19,18,55, 0,32,18		4,19,21,16,38	
		21,22,22,36,33, 1, 7		1,34
28″	59, 7,33, 5,41,41,31,33,33,25		4,19,21,18,12	
		21,22,18,17,11,42,55		1,34
30″	59, 7,33,27, 3,59,48,45,16,20		4,19,21,19,46	
		21,22,13,57,50,23, 9		1,34
32″	59, 7,33,48,26,13,46,35,39,29		4,19,21,21,20	
		21,22, 9,38,29, 1,49		1,34
34″	59, 7,34, 9,48,23,25, 4,41,18		4,19,21,22,54	
		21,22, 5,19, 7,38,55		1,34
36″	59, 7,34,31,10,28,44,12,20,13		4,19,21,24,28	
		21,22, 0,59,46,14,27		1,34
38″	59, 7,34,52,32,29,43,58,34,40		4,19,21,26, 2	
		21,21,56,40,24,48,25		1,34
40″	59, 7,35,13,54,26,24,23,23, 5		4,19,21,27,36	
		21,21,52,21, 3,20,49		1,34
42″	59, 7,35,35,16,18,45,26,43,54		4,19,21,29,10	
		21,21,48, 1,41,51,39		1,34
44″	59, 7,35,56,38, 6,47, 8,35,33		4,19,21,30,44	
		21,21,43,42,20,20,55		1,34
46″	59, 7,36,17,59,50,29,28,56,28		4,19,21,32,18	
		21,21,39,22,58,48,37		1,34
48″	59, 7,36,39,21,29,52,27,45, 5		4,19,21,33,52	
		21,21,35, 3,37,14,45		1,34
50″	59, 7,37, 0,43, 4,56, 4,59,50		4,19,21,35,26	
		21,21,30,44,15,39,19		1,34
52″	59, 7,37,22, 4,35,40,20,39, 9		4,19,21,37, 0	
		21,21,26,24,54, 2,19		1,34
54″	59, 7,37,43,26, 2, 5,14,41,28		4,19,21,38,34	
		21,21,22, 5,32,23,45		1,34
56″	59, 7,38, 4,47,24,10,47, 5,13		4,19,21,40, 8	
		21,21,17,46,10,43,37		1,34
58″	59, 7,38,26, 8,41,56,57,48,50		4,19,21,41,42	
		21,21,13,26,49, 1,55		
60″	59, 7,38,47,29,55,23,46,50,45			
exact	59, 7,38,47,29,55,23,47, 6,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°13′ 0″	59, 7,38,47,29,55,23,47, 6,16			
		21,21, 9, 7,27,20,23		
2″	59, 7,39, 8,51, 4,31,14,26,39		4,19,21,44,42	
		21,21, 4,48, 5,35,41		1,34
4″	59, 7,39,30,12, 9,19,20, 2,20		4,19,21,46,16	
		21,21, 0,28,43,49,25		1,34
6″	59, 7,39,51,33, 9,48, 3,51,45		4,19,21,47,50	
		21,20,56, 9,22, 1,35		1,34
8″	59, 7,40,12,54, 5,57,25,53,20		4,19,21,49,24	
		21,20,51,50, 0,12,11		1,34
10″	59, 7,40,34,14,57,47,26, 5,31		4,19,21,50,58	
		21,20,47,30,38,21,13		1,34
12″	59, 7,40,55,35,45,18, 4,26,44		4,19,21,52,32	
		21,20,43,11,16,28,41		1,34
14″	59, 7,41,16,56,28,29,20,55,25		4,19,21,54, 6	
		21,20,38,51,54,34,35		1,34
16″	59, 7,41,38,17, 7,21,15,30, 0		4,19,21,55,40	
		21,20,34,32,32,38,55		1,34
18″	59, 7,41,59,37,41,53,48, 8,55		4,19,21,57,14	
		21,20,30,13,10,41,41		1,34
20″	59, 7,42,20,58,12, 6,58,50,36		4,19,21,58,48	
		21,20,25,53,48,42,53		1,34
22″	59, 7,42,42,18,38, 0,47,33,29		4,19,22, 0,22	
		21,20,21,34,26,42,31		1,34
24″	59, 7,43, 3,38,59,35,14,16, 0		4,19,22, 1,56	
		21,20,17,15, 4,40,35		1,34
26″	59, 7,43,24,59,16,50,18,56,35		4,19,22, 3,30	
		21,20,12,55,42,37, 5		1,34
28″	59, 7,43,46,19,29,46, 1,33,40		4,19,22, 5, 4	
		21,20, 8,36,20,32, 1		1,34
30″	59, 7,44, 7,39,38,22,22, 5,41		4,19,22, 6,38	
		21,20, 4,16,58,25,23		1,34
32″	59, 7,44,28,59,42,39,20,31, 4		4,19,22, 8,12	
		21,19,59,57,36,17,11		1,34
34″	59, 7,44,50,19,42,36,56,48,15		4,19,22, 9,46	
		21,19,55,38,14, 7,25		1,34
36″	59, 7,45,11,39,38,15,10,55,40		4,19,22,11,20	
		21,19,51,18,51,56, 5		1,34
38″	59, 7,45,32,59,29,34, 2,51,45		4,19,22,12,54	
		21,19,46,59,29,43,11		1,34
40″	59, 7,45,54,19,16,33,32,34,56		4,19,22,14,28	
		21,19,42,40, 7,28,43		1,34
42″	59, 7,46,15,38,59,13,40, 3,39		4,19,22,16, 2	
		21,19,38,20,45,12,41		1,34
44″	59, 7,46,36,58,37,34,25,16,20		4,19,22,17,36	
		21,19,34, 1,22,55, 5		1,34
46″	59, 7,46,58,18,11,35,48,11,25		4,19,22,19,10	
		21,19,29,42, 0,35,55		1,34
48″	59, 7,47,19,37,41,17,48,47,20		4,19,22,20,44	
		21,19,25,22,38,15,11		1,34
50″	59, 7,47,40,57, 6,40,27, 2,31		4,19,22,22,18	
		21,19,21, 3,15,52,53		1,34
52″	59, 7,48, 2,16,27,43,42,55,24		4,19,22,23,52	
		21,19,16,43,53,29, 1		1,34
54″	59, 7,48,23,35,44,27,36,24,25		4,19,22,25,26	
		21,19,12,24,31, 3,35		1,34
56″	59, 7,48,44,54,56,52, 7,28, 0		4,19,22,27, 0	
		21,19, 8, 5, 8,36,35		1,34
58″	59, 7,49, 6,14, 4,57,16, 4,35		4,19,22,28,34	
		21,19, 3,45,46, 8, 1		
60″	59, 7,49,27,33, 8,43, 2,12,36			
exact	59, 7,49,27,33, 8,43, 2,37,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°14′ 0″	59, 7,49,27,33, 8,43, 2,37,19			
		21,18,59,26,23,40,40		
2″	59, 7,49,48,52, 8, 9,26,17,59		4,19,22,31,30	
		21,18,55, 7, 1, 9,10		1,33
4″	59, 7,50,10,11, 3,16,27,27, 9		4,19,22,33, 3	
		21,18,50,47,38,36, 7		1,33
6″	59, 7,50,31,29,54, 4, 6, 3,16		4,19,22,34,36	
		21,18,46,28,16, 1,31		1,33
8″	59, 7,50,52,48,40,32,22, 4,47		4,19,22,36, 9	
		21,18,42, 8,53,25,22		1,33
10″	59, 7,51,14, 7,22,41,15,30, 9		4,19,22,37,42	
		21,18,37,49,30,47,40		1,33
12″	59, 7,51,35,26, 0,30,46,17,49		4,19,22,39,15	
		21,18,33,30, 8, 8,25		1,33
14″	59, 7,51,56,44,34, 0,54,26,14		4,19,22,40,48	
		21,18,29,10,45,27,37		1,33
16″	59, 7,52,18, 3, 3,11,39,53,51		4,19,22,42,21	
		21,18,24,51,22,45,16		1,33
18″	59, 7,52,39,21,28, 3, 2,39, 7		4,19,22,43,54	
		21,18,20,32, 0, 1,22		1,33
20″	59, 7,53, 0,39,48,35, 2,40,29		4,19,22,45,27	
		21,18,16,12,37,15,55		1,33
22″	59, 7,53,21,58, 4,47,39,56,24		4,19,22,47, 0	
		21,18,11,53,14,28,55		1,33
24″	59, 7,53,43,16,16,40,54,25,19		4,19,22,48,33	
		21,18, 7,33,51,40,22		1,33
26″	59, 7,54, 4,34,24,14,46, 5,41		4,19,22,50, 6	
		21,18, 3,14,28,50,16		1,33
28″	59, 7,54,25,52,27,29,14,55,57		4,19,22,51,39	
		21,17,58,55, 5,58,37		1,33
30″	59, 7,54,47,10,26,24,20,54,34		4,19,22,53,12	
		21,17,54,35,43, 5,25		1,33
32″	59, 7,55, 8,28,21, 0, 3,59,59		4,19,22,54,45	
		21,17,50,16,20,10,40		1,33
34″	59, 7,55,29,46,11,16,24,10,39		4,19,22,56,18	
		21,17,45,56,57,14,22		1,33
36″	59, 7,55,51, 3,57,13,21,25, 1		4,19,22,57,51	
		21,17,41,37,34,16,31		1,33
38″	59, 7,56,12,21,38,50,55,41,32		4,19,22,59,24	
		21,17,37,18,11,17, 7		1,33
40″	59, 7,56,33,39,16, 9, 6,58,39		4,19,23, 0,57	
		21,17,32,58,48,16,10		1,33
42″	59, 7,56,54,56,49, 7,55,14,49		4,19,23, 2,30	
		21,17,28,39,25,13,40		1,33
44″	59, 7,57,16,14,17,47,20,28,29		4,19,23, 4, 3	
		21,17,24,20, 2, 9,37		1,33
46″	59, 7,57,37,31,42, 7,22,38, 6		4,19,23, 5,36	
		21,17,20, 0,39, 4, 1		1,33
48″	59, 7,57,58,49, 2, 8, 1,42, 7		4,19,23, 7, 9	
		21,17,15,41,15,56,52		1,33
50″	59, 7,58,20, 6,17,49,17,38,59		4,19,23, 8,42	
		21,17,11,21,52,48,10		1,33
52″	59, 7,58,41,23,29,11,10,27, 9		4,19,23,10,15	
		21,17, 7, 2,29,37,55		1,33
54″	59, 7,59, 2,40,36,13,40, 5, 4		4,19,23,11,48	
		21,17, 2,43, 6,26, 7		1,33
56″	59, 7,59,23,57,38,56,46,31,11		4,19,23,13,21	
		21,16,58,23,43,12,46		1,33
58″	59, 7,59,45,14,37,20,29,43,57		4,19,23,14,54	
		21,16,54, 4,19,57,52		
60″	59, 8, 0, 6,31,31,24,49,41,49			
exact	59, 8, 0, 6,31,31,24,49,13,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°15′ 0″	59, 8, 0, 6,31,31,24,49,13,42			
		21,16,49,44,56,38,23		
2″	59, 8, 0,27,48,21, 9,45,52, 5		4,19,23,18,12	
		21,16,45,25,33,20,11		1,33
4″	59, 8, 0,49, 5, 6,35,19,12,16		4,19,23,19,45	
		21,16,41, 6,10, 0,26		1,33
6″	59, 8, 1,10,21,47,41,29,12,42		4,19,23,21,18	
		21,16,36,46,46,39, 8		1,33
8″	59, 8, 1,31,38,24,28,15,51,50		4,19,23,22,51	
		21,16,32,27,23,16,17		1,33
10″	59, 8, 1,52,54,56,55,39, 8, 7		4,19,23,24,24	
		21,16,28, 7,59,51,53		1,33
12″	59, 8, 2,14,11,25, 3,39, 0, 0		4,19,23,25,57	
		21,16,23,48,36,25,56		1,33
14″	59, 8, 2,35,27,48,52,15,25,56		4,19,23,27,30	
		21,16,19,29,12,58,26		1,33
16″	59, 8, 2,56,44, 8,21,28,24,22		4,19,23,29, 3	
		21,16,15, 9,49,29,23		1,33
18″	59, 8, 3,18, 0,23,31,17,53,45		4,19,23,30,36	
		21,16,10,50,25,58,47		1,33
20″	59, 8, 3,39,16,34,21,43,52,32		4,19,23,32, 9	
		21,16, 6,31, 2,26,38		1,33
22″	59, 8, 4, 0,32,40,52,46,19,10		4,19,23,33,42	
		21,16, 2,11,38,52,56		1,33
24″	59, 8, 4,21,48,43, 4,25,12, 6		4,19,23,35,15	
		21,15,57,52,15,17,41		1,33
26″	59, 8, 4,43, 4,40,56,40,29,47		4,19,23,36,48	
		21,15,53,32,51,40,53		1,33
28″	59, 8, 5, 4,20,34,29,32,10,40		4,19,23,38,21	
		21,15,49,13,28, 2,32		1,33
30″	59, 8, 5,25,36,23,43, 0,13,12		4,19,23,39,54	
		21,15,44,54, 4,22,38		1,33
32″	59, 8, 5,46,52, 8,37, 4,35,50		4,19,23,41,27	
		21,15,40,34,40,41,11		1,33
34″	59, 8, 6, 8, 7,49,11,45,17, 1		4,19,23,43, 0	
		21,15,36,15,16,58,11		1,33
36″	59, 8, 6,29,23,25,27, 2,15,12		4,19,23,44,33	
		21,15,31,55,53,13,38		1,33
38″	59, 8, 6,50,38,57,22,55,28,50		4,19,23,46, 6	
		21,15,27,36,29,27,32		1,33
40″	59, 8, 7,11,54,24,59,24,56,22		4,19,23,47,39	
		21,15,23,17, 5,39,53		1,33
42″	59, 8, 7,33, 9,48,16,30,36,15		4,19,23,49,12	
		21,15,18,57,41,50,41		1,33
44″	59, 8, 7,54,25, 7,14,12,26,56		4,19,23,50,45	
		21,15,14,38,17,59,56		1,33
46″	59, 8, 8,15,40,21,52,30,26,52		4,19,23,52,18	
		21,15,10,18,54, 7,38		1,33
48″	59, 8, 8,36,55,32,11,24,34,30		4,19,23,53,51	
		21,15, 5,59,30,13,47		1,33
50″	59, 8, 8,58,10,38,10,54,48,17		4,19,23,55,24	
		21,15, 1,40, 6,18,23		1,33
52″	59, 8, 9,19,25,39,51, 1, 6,40		4,19,23,56,57	
		21,14,57,20,42,21,26		1,33
54″	59, 8, 9,40,40,37,11,43,28, 6		4,19,23,58,30	
		21,14,53, 1,18,22,56		1,33
56″	59, 8,10, 1,55,30,13, 1,51, 2		4,19,24, 0, 3	
		21,14,48,41,54,22,53		1,33
58″	59, 8,10,23,10,18,54,56,13,55		4,19,24, 1,36	
		21,14,44,22,30,21,17		
60″	59, 8,10,44,25, 3,17,26,35,12			
exact	59, 8,10,44,25, 3,17,26,12,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°16′ 0″	59, 8,10,44,25, 3,17,26,12,42			
		21,14,40, 3, 6,15,54		
2″	59, 8,11, 5,39,43,20,32,28,36		4,19,24, 4,50	
		21,14,35,43,42,11, 4		1,33
4″	59, 8,11,26,54,19, 4,14,39,40		4,19,24, 6,23	
		21,14,31,24,18, 4,41		1,33
6″	59, 8,11,48, 8,50,28,32,44,21		4,19,24, 7,56	
		21,14,27, 4,53,56,45		1,33
8″	59, 8,12, 9,23,17,33,26,41, 6		4,19,24, 9,29	
		21,14,22,45,29,47,16		1,33
10″	59, 8,12,30,37,40,18,56,28,22		4,19,24,11, 2	
		21,14,18,26, 5,36,14		1,33
12″	59, 8,12,51,51,58,45, 2, 4,36		4,19,24,12,35	
		21,14,14, 6,41,23,39		1,33
14″	59, 8,13,13, 6,12,51,43,28,15		4,19,24,14, 8	
		21,14, 9,47,17, 9,31		1,33
16″	59, 8,13,34,20,22,39, 0,37,46		4,19,24,15,41	
		21,14, 5,27,52,53,50		1,33
18″	59, 8,13,55,34,28, 6,53,31,36		4,19,24,17,14	
		21,14, 1, 8,28,36,36		1,33
20″	59, 8,14,16,48,29,15,22, 8,12		4,19,24,18,47	
		21,13,56,49, 4,17,49		1,33
22″	59, 8,14,38, 2,26, 4,26,26, 1		4,19,24,20,20	
		21,13,52,29,39,57,29		1,33
24″	59, 8,14,59,16,18,34, 6,23,30		4,19,24,21,53	
		21,13,48,10,15,35,36		1,33
26″	59, 8,15,20,30, 6,44,21,59, 6		4,19,24,23,26	
		21,13,43,50,51,12,10		1,33
28″	59, 8,15,41,43,50,35,13,11,16		4,19,24,24,59	
		21,13,39,31,26,47,11		1,33
30″	59, 8,16, 2,57,30, 6,39,58,27		4,19,24,26,32	
		21,13,35,12, 2,20,39		1,33
32″	59, 8,16,24,11, 5,18,42,19, 6		4,19,24,28, 5	
		21,13,30,52,37,52,34		1,33
34″	59, 8,16,45,24,36,11,20,11,40		4,19,24,29,38	
		21,13,26,33,13,22,56		1,33
36″	59, 8,17, 6,38, 2,44,33,34,36		4,19,24,31,11	
		21,13,22,13,48,51,45		1,33
38″	59, 8,17,27,51,24,58,22,26,21		4,19,24,32,44	
		21,13,17,54,24,19, 1		1,33
40″	59, 8,17,49, 4,42,52,46,45,22		4,19,24,34,17	
		21,13,13,34,59,44,44		1,33
42″	59, 8,18,10,17,56,27,46,30, 6		4,19,24,35,50	
		21,13, 9,15,35, 8,54		1,33
44″	59, 8,18,31,31, 5,43,21,39, 0		4,19,24,37,23	
		21,13, 4,56,10,31,31		1,33
46″	59, 8,18,52,44,10,39,32,10,31		4,19,24,38,56	
		21,13, 0,36,45,52,35		1,33
48″	59, 8,19,13,57,11,16,18, 3, 6		4,19,24,40,29	
		21,12,56,17,21,12, 6		1,33
50″	59, 8,19,35,10, 7,33,39,15,12		4,19,24,42, 2	
		21,12,51,57,56,30, 4		1,33
52″	59, 8,19,56,22,59,31,35,45,16		4,19,24,43,35	
		21,12,47,38,31,46,29		1,33
54″	59, 8,20,17,35,47,10, 7,31,45		4,19,24,45, 8	
		21,12,43,19, 7, 1,21		1,33
56″	59, 8,20,38,48,30,29,14,33, 6		4,19,24,46,41	
		21,12,38,59,42,14,40		1,33
58″	59, 8,21, 0, 1, 9,28,56,47,46		4,19,24,48,14	
		21,12,34,40,17,26,26		
60″	59, 8,21,21,13,44, 9,14,14,12			
exact	59, 8,21,21,13,44, 9,14, 2,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°17′ 0″	59, 8,21,21,13,44, 9,14, 2,42			
		21,12,30,20,52,35,35		
2″	59, 8,21,42,26,14,30, 6,38,17		4,19,24,51,23	
		21,12,26, 1,27,44,12		1,33
4″	59, 8,22, 3,38,40,31,34,22,29		4,19,24,52,56	
		21,12,21,42, 2,51,16		1,33
6″	59, 8,22,24,51, 2,13,37,13,45		4,19,24,54,29	
		21,12,17,22,37,56,47		1,33
8″	59, 8,22,46, 3,19,36,15,10,32		4,19,24,56, 2	
		21,12,13, 3,13, 0,45		1,33
10″	59, 8,23, 7,15,32,39,28,11,17		4,19,24,57,35	
		21,12, 8,43,48, 3,10		1,33
12″	59, 8,23,28,27,41,23,16,14,27		4,19,24,59, 8	
		21,12, 4,24,23, 4, 2		1,33
14″	59, 8,23,49,39,45,47,39,18,29		4,19,25, 0,41	
		21,12, 0, 4,58, 3,21		1,33
16″	59, 8,24,10,51,45,52,37,21,50		4,19,25, 2,14	
		21,11,55,45,33, 1, 7		1,33
18″	59, 8,24,32, 3,41,38,10,22,57		4,19,25, 3,47	
		21,11,51,26, 7,57,20		1,33
20″	59, 8,24,53,15,33, 4,18,20,17		4,19,25, 5,20	
		21,11,47, 6,42,52, 0		1,33
22″	59, 8,25,14,27,20,11, 1,12,17		4,19,25, 6,53	
		21,11,42,47,17,45, 7		1,33
24″	59, 8,25,35,39, 2,58,18,57,24		4,19,25, 8,26	
		21,11,38,27,52,36,41		1,33
26″	59, 8,25,56,50,41,26,11,34, 5		4,19,25, 9,59	
		21,11,34, 8,27,26,42		1,33
28″	59, 8,26,18, 2,15,34,39, 0,47		4,19,25,11,32	
		21,11,29,49, 2,15,10		1,33
30″	59, 8,26,39,13,45,23,41,15,57		4,19,25,13, 5	
		21,11,25,29,37, 2, 5		1,33
32″	59, 8,27, 0,25,10,53,18,18, 2		4,19,25,14,38	
		21,11,21,10,11,47,27		1,33
34″	59, 8,27,21,36,32, 3,30, 5,29		4,19,25,16,11	
		21,11,16,50,46,31,16		1,33
36″	59, 8,27,42,47,48,54,16,36,45		4,19,25,17,44	
		21,11,12,31,21,13,32		1,33
38″	59, 8,28, 3,59, 1,25,37,50,17		4,19,25,19,17	
		21,11, 8,11,55,54,15		1,33
40″	59, 8,28,25,10, 9,37,33,44,32		4,19,25,20,50	
		21,11, 3,52,30,33,25		1,33
42″	59, 8,28,46,21,13,30, 4,17,57		4,19,25,22,23	
		21,10,59,33, 5,11, 2		1,33
44″	59, 8,29, 7,32,13, 3, 9,28,59		4,19,25,23,56	
		21,10,55,13,39,47, 6		1,33
46″	59, 8,29,28,43, 8,16,49,16, 5		4,19,25,25,29	
		21,10,50,54,14,21,37		1,33
48″	59, 8,29,49,53,59,11, 3,37,42		4,19,25,27, 2	
		21,10,46,34,48,54,35		1,33
50″	59, 8,30,11, 4,45,45,52,32,17		4,19,25,28,35	
		21,10,42,15,23,26, 0		1,33
52″	59, 8,30,32,15,28, 1,15,58,17		4,19,25,30, 8	
		21,10,37,55,57,55,52		1,33
54″	59, 8,30,53,26, 5,57,13,54, 9		4,19,25,31,41	
		21,10,33,36,32,24,11		1,33
56″	59, 8,31,14,36,39,33,46,18,20		4,19,25,33,14	
		21,10,29,17, 6,50,57		1,33
58″	59, 8,31,35,47, 8,50,53, 9,17		4,19,25,34,47	
		21,10,24,57,41,16,10		
60″	59, 8,31,56,57,33,48,34,25,27			
exact	59, 8,31,56,57,33,48,34,23,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°18′ 0″	59, 8,31,56,57,33,48,34,23,10			
		21,10,20,38,15,39,48		
2″	59, 8,32,18, 7,54,26,50, 2,58		4,19,25,37,52	
		21,10,16,18,50, 1,56		1,33
4″	59, 8,32,39,18,10,45,40, 4,54		4,19,25,39,25	
		21,10,11,59,24,22,31		1,33
6″	59, 8,33, 0,28,22,45, 4,27,25		4,19,25,40,58	
		21,10, 7,39,58,41,33		1,33
8″	59, 8,33,21,38,30,25, 3, 8,58		4,19,25,42,31	
		21,10, 3,20,32,59, 2		1,33
10″	59, 8,33,42,48,33,45,36, 8, 0		4,19,25,44, 4	
		21, 9,59, 1, 7,14,58		1,33
12″	59, 8,34, 3,58,32,46,43,22,58		4,19,25,45,37	
		21, 9,54,41,41,29,21		1,33
14″	59, 8,34,25, 8,27,28,24,52,19		4,19,25,47,10	
		21, 9,50,22,15,42,11		1,33
16″	59, 8,34,46,18,17,50,40,34,30		4,19,25,48,43	
		21, 9,46, 2,49,53,28		1,33
18″	59, 8,35, 7,28, 3,53,30,27,58		4,19,25,50,16	
		21, 9,41,43,24, 3,12		1,33
20″	59, 8,35,28,37,45,36,54,31,10		4,19,25,51,49	
		21, 9,37,23,58,11,23		1,33
22″	59, 8,35,49,47,23, 0,52,42,33		4,19,25,53,22	
		21, 9,33, 4,32,18, 1		1,33
24″	59, 8,36,10,56,56, 5,25, 0,34		4,19,25,54,55	
		21, 9,28,45, 6,23, 6		1,33
26″	59, 8,36,32, 6,24,50,31,23,40		4,19,25,56,28	
		21, 9,24,25,40,26,38		1,33
28″	59, 8,36,53,15,49,16,11,50,18		4,19,25,58, 1	
		21, 9,20, 6,14,28,37		1,33
30″	59, 8,37,14,25, 9,22,26,18,55		4,19,25,59,34	
		21, 9,15,46,48,29, 3		1,33
32″	59, 8,37,35,34,25, 9,14,47,58		4,19,26, 1, 7	
		21, 9,11,27,22,27,56		1,33
34″	59, 8,37,56,43,36,36,37,15,54		4,19,26, 2,40	
		21, 9, 7, 7,56,25,16		1,33
36″	59, 8,38,17,52,43,44,33,41,10		4,19,26, 4,13	
		21, 9, 2,48,30,21, 3		1,33
38″	59, 8,38,39, 1,46,33, 4, 2,13		4,19,26, 5,46	
		21, 8,58,29, 4,15,17		1,33
40″	59, 8,39, 0,10,45, 2, 8,17,30		4,19,26, 7,19	
		21, 8,54, 9,38, 7,58		1,33
42″	59, 8,39,21,19,39,11,46,25,28		4,19,26, 8,52	
		21, 8,49,50,11,59, 6		1,33
44″	59, 8,39,42,28,29, 1,58,24,34		4,19,26,10,25	
		21, 8,45,30,45,48,41		1,33
46″	59, 8,40, 3,37,14,32,44,13,15		4,19,26,11,58	
		21, 8,41,11,19,36,43		1,33
48″	59, 8,40,24,45,55,44, 3,49,58		4,19,26,13,31	
		21, 8,36,51,53,23,12		1,33
50″	59, 8,40,45,54,32,35,57,13,10		4,19,26,15, 4	
		21, 8,32,32,27, 8, 8		1,33
52″	59, 8,41, 7, 3, 5, 8,24,21,18		4,19,26,16,37	
		21, 8,28,13, 0,51,31		1,33
54″	59, 8,41,28,11,33,21,25,12,49		4,19,26,18,10	
		21, 8,23,53,34,33,21		1,33
56″	59, 8,41,49,19,57,14,59,46,10		4,19,26,19,43	
		21, 8,19,34, 8,13,38		1,33
58″	59, 8,42,10,28,16,49, 7,59,48		4,19,26,21,16	
		21, 8,15,14,41,52,22		
60″	59, 8,42,31,36,32, 3,49,52,10			
exact	59, 8,42,31,36,32, 3,50, 4,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°19′ 0″	59, 8,42,31,36,32, 3,50, 4,44			
		21, 8,10,55,15,30,57		
2″	59, 8,42,52,44,42,59, 5,35,41		4,19,26,24,16	
		21, 8, 6,35,49, 6,41		1,33
4″	59, 8,43,13,52,49,34,54,42,22		4,19,26,25,49	
		21, 8, 2,16,22,40,52		1,33
6″	59, 8,43,35, 0,51,51,17,23,14		4,19,26,27,22	
		21, 7,57,56,56,13,30		1,33
8″	59, 8,43,56, 8,49,48,13,36,44		4,19,26,28,55	
		21, 7,53,37,29,44,35		1,33
10″	59, 8,44,17,16,43,25,43,21,19		4,19,26,30,28	
		21, 7,49,18, 3,14, 7		1,33
12″	59, 8,44,38,24,32,43,46,35,26		4,19,26,32, 1	
		21, 7,44,58,36,42, 6		1,33
14″	59, 8,44,59,32,17,42,23,17,32		4,19,26,33,34	
		21, 7,40,39,10, 8,32		1,33
16″	59, 8,45,20,39,58,21,33,26, 4		4,19,26,35, 7	
		21, 7,36,19,43,33,25		1,33
18″	59, 8,45,41,47,34,41,16,59,29		4,19,26,36,40	
		21, 7,32, 0,16,56,45		1,33
20″	59, 8,46, 2,55, 6,41,33,56,14		4,19,26,38,13	
		21, 7,27,40,50,18,32		1,33
22″	59, 8,46,24, 2,34,22,24,14,46		4,19,26,39,46	
		21, 7,23,21,23,38,46		1,33
24″	59, 8,46,45, 9,57,43,47,53,32		4,19,26,41,19	
		21, 7,19, 1,56,57,27		1,33
26″	59, 8,47, 6,17,16,45,44,50,59		4,19,26,42,52	
		21, 7,14,42,30,14,35		1,33
28″	59, 8,47,27,24,31,28,15, 5,34		4,19,26,44,25	
		21, 7,10,23, 3,30,10		1,33
30″	59, 8,47,48,31,41,51,18,35,44		4,19,26,45,58	
		21, 7, 6, 3,36,44,12		1,33
32″	59, 8,48, 9,38,47,54,55,19,56		4,19,26,47,31	
		21, 7, 1,44, 9,56,41		1,33
34″	59, 8,48,30,45,49,39, 5,16,37		4,19,26,49, 4	
		21, 6,57,24,43, 7,37		1,33
36″	59, 8,48,51,52,47, 3,48,24,14		4,19,26,50,37	
		21, 6,53, 5,16,17, 0		1,33
38″	59, 8,49,12,59,40, 9, 4,41,14		4,19,26,52,10	
		21, 6,48,45,49,24,50		1,33
40″	59, 8,49,34, 6,28,54,54, 6, 4		4,19,26,53,43	
		21, 6,44,26,22,31, 7		1,33
42″	59, 8,49,55,13,13,21,16,37,11		4,19,26,55,16	
		21, 6,40, 6,55,35,51		1,33
44″	59, 8,50,16,19,53,28,12,13, 2		4,19,26,56,49	
		21, 6,35,47,28,39, 2		1,33
46″	59, 8,50,37,26,29,15,40,52, 4		4,19,26,58,22	
		21, 6,31,28, 1,40,40		1,33
48″	59, 8,50,58,33, 0,43,42,32,44		4,19,26,59,55	
		21, 6,27, 8,34,40,45		1,33
50″	59, 8,51,19,39,27,52,17,13,29		4,19,27, 1,28	
		21, 6,22,49, 7,39,17		1,33
52″	59, 8,51,40,45,50,41,24,52,46		4,19,27, 3, 1	
		21, 6,18,29,40,36,16		1,33
54″	59, 8,52, 1,52, 9,11, 5,29, 2		4,19,27, 4,34	
		21, 6,14,10,13,31,42		1,33
56″	59, 8,52,22,58,23,21,19, 0,44		4,19,27, 6, 7	
		21, 6, 9,50,46,25,35		1,33
58″	59, 8,52,44, 4,33,12, 5,26,19		4,19,27, 7,40	
		21, 6, 5,31,19,17,55		
60″	59, 8,53, 5,10,38,43,24,44,14			
exact	59, 8,53, 5,10,38,43,25, 9, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°20′ 0″	59, 8,53, 5,10,38,43,25, 9, 8			
		21, 6, 1,11,52,11,22		
2″	59, 8,53,26,16,39,55,17,20,30		4,19,27,10,35	
		21, 5,56,52,25, 0,47		1,33
4″	59, 8,53,47,22,36,47,42,21,17		4,19,27,12, 8	
		21, 5,52,32,57,48,39		1,33
6″	59, 8,54, 8,28,29,20,40, 9,56		4,19,27,13,41	
		21, 5,48,13,30,34,58		1,33
8″	59, 8,54,29,34,17,34,10,44,54		4,19,27,15,14	
		21, 5,43,54, 3,19,44		1,33
10″	59, 8,54,50,40, 1,28,14, 4,38		4,19,27,16,47	
		21, 5,39,34,36, 2,57		1,33
12″	59, 8,55,11,45,41, 2,50, 7,35		4,19,27,18,20	
		21, 5,35,15, 8,44,37		1,33
14″	59, 8,55,32,51,16,17,58,52,12		4,19,27,19,53	
		21, 5,30,55,41,24,44		1,33
16″	59, 8,55,53,56,47,13,40,16,56		4,19,27,21,26	
		21, 5,26,36,14, 3,18		1,33
18″	59, 8,56,15, 2,13,49,54,20,14		4,19,27,22,59	
		21, 5,22,16,46,40,19		1,33
20″	59, 8,56,36, 7,36, 6,41, 0,33		4,19,27,24,32	
		21, 5,17,57,19,15,47		1,33
22″	59, 8,56,57,12,54, 4, 0,16,20		4,19,27,26, 5	
		21, 5,13,37,51,49,42		1,33
24″	59, 8,57,18,18, 7,41,52, 6, 2		4,19,27,27,38	
		21, 5, 9,18,24,22, 4		1,33
26″	59, 8,57,39,23,17, 0,16,28, 6		4,19,27,29,11	
		21, 5, 4,58,56,52,53		1,33
28″	59, 8,58, 0,28,21,59,13,20,59		4,19,27,30,44	
		21, 5, 0,39,29,22, 9		1,33
30″	59, 8,58,21,33,22,38,42,43, 8		4,19,27,32,17	
		21, 4,56,20, 1,49,52		1,33
32″	59, 8,58,42,38,18,58,44,33, 0		4,19,27,33,50	
		21, 4,52, 0,34,16, 2		1,33
34″	59, 8,59, 3,43,10,59,18,49, 2		4,19,27,35,23	
		21, 4,47,41, 6,40,39		1,33
36″	59, 8,59,24,47,58,40,25,29,41		4,19,27,36,56	
		21, 4,43,21,39, 3,43		1,33
38″	59, 8,59,45,52,42, 2, 4,33,24		4,19,27,38,29	
		21, 4,39, 2,11,25,14		1,33
40″	59, 9, 0, 6,57,21, 4,15,58,38		4,19,27,40, 2	
		21, 4,34,42,43,45,12		1,33
42″	59, 9, 0,28, 1,55,46,59,43,50		4,19,27,41,35	
		21, 4,30,23,16, 3,37		1,33
44″	59, 9, 0,49, 6,26,10,15,47,27		4,19,27,43, 8	
		21, 4,26, 3,48,20,29		1,33
46″	59, 9, 1,10,10,52,14, 4, 7,56		4,19,27,44,41	
		21, 4,21,44,20,35,48		1,33
48″	59, 9, 1,31,15,13,58,24,43,44		4,19,27,46,14	
		21, 4,17,24,52,49,34		1,33
50″	59, 9, 1,52,19,31,23,17,33,18		4,19,27,47,47	
		21, 4,13, 5,25, 1,47		1,33
52″	59, 9, 2,13,23,44,28,42,35, 5		4,19,27,49,20	
		21, 4, 8,45,57,12,27		1,33
54″	59, 9, 2,34,27,53,14,39,47,32		4,19,27,50,53	
		21, 4, 4,26,29,21,34		1,33
56″	59, 9, 2,55,31,57,41, 9, 9, 6		4,19,27,52,26	
		21, 4, 0, 7, 1,29, 8		1,33
58″	59, 9, 3,16,35,57,48,10,38,14		4,19,27,53,59	
		21, 3,55,47,33,35, 9		
60″	59, 9, 3,37,39,53,35,44,13,23			
exact	59, 9, 3,37,39,53,35,44,49,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°21′ 0″	59, 9, 3,37,39,53,35,44,49,13			
		21, 3,51,28, 5,43,26		
2″	59, 9, 3,58,43,45, 3,50,32,39		4,19,27,56,49	
		21, 3,47, 8,37,46,37		1,32
4″	59, 9, 4,19,47,32,12,28,19,16		4,19,27,58,21	
		21, 3,42,49, 9,48,16		1,32
6″	59, 9, 4,40,51,15, 1,38, 7,32		4,19,27,59,53	
		21, 3,38,29,41,48,23		1,32
8″	59, 9, 5, 1,54,53,31,19,55,55		4,19,28, 1,25	
		21, 3,34,10,13,46,58		1,32
10″	59, 9, 5,22,58,27,41,33,42,53		4,19,28, 2,57	
		21, 3,29,50,45,44, 1		1,32
12″	59, 9, 5,44, 1,57,32,19,26,54		4,19,28, 4,29	
		21, 3,25,31,17,39,32		1,32
14″	59, 9, 6, 5, 5,23, 3,37, 6,26		4,19,28, 6, 1	
		21, 3,21,11,49,33,31		1,32
16″	59, 9, 6,26, 8,44,15,26,39,57		4,19,28, 7,33	
		21, 3,16,52,21,25,58		1,32
18″	59, 9, 6,47,12, 1, 7,48, 5,55		4,19,28, 9, 5	
		21, 3,12,32,53,16,53		1,32
20″	59, 9, 7, 8,15,13,40,41,22,48		4,19,28,10,37	
		21, 3, 8,13,25, 6,16		1,32
22″	59, 9, 7,29,18,21,54, 6,29, 4		4,19,28,12, 9	
		21, 3, 3,53,56,54, 7		1,32
24″	59, 9, 7,50,21,25,48, 3,23,11		4,19,28,13,41	
		21, 2,59,34,28,40,26		1,32
26″	59, 9, 8,11,24,25,22,32, 3,37		4,19,28,15,13	
		21, 2,55,15, 0,25,13		1,32
28″	59, 9, 8,32,27,20,37,32,28,50		4,19,28,16,45	
		21, 2,50,55,32, 8,28		1,32
30″	59, 9, 8,53,30,11,33, 4,37,18		4,19,28,18,17	
		21, 2,46,36, 3,50,11		1,32
32″	59, 9, 9,14,32,58, 9, 8,27,29		4,19,28,19,49	
		21, 2,42,16,35,30,22		1,32
34″	59, 9, 9,35,35,40,25,43,57,51		4,19,28,21,21	
		21, 2,37,57, 7, 9, 1		1,32
36″	59, 9, 9,56,38,18,22,51, 6,52		4,19,28,22,53	
		21, 2,33,37,38,46, 8		1,32
38″	59, 9,10,17,40,52, 0,29,53, 0		4,19,28,24,25	
		21, 2,29,18,10,21,43		1,32
40″	59, 9,10,38,43,21,18,40,14,43		4,19,28,25,57	
		21, 2,24,58,41,55,46		1,32
42″	59, 9,10,59,45,46,17,22,10,29		4,19,28,27,29	
		21, 2,20,39,13,28,17		1,32
44″	59, 9,11,20,48, 6,56,35,38,46		4,19,28,29, 1	
		21, 2,16,19,44,59,16		1,32
46″	59, 9,11,41,50,23,16,20,38, 2		4,19,28,30,33	
		21, 2,12, 0,16,28,43		1,32
48″	59, 9,12, 2,52,35,16,37, 6,45		4,19,28,32, 5	
		21, 2, 7,40,47,56,38		1,32
50″	59, 9,12,23,54,42,57,25, 3,23		4,19,28,33,37	
		21, 2, 3,21,19,23, 1		1,32
52″	59, 9,12,44,56,46,18,44,26,24		4,19,28,35, 9	
		21, 1,59, 1,50,47,52		1,32
54″	59, 9,13, 5,58,45,20,35,14,16		4,19,28,36,41	
		21, 1,54,42,22,11,11		1,32
56″	59, 9,13,27, 0,40, 2,57,25,27		4,19,28,38,13	
		21, 1,50,22,53,32,58		1,32
58″	59, 9,13,48, 2,30,25,50,58,25		4,19,28,39,45	
		21, 1,46, 3,24,53,13		
60″	59, 9,14, 9, 4,16,29,15,51,38			
exact	59, 9,14, 9, 4,16,29,15,28,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°22′ 0″	59, 9,14, 9, 4,16,29,15,28,59			
		21, 1,41,43,56, 9,32		
2″	59, 9,14,30, 5,58,13,11,38,31		4,19,28,42,58	
		21, 1,37,24,27,26,34		1,32
4″	59, 9,14,51, 7,35,37,39, 5, 5		4,19,28,44,30	
		21, 1,33, 4,58,42, 4		1,32
6″	59, 9,15,12, 9, 8,42,37,47, 9		4,19,28,46, 2	
		21, 1,28,45,29,56, 2		1,32
8″	59, 9,15,33,10,37,28, 7,43,11		4,19,28,47,34	
		21, 1,24,26, 1, 8,28		1,32
10″	59, 9,15,54,12, 1,54, 8,51,39		4,19,28,49, 6	
		21, 1,20, 6,32,19,22		1,32
12″	59, 9,16,15,13,22, 0,41,11, 1		4,19,28,50,38	
		21, 1,15,47, 3,28,44		1,32
14″	59, 9,16,36,14,37,47,44,39,45		4,19,28,52,10	
		21, 1,11,27,34,36,34		1,32
16″	59, 9,16,57,15,49,15,19,16,19		4,19,28,53,42	
		21, 1, 7, 8, 5,42,52		1,32
18″	59, 9,17,18,16,56,23,24,59,11		4,19,28,55,14	
		21, 1, 2,48,36,47,38		1,32
20″	59, 9,17,39,17,59,12, 1,46,49		4,19,28,56,46	
		21, 0,58,29, 7,50,52		1,32
22″	59, 9,18, 0,18,57,41, 9,37,41		4,19,28,58,18	
		21, 0,54, 9,38,52,34		1,32
24″	59, 9,18,21,19,51,50,48,30,15		4,19,28,59,50	
		21, 0,49,50, 9,52,44		1,32
26″	59, 9,18,42,20,41,40,58,22,59		4,19,29, 1,22	
		21, 0,45,30,40,51,22		1,32
28″	59, 9,19, 3,21,27,11,39,14,21		4,19,29, 2,54	
		21, 0,41,11,11,48,28		1,32
30″	59, 9,19,24,22, 8,22,51, 2,49		4,19,29, 4,26	
		21, 0,36,51,42,44, 2		1,32
32″	59, 9,19,45,22,45,14,33,46,51		4,19,29, 5,58	
		21, 0,32,32,13,38, 4		1,32
34″	59, 9,20, 6,23,17,46,47,24,55		4,19,29, 7,30	
		21, 0,28,12,44,30,34		1,32
36″	59, 9,20,27,23,45,59,31,55,29		4,19,29, 9, 2	
		21, 0,23,53,15,21,32		1,32
38″	59, 9,20,48,24, 9,52,47,17, 1		4,19,29,10,34	
		21, 0,19,33,46,10,58		1,32
40″	59, 9,21, 9,24,29,26,33,27,59		4,19,29,12, 6	
		21, 0,15,14,16,58,52		1,32
42″	59, 9,21,30,24,44,40,50,26,51		4,19,29,13,38	
		21, 0,10,54,47,45,14		1,32
44″	59, 9,21,51,24,55,35,38,12, 5		4,19,29,15,10	
		21, 0, 6,35,18,30, 4		1,32
46″	59, 9,22,12,25, 2,10,56,42, 9		4,19,29,16,42	
		21, 0, 2,15,49,13,22		1,32
48″	59, 9,22,33,25, 4,26,45,55,31		4,19,29,18,14	
		20,59,57,56,19,55, 8		1,32
50″	59, 9,22,54,25, 2,23, 5,50,39		4,19,29,19,46	
		20,59,53,36,50,35,22		1,32
52″	59, 9,23,15,24,55,59,56,26, 1		4,19,29,21,18	
		20,59,49,17,21,14, 4		1,32
54″	59, 9,23,36,24,45,17,17,40, 5		4,19,29,22,50	
		20,59,44,57,51,51,14		1,32
56″	59, 9,23,57,24,30,15, 9,31,19		4,19,29,24,22	
		20,59,40,38,22,26,52		1,32
58″	59, 9,24,18,24,10,53,31,58,11		4,19,29,25,54	
		20,59,36,18,53, 0,58		
60″	59, 9,24,39,23,47,12,24,59, 9			
exact	59, 9,24,39,23,47,12,24,43,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°23′ 0″	59, 9,24,39,23,47,12,24,43,34			
		20,59,31,59,23,32, 2		
2″	59, 9,25, 0,23,19,11,48,15,36		4,19,29,29, 3	
		20,59,27,39,54, 2,59		1,32
4″	59, 9,25,21,22,46,51,42,18,35		4,19,29,30,35	
		20,59,23,20,24,32,24		1,32
6″	59, 9,25,42,22,10,12, 6,50,59		4,19,29,32, 7	
		20,59,19, 0,55, 0,17		1,32
8″	59, 9,26, 3,21,29,13, 1,51,16		4,19,29,33,39	
		20,59,14,41,25,26,38		1,32
10″	59, 9,26,24,20,43,54,27,17,54		4,19,29,35,11	
		20,59,10,21,55,51,27		1,32
12″	59, 9,26,45,19,54,16,23, 9,21		4,19,29,36,43	
		20,59, 6, 2,26,14,44		1,32
14″	59, 9,27, 6,19, 0,18,49,24, 5		4,19,29,38,15	
		20,59, 1,42,56,36,29		1,32
16″	59, 9,27,27,18, 2, 1,46, 0,34		4,19,29,39,47	
		20,58,57,23,26,56,42		1,32
18″	59, 9,27,48,16,59,25,12,57,16		4,19,29,41,19	
		20,58,53, 3,57,15,23		1,32
20″	59, 9,28, 9,15,52,29,10,12,39		4,19,29,42,51	
		20,58,48,44,27,32,32		1,32
22″	59, 9,28,30,14,41,13,37,45,11		4,19,29,44,23	
		20,58,44,24,57,48, 9		1,32
24″	59, 9,28,51,13,25,38,35,33,20		4,19,29,45,55	
		20,58,40, 5,28, 2,14		1,32
26″	59, 9,29,12,12, 5,44, 3,35,34		4,19,29,47,27	
		20,58,35,45,58,14,47		1,32
28″	59, 9,29,33,10,41,30, 1,50,21		4,19,29,48,59	
		20,58,31,26,28,25,48		1,32
30″	59, 9,29,54, 9,12,56,30,16, 9		4,19,29,50,31	
		20,58,27, 6,58,35,17		1,32
32″	59, 9,30,15, 7,40, 3,28,51,26		4,19,29,52, 3	
		20,58,22,47,28,43,14		1,32
34″	59, 9,30,36, 6, 2,50,57,34,40		4,19,29,53,35	
		20,58,18,27,58,49,39		1,32
36″	59, 9,30,57, 4,21,18,56,24,19		4,19,29,55, 7	
		20,58,14, 8,28,54,32		1,32
38″	59, 9,31,18, 2,35,27,25,18,51		4,19,29,56,39	
		20,58, 9,48,58,57,53		1,32
40″	59, 9,31,39, 0,45,16,24,16,44		4,19,29,58,11	
		20,58, 5,29,28,59,42		1,32
42″	59, 9,31,59,58,50,45,53,16,26		4,19,29,59,43	
		20,58, 1, 9,58,59,59		1,32
44″	59, 9,32,20,56,51,55,52,16,25		4,19,30, 1,15	
		20,57,56,50,28,58,44		1,32
46″	59, 9,32,41,54,48,46,21,15, 9		4,19,30, 2,47	
		20,57,52,30,58,55,57		1,32
48″	59, 9,33, 2,52,41,17,20,11, 6		4,19,30, 4,19	
		20,57,48,11,28,51,38		1,32
50″	59, 9,33,23,50,29,28,49, 2,44		4,19,30, 5,51	
		20,57,43,51,58,45,47		1,32
52″	59, 9,33,44,48,13,20,47,48,31		4,19,30, 7,23	
		20,57,39,32,28,38,24		1,32
54″	59, 9,34, 5,45,52,53,16,26,55		4,19,30, 8,55	
		20,57,35,12,58,29,29		1,32
56″	59, 9,34,26,43,28, 6,14,56,24		4,19,30,10,27	
		20,57,30,53,28,19, 2		1,32
58″	59, 9,34,47,40,58,59,43,15,26		4,19,30,11,59	
		20,57,26,33,58, 7, 3		
60″	59, 9,35, 8,38,25,33,41,22,29			
exact	59, 9,35, 8,38,25,33,41,19,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°24′ 0″	59, 9,35, 8,38,25,33,41,19,14			
		20,57,22,14,27,53,18		
2″	59, 9,35,29,35,47,48, 9,12,32		4,19,30,15, 3	
		20,57,17,54,57,38,15		1,32
4″	59, 9,35,50,33, 5,43, 6,50,47		4,19,30,16,35	
		20,57,13,35,27,21,40		1,32
6″	59, 9,36,11,30,19,18,34,12,27		4,19,30,18, 7	
		20,57, 9,15,57, 3,33		1,32
8″	59, 9,36,32,27,28,34,31,16, 0		4,19,30,19,39	
		20,57, 4,56,26,43,54		1,32
10″	59, 9,36,53,24,33,30,57,59,54		4,19,30,21,11	
		20,57, 0,36,56,22,43		1,32
12″	59, 9,37,14,21,34, 7,54,22,37		4,19,30,22,43	
		20,56,56,17,26, 0, 0		1,32
14″	59, 9,37,35,18,30,25,20,22,37		4,19,30,24,15	
		20,56,51,57,55,35,45		1,32
16″	59, 9,37,56,15,22,23,15,58,22		4,19,30,25,47	
		20,56,47,38,25, 9,58		1,32
18″	59, 9,38,17,12,10, 1,41, 8,20		4,19,30,27,19	
		20,56,43,18,54,42,39		1,32
20″	59, 9,38,38, 8,53,20,35,50,59		4,19,30,28,51	
		20,56,38,59,24,13,48		1,32
22″	59, 9,38,59, 5,32,20, 0, 4,47		4,19,30,30,23	
		20,56,34,39,53,43,25		1,32
24″	59, 9,39,20, 2, 6,59,53,48,12		4,19,30,31,55	
		20,56,30,20,23,11,30		1,32
26″	59, 9,39,40,58,37,20,16,59,42		4,19,30,33,27	
		20,56,26, 0,52,38, 3		1,32
28″	59, 9,40, 1,55, 3,21, 9,37,45		4,19,30,34,59	
		20,56,21,41,22, 3, 4		1,32
30″	59, 9,40,22,51,25, 2,31,40,49		4,19,30,36,31	
		20,56,17,21,51,26,33		1,32
32″	59, 9,40,43,47,42,24,23, 7,22		4,19,30,38, 3	
		20,56,13, 2,20,48,30		1,32
34″	59, 9,41, 4,43,55,26,43,55,52		4,19,30,39,35	
		20,56, 8,42,50, 8,55		1,32
36″	59, 9,41,25,40, 4, 9,34, 4,47		4,19,30,41, 7	
		20,56, 4,23,19,27,48		1,32
38″	59, 9,41,46,36, 8,32,53,32,35		4,19,30,42,39	
		20,56, 0, 3,48,45, 9		1,32
40″	59, 9,42, 7,32, 8,36,42,17,44		4,19,30,44,11	
		20,55,55,44,18, 0,58		1,32
42″	59, 9,42,28,28, 4,21, 0,18,42		4,19,30,45,43	
		20,55,51,24,47,15,15		1,32
44″	59, 9,42,49,23,55,45,47,33,57		4,19,30,47,15	
		20,55,47, 5,16,28, 0		1,32
46″	59, 9,43,10,19,42,51, 4, 1,57		4,19,30,48,47	
		20,55,42,45,45,39,13		1,32
48″	59, 9,43,31,15,25,36,49,41,10		4,19,30,50,19	
		20,55,38,26,14,48,54		1,32
50″	59, 9,43,52,11, 4, 3, 4,30, 4		4,19,30,51,51	
		20,55,34, 6,43,57, 3		1,32
52″	59, 9,44,13, 6,38, 9,48,27, 7		4,19,30,53,23	
		20,55,29,47,13, 3,40		1,32
54″	59, 9,44,34, 2, 7,57, 1,30,47		4,19,30,54,55	
		20,55,25,27,42, 8,45		1,32
56″	59, 9,44,54,57,33,24,43,39,32		4,19,30,56,27	
		20,55,21, 8,11,12,18		1,32
58″	59, 9,45,15,52,54,32,54,51,50		4,19,30,57,59	
		20,55,16,48,40,14,19		
60″	59, 9,45,36,48,11,21,35, 6, 9			
exact	59, 9,45,36,48,11,21,35,13,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°25′ 0″	59, 9,45,36,48,11,21,35,13,22			
		20,55,12,29, 9,15,42		
2″	59, 9,45,57,43,23,50,44,29, 4		4,19,31, 0,58	
		20,55, 8, 9,38,14,44		1,32
4″	59, 9,46,18,38,32, 0,22,43,48		4,19,31, 2,30	
		20,55, 3,50, 7,12,14		1,32
6″	59, 9,46,39,33,35,50,29,56, 2		4,19,31, 4, 2	
		20,54,59,30,36, 8,12		1,32
8″	59, 9,47, 0,28,35,21, 6, 4,14		4,19,31, 5,34	
		20,54,55,11, 5, 2,38		1,32
10″	59, 9,47,21,23,30,32,11, 6,52		4,19,31, 7, 6	
		20,54,50,51,33,55,32		1,32
12″	59, 9,47,42,18,21,23,45, 2,24		4,19,31, 8,38	
		20,54,46,32, 2,46,54		1,32
14″	59, 9,48, 3,13, 7,55,47,49,18		4,19,31,10,10	
		20,54,42,12,31,36,44		1,32
16″	59, 9,48,24, 7,50, 8,19,26, 2		4,19,31,11,42	
		20,54,37,53, 0,25, 2		1,32
18″	59, 9,48,45, 2,28, 1,19,51, 4		4,19,31,13,14	
		20,54,33,33,29,11,48		1,32
20″	59, 9,49, 5,57, 1,34,49, 2,52		4,19,31,14,46	
		20,54,29,13,57,57, 2		1,32
22″	59, 9,49,26,51,30,48,46,59,54		4,19,31,16,18	
		20,54,24,54,26,40,44		1,32
24″	59, 9,49,47,45,55,43,13,40,38		4,19,31,17,50	
		20,54,20,34,55,22,54		1,32
26″	59, 9,50, 8,40,16,18, 9, 3,32		4,19,31,19,22	
		20,54,16,15,24, 3,32		1,32
28″	59, 9,50,29,34,32,33,33, 7, 4		4,19,31,20,54	
		20,54,11,55,52,42,38		1,32
30″	59, 9,50,50,28,44,29,25,49,42		4,19,31,22,26	
		20,54, 7,36,21,20,12		1,32
32″	59, 9,51,11,22,52, 5,47, 9,54		4,19,31,23,58	
		20,54, 3,16,49,56,14		1,32
34″	59, 9,51,32,16,55,22,37, 6, 8		4,19,31,25,30	
		20,53,58,57,18,30,44		1,32
36″	59, 9,51,53,10,54,19,55,36,52		4,19,31,27, 2	
		20,53,54,37,47, 3,42		1,32
38″	59, 9,52,14, 4,48,57,42,40,34		4,19,31,28,34	
		20,53,50,18,15,35, 8		1,32
40″	59, 9,52,34,58,39,15,58,15,42		4,19,31,30, 6	
		20,53,45,58,44, 5, 2		1,32
42″	59, 9,52,55,52,25,14,42,20,44		4,19,31,31,38	
		20,53,41,39,12,33,24		1,32
44″	59, 9,53,16,46, 6,53,54,54, 8		4,19,31,33,10	
		20,53,37,19,41, 0,14		1,32
46″	59, 9,53,37,39,44,13,35,54,22		4,19,31,34,42	
		20,53,33, 0, 9,25,32		1,32
48″	59, 9,53,58,33,17,13,45,19,54		4,19,31,36,14	
		20,53,28,40,37,49,18		1,32
50″	59, 9,54,19,26,45,54,23, 9,12		4,19,31,37,46	
		20,53,24,21, 6,11,32		1,32
52″	59, 9,54,40,20,10,15,29,20,44		4,19,31,39,18	
		20,53,20, 1,34,32,14		1,32
54″	59, 9,55, 1,13,30,17, 3,52,58		4,19,31,40,50	
		20,53,15,42, 2,51,24		1,32
56″	59, 9,55,22, 6,45,59, 6,44,22		4,19,31,42,22	
		20,53,11,22,31, 9, 2		1,32
58″	59, 9,55,42,59,57,21,37,53,24		4,19,31,43,54	
		20,53, 7, 2,59,25, 8		
60″	59, 9,56, 3,53, 4,24,37,18,32			
exact	59, 9,56, 3,53, 4,24,37,34,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°26′ 0″	59, 9,56, 3,53, 4,24,37,34,33			
		20,53, 2,43,27,41,37		
2″	59, 9,56,24,46, 7, 8, 5,16,10		4,19,31,46,49	
		20,52,58,23,55,54,48		1,32
4″	59, 9,56,45,39, 5,32, 1,10,58		4,19,31,48,21	
		20,52,54, 4,24, 6,27		1,32
6″	59, 9,57, 6,31,59,36,25,17,25		4,19,31,49,53	
		20,52,49,44,52,16,34		1,32
8″	59, 9,57,27,24,49,21,17,33,59		4,19,31,51,25	
		20,52,45,25,20,25, 9		1,32
10″	59, 9,57,48,17,34,46,37,59, 8		4,19,31,52,57	
		20,52,41, 5,48,32,12		1,32
12″	59, 9,58, 9,10,15,52,26,31,20		4,19,31,54,29	
		20,52,36,46,16,37,43		1,32
14″	59, 9,58,30, 2,52,38,43, 9, 3		4,19,31,56, 1	
		20,52,32,26,44,41,42		1,32
16″	59, 9,58,50,55,25, 5,27,50,45		4,19,31,57,33	
		20,52,28, 7,12,44, 9		1,32
18″	59, 9,59,11,47,53,12,40,34,54		4,19,31,59, 5	
		20,52,23,47,40,45, 4		1,32
20″	59, 9,59,32,40,17, 0,21,19,58		4,19,32, 0,37	
		20,52,19,28, 8,44,27		1,32
22″	59, 9,59,53,32,36,28,30, 4,25		4,19,32, 2, 9	
		20,52,15, 8,36,42,18		1,32
24″	59,10, 0,14,24,51,37, 6,46,43		4,19,32, 3,41	
		20,52,10,49, 4,38,37		1,32
26″	59,10, 0,35,17, 2,26,11,25,20		4,19,32, 5,13	
		20,52, 6,29,32,33,24		1,32
28″	59,10, 0,56, 9, 8,55,43,58,44		4,19,32, 6,45	
		20,52, 2,10, 0,26,39		1,32
30″	59,10, 1,17, 1,11, 5,44,25,23		4,19,32, 8,17	
		20,51,57,50,28,18,22		1,32
32″	59,10, 1,37,53, 8,56,12,43,45		4,19,32, 9,49	
		20,51,53,30,56, 8,33		1,32
34″	59,10, 1,58,45, 2,27, 8,52,18		4,19,32,11,21	
		20,51,49,11,23,57,12		1,32
36″	59,10, 2,19,36,51,38,32,49,30		4,19,32,12,53	
		20,51,44,51,51,44,19		1,32
38″	59,10, 2,40,28,36,30,24,33,49		4,19,32,14,25	
		20,51,40,32,19,29,54		1,32
40″	59,10, 3, 1,20,17, 2,44, 3,43		4,19,32,15,57	
		20,51,36,12,47,13,57		1,32
42″	59,10, 3,22,11,53,15,31,17,40		4,19,32,17,29	
		20,51,31,53,14,56,28		1,32
44″	59,10, 3,43, 3,25, 8,46,14, 8		4,19,32,19, 1	
		20,51,27,33,42,37,27		1,32
46″	59,10, 4, 3,54,52,42,28,51,35		4,19,32,20,33	
		20,51,23,14,10,16,54		1,32
48″	59,10, 4,24,46,15,56,39, 8,29		4,19,32,22, 5	
		20,51,18,54,37,54,49		1,32
50″	59,10, 4,45,37,34,51,17, 3,18		4,19,32,23,37	
		20,51,14,35, 5,31,12		1,32
52″	59,10, 5, 6,28,49,26,22,34,30		4,19,32,25, 9	
		20,51,10,15,33, 6, 3		1,32
54″	59,10, 5,27,19,59,41,55,40,33		4,19,32,26,41	
		20,51, 5,56, 0,39,22		1,32
56″	59,10, 5,48,11, 5,37,56,19,55		4,19,32,28,13	
		20,51, 1,36,28,11, 9		1,32
58″	59,10, 6, 9, 2, 7,14,24,31, 4		4,19,32,29,45	
		20,50,57,16,55,41,24		
60″	59,10, 6,29,53, 4,31,20,12,28			
exact	59,10, 6,29,53, 4,31,20,42,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°27′ 0″	59,10, 6,29,53, 4,31,20,42,27			
		20,50,52,57,23,13,24		
2″	59,10, 6,50,43,57,28,43,55,51		4,19,32,32,35	
		20,50,48,37,50,40,49		1,31
4″	59,10, 7,11,34,46, 6,34,36,40		4,19,32,34, 6	
		20,50,44,18,18, 6,43		1,31
6″	59,10, 7,32,25,30,24,52,43,23		4,19,32,35,37	
		20,50,39,58,45,31, 6		1,31
8″	59,10, 7,53,16,10,23,38,14,29		4,19,32,37, 8	
		20,50,35,39,12,53,58		1,31
10″	59,10, 8,14, 6,46, 2,51, 8,27		4,19,32,38,39	
		20,50,31,19,40,15,19		1,31
12″	59,10, 8,34,57,17,22,31,23,46		4,19,32,40,10	
		20,50,27, 0, 7,35, 9		1,31
14″	59,10, 8,55,47,44,22,38,58,55		4,19,32,41,41	
		20,50,22,40,34,53,28		1,31
16″	59,10, 9,16,38, 7, 3,13,52,23		4,19,32,43,12	
		20,50,18,21, 2,10,16		1,31
18″	59,10, 9,37,28,25,24,16, 2,39		4,19,32,44,43	
		20,50,14, 1,29,25,33		1,31
20″	59,10, 9,58,18,39,25,45,28,12		4,19,32,46,14	
		20,50, 9,41,56,39,19		1,31
22″	59,10,10,19, 8,49, 7,42, 7,31		4,19,32,47,45	
		20,50, 5,22,23,51,34		1,31
24″	59,10,10,39,58,54,30, 5,59, 5		4,19,32,49,16	
		20,50, 1, 2,51, 2,18		1,31
26″	59,10,11, 0,48,55,32,57, 1,23		4,19,32,50,47	
		20,49,56,43,18,11,31		1,31
28″	59,10,11,21,38,52,16,15,12,54		4,19,32,52,18	
		20,49,52,23,45,19,13		1,31
30″	59,10,11,42,28,44,40, 0,32, 7		4,19,32,53,49	
		20,49,48, 4,12,25,24		1,31
32″	59,10,12, 3,18,32,44,12,57,31		4,19,32,55,20	
		20,49,43,44,39,30, 4		1,31
34″	59,10,12,24, 8,16,28,52,27,35		4,19,32,56,51	
		20,49,39,25, 6,33,13		1,31
36″	59,10,12,44,57,55,53,59, 0,48		4,19,32,58,22	
		20,49,35, 5,33,34,51		1,31
38″	59,10,13, 5,47,30,59,32,35,39		4,19,32,59,53	
		20,49,30,46, 0,34,58		1,31
40″	59,10,13,26,37, 1,45,33,10,37		4,19,33, 1,24	
		20,49,26,26,27,33,34		1,31
42″	59,10,13,47,26,28,12, 0,44,11		4,19,33, 2,55	
		20,49,22, 6,54,30,39		1,31
44″	59,10,14, 8,15,50,18,55,14,50		4,19,33, 4,26	
		20,49,17,47,21,26,13		1,31
46″	59,10,14,29, 5, 8, 6,16,41, 3		4,19,33, 5,57	
		20,49,13,27,48,20,16		1,31
48″	59,10,14,49,54,21,34, 5, 1,19		4,19,33, 7,28	
		20,49, 9, 8,15,12,48		1,31
50″	59,10,15,10,43,30,42,20,14, 7		4,19,33, 8,59	
		20,49, 4,48,42, 3,49		1,31
52″	59,10,15,31,32,35,31, 2,17,56		4,19,33,10,30	
		20,49, 0,29, 8,53,19		1,31
54″	59,10,15,52,21,36, 0,11,11,15		4,19,33,12, 1	
		20,48,56, 9,35,41,18		1,31
56″	59,10,16,13,10,32, 9,46,52,33		4,19,33,13,32	
		20,48,51,50, 2,27,46		1,31
58″	59,10,16,33,59,23,59,49,20,19		4,19,33,15, 3	
		20,48,47,30,29,12,43		
60″	59,10,16,54,48,11,30,18,33, 2			
exact	59,10,16,54,48,11,30,18, 7,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°28′ 0″	59,10,16,54,48,11,30,18, 7,56			
		20,48,43,10,55,53,27		
2″	59,10,17,15,36,54,41,14, 1,23		4,19,33,18,16	
		20,48,38,51,22,35,11		1,31
4″	59,10,17,36,25,33,32,36,36,34		4,19,33,19,47	
		20,48,34,31,49,15,24		1,31
6″	59,10,17,57,14, 8, 4,25,51,58		4,19,33,21,18	
		20,48,30,12,15,54, 6		1,31
8″	59,10,18,18, 2,38,16,41,46, 4		4,19,33,22,49	
		20,48,25,52,42,31,17		1,31
10″	59,10,18,38,51, 4, 9,24,17,21		4,19,33,24,20	
		20,48,21,33, 9, 6,57		1,31
12″	59,10,18,59,39,25,42,33,24,18		4,19,33,25,51	
		20,48,17,13,35,41, 6		1,31
14″	59,10,19,20,27,42,56, 9, 5,24		4,19,33,27,22	
		20,48,12,54, 2,13,44		1,31
16″	59,10,19,41,15,55,50,11,19, 8		4,19,33,28,53	
		20,48, 8,34,28,44,51		1,31
18″	59,10,20, 2, 4, 4,24,40, 3,59		4,19,33,30,24	
		20,48, 4,14,55,14,27		1,31
20″	59,10,20,22,52, 8,39,35,18,26		4,19,33,31,55	
		20,47,59,55,21,42,32		1,31
22″	59,10,20,43,40, 8,34,57, 0,58		4,19,33,33,26	
		20,47,55,35,48, 9, 6		1,31
24″	59,10,21, 4,28, 4,10,45,10, 4		4,19,33,34,57	
		20,47,51,16,14,34, 9		1,31
26″	59,10,21,25,15,55,26,59,44,13		4,19,33,36,28	
		20,47,46,56,40,57,41		1,31
28″	59,10,21,46, 3,42,23,40,41,54		4,19,33,37,59	
		20,47,42,37, 7,19,42		1,31
30″	59,10,22, 6,51,25, 0,48, 1,36		4,19,33,39,30	
		20,47,38,17,33,40,12		1,31
32″	59,10,22,27,39, 3,18,21,41,48		4,19,33,41, 1	
		20,47,33,57,59,59,11		1,31
34″	59,10,22,48,26,37,16,21,40,59		4,19,33,42,32	
		20,47,29,38,26,16,39		1,31
36″	59,10,23, 9,14, 6,54,47,57,38		4,19,33,44, 3	
		20,47,25,18,52,32,36		1,31
38″	59,10,23,30, 1,32,13,40,30,14		4,19,33,45,34	
		20,47,20,59,18,47, 2		1,31
40″	59,10,23,50,48,53,12,59,17,16		4,19,33,47, 5	
		20,47,16,39,44,59,57		1,31
42″	59,10,24,11,36, 9,52,44,17,13		4,19,33,48,36	
		20,47,12,20,11,11,21		1,31
44″	59,10,24,32,23,22,12,55,28,34		4,19,33,50, 7	
		20,47, 8, 0,37,21,14		1,31
46″	59,10,24,53,10,30,13,32,49,48		4,19,33,51,38	
		20,47, 3,41, 3,29,36		1,31
48″	59,10,25,13,57,33,54,36,19,24		4,19,33,53, 9	
		20,46,59,21,29,36,27		1,31
50″	59,10,25,34,44,33,16, 5,55,51		4,19,33,54,40	
		20,46,55, 1,55,41,47		1,31
52″	59,10,25,55,31,28,18, 1,37,38		4,19,33,56,11	
		20,46,50,42,21,45,36		1,31
54″	59,10,26,16,18,19, 0,23,23,14		4,19,33,57,42	
		20,46,46,22,47,47,54		1,31
56″	59,10,26,37, 5, 5,23,11,11, 8		4,19,33,59,13	
		20,46,42, 3,13,48,41		1,31
58″	59,10,26,57,51,47,26,24,59,49		4,19,34, 0,44	
		20,46,37,43,39,47,57		
60″	59,10,27,18,38,25,10, 4,47,46			
exact	59,10,27,18,38,25,10, 4,33, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°29′ 0″	59,10,27,18,38,25,10, 4,33, 0			
		20,46,33,24, 5,44, 8		
2″	59,10,27,39,24,58,34,10,17, 8		4,19,34, 3,52	
		20,46,29, 4,31,40,16		1,31
4″	59,10,28, 0,11,27,38,41,57,24		4,19,34, 5,23	
		20,46,24,44,57,34,53		1,31
6″	59,10,28,20,57,52,23,39,32,17		4,19,34, 6,54	
		20,46,20,25,23,27,59		1,31
8″	59,10,28,41,44,12,49, 3, 0,16		4,19,34, 8,25	
		20,46,16, 5,49,19,34		1,31
10″	59,10,29, 2,30,28,54,52,19,50		4,19,34, 9,56	
		20,46,11,46,15, 9,38		1,31
12″	59,10,29,23,16,40,41, 7,29,28		4,19,34,11,27	
		20,46, 7,26,40,58,11		1,31
14″	59,10,29,44, 2,48, 7,48,27,39		4,19,34,12,58	
		20,46, 3, 7, 6,45,13		1,31
16″	59,10,30, 4,48,51,14,55,12,52		4,19,34,14,29	
		20,45,58,47,32,30,44		1,31
18″	59,10,30,25,34,50, 2,27,43,36		4,19,34,16, 0	
		20,45,54,27,58,14,44		1,31
20″	59,10,30,46,20,44,30,25,58,20		4,19,34,17,31	
		20,45,50, 8,23,57,13		1,31
22″	59,10,31, 7, 6,34,38,49,55,33		4,19,34,19, 2	
		20,45,45,48,49,38,11		1,31
24″	59,10,31,27,52,20,27,39,33,44		4,19,34,20,33	
		20,45,41,29,15,17,38		1,31
26″	59,10,31,48,38, 1,56,54,51,22		4,19,34,22, 4	
		20,45,37, 9,40,55,34		1,31
28″	59,10,32, 9,23,39, 6,35,46,56		4,19,34,23,35	
		20,45,32,50, 6,31,59		1,31
30″	59,10,32,30, 9,11,56,42,18,55		4,19,34,25, 6	
		20,45,28,30,32, 6,53		1,31
32″	59,10,32,50,54,40,27,14,25,48		4,19,34,26,37	
		20,45,24,10,57,40,16		1,31
34″	59,10,33,11,40, 4,38,12, 6, 4		4,19,34,28, 8	
		20,45,19,51,23,12, 8		1,31
36″	59,10,33,32,25,24,29,35,18,12		4,19,34,29,39	
		20,45,15,31,48,42,29		1,31
38″	59,10,33,53,10,40, 1,24, 0,41		4,19,34,31,10	
		20,45,11,12,14,11,19		1,31
40″	59,10,34,13,55,51,13,38,12, 0		4,19,34,32,41	
		20,45, 6,52,39,38,38		1,31
42″	59,10,34,34,40,58, 6,17,50,38		4,19,34,34,12	
		20,45, 2,33, 5, 4,26		1,31
44″	59,10,34,55,26, 0,39,22,55, 4		4,19,34,35,43	
		20,44,58,13,30,28,43		1,31
46″	59,10,35,16,10,58,52,53,23,47		4,19,34,37,14	
		20,44,53,53,55,51,29		1,31
48″	59,10,35,36,55,52,46,49,15,16		4,19,34,38,45	
		20,44,49,34,21,12,44		1,31
50″	59,10,35,57,40,42,21,10,28, 0		4,19,34,40,16	
		20,44,45,14,46,32,28		1,31
52″	59,10,36,18,25,27,35,57, 0,28		4,19,34,41,47	
		20,44,40,55,11,50,41		1,31
54″	59,10,36,39,10, 8,31, 8,51, 9		4,19,34,43,18	
		20,44,36,35,37, 7,23		1,31
56″	59,10,36,59,54,45, 6,45,58,32		4,19,34,44,49	
		20,44,32,16, 2,22,34		1,31
58″	59,10,37,20,39,17,22,48,21, 6		4,19,34,46,20	
		20,44,27,56,27,36,14		
60″	59,10,37,41,23,45,19,15,57,20			
exact	59,10,37,41,23,45,19,15,50,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°30′ 0″	59,10,37,41,23,45,19,15,50,49			
		20,44,23,36,52,47,48		
2″	59,10,38, 2, 8, 8,56, 8,38,37		4,19,34,49,24	
		20,44,19,17,17,58,24		1,31
4″	59,10,38,22,52,28,13,26,37, 1		4,19,34,50,55	
		20,44,14,57,43, 7,29		1,31
6″	59,10,38,43,36,43,11, 9,44,30		4,19,34,52,26	
		20,44,10,38, 8,15, 3		1,31
8″	59,10,39, 4,20,53,49,17,59,33		4,19,34,53,57	
		20,44, 6,18,33,21, 6		1,31
10″	59,10,39,25, 5, 0, 7,51,20,39		4,19,34,55,28	
		20,44, 1,58,58,25,38		1,31
12″	59,10,39,45,49, 2, 6,49,46,17		4,19,34,56,59	
		20,43,57,39,23,28,39		1,31
14″	59,10,40, 6,32,59,46,13,14,56		4,19,34,58,30	
		20,43,53,19,48,30, 9		1,31
16″	59,10,40,27,16,53, 6, 1,45, 5		4,19,35, 0, 1	
		20,43,49, 0,13,30, 8		1,31
18″	59,10,40,48, 0,42, 6,15,15,13		4,19,35, 1,32	
		20,43,44,40,38,28,36		1,31
20″	59,10,41, 8,44,26,46,53,43,49		4,19,35, 3, 3	
		20,43,40,21, 3,25,33		1,31
22″	59,10,41,29,28, 7, 7,57, 9,22		4,19,35, 4,34	
		20,43,36, 1,28,20,59		1,31
24″	59,10,41,50,11,43, 9,25,30,21		4,19,35, 6, 5	
		20,43,31,41,53,14,54		1,31
26″	59,10,42,10,55,14,51,18,45,15		4,19,35, 7,36	
		20,43,27,22,18, 7,18		1,31
28″	59,10,42,31,38,42,13,36,52,33		4,19,35, 9, 7	
		20,43,23, 2,42,58,11		1,31
30″	59,10,42,52,22, 5,16,19,50,44		4,19,35,10,38	
		20,43,18,43, 7,47,33		1,31
32″	59,10,43,13, 5,23,59,27,38,17		4,19,35,12, 9	
		20,43,14,23,32,35,24		1,31
34″	59,10,43,33,48,38,23, 0,13,41		4,19,35,13,40	
		20,43,10, 3,57,21,44		1,31
36″	59,10,43,54,31,48,26,57,35,25		4,19,35,15,11	
		20,43, 5,44,22, 6,33		1,31
38″	59,10,44,15,14,54,11,19,41,58		4,19,35,16,42	
		20,43, 1,24,46,49,51		1,31
40″	59,10,44,35,57,55,36, 6,31,49		4,19,35,18,13	
		20,42,57, 5,11,31,38		1,31
42″	59,10,44,56,40,52,41,18, 3,27		4,19,35,19,44	
		20,42,52,45,36,11,54		1,31
44″	59,10,45,17,23,45,26,54,15,21		4,19,35,21,15	
		20,42,48,26, 0,50,39		1,31
46″	59,10,45,38, 6,33,52,55, 6, 0		4,19,35,22,46	
		20,42,44, 6,25,27,53		1,31
48″	59,10,45,58,49,17,59,20,33,53		4,19,35,24,17	
		20,42,39,46,50, 3,36		1,31
50″	59,10,46,19,31,57,46,10,37,29		4,19,35,25,48	
		20,42,35,27,14,37,48		1,31
52″	59,10,46,40,14,33,13,25,15,17		4,19,35,27,19	
		20,42,31, 7,39,10,29		1,31
54″	59,10,47, 0,57, 4,21, 4,25,46		4,19,35,28,50	
		20,42,26,48, 3,41,39		1,31
56″	59,10,47,21,39,31, 9, 8, 7,25		4,19,35,30,21	
		20,42,22,28,28,11,18		1,31
58″	59,10,47,42,21,53,37,36,18,43		4,19,35,31,52	
		20,42,18, 8,52,39,26		
60″	59,10,48, 3, 4,11,46,28,58, 9			
exact	59,10,48, 3, 4,11,46,29, 5,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°31′ 0″	59,10,48, 3, 4,11,46,29, 5,41			
		20,42,13,49,17, 6,50		
2″	59,10,48,23,46,25,35,46,12,31		4,19,35,34,50	
		20,42, 9,29,41,32, 0		1,31
4″	59,10,48,44,28,35, 5,27,44,31		4,19,35,36,21	
		20,42, 5,10, 5,55,39		1,31
6″	59,10,49, 5,10,40,15,33,40,10		4,19,35,37,52	
		20,42, 0,50,30,17,47		1,31
8″	59,10,49,25,52,41, 6, 3,57,57		4,19,35,39,23	
		20,41,56,30,54,38,24		1,31
10″	59,10,49,46,34,37,36,58,36,21		4,19,35,40,54	
		20,41,52,11,18,57,30		1,31
12″	59,10,50, 7,16,29,48,17,33,51		4,19,35,42,25	
		20,41,47,51,43,15, 5		1,31
14″	59,10,50,27,58,17,40, 0,48,56		4,19,35,43,56	
		20,41,43,32, 7,31, 9		1,31
16″	59,10,50,48,40, 1,12, 8,20, 5		4,19,35,45,27	
		20,41,39,12,31,45,42		1,31
18″	59,10,51, 9,21,40,24,40, 5,47		4,19,35,46,58	
		20,41,34,52,55,58,44		1,31
20″	59,10,51,30, 3,15,17,36, 4,31		4,19,35,48,29	
		20,41,30,33,20,10,15		1,31
22″	59,10,51,50,44,45,50,56,14,46		4,19,35,50, 0	
		20,41,26,13,44,20,15		1,31
24″	59,10,52,11,26,12, 4,40,35, 1		4,19,35,51,31	
		20,41,21,54, 8,28,44		1,31
26″	59,10,52,32, 7,33,58,49, 3,45		4,19,35,53, 2	
		20,41,17,34,32,35,42		1,31
28″	59,10,52,52,48,51,33,21,39,27		4,19,35,54,33	
		20,41,13,14,56,41, 9		1,31
30″	59,10,53,13,30, 4,48,18,20,36		4,19,35,56, 4	
		20,41, 8,55,20,45, 5		1,31
32″	59,10,53,34,11,13,43,39, 5,41		4,19,35,57,35	
		20,41, 4,35,44,47,30		1,31
34″	59,10,53,54,52,18,19,23,53,11		4,19,35,59, 6	
		20,41, 0,16, 8,48,24		1,31
36″	59,10,54,15,33,18,35,32,41,35		4,19,36, 0,37	
		20,40,55,56,32,47,47		1,31
38″	59,10,54,36,14,14,32, 5,29,22		4,19,36, 2, 8	
		20,40,51,36,56,45,39		1,31
40″	59,10,54,56,55, 6, 9, 2,15, 1		4,19,36, 3,39	
		20,40,47,17,20,42, 0		1,31
42″	59,10,55,17,35,53,26,22,57, 1		4,19,36, 5,10	
		20,40,42,57,44,36,50		1,31
44″	59,10,55,38,16,36,24, 7,33,51		4,19,36, 6,41	
		20,40,38,38, 8,30, 9		1,31
46″	59,10,55,58,57,15, 2,16, 4, 0		4,19,36, 8,12	
		20,40,34,18,32,21,57		1,31
48″	59,10,56,19,37,49,20,48,25,57		4,19,36, 9,43	
		20,40,29,58,56,12,14		1,31
50″	59,10,56,40,18,19,19,44,38,11		4,19,36,11,14	
		20,40,25,39,20, 1, 0		1,31
52″	59,10,57, 0,58,44,59, 4,39,11		4,19,36,12,45	
		20,40,21,19,43,48,15		1,31
54″	59,10,57,21,39, 6,18,48,27,26		4,19,36,14,16	
		20,40,17, 0, 7,33,59		1,31
56″	59,10,57,42,19,23,18,56, 1,25		4,19,36,15,47	
		20,40,12,40,31,18,12		1,31
58″	59,10,58, 2,59,35,59,27,19,37		4,19,36,17,18	
		20,40, 8,20,55, 0,54		
60″	59,10,58,23,39,44,20,22,20,31			
exact	59,10,58,23,39,44,20,22,33, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°32′ 0″	59,10,58,23,39,44,20,22,33, 8			
		20,40, 4, 1,18,43,37		
2″	59,10,58,44,19,48,21,41,16,45		4,19,36,20,12	
		20,39,59,41,42,23,25		1,31
4″	59,10,59, 4,59,48, 3,23,40,10		4,19,36,21,43	
		20,39,55,22, 6, 1,42		1,31
6″	59,10,59,25,39,43,25,29,41,52		4,19,36,23,14	
		20,39,51, 2,29,38,28		1,31
8″	59,10,59,46,19,34,27,59,20,20		4,19,36,24,45	
		20,39,46,42,53,13,43		1,31
10″	59,11, 0, 6,59,21,10,52,34, 3		4,19,36,26,16	
		20,39,42,23,16,47,27		1,31
12″	59,11, 0,27,39, 3,34, 9,21,30		4,19,36,27,47	
		20,39,38, 3,40,19,40		1,31
14″	59,11, 0,48,18,41,37,49,41,10		4,19,36,29,18	
		20,39,33,44, 3,50,22		1,31
16″	59,11, 1, 8,58,15,21,53,31,32		4,19,36,30,49	
		20,39,29,24,27,19,33		1,31
18″	59,11, 1,29,37,44,46,20,51, 5		4,19,36,32,20	
		20,39,25, 4,50,47,13		1,31
20″	59,11, 1,50,17, 9,51,11,38,18		4,19,36,33,51	
		20,39,20,45,14,13,22		1,31
22″	59,11, 2,10,56,30,36,25,51,40		4,19,36,35,22	
		20,39,16,25,37,38, 0		1,31
24″	59,11, 2,31,35,47, 2, 3,29,40		4,19,36,36,53	
		20,39,12, 6, 1, 1, 7		1,31
26″	59,11, 2,52,14,59, 8, 4,30,47		4,19,36,38,24	
		20,39, 7,46,24,22,43		1,31
28″	59,11, 3,12,54, 6,54,28,53,30		4,19,36,39,55	
		20,39, 3,26,47,42,48		1,31
30″	59,11, 3,33,33,10,21,16,36,18		4,19,36,41,26	
		20,38,59, 7,11, 1,22		1,31
32″	59,11, 3,54,12, 9,28,27,37,40		4,19,36,42,57	
		20,38,54,47,34,18,25		1,31
34″	59,11, 4,14,51, 4,16, 1,56, 5		4,19,36,44,28	
		20,38,50,27,57,33,57		1,31
36″	59,11, 4,35,29,54,43,59,30, 2		4,19,36,45,59	
		20,38,46, 8,20,47,58		1,31
38″	59,11, 4,56, 8,40,52,20,18, 0		4,19,36,47,30	
		20,38,41,48,44, 0,28		1,31
40″	59,11, 5,16,47,22,41, 4,18,28		4,19,36,49, 1	
		20,38,37,29, 7,11,27		1,31
42″	59,11, 5,37,26, 0,10,11,29,55		4,19,36,50,32	
		20,38,33, 9,30,20,55		1,31
44″	59,11, 5,58, 4,33,19,41,50,50		4,19,36,52, 3	
		20,38,28,49,53,28,52		1,31
46″	59,11, 6,18,43, 2, 9,35,19,42		4,19,36,53,34	
		20,38,24,30,16,35,18		1,31
48″	59,11, 6,39,21,26,39,51,55, 0		4,19,36,55, 5	
		20,38,20,10,39,40,13		1,31
50″	59,11, 6,59,59,46,50,31,35,13		4,19,36,56,36	
		20,38,15,51, 2,43,37		1,31
52″	59,11, 7,20,38, 2,41,34,18,50		4,19,36,58, 7	
		20,38,11,31,25,45,30		1,31
54″	59,11, 7,41,16,14,13, 0, 4,20		4,19,36,59,38	
		20,38, 7,11,48,45,52		1,31
56″	59,11, 8, 1,54,21,24,48,50,12		4,19,37, 1, 9	
		20,38, 2,52,11,44,43		1,31
58″	59,11, 8,22,32,24,17, 0,34,55		4,19,37, 2,40	
		20,37,58,32,34,42, 3		
60″	59,11, 8,43,10,22,49,35,16,58			
exact	59,11, 8,43,10,22,49,35,39,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°33′ 0″	59,11, 8,43,10,22,49,35,39,48			
		20,37,54,12,57,40,31		
2″	59,11, 9, 3,48,17, 2,33,20,19		4,19,37, 5,30	
		20,37,49,53,20,35, 1		1,30
4″	59,11, 9,24,26, 6,55,53,55,20		4,19,37, 7, 0	
		20,37,45,33,43,28, 1		1,30
6″	59,11, 9,45, 3,52,29,37,23,21		4,19,37, 8,30	
		20,37,41,14, 6,19,31		1,30
8″	59,11,10, 5,41,33,43,43,42,52		4,19,37,10, 0	
		20,37,36,54,29, 9,31		1,30
10″	59,11,10,26,19,10,38,12,52,23		4,19,37,11,30	
		20,37,32,34,51,58, 1		1,30
12″	59,11,10,46,56,43,13, 4,50,24		4,19,37,13, 0	
		20,37,28,15,14,45, 1		1,30
14″	59,11,11, 7,34,11,28,19,35,25		4,19,37,14,30	
		20,37,23,55,37,30,31		1,30
16″	59,11,11,28,11,35,23,57, 5,56		4,19,37,16, 0	
		20,37,19,36, 0,14,31		1,30
18″	59,11,11,48,48,54,59,57,20,27		4,19,37,17,30	
		20,37,15,16,22,57, 1		1,30
20″	59,11,12, 9,26,10,16,20,17,28		4,19,37,19, 0	
		20,37,10,56,45,38, 1		1,30
22″	59,11,12,30, 3,21,13, 5,55,29		4,19,37,20,30	
		20,37, 6,37, 8,17,31		1,30
24″	59,11,12,50,40,27,50,14,13, 0		4,19,37,22, 0	
		20,37, 2,17,30,55,31		1,30
26″	59,11,13,11,17,30, 7,45, 8,31		4,19,37,23,30	
		20,36,57,57,53,32, 1		1,30
28″	59,11,13,31,54,28, 5,38,40,32		4,19,37,25, 0	
		20,36,53,38,16, 7, 1		1,30
30″	59,11,13,52,31,21,43,54,47,33		4,19,37,26,30	
		20,36,49,18,38,40,31		1,30
32″	59,11,14,13, 8,11, 2,33,28, 4		4,19,37,28, 0	
		20,36,44,59, 1,12,31		1,30
34″	59,11,14,33,44,56, 1,34,40,35		4,19,37,29,30	
		20,36,40,39,23,43, 1		1,30
36″	59,11,14,54,21,36,40,58,23,36		4,19,37,31, 0	
		20,36,36,19,46,12, 1		1,30
38″	59,11,15,14,58,13, 0,44,35,37		4,19,37,32,30	
		20,36,32, 0, 8,39,31		1,30
40″	59,11,15,35,34,45, 0,53,15, 8		4,19,37,34, 0	
		20,36,27,40,31, 5,31		1,30
42″	59,11,15,56,11,12,41,24,20,39		4,19,37,35,30	
		20,36,23,20,53,30, 1		1,30
44″	59,11,16,16,47,36, 2,17,50,40		4,19,37,37, 0	
		20,36,19, 1,15,53, 1		1,30
46″	59,11,16,37,23,55, 3,33,43,41		4,19,37,38,30	
		20,36,14,41,38,14,31		1,30
48″	59,11,16,58, 0, 9,45,11,58,12		4,19,37,40, 0	
		20,36,10,22, 0,34,31		1,30
50″	59,11,17,18,36,20, 7,12,32,43		4,19,37,41,30	
		20,36, 6, 2,22,53, 1		1,30
52″	59,11,17,39,12,26, 9,35,25,44		4,19,37,43, 0	
		20,36, 1,42,45,10, 1		1,30
54″	59,11,17,59,48,27,52,20,35,45		4,19,37,44,30	
		20,35,57,23, 7,25,31		1,30
56″	59,11,18,20,24,25,15,28, 1,16		4,19,37,46, 0	
		20,35,53, 3,29,39,31		1,30
58″	59,11,18,41, 0,18,18,57,40,47		4,19,37,47,30	
		20,35,48,43,51,52, 1		
60″	59,11,19, 1,36, 7, 2,49,32,48			
exact	59,11,19, 1,36, 7, 2,49, 3,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°34′ 0″	59,11,19, 1,36, 7, 2,49, 3,30			
		20,35,44,24,13,59,54		
2″	59,11,19,22,11,51,27, 3, 3,24		4,19,37,50,42	
		20,35,40, 4,36, 9,12		1,30
4″	59,11,19,42,47,31,31,39,12,36		4,19,37,52,12	
		20,35,35,44,58,17, 0		1,30
6″	59,11,20, 3,23, 7,16,37,29,36		4,19,37,53,42	
		20,35,31,25,20,23,18		1,30
8″	59,11,20,23,58,38,41,57,52,54		4,19,37,55,12	
		20,35,27, 5,42,28, 6		1,30
10″	59,11,20,44,34, 5,47,40,21, 0		4,19,37,56,42	
		20,35,22,46, 4,31,24		1,30
12″	59,11,21, 5, 9,28,33,44,52,24		4,19,37,58,12	
		20,35,18,26,26,33,12		1,30
14″	59,11,21,25,44,47, 0,11,25,36		4,19,37,59,42	
		20,35,14, 6,48,33,30		1,30
16″	59,11,21,46,20, 1, 6,59,59, 6		4,19,38, 1,12	
		20,35, 9,47,10,32,18		1,30
18″	59,11,22, 6,55,10,54,10,31,24		4,19,38, 2,42	
		20,35, 5,27,32,29,36		1,30
20″	59,11,22,27,30,16,21,43, 1, 0		4,19,38, 4,12	
		20,35, 1, 7,54,25,24		1,30
22″	59,11,22,48, 5,17,29,37,26,24		4,19,38, 5,42	
		20,34,56,48,16,19,42		1,30
24″	59,11,23, 8,40,14,17,53,46, 6		4,19,38, 7,12	
		20,34,52,28,38,12,30		1,30
26″	59,11,23,29,15, 6,46,31,58,36		4,19,38, 8,42	
		20,34,48, 9, 0, 3,48		1,30
28″	59,11,23,49,49,54,55,32, 2,24		4,19,38,10,12	
		20,34,43,49,21,53,36		1,30
30″	59,11,24,10,24,38,44,53,56, 0		4,19,38,11,42	
		20,34,39,29,43,41,54		1,30
32″	59,11,24,30,59,18,14,37,37,54		4,19,38,13,12	
		20,34,35,10, 5,28,42		1,30
34″	59,11,24,51,33,53,24,43, 6,36		4,19,38,14,42	
		20,34,30,50,27,14, 0		1,30
36″	59,11,25,12, 8,24,15,10,20,36		4,19,38,16,12	
		20,34,26,30,48,57,48		1,30
38″	59,11,25,32,42,50,45,59,18,24		4,19,38,17,42	
		20,34,22,11,10,40, 6		1,30
40″	59,11,25,53,17,12,57, 9,58,30		4,19,38,19,12	
		20,34,17,51,32,20,54		1,30
42″	59,11,26,13,51,30,48,42,19,24		4,19,38,20,42	
		20,34,13,31,54, 0,12		1,30
44″	59,11,26,34,25,44,20,36,19,36		4,19,38,22,12	
		20,34, 9,12,15,38, 0		1,30
46″	59,11,26,54,59,53,32,51,57,36		4,19,38,23,42	
		20,34, 4,52,37,14,18		1,30
48″	59,11,27,15,33,58,25,29,11,54		4,19,38,25,12	
		20,34, 0,32,58,49, 6		1,30
50″	59,11,27,36, 7,58,58,28, 1, 0		4,19,38,26,42	
		20,33,56,13,20,22,24		1,30
52″	59,11,27,56,41,55,11,48,23,24		4,19,38,28,12	
		20,33,51,53,41,54,12		1,30
54″	59,11,28,17,15,47, 5,30,17,36		4,19,38,29,42	
		20,33,47,34, 3,24,30		1,30
56″	59,11,28,37,49,34,39,33,42, 6		4,19,38,31,12	
		20,33,43,14,24,53,18		1,30
58″	59,11,28,58,23,17,53,58,35,24		4,19,38,32,42	
		20,33,38,54,46,20,36		
60″	59,11,29,18,56,56,48,44,56, 0			
exact	59,11,29,18,56,56,48,44,33,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°35′ 0″	59,11,29,18,56,56,48,44,33,16			
		20,33,34,35, 7,44, 9		
2″	59,11,29,39,30,31,23,52,17,25		4,19,38,35,50	
		20,33,30,15,29, 8,19		1,30
4″	59,11,30, 0, 4, 1,39,21,25,44		4,19,38,37,20	
		20,33,25,55,50,30,59		1,30
6″	59,11,30,20,37,27,35,11,56,43		4,19,38,38,50	
		20,33,21,36,11,52, 9		1,30
8″	59,11,30,41,10,49,11,23,48,52		4,19,38,40,20	
		20,33,17,16,33,11,49		1,30
10″	59,11,31, 1,44, 6,27,57, 0,41		4,19,38,41,50	
		20,33,12,56,54,29,59		1,30
12″	59,11,31,22,17,19,24,51,30,40		4,19,38,43,20	
		20,33, 8,37,15,46,39		1,30
14″	59,11,31,42,50,28, 2, 7,17,19		4,19,38,44,50	
		20,33, 4,17,37, 1,49		1,30
16″	59,11,32, 3,23,32,19,44,19, 8		4,19,38,46,20	
		20,32,59,57,58,15,29		1,30
18″	59,11,32,23,56,32,17,42,34,37		4,19,38,47,50	
		20,32,55,38,19,27,39		1,30
20″	59,11,32,44,29,27,56, 2, 2,16		4,19,38,49,20	
		20,32,51,18,40,38,19		1,30
22″	59,11,33, 5, 2,19,14,42,40,35		4,19,38,50,50	
		20,32,46,59, 1,47,29		1,30
24″	59,11,33,25,35, 6,13,44,28, 4		4,19,38,52,20	
		20,32,42,39,22,55, 9		1,30
26″	59,11,33,46, 7,48,53, 7,23,13		4,19,38,53,50	
		20,32,38,19,44, 1,19		1,30
28″	59,11,34, 6,40,27,12,51,24,32		4,19,38,55,20	
		20,32,34, 0, 5, 5,59		1,30
30″	59,11,34,27,13, 1,12,56,30,31		4,19,38,56,50	
		20,32,29,40,26, 9, 9		1,30
32″	59,11,34,47,45,30,53,22,39,40		4,19,38,58,20	
		20,32,25,20,47,10,49		1,30
34″	59,11,35, 8,17,56,14, 9,50,29		4,19,38,59,50	
		20,32,21, 1, 8,10,59		1,30
36″	59,11,35,28,50,17,15,18, 1,28		4,19,39, 1,20	
		20,32,16,41,29, 9,39		1,30
38″	59,11,35,49,22,33,56,47,11, 7		4,19,39, 2,50	
		20,32,12,21,50, 6,49		1,30
40″	59,11,36, 9,54,46,18,37,17,56		4,19,39, 4,20	
		20,32, 8, 2,11, 2,29		1,30
42″	59,11,36,30,26,54,20,48,20,25		4,19,39, 5,50	
		20,32, 3,42,31,56,39		1,30
44″	59,11,36,50,58,58, 3,20,17, 4		4,19,39, 7,20	
		20,31,59,22,52,49,19		1,30
46″	59,11,37,11,30,57,26,13, 6,23		4,19,39, 8,50	
		20,31,55, 3,13,40,29		1,30
48″	59,11,37,32, 2,52,29,26,46,52		4,19,39,10,20	
		20,31,50,43,34,30, 9		1,30
50″	59,11,37,52,34,43,13, 1,17, 1		4,19,39,11,50	
		20,31,46,23,55,18,19		1,30
52″	59,11,38,13, 6,29,36,56,35,20		4,19,39,13,20	
		20,31,42, 4,16, 4,59		1,30
54″	59,11,38,33,38,11,41,12,40,19		4,19,39,14,50	
		20,31,37,44,36,50, 9		1,30
56″	59,11,38,54, 9,49,25,49,30,28		4,19,39,16,20	
		20,31,33,24,57,33,49		1,30
58″	59,11,39,14,41,22,50,47, 4,17		4,19,39,17,50	
		20,31,29, 5,18,15,59		
60″	59,11,39,35,12,51,56, 5,20,16			
exact	59,11,39,35,12,51,56, 5, 9,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°36′ 0″	59,11,39,35,12,51,56, 5, 9,16			
		20,31,24,45,38,55,37		
2″	59,11,39,55,44,16,41,44, 4,53		4,19,39,20,53	
		20,31,20,25,59,34,44		1,30
4″	59,11,40,16,15,37, 7,43,39,37		4,19,39,22,23	
		20,31,16, 6,20,12,21		1,30
6″	59,11,40,36,46,53,14, 3,51,58		4,19,39,23,53	
		20,31,11,46,40,48,28		1,30
8″	59,11,40,57,18, 5, 0,44,40,26		4,19,39,25,23	
		20,31, 7,27, 1,23, 5		1,30
10″	59,11,41,17,49,12,27,46, 3,31		4,19,39,26,53	
		20,31, 3, 7,21,56,12		1,30
12″	59,11,41,38,20,15,35, 7,59,43		4,19,39,28,23	
		20,30,58,47,42,27,49		1,30
14″	59,11,41,58,51,14,22,50,27,32		4,19,39,29,53	
		20,30,54,28, 2,57,56		1,30
16″	59,11,42,19,22, 8,50,53,25,28		4,19,39,31,23	
		20,30,50, 8,23,26,33		1,30
18″	59,11,42,39,52,58,59,16,52, 1		4,19,39,32,53	
		20,30,45,48,43,53,40		1,30
20″	59,11,43, 0,23,44,48, 0,45,41		4,19,39,34,23	
		20,30,41,29, 4,19,17		1,30
22″	59,11,43,20,54,26,17, 5, 4,58		4,19,39,35,53	
		20,30,37, 9,24,43,24		1,30
24″	59,11,43,41,25, 3,26,29,48,22		4,19,39,37,23	
		20,30,32,49,45, 6, 1		1,30
26″	59,11,44, 1,55,36,16,14,54,23		4,19,39,38,53	
		20,30,28,30, 5,27, 8		1,30
28″	59,11,44,22,26, 4,46,20,21,31		4,19,39,40,23	
		20,30,24,10,25,46,45		1,30
30″	59,11,44,42,56,28,56,46, 8,16		4,19,39,41,53	
		20,30,19,50,46, 4,52		1,30
32″	59,11,45, 3,26,48,47,32,13, 8		4,19,39,43,23	
		20,30,15,31, 6,21,29		1,30
34″	59,11,45,23,57, 4,18,38,34,37		4,19,39,44,53	
		20,30,11,11,26,36,36		1,30
36″	59,11,45,44,27,15,30, 5,11,13		4,19,39,46,23	
		20,30, 6,51,46,50,13		1,30
38″	59,11,46, 4,57,22,21,52, 1,26		4,19,39,47,53	
		20,30, 2,32, 7, 2,20		1,30
40″	59,11,46,25,27,24,53,59, 3,46		4,19,39,49,23	
		20,29,58,12,27,12,57		1,30
42″	59,11,46,45,57,23, 6,26,16,43		4,19,39,50,53	
		20,29,53,52,47,22, 4		1,30
44″	59,11,47, 6,27,16,59,13,38,47		4,19,39,52,23	
		20,29,49,33, 7,29,41		1,30
46″	59,11,47,26,57, 6,32,21, 8,28		4,19,39,53,53	
		20,29,45,13,27,35,48		1,30
48″	59,11,47,47,26,51,45,48,44,16		4,19,39,55,23	
		20,29,40,53,47,40,25		1,30
50″	59,11,48, 7,56,32,39,36,24,41		4,19,39,56,53	
		20,29,36,34, 7,43,32		1,30
52″	59,11,48,28,26, 9,13,44, 8,13		4,19,39,58,23	
		20,29,32,14,27,45, 9		1,30
54″	59,11,48,48,55,41,28,11,53,22		4,19,39,59,53	
		20,29,27,54,47,45,16		1,30
56″	59,11,49, 9,25, 9,22,59,38,38		4,19,40, 1,23	
		20,29,23,35, 7,43,53		1,30
58″	59,11,49,29,54,32,58, 7,22,31		4,19,40, 2,53	
		20,29,19,15,27,41, 0		
60″	59,11,49,50,23,52,13,35, 3,31			
exact	59,11,49,50,23,52,13,35, 2,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°37′ 0″	59,11,49,50,23,52,13,35, 2,53			
		20,29,14,55,47,36,42		
2″	59,11,50,10,53, 7, 9,22,39,35		4,19,40, 5,52	
		20,29,10,36, 7,30,50		1,30
4″	59,11,50,31,22,17,45,30,10,25		4,19,40, 7,22	
		20,29, 6,16,27,23,28		1,30
6″	59,11,50,51,51,24, 1,57,33,53		4,19,40, 8,52	
		20,29, 1,56,47,14,36		1,30
8″	59,11,51,12,20,25,58,44,48,29		4,19,40,10,22	
		20,28,57,37, 7, 4,14		1,30
10″	59,11,51,32,49,23,35,51,52,43		4,19,40,11,52	
		20,28,53,17,26,52,22		1,30
12″	59,11,51,53,18,16,53,18,45, 5		4,19,40,13,22	
		20,28,48,57,46,39, 0		1,30
14″	59,11,52,13,47, 5,51, 5,24, 5		4,19,40,14,52	
		20,28,44,38, 6,24, 8		1,30
16″	59,11,52,34,15,50,29,11,48,13		4,19,40,16,22	
		20,28,40,18,26, 7,46		1,30
18″	59,11,52,54,44,30,47,37,55,59		4,19,40,17,52	
		20,28,35,58,45,49,54		1,30
20″	59,11,53,15,13, 6,46,23,45,53		4,19,40,19,22	
		20,28,31,39, 5,30,32		1,30
22″	59,11,53,35,41,38,25,29,16,25		4,19,40,20,52	
		20,28,27,19,25, 9,40		1,30
24″	59,11,53,56,10, 5,44,54,26, 5		4,19,40,22,22	
		20,28,22,59,44,47,18		1,30
26″	59,11,54,16,38,28,44,39,13,23		4,19,40,23,52	
		20,28,18,40, 4,23,26		1,30
28″	59,11,54,37, 6,47,24,43,36,49		4,19,40,25,22	
		20,28,14,20,23,58, 4		1,30
30″	59,11,54,57,35, 1,45, 7,34,53		4,19,40,26,52	
		20,28,10, 0,43,31,12		1,30
32″	59,11,55,18, 3,11,45,51, 6, 5		4,19,40,28,22	
		20,28, 5,41, 3, 2,50		1,30
34″	59,11,55,38,31,17,26,54, 8,55		4,19,40,29,52	
		20,28, 1,21,22,32,58		1,30
36″	59,11,55,58,59,18,48,16,41,53		4,19,40,31,22	
		20,27,57, 1,42, 1,36		1,30
38″	59,11,56,19,27,15,49,58,43,29		4,19,40,32,52	
		20,27,52,42, 1,28,44		1,30
40″	59,11,56,39,55, 8,32, 0,12,13		4,19,40,34,22	
		20,27,48,22,20,54,22		1,30
42″	59,11,57, 0,22,56,54,21, 6,35		4,19,40,35,52	
		20,27,44, 2,40,18,30		1,30
44″	59,11,57,20,50,40,57, 1,25, 5		4,19,40,37,22	
		20,27,39,42,59,41, 8		1,30
46″	59,11,57,41,18,20,40, 1, 6,13		4,19,40,38,52	
		20,27,35,23,19, 2,16		1,30
48″	59,11,58, 1,45,56, 3,20, 8,29		4,19,40,40,22	
		20,27,31, 3,38,21,54		1,30
50″	59,11,58,22,13,27, 6,58,30,23		4,19,40,41,52	
		20,27,26,43,57,40, 2		1,30
52″	59,11,58,42,40,53,50,56,10,25		4,19,40,43,22	
		20,27,22,24,16,56,40		1,30
54″	59,11,59, 3, 8,16,15,13, 7, 5		4,19,40,44,52	
		20,27,18, 4,36,11,48		1,30
56″	59,11,59,23,35,34,19,49,18,53		4,19,40,46,22	
		20,27,13,44,55,25,26		1,30
58″	59,11,59,44, 2,48, 4,44,44,19		4,19,40,47,52	
		20,27, 9,25,14,37,34		
60″	59,12, 0, 4,29,57,29,59,21,53			
exact	59,12, 0, 4,29,57,29,59,36,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°38′ 0″	59,12, 0, 4,29,57,29,59,36,39			
		20,27, 5, 5,33,49,46		
2″	59,12, 0,24,57, 2,35,33,26,25		4,19,40,50,45	
		20,27, 0,45,52,59, 1		1,30
4″	59,12, 0,45,24, 3,21,26,25,26		4,19,40,52,15	
		20,26,56,26,12, 6,46		1,30
6″	59,12, 1, 5,50,59,47,38,32,12		4,19,40,53,45	
		20,26,52, 6,31,13, 1		1,30
8″	59,12, 1,26,17,51,54, 9,45,13		4,19,40,55,15	
		20,26,47,46,50,17,46		1,30
10″	59,12, 1,46,44,39,41, 0, 2,59		4,19,40,56,45	
		20,26,43,27, 9,21, 1		1,30
12″	59,12, 2, 7,11,23, 8, 9,24, 0		4,19,40,58,15	
		20,26,39, 7,28,22,46		1,30
14″	59,12, 2,27,38, 2,15,37,46,46		4,19,40,59,45	
		20,26,34,47,47,23, 1		1,30
16″	59,12, 2,48, 4,37, 3,25, 9,47		4,19,41, 1,15	
		20,26,30,28, 6,21,46		1,30
18″	59,12, 3, 8,31, 7,31,31,31,33		4,19,41, 2,45	
		20,26,26, 8,25,19, 1		1,30
20″	59,12, 3,28,57,33,39,56,50,34		4,19,41, 4,15	
		20,26,21,48,44,14,46		1,30
22″	59,12, 3,49,23,55,28,41, 5,20		4,19,41, 5,45	
		20,26,17,29, 3, 9, 1		1,30
24″	59,12, 4, 9,50,12,57,44,14,21		4,19,41, 7,15	
		20,26,13, 9,22, 1,46		1,30
26″	59,12, 4,30,16,26, 7, 6,16, 7		4,19,41, 8,45	
		20,26, 8,49,40,53, 1		1,30
28″	59,12, 4,50,42,34,56,47, 9, 8		4,19,41,10,15	
		20,26, 4,29,59,42,46		1,30
30″	59,12, 5,11, 8,39,26,46,51,54		4,19,41,11,45	
		20,26, 0,10,18,31, 1		1,30
32″	59,12, 5,31,34,39,37, 5,22,55		4,19,41,13,15	
		20,25,55,50,37,17,46		1,30
34″	59,12, 5,52, 0,35,27,42,40,41		4,19,41,14,45	
		20,25,51,30,56, 3, 1		1,30
36″	59,12, 6,12,26,26,58,38,43,42		4,19,41,16,15	
		20,25,47,11,14,46,46		1,30
38″	59,12, 6,32,52,14, 9,53,30,28		4,19,41,17,45	
		20,25,42,51,33,29, 1		1,30
40″	59,12, 6,53,17,57, 1,26,59,29		4,19,41,19,15	
		20,25,38,31,52, 9,46		1,30
42″	59,12, 7,13,43,35,33,19, 9,15		4,19,41,20,45	
		20,25,34,12,10,49, 1		1,30
44″	59,12, 7,34, 9, 9,45,29,58,16		4,19,41,22,15	
		20,25,29,52,29,26,46		1,30
46″	59,12, 7,54,34,39,37,59,25, 2		4,19,41,23,45	
		20,25,25,32,48, 3, 1		1,30
48″	59,12, 8,15, 0, 5,10,47,28, 3		4,19,41,25,15	
		20,25,21,13, 6,37,46		1,30
50″	59,12, 8,35,25,26,23,54, 5,49		4,19,41,26,45	
		20,25,16,53,25,11, 1		1,30
52″	59,12, 8,55,50,43,17,19,16,50		4,19,41,28,15	
		20,25,12,33,43,42,46		1,30
54″	59,12, 9,16,15,55,51, 2,59,36		4,19,41,29,45	
		20,25, 8,14, 2,13, 1		1,30
56″	59,12, 9,36,41, 4, 5, 5,12,37		4,19,41,31,15	
		20,25, 3,54,20,41,46		1,30
58″	59,12, 9,57, 6, 7,59,25,54,23		4,19,41,32,45	
		20,24,59,34,39, 9, 1		
60″	59,12,10,17,31, 7,34, 5, 3,24			
exact	59,12,10,17,31, 7,34, 5,24,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°39′ 0″	59,12,10,17,31, 7,34, 5,24,20			
		20,24,55,14,57,37,10		
2″	59,12,10,37,56, 2,49, 3, 1,30		4,19,41,35,34	
		20,24,50,55,16, 1,36		1,30
4″	59,12,10,58,20,53,44,19, 3, 6		4,19,41,37, 4	
		20,24,46,35,34,24,32		1,30
6″	59,12,11,18,45,40,19,53,27,38		4,19,41,38,34	
		20,24,42,15,52,45,58		1,30
8″	59,12,11,39,10,22,35,46,13,36		4,19,41,40, 4	
		20,24,37,56,11, 5,54		1,30
10″	59,12,11,59,35, 0,31,57,19,30		4,19,41,41,34	
		20,24,33,36,29,24,20		1,30
12″	59,12,12,19,59,34, 8,26,43,50		4,19,41,43, 4	
		20,24,29,16,47,41,16		1,30
14″	59,12,12,40,24, 3,25,14,25, 6		4,19,41,44,34	
		20,24,24,57, 5,56,42		1,30
16″	59,12,13, 0,48,28,22,20,21,48		4,19,41,46, 4	
		20,24,20,37,24,10,38		1,30
18″	59,12,13,21,12,48,59,44,32,26		4,19,41,47,34	
		20,24,16,17,42,23, 4		1,30
20″	59,12,13,41,37, 5,17,26,55,30		4,19,41,49, 4	
		20,24,11,58, 0,34, 0		1,30
22″	59,12,14, 2, 1,17,15,27,29,30		4,19,41,50,34	
		20,24, 7,38,18,43,26		1,30
24″	59,12,14,22,25,24,53,46,12,56		4,19,41,52, 4	
		20,24, 3,18,36,51,22		1,30
26″	59,12,14,42,49,28,12,23, 4,18		4,19,41,53,34	
		20,23,58,58,54,57,48		1,30
28″	59,12,15, 3,13,27,11,18, 2, 6		4,19,41,55, 4	
		20,23,54,39,13, 2,44		1,30
30″	59,12,15,23,37,21,50,31, 4,50		4,19,41,56,34	
		20,23,50,19,31, 6,10		1,30
32″	59,12,15,44, 1,12,10, 2,11, 0		4,19,41,58, 4	
		20,23,45,59,49, 8, 6		1,30
34″	59,12,16, 4,24,58, 9,51,19, 6		4,19,41,59,34	
		20,23,41,40, 7, 8,32		1,30
36″	59,12,16,24,48,39,49,58,27,38		4,19,42, 1, 4	
		20,23,37,20,25, 7,28		1,30
38″	59,12,16,45,12,17,10,23,35, 6		4,19,42, 2,34	
		20,23,33, 0,43, 4,54		1,30
40″	59,12,17, 5,35,50,11, 6,40, 0		4,19,42, 4, 4	
		20,23,28,41, 1, 0,50		1,30
42″	59,12,17,25,59,18,52, 7,40,50		4,19,42, 5,34	
		20,23,24,21,18,55,16		1,30
44″	59,12,17,46,22,43,13,26,36, 6		4,19,42, 7, 4	
		20,23,20, 1,36,48,12		1,30
46″	59,12,18, 6,46, 3,15, 3,24,18		4,19,42, 8,34	
		20,23,15,41,54,39,38		1,30
48″	59,12,18,27, 9,18,56,58, 3,56		4,19,42,10, 4	
		20,23,11,22,12,29,34		1,30
50″	59,12,18,47,32,30,19,10,33,30		4,19,42,11,34	
		20,23, 7, 2,30,18, 0		1,30
52″	59,12,19, 7,55,37,21,40,51,30		4,19,42,13, 4	
		20,23, 2,42,48, 4,56		1,30
54″	59,12,19,28,18,40, 4,28,56,26		4,19,42,14,34	
		20,22,58,23, 5,50,22		1,30
56″	59,12,19,48,41,38,27,34,46,48		4,19,42,16, 4	
		20,22,54, 3,23,34,18		1,30
58″	59,12,20, 9, 4,32,30,58,21, 6		4,19,42,17,34	
		20,22,49,43,41,16,44		
60″	59,12,20,29,27,22,14,39,37,50			
exact	59,12,20,29,27,22,14,40,10,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°40′ 0″	59,12,20,29,27,22,14,40,10,52			
		20,22,45,23,59, 1,18		
2″	59,12,20,49,50, 7,38,39,12,10		4,19,42,20,18	
		20,22,41, 4,16,41, 0		1,29
4″	59,12,21,10,12,48,42,55,53,10		4,19,42,21,47	
		20,22,36,44,34,19,13		1,29
6″	59,12,21,30,35,25,27,30,12,23		4,19,42,23,16	
		20,22,32,24,51,55,57		1,29
8″	59,12,21,50,57,57,52,22, 8,20		4,19,42,24,45	
		20,22,28, 5, 9,31,12		1,29
10″	59,12,22,11,20,25,57,31,39,32		4,19,42,26,14	
		20,22,23,45,27, 4,58		1,29
12″	59,12,22,31,42,49,42,58,44,30		4,19,42,27,43	
		20,22,19,25,44,37,15		1,29
14″	59,12,22,52, 5, 9, 8,43,21,45		4,19,42,29,12	
		20,22,15, 6, 2, 8, 3		1,29
16″	59,12,23,12,27,24,14,45,29,48		4,19,42,30,41	
		20,22,10,46,19,37,22		1,29
18″	59,12,23,32,49,35, 1, 5, 7,10		4,19,42,32,10	
		20,22, 6,26,37, 5,12		1,29
20″	59,12,23,53,11,41,27,42,12,22		4,19,42,33,39	
		20,22, 2, 6,54,31,33		1,29
22″	59,12,24,13,33,43,34,36,43,55		4,19,42,35, 8	
		20,21,57,47,11,56,25		1,29
24″	59,12,24,33,55,41,21,48,40,20		4,19,42,36,37	
		20,21,53,27,29,19,48		1,29
26″	59,12,24,54,17,34,49,18, 0, 8		4,19,42,38, 6	
		20,21,49, 7,46,41,42		1,29
28″	59,12,25,14,39,23,57, 4,41,50		4,19,42,39,35	
		20,21,44,48, 4, 2, 7		1,29
30″	59,12,25,35, 1, 8,45, 8,43,57		4,19,42,41, 4	
		20,21,40,28,21,21, 3		1,29
32″	59,12,25,55,22,49,13,30, 5, 0		4,19,42,42,33	
		20,21,36, 8,38,38,30		1,29
34″	59,12,26,15,44,25,22, 8,43,30		4,19,42,44, 2	
		20,21,31,48,55,54,28		1,29
36″	59,12,26,36, 5,57,11, 4,37,58		4,19,42,45,31	
		20,21,27,29,13, 8,57		1,29
38″	59,12,26,56,27,24,40,17,46,55		4,19,42,47, 0	
		20,21,23, 9,30,21,57		1,29
40″	59,12,27,16,48,47,49,48, 8,52		4,19,42,48,29	
		20,21,18,49,47,33,28		1,29
42″	59,12,27,37,10, 6,39,35,42,20		4,19,42,49,58	
		20,21,14,30, 4,43,30		1,29
44″	59,12,27,57,31,21, 9,40,25,50		4,19,42,51,27	
		20,21,10,10,21,52, 3		1,29
46″	59,12,28,17,52,31,20, 2,17,53		4,19,42,52,56	
		20,21, 5,50,38,59, 7		1,29
48″	59,12,28,38,13,37,10,41,17, 0		4,19,42,54,25	
		20,21, 1,30,56, 4,42		1,29
50″	59,12,28,58,34,38,41,37,21,42		4,19,42,55,54	
		20,20,57,11,13, 8,48		1,29
52″	59,12,29,18,55,35,52,50,30,30		4,19,42,57,23	
		20,20,52,51,30,11,25		1,29
54″	59,12,29,39,16,28,44,20,41,55		4,19,42,58,52	
		20,20,48,31,47,12,33		1,29
56″	59,12,29,59,37,17,16, 7,54,28		4,19,43, 0,21	
		20,20,44,12, 4,12,12		1,29
58″	59,12,30,19,58, 1,28,12, 6,40		4,19,43, 1,50	
		20,20,39,52,21,10,22		
60″	59,12,30,40,18,41,20,33,17, 2			
exact	59,12,30,40,18,41,20,32,52,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°41′ 0″	59,12,30,40,18,41,20,32,52,22			
		20,20,35,32,38, 4,32		
2″	59,12,31, 0,39,16,53,10,56,54		4,19,43, 4,57	
		20,20,31,12,54,59,35		1,29
4″	59,12,31,20,59,48, 6, 5,56,29		4,19,43, 6,26	
		20,20,26,53,11,53, 9		1,29
6″	59,12,31,41,20,14,59,17,49,38		4,19,43, 7,55	
		20,20,22,33,28,45,14		1,29
8″	59,12,32, 1,40,37,32,46,34,52		4,19,43, 9,24	
		20,20,18,13,45,35,50		1,29
10″	59,12,32,22, 0,55,46,32,10,42		4,19,43,10,53	
		20,20,13,54, 2,24,57		1,29
12″	59,12,32,42,21, 9,40,34,35,39		4,19,43,12,22	
		20,20, 9,34,19,12,35		1,29
14″	59,12,33, 2,41,19,14,53,48,14		4,19,43,13,51	
		20,20, 5,14,35,58,44		1,29
16″	59,12,33,23, 1,24,29,29,46,58		4,19,43,15,20	
		20,20, 0,54,52,43,24		1,29
18″	59,12,33,43,21,25,24,22,30,22		4,19,43,16,49	
		20,19,56,35, 9,26,35		1,29
20″	59,12,34, 3,41,21,59,31,56,57		4,19,43,18,18	
		20,19,52,15,26, 8,17		1,29
22″	59,12,34,24, 1,14,14,58, 5,14		4,19,43,19,47	
		20,19,47,55,42,48,30		1,29
24″	59,12,34,44,21, 2,10,40,53,44		4,19,43,21,16	
		20,19,43,35,59,27,14		1,29
26″	59,12,35, 4,40,45,46,40,20,58		4,19,43,22,45	
		20,19,39,16,16, 4,29		1,29
28″	59,12,35,25, 0,25, 2,56,25,27		4,19,43,24,14	
		20,19,34,56,32,40,15		1,29
30″	59,12,35,45,19,59,59,29, 5,42		4,19,43,25,43	
		20,19,30,36,49,14,32		1,29
32″	59,12,36, 5,39,30,36,18,20,14		4,19,43,27,12	
		20,19,26,17, 5,47,20		1,29
34″	59,12,36,25,58,56,53,24, 7,34		4,19,43,28,41	
		20,19,21,57,22,18,39		1,29
36″	59,12,36,46,18,18,50,46,26,13		4,19,43,30,10	
		20,19,17,37,38,48,29		1,29
38″	59,12,37, 6,37,36,28,25,14,42		4,19,43,31,39	
		20,19,13,17,55,16,50		1,29
40″	59,12,37,26,56,49,46,20,31,32		4,19,43,33, 8	
		20,19, 8,58,11,43,42		1,29
42″	59,12,37,47,15,58,44,32,15,14		4,19,43,34,37	
		20,19, 4,38,28, 9, 5		1,29
44″	59,12,38, 7,35, 3,23, 0,24,19		4,19,43,36, 6	
		20,19, 0,18,44,32,59		1,29
46″	59,12,38,27,54, 3,41,44,57,18		4,19,43,37,35	
		20,18,55,59, 0,55,24		1,29
48″	59,12,38,48,12,59,40,45,52,42		4,19,43,39, 4	
		20,18,51,39,17,16,20		1,29
50″	59,12,39, 8,31,51,20, 3, 9, 2		4,19,43,40,33	
		20,18,47,19,33,35,47		1,29
52″	59,12,39,28,50,38,39,36,44,49		4,19,43,42, 2	
		20,18,42,59,49,53,45		1,29
54″	59,12,39,49, 9,21,39,26,38,34		4,19,43,43,31	
		20,18,38,40, 6,10,14		1,29
56″	59,12,40, 9,28, 0,19,32,48,48		4,19,43,45, 0	
		20,18,34,20,22,25,14		1,29
58″	59,12,40,29,46,34,39,55,14, 2		4,19,43,46,29	
		20,18,30, 0,38,38,45		
60″	59,12,40,50, 5, 4,40,33,52,47			
exact	59,12,40,50, 5, 4,40,33,36,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°42′ 0″	59,12,40,50, 5, 4,40,33,36,10			
		20,18,25,40,54,49,14		
2″	59,12,41,10,23,30,21,28,25,24		4,19,43,49,32	
		20,18,21,21,10,59,42		1,29
4″	59,12,41,30,41,51,42,39,25, 6		4,19,43,51, 1	
		20,18,17, 1,27, 8,41		1,29
6″	59,12,41,51, 0, 8,44, 6,33,47		4,19,43,52,30	
		20,18,12,41,43,16,11		1,29
8″	59,12,42,11,18,21,25,49,49,58		4,19,43,53,59	
		20,18, 8,21,59,22,12		1,29
10″	59,12,42,31,36,29,47,49,12,10		4,19,43,55,28	
		20,18, 4, 2,15,26,44		1,29
12″	59,12,42,51,54,33,50, 4,38,54		4,19,43,56,57	
		20,17,59,42,31,29,47		1,29
14″	59,12,43,12,12,33,32,36, 8,41		4,19,43,58,26	
		20,17,55,22,47,31,21		1,29
16″	59,12,43,32,30,28,55,23,40, 2		4,19,43,59,55	
		20,17,51, 3, 3,31,26		1,29
18″	59,12,43,52,48,19,58,27,11,28		4,19,44, 1,24	
		20,17,46,43,19,30, 2		1,29
20″	59,12,44,13, 6, 6,41,46,41,30		4,19,44, 2,53	
		20,17,42,23,35,27, 9		1,29
22″	59,12,44,33,23,49, 5,22, 8,39		4,19,44, 4,22	
		20,17,38, 3,51,22,47		1,29
24″	59,12,44,53,41,27, 9,13,31,26		4,19,44, 5,51	
		20,17,33,44, 7,16,56		1,29
26″	59,12,45,13,59, 0,53,20,48,22		4,19,44, 7,20	
		20,17,29,24,23, 9,36		1,29
28″	59,12,45,34,16,30,17,43,57,58		4,19,44, 8,49	
		20,17,25, 4,39, 0,47		1,29
30″	59,12,45,54,33,55,22,22,58,45		4,19,44,10,18	
		20,17,20,44,54,50,29		1,29
32″	59,12,46,14,51,16, 7,17,49,14		4,19,44,11,47	
		20,17,16,25,10,38,42		1,29
34″	59,12,46,35, 8,32,32,28,27,56		4,19,44,13,16	
		20,17,12, 5,26,25,26		1,29
36″	59,12,46,55,25,44,37,54,53,22		4,19,44,14,45	
		20,17, 7,45,42,10,41		1,29
38″	59,12,47,15,42,52,23,37, 4, 3		4,19,44,16,14	
		20,17, 3,25,57,54,27		1,29
40″	59,12,47,35,59,55,49,34,58,30		4,19,44,17,43	
		20,16,59, 6,13,36,44		1,29
42″	59,12,47,56,16,54,55,48,35,14		4,19,44,19,12	
		20,16,54,46,29,17,32		1,29
44″	59,12,48,16,33,49,42,17,52,46		4,19,44,20,41	
		20,16,50,26,44,56,51		1,29
46″	59,12,48,36,50,40, 9, 2,49,37		4,19,44,22,10	
		20,16,46, 7, 0,34,41		1,29
48″	59,12,48,57, 7,26,16, 3,24,18		4,19,44,23,39	
		20,16,41,47,16,11, 2		1,29
50″	59,12,49,17,24, 8, 3,19,35,20		4,19,44,25, 8	
		20,16,37,27,31,45,54		1,29
52″	59,12,49,37,40,45,30,51,21,14		4,19,44,26,37	
		20,16,33, 7,47,19,17		1,29
54″	59,12,49,57,57,18,38,38,40,31		4,19,44,28, 6	
		20,16,28,48, 2,51,11		1,29
56″	59,12,50,18,13,47,26,41,31,42		4,19,44,29,35	
		20,16,24,28,18,21,36		1,29
58″	59,12,50,38,30,11,54,59,53,18		4,19,44,31, 4	
		20,16,20, 8,33,50,32		
60″	59,12,50,58,46,32, 3,33,43,50			
exact	59,12,50,58,46,32, 3,33,40,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°43′ 0″	59,12,50,58,46,32, 3,33,40,49			
		20,16,15,48,49,17,47		
2″	59,12,51,19, 2,47,52,22,58,36		4,19,44,34, 2	
		20,16,11,29, 4,43,45		1,29
4″	59,12,51,39,18,59,21,27,42,21		4,19,44,35,31	
		20,16, 7, 9,20, 8,14		1,29
6″	59,12,51,59,35, 6,30,47,50,35		4,19,44,37, 0	
		20,16, 2,49,35,31,14		1,29
8″	59,12,52,19,51, 9,20,23,21,49		4,19,44,38,29	
		20,15,58,29,50,52,45		1,29
10″	59,12,52,40, 7, 7,50,14,14,34		4,19,44,39,58	
		20,15,54,10, 6,12,47		1,29
12″	59,12,53, 0,23, 2, 0,20,27,21		4,19,44,41,27	
		20,15,49,50,21,31,20		1,29
14″	59,12,53,20,38,51,50,41,58,41		4,19,44,42,56	
		20,15,45,30,36,48,24		1,29
16″	59,12,53,40,54,37,21,18,47, 5		4,19,44,44,25	
		20,15,41,10,52, 3,59		1,29
18″	59,12,54, 1,10,18,32,10,51, 4		4,19,44,45,54	
		20,15,36,51, 7,18, 5		1,29
20″	59,12,54,21,25,55,23,18, 9, 9		4,19,44,47,23	
		20,15,32,31,22,30,42		1,29
22″	59,12,54,41,41,27,54,40,39,51		4,19,44,48,52	
		20,15,28,11,37,41,50		1,29
24″	59,12,55, 1,56,56, 6,18,21,41		4,19,44,50,21	
		20,15,23,51,52,51,29		1,29
26″	59,12,55,22,12,19,58,11,13,10		4,19,44,51,50	
		20,15,19,32, 7,59,39		1,29
28″	59,12,55,42,27,39,30,19,12,49		4,19,44,53,19	
		20,15,15,12,23, 6,20		1,29
30″	59,12,56, 2,42,54,42,42,19, 9		4,19,44,54,48	
		20,15,10,52,38,11,32		1,29
32″	59,12,56,22,58, 5,35,20,30,41		4,19,44,56,17	
		20,15, 6,32,53,15,15		1,29
34″	59,12,56,43,13,12, 8,13,45,56		4,19,44,57,46	
		20,15, 2,13, 8,17,29		1,29
36″	59,12,57, 3,28,14,21,22, 3,25		4,19,44,59,15	
		20,14,57,53,23,18,14		1,29
38″	59,12,57,23,43,12,14,45,21,39		4,19,45, 0,44	
		20,14,53,33,38,17,30		1,29
40″	59,12,57,43,58, 5,48,23,39, 9		4,19,45, 2,13	
		20,14,49,13,53,15,17		1,29
42″	59,12,58, 4,12,55, 2,16,54,26		4,19,45, 3,42	
		20,14,44,54, 8,11,35		1,29
44″	59,12,58,24,27,39,56,25, 6, 1		4,19,45, 5,11	
		20,14,40,34,23, 6,24		1,29
46″	59,12,58,44,42,20,30,48,12,25		4,19,45, 6,40	
		20,14,36,14,37,59,44		1,29
48″	59,12,59, 4,56,56,45,26,12, 9		4,19,45, 8, 9	
		20,14,31,54,52,51,35		1,29
50″	59,12,59,25,11,28,40,19, 3,44		4,19,45, 9,38	
		20,14,27,35, 7,41,57		1,29
52″	59,12,59,45,25,56,15,26,45,41		4,19,45,11, 7	
		20,14,23,15,22,30,50		1,29
54″	59,13, 0, 5,40,19,30,49,16,31		4,19,45,12,36	
		20,14,18,55,37,18,14		1,29
56″	59,13, 0,25,54,38,26,26,34,45		4,19,45,14, 5	
		20,14,14,35,52, 4, 9		1,29
58″	59,13, 0,46, 8,53, 2,18,38,54		4,19,45,15,34	
		20,14,10,16, 6,48,35		
60″	59,13, 1, 6,23, 3,18,25,27,29			
exact	59,13, 1, 6,23, 3,18,25,36, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°44′ 0″	59,13, 1, 6,23, 3,18,25,36, 3			
		20,14, 5,56,21,32,33		
2″	59,13, 1,26,37, 9,14,47, 8,36		4,19,45,18,27	
		20,14, 1,36,36,14, 6		1,29
4″	59,13, 1,46,51,10,51,23,22,42		4,19,45,19,56	
		20,13,57,16,50,54,10		1,29
6″	59,13, 2, 7, 5, 8, 8,14,16,52		4,19,45,21,25	
		20,13,52,57, 5,32,45		1,29
8″	59,13, 2,27,19, 1, 5,19,49,37		4,19,45,22,54	
		20,13,48,37,20, 9,51		1,29
10″	59,13, 2,47,32,49,42,39,59,28		4,19,45,24,23	
		20,13,44,17,34,45,28		1,29
12″	59,13, 3, 7,46,34, 0,14,44,56		4,19,45,25,52	
		20,13,39,57,49,19,36		1,29
14″	59,13, 3,28, 0,13,58, 4, 4,32		4,19,45,27,21	
		20,13,35,38, 3,52,15		1,29
16″	59,13, 3,48,13,49,36, 7,56,47		4,19,45,28,50	
		20,13,31,18,18,23,25		1,29
18″	59,13, 4, 8,27,20,54,26,20,12		4,19,45,30,19	
		20,13,26,58,32,53, 6		1,29
20″	59,13, 4,28,40,47,52,59,13,18		4,19,45,31,48	
		20,13,22,38,47,21,18		1,29
22″	59,13, 4,48,54,10,31,46,34,36		4,19,45,33,17	
		20,13,18,19, 1,48, 1		1,29
24″	59,13, 5, 9, 7,28,50,48,22,37		4,19,45,34,46	
		20,13,13,59,16,13,15		1,29
26″	59,13, 5,29,20,42,50, 4,35,52		4,19,45,36,15	
		20,13, 9,39,30,37, 0		1,29
28″	59,13, 5,49,33,52,29,35,12,52		4,19,45,37,44	
		20,13, 5,19,44,59,16		1,29
30″	59,13, 6, 9,46,57,49,20,12, 8		4,19,45,39,13	
		20,13, 0,59,59,20, 3		1,29
32″	59,13, 6,29,59,58,49,19,32,11		4,19,45,40,42	
		20,12,56,40,13,39,21		1,29
34″	59,13, 6,50,12,55,29,33,11,32		4,19,45,42,11	
		20,12,52,20,27,57,10		1,29
36″	59,13, 7,10,25,47,50, 1, 8,42		4,19,45,43,40	
		20,12,48, 0,42,13,30		1,29
38″	59,13, 7,30,38,35,50,43,22,12		4,19,45,45, 9	
		20,12,43,40,56,28,21		1,29
40″	59,13, 7,50,51,19,31,39,50,33		4,19,45,46,38	
		20,12,39,21,10,41,43		1,29
42″	59,13, 8,11, 3,58,52,50,32,16		4,19,45,48, 7	
		20,12,35, 1,24,53,36		1,29
44″	59,13, 8,31,16,33,54,15,25,52		4,19,45,49,36	
		20,12,30,41,39, 4, 0		1,29
46″	59,13, 8,51,29, 4,35,54,29,52		4,19,45,51, 5	
		20,12,26,21,53,12,55		1,29
48″	59,13, 9,11,41,30,57,47,42,47		4,19,45,52,34	
		20,12,22, 2, 7,20,21		1,29
50″	59,13, 9,31,53,52,59,55, 3, 8		4,19,45,54, 3	
		20,12,17,42,21,26,18		1,29
52″	59,13, 9,52, 6,10,42,16,29,26		4,19,45,55,32	
		20,12,13,22,35,30,46		1,29
54″	59,13,10,12,18,24, 4,52, 0,12		4,19,45,57, 1	
		20,12, 9, 2,49,33,45		1,29
56″	59,13,10,32,30,33, 7,41,33,57		4,19,45,58,30	
		20,12, 4,43, 3,35,15		1,29
58″	59,13,10,52,42,37,50,45, 9,12		4,19,45,59,59	
		20,12, 0,23,17,35,16		
60″	59,13,11,12,54,38,14, 2,44,28			
exact	59,13,11,12,54,38,14, 3, 2,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°45′ 0″	59,13,11,12,54,38,14, 3, 2,49			
		20,11,56, 3,31,35,54		
2″	59,13,11,33, 6,34,17,34,38,43		4,19,46, 2,47	
		20,11,51,43,45,33, 7		1,29
4″	59,13,11,53,18,26, 1,20,11,50		4,19,46, 4,16	
		20,11,47,23,59,28,51		1,29
6″	59,13,12,13,30,13,25,19,40,41		4,19,46, 5,45	
		20,11,43, 4,13,23, 6		1,29
8″	59,13,12,33,41,56,29,33, 3,47		4,19,46, 7,14	
		20,11,38,44,27,15,52		1,29
10″	59,13,12,53,53,35,14, 0,19,39		4,19,46, 8,43	
		20,11,34,24,41, 7, 9		1,29
12″	59,13,13,14, 5, 9,38,41,26,48		4,19,46,10,12	
		20,11,30, 4,54,56,57		1,29
14″	59,13,13,34,16,39,43,36,23,45		4,19,46,11,41	
		20,11,25,45, 8,45,16		1,29
16″	59,13,13,54,28, 5,28,45, 9, 1		4,19,46,13,10	
		20,11,21,25,22,32, 6		1,29
18″	59,13,14,14,39,26,54, 7,41, 7		4,19,46,14,39	
		20,11,17, 5,36,17,27		1,29
20″	59,13,14,34,50,43,59,43,58,34		4,19,46,16, 8	
		20,11,12,45,50, 1,19		1,29
22″	59,13,14,55, 1,56,45,33,59,53		4,19,46,17,37	
		20,11, 8,26, 3,43,42		1,29
24″	59,13,15,15,13, 5,11,37,43,35		4,19,46,19, 6	
		20,11, 4, 6,17,24,36		1,29
26″	59,13,15,35,24, 9,17,55, 8,11		4,19,46,20,35	
		20,10,59,46,31, 4, 1		1,29
28″	59,13,15,55,35, 9, 4,26,12,12		4,19,46,22, 4	
		20,10,55,26,44,41,57		1,29
30″	59,13,16,15,46, 4,31,10,54, 9		4,19,46,23,33	
		20,10,51, 6,58,18,24		1,29
32″	59,13,16,35,56,55,38, 9,12,33		4,19,46,25, 2	
		20,10,46,47,11,53,22		1,29
34″	59,13,16,56, 7,42,25,21, 5,55		4,19,46,26,31	
		20,10,42,27,25,26,51		1,29
36″	59,13,17,16,18,24,52,46,32,46		4,19,46,28, 0	
		20,10,38, 7,38,58,51		1,29
38″	59,13,17,36,29, 3, 0,25,31,37		4,19,46,29,29	
		20,10,33,47,52,29,22		1,29
40″	59,13,17,56,39,36,48,18, 0,59		4,19,46,30,58	
		20,10,29,28, 5,58,24		1,29
42″	59,13,18,16,50, 6,16,23,59,23		4,19,46,32,27	
		20,10,25, 8,19,25,57		1,29
44″	59,13,18,37, 0,31,24,43,25,20		4,19,46,33,56	
		20,10,20,48,32,52, 1		1,29
46″	59,13,18,57,10,52,13,16,17,21		4,19,46,35,25	
		20,10,16,28,46,16,36		1,29
48″	59,13,19,17,21, 8,42, 2,33,57		4,19,46,36,54	
		20,10,12, 8,59,39,42		1,29
50″	59,13,19,37,31,20,51, 2,13,39		4,19,46,38,23	
		20,10, 7,49,13, 1,19		1,29
52″	59,13,19,57,41,28,40,15,14,58		4,19,46,39,52	
		20,10, 3,29,26,21,27		1,29
54″	59,13,20,17,51,32, 9,41,36,25		4,19,46,41,21	
		20, 9,59, 9,39,40, 6		1,29
56″	59,13,20,38, 1,31,19,21,16,31		4,19,46,42,50	
		20, 9,54,49,52,57,16		1,29
58″	59,13,20,58,11,26, 9,14,13,47		4,19,46,44,19	
		20, 9,50,30, 6,12,57		
60″	59,13,21,18,21,16,39,20,26,44			
exact	59,13,21,18,21,16,39,20,53,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°46′ 0″	59,13,21,18,21,16,39,20,53,17			
		20, 9,46,10,19,30,13		
2″	59,13,21,38,31, 2,49,40,23,30		4,19,46,47, 3	
		20, 9,41,50,32,43,10		1,28
4″	59,13,21,58,40,44,40,13, 6,40		4,19,46,48,31	
		20, 9,37,30,45,54,39		1,28
6″	59,13,22,18,50,22,10,59, 1,19		4,19,46,49,59	
		20, 9,33,10,59, 4,40		1,28
8″	59,13,22,38,59,55,21,58, 5,59		4,19,46,51,27	
		20, 9,28,51,12,13,13		1,28
10″	59,13,22,59, 9,24,13,10,19,12		4,19,46,52,55	
		20, 9,24,31,25,20,18		1,28
12″	59,13,23,19,18,48,44,35,39,30		4,19,46,54,23	
		20, 9,20,11,38,25,55		1,28
14″	59,13,23,39,28, 8,56,14, 5,25		4,19,46,55,51	
		20, 9,15,51,51,30, 4		1,28
16″	59,13,23,59,37,24,48, 5,35,29		4,19,46,57,19	
		20, 9,11,32, 4,32,45		1,28
18″	59,13,24,19,46,36,20,10, 8,14		4,19,46,58,47	
		20, 9, 7,12,17,33,58		1,28
20″	59,13,24,39,55,43,32,27,42,12		4,19,47, 0,15	
		20, 9, 2,52,30,33,43		1,28
22″	59,13,25, 0, 4,46,24,58,15,55		4,19,47, 1,43	
		20, 8,58,32,43,32, 0		1,28
24″	59,13,25,20,13,44,57,41,47,55		4,19,47, 3,11	
		20, 8,54,12,56,28,49		1,28
26″	59,13,25,40,22,39,10,38,16,44		4,19,47, 4,39	
		20, 8,49,53, 9,24,10		1,28
28″	59,13,26, 0,31,29, 3,47,40,54		4,19,47, 6, 7	
		20, 8,45,33,22,18, 3		1,28
30″	59,13,26,20,40,14,37, 9,58,57		4,19,47, 7,35	
		20, 8,41,13,35,10,28		1,28
32″	59,13,26,40,48,55,50,45, 9,25		4,19,47, 9, 3	
		20, 8,36,53,48, 1,25		1,28
34″	59,13,27, 0,57,32,44,33,10,50		4,19,47,10,31	
		20, 8,32,34, 0,50,54		1,28
36″	59,13,27,21, 6, 5,18,34, 1,44		4,19,47,11,59	
		20, 8,28,14,13,38,55		1,28
38″	59,13,27,41,14,33,32,47,40,39		4,19,47,13,27	
		20, 8,23,54,26,25,28		1,28
40″	59,13,28, 1,22,57,27,14, 6, 7		4,19,47,14,55	
		20, 8,19,34,39,10,33		1,28
42″	59,13,28,21,31,17, 1,53,16,40		4,19,47,16,23	
		20, 8,15,14,51,54,10		1,28
44″	59,13,28,41,39,32,16,45,10,50		4,19,47,17,51	
		20, 8,10,55, 4,36,19		1,28
46″	59,13,29, 1,47,43,11,49,47, 9		4,19,47,19,19	
		20, 8, 6,35,17,17, 0		1,28
48″	59,13,29,21,55,49,47, 7, 4, 9		4,19,47,20,47	
		20, 8, 2,15,29,56,13		1,28
50″	59,13,29,42, 3,52, 2,37, 0,22		4,19,47,22,15	
		20, 7,57,55,42,33,58		1,28
52″	59,13,30, 2,11,49,58,19,34,20		4,19,47,23,43	
		20, 7,53,35,55,10,15		1,28
54″	59,13,30,22,19,43,34,14,44,35		4,19,47,25,11	
		20, 7,49,16, 7,45, 4		1,28
56″	59,13,30,42,27,32,50,22,29,39		4,19,47,26,39	
		20, 7,44,56,20,18,25		1,28
58″	59,13,31, 2,35,17,46,42,48, 4		4,19,47,28, 7	
		20, 7,40,36,32,50,18		
60″	59,13,31,22,42,58,23,15,38,22			
exact	59,13,31,22,42,58,23,15,10,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°47′ 0″	59,13,31,22,42,58,23,15,10,51			
		20, 7,36,16,45,17,53		
2″	59,13,31,42,50,34,40, 0,28,44		4,19,47,31,14	
		20, 7,31,56,57,46,39		1,28
4″	59,13,32, 2,58, 6,36,58,15,23		4,19,47,32,42	
		20, 7,27,37,10,13,57		1,28
6″	59,13,32,23, 5,34,14, 8,29,20		4,19,47,34,10	
		20, 7,23,17,22,39,47		1,28
8″	59,13,32,43,12,57,31,31, 9, 7		4,19,47,35,38	
		20, 7,18,57,35, 4, 9		1,28
10″	59,13,33, 3,20,16,29, 6,13,16		4,19,47,37, 6	
		20, 7,14,37,47,27, 3		1,28
12″	59,13,33,23,27,31, 6,53,40,19		4,19,47,38,34	
		20, 7,10,17,59,48,29		1,28
14″	59,13,33,43,34,41,24,53,28,48		4,19,47,40, 2	
		20, 7, 5,58,12, 8,27		1,28
16″	59,13,34, 3,41,47,23, 5,37,15		4,19,47,41,30	
		20, 7, 1,38,24,26,57		1,28
18″	59,13,34,23,48,49, 1,30, 4,12		4,19,47,42,58	
		20, 6,57,18,36,43,59		1,28
20″	59,13,34,43,55,46,20, 6,48,11		4,19,47,44,26	
		20, 6,52,58,48,59,33		1,28
22″	59,13,35, 4, 2,39,18,55,47,44		4,19,47,45,54	
		20, 6,48,39, 1,13,39		1,28
24″	59,13,35,24, 9,27,57,57, 1,23		4,19,47,47,22	
		20, 6,44,19,13,26,17		1,28
26″	59,13,35,44,16,12,17,10,27,40		4,19,47,48,50	
		20, 6,39,59,25,37,27		1,28
28″	59,13,36, 4,22,52,16,36, 5, 7		4,19,47,50,18	
		20, 6,35,39,37,47, 9		1,28
30″	59,13,36,24,29,27,56,13,52,16		4,19,47,51,46	
		20, 6,31,19,49,55,23		1,28
32″	59,13,36,44,35,59,16, 3,47,39		4,19,47,53,14	
		20, 6,27, 0, 2, 2, 9		1,28
34″	59,13,37, 4,42,26,16, 5,49,48		4,19,47,54,42	
		20, 6,22,40,14, 7,27		1,28
36″	59,13,37,24,48,48,56,19,57,15		4,19,47,56,10	
		20, 6,18,20,26,11,17		1,28
38″	59,13,37,44,55, 7,16,46, 8,32		4,19,47,57,38	
		20, 6,14, 0,38,13,39		1,28
40″	59,13,38, 5, 1,21,17,24,22,11		4,19,47,59, 6	
		20, 6, 9,40,50,14,33		1,28
42″	59,13,38,25, 7,30,58,14,36,44		4,19,48, 0,34	
		20, 6, 5,21, 2,13,59		1,28
44″	59,13,38,45,13,36,19,16,50,43		4,19,48, 2, 2	
		20, 6, 1, 1,14,11,57		1,28
46″	59,13,39, 5,19,37,20,31, 2,40		4,19,48, 3,30	
		20, 5,56,41,26, 8,27		1,28
48″	59,13,39,25,25,34, 1,57,11, 7		4,19,48, 4,58	
		20, 5,52,21,38, 3,29		1,28
50″	59,13,39,45,31,26,23,35,14,36		4,19,48, 6,26	
		20, 5,48, 1,49,57, 3		1,28
52″	59,13,40, 5,37,14,25,25,11,39		4,19,48, 7,54	
		20, 5,43,42, 1,49, 9		1,28
54″	59,13,40,25,42,58, 7,27, 0,48		4,19,48, 9,22	
		20, 5,39,22,13,39,47		1,28
56″	59,13,40,45,48,37,29,40,40,35		4,19,48,10,50	
		20, 5,35, 2,25,28,57		1,28
58″	59,13,41, 5,54,12,32, 6, 9,32		4,19,48,12,18	
		20, 5,30,42,37,16,39		
60″	59,13,41,25,59,43,14,43,26,11			
exact	59,13,41,25,59,43,14,43,10, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°48′ 0″	59,13,41,25,59,43,14,43,10, 5			
		20, 5,26,22,49, 1,15		
2″	59,13,41,46, 5, 9,37,32,11,20		4,19,48,15,20	
		20, 5,22, 3, 0,45,55		1,28
4″	59,13,42, 6,10,31,40,32,57,15		4,19,48,16,48	
		20, 5,17,43,12,29, 7		1,28
6″	59,13,42,26,15,49,23,45,26,22		4,19,48,18,16	
		20, 5,13,23,24,10,51		1,28
8″	59,13,42,46,21, 2,47, 9,37,13		4,19,48,19,44	
		20, 5, 9, 3,35,51, 7		1,28
10″	59,13,43, 6,26,11,50,45,28,20		4,19,48,21,12	
		20, 5, 4,43,47,29,55		1,28
12″	59,13,43,26,31,16,34,32,58,15		4,19,48,22,40	
		20, 5, 0,23,59, 7,15		1,28
14″	59,13,43,46,36,16,58,32, 5,30		4,19,48,24, 8	
		20, 4,56, 4,10,43, 7		1,28
16″	59,13,44, 6,41,13, 2,42,48,37		4,19,48,25,36	
		20, 4,51,44,22,17,31		1,28
18″	59,13,44,26,46, 4,47, 5, 6, 8		4,19,48,27, 4	
		20, 4,47,24,33,50,27		1,28
20″	59,13,44,46,50,52,11,38,56,35		4,19,48,28,32	
		20, 4,43, 4,45,21,55		1,28
22″	59,13,45, 6,55,35,16,24,18,30		4,19,48,30, 0	
		20, 4,38,44,56,51,55		1,28
24″	59,13,45,27, 0,14, 1,21,10,25		4,19,48,31,28	
		20, 4,34,25, 8,20,27		1,28
26″	59,13,45,47, 4,48,26,29,30,52		4,19,48,32,56	
		20, 4,30, 5,19,47,31		1,28
28″	59,13,46, 7, 9,18,31,49,18,23		4,19,48,34,24	
		20, 4,25,45,31,13, 7		1,28
30″	59,13,46,27,13,44,17,20,31,30		4,19,48,35,52	
		20, 4,21,25,42,37,15		1,28
32″	59,13,46,47,18, 5,43, 3, 8,45		4,19,48,37,20	
		20, 4,17, 5,53,59,55		1,28
34″	59,13,47, 7,22,22,48,57, 8,40		4,19,48,38,48	
		20, 4,12,46, 5,21, 7		1,28
36″	59,13,47,27,26,35,35, 2,29,47		4,19,48,40,16	
		20, 4, 8,26,16,40,51		1,28
38″	59,13,47,47,30,44, 1,19,10,38		4,19,48,41,44	
		20, 4, 4, 6,27,59, 7		1,28
40″	59,13,48, 7,34,48, 7,47, 9,45		4,19,48,43,12	
		20, 3,59,46,39,15,55		1,28
42″	59,13,48,27,38,47,54,26,25,40		4,19,48,44,40	
		20, 3,55,26,50,31,15		1,28
44″	59,13,48,47,42,43,21,16,56,55		4,19,48,46, 8	
		20, 3,51, 7, 1,45, 7		1,28
46″	59,13,49, 7,46,34,28,18,42, 2		4,19,48,47,36	
		20, 3,46,47,12,57,31		1,28
48″	59,13,49,27,50,21,15,31,39,33		4,19,48,49, 4	
		20, 3,42,27,24, 8,27		1,28
50″	59,13,49,47,54, 3,42,55,48, 0		4,19,48,50,32	
		20, 3,38, 7,35,17,55		1,28
52″	59,13,50, 7,57,41,50,31, 5,55		4,19,48,52, 0	
		20, 3,33,47,46,25,55		1,28
54″	59,13,50,28, 1,15,38,17,31,50		4,19,48,53,28	
		20, 3,29,27,57,32,27		1,28
56″	59,13,50,48, 4,45, 6,15, 4,17		4,19,48,54,56	
		20, 3,25, 8, 8,37,31		1,28
58″	59,13,51, 8, 8,10,14,23,41,48		4,19,48,56,24	
		20, 3,20,48,19,41, 7		
60″	59,13,51,28,11,31, 2,43,22,55			
exact	59,13,51,28,11,31, 2,43,16,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°49′ 0″	59,13,51,28,11,31, 2,43,16,49			
		20, 3,16,28,30,42,42		
2″	59,13,51,48,14,47,31,13,59,31		4,19,48,59,21	
		20, 3,12, 8,41,43,21		1,28
4″	59,13,52, 8,17,59,39,55,42,52		4,19,49, 0,49	
		20, 3, 7,48,52,42,32		1,28
6″	59,13,52,28,21, 7,28,48,25,24		4,19,49, 2,17	
		20, 3, 3,29, 3,40,15		1,28
8″	59,13,52,48,24,10,57,52, 5,39		4,19,49, 3,45	
		20, 2,59, 9,14,36,30		1,28
10″	59,13,53, 8,27,10, 7, 6,42, 9		4,19,49, 5,13	
		20, 2,54,49,25,31,17		1,28
12″	59,13,53,28,30, 4,56,32,13,26		4,19,49, 6,41	
		20, 2,50,29,36,24,36		1,28
14″	59,13,53,48,32,55,26, 8,38, 2		4,19,49, 8, 9	
		20, 2,46, 9,47,16,27		1,28
16″	59,13,54, 8,35,41,35,55,54,29		4,19,49, 9,37	
		20, 2,41,49,58, 6,50		1,28
18″	59,13,54,28,38,23,25,54, 1,19		4,19,49,11, 5	
		20, 2,37,30, 8,55,45		1,28
20″	59,13,54,48,41, 0,56, 2,57, 4		4,19,49,12,33	
		20, 2,33,10,19,43,12		1,28
22″	59,13,55, 8,43,34, 6,22,40,16		4,19,49,14, 1	
		20, 2,28,50,30,29,11		1,28
24″	59,13,55,28,46, 2,56,53, 9,27		4,19,49,15,29	
		20, 2,24,30,41,13,42		1,28
26″	59,13,55,48,48,27,27,34,23, 9		4,19,49,16,57	
		20, 2,20,10,51,56,45		1,28
28″	59,13,56, 8,50,47,38,26,19,54		4,19,49,18,25	
		20, 2,15,51, 2,38,20		1,28
30″	59,13,56,28,53, 3,29,28,58,14		4,19,49,19,53	
		20, 2,11,31,13,18,27		1,28
32″	59,13,56,48,55,15, 0,42,16,41		4,19,49,21,21	
		20, 2, 7,11,23,57, 6		1,28
34″	59,13,57, 8,57,22,12, 6,13,47		4,19,49,22,49	
		20, 2, 2,51,34,34,17		1,28
36″	59,13,57,28,59,25, 3,40,48, 4		4,19,49,24,17	
		20, 1,58,31,45,10, 0		1,28
38″	59,13,57,49, 1,23,35,25,58, 4		4,19,49,25,45	
		20, 1,54,11,55,44,15		1,28
40″	59,13,58, 9, 3,17,47,21,42,19		4,19,49,27,13	
		20, 1,49,52, 6,17, 2		1,28
42″	59,13,58,29, 5, 7,39,27,59,21		4,19,49,28,41	
		20, 1,45,32,16,48,21		1,28
44″	59,13,58,49, 6,53,11,44,47,42		4,19,49,30, 9	
		20, 1,41,12,27,18,12		1,28
46″	59,13,59, 9, 8,34,24,12, 5,54		4,19,49,31,37	
		20, 1,36,52,37,46,35		1,28
48″	59,13,59,29,10,11,16,49,52,29		4,19,49,33, 5	
		20, 1,32,32,48,13,30		1,28
50″	59,13,59,49,11,43,49,38, 5,59		4,19,49,34,33	
		20, 1,28,12,58,38,57		1,28
52″	59,14, 0, 9,13,12, 2,36,44,56		4,19,49,36, 1	
		20, 1,23,53, 9, 2,56		1,28
54″	59,14, 0,29,14,35,55,45,47,52		4,19,49,37,29	
		20, 1,19,33,19,25,27		1,28
56″	59,14, 0,49,15,55,29, 5,13,19		4,19,49,38,57	
		20, 1,15,13,29,46,30		1,28
58″	59,14, 1, 9,17,10,42,34,59,49		4,19,49,40,25	
		20, 1,10,53,40, 6, 5		
60″	59,14, 1,29,18,21,36,15, 5,54			
exact	59,14, 1,29,18,21,36,15, 8, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°50′ 0″	59,14, 1,29,18,21,36,15, 8, 8			
		20, 1, 6,33,50,24,38		
2″	59,14, 1,49,19,28,10, 5,32,46		4,19,49,43,18	
		20, 1, 2,14, 0,41,20		1,28
4″	59,14, 2, 9,20,30,24, 6,14, 6		4,19,49,44,46	
		20, 0,57,54,10,56,34		1,28
6″	59,14, 2,29,21,28,18,17,10,40		4,19,49,46,14	
		20, 0,53,34,21,10,20		1,28
8″	59,14, 2,49,22,21,52,38,21, 0		4,19,49,47,42	
		20, 0,49,14,31,22,38		1,28
10″	59,14, 3, 9,23,11, 7, 9,43,38		4,19,49,49,10	
		20, 0,44,54,41,33,28		1,28
12″	59,14, 3,29,23,56, 1,51,17, 6		4,19,49,50,38	
		20, 0,40,34,51,42,50		1,28
14″	59,14, 3,49,24,36,36,42,59,56		4,19,49,52, 6	
		20, 0,36,15, 1,50,44		1,28
16″	59,14, 4, 9,25,12,51,44,50,40		4,19,49,53,34	
		20, 0,31,55,11,57,10		1,28
18″	59,14, 4,29,25,44,46,56,47,50		4,19,49,55, 2	
		20, 0,27,35,22, 2, 8		1,28
20″	59,14, 4,49,26,12,22,18,49,58		4,19,49,56,30	
		20, 0,23,15,32, 5,38		1,28
22″	59,14, 5, 9,26,35,37,50,55,36		4,19,49,57,58	
		20, 0,18,55,42, 7,40		1,28
24″	59,14, 5,29,26,54,33,33, 3,16		4,19,49,59,26	
		20, 0,14,35,52, 8,14		1,28
26″	59,14, 5,49,27, 9, 9,25,11,30		4,19,50, 0,54	
		20, 0,10,16, 2, 7,20		1,28
28″	59,14, 6, 9,27,19,25,27,18,50		4,19,50, 2,22	
		20, 0, 5,56,12, 4,58		1,28
30″	59,14, 6,29,27,25,21,39,23,48		4,19,50, 3,50	
		20, 0, 1,36,22, 1, 8		1,28
32″	59,14, 6,49,27,26,58, 1,24,56		4,19,50, 5,18	
		19,59,57,16,31,55,50		1,28
34″	59,14, 7, 9,27,24,14,33,20,46		4,19,50, 6,46	
		19,59,52,56,41,49, 4		1,28
36″	59,14, 7,29,27,17,11,15, 9,50		4,19,50, 8,14	
		19,59,48,36,51,40,50		1,28
38″	59,14, 7,49,27, 5,48, 6,50,40		4,19,50, 9,42	
		19,59,44,17, 1,31, 8		1,28
40″	59,14, 8, 9,26,50, 5, 8,21,48		4,19,50,11,10	
		19,59,39,57,11,19,58		1,28
42″	59,14, 8,29,26,30, 2,19,41,46		4,19,50,12,38	
		19,59,35,37,21, 7,20		1,28
44″	59,14, 8,49,26, 5,39,40,49, 6		4,19,50,14, 6	
		19,59,31,17,30,53,14		1,28
46″	59,14, 9, 9,25,36,57,11,42,20		4,19,50,15,34	
		19,59,26,57,40,37,40		1,28
48″	59,14, 9,29,25, 3,54,52,20, 0		4,19,50,17, 2	
		19,59,22,37,50,20,38		1,28
50″	59,14, 9,49,24,26,32,42,40,38		4,19,50,18,30	
		19,59,18,18, 0, 2, 8		1,28
52″	59,14,10, 9,23,44,50,42,42,46		4,19,50,19,58	
		19,59,13,58, 9,42,10		1,28
54″	59,14,10,29,22,58,48,52,24,56		4,19,50,21,26	
		19,59, 9,38,19,20,44		1,28
56″	59,14,10,49,22, 8,27,11,45,40		4,19,50,22,54	
		19,59, 5,18,28,57,50		1,28
58″	59,14,11, 9,21,13,45,40,43,30		4,19,50,24,22	
		19,59, 0,58,38,33,28		
60″	59,14,11,29,20,14,44,19,16,58			
exact	59,14,11,29,20,14,44,19,32,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°51′ 0″	59,14,11,29,20,14,44,19,32,17			
		19,58,56,38,48, 9,23		
2″	59,14,11,49,19,11,23, 7,41,40		4,19,50,27,10	
		19,58,52,18,57,42,13		1,28
4″	59,14,12, 9,18, 3,42, 5,23,53		4,19,50,28,38	
		19,58,47,59, 7,13,35		1,28
6″	59,14,12,29,16,51,41,12,37,28		4,19,50,30, 6	
		19,58,43,39,16,43,29		1,28
8″	59,14,12,49,15,35,20,29,20,57		4,19,50,31,34	
		19,58,39,19,26,11,55		1,28
10″	59,14,13, 9,14,14,39,55,32,52		4,19,50,33, 2	
		19,58,34,59,35,38,53		1,28
12″	59,14,13,29,12,49,39,31,11,45		4,19,50,34,30	
		19,58,30,39,45, 4,23		1,28
14″	59,14,13,49,11,20,19,16,16, 8		4,19,50,35,58	
		19,58,26,19,54,28,25		1,28
16″	59,14,14, 9, 9,46,39,10,44,33		4,19,50,37,26	
		19,58,22, 0, 3,50,59		1,28
18″	59,14,14,29, 8, 8,39,14,35,32		4,19,50,38,54	
		19,58,17,40,13,12, 5		1,28
20″	59,14,14,49, 6,26,19,27,47,37		4,19,50,40,22	
		19,58,13,20,22,31,43		1,28
22″	59,14,15, 9, 4,39,39,50,19,20		4,19,50,41,50	
		19,58, 9, 0,31,49,53		1,28
24″	59,14,15,29, 2,48,40,22, 9,13		4,19,50,43,18	
		19,58, 4,40,41, 6,35		1,28
26″	59,14,15,49, 0,53,21, 3,15,48		4,19,50,44,46	
		19,58, 0,20,50,21,49		1,28
28″	59,14,16, 8,58,53,41,53,37,37		4,19,50,46,14	
		19,57,56, 0,59,35,35		1,28
30″	59,14,16,28,56,49,42,53,13,12		4,19,50,47,42	
		19,57,51,41, 8,47,53		1,28
32″	59,14,16,48,54,41,24, 2, 1, 5		4,19,50,49,10	
		19,57,47,21,17,58,43		1,28
34″	59,14,17, 8,52,28,45,19,59,48		4,19,50,50,38	
		19,57,43, 1,27, 8, 5		1,28
36″	59,14,17,28,50,11,46,47, 7,53		4,19,50,52, 6	
		19,57,38,41,36,15,59		1,28
38″	59,14,17,48,47,50,28,23,23,52		4,19,50,53,34	
		19,57,34,21,45,22,25		1,28
40″	59,14,18, 8,45,24,50, 8,46,17		4,19,50,55, 2	
		19,57,30, 1,54,27,23		1,28
42″	59,14,18,28,42,54,52, 3,13,40		4,19,50,56,30	
		19,57,25,42, 3,30,53		1,28
44″	59,14,18,48,40,20,34, 6,44,33		4,19,50,57,58	
		19,57,21,22,12,32,55		1,28
46″	59,14,19, 8,37,41,56,19,17,28		4,19,50,59,26	
		19,57,17, 2,21,33,29		1,28
48″	59,14,19,28,34,58,58,40,50,57		4,19,51, 0,54	
		19,57,12,42,30,32,35		1,28
50″	59,14,19,48,32,11,41,11,23,32		4,19,51, 2,22	
		19,57, 8,22,39,30,13		1,28
52″	59,14,20, 8,29,20, 3,50,53,45		4,19,51, 3,50	
		19,57, 4, 2,48,26,23		1,28
54″	59,14,20,28,26,24, 6,39,20, 8		4,19,51, 5,18	
		19,56,59,42,57,21, 5		1,28
56″	59,14,20,48,23,23,49,36,41,13		4,19,51, 6,46	
		19,56,55,23, 6,14,19		1,28
58″	59,14,21, 8,20,19,12,42,55,32		4,19,51, 8,14	
		19,56,51, 3,15, 6, 5		
60″	59,14,21,28,17,10,15,58, 1,37			
exact	59,14,21,28,17,10,15,58,28,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°52′ 0″	59,14,21,28,17,10,15,58,28,47			
		19,56,46,43,23,59,21		
2″	59,14,21,48,13,56,59,22,28, 8		4,19,51,10,57	
		19,56,42,23,32,48,24		1,27
4″	59,14,22, 8,10,39,22,55,16,32		4,19,51,12,24	
		19,56,38, 3,41,36, 0		1,27
6″	59,14,22,28, 7,17,26,36,52,32		4,19,51,13,51	
		19,56,33,43,50,22, 9		1,27
8″	59,14,22,48, 3,51,10,27,14,41		4,19,51,15,18	
		19,56,29,23,59, 6,51		1,27
10″	59,14,23, 8, 0,20,34,26,21,32		4,19,51,16,45	
		19,56,25, 4, 7,50, 6		1,27
12″	59,14,23,27,56,45,38,34,11,38		4,19,51,18,12	
		19,56,20,44,16,31,54		1,27
14″	59,14,23,47,53, 6,22,50,43,32		4,19,51,19,39	
		19,56,16,24,25,12,15		1,27
16″	59,14,24, 7,49,22,47,15,55,47		4,19,51,21, 6	
		19,56,12, 4,33,51, 9		1,27
18″	59,14,24,27,45,34,51,49,46,56		4,19,51,22,33	
		19,56, 7,44,42,28,36		1,27
20″	59,14,24,47,41,42,36,32,15,32		4,19,51,24, 0	
		19,56, 3,24,51, 4,36		1,27
22″	59,14,25, 7,37,46, 1,23,20, 8		4,19,51,25,27	
		19,55,59, 4,59,39, 9		1,27
24″	59,14,25,27,33,45, 6,22,59,17		4,19,51,26,54	
		19,55,54,45, 8,12,15		1,27
26″	59,14,25,47,29,39,51,31,11,32		4,19,51,28,21	
		19,55,50,25,16,43,54		1,27
28″	59,14,26, 7,25,30,16,47,55,26		4,19,51,29,48	
		19,55,46, 5,25,14, 6		1,27
30″	59,14,26,27,21,16,22,13, 9,32		4,19,51,31,15	
		19,55,41,45,33,42,51		1,27
32″	59,14,26,47,16,58, 7,46,52,23		4,19,51,32,42	
		19,55,37,25,42,10, 9		1,27
34″	59,14,27, 7,12,35,33,29, 2,32		4,19,51,34, 9	
		19,55,33, 5,50,36, 0		1,27
36″	59,14,27,27, 8, 8,39,19,38,32		4,19,51,35,36	
		19,55,28,45,59, 0,24		1,27
38″	59,14,27,47, 3,37,25,18,38,56		4,19,51,37, 3	
		19,55,24,26, 7,23,21		1,27
40″	59,14,28, 6,59, 1,51,26, 2,17		4,19,51,38,30	
		19,55,20, 6,15,44,51		1,27
42″	59,14,28,26,54,21,57,41,47, 8		4,19,51,39,57	
		19,55,15,46,24, 4,54		1,27
44″	59,14,28,46,49,37,44, 5,52, 2		4,19,51,41,24	
		19,55,11,26,32,23,30		1,27
46″	59,14,29, 6,44,49,10,38,15,32		4,19,51,42,51	
		19,55, 7, 6,40,40,39		1,27
48″	59,14,29,26,39,56,17,18,56,11		4,19,51,44,18	
		19,55, 2,46,48,56,21		1,27
50″	59,14,29,46,34,59, 4, 7,52,32		4,19,51,45,45	
		19,54,58,26,57,10,36		1,27
52″	59,14,30, 6,29,57,31, 5, 3, 8		4,19,51,47,12	
		19,54,54, 7, 5,23,24		1,27
54″	59,14,30,26,24,51,38,10,26,32		4,19,51,48,39	
		19,54,49,47,13,34,45		1,27
56″	59,14,30,46,19,41,25,24, 1,17		4,19,51,50, 6	
		19,54,45,27,21,44,39		1,27
58″	59,14,31, 6,14,26,52,45,45,56		4,19,51,51,33	
		19,54,41, 7,29,53, 6		
60″	59,14,31,26, 9, 8, 0,15,39, 2			
exact	59,14,31,26, 9, 8, 0,15, 8,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°53′ 0″	59,14,31,26, 9, 8, 0,15, 8,23			
		19,54,36,47,37,56,55		
2″	59,14,31,46, 3,44,47,53, 5,18		4,19,51,54,39	
		19,54,32,27,46, 2,16		1,27
4″	59,14,32, 5,58,17,15,39, 7,34		4,19,51,56, 6	
		19,54,28, 7,54, 6,10		1,27
6″	59,14,32,25,52,45,23,33,13,44		4,19,51,57,33	
		19,54,23,48, 2, 8,37		1,27
8″	59,14,32,45,47, 9,11,35,22,21		4,19,51,59, 0	
		19,54,19,28,10, 9,37		1,27
10″	59,14,33, 5,41,28,39,45,31,58		4,19,52, 0,27	
		19,54,15, 8,18, 9,10		1,27
12″	59,14,33,25,35,43,48, 3,41, 8		4,19,52, 1,54	
		19,54,10,48,26, 7,16		1,27
14″	59,14,33,45,29,54,36,29,48,24		4,19,52, 3,21	
		19,54, 6,28,34, 3,55		1,27
16″	59,14,34, 5,24, 1, 5, 3,52,19		4,19,52, 4,48	
		19,54, 2, 8,41,59, 7		1,27
18″	59,14,34,25,18, 3,13,45,51,26		4,19,52, 6,15	
		19,53,57,48,49,52,52		1,27
20″	59,14,34,45,12, 1, 2,35,44,18		4,19,52, 7,42	
		19,53,53,28,57,45,10		1,27
22″	59,14,35, 5, 5,54,31,33,29,28		4,19,52, 9, 9	
		19,53,49, 9, 5,36, 1		1,27
24″	59,14,35,24,59,43,40,39, 5,29		4,19,52,10,36	
		19,53,44,49,13,25,25		1,27
26″	59,14,35,44,53,28,29,52,30,54		4,19,52,12, 3	
		19,53,40,29,21,13,22		1,27
28″	59,14,36, 4,47, 8,59,13,44,16		4,19,52,13,30	
		19,53,36, 9,28,59,52		1,27
30″	59,14,36,24,40,45, 8,42,44, 8		4,19,52,14,57	
		19,53,31,49,36,44,55		1,27
32″	59,14,36,44,34,16,58,19,29, 3		4,19,52,16,24	
		19,53,27,29,44,28,31		1,27
34″	59,14,37, 4,27,44,28, 3,57,34		4,19,52,17,51	
		19,53,23, 9,52,10,40		1,27
36″	59,14,37,24,21, 7,37,56, 8,14		4,19,52,19,18	
		19,53,18,49,59,51,22		1,27
38″	59,14,37,44,14,26,27,55,59,36		4,19,52,20,45	
		19,53,14,30, 7,30,37		1,27
40″	59,14,38, 4, 7,40,58, 3,30,13		4,19,52,22,12	
		19,53,10,10,15, 8,25		1,27
42″	59,14,38,24, 0,51, 8,18,38,38		4,19,52,23,39	
		19,53, 5,50,22,44,46		1,27
44″	59,14,38,43,53,56,58,41,23,24		4,19,52,25, 6	
		19,53, 1,30,30,19,40		1,27
46″	59,14,39, 3,46,58,29,11,43, 4		4,19,52,26,33	
		19,52,57,10,37,53, 7		1,27
48″	59,14,39,23,39,55,39,49,36,11		4,19,52,28, 0	
		19,52,52,50,45,25, 7		1,27
50″	59,14,39,43,32,48,30,35, 1,18		4,19,52,29,27	
		19,52,48,30,52,55,40		1,27
52″	59,14,40, 3,25,37, 1,27,56,58		4,19,52,30,54	
		19,52,44,11, 0,24,46		1,27
54″	59,14,40,23,18,21,12,28,21,44		4,19,52,32,21	
		19,52,39,51, 7,52,25		1,27
56″	59,14,40,43,11, 1, 3,36,14, 9		4,19,52,33,48	
		19,52,35,31,15,18,37		1,27
58″	59,14,41, 3, 3,36,34,51,32,46		4,19,52,35,15	
		19,52,31,11,22,43,22		
60″	59,14,41,22,56, 7,46,14,16, 8			
exact	59,14,41,22,56, 7,46,13,53, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°54′ 0″	59,14,41,22,56, 7,46,13,53, 6			
		19,52,26,51,30, 4,25		
2″	59,14,41,42,48,34,37,43,57,31		4,19,52,38,17	
		19,52,22,31,37,26, 8		1,27
4″	59,14,42, 2,40,57, 9,21,23,39		4,19,52,39,44	
		19,52,18,11,44,46,24		1,27
6″	59,14,42,22,33,15,21, 6,10, 3		4,19,52,41,11	
		19,52,13,51,52, 5,13		1,27
8″	59,14,42,42,25,29,12,58,15,16		4,19,52,42,38	
		19,52, 9,31,59,22,35		1,27
10″	59,14,43, 2,17,38,44,57,37,51		4,19,52,44, 5	
		19,52, 5,12, 6,38,30		1,27
12″	59,14,43,22, 9,43,57, 4,16,21		4,19,52,45,32	
		19,52, 0,52,13,52,58		1,27
14″	59,14,43,42, 1,44,49,18, 9,19		4,19,52,46,59	
		19,51,56,32,21, 5,59		1,27
16″	59,14,44, 1,53,41,21,39,15,18		4,19,52,48,26	
		19,51,52,12,28,17,33		1,27
18″	59,14,44,21,45,33,34, 7,32,51		4,19,52,49,53	
		19,51,47,52,35,27,40		1,27
20″	59,14,44,41,37,21,26,43, 0,31		4,19,52,51,20	
		19,51,43,32,42,36,20		1,27
22″	59,14,45, 1,29, 4,59,25,36,51		4,19,52,52,47	
		19,51,39,12,49,43,33		1,27
24″	59,14,45,21,20,44,12,15,20,24		4,19,52,54,14	
		19,51,34,52,56,49,19		1,27
26″	59,14,45,41,12,19, 5,12, 9,43		4,19,52,55,41	
		19,51,30,33, 3,53,38		1,27
28″	59,14,46, 1, 3,49,38,16, 3,21		4,19,52,57, 8	
		19,51,26,13,10,56,30		1,27
30″	59,14,46,20,55,15,51,26,59,51		4,19,52,58,35	
		19,51,21,53,17,57,55		1,27
32″	59,14,46,40,46,37,44,44,57,46		4,19,53, 0, 2	
		19,51,17,33,24,57,53		1,27
34″	59,14,47, 0,37,55,18, 9,55,39		4,19,53, 1,29	
		19,51,13,13,31,56,24		1,27
36″	59,14,47,20,29, 8,31,41,52, 3		4,19,53, 2,56	
		19,51, 8,53,38,53,28		1,27
38″	59,14,47,40,20,17,25,20,45,31		4,19,53, 4,23	
		19,51, 4,33,45,49, 5		1,27
40″	59,14,48, 0,11,21,59, 6,34,36		4,19,53, 5,50	
		19,51, 0,13,52,43,15		1,27
42″	59,14,48,20, 2,22,12,59,17,51		4,19,53, 7,17	
		19,50,55,53,59,35,58		1,27
44″	59,14,48,39,53,18, 6,58,53,49		4,19,53, 8,44	
		19,50,51,34, 6,27,14		1,27
46″	59,14,48,59,44, 9,41, 5,21, 3		4,19,53,10,11	
		19,50,47,14,13,17, 3		1,27
48″	59,14,49,19,34,56,55,18,38, 6		4,19,53,11,38	
		19,50,42,54,20, 5,25		1,27
50″	59,14,49,39,25,39,49,38,43,31		4,19,53,13, 5	
		19,50,38,34,26,52,20		1,27
52″	59,14,49,59,16,18,24, 5,35,51		4,19,53,14,32	
		19,50,34,14,33,37,48		1,27
54″	59,14,50,19, 6,52,38,39,13,39		4,19,53,15,59	
		19,50,29,54,40,21,49		1,27
56″	59,14,50,38,57,22,33,19,35,28		4,19,53,17,26	
		19,50,25,34,47, 4,23		1,27
58″	59,14,50,58,47,48, 8, 6,39,51		4,19,53,18,53	
		19,50,21,14,53,45,30		
60″	59,14,51,18,38, 9,23, 0,25,21			
exact	59,14,51,18,38, 9,23, 0,16, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°55′ 0″	59,14,51,18,38, 9,23, 0,16, 9			
		19,50,16,55, 0,24,16		
2″	59,14,51,38,28,26,18, 0,40,25		4,19,53,21,50	
		19,50,12,35, 7, 2,26		1,27
4″	59,14,51,58,18,38,53, 7,42,51		4,19,53,23,17	
		19,50, 8,15,13,39, 9		1,27
6″	59,14,52,18, 8,47, 8,21,22, 0		4,19,53,24,44	
		19,50, 3,55,20,14,25		1,27
8″	59,14,52,37,58,51, 3,41,36,25		4,19,53,26,11	
		19,49,59,35,26,48,14		1,27
10″	59,14,52,57,48,50,39, 8,24,39		4,19,53,27,38	
		19,49,55,15,33,20,36		1,27
12″	59,14,53,17,38,45,54,41,45,15		4,19,53,29, 5	
		19,49,50,55,39,51,31		1,27
14″	59,14,53,37,28,36,50,21,36,46		4,19,53,30,32	
		19,49,46,35,46,20,59		1,27
16″	59,14,53,57,18,23,26, 7,57,45		4,19,53,31,59	
		19,49,42,15,52,49, 0		1,27
18″	59,14,54,17, 8, 5,42, 0,46,45		4,19,53,33,26	
		19,49,37,55,59,15,34		1,27
20″	59,14,54,36,57,43,38, 0, 2,19		4,19,53,34,53	
		19,49,33,36, 5,40,41		1,27
22″	59,14,54,56,47,17,14, 5,43, 0		4,19,53,36,20	
		19,49,29,16,12, 4,21		1,27
24″	59,14,55,16,36,46,30,17,47,21		4,19,53,37,47	
		19,49,24,56,18,26,34		1,27
26″	59,14,55,36,26,11,26,36,13,55		4,19,53,39,14	
		19,49,20,36,24,47,20		1,27
28″	59,14,55,56,15,32, 3, 1, 1,15		4,19,53,40,41	
		19,49,16,16,31, 6,39		1,27
30″	59,14,56,16, 4,48,19,32, 7,54		4,19,53,42, 8	
		19,49,11,56,37,24,31		1,27
32″	59,14,56,35,54, 0,16, 9,32,25		4,19,53,43,35	
		19,49, 7,36,43,40,56		1,27
34″	59,14,56,55,43, 7,52,53,13,21		4,19,53,45, 2	
		19,49, 3,16,49,55,54		1,27
36″	59,14,57,15,32,11, 9,43, 9,15		4,19,53,46,29	
		19,48,58,56,56, 9,25		1,27
38″	59,14,57,35,21,10, 6,39,18,40		4,19,53,47,56	
		19,48,54,37, 2,21,29		1,27
40″	59,14,57,55,10, 4,43,41,40, 9		4,19,53,49,23	
		19,48,50,17, 8,32, 6		1,27
42″	59,14,58,14,58,55, 0,50,12,15		4,19,53,50,50	
		19,48,45,57,14,41,16		1,27
44″	59,14,58,34,47,40,58, 4,53,31		4,19,53,52,17	
		19,48,41,37,20,48,59		1,27
46″	59,14,58,54,36,22,35,25,42,30		4,19,53,53,44	
		19,48,37,17,26,55,15		1,27
48″	59,14,59,14,24,59,52,52,37,45		4,19,53,55,11	
		19,48,32,57,33, 0, 4		1,27
50″	59,14,59,34,13,32,50,25,37,49		4,19,53,56,38	
		19,48,28,37,39, 3,26		1,27
52″	59,14,59,54, 2, 1,28, 4,41,15		4,19,53,58, 5	
		19,48,24,17,45, 5,21		1,27
54″	59,15, 0,13,50,25,45,49,46,36		4,19,53,59,32	
		19,48,19,57,51, 5,49		1,27
56″	59,15, 0,33,38,45,43,40,52,25		4,19,54, 0,59	
		19,48,15,37,57, 4,50		1,27
58″	59,15, 0,53,27, 1,21,37,57,15		4,19,54, 2,26	
		19,48,11,18, 3, 2,24		
60″	59,15, 1,13,15,12,39,40,59,39			
exact	59,15, 1,13,15,12,39,41, 2, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°56′ 0″	59,15, 1,13,15,12,39,41, 2, 1			
		19,48, 6,58, 8,58,50		
2″	59,15, 1,33, 3,19,37,50, 0,51		4,19,54, 5,18	
		19,48, 2,38,14,53,32		1,27
4″	59,15, 1,52,51,22,16, 4,54,23		4,19,54, 6,45	
		19,47,58,18,20,46,47		1,27
6″	59,15, 2,12,39,20,34,25,41,10		4,19,54, 8,12	
		19,47,53,58,26,38,35		1,27
8″	59,15, 2,32,27,14,32,52,19,45		4,19,54, 9,39	
		19,47,49,38,32,28,56		1,27
10″	59,15, 2,52,15, 4,11,24,48,41		4,19,54,11, 6	
		19,47,45,18,38,17,50		1,27
12″	59,15, 3,12, 2,49,30, 3, 6,31		4,19,54,12,33	
		19,47,40,58,44, 5,17		1,27
14″	59,15, 3,31,50,30,28,47,11,48		4,19,54,14, 0	
		19,47,36,38,49,51,17		1,27
16″	59,15, 3,51,38, 7, 7,37, 3, 5		4,19,54,15,27	
		19,47,32,18,55,35,50		1,27
18″	59,15, 4,11,25,39,26,32,38,55		4,19,54,16,54	
		19,47,27,59, 1,18,56		1,27
20″	59,15, 4,31,13, 7,25,33,57,51		4,19,54,18,21	
		19,47,23,39, 7, 0,35		1,27
22″	59,15, 4,51, 0,31, 4,40,58,26		4,19,54,19,48	
		19,47,19,19,12,40,47		1,27
24″	59,15, 5,10,47,50,23,53,39,13		4,19,54,21,15	
		19,47,14,59,18,19,32		1,27
26″	59,15, 5,30,35, 5,23,11,58,45		4,19,54,22,42	
		19,47,10,39,23,56,50		1,27
28″	59,15, 5,50,22,16, 2,35,55,35		4,19,54,24, 9	
		19,47, 6,19,29,32,41		1,27
30″	59,15, 6,10, 9,22,22, 5,28,16		4,19,54,25,36	
		19,47, 1,59,35, 7, 5		1,27
32″	59,15, 6,29,56,24,21,40,35,21		4,19,54,27, 3	
		19,46,57,39,40,40, 2		1,27
34″	59,15, 6,49,43,22, 1,21,15,23		4,19,54,28,30	
		19,46,53,19,46,11,32		1,27
36″	59,15, 7, 9,30,15,21, 7,26,55		4,19,54,29,57	
		19,46,48,59,51,41,35		1,27
38″	59,15, 7,29,17, 4,20,59, 8,30		4,19,54,31,24	
		19,46,44,39,57,10,11		1,27
40″	59,15, 7,49, 3,49, 0,56,18,41		4,19,54,32,51	
		19,46,40,20, 2,37,20		1,27
42″	59,15, 8, 8,50,29,20,58,56, 1		4,19,54,34,18	
		19,46,36, 0, 8, 3, 2		1,27
44″	59,15, 8,28,37, 5,21, 6,59, 3		4,19,54,35,45	
		19,46,31,40,13,27,17		1,27
46″	59,15, 8,48,23,37, 1,20,26,20		4,19,54,37,12	
		19,46,27,20,18,50, 5		1,27
48″	59,15, 9, 8,10, 4,21,39,16,25		4,19,54,38,39	
		19,46,23, 0,24,11,26		1,27
50″	59,15, 9,27,56,27,22, 3,27,51		4,19,54,40, 6	
		19,46,18,40,29,31,20		1,27
52″	59,15, 9,47,42,46, 2,32,59,11		4,19,54,41,33	
		19,46,14,20,34,49,47		1,27
54″	59,15,10, 7,29, 0,23, 7,48,58		4,19,54,43, 0	
		19,46,10, 0,40, 6,47		1,27
56″	59,15,10,27,15,10,23,47,55,45		4,19,54,44,27	
		19,46, 5,40,45,22,20		1,27
58″	59,15,10,47, 1,16, 4,33,18, 5		4,19,54,45,54	
		19,46, 1,20,50,36,26		
60″	59,15,11, 6,47,17,25,23,54,31			
exact	59,15,11, 6,47,17,25,24, 6,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°57′ 0″	59,15,11, 6,47,17,25,24, 6,25			
		19,45,57, 0,55,50,28		
2″	59,15,11,26,33,14,26,19,56,53		4,19,54,48,41	
		19,45,52,41, 1, 1,47		1,27
4″	59,15,11,46,19, 7, 7,20,58,40		4,19,54,50, 8	
		19,45,48,21, 6,11,39		1,27
6″	59,15,12, 6, 4,55,28,27,10,19		4,19,54,51,35	
		19,45,44, 1,11,20, 4		1,27
8″	59,15,12,25,50,39,29,38,30,23		4,19,54,53, 2	
		19,45,39,41,16,27, 2		1,27
10″	59,15,12,45,36,19,10,54,57,25		4,19,54,54,29	
		19,45,35,21,21,32,33		1,27
12″	59,15,13, 5,21,54,32,16,29,58		4,19,54,55,56	
		19,45,31, 1,26,36,37		1,27
14″	59,15,13,25, 7,25,33,43, 6,35		4,19,54,57,23	
		19,45,26,41,31,39,14		1,27
16″	59,15,13,44,52,52,15,14,45,49		4,19,54,58,50	
		19,45,22,21,36,40,24		1,27
18″	59,15,14, 4,38,14,36,51,26,13		4,19,55, 0,17	
		19,45,18, 1,41,40, 7		1,27
20″	59,15,14,24,23,32,38,33, 6,20		4,19,55, 1,44	
		19,45,13,41,46,38,23		1,27
22″	59,15,14,44, 8,46,20,19,44,43		4,19,55, 3,11	
		19,45, 9,21,51,35,12		1,27
24″	59,15,15, 3,53,55,42,11,19,55		4,19,55, 4,38	
		19,45, 5, 1,56,30,34		1,27
26″	59,15,15,23,39, 0,44, 7,50,29		4,19,55, 6, 5	
		19,45, 0,42, 1,24,29		1,27
28″	59,15,15,43,24, 1,26, 9,14,58		4,19,55, 7,32	
		19,44,56,22, 6,16,57		1,27
30″	59,15,16, 3, 8,57,48,15,31,55		4,19,55, 8,59	
		19,44,52, 2,11, 7,58		1,27
32″	59,15,16,22,53,49,50,26,39,53		4,19,55,10,26	
		19,44,47,42,15,57,32		1,27
34″	59,15,16,42,38,37,32,42,37,25		4,19,55,11,53	
		19,44,43,22,20,45,39		1,27
36″	59,15,17, 2,23,20,55, 3,23, 4		4,19,55,13,20	
		19,44,39, 2,25,32,19		1,27
38″	59,15,17,22, 7,59,57,28,55,23		4,19,55,14,47	
		19,44,34,42,30,17,32		1,27
40″	59,15,17,41,52,34,39,59,12,55		4,19,55,16,14	
		19,44,30,22,35, 1,18		1,27
42″	59,15,18, 1,37, 5, 2,34,14,13		4,19,55,17,41	
		19,44,26, 2,39,43,37		1,27
44″	59,15,18,21,21,31, 5,13,57,50		4,19,55,19, 8	
		19,44,21,42,44,24,29		1,27
46″	59,15,18,41, 5,52,47,58,22,19		4,19,55,20,35	
		19,44,17,22,49, 3,54		1,27
48″	59,15,19, 0,50,10,10,47,26,13		4,19,55,22, 2	
		19,44,13, 2,53,41,52		1,27
50″	59,15,19,20,34,23,13,41, 8, 5		4,19,55,23,29	
		19,44, 8,42,58,18,23		1,27
52″	59,15,19,40,18,31,56,39,26,28		4,19,55,24,56	
		19,44, 4,23, 2,53,27		1,27
54″	59,15,20, 0, 2,36,19,42,19,55		4,19,55,26,23	
		19,44, 0, 3, 7,27, 4		1,27
56″	59,15,20,19,46,36,22,49,46,59		4,19,55,27,50	
		19,43,55,43,11,59,14		1,27
58″	59,15,20,39,30,32, 6, 1,46,13		4,19,55,29,17	
		19,43,51,23,16,29,57		
60″	59,15,20,59,14,23,29,18,16,10			
exact	59,15,20,59,14,23,29,18,36,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°58′ 0″	59,15,20,59,14,23,29,18,36,22			
		19,43,47, 3,21, 1,35		
2″	59,15,21,18,58,10,32,39,37,57		4,19,55,32, 0	
		19,43,42,43,25,29,35		1,27
4″	59,15,21,38,41,53,16, 5, 7,32		4,19,55,33,27	
		19,43,38,23,29,56, 8		1,27
6″	59,15,21,58,25,31,39,35, 3,40		4,19,55,34,54	
		19,43,34, 3,34,21,14		1,27
8″	59,15,22,18, 9, 5,43, 9,24,54		4,19,55,36,21	
		19,43,29,43,38,44,53		1,27
10″	59,15,22,37,52,35,26,48, 9,47		4,19,55,37,48	
		19,43,25,23,43, 7, 5		1,27
12″	59,15,22,57,36, 0,50,31,16,52		4,19,55,39,15	
		19,43,21, 3,47,27,50		1,27
14″	59,15,23,17,19,21,54,18,44,42		4,19,55,40,42	
		19,43,16,43,51,47, 8		1,27
16″	59,15,23,37, 2,38,38,10,31,50		4,19,55,42, 9	
		19,43,12,23,56, 4,59		1,27
18″	59,15,23,56,45,51, 2, 6,36,49		4,19,55,43,36	
		19,43, 8, 4, 0,21,23		1,27
20″	59,15,24,16,28,59, 6, 6,58,12		4,19,55,45, 3	
		19,43, 3,44, 4,36,20		1,27
22″	59,15,24,36,12, 2,50,11,34,32		4,19,55,46,30	
		19,42,59,24, 8,49,50		1,27
24″	59,15,24,55,55, 2,14,20,24,22		4,19,55,47,57	
		19,42,55, 4,13, 1,53		1,27
26″	59,15,25,15,37,57,18,33,26,15		4,19,55,49,24	
		19,42,50,44,17,12,29		1,27
28″	59,15,25,35,20,48, 2,50,38,44		4,19,55,50,51	
		19,42,46,24,21,21,38		1,27
30″	59,15,25,55, 3,34,27,12, 0,22		4,19,55,52,18	
		19,42,42, 4,25,29,20		1,27
32″	59,15,26,14,46,16,31,37,29,42		4,19,55,53,45	
		19,42,37,44,29,35,35		1,27
34″	59,15,26,34,28,54,16, 7, 5,17		4,19,55,55,12	
		19,42,33,24,33,40,23		1,27
36″	59,15,26,54,11,27,40,40,45,40		4,19,55,56,39	
		19,42,29, 4,37,43,44		1,27
38″	59,15,27,13,53,56,45,18,29,24		4,19,55,58, 6	
		19,42,24,44,41,45,38		1,27
40″	59,15,27,33,36,21,30, 0,15, 2		4,19,55,59,33	
		19,42,20,24,45,46, 5		1,27
42″	59,15,27,53,18,41,54,46, 1, 7		4,19,56, 1, 0	
		19,42,16, 4,49,45, 5		1,27
44″	59,15,28,13, 0,57,59,35,46,12		4,19,56, 2,27	
		19,42,11,44,53,42,38		1,27
46″	59,15,28,32,43, 9,44,29,28,50		4,19,56, 3,54	
		19,42, 7,24,57,38,44		1,27
48″	59,15,28,52,25,17, 9,27, 7,34		4,19,56, 5,21	
		19,42, 3, 5, 1,33,23		1,27
50″	59,15,29,12, 7,20,14,28,40,57		4,19,56, 6,48	
		19,41,58,45, 5,26,35		1,27
52″	59,15,29,31,49,18,59,34, 7,32		4,19,56, 8,15	
		19,41,54,25, 9,18,20		1,27
54″	59,15,29,51,31,13,24,43,25,52		4,19,56, 9,42	
		19,41,50, 5,13, 8,38		1,27
56″	59,15,30,11,13, 3,29,56,34,30		4,19,56,11, 9	
		19,41,45,45,16,57,29		1,27
58″	59,15,30,30,54,49,15,13,31,59		4,19,56,12,36	
		19,41,41,25,20,44,53		
60″	59,15,30,50,36,30,40,34,16,52			
exact	59,15,30,50,36,30,40,34,50, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
80°59′ 0″	59,15,30,50,36,30,40,34,50, 5			
		19,41,37, 5,24,34,31		
2″	59,15,31,10,18, 7,45,59,24,36		4,19,56,15,14	
		19,41,32,45,28,19,17		1,26
4″	59,15,31,29,59,40,31,27,43,53		4,19,56,16,40	
		19,41,28,25,32, 2,37		1,26
6″	59,15,31,49,41, 8,56,59,46,30		4,19,56,18, 6	
		19,41,24, 5,35,44,31		1,26
8″	59,15,32, 9,22,33, 2,35,31, 1		4,19,56,19,32	
		19,41,19,45,39,24,59		1,26
10″	59,15,32,29, 3,52,48,14,56, 0		4,19,56,20,58	
		19,41,15,25,43, 4, 1		1,26
12″	59,15,32,48,45, 8,13,58, 0, 1		4,19,56,22,24	
		19,41,11, 5,46,41,37		1,26
14″	59,15,33, 8,26,19,19,44,41,38		4,19,56,23,50	
		19,41, 6,45,50,17,47		1,26
16″	59,15,33,28, 7,26, 5,34,59,25		4,19,56,25,16	
		19,41, 2,25,53,52,31		1,26
18″	59,15,33,47,48,28,31,28,51,56		4,19,56,26,42	
		19,40,58, 5,57,25,49		1,26
20″	59,15,34, 7,29,26,37,26,17,45		4,19,56,28, 8	
		19,40,53,46, 0,57,41		1,26
22″	59,15,34,27,10,20,23,27,15,26		4,19,56,29,34	
		19,40,49,26, 4,28, 7		1,26
24″	59,15,34,46,51, 9,49,31,43,33		4,19,56,31, 0	
		19,40,45, 6, 7,57, 7		1,26
26″	59,15,35, 6,31,54,55,39,40,40		4,19,56,32,26	
		19,40,40,46,11,24,41		1,26
28″	59,15,35,26,12,35,41,51, 5,21		4,19,56,33,52	
		19,40,36,26,14,50,49		1,26
30″	59,15,35,45,53,12, 8, 5,56,10		4,19,56,35,18	
		19,40,32, 6,18,15,31		1,26
32″	59,15,36, 5,33,44,14,24,11,41		4,19,56,36,44	
		19,40,27,46,21,38,47		1,26
34″	59,15,36,25,14,12, 0,45,50,28		4,19,56,38,10	
		19,40,23,26,25, 0,37		1,26
36″	59,15,36,44,54,35,27,10,51, 5		4,19,56,39,36	
		19,40,19, 6,28,21, 1		1,26
38″	59,15,37, 4,34,54,33,39,12, 6		4,19,56,41, 2	
		19,40,14,46,31,39,59		1,26
40″	59,15,37,24,15, 9,20,10,52, 5		4,19,56,42,28	
		19,40,10,26,34,57,31		1,26
42″	59,15,37,43,55,19,46,45,49,36		4,19,56,43,54	
		19,40, 6, 6,38,13,37		1,26
44″	59,15,38, 3,35,25,53,24, 3,13		4,19,56,45,20	
		19,40, 1,46,41,28,17		1,26
46″	59,15,38,23,15,27,40, 5,31,30		4,19,56,46,46	
		19,39,57,26,44,41,31		1,26
48″	59,15,38,42,55,25, 6,50,13, 1		4,19,56,48,12	
		19,39,53, 6,47,53,19		1,26
50″	59,15,39, 2,35,18,13,38, 6,20		4,19,56,49,38	
		19,39,48,46,51, 3,41		1,26
52″	59,15,39,22,15, 7, 0,29,10, 1		4,19,56,51, 4	
		19,39,44,26,54,12,37		1,26
54″	59,15,39,41,54,51,27,23,22,38		4,19,56,52,30	
		19,39,40, 6,57,20, 7		1,26
56″	59,15,40, 1,34,31,34,20,42,45		4,19,56,53,56	
		19,39,35,47, 0,26,11		1,26
58″	59,15,40,21,14, 7,21,21, 8,56		4,19,56,55,22	
		19,39,31,27, 3,30,49		
60″	59,15,40,40,53,38,48,24,39,45			
exact	59,15,40,40,53,38,48,24,17, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81° 0′ 0″	59,15,40,40,53,38,48,24,17, 5			
		19,39,27, 7, 6,31,40		
2″	59,15,41, 0,33, 5,55,30,48,45		4,19,56,58,23	
		19,39,22,47, 9,33,17		1,26
4″	59,15,41,20,12,28,42,40,22, 2		4,19,56,59,49	
		19,39,18,27,12,33,28		1,26
6″	59,15,41,39,51,47, 9,52,55,30		4,19,57, 1,15	
		19,39,14, 7,15,32,13		1,26
8″	59,15,41,59,31, 1,17, 8,27,43		4,19,57, 2,41	
		19,39, 9,47,18,29,32		1,26
10″	59,15,42,19,10,11, 4,26,57,15		4,19,57, 4, 7	
		19,39, 5,27,21,25,25		1,26
12″	59,15,42,38,49,16,31,48,22,40		4,19,57, 5,33	
		19,39, 1, 7,24,19,52		1,26
14″	59,15,42,58,28,17,39,12,42,32		4,19,57, 6,59	
		19,38,56,47,27,12,53		1,26
16″	59,15,43,18, 7,14,26,39,55,25		4,19,57, 8,25	
		19,38,52,27,30, 4,28		1,26
18″	59,15,43,37,46, 6,54, 9,59,53		4,19,57, 9,51	
		19,38,48, 7,32,54,37		1,26
20″	59,15,43,57,24,55, 1,42,54,30		4,19,57,11,17	
		19,38,43,47,35,43,20		1,26
22″	59,15,44,17, 3,38,49,18,37,50		4,19,57,12,43	
		19,38,39,27,38,30,37		1,26
24″	59,15,44,36,42,18,16,57, 8,27		4,19,57,14, 9	
		19,38,35, 7,41,16,28		1,26
26″	59,15,44,56,20,53,24,38,24,55		4,19,57,15,35	
		19,38,30,47,44, 0,53		1,26
28″	59,15,45,15,59,24,12,22,25,48		4,19,57,17, 1	
		19,38,26,27,46,43,52		1,26
30″	59,15,45,35,37,50,40, 9, 9,40		4,19,57,18,27	
		19,38,22, 7,49,25,25		1,26
32″	59,15,45,55,16,12,47,58,35, 5		4,19,57,19,53	
		19,38,17,47,52, 5,32		1,26
34″	59,15,46,14,54,30,35,50,40,37		4,19,57,21,19	
		19,38,13,27,54,44,13		1,26
36″	59,15,46,34,32,44, 3,45,24,50		4,19,57,22,45	
		19,38, 9, 7,57,21,28		1,26
38″	59,15,46,54,10,53,11,42,46,18		4,19,57,24,11	
		19,38, 4,47,59,57,17		1,26
40″	59,15,47,13,48,57,59,42,43,35		4,19,57,25,37	
		19,38, 0,28, 2,31,40		1,26
42″	59,15,47,33,26,58,27,45,15,15		4,19,57,27, 3	
		19,37,56, 8, 5, 4,37		1,26
44″	59,15,47,53, 4,54,35,50,19,52		4,19,57,28,29	
		19,37,51,48, 7,36, 8		1,26
46″	59,15,48,12,42,46,23,57,56, 0		4,19,57,29,55	
		19,37,47,28,10, 6,13		1,26
48″	59,15,48,32,20,33,52, 8, 2,13		4,19,57,31,21	
		19,37,43, 8,12,34,52		1,26
50″	59,15,48,51,58,17, 0,20,37, 5		4,19,57,32,47	
		19,37,38,48,15, 2, 5		1,26
52″	59,15,49,11,35,55,48,35,39,10		4,19,57,34,13	
		19,37,34,28,17,27,52		1,26
54″	59,15,49,31,13,30,16,53, 7, 2		4,19,57,35,39	
		19,37,30, 8,19,52,13		1,26
56″	59,15,49,50,51, 0,25,12,59,15		4,19,57,37, 5	
		19,37,25,48,22,15, 8		1,26
58″	59,15,50,10,28,26,13,35,14,23		4,19,57,38,31	
		19,37,21,28,24,36,37		
60″	59,15,50,30, 5,47,41,59,51, 0			
exact	59,15,50,30, 5,47,41,59,38, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81° 1′ 0″	59,15,50,30, 5,47,41,59,38, 7			
		19,37,17, 8,26,55,24		
2″	59,15,50,49,43, 4,50,26,33,31		4,19,57,41,27	
		19,37,12,48,29,13,57		1,26
4″	59,15,51, 9,20,17,38,55,47,28		4,19,57,42,53	
		19,37, 8,28,31,31, 4		1,26
6″	59,15,51,28,57,26, 7,27,18,32		4,19,57,44,19	
		19,37, 4, 8,33,46,45		1,26
8″	59,15,51,48,34,30,16, 1, 5,17		4,19,57,45,45	
		19,36,59,48,36, 1, 0		1,26
10″	59,15,52, 8,11,30, 4,37, 6,17		4,19,57,47,11	
		19,36,55,28,38,13,49		1,26
12″	59,15,52,27,48,25,33,15,20, 6		4,19,57,48,37	
		19,36,51, 8,40,25,12		1,26
14″	59,15,52,47,25,16,41,55,45,18		4,19,57,50, 3	
		19,36,46,48,42,35, 9		1,26
16″	59,15,53, 7, 2, 3,30,38,20,27		4,19,57,51,29	
		19,36,42,28,44,43,40		1,26
18″	59,15,53,26,38,45,59,23, 4, 7		4,19,57,52,55	
		19,36,38, 8,46,50,45		1,26
20″	59,15,53,46,15,24, 8, 9,54,52		4,19,57,54,21	
		19,36,33,48,48,56,24		1,26
22″	59,15,54, 5,51,57,56,58,51,16		4,19,57,55,47	
		19,36,29,28,51, 0,37		1,26
24″	59,15,54,25,28,27,25,49,51,53		4,19,57,57,13	
		19,36,25, 8,53, 3,24		1,26
26″	59,15,54,45, 4,52,34,42,55,17		4,19,57,58,39	
		19,36,20,48,55, 4,45		1,26
28″	59,15,55, 4,41,13,23,38, 0, 2		4,19,58, 0, 5	
		19,36,16,28,57, 4,40		1,26
30″	59,15,55,24,17,29,52,35, 4,42		4,19,58, 1,31	
		19,36,12, 8,59, 3, 9		1,26
32″	59,15,55,43,53,42, 1,34, 7,51		4,19,58, 2,57	
		19,36, 7,49, 1, 0,12		1,26
34″	59,15,56, 3,29,49,50,35, 8, 3		4,19,58, 4,23	
		19,36, 3,29, 2,55,49		1,26
36″	59,15,56,23, 5,53,19,38, 3,52		4,19,58, 5,49	
		19,35,59, 9, 4,50, 0		1,26
38″	59,15,56,42,41,52,28,42,53,52		4,19,58, 7,15	
		19,35,54,49, 6,42,45		1,26
40″	59,15,57, 2,17,47,17,49,36,37		4,19,58, 8,41	
		19,35,50,29, 8,34, 4		1,26
42″	59,15,57,21,53,37,46,58,10,41		4,19,58,10, 7	
		19,35,46, 9,10,23,57		1,26
44″	59,15,57,41,29,23,56, 8,34,38		4,19,58,11,33	
		19,35,41,49,12,12,24		1,26
46″	59,15,58, 1, 5, 5,45,20,47, 2		4,19,58,12,59	
		19,35,37,29,13,59,25		1,26
48″	59,15,58,20,40,43,14,34,46,27		4,19,58,14,25	
		19,35,33, 9,15,45, 0		1,26
50″	59,15,58,40,16,16,23,50,31,27		4,19,58,15,51	
		19,35,28,49,17,29, 9		1,26
52″	59,15,58,59,51,45,13, 8, 0,36		4,19,58,17,17	
		19,35,24,29,19,11,52		1,26
54″	59,15,59,19,27, 9,42,27,12,28		4,19,58,18,43	
		19,35,20, 9,20,53, 9		1,26
56″	59,15,59,39, 2,29,51,48, 5,37		4,19,58,20, 9	
		19,35,15,49,22,33, 0		1,26
58″	59,15,59,58,37,45,41,10,38,37		4,19,58,21,35	
		19,35,11,29,24,11,25		
60″	59,16, 0,18,12,57,10,34,50, 2			
exact	59,16, 0,18,12,57,10,34,45,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81° 2′ 0″	59,16, 0,18,12,57,10,34,45,14			
		19,35, 7, 9,25,48, 6		
2″	59,16, 0,37,48, 4,20, 0,33,20		4,19,58,24,27	
		19,35, 2,49,27,23,39		1,26
4″	59,16, 0,57,23, 7, 9,27,56,59		4,19,58,25,53	
		19,34,58,29,28,57,46		1,26
6″	59,16, 1,16,58, 5,38,56,54,45		4,19,58,27,19	
		19,34,54, 9,30,30,27		1,26
8″	59,16, 1,36,32,59,48,27,25,12		4,19,58,28,45	
		19,34,49,49,32, 1,42		1,26
10″	59,16, 1,56, 7,49,37,59,26,54		4,19,58,30,11	
		19,34,45,29,33,31,31		1,26
12″	59,16, 2,15,42,35, 7,32,58,25		4,19,58,31,37	
		19,34,41, 9,34,59,54		1,26
14″	59,16, 2,35,17,16,17, 7,58,19		4,19,58,33, 3	
		19,34,36,49,36,26,51		1,26
16″	59,16, 2,54,51,53, 6,44,25,10		4,19,58,34,29	
		19,34,32,29,37,52,22		1,26
18″	59,16, 3,14,26,25,36,22,17,32		4,19,58,35,55	
		19,34,28, 9,39,16,27		1,26
20″	59,16, 3,34, 0,53,46, 1,33,59		4,19,58,37,21	
		19,34,23,49,40,39, 6		1,26
22″	59,16, 3,53,35,17,35,42,13, 5		4,19,58,38,47	
		19,34,19,29,42, 0,19		1,26
24″	59,16, 4,13, 9,37, 5,24,13,24		4,19,58,40,13	
		19,34,15, 9,43,20, 6		1,26
26″	59,16, 4,32,43,52,15, 7,33,30		4,19,58,41,39	
		19,34,10,49,44,38,27		1,26
28″	59,16, 4,52,18, 3, 4,52,11,57		4,19,58,43, 5	
		19,34, 6,29,45,55,22		1,26
30″	59,16, 5,11,52, 9,34,38, 7,19		4,19,58,44,31	
		19,34, 2, 9,47,10,51		1,26
32″	59,16, 5,31,26,11,44,25,18,10		4,19,58,45,57	
		19,33,57,49,48,24,54		1,26
34″	59,16, 5,51, 0, 9,34,13,43, 4		4,19,58,47,23	
		19,33,53,29,49,37,31		1,26
36″	59,16, 6,10,34, 3, 4, 3,20,35		4,19,58,48,49	
		19,33,49, 9,50,48,42		1,26
38″	59,16, 6,30, 7,52,13,54, 9,17		4,19,58,50,15	
		19,33,44,49,51,58,27		1,26
40″	59,16, 6,49,41,37, 3,46, 7,44		4,19,58,51,41	
		19,33,40,29,53, 6,46		1,26
42″	59,16, 7, 9,15,17,33,39,14,30		4,19,58,53, 7	
		19,33,36, 9,54,13,39		1,26
44″	59,16, 7,28,48,53,43,33,28, 9		4,19,58,54,33	
		19,33,31,49,55,19, 6		1,26
46″	59,16, 7,48,22,25,33,28,47,15		4,19,58,55,59	
		19,33,27,29,56,23, 7		1,26
48″	59,16, 8, 7,55,53, 3,25,10,22		4,19,58,57,25	
		19,33,23, 9,57,25,42		1,26
50″	59,16, 8,27,29,16,13,22,36, 4		4,19,58,58,51	
		19,33,18,49,58,26,51		1,26
52″	59,16, 8,47, 2,35, 3,21, 2,55		4,19,59, 0,17	
		19,33,14,29,59,26,34		1,26
54″	59,16, 9, 6,35,49,33,20,29,29		4,19,59, 1,43	
		19,33,10,10, 0,24,51		1,26
56″	59,16, 9,26, 8,59,43,20,54,20		4,19,59, 3, 9	
		19,33, 5,50, 1,21,42		1,26
58″	59,16, 9,45,42, 5,33,22,16, 2		4,19,59, 4,35	
		19,33, 1,30, 2,17, 7		
60″	59,16,10, 5,15, 7, 3,24,33, 9			
exact	59,16,10, 5,15, 7, 3,24,41,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81° 3′ 0″	59,16,10, 5,15, 7, 3,24,41,44			
		19,32,57,10, 3,12, 8		
2″	59,16,10,24,48, 4,13,27,53,52		4,19,59, 7,22	
		19,32,52,50, 4, 4,46		1,26
4″	59,16,10,44,20,57, 3,31,58,38		4,19,59, 8,48	
		19,32,48,30, 4,55,58		1,26
6″	59,16,11, 3,53,45,33,36,54,36		4,19,59,10,14	
		19,32,44,10, 5,45,44		1,26
8″	59,16,11,23,26,29,43,42,40,20		4,19,59,11,40	
		19,32,39,50, 6,34, 4		1,26
10″	59,16,11,42,59, 9,33,49,14,24		4,19,59,13, 6	
		19,32,35,30, 7,20,58		1,26
12″	59,16,12, 2,31,45, 3,56,35,22		4,19,59,14,32	
		19,32,31,10, 8, 6,26		1,26
14″	59,16,12,22, 4,16,14, 4,41,48		4,19,59,15,58	
		19,32,26,50, 8,50,28		1,26
16″	59,16,12,41,36,43, 4,13,32,16		4,19,59,17,24	
		19,32,22,30, 9,33, 4		1,26
18″	59,16,13, 1, 9, 5,34,23, 5,20		4,19,59,18,50	
		19,32,18,10,10,14,14		1,26
20″	59,16,13,20,41,23,44,33,19,34		4,19,59,20,16	
		19,32,13,50,10,53,58		1,26
22″	59,16,13,40,13,37,34,44,13,32		4,19,59,21,42	
		19,32, 9,30,11,32,16		1,26
24″	59,16,13,59,45,47, 4,55,45,48		4,19,59,23, 8	
		19,32, 5,10,12, 9, 8		1,26
26″	59,16,14,19,17,52,15, 7,54,56		4,19,59,24,34	
		19,32, 0,50,12,44,34		1,26
28″	59,16,14,38,49,53, 5,20,39,30		4,19,59,26, 0	
		19,31,56,30,13,18,34		1,26
30″	59,16,14,58,21,49,35,33,58, 4		4,19,59,27,26	
		19,31,52,10,13,51, 8		1,26
32″	59,16,15,17,53,41,45,47,49,12		4,19,59,28,52	
		19,31,47,50,14,22,16		1,26
34″	59,16,15,37,25,29,36, 2,11,28		4,19,59,30,18	
		19,31,43,30,14,51,58		1,26
36″	59,16,15,56,57,13, 6,17, 3,26		4,19,59,31,44	
		19,31,39,10,15,20,14		1,26
38″	59,16,16,16,28,52,16,32,23,40		4,19,59,33,10	
		19,31,34,50,15,47, 4		1,26
40″	59,16,16,36, 0,27, 6,48,10,44		4,19,59,34,36	
		19,31,30,30,16,12,28		1,26
42″	59,16,16,55,31,57,37, 4,23,12		4,19,59,36, 2	
		19,31,26,10,16,36,26		1,26
44″	59,16,17,15, 3,23,47,20,59,38		4,19,59,37,28	
		19,31,21,50,16,58,58		1,26
46″	59,16,17,34,34,45,37,37,58,36		4,19,59,38,54	
		19,31,17,30,17,20, 4		1,26
48″	59,16,17,54, 6, 3, 7,55,18,40		4,19,59,40,20	
		19,31,13,10,17,39,44		1,26
50″	59,16,18,13,37,16,18,12,58,24		4,19,59,41,46	
		19,31, 8,50,17,57,58		1,26
52″	59,16,18,33, 8,25, 8,30,56,22		4,19,59,43,12	
		19,31, 4,30,18,14,46		1,26
54″	59,16,18,52,39,29,38,49,11, 8		4,19,59,44,38	
		19,31, 0,10,18,30, 8		1,26
56″	59,16,19,12,10,29,49, 7,41,16		4,19,59,46, 4	
		19,30,55,50,18,44, 4		1,26
58″	59,16,19,31,41,25,39,26,25,20		4,19,59,47,30	
		19,30,51,30,18,56,34		
60″	59,16,19,51,12,17, 9,45,21,54			
exact	59,16,19,51,12,17, 9,45,42,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81° 4′ 0″	59,16,19,51,12,17, 9,45,42,10			
		19,30,47,10,19, 9,53		
2″	59,16,20,10,43, 4,20, 4,52, 3		4,19,59,50,12	
		19,30,42,50,19,19,41		1,26
4″	59,16,20,30,13,47,10,24,11,44		4,19,59,51,38	
		19,30,38,30,19,28, 3		1,26
6″	59,16,20,49,44,25,40,43,39,47		4,19,59,53, 4	
		19,30,34,10,19,34,59		1,26
8″	59,16,21, 9,14,59,51, 3,14,46		4,19,59,54,30	
		19,30,29,50,19,40,29		1,26
10″	59,16,21,28,45,29,41,22,55,15		4,19,59,55,56	
		19,30,25,30,19,44,33		1,26
12″	59,16,21,48,15,55,11,42,39,48		4,19,59,57,22	
		19,30,21,10,19,47,11		1,26
14″	59,16,22, 7,46,16,22, 2,26,59		4,19,59,58,48	
		19,30,16,50,19,48,23		1,26
16″	59,16,22,27,16,33,12,22,15,22		4,20, 0, 0,14	
		19,30,12,30,19,48, 9		1,26
18″	59,16,22,46,46,45,42,42, 3,31		4,20, 0, 1,40	
		19,30, 8,10,19,46,29		1,26
20″	59,16,23, 6,16,53,53, 1,50, 0		4,20, 0, 3, 6	
		19,30, 3,50,19,43,23		1,26
22″	59,16,23,25,46,57,43,21,33,23		4,20, 0, 4,32	
		19,29,59,30,19,38,51		1,26
24″	59,16,23,45,16,57,13,41,12,14		4,20, 0, 5,58	
		19,29,55,10,19,32,53		1,26
26″	59,16,24, 4,46,52,24, 0,45, 7		4,20, 0, 7,24	
		19,29,50,50,19,25,29		1,26
28″	59,16,24,24,16,43,14,20,10,36		4,20, 0, 8,50	
		19,29,46,30,19,16,39		1,26
30″	59,16,24,43,46,29,44,39,27,15		4,20, 0,10,16	
		19,29,42,10,19, 6,23		1,26
32″	59,16,25, 3,16,11,54,58,33,38		4,20, 0,11,42	
		19,29,37,50,18,54,41		1,26
34″	59,16,25,22,45,49,45,17,28,19		4,20, 0,13, 8	
		19,29,33,30,18,41,33		1,26
36″	59,16,25,42,15,23,15,36, 9,52		4,20, 0,14,34	
		19,29,29,10,18,26,59		1,26
38″	59,16,26, 1,44,52,25,54,36,51		4,20, 0,16, 0	
		19,29,24,50,18,10,59		1,26
40″	59,16,26,21,14,17,16,12,47,50		4,20, 0,17,26	
		19,29,20,30,17,53,33		1,26
42″	59,16,26,40,43,37,46,30,41,23		4,20, 0,18,52	
		19,29,16,10,17,34,41		1,26
44″	59,16,27, 0,12,53,56,48,16, 4		4,20, 0,20,18	
		19,29,11,50,17,14,23		1,26
46″	59,16,27,19,42, 5,47, 5,30,27		4,20, 0,21,44	
		19,29, 7,30,16,52,39		1,26
48″	59,16,27,39,11,13,17,22,23, 6		4,20, 0,23,10	
		19,29, 3,10,16,29,29		1,26
50″	59,16,27,58,40,16,27,38,52,35		4,20, 0,24,36	
		19,28,58,50,16, 4,53		1,26
52″	59,16,28,18, 9,15,17,54,57,28		4,20, 0,26, 2	
		19,28,54,30,15,38,51		1,26
54″	59,16,28,37,38, 9,48,10,36,19		4,20, 0,27,28	
		19,28,50,10,15,11,23		1,26
56″	59,16,28,57, 6,59,58,25,47,42		4,20, 0,28,54	
		19,28,45,50,14,42,29		1,26
58″	59,16,29,16,35,45,48,40,30,11		4,20, 0,30,20	
		19,28,41,30,14,12, 9		
60″	59,16,29,36, 4,27,18,54,42,20			
exact	59,16,29,36, 4,27,18,55,12,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81° 5′ 0″	59,16,29,36, 4,27,18,55,12,25			
		19,28,37,10,13,43,43		
2″	59,16,29,55,33, 4,29, 8,56, 8		4,20, 0,32,57	
		19,28,32,50,13,10,46		1,25
4″	59,16,30,15, 1,37,19,22, 6,54		4,20, 0,34,22	
		19,28,28,30,12,36,24		1,25
6″	59,16,30,34,30, 5,49,34,43,18		4,20, 0,35,47	
		19,28,24,10,12, 0,37		1,25
8″	59,16,30,53,58,29,59,46,43,55		4,20, 0,37,12	
		19,28,19,50,11,23,25		1,25
10″	59,16,31,13,26,49,49,58, 7,20		4,20, 0,38,37	
		19,28,15,30,10,44,48		1,25
12″	59,16,31,32,55, 5,20, 8,52, 8		4,20, 0,40, 2	
		19,28,11,10,10, 4,46		1,25
14″	59,16,31,52,23,16,30,18,56,54		4,20, 0,41,27	
		19,28, 6,50, 9,23,19		1,25
16″	59,16,32,11,51,23,20,28,20,13		4,20, 0,42,52	
		19,28, 2,30, 8,40,27		1,25
18″	59,16,32,31,19,25,50,37, 0,40		4,20, 0,44,17	
		19,27,58,10, 7,56,10		1,25
20″	59,16,32,50,47,24, 0,44,56,50		4,20, 0,45,42	
		19,27,53,50, 7,10,28		1,25
22″	59,16,33,10,15,17,50,52, 7,18		4,20, 0,47, 7	
		19,27,49,30, 6,23,21		1,25
24″	59,16,33,29,43, 7,20,58,30,39		4,20, 0,48,32	
		19,27,45,10, 5,34,49		1,25
26″	59,16,33,49,10,52,31, 4, 5,28		4,20, 0,49,57	
		19,27,40,50, 4,44,52		1,25
28″	59,16,34, 8,38,33,21, 8,50,20		4,20, 0,51,22	
		19,27,36,30, 3,53,30		1,25
30″	59,16,34,28, 6, 9,51,12,43,50		4,20, 0,52,47	
		19,27,32,10, 3, 0,43		1,25
32″	59,16,34,47,33,42, 1,15,44,33		4,20, 0,54,12	
		19,27,27,50, 2, 6,31		1,25
34″	59,16,35, 7, 1, 9,51,17,51, 4		4,20, 0,55,37	
		19,27,23,30, 1,10,54		1,25
36″	59,16,35,26,28,33,21,19, 1,58		4,20, 0,57, 2	
		19,27,19,10, 0,13,52		1,25
38″	59,16,35,45,55,52,31,19,15,50		4,20, 0,58,27	
		19,27,14,49,59,15,25		1,25
40″	59,16,36, 5,23, 7,21,18,31,15		4,20, 0,59,52	
		19,27,10,29,58,15,33		1,25
42″	59,16,36,24,50,17,51,16,46,48		4,20, 1, 1,17	
		19,27, 6, 9,57,14,16		1,25
44″	59,16,36,44,17,24, 1,14, 1, 4		4,20, 1, 2,42	
		19,27, 1,49,56,11,34		1,25
46″	59,16,37, 3,44,25,51,10,12,38		4,20, 1, 4, 7	
		19,26,57,29,55, 7,27		1,25
48″	59,16,37,23,11,23,21, 5,20, 5		4,20, 1, 5,32	
		19,26,53, 9,54, 1,55		1,25
50″	59,16,37,42,38,16,30,59,22, 0		4,20, 1, 6,57	
		19,26,48,49,52,54,58		1,25
52″	59,16,38, 2, 5, 5,20,52,16,58		4,20, 1, 8,22	
		19,26,44,29,51,46,36		1,25
54″	59,16,38,21,31,49,50,44, 3,34		4,20, 1, 9,47	
		19,26,40, 9,50,36,49		1,25
56″	59,16,38,40,58,30, 0,34,40,23		4,20, 1,11,12	
		19,26,35,49,49,25,37		1,25
58″	59,16,39, 0,25, 5,50,24, 6, 0		4,20, 1,12,37	
		19,26,31,29,48,13, 0		
60″	59,16,39,19,51,37,20,12,19, 0			
exact	59,16,39,19,51,37,20,11,49,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81° 6′ 0″	59,16,39,19,51,37,20,11,49,35			
		19,26,27, 9,46,56, 1		
2″	59,16,39,39,18, 4,29,58,45,36		4,20, 1,15,38	
		19,26,22,49,45,40,23		1,25
4″	59,16,39,58,44,27,19,44,25,59		4,20, 1,17, 3	
		19,26,18,29,44,23,20		1,25
6″	59,16,40,18,10,45,49,28,49,19		4,20, 1,18,28	
		19,26,14, 9,43, 4,52		1,25
8″	59,16,40,37,36,59,59,11,54,11		4,20, 1,19,53	
		19,26, 9,49,41,44,59		1,25
10″	59,16,40,57, 3, 9,48,53,39,10		4,20, 1,21,18	
		19,26, 5,29,40,23,41		1,25
12″	59,16,41,16,29,15,18,34, 2,51		4,20, 1,22,43	
		19,26, 1, 9,39, 0,58		1,25
14″	59,16,41,35,55,16,28,13, 3,49		4,20, 1,24, 8	
		19,25,56,49,37,36,50		1,25
16″	59,16,41,55,21,13,17,50,40,39		4,20, 1,25,33	
		19,25,52,29,36,11,17		1,25
18″	59,16,42,14,47, 5,47,26,51,56		4,20, 1,26,58	
		19,25,48, 9,34,44,19		1,25
20″	59,16,42,34,12,53,57, 1,36,15		4,20, 1,28,23	
		19,25,43,49,33,15,56		1,25
22″	59,16,42,53,38,37,46,34,52,11		4,20, 1,29,48	
		19,25,39,29,31,46, 8		1,25
24″	59,16,43,13, 4,17,16, 6,38,19		4,20, 1,31,13	
		19,25,35, 9,30,14,55		1,25
26″	59,16,43,32,29,52,25,36,53,14		4,20, 1,32,38	
		19,25,30,49,28,42,17		1,25
28″	59,16,43,51,55,23,15, 5,35,31		4,20, 1,34, 3	
		19,25,26,29,27, 8,14		1,25
30″	59,16,44,11,20,49,44,32,43,45		4,20, 1,35,28	
		19,25,22, 9,25,32,46		1,25
32″	59,16,44,30,46,11,53,58,16,31		4,20, 1,36,53	
		19,25,17,49,23,55,53		1,25
34″	59,16,44,50,11,29,43,22,12,24		4,20, 1,38,18	
		19,25,13,29,22,17,35		1,25
36″	59,16,45, 9,36,43,12,44,29,59		4,20, 1,39,43	
		19,25, 9, 9,20,37,52		1,25
38″	59,16,45,29, 1,52,22, 5, 7,51		4,20, 1,41, 8	
		19,25, 4,49,18,56,44		1,25
40″	59,16,45,48,26,57,11,24, 4,35		4,20, 1,42,33	
		19,25, 0,29,17,14,11		1,25
42″	59,16,46, 7,51,57,40,41,18,46		4,20, 1,43,58	
		19,24,56, 9,15,30,13		1,25
44″	59,16,46,27,16,53,49,56,48,59		4,20, 1,45,23	
		19,24,51,49,13,44,50		1,25
46″	59,16,46,46,41,45,39,10,33,49		4,20, 1,46,48	
		19,24,47,29,11,58, 2		1,25
48″	59,16,47, 6, 6,33, 8,22,31,51		4,20, 1,48,13	
		19,24,43, 9,10, 9,49		1,25
50″	59,16,47,25,31,16,17,32,41,40		4,20, 1,49,38	
		19,24,38,49, 8,20,11		1,25
52″	59,16,47,44,55,55, 6,41, 1,51		4,20, 1,51, 3	
		19,24,34,29, 6,29, 8		1,25
54″	59,16,48, 4,20,29,35,47,30,59		4,20, 1,52,28	
		19,24,30, 9, 4,36,40		1,25
56″	59,16,48,23,44,59,44,52, 7,39		4,20, 1,53,53	
		19,24,25,49, 2,42,47		1,25
58″	59,16,48,43, 9,25,33,54,50,26		4,20, 1,55,18	
		19,24,21,29, 0,47,29		
60″	59,16,49, 2,33,47, 2,55,37,55			
exact	59,16,49, 2,33,47, 2,55,22, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81° 7′ 0″	59,16,49, 2,33,47, 2,55,22, 6			
		19,24,17, 8,58,49,10		
2″	59,16,49,21,58, 4,11,54,11,16		4,20, 1,58,14	
		19,24,12,48,56,50,56		1,25
4″	59,16,49,41,22,17, 0,51, 2,12		4,20, 1,59,39	
		19,24, 8,28,54,51,17		1,25
6″	59,16,50, 0,46,25,29,45,53,29		4,20, 2, 1, 4	
		19,24, 4, 8,52,50,13		1,25
8″	59,16,50,20,10,29,38,38,43,42		4,20, 2, 2,29	
		19,23,59,48,50,47,44		1,25
10″	59,16,50,39,34,29,27,29,31,26		4,20, 2, 3,54	
		19,23,55,28,48,43,50		1,25
12″	59,16,50,58,58,24,56,18,15,16		4,20, 2, 5,19	
		19,23,51, 8,46,38,31		1,25
14″	59,16,51,18,22,16, 5, 4,53,47		4,20, 2, 6,44	
		19,23,46,48,44,31,47		1,25
16″	59,16,51,37,46, 2,53,49,25,34		4,20, 2, 8, 9	
		19,23,42,28,42,23,38		1,25
18″	59,16,51,57, 9,45,22,31,49,12		4,20, 2, 9,34	
		19,23,38, 8,40,14, 4		1,25
20″	59,16,52,16,33,23,31,12, 3,16		4,20, 2,10,59	
		19,23,33,48,38, 3, 5		1,25
22″	59,16,52,35,56,57,19,50, 6,21		4,20, 2,12,24	
		19,23,29,28,35,50,41		1,25
24″	59,16,52,55,20,26,48,25,57, 2		4,20, 2,13,49	
		19,23,25, 8,33,36,52		1,25
26″	59,16,53,14,43,51,56,59,33,54		4,20, 2,15,14	
		19,23,20,48,31,21,38		1,25
28″	59,16,53,34, 7,12,45,30,55,32		4,20, 2,16,39	
		19,23,16,28,29, 4,59		1,25
30″	59,16,53,53,30,29,14, 0, 0,31		4,20, 2,18, 4	
		19,23,12, 8,26,46,55		1,25
32″	59,16,54,12,53,41,22,26,47,26		4,20, 2,19,29	
		19,23, 7,48,24,27,26		1,25
34″	59,16,54,32,16,49,10,51,14,52		4,20, 2,20,54	
		19,23, 3,28,22, 6,32		1,25
36″	59,16,54,51,39,52,39,13,21,24		4,20, 2,22,19	
		19,22,59, 8,19,44,13		1,25
38″	59,16,55,11, 2,51,47,33, 5,37		4,20, 2,23,44	
		19,22,54,48,17,20,29		1,25
40″	59,16,55,30,25,46,35,50,26, 6		4,20, 2,25, 9	
		19,22,50,28,14,55,20		1,25
42″	59,16,55,49,48,37, 4, 5,21,26		4,20, 2,26,34	
		19,22,46, 8,12,28,46		1,25
44″	59,16,56, 9,11,23,12,17,50,12		4,20, 2,27,59	
		19,22,41,48,10, 0,47		1,25
46″	59,16,56,28,34, 5, 0,27,50,59		4,20, 2,29,24	
		19,22,37,28, 7,31,23		1,25
48″	59,16,56,47,56,42,28,35,22,22		4,20, 2,30,49	
		19,22,33, 8, 5, 0,34		1,25
50″	59,16,57, 7,19,15,36,40,22,56		4,20, 2,32,14	
		19,22,28,48, 2,28,20		1,25
52″	59,16,57,26,41,44,24,42,51,16		4,20, 2,33,39	
		19,22,24,27,59,54,41		1,25
54″	59,16,57,46, 4, 8,52,42,45,57		4,20, 2,35, 4	
		19,22,20, 7,57,19,37		1,25
56″	59,16,58, 5,26,29, 0,40, 5,34		4,20, 2,36,29	
		19,22,15,47,54,43, 8		1,25
58″	59,16,58,24,48,44,48,34,48,42		4,20, 2,37,54	
		19,22,11,27,52, 5,14		
60″	59,16,58,44,10,56,16,26,53,56			
exact	59,16,58,44,10,56,16,26,49,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81° 8′ 0″	59,16,58,44,10,56,16,26,49,40			
		19,22, 7, 7,49,25,31		
2″	59,16,59, 3,33, 3,24,16,15,11		4,20, 2,40,45	
		19,22, 2,47,46,44,46		1,25
4″	59,16,59,22,55, 6,12, 2,59,57		4,20, 2,42,10	
		19,21,58,27,44, 2,36		1,25
6″	59,16,59,42,17, 4,39,47, 2,33		4,20, 2,43,35	
		19,21,54, 7,41,19, 1		1,25
8″	59,17, 0, 1,38,58,47,28,21,34		4,20, 2,45, 0	
		19,21,49,47,38,34, 1		1,25
10″	59,17, 0,21, 0,48,35, 6,55,35		4,20, 2,46,25	
		19,21,45,27,35,47,36		1,25
12″	59,17, 0,40,22,34, 2,42,43,11		4,20, 2,47,50	
		19,21,41, 7,32,59,46		1,25
14″	59,17, 0,59,44,15,10,15,42,57		4,20, 2,49,15	
		19,21,36,47,30,10,31		1,25
16″	59,17, 1,19, 5,51,57,45,53,28		4,20, 2,50,40	
		19,21,32,27,27,19,51		1,25
18″	59,17, 1,38,27,24,25,13,13,19		4,20, 2,52, 5	
		19,21,28, 7,24,27,46		1,25
20″	59,17, 1,57,48,52,32,37,41, 5		4,20, 2,53,30	
		19,21,23,47,21,34,16		1,25
22″	59,17, 2,17,10,16,19,59,15,21		4,20, 2,54,55	
		19,21,19,27,18,39,21		1,25
24″	59,17, 2,36,31,35,47,17,54,42		4,20, 2,56,20	
		19,21,15, 7,15,43, 1		1,25
26″	59,17, 2,55,52,50,54,33,37,43		4,20, 2,57,45	
		19,21,10,47,12,45,16		1,25
28″	59,17, 3,15,14, 1,41,46,22,59		4,20, 2,59,10	
		19,21, 6,27, 9,46, 6		1,25
30″	59,17, 3,34,35, 8, 8,56, 9, 5		4,20, 3, 0,35	
		19,21, 2, 7, 6,45,31		1,25
32″	59,17, 3,53,56,10,16, 2,54,36		4,20, 3, 2, 0	
		19,20,57,47, 3,43,31		1,25
34″	59,17, 4,13,17, 8, 3, 6,38, 7		4,20, 3, 3,25	
		19,20,53,27, 0,40, 6		1,25
36″	59,17, 4,32,38, 1,30, 7,18,13		4,20, 3, 4,50	
		19,20,49, 6,57,35,16		1,25
38″	59,17, 4,51,58,50,37, 4,53,29		4,20, 3, 6,15	
		19,20,44,46,54,29, 1		1,25
40″	59,17, 5,11,19,35,23,59,22,30		4,20, 3, 7,40	
		19,20,40,26,51,21,21		1,25
42″	59,17, 5,30,40,15,50,50,43,51		4,20, 3, 9, 5	
		19,20,36, 6,48,12,16		1,25
44″	59,17, 5,50, 0,51,57,38,56, 7		4,20, 3,10,30	
		19,20,31,46,45, 1,46		1,25
46″	59,17, 6, 9,21,23,44,23,57,53		4,20, 3,11,55	
		19,20,27,26,41,49,51		1,25
48″	59,17, 6,28,41,51,11, 5,47,44		4,20, 3,13,20	
		19,20,23, 6,38,36,31		1,25
50″	59,17, 6,48, 2,14,17,44,24,15		4,20, 3,14,45	
		19,20,18,46,35,21,46		1,25
52″	59,17, 7, 7,22,33, 4,19,46, 1		4,20, 3,16,10	
		19,20,14,26,32, 5,36		1,25
54″	59,17, 7,26,42,47,30,51,51,37		4,20, 3,17,35	
		19,20,10, 6,28,48, 1		1,25
56″	59,17, 7,46, 2,57,37,20,39,38		4,20, 3,19, 0	
		19,20, 5,46,25,29, 1		1,25
58″	59,17, 8, 5,23, 3,23,46, 8,39		4,20, 3,20,25	
		19,20, 1,26,22, 8,36		
60″	59,17, 8,24,43, 4,50, 8,17,15			
exact	59,17, 8,24,43, 4,50, 8,23,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81° 9′ 0″	59,17, 8,24,43, 4,50, 8,23,16			
		19,19,57, 6,18,47,29		
2″	59,17, 8,44, 3, 1,56,27,10,45		4,20, 3,23,11	
		19,19,52,46,15,24,18		1,25
4″	59,17, 9, 3,22,54,42,42,35, 3		4,20, 3,24,36	
		19,19,48,26,11,59,42		1,25
6″	59,17, 9,22,42,43, 8,54,34,45		4,20, 3,26, 1	
		19,19,44, 6, 8,33,41		1,25
8″	59,17, 9,42, 2,27,15, 3, 8,26		4,20, 3,27,26	
		19,19,39,46, 5, 6,15		1,25
10″	59,17,10, 1,22, 7, 1, 8,14,41		4,20, 3,28,51	
		19,19,35,26, 1,37,24		1,25
12″	59,17,10,20,41,42,27, 9,52, 5		4,20, 3,30,16	
		19,19,31, 5,58, 7, 8		1,25
14″	59,17,10,40, 1,13,33, 7,59,13		4,20, 3,31,41	
		19,19,26,45,54,35,27		1,25
16″	59,17,10,59,20,40,19, 2,34,40		4,20, 3,33, 6	
		19,19,22,25,51, 2,21		1,25
18″	59,17,11,18,40, 2,44,53,37, 1		4,20, 3,34,31	
		19,19,18, 5,47,27,50		1,25
20″	59,17,11,37,59,20,50,41, 4,51		4,20, 3,35,56	
		19,19,13,45,43,51,54		1,25
22″	59,17,11,57,18,34,36,24,56,45		4,20, 3,37,21	
		19,19, 9,25,40,14,33		1,25
24″	59,17,12,16,37,44, 2, 5,11,18		4,20, 3,38,46	
		19,19, 5, 5,36,35,47		1,25
26″	59,17,12,35,56,49, 7,41,47, 5		4,20, 3,40,11	
		19,19, 0,45,32,55,36		1,25
28″	59,17,12,55,15,49,53,14,42,41		4,20, 3,41,36	
		19,18,56,25,29,14, 0		1,25
30″	59,17,13,14,34,46,18,43,56,41		4,20, 3,43, 1	
		19,18,52, 5,25,30,59		1,25
32″	59,17,13,33,53,38,24, 9,27,40		4,20, 3,44,26	
		19,18,47,45,21,46,33		1,25
34″	59,17,13,53,12,26, 9,31,14,13		4,20, 3,45,51	
		19,18,43,25,18, 0,42		1,25
36″	59,17,14,12,31, 9,34,49,14,55		4,20, 3,47,16	
		19,18,39, 5,14,13,26		1,25
38″	59,17,14,31,49,48,40, 3,28,21		4,20, 3,48,41	
		19,18,34,45,10,24,45		1,25
40″	59,17,14,51, 8,23,25,13,53, 6		4,20, 3,50, 6	
		19,18,30,25, 6,34,39		1,25
42″	59,17,15,10,26,53,50,20,27,45		4,20, 3,51,31	
		19,18,26, 5, 2,43, 8		1,25
44″	59,17,15,29,45,19,55,23,10,53		4,20, 3,52,56	
		19,18,21,44,58,50,12		1,25
46″	59,17,15,49, 3,41,40,22, 1, 5		4,20, 3,54,21	
		19,18,17,24,54,55,51		1,25
48″	59,17,16, 8,21,59, 5,16,56,56		4,20, 3,55,46	
		19,18,13, 4,51, 0, 5		1,25
50″	59,17,16,27,40,12,10, 7,57, 1		4,20, 3,57,11	
		19,18, 8,44,47, 2,54		1,25
52″	59,17,16,46,58,20,54,54,59,55		4,20, 3,58,36	
		19,18, 4,24,43, 4,18		1,25
54″	59,17,17, 6,16,25,19,38, 4,13		4,20, 4, 0, 1	
		19,18, 0, 4,39, 4,17		1,25
56″	59,17,17,25,34,25,24,17, 8,30		4,20, 4, 1,26	
		19,17,55,44,35, 2,51		1,25
58″	59,17,17,44,52,21, 8,52,11,21		4,20, 4, 2,51	
		19,17,51,24,31, 0, 0		
60″	59,17,18, 4,10,12,33,23,11,21			
exact	59,17,18, 4,10,12,33,23,25,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°10′ 0″	59,17,18, 4,10,12,33,23,25,11			
		19,17,47, 4,26,57,24		
2″	59,17,18,23,27,59,37,50,22,35		4,20, 4, 5,33	
		19,17,42,44,22,51,51		1,25
4″	59,17,18,42,45,42,22,13,14,26		4,20, 4, 6,58	
		19,17,38,24,18,44,53		1,25
6″	59,17,19, 2, 3,20,46,31,59,19		4,20, 4, 8,23	
		19,17,34, 4,14,36,30		1,25
8″	59,17,19,21,20,54,50,46,35,49		4,20, 4, 9,48	
		19,17,29,44,10,26,42		1,25
10″	59,17,19,40,38,24,34,57, 2,31		4,20, 4,11,13	
		19,17,25,24, 6,15,29		1,25
12″	59,17,19,59,55,49,59, 3,18, 0		4,20, 4,12,38	
		19,17,21, 4, 2, 2,51		1,25
14″	59,17,20,19,13,11, 3, 5,20,51		4,20, 4,14, 3	
		19,17,16,43,57,48,48		1,25
16″	59,17,20,38,30,27,47, 3, 9,39		4,20, 4,15,28	
		19,17,12,23,53,33,20		1,25
18″	59,17,20,57,47,40,10,56,42,59		4,20, 4,16,53	
		19,17, 8, 3,49,16,27		1,25
20″	59,17,21,17, 4,48,14,45,59,26		4,20, 4,18,18	
		19,17, 3,43,44,58, 9		1,25
22″	59,17,21,36,21,51,58,30,57,35		4,20, 4,19,43	
		19,16,59,23,40,38,26		1,25
24″	59,17,21,55,38,51,22,11,36, 1		4,20, 4,21, 8	
		19,16,55, 3,36,17,18		1,25
26″	59,17,22,14,55,46,25,47,53,19		4,20, 4,22,33	
		19,16,50,43,31,54,45		1,25
28″	59,17,22,34,12,37, 9,19,48, 4		4,20, 4,23,58	
		19,16,46,23,27,30,47		1,25
30″	59,17,22,53,29,23,32,47,18,51		4,20, 4,25,23	
		19,16,42, 3,23, 5,24		1,25
32″	59,17,23,12,46, 5,36,10,24,15		4,20, 4,26,48	
		19,16,37,43,18,38,36		1,25
34″	59,17,23,32, 2,43,19,29, 2,51		4,20, 4,28,13	
		19,16,33,23,14,10,23		1,25
36″	59,17,23,51,19,16,42,43,13,14		4,20, 4,29,38	
		19,16,29, 3, 9,40,45		1,25
38″	59,17,24,10,35,45,45,52,53,59		4,20, 4,31, 3	
		19,16,24,43, 5, 9,42		1,25
40″	59,17,24,29,52,10,28,58, 3,41		4,20, 4,32,28	
		19,16,20,23, 0,37,14		1,25
42″	59,17,24,49, 8,30,51,58,40,55		4,20, 4,33,53	
		19,16,16, 2,56, 3,21		1,25
44″	59,17,25, 8,24,46,54,54,44,16		4,20, 4,35,18	
		19,16,11,42,51,28, 3		1,25
46″	59,17,25,27,40,58,37,46,12,19		4,20, 4,36,43	
		19,16, 7,22,46,51,20		1,25
48″	59,17,25,46,57, 6, 0,33, 3,39		4,20, 4,38, 8	
		19,16, 3, 2,42,13,12		1,25
50″	59,17,26, 6,13, 9, 3,15,16,51		4,20, 4,39,33	
		19,15,58,42,37,33,39		1,25
52″	59,17,26,25,29, 7,45,52,50,30		4,20, 4,40,58	
		19,15,54,22,32,52,41		1,25
54″	59,17,26,44,45, 2, 8,25,43,11		4,20, 4,42,23	
		19,15,50, 2,28,10,18		1,25
56″	59,17,27, 4, 0,52,10,53,53,29		4,20, 4,43,48	
		19,15,45,42,23,26,30		1,25
58″	59,17,27,23,16,37,53,17,19,59		4,20, 4,45,13	
		19,15,41,22,18,41,17		
60″	59,17,27,42,32,19,15,36, 1,16			
exact	59,17,27,42,32,19,15,36,28,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°11′ 0″	59,17,27,42,32,19,15,36,28,59			
		19,15,37, 2,13,57,41		
2″	59,17,28, 1,47,56,17,50,26,40		4,20, 4,47,50	
		19,15,32,42, 9, 9,51		1,24
4″	59,17,28,21, 3,28,59,59,36,31		4,20, 4,49,14	
		19,15,28,22, 4,20,37		1,24
6″	59,17,28,40,18,57,22, 3,57, 8		4,20, 4,50,38	
		19,15,24, 1,59,29,59		1,24
8″	59,17,28,59,34,21,24, 3,27, 7		4,20, 4,52, 2	
		19,15,19,41,54,37,57		1,24
10″	59,17,29,18,49,41, 5,58, 5, 4		4,20, 4,53,26	
		19,15,15,21,49,44,31		1,24
12″	59,17,29,38, 4,56,27,47,49,35		4,20, 4,54,50	
		19,15,11, 1,44,49,41		1,24
14″	59,17,29,57,20, 7,29,32,39,16		4,20, 4,56,14	
		19,15, 6,41,39,53,27		1,24
16″	59,17,30,16,35,14,11,12,32,43		4,20, 4,57,38	
		19,15, 2,21,34,55,49		1,24
18″	59,17,30,35,50,16,32,47,28,32		4,20, 4,59, 2	
		19,14,58, 1,29,56,47		1,24
20″	59,17,30,55, 5,14,34,17,25,19		4,20, 5, 0,26	
		19,14,53,41,24,56,21		1,24
22″	59,17,31,14,20, 8,15,42,21,40		4,20, 5, 1,50	
		19,14,49,21,19,54,31		1,24
24″	59,17,31,33,34,57,37, 2,16,11		4,20, 5, 3,14	
		19,14,45, 1,14,51,17		1,24
26″	59,17,31,52,49,42,38,17, 7,28		4,20, 5, 4,38	
		19,14,40,41, 9,46,39		1,24
28″	59,17,32,12, 4,23,19,26,54, 7		4,20, 5, 6, 2	
		19,14,36,21, 4,40,37		1,24
30″	59,17,32,31,18,59,40,31,34,44		4,20, 5, 7,26	
		19,14,32, 0,59,33,11		1,24
32″	59,17,32,50,33,31,41,31, 7,55		4,20, 5, 8,50	
		19,14,27,40,54,24,21		1,24
34″	59,17,33, 9,47,59,22,25,32,16		4,20, 5,10,14	
		19,14,23,20,49,14, 7		1,24
36″	59,17,33,29, 2,22,43,14,46,23		4,20, 5,11,38	
		19,14,19, 0,44, 2,29		1,24
38″	59,17,33,48,16,41,43,58,48,52		4,20, 5,13, 2	
		19,14,14,40,38,49,27		1,24
40″	59,17,34, 7,30,56,24,37,38,19		4,20, 5,14,26	
		19,14,10,20,33,35, 1		1,24
42″	59,17,34,26,45, 6,45,11,13,20		4,20, 5,15,50	
		19,14, 6, 0,28,19,11		1,24
44″	59,17,34,45,59,12,45,39,32,31		4,20, 5,17,14	
		19,14, 1,40,23, 1,57		1,24
46″	59,17,35, 5,13,14,26, 2,34,28		4,20, 5,18,38	
		19,13,57,20,17,43,19		1,24
48″	59,17,35,24,27,11,46,20,17,47		4,20, 5,20, 2	
		19,13,53, 0,12,23,17		1,24
50″	59,17,35,43,41, 4,46,32,41, 4		4,20, 5,21,26	
		19,13,48,40, 7, 1,51		1,24
52″	59,17,36, 2,54,53,26,39,42,55		4,20, 5,22,50	
		19,13,44,20, 1,39, 1		1,24
54″	59,17,36,22, 8,37,46,41,21,56		4,20, 5,24,14	
		19,13,39,59,56,14,47		1,24
56″	59,17,36,41,22,17,46,37,36,43		4,20, 5,25,38	
		19,13,35,39,50,49, 9		1,24
58″	59,17,37, 0,35,53,26,28,25,52		4,20, 5,27, 2	
		19,13,31,19,45,22, 7		
60″	59,17,37,19,49,24,46,13,47,59			
exact	59,17,37,19,49,24,46,13,19,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°12′ 0″	59,17,37,19,49,24,46,13,19,34			
		19,13,26,59,39,50,41		
2″	59,17,37,39, 2,51,45,53,10,15		4,20, 5,30, 2	
		19,13,22,39,34,20,39		1,24
4″	59,17,37,58,16,14,25,27,30,54		4,20, 5,31,26	
		19,13,18,19,28,49,13		1,24
6″	59,17,38,17,29,32,44,56,20, 7		4,20, 5,32,50	
		19,13,13,59,23,16,23		1,24
8″	59,17,38,36,42,46,44,19,36,30		4,20, 5,34,14	
		19,13, 9,39,17,42, 9		1,24
10″	59,17,38,55,55,56,23,37,18,39		4,20, 5,35,38	
		19,13, 5,19,12, 6,31		1,24
12″	59,17,39,15, 9, 1,42,49,25,10		4,20, 5,37, 2	
		19,13, 0,59, 6,29,29		1,24
14″	59,17,39,34,22, 2,41,55,54,39		4,20, 5,38,26	
		19,12,56,39, 0,51, 3		1,24
16″	59,17,39,53,34,59,20,56,45,42		4,20, 5,39,50	
		19,12,52,18,55,11,13		1,24
18″	59,17,40,12,47,51,39,51,56,55		4,20, 5,41,14	
		19,12,47,58,49,29,59		1,24
20″	59,17,40,32, 0,39,38,41,26,54		4,20, 5,42,38	
		19,12,43,38,43,47,21		1,24
22″	59,17,40,51,13,23,17,25,14,15		4,20, 5,44, 2	
		19,12,39,18,38, 3,19		1,24
24″	59,17,41,10,26, 2,36, 3,17,34		4,20, 5,45,26	
		19,12,34,58,32,17,53		1,24
26″	59,17,41,29,38,37,34,35,35,27		4,20, 5,46,50	
		19,12,30,38,26,31, 3		1,24
28″	59,17,41,48,51, 8,13, 2, 6,30		4,20, 5,48,14	
		19,12,26,18,20,42,49		1,24
30″	59,17,42, 8, 3,34,31,22,49,19		4,20, 5,49,38	
		19,12,21,58,14,53,11		1,24
32″	59,17,42,27,15,56,29,37,42,30		4,20, 5,51, 2	
		19,12,17,38, 9, 2, 9		1,24
34″	59,17,42,46,28,14, 7,46,44,39		4,20, 5,52,26	
		19,12,13,18, 3, 9,43		1,24
36″	59,17,43, 5,40,27,25,49,54,22		4,20, 5,53,50	
		19,12, 8,57,57,15,53		1,24
38″	59,17,43,24,52,36,23,47,10,15		4,20, 5,55,14	
		19,12, 4,37,51,20,39		1,24
40″	59,17,43,44, 4,41, 1,38,30,54		4,20, 5,56,38	
		19,12, 0,17,45,24, 1		1,24
42″	59,17,44, 3,16,41,19,23,54,55		4,20, 5,58, 2	
		19,11,55,57,39,25,59		1,24
44″	59,17,44,22,28,37,17, 3,20,54		4,20, 5,59,26	
		19,11,51,37,33,26,33		1,24
46″	59,17,44,41,40,28,54,36,47,27		4,20, 6, 0,50	
		19,11,47,17,27,25,43		1,24
48″	59,17,45, 0,52,16,12, 4,13,10		4,20, 6, 2,14	
		19,11,42,57,21,23,29		1,24
50″	59,17,45,20, 3,59, 9,25,36,39		4,20, 6, 3,38	
		19,11,38,37,15,19,51		1,24
52″	59,17,45,39,15,37,46,40,56,30		4,20, 6, 5, 2	
		19,11,34,17, 9,14,49		1,24
54″	59,17,45,58,27,12, 3,50,11,19		4,20, 6, 6,26	
		19,11,29,57, 3, 8,23		1,24
56″	59,17,46,17,38,42, 0,53,19,42		4,20, 6, 7,50	
		19,11,25,36,57, 0,33		1,24
58″	59,17,46,36,50, 7,37,50,20,15		4,20, 6, 9,14	
		19,11,21,16,50,51,19		
60″	59,17,46,56, 1,28,54,41,11,34			
exact	59,17,46,56, 1,28,54,40,53, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°13′ 0″	59,17,46,56, 1,28,54,40,53, 5			
		19,11,16,56,44,38,47		
2″	59,17,47,15,12,45,51,25,31,52		4,20, 6,12, 9	
		19,11,12,36,38,26,38		1,24
4″	59,17,47,34,23,58,28, 3,58,30		4,20, 6,13,33	
		19,11, 8,16,32,13, 5		1,24
6″	59,17,47,53,35, 6,44,36,11,35		4,20, 6,14,57	
		19,11, 3,56,25,58, 8		1,24
8″	59,17,48,12,46,10,41, 2, 9,43		4,20, 6,16,21	
		19,10,59,36,19,41,47		1,24
10″	59,17,48,31,57,10,17,21,51,30		4,20, 6,17,45	
		19,10,55,16,13,24, 2		1,24
12″	59,17,48,51, 8, 5,33,35,15,32		4,20, 6,19, 9	
		19,10,50,56, 7, 4,53		1,24
14″	59,17,49,10,18,56,29,42,20,25		4,20, 6,20,33	
		19,10,46,36, 0,44,20		1,24
16″	59,17,49,29,29,43, 5,43, 4,45		4,20, 6,21,57	
		19,10,42,15,54,22,23		1,24
18″	59,17,49,48,40,25,21,37,27, 8		4,20, 6,23,21	
		19,10,37,55,47,59, 2		1,24
20″	59,17,50, 7,51, 3,17,25,26,10		4,20, 6,24,45	
		19,10,33,35,41,34,17		1,24
22″	59,17,50,27, 1,36,53, 7, 0,27		4,20, 6,26, 9	
		19,10,29,15,35, 8, 8		1,24
24″	59,17,50,46,12, 6, 8,42, 8,35		4,20, 6,27,33	
		19,10,24,55,28,40,35		1,24
26″	59,17,51, 5,22,31, 4,10,49,10		4,20, 6,28,57	
		19,10,20,35,22,11,38		1,24
28″	59,17,51,24,32,51,39,33, 0,48		4,20, 6,30,21	
		19,10,16,15,15,41,17		1,24
30″	59,17,51,43,43, 7,54,48,42, 5		4,20, 6,31,45	
		19,10,11,55, 9, 9,32		1,24
32″	59,17,52, 2,53,19,49,57,51,37		4,20, 6,33, 9	
		19,10, 7,35, 2,36,23		1,24
34″	59,17,52,22, 3,27,25, 0,28, 0		4,20, 6,34,33	
		19,10, 3,14,56, 1,50		1,24
36″	59,17,52,41,13,30,39,56,29,50		4,20, 6,35,57	
		19, 9,58,54,49,25,53		1,24
38″	59,17,53, 0,23,29,34,45,55,43		4,20, 6,37,21	
		19, 9,54,34,42,48,32		1,24
40″	59,17,53,19,33,24, 9,28,44,15		4,20, 6,38,45	
		19, 9,50,14,36, 9,47		1,24
42″	59,17,53,38,43,14,24, 4,54, 2		4,20, 6,40, 9	
		19, 9,45,54,29,29,38		1,24
44″	59,17,53,57,53, 0,18,34,23,40		4,20, 6,41,33	
		19, 9,41,34,22,48, 5		1,24
46″	59,17,54,17, 2,41,52,57,11,45		4,20, 6,42,57	
		19, 9,37,14,16, 5, 8		1,24
48″	59,17,54,36,12,19, 7,13,16,53		4,20, 6,44,21	
		19, 9,32,54, 9,20,47		1,24
50″	59,17,54,55,21,52, 1,22,37,40		4,20, 6,45,45	
		19, 9,28,34, 2,35, 2		1,24
52″	59,17,55,14,31,20,35,25,12,42		4,20, 6,47, 9	
		19, 9,24,13,55,47,53		1,24
54″	59,17,55,33,40,44,49,21, 0,35		4,20, 6,48,33	
		19, 9,19,53,48,59,20		1,24
56″	59,17,55,52,50, 4,43, 9,59,55		4,20, 6,49,57	
		19, 9,15,33,42, 9,23		1,24
58″	59,17,56,11,59,20,16,52, 9,18		4,20, 6,51,21	
		19, 9,11,13,35,18, 2		
60″	59,17,56,31, 8,31,30,27,27,20			
exact	59,17,56,31, 8,31,30,27,17, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°14′ 0″	59,17,56,31, 8,31,30,27,17, 3			
		19, 9, 6,53,28,24,21		
2″	59,17,56,50,17,38,23,55,41,24		4,20, 6,54,12	
		19, 9, 2,33,21,30, 9		1,24
4″	59,17,57, 9,26,40,57,17,11,33		4,20, 6,55,36	
		19, 8,58,13,14,34,33		1,24
6″	59,17,57,28,35,39,10,31,46, 6		4,20, 6,57, 0	
		19, 8,53,53, 7,37,33		1,24
8″	59,17,57,47,44,33, 3,39,23,39		4,20, 6,58,24	
		19, 8,49,33, 0,39, 9		1,24
10″	59,17,58, 6,53,22,36,40, 2,48		4,20, 6,59,48	
		19, 8,45,12,53,39,21		1,24
12″	59,17,58,26, 2, 7,49,33,42, 9		4,20, 7, 1,12	
		19, 8,40,52,46,38, 9		1,24
14″	59,17,58,45,10,48,42,20,20,18		4,20, 7, 2,36	
		19, 8,36,32,39,35,33		1,24
16″	59,17,59, 4,19,25,14,59,55,51		4,20, 7, 4, 0	
		19, 8,32,12,32,31,33		1,24
18″	59,17,59,23,27,57,27,32,27,24		4,20, 7, 5,24	
		19, 8,27,52,25,26, 9		1,24
20″	59,17,59,42,36,25,19,57,53,33		4,20, 7, 6,48	
		19, 8,23,32,18,19,21		1,24
22″	59,18, 0, 1,44,48,52,16,12,54		4,20, 7, 8,12	
		19, 8,19,12,11,11, 9		1,24
24″	59,18, 0,20,53, 8, 4,27,24, 3		4,20, 7, 9,36	
		19, 8,14,52, 4, 1,33		1,24
26″	59,18, 0,40, 1,22,56,31,25,36		4,20, 7,11, 0	
		19, 8,10,31,56,50,33		1,24
28″	59,18, 0,59, 9,33,28,28,16, 9		4,20, 7,12,24	
		19, 8, 6,11,49,38, 9		1,24
30″	59,18, 1,18,17,39,40,17,54,18		4,20, 7,13,48	
		19, 8, 1,51,42,24,21		1,24
32″	59,18, 1,37,25,41,32, 0,18,39		4,20, 7,15,12	
		19, 7,57,31,35, 9, 9		1,24
34″	59,18, 1,56,33,39, 3,35,27,48		4,20, 7,16,36	
		19, 7,53,11,27,52,33		1,24
36″	59,18, 2,15,41,32,15, 3,20,21		4,20, 7,18, 0	
		19, 7,48,51,20,34,33		1,24
38″	59,18, 2,34,49,21, 6,23,54,54		4,20, 7,19,24	
		19, 7,44,31,13,15, 9		1,24
40″	59,18, 2,53,57, 5,37,37,10, 3		4,20, 7,20,48	
		19, 7,40,11, 5,54,21		1,24
42″	59,18, 3,13, 4,45,48,43, 4,24		4,20, 7,22,12	
		19, 7,35,50,58,32, 9		1,24
44″	59,18, 3,32,12,21,39,41,36,33		4,20, 7,23,36	
		19, 7,31,30,51, 8,33		1,24
46″	59,18, 3,51,19,53,10,32,45, 6		4,20, 7,25, 0	
		19, 7,27,10,43,43,33		1,24
48″	59,18, 4,10,27,20,21,16,28,39		4,20, 7,26,24	
		19, 7,22,50,36,17, 9		1,24
50″	59,18, 4,29,34,43,11,52,45,48		4,20, 7,27,48	
		19, 7,18,30,28,49,21		1,24
52″	59,18, 4,48,42, 1,42,21,35, 9		4,20, 7,29,12	
		19, 7,14,10,21,20, 9		1,24
54″	59,18, 5, 7,49,15,52,42,55,18		4,20, 7,30,36	
		19, 7, 9,50,13,49,33		1,24
56″	59,18, 5,26,56,25,42,56,44,51		4,20, 7,32, 0	
		19, 7, 5,30, 6,17,33		1,24
58″	59,18, 5,46, 3,31,13, 3, 2,24		4,20, 7,33,24	
		19, 7, 1, 9,58,44, 9		
60″	59,18, 6, 5,10,32,23, 1,46,33			
exact	59,18, 6, 5,10,32,23, 1,50,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°15′ 0″	59,18, 6, 5,10,32,23, 1,50,13			
		19, 6,56,49,51, 9,47		
2″	59,18, 6,24,17,29,12,53, 0, 0		4,20, 7,36,10	
		19, 6,52,29,43,33,37		1,24
4″	59,18, 6,43,24,21,42,36,33,37		4,20, 7,37,34	
		19, 6,48, 9,35,56, 3		1,24
6″	59,18, 7, 2,31, 9,52,12,29,40		4,20, 7,38,58	
		19, 6,43,49,28,17, 5		1,24
8″	59,18, 7,21,37,53,41,40,46,45		4,20, 7,40,22	
		19, 6,39,29,20,36,43		1,24
10″	59,18, 7,40,44,33,11, 1,23,28		4,20, 7,41,46	
		19, 6,35, 9,12,54,57		1,24
12″	59,18, 7,59,51, 8,20,14,18,25		4,20, 7,43,10	
		19, 6,30,49, 5,11,47		1,24
14″	59,18, 8,18,57,39, 9,19,30,12		4,20, 7,44,34	
		19, 6,26,28,57,27,13		1,24
16″	59,18, 8,38, 4, 5,38,16,57,25		4,20, 7,45,58	
		19, 6,22, 8,49,41,15		1,24
18″	59,18, 8,57,10,27,47, 6,38,40		4,20, 7,47,22	
		19, 6,17,48,41,53,53		1,24
20″	59,18, 9,16,16,45,35,48,32,33		4,20, 7,48,46	
		19, 6,13,28,34, 5, 7		1,24
22″	59,18, 9,35,22,59, 4,22,37,40		4,20, 7,50,10	
		19, 6, 9, 8,26,14,57		1,24
24″	59,18, 9,54,29, 8,12,48,52,37		4,20, 7,51,34	
		19, 6, 4,48,18,23,23		1,24
26″	59,18,10,13,35,13, 1, 7,16, 0		4,20, 7,52,58	
		19, 6, 0,28,10,30,25		1,24
28″	59,18,10,32,41,13,29,17,46,25		4,20, 7,54,22	
		19, 5,56, 8, 2,36, 3		1,24
30″	59,18,10,51,47, 9,37,20,22,28		4,20, 7,55,46	
		19, 5,51,47,54,40,17		1,24
32″	59,18,11,10,53, 1,25,15, 2,45		4,20, 7,57,10	
		19, 5,47,27,46,43, 7		1,24
34″	59,18,11,29,58,48,53, 1,45,52		4,20, 7,58,34	
		19, 5,43, 7,38,44,33		1,24
36″	59,18,11,49, 4,32, 0,40,30,25		4,20, 7,59,58	
		19, 5,38,47,30,44,35		1,24
38″	59,18,12, 8,10,10,48,11,15, 0		4,20, 8, 1,22	
		19, 5,34,27,22,43,13		1,24
40″	59,18,12,27,15,45,15,33,58,13		4,20, 8, 2,46	
		19, 5,30, 7,14,40,27		1,24
42″	59,18,12,46,21,15,22,48,38,40		4,20, 8, 4,10	
		19, 5,25,47, 6,36,17		1,24
44″	59,18,13, 5,26,41, 9,55,14,57		4,20, 8, 5,34	
		19, 5,21,26,58,30,43		1,24
46″	59,18,13,24,32, 2,36,53,45,40		4,20, 8, 6,58	
		19, 5,17, 6,50,23,45		1,24
48″	59,18,13,43,37,19,43,44, 9,25		4,20, 8, 8,22	
		19, 5,12,46,42,15,23		1,24
50″	59,18,14, 2,42,32,30,26,24,48		4,20, 8, 9,46	
		19, 5, 8,26,34, 5,37		1,24
52″	59,18,14,21,47,40,57, 0,30,25		4,20, 8,11,10	
		19, 5, 4, 6,25,54,27		1,24
54″	59,18,14,40,52,45, 3,26,24,52		4,20, 8,12,34	
		19, 4,59,46,17,41,53		1,24
56″	59,18,14,59,57,44,49,44, 6,45		4,20, 8,13,58	
		19, 4,55,26, 9,27,55		1,24
58″	59,18,15,19, 2,40,15,53,34,40		4,20, 8,15,22	
		19, 4,51, 6, 1,12,33		
60″	59,18,15,38, 7,31,21,54,47,13			
exact	59,18,15,38, 7,31,21,55, 2,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°16′ 0″	59,18,15,38, 7,31,21,55, 2,44			
		19, 4,46,45,52,57,27		
2″	59,18,15,57,12,18, 7,48, 0,11		4,20, 8,18, 3	
		19, 4,42,25,44,39,24		1,24
4″	59,18,16,16,17, 0,33,32,39,35		4,20, 8,19,27	
		19, 4,38, 5,36,19,57		1,24
6″	59,18,16,35,21,38,39, 8,59,32		4,20, 8,20,51	
		19, 4,33,45,27,59, 6		1,24
8″	59,18,16,54,26,12,24,36,58,38		4,20, 8,22,15	
		19, 4,29,25,19,36,51		1,24
10″	59,18,17,13,30,41,49,56,35,29		4,20, 8,23,39	
		19, 4,25, 5,11,13,12		1,24
12″	59,18,17,32,35, 6,55, 7,48,41		4,20, 8,25, 3	
		19, 4,20,45, 2,48, 9		1,24
14″	59,18,17,51,39,27,40,10,36,50		4,20, 8,26,27	
		19, 4,16,24,54,21,42		1,24
16″	59,18,18,10,43,44, 5, 4,58,32		4,20, 8,27,51	
		19, 4,12, 4,45,53,51		1,24
18″	59,18,18,29,47,56, 9,50,52,23		4,20, 8,29,15	
		19, 4, 7,44,37,24,36		1,24
20″	59,18,18,48,52, 3,54,28,16,59		4,20, 8,30,39	
		19, 4, 3,24,28,53,57		1,24
22″	59,18,19, 7,56, 7,18,57,10,56		4,20, 8,32, 3	
		19, 3,59, 4,20,21,54		1,24
24″	59,18,19,27, 0, 6,23,17,32,50		4,20, 8,33,27	
		19, 3,54,44,11,48,27		1,24
26″	59,18,19,46, 4, 1, 7,29,21,17		4,20, 8,34,51	
		19, 3,50,24, 3,13,36		1,24
28″	59,18,20, 5, 7,51,31,32,34,53		4,20, 8,36,15	
		19, 3,46, 3,54,37,21		1,24
30″	59,18,20,24,11,37,35,27,12,14		4,20, 8,37,39	
		19, 3,41,43,45,59,42		1,24
32″	59,18,20,43,15,19,19,13,11,56		4,20, 8,39, 3	
		19, 3,37,23,37,20,39		1,24
34″	59,18,21, 2,18,56,42,50,32,35		4,20, 8,40,27	
		19, 3,33, 3,28,40,12		1,24
36″	59,18,21,21,22,29,46,19,12,47		4,20, 8,41,51	
		19, 3,28,43,19,58,21		1,24
38″	59,18,21,40,25,58,29,39,11, 8		4,20, 8,43,15	
		19, 3,24,23,11,15, 6		1,24
40″	59,18,21,59,29,22,52,50,26,14		4,20, 8,44,39	
		19, 3,20, 3, 2,30,27		1,24
42″	59,18,22,18,32,42,55,52,56,41		4,20, 8,46, 3	
		19, 3,15,42,53,44,24		1,24
44″	59,18,22,37,35,58,38,46,41, 5		4,20, 8,47,27	
		19, 3,11,22,44,56,57		1,24
46″	59,18,22,56,39,10, 1,31,38, 2		4,20, 8,48,51	
		19, 3, 7, 2,36, 8, 6		1,24
48″	59,18,23,15,42,17, 4, 7,46, 8		4,20, 8,50,15	
		19, 3, 2,42,27,17,51		1,24
50″	59,18,23,34,45,19,46,35, 3,59		4,20, 8,51,39	
		19, 2,58,22,18,26,12		1,24
52″	59,18,23,53,48,18, 8,53,30,11		4,20, 8,53, 3	
		19, 2,54, 2, 9,33, 9		1,24
54″	59,18,24,12,51,12,11, 3, 3,20		4,20, 8,54,27	
		19, 2,49,42, 0,38,42		1,24
56″	59,18,24,31,54, 1,53, 3,42, 2		4,20, 8,55,51	
		19, 2,45,21,51,42,51		1,24
58″	59,18,24,50,56,47,14,55,24,53		4,20, 8,57,15	
		19, 2,41, 1,42,45,36		
60″	59,18,25, 9,59,28,16,38,10,29			
exact	59,18,25, 9,59,28,16,38,35,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°17′ 0″	59,18,25, 9,59,28,16,38,35,59			
		19, 2,36,41,33,49,43		
2″	59,18,25,29, 2, 4,58,12,25,42		4,20, 8,59,51	
		19, 2,32,21,24,49,52		1,24
4″	59,18,25,48, 4,37,19,37,15,34		4,20, 9, 1,15	
		19, 2,28, 1,15,48,37		1,24
6″	59,18,26, 7, 7, 5,20,53, 4,11		4,20, 9, 2,39	
		19, 2,23,41, 6,45,58		1,24
8″	59,18,26,26, 9,29, 1,59,50, 9		4,20, 9, 4, 3	
		19, 2,19,20,57,41,55		1,24
10″	59,18,26,45,11,48,22,57,32, 4		4,20, 9, 5,27	
		19, 2,15, 0,48,36,28		1,24
12″	59,18,27, 4,14, 3,23,46, 8,32		4,20, 9, 6,51	
		19, 2,10,40,39,29,37		1,24
14″	59,18,27,23,16,14, 4,25,38, 9		4,20, 9, 8,15	
		19, 2, 6,20,30,21,22		1,24
16″	59,18,27,42,18,20,24,55,59,31		4,20, 9, 9,39	
		19, 2, 2, 0,21,11,43		1,24
18″	59,18,28, 1,20,22,25,17,11,14		4,20, 9,11, 3	
		19, 1,57,40,12, 0,40		1,24
20″	59,18,28,20,22,20, 5,29,11,54		4,20, 9,12,27	
		19, 1,53,20, 2,48,13		1,24
22″	59,18,28,39,24,13,25,32, 0, 7		4,20, 9,13,51	
		19, 1,48,59,53,34,22		1,24
24″	59,18,28,58,26, 2,25,25,34,29		4,20, 9,15,15	
		19, 1,44,39,44,19, 7		1,24
26″	59,18,29,17,27,47, 5, 9,53,36		4,20, 9,16,39	
		19, 1,40,19,35, 2,28		1,24
28″	59,18,29,36,29,27,24,44,56, 4		4,20, 9,18, 3	
		19, 1,35,59,25,44,25		1,24
30″	59,18,29,55,31, 3,24,10,40,29		4,20, 9,19,27	
		19, 1,31,39,16,24,58		1,24
32″	59,18,30,14,32,35, 3,27, 5,27		4,20, 9,20,51	
		19, 1,27,19, 7, 4, 7		1,24
34″	59,18,30,33,34, 2,22,34, 9,34		4,20, 9,22,15	
		19, 1,22,58,57,41,52		1,24
36″	59,18,30,52,35,25,21,31,51,26		4,20, 9,23,39	
		19, 1,18,38,48,18,13		1,24
38″	59,18,31,11,36,44, 0,20, 9,39		4,20, 9,25, 3	
		19, 1,14,18,38,53,10		1,24
40″	59,18,31,30,37,58,18,59, 2,49		4,20, 9,26,27	
		19, 1, 9,58,29,26,43		1,24
42″	59,18,31,49,39, 8,17,28,29,32		4,20, 9,27,51	
		19, 1, 5,38,19,58,52		1,24
44″	59,18,32, 8,40,13,55,48,28,24		4,20, 9,29,15	
		19, 1, 1,18,10,29,37		1,24
46″	59,18,32,27,41,15,13,58,58, 1		4,20, 9,30,39	
		19, 0,56,58, 0,58,58		1,24
48″	59,18,32,46,42,12,11,59,56,59		4,20, 9,32, 3	
		19, 0,52,37,51,26,55		1,24
50″	59,18,33, 5,43, 4,49,51,23,54		4,20, 9,33,27	
		19, 0,48,17,41,53,28		1,24
52″	59,18,33,24,43,53, 7,33,17,22		4,20, 9,34,51	
		19, 0,43,57,32,18,37		1,24
54″	59,18,33,43,44,37, 5, 5,35,59		4,20, 9,36,15	
		19, 0,39,37,22,42,22		1,24
56″	59,18,34, 2,45,16,42,28,18,21		4,20, 9,37,39	
		19, 0,35,17,13, 4,43		1,24
58″	59,18,34,21,45,51,59,41,23, 4		4,20, 9,39, 3	
		19, 0,30,57, 3,25,40		
60″	59,18,34,40,46,22,56,44,48,44			
exact	59,18,34,40,46,22,56,45,22,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°18′ 0″	59,18,34,40,46,22,56,45,22,44			
		19, 0,26,36,53,48,58		
2″	59,18,34,59,46,49,33,39,11,42		4,20, 9,41,35	
		19, 0,22,16,44, 7,23		1,23
4″	59,18,35,18,47,11,50,23,19, 5		4,20, 9,42,58	
		19, 0,17,56,34,24,25		1,23
6″	59,18,35,37,47,29,46,57,43,30		4,20, 9,44,21	
		19, 0,13,36,24,40, 4		1,23
8″	59,18,35,56,47,43,23,22,23,34		4,20, 9,45,44	
		19, 0, 9,16,14,54,20		1,23
10″	59,18,36,15,47,52,39,37,17,54		4,20, 9,47, 7	
		19, 0, 4,56, 5, 7,13		1,23
12″	59,18,36,34,47,57,35,42,25, 7		4,20, 9,48,30	
		19, 0, 0,35,55,18,43		1,23
14″	59,18,36,53,47,58,11,37,43,50		4,20, 9,49,53	
		18,59,56,15,45,28,50		1,23
16″	59,18,37,12,47,54,27,23,12,40		4,20, 9,51,16	
		18,59,51,55,35,37,34		1,23
18″	59,18,37,31,47,46,22,58,50,14		4,20, 9,52,39	
		18,59,47,35,25,44,55		1,23
20″	59,18,37,50,47,33,58,24,35, 9		4,20, 9,54, 2	
		18,59,43,15,15,50,53		1,23
22″	59,18,38, 9,47,17,13,40,26, 2		4,20, 9,55,25	
		18,59,38,55, 5,55,28		1,23
24″	59,18,38,28,46,56, 8,46,21,30		4,20, 9,56,48	
		18,59,34,34,55,58,40		1,23
26″	59,18,38,47,46,30,43,42,20,10		4,20, 9,58,11	
		18,59,30,14,46, 0,29		1,23
28″	59,18,39, 6,46, 0,58,28,20,39		4,20, 9,59,34	
		18,59,25,54,36, 0,55		1,23
30″	59,18,39,25,45,26,53, 4,21,34		4,20,10, 0,57	
		18,59,21,34,25,59,58		1,23
32″	59,18,39,44,44,48,27,30,21,32		4,20,10, 2,20	
		18,59,17,14,15,57,38		1,23
34″	59,18,40, 3,44, 5,41,46,19,10		4,20,10, 3,43	
		18,59,12,54, 5,53,55		1,23
36″	59,18,40,22,43,18,35,52,13, 5		4,20,10, 5, 6	
		18,59, 8,33,55,48,49		1,23
38″	59,18,40,41,42,27, 9,48, 1,54		4,20,10, 6,29	
		18,59, 4,13,45,42,20		1,23
40″	59,18,41, 0,41,31,23,33,44,14		4,20,10, 7,52	
		18,58,59,53,35,34,28		1,23
42″	59,18,41,19,40,31,17, 9,18,42		4,20,10, 9,15	
		18,58,55,33,25,25,13		1,23
44″	59,18,41,38,39,26,50,34,43,55		4,20,10,10,38	
		18,58,51,13,15,14,35		1,23
46″	59,18,41,57,38,18, 3,49,58,30		4,20,10,12, 1	
		18,58,46,53, 5, 2,34		1,23
48″	59,18,42,16,37, 4,56,55, 1, 4		4,20,10,13,24	
		18,58,42,32,54,49,10		1,23
50″	59,18,42,35,35,47,29,49,50,14		4,20,10,14,47	
		18,58,38,12,44,34,23		1,23
52″	59,18,42,54,34,25,42,34,24,37		4,20,10,16,10	
		18,58,33,52,34,18,13		1,23
54″	59,18,43,13,32,59,35, 8,42,50		4,20,10,17,33	
		18,58,29,32,24, 0,40		1,23
56″	59,18,43,32,31,29, 7,32,43,30		4,20,10,18,56	
		18,58,25,12,13,41,44		1,23
58″	59,18,43,51,29,54,19,46,25,14		4,20,10,20,19	
		18,58,20,52, 3,21,25		
60″	59,18,44,10,28,15,11,49,46,39			
exact	59,18,44,10,28,15,11,49,27, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°19′ 0″	59,18,44,10,28,15,11,49,27, 2			
		18,58,16,31,52,57,36		
2″	59,18,44,29,26,31,43,42,24,38		4,20,10,23,13	
		18,58,12,11,42,34,23		1,23
4″	59,18,44,48,24,43,55,24,59, 1		4,20,10,24,36	
		18,58, 7,51,32, 9,47		1,23
6″	59,18,45, 7,22,51,46,57, 8,48		4,20,10,25,59	
		18,58, 3,31,21,43,48		1,23
8″	59,18,45,26,20,55,18,18,52,36		4,20,10,27,22	
		18,57,59,11,11,16,26		1,23
10″	59,18,45,45,18,54,29,30, 9, 2		4,20,10,28,45	
		18,57,54,51, 0,47,41		1,23
12″	59,18,46, 4,16,49,20,30,56,43		4,20,10,30, 8	
		18,57,50,30,50,17,33		1,23
14″	59,18,46,23,14,39,51,21,14,16		4,20,10,31,31	
		18,57,46,10,39,46, 2		1,23
16″	59,18,46,42,12,26, 2, 1, 0,18		4,20,10,32,54	
		18,57,41,50,29,13, 8		1,23
18″	59,18,47, 1,10, 7,52,30,13,26		4,20,10,34,17	
		18,57,37,30,18,38,51		1,23
20″	59,18,47,20, 7,45,22,48,52,17		4,20,10,35,40	
		18,57,33,10, 8, 3,11		1,23
22″	59,18,47,39, 5,18,32,56,55,28		4,20,10,37, 3	
		18,57,28,49,57,26, 8		1,23
24″	59,18,47,58, 2,47,22,54,21,36		4,20,10,38,26	
		18,57,24,29,46,47,42		1,23
26″	59,18,48,17, 0,11,52,41, 9,18		4,20,10,39,49	
		18,57,20, 9,36, 7,53		1,23
28″	59,18,48,35,57,32, 2,17,17,11		4,20,10,41,12	
		18,57,15,49,25,26,41		1,23
30″	59,18,48,54,54,47,51,42,43,52		4,20,10,42,35	
		18,57,11,29,14,44, 6		1,23
32″	59,18,49,13,51,59,20,57,27,58		4,20,10,43,58	
		18,57, 7, 9, 4, 0, 8		1,23
34″	59,18,49,32,49, 6,30, 1,28, 6		4,20,10,45,21	
		18,57, 2,48,53,14,47		1,23
36″	59,18,49,51,46, 9,18,54,42,53		4,20,10,46,44	
		18,56,58,28,42,28, 3		1,23
38″	59,18,50,10,43, 7,47,37,10,56		4,20,10,48, 7	
		18,56,54, 8,31,39,56		1,23
40″	59,18,50,29,40, 1,56, 8,50,52		4,20,10,49,30	
		18,56,49,48,20,50,26		1,23
42″	59,18,50,48,36,51,44,29,41,18		4,20,10,50,53	
		18,56,45,28, 9,59,33		1,23
44″	59,18,51, 7,33,37,12,39,40,51		4,20,10,52,16	
		18,56,41, 7,59, 7,17		1,23
46″	59,18,51,26,30,18,20,38,48, 8		4,20,10,53,39	
		18,56,36,47,48,13,38		1,23
48″	59,18,51,45,26,55, 8,27, 1,46		4,20,10,55, 2	
		18,56,32,27,37,18,36		1,23
50″	59,18,52, 4,23,27,36, 4,20,22		4,20,10,56,25	
		18,56,28, 7,26,22,11		1,23
52″	59,18,52,23,19,55,43,30,42,33		4,20,10,57,48	
		18,56,23,47,15,24,23		1,23
54″	59,18,52,42,16,19,30,46, 6,56		4,20,10,59,11	
		18,56,19,27, 4,25,12		1,23
56″	59,18,53, 1,12,38,57,50,32, 8		4,20,11, 0,34	
		18,56,15, 6,53,24,38		1,23
58″	59,18,53,20, 8,54, 4,43,56,46		4,20,11, 1,57	
		18,56,10,46,42,22,41		
60″	59,18,53,39, 5, 4,51,26,19,27			
exact	59,18,53,39, 5, 4,51,26, 4,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°20′ 0″	59,18,53,39, 5, 4,51,26, 4,15			
		18,56, 6,26,31,17,57		
2″	59,18,53,58, 1,11,17,57,22,12		4,20,11, 4,47	
		18,56, 2, 6,20,13,10		1,23
4″	59,18,54,16,57,13,24,17,35,22		4,20,11, 6,10	
		18,55,57,46, 9, 7, 0		1,23
6″	59,18,54,35,53,11,10,26,42,22		4,20,11, 7,33	
		18,55,53,25,57,59,27		1,23
8″	59,18,54,54,49, 4,36,24,41,49		4,20,11, 8,56	
		18,55,49, 5,46,50,31		1,23
10″	59,18,55,13,44,53,42,11,32,20		4,20,11,10,19	
		18,55,44,45,35,40,12		1,23
12″	59,18,55,32,40,38,27,47,12,32		4,20,11,11,42	
		18,55,40,25,24,28,30		1,23
14″	59,18,55,51,36,18,53,11,41, 2		4,20,11,13, 5	
		18,55,36, 5,13,15,25		1,23
16″	59,18,56,10,31,54,58,24,56,27		4,20,11,14,28	
		18,55,31,45, 2, 0,57		1,23
18″	59,18,56,29,27,26,43,26,57,24		4,20,11,15,51	
		18,55,27,24,50,45, 6		1,23
20″	59,18,56,48,22,54, 8,17,42,30		4,20,11,17,14	
		18,55,23, 4,39,27,52		1,23
22″	59,18,57, 7,18,17,12,57,10,22		4,20,11,18,37	
		18,55,18,44,28, 9,15		1,23
24″	59,18,57,26,13,35,57,25,19,37		4,20,11,20, 0	
		18,55,14,24,16,49,15		1,23
26″	59,18,57,45, 8,50,21,42, 8,52		4,20,11,21,23	
		18,55,10, 4, 5,27,52		1,23
28″	59,18,58, 4, 4, 0,25,47,36,44		4,20,11,22,46	
		18,55, 5,43,54, 5, 6		1,23
30″	59,18,58,22,59, 6, 9,41,41,50		4,20,11,24, 9	
		18,55, 1,23,42,40,57		1,23
32″	59,18,58,41,54, 7,33,24,22,47		4,20,11,25,32	
		18,54,57, 3,31,15,25		1,23
34″	59,18,59, 0,49, 4,36,55,38,12		4,20,11,26,55	
		18,54,52,43,19,48,30		1,23
36″	59,18,59,19,43,57,20,15,26,42		4,20,11,28,18	
		18,54,48,23, 8,20,12		1,23
38″	59,18,59,38,38,45,43,23,46,54		4,20,11,29,41	
		18,54,44, 2,56,50,31		1,23
40″	59,18,59,57,33,29,46,20,37,25		4,20,11,31, 4	
		18,54,39,42,45,19,27		1,23
42″	59,19, 0,16,28, 9,29, 5,56,52		4,20,11,32,27	
		18,54,35,22,33,47, 0		1,23
44″	59,19, 0,35,22,44,51,39,43,52		4,20,11,33,50	
		18,54,31, 2,22,13,10		1,23
46″	59,19, 0,54,17,15,54, 1,57, 2		4,20,11,35,13	
		18,54,26,42,10,37,57		1,23
48″	59,19, 1,13,11,42,36,12,34,59		4,20,11,36,36	
		18,54,22,21,59, 1,21		1,23
50″	59,19, 1,32, 6, 4,58,11,36,20		4,20,11,37,59	
		18,54,18, 1,47,23,22		1,23
52″	59,19, 1,51, 0,22,59,58,59,42		4,20,11,39,22	
		18,54,13,41,35,44, 0		1,23
54″	59,19, 2, 9,54,36,41,34,43,42		4,20,11,40,45	
		18,54, 9,21,24, 3,15		1,23
56″	59,19, 2,28,48,46, 2,58,46,57		4,20,11,42, 8	
		18,54, 5, 1,12,21, 7		1,23
58″	59,19, 2,47,42,51, 4,11, 8, 4		4,20,11,43,31	
		18,54, 0,41, 0,37,36		
60″	59,19, 3, 6,36,51,45,11,45,40			
exact	59,19, 3, 6,36,51,45,11,41, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°21′ 0″	59,19, 3, 6,36,51,45,11,41, 7			
		18,53,56,20,48,52,26		
2″	59,19, 3,25,30,48, 6, 0,33,33		4,20,11,46,17	
		18,53,52, 0,37, 6, 9		1,23
4″	59,19, 3,44,24,40, 6,37,39,42		4,20,11,47,40	
		18,53,47,40,25,18,29		1,23
6″	59,19, 4, 3,18,27,47, 2,58,11		4,20,11,49, 3	
		18,53,43,20,13,29,26		1,23
8″	59,19, 4,22,12,11, 7,16,27,37		4,20,11,50,26	
		18,53,39, 0, 1,39, 0		1,23
10″	59,19, 4,41, 5,50, 7,18, 6,37		4,20,11,51,49	
		18,53,34,39,49,47,11		1,23
12″	59,19, 4,59,59,24,47, 7,53,48		4,20,11,53,12	
		18,53,30,19,37,53,59		1,23
14″	59,19, 5,18,52,55, 6,45,47,47		4,20,11,54,35	
		18,53,25,59,25,59,24		1,23
16″	59,19, 5,37,46,21, 6,11,47,11		4,20,11,55,58	
		18,53,21,39,14, 3,26		1,23
18″	59,19, 5,56,39,42,45,25,50,37		4,20,11,57,21	
		18,53,17,19, 2, 6, 5		1,23
20″	59,19, 6,15,33, 0, 4,27,56,42		4,20,11,58,44	
		18,53,12,58,50, 7,21		1,23
22″	59,19, 6,34,26,13, 3,18, 4, 3		4,20,12, 0, 7	
		18,53, 8,38,38, 7,14		1,23
24″	59,19, 6,53,19,21,41,56,11,17		4,20,12, 1,30	
		18,53, 4,18,26, 5,44		1,23
26″	59,19, 7,12,12,26, 0,22,17, 1		4,20,12, 2,53	
		18,52,59,58,14, 2,51		1,23
28″	59,19, 7,31, 5,25,58,36,19,52		4,20,12, 4,16	
		18,52,55,38, 1,58,35		1,23
30″	59,19, 7,49,58,21,36,38,18,27		4,20,12, 5,39	
		18,52,51,17,49,52,56		1,23
32″	59,19, 8, 8,51,12,54,28,11,23		4,20,12, 7, 2	
		18,52,46,57,37,45,54		1,23
34″	59,19, 8,27,43,59,52, 5,57,17		4,20,12, 8,25	
		18,52,42,37,25,37,29		1,23
36″	59,19, 8,46,36,42,29,31,34,46		4,20,12, 9,48	
		18,52,38,17,13,27,41		1,23
38″	59,19, 9, 5,29,20,46,45, 2,27		4,20,12,11,11	
		18,52,33,57, 1,16,30		1,23
40″	59,19, 9,24,21,54,43,46,18,57		4,20,12,12,34	
		18,52,29,36,49, 3,56		1,23
42″	59,19, 9,43,14,24,20,35,22,53		4,20,12,13,57	
		18,52,25,16,36,49,59		1,23
44″	59,19,10, 2, 6,49,37,12,12,52		4,20,12,15,20	
		18,52,20,56,24,34,39		1,23
46″	59,19,10,20,59,10,33,36,47,31		4,20,12,16,43	
		18,52,16,36,12,17,56		1,23
48″	59,19,10,39,51,27, 9,49, 5,27		4,20,12,18, 6	
		18,52,12,15,59,59,50		1,23
50″	59,19,10,58,43,39,25,49, 5,17		4,20,12,19,29	
		18,52, 7,55,47,40,21		1,23
52″	59,19,11,17,35,47,21,36,45,38		4,20,12,20,52	
		18,52, 3,35,35,19,29		1,23
54″	59,19,11,36,27,50,57,12, 5, 7		4,20,12,22,15	
		18,51,59,15,22,57,14		1,23
56″	59,19,11,55,19,50,12,35, 2,21		4,20,12,23,38	
		18,51,54,55,10,33,36		1,23
58″	59,19,12,14,11,45, 7,45,35,57		4,20,12,25, 1	
		18,51,50,34,58, 8,35		
60″	59,19,12,33, 3,35,42,43,44,32			
exact	59,19,12,33, 3,35,42,43,55,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°22′ 0″	59,19,12,33, 3,35,42,43,55,41			
		18,51,46,14,45,43,25		
2″	59,19,12,51,55,21,57,29,39, 6		4,20,12,27,41	
		18,51,41,54,33,15,44		1,23
4″	59,19,13,10,47, 3,52, 2,54,50		4,20,12,29, 4	
		18,51,37,34,20,46,40		1,23
6″	59,19,13,29,38,41,26,23,41,30		4,20,12,30,27	
		18,51,33,14, 8,16,13		1,23
8″	59,19,13,48,30,14,40,31,57,43		4,20,12,31,50	
		18,51,28,53,55,44,23		1,23
10″	59,19,14, 7,21,43,34,27,42, 6		4,20,12,33,13	
		18,51,24,33,43,11,10		1,23
12″	59,19,14,26,13, 8, 8,10,53,16		4,20,12,34,36	
		18,51,20,13,30,36,34		1,23
14″	59,19,14,45, 4,28,21,41,29,50		4,20,12,35,59	
		18,51,15,53,18, 0,35		1,23
16″	59,19,15, 3,55,44,14,59,30,25		4,20,12,37,22	
		18,51,11,33, 5,23,13		1,23
18″	59,19,15,22,46,55,48, 4,53,38		4,20,12,38,45	
		18,51, 7,12,52,44,28		1,23
20″	59,19,15,41,38, 3, 0,57,38, 6		4,20,12,40, 8	
		18,51, 2,52,40, 4,20		1,23
22″	59,19,16, 0,29, 5,53,37,42,26		4,20,12,41,31	
		18,50,58,32,27,22,49		1,23
24″	59,19,16,19,20, 4,26, 5, 5,15		4,20,12,42,54	
		18,50,54,12,14,39,55		1,23
26″	59,19,16,38,10,58,38,19,45,10		4,20,12,44,17	
		18,50,49,52, 1,55,38		1,23
28″	59,19,16,57, 1,48,30,21,40,48		4,20,12,45,40	
		18,50,45,31,49, 9,58		1,23
30″	59,19,17,15,52,34, 2,10,50,46		4,20,12,47, 3	
		18,50,41,11,36,22,55		1,23
32″	59,19,17,34,43,15,13,47,13,41		4,20,12,48,26	
		18,50,36,51,23,34,29		1,23
34″	59,19,17,53,33,52, 5,10,48,10		4,20,12,49,49	
		18,50,32,31,10,44,40		1,23
36″	59,19,18,12,24,24,36,21,32,50		4,20,12,51,12	
		18,50,28,10,57,53,28		1,23
38″	59,19,18,31,14,52,47,19,26,18		4,20,12,52,35	
		18,50,23,50,45, 0,53		1,23
40″	59,19,18,50, 5,16,38, 4,27,11		4,20,12,53,58	
		18,50,19,30,32, 6,55		1,23
42″	59,19,19, 8,55,36, 8,36,34, 6		4,20,12,55,21	
		18,50,15,10,19,11,34		1,23
44″	59,19,19,27,45,51,18,55,45,40		4,20,12,56,44	
		18,50,10,50, 6,14,50		1,23
46″	59,19,19,46,36, 2, 9, 2, 0,30		4,20,12,58, 7	
		18,50, 6,29,53,16,43		1,23
48″	59,19,20, 5,26, 8,38,55,17,13		4,20,12,59,30	
		18,50, 2, 9,40,17,13		1,23
50″	59,19,20,24,16,10,48,35,34,26		4,20,13, 0,53	
		18,49,57,49,27,16,20		1,23
52″	59,19,20,43, 6, 8,38, 2,50,46		4,20,13, 2,16	
		18,49,53,29,14,14, 4		1,23
54″	59,19,21, 1,56, 2, 7,17, 4,50		4,20,13, 3,39	
		18,49,49, 9, 1,10,25		1,23
56″	59,19,21,20,45,51,16,18,15,15		4,20,13, 5, 2	
		18,49,44,48,48, 5,23		1,23
58″	59,19,21,39,35,36, 5, 6,20,38		4,20,13, 6,25	
		18,49,40,28,34,58,58		
60″	59,19,21,58,25,16,33,41,19,36			
exact	59,19,21,58,25,16,33,41,37,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°23′ 0″	59,19,21,58,25,16,33,41,37,18			
		18,49,36, 8,21,53,16		
2″	59,19,22,17,14,52,42, 3,30,34		4,20,13, 9, 1	
		18,49,31,48, 8,44,15		1,23
4″	59,19,22,36, 4,24,30,12,14,49		4,20,13,10,24	
		18,49,27,27,55,33,51		1,23
6″	59,19,22,54,53,51,58, 7,48,40		4,20,13,11,47	
		18,49,23, 7,42,22, 4		1,23
8″	59,19,23,13,43,15, 5,50,10,44		4,20,13,13,10	
		18,49,18,47,29, 8,54		1,23
10″	59,19,23,32,32,33,53,19,19,38		4,20,13,14,33	
		18,49,14,27,15,54,21		1,23
12″	59,19,23,51,21,48,20,35,13,59		4,20,13,15,56	
		18,49,10, 7, 2,38,25		1,23
14″	59,19,24,10,10,58,27,37,52,24		4,20,13,17,19	
		18,49, 5,46,49,21, 6		1,23
16″	59,19,24,29, 0, 4,14,27,13,30		4,20,13,18,42	
		18,49, 1,26,36, 2,24		1,23
18″	59,19,24,47,49, 5,41, 3,15,54		4,20,13,20, 5	
		18,48,57, 6,22,42,19		1,23
20″	59,19,25, 6,38, 2,47,25,58,13		4,20,13,21,28	
		18,48,52,46, 9,20,51		1,23
22″	59,19,25,25,26,55,33,35,19, 4		4,20,13,22,51	
		18,48,48,25,55,58, 0		1,23
24″	59,19,25,44,15,43,59,31,17, 4		4,20,13,24,14	
		18,48,44, 5,42,33,46		1,23
26″	59,19,26, 3, 4,28, 5,13,50,50		4,20,13,25,37	
		18,48,39,45,29, 8, 9		1,23
28″	59,19,26,21,53, 7,50,42,58,59		4,20,13,27, 0	
		18,48,35,25,15,41, 9		1,23
30″	59,19,26,40,41,43,15,58,40, 8		4,20,13,28,23	
		18,48,31, 5, 2,12,46		1,23
32″	59,19,26,59,30,14,21, 0,52,54		4,20,13,29,46	
		18,48,26,44,48,43, 0		1,23
34″	59,19,27,18,18,41, 5,49,35,54		4,20,13,31, 9	
		18,48,22,24,35,11,51		1,23
36″	59,19,27,37, 7, 3,30,24,47,45		4,20,13,32,32	
		18,48,18, 4,21,39,19		1,23
38″	59,19,27,55,55,21,34,46,27, 4		4,20,13,33,55	
		18,48,13,44, 8, 5,24		1,23
40″	59,19,28,14,43,35,18,54,32,28		4,20,13,35,18	
		18,48, 9,23,54,30, 6		1,23
42″	59,19,28,33,31,44,42,49, 2,34		4,20,13,36,41	
		18,48, 5, 3,40,53,25		1,23
44″	59,19,28,52,19,49,46,29,55,59		4,20,13,38, 4	
		18,48, 0,43,27,15,21		1,23
46″	59,19,29,11, 7,50,29,57,11,20		4,20,13,39,27	
		18,47,56,23,13,35,54		1,23
48″	59,19,29,29,55,46,53,10,47,14		4,20,13,40,50	
		18,47,52, 2,59,55, 4		1,23
50″	59,19,29,48,43,38,56,10,42,18		4,20,13,42,13	
		18,47,47,42,46,12,51		1,23
52″	59,19,30, 7,31,26,38,56,55, 9		4,20,13,43,36	
		18,47,43,22,32,29,15		1,23
54″	59,19,30,26,19,10, 1,29,24,24		4,20,13,44,59	
		18,47,39, 2,18,44,16		1,23
56″	59,19,30,45, 6,49, 3,48, 8,40		4,20,13,46,22	
		18,47,34,42, 4,57,54		1,23
58″	59,19,31, 3,54,23,45,53, 6,34		4,20,13,47,45	
		18,47,30,21,51,10, 9		
60″	59,19,31,22,41,54, 7,44,16,43			
exact	59,19,31,22,41,54, 7,44,46,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°24′ 0″	59,19,31,22,41,54, 7,44,46,42			
		18,47,26, 1,37,24,22		
2″	59,19,31,41,29,20, 9,22,11, 4		4,20,13,50,16	
		18,47,21,41,23,34, 6		1,22
4″	59,19,32, 0,16,41,50,45,45,10		4,20,13,51,38	
		18,47,17,21, 9,42,28		1,22
6″	59,19,32,19, 3,59,11,55,27,38		4,20,13,53, 0	
		18,47,13, 0,55,49,28		1,22
8″	59,19,32,37,51,12,12,51,17, 6		4,20,13,54,22	
		18,47, 8,40,41,55, 6		1,22
10″	59,19,32,56,38,20,53,33,12,12		4,20,13,55,44	
		18,47, 4,20,27,59,22		1,22
12″	59,19,33,15,25,25,14, 1,11,34		4,20,13,57, 6	
		18,47, 0, 0,14, 2,16		1,22
14″	59,19,33,34,12,25,14,15,13,50		4,20,13,58,28	
		18,46,55,40, 0, 3,48		1,22
16″	59,19,33,52,59,20,54,15,17,38		4,20,13,59,50	
		18,46,51,19,46, 3,58		1,22
18″	59,19,34,11,46,12,14, 1,21,36		4,20,14, 1,12	
		18,46,46,59,32, 2,46		1,22
20″	59,19,34,30,32,59,13,33,24,22		4,20,14, 2,34	
		18,46,42,39,18, 0,12		1,22
22″	59,19,34,49,19,41,52,51,24,34		4,20,14, 3,56	
		18,46,38,19, 3,56,16		1,22
24″	59,19,35, 8, 6,20,11,55,20,50		4,20,14, 5,18	
		18,46,33,58,49,50,58		1,22
26″	59,19,35,26,52,54,10,45,11,48		4,20,14, 6,40	
		18,46,29,38,35,44,18		1,22
28″	59,19,35,45,39,23,49,20,56, 6		4,20,14, 8, 2	
		18,46,25,18,21,36,16		1,22
30″	59,19,36, 4,25,49, 7,42,32,22		4,20,14, 9,24	
		18,46,20,58, 7,26,52		1,22
32″	59,19,36,23,12,10, 5,49,59,14		4,20,14,10,46	
		18,46,16,37,53,16, 6		1,22
34″	59,19,36,41,58,26,43,43,15,20		4,20,14,12, 8	
		18,46,12,17,39, 3,58		1,22
36″	59,19,37, 0,44,39, 1,22,19,18		4,20,14,13,30	
		18,46, 7,57,24,50,28		1,22
38″	59,19,37,19,30,46,58,47, 9,46		4,20,14,14,52	
		18,46, 3,37,10,35,36		1,22
40″	59,19,37,38,16,50,35,57,45,22		4,20,14,16,14	
		18,45,59,16,56,19,22		1,22
42″	59,19,37,57, 2,49,52,54, 4,44		4,20,14,17,36	
		18,45,54,56,42, 1,46		1,22
44″	59,19,38,15,48,44,49,36, 6,30		4,20,14,18,58	
		18,45,50,36,27,42,48		1,22
46″	59,19,38,34,34,35,26, 3,49,18		4,20,14,20,20	
		18,45,46,16,13,22,28		1,22
48″	59,19,38,53,20,21,42,17,11,46		4,20,14,21,42	
		18,45,41,55,59, 0,46		1,22
50″	59,19,39,12, 6, 3,38,16,12,32		4,20,14,23, 4	
		18,45,37,35,44,37,42		1,22
52″	59,19,39,30,51,41,14, 0,50,14		4,20,14,24,26	
		18,45,33,15,30,13,16		1,22
54″	59,19,39,49,37,14,29,31, 3,30		4,20,14,25,48	
		18,45,28,55,15,47,28		1,22
56″	59,19,40, 8,22,43,24,46,50,58		4,20,14,27,10	
		18,45,24,35, 1,20,18		1,22
58″	59,19,40,27, 8, 7,59,48,11,16		4,20,14,28,32	
		18,45,20,14,46,51,46		
60″	59,19,40,45,53,28,14,35, 3, 2			
exact	59,19,40,45,53,28,14,34,35,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°25′ 0″	59,19,40,45,53,28,14,34,35,56			
		18,45,15,54,32,19, 6		
2″	59,19,41, 4,38,44, 9, 6,55, 2		4,20,14,31,26	
		18,45,11,34,17,47,40		1,22
4″	59,19,41,23,23,55,43,24,42,42		4,20,14,32,48	
		18,45, 7,14, 3,14,52		1,22
6″	59,19,41,42, 9, 2,57,27,57,34		4,20,14,34,10	
		18,45, 2,53,48,40,42		1,22
8″	59,19,42, 0,54, 5,51,16,38,16		4,20,14,35,32	
		18,44,58,33,34, 5,10		1,22
10″	59,19,42,19,39, 4,24,50,43,26		4,20,14,36,54	
		18,44,54,13,19,28,16		1,22
12″	59,19,42,38,23,58,38,10,11,42		4,20,14,38,16	
		18,44,49,53, 4,50, 0		1,22
14″	59,19,42,57, 8,48,31,15, 1,42		4,20,14,39,38	
		18,44,45,32,50,10,22		1,22
16″	59,19,43,15,53,34, 4, 5,12, 4		4,20,14,41, 0	
		18,44,41,12,35,29,22		1,22
18″	59,19,43,34,38,15,16,40,41,26		4,20,14,42,22	
		18,44,36,52,20,47, 0		1,22
20″	59,19,43,53,22,52, 9, 1,28,26		4,20,14,43,44	
		18,44,32,32, 6, 3,16		1,22
22″	59,19,44,12, 7,24,41, 7,31,42		4,20,14,45, 6	
		18,44,28,11,51,18,10		1,22
24″	59,19,44,30,51,52,52,58,49,52		4,20,14,46,28	
		18,44,23,51,36,31,42		1,22
26″	59,19,44,49,36,16,44,35,21,34		4,20,14,47,50	
		18,44,19,31,21,43,52		1,22
28″	59,19,45, 8,20,36,15,57, 5,26		4,20,14,49,12	
		18,44,15,11, 6,54,40		1,22
30″	59,19,45,27, 4,51,27, 4, 0, 6		4,20,14,50,34	
		18,44,10,50,52, 4, 6		1,22
32″	59,19,45,45,49, 2,17,56, 4,12		4,20,14,51,56	
		18,44, 6,30,37,12,10		1,22
34″	59,19,46, 4,33, 8,48,33,16,22		4,20,14,53,18	
		18,44, 2,10,22,18,52		1,22
36″	59,19,46,23,17,10,58,55,35,14		4,20,14,54,40	
		18,43,57,50, 7,24,12		1,22
38″	59,19,46,42, 1, 8,49, 2,59,26		4,20,14,56, 2	
		18,43,53,29,52,28,10		1,22
40″	59,19,47, 0,45, 2,18,55,27,36		4,20,14,57,24	
		18,43,49, 9,37,30,46		1,22
42″	59,19,47,19,28,51,28,32,58,22		4,20,14,58,46	
		18,43,44,49,22,32, 0		1,22
44″	59,19,47,38,12,36,17,55,30,22		4,20,15, 0, 8	
		18,43,40,29, 7,31,52		1,22
46″	59,19,47,56,56,16,47, 3, 2,14		4,20,15, 1,30	
		18,43,36, 8,52,30,22		1,22
48″	59,19,48,15,39,52,55,55,32,36		4,20,15, 2,52	
		18,43,31,48,37,27,30		1,22
50″	59,19,48,34,23,24,44,33, 0, 6		4,20,15, 4,14	
		18,43,27,28,22,23,16		1,22
52″	59,19,48,53, 6,52,12,55,23,22		4,20,15, 5,36	
		18,43,23, 8, 7,17,40		1,22
54″	59,19,49,11,50,15,21, 2,41, 2		4,20,15, 6,58	
		18,43,18,47,52,10,42		1,22
56″	59,19,49,30,33,34, 8,54,51,44		4,20,15, 8,20	
		18,43,14,27,37, 2,22		1,22
58″	59,19,49,49,16,48,36,31,54, 6		4,20,15, 9,42	
		18,43,10, 7,21,52,40		
60″	59,19,50, 7,59,58,43,53,46,46			
exact	59,19,50, 7,59,58,43,53,28,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°26′ 0″	59,19,50, 7,59,58,43,53,28,24			
		18,43, 5,47, 6,39,51		
2″	59,19,50,26,43, 4,31, 0, 8,15		4,20,15,12,32	
		18,43, 1,26,51,27,19		1,22
4″	59,19,50,45,26, 5,57,51,35,34		4,20,15,13,54	
		18,42,57, 6,36,13,25		1,22
6″	59,19,51, 4, 9, 3, 4,27,48,59		4,20,15,15,16	
		18,42,52,46,20,58, 9		1,22
8″	59,19,51,22,51,55,50,48,47, 8		4,20,15,16,38	
		18,42,48,26, 5,41,31		1,22
10″	59,19,51,41,34,44,16,54,28,39		4,20,15,18, 0	
		18,42,44, 5,50,23,31		1,22
12″	59,19,52, 0,17,28,22,44,52,10		4,20,15,19,22	
		18,42,39,45,35, 4, 9		1,22
14″	59,19,52,19, 0, 8, 8,19,56,19		4,20,15,20,44	
		18,42,35,25,19,43,25		1,22
16″	59,19,52,37,42,43,33,39,39,44		4,20,15,22, 6	
		18,42,31, 5, 4,21,19		1,22
18″	59,19,52,56,25,14,38,44, 1, 3		4,20,15,23,28	
		18,42,26,44,48,57,51		1,22
20″	59,19,53,15, 7,41,23,32,58,54		4,20,15,24,50	
		18,42,22,24,33,33, 1		1,22
22″	59,19,53,33,50, 3,48, 6,31,55		4,20,15,26,12	
		18,42,18, 4,18, 6,49		1,22
24″	59,19,53,52,32,21,52,24,38,44		4,20,15,27,34	
		18,42,13,44, 2,39,15		1,22
26″	59,19,54,11,14,35,36,27,17,59		4,20,15,28,56	
		18,42, 9,23,47,10,19		1,22
28″	59,19,54,29,56,45, 0,14,28,18		4,20,15,30,18	
		18,42, 5, 3,31,40, 1		1,22
30″	59,19,54,48,38,50, 3,46, 8,19		4,20,15,31,40	
		18,42, 0,43,16, 8,21		1,22
32″	59,19,55, 7,20,50,47, 2,16,40		4,20,15,33, 2	
		18,41,56,23, 0,35,19		1,22
34″	59,19,55,26, 2,47,10, 2,51,59		4,20,15,34,24	
		18,41,52, 2,45, 0,55		1,22
36″	59,19,55,44,44,39,12,47,52,54		4,20,15,35,46	
		18,41,47,42,29,25, 9		1,22
38″	59,19,56, 3,26,26,55,17,18, 3		4,20,15,37, 8	
		18,41,43,22,13,48, 1		1,22
40″	59,19,56,22, 8,10,17,31, 6, 4		4,20,15,38,30	
		18,41,39, 1,58, 9,31		1,22
42″	59,19,56,40,49,49,19,29,15,35		4,20,15,39,52	
		18,41,34,41,42,29,39		1,22
44″	59,19,56,59,31,24, 1,11,45,14		4,20,15,41,14	
		18,41,30,21,26,48,25		1,22
46″	59,19,57,18,12,54,22,38,33,39		4,20,15,42,36	
		18,41,26, 1,11, 5,49		1,22
48″	59,19,57,36,54,20,23,49,39,28		4,20,15,43,58	
		18,41,21,40,55,21,51		1,22
50″	59,19,57,55,35,42, 4,45, 1,19		4,20,15,45,20	
		18,41,17,20,39,36,31		1,22
52″	59,19,58,14,16,59,25,24,37,50		4,20,15,46,42	
		18,41,13, 0,23,49,49		1,22
54″	59,19,58,32,58,12,25,48,27,39		4,20,15,48, 4	
		18,41, 8,40, 8, 1,45		1,22
56″	59,19,58,51,39,21, 5,56,29,24		4,20,15,49,26	
		18,41, 4,19,52,12,19		1,22
58″	59,19,59,10,20,25,25,48,41,43		4,20,15,50,48	
		18,40,59,59,36,21,31		
60″	59,19,59,29, 1,25,25,25, 3,14			
exact	59,19,59,29, 1,25,25,24,58,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°27′ 0″	59,19,59,29, 1,25,25,24,58,51			
		18,40,55,39,20,28,59		
2″	59,19,59,47,42,21, 4,45,27,50		4,20,15,53,33	
		18,40,51,19, 4,35,26		1,22
4″	59,20, 0, 6,23,12,23,50, 3,16		4,20,15,54,55	
		18,40,46,58,48,40,31		1,22
6″	59,20, 0,25, 3,59,22,38,43,47		4,20,15,56,17	
		18,40,42,38,32,44,14		1,22
8″	59,20, 0,43,44,42, 1,11,28, 1		4,20,15,57,39	
		18,40,38,18,16,46,35		1,22
10″	59,20, 1, 2,25,20,19,28,14,36		4,20,15,59, 1	
		18,40,33,58, 0,47,34		1,22
12″	59,20, 1,21, 5,54,17,29, 2,10		4,20,16, 0,23	
		18,40,29,37,44,47,11		1,22
14″	59,20, 1,39,46,23,55,13,49,21		4,20,16, 1,45	
		18,40,25,17,28,45,26		1,22
16″	59,20, 1,58,26,49,12,42,34,47		4,20,16, 3, 7	
		18,40,20,57,12,42,19		1,22
18″	59,20, 2,17, 7,10, 9,55,17, 6		4,20,16, 4,29	
		18,40,16,36,56,37,50		1,22
20″	59,20, 2,35,47,26,46,51,54,56		4,20,16, 5,51	
		18,40,12,16,40,31,59		1,22
22″	59,20, 2,54,27,39, 3,32,26,55		4,20,16, 7,13	
		18,40, 7,56,24,24,46		1,22
24″	59,20, 3,13, 7,46,59,56,51,41		4,20,16, 8,35	
		18,40, 3,36, 8,16,11		1,22
26″	59,20, 3,31,47,50,36, 5, 7,52		4,20,16, 9,57	
		18,39,59,15,52, 6,14		1,22
28″	59,20, 3,50,27,49,51,57,14, 6		4,20,16,11,19	
		18,39,54,55,35,54,55		1,22
30″	59,20, 4, 9, 7,44,47,33, 9, 1		4,20,16,12,41	
		18,39,50,35,19,42,14		1,22
32″	59,20, 4,27,47,35,22,52,51,15		4,20,16,14, 3	
		18,39,46,15, 3,28,11		1,22
34″	59,20, 4,46,27,21,37,56,19,26		4,20,16,15,25	
		18,39,41,54,47,12,46		1,22
36″	59,20, 5, 5, 7, 3,32,43,32,12		4,20,16,16,47	
		18,39,37,34,30,55,59		1,22
38″	59,20, 5,23,46,41, 7,14,28,11		4,20,16,18, 9	
		18,39,33,14,14,37,50		1,22
40″	59,20, 5,42,26,14,21,29, 6, 1		4,20,16,19,31	
		18,39,28,53,58,18,19		1,22
42″	59,20, 6, 1, 5,43,15,27,24,20		4,20,16,20,53	
		18,39,24,33,41,57,26		1,22
44″	59,20, 6,19,45, 7,49, 9,21,46		4,20,16,22,15	
		18,39,20,13,25,35,11		1,22
46″	59,20, 6,38,24,28, 2,34,56,57		4,20,16,23,37	
		18,39,15,53, 9,11,34		1,22
48″	59,20, 6,57, 3,43,55,44, 8,31		4,20,16,24,59	
		18,39,11,32,52,46,35		1,22
50″	59,20, 7,15,42,55,28,36,55, 6		4,20,16,26,21	
		18,39, 7,12,36,20,14		1,22
52″	59,20, 7,34,22, 2,41,13,15,20		4,20,16,27,43	
		18,39, 2,52,19,52,31		1,22
54″	59,20, 7,53, 1, 5,33,33, 7,51		4,20,16,29, 5	
		18,38,58,32, 3,23,26		1,22
56″	59,20, 8,11,40, 4, 5,36,31,17		4,20,16,30,27	
		18,38,54,11,46,52,59		1,22
58″	59,20, 8,30,18,58,17,23,24,16		4,20,16,31,49	
		18,38,49,51,30,21,10		
60″	59,20, 8,48,57,48, 8,53,45,26			
exact	59,20, 8,48,57,48, 8,53,53,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°28′ 0″	59,20, 8,48,57,48, 8,53,53,22			
		18,38,45,31,13,48,52		
2″	59,20, 9, 7,36,33,40, 7,42,14		4,20,16,34,29	
		18,38,41,10,57,14,23		1,22
4″	59,20, 9,26,15,14,51, 4,56,37		4,20,16,35,51	
		18,38,36,50,40,38,32		1,22
6″	59,20, 9,44,53,51,41,45,35, 9		4,20,16,37,13	
		18,38,32,30,24, 1,19		1,22
8″	59,20,10, 3,32,24,12, 9,36,28		4,20,16,38,35	
		18,38,28,10, 7,22,44		1,22
10″	59,20,10,22,10,52,22,16,59,12		4,20,16,39,57	
		18,38,23,49,50,42,47		1,22
12″	59,20,10,40,49,16,12, 7,41,59		4,20,16,41,19	
		18,38,19,29,34, 1,28		1,22
14″	59,20,10,59,27,35,41,41,43,27		4,20,16,42,41	
		18,38,15, 9,17,18,47		1,22
16″	59,20,11,18, 5,50,50,59, 2,14		4,20,16,44, 3	
		18,38,10,49, 0,34,44		1,22
18″	59,20,11,36,44, 1,39,59,36,58		4,20,16,45,25	
		18,38, 6,28,43,49,19		1,22
20″	59,20,11,55,22, 8, 8,43,26,17		4,20,16,46,47	
		18,38, 2, 8,27, 2,32		1,22
22″	59,20,12,14, 0,10,17,10,28,49		4,20,16,48, 9	
		18,37,57,48,10,14,23		1,22
24″	59,20,12,32,38, 8, 5,20,43,12		4,20,16,49,31	
		18,37,53,27,53,24,52		1,22
26″	59,20,12,51,16, 1,33,14, 8, 4		4,20,16,50,53	
		18,37,49, 7,36,33,59		1,22
28″	59,20,13, 9,53,50,40,50,42, 3		4,20,16,52,15	
		18,37,44,47,19,41,44		1,22
30″	59,20,13,28,31,35,28,10,23,47		4,20,16,53,37	
		18,37,40,27, 2,48, 7		1,22
32″	59,20,13,47, 9,15,55,13,11,54		4,20,16,54,59	
		18,37,36, 6,45,53, 8		1,22
34″	59,20,14, 5,46,52, 1,59, 5, 2		4,20,16,56,21	
		18,37,31,46,28,56,47		1,22
36″	59,20,14,24,24,23,48,28, 1,49		4,20,16,57,43	
		18,37,27,26,11,59, 4		1,22
38″	59,20,14,43, 1,51,14,40, 0,53		4,20,16,59, 5	
		18,37,23, 5,54,59,59		1,22
40″	59,20,15, 1,39,14,20,35, 0,52		4,20,17, 0,27	
		18,37,18,45,37,59,32		1,22
42″	59,20,15,20,16,33, 6,13, 0,24		4,20,17, 1,49	
		18,37,14,25,20,57,43		1,22
44″	59,20,15,38,53,47,31,33,58, 7		4,20,17, 3,11	
		18,37,10, 5, 3,54,32		1,22
46″	59,20,15,57,30,57,36,37,52,39		4,20,17, 4,33	
		18,37, 5,44,46,49,59		1,22
48″	59,20,16,16, 8, 3,21,24,42,38		4,20,17, 5,55	
		18,37, 1,24,29,44, 4		1,22
50″	59,20,16,34,45, 4,45,54,26,42		4,20,17, 7,17	
		18,36,57, 4,12,36,47		1,22
52″	59,20,16,53,22, 1,50, 7, 3,29		4,20,17, 8,39	
		18,36,52,43,55,28, 8		1,22
54″	59,20,17,11,58,54,34, 2,31,37		4,20,17,10, 1	
		18,36,48,23,38,18, 7		1,22
56″	59,20,17,30,35,42,57,40,49,44		4,20,17,11,23	
		18,36,44, 3,21, 6,44		1,22
58″	59,20,17,49,12,27, 1, 1,56,28		4,20,17,12,45	
		18,36,39,43, 3,53,59		
60″	59,20,18, 7,49, 6,44, 5,50,27			
exact	59,20,18, 7,49, 6,44, 6, 9,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°29′ 0″	59,20,18, 7,49, 6,44, 6, 9,25			
		18,36,35,22,46,41,55		
2″	59,20,18,26,25,42, 6,52,51,20		4,20,17,15,20	
		18,36,31, 2,29,26,35		1,22
4″	59,20,18,45, 2,13, 9,22,17,55		4,20,17,16,42	
		18,36,26,42,12, 9,53		1,22
6″	59,20,19, 3,38,39,51,34,27,48		4,20,17,18, 4	
		18,36,22,21,54,51,49		1,22
8″	59,20,19,22,15, 2,13,29,19,37		4,20,17,19,26	
		18,36,18, 1,37,32,23		1,22
10″	59,20,19,40,51,20,15, 6,52, 0		4,20,17,20,48	
		18,36,13,41,20,11,35		1,22
12″	59,20,19,59,27,33,56,27, 3,35		4,20,17,22,10	
		18,36, 9,21, 2,49,25		1,22
14″	59,20,20,18, 3,43,17,29,53, 0		4,20,17,23,32	
		18,36, 5, 0,45,25,53		1,22
16″	59,20,20,36,39,48,18,15,18,53		4,20,17,24,54	
		18,36, 0,40,28, 0,59		1,22
18″	59,20,20,55,15,48,58,43,19,52		4,20,17,26,16	
		18,35,56,20,10,34,43		1,22
20″	59,20,21,13,51,45,18,53,54,35		4,20,17,27,38	
		18,35,51,59,53, 7, 5		1,22
22″	59,20,21,32,27,37,18,47, 1,40		4,20,17,29, 0	
		18,35,47,39,35,38, 5		1,22
24″	59,20,21,51, 3,24,58,22,39,45		4,20,17,30,22	
		18,35,43,19,18, 7,43		1,22
26″	59,20,22, 9,39, 8,17,40,47,28		4,20,17,31,44	
		18,35,38,59, 0,35,59		1,22
28″	59,20,22,28,14,47,16,41,23,27		4,20,17,33, 6	
		18,35,34,38,43, 2,53		1,22
30″	59,20,22,46,50,21,55,24,26,20		4,20,17,34,28	
		18,35,30,18,25,28,25		1,22
32″	59,20,23, 5,25,52,13,49,54,45		4,20,17,35,50	
		18,35,25,58, 7,52,35		1,22
34″	59,20,23,24, 1,18,11,57,47,20		4,20,17,37,12	
		18,35,21,37,50,15,23		1,22
36″	59,20,23,42,36,39,49,48, 2,43		4,20,17,38,34	
		18,35,17,17,32,36,49		1,22
38″	59,20,24, 1,11,57, 7,20,39,32		4,20,17,39,56	
		18,35,12,57,14,56,53		1,22
40″	59,20,24,19,47,10, 4,35,36,25		4,20,17,41,18	
		18,35, 8,36,57,15,35		1,22
42″	59,20,24,38,22,18,41,32,52, 0		4,20,17,42,40	
		18,35, 4,16,39,32,55		1,22
44″	59,20,24,56,57,22,58,12,24,55		4,20,17,44, 2	
		18,34,59,56,21,48,53		1,22
46″	59,20,25,15,32,22,54,34,13,48		4,20,17,45,24	
		18,34,55,36, 4, 3,29		1,22
48″	59,20,25,34, 7,18,30,38,17,17		4,20,17,46,46	
		18,34,51,15,46,16,43		1,22
50″	59,20,25,52,42, 9,46,24,34, 0		4,20,17,48, 8	
		18,34,46,55,28,28,35		1,22
52″	59,20,26,11,16,56,41,53, 2,35		4,20,17,49,30	
		18,34,42,35,10,39, 5		1,22
54″	59,20,26,29,51,39,17, 3,41,40		4,20,17,50,52	
		18,34,38,14,52,48,13		1,22
56″	59,20,26,48,26,17,31,56,29,53		4,20,17,52,14	
		18,34,33,54,34,55,59		1,22
58″	59,20,27, 7, 0,51,26,31,25,52		4,20,17,53,36	
		18,34,29,34,17, 2,23		
60″	59,20,27,25,35,21, 0,48,28,15			
exact	59,20,27,25,35,21, 0,48,55,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°30′ 0″	59,20,27,25,35,21, 0,48,55,47			
		18,34,25,13,59,10,29		
2″	59,20,27,44, 9,46,14,48, 6,16		4,20,17,56, 7	
		18,34,20,53,41,14,22		1,21
4″	59,20,28, 2,44, 7, 8,29,20,38		4,20,17,57,28	
		18,34,16,33,23,16,54		1,21
6″	59,20,28,21,18,23,41,52,37,32		4,20,17,58,49	
		18,34,12,13, 5,18, 5		1,21
8″	59,20,28,39,52,35,54,57,55,37		4,20,18, 0,10	
		18,34, 7,52,47,17,55		1,21
10″	59,20,28,58,26,43,47,45,13,32		4,20,18, 1,31	
		18,34, 3,32,29,16,24		1,21
12″	59,20,29,17, 0,47,20,14,29,56		4,20,18, 2,52	
		18,33,59,12,11,13,32		1,21
14″	59,20,29,35,34,46,32,25,43,28		4,20,18, 4,13	
		18,33,54,51,53, 9,19		1,21
16″	59,20,29,54, 8,41,24,18,52,47		4,20,18, 5,34	
		18,33,50,31,35, 3,45		1,21
18″	59,20,30,12,42,31,55,53,56,32		4,20,18, 6,55	
		18,33,46,11,16,56,50		1,21
20″	59,20,30,31,16,18, 7,10,53,22		4,20,18, 8,16	
		18,33,41,50,58,48,34		1,21
22″	59,20,30,49,49,59,58, 9,41,56		4,20,18, 9,37	
		18,33,37,30,40,38,57		1,21
24″	59,20,31, 8,23,37,28,50,20,53		4,20,18,10,58	
		18,33,33,10,22,27,59		1,21
26″	59,20,31,26,57,10,39,12,48,52		4,20,18,12,19	
		18,33,28,50, 4,15,40		1,21
28″	59,20,31,45,30,39,29,17, 4,32		4,20,18,13,40	
		18,33,24,29,46, 2, 0		1,21
30″	59,20,32, 4, 4, 3,59, 3, 6,32		4,20,18,15, 1	
		18,33,20, 9,27,46,59		1,21
32″	59,20,32,22,37,24, 8,30,53,31		4,20,18,16,22	
		18,33,15,49, 9,30,37		1,21
34″	59,20,32,41,10,39,57,40,24, 8		4,20,18,17,43	
		18,33,11,28,51,12,54		1,21
36″	59,20,32,59,43,51,26,31,37, 2		4,20,18,19, 4	
		18,33, 7, 8,32,53,50		1,21
38″	59,20,33,18,16,58,35, 4,30,52		4,20,18,20,25	
		18,33, 2,48,14,33,25		1,21
40″	59,20,33,36,50, 1,23,19, 4,17		4,20,18,21,46	
		18,32,58,27,56,11,39		1,21
42″	59,20,33,55,22,59,51,15,15,56		4,20,18,23, 7	
		18,32,54, 7,37,48,32		1,21
44″	59,20,34,13,55,53,58,53, 4,28		4,20,18,24,28	
		18,32,49,47,19,24, 4		1,21
46″	59,20,34,32,28,43,46,12,28,32		4,20,18,25,49	
		18,32,45,27, 0,58,15		1,21
48″	59,20,34,51, 1,29,13,13,26,47		4,20,18,27,10	
		18,32,41, 6,42,31, 5		1,21
50″	59,20,35, 9,34,10,19,55,57,52		4,20,18,28,31	
		18,32,36,46,24, 2,34		1,21
52″	59,20,35,28, 6,47, 6,20, 0,26		4,20,18,29,52	
		18,32,32,26, 5,32,42		1,21
54″	59,20,35,46,39,19,32,25,33, 8		4,20,18,31,13	
		18,32,28, 5,47, 1,29		1,21
56″	59,20,36, 5,11,47,38,12,34,37		4,20,18,32,34	
		18,32,23,45,28,28,55		1,21
58″	59,20,36,23,44,11,23,41, 3,32		4,20,18,33,55	
		18,32,19,25, 9,55, 0		
60″	59,20,36,42,16,30,48,50,58,32			
exact	59,20,36,42,16,30,48,50,32,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°31′ 0″	59,20,36,42,16,30,48,50,32,39			
		18,32,15, 4,51,16,56		
2″	59,20,37, 0,48,45,53,41,49,35		4,20,18,36,48	
		18,32,10,44,32,40, 8		1,21
4″	59,20,37,19,20,56,38,14,29,43		4,20,18,38, 9	
		18,32, 6,24,14, 1,59		1,21
6″	59,20,37,37,53, 3, 2,28,31,42		4,20,18,39,30	
		18,32, 2, 3,55,22,29		1,21
8″	59,20,37,56,25, 5, 6,23,54,11		4,20,18,40,51	
		18,31,57,43,36,41,38		1,21
10″	59,20,38,14,57, 2,50, 0,35,49		4,20,18,42,12	
		18,31,53,23,17,59,26		1,21
12″	59,20,38,33,28,56,13,18,35,15		4,20,18,43,33	
		18,31,49, 2,59,15,53		1,21
14″	59,20,38,52, 0,45,16,17,51, 8		4,20,18,44,54	
		18,31,44,42,40,30,59		1,21
16″	59,20,39,10,32,29,58,58,22, 7		4,20,18,46,15	
		18,31,40,22,21,44,44		1,21
18″	59,20,39,29, 4,10,21,20, 6,51		4,20,18,47,36	
		18,31,36, 2, 2,57, 8		1,21
20″	59,20,39,47,35,46,23,23, 3,59		4,20,18,48,57	
		18,31,31,41,44, 8,11		1,21
22″	59,20,40, 6, 7,18, 5, 7,12,10		4,20,18,50,18	
		18,31,27,21,25,17,53		1,21
24″	59,20,40,24,38,45,26,32,30, 3		4,20,18,51,39	
		18,31,23, 1, 6,26,14		1,21
26″	59,20,40,43,10, 8,27,38,56,17		4,20,18,53, 0	
		18,31,18,40,47,33,14		1,21
28″	59,20,41, 1,41,27, 8,26,29,31		4,20,18,54,21	
		18,31,14,20,28,38,53		1,21
30″	59,20,41,20,12,41,28,55, 8,24		4,20,18,55,42	
		18,31,10, 0, 9,43,11		1,21
32″	59,20,41,38,43,51,29, 4,51,35		4,20,18,57, 3	
		18,31, 5,39,50,46, 8		1,21
34″	59,20,41,57,14,57, 8,55,37,43		4,20,18,58,24	
		18,31, 1,19,31,47,44		1,21
36″	59,20,42,15,45,58,28,27,25,27		4,20,18,59,45	
		18,30,56,59,12,47,59		1,21
38″	59,20,42,34,16,55,27,40,13,26		4,20,19, 1, 6	
		18,30,52,38,53,46,53		1,21
40″	59,20,42,52,47,48, 6,34, 0,19		4,20,19, 2,27	
		18,30,48,18,34,44,26		1,21
42″	59,20,43,11,18,36,25, 8,44,45		4,20,19, 3,48	
		18,30,43,58,15,40,38		1,21
44″	59,20,43,29,49,20,23,24,25,23		4,20,19, 5, 9	
		18,30,39,37,56,35,29		1,21
46″	59,20,43,48,20, 0, 1,21, 0,52		4,20,19, 6,30	
		18,30,35,17,37,28,59		1,21
48″	59,20,44, 6,50,35,18,58,29,51		4,20,19, 7,51	
		18,30,30,57,18,21, 8		1,21
50″	59,20,44,25,21, 6,16,16,50,59		4,20,19, 9,12	
		18,30,26,36,59,11,56		1,21
52″	59,20,44,43,51,32,53,16, 2,55		4,20,19,10,33	
		18,30,22,16,40, 1,23		1,21
54″	59,20,45, 2,21,55, 9,56, 4,18		4,20,19,11,54	
		18,30,17,56,20,49,29		1,21
56″	59,20,45,20,52,13, 6,16,53,47		4,20,19,13,15	
		18,30,13,36, 1,36,14		1,21
58″	59,20,45,39,22,26,42,18,30, 1		4,20,19,14,36	
		18,30, 9,15,42,21,38		
60″	59,20,45,57,52,35,58, 0,51,39			
exact	59,20,45,57,52,35,58, 0,31,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°32′ 0″	59,20,45,57,52,35,58, 0,31,32			
		18,30, 4,55,23, 3,41		
2″	59,20,46,16,22,40,53,23,35,13		4,20,19,17,25	
		18,30, 0,35, 3,46,16		1,21
4″	59,20,46,34,52,41,28,27,21,29		4,20,19,18,46	
		18,29,56,14,44,27,30		1,21
6″	59,20,46,53,22,37,43,11,48,59		4,20,19,20, 7	
		18,29,51,54,25, 7,23		1,21
8″	59,20,47,11,52,29,37,36,56,22		4,20,19,21,28	
		18,29,47,34, 5,45,55		1,21
10″	59,20,47,30,22,17,11,42,42,17		4,20,19,22,49	
		18,29,43,13,46,23, 6		1,21
12″	59,20,47,48,52, 0,25,29, 5,23		4,20,19,24,10	
		18,29,38,53,26,58,56		1,21
14″	59,20,48, 7,21,39,18,56, 4,19		4,20,19,25,31	
		18,29,34,33, 7,33,25		1,21
16″	59,20,48,25,51,13,52, 3,37,44		4,20,19,26,52	
		18,29,30,12,48, 6,33		1,21
18″	59,20,48,44,20,44, 4,51,44,17		4,20,19,28,13	
		18,29,25,52,28,38,20		1,21
20″	59,20,49, 2,50, 9,57,20,22,37		4,20,19,29,34	
		18,29,21,32, 9, 8,46		1,21
22″	59,20,49,21,19,31,29,29,31,23		4,20,19,30,55	
		18,29,17,11,49,37,51		1,21
24″	59,20,49,39,48,48,41,19, 9,14		4,20,19,32,16	
		18,29,12,51,30, 5,35		1,21
26″	59,20,49,58,18, 1,32,49,14,49		4,20,19,33,37	
		18,29, 8,31,10,31,58		1,21
28″	59,20,50,16,47,10, 3,59,46,47		4,20,19,34,58	
		18,29, 4,10,50,57, 0		1,21
30″	59,20,50,35,16,14,14,50,43,47		4,20,19,36,19	
		18,28,59,50,31,20,41		1,21
32″	59,20,50,53,45,14, 5,22, 4,28		4,20,19,37,40	
		18,28,55,30,11,43, 1		1,21
34″	59,20,51,12,14, 9,35,33,47,29		4,20,19,39, 1	
		18,28,51, 9,52, 4, 0		1,21
36″	59,20,51,30,43, 0,45,25,51,29		4,20,19,40,22	
		18,28,46,49,32,23,38		1,21
38″	59,20,51,49,11,47,34,58,15, 7		4,20,19,41,43	
		18,28,42,29,12,41,55		1,21
40″	59,20,52, 7,40,30, 4,10,57, 2		4,20,19,43, 4	
		18,28,38, 8,52,58,51		1,21
42″	59,20,52,26, 9, 8,13, 3,55,53		4,20,19,44,25	
		18,28,33,48,33,14,26		1,21
44″	59,20,52,44,37,42, 1,37,10,19		4,20,19,45,46	
		18,28,29,28,13,28,40		1,21
46″	59,20,53, 3, 6,11,29,50,38,59		4,20,19,47, 7	
		18,28,25, 7,53,41,33		1,21
48″	59,20,53,21,34,36,37,44,20,32		4,20,19,48,28	
		18,28,20,47,33,53, 5		1,21
50″	59,20,53,40, 2,57,25,18,13,37		4,20,19,49,49	
		18,28,16,27,14, 3,16		1,21
52″	59,20,53,58,31,13,52,32,16,53		4,20,19,51,10	
		18,28,12, 6,54,12, 6		1,21
54″	59,20,54,16,59,25,59,26,28,59		4,20,19,52,31	
		18,28, 7,46,34,19,35		1,21
56″	59,20,54,35,27,33,46, 0,48,34		4,20,19,53,52	
		18,28, 3,26,14,25,43		1,21
58″	59,20,54,53,55,37,12,15,14,17		4,20,19,55,13	
		18,27,59, 5,54,30,30		
60″	59,20,55,12,23,36,18, 9,44,47			
exact	59,20,55,12,23,36,18, 9,35,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°33′ 0″	59,20,55,12,23,36,18, 9,35,19			
		18,27,54,45,34,33, 5		
2″	59,20,55,30,51,31, 3,44, 8,24		4,20,19,57,57	
		18,27,50,25,14,35, 8		1,21
4″	59,20,55,49,19,21,28,58,43,32		4,20,19,59,18	
		18,27,46, 4,54,35,50		1,21
6″	59,20,56, 7,47, 7,33,53,19,22		4,20,20, 0,39	
		18,27,41,44,34,35,11		1,21
8″	59,20,56,26,14,49,18,27,54,33		4,20,20, 2, 0	
		18,27,37,24,14,33,11		1,21
10″	59,20,56,44,42,26,42,42,27,44		4,20,20, 3,21	
		18,27,33, 3,54,29,50		1,21
12″	59,20,57, 3, 9,59,46,36,57,34		4,20,20, 4,42	
		18,27,28,43,34,25, 8		1,21
14″	59,20,57,21,37,28,30,11,22,42		4,20,20, 6, 3	
		18,27,24,23,14,19, 5		1,21
16″	59,20,57,40, 4,52,53,25,41,47		4,20,20, 7,24	
		18,27,20, 2,54,11,41		1,21
18″	59,20,57,58,32,12,56,19,53,28		4,20,20, 8,45	
		18,27,15,42,34, 2,56		1,21
20″	59,20,58,16,59,28,38,53,56,24		4,20,20,10, 6	
		18,27,11,22,13,52,50		1,21
22″	59,20,58,35,26,40, 1, 7,49,14		4,20,20,11,27	
		18,27, 7, 1,53,41,23		1,21
24″	59,20,58,53,53,47, 3, 1,30,37		4,20,20,12,48	
		18,27, 2,41,33,28,35		1,21
26″	59,20,59,12,20,49,44,34,59,12		4,20,20,14, 9	
		18,26,58,21,13,14,26		1,21
28″	59,20,59,30,47,48, 5,48,13,38		4,20,20,15,30	
		18,26,54, 0,52,58,56		1,21
30″	59,20,59,49,14,42, 6,41,12,34		4,20,20,16,51	
		18,26,49,40,32,42, 5		1,21
32″	59,21, 0, 7,41,31,47,13,54,39		4,20,20,18,12	
		18,26,45,20,12,23,53		1,21
34″	59,21, 0,26, 8,17, 7,26,18,32		4,20,20,19,33	
		18,26,40,59,52, 4,20		1,21
36″	59,21, 0,44,34,58, 7,18,22,52		4,20,20,20,54	
		18,26,36,39,31,43,26		1,21
38″	59,21, 1, 3, 1,34,46,50, 6,18		4,20,20,22,15	
		18,26,32,19,11,21,11		1,21
40″	59,21, 1,21,28, 7, 6, 1,27,29		4,20,20,23,36	
		18,26,27,58,50,57,35		1,21
42″	59,21, 1,39,54,35, 4,52,25, 4		4,20,20,24,57	
		18,26,23,38,30,32,38		1,21
44″	59,21, 1,58,20,58,43,22,57,42		4,20,20,26,18	
		18,26,19,18,10, 6,20		1,21
46″	59,21, 2,16,47,18, 1,33, 4, 2		4,20,20,27,39	
		18,26,14,57,49,38,41		1,21
48″	59,21, 2,35,13,32,59,22,42,43		4,20,20,29, 0	
		18,26,10,37,29, 9,41		1,21
50″	59,21, 2,53,39,43,36,51,52,24		4,20,20,30,21	
		18,26, 6,17, 8,39,20		1,21
52″	59,21, 3,12, 5,49,54, 0,31,44		4,20,20,31,42	
		18,26, 1,56,48, 7,38		1,21
54″	59,21, 3,30,31,51,50,48,39,22		4,20,20,33, 3	
		18,25,57,36,27,34,35		1,21
56″	59,21, 3,48,57,49,27,16,13,57		4,20,20,34,24	
		18,25,53,16, 7, 0,11		1,21
58″	59,21, 4, 7,23,42,43,23,14, 8		4,20,20,35,45	
		18,25,48,55,46,24,26		
60″	59,21, 4,25,49,31,39, 9,38,34			
exact	59,21, 4,25,49,31,39, 9,38,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°34′ 0″	59,21, 4,25,49,31,39, 9,38,16			
		18,25,44,35,25,47,31		
2″	59,21, 4,44,15,16,14,35,25,47		4,20,20,38,25	
		18,25,40,15, 5, 9, 6		1,21
4″	59,21, 5, 2,40,56,29,40,34,53		4,20,20,39,46	
		18,25,35,54,44,29,20		1,21
6″	59,21, 5,21, 6,32,24,25, 4,13		4,20,20,41, 7	
		18,25,31,34,23,48,13		1,21
8″	59,21, 5,39,32, 3,58,48,52,26		4,20,20,42,28	
		18,25,27,14, 3, 5,45		1,21
10″	59,21, 5,57,57,31,12,51,58,11		4,20,20,43,49	
		18,25,22,53,42,21,56		1,21
12″	59,21, 6,16,22,54, 6,34,20, 7		4,20,20,45,10	
		18,25,18,33,21,36,46		1,21
14″	59,21, 6,34,48,12,39,55,56,53		4,20,20,46,31	
		18,25,14,13, 0,50,15		1,21
16″	59,21, 6,53,13,26,52,56,47, 8		4,20,20,47,52	
		18,25, 9,52,40, 2,23		1,21
18″	59,21, 7,11,38,36,45,36,49,31		4,20,20,49,13	
		18,25, 5,32,19,13,10		1,21
20″	59,21, 7,30, 3,42,17,56, 2,41		4,20,20,50,34	
		18,25, 1,11,58,22,36		1,21
22″	59,21, 7,48,28,43,29,54,25,17		4,20,20,51,55	
		18,24,56,51,37,30,41		1,21
24″	59,21, 8, 6,53,40,21,31,55,58		4,20,20,53,16	
		18,24,52,31,16,37,25		1,21
26″	59,21, 8,25,18,32,52,48,33,23		4,20,20,54,37	
		18,24,48,10,55,42,48		1,21
28″	59,21, 8,43,43,21, 3,44,16,11		4,20,20,55,58	
		18,24,43,50,34,46,50		1,21
30″	59,21, 9, 2, 8, 4,54,19, 3, 1		4,20,20,57,19	
		18,24,39,30,13,49,31		1,21
32″	59,21, 9,20,32,44,24,32,52,32		4,20,20,58,40	
		18,24,35, 9,52,50,51		1,21
34″	59,21, 9,38,57,19,34,25,43,23		4,20,21, 0, 1	
		18,24,30,49,31,50,50		1,21
36″	59,21, 9,57,21,50,23,57,34,13		4,20,21, 1,22	
		18,24,26,29,10,49,28		1,21
38″	59,21,10,15,46,16,53, 8,23,41		4,20,21, 2,43	
		18,24,22, 8,49,46,45		1,21
40″	59,21,10,34,10,39, 1,58,10,26		4,20,21, 4, 4	
		18,24,17,48,28,42,41		1,21
42″	59,21,10,52,34,56,50,26,53, 7		4,20,21, 5,25	
		18,24,13,28, 7,37,16		1,21
44″	59,21,11,10,59,10,18,34,30,23		4,20,21, 6,46	
		18,24, 9, 7,46,30,30		1,21
46″	59,21,11,29,23,19,26,21, 0,53		4,20,21, 8, 7	
		18,24, 4,47,25,22,23		1,21
48″	59,21,11,47,47,24,13,46,23,16		4,20,21, 9,28	
		18,24, 0,27, 4,12,55		1,21
50″	59,21,12, 6,11,24,40,50,36,11		4,20,21,10,49	
		18,23,56, 6,43, 2, 6		1,21
52″	59,21,12,24,35,20,47,33,38,17		4,20,21,12,10	
		18,23,51,46,21,49,56		1,21
54″	59,21,12,42,59,12,33,55,28,13		4,20,21,13,31	
		18,23,47,26, 0,36,25		1,21
56″	59,21,13, 1,22,59,59,56, 4,38		4,20,21,14,52	
		18,23,43, 5,39,21,33		1,21
58″	59,21,13,19,46,43, 5,35,26,11		4,20,21,16,13	
		18,23,38,45,18, 5,20		
60″	59,21,13,38,10,21,50,53,31,31			
exact	59,21,13,38,10,21,50,53,46, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°35′ 0″	59,21,13,38,10,21,50,53,46, 1			
		18,23,34,24,56,49,23		
2″	59,21,13,56,33,56,15,50,35,24		4,20,21,18,48	
		18,23,30, 4,35,30,35		1,21
4″	59,21,14,14,57,26,20,26, 5,59		4,20,21,20, 9	
		18,23,25,44,14,10,26		1,21
6″	59,21,14,33,20,52, 4,40,16,25		4,20,21,21,30	
		18,23,21,23,52,48,56		1,21
8″	59,21,14,51,44,13,28,33, 5,21		4,20,21,22,51	
		18,23,17, 3,31,26, 5		1,21
10″	59,21,15,10, 7,30,32, 4,31,26		4,20,21,24,12	
		18,23,12,43,10, 1,53		1,21
12″	59,21,15,28,30,43,15,14,33,19		4,20,21,25,33	
		18,23, 8,22,48,36,20		1,21
14″	59,21,15,46,53,51,38, 3, 9,39		4,20,21,26,54	
		18,23, 4, 2,27, 9,26		1,21
16″	59,21,16, 5,16,55,40,30,19, 5		4,20,21,28,15	
		18,22,59,42, 5,41,11		1,21
18″	59,21,16,23,39,55,22,36, 0,16		4,20,21,29,36	
		18,22,55,21,44,11,35		1,21
20″	59,21,16,42, 2,50,44,20,11,51		4,20,21,30,57	
		18,22,51, 1,22,40,38		1,21
22″	59,21,17, 0,25,41,45,42,52,29		4,20,21,32,18	
		18,22,46,41, 1, 8,20		1,21
24″	59,21,17,18,48,28,26,44, 0,49		4,20,21,33,39	
		18,22,42,20,39,34,41		1,21
26″	59,21,17,37,11,10,47,23,35,30		4,20,21,35, 0	
		18,22,38, 0,17,59,41		1,21
28″	59,21,17,55,33,48,47,41,35,11		4,20,21,36,21	
		18,22,33,39,56,23,20		1,21
30″	59,21,18,13,56,22,27,37,58,31		4,20,21,37,42	
		18,22,29,19,34,45,38		1,21
32″	59,21,18,32,18,51,47,12,44, 9		4,20,21,39, 3	
		18,22,24,59,13, 6,35		1,21
34″	59,21,18,50,41,16,46,25,50,44		4,20,21,40,24	
		18,22,20,38,51,26,11		1,21
36″	59,21,19, 9, 3,37,25,17,16,55		4,20,21,41,45	
		18,22,16,18,29,44,26		1,21
38″	59,21,19,27,25,53,43,47, 1,21		4,20,21,43, 6	
		18,22,11,58, 8, 1,20		1,21
40″	59,21,19,45,48, 5,41,55, 2,41		4,20,21,44,27	
		18,22, 7,37,46,16,53		1,21
42″	59,21,20, 4,10,13,19,41,19,34		4,20,21,45,48	
		18,22, 3,17,24,31, 5		1,21
44″	59,21,20,22,32,16,37, 5,50,39		4,20,21,47, 9	
		18,21,58,57, 2,43,56		1,21
46″	59,21,20,40,54,15,34, 8,34,35		4,20,21,48,30	
		18,21,54,36,40,55,26		1,21
48″	59,21,20,59,16,10,10,49,30, 1		4,20,21,49,51	
		18,21,50,16,19, 5,35		1,21
50″	59,21,21,17,38, 0,27, 8,35,36		4,20,21,51,12	
		18,21,45,55,57,14,23		1,21
52″	59,21,21,35,59,46,23, 5,49,59		4,20,21,52,33	
		18,21,41,35,35,21,50		1,21
54″	59,21,21,54,21,27,58,41,11,49		4,20,21,53,54	
		18,21,37,15,13,27,56		1,21
56″	59,21,22,12,43, 5,13,54,39,45		4,20,21,55,15	
		18,21,32,54,51,32,41		1,21
58″	59,21,22,31, 4,38, 8,46,12,26		4,20,21,56,36	
		18,21,28,34,29,36, 5		
60″	59,21,22,49,26, 6,43,15,48,31			
exact	59,21,22,49,26, 6,43,16,15,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°36′ 0″	59,21,22,49,26, 6,43,16,15,34			
		18,21,24,14, 7,41, 2		
2″	59,21,23, 7,47,30,57,23,56,36		4,20,21,59, 6	
		18,21,19,53,45,41,56		1,21
4″	59,21,23,26, 8,50,51, 9,38,32		4,20,22, 0,27	
		18,21,15,33,23,41,29		1,21
6″	59,21,23,44,30, 6,24,33,20, 1		4,20,22, 1,48	
		18,21,11,13, 1,39,41		1,21
8″	59,21,24, 2,51,17,37,34,59,42		4,20,22, 3, 9	
		18,21, 6,52,39,36,32		1,21
10″	59,21,24,21,12,24,30,14,36,14		4,20,22, 4,30	
		18,21, 2,32,17,32, 2		1,21
12″	59,21,24,39,33,27, 2,32, 8,16		4,20,22, 5,51	
		18,20,58,11,55,26,11		1,21
14″	59,21,24,57,54,25,14,27,34,27		4,20,22, 7,12	
		18,20,53,51,33,18,59		1,21
16″	59,21,25,16,15,19, 6, 0,53,26		4,20,22, 8,33	
		18,20,49,31,11,10,26		1,21
18″	59,21,25,34,36, 8,37,12, 3,52		4,20,22, 9,54	
		18,20,45,10,49, 0,32		1,21
20″	59,21,25,52,56,53,48, 1, 4,24		4,20,22,11,15	
		18,20,40,50,26,49,17		1,21
22″	59,21,26,11,17,34,38,27,53,41		4,20,22,12,36	
		18,20,36,30, 4,36,41		1,21
24″	59,21,26,29,38,11, 8,32,30,22		4,20,22,13,57	
		18,20,32, 9,42,22,44		1,21
26″	59,21,26,47,58,43,18,14,53, 6		4,20,22,15,18	
		18,20,27,49,20, 7,26		1,21
28″	59,21,27, 6,19,11, 7,35, 0,32		4,20,22,16,39	
		18,20,23,28,57,50,47		1,21
30″	59,21,27,24,39,34,36,32,51,19		4,20,22,18, 0	
		18,20,19, 8,35,32,47		1,21
32″	59,21,27,42,59,53,45, 8,24, 6		4,20,22,19,21	
		18,20,14,48,13,13,26		1,21
34″	59,21,28, 1,20, 8,33,21,37,32		4,20,22,20,42	
		18,20,10,27,50,52,44		1,21
36″	59,21,28,19,40,19, 1,12,30,16		4,20,22,22, 3	
		18,20, 6, 7,28,30,41		1,21
38″	59,21,28,38, 0,25, 8,41, 0,57		4,20,22,23,24	
		18,20, 1,47, 6, 7,17		1,21
40″	59,21,28,56,20,26,55,47, 8,14		4,20,22,24,45	
		18,19,57,26,43,42,32		1,21
42″	59,21,29,14,40,24,22,30,50,46		4,20,22,26, 6	
		18,19,53, 6,21,16,26		1,21
44″	59,21,29,33, 0,17,28,52, 7,12		4,20,22,27,27	
		18,19,48,45,58,48,59		1,21
46″	59,21,29,51,20, 6,14,50,56,11		4,20,22,28,48	
		18,19,44,25,36,20,11		1,21
48″	59,21,30, 9,39,50,40,27,16,22		4,20,22,30, 9	
		18,19,40, 5,13,50, 2		1,21
50″	59,21,30,27,59,30,45,41, 6,24		4,20,22,31,30	
		18,19,35,44,51,18,32		1,21
52″	59,21,30,46,19, 6,30,32,24,56		4,20,22,32,51	
		18,19,31,24,28,45,41		1,21
54″	59,21,31, 4,38,37,55, 1,10,37		4,20,22,34,12	
		18,19,27, 4, 6,11,29		1,21
56″	59,21,31,22,58, 4,59, 7,22, 6		4,20,22,35,33	
		18,19,22,43,43,35,56		1,21
58″	59,21,31,41,17,27,42,50,58, 2		4,20,22,36,54	
		18,19,18,23,20,59, 2		
60″	59,21,31,59,36,46, 6,11,57, 4			
exact	59,21,31,59,36,46, 6,12,35,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°37′ 0″	59,21,31,59,36,46, 6,12,35,19			
		18,19,14, 2,58,24,52		
2″	59,21,32,17,56, 0, 9,11, 0,11		4,20,22,39,19	
		18,19, 9,42,35,45,33		1,20
4″	59,21,32,36,15, 9,51,46,45,44		4,20,22,40,39	
		18,19, 5,22,13, 4,54		1,20
6″	59,21,32,54,34,15,13,59,50,38		4,20,22,41,59	
		18,19, 1, 1,50,22,55		1,20
8″	59,21,33,12,53,16,15,50,13,33		4,20,22,43,19	
		18,18,56,41,27,39,36		1,20
10″	59,21,33,31,12,12,57,17,53, 9		4,20,22,44,39	
		18,18,52,21, 4,54,57		1,20
12″	59,21,33,49,31, 5,18,22,48, 6		4,20,22,45,59	
		18,18,48, 0,42, 8,58		1,20
14″	59,21,34, 7,49,53,19, 4,57, 4		4,20,22,47,19	
		18,18,43,40,19,21,39		1,20
16″	59,21,34,26, 8,36,59,24,18,43		4,20,22,48,39	
		18,18,39,19,56,33, 0		1,20
18″	59,21,34,44,27,16,19,20,51,43		4,20,22,49,59	
		18,18,34,59,33,43, 1		1,20
20″	59,21,35, 2,45,51,18,54,34,44		4,20,22,51,19	
		18,18,30,39,10,51,42		1,20
22″	59,21,35,21, 4,21,58, 5,26,26		4,20,22,52,39	
		18,18,26,18,47,59, 3		1,20
24″	59,21,35,39,22,48,16,53,25,29		4,20,22,53,59	
		18,18,21,58,25, 5, 4		1,20
26″	59,21,35,57,41,10,15,18,30,33		4,20,22,55,19	
		18,18,17,38, 2, 9,45		1,20
28″	59,21,36,15,59,27,53,20,40,18		4,20,22,56,39	
		18,18,13,17,39,13, 6		1,20
30″	59,21,36,34,17,41,10,59,53,24		4,20,22,57,59	
		18,18, 8,57,16,15, 7		1,20
32″	59,21,36,52,35,50, 8,16, 8,31		4,20,22,59,19	
		18,18, 4,36,53,15,48		1,20
34″	59,21,37,10,53,54,45, 9,24,19		4,20,23, 0,39	
		18,18, 0,16,30,15, 9		1,20
36″	59,21,37,29,11,55, 1,39,39,28		4,20,23, 1,59	
		18,17,55,56, 7,13,10		1,20
38″	59,21,37,47,29,50,57,46,52,38		4,20,23, 3,19	
		18,17,51,35,44, 9,51		1,20
40″	59,21,38, 5,47,42,33,31, 2,29		4,20,23, 4,39	
		18,17,47,15,21, 5,12		1,20
42″	59,21,38,24, 5,29,48,52, 7,41		4,20,23, 5,59	
		18,17,42,54,57,59,13		1,20
44″	59,21,38,42,23,12,43,50, 6,54		4,20,23, 7,19	
		18,17,38,34,34,51,54		1,20
46″	59,21,39, 0,40,51,18,24,58,48		4,20,23, 8,39	
		18,17,34,14,11,43,15		1,20
48″	59,21,39,18,58,25,32,36,42, 3		4,20,23, 9,59	
		18,17,29,53,48,33,16		1,20
50″	59,21,39,37,15,55,26,25,15,19		4,20,23,11,19	
		18,17,25,33,25,21,57		1,20
52″	59,21,39,55,33,20,59,50,37,16		4,20,23,12,39	
		18,17,21,13, 2, 9,18		1,20
54″	59,21,40,13,50,42,12,52,46,34		4,20,23,13,59	
		18,17,16,52,38,55,19		1,20
56″	59,21,40,32, 7,59, 5,31,41,53		4,20,23,15,19	
		18,17,12,32,15,40, 0		1,20
58″	59,21,40,50,25,11,37,47,21,53		4,20,23,16,39	
		18,17, 8,11,52,23,21		
60″	59,21,41, 8,42,19,49,39,45,14			
exact	59,21,41, 8,42,19,49,39,25, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°38′ 0″	59,21,41, 8,42,19,49,39,25, 1			
		18,17, 3,51,29, 3,15		
2″	59,21,41,26,59,23,41, 8,28,16		4,20,23,19,27	
		18,16,59,31, 5,43,48		1,20
4″	59,21,41,45,16,23,12,14,12, 4		4,20,23,20,47	
		18,16,55,10,42,23, 1		1,20
6″	59,21,42, 3,33,18,22,56,35, 5		4,20,23,22, 7	
		18,16,50,50,19, 0,54		1,20
8″	59,21,42,21,50, 9,13,15,35,59		4,20,23,23,27	
		18,16,46,29,55,37,27		1,20
10″	59,21,42,40, 6,55,43,11,13,26		4,20,23,24,47	
		18,16,42, 9,32,12,40		1,20
12″	59,21,42,58,23,37,52,43,26, 6		4,20,23,26, 7	
		18,16,37,49, 8,46,33		1,20
14″	59,21,43,16,40,15,41,52,12,39		4,20,23,27,27	
		18,16,33,28,45,19, 6		1,20
16″	59,21,43,34,56,49,10,37,31,45		4,20,23,28,47	
		18,16,29, 8,21,50,19		1,20
18″	59,21,43,53,13,18,18,59,22, 4		4,20,23,30, 7	
		18,16,24,47,58,20,12		1,20
20″	59,21,44,11,29,43, 6,57,42,16		4,20,23,31,27	
		18,16,20,27,34,48,45		1,20
22″	59,21,44,29,46, 3,34,32,31, 1		4,20,23,32,47	
		18,16,16, 7,11,15,58		1,20
24″	59,21,44,48, 2,19,41,43,46,59		4,20,23,34, 7	
		18,16,11,46,47,41,51		1,20
26″	59,21,45, 6,18,31,28,31,28,50		4,20,23,35,27	
		18,16, 7,26,24, 6,24		1,20
28″	59,21,45,24,34,38,54,55,35,14		4,20,23,36,47	
		18,16, 3, 6, 0,29,37		1,20
30″	59,21,45,42,50,42, 0,56, 4,51		4,20,23,38, 7	
		18,15,58,45,36,51,30		1,20
32″	59,21,46, 1, 6,40,46,32,56,21		4,20,23,39,27	
		18,15,54,25,13,12, 3		1,20
34″	59,21,46,19,22,35,11,46, 8,24		4,20,23,40,47	
		18,15,50, 4,49,31,16		1,20
36″	59,21,46,37,38,25,16,35,39,40		4,20,23,42, 7	
		18,15,45,44,25,49, 9		1,20
38″	59,21,46,55,54,11, 1, 1,28,49		4,20,23,43,27	
		18,15,41,24, 2, 5,42		1,20
40″	59,21,47,14, 9,52,25, 3,34,31		4,20,23,44,47	
		18,15,37, 3,38,20,55		1,20
42″	59,21,47,32,25,29,28,41,55,26		4,20,23,46, 7	
		18,15,32,43,14,34,48		1,20
44″	59,21,47,50,41, 2,11,56,30,14		4,20,23,47,27	
		18,15,28,22,50,47,21		1,20
46″	59,21,48, 8,56,30,34,47,17,35		4,20,23,48,47	
		18,15,24, 2,26,58,34		1,20
48″	59,21,48,27,11,54,37,14,16, 9		4,20,23,50, 7	
		18,15,19,42, 3, 8,27		1,20
50″	59,21,48,45,27,14,19,17,24,36		4,20,23,51,27	
		18,15,15,21,39,17, 0		1,20
52″	59,21,49, 3,42,29,40,56,41,36		4,20,23,52,47	
		18,15,11, 1,15,24,13		1,20
54″	59,21,49,21,57,40,42,12, 5,49		4,20,23,54, 7	
		18,15, 6,40,51,30, 6		1,20
56″	59,21,49,40,12,47,23, 3,35,55		4,20,23,55,27	
		18,15, 2,20,27,34,39		1,20
58″	59,21,49,58,27,49,43,31,10,34		4,20,23,56,47	
		18,14,58, 0, 3,37,52		
60″	59,21,50,16,42,47,43,34,48,26			
exact	59,21,50,16,42,47,43,34,35,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°39′ 0″	59,21,50,16,42,47,43,34,35,49			
		18,14,53,39,39,38,34		
2″	59,21,50,34,57,41,23,14,14,23		4,20,23,59,31	
		18,14,49,19,15,39, 3		1,20
4″	59,21,50,53,12,30,42,29,53,26		4,20,24, 0,51	
		18,14,44,58,51,38,12		1,20
6″	59,21,51,11,27,15,41,21,31,38		4,20,24, 2,11	
		18,14,40,38,27,36, 1		1,20
8″	59,21,51,29,41,56,19,49, 7,39		4,20,24, 3,31	
		18,14,36,18, 3,32,30		1,20
10″	59,21,51,47,56,32,37,52,40, 9		4,20,24, 4,51	
		18,14,31,57,39,27,39		1,20
12″	59,21,52, 6,11, 4,35,32, 7,48		4,20,24, 6,11	
		18,14,27,37,15,21,28		1,20
14″	59,21,52,24,25,32,12,47,29,16		4,20,24, 7,31	
		18,14,23,16,51,13,57		1,20
16″	59,21,52,42,39,55,29,38,43,13		4,20,24, 8,51	
		18,14,18,56,27, 5, 6		1,20
18″	59,21,53, 0,54,14,26, 5,48,19		4,20,24,10,11	
		18,14,14,36, 2,54,55		1,20
20″	59,21,53,19, 8,29, 2, 8,43,14		4,20,24,11,31	
		18,14,10,15,38,43,24		1,20
22″	59,21,53,37,22,39,17,47,26,38		4,20,24,12,51	
		18,14, 5,55,14,30,33		1,20
24″	59,21,53,55,36,45,13, 1,57,11		4,20,24,14,11	
		18,14, 1,34,50,16,22		1,20
26″	59,21,54,13,50,46,47,52,13,33		4,20,24,15,31	
		18,13,57,14,26, 0,51		1,20
28″	59,21,54,32, 4,44, 2,18,14,24		4,20,24,16,51	
		18,13,52,54, 1,44, 0		1,20
30″	59,21,54,50,18,36,56,19,58,24		4,20,24,18,11	
		18,13,48,33,37,25,49		1,20
32″	59,21,55, 8,32,25,29,57,24,13		4,20,24,19,31	
		18,13,44,13,13, 6,18		1,20
34″	59,21,55,26,46, 9,43,10,30,31		4,20,24,20,51	
		18,13,39,52,48,45,27		1,20
36″	59,21,55,44,59,49,35,59,15,58		4,20,24,22,11	
		18,13,35,32,24,23,16		1,20
38″	59,21,56, 3,13,25, 8,23,39,14		4,20,24,23,31	
		18,13,31,11,59,59,45		1,20
40″	59,21,56,21,26,56,20,23,38,59		4,20,24,24,51	
		18,13,26,51,35,34,54		1,20
42″	59,21,56,39,40,23,11,59,13,53		4,20,24,26,11	
		18,13,22,31,11, 8,43		1,20
44″	59,21,56,57,53,45,43,10,22,36		4,20,24,27,31	
		18,13,18,10,46,41,12		1,20
46″	59,21,57,16, 7, 3,53,57, 3,48		4,20,24,28,51	
		18,13,13,50,22,12,21		1,20
48″	59,21,57,34,20,17,44,19,16, 9		4,20,24,30,11	
		18,13, 9,29,57,42,10		1,20
50″	59,21,57,52,33,27,14,16,58,19		4,20,24,31,31	
		18,13, 5, 9,33,10,39		1,20
52″	59,21,58,10,46,32,23,50, 8,58		4,20,24,32,51	
		18,13, 0,49, 8,37,48		1,20
54″	59,21,58,28,59,33,12,58,46,46		4,20,24,34,11	
		18,12,56,28,44, 3,37		1,20
56″	59,21,58,47,12,29,41,42,50,23		4,20,24,35,31	
		18,12,52, 8,19,28, 6		1,20
58″	59,21,59, 5,25,21,50, 2,18,29		4,20,24,36,51	
		18,12,47,47,54,51,15		
60″	59,21,59,23,38, 9,37,57, 9,44			
exact	59,21,59,23,38, 9,37,57,10,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°40′ 0″	59,21,59,23,38, 9,37,57,10,15			
		18,12,43,27,30,13,12		
2″	59,21,59,41,50,53, 5,27,23,27		4,20,24,39,30	
		18,12,39, 7, 5,33,42		1,20
4″	59,22, 0, 0, 3,32,12,32,57, 9		4,20,24,40,50	
		18,12,34,46,40,52,52		1,20
6″	59,22, 0,18,16, 6,59,13,50, 1		4,20,24,42,10	
		18,12,30,26,16,10,42		1,20
8″	59,22, 0,36,28,37,25,30, 0,43		4,20,24,43,30	
		18,12,26, 5,51,27,12		1,20
10″	59,22, 0,54,41, 3,31,21,27,55		4,20,24,44,50	
		18,12,21,45,26,42,22		1,20
12″	59,22, 1,12,53,25,16,48,10,17		4,20,24,46,10	
		18,12,17,25, 1,56,12		1,20
14″	59,22, 1,31, 5,42,41,50, 6,29		4,20,24,47,30	
		18,12,13, 4,37, 8,42		1,20
16″	59,22, 1,49,17,55,46,27,15,11		4,20,24,48,50	
		18,12, 8,44,12,19,52		1,20
18″	59,22, 2, 7,30, 4,30,39,35, 3		4,20,24,50,10	
		18,12, 4,23,47,29,42		1,20
20″	59,22, 2,25,42, 8,54,27, 4,45		4,20,24,51,30	
		18,12, 0, 3,22,38,12		1,20
22″	59,22, 2,43,54, 8,57,49,42,57		4,20,24,52,50	
		18,11,55,42,57,45,22		1,20
24″	59,22, 3, 2, 6, 4,40,47,28,19		4,20,24,54,10	
		18,11,51,22,32,51,12		1,20
26″	59,22, 3,20,17,56, 3,20,19,31		4,20,24,55,30	
		18,11,47, 2, 7,55,42		1,20
28″	59,22, 3,38,29,43, 5,28,15,13		4,20,24,56,50	
		18,11,42,41,42,58,52		1,20
30″	59,22, 3,56,41,25,47,11,14, 5		4,20,24,58,10	
		18,11,38,21,18, 0,42		1,20
32″	59,22, 4,14,53, 4, 8,29,14,47		4,20,24,59,30	
		18,11,34, 0,53, 1,12		1,20
34″	59,22, 4,33, 4,38, 9,22,15,59		4,20,25, 0,50	
		18,11,29,40,28, 0,22		1,20
36″	59,22, 4,51,16, 7,49,50,16,21		4,20,25, 2,10	
		18,11,25,20, 2,58,12		1,20
38″	59,22, 5, 9,27,33, 9,53,14,33		4,20,25, 3,30	
		18,11,20,59,37,54,42		1,20
40″	59,22, 5,27,38,54, 9,31, 9,15		4,20,25, 4,50	
		18,11,16,39,12,49,52		1,20
42″	59,22, 5,45,50,10,48,43,59, 7		4,20,25, 6,10	
		18,11,12,18,47,43,42		1,20
44″	59,22, 6, 4, 1,23, 7,31,42,49		4,20,25, 7,30	
		18,11, 7,58,22,36,12		1,20
46″	59,22, 6,22,12,31, 5,54,19, 1		4,20,25, 8,50	
		18,11, 3,37,57,27,22		1,20
48″	59,22, 6,40,23,34,43,51,46,23		4,20,25,10,10	
		18,10,59,17,32,17,12		1,20
50″	59,22, 6,58,34,34, 1,24, 3,35		4,20,25,11,30	
		18,10,54,57, 7, 5,42		1,20
52″	59,22, 7,16,45,28,58,31, 9,17		4,20,25,12,50	
		18,10,50,36,41,52,52		1,20
54″	59,22, 7,34,56,19,35,13, 2, 9		4,20,25,14,10	
		18,10,46,16,16,38,42		1,20
56″	59,22, 7,53, 7, 5,51,29,40,51		4,20,25,15,30	
		18,10,41,55,51,23,12		1,20
58″	59,22, 8,11,17,47,47,21, 4, 3		4,20,25,16,50	
		18,10,37,35,26, 6,22		
60″	59,22, 8,29,28,25,22,47,10,25			
exact	59,22, 8,29,28,25,22,47,22,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°41′ 0″	59,22, 8,29,28,25,22,47,22,16			
		18,10,33,15, 0,49,31		
2″	59,22, 8,47,38,58,37,48,11,47		4,20,25,19,24	
		18,10,28,54,35,30, 7		1,20
4″	59,22, 9, 5,49,27,32,23,41,54		4,20,25,20,44	
		18,10,24,34,10, 9,23		1,20
6″	59,22, 9,23,59,52, 6,33,51,17		4,20,25,22, 4	
		18,10,20,13,44,47,19		1,20
8″	59,22, 9,42,10,12,20,18,38,36		4,20,25,23,24	
		18,10,15,53,19,23,55		1,20
10″	59,22,10, 0,20,28,13,38, 2,31		4,20,25,24,44	
		18,10,11,32,53,59,11		1,20
12″	59,22,10,18,30,39,46,32, 1,42		4,20,25,26, 4	
		18,10, 7,12,28,33, 7		1,20
14″	59,22,10,36,40,46,59, 0,34,49		4,20,25,27,24	
		18,10, 2,52, 3, 5,43		1,20
16″	59,22,10,54,50,49,51, 3,40,32		4,20,25,28,44	
		18, 9,58,31,37,36,59		1,20
18″	59,22,11,13, 0,48,22,41,17,31		4,20,25,30, 4	
		18, 9,54,11,12, 6,55		1,20
20″	59,22,11,31,10,42,33,53,24,26		4,20,25,31,24	
		18, 9,49,50,46,35,31		1,20
22″	59,22,11,49,20,32,24,39,59,57		4,20,25,32,44	
		18, 9,45,30,21, 2,47		1,20
24″	59,22,12, 7,30,17,55, 1, 2,44		4,20,25,34, 4	
		18, 9,41, 9,55,28,43		1,20
26″	59,22,12,25,39,59, 4,56,31,27		4,20,25,35,24	
		18, 9,36,49,29,53,19		1,20
28″	59,22,12,43,49,35,54,26,24,46		4,20,25,36,44	
		18, 9,32,29, 4,16,35		1,20
30″	59,22,13, 1,59, 8,23,30,41,21		4,20,25,38, 4	
		18, 9,28, 8,38,38,31		1,20
32″	59,22,13,20, 8,36,32, 9,19,52		4,20,25,39,24	
		18, 9,23,48,12,59, 7		1,20
34″	59,22,13,38,18, 0,20,22,18,59		4,20,25,40,44	
		18, 9,19,27,47,18,23		1,20
36″	59,22,13,56,27,19,48, 9,37,22		4,20,25,42, 4	
		18, 9,15, 7,21,36,19		1,20
38″	59,22,14,14,36,34,55,31,13,41		4,20,25,43,24	
		18, 9,10,46,55,52,55		1,20
40″	59,22,14,32,45,45,42,27, 6,36		4,20,25,44,44	
		18, 9, 6,26,30, 8,11		1,20
42″	59,22,14,50,54,52, 8,57,14,47		4,20,25,46, 4	
		18, 9, 2, 6, 4,22, 7		1,20
44″	59,22,15, 9, 3,54,15, 1,36,54		4,20,25,47,24	
		18, 8,57,45,38,34,43		1,20
46″	59,22,15,27,12,52, 0,40,11,37		4,20,25,48,44	
		18, 8,53,25,12,45,59		1,20
48″	59,22,15,45,21,45,25,52,57,36		4,20,25,50, 4	
		18, 8,49, 4,46,55,55		1,20
50″	59,22,16, 3,30,34,30,39,53,31		4,20,25,51,24	
		18, 8,44,44,21, 4,31		1,20
52″	59,22,16,21,39,19,15, 0,58, 2		4,20,25,52,44	
		18, 8,40,23,55,11,47		1,20
54″	59,22,16,39,47,59,38,56, 9,49		4,20,25,54, 4	
		18, 8,36, 3,29,17,43		1,20
56″	59,22,16,57,56,35,42,25,27,32		4,20,25,55,24	
		18, 8,31,43, 3,22,19		1,20
58″	59,22,17,16, 5, 7,25,28,49,51		4,20,25,56,44	
		18, 8,27,22,37,25,35		
60″	59,22,17,34,13,34,48, 6,15,26			
exact	59,22,17,34,13,34,48, 6,37, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°42′ 0″	59,22,17,34,13,34,48, 6,37, 9			
		18, 8,23, 2,11,29,55		
2″	59,22,17,52,21,57,50,18, 7, 4		4,20,25,59,13	
		18, 8,18,41,45,30,42		1,20
4″	59,22,18,10,30,16,32, 3,37,46		4,20,26, 0,33	
		18, 8,14,21,19,30, 9		1,20
6″	59,22,18,28,38,30,53,23, 7,55		4,20,26, 1,53	
		18, 8,10, 0,53,28,16		1,20
8″	59,22,18,46,46,40,54,16,36,11		4,20,26, 3,13	
		18, 8, 5,40,27,25, 3		1,20
10″	59,22,19, 4,54,46,34,44, 1,14		4,20,26, 4,33	
		18, 8, 1,20, 1,20,30		1,20
12″	59,22,19,23, 2,47,54,45,21,44		4,20,26, 5,53	
		18, 7,56,59,35,14,37		1,20
14″	59,22,19,41,10,44,54,20,36,21		4,20,26, 7,13	
		18, 7,52,39, 9, 7,24		1,20
16″	59,22,19,59,18,37,33,29,43,45		4,20,26, 8,33	
		18, 7,48,18,42,58,51		1,20
18″	59,22,20,17,26,25,52,12,42,36		4,20,26, 9,53	
		18, 7,43,58,16,48,58		1,20
20″	59,22,20,35,34, 9,50,29,31,34		4,20,26,11,13	
		18, 7,39,37,50,37,45		1,20
22″	59,22,20,53,41,49,28,20, 9,19		4,20,26,12,33	
		18, 7,35,17,24,25,12		1,20
24″	59,22,21,11,49,24,45,44,34,31		4,20,26,13,53	
		18, 7,30,56,58,11,19		1,20
26″	59,22,21,29,56,55,42,42,45,50		4,20,26,15,13	
		18, 7,26,36,31,56, 6		1,20
28″	59,22,21,48, 4,22,19,14,41,56		4,20,26,16,33	
		18, 7,22,16, 5,39,33		1,20
30″	59,22,22, 6,11,44,35,20,21,29		4,20,26,17,53	
		18, 7,17,55,39,21,40		1,20
32″	59,22,22,24,19, 2,30,59,43, 9		4,20,26,19,13	
		18, 7,13,35,13, 2,27		1,20
34″	59,22,22,42,26,16, 6,12,45,36		4,20,26,20,33	
		18, 7, 9,14,46,41,54		1,20
36″	59,22,23, 0,33,25,20,59,27,30		4,20,26,21,53	
		18, 7, 4,54,20,20, 1		1,20
38″	59,22,23,18,40,30,15,19,47,31		4,20,26,23,13	
		18, 7, 0,33,53,56,48		1,20
40″	59,22,23,36,47,30,49,13,44,19		4,20,26,24,33	
		18, 6,56,13,27,32,15		1,20
42″	59,22,23,54,54,27, 2,41,16,34		4,20,26,25,53	
		18, 6,51,53, 1, 6,22		1,20
44″	59,22,24,13, 1,18,55,42,22,56		4,20,26,27,13	
		18, 6,47,32,34,39, 9		1,20
46″	59,22,24,31, 8, 6,28,17, 2, 5		4,20,26,28,33	
		18, 6,43,12, 8,10,36		1,20
48″	59,22,24,49,14,49,40,25,12,41		4,20,26,29,53	
		18, 6,38,51,41,40,43		1,20
50″	59,22,25, 7,21,28,32, 6,53,24		4,20,26,31,13	
		18, 6,34,31,15, 9,30		1,20
52″	59,22,25,25,28, 3, 3,22, 2,54		4,20,26,32,33	
		18, 6,30,10,48,36,57		1,20
54″	59,22,25,43,34,33,14,10,39,51		4,20,26,33,53	
		18, 6,25,50,22, 3, 4		1,20
56″	59,22,26, 1,40,59, 4,32,42,55		4,20,26,35,13	
		18, 6,21,29,55,27,51		1,20
58″	59,22,26,19,47,20,34,28,10,46		4,20,26,36,33	
		18, 6,17, 9,28,51,18		
60″	59,22,26,37,53,37,43,57, 2, 4			
exact	59,22,26,37,53,37,43,57,31,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°43′ 0″	59,22,26,37,53,37,43,57,31,38			
		18, 6,12,49, 2,16,46		
2″	59,22,26,55,59,50,32,59,48,24		4,20,26,38,58	
		18, 6, 8,28,35,37,48		1,19
4″	59,22,27,14, 5,59, 1,35,26,12		4,20,26,40,17	
		18, 6, 4, 8, 8,57,31		1,19
6″	59,22,27,32,12, 3, 9,44,23,43		4,20,26,41,36	
		18, 5,59,47,42,15,55		1,19
8″	59,22,27,50,18, 2,57,26,39,38		4,20,26,42,55	
		18, 5,55,27,15,33, 0		1,19
10″	59,22,28, 8,23,58,24,42,12,38		4,20,26,44,14	
		18, 5,51, 6,48,48,46		1,19
12″	59,22,28,26,29,49,31,31, 1,24		4,20,26,45,33	
		18, 5,46,46,22, 3,13		1,19
14″	59,22,28,44,35,36,17,53, 4,37		4,20,26,46,52	
		18, 5,42,25,55,16,21		1,19
16″	59,22,29, 2,41,18,43,48,20,58		4,20,26,48,11	
		18, 5,38, 5,28,28,10		1,19
18″	59,22,29,20,46,56,49,16,49, 8		4,20,26,49,30	
		18, 5,33,45, 1,38,40		1,19
20″	59,22,29,38,52,30,34,18,27,48		4,20,26,50,49	
		18, 5,29,24,34,47,51		1,19
22″	59,22,29,56,57,59,58,53,15,39		4,20,26,52, 8	
		18, 5,25, 4, 7,55,43		1,19
24″	59,22,30,15, 3,25, 3, 1,11,22		4,20,26,53,27	
		18, 5,20,43,41, 2,16		1,19
26″	59,22,30,33, 8,45,46,42,13,38		4,20,26,54,46	
		18, 5,16,23,14, 7,30		1,19
28″	59,22,30,51,14, 2, 9,56,21, 8		4,20,26,56, 5	
		18, 5,12, 2,47,11,25		1,19
30″	59,22,31, 9,19,14,12,43,32,33		4,20,26,57,24	
		18, 5, 7,42,20,14, 1		1,19
32″	59,22,31,27,24,21,55, 3,46,34		4,20,26,58,43	
		18, 5, 3,21,53,15,18		1,19
34″	59,22,31,45,29,25,16,57, 1,52		4,20,27, 0, 2	
		18, 4,59, 1,26,15,16		1,19
36″	59,22,32, 3,34,24,18,23,17, 8		4,20,27, 1,21	
		18, 4,54,40,59,13,55		1,19
38″	59,22,32,21,39,18,59,22,31, 3		4,20,27, 2,40	
		18, 4,50,20,32,11,15		1,19
40″	59,22,32,39,44, 9,19,54,42,18		4,20,27, 3,59	
		18, 4,46, 0, 5, 7,16		1,19
42″	59,22,32,57,48,55,19,59,49,34		4,20,27, 5,18	
		18, 4,41,39,38, 1,58		1,19
44″	59,22,33,15,53,36,59,37,51,32		4,20,27, 6,37	
		18, 4,37,19,10,55,21		1,19
46″	59,22,33,33,58,14,18,48,46,53		4,20,27, 7,56	
		18, 4,32,58,43,47,25		1,19
48″	59,22,33,52, 2,47,17,32,34,18		4,20,27, 9,15	
		18, 4,28,38,16,38,10		1,19
50″	59,22,34,10, 7,15,55,49,12,28		4,20,27,10,34	
		18, 4,24,17,49,27,36		1,19
52″	59,22,34,28,11,40,13,38,40, 4		4,20,27,11,53	
		18, 4,19,57,22,15,43		1,19
54″	59,22,34,46,16, 0,11, 0,55,47		4,20,27,13,12	
		18, 4,15,36,55, 2,31		1,19
56″	59,22,35, 4,20,15,47,55,58,18		4,20,27,14,31	
		18, 4,11,16,27,48, 0		1,19
58″	59,22,35,22,24,27, 4,23,46,18		4,20,27,15,50	
		18, 4, 6,56, 0,32,10		
60″	59,22,35,40,28,34, 0,24,18,28			
exact	59,22,35,40,28,34, 0,23,53,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°44′ 0″	59,22,35,40,28,34, 0,23,53,49			
		18, 4, 2,35,33,12,27		
2″	59,22,35,58,32,36,35,57, 6,16		4,20,27,18,38	
		18, 3,58,15, 5,53,49		1,19
4″	59,22,36,16,36,34,51, 3, 0, 5		4,20,27,19,57	
		18, 3,53,54,38,33,52		1,19
6″	59,22,36,34,40,28,45,41,33,57		4,20,27,21,16	
		18, 3,49,34,11,12,36		1,19
8″	59,22,36,52,44,18,19,52,46,33		4,20,27,22,35	
		18, 3,45,13,43,50, 1		1,19
10″	59,22,37,10,48, 3,33,36,36,34		4,20,27,23,54	
		18, 3,40,53,16,26, 7		1,19
12″	59,22,37,28,51,44,26,53, 2,41		4,20,27,25,13	
		18, 3,36,32,49, 0,54		1,19
14″	59,22,37,46,55,20,59,42, 3,35		4,20,27,26,32	
		18, 3,32,12,21,34,22		1,19
16″	59,22,38, 4,58,53,12, 3,37,57		4,20,27,27,51	
		18, 3,27,51,54, 6,31		1,19
18″	59,22,38,23, 2,21, 3,57,44,28		4,20,27,29,10	
		18, 3,23,31,26,37,21		1,19
20″	59,22,38,41, 5,44,35,24,21,49		4,20,27,30,29	
		18, 3,19,10,59, 6,52		1,19
22″	59,22,38,59, 9, 3,46,23,28,41		4,20,27,31,48	
		18, 3,14,50,31,35, 4		1,19
24″	59,22,39,17,12,18,36,55, 3,45		4,20,27,33, 7	
		18, 3,10,30, 4, 1,57		1,19
26″	59,22,39,35,15,29, 6,59, 5,42		4,20,27,34,26	
		18, 3, 6, 9,36,27,31		1,19
28″	59,22,39,53,18,35,16,35,33,13		4,20,27,35,45	
		18, 3, 1,49, 8,51,46		1,19
30″	59,22,40,11,21,37, 5,44,24,59		4,20,27,37, 4	
		18, 2,57,28,41,14,42		1,19
32″	59,22,40,29,24,34,34,25,39,41		4,20,27,38,23	
		18, 2,53, 8,13,36,19		1,19
34″	59,22,40,47,27,27,42,39,16, 0		4,20,27,39,42	
		18, 2,48,47,45,56,37		1,19
36″	59,22,41, 5,30,16,30,25,12,37		4,20,27,41, 1	
		18, 2,44,27,18,15,36		1,19
38″	59,22,41,23,33, 0,57,43,28,13		4,20,27,42,20	
		18, 2,40, 6,50,33,16		1,19
40″	59,22,41,41,35,41, 4,34, 1,29		4,20,27,43,39	
		18, 2,35,46,22,49,37		1,19
42″	59,22,41,59,38,16,50,56,51, 6		4,20,27,44,58	
		18, 2,31,25,55, 4,39		1,19
44″	59,22,42,17,40,48,16,51,55,45		4,20,27,46,17	
		18, 2,27, 5,27,18,22		1,19
46″	59,22,42,35,43,15,22,19,14, 7		4,20,27,47,36	
		18, 2,22,44,59,30,46		1,19
48″	59,22,42,53,45,38, 7,18,44,53		4,20,27,48,55	
		18, 2,18,24,31,41,51		1,19
50″	59,22,43,11,47,56,31,50,26,44		4,20,27,50,14	
		18, 2,14, 4, 3,51,37		1,19
52″	59,22,43,29,50,10,35,54,18,21		4,20,27,51,33	
		18, 2, 9,43,36, 0, 4		1,19
54″	59,22,43,47,52,20,19,30,18,25		4,20,27,52,52	
		18, 2, 5,23, 8, 7,12		1,19
56″	59,22,44, 5,54,25,42,38,25,37		4,20,27,54,11	
		18, 2, 1, 2,40,13, 1		1,19
58″	59,22,44,23,56,26,45,18,38,38		4,20,27,55,30	
		18, 1,56,42,12,17,31		
60″	59,22,44,41,58,23,27,30,56, 9			
exact	59,22,44,41,58,23,27,30,43,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°45′ 0″	59,22,44,41,58,23,27,30,43,15			
		18, 1,52,21,44,19,21		
2″	59,22,45, 0, 0,15,49,15, 2,36		4,20,27,58,13	
		18, 1,48, 1,16,21, 8		1,19
4″	59,22,45,18, 2, 3,50,31,23,44		4,20,27,59,32	
		18, 1,43,40,48,21,36		1,19
6″	59,22,45,36, 3,47,31,19,45,20		4,20,28, 0,51	
		18, 1,39,20,20,20,45		1,19
8″	59,22,45,54, 5,26,51,40, 6, 5		4,20,28, 2,10	
		18, 1,34,59,52,18,35		1,19
10″	59,22,46,12, 7, 1,51,32,24,40		4,20,28, 3,29	
		18, 1,30,39,24,15, 6		1,19
12″	59,22,46,30, 8,32,30,56,39,46		4,20,28, 4,48	
		18, 1,26,18,56,10,18		1,19
14″	59,22,46,48, 9,58,49,52,50, 4		4,20,28, 6, 7	
		18, 1,21,58,28, 4,11		1,19
16″	59,22,47, 6,11,20,48,20,54,15		4,20,28, 7,26	
		18, 1,17,37,59,56,45		1,19
18″	59,22,47,24,12,38,26,20,51, 0		4,20,28, 8,45	
		18, 1,13,17,31,48, 0		1,19
20″	59,22,47,42,13,51,43,52,39, 0		4,20,28,10, 4	
		18, 1, 8,57, 3,37,56		1,19
22″	59,22,48, 0,15, 0,40,56,16,56		4,20,28,11,23	
		18, 1, 4,36,35,26,33		1,19
24″	59,22,48,18,16, 5,17,31,43,29		4,20,28,12,42	
		18, 1, 0,16, 7,13,51		1,19
26″	59,22,48,36,17, 5,33,38,57,20		4,20,28,14, 1	
		18, 0,55,55,38,59,50		1,19
28″	59,22,48,54,18, 1,29,17,57,10		4,20,28,15,20	
		18, 0,51,35,10,44,30		1,19
30″	59,22,49,12,18,53, 4,28,41,40		4,20,28,16,39	
		18, 0,47,14,42,27,51		1,19
32″	59,22,49,30,19,40,19,11, 9,31		4,20,28,17,58	
		18, 0,42,54,14, 9,53		1,19
34″	59,22,49,48,20,23,13,25,19,24		4,20,28,19,17	
		18, 0,38,33,45,50,36		1,19
36″	59,22,50, 6,21, 1,47,11,10, 0		4,20,28,20,36	
		18, 0,34,13,17,30, 0		1,19
38″	59,22,50,24,21,36, 0,28,40, 0		4,20,28,21,55	
		18, 0,29,52,49, 8, 5		1,19
40″	59,22,50,42,22, 5,53,17,48, 5		4,20,28,23,14	
		18, 0,25,32,20,44,51		1,19
42″	59,22,51, 0,22,31,25,38,32,56		4,20,28,24,33	
		18, 0,21,11,52,20,18		1,19
44″	59,22,51,18,22,52,37,30,53,14		4,20,28,25,52	
		18, 0,16,51,23,54,26		1,19
46″	59,22,51,36,23, 9,28,54,47,40		4,20,28,27,11	
		18, 0,12,30,55,27,15		1,19
48″	59,22,51,54,23,21,59,50,14,55		4,20,28,28,30	
		18, 0, 8,10,26,58,45		1,19
50″	59,22,52,12,23,30,10,17,13,40		4,20,28,29,49	
		18, 0, 3,49,58,28,56		1,19
52″	59,22,52,30,23,34, 0,15,42,36		4,20,28,31, 8	
		17,59,59,29,29,57,48		1,19
54″	59,22,52,48,23,33,29,45,40,24		4,20,28,32,27	
		17,59,55, 9, 1,25,21		1,19
56″	59,22,53, 6,23,28,38,47, 5,45		4,20,28,33,46	
		17,59,50,48,32,51,35		1,19
58″	59,22,53,24,23,19,27,19,57,20		4,20,28,35, 5	
		17,59,46,28, 4,16,30		
60″	59,22,53,42,23, 5,55,24,13,50			
exact	59,22,53,42,23, 5,55,24,10,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°46′ 0″	59,22,53,42,23, 5,55,24,10,49			
		17,59,42, 7,35,39,51		
2″	59,22,54, 0,22,48, 2,59,50,40		4,20,28,37,43	
		17,59,37,47, 7, 2, 8		1,19
4″	59,22,54,18,22,25,50, 6,52,48		4,20,28,39, 2	
		17,59,33,26,38,23, 6		1,19
6″	59,22,54,36,21,59,16,45,15,54		4,20,28,40,21	
		17,59,29, 6, 9,42,45		1,19
8″	59,22,54,54,21,28,22,54,58,39		4,20,28,41,40	
		17,59,24,45,41, 1, 5		1,19
10″	59,22,55,12,20,53, 8,35,59,44		4,20,28,42,59	
		17,59,20,25,12,18, 6		1,19
12″	59,22,55,30,20,13,33,48,17,50		4,20,28,44,18	
		17,59,16, 4,43,33,48		1,19
14″	59,22,55,48,19,29,38,31,51,38		4,20,28,45,37	
		17,59,11,44,14,48,11		1,19
16″	59,22,56, 6,18,41,22,46,39,49		4,20,28,46,56	
		17,59, 7,23,46, 1,15		1,19
18″	59,22,56,24,17,48,46,32,41, 4		4,20,28,48,15	
		17,59, 3, 3,17,13, 0		1,19
20″	59,22,56,42,16,51,49,49,54, 4		4,20,28,49,34	
		17,58,58,42,48,23,26		1,19
22″	59,22,57, 0,15,50,32,38,17,30		4,20,28,50,53	
		17,58,54,22,19,32,33		1,19
24″	59,22,57,18,14,44,54,57,50, 3		4,20,28,52,12	
		17,58,50, 1,50,40,21		1,19
26″	59,22,57,36,13,34,56,48,30,24		4,20,28,53,31	
		17,58,45,41,21,46,50		1,19
28″	59,22,57,54,12,20,38,10,17,14		4,20,28,54,50	
		17,58,41,20,52,52, 0		1,19
30″	59,22,58,12,11, 1,59, 3, 9,14		4,20,28,56, 9	
		17,58,37, 0,23,55,51		1,19
32″	59,22,58,30, 9,38,59,27, 5, 5		4,20,28,57,28	
		17,58,32,39,54,58,23		1,19
34″	59,22,58,48, 8,11,39,22, 3,28		4,20,28,58,47	
		17,58,28,19,25,59,36		1,19
36″	59,22,59, 6, 6,39,58,48, 3, 4		4,20,29, 0, 6	
		17,58,23,58,56,59,30		1,19
38″	59,22,59,24, 5, 3,57,45, 2,34		4,20,29, 1,25	
		17,58,19,38,27,58, 5		1,19
40″	59,22,59,42, 3,23,36,13, 0,39		4,20,29, 2,44	
		17,58,15,17,58,55,21		1,19
42″	59,23, 0, 0, 1,38,54,11,56, 0		4,20,29, 4, 3	
		17,58,10,57,29,51,18		1,19
44″	59,23, 0,17,59,49,51,41,47,18		4,20,29, 5,22	
		17,58, 6,37, 0,45,56		1,19
46″	59,23, 0,35,57,56,28,42,33,14		4,20,29, 6,41	
		17,58, 2,16,31,39,15		1,19
48″	59,23, 0,53,55,58,45,14,12,29		4,20,29, 8, 0	
		17,57,57,56, 2,31,15		1,19
50″	59,23, 1,11,53,56,41,16,43,44		4,20,29, 9,19	
		17,57,53,35,33,21,56		1,19
52″	59,23, 1,29,51,50,16,50, 5,40		4,20,29,10,38	
		17,57,49,15, 4,11,18		1,19
54″	59,23, 1,47,49,39,31,54,16,58		4,20,29,11,57	
		17,57,44,54,34,59,21		1,19
56″	59,23, 2, 5,47,24,26,29,16,19		4,20,29,13,16	
		17,57,40,34, 5,46, 5		1,19
58″	59,23, 2,23,45, 5, 0,35, 2,24		4,20,29,14,35	
		17,57,36,13,36,31,30		
60″	59,23, 2,41,42,41,14,11,33,54			
exact	59,23, 2,41,42,41,14,11,38,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°47′ 0″	59,23, 2,41,42,41,14,11,38,52			
		17,57,31,53, 7,16,19		
2″	59,23, 2,59,40,13, 7,18,55,11		4,20,29,17, 9	
		17,57,27,32,37,59,10		1,19
4″	59,23, 3,17,37,40,39,56,54,21		4,20,29,18,28	
		17,57,23,12, 8,40,42		1,19
6″	59,23, 3,35,35, 3,52, 5,35, 3		4,20,29,19,47	
		17,57,18,51,39,20,55		1,19
8″	59,23, 3,53,32,22,43,44,55,58		4,20,29,21, 6	
		17,57,14,31, 9,59,49		1,19
10″	59,23, 4,11,29,37,14,54,55,47		4,20,29,22,25	
		17,57,10,10,40,37,24		1,19
12″	59,23, 4,29,26,47,25,35,33,11		4,20,29,23,44	
		17,57, 5,50,11,13,40		1,19
14″	59,23, 4,47,23,53,15,46,46,51		4,20,29,25, 3	
		17,57, 1,29,41,48,37		1,19
16″	59,23, 5, 5,20,54,45,28,35,28		4,20,29,26,22	
		17,56,57, 9,12,22,15		1,19
18″	59,23, 5,23,17,51,54,40,57,43		4,20,29,27,41	
		17,56,52,48,42,54,34		1,19
20″	59,23, 5,41,14,44,43,23,52,17		4,20,29,29, 0	
		17,56,48,28,13,25,34		1,19
22″	59,23, 5,59,11,33,11,37,17,51		4,20,29,30,19	
		17,56,44, 7,43,55,15		1,19
24″	59,23, 6,17, 8,17,19,21,13, 6		4,20,29,31,38	
		17,56,39,47,14,23,37		1,19
26″	59,23, 6,35, 4,57, 6,35,36,43		4,20,29,32,57	
		17,56,35,26,44,50,40		1,19
28″	59,23, 6,53, 1,32,33,20,27,23		4,20,29,34,16	
		17,56,31, 6,15,16,24		1,19
30″	59,23, 7,10,58, 3,39,35,43,47		4,20,29,35,35	
		17,56,26,45,45,40,49		1,19
32″	59,23, 7,28,54,30,25,21,24,36		4,20,29,36,54	
		17,56,22,25,16, 3,55		1,19
34″	59,23, 7,46,50,52,50,37,28,31		4,20,29,38,13	
		17,56,18, 4,46,25,42		1,19
36″	59,23, 8, 4,47,10,55,23,54,13		4,20,29,39,32	
		17,56,13,44,16,46,10		1,19
38″	59,23, 8,22,43,24,39,40,40,23		4,20,29,40,51	
		17,56, 9,23,47, 5,19		1,19
40″	59,23, 8,40,39,34, 3,27,45,42		4,20,29,42,10	
		17,56, 5, 3,17,23, 9		1,19
42″	59,23, 8,58,35,39, 6,45, 8,51		4,20,29,43,29	
		17,56, 0,42,47,39,40		1,19
44″	59,23, 9,16,31,39,49,32,48,31		4,20,29,44,48	
		17,55,56,22,17,54,52		1,19
46″	59,23, 9,34,27,36,11,50,43,23		4,20,29,46, 7	
		17,55,52, 1,48, 8,45		1,19
48″	59,23, 9,52,23,28,13,38,52, 8		4,20,29,47,26	
		17,55,47,41,18,21,19		1,19
50″	59,23,10,10,19,15,54,57,13,27		4,20,29,48,45	
		17,55,43,20,48,32,34		1,19
52″	59,23,10,28,14,59,15,45,46, 1		4,20,29,50, 4	
		17,55,39, 0,18,42,30		1,19
54″	59,23,10,46,10,38,16, 4,28,31		4,20,29,51,23	
		17,55,34,39,48,51, 7		1,19
56″	59,23,11, 4, 6,12,55,53,19,38		4,20,29,52,42	
		17,55,30,19,18,58,25		1,19
58″	59,23,11,22, 1,43,15,12,18, 3		4,20,29,54, 1	
		17,55,25,58,49, 4,24		
60″	59,23,11,39,57, 9,14, 1,22,27			
exact	59,23,11,39,57, 9,14, 1,41, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°48′ 0″	59,23,11,39,57, 9,14, 1,41, 8			
		17,55,21,38,19,11, 8		
2″	59,23,11,57,52,30,52,20,52,16		4,20,29,56,30	
		17,55,17,17,49,14,38		1,19
4″	59,23,12,15,47,48,10,10, 6,54		4,20,29,57,49	
		17,55,12,57,19,16,49		1,19
6″	59,23,12,33,43, 1, 7,29,23,43		4,20,29,59, 8	
		17,55, 8,36,49,17,41		1,19
8″	59,23,12,51,38, 9,44,18,41,24		4,20,30, 0,27	
		17,55, 4,16,19,17,14		1,19
10″	59,23,13, 9,33,14, 0,37,58,38		4,20,30, 1,46	
		17,54,59,55,49,15,28		1,19
12″	59,23,13,27,28,13,56,27,14, 6		4,20,30, 3, 5	
		17,54,55,35,19,12,23		1,19
14″	59,23,13,45,23, 9,31,46,26,29		4,20,30, 4,24	
		17,54,51,14,49, 7,59		1,19
16″	59,23,14, 3,18, 0,46,35,34,28		4,20,30, 5,43	
		17,54,46,54,19, 2,16		1,19
18″	59,23,14,21,12,47,40,54,36,44		4,20,30, 7, 2	
		17,54,42,33,48,55,14		1,19
20″	59,23,14,39, 7,30,14,43,31,58		4,20,30, 8,21	
		17,54,38,13,18,46,53		1,19
22″	59,23,14,57, 2, 8,28, 2,18,51		4,20,30, 9,40	
		17,54,33,52,48,37,13		1,19
24″	59,23,15,14,56,42,20,50,56, 4		4,20,30,10,59	
		17,54,29,32,18,26,14		1,19
26″	59,23,15,32,51,11,53, 9,22,18		4,20,30,12,18	
		17,54,25,11,48,13,56		1,19
28″	59,23,15,50,45,37, 4,57,36,14		4,20,30,13,37	
		17,54,20,51,18, 0,19		1,19
30″	59,23,16, 8,39,57,56,15,36,33		4,20,30,14,56	
		17,54,16,30,47,45,23		1,19
32″	59,23,16,26,34,14,27, 3,21,56		4,20,30,16,15	
		17,54,12,10,17,29, 8		1,19
34″	59,23,16,44,28,26,37,20,51, 4		4,20,30,17,34	
		17,54, 7,49,47,11,34		1,19
36″	59,23,17, 2,22,34,27, 8, 2,38		4,20,30,18,53	
		17,54, 3,29,16,52,41		1,19
38″	59,23,17,20,16,37,56,24,55,19		4,20,30,20,12	
		17,53,59, 8,46,32,29		1,19
40″	59,23,17,38,10,37, 5,11,27,48		4,20,30,21,31	
		17,53,54,48,16,10,58		1,19
42″	59,23,17,56, 4,31,53,27,38,46		4,20,30,22,50	
		17,53,50,27,45,48, 8		1,19
44″	59,23,18,13,58,22,21,13,26,54		4,20,30,24, 9	
		17,53,46, 7,15,23,59		1,19
46″	59,23,18,31,52, 8,28,28,50,53		4,20,30,25,28	
		17,53,41,46,44,58,31		1,19
48″	59,23,18,49,45,50,15,13,49,24		4,20,30,26,47	
		17,53,37,26,14,31,44		1,19
50″	59,23,19, 7,39,27,41,28,21, 8		4,20,30,28, 6	
		17,53,33, 5,44, 3,38		1,19
52″	59,23,19,25,33, 0,47,12,24,46		4,20,30,29,25	
		17,53,28,45,13,34,13		1,19
54″	59,23,19,43,26,29,32,25,58,59		4,20,30,30,44	
		17,53,24,24,43, 3,29		1,19
56″	59,23,20, 1,19,53,57, 9, 2,28		4,20,30,32, 3	
		17,53,20, 4,12,31,26		1,19
58″	59,23,20,19,13,14, 1,21,33,54		4,20,30,33,22	
		17,53,15,43,41,58, 4		
60″	59,23,20,37, 6,29,45, 3,31,58			
exact	59,23,20,37, 6,29,45, 4, 2,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°49′ 0″	59,23,20,37, 6,29,45, 4, 2,46			
		17,53,11,23,11,26,42		
2″	59,23,20,54,59,41, 8,15,29,28		4,20,30,35,46	
		17,53, 7, 2,40,50,56		1,18
4″	59,23,21,12,52,48,10,56,20,24		4,20,30,37, 4	
		17,53, 2,42,10,13,52		1,18
6″	59,23,21,30,45,50,53, 6,34,16		4,20,30,38,22	
		17,52,58,21,39,35,30		1,18
8″	59,23,21,48,38,49,14,46, 9,46		4,20,30,39,40	
		17,52,54, 1, 8,55,50		1,18
10″	59,23,22, 6,31,43,15,55, 5,36		4,20,30,40,58	
		17,52,49,40,38,14,52		1,18
12″	59,23,22,24,24,32,56,33,20,28		4,20,30,42,16	
		17,52,45,20, 7,32,36		1,18
14″	59,23,22,42,17,18,16,40,53, 4		4,20,30,43,34	
		17,52,40,59,36,49, 2		1,18
16″	59,23,23, 0, 9,59,16,17,42, 6		4,20,30,44,52	
		17,52,36,39, 6, 4,10		1,18
18″	59,23,23,18, 2,35,55,23,46,16		4,20,30,46,10	
		17,52,32,18,35,18, 0		1,18
20″	59,23,23,35,55, 8,13,59, 4,16		4,20,30,47,28	
		17,52,27,58, 4,30,32		1,18
22″	59,23,23,53,47,36,12, 3,34,48		4,20,30,48,46	
		17,52,23,37,33,41,46		1,18
24″	59,23,24,11,39,59,49,37,16,34		4,20,30,50, 4	
		17,52,19,17, 2,51,42		1,18
26″	59,23,24,29,32,19, 6,40, 8,16		4,20,30,51,22	
		17,52,14,56,32, 0,20		1,18
28″	59,23,24,47,24,34, 3,12, 8,36		4,20,30,52,40	
		17,52,10,36, 1, 7,40		1,18
30″	59,23,25, 5,16,44,39,13,16,16		4,20,30,53,58	
		17,52, 6,15,30,13,42		1,18
32″	59,23,25,23, 8,50,54,43,29,58		4,20,30,55,16	
		17,52, 1,54,59,18,26		1,18
34″	59,23,25,41, 0,52,49,42,48,24		4,20,30,56,34	
		17,51,57,34,28,21,52		1,18
36″	59,23,25,58,52,50,24,11,10,16		4,20,30,57,52	
		17,51,53,13,57,24, 0		1,18
38″	59,23,26,16,44,43,38, 8,34,16		4,20,30,59,10	
		17,51,48,53,26,24,50		1,18
40″	59,23,26,34,36,32,31,34,59, 6		4,20,31, 0,28	
		17,51,44,32,55,24,22		1,18
42″	59,23,26,52,28,17, 4,30,23,28		4,20,31, 1,46	
		17,51,40,12,24,22,36		1,18
44″	59,23,27,10,19,57,16,54,46, 4		4,20,31, 3, 4	
		17,51,35,51,53,19,32		1,18
46″	59,23,27,28,11,33, 8,48, 5,36		4,20,31, 4,22	
		17,51,31,31,22,15,10		1,18
48″	59,23,27,46, 3, 4,40,10,20,46		4,20,31, 5,40	
		17,51,27,10,51, 9,30		1,18
50″	59,23,28, 3,54,31,51, 1,30,16		4,20,31, 6,58	
		17,51,22,50,20, 2,32		1,18
52″	59,23,28,21,45,54,41,21,32,48		4,20,31, 8,16	
		17,51,18,29,48,54,16		1,18
54″	59,23,28,39,37,13,11,10,27, 4		4,20,31, 9,34	
		17,51,14, 9,17,44,42		1,18
56″	59,23,28,57,28,27,20,28,11,46		4,20,31,10,52	
		17,51, 9,48,46,33,50		1,18
58″	59,23,29,15,19,37, 9,14,45,36		4,20,31,12,10	
		17,51, 5,28,15,21,40		
60″	59,23,29,33,10,42,37,30, 7,16			
exact	59,23,29,33,10,42,37,29,40,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°50′ 0″	59,23,29,33,10,42,37,29,40,21			
		17,51, 1, 7,44, 5,22		
2″	59,23,29,51, 1,43,45,13,45,43		4,20,31,14,57	
		17,50,56,47,12,50,25		1,18
4″	59,23,30, 8,52,40,32,26,36, 8		4,20,31,16,15	
		17,50,52,26,41,34,10		1,18
6″	59,23,30,26,43,32,59, 8,10,18		4,20,31,17,33	
		17,50,48, 6,10,16,37		1,18
8″	59,23,30,44,34,21, 5,18,26,55		4,20,31,18,51	
		17,50,43,45,38,57,46		1,18
10″	59,23,31, 2,25, 4,50,57,24,41		4,20,31,20, 9	
		17,50,39,25, 7,37,37		1,18
12″	59,23,31,20,15,44,16, 5, 2,18		4,20,31,21,27	
		17,50,35, 4,36,16,10		1,18
14″	59,23,31,38, 6,19,20,41,18,28		4,20,31,22,45	
		17,50,30,44, 4,53,25		1,18
16″	59,23,31,55,56,50, 4,46,11,53		4,20,31,24, 3	
		17,50,26,23,33,29,22		1,18
18″	59,23,32,13,47,16,28,19,41,15		4,20,31,25,21	
		17,50,22, 3, 2, 4, 1		1,18
20″	59,23,32,31,37,38,31,21,45,16		4,20,31,26,39	
		17,50,17,42,30,37,22		1,18
22″	59,23,32,49,27,56,13,52,22,38		4,20,31,27,57	
		17,50,13,21,59, 9,25		1,18
24″	59,23,33, 7,18, 9,35,51,32, 3		4,20,31,29,15	
		17,50, 9, 1,27,40,10		1,18
26″	59,23,33,25, 8,18,37,19,12,13		4,20,31,30,33	
		17,50, 4,40,56, 9,37		1,18
28″	59,23,33,42,58,23,18,15,21,50		4,20,31,31,51	
		17,50, 0,20,24,37,46		1,18
30″	59,23,34, 0,48,23,38,39,59,36		4,20,31,33, 9	
		17,49,55,59,53, 4,37		1,18
32″	59,23,34,18,38,19,38,33, 4,13		4,20,31,34,27	
		17,49,51,39,21,30,10		1,18
34″	59,23,34,36,28,11,17,54,34,23		4,20,31,35,45	
		17,49,47,18,49,54,25		1,18
36″	59,23,34,54,17,58,36,44,28,48		4,20,31,37, 3	
		17,49,42,58,18,17,22		1,18
38″	59,23,35,12, 7,41,35, 2,46,10		4,20,31,38,21	
		17,49,38,37,46,39, 1		1,18
40″	59,23,35,29,57,20,12,49,25,11		4,20,31,39,39	
		17,49,34,17,14,59,22		1,18
42″	59,23,35,47,46,54,30, 4,24,33		4,20,31,40,57	
		17,49,29,56,43,18,25		1,18
44″	59,23,36, 5,36,24,26,47,42,58		4,20,31,42,15	
		17,49,25,36,11,36,10		1,18
46″	59,23,36,23,25,50, 2,59,19, 8		4,20,31,43,33	
		17,49,21,15,39,52,37		1,18
48″	59,23,36,41,15,11,18,39,11,45		4,20,31,44,51	
		17,49,16,55, 8, 7,46		1,18
50″	59,23,36,59, 4,28,13,47,19,31		4,20,31,46, 9	
		17,49,12,34,36,21,37		1,18
52″	59,23,37,16,53,40,48,23,41, 8		4,20,31,47,27	
		17,49, 8,14, 4,34,10		1,18
54″	59,23,37,34,42,49, 2,28,15,18		4,20,31,48,45	
		17,49, 3,53,32,45,25		1,18
56″	59,23,37,52,31,52,56, 1, 0,43		4,20,31,50, 3	
		17,48,59,33, 0,55,22		1,18
58″	59,23,38,10,20,52,29, 1,56, 5		4,20,31,51,21	
		17,48,55,12,29, 4, 1		
60″	59,23,38,28, 9,47,41,31, 0, 6			
exact	59,23,38,28, 9,47,41,30,41,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°51′ 0″	59,23,38,28, 9,47,41,30,41,52			
		17,48,50,51,57, 9,32		
2″	59,23,38,45,58,38,33,27,51,24		4,20,31,54, 4	
		17,48,46,31,25,15,28		1,18
4″	59,23,39, 3,47,25, 4,53, 6,52		4,20,31,55,22	
		17,48,42,10,53,20, 6		1,18
6″	59,23,39,21,36, 7,15,46,26,58		4,20,31,56,40	
		17,48,37,50,21,23,26		1,18
8″	59,23,39,39,24,45, 6, 7,50,24		4,20,31,57,58	
		17,48,33,29,49,25,28		1,18
10″	59,23,39,57,13,18,35,57,15,52		4,20,31,59,16	
		17,48,29, 9,17,26,12		1,18
12″	59,23,40,15, 1,47,45,14,42, 4		4,20,32, 0,34	
		17,48,24,48,45,25,38		1,18
14″	59,23,40,32,50,12,34, 0, 7,42		4,20,32, 1,52	
		17,48,20,28,13,23,46		1,18
16″	59,23,40,50,38,33, 2,13,31,28		4,20,32, 3,10	
		17,48,16, 7,41,20,36		1,18
18″	59,23,41, 8,26,49, 9,54,52, 4		4,20,32, 4,28	
		17,48,11,47, 9,16, 8		1,18
20″	59,23,41,26,15, 0,57, 4, 8,12		4,20,32, 5,46	
		17,48, 7,26,37,10,22		1,18
22″	59,23,41,44, 3, 8,23,41,18,34		4,20,32, 7, 4	
		17,48, 3, 6, 5, 3,18		1,18
24″	59,23,42, 1,51,11,29,46,21,52		4,20,32, 8,22	
		17,47,58,45,32,54,56		1,18
26″	59,23,42,19,39,10,15,19,16,48		4,20,32, 9,40	
		17,47,54,25, 0,45,16		1,18
28″	59,23,42,37,27, 4,40,20, 2, 4		4,20,32,10,58	
		17,47,50, 4,28,34,18		1,18
30″	59,23,42,55,14,54,44,48,36,22		4,20,32,12,16	
		17,47,45,43,56,22, 2		1,18
32″	59,23,43,13, 2,40,28,44,58,24		4,20,32,13,34	
		17,47,41,23,24, 8,28		1,18
34″	59,23,43,30,50,21,52, 9, 6,52		4,20,32,14,52	
		17,47,37, 2,51,53,36		1,18
36″	59,23,43,48,37,58,55, 1, 0,28		4,20,32,16,10	
		17,47,32,42,19,37,26		1,18
38″	59,23,44, 6,25,31,37,20,37,54		4,20,32,17,28	
		17,47,28,21,47,19,58		1,18
40″	59,23,44,24,12,59,59, 7,57,52		4,20,32,18,46	
		17,47,24, 1,15, 1,12		1,18
42″	59,23,44,42, 0,24, 0,22,59, 4		4,20,32,20, 4	
		17,47,19,40,42,41, 8		1,18
44″	59,23,44,59,47,43,41, 5,40,12		4,20,32,21,22	
		17,47,15,20,10,19,46		1,18
46″	59,23,45,17,34,59, 1,15,59,58		4,20,32,22,40	
		17,47,10,59,37,57, 6		1,18
48″	59,23,45,35,22,10, 0,53,57, 4		4,20,32,23,58	
		17,47, 6,39, 5,33, 8		1,18
50″	59,23,45,53, 9,16,39,59,30,12		4,20,32,25,16	
		17,47, 2,18,33, 7,52		1,18
52″	59,23,46,10,56,18,58,32,38, 4		4,20,32,26,34	
		17,46,57,58, 0,41,18		1,18
54″	59,23,46,28,43,16,56,33,19,22		4,20,32,27,52	
		17,46,53,37,28,13,26		1,18
56″	59,23,46,46,30,10,34, 1,32,48		4,20,32,29,10	
		17,46,49,16,55,44,16		1,18
58″	59,23,47, 4,16,59,50,57,17, 4		4,20,32,30,28	
		17,46,44,56,23,13,48		
60″	59,23,47,22, 3,44,47,20,30,52			
exact	59,23,47,22, 3,44,47,20,26,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°52′ 0″	59,23,47,22, 3,44,47,20,26,44			
		17,46,40,35,50,41,35		
2″	59,23,47,39,50,25,23,11, 8,19		4,20,32,33, 5	
		17,46,36,15,18, 8,30		1,18
4″	59,23,47,57,37, 1,38,29,16,49		4,20,32,34,23	
		17,46,31,54,45,34, 7		1,18
6″	59,23,48,15,23,33,33,14,50,56		4,20,32,35,41	
		17,46,27,34,12,58,26		1,18
8″	59,23,48,33,10, 1, 7,27,49,22		4,20,32,36,59	
		17,46,23,13,40,21,27		1,18
10″	59,23,48,50,56,24,21, 8,10,49		4,20,32,38,17	
		17,46,18,53, 7,43,10		1,18
12″	59,23,49, 8,42,43,14,15,53,59		4,20,32,39,35	
		17,46,14,32,35, 3,35		1,18
14″	59,23,49,26,28,57,46,50,57,34		4,20,32,40,53	
		17,46,10,12, 2,22,42		1,18
16″	59,23,49,44,15, 7,58,53,20,16		4,20,32,42,11	
		17,46, 5,51,29,40,31		1,18
18″	59,23,50, 2, 1,13,50,23, 0,47		4,20,32,43,29	
		17,46, 1,30,56,57, 2		1,18
20″	59,23,50,19,47,15,21,19,57,49		4,20,32,44,47	
		17,45,57,10,24,12,15		1,18
22″	59,23,50,37,33,12,31,44,10, 4		4,20,32,46, 5	
		17,45,52,49,51,26,10		1,18
24″	59,23,50,55,19, 5,21,35,36,14		4,20,32,47,23	
		17,45,48,29,18,38,47		1,18
26″	59,23,51,13, 4,53,50,54,15, 1		4,20,32,48,41	
		17,45,44, 8,45,50, 6		1,18
28″	59,23,51,30,50,37,59,40, 5, 7		4,20,32,49,59	
		17,45,39,48,13, 0, 7		1,18
30″	59,23,51,48,36,17,47,53, 5,14		4,20,32,51,17	
		17,45,35,27,40, 8,50		1,18
32″	59,23,52, 6,21,53,15,33,14, 4		4,20,32,52,35	
		17,45,31, 7, 7,16,15		1,18
34″	59,23,52,24, 7,24,22,40,30,19		4,20,32,53,53	
		17,45,26,46,34,22,22		1,18
36″	59,23,52,41,52,51, 9,14,52,41		4,20,32,55,11	
		17,45,22,26, 1,27,11		1,18
38″	59,23,52,59,38,13,35,16,19,52		4,20,32,56,29	
		17,45,18, 5,28,30,42		1,18
40″	59,23,53,17,23,31,40,44,50,34		4,20,32,57,47	
		17,45,13,44,55,32,55		1,18
42″	59,23,53,35, 8,45,25,40,23,29		4,20,32,59, 5	
		17,45, 9,24,22,33,50		1,18
44″	59,23,53,52,53,54,50, 2,57,19		4,20,33, 0,23	
		17,45, 5, 3,49,33,27		1,18
46″	59,23,54,10,38,59,53,52,30,46		4,20,33, 1,41	
		17,45, 0,43,16,31,46		1,18
48″	59,23,54,28,24, 0,37, 9, 2,32		4,20,33, 2,59	
		17,44,56,22,43,28,47		1,18
50″	59,23,54,46, 8,56,59,52,31,19		4,20,33, 4,17	
		17,44,52, 2,10,24,30		1,18
52″	59,23,55, 3,53,49, 2, 2,55,49		4,20,33, 5,35	
		17,44,47,41,37,18,55		1,18
54″	59,23,55,21,38,36,43,40,14,44		4,20,33, 6,53	
		17,44,43,21, 4,12, 2		1,18
56″	59,23,55,39,23,20, 4,44,26,46		4,20,33, 8,11	
		17,44,39, 0,31, 3,51		1,18
58″	59,23,55,57, 7,59, 5,15,30,37		4,20,33, 9,29	
		17,44,34,39,57,54,22		
60″	59,23,56,14,52,33,45,13,24,59			
exact	59,23,56,14,52,33,45,13,25,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°53′ 0″	59,23,56,14,52,33,45,13,25,48			
		17,44,30,19,24,43,53		
2″	59,23,56,32,37, 4, 4,38, 9,41		4,20,33,12, 2	
		17,44,25,58,51,31,51		1,18
4″	59,23,56,50,21,30, 3,29,41,32		4,20,33,13,20	
		17,44,21,38,18,18,31		1,18
6″	59,23,57, 8, 5,51,41,48, 0, 3		4,20,33,14,38	
		17,44,17,17,45, 3,53		1,18
8″	59,23,57,25,50, 8,59,33, 3,56		4,20,33,15,56	
		17,44,12,57,11,47,57		1,18
10″	59,23,57,43,34,21,56,44,51,53		4,20,33,17,14	
		17,44, 8,36,38,30,43		1,18
12″	59,23,58, 1,18,30,33,23,22,36		4,20,33,18,32	
		17,44, 4,16, 5,12,11		1,18
14″	59,23,58,19, 2,34,49,28,34,47		4,20,33,19,50	
		17,43,59,55,31,52,21		1,18
16″	59,23,58,36,46,34,45, 0,27, 8		4,20,33,21, 8	
		17,43,55,34,58,31,13		1,18
18″	59,23,58,54,30,30,19,58,58,21		4,20,33,22,26	
		17,43,51,14,25, 8,47		1,18
20″	59,23,59,12,14,21,34,24, 7, 8		4,20,33,23,44	
		17,43,46,53,51,45, 3		1,18
22″	59,23,59,29,58, 8,28,15,52,11		4,20,33,25, 2	
		17,43,42,33,18,20, 1		1,18
24″	59,23,59,47,41,51, 1,34,12,12		4,20,33,26,20	
		17,43,38,12,44,53,41		1,18
26″	59,24, 0, 5,25,29,14,19, 5,53		4,20,33,27,38	
		17,43,33,52,11,26, 3		1,18
28″	59,24, 0,23, 9, 3, 6,30,31,56		4,20,33,28,56	
		17,43,29,31,37,57, 7		1,18
30″	59,24, 0,40,52,32,38, 8,29, 3		4,20,33,30,14	
		17,43,25,11, 4,26,53		1,18
32″	59,24, 0,58,35,57,49,12,55,56		4,20,33,31,32	
		17,43,20,50,30,55,21		1,18
34″	59,24, 1,16,19,18,39,43,51,17		4,20,33,32,50	
		17,43,16,29,57,22,31		1,18
36″	59,24, 1,34, 2,35, 9,41,13,48		4,20,33,34, 8	
		17,43,12, 9,23,48,23		1,18
38″	59,24, 1,51,45,47,19, 5, 2,11		4,20,33,35,26	
		17,43, 7,48,50,12,57		1,18
40″	59,24, 2, 9,28,55, 7,55,15, 8		4,20,33,36,44	
		17,43, 3,28,16,36,13		1,18
42″	59,24, 2,27,11,58,36,11,51,21		4,20,33,38, 2	
		17,42,59, 7,42,58,11		1,18
44″	59,24, 2,44,54,57,43,54,49,32		4,20,33,39,20	
		17,42,54,47, 9,18,51		1,18
46″	59,24, 3, 2,37,52,31, 4, 8,23		4,20,33,40,38	
		17,42,50,26,35,38,13		1,18
48″	59,24, 3,20,20,42,57,39,46,36		4,20,33,41,56	
		17,42,46, 6, 1,56,17		1,18
50″	59,24, 3,38, 3,29, 3,41,42,53		4,20,33,43,14	
		17,42,41,45,28,13, 3		1,18
52″	59,24, 3,55,46,10,49, 9,55,56		4,20,33,44,32	
		17,42,37,24,54,28,31		1,18
54″	59,24, 4,13,28,48,14, 4,24,27		4,20,33,45,50	
		17,42,33, 4,20,42,41		1,18
56″	59,24, 4,31,11,21,18,25, 7, 8		4,20,33,47, 8	
		17,42,28,43,46,55,33		1,18
58″	59,24, 4,48,53,50, 2,12, 2,41		4,20,33,48,26	
		17,42,24,23,13, 7, 7		
60″	59,24, 5, 6,36,14,25,25, 9,48			
exact	59,24, 5, 6,36,14,25,25,21,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°54′ 0″	59,24, 5, 6,36,14,25,25,21,20			
		17,42,20, 2,39,18,50		
2″	59,24, 5,24,18,34,28, 4,40,10		4,20,33,50,55	
		17,42,15,42, 5,27,55		1,18
4″	59,24, 5,42, 0,50,10,10, 8, 5		4,20,33,52,13	
		17,42,11,21,31,35,42		1,18
6″	59,24, 5,59,43, 1,31,41,43,47		4,20,33,53,31	
		17,42, 7, 0,57,42,11		1,18
8″	59,24, 6,17,25, 8,32,39,25,58		4,20,33,54,49	
		17,42, 2,40,23,47,22		1,18
10″	59,24, 6,35, 7,11,13, 3,13,20		4,20,33,56, 7	
		17,41,58,19,49,51,15		1,18
12″	59,24, 6,52,49, 9,32,53, 4,35		4,20,33,57,25	
		17,41,53,59,15,53,50		1,18
14″	59,24, 7,10,31, 3,32, 8,58,25		4,20,33,58,43	
		17,41,49,38,41,55, 7		1,18
16″	59,24, 7,28,12,53,10,50,53,32		4,20,34, 0, 1	
		17,41,45,18, 7,55, 6		1,18
18″	59,24, 7,45,54,38,28,58,48,38		4,20,34, 1,19	
		17,41,40,57,33,53,47		1,18
20″	59,24, 8, 3,36,19,26,32,42,25		4,20,34, 2,37	
		17,41,36,36,59,51,10		1,18
22″	59,24, 8,21,17,56, 3,32,33,35		4,20,34, 3,55	
		17,41,32,16,25,47,15		1,18
24″	59,24, 8,38,59,28,19,58,20,50		4,20,34, 5,13	
		17,41,27,55,51,42, 2		1,18
26″	59,24, 8,56,40,56,15,50, 2,52		4,20,34, 6,31	
		17,41,23,35,17,35,31		1,18
28″	59,24, 9,14,22,19,51, 7,38,23		4,20,34, 7,49	
		17,41,19,14,43,27,42		1,18
30″	59,24, 9,32, 3,39, 5,51, 6, 5		4,20,34, 9, 7	
		17,41,14,54, 9,18,35		1,18
32″	59,24, 9,49,44,54, 0, 0,24,40		4,20,34,10,25	
		17,41,10,33,35, 8,10		1,18
34″	59,24,10, 7,26, 4,33,35,32,50		4,20,34,11,43	
		17,41, 6,13, 0,56,27		1,18
36″	59,24,10,25, 7,10,46,36,29,17		4,20,34,13, 1	
		17,41, 1,52,26,43,26		1,18
38″	59,24,10,42,48,12,39, 3,12,43		4,20,34,14,19	
		17,40,57,31,52,29, 7		1,18
40″	59,24,11, 0,29,10,10,55,41,50		4,20,34,15,37	
		17,40,53,11,18,13,30		1,18
42″	59,24,11,18,10, 3,22,13,55,20		4,20,34,16,55	
		17,40,48,50,43,56,35		1,18
44″	59,24,11,35,50,52,12,57,51,55		4,20,34,18,13	
		17,40,44,30, 9,38,22		1,18
46″	59,24,11,53,31,36,43, 7,30,17		4,20,34,19,31	
		17,40,40, 9,35,18,51		1,18
48″	59,24,12,11,12,16,52,42,49, 8		4,20,34,20,49	
		17,40,35,49, 0,58, 2		1,18
50″	59,24,12,28,52,52,41,43,47,10		4,20,34,22, 7	
		17,40,31,28,26,35,55		1,18
52″	59,24,12,46,33,24,10,10,23, 5		4,20,34,23,25	
		17,40,27, 7,52,12,30		1,18
54″	59,24,13, 4,13,51,18, 2,35,35		4,20,34,24,43	
		17,40,22,47,17,47,47		1,18
56″	59,24,13,21,54,14, 5,20,23,22		4,20,34,26, 1	
		17,40,18,26,43,21,46		1,18
58″	59,24,13,39,34,32,32, 3,45, 8		4,20,34,27,19	
		17,40,14, 6, 8,54,27		
60″	59,24,13,57,14,46,38,12,39,35			
exact	59,24,13,57,14,46,38,13, 7, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°55′ 0″	59,24,13,57,14,46,38,13, 7, 1			
		17,40, 9,45,34,28,48		
2″	59,24,14,14,54,56,23,47,35,49		4,20,34,29,42	
		17,40, 5,24,59,59, 6		1,18
4″	59,24,14,32,35, 1,48,47,34,55		4,20,34,31, 0	
		17,40, 1, 4,25,28, 6		1,18
6″	59,24,14,50,15, 2,53,13, 3, 1		4,20,34,32,18	
		17,39,56,43,50,55,48		1,18
8″	59,24,15, 7,54,59,37, 3,58,49		4,20,34,33,36	
		17,39,52,23,16,22,12		1,18
10″	59,24,15,25,34,52, 0,20,21, 1		4,20,34,34,54	
		17,39,48, 2,41,47,18		1,18
12″	59,24,15,43,14,40, 3, 2, 8,19		4,20,34,36,12	
		17,39,43,42, 7,11, 6		1,18
14″	59,24,16, 0,54,23,45, 9,19,25		4,20,34,37,30	
		17,39,39,21,32,33,36		1,18
16″	59,24,16,18,34, 3, 6,41,53, 1		4,20,34,38,48	
		17,39,35, 0,57,54,48		1,18
18″	59,24,16,36,13,38, 7,39,47,49		4,20,34,40, 6	
		17,39,30,40,23,14,42		1,18
20″	59,24,16,53,53, 8,48, 3, 2,31		4,20,34,41,24	
		17,39,26,19,48,33,18		1,18
22″	59,24,17,11,32,35, 7,51,35,49		4,20,34,42,42	
		17,39,21,59,13,50,36		1,18
24″	59,24,17,29,11,57, 7, 5,26,25		4,20,34,44, 0	
		17,39,17,38,39, 6,36		1,18
26″	59,24,17,46,51,14,45,44,33, 1		4,20,34,45,18	
		17,39,13,18, 4,21,18		1,18
28″	59,24,18, 4,30,28, 3,48,54,19		4,20,34,46,36	
		17,39, 8,57,29,34,42		1,18
30″	59,24,18,22, 9,37, 1,18,29, 1		4,20,34,47,54	
		17,39, 4,36,54,46,48		1,18
32″	59,24,18,39,48,41,38,13,15,49		4,20,34,49,12	
		17,39, 0,16,19,57,36		1,18
34″	59,24,18,57,27,41,54,33,13,25		4,20,34,50,30	
		17,38,55,55,45, 7, 6		1,18
36″	59,24,19,15, 6,37,50,18,20,31		4,20,34,51,48	
		17,38,51,35,10,15,18		1,18
38″	59,24,19,32,45,29,25,28,35,49		4,20,34,53, 6	
		17,38,47,14,35,22,12		1,18
40″	59,24,19,50,24,16,40, 3,58, 1		4,20,34,54,24	
		17,38,42,54, 0,27,48		1,18
42″	59,24,20, 8, 2,59,34, 4,25,49		4,20,34,55,42	
		17,38,38,33,25,32, 6		1,18
44″	59,24,20,25,41,38, 7,29,57,55		4,20,34,57, 0	
		17,38,34,12,50,35, 6		1,18
46″	59,24,20,43,20,12,20,20,33, 1		4,20,34,58,18	
		17,38,29,52,15,36,48		1,18
48″	59,24,21, 0,58,42,12,36, 9,49		4,20,34,59,36	
		17,38,25,31,40,37,12		1,18
50″	59,24,21,18,37, 7,44,16,47, 1		4,20,35, 0,54	
		17,38,21,11, 5,36,18		1,18
52″	59,24,21,36,15,28,55,22,23,19		4,20,35, 2,12	
		17,38,16,50,30,34, 6		1,18
54″	59,24,21,53,53,45,45,52,57,25		4,20,35, 3,30	
		17,38,12,29,55,30,36		1,18
56″	59,24,22,11,31,58,15,48,28, 1		4,20,35, 4,48	
		17,38, 8, 9,20,25,48		1,18
58″	59,24,22,29,10, 6,25, 8,53,49		4,20,35, 6, 6	
		17,38, 3,48,45,19,42		
60″	59,24,22,46,48,10,13,54,13,31			
exact	59,24,22,46,48,10,13,54,48, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°56′ 0″	59,24,22,46,48,10,13,54,48, 1			
		17,37,59,28,10,16,10		
2″	59,24,23, 4,26, 9,42, 5, 4,11		4,20,35, 8,25	
		17,37,55, 7,35, 7,45		1,17
4″	59,24,23,22, 4, 4,49,40,11,56		4,20,35, 9,42	
		17,37,50,46,59,58, 3		1,17
6″	59,24,23,39,41,55,36,40, 9,59		4,20,35,10,59	
		17,37,46,26,24,47, 4		1,17
8″	59,24,23,57,19,42, 3, 4,57, 3		4,20,35,12,16	
		17,37,42, 5,49,34,48		1,17
10″	59,24,24,14,57,24, 8,54,31,51		4,20,35,13,33	
		17,37,37,45,14,21,15		1,17
12″	59,24,24,32,35, 1,54, 8,53, 6		4,20,35,14,50	
		17,37,33,24,39, 6,25		1,17
14″	59,24,24,50,12,35,18,47,59,31		4,20,35,16, 7	
		17,37,29, 4, 3,50,18		1,17
16″	59,24,25, 7,50, 4,22,51,49,49		4,20,35,17,24	
		17,37,24,43,28,32,54		1,17
18″	59,24,25,25,27,29, 6,20,22,43		4,20,35,18,41	
		17,37,20,22,53,14,13		1,17
20″	59,24,25,43, 4,49,29,13,36,56		4,20,35,19,58	
		17,37,16, 2,17,54,15		1,17
22″	59,24,26, 0,42, 5,31,31,31,11		4,20,35,21,15	
		17,37,11,41,42,33, 0		1,17
24″	59,24,26,18,19,17,13,14, 4,11		4,20,35,22,32	
		17,37, 7,21, 7,10,28		1,17
26″	59,24,26,35,56,24,34,21,14,39		4,20,35,23,49	
		17,37, 3, 0,31,46,39		1,17
28″	59,24,26,53,33,27,34,53, 1,18		4,20,35,25, 6	
		17,36,58,39,56,21,33		1,17
30″	59,24,27,11,10,26,14,49,22,51		4,20,35,26,23	
		17,36,54,19,20,55,10		1,17
32″	59,24,27,28,47,20,34,10,18, 1		4,20,35,27,40	
		17,36,49,58,45,27,30		1,17
34″	59,24,27,46,24,10,32,55,45,31		4,20,35,28,57	
		17,36,45,38, 9,58,33		1,17
36″	59,24,28, 4, 0,56,11, 5,44, 4		4,20,35,30,14	
		17,36,41,17,34,28,19		1,17
38″	59,24,28,21,37,37,28,40,12,23		4,20,35,31,31	
		17,36,36,56,58,56,48		1,17
40″	59,24,28,39,14,14,25,39, 9,11		4,20,35,32,48	
		17,36,32,36,23,24, 0		1,17
42″	59,24,28,56,50,47, 2, 2,33,11		4,20,35,34, 5	
		17,36,28,15,47,49,55		1,17
44″	59,24,29,14,27,15,17,50,23, 6		4,20,35,35,22	
		17,36,23,55,12,14,33		1,17
46″	59,24,29,32, 3,39,13, 2,37,39		4,20,35,36,39	
		17,36,19,34,36,37,54		1,17
48″	59,24,29,49,39,58,47,39,15,33		4,20,35,37,56	
		17,36,15,14, 0,59,58		1,17
50″	59,24,30, 7,16,14, 1,40,15,31		4,20,35,39,13	
		17,36,10,53,25,20,45		1,17
52″	59,24,30,24,52,24,55, 5,36,16		4,20,35,40,30	
		17,36, 6,32,49,40,15		1,17
54″	59,24,30,42,28,31,27,55,16,31		4,20,35,41,47	
		17,36, 2,12,13,58,28		1,17
56″	59,24,31, 0, 4,33,40, 9,14,59		4,20,35,43, 4	
		17,35,57,51,38,15,24		1,17
58″	59,24,31,17,40,31,31,47,30,23		4,20,35,44,21	
		17,35,53,31, 2,31, 3		
60″	59,24,31,35,16,25, 2,50, 1,26			
exact	59,24,31,35,16,25, 2,49,40,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°57′ 0″	59,24,31,35,16,25, 2,49,40,54			
		17,35,49,10,26,43,19		
2″	59,24,31,52,52,14,13,16,24,13		4,20,35,47, 3	
		17,35,44,49,50,56,16		1,17
4″	59,24,32,10,27,59, 3, 7,20,29		4,20,35,48,20	
		17,35,40,29,15, 7,56		1,17
6″	59,24,32,28, 3,39,32,22,28,25		4,20,35,49,37	
		17,35,36, 8,39,18,19		1,17
8″	59,24,32,45,39,15,41, 1,46,44		4,20,35,50,54	
		17,35,31,48, 3,27,25		1,17
10″	59,24,33, 3,14,47,29, 5,14, 9		4,20,35,52,11	
		17,35,27,27,27,35,14		1,17
12″	59,24,33,20,50,14,56,32,49,23		4,20,35,53,28	
		17,35,23, 6,51,41,46		1,17
14″	59,24,33,38,25,38, 3,24,31, 9		4,20,35,54,45	
		17,35,18,46,15,47, 1		1,17
16″	59,24,33,56, 0,56,49,40,18,10		4,20,35,56, 2	
		17,35,14,25,39,50,59		1,17
18″	59,24,34,13,36,11,15,20, 9, 9		4,20,35,57,19	
		17,35,10, 5, 3,53,40		1,17
20″	59,24,34,31,11,21,20,24, 2,49		4,20,35,58,36	
		17,35, 5,44,27,55, 4		1,17
22″	59,24,34,48,46,27, 4,51,57,53		4,20,35,59,53	
		17,35, 1,23,51,55,11		1,17
24″	59,24,35, 6,21,28,28,43,53, 4		4,20,36, 1,10	
		17,34,57, 3,15,54, 1		1,17
26″	59,24,35,23,56,25,31,59,47, 5		4,20,36, 2,27	
		17,34,52,42,39,51,34		1,17
28″	59,24,35,41,31,18,14,39,38,39		4,20,36, 3,44	
		17,34,48,22, 3,47,50		1,17
30″	59,24,35,59, 6, 6,36,43,26,29		4,20,36, 5, 1	
		17,34,44, 1,27,42,49		1,17
32″	59,24,36,16,40,50,38,11, 9,18		4,20,36, 6,18	
		17,34,39,40,51,36,31		1,17
34″	59,24,36,34,15,30,19, 2,45,49		4,20,36, 7,35	
		17,34,35,20,15,28,56		1,17
36″	59,24,36,51,50, 5,39,18,14,45		4,20,36, 8,52	
		17,34,30,59,39,20, 4		1,17
38″	59,24,37, 9,24,36,38,57,34,49		4,20,36,10, 9	
		17,34,26,39, 3, 9,55		1,17
40″	59,24,37,26,59, 3,18, 0,44,44		4,20,36,11,26	
		17,34,22,18,26,58,29		1,17
42″	59,24,37,44,33,25,36,27,43,13		4,20,36,12,43	
		17,34,17,57,50,45,46		1,17
44″	59,24,38, 2, 7,43,34,18,28,59		4,20,36,14, 0	
		17,34,13,37,14,31,46		1,17
46″	59,24,38,19,41,57,11,33, 0,45		4,20,36,15,17	
		17,34, 9,16,38,16,29		1,17
48″	59,24,38,37,16, 6,28,11,17,14		4,20,36,16,34	
		17,34, 4,56, 1,59,55		1,17
50″	59,24,38,54,50,11,24,13,17, 9		4,20,36,17,51	
		17,34, 0,35,25,42, 4		1,17
52″	59,24,39,12,24,11,59,38,59,13		4,20,36,19, 8	
		17,33,56,14,49,22,56		1,17
54″	59,24,39,29,58, 8,14,28,22, 9		4,20,36,20,25	
		17,33,51,54,13, 2,31		1,17
56″	59,24,39,47,32, 0, 8,41,24,40		4,20,36,21,42	
		17,33,47,33,36,40,49		1,17
58″	59,24,40, 5, 5,47,42,18, 5,29		4,20,36,22,59	
		17,33,43,13, 0,17,50		
60″	59,24,40,22,39,30,55,18,23,19			
exact	59,24,40,22,39,30,55,18,13,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°58′ 0″	59,24,40,22,39,30,55,18,13,40			
		17,33,38,52,23,52,37		
2″	59,24,40,40,13, 9,47,42, 6,17		4,20,36,25,36	
		17,33,34,31,47,27, 1		1,17
4″	59,24,40,57,46,44,19,29,33,18		4,20,36,26,53	
		17,33,30,11,11, 0, 8		1,17
6″	59,24,41,15,20,14,30,40,33,26		4,20,36,28,10	
		17,33,25,50,34,31,58		1,17
8″	59,24,41,32,53,40,21,15, 5,24		4,20,36,29,27	
		17,33,21,29,58, 2,31		1,17
10″	59,24,41,50,27, 1,51,13, 7,55		4,20,36,30,44	
		17,33,17, 9,21,31,47		1,17
12″	59,24,42, 8, 0,19, 0,34,39,42		4,20,36,32, 1	
		17,33,12,48,44,59,46		1,17
14″	59,24,42,25,33,31,49,19,39,28		4,20,36,33,18	
		17,33, 8,28, 8,26,28		1,17
16″	59,24,42,43, 6,40,17,28, 5,56		4,20,36,34,35	
		17,33, 4, 7,31,51,53		1,17
18″	59,24,43, 0,39,44,24,59,57,49		4,20,36,35,52	
		17,32,59,46,55,16, 1		1,17
20″	59,24,43,18,12,44,11,55,13,50		4,20,36,37, 9	
		17,32,55,26,18,38,52		1,17
22″	59,24,43,35,45,39,38,13,52,42		4,20,36,38,26	
		17,32,51, 5,42, 0,26		1,17
24″	59,24,43,53,18,30,43,55,53, 8		4,20,36,39,43	
		17,32,46,45, 5,20,43		1,17
26″	59,24,44,10,51,17,29, 1,13,51		4,20,36,41, 0	
		17,32,42,24,28,39,43		1,17
28″	59,24,44,28,23,59,53,29,53,34		4,20,36,42,17	
		17,32,38, 3,51,57,26		1,17
30″	59,24,44,45,56,37,57,21,51, 0		4,20,36,43,34	
		17,32,33,43,15,13,52		1,17
32″	59,24,45, 3,29,11,40,37, 4,52		4,20,36,44,51	
		17,32,29,22,38,29, 1		1,17
34″	59,24,45,21, 1,41, 3,15,33,53		4,20,36,46, 8	
		17,32,25, 2, 1,42,53		1,17
36″	59,24,45,38,34, 6, 5,17,16,46		4,20,36,47,25	
		17,32,20,41,24,55,28		1,17
38″	59,24,45,56, 6,26,46,42,12,14		4,20,36,48,42	
		17,32,16,20,48, 6,46		1,17
40″	59,24,46,13,38,43, 7,30,19, 0		4,20,36,49,59	
		17,32,12, 0,11,16,47		1,17
42″	59,24,46,31,10,55, 7,41,35,47		4,20,36,51,16	
		17,32, 7,39,34,25,31		1,17
44″	59,24,46,48,43, 2,47,16, 1,18		4,20,36,52,33	
		17,32, 3,18,57,32,58		1,17
46″	59,24,47, 6,15, 6, 6,13,34,16		4,20,36,53,50	
		17,31,58,58,20,39, 8		1,17
48″	59,24,47,23,47, 5, 4,34,13,24		4,20,36,55, 7	
		17,31,54,37,43,44, 1		1,17
50″	59,24,47,41,18,59,42,17,57,25		4,20,36,56,24	
		17,31,50,17, 6,47,37		1,17
52″	59,24,47,58,50,49,59,24,45, 2		4,20,36,57,41	
		17,31,45,56,29,49,56		1,17
54″	59,24,48,16,22,35,55,54,34,58		4,20,36,58,58	
		17,31,41,35,52,50,58		1,17
56″	59,24,48,33,54,17,31,47,25,56		4,20,37, 0,15	
		17,31,37,15,15,50,43		1,17
58″	59,24,48,51,25,54,47, 3,16,39		4,20,37, 1,32	
		17,31,32,54,38,49,11		
60″	59,24,49, 8,57,27,41,42, 5,50			
exact	59,24,49, 8,57,27,41,42, 5,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
81°59′ 0″	59,24,49, 8,57,27,41,42, 5,48			
		17,31,28,34, 1,46,29		
2″	59,24,49,26,28,56,15,43,52,17		4,20,37, 4, 5	
		17,31,24,13,24,42,24		1,17
4″	59,24,49,44, 0,20,29, 8,34,41		4,20,37, 5,22	
		17,31,19,52,47,37, 2		1,17
6″	59,24,50, 1,31,40,21,56,11,43		4,20,37, 6,39	
		17,31,15,32,10,30,23		1,17
8″	59,24,50,19, 2,55,54, 6,42, 6		4,20,37, 7,56	
		17,31,11,11,33,22,27		1,17
10″	59,24,50,36,34, 7, 5,40, 4,33		4,20,37, 9,13	
		17,31, 6,50,56,13,14		1,17
12″	59,24,50,54, 5,13,56,36,17,47		4,20,37,10,30	
		17,31, 2,30,19, 2,44		1,17
14″	59,24,51,11,36,16,26,55,20,31		4,20,37,11,47	
		17,30,58, 9,41,50,57		1,17
16″	59,24,51,29, 7,14,36,37,11,28		4,20,37,13, 4	
		17,30,53,49, 4,37,53		1,17
18″	59,24,51,46,38, 8,25,41,49,21		4,20,37,14,21	
		17,30,49,28,27,23,32		1,17
20″	59,24,52, 4, 8,57,54, 9,12,53		4,20,37,15,38	
		17,30,45, 7,50, 7,54		1,17
22″	59,24,52,21,39,43, 1,59,20,47		4,20,37,16,55	
		17,30,40,47,12,50,59		1,17
24″	59,24,52,39,10,23,49,12,11,46		4,20,37,18,12	
		17,30,36,26,35,32,47		1,17
26″	59,24,52,56,41, 0,15,47,44,33		4,20,37,19,29	
		17,30,32, 5,58,13,18		1,17
28″	59,24,53,14,11,32,21,45,57,51		4,20,37,20,46	
		17,30,27,45,20,52,32		1,17
30″	59,24,53,31,42, 0, 7, 6,50,23		4,20,37,22, 3	
		17,30,23,24,43,30,29		1,17
32″	59,24,53,49,12,23,31,50,20,52		4,20,37,23,20	
		17,30,19, 4, 6, 7, 9		1,17
34″	59,24,54, 6,42,42,35,56,28, 1		4,20,37,24,37	
		17,30,14,43,28,42,32		1,17
36″	59,24,54,24,12,57,19,25,10,33		4,20,37,25,54	
		17,30,10,22,51,16,38		1,17
38″	59,24,54,41,43, 7,42,16,27,11		4,20,37,27,11	
		17,30, 6, 2,13,49,27		1,17
40″	59,24,54,59,13,13,44,30,16,38		4,20,37,28,28	
		17,30, 1,41,36,20,59		1,17
42″	59,24,55,16,43,15,26, 6,37,37		4,20,37,29,45	
		17,29,57,20,58,51,14		1,17
44″	59,24,55,34,13,12,47, 5,28,51		4,20,37,31, 2	
		17,29,53, 0,21,20,12		1,17
46″	59,24,55,51,43, 5,47,26,49, 3		4,20,37,32,19	
		17,29,48,39,43,47,53		1,17
48″	59,24,56, 9,12,54,27,10,36,56		4,20,37,33,36	
		17,29,44,19, 6,14,17		1,17
50″	59,24,56,26,42,38,46,16,51,13		4,20,37,34,53	
		17,29,39,58,28,39,24		1,17
52″	59,24,56,44,12,18,44,45,30,37		4,20,37,36,10	
		17,29,35,37,51, 3,14		1,17
54″	59,24,57, 1,41,54,22,36,33,51		4,20,37,37,27	
		17,29,31,17,13,25,47		1,17
56″	59,24,57,19,11,25,39,49,59,38		4,20,37,38,44	
		17,29,26,56,35,47, 3		1,17
58″	59,24,57,36,40,52,36,25,46,41		4,20,37,40, 1	
		17,29,22,35,58, 7, 2		
60″	59,24,57,54,10,15,12,23,53,43			
exact	59,24,57,54,10,15,12,24, 8,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82° 0′ 0″	59,24,57,54,10,15,12,24, 8,12			
		17,29,18,15,20,27,16		
2″	59,24,58,11,39,33,27,44,35,28		4,20,37,42,28	
		17,29,13,54,42,44,48		1,17
4″	59,24,58,29, 8,47,22,27,20,16		4,20,37,43,45	
		17,29, 9,34, 5, 1, 3		1,17
6″	59,24,58,46,37,56,56,32,21,19		4,20,37,45, 2	
		17,29, 5,13,27,16, 1		1,17
8″	59,24,59, 4, 7, 2, 9,59,37,20		4,20,37,46,19	
		17,29, 0,52,49,29,42		1,17
10″	59,24,59,21,36, 3, 2,49, 7, 2		4,20,37,47,36	
		17,28,56,32,11,42, 6		1,17
12″	59,24,59,39, 4,59,35, 0,49, 8		4,20,37,48,53	
		17,28,52,11,33,53,13		1,17
14″	59,24,59,56,33,51,46,34,42,21		4,20,37,50,10	
		17,28,47,50,56, 3, 3		1,17
16″	59,25, 0,14, 2,39,37,30,45,24		4,20,37,51,27	
		17,28,43,30,18,11,36		1,17
18″	59,25, 0,31,31,23, 7,48,57, 0		4,20,37,52,44	
		17,28,39, 9,40,18,52		1,17
20″	59,25, 0,49, 0, 2,17,29,15,52		4,20,37,54, 1	
		17,28,34,49, 2,24,51		1,17
22″	59,25, 1, 6,28,37, 6,31,40,43		4,20,37,55,18	
		17,28,30,28,24,29,33		1,17
24″	59,25, 1,23,57, 7,34,56,10,16		4,20,37,56,35	
		17,28,26, 7,46,32,58		1,17
26″	59,25, 1,41,25,33,42,42,43,14		4,20,37,57,52	
		17,28,21,47, 8,35, 6		1,17
28″	59,25, 1,58,53,55,29,51,18,20		4,20,37,59, 9	
		17,28,17,26,30,35,57		1,17
30″	59,25, 2,16,22,12,56,21,54,17		4,20,38, 0,26	
		17,28,13, 5,52,35,31		1,17
32″	59,25, 2,33,50,26, 2,14,29,48		4,20,38, 1,43	
		17,28, 8,45,14,33,48		1,17
34″	59,25, 2,51,18,34,47,29, 3,36		4,20,38, 3, 0	
		17,28, 4,24,36,30,48		1,17
36″	59,25, 3, 8,46,39,12, 5,34,24		4,20,38, 4,17	
		17,28, 0, 3,58,26,31		1,17
38″	59,25, 3,26,14,39,16, 4, 0,55		4,20,38, 5,34	
		17,27,55,43,20,20,57		1,17
40″	59,25, 3,43,42,34,59,24,21,52		4,20,38, 6,51	
		17,27,51,22,42,14, 6		1,17
42″	59,25, 4, 1,10,26,22, 6,35,58		4,20,38, 8, 8	
		17,27,47, 2, 4, 5,58		1,17
44″	59,25, 4,18,38,13,24,10,41,56		4,20,38, 9,25	
		17,27,42,41,25,56,33		1,17
46″	59,25, 4,36, 5,56, 5,36,38,29		4,20,38,10,42	
		17,27,38,20,47,45,51		1,17
48″	59,25, 4,53,33,34,26,24,24,20		4,20,38,11,59	
		17,27,34, 0, 9,33,52		1,17
50″	59,25, 5,11, 1, 8,26,33,58,12		4,20,38,13,16	
		17,27,29,39,31,20,36		1,17
52″	59,25, 5,28,28,38, 6, 5,18,48		4,20,38,14,33	
		17,27,25,18,53, 6, 3		1,17
54″	59,25, 5,45,56, 3,24,58,24,51		4,20,38,15,50	
		17,27,20,58,14,50,13		1,17
56″	59,25, 6, 3,23,24,23,13,15, 4		4,20,38,17, 7	
		17,27,16,37,36,33, 6		1,17
58″	59,25, 6,20,50,41, 0,49,48,10		4,20,38,18,24	
		17,27,12,16,58,14,42		
60″	59,25, 6,38,17,53,17,48, 2,52			
exact	59,25, 6,38,17,53,17,48,23,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82° 1′ 0″	59,25, 6,38,17,53,17,48,23,13			
		17,27, 7,56,19,57,22		
2″	59,25, 6,55,45, 1,14, 8,20,35		4,20,38,20,47	
		17,27, 3,35,41,36,35		1,17
4″	59,25, 7,13,12, 4,49,49,57,10		4,20,38,22, 4	
		17,26,59,15, 3,14,31		1,17
6″	59,25, 7,30,39, 4, 4,53,11,41		4,20,38,23,21	
		17,26,54,54,24,51,10		1,17
8″	59,25, 7,48, 5,58,59,18, 2,51		4,20,38,24,38	
		17,26,50,33,46,26,32		1,17
10″	59,25, 8, 5,32,49,33, 4,29,23		4,20,38,25,55	
		17,26,46,13, 8, 0,37		1,17
12″	59,25, 8,22,59,35,46,12,30, 0		4,20,38,27,12	
		17,26,41,52,29,33,25		1,17
14″	59,25, 8,40,26,17,38,42, 3,25		4,20,38,28,29	
		17,26,37,31,51, 4,56		1,17
16″	59,25, 8,57,52,55,10,33, 8,21		4,20,38,29,46	
		17,26,33,11,12,35,10		1,17
18″	59,25, 9,15,19,28,21,45,43,31		4,20,38,31, 3	
		17,26,28,50,34, 4, 7		1,17
20″	59,25, 9,32,45,57,12,19,47,38		4,20,38,32,20	
		17,26,24,29,55,31,47		1,17
22″	59,25, 9,50,12,21,42,15,19,25		4,20,38,33,37	
		17,26,20, 9,16,58,10		1,17
24″	59,25,10, 7,38,41,51,32,17,35		4,20,38,34,54	
		17,26,15,48,38,23,16		1,17
26″	59,25,10,25, 4,57,40,10,40,51		4,20,38,36,11	
		17,26,11,27,59,47, 5		1,17
28″	59,25,10,42,31, 9, 8,10,27,56		4,20,38,37,28	
		17,26, 7, 7,21, 9,37		1,17
30″	59,25,10,59,57,16,15,31,37,33		4,20,38,38,45	
		17,26, 2,46,42,30,52		1,17
32″	59,25,11,17,23,19, 2,14, 8,25		4,20,38,40, 2	
		17,25,58,26, 3,50,50		1,17
34″	59,25,11,34,49,17,28,17,59,15		4,20,38,41,19	
		17,25,54, 5,25, 9,31		1,17
36″	59,25,11,52,15,11,33,43, 8,46		4,20,38,42,36	
		17,25,49,44,46,26,55		1,17
38″	59,25,12, 9,41, 1,18,29,35,41		4,20,38,43,53	
		17,25,45,24, 7,43, 2		1,17
40″	59,25,12,27, 6,46,42,37,18,43		4,20,38,45,10	
		17,25,41, 3,28,57,52		1,17
42″	59,25,12,44,32,27,46, 6,16,35		4,20,38,46,27	
		17,25,36,42,50,11,25		1,17
44″	59,25,13, 1,58, 4,28,56,28, 0		4,20,38,47,44	
		17,25,32,22,11,23,41		1,17
46″	59,25,13,19,23,36,51, 7,51,41		4,20,38,49, 1	
		17,25,28, 1,32,34,40		1,17
48″	59,25,13,36,49, 4,52,40,26,21		4,20,38,50,18	
		17,25,23,40,53,44,22		1,17
50″	59,25,13,54,14,28,33,34,10,43		4,20,38,51,35	
		17,25,19,20,14,52,47		1,17
52″	59,25,14,11,39,47,53,49, 3,30		4,20,38,52,52	
		17,25,14,59,35,59,55		1,17
54″	59,25,14,29, 5, 2,53,25, 3,25		4,20,38,54, 9	
		17,25,10,38,57, 5,46		1,17
56″	59,25,14,46,30,13,32,22, 9,11		4,20,38,55,26	
		17,25, 6,18,18,10,20		1,17
58″	59,25,15, 3,55,19,50,40,19,31		4,20,38,56,43	
		17,25, 1,57,39,13,37		
60″	59,25,15,21,20,21,48,19,33, 8			
exact	59,25,15,21,20,21,48,20, 4,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82° 2′ 0″	59,25,15,21,20,21,48,20, 4,39			
		17,24,57,37, 0,19, 9		
2″	59,25,15,38,45,19,25,20,23,48		4,20,38,59, 1	
		17,24,53,16,21,20, 8		1,16
4″	59,25,15,56,10,12,41,41,43,56		4,20,39, 0,17	
		17,24,48,55,42,19,51		1,16
6″	59,25,16,13,35, 1,37,24, 3,47		4,20,39, 1,33	
		17,24,44,35, 3,18,18		1,16
8″	59,25,16,30,59,46,12,27,22, 5		4,20,39, 2,49	
		17,24,40,14,24,15,29		1,16
10″	59,25,16,48,24,26,26,51,37,34		4,20,39, 4, 5	
		17,24,35,53,45,11,24		1,16
12″	59,25,17, 5,49, 2,20,36,48,58		4,20,39, 5,21	
		17,24,31,33, 6, 6, 3		1,16
14″	59,25,17,23,13,33,53,42,55, 1		4,20,39, 6,37	
		17,24,27,12,26,59,26		1,16
16″	59,25,17,40,38, 1, 6, 9,54,27		4,20,39, 7,53	
		17,24,22,51,47,51,33		1,16
18″	59,25,17,58, 2,23,57,57,46, 0		4,20,39, 9, 9	
		17,24,18,31, 8,42,24		1,16
20″	59,25,18,15,26,42,29, 6,28,24		4,20,39,10,25	
		17,24,14,10,29,31,59		1,16
22″	59,25,18,32,50,56,39,36, 0,23		4,20,39,11,41	
		17,24, 9,49,50,20,18		1,16
24″	59,25,18,50,15, 6,29,26,20,41		4,20,39,12,57	
		17,24, 5,29,11, 7,21		1,16
26″	59,25,19, 7,39,11,58,37,28, 2		4,20,39,14,13	
		17,24, 1, 8,31,53, 8		1,16
28″	59,25,19,25, 3,13, 7, 9,21,10		4,20,39,15,29	
		17,23,56,47,52,37,39		1,16
30″	59,25,19,42,27, 9,55, 1,58,49		4,20,39,16,45	
		17,23,52,27,13,20,54		1,16
32″	59,25,19,59,51, 2,22,15,19,43		4,20,39,18, 1	
		17,23,48, 6,34, 2,53		1,16
34″	59,25,20,17,14,50,28,49,22,36		4,20,39,19,17	
		17,23,43,45,54,43,36		1,16
36″	59,25,20,34,38,34,14,44, 6,12		4,20,39,20,33	
		17,23,39,25,15,23, 3		1,16
38″	59,25,20,52, 2,13,39,59,29,15		4,20,39,21,49	
		17,23,35, 4,36, 1,14		1,16
40″	59,25,21, 9,25,48,44,35,30,29		4,20,39,23, 5	
		17,23,30,43,56,38, 9		1,16
42″	59,25,21,26,49,19,28,32, 8,38		4,20,39,24,21	
		17,23,26,23,17,13,48		1,16
44″	59,25,21,44,12,45,51,49,22,26		4,20,39,25,37	
		17,23,22, 2,37,48,11		1,16
46″	59,25,22, 1,36, 7,54,27,10,37		4,20,39,26,53	
		17,23,17,41,58,21,18		1,16
48″	59,25,22,18,59,25,36,25,31,55		4,20,39,28, 9	
		17,23,13,21,18,53, 9		1,16
50″	59,25,22,36,22,38,57,44,25, 4		4,20,39,29,25	
		17,23, 9, 0,39,23,44		1,16
52″	59,25,22,53,45,47,58,23,48,48		4,20,39,30,41	
		17,23, 4,39,59,53, 3		1,16
54″	59,25,23,11, 8,52,38,23,41,51		4,20,39,31,57	
		17,23, 0,19,20,21, 6		1,16
56″	59,25,23,28,31,52,57,44, 2,57		4,20,39,33,13	
		17,22,55,58,40,47,53		1,16
58″	59,25,23,45,54,48,56,24,50,50		4,20,39,34,29	
		17,22,51,38, 1,13,24		
60″	59,25,24, 3,17,40,34,26, 4,14			
exact	59,25,24, 3,17,40,34,25,37,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82° 3′ 0″	59,25,24, 3,17,40,34,25,37,48			
		17,22,47,17,21,35, 1		
2″	59,25,24,20,40,27,51,47,12,49		4,20,39,37,11	
		17,22,42,56,41,57,50		1,16
4″	59,25,24,38, 3,10,48,29,10,39		4,20,39,38,27	
		17,22,38,36, 2,19,23		1,16
6″	59,25,24,55,25,49,24,31,30, 2		4,20,39,39,43	
		17,22,34,15,22,39,40		1,16
8″	59,25,25,12,48,23,39,54, 9,42		4,20,39,40,59	
		17,22,29,54,42,58,41		1,16
10″	59,25,25,30,10,53,34,37, 8,23		4,20,39,42,15	
		17,22,25,34, 3,16,26		1,16
12″	59,25,25,47,33,19, 8,40,24,49		4,20,39,43,31	
		17,22,21,13,23,32,55		1,16
14″	59,25,26, 4,55,40,22, 3,57,44		4,20,39,44,47	
		17,22,16,52,43,48, 8		1,16
16″	59,25,26,22,17,57,14,47,45,52		4,20,39,46, 3	
		17,22,12,32, 4, 2, 5		1,16
18″	59,25,26,39,40, 9,46,51,47,57		4,20,39,47,19	
		17,22, 8,11,24,14,46		1,16
20″	59,25,26,57, 2,17,58,16, 2,43		4,20,39,48,35	
		17,22, 3,50,44,26,11		1,16
22″	59,25,27,14,24,21,49, 0,28,54		4,20,39,49,51	
		17,21,59,30, 4,36,20		1,16
24″	59,25,27,31,46,21,19, 5, 5,14		4,20,39,51, 7	
		17,21,55, 9,24,45,13		1,16
26″	59,25,27,49, 8,16,28,29,50,27		4,20,39,52,23	
		17,21,50,48,44,52,50		1,16
28″	59,25,28, 6,30, 7,17,14,43,17		4,20,39,53,39	
		17,21,46,28, 4,59,11		1,16
30″	59,25,28,23,51,53,45,19,42,28		4,20,39,54,55	
		17,21,42, 7,25, 4,16		1,16
32″	59,25,28,41,13,35,52,44,46,44		4,20,39,56,11	
		17,21,37,46,45, 8, 5		1,16
34″	59,25,28,58,35,13,39,29,54,49		4,20,39,57,27	
		17,21,33,26, 5,10,38		1,16
36″	59,25,29,15,56,47, 5,35, 5,27		4,20,39,58,43	
		17,21,29, 5,25,11,55		1,16
38″	59,25,29,33,18,16,11, 0,17,22		4,20,39,59,59	
		17,21,24,44,45,11,56		1,16
40″	59,25,29,50,39,40,55,45,29,18		4,20,40, 1,15	
		17,21,20,24, 5,10,41		1,16
42″	59,25,30, 8, 1, 1,19,50,39,59		4,20,40, 2,31	
		17,21,16, 3,25, 8,10		1,16
44″	59,25,30,25,22,17,23,15,48, 9		4,20,40, 3,47	
		17,21,11,42,45, 4,23		1,16
46″	59,25,30,42,43,29, 6, 0,52,32		4,20,40, 5, 3	
		17,21, 7,22, 4,59,20		1,16
48″	59,25,31, 0, 4,36,28, 5,51,52		4,20,40, 6,19	
		17,21, 3, 1,24,53, 1		1,16
50″	59,25,31,17,25,39,29,30,44,53		4,20,40, 7,35	
		17,20,58,40,44,45,26		1,16
52″	59,25,31,34,46,38,10,15,30,19		4,20,40, 8,51	
		17,20,54,20, 4,36,35		1,16
54″	59,25,31,52, 7,32,30,20, 6,54		4,20,40,10, 7	
		17,20,49,59,24,26,28		1,16
56″	59,25,32, 9,28,22,29,44,33,22		4,20,40,11,23	
		17,20,45,38,44,15, 5		1,16
58″	59,25,32,26,49, 8, 8,28,48,27		4,20,40,12,39	
		17,20,41,18, 4, 2,26		
60″	59,25,32,44, 9,49,26,32,50,53			
exact	59,25,32,44, 9,49,26,32,39,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82° 4′ 0″	59,25,32,44, 9,49,26,32,39,22			
		17,20,36,57,23,47,19		
2″	59,25,33, 1,30,26,23,56,26,41		4,20,40,15,15	
		17,20,32,36,43,32, 4		1,16
4″	59,25,33,18,50,59, 0,39,58,45		4,20,40,16,31	
		17,20,28,16, 3,15,33		1,16
6″	59,25,33,36,11,27,16,43,14,18		4,20,40,17,47	
		17,20,23,55,22,57,46		1,16
8″	59,25,33,53,31,51,12, 6,12, 4		4,20,40,19, 3	
		17,20,19,34,42,38,43		1,16
10″	59,25,34,10,52,10,46,48,50,47		4,20,40,20,19	
		17,20,15,14, 2,18,24		1,16
12″	59,25,34,28,12,26, 0,51, 9,11		4,20,40,21,35	
		17,20,10,53,21,56,49		1,16
14″	59,25,34,45,32,36,54,13, 6, 0		4,20,40,22,51	
		17,20, 6,32,41,33,58		1,16
16″	59,25,35, 2,52,43,26,54,39,58		4,20,40,24, 7	
		17,20, 2,12, 1, 9,51		1,16
18″	59,25,35,20,12,45,38,55,49,49		4,20,40,25,23	
		17,19,57,51,20,44,28		1,16
20″	59,25,35,37,32,43,30,16,34,17		4,20,40,26,39	
		17,19,53,30,40,17,49		1,16
22″	59,25,35,54,52,37, 0,56,52, 6		4,20,40,27,55	
		17,19,49, 9,59,49,54		1,16
24″	59,25,36,12,12,26,10,56,42, 0		4,20,40,29,11	
		17,19,44,49,19,20,43		1,16
26″	59,25,36,29,32,11, 0,16, 2,43		4,20,40,30,27	
		17,19,40,28,38,50,16		1,16
28″	59,25,36,46,51,51,28,54,52,59		4,20,40,31,43	
		17,19,36, 7,58,18,33		1,16
30″	59,25,37, 4,11,27,36,53,11,32		4,20,40,32,59	
		17,19,31,47,17,45,34		1,16
32″	59,25,37,21,30,59,24,10,57, 6		4,20,40,34,15	
		17,19,27,26,37,11,19		1,16
34″	59,25,37,38,50,26,50,48, 8,25		4,20,40,35,31	
		17,19,23, 5,56,35,48		1,16
36″	59,25,37,56, 9,49,56,44,44,13		4,20,40,36,47	
		17,19,18,45,15,59, 1		1,16
38″	59,25,38,13,29, 8,42, 0,43,14		4,20,40,38, 3	
		17,19,14,24,35,20,58		1,16
40″	59,25,38,30,48,23, 6,36, 4,12		4,20,40,39,19	
		17,19,10, 3,54,41,39		1,16
42″	59,25,38,48, 7,33,10,30,45,51		4,20,40,40,35	
		17,19, 5,43,14, 1, 4		1,16
44″	59,25,39, 5,26,38,53,44,46,55		4,20,40,41,51	
		17,19, 1,22,33,19,13		1,16
46″	59,25,39,22,45,40,16,18, 6, 8		4,20,40,43, 7	
		17,18,57, 1,52,36, 6		1,16
48″	59,25,39,40, 4,37,18,10,42,14		4,20,40,44,23	
		17,18,52,41,11,51,43		1,16
50″	59,25,39,57,23,29,59,22,33,57		4,20,40,45,39	
		17,18,48,20,31, 6, 4		1,16
52″	59,25,40,14,42,18,19,53,40, 1		4,20,40,46,55	
		17,18,43,59,50,19, 9		1,16
54″	59,25,40,32, 1, 2,19,43,59,10		4,20,40,48,11	
		17,18,39,39, 9,30,58		1,16
56″	59,25,40,49,19,41,58,53,30, 8		4,20,40,49,27	
		17,18,35,18,28,41,31		1,16
58″	59,25,41, 6,38,17,17,22,11,39		4,20,40,50,43	
		17,18,30,57,47,50,48		
60″	59,25,41,23,56,48,15,10, 2,27			
exact	59,25,41,23,56,48,15, 9,57,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82° 5′ 0″	59,25,41,23,56,48,15, 9,57,31			
		17,18,26,37, 6,58,28		
2″	59,25,41,41,15,14,52,16,55,59		4,20,40,53,15	
		17,18,22,16,26, 5,13		1,16
4″	59,25,41,58,33,37, 8,43, 1,12		4,20,40,54,31	
		17,18,17,55,45,10,42		1,16
6″	59,25,42,15,51,55, 4,28,11,54		4,20,40,55,47	
		17,18,13,35, 4,14,55		1,16
8″	59,25,42,33,10, 8,39,32,26,49		4,20,40,57, 3	
		17,18, 9,14,23,17,52		1,16
10″	59,25,42,50,28,17,53,55,44,41		4,20,40,58,19	
		17,18, 4,53,42,19,33		1,16
12″	59,25,43, 7,46,22,47,38, 4,14		4,20,40,59,35	
		17,18, 0,33, 1,19,58		1,16
14″	59,25,43,25, 4,23,20,39,24,12		4,20,41, 0,51	
		17,17,56,12,20,19, 7		1,16
16″	59,25,43,42,22,19,32,59,43,19		4,20,41, 2, 7	
		17,17,51,51,39,17, 0		1,16
18″	59,25,43,59,40,11,24,39, 0,19		4,20,41, 3,23	
		17,17,47,30,58,13,37		1,16
20″	59,25,44,16,57,58,55,37,13,56		4,20,41, 4,39	
		17,17,43,10,17, 8,58		1,16
22″	59,25,44,34,15,42, 5,54,22,54		4,20,41, 5,55	
		17,17,38,49,36, 3, 3		1,16
24″	59,25,44,51,33,20,55,30,25,57		4,20,41, 7,11	
		17,17,34,28,54,55,52		1,16
26″	59,25,45, 8,50,55,24,25,21,49		4,20,41, 8,27	
		17,17,30, 8,13,47,25		1,16
28″	59,25,45,26, 8,25,32,39, 9,14		4,20,41, 9,43	
		17,17,25,47,32,37,42		1,16
30″	59,25,45,43,25,51,20,11,46,56		4,20,41,10,59	
		17,17,21,26,51,26,43		1,16
32″	59,25,46, 0,43,12,47, 3,13,39		4,20,41,12,15	
		17,17,17, 6,10,14,28		1,16
34″	59,25,46,18, 0,29,53,13,28, 7		4,20,41,13,31	
		17,17,12,45,29, 0,57		1,16
36″	59,25,46,35,17,42,38,42,29, 4		4,20,41,14,47	
		17,17, 8,24,47,46,10		1,16
38″	59,25,46,52,34,51, 3,30,15,14		4,20,41,16, 3	
		17,17, 4, 4, 6,30, 7		1,16
40″	59,25,47, 9,51,55, 7,36,45,21		4,20,41,17,19	
		17,16,59,43,25,12,48		1,16
42″	59,25,47,27, 8,54,51, 1,58, 9		4,20,41,18,35	
		17,16,55,22,43,54,13		1,16
44″	59,25,47,44,25,50,13,45,52,22		4,20,41,19,51	
		17,16,51, 2, 2,34,22		1,16
46″	59,25,48, 1,42,41,15,48,26,44		4,20,41,21, 7	
		17,16,46,41,21,13,15		1,16
48″	59,25,48,18,59,27,57, 9,39,59		4,20,41,22,23	
		17,16,42,20,39,50,52		1,16
50″	59,25,48,36,16,10,17,49,30,51		4,20,41,23,39	
		17,16,37,59,58,27,13		1,16
52″	59,25,48,53,32,48,17,47,58, 4		4,20,41,24,55	
		17,16,33,39,17, 2,18		1,16
54″	59,25,49,10,49,21,57, 5, 0,22		4,20,41,26,11	
		17,16,29,18,35,36, 7		1,16
56″	59,25,49,28, 5,51,15,40,36,29		4,20,41,27,27	
		17,16,24,57,54, 8,40		1,16
58″	59,25,49,45,22,16,13,34,45, 9		4,20,41,28,43	
		17,16,20,37,12,39,57		
60″	59,25,50, 2,38,36,50,47,25, 6			
exact	59,25,50, 2,38,36,50,47,31,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82° 6′ 0″	59,25,50, 2,38,36,50,47,31,57			
		17,16,16,16,31,10,51		
2″	59,25,50,19,54,53, 7,18,42,48		4,20,41,31,10	
		17,16,11,55,49,39,41		1,16
4″	59,25,50,37,11, 5, 3, 8,22,29		4,20,41,32,26	
		17,16, 7,35, 8, 7,15		1,16
6″	59,25,50,54,27,12,38,16,29,44		4,20,41,33,42	
		17,16, 3,14,26,33,33		1,16
8″	59,25,51,11,43,15,52,43, 3,17		4,20,41,34,58	
		17,15,58,53,44,58,35		1,16
10″	59,25,51,28,59,14,46,28, 1,52		4,20,41,36,14	
		17,15,54,33, 3,22,21		1,16
12″	59,25,51,46,15, 9,19,31,24,13		4,20,41,37,30	
		17,15,50,12,21,44,51		1,16
14″	59,25,52, 3,30,59,31,53, 9, 4		4,20,41,38,46	
		17,15,45,51,40, 6, 5		1,16
16″	59,25,52,20,46,45,23,33,15, 9		4,20,41,40, 2	
		17,15,41,30,58,26, 3		1,16
18″	59,25,52,38, 2,26,54,31,41,12		4,20,41,41,18	
		17,15,37,10,16,44,45		1,16
20″	59,25,52,55,18, 4, 4,48,25,57		4,20,41,42,34	
		17,15,32,49,35, 2,11		1,16
22″	59,25,53,12,33,36,54,23,28, 8		4,20,41,43,50	
		17,15,28,28,53,18,21		1,16
24″	59,25,53,29,49, 5,23,16,46,29		4,20,41,45, 6	
		17,15,24, 8,11,33,15		1,16
26″	59,25,53,47, 4,29,31,28,19,44		4,20,41,46,22	
		17,15,19,47,29,46,53		1,16
28″	59,25,54, 4,19,49,18,58, 6,37		4,20,41,47,38	
		17,15,15,26,47,59,15		1,16
30″	59,25,54,21,35, 4,45,46, 5,52		4,20,41,48,54	
		17,15,11, 6, 6,10,21		1,16
32″	59,25,54,38,50,15,51,52,16,13		4,20,41,50,10	
		17,15, 6,45,24,20,11		1,16
34″	59,25,54,56, 5,22,37,16,36,24		4,20,41,51,26	
		17,15, 2,24,42,28,45		1,16
36″	59,25,55,13,20,25, 1,59, 5, 9		4,20,41,52,42	
		17,14,58, 4, 0,36, 3		1,16
38″	59,25,55,30,35,23, 5,59,41,12		4,20,41,53,58	
		17,14,53,43,18,42, 5		1,16
40″	59,25,55,47,50,16,49,18,23,17		4,20,41,55,14	
		17,14,49,22,36,46,51		1,16
42″	59,25,56, 5, 5, 6,11,55,10, 8		4,20,41,56,30	
		17,14,45, 1,54,50,21		1,16
44″	59,25,56,22,19,51,13,50, 0,29		4,20,41,57,46	
		17,14,40,41,12,52,35		1,16
46″	59,25,56,39,34,31,55, 2,53, 4		4,20,41,59, 2	
		17,14,36,20,30,53,33		1,16
48″	59,25,56,56,49, 8,15,33,46,37		4,20,42, 0,18	
		17,14,31,59,48,53,15		1,16
50″	59,25,57,14, 3,40,15,22,39,52		4,20,42, 1,34	
		17,14,27,39, 6,51,41		1,16
52″	59,25,57,31,18, 7,54,29,31,33		4,20,42, 2,50	
		17,14,23,18,24,48,51		1,16
54″	59,25,57,48,32,31,12,54,20,24		4,20,42, 4, 6	
		17,14,18,57,42,44,45		1,16
56″	59,25,58, 5,46,50,10,37, 5, 9		4,20,42, 5,22	
		17,14,14,37, 0,39,23		1,16
58″	59,25,58,23, 1, 4,47,37,44,32		4,20,42, 6,38	
		17,14,10,16,18,32,45		
60″	59,25,58,40,15,15, 3,56,17,17			
exact	59,25,58,40,15,15, 3,56,33,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82° 7′ 0″	59,25,58,40,15,15, 3,56,33,44			
		17,14, 5,55,36,26,49		
2″	59,25,58,57,29,20,59,33, 0,33		4,20,42, 9, 1	
		17,14, 1,34,54,17,48		1,16
4″	59,25,59,14,43,22,34,27,18,21		4,20,42,10,17	
		17,13,57,14,12, 7,31		1,16
6″	59,25,59,31,57,19,48,39,25,52		4,20,42,11,33	
		17,13,52,53,29,55,58		1,16
8″	59,25,59,49,11,12,42, 9,21,50		4,20,42,12,49	
		17,13,48,32,47,43, 9		1,16
10″	59,26, 0, 6,25, 1,14,57, 4,59		4,20,42,14, 5	
		17,13,44,12, 5,29, 4		1,16
12″	59,26, 0,23,38,45,27, 2,34, 3		4,20,42,15,21	
		17,13,39,51,23,13,43		1,16
14″	59,26, 0,40,52,25,18,25,47,46		4,20,42,16,37	
		17,13,35,30,40,57, 6		1,16
16″	59,26, 0,58, 6, 0,49, 6,44,52		4,20,42,17,53	
		17,13,31, 9,58,39,13		1,16
18″	59,26, 1,15,19,31,59, 5,24, 5		4,20,42,19, 9	
		17,13,26,49,16,20, 4		1,16
20″	59,26, 1,32,32,58,48,21,44, 9		4,20,42,20,25	
		17,13,22,28,33,59,39		1,16
22″	59,26, 1,49,46,21,16,55,43,48		4,20,42,21,41	
		17,13,18, 7,51,37,58		1,16
24″	59,26, 2, 6,59,39,24,47,21,46		4,20,42,22,57	
		17,13,13,47, 9,15, 1		1,16
26″	59,26, 2,24,12,53,11,56,36,47		4,20,42,24,13	
		17,13, 9,26,26,50,48		1,16
28″	59,26, 2,41,26, 2,38,23,27,35		4,20,42,25,29	
		17,13, 5, 5,44,25,19		1,16
30″	59,26, 2,58,39, 7,44, 7,52,54		4,20,42,26,45	
		17,13, 0,45, 1,58,34		1,16
32″	59,26, 3,15,52, 8,29, 9,51,28		4,20,42,28, 1	
		17,12,56,24,19,30,33		1,16
34″	59,26, 3,33, 5, 4,53,29,22, 1		4,20,42,29,17	
		17,12,52, 3,37, 1,16		1,16
36″	59,26, 3,50,17,56,57, 6,23,17		4,20,42,30,33	
		17,12,47,42,54,30,43		1,16
38″	59,26, 4, 7,30,44,40, 0,54, 0		4,20,42,31,49	
		17,12,43,22,11,58,54		1,16
40″	59,26, 4,24,43,28, 2,12,52,54		4,20,42,33, 5	
		17,12,39, 1,29,25,49		1,16
42″	59,26, 4,41,56, 7, 3,42,18,43		4,20,42,34,21	
		17,12,34,40,46,51,28		1,16
44″	59,26, 4,59, 8,41,44,29,10,11		4,20,42,35,37	
		17,12,30,20, 4,15,51		1,16
46″	59,26, 5,16,21,12, 4,33,26, 2		4,20,42,36,53	
		17,12,25,59,21,38,58		1,16
48″	59,26, 5,33,33,38, 3,55, 5, 0		4,20,42,38, 9	
		17,12,21,38,39, 0,49		1,16
50″	59,26, 5,50,45,59,42,34, 5,49		4,20,42,39,25	
		17,12,17,17,56,21,24		1,16
52″	59,26, 6, 7,58,17, 0,30,27,13		4,20,42,40,41	
		17,12,12,57,13,40,43		1,16
54″	59,26, 6,25,10,29,57,44, 7,56		4,20,42,41,57	
		17,12, 8,36,30,58,46		1,16
56″	59,26, 6,42,22,38,34,15, 6,42		4,20,42,43,13	
		17,12, 4,15,48,15,33		1,16
58″	59,26, 6,59,34,42,50, 3,22,15		4,20,42,44,29	
		17,11,59,55, 5,31, 4		
60″	59,26, 7,16,46,42,45, 8,53,19			
exact	59,26, 7,16,46,42,45, 9,25,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82° 8′ 0″	59,26, 7,16,46,42,45, 9,25,29			
		17,11,55,34,22,48,46		
2″	59,26, 7,33,58,38,19,32,14,15		4,20,42,46,46	
		17,11,51,13,40, 2, 0		1,15
4″	59,26, 7,51,10,29,33,12,16,15		4,20,42,48, 1	
		17,11,46,52,57,13,59		1,15
6″	59,26, 8, 8,22,16,26, 9,30,14		4,20,42,49,16	
		17,11,42,32,14,24,43		1,15
8″	59,26, 8,25,33,58,58,23,54,57		4,20,42,50,31	
		17,11,38,11,31,34,12		1,15
10″	59,26, 8,42,45,37, 9,55,29, 9		4,20,42,51,46	
		17,11,33,50,48,42,26		1,15
12″	59,26, 8,59,57,11, 0,44,11,35		4,20,42,53, 1	
		17,11,29,30, 5,49,25		1,15
14″	59,26, 9,17, 8,40,30,50, 1, 0		4,20,42,54,16	
		17,11,25, 9,22,55, 9		1,15
16″	59,26, 9,34,20, 5,40,12,56, 9		4,20,42,55,31	
		17,11,20,48,39,59,38		1,15
18″	59,26, 9,51,31,26,28,52,55,47		4,20,42,56,46	
		17,11,16,27,57, 2,52		1,15
20″	59,26,10, 8,42,42,56,49,58,39		4,20,42,58, 1	
		17,11,12, 7,14, 4,51		1,15
22″	59,26,10,25,53,55, 4, 4, 3,30		4,20,42,59,16	
		17,11, 7,46,31, 5,35		1,15
24″	59,26,10,43, 5, 2,50,35, 9, 5		4,20,43, 0,31	
		17,11, 3,25,48, 5, 4		1,15
26″	59,26,11, 0,16, 6,16,23,14, 9		4,20,43, 1,46	
		17,10,59, 5, 5, 3,18		1,15
28″	59,26,11,17,27, 5,21,28,17,27		4,20,43, 3, 1	
		17,10,54,44,22, 0,17		1,15
30″	59,26,11,34,38, 0, 5,50,17,44		4,20,43, 4,16	
		17,10,50,23,38,56, 1		1,15
32″	59,26,11,51,48,50,29,29,13,45		4,20,43, 5,31	
		17,10,46, 2,55,50,30		1,15
34″	59,26,12, 8,59,36,32,25, 4,15		4,20,43, 6,46	
		17,10,41,42,12,43,44		1,15
36″	59,26,12,26,10,18,14,37,47,59		4,20,43, 8, 1	
		17,10,37,21,29,35,43		1,15
38″	59,26,12,43,20,55,36, 7,23,42		4,20,43, 9,16	
		17,10,33, 0,46,26,27		1,15
40″	59,26,13, 0,31,28,36,53,50, 9		4,20,43,10,31	
		17,10,28,40, 3,15,56		1,15
42″	59,26,13,17,41,57,16,57, 6, 5		4,20,43,11,46	
		17,10,24,19,20, 4,10		1,15
44″	59,26,13,34,52,21,36,17,10,15		4,20,43,13, 1	
		17,10,19,58,36,51, 9		1,15
46″	59,26,13,52, 2,41,34,54, 1,24		4,20,43,14,16	
		17,10,15,37,53,36,53		1,15
48″	59,26,14, 9,12,57,12,47,38,17		4,20,43,15,31	
		17,10,11,17,10,21,22		1,15
50″	59,26,14,26,23, 8,29,57,59,39		4,20,43,16,46	
		17,10, 6,56,27, 4,36		1,15
52″	59,26,14,43,33,15,26,25, 4,15		4,20,43,18, 1	
		17,10, 2,35,43,46,35		1,15
54″	59,26,15, 0,43,18, 2, 8,50,50		4,20,43,19,16	
		17, 9,58,15, 0,27,19		1,15
56″	59,26,15,17,53,16,17, 9,18, 9		4,20,43,20,31	
		17, 9,53,54,17, 6,48		1,15
58″	59,26,15,35, 3,10,11,26,24,57		4,20,43,21,46	
		17, 9,49,33,33,45, 2		
60″	59,26,15,52,12,59,45, 0, 9,59			
exact	59,26,15,52,12,59,44,59,41,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82° 9′ 0″	59,26,15,52,12,59,44,59,41,15			
		17, 9,45,12,50,19, 6		
2″	59,26,16, 9,22,44,57,50, 0,21		4,20,43,24,27	
		17, 9,40,52, 6,54,39		1,15
4″	59,26,16,26,32,25,49,56,55, 0		4,20,43,25,42	
		17, 9,36,31,23,28,57		1,15
6″	59,26,16,43,42, 2,21,20,23,57		4,20,43,26,57	
		17, 9,32,10,40, 2, 0		1,15
8″	59,26,17, 0,51,34,32, 0,25,57		4,20,43,28,12	
		17, 9,27,49,56,33,48		1,15
10″	59,26,17,18, 1, 2,21,56,59,45		4,20,43,29,27	
		17, 9,23,29,13, 4,21		1,15
12″	59,26,17,35,10,25,51,10, 4, 6		4,20,43,30,42	
		17, 9,19, 8,29,33,39		1,15
14″	59,26,17,52,19,44,59,39,37,45		4,20,43,31,57	
		17, 9,14,47,46, 1,42		1,15
16″	59,26,18, 9,28,59,47,25,39,27		4,20,43,33,12	
		17, 9,10,27, 2,28,30		1,15
18″	59,26,18,26,38,10,14,28, 7,57		4,20,43,34,27	
		17, 9, 6, 6,18,54, 3		1,15
20″	59,26,18,43,47,16,20,47, 2, 0		4,20,43,35,42	
		17, 9, 1,45,35,18,21		1,15
22″	59,26,19, 0,56,18, 6,22,20,21		4,20,43,36,57	
		17, 8,57,24,51,41,24		1,15
24″	59,26,19,18, 5,15,31,14, 1,45		4,20,43,38,12	
		17, 8,53, 4, 8, 3,12		1,15
26″	59,26,19,35,14, 8,35,22, 4,57		4,20,43,39,27	
		17, 8,48,43,24,23,45		1,15
28″	59,26,19,52,22,57,18,46,28,42		4,20,43,40,42	
		17, 8,44,22,40,43, 3		1,15
30″	59,26,20, 9,31,41,41,27,11,45		4,20,43,41,57	
		17, 8,40, 1,57, 1, 6		1,15
32″	59,26,20,26,40,21,43,24,12,51		4,20,43,43,12	
		17, 8,35,41,13,17,54		1,15
34″	59,26,20,43,48,57,24,37,30,45		4,20,43,44,27	
		17, 8,31,20,29,33,27		1,15
36″	59,26,21, 0,57,28,45, 7, 4,12		4,20,43,45,42	
		17, 8,26,59,45,47,45		1,15
38″	59,26,21,18, 5,55,44,52,51,57		4,20,43,46,57	
		17, 8,22,39, 2, 0,48		1,15
40″	59,26,21,35,14,18,23,54,52,45		4,20,43,48,12	
		17, 8,18,18,18,12,36		1,15
42″	59,26,21,52,22,36,42,13, 5,21		4,20,43,49,27	
		17, 8,13,57,34,23, 9		1,15
44″	59,26,22, 9,30,50,39,47,28,30		4,20,43,50,42	
		17, 8, 9,36,50,32,27		1,15
46″	59,26,22,26,39, 0,16,38, 0,57		4,20,43,51,57	
		17, 8, 5,16, 6,40,30		1,15
48″	59,26,22,43,47, 5,32,44,41,27		4,20,43,53,12	
		17, 8, 0,55,22,47,18		1,15
50″	59,26,23, 0,55, 6,28, 7,28,45		4,20,43,54,27	
		17, 7,56,34,38,52,51		1,15
52″	59,26,23,18, 3, 3, 2,46,21,36		4,20,43,55,42	
		17, 7,52,13,54,57, 9		1,15
54″	59,26,23,35,10,55,16,41,18,45		4,20,43,56,57	
		17, 7,47,53,11, 0,12		1,15
56″	59,26,23,52,18,43, 9,52,18,57		4,20,43,58,12	
		17, 7,43,32,27, 2, 0		1,15
58″	59,26,24, 9,26,26,42,19,20,57		4,20,43,59,27	
		17, 7,39,11,43, 2,33		
60″	59,26,24,26,34, 5,54, 2,23,30			
exact	59,26,24,26,34, 5,54, 2, 6,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°10′ 0″	59,26,24,26,34, 5,54, 2, 6,34			
		17, 7,34,50,59, 0,10		
2″	59,26,24,43,41,40,45, 1, 6,44		4,20,44, 2, 3	
		17, 7,30,30,14,58, 7		1,15
4″	59,26,25, 0,49,11,15,16, 4,51		4,20,44, 3,18	
		17, 7,26, 9,30,54,49		1,15
6″	59,26,25,17,56,37,24,46,59,40		4,20,44, 4,33	
		17, 7,21,48,46,50,16		1,15
8″	59,26,25,35, 3,59,13,33,49,56		4,20,44, 5,48	
		17, 7,17,28, 2,44,28		1,15
10″	59,26,25,52,11,16,41,36,34,24		4,20,44, 7, 3	
		17, 7,13, 7,18,37,25		1,15
12″	59,26,26, 9,18,29,48,55,11,49		4,20,44, 8,18	
		17, 7, 8,46,34,29, 7		1,15
14″	59,26,26,26,25,38,35,29,40,56		4,20,44, 9,33	
		17, 7, 4,25,50,19,34		1,15
16″	59,26,26,43,32,43, 1,20, 0,30		4,20,44,10,48	
		17, 7, 0, 5, 6, 8,46		1,15
18″	59,26,27, 0,39,43, 6,26, 9,16		4,20,44,12, 3	
		17, 6,55,44,21,56,43		1,15
20″	59,26,27,17,46,38,50,48, 5,59		4,20,44,13,18	
		17, 6,51,23,37,43,25		1,15
22″	59,26,27,34,53,30,14,25,49,24		4,20,44,14,33	
		17, 6,47, 2,53,28,52		1,15
24″	59,26,27,52, 0,17,17,19,18,16		4,20,44,15,48	
		17, 6,42,42, 9,13, 4		1,15
26″	59,26,28, 9, 6,59,59,28,31,20		4,20,44,17, 3	
		17, 6,38,21,24,56, 1		1,15
28″	59,26,28,26,13,38,20,53,27,21		4,20,44,18,18	
		17, 6,34, 0,40,37,43		1,15
30″	59,26,28,43,20,12,21,34, 5, 4		4,20,44,19,33	
		17, 6,29,39,56,18,10		1,15
32″	59,26,29, 0,26,42, 1,30,23,14		4,20,44,20,48	
		17, 6,25,19,11,57,22		1,15
34″	59,26,29,17,33, 7,20,42,20,36		4,20,44,22, 3	
		17, 6,20,58,27,35,19		1,15
36″	59,26,29,34,39,28,19, 9,55,55		4,20,44,23,18	
		17, 6,16,37,43,12, 1		1,15
38″	59,26,29,51,45,44,56,53, 7,56		4,20,44,24,33	
		17, 6,12,16,58,47,28		1,15
40″	59,26,30, 8,51,57,13,51,55,24		4,20,44,25,48	
		17, 6, 7,56,14,21,40		1,15
42″	59,26,30,25,58, 5,10, 6,17, 4		4,20,44,27, 3	
		17, 6, 3,35,29,54,37		1,15
44″	59,26,30,43, 4, 8,45,36,11,41		4,20,44,28,18	
		17, 5,59,14,45,26,19		1,15
46″	59,26,31, 0,10, 8, 0,21,38, 0		4,20,44,29,33	
		17, 5,54,54, 0,56,46		1,15
48″	59,26,31,17,16, 2,54,22,34,46		4,20,44,30,48	
		17, 5,50,33,16,25,58		1,15
50″	59,26,31,34,21,53,27,39, 0,44		4,20,44,32, 3	
		17, 5,46,12,31,53,55		1,15
52″	59,26,31,51,27,39,40,10,54,39		4,20,44,33,18	
		17, 5,41,51,47,20,37		1,15
54″	59,26,32, 8,33,21,31,58,15,16		4,20,44,34,33	
		17, 5,37,31, 2,46, 4		1,15
56″	59,26,32,25,38,59, 3, 1, 1,20		4,20,44,35,48	
		17, 5,33,10,18,10,16		1,15
58″	59,26,32,42,44,32,13,19,11,36		4,20,44,37, 3	
		17, 5,28,49,33,33,13		
60″	59,26,32,59,50, 1, 2,52,44,49			
exact	59,26,32,59,50, 1, 2,52,38,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°11′ 0″	59,26,32,59,50, 1, 2,52,38,27			
		17, 5,24,28,48,54,22		
2″	59,26,33,16,55,25,31,41,32,49		4,20,44,39,34	
		17, 5,20, 8, 4,14,48		1,15
4″	59,26,33,34, 0,45,39,45,47,37		4,20,44,40,49	
		17, 5,15,47,19,33,59		1,15
6″	59,26,33,51, 6, 1,27, 5,21,36		4,20,44,42, 4	
		17, 5,11,26,34,51,55		1,15
8″	59,26,34, 8,11,12,53,40,13,31		4,20,44,43,19	
		17, 5, 7, 5,50, 8,36		1,15
10″	59,26,34,25,16,19,59,30,22, 7		4,20,44,44,34	
		17, 5, 2,45, 5,24, 2		1,15
12″	59,26,34,42,21,22,44,35,46, 9		4,20,44,45,49	
		17, 4,58,24,20,38,13		1,15
14″	59,26,34,59,26,21, 8,56,24,22		4,20,44,47, 4	
		17, 4,54, 3,35,51, 9		1,15
16″	59,26,35,16,31,15,12,32,15,31		4,20,44,48,19	
		17, 4,49,42,51, 2,50		1,15
18″	59,26,35,33,36, 4,55,23,18,21		4,20,44,49,34	
		17, 4,45,22, 6,13,16		1,15
20″	59,26,35,50,40,50,17,29,31,37		4,20,44,50,49	
		17, 4,41, 1,21,22,27		1,15
22″	59,26,36, 7,45,31,18,50,54, 4		4,20,44,52, 4	
		17, 4,36,40,36,30,23		1,15
24″	59,26,36,24,50, 7,59,27,24,27		4,20,44,53,19	
		17, 4,32,19,51,37, 4		1,15
26″	59,26,36,41,54,40,19,19, 1,31		4,20,44,54,34	
		17, 4,27,59, 6,42,30		1,15
28″	59,26,36,58,59, 8,18,25,44, 1		4,20,44,55,49	
		17, 4,23,38,21,46,41		1,15
30″	59,26,37,16, 3,31,56,47,30,42		4,20,44,57, 4	
		17, 4,19,17,36,49,37		1,15
32″	59,26,37,33, 7,51,14,24,20,19		4,20,44,58,19	
		17, 4,14,56,51,51,18		1,15
34″	59,26,37,50,12, 6,11,16,11,37		4,20,44,59,34	
		17, 4,10,36, 6,51,44		1,15
36″	59,26,38, 7,16,16,47,23, 3,21		4,20,45, 0,49	
		17, 4, 6,15,21,50,55		1,15
38″	59,26,38,24,20,23, 2,44,54,16		4,20,45, 2, 4	
		17, 4, 1,54,36,48,51		1,15
40″	59,26,38,41,24,24,57,21,43, 7		4,20,45, 3,19	
		17, 3,57,33,51,45,32		1,15
42″	59,26,38,58,28,22,31,13,28,39		4,20,45, 4,34	
		17, 3,53,13, 6,40,58		1,15
44″	59,26,39,15,32,15,44,20, 9,37		4,20,45, 5,49	
		17, 3,48,52,21,35, 9		1,15
46″	59,26,39,32,36, 4,36,41,44,46		4,20,45, 7, 4	
		17, 3,44,31,36,28, 5		1,15
48″	59,26,39,49,39,49, 8,18,12,51		4,20,45, 8,19	
		17, 3,40,10,51,19,46		1,15
50″	59,26,40, 6,43,29,19, 9,32,37		4,20,45, 9,34	
		17, 3,35,50, 6,10,12		1,15
52″	59,26,40,23,47, 5, 9,15,42,49		4,20,45,10,49	
		17, 3,31,29,20,59,23		1,15
54″	59,26,40,40,50,36,38,36,42,12		4,20,45,12, 4	
		17, 3,27, 8,35,47,19		1,15
56″	59,26,40,57,54, 3,47,12,29,31		4,20,45,13,19	
		17, 3,22,47,50,34, 0		1,15
58″	59,26,41,14,57,26,35, 3, 3,31		4,20,45,14,34	
		17, 3,18,27, 5,19,26		
60″	59,26,41,32, 0,45, 2, 8,22,57			
exact	59,26,41,32, 0,45, 2, 8,25,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°12′ 0″	59,26,41,32, 0,45, 2, 8,25,24			
		17, 3,14, 6,20, 4, 5		
2″	59,26,41,49, 3,59, 8,28,29,29		4,20,45,17, 1	
		17, 3, 9,45,34,47, 4		1,15
4″	59,26,42, 6, 7, 8,54, 3,16,33		4,20,45,18,16	
		17, 3, 5,24,49,28,48		1,15
6″	59,26,42,23,10,14,18,52,45,21		4,20,45,19,31	
		17, 3, 1, 4, 4, 9,17		1,15
8″	59,26,42,40,13,15,22,56,54,38		4,20,45,20,46	
		17, 2,56,43,18,48,31		1,15
10″	59,26,42,57,16,12, 6,15,43, 9		4,20,45,22, 1	
		17, 2,52,22,33,26,30		1,15
12″	59,26,43,14,19, 4,28,49, 9,39		4,20,45,23,16	
		17, 2,48, 1,48, 3,14		1,15
14″	59,26,43,31,21,52,30,37,12,53		4,20,45,24,31	
		17, 2,43,41, 2,38,43		1,15
16″	59,26,43,48,24,36,11,39,51,36		4,20,45,25,46	
		17, 2,39,20,17,12,57		1,15
18″	59,26,44, 5,27,15,31,57, 4,33		4,20,45,27, 1	
		17, 2,34,59,31,45,56		1,15
20″	59,26,44,22,29,50,31,28,50,29		4,20,45,28,16	
		17, 2,30,38,46,17,40		1,15
22″	59,26,44,39,32,21,10,15, 8, 9		4,20,45,29,31	
		17, 2,26,18, 0,48, 9		1,15
24″	59,26,44,56,34,47,28,15,56,18		4,20,45,30,46	
		17, 2,21,57,15,17,23		1,15
26″	59,26,45,13,37, 9,25,31,13,41		4,20,45,32, 1	
		17, 2,17,36,29,45,22		1,15
28″	59,26,45,30,39,27, 2, 0,59, 3		4,20,45,33,16	
		17, 2,13,15,44,12, 6		1,15
30″	59,26,45,47,41,40,17,45,11, 9		4,20,45,34,31	
		17, 2, 8,54,58,37,35		1,15
32″	59,26,46, 4,43,49,12,43,48,44		4,20,45,35,46	
		17, 2, 4,34,13, 1,49		1,15
34″	59,26,46,21,45,53,46,56,50,33		4,20,45,37, 1	
		17, 2, 0,13,27,24,48		1,15
36″	59,26,46,38,47,54, 0,24,15,21		4,20,45,38,16	
		17, 1,55,52,41,46,32		1,15
38″	59,26,46,55,49,49,53, 6, 1,53		4,20,45,39,31	
		17, 1,51,31,56, 7, 1		1,15
40″	59,26,47,12,51,41,25, 2, 8,54		4,20,45,40,46	
		17, 1,47,11,10,26,15		1,15
42″	59,26,47,29,53,28,36,12,35, 9		4,20,45,42, 1	
		17, 1,42,50,24,44,14		1,15
44″	59,26,47,46,55,11,26,37,19,23		4,20,45,43,16	
		17, 1,38,29,39, 0,58		1,15
46″	59,26,48, 3,56,49,56,16,20,21		4,20,45,44,31	
		17, 1,34, 8,53,16,27		1,15
48″	59,26,48,20,58,24, 5, 9,36,48		4,20,45,45,46	
		17, 1,29,48, 7,30,41		1,15
50″	59,26,48,37,59,53,53,17, 7,29		4,20,45,47, 1	
		17, 1,25,27,21,43,40		1,15
52″	59,26,48,55, 1,19,20,38,51, 9		4,20,45,48,16	
		17, 1,21, 6,35,55,24		1,15
54″	59,26,49,12, 2,40,27,14,46,33		4,20,45,49,31	
		17, 1,16,45,50, 5,53		1,15
56″	59,26,49,29, 3,57,13, 4,52,26		4,20,45,50,46	
		17, 1,12,25, 4,15, 7		1,15
58″	59,26,49,46, 5, 9,38, 9, 7,33		4,20,45,52, 1	
		17, 1, 8, 4,18,23, 6		
60″	59,26,50, 3, 6,17,42,27,30,39			
exact	59,26,50, 3, 6,17,42,27,47,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°13′ 0″	59,26,50, 3, 6,17,42,27,47,23			
		17, 1, 3,43,32,31,42		
2″	59,26,50,20, 7,21,26, 0,19, 5		4,20,45,54,23	
		17, 0,59,22,46,37,19		1,15
4″	59,26,50,37, 8,20,48,46,56,24		4,20,45,55,38	
		17, 0,55, 2, 0,41,41		1,15
6″	59,26,50,54, 9,15,50,47,38, 5		4,20,45,56,53	
		17, 0,50,41,14,44,48		1,15
8″	59,26,51,11,10, 6,32, 2,22,53		4,20,45,58, 8	
		17, 0,46,20,28,46,40		1,15
10″	59,26,51,28,10,52,52,31, 9,33		4,20,45,59,23	
		17, 0,41,59,42,47,17		1,15
12″	59,26,51,45,11,34,52,13,56,50		4,20,46, 0,38	
		17, 0,37,38,56,46,39		1,15
14″	59,26,52, 2,12,12,31,10,43,29		4,20,46, 1,53	
		17, 0,33,18,10,44,46		1,15
16″	59,26,52,19,12,45,49,21,28,15		4,20,46, 3, 8	
		17, 0,28,57,24,41,38		1,15
18″	59,26,52,36,13,14,46,46, 9,53		4,20,46, 4,23	
		17, 0,24,36,38,37,15		1,15
20″	59,26,52,53,13,39,23,24,47, 8		4,20,46, 5,38	
		17, 0,20,15,52,31,37		1,15
22″	59,26,53,10,13,59,39,17,18,45		4,20,46, 6,53	
		17, 0,15,55, 6,24,44		1,15
24″	59,26,53,27,14,15,34,23,43,29		4,20,46, 8, 8	
		17, 0,11,34,20,16,36		1,15
26″	59,26,53,44,14,27, 8,44, 0, 5		4,20,46, 9,23	
		17, 0, 7,13,34, 7,13		1,15
28″	59,26,54, 1,14,34,22,18, 7,18		4,20,46,10,38	
		17, 0, 2,52,47,56,35		1,15
30″	59,26,54,18,14,37,15, 6, 3,53		4,20,46,11,53	
		16,59,58,32, 1,44,42		1,15
32″	59,26,54,35,14,35,47, 7,48,35		4,20,46,13, 8	
		16,59,54,11,15,31,34		1,15
34″	59,26,54,52,14,29,58,23,20, 9		4,20,46,14,23	
		16,59,49,50,29,17,11		1,15
36″	59,26,55, 9,14,19,48,52,37,20		4,20,46,15,38	
		16,59,45,29,43, 1,33		1,15
38″	59,26,55,26,14, 5,18,35,38,53		4,20,46,16,53	
		16,59,41, 8,56,44,40		1,15
40″	59,26,55,43,13,46,27,32,23,33		4,20,46,18, 8	
		16,59,36,48,10,26,32		1,15
42″	59,26,56, 0,13,23,15,42,50, 5		4,20,46,19,23	
		16,59,32,27,24, 7, 9		1,15
44″	59,26,56,17,12,55,43, 6,57,14		4,20,46,20,38	
		16,59,28, 6,37,46,31		1,15
46″	59,26,56,34,12,23,49,44,43,45		4,20,46,21,53	
		16,59,23,45,51,24,38		1,15
48″	59,26,56,51,11,47,35,36, 8,23		4,20,46,23, 8	
		16,59,19,25, 5, 1,30		1,15
50″	59,26,57, 8,11, 7, 0,41, 9,53		4,20,46,24,23	
		16,59,15, 4,18,37, 7		1,15
52″	59,26,57,25,10,22, 4,59,47, 0		4,20,46,25,38	
		16,59,10,43,32,11,29		1,15
54″	59,26,57,42, 9,32,48,31,58,29		4,20,46,26,53	
		16,59, 6,22,45,44,36		1,15
56″	59,26,57,59, 8,39,11,17,43, 5		4,20,46,28, 8	
		16,59, 2, 1,59,16,28		1,15
58″	59,26,58,16, 7,41,13,16,59,33		4,20,46,29,23	
		16,58,57,41,12,47, 5		
60″	59,26,58,33, 6,38,54,29,46,38			
exact	59,26,58,33, 6,38,54,30,15,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°14′ 0″	59,26,58,33, 6,38,54,30,15,53			
		16,58,53,20,26,19,35		
2″	59,26,58,50, 5,32,14,56,35,28		4,20,46,31,40	
		16,58,48,59,39,47,55		1,14
4″	59,26,59, 7, 4,21,14,36,23,23		4,20,46,32,54	
		16,58,44,38,53,15, 1		1,14
6″	59,26,59,24, 3, 5,53,29,38,24		4,20,46,34, 8	
		16,58,40,18, 6,40,53		1,14
8″	59,26,59,41, 1,46,11,36,19,17		4,20,46,35,22	
		16,58,35,57,20, 5,31		1,14
10″	59,26,59,58, 0,22, 8,56,24,48		4,20,46,36,36	
		16,58,31,36,33,28,55		1,14
12″	59,27, 0,14,58,53,45,29,53,43		4,20,46,37,50	
		16,58,27,15,46,51, 5		1,14
14″	59,27, 0,31,57,21, 1,16,44,48		4,20,46,39, 4	
		16,58,22,55, 0,12, 1		1,14
16″	59,27, 0,48,55,43,56,16,56,49		4,20,46,40,18	
		16,58,18,34,13,31,43		1,14
18″	59,27, 1, 5,54, 2,30,30,28,32		4,20,46,41,32	
		16,58,14,13,26,50,11		1,14
20″	59,27, 1,22,52,16,43,57,18,43		4,20,46,42,46	
		16,58, 9,52,40, 7,25		1,14
22″	59,27, 1,39,50,26,36,37,26, 8		4,20,46,44, 0	
		16,58, 5,31,53,23,25		1,14
24″	59,27, 1,56,48,32, 8,30,49,33		4,20,46,45,14	
		16,58, 1,11, 6,38,11		1,14
26″	59,27, 2,13,46,33,19,37,27,44		4,20,46,46,28	
		16,57,56,50,19,51,43		1,14
28″	59,27, 2,30,44,30, 9,57,19,27		4,20,46,47,42	
		16,57,52,29,33, 4, 1		1,14
30″	59,27, 2,47,42,22,39,30,23,28		4,20,46,48,56	
		16,57,48, 8,46,15, 5		1,14
32″	59,27, 3, 4,40,10,48,16,38,33		4,20,46,50,10	
		16,57,43,47,59,24,55		1,14
34″	59,27, 3,21,37,54,36,16, 3,28		4,20,46,51,24	
		16,57,39,27,12,33,31		1,14
36″	59,27, 3,38,35,34, 3,28,36,59		4,20,46,52,38	
		16,57,35, 6,25,40,53		1,14
38″	59,27, 3,55,33, 9, 9,54,17,52		4,20,46,53,52	
		16,57,30,45,38,47, 1		1,14
40″	59,27, 4,12,30,39,55,33, 4,53		4,20,46,55, 6	
		16,57,26,24,51,51,55		1,14
42″	59,27, 4,29,28, 6,20,24,56,48		4,20,46,56,20	
		16,57,22, 4, 4,55,35		1,14
44″	59,27, 4,46,25,28,24,29,52,23		4,20,46,57,34	
		16,57,17,43,17,58, 1		1,14
46″	59,27, 5, 3,22,46, 7,47,50,24		4,20,46,58,48	
		16,57,13,22,30,59,13		1,14
48″	59,27, 5,20,19,59,30,18,49,37		4,20,47, 0, 2	
		16,57, 9, 1,43,59,11		1,14
50″	59,27, 5,37,17, 8,32, 2,48,48		4,20,47, 1,16	
		16,57, 4,40,56,57,55		1,14
52″	59,27, 5,54,14,13,12,59,46,43		4,20,47, 2,30	
		16,57, 0,20, 9,55,25		1,14
54″	59,27, 6,11,11,13,33, 9,42, 8		4,20,47, 3,44	
		16,56,55,59,22,51,41		1,14
56″	59,27, 6,28, 8, 9,32,32,33,49		4,20,47, 4,58	
		16,56,51,38,35,46,43		1,14
58″	59,27, 6,45, 5, 1,11, 8,20,32		4,20,47, 6,12	
		16,56,47,17,48,40,31		
60″	59,27, 7, 2, 1,48,28,57, 1, 3			
exact	59,27, 7, 2, 1,48,28,56,33,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°15′ 0″	59,27, 7, 2, 1,48,28,56,33,52			
		16,56,42,57, 1,30, 9		
2″	59,27, 7,18,58,31,25,58, 4, 1		4,20,47, 8,52	
		16,56,38,36,14,21,17		1,14
4″	59,27, 7,35,55,10, 2,12,25,18		4,20,47,10, 6	
		16,56,34,15,27,11,11		1,14
6″	59,27, 7,52,51,44,17,39,36,29		4,20,47,11,20	
		16,56,29,54,39,59,51		1,14
8″	59,27, 8, 9,48,14,12,19,36,20		4,20,47,12,34	
		16,56,25,33,52,47,17		1,14
10″	59,27, 8,26,44,39,46,12,23,37		4,20,47,13,48	
		16,56,21,13, 5,33,29		1,14
12″	59,27, 8,43,41, 0,59,17,57, 6		4,20,47,15, 2	
		16,56,16,52,18,18,27		1,14
14″	59,27, 9, 0,37,17,51,36,15,33		4,20,47,16,16	
		16,56,12,31,31, 2,11		1,14
16″	59,27, 9,17,33,30,23, 7,17,44		4,20,47,17,30	
		16,56, 8,10,43,44,41		1,14
18″	59,27, 9,34,29,38,33,51, 2,25		4,20,47,18,44	
		16,56, 3,49,56,25,57		1,14
20″	59,27, 9,51,25,42,23,47,28,22		4,20,47,19,58	
		16,55,59,29, 9, 5,59		1,14
22″	59,27,10, 8,21,41,52,56,34,21		4,20,47,21,12	
		16,55,55, 8,21,44,47		1,14
24″	59,27,10,25,17,37, 1,18,19, 8		4,20,47,22,26	
		16,55,50,47,34,22,21		1,14
26″	59,27,10,42,13,27,48,52,41,29		4,20,47,23,40	
		16,55,46,26,46,58,41		1,14
28″	59,27,10,59, 9,14,15,39,40,10		4,20,47,24,54	
		16,55,42, 5,59,33,47		1,14
30″	59,27,11,16, 4,56,21,39,13,57		4,20,47,26, 8	
		16,55,37,45,12, 7,39		1,14
32″	59,27,11,33, 0,34, 6,51,21,36		4,20,47,27,22	
		16,55,33,24,24,40,17		1,14
34″	59,27,11,49,56, 7,31,16, 1,53		4,20,47,28,36	
		16,55,29, 3,37,11,41		1,14
36″	59,27,12, 6,51,36,34,53,13,34		4,20,47,29,50	
		16,55,24,42,49,41,51		1,14
38″	59,27,12,23,47, 1,17,42,55,25		4,20,47,31, 4	
		16,55,20,22, 2,10,47		1,14
40″	59,27,12,40,42,21,39,45, 6,12		4,20,47,32,18	
		16,55,16, 1,14,38,29		1,14
42″	59,27,12,57,37,37,40,59,44,41		4,20,47,33,32	
		16,55,11,40,27, 4,57		1,14
44″	59,27,13,14,32,49,21,26,49,38		4,20,47,34,46	
		16,55, 7,19,39,30,11		1,14
46″	59,27,13,31,27,56,41, 6,19,49		4,20,47,36, 0	
		16,55, 2,58,51,54,11		1,14
48″	59,27,13,48,22,59,39,58,14, 0		4,20,47,37,14	
		16,54,58,38, 4,16,57		1,14
50″	59,27,14, 5,17,58,18, 2,30,57		4,20,47,38,28	
		16,54,54,17,16,38,29		1,14
52″	59,27,14,22,12,52,35,19, 9,26		4,20,47,39,42	
		16,54,49,56,28,58,47		1,14
54″	59,27,14,39, 7,42,31,48, 8,13		4,20,47,40,56	
		16,54,45,35,41,17,51		1,14
56″	59,27,14,56, 2,28, 7,29,26, 4		4,20,47,42,10	
		16,54,41,14,53,35,41		1,14
58″	59,27,15,12,57, 9,22,23, 1,45		4,20,47,43,24	
		16,54,36,54, 5,52,17		
60″	59,27,15,29,51,46,16,28,54, 2			
exact	59,27,15,29,51,46,16,28,35,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°16′ 0″	59,27,15,29,51,46,16,28,35,45			
		16,54,32,33,18, 5,45		
2″	59,27,15,46,46,18,49,46,41,30		4,20,47,45,59	
		16,54,28,12,30,19,46		1,14
4″	59,27,16, 3,40,47, 2,17, 1,16		4,20,47,47,13	
		16,54,23,51,42,32,33		1,14
6″	59,27,16,20,35,10,53,59,33,49		4,20,47,48,27	
		16,54,19,30,54,44, 6		1,14
8″	59,27,16,37,29,30,24,54,17,55		4,20,47,49,41	
		16,54,15,10, 6,54,25		1,14
10″	59,27,16,54,23,45,35, 1,12,20		4,20,47,50,55	
		16,54,10,49,19, 3,30		1,14
12″	59,27,17,11,17,56,24,20,15,50		4,20,47,52, 9	
		16,54, 6,28,31,11,21		1,14
14″	59,27,17,28,12, 2,52,51,27,11		4,20,47,53,23	
		16,54, 2, 7,43,17,58		1,14
16″	59,27,17,45, 6, 5, 0,34,45, 9		4,20,47,54,37	
		16,53,57,46,55,23,21		1,14
18″	59,27,18, 2, 0, 2,47,30, 8,30		4,20,47,55,51	
		16,53,53,26, 7,27,30		1,14
20″	59,27,18,18,53,56,13,37,36, 0		4,20,47,57, 5	
		16,53,49, 5,19,30,25		1,14
22″	59,27,18,35,47,45,18,57, 6,25		4,20,47,58,19	
		16,53,44,44,31,32, 6		1,14
24″	59,27,18,52,41,30, 3,28,38,31		4,20,47,59,33	
		16,53,40,23,43,32,33		1,14
26″	59,27,19, 9,35,10,27,12,11, 4		4,20,48, 0,47	
		16,53,36, 2,55,31,46		1,14
28″	59,27,19,26,28,46,30, 7,42,50		4,20,48, 2, 1	
		16,53,31,42, 7,29,45		1,14
30″	59,27,19,43,22,18,12,15,12,35		4,20,48, 3,15	
		16,53,27,21,19,26,30		1,14
32″	59,27,20, 0,15,45,33,34,39, 5		4,20,48, 4,29	
		16,53,23, 0,31,22, 1		1,14
34″	59,27,20,17, 9, 8,34, 6, 1, 6		4,20,48, 5,43	
		16,53,18,39,43,16,18		1,14
36″	59,27,20,34, 2,27,13,49,17,24		4,20,48, 6,57	
		16,53,14,18,55, 9,21		1,14
38″	59,27,20,50,55,41,32,44,26,45		4,20,48, 8,11	
		16,53, 9,58, 7, 1,10		1,14
40″	59,27,21, 7,48,51,30,51,27,55		4,20,48, 9,25	
		16,53, 5,37,18,51,45		1,14
42″	59,27,21,24,41,57, 8,10,19,40		4,20,48,10,39	
		16,53, 1,16,30,41, 6		1,14
44″	59,27,21,41,34,58,24,41, 0,46		4,20,48,11,53	
		16,52,56,55,42,29,13		1,14
46″	59,27,21,58,27,55,20,23,29,59		4,20,48,13, 7	
		16,52,52,34,54,16, 6		1,14
48″	59,27,22,15,20,47,55,17,46, 5		4,20,48,14,21	
		16,52,48,14, 6, 1,45		1,14
50″	59,27,22,32,13,36, 9,23,47,50		4,20,48,15,35	
		16,52,43,53,17,46,10		1,14
52″	59,27,22,49, 6,20, 2,41,34, 0		4,20,48,16,49	
		16,52,39,32,29,29,21		1,14
54″	59,27,23, 5,58,59,35,11, 3,21		4,20,48,18, 3	
		16,52,35,11,41,11,18		1,14
56″	59,27,23,22,51,34,46,52,14,39		4,20,48,19,17	
		16,52,30,50,52,52, 1		1,14
58″	59,27,23,39,44, 5,37,45, 6,40		4,20,48,20,31	
		16,52,26,30, 4,31,30		
60″	59,27,23,56,36,32, 7,49,38,10			
exact	59,27,23,56,36,32, 7,49,27,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°17′ 0″	59,27,23,56,36,32, 7,49,27,31			
		16,52,22, 9,16, 8,47		
2″	59,27,24,13,28,54,17, 5,36,18		4,20,48,23, 2	
		16,52,17,48,27,45,45		1,14
4″	59,27,24,30,21,12, 5,33,22, 3		4,20,48,24,16	
		16,52,13,27,39,21,29		1,14
6″	59,27,24,47,13,25,33,12,43,32		4,20,48,25,30	
		16,52, 9, 6,50,55,59		1,14
8″	59,27,25, 4, 5,34,40, 3,39,31		4,20,48,26,44	
		16,52, 4,46, 2,29,15		1,14
10″	59,27,25,20,57,39,26, 6, 8,46		4,20,48,27,58	
		16,52, 0,25,14, 1,17		1,14
12″	59,27,25,37,49,39,51,20,10, 3		4,20,48,29,12	
		16,51,56, 4,25,32, 5		1,14
14″	59,27,25,54,41,35,55,45,42, 8		4,20,48,30,26	
		16,51,51,43,37, 1,39		1,14
16″	59,27,26,11,33,27,39,22,43,47		4,20,48,31,40	
		16,51,47,22,48,29,59		1,14
18″	59,27,26,28,25,15, 2,11,13,46		4,20,48,32,54	
		16,51,43, 1,59,57, 5		1,14
20″	59,27,26,45,16,58, 4,11,10,51		4,20,48,34, 8	
		16,51,38,41,11,22,57		1,14
22″	59,27,27, 2, 8,36,45,22,33,48		4,20,48,35,22	
		16,51,34,20,22,47,35		1,14
24″	59,27,27,19, 0,11, 5,45,21,23		4,20,48,36,36	
		16,51,29,59,34,10,59		1,14
26″	59,27,27,35,51,41, 5,19,32,22		4,20,48,37,50	
		16,51,25,38,45,33, 9		1,14
28″	59,27,27,52,43, 6,44, 5, 5,31		4,20,48,39, 4	
		16,51,21,17,56,54, 5		1,14
30″	59,27,28, 9,34,28, 2, 1,59,36		4,20,48,40,18	
		16,51,16,57, 8,13,47		1,14
32″	59,27,28,26,25,44,59,10,13,23		4,20,48,41,32	
		16,51,12,36,19,32,15		1,14
34″	59,27,28,43,16,57,35,29,45,38		4,20,48,42,46	
		16,51, 8,15,30,49,29		1,14
36″	59,27,29, 0, 8, 5,51, 0,35, 7		4,20,48,44, 0	
		16,51, 3,54,42, 5,29		1,14
38″	59,27,29,16,59, 9,45,42,40,36		4,20,48,45,14	
		16,50,59,33,53,20,15		1,14
40″	59,27,29,33,50, 9,19,36, 0,51		4,20,48,46,28	
		16,50,55,13, 4,33,47		1,14
42″	59,27,29,50,41, 4,32,40,34,38		4,20,48,47,42	
		16,50,50,52,15,46, 5		1,14
44″	59,27,30, 7,31,55,24,56,20,43		4,20,48,48,56	
		16,50,46,31,26,57, 9		1,14
46″	59,27,30,24,22,41,56,23,17,52		4,20,48,50,10	
		16,50,42,10,38, 6,59		1,14
48″	59,27,30,41,13,24, 7, 1,24,51		4,20,48,51,24	
		16,50,37,49,49,15,35		1,14
50″	59,27,30,58, 4, 1,56,50,40,26		4,20,48,52,38	
		16,50,33,29, 0,22,57		1,14
52″	59,27,31,14,54,35,25,51, 3,23		4,20,48,53,52	
		16,50,29, 8,11,29, 5		1,14
54″	59,27,31,31,45, 4,34, 2,32,28		4,20,48,55, 6	
		16,50,24,47,22,33,59		1,14
56″	59,27,31,48,35,29,21,25, 6,27		4,20,48,56,20	
		16,50,20,26,33,37,39		1,14
58″	59,27,32, 5,25,49,47,58,44, 6		4,20,48,57,34	
		16,50,16, 5,44,40, 5		
60″	59,27,32,22,16, 5,53,43,24,11			
exact	59,27,32,22,16, 5,53,43,26,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°18′ 0″	59,27,32,22,16, 5,53,43,26,35			
		16,50,11,44,55,41,38		
2″	59,27,32,39, 6,17,38,39, 8,13		4,20,49, 0, 0	
		16,50, 7,24, 6,41,38		1,14
4″	59,27,32,55,56,25, 2,45,49,51		4,20,49, 1,14	
		16,50, 3, 3,17,40,24		1,14
6″	59,27,33,12,46,28, 6, 3,30,15		4,20,49, 2,28	
		16,49,58,42,28,37,56		1,14
8″	59,27,33,29,36,26,48,32, 8,11		4,20,49, 3,42	
		16,49,54,21,39,34,14		1,14
10″	59,27,33,46,26,21,10,11,42,25		4,20,49, 4,56	
		16,49,50, 0,50,29,18		1,14
12″	59,27,34, 3,16,11,11, 2,11,43		4,20,49, 6,10	
		16,49,45,40, 1,23, 8		1,14
14″	59,27,34,20, 5,56,51, 3,34,51		4,20,49, 7,24	
		16,49,41,19,12,15,44		1,14
16″	59,27,34,36,55,38,10,15,50,35		4,20,49, 8,38	
		16,49,36,58,23, 7, 6		1,14
18″	59,27,34,53,45,15, 8,38,57,41		4,20,49, 9,52	
		16,49,32,37,33,57,14		1,14
20″	59,27,35,10,34,47,46,12,54,55		4,20,49,11, 6	
		16,49,28,16,44,46, 8		1,14
22″	59,27,35,27,24,16, 2,57,41, 3		4,20,49,12,20	
		16,49,23,55,55,33,48		1,14
24″	59,27,35,44,13,39,58,53,14,51		4,20,49,13,34	
		16,49,19,35, 6,20,14		1,14
26″	59,27,36, 1, 2,59,33,59,35, 5		4,20,49,14,48	
		16,49,15,14,17, 5,26		1,14
28″	59,27,36,17,52,14,48,16,40,31		4,20,49,16, 2	
		16,49,10,53,27,49,24		1,14
30″	59,27,36,34,41,25,41,44,29,55		4,20,49,17,16	
		16,49, 6,32,38,32, 8		1,14
32″	59,27,36,51,30,32,14,23, 2, 3		4,20,49,18,30	
		16,49, 2,11,49,13,38		1,14
34″	59,27,37, 8,19,34,26,12,15,41		4,20,49,19,44	
		16,48,57,50,59,53,54		1,14
36″	59,27,37,25, 8,32,17,12, 9,35		4,20,49,20,58	
		16,48,53,30,10,32,56		1,14
38″	59,27,37,41,57,25,47,22,42,31		4,20,49,22,12	
		16,48,49, 9,21,10,44		1,14
40″	59,27,37,58,46,14,56,43,53,15		4,20,49,23,26	
		16,48,44,48,31,47,18		1,14
42″	59,27,38,15,34,59,45,15,40,33		4,20,49,24,40	
		16,48,40,27,42,22,38		1,14
44″	59,27,38,32,23,40,12,58, 3,11		4,20,49,25,54	
		16,48,36, 6,52,56,44		1,14
46″	59,27,38,49,12,16,19,50,59,55		4,20,49,27, 8	
		16,48,31,46, 3,29,36		1,14
48″	59,27,39, 6, 0,48, 5,54,29,31		4,20,49,28,22	
		16,48,27,25,14, 1,14		1,14
50″	59,27,39,22,49,15,31, 8,30,45		4,20,49,29,36	
		16,48,23, 4,24,31,38		1,14
52″	59,27,39,39,37,38,35,33, 2,23		4,20,49,30,50	
		16,48,18,43,35, 0,48		1,14
54″	59,27,39,56,25,57,19, 8, 3,11		4,20,49,32, 4	
		16,48,14,22,45,28,44		1,14
56″	59,27,40,13,14,11,41,53,31,55		4,20,49,33,18	
		16,48,10, 1,55,55,26		1,14
58″	59,27,40,30, 2,21,43,49,27,21		4,20,49,34,32	
		16,48, 5,41, 6,20,54		
60″	59,27,40,46,50,27,24,55,48,15			
exact	59,27,40,46,50,27,24,56, 1,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°19′ 0″	59,27,40,46,50,27,24,56, 1,54			
		16,48, 1,20,16,46,40		
2″	59,27,41, 3,38,28,45,12,48,34		4,20,49,36,53	
		16,47,56,59,27, 9,47		1,14
4″	59,27,41,20,26,25,44,39,58,21		4,20,49,38, 7	
		16,47,52,38,37,31,40		1,14
6″	59,27,41,37,14,18,23,17,30, 1		4,20,49,39,21	
		16,47,48,17,47,52,19		1,14
8″	59,27,41,54, 2, 6,41, 5,22,20		4,20,49,40,35	
		16,47,43,56,58,11,44		1,14
10″	59,27,42,10,49,50,38, 3,34, 4		4,20,49,41,49	
		16,47,39,36, 8,29,55		1,14
12″	59,27,42,27,37,30,14,12, 3,59		4,20,49,43, 3	
		16,47,35,15,18,46,52		1,14
14″	59,27,42,44,25, 5,29,30,50,51		4,20,49,44,17	
		16,47,30,54,29, 2,35		1,14
16″	59,27,43, 1,12,36,23,59,53,26		4,20,49,45,31	
		16,47,26,33,39,17, 4		1,14
18″	59,27,43,18, 0, 2,57,39,10,30		4,20,49,46,45	
		16,47,22,12,49,30,19		1,14
20″	59,27,43,34,47,25,10,28,40,49		4,20,49,47,59	
		16,47,17,51,59,42,20		1,14
22″	59,27,43,51,34,43, 2,28,23, 9		4,20,49,49,13	
		16,47,13,31, 9,53, 7		1,14
24″	59,27,44, 8,21,56,33,38,16,16		4,20,49,50,27	
		16,47, 9,10,20, 2,40		1,14
26″	59,27,44,25, 9, 5,43,58,18,56		4,20,49,51,41	
		16,47, 4,49,30,10,59		1,14
28″	59,27,44,41,56,10,33,28,29,55		4,20,49,52,55	
		16,47, 0,28,40,18, 4		1,14
30″	59,27,44,58,43,11, 2, 8,47,59		4,20,49,54, 9	
		16,46,56, 7,50,23,55		1,14
32″	59,27,45,15,30, 7, 9,59,11,54		4,20,49,55,23	
		16,46,51,47, 0,28,32		1,14
34″	59,27,45,32,16,58,56,59,40,26		4,20,49,56,37	
		16,46,47,26,10,31,55		1,14
36″	59,27,45,49, 3,46,23,10,12,21		4,20,49,57,51	
		16,46,43, 5,20,34, 4		1,14
38″	59,27,46, 5,50,29,28,30,46,25		4,20,49,59, 5	
		16,46,38,44,30,34,59		1,14
40″	59,27,46,22,37, 8,13, 1,21,24		4,20,50, 0,19	
		16,46,34,23,40,34,40		1,14
42″	59,27,46,39,23,42,36,41,56, 4		4,20,50, 1,33	
		16,46,30, 2,50,33, 7		1,14
44″	59,27,46,56,10,12,39,32,29,11		4,20,50, 2,47	
		16,46,25,42, 0,30,20		1,14
46″	59,27,47,12,56,38,21,32,59,31		4,20,50, 4, 1	
		16,46,21,21,10,26,19		1,14
48″	59,27,47,29,42,59,42,43,25,50		4,20,50, 5,15	
		16,46,17, 0,20,21, 4		1,14
50″	59,27,47,46,29,16,43, 3,46,54		4,20,50, 6,29	
		16,46,12,39,30,14,35		1,14
52″	59,27,48, 3,15,29,22,34, 1,29		4,20,50, 7,43	
		16,46, 8,18,40, 6,52		1,14
54″	59,27,48,20, 1,37,41,14, 8,21		4,20,50, 8,57	
		16,46, 3,57,49,57,55		1,14
56″	59,27,48,36,47,41,39, 4, 6,16		4,20,50,10,11	
		16,45,59,36,59,47,44		1,14
58″	59,27,48,53,33,41,16, 3,54, 0		4,20,50,11,25	
		16,45,55,16, 9,36,19		
60″	59,27,49,10,19,36,32,13,30,19			
exact	59,27,49,10,19,36,32,13,53,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°20′ 0″	59,27,49,10,19,36,32,13,53,57			
		16,45,50,55,19,26,17		
2″	59,27,49,27, 5,27,27,33,20,14		4,20,50,13,41	
		16,45,46,34,29,12,36		1,14
4″	59,27,49,43,51,14, 2, 2,32,50		4,20,50,14,55	
		16,45,42,13,38,57,41		1,14
6″	59,27,50, 0,36,56,15,41,30,31		4,20,50,16, 9	
		16,45,37,52,48,41,32		1,14
8″	59,27,50,17,22,34, 8,30,12, 3		4,20,50,17,23	
		16,45,33,31,58,24, 9		1,14
10″	59,27,50,34, 8, 7,40,28,36,12		4,20,50,18,37	
		16,45,29,11, 8, 5,32		1,14
12″	59,27,50,50,53,36,51,36,41,44		4,20,50,19,51	
		16,45,24,50,17,45,41		1,14
14″	59,27,51, 7,39, 1,41,54,27,25		4,20,50,21, 5	
		16,45,20,29,27,24,36		1,14
16″	59,27,51,24,24,22,11,21,52, 1		4,20,50,22,19	
		16,45,16, 8,37, 2,17		1,14
18″	59,27,51,41, 9,38,19,58,54,18		4,20,50,23,33	
		16,45,11,47,46,38,44		1,14
20″	59,27,51,57,54,50, 7,45,33, 2		4,20,50,24,47	
		16,45, 7,26,56,13,57		1,14
22″	59,27,52,14,39,57,34,41,46,59		4,20,50,26, 1	
		16,45, 3, 6, 5,47,56		1,14
24″	59,27,52,31,25, 0,40,47,34,55		4,20,50,27,15	
		16,44,58,45,15,20,41		1,14
26″	59,27,52,48, 9,59,26, 2,55,36		4,20,50,28,29	
		16,44,54,24,24,52,12		1,14
28″	59,27,53, 4,54,53,50,27,47,48		4,20,50,29,43	
		16,44,50, 3,34,22,29		1,14
30″	59,27,53,21,39,43,54, 2,10,17		4,20,50,30,57	
		16,44,45,42,43,51,32		1,14
32″	59,27,53,38,24,29,36,46, 1,49		4,20,50,32,11	
		16,44,41,21,53,19,21		1,14
34″	59,27,53,55, 9,10,58,39,21,10		4,20,50,33,25	
		16,44,37, 1, 2,45,56		1,14
36″	59,27,54,11,53,47,59,42, 7, 6		4,20,50,34,39	
		16,44,32,40,12,11,17		1,14
38″	59,27,54,28,38,20,39,54,18,23		4,20,50,35,53	
		16,44,28,19,21,35,24		1,14
40″	59,27,54,45,22,48,59,15,53,47		4,20,50,37, 7	
		16,44,23,58,30,58,17		1,14
42″	59,27,55, 2, 7,12,57,46,52, 4		4,20,50,38,21	
		16,44,19,37,40,19,56		1,14
44″	59,27,55,18,51,32,35,27,12, 0		4,20,50,39,35	
		16,44,15,16,49,40,21		1,14
46″	59,27,55,35,35,47,52,16,52,21		4,20,50,40,49	
		16,44,10,55,58,59,32		1,14
48″	59,27,55,52,19,58,48,15,51,53		4,20,50,42, 3	
		16,44, 6,35, 8,17,29		1,14
50″	59,27,56, 9, 4, 5,23,24, 9,22		4,20,50,43,17	
		16,44, 2,14,17,34,12		1,14
52″	59,27,56,25,48, 7,37,41,43,34		4,20,50,44,31	
		16,43,57,53,26,49,41		1,14
54″	59,27,56,42,32, 5,31, 8,33,15		4,20,50,45,45	
		16,43,53,32,36, 3,56		1,14
56″	59,27,56,59,15,59, 3,44,37,11		4,20,50,46,59	
		16,43,49,11,45,16,57		1,14
58″	59,27,57,15,59,48,15,29,54, 8		4,20,50,48,13	
		16,43,44,50,54,28,44		
60″	59,27,57,32,43,33, 6,24,22,52			
exact	59,27,57,32,43,33, 6,24,54,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°21′ 0″	59,27,57,32,43,33, 6,24,54,39			
		16,43,40,30, 3,42,52		
2″	59,27,57,49,27,13,36,28,37,31		4,20,50,50,25	
		16,43,36, 9,12,52,27		1,13
4″	59,27,58, 6,10,49,45,41,29,58		4,20,50,51,38	
		16,43,31,48,22, 0,49		1,13
6″	59,27,58,22,54,21,34, 3,30,47		4,20,50,52,51	
		16,43,27,27,31, 7,58		1,13
8″	59,27,58,39,37,49, 1,34,38,45		4,20,50,54, 4	
		16,43,23, 6,40,13,54		1,13
10″	59,27,58,56,21,12, 8,14,52,39		4,20,50,55,17	
		16,43,18,45,49,18,37		1,13
12″	59,27,59,13, 4,30,54, 4,11,16		4,20,50,56,30	
		16,43,14,24,58,22, 7		1,13
14″	59,27,59,29,47,45,19, 2,33,23		4,20,50,57,43	
		16,43,10, 4, 7,24,24		1,13
16″	59,27,59,46,30,55,23, 9,57,47		4,20,50,58,56	
		16,43, 5,43,16,25,28		1,13
18″	59,28, 0, 3,14, 1, 6,26,23,15		4,20,51, 0, 9	
		16,43, 1,22,25,25,19		1,13
20″	59,28, 0,19,57, 2,28,51,48,34		4,20,51, 1,22	
		16,42,57, 1,34,23,57		1,13
22″	59,28, 0,36,39,59,30,26,12,31		4,20,51, 2,35	
		16,42,52,40,43,21,22		1,13
24″	59,28, 0,53,22,52,11, 9,33,53		4,20,51, 3,48	
		16,42,48,19,52,17,34		1,13
26″	59,28, 1,10, 5,40,31, 1,51,27		4,20,51, 5, 1	
		16,42,43,59, 1,12,33		1,13
28″	59,28, 1,26,48,24,30, 3, 4, 0		4,20,51, 6,14	
		16,42,39,38,10, 6,19		1,13
30″	59,28, 1,43,31, 4, 8,13,10,19		4,20,51, 7,27	
		16,42,35,17,18,58,52		1,13
32″	59,28, 2, 0,13,39,25,32, 9,11		4,20,51, 8,40	
		16,42,30,56,27,50,12		1,13
34″	59,28, 2,16,56,10,21,59,59,23		4,20,51, 9,53	
		16,42,26,35,36,40,19		1,13
36″	59,28, 2,33,38,36,57,36,39,42		4,20,51,11, 6	
		16,42,22,14,45,29,13		1,13
38″	59,28, 2,50,20,59,12,22, 8,55		4,20,51,12,19	
		16,42,17,53,54,16,54		1,13
40″	59,28, 3, 7, 3,17, 6,16,25,49		4,20,51,13,32	
		16,42,13,33, 3, 3,22		1,13
42″	59,28, 3,23,45,30,39,19,29,11		4,20,51,14,45	
		16,42, 9,12,11,48,37		1,13
44″	59,28, 3,40,27,39,51,31,17,48		4,20,51,15,58	
		16,42, 4,51,20,32,39		1,13
46″	59,28, 3,57, 9,44,42,51,50,27		4,20,51,17,11	
		16,42, 0,30,29,15,28		1,13
48″	59,28, 4,13,51,45,13,21, 5,55		4,20,51,18,24	
		16,41,56, 9,37,57, 4		1,13
50″	59,28, 4,30,33,41,22,59, 2,59		4,20,51,19,37	
		16,41,51,48,46,37,27		1,13
52″	59,28, 4,47,15,33,11,45,40,26		4,20,51,20,50	
		16,41,47,27,55,16,37		1,13
54″	59,28, 5, 3,57,20,39,40,57, 3		4,20,51,22, 3	
		16,41,43, 7, 3,54,34		1,13
56″	59,28, 5,20,39, 3,46,44,51,37		4,20,51,23,16	
		16,41,38,46,12,31,18		1,13
58″	59,28, 5,37,20,42,32,57,22,55		4,20,51,24,29	
		16,41,34,25,21, 6,49		
60″	59,28, 5,54, 2,16,58,18,29,44			
exact	59,28, 5,54, 2,16,58,18, 7,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°22′ 0″	59,28, 5,54, 2,16,58,18, 7,29			
		16,41,30, 4,29,38,48		
2″	59,28, 6,10,43,47, 2,47,46,17		4,20,51,27, 4	
		16,41,25,43,38,11,44		1,13
4″	59,28, 6,27,25,12,46,25,58, 1		4,20,51,28,17	
		16,41,21,22,46,43,27		1,13
6″	59,28, 6,44, 6,34, 9,12,41,28		4,20,51,29,30	
		16,41,17, 1,55,13,57		1,13
8″	59,28, 7, 0,47,51,11, 7,55,25		4,20,51,30,43	
		16,41,12,41, 3,43,14		1,13
10″	59,28, 7,17,29, 3,52,11,38,39		4,20,51,31,56	
		16,41, 8,20,12,11,18		1,13
12″	59,28, 7,34,10,12,12,23,49,57		4,20,51,33, 9	
		16,41, 3,59,20,38, 9		1,13
14″	59,28, 7,50,51,16,11,44,28, 6		4,20,51,34,22	
		16,40,59,38,29, 3,47		1,13
16″	59,28, 8, 7,32,15,50,13,31,53		4,20,51,35,35	
		16,40,55,17,37,28,12		1,13
18″	59,28, 8,24,13,11, 7,51, 0, 5		4,20,51,36,48	
		16,40,50,56,45,51,24		1,13
20″	59,28, 8,40,54, 2, 4,36,51,29		4,20,51,38, 1	
		16,40,46,35,54,13,23		1,13
22″	59,28, 8,57,34,48,40,31, 4,52		4,20,51,39,14	
		16,40,42,15, 2,34, 9		1,13
24″	59,28, 9,14,15,30,55,33,39, 1		4,20,51,40,27	
		16,40,37,54,10,53,42		1,13
26″	59,28, 9,30,56, 8,49,44,32,43		4,20,51,41,40	
		16,40,33,33,19,12, 2		1,13
28″	59,28, 9,47,36,42,23, 3,44,45		4,20,51,42,53	
		16,40,29,12,27,29, 9		1,13
30″	59,28,10, 4,17,11,35,31,13,54		4,20,51,44, 6	
		16,40,24,51,35,45, 3		1,13
32″	59,28,10,20,57,36,27, 6,58,57		4,20,51,45,19	
		16,40,20,30,43,59,44		1,13
34″	59,28,10,37,37,56,57,50,58,41		4,20,51,46,32	
		16,40,16, 9,52,13,12		1,13
36″	59,28,10,54,18,13, 7,43,11,53		4,20,51,47,45	
		16,40,11,49, 0,25,27		1,13
38″	59,28,11,10,58,24,56,43,37,20		4,20,51,48,58	
		16,40, 7,28, 8,36,29		1,13
40″	59,28,11,27,38,32,24,52,13,49		4,20,51,50,11	
		16,40, 3, 7,16,46,18		1,13
42″	59,28,11,44,18,35,32, 9, 0, 7		4,20,51,51,24	
		16,39,58,46,24,54,54		1,13
44″	59,28,12, 0,58,34,18,33,55, 1		4,20,51,52,37	
		16,39,54,25,33, 2,17		1,13
46″	59,28,12,17,38,28,44, 6,57,18		4,20,51,53,50	
		16,39,50, 4,41, 8,27		1,13
48″	59,28,12,34,18,18,48,48, 5,45		4,20,51,55, 3	
		16,39,45,43,49,13,24		1,13
50″	59,28,12,50,58, 4,32,37,19, 9		4,20,51,56,16	
		16,39,41,22,57,17, 8		1,13
52″	59,28,13, 7,37,45,55,34,36,17		4,20,51,57,29	
		16,39,37, 2, 5,19,39		1,13
54″	59,28,13,24,17,22,57,39,55,56		4,20,51,58,42	
		16,39,32,41,13,20,57		1,13
56″	59,28,13,40,56,55,38,53,16,53		4,20,51,59,55	
		16,39,28,20,21,21, 2		1,13
58″	59,28,13,57,36,23,59,14,37,55		4,20,52, 1, 8	
		16,39,23,59,29,19,54		
60″	59,28,14,14,15,47,58,43,57,49			
exact	59,28,14,14,15,47,58,43,47,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°23′ 0″	59,28,14,14,15,47,58,43,47,26			
		16,39,19,38,37,16,28		
2″	59,28,14,30,55, 7,37,21, 3,54		4,20,52, 3,38	
		16,39,15,17,45,12,50		1,13
4″	59,28,14,47,34,22,55, 6,16,44		4,20,52, 4,51	
		16,39,10,56,53, 7,59		1,13
6″	59,28,15, 4,13,33,51,59,24,43		4,20,52, 6, 4	
		16,39, 6,36, 1, 1,55		1,13
8″	59,28,15,20,52,40,28, 0,26,38		4,20,52, 7,17	
		16,39, 2,15, 8,54,38		1,13
10″	59,28,15,37,31,42,43, 9,21,16		4,20,52, 8,30	
		16,38,57,54,16,46, 8		1,13
12″	59,28,15,54,10,40,37,26, 7,24		4,20,52, 9,43	
		16,38,53,33,24,36,25		1,13
14″	59,28,16,10,49,34,10,50,43,49		4,20,52,10,56	
		16,38,49,12,32,25,29		1,13
16″	59,28,16,27,28,23,23,23, 9,18		4,20,52,12, 9	
		16,38,44,51,40,13,20		1,13
18″	59,28,16,44, 7, 8,15, 3,22,38		4,20,52,13,22	
		16,38,40,30,47,59,58		1,13
20″	59,28,17, 0,45,48,45,51,22,36		4,20,52,14,35	
		16,38,36, 9,55,45,23		1,13
22″	59,28,17,17,24,24,55,47, 7,59		4,20,52,15,48	
		16,38,31,49, 3,29,35		1,13
24″	59,28,17,34, 2,56,44,50,37,34		4,20,52,17, 1	
		16,38,27,28,11,12,34		1,13
26″	59,28,17,50,41,24,13, 1,50, 8		4,20,52,18,14	
		16,38,23, 7,18,54,20		1,13
28″	59,28,18, 7,19,47,20,20,44,28		4,20,52,19,27	
		16,38,18,46,26,34,53		1,13
30″	59,28,18,23,58, 6, 6,47,19,21		4,20,52,20,40	
		16,38,14,25,34,14,13		1,13
32″	59,28,18,40,36,20,32,21,33,34		4,20,52,21,53	
		16,38,10, 4,41,52,20		1,13
34″	59,28,18,57,14,30,37, 3,25,54		4,20,52,23, 6	
		16,38, 5,43,49,29,14		1,13
36″	59,28,19,13,52,36,20,52,55, 8		4,20,52,24,19	
		16,38, 1,22,57, 4,55		1,13
38″	59,28,19,30,30,37,43,50, 0, 3		4,20,52,25,32	
		16,37,57, 2, 4,39,23		1,13
40″	59,28,19,47, 8,34,45,54,39,26		4,20,52,26,45	
		16,37,52,41,12,12,38		1,13
42″	59,28,20, 3,46,27,27, 6,52, 4		4,20,52,27,58	
		16,37,48,20,19,44,40		1,13
44″	59,28,20,20,24,15,47,26,36,44		4,20,52,29,11	
		16,37,43,59,27,15,29		1,13
46″	59,28,20,37, 1,59,46,53,52,13		4,20,52,30,24	
		16,37,39,38,34,45, 5		1,13
48″	59,28,20,53,39,39,25,28,37,18		4,20,52,31,37	
		16,37,35,17,42,13,28		1,13
50″	59,28,21,10,17,14,43,10,50,46		4,20,52,32,50	
		16,37,30,56,49,40,38		1,13
52″	59,28,21,26,54,45,40, 0,31,24		4,20,52,34, 3	
		16,37,26,35,57, 6,35		1,13
54″	59,28,21,43,32,12,15,57,37,59		4,20,52,35,16	
		16,37,22,15, 4,31,19		1,13
56″	59,28,22, 0, 9,34,31, 2, 9,18		4,20,52,36,29	
		16,37,17,54,11,54,50		1,13
58″	59,28,22,16,46,52,25,14, 4, 8		4,20,52,37,42	
		16,37,13,33,19,17, 8		
60″	59,28,22,33,24, 5,58,33,21,16			
exact	59,28,22,33,24, 5,58,33,21, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°24′ 0″	59,28,22,33,24, 5,58,33,21, 0			
		16,37, 9,12,26,38,15		
2″	59,28,22,50, 1,15,10,59,59,15		4,20,52,40, 7	
		16,37, 4,51,33,58, 8		1,13
4″	59,28,23, 6,38,20, 2,33,57,23		4,20,52,41,20	
		16,37, 0,30,41,16,48		1,13
6″	59,28,23,23,15,20,33,15,14,11		4,20,52,42,33	
		16,36,56, 9,48,34,15		1,13
8″	59,28,23,39,52,16,43, 3,48,26		4,20,52,43,46	
		16,36,51,48,55,50,29		1,13
10″	59,28,23,56,29, 8,31,59,38,55		4,20,52,44,59	
		16,36,47,28, 3, 5,30		1,13
12″	59,28,24,13, 5,56, 0, 2,44,25		4,20,52,46,12	
		16,36,43, 7,10,19,18		1,13
14″	59,28,24,29,42,39, 7,13, 3,43		4,20,52,47,25	
		16,36,38,46,17,31,53		1,13
16″	59,28,24,46,19,17,53,30,35,36		4,20,52,48,38	
		16,36,34,25,24,43,15		1,13
18″	59,28,25, 2,55,52,18,55,18,51		4,20,52,49,51	
		16,36,30, 4,31,53,24		1,13
20″	59,28,25,19,32,22,23,27,12,15		4,20,52,51, 4	
		16,36,25,43,39, 2,20		1,13
22″	59,28,25,36, 8,48, 7, 6,14,35		4,20,52,52,17	
		16,36,21,22,46,10, 3		1,13
24″	59,28,25,52,45, 9,29,52,24,38		4,20,52,53,30	
		16,36,17, 1,53,16,33		1,13
26″	59,28,26, 9,21,26,31,45,41,11		4,20,52,54,43	
		16,36,12,41, 0,21,50		1,13
28″	59,28,26,25,57,39,12,46, 3, 1		4,20,52,55,56	
		16,36, 8,20, 7,25,54		1,13
30″	59,28,26,42,33,47,32,53,28,55		4,20,52,57, 9	
		16,36, 3,59,14,28,45		1,13
32″	59,28,26,59, 9,51,32, 7,57,40		4,20,52,58,22	
		16,35,59,38,21,30,23		1,13
34″	59,28,27,15,45,51,10,29,28, 3		4,20,52,59,35	
		16,35,55,17,28,30,48		1,13
36″	59,28,27,32,21,46,27,57,58,51		4,20,53, 0,48	
		16,35,50,56,35,30, 0		1,13
38″	59,28,27,48,57,37,24,33,28,51		4,20,53, 2, 1	
		16,35,46,35,42,27,59		1,13
40″	59,28,28, 5,33,24, 0,15,56,50		4,20,53, 3,14	
		16,35,42,14,49,24,45		1,13
42″	59,28,28,22, 9, 6,15, 5,21,35		4,20,53, 4,27	
		16,35,37,53,56,20,18		1,13
44″	59,28,28,38,44,44, 9, 1,41,53		4,20,53, 5,40	
		16,35,33,33, 3,14,38		1,13
46″	59,28,28,55,20,17,42, 4,56,31		4,20,53, 6,53	
		16,35,29,12,10, 7,45		1,13
48″	59,28,29,11,55,46,54,15, 4,16		4,20,53, 8, 6	
		16,35,24,51,16,59,39		1,13
50″	59,28,29,28,31,11,45,32, 3,55		4,20,53, 9,19	
		16,35,20,30,23,50,20		1,13
52″	59,28,29,45, 6,32,15,55,54,15		4,20,53,10,32	
		16,35,16, 9,30,39,48		1,13
54″	59,28,30, 1,41,48,25,26,34, 3		4,20,53,11,45	
		16,35,11,48,37,28, 3		1,13
56″	59,28,30,18,17, 0,14, 4, 2, 6		4,20,53,12,58	
		16,35, 7,27,44,15, 5		1,13
58″	59,28,30,34,52, 7,41,48,17,11		4,20,53,14,11	
		16,35, 3, 6,51, 0,54		
60″	59,28,30,51,27,10,48,39,18, 5			
exact	59,28,30,51,27,10,48,39,26,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°25′ 0″	59,28,30,51,27,10,48,39,26,12			
		16,34,58,45,57,46,31		
2″	59,28,31, 8, 2, 9,34,37,12,43		4,20,53,16,32	
		16,34,54,25, 4,29,59		1,13
4″	59,28,31,24,37, 3,59,41,42,42		4,20,53,17,45	
		16,34,50, 4,11,12,14		1,13
6″	59,28,31,41,11,54, 3,52,54,56		4,20,53,18,58	
		16,34,45,43,17,53,16		1,13
8″	59,28,31,57,46,39,47,10,48,12		4,20,53,20,11	
		16,34,41,22,24,33, 5		1,13
10″	59,28,32,14,21,21, 9,35,21,17		4,20,53,21,24	
		16,34,37, 1,31,11,41		1,13
12″	59,28,32,30,55,58,11, 6,32,58		4,20,53,22,37	
		16,34,32,40,37,49, 4		1,13
14″	59,28,32,47,30,30,51,44,22, 2		4,20,53,23,50	
		16,34,28,19,44,25,14		1,13
16″	59,28,33, 4, 4,59,11,28,47,16		4,20,53,25, 3	
		16,34,23,58,51, 0,11		1,13
18″	59,28,33,20,39,23,10,19,47,27		4,20,53,26,16	
		16,34,19,37,57,33,55		1,13
20″	59,28,33,37,13,42,48,17,21,22		4,20,53,27,29	
		16,34,15,17, 4, 6,26		1,13
22″	59,28,33,53,47,58, 5,21,27,48		4,20,53,28,42	
		16,34,10,56,10,37,44		1,13
24″	59,28,34,10,22, 9, 1,32, 5,32		4,20,53,29,55	
		16,34, 6,35,17, 7,49		1,13
26″	59,28,34,26,56,15,36,49,13,21		4,20,53,31, 8	
		16,34, 2,14,23,36,41		1,13
28″	59,28,34,43,30,17,51,12,50, 2		4,20,53,32,21	
		16,33,57,53,30, 4,20		1,13
30″	59,28,35, 0, 4,15,44,42,54,22		4,20,53,33,34	
		16,33,53,32,36,30,46		1,13
32″	59,28,35,16,38, 9,17,19,25, 8		4,20,53,34,47	
		16,33,49,11,42,55,59		1,13
34″	59,28,35,33,11,58,29, 2,21, 7		4,20,53,36, 0	
		16,33,44,50,49,19,59		1,13
36″	59,28,35,49,45,43,19,51,41, 6		4,20,53,37,13	
		16,33,40,29,55,42,46		1,13
38″	59,28,36, 6,19,23,49,47,23,52		4,20,53,38,26	
		16,33,36, 9, 2, 4,20		1,13
40″	59,28,36,22,52,59,58,49,28,12		4,20,53,39,39	
		16,33,31,48, 8,24,41		1,13
42″	59,28,36,39,26,31,46,57,52,53		4,20,53,40,52	
		16,33,27,27,14,43,49		1,13
44″	59,28,36,55,59,59,14,12,36,42		4,20,53,42, 5	
		16,33,23, 6,21, 1,44		1,13
46″	59,28,37,12,33,22,20,33,38,26		4,20,53,43,18	
		16,33,18,45,27,18,26		1,13
48″	59,28,37,29, 6,41, 6, 0,56,52		4,20,53,44,31	
		16,33,14,24,33,33,55		1,13
50″	59,28,37,45,39,55,30,34,30,47		4,20,53,45,44	
		16,33,10, 3,39,48,11		1,13
52″	59,28,38, 2,13, 5,34,14,18,58		4,20,53,46,57	
		16,33, 5,42,46, 1,14		1,13
54″	59,28,38,18,46,11,17, 0,20,12		4,20,53,48,10	
		16,33, 1,21,52,13, 4		1,13
56″	59,28,38,35,19,12,38,52,33,16		4,20,53,49,23	
		16,32,57, 0,58,23,41		1,13
58″	59,28,38,51,52, 9,39,50,56,57		4,20,53,50,36	
		16,32,52,40, 4,33, 5		
60″	59,28,39, 8,25, 2,19,55,30, 2			
exact	59,28,39, 8,25, 2,19,55,52,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°26′ 0″	59,28,39, 8,25, 2,19,55,52,33			
		16,32,48,19,10,43,41		
2″	59,28,39,24,57,50,39, 6,36,14		4,20,53,52,51	
		16,32,43,58,16,50,50		1,13
4″	59,28,39,41,30,34,37,23,27, 4		4,20,53,54, 4	
		16,32,39,37,22,56,46		1,13
6″	59,28,39,58, 3,14,14,46,23,50		4,20,53,55,17	
		16,32,35,16,29, 1,29		1,13
8″	59,28,40,14,35,49,31,15,25,19		4,20,53,56,30	
		16,32,30,55,35, 4,59		1,13
10″	59,28,40,31, 8,20,26,50,30,18		4,20,53,57,43	
		16,32,26,34,41, 7,16		1,13
12″	59,28,40,47,40,47, 1,31,37,34		4,20,53,58,56	
		16,32,22,13,47, 8,20		1,13
14″	59,28,41, 4,13, 9,15,18,45,54		4,20,54, 0, 9	
		16,32,17,52,53, 8,11		1,13
16″	59,28,41,20,45,27, 8,11,54, 5		4,20,54, 1,22	
		16,32,13,31,59, 6,49		1,13
18″	59,28,41,37,17,40,40,11, 0,54		4,20,54, 2,35	
		16,32, 9,11, 5, 4,14		1,13
20″	59,28,41,53,49,49,51,16, 5, 8		4,20,54, 3,48	
		16,32, 4,50,11, 0,26		1,13
22″	59,28,42,10,21,54,41,27, 5,34		4,20,54, 5, 1	
		16,32, 0,29,16,55,25		1,13
24″	59,28,42,26,53,55,10,44, 0,59		4,20,54, 6,14	
		16,31,56, 8,22,49,11		1,13
26″	59,28,42,43,25,51,19, 6,50,10		4,20,54, 7,27	
		16,31,51,47,28,41,44		1,13
28″	59,28,42,59,57,43, 6,35,31,54		4,20,54, 8,40	
		16,31,47,26,34,33, 4		1,13
30″	59,28,43,16,29,30,33,10, 4,58		4,20,54, 9,53	
		16,31,43, 5,40,23,11		1,13
32″	59,28,43,33, 1,13,38,50,28, 9		4,20,54,11, 6	
		16,31,38,44,46,12, 5		1,13
34″	59,28,43,49,32,52,23,36,40,14		4,20,54,12,19	
		16,31,34,23,51,59,46		1,13
36″	59,28,44, 6, 4,26,47,28,40, 0		4,20,54,13,32	
		16,31,30, 2,57,46,14		1,13
38″	59,28,44,22,35,56,50,26,26,14		4,20,54,14,45	
		16,31,25,42, 3,31,29		1,13
40″	59,28,44,39, 7,22,32,29,57,43		4,20,54,15,58	
		16,31,21,21, 9,15,31		1,13
42″	59,28,44,55,38,43,53,39,13,14		4,20,54,17,11	
		16,31,17, 0,14,58,20		1,13
44″	59,28,45,12,10, 0,53,54,11,34		4,20,54,18,24	
		16,31,12,39,20,39,56		1,13
46″	59,28,45,28,41,13,33,14,51,30		4,20,54,19,37	
		16,31, 8,18,26,20,19		1,13
48″	59,28,45,45,12,21,51,41,11,49		4,20,54,20,50	
		16,31, 3,57,31,59,29		1,13
50″	59,28,46, 1,43,25,49,13,11,18		4,20,54,22, 3	
		16,30,59,36,37,37,26		1,13
52″	59,28,46,18,14,25,25,50,48,44		4,20,54,23,16	
		16,30,55,15,43,14,10		1,13
54″	59,28,46,34,45,20,41,34, 2,54		4,20,54,24,29	
		16,30,50,54,48,49,41		1,13
56″	59,28,46,51,16,11,36,22,52,35		4,20,54,25,42	
		16,30,46,33,54,23,59		1,13
58″	59,28,47, 7,46,58,10,17,16,34		4,20,54,26,55	
		16,30,42,12,59,57, 4		
60″	59,28,47,24,17,40,23,17,13,38			
exact	59,28,47,24,17,40,23,17,41, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°27′ 0″	59,28,47,24,17,40,23,17,41, 8			
		16,30,37,52, 5,32, 7		
2″	59,28,47,40,48,18,15,23,13,15		4,20,54,29, 6	
		16,30,33,31,11, 3, 1		1,12
4″	59,28,47,57,18,51,46,34,16,16		4,20,54,30,18	
		16,30,29,10,16,32,43		1,12
6″	59,28,48,13,49,20,56,50,48,59		4,20,54,31,30	
		16,30,24,49,22, 1,13		1,12
8″	59,28,48,30,19,45,46,12,50,12		4,20,54,32,42	
		16,30,20,28,27,28,31		1,12
10″	59,28,48,46,50, 6,14,40,18,43		4,20,54,33,54	
		16,30,16, 7,32,54,37		1,12
12″	59,28,49, 3,20,22,22,13,13,20		4,20,54,35, 6	
		16,30,11,46,38,19,31		1,12
14″	59,28,49,19,50,34, 8,51,32,51		4,20,54,36,18	
		16,30, 7,25,43,43,13		1,12
16″	59,28,49,36,20,41,34,35,16, 4		4,20,54,37,30	
		16,30, 3, 4,49, 5,43		1,12
18″	59,28,49,52,50,44,39,24,21,47		4,20,54,38,42	
		16,29,58,43,54,27, 1		1,12
20″	59,28,50, 9,20,43,23,18,48,48		4,20,54,39,54	
		16,29,54,22,59,47, 7		1,12
22″	59,28,50,25,50,37,46,18,35,55		4,20,54,41, 6	
		16,29,50, 2, 5, 6, 1		1,12
24″	59,28,50,42,20,27,48,23,41,56		4,20,54,42,18	
		16,29,45,41,10,23,43		1,12
26″	59,28,50,58,50,13,29,34, 5,39		4,20,54,43,30	
		16,29,41,20,15,40,13		1,12
28″	59,28,51,15,19,54,49,49,45,52		4,20,54,44,42	
		16,29,36,59,20,55,31		1,12
30″	59,28,51,31,49,31,49,10,41,23		4,20,54,45,54	
		16,29,32,38,26, 9,37		1,12
32″	59,28,51,48,19, 4,27,36,51, 0		4,20,54,47, 6	
		16,29,28,17,31,22,31		1,12
34″	59,28,52, 4,48,32,45, 8,13,31		4,20,54,48,18	
		16,29,23,56,36,34,13		1,12
36″	59,28,52,21,17,56,41,44,47,44		4,20,54,49,30	
		16,29,19,35,41,44,43		1,12
38″	59,28,52,37,47,16,17,26,32,27		4,20,54,50,42	
		16,29,15,14,46,54, 1		1,12
40″	59,28,52,54,16,31,32,13,26,28		4,20,54,51,54	
		16,29,10,53,52, 2, 7		1,12
42″	59,28,53,10,45,42,26, 5,28,35		4,20,54,53, 6	
		16,29, 6,32,57, 9, 1		1,12
44″	59,28,53,27,14,48,59, 2,37,36		4,20,54,54,18	
		16,29, 2,12, 2,14,43		1,12
46″	59,28,53,43,43,51,11, 4,52,19		4,20,54,55,30	
		16,28,57,51, 7,19,13		1,12
48″	59,28,54, 0,12,49, 2,12,11,32		4,20,54,56,42	
		16,28,53,30,12,22,31		1,12
50″	59,28,54,16,41,42,32,24,34, 3		4,20,54,57,54	
		16,28,49, 9,17,24,37		1,12
52″	59,28,54,33,10,31,41,41,58,40		4,20,54,59, 6	
		16,28,44,48,22,25,31		1,12
54″	59,28,54,49,39,16,30, 4,24,11		4,20,55, 0,18	
		16,28,40,27,27,25,13		1,12
56″	59,28,55, 6, 7,56,57,31,49,24		4,20,55, 1,30	
		16,28,36, 6,32,23,43		1,12
58″	59,28,55,22,36,33, 4, 4,13, 7		4,20,55, 2,42	
		16,28,31,45,37,21, 1		
60″	59,28,55,39, 5, 4,49,41,34, 8			
exact	59,28,55,39, 5, 4,49,41, 4,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°28′ 0″	59,28,55,39, 5, 4,49,41, 4,31			
		16,28,27,24,42,14,11		
2″	59,28,55,55,33,32,14,23,18,42		4,20,55, 5,17	
		16,28,23, 3,47, 8,54		1,12
4″	59,28,56,12, 1,55,18,10,27,36		4,20,55, 6,29	
		16,28,18,42,52, 2,25		1,12
6″	59,28,56,28,30,14, 1, 2,30, 1		4,20,55, 7,41	
		16,28,14,21,56,54,44		1,12
8″	59,28,56,44,58,28,22,59,24,45		4,20,55, 8,53	
		16,28,10, 1, 1,45,51		1,12
10″	59,28,57, 1,26,38,24, 1,10,36		4,20,55,10, 5	
		16,28, 5,40, 6,35,46		1,12
12″	59,28,57,17,54,44, 4, 7,46,22		4,20,55,11,17	
		16,28, 1,19,11,24,29		1,12
14″	59,28,57,34,22,45,23,19,10,51		4,20,55,12,29	
		16,27,56,58,16,12, 0		1,12
16″	59,28,57,50,50,42,21,35,22,51		4,20,55,13,41	
		16,27,52,37,20,58,19		1,12
18″	59,28,58, 7,18,34,58,56,21,10		4,20,55,14,53	
		16,27,48,16,25,43,26		1,12
20″	59,28,58,23,46,23,15,22, 4,36		4,20,55,16, 5	
		16,27,43,55,30,27,21		1,12
22″	59,28,58,40,14, 7,10,52,31,57		4,20,55,17,17	
		16,27,39,34,35,10, 4		1,12
24″	59,28,58,56,41,46,45,27,42, 1		4,20,55,18,29	
		16,27,35,13,39,51,35		1,12
26″	59,28,59,13, 9,21,59, 7,33,36		4,20,55,19,41	
		16,27,30,52,44,31,54		1,12
28″	59,28,59,29,36,52,51,52, 5,30		4,20,55,20,53	
		16,27,26,31,49,11, 1		1,12
30″	59,28,59,46, 4,19,23,41,16,31		4,20,55,22, 5	
		16,27,22,10,53,48,56		1,12
32″	59,29, 0, 2,31,41,34,35, 5,27		4,20,55,23,17	
		16,27,17,49,58,25,39		1,12
34″	59,29, 0,18,58,59,24,33,31, 6		4,20,55,24,29	
		16,27,13,29, 3, 1,10		1,12
36″	59,29, 0,35,26,12,53,36,32,16		4,20,55,25,41	
		16,27, 9, 8, 7,35,29		1,12
38″	59,29, 0,51,53,22, 1,44, 7,45		4,20,55,26,53	
		16,27, 4,47,12, 8,36		1,12
40″	59,29, 1, 8,20,26,48,56,16,21		4,20,55,28, 5	
		16,27, 0,26,16,40,31		1,12
42″	59,29, 1,24,47,27,15,12,56,52		4,20,55,29,17	
		16,26,56, 5,21,11,14		1,12
44″	59,29, 1,41,14,23,20,34, 8, 6		4,20,55,30,29	
		16,26,51,44,25,40,45		1,12
46″	59,29, 1,57,41,15, 4,59,48,51		4,20,55,31,41	
		16,26,47,23,30, 9, 4		1,12
48″	59,29, 2,14, 8, 2,28,29,57,55		4,20,55,32,53	
		16,26,43, 2,34,36,11		1,12
50″	59,29, 2,30,34,45,31, 4,34, 6		4,20,55,34, 5	
		16,26,38,41,39, 2, 6		1,12
52″	59,29, 2,47, 1,24,12,43,36,12		4,20,55,35,17	
		16,26,34,20,43,26,49		1,12
54″	59,29, 3, 3,27,58,33,27, 3, 1		4,20,55,36,29	
		16,26,29,59,47,50,20		1,12
56″	59,29, 3,19,54,28,33,14,53,21		4,20,55,37,41	
		16,26,25,38,52,12,39		1,12
58″	59,29, 3,36,20,54,12, 7, 6, 0		4,20,55,38,53	
		16,26,21,17,56,33,46		
60″	59,29, 3,52,47,15,30, 3,39,46			
exact	59,29, 3,52,47,15,30, 3,26,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°29′ 0″	59,29, 3,52,47,15,30, 3,26,49			
		16,26,16,57, 0,52,18		
2″	59,29, 4, 9,13,32,27, 4,19, 7		4,20,55,41,22	
		16,26,12,36, 5,10,56		1,12
4″	59,29, 4,25,39,45, 3, 9,30, 3		4,20,55,42,34	
		16,26, 8,15, 9,28,22		1,12
6″	59,29, 4,42, 5,53,18,18,58,25		4,20,55,43,46	
		16,26, 3,54,13,44,36		1,12
8″	59,29, 4,58,31,57,12,32,43, 1		4,20,55,44,58	
		16,25,59,33,17,59,38		1,12
10″	59,29, 5,14,57,56,45,50,42,39		4,20,55,46,10	
		16,25,55,12,22,13,28		1,12
12″	59,29, 5,31,23,51,58,12,56, 7		4,20,55,47,22	
		16,25,50,51,26,26, 6		1,12
14″	59,29, 5,47,49,42,49,39,22,13		4,20,55,48,34	
		16,25,46,30,30,37,32		1,12
16″	59,29, 6, 4,15,29,20, 9,59,45		4,20,55,49,46	
		16,25,42, 9,34,47,46		1,12
18″	59,29, 6,20,41,11,29,44,47,31		4,20,55,50,58	
		16,25,37,48,38,56,48		1,12
20″	59,29, 6,37, 6,49,18,23,44,19		4,20,55,52,10	
		16,25,33,27,43, 4,38		1,12
22″	59,29, 6,53,32,22,46, 6,48,57		4,20,55,53,22	
		16,25,29, 6,47,11,16		1,12
24″	59,29, 7, 9,57,51,52,54, 0,13		4,20,55,54,34	
		16,25,24,45,51,16,42		1,12
26″	59,29, 7,26,23,16,38,45,16,55		4,20,55,55,46	
		16,25,20,24,55,20,56		1,12
28″	59,29, 7,42,48,37, 3,40,37,51		4,20,55,56,58	
		16,25,16, 3,59,23,58		1,12
30″	59,29, 7,59,13,53, 7,40, 1,49		4,20,55,58,10	
		16,25,11,43, 3,25,48		1,12
32″	59,29, 8,15,39, 4,50,43,27,37		4,20,55,59,22	
		16,25, 7,22, 7,26,26		1,12
34″	59,29, 8,32, 4,12,12,50,54, 3		4,20,56, 0,34	
		16,25, 3, 1,11,25,52		1,12
36″	59,29, 8,48,29,15,14, 2,19,55		4,20,56, 1,46	
		16,24,58,40,15,24, 6		1,12
38″	59,29, 9, 4,54,13,54,17,44, 1		4,20,56, 2,58	
		16,24,54,19,19,21, 8		1,12
40″	59,29, 9,21,19, 8,13,37, 5, 9		4,20,56, 4,10	
		16,24,49,58,23,16,58		1,12
42″	59,29, 9,37,43,58,12, 0,22, 7		4,20,56, 5,22	
		16,24,45,37,27,11,36		1,12
44″	59,29, 9,54, 8,43,49,27,33,43		4,20,56, 6,34	
		16,24,41,16,31, 5, 2		1,12
46″	59,29,10,10,33,25, 5,58,38,45		4,20,56, 7,46	
		16,24,36,55,34,57,16		1,12
48″	59,29,10,26,58, 2, 1,33,36, 1		4,20,56, 8,58	
		16,24,32,34,38,48,18		1,12
50″	59,29,10,43,22,34,36,12,24,19		4,20,56,10,10	
		16,24,28,13,42,38, 8		1,12
52″	59,29,10,59,47, 2,49,55, 2,27		4,20,56,11,22	
		16,24,23,52,46,26,46		1,12
54″	59,29,11,16,11,26,42,41,29,13		4,20,56,12,34	
		16,24,19,31,50,14,12		1,12
56″	59,29,11,32,35,46,14,31,43,25		4,20,56,13,46	
		16,24,15,10,54, 0,26		1,12
58″	59,29,11,49, 0, 1,25,25,43,51		4,20,56,14,58	
		16,24,10,49,57,45,28		
60″	59,29,12, 5,24,12,15,23,29,19			
exact	59,29,12, 5,24,12,15,23,23,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°30′ 0″	59,29,12, 5,24,12,15,23,23,41			
		16,24, 6,29, 1,28,50		
2″	59,29,12,21,48,18,44,24,52,31		4,20,56,17,23	
		16,24, 2, 8, 5,11,27		1,12
4″	59,29,12,38,12,20,52,30, 3,58		4,20,56,18,35	
		16,23,57,47, 8,52,52		1,12
6″	59,29,12,54,36,18,39,38,56,50		4,20,56,19,47	
		16,23,53,26,12,33, 5		1,12
8″	59,29,13,11, 0,12, 5,51,29,55		4,20,56,20,59	
		16,23,49, 5,16,12, 6		1,12
10″	59,29,13,27,24, 1,11, 7,42, 1		4,20,56,22,11	
		16,23,44,44,19,49,55		1,12
12″	59,29,13,43,47,45,55,27,31,56		4,20,56,23,23	
		16,23,40,23,23,26,32		1,12
14″	59,29,14, 0,11,26,18,50,58,28		4,20,56,24,35	
		16,23,36, 2,27, 1,57		1,12
16″	59,29,14,16,35, 2,21,18, 0,25		4,20,56,25,47	
		16,23,31,41,30,36,10		1,12
18″	59,29,14,32,58,34, 2,48,36,35		4,20,56,26,59	
		16,23,27,20,34, 9,11		1,12
20″	59,29,14,49,22, 1,23,22,45,46		4,20,56,28,11	
		16,23,22,59,37,41, 0		1,12
22″	59,29,15, 5,45,24,23, 0,26,46		4,20,56,29,23	
		16,23,18,38,41,11,37		1,12
24″	59,29,15,22, 8,43, 1,41,38,23		4,20,56,30,35	
		16,23,14,17,44,41, 2		1,12
26″	59,29,15,38,31,57,19,26,19,25		4,20,56,31,47	
		16,23, 9,56,48, 9,15		1,12
28″	59,29,15,54,55, 7,16,14,28,40		4,20,56,32,59	
		16,23, 5,35,51,36,16		1,12
30″	59,29,16,11,18,12,52, 6, 4,56		4,20,56,34,11	
		16,23, 1,14,55, 2, 5		1,12
32″	59,29,16,27,41,14, 7, 1, 7, 1		4,20,56,35,23	
		16,22,56,53,58,26,42		1,12
34″	59,29,16,44, 4,11, 0,59,33,43		4,20,56,36,35	
		16,22,52,33, 1,50, 7		1,12
36″	59,29,17, 0,27, 3,34, 1,23,50		4,20,56,37,47	
		16,22,48,12, 5,12,20		1,12
38″	59,29,17,16,49,51,46, 6,36,10		4,20,56,38,59	
		16,22,43,51, 8,33,21		1,12
40″	59,29,17,33,12,35,37,15, 9,31		4,20,56,40,11	
		16,22,39,30,11,53,10		1,12
42″	59,29,17,49,35,15, 7,27, 2,41		4,20,56,41,23	
		16,22,35, 9,15,11,47		1,12
44″	59,29,18, 5,57,50,16,42,14,28		4,20,56,42,35	
		16,22,30,48,18,29,12		1,12
46″	59,29,18,22,20,21, 5, 0,43,40		4,20,56,43,47	
		16,22,26,27,21,45,25		1,12
48″	59,29,18,38,42,47,32,22,29, 5		4,20,56,44,59	
		16,22,22, 6,25, 0,26		1,12
50″	59,29,18,55, 5, 9,38,47,29,31		4,20,56,46,11	
		16,22,17,45,28,14,15		1,12
52″	59,29,19,11,27,27,24,15,43,46		4,20,56,47,23	
		16,22,13,24,31,26,52		1,12
54″	59,29,19,27,49,40,48,47,10,38		4,20,56,48,35	
		16,22, 9, 3,34,38,17		1,12
56″	59,29,19,44,11,49,52,21,48,55		4,20,56,49,47	
		16,22, 4,42,37,48,30		1,12
58″	59,29,20, 0,33,54,34,59,37,25		4,20,56,50,59	
		16,22, 0,21,40,57,31		
60″	59,29,20,16,55,54,56,40,34,56			
exact	59,29,20,16,55,54,56,40,42,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°31′ 0″	59,29,20,16,55,54,56,40,42,18			
		16,21,56, 0,44, 6,11		
2″	59,29,20,33,17,50,57,24,48,29		4,20,56,53,19	
		16,21,51,39,47,12,52		1,12
4″	59,29,20,49,39,42,37,12, 1,21		4,20,56,54,31	
		16,21,47,18,50,18,21		1,12
6″	59,29,21, 6, 1,29,56, 2,19,42		4,20,56,55,43	
		16,21,42,57,53,22,38		1,12
8″	59,29,21,22,23,12,53,55,42,20		4,20,56,56,55	
		16,21,38,36,56,25,43		1,12
10″	59,29,21,38,44,51,30,52, 8, 3		4,20,56,58, 7	
		16,21,34,15,59,27,36		1,12
12″	59,29,21,55, 6,25,46,51,35,39		4,20,56,59,19	
		16,21,29,55, 2,28,17		1,12
14″	59,29,22,11,27,55,41,54, 3,56		4,20,57, 0,31	
		16,21,25,34, 5,27,46		1,12
16″	59,29,22,27,49,21,15,59,31,42		4,20,57, 1,43	
		16,21,21,13, 8,26, 3		1,12
18″	59,29,22,44,10,42,29, 7,57,45		4,20,57, 2,55	
		16,21,16,52,11,23, 8		1,12
20″	59,29,23, 0,31,59,21,19,20,53		4,20,57, 4, 7	
		16,21,12,31,14,19, 1		1,12
22″	59,29,23,16,53,11,52,33,39,54		4,20,57, 5,19	
		16,21, 8,10,17,13,42		1,12
24″	59,29,23,33,14,20, 2,50,53,36		4,20,57, 6,31	
		16,21, 3,49,20, 7,11		1,12
26″	59,29,23,49,35,23,52,11, 0,47		4,20,57, 7,43	
		16,20,59,28,22,59,28		1,12
28″	59,29,24, 5,56,23,20,34, 0,15		4,20,57, 8,55	
		16,20,55, 7,25,50,33		1,12
30″	59,29,24,22,17,18,27,59,50,48		4,20,57,10, 7	
		16,20,50,46,28,40,26		1,12
32″	59,29,24,38,38, 9,14,28,31,14		4,20,57,11,19	
		16,20,46,25,31,29, 7		1,12
34″	59,29,24,54,58,55,40, 0, 0,21		4,20,57,12,31	
		16,20,42, 4,34,16,36		1,12
36″	59,29,25,11,19,37,44,34,16,57		4,20,57,13,43	
		16,20,37,43,37, 2,53		1,12
38″	59,29,25,27,40,15,28,11,19,50		4,20,57,14,55	
		16,20,33,22,39,47,58		1,12
40″	59,29,25,44, 0,48,50,51, 7,48		4,20,57,16, 7	
		16,20,29, 1,42,31,51		1,12
42″	59,29,26, 0,21,17,52,33,39,39		4,20,57,17,19	
		16,20,24,40,45,14,32		1,12
44″	59,29,26,16,41,42,33,18,54,11		4,20,57,18,31	
		16,20,20,19,47,56, 1		1,12
46″	59,29,26,33, 2, 2,53, 6,50,12		4,20,57,19,43	
		16,20,15,58,50,36,18		1,12
48″	59,29,26,49,22,18,51,57,26,30		4,20,57,20,55	
		16,20,11,37,53,15,23		1,12
50″	59,29,27, 5,42,30,29,50,41,53		4,20,57,22, 7	
		16,20, 7,16,55,53,16		1,12
52″	59,29,27,22, 2,37,46,46,35, 9		4,20,57,23,19	
		16,20, 2,55,58,29,57		1,12
54″	59,29,27,38,22,40,42,45, 5, 6		4,20,57,24,31	
		16,19,58,35, 1, 5,26		1,12
56″	59,29,27,54,42,39,17,46,10,32		4,20,57,25,43	
		16,19,54,14, 3,39,43		1,12
58″	59,29,28,11, 2,33,31,49,50,15		4,20,57,26,55	
		16,19,49,53, 6,12,48		
60″	59,29,28,27,22,23,24,56, 3, 3			
exact	59,29,28,27,22,23,24,56,21,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°32′ 0″	59,29,28,27,22,23,24,56,21,24			
		16,19,45,32, 8,46,42		
2″	59,29,28,43,42, 8,57, 5, 8, 6		4,20,57,29,10	
		16,19,41,11,11,17,32		1,12
4″	59,29,29, 0, 1,50, 8,16,25,38		4,20,57,30,22	
		16,19,36,50,13,47,10		1,12
6″	59,29,29,16,21,26,58,30,12,48		4,20,57,31,34	
		16,19,32,29,16,15,36		1,12
8″	59,29,29,32,40,59,27,46,28,24		4,20,57,32,46	
		16,19,28, 8,18,42,50		1,12
10″	59,29,29,49, 0,27,36, 5,11,14		4,20,57,33,58	
		16,19,23,47,21, 8,52		1,12
12″	59,29,30, 5,19,51,23,26,20, 6		4,20,57,35,10	
		16,19,19,26,23,33,42		1,12
14″	59,29,30,21,39,10,49,49,53,48		4,20,57,36,22	
		16,19,15, 5,25,57,20		1,12
16″	59,29,30,37,58,25,55,15,51, 8		4,20,57,37,34	
		16,19,10,44,28,19,46		1,12
18″	59,29,30,54,17,36,39,44,10,54		4,20,57,38,46	
		16,19, 6,23,30,41, 0		1,12
20″	59,29,31,10,36,43, 3,14,51,54		4,20,57,39,58	
		16,19, 2, 2,33, 1, 2		1,12
22″	59,29,31,26,55,45, 5,47,52,56		4,20,57,41,10	
		16,18,57,41,35,19,52		1,12
24″	59,29,31,43,14,42,47,23,12,48		4,20,57,42,22	
		16,18,53,20,37,37,30		1,12
26″	59,29,31,59,33,36, 8, 0,50,18		4,20,57,43,34	
		16,18,48,59,39,53,56		1,12
28″	59,29,32,15,52,25, 7,40,44,14		4,20,57,44,46	
		16,18,44,38,42, 9,10		1,12
30″	59,29,32,32,11, 9,46,22,53,24		4,20,57,45,58	
		16,18,40,17,44,23,12		1,12
32″	59,29,32,48,29,50, 4, 7,16,36		4,20,57,47,10	
		16,18,35,56,46,36, 2		1,12
34″	59,29,33, 4,48,26, 0,53,52,38		4,20,57,48,22	
		16,18,31,35,48,47,40		1,12
36″	59,29,33,21, 6,57,36,42,40,18		4,20,57,49,34	
		16,18,27,14,50,58, 6		1,12
38″	59,29,33,37,25,24,51,33,38,24		4,20,57,50,46	
		16,18,22,53,53, 7,20		1,12
40″	59,29,33,53,43,47,45,26,45,44		4,20,57,51,58	
		16,18,18,32,55,15,22		1,12
42″	59,29,34,10, 2, 6,18,22, 1, 6		4,20,57,53,10	
		16,18,14,11,57,22,12		1,12
44″	59,29,34,26,20,20,30,19,23,18		4,20,57,54,22	
		16,18, 9,50,59,27,50		1,12
46″	59,29,34,42,38,30,21,18,51, 8		4,20,57,55,34	
		16,18, 5,30, 1,32,16		1,12
48″	59,29,34,58,56,35,51,20,23,24		4,20,57,56,46	
		16,18, 1, 9, 3,35,30		1,12
50″	59,29,35,15,14,37, 0,23,58,54		4,20,57,57,58	
		16,17,56,48, 5,37,32		1,12
52″	59,29,35,31,32,33,48,29,36,26		4,20,57,59,10	
		16,17,52,27, 7,38,22		1,12
54″	59,29,35,47,50,26,15,37,14,48		4,20,58, 0,22	
		16,17,48, 6, 9,38, 0		1,12
56″	59,29,36, 4, 8,14,21,46,52,48		4,20,58, 1,34	
		16,17,43,45,11,36,26		1,12
58″	59,29,36,20,25,58, 6,58,29,14		4,20,58, 2,46	
		16,17,39,24,13,33,40		
60″	59,29,36,36,43,37,31,12, 2,54			
exact	59,29,36,36,43,37,31,12,31,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°33′ 0″	59,29,36,36,43,37,31,12,31,13			
		16,17,35, 3,15,32,49		
2″	59,29,36,53, 1,12,34,28, 4, 2		4,20,58, 4,56	
		16,17,30,42,17,27,53		1,11
4″	59,29,37, 9,18,43,16,45,31,55		4,20,58, 6, 7	
		16,17,26,21,19,21,46		1,11
6″	59,29,37,25,36, 9,38, 4,53,41		4,20,58, 7,18	
		16,17,22, 0,21,14,28		1,11
8″	59,29,37,41,53,31,38,26, 8, 9		4,20,58, 8,29	
		16,17,17,39,23, 5,59		1,11
10″	59,29,37,58,10,49,17,49,14, 8		4,20,58, 9,40	
		16,17,13,18,24,56,19		1,11
12″	59,29,38,14,28, 2,36,14,10,27		4,20,58,10,51	
		16,17, 8,57,26,45,28		1,11
14″	59,29,38,30,45,11,33,40,55,55		4,20,58,12, 2	
		16,17, 4,36,28,33,26		1,11
16″	59,29,38,47, 2,16,10, 9,29,21		4,20,58,13,13	
		16,17, 0,15,30,20,13		1,11
18″	59,29,39, 3,19,16,25,39,49,34		4,20,58,14,24	
		16,16,55,54,32, 5,49		1,11
20″	59,29,39,19,36,12,20,11,55,23		4,20,58,15,35	
		16,16,51,33,33,50,14		1,11
22″	59,29,39,35,53, 3,53,45,45,37		4,20,58,16,46	
		16,16,47,12,35,33,28		1,11
24″	59,29,39,52, 9,51, 6,21,19, 5		4,20,58,17,57	
		16,16,42,51,37,15,31		1,11
26″	59,29,40, 8,26,33,57,58,34,36		4,20,58,19, 8	
		16,16,38,30,38,56,23		1,11
28″	59,29,40,24,43,12,28,37,30,59		4,20,58,20,19	
		16,16,34, 9,40,36, 4		1,11
30″	59,29,40,40,59,46,38,18, 7, 3		4,20,58,21,30	
		16,16,29,48,42,14,34		1,11
32″	59,29,40,57,16,16,27, 0,21,37		4,20,58,22,41	
		16,16,25,27,43,51,53		1,11
34″	59,29,41,13,32,41,54,44,13,30		4,20,58,23,52	
		16,16,21, 6,45,28, 1		1,11
36″	59,29,41,29,49, 3, 1,29,41,31		4,20,58,25, 3	
		16,16,16,45,47, 2,58		1,11
38″	59,29,41,46, 5,19,47,16,44,29		4,20,58,26,14	
		16,16,12,24,48,36,44		1,11
40″	59,29,42, 2,21,32,12, 5,21,13		4,20,58,27,25	
		16,16, 8, 3,50, 9,19		1,11
42″	59,29,42,18,37,40,15,55,30,32		4,20,58,28,36	
		16,16, 3,42,51,40,43		1,11
44″	59,29,42,34,53,43,58,47,11,15		4,20,58,29,47	
		16,15,59,21,53,10,56		1,11
46″	59,29,42,51, 9,43,20,40,22,11		4,20,58,30,58	
		16,15,55, 0,54,39,58		1,11
48″	59,29,43, 7,25,38,21,35, 2, 9		4,20,58,32, 9	
		16,15,50,39,56, 7,49		1,11
50″	59,29,43,23,41,29, 1,31, 9,58		4,20,58,33,20	
		16,15,46,18,57,34,29		1,11
52″	59,29,43,39,57,15,20,28,44,27		4,20,58,34,31	
		16,15,41,57,58,59,58		1,11
54″	59,29,43,56,12,57,18,27,44,25		4,20,58,35,42	
		16,15,37,37, 0,24,16		1,11
56″	59,29,44,12,28,34,55,28, 8,41		4,20,58,36,53	
		16,15,33,16, 1,47,23		1,11
58″	59,29,44,28,44, 8,11,29,56, 4		4,20,58,38, 4	
		16,15,28,55, 3, 9,19		
60″	59,29,44,44,59,37, 6,33, 5,23			
exact	59,29,44,44,59,37, 6,32,33,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°34′ 0″	59,29,44,44,59,37, 6,32,33,35			
		16,15,24,34, 4,26,52		
2″	59,29,45, 1,15, 1,40,37, 0,27		4,20,58,40,38	
		16,15,20,13, 5,46,14		1,11
4″	59,29,45,17,30,21,53,42,46,41		4,20,58,41,49	
		16,15,15,52, 7, 4,25		1,11
6″	59,29,45,33,45,37,45,49,51, 6		4,20,58,43, 0	
		16,15,11,31, 8,21,25		1,11
8″	59,29,45,50, 0,49,16,58,12,31		4,20,58,44,11	
		16,15, 7,10, 9,37,14		1,11
10″	59,29,46, 6,15,56,27, 7,49,45		4,20,58,45,22	
		16,15, 2,49,10,51,52		1,11
12″	59,29,46,22,30,59,16,18,41,37		4,20,58,46,33	
		16,14,58,28,12, 5,19		1,11
14″	59,29,46,38,45,57,44,30,46,56		4,20,58,47,44	
		16,14,54, 7,13,17,35		1,11
16″	59,29,46,55, 0,51,51,44, 4,31		4,20,58,48,55	
		16,14,49,46,14,28,40		1,11
18″	59,29,47,11,15,41,37,58,33,11		4,20,58,50, 6	
		16,14,45,25,15,38,34		1,11
20″	59,29,47,27,30,27, 3,14,11,45		4,20,58,51,17	
		16,14,41, 4,16,47,17		1,11
22″	59,29,47,43,45, 8, 7,30,59, 2		4,20,58,52,28	
		16,14,36,43,17,54,49		1,11
24″	59,29,47,59,59,44,50,48,53,51		4,20,58,53,39	
		16,14,32,22,19, 1,10		1,11
26″	59,29,48,16,14,17,13, 7,55, 1		4,20,58,54,50	
		16,14,28, 1,20, 6,20		1,11
28″	59,29,48,32,28,45,14,28, 1,21		4,20,58,56, 1	
		16,14,23,40,21,10,19		1,11
30″	59,29,48,48,43, 8,54,49,11,40		4,20,58,57,12	
		16,14,19,19,22,13, 7		1,11
32″	59,29,49, 4,57,28,14,11,24,47		4,20,58,58,23	
		16,14,14,58,23,14,44		1,11
34″	59,29,49,21,11,43,12,34,39,31		4,20,58,59,34	
		16,14,10,37,24,15,10		1,11
36″	59,29,49,37,25,53,49,58,54,41		4,20,59, 0,45	
		16,14, 6,16,25,14,25		1,11
38″	59,29,49,53,40, 0, 6,24, 9, 6		4,20,59, 1,56	
		16,14, 1,55,26,12,29		1,11
40″	59,29,50, 9,54, 2, 1,50,21,35		4,20,59, 3, 7	
		16,13,57,34,27, 9,22		1,11
42″	59,29,50,26, 7,59,36,17,30,57		4,20,59, 4,18	
		16,13,53,13,28, 5, 4		1,11
44″	59,29,50,42,21,52,49,45,36, 1		4,20,59, 5,29	
		16,13,48,52,28,59,35		1,11
46″	59,29,50,58,35,41,42,14,35,36		4,20,59, 6,40	
		16,13,44,31,29,52,55		1,11
48″	59,29,51,14,49,26,13,44,28,31		4,20,59, 7,51	
		16,13,40,10,30,45, 4		1,11
50″	59,29,51,31, 3, 6,24,15,13,35		4,20,59, 9, 2	
		16,13,35,49,31,36, 2		1,11
52″	59,29,51,47,16,42,13,46,49,37		4,20,59,10,13	
		16,13,31,28,32,25,49		1,11
54″	59,29,52, 3,30,13,42,19,15,26		4,20,59,11,24	
		16,13,27, 7,33,14,25		1,11
56″	59,29,52,19,43,40,49,52,29,51		4,20,59,12,35	
		16,13,22,46,34, 1,50		1,11
58″	59,29,52,35,57, 3,36,26,31,41		4,20,59,13,46	
		16,13,18,25,34,48, 4		
60″	59,29,52,52,10,22, 2, 1,19,45			
exact	59,29,52,52,10,22, 2, 1, 1,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°35′ 0″	59,29,52,52,10,22, 2, 1, 1,49			
		16,13,14, 4,35,31,17		
2″	59,29,53, 8,23,36, 6,36,33, 6		4,20,59,16,15	
		16,13, 9,43,36,15, 2		1,11
4″	59,29,53,24,36,45,50,12,48, 8		4,20,59,17,26	
		16,13, 5,22,36,57,36		1,11
6″	59,29,53,40,49,51,12,49,45,44		4,20,59,18,37	
		16,13, 1, 1,37,38,59		1,11
8″	59,29,53,57, 2,52,14,27,24,43		4,20,59,19,48	
		16,12,56,40,38,19,11		1,11
10″	59,29,54,13,15,48,55, 5,43,54		4,20,59,20,59	
		16,12,52,19,38,58,12		1,11
12″	59,29,54,29,28,41,14,44,42, 6		4,20,59,22,10	
		16,12,47,58,39,36, 2		1,11
14″	59,29,54,45,41,29,13,24,18, 8		4,20,59,23,21	
		16,12,43,37,40,12,41		1,11
16″	59,29,55, 1,54,12,51, 4,30,49		4,20,59,24,32	
		16,12,39,16,40,48, 9		1,11
18″	59,29,55,18, 6,52, 7,45,18,58		4,20,59,25,43	
		16,12,34,55,41,22,26		1,11
20″	59,29,55,34,19,27, 3,26,41,24		4,20,59,26,54	
		16,12,30,34,41,55,32		1,11
22″	59,29,55,50,31,57,38, 8,36,56		4,20,59,28, 5	
		16,12,26,13,42,27,27		1,11
24″	59,29,56, 6,44,23,51,51, 4,23		4,20,59,29,16	
		16,12,21,52,42,58,11		1,11
26″	59,29,56,22,56,45,44,34, 2,34		4,20,59,30,27	
		16,12,17,31,43,27,44		1,11
28″	59,29,56,39, 9, 3,16,17,30,18		4,20,59,31,38	
		16,12,13,10,43,56, 6		1,11
30″	59,29,56,55,21,16,27, 1,26,24		4,20,59,32,49	
		16,12, 8,49,44,23,17		1,11
32″	59,29,57,11,33,25,16,45,49,41		4,20,59,34, 0	
		16,12, 4,28,44,49,17		1,11
34″	59,29,57,27,45,29,45,30,38,58		4,20,59,35,11	
		16,12, 0, 7,45,14, 6		1,11
36″	59,29,57,43,57,29,53,15,53, 4		4,20,59,36,22	
		16,11,55,46,45,37,44		1,11
38″	59,29,58, 0, 9,25,40, 1,30,48		4,20,59,37,33	
		16,11,51,25,46, 0,11		1,11
40″	59,29,58,16,21,17, 5,47,30,59		4,20,59,38,44	
		16,11,47, 4,46,21,27		1,11
42″	59,29,58,32,33, 4,10,33,52,26		4,20,59,39,55	
		16,11,42,43,46,41,32		1,11
44″	59,29,58,48,44,46,54,20,33,58		4,20,59,41, 6	
		16,11,38,22,47, 0,26		1,11
46″	59,29,59, 4,56,25,17, 7,34,24		4,20,59,42,17	
		16,11,34, 1,47,18, 9		1,11
48″	59,29,59,21, 7,59,18,54,52,33		4,20,59,43,28	
		16,11,29,40,47,34,41		1,11
50″	59,29,59,37,19,28,59,42,27,14		4,20,59,44,39	
		16,11,25,19,47,50, 2		1,11
52″	59,29,59,53,30,54,19,30,17,16		4,20,59,45,50	
		16,11,20,58,48, 4,12		1,11
54″	59,30, 0, 9,42,15,18,18,21,28		4,20,59,47, 1	
		16,11,16,37,48,17,11		1,11
56″	59,30, 0,25,53,31,56, 6,38,39		4,20,59,48,12	
		16,11,12,16,48,28,59		1,11
58″	59,30, 0,42, 4,44,12,55, 7,38		4,20,59,49,23	
		16,11, 7,55,48,39,36		
60″	59,30, 0,58,15,52, 8,43,47,14			
exact	59,30, 0,58,15,52, 8,43,40,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°36′ 0″	59,30, 0,58,15,52, 8,43,40,50			
		16,11, 3,34,48,48,25		
2″	59,30, 1,14,26,55,43,32,29,15		4,20,59,51,47	
		16,10,59,13,48,56,38		1,11
4″	59,30, 1,30,37,54,57,21,25,53		4,20,59,52,58	
		16,10,54,52,49, 3,40		1,11
6″	59,30, 1,46,48,49,50,10,29,33		4,20,59,54, 9	
		16,10,50,31,49, 9,31		1,11
8″	59,30, 2, 2,59,40,21,59,39, 4		4,20,59,55,20	
		16,10,46,10,49,14,11		1,11
10″	59,30, 2,19,10,26,32,48,53,15		4,20,59,56,31	
		16,10,41,49,49,17,40		1,11
12″	59,30, 2,35,21, 8,22,38,10,55		4,20,59,57,42	
		16,10,37,28,49,19,58		1,11
14″	59,30, 2,51,31,45,51,27,30,53		4,20,59,58,53	
		16,10,33, 7,49,21, 5		1,11
16″	59,30, 3, 7,42,18,59,16,51,58		4,21, 0, 0, 4	
		16,10,28,46,49,21, 1		1,11
18″	59,30, 3,23,52,47,46, 6,12,59		4,21, 0, 1,15	
		16,10,24,25,49,19,46		1,11
20″	59,30, 3,40, 3,12,11,55,32,45		4,21, 0, 2,26	
		16,10,20, 4,49,17,20		1,11
22″	59,30, 3,56,13,32,16,44,50, 5		4,21, 0, 3,37	
		16,10,15,43,49,13,43		1,11
24″	59,30, 4,12,23,48, 0,34, 3,48		4,21, 0, 4,48	
		16,10,11,22,49, 8,55		1,11
26″	59,30, 4,28,33,59,23,23,12,43		4,21, 0, 5,59	
		16,10, 7, 1,49, 2,56		1,11
28″	59,30, 4,44,44, 6,25,12,15,39		4,21, 0, 7,10	
		16,10, 2,40,48,55,46		1,11
30″	59,30, 5, 0,54, 9, 6, 1,11,25		4,21, 0, 8,21	
		16, 9,58,19,48,47,25		1,11
32″	59,30, 5,17, 4, 7,25,49,58,50		4,21, 0, 9,32	
		16, 9,53,58,48,37,53		1,11
34″	59,30, 5,33,14, 1,24,38,36,43		4,21, 0,10,43	
		16, 9,49,37,48,27,10		1,11
36″	59,30, 5,49,23,51, 2,27, 3,53		4,21, 0,11,54	
		16, 9,45,16,48,15,16		1,11
38″	59,30, 6, 5,33,36,19,15,19, 9		4,21, 0,13, 5	
		16, 9,40,55,48, 2,11		1,11
40″	59,30, 6,21,43,17,15, 3,21,20		4,21, 0,14,16	
		16, 9,36,34,47,47,55		1,11
42″	59,30, 6,37,52,53,49,51, 9,15		4,21, 0,15,27	
		16, 9,32,13,47,32,28		1,11
44″	59,30, 6,54, 2,26, 3,38,41,43		4,21, 0,16,38	
		16, 9,27,52,47,15,50		1,11
46″	59,30, 7,10,11,53,56,25,57,33		4,21, 0,17,49	
		16, 9,23,31,46,58, 1		1,11
48″	59,30, 7,26,21,17,28,12,55,34		4,21, 0,19, 0	
		16, 9,19,10,46,39, 1		1,11
50″	59,30, 7,42,30,36,38,59,34,35		4,21, 0,20,11	
		16, 9,14,49,46,18,50		1,11
52″	59,30, 7,58,39,51,28,45,53,25		4,21, 0,21,22	
		16, 9,10,28,45,57,28		1,11
54″	59,30, 8,14,49, 1,57,31,50,53		4,21, 0,22,33	
		16, 9, 6, 7,45,34,55		1,11
56″	59,30, 8,30,58, 8, 5,17,25,48		4,21, 0,23,44	
		16, 9, 1,46,45,11,11		1,11
58″	59,30, 8,47, 7, 9,52, 2,36,59		4,21, 0,24,55	
		16, 8,57,25,44,46,16		
60″	59,30, 9, 3,16, 7,17,47,23,15			
exact	59,30, 9, 3,16, 7,17,47,27, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°37′ 0″	59,30, 9, 3,16, 7,17,47,27, 5			
		16, 8,53, 4,44,20,40		
2″	59,30, 9,19,25, 0,22,31,47,45		4,21, 0,27,14	
		16, 8,48,43,43,53,26		1,11
4″	59,30, 9,35,33,49, 6,15,41,11		4,21, 0,28,25	
		16, 8,44,22,43,25, 1		1,11
6″	59,30, 9,51,42,33,28,59, 6,12		4,21, 0,29,36	
		16, 8,40, 1,42,55,25		1,11
8″	59,30,10, 7,51,13,30,42, 1,37		4,21, 0,30,47	
		16, 8,35,40,42,24,38		1,11
10″	59,30,10,23,59,49,11,24,26,15		4,21, 0,31,58	
		16, 8,31,19,41,52,40		1,11
12″	59,30,10,40, 8,20,31, 6,18,55		4,21, 0,33, 9	
		16, 8,26,58,41,19,31		1,11
14″	59,30,10,56,16,47,29,47,38,26		4,21, 0,34,20	
		16, 8,22,37,40,45,11		1,11
16″	59,30,11,12,25,10, 7,28,23,37		4,21, 0,35,31	
		16, 8,18,16,40, 9,40		1,11
18″	59,30,11,28,33,28,24, 8,33,17		4,21, 0,36,42	
		16, 8,13,55,39,32,58		1,11
20″	59,30,11,44,41,42,19,48, 6,15		4,21, 0,37,53	
		16, 8, 9,34,38,55, 5		1,11
22″	59,30,12, 0,49,51,54,27, 1,20		4,21, 0,39, 4	
		16, 8, 5,13,38,16, 1		1,11
24″	59,30,12,16,57,57, 8, 5,17,21		4,21, 0,40,15	
		16, 8, 0,52,37,35,46		1,11
26″	59,30,12,33, 5,58, 0,42,53, 7		4,21, 0,41,26	
		16, 7,56,31,36,54,20		1,11
28″	59,30,12,49,13,54,32,19,47,27		4,21, 0,42,37	
		16, 7,52,10,36,11,43		1,11
30″	59,30,13, 5,21,46,42,55,59,10		4,21, 0,43,48	
		16, 7,47,49,35,27,55		1,11
32″	59,30,13,21,29,34,32,31,27, 5		4,21, 0,44,59	
		16, 7,43,28,34,42,56		1,11
34″	59,30,13,37,37,18, 1, 6,10, 1		4,21, 0,46,10	
		16, 7,39, 7,33,56,46		1,11
36″	59,30,13,53,44,57, 8,40, 6,47		4,21, 0,47,21	
		16, 7,34,46,33, 9,25		1,11
38″	59,30,14, 9,52,31,55,13,16,12		4,21, 0,48,32	
		16, 7,30,25,32,20,53		1,11
40″	59,30,14,26, 0, 2,20,45,37, 5		4,21, 0,49,43	
		16, 7,26, 4,31,31,10		1,11
42″	59,30,14,42, 7,28,25,17, 8,15		4,21, 0,50,54	
		16, 7,21,43,30,40,16		1,11
44″	59,30,14,58,14,50, 8,47,48,31		4,21, 0,52, 5	
		16, 7,17,22,29,48,11		1,11
46″	59,30,15,14,22, 7,31,17,36,42		4,21, 0,53,16	
		16, 7,13, 1,28,54,55		1,11
48″	59,30,15,30,29,20,32,46,31,37		4,21, 0,54,27	
		16, 7, 8,40,28, 0,28		1,11
50″	59,30,15,46,36,29,13,14,32, 5		4,21, 0,55,38	
		16, 7, 4,19,27, 4,50		1,11
52″	59,30,16, 2,43,33,32,41,36,55		4,21, 0,56,49	
		16, 6,59,58,26, 8, 1		1,11
54″	59,30,16,18,50,33,31, 7,44,56		4,21, 0,58, 0	
		16, 6,55,37,25,10, 1		1,11
56″	59,30,16,34,57,29, 8,32,54,57		4,21, 0,59,11	
		16, 6,51,16,24,10,50		1,11
58″	59,30,16,51, 4,20,24,57, 5,47		4,21, 1, 0,22	
		16, 6,46,55,23,10,28		
60″	59,30,17, 7,11, 7,20,20,16,15			
exact	59,30,17, 7,11, 7,20,20,28,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°38′ 0″	59,30,17, 7,11, 7,20,20,28,34			
		16, 6,42,34,22,10,24		
2″	59,30,17,23,17,49,54,42,38,58		4,21, 1, 2,37	
		16, 6,38,13,21, 7,47		1,11
4″	59,30,17,39,24,28, 8, 3,46,45		4,21, 1, 3,48	
		16, 6,33,52,20, 3,59		1,11
6″	59,30,17,55,31, 2, 0,23,50,44		4,21, 1, 4,59	
		16, 6,29,31,18,59, 0		1,11
8″	59,30,18,11,37,31,31,42,49,44		4,21, 1, 6,10	
		16, 6,25,10,17,52,50		1,11
10″	59,30,18,27,43,56,42, 0,42,34		4,21, 1, 7,21	
		16, 6,20,49,16,45,29		1,11
12″	59,30,18,43,50,17,31,17,28, 3		4,21, 1, 8,32	
		16, 6,16,28,15,36,57		1,11
14″	59,30,18,59,56,33,59,33, 5, 0		4,21, 1, 9,43	
		16, 6,12, 7,14,27,14		1,11
16″	59,30,19,16, 2,46, 6,47,32,14		4,21, 1,10,54	
		16, 6, 7,46,13,16,20		1,11
18″	59,30,19,32, 8,53,53, 0,48,34		4,21, 1,12, 5	
		16, 6, 3,25,12, 4,15		1,11
20″	59,30,19,48,14,57,18,12,52,49		4,21, 1,13,16	
		16, 5,59, 4,10,50,59		1,11
22″	59,30,20, 4,20,56,22,23,43,48		4,21, 1,14,27	
		16, 5,54,43, 9,36,32		1,11
24″	59,30,20,20,26,51, 5,33,20,20		4,21, 1,15,38	
		16, 5,50,22, 8,20,54		1,11
26″	59,30,20,36,32,41,27,41,41,14		4,21, 1,16,49	
		16, 5,46, 1, 7, 4, 5		1,11
28″	59,30,20,52,38,27,28,48,45,19		4,21, 1,18, 0	
		16, 5,41,40, 5,46, 5		1,11
30″	59,30,21, 8,44, 9, 8,54,31,24		4,21, 1,19,11	
		16, 5,37,19, 4,26,54		1,11
32″	59,30,21,24,49,46,27,58,58,18		4,21, 1,20,22	
		16, 5,32,58, 3, 6,32		1,11
34″	59,30,21,40,55,19,26, 2, 4,50		4,21, 1,21,33	
		16, 5,28,37, 1,44,59		1,11
36″	59,30,21,57, 0,48, 3, 3,49,49		4,21, 1,22,44	
		16, 5,24,16, 0,22,15		1,11
38″	59,30,22,13, 6,12,19, 4,12, 4		4,21, 1,23,55	
		16, 5,19,54,58,58,20		1,11
40″	59,30,22,29,11,32,14, 3,10,24		4,21, 1,25, 6	
		16, 5,15,33,57,33,14		1,11
42″	59,30,22,45,16,47,48, 0,43,38		4,21, 1,26,17	
		16, 5,11,12,56, 6,57		1,11
44″	59,30,23, 1,21,59, 0,56,50,35		4,21, 1,27,28	
		16, 5, 6,51,54,39,29		1,11
46″	59,30,23,17,27, 5,52,51,30, 4		4,21, 1,28,39	
		16, 5, 2,30,53,10,50		1,11
48″	59,30,23,33,32, 8,23,44,40,54		4,21, 1,29,50	
		16, 4,58, 9,51,41, 0		1,11
50″	59,30,23,49,37, 6,33,36,21,54		4,21, 1,31, 1	
		16, 4,53,48,50, 9,59		1,11
52″	59,30,24, 5,42, 0,22,26,31,53		4,21, 1,32,12	
		16, 4,49,27,48,37,47		1,11
54″	59,30,24,21,46,49,50,15, 9,40		4,21, 1,33,23	
		16, 4,45, 6,47, 4,24		1,11
56″	59,30,24,37,51,34,57, 2,14, 4		4,21, 1,34,34	
		16, 4,40,45,45,29,50		1,11
58″	59,30,24,53,56,15,42,47,43,54		4,21, 1,35,45	
		16, 4,36,24,43,54, 5		
60″	59,30,25,10, 0,52, 7,31,37,59			
exact	59,30,25,10, 0,52, 7,32, 4,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°39′ 0″	59,30,25,10, 0,52, 7,32, 4,50			
		16, 4,32, 3,42,20, 2		
2″	59,30,25,26, 5,24,11,14,24,52		4,21, 1,37,55	
		16, 4,27,42,40,42, 7		1,11
4″	59,30,25,42, 9,51,53,55, 6,59		4,21, 1,39, 6	
		16, 4,23,21,39, 3, 1		1,11
6″	59,30,25,58,14,15,15,34,10, 0		4,21, 1,40,17	
		16, 4,19, 0,37,22,44		1,11
8″	59,30,26,14,18,34,16,11,32,44		4,21, 1,41,28	
		16, 4,14,39,35,41,16		1,11
10″	59,30,26,30,22,48,55,47,14, 0		4,21, 1,42,39	
		16, 4,10,18,33,58,37		1,11
12″	59,30,26,46,26,59,14,21,12,37		4,21, 1,43,50	
		16, 4, 5,57,32,14,47		1,11
14″	59,30,27, 2,31, 5,11,53,27,24		4,21, 1,45, 1	
		16, 4, 1,36,30,29,46		1,11
16″	59,30,27,18,35, 6,48,23,57,10		4,21, 1,46,12	
		16, 3,57,15,28,43,34		1,11
18″	59,30,27,34,39, 4, 3,52,40,44		4,21, 1,47,23	
		16, 3,52,54,26,56,11		1,11
20″	59,30,27,50,42,56,58,19,36,55		4,21, 1,48,34	
		16, 3,48,33,25, 7,37		1,11
22″	59,30,28, 6,46,45,31,44,44,32		4,21, 1,49,45	
		16, 3,44,12,23,17,52		1,11
24″	59,30,28,22,50,29,44, 8, 2,24		4,21, 1,50,56	
		16, 3,39,51,21,26,56		1,11
26″	59,30,28,38,54, 9,35,29,29,20		4,21, 1,52, 7	
		16, 3,35,30,19,34,49		1,11
28″	59,30,28,54,57,45, 5,49, 4, 9		4,21, 1,53,18	
		16, 3,31, 9,17,41,31		1,11
30″	59,30,29,11, 1,16,15, 6,45,40		4,21, 1,54,29	
		16, 3,26,48,15,47, 2		1,11
32″	59,30,29,27, 4,43, 3,22,32,42		4,21, 1,55,40	
		16, 3,22,27,13,51,22		1,11
34″	59,30,29,43, 8, 5,30,36,24, 4		4,21, 1,56,51	
		16, 3,18, 6,11,54,31		1,11
36″	59,30,29,59,11,23,36,48,18,35		4,21, 1,58, 2	
		16, 3,13,45, 9,56,29		1,11
38″	59,30,30,15,14,37,21,58,15, 4		4,21, 1,59,13	
		16, 3, 9,24, 7,57,16		1,11
40″	59,30,30,31,17,46,46, 6,12,20		4,21, 2, 0,24	
		16, 3, 5, 3, 5,56,52		1,11
42″	59,30,30,47,20,51,49,12, 9,12		4,21, 2, 1,35	
		16, 3, 0,42, 3,55,17		1,11
44″	59,30,31, 3,23,52,31,16, 4,29		4,21, 2, 2,46	
		16, 2,56,21, 1,52,31		1,11
46″	59,30,31,19,26,48,52,17,57, 0		4,21, 2, 3,57	
		16, 2,51,59,59,48,34		1,11
48″	59,30,31,35,29,40,52,17,45,34		4,21, 2, 5, 8	
		16, 2,47,38,57,43,26		1,11
50″	59,30,31,51,32,28,31,15,29, 0		4,21, 2, 6,19	
		16, 2,43,17,55,37, 7		1,11
52″	59,30,32, 7,35,11,49,11, 6, 7		4,21, 2, 7,30	
		16, 2,38,56,53,29,37		1,11
54″	59,30,32,23,37,50,46, 4,35,44		4,21, 2, 8,41	
		16, 2,34,35,51,20,56		1,11
56″	59,30,32,39,40,25,21,55,56,40		4,21, 2, 9,52	
		16, 2,30,14,49,11, 4		1,11
58″	59,30,32,55,42,55,36,45, 7,44		4,21, 2,11, 3	
		16, 2,25,53,47, 0, 1		
60″	59,30,33,11,45,21,30,32, 7,45			
exact	59,30,33,11,45,21,30,32,47, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°40′ 0″	59,30,33,11,45,21,30,32,47, 0			
		16, 2,21,32,44,51,56		
2″	59,30,33,27,47,43, 3,17,38,56		4,21, 2,13, 8	
		16, 2,17,11,42,38,48		1,10
4″	59,30,33,43,50, 0,15, 0,17,44		4,21, 2,14,18	
		16, 2,12,50,40,24,30		1,10
6″	59,30,33,59,52,13, 5,40,42,14		4,21, 2,15,28	
		16, 2, 8,29,38, 9, 2		1,10
8″	59,30,34,15,54,21,35,18,51,16		4,21, 2,16,38	
		16, 2, 4, 8,35,52,24		1,10
10″	59,30,34,31,56,25,43,54,43,40		4,21, 2,17,48	
		16, 1,59,47,33,34,36		1,10
12″	59,30,34,47,58,25,31,28,18,16		4,21, 2,18,58	
		16, 1,55,26,31,15,38		1,10
14″	59,30,35, 4, 0,20,57,59,33,54		4,21, 2,20, 8	
		16, 1,51, 5,28,55,30		1,10
16″	59,30,35,20, 2,12, 3,28,29,24		4,21, 2,21,18	
		16, 1,46,44,26,34,12		1,10
18″	59,30,35,36, 3,58,47,55, 3,36		4,21, 2,22,28	
		16, 1,42,23,24,11,44		1,10
20″	59,30,35,52, 5,41,11,19,15,20		4,21, 2,23,38	
		16, 1,38, 2,21,48, 6		1,10
22″	59,30,36, 8, 7,19,13,41, 3,26		4,21, 2,24,48	
		16, 1,33,41,19,23,18		1,10
24″	59,30,36,24, 8,52,55, 0,26,44		4,21, 2,25,58	
		16, 1,29,20,16,57,20		1,10
26″	59,30,36,40,10,22,15,17,24, 4		4,21, 2,27, 8	
		16, 1,24,59,14,30,12		1,10
28″	59,30,36,56,11,47,14,31,54,16		4,21, 2,28,18	
		16, 1,20,38,12, 1,54		1,10
30″	59,30,37,12,13, 7,52,43,56,10		4,21, 2,29,28	
		16, 1,16,17, 9,32,26		1,10
32″	59,30,37,28,14,24, 9,53,28,36		4,21, 2,30,38	
		16, 1,11,56, 7, 1,48		1,10
34″	59,30,37,44,15,36, 6, 0,30,24		4,21, 2,31,48	
		16, 1, 7,35, 4,30, 0		1,10
36″	59,30,38, 0,16,43,41, 5, 0,24		4,21, 2,32,58	
		16, 1, 3,14, 1,57, 2		1,10
38″	59,30,38,16,17,46,55, 6,57,26		4,21, 2,34, 8	
		16, 0,58,52,59,22,54		1,10
40″	59,30,38,32,18,45,48, 6,20,20		4,21, 2,35,18	
		16, 0,54,31,56,47,36		1,10
42″	59,30,38,48,19,40,20, 3, 7,56		4,21, 2,36,28	
		16, 0,50,10,54,11, 8		1,10
44″	59,30,39, 4,20,30,30,57,19, 4		4,21, 2,37,38	
		16, 0,45,49,51,33,30		1,10
46″	59,30,39,20,21,16,20,48,52,34		4,21, 2,38,48	
		16, 0,41,28,48,54,42		1,10
48″	59,30,39,36,21,57,49,37,47,16		4,21, 2,39,58	
		16, 0,37, 7,46,14,44		1,10
50″	59,30,39,52,22,34,57,24, 2, 0		4,21, 2,41, 8	
		16, 0,32,46,43,33,36		1,10
52″	59,30,40, 8,23, 7,44, 7,35,36		4,21, 2,42,18	
		16, 0,28,25,40,51,18		1,10
54″	59,30,40,24,23,36, 9,48,26,54		4,21, 2,43,28	
		16, 0,24, 4,38, 7,50		1,10
56″	59,30,40,40,24, 0,14,26,34,44		4,21, 2,44,38	
		16, 0,19,43,35,23,12		1,10
58″	59,30,40,56,24,19,58, 1,57,56		4,21, 2,45,48	
		16, 0,15,22,32,37,24		
60″	59,30,41,12,24,35,20,34,35,20			
exact	59,30,41,12,24,35,20,34,17,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°41′ 0″	59,30,41,12,24,35,20,34,17,46			
		16, 0,11, 1,29,48,30		
2″	59,30,41,28,24,46,22, 4, 6,16		4,21, 2,48,16	
		16, 0, 6,40,27, 0,14		1,10
4″	59,30,41,44,24,53, 2,31, 6,30		4,21, 2,49,26	
		16, 0, 2,19,24,10,48		1,10
6″	59,30,42, 0,24,55,21,55,17,18		4,21, 2,50,36	
		15,59,57,58,21,20,12		1,10
8″	59,30,42,16,24,53,20,16,37,30		4,21, 2,51,46	
		15,59,53,37,18,28,26		1,10
10″	59,30,42,32,24,46,57,35, 5,56		4,21, 2,52,56	
		15,59,49,16,15,35,30		1,10
12″	59,30,42,48,24,36,13,50,41,26		4,21, 2,54, 6	
		15,59,44,55,12,41,24		1,10
14″	59,30,43, 4,24,21, 9, 3,22,50		4,21, 2,55,16	
		15,59,40,34, 9,46, 8		1,10
16″	59,30,43,20,24, 1,43,13, 8,58		4,21, 2,56,26	
		15,59,36,13, 6,49,42		1,10
18″	59,30,43,36,23,37,56,19,58,40		4,21, 2,57,36	
		15,59,31,52, 3,52, 6		1,10
20″	59,30,43,52,23, 9,48,23,50,46		4,21, 2,58,46	
		15,59,27,31, 0,53,20		1,10
22″	59,30,44, 8,22,37,19,24,44, 6		4,21, 2,59,56	
		15,59,23, 9,57,53,24		1,10
24″	59,30,44,24,22, 0,29,22,37,30		4,21, 3, 1, 6	
		15,59,18,48,54,52,18		1,10
26″	59,30,44,40,21,19,18,17,29,48		4,21, 3, 2,16	
		15,59,14,27,51,50, 2		1,10
28″	59,30,44,56,20,33,46, 9,19,50		4,21, 3, 3,26	
		15,59,10, 6,48,46,36		1,10
30″	59,30,45,12,19,43,52,58, 6,26		4,21, 3, 4,36	
		15,59, 5,45,45,42, 0		1,10
32″	59,30,45,28,18,49,38,43,48,26		4,21, 3, 5,46	
		15,59, 1,24,42,36,14		1,10
34″	59,30,45,44,17,51, 3,26,24,40		4,21, 3, 6,56	
		15,58,57, 3,39,29,18		1,10
36″	59,30,46, 0,16,48, 7, 5,53,58		4,21, 3, 8, 6	
		15,58,52,42,36,21,12		1,10
38″	59,30,46,16,15,40,49,42,15,10		4,21, 3, 9,16	
		15,58,48,21,33,11,56		1,10
40″	59,30,46,32,14,29,11,15,27, 6		4,21, 3,10,26	
		15,58,44, 0,30, 1,30		1,10
42″	59,30,46,48,13,13,11,45,28,36		4,21, 3,11,36	
		15,58,39,39,26,49,54		1,10
44″	59,30,47, 4,11,52,51,12,18,30		4,21, 3,12,46	
		15,58,35,18,23,37, 8		1,10
46″	59,30,47,20,10,28, 9,35,55,38		4,21, 3,13,56	
		15,58,30,57,20,23,12		1,10
48″	59,30,47,36, 8,59, 6,56,18,50		4,21, 3,15, 6	
		15,58,26,36,17, 8, 6		1,10
50″	59,30,47,52, 7,25,43,13,26,56		4,21, 3,16,16	
		15,58,22,15,13,51,50		1,10
52″	59,30,48, 8, 5,47,58,27,18,46		4,21, 3,17,26	
		15,58,17,54,10,34,24		1,10
54″	59,30,48,24, 4, 5,52,37,53,10		4,21, 3,18,36	
		15,58,13,33, 7,15,48		1,10
56″	59,30,48,40, 2,19,25,45, 8,58		4,21, 3,19,46	
		15,58, 9,12, 3,56, 2		1,10
58″	59,30,48,56, 0,28,37,49, 5, 0		4,21, 3,20,56	
		15,58, 4,51, 0,35, 6		
60″	59,30,49,11,58,33,28,49,40, 6			
exact	59,30,49,11,58,33,28,49,31,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°42′ 0″	59,30,49,11,58,33,28,49,31,22			
		15,58, 0,29,57,12, 6		
2″	59,30,49,27,56,33,58,46,43,28		4,21, 3,23,19	
		15,57,56, 8,53,48,47		1,10
4″	59,30,49,43,54,30, 7,40,32,15		4,21, 3,24,29	
		15,57,51,47,50,24,18		1,10
6″	59,30,49,59,52,21,55,30,56,33		4,21, 3,25,39	
		15,57,47,26,46,58,39		1,10
8″	59,30,50,15,50, 9,22,17,55,12		4,21, 3,26,49	
		15,57,43, 5,43,31,50		1,10
10″	59,30,50,31,47,52,28, 1,27, 2		4,21, 3,27,59	
		15,57,38,44,40, 3,51		1,10
12″	59,30,50,47,45,31,12,41,30,53		4,21, 3,29, 9	
		15,57,34,23,36,34,42		1,10
14″	59,30,51, 3,43, 5,36,18, 5,35		4,21, 3,30,19	
		15,57,30, 2,33, 4,23		1,10
16″	59,30,51,19,40,35,38,51, 9,58		4,21, 3,31,29	
		15,57,25,41,29,32,54		1,10
18″	59,30,51,35,38, 1,20,20,42,52		4,21, 3,32,39	
		15,57,21,20,26, 0,15		1,10
20″	59,30,51,51,35,22,40,46,43, 7		4,21, 3,33,49	
		15,57,16,59,22,26,26		1,10
22″	59,30,52, 7,32,39,40, 9, 9,33		4,21, 3,34,59	
		15,57,12,38,18,51,27		1,10
24″	59,30,52,23,29,52,18,28, 1, 0		4,21, 3,36, 9	
		15,57, 8,17,15,15,18		1,10
26″	59,30,52,39,27, 0,35,43,16,18		4,21, 3,37,19	
		15,57, 3,56,11,37,59		1,10
28″	59,30,52,55,24, 4,31,54,54,17		4,21, 3,38,29	
		15,56,59,35, 7,59,30		1,10
30″	59,30,53,11,21, 4, 7, 2,53,47		4,21, 3,39,39	
		15,56,55,14, 4,19,51		1,10
32″	59,30,53,27,17,59,21, 7,13,38		4,21, 3,40,49	
		15,56,50,53, 0,39, 2		1,10
34″	59,30,53,43,14,50,14, 7,52,40		4,21, 3,41,59	
		15,56,46,31,56,57, 3		1,10
36″	59,30,53,59,11,36,46, 4,49,43		4,21, 3,43, 9	
		15,56,42,10,53,13,54		1,10
38″	59,30,54,15, 8,18,56,58, 3,37		4,21, 3,44,19	
		15,56,37,49,49,29,35		1,10
40″	59,30,54,31, 4,56,46,47,33,12		4,21, 3,45,29	
		15,56,33,28,45,44, 6		1,10
42″	59,30,54,47, 1,30,15,33,17,18		4,21, 3,46,39	
		15,56,29, 7,41,57,27		1,10
44″	59,30,55, 2,57,59,23,15,14,45		4,21, 3,47,49	
		15,56,24,46,38, 9,38		1,10
46″	59,30,55,18,54,24, 9,53,24,23		4,21, 3,48,59	
		15,56,20,25,34,20,39		1,10
48″	59,30,55,34,50,44,35,27,45, 2		4,21, 3,50, 9	
		15,56,16, 4,30,30,30		1,10
50″	59,30,55,50,47, 0,39,58,15,32		4,21, 3,51,19	
		15,56,11,43,26,39,11		1,10
52″	59,30,56, 6,43,12,23,24,54,43		4,21, 3,52,29	
		15,56, 7,22,22,46,42		1,10
54″	59,30,56,22,39,19,45,47,41,25		4,21, 3,53,39	
		15,56, 3, 1,18,53, 3		1,10
56″	59,30,56,38,35,22,47, 6,34,28		4,21, 3,54,49	
		15,55,58,40,14,58,14		1,10
58″	59,30,56,54,31,21,27,21,32,42		4,21, 3,55,59	
		15,55,54,19,11, 2,15		
60″	59,30,57,10,27,15,46,32,34,57			
exact	59,30,57,10,27,15,46,32,33,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°43′ 0″	59,30,57,10,27,15,46,32,33,36			
		15,55,49,58, 7, 5, 7		
2″	59,30,57,26,23, 5,44,39,38,43		4,21, 3,58,18	
		15,55,45,37, 3, 6,49		1,10
4″	59,30,57,42,18,51,21,42,45,32		4,21, 3,59,28	
		15,55,41,15,59, 7,21		1,10
6″	59,30,57,58,14,32,37,41,52,53		4,21, 4, 0,38	
		15,55,36,54,55, 6,43		1,10
8″	59,30,58,14,10, 9,32,36,59,36		4,21, 4, 1,48	
		15,55,32,33,51, 4,55		1,10
10″	59,30,58,30, 5,42, 6,28, 4,31		4,21, 4, 2,58	
		15,55,28,12,47, 1,57		1,10
12″	59,30,58,46, 1,10,19,15, 6,28		4,21, 4, 4, 8	
		15,55,23,51,42,57,49		1,10
14″	59,30,59, 1,56,34,10,58, 4,17		4,21, 4, 5,18	
		15,55,19,30,38,52,31		1,10
16″	59,30,59,17,51,53,41,36,56,48		4,21, 4, 6,28	
		15,55,15, 9,34,46, 3		1,10
18″	59,30,59,33,47, 8,51,11,42,51		4,21, 4, 7,38	
		15,55,10,48,30,38,25		1,10
20″	59,30,59,49,42,19,39,42,21,16		4,21, 4, 8,48	
		15,55, 6,27,26,29,37		1,10
22″	59,31, 0, 5,37,26, 7, 8,50,53		4,21, 4, 9,58	
		15,55, 2, 6,22,19,39		1,10
24″	59,31, 0,21,32,28,13,31,10,32		4,21, 4,11, 8	
		15,54,57,45,18, 8,31		1,10
26″	59,31, 0,37,27,25,58,49,19, 3		4,21, 4,12,18	
		15,54,53,24,13,56,13		1,10
28″	59,31, 0,53,22,19,23, 3,15,16		4,21, 4,13,28	
		15,54,49, 3, 9,42,45		1,10
30″	59,31, 1, 9,17, 8,26,12,58, 1		4,21, 4,14,38	
		15,54,44,42, 5,28, 7		1,10
32″	59,31, 1,25,11,53, 8,18,26, 8		4,21, 4,15,48	
		15,54,40,21, 1,12,19		1,10
34″	59,31, 1,41, 6,33,29,19,38,27		4,21, 4,16,58	
		15,54,35,59,56,55,21		1,10
36″	59,31, 1,57, 1, 9,29,16,33,48		4,21, 4,18, 8	
		15,54,31,38,52,37,13		1,10
38″	59,31, 2,12,55,41, 8, 9,11, 1		4,21, 4,19,18	
		15,54,27,17,48,17,55		1,10
40″	59,31, 2,28,50, 8,25,57,28,56		4,21, 4,20,28	
		15,54,22,56,43,57,27		1,10
42″	59,31, 2,44,44,31,22,41,26,23		4,21, 4,21,38	
		15,54,18,35,39,35,49		1,10
44″	59,31, 3, 0,38,49,58,21, 2,12		4,21, 4,22,48	
		15,54,14,14,35,13, 1		1,10
46″	59,31, 3,16,33, 4,12,56,15,13		4,21, 4,23,58	
		15,54, 9,53,30,49, 3		1,10
48″	59,31, 3,32,27,14, 6,27, 4,16		4,21, 4,25, 8	
		15,54, 5,32,26,23,55		1,10
50″	59,31, 3,48,21,19,38,53,28,11		4,21, 4,26,18	
		15,54, 1,11,21,57,37		1,10
52″	59,31, 4, 4,15,20,50,15,25,48		4,21, 4,27,28	
		15,53,56,50,17,30, 9		1,10
54″	59,31, 4,20, 9,17,40,32,55,57		4,21, 4,28,38	
		15,53,52,29,13, 1,31		1,10
56″	59,31, 4,36, 3,10, 9,45,57,28		4,21, 4,29,48	
		15,53,48, 8, 8,31,43		1,10
58″	59,31, 4,51,56,58,17,54,29,11		4,21, 4,30,58	
		15,53,43,47, 4, 0,45		
60″	59,31, 5, 7,50,42, 4,58,29,56			
exact	59,31, 5, 7,50,42, 4,58,41,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°44′ 0″	59,31, 5, 7,50,42, 4,58,41,53			
		15,53,39,25,59,29,57		
2″	59,31, 5,23,44,21,30,58,11,50		4,21, 4,33,12	
		15,53,35, 4,54,56,45		1,10
4″	59,31, 5,39,37,56,35,53, 8,35		4,21, 4,34,22	
		15,53,30,43,50,22,23		1,10
6″	59,31, 5,55,31,27,19,43,30,58		4,21, 4,35,32	
		15,53,26,22,45,46,51		1,10
8″	59,31, 6,11,24,53,42,29,17,49		4,21, 4,36,42	
		15,53,22, 1,41,10, 9		1,10
10″	59,31, 6,27,18,15,44,10,27,58		4,21, 4,37,52	
		15,53,17,40,36,32,17		1,10
12″	59,31, 6,43,11,33,24,47, 0,15		4,21, 4,39, 2	
		15,53,13,19,31,53,15		1,10
14″	59,31, 6,59, 4,46,44,18,53,30		4,21, 4,40,12	
		15,53, 8,58,27,13, 3		1,10
16″	59,31, 7,14,57,55,42,46, 6,33		4,21, 4,41,22	
		15,53, 4,37,22,31,41		1,10
18″	59,31, 7,30,51, 0,20, 8,38,14		4,21, 4,42,32	
		15,53, 0,16,17,49, 9		1,10
20″	59,31, 7,46,44, 0,36,26,27,23		4,21, 4,43,42	
		15,52,55,55,13, 5,27		1,10
22″	59,31, 8, 2,36,56,31,39,32,50		4,21, 4,44,52	
		15,52,51,34, 8,20,35		1,10
24″	59,31, 8,18,29,48, 5,47,53,25		4,21, 4,46, 2	
		15,52,47,13, 3,34,33		1,10
26″	59,31, 8,34,22,35,18,51,27,58		4,21, 4,47,12	
		15,52,42,51,58,47,21		1,10
28″	59,31, 8,50,15,18,10,50,15,19		4,21, 4,48,22	
		15,52,38,30,53,58,59		1,10
30″	59,31, 9, 6, 7,56,41,44,14,18		4,21, 4,49,32	
		15,52,34, 9,49, 9,27		1,10
32″	59,31, 9,22, 0,30,51,33,23,45		4,21, 4,50,42	
		15,52,29,48,44,18,45		1,10
34″	59,31, 9,37,53, 0,40,17,42,30		4,21, 4,51,52	
		15,52,25,27,39,26,53		1,10
36″	59,31, 9,53,45,26, 7,57, 9,23		4,21, 4,53, 2	
		15,52,21, 6,34,33,51		1,10
38″	59,31,10, 9,37,47,14,31,43,14		4,21, 4,54,12	
		15,52,16,45,29,39,39		1,10
40″	59,31,10,25,30, 4, 0, 1,22,53		4,21, 4,55,22	
		15,52,12,24,24,44,17		1,10
42″	59,31,10,41,22,16,24,26, 7,10		4,21, 4,56,32	
		15,52, 8, 3,19,47,45		1,10
44″	59,31,10,57,14,24,27,45,54,55		4,21, 4,57,42	
		15,52, 3,42,14,50, 3		1,10
46″	59,31,11,13, 6,28,10, 0,44,58		4,21, 4,58,52	
		15,51,59,21, 9,51,11		1,10
48″	59,31,11,28,58,27,31,10,36, 9		4,21, 5, 0, 2	
		15,51,55, 0, 4,51, 9		1,10
50″	59,31,11,44,50,22,31,15,27,18		4,21, 5, 1,12	
		15,51,50,38,59,49,57		1,10
52″	59,31,12, 0,42,13,10,15,17,15		4,21, 5, 2,22	
		15,51,46,17,54,47,35		1,10
54″	59,31,12,16,33,59,28,10, 4,50		4,21, 5, 3,32	
		15,51,41,56,49,44, 3		1,10
56″	59,31,12,32,25,41,24,59,48,53		4,21, 5, 4,42	
		15,51,37,35,44,39,21		1,10
58″	59,31,12,48,17,19, 0,44,28,14		4,21, 5, 5,52	
		15,51,33,14,39,33,29		
60″	59,31,13, 4, 8,52,15,24, 1,43			
exact	59,31,13, 4, 8,52,15,24,25, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°45′ 0″	59,31,13, 4, 8,52,15,24,25, 8			
		15,51,28,53,34,28,59		
2″	59,31,13,20, 0,21, 8,58,54, 7		4,21, 5, 8, 1	
		15,51,24,32,29,20,58		1,10
4″	59,31,13,35,51,45,41,28,15, 5		4,21, 5, 9,11	
		15,51,20,11,24,11,47		1,10
6″	59,31,13,51,43, 5,52,52,26,52		4,21, 5,10,21	
		15,51,15,50,19, 1,26		1,10
8″	59,31,14, 7,34,21,43,11,28,18		4,21, 5,11,31	
		15,51,11,29,13,49,55		1,10
10″	59,31,14,23,25,33,12,25,18,13		4,21, 5,12,41	
		15,51, 7, 8, 8,37,14		1,10
12″	59,31,14,39,16,40,20,33,55,27		4,21, 5,13,51	
		15,51, 2,47, 3,23,23		1,10
14″	59,31,14,55, 7,43, 7,37,18,50		4,21, 5,15, 1	
		15,50,58,25,58, 8,22		1,10
16″	59,31,15,10,58,41,33,35,27,12		4,21, 5,16,11	
		15,50,54, 4,52,52,11		1,10
18″	59,31,15,26,49,35,38,28,19,23		4,21, 5,17,21	
		15,50,49,43,47,34,50		1,10
20″	59,31,15,42,40,25,22,15,54,13		4,21, 5,18,31	
		15,50,45,22,42,16,19		1,10
22″	59,31,15,58,31,10,44,58,10,32		4,21, 5,19,41	
		15,50,41, 1,36,56,38		1,10
24″	59,31,16,14,21,51,46,35, 7,10		4,21, 5,20,51	
		15,50,36,40,31,35,47		1,10
26″	59,31,16,30,12,28,27, 6,42,57		4,21, 5,22, 1	
		15,50,32,19,26,13,46		1,10
28″	59,31,16,46, 3, 0,46,32,56,43		4,21, 5,23,11	
		15,50,27,58,20,50,35		1,10
30″	59,31,17, 1,53,28,44,53,47,18		4,21, 5,24,21	
		15,50,23,37,15,26,14		1,10
32″	59,31,17,17,43,52,22, 9,13,32		4,21, 5,25,31	
		15,50,19,16,10, 0,43		1,10
34″	59,31,17,33,34,11,38,19,14,15		4,21, 5,26,41	
		15,50,14,55, 4,34, 2		1,10
36″	59,31,17,49,24,26,33,23,48,17		4,21, 5,27,51	
		15,50,10,33,59, 6,11		1,10
38″	59,31,18, 5,14,37, 7,22,54,28		4,21, 5,29, 1	
		15,50, 6,12,53,37,10		1,10
40″	59,31,18,21, 4,43,20,16,31,38		4,21, 5,30,11	
		15,50, 1,51,48, 6,59		1,10
42″	59,31,18,36,54,45,12, 4,38,37		4,21, 5,31,21	
		15,49,57,30,42,35,38		1,10
44″	59,31,18,52,44,42,42,47,14,15		4,21, 5,32,31	
		15,49,53, 9,37, 3, 7		1,10
46″	59,31,19, 8,34,35,52,24,17,22		4,21, 5,33,41	
		15,49,48,48,31,29,26		1,10
48″	59,31,19,24,24,24,40,55,46,48		4,21, 5,34,51	
		15,49,44,27,25,54,35		1,10
50″	59,31,19,40,14, 9, 8,21,41,23		4,21, 5,36, 1	
		15,49,40, 6,20,18,34		1,10
52″	59,31,19,56, 3,49,14,41,59,57		4,21, 5,37,11	
		15,49,35,45,14,41,23		1,10
54″	59,31,20,11,53,24,59,56,41,20		4,21, 5,38,21	
		15,49,31,24, 9, 3, 2		1,10
56″	59,31,20,27,42,56,24, 5,44,22		4,21, 5,39,31	
		15,49,27, 3, 3,23,31		1,10
58″	59,31,20,43,32,23,27, 9, 7,53		4,21, 5,40,41	
		15,49,22,41,57,42,50		
60″	59,31,20,59,21,46, 9, 6,50,43			
exact	59,31,20,59,21,46, 9, 7,23,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°46′ 0″	59,31,20,59,21,46, 9, 7,23,54			
		15,49,18,20,52, 4,36		
2″	59,31,21,15,11, 4,29,59,28,30		4,21, 5,42,45	
		15,49,13,59,46,21,51		1, 9
4″	59,31,21,31, 0,18,29,45,50,21		4,21, 5,43,54	
		15,49, 9,38,40,37,57		1, 9
6″	59,31,21,46,49,28, 8,26,28,18		4,21, 5,45, 3	
		15,49, 5,17,34,52,54		1, 9
8″	59,31,22, 2,38,33,26, 1,21,12		4,21, 5,46,12	
		15,49, 0,56,29, 6,42		1, 9
10″	59,31,22,18,27,34,22,30,27,54		4,21, 5,47,21	
		15,48,56,35,23,19,21		1, 9
12″	59,31,22,34,16,30,57,53,47,15		4,21, 5,48,30	
		15,48,52,14,17,30,51		1, 9
14″	59,31,22,50, 5,23,12,11,18, 6		4,21, 5,49,39	
		15,48,47,53,11,41,12		1, 9
16″	59,31,23, 5,54,11, 5,22,59,18		4,21, 5,50,48	
		15,48,43,32, 5,50,24		1, 9
18″	59,31,23,21,42,54,37,28,49,42		4,21, 5,51,57	
		15,48,39,10,59,58,27		1, 9
20″	59,31,23,37,31,33,48,28,48, 9		4,21, 5,53, 6	
		15,48,34,49,54, 5,21		1, 9
22″	59,31,23,53,20, 8,38,22,53,30		4,21, 5,54,15	
		15,48,30,28,48,11, 6		1, 9
24″	59,31,24, 9, 8,39, 7,11, 4,36		4,21, 5,55,24	
		15,48,26, 7,42,15,42		1, 9
26″	59,31,24,24,57, 5,14,53,20,18		4,21, 5,56,33	
		15,48,21,46,36,19, 9		1, 9
28″	59,31,24,40,45,27, 1,29,39,27		4,21, 5,57,42	
		15,48,17,25,30,21,27		1, 9
30″	59,31,24,56,33,44,27, 0, 0,54		4,21, 5,58,51	
		15,48,13, 4,24,22,36		1, 9
32″	59,31,25,12,21,57,31,24,23,30		4,21, 6, 0, 0	
		15,48, 8,43,18,22,36		1, 9
34″	59,31,25,28,10, 6,14,42,46, 6		4,21, 6, 1, 9	
		15,48, 4,22,12,21,27		1, 9
36″	59,31,25,43,58,10,36,55, 7,33		4,21, 6, 2,18	
		15,48, 0, 1, 6,19, 9		1, 9
38″	59,31,25,59,46,10,38, 1,26,42		4,21, 6, 3,27	
		15,47,55,40, 0,15,42		1, 9
40″	59,31,26,15,34, 6,18, 1,42,24		4,21, 6, 4,36	
		15,47,51,18,54,11, 6		1, 9
42″	59,31,26,31,21,57,36,55,53,30		4,21, 6, 5,45	
		15,47,46,57,48, 5,21		1, 9
44″	59,31,26,47, 9,44,34,43,58,51		4,21, 6, 6,54	
		15,47,42,36,41,58,27		1, 9
46″	59,31,27, 2,57,27,11,25,57,18		4,21, 6, 8, 3	
		15,47,38,15,35,50,24		1, 9
48″	59,31,27,18,45, 5,27, 1,47,42		4,21, 6, 9,12	
		15,47,33,54,29,41,12		1, 9
50″	59,31,27,34,32,39,21,31,28,54		4,21, 6,10,21	
		15,47,29,33,23,30,51		1, 9
52″	59,31,27,50,20, 8,54,54,59,45		4,21, 6,11,30	
		15,47,25,12,17,19,21		1, 9
54″	59,31,28, 6, 7,34, 7,12,19, 6		4,21, 6,12,39	
		15,47,20,51,11, 6,42		1, 9
56″	59,31,28,21,54,54,58,23,25,48		4,21, 6,13,48	
		15,47,16,30, 4,52,54		1, 9
58″	59,31,28,37,42,11,28,28,18,42		4,21, 6,14,57	
		15,47,12, 8,58,37,57		
60″	59,31,28,53,29,23,37,26,56,39			
exact	59,31,28,53,29,23,37,26,30,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°47′ 0″	59,31,28,53,29,23,37,26,30,17			
		15,47, 7,47,52,19,12		
2″	59,31,29, 9,16,31,25,18,49,29		4,21, 6,17,25	
		15,47, 3,26,46, 1,47		1, 9
4″	59,31,29,25, 3,34,52, 4,51,16		4,21, 6,18,34	
		15,46,59, 5,39,43,13		1, 9
6″	59,31,29,40,50,33,57,44,34,29		4,21, 6,19,43	
		15,46,54,44,33,23,30		1, 9
8″	59,31,29,56,37,28,42,17,57,59		4,21, 6,20,52	
		15,46,50,23,27, 2,38		1, 9
10″	59,31,30,12,24,19, 5,45, 0,37		4,21, 6,22, 1	
		15,46,46, 2,20,40,37		1, 9
12″	59,31,30,28,11, 5, 8, 5,41,14		4,21, 6,23,10	
		15,46,41,41,14,17,27		1, 9
14″	59,31,30,43,57,46,49,19,58,41		4,21, 6,24,19	
		15,46,37,20, 7,53, 8		1, 9
16″	59,31,30,59,44,24, 9,27,51,49		4,21, 6,25,28	
		15,46,32,59, 1,27,40		1, 9
18″	59,31,31,15,30,57, 8,29,19,29		4,21, 6,26,37	
		15,46,28,37,55, 1, 3		1, 9
20″	59,31,31,31,17,25,46,24,20,32		4,21, 6,27,46	
		15,46,24,16,48,33,17		1, 9
22″	59,31,31,47, 3,50, 3,12,53,49		4,21, 6,28,55	
		15,46,19,55,42, 4,22		1, 9
24″	59,31,32, 2,50, 9,58,54,58,11		4,21, 6,30, 4	
		15,46,15,34,35,34,18		1, 9
26″	59,31,32,18,36,25,33,30,32,29		4,21, 6,31,13	
		15,46,11,13,29, 3, 5		1, 9
28″	59,31,32,34,22,36,46,59,35,34		4,21, 6,32,22	
		15,46, 6,52,22,30,43		1, 9
30″	59,31,32,50, 8,43,39,22, 6,17		4,21, 6,33,31	
		15,46, 2,31,15,57,12		1, 9
32″	59,31,33, 5,54,46,10,38, 3,29		4,21, 6,34,40	
		15,45,58,10, 9,22,32		1, 9
34″	59,31,33,21,40,44,20,47,26, 1		4,21, 6,35,49	
		15,45,53,49, 2,46,43		1, 9
36″	59,31,33,37,26,38, 9,50,12,44		4,21, 6,36,58	
		15,45,49,27,56, 9,45		1, 9
38″	59,31,33,53,12,27,37,46,22,29		4,21, 6,38, 7	
		15,45,45, 6,49,31,38		1, 9
40″	59,31,34, 8,58,12,44,35,54, 7		4,21, 6,39,16	
		15,45,40,45,42,52,22		1, 9
42″	59,31,34,24,43,53,30,18,46,29		4,21, 6,40,25	
		15,45,36,24,36,11,57		1, 9
44″	59,31,34,40,29,29,54,54,58,26		4,21, 6,41,34	
		15,45,32, 3,29,30,23		1, 9
46″	59,31,34,56,15, 1,58,24,28,49		4,21, 6,42,43	
		15,45,27,42,22,47,40		1, 9
48″	59,31,35,12, 0,29,40,47,16,29		4,21, 6,43,52	
		15,45,23,21,16, 3,48		1, 9
50″	59,31,35,27,45,53, 2, 3,20,17		4,21, 6,45, 1	
		15,45,19, 0, 9,18,47		1, 9
52″	59,31,35,43,31,12, 2,12,39, 4		4,21, 6,46,10	
		15,45,14,39, 2,32,37		1, 9
54″	59,31,35,59,16,26,41,15,11,41		4,21, 6,47,19	
		15,45,10,17,55,45,18		1, 9
56″	59,31,36,15, 1,36,59,10,56,59		4,21, 6,48,28	
		15,45, 5,56,48,56,50		1, 9
58″	59,31,36,30,46,42,55,59,53,49		4,21, 6,49,37	
		15,45, 1,35,42, 7,13		
60″	59,31,36,46,31,44,31,42, 1, 2			
exact	59,31,36,46,31,44,31,41,47,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°48′ 0″	59,31,36,46,31,44,31,41,47,59			
		15,44,57,14,35,15, 8		
2″	59,31,37, 2,16,41,46,17, 3, 7		4,21, 6,52, 0	
		15,44,52,53,28,23, 8		1, 9
4″	59,31,37,18, 1,34,39,45,26,15		4,21, 6,53, 9	
		15,44,48,32,21,29,59		1, 9
6″	59,31,37,33,46,23,12, 6,56,14		4,21, 6,54,18	
		15,44,44,11,14,35,41		1, 9
8″	59,31,37,49,31, 7,23,21,31,55		4,21, 6,55,27	
		15,44,39,50, 7,40,14		1, 9
10″	59,31,38, 5,15,47,13,29,12, 9		4,21, 6,56,36	
		15,44,35,29, 0,43,38		1, 9
12″	59,31,38,21, 0,22,42,29,55,47		4,21, 6,57,45	
		15,44,31, 7,53,45,53		1, 9
14″	59,31,38,36,44,53,50,23,41,40		4,21, 6,58,54	
		15,44,26,46,46,46,59		1, 9
16″	59,31,38,52,29,20,37,10,28,39		4,21, 7, 0, 3	
		15,44,22,25,39,46,56		1, 9
18″	59,31,39, 8,13,43, 2,50,15,35		4,21, 7, 1,12	
		15,44,18, 4,32,45,44		1, 9
20″	59,31,39,23,58, 1, 7,23, 1,19		4,21, 7, 2,21	
		15,44,13,43,25,43,23		1, 9
22″	59,31,39,39,42,14,50,48,44,42		4,21, 7, 3,30	
		15,44, 9,22,18,39,53		1, 9
24″	59,31,39,55,26,24,13, 7,24,35		4,21, 7, 4,39	
		15,44, 5, 1,11,35,14		1, 9
26″	59,31,40,11,10,29,14,18,59,49		4,21, 7, 5,48	
		15,44, 0,40, 4,29,26		1, 9
28″	59,31,40,26,54,29,54,23,29,15		4,21, 7, 6,57	
		15,43,56,18,57,22,29		1, 9
30″	59,31,40,42,38,26,13,20,51,44		4,21, 7, 8, 6	
		15,43,51,57,50,14,23		1, 9
32″	59,31,40,58,22,18,11,11, 6, 7		4,21, 7, 9,15	
		15,43,47,36,43, 5, 8		1, 9
34″	59,31,41,14, 6, 5,47,54,11,15		4,21, 7,10,24	
		15,43,43,15,35,54,44		1, 9
36″	59,31,41,29,49,49, 3,30, 5,59		4,21, 7,11,33	
		15,43,38,54,28,43,11		1, 9
38″	59,31,41,45,33,27,57,58,49,10		4,21, 7,12,42	
		15,43,34,33,21,30,29		1, 9
40″	59,31,42, 1,17, 2,31,20,19,39		4,21, 7,13,51	
		15,43,30,12,14,16,38		1, 9
42″	59,31,42,17, 0,32,43,34,36,17		4,21, 7,15, 0	
		15,43,25,51, 7, 1,38		1, 9
44″	59,31,42,32,43,58,34,41,37,55		4,21, 7,16, 9	
		15,43,21,29,59,45,29		1, 9
46″	59,31,42,48,27,20, 4,41,23,24		4,21, 7,17,18	
		15,43,17, 8,52,28,11		1, 9
48″	59,31,43, 4,10,37,13,33,51,35		4,21, 7,18,27	
		15,43,12,47,45, 9,44		1, 9
50″	59,31,43,19,53,50, 1,19, 1,19		4,21, 7,19,36	
		15,43, 8,26,37,50, 8		1, 9
52″	59,31,43,35,36,58,27,56,51,27		4,21, 7,20,45	
		15,43, 4, 5,30,29,23		1, 9
54″	59,31,43,51,20, 2,33,27,20,50		4,21, 7,21,54	
		15,42,59,44,23, 7,29		1, 9
56″	59,31,44, 7, 3, 2,17,50,28,19		4,21, 7,23, 3	
		15,42,55,23,15,44,26		1, 9
58″	59,31,44,22,45,57,41, 6,12,45		4,21, 7,24,12	
		15,42,51, 2, 8,20,14		
60″	59,31,44,38,28,48,43,14,32,59			
exact	59,31,44,38,28,48,43,14,32,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°49′ 0″	59,31,44,38,28,48,43,14,32,16			
		15,42,46,41, 0,54,49		
2″	59,31,44,54,11,35,24,15,27, 5		4,21, 7,26,30	
		15,42,42,19,53,28,19		1, 9
4″	59,31,45, 9,54,17,44, 8,55,24		4,21, 7,27,39	
		15,42,37,58,46, 0,40		1, 9
6″	59,31,45,25,36,55,42,54,56, 4		4,21, 7,28,48	
		15,42,33,37,38,31,52		1, 9
8″	59,31,45,41,19,29,20,33,27,56		4,21, 7,29,57	
		15,42,29,16,31, 1,55		1, 9
10″	59,31,45,57, 1,58,37, 4,29,51		4,21, 7,31, 6	
		15,42,24,55,23,30,49		1, 9
12″	59,31,46,12,44,23,32,28, 0,40		4,21, 7,32,15	
		15,42,20,34,15,58,34		1, 9
14″	59,31,46,28,26,44, 6,43,59,14		4,21, 7,33,24	
		15,42,16,13, 8,25,10		1, 9
16″	59,31,46,44, 9, 0,19,52,24,24		4,21, 7,34,33	
		15,42,11,52, 0,50,37		1, 9
18″	59,31,46,59,51,12,11,53,15, 1		4,21, 7,35,42	
		15,42, 7,30,53,14,55		1, 9
20″	59,31,47,15,33,19,42,46,29,56		4,21, 7,36,51	
		15,42, 3, 9,45,38, 4		1, 9
22″	59,31,47,31,15,22,52,32, 8, 0		4,21, 7,38, 0	
		15,41,58,48,38, 0, 4		1, 9
24″	59,31,47,46,57,21,41,10, 8, 4		4,21, 7,39, 9	
		15,41,54,27,30,20,55		1, 9
26″	59,31,48, 2,39,16, 8,40,28,59		4,21, 7,40,18	
		15,41,50, 6,22,40,37		1, 9
28″	59,31,48,18,21, 6,15, 3, 9,36		4,21, 7,41,27	
		15,41,45,45,14,59,10		1, 9
30″	59,31,48,34, 2,52, 0,18, 8,46		4,21, 7,42,36	
		15,41,41,24, 7,16,34		1, 9
32″	59,31,48,49,44,33,24,25,25,20		4,21, 7,43,45	
		15,41,37, 2,59,32,49		1, 9
34″	59,31,49, 5,26,10,27,24,58, 9		4,21, 7,44,54	
		15,41,32,41,51,47,55		1, 9
36″	59,31,49,21, 7,43, 9,16,46, 4		4,21, 7,46, 3	
		15,41,28,20,44, 1,52		1, 9
38″	59,31,49,36,49,11,30, 0,47,56		4,21, 7,47,12	
		15,41,23,59,36,14,40		1, 9
40″	59,31,49,52,30,35,29,37, 2,36		4,21, 7,48,21	
		15,41,19,38,28,26,19		1, 9
42″	59,31,50, 8,11,55, 8, 5,28,55		4,21, 7,49,30	
		15,41,15,17,20,36,49		1, 9
44″	59,31,50,23,53,10,25,26, 5,44		4,21, 7,50,39	
		15,41,10,56,12,46,10		1, 9
46″	59,31,50,39,34,21,21,38,51,54		4,21, 7,51,48	
		15,41, 6,35, 4,54,22		1, 9
48″	59,31,50,55,15,27,56,43,46,16		4,21, 7,52,57	
		15,41, 2,13,57, 1,25		1, 9
50″	59,31,51,10,56,30,10,40,47,41		4,21, 7,54, 6	
		15,40,57,52,49, 7,19		1, 9
52″	59,31,51,26,37,28, 3,29,55, 0		4,21, 7,55,15	
		15,40,53,31,41,12, 4		1, 9
54″	59,31,51,42,18,21,35,11, 7, 4		4,21, 7,56,24	
		15,40,49,10,33,15,40		1, 9
56″	59,31,51,57,59,10,45,44,22,44		4,21, 7,57,33	
		15,40,44,49,25,18, 7		1, 9
58″	59,31,52,13,39,55,35, 9,40,51		4,21, 7,58,42	
		15,40,40,28,17,19,25		
60″	59,31,52,29,20,36, 3,27, 0,16			
exact	59,31,52,29,20,36, 3,27, 9,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°50′ 0″	59,31,52,29,20,36, 3,27, 9,59			
		15,40,36, 7, 9,20,38		
2″	59,31,52,45, 1,12,10,36,30,37		4,21, 8, 0,55	
		15,40,31,46, 1,19,43		1, 9
4″	59,31,53, 0,41,43,56,37,50,20		4,21, 8, 2, 4	
		15,40,27,24,53,17,39		1, 9
6″	59,31,53,16,22,11,21,31, 7,59		4,21, 8, 3,13	
		15,40,23, 3,45,14,26		1, 9
8″	59,31,53,32, 2,34,25,16,22,25		4,21, 8, 4,22	
		15,40,18,42,37,10, 4		1, 9
10″	59,31,53,47,42,53, 7,53,32,29		4,21, 8, 5,31	
		15,40,14,21,29, 4,33		1, 9
12″	59,31,54, 3,23, 7,29,22,37, 2		4,21, 8, 6,40	
		15,40,10, 0,20,57,53		1, 9
14″	59,31,54,19, 3,17,29,43,34,55		4,21, 8, 7,49	
		15,40, 5,39,12,50, 4		1, 9
16″	59,31,54,34,43,23, 8,56,24,59		4,21, 8, 8,58	
		15,40, 1,18, 4,41, 6		1, 9
18″	59,31,54,50,23,24,27, 1, 6, 5		4,21, 8,10, 7	
		15,39,56,56,56,30,59		1, 9
20″	59,31,55, 6, 3,21,23,57,37, 4		4,21, 8,11,16	
		15,39,52,35,48,19,43		1, 9
22″	59,31,55,21,43,13,59,45,56,47		4,21, 8,12,25	
		15,39,48,14,40, 7,18		1, 9
24″	59,31,55,37,23, 2,14,26, 4, 5		4,21, 8,13,34	
		15,39,43,53,31,53,44		1, 9
26″	59,31,55,53, 2,46, 7,57,57,49		4,21, 8,14,43	
		15,39,39,32,23,39, 1		1, 9
28″	59,31,56, 8,42,25,40,21,36,50		4,21, 8,15,52	
		15,39,35,11,15,23, 9		1, 9
30″	59,31,56,24,22, 0,51,36,59,59		4,21, 8,17, 1	
		15,39,30,50, 7, 6, 8		1, 9
32″	59,31,56,40, 1,31,41,44, 6, 7		4,21, 8,18,10	
		15,39,26,28,58,47,58		1, 9
34″	59,31,56,55,40,58,10,42,54, 5		4,21, 8,19,19	
		15,39,22, 7,50,28,39		1, 9
36″	59,31,57,11,20,20,18,33,22,44		4,21, 8,20,28	
		15,39,17,46,42, 8,11		1, 9
38″	59,31,57,26,59,38, 5,15,30,55		4,21, 8,21,37	
		15,39,13,25,33,46,34		1, 9
40″	59,31,57,42,38,51,30,49,17,29		4,21, 8,22,46	
		15,39, 9, 4,25,23,48		1, 9
42″	59,31,57,58,18, 0,35,14,41,17		4,21, 8,23,55	
		15,39, 4,43,16,59,53		1, 9
44″	59,31,58,13,57, 5,18,31,41,10		4,21, 8,25, 4	
		15,39, 0,22, 8,34,49		1, 9
46″	59,31,58,29,36, 5,40,40,15,59		4,21, 8,26,13	
		15,38,56, 1, 0, 8,36		1, 9
48″	59,31,58,45,15, 1,41,40,24,35		4,21, 8,27,22	
		15,38,51,39,51,41,14		1, 9
50″	59,31,59, 0,53,53,21,32, 5,49		4,21, 8,28,31	
		15,38,47,18,43,12,43		1, 9
52″	59,31,59,16,32,40,40,15,18,32		4,21, 8,29,40	
		15,38,42,57,34,43, 3		1, 9
54″	59,31,59,32,11,23,37,50, 1,35		4,21, 8,30,49	
		15,38,38,36,26,12,14		1, 9
56″	59,31,59,47,50, 2,14,16,13,49		4,21, 8,31,58	
		15,38,34,15,17,40,16		1, 9
58″	59,32, 0, 3,28,36,29,33,54, 5		4,21, 8,33, 7	
		15,38,29,54, 9, 7, 9		
60″	59,32, 0,19, 7, 6,23,43, 1,14			
exact	59,32, 0,19, 7, 6,23,43,19,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°51′ 0″	59,32, 0,19, 7, 6,23,43,19,36			
		15,38,25,33, 0,34,58		
2″	59,32, 0,34,45,31,56,43,54,34		4,21, 8,35,16	
		15,38,21,11,51,59,42		1, 9
4″	59,32, 0,50,23,53, 8,35,54,16		4,21, 8,36,25	
		15,38,16,50,43,23,17		1, 9
6″	59,32, 1, 6, 2, 9,59,19,17,33		4,21, 8,37,34	
		15,38,12,29,34,45,43		1, 9
8″	59,32, 1,21,40,22,28,54, 3,16		4,21, 8,38,43	
		15,38, 8, 8,26, 7, 0		1, 9
10″	59,32, 1,37,18,30,37,20,10,16		4,21, 8,39,52	
		15,38, 3,47,17,27, 8		1, 9
12″	59,32, 1,52,56,34,24,37,37,24		4,21, 8,41, 1	
		15,37,59,26, 8,46, 7		1, 9
14″	59,32, 2, 8,34,33,50,46,23,31		4,21, 8,42,10	
		15,37,55, 5, 0, 3,57		1, 9
16″	59,32, 2,24,12,28,55,46,27,28		4,21, 8,43,19	
		15,37,50,43,51,20,38		1, 9
18″	59,32, 2,39,50,19,39,37,48, 6		4,21, 8,44,28	
		15,37,46,22,42,36,10		1, 9
20″	59,32, 2,55,28, 6, 2,20,24,16		4,21, 8,45,37	
		15,37,42, 1,33,50,33		1, 9
22″	59,32, 3,11, 5,48, 3,54,14,49		4,21, 8,46,46	
		15,37,37,40,25, 3,47		1, 9
24″	59,32, 3,26,43,25,44,19,18,36		4,21, 8,47,55	
		15,37,33,19,16,15,52		1, 9
26″	59,32, 3,42,20,59, 3,35,34,28		4,21, 8,49, 4	
		15,37,28,58, 7,26,48		1, 9
28″	59,32, 3,57,58,28, 1,43, 1,16		4,21, 8,50,13	
		15,37,24,36,58,36,35		1, 9
30″	59,32, 4,13,35,52,38,41,37,51		4,21, 8,51,22	
		15,37,20,15,49,45,13		1, 9
32″	59,32, 4,29,13,12,54,31,23, 4		4,21, 8,52,31	
		15,37,15,54,40,52,42		1, 9
34″	59,32, 4,44,50,28,49,12,15,46		4,21, 8,53,40	
		15,37,11,33,31,59, 2		1, 9
36″	59,32, 5, 0,27,40,22,44,14,48		4,21, 8,54,49	
		15,37, 7,12,23, 4,13		1, 9
38″	59,32, 5,16, 4,47,35, 7,19, 1		4,21, 8,55,58	
		15,37, 2,51,14, 8,15		1, 9
40″	59,32, 5,31,41,50,26,21,27,16		4,21, 8,57, 7	
		15,36,58,30, 5,11, 8		1, 9
42″	59,32, 5,47,18,48,56,26,38,24		4,21, 8,58,16	
		15,36,54, 8,56,12,52		1, 9
44″	59,32, 6, 2,55,43, 5,22,51,16		4,21, 8,59,25	
		15,36,49,47,47,13,27		1, 9
46″	59,32, 6,18,32,32,53,10, 4,43		4,21, 9, 0,34	
		15,36,45,26,38,12,53		1, 9
48″	59,32, 6,34, 9,18,19,48,17,36		4,21, 9, 1,43	
		15,36,41, 5,29,11,10		1, 9
50″	59,32, 6,49,45,59,25,17,28,46		4,21, 9, 2,52	
		15,36,36,44,20, 8,18		1, 9
52″	59,32, 7, 5,22,36, 9,37,37, 4		4,21, 9, 4, 1	
		15,36,32,23,11, 4,17		1, 9
54″	59,32, 7,20,59, 8,32,48,41,21		4,21, 9, 5,10	
		15,36,28, 2, 1,59, 7		1, 9
56″	59,32, 7,36,35,36,34,50,40,28		4,21, 9, 6,19	
		15,36,23,40,52,52,48		1, 9
58″	59,32, 7,52,12, 0,15,43,33,16		4,21, 9, 7,28	
		15,36,19,19,43,45,20		
60″	59,32, 8, 7,48,19,35,27,18,36			
exact	59,32, 8, 7,48,19,35,27,51, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°52′ 0″	59,32, 8, 7,48,19,35,27,51, 8			
		15,36,14,58,34,40,11		
2″	59,32, 8,23,24,34,34, 2,31,19		4,21, 9, 9,31	
		15,36,10,37,25,30,40		1, 8
4″	59,32, 8,39, 0,45,11,28, 1,59		4,21, 9,10,39	
		15,36, 6,16,16,20, 1		1, 8
6″	59,32, 8,54,36,51,27,44,22, 0		4,21, 9,11,47	
		15,36, 1,55, 7, 8,14		1, 8
8″	59,32, 9,10,12,53,22,51,30,14		4,21, 9,12,55	
		15,35,57,33,57,55,19		1, 8
10″	59,32, 9,25,48,50,56,49,25,33		4,21, 9,14, 3	
		15,35,53,12,48,41,16		1, 8
12″	59,32, 9,41,24,44, 9,38, 6,49		4,21, 9,15,11	
		15,35,48,51,39,26, 5		1, 8
14″	59,32, 9,57, 0,33, 1,17,32,54		4,21, 9,16,19	
		15,35,44,30,30, 9,46		1, 8
16″	59,32,10,12,36,17,31,47,42,40		4,21, 9,17,27	
		15,35,40, 9,20,52,19		1, 8
18″	59,32,10,28,11,57,41, 8,34,59		4,21, 9,18,35	
		15,35,35,48,11,33,44		1, 8
20″	59,32,10,43,47,33,29,20, 8,43		4,21, 9,19,43	
		15,35,31,27, 2,14, 1		1, 8
22″	59,32,10,59,23, 4,56,22,22,44		4,21, 9,20,51	
		15,35,27, 5,52,53,10		1, 8
24″	59,32,11,14,58,32, 2,15,15,54		4,21, 9,21,59	
		15,35,22,44,43,31,11		1, 8
26″	59,32,11,30,33,54,46,58,47, 5		4,21, 9,23, 7	
		15,35,18,23,34, 8, 4		1, 8
28″	59,32,11,46, 9,13,10,32,55, 9		4,21, 9,24,15	
		15,35,14, 2,24,43,49		1, 8
30″	59,32,12, 1,44,27,12,57,38,58		4,21, 9,25,23	
		15,35, 9,41,15,18,26		1, 8
32″	59,32,12,17,19,36,54,12,57,24		4,21, 9,26,31	
		15,35, 5,20, 5,51,55		1, 8
34″	59,32,12,32,54,42,14,18,49,19		4,21, 9,27,39	
		15,35, 0,58,56,24,16		1, 8
36″	59,32,12,48,29,43,13,15,13,35		4,21, 9,28,47	
		15,34,56,37,46,55,29		1, 8
38″	59,32,13, 4, 4,39,51, 2, 9, 4		4,21, 9,29,55	
		15,34,52,16,37,25,34		1, 8
40″	59,32,13,19,39,32, 7,39,34,38		4,21, 9,31, 3	
		15,34,47,55,27,54,31		1, 8
42″	59,32,13,35,14,20, 3, 7,29, 9		4,21, 9,32,11	
		15,34,43,34,18,22,20		1, 8
44″	59,32,13,50,49, 3,37,25,51,29		4,21, 9,33,19	
		15,34,39,13, 8,49, 1		1, 8
46″	59,32,14, 6,23,42,50,34,40,30		4,21, 9,34,27	
		15,34,34,51,59,14,34		1, 8
48″	59,32,14,21,58,17,42,33,55, 4		4,21, 9,35,35	
		15,34,30,30,49,38,59		1, 8
50″	59,32,14,37,32,48,13,23,34, 3		4,21, 9,36,43	
		15,34,26, 9,40, 2,16		1, 8
52″	59,32,14,53, 7,14,23, 3,36,19		4,21, 9,37,51	
		15,34,21,48,30,24,25		1, 8
54″	59,32,15, 8,41,36,11,34, 0,44		4,21, 9,38,59	
		15,34,17,27,20,45,26		1, 8
56″	59,32,15,24,15,53,38,54,46,10		4,21, 9,40, 7	
		15,34,13, 6,11, 5,19		1, 8
58″	59,32,15,39,50, 6,45, 5,51,29		4,21, 9,41,15	
		15,34, 8,45, 1,24, 4		
60″	59,32,15,55,24,15,30, 7,15,33			
exact	59,32,15,55,24,15,30, 6,46,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°53′ 0″	59,32,15,55,24,15,30, 6,46,14			
		15,34, 4,23,51,38,42		
2″	59,32,16,10,58,19,53,58,24,56		4,21, 9,43,42	
		15,34, 0, 2,41,55, 0		1, 8
4″	59,32,16,26,32,19,56,40,19,56		4,21, 9,44,50	
		15,33,55,41,32,10,10		1, 8
6″	59,32,16,42, 6,15,38,12,30, 6		4,21, 9,45,58	
		15,33,51,20,22,24,12		1, 8
8″	59,32,16,57,40, 6,58,34,54,18		4,21, 9,47, 6	
		15,33,46,59,12,37, 6		1, 8
10″	59,32,17,13,13,53,57,47,31,24		4,21, 9,48,14	
		15,33,42,38, 2,48,52		1, 8
12″	59,32,17,28,47,36,35,50,20,16		4,21, 9,49,22	
		15,33,38,16,52,59,30		1, 8
14″	59,32,17,44,21,14,52,43,19,46		4,21, 9,50,30	
		15,33,33,55,43, 9, 0		1, 8
16″	59,32,17,59,54,48,48,26,28,46		4,21, 9,51,38	
		15,33,29,34,33,17,22		1, 8
18″	59,32,18,15,28,18,22,59,46, 8		4,21, 9,52,46	
		15,33,25,13,23,24,36		1, 8
20″	59,32,18,31, 1,43,36,23,10,44		4,21, 9,53,54	
		15,33,20,52,13,30,42		1, 8
22″	59,32,18,46,35, 4,28,36,41,26		4,21, 9,55, 2	
		15,33,16,31, 3,35,40		1, 8
24″	59,32,19, 2, 8,20,59,40,17, 6		4,21, 9,56,10	
		15,33,12, 9,53,39,30		1, 8
26″	59,32,19,17,41,33, 9,33,56,36		4,21, 9,57,18	
		15,33, 7,48,43,42,12		1, 8
28″	59,32,19,33,14,40,58,17,38,48		4,21, 9,58,26	
		15,33, 3,27,33,43,46		1, 8
30″	59,32,19,48,47,44,25,51,22,34		4,21, 9,59,34	
		15,32,59, 6,23,44,12		1, 8
32″	59,32,20, 4,20,43,32,15, 6,46		4,21,10, 0,42	
		15,32,54,45,13,43,30		1, 8
34″	59,32,20,19,53,38,17,28,50,16		4,21,10, 1,50	
		15,32,50,24, 3,41,40		1, 8
36″	59,32,20,35,26,28,41,32,31,56		4,21,10, 2,58	
		15,32,46, 2,53,38,42		1, 8
38″	59,32,20,50,59,14,44,26,10,38		4,21,10, 4, 6	
		15,32,41,41,43,34,36		1, 8
40″	59,32,21, 6,31,56,26, 9,45,14		4,21,10, 5,14	
		15,32,37,20,33,29,22		1, 8
42″	59,32,21,22, 4,33,46,43,14,36		4,21,10, 6,22	
		15,32,32,59,23,23, 0		1, 8
44″	59,32,21,37,37, 6,46, 6,37,36		4,21,10, 7,30	
		15,32,28,38,13,15,30		1, 8
46″	59,32,21,53, 9,35,24,19,53, 6		4,21,10, 8,38	
		15,32,24,17, 3, 6,52		1, 8
48″	59,32,22, 8,41,59,41,22,59,58		4,21,10, 9,46	
		15,32,19,55,52,57, 6		1, 8
50″	59,32,22,24,14,19,37,15,57, 4		4,21,10,10,54	
		15,32,15,34,42,46,12		1, 8
52″	59,32,22,39,46,35,11,58,43,16		4,21,10,12, 2	
		15,32,11,13,32,34,10		1, 8
54″	59,32,22,55,18,46,25,31,17,26		4,21,10,13,10	
		15,32, 6,52,22,21, 0		1, 8
56″	59,32,23,10,50,53,17,53,38,26		4,21,10,14,18	
		15,32, 2,31,12, 6,42		1, 8
58″	59,32,23,26,22,55,49, 5,45, 8		4,21,10,15,26	
		15,31,58,10, 1,51,16		
60″	59,32,23,41,54,53,59, 7,36,24			
exact	59,32,23,41,54,53,59, 7,18, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°54′ 0″	59,32,23,41,54,53,59, 7,18, 7			
		15,31,53,48,51,32,54		
2″	59,32,23,57,26,47,47,58,51, 1		4,21,10,17,48	
		15,31,49,27,41,15, 6		1, 8
4″	59,32,24,12,58,37,15,40, 6, 7		4,21,10,18,56	
		15,31,45, 6,30,56,10		1, 8
6″	59,32,24,28,30,22,22,11, 2,17		4,21,10,20, 4	
		15,31,40,45,20,36, 6		1, 8
8″	59,32,24,44, 2, 3, 7,31,38,23		4,21,10,21,12	
		15,31,36,24,10,14,54		1, 8
10″	59,32,24,59,33,39,31,41,53,17		4,21,10,22,20	
		15,31,32, 2,59,52,34		1, 8
12″	59,32,25,15, 5,11,34,41,45,51		4,21,10,23,28	
		15,31,27,41,49,29, 6		1, 8
14″	59,32,25,30,36,39,16,31,14,57		4,21,10,24,36	
		15,31,23,20,39, 4,30		1, 8
16″	59,32,25,46, 8, 2,37,10,19,27		4,21,10,25,44	
		15,31,18,59,28,38,46		1, 8
18″	59,32,26, 1,39,21,36,38,58,13		4,21,10,26,52	
		15,31,14,38,18,11,54		1, 8
20″	59,32,26,17,10,36,14,57,10, 7		4,21,10,28, 0	
		15,31,10,17, 7,43,54		1, 8
22″	59,32,26,32,41,46,32, 4,54, 1		4,21,10,29, 8	
		15,31, 5,55,57,14,46		1, 8
24″	59,32,26,48,12,52,28, 2, 8,47		4,21,10,30,16	
		15,31, 1,34,46,44,30		1, 8
26″	59,32,27, 3,43,54, 2,48,53,17		4,21,10,31,24	
		15,30,57,13,36,13, 6		1, 8
28″	59,32,27,19,14,51,16,25, 6,23		4,21,10,32,32	
		15,30,52,52,25,40,34		1, 8
30″	59,32,27,34,45,44, 8,50,46,57		4,21,10,33,40	
		15,30,48,31,15, 6,54		1, 8
32″	59,32,27,50,16,32,40, 5,53,51		4,21,10,34,48	
		15,30,44,10, 4,32, 6		1, 8
34″	59,32,28, 5,47,16,50,10,25,57		4,21,10,35,56	
		15,30,39,48,53,56,10		1, 8
36″	59,32,28,21,17,56,39, 4,22, 7		4,21,10,37, 4	
		15,30,35,27,43,19, 6		1, 8
38″	59,32,28,36,48,32, 6,47,41,13		4,21,10,38,12	
		15,30,31, 6,32,40,54		1, 8
40″	59,32,28,52,19, 3,13,20,22, 7		4,21,10,39,20	
		15,30,26,45,22, 1,34		1, 8
42″	59,32,29, 7,49,29,58,42,23,41		4,21,10,40,28	
		15,30,22,24,11,21, 6		1, 8
44″	59,32,29,23,19,52,22,53,44,47		4,21,10,41,36	
		15,30,18, 3, 0,39,30		1, 8
46″	59,32,29,38,50,10,25,54,24,17		4,21,10,42,44	
		15,30,13,41,49,56,46		1, 8
48″	59,32,29,54,20,24, 7,44,21, 3		4,21,10,43,52	
		15,30, 9,20,39,12,54		1, 8
50″	59,32,30, 9,50,33,28,23,33,57		4,21,10,45, 0	
		15,30, 4,59,28,27,54		1, 8
52″	59,32,30,25,20,38,27,52, 1,51		4,21,10,46, 8	
		15,30, 0,38,17,41,46		1, 8
54″	59,32,30,40,50,39, 6, 9,43,37		4,21,10,47,16	
		15,29,56,17, 6,54,30		1, 8
56″	59,32,30,56,20,35,23,16,38, 7		4,21,10,48,24	
		15,29,51,55,56, 6, 6		1, 8
58″	59,32,31,11,50,27,19,12,44,13		4,21,10,49,32	
		15,29,47,34,45,16,34		
60″	59,32,31,27,20,14,53,58, 0,47			
exact	59,32,31,27,20,14,53,57,51,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°55′ 0″	59,32,31,27,20,14,53,57,51,37			
		15,29,43,13,34,25, 9		
2″	59,32,31,42,49,58, 7,32,16,46		4,21,10,51,50	
		15,29,38,52,23,33,19		1, 8
4″	59,32,31,58,19,36,59,55,50, 5		4,21,10,52,58	
		15,29,34,31,12,40,21		1, 8
6″	59,32,32,13,49,11,31, 8,30,26		4,21,10,54, 6	
		15,29,30,10, 1,46,15		1, 8
8″	59,32,32,29,18,41,41,10,16,41		4,21,10,55,14	
		15,29,25,48,50,51, 1		1, 8
10″	59,32,32,44,48, 7,30, 1, 7,42		4,21,10,56,22	
		15,29,21,27,39,54,39		1, 8
12″	59,32,33, 0,17,28,57,41, 2,21		4,21,10,57,30	
		15,29,17, 6,28,57, 9		1, 8
14″	59,32,33,15,46,46, 4, 9,59,30		4,21,10,58,38	
		15,29,12,45,17,58,31		1, 8
16″	59,32,33,31,15,58,49,27,58, 1		4,21,10,59,46	
		15,29, 8,24, 6,58,45		1, 8
18″	59,32,33,46,45, 7,13,34,56,46		4,21,11, 0,54	
		15,29, 4, 2,55,57,51		1, 8
20″	59,32,34, 2,14,11,16,30,54,37		4,21,11, 2, 2	
		15,28,59,41,44,55,49		1, 8
22″	59,32,34,17,43,10,58,15,50,26		4,21,11, 3,10	
		15,28,55,20,33,52,39		1, 8
24″	59,32,34,33,12, 6,18,49,43, 5		4,21,11, 4,18	
		15,28,50,59,22,48,21		1, 8
26″	59,32,34,48,40,57,18,12,31,26		4,21,11, 5,26	
		15,28,46,38,11,42,55		1, 8
28″	59,32,35, 4, 9,43,56,24,14,21		4,21,11, 6,34	
		15,28,42,17, 0,36,21		1, 8
30″	59,32,35,19,38,26,13,24,50,42		4,21,11, 7,42	
		15,28,37,55,49,28,39		1, 8
32″	59,32,35,35, 7, 4, 9,14,19,21		4,21,11, 8,50	
		15,28,33,34,38,19,49		1, 8
34″	59,32,35,50,35,37,43,52,39,10		4,21,11, 9,58	
		15,28,29,13,27, 9,51		1, 8
36″	59,32,36, 6, 4, 6,57,19,49, 1		4,21,11,11, 6	
		15,28,24,52,15,58,45		1, 8
38″	59,32,36,21,32,31,49,35,47,46		4,21,11,12,14	
		15,28,20,31, 4,46,31		1, 8
40″	59,32,36,37, 0,52,20,40,34,17		4,21,11,13,22	
		15,28,16, 9,53,33, 9		1, 8
42″	59,32,36,52,29, 8,30,34, 7,26		4,21,11,14,30	
		15,28,11,48,42,18,39		1, 8
44″	59,32,37, 7,57,20,19,16,26, 5		4,21,11,15,38	
		15,28, 7,27,31, 3, 1		1, 8
46″	59,32,37,23,25,27,46,47,29, 6		4,21,11,16,46	
		15,28, 3, 6,19,46,15		1, 8
48″	59,32,37,38,53,30,53, 7,15,21		4,21,11,17,54	
		15,27,58,45, 8,28,21		1, 8
50″	59,32,37,54,21,29,38,15,43,42		4,21,11,19, 2	
		15,27,54,23,57, 9,19		1, 8
52″	59,32,38, 9,49,24, 2,12,53, 1		4,21,11,20,10	
		15,27,50, 2,45,49, 9		1, 8
54″	59,32,38,25,17,14, 4,58,42,10		4,21,11,21,18	
		15,27,45,41,34,27,51		1, 8
56″	59,32,38,40,44,59,46,33,10, 1		4,21,11,22,26	
		15,27,41,20,23, 5,25		1, 8
58″	59,32,38,56,12,41, 6,56,15,26		4,21,11,23,34	
		15,27,36,59,11,41,51		
60″	59,32,39,11,40,18, 6, 7,57,17			
exact	59,32,39,11,40,18, 6, 8, 3, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°56′ 0″	59,32,39,11,40,18, 6, 8, 3, 9			
		15,27,32,38, 0,17,51		
2″	59,32,39,27, 7,50,44, 8,21, 0		4,21,11,25,46	
		15,27,28,16,48,52, 5		1, 8
4″	59,32,39,42,35,19, 0,57,13, 5		4,21,11,26,54	
		15,27,23,55,37,25,11		1, 8
6″	59,32,39,58, 2,42,56,34,38,16		4,21,11,28, 2	
		15,27,19,34,25,57, 9		1, 8
8″	59,32,40,13,30, 2,31, 0,35,25		4,21,11,29,10	
		15,27,15,13,14,27,59		1, 8
10″	59,32,40,28,57,17,44,15, 3,24		4,21,11,30,18	
		15,27,10,52, 2,57,41		1, 8
12″	59,32,40,44,24,28,36,18, 1, 5		4,21,11,31,26	
		15,27, 6,30,51,26,15		1, 8
14″	59,32,40,59,51,35, 7, 9,27,20		4,21,11,32,34	
		15,27, 2, 9,39,53,41		1, 8
16″	59,32,41,15,18,37,16,49,21, 1		4,21,11,33,42	
		15,26,57,48,28,19,59		1, 8
18″	59,32,41,30,45,35, 5,17,41, 0		4,21,11,34,50	
		15,26,53,27,16,45, 9		1, 8
20″	59,32,41,46,12,28,32,34,26, 9		4,21,11,35,58	
		15,26,49, 6, 5, 9,11		1, 8
22″	59,32,42, 1,39,17,38,39,35,20		4,21,11,37, 6	
		15,26,44,44,53,32, 5		1, 8
24″	59,32,42,17, 6, 2,23,33, 7,25		4,21,11,38,14	
		15,26,40,23,41,53,51		1, 8
26″	59,32,42,32,32,42,47,15, 1,16		4,21,11,39,22	
		15,26,36, 2,30,14,29		1, 8
28″	59,32,42,47,59,18,49,45,15,45		4,21,11,40,30	
		15,26,31,41,18,33,59		1, 8
30″	59,32,43, 3,25,50,31, 3,49,44		4,21,11,41,38	
		15,26,27,20, 6,52,21		1, 8
32″	59,32,43,18,52,17,51,10,42, 5		4,21,11,42,46	
		15,26,22,58,55, 9,35		1, 8
34″	59,32,43,34,18,40,50, 5,51,40		4,21,11,43,54	
		15,26,18,37,43,25,41		1, 8
36″	59,32,43,49,44,59,27,49,17,21		4,21,11,45, 2	
		15,26,14,16,31,40,39		1, 8
38″	59,32,44, 5,11,13,44,20,58, 0		4,21,11,46,10	
		15,26, 9,55,19,54,29		1, 8
40″	59,32,44,20,37,23,39,40,52,29		4,21,11,47,18	
		15,26, 5,34, 8, 7,11		1, 8
42″	59,32,44,36, 3,29,13,48,59,40		4,21,11,48,26	
		15,26, 1,12,56,18,45		1, 8
44″	59,32,44,51,29,30,26,45,18,25		4,21,11,49,34	
		15,25,56,51,44,29,11		1, 8
46″	59,32,45, 6,55,27,18,29,47,36		4,21,11,50,42	
		15,25,52,30,32,38,29		1, 8
48″	59,32,45,22,21,19,49, 2,26, 5		4,21,11,51,50	
		15,25,48, 9,20,46,39		1, 8
50″	59,32,45,37,47, 7,58,23,12,44		4,21,11,52,58	
		15,25,43,48, 8,53,41		1, 8
52″	59,32,45,53,12,51,46,32, 6,25		4,21,11,54, 6	
		15,25,39,26,56,59,35		1, 8
54″	59,32,46, 8,38,31,13,29, 6, 0		4,21,11,55,14	
		15,25,35, 5,45, 4,21		1, 8
56″	59,32,46,24, 4, 6,19,14,10,21		4,21,11,56,22	
		15,25,30,44,33, 7,59		1, 8
58″	59,32,46,39,29,37, 3,47,18,20		4,21,11,57,30	
		15,25,26,23,21,10,29		
60″	59,32,46,54,55, 3,27, 8,28,49			
exact	59,32,46,54,55, 3,27, 8,40,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°57′ 0″	59,32,46,54,55, 3,27, 8,40,46			
		15,25,22, 2, 9,13,23		
2″	59,32,47,10,20,25,29,17,54, 9		4,21,11,59,38	
		15,25,17,40,57,13,45		1, 8
4″	59,32,47,25,45,43,10,15, 7,54		4,21,12, 0,46	
		15,25,13,19,45,12,59		1, 8
6″	59,32,47,41,10,56,30, 0,20,53		4,21,12, 1,54	
		15,25, 8,58,33,11, 5		1, 8
8″	59,32,47,56,36, 5,28,33,31,58		4,21,12, 3, 2	
		15,25, 4,37,21, 8, 3		1, 8
10″	59,32,48,12, 1,10, 5,54,40, 1		4,21,12, 4,10	
		15,25, 0,16, 9, 3,53		1, 8
12″	59,32,48,27,26,10,22, 3,43,54		4,21,12, 5,18	
		15,24,55,54,56,58,35		1, 8
14″	59,32,48,42,51, 6,17, 0,42,29		4,21,12, 6,26	
		15,24,51,33,44,52, 9		1, 8
16″	59,32,48,58,15,57,50,45,34,38		4,21,12, 7,34	
		15,24,47,12,32,44,35		1, 8
18″	59,32,49,13,40,45, 3,18,19,13		4,21,12, 8,42	
		15,24,42,51,20,35,53		1, 8
20″	59,32,49,29, 5,27,54,38,55, 6		4,21,12, 9,50	
		15,24,38,30, 8,26, 3		1, 8
22″	59,32,49,44,30, 6,24,47,21, 9		4,21,12,10,58	
		15,24,34, 8,56,15, 5		1, 8
24″	59,32,49,59,54,40,33,43,36,14		4,21,12,12, 6	
		15,24,29,47,44, 2,59		1, 8
26″	59,32,50,15,19,10,21,27,39,13		4,21,12,13,14	
		15,24,25,26,31,49,45		1, 8
28″	59,32,50,30,43,35,47,59,28,58		4,21,12,14,22	
		15,24,21, 5,19,35,23		1, 8
30″	59,32,50,46, 7,56,53,19, 4,21		4,21,12,15,30	
		15,24,16,44, 7,19,53		1, 8
32″	59,32,51, 1,32,13,37,26,24,14		4,21,12,16,38	
		15,24,12,22,55, 3,15		1, 8
34″	59,32,51,16,56,26, 0,21,27,29		4,21,12,17,46	
		15,24, 8, 1,42,45,29		1, 8
36″	59,32,51,32,20,34, 2, 4,12,58		4,21,12,18,54	
		15,24, 3,40,30,26,35		1, 8
38″	59,32,51,47,44,37,42,34,39,33		4,21,12,20, 2	
		15,23,59,19,18, 6,33		1, 8
40″	59,32,52, 3, 8,37, 1,52,46, 6		4,21,12,21,10	
		15,23,54,58, 5,45,23		1, 8
42″	59,32,52,18,32,31,59,58,31,29		4,21,12,22,18	
		15,23,50,36,53,23, 5		1, 8
44″	59,32,52,33,56,22,36,51,54,34		4,21,12,23,26	
		15,23,46,15,40,59,39		1, 8
46″	59,32,52,49,20, 8,52,32,54,13		4,21,12,24,34	
		15,23,41,54,28,35, 5		1, 8
48″	59,32,53, 4,43,50,47, 1,29,18		4,21,12,25,42	
		15,23,37,33,16, 9,23		1, 8
50″	59,32,53,20, 7,28,20,17,38,41		4,21,12,26,50	
		15,23,33,12, 3,42,33		1, 8
52″	59,32,53,35,31, 1,32,21,21,14		4,21,12,27,58	
		15,23,28,50,51,14,35		1, 8
54″	59,32,53,50,54,30,23,12,35,49		4,21,12,29, 6	
		15,23,24,29,38,45,29		1, 8
56″	59,32,54, 6,17,54,52,51,21,18		4,21,12,30,14	
		15,23,20, 8,26,15,15		1, 8
58″	59,32,54,21,41,15, 1,17,36,33		4,21,12,31,22	
		15,23,15,47,13,43,53		
60″	59,32,54,37, 4,30,48,31,20,26			
exact	59,32,54,37, 4,30,48,31,44, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°58′ 0″	59,32,54,37, 4,30,48,31,44, 6			
		15,23,11,26, 1,14, 8		
2″	59,32,54,52,27,42,14,32,58,14		4,21,12,33,25	
		15,23, 7, 4,48,40,43		1, 7
4″	59,32,55, 7,50,49,19,21,38,57		4,21,12,34,32	
		15,23, 2,43,36, 6,11		1, 7
6″	59,32,55,23,13,52, 2,57,45, 8		4,21,12,35,39	
		15,22,58,22,23,30,32		1, 7
8″	59,32,55,38,36,50,25,21,15,40		4,21,12,36,46	
		15,22,54, 1,10,53,46		1, 7
10″	59,32,55,53,59,44,26,32, 9,26		4,21,12,37,53	
		15,22,49,39,58,15,53		1, 7
12″	59,32,56, 9,22,34, 6,30,25,19		4,21,12,39, 0	
		15,22,45,18,45,36,53		1, 7
14″	59,32,56,24,45,19,25,16, 2,12		4,21,12,40, 7	
		15,22,40,57,32,56,46		1, 7
16″	59,32,56,40, 8, 0,22,48,58,58		4,21,12,41,14	
		15,22,36,36,20,15,32		1, 7
18″	59,32,56,55,30,36,59, 9,14,30		4,21,12,42,21	
		15,22,32,15, 7,33,11		1, 7
20″	59,32,57,10,53, 9,14,16,47,41		4,21,12,43,28	
		15,22,27,53,54,49,43		1, 7
22″	59,32,57,26,15,37, 8,11,37,24		4,21,12,44,35	
		15,22,23,32,42, 5, 8		1, 7
24″	59,32,57,41,38, 0,40,53,42,32		4,21,12,45,42	
		15,22,19,11,29,19,26		1, 7
26″	59,32,57,57, 0,19,52,23, 1,58		4,21,12,46,49	
		15,22,14,50,16,32,37		1, 7
28″	59,32,58,12,22,34,42,39,34,35		4,21,12,47,56	
		15,22,10,29, 3,44,41		1, 7
30″	59,32,58,27,44,45,11,43,19,16		4,21,12,49, 3	
		15,22, 6, 7,50,55,38		1, 7
32″	59,32,58,43, 6,51,19,34,14,54		4,21,12,50,10	
		15,22, 1,46,38, 5,28		1, 7
34″	59,32,58,58,28,53, 6,12,20,22		4,21,12,51,17	
		15,21,57,25,25,14,11		1, 7
36″	59,32,59,13,50,50,31,37,34,33		4,21,12,52,24	
		15,21,53, 4,12,21,47		1, 7
38″	59,32,59,29,12,43,35,49,56,20		4,21,12,53,31	
		15,21,48,42,59,28,16		1, 7
40″	59,32,59,44,34,32,18,49,24,36		4,21,12,54,38	
		15,21,44,21,46,33,38		1, 7
42″	59,32,59,59,56,16,40,35,58,14		4,21,12,55,45	
		15,21,40, 0,33,37,53		1, 7
44″	59,33, 0,15,17,56,41, 9,36, 7		4,21,12,56,52	
		15,21,35,39,20,41, 1		1, 7
46″	59,33, 0,30,39,32,20,30,17, 8		4,21,12,57,59	
		15,21,31,18, 7,43, 2		1, 7
48″	59,33, 0,46, 1, 3,38,38, 0,10		4,21,12,59, 6	
		15,21,26,56,54,43,56		1, 7
50″	59,33, 1, 1,22,30,35,32,44, 6		4,21,13, 0,13	
		15,21,22,35,41,43,43		1, 7
52″	59,33, 1,16,43,53,11,14,27,49		4,21,13, 1,20	
		15,21,18,14,28,42,23		1, 7
54″	59,33, 1,32, 5,11,25,43,10,12		4,21,13, 2,27	
		15,21,13,53,15,39,56		1, 7
56″	59,33, 1,47,26,25,18,58,50, 8		4,21,13, 3,34	
		15,21, 9,32, 2,36,22		1, 7
58″	59,33, 2, 2,47,34,51, 1,26,30		4,21,13, 4,41	
		15,21, 5,10,49,31,41		
60″	59,33, 2,18, 8,40, 1,50,58,11			
exact	59,33, 2,18, 8,40, 1,50,24,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
82°59′ 0″	59,33, 2,18, 8,40, 1,50,24,23			
		15,21, 0,49,36,22,29		
2″	59,33, 2,33,29,40,51,26,46,52		4,21,13, 7, 8	
		15,20,56,28,23,15,21		1, 7
4″	59,33, 2,48,50,37,19,50, 2,13		4,21,13, 8,15	
		15,20,52, 7,10, 7, 6		1, 7
6″	59,33, 3, 4,11,29,27, 0, 9,19		4,21,13, 9,22	
		15,20,47,45,56,57,44		1, 7
8″	59,33, 3,19,32,17,12,57, 7, 3		4,21,13,10,29	
		15,20,43,24,43,47,15		1, 7
10″	59,33, 3,34,53, 0,37,40,54,18		4,21,13,11,36	
		15,20,39, 3,30,35,39		1, 7
12″	59,33, 3,50,13,39,41,11,29,57		4,21,13,12,43	
		15,20,34,42,17,22,56		1, 7
14″	59,33, 4, 5,34,14,23,28,52,53		4,21,13,13,50	
		15,20,30,21, 4, 9, 6		1, 7
16″	59,33, 4,20,54,44,44,33, 1,59		4,21,13,14,57	
		15,20,25,59,50,54, 9		1, 7
18″	59,33, 4,36,15,10,44,23,56, 8		4,21,13,16, 4	
		15,20,21,38,37,38, 5		1, 7
20″	59,33, 4,51,35,32,23, 1,34,13		4,21,13,17,11	
		15,20,17,17,24,20,54		1, 7
22″	59,33, 5, 6,55,49,40,25,55, 7		4,21,13,18,18	
		15,20,12,56,11, 2,36		1, 7
24″	59,33, 5,22,16, 2,36,36,57,43		4,21,13,19,25	
		15,20, 8,34,57,43,11		1, 7
26″	59,33, 5,37,36,11,11,34,40,54		4,21,13,20,32	
		15,20, 4,13,44,22,39		1, 7
28″	59,33, 5,52,56,15,25,19, 3,33		4,21,13,21,39	
		15,19,59,52,31, 1, 0		1, 7
30″	59,33, 6, 8,16,15,17,50, 4,33		4,21,13,22,46	
		15,19,55,31,17,38,14		1, 7
32″	59,33, 6,23,36,10,49, 7,42,47		4,21,13,23,53	
		15,19,51,10, 4,14,21		1, 7
34″	59,33, 6,38,56, 1,59,11,57, 8		4,21,13,25, 0	
		15,19,46,48,50,49,21		1, 7
36″	59,33, 6,54,15,48,48, 2,46,29		4,21,13,26, 7	
		15,19,42,27,37,23,14		1, 7
38″	59,33, 7, 9,35,31,15,40, 9,43		4,21,13,27,14	
		15,19,38, 6,23,56, 0		1, 7
40″	59,33, 7,24,55, 9,22, 4, 5,43		4,21,13,28,21	
		15,19,33,45,10,27,39		1, 7
42″	59,33, 7,40,14,43, 7,14,33,22		4,21,13,29,28	
		15,19,29,23,56,58,11		1, 7
44″	59,33, 7,55,34,12,31,11,31,33		4,21,13,30,35	
		15,19,25, 2,43,27,36		1, 7
46″	59,33, 8,10,53,37,33,54,59, 9		4,21,13,31,42	
		15,19,20,41,29,55,54		1, 7
48″	59,33, 8,26,12,58,15,24,55, 3		4,21,13,32,49	
		15,19,16,20,16,23, 5		1, 7
50″	59,33, 8,41,32,14,35,41,18, 8		4,21,13,33,56	
		15,19,11,59, 2,49, 9		1, 7
52″	59,33, 8,56,51,26,34,44, 7,17		4,21,13,35, 3	
		15,19, 7,37,49,14, 6		1, 7
54″	59,33, 9,12,10,34,12,33,21,23		4,21,13,36,10	
		15,19, 3,16,35,37,56		1, 7
56″	59,33, 9,27,29,37,29, 8,59,19		4,21,13,37,17	
		15,18,58,55,22, 0,39		1, 7
58″	59,33, 9,42,48,36,24,30,59,58		4,21,13,38,24	
		15,18,54,34, 8,22,15		
60″	59,33, 9,58, 7,30,58,39,22,13			
exact	59,33, 9,58, 7,30,58,39, 4,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83° 0′ 0″	59,33, 9,58, 7,30,58,39, 4,30			
		15,18,50,12,54,40,51		
2″	59,33,10,13,26,21,11,33,45,21		4,21,13,40,45	
		15,18,45,51,41, 0, 6		1, 7
4″	59,33,10,28,45, 7, 3,14,45,27		4,21,13,41,52	
		15,18,41,30,27,18,14		1, 7
6″	59,33,10,44, 3,48,33,42, 3,41		4,21,13,42,59	
		15,18,37, 9,13,35,15		1, 7
8″	59,33,10,59,22,25,42,55,38,56		4,21,13,44, 6	
		15,18,32,47,59,51, 9		1, 7
10″	59,33,11,14,40,58,30,55,30, 5		4,21,13,45,13	
		15,18,28,26,46, 5,56		1, 7
12″	59,33,11,29,59,26,57,41,36, 1		4,21,13,46,20	
		15,18,24, 5,32,19,36		1, 7
14″	59,33,11,45,17,51, 3,13,55,37		4,21,13,47,27	
		15,18,19,44,18,32, 9		1, 7
16″	59,33,12, 0,36,10,47,32,27,46		4,21,13,48,34	
		15,18,15,23, 4,43,35		1, 7
18″	59,33,12,15,54,26,10,37,11,21		4,21,13,49,41	
		15,18,11, 1,50,53,54		1, 7
20″	59,33,12,31,12,37,12,28, 5,15		4,21,13,50,48	
		15,18, 6,40,37, 3, 6		1, 7
22″	59,33,12,46,30,43,53, 5, 8,21		4,21,13,51,55	
		15,18, 2,19,23,11,11		1, 7
24″	59,33,13, 1,48,46,12,28,19,32		4,21,13,53, 2	
		15,17,57,58, 9,18, 9		1, 7
26″	59,33,13,17, 6,44,10,37,37,41		4,21,13,54, 9	
		15,17,53,36,55,24, 0		1, 7
28″	59,33,13,32,24,37,47,33, 1,41		4,21,13,55,16	
		15,17,49,15,41,28,44		1, 7
30″	59,33,13,47,42,27, 3,14,30,25		4,21,13,56,23	
		15,17,44,54,27,32,21		1, 7
32″	59,33,14, 3, 0,11,57,42, 2,46		4,21,13,57,30	
		15,17,40,33,13,34,51		1, 7
34″	59,33,14,18,17,52,30,55,37,37		4,21,13,58,37	
		15,17,36,11,59,36,14		1, 7
36″	59,33,14,33,35,28,42,55,13,51		4,21,13,59,44	
		15,17,31,50,45,36,30		1, 7
38″	59,33,14,48,53, 0,33,40,50,21		4,21,14, 0,51	
		15,17,27,29,31,35,39		1, 7
40″	59,33,15, 4,10,28, 3,12,26, 0		4,21,14, 1,58	
		15,17,23, 8,17,33,41		1, 7
42″	59,33,15,19,27,51,11,29,59,41		4,21,14, 3, 5	
		15,17,18,47, 3,30,36		1, 7
44″	59,33,15,34,45, 9,58,33,30,17		4,21,14, 4,12	
		15,17,14,25,49,26,24		1, 7
46″	59,33,15,50, 2,24,24,22,56,41		4,21,14, 5,19	
		15,17,10, 4,35,21, 5		1, 7
48″	59,33,16, 5,19,34,28,58,17,46		4,21,14, 6,26	
		15,17, 5,43,21,14,39		1, 7
50″	59,33,16,20,36,40,12,19,32,25		4,21,14, 7,33	
		15,17, 1,22, 7, 7, 6		1, 7
52″	59,33,16,35,53,41,34,26,39,31		4,21,14, 8,40	
		15,16,57, 0,52,58,26		1, 7
54″	59,33,16,51,10,38,35,19,37,57		4,21,14, 9,47	
		15,16,52,39,38,48,39		1, 7
56″	59,33,17, 6,27,31,14,58,26,36		4,21,14,10,54	
		15,16,48,18,24,37,45		1, 7
58″	59,33,17,21,44,19,33,23, 4,21		4,21,14,12, 1	
		15,16,43,57,10,25,44		
60″	59,33,17,37, 1, 3,30,33,30, 5			
exact	59,33,17,37, 1, 3,30,33,18,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83° 1′ 0″	59,33,17,37, 1, 3,30,33,18,56			
		15,16,39,35,56,11,35		
2″	59,33,17,52,17,43, 6,29,30,31		4,21,14,14,18	
		15,16,35,14,41,57,17		1, 7
4″	59,33,18, 7,34,18,21,11,27,48		4,21,14,15,25	
		15,16,30,53,27,41,52		1, 7
6″	59,33,18,22,50,49,14,39, 9,40		4,21,14,16,32	
		15,16,26,32,13,25,20		1, 7
8″	59,33,18,38, 7,15,46,52,35, 0		4,21,14,17,39	
		15,16,22,10,59, 7,41		1, 7
10″	59,33,18,53,23,37,57,51,42,41		4,21,14,18,46	
		15,16,17,49,44,48,55		1, 7
12″	59,33,19, 8,39,55,47,36,31,36		4,21,14,19,53	
		15,16,13,28,30,29, 2		1, 7
14″	59,33,19,23,56, 9,16, 7, 0,38		4,21,14,21, 0	
		15,16, 9, 7,16, 8, 2		1, 7
16″	59,33,19,39,12,18,23,23, 8,40		4,21,14,22, 7	
		15,16, 4,46, 1,45,55		1, 7
18″	59,33,19,54,28,23, 9,24,54,35		4,21,14,23,14	
		15,16, 0,24,47,22,41		1, 7
20″	59,33,20, 9,44,23,34,12,17,16		4,21,14,24,21	
		15,15,56, 3,32,58,20		1, 7
22″	59,33,20,25, 0,19,37,45,15,36		4,21,14,25,28	
		15,15,51,42,18,32,52		1, 7
24″	59,33,20,40,16,11,20, 3,48,28		4,21,14,26,35	
		15,15,47,21, 4, 6,17		1, 7
26″	59,33,20,55,31,58,41, 7,54,45		4,21,14,27,42	
		15,15,42,59,49,38,35		1, 7
28″	59,33,21,10,47,41,40,57,33,20		4,21,14,28,49	
		15,15,38,38,35, 9,46		1, 7
30″	59,33,21,26, 3,20,19,32,43, 6		4,21,14,29,56	
		15,15,34,17,20,39,50		1, 7
32″	59,33,21,41,18,54,36,53,22,56		4,21,14,31, 3	
		15,15,29,56, 6, 8,47		1, 7
34″	59,33,21,56,34,24,32,59,31,43		4,21,14,32,10	
		15,15,25,34,51,36,37		1, 7
36″	59,33,22,11,49,50, 7,51, 8,20		4,21,14,33,17	
		15,15,21,13,37, 3,20		1, 7
38″	59,33,22,27, 5,11,21,28,11,40		4,21,14,34,24	
		15,15,16,52,22,28,56		1, 7
40″	59,33,22,42,20,28,13,50,40,36		4,21,14,35,31	
		15,15,12,31, 7,53,25		1, 7
42″	59,33,22,57,35,40,44,58,34, 1		4,21,14,36,38	
		15,15, 8, 9,53,16,47		1, 7
44″	59,33,23,12,50,48,54,51,50,48		4,21,14,37,45	
		15,15, 3,48,38,39, 2		1, 7
46″	59,33,23,28, 5,52,43,30,29,50		4,21,14,38,52	
		15,14,59,27,24, 0,10		1, 7
48″	59,33,23,43,20,52,10,54,30, 0		4,21,14,39,59	
		15,14,55, 6, 9,20,11		1, 7
50″	59,33,23,58,35,47,17, 3,50,11		4,21,14,41, 6	
		15,14,50,44,54,39, 5		1, 7
52″	59,33,24,13,50,38, 1,58,29,16		4,21,14,42,13	
		15,14,46,23,39,56,52		1, 7
54″	59,33,24,29, 5,24,25,38,26, 8		4,21,14,43,20	
		15,14,42, 2,25,13,32		1, 7
56″	59,33,24,44,20, 6,28, 3,39,40		4,21,14,44,27	
		15,14,37,41,10,29, 5		1, 7
58″	59,33,24,59,34,44, 9,14, 8,45		4,21,14,45,34	
		15,14,33,19,55,43,31		
60″	59,33,25,14,49,17,29, 9,52,16			
exact	59,33,25,14,49,17,29, 9,53,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83° 2′ 0″	59,33,25,14,49,17,29, 9,53,44			
		15,14,28,58,40,57, 6		
2″	59,33,25,30, 3,46,27,50,50,50		4,21,14,47,46	
		15,14,24,37,26, 9,20		1, 7
4″	59,33,25,45,18,11, 5,17, 0,10		4,21,14,48,53	
		15,14,20,16,11,20,27		1, 7
6″	59,33,26, 0,32,31,21,28,20,37		4,21,14,50, 0	
		15,14,15,54,56,30,27		1, 7
8″	59,33,26,15,46,47,16,24,51, 4		4,21,14,51, 7	
		15,14,11,33,41,39,20		1, 7
10″	59,33,26,31, 0,58,50, 6,30,24		4,21,14,52,14	
		15,14, 7,12,26,47, 6		1, 7
12″	59,33,26,46,15, 6, 2,33,17,30		4,21,14,53,21	
		15,14, 2,51,11,53,45		1, 7
14″	59,33,27, 1,29, 8,53,45,11,15		4,21,14,54,28	
		15,13,58,29,56,59,17		1, 7
16″	59,33,27,16,43, 7,23,42,10,32		4,21,14,55,35	
		15,13,54, 8,42, 3,42		1, 7
18″	59,33,27,31,57, 1,32,24,14,14		4,21,14,56,42	
		15,13,49,47,27, 7, 0		1, 7
20″	59,33,27,47,10,51,19,51,21,14		4,21,14,57,49	
		15,13,45,26,12, 9,11		1, 7
22″	59,33,28, 2,24,36,46, 3,30,25		4,21,14,58,56	
		15,13,41, 4,57,10,15		1, 7
24″	59,33,28,17,38,17,51, 0,40,40		4,21,15, 0, 3	
		15,13,36,43,42,10,12		1, 7
26″	59,33,28,32,51,54,34,42,50,52		4,21,15, 1,10	
		15,13,32,22,27, 9, 2		1, 7
28″	59,33,28,48, 5,26,57, 9,59,54		4,21,15, 2,17	
		15,13,28, 1,12, 6,45		1, 7
30″	59,33,29, 3,18,54,58,22, 6,39		4,21,15, 3,24	
		15,13,23,39,57, 3,21		1, 7
32″	59,33,29,18,32,18,38,19,10, 0		4,21,15, 4,31	
		15,13,19,18,41,58,50		1, 7
34″	59,33,29,33,45,37,57, 1, 8,50		4,21,15, 5,38	
		15,13,14,57,26,53,12		1, 7
36″	59,33,29,48,58,52,54,28, 2, 2		4,21,15, 6,45	
		15,13,10,36,11,46,27		1, 7
38″	59,33,30, 4,12, 3,30,39,48,29		4,21,15, 7,52	
		15,13, 6,14,56,38,35		1, 7
40″	59,33,30,19,25, 9,45,36,27, 4		4,21,15, 8,59	
		15,13, 1,53,41,29,36		1, 7
42″	59,33,30,34,38,11,39,17,56,40		4,21,15,10, 6	
		15,12,57,32,26,19,30		1, 7
44″	59,33,30,49,51, 9,11,44,16,10		4,21,15,11,13	
		15,12,53,11,11, 8,17		1, 7
46″	59,33,31, 5, 4, 2,22,55,24,27		4,21,15,12,20	
		15,12,48,49,55,55,57		1, 7
48″	59,33,31,20,16,51,12,51,20,24		4,21,15,13,27	
		15,12,44,28,40,42,30		1, 7
50″	59,33,31,35,29,35,41,32, 2,54		4,21,15,14,34	
		15,12,40, 7,25,27,56		1, 7
52″	59,33,31,50,42,15,48,57,30,50		4,21,15,15,41	
		15,12,35,46,10,12,15		1, 7
54″	59,33,32, 5,54,51,35, 7,43, 5		4,21,15,16,48	
		15,12,31,24,54,55,27		1, 7
56″	59,33,32,21, 7,23, 0, 2,38,32		4,21,15,17,55	
		15,12,27, 3,39,37,32		1, 7
58″	59,33,32,36,19,50, 3,42,16, 4		4,21,15,19, 2	
		15,12,22,42,24,18,30		
60″	59,33,32,51,32,12,46, 6,34,34			
exact	59,33,32,51,32,12,46, 6,46,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83° 3′ 0″	59,33,32,51,32,12,46, 6,46,39			
		15,12,18,21, 8,59,46		
2″	59,33,33, 6,44,31, 7,15,46,25		4,21,15,21, 9	
		15,12,13,59,53,38,37		1, 7
4″	59,33,33,21,56,45, 7, 9,25, 2		4,21,15,22,16	
		15,12, 9,38,38,16,21		1, 7
6″	59,33,33,37, 8,54,45,47,41,23		4,21,15,23,23	
		15,12, 5,17,22,52,58		1, 7
8″	59,33,33,52,21, 0, 3,10,34,21		4,21,15,24,30	
		15,12, 0,56, 7,28,28		1, 7
10″	59,33,34, 7,33, 0,59,18, 2,49		4,21,15,25,37	
		15,11,56,34,52, 2,51		1, 7
12″	59,33,34,22,44,57,34,10, 5,40		4,21,15,26,44	
		15,11,52,13,36,36, 7		1, 7
14″	59,33,34,37,56,49,47,46,41,47		4,21,15,27,51	
		15,11,47,52,21, 8,16		1, 7
16″	59,33,34,53, 8,37,40, 7,50, 3		4,21,15,28,58	
		15,11,43,31, 5,39,18		1, 7
18″	59,33,35, 8,20,21,11,13,29,21		4,21,15,30, 5	
		15,11,39, 9,50, 9,13		1, 7
20″	59,33,35,23,32, 0,21, 3,38,34		4,21,15,31,12	
		15,11,34,48,34,38, 1		1, 7
22″	59,33,35,38,43,35, 9,38,16,35		4,21,15,32,19	
		15,11,30,27,19, 5,42		1, 7
24″	59,33,35,53,55, 5,36,57,22,17		4,21,15,33,26	
		15,11,26, 6, 3,32,16		1, 7
26″	59,33,36, 9, 6,31,43, 0,54,33		4,21,15,34,33	
		15,11,21,44,47,57,43		1, 7
28″	59,33,36,24,17,53,27,48,52,16		4,21,15,35,40	
		15,11,17,23,32,22, 3		1, 7
30″	59,33,36,39,29,10,51,21,14,19		4,21,15,36,47	
		15,11,13, 2,16,45,16		1, 7
32″	59,33,36,54,40,23,53,37,59,35		4,21,15,37,54	
		15,11, 8,41, 1, 7,22		1, 7
34″	59,33,37, 9,51,32,34,39, 6,57		4,21,15,39, 1	
		15,11, 4,19,45,28,21		1, 7
36″	59,33,37,25, 2,36,54,24,35,18		4,21,15,40, 8	
		15,10,59,58,29,48,13		1, 7
38″	59,33,37,40,13,36,52,54,23,31		4,21,15,41,15	
		15,10,55,37,14, 6,58		1, 7
40″	59,33,37,55,24,32,30, 8,30,29		4,21,15,42,22	
		15,10,51,15,58,24,36		1, 7
42″	59,33,38,10,35,23,46, 6,55, 5		4,21,15,43,29	
		15,10,46,54,42,41, 7		1, 7
44″	59,33,38,25,46,10,40,49,36,12		4,21,15,44,36	
		15,10,42,33,26,56,31		1, 7
46″	59,33,38,40,56,53,14,16,32,43		4,21,15,45,43	
		15,10,38,12,11,10,48		1, 7
48″	59,33,38,56, 7,31,26,27,43,31		4,21,15,46,50	
		15,10,33,50,55,23,58		1, 7
50″	59,33,39,11,18, 5,17,23, 7,29		4,21,15,47,57	
		15,10,29,29,39,36, 1		1, 7
52″	59,33,39,26,28,34,47, 2,43,30		4,21,15,49, 4	
		15,10,25, 8,23,46,57		1, 7
54″	59,33,39,41,38,59,55,26,30,27		4,21,15,50,11	
		15,10,20,47, 7,56,46		1, 7
56″	59,33,39,56,49,20,42,34,27,13		4,21,15,51,18	
		15,10,16,25,52, 5,28		1, 7
58″	59,33,40,11,59,37, 8,26,32,41		4,21,15,52,25	
		15,10,12, 4,36,13, 3		
60″	59,33,40,27, 9,49,13, 2,45,44			
exact	59,33,40,27, 9,49,13, 3, 7, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83° 4′ 0″	59,33,40,27, 9,49,13, 3, 7, 1			
		15,10, 7,43,20,21,59		
2″	59,33,40,42,19,56,56,23,29, 0		4,21,15,54,28	
		15,10, 3,22, 4,27,31		1, 7
4″	59,33,40,57,30, 0,18,27,56,31		4,21,15,55,35	
		15, 9,59, 0,48,31,56		1, 7
6″	59,33,41,12,39,59,19,16,28,27		4,21,15,56,42	
		15, 9,54,39,32,35,14		1, 7
8″	59,33,41,27,49,53,58,49, 3,41		4,21,15,57,49	
		15, 9,50,18,16,37,25		1, 7
10″	59,33,41,42,59,44,17, 5,41, 6		4,21,15,58,56	
		15, 9,45,57, 0,38,29		1, 7
12″	59,33,41,58, 9,30,14, 6,19,35		4,21,16, 0, 3	
		15, 9,41,35,44,38,26		1, 7
14″	59,33,42,13,19,11,49,50,58, 1		4,21,16, 1,10	
		15, 9,37,14,28,37,16		1, 7
16″	59,33,42,28,28,49, 4,19,35,17		4,21,16, 2,17	
		15, 9,32,53,12,34,59		1, 7
18″	59,33,42,43,38,21,57,32,10,16		4,21,16, 3,24	
		15, 9,28,31,56,31,35		1, 7
20″	59,33,42,58,47,50,29,28,41,51		4,21,16, 4,31	
		15, 9,24,10,40,27, 4		1, 7
22″	59,33,43,13,57,14,40, 9, 8,55		4,21,16, 5,38	
		15, 9,19,49,24,21,26		1, 7
24″	59,33,43,29, 6,34,29,33,30,21		4,21,16, 6,45	
		15, 9,15,28, 8,14,41		1, 7
26″	59,33,43,44,15,49,57,41,45, 2		4,21,16, 7,52	
		15, 9,11, 6,52, 6,49		1, 7
28″	59,33,43,59,25, 1, 4,33,51,51		4,21,16, 8,59	
		15, 9, 6,45,35,57,50		1, 7
30″	59,33,44,14,34, 7,50, 9,49,41		4,21,16,10, 6	
		15, 9, 2,24,19,47,44		1, 7
32″	59,33,44,29,43,10,14,29,37,25		4,21,16,11,13	
		15, 8,58, 3, 3,36,31		1, 7
34″	59,33,44,44,52, 8,17,33,13,56		4,21,16,12,20	
		15, 8,53,41,47,24,11		1, 7
36″	59,33,45, 0, 1, 1,59,20,38, 7		4,21,16,13,27	
		15, 8,49,20,31,10,44		1, 7
38″	59,33,45,15, 9,51,19,51,48,51		4,21,16,14,34	
		15, 8,44,59,14,56,10		1, 7
40″	59,33,45,30,18,36,19, 6,45, 1		4,21,16,15,41	
		15, 8,40,37,58,40,29		1, 7
42″	59,33,45,45,27,16,57, 5,25,30		4,21,16,16,48	
		15, 8,36,16,42,23,41		1, 7
44″	59,33,46, 0,35,53,13,47,49,11		4,21,16,17,55	
		15, 8,31,55,26, 5,46		1, 7
46″	59,33,46,15,44,25, 9,13,54,57		4,21,16,19, 2	
		15, 8,27,34, 9,46,44		1, 7
48″	59,33,46,30,52,52,43,23,41,41		4,21,16,20, 9	
		15, 8,23,12,53,26,35		1, 7
50″	59,33,46,46, 1,15,56,17, 8,16		4,21,16,21,16	
		15, 8,18,51,37, 5,19		1, 7
52″	59,33,47, 1, 9,34,47,54,13,35		4,21,16,22,23	
		15, 8,14,30,20,42,56		1, 7
54″	59,33,47,16,17,49,18,14,56,31		4,21,16,23,30	
		15, 8,10, 9, 4,19,26		1, 7
56″	59,33,47,31,25,59,27,19,15,57		4,21,16,24,37	
		15, 8, 5,47,47,54,49		1, 7
58″	59,33,47,46,34, 5,15, 7,10,46		4,21,16,25,44	
		15, 8, 1,26,31,29, 5		
60″	59,33,48, 1,42, 6,41,38,39,51			
exact	59,33,48, 1,42, 6,41,39,15,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83° 5′ 0″	59,33,48, 1,42, 6,41,39,15,46			
		15, 7,57, 5,15, 6, 7		
2″	59,33,48,16,50, 3,46,54,21,53		4,21,16,27,41	
		15, 7,52,43,58,38,26		1, 6
4″	59,33,48,31,57,56,30,53, 0,19		4,21,16,28,47	
		15, 7,48,22,42, 9,39		1, 6
6″	59,33,48,47, 5,44,53,35, 9,58		4,21,16,29,53	
		15, 7,44, 1,25,39,46		1, 6
8″	59,33,49, 2,13,28,55, 0,49,44		4,21,16,30,59	
		15, 7,39,40, 9, 8,47		1, 6
10″	59,33,49,17,21, 8,35, 9,58,31		4,21,16,32, 5	
		15, 7,35,18,52,36,42		1, 6
12″	59,33,49,32,28,43,54, 2,35,13		4,21,16,33,11	
		15, 7,30,57,36, 3,31		1, 6
14″	59,33,49,47,36,14,51,38,38,44		4,21,16,34,17	
		15, 7,26,36,19,29,14		1, 6
16″	59,33,50, 2,43,41,27,58, 7,58		4,21,16,35,23	
		15, 7,22,15, 2,53,51		1, 6
18″	59,33,50,17,51, 3,43, 1, 1,49		4,21,16,36,29	
		15, 7,17,53,46,17,22		1, 6
20″	59,33,50,32,58,21,36,47,19,11		4,21,16,37,35	
		15, 7,13,32,29,39,47		1, 6
22″	59,33,50,48, 5,35, 9,16,58,58		4,21,16,38,41	
		15, 7, 9,11,13, 1, 6		1, 6
24″	59,33,51, 3,12,44,20,30, 0, 4		4,21,16,39,47	
		15, 7, 4,49,56,21,19		1, 6
26″	59,33,51,18,19,49,10,26,21,23		4,21,16,40,53	
		15, 7, 0,28,39,40,26		1, 6
28″	59,33,51,33,26,49,39, 6, 1,49		4,21,16,41,59	
		15, 6,56, 7,22,58,27		1, 6
30″	59,33,51,48,33,45,46,29, 0,16		4,21,16,43, 5	
		15, 6,51,46, 6,15,22		1, 6
32″	59,33,52, 3,40,37,32,35,15,38		4,21,16,44,11	
		15, 6,47,24,49,31,11		1, 6
34″	59,33,52,18,47,24,57,24,46,49		4,21,16,45,17	
		15, 6,43, 3,32,45,54		1, 6
36″	59,33,52,33,54, 8, 0,57,32,43		4,21,16,46,23	
		15, 6,38,42,15,59,31		1, 6
38″	59,33,52,49, 0,46,43,13,32,14		4,21,16,47,29	
		15, 6,34,20,59,12, 2		1, 6
40″	59,33,53, 4, 7,21, 4,12,44,16		4,21,16,48,35	
		15, 6,29,59,42,23,27		1, 6
42″	59,33,53,19,13,51, 3,55, 7,43		4,21,16,49,41	
		15, 6,25,38,25,33,46		1, 6
44″	59,33,53,34,20,16,42,20,41,29		4,21,16,50,47	
		15, 6,21,17, 8,42,59		1, 6
46″	59,33,53,49,26,37,59,29,24,28		4,21,16,51,53	
		15, 6,16,55,51,51, 6		1, 6
48″	59,33,54, 4,32,54,55,21,15,34		4,21,16,52,59	
		15, 6,12,34,34,58, 7		1, 6
50″	59,33,54,19,39, 7,29,56,13,41		4,21,16,54, 5	
		15, 6, 8,13,18, 4, 2		1, 6
52″	59,33,54,34,45,15,43,14,17,43		4,21,16,55,11	
		15, 6, 3,52, 1, 8,51		1, 6
54″	59,33,54,49,51,19,35,15,26,34		4,21,16,56,17	
		15, 5,59,30,44,12,34		1, 6
56″	59,33,55, 4,57,19, 5,59,39, 8		4,21,16,57,23	
		15, 5,55, 9,27,15,11		1, 6
58″	59,33,55,20, 3,14,15,26,54,19		4,21,16,58,29	
		15, 5,50,48,10,16,42		
60″	59,33,55,35, 9, 5, 3,37,11, 1			
exact	59,33,55,35, 9, 5, 3,36,45,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83° 6′ 0″	59,33,55,35, 9, 5, 3,36,45,30			
		15, 5,46,26,53,14,35		
2″	59,33,55,50,14,51,30,30, 0, 5		4,21,17, 0,50	
		15, 5,42, 5,36,13,45		1, 6
4″	59,33,56, 5,20,33,36, 6,13,50		4,21,17, 1,56	
		15, 5,37,44,19,11,49		1, 6
6″	59,33,56,20,26,11,20,25,25,39		4,21,17, 3, 2	
		15, 5,33,23, 2, 8,47		1, 6
8″	59,33,56,35,31,44,43,27,34,26		4,21,17, 4, 8	
		15, 5,29, 1,45, 4,39		1, 6
10″	59,33,56,50,37,13,45,12,39, 5		4,21,17, 5,14	
		15, 5,24,40,27,59,25		1, 6
12″	59,33,57, 5,42,38,25,40,38,30		4,21,17, 6,20	
		15, 5,20,19,10,53, 5		1, 6
14″	59,33,57,20,47,58,44,51,31,35		4,21,17, 7,26	
		15, 5,15,57,53,45,39		1, 6
16″	59,33,57,35,53,14,42,45,17,14		4,21,17, 8,32	
		15, 5,11,36,36,37, 7		1, 6
18″	59,33,57,50,58,26,19,21,54,21		4,21,17, 9,38	
		15, 5, 7,15,19,27,29		1, 6
20″	59,33,58, 6, 3,33,34,41,21,50		4,21,17,10,44	
		15, 5, 2,54, 2,16,45		1, 6
22″	59,33,58,21, 8,36,28,43,38,35		4,21,17,11,50	
		15, 4,58,32,45, 4,55		1, 6
24″	59,33,58,36,13,35, 1,28,43,30		4,21,17,12,56	
		15, 4,54,11,27,51,59		1, 6
26″	59,33,58,51,18,29,12,56,35,29		4,21,17,14, 2	
		15, 4,49,50,10,37,57		1, 6
28″	59,33,59, 6,23,19, 3, 7,13,26		4,21,17,15, 8	
		15, 4,45,28,53,22,49		1, 6
30″	59,33,59,21,28, 4,32, 0,36,15		4,21,17,16,14	
		15, 4,41, 7,36, 6,35		1, 6
32″	59,33,59,36,32,45,39,36,42,50		4,21,17,17,20	
		15, 4,36,46,18,49,15		1, 6
34″	59,33,59,51,37,22,25,55,32, 5		4,21,17,18,26	
		15, 4,32,25, 1,30,49		1, 6
36″	59,34, 0, 6,41,54,50,57, 2,54		4,21,17,19,32	
		15, 4,28, 3,44,11,17		1, 6
38″	59,34, 0,21,46,22,54,41,14,11		4,21,17,20,38	
		15, 4,23,42,26,50,39		1, 6
40″	59,34, 0,36,50,46,37, 8, 4,50		4,21,17,21,44	
		15, 4,19,21, 9,28,55		1, 6
42″	59,34, 0,51,55, 5,58,17,33,45		4,21,17,22,50	
		15, 4,14,59,52, 6, 5		1, 6
44″	59,34, 1, 6,59,20,58, 9,39,50		4,21,17,23,56	
		15, 4,10,38,34,42, 9		1, 6
46″	59,34, 1,22, 3,31,36,44,21,59		4,21,17,25, 2	
		15, 4, 6,17,17,17, 7		1, 6
48″	59,34, 1,37, 7,37,54, 1,39, 6		4,21,17,26, 8	
		15, 4, 1,55,59,50,59		1, 6
50″	59,34, 1,52,11,39,50, 1,30, 5		4,21,17,27,14	
		15, 3,57,34,42,23,45		1, 6
52″	59,34, 2, 7,15,37,24,43,53,50		4,21,17,28,20	
		15, 3,53,13,24,55,25		1, 6
54″	59,34, 2,22,19,30,38, 8,49,15		4,21,17,29,26	
		15, 3,48,52, 7,25,59		1, 6
56″	59,34, 2,37,23,19,30,16,15,14		4,21,17,30,32	
		15, 3,44,30,49,55,27		1, 6
58″	59,34, 2,52,27, 4, 1, 6,10,41		4,21,17,31,38	
		15, 3,40, 9,32,23,49		
60″	59,34, 3, 7,30,44,10,38,34,30			
exact	59,34, 3, 7,30,44,10,38,20,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83° 7′ 0″	59,34, 3, 7,30,44,10,38,20,27			
		15, 3,35,48,14,49,45		
2″	59,34, 3,22,34,19,58,53,10,12		4,21,17,33,54	
		15, 3,31,26,57,15,51		1, 6
4″	59,34, 3,37,37,51,25,50,26, 3		4,21,17,35, 0	
		15, 3,27, 5,39,40,51		1, 6
6″	59,34, 3,52,41,18,31,30, 6,54		4,21,17,36, 6	
		15, 3,22,44,22, 4,45		1, 6
8″	59,34, 4, 7,44,41,15,52,11,39		4,21,17,37,12	
		15, 3,18,23, 4,27,33		1, 6
10″	59,34, 4,22,47,59,38,56,39,12		4,21,17,38,18	
		15, 3,14, 1,46,49,15		1, 6
12″	59,34, 4,37,51,13,40,43,28,27		4,21,17,39,24	
		15, 3, 9,40,29, 9,51		1, 6
14″	59,34, 4,52,54,23,21,12,38,18		4,21,17,40,30	
		15, 3, 5,19,11,29,21		1, 6
16″	59,34, 5, 7,57,28,40,24, 7,39		4,21,17,41,36	
		15, 3, 0,57,53,47,45		1, 6
18″	59,34, 5,23, 0,29,38,17,55,24		4,21,17,42,42	
		15, 2,56,36,36, 5, 3		1, 6
20″	59,34, 5,38, 3,26,14,54, 0,27		4,21,17,43,48	
		15, 2,52,15,18,21,15		1, 6
22″	59,34, 5,53, 6,18,30,12,21,42		4,21,17,44,54	
		15, 2,47,54, 0,36,21		1, 6
24″	59,34, 6, 8, 9, 6,24,12,58, 3		4,21,17,46, 0	
		15, 2,43,32,42,50,21		1, 6
26″	59,34, 6,23,11,49,56,55,48,24		4,21,17,47, 6	
		15, 2,39,11,25, 3,15		1, 6
28″	59,34, 6,38,14,29, 8,20,51,39		4,21,17,48,12	
		15, 2,34,50, 7,15, 3		1, 6
30″	59,34, 6,53,17, 3,58,28, 6,42		4,21,17,49,18	
		15, 2,30,28,49,25,45		1, 6
32″	59,34, 7, 8,19,34,27,17,32,27		4,21,17,50,24	
		15, 2,26, 7,31,35,21		1, 6
34″	59,34, 7,23,22, 0,34,49, 7,48		4,21,17,51,30	
		15, 2,21,46,13,43,51		1, 6
36″	59,34, 7,38,24,22,21, 2,51,39		4,21,17,52,36	
		15, 2,17,24,55,51,15		1, 6
38″	59,34, 7,53,26,39,45,58,42,54		4,21,17,53,42	
		15, 2,13, 3,37,57,33		1, 6
40″	59,34, 8, 8,28,52,49,36,40,27		4,21,17,54,48	
		15, 2, 8,42,20, 2,45		1, 6
42″	59,34, 8,23,31, 1,31,56,43,12		4,21,17,55,54	
		15, 2, 4,21, 2, 6,51		1, 6
44″	59,34, 8,38,33, 5,52,58,50, 3		4,21,17,57, 0	
		15, 1,59,59,44, 9,51		1, 6
46″	59,34, 8,53,35, 5,52,42,59,54		4,21,17,58, 6	
		15, 1,55,38,26,11,45		1, 6
48″	59,34, 9, 8,37, 1,31, 9,11,39		4,21,17,59,12	
		15, 1,51,17, 8,12,33		1, 6
50″	59,34, 9,23,38,52,48,17,24,12		4,21,18, 0,18	
		15, 1,46,55,50,12,15		1, 6
52″	59,34, 9,38,40,39,44, 7,36,27		4,21,18, 1,24	
		15, 1,42,34,32,10,51		1, 6
54″	59,34, 9,53,42,22,18,39,47,18		4,21,18, 2,30	
		15, 1,38,13,14, 8,21		1, 6
56″	59,34,10, 8,44, 0,31,53,55,39		4,21,18, 3,36	
		15, 1,33,51,56, 4,45		1, 6
58″	59,34,10,23,45,34,23,50, 0,24		4,21,18, 4,42	
		15, 1,29,30,38, 0, 3		
60″	59,34,10,38,47, 3,54,28, 0,27			
exact	59,34,10,38,47, 3,54,27,56,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83° 8′ 0″	59,34,10,38,47, 3,54,27,56,26			
		15, 1,25, 9,19,54, 1		
2″	59,34,10,53,48,29, 3,47,50,27		4,21,18, 6,54	
		15, 1,20,48, 1,47, 7		1, 6
4″	59,34,11, 8,49,49,51,49,37,34		4,21,18, 8, 0	
		15, 1,16,26,43,39, 7		1, 6
6″	59,34,11,23,51, 6,18,33,16,41		4,21,18, 9, 6	
		15, 1,12, 5,25,30, 1		1, 6
8″	59,34,11,38,52,18,23,58,46,42		4,21,18,10,12	
		15, 1, 7,44, 7,19,49		1, 6
10″	59,34,11,53,53,26, 8, 6, 6,31		4,21,18,11,18	
		15, 1, 3,22,49, 8,31		1, 6
12″	59,34,12, 8,54,29,30,55,15, 2		4,21,18,12,24	
		15, 0,59, 1,30,56, 7		1, 6
14″	59,34,12,23,55,28,32,26,11, 9		4,21,18,13,30	
		15, 0,54,40,12,42,37		1, 6
16″	59,34,12,38,56,23,12,38,53,46		4,21,18,14,36	
		15, 0,50,18,54,28, 1		1, 6
18″	59,34,12,53,57,13,31,33,21,47		4,21,18,15,42	
		15, 0,45,57,36,12,19		1, 6
20″	59,34,13, 8,57,59,29, 9,34, 6		4,21,18,16,48	
		15, 0,41,36,17,55,31		1, 6
22″	59,34,13,23,58,41, 5,27,29,37		4,21,18,17,54	
		15, 0,37,14,59,37,37		1, 6
24″	59,34,13,38,59,18,20,27, 7,14		4,21,18,19, 0	
		15, 0,32,53,41,18,37		1, 6
26″	59,34,13,53,59,51,14, 8,25,51		4,21,18,20, 6	
		15, 0,28,32,22,58,31		1, 6
28″	59,34,14, 9, 0,19,46,31,24,22		4,21,18,21,12	
		15, 0,24,11, 4,37,19		1, 6
30″	59,34,14,24, 0,43,57,36, 1,41		4,21,18,22,18	
		15, 0,19,49,46,15, 1		1, 6
32″	59,34,14,39, 1, 3,47,22,16,42		4,21,18,23,24	
		15, 0,15,28,27,51,37		1, 6
34″	59,34,14,54, 1,19,15,50, 8,19		4,21,18,24,30	
		15, 0,11, 7, 9,27, 7		1, 6
36″	59,34,15, 9, 1,30,22,59,35,26		4,21,18,25,36	
		15, 0, 6,45,51, 1,31		1, 6
38″	59,34,15,24, 1,37, 8,50,36,57		4,21,18,26,42	
		15, 0, 2,24,32,34,49		1, 6
40″	59,34,15,39, 1,39,33,23,11,46		4,21,18,27,48	
		14,59,58, 3,14, 7, 1		1, 6
42″	59,34,15,54, 1,37,36,37,18,47		4,21,18,28,54	
		14,59,53,41,55,38, 7		1, 6
44″	59,34,16, 9, 1,31,18,32,56,54		4,21,18,30, 0	
		14,59,49,20,37, 8, 7		1, 6
46″	59,34,16,24, 1,20,39,10, 5, 1		4,21,18,31, 6	
		14,59,44,59,18,37, 1		1, 6
48″	59,34,16,39, 1, 5,38,28,42, 2		4,21,18,32,12	
		14,59,40,38, 0, 4,49		1, 6
50″	59,34,16,54, 0,46,16,28,46,51		4,21,18,33,18	
		14,59,36,16,41,31,31		1, 6
52″	59,34,17, 9, 0,22,33,10,18,22		4,21,18,34,24	
		14,59,31,55,22,57, 7		1, 6
54″	59,34,17,23,59,54,28,33,15,29		4,21,18,35,30	
		14,59,27,34, 4,21,37		1, 6
56″	59,34,17,38,59,22, 2,37,37, 6		4,21,18,36,36	
		14,59,23,12,45,45, 1		1, 6
58″	59,34,17,53,58,45,15,23,22, 7		4,21,18,37,42	
		14,59,18,51,27, 7,19		
60″	59,34,18, 8,58, 4, 6,50,29,26			
exact	59,34,18, 8,58, 4, 6,50,40,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83° 9′ 0″	59,34,18, 8,58, 4, 6,50,40,57			
		14,59,14,30, 8,29,46		
2″	59,34,18,23,57,18,36,59,10,43		4,21,18,39,48	
		14,59,10, 8,49,49,58		1, 6
4″	59,34,18,38,56,28,45,49, 0,41		4,21,18,40,54	
		14,59, 5,47,31, 9, 4		1, 6
6″	59,34,18,53,55,34,33,20, 9,45		4,21,18,42, 0	
		14,59, 1,26,12,27, 4		1, 6
8″	59,34,19, 8,54,35,59,32,36,49		4,21,18,43, 6	
		14,58,57, 4,53,43,58		1, 6
10″	59,34,19,23,53,33, 4,26,20,47		4,21,18,44,12	
		14,58,52,43,34,59,46		1, 6
12″	59,34,19,38,52,25,48, 1,20,33		4,21,18,45,18	
		14,58,48,22,16,14,28		1, 6
14″	59,34,19,53,51,14,10,17,35, 1		4,21,18,46,24	
		14,58,44, 0,57,28, 4		1, 6
16″	59,34,20, 8,49,58,11,15, 3, 5		4,21,18,47,30	
		14,58,39,39,38,40,34		1, 6
18″	59,34,20,23,48,37,50,53,43,39		4,21,18,48,36	
		14,58,35,18,19,51,58		1, 6
20″	59,34,20,38,47,13, 9,13,35,37		4,21,18,49,42	
		14,58,30,57, 1, 2,16		1, 6
22″	59,34,20,53,45,44, 6,14,37,53		4,21,18,50,48	
		14,58,26,35,42,11,28		1, 6
24″	59,34,21, 8,44,10,41,56,49,21		4,21,18,51,54	
		14,58,22,14,23,19,34		1, 6
26″	59,34,21,23,42,32,56,20, 8,55		4,21,18,53, 0	
		14,58,17,53, 4,26,34		1, 6
28″	59,34,21,38,40,50,49,24,35,29		4,21,18,54, 6	
		14,58,13,31,45,32,28		1, 6
30″	59,34,21,53,39, 4,21,10, 7,57		4,21,18,55,12	
		14,58, 9,10,26,37,16		1, 6
32″	59,34,22, 8,37,13,31,36,45,13		4,21,18,56,18	
		14,58, 4,49, 7,40,58		1, 6
34″	59,34,22,23,35,18,20,44,26,11		4,21,18,57,24	
		14,58, 0,27,48,43,34		1, 6
36″	59,34,22,38,33,18,48,33, 9,45		4,21,18,58,30	
		14,57,56, 6,29,45, 4		1, 6
38″	59,34,22,53,31,14,55, 2,54,49		4,21,18,59,36	
		14,57,51,45,10,45,28		1, 6
40″	59,34,23, 8,29, 6,40,13,40,17		4,21,19, 0,42	
		14,57,47,23,51,44,46		1, 6
42″	59,34,23,23,26,54, 4, 5,25, 3		4,21,19, 1,48	
		14,57,43, 2,32,42,58		1, 6
44″	59,34,23,38,24,37, 6,38, 8, 1		4,21,19, 2,54	
		14,57,38,41,13,40, 4		1, 6
46″	59,34,23,53,22,15,47,51,48, 5		4,21,19, 4, 0	
		14,57,34,19,54,36, 4		1, 6
48″	59,34,24, 8,19,50, 7,46,24, 9		4,21,19, 5, 6	
		14,57,29,58,35,30,58		1, 6
50″	59,34,24,23,17,20, 6,21,55, 7		4,21,19, 6,12	
		14,57,25,37,16,24,46		1, 6
52″	59,34,24,38,14,45,43,38,19,53		4,21,19, 7,18	
		14,57,21,15,57,17,28		1, 6
54″	59,34,24,53,12, 6,59,35,37,21		4,21,19, 8,24	
		14,57,16,54,38, 9, 4		1, 6
56″	59,34,25, 8, 9,23,54,13,46,25		4,21,19, 9,30	
		14,57,12,33,18,59,34		1, 6
58″	59,34,25,23, 6,36,27,32,45,59		4,21,19,10,36	
		14,57, 8,11,59,48,58		
60″	59,34,25,38, 3,44,39,32,34,57			
exact	59,34,25,38, 3,44,39,32,53, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°10′ 0″	59,34,25,38, 3,44,39,32,53, 7			
		14,57, 3,50,40,39,23		
2″	59,34,25,53, 0,48,30,13,32,30		4,21,19,12,38	
		14,56,59,29,21,26,45		1, 6
4″	59,34,26, 7,57,47,59,34,59,15		4,21,19,13,44	
		14,56,55, 8, 2,13, 1		1, 6
6″	59,34,26,22,54,43, 7,37,12,16		4,21,19,14,50	
		14,56,50,46,42,58,11		1, 6
8″	59,34,26,37,51,33,54,20,10,27		4,21,19,15,56	
		14,56,46,25,23,42,15		1, 6
10″	59,34,26,52,48,20,19,43,52,42		4,21,19,17, 2	
		14,56,42, 4, 4,25,13		1, 6
12″	59,34,27, 7,45, 2,23,48,17,55		4,21,19,18, 8	
		14,56,37,42,45, 7, 5		1, 6
14″	59,34,27,22,41,40, 6,33,25, 0		4,21,19,19,14	
		14,56,33,21,25,47,51		1, 6
16″	59,34,27,37,38,13,27,59,12,51		4,21,19,20,20	
		14,56,29, 0, 6,27,31		1, 6
18″	59,34,27,52,34,42,28, 5,40,22		4,21,19,21,26	
		14,56,24,38,47, 6, 5		1, 6
20″	59,34,28, 7,31, 7, 6,52,46,27		4,21,19,22,32	
		14,56,20,17,27,43,33		1, 6
22″	59,34,28,22,27,27,24,20,30, 0		4,21,19,23,38	
		14,56,15,56, 8,19,55		1, 6
24″	59,34,28,37,23,43,20,28,49,55		4,21,19,24,44	
		14,56,11,34,48,55,11		1, 6
26″	59,34,28,52,19,54,55,17,45, 6		4,21,19,25,50	
		14,56, 7,13,29,29,21		1, 6
28″	59,34,29, 7,16, 2, 8,47,14,27		4,21,19,26,56	
		14,56, 2,52,10, 2,25		1, 6
30″	59,34,29,22,12, 5, 0,57,16,52		4,21,19,28, 2	
		14,55,58,30,50,34,23		1, 6
32″	59,34,29,37, 8, 3,31,47,51,15		4,21,19,29, 8	
		14,55,54, 9,31, 5,15		1, 6
34″	59,34,29,52, 3,57,41,18,56,30		4,21,19,30,14	
		14,55,49,48,11,35, 1		1, 6
36″	59,34,30, 6,59,47,29,30,31,31		4,21,19,31,20	
		14,55,45,26,52, 3,41		1, 6
38″	59,34,30,21,55,32,56,22,35,12		4,21,19,32,26	
		14,55,41, 5,32,31,15		1, 6
40″	59,34,30,36,51,14, 1,55, 6,27		4,21,19,33,32	
		14,55,36,44,12,57,43		1, 6
42″	59,34,30,51,46,50,46, 8, 4,10		4,21,19,34,38	
		14,55,32,22,53,23, 5		1, 6
44″	59,34,31, 6,42,23, 9, 1,27,15		4,21,19,35,44	
		14,55,28, 1,33,47,21		1, 6
46″	59,34,31,21,37,51,10,35,14,36		4,21,19,36,50	
		14,55,23,40,14,10,31		1, 6
48″	59,34,31,36,33,14,50,49,25, 7		4,21,19,37,56	
		14,55,19,18,54,32,35		1, 6
50″	59,34,31,51,28,34, 9,43,57,42		4,21,19,39, 2	
		14,55,14,57,34,53,33		1, 6
52″	59,34,32, 6,23,49, 7,18,51,15		4,21,19,40, 8	
		14,55,10,36,15,13,25		1, 6
54″	59,34,32,21,18,59,43,34, 4,40		4,21,19,41,14	
		14,55, 6,14,55,32,11		1, 6
56″	59,34,32,36,14, 5,58,29,36,51		4,21,19,42,20	
		14,55, 1,53,35,49,51		1, 6
58″	59,34,32,51, 9, 7,52, 5,26,42		4,21,19,43,26	
		14,54,57,32,16, 6,25		
60″	59,34,33, 6, 4, 5,24,21,33, 7			
exact	59,34,33, 6, 4, 5,24,22, 3,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°11′ 0″	59,34,33, 6, 4, 5,24,22, 3,42			
		14,54,53,10,56,25,16		
2″	59,34,33,20,58,58,35,18,28,58		4,21,19,45,23	
		14,54,48,49,36,39,53		1, 5
4″	59,34,33,35,53,47,24,55, 8,51		4,21,19,46,28	
		14,54,44,28,16,53,25		1, 5
6″	59,34,33,50,48,31,53,12, 2,16		4,21,19,47,33	
		14,54,40, 6,57, 5,52		1, 5
8″	59,34,34, 5,43,12, 0, 9, 8, 8		4,21,19,48,38	
		14,54,35,45,37,17,14		1, 5
10″	59,34,34,20,37,47,45,46,25,22		4,21,19,49,43	
		14,54,31,24,17,27,31		1, 5
12″	59,34,34,35,32,19,10, 3,52,53		4,21,19,50,48	
		14,54,27, 2,57,36,43		1, 5
14″	59,34,34,50,26,46,13, 1,29,36		4,21,19,51,53	
		14,54,22,41,37,44,50		1, 5
16″	59,34,35, 5,21, 8,54,39,14,26		4,21,19,52,58	
		14,54,18,20,17,51,52		1, 5
18″	59,34,35,20,15,27,14,57, 6,18		4,21,19,54, 3	
		14,54,13,58,57,57,49		1, 5
20″	59,34,35,35, 9,41,13,55, 4, 7		4,21,19,55, 8	
		14,54, 9,37,38, 2,41		1, 5
22″	59,34,35,50, 3,50,51,33, 6,48		4,21,19,56,13	
		14,54, 5,16,18, 6,28		1, 5
24″	59,34,36, 4,57,56, 7,51,13,16		4,21,19,57,18	
		14,54, 0,54,58, 9,10		1, 5
26″	59,34,36,19,51,57, 2,49,22,26		4,21,19,58,23	
		14,53,56,33,38,10,47		1, 5
28″	59,34,36,34,45,53,36,27,33,13		4,21,19,59,28	
		14,53,52,12,18,11,19		1, 5
30″	59,34,36,49,39,45,48,45,44,32		4,21,20, 0,33	
		14,53,47,50,58,10,46		1, 5
32″	59,34,37, 4,33,33,39,43,55,18		4,21,20, 1,38	
		14,53,43,29,38, 9, 8		1, 5
34″	59,34,37,19,27,17, 9,22, 4,26		4,21,20, 2,43	
		14,53,39, 8,18, 6,25		1, 5
36″	59,34,37,34,20,56,17,40,10,51		4,21,20, 3,48	
		14,53,34,46,58, 2,37		1, 5
38″	59,34,37,49,14,31, 4,38,13,28		4,21,20, 4,53	
		14,53,30,25,37,57,44		1, 5
40″	59,34,38, 4, 8, 1,30,16,11,12		4,21,20, 5,58	
		14,53,26, 4,17,51,46		1, 5
42″	59,34,38,19, 1,27,34,34, 2,58		4,21,20, 7, 3	
		14,53,21,42,57,44,43		1, 5
44″	59,34,38,33,54,49,17,31,47,41		4,21,20, 8, 8	
		14,53,17,21,37,36,35		1, 5
46″	59,34,38,48,48, 6,39, 9,24,16		4,21,20, 9,13	
		14,53,13, 0,17,27,22		1, 5
48″	59,34,39, 3,41,19,39,26,51,38		4,21,20,10,18	
		14,53, 8,38,57,17, 4		1, 5
50″	59,34,39,18,34,28,18,24, 8,42		4,21,20,11,23	
		14,53, 4,17,37, 5,41		1, 5
52″	59,34,39,33,27,32,36, 1,14,23		4,21,20,12,28	
		14,52,59,56,16,53,13		1, 5
54″	59,34,39,48,20,32,32,18, 7,36		4,21,20,13,33	
		14,52,55,34,56,39,40		1, 5
56″	59,34,40, 3,13,28, 7,14,47,16		4,21,20,14,38	
		14,52,51,13,36,25, 2		1, 5
58″	59,34,40,18, 6,19,20,51,12,18		4,21,20,15,43	
		14,52,46,52,16, 9,19		
60″	59,34,40,32,59, 6,13, 7,21,37			
exact	59,34,40,32,59, 6,13, 6,55, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°12′ 0″	59,34,40,32,59, 6,13, 6,55, 6			
		14,52,42,30,55,49,48		
2″	59,34,40,47,51,48,44, 2,44,54		4,21,20,18, 3	
		14,52,38, 9,35,31,45		1, 5
4″	59,34,41, 2,44,26,53,38,16,39		4,21,20,19, 8	
		14,52,33,48,15,12,37		1, 5
6″	59,34,41,17,37, 0,41,53,29,16		4,21,20,20,13	
		14,52,29,26,54,52,24		1, 5
8″	59,34,41,32,29,30, 8,48,21,40		4,21,20,21,18	
		14,52,25, 5,34,31, 6		1, 5
10″	59,34,41,47,21,55,14,22,52,46		4,21,20,22,23	
		14,52,20,44,14, 8,43		1, 5
12″	59,34,42, 2,14,15,58,37, 1,29		4,21,20,23,28	
		14,52,16,22,53,45,15		1, 5
14″	59,34,42,17, 6,32,21,30,46,44		4,21,20,24,33	
		14,52,12, 1,33,20,42		1, 5
16″	59,34,42,31,58,44,23, 4, 7,26		4,21,20,25,38	
		14,52, 7,40,12,55, 4		1, 5
18″	59,34,42,46,50,52, 3,17, 2,30		4,21,20,26,43	
		14,52, 3,18,52,28,21		1, 5
20″	59,34,43, 1,42,55,22, 9,30,51		4,21,20,27,48	
		14,51,58,57,32, 0,33		1, 5
22″	59,34,43,16,34,54,19,41,31,24		4,21,20,28,53	
		14,51,54,36,11,31,40		1, 5
24″	59,34,43,31,26,48,55,53, 3, 4		4,21,20,29,58	
		14,51,50,14,51, 1,42		1, 5
26″	59,34,43,46,18,39,10,44, 4,46		4,21,20,31, 3	
		14,51,45,53,30,30,39		1, 5
28″	59,34,44, 1,10,25, 4,14,35,25		4,21,20,32, 8	
		14,51,41,32, 9,58,31		1, 5
30″	59,34,44,16, 2, 6,36,24,33,56		4,21,20,33,13	
		14,51,37,10,49,25,18		1, 5
32″	59,34,44,30,53,43,47,13,59,14		4,21,20,34,18	
		14,51,32,49,28,51, 0		1, 5
34″	59,34,44,45,45,16,36,42,50,14		4,21,20,35,23	
		14,51,28,28, 8,15,37		1, 5
36″	59,34,45, 0,36,45, 4,51, 5,51		4,21,20,36,28	
		14,51,24, 6,47,39, 9		1, 5
38″	59,34,45,15,28, 9,11,38,45, 0		4,21,20,37,33	
		14,51,19,45,27, 1,36		1, 5
40″	59,34,45,30,19,28,57, 5,46,36		4,21,20,38,38	
		14,51,15,24, 6,22,58		1, 5
42″	59,34,45,45,10,44,21,12, 9,34		4,21,20,39,43	
		14,51,11, 2,45,43,15		1, 5
44″	59,34,46, 0, 1,55,23,57,52,49		4,21,20,40,48	
		14,51, 6,41,25, 2,27		1, 5
46″	59,34,46,14,53, 2, 5,22,55,16		4,21,20,41,53	
		14,51, 2,20, 4,20,34		1, 5
48″	59,34,46,29,44, 4,25,27,15,50		4,21,20,42,58	
		14,50,57,58,43,37,36		1, 5
50″	59,34,46,44,35, 2,24,10,53,26		4,21,20,44, 3	
		14,50,53,37,22,53,33		1, 5
52″	59,34,46,59,25,56, 1,33,46,59		4,21,20,45, 8	
		14,50,49,16, 2, 8,25		1, 5
54″	59,34,47,14,16,45,17,35,55,24		4,21,20,46,13	
		14,50,44,54,41,22,12		1, 5
56″	59,34,47,29, 7,30,12,17,17,36		4,21,20,47,18	
		14,50,40,33,20,34,54		1, 5
58″	59,34,47,43,58,10,45,37,52,30		4,21,20,48,23	
		14,50,36,11,59,46,31		
60″	59,34,47,58,48,46,57,37,39, 1			
exact	59,34,47,58,48,46,57,37,21,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°13′ 0″	59,34,47,58,48,46,57,37,21,22			
		14,50,31,50,38,55,22		
2″	59,34,48,13,39,18,48,16,16,44		4,21,20,50,39	
		14,50,27,29,18, 4,43		1, 5
4″	59,34,48,28,29,46,17,34,21,27		4,21,20,51,44	
		14,50,23, 7,57,12,59		1, 5
6″	59,34,48,43,20, 9,25,31,34,26		4,21,20,52,49	
		14,50,18,46,36,20,10		1, 5
8″	59,34,48,58,10,28,12, 7,54,36		4,21,20,53,54	
		14,50,14,25,15,26,16		1, 5
10″	59,34,49,13, 0,42,37,23,20,52		4,21,20,54,59	
		14,50,10, 3,54,31,17		1, 5
12″	59,34,49,27,50,52,41,17,52, 9		4,21,20,56, 4	
		14,50, 5,42,33,35,13		1, 5
14″	59,34,49,42,40,58,23,51,27,22		4,21,20,57, 9	
		14,50, 1,21,12,38, 4		1, 5
16″	59,34,49,57,30,59,45, 4, 5,26		4,21,20,58,14	
		14,49,56,59,51,39,50		1, 5
18″	59,34,50,12,20,56,44,55,45,16		4,21,20,59,19	
		14,49,52,38,30,40,31		1, 5
20″	59,34,50,27,10,49,23,26,25,47		4,21,21, 0,24	
		14,49,48,17, 9,40, 7		1, 5
22″	59,34,50,42, 0,37,40,36, 5,54		4,21,21, 1,29	
		14,49,43,55,48,38,38		1, 5
24″	59,34,50,56,50,21,36,24,44,32		4,21,21, 2,34	
		14,49,39,34,27,36, 4		1, 5
26″	59,34,51,11,40, 1,10,52,20,36		4,21,21, 3,39	
		14,49,35,13, 6,32,25		1, 5
28″	59,34,51,26,29,36,23,58,53, 1		4,21,21, 4,44	
		14,49,30,51,45,27,41		1, 5
30″	59,34,51,41,19, 7,15,44,20,42		4,21,21, 5,49	
		14,49,26,30,24,21,52		1, 5
32″	59,34,51,56, 8,33,46, 8,42,34		4,21,21, 6,54	
		14,49,22, 9, 3,14,58		1, 5
34″	59,34,52,10,57,55,55,11,57,32		4,21,21, 7,59	
		14,49,17,47,42, 6,59		1, 5
36″	59,34,52,25,47,13,42,54, 4,31		4,21,21, 9, 4	
		14,49,13,26,20,57,55		1, 5
38″	59,34,52,40,36,27, 9,15, 2,26		4,21,21,10, 9	
		14,49, 9, 4,59,47,46		1, 5
40″	59,34,52,55,25,36,14,14,50,12		4,21,21,11,14	
		14,49, 4,43,38,36,32		1, 5
42″	59,34,53,10,14,40,57,53,26,44		4,21,21,12,19	
		14,49, 0,22,17,24,13		1, 5
44″	59,34,53,25, 3,41,20,10,50,57		4,21,21,13,24	
		14,48,56, 0,56,10,49		1, 5
46″	59,34,53,39,52,37,21, 7, 1,46		4,21,21,14,29	
		14,48,51,39,34,56,20		1, 5
48″	59,34,53,54,41,29, 0,41,58, 6		4,21,21,15,34	
		14,48,47,18,13,40,46		1, 5
50″	59,34,54, 9,30,16,18,55,38,52		4,21,21,16,39	
		14,48,42,56,52,24, 7		1, 5
52″	59,34,54,24,18,59,15,48, 2,59		4,21,21,17,44	
		14,48,38,35,31, 6,23		1, 5
54″	59,34,54,39, 7,37,51,19, 9,22		4,21,21,18,49	
		14,48,34,14, 9,47,34		1, 5
56″	59,34,54,53,56,12, 5,28,56,56		4,21,21,19,54	
		14,48,29,52,48,27,40		1, 5
58″	59,34,55, 8,44,41,58,17,24,36		4,21,21,20,59	
		14,48,25,31,27, 6,41		
60″	59,34,55,23,33, 7,29,44,31,17			
exact	59,34,55,23,33, 7,29,44,28,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°14′ 0″	59,34,55,23,33, 7,29,44,28,11			
		14,48,21,10, 5,44,21		
2″	59,34,55,38,21,28,39,50,12,32		4,21,21,23, 9	
		14,48,16,48,44,21,12		1, 5
4″	59,34,55,53, 9,45,28,34,33,44		4,21,21,24,14	
		14,48,12,27,22,56,58		1, 5
6″	59,34,56, 7,57,57,55,57,30,42		4,21,21,25,19	
		14,48, 8, 6, 1,31,39		1, 5
8″	59,34,56,22,46, 6, 1,59, 2,21		4,21,21,26,24	
		14,48, 3,44,40, 5,15		1, 5
10″	59,34,56,37,34, 9,46,39, 7,36		4,21,21,27,29	
		14,47,59,23,18,37,46		1, 5
12″	59,34,56,52,22, 9, 9,57,45,22		4,21,21,28,34	
		14,47,55, 1,57, 9,12		1, 5
14″	59,34,57, 7,10, 4,11,54,54,34		4,21,21,29,39	
		14,47,50,40,35,39,33		1, 5
16″	59,34,57,21,57,54,52,30,34, 7		4,21,21,30,44	
		14,47,46,19,14, 8,49		1, 5
18″	59,34,57,36,45,41,11,44,42,56		4,21,21,31,49	
		14,47,41,57,52,37, 0		1, 5
20″	59,34,57,51,33,23, 9,37,19,56		4,21,21,32,54	
		14,47,37,36,31, 4, 6		1, 5
22″	59,34,58, 6,21, 0,46, 8,24, 2		4,21,21,33,59	
		14,47,33,15, 9,30, 7		1, 5
24″	59,34,58,21, 8,34, 1,17,54, 9		4,21,21,35, 4	
		14,47,28,53,47,55, 3		1, 5
26″	59,34,58,35,56, 2,55, 5,49,12		4,21,21,36, 9	
		14,47,24,32,26,18,54		1, 5
28″	59,34,58,50,43,27,27,32, 8, 6		4,21,21,37,14	
		14,47,20,11, 4,41,40		1, 5
30″	59,34,59, 5,30,47,38,36,49,46		4,21,21,38,19	
		14,47,15,49,43, 3,21		1, 5
32″	59,34,59,20,18, 3,28,19,53, 7		4,21,21,39,24	
		14,47,11,28,21,23,57		1, 5
34″	59,34,59,35, 5,14,56,41,17, 4		4,21,21,40,29	
		14,47, 7, 6,59,43,28		1, 5
36″	59,34,59,49,52,22, 3,41, 0,32		4,21,21,41,34	
		14,47, 2,45,38, 1,54		1, 5
38″	59,35, 0, 4,39,24,49,19, 2,26		4,21,21,42,39	
		14,46,58,24,16,19,15		1, 5
40″	59,35, 0,19,26,23,13,35,21,41		4,21,21,43,44	
		14,46,54, 2,54,35,31		1, 5
42″	59,35, 0,34,13,17,16,29,57,12		4,21,21,44,49	
		14,46,49,41,32,50,42		1, 5
44″	59,35, 0,49, 0, 6,58, 2,47,54		4,21,21,45,54	
		14,46,45,20,11, 4,48		1, 5
46″	59,35, 1, 3,46,52,18,13,52,42		4,21,21,46,59	
		14,46,40,58,49,17,49		1, 5
48″	59,35, 1,18,33,33,17, 3,10,31		4,21,21,48, 4	
		14,46,36,37,27,29,45		1, 5
50″	59,35, 1,33,20, 9,54,30,40,16		4,21,21,49, 9	
		14,46,32,16, 5,40,36		1, 5
52″	59,35, 1,48, 6,42,10,36,20,52		4,21,21,50,14	
		14,46,27,54,43,50,22		1, 5
54″	59,35, 2, 2,53,10, 5,20,11,14		4,21,21,51,19	
		14,46,23,33,21,59, 3		1, 5
56″	59,35, 2,17,39,33,38,42,10,17		4,21,21,52,24	
		14,46,19,12, 0, 6,39		1, 5
58″	59,35, 2,32,25,52,50,42,16,56		4,21,21,53,29	
		14,46,14,50,38,13,10		
60″	59,35, 2,47,12, 7,41,20,30, 6			
exact	59,35, 2,47,12, 7,41,20,32,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°15′ 0″	59,35, 2,47,12, 7,41,20,32,55			
		14,46,10,29,16,19, 9		
2″	59,35, 3, 1,58,18,10,36,52, 4		4,21,21,55,35	
		14,46, 6, 7,54,23,34		1, 5
4″	59,35, 3,16,44,24,18,31,15,38		4,21,21,56,40	
		14,46, 1,46,32,26,54		1, 5
6″	59,35, 3,31,30,26, 5, 3,42,32		4,21,21,57,45	
		14,45,57,25,10,29, 9		1, 5
8″	59,35, 3,46,16,23,30,14,11,41		4,21,21,58,50	
		14,45,53, 3,48,30,19		1, 5
10″	59,35, 4, 1, 2,16,34, 2,42, 0		4,21,21,59,55	
		14,45,48,42,26,30,24		1, 5
12″	59,35, 4,15,48, 5,16,29,12,24		4,21,22, 1, 0	
		14,45,44,21, 4,29,24		1, 5
14″	59,35, 4,30,33,49,37,33,41,48		4,21,22, 2, 5	
		14,45,39,59,42,27,19		1, 5
16″	59,35, 4,45,19,29,37,16, 9, 7		4,21,22, 3,10	
		14,45,35,38,20,24, 9		1, 5
18″	59,35, 5, 0, 5, 5,15,36,33,16		4,21,22, 4,15	
		14,45,31,16,58,19,54		1, 5
20″	59,35, 5,14,50,36,32,34,53,10		4,21,22, 5,20	
		14,45,26,55,36,14,34		1, 5
22″	59,35, 5,29,36, 3,28,11, 7,44		4,21,22, 6,25	
		14,45,22,34,14, 8, 9		1, 5
24″	59,35, 5,44,21,26, 2,25,15,53		4,21,22, 7,30	
		14,45,18,12,52, 0,39		1, 5
26″	59,35, 5,59, 6,44,15,17,16,32		4,21,22, 8,35	
		14,45,13,51,29,52, 4		1, 5
28″	59,35, 6,13,51,58, 6,47, 8,36		4,21,22, 9,40	
		14,45, 9,30, 7,42,24		1, 5
30″	59,35, 6,28,37, 7,36,54,51, 0		4,21,22,10,45	
		14,45, 5, 8,45,31,39		1, 5
32″	59,35, 6,43,22,12,45,40,22,39		4,21,22,11,50	
		14,45, 0,47,23,19,49		1, 5
34″	59,35, 6,58, 7,13,33, 3,42,28		4,21,22,12,55	
		14,44,56,26, 1, 6,54		1, 5
36″	59,35, 7,12,52, 9,59, 4,49,22		4,21,22,14, 0	
		14,44,52, 4,38,52,54		1, 5
38″	59,35, 7,27,37, 2, 3,43,42,16		4,21,22,15, 5	
		14,44,47,43,16,37,49		1, 5
40″	59,35, 7,42,21,49,47, 0,20, 5		4,21,22,16,10	
		14,44,43,21,54,21,39		1, 5
42″	59,35, 7,57, 6,33, 8,54,41,44		4,21,22,17,15	
		14,44,39, 0,32, 4,24		1, 5
44″	59,35, 8,11,51,12, 9,26,46, 8		4,21,22,18,20	
		14,44,34,39, 9,46, 4		1, 5
46″	59,35, 8,26,35,46,48,36,32,12		4,21,22,19,25	
		14,44,30,17,47,26,39		1, 5
48″	59,35, 8,41,20,17, 6,23,58,51		4,21,22,20,30	
		14,44,25,56,25, 6, 9		1, 5
50″	59,35, 8,56, 4,43, 2,49, 5, 0		4,21,22,21,35	
		14,44,21,35, 2,44,34		1, 5
52″	59,35, 9,10,49, 4,37,51,49,34		4,21,22,22,40	
		14,44,17,13,40,21,54		1, 5
54″	59,35, 9,25,33,21,51,32,11,28		4,21,22,23,45	
		14,44,12,52,17,58, 9		1, 5
56″	59,35, 9,40,17,34,43,50, 9,37		4,21,22,24,50	
		14,44, 8,30,55,33,19		1, 5
58″	59,35, 9,55, 1,43,14,45,42,56		4,21,22,25,55	
		14,44, 4, 9,33, 7,24		
60″	59,35,10, 9,45,47,24,18,50,20			
exact	59,35,10, 9,45,47,24,19, 4,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°16′ 0″	59,35,10, 9,45,47,24,19, 4,32			
		14,43,59,48,10,42, 9		
2″	59,35,10,24,29,47,12,29,46,41		4,21,22,27,57	
		14,43,55,26,48,14,12		1, 5
4″	59,35,10,39,13,42,39,18, 0,53		4,21,22,29, 2	
		14,43,51, 5,25,45,10		1, 5
6″	59,35,10,53,57,33,44,43,46, 3		4,21,22,30, 7	
		14,43,46,44, 3,15, 3		1, 5
8″	59,35,11, 8,41,20,28,47, 1, 6		4,21,22,31,12	
		14,43,42,22,40,43,51		1, 5
10″	59,35,11,23,25, 2,51,27,44,57		4,21,22,32,17	
		14,43,38, 1,18,11,34		1, 5
12″	59,35,11,38, 8,40,52,45,56,31		4,21,22,33,22	
		14,43,33,39,55,38,12		1, 5
14″	59,35,11,52,52,14,32,41,34,43		4,21,22,34,27	
		14,43,29,18,33, 3,45		1, 5
16″	59,35,12, 7,35,43,51,14,38,28		4,21,22,35,32	
		14,43,24,57,10,28,13		1, 5
18″	59,35,12,22,19, 8,48,25, 6,41		4,21,22,36,37	
		14,43,20,35,47,51,36		1, 5
20″	59,35,12,37, 2,29,24,12,58,17		4,21,22,37,42	
		14,43,16,14,25,13,54		1, 5
22″	59,35,12,51,45,45,38,38,12,11		4,21,22,38,47	
		14,43,11,53, 2,35, 7		1, 5
24″	59,35,13, 6,28,57,31,40,47,18		4,21,22,39,52	
		14,43, 7,31,39,55,15		1, 5
26″	59,35,13,21,12, 5, 3,20,42,33		4,21,22,40,57	
		14,43, 3,10,17,14,18		1, 5
28″	59,35,13,35,55, 8,13,37,56,51		4,21,22,42, 2	
		14,42,58,48,54,32,16		1, 5
30″	59,35,13,50,38, 7, 2,32,29, 7		4,21,22,43, 7	
		14,42,54,27,31,49, 9		1, 5
32″	59,35,14, 5,21, 1,30, 4,18,16		4,21,22,44,12	
		14,42,50, 6, 9, 4,57		1, 5
34″	59,35,14,20, 3,51,36,13,23,13		4,21,22,45,17	
		14,42,45,44,46,19,40		1, 5
36″	59,35,14,34,46,37,20,59,42,53		4,21,22,46,22	
		14,42,41,23,23,33,18		1, 5
38″	59,35,14,49,29,18,44,23,16,11		4,21,22,47,27	
		14,42,37, 2, 0,45,51		1, 5
40″	59,35,15, 4,11,55,46,24, 2, 2		4,21,22,48,32	
		14,42,32,40,37,57,19		1, 5
42″	59,35,15,18,54,28,27, 1,59,21		4,21,22,49,37	
		14,42,28,19,15, 7,42		1, 5
44″	59,35,15,33,36,56,46,17, 7, 3		4,21,22,50,42	
		14,42,23,57,52,17, 0		1, 5
46″	59,35,15,48,19,20,44, 9,24, 3		4,21,22,51,47	
		14,42,19,36,29,25,13		1, 5
48″	59,35,16, 3, 1,40,20,38,49,16		4,21,22,52,52	
		14,42,15,15, 6,32,21		1, 5
50″	59,35,16,17,43,55,35,45,21,37		4,21,22,53,57	
		14,42,10,53,43,38,24		1, 5
52″	59,35,16,32,26, 6,29,29, 0, 1		4,21,22,55, 2	
		14,42, 6,32,20,43,22		1, 5
54″	59,35,16,47, 8,13, 1,49,43,23		4,21,22,56, 7	
		14,42, 2,10,57,47,15		1, 5
56″	59,35,17, 1,50,15,12,47,30,38		4,21,22,57,12	
		14,41,57,49,34,50, 3		1, 5
58″	59,35,17,16,32,13, 2,22,20,41		4,21,22,58,17	
		14,41,53,28,11,51,46		
60″	59,35,17,31,14, 6,30,34,12,27			
exact	59,35,17,31,14, 6,30,34,43,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°17′ 0″	59,35,17,31,14, 6,30,34,43,42			
		14,41,49, 6,48,55,44		
2″	59,35,17,45,55,55,37,23,39,26		4,21,23, 0,13	
		14,41,44,45,25,55,31		1, 4
4″	59,35,18, 0,37,40,22,49,34,57		4,21,23, 1,17	
		14,41,40,24, 2,54,14		1, 4
6″	59,35,18,15,19,20,46,52,29,11		4,21,23, 2,21	
		14,41,36, 2,39,51,53		1, 4
8″	59,35,18,30, 0,56,49,32,21, 4		4,21,23, 3,25	
		14,41,31,41,16,48,28		1, 4
10″	59,35,18,44,42,28,30,49, 9,32		4,21,23, 4,29	
		14,41,27,19,53,43,59		1, 4
12″	59,35,18,59,23,55,50,42,53,31		4,21,23, 5,33	
		14,41,22,58,30,38,26		1, 4
14″	59,35,19,14, 5,18,49,13,31,57		4,21,23, 6,37	
		14,41,18,37, 7,31,49		1, 4
16″	59,35,19,28,46,37,26,21, 3,46		4,21,23, 7,41	
		14,41,14,15,44,24, 8		1, 4
18″	59,35,19,43,27,51,42, 5,27,54		4,21,23, 8,45	
		14,41, 9,54,21,15,23		1, 4
20″	59,35,19,58, 9, 1,36,26,43,17		4,21,23, 9,49	
		14,41, 5,32,58, 5,34		1, 4
22″	59,35,20,12,50, 7, 9,24,48,51		4,21,23,10,53	
		14,41, 1,11,34,54,41		1, 4
24″	59,35,20,27,31, 8,20,59,43,32		4,21,23,11,57	
		14,40,56,50,11,42,44		1, 4
26″	59,35,20,42,12, 5,11,11,26,16		4,21,23,13, 1	
		14,40,52,28,48,29,43		1, 4
28″	59,35,20,56,52,57,39,59,55,59		4,21,23,14, 5	
		14,40,48, 7,25,15,38		1, 4
30″	59,35,21,11,33,45,47,25,11,37		4,21,23,15, 9	
		14,40,43,46, 2, 0,29		1, 4
32″	59,35,21,26,14,29,33,27,12, 6		4,21,23,16,13	
		14,40,39,24,38,44,16		1, 4
34″	59,35,21,40,55, 8,58, 5,56,22		4,21,23,17,17	
		14,40,35, 3,15,26,59		1, 4
36″	59,35,21,55,35,44, 1,21,23,21		4,21,23,18,21	
		14,40,30,41,52, 8,38		1, 4
38″	59,35,22,10,16,14,43,13,31,59		4,21,23,19,25	
		14,40,26,20,28,49,13		1, 4
40″	59,35,22,24,56,41, 3,42,21,12		4,21,23,20,29	
		14,40,21,59, 5,28,44		1, 4
42″	59,35,22,39,37, 3, 2,47,49,56		4,21,23,21,33	
		14,40,17,37,42, 7,11		1, 4
44″	59,35,22,54,17,20,40,29,57, 7		4,21,23,22,37	
		14,40,13,16,18,44,34		1, 4
46″	59,35,23, 8,57,33,56,48,41,41		4,21,23,23,41	
		14,40, 8,54,55,20,53		1, 4
48″	59,35,23,23,37,42,51,44, 2,34		4,21,23,24,45	
		14,40, 4,33,31,56, 8		1, 4
50″	59,35,23,38,17,47,25,15,58,42		4,21,23,25,49	
		14,40, 0,12, 8,30,19		1, 4
52″	59,35,23,52,57,47,37,24,29, 1		4,21,23,26,53	
		14,39,55,50,45, 3,26		1, 4
54″	59,35,24, 7,37,43,28, 9,32,27		4,21,23,27,57	
		14,39,51,29,21,35,29		1, 4
56″	59,35,24,22,17,34,57,31, 7,56		4,21,23,29, 1	
		14,39,47, 7,58, 6,28		1, 4
58″	59,35,24,36,57,22, 5,29,14,24		4,21,23,30, 5	
		14,39,42,46,34,36,23		
60″	59,35,24,51,37, 4,52, 3,50,47			
exact	59,35,24,51,37, 4,52, 3,22,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°18′ 0″	59,35,24,51,37, 4,52, 3,22,43			
		14,39,38,25,11, 2,18		
2″	59,35,25, 6,16,43,17,14,25, 1		4,21,23,32,24	
		14,39,34, 3,47,29,54		1, 4
4″	59,35,25,20,56,17,21, 1,54,55		4,21,23,33,28	
		14,39,29,42,23,56,26		1, 4
6″	59,35,25,35,35,47, 3,25,51,21		4,21,23,34,32	
		14,39,25,21, 0,21,54		1, 4
8″	59,35,25,50,15,12,24,26,13,15		4,21,23,35,36	
		14,39,20,59,36,46,18		1, 4
10″	59,35,26, 4,54,33,24, 2,59,33		4,21,23,36,40	
		14,39,16,38,13, 9,38		1, 4
12″	59,35,26,19,33,50, 2,16, 9,11		4,21,23,37,44	
		14,39,12,16,49,31,54		1, 4
14″	59,35,26,34,13, 2,19, 5,41, 5		4,21,23,38,48	
		14,39, 7,55,25,53, 6		1, 4
16″	59,35,26,48,52,10,14,31,34,11		4,21,23,39,52	
		14,39, 3,34, 2,13,14		1, 4
18″	59,35,27, 3,31,13,48,33,47,25		4,21,23,40,56	
		14,38,59,12,38,32,18		1, 4
20″	59,35,27,18,10,13, 1,12,19,43		4,21,23,42, 0	
		14,38,54,51,14,50,18		1, 4
22″	59,35,27,32,49, 7,52,27,10, 1		4,21,23,43, 4	
		14,38,50,29,51, 7,14		1, 4
24″	59,35,27,47,27,58,22,18,17,15		4,21,23,44, 8	
		14,38,46, 8,27,23, 6		1, 4
26″	59,35,28, 2, 6,44,30,45,40,21		4,21,23,45,12	
		14,38,41,47, 3,37,54		1, 4
28″	59,35,28,16,45,26,17,49,18,15		4,21,23,46,16	
		14,38,37,25,39,51,38		1, 4
30″	59,35,28,31,24, 3,43,29, 9,53		4,21,23,47,20	
		14,38,33, 4,16, 4,18		1, 4
32″	59,35,28,46, 2,36,47,45,14,11		4,21,23,48,24	
		14,38,28,42,52,15,54		1, 4
34″	59,35,29, 0,41, 5,30,37,30, 5		4,21,23,49,28	
		14,38,24,21,28,26,26		1, 4
36″	59,35,29,15,19,29,52, 5,56,31		4,21,23,50,32	
		14,38,20, 0, 4,35,54		1, 4
38″	59,35,29,29,57,49,52,10,32,25		4,21,23,51,36	
		14,38,15,38,40,44,18		1, 4
40″	59,35,29,44,36, 5,30,51,16,43		4,21,23,52,40	
		14,38,11,17,16,51,38		1, 4
42″	59,35,29,59,14,16,48, 8, 8,21		4,21,23,53,44	
		14,38, 6,55,52,57,54		1, 4
44″	59,35,30,13,52,23,44, 1, 6,15		4,21,23,54,48	
		14,38, 2,34,29, 3, 6		1, 4
46″	59,35,30,28,30,26,18,30, 9,21		4,21,23,55,52	
		14,37,58,13, 5, 7,14		1, 4
48″	59,35,30,43, 8,24,31,35,16,35		4,21,23,56,56	
		14,37,53,51,41,10,18		1, 4
50″	59,35,30,57,46,18,23,16,26,53		4,21,23,58, 0	
		14,37,49,30,17,12,18		1, 4
52″	59,35,31,12,24, 7,53,33,39,11		4,21,23,59, 4	
		14,37,45, 8,53,13,14		1, 4
54″	59,35,31,27, 1,53, 2,26,52,25		4,21,24, 0, 8	
		14,37,40,47,29,13, 6		1, 4
56″	59,35,31,41,39,33,49,56, 5,31		4,21,24, 1,12	
		14,37,36,26, 5,11,54		1, 4
58″	59,35,31,56,17,10,16, 1,17,25		4,21,24, 2,16	
		14,37,32, 4,41, 9,38		
60″	59,35,32,10,54,42,20,42,27, 3			
exact	59,35,32,10,54,42,20,42, 5,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°19′ 0″	59,35,32,10,54,42,20,42, 5,35			
		14,37,27,43,17, 4,14		
2″	59,35,32,25,32,10, 3,59, 9,49		4,21,24, 4,31	
		14,37,23,21,52,59,43		1, 4
4″	59,35,32,40, 9,33,25,52, 9,32		4,21,24, 5,35	
		14,37,19, 0,28,54, 8		1, 4
6″	59,35,32,54,46,52,26,21, 3,40		4,21,24, 6,39	
		14,37,14,39, 4,47,29		1, 4
8″	59,35,33, 9,24, 7, 5,25,51, 9		4,21,24, 7,43	
		14,37,10,17,40,39,46		1, 4
10″	59,35,33,24, 1,17,23, 6,30,55		4,21,24, 8,47	
		14,37, 5,56,16,30,59		1, 4
12″	59,35,33,38,38,23,19,23, 1,54		4,21,24, 9,51	
		14,37, 1,34,52,21, 8		1, 4
14″	59,35,33,53,15,24,54,15,23, 2		4,21,24,10,55	
		14,36,57,13,28,10,13		1, 4
16″	59,35,34, 7,52,22, 7,43,33,15		4,21,24,11,59	
		14,36,52,52, 3,58,14		1, 4
18″	59,35,34,22,29,14,59,47,31,29		4,21,24,13, 3	
		14,36,48,30,39,45,11		1, 4
20″	59,35,34,37, 6, 3,30,27,16,40		4,21,24,14, 7	
		14,36,44, 9,15,31, 4		1, 4
22″	59,35,34,51,42,47,39,42,47,44		4,21,24,15,11	
		14,36,39,47,51,15,53		1, 4
24″	59,35,35, 6,19,27,27,34, 3,37		4,21,24,16,15	
		14,36,35,26,26,59,38		1, 4
26″	59,35,35,20,56, 2,54, 1, 3,15		4,21,24,17,19	
		14,36,31, 5, 2,42,19		1, 4
28″	59,35,35,35,32,33,59, 3,45,34		4,21,24,18,23	
		14,36,26,43,38,23,56		1, 4
30″	59,35,35,50, 9, 0,42,42, 9,30		4,21,24,19,27	
		14,36,22,22,14, 4,29		1, 4
32″	59,35,36, 4,45,23, 4,56,13,59		4,21,24,20,31	
		14,36,18, 0,49,43,58		1, 4
34″	59,35,36,19,21,41, 5,45,57,57		4,21,24,21,35	
		14,36,13,39,25,22,23		1, 4
36″	59,35,36,33,57,54,45,11,20,20		4,21,24,22,39	
		14,36, 9,18, 0,59,44		1, 4
38″	59,35,36,48,34, 4, 3,12,20, 4		4,21,24,23,43	
		14,36, 4,56,36,36, 1		1, 4
40″	59,35,37, 3,10, 8,59,48,56, 5		4,21,24,24,47	
		14,36, 0,35,12,11,14		1, 4
42″	59,35,37,17,46, 9,35, 1, 7,19		4,21,24,25,51	
		14,35,56,13,47,45,23		1, 4
44″	59,35,37,32,22, 5,48,48,52,42		4,21,24,26,55	
		14,35,51,52,23,18,28		1, 4
46″	59,35,37,46,57,57,41,12,11,10		4,21,24,27,59	
		14,35,47,30,58,50,29		1, 4
48″	59,35,38, 1,33,45,12,11, 1,39		4,21,24,29, 3	
		14,35,43, 9,34,21,26		1, 4
50″	59,35,38,16, 9,28,21,45,23, 5		4,21,24,30, 7	
		14,35,38,48, 9,51,19		1, 4
52″	59,35,38,30,45, 7, 9,55,14,24		4,21,24,31,11	
		14,35,34,26,45,20, 8		1, 4
54″	59,35,38,45,20,41,36,40,34,32		4,21,24,32,15	
		14,35,30, 5,20,47,53		1, 4
56″	59,35,38,59,56,11,42, 1,22,25		4,21,24,33,19	
		14,35,25,43,56,14,34		1, 4
58″	59,35,39,14,31,37,25,57,36,59		4,21,24,34,23	
		14,35,21,22,31,40,11		
60″	59,35,39,29, 6,58,48,29,17,10			
exact	59,35,39,29, 6,58,48,29, 7,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°20′ 0″	59,35,39,29, 6,58,48,29, 7,53			
		14,35,17, 1, 7, 3,55		
2″	59,35,39,43,42,15,49,36,11,48		4,21,24,36,33	
		14,35,12,39,42,27,22		1, 4
4″	59,35,39,58,17,28,29,18,39,10		4,21,24,37,37	
		14,35, 8,18,17,49,45		1, 4
6″	59,35,40,12,52,36,47,36,28,55		4,21,24,38,41	
		14,35, 3,56,53,11, 4		1, 4
8″	59,35,40,27,27,40,44,29,39,59		4,21,24,39,45	
		14,34,59,35,28,31,19		1, 4
10″	59,35,40,42, 2,40,19,58,11,18		4,21,24,40,49	
		14,34,55,14, 3,50,30		1, 4
12″	59,35,40,56,37,35,34, 2, 1,48		4,21,24,41,53	
		14,34,50,52,39, 8,37		1, 4
14″	59,35,41,11,12,26,26,41,10,25		4,21,24,42,57	
		14,34,46,31,14,25,40		1, 4
16″	59,35,41,25,47,12,57,55,36, 5		4,21,24,44, 1	
		14,34,42, 9,49,41,39		1, 4
18″	59,35,41,40,21,55, 7,45,17,44		4,21,24,45, 5	
		14,34,37,48,24,56,34		1, 4
20″	59,35,41,54,56,32,56,10,14,18		4,21,24,46, 9	
		14,34,33,27, 0,10,25		1, 4
22″	59,35,42, 9,31, 6,23,10,24,43		4,21,24,47,13	
		14,34,29, 5,35,23,12		1, 4
24″	59,35,42,24, 5,35,28,45,47,55		4,21,24,48,17	
		14,34,24,44,10,34,55		1, 4
26″	59,35,42,38,40, 0,12,56,22,50		4,21,24,49,21	
		14,34,20,22,45,45,34		1, 4
28″	59,35,42,53,14,20,35,42, 8,24		4,21,24,50,25	
		14,34,16, 1,20,55, 9		1, 4
30″	59,35,43, 7,48,36,37, 3, 3,33		4,21,24,51,29	
		14,34,11,39,56, 3,40		1, 4
32″	59,35,43,22,22,48,16,59, 7,13		4,21,24,52,33	
		14,34, 7,18,31,11, 7		1, 4
34″	59,35,43,36,56,55,35,30,18,20		4,21,24,53,37	
		14,34, 2,57, 6,17,30		1, 4
36″	59,35,43,51,30,58,32,36,35,50		4,21,24,54,41	
		14,33,58,35,41,22,49		1, 4
38″	59,35,44, 6, 4,57, 8,17,58,39		4,21,24,55,45	
		14,33,54,14,16,27, 4		1, 4
40″	59,35,44,20,38,51,22,34,25,43		4,21,24,56,49	
		14,33,49,52,51,30,15		1, 4
42″	59,35,44,35,12,41,15,25,55,58		4,21,24,57,53	
		14,33,45,31,26,32,22		1, 4
44″	59,35,44,49,46,26,46,52,28,20		4,21,24,58,57	
		14,33,41,10, 1,33,25		1, 4
46″	59,35,45, 4,20, 7,56,54, 1,45		4,21,25, 0, 1	
		14,33,36,48,36,33,24		1, 4
48″	59,35,45,18,53,44,45,30,35, 9		4,21,25, 1, 5	
		14,33,32,27,11,32,19		1, 4
50″	59,35,45,33,27,17,12,42, 7,28		4,21,25, 2, 9	
		14,33,28, 5,46,30,10		1, 4
52″	59,35,45,48, 0,45,18,28,37,38		4,21,25, 3,13	
		14,33,23,44,21,26,57		1, 4
54″	59,35,46, 2,34, 9, 2,50, 4,35		4,21,25, 4,17	
		14,33,19,22,56,22,40		1, 4
56″	59,35,46,17, 7,28,25,46,27,15		4,21,25, 5,21	
		14,33,15, 1,31,17,19		1, 4
58″	59,35,46,31,40,43,27,17,44,34		4,21,25, 6,25	
		14,33,10,40, 6,10,54		
60″	59,35,46,46,13,54, 7,23,55,28			
exact	59,35,46,46,13,54, 7,23,56,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°21′ 0″	59,35,46,46,13,54, 7,23,56,57			
		14,33, 6,18,41, 3,45		
2″	59,35,47, 0,47, 0,26, 5, 0,42		4,21,25, 8,31	
		14,33, 1,57,15,55,14		1, 4
4″	59,35,47,15,20, 2,23,20,55,56		4,21,25, 9,35	
		14,32,57,35,50,45,39		1, 4
6″	59,35,47,29,52,59,59,11,41,35		4,21,25,10,39	
		14,32,53,14,25,35, 0		1, 4
8″	59,35,47,44,25,53,13,37,16,35		4,21,25,11,43	
		14,32,48,53, 0,23,17		1, 4
10″	59,35,47,58,58,42, 6,37,39,52		4,21,25,12,47	
		14,32,44,31,35,10,30		1, 4
12″	59,35,48,13,31,26,38,12,50,22		4,21,25,13,51	
		14,32,40,10, 9,56,39		1, 4
14″	59,35,48,28, 4, 6,48,22,47, 1		4,21,25,14,55	
		14,32,35,48,44,41,44		1, 4
16″	59,35,48,42,36,42,37, 7,28,45		4,21,25,15,59	
		14,32,31,27,19,25,45		1, 4
18″	59,35,48,57, 9,14, 4,26,54,30		4,21,25,17, 3	
		14,32,27, 5,54, 8,42		1, 4
20″	59,35,49,11,41,41,10,21, 3,12		4,21,25,18, 7	
		14,32,22,44,28,50,35		1, 4
22″	59,35,49,26,14, 3,54,49,53,47		4,21,25,19,11	
		14,32,18,23, 3,31,24		1, 4
24″	59,35,49,40,46,22,17,53,25,11		4,21,25,20,15	
		14,32,14, 1,38,11, 9		1, 4
26″	59,35,49,55,18,36,19,31,36,20		4,21,25,21,19	
		14,32, 9,40,12,49,50		1, 4
28″	59,35,50, 9,50,45,59,44,26,10		4,21,25,22,23	
		14,32, 5,18,47,27,27		1, 4
30″	59,35,50,24,22,51,18,31,53,37		4,21,25,23,27	
		14,32, 0,57,22, 4, 0		1, 4
32″	59,35,50,38,54,52,15,53,57,37		4,21,25,24,31	
		14,31,56,35,56,39,29		1, 4
34″	59,35,50,53,26,48,51,50,37, 6		4,21,25,25,35	
		14,31,52,14,31,13,54		1, 4
36″	59,35,51, 7,58,41, 6,21,51, 0		4,21,25,26,39	
		14,31,47,53, 5,47,15		1, 4
38″	59,35,51,22,30,28,59,27,38,15		4,21,25,27,43	
		14,31,43,31,40,19,32		1, 4
40″	59,35,51,37, 2,12,31, 7,57,47		4,21,25,28,47	
		14,31,39,10,14,50,45		1, 4
42″	59,35,51,51,33,51,41,22,48,32		4,21,25,29,51	
		14,31,34,48,49,20,54		1, 4
44″	59,35,52, 6, 5,26,30,12, 9,26		4,21,25,30,55	
		14,31,30,27,23,49,59		1, 4
46″	59,35,52,20,36,56,57,35,59,25		4,21,25,31,59	
		14,31,26, 5,58,18, 0		1, 4
48″	59,35,52,35, 8,23, 3,34,17,25		4,21,25,33, 3	
		14,31,21,44,32,44,57		1, 4
50″	59,35,52,49,39,44,48, 7, 2,22		4,21,25,34, 7	
		14,31,17,23, 7,10,50		1, 4
52″	59,35,53, 4,11, 2,11,14,13,12		4,21,25,35,11	
		14,31,13, 1,41,35,39		1, 4
54″	59,35,53,18,42,15,12,55,48,51		4,21,25,36,15	
		14,31, 8,40,15,59,24		1, 4
56″	59,35,53,33,13,23,53,11,48,15		4,21,25,37,19	
		14,31, 4,18,50,22, 5		1, 4
58″	59,35,53,47,44,28,12, 2,10,20		4,21,25,38,23	
		14,30,59,57,24,43,42		
60″	59,35,54, 2,15,28, 9,26,54, 2			
exact	59,35,54, 2,15,28, 9,27,11,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°22′ 0″	59,35,54, 2,15,28, 9,27,11,44			
		14,30,55,35,59, 6, 7		
2″	59,35,54,16,46,23,45,26,17,51		4,21,25,40,23	
		14,30,51,14,33,25,44		1, 4
4″	59,35,54,31,17,14,59,59,43,35		4,21,25,41,27	
		14,30,46,53, 7,44,17		1, 4
6″	59,35,54,45,48, 1,53, 7,27,52		4,21,25,42,31	
		14,30,42,31,42, 1,46		1, 4
8″	59,35,55, 0,18,44,24,49,29,38		4,21,25,43,35	
		14,30,38,10,16,18,11		1, 4
10″	59,35,55,14,49,22,35, 5,47,49		4,21,25,44,39	
		14,30,33,48,50,33,32		1, 4
12″	59,35,55,29,19,56,23,56,21,21		4,21,25,45,43	
		14,30,29,27,24,47,49		1, 4
14″	59,35,55,43,50,25,51,21, 9,10		4,21,25,46,47	
		14,30,25, 5,59, 1, 2		1, 4
16″	59,35,55,58,20,50,57,20,10,12		4,21,25,47,51	
		14,30,20,44,33,13,11		1, 4
18″	59,35,56,12,51,11,41,53,23,23		4,21,25,48,55	
		14,30,16,23, 7,24,16		1, 4
20″	59,35,56,27,21,28, 5, 0,47,39		4,21,25,49,59	
		14,30,12, 1,41,34,17		1, 4
22″	59,35,56,41,51,40, 6,42,21,56		4,21,25,51, 3	
		14,30, 7,40,15,43,14		1, 4
24″	59,35,56,56,21,47,46,58, 5,10		4,21,25,52, 7	
		14,30, 3,18,49,51, 7		1, 4
26″	59,35,57,10,51,51, 5,47,56,17		4,21,25,53,11	
		14,29,58,57,23,57,56		1, 4
28″	59,35,57,25,21,50, 3,11,54,13		4,21,25,54,15	
		14,29,54,35,58, 3,41		1, 4
30″	59,35,57,39,51,44,39, 9,57,54		4,21,25,55,19	
		14,29,50,14,32, 8,22		1, 4
32″	59,35,57,54,21,34,53,42, 6,16		4,21,25,56,23	
		14,29,45,53, 6,11,59		1, 4
34″	59,35,58, 8,51,20,46,48,18,15		4,21,25,57,27	
		14,29,41,31,40,14,32		1, 4
36″	59,35,58,23,21, 2,18,28,32,47		4,21,25,58,31	
		14,29,37,10,14,16, 1		1, 4
38″	59,35,58,37,50,39,28,42,48,48		4,21,25,59,35	
		14,29,32,48,48,16,26		1, 4
40″	59,35,58,52,20,12,17,31, 5,14		4,21,26, 0,39	
		14,29,28,27,22,15,47		1, 4
42″	59,35,59, 6,49,40,44,53,21, 1		4,21,26, 1,43	
		14,29,24, 5,56,14, 4		1, 4
44″	59,35,59,21,19, 4,50,49,35, 5		4,21,26, 2,47	
		14,29,19,44,30,11,17		1, 4
46″	59,35,59,35,48,24,35,19,46,22		4,21,26, 3,51	
		14,29,15,23, 4, 7,26		1, 4
48″	59,35,59,50,17,39,58,23,53,48		4,21,26, 4,55	
		14,29,11, 1,38, 2,31		1, 4
50″	59,36, 0, 4,46,51, 0, 1,56,19		4,21,26, 5,59	
		14,29, 6,40,11,56,32		1, 4
52″	59,36, 0,19,15,57,40,13,52,51		4,21,26, 7, 3	
		14,29, 2,18,45,49,29		1, 4
54″	59,36, 0,33,44,59,58,59,42,20		4,21,26, 8, 7	
		14,28,57,57,19,41,22		1, 4
56″	59,36, 0,48,13,57,56,19,23,42		4,21,26, 9,11	
		14,28,53,35,53,32,11		1, 4
58″	59,36, 1, 2,42,51,32,12,55,53		4,21,26,10,15	
		14,28,49,14,27,21,56		
60″	59,36, 1,17,11,40,46,40,17,49			
exact	59,36, 1,17,11,40,46,40,42,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°23′ 0″	59,36, 1,17,11,40,46,40,42,51			
		14,28,44,53, 1,13,24		
2″	59,36, 1,31,40,25,39,41,56,15		4,21,26,12,11	
		14,28,40,31,35, 1,13		1, 4
4″	59,36, 1,46, 9, 6,11,16,57,28		4,21,26,13,15	
		14,28,36,10, 8,47,58		1, 4
6″	59,36, 2, 0,37,42,21,25,45,26		4,21,26,14,19	
		14,28,31,48,42,33,39		1, 4
8″	59,36, 2,15, 6,14,10, 8,19, 5		4,21,26,15,23	
		14,28,27,27,16,18,16		1, 4
10″	59,36, 2,29,34,41,37,24,37,21		4,21,26,16,27	
		14,28,23, 5,50, 1,49		1, 4
12″	59,36, 2,44, 3, 4,43,14,39,10		4,21,26,17,31	
		14,28,18,44,23,44,18		1, 4
14″	59,36, 2,58,31,23,27,38,23,28		4,21,26,18,35	
		14,28,14,22,57,25,43		1, 4
16″	59,36, 3,12,59,37,50,35,49,11		4,21,26,19,39	
		14,28,10, 1,31, 6, 4		1, 4
18″	59,36, 3,27,27,47,52, 6,55,15		4,21,26,20,43	
		14,28, 5,40, 4,45,21		1, 4
20″	59,36, 3,41,55,53,32,11,40,36		4,21,26,21,47	
		14,28, 1,18,38,23,34		1, 4
22″	59,36, 3,56,23,54,50,50, 4,10		4,21,26,22,51	
		14,27,56,57,12, 0,43		1, 4
24″	59,36, 4,10,51,51,48, 2, 4,53		4,21,26,23,55	
		14,27,52,35,45,36,48		1, 4
26″	59,36, 4,25,19,44,23,47,41,41		4,21,26,24,59	
		14,27,48,14,19,11,49		1, 4
28″	59,36, 4,39,47,32,38, 6,53,30		4,21,26,26, 3	
		14,27,43,52,52,45,46		1, 4
30″	59,36, 4,54,15,16,30,59,39,16		4,21,26,27, 7	
		14,27,39,31,26,18,39		1, 4
32″	59,36, 5, 8,42,56, 2,25,57,55		4,21,26,28,11	
		14,27,35, 9,59,50,28		1, 4
34″	59,36, 5,23,10,31,12,25,48,23		4,21,26,29,15	
		14,27,30,48,33,21,13		1, 4
36″	59,36, 5,37,38, 2, 0,59, 9,36		4,21,26,30,19	
		14,27,26,27, 6,50,54		1, 4
38″	59,36, 5,52, 5,28,28, 6, 0,30		4,21,26,31,23	
		14,27,22, 5,40,19,31		1, 4
40″	59,36, 6, 6,32,50,33,46,20, 1		4,21,26,32,27	
		14,27,17,44,13,47, 4		1, 4
42″	59,36, 6,21, 0, 8,18, 0, 7, 5		4,21,26,33,31	
		14,27,13,22,47,13,33		1, 4
44″	59,36, 6,35,27,21,40,47,20,38		4,21,26,34,35	
		14,27, 9, 1,20,38,58		1, 4
46″	59,36, 6,49,54,30,42, 7,59,36		4,21,26,35,39	
		14,27, 4,39,54, 3,19		1, 4
48″	59,36, 7, 4,21,35,22, 2, 2,55		4,21,26,36,43	
		14,27, 0,18,27,26,36		1, 4
50″	59,36, 7,18,48,35,40,29,29,31		4,21,26,37,47	
		14,26,55,57, 0,48,49		1, 4
52″	59,36, 7,33,15,31,37,30,18,20		4,21,26,38,51	
		14,26,51,35,34, 9,58		1, 4
54″	59,36, 7,47,42,23,13, 4,28,18		4,21,26,39,55	
		14,26,47,14, 7,30, 3		1, 4
56″	59,36, 8, 2, 9,10,27,11,58,21		4,21,26,40,59	
		14,26,42,52,40,49, 4		1, 4
58″	59,36, 8,16,35,53,19,52,47,25		4,21,26,42, 3	
		14,26,38,31,14, 7, 1		
60″	59,36, 8,31, 2,31,51, 6,54,26			
exact	59,36, 8,31, 2,31,51, 7,32,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°24′ 0″	59,36, 8,31, 2,31,51, 7,32,37			
		14,26,34, 9,47,28, 0		
2″	59,36, 8,45,29, 6, 0,55, 0,37		4,21,26,43,54	
		14,26,29,48,20,44, 6		1, 3
4″	59,36, 8,59,55,35,49,15,44,43		4,21,26,44,57	
		14,26,25,26,53,59, 9		1, 3
6″	59,36, 9,14,22, 1,16, 9,43,52		4,21,26,46, 0	
		14,26,21, 5,27,13, 9		1, 3
8″	59,36, 9,28,48,22,21,36,57, 1		4,21,26,47, 3	
		14,26,16,44, 0,26, 6		1, 3
10″	59,36, 9,43,14,39, 5,37,23, 7		4,21,26,48, 6	
		14,26,12,22,33,38, 0		1, 3
12″	59,36, 9,57,40,51,28,11, 1, 7		4,21,26,49, 9	
		14,26, 8, 1, 6,48,51		1, 3
14″	59,36,10,12, 6,59,29,17,49,58		4,21,26,50,12	
		14,26, 3,39,39,58,39		1, 3
16″	59,36,10,26,33, 3, 8,57,48,37		4,21,26,51,15	
		14,25,59,18,13, 7,24		1, 3
18″	59,36,10,40,59, 2,27,10,56, 1		4,21,26,52,18	
		14,25,54,56,46,15, 6		1, 3
20″	59,36,10,55,24,57,23,57,11, 7		4,21,26,53,21	
		14,25,50,35,19,21,45		1, 3
22″	59,36,11, 9,50,47,59,16,32,52		4,21,26,54,24	
		14,25,46,13,52,27,21		1, 3
24″	59,36,11,24,16,34,13, 9, 0,13		4,21,26,55,27	
		14,25,41,52,25,31,54		1, 3
26″	59,36,11,38,42,16, 5,34,32, 7		4,21,26,56,30	
		14,25,37,30,58,35,24		1, 3
28″	59,36,11,53, 7,53,36,33, 7,31		4,21,26,57,33	
		14,25,33, 9,31,37,51		1, 3
30″	59,36,12, 7,33,26,46, 4,45,22		4,21,26,58,36	
		14,25,28,48, 4,39,15		1, 3
32″	59,36,12,21,58,55,34, 9,24,37		4,21,26,59,39	
		14,25,24,26,37,39,36		1, 3
34″	59,36,12,36,24,20, 0,47, 4,13		4,21,27, 0,42	
		14,25,20, 5,10,38,54		1, 3
36″	59,36,12,50,49,40, 5,57,43, 7		4,21,27, 1,45	
		14,25,15,43,43,37, 9		1, 3
38″	59,36,13, 5,14,55,49,41,20,16		4,21,27, 2,48	
		14,25,11,22,16,34,21		1, 3
40″	59,36,13,19,40, 7,11,57,54,37		4,21,27, 3,51	
		14,25, 7, 0,49,30,30		1, 3
42″	59,36,13,34, 5,14,12,47,25, 7		4,21,27, 4,54	
		14,25, 2,39,22,25,36		1, 3
44″	59,36,13,48,30,16,52, 9,50,43		4,21,27, 5,57	
		14,24,58,17,55,19,39		1, 3
46″	59,36,14, 2,55,15,10, 5,10,22		4,21,27, 7, 0	
		14,24,53,56,28,12,39		1, 3
48″	59,36,14,17,20, 9, 6,33,23, 1		4,21,27, 8, 3	
		14,24,49,35, 1, 4,36		1, 3
50″	59,36,14,31,44,58,41,34,27,37		4,21,27, 9, 6	
		14,24,45,13,33,55,30		1, 3
52″	59,36,14,46, 9,43,55, 8,23, 7		4,21,27,10, 9	
		14,24,40,52, 6,45,21		1, 3
54″	59,36,15, 0,34,24,47,15, 8,28		4,21,27,11,12	
		14,24,36,30,39,34, 9		1, 3
56″	59,36,15,14,59, 1,17,54,42,37		4,21,27,12,15	
		14,24,32, 9,12,21,54		1, 3
58″	59,36,15,29,23,33,27, 7, 4,31		4,21,27,13,18	
		14,24,27,47,45, 8,36		
60″	59,36,15,43,48, 1,14,52,13, 7			
exact	59,36,15,43,48, 1,14,51,55, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°25′ 0″	59,36,15,43,48, 1,14,51,55, 1			
		14,24,23,26,17,52,18		
2″	59,36,15,58,12,24,41, 9,47,19		4,21,27,15,32	
		14,24,19, 4,50,36,46		1, 3
4″	59,36,16,12,36,43,46, 0,24, 5		4,21,27,16,35	
		14,24,14,43,23,20,11		1, 3
6″	59,36,16,27, 0,58,29,23,44,16		4,21,27,17,38	
		14,24,10,21,56, 2,33		1, 3
8″	59,36,16,41,25, 8,51,19,46,49		4,21,27,18,41	
		14,24, 6, 0,28,43,52		1, 3
10″	59,36,16,55,49,14,51,48,30,41		4,21,27,19,44	
		14,24, 1,39, 1,24, 8		1, 3
12″	59,36,17,10,13,16,30,49,54,49		4,21,27,20,47	
		14,23,57,17,34, 3,21		1, 3
14″	59,36,17,24,37,13,48,23,58,10		4,21,27,21,50	
		14,23,52,56, 6,41,31		1, 3
16″	59,36,17,39, 1, 6,44,30,39,41		4,21,27,22,53	
		14,23,48,34,39,18,38		1, 3
18″	59,36,17,53,24,55,19, 9,58,19		4,21,27,23,56	
		14,23,44,13,11,54,42		1, 3
20″	59,36,18, 7,48,39,32,21,53, 1		4,21,27,24,59	
		14,23,39,51,44,29,43		1, 3
22″	59,36,18,22,12,19,24, 6,22,44		4,21,27,26, 2	
		14,23,35,30,17, 3,41		1, 3
24″	59,36,18,36,35,54,54,23,26,25		4,21,27,27, 5	
		14,23,31, 8,49,36,36		1, 3
26″	59,36,18,50,59,26, 3,13, 3, 1		4,21,27,28, 8	
		14,23,26,47,22, 8,28		1, 3
28″	59,36,19, 5,22,52,50,35,11,29		4,21,27,29,11	
		14,23,22,25,54,39,17		1, 3
30″	59,36,19,19,46,15,16,29,50,46		4,21,27,30,14	
		14,23,18, 4,27, 9, 3		1, 3
32″	59,36,19,34, 9,33,20,56,59,49		4,21,27,31,17	
		14,23,13,42,59,37,46		1, 3
34″	59,36,19,48,32,47, 3,56,37,35		4,21,27,32,20	
		14,23, 9,21,32, 5,26		1, 3
36″	59,36,20, 2,55,56,25,28,43, 1		4,21,27,33,23	
		14,23, 5, 0, 4,32, 3		1, 3
38″	59,36,20,17,19, 1,25,33,15, 4		4,21,27,34,26	
		14,23, 0,38,36,57,37		1, 3
40″	59,36,20,31,42, 2, 4,10,12,41		4,21,27,35,29	
		14,22,56,17, 9,22, 8		1, 3
42″	59,36,20,46, 4,58,21,19,34,49		4,21,27,36,32	
		14,22,51,55,41,45,36		1, 3
44″	59,36,21, 0,27,50,17, 1,20,25		4,21,27,37,35	
		14,22,47,34,14, 8, 1		1, 3
46″	59,36,21,14,50,37,51,15,28,26		4,21,27,38,38	
		14,22,43,12,46,29,23		1, 3
48″	59,36,21,29,13,21, 4, 1,57,49		4,21,27,39,41	
		14,22,38,51,18,49,42		1, 3
50″	59,36,21,43,35,59,55,20,47,31		4,21,27,40,44	
		14,22,34,29,51, 8,58		1, 3
52″	59,36,21,57,58,34,25,11,56,29		4,21,27,41,47	
		14,22,30, 8,23,27,11		1, 3
54″	59,36,22,12,21, 4,33,35,23,40		4,21,27,42,50	
		14,22,25,46,55,44,21		1, 3
56″	59,36,22,26,43,30,20,31, 8, 1		4,21,27,43,53	
		14,22,21,25,28, 0,28		1, 3
58″	59,36,22,41, 5,51,45,59, 8,29		4,21,27,44,56	
		14,22,17, 4, 0,15,32		
60″	59,36,22,55,28, 8,49,59,24, 1			
exact	59,36,22,55,28, 8,49,59,15,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°26′ 0″	59,36,22,55,28, 8,49,59,15,42			
		14,22,12,42,32,28,41		
2″	59,36,23, 9,50,21,32,31,44,23		4,21,27,47, 5	
		14,22, 8,21, 4,41,36		1, 3
4″	59,36,23,24,12,29,53,36,25,59		4,21,27,48, 8	
		14,22, 3,59,36,53,28		1, 3
6″	59,36,23,38,34,33,53,13,19,27		4,21,27,49,11	
		14,21,59,38, 9, 4,17		1, 3
8″	59,36,23,52,56,33,31,22,23,44		4,21,27,50,14	
		14,21,55,16,41,14, 3		1, 3
10″	59,36,24, 7,18,28,48, 3,37,47		4,21,27,51,17	
		14,21,50,55,13,22,46		1, 3
12″	59,36,24,21,40,19,43,17, 0,33		4,21,27,52,20	
		14,21,46,33,45,30,26		1, 3
14″	59,36,24,36, 2, 6,17, 2,30,59		4,21,27,53,23	
		14,21,42,12,17,37, 3		1, 3
16″	59,36,24,50,23,48,29,20, 8, 2		4,21,27,54,26	
		14,21,37,50,49,42,37		1, 3
18″	59,36,25, 4,45,26,20, 9,50,39		4,21,27,55,29	
		14,21,33,29,21,47, 8		1, 3
20″	59,36,25,19, 6,59,49,31,37,47		4,21,27,56,32	
		14,21,29, 7,53,50,36		1, 3
22″	59,36,25,33,28,28,57,25,28,23		4,21,27,57,35	
		14,21,24,46,25,53, 1		1, 3
24″	59,36,25,47,49,53,43,51,21,24		4,21,27,58,38	
		14,21,20,24,57,54,23		1, 3
26″	59,36,26, 2,11,14, 8,49,15,47		4,21,27,59,41	
		14,21,16, 3,29,54,42		1, 3
28″	59,36,26,16,32,30,12,19,10,29		4,21,28, 0,44	
		14,21,11,42, 1,53,58		1, 3
30″	59,36,26,30,53,41,54,21, 4,27		4,21,28, 1,47	
		14,21, 7,20,33,52,11		1, 3
32″	59,36,26,45,14,49,14,54,56,38		4,21,28, 2,50	
		14,21, 2,59, 5,49,21		1, 3
34″	59,36,26,59,35,52,14, 0,45,59		4,21,28, 3,53	
		14,20,58,37,37,45,28		1, 3
36″	59,36,27,13,56,50,51,38,31,27		4,21,28, 4,56	
		14,20,54,16, 9,40,32		1, 3
38″	59,36,27,28,17,45, 7,48,11,59		4,21,28, 5,59	
		14,20,49,54,41,34,33		1, 3
40″	59,36,27,42,38,35, 2,29,46,32		4,21,28, 7, 2	
		14,20,45,33,13,27,31		1, 3
42″	59,36,27,56,59,20,35,43,14, 3		4,21,28, 8, 5	
		14,20,41,11,45,19,26		1, 3
44″	59,36,28,11,20, 1,47,28,33,29		4,21,28, 9, 8	
		14,20,36,50,17,10,18		1, 3
46″	59,36,28,25,40,38,37,45,43,47		4,21,28,10,11	
		14,20,32,28,49, 0, 7		1, 3
48″	59,36,28,40, 1,11, 6,34,43,54		4,21,28,11,14	
		14,20,28, 7,20,48,53		1, 3
50″	59,36,28,54,21,39,13,55,32,47		4,21,28,12,17	
		14,20,23,45,52,36,36		1, 3
52″	59,36,29, 8,42, 2,59,48, 9,23		4,21,28,13,20	
		14,20,19,24,24,23,16		1, 3
54″	59,36,29,23, 2,22,24,12,32,39		4,21,28,14,23	
		14,20,15, 2,56, 8,53		1, 3
56″	59,36,29,37,22,37,27, 8,41,32		4,21,28,15,26	
		14,20,10,41,27,53,27		1, 3
58″	59,36,29,51,42,48, 8,36,34,59		4,21,28,16,29	
		14,20, 6,19,59,36,58		
60″	59,36,30, 6, 2,54,28,36,11,57			
exact	59,36,30, 6, 2,54,28,36,11,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°27′ 0″	59,36,30, 6, 2,54,28,36,11,59			
		14,20, 1,58,31,19,33		
2″	59,36,30,20,22,56,27, 7,31,32		4,21,28,18,34	
		14,19,57,37, 3, 0,59		1, 3
4″	59,36,30,34,42,54, 4,10,32,31		4,21,28,19,37	
		14,19,53,15,34,41,22		1, 3
6″	59,36,30,49, 2,47,19,45,13,53		4,21,28,20,40	
		14,19,48,54, 6,20,42		1, 3
8″	59,36,31, 3,22,36,13,51,34,35		4,21,28,21,43	
		14,19,44,32,37,58,59		1, 3
10″	59,36,31,17,42,20,46,29,33,34		4,21,28,22,46	
		14,19,40,11, 9,36,13		1, 3
12″	59,36,31,32, 2, 0,57,39, 9,47		4,21,28,23,49	
		14,19,35,49,41,12,24		1, 3
14″	59,36,31,46,21,36,47,20,22,11		4,21,28,24,52	
		14,19,31,28,12,47,32		1, 3
16″	59,36,32, 0,41, 8,15,33, 9,43		4,21,28,25,55	
		14,19,27, 6,44,21,37		1, 3
18″	59,36,32,15, 0,35,22,17,31,20		4,21,28,26,58	
		14,19,22,45,15,54,39		1, 3
20″	59,36,32,29,19,58, 7,33,25,59		4,21,28,28, 1	
		14,19,18,23,47,26,38		1, 3
22″	59,36,32,43,39,16,31,20,52,37		4,21,28,29, 4	
		14,19,14, 2,18,57,34		1, 3
24″	59,36,32,57,58,30,33,39,50,11		4,21,28,30, 7	
		14,19, 9,40,50,27,27		1, 3
26″	59,36,33,12,17,40,14,30,17,38		4,21,28,31,10	
		14,19, 5,19,21,56,17		1, 3
28″	59,36,33,26,36,45,33,52,13,55		4,21,28,32,13	
		14,19, 0,57,53,24, 4		1, 3
30″	59,36,33,40,55,46,31,45,37,59		4,21,28,33,16	
		14,18,56,36,24,50,48		1, 3
32″	59,36,33,55,14,43, 8,10,28,47		4,21,28,34,19	
		14,18,52,14,56,16,29		1, 3
34″	59,36,34, 9,33,35,23, 6,45,16		4,21,28,35,22	
		14,18,47,53,27,41, 7		1, 3
36″	59,36,34,23,52,23,16,34,26,23		4,21,28,36,25	
		14,18,43,31,59, 4,42		1, 3
38″	59,36,34,38,11, 6,48,33,31, 5		4,21,28,37,28	
		14,18,39,10,30,27,14		1, 3
40″	59,36,34,52,29,45,59, 3,58,19		4,21,28,38,31	
		14,18,34,49, 1,48,43		1, 3
42″	59,36,35, 6,48,20,48, 5,47, 2		4,21,28,39,34	
		14,18,30,27,33, 9, 9		1, 3
44″	59,36,35,21, 6,51,15,38,56,11		4,21,28,40,37	
		14,18,26, 6, 4,28,32		1, 3
46″	59,36,35,35,25,17,21,43,24,43		4,21,28,41,40	
		14,18,21,44,35,46,52		1, 3
48″	59,36,35,49,43,39, 6,19,11,35		4,21,28,42,43	
		14,18,17,23, 7, 4, 9		1, 3
50″	59,36,36, 4, 1,56,29,26,15,44		4,21,28,43,46	
		14,18,13, 1,38,20,23		1, 3
52″	59,36,36,18,20, 9,31, 4,36, 7		4,21,28,44,49	
		14,18, 8,40, 9,35,34		1, 3
54″	59,36,36,32,38,18,11,14,11,41		4,21,28,45,52	
		14,18, 4,18,40,49,42		1, 3
56″	59,36,36,46,56,22,29,55, 1,23		4,21,28,46,55	
		14,17,59,57,12, 2,47		1, 3
58″	59,36,37, 1,14,22,27, 7, 4,10		4,21,28,47,58	
		14,17,55,35,43,14,49		
60″	59,36,37,15,32,18, 2,50,18,59			
exact	59,36,37,15,32,18, 2,50,32,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°28′ 0″	59,36,37,15,32,18, 2,50,32,54			
		14,17,51,14,14,27,17		
2″	59,36,37,29,50, 9,17, 5, 0,11		4,21,28,49,57	
		14,17,46,52,45,37,20		1, 3
4″	59,36,37,44, 7,56, 9,50,37,31		4,21,28,51, 0	
		14,17,42,31,16,46,20		1, 3
6″	59,36,37,58,25,38,41, 7,23,51		4,21,28,52, 3	
		14,17,38, 9,47,54,17		1, 3
8″	59,36,38,12,43,16,50,55,18, 8		4,21,28,53, 6	
		14,17,33,48,19, 1,11		1, 3
10″	59,36,38,27, 0,50,39,14,19,19		4,21,28,54, 9	
		14,17,29,26,50, 7, 2		1, 3
12″	59,36,38,41,18,20, 6, 4,26,21		4,21,28,55,12	
		14,17,25, 5,21,11,50		1, 3
14″	59,36,38,55,35,45,11,25,38,11		4,21,28,56,15	
		14,17,20,43,52,15,35		1, 3
16″	59,36,39, 9,53, 5,55,17,53,46		4,21,28,57,18	
		14,17,16,22,23,18,17		1, 3
18″	59,36,39,24,10,22,17,41,12, 3		4,21,28,58,21	
		14,17,12, 0,54,19,56		1, 3
20″	59,36,39,38,27,34,18,35,31,59		4,21,28,59,24	
		14,17, 7,39,25,20,32		1, 3
22″	59,36,39,52,44,41,58, 0,52,31		4,21,29, 0,27	
		14,17, 3,17,56,20, 5		1, 3
24″	59,36,40, 7, 1,45,15,57,12,36		4,21,29, 1,30	
		14,16,58,56,27,18,35		1, 3
26″	59,36,40,21,18,44,12,24,31,11		4,21,29, 2,33	
		14,16,54,34,58,16, 2		1, 3
28″	59,36,40,35,35,38,47,22,47,13		4,21,29, 3,36	
		14,16,50,13,29,12,26		1, 3
30″	59,36,40,49,52,29, 0,51,59,39		4,21,29, 4,39	
		14,16,45,52, 0, 7,47		1, 3
32″	59,36,41, 4, 9,14,52,52, 7,26		4,21,29, 5,42	
		14,16,41,30,31, 2, 5		1, 3
34″	59,36,41,18,25,56,23,23, 9,31		4,21,29, 6,45	
		14,16,37, 9, 1,55,20		1, 3
36″	59,36,41,32,42,33,32,25, 4,51		4,21,29, 7,48	
		14,16,32,47,32,47,32		1, 3
38″	59,36,41,46,59, 6,19,57,52,23		4,21,29, 8,51	
		14,16,28,26, 3,38,41		1, 3
40″	59,36,42, 1,15,34,46, 1,31, 4		4,21,29, 9,54	
		14,16,24, 4,34,28,47		1, 3
42″	59,36,42,15,31,58,50,35,59,51		4,21,29,10,57	
		14,16,19,43, 5,17,50		1, 3
44″	59,36,42,29,48,18,33,41,17,41		4,21,29,12, 0	
		14,16,15,21,36, 5,50		1, 3
46″	59,36,42,44, 4,33,55,17,23,31		4,21,29,13, 3	
		14,16,11, 0, 6,52,47		1, 3
48″	59,36,42,58,20,44,55,24,16,18		4,21,29,14, 6	
		14,16, 6,38,37,38,41		1, 3
50″	59,36,43,12,36,51,34, 1,54,59		4,21,29,15, 9	
		14,16, 2,17, 8,23,32		1, 3
52″	59,36,43,26,52,53,51,10,18,31		4,21,29,16,12	
		14,15,57,55,39, 7,20		1, 3
54″	59,36,43,41, 8,51,46,49,25,51		4,21,29,17,15	
		14,15,53,34, 9,50, 5		1, 3
56″	59,36,43,55,24,45,20,59,15,56		4,21,29,18,18	
		14,15,49,12,40,31,47		1, 3
58″	59,36,44, 9,40,34,33,39,47,43		4,21,29,19,21	
		14,15,44,51,11,12,26		
60″	59,36,44,23,56,19,24,51, 0, 9			
exact	59,36,44,23,56,19,24,51,19, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°29′ 0″	59,36,44,23,56,19,24,51,19, 9			
		14,15,40,29,41,54,17		
2″	59,36,44,38,11,59,54,33,13,26		4,21,29,21,16	
		14,15,36, 8,12,33, 1		1, 3
4″	59,36,44,52,27,36, 2,45,46,27		4,21,29,22,19	
		14,15,31,46,43,10,42		1, 3
6″	59,36,45, 6,43, 7,49,28,57, 9		4,21,29,23,22	
		14,15,27,25,13,47,20		1, 3
8″	59,36,45,20,58,35,14,42,44,29		4,21,29,24,25	
		14,15,23, 3,44,22,55		1, 3
10″	59,36,45,35,13,58,18,27, 7,24		4,21,29,25,28	
		14,15,18,42,14,57,27		1, 3
12″	59,36,45,49,29,17, 0,42, 4,51		4,21,29,26,31	
		14,15,14,20,45,30,56		1, 3
14″	59,36,46, 3,44,31,21,27,35,47		4,21,29,27,34	
		14,15, 9,59,16, 3,22		1, 3
16″	59,36,46,17,59,41,20,43,39, 9		4,21,29,28,37	
		14,15, 5,37,46,34,45		1, 3
18″	59,36,46,32,14,46,58,30,13,54		4,21,29,29,40	
		14,15, 1,16,17, 5, 5		1, 3
20″	59,36,46,46,29,48,14,47,18,59		4,21,29,30,43	
		14,14,56,54,47,34,22		1, 3
22″	59,36,47, 0,44,45, 9,34,53,21		4,21,29,31,46	
		14,14,52,33,18, 2,36		1, 3
24″	59,36,47,14,59,37,42,52,55,57		4,21,29,32,49	
		14,14,48,11,48,29,47		1, 3
26″	59,36,47,29,14,25,54,41,25,44		4,21,29,33,52	
		14,14,43,50,18,55,55		1, 3
28″	59,36,47,43,29, 9,45, 0,21,39		4,21,29,34,55	
		14,14,39,28,49,21, 0		1, 3
30″	59,36,47,57,43,49,13,49,42,39		4,21,29,35,58	
		14,14,35, 7,19,45, 2		1, 3
32″	59,36,48,11,58,24,21, 9,27,41		4,21,29,37, 1	
		14,14,30,45,50, 8, 1		1, 3
34″	59,36,48,26,12,55, 6,59,35,42		4,21,29,38, 4	
		14,14,26,24,20,29,57		1, 3
36″	59,36,48,40,27,21,31,20, 5,39		4,21,29,39, 7	
		14,14,22, 2,50,50,50		1, 3
38″	59,36,48,54,41,43,34,10,56,29		4,21,29,40,10	
		14,14,17,41,21,10,40		1, 3
40″	59,36,49, 8,56, 1,15,32, 7, 9		4,21,29,41,13	
		14,14,13,19,51,29,27		1, 3
42″	59,36,49,23,10,14,35,23,36,36		4,21,29,42,16	
		14,14, 8,58,21,47,11		1, 3
44″	59,36,49,37,24,23,33,45,23,47		4,21,29,43,19	
		14,14, 4,36,52, 3,52		1, 3
46″	59,36,49,51,38,28,10,37,27,39		4,21,29,44,22	
		14,14, 0,15,22,19,30		1, 3
48″	59,36,50, 5,52,28,25,59,47, 9		4,21,29,45,25	
		14,13,55,53,52,34, 5		1, 3
50″	59,36,50,20, 6,24,19,52,21,14		4,21,29,46,28	
		14,13,51,32,22,47,37		1, 3
52″	59,36,50,34,20,15,52,15, 8,51		4,21,29,47,31	
		14,13,47,10,53, 0, 6		1, 3
54″	59,36,50,48,34, 3, 3, 8, 8,57		4,21,29,48,34	
		14,13,42,49,23,11,32		1, 3
56″	59,36,51, 2,47,45,52,31,20,29		4,21,29,49,37	
		14,13,38,27,53,21,55		1, 3
58″	59,36,51,17, 1,24,20,24,42,24		4,21,29,50,40	
		14,13,34, 6,23,31,15		
60″	59,36,51,31,14,58,26,48,13,39			
exact	59,36,51,31,14,58,26,48,43, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°30′ 0″	59,36,51,31,14,58,26,48,43, 7			
		14,13,29,44,53,42,55		
2″	59,36,51,45,28,28,11,42,26, 2		4,21,29,52,31	
		14,13,25,23,23,50,24		1, 2
4″	59,36,51,59,41,53,35, 6,16,26		4,21,29,53,33	
		14,13,21, 1,53,56,51		1, 2
6″	59,36,52,13,55,14,37, 0,13,17		4,21,29,54,35	
		14,13,16,40,24, 2,16		1, 2
8″	59,36,52,28, 8,31,17,24,15,33		4,21,29,55,37	
		14,13,12,18,54, 6,39		1, 2
10″	59,36,52,42,21,43,36,18,22,12		4,21,29,56,39	
		14,13, 7,57,24,10, 0		1, 2
12″	59,36,52,56,34,51,33,42,32,12		4,21,29,57,41	
		14,13, 3,35,54,12,19		1, 2
14″	59,36,53,10,47,55, 9,36,44,31		4,21,29,58,43	
		14,12,59,14,24,13,36		1, 2
16″	59,36,53,25, 0,54,24, 0,58, 7		4,21,29,59,45	
		14,12,54,52,54,13,51		1, 2
18″	59,36,53,39,13,49,16,55,11,58		4,21,30, 0,47	
		14,12,50,31,24,13, 4		1, 2
20″	59,36,53,53,26,39,48,19,25, 2		4,21,30, 1,49	
		14,12,46, 9,54,11,15		1, 2
22″	59,36,54, 7,39,25,58,13,36,17		4,21,30, 2,51	
		14,12,41,48,24, 8,24		1, 2
24″	59,36,54,21,52, 7,46,37,44,41		4,21,30, 3,53	
		14,12,37,26,54, 4,31		1, 2
26″	59,36,54,36, 4,45,13,31,49,12		4,21,30, 4,55	
		14,12,33, 5,23,59,36		1, 2
28″	59,36,54,50,17,18,18,55,48,48		4,21,30, 5,57	
		14,12,28,43,53,53,39		1, 2
30″	59,36,55, 4,29,47, 2,49,42,27		4,21,30, 6,59	
		14,12,24,22,23,46,40		1, 2
32″	59,36,55,18,42,11,25,13,29, 7		4,21,30, 8, 1	
		14,12,20, 0,53,38,39		1, 2
34″	59,36,55,32,54,31,26, 7, 7,46		4,21,30, 9, 3	
		14,12,15,39,23,29,36		1, 2
36″	59,36,55,47, 6,47, 5,30,37,22		4,21,30,10, 5	
		14,12,11,17,53,19,31		1, 2
38″	59,36,56, 1,18,58,23,23,56,53		4,21,30,11, 7	
		14,12, 6,56,23, 8,24		1, 2
40″	59,36,56,15,31, 5,19,47, 5,17		4,21,30,12, 9	
		14,12, 2,34,52,56,15		1, 2
42″	59,36,56,29,43, 7,54,40, 1,32		4,21,30,13,11	
		14,11,58,13,22,43, 4		1, 2
44″	59,36,56,43,55, 6, 8, 2,44,36		4,21,30,14,13	
		14,11,53,51,52,28,51		1, 2
46″	59,36,56,58, 6,59,59,55,13,27		4,21,30,15,15	
		14,11,49,30,22,13,36		1, 2
48″	59,36,57,12,18,49,30,17,27, 3		4,21,30,16,17	
		14,11,45, 8,51,57,19		1, 2
50″	59,36,57,26,30,34,39, 9,24,22		4,21,30,17,19	
		14,11,40,47,21,40, 0		1, 2
52″	59,36,57,40,42,15,26,31, 4,22		4,21,30,18,21	
		14,11,36,25,51,21,39		1, 2
54″	59,36,57,54,53,51,52,22,26, 1		4,21,30,19,23	
		14,11,32, 4,21, 2,16		1, 2
56″	59,36,58, 9, 5,23,56,43,28,17		4,21,30,20,25	
		14,11,27,42,50,41,51		1, 2
58″	59,36,58,23,16,51,39,34,10, 8		4,21,30,21,27	
		14,11,23,21,20,20,24		
60″	59,36,58,37,28,15, 0,54,30,32			
exact	59,36,58,37,28,15, 0,54, 8,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°31′ 0″	59,36,58,37,28,15, 0,54, 8,51			
		14,11,18,59,49,55,36		
2″	59,36,58,51,39,34, 0,44, 4,27		4,21,30,23,40	
		14,11,14,38,19,31,56		1, 2
4″	59,36,59, 5,50,48,39, 3,36,23		4,21,30,24,42	
		14,11,10,16,49, 7,14		1, 2
6″	59,36,59,20, 1,58,55,52,43,37		4,21,30,25,44	
		14,11, 5,55,18,41,30		1, 2
8″	59,36,59,34,13, 4,51,11,25, 7		4,21,30,26,46	
		14,11, 1,33,48,14,44		1, 2
10″	59,36,59,48,24, 6,24,59,39,51		4,21,30,27,48	
		14,10,57,12,17,46,56		1, 2
12″	59,37, 0, 2,35, 3,37,17,26,47		4,21,30,28,50	
		14,10,52,50,47,18, 6		1, 2
14″	59,37, 0,16,45,56,28, 4,44,53		4,21,30,29,52	
		14,10,48,29,16,48,14		1, 2
16″	59,37, 0,30,56,44,57,21,33, 7		4,21,30,30,54	
		14,10,44, 7,46,17,20		1, 2
18″	59,37, 0,45, 7,29, 5, 7,50,27		4,21,30,31,56	
		14,10,39,46,15,45,24		1, 2
20″	59,37, 0,59,18, 8,51,23,35,51		4,21,30,32,58	
		14,10,35,24,45,12,26		1, 2
22″	59,37, 1,13,28,44,16, 8,48,17		4,21,30,34, 0	
		14,10,31, 3,14,38,26		1, 2
24″	59,37, 1,27,39,15,19,23,26,43		4,21,30,35, 2	
		14,10,26,41,44, 3,24		1, 2
26″	59,37, 1,41,49,42, 1, 7,30, 7		4,21,30,36, 4	
		14,10,22,20,13,27,20		1, 2
28″	59,37, 1,56, 0, 4,21,20,57,27		4,21,30,37, 6	
		14,10,17,58,42,50,14		1, 2
30″	59,37, 2,10,10,22,20, 3,47,41		4,21,30,38, 8	
		14,10,13,37,12,12, 6		1, 2
32″	59,37, 2,24,20,35,57,15,59,47		4,21,30,39,10	
		14,10, 9,15,41,32,56		1, 2
34″	59,37, 2,38,30,45,12,57,32,43		4,21,30,40,12	
		14,10, 4,54,10,52,44		1, 2
36″	59,37, 2,52,40,50, 7, 8,25,27		4,21,30,41,14	
		14,10, 0,32,40,11,30		1, 2
38″	59,37, 3, 6,50,50,39,48,36,57		4,21,30,42,16	
		14, 9,56,11, 9,29,14		1, 2
40″	59,37, 3,21, 0,46,50,58, 6,11		4,21,30,43,18	
		14, 9,51,49,38,45,56		1, 2
42″	59,37, 3,35,10,38,40,36,52, 7		4,21,30,44,20	
		14, 9,47,28, 8, 1,36		1, 2
44″	59,37, 3,49,20,26, 8,44,53,43		4,21,30,45,22	
		14, 9,43, 6,37,16,14		1, 2
46″	59,37, 4, 3,30, 9,15,22, 9,57		4,21,30,46,24	
		14, 9,38,45, 6,29,50		1, 2
48″	59,37, 4,17,39,48, 0,28,39,47		4,21,30,47,26	
		14, 9,34,23,35,42,24		1, 2
50″	59,37, 4,31,49,22,24, 4,22,11		4,21,30,48,28	
		14, 9,30, 2, 4,53,56		1, 2
52″	59,37, 4,45,58,52,26, 9,16, 7		4,21,30,49,30	
		14, 9,25,40,34, 4,26		1, 2
54″	59,37, 5, 0, 8,18, 6,43,20,33		4,21,30,50,32	
		14, 9,21,19, 3,13,54		1, 2
56″	59,37, 5,14,17,39,25,46,34,27		4,21,30,51,34	
		14, 9,16,57,32,22,20		1, 2
58″	59,37, 5,28,26,56,23,18,56,47		4,21,30,52,36	
		14, 9,12,36, 1,29,44		
60″	59,37, 5,42,36, 8,59,20,26,31			
exact	59,37, 5,42,36, 8,59,20,12, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°32′ 0″	59,37, 5,42,36, 8,59,20,12, 9			
		14, 9, 8,14,30,34,42		
2″	59,37, 5,56,45,17,13,50,46,51		4,21,30,54,45	
		14, 9, 3,52,59,39,57		1, 2
4″	59,37, 6,10,54,21, 6,50,26,48		4,21,30,55,47	
		14, 8,59,31,28,44,10		1, 2
6″	59,37, 6,25, 3,20,38,19,10,58		4,21,30,56,49	
		14, 8,55, 9,57,47,21		1, 2
8″	59,37, 6,39,12,15,48,16,58,19		4,21,30,57,51	
		14, 8,50,48,26,49,30		1, 2
10″	59,37, 6,53,21, 6,36,43,47,49		4,21,30,58,53	
		14, 8,46,26,55,50,37		1, 2
12″	59,37, 7, 7,29,53, 3,39,38,26		4,21,30,59,55	
		14, 8,42, 5,24,50,42		1, 2
14″	59,37, 7,21,38,35, 9, 4,29, 8		4,21,31, 0,57	
		14, 8,37,43,53,49,45		1, 2
16″	59,37, 7,35,47,12,52,58,18,53		4,21,31, 1,59	
		14, 8,33,22,22,47,46		1, 2
18″	59,37, 7,49,55,46,15,21, 6,39		4,21,31, 3, 1	
		14, 8,29, 0,51,44,45		1, 2
20″	59,37, 8, 4, 4,15,16,12,51,24		4,21,31, 4, 3	
		14, 8,24,39,20,40,42		1, 2
22″	59,37, 8,18,12,39,55,33,32, 6		4,21,31, 5, 5	
		14, 8,20,17,49,35,37		1, 2
24″	59,37, 8,32,21, 0,13,23, 7,43		4,21,31, 6, 7	
		14, 8,15,56,18,29,30		1, 2
26″	59,37, 8,46,29,16, 9,41,37,13		4,21,31, 7, 9	
		14, 8,11,34,47,22,21		1, 2
28″	59,37, 9, 0,37,27,44,28,59,34		4,21,31, 8,11	
		14, 8, 7,13,16,14,10		1, 2
30″	59,37, 9,14,45,34,57,45,13,44		4,21,31, 9,13	
		14, 8, 2,51,45, 4,57		1, 2
32″	59,37, 9,28,53,37,49,30,18,41		4,21,31,10,15	
		14, 7,58,30,13,54,42		1, 2
34″	59,37, 9,43, 1,36,19,44,13,23		4,21,31,11,17	
		14, 7,54, 8,42,43,25		1, 2
36″	59,37, 9,57, 9,30,28,26,56,48		4,21,31,12,19	
		14, 7,49,47,11,31, 6		1, 2
38″	59,37,10,11,17,20,15,38,27,54		4,21,31,13,21	
		14, 7,45,25,40,17,45		1, 2
40″	59,37,10,25,25, 5,41,18,45,39		4,21,31,14,23	
		14, 7,41, 4, 9, 3,22		1, 2
42″	59,37,10,39,32,46,45,27,49, 1		4,21,31,15,25	
		14, 7,36,42,37,47,57		1, 2
44″	59,37,10,53,40,23,28, 5,36,58		4,21,31,16,27	
		14, 7,32,21, 6,31,30		1, 2
46″	59,37,11, 7,47,55,49,12, 8,28		4,21,31,17,29	
		14, 7,27,59,35,14, 1		1, 2
48″	59,37,11,21,55,23,48,47,22,29		4,21,31,18,31	
		14, 7,23,38, 3,55,30		1, 2
50″	59,37,11,36, 2,47,26,51,17,59		4,21,31,19,33	
		14, 7,19,16,32,35,57		1, 2
52″	59,37,11,50,10, 6,43,23,53,56		4,21,31,20,35	
		14, 7,14,55, 1,15,22		1, 2
54″	59,37,12, 4,17,21,38,25, 9,18		4,21,31,21,37	
		14, 7,10,33,29,53,45		1, 2
56″	59,37,12,18,24,32,11,55, 3, 3		4,21,31,22,39	
		14, 7, 6,11,58,31, 6		1, 2
58″	59,37,12,32,31,38,23,53,34, 9		4,21,31,23,41	
		14, 7, 1,50,27, 7,25		
60″	59,37,12,46,38,40,14,20,41,34			
exact	59,37,12,46,38,40,14,20,40,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°33′ 0″	59,37,12,46,38,40,14,20,40,28			
		14, 6,57,28,55,42,37		
2″	59,37,13, 0,45,37,43,16,23, 5		4,21,31,25,45	
		14, 6,53, 7,24,16,52		1, 2
4″	59,37,13,14,52,30,50,40,39,57		4,21,31,26,47	
		14, 6,48,45,52,50, 5		1, 2
6″	59,37,13,28,59,19,36,33,30, 2		4,21,31,27,49	
		14, 6,44,24,21,22,16		1, 2
8″	59,37,13,43, 6, 4, 0,54,52,18		4,21,31,28,51	
		14, 6,40, 2,49,53,25		1, 2
10″	59,37,13,57,12,44, 3,44,45,43		4,21,31,29,53	
		14, 6,35,41,18,23,32		1, 2
12″	59,37,14,11,19,19,45, 3, 9,15		4,21,31,30,55	
		14, 6,31,19,46,52,37		1, 2
14″	59,37,14,25,25,51, 4,50, 1,52		4,21,31,31,57	
		14, 6,26,58,15,20,40		1, 2
16″	59,37,14,39,32,18, 3, 5,22,32		4,21,31,32,59	
		14, 6,22,36,43,47,41		1, 2
18″	59,37,14,53,38,40,39,49,10,13		4,21,31,34, 1	
		14, 6,18,15,12,13,40		1, 2
20″	59,37,15, 7,44,58,55, 1,23,53		4,21,31,35, 3	
		14, 6,13,53,40,38,37		1, 2
22″	59,37,15,21,51,12,48,42, 2,30		4,21,31,36, 5	
		14, 6, 9,32, 9, 2,32		1, 2
24″	59,37,15,35,57,22,20,51, 5, 2		4,21,31,37, 7	
		14, 6, 5,10,37,25,25		1, 2
26″	59,37,15,50, 3,27,31,28,30,27		4,21,31,38, 9	
		14, 6, 0,49, 5,47,16		1, 2
28″	59,37,16, 4, 9,28,20,34,17,43		4,21,31,39,11	
		14, 5,56,27,34, 8, 5		1, 2
30″	59,37,16,18,15,24,48, 8,25,48		4,21,31,40,13	
		14, 5,52, 6, 2,27,52		1, 2
32″	59,37,16,32,21,16,54,10,53,40		4,21,31,41,15	
		14, 5,47,44,30,46,37		1, 2
34″	59,37,16,46,27, 4,38,41,40,17		4,21,31,42,17	
		14, 5,43,22,59, 4,20		1, 2
36″	59,37,17, 0,32,48, 1,40,44,37		4,21,31,43,19	
		14, 5,39, 1,27,21, 1		1, 2
38″	59,37,17,14,38,27, 3, 8, 5,38		4,21,31,44,21	
		14, 5,34,39,55,36,40		1, 2
40″	59,37,17,28,44, 1,43, 3,42,18		4,21,31,45,23	
		14, 5,30,18,23,51,17		1, 2
42″	59,37,17,42,49,32, 1,27,33,35		4,21,31,46,25	
		14, 5,25,56,52, 4,52		1, 2
44″	59,37,17,56,54,57,58,19,38,27		4,21,31,47,27	
		14, 5,21,35,20,17,25		1, 2
46″	59,37,18,11, 0,19,33,39,55,52		4,21,31,48,29	
		14, 5,17,13,48,28,56		1, 2
48″	59,37,18,25, 5,36,47,28,24,48		4,21,31,49,31	
		14, 5,12,52,16,39,25		1, 2
50″	59,37,18,39,10,49,39,45, 4,13		4,21,31,50,33	
		14, 5, 8,30,44,48,52		1, 2
52″	59,37,18,53,15,58,10,29,53, 5		4,21,31,51,35	
		14, 5, 4, 9,12,57,17		1, 2
54″	59,37,19, 7,21, 2,19,42,50,22		4,21,31,52,37	
		14, 4,59,47,41, 4,40		1, 2
56″	59,37,19,21,26, 2, 7,23,55, 2		4,21,31,53,39	
		14, 4,55,26, 9,11, 1		1, 2
58″	59,37,19,35,30,57,33,33, 6, 3		4,21,31,54,41	
		14, 4,51, 4,37,16,20		
60″	59,37,19,49,35,48,38,10,22,23			
exact	59,37,19,49,35,48,38,10,32,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°34′ 0″	59,37,19,49,35,48,38,10,32,56			
		14, 4,46,43, 5,21,45		
2″	59,37,20, 3,40,35,21,15,54,41		4,21,31,56,40	
		14, 4,42,21,33,25, 5		1, 2
4″	59,37,20,17,45,17,42,49,19,46		4,21,31,57,42	
		14, 4,38, 0, 1,27,23		1, 2
6″	59,37,20,31,49,55,42,50,47, 9		4,21,31,58,44	
		14, 4,33,38,29,28,39		1, 2
8″	59,37,20,45,54,29,21,20,15,48		4,21,31,59,46	
		14, 4,29,16,57,28,53		1, 2
10″	59,37,20,59,58,58,38,17,44,41		4,21,32, 0,48	
		14, 4,24,55,25,28, 5		1, 2
12″	59,37,21,14, 3,23,33,43,12,46		4,21,32, 1,50	
		14, 4,20,33,53,26,15		1, 2
14″	59,37,21,28, 7,44, 7,36,39, 1		4,21,32, 2,52	
		14, 4,16,12,21,23,23		1, 2
16″	59,37,21,42,12, 0,19,58, 2,24		4,21,32, 3,54	
		14, 4,11,50,49,19,29		1, 2
18″	59,37,21,56,16,12,10,47,21,53		4,21,32, 4,56	
		14, 4, 7,29,17,14,33		1, 2
20″	59,37,22,10,20,19,40, 4,36,26		4,21,32, 5,58	
		14, 4, 3, 7,45, 8,35		1, 2
22″	59,37,22,24,24,22,47,49,45, 1		4,21,32, 7, 0	
		14, 3,58,46,13, 1,35		1, 2
24″	59,37,22,38,28,21,34, 2,46,36		4,21,32, 8, 2	
		14, 3,54,24,40,53,33		1, 2
26″	59,37,22,52,32,15,58,43,40, 9		4,21,32, 9, 4	
		14, 3,50, 3, 8,44,29		1, 2
28″	59,37,23, 6,36, 6, 1,52,24,38		4,21,32,10, 6	
		14, 3,45,41,36,34,23		1, 2
30″	59,37,23,20,39,51,43,28,59, 1		4,21,32,11, 8	
		14, 3,41,20, 4,23,15		1, 2
32″	59,37,23,34,43,33, 3,33,22,16		4,21,32,12,10	
		14, 3,36,58,32,11, 5		1, 2
34″	59,37,23,48,47,10, 2, 5,33,21		4,21,32,13,12	
		14, 3,32,36,59,57,53		1, 2
36″	59,37,24, 2,50,42,39, 5,31,14		4,21,32,14,14	
		14, 3,28,15,27,43,39		1, 2
38″	59,37,24,16,54,10,54,33,14,53		4,21,32,15,16	
		14, 3,23,53,55,28,23		1, 2
40″	59,37,24,30,57,34,48,28,43,16		4,21,32,16,18	
		14, 3,19,32,23,12, 5		1, 2
42″	59,37,24,45, 0,54,20,51,55,21		4,21,32,17,20	
		14, 3,15,10,50,54,45		1, 2
44″	59,37,24,59, 4, 9,31,42,50, 6		4,21,32,18,22	
		14, 3,10,49,18,36,23		1, 2
46″	59,37,25,13, 7,20,21, 1,26,29		4,21,32,19,24	
		14, 3, 6,27,46,16,59		1, 2
48″	59,37,25,27,10,26,48,47,43,28		4,21,32,20,26	
		14, 3, 2, 6,13,56,33		1, 2
50″	59,37,25,41,13,28,55, 1,40, 1		4,21,32,21,28	
		14, 2,57,44,41,35, 5		1, 2
52″	59,37,25,55,16,26,39,43,15, 6		4,21,32,22,30	
		14, 2,53,23, 9,12,35		1, 2
54″	59,37,26, 9,19,20, 2,52,27,41		4,21,32,23,32	
		14, 2,49, 1,36,49, 3		1, 2
56″	59,37,26,23,22, 9, 4,29,16,44		4,21,32,24,34	
		14, 2,44,40, 4,24,29		1, 2
58″	59,37,26,37,24,53,44,33,41,13		4,21,32,25,36	
		14, 2,40,18,31,58,53		
60″	59,37,26,51,27,34, 3, 5,40, 6			
exact	59,37,26,51,27,34, 3, 6, 0,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°35′ 0″	59,37,26,51,27,34, 3, 6, 0,25			
		14, 2,35,56,59,34,29		
2″	59,37,27, 5,30,10, 0, 5,34,54		4,21,32,27,30	
		14, 2,31,35,27, 6,59		1, 2
4″	59,37,27,19,32,41,35,32,41,53		4,21,32,28,32	
		14, 2,27,13,54,38,27		1, 2
6″	59,37,27,33,35, 8,49,27,20,20		4,21,32,29,34	
		14, 2,22,52,22, 8,53		1, 2
8″	59,37,27,47,37,31,41,49,29,13		4,21,32,30,36	
		14, 2,18,30,49,38,17		1, 2
10″	59,37,28, 1,39,50,12,39, 7,30		4,21,32,31,38	
		14, 2,14, 9,17, 6,39		1, 2
12″	59,37,28,15,42, 4,21,56,14, 9		4,21,32,32,40	
		14, 2, 9,47,44,33,59		1, 2
14″	59,37,28,29,44,14, 9,40,48, 8		4,21,32,33,42	
		14, 2, 5,26,12, 0,17		1, 2
16″	59,37,28,43,46,19,35,52,48,25		4,21,32,34,44	
		14, 2, 1, 4,39,25,33		1, 2
18″	59,37,28,57,48,20,40,32,13,58		4,21,32,35,46	
		14, 1,56,43, 6,49,47		1, 2
20″	59,37,29,11,50,17,23,39, 3,45		4,21,32,36,48	
		14, 1,52,21,34,12,59		1, 2
22″	59,37,29,25,52, 9,45,13,16,44		4,21,32,37,50	
		14, 1,48, 0, 1,35, 9		1, 2
24″	59,37,29,39,53,57,45,14,51,53		4,21,32,38,52	
		14, 1,43,38,28,56,17		1, 2
26″	59,37,29,53,55,41,23,43,48,10		4,21,32,39,54	
		14, 1,39,16,56,16,23		1, 2
28″	59,37,30, 7,57,20,40,40, 4,33		4,21,32,40,56	
		14, 1,34,55,23,35,27		1, 2
30″	59,37,30,21,58,55,36, 3,40, 0		4,21,32,41,58	
		14, 1,30,33,50,53,29		1, 2
32″	59,37,30,36, 0,26, 9,54,33,29		4,21,32,43, 0	
		14, 1,26,12,18,10,29		1, 2
34″	59,37,30,50, 1,52,22,12,43,58		4,21,32,44, 2	
		14, 1,21,50,45,26,27		1, 2
36″	59,37,31, 4, 3,14,12,58,10,25		4,21,32,45, 4	
		14, 1,17,29,12,41,23		1, 2
38″	59,37,31,18, 4,31,42,10,51,48		4,21,32,46, 6	
		14, 1,13, 7,39,55,17		1, 2
40″	59,37,31,32, 5,44,49,50,47, 5		4,21,32,47, 8	
		14, 1, 8,46, 7, 8, 9		1, 2
42″	59,37,31,46, 6,53,35,57,55,14		4,21,32,48,10	
		14, 1, 4,24,34,19,59		1, 2
44″	59,37,32, 0, 7,58, 0,32,15,13		4,21,32,49,12	
		14, 1, 0, 3, 1,30,47		1, 2
46″	59,37,32,14, 8,58, 3,33,46, 0		4,21,32,50,14	
		14, 0,55,41,28,40,33		1, 2
48″	59,37,32,28, 9,53,45, 2,26,33		4,21,32,51,16	
		14, 0,51,19,55,49,17		1, 2
50″	59,37,32,42,10,45, 4,58,15,50		4,21,32,52,18	
		14, 0,46,58,22,56,59		1, 2
52″	59,37,32,56,11,32, 3,21,12,49		4,21,32,53,20	
		14, 0,42,36,50, 3,39		1, 2
54″	59,37,33,10,12,14,40,11,16,28		4,21,32,54,22	
		14, 0,38,15,17, 9,17		1, 2
56″	59,37,33,24,12,52,55,28,25,45		4,21,32,55,24	
		14, 0,33,53,44,13,53		1, 2
58″	59,37,33,38,13,26,49,12,39,38		4,21,32,56,26	
		14, 0,29,32,11,17,27		
60″	59,37,33,52,13,56,21,23,57, 5			
exact	59,37,33,52,13,56,21,24,25,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°36′ 0″	59,37,33,52,13,56,21,24,25,28			
		14, 0,25,10,38,23,11		
2″	59,37,34, 6,14,21,32, 2,48,39		4,21,32,58,16	
		14, 0,20,49, 5,24,55		1, 1
4″	59,37,34,20,14,42,21, 8,13,34		4,21,32,59,17	
		14, 0,16,27,32,25,38		1, 1
6″	59,37,34,34,14,58,48,40,39,12		4,21,33, 0,18	
		14, 0,12, 5,59,25,20		1, 1
8″	59,37,34,48,15,10,54,40, 4,32		4,21,33, 1,19	
		14, 0, 7,44,26,24, 1		1, 1
10″	59,37,35, 2,15,18,39, 6,28,33		4,21,33, 2,20	
		14, 0, 3,22,53,21,41		1, 1
12″	59,37,35,16,15,22, 1,59,50,14		4,21,33, 3,21	
		13,59,59, 1,20,18,20		1, 1
14″	59,37,35,30,15,21, 3,20, 8,34		4,21,33, 4,22	
		13,59,54,39,47,13,58		1, 1
16″	59,37,35,44,15,15,43, 7,22,32		4,21,33, 5,23	
		13,59,50,18,14, 8,35		1, 1
18″	59,37,35,58,15, 6, 1,21,31, 7		4,21,33, 6,24	
		13,59,45,56,41, 2,11		1, 1
20″	59,37,36,12,14,51,58, 2,33,18		4,21,33, 7,25	
		13,59,41,35, 7,54,46		1, 1
22″	59,37,36,26,14,33,33,10,28, 4		4,21,33, 8,26	
		13,59,37,13,34,46,20		1, 1
24″	59,37,36,40,14,10,46,45,14,24		4,21,33, 9,27	
		13,59,32,52, 1,36,53		1, 1
26″	59,37,36,54,13,43,38,46,51,17		4,21,33,10,28	
		13,59,28,30,28,26,25		1, 1
28″	59,37,37, 8,13,12, 9,15,17,42		4,21,33,11,29	
		13,59,24, 8,55,14,56		1, 1
30″	59,37,37,22,12,36,18,10,32,38		4,21,33,12,30	
		13,59,19,47,22, 2,26		1, 1
32″	59,37,37,36,11,56, 5,32,35, 4		4,21,33,13,31	
		13,59,15,25,48,48,55		1, 1
34″	59,37,37,50,11,11,31,21,23,59		4,21,33,14,32	
		13,59,11, 4,15,34,23		1, 1
36″	59,37,38, 4,10,22,35,36,58,22		4,21,33,15,33	
		13,59, 6,42,42,18,50		1, 1
38″	59,37,38,18, 9,29,18,19,17,12		4,21,33,16,34	
		13,59, 2,21, 9, 2,16		1, 1
40″	59,37,38,32, 8,31,39,28,19,28		4,21,33,17,35	
		13,58,57,59,35,44,41		1, 1
42″	59,37,38,46, 7,29,39, 4, 4, 9		4,21,33,18,36	
		13,58,53,38, 2,26, 5		1, 1
44″	59,37,39, 0, 6,23,17, 6,30,14		4,21,33,19,37	
		13,58,49,16,29, 6,28		1, 1
46″	59,37,39,14, 5,12,33,35,36,42		4,21,33,20,38	
		13,58,44,54,55,45,50		1, 1
48″	59,37,39,28, 3,57,28,31,22,32		4,21,33,21,39	
		13,58,40,33,22,24,11		1, 1
50″	59,37,39,42, 2,38, 1,53,46,43		4,21,33,22,40	
		13,58,36,11,49, 1,31		1, 1
52″	59,37,39,56, 1,14,13,42,48,14		4,21,33,23,41	
		13,58,31,50,15,37,50		1, 1
54″	59,37,40, 9,59,46, 3,58,26, 4		4,21,33,24,42	
		13,58,27,28,42,13, 8		1, 1
56″	59,37,40,23,58,13,32,40,39,12		4,21,33,25,43	
		13,58,23, 7, 8,47,25		1, 1
58″	59,37,40,37,56,36,39,49,26,37		4,21,33,26,44	
		13,58,18,45,35,20,41		
60″	59,37,40,51,54,55,25,24,47,18			
exact	59,37,40,51,54,55,25,24,22,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°37′ 0″	59,37,40,51,54,55,25,24,22,21			
		13,58,14,24, 1,50,16		
2″	59,37,41, 5,53, 9,49,26,12,37		4,21,33,28,56	
		13,58,10, 2,28,21,20		1, 1
4″	59,37,41,19,51,19,51,54,33,57		4,21,33,29,57	
		13,58, 5,40,54,51,23		1, 1
6″	59,37,41,33,49,25,32,49,25,20		4,21,33,30,58	
		13,58, 1,19,21,20,25		1, 1
8″	59,37,41,47,47,26,52,10,45,45		4,21,33,31,59	
		13,57,56,57,47,48,26		1, 1
10″	59,37,42, 1,45,23,49,58,34,11		4,21,33,33, 0	
		13,57,52,36,14,15,26		1, 1
12″	59,37,42,15,43,16,26,12,49,37		4,21,33,34, 1	
		13,57,48,14,40,41,25		1, 1
14″	59,37,42,29,41, 4,40,53,31, 2		4,21,33,35, 2	
		13,57,43,53, 7, 6,23		1, 1
16″	59,37,42,43,38,48,34, 0,37,25		4,21,33,36, 3	
		13,57,39,31,33,30,20		1, 1
18″	59,37,42,57,36,28, 5,34, 7,45		4,21,33,37, 4	
		13,57,35, 9,59,53,16		1, 1
20″	59,37,43,11,34, 3,15,34, 1, 1		4,21,33,38, 5	
		13,57,30,48,26,15,11		1, 1
22″	59,37,43,25,31,34, 4, 0,16,12		4,21,33,39, 6	
		13,57,26,26,52,36, 5		1, 1
24″	59,37,43,39,29, 0,30,52,52,17		4,21,33,40, 7	
		13,57,22, 5,18,55,58		1, 1
26″	59,37,43,53,26,22,36,11,48,15		4,21,33,41, 8	
		13,57,17,43,45,14,50		1, 1
28″	59,37,44, 7,23,40,19,57, 3, 5		4,21,33,42, 9	
		13,57,13,22,11,32,41		1, 1
30″	59,37,44,21,20,53,42, 8,35,46		4,21,33,43,10	
		13,57, 9, 0,37,49,31		1, 1
32″	59,37,44,35,18, 2,42,46,25,17		4,21,33,44,11	
		13,57, 4,39, 4, 5,20		1, 1
34″	59,37,44,49,15, 7,21,50,30,37		4,21,33,45,12	
		13,57, 0,17,30,20, 8		1, 1
36″	59,37,45, 3,12, 7,39,20,50,45		4,21,33,46,13	
		13,56,55,55,56,33,55		1, 1
38″	59,37,45,17, 9, 3,35,17,24,40		4,21,33,47,14	
		13,56,51,34,22,46,41		1, 1
40″	59,37,45,31, 5,55, 9,40,11,21		4,21,33,48,15	
		13,56,47,12,48,58,26		1, 1
42″	59,37,45,45, 2,42,22,29, 9,47		4,21,33,49,16	
		13,56,42,51,15, 9,10		1, 1
44″	59,37,45,58,59,25,13,44,18,57		4,21,33,50,17	
		13,56,38,29,41,18,53		1, 1
46″	59,37,46,12,56, 3,43,25,37,50		4,21,33,51,18	
		13,56,34, 8, 7,27,35		1, 1
48″	59,37,46,26,52,37,51,33, 5,25		4,21,33,52,19	
		13,56,29,46,33,35,16		1, 1
50″	59,37,46,40,49, 7,38, 6,40,41		4,21,33,53,20	
		13,56,25,24,59,41,56		1, 1
52″	59,37,46,54,45,33, 3, 6,22,37		4,21,33,54,21	
		13,56,21, 3,25,47,35		1, 1
54″	59,37,47, 8,41,54, 6,32,10,12		4,21,33,55,22	
		13,56,16,41,51,52,13		1, 1
56″	59,37,47,22,38,10,48,24, 2,25		4,21,33,56,23	
		13,56,12,20,17,55,50		1, 1
58″	59,37,47,36,34,23, 8,41,58,15		4,21,33,57,24	
		13,56, 7,58,43,58,26		
60″	59,37,47,50,30,31, 7,25,56,41			
exact	59,37,47,50,30,31, 7,25,37, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°38′ 0″	59,37,47,50,30,31, 7,25,37, 0			
		13,56, 3,37, 9,58, 8		
2″	59,37,48, 4,26,34,44,35,35, 8		4,21,33,59,32	
		13,55,59,15,35,58,36		1, 1
4″	59,37,48,18,22,34, 0,11,33,44		4,21,34, 0,33	
		13,55,54,54, 1,58, 3		1, 1
6″	59,37,48,32,18,28,54,13,31,47		4,21,34, 1,34	
		13,55,50,32,27,56,29		1, 1
8″	59,37,48,46,14,19,26,41,28,16		4,21,34, 2,35	
		13,55,46,10,53,53,54		1, 1
10″	59,37,49, 0,10, 5,37,35,22,10		4,21,34, 3,36	
		13,55,41,49,19,50,18		1, 1
12″	59,37,49,14, 5,47,26,55,12,28		4,21,34, 4,37	
		13,55,37,27,45,45,41		1, 1
14″	59,37,49,28, 1,24,54,40,58, 9		4,21,34, 5,38	
		13,55,33, 6,11,40, 3		1, 1
16″	59,37,49,41,56,58, 0,52,38,12		4,21,34, 6,39	
		13,55,28,44,37,33,24		1, 1
18″	59,37,49,55,52,26,45,30,11,36		4,21,34, 7,40	
		13,55,24,23, 3,25,44		1, 1
20″	59,37,50, 9,47,51, 8,33,37,20		4,21,34, 8,41	
		13,55,20, 1,29,17, 3		1, 1
22″	59,37,50,23,43,11,10, 2,54,23		4,21,34, 9,42	
		13,55,15,39,55, 7,21		1, 1
24″	59,37,50,37,38,26,49,58, 1,44		4,21,34,10,43	
		13,55,11,18,20,56,38		1, 1
26″	59,37,50,51,33,38, 8,18,58,22		4,21,34,11,44	
		13,55, 6,56,46,44,54		1, 1
28″	59,37,51, 5,28,45, 5, 5,43,16		4,21,34,12,45	
		13,55, 2,35,12,32, 9		1, 1
30″	59,37,51,19,23,47,40,18,15,25		4,21,34,13,46	
		13,54,58,13,38,18,23		1, 1
32″	59,37,51,33,18,45,53,56,33,48		4,21,34,14,47	
		13,54,53,52, 4, 3,36		1, 1
34″	59,37,51,47,13,39,46, 0,37,24		4,21,34,15,48	
		13,54,49,30,29,47,48		1, 1
36″	59,37,52, 1, 8,29,16,30,25,12		4,21,34,16,49	
		13,54,45, 8,55,30,59		1, 1
38″	59,37,52,15, 3,14,25,25,56,11		4,21,34,17,50	
		13,54,40,47,21,13, 9		1, 1
40″	59,37,52,28,57,55,12,47, 9,20		4,21,34,18,51	
		13,54,36,25,46,54,18		1, 1
42″	59,37,52,42,52,31,38,34, 3,38		4,21,34,19,52	
		13,54,32, 4,12,34,26		1, 1
44″	59,37,52,56,47, 3,42,46,38, 4		4,21,34,20,53	
		13,54,27,42,38,13,33		1, 1
46″	59,37,53,10,41,31,25,24,51,37		4,21,34,21,54	
		13,54,23,21, 3,51,39		1, 1
48″	59,37,53,24,35,54,46,28,43,16		4,21,34,22,55	
		13,54,18,59,29,28,44		1, 1
50″	59,37,53,38,30,13,45,58,12, 0		4,21,34,23,56	
		13,54,14,37,55, 4,48		1, 1
52″	59,37,53,52,24,28,23,53,16,48		4,21,34,24,57	
		13,54,10,16,20,39,51		1, 1
54″	59,37,54, 6,18,38,40,13,56,39		4,21,34,25,58	
		13,54, 5,54,46,13,53		1, 1
56″	59,37,54,20,12,44,35, 0,10,32		4,21,34,26,59	
		13,54, 1,33,11,46,54		1, 1
58″	59,37,54,34, 6,46, 8,11,57,26		4,21,34,28, 0	
		13,53,57,11,37,18,54		
60″	59,37,54,48, 0,43,19,49,16,20			
exact	59,37,54,48, 0,43,19,49, 7, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°39′ 0″	59,37,54,48, 0,43,19,49, 7, 7			
		13,53,52,50, 2,49, 8		
2″	59,37,55, 1,54,36, 9,51,56,15		4,21,34,30, 4	
		13,53,48,28,28,19, 4		1, 1
4″	59,37,55,15,48,24,38,20,15,19		4,21,34,31, 5	
		13,53,44, 6,53,47,59		1, 1
6″	59,37,55,29,42, 8,45,14, 3,18		4,21,34,32, 6	
		13,53,39,45,19,15,53		1, 1
8″	59,37,55,43,35,48,30,33,19,11		4,21,34,33, 7	
		13,53,35,23,44,42,46		1, 1
10″	59,37,55,57,29,23,54,18, 1,57		4,21,34,34, 8	
		13,53,31, 2,10, 8,38		1, 1
12″	59,37,56,11,22,54,56,28,10,35		4,21,34,35, 9	
		13,53,26,40,35,33,29		1, 1
14″	59,37,56,25,16,21,37, 3,44, 4		4,21,34,36,10	
		13,53,22,19, 0,57,19		1, 1
16″	59,37,56,39, 9,43,56, 4,41,23		4,21,34,37,11	
		13,53,17,57,26,20, 8		1, 1
18″	59,37,56,53, 3, 1,53,31, 1,31		4,21,34,38,12	
		13,53,13,35,51,41,56		1, 1
20″	59,37,57, 6,56,15,29,22,43,27		4,21,34,39,13	
		13,53, 9,14,17, 2,43		1, 1
22″	59,37,57,20,49,24,43,39,46,10		4,21,34,40,14	
		13,53, 4,52,42,22,29		1, 1
24″	59,37,57,34,42,29,36,22, 8,39		4,21,34,41,15	
		13,53, 0,31, 7,41,14		1, 1
26″	59,37,57,48,35,30, 7,29,49,53		4,21,34,42,16	
		13,52,56, 9,32,58,58		1, 1
28″	59,37,58, 2,28,26,17, 2,48,51		4,21,34,43,17	
		13,52,51,47,58,15,41		1, 1
30″	59,37,58,16,21,18, 5, 1, 4,32		4,21,34,44,18	
		13,52,47,26,23,31,23		1, 1
32″	59,37,58,30,14, 5,31,24,35,55		4,21,34,45,19	
		13,52,43, 4,48,46, 4		1, 1
34″	59,37,58,44, 6,48,36,13,21,59		4,21,34,46,20	
		13,52,38,43,13,59,44		1, 1
36″	59,37,58,57,59,27,19,27,21,43		4,21,34,47,21	
		13,52,34,21,39,12,23		1, 1
38″	59,37,59,11,52, 1,41, 6,34, 6		4,21,34,48,22	
		13,52,30, 0, 4,24, 1		1, 1
40″	59,37,59,25,44,31,41,10,58, 7		4,21,34,49,23	
		13,52,25,38,29,34,38		1, 1
42″	59,37,59,39,36,57,19,40,32,45		4,21,34,50,24	
		13,52,21,16,54,44,14		1, 1
44″	59,37,59,53,29,18,36,35,16,59		4,21,34,51,25	
		13,52,16,55,19,52,49		1, 1
46″	59,38, 0, 7,21,35,31,55, 9,48		4,21,34,52,26	
		13,52,12,33,45, 0,23		1, 1
48″	59,38, 0,21,13,48, 5,40,10,11		4,21,34,53,27	
		13,52, 8,12,10, 6,56		1, 1
50″	59,38, 0,35, 5,56,17,50,17, 7		4,21,34,54,28	
		13,52, 3,50,35,12,28		1, 1
52″	59,38, 0,48,58, 0, 8,25,29,35		4,21,34,55,29	
		13,51,59,29, 0,16,59		1, 1
54″	59,38, 1, 2,49,59,37,25,46,34		4,21,34,56,30	
		13,51,55, 7,25,20,29		1, 1
56″	59,38, 1,16,41,54,44,51, 7, 3		4,21,34,57,31	
		13,51,50,45,50,22,58		1, 1
58″	59,38, 1,30,33,45,30,41,30, 1		4,21,34,58,32	
		13,51,46,24,15,24,26		
60″	59,38, 1,44,25,31,54,56,54,27			
exact	59,38, 1,44,25,31,54,57, 2, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°40′ 0″	59,38, 1,44,25,31,54,57, 2, 4			
		13,51,42, 2,40,25,42		
2″	59,38, 1,58,17,13,57,37,27,46		4,21,35, 0,30	
		13,51,37,41, 5,25,12		1, 1
4″	59,38, 2,12, 8,51,38,42,52,58		4,21,35, 1,31	
		13,51,33,19,30,23,41		1, 1
6″	59,38, 2,26, 0,24,58,13,16,39		4,21,35, 2,32	
		13,51,28,57,55,21, 9		1, 1
8″	59,38, 2,39,51,53,56, 8,37,48		4,21,35, 3,33	
		13,51,24,36,20,17,36		1, 1
10″	59,38, 2,53,43,18,32,28,55,24		4,21,35, 4,34	
		13,51,20,14,45,13, 2		1, 1
12″	59,38, 3, 7,34,38,47,14, 8,26		4,21,35, 5,35	
		13,51,15,53,10, 7,27		1, 1
14″	59,38, 3,21,25,54,40,24,15,53		4,21,35, 6,36	
		13,51,11,31,35, 0,51		1, 1
16″	59,38, 3,35,17, 6,11,59,16,44		4,21,35, 7,37	
		13,51, 7, 9,59,53,14		1, 1
18″	59,38, 3,49, 8,13,21,59, 9,58		4,21,35, 8,38	
		13,51, 2,48,24,44,36		1, 1
20″	59,38, 4, 2,59,16,10,23,54,34		4,21,35, 9,39	
		13,50,58,26,49,34,57		1, 1
22″	59,38, 4,16,50,14,37,13,29,31		4,21,35,10,40	
		13,50,54, 5,14,24,17		1, 1
24″	59,38, 4,30,41, 8,42,27,53,48		4,21,35,11,41	
		13,50,49,43,39,12,36		1, 1
26″	59,38, 4,44,31,58,26, 7, 6,24		4,21,35,12,42	
		13,50,45,22, 3,59,54		1, 1
28″	59,38, 4,58,22,43,48,11, 6,18		4,21,35,13,43	
		13,50,41, 0,28,46,11		1, 1
30″	59,38, 5,12,13,24,48,39,52,29		4,21,35,14,44	
		13,50,36,38,53,31,27		1, 1
32″	59,38, 5,26, 4, 1,27,33,23,56		4,21,35,15,45	
		13,50,32,17,18,15,42		1, 1
34″	59,38, 5,39,54,33,44,51,39,38		4,21,35,16,46	
		13,50,27,55,42,58,56		1, 1
36″	59,38, 5,53,45, 1,40,34,38,34		4,21,35,17,47	
		13,50,23,34, 7,41, 9		1, 1
38″	59,38, 6, 7,35,25,14,42,19,43		4,21,35,18,48	
		13,50,19,12,32,22,21		1, 1
40″	59,38, 6,21,25,44,27,14,42, 4		4,21,35,19,49	
		13,50,14,50,57, 2,32		1, 1
42″	59,38, 6,35,15,59,18,11,44,36		4,21,35,20,50	
		13,50,10,29,21,41,42		1, 1
44″	59,38, 6,49, 6, 9,47,33,26,18		4,21,35,21,51	
		13,50, 6, 7,46,19,51		1, 1
46″	59,38, 7, 2,56,15,55,19,46, 9		4,21,35,22,52	
		13,50, 1,46,10,56,59		1, 1
48″	59,38, 7,16,46,17,41,30,43, 8		4,21,35,23,53	
		13,49,57,24,35,33, 6		1, 1
50″	59,38, 7,30,36,15, 6, 6,16,14		4,21,35,24,54	
		13,49,53, 3, 0, 8,12		1, 1
52″	59,38, 7,44,26, 8, 9, 6,24,26		4,21,35,25,55	
		13,49,48,41,24,42,17		1, 1
54″	59,38, 7,58,15,56,50,31, 6,43		4,21,35,26,56	
		13,49,44,19,49,15,21		1, 1
56″	59,38, 8,12, 5,41,10,20,22, 4		4,21,35,27,57	
		13,49,39,58,13,47,24		1, 1
58″	59,38, 8,25,55,21, 8,34, 9,28		4,21,35,28,58	
		13,49,35,36,38,18,26		
60″	59,38, 8,39,44,56,45,12,27,54			
exact	59,38, 8,39,44,56,45,12,42,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°41′ 0″	59,38, 8,39,44,56,45,12,42,56			
		13,49,31,15, 2,50,12		
2″	59,38, 8,53,34,28, 0,15,33, 8		4,21,35,30,52	
		13,49,26,53,27,19,20		1, 1
4″	59,38, 9, 7,23,54,53,42,52,28		4,21,35,31,53	
		13,49,22,31,51,47,27		1, 1
6″	59,38, 9,21,13,17,25,34,39,55		4,21,35,32,54	
		13,49,18,10,16,14,33		1, 1
8″	59,38, 9,35, 2,35,35,50,54,28		4,21,35,33,55	
		13,49,13,48,40,40,38		1, 1
10″	59,38, 9,48,51,49,24,31,35, 6		4,21,35,34,56	
		13,49, 9,27, 5, 5,42		1, 1
12″	59,38,10, 2,40,58,51,36,40,48		4,21,35,35,57	
		13,49, 5, 5,29,29,45		1, 1
14″	59,38,10,16,30, 3,57, 6,10,33		4,21,35,36,58	
		13,49, 0,43,53,52,47		1, 1
16″	59,38,10,30,19, 4,41, 0, 3,20		4,21,35,37,59	
		13,48,56,22,18,14,48		1, 1
18″	59,38,10,44, 8, 1, 3,18,18, 8		4,21,35,39, 0	
		13,48,52, 0,42,35,48		1, 1
20″	59,38,10,57,56,53, 4, 0,53,56		4,21,35,40, 1	
		13,48,47,39, 6,55,47		1, 1
22″	59,38,11,11,45,40,43, 7,49,43		4,21,35,41, 2	
		13,48,43,17,31,14,45		1, 1
24″	59,38,11,25,34,24, 0,39, 4,28		4,21,35,42, 3	
		13,48,38,55,55,32,42		1, 1
26″	59,38,11,39,23, 2,56,34,37,10		4,21,35,43, 4	
		13,48,34,34,19,49,38		1, 1
28″	59,38,11,53,11,37,30,54,26,48		4,21,35,44, 5	
		13,48,30,12,44, 5,33		1, 1
30″	59,38,12, 7, 0, 7,43,38,32,21		4,21,35,45, 6	
		13,48,25,51, 8,20,27		1, 1
32″	59,38,12,20,48,33,34,46,52,48		4,21,35,46, 7	
		13,48,21,29,32,34,20		1, 1
34″	59,38,12,34,36,55, 4,19,27, 8		4,21,35,47, 8	
		13,48,17, 7,56,47,12		1, 1
36″	59,38,12,48,25,12,12,16,14,20		4,21,35,48, 9	
		13,48,12,46,20,59, 3		1, 1
38″	59,38,13, 2,13,24,58,37,13,23		4,21,35,49,10	
		13,48, 8,24,45, 9,53		1, 1
40″	59,38,13,16, 1,33,23,22,23,16		4,21,35,50,11	
		13,48, 4, 3, 9,19,42		1, 1
42″	59,38,13,29,49,37,26,31,42,58		4,21,35,51,12	
		13,47,59,41,33,28,30		1, 1
44″	59,38,13,43,37,37, 8, 5,11,28		4,21,35,52,13	
		13,47,55,19,57,36,17		1, 1
46″	59,38,13,57,25,32,28, 2,47,45		4,21,35,53,14	
		13,47,50,58,21,43, 3		1, 1
48″	59,38,14,11,13,23,26,24,30,48		4,21,35,54,15	
		13,47,46,36,45,48,48		1, 1
50″	59,38,14,25, 1,10, 3,10,19,36		4,21,35,55,16	
		13,47,42,15, 9,53,32		1, 1
52″	59,38,14,38,48,52,18,20,13, 8		4,21,35,56,17	
		13,47,37,53,33,57,15		1, 1
54″	59,38,14,52,36,30,11,54,10,23		4,21,35,57,18	
		13,47,33,31,57,59,57		1, 1
56″	59,38,15, 6,24, 3,43,52,10,20		4,21,35,58,19	
		13,47,29,10,22, 1,38		1, 1
58″	59,38,15,20,11,32,54,14,11,58		4,21,35,59,20	
		13,47,24,48,46, 2,18		
60″	59,38,15,33,58,57,43, 0,14,16			
exact	59,38,15,33,58,57,43, 0,42,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°42′ 0″	59,38,15,33,58,57,43, 0,42,31			
		13,47,20,27,10, 5, 1		
2″	59,38,15,47,46,18,10,10,47,32		4,21,36, 1, 9	
		13,47,16, 5,34, 3,52		1, 0
4″	59,38,16, 1,33,34,15,44,51,24		4,21,36, 2, 9	
		13,47,11,43,58, 1,43		1, 0
6″	59,38,16,15,20,45,59,42,53, 7		4,21,36, 3, 9	
		13,47, 7,22,21,58,34		1, 0
8″	59,38,16,29, 7,53,22, 4,51,41		4,21,36, 4, 9	
		13,47, 3, 0,45,54,25		1, 0
10″	59,38,16,42,54,56,22,50,46, 6		4,21,36, 5, 9	
		13,46,58,39, 9,49,16		1, 0
12″	59,38,16,56,41,55, 2, 0,35,22		4,21,36, 6, 9	
		13,46,54,17,33,43, 7		1, 0
14″	59,38,17,10,28,49,19,34,18,29		4,21,36, 7, 9	
		13,46,49,55,57,35,58		1, 0
16″	59,38,17,24,15,39,15,31,54,27		4,21,36, 8, 9	
		13,46,45,34,21,27,49		1, 0
18″	59,38,17,38, 2,24,49,53,22,16		4,21,36, 9, 9	
		13,46,41,12,45,18,40		1, 0
20″	59,38,17,51,49, 6, 2,38,40,56		4,21,36,10, 9	
		13,46,36,51, 9, 8,31		1, 0
22″	59,38,18, 5,35,42,53,47,49,27		4,21,36,11, 9	
		13,46,32,29,32,57,22		1, 0
24″	59,38,18,19,22,15,23,20,46,49		4,21,36,12, 9	
		13,46,28, 7,56,45,13		1, 0
26″	59,38,18,33, 8,43,31,17,32, 2		4,21,36,13, 9	
		13,46,23,46,20,32, 4		1, 0
28″	59,38,18,46,55, 7,17,38, 4, 6		4,21,36,14, 9	
		13,46,19,24,44,17,55		1, 0
30″	59,38,19, 0,41,26,42,22,22, 1		4,21,36,15, 9	
		13,46,15, 3, 8, 2,46		1, 0
32″	59,38,19,14,27,41,45,30,24,47		4,21,36,16, 9	
		13,46,10,41,31,46,37		1, 0
34″	59,38,19,28,13,52,27, 2,11,24		4,21,36,17, 9	
		13,46, 6,19,55,29,28		1, 0
36″	59,38,19,41,59,58,46,57,40,52		4,21,36,18, 9	
		13,46, 1,58,19,11,19		1, 0
38″	59,38,19,55,46, 0,45,16,52,11		4,21,36,19, 9	
		13,45,57,36,42,52,10		1, 0
40″	59,38,20, 9,31,58,21,59,44,21		4,21,36,20, 9	
		13,45,53,15, 6,32, 1		1, 0
42″	59,38,20,23,17,51,37, 6,16,22		4,21,36,21, 9	
		13,45,48,53,30,10,52		1, 0
44″	59,38,20,37, 3,40,30,36,27,14		4,21,36,22, 9	
		13,45,44,31,53,48,43		1, 0
46″	59,38,20,50,49,25, 2,30,15,57		4,21,36,23, 9	
		13,45,40,10,17,25,34		1, 0
48″	59,38,21, 4,35, 5,12,47,41,31		4,21,36,24, 9	
		13,45,35,48,41, 1,25		1, 0
50″	59,38,21,18,20,41, 1,28,42,56		4,21,36,25, 9	
		13,45,31,27, 4,36,16		1, 0
52″	59,38,21,32, 6,12,28,33,19,12		4,21,36,26, 9	
		13,45,27, 5,28,10, 7		1, 0
54″	59,38,21,45,51,39,34, 1,29,19		4,21,36,27, 9	
		13,45,22,43,51,42,58		1, 0
56″	59,38,21,59,37, 2,17,53,12,17		4,21,36,28, 9	
		13,45,18,22,15,14,49		1, 0
58″	59,38,22,13,22,20,40, 8,27, 6		4,21,36,29, 9	
		13,45,14, 0,38,45,40		
60″	59,38,22,27, 7,34,40,47,12,46			
exact	59,38,22,27, 7,34,40,46,45,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°43′ 0″	59,38,22,27, 7,34,40,46,45,21			
		13,45, 9,39, 2,12,34		
2″	59,38,22,40,52,44,19,48,57,55		4,21,36,31,21	
		13,45, 5,17,25,41,13		1, 0
4″	59,38,22,54,37,49,37,14,39, 8		4,21,36,32,21	
		13,45, 0,55,49, 8,52		1, 0
6″	59,38,23, 8,22,50,33, 3,48, 0		4,21,36,33,21	
		13,44,56,34,12,35,31		1, 0
8″	59,38,23,22, 7,47, 7,16,23,31		4,21,36,34,21	
		13,44,52,12,36, 1,10		1, 0
10″	59,38,23,35,52,39,19,52,24,41		4,21,36,35,21	
		13,44,47,50,59,25,49		1, 0
12″	59,38,23,49,37,27,10,51,50,30		4,21,36,36,21	
		13,44,43,29,22,49,28		1, 0
14″	59,38,24, 3,22,10,40,14,39,58		4,21,36,37,21	
		13,44,39, 7,46,12, 7		1, 0
16″	59,38,24,17, 6,49,48, 0,52, 5		4,21,36,38,21	
		13,44,34,46, 9,33,46		1, 0
18″	59,38,24,30,51,24,34,10,25,51		4,21,36,39,21	
		13,44,30,24,32,54,25		1, 0
20″	59,38,24,44,35,54,58,43,20,16		4,21,36,40,21	
		13,44,26, 2,56,14, 4		1, 0
22″	59,38,24,58,20,21, 1,39,34,20		4,21,36,41,21	
		13,44,21,41,19,32,43		1, 0
24″	59,38,25,12, 4,42,42,59, 7, 3		4,21,36,42,21	
		13,44,17,19,42,50,22		1, 0
26″	59,38,25,25,49, 0, 2,41,57,25		4,21,36,43,21	
		13,44,12,58, 6, 7, 1		1, 0
28″	59,38,25,39,33,13, 0,48, 4,26		4,21,36,44,21	
		13,44, 8,36,29,22,40		1, 0
30″	59,38,25,53,17,21,37,17,27, 6		4,21,36,45,21	
		13,44, 4,14,52,37,19		1, 0
32″	59,38,26, 7, 1,25,52,10, 4,25		4,21,36,46,21	
		13,43,59,53,15,50,58		1, 0
34″	59,38,26,20,45,25,45,25,55,23		4,21,36,47,21	
		13,43,55,31,39, 3,37		1, 0
36″	59,38,26,34,29,21,17, 4,59, 0		4,21,36,48,21	
		13,43,51,10, 2,15,16		1, 0
38″	59,38,26,48,13,12,27, 7,14,16		4,21,36,49,21	
		13,43,46,48,25,25,55		1, 0
40″	59,38,27, 1,56,59,15,32,40,11		4,21,36,50,21	
		13,43,42,26,48,35,34		1, 0
42″	59,38,27,15,40,41,42,21,15,45		4,21,36,51,21	
		13,43,38, 5,11,44,13		1, 0
44″	59,38,27,29,24,19,47,32,59,58		4,21,36,52,21	
		13,43,33,43,34,51,52		1, 0
46″	59,38,27,43, 7,53,31, 7,51,50		4,21,36,53,21	
		13,43,29,21,57,58,31		1, 0
48″	59,38,27,56,51,22,53, 5,50,21		4,21,36,54,21	
		13,43,25, 0,21, 4,10		1, 0
50″	59,38,28,10,34,47,53,26,54,31		4,21,36,55,21	
		13,43,20,38,44, 8,49		1, 0
52″	59,38,28,24,18, 8,32,11, 3,20		4,21,36,56,21	
		13,43,16,17, 7,12,28		1, 0
54″	59,38,28,38, 1,24,49,18,15,48		4,21,36,57,21	
		13,43,11,55,30,15, 7		1, 0
56″	59,38,28,51,44,36,44,48,30,55		4,21,36,58,21	
		13,43, 7,33,53,16,46		1, 0
58″	59,38,29, 5,27,44,18,41,47,41		4,21,36,59,21	
		13,43, 3,12,16,17,25		
60″	59,38,29,19,10,47,30,58, 5, 6			
exact	59,38,29,19,10,47,30,57,47,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°44′ 0″	59,38,29,19,10,47,30,57,47,41			
		13,42,58,50,39,15,14		
2″	59,38,29,32,53,46,21,37, 2,55		4,21,37, 1,28	
		13,42,54,29, 2,13,46		1, 0
4″	59,38,29,46,36,40,50,39,16,41		4,21,37, 2,28	
		13,42,50, 7,25,11,18		1, 0
6″	59,38,30, 0,19,30,58, 4,27,59		4,21,37, 3,28	
		13,42,45,45,48, 7,50		1, 0
8″	59,38,30,14, 2,16,43,52,35,49		4,21,37, 4,28	
		13,42,41,24,11, 3,22		1, 0
10″	59,38,30,27,44,58, 8, 3,39,11		4,21,37, 5,28	
		13,42,37, 2,33,57,54		1, 0
12″	59,38,30,41,27,35,10,37,37, 5		4,21,37, 6,28	
		13,42,32,40,56,51,26		1, 0
14″	59,38,30,55,10, 7,51,34,28,31		4,21,37, 7,28	
		13,42,28,19,19,43,58		1, 0
16″	59,38,31, 8,52,36,10,54,12,29		4,21,37, 8,28	
		13,42,23,57,42,35,30		1, 0
18″	59,38,31,22,35, 0, 8,36,47,59		4,21,37, 9,28	
		13,42,19,36, 5,26, 2		1, 0
20″	59,38,31,36,17,19,44,42,14, 1		4,21,37,10,28	
		13,42,15,14,28,15,34		1, 0
22″	59,38,31,49,59,34,59,10,29,35		4,21,37,11,28	
		13,42,10,52,51, 4, 6		1, 0
24″	59,38,32, 3,41,45,52, 1,33,41		4,21,37,12,28	
		13,42, 6,31,13,51,38		1, 0
26″	59,38,32,17,23,52,23,15,25,19		4,21,37,13,28	
		13,42, 2, 9,36,38,10		1, 0
28″	59,38,32,31, 5,54,32,52, 3,29		4,21,37,14,28	
		13,41,57,47,59,23,42		1, 0
30″	59,38,32,44,47,52,20,51,27,11		4,21,37,15,28	
		13,41,53,26,22, 8,14		1, 0
32″	59,38,32,58,29,45,47,13,35,25		4,21,37,16,28	
		13,41,49, 4,44,51,46		1, 0
34″	59,38,33,12,11,34,51,58,27,11		4,21,37,17,28	
		13,41,44,43, 7,34,18		1, 0
36″	59,38,33,25,53,19,35, 6, 1,29		4,21,37,18,28	
		13,41,40,21,30,15,50		1, 0
38″	59,38,33,39,34,59,56,36,17,19		4,21,37,19,28	
		13,41,35,59,52,56,22		1, 0
40″	59,38,33,53,16,35,56,29,13,41		4,21,37,20,28	
		13,41,31,38,15,35,54		1, 0
42″	59,38,34, 6,58, 7,34,44,49,35		4,21,37,21,28	
		13,41,27,16,38,14,26		1, 0
44″	59,38,34,20,39,34,51,23, 4, 1		4,21,37,22,28	
		13,41,22,55, 0,51,58		1, 0
46″	59,38,34,34,20,57,46,23,55,59		4,21,37,23,28	
		13,41,18,33,23,28,30		1, 0
48″	59,38,34,48, 2,16,19,47,24,29		4,21,37,24,28	
		13,41,14,11,46, 4, 2		1, 0
50″	59,38,35, 1,43,30,31,33,28,31		4,21,37,25,28	
		13,41, 9,50, 8,38,34		1, 0
52″	59,38,35,15,24,40,21,42, 7, 5		4,21,37,26,28	
		13,41, 5,28,31,12, 6		1, 0
54″	59,38,35,29, 5,45,50,13,19,11		4,21,37,27,28	
		13,41, 1, 6,53,44,38		1, 0
56″	59,38,35,42,46,46,57, 7, 3,49		4,21,37,28,28	
		13,40,56,45,16,16,10		1, 0
58″	59,38,35,56,27,43,42,23,19,59		4,21,37,29,28	
		13,40,52,23,38,46,42		
60″	59,38,36,10, 8,36, 6, 2, 6,41			
exact	59,38,36,10, 8,36, 6, 1,57,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°45′ 0″	59,38,36,10, 8,36, 6, 1,57,28			
		13,40,48, 2, 1,15,23		
2″	59,38,36,23,49,24, 8, 3,12,51		4,21,37,31,31	
		13,40,43,40,23,43,52		1, 0
4″	59,38,36,37,30, 7,48,26,56,43		4,21,37,32,31	
		13,40,39,18,46,11,21		1, 0
6″	59,38,36,51,10,47, 7,13, 8, 4		4,21,37,33,31	
		13,40,34,57, 8,37,50		1, 0
8″	59,38,37, 4,51,22, 4,21,45,54		4,21,37,34,31	
		13,40,30,35,31, 3,19		1, 0
10″	59,38,37,18,31,52,39,52,49,13		4,21,37,35,31	
		13,40,26,13,53,27,48		1, 0
12″	59,38,37,32,12,18,53,46,17, 1		4,21,37,36,31	
		13,40,21,52,15,51,17		1, 0
14″	59,38,37,45,52,40,46, 2, 8,18		4,21,37,37,31	
		13,40,17,30,38,13,46		1, 0
16″	59,38,37,59,32,58,16,40,22, 4		4,21,37,38,31	
		13,40,13, 9, 0,35,15		1, 0
18″	59,38,38,13,13,11,25,40,57,19		4,21,37,39,31	
		13,40, 8,47,22,55,44		1, 0
20″	59,38,38,26,53,20,13, 3,53, 3		4,21,37,40,31	
		13,40, 4,25,45,15,13		1, 0
22″	59,38,38,40,33,24,38,49, 8,16		4,21,37,41,31	
		13,40, 0, 4, 7,33,42		1, 0
24″	59,38,38,54,13,24,42,56,41,58		4,21,37,42,31	
		13,39,55,42,29,51,11		1, 0
26″	59,38,39, 7,53,20,25,26,33, 9		4,21,37,43,31	
		13,39,51,20,52, 7,40		1, 0
28″	59,38,39,21,33,11,46,18,40,49		4,21,37,44,31	
		13,39,46,59,14,23, 9		1, 0
30″	59,38,39,35,12,58,45,33, 3,58		4,21,37,45,31	
		13,39,42,37,36,37,38		1, 0
32″	59,38,39,48,52,41,23, 9,41,36		4,21,37,46,31	
		13,39,38,15,58,51, 7		1, 0
34″	59,38,40, 2,32,19,39, 8,32,43		4,21,37,47,31	
		13,39,33,54,21, 3,36		1, 0
36″	59,38,40,16,11,53,33,29,36,19		4,21,37,48,31	
		13,39,29,32,43,15, 5		1, 0
38″	59,38,40,29,51,23, 6,12,51,24		4,21,37,49,31	
		13,39,25,11, 5,25,34		1, 0
40″	59,38,40,43,30,48,17,18,16,58		4,21,37,50,31	
		13,39,20,49,27,35, 3		1, 0
42″	59,38,40,57,10, 9, 6,45,52, 1		4,21,37,51,31	
		13,39,16,27,49,43,32		1, 0
44″	59,38,41,10,49,25,34,35,35,33		4,21,37,52,31	
		13,39,12, 6,11,51, 1		1, 0
46″	59,38,41,24,28,37,40,47,26,34		4,21,37,53,31	
		13,39, 7,44,33,57,30		1, 0
48″	59,38,41,38, 7,45,25,21,24, 4		4,21,37,54,31	
		13,39, 3,22,56, 2,59		1, 0
50″	59,38,41,51,46,48,48,17,27, 3		4,21,37,55,31	
		13,38,59, 1,18, 7,28		1, 0
52″	59,38,42, 5,25,47,49,35,34,31		4,21,37,56,31	
		13,38,54,39,40,10,57		1, 0
54″	59,38,42,19, 4,42,29,15,45,28		4,21,37,57,31	
		13,38,50,18, 2,13,26		1, 0
56″	59,38,42,32,43,32,47,17,58,54		4,21,37,58,31	
		13,38,45,56,24,14,55		1, 0
58″	59,38,42,46,22,18,43,42,13,49		4,21,37,59,31	
		13,38,41,34,46,15,24		
60″	59,38,43, 0, 1, 0,18,28,29,13			
exact	59,38,43, 0, 1, 0,18,28,34,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°46′ 0″	59,38,43, 0, 1, 0,18,28,34,23			
		13,38,37,13, 8,15,26		
2″	59,38,43,13,39,37,31,36,49,49		4,21,38, 1,28	
		13,38,32,51,30,13,58		1, 0
4″	59,38,43,27,18,10,23, 7, 3,47		4,21,38, 2,28	
		13,38,28,29,52,11,30		1, 0
6″	59,38,43,40,56,38,52,59,15,17		4,21,38, 3,28	
		13,38,24, 8,14, 8, 2		1, 0
8″	59,38,43,54,35, 3, 1,13,23,19		4,21,38, 4,28	
		13,38,19,46,36, 3,34		1, 0
10″	59,38,44, 8,13,22,47,49,26,53		4,21,38, 5,28	
		13,38,15,24,57,58, 6		1, 0
12″	59,38,44,21,51,38,12,47,24,59		4,21,38, 6,28	
		13,38,11, 3,19,51,38		1, 0
14″	59,38,44,35,29,49,16, 7,16,37		4,21,38, 7,28	
		13,38, 6,41,41,44,10		1, 0
16″	59,38,44,49, 7,55,57,49, 0,47		4,21,38, 8,28	
		13,38, 2,20, 3,35,42		1, 0
18″	59,38,45, 2,45,58,17,52,36,29		4,21,38, 9,28	
		13,37,57,58,25,26,14		1, 0
20″	59,38,45,16,23,56,16,18, 2,43		4,21,38,10,28	
		13,37,53,36,47,15,46		1, 0
22″	59,38,45,30, 1,49,53, 5,18,29		4,21,38,11,28	
		13,37,49,15, 9, 4,18		1, 0
24″	59,38,45,43,39,39, 8,14,22,47		4,21,38,12,28	
		13,37,44,53,30,51,50		1, 0
26″	59,38,45,57,17,24, 1,45,14,37		4,21,38,13,28	
		13,37,40,31,52,38,22		1, 0
28″	59,38,46,10,55, 4,33,37,52,59		4,21,38,14,28	
		13,37,36,10,14,23,54		1, 0
30″	59,38,46,24,32,40,43,52,16,53		4,21,38,15,28	
		13,37,31,48,36, 8,26		1, 0
32″	59,38,46,38,10,12,32,28,25,19		4,21,38,16,28	
		13,37,27,26,57,51,58		1, 0
34″	59,38,46,51,47,39,59,26,17,17		4,21,38,17,28	
		13,37,23, 5,19,34,30		1, 0
36″	59,38,47, 5,25, 3, 4,45,51,47		4,21,38,18,28	
		13,37,18,43,41,16, 2		1, 0
38″	59,38,47,19, 2,21,48,27, 7,49		4,21,38,19,28	
		13,37,14,22, 2,56,34		1, 0
40″	59,38,47,32,39,36,10,30, 4,23		4,21,38,20,28	
		13,37,10, 0,24,36, 6		1, 0
42″	59,38,47,46,16,46,10,54,40,29		4,21,38,21,28	
		13,37, 5,38,46,14,38		1, 0
44″	59,38,47,59,53,51,49,40,55, 7		4,21,38,22,28	
		13,37, 1,17, 7,52,10		1, 0
46″	59,38,48,13,30,53, 6,48,47,17		4,21,38,23,28	
		13,36,56,55,29,28,42		1, 0
48″	59,38,48,27, 7,50, 2,18,15,59		4,21,38,24,28	
		13,36,52,33,51, 4,14		1, 0
50″	59,38,48,40,44,42,36, 9,20,13		4,21,38,25,28	
		13,36,48,12,12,38,46		1, 0
52″	59,38,48,54,21,30,48,21,58,59		4,21,38,26,28	
		13,36,43,50,34,12,18		1, 0
54″	59,38,49, 7,58,14,38,56,11,17		4,21,38,27,28	
		13,36,39,28,55,44,50		1, 0
56″	59,38,49,21,34,54, 7,51,56, 7		4,21,38,28,28	
		13,36,35, 7,17,16,22		1, 0
58″	59,38,49,35,11,29,15, 9,12,29		4,21,38,29,28	
		13,36,30,45,38,46,54		
60″	59,38,49,48,48, 0, 0,47,59,23			
exact	59,38,49,48,48, 0, 0,48, 9,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°47′ 0″	59,38,49,48,48, 0, 0,48, 9,51			
		13,36,26,24, 0,17,46		
2″	59,38,50, 2,24,26,24,48,27,37		4,21,38,31,21	
		13,36,22, 2,21,46,25		1, 0
4″	59,38,50,16, 0,48,27,10,14, 2		4,21,38,32,21	
		13,36,17,40,43,14, 4		1, 0
6″	59,38,50,29,37, 6, 7,53,28, 6		4,21,38,33,21	
		13,36,13,19, 4,40,43		1, 0
8″	59,38,50,43,13,19,26,58, 8,49		4,21,38,34,21	
		13,36, 8,57,26, 6,22		1, 0
10″	59,38,50,56,49,28,24,24,15,11		4,21,38,35,21	
		13,36, 4,35,47,31, 1		1, 0
12″	59,38,51,10,25,33, 0,11,46,12		4,21,38,36,21	
		13,36, 0,14, 8,54,40		1, 0
14″	59,38,51,24, 1,33,14,20,40,52		4,21,38,37,21	
		13,35,55,52,30,17,19		1, 0
16″	59,38,51,37,37,29, 6,50,58,11		4,21,38,38,21	
		13,35,51,30,51,38,58		1, 0
18″	59,38,51,51,13,20,37,42,37, 9		4,21,38,39,21	
		13,35,47, 9,12,59,37		1, 0
20″	59,38,52, 4,49, 7,46,55,36,46		4,21,38,40,21	
		13,35,42,47,34,19,16		1, 0
22″	59,38,52,18,24,50,34,29,56, 2		4,21,38,41,21	
		13,35,38,25,55,37,55		1, 0
24″	59,38,52,32, 0,29, 0,25,33,57		4,21,38,42,21	
		13,35,34, 4,16,55,34		1, 0
26″	59,38,52,45,36, 3, 4,42,29,31		4,21,38,43,21	
		13,35,29,42,38,12,13		1, 0
28″	59,38,52,59,11,32,47,20,41,44		4,21,38,44,21	
		13,35,25,20,59,27,52		1, 0
30″	59,38,53,12,46,58, 8,20, 9,36		4,21,38,45,21	
		13,35,20,59,20,42,31		1, 0
32″	59,38,53,26,22,19, 7,40,52, 7		4,21,38,46,21	
		13,35,16,37,41,56,10		1, 0
34″	59,38,53,39,57,35,45,22,48,17		4,21,38,47,21	
		13,35,12,16, 3, 8,49		1, 0
36″	59,38,53,53,32,48, 1,25,57, 6		4,21,38,48,21	
		13,35, 7,54,24,20,28		1, 0
38″	59,38,54, 7, 7,55,55,50,17,34		4,21,38,49,21	
		13,35, 3,32,45,31, 7		1, 0
40″	59,38,54,20,42,59,28,35,48,41		4,21,38,50,21	
		13,34,59,11, 6,40,46		1, 0
42″	59,38,54,34,17,58,39,42,29,27		4,21,38,51,21	
		13,34,54,49,27,49,25		1, 0
44″	59,38,54,47,52,53,29,10,18,52		4,21,38,52,21	
		13,34,50,27,48,57, 4		1, 0
46″	59,38,55, 1,27,43,56,59,15,56		4,21,38,53,21	
		13,34,46, 6,10, 3,43		1, 0
48″	59,38,55,15, 2,30, 3, 9,19,39		4,21,38,54,21	
		13,34,41,44,31, 9,22		1, 0
50″	59,38,55,28,37,11,47,40,29, 1		4,21,38,55,21	
		13,34,37,22,52,14, 1		1, 0
52″	59,38,55,42,11,49,10,32,43, 2		4,21,38,56,21	
		13,34,33, 1,13,17,40		1, 0
54″	59,38,55,55,46,22,11,46, 0,42		4,21,38,57,21	
		13,34,28,39,34,20,19		1, 0
56″	59,38,56, 9,20,50,51,20,21, 1		4,21,38,58,21	
		13,34,24,17,55,21,58		1, 0
58″	59,38,56,22,55,15, 9,15,42,59		4,21,38,59,21	
		13,34,19,56,16,22,37		
60″	59,38,56,36,29,35, 5,32, 5,36			
exact	59,38,56,36,29,35, 5,32,27, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°48′ 0″	59,38,56,36,29,35, 5,32,27, 0			
		13,34,15,34,37,24,46		
2″	59,38,56,50, 3,50,40, 9,51,46		4,21,39, 1, 9	
		13,34,11,12,58,23,37		1, 0
4″	59,38,57, 3,38, 1,53, 8,15,23		4,21,39, 2, 9	
		13,34, 6,51,19,21,28		1, 0
6″	59,38,57,17,12, 8,44,27,36,51		4,21,39, 3, 9	
		13,34, 2,29,40,18,19		1, 0
8″	59,38,57,30,46,11,14, 7,55,10		4,21,39, 4, 9	
		13,33,58, 8, 1,14,10		1, 0
10″	59,38,57,44,20, 9,22, 9, 9,20		4,21,39, 5, 9	
		13,33,53,46,22, 9, 1		1, 0
12″	59,38,57,57,54, 3, 8,31,18,21		4,21,39, 6, 9	
		13,33,49,24,43, 2,52		1, 0
14″	59,38,58,11,27,52,33,14,21,13		4,21,39, 7, 9	
		13,33,45, 3, 3,55,43		1, 0
16″	59,38,58,25, 1,37,36,18,16,56		4,21,39, 8, 9	
		13,33,40,41,24,47,34		1, 0
18″	59,38,58,38,35,18,17,43, 4,30		4,21,39, 9, 9	
		13,33,36,19,45,38,25		1, 0
20″	59,38,58,52, 8,54,37,28,42,55		4,21,39,10, 9	
		13,33,31,58, 6,28,16		1, 0
22″	59,38,59, 5,42,26,35,35,11,11		4,21,39,11, 9	
		13,33,27,36,27,17, 7		1, 0
24″	59,38,59,19,15,54,12, 2,28,18		4,21,39,12, 9	
		13,33,23,14,48, 4,58		1, 0
26″	59,38,59,32,49,17,26,50,33,16		4,21,39,13, 9	
		13,33,18,53, 8,51,49		1, 0
28″	59,38,59,46,22,36,19,59,25, 5		4,21,39,14, 9	
		13,33,14,31,29,37,40		1, 0
30″	59,38,59,59,55,50,51,29, 2,45		4,21,39,15, 9	
		13,33,10, 9,50,22,31		1, 0
32″	59,39, 0,13,29, 1, 1,19,25,16		4,21,39,16, 9	
		13,33, 5,48,11, 6,22		1, 0
34″	59,39, 0,27, 2, 6,49,30,31,38		4,21,39,17, 9	
		13,33, 1,26,31,49,13		1, 0
36″	59,39, 0,40,35, 8,16, 2,20,51		4,21,39,18, 9	
		13,32,57, 4,52,31, 4		1, 0
38″	59,39, 0,54, 8, 5,20,54,51,55		4,21,39,19, 9	
		13,32,52,43,13,11,55		1, 0
40″	59,39, 1, 7,40,58, 4, 8, 3,50		4,21,39,20, 9	
		13,32,48,21,33,51,46		1, 0
42″	59,39, 1,21,13,46,25,41,55,36		4,21,39,21, 9	
		13,32,43,59,54,30,37		1, 0
44″	59,39, 1,34,46,30,25,36,26,13		4,21,39,22, 9	
		13,32,39,38,15, 8,28		1, 0
46″	59,39, 1,48,19,10, 3,51,34,41		4,21,39,23, 9	
		13,32,35,16,35,45,19		1, 0
48″	59,39, 2, 1,51,45,20,27,20, 0		4,21,39,24, 9	
		13,32,30,54,56,21,10		1, 0
50″	59,39, 2,15,24,16,15,23,41,10		4,21,39,25, 9	
		13,32,26,33,16,56, 1		1, 0
52″	59,39, 2,28,56,42,48,40,37,11		4,21,39,26, 9	
		13,32,22,11,37,29,52		1, 0
54″	59,39, 2,42,29, 5, 0,18, 7, 3		4,21,39,27, 9	
		13,32,17,49,58, 2,43		1, 0
56″	59,39, 2,56, 1,22,50,16, 9,46		4,21,39,28, 9	
		13,32,13,28,18,34,34		1, 0
58″	59,39, 3, 9,33,36,18,34,44,20		4,21,39,29, 9	
		13,32, 9, 6,39, 5,25		
60″	59,39, 3,23, 5,45,25,13,49,45			
exact	59,39, 3,23, 5,45,25,14,20,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°49′ 0″	59,39, 3,23, 5,45,25,14,20,43	13,32, 4,44,59,38,50		
2″	59,39, 3,36,37,50,10,13,59,33	13,32, 0,23,20, 7,57	4,21,39,30,53	59
4″	59,39, 3,50, 9,50,33,34, 7,30	13,31,56, 1,40,36, 5	4,21,39,31,52	59
6″	59,39, 4, 3,41,46,35,14,43,35	13,31,51,40, 1, 3,14	4,21,39,32,51	59
8″	59,39, 4,17,13,38,15,15,46,49	13,31,47,18,21,29,24	4,21,39,33,50	59
10″	59,39, 4,30,45,25,33,37,16,13	13,31,42,56,41,54,35	4,21,39,34,49	59
12″	59,39, 4,44,17, 8,30,19,10,48	13,31,38,35, 2,18,47	4,21,39,35,48	59
14″	59,39, 4,57,48,47, 5,21,29,35	13,31,34,13,22,42, 0	4,21,39,36,47	59
16″	59,39, 5,11,20,21,18,44,11,35	13,31,29,51,43, 4,14	4,21,39,37,46	59
18″	59,39, 5,24,51,51,10,27,15,49	13,31,25,30, 3,25,29	4,21,39,38,45	59
20″	59,39, 5,38,23,16,40,30,41,18	13,31,21, 8,23,45,45	4,21,39,39,44	59
22″	59,39, 5,51,54,37,48,54,27, 3	13,31,16,46,44, 5, 2	4,21,39,40,43	59
24″	59,39, 6, 5,25,54,35,38,32, 5	13,31,12,25, 4,23,20	4,21,39,41,42	59
26″	59,39, 6,18,57, 7, 0,42,55,25	13,31, 8, 3,24,40,39	4,21,39,42,41	59
28″	59,39, 6,32,28,15, 4, 7,36, 4	13,31, 3,41,44,56,59	4,21,39,43,40	59
30″	59,39, 6,45,59,18,45,52,33, 3	13,30,59,20, 5,12,20	4,21,39,44,39	59
32″	59,39, 6,59,30,18, 5,57,45,23	13,30,54,58,25,26,42	4,21,39,45,38	59
34″	59,39, 7,13, 1,13, 4,23,12, 5	13,30,50,36,45,40, 5	4,21,39,46,37	59
36″	59,39, 7,26,32, 3,41, 8,52,10	13,30,46,15, 5,52,29	4,21,39,47,36	59
38″	59,39, 7,40, 2,49,56,14,44,39	13,30,41,53,26, 3,54	4,21,39,48,35	59
40″	59,39, 7,53,33,31,49,40,48,33	13,30,37,31,46,14,20	4,21,39,49,34	59
42″	59,39, 8, 7, 4, 9,21,27, 2,53	13,30,33,10, 6,23,47	4,21,39,50,33	59
44″	59,39, 8,20,34,42,31,33,26,40	13,30,28,48,26,32,15	4,21,39,51,32	59
46″	59,39, 8,34, 5,11,19,59,58,55	13,30,24,26,46,39,44	4,21,39,52,31	59
48″	59,39, 8,47,35,35,46,46,38,39	13,30,20, 5, 6,46,14	4,21,39,53,30	59
50″	59,39, 9, 1, 5,55,51,53,24,53	13,30,15,43,26,51,45	4,21,39,54,29	59
52″	59,39, 9,14,36,11,35,20,16,38	13,30,11,21,46,56,17	4,21,39,55,28	59
54″	59,39, 9,28, 6,22,57, 7,12,55	13,30, 7, 0, 6,59,50	4,21,39,56,27	59
56″	59,39, 9,41,36,29,57,14,12,45	13,30, 2,38,27, 2,24	4,21,39,57,26	59
58″	59,39, 9,55, 6,32,35,41,15, 9	13,29,58,16,47, 3,59	4,21,39,58,25	
60″	59,39,10, 8,36,30,52,28,19, 8			
exact	59,39,10, 8,36,30,52,27,57,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°50′ 0″	59,39,10, 8,36,30,52,27,57,36	13,29,53,55, 7, 2,21		
2″	59,39,10,22, 6,24,47,34,59,57	13,29,49,33,27, 1,49	4,21,40, 0,32	59
4″	59,39,10,35,36,14,21, 2, 1,46	13,29,45,11,47, 0,18	4,21,40, 1,31	59
6″	59,39,10,49, 5,59,32,49, 2, 4	13,29,40,50, 6,57,48	4,21,40, 2,30	59
8″	59,39,11, 2,35,40,22,55,59,52	13,29,36,28,26,54,19	4,21,40, 3,29	59
10″	59,39,11,16, 5,16,51,22,54,11	13,29,32, 6,46,49,51	4,21,40, 4,28	59
12″	59,39,11,29,34,48,58, 9,44, 2	13,29,27,45, 6,44,24	4,21,40, 5,27	59
14″	59,39,11,43, 4,16,43,16,28,26	13,29,23,23,26,37,58	4,21,40, 6,26	59
16″	59,39,11,56,33,40, 6,43, 6,24	13,29,19, 1,46,30,33	4,21,40, 7,25	59
18″	59,39,12,10, 2,59, 8,29,36,57	13,29,14,40, 6,22, 9	4,21,40, 8,24	59
20″	59,39,12,23,32,13,48,35,59, 6	13,29,10,18,26,12,46	4,21,40, 9,23	59
22″	59,39,12,37, 1,24, 7, 2,11,52	13,29, 5,56,46, 2,24	4,21,40,10,22	59
24″	59,39,12,50,30,30, 3,48,14,16	13,29, 1,35, 5,51, 3	4,21,40,11,21	59
26″	59,39,13, 3,59,31,38,54, 5,19	13,28,57,13,25,38,43	4,21,40,12,20	59
28″	59,39,13,17,28,28,52,19,44, 2	13,28,52,51,45,25,24	4,21,40,13,19	59
30″	59,39,13,30,57,21,44, 5, 9,26	13,28,48,30, 5,11, 6	4,21,40,14,18	59
32″	59,39,13,44,26,10,14,10,20,32	13,28,44, 8,24,55,49	4,21,40,15,17	59
34″	59,39,13,57,54,54,22,35,16,21	13,28,39,46,44,39,33	4,21,40,16,16	59
36″	59,39,14,11,23,34, 9,19,55,54	13,28,35,25, 4,22,18	4,21,40,17,15	59
38″	59,39,14,24,52, 9,34,24,18,12	13,28,31, 3,24, 4, 4	4,21,40,18,14	59
40″	59,39,14,38,20,40,37,48,22,16	13,28,26,41,43,44,51	4,21,40,19,13	59
42″	59,39,14,51,49, 7,19,32, 7, 7	13,28,22,20, 3,24,39	4,21,40,20,12	59
44″	59,39,15, 5,17,29,39,35,31,46	13,28,17,58,23, 3,28	4,21,40,21,11	59
46″	59,39,15,18,45,47,37,58,35,14	13,28,13,36,42,41,18	4,21,40,22,10	59
48″	59,39,15,32,14, 1,14,41,16,32	13,28, 9,15, 2,18, 9	4,21,40,23, 9	59
50″	59,39,15,45,42,10,29,43,34,41	13,28, 4,53,21,54, 1	4,21,40,24, 8	59
52″	59,39,15,59,10,15,23, 5,28,42	13,28, 0,31,41,28,54	4,21,40,25, 7	59
54″	59,39,16,12,38,15,54,46,57,36	13,27,56,10, 1, 2,48	4,21,40,26, 6	59
56″	59,39,16,26, 6,12, 4,48, 0,24	13,27,51,48,20,35,43	4,21,40,27, 5	59
58″	59,39,16,39,34, 3,53, 8,36, 7	13,27,47,26,40, 7,39	4,21,40,28, 4	
60″	59,39,16,53, 1,51,19,48,43,46			
exact	59,39,16,53, 1,51,19,48,35,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°51′ 0″	59,39,16,53, 1,51,19,48,35,59			
		13,27,43, 4,59,37,43		
2″	59,39,17, 6,29,34,24,48,13,42		4,21,40,30, 5	
		13,27,38,43,19, 7,38		59
4″	59,39,17,19,57,13, 8, 7,21,20		4,21,40,31, 4	
		13,27,34,21,38,36,34		59
6″	59,39,17,33,24,47,29,45,57,54		4,21,40,32, 3	
		13,27,29,59,58, 4,31		59
8″	59,39,17,46,52,17,29,44, 2,25		4,21,40,33, 2	
		13,27,25,38,17,31,29		59
10″	59,39,18, 0,19,43, 8, 1,33,54		4,21,40,34, 1	
		13,27,21,16,36,57,28		59
12″	59,39,18,13,47, 4,24,38,31,22		4,21,40,35, 0	
		13,27,16,54,56,22,28		59
14″	59,39,18,27,14,21,19,34,53,50		4,21,40,35,59	
		13,27,12,33,15,46,29		59
16″	59,39,18,40,41,33,52,50,40,19		4,21,40,36,58	
		13,27, 8,11,35, 9,31		59
18″	59,39,18,54, 8,42, 4,25,49,50		4,21,40,37,57	
		13,27, 3,49,54,31,34		59
20″	59,39,19, 7,35,45,54,20,21,24		4,21,40,38,56	
		13,26,59,28,13,52,38		59
22″	59,39,19,21, 2,45,22,34,14, 2		4,21,40,39,55	
		13,26,55, 6,33,12,43		59
24″	59,39,19,34,29,40,29, 7,26,45		4,21,40,40,54	
		13,26,50,44,52,31,49		59
26″	59,39,19,47,56,31,13,59,58,34		4,21,40,41,53	
		13,26,46,23,11,49,56		59
28″	59,39,20, 1,23,17,37,11,48,30		4,21,40,42,52	
		13,26,42, 1,31, 7, 4		59
30″	59,39,20,14,49,59,38,42,55,34		4,21,40,43,51	
		13,26,37,39,50,23,13		59
32″	59,39,20,28,16,37,18,33,18,47		4,21,40,44,50	
		13,26,33,18, 9,38,23		59
34″	59,39,20,41,43,10,36,42,57,10		4,21,40,45,49	
		13,26,28,56,28,52,34		59
36″	59,39,20,55, 9,39,33,11,49,44		4,21,40,46,48	
		13,26,24,34,48, 5,46		59
38″	59,39,21, 8,36, 4, 7,59,55,30		4,21,40,47,47	
		13,26,20,13, 7,17,59		59
40″	59,39,21,22, 2,24,21, 7,13,29		4,21,40,48,46	
		13,26,15,51,26,29,13		59
42″	59,39,21,35,28,40,12,33,42,42		4,21,40,49,45	
		13,26,11,29,45,39,28		59
44″	59,39,21,48,54,51,42,19,22,10		4,21,40,50,44	
		13,26, 7, 8, 4,48,44		59
46″	59,39,22, 2,20,58,50,24,10,54		4,21,40,51,43	
		13,26, 2,46,23,57, 1		59
48″	59,39,22,15,47, 1,36,48, 7,55		4,21,40,52,42	
		13,25,58,24,43, 4,19		59
50″	59,39,22,29,13, 0, 1,31,12,14		4,21,40,53,41	
		13,25,54, 3, 2,10,38		59
52″	59,39,22,42,38,54, 4,33,22,52		4,21,40,54,40	
		13,25,49,41,21,15,58		59
54″	59,39,22,56, 4,43,45,54,38,50		4,21,40,55,39	
		13,25,45,19,40,20,19		59
56″	59,39,23, 9,30,29, 5,34,59, 9		4,21,40,56,38	
		13,25,40,57,59,23,41		59
58″	59,39,23,22,56,10, 3,34,22,50		4,21,40,57,37	
		13,25,36,36,18,26, 4		
60″	59,39,23,36,21,46,39,52,48,54			
exact	59,39,23,36,21,46,39,52,45,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°52′ 0″	59,39,23,36,21,46,39,52,45,56			
		13,25,32,14,37,27,20		
2″	59,39,23,49,47,18,54,30,13,16		4,21,40,59,34	
		13,25,27,52,56,27,46		59
4″	59,39,24, 3,12,46,47,26,41, 2		4,21,41, 0,33	
		13,25,23,31,15,27,13		59
6″	59,39,24,16,38,10,18,42, 8,15		4,21,41, 1,32	
		13,25,19, 9,34,25,41		59
8″	59,39,24,30, 3,29,28,16,33,56		4,21,41, 2,31	
		13,25,14,47,53,23,10		59
10″	59,39,24,43,28,44,16, 9,57, 6		4,21,41, 3,30	
		13,25,10,26,12,19,40		59
12″	59,39,24,56,53,54,42,22,16,46		4,21,41, 4,29	
		13,25, 6, 4,31,15,11		59
14″	59,39,25,10,19, 0,46,53,31,57		4,21,41, 5,28	
		13,25, 1,42,50, 9,43		59
16″	59,39,25,23,44, 2,29,43,41,40		4,21,41, 6,27	
		13,24,57,21, 9, 3,16		59
18″	59,39,25,37, 8,59,50,52,44,56		4,21,41, 7,26	
		13,24,52,59,27,55,50		59
20″	59,39,25,50,33,52,50,20,40,46		4,21,41, 8,25	
		13,24,48,37,46,47,25		59
22″	59,39,26, 3,58,41,28, 7,28,11		4,21,41, 9,24	
		13,24,44,16, 5,38, 1		59
24″	59,39,26,17,23,25,44,13, 6,12		4,21,41,10,23	
		13,24,39,54,24,27,38		59
26″	59,39,26,30,48, 5,38,37,33,50		4,21,41,11,22	
		13,24,35,32,43,16,16		59
28″	59,39,26,44,12,41,11,20,50, 6		4,21,41,12,21	
		13,24,31,11, 2, 3,55		59
30″	59,39,26,57,37,12,22,22,54, 1		4,21,41,13,20	
		13,24,26,49,20,50,35		59
32″	59,39,27,11, 1,39,11,43,44,36		4,21,41,14,19	
		13,24,22,27,39,36,16		59
34″	59,39,27,24,26, 1,39,23,20,52		4,21,41,15,18	
		13,24,18, 5,58,20,58		59
36″	59,39,27,37,50,19,45,21,41,50		4,21,41,16,17	
		13,24,13,44,17, 4,41		59
38″	59,39,27,51,14,33,29,38,46,31		4,21,41,17,16	
		13,24, 9,22,35,47,25		59
40″	59,39,28, 4,38,42,52,14,33,56		4,21,41,18,15	
		13,24, 5, 0,54,29,10		59
42″	59,39,28,18, 2,47,53, 9, 3, 6		4,21,41,19,14	
		13,24, 0,39,13, 9,56		59
44″	59,39,28,31,26,48,32,22,13, 2		4,21,41,20,13	
		13,23,56,17,31,49,43		59
46″	59,39,28,44,50,44,49,54, 2,45		4,21,41,21,12	
		13,23,51,55,50,28,31		59
48″	59,39,28,58,14,36,45,44,31,16		4,21,41,22,11	
		13,23,47,34, 9, 6,20		59
50″	59,39,29,11,38,24,19,53,37,36		4,21,41,23,10	
		13,23,43,12,27,43,10		59
52″	59,39,29,25, 2, 7,32,21,20,46		4,21,41,24, 9	
		13,23,38,50,46,19, 1		59
54″	59,39,29,38,25,46,23, 7,39,47		4,21,41,25, 8	
		13,23,34,29, 4,53,53		59
56″	59,39,29,51,49,20,52,12,33,40		4,21,41,26, 7	
		13,23,30, 7,23,27,46		59
58″	59,39,30, 5,12,50,59,36, 1,26		4,21,41,27, 6	
		13,23,25,45,42, 0,40		
60″	59,39,30,18,36,16,45,18, 2, 6			
exact	59,39,30,18,36,16,45,18, 9,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°53′ 0″	59,39,30,18,36,16,45,18, 9,18	13,23,21,24, 0,33,34		
2″	59,39,30,31,59,38, 9,18,42,52	13,23,17, 2,19, 4,35	4,21,41,28,59	59
4″	59,39,30,45,22,55,11,37,47,27	13,23,12,40,37,34,37	4,21,41,29,58	59
6″	59,39,30,58,46, 7,52,15,22, 4	13,23, 8,18,56, 3,40	4,21,41,30,57	59
8″	59,39,31,12, 9,16,11,11,25,44	13,23, 3,57,14,31,44	4,21,41,31,56	59
10″	59,39,31,25,32,20, 8,25,57,28	13,22,59,35,32,58,49	4,21,41,32,55	59
12″	59,39,31,38,55,19,43,58,56,17	13,22,55,13,51,24,55	4,21,41,33,54	59
14″	59,39,31,52,18,14,57,50,21,12	13,22,50,52, 9,50, 2	4,21,41,34,53	59
16″	59,39,32, 5,41, 5,50, 0,11,14	13,22,46,30,28,14,10	4,21,41,35,52	59
18″	59,39,32,19, 3,52,20,28,25,24	13,22,42, 8,46,37,19	4,21,41,36,51	59
20″	59,39,32,32,26,34,29,15, 2,43	13,22,37,47, 4,59,29	4,21,41,37,50	59
22″	59,39,32,45,49,12,16,20, 2,12	13,22,33,25,23,20,40	4,21,41,38,49	59
24″	59,39,32,59,11,45,41,43,22,52	13,22,29, 3,41,40,52	4,21,41,39,48	59
26″	59,39,33,12,34,14,45,25, 3,44	13,22,24,42, 0, 0, 5	4,21,41,40,47	59
28″	59,39,33,25,56,39,27,25, 3,49	13,22,20,20,18,18,19	4,21,41,41,46	59
30″	59,39,33,39,18,59,47,43,22, 8	13,22,15,58,36,35,34	4,21,41,42,45	59
32″	59,39,33,52,41,15,46,19,57,42	13,22,11,36,54,51,50	4,21,41,43,44	59
34″	59,39,34, 6, 3,27,23,14,49,32	13,22, 7,15,13, 7, 7	4,21,41,44,43	59
36″	59,39,34,19,25,34,38,27,56,39	13,22, 2,53,31,21,25	4,21,41,45,42	59
38″	59,39,34,32,47,37,31,59,18, 4	13,21,58,31,49,34,44	4,21,41,46,41	59
40″	59,39,34,46, 9,36, 3,48,52,48	13,21,54,10, 7,47, 4	4,21,41,47,40	59
42″	59,39,34,59,31,30,13,56,39,52	13,21,49,48,25,58,25	4,21,41,48,39	59
44″	59,39,35,12,53,20, 2,22,38,17	13,21,45,26,44, 8,47	4,21,41,49,38	59
46″	59,39,35,26,15, 5,29, 6,47, 4	13,21,41, 5, 2,18,10	4,21,41,50,37	59
48″	59,39,35,39,36,46,34, 9, 5,14	13,21,36,43,20,26,34	4,21,41,51,36	59
50″	59,39,35,52,58,23,17,29,31,48	13,21,32,21,38,33,59	4,21,41,52,35	59
52″	59,39,36, 6,19,55,39, 8, 5,47	13,21,27,59,56,40,25	4,21,41,53,34	59
54″	59,39,36,19,41,23,39, 4,46,12	13,21,23,38,14,45,52	4,21,41,54,33	59
56″	59,39,36,33, 2,47,17,19,32, 4	13,21,19,16,32,50,20	4,21,41,55,32	59
58″	59,39,36,46,24, 6,33,52,22,24	13,21,14,54,50,53,49	4,21,41,56,31	
60″	59,39,36,59,45,21,28,43,16,13			
exact	59,39,36,59,45,21,28,43,39,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°54′ 0″	59,39,36,59,45,21,28,43,39,36			
		13,21,10,33, 8,58,50		
2″	59,39,37,13, 6,32, 1,52,38,26		4,21,41,58,18	
		13,21, 6,11,27, 0,32		59
4″	59,39,37,26,27,38,13,19,38,58		4,21,41,59,17	
		13,21, 1,49,45, 1,15		59
6″	59,39,37,39,48,40, 3, 4,40,13		4,21,42, 0,16	
		13,20,57,28, 3, 0,59		59
8″	59,39,37,53, 9,37,31, 7,41,12		4,21,42, 1,15	
		13,20,53, 6,20,59,44		59
10″	59,39,38, 6,30,30,37,28,40,56		4,21,42, 2,14	
		13,20,48,44,38,57,30		59
12″	59,39,38,19,51,19,22, 7,38,26		4,21,42, 3,13	
		13,20,44,22,56,54,17		59
14″	59,39,38,33,12, 3,45, 4,32,43		4,21,42, 4,12	
		13,20,40, 1,14,50, 5		59
16″	59,39,38,46,32,43,46,19,22,48		4,21,42, 5,11	
		13,20,35,39,32,44,54		59
18″	59,39,38,59,53,19,25,52, 7,42		4,21,42, 6,10	
		13,20,31,17,50,38,44		59
20″	59,39,39,13,13,50,43,42,46,26		4,21,42, 7, 9	
		13,20,26,56, 8,31,35		59
22″	59,39,39,26,34,17,39,51,18, 1		4,21,42, 8, 8	
		13,20,22,34,26,23,27		59
24″	59,39,39,39,54,40,14,17,41,28		4,21,42, 9, 7	
		13,20,18,12,44,14,20		59
26″	59,39,39,53,14,58,27, 1,55,48		4,21,42,10, 6	
		13,20,13,51, 2, 4,14		59
28″	59,39,40, 6,35,12,18, 4, 0, 2		4,21,42,11, 5	
		13,20, 9,29,19,53, 9		59
30″	59,39,40,19,55,21,47,23,53,11		4,21,42,12, 4	
		13,20, 5, 7,37,41, 5		59
32″	59,39,40,33,15,26,55, 1,34,16		4,21,42,13, 3	
		13,20, 0,45,55,28, 2		59
34″	59,39,40,46,35,27,40,57, 2,18		4,21,42,14, 2	
		13,19,56,24,13,14, 0		59
36″	59,39,40,59,55,24, 5,10,16,18		4,21,42,15, 1	
		13,19,52, 2,30,58,59		59
38″	59,39,41,13,15,16, 7,41,15,17		4,21,42,16, 0	
		13,19,47,40,48,42,59		59
40″	59,39,41,26,35, 3,48,29,58,16		4,21,42,16,59	
		13,19,43,19, 6,26, 0		59
42″	59,39,41,39,54,47, 7,36,24,16		4,21,42,17,58	
		13,19,38,57,24, 8, 2		59
44″	59,39,41,53,14,26, 5, 0,32,18		4,21,42,18,57	
		13,19,34,35,41,49, 5		59
46″	59,39,42, 6,34, 0,40,42,21,23		4,21,42,19,56	
		13,19,30,13,59,29, 9		59
48″	59,39,42,19,53,30,54,41,50,32		4,21,42,20,55	
		13,19,25,52,17, 8,14		59
50″	59,39,42,33,12,56,46,58,58,46		4,21,42,21,54	
		13,19,21,30,34,46,20		59
52″	59,39,42,46,32,18,17,33,45, 6		4,21,42,22,53	
		13,19,17, 8,52,23,27		59
54″	59,39,42,59,51,35,26,26, 8,33		4,21,42,23,52	
		13,19,12,47, 9,59,35		59
56″	59,39,43,13,10,48,13,36, 8, 8		4,21,42,24,51	
		13,19, 8,25,27,34,44		59
58″	59,39,43,26,29,56,39, 3,42,52		4,21,42,25,50	
		13,19, 4, 3,45, 8,54		
60″	59,39,43,39,49, 0,42,48,51,46			
exact	59,39,43,39,49, 0,42,49,22,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°55′ 0″	59,39,43,39,49, 0,42,49,22,10			
		13,18,59,42, 2,45,30		
2″	59,39,43,53, 8, 0,24,52, 7,40		4,21,42,27,33	
		13,18,55,20,20,17,57		58
4″	59,39,44, 6,26,55,45,12,25,37		4,21,42,28,31	
		13,18,50,58,37,49,26		58
6″	59,39,44,19,45,46,43,50,15, 3		4,21,42,29,29	
		13,18,46,36,55,19,57		58
8″	59,39,44,33, 4,33,20,45,35, 0		4,21,42,30,27	
		13,18,42,15,12,49,30		58
10″	59,39,44,46,23,15,35,58,24,30		4,21,42,31,25	
		13,18,37,53,30,18, 5		58
12″	59,39,44,59,41,53,29,28,42,35		4,21,42,32,23	
		13,18,33,31,47,45,42		58
14″	59,39,45,13, 0,27, 1,16,28,17		4,21,42,33,21	
		13,18,29,10, 5,12,21		58
16″	59,39,45,26,18,56,11,21,40,38		4,21,42,34,19	
		13,18,24,48,22,38, 2		58
18″	59,39,45,39,37,20,59,44,18,40		4,21,42,35,17	
		13,18,20,26,40, 2,45		58
20″	59,39,45,52,55,41,26,24,21,25		4,21,42,36,15	
		13,18,16, 4,57,26,30		58
22″	59,39,46, 6,13,57,31,21,47,55		4,21,42,37,13	
		13,18,11,43,14,49,17		58
24″	59,39,46,19,32, 9,14,36,37,12		4,21,42,38,11	
		13,18, 7,21,32,11, 6		58
26″	59,39,46,32,50,16,36, 8,48,18		4,21,42,39, 9	
		13,18, 2,59,49,31,57		58
28″	59,39,46,46, 8,19,35,58,20,15		4,21,42,40, 7	
		13,17,58,38, 6,51,50		58
30″	59,39,46,59,26,18,14, 5,12, 5		4,21,42,41, 5	
		13,17,54,16,24,10,45		58
32″	59,39,47,12,44,12,30,29,22,50		4,21,42,42, 3	
		13,17,49,54,41,28,42		58
34″	59,39,47,26, 2, 2,25,10,51,32		4,21,42,43, 1	
		13,17,45,32,58,45,41		58
36″	59,39,47,39,19,47,58, 9,37,13		4,21,42,43,59	
		13,17,41,11,16, 1,42		58
38″	59,39,47,52,37,29, 9,25,38,55		4,21,42,44,57	
		13,17,36,49,33,16,45		58
40″	59,39,48, 5,55, 5,58,58,55,40		4,21,42,45,55	
		13,17,32,27,50,30,50		58
42″	59,39,48,19,12,38,26,49,26,30		4,21,42,46,53	
		13,17,28, 6, 7,43,57		58
44″	59,39,48,32,30, 6,32,57,10,27		4,21,42,47,51	
		13,17,23,44,24,56, 6		58
46″	59,39,48,45,47,30,17,22, 6,33		4,21,42,48,49	
		13,17,19,22,42, 7,17		58
48″	59,39,48,59, 4,49,40, 4,13,50		4,21,42,49,47	
		13,17,15, 0,59,17,30		58
50″	59,39,49,12,22, 4,41, 3,31,20		4,21,42,50,45	
		13,17,10,39,16,26,45		58
52″	59,39,49,25,39,15,20,19,58, 5		4,21,42,51,43	
		13,17, 6,17,33,35, 2		58
54″	59,39,49,38,56,21,37,53,33, 7		4,21,42,52,41	
		13,17, 1,55,50,42,21		58
56″	59,39,49,52,13,23,33,44,15,28		4,21,42,53,39	
		13,16,57,34, 7,48,42		58
58″	59,39,50, 5,30,21, 7,52, 4,10		4,21,42,54,37	
		13,16,53,12,24,54, 5		
60″	59,39,50,18,47,14,20,16,58,15			
exact	59,39,50,18,47,14,20,16,34, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°56′ 0″	59,39,50,18,47,14,20,16,34, 2			
		13,16,48,50,41,55,58		
2″	59,39,50,32, 4, 3,10,58,30, 0		4,21,42,56,43	
		13,16,44,28,58,59,15		58
4″	59,39,50,45,20,47,39,57,29,15		4,21,42,57,41	
		13,16,40, 7,16, 1,34		58
6″	59,39,50,58,37,27,47,13,30,49		4,21,42,58,39	
		13,16,35,45,33, 2,55		58
8″	59,39,51,11,54, 3,32,46,33,44		4,21,42,59,37	
		13,16,31,23,50, 3,18		58
10″	59,39,51,25,10,34,56,36,37, 2		4,21,43, 0,35	
		13,16,27, 2, 7, 2,43		58
12″	59,39,51,38,27, 1,58,43,39,45		4,21,43, 1,33	
		13,16,22,40,24, 1,10		58
14″	59,39,51,51,43,24,39, 7,40,55		4,21,43, 2,31	
		13,16,18,18,40,58,39		58
16″	59,39,52, 4,59,42,57,48,39,34		4,21,43, 3,29	
		13,16,13,56,57,55,10		58
18″	59,39,52,18,15,56,54,46,34,44		4,21,43, 4,27	
		13,16, 9,35,14,50,43		58
20″	59,39,52,31,32, 6,30, 1,25,27		4,21,43, 5,25	
		13,16, 5,13,31,45,18		58
22″	59,39,52,44,48,11,43,33,10,45		4,21,43, 6,23	
		13,16, 0,51,48,38,55		58
24″	59,39,52,58, 4,12,35,21,49,40		4,21,43, 7,21	
		13,15,56,30, 5,31,34		58
26″	59,39,53,11,20, 9, 5,27,21,14		4,21,43, 8,19	
		13,15,52, 8,22,23,15		58
28″	59,39,53,24,36, 1,13,49,44,29		4,21,43, 9,17	
		13,15,47,46,39,13,58		58
30″	59,39,53,37,51,49, 0,28,58,27		4,21,43,10,15	
		13,15,43,24,56, 3,43		58
32″	59,39,53,51, 7,32,25,25, 2,10		4,21,43,11,13	
		13,15,39, 3,12,52,30		58
34″	59,39,54, 4,23,11,28,37,54,40		4,21,43,12,11	
		13,15,34,41,29,40,19		58
36″	59,39,54,17,38,46,10, 7,34,59		4,21,43,13, 9	
		13,15,30,19,46,27,10		58
38″	59,39,54,30,54,16,29,54, 2, 9		4,21,43,14, 7	
		13,15,25,58, 3,13, 3		58
40″	59,39,54,44, 9,42,27,57,15,12		4,21,43,15, 5	
		13,15,21,36,19,57,58		58
42″	59,39,54,57,25, 4, 4,17,13,10		4,21,43,16, 3	
		13,15,17,14,36,41,55		58
44″	59,39,55,10,40,21,18,53,55, 5		4,21,43,17, 1	
		13,15,12,52,53,24,54		58
46″	59,39,55,23,55,34,11,47,19,59		4,21,43,17,59	
		13,15, 8,31,10, 6,55		58
48″	59,39,55,37,10,42,42,57,26,54		4,21,43,18,57	
		13,15, 4, 9,26,47,58		58
50″	59,39,55,50,25,46,52,24,14,52		4,21,43,19,55	
		13,14,59,47,43,28, 3		58
52″	59,39,56, 3,40,46,40, 7,42,55		4,21,43,20,53	
		13,14,55,26, 0, 7,10		58
54″	59,39,56,16,55,42, 6, 7,50, 5		4,21,43,21,51	
		13,14,51, 4,16,45,19		58
56″	59,39,56,30,10,33,10,24,35,24		4,21,43,22,49	
		13,14,46,42,33,22,30		58
58″	59,39,56,43,25,19,52,57,57,54		4,21,43,23,47	
		13,14,42,20,49,58,43		
60″	59,39,56,56,40, 2,13,47,56,37			
exact	59,39,56,56,40, 2,13,47,44, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°57′ 0″	59,39,56,56,40, 2,13,47,44, 0	13,14,37,59, 6,32,39		
2″	59,39,57, 9,54,40,12,54,16,39	13,14,33,37,23, 6,51	4,21,43,25,48	58
4″	59,39,57,23, 9,13,50,17,23,30	13,14,29,15,39,40, 5	4,21,43,26,46	58
6″	59,39,57,36,23,43, 5,57, 3,35	13,14,24,53,56,12,21	4,21,43,27,44	58
8″	59,39,57,49,38, 7,59,53,15,56	13,14,20,32,12,43,39	4,21,43,28,42	58
10″	59,39,58, 2,52,28,32, 5,59,35	13,14,16,10,29,13,59	4,21,43,29,40	58
12″	59,39,58,16, 6,44,42,35,13,34	13,14,11,48,45,43,21	4,21,43,30,38	58
14″	59,39,58,29,20,56,31,20,56,55	13,14, 7,27, 2,11,45	4,21,43,31,36	58
16″	59,39,58,42,35, 3,58,23, 8,40	13,14, 3, 5,18,39,11	4,21,43,32,34	58
18″	59,39,58,55,49, 7, 3,41,47,51	13,13,58,43,35, 5,39	4,21,43,33,32	58
20″	59,39,59, 9, 3, 5,47,16,53,30	13,13,54,21,51,31, 9	4,21,43,34,30	58
22″	59,39,59,22,17, 0, 9, 8,24,39	13,13,50, 0, 7,55,41	4,21,43,35,28	58
24″	59,39,59,35,30,50, 9,16,20,20	13,13,45,38,24,19,15	4,21,43,36,26	58
26″	59,39,59,48,44,35,47,40,39,35	13,13,41,16,40,41,51	4,21,43,37,24	58
28″	59,40, 0, 1,58,17, 4,21,21,26	13,13,36,54,57, 3,29	4,21,43,38,22	58
30″	59,40, 0,15,11,53,59,18,24,55	13,13,32,33,13,24, 9	4,21,43,39,20	58
32″	59,40, 0,28,25,26,32,31,49, 4	13,13,28,11,29,43,51	4,21,43,40,18	58
34″	59,40, 0,41,38,54,44, 1,32,55	13,13,23,49,46, 2,35	4,21,43,41,16	58
36″	59,40, 0,54,52,18,33,47,35,30	13,13,19,28, 2,20,21	4,21,43,42,14	58
38″	59,40, 1, 8, 5,38, 1,49,55,51	13,13,15, 6,18,37, 9	4,21,43,43,12	58
40″	59,40, 1,21,18,53, 8, 8,33, 0	13,13,10,44,34,52,59	4,21,43,44,10	58
42″	59,40, 1,34,32, 3,52,43,25,59	13,13, 6,22,51, 7,51	4,21,43,45, 8	58
44″	59,40, 1,47,45,10,15,34,33,50	13,13, 2, 1, 7,21,45	4,21,43,46, 6	58
46″	59,40, 2, 0,58,12,16,41,55,35	13,12,57,39,23,34,41	4,21,43,47, 4	58
48″	59,40, 2,14,11, 9,56, 5,30,16	13,12,53,17,39,46,39	4,21,43,48, 2	58
50″	59,40, 2,27,24, 3,13,45,16,55	13,12,48,55,55,57,39	4,21,43,49, 0	58
52″	59,40, 2,40,36,52, 9,41,14,34	13,12,44,34,12, 7,41	4,21,43,49,58	58
54″	59,40, 2,53,49,36,43,53,22,15	13,12,40,12,28,16,45	4,21,43,50,56	58
56″	59,40, 3, 7, 2,16,56,21,39, 0	13,12,35,50,44,24,51	4,21,43,51,54	58
58″	59,40, 3,20,14,52,47, 6, 3,51	13,12,31,29, 0,31,59	4,21,43,52,52	
60″	59,40, 3,33,27,24,16, 6,35,50			
exact	59,40, 3,33,27,24,16, 6,32,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°58′ 0″	59,40, 3,33,27,24,16, 6,32,37			
		13,12,27, 7,16,37,54		
2″	59,40, 3,46,39,51,23,23,10,31		4,21,43,54,48	
		13,12,22,45,32,43, 6		58
4″	59,40, 3,59,52,14, 8,55,53,37		4,21,43,55,46	
		13,12,18,23,48,47,20		58
6″	59,40, 4,13, 4,32,32,44,40,57		4,21,43,56,44	
		13,12,14, 2, 4,50,36		58
8″	59,40, 4,26,16,46,34,49,31,33		4,21,43,57,42	
		13,12, 9,40,20,52,54		58
10″	59,40, 4,39,28,56,15,10,24,27		4,21,43,58,40	
		13,12, 5,18,36,54,14		58
12″	59,40, 4,52,41, 1,33,47,18,41		4,21,43,59,38	
		13,12, 0,56,52,54,36		58
14″	59,40, 5, 5,53, 2,30,40,13,17		4,21,44, 0,36	
		13,11,56,35, 8,54, 0		58
16″	59,40, 5,19, 4,59, 5,49, 7,17		4,21,44, 1,34	
		13,11,52,13,24,52,26		58
18″	59,40, 5,32,16,51,19,13,59,43		4,21,44, 2,32	
		13,11,47,51,40,49,54		58
20″	59,40, 5,45,28,39,10,54,49,37		4,21,44, 3,30	
		13,11,43,29,56,46,24		58
22″	59,40, 5,58,40,22,40,51,36, 1		4,21,44, 4,28	
		13,11,39, 8,12,41,56		58
24″	59,40, 6,11,52, 1,49, 4,17,57		4,21,44, 5,26	
		13,11,34,46,28,36,30		58
26″	59,40, 6,25, 3,36,35,32,54,27		4,21,44, 6,24	
		13,11,30,24,44,30, 6		58
28″	59,40, 6,38,15, 7, 0,17,24,33		4,21,44, 7,22	
		13,11,26, 3, 0,22,44		58
30″	59,40, 6,51,26,33, 3,17,47,17		4,21,44, 8,20	
		13,11,21,41,16,14,24		58
32″	59,40, 7, 4,37,54,44,34, 1,41		4,21,44, 9,18	
		13,11,17,19,32, 5, 6		58
34″	59,40, 7,17,49,12, 4, 6, 6,47		4,21,44,10,16	
		13,11,12,57,47,54,50		58
36″	59,40, 7,31, 0,25, 1,54, 1,37		4,21,44,11,14	
		13,11, 8,36, 3,43,36		58
38″	59,40, 7,44,11,33,37,57,45,13		4,21,44,12,12	
		13,11, 4,14,19,31,24		58
40″	59,40, 7,57,22,37,52,17,16,37		4,21,44,13,10	
		13,10,59,52,35,18,14		58
42″	59,40, 8,10,33,37,44,52,34,51		4,21,44,14, 8	
		13,10,55,30,51, 4, 6		58
44″	59,40, 8,23,44,33,15,43,38,57		4,21,44,15, 6	
		13,10,51, 9, 6,49, 0		58
46″	59,40, 8,36,55,24,24,50,27,57		4,21,44,16, 4	
		13,10,46,47,22,32,56		58
48″	59,40, 8,50, 6,11,12,13, 0,53		4,21,44,17, 2	
		13,10,42,25,38,15,54		58
50″	59,40, 9, 3,16,53,37,51,16,47		4,21,44,18, 0	
		13,10,38, 3,53,57,54		58
52″	59,40, 9,16,27,31,41,45,14,41		4,21,44,18,58	
		13,10,33,42, 9,38,56		58
54″	59,40, 9,29,38, 5,23,54,53,37		4,21,44,19,56	
		13,10,29,20,25,19, 0		58
56″	59,40, 9,42,48,34,44,20,12,37		4,21,44,20,54	
		13,10,24,58,40,58, 6		58
58″	59,40, 9,55,58,59,43, 1,10,43		4,21,44,21,52	
		13,10,20,36,56,36,14		
60″	59,40,10, 9, 9,20,19,57,46,57			
exact	59,40,10, 9, 9,20,19,57,52,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
83°59′ 0″	59,40,10, 9, 9,20,19,57,52,10	13,10,16,15,12,14, 8	4,21,44,23,44	58
2″	59,40,10,22,19,36,35,10, 6,18	13,10,11,53,27,50,24	4,21,44,24,42	58
4″	59,40,10,35,29,48,28,37,56,42	13,10, 7,31,43,25,42	4,21,44,25,40	58
6″	59,40,10,48,39,56, 0,21,22,24	13,10, 3, 9,59, 0, 2	4,21,44,26,38	58
8″	59,40,11, 1,49,59,10,20,22,26	13, 9,58,48,14,33,24	4,21,44,27,36	58
10″	59,40,11,14,59,57,58,34,55,50	13, 9,54,26,30, 5,48	4,21,44,28,34	58
12″	59,40,11,28, 9,52,25, 5, 1,38	13, 9,50, 4,45,37,14	4,21,44,29,32	58
14″	59,40,11,41,19,42,29,50,38,52	13, 9,45,43, 1, 7,42	4,21,44,30,30	58
16″	59,40,11,54,29,28,12,51,46,34	13, 9,41,21,16,37,12	4,21,44,31,28	58
18″	59,40,12, 7,39, 9,34, 8,23,46	13, 9,36,59,32, 5,44	4,21,44,32,26	58
20″	59,40,12,20,48,46,33,40,29,30	13, 9,32,37,47,33,18	4,21,44,33,24	58
22″	59,40,12,33,58,19,11,28, 2,48	13, 9,28,16, 2,59,54	4,21,44,34,22	58
24″	59,40,12,47, 7,47,27,31, 2,42	13, 9,23,54,18,25,32	4,21,44,35,20	58
26″	59,40,13, 0,17,11,21,49,28,14	13, 9,19,32,33,50,12	4,21,44,36,18	58
28″	59,40,13,13,26,30,54,23,18,26	13, 9,15,10,49,13,54	4,21,44,37,16	58
30″	59,40,13,26,35,46, 5,12,32,20	13, 9,10,49, 4,36,38	4,21,44,38,14	58
32″	59,40,13,39,44,56,54,17, 8,58	13, 9, 6,27,19,58,24	4,21,44,39,12	58
34″	59,40,13,52,54, 3,21,37, 7,22	13, 9, 2, 5,35,19,12	4,21,44,40,10	58
36″	59,40,14, 6, 3, 5,27,12,26,34	13, 8,57,43,50,39, 2	4,21,44,41, 8	58
38″	59,40,14,19,12, 3,11, 3, 5,36	13, 8,53,22, 5,57,54	4,21,44,42, 6	58
40″	59,40,14,32,20,56,33, 9, 3,30	13, 8,49, 0,21,15,48	4,21,44,43, 4	58
42″	59,40,14,45,29,45,33,30,19,18	13, 8,44,38,36,32,44	4,21,44,44, 2	58
44″	59,40,14,58,38,30,12, 6,52, 2	13, 8,40,16,51,48,42	4,21,44,45, 0	58
46″	59,40,15,11,47,10,28,58,40,44	13, 8,35,55, 7, 3,42	4,21,44,45,58	58
48″	59,40,15,24,55,46,24, 5,44,26	13, 8,31,33,22,17,44	4,21,44,46,56	58
50″	59,40,15,38, 4,17,57,28, 2,10	13, 8,27,11,37,30,48	4,21,44,47,54	58
52″	59,40,15,51,12,45, 9, 5,32,58	13, 8,22,49,52,42,54	4,21,44,48,52	58
54″	59,40,16, 4,21, 7,58,58,15,52	13, 8,18,28, 7,54, 2	4,21,44,49,50	58
56″	59,40,16,17,29,26,27, 6, 9,54	13, 8,14, 6,23, 4,12	4,21,44,50,48	
58″	59,40,16,30,37,40,33,29,14, 6	13, 8, 9,44,38,13,24		
60″	59,40,16,43,45,50,18, 7,27,30			
exact	59,40,16,43,45,50,18, 7,46,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84° 0′ 0″	59,40,16,43,45,50,18, 7,46,44			
		13, 8, 5,22,53,23,45		
2″	59,40,16,56,53,55,41, 1,10,29		4,21,44,52,35	
		13, 8, 1, 1, 8,31,10		58
4″	59,40,17,10, 1,56,42, 9,41,39		4,21,44,53,33	
		13, 7,56,39,23,37,37		58
6″	59,40,17,23, 9,53,21,33,19,16		4,21,44,54,31	
		13, 7,52,17,38,43, 6		58
8″	59,40,17,36,17,45,39,12, 2,22		4,21,44,55,29	
		13, 7,47,55,53,47,37		58
10″	59,40,17,49,25,33,35, 5,49,59		4,21,44,56,27	
		13, 7,43,34, 8,51,10		58
12″	59,40,18, 2,33,17, 9,14,41, 9		4,21,44,57,25	
		13, 7,39,12,23,53,45		58
14″	59,40,18,15,40,56,21,38,34,54		4,21,44,58,23	
		13, 7,34,50,38,55,22		58
16″	59,40,18,28,48,31,12,17,30,16		4,21,44,59,21	
		13, 7,30,28,53,56, 1		58
18″	59,40,18,41,56, 1,41,11,26,17		4,21,45, 0,19	
		13, 7,26, 7, 8,55,42		58
20″	59,40,18,55, 3,27,48,20,21,59		4,21,45, 1,17	
		13, 7,21,45,23,54,25		58
22″	59,40,19, 8,10,49,33,44,16,24		4,21,45, 2,15	
		13, 7,17,23,38,52,10		58
24″	59,40,19,21,18, 6,57,23, 8,34		4,21,45, 3,13	
		13, 7,13, 1,53,48,57		58
26″	59,40,19,34,25,19,59,16,57,31		4,21,45, 4,11	
		13, 7, 8,40, 8,44,46		58
28″	59,40,19,47,32,28,39,25,42,17		4,21,45, 5, 9	
		13, 7, 4,18,23,39,37		58
30″	59,40,20, 0,39,32,57,49,21,54		4,21,45, 6, 7	
		13, 6,59,56,38,33,30		58
32″	59,40,20,13,46,32,54,27,55,24		4,21,45, 7, 5	
		13, 6,55,34,53,26,25		58
34″	59,40,20,26,53,28,29,21,21,49		4,21,45, 8, 3	
		13, 6,51,13, 8,18,22		58
36″	59,40,20,40, 0,19,42,29,40,11		4,21,45, 9, 1	
		13, 6,46,51,23, 9,21		58
38″	59,40,20,53, 7, 6,33,52,49,32		4,21,45, 9,59	
		13, 6,42,29,37,59,22		58
40″	59,40,21, 6,13,49, 3,30,48,54		4,21,45,10,57	
		13, 6,38, 7,52,48,25		58
42″	59,40,21,19,20,27,11,23,37,19		4,21,45,11,55	
		13, 6,33,46, 7,36,30		58
44″	59,40,21,32,27, 0,57,31,13,49		4,21,45,12,53	
		13, 6,29,24,22,23,37		58
46″	59,40,21,45,33,30,21,53,37,26		4,21,45,13,51	
		13, 6,25, 2,37, 9,46		58
48″	59,40,21,58,39,55,24,30,47,12		4,21,45,14,49	
		13, 6,20,40,51,54,57		58
50″	59,40,22,11,46,16, 5,22,42, 9		4,21,45,15,47	
		13, 6,16,19, 6,39,10		58
52″	59,40,22,24,52,32,24,29,21,19		4,21,45,16,45	
		13, 6,11,57,21,22,25		58
54″	59,40,22,37,58,44,21,50,43,44		4,21,45,17,43	
		13, 6, 7,35,36, 4,42		58
56″	59,40,22,51, 4,51,57,26,48,26		4,21,45,18,41	
		13, 6, 3,13,50,46, 1		58
58″	59,40,23, 4,10,55,11,17,34,27		4,21,45,19,39	
		13, 5,58,52, 5,26,22		
60″	59,40,23,17,16,54, 3,23, 0,49			
exact	59,40,23,17,16,54, 3,23,32, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84° 1′ 0″	59,40,23,17,16,54, 3,23,32, 7			
		13, 5,54,30,20, 9, 7		
2″	59,40,23,30,22,48,33,43,41,14		4,21,45,21,21	
		13, 5,50, 8,34,47,46		57
4″	59,40,23,43,28,38,42,18,29, 0		4,21,45,22,18	
		13, 5,45,46,49,25,28		57
6″	59,40,23,56,34,24,29, 7,54,28		4,21,45,23,15	
		13, 5,41,25, 4, 2,13		57
8″	59,40,24, 9,40, 5,54,11,56,41		4,21,45,24,12	
		13, 5,37, 3,18,38, 1		57
10″	59,40,24,22,45,42,57,30,34,42		4,21,45,25, 9	
		13, 5,32,41,33,12,52		57
12″	59,40,24,35,51,15,39, 3,47,34		4,21,45,26, 6	
		13, 5,28,19,47,46,46		57
14″	59,40,24,48,56,43,58,51,34,20		4,21,45,27, 3	
		13, 5,23,58, 2,19,43		57
16″	59,40,25, 2, 2, 7,56,53,54, 3		4,21,45,28, 0	
		13, 5,19,36,16,51,43		57
18″	59,40,25,15, 7,27,33,10,45,46		4,21,45,28,57	
		13, 5,15,14,31,22,46		57
20″	59,40,25,28,12,42,47,42, 8,32		4,21,45,29,54	
		13, 5,10,52,45,52,52		57
22″	59,40,25,41,17,53,40,28, 1,24		4,21,45,30,51	
		13, 5, 6,31, 0,22, 1		57
24″	59,40,25,54,23, 0,11,28,23,25		4,21,45,31,48	
		13, 5, 2, 9,14,50,13		57
26″	59,40,26, 7,28, 2,20,43,13,38		4,21,45,32,45	
		13, 4,57,47,29,17,28		57
28″	59,40,26,20,33, 0, 8,12,31, 6		4,21,45,33,42	
		13, 4,53,25,43,43,46		57
30″	59,40,26,33,37,53,33,56,14,52		4,21,45,34,39	
		13, 4,49, 3,58, 9, 7		57
32″	59,40,26,46,42,42,37,54,23,59		4,21,45,35,36	
		13, 4,44,42,12,33,31		57
34″	59,40,26,59,47,27,20, 6,57,30		4,21,45,36,33	
		13, 4,40,20,26,56,58		57
36″	59,40,27,12,52, 7,40,33,54,28		4,21,45,37,30	
		13, 4,35,58,41,19,28		57
38″	59,40,27,25,56,43,39,15,13,56		4,21,45,38,27	
		13, 4,31,36,55,41, 1		57
40″	59,40,27,39, 1,15,16,10,54,57		4,21,45,39,24	
		13, 4,27,15,10, 1,37		57
42″	59,40,27,52, 5,42,31,20,56,34		4,21,45,40,21	
		13, 4,22,53,24,21,16		57
44″	59,40,28, 5,10, 5,24,45,17,50		4,21,45,41,18	
		13, 4,18,31,38,39,58		57
46″	59,40,28,18,14,23,56,23,57,48		4,21,45,42,15	
		13, 4,14, 9,52,57,43		57
48″	59,40,28,31,18,38, 6,16,55,31		4,21,45,43,12	
		13, 4, 9,48, 7,14,31		57
50″	59,40,28,44,22,47,54,24,10, 2		4,21,45,44, 9	
		13, 4, 5,26,21,30,22		57
52″	59,40,28,57,26,53,20,45,40,24		4,21,45,45, 6	
		13, 4, 1, 4,35,45,16		57
54″	59,40,29,10,30,54,25,21,25,40		4,21,45,46, 3	
		13, 3,56,42,49,59,13		57
56″	59,40,29,23,34,51, 8,11,24,53		4,21,45,47, 0	
		13, 3,52,21, 4,12,13		57
58″	59,40,29,36,38,43,29,15,37, 6		4,21,45,47,57	
		13, 3,47,59,18,24,16		
60″	59,40,29,49,42,31,28,34, 1,22			
exact	59,40,29,49,42,31,28,33,35,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84° 2′ 0″	59,40,29,49,42,31,28,33,35,53			
		13, 3,43,37,32,32,38		
2″	59,40,30, 2,46,15, 6, 6, 8,31		4,21,45,50, 2	
		13, 3,39,15,46,42,36		57
4″	59,40,30,15,49,54,21,52,51, 7		4,21,45,50,59	
		13, 3,34,54, 0,51,37		57
6″	59,40,30,28,53,29,15,53,42,44		4,21,45,51,56	
		13, 3,30,32,14,59,41		57
8″	59,40,30,41,56,59,48, 8,42,25		4,21,45,52,53	
		13, 3,26,10,29, 6,48		57
10″	59,40,30,55, 0,25,58,37,49,13		4,21,45,53,50	
		13, 3,21,48,43,12,58		57
12″	59,40,31, 8, 3,47,47,21, 2,11		4,21,45,54,47	
		13, 3,17,26,57,18,11		57
14″	59,40,31,21, 7, 5,14,18,20,22		4,21,45,55,44	
		13, 3,13, 5,11,22,27		57
16″	59,40,31,34,10,18,19,29,42,49		4,21,45,56,41	
		13, 3, 8,43,25,25,46		57
18″	59,40,31,47,13,27, 2,55, 8,35		4,21,45,57,38	
		13, 3, 4,21,39,28, 8		57
20″	59,40,32, 0,16,31,24,34,36,43		4,21,45,58,35	
		13, 2,59,59,53,29,33		57
22″	59,40,32,13,19,31,24,28, 6,16		4,21,45,59,32	
		13, 2,55,38, 7,30, 1		57
24″	59,40,32,26,22,27, 2,35,36,17		4,21,46, 0,29	
		13, 2,51,16,21,29,32		57
26″	59,40,32,39,25,18,18,57, 5,49		4,21,46, 1,26	
		13, 2,46,54,35,28, 6		57
28″	59,40,32,52,28, 5,13,32,33,55		4,21,46, 2,23	
		13, 2,42,32,49,25,43		57
30″	59,40,33, 5,30,47,46,21,59,38		4,21,46, 3,20	
		13, 2,38,11, 3,22,23		57
32″	59,40,33,18,33,25,57,25,22, 1		4,21,46, 4,17	
		13, 2,33,49,17,18, 6		57
34″	59,40,33,31,35,59,46,42,40, 7		4,21,46, 5,14	
		13, 2,29,27,31,12,52		57
36″	59,40,33,44,38,29,14,13,52,59		4,21,46, 6,11	
		13, 2,25, 5,45, 6,41		57
38″	59,40,33,57,40,54,19,58,59,40		4,21,46, 7, 8	
		13, 2,20,43,58,59,33		57
40″	59,40,34,10,43,15, 3,57,59,13		4,21,46, 8, 5	
		13, 2,16,22,12,51,28		57
42″	59,40,34,23,45,31,26,10,50,41		4,21,46, 9, 2	
		13, 2,12, 0,26,42,26		57
44″	59,40,34,36,47,43,26,37,33, 7		4,21,46, 9,59	
		13, 2, 7,38,40,32,27		57
46″	59,40,34,49,49,51, 5,18, 5,34		4,21,46,10,56	
		13, 2, 3,16,54,21,31		57
48″	59,40,35, 2,51,54,22,12,27, 5		4,21,46,11,53	
		13, 1,58,55, 8, 9,38		57
50″	59,40,35,15,53,53,17,20,36,43		4,21,46,12,50	
		13, 1,54,33,21,56,48		57
52″	59,40,35,28,55,47,50,42,33,31		4,21,46,13,47	
		13, 1,50,11,35,43, 1		57
54″	59,40,35,41,57,38, 2,18,16,32		4,21,46,14,44	
		13, 1,45,49,49,28,17		57
56″	59,40,35,54,59,23,52, 7,44,49		4,21,46,15,41	
		13, 1,41,28, 3,12,36		57
58″	59,40,36, 8, 1, 5,20,10,57,25		4,21,46,16,38	
		13, 1,37, 6,16,55,58		
60″	59,40,36,21, 2,42,26,27,53,23			
exact	59,40,36,21, 2,42,26,27,37,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84° 3′ 0″	59,40,36,21, 2,42,26,27,37,22			
		13, 1,32,44,30,36,43		
2″	59,40,36,34, 4,15,10,58,14, 5		4,21,46,18,38	
		13, 1,28,22,44,18, 5		57
4″	59,40,36,47, 5,43,33,42,32,10		4,21,46,19,35	
		13, 1,24, 0,57,58,30		57
6″	59,40,37, 0, 7, 7,34,40,30,40		4,21,46,20,32	
		13, 1,19,39,11,37,58		57
8″	59,40,37,13, 8,27,13,52, 8,38		4,21,46,21,29	
		13, 1,15,17,25,16,29		57
10″	59,40,37,26, 9,42,31,17,25, 7		4,21,46,22,26	
		13, 1,10,55,38,54, 3		57
12″	59,40,37,39,10,53,26,56,19,10		4,21,46,23,23	
		13, 1, 6,33,52,30,40		57
14″	59,40,37,52,12, 0, 0,48,49,50		4,21,46,24,20	
		13, 1, 2,12, 6, 6,20		57
16″	59,40,38, 5,13, 2,12,54,56,10		4,21,46,25,17	
		13, 0,57,50,19,41, 3		57
18″	59,40,38,18,14, 0, 3,14,37,13		4,21,46,26,14	
		13, 0,53,28,33,14,49		57
20″	59,40,38,31,14,53,31,47,52, 2		4,21,46,27,11	
		13, 0,49, 6,46,47,38		57
22″	59,40,38,44,15,42,38,34,39,40		4,21,46,28, 8	
		13, 0,44,45, 0,19,30		57
24″	59,40,38,57,16,27,23,34,59,10		4,21,46,29, 5	
		13, 0,40,23,13,50,25		57
26″	59,40,39,10,17, 7,46,48,49,35		4,21,46,30, 2	
		13, 0,36, 1,27,20,23		57
28″	59,40,39,23,17,43,48,16, 9,58		4,21,46,30,59	
		13, 0,31,39,40,49,24		57
30″	59,40,39,36,18,15,27,56,59,22		4,21,46,31,56	
		13, 0,27,17,54,17,28		57
32″	59,40,39,49,18,42,45,51,16,50		4,21,46,32,53	
		13, 0,22,56, 7,44,35		57
34″	59,40,40, 2,19, 5,41,59, 1,25		4,21,46,33,50	
		13, 0,18,34,21,10,45		57
36″	59,40,40,15,19,24,16,20,12,10		4,21,46,34,47	
		13, 0,14,12,34,35,58		57
38″	59,40,40,28,19,38,28,54,48, 8		4,21,46,35,44	
		13, 0, 9,50,48, 0,14		57
40″	59,40,40,41,19,48,19,42,48,22		4,21,46,36,41	
		13, 0, 5,29, 1,23,33		57
42″	59,40,40,54,19,53,48,44,11,55		4,21,46,37,38	
		13, 0, 1, 7,14,45,55		57
44″	59,40,41, 7,19,54,55,58,57,50		4,21,46,38,35	
		12,59,56,45,28, 7,20		57
46″	59,40,41,20,19,51,41,27, 5,10		4,21,46,39,32	
		12,59,52,23,41,27,48		57
48″	59,40,41,33,19,44, 5, 8,32,58		4,21,46,40,29	
		12,59,48, 1,54,47,19		57
50″	59,40,41,46,19,32, 7, 3,20,17		4,21,46,41,26	
		12,59,43,40, 8, 5,53		57
52″	59,40,41,59,19,15,47,11,26,10		4,21,46,42,23	
		12,59,39,18,21,23,30		57
54″	59,40,42,12,18,55, 5,32,49,40		4,21,46,43,20	
		12,59,34,56,34,40,10		57
56″	59,40,42,25,18,30, 2, 7,29,50		4,21,46,44,17	
		12,59,30,34,47,55,53		57
58″	59,40,42,38,18, 0,36,55,25,43		4,21,46,45,14	
		12,59,26,13, 1,10,39		
60″	59,40,42,51,17,26,49,56,36,22			
exact	59,40,42,51,17,26,49,56,27,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84° 4′ 0″	59,40,42,51,17,26,49,56,27,41			
		12,59,21,51,14,23,43		
2″	59,40,43, 4,16,48,41,10,51,24		4,21,46,47,10	
		12,59,17,29,27,36,33		57
4″	59,40,43,17,16, 6,10,38,27,57		4,21,46,48, 7	
		12,59,13, 7,40,48,26		57
6″	59,40,43,30,15,19,18,19,16,23		4,21,46,49, 4	
		12,59, 8,45,53,59,22		57
8″	59,40,43,43,14,28, 4,13,15,45		4,21,46,50, 1	
		12,59, 4,24, 7, 9,21		57
10″	59,40,43,56,13,32,28,20,25, 6		4,21,46,50,58	
		12,59, 0, 2,20,18,23		57
12″	59,40,44, 9,12,32,30,40,43,29		4,21,46,51,55	
		12,58,55,40,33,26,28		57
14″	59,40,44,22,11,28,11,14, 9,57		4,21,46,52,52	
		12,58,51,18,46,33,36		57
16″	59,40,44,35,10,19,30, 0,43,33		4,21,46,53,49	
		12,58,46,56,59,39,47		57
18″	59,40,44,48, 9, 6,27, 0,23,20		4,21,46,54,46	
		12,58,42,35,12,45, 1		57
20″	59,40,45, 1, 7,49, 2,13, 8,21		4,21,46,55,43	
		12,58,38,13,25,49,18		57
22″	59,40,45,14, 6,27,15,38,57,39		4,21,46,56,40	
		12,58,33,51,38,52,38		57
24″	59,40,45,27, 5, 1, 7,17,50,17		4,21,46,57,37	
		12,58,29,29,51,55, 1		57
26″	59,40,45,40, 3,30,37, 9,45,18		4,21,46,58,34	
		12,58,25, 8, 4,56,27		57
28″	59,40,45,53, 1,55,45,14,41,45		4,21,46,59,31	
		12,58,20,46,17,56,56		57
30″	59,40,46, 6, 0,16,31,32,38,41		4,21,47, 0,28	
		12,58,16,24,30,56,28		57
32″	59,40,46,18,58,32,56, 3,35, 9		4,21,47, 1,25	
		12,58,12, 2,43,55, 3		57
34″	59,40,46,31,56,44,58,47,30,12		4,21,47, 2,22	
		12,58, 7,40,56,52,41		57
36″	59,40,46,44,54,52,39,44,22,53		4,21,47, 3,19	
		12,58, 3,19, 9,49,22		57
38″	59,40,46,57,52,55,58,54,12,15		4,21,47, 4,16	
		12,57,58,57,22,45, 6		57
40″	59,40,47,10,50,54,56,16,57,21		4,21,47, 5,13	
		12,57,54,35,35,39,53		57
42″	59,40,47,23,48,49,31,52,37,14		4,21,47, 6,10	
		12,57,50,13,48,33,43		57
44″	59,40,47,36,46,39,45,41,10,57		4,21,47, 7, 7	
		12,57,45,52, 1,26,36		57
46″	59,40,47,49,44,25,37,42,37,33		4,21,47, 8, 4	
		12,57,41,30,14,18,32		57
48″	59,40,48, 2,42, 7, 7,56,56, 5		4,21,47, 9, 1	
		12,57,37, 8,27, 9,31		57
50″	59,40,48,15,39,44,16,24, 5,36		4,21,47, 9,58	
		12,57,32,46,39,59,33		57
52″	59,40,48,28,37,17, 3, 4, 5, 9		4,21,47,10,55	
		12,57,28,24,52,48,38		57
54″	59,40,48,41,34,45,27,56,53,47		4,21,47,11,52	
		12,57,24, 3, 5,36,46		57
56″	59,40,48,54,32, 9,31, 2,30,33		4,21,47,12,49	
		12,57,19,41,18,23,57		57
58″	59,40,49, 7,29,29,12,20,54,30		4,21,47,13,46	
		12,57,15,19,31,10,11		
60″	59,40,49,20,26,44,31,52, 4,41			
exact	59,40,49,20,26,44,31,52, 9,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84° 5′ 0″	59,40,49,20,26,44,31,52, 9,41			
		12,57,10,57,43,56, 4		
2″	59,40,49,33,23,55,29,36, 5,45		4,21,47,15,37	
		12,57, 6,35,56,40,27		57
4″	59,40,49,46,21, 2, 5,32,46,12		4,21,47,16,34	
		12,57, 2,14, 9,23,53		57
6″	59,40,49,59,18, 4,19,42,10, 5		4,21,47,17,31	
		12,56,57,52,22, 6,22		57
8″	59,40,50,12,15, 2,12, 4,16,27		4,21,47,18,28	
		12,56,53,30,34,47,54		57
10″	59,40,50,25,11,55,42,39, 4,21		4,21,47,19,25	
		12,56,49, 8,47,28,29		57
12″	59,40,50,38, 8,44,51,26,32,50		4,21,47,20,22	
		12,56,44,47, 0, 8, 7		57
14″	59,40,50,51, 5,29,38,26,40,57		4,21,47,21,19	
		12,56,40,25,12,46,48		57
16″	59,40,51, 4, 2,10, 3,39,27,45		4,21,47,22,16	
		12,56,36, 3,25,24,32		57
18″	59,40,51,16,58,46, 7, 4,52,17		4,21,47,23,13	
		12,56,31,41,38, 1,19		57
20″	59,40,51,29,55,17,48,42,53,36		4,21,47,24,10	
		12,56,27,19,50,37, 9		57
22″	59,40,51,42,51,45, 8,33,30,45		4,21,47,25, 7	
		12,56,22,58, 3,12, 2		57
24″	59,40,51,55,48, 8, 6,36,42,47		4,21,47,26, 4	
		12,56,18,36,15,45,58		57
26″	59,40,52, 8,44,26,42,52,28,45		4,21,47,27, 1	
		12,56,14,14,28,18,57		57
28″	59,40,52,21,40,40,57,20,47,42		4,21,47,27,58	
		12,56, 9,52,40,50,59		57
30″	59,40,52,34,36,50,50, 1,38,41		4,21,47,28,55	
		12,56, 5,30,53,22, 4		57
32″	59,40,52,47,32,56,20,55, 0,45		4,21,47,29,52	
		12,56, 1, 9, 5,52,12		57
34″	59,40,53, 0,28,57,30, 0,52,57		4,21,47,30,49	
		12,55,56,47,18,21,23		57
36″	59,40,53,13,24,54,17,19,14,20		4,21,47,31,46	
		12,55,52,25,30,49,37		57
38″	59,40,53,26,20,46,42,50, 3,57		4,21,47,32,43	
		12,55,48, 3,43,16,54		57
40″	59,40,53,39,16,34,46,33,20,51		4,21,47,33,40	
		12,55,43,41,55,43,14		57
42″	59,40,53,52,12,18,28,29, 4, 5		4,21,47,34,37	
		12,55,39,20, 8, 8,37		57
44″	59,40,54, 5, 7,57,48,37,12,42		4,21,47,35,34	
		12,55,34,58,20,33, 3		57
46″	59,40,54,18, 3,32,46,57,45,45		4,21,47,36,31	
		12,55,30,36,32,56,32		57
48″	59,40,54,30,59, 3,23,30,42,17		4,21,47,37,28	
		12,55,26,14,45,19, 4		57
50″	59,40,54,43,54,29,38,16, 1,21		4,21,47,38,25	
		12,55,21,52,57,40,39		57
52″	59,40,54,56,49,51,31,13,42, 0		4,21,47,39,22	
		12,55,17,31,10, 1,17		57
54″	59,40,55, 9,45, 9, 2,23,43,17		4,21,47,40,19	
		12,55,13, 9,22,20,58		57
56″	59,40,55,22,40,22,11,46, 4,15		4,21,47,41,16	
		12,55, 8,47,34,39,42		57
58″	59,40,55,35,35,30,59,20,43,57		4,21,47,42,13	
		12,55, 4,25,46,57,29		
60″	59,40,55,48,30,35,25, 7,41,26			
exact	59,40,55,48,30,35,25, 7,58, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84° 6′ 0″	59,40,55,48,30,35,25, 7,58, 0			
		12,55, 0, 3,59,16, 8		
2″	59,40,56, 1,25,35,29, 7,14, 8		4,21,47,43,59	
		12,54,55,42,11,32, 9		57
4″	59,40,56,14,20,31,11,18,46,17		4,21,47,44,56	
		12,54,51,20,23,47,13		57
6″	59,40,56,27,15,22,31,42,33,30		4,21,47,45,53	
		12,54,46,58,36, 1,20		57
8″	59,40,56,40,10, 9,30,18,34,50		4,21,47,46,50	
		12,54,42,36,48,14,30		57
10″	59,40,56,53, 4,52, 7, 6,49,20		4,21,47,47,47	
		12,54,38,15, 0,26,43		57
12″	59,40,57, 5,59,30,22, 7,16, 3		4,21,47,48,44	
		12,54,33,53,12,37,59		57
14″	59,40,57,18,54, 4,15,19,54, 2		4,21,47,49,41	
		12,54,29,31,24,48,18		57
16″	59,40,57,31,48,33,46,44,42,20		4,21,47,50,38	
		12,54,25, 9,36,57,40		57
18″	59,40,57,44,42,58,56,21,40, 0		4,21,47,51,35	
		12,54,20,47,49, 6, 5		57
20″	59,40,57,57,37,19,44,10,46, 5		4,21,47,52,32	
		12,54,16,26, 1,13,33		57
22″	59,40,58,10,31,36,10,11,59,38		4,21,47,53,29	
		12,54,12, 4,13,20, 4		57
24″	59,40,58,23,25,48,14,25,19,42		4,21,47,54,26	
		12,54, 7,42,25,25,38		57
26″	59,40,58,36,19,55,56,50,45,20		4,21,47,55,23	
		12,54, 3,20,37,30,15		57
28″	59,40,58,49,13,59,17,28,15,35		4,21,47,56,20	
		12,53,58,58,49,33,55		57
30″	59,40,59, 2, 7,58,16,17,49,30		4,21,47,57,17	
		12,53,54,37, 1,36,38		57
32″	59,40,59,15, 1,52,53,19,26, 8		4,21,47,58,14	
		12,53,50,15,13,38,24		57
34″	59,40,59,27,55,43, 8,33, 4,32		4,21,47,59,11	
		12,53,45,53,25,39,13		57
36″	59,40,59,40,49,29, 1,58,43,45		4,21,48, 0, 8	
		12,53,41,31,37,39, 5		57
38″	59,40,59,53,43,10,33,36,22,50		4,21,48, 1, 5	
		12,53,37, 9,49,38, 0		57
40″	59,41, 0, 6,36,47,43,26, 0,50		4,21,48, 2, 2	
		12,53,32,48, 1,35,58		57
42″	59,41, 0,19,30,20,31,27,36,48		4,21,48, 2,59	
		12,53,28,26,13,32,59		57
44″	59,41, 0,32,23,48,57,41, 9,47		4,21,48, 3,56	
		12,53,24, 4,25,29, 3		57
46″	59,41, 0,45,17,13, 2, 6,38,50		4,21,48, 4,53	
		12,53,19,42,37,24,10		57
48″	59,41, 0,58,10,32,44,44, 3, 0		4,21,48, 5,50	
		12,53,15,20,49,18,20		57
50″	59,41, 1,11, 3,48, 5,33,21,20		4,21,48, 6,47	
		12,53,10,59, 1,11,33		57
52″	59,41, 1,23,56,59, 4,34,32,53		4,21,48, 7,44	
		12,53, 6,37,13, 3,49		57
54″	59,41, 1,36,50, 5,41,47,36,42		4,21,48, 8,41	
		12,53, 2,15,24,55, 8		57
56″	59,41, 1,49,43, 7,57,12,31,50		4,21,48, 9,38	
		12,52,57,53,36,45,30		57
58″	59,41, 2, 2,36, 5,50,49,17,20		4,21,48,10,35	
		12,52,53,31,48,34,55		
60″	59,41, 2,15,28,59,22,37,52,15			
exact	59,41, 2,15,28,59,22,38,19, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84° 7′ 0″	59,41, 2,15,28,59,22,38,19, 3			
		12,52,49,10, 0,26,19		
2″	59,41, 2,28,21,48,32,38,45,22		4,21,48,12,16	
		12,52,44,48,12,14, 3		56
4″	59,41, 2,41,14,33,20,50,59,25		4,21,48,13,12	
		12,52,40,26,24, 0,51		56
6″	59,41, 2,54, 7,13,47,15, 0,16		4,21,48,14, 8	
		12,52,36, 4,35,46,43		56
8″	59,41, 3, 6,59,49,51,50,46,59		4,21,48,15, 4	
		12,52,31,42,47,31,39		56
10″	59,41, 3,19,52,21,34,38,18,38		4,21,48,16, 0	
		12,52,27,20,59,15,39		56
12″	59,41, 3,32,44,48,55,37,34,17		4,21,48,16,56	
		12,52,22,59,10,58,43		56
14″	59,41, 3,45,37,11,54,48,33, 0		4,21,48,17,52	
		12,52,18,37,22,40,51		56
16″	59,41, 3,58,29,30,32,11,13,51		4,21,48,18,48	
		12,52,14,15,34,22, 3		56
18″	59,41, 4,11,21,44,47,45,35,54		4,21,48,19,44	
		12,52, 9,53,46, 2,19		56
20″	59,41, 4,24,13,54,41,31,38,13		4,21,48,20,40	
		12,52, 5,31,57,41,39		56
22″	59,41, 4,37, 6, 0,13,29,19,52		4,21,48,21,36	
		12,52, 1,10, 9,20, 3		56
24″	59,41, 4,49,58, 1,23,38,39,55		4,21,48,22,32	
		12,51,56,48,20,57,31		56
26″	59,41, 5, 2,49,58,11,59,37,26		4,21,48,23,28	
		12,51,52,26,32,34, 3		56
28″	59,41, 5,15,41,50,38,32,11,29		4,21,48,24,24	
		12,51,48, 4,44, 9,39		56
30″	59,41, 5,28,33,38,43,16,21, 8		4,21,48,25,20	
		12,51,43,42,55,44,19		56
32″	59,41, 5,41,25,22,26,12, 5,27		4,21,48,26,16	
		12,51,39,21, 7,18, 3		56
34″	59,41, 5,54,17, 1,47,19,23,30		4,21,48,27,12	
		12,51,34,59,18,50,51		56
36″	59,41, 6, 7, 8,36,46,38,14,21		4,21,48,28, 8	
		12,51,30,37,30,22,43		56
38″	59,41, 6,20, 0, 7,24, 8,37, 4		4,21,48,29, 4	
		12,51,26,15,41,53,39		56
40″	59,41, 6,32,51,33,39,50,30,43		4,21,48,30, 0	
		12,51,21,53,53,23,39		56
42″	59,41, 6,45,42,55,33,43,54,22		4,21,48,30,56	
		12,51,17,32, 4,52,43		56
44″	59,41, 6,58,34,13, 5,48,47, 5		4,21,48,31,52	
		12,51,13,10,16,20,51		56
46″	59,41, 7,11,25,26,16, 5, 7,56		4,21,48,32,48	
		12,51, 8,48,27,48, 3		56
48″	59,41, 7,24,16,35, 4,32,55,59		4,21,48,33,44	
		12,51, 4,26,39,14,19		56
50″	59,41, 7,37, 7,39,31,12,10,18		4,21,48,34,40	
		12,51, 0, 4,50,39,39		56
52″	59,41, 7,49,58,39,36, 2,49,57		4,21,48,35,36	
		12,50,55,43, 2, 4, 3		56
54″	59,41, 8, 2,49,35,19, 4,54, 0		4,21,48,36,32	
		12,50,51,21,13,27,31		56
56″	59,41, 8,15,40,26,40,18,21,31		4,21,48,37,28	
		12,50,46,59,24,50, 3		56
58″	59,41, 8,28,31,13,39,43,11,34		4,21,48,38,24	
		12,50,42,37,36,11,39		
60″	59,41, 8,41,21,56,17,19,23,13			
exact	59,41, 8,41,21,56,17,18,50,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84° 8′ 0″	59,41, 8,41,21,56,17,18,50,59			
		12,50,38,15,47,29, 1		
2″	59,41, 8,54,12,34,33, 6,20, 0		4,21,48,40,29	
		12,50,33,53,58,48,32		56
4″	59,41, 9, 7, 3, 8,27, 5, 8,32		4,21,48,41,25	
		12,50,29,32,10, 7, 7		56
6″	59,41, 9,19,53,37,59,15,15,39		4,21,48,42,21	
		12,50,25,10,21,24,46		56
8″	59,41, 9,32,44, 3, 9,36,40,25		4,21,48,43,17	
		12,50,20,48,32,41,29		56
10″	59,41, 9,45,34,23,58, 9,21,54		4,21,48,44,13	
		12,50,16,26,43,57,16		56
12″	59,41, 9,58,24,40,24,53,19,10		4,21,48,45, 9	
		12,50,12, 4,55,12, 7		56
14″	59,41,10,11,14,52,29,48,31,17		4,21,48,46, 5	
		12,50, 7,43, 6,26, 2		56
16″	59,41,10,24, 5, 0,12,54,57,19		4,21,48,47, 1	
		12,50, 3,21,17,39, 1		56
18″	59,41,10,36,55, 3,34,12,36,20		4,21,48,47,57	
		12,49,58,59,28,51, 4		56
20″	59,41,10,49,45, 2,33,41,27,24		4,21,48,48,53	
		12,49,54,37,40, 2,11		56
22″	59,41,11, 2,34,57,11,21,29,35		4,21,48,49,49	
		12,49,50,15,51,12,22		56
24″	59,41,11,15,24,47,27,12,41,57		4,21,48,50,45	
		12,49,45,54, 2,21,37		56
26″	59,41,11,28,14,33,21,15, 3,34		4,21,48,51,41	
		12,49,41,32,13,29,56		56
28″	59,41,11,41, 4,14,53,28,33,30		4,21,48,52,37	
		12,49,37,10,24,37,19		56
30″	59,41,11,53,53,52, 3,53,10,49		4,21,48,53,33	
		12,49,32,48,35,43,46		56
32″	59,41,12, 6,43,24,52,28,54,35		4,21,48,54,29	
		12,49,28,26,46,49,17		56
34″	59,41,12,19,32,53,19,15,43,52		4,21,48,55,25	
		12,49,24, 4,57,53,52		56
36″	59,41,12,32,22,17,24,13,37,44		4,21,48,56,21	
		12,49,19,43, 8,57,31		56
38″	59,41,12,45,11,37, 7,22,35,15		4,21,48,57,17	
		12,49,15,21,20, 0,14		56
40″	59,41,12,58, 0,52,28,42,35,29		4,21,48,58,13	
		12,49,10,59,31, 2, 1		56
42″	59,41,13,10,50, 3,28,13,37,30		4,21,48,59, 9	
		12,49, 6,37,42, 2,52		56
44″	59,41,13,23,39,10, 5,55,40,22		4,21,49, 0, 5	
		12,49, 2,15,53, 2,47		56
46″	59,41,13,36,28,12,21,48,43, 9		4,21,49, 1, 1	
		12,48,57,54, 4, 1,46		56
48″	59,41,13,49,17,10,15,52,44,55		4,21,49, 1,57	
		12,48,53,32,14,59,49		56
50″	59,41,14, 2, 6, 3,48, 7,44,44		4,21,49, 2,53	
		12,48,49,10,25,56,56		56
52″	59,41,14,14,54,52,58,33,41,40		4,21,49, 3,49	
		12,48,44,48,36,53, 7		56
54″	59,41,14,27,43,37,47,10,34,47		4,21,49, 4,45	
		12,48,40,26,47,48,22		56
56″	59,41,14,40,32,18,13,58,23, 9		4,21,49, 5,41	
		12,48,36, 4,58,42,41		56
58″	59,41,14,53,20,54,18,57, 5,50		4,21,49, 6,37	
		12,48,31,43, 9,36, 4		
60″	59,41,15, 6, 9,26, 2, 6,41,54			
exact	59,41,15, 6, 9,26, 2, 6,23,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84° 9′ 0″	59,41,15, 6, 9,26, 2, 6,23,47			
		12,48,27,21,20,26,36		
2″	59,41,15,18,57,53,23,26,50,23		4,21,49, 8,36	
		12,48,22,59,31,18, 0		56
4″	59,41,15,31,46,16,22,58, 8,23		4,21,49, 9,32	
		12,48,18,37,42, 8,28		56
6″	59,41,15,44,34,35, 0,40,16,51		4,21,49,10,28	
		12,48,14,15,52,58, 0		56
8″	59,41,15,57,22,49,16,33,14,51		4,21,49,11,24	
		12,48, 9,54, 3,46,36		56
10″	59,41,16,10,10,59,10,37, 1,27		4,21,49,12,20	
		12,48, 5,32,14,34,16		56
12″	59,41,16,22,59, 4,42,51,35,43		4,21,49,13,16	
		12,48, 1,10,25,21, 0		56
14″	59,41,16,35,47, 5,53,16,56,43		4,21,49,14,12	
		12,47,56,48,36, 6,48		56
16″	59,41,16,48,35, 2,41,53, 3,31		4,21,49,15, 8	
		12,47,52,26,46,51,40		56
18″	59,41,17, 1,22,55, 8,39,55,11		4,21,49,16, 4	
		12,47,48, 4,57,35,36		56
20″	59,41,17,14,10,43,13,37,30,47		4,21,49,17, 0	
		12,47,43,43, 8,18,36		56
22″	59,41,17,26,58,26,56,45,49,23		4,21,49,17,56	
		12,47,39,21,19, 0,40		56
24″	59,41,17,39,46, 6,18, 4,50, 3		4,21,49,18,52	
		12,47,34,59,29,41,48		56
26″	59,41,17,52,33,41,17,34,31,51		4,21,49,19,48	
		12,47,30,37,40,22, 0		56
28″	59,41,18, 5,21,11,55,14,53,51		4,21,49,20,44	
		12,47,26,15,51, 1,16		56
30″	59,41,18,18, 8,38,11, 5,55, 7		4,21,49,21,40	
		12,47,21,54, 1,39,36		56
32″	59,41,18,30,56, 0, 5, 7,34,43		4,21,49,22,36	
		12,47,17,32,12,17, 0		56
34″	59,41,18,43,43,17,37,19,51,43		4,21,49,23,32	
		12,47,13,10,22,53,28		56
36″	59,41,18,56,30,30,47,42,45,11		4,21,49,24,28	
		12,47, 8,48,33,29, 0		56
38″	59,41,19, 9,17,39,36,16,14,11		4,21,49,25,24	
		12,47, 4,26,44, 3,36		56
40″	59,41,19,22, 4,44, 3, 0,17,47		4,21,49,26,20	
		12,47, 0, 4,54,37,16		56
42″	59,41,19,34,51,44, 7,54,55, 3		4,21,49,27,16	
		12,46,55,43, 5,10, 0		56
44″	59,41,19,47,38,39,51, 0, 5, 3		4,21,49,28,12	
		12,46,51,21,15,41,48		56
46″	59,41,20, 0,25,31,12,15,46,51		4,21,49,29, 8	
		12,46,46,59,26,12,40		56
48″	59,41,20,13,12,18,11,41,59,31		4,21,49,30, 4	
		12,46,42,37,36,42,36		56
50″	59,41,20,25,59, 0,49,18,42, 7		4,21,49,31, 0	
		12,46,38,15,47,11,36		56
52″	59,41,20,38,45,39, 5, 5,53,43		4,21,49,31,56	
		12,46,33,53,57,39,40		56
54″	59,41,20,51,32,12,59, 3,33,23		4,21,49,32,52	
		12,46,29,32, 8, 6,48		56
56″	59,41,21, 4,18,42,31,11,40,11		4,21,49,33,48	
		12,46,25,10,18,33, 0		56
58″	59,41,21,17, 5, 7,41,30,13,11		4,21,49,34,44	
		12,46,20,48,28,58,16		
60″	59,41,21,29,51,28,29,59,11,27			
exact	59,41,21,29,51,28,29,58,59, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°10′ 0″	59,41,21,29,51,28,29,58,59, 9			
		12,46,16,26,39,21,29		
2″	59,41,21,42,37,44,56,38,20,38		4,21,49,36,39	
		12,46,12, 4,49,44,50		56
4″	59,41,21,55,23,57, 1,28, 5,28		4,21,49,37,35	
		12,46, 7,43, 0, 7,15		56
6″	59,41,22, 8,10, 4,44,28,12,43		4,21,49,38,31	
		12,46, 3,21,10,28,44		56
8″	59,41,22,20,56, 8, 5,38,41,27		4,21,49,39,27	
		12,45,58,59,20,49,17		56
10″	59,41,22,33,42, 7, 4,59,30,44		4,21,49,40,23	
		12,45,54,37,31, 8,54		56
12″	59,41,22,46,28, 1,42,30,39,38		4,21,49,41,19	
		12,45,50,15,41,27,35		56
14″	59,41,22,59,13,51,58,12, 7,13		4,21,49,42,15	
		12,45,45,53,51,45,20		56
16″	59,41,23,11,59,37,52, 3,52,33		4,21,49,43,11	
		12,45,41,32, 2, 2, 9		56
18″	59,41,23,24,45,19,24, 5,54,42		4,21,49,44, 7	
		12,45,37,10,12,18, 2		56
20″	59,41,23,37,30,56,34,18,12,44		4,21,49,45, 3	
		12,45,32,48,22,32,59		56
22″	59,41,23,50,16,29,22,40,45,43		4,21,49,45,59	
		12,45,28,26,32,47, 0		56
24″	59,41,24, 3, 1,57,49,13,32,43		4,21,49,46,55	
		12,45,24, 4,43, 0, 5		56
26″	59,41,24,15,47,21,53,56,32,48		4,21,49,47,51	
		12,45,19,42,53,12,14		56
28″	59,41,24,28,32,41,36,49,45, 2		4,21,49,48,47	
		12,45,15,21, 3,23,27		56
30″	59,41,24,41,17,56,57,53, 8,29		4,21,49,49,43	
		12,45,10,59,13,33,44		56
32″	59,41,24,54, 3, 7,57, 6,42,13		4,21,49,50,39	
		12,45, 6,37,23,43, 5		56
34″	59,41,25, 6,48,14,34,30,25,18		4,21,49,51,35	
		12,45, 2,15,33,51,30		56
36″	59,41,25,19,33,16,50, 4,16,48		4,21,49,52,31	
		12,44,57,53,43,58,59		56
38″	59,41,25,32,18,14,43,48,15,47		4,21,49,53,27	
		12,44,53,31,54, 5,32		56
40″	59,41,25,45, 3, 8,15,42,21,19		4,21,49,54,23	
		12,44,49,10, 4,11, 9		56
42″	59,41,25,57,47,57,25,46,32,28		4,21,49,55,19	
		12,44,44,48,14,15,50		56
44″	59,41,26,10,32,42,14, 0,48,18		4,21,49,56,15	
		12,44,40,26,24,19,35		56
46″	59,41,26,23,17,22,40,25, 7,53		4,21,49,57,11	
		12,44,36, 4,34,22,24		56
48″	59,41,26,36, 1,58,44,59,30,17		4,21,49,58, 7	
		12,44,31,42,44,24,17		56
50″	59,41,26,48,46,30,27,43,54,34		4,21,49,59, 3	
		12,44,27,20,54,25,14		56
52″	59,41,27, 1,30,57,48,38,19,48		4,21,49,59,59	
		12,44,22,59, 4,25,15		56
54″	59,41,27,14,15,20,47,42,45, 3		4,21,50, 0,55	
		12,44,18,37,14,24,20		56
56″	59,41,27,26,59,39,24,57, 9,23		4,21,50, 1,51	
		12,44,14,15,24,22,29		56
58″	59,41,27,39,43,53,40,21,31,52		4,21,50, 2,47	
		12,44, 9,53,34,19,42		
60″	59,41,27,52,28, 3,33,55,51,34			
exact	59,41,27,52,28, 3,33,55,50,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°11′ 0″	59,41,27,52,28, 3,33,55,50,37			
		12,44, 5,31,44,16, 4		
2″	59,41,28, 5,12, 9, 5,40, 6,41		4,21,50, 4,38	
		12,44, 1, 9,54,11,26		56
4″	59,41,28,17,56,10,15,34,18, 7		4,21,50, 5,34	
		12,43,56,48, 4, 5,52		56
6″	59,41,28,30,40, 7, 3,38,23,59		4,21,50, 6,30	
		12,43,52,26,13,59,22		56
8″	59,41,28,43,23,59,29,52,23,21		4,21,50, 7,26	
		12,43,48, 4,23,51,56		56
10″	59,41,28,56, 7,47,34,16,15,17		4,21,50, 8,22	
		12,43,43,42,33,43,34		56
12″	59,41,29, 8,51,31,16,49,58,51		4,21,50, 9,18	
		12,43,39,20,43,34,16		56
14″	59,41,29,21,35,10,37,33,33, 7		4,21,50,10,14	
		12,43,34,58,53,24, 2		56
16″	59,41,29,34,18,45,36,26,57, 9		4,21,50,11,10	
		12,43,30,37, 3,12,52		56
18″	59,41,29,47, 2,16,13,30,10, 1		4,21,50,12, 6	
		12,43,26,15,13, 0,46		56
20″	59,41,29,59,45,42,28,43,10,47		4,21,50,13, 2	
		12,43,21,53,22,47,44		56
22″	59,41,30,12,29, 4,22, 5,58,31		4,21,50,13,58	
		12,43,17,31,32,33,46		56
24″	59,41,30,25,12,21,53,38,32,17		4,21,50,14,54	
		12,43,13, 9,42,18,52		56
26″	59,41,30,37,55,35, 3,20,51, 9		4,21,50,15,50	
		12,43, 8,47,52, 3, 2		56
28″	59,41,30,50,38,43,51,12,54,11		4,21,50,16,46	
		12,43, 4,26, 1,46,16		56
30″	59,41,31, 3,21,48,17,14,40,27		4,21,50,17,42	
		12,43, 0, 4,11,28,34		56
32″	59,41,31,16, 4,48,21,26, 9, 1		4,21,50,18,38	
		12,42,55,42,21, 9,56		56
34″	59,41,31,28,47,44, 3,47,18,57		4,21,50,19,34	
		12,42,51,20,30,50,22		56
36″	59,41,31,41,30,35,24,18, 9,19		4,21,50,20,30	
		12,42,46,58,40,29,52		56
38″	59,41,31,54,13,22,22,58,39,11		4,21,50,21,26	
		12,42,42,36,50, 8,26		56
40″	59,41,32, 6,56, 4,59,48,47,37		4,21,50,22,22	
		12,42,38,14,59,46, 4		56
42″	59,41,32,19,38,43,14,48,33,41		4,21,50,23,18	
		12,42,33,53, 9,22,46		56
44″	59,41,32,32,21,17, 7,57,56,27		4,21,50,24,14	
		12,42,29,31,18,58,32		56
46″	59,41,32,45, 3,46,39,16,54,59		4,21,50,25,10	
		12,42,25, 9,28,33,22		56
48″	59,41,32,57,46,11,48,45,28,21		4,21,50,26, 6	
		12,42,20,47,38, 7,16		56
50″	59,41,33,10,28,32,36,23,35,37		4,21,50,27, 2	
		12,42,16,25,47,40,14		56
52″	59,41,33,23,10,49, 2,11,15,51		4,21,50,27,58	
		12,42,12, 3,57,12,16		56
54″	59,41,33,35,53, 1, 6, 8,28, 7		4,21,50,28,54	
		12,42, 7,42, 6,43,22		56
56″	59,41,33,48,35, 8,48,15,11,29		4,21,50,29,50	
		12,42, 3,20,16,13,32		56
58″	59,41,34, 1,17,12, 8,31,25, 1		4,21,50,30,46	
		12,41,58,58,25,42,46		
60″	59,41,34,13,59,11, 6,57, 7,47			
exact	59,41,34,13,59,11, 6,57,23,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°12′ 0″	59,41,34,13,59,11, 6,57,23,27			
		12,41,54,36,35,12,43		
2″	59,41,34,26,41, 5,43,32,36,10		4,21,50,32,31	
		12,41,50,14,44,40,12		56
4″	59,41,34,39,22,55,58,17,16,22		4,21,50,33,27	
		12,41,45,52,54, 6,45		56
6″	59,41,34,52, 4,41,51,11,23, 7		4,21,50,34,23	
		12,41,41,31, 3,32,22		56
8″	59,41,35, 4,46,23,22,14,55,29		4,21,50,35,19	
		12,41,37, 9,12,57, 3		56
10″	59,41,35,17,28, 0,31,27,52,32		4,21,50,36,15	
		12,41,32,47,22,20,48		56
12″	59,41,35,30, 9,33,18,50,13,20		4,21,50,37,11	
		12,41,28,25,31,43,37		56
14″	59,41,35,42,51, 1,44,21,56,57		4,21,50,38, 7	
		12,41,24, 3,41, 5,30		56
16″	59,41,35,55,32,25,48, 3, 2,27		4,21,50,39, 3	
		12,41,19,41,50,26,27		56
18″	59,41,36, 8,13,45,29,53,28,54		4,21,50,39,59	
		12,41,15,19,59,46,28		56
20″	59,41,36,20,55, 0,49,53,15,22		4,21,50,40,55	
		12,41,10,58, 9, 5,33		56
22″	59,41,36,33,36,11,48, 2,20,55		4,21,50,41,51	
		12,41, 6,36,18,23,42		56
24″	59,41,36,46,17,18,24,20,44,37		4,21,50,42,47	
		12,41, 2,14,27,40,55		56
26″	59,41,36,58,58,20,38,48,25,32		4,21,50,43,43	
		12,40,57,52,36,57,12		56
28″	59,41,37,11,39,18,31,25,22,44		4,21,50,44,39	
		12,40,53,30,46,12,33		56
30″	59,41,37,24,20,12, 2,11,35,17		4,21,50,45,35	
		12,40,49, 8,55,26,58		56
32″	59,41,37,37, 1, 1,11, 7, 2,15		4,21,50,46,31	
		12,40,44,47, 4,40,27		56
34″	59,41,37,49,41,45,58,11,42,42		4,21,50,47,27	
		12,40,40,25,13,53, 0		56
36″	59,41,38, 2,22,26,23,25,35,42		4,21,50,48,23	
		12,40,36, 3,23, 4,37		56
38″	59,41,38,15, 3, 2,26,48,40,19		4,21,50,49,19	
		12,40,31,41,32,15,18		56
40″	59,41,38,27,43,34, 8,20,55,37		4,21,50,50,15	
		12,40,27,19,41,25, 3		56
42″	59,41,38,40,24, 1,28, 2,20,40		4,21,50,51,11	
		12,40,22,57,50,33,52		56
44″	59,41,38,53, 4,24,25,52,54,32		4,21,50,52, 7	
		12,40,18,35,59,41,45		56
46″	59,41,39, 5,44,43, 1,52,36,17		4,21,50,53, 3	
		12,40,14,14, 8,48,42		56
48″	59,41,39,18,24,57,16, 1,24,59		4,21,50,53,59	
		12,40, 9,52,17,54,43		56
50″	59,41,39,31, 5, 7, 8,19,19,42		4,21,50,54,55	
		12,40, 5,30,26,59,48		56
52″	59,41,39,43,45,12,38,46,19,30		4,21,50,55,51	
		12,40, 1, 8,36, 3,57		56
54″	59,41,39,56,25,13,47,22,23,27		4,21,50,56,47	
		12,39,56,46,45, 7,10		56
56″	59,41,40, 9, 5,10,34, 7,30,37		4,21,50,57,43	
		12,39,52,24,54, 9,27		56
58″	59,41,40,21,45, 2,59, 1,40, 4		4,21,50,58,39	
		12,39,48, 3, 3,10,48		
60″	59,41,40,34,24,51, 2, 4,50,52			
exact	59,41,40,34,24,51, 2, 5,14,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°13′ 0″	59,41,40,34,24,51, 2, 5,14,43			
		12,39,43,41,12,13,50		
2″	59,41,40,47, 4,34,43,17,28,33		4,21,51, 0,19	
		12,39,39,19,21,13,31		56
4″	59,41,40,59,44,14, 2,38,42, 4		4,21,51, 1,15	
		12,39,34,57,30,12,16		56
6″	59,41,41,12,23,49, 0, 8,54,20		4,21,51, 2,11	
		12,39,30,35,39,10, 5		56
8″	59,41,41,25, 3,19,35,48, 4,25		4,21,51, 3, 7	
		12,39,26,13,48, 6,58		56
10″	59,41,41,37,42,45,49,36,11,23		4,21,51, 4, 3	
		12,39,21,51,57, 2,55		56
12″	59,41,41,50,22, 7,41,33,14,18		4,21,51, 4,59	
		12,39,17,30, 5,57,56		56
14″	59,41,42, 3, 1,25,11,39,12,14		4,21,51, 5,55	
		12,39,13, 8,14,52, 1		56
16″	59,41,42,15,40,38,19,54, 4,15		4,21,51, 6,51	
		12,39, 8,46,23,45,10		56
18″	59,41,42,28,19,47, 6,17,49,25		4,21,51, 7,47	
		12,39, 4,24,32,37,23		56
20″	59,41,42,40,58,51,30,50,26,48		4,21,51, 8,43	
		12,39, 0, 2,41,28,40		56
22″	59,41,42,53,37,51,33,31,55,28		4,21,51, 9,39	
		12,38,55,40,50,19, 1		56
24″	59,41,43, 6,16,47,14,22,14,29		4,21,51,10,35	
		12,38,51,18,59, 8,26		56
26″	59,41,43,18,55,38,33,21,22,55		4,21,51,11,31	
		12,38,46,57, 7,56,55		56
28″	59,41,43,31,34,25,30,29,19,50		4,21,51,12,27	
		12,38,42,35,16,44,28		56
30″	59,41,43,44,13, 8, 5,46, 4,18		4,21,51,13,23	
		12,38,38,13,25,31, 5		56
32″	59,41,43,56,51,46,19,11,35,23		4,21,51,14,19	
		12,38,33,51,34,16,46		56
34″	59,41,44, 9,30,20,10,45,52, 9		4,21,51,15,15	
		12,38,29,29,43, 1,31		56
36″	59,41,44,22, 8,49,40,28,53,40		4,21,51,16,11	
		12,38,25, 7,51,45,20		56
38″	59,41,44,34,47,14,48,20,39, 0		4,21,51,17, 7	
		12,38,20,46, 0,28,13		56
40″	59,41,44,47,25,35,34,21, 7,13		4,21,51,18, 3	
		12,38,16,24, 9,10,10		56
42″	59,41,45, 0, 3,51,58,30,17,23		4,21,51,18,59	
		12,38,12, 2,17,51,11		56
44″	59,41,45,12,42, 4, 0,48, 8,34		4,21,51,19,55	
		12,38, 7,40,26,31,16		56
46″	59,41,45,25,20,11,41,14,39,50		4,21,51,20,51	
		12,38, 3,18,35,10,25		56
48″	59,41,45,37,58,14,59,49,50,15		4,21,51,21,47	
		12,37,58,56,43,48,38		56
50″	59,41,45,50,36,13,56,33,38,53		4,21,51,22,43	
		12,37,54,34,52,25,55		56
52″	59,41,46, 3,14, 8,31,26, 4,48		4,21,51,23,39	
		12,37,50,13, 1, 2,16		56
54″	59,41,46,15,51,58,44,27, 7, 4		4,21,51,24,35	
		12,37,45,51, 9,37,41		56
56″	59,41,46,28,29,44,35,36,44,45		4,21,51,25,31	
		12,37,41,29,18,12,10		56
58″	59,41,46,41, 7,26, 4,54,56,55		4,21,51,26,27	
		12,37,37, 7,26,45,43		
60″	59,41,46,53,45, 3,12,21,42,38			
exact	59,41,46,53,45, 3,12,22,13,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°14′ 0″	59,41,46,53,45, 3,12,22,13,18			
		12,37,32,45,35,21,50		
2″	59,41,47, 6,22,35,57,57,35, 8		4,21,51,28, 3	
		12,37,28,23,43,53,47		55
4″	59,41,47,19, 0, 4,21,41,28,55		4,21,51,28,58	
		12,37,24, 1,52,24,49		55
6″	59,41,47,31,37,28,23,33,53,44		4,21,51,29,53	
		12,37,19,40, 0,54,56		55
8″	59,41,47,44,14,48, 3,34,48,40		4,21,51,30,48	
		12,37,15,18, 9,24, 8		55
10″	59,41,47,56,52, 3,21,44,12,48		4,21,51,31,43	
		12,37,10,56,17,52,25		55
12″	59,41,48, 9,29,14,18, 2, 5,13		4,21,51,32,38	
		12,37, 6,34,26,19,47		55
14″	59,41,48,22, 6,20,52,28,25, 0		4,21,51,33,33	
		12,37, 2,12,34,46,14		55
16″	59,41,48,34,43,23, 5, 3,11,14		4,21,51,34,28	
		12,36,57,50,43,11,46		55
18″	59,41,48,47,20,20,55,46,23, 0		4,21,51,35,23	
		12,36,53,28,51,36,23		55
20″	59,41,48,59,57,14,24,37,59,23		4,21,51,36,18	
		12,36,49, 7, 0, 0, 5		55
22″	59,41,49,12,34, 3,31,37,59,28		4,21,51,37,13	
		12,36,44,45, 8,22,52		55
24″	59,41,49,25,10,48,16,46,22,20		4,21,51,38, 8	
		12,36,40,23,16,44,44		55
26″	59,41,49,37,47,28,40, 3, 7, 4		4,21,51,39, 3	
		12,36,36, 1,25, 5,41		55
28″	59,41,49,50,24, 4,41,28,12,45		4,21,51,39,58	
		12,36,31,39,33,25,43		55
30″	59,41,50, 3, 0,36,21, 1,38,28		4,21,51,40,53	
		12,36,27,17,41,44,50		55
32″	59,41,50,15,37, 3,38,43,23,18		4,21,51,41,48	
		12,36,22,55,50, 3, 2		55
34″	59,41,50,28,13,26,34,33,26,20		4,21,51,42,43	
		12,36,18,33,58,20,19		55
36″	59,41,50,40,49,45, 8,31,46,39		4,21,51,43,38	
		12,36,14,12, 6,36,41		55
38″	59,41,50,53,25,59,20,38,23,20		4,21,51,44,33	
		12,36, 9,50,14,52, 8		55
40″	59,41,51, 6, 2, 9,10,53,15,28		4,21,51,45,28	
		12,36, 5,28,23, 6,40		55
42″	59,41,51,18,38,14,39,16,22, 8		4,21,51,46,23	
		12,36, 1, 6,31,20,17		55
44″	59,41,51,31,14,15,45,47,42,25		4,21,51,47,18	
		12,35,56,44,39,32,59		55
46″	59,41,51,43,50,12,30,27,15,24		4,21,51,48,13	
		12,35,52,22,47,44,46		55
48″	59,41,51,56,26, 4,53,15, 0,10		4,21,51,49, 8	
		12,35,48, 0,55,55,38		55
50″	59,41,52, 9, 1,52,54,10,55,48		4,21,51,50, 3	
		12,35,43,39, 4, 5,35		55
52″	59,41,52,21,37,36,33,15, 1,23		4,21,51,50,58	
		12,35,39,17,12,14,37		55
54″	59,41,52,34,13,15,50,27,16, 0		4,21,51,51,53	
		12,35,34,55,20,22,44		55
56″	59,41,52,46,48,50,45,47,38,44		4,21,51,52,48	
		12,35,30,33,28,29,56		55
58″	59,41,52,59,24,21,19,16, 8,40		4,21,51,53,43	
		12,35,26,11,36,36,13		
60″	59,41,53,11,59,47,30,52,44,53			
exact	59,41,53,11,59,47,30,52,19,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°15′ 0″	59,41,53,11,59,47,30,52,19,49			
		12,35,21,49,44,39, 5		
2″	59,41,53,24,35, 9,20,36,58,54		4,21,51,55,42	
		12,35,17,27,52,43,23		55
4″	59,41,53,37,10,26,48,29,42,17		4,21,51,56,37	
		12,35,13, 6, 0,46,46		55
6″	59,41,53,49,45,39,54,30,29, 3		4,21,51,57,32	
		12,35, 8,44, 8,49,14		55
8″	59,41,54, 2,20,48,38,39,18,17		4,21,51,58,27	
		12,35, 4,22,16,50,47		55
10″	59,41,54,14,55,53, 0,56, 9, 4		4,21,51,59,22	
		12,35, 0, 0,24,51,25		55
12″	59,41,54,27,30,53, 1,21, 0,29		4,21,52, 0,17	
		12,34,55,38,32,51, 8		55
14″	59,41,54,40, 5,48,39,53,51,37		4,21,52, 1,12	
		12,34,51,16,40,49,56		55
16″	59,41,54,52,40,39,56,34,41,33		4,21,52, 2, 7	
		12,34,46,54,48,47,49		55
18″	59,41,55, 5,15,26,51,23,29,22		4,21,52, 3, 2	
		12,34,42,32,56,44,47		55
20″	59,41,55,17,50, 9,24,20,14, 9		4,21,52, 3,57	
		12,34,38,11, 4,40,50		55
22″	59,41,55,30,24,47,35,24,54,59		4,21,52, 4,52	
		12,34,33,49,12,35,58		55
24″	59,41,55,42,59,21,24,37,30,57		4,21,52, 5,47	
		12,34,29,27,20,30,11		55
26″	59,41,55,55,33,50,51,58, 1, 8		4,21,52, 6,42	
		12,34,25, 5,28,23,29		55
28″	59,41,56, 8, 8,15,57,26,24,37		4,21,52, 7,37	
		12,34,20,43,36,15,52		55
30″	59,41,56,20,42,36,41, 2,40,29		4,21,52, 8,32	
		12,34,16,21,44, 7,20		55
32″	59,41,56,33,16,53, 2,46,47,49		4,21,52, 9,27	
		12,34,11,59,51,57,53		55
34″	59,41,56,45,51, 5, 2,38,45,42		4,21,52,10,22	
		12,34, 7,37,59,47,31		55
36″	59,41,56,58,25,12,40,38,33,13		4,21,52,11,17	
		12,34, 3,16, 7,36,14		55
38″	59,41,57,10,59,15,56,46, 9,27		4,21,52,12,12	
		12,33,58,54,15,24, 2		55
40″	59,41,57,23,33,14,51, 1,33,29		4,21,52,13, 7	
		12,33,54,32,23,10,55		55
42″	59,41,57,36, 7, 9,23,24,44,24		4,21,52,14, 2	
		12,33,50,10,30,56,53		55
44″	59,41,57,48,40,59,33,55,41,17		4,21,52,14,57	
		12,33,45,48,38,41,56		55
46″	59,41,58, 1,14,45,22,34,23,13		4,21,52,15,52	
		12,33,41,26,46,26, 4		55
48″	59,41,58,13,48,26,49,20,49,17		4,21,52,16,47	
		12,33,37, 4,54, 9,17		55
50″	59,41,58,26,22, 3,54,14,58,34		4,21,52,17,42	
		12,33,32,43, 1,51,35		55
52″	59,41,58,38,55,36,37,16,50, 9		4,21,52,18,37	
		12,33,28,21, 9,32,58		55
54″	59,41,58,51,29, 4,58,26,23, 7		4,21,52,19,32	
		12,33,23,59,17,13,26		55
56″	59,41,59, 4, 2,28,57,43,36,33		4,21,52,20,27	
		12,33,19,37,24,52,59		55
58″	59,41,59,16,35,48,35, 8,29,32		4,21,52,21,22	
		12,33,15,15,32,31,37		
60″	59,41,59,29, 9, 3,50,41, 1, 9			
exact	59,41,59,29, 9, 3,50,40,46,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°16′ 0″	59,41,59,29, 9, 3,50,40,46,44			
		12,33,10,53,40, 7,58		
2″	59,41,59,41,42,14,44,20,54,42		4,21,52,23,16	
		12,33, 6,31,47,44,42		55
4″	59,41,59,54,15,21,16, 8,39,24		4,21,52,24,11	
		12,33, 2, 9,55,20,31		55
6″	59,42, 0, 6,48,23,26, 3,59,55		4,21,52,25, 6	
		12,32,57,48, 2,55,25		55
8″	59,42, 0,19,21,21,14, 6,55,20		4,21,52,26, 1	
		12,32,53,26,10,29,24		55
10″	59,42, 0,31,54,14,40,17,24,44		4,21,52,26,56	
		12,32,49, 4,18, 2,28		55
12″	59,42, 0,44,27, 3,44,35,27,12		4,21,52,27,51	
		12,32,44,42,25,34,37		55
14″	59,42, 0,56,59,48,27, 1, 1,49		4,21,52,28,46	
		12,32,40,20,33, 5,51		55
16″	59,42, 1, 9,32,28,47,34, 7,40		4,21,52,29,41	
		12,32,35,58,40,36,10		55
18″	59,42, 1,22, 5, 4,46,14,43,50		4,21,52,30,36	
		12,32,31,36,48, 5,34		55
20″	59,42, 1,34,37,36,23, 2,49,24		4,21,52,31,31	
		12,32,27,14,55,34, 3		55
22″	59,42, 1,47,10, 3,37,58,23,27		4,21,52,32,26	
		12,32,22,53, 3, 1,37		55
24″	59,42, 1,59,42,26,31, 1,25, 4		4,21,52,33,21	
		12,32,18,31,10,28,16		55
26″	59,42, 2,12,14,45, 2,11,53,20		4,21,52,34,16	
		12,32,14, 9,17,54, 0		55
28″	59,42, 2,24,46,59,11,29,47,20		4,21,52,35,11	
		12,32, 9,47,25,18,49		55
30″	59,42, 2,37,19, 8,58,55, 6, 9		4,21,52,36, 6	
		12,32, 5,25,32,42,43		55
32″	59,42, 2,49,51,14,24,27,48,52		4,21,52,37, 1	
		12,32, 1, 3,40, 5,42		55
34″	59,42, 3, 2,23,15,28, 7,54,34		4,21,52,37,56	
		12,31,56,41,47,27,46		55
36″	59,42, 3,14,55,12, 9,55,22,20		4,21,52,38,51	
		12,31,52,19,54,48,55		55
38″	59,42, 3,27,27, 4,29,50,11,15		4,21,52,39,46	
		12,31,47,58, 2, 9, 9		55
40″	59,42, 3,39,58,52,27,52,20,24		4,21,52,40,41	
		12,31,43,36, 9,28,28		55
42″	59,42, 3,52,30,36, 4, 1,48,52		4,21,52,41,36	
		12,31,39,14,16,46,52		55
44″	59,42, 4, 5, 2,15,18,18,35,44		4,21,52,42,31	
		12,31,34,52,24, 4,21		55
46″	59,42, 4,17,33,50,10,42,40, 5		4,21,52,43,26	
		12,31,30,30,31,20,55		55
48″	59,42, 4,30, 5,20,41,14, 1, 0		4,21,52,44,21	
		12,31,26, 8,38,36,34		55
50″	59,42, 4,42,36,46,49,52,37,34		4,21,52,45,16	
		12,31,21,46,45,51,18		55
52″	59,42, 4,55, 8, 8,36,38,28,52		4,21,52,46,11	
		12,31,17,24,53, 5, 7		55
54″	59,42, 5, 7,39,26, 1,31,33,59		4,21,52,47, 6	
		12,31,13, 3, 0,18, 1		55
56″	59,42, 5,20,10,39, 4,31,52, 0		4,21,52,48, 1	
		12,31, 8,41, 7,30, 0		55
58″	59,42, 5,32,41,47,45,39,22, 0		4,21,52,48,56	
		12,31, 4,19,14,41, 4		
60″	59,42, 5,45,12,52, 4,54, 3, 4			
exact	59,42, 5,45,12,52, 4,53,58,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°17′ 0″	59,42, 5,45,12,52, 4,53,58,15			
		12,30,59,57,21,50,55		
2″	59,42, 5,57,43,52, 2,15,49,10		4,21,52,50,46	
		12,30,55,35,29, 0, 9		55
4″	59,42, 6,10,14,47,37,44,49,19		4,21,52,51,41	
		12,30,51,13,36, 8,28		55
6″	59,42, 6,22,45,38,51,20,57,47		4,21,52,52,36	
		12,30,46,51,43,15,52		55
8″	59,42, 6,35,16,25,43, 4,13,39		4,21,52,53,31	
		12,30,42,29,50,22,21		55
10″	59,42, 6,47,47, 8,12,54,36, 0		4,21,52,54,26	
		12,30,38, 7,57,27,55		55
12″	59,42, 7, 0,17,46,20,52, 3,55		4,21,52,55,21	
		12,30,33,46, 4,32,34		55
14″	59,42, 7,12,48,20, 6,56,36,29		4,21,52,56,16	
		12,30,29,24,11,36,18		55
16″	59,42, 7,25,18,49,31, 8,12,47		4,21,52,57,11	
		12,30,25, 2,18,39, 7		55
18″	59,42, 7,37,49,14,33,26,51,54		4,21,52,58, 6	
		12,30,20,40,25,41, 1		55
20″	59,42, 7,50,19,35,13,52,32,55		4,21,52,59, 1	
		12,30,16,18,32,42, 0		55
22″	59,42, 8, 2,49,51,32,25,14,55		4,21,52,59,56	
		12,30,11,56,39,42, 4		55
24″	59,42, 8,15,20, 3,29, 4,56,59		4,21,53, 0,51	
		12,30, 7,34,46,41,13		55
26″	59,42, 8,27,50,11, 3,51,38,12		4,21,53, 1,46	
		12,30, 3,12,53,39,27		55
28″	59,42, 8,40,20,14,16,45,17,39		4,21,53, 2,41	
		12,29,58,51, 0,36,46		55
30″	59,42, 8,52,50,13, 7,45,54,25		4,21,53, 3,36	
		12,29,54,29, 7,33,10		55
32″	59,42, 9, 5,20, 7,36,53,27,35		4,21,53, 4,31	
		12,29,50, 7,14,28,39		55
34″	59,42, 9,17,49,57,44, 7,56,14		4,21,53, 5,26	
		12,29,45,45,21,23,13		55
36″	59,42, 9,30,19,43,29,29,19,27		4,21,53, 6,21	
		12,29,41,23,28,16,52		55
38″	59,42, 9,42,49,24,52,57,36,19		4,21,53, 7,16	
		12,29,37, 1,35, 9,36		55
40″	59,42, 9,55,19, 1,54,32,45,55		4,21,53, 8,11	
		12,29,32,39,42, 1,25		55
42″	59,42,10, 7,48,34,34,14,47,20		4,21,53, 9, 6	
		12,29,28,17,48,52,19		55
44″	59,42,10,20,18, 2,52, 3,39,39		4,21,53,10, 1	
		12,29,23,55,55,42,18		55
46″	59,42,10,32,47,26,47,59,21,57		4,21,53,10,56	
		12,29,19,34, 2,31,22		55
48″	59,42,10,45,16,46,22, 1,53,19		4,21,53,11,51	
		12,29,15,12, 9,19,31		55
50″	59,42,10,57,46, 1,34,11,12,50		4,21,53,12,46	
		12,29,10,50,16, 6,45		55
52″	59,42,11,10,15,12,24,27,19,35		4,21,53,13,41	
		12,29, 6,28,22,53, 4		55
54″	59,42,11,22,44,18,52,50,12,39		4,21,53,14,36	
		12,29, 2, 6,29,38,28		55
56″	59,42,11,35,13,20,59,19,51, 7		4,21,53,15,31	
		12,28,57,44,36,22,57		55
58″	59,42,11,47,42,18,43,56,14, 4		4,21,53,16,26	
		12,28,53,22,43, 6,31		
60″	59,42,12, 0,11,12, 6,39,20,35			
exact	59,42,12, 0,11,12, 6,39,30,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°18′ 0″	59,42,12, 0,11,12, 6,39,30,23	12,28,49, 0,49,50,18		
2″	59,42,12,12,40, 1, 7,29,20,41	12,28,44,38,56,32, 7	4,21,53,18,11	55
4″	59,42,12,25, 8,45,46,25,52,48	12,28,40,17, 3,13, 1	4,21,53,19, 6	55
6″	59,42,12,37,37,26, 3,29, 5,49	12,28,35,55, 9,53, 0	4,21,53,20, 1	55
8″	59,42,12,50, 6, 1,58,38,58,49	12,28,31,33,16,32, 4	4,21,53,20,56	55
10″	59,42,13, 2,34,33,31,55,30,53	12,28,27,11,23,10,13	4,21,53,21,51	55
12″	59,42,13,15, 3, 0,43,18,41, 6	12,28,22,49,29,47,27	4,21,53,22,46	55
14″	59,42,13,27,31,23,32,48,28,33	12,28,18,27,36,23,46	4,21,53,23,41	55
16″	59,42,13,39,59,42, 0,24,52,19	12,28,14, 5,42,59,10	4,21,53,24,36	55
18″	59,42,13,52,27,56, 6, 7,51,29	12,28, 9,43,49,33,39	4,21,53,25,31	55
20″	59,42,14, 4,56, 5,49,57,25, 8	12,28, 5,21,56, 7,13	4,21,53,26,26	55
22″	59,42,14,17,24,11,11,53,32,21	12,28, 1, 0, 2,39,52	4,21,53,27,21	55
24″	59,42,14,29,52,12,11,56,12,13	12,27,56,38, 9,11,36	4,21,53,28,16	55
26″	59,42,14,42,20, 8,50, 5,23,49	12,27,52,16,15,42,25	4,21,53,29,11	55
28″	59,42,14,54,48, 1, 6,21, 6,14	12,27,47,54,22,12,19	4,21,53,30, 6	55
30″	59,42,15, 7,15,49, 0,43,18,33	12,27,43,32,28,41,18	4,21,53,31, 1	55
32″	59,42,15,19,43,32,33,11,59,51	12,27,39,10,35, 9,22	4,21,53,31,56	55
34″	59,42,15,32,11,11,43,47, 9,13	12,27,34,48,41,36,31	4,21,53,32,51	55
36″	59,42,15,44,38,46,32,28,45,44	12,27,30,26,48, 2,45	4,21,53,33,46	55
38″	59,42,15,57, 6,16,59,16,48,29	12,27,26, 4,54,28, 4	4,21,53,34,41	55
40″	59,42,16, 9,33,43, 4,11,16,33	12,27,21,43, 0,52,28	4,21,53,35,36	55
42″	59,42,16,22, 1, 4,47,12, 9, 1	12,27,17,21, 7,15,57	4,21,53,36,31	55
44″	59,42,16,34,28,22, 8,19,24,58	12,27,12,59,13,38,31	4,21,53,37,26	55
46″	59,42,16,46,55,35, 7,33, 3,29	12,27, 8,37,20, 0,10	4,21,53,38,21	55
48″	59,42,16,59,22,43,44,53, 3,39	12,27, 4,15,26,20,54	4,21,53,39,16	55
50″	59,42,17,11,49,48, 0,19,24,33	12,26,59,53,32,40,43	4,21,53,40,11	55
52″	59,42,17,24,16,47,53,52, 5,16	12,26,55,31,38,59,37	4,21,53,41, 6	55
54″	59,42,17,36,43,43,25,31, 4,53	12,26,51, 9,45,17,36	4,21,53,42, 1	55
56″	59,42,17,49,10,34,35,16,22,29	12,26,46,47,51,34,40	4,21,53,42,56	55
58″	59,42,18, 1,37,21,23, 7,57, 9	12,26,42,25,57,50,49	4,21,53,43,51	
60″	59,42,18,14, 4, 3,49, 5,47,58			
exact	59,42,18,14, 4, 3,49, 6,10,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°19′ 0″	59,42,18,14, 4, 3,49, 6,10,59			
		12,26,38, 4, 4, 8,30		
2″	59,42,18,26,30,41,53,10,19,29		4,21,53,45,30	
		12,26,33,42,10,23, 0		55
4″	59,42,18,38,57,15,35,20,42,29		4,21,53,46,25	
		12,26,29,20,16,36,35		55
6″	59,42,18,51,23,44,55,37,19, 4		4,21,53,47,20	
		12,26,24,58,22,49,15		55
8″	59,42,19, 3,50, 9,54, 0, 8,19		4,21,53,48,15	
		12,26,20,36,29, 1, 0		55
10″	59,42,19,16,16,30,30,29, 9,19		4,21,53,49,10	
		12,26,16,14,35,11,50		55
12″	59,42,19,28,42,46,45, 4,21, 9		4,21,53,50, 5	
		12,26,11,52,41,21,45		55
14″	59,42,19,41, 8,58,37,45,42,54		4,21,53,51, 0	
		12,26, 7,30,47,30,45		55
16″	59,42,19,53,35, 6, 8,33,13,39		4,21,53,51,55	
		12,26, 3, 8,53,38,50		55
18″	59,42,20, 6, 1, 9,17,26,52,29		4,21,53,52,50	
		12,25,58,46,59,46, 0		55
20″	59,42,20,18,27, 8, 4,26,38,29		4,21,53,53,45	
		12,25,54,25, 5,52,15		55
22″	59,42,20,30,53, 2,29,32,30,44		4,21,53,54,40	
		12,25,50, 3,11,57,35		55
24″	59,42,20,43,18,52,32,44,28,19		4,21,53,55,35	
		12,25,45,41,18, 2, 0		55
26″	59,42,20,55,44,38,14, 2,30,19		4,21,53,56,30	
		12,25,41,19,24, 5,30		55
28″	59,42,21, 8,10,19,33,26,35,49		4,21,53,57,25	
		12,25,36,57,30, 8, 5		55
30″	59,42,21,20,35,56,30,56,43,54		4,21,53,58,20	
		12,25,32,35,36, 9,45		55
32″	59,42,21,33, 1,29, 6,32,53,39		4,21,53,59,15	
		12,25,28,13,42,10,30		55
34″	59,42,21,45,26,57,20,15, 4, 9		4,21,54, 0,10	
		12,25,23,51,48,10,20		55
36″	59,42,21,57,52,21,12, 3,14,29		4,21,54, 1, 5	
		12,25,19,29,54, 9,15		55
38″	59,42,22,10,17,40,41,57,23,44		4,21,54, 2, 0	
		12,25,15, 8, 0, 7,15		55
40″	59,42,22,22,42,55,49,57,30,59		4,21,54, 2,55	
		12,25,10,46, 6, 4,20		55
42″	59,42,22,35, 8, 6,36, 3,35,19		4,21,54, 3,50	
		12,25, 6,24,12, 0,30		55
44″	59,42,22,47,33,13, 0,15,35,49		4,21,54, 4,45	
		12,25, 2, 2,17,55,45		55
46″	59,42,22,59,58,15, 2,33,31,34		4,21,54, 5,40	
		12,24,57,40,23,50, 5		55
48″	59,42,23,12,23,12,42,57,21,39		4,21,54, 6,35	
		12,24,53,18,29,43,30		55
50″	59,42,23,24,48, 6, 1,27, 5, 9		4,21,54, 7,30	
		12,24,48,56,35,36, 0		55
52″	59,42,23,37,12,54,58, 2,41, 9		4,21,54, 8,25	
		12,24,44,34,41,27,35		55
54″	59,42,23,49,37,39,32,44, 8,44		4,21,54, 9,20	
		12,24,40,12,47,18,15		55
56″	59,42,24, 2, 2,19,45,31,26,59		4,21,54,10,15	
		12,24,35,50,53, 8, 0		55
58″	59,42,24,14,26,55,36,24,34,59		4,21,54,11,10	
		12,24,31,28,58,56,50		
60″	59,42,24,26,51,27, 5,23,31,49			
exact	59,42,24,26,51,27, 5,23,59,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°20′ 0″	59,42,24,26,51,27, 5,23,59,38			
		12,24,27, 7, 4,47,56		
2″	59,42,24,39,15,54,12,28,47,34		4,21,54,12,46	
		12,24,22,45,10,35,10		54
4″	59,42,24,51,40,16,57,39,22,44		4,21,54,13,40	
		12,24,18,23,16,21,30		54
6″	59,42,25, 4, 4,35,20,55,44,14		4,21,54,14,34	
		12,24,14, 1,22, 6,56		54
8″	59,42,25,16,28,49,22,17,51,10		4,21,54,15,28	
		12,24, 9,39,27,51,28		54
10″	59,42,25,28,52,59, 1,45,42,38		4,21,54,16,22	
		12,24, 5,17,33,35, 6		54
12″	59,42,25,41,17, 4,19,19,17,44		4,21,54,17,16	
		12,24, 0,55,39,17,50		54
14″	59,42,25,53,41, 5,14,58,35,34		4,21,54,18,10	
		12,23,56,33,44,59,40		54
16″	59,42,26, 6, 5, 1,48,43,35,14		4,21,54,19, 4	
		12,23,52,11,50,40,36		54
18″	59,42,26,18,28,54, 0,34,15,50		4,21,54,19,58	
		12,23,47,49,56,20,38		54
20″	59,42,26,30,52,41,50,30,36,28		4,21,54,20,52	
		12,23,43,28, 1,59,46		54
22″	59,42,26,43,16,25,18,32,36,14		4,21,54,21,46	
		12,23,39, 6, 7,38, 0		54
24″	59,42,26,55,40, 4,24,40,14,14		4,21,54,22,40	
		12,23,34,44,13,15,20		54
26″	59,42,27, 8, 3,39, 8,53,29,34		4,21,54,23,34	
		12,23,30,22,18,51,46		54
28″	59,42,27,20,27, 9,31,12,21,20		4,21,54,24,28	
		12,23,26, 0,24,27,18		54
30″	59,42,27,32,50,35,31,36,48,38		4,21,54,25,22	
		12,23,21,38,30, 1,56		54
32″	59,42,27,45,13,57,10, 6,50,34		4,21,54,26,16	
		12,23,17,16,35,35,40		54
34″	59,42,27,57,37,14,26,42,26,14		4,21,54,27,10	
		12,23,12,54,41, 8,30		54
36″	59,42,28,10, 0,27,21,23,34,44		4,21,54,28, 4	
		12,23, 8,32,46,40,26		54
38″	59,42,28,22,23,35,54,10,15,10		4,21,54,28,58	
		12,23, 4,10,52,11,28		54
40″	59,42,28,34,46,40, 5, 2,26,38		4,21,54,29,52	
		12,22,59,48,57,41,36		54
42″	59,42,28,47, 9,39,54, 0, 8,14		4,21,54,30,46	
		12,22,55,27, 3,10,50		54
44″	59,42,28,59,32,35,21, 3,19, 4		4,21,54,31,40	
		12,22,51, 5, 8,39,10		54
46″	59,42,29,11,55,26,26,11,58,14		4,21,54,32,34	
		12,22,46,43,14, 6,36		54
48″	59,42,29,24,18,13, 9,26, 4,50		4,21,54,33,28	
		12,22,42,21,19,33, 8		54
50″	59,42,29,36,40,55,30,45,37,58		4,21,54,34,22	
		12,22,37,59,24,58,46		54
52″	59,42,29,49, 3,33,30,10,36,44		4,21,54,35,16	
		12,22,33,37,30,23,30		54
54″	59,42,30, 1,26, 7, 7,41, 0,14		4,21,54,36,10	
		12,22,29,15,35,47,20		54
56″	59,42,30,13,48,36,23,16,47,34		4,21,54,37, 4	
		12,22,24,53,41,10,16		54
58″	59,42,30,26,11, 1,16,57,57,50		4,21,54,37,58	
		12,22,20,31,46,32,18		
60″	59,42,30,38,33,21,48,44,30, 8			
exact	59,42,30,38,33,21,48,44, 7,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°21′ 0″	59,42,30,38,33,21,48,44, 7,45			
		12,22,16, 9,51,50,59		
2″	59,42,30,50,55,37,58,35,58,44		4,21,54,39,56	
		12,22,11,47,57,11, 3		54
4″	59,42,31, 3,17,49,46,33, 9,47		4,21,54,40,50	
		12,22, 7,26, 2,30,13		54
6″	59,42,31,15,39,57,12,35,40, 0		4,21,54,41,44	
		12,22, 3, 4, 7,48,29		54
8″	59,42,31,28, 2, 0,16,43,28,29		4,21,54,42,38	
		12,21,58,42,13, 5,51		54
10″	59,42,31,40,23,58,58,56,34,20		4,21,54,43,32	
		12,21,54,20,18,22,19		54
12″	59,42,31,52,45,53,19,14,56,39		4,21,54,44,26	
		12,21,49,58,23,37,53		54
14″	59,42,32, 5, 7,43,17,38,34,32		4,21,54,45,20	
		12,21,45,36,28,52,33		54
16″	59,42,32,17,29,28,54, 7,27, 5		4,21,54,46,14	
		12,21,41,14,34, 6,19		54
18″	59,42,32,29,51,10, 8,41,33,24		4,21,54,47, 8	
		12,21,36,52,39,19,11		54
20″	59,42,32,42,12,47, 1,20,52,35		4,21,54,48, 2	
		12,21,32,30,44,31, 9		54
22″	59,42,32,54,34,19,32, 5,23,44		4,21,54,48,56	
		12,21,28, 8,49,42,13		54
24″	59,42,33, 6,55,47,40,55, 5,57		4,21,54,49,50	
		12,21,23,46,54,52,23		54
26″	59,42,33,19,17,11,27,49,58,20		4,21,54,50,44	
		12,21,19,25, 0, 1,39		54
28″	59,42,33,31,38,30,52,49,59,59		4,21,54,51,38	
		12,21,15, 3, 5,10, 1		54
30″	59,42,33,43,59,45,55,55,10, 0		4,21,54,52,32	
		12,21,10,41,10,17,29		54
32″	59,42,33,56,20,56,37, 5,27,29		4,21,54,53,26	
		12,21, 6,19,15,24, 3		54
34″	59,42,34, 8,42, 2,56,20,51,32		4,21,54,54,20	
		12,21, 1,57,20,29,43		54
36″	59,42,34,21, 3, 4,53,41,21,15		4,21,54,55,14	
		12,20,57,35,25,34,29		54
38″	59,42,34,33,24, 2,29, 6,55,44		4,21,54,56, 8	
		12,20,53,13,30,38,21		54
40″	59,42,34,45,44,55,42,37,34, 5		4,21,54,57, 2	
		12,20,48,51,35,41,19		54
42″	59,42,34,58, 5,44,34,13,15,24		4,21,54,57,56	
		12,20,44,29,40,43,23		54
44″	59,42,35,10,26,29, 3,53,58,47		4,21,54,58,50	
		12,20,40, 7,45,44,33		54
46″	59,42,35,22,47, 9,11,39,43,20		4,21,54,59,44	
		12,20,35,45,50,44,49		54
48″	59,42,35,35, 7,44,57,30,28, 9		4,21,55, 0,38	
		12,20,31,23,55,44,11		54
50″	59,42,35,47,28,16,21,26,12,20		4,21,55, 1,32	
		12,20,27, 2, 0,42,39		54
52″	59,42,35,59,48,43,23,26,54,59		4,21,55, 2,26	
		12,20,22,40, 5,40,13		54
54″	59,42,36,12, 9, 6, 3,32,35,12		4,21,55, 3,20	
		12,20,18,18,10,36,53		54
56″	59,42,36,24,29,24,21,43,12, 5		4,21,55, 4,14	
		12,20,13,56,15,32,39		54
58″	59,42,36,36,49,38,17,58,44,44		4,21,55, 5, 8	
		12,20, 9,34,20,27,31		
60″	59,42,36,49, 9,47,52,19,12,15			
exact	59,42,36,49, 9,47,52,18,58,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°22′ 0″	59,42,36,49, 9,47,52,18,58,34	12,20, 5,12,25,20, 3	4,21,55, 7, 1	54
2″	59,42,37, 1,29,53, 4,44,18,37	12,20, 0,50,30,13, 2	4,21,55, 7,55	54
4″	59,42,37,13,49,53,55,14,31,39	12,19,56,28,35, 5, 7	4,21,55, 8,49	54
6″	59,42,37,26, 9,50,23,49,36,46	12,19,52, 6,39,56,18	4,21,55, 9,43	54
8″	59,42,37,38,29,42,30,29,33, 4	12,19,47,44,44,46,35	4,21,55,10,37	54
10″	59,42,37,50,49,30,15,14,19,39	12,19,43,22,49,35,58	4,21,55,11,31	54
12″	59,42,38, 3, 9,13,38, 3,55,37	12,19,39, 0,54,24,27	4,21,55,12,25	54
14″	59,42,38,15,28,52,38,58,20, 4	12,19,34,38,59,12, 2	4,21,55,13,19	54
16″	59,42,38,27,48,27,17,57,32, 6	12,19,30,17, 3,58,43	4,21,55,14,13	54
18″	59,42,38,40, 7,57,35, 1,30,49	12,19,25,55, 8,44,30	4,21,55,15, 7	54
20″	59,42,38,52,27,23,30,10,15,19	12,19,21,33,13,29,23	4,21,55,16, 1	54
22″	59,42,39, 4,46,45, 3,23,44,42	12,19,17,11,18,13,22	4,21,55,16,55	54
24″	59,42,39,17, 6, 2,14,41,58, 4	12,19,12,49,22,56,27	4,21,55,17,49	54
26″	59,42,39,29,25,15, 4, 4,54,31	12,19, 8,27,27,38,38	4,21,55,18,43	54
28″	59,42,39,41,44,23,31,32,33, 9	12,19, 4, 5,32,19,55	4,21,55,19,37	54
30″	59,42,39,54, 3,27,37, 4,53, 4	12,18,59,43,37, 0,18	4,21,55,20,31	54
32″	59,42,40, 6,22,27,20,41,53,22	12,18,55,21,41,39,47	4,21,55,21,25	54
34″	59,42,40,18,41,22,42,23,33, 9	12,18,50,59,46,18,22	4,21,55,22,19	54
36″	59,42,40,31, 0,13,42, 9,51,31	12,18,46,37,50,56, 3	4,21,55,23,13	54
38″	59,42,40,43,19, 0,20, 0,47,34	12,18,42,15,55,32,50	4,21,55,24, 7	54
40″	59,42,40,55,37,42,35,56,20,24	12,18,37,54, 0, 8,43	4,21,55,25, 1	54
42″	59,42,41, 7,56,20,29,56,29, 7	12,18,33,32, 4,43,42	4,21,55,25,55	54
44″	59,42,41,20,14,54, 2, 1,12,49	12,18,29,10, 9,17,47	4,21,55,26,49	54
46″	59,42,41,32,33,23,12,10,30,36	12,18,24,48,13,50,58	4,21,55,27,43	54
48″	59,42,41,44,51,48, 0,24,21,34	12,18,20,26,18,23,15	4,21,55,28,37	54
50″	59,42,41,57,10, 8,26,42,44,49	12,18,16, 4,22,54,38	4,21,55,29,31	54
52″	59,42,42, 9,28,24,31, 5,39,27	12,18,11,42,27,25, 7	4,21,55,30,25	54
54″	59,42,42,21,46,36,13,33, 4,34	12,18, 7,20,31,54,42	4,21,55,31,19	54
56″	59,42,42,34, 4,43,34, 4,59,16	12,18, 2,58,36,23,23	4,21,55,32,13	
58″	59,42,42,46,22,46,32,41,22,39	12,17,58,36,40,51,10		
60″	59,42,42,58,40,45, 9,22,13,49			
exact	59,42,42,58,40,45, 9,22, 7, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°23′ 0″	59,42,42,58,40,45, 9,22, 7, 6			
		12,17,54,14,45,17,31		
2″	59,42,43,10,58,39,24, 7,24,37		4,21,55,34, 2	
		12,17,49,52,49,43,29		54
4″	59,42,43,23,16,29,16,57, 8, 6		4,21,55,34,56	
		12,17,45,30,54, 8,33		54
6″	59,42,43,35,34,14,47,51,16,39		4,21,55,35,50	
		12,17,41, 8,58,32,43		54
8″	59,42,43,47,51,55,56,49,49,22		4,21,55,36,44	
		12,17,36,47, 2,55,59		54
10″	59,42,44, 0, 9,32,43,52,45,21		4,21,55,37,38	
		12,17,32,25, 7,18,21		54
12″	59,42,44,12,27, 5, 9, 0, 3,42		4,21,55,38,32	
		12,17,28, 3,11,39,49		54
14″	59,42,44,24,44,33,12,11,43,31		4,21,55,39,26	
		12,17,23,41,16, 0,23		54
16″	59,42,44,37, 1,56,53,27,43,54		4,21,55,40,20	
		12,17,19,19,20,20, 3		54
18″	59,42,44,49,19,16,12,48, 3,57		4,21,55,41,14	
		12,17,14,57,24,38,49		54
20″	59,42,45, 1,36,31,10,12,42,46		4,21,55,42, 8	
		12,17,10,35,28,56,41		54
22″	59,42,45,13,53,41,45,41,39,27		4,21,55,43, 2	
		12,17, 6,13,33,13,39		54
24″	59,42,45,26,10,47,59,14,53, 6		4,21,55,43,56	
		12,17, 1,51,37,29,43		54
26″	59,42,45,38,27,49,50,52,22,49		4,21,55,44,50	
		12,16,57,29,41,44,53		54
28″	59,42,45,50,44,47,20,34, 7,42		4,21,55,45,44	
		12,16,53, 7,45,59, 9		54
30″	59,42,46, 3, 1,40,28,20, 6,51		4,21,55,46,38	
		12,16,48,45,50,12,31		54
32″	59,42,46,15,18,29,14,10,19,22		4,21,55,47,32	
		12,16,44,23,54,24,59		54
34″	59,42,46,27,35,13,38, 4,44,21		4,21,55,48,26	
		12,16,40, 1,58,36,33		54
36″	59,42,46,39,51,53,40, 3,20,54		4,21,55,49,20	
		12,16,35,40, 2,47,13		54
38″	59,42,46,52, 8,29,20, 6, 8, 7		4,21,55,50,14	
		12,16,31,18, 6,56,59		54
40″	59,42,47, 4,25, 0,38,13, 5, 6		4,21,55,51, 8	
		12,16,26,56,11, 5,51		54
42″	59,42,47,16,41,27,34,24,10,57		4,21,55,52, 2	
		12,16,22,34,15,13,49		54
44″	59,42,47,28,57,50, 8,39,24,46		4,21,55,52,56	
		12,16,18,12,19,20,53		54
46″	59,42,47,41,14, 8,20,58,45,39		4,21,55,53,50	
		12,16,13,50,23,27, 3		54
48″	59,42,47,53,30,22,11,22,12,42		4,21,55,54,44	
		12,16, 9,28,27,32,19		54
50″	59,42,48, 5,46,31,39,49,45, 1		4,21,55,55,38	
		12,16, 5, 6,31,36,41		54
52″	59,42,48,18, 2,36,46,21,21,42		4,21,55,56,32	
		12,16, 0,44,35,40, 9		54
54″	59,42,48,30,18,37,30,57, 1,51		4,21,55,57,26	
		12,15,56,22,39,42,43		54
56″	59,42,48,42,34,33,53,36,44,34		4,21,55,58,20	
		12,15,52, 0,43,44,23		54
58″	59,42,48,54,50,25,54,20,28,57		4,21,55,59,14	
		12,15,47,38,47,45, 9		
60″	59,42,49, 7, 6,13,33, 8,14, 6			
exact	59,42,49, 7, 6,13,33, 8,20,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°24′ 0″	59,42,49, 7, 6,13,33, 8,20,10	12,15,43,16,51,45,47		
2″	59,42,49,19,21,56,50, 0, 5,57	12,15,38,54,55,44,49	4,21,56, 0,58	54
4″	59,42,49,31,37,35,44,55,50,46	12,15,34,32,59,42,57	4,21,56, 1,52	54
6″	59,42,49,43,53,10,17,55,33,43	12,15,30,11, 3,40,11	4,21,56, 2,46	54
8″	59,42,49,56, 8,40,28,59,13,54	12,15,25,49, 7,36,31	4,21,56, 3,40	54
10″	59,42,50, 8,24, 6,18, 6,50,25	12,15,21,27,11,31,57	4,21,56, 4,34	54
12″	59,42,50,20,39,27,45,18,22,22	12,15,17, 5,15,26,29	4,21,56, 5,28	54
14″	59,42,50,32,54,44,50,33,48,51	12,15,12,43,19,20, 7	4,21,56, 6,22	54
16″	59,42,50,45, 9,57,33,53, 8,58	12,15, 8,21,23,12,51	4,21,56, 7,16	54
18″	59,42,50,57,25, 5,55,16,21,49	12,15, 3,59,27, 4,41	4,21,56, 8,10	54
20″	59,42,51, 9,40, 9,54,43,26,30	12,14,59,37,30,55,37	4,21,56, 9, 4	54
22″	59,42,51,21,55, 9,32,14,22, 7	12,14,55,15,34,45,39	4,21,56, 9,58	54
24″	59,42,51,34,10, 4,47,49, 7,46	12,14,50,53,38,34,47	4,21,56,10,52	54
26″	59,42,51,46,24,55,41,27,42,33	12,14,46,31,42,23, 1	4,21,56,11,46	54
28″	59,42,51,58,39,42,13,10, 5,34	12,14,42, 9,46,10,21	4,21,56,12,40	54
30″	59,42,52,10,54,24,22,56,15,55	12,14,37,47,49,56,47	4,21,56,13,34	54
32″	59,42,52,23, 9, 2,10,46,12,42	12,14,33,25,53,42,19	4,21,56,14,28	54
34″	59,42,52,35,23,35,36,39,55, 1	12,14,29, 3,57,26,57	4,21,56,15,22	54
36″	59,42,52,47,38, 4,40,37,21,58	12,14,24,42, 1,10,41	4,21,56,16,16	54
38″	59,42,52,59,52,29,22,38,32,39	12,14,20,20, 4,53,31	4,21,56,17,10	54
40″	59,42,53,12, 6,49,42,43,26,10	12,14,15,58, 8,35,27	4,21,56,18, 4	54
42″	59,42,53,24,21, 5,40,52, 1,37	12,14,11,36,12,16,29	4,21,56,18,58	54
44″	59,42,53,36,35,17,17, 4,18, 6	12,14, 7,14,15,56,37	4,21,56,19,52	54
46″	59,42,53,48,49,24,31,20,14,43	12,14, 2,52,19,35,51	4,21,56,20,46	54
48″	59,42,54, 1, 3,27,23,39,50,34	12,13,58,30,23,14,11	4,21,56,21,40	54
50″	59,42,54,13,17,25,54, 3, 4,45	12,13,54, 8,26,51,37	4,21,56,22,34	54
52″	59,42,54,25,31,20, 2,29,56,22	12,13,49,46,30,28, 9	4,21,56,23,28	54
54″	59,42,54,37,45, 9,49, 0,24,31	12,13,45,24,34, 3,47	4,21,56,24,22	54
56″	59,42,54,49,58,55,13,34,28,18	12,13,41, 2,37,38,31	4,21,56,25,16	54
58″	59,42,55, 2,12,36,16,12, 6,49	12,13,36,40,41,12,21	4,21,56,26,10	
60″	59,42,55,14,26,12,56,53,19,10			
exact	59,42,55,14,26,12,56,53,36,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°25′ 0″	59,42,55,14,26,12,56,53,36,24	12,13,32,18,44,47,14		
2″	59,42,55,26,39,45,15,38,23,38	12,13,27,56,48,19,25	4,21,56,27,49	54
4″	59,42,55,38,53,13,12,26,43, 3	12,13,23,34,51,50,42	4,21,56,28,43	54
6″	59,42,55,51, 6,36,47,18,33,45	12,13,19,12,55,21, 5	4,21,56,29,37	54
8″	59,42,56, 3,19,56, 0,13,54,50	12,13,14,50,58,50,34	4,21,56,30,31	54
10″	59,42,56,15,33,10,51,12,45,24	12,13,10,29, 2,19, 9	4,21,56,31,25	54
12″	59,42,56,27,46,21,20,15, 4,33	12,13, 6, 7, 5,46,50	4,21,56,32,19	54
14″	59,42,56,39,59,27,27,20,51,23	12,13, 1,45, 9,13,37	4,21,56,33,13	54
16″	59,42,56,52,12,29,12,30, 5, 0	12,12,57,23,12,39,30	4,21,56,34, 7	54
18″	59,42,57, 4,25,26,35,42,44,30	12,12,53, 1,16, 4,29	4,21,56,35, 1	54
20″	59,42,57,16,38,19,36,58,48,59	12,12,48,39,19,28,34	4,21,56,35,55	54
22″	59,42,57,28,51, 8,16,18,17,33	12,12,44,17,22,51,45	4,21,56,36,49	54
24″	59,42,57,41, 3,52,33,41, 9,18	12,12,39,55,26,14, 2	4,21,56,37,43	54
26″	59,42,57,53,16,32,29, 7,23,20	12,12,35,33,29,35,25	4,21,56,38,37	54
28″	59,42,58, 5,29, 8, 2,36,58,45	12,12,31,11,32,55,54	4,21,56,39,31	54
30″	59,42,58,17,41,39,14, 9,54,39	12,12,26,49,36,15,29	4,21,56,40,25	54
32″	59,42,58,29,54, 6, 3,46,10, 8	12,12,22,27,39,34,10	4,21,56,41,19	54
34″	59,42,58,42, 6,28,31,25,44,18	12,12,18, 5,42,51,57	4,21,56,42,13	54
36″	59,42,58,54,18,46,37, 8,36,15	12,12,13,43,46, 8,50	4,21,56,43, 7	54
38″	59,42,59, 6,31, 0,20,54,45, 5	12,12, 9,21,49,24,49	4,21,56,44, 1	54
40″	59,42,59,18,43, 9,42,44, 9,54	12,12, 4,59,52,39,54	4,21,56,44,55	54
42″	59,42,59,30,55,14,42,36,49,48	12,12, 0,37,55,54, 5	4,21,56,45,49	54
44″	59,42,59,43, 7,15,20,32,43,53	12,11,56,15,59, 7,22	4,21,56,46,43	54
46″	59,42,59,55,19,11,36,31,51,15	12,11,51,54, 2,19,45	4,21,56,47,37	54
48″	59,43, 0, 7,31, 3,30,34,11, 0	12,11,47,32, 5,31,14	4,21,56,48,31	54
50″	59,43, 0,19,42,51, 2,39,42,14	12,11,43,10, 8,41,49	4,21,56,49,25	54
52″	59,43, 0,31,54,34,12,48,24, 3	12,11,38,48,11,51,30	4,21,56,50,19	54
54″	59,43, 0,44, 6,13, 1, 0,15,33	12,11,34,26,15, 0,17	4,21,56,51,13	54
56″	59,43, 0,56,17,47,27,15,15,50	12,11,30, 4,18, 8,10	4,21,56,52, 7	54
58″	59,43, 1, 8,29,17,31,33,24, 0	12,11,25,42,21,15, 9	4,21,56,53, 1	
60″	59,43, 1,20,40,43,13,54,39, 9			
exact	59,43, 1,20,40,43,13,55, 6,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°26′ 0″	59,43, 1,20,40,43,13,55, 6,16	12,11,21,20,24,24,16		
2″	59,43, 1,32,52, 4,34,19,30,32	12,11,16,58,27,29,41	4,21,56,54,35	53
4″	59,43, 1,45, 3,21,32,47, 0,13	12,11,12,36,30,34,13	4,21,56,55,28	53
6″	59,43, 1,57,14,34, 9,17,34,26	12,11, 8,14,33,37,52	4,21,56,56,21	53
8″	59,43, 2, 9,25,42,23,51,12,18	12,11, 3,52,36,40,38	4,21,56,57,14	53
10″	59,43, 2,21,36,46,16,27,52,56	12,10,59,30,39,42,31	4,21,56,58, 7	53
12″	59,43, 2,33,47,45,47, 7,35,27	12,10,55, 8,42,43,31	4,21,56,59, 0	53
14″	59,43, 2,45,58,40,55,50,18,58	12,10,50,46,45,43,38	4,21,56,59,53	53
16″	59,43, 2,58, 9,31,42,36, 2,36	12,10,46,24,48,42,52	4,21,57, 0,46	53
18″	59,43, 3,10,20,18, 7,24,45,28	12,10,42, 2,51,41,13	4,21,57, 1,39	53
20″	59,43, 3,22,31, 0,10,16,26,41	12,10,37,40,54,38,41	4,21,57, 2,32	53
22″	59,43, 3,34,41,37,51,11, 5,22	12,10,33,18,57,35,16	4,21,57, 3,25	53
24″	59,43, 3,46,52,11,10, 8,40,38	12,10,28,57, 0,30,58	4,21,57, 4,18	53
26″	59,43, 3,59, 2,40, 7, 9,11,36	12,10,24,35, 3,25,47	4,21,57, 5,11	53
28″	59,43, 4,11,13, 4,42,12,37,23	12,10,20,13, 6,19,43	4,21,57, 6, 4	53
30″	59,43, 4,23,23,24,55,18,57, 6	12,10,15,51, 9,12,46	4,21,57, 6,57	53
32″	59,43, 4,35,33,40,46,28, 9,52	12,10,11,29,12, 4,56	4,21,57, 7,50	53
34″	59,43, 4,47,43,52,15,40,14,48	12,10, 7, 7,14,56,13	4,21,57, 8,43	53
36″	59,43, 4,59,53,59,22,55,11, 1	12,10, 2,45,17,46,37	4,21,57, 9,36	53
38″	59,43, 5,12, 4, 2, 8,12,57,38	12, 9,58,23,20,36, 8	4,21,57,10,29	53
40″	59,43, 5,24,14, 0,31,33,33,46	12, 9,54, 1,23,24,46	4,21,57,11,22	53
42″	59,43, 5,36,23,54,32,56,58,32	12, 9,49,39,26,12,31	4,21,57,12,15	53
44″	59,43, 5,48,33,44,12,23,11, 3	12, 9,45,17,28,59,23	4,21,57,13, 8	53
46″	59,43, 6, 0,43,29,29,52,10,26	12, 9,40,55,31,45,22	4,21,57,14, 1	53
48″	59,43, 6,12,53,10,25,23,55,48	12, 9,36,33,34,30,28	4,21,57,14,54	53
50″	59,43, 6,25, 2,46,58,58,26,16	12, 9,32,11,37,14,41	4,21,57,15,47	53
52″	59,43, 6,37,12,19,10,35,40,57	12, 9,27,49,39,58, 1	4,21,57,16,40	53
54″	59,43, 6,49,21,47, 0,15,38,58	12, 9,23,27,42,40,28	4,21,57,17,33	53
56″	59,43, 7, 1,31,10,27,58,19,26	12, 9,19, 5,45,22, 2	4,21,57,18,26	53
58″	59,43, 7,13,40,29,33,43,41,28	12, 9,14,43,48, 2,43	4,21,57,19,19	
60″	59,43, 7,25,49,44,17,31,44,11			
exact	59,43, 7,25,49,44,17,31,12, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°27′ 0″	59,43, 7,25,49,44,17,31,12, 1			
		12, 9,10,21,50,39,17		
2″	59,43, 7,37,58,54,39,21,51,18		4,21,57,21,17	
		12, 9, 5,59,53,18, 0		53
4″	59,43, 7,50, 8, 0,39,15, 9,18		4,21,57,22,10	
		12, 9, 1,37,55,55,50		53
6″	59,43, 8, 2,17, 2,17,11, 5, 8		4,21,57,23, 3	
		12, 8,57,15,58,32,47		53
8″	59,43, 8,14,25,59,33, 9,37,55		4,21,57,23,56	
		12, 8,52,54, 1, 8,51		53
10″	59,43, 8,26,34,52,27,10,46,46		4,21,57,24,49	
		12, 8,48,32, 3,44, 2		53
12″	59,43, 8,38,43,40,59,14,30,48		4,21,57,25,42	
		12, 8,44,10, 6,18,20		53
14″	59,43, 8,50,52,25, 9,20,49, 8		4,21,57,26,35	
		12, 8,39,48, 8,51,45		53
16″	59,43, 9, 3, 1, 4,57,29,40,53		4,21,57,27,28	
		12, 8,35,26,11,24,17		53
18″	59,43, 9,15, 9,40,23,41, 5,10		4,21,57,28,21	
		12, 8,31, 4,13,55,56		53
20″	59,43, 9,27,18,11,27,55, 1, 6		4,21,57,29,14	
		12, 8,26,42,16,26,42		53
22″	59,43, 9,39,26,38,10,11,27,48		4,21,57,30, 7	
		12, 8,22,20,18,56,35		53
24″	59,43, 9,51,35, 0,30,30,24,23		4,21,57,31, 0	
		12, 8,17,58,21,25,35		53
26″	59,43,10, 3,43,18,28,51,49,58		4,21,57,31,53	
		12, 8,13,36,23,53,42		53
28″	59,43,10,15,51,32, 5,15,43,40		4,21,57,32,46	
		12, 8, 9,14,26,20,56		53
30″	59,43,10,27,59,41,19,42, 4,36		4,21,57,33,39	
		12, 8, 4,52,28,47,17		53
32″	59,43,10,40, 7,46,12,10,51,53		4,21,57,34,32	
		12, 8, 0,30,31,12,45		53
34″	59,43,10,52,15,46,42,42, 4,38		4,21,57,35,25	
		12, 7,56, 8,33,37,20		53
36″	59,43,11, 4,23,42,51,15,41,58		4,21,57,36,18	
		12, 7,51,46,36, 1, 2		53
38″	59,43,11,16,31,34,37,51,43, 0		4,21,57,37,11	
		12, 7,47,24,38,23,51		53
40″	59,43,11,28,39,22, 2,30, 6,51		4,21,57,38, 4	
		12, 7,43, 2,40,45,47		53
42″	59,43,11,40,47, 5, 5,10,52,38		4,21,57,38,57	
		12, 7,38,40,43, 6,50		53
44″	59,43,11,52,54,43,45,53,59,28		4,21,57,39,50	
		12, 7,34,18,45,27, 0		53
46″	59,43,12, 5, 2,18, 4,39,26,28		4,21,57,40,43	
		12, 7,29,56,47,46,17		53
48″	59,43,12,17, 9,48, 1,27,12,45		4,21,57,41,36	
		12, 7,25,34,50, 4,41		53
50″	59,43,12,29,17,13,36,17,17,26		4,21,57,42,29	
		12, 7,21,12,52,22,12		53
52″	59,43,12,41,24,34,49, 9,39,38		4,21,57,43,22	
		12, 7,16,50,54,38,50		53
54″	59,43,12,53,31,51,40, 4,18,28		4,21,57,44,15	
		12, 7,12,28,56,54,35		53
56″	59,43,13, 5,39, 4, 9, 1,13, 3		4,21,57,45, 8	
		12, 7, 8, 6,59, 9,27		53
58″	59,43,13,17,46,12,16, 0,22,30		4,21,57,46, 1	
		12, 7, 3,45, 1,23,26		
60″	59,43,13,29,53,16, 1, 1,45,56			
exact	59,43,13,29,53,16, 1, 1,27,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°28′ 0″	59,43,13,29,53,16, 1, 1,27,43			
		12, 6,59,23, 3,34,41		
2″	59,43,13,42, 0,15,24, 5, 2,24		4,21,57,47,54	
		12, 6,55, 1, 5,46,47		53
4″	59,43,13,54, 7,10,25,10,49,11		4,21,57,48,47	
		12, 6,50,39, 7,58, 0		53
6″	59,43,14, 6,14, 1, 4,18,47,11		4,21,57,49,40	
		12, 6,46,17,10, 8,20		53
8″	59,43,14,18,20,47,21,28,55,31		4,21,57,50,33	
		12, 6,41,55,12,17,47		53
10″	59,43,14,30,27,29,16,41,13,18		4,21,57,51,26	
		12, 6,37,33,14,26,21		53
12″	59,43,14,42,34, 6,49,55,39,39		4,21,57,52,19	
		12, 6,33,11,16,34, 2		53
14″	59,43,14,54,40,40, 1,12,13,41		4,21,57,53,12	
		12, 6,28,49,18,40,50		53
16″	59,43,15, 6,47, 8,50,30,54,31		4,21,57,54, 5	
		12, 6,24,27,20,46,45		53
18″	59,43,15,18,53,33,17,51,41,16		4,21,57,54,58	
		12, 6,20, 5,22,51,47		53
20″	59,43,15,30,59,53,23,14,33, 3		4,21,57,55,51	
		12, 6,15,43,24,55,56		53
22″	59,43,15,43, 6, 9, 6,39,28,59		4,21,57,56,44	
		12, 6,11,21,26,59,12		53
24″	59,43,15,55,12,20,28, 6,28,11		4,21,57,57,37	
		12, 6, 6,59,29, 1,35		53
26″	59,43,16, 7,18,27,27,35,29,46		4,21,57,58,30	
		12, 6, 2,37,31, 3, 5		53
28″	59,43,16,19,24,30, 5, 6,32,51		4,21,57,59,23	
		12, 5,58,15,33, 3,42		53
30″	59,43,16,31,30,28,20,39,36,33		4,21,58, 0,16	
		12, 5,53,53,35, 3,26		53
32″	59,43,16,43,36,22,14,14,39,59		4,21,58, 1, 9	
		12, 5,49,31,37, 2,17		53
34″	59,43,16,55,42,11,45,51,42,16		4,21,58, 2, 2	
		12, 5,45, 9,39, 0,15		53
36″	59,43,17, 7,47,56,55,30,42,31		4,21,58, 2,55	
		12, 5,40,47,40,57,20		53
38″	59,43,17,19,53,37,43,11,39,51		4,21,58, 3,48	
		12, 5,36,25,42,53,32		53
40″	59,43,17,31,59,14, 8,54,33,23		4,21,58, 4,41	
		12, 5,32, 3,44,48,51		53
42″	59,43,17,44, 4,46,12,39,22,14		4,21,58, 5,34	
		12, 5,27,41,46,43,17		53
44″	59,43,17,56,10,13,54,26, 5,31		4,21,58, 6,27	
		12, 5,23,19,48,36,50		53
46″	59,43,18, 8,15,37,14,14,42,21		4,21,58, 7,20	
		12, 5,18,57,50,29,30		53
48″	59,43,18,20,20,56,12, 5,11,51		4,21,58, 8,13	
		12, 5,14,35,52,21,17		53
50″	59,43,18,32,26,10,47,57,33, 8		4,21,58, 9, 6	
		12, 5,10,13,54,12,11		53
52″	59,43,18,44,31,21, 1,51,45,19		4,21,58, 9,59	
		12, 5, 5,51,56, 2,12		53
54″	59,43,18,56,36,26,53,47,47,31		4,21,58,10,52	
		12, 5, 1,29,57,51,20		53
56″	59,43,19, 8,41,28,23,45,38,51		4,21,58,11,45	
		12, 4,57, 7,59,39,35		53
58″	59,43,19,20,46,25,31,45,18,26		4,21,58,12,38	
		12, 4,52,46, 1,26,57		
60″	59,43,19,32,51,18,17,46,45,23			
exact	59,43,19,32,51,18,17,46,39,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°29′ 0″	59,43,19,32,51,18,17,46,39,16			
		12, 4,48,24, 3,12,50		
2″	59,43,19,44,56, 6,41,49,52, 6		4,21,58,14,26	
		12, 4,44, 2, 4,58,24		53
4″	59,43,19,57, 0,50,43,54,50,30		4,21,58,15,19	
		12, 4,39,40, 6,43, 5		53
6″	59,43,20, 9, 5,30,24, 1,33,35		4,21,58,16,12	
		12, 4,35,18, 8,26,53		53
8″	59,43,20,21,10, 5,42,10, 0,28		4,21,58,17, 5	
		12, 4,30,56,10, 9,48		53
10″	59,43,20,33,14,36,38,20,10,16		4,21,58,17,58	
		12, 4,26,34,11,51,50		53
12″	59,43,20,45,19, 3,12,32, 2, 6		4,21,58,18,51	
		12, 4,22,12,13,32,59		53
14″	59,43,20,57,23,25,24,45,35, 5		4,21,58,19,44	
		12, 4,17,50,15,13,15		53
16″	59,43,21, 9,27,43,15, 0,48,20		4,21,58,20,37	
		12, 4,13,28,16,52,38		53
18″	59,43,21,21,31,56,43,17,40,58		4,21,58,21,30	
		12, 4, 9, 6,18,31, 8		53
20″	59,43,21,33,36, 5,49,36,12, 6		4,21,58,22,23	
		12, 4, 4,44,20, 8,45		53
22″	59,43,21,45,40,10,33,56,20,51		4,21,58,23,16	
		12, 4, 0,22,21,45,29		53
24″	59,43,21,57,44,10,56,18, 6,20		4,21,58,24, 9	
		12, 3,56, 0,23,21,20		53
26″	59,43,22, 9,48, 6,56,41,27,40		4,21,58,25, 2	
		12, 3,51,38,24,56,18		53
28″	59,43,22,21,51,58,35, 6,23,58		4,21,58,25,55	
		12, 3,47,16,26,30,23		53
30″	59,43,22,33,55,45,51,32,54,21		4,21,58,26,48	
		12, 3,42,54,28, 3,35		53
32″	59,43,22,45,59,28,46, 0,57,56		4,21,58,27,41	
		12, 3,38,32,29,35,54		53
34″	59,43,22,58, 3, 7,18,30,33,50		4,21,58,28,34	
		12, 3,34,10,31, 7,20		53
36″	59,43,23,10, 6,41,29, 1,41,10		4,21,58,29,27	
		12, 3,29,48,32,37,53		53
38″	59,43,23,22,10,11,17,34,19, 3		4,21,58,30,20	
		12, 3,25,26,34, 7,33		53
40″	59,43,23,34,13,36,44, 8,26,36		4,21,58,31,13	
		12, 3,21, 4,35,36,20		53
42″	59,43,23,46,16,57,48,44, 2,56		4,21,58,32, 6	
		12, 3,16,42,37, 4,14		53
44″	59,43,23,58,20,14,31,21, 7,10		4,21,58,32,59	
		12, 3,12,20,38,31,15		53
46″	59,43,24,10,23,26,51,59,38,25		4,21,58,33,52	
		12, 3, 7,58,39,57,23		53
48″	59,43,24,22,26,34,50,39,35,48		4,21,58,34,45	
		12, 3, 3,36,41,22,38		53
50″	59,43,24,34,29,38,27,20,58,26		4,21,58,35,38	
		12, 2,59,14,42,47, 0		53
52″	59,43,24,46,32,37,42, 3,45,26		4,21,58,36,31	
		12, 2,54,52,44,10,29		53
54″	59,43,24,58,35,32,34,47,55,55		4,21,58,37,24	
		12, 2,50,30,45,33, 5		53
56″	59,43,25,10,38,23, 5,33,29, 0		4,21,58,38,17	
		12, 2,46, 8,46,54,48		53
58″	59,43,25,22,41, 9,14,20,23,48		4,21,58,39,10	
		12, 2,41,46,48,15,38		
60″	59,43,25,34,43,51, 1, 8,39,26			
exact	59,43,25,34,43,51, 1, 8,44,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°30′ 0″	59,43,25,34,43,51, 1, 8,44,22			
		12, 2,37,24,49,36, 9		
2″	59,43,25,46,46,28,25,58,20,31		4,21,58,40,53	
		12, 2,33, 2,50,55,16		53
4″	59,43,25,58,49, 1,28,49,15,47		4,21,58,41,46	
		12, 2,28,40,52,13,30		53
6″	59,43,26,10,51,30, 9,41,29,17		4,21,58,42,39	
		12, 2,24,18,53,30,51		53
8″	59,43,26,22,53,54,28,35, 0, 8		4,21,58,43,32	
		12, 2,19,56,54,47,19		53
10″	59,43,26,34,56,14,25,29,47,27		4,21,58,44,25	
		12, 2,15,34,56, 2,54		53
12″	59,43,26,46,58,30, 0,25,50,21		4,21,58,45,18	
		12, 2,11,12,57,17,36		53
14″	59,43,26,59, 0,41,13,23, 7,57		4,21,58,46,11	
		12, 2, 6,50,58,31,25		53
16″	59,43,27,11, 2,48, 4,21,39,22		4,21,58,47, 4	
		12, 2, 2,28,59,44,21		53
18″	59,43,27,23, 4,50,33,21,23,43		4,21,58,47,57	
		12, 1,58, 7, 0,56,24		53
20″	59,43,27,35, 6,48,40,22,20, 7		4,21,58,48,50	
		12, 1,53,45, 2, 7,34		53
22″	59,43,27,47, 8,42,25,24,27,41		4,21,58,49,43	
		12, 1,49,23, 3,17,51		53
24″	59,43,27,59,10,31,48,27,45,32		4,21,58,50,36	
		12, 1,45, 1, 4,27,15		53
26″	59,43,28,11,12,16,49,32,12,47		4,21,58,51,29	
		12, 1,40,39, 5,35,46		53
28″	59,43,28,23,13,57,28,37,48,33		4,21,58,52,22	
		12, 1,36,17, 6,43,24		53
30″	59,43,28,35,15,33,45,44,31,57		4,21,58,53,15	
		12, 1,31,55, 7,50, 9		53
32″	59,43,28,47,17, 5,40,52,22, 6		4,21,58,54, 8	
		12, 1,27,33, 8,56, 1		53
34″	59,43,28,59,18,33,14, 1,18, 7		4,21,58,55, 1	
		12, 1,23,11,10, 1, 0		53
36″	59,43,29,11,19,56,25,11,19, 7		4,21,58,55,54	
		12, 1,18,49,11, 5, 6		53
38″	59,43,29,23,21,15,14,22,24,13		4,21,58,56,47	
		12, 1,14,27,12, 8,19		53
40″	59,43,29,35,22,29,41,34,32,32		4,21,58,57,40	
		12, 1,10, 5,13,10,39		53
42″	59,43,29,47,23,39,46,47,43,11		4,21,58,58,33	
		12, 1, 5,43,14,12, 6		53
44″	59,43,29,59,24,45,30, 1,55,17		4,21,58,59,26	
		12, 1, 1,21,15,12,40		53
46″	59,43,30,11,25,46,51,17, 7,57		4,21,59, 0,19	
		12, 0,56,59,16,12,21		53
48″	59,43,30,23,26,43,50,33,20,18		4,21,59, 1,12	
		12, 0,52,37,17,11, 9		53
50″	59,43,30,35,27,36,27,50,31,27		4,21,59, 2, 5	
		12, 0,48,15,18, 9, 4		53
52″	59,43,30,47,28,24,43, 8,40,31		4,21,59, 2,58	
		12, 0,43,53,19, 6, 6		53
54″	59,43,30,59,29, 8,36,27,46,37		4,21,59, 3,51	
		12, 0,39,31,20, 2,15		53
56″	59,43,31,11,29,48, 7,47,48,52		4,21,59, 4,44	
		12, 0,35, 9,20,57,31		53
58″	59,43,31,23,30,23,17, 8,46,23		4,21,59, 5,37	
		12, 0,30,47,21,51,54		
60″	59,43,31,35,30,54, 4,30,38,17			
exact	59,43,31,35,30,54, 4,30,52,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°31′ 0″	59,43,31,35,30,54, 4,30,52,34			
		12, 0,26,25,22,47, 2		
2″	59,43,31,47,31,20,29,53,39,36		4,21,59, 7,15	
		12, 0,22, 3,23,39,47		53
4″	59,43,31,59,31,42,33,17,19,23		4,21,59, 8, 8	
		12, 0,17,41,24,31,39		53
6″	59,43,32,11,32, 0,14,41,51, 2		4,21,59, 9, 1	
		12, 0,13,19,25,22,38		53
8″	59,43,32,23,32,13,34, 7,13,40		4,21,59, 9,54	
		12, 0, 8,57,26,12,44		53
10″	59,43,32,35,32,22,31,33,26,24		4,21,59,10,47	
		12, 0, 4,35,27, 1,57		53
12″	59,43,32,47,32,27, 7, 0,28,21		4,21,59,11,40	
		12, 0, 0,13,27,50,17		53
14″	59,43,32,59,32,27,20,28,18,38		4,21,59,12,33	
		11,59,55,51,28,37,44		53
16″	59,43,33,11,32,23,11,56,56,22		4,21,59,13,26	
		11,59,51,29,29,24,18		53
18″	59,43,33,23,32,14,41,26,20,40		4,21,59,14,19	
		11,59,47, 7,30, 9,59		53
20″	59,43,33,35,32, 1,48,56,30,39		4,21,59,15,12	
		11,59,42,45,30,54,47		53
22″	59,43,33,47,31,44,34,27,25,26		4,21,59,16, 5	
		11,59,38,23,31,38,42		53
24″	59,43,33,59,31,22,57,59, 4, 8		4,21,59,16,58	
		11,59,34, 1,32,21,44		53
26″	59,43,34,11,30,56,59,31,25,52		4,21,59,17,51	
		11,59,29,39,33, 3,53		53
28″	59,43,34,23,30,26,39, 4,29,45		4,21,59,18,44	
		11,59,25,17,33,45, 9		53
30″	59,43,34,35,29,51,56,38,14,54		4,21,59,19,37	
		11,59,20,55,34,25,32		53
32″	59,43,34,47,29,12,52,12,40,26		4,21,59,20,30	
		11,59,16,33,35, 5, 2		53
34″	59,43,34,59,28,29,25,47,45,28		4,21,59,21,23	
		11,59,12,11,35,43,39		53
36″	59,43,35,11,27,41,37,23,29, 7		4,21,59,22,16	
		11,59, 7,49,36,21,23		53
38″	59,43,35,23,26,49,26,59,50,30		4,21,59,23, 9	
		11,59, 3,27,36,58,14		53
40″	59,43,35,35,25,52,54,36,48,44		4,21,59,24, 2	
		11,58,59, 5,37,34,12		53
42″	59,43,35,47,24,52, 0,14,22,56		4,21,59,24,55	
		11,58,54,43,38, 9,17		53
44″	59,43,35,59,23,46,43,52,32,13		4,21,59,25,48	
		11,58,50,21,38,43,29		53
46″	59,43,36,11,22,37, 5,31,15,42		4,21,59,26,41	
		11,58,45,59,39,16,48		53
48″	59,43,36,23,21,23, 5,10,32,30		4,21,59,27,34	
		11,58,41,37,39,49,14		53
50″	59,43,36,35,20, 4,42,50,21,44		4,21,59,28,27	
		11,58,37,15,40,20,47		53
52″	59,43,36,47,18,41,58,30,42,31		4,21,59,29,20	
		11,58,32,53,40,51,27		53
54″	59,43,36,59,17,14,52,11,33,58		4,21,59,30,13	
		11,58,28,31,41,21,14		53
56″	59,43,37,11,15,43,23,52,55,12		4,21,59,31, 6	
		11,58,24, 9,41,50, 8		53
58″	59,43,37,23,14, 7,33,34,45,20		4,21,59,31,59	
		11,58,19,47,42,18, 9		
60″	59,43,37,35,12,27,21,17, 3,29			
exact	59,43,37,35,12,27,21,17,25,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°32′ 0″	59,43,37,35,12,27,21,17,25,11			
		11,58,15,25,42,47,51		
2″	59,43,37,47,10,42,47, 0,13, 2		4,21,59,33,33	
		11,58,11, 3,43,14,18		53
4″	59,43,37,59, 8,53,50,43,27,20		4,21,59,34,26	
		11,58, 6,41,43,39,52		53
6″	59,43,38,11, 7, 0,32,27, 7,12		4,21,59,35,19	
		11,58, 2,19,44, 4,33		53
8″	59,43,38,23, 5, 2,52,11,11,45		4,21,59,36,12	
		11,57,57,57,44,28,21		53
10″	59,43,38,35, 3, 0,49,55,40, 6		4,21,59,37, 5	
		11,57,53,35,44,51,16		53
12″	59,43,38,47, 0,54,25,40,31,22		4,21,59,37,58	
		11,57,49,13,45,13,18		53
14″	59,43,38,58,58,43,39,25,44,40		4,21,59,38,51	
		11,57,44,51,45,34,27		53
16″	59,43,39,10,56,28,31,11,19, 7		4,21,59,39,44	
		11,57,40,29,45,54,43		53
18″	59,43,39,22,54, 9, 0,57,13,50		4,21,59,40,37	
		11,57,36, 7,46,14, 6		53
20″	59,43,39,34,51,45, 8,43,27,56		4,21,59,41,30	
		11,57,31,45,46,32,36		53
22″	59,43,39,46,49,16,54,30, 0,32		4,21,59,42,23	
		11,57,27,23,46,50,13		53
24″	59,43,39,58,46,44,18,16,50,45		4,21,59,43,16	
		11,57,23, 1,47, 6,57		53
26″	59,43,40,10,44, 7,20, 3,57,42		4,21,59,44, 9	
		11,57,18,39,47,22,48		53
28″	59,43,40,22,41,25,59,51,20,30		4,21,59,45, 2	
		11,57,14,17,47,37,46		53
30″	59,43,40,34,38,40,17,38,58,16		4,21,59,45,55	
		11,57, 9,55,47,51,51		53
32″	59,43,40,46,35,50,13,26,50, 7		4,21,59,46,48	
		11,57, 5,33,48, 5, 3		53
34″	59,43,40,58,32,55,47,14,55,10		4,21,59,47,41	
		11,57, 1,11,48,17,22		53
36″	59,43,41,10,29,56,59, 3,12,32		4,21,59,48,34	
		11,56,56,49,48,28,48		53
38″	59,43,41,22,26,53,48,51,41,20		4,21,59,49,27	
		11,56,52,27,48,39,21		53
40″	59,43,41,34,23,46,16,40,20,41		4,21,59,50,20	
		11,56,48, 5,48,49, 1		53
42″	59,43,41,46,20,34,22,29, 9,42		4,21,59,51,13	
		11,56,43,43,48,57,48		53
44″	59,43,41,58,17,18, 6,18, 7,30		4,21,59,52, 6	
		11,56,39,21,49, 5,42		53
46″	59,43,42,10,13,57,28, 7,13,12		4,21,59,52,59	
		11,56,34,59,49,12,43		53
48″	59,43,42,22,10,32,27,56,25,55		4,21,59,53,52	
		11,56,30,37,49,18,51		53
50″	59,43,42,34, 7, 3, 5,45,44,46		4,21,59,54,45	
		11,56,26,15,49,24, 6		53
52″	59,43,42,46, 3,29,21,35, 8,52		4,21,59,55,38	
		11,56,21,53,49,28,28		53
54″	59,43,42,57,59,51,15,24,37,20		4,21,59,56,31	
		11,56,17,31,49,31,57		53
56″	59,43,43, 9,56, 8,47,14, 9,17		4,21,59,57,24	
		11,56,13, 9,49,34,33		53
58″	59,43,43,21,52,21,57, 3,43,50		4,21,59,58,17	
		11,56, 8,47,49,36,16		
60″	59,43,43,33,48,30,44,53,20, 6			
exact	59,43,43,33,48,30,44,53,55,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°33′ 0″	59,43,43,33,48,30,44,53,55,26			
		11,56, 4,25,49,41, 1		
2″	59,43,43,45,44,35,10,43,36,27		4,21,59,59,46	
		11,56, 0, 3,49,41,15		52
4″	59,43,43,57,40,35,14,33,17,42		4,22, 0, 0,38	
		11,55,55,41,49,40,37		52
6″	59,43,44, 9,36,30,56,22,58,19		4,22, 0, 1,30	
		11,55,51,19,49,39, 7		52
8″	59,43,44,21,32,22,16,12,37,26		4,22, 0, 2,22	
		11,55,46,57,49,36,45		52
10″	59,43,44,33,28, 9,14, 2,14,11		4,22, 0, 3,14	
		11,55,42,35,49,33,31		52
12″	59,43,44,45,23,51,49,51,47,42		4,22, 0, 4, 6	
		11,55,38,13,49,29,25		52
14″	59,43,44,57,19,30, 3,41,17, 7		4,22, 0, 4,58	
		11,55,33,51,49,24,27		52
16″	59,43,45, 9,15, 3,55,30,41,34		4,22, 0, 5,50	
		11,55,29,29,49,18,37		52
18″	59,43,45,21,10,33,25,20, 0,11		4,22, 0, 6,42	
		11,55,25, 7,49,11,55		52
20″	59,43,45,33, 5,58,33, 9,12, 6		4,22, 0, 7,34	
		11,55,20,45,49, 4,21		52
22″	59,43,45,45, 1,19,18,58,16,27		4,22, 0, 8,26	
		11,55,16,23,48,55,55		52
24″	59,43,45,56,56,35,42,47,12,22		4,22, 0, 9,18	
		11,55,12, 1,48,46,37		52
26″	59,43,46, 8,51,47,44,35,58,59		4,22, 0,10,10	
		11,55, 7,39,48,36,27		52
28″	59,43,46,20,46,55,24,24,35,26		4,22, 0,11, 2	
		11,55, 3,17,48,25,25		52
30″	59,43,46,32,41,58,42,13, 0,51		4,22, 0,11,54	
		11,54,58,55,48,13,31		52
32″	59,43,46,44,36,57,38, 1,14,22		4,22, 0,12,46	
		11,54,54,33,48, 0,45		52
34″	59,43,46,56,31,52,11,49,15, 7		4,22, 0,13,38	
		11,54,50,11,47,47, 7		52
36″	59,43,47, 8,26,42,23,37, 2,14		4,22, 0,14,30	
		11,54,45,49,47,32,37		52
38″	59,43,47,20,21,28,13,24,34,51		4,22, 0,15,22	
		11,54,41,27,47,17,15		52
40″	59,43,47,32,16, 9,41,11,52, 6		4,22, 0,16,14	
		11,54,37, 5,47, 1, 1		52
42″	59,43,47,44,10,46,46,58,53, 7		4,22, 0,17, 6	
		11,54,32,43,46,43,55		52
44″	59,43,47,56, 5,19,30,45,37, 2		4,22, 0,17,58	
		11,54,28,21,46,25,57		52
46″	59,43,48, 7,59,47,52,32, 2,59		4,22, 0,18,50	
		11,54,23,59,46, 7, 7		52
48″	59,43,48,19,54,11,52,18,10, 6		4,22, 0,19,42	
		11,54,19,37,45,47,25		52
50″	59,43,48,31,48,31,30, 3,57,31		4,22, 0,20,34	
		11,54,15,15,45,26,51		52
52″	59,43,48,43,42,46,45,49,24,22		4,22, 0,21,26	
		11,54,10,53,45, 5,25		52
54″	59,43,48,55,36,57,39,34,29,47		4,22, 0,22,18	
		11,54, 6,31,44,43, 7		52
56″	59,43,49, 7,31, 4,11,19,12,54		4,22, 0,23,10	
		11,54, 2, 9,44,19,57		52
58″	59,43,49,19,25, 6,21, 3,32,51		4,22, 0,24, 2	
		11,53,57,47,43,55,55		
60″	59,43,49,31,19, 4, 8,47,28,46			
exact	59,43,49,31,19, 4, 8,47, 8,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°34′ 0″	59,43,49,31,19, 4, 8,47, 8,18			
		11,53,53,25,43,28,55		
2″	59,43,49,43,12,57,34,30,37,13		4,22, 0,25,54	
		11,53,49, 3,43, 3, 1		52
4″	59,43,49,55, 6,46,38,13,40,14		4,22, 0,26,46	
		11,53,44,41,42,36,15		52
6″	59,43,50, 7, 0,31,19,56,16,29		4,22, 0,27,38	
		11,53,40,19,42, 8,37		52
8″	59,43,50,18,54,11,39,38,25, 6		4,22, 0,28,30	
		11,53,35,57,41,40, 7		52
10″	59,43,50,30,47,47,37,20, 5,13		4,22, 0,29,22	
		11,53,31,35,41,10,45		52
12″	59,43,50,42,41,19,13, 1,15,58		4,22, 0,30,14	
		11,53,27,13,40,40,31		52
14″	59,43,50,54,34,46,26,41,56,29		4,22, 0,31, 6	
		11,53,22,51,40, 9,25		52
16″	59,43,51, 6,28, 9,18,22, 5,54		4,22, 0,31,58	
		11,53,18,29,39,37,27		52
18″	59,43,51,18,21,27,48, 1,43,21		4,22, 0,32,50	
		11,53,14, 7,39, 4,37		52
20″	59,43,51,30,14,41,55,40,47,58		4,22, 0,33,42	
		11,53, 9,45,38,30,55		52
22″	59,43,51,42, 7,51,41,19,18,53		4,22, 0,34,34	
		11,53, 5,23,37,56,21		52
24″	59,43,51,54, 0,57, 4,57,15,14		4,22, 0,35,26	
		11,53, 1, 1,37,20,55		52
26″	59,43,52, 5,53,58, 6,34,36, 9		4,22, 0,36,18	
		11,52,56,39,36,44,37		52
28″	59,43,52,17,46,54,46,11,20,46		4,22, 0,37,10	
		11,52,52,17,36, 7,27		52
30″	59,43,52,29,39,47, 3,47,28,13		4,22, 0,38, 2	
		11,52,47,55,35,29,25		52
32″	59,43,52,41,32,34,59,22,57,38		4,22, 0,38,54	
		11,52,43,33,34,50,31		52
34″	59,43,52,53,25,18,32,57,48, 9		4,22, 0,39,46	
		11,52,39,11,34,10,45		52
36″	59,43,53, 5,17,57,44,31,58,54		4,22, 0,40,38	
		11,52,34,49,33,30, 7		52
38″	59,43,53,17,10,32,34, 5,29, 1		4,22, 0,41,30	
		11,52,30,27,32,48,37		52
40″	59,43,53,29, 3, 3, 1,38,17,38		4,22, 0,42,22	
		11,52,26, 5,32, 6,15		52
42″	59,43,53,40,55,29, 7,10,23,53		4,22, 0,43,14	
		11,52,21,43,31,23, 1		52
44″	59,43,53,52,47,50,50,41,46,54		4,22, 0,44, 6	
		11,52,17,21,30,38,55		52
46″	59,43,54, 4,40, 8,12,12,25,49		4,22, 0,44,58	
		11,52,12,59,29,53,57		52
48″	59,43,54,16,32,21,11,42,19,46		4,22, 0,45,50	
		11,52, 8,37,29, 8, 7		52
50″	59,43,54,28,24,29,49,11,27,53		4,22, 0,46,42	
		11,52, 4,15,28,21,25		52
52″	59,43,54,40,16,34, 4,39,49,18		4,22, 0,47,34	
		11,51,59,53,27,33,51		52
54″	59,43,54,52, 8,33,58, 7,23, 9		4,22, 0,48,26	
		11,51,55,31,26,45,25		52
56″	59,43,55, 4, 0,29,29,34, 8,34		4,22, 0,49,18	
		11,51,51, 9,25,56, 7		52
58″	59,43,55,15,52,20,39, 0, 4,41		4,22, 0,50,10	
		11,51,46,47,25, 5,57		
60″	59,43,55,27,44, 7,26,25,10,38			
exact	59,43,55,27,44, 7,26,25, 0,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°35′ 0″	59,43,55,27,44, 7,26,25, 0,36			
		11,51,42,25,24,13,57		
2″	59,43,55,39,35,49,51,49,14,33		4,22, 0,51,57	
		11,51,38, 3,23,22, 0		52
4″	59,43,55,51,27,27,55,12,36,33		4,22, 0,52,49	
		11,51,33,41,22,29,11		52
6″	59,43,56, 3,19, 1,36,35, 5,44		4,22, 0,53,41	
		11,51,29,19,21,35,30		52
8″	59,43,56,15,10,30,55,56,41,14		4,22, 0,54,33	
		11,51,24,57,20,40,57		52
10″	59,43,56,27, 1,55,53,17,22,11		4,22, 0,55,25	
		11,51,20,35,19,45,32		52
12″	59,43,56,38,53,16,28,37, 7,43		4,22, 0,56,17	
		11,51,16,13,18,49,15		52
14″	59,43,56,50,44,32,41,55,56,58		4,22, 0,57, 9	
		11,51,11,51,17,52, 6		52
16″	59,43,57, 2,35,44,33,13,49, 4		4,22, 0,58, 1	
		11,51, 7,29,16,54, 5		52
18″	59,43,57,14,26,52, 2,30,43, 9		4,22, 0,58,53	
		11,51, 3, 7,15,55,12		52
20″	59,43,57,26,17,55, 9,46,38,21		4,22, 0,59,45	
		11,50,58,45,14,55,27		52
22″	59,43,57,38, 8,53,55, 1,33,48		4,22, 1, 0,37	
		11,50,54,23,13,54,50		52
24″	59,43,57,49,59,48,18,15,28,38		4,22, 1, 1,29	
		11,50,50, 1,12,53,21		52
26″	59,43,58, 1,50,38,19,28,21,59		4,22, 1, 2,21	
		11,50,45,39,11,51, 0		52
28″	59,43,58,13,41,23,58,40,12,59		4,22, 1, 3,13	
		11,50,41,17,10,47,47		52
30″	59,43,58,25,32, 5,15,51, 0,46		4,22, 1, 4, 5	
		11,50,36,55, 9,43,42		52
32″	59,43,58,37,22,42,11, 0,44,28		4,22, 1, 4,57	
		11,50,32,33, 8,38,45		52
34″	59,43,58,49,13,14,44, 9,23,13		4,22, 1, 5,49	
		11,50,28,11, 7,32,56		52
36″	59,43,59, 1, 3,42,55,16,56, 9		4,22, 1, 6,41	
		11,50,23,49, 6,26,15		52
38″	59,43,59,12,54, 6,44,23,22,24		4,22, 1, 7,33	
		11,50,19,27, 5,18,42		52
40″	59,43,59,24,44,26,11,28,41, 6		4,22, 1, 8,25	
		11,50,15, 5, 4,10,17		52
42″	59,43,59,36,34,41,16,32,51,23		4,22, 1, 9,17	
		11,50,10,43, 3, 1, 0		52
44″	59,43,59,48,24,51,59,35,52,23		4,22, 1,10, 9	
		11,50, 6,21, 1,50,51		52
46″	59,44, 0, 0,14,58,20,37,43,14		4,22, 1,11, 1	
		11,50, 1,59, 0,39,50		52
48″	59,44, 0,12, 5, 0,19,38,23, 4		4,22, 1,11,53	
		11,49,57,36,59,27,57		52
50″	59,44, 0,23,54,57,56,37,51, 1		4,22, 1,12,45	
		11,49,53,14,58,15,12		52
52″	59,44, 0,35,44,51,11,36, 6,13		4,22, 1,13,37	
		11,49,48,52,57, 1,35		52
54″	59,44, 0,47,34,40, 4,33, 7,48		4,22, 1,14,29	
		11,49,44,30,55,47, 6		52
56″	59,44, 0,59,24,24,35,28,54,54		4,22, 1,15,21	
		11,49,40, 8,54,31,45		52
58″	59,44, 1,11,14, 4,44,23,26,39		4,22, 1,16,13	
		11,49,35,46,53,15,32		
60″	59,44, 1,23, 3,40,31,16,42,11			
exact	59,44, 1,23, 3,40,31,16,41, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°36′ 0″	59,44, 1,23, 3,40,31,16,41, 2			
		11,49,31,24,51,58,30		
2″	59,44, 1,34,53,11,56, 8,39,32		4,22, 1,17,56	
		11,49,27, 2,50,40,34		52
4″	59,44, 1,46,42,38,58,59,20, 6		4,22, 1,18,48	
		11,49,22,40,49,21,46		52
6″	59,44, 1,58,32, 1,39,48,41,52		4,22, 1,19,40	
		11,49,18,18,48, 2, 6		52
8″	59,44, 2,10,21,19,58,36,43,58		4,22, 1,20,32	
		11,49,13,56,46,41,34		52
10″	59,44, 2,22,10,33,55,23,25,32		4,22, 1,21,24	
		11,49, 9,34,45,20,10		52
12″	59,44, 2,33,59,43,30, 8,45,42		4,22, 1,22,16	
		11,49, 5,12,43,57,54		52
14″	59,44, 2,45,48,48,42,52,43,36		4,22, 1,23, 8	
		11,49, 0,50,42,34,46		52
16″	59,44, 2,57,37,49,33,35,18,22		4,22, 1,24, 0	
		11,48,56,28,41,10,46		52
18″	59,44, 3, 9,26,46, 2,16,29, 8		4,22, 1,24,52	
		11,48,52, 6,39,45,54		52
20″	59,44, 3,21,15,38, 8,56,15, 2		4,22, 1,25,44	
		11,48,47,44,38,20,10		52
22″	59,44, 3,33, 4,25,53,34,35,12		4,22, 1,26,36	
		11,48,43,22,36,53,34		52
24″	59,44, 3,44,53, 9,16,11,28,46		4,22, 1,27,28	
		11,48,39, 0,35,26, 6		52
26″	59,44, 3,56,41,48,16,46,54,52		4,22, 1,28,20	
		11,48,34,38,33,57,46		52
28″	59,44, 4, 8,30,22,55,20,52,38		4,22, 1,29,12	
		11,48,30,16,32,28,34		52
30″	59,44, 4,20,18,53,11,53,21,12		4,22, 1,30, 4	
		11,48,25,54,30,58,30		52
32″	59,44, 4,32, 7,19, 6,24,19,42		4,22, 1,30,56	
		11,48,21,32,29,27,34		52
34″	59,44, 4,43,55,40,38,53,47,16		4,22, 1,31,48	
		11,48,17,10,27,55,46		52
36″	59,44, 4,55,43,57,49,21,43, 2		4,22, 1,32,40	
		11,48,12,48,26,23, 6		52
38″	59,44, 5, 7,32,10,37,48, 6, 8		4,22, 1,33,32	
		11,48, 8,26,24,49,34		52
40″	59,44, 5,19,20,19, 4,12,55,42		4,22, 1,34,24	
		11,48, 4, 4,23,15,10		52
42″	59,44, 5,31, 8,23, 8,36,10,52		4,22, 1,35,16	
		11,47,59,42,21,39,54		52
44″	59,44, 5,42,56,22,50,57,50,46		4,22, 1,36, 8	
		11,47,55,20,20, 3,46		52
46″	59,44, 5,54,44,18,11,17,54,32		4,22, 1,37, 0	
		11,47,50,58,18,26,46		52
48″	59,44, 6, 6,32, 9, 9,36,21,18		4,22, 1,37,52	
		11,47,46,36,16,48,54		52
50″	59,44, 6,18,19,55,45,53,10,12		4,22, 1,38,44	
		11,47,42,14,15,10,10		52
52″	59,44, 6,30, 7,38, 0, 8,20,22		4,22, 1,39,36	
		11,47,37,52,13,30,34		52
54″	59,44, 6,41,55,15,52,21,50,56		4,22, 1,40,28	
		11,47,33,30,11,50, 6		52
56″	59,44, 6,53,42,49,22,33,41, 2		4,22, 1,41,20	
		11,47,29, 8,10, 8,46		52
58″	59,44, 7, 5,30,18,30,43,49,48		4,22, 1,42,12	
		11,47,24,46, 8,26,34		
60″	59,44, 7,17,17,43,16,52,16,22			
exact	59,44, 7,17,17,43,16,52,30, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°37′ 0″	59,44, 7,17,17,43,16,52,30, 4	11,47,20,24, 6,44,59		
2″	59,44, 7,29, 5, 3,40,59,15, 3	11,47,16, 2, 5, 1,10	4,22, 1,43,49	52
4″	59,44, 7,40,52,19,43, 4,16,13	11,47,11,40, 3,16,29	4,22, 1,44,41	52
6″	59,44, 7,52,39,31,23, 7,32,42	11,47, 7,18, 1,30,56	4,22, 1,45,33	52
8″	59,44, 8, 4,26,38,41, 9, 3,38	11,47, 2,55,59,44,31	4,22, 1,46,25	52
10″	59,44, 8,16,13,41,37, 8,48, 9	11,46,58,33,57,57,14	4,22, 1,47,17	52
12″	59,44, 8,28, 0,40,11, 6,45,23	11,46,54,11,56, 9, 5	4,22, 1,48, 9	52
14″	59,44, 8,39,47,34,23, 2,54,28	11,46,49,49,54,20, 4	4,22, 1,49, 1	52
16″	59,44, 8,51,34,24,12,57,14,32	11,46,45,27,52,30,11	4,22, 1,49,53	52
18″	59,44, 9, 3,21, 9,40,49,44,43	11,46,41, 5,50,39,26	4,22, 1,50,45	52
20″	59,44, 9,15, 7,50,46,40,24, 9	11,46,36,43,48,47,49	4,22, 1,51,37	52
22″	59,44, 9,26,54,27,30,29,11,58	11,46,32,21,46,55,20	4,22, 1,52,29	52
24″	59,44, 9,38,40,59,52,16, 7,18	11,46,27,59,45, 1,59	4,22, 1,53,21	52
26″	59,44, 9,50,27,27,52, 1, 9,17	11,46,23,37,43, 7,46	4,22, 1,54,13	52
28″	59,44,10, 2,13,51,29,44,17, 3	11,46,19,15,41,12,41	4,22, 1,55, 5	52
30″	59,44,10,14, 0,10,45,25,29,44	11,46,14,53,39,16,44	4,22, 1,55,57	52
32″	59,44,10,25,46,25,39, 4,46,28	11,46,10,31,37,19,55	4,22, 1,56,49	52
34″	59,44,10,37,32,36,10,42, 6,23	11,46, 6, 9,35,22,14	4,22, 1,57,41	52
36″	59,44,10,49,18,42,20,17,28,37	11,46, 1,47,33,23,41	4,22, 1,58,33	52
38″	59,44,11, 1, 4,44, 7,50,52,18	11,45,57,25,31,24,16	4,22, 1,59,25	52
40″	59,44,11,12,50,41,33,22,16,34	11,45,53, 3,29,23,59	4,22, 2, 0,17	52
42″	59,44,11,24,36,34,36,51,40,33	11,45,48,41,27,22,50	4,22, 2, 1, 9	52
44″	59,44,11,36,22,23,18,19, 3,23	11,45,44,19,25,20,49	4,22, 2, 2, 1	52
46″	59,44,11,48, 8, 7,37,44,24,12	11,45,39,57,23,17,56	4,22, 2, 2,53	52
48″	59,44,11,59,53,47,35, 7,42, 8	11,45,35,35,21,14,11	4,22, 2, 3,45	52
50″	59,44,12,11,39,23,10,28,56,19	11,45,31,13,19, 9,34	4,22, 2, 4,37	52
52″	59,44,12,23,24,54,23,48, 5,53	11,45,26,51,17, 4, 5	4,22, 2, 5,29	52
54″	59,44,12,35,10,21,15, 5, 9,58	11,45,22,29,14,57,44	4,22, 2, 6,21	52
56″	59,44,12,46,55,43,44,20, 7,42	11,45,18, 7,12,50,31	4,22, 2, 7,13	52
58″	59,44,12,58,41, 1,51,32,58,13	11,45,13,45,10,42,26	4,22, 2, 8, 5	
60″	59,44,13,10,26,15,36,43,40,39			
exact	59,44,13,10,26,15,36,44, 0, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°38′ 0″	59,44,13,10,26,15,36,44, 0, 3			
		11,45, 9,23, 8,35,46		
2″	59,44,13,22,11,24,59,52,35,49		4,22, 2, 9,38	
		11,45, 5, 1, 6,26, 8		52
4″	59,44,13,33,56,30, 0,59, 1,57		4,22, 2,10,30	
		11,45, 0,39, 4,15,38		52
6″	59,44,13,45,41,30,40, 3,17,35		4,22, 2,11,22	
		11,44,56,17, 2, 4,16		52
8″	59,44,13,57,26,26,57, 5,21,51		4,22, 2,12,14	
		11,44,51,54,59,52, 2		52
10″	59,44,14, 9,11,18,52, 5,13,53		4,22, 2,13, 6	
		11,44,47,32,57,38,56		52
12″	59,44,14,20,56, 6,25, 2,52,49		4,22, 2,13,58	
		11,44,43,10,55,24,58		52
14″	59,44,14,32,40,49,35,58,17,47		4,22, 2,14,50	
		11,44,38,48,53,10, 8		52
16″	59,44,14,44,25,28,24,51,27,55		4,22, 2,15,42	
		11,44,34,26,50,54,26		52
18″	59,44,14,56,10, 2,51,42,22,21		4,22, 2,16,34	
		11,44,30, 4,48,37,52		52
20″	59,44,15, 7,54,32,56,31, 0,13		4,22, 2,17,26	
		11,44,25,42,46,20,26		52
22″	59,44,15,19,38,58,39,17,20,39		4,22, 2,18,18	
		11,44,21,20,44, 2, 8		52
24″	59,44,15,31,23,20, 0, 1,22,47		4,22, 2,19,10	
		11,44,16,58,41,42,58		52
26″	59,44,15,43, 7,36,58,43, 5,45		4,22, 2,20, 2	
		11,44,12,36,39,22,56		52
28″	59,44,15,54,51,49,35,22,28,41		4,22, 2,20,54	
		11,44, 8,14,37, 2, 2		52
30″	59,44,16, 6,35,57,49,59,30,43		4,22, 2,21,46	
		11,44, 3,52,34,40,16		52
32″	59,44,16,18,20, 1,42,34,10,59		4,22, 2,22,38	
		11,43,59,30,32,17,38		52
34″	59,44,16,30, 4, 1,13, 6,28,37		4,22, 2,23,30	
		11,43,55, 8,29,54, 8		52
36″	59,44,16,41,47,56,21,36,22,45		4,22, 2,24,22	
		11,43,50,46,27,29,46		52
38″	59,44,16,53,31,47, 8, 3,52,31		4,22, 2,25,14	
		11,43,46,24,25, 4,32		52
40″	59,44,17, 5,15,33,32,28,57, 3		4,22, 2,26, 6	
		11,43,42, 2,22,38,26		52
42″	59,44,17,16,59,15,34,51,35,29		4,22, 2,26,58	
		11,43,37,40,20,11,28		52
44″	59,44,17,28,42,53,15,11,46,57		4,22, 2,27,50	
		11,43,33,18,17,43,38		52
46″	59,44,17,40,26,26,33,29,30,35		4,22, 2,28,42	
		11,43,28,56,15,14,56		52
48″	59,44,17,52, 9,55,29,44,45,31		4,22, 2,29,34	
		11,43,24,34,12,45,22		52
50″	59,44,18, 3,53,20, 3,57,30,53		4,22, 2,30,26	
		11,43,20,12,10,14,56		52
52″	59,44,18,15,36,40,16, 7,45,49		4,22, 2,31,18	
		11,43,15,50, 7,43,38		52
54″	59,44,18,27,19,56, 6,15,29,27		4,22, 2,32,10	
		11,43,11,28, 5,11,28		52
56″	59,44,18,39, 3, 7,34,20,40,55		4,22, 2,33, 2	
		11,43, 7, 6, 2,38,26		52
58″	59,44,18,50,46,14,40,23,19,21		4,22, 2,33,54	
		11,43, 2,44, 0, 4,32		
60″	59,44,19, 2,29,17,24,23,23,53			
exact	59,44,19, 2,29,17,24,23,55, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°39′ 0″	59,44,19, 2,29,17,24,23,55, 8			
		11,42,58,21,57,33,17		
2″	59,44,19,14,12,15,46,21,28,25		4,22, 2,35,22	
		11,42,53,59,54,57,55		51
4″	59,44,19,25,55, 9,46,16,26,20		4,22, 2,36,13	
		11,42,49,37,52,21,42		51
6″	59,44,19,37,37,59,24, 8,48, 2		4,22, 2,37, 4	
		11,42,45,15,49,44,38		51
8″	59,44,19,49,20,44,39,58,32,40		4,22, 2,37,55	
		11,42,40,53,47, 6,43		51
10″	59,44,20, 1, 3,25,33,45,39,23		4,22, 2,38,46	
		11,42,36,31,44,27,57		51
12″	59,44,20,12,46, 2, 5,30, 7,20		4,22, 2,39,37	
		11,42,32, 9,41,48,20		51
14″	59,44,20,24,28,34,15,11,55,40		4,22, 2,40,28	
		11,42,27,47,39, 7,52		51
16″	59,44,20,36,11, 2, 2,51, 3,32		4,22, 2,41,19	
		11,42,23,25,36,26,33		51
18″	59,44,20,47,53,25,28,27,30, 5		4,22, 2,42,10	
		11,42,19, 3,33,44,23		51
20″	59,44,20,59,35,44,32, 1,14,28		4,22, 2,43, 1	
		11,42,14,41,31, 1,22		51
22″	59,44,21,11,17,59,13,32,15,50		4,22, 2,43,52	
		11,42,10,19,28,17,30		51
24″	59,44,21,23, 0, 9,33, 0,33,20		4,22, 2,44,43	
		11,42, 5,57,25,32,47		51
26″	59,44,21,34,42,15,30,26, 6, 7		4,22, 2,45,34	
		11,42, 1,35,22,47,13		51
28″	59,44,21,46,24,17, 5,48,53,20		4,22, 2,46,25	
		11,41,57,13,20, 0,48		51
30″	59,44,21,58, 6,14,19, 8,54, 8		4,22, 2,47,16	
		11,41,52,51,17,13,32		51
32″	59,44,22, 9,48, 7,10,26, 7,40		4,22, 2,48, 7	
		11,41,48,29,14,25,25		51
34″	59,44,22,21,29,55,39,40,33, 5		4,22, 2,48,58	
		11,41,44, 7,11,36,27		51
36″	59,44,22,33,11,39,46,52, 9,32		4,22, 2,49,49	
		11,41,39,45, 8,46,38		51
38″	59,44,22,44,53,19,32, 0,56,10		4,22, 2,50,40	
		11,41,35,23, 5,55,58		51
40″	59,44,22,56,34,54,55, 6,52, 8		4,22, 2,51,31	
		11,41,31, 1, 3, 4,27		51
42″	59,44,23, 8,16,25,56, 9,56,35		4,22, 2,52,22	
		11,41,26,39, 0,12, 5		51
44″	59,44,23,19,57,52,35,10, 8,40		4,22, 2,53,13	
		11,41,22,16,57,18,52		51
46″	59,44,23,31,39,14,52, 7,27,32		4,22, 2,54, 4	
		11,41,17,54,54,24,48		51
48″	59,44,23,43,20,32,47, 1,52,20		4,22, 2,54,55	
		11,41,13,32,51,29,53		51
50″	59,44,23,55, 1,46,19,53,22,13		4,22, 2,55,46	
		11,41, 9,10,48,34, 7		51
52″	59,44,24, 6,42,55,30,41,56,20		4,22, 2,56,37	
		11,41, 4,48,45,37,30		51
54″	59,44,24,18,24, 0,19,27,33,50		4,22, 2,57,28	
		11,41, 0,26,42,40, 2		51
56″	59,44,24,30, 5, 0,46,10,13,52		4,22, 2,58,19	
		11,40,56, 4,39,41,43		51
58″	59,44,24,41,45,56,50,49,55,35		4,22, 2,59,10	
		11,40,51,42,36,42,33		
60″	59,44,24,53,26,48,33,26,38, 8			
exact	59,44,24,53,26,48,33,26,11,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°40′ 0″	59,44,24,53,26,48,33,26,11,20			
		11,40,47,20,33,39,53		
2″	59,44,25, 5, 7,35,53,59,51,13		4,22, 3, 1, 2	
		11,40,42,58,30,38,51		51
4″	59,44,25,16,48,18,52,30,30, 4		4,22, 3, 1,53	
		11,40,38,36,27,36,58		51
6″	59,44,25,28,28,57,28,58, 7, 2		4,22, 3, 2,44	
		11,40,34,14,24,34,14		51
8″	59,44,25,40, 9,31,43,22,41,16		4,22, 3, 3,35	
		11,40,29,52,21,30,39		51
10″	59,44,25,51,50, 1,35,44,11,55		4,22, 3, 4,26	
		11,40,25,30,18,26,13		51
12″	59,44,26, 3,30,27, 6, 2,38, 8		4,22, 3, 5,17	
		11,40,21, 8,15,20,56		51
14″	59,44,26,15,10,48,14,17,59, 4		4,22, 3, 6, 8	
		11,40,16,46,12,14,48		51
16″	59,44,26,26,51, 5, 0,30,13,52		4,22, 3, 6,59	
		11,40,12,24, 9, 7,49		51
18″	59,44,26,38,31,17,24,39,21,41		4,22, 3, 7,50	
		11,40, 8, 2, 5,59,59		51
20″	59,44,26,50,11,25,26,45,21,40		4,22, 3, 8,41	
		11,40, 3,40, 2,51,18		51
22″	59,44,27, 1,51,29, 6,48,12,58		4,22, 3, 9,32	
		11,39,59,17,59,41,46		51
24″	59,44,27,13,31,28,24,47,54,44		4,22, 3,10,23	
		11,39,54,55,56,31,23		51
26″	59,44,27,25,11,23,20,44,26, 7		4,22, 3,11,14	
		11,39,50,33,53,20, 9		51
28″	59,44,27,36,51,13,54,37,46,16		4,22, 3,12, 5	
		11,39,46,11,50, 8, 4		51
30″	59,44,27,48,31, 0, 6,27,54,20		4,22, 3,12,56	
		11,39,41,49,46,55, 8		51
32″	59,44,28, 0,10,41,56,14,49,28		4,22, 3,13,47	
		11,39,37,27,43,41,21		51
34″	59,44,28,11,50,19,23,58,30,49		4,22, 3,14,38	
		11,39,33, 5,40,26,43		51
36″	59,44,28,23,29,52,29,38,57,32		4,22, 3,15,29	
		11,39,28,43,37,11,14		51
38″	59,44,28,35, 9,21,13,16, 8,46		4,22, 3,16,20	
		11,39,24,21,33,54,54		51
40″	59,44,28,46,48,45,34,50, 3,40		4,22, 3,17,11	
		11,39,19,59,30,37,43		51
42″	59,44,28,58,28, 5,34,20,41,23		4,22, 3,18, 2	
		11,39,15,37,27,19,41		51
44″	59,44,29,10, 7,21,11,48, 1, 4		4,22, 3,18,53	
		11,39,11,15,24, 0,48		51
46″	59,44,29,21,46,32,27,12, 1,52		4,22, 3,19,44	
		11,39, 6,53,20,41, 4		51
48″	59,44,29,33,25,39,20,32,42,56		4,22, 3,20,35	
		11,39, 2,31,17,20,29		51
50″	59,44,29,45, 4,41,51,50, 3,25		4,22, 3,21,26	
		11,38,58, 9,13,59, 3		51
52″	59,44,29,56,43,40, 1, 4, 2,28		4,22, 3,22,17	
		11,38,53,47,10,36,46		51
54″	59,44,30, 8,22,33,48,14,39,14		4,22, 3,23, 8	
		11,38,49,25, 7,13,38		51
56″	59,44,30,20, 1,23,13,21,52,52		4,22, 3,23,59	
		11,38,45, 3, 3,49,39		51
58″	59,44,30,31,40, 8,16,25,42,31		4,22, 3,24,50	
		11,38,40,41, 0,24,49		
60″	59,44,30,43,18,48,57,26, 7,20			
exact	59,44,30,43,18,48,57,25,56,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°41′ 0″	59,44,30,43,18,48,57,25,56,30			
		11,38,36,18,56,57,59		
2″	59,44,30,54,57,25,16,22,54,29		4,22, 3,26,36	
		11,38,31,56,53,31,23		51
4″	59,44,31, 6,35,57,13,16,25,52		4,22, 3,27,27	
		11,38,27,34,50, 3,56		51
6″	59,44,31,18,14,24,48, 6,29,48		4,22, 3,28,18	
		11,38,23,12,46,35,38		51
8″	59,44,31,29,52,48, 0,53, 5,26		4,22, 3,29, 9	
		11,38,18,50,43, 6,29		51
10″	59,44,31,41,31, 6,51,36,11,55		4,22, 3,30, 0	
		11,38,14,28,39,36,29		51
12″	59,44,31,53, 9,21,20,15,48,24		4,22, 3,30,51	
		11,38,10, 6,36, 5,38		51
14″	59,44,32, 4,47,31,26,51,54, 2		4,22, 3,31,42	
		11,38, 5,44,32,33,56		51
16″	59,44,32,16,25,37,11,24,27,58		4,22, 3,32,33	
		11,38, 1,22,29, 1,23		51
18″	59,44,32,28, 3,38,33,53,29,21		4,22, 3,33,24	
		11,37,57, 0,25,27,59		51
20″	59,44,32,39,41,35,34,18,57,20		4,22, 3,34,15	
		11,37,52,38,21,53,44		51
22″	59,44,32,51,19,28,12,40,51, 4		4,22, 3,35, 6	
		11,37,48,16,18,18,38		51
24″	59,44,33, 2,57,16,28,59, 9,42		4,22, 3,35,57	
		11,37,43,54,14,42,41		51
26″	59,44,33,14,35, 0,23,13,52,23		4,22, 3,36,48	
		11,37,39,32,11, 5,53		51
28″	59,44,33,26,12,39,55,24,58,16		4,22, 3,37,39	
		11,37,35,10, 7,28,14		51
30″	59,44,33,37,50,15, 5,32,26,30		4,22, 3,38,30	
		11,37,30,48, 3,49,44		51
32″	59,44,33,49,27,45,53,36,16,14		4,22, 3,39,21	
		11,37,26,26, 0,10,23		51
34″	59,44,34, 1, 5,12,19,36,26,37		4,22, 3,40,12	
		11,37,22, 3,56,30,11		51
36″	59,44,34,12,42,34,23,32,56,48		4,22, 3,41, 3	
		11,37,17,41,52,49, 8		51
38″	59,44,34,24,19,52, 5,25,45,56		4,22, 3,41,54	
		11,37,13,19,49, 7,14		51
40″	59,44,34,35,57, 5,25,14,53,10		4,22, 3,42,45	
		11,37, 8,57,45,24,29		51
42″	59,44,34,47,34,14,23, 0,17,39		4,22, 3,43,36	
		11,37, 4,35,41,40,53		51
44″	59,44,34,59,11,18,58,41,58,32		4,22, 3,44,27	
		11,37, 0,13,37,56,26		51
46″	59,44,35,10,48,19,12,19,54,58		4,22, 3,45,18	
		11,36,55,51,34,11, 8		51
48″	59,44,35,22,25,15, 3,54, 6, 6		4,22, 3,46, 9	
		11,36,51,29,30,24,59		51
50″	59,44,35,34, 2, 6,33,24,31, 5		4,22, 3,47, 0	
		11,36,47, 7,26,37,59		51
52″	59,44,35,45,38,53,40,51, 9, 4		4,22, 3,47,51	
		11,36,42,45,22,50, 8		51
54″	59,44,35,57,15,36,26,13,59,12		4,22, 3,48,42	
		11,36,38,23,19, 1,26		51
56″	59,44,36, 8,52,14,49,33, 0,38		4,22, 3,49,33	
		11,36,34, 1,15,11,53		51
58″	59,44,36,20,28,48,50,48,12,31		4,22, 3,50,24	
		11,36,29,39,11,21,29		
60″	59,44,36,32, 5,18,29,59,34, 0			
exact	59,44,36,32, 5,18,29,59,30,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°42′ 0″	59,44,36,32, 5,18,29,59,30,19			
		11,36,25,17, 7,29,59		
2″	59,44,36,43,41,43,47, 7, 0,18		4,22, 3,52, 6	
		11,36,20,55, 3,37,53		51
4″	59,44,36,55,18, 4,42,10,38,11		4,22, 3,52,57	
		11,36,16,32,59,44,56		51
6″	59,44,37, 6,54,21,15,10,23, 7		4,22, 3,53,48	
		11,36,12,10,55,51, 8		51
8″	59,44,37,18,30,33,26, 6,14,15		4,22, 3,54,39	
		11,36, 7,48,51,56,29		51
10″	59,44,37,30, 6,41,14,58,10,44		4,22, 3,55,30	
		11,36, 3,26,48, 0,59		51
12″	59,44,37,41,42,44,41,46,11,43		4,22, 3,56,21	
		11,35,59, 4,44, 4,38		51
14″	59,44,37,53,18,43,46,30,16,21		4,22, 3,57,12	
		11,35,54,42,40, 7,26		51
16″	59,44,38, 4,54,38,29,10,23,47		4,22, 3,58, 3	
		11,35,50,20,36, 9,23		51
18″	59,44,38,16,30,28,49,46,33,10		4,22, 3,58,54	
		11,35,45,58,32,10,29		51
20″	59,44,38,28, 6,14,48,18,43,39		4,22, 3,59,45	
		11,35,41,36,28,10,44		51
22″	59,44,38,39,41,56,24,46,54,23		4,22, 4, 0,36	
		11,35,37,14,24,10, 8		51
24″	59,44,38,51,17,33,39,11, 4,31		4,22, 4, 1,27	
		11,35,32,52,20, 8,41		51
26″	59,44,39, 2,53, 6,31,31,13,12		4,22, 4, 2,18	
		11,35,28,30,16, 6,23		51
28″	59,44,39,14,28,35, 1,47,19,35		4,22, 4, 3, 9	
		11,35,24, 8,12, 3,14		51
30″	59,44,39,26, 3,59, 9,59,22,49		4,22, 4, 4, 0	
		11,35,19,46, 7,59,14		51
32″	59,44,39,37,39,18,56, 7,22, 3		4,22, 4, 4,51	
		11,35,15,24, 3,54,23		51
34″	59,44,39,49,14,34,20,11,16,26		4,22, 4, 5,42	
		11,35,11, 1,59,48,41		51
36″	59,44,40, 0,49,45,22,11, 5, 7		4,22, 4, 6,33	
		11,35, 6,39,55,42, 8		51
38″	59,44,40,12,24,52, 2, 6,47,15		4,22, 4, 7,24	
		11,35, 2,17,51,34,44		51
40″	59,44,40,23,59,54,19,58,21,59		4,22, 4, 8,15	
		11,34,57,55,47,26,29		51
42″	59,44,40,35,34,52,15,45,48,28		4,22, 4, 9, 6	
		11,34,53,33,43,17,23		51
44″	59,44,40,47, 9,45,49,29, 5,51		4,22, 4, 9,57	
		11,34,49,11,39, 7,26		51
46″	59,44,40,58,44,35, 1, 8,13,17		4,22, 4,10,48	
		11,34,44,49,34,56,38		51
48″	59,44,41,10,19,19,50,43, 9,55		4,22, 4,11,39	
		11,34,40,27,30,44,59		51
50″	59,44,41,21,54, 0,18,13,54,54		4,22, 4,12,30	
		11,34,36, 5,26,32,29		51
52″	59,44,41,33,28,36,23,40,27,23		4,22, 4,13,21	
		11,34,31,43,22,19, 8		51
54″	59,44,41,45, 3, 8, 7, 2,46,31		4,22, 4,14,12	
		11,34,27,21,18, 4,56		51
56″	59,44,41,56,37,35,28,20,51,27		4,22, 4,15, 3	
		11,34,22,59,13,49,53		51
58″	59,44,42, 8,11,58,27,34,41,20		4,22, 4,15,54	
		11,34,18,37, 9,33,59		
60″	59,44,42,19,46,17, 4,44,15,19			
exact	59,44,42,19,46,17, 4,44,24,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°43′ 0″	59,44,42,19,46,17, 4,44,24,18			
		11,34,14,15, 5,18,17		
2″	59,44,42,31,20,31,19,49,42,35		4,22, 4,17,31	
		11,34, 9,53, 1, 0,46		51
4″	59,44,42,42,54,41,12,50,43,21		4,22, 4,18,22	
		11,34, 5,30,56,42,24		51
6″	59,44,42,54,28,46,43,47,25,45		4,22, 4,19,13	
		11,34, 1, 8,52,23,11		51
8″	59,44,43, 6, 2,47,52,39,48,56		4,22, 4,20, 4	
		11,33,56,46,48, 3, 7		51
10″	59,44,43,17,36,44,39,27,52, 3		4,22, 4,20,55	
		11,33,52,24,43,42,12		51
12″	59,44,43,29,10,37, 4,11,34,15		4,22, 4,21,46	
		11,33,48, 2,39,20,26		51
14″	59,44,43,40,44,25, 6,50,54,41		4,22, 4,22,37	
		11,33,43,40,34,57,49		51
16″	59,44,43,52,18, 8,47,25,52,30		4,22, 4,23,28	
		11,33,39,18,30,34,21		51
18″	59,44,44, 3,51,48, 5,56,26,51		4,22, 4,24,19	
		11,33,34,56,26,10, 2		51
20″	59,44,44,15,25,23, 2,22,36,53		4,22, 4,25,10	
		11,33,30,34,21,44,52		51
22″	59,44,44,26,58,53,36,44,21,45		4,22, 4,26, 1	
		11,33,26,12,17,18,51		51
24″	59,44,44,38,32,19,49, 1,40,36		4,22, 4,26,52	
		11,33,21,50,12,51,59		51
26″	59,44,44,50, 5,41,39,14,32,35		4,22, 4,27,43	
		11,33,17,28, 8,24,16		51
28″	59,44,45, 1,38,59, 7,22,56,51		4,22, 4,28,34	
		11,33,13, 6, 3,55,42		51
30″	59,44,45,13,12,12,13,26,52,33		4,22, 4,29,25	
		11,33, 8,43,59,26,17		51
32″	59,44,45,24,45,20,57,26,18,50		4,22, 4,30,16	
		11,33, 4,21,54,56, 1		51
34″	59,44,45,36,18,25,19,21,14,51		4,22, 4,31, 7	
		11,32,59,59,50,24,54		51
36″	59,44,45,47,51,25,19,11,39,45		4,22, 4,31,58	
		11,32,55,37,45,52,56		51
38″	59,44,45,59,24,20,56,57,32,41		4,22, 4,32,49	
		11,32,51,15,41,20, 7		51
40″	59,44,46,10,57,12,12,38,52,48		4,22, 4,33,40	
		11,32,46,53,36,46,27		51
42″	59,44,46,22,29,59, 6,15,39,15		4,22, 4,34,31	
		11,32,42,31,32,11,56		51
44″	59,44,46,34, 2,41,37,47,51,11		4,22, 4,35,22	
		11,32,38, 9,27,36,34		51
46″	59,44,46,45,35,19,47,15,27,45		4,22, 4,36,13	
		11,32,33,47,23, 0,21		51
48″	59,44,46,57, 7,53,34,38,28, 6		4,22, 4,37, 4	
		11,32,29,25,18,23,17		51
50″	59,44,47, 8,40,22,59,56,51,23		4,22, 4,37,55	
		11,32,25, 3,13,45,22		51
52″	59,44,47,20,12,48, 3,10,36,45		4,22, 4,38,46	
		11,32,20,41, 9, 6,36		51
54″	59,44,47,31,45, 8,44,19,43,21		4,22, 4,39,37	
		11,32,16,19, 4,26,59		51
56″	59,44,47,43,17,25, 3,24,10,20		4,22, 4,40,28	
		11,32,11,56,59,46,31		51
58″	59,44,47,54,49,37, 0,23,56,51		4,22, 4,41,19	
		11,32, 7,34,55, 5,12		
60″	59,44,48, 6,21,44,35,19, 2, 3			
exact	59,44,48, 6,21,44,35,19,21,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°44′ 0″	59,44,48, 6,21,44,35,19,21,52			
		11,32, 3,12,50,25,15		
2″	59,44,48,17,53,47,48, 9,47, 7		4,22, 4,42,51	
		11,31,58,50,45,42,24		51
4″	59,44,48,29,25,46,38,55,29,31		4,22, 4,43,42	
		11,31,54,28,40,58,42		51
6″	59,44,48,40,57,41, 7,36,28,13		4,22, 4,44,33	
		11,31,50, 6,36,14, 9		51
8″	59,44,48,52,29,31,14,12,42,22		4,22, 4,45,24	
		11,31,45,44,31,28,45		51
10″	59,44,49, 4, 1,16,58,44,11, 7		4,22, 4,46,15	
		11,31,41,22,26,42,30		51
12″	59,44,49,15,32,58,21,10,53,37		4,22, 4,47, 6	
		11,31,37, 0,21,55,24		51
14″	59,44,49,27, 4,35,21,32,49, 1		4,22, 4,47,57	
		11,31,32,38,17, 7,27		51
16″	59,44,49,38,36, 7,59,49,56,28		4,22, 4,48,48	
		11,31,28,16,12,18,39		51
18″	59,44,49,50, 7,36,16, 2,15, 7		4,22, 4,49,39	
		11,31,23,54, 7,29, 0		51
20″	59,44,50, 1,39, 0,10, 9,44, 7		4,22, 4,50,30	
		11,31,19,32, 2,38,30		51
22″	59,44,50,13,10,19,42,12,22,37		4,22, 4,51,21	
		11,31,15, 9,57,47, 9		51
24″	59,44,50,24,41,34,52,10, 9,46		4,22, 4,52,12	
		11,31,10,47,52,54,57		51
26″	59,44,50,36,12,45,40, 3, 4,43		4,22, 4,53, 3	
		11,31, 6,25,48, 1,54		51
28″	59,44,50,47,43,52, 5,51, 6,37		4,22, 4,53,54	
		11,31, 2, 3,43, 8, 0		51
30″	59,44,50,59,14,54, 9,34,14,37		4,22, 4,54,45	
		11,30,57,41,38,13,15		51
32″	59,44,51,10,45,51,51,12,27,52		4,22, 4,55,36	
		11,30,53,19,33,17,39		51
34″	59,44,51,22,16,45,10,45,45,31		4,22, 4,56,27	
		11,30,48,57,28,21,12		51
36″	59,44,51,33,47,34, 8,14, 6,43		4,22, 4,57,18	
		11,30,44,35,23,23,54		51
38″	59,44,51,45,18,18,43,37,30,37		4,22, 4,58, 9	
		11,30,40,13,18,25,45		51
40″	59,44,51,56,48,58,56,55,56,22		4,22, 4,59, 0	
		11,30,35,51,13,26,45		51
42″	59,44,52, 8,19,34,48, 9,23, 7		4,22, 4,59,51	
		11,30,31,29, 8,26,54		51
44″	59,44,52,19,50, 6,17,17,50, 1		4,22, 5, 0,42	
		11,30,27, 7, 3,26,12		51
46″	59,44,52,31,20,33,24,21,16,13		4,22, 5, 1,33	
		11,30,22,44,58,24,39		51
48″	59,44,52,42,50,56, 9,19,40,52		4,22, 5, 2,24	
		11,30,18,22,53,22,15		51
50″	59,44,52,54,21,14,32,13, 3, 7		4,22, 5, 3,15	
		11,30,14, 0,48,19, 0		51
52″	59,44,53, 5,51,28,33, 1,22, 7		4,22, 5, 4, 6	
		11,30, 9,38,43,14,54		51
54″	59,44,53,17,21,38,11,44,37, 1		4,22, 5, 4,57	
		11,30, 5,16,38, 9,57		51
56″	59,44,53,28,51,43,28,22,46,58		4,22, 5, 5,48	
		11,30, 0,54,33, 4, 9		51
58″	59,44,53,40,21,44,22,55,51, 7		4,22, 5, 6,39	
		11,29,56,32,27,57,30		
60″	59,44,53,51,51,40,55,23,48,37			
exact	59,44,53,51,51,40,55,24,18,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°45′ 0″	59,44,53,51,51,40,55,24,18,13			
		11,29,52,10,22,53,18		
2″	59,44,54, 3,21,33, 5,47,11,31		4,22, 5, 8, 6	
		11,29,47,48,17,45,12		50
4″	59,44,54,14,51,20,54, 4,56,43		4,22, 5, 8,56	
		11,29,43,26,12,36,16		50
6″	59,44,54,26,21, 4,20,17,32,59		4,22, 5, 9,46	
		11,29,39, 4, 7,26,30		50
8″	59,44,54,37,50,43,24,24,59,29		4,22, 5,10,36	
		11,29,34,42, 2,15,54		50
10″	59,44,54,49,20,18, 6,27,15,23		4,22, 5,11,26	
		11,29,30,19,57, 4,28		50
12″	59,44,55, 0,49,48,26,24,19,51		4,22, 5,12,16	
		11,29,25,57,51,52,12		50
14″	59,44,55,12,19,14,24,16,12, 3		4,22, 5,13, 6	
		11,29,21,35,46,39, 6		50
16″	59,44,55,23,48,36, 0, 2,51, 9		4,22, 5,13,56	
		11,29,17,13,41,25,10		50
18″	59,44,55,35,17,53,13,44,16,19		4,22, 5,14,46	
		11,29,12,51,36,10,24		50
20″	59,44,55,46,47, 6, 5,20,26,43		4,22, 5,15,36	
		11,29, 8,29,30,54,48		50
22″	59,44,55,58,16,14,34,51,21,31		4,22, 5,16,26	
		11,29, 4, 7,25,38,22		50
24″	59,44,56, 9,45,18,42,16,59,53		4,22, 5,17,16	
		11,28,59,45,20,21, 6		50
26″	59,44,56,21,14,18,27,37,20,59		4,22, 5,18, 6	
		11,28,55,23,15, 3, 0		50
28″	59,44,56,32,43,13,50,52,23,59		4,22, 5,18,56	
		11,28,51, 1, 9,44, 4		50
30″	59,44,56,44,12, 4,52, 2, 8, 3		4,22, 5,19,46	
		11,28,46,39, 4,24,18		50
32″	59,44,56,55,40,51,31, 6,32,21		4,22, 5,20,36	
		11,28,42,16,59, 3,42		50
34″	59,44,57, 7, 9,33,48, 5,36, 3		4,22, 5,21,26	
		11,28,37,54,53,42,16		50
36″	59,44,57,18,38,11,42,59,18,19		4,22, 5,22,16	
		11,28,33,32,48,20, 0		50
38″	59,44,57,30, 6,45,15,47,38,19		4,22, 5,23, 6	
		11,28,29,10,42,56,54		50
40″	59,44,57,41,35,14,26,30,35,13		4,22, 5,23,56	
		11,28,24,48,37,32,58		50
42″	59,44,57,53, 3,39,15, 8, 8,11		4,22, 5,24,46	
		11,28,20,26,32, 8,12		50
44″	59,44,58, 4,31,59,41,40,16,23		4,22, 5,25,36	
		11,28,16, 4,26,42,36		50
46″	59,44,58,16, 0,15,46, 6,58,59		4,22, 5,26,26	
		11,28,11,42,21,16,10		50
48″	59,44,58,27,28,27,28,28,15, 9		4,22, 5,27,16	
		11,28, 7,20,15,48,54		50
50″	59,44,58,38,56,34,48,44, 4, 3		4,22, 5,28, 6	
		11,28, 2,58,10,20,48		50
52″	59,44,58,50,24,37,46,54,24,51		4,22, 5,28,56	
		11,27,58,36, 4,51,52		50
54″	59,44,59, 1,52,36,22,59,16,43		4,22, 5,29,46	
		11,27,54,13,59,22, 6		50
56″	59,44,59,13,20,30,36,58,38,49		4,22, 5,30,36	
		11,27,49,51,53,51,30		50
58″	59,44,59,24,48,20,28,52,30,19		4,22, 5,31,26	
		11,27,45,29,48,20, 4		
60″	59,44,59,36,16, 5,58,40,50,23			
exact	59,44,59,36,16, 5,58,40,20,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°46′ 0″	59,44,59,36,16, 5,58,40,20,26			
		11,27,41, 7,42,44,49		
2″	59,44,59,47,43,47, 6,23, 5,15		4,22, 5,33,17	
		11,27,36,45,37,11,32		50
4″	59,44,59,59,11,23,52, 0,16,47		4,22, 5,34, 7	
		11,27,32,23,31,37,25		50
6″	59,45, 0,10,38,56,15,31,54,12		4,22, 5,34,57	
		11,27,28, 1,26, 2,28		50
8″	59,45, 0,22, 6,24,16,57,56,40		4,22, 5,35,47	
		11,27,23,39,20,26,41		50
10″	59,45, 0,33,33,47,56,18,23,21		4,22, 5,36,37	
		11,27,19,17,14,50, 4		50
12″	59,45, 0,45, 1, 7,13,33,13,25		4,22, 5,37,27	
		11,27,14,55, 9,12,37		50
14″	59,45, 0,56,28,22, 8,42,26, 2		4,22, 5,38,17	
		11,27,10,33, 3,34,20		50
16″	59,45, 1, 7,55,32,41,46, 0,22		4,22, 5,39, 7	
		11,27, 6,10,57,55,13		50
18″	59,45, 1,19,22,38,52,43,55,35		4,22, 5,39,57	
		11,27, 1,48,52,15,16		50
20″	59,45, 1,30,49,40,41,36,10,51		4,22, 5,40,47	
		11,26,57,26,46,34,29		50
22″	59,45, 1,42,16,38, 8,22,45,20		4,22, 5,41,37	
		11,26,53, 4,40,52,52		50
24″	59,45, 1,53,43,31,13, 3,38,12		4,22, 5,42,27	
		11,26,48,42,35,10,25		50
26″	59,45, 2, 5,10,19,55,38,48,37		4,22, 5,43,17	
		11,26,44,20,29,27, 8		50
28″	59,45, 2,16,37, 4,16, 8,15,45		4,22, 5,44, 7	
		11,26,39,58,23,43, 1		50
30″	59,45, 2,28, 3,44,14,31,58,46		4,22, 5,44,57	
		11,26,35,36,17,58, 4		50
32″	59,45, 2,39,30,19,50,49,56,50		4,22, 5,45,47	
		11,26,31,14,12,12,17		50
34″	59,45, 2,50,56,51, 5, 2, 9, 7		4,22, 5,46,37	
		11,26,26,52, 6,25,40		50
36″	59,45, 3, 2,23,17,57, 8,34,47		4,22, 5,47,27	
		11,26,22,30, 0,38,13		50
38″	59,45, 3,13,49,40,27, 9,13, 0		4,22, 5,48,17	
		11,26,18, 7,54,49,56		50
40″	59,45, 3,25,15,58,35, 4, 2,56		4,22, 5,49, 7	
		11,26,13,45,49, 0,49		50
42″	59,45, 3,36,42,12,20,53, 3,45		4,22, 5,49,57	
		11,26, 9,23,43,10,52		50
44″	59,45, 3,48, 8,21,44,36,14,37		4,22, 5,50,47	
		11,26, 5, 1,37,20, 5		50
46″	59,45, 3,59,34,26,46,13,34,42		4,22, 5,51,37	
		11,26, 0,39,31,28,28		50
48″	59,45, 4,11, 0,27,25,45, 3,10		4,22, 5,52,27	
		11,25,56,17,25,36, 1		50
50″	59,45, 4,22,26,23,43,10,39,11		4,22, 5,53,17	
		11,25,51,55,19,42,44		50
52″	59,45, 4,33,52,15,38,30,21,55		4,22, 5,54, 7	
		11,25,47,33,13,48,37		50
54″	59,45, 4,45,18, 3,11,44,10,32		4,22, 5,54,57	
		11,25,43,11, 7,53,40		50
56″	59,45, 4,56,43,46,22,52, 4,12		4,22, 5,55,47	
		11,25,38,49, 1,57,53		50
58″	59,45, 5, 8, 9,25,11,54, 2, 5		4,22, 5,56,37	
		11,25,34,26,56, 1,16		
60″	59,45, 5,19,34,59,38,50, 3,21			
exact	59,45, 5,19,34,59,38,49,47,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°47′ 0″	59,45, 5,19,34,59,38,49,47,27			
		11,25,30, 4,50, 2,13		
2″	59,45, 5,31, 0,29,43,39,49,40		4,22, 5,58,23	
		11,25,25,42,44, 3,50		50
4″	59,45, 5,42,25,55,26,23,53,30		4,22, 5,59,13	
		11,25,21,20,38, 4,37		50
6″	59,45, 5,53,51,16,47, 1,58, 7		4,22, 6, 0, 3	
		11,25,16,58,32, 4,34		50
8″	59,45, 6, 5,16,33,45,34, 2,41		4,22, 6, 0,53	
		11,25,12,36,26, 3,41		50
10″	59,45, 6,16,41,46,22, 0, 6,22		4,22, 6, 1,43	
		11,25, 8,14,20, 1,58		50
12″	59,45, 6,28, 6,54,36,20, 8,20		4,22, 6, 2,33	
		11,25, 3,52,13,59,25		50
14″	59,45, 6,39,31,58,28,34, 7,45		4,22, 6, 3,23	
		11,24,59,30, 7,56, 2		50
16″	59,45, 6,50,56,57,58,42, 3,47		4,22, 6, 4,13	
		11,24,55, 8, 1,51,49		50
18″	59,45, 7, 2,21,53, 6,43,55,36		4,22, 6, 5, 3	
		11,24,50,45,55,46,46		50
20″	59,45, 7,13,46,43,52,39,42,22		4,22, 6, 5,53	
		11,24,46,23,49,40,53		50
22″	59,45, 7,25,11,30,16,29,23,15		4,22, 6, 6,43	
		11,24,42, 1,43,34,10		50
24″	59,45, 7,36,36,12,18,12,57,25		4,22, 6, 7,33	
		11,24,37,39,37,26,37		50
26″	59,45, 7,48, 0,49,57,50,24, 2		4,22, 6, 8,23	
		11,24,33,17,31,18,14		50
28″	59,45, 7,59,25,23,15,21,42,16		4,22, 6, 9,13	
		11,24,28,55,25, 9, 1		50
30″	59,45, 8,10,49,52,10,46,51,17		4,22, 6,10, 3	
		11,24,24,33,18,58,58		50
32″	59,45, 8,22,14,16,44, 5,50,15		4,22, 6,10,53	
		11,24,20,11,12,48, 5		50
34″	59,45, 8,33,38,36,55,18,38,20		4,22, 6,11,43	
		11,24,15,49, 6,36,22		50
36″	59,45, 8,45, 2,52,44,25,14,42		4,22, 6,12,33	
		11,24,11,27, 0,23,49		50
38″	59,45, 8,56,27, 4,11,25,38,31		4,22, 6,13,23	
		11,24, 7, 4,54,10,26		50
40″	59,45, 9, 7,51,11,16,19,48,57		4,22, 6,14,13	
		11,24, 2,42,47,56,13		50
42″	59,45, 9,19,15,13,59, 7,45,10		4,22, 6,15, 3	
		11,23,58,20,41,41,10		50
44″	59,45, 9,30,39,12,19,49,26,20		4,22, 6,15,53	
		11,23,53,58,35,25,17		50
46″	59,45, 9,42, 3, 6,18,24,51,37		4,22, 6,16,43	
		11,23,49,36,29, 8,34		50
48″	59,45, 9,53,26,55,54,54, 0,11		4,22, 6,17,33	
		11,23,45,14,22,51, 1		50
50″	59,45,10, 4,50,41, 9,16,51,12		4,22, 6,18,23	
		11,23,40,52,16,32,38		50
52″	59,45,10,16,14,22, 1,33,23,50		4,22, 6,19,13	
		11,23,36,30,10,13,25		50
54″	59,45,10,27,37,58,31,43,37,15		4,22, 6,20, 3	
		11,23,32, 8, 3,53,22		50
56″	59,45,10,39, 1,30,39,47,30,37		4,22, 6,20,53	
		11,23,27,45,57,32,29		50
58″	59,45,10,50,24,58,25,45, 3, 6		4,22, 6,21,43	
		11,23,23,23,51,10,46		
60″	59,45,11, 1,48,21,49,36,13,52			
exact	59,45,11, 1,48,21,49,36,10, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°48′ 0″	59,45,11, 1,48,21,49,36,10, 3	11,23,19, 1,44,47,52		
2″	59,45,11,13,11,40,51,20,57,55	11,23,14,39,38,24,28	4,22, 6,23,24	50
4″	59,45,11,24,34,55,30,59,22,23	11,23,10,17,32, 0,14	4,22, 6,24,14	50
6″	59,45,11,35,58, 5,48,31,22,37	11,23, 5,55,25,35,10	4,22, 6,25, 4	50
8″	59,45,11,47,21,11,43,56,57,47	11,23, 1,33,19, 9,16	4,22, 6,25,54	50
10″	59,45,11,58,44,13,17,16, 7, 3	11,22,57,11,12,42,32	4,22, 6,26,44	50
12″	59,45,12,10, 7,10,28,28,49,35	11,22,52,49, 6,14,58	4,22, 6,27,34	50
14″	59,45,12,21,30, 3,17,35, 4,33	11,22,48,26,59,46,34	4,22, 6,28,24	50
16″	59,45,12,32,52,51,44,34,51, 7	11,22,44, 4,53,17,20	4,22, 6,29,14	50
18″	59,45,12,44,15,35,49,28, 8,27	11,22,39,42,46,47,16	4,22, 6,30, 4	50
20″	59,45,12,55,38,15,32,14,55,43	11,22,35,20,40,16,22	4,22, 6,30,54	50
22″	59,45,13, 7, 0,50,52,55,12, 5	11,22,30,58,33,44,38	4,22, 6,31,44	50
24″	59,45,13,18,23,21,51,28,56,43	11,22,26,36,27,12, 4	4,22, 6,32,34	50
26″	59,45,13,29,45,48,27,56, 8,47	11,22,22,14,20,38,40	4,22, 6,33,24	50
28″	59,45,13,41, 8,10,42,16,47,27	11,22,17,52,14, 4,26	4,22, 6,34,14	50
30″	59,45,13,52,30,28,34,30,51,53	11,22,13,30, 7,29,22	4,22, 6,35, 4	50
32″	59,45,14, 3,52,42, 4,38,21,15	11,22, 9, 8, 0,53,28	4,22, 6,35,54	50
34″	59,45,14,15,14,51,12,39,14,43	11,22, 4,45,54,16,44	4,22, 6,36,44	50
36″	59,45,14,26,36,55,58,33,31,27	11,22, 0,23,47,39,10	4,22, 6,37,34	50
38″	59,45,14,37,58,56,22,21,10,37	11,21,56, 1,41, 0,46	4,22, 6,38,24	50
40″	59,45,14,49,20,52,24, 2,11,23	11,21,51,39,34,21,32	4,22, 6,39,14	50
42″	59,45,15, 0,42,44, 3,36,32,55	11,21,47,17,27,41,28	4,22, 6,40, 4	50
44″	59,45,15,12, 4,31,21, 4,14,23	11,21,42,55,21, 0,34	4,22, 6,40,54	50
46″	59,45,15,23,26,14,16,25,14,57	11,21,38,33,14,18,50	4,22, 6,41,44	50
48″	59,45,15,34,47,52,49,39,33,47	11,21,34,11, 7,36,16	4,22, 6,42,34	50
50″	59,45,15,46, 9,27, 0,47,10, 3	11,21,29,49, 0,52,52	4,22, 6,43,24	50
52″	59,45,15,57,30,56,49,48, 2,55	11,21,25,26,54, 8,38	4,22, 6,44,14	50
54″	59,45,16, 8,52,22,16,42,11,33	11,21,21, 4,47,23,34	4,22, 6,45, 4	50
56″	59,45,16,20,13,43,21,29,35, 7	11,21,16,42,40,37,40	4,22, 6,45,54	50
58″	59,45,16,31,35, 0, 4,10,12,47	11,21,12,20,33,50,56	4,22, 6,46,44	
60″	59,45,16,42,56,12,24,44, 3,43			
exact	59,45,16,42,56,12,24,44,10,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°49′ 0″	59,45,16,42,56,12,24,44,10,52			
		11,21, 7,58,27, 4,11		
2″	59,45,16,54,17,20,23,11,15, 3		4,22, 6,48,20	
		11,21, 3,36,20,15,51		50
4″	59,45,17, 5,38,23,59,31,30,54		4,22, 6,49,10	
		11,20,59,14,13,26,41		50
6″	59,45,17,16,59,23,13,44,57,35		4,22, 6,50, 0	
		11,20,54,52, 6,36,41		50
8″	59,45,17,28,20,18, 5,51,34,16		4,22, 6,50,50	
		11,20,50,29,59,45,51		50
10″	59,45,17,39,41, 8,35,51,20, 7		4,22, 6,51,40	
		11,20,46, 7,52,54,11		50
12″	59,45,17,51, 1,54,43,44,14,18		4,22, 6,52,30	
		11,20,41,45,46, 1,41		50
14″	59,45,18, 2,22,36,29,30,15,59		4,22, 6,53,20	
		11,20,37,23,39, 8,21		50
16″	59,45,18,13,43,13,53, 9,24,20		4,22, 6,54,10	
		11,20,33, 1,32,14,11		50
18″	59,45,18,25, 3,46,54,41,38,31		4,22, 6,55, 0	
		11,20,28,39,25,19,11		50
20″	59,45,18,36,24,15,34, 6,57,42		4,22, 6,55,50	
		11,20,24,17,18,23,21		50
22″	59,45,18,47,44,39,51,25,21, 3		4,22, 6,56,40	
		11,20,19,55,11,26,41		50
24″	59,45,18,59, 4,59,46,36,47,44		4,22, 6,57,30	
		11,20,15,33, 4,29,11		50
26″	59,45,19,10,25,15,19,41,16,55		4,22, 6,58,20	
		11,20,11,10,57,30,51		50
28″	59,45,19,21,45,26,30,38,47,46		4,22, 6,59,10	
		11,20, 6,48,50,31,41		50
30″	59,45,19,33, 5,33,19,29,19,27		4,22, 7, 0, 0	
		11,20, 2,26,43,31,41		50
32″	59,45,19,44,25,35,46,12,51, 8		4,22, 7, 0,50	
		11,19,58, 4,36,30,51		50
34″	59,45,19,55,45,33,50,49,21,59		4,22, 7, 1,40	
		11,19,53,42,29,29,11		50
36″	59,45,20, 7, 5,27,33,18,51,10		4,22, 7, 2,30	
		11,19,49,20,22,26,41		50
38″	59,45,20,18,25,16,53,41,17,51		4,22, 7, 3,20	
		11,19,44,58,15,23,21		50
40″	59,45,20,29,45, 1,51,56,41,12		4,22, 7, 4,10	
		11,19,40,36, 8,19,11		50
42″	59,45,20,41, 4,42,28, 5, 0,23		4,22, 7, 5, 0	
		11,19,36,14, 1,14,11		50
44″	59,45,20,52,24,18,42, 6,14,34		4,22, 7, 5,50	
		11,19,31,51,54, 8,21		50
46″	59,45,21, 3,43,50,34, 0,22,55		4,22, 7, 6,40	
		11,19,27,29,47, 1,41		50
48″	59,45,21,15, 3,18, 3,47,24,36		4,22, 7, 7,30	
		11,19,23, 7,39,54,11		50
50″	59,45,21,26,22,41,11,27,18,47		4,22, 7, 8,20	
		11,19,18,45,32,45,51		50
52″	59,45,21,37,41,59,57, 0, 4,38		4,22, 7, 9,10	
		11,19,14,23,25,36,41		50
54″	59,45,21,49, 1,14,20,25,41,19		4,22, 7,10, 0	
		11,19,10, 1,18,26,41		50
56″	59,45,22, 0,20,24,21,44, 8, 0		4,22, 7,10,50	
		11,19, 5,39,11,15,51		50
58″	59,45,22,11,39,30, 0,55,23,51		4,22, 7,11,40	
		11,19, 1,17, 4, 4,11		
60″	59,45,22,22,58,31,17,59,28, 2			
exact	59,45,22,22,58,31,17,59,44,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°50′ 0″	59,45,22,22,58,31,17,59,44,25			
		11,18,56,54,56,53,33		
2″	59,45,22,34,17,28,12,56,37,58		4,22, 7,13,11	
		11,18,52,32,49,40,22		50
4″	59,45,22,45,36,20,45,46,18,20		4,22, 7,14, 1	
		11,18,48,10,42,26,21		50
6″	59,45,22,56,55, 8,56,28,44,41		4,22, 7,14,51	
		11,18,43,48,35,11,30		50
8″	59,45,23, 8,13,52,45, 3,56,11		4,22, 7,15,41	
		11,18,39,26,27,55,49		50
10″	59,45,23,19,32,32,11,31,52, 0		4,22, 7,16,31	
		11,18,35, 4,20,39,18		50
12″	59,45,23,30,51, 7,15,52,31,18		4,22, 7,17,21	
		11,18,30,42,13,21,57		50
14″	59,45,23,42, 9,37,58, 5,53,15		4,22, 7,18,11	
		11,18,26,20, 6, 3,46		50
16″	59,45,23,53,28, 4,18,11,57, 1		4,22, 7,19, 1	
		11,18,21,57,58,44,45		50
18″	59,45,24, 4,46,26,16,10,41,46		4,22, 7,19,51	
		11,18,17,35,51,24,54		50
20″	59,45,24,16, 4,43,52, 2, 6,40		4,22, 7,20,41	
		11,18,13,13,44, 4,13		50
22″	59,45,24,27,22,57, 5,46,10,53		4,22, 7,21,31	
		11,18, 8,51,36,42,42		50
24″	59,45,24,38,41, 5,57,22,53,35		4,22, 7,22,21	
		11,18, 4,29,29,20,21		50
26″	59,45,24,49,59,10,26,52,13,56		4,22, 7,23,11	
		11,18, 0, 7,21,57,10		50
28″	59,45,25, 1,17,10,34,14,11, 6		4,22, 7,24, 1	
		11,17,55,45,14,33, 9		50
30″	59,45,25,12,35, 6,19,28,44,15		4,22, 7,24,51	
		11,17,51,23, 7, 8,18		50
32″	59,45,25,23,52,57,42,35,52,33		4,22, 7,25,41	
		11,17,47, 0,59,42,37		50
34″	59,45,25,35,10,44,43,35,35,10		4,22, 7,26,31	
		11,17,42,38,52,16, 6		50
36″	59,45,25,46,28,27,22,27,51,16		4,22, 7,27,21	
		11,17,38,16,44,48,45		50
38″	59,45,25,57,46, 5,39,12,40, 1		4,22, 7,28,11	
		11,17,33,54,37,20,34		50
40″	59,45,26, 9, 3,39,33,50, 0,35		4,22, 7,29, 1	
		11,17,29,32,29,51,33		50
42″	59,45,26,20,21, 9, 6,19,52, 8		4,22, 7,29,51	
		11,17,25,10,22,21,42		50
44″	59,45,26,31,38,34,16,42,13,50		4,22, 7,30,41	
		11,17,20,48,14,51, 1		50
46″	59,45,26,42,55,55, 4,57, 4,51		4,22, 7,31,31	
		11,17,16,26, 7,19,30		50
48″	59,45,26,54,13,11,31, 4,24,21		4,22, 7,32,21	
		11,17,12, 3,59,47, 9		50
50″	59,45,27, 5,30,23,35, 4,11,30		4,22, 7,33,11	
		11,17, 7,41,52,13,58		50
52″	59,45,27,16,47,31,16,56,25,28		4,22, 7,34, 1	
		11,17, 3,19,44,39,57		50
54″	59,45,27,28, 4,34,36,41, 5,25		4,22, 7,34,51	
		11,16,58,57,37, 5, 6		50
56″	59,45,27,39,21,33,34,18,10,31		4,22, 7,35,41	
		11,16,54,35,29,29,25		50
58″	59,45,27,50,38,28, 9,47,39,56		4,22, 7,36,31	
		11,16,50,13,21,52,54		
60″	59,45,28, 1,55,18,23, 9,32,50			
exact	59,45,28, 1,55,18,23, 9,57, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°51′ 0″	59,45,28, 1,55,18,23, 9,57, 3	11,16,45,51,14,18,22		
2″	59,45,28,13,12, 4,14,24,15,25	11,16,41,29, 6,40,24	4,22, 7,37,58	49
4″	59,45,28,24,28,45,43,30,55,49	11,16,37, 6,59, 1,37	4,22, 7,38,47	49
6″	59,45,28,35,45,22,50,29,57,26	11,16,32,44,51,22, 1	4,22, 7,39,36	49
8″	59,45,28,47, 1,55,35,21,19,27	11,16,28,22,43,41,36	4,22, 7,40,25	49
10″	59,45,28,58,18,23,58, 5, 1, 3	11,16,24, 0,36, 0,22	4,22, 7,41,14	49
12″	59,45,29, 9,34,47,58,41, 1,25	11,16,19,38,28,18,19	4,22, 7,42, 3	49
14″	59,45,29,20,51, 7,37, 9,19,44	11,16,15,16,20,35,27	4,22, 7,42,52	49
16″	59,45,29,32, 7,22,53,29,55,11	11,16,10,54,12,51,46	4,22, 7,43,41	49
18″	59,45,29,43,23,33,47,42,46,57	11,16, 6,32, 5, 7,16	4,22, 7,44,30	49
20″	59,45,29,54,39,40,19,47,54,13	11,16, 2, 9,57,21,57	4,22, 7,45,19	49
22″	59,45,30, 5,55,42,29,45,16,10	11,15,57,47,49,35,49	4,22, 7,46, 8	49
24″	59,45,30,17,11,40,17,34,51,59	11,15,53,25,41,48,52	4,22, 7,46,57	49
26″	59,45,30,28,27,33,43,16,40,51	11,15,49, 3,34, 1, 6	4,22, 7,47,46	49
28″	59,45,30,39,43,22,46,50,41,57	11,15,44,41,26,12,31	4,22, 7,48,35	49
30″	59,45,30,50,59, 7,28,16,54,28	11,15,40,19,18,23, 7	4,22, 7,49,24	49
32″	59,45,31, 2,14,47,47,35,17,35	11,15,35,57,10,32,54	4,22, 7,50,13	49
34″	59,45,31,13,30,23,44,45,50,29	11,15,31,35, 2,41,52	4,22, 7,51, 2	49
36″	59,45,31,24,45,55,19,48,32,21	11,15,27,12,54,50, 1	4,22, 7,51,51	49
38″	59,45,31,36, 1,22,32,43,22,22	11,15,22,50,46,57,21	4,22, 7,52,40	49
40″	59,45,31,47,16,45,23,30,19,43	11,15,18,28,39, 3,52	4,22, 7,53,29	49
42″	59,45,31,58,32, 3,52, 9,23,35	11,15,14, 6,31, 9,34	4,22, 7,54,18	49
44″	59,45,32, 9,47,17,58,40,33, 9	11,15, 9,44,23,14,27	4,22, 7,55, 7	49
46″	59,45,32,21, 2,27,43, 3,47,36	11,15, 5,22,15,18,31	4,22, 7,55,56	49
48″	59,45,32,32,17,33, 5,19, 6, 7	11,15, 1, 0, 7,21,46	4,22, 7,56,45	49
50″	59,45,32,43,32,34, 5,26,27,53	11,14,56,37,59,24,12	4,22, 7,57,34	49
52″	59,45,32,54,47,30,43,25,52, 5	11,14,52,15,51,25,49	4,22, 7,58,23	49
54″	59,45,33, 6, 2,22,59,17,17,54	11,14,47,53,43,26,37	4,22, 7,59,12	49
56″	59,45,33,17,17,10,53, 0,44,31	11,14,43,31,35,26,36	4,22, 8, 0, 1	49
58″	59,45,33,28,31,54,24,36,11, 7	11,14,39, 9,27,25,46	4,22, 8, 0,50	
60″	59,45,33,39,46,33,34, 3,36,53			
exact	59,45,33,39,46,33,34, 3, 6,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°52′ 0″	59,45,33,39,46,33,34, 3, 6,59			
		11,14,34,47,19,21, 2		
2″	59,45,33,51, 1, 8,21,22,28, 1		4,22, 8, 2,40	
		11,14,30,25,11,18,22		49
4″	59,45,34, 2,15,38,46,33,46,23		4,22, 8, 3,29	
		11,14,26, 3, 3,14,53		49
6″	59,45,34,13,30, 4,49,37, 1,16		4,22, 8, 4,18	
		11,14,21,40,55,10,35		49
8″	59,45,34,24,44,26,30,32,11,51		4,22, 8, 5, 7	
		11,14,17,18,47, 5,28		49
10″	59,45,34,35,58,43,49,19,17,19		4,22, 8, 5,56	
		11,14,12,56,38,59,32		49
12″	59,45,34,47,12,56,45,58,16,51		4,22, 8, 6,45	
		11,14, 8,34,30,52,47		49
14″	59,45,34,58,27, 5,20,29, 9,38		4,22, 8, 7,34	
		11,14, 4,12,22,45,13		49
16″	59,45,35, 9,41, 9,32,51,54,51		4,22, 8, 8,23	
		11,13,59,50,14,36,50		49
18″	59,45,35,20,55, 9,23, 6,31,41		4,22, 8, 9,12	
		11,13,55,28, 6,27,38		49
20″	59,45,35,32, 9, 4,51,12,59,19		4,22, 8,10, 1	
		11,13,51, 5,58,17,37		49
22″	59,45,35,43,22,55,57,11,16,56		4,22, 8,10,50	
		11,13,46,43,50, 6,47		49
24″	59,45,35,54,36,42,41, 1,23,43		4,22, 8,11,39	
		11,13,42,21,41,55, 8		49
26″	59,45,36, 5,50,25, 2,43,18,51		4,22, 8,12,28	
		11,13,37,59,33,42,40		49
28″	59,45,36,17, 4, 3, 2,17, 1,31		4,22, 8,13,17	
		11,13,33,37,25,29,23		49
30″	59,45,36,28,17,36,39,42,30,54		4,22, 8,14, 6	
		11,13,29,15,17,15,17		49
32″	59,45,36,39,31, 5,54,59,46,11		4,22, 8,14,55	
		11,13,24,53, 9, 0,22		49
34″	59,45,36,50,44,30,48, 8,46,33		4,22, 8,15,44	
		11,13,20,31, 0,44,38		49
36″	59,45,37, 1,57,51,19, 9,31,11		4,22, 8,16,33	
		11,13,16, 8,52,28, 5		49
38″	59,45,37,13,11, 7,28, 1,59,16		4,22, 8,17,22	
		11,13,11,46,44,10,43		49
40″	59,45,37,24,24,19,14,46, 9,59		4,22, 8,18,11	
		11,13, 7,24,35,52,32		49
42″	59,45,37,35,37,26,39,22, 2,31		4,22, 8,19, 0	
		11,13, 3, 2,27,33,32		49
44″	59,45,37,46,50,29,41,49,36, 3		4,22, 8,19,49	
		11,12,58,40,19,13,43		49
46″	59,45,37,58, 3,28,22, 8,49,46		4,22, 8,20,38	
		11,12,54,18,10,53, 5		49
48″	59,45,38, 9,16,22,40,19,42,51		4,22, 8,21,27	
		11,12,49,56, 2,31,38		49
50″	59,45,38,20,29,12,36,22,14,29		4,22, 8,22,16	
		11,12,45,33,54, 9,22		49
52″	59,45,38,31,41,58,10,16,23,51		4,22, 8,23, 5	
		11,12,41,11,45,46,17		49
54″	59,45,38,42,54,39,22, 2,10, 8		4,22, 8,23,54	
		11,12,36,49,37,22,23		49
56″	59,45,38,54, 7,16,11,39,32,31		4,22, 8,24,43	
		11,12,32,27,28,57,40		49
58″	59,45,39, 5,19,48,39, 8,30,11		4,22, 8,25,32	
		11,12,28, 5,20,32, 8		
60″	59,45,39,16,32,16,44,29, 2,19			
exact	59,45,39,16,32,16,44,28,44,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°53′ 0″	59,45,39,16,32,16,44,28,44,18			
		11,12,23,43,12, 3,56		
2″	59,45,39,27,44,40,27,40,48,14		4,22, 8,27,17	
		11,12,19,21, 3,36,39		49
4″	59,45,39,38,56,59,48,44,24,53		4,22, 8,28, 6	
		11,12,14,58,55, 8,33		49
6″	59,45,39,50, 9,14,47,39,33,26		4,22, 8,28,55	
		11,12,10,36,46,39,38		49
8″	59,45,40, 1,21,25,24,26,13, 4		4,22, 8,29,44	
		11,12, 6,14,38, 9,54		49
10″	59,45,40,12,33,31,39, 4,22,58		4,22, 8,30,33	
		11,12, 1,52,29,39,21		49
12″	59,45,40,23,45,33,31,34, 2,19		4,22, 8,31,22	
		11,11,57,30,21, 7,59		49
14″	59,45,40,34,57,31, 1,55,10,18		4,22, 8,32,11	
		11,11,53, 8,12,35,48		49
16″	59,45,40,46, 9,24,10, 7,46, 6		4,22, 8,33, 0	
		11,11,48,46, 4, 2,48		49
18″	59,45,40,57,21,12,56,11,48,54		4,22, 8,33,49	
		11,11,44,23,55,28,59		49
20″	59,45,41, 8,32,57,20, 7,17,53		4,22, 8,34,38	
		11,11,40, 1,46,54,21		49
22″	59,45,41,19,44,37,21,54,12,14		4,22, 8,35,27	
		11,11,35,39,38,18,54		49
24″	59,45,41,30,56,13, 1,32,31, 8		4,22, 8,36,16	
		11,11,31,17,29,42,38		49
26″	59,45,41,42, 7,44,19, 2,13,46		4,22, 8,37, 5	
		11,11,26,55,21, 5,33		49
28″	59,45,41,53,19,11,14,23,19,19		4,22, 8,37,54	
		11,11,22,33,12,27,39		49
30″	59,45,42, 4,30,33,47,35,46,58		4,22, 8,38,43	
		11,11,18,11, 3,48,56		49
32″	59,45,42,15,41,51,58,39,35,54		4,22, 8,39,32	
		11,11,13,48,55, 9,24		49
34″	59,45,42,26,53, 5,47,34,45,18		4,22, 8,40,21	
		11,11, 9,26,46,29, 3		49
36″	59,45,42,38, 4,15,14,21,14,21		4,22, 8,41,10	
		11,11, 5, 4,37,47,53		49
38″	59,45,42,49,15,20,18,59, 2,14		4,22, 8,41,59	
		11,11, 0,42,29, 5,54		49
40″	59,45,43, 0,26,21, 1,28, 8, 8		4,22, 8,42,48	
		11,10,56,20,20,23, 6		49
42″	59,45,43,11,37,17,21,48,31,14		4,22, 8,43,37	
		11,10,51,58,11,39,29		49
44″	59,45,43,22,48, 9,20, 0,10,43		4,22, 8,44,26	
		11,10,47,36, 2,55, 3		49
46″	59,45,43,33,58,56,56, 3, 5,46		4,22, 8,45,15	
		11,10,43,13,54, 9,48		49
48″	59,45,43,45, 9,40, 9,57,15,34		4,22, 8,46, 4	
		11,10,38,51,45,23,44		49
50″	59,45,43,56,20,19, 1,42,39,18		4,22, 8,46,53	
		11,10,34,29,36,36,51		49
52″	59,45,44, 7,30,53,31,19,16, 9		4,22, 8,47,42	
		11,10,30, 7,27,49, 9		49
54″	59,45,44,18,41,23,38,47, 5,18		4,22, 8,48,31	
		11,10,25,45,19, 0,38		49
56″	59,45,44,29,51,49,24, 6, 5,56		4,22, 8,49,20	
		11,10,21,23,10,11,18		49
58″	59,45,44,41, 2,10,47,16,17,14		4,22, 8,50, 9	
		11,10,17, 1, 1,21, 9		
60″	59,45,44,52,12,27,48,17,38,23			
exact	59,45,44,52,12,27,48,17,30,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°54′ 0″	59,45,44,52,12,27,48,17,30,57	11,10,12,38,52,29,28		
2″	59,45,45, 3,22,40,27,10, 0,25	11,10, 8,16,43,37,39	4,22, 8,51,49	49
4″	59,45,45,14,32,48,43,53,38, 4	11,10, 3,54,34,45, 1	4,22, 8,52,38	49
6″	59,45,45,25,42,52,38,28,23, 5	11, 9,59,32,25,51,34	4,22, 8,53,27	49
8″	59,45,45,36,52,52,10,54,14,39	11, 9,55,10,16,57,18	4,22, 8,54,16	49
10″	59,45,45,48, 2,47,21,11,11,57	11, 9,50,48, 8, 2,13	4,22, 8,55, 5	49
12″	59,45,45,59,12,38, 9,19,14,10	11, 9,46,25,59, 6,19	4,22, 8,55,54	49
14″	59,45,46,10,22,24,35,18,20,29	11, 9,42, 3,50, 9,36	4,22, 8,56,43	49
16″	59,45,46,21,32, 6,39, 8,30, 5	11, 9,37,41,41,12, 4	4,22, 8,57,32	49
18″	59,45,46,32,41,44,20,49,42, 9	11, 9,33,19,32,13,43	4,22, 8,58,21	49
20″	59,45,46,43,51,17,40,21,55,52	11, 9,28,57,23,14,33	4,22, 8,59,10	49
22″	59,45,46,55, 0,46,37,45,10,25	11, 9,24,35,14,14,34	4,22, 8,59,59	49
24″	59,45,47, 6,10,11,12,59,24,59	11, 9,20,13, 5,13,46	4,22, 9, 0,48	49
26″	59,45,47,17,19,31,26, 4,38,45	11, 9,15,50,56,12, 9	4,22, 9, 1,37	49
28″	59,45,47,28,28,47,17, 0,50,54	11, 9,11,28,47, 9,43	4,22, 9, 2,26	49
30″	59,45,47,39,37,58,45,48, 0,37	11, 9, 7, 6,38, 6,28	4,22, 9, 3,15	49
32″	59,45,47,50,47, 5,52,26, 7, 5	11, 9, 2,44,29, 2,24	4,22, 9, 4, 4	49
34″	59,45,48, 1,56, 8,36,55, 9,29	11, 8,58,22,19,57,31	4,22, 9, 4,53	49
36″	59,45,48,13, 5, 6,59,15, 7, 0	11, 8,54, 0,10,51,49	4,22, 9, 5,42	49
38″	59,45,48,24,14, 0,59,25,58,49	11, 8,49,38, 1,45,18	4,22, 9, 6,31	49
40″	59,45,48,35,22,50,37,27,44, 7	11, 8,45,15,52,37,58	4,22, 9, 7,20	49
42″	59,45,48,46,31,35,53,20,22, 5	11, 8,40,53,43,29,49	4,22, 9, 8, 9	49
44″	59,45,48,57,40,16,47, 3,51,54	11, 8,36,31,34,20,51	4,22, 9, 8,58	49
46″	59,45,49, 8,48,53,18,38,12,45	11, 8,32, 9,25,11, 4	4,22, 9, 9,47	49
48″	59,45,49,19,57,25,28, 3,23,49	11, 8,27,47,16, 0,28	4,22, 9,10,36	49
50″	59,45,49,31, 5,53,15,19,24,17	11, 8,23,25, 6,49, 3	4,22, 9,11,25	49
52″	59,45,49,42,14,16,40,26,13,20	11, 8,19, 2,57,36,49	4,22, 9,12,14	49
54″	59,45,49,53,22,35,43,23,50, 9	11, 8,14,40,48,23,46	4,22, 9,13, 3	49
56″	59,45,50, 4,30,50,24,12,13,55	11, 8,10,18,39, 9,54	4,22, 9,13,52	49
58″	59,45,50,15,39, 0,42,51,23,49	11, 8, 5,56,29,55,13	4,22, 9,14,41	
60″	59,45,50,26,47, 6,39,21,19, 2			
exact	59,45,50,26,47, 6,39,21,20,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°55′ 0″	59,45,50,26,47, 6,39,21,20,46			
		11, 8, 1,34,20,40, 3		
2″	59,45,50,37,55, 8,13,42, 0,49		4,22, 9,16,17	
		11, 7,57,12,11,23,46		49
4″	59,45,50,49, 3, 5,25,53,24,35		4,22, 9,17, 6	
		11, 7,52,50, 2, 6,40		49
6″	59,45,51, 0,10,58,15,55,31,15		4,22, 9,17,55	
		11, 7,48,27,52,48,45		49
8″	59,45,51,11,18,46,43,48,20, 0		4,22, 9,18,44	
		11, 7,44, 5,43,30, 1		49
10″	59,45,51,22,26,30,49,31,50, 1		4,22, 9,19,33	
		11, 7,39,43,34,10,28		49
12″	59,45,51,33,34,10,33, 6, 0,29		4,22, 9,20,22	
		11, 7,35,21,24,50, 6		49
14″	59,45,51,44,41,45,54,30,50,35		4,22, 9,21,11	
		11, 7,30,59,15,28,55		49
16″	59,45,51,55,49,16,53,46,19,30		4,22, 9,22, 0	
		11, 7,26,37, 6, 6,55		49
18″	59,45,52, 6,56,43,30,52,26,25		4,22, 9,22,49	
		11, 7,22,14,56,44, 6		49
20″	59,45,52,18, 4, 5,45,49,10,31		4,22, 9,23,38	
		11, 7,17,52,47,20,28		49
22″	59,45,52,29,11,23,38,36,30,59		4,22, 9,24,27	
		11, 7,13,30,37,56, 1		49
24″	59,45,52,40,18,37, 9,14,27, 0		4,22, 9,25,16	
		11, 7, 9, 8,28,30,45		49
26″	59,45,52,51,25,46,17,42,57,45		4,22, 9,26, 5	
		11, 7, 4,46,19, 4,40		49
28″	59,45,53, 2,32,51, 4, 2, 2,25		4,22, 9,26,54	
		11, 7, 0,24, 9,37,46		49
30″	59,45,53,13,39,51,28,11,40,11		4,22, 9,27,43	
		11, 6,56, 2, 0,10, 3		49
32″	59,45,53,24,46,47,30,11,50,14		4,22, 9,28,32	
		11, 6,51,39,50,41,31		49
34″	59,45,53,35,53,39,10, 2,31,45		4,22, 9,29,21	
		11, 6,47,17,41,12,10		49
36″	59,45,53,47, 0,26,27,43,43,55		4,22, 9,30,10	
		11, 6,42,55,31,42, 0		49
38″	59,45,53,58, 7, 9,23,15,25,55		4,22, 9,30,59	
		11, 6,38,33,22,11, 1		49
40″	59,45,54, 9,13,47,56,37,36,56		4,22, 9,31,48	
		11, 6,34,11,12,39,13		49
42″	59,45,54,20,20,22, 7,50,16, 9		4,22, 9,32,37	
		11, 6,29,49, 3, 6,36		49
44″	59,45,54,31,26,51,56,53,22,45		4,22, 9,33,26	
		11, 6,25,26,53,33,10		49
46″	59,45,54,42,33,17,23,46,55,55		4,22, 9,34,15	
		11, 6,21, 4,43,58,55		49
48″	59,45,54,53,39,38,28,30,54,50		4,22, 9,35, 4	
		11, 6,16,42,34,23,51		49
50″	59,45,55, 4,45,55,11, 5,18,41		4,22, 9,35,53	
		11, 6,12,20,24,47,58		49
52″	59,45,55,15,52, 7,31,30, 6,39		4,22, 9,36,42	
		11, 6, 7,58,15,11,16		49
54″	59,45,55,26,58,15,29,45,17,55		4,22, 9,37,31	
		11, 6, 3,36, 5,33,45		49
56″	59,45,55,38, 4,19, 5,50,51,40		4,22, 9,38,20	
		11, 5,59,13,55,55,25		49
58″	59,45,55,49,10,18,19,46,47, 5		4,22, 9,39, 9	
		11, 5,54,51,46,16,16		
60″	59,45,56, 0,16,13,11,33, 3,21			
exact	59,45,56, 0,16,13,11,33,19,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°56′ 0″	59,45,56, 0,16,13,11,33,19,24			
		11, 5,50,29,36,38, 2		
2″	59,45,56,11,22, 3,41, 9,57,26		4,22, 9,40,39	
		11, 5,46, 7,26,57,23		49
4″	59,45,56,22,27,49,48,36,54,49		4,22, 9,41,28	
		11, 5,41,45,17,15,55		49
6″	59,45,56,33,33,31,33,54,10,44		4,22, 9,42,17	
		11, 5,37,23, 7,33,38		49
8″	59,45,56,44,39, 8,57, 1,44,22		4,22, 9,43, 6	
		11, 5,33, 0,57,50,32		49
10″	59,45,56,55,44,41,57,59,34,54		4,22, 9,43,55	
		11, 5,28,38,48, 6,37		49
12″	59,45,57, 6,50,10,36,47,41,31		4,22, 9,44,44	
		11, 5,24,16,38,21,53		49
14″	59,45,57,17,55,34,53,26, 3,24		4,22, 9,45,33	
		11, 5,19,54,28,36,20		49
16″	59,45,57,29, 0,54,47,54,39,44		4,22, 9,46,22	
		11, 5,15,32,18,49,58		49
18″	59,45,57,40, 6,10,20,13,29,42		4,22, 9,47,11	
		11, 5,11,10, 9, 2,47		49
20″	59,45,57,51,11,21,30,22,32,29		4,22, 9,48, 0	
		11, 5, 6,47,59,14,47		49
22″	59,45,58, 2,16,28,18,21,47,16		4,22, 9,48,49	
		11, 5, 2,25,49,25,58		49
24″	59,45,58,13,21,30,44,11,13,14		4,22, 9,49,38	
		11, 4,58, 3,39,36,20		49
26″	59,45,58,24,26,28,47,50,49,34		4,22, 9,50,27	
		11, 4,53,41,29,45,53		49
28″	59,45,58,35,31,22,29,20,35,27		4,22, 9,51,16	
		11, 4,49,19,19,54,37		49
30″	59,45,58,46,36,11,48,40,30, 4		4,22, 9,52, 5	
		11, 4,44,57,10, 2,32		49
32″	59,45,58,57,40,56,45,50,32,36		4,22, 9,52,54	
		11, 4,40,35, 0, 9,38		49
34″	59,45,59, 8,45,37,20,50,42,14		4,22, 9,53,43	
		11, 4,36,12,50,15,55		49
36″	59,45,59,19,50,13,33,40,58, 9		4,22, 9,54,32	
		11, 4,31,50,40,21,23		49
38″	59,45,59,30,54,45,24,21,19,32		4,22, 9,55,21	
		11, 4,27,28,30,26, 2		49
40″	59,45,59,41,59,12,52,51,45,34		4,22, 9,56,10	
		11, 4,23, 6,20,29,52		49
42″	59,45,59,53, 3,35,59,12,15,26		4,22, 9,56,59	
		11, 4,18,44,10,32,53		49
44″	59,46, 0, 4, 7,54,43,22,48,19		4,22, 9,57,48	
		11, 4,14,22, 0,35, 5		49
46″	59,46, 0,15,12, 9, 5,23,23,24		4,22, 9,58,37	
		11, 4, 9,59,50,36,28		49
48″	59,46, 0,26,16,19, 5,13,59,52		4,22, 9,59,26	
		11, 4, 5,37,40,37, 2		49
50″	59,46, 0,37,20,24,42,54,36,54		4,22,10, 0,15	
		11, 4, 1,15,30,36,47		49
52″	59,46, 0,48,24,25,58,25,13,41		4,22,10, 1, 4	
		11, 3,56,53,20,35,43		49
54″	59,46, 0,59,28,22,51,45,49,24		4,22,10, 1,53	
		11, 3,52,31,10,33,50		49
56″	59,46, 1,10,32,15,22,56,23,14		4,22,10, 2,42	
		11, 3,48, 9, 0,31, 8		49
58″	59,46, 1,21,36, 3,31,56,54,22		4,22,10, 3,31	
		11, 3,43,46,50,27,37		
60″	59,46, 1,32,39,47,18,47,21,59			
exact	59,46, 1,32,39,47,18,47,44,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°57′ 0″	59,46, 1,32,39,47,18,47,44,26			
		11, 3,39,24,40,25,52		
2″	59,46, 1,43,43,26,43,28,10,18		4,22,10, 4,57	
		11, 3,35, 2,30,20,55		49
4″	59,46, 1,54,47, 1,45,58,31,13		4,22,10, 5,46	
		11, 3,30,40,20,15, 9		49
6″	59,46, 2, 5,50,32,26,18,46,22		4,22,10, 6,35	
		11, 3,26,18,10, 8,34		49
8″	59,46, 2,16,53,58,44,28,54,56		4,22,10, 7,24	
		11, 3,21,56, 0, 1,10		49
10″	59,46, 2,27,57,20,40,28,56, 6		4,22,10, 8,13	
		11, 3,17,33,49,52,57		49
12″	59,46, 2,39, 0,38,14,18,49, 3		4,22,10, 9, 2	
		11, 3,13,11,39,43,55		49
14″	59,46, 2,50, 3,51,25,58,32,58		4,22,10, 9,51	
		11, 3, 8,49,29,34, 4		49
16″	59,46, 3, 1, 7, 0,15,28, 7, 2		4,22,10,10,40	
		11, 3, 4,27,19,23,24		49
18″	59,46, 3,12,10, 4,42,47,30,26		4,22,10,11,29	
		11, 3, 0, 5, 9,11,55		49
20″	59,46, 3,23,13, 4,47,56,42,21		4,22,10,12,18	
		11, 2,55,42,58,59,37		49
22″	59,46, 3,34,16, 0,30,55,41,58		4,22,10,13, 7	
		11, 2,51,20,48,46,30		49
24″	59,46, 3,45,18,51,51,44,28,28		4,22,10,13,56	
		11, 2,46,58,38,32,34		49
26″	59,46, 3,56,21,38,50,23, 1, 2		4,22,10,14,45	
		11, 2,42,36,28,17,49		49
28″	59,46, 4, 7,24,21,26,51,18,51		4,22,10,15,34	
		11, 2,38,14,18, 2,15		49
30″	59,46, 4,18,26,59,41, 9,21, 6		4,22,10,16,23	
		11, 2,33,52, 7,45,52		49
32″	59,46, 4,29,29,33,33,17, 6,58		4,22,10,17,12	
		11, 2,29,29,57,28,40		49
34″	59,46, 4,40,32, 3, 3,14,35,38		4,22,10,18, 1	
		11, 2,25, 7,47,10,39		49
36″	59,46, 4,51,34,28,11, 1,46,17		4,22,10,18,50	
		11, 2,20,45,36,51,49		49
38″	59,46, 5, 2,36,48,56,38,38, 6		4,22,10,19,39	
		11, 2,16,23,26,32,10		49
40″	59,46, 5,13,39, 5,20, 5,10,16		4,22,10,20,28	
		11, 2,12, 1,16,11,42		49
42″	59,46, 5,24,41,17,21,21,21,58		4,22,10,21,17	
		11, 2, 7,39, 5,50,25		49
44″	59,46, 5,35,43,25, 0,27,12,23		4,22,10,22, 6	
		11, 2, 3,16,55,28,19		49
46″	59,46, 5,46,45,28,17,22,40,42		4,22,10,22,55	
		11, 1,58,54,45, 5,24		49
48″	59,46, 5,57,47,27,12, 7,46, 6		4,22,10,23,44	
		11, 1,54,32,34,41,40		49
50″	59,46, 6, 8,49,21,44,42,27,46		4,22,10,24,33	
		11, 1,50,10,24,17, 7		49
52″	59,46, 6,19,51,11,55, 6,44,53		4,22,10,25,22	
		11, 1,45,48,13,51,45		49
54″	59,46, 6,30,52,57,43,20,36,38		4,22,10,26,11	
		11, 1,41,26, 3,25,34		49
56″	59,46, 6,41,54,39, 9,24, 2,12		4,22,10,27, 0	
		11, 1,37, 3,52,58,34		49
58″	59,46, 6,52,56,16,13,17, 0,46		4,22,10,27,49	
		11, 1,32,41,42,30,45		
60″	59,46, 7, 3,57,48,54,59,31,31			
exact	59,46, 7, 3,57,48,55, 0, 5,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°58′ 0″	59,46, 7, 3,57,48,55, 0, 5,18			
		11, 1,28,19,32, 5,54		
2″	59,46, 7,14,59,17,14,32,11,12		4,22,10,29,10	
		11, 1,23,57,21,36,44		48
4″	59,46, 7,26, 0,41,11,53,47,56		4,22,10,29,58	
		11, 1,19,35,11, 6,46		48
6″	59,46, 7,37, 2, 0,47, 4,54,42		4,22,10,30,46	
		11, 1,15,13, 0,36, 0		48
8″	59,46, 7,48, 3,16, 0, 5,30,42		4,22,10,31,34	
		11, 1,10,50,50, 4,26		48
10″	59,46, 7,59, 4,26,50,55,35, 8		4,22,10,32,22	
		11, 1, 6,28,39,32, 4		48
12″	59,46, 8,10, 5,33,19,35, 7,12		4,22,10,33,10	
		11, 1, 2, 6,28,58,54		48
14″	59,46, 8,21, 6,35,26, 4, 6, 6		4,22,10,33,58	
		11, 0,57,44,18,24,56		48
16″	59,46, 8,32, 7,33,10,22,31, 2		4,22,10,34,46	
		11, 0,53,22, 7,50,10		48
18″	59,46, 8,43, 8,26,32,30,21,12		4,22,10,35,34	
		11, 0,48,59,57,14,36		48
20″	59,46, 8,54, 9,15,32,27,35,48		4,22,10,36,22	
		11, 0,44,37,46,38,14		48
22″	59,46, 9, 5,10, 0,10,14,14, 2		4,22,10,37,10	
		11, 0,40,15,36, 1, 4		48
24″	59,46, 9,16,10,40,25,50,15, 6		4,22,10,37,58	
		11, 0,35,53,25,23, 6		48
26″	59,46, 9,27,11,16,19,15,38,12		4,22,10,38,46	
		11, 0,31,31,14,44,20		48
28″	59,46, 9,38,11,47,50,30,22,32		4,22,10,39,34	
		11, 0,27, 9, 4, 4,46		48
30″	59,46, 9,49,12,14,59,34,27,18		4,22,10,40,22	
		11, 0,22,46,53,24,24		48
32″	59,46,10, 0,12,37,46,27,51,42		4,22,10,41,10	
		11, 0,18,24,42,43,14		48
34″	59,46,10,11,12,56,11,10,34,56		4,22,10,41,58	
		11, 0,14, 2,32, 1,16		48
36″	59,46,10,22,13,10,13,42,36,12		4,22,10,42,46	
		11, 0, 9,40,21,18,30		48
38″	59,46,10,33,13,19,54, 3,54,42		4,22,10,43,34	
		11, 0, 5,18,10,34,56		48
40″	59,46,10,44,13,25,12,14,29,38		4,22,10,44,22	
		11, 0, 0,55,59,50,34		48
42″	59,46,10,55,13,26, 8,14,20,12		4,22,10,45,10	
		10,59,56,33,49, 5,24		48
44″	59,46,11, 6,13,22,42, 3,25,36		4,22,10,45,58	
		10,59,52,11,38,19,26		48
46″	59,46,11,17,13,14,53,41,45, 2		4,22,10,46,46	
		10,59,47,49,27,32,40		48
48″	59,46,11,28,13, 2,43, 9,17,42		4,22,10,47,34	
		10,59,43,27,16,45, 6		48
50″	59,46,11,39,12,46,10,26, 2,48		4,22,10,48,22	
		10,59,39, 5, 5,56,44		48
52″	59,46,11,50,12,25,15,31,59,32		4,22,10,49,10	
		10,59,34,42,55, 7,34		48
54″	59,46,12, 1,11,59,58,27, 7, 6		4,22,10,49,58	
		10,59,30,20,44,17,36		48
56″	59,46,12,12,11,30,19,11,24,42		4,22,10,50,46	
		10,59,25,58,33,26,50		48
58″	59,46,12,23,10,56,17,44,51,32		4,22,10,51,34	
		10,59,21,36,22,35,16		
60″	59,46,12,34,10,17,54, 7,26,48			
exact	59,46,12,34,10,17,54, 7, 3,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
84°59′ 0″	59,46,12,34,10,17,54, 7, 3,17			
		10,59,17,14,11,40,33		
2″	59,46,12,45, 9,35, 8,18,43,50		4,22,10,53,19	
		10,59,12,52, 0,47,14		48
4″	59,46,12,56, 8,48, 0,19,31, 4		4,22,10,54, 7	
		10,59, 8,29,49,53, 7		48
6″	59,46,13, 7, 7,56,30, 9,24,11		4,22,10,54,55	
		10,59, 4, 7,38,58,12		48
8″	59,46,13,18, 7, 0,37,48,22,23		4,22,10,55,43	
		10,58,59,45,28, 2,29		48
10″	59,46,13,29, 6, 0,23,16,24,52		4,22,10,56,31	
		10,58,55,23,17, 5,58		48
12″	59,46,13,40, 4,55,46,33,30,50		4,22,10,57,19	
		10,58,51, 1, 6, 8,39		48
14″	59,46,13,51, 3,46,47,39,39,29		4,22,10,58, 7	
		10,58,46,38,55,10,32		48
16″	59,46,14, 2, 2,33,26,34,50, 1		4,22,10,58,55	
		10,58,42,16,44,11,37		48
18″	59,46,14,13, 1,15,43,19, 1,38		4,22,10,59,43	
		10,58,37,54,33,11,54		48
20″	59,46,14,23,59,53,37,52,13,32		4,22,11, 0,31	
		10,58,33,32,22,11,23		48
22″	59,46,14,34,58,27,10,14,24,55		4,22,11, 1,19	
		10,58,29,10,11,10, 4		48
24″	59,46,14,45,56,56,20,25,34,59		4,22,11, 2, 7	
		10,58,24,48, 0, 7,57		48
26″	59,46,14,56,55,21, 8,25,42,56		4,22,11, 2,55	
		10,58,20,25,49, 5, 2		48
28″	59,46,15, 7,53,41,34,14,47,58		4,22,11, 3,43	
		10,58,16, 3,38, 1,19		48
30″	59,46,15,18,51,57,37,52,49,17		4,22,11, 4,31	
		10,58,11,41,26,56,48		48
32″	59,46,15,29,50, 9,19,19,46, 5		4,22,11, 5,19	
		10,58, 7,19,15,51,29		48
34″	59,46,15,40,48,16,38,35,37,34		4,22,11, 6, 7	
		10,58, 2,57, 4,45,22		48
36″	59,46,15,51,46,19,35,40,22,56		4,22,11, 6,55	
		10,57,58,34,53,38,27		48
38″	59,46,16, 2,44,18,10,34, 1,23		4,22,11, 7,43	
		10,57,54,12,42,30,44		48
40″	59,46,16,13,42,12,23,16,32, 7		4,22,11, 8,31	
		10,57,49,50,31,22,13		48
42″	59,46,16,24,40, 2,13,47,54,20		4,22,11, 9,19	
		10,57,45,28,20,12,54		48
44″	59,46,16,35,37,47,42, 8, 7,14		4,22,11,10, 7	
		10,57,41, 6, 9, 2,47		48
46″	59,46,16,46,35,28,48,17,10, 1		4,22,11,10,55	
		10,57,36,43,57,51,52		48
48″	59,46,16,57,33, 5,32,15, 1,53		4,22,11,11,43	
		10,57,32,21,46,40, 9		48
50″	59,46,17, 8,30,37,54, 1,42, 2		4,22,11,12,31	
		10,57,27,59,35,27,38		48
52″	59,46,17,19,28, 5,53,37, 9,40		4,22,11,13,19	
		10,57,23,37,24,14,19		48
54″	59,46,17,30,25,29,31, 1,23,59		4,22,11,14, 7	
		10,57,19,15,13, 0,12		48
56″	59,46,17,41,22,48,46,14,24,11		4,22,11,14,55	
		10,57,14,53, 1,45,17		48
58″	59,46,17,52,20, 3,39,16, 9,28		4,22,11,15,43	
		10,57,10,30,50,29,34		
60″	59,46,18, 3,17,14,10, 6,39, 2			
exact	59,46,18, 3,17,14,10, 6,31,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85° 0′ 0″	59,46,18, 3,17,14,10, 6,31,35			
		10,57, 6, 8,39,12,13		
2″	59,46,18,14,14,20,18,45,43,48		4,22,11,17,22	
		10,57, 1,46,27,54,51		48
4″	59,46,18,25,11,22, 5,13,38,39		4,22,11,18,10	
		10,56,57,24,16,36,41		48
6″	59,46,18,36, 8,19,29,30,15,20		4,22,11,18,58	
		10,56,53, 2, 5,17,43		48
8″	59,46,18,47, 5,12,31,35,33, 3		4,22,11,19,46	
		10,56,48,39,53,57,57		48
10″	59,46,18,58, 2, 1,11,29,31, 0		4,22,11,20,34	
		10,56,44,17,42,37,23		48
12″	59,46,19, 8,58,45,29,12, 8,23		4,22,11,21,22	
		10,56,39,55,31,16, 1		48
14″	59,46,19,19,55,25,24,43,24,24		4,22,11,22,10	
		10,56,35,33,19,53,51		48
16″	59,46,19,30,52, 0,58, 3,18,15		4,22,11,22,58	
		10,56,31,11, 8,30,53		48
18″	59,46,19,41,48,32, 9,11,49, 8		4,22,11,23,46	
		10,56,26,48,57, 7, 7		48
20″	59,46,19,52,44,58,58, 8,56,15		4,22,11,24,34	
		10,56,22,26,45,42,33		48
22″	59,46,20, 3,41,21,24,54,38,48		4,22,11,25,22	
		10,56,18, 4,34,17,11		48
24″	59,46,20,14,37,39,29,28,55,59		4,22,11,26,10	
		10,56,13,42,22,51, 1		48
26″	59,46,20,25,33,53,11,51,47, 0		4,22,11,26,58	
		10,56, 9,20,11,24, 3		48
28″	59,46,20,36,30, 2,32, 3,11, 3		4,22,11,27,46	
		10,56, 4,57,59,56,17		48
30″	59,46,20,47,26, 7,30, 3, 7,20		4,22,11,28,34	
		10,56, 0,35,48,27,43		48
32″	59,46,20,58,22, 8, 5,51,35, 3		4,22,11,29,22	
		10,55,56,13,36,58,21		48
34″	59,46,21, 9,18, 4,19,28,33,24		4,22,11,30,10	
		10,55,51,51,25,28,11		48
36″	59,46,21,20,13,56,10,54, 1,35		4,22,11,30,58	
		10,55,47,29,13,57,13		48
38″	59,46,21,31, 9,43,40, 7,58,48		4,22,11,31,46	
		10,55,43, 7, 2,25,27		48
40″	59,46,21,42, 5,26,47,10,24,15		4,22,11,32,34	
		10,55,38,44,50,52,53		48
42″	59,46,21,53, 1, 5,32, 1,17, 8		4,22,11,33,22	
		10,55,34,22,39,19,31		48
44″	59,46,22, 3,56,39,54,40,36,39		4,22,11,34,10	
		10,55,30, 0,27,45,21		48
46″	59,46,22,14,52, 9,55, 8,22, 0		4,22,11,34,58	
		10,55,25,38,16,10,23		48
48″	59,46,22,25,47,35,33,24,32,23		4,22,11,35,46	
		10,55,21,16, 4,34,37		48
50″	59,46,22,36,42,56,49,29, 7, 0		4,22,11,36,34	
		10,55,16,53,52,58, 3		48
52″	59,46,22,47,38,13,43,22, 5, 3		4,22,11,37,22	
		10,55,12,31,41,20,41		48
54″	59,46,22,58,33,26,15, 3,25,44		4,22,11,38,10	
		10,55, 8, 9,29,42,31		48
56″	59,46,23, 9,28,34,24,33, 8,15		4,22,11,38,58	
		10,55, 3,47,18, 3,33		48
58″	59,46,23,20,23,38,11,51,11,48		4,22,11,39,46	
		10,54,59,25, 6,23,47		
60″	59,46,23,31,18,37,36,57,35,35			
exact	59,46,23,31,18,37,36,57,35,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85° 1′ 0″	59,46,23,31,18,37,36,57,35,15			
		10,54,55, 2,54,43,18		
2″	59,46,23,42,13,32,39,52,18,33		4,22,11,41,21	
		10,54,50,40,43, 1,57		48
4″	59,46,23,53, 8,23,20,35,20,30		4,22,11,42, 9	
		10,54,46,18,31,19,48		48
6″	59,46,24, 4, 3, 9,39, 6,40,18		4,22,11,42,57	
		10,54,41,56,19,36,51		48
8″	59,46,24,14,57,51,35,26,17, 9		4,22,11,43,45	
		10,54,37,34, 7,53, 6		48
10″	59,46,24,25,52,29, 9,34,10,15		4,22,11,44,33	
		10,54,33,11,56, 8,33		48
12″	59,46,24,36,47, 2,21,30,18,48		4,22,11,45,21	
		10,54,28,49,44,23,12		48
14″	59,46,24,47,41,31,11,14,42, 0		4,22,11,46, 9	
		10,54,24,27,32,37, 3		48
16″	59,46,24,58,35,55,38,47,19, 3		4,22,11,46,57	
		10,54,20, 5,20,50, 6		48
18″	59,46,25, 9,30,15,44, 8, 9, 9		4,22,11,47,45	
		10,54,15,43, 9, 2,21		48
20″	59,46,25,20,24,31,27,17,11,30		4,22,11,48,33	
		10,54,11,20,57,13,48		48
22″	59,46,25,31,18,42,48,14,25,18		4,22,11,49,21	
		10,54, 6,58,45,24,27		48
24″	59,46,25,42,12,49,46,59,49,45		4,22,11,50, 9	
		10,54, 2,36,33,34,18		48
26″	59,46,25,53, 6,52,23,33,24, 3		4,22,11,50,57	
		10,53,58,14,21,43,21		48
28″	59,46,26, 4, 0,50,37,55, 7,24		4,22,11,51,45	
		10,53,53,52, 9,51,36		48
30″	59,46,26,14,54,44,30, 4,59, 0		4,22,11,52,33	
		10,53,49,29,57,59, 3		48
32″	59,46,26,25,48,34, 0, 2,58, 3		4,22,11,53,21	
		10,53,45, 7,46, 5,42		48
34″	59,46,26,36,42,19, 7,49, 3,45		4,22,11,54, 9	
		10,53,40,45,34,11,33		48
36″	59,46,26,47,35,59,53,23,15,18		4,22,11,54,57	
		10,53,36,23,22,16,36		48
38″	59,46,26,58,29,36,16,45,31,54		4,22,11,55,45	
		10,53,32, 1,10,20,51		48
40″	59,46,27, 9,23, 8,17,55,52,45		4,22,11,56,33	
		10,53,27,38,58,24,18		48
42″	59,46,27,20,16,35,56,54,17, 3		4,22,11,57,21	
		10,53,23,16,46,26,57		48
44″	59,46,27,31, 9,59,13,40,44, 0		4,22,11,58, 9	
		10,53,18,54,34,28,48		48
46″	59,46,27,42, 3,18, 8,15,12,48		4,22,11,58,57	
		10,53,14,32,22,29,51		48
48″	59,46,27,52,56,32,40,37,42,39		4,22,11,59,45	
		10,53,10,10,10,30, 6		48
50″	59,46,28, 3,49,42,50,48,12,45		4,22,12, 0,33	
		10,53, 5,47,58,29,33		48
52″	59,46,28,14,42,48,38,46,42,18		4,22,12, 1,21	
		10,53, 1,25,46,28,12		48
54″	59,46,28,25,35,50, 4,33,10,30		4,22,12, 2, 9	
		10,52,57, 3,34,26, 3		48
56″	59,46,28,36,28,47, 8, 7,36,33		4,22,12, 2,57	
		10,52,52,41,22,23, 6		48
58″	59,46,28,47,21,39,49,29,59,39		4,22,12, 3,45	
		10,52,48,19,10,19,21		
60″	59,46,28,58,14,28, 8,40,19, 0			
exact	59,46,28,58,14,28, 8,40,31,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85° 2′ 0″	59,46,28,58,14,28, 8,40,31,14			
		10,52,43,56,58,16,10		
2″	59,46,29, 9, 7,12, 5,38,47,24		4,22,12, 5,15	
		10,52,39,34,46,10,55		48
4″	59,46,29,19,59,51,40,24,58,19		4,22,12, 6, 3	
		10,52,35,12,34, 4,52		48
6″	59,46,29,30,52,26,52,59, 3,11		4,22,12, 6,51	
		10,52,30,50,21,58, 1		48
8″	59,46,29,41,44,57,43,21, 1,12		4,22,12, 7,39	
		10,52,26,28, 9,50,22		48
10″	59,46,29,52,37,24,11,30,51,34		4,22,12, 8,27	
		10,52,22, 5,57,41,55		48
12″	59,46,30, 3,29,46,17,28,33,29		4,22,12, 9,15	
		10,52,17,43,45,32,40		48
14″	59,46,30,14,22, 4, 1,14, 6, 9		4,22,12,10, 3	
		10,52,13,21,33,22,37		48
16″	59,46,30,25,14,17,22,47,28,46		4,22,12,10,51	
		10,52, 8,59,21,11,46		48
18″	59,46,30,36, 6,26,22, 8,40,32		4,22,12,11,39	
		10,52, 4,37, 9, 0, 7		48
20″	59,46,30,46,58,30,59,17,40,39		4,22,12,12,27	
		10,52, 0,14,56,47,40		48
22″	59,46,30,57,50,31,14,14,28,19		4,22,12,13,15	
		10,51,55,52,44,34,25		48
24″	59,46,31, 8,42,27, 6,59, 2,44		4,22,12,14, 3	
		10,51,51,30,32,20,22		48
26″	59,46,31,19,34,18,37,31,23, 6		4,22,12,14,51	
		10,51,47, 8,20, 5,31		48
28″	59,46,31,30,26, 5,45,51,28,37		4,22,12,15,39	
		10,51,42,46, 7,49,52		48
30″	59,46,31,41,17,48,31,59,18,29		4,22,12,16,27	
		10,51,38,23,55,33,25		48
32″	59,46,31,52, 9,26,55,54,51,54		4,22,12,17,15	
		10,51,34, 1,43,16,10		48
34″	59,46,32, 3, 1, 0,57,38, 8, 4		4,22,12,18, 3	
		10,51,29,39,30,58, 7		48
36″	59,46,32,13,52,30,37, 9, 6,11		4,22,12,18,51	
		10,51,25,17,18,39,16		48
38″	59,46,32,24,43,55,54,27,45,27		4,22,12,19,39	
		10,51,20,55, 6,19,37		48
40″	59,46,32,35,35,16,49,34, 5, 4		4,22,12,20,27	
		10,51,16,32,53,59,10		48
42″	59,46,32,46,26,33,22,28, 4,14		4,22,12,21,15	
		10,51,12,10,41,37,55		48
44″	59,46,32,57,17,45,33, 9,42, 9		4,22,12,22, 3	
		10,51, 7,48,29,15,52		48
46″	59,46,33, 8, 8,53,21,38,58, 1		4,22,12,22,51	
		10,51, 3,26,16,53, 1		48
48″	59,46,33,18,59,56,47,55,51, 2		4,22,12,23,39	
		10,50,59, 4, 4,29,22		48
50″	59,46,33,29,50,55,52, 0,20,24		4,22,12,24,27	
		10,50,54,41,52, 4,55		48
52″	59,46,33,40,41,50,33,52,25,19		4,22,12,25,15	
		10,50,50,19,39,39,40		48
54″	59,46,33,51,32,40,53,32, 4,59		4,22,12,26, 3	
		10,50,45,57,27,13,37		48
56″	59,46,34, 2,23,26,50,59,18,36		4,22,12,26,51	
		10,50,41,35,14,46,46		48
58″	59,46,34,13,14, 8,26,14, 5,22		4,22,12,27,39	
		10,50,37,13, 2,19, 7		
60″	59,46,34,24, 4,45,39,16,24,29			
exact	59,46,34,24, 4,45,39,16,48,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85° 3′ 0″	59,46,34,24, 4,45,39,16,48,20			
		10,50,32,50,49,53,14		
2″	59,46,34,34,55,18,30, 6,41,34		4,22,12,29, 4	
		10,50,28,28,37,24,10		48
4″	59,46,34,45,45,46,58,44, 5,44		4,22,12,29,52	
		10,50,24, 6,24,54,18		48
6″	59,46,34,56,36,11, 5, 9, 0, 2		4,22,12,30,40	
		10,50,19,44,12,23,38		48
8″	59,46,35, 7,26,30,49,21,23,40		4,22,12,31,28	
		10,50,15,21,59,52,10		48
10″	59,46,35,18,16,46,11,21,15,50		4,22,12,32,16	
		10,50,10,59,47,19,54		48
12″	59,46,35,29, 6,57,11, 8,35,44		4,22,12,33, 4	
		10,50, 6,37,34,46,50		48
14″	59,46,35,39,57, 3,48,43,22,34		4,22,12,33,52	
		10,50, 2,15,22,12,58		48
16″	59,46,35,50,47, 6, 4, 5,35,32		4,22,12,34,40	
		10,49,57,53, 9,38,18		48
18″	59,46,36, 1,37, 3,57,15,13,50		4,22,12,35,28	
		10,49,53,30,57, 2,50		48
20″	59,46,36,12,26,57,28,12,16,40		4,22,12,36,16	
		10,49,49, 8,44,26,34		48
22″	59,46,36,23,16,46,36,56,43,14		4,22,12,37, 4	
		10,49,44,46,31,49,30		48
24″	59,46,36,34, 6,31,23,28,32,44		4,22,12,37,52	
		10,49,40,24,19,11,38		48
26″	59,46,36,44,56,11,47,47,44,22		4,22,12,38,40	
		10,49,36, 2, 6,32,58		48
28″	59,46,36,55,45,47,49,54,17,20		4,22,12,39,28	
		10,49,31,39,53,53,30		48
30″	59,46,37, 6,35,19,29,48,10,50		4,22,12,40,16	
		10,49,27,17,41,13,14		48
32″	59,46,37,17,24,46,47,29,24, 4		4,22,12,41, 4	
		10,49,22,55,28,32,10		48
34″	59,46,37,28,14, 9,42,57,56,14		4,22,12,41,52	
		10,49,18,33,15,50,18		48
36″	59,46,37,39, 3,28,16,13,46,32		4,22,12,42,40	
		10,49,14,11, 3, 7,38		48
38″	59,46,37,49,52,42,27,16,54,10		4,22,12,43,28	
		10,49, 9,48,50,24,10		48
40″	59,46,38, 0,41,52,16, 7,18,20		4,22,12,44,16	
		10,49, 5,26,37,39,54		48
42″	59,46,38,11,30,57,42,44,58,14		4,22,12,45, 4	
		10,49, 1, 4,24,54,50		48
44″	59,46,38,22,19,58,47, 9,53, 4		4,22,12,45,52	
		10,48,56,42,12, 8,58		48
46″	59,46,38,33, 8,55,29,22, 2, 2		4,22,12,46,40	
		10,48,52,19,59,22,18		48
48″	59,46,38,43,57,47,49,21,24,20		4,22,12,47,28	
		10,48,47,57,46,34,50		48
50″	59,46,38,54,46,35,47, 7,59,10		4,22,12,48,16	
		10,48,43,35,33,46,34		48
52″	59,46,39, 5,35,19,22,41,45,44		4,22,12,49, 4	
		10,48,39,13,20,57,30		48
54″	59,46,39,16,23,58,36, 2,43,14		4,22,12,49,52	
		10,48,34,51, 8, 7,38		48
56″	59,46,39,27,12,33,27,10,50,52		4,22,12,50,40	
		10,48,30,28,55,16,58		48
58″	59,46,39,38, 1, 3,56, 6, 7,50		4,22,12,51,28	
		10,48,26, 6,42,25,30		
60″	59,46,39,48,49,30, 2,48,33,20			
exact	59,46,39,48,49,30, 2,49, 7,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85° 4′ 0″	59,46,39,48,49,30, 2,49, 7,17			
		10,48,21,44,29,36,55		
2″	59,46,39,59,37,51,47,18,44,12		4,22,12,52,48	
		10,48,17,22,16,44, 7		47
4″	59,46,40,10,26, 9, 9,35,28,19		4,22,12,53,35	
		10,48,13, 0, 3,50,32		47
6″	59,46,40,21,14,22, 9,39,18,51		4,22,12,54,22	
		10,48, 8,37,50,56,10		47
8″	59,46,40,32, 2,30,47,30,15, 1		4,22,12,55, 9	
		10,48, 4,15,38, 1, 1		47
10″	59,46,40,42,50,35, 3, 8,16, 2		4,22,12,55,56	
		10,47,59,53,25, 5, 5		47
12″	59,46,40,53,38,34,56,33,21, 7		4,22,12,56,43	
		10,47,55,31,12, 8,22		47
14″	59,46,41, 4,26,30,27,45,29,29		4,22,12,57,30	
		10,47,51, 8,59,10,52		47
16″	59,46,41,15,14,21,36,44,40,21		4,22,12,58,17	
		10,47,46,46,46,12,35		47
18″	59,46,41,26, 2, 8,23,30,52,56		4,22,12,59, 4	
		10,47,42,24,33,13,31		47
20″	59,46,41,36,49,50,48, 4, 6,27		4,22,12,59,51	
		10,47,38, 2,20,13,40		47
22″	59,46,41,47,37,28,50,24,20, 7		4,22,13, 0,38	
		10,47,33,40, 7,13, 2		47
24″	59,46,41,58,25, 2,30,31,33, 9		4,22,13, 1,25	
		10,47,29,17,54,11,37		47
26″	59,46,42, 9,12,31,48,25,44,46		4,22,13, 2,12	
		10,47,24,55,41, 9,25		47
28″	59,46,42,19,59,56,44, 6,54,11		4,22,13, 2,59	
		10,47,20,33,28, 6,26		47
30″	59,46,42,30,47,17,17,35, 0,37		4,22,13, 3,46	
		10,47,16,11,15, 2,40		47
32″	59,46,42,41,34,33,28,50, 3,17		4,22,13, 4,33	
		10,47,11,49, 1,58, 7		47
34″	59,46,42,52,21,45,17,52, 1,24		4,22,13, 5,20	
		10,47, 7,26,48,52,47		47
36″	59,46,43, 3, 8,52,44,40,54,11		4,22,13, 6, 7	
		10,47, 3, 4,35,46,40		47
38″	59,46,43,13,55,55,49,16,40,51		4,22,13, 6,54	
		10,46,58,42,22,39,46		47
40″	59,46,43,24,42,54,31,39,20,37		4,22,13, 7,41	
		10,46,54,20, 9,32, 5		47
42″	59,46,43,35,29,48,51,48,52,42		4,22,13, 8,28	
		10,46,49,57,56,23,37		47
44″	59,46,43,46,16,38,49,45,16,19		4,22,13, 9,15	
		10,46,45,35,43,14,22		47
46″	59,46,43,57, 3,24,25,28,30,41		4,22,13,10, 2	
		10,46,41,13,30, 4,20		47
48″	59,46,44, 7,50, 5,38,58,35, 1		4,22,13,10,49	
		10,46,36,51,16,53,31		47
50″	59,46,44,18,36,42,30,15,28,32		4,22,13,11,36	
		10,46,32,29, 3,41,55		47
52″	59,46,44,29,23,14,59,19,10,27		4,22,13,12,23	
		10,46,28, 6,50,29,32		47
54″	59,46,44,40, 9,43, 6, 9,39,59		4,22,13,13,10	
		10,46,23,44,37,16,22		47
56″	59,46,44,50,56, 6,50,46,56,21		4,22,13,13,57	
		10,46,19,22,24, 2,25		47
58″	59,46,45, 1,42,26,13,10,58,46		4,22,13,14,44	
		10,46,15, 0,10,47,41		
60″	59,46,45,12,28,41,13,21,46,27			
exact	59,46,45,12,28,41,13,21,20,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85° 5′ 0″	59,46,45,12,28,41,13,21,20,39			
		10,46,10,37,57,29,34		
2″	59,46,45,23,14,51,51,18,50,13		4,22,13,16,28	
		10,46, 6,15,44,13, 6		47
4″	59,46,45,34, 0,58, 7, 3, 3,19		4,22,13,17,15	
		10,46, 1,53,30,55,51		47
6″	59,46,45,44,47, 0, 0,33,59,10		4,22,13,18, 2	
		10,45,57,31,17,37,49		47
8″	59,46,45,55,32,57,31,51,36,59		4,22,13,18,49	
		10,45,53, 9, 4,19, 0		47
10″	59,46,46, 6,18,50,40,55,55,59		4,22,13,19,36	
		10,45,48,46,50,59,24		47
12″	59,46,46,17, 4,39,27,46,55,23		4,22,13,20,23	
		10,45,44,24,37,39, 1		47
14″	59,46,46,27,50,23,52,24,34,24		4,22,13,21,10	
		10,45,40, 2,24,17,51		47
16″	59,46,46,38,36, 3,54,48,52,15		4,22,13,21,57	
		10,45,35,40,10,55,54		47
18″	59,46,46,49,21,39,34,59,48, 9		4,22,13,22,44	
		10,45,31,17,57,33,10		47
20″	59,46,47, 0, 7,10,52,57,21,19		4,22,13,23,31	
		10,45,26,55,44, 9,39		47
22″	59,46,47,10,52,37,48,41,30,58		4,22,13,24,18	
		10,45,22,33,30,45,21		47
24″	59,46,47,21,38, 0,22,12,16,19		4,22,13,25, 5	
		10,45,18,11,17,20,16		47
26″	59,46,47,32,23,18,33,29,36,35		4,22,13,25,52	
		10,45,13,49, 3,54,24		47
28″	59,46,47,43, 8,32,22,33,30,59		4,22,13,26,39	
		10,45, 9,26,50,27,45		47
30″	59,46,47,53,53,41,49,23,58,44		4,22,13,27,26	
		10,45, 5, 4,37, 0,19		47
32″	59,46,48, 4,38,46,54, 0,59, 3		4,22,13,28,13	
		10,45, 0,42,23,32, 6		47
34″	59,46,48,15,23,47,36,24,31, 9		4,22,13,29, 0	
		10,44,56,20,10, 3, 6		47
36″	59,46,48,26, 8,43,56,34,34,15		4,22,13,29,47	
		10,44,51,57,56,33,19		47
38″	59,46,48,36,53,35,54,31, 7,34		4,22,13,30,34	
		10,44,47,35,43, 2,45		47
40″	59,46,48,47,38,23,30,14,10,19		4,22,13,31,21	
		10,44,43,13,29,31,24		47
42″	59,46,48,58,23, 6,43,43,41,43		4,22,13,32, 8	
		10,44,38,51,15,59,16		47
44″	59,46,49, 9, 7,45,34,59,40,59		4,22,13,32,55	
		10,44,34,29, 2,26,21		47
46″	59,46,49,19,52,20, 4, 2, 7,20		4,22,13,33,42	
		10,44,30, 6,48,52,39		47
48″	59,46,49,30,36,50,10,50,59,59		4,22,13,34,29	
		10,44,25,44,35,18,10		47
50″	59,46,49,41,21,15,55,26,18, 9		4,22,13,35,16	
		10,44,21,22,21,42,54		47
52″	59,46,49,52, 5,37,17,48, 1, 3		4,22,13,36, 3	
		10,44,17, 0, 8, 6,51		47
54″	59,46,50, 2,49,54,17,56, 7,54		4,22,13,36,50	
		10,44,12,37,54,30, 1		47
56″	59,46,50,13,34, 6,55,50,37,55		4,22,13,37,37	
		10,44, 8,15,40,52,24		47
58″	59,46,50,24,18,15,11,31,30,19		4,22,13,38,24	
		10,44, 3,53,27,14, 0		
60″	59,46,50,35, 2,19, 4,58,44,19			
exact	59,46,50,35, 2,19, 4,58,32,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85° 6′ 0″	59,46,50,35, 2,19, 4,58,32,56			
		10,43,59,31,13,33,37		
2″	59,46,50,45,46,18,36,12, 6,33		4,22,13,40, 2	
		10,43,55, 8,59,53,35		47
4″	59,46,50,56,30,13,45,12, 0, 8		4,22,13,40,49	
		10,43,50,46,46,12,46		47
6″	59,46,51, 7,14, 4,31,58,12,54		4,22,13,41,36	
		10,43,46,24,32,31,10		47
8″	59,46,51,17,57,50,56,30,44, 4		4,22,13,42,23	
		10,43,42, 2,18,48,47		47
10″	59,46,51,28,41,32,58,49,32,51		4,22,13,43,10	
		10,43,37,40, 5, 5,37		47
12″	59,46,51,39,25,10,38,54,38,28		4,22,13,43,57	
		10,43,33,17,51,21,40		47
14″	59,46,51,50, 8,43,56,46, 0, 8		4,22,13,44,44	
		10,43,28,55,37,36,56		47
16″	59,46,52, 0,52,12,52,23,37, 4		4,22,13,45,31	
		10,43,24,33,23,51,25		47
18″	59,46,52,11,35,37,25,47,28,29		4,22,13,46,18	
		10,43,20,11,10, 5, 7		47
20″	59,46,52,22,18,57,36,57,33,36		4,22,13,47, 5	
		10,43,15,48,56,18, 2		47
22″	59,46,52,33, 2,13,25,53,51,38		4,22,13,47,52	
		10,43,11,26,42,30,10		47
24″	59,46,52,43,45,24,52,36,21,48		4,22,13,48,39	
		10,43, 7, 4,28,41,31		47
26″	59,46,52,54,28,31,57, 5, 3,19		4,22,13,49,26	
		10,43, 2,42,14,52, 5		47
28″	59,46,53, 5,11,34,39,19,55,24		4,22,13,50,13	
		10,42,58,20, 1, 1,52		47
30″	59,46,53,15,54,32,59,20,57,16		4,22,13,51, 0	
		10,42,53,57,47,10,52		47
32″	59,46,53,26,37,26,57, 8, 8, 8		4,22,13,51,47	
		10,42,49,35,33,19, 5		47
34″	59,46,53,37,20,16,32,41,27,13		4,22,13,52,34	
		10,42,45,13,19,26,31		47
36″	59,46,53,48, 3, 1,46, 0,53,44		4,22,13,53,21	
		10,42,40,51, 5,33,10		47
38″	59,46,53,58,45,42,37, 6,26,54		4,22,13,54, 8	
		10,42,36,28,51,39, 2		47
40″	59,46,54, 9,28,19, 5,58, 5,56		4,22,13,54,55	
		10,42,32, 6,37,44, 7		47
42″	59,46,54,20,10,51,12,35,50, 3		4,22,13,55,42	
		10,42,27,44,23,48,25		47
44″	59,46,54,30,53,18,56,59,38,28		4,22,13,56,29	
		10,42,23,22, 9,51,56		47
46″	59,46,54,41,35,42,19, 9,30,24		4,22,13,57,16	
		10,42,18,59,55,54,40		47
48″	59,46,54,52,18, 1,19, 5,25, 4		4,22,13,58, 3	
		10,42,14,37,41,56,37		47
50″	59,46,55, 3, 0,15,56,47,21,41		4,22,13,58,50	
		10,42,10,15,27,57,47		47
52″	59,46,55,13,42,26,12,15,19,28		4,22,13,59,37	
		10,42, 5,53,13,58,10		47
54″	59,46,55,24,24,32, 5,29,17,38		4,22,14, 0,24	
		10,42, 1,30,59,57,46		47
56″	59,46,55,35, 6,33,36,29,15,24		4,22,14, 1,11	
		10,41,57, 8,45,56,35		47
58″	59,46,55,45,48,30,45,15,11,59		4,22,14, 1,58	
		10,41,52,46,31,54,37		
60″	59,46,55,56,30,23,31,47, 6,36			
exact	59,46,55,56,30,23,31,47, 0,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85° 7′ 0″	59,46,55,56,30,23,31,47, 0,30	10,41,48,24,17,51,27		
2″	59,46,56, 7,12,11,56, 4,51,57	10,41,44, 2, 3,47,55	4,22,14, 3,32	47
4″	59,46,56,17,53,55,58, 8,39,52	10,41,39,39,49,43,36	4,22,14, 4,19	47
6″	59,46,56,28,35,35,37,58,23,28	10,41,35,17,35,38,30	4,22,14, 5, 6	47
8″	59,46,56,39,17,10,55,34, 1,58	10,41,30,55,21,32,37	4,22,14, 5,53	47
10″	59,46,56,49,58,41,50,55,34,35	10,41,26,33, 7,25,57	4,22,14, 6,40	47
12″	59,46,57, 0,40, 8,24, 3, 0,32	10,41,22,10,53,18,30	4,22,14, 7,27	47
14″	59,46,57,11,21,30,34,56,19, 2	10,41,17,48,39,10,16	4,22,14, 8,14	47
16″	59,46,57,22, 2,48,23,35,29,18	10,41,13,26,25, 1,15	4,22,14, 9, 1	47
18″	59,46,57,32,44, 1,50, 0,30,33	10,41, 9, 4,10,51,27	4,22,14, 9,48	47
20″	59,46,57,43,25,10,54,11,22, 0	10,41, 4,41,56,40,52	4,22,14,10,35	47
22″	59,46,57,54, 6,15,36, 8, 2,52	10,41, 0,19,42,29,30	4,22,14,11,22	47
24″	59,46,58, 4,47,15,55,50,32,22	10,40,55,57,28,17,21	4,22,14,12, 9	47
26″	59,46,58,15,28,11,53,18,49,43	10,40,51,35,14, 4,25	4,22,14,12,56	47
28″	59,46,58,26, 9, 3,28,32,54, 8	10,40,47,12,59,50,42	4,22,14,13,43	47
30″	59,46,58,36,49,50,41,32,44,50	10,40,42,50,45,36,12	4,22,14,14,30	47
32″	59,46,58,47,30,33,32,18,21, 2	10,40,38,28,31,20,55	4,22,14,15,17	47
34″	59,46,58,58,11,12, 0,49,41,57	10,40,34, 6,17, 4,51	4,22,14,16, 4	47
36″	59,46,59, 8,51,46, 7, 6,46,48	10,40,29,44, 2,48, 0	4,22,14,16,51	47
38″	59,46,59,19,32,15,51, 9,34,48	10,40,25,21,48,30,22	4,22,14,17,38	47
40″	59,46,59,30,12,41,12,58, 5,10	10,40,20,59,34,11,57	4,22,14,18,25	47
42″	59,46,59,40,53, 2,12,32,17, 7	10,40,16,37,19,52,45	4,22,14,19,12	47
44″	59,46,59,51,33,18,49,52, 9,52	10,40,12,15, 5,32,46	4,22,14,19,59	47
46″	59,47, 0, 2,13,31, 4,57,42,38	10,40, 7,52,51,12, 0	4,22,14,20,46	47
48″	59,47, 0,12,53,38,57,48,54,38	10,40, 3,30,36,50,27	4,22,14,21,33	47
50″	59,47, 0,23,33,42,28,25,45, 5	10,39,59, 8,22,28, 7	4,22,14,22,20	47
52″	59,47, 0,34,13,41,36,48,13,12	10,39,54,46, 8, 5, 0	4,22,14,23, 7	47
54″	59,47, 0,44,53,36,22,56,18,12	10,39,50,23,53,41, 6	4,22,14,23,54	47
56″	59,47, 0,55,33,26,46,49,59,18	10,39,46, 1,39,16,25	4,22,14,24,41	47
58″	59,47, 1, 6,13,12,48,29,15,43	10,39,41,39,24,50,57	4,22,14,25,28	
60″	59,47, 1,16,52,54,27,54, 6,40			
exact	59,47, 1,16,52,54,27,54,11,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85° 8′ 0″	59,47, 1,16,52,54,27,54,11,36			
		10,39,37,17,10,25,27		
2″	59,47, 1,27,32,31,45, 4,37, 3		4,22,14,26,58	
		10,39,32,54,55,58,29		47
4″	59,47, 1,38,12, 4,40, 0,35,32		4,22,14,27,45	
		10,39,28,32,41,30,44		47
6″	59,47, 1,48,51,33,12,42, 6,16		4,22,14,28,32	
		10,39,24,10,27, 2,12		47
8″	59,47, 1,59,30,57,23, 9, 8,28		4,22,14,29,19	
		10,39,19,48,12,32,53		47
10″	59,47, 2,10,10,17,11,21,41,21		4,22,14,30, 6	
		10,39,15,25,58, 2,47		47
12″	59,47, 2,20,49,32,37,19,44, 8		4,22,14,30,53	
		10,39,11, 3,43,31,54		47
14″	59,47, 2,31,28,43,41, 3,16, 2		4,22,14,31,40	
		10,39, 6,41,29, 0,14		47
16″	59,47, 2,42, 7,50,22,32,16,16		4,22,14,32,27	
		10,39, 2,19,14,27,47		47
18″	59,47, 2,52,46,52,41,46,44, 3		4,22,14,33,14	
		10,38,57,56,59,54,33		47
20″	59,47, 3, 3,25,50,38,46,38,36		4,22,14,34, 1	
		10,38,53,34,45,20,32		47
22″	59,47, 3,14, 4,44,13,31,59, 8		4,22,14,34,48	
		10,38,49,12,30,45,44		47
24″	59,47, 3,24,43,33,26, 2,44,52		4,22,14,35,35	
		10,38,44,50,16,10, 9		47
26″	59,47, 3,35,22,18,16,18,55, 1		4,22,14,36,22	
		10,38,40,28, 1,33,47		47
28″	59,47, 3,46, 0,58,44,20,28,48		4,22,14,37, 9	
		10,38,36, 5,46,56,38		47
30″	59,47, 3,56,39,34,50, 7,25,26		4,22,14,37,56	
		10,38,31,43,32,18,42		47
32″	59,47, 4, 7,18, 6,33,39,44, 8		4,22,14,38,43	
		10,38,27,21,17,39,59		47
34″	59,47, 4,17,56,33,54,57,24, 7		4,22,14,39,30	
		10,38,22,59, 3, 0,29		47
36″	59,47, 4,28,34,56,54, 0,24,36		4,22,14,40,17	
		10,38,18,36,48,20,12		47
38″	59,47, 4,39,13,15,30,48,44,48		4,22,14,41, 4	
		10,38,14,14,33,39, 8		47
40″	59,47, 4,49,51,29,45,22,23,56		4,22,14,41,51	
		10,38, 9,52,18,57,17		47
42″	59,47, 5, 0,29,39,37,41,21,13		4,22,14,42,38	
		10,38, 5,30, 4,14,39		47
44″	59,47, 5,11, 7,45, 7,45,35,52		4,22,14,43,25	
		10,38, 1, 7,49,31,14		47
46″	59,47, 5,21,45,46,15,35, 7, 6		4,22,14,44,12	
		10,37,56,45,34,47, 2		47
48″	59,47, 5,32,23,43, 1, 9,54, 8		4,22,14,44,59	
		10,37,52,23,20, 2, 3		47
50″	59,47, 5,43, 1,35,24,29,56,11		4,22,14,45,46	
		10,37,48, 1, 5,16,17		47
52″	59,47, 5,53,39,23,25,35,12,28		4,22,14,46,33	
		10,37,43,38,50,29,44		47
54″	59,47, 6, 4,17, 7, 4,25,42,12		4,22,14,47,20	
		10,37,39,16,35,42,24		47
56″	59,47, 6,14,54,46,21, 1,24,36		4,22,14,48, 7	
		10,37,34,54,20,54,17		47
58″	59,47, 6,25,32,21,15,22,18,53		4,22,14,48,54	
		10,37,30,32, 6, 5,23		
60″	59,47, 6,36, 9,51,47,28,24,16			
exact	59,47, 6,36, 9,51,47,28,46,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85° 9′ 0″	59,47, 6,36, 9,51,47,28,46,24			
		10,37,26, 9,51,18, 3		
2″	59,47, 6,46,47,17,57,20, 4,27		4,22,14,50,18	
		10,37,21,47,36,27,45		47
4″	59,47, 6,57,24,39,44,56,32,12		4,22,14,51, 5	
		10,37,17,25,21,36,40		47
6″	59,47, 7, 8, 1,57,10,18, 8,52		4,22,14,51,52	
		10,37,13, 3, 6,44,48		47
8″	59,47, 7,18,39,10,13,24,53,40		4,22,14,52,39	
		10,37, 8,40,51,52, 9		47
10″	59,47, 7,29,16,18,54,16,45,49		4,22,14,53,26	
		10,37, 4,18,36,58,43		47
12″	59,47, 7,39,53,23,12,53,44,32		4,22,14,54,13	
		10,36,59,56,22, 4,30		47
14″	59,47, 7,50,30,23, 9,15,49, 2		4,22,14,55, 0	
		10,36,55,34, 7, 9,30		47
16″	59,47, 8, 1, 7,18,43,22,58,32		4,22,14,55,47	
		10,36,51,11,52,13,43		47
18″	59,47, 8,11,44, 9,55,15,12,15		4,22,14,56,34	
		10,36,46,49,37,17, 9		47
20″	59,47, 8,22,20,56,44,52,29,24		4,22,14,57,21	
		10,36,42,27,22,19,48		47
22″	59,47, 8,32,57,39,12,14,49,12		4,22,14,58, 8	
		10,36,38, 5, 7,21,40		47
24″	59,47, 8,43,34,17,17,22,10,52		4,22,14,58,55	
		10,36,33,42,52,22,45		47
26″	59,47, 8,54,10,51, 0,14,33,37		4,22,14,59,42	
		10,36,29,20,37,23, 3		47
28″	59,47, 9, 4,47,20,20,51,56,40		4,22,15, 0,29	
		10,36,24,58,22,22,34		47
30″	59,47, 9,15,23,45,19,14,19,14		4,22,15, 1,16	
		10,36,20,36, 7,21,18		47
32″	59,47, 9,26, 0, 5,55,21,40,32		4,22,15, 2, 3	
		10,36,16,13,52,19,15		47
34″	59,47, 9,36,36,22, 9,13,59,47		4,22,15, 2,50	
		10,36,11,51,37,16,25		47
36″	59,47, 9,47,12,34, 0,51,16,12		4,22,15, 3,37	
		10,36, 7,29,22,12,48		47
38″	59,47, 9,57,48,41,30,13,29, 0		4,22,15, 4,24	
		10,36, 3, 7, 7, 8,24		47
40″	59,47,10, 8,24,44,37,20,37,24		4,22,15, 5,11	
		10,35,58,44,52, 3,13		47
42″	59,47,10,19, 0,43,22,12,40,37		4,22,15, 5,58	
		10,35,54,22,36,57,15		47
44″	59,47,10,29,36,37,44,49,37,52		4,22,15, 6,45	
		10,35,50, 0,21,50,30		47
46″	59,47,10,40,12,27,45,11,28,22		4,22,15, 7,32	
		10,35,45,38, 6,42,58		47
48″	59,47,10,50,48,13,23,18,11,20		4,22,15, 8,19	
		10,35,41,15,51,34,39		47
50″	59,47,11, 1,23,54,39, 9,45,59		4,22,15, 9, 6	
		10,35,36,53,36,25,33		47
52″	59,47,11,11,59,31,32,46,11,32		4,22,15, 9,53	
		10,35,32,31,21,15,40		47
54″	59,47,11,22,35, 4, 4, 7,27,12		4,22,15,10,40	
		10,35,28, 9, 6, 5, 0		47
56″	59,47,11,33,10,32,13,13,32,12		4,22,15,11,27	
		10,35,23,46,50,53,33		47
58″	59,47,11,43,45,56, 0, 4,25,45		4,22,15,12,14	
		10,35,19,24,35,41,19		
60″	59,47,11,54,21,15,24,40, 7, 4			
exact	59,47,11,54,21,15,24,40,36,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°10′ 0″	59,47,11,54,21,15,24,40,36,55			
		10,35,15, 2,20,31,36		
2″	59,47,12, 4,56,30,27, 1, 8,31		4,22,15,13,34	
		10,35,10,40, 5,18, 2		46
4″	59,47,12,15,31,41, 7, 6,26,33		4,22,15,14,20	
		10,35, 6,17,50, 3,42		46
6″	59,47,12,26, 6,47,24,56,30,15		4,22,15,15, 6	
		10,35, 1,55,34,48,36		46
8″	59,47,12,36,41,49,20,31,18,51		4,22,15,15,52	
		10,34,57,33,19,32,44		46
10″	59,47,12,47,16,46,53,50,51,35		4,22,15,16,38	
		10,34,53,11, 4,16, 6		46
12″	59,47,12,57,51,40, 4,55, 7,41		4,22,15,17,24	
		10,34,48,48,48,58,42		46
14″	59,47,13, 8,26,28,53,44, 6,23		4,22,15,18,10	
		10,34,44,26,33,40,32		46
16″	59,47,13,19, 1,13,20,17,46,55		4,22,15,18,56	
		10,34,40, 4,18,21,36		46
18″	59,47,13,29,35,53,24,36, 8,31		4,22,15,19,42	
		10,34,35,42, 3, 1,54		46
20″	59,47,13,40,10,29, 6,39,10,25		4,22,15,20,28	
		10,34,31,19,47,41,26		46
22″	59,47,13,50,45, 0,26,26,51,51		4,22,15,21,14	
		10,34,26,57,32,20,12		46
24″	59,47,14, 1,19,27,23,59,12, 3		4,22,15,22, 0	
		10,34,22,35,16,58,12		46
26″	59,47,14,11,53,49,59,16,10,15		4,22,15,22,46	
		10,34,18,13, 1,35,26		46
28″	59,47,14,22,28, 8,12,17,45,41		4,22,15,23,32	
		10,34,13,50,46,11,54		46
30″	59,47,14,33, 2,22, 3, 3,57,35		4,22,15,24,18	
		10,34, 9,28,30,47,36		46
32″	59,47,14,43,36,31,31,34,45,11		4,22,15,25, 4	
		10,34, 5, 6,15,22,32		46
34″	59,47,14,54,10,36,37,50, 7,43		4,22,15,25,50	
		10,34, 0,43,59,56,42		46
36″	59,47,15, 4,44,37,21,50, 4,25		4,22,15,26,36	
		10,33,56,21,44,30, 6		46
38″	59,47,15,15,18,33,43,34,34,31		4,22,15,27,22	
		10,33,51,59,29, 2,44		46
40″	59,47,15,25,52,25,43, 3,37,15		4,22,15,28, 8	
		10,33,47,37,13,34,36		46
42″	59,47,15,36,26,13,20,17,11,51		4,22,15,28,54	
		10,33,43,14,58, 5,42		46
44″	59,47,15,46,59,56,35,15,17,33		4,22,15,29,40	
		10,33,38,52,42,36, 2		46
46″	59,47,15,57,33,35,27,57,53,35		4,22,15,30,26	
		10,33,34,30,27, 5,36		46
48″	59,47,16, 8, 7, 9,58,24,59,11		4,22,15,31,12	
		10,33,30, 8,11,34,24		46
50″	59,47,16,18,40,40, 6,36,33,35		4,22,15,31,58	
		10,33,25,45,56, 2,26		46
52″	59,47,16,29,14, 5,52,32,36, 1		4,22,15,32,44	
		10,33,21,23,40,29,42		46
54″	59,47,16,39,47,27,16,13, 5,43		4,22,15,33,30	
		10,33,17, 1,24,56,12		46
56″	59,47,16,50,20,44,17,38, 1,55		4,22,15,34,16	
		10,33,12,39, 9,21,56		46
58″	59,47,17, 0,53,56,56,47,23,51		4,22,15,35, 2	
		10,33, 8,16,53,46,54		
60″	59,47,17,11,27, 5,13,41,10,45			
exact	59,47,17,11,27, 5,13,40,47, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°11′ 0″	59,47,17,11,27, 5,13,40,47, 8			
		10,33, 3,54,38, 8,32		
2″	59,47,17,22, 0, 9, 8,18,55,40		4,22,15,36,44	
		10,32,59,32,22,31,48		46
4″	59,47,17,32,33, 8,40,41,27,28		4,22,15,37,30	
		10,32,55,10, 6,54,18		46
6″	59,47,17,43, 6, 3,50,48,21,46		4,22,15,38,16	
		10,32,50,47,51,16, 2		46
8″	59,47,17,53,38,54,38,39,37,48		4,22,15,39, 2	
		10,32,46,25,35,37, 0		46
10″	59,47,18, 4,11,41, 4,15,14,48		4,22,15,39,48	
		10,32,42, 3,19,57,12		46
12″	59,47,18,14,44,23, 7,35,12, 0		4,22,15,40,34	
		10,32,37,41, 4,16,38		46
14″	59,47,18,25,17, 0,48,39,28,38		4,22,15,41,20	
		10,32,33,18,48,35,18		46
16″	59,47,18,35,49,34, 7,28, 3,56		4,22,15,42, 6	
		10,32,28,56,32,53,12		46
18″	59,47,18,46,22, 3, 4, 0,57, 8		4,22,15,42,52	
		10,32,24,34,17,10,20		46
20″	59,47,18,56,54,27,38,18, 7,28		4,22,15,43,38	
		10,32,20,12, 1,26,42		46
22″	59,47,19, 7,26,47,50,19,34,10		4,22,15,44,24	
		10,32,15,49,45,42,18		46
24″	59,47,19,17,59, 3,40, 5,16,28		4,22,15,45,10	
		10,32,11,27,29,57, 8		46
26″	59,47,19,28,31,15, 7,35,13,36		4,22,15,45,56	
		10,32, 7, 5,14,11,12		46
28″	59,47,19,39, 3,22,12,49,24,48		4,22,15,46,42	
		10,32, 2,42,58,24,30		46
30″	59,47,19,49,35,24,55,47,49,18		4,22,15,47,28	
		10,31,58,20,42,37, 2		46
32″	59,47,20, 0, 7,23,16,30,26,20		4,22,15,48,14	
		10,31,53,58,26,48,48		46
34″	59,47,20,10,39,17,14,57,15, 8		4,22,15,49, 0	
		10,31,49,36,10,59,48		46
36″	59,47,20,21,11, 6,51, 8,14,56		4,22,15,49,46	
		10,31,45,13,55,10, 2		46
38″	59,47,20,31,42,52, 5, 3,24,58		4,22,15,50,32	
		10,31,40,51,39,19,30		46
40″	59,47,20,42,14,32,56,42,44,28		4,22,15,51,18	
		10,31,36,29,23,28,12		46
42″	59,47,20,52,46, 9,26, 6,12,40		4,22,15,52, 4	
		10,31,32, 7, 7,36, 8		46
44″	59,47,21, 3,17,41,33,13,48,48		4,22,15,52,50	
		10,31,27,44,51,43,18		46
46″	59,47,21,13,49, 9,18, 5,32, 6		4,22,15,53,36	
		10,31,23,22,35,49,42		46
48″	59,47,21,24,20,32,40,41,21,48		4,22,15,54,22	
		10,31,19, 0,19,55,20		46
50″	59,47,21,34,51,51,41, 1,17, 8		4,22,15,55, 8	
		10,31,14,38, 4, 0,12		46
52″	59,47,21,45,23, 6,19, 5,17,20		4,22,15,55,54	
		10,31,10,15,48, 4,18		46
54″	59,47,21,55,54,16,34,53,21,38		4,22,15,56,40	
		10,31, 5,53,32, 7,38		46
56″	59,47,22, 6,25,22,28,25,29,16		4,22,15,57,26	
		10,31, 1,31,16,10,12		46
58″	59,47,22,16,56,23,59,41,39,28		4,22,15,58,12	
		10,30,57, 9, 0,12, 0		
60″	59,47,22,27,27,21, 8,41,51,28			
exact	59,47,22,27,27,21, 8,41,32,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°12′ 0″	59,47,22,27,27,21, 8,41,32,52			
		10,30,52,46,44,11,14		
2″	59,47,22,37,58,13,55,25,44, 6		4,22,15,59,50	
		10,30,48,24,28,11,24		46
4″	59,47,22,48,29, 2,19,53,55,30		4,22,16, 0,36	
		10,30,44, 2,12,10,48		46
6″	59,47,22,58,59,46,22, 6, 6,18		4,22,16, 1,22	
		10,30,39,39,56, 9,26		46
8″	59,47,23, 9,30,26, 2, 2,15,44		4,22,16, 2, 8	
		10,30,35,17,40, 7,18		46
10″	59,47,23,20, 1, 1,19,42,23, 2		4,22,16, 2,54	
		10,30,30,55,24, 4,24		46
12″	59,47,23,30,31,32,15, 6,27,26		4,22,16, 3,40	
		10,30,26,33, 8, 0,44		46
14″	59,47,23,41, 1,58,48,14,28,10		4,22,16, 4,26	
		10,30,22,10,51,56,18		46
16″	59,47,23,51,32,20,59, 6,24,28		4,22,16, 5,12	
		10,30,17,48,35,51, 6		46
18″	59,47,24, 2, 2,38,47,42,15,34		4,22,16, 5,58	
		10,30,13,26,19,45, 8		46
20″	59,47,24,12,32,52,14, 2, 0,42		4,22,16, 6,44	
		10,30, 9, 4, 3,38,24		46
22″	59,47,24,23, 3, 1,18, 5,39, 6		4,22,16, 7,30	
		10,30, 4,41,47,30,54		46
24″	59,47,24,33,33, 5,59,53,10, 0		4,22,16, 8,16	
		10,30, 0,19,31,22,38		46
26″	59,47,24,44, 3, 6,19,24,32,38		4,22,16, 9, 2	
		10,29,55,57,15,13,36		46
28″	59,47,24,54,33, 2,16,39,46,14		4,22,16, 9,48	
		10,29,51,34,59, 3,48		46
30″	59,47,25, 5, 2,53,51,38,50, 2		4,22,16,10,34	
		10,29,47,12,42,53,14		46
32″	59,47,25,15,32,41, 4,21,43,16		4,22,16,11,20	
		10,29,42,50,26,41,54		46
34″	59,47,25,26, 2,23,54,48,25,10		4,22,16,12, 6	
		10,29,38,28,10,29,48		46
36″	59,47,25,36,32, 2,22,58,54,58		4,22,16,12,52	
		10,29,34, 5,54,16,56		46
38″	59,47,25,47, 1,36,28,53,11,54		4,22,16,13,38	
		10,29,29,43,38, 3,18		46
40″	59,47,25,57,31, 6,12,31,15,12		4,22,16,14,24	
		10,29,25,21,21,48,54		46
42″	59,47,26, 8, 0,31,33,53, 4, 6		4,22,16,15,10	
		10,29,20,59, 5,33,44		46
44″	59,47,26,18,29,52,32,58,37,50		4,22,16,15,56	
		10,29,16,36,49,17,48		46
46″	59,47,26,28,59, 9, 9,47,55,38		4,22,16,16,42	
		10,29,12,14,33, 1, 6		46
48″	59,47,26,39,28,21,24,20,56,44		4,22,16,17,28	
		10,29, 7,52,16,43,38		46
50″	59,47,26,49,57,29,16,37,40,22		4,22,16,18,14	
		10,29, 3,30, 0,25,24		46
52″	59,47,27, 0,26,32,46,38, 5,46		4,22,16,19, 0	
		10,28,59, 7,44, 6,24		46
54″	59,47,27,10,55,31,54,22,12,10		4,22,16,19,46	
		10,28,54,45,27,46,38		46
56″	59,47,27,21,24,26,39,49,58,48		4,22,16,20,32	
		10,28,50,23,11,26, 6		46
58″	59,47,27,31,53,17, 3, 1,24,54		4,22,16,21,18	
		10,28,46, 0,55, 4,48		
60″	59,47,27,42,22, 3, 3,56,29,42			
exact	59,47,27,42,22, 3, 3,56,21,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°13′ 0″	59,47,27,42,22, 3, 3,56,21,53			
		10,28,41,38,38,42, 5		
2″	59,47,27,52,50,44,42,35, 3,58		4,22,16,22,52	
		10,28,37,16,22,19,13		46
4″	59,47,28, 3,19,21,58,57,23,11		4,22,16,23,38	
		10,28,32,54, 5,55,35		46
6″	59,47,28,13,47,54,53, 3,18,46		4,22,16,24,24	
		10,28,28,31,49,31,11		46
8″	59,47,28,24,16,23,24,52,49,57		4,22,16,25,10	
		10,28,24, 9,33, 6, 1		46
10″	59,47,28,34,44,47,34,25,55,58		4,22,16,25,56	
		10,28,19,47,16,40, 5		46
12″	59,47,28,45,13, 7,21,42,36, 3		4,22,16,26,42	
		10,28,15,25, 0,13,23		46
14″	59,47,28,55,41,22,46,42,49,26		4,22,16,27,28	
		10,28,11, 2,43,45,55		46
16″	59,47,29, 6, 9,33,49,26,35,21		4,22,16,28,14	
		10,28, 6,40,27,17,41		46
18″	59,47,29,16,37,40,29,53,53, 2		4,22,16,29, 0	
		10,28, 2,18,10,48,41		46
20″	59,47,29,27, 5,42,48, 4,41,43		4,22,16,29,46	
		10,27,57,55,54,18,55		46
22″	59,47,29,37,33,40,43,59, 0,38		4,22,16,30,32	
		10,27,53,33,37,48,23		46
24″	59,47,29,48, 1,34,17,36,49, 1		4,22,16,31,18	
		10,27,49,11,21,17, 5		46
26″	59,47,29,58,29,23,28,58, 6, 6		4,22,16,32, 4	
		10,27,44,49, 4,45, 1		46
28″	59,47,30, 8,57, 8,18, 2,51, 7		4,22,16,32,50	
		10,27,40,26,48,12,11		46
30″	59,47,30,19,24,48,44,51, 3,18		4,22,16,33,36	
		10,27,36, 4,31,38,35		46
32″	59,47,30,29,52,24,49,22,41,53		4,22,16,34,22	
		10,27,31,42,15, 4,13		46
34″	59,47,30,40,19,56,31,37,46, 6		4,22,16,35, 8	
		10,27,27,19,58,29, 5		46
36″	59,47,30,50,47,23,51,36,15,11		4,22,16,35,54	
		10,27,22,57,41,53,11		46
38″	59,47,31, 1,14,46,49,18, 8,22		4,22,16,36,40	
		10,27,18,35,25,16,31		46
40″	59,47,31,11,42, 5,24,43,24,53		4,22,16,37,26	
		10,27,14,13, 8,39, 5		46
42″	59,47,31,22, 9,19,37,52, 3,58		4,22,16,38,12	
		10,27, 9,50,52, 0,53		46
44″	59,47,31,32,36,29,28,44, 4,51		4,22,16,38,58	
		10,27, 5,28,35,21,55		46
46″	59,47,31,43, 3,34,57,19,26,46		4,22,16,39,44	
		10,27, 1, 6,18,42,11		46
48″	59,47,31,53,30,36, 3,38, 8,57		4,22,16,40,30	
		10,26,56,44, 2, 1,41		46
50″	59,47,32, 3,57,32,47,40,10,38		4,22,16,41,16	
		10,26,52,21,45,20,25		46
52″	59,47,32,14,24,25, 9,25,31, 3		4,22,16,42, 2	
		10,26,47,59,28,38,23		46
54″	59,47,32,24,51,13, 8,54, 9,26		4,22,16,42,48	
		10,26,43,37,11,55,35		46
56″	59,47,32,35,17,56,46, 6, 5, 1		4,22,16,43,34	
		10,26,39,14,55,12, 1		46
58″	59,47,32,45,44,36, 1, 1,17, 2		4,22,16,44,20	
		10,26,34,52,38,27,41		
60″	59,47,32,56,11,10,53,39,44,43			
exact	59,47,32,56,11,10,53,39,53,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°14′ 0″	59,47,32,56,11,10,53,39,53,48			
		10,26,30,30,21,43,30		
2″	59,47,33, 6,37,41,24, 1,37,18		4,22,16,45,48	
		10,26,26, 8, 4,57,42		46
4″	59,47,33,17, 4, 7,32, 6,35, 0		4,22,16,46,34	
		10,26,21,45,48,11, 8		46
6″	59,47,33,27,30,29,17,54,46, 8		4,22,16,47,20	
		10,26,17,23,31,23,48		46
8″	59,47,33,37,56,46,41,26, 9,56		4,22,16,48, 6	
		10,26,13, 1,14,35,42		46
10″	59,47,33,48,22,59,42,40,45,38		4,22,16,48,52	
		10,26, 8,38,57,46,50		46
12″	59,47,33,58,49, 8,21,38,32,28		4,22,16,49,38	
		10,26, 4,16,40,57,12		46
14″	59,47,34, 9,15,12,38,19,29,40		4,22,16,50,24	
		10,25,59,54,24, 6,48		46
16″	59,47,34,19,41,12,32,43,36,28		4,22,16,51,10	
		10,25,55,32, 7,15,38		46
18″	59,47,34,30, 7, 8, 4,50,52, 6		4,22,16,51,56	
		10,25,51, 9,50,23,42		46
20″	59,47,34,40,32,59,14,41,15,48		4,22,16,52,42	
		10,25,46,47,33,31, 0		46
22″	59,47,34,50,58,46, 2,14,46,48		4,22,16,53,28	
		10,25,42,25,16,37,32		46
24″	59,47,35, 1,24,28,27,31,24,20		4,22,16,54,14	
		10,25,38, 2,59,43,18		46
26″	59,47,35,11,50, 6,30,31, 7,38		4,22,16,55, 0	
		10,25,33,40,42,48,18		46
28″	59,47,35,22,15,40,11,13,55,56		4,22,16,55,46	
		10,25,29,18,25,52,32		46
30″	59,47,35,32,41, 9,29,39,48,28		4,22,16,56,32	
		10,25,24,56, 8,56, 0		46
32″	59,47,35,43, 6,34,25,48,44,28		4,22,16,57,18	
		10,25,20,33,51,58,42		46
34″	59,47,35,53,31,54,59,40,43,10		4,22,16,58, 4	
		10,25,16,11,35, 0,38		46
36″	59,47,36, 3,57,11,11,15,43,48		4,22,16,58,50	
		10,25,11,49,18, 1,48		46
38″	59,47,36,14,22,23, 0,33,45,36		4,22,16,59,36	
		10,25, 7,27, 1, 2,12		46
40″	59,47,36,24,47,30,27,34,47,48		4,22,17, 0,22	
		10,25, 3, 4,44, 1,50		46
42″	59,47,36,35,12,33,32,18,49,38		4,22,17, 1, 8	
		10,24,58,42,27, 0,42		46
44″	59,47,36,45,37,32,14,45,50,20		4,22,17, 1,54	
		10,24,54,20, 9,58,48		46
46″	59,47,36,56, 2,26,34,55,49, 8		4,22,17, 2,40	
		10,24,49,57,52,56, 8		46
48″	59,47,37, 6,27,16,32,48,45,16		4,22,17, 3,26	
		10,24,45,35,35,52,42		46
50″	59,47,37,16,52, 2, 8,24,37,58		4,22,17, 4,12	
		10,24,41,13,18,48,30		46
52″	59,47,37,27,16,43,21,43,26,28		4,22,17, 4,58	
		10,24,36,51, 1,43,32		46
54″	59,47,37,37,41,20,12,45,10, 0		4,22,17, 5,44	
		10,24,32,28,44,37,48		46
56″	59,47,37,48, 5,52,41,29,47,48		4,22,17, 6,30	
		10,24,28, 6,27,31,18		46
58″	59,47,37,58,30,20,47,57,19, 6		4,22,17, 7,16	
		10,24,23,44,10,24, 2		
60″	59,47,38, 8,54,44,32, 7,43, 8			
exact	59,47,38, 8,54,44,32, 8, 0,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°15′ 0″	59,47,38, 8,54,44,32, 8, 0,10			
		10,24,19,21,53,17,53		
2″	59,47,38,19,19, 3,54, 1,18, 3		4,22,17, 8,40	
		10,24,14,59,36, 9,13		46
4″	59,47,38,29,43,18,53,37,27,16		4,22,17, 9,26	
		10,24,10,37,18,59,47		46
6″	59,47,38,40, 7,29,30,56,27, 3		4,22,17,10,12	
		10,24, 6,15, 1,49,35		46
8″	59,47,38,50,31,35,45,58,16,38		4,22,17,10,58	
		10,24, 1,52,44,38,37		46
10″	59,47,39, 0,55,37,38,42,55,15		4,22,17,11,44	
		10,23,57,30,27,26,53		46
12″	59,47,39,11,19,35, 9,10,22, 8		4,22,17,12,30	
		10,23,53, 8,10,14,23		46
14″	59,47,39,21,43,28,17,20,36,31		4,22,17,13,16	
		10,23,48,45,53, 1, 7		46
16″	59,47,39,32, 7,17, 3,13,37,38		4,22,17,14, 2	
		10,23,44,23,35,47, 5		46
18″	59,47,39,42,31, 1,26,49,24,43		4,22,17,14,48	
		10,23,40, 1,18,32,17		46
20″	59,47,39,52,54,41,28, 7,57, 0		4,22,17,15,34	
		10,23,35,39, 1,16,43		46
22″	59,47,40, 3,18,17, 7, 9,13,43		4,22,17,16,20	
		10,23,31,16,44, 0,23		46
24″	59,47,40,13,41,48,23,53,14, 6		4,22,17,17, 6	
		10,23,26,54,26,43,17		46
26″	59,47,40,24, 5,15,18,19,57,23		4,22,17,17,52	
		10,23,22,32, 9,25,25		46
28″	59,47,40,34,28,37,50,29,22,48		4,22,17,18,38	
		10,23,18, 9,52, 6,47		46
30″	59,47,40,44,51,56, 0,21,29,35		4,22,17,19,24	
		10,23,13,47,34,47,23		46
32″	59,47,40,55,15, 9,47,56,16,58		4,22,17,20,10	
		10,23, 9,25,17,27,13		46
34″	59,47,41, 5,38,19,13,13,44,11		4,22,17,20,56	
		10,23, 5, 3, 0, 6,17		46
36″	59,47,41,16, 1,24,16,13,50,28		4,22,17,21,42	
		10,23, 0,40,42,44,35		46
38″	59,47,41,26,24,24,56,56,35, 3		4,22,17,22,28	
		10,22,56,18,25,22, 7		46
40″	59,47,41,36,47,21,15,21,57,10		4,22,17,23,14	
		10,22,51,56, 7,58,53		46
42″	59,47,41,47,10,13,11,29,56, 3		4,22,17,24, 0	
		10,22,47,33,50,34,53		46
44″	59,47,41,57,33, 0,45,20,30,56		4,22,17,24,46	
		10,22,43,11,33,10, 7		46
46″	59,47,42, 7,55,43,56,53,41, 3		4,22,17,25,32	
		10,22,38,49,15,44,35		46
48″	59,47,42,18,18,22,46, 9,25,38		4,22,17,26,18	
		10,22,34,26,58,18,17		46
50″	59,47,42,28,40,57,13, 7,43,55		4,22,17,27, 4	
		10,22,30, 4,40,51,13		46
52″	59,47,42,39, 3,27,17,48,35, 8		4,22,17,27,50	
		10,22,25,42,23,23,23		46
54″	59,47,42,49,25,53, 0,11,58,31		4,22,17,28,36	
		10,22,21,20, 5,54,47		46
56″	59,47,42,59,48,14,20,17,53,18		4,22,17,29,22	
		10,22,16,57,48,25,25		46
58″	59,47,43,10,10,31,18, 6,18,43		4,22,17,30, 8	
		10,22,12,35,30,55,17		
60″	59,47,43,20,32,43,53,37,14, 0			
exact	59,47,43,20,32,43,53,37,44,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°16′ 0″	59,47,43,20,32,43,53,37,44,28			
		10,22, 8,13,13,27,37		
2″	59,47,43,30,54,52, 6,51,12, 5		4,22,17,31,26	
		10,22, 3,50,55,56,11		45
4″	59,47,43,41,16,55,57,47, 8,16		4,22,17,32,11	
		10,21,59,28,38,24, 0		45
6″	59,47,43,51,38,55,26,25,32,16		4,22,17,32,56	
		10,21,55, 6,20,51, 4		45
8″	59,47,44, 2, 0,50,32,46,23,20		4,22,17,33,41	
		10,21,50,44, 3,17,23		45
10″	59,47,44,12,22,41,16,49,40,43		4,22,17,34,26	
		10,21,46,21,45,42,57		45
12″	59,47,44,22,44,27,38,35,23,40		4,22,17,35,11	
		10,21,41,59,28, 7,46		45
14″	59,47,44,33, 6, 9,38, 3,31,26		4,22,17,35,56	
		10,21,37,37,10,31,50		45
16″	59,47,44,43,27,47,15,14, 3,16		4,22,17,36,41	
		10,21,33,14,52,55, 9		45
18″	59,47,44,53,49,20,30, 6,58,25		4,22,17,37,26	
		10,21,28,52,35,17,43		45
20″	59,47,45, 4,10,49,22,42,16, 8		4,22,17,38,11	
		10,21,24,30,17,39,32		45
22″	59,47,45,14,32,13,52,59,55,40		4,22,17,38,56	
		10,21,20, 8, 0, 0,36		45
24″	59,47,45,24,53,34, 0,59,56,16		4,22,17,39,41	
		10,21,15,45,42,20,55		45
26″	59,47,45,35,14,49,46,42,17,11		4,22,17,40,26	
		10,21,11,23,24,40,29		45
28″	59,47,45,45,36, 1,10, 6,57,40		4,22,17,41,11	
		10,21, 7, 1, 6,59,18		45
30″	59,47,45,55,57, 8,11,13,56,58		4,22,17,41,56	
		10,21, 2,38,49,17,22		45
32″	59,47,46, 6,18,10,50, 3,14,20		4,22,17,42,41	
		10,20,58,16,31,34,41		45
34″	59,47,46,16,39, 9, 6,34,49, 1		4,22,17,43,26	
		10,20,53,54,13,51,15		45
36″	59,47,46,27, 0, 3, 0,48,40,16		4,22,17,44,11	
		10,20,49,31,56, 7, 4		45
38″	59,47,46,37,20,52,32,44,47,20		4,22,17,44,56	
		10,20,45, 9,38,22, 8		45
40″	59,47,46,47,41,37,42,23, 9,28		4,22,17,45,41	
		10,20,40,47,20,36,27		45
42″	59,47,46,58, 2,18,29,43,45,55		4,22,17,46,26	
		10,20,36,25, 2,50, 1		45
44″	59,47,47, 8,22,54,54,46,35,56		4,22,17,47,11	
		10,20,32, 2,45, 2,50		45
46″	59,47,47,18,43,26,57,31,38,46		4,22,17,47,56	
		10,20,27,40,27,14,54		45
48″	59,47,47,29, 3,54,37,58,53,40		4,22,17,48,41	
		10,20,23,18, 9,26,13		45
50″	59,47,47,39,24,17,56, 8,19,53		4,22,17,49,26	
		10,20,18,55,51,36,47		45
52″	59,47,47,49,44,36,51,59,56,40		4,22,17,50,11	
		10,20,14,33,33,46,36		45
54″	59,47,48, 0, 4,51,25,33,43,16		4,22,17,50,56	
		10,20,10,11,15,55,40		45
56″	59,47,48,10,25, 1,36,49,38,56		4,22,17,51,41	
		10,20, 5,48,58, 3,59		45
58″	59,47,48,20,45, 7,25,47,42,55		4,22,17,52,26	
		10,20, 1,26,40,11,33		
60″	59,47,48,31, 5, 8,52,27,54,28			
exact	59,47,48,31, 5, 8,52,27,22, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°17′ 0″	59,47,48,31, 5, 8,52,27,22, 2			
		10,19,57, 4,22,15, 6		
2″	59,47,48,41,25, 5,56,49,37, 8		4,22,17,54, 8	
		10,19,52,42, 4,20,58		45
4″	59,47,48,51,44,58,38,53,58, 6		4,22,17,54,53	
		10,19,48,19,46,26, 5		45
6″	59,47,49, 2, 4,46,58,40,24,11		4,22,17,55,38	
		10,19,43,57,28,30,27		45
8″	59,47,49,12,24,30,56, 8,54,38		4,22,17,56,23	
		10,19,39,35,10,34, 4		45
10″	59,47,49,22,44,10,31,19,28,42		4,22,17,57, 8	
		10,19,35,12,52,36,56		45
12″	59,47,49,33, 3,45,44,12, 5,38		4,22,17,57,53	
		10,19,30,50,34,39, 3		45
14″	59,47,49,43,23,16,34,46,44,41		4,22,17,58,38	
		10,19,26,28,16,40,25		45
16″	59,47,49,53,42,43, 3, 3,25, 6		4,22,17,59,23	
		10,19,22, 5,58,41, 2		45
18″	59,47,50, 4, 2, 5, 9, 2, 6, 8		4,22,18, 0, 8	
		10,19,17,43,40,40,54		45
20″	59,47,50,14,21,22,52,42,47, 2		4,22,18, 0,53	
		10,19,13,21,22,40, 1		45
22″	59,47,50,24,40,36,14, 5,27, 3		4,22,18, 1,38	
		10,19, 8,59, 4,38,23		45
24″	59,47,50,34,59,45,13,10, 5,26		4,22,18, 2,23	
		10,19, 4,36,46,36, 0		45
26″	59,47,50,45,18,49,49,56,41,26		4,22,18, 3, 8	
		10,19, 0,14,28,32,52		45
28″	59,47,50,55,37,50, 4,25,14,18		4,22,18, 3,53	
		10,18,55,52,10,28,59		45
30″	59,47,51, 5,56,45,56,35,43,17		4,22,18, 4,38	
		10,18,51,29,52,24,21		45
32″	59,47,51,16,15,37,26,28, 7,38		4,22,18, 5,23	
		10,18,47, 7,34,18,58		45
34″	59,47,51,26,34,24,34, 2,26,36		4,22,18, 6, 8	
		10,18,42,45,16,12,50		45
36″	59,47,51,36,53, 7,19,18,39,26		4,22,18, 6,53	
		10,18,38,22,58, 5,57		45
38″	59,47,51,47,11,45,42,16,45,23		4,22,18, 7,38	
		10,18,34, 0,39,58,19		45
40″	59,47,51,57,30,19,42,56,43,42		4,22,18, 8,23	
		10,18,29,38,21,49,56		45
42″	59,47,52, 7,48,49,21,18,33,38		4,22,18, 9, 8	
		10,18,25,16, 3,40,48		45
44″	59,47,52,18, 7,14,37,22,14,26		4,22,18, 9,53	
		10,18,20,53,45,30,55		45
46″	59,47,52,28,25,35,31, 7,45,21		4,22,18,10,38	
		10,18,16,31,27,20,17		45
48″	59,47,52,38,43,52, 2,35, 5,38		4,22,18,11,23	
		10,18,12, 9, 9, 8,54		45
50″	59,47,52,49, 2, 4,11,44,14,32		4,22,18,12, 8	
		10,18, 7,46,50,56,46		45
52″	59,47,52,59,20,11,58,35,11,18		4,22,18,12,53	
		10,18, 3,24,32,43,53		45
54″	59,47,53, 9,38,15,23, 7,55,11		4,22,18,13,38	
		10,17,59, 2,14,30,15		45
56″	59,47,53,19,56,14,25,22,25,26		4,22,18,14,23	
		10,17,54,39,56,15,52		45
58″	59,47,53,30,14, 9, 5,18,41,18		4,22,18,15, 8	
		10,17,50,17,38, 0,44		
60″	59,47,53,40,31,59,22,56,42, 2			
exact	59,47,53,40,31,59,22,56,20, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°18′ 0″	59,47,53,40,31,59,22,56,20, 9			
		10,17,45,55,19,42,43		
2″	59,47,53,50,49,45,18,16, 2,52		4,22,18,16,46	
		10,17,41,33, 1,25,57		45
4″	59,47,54, 1, 7,26,51,17,28,49		4,22,18,17,31	
		10,17,37,10,43, 8,26		45
6″	59,47,54,11,25, 4, 2, 0,37,15		4,22,18,18,16	
		10,17,32,48,24,50,10		45
8″	59,47,54,21,42,36,50,25,27,25		4,22,18,19, 1	
		10,17,28,26, 6,31, 9		45
10″	59,47,54,32, 0, 5,16,31,58,34		4,22,18,19,46	
		10,17,24, 3,48,11,23		45
12″	59,47,54,42,17,29,20,20, 9,57		4,22,18,20,31	
		10,17,19,41,29,50,52		45
14″	59,47,54,52,34,49, 1,50, 0,49		4,22,18,21,16	
		10,17,15,19,11,29,36		45
16″	59,47,55, 2,52, 4,21, 1,30,25		4,22,18,22, 1	
		10,17,10,56,53, 7,35		45
18″	59,47,55,13, 9,15,17,54,38, 0		4,22,18,22,46	
		10,17, 6,34,34,44,49		45
20″	59,47,55,23,26,21,52,29,22,49		4,22,18,23,31	
		10,17, 2,12,16,21,18		45
22″	59,47,55,33,43,24, 4,45,44, 7		4,22,18,24,16	
		10,16,57,49,57,57, 2		45
24″	59,47,55,44, 0,21,54,43,41, 9		4,22,18,25, 1	
		10,16,53,27,39,32, 1		45
26″	59,47,55,54,17,15,22,23,13,10		4,22,18,25,46	
		10,16,49, 5,21, 6,15		45
28″	59,47,56, 4,34, 4,27,44,19,25		4,22,18,26,31	
		10,16,44,43, 2,39,44		45
30″	59,47,56,14,50,49,10,46,59, 9		4,22,18,27,16	
		10,16,40,20,44,12,28		45
32″	59,47,56,25, 7,29,31,31,11,37		4,22,18,28, 1	
		10,16,35,58,25,44,27		45
34″	59,47,56,35,24, 5,29,56,56, 4		4,22,18,28,46	
		10,16,31,36, 7,15,41		45
36″	59,47,56,45,40,37, 6, 4,11,45		4,22,18,29,31	
		10,16,27,13,48,46,10		45
38″	59,47,56,55,57, 4,19,52,57,55		4,22,18,30,16	
		10,16,22,51,30,15,54		45
40″	59,47,57, 6,13,27,11,23,13,49		4,22,18,31, 1	
		10,16,18,29,11,44,53		45
42″	59,47,57,16,29,45,40,34,58,42		4,22,18,31,46	
		10,16,14, 6,53,13, 7		45
44″	59,47,57,26,45,59,47,28,11,49		4,22,18,32,31	
		10,16, 9,44,34,40,36		45
46″	59,47,57,37, 2, 9,32, 2,52,25		4,22,18,33,16	
		10,16, 5,22,16, 7,20		45
48″	59,47,57,47,18,14,54,18,59,45		4,22,18,34, 1	
		10,16, 0,59,57,33,19		45
50″	59,47,57,57,34,15,54,16,33, 4		4,22,18,34,46	
		10,15,56,37,38,58,33		45
52″	59,47,58, 7,50,12,31,55,31,37		4,22,18,35,31	
		10,15,52,15,20,23, 2		45
54″	59,47,58,18, 6, 4,47,15,54,39		4,22,18,36,16	
		10,15,47,53, 1,46,46		45
56″	59,47,58,28,21,52,40,17,41,25		4,22,18,37, 1	
		10,15,43,30,43, 9,45		45
58″	59,47,58,38,37,36,11, 0,51,10		4,22,18,37,46	
		10,15,39, 8,24,31,59		
60″	59,47,58,48,53,15,19,25,23, 9			
exact	59,47,58,48,53,15,19,25,17,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°19′ 0″	59,47,58,48,53,15,19,25,17,59			
		10,15,34,46, 5,52,53		
2″	59,47,58,59, 8,50, 5,31,10,52		4,22,18,39,18	
		10,15,30,23,47,13,35		45
4″	59,47,59, 9,24,20,29,18,24,27		4,22,18,40, 3	
		10,15,26, 1,28,33,32		45
6″	59,47,59,19,39,46,30,46,57,59		4,22,18,40,48	
		10,15,21,39, 9,52,44		45
8″	59,47,59,29,55, 8, 9,56,50,43		4,22,18,41,33	
		10,15,17,16,51,11,11		45
10″	59,47,59,40,10,25,26,48, 1,54		4,22,18,42,18	
		10,15,12,54,32,28,53		45
12″	59,47,59,50,25,38,21,20,30,47		4,22,18,43, 3	
		10,15, 8,32,13,45,50		45
14″	59,48, 0, 0,40,46,53,34,16,37		4,22,18,43,48	
		10,15, 4, 9,55, 2, 2		45
16″	59,48, 0,10,55,51, 3,29,18,39		4,22,18,44,33	
		10,14,59,47,36,17,29		45
18″	59,48, 0,21,10,50,51, 5,36, 8		4,22,18,45,18	
		10,14,55,25,17,32,11		45
20″	59,48, 0,31,25,46,16,23, 8,19		4,22,18,46, 3	
		10,14,51, 2,58,46, 8		45
22″	59,48, 0,41,40,37,19,21,54,27		4,22,18,46,48	
		10,14,46,40,39,59,20		45
24″	59,48, 0,51,55,24, 0, 1,53,47		4,22,18,47,33	
		10,14,42,18,21,11,47		45
26″	59,48, 1, 2,10, 6,18,23, 5,34		4,22,18,48,18	
		10,14,37,56, 2,23,29		45
28″	59,48, 1,12,24,44,14,25,29, 3		4,22,18,49, 3	
		10,14,33,33,43,34,26		45
30″	59,48, 1,22,39,17,48, 9, 3,29		4,22,18,49,48	
		10,14,29,11,24,44,38		45
32″	59,48, 1,32,53,46,59,33,48, 7		4,22,18,50,33	
		10,14,24,49, 5,54, 5		45
34″	59,48, 1,43, 8,11,48,39,42,12		4,22,18,51,18	
		10,14,20,26,47, 2,47		45
36″	59,48, 1,53,22,32,15,26,44,59		4,22,18,52, 3	
		10,14,16, 4,28,10,44		45
38″	59,48, 2, 3,36,48,19,54,55,43		4,22,18,52,48	
		10,14,11,42, 9,17,56		45
40″	59,48, 2,13,51, 0, 2, 4,13,39		4,22,18,53,33	
		10,14, 7,19,50,24,23		45
42″	59,48, 2,24, 5, 7,21,54,38, 2		4,22,18,54,18	
		10,14, 2,57,31,30, 5		45
44″	59,48, 2,34,19,10,19,26, 8, 7		4,22,18,55, 3	
		10,13,58,35,12,35, 2		45
46″	59,48, 2,44,33, 8,54,38,43, 9		4,22,18,55,48	
		10,13,54,12,53,39,14		45
48″	59,48, 2,54,47, 3, 7,32,22,23		4,22,18,56,33	
		10,13,49,50,34,42,41		45
50″	59,48, 3, 5, 0,52,58, 7, 5, 4		4,22,18,57,18	
		10,13,45,28,15,45,23		45
52″	59,48, 3,15,14,38,26,22,50,27		4,22,18,58, 3	
		10,13,41, 5,56,47,20		45
54″	59,48, 3,25,28,19,32,19,37,47		4,22,18,58,48	
		10,13,36,43,37,48,32		45
56″	59,48, 3,35,41,56,15,57,26,19		4,22,18,59,33	
		10,13,32,21,18,48,59		45
58″	59,48, 3,45,55,28,37,16,15,18		4,22,19, 0,18	
		10,13,27,58,59,48,41		
60″	59,48, 3,56, 8,56,36,16, 3,59			
exact	59,48, 3,56, 8,56,36,16, 6,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°20′ 0″	59,48, 3,56, 8,56,36,16, 6,38	10,13,23,36,40,48, 0		
2″	59,48, 4, 6,22,20,12,56,54,38	10,13,19,14,21,46,14	4,22,19, 1,46	45
4″	59,48, 4,16,35,39,27,18,40,52	10,13,14,52, 2,43,43	4,22,19, 2,31	45
6″	59,48, 4,26,48,54,19,21,24,35	10,13,10,29,43,40,27	4,22,19, 3,16	45
8″	59,48, 4,37, 2, 4,49, 5, 5, 2	10,13, 6, 7,24,36,26	4,22,19, 4, 1	45
10″	59,48, 4,47,15,10,56,29,41,28	10,13, 1,45, 5,31,40	4,22,19, 4,46	45
12″	59,48, 4,57,28,12,41,35,13, 8	10,12,57,22,46,26, 9	4,22,19, 5,31	45
14″	59,48, 5, 7,41,10, 4,21,39,17	10,12,53, 0,27,19,53	4,22,19, 6,16	45
16″	59,48, 5,17,54, 3, 4,48,59,10	10,12,48,38, 8,12,52	4,22,19, 7, 1	45
18″	59,48, 5,28, 6,51,42,57,12, 2	10,12,44,15,49, 5, 6	4,22,19, 7,46	45
20″	59,48, 5,38,19,35,58,46,17, 8	10,12,39,53,29,56,35	4,22,19, 8,31	45
22″	59,48, 5,48,32,15,52,16,13,43	10,12,35,31,10,47,19	4,22,19, 9,16	45
24″	59,48, 5,58,44,51,23,27, 1, 2	10,12,31, 8,51,37,18	4,22,19,10, 1	45
26″	59,48, 6, 8,57,22,32,18,38,20	10,12,26,46,32,26,32	4,22,19,10,46	45
28″	59,48, 6,19, 9,49,18,51, 4,52	10,12,22,24,13,15, 1	4,22,19,11,31	45
30″	59,48, 6,29,22,11,43, 4,19,53	10,12,18, 1,54, 2,45	4,22,19,12,16	45
32″	59,48, 6,39,34,29,44,58,22,38	10,12,13,39,34,49,44	4,22,19,13, 1	45
34″	59,48, 6,49,46,43,24,33,12,22	10,12, 9,17,15,35,58	4,22,19,13,46	45
36″	59,48, 6,59,58,52,41,48,48,20	10,12, 4,54,56,21,27	4,22,19,14,31	45
38″	59,48, 7,10,10,57,36,45, 9,47	10,12, 0,32,37, 6,11	4,22,19,15,16	45
40″	59,48, 7,20,22,58, 9,22,15,58	10,11,56,10,17,50,10	4,22,19,16, 1	45
42″	59,48, 7,30,34,54,19,40, 6, 8	10,11,51,47,58,33,24	4,22,19,16,46	45
44″	59,48, 7,40,46,46, 7,38,39,32	10,11,47,25,39,15,53	4,22,19,17,31	45
46″	59,48, 7,50,58,33,33,17,55,25	10,11,43, 3,19,57,37	4,22,19,18,16	45
48″	59,48, 8, 1,10,16,36,37,53, 2	10,11,38,41, 0,38,36	4,22,19,19, 1	45
50″	59,48, 8,11,21,55,17,38,31,38	10,11,34,18,41,18,50	4,22,19,19,46	45
52″	59,48, 8,21,33,29,36,19,50,28	10,11,29,56,21,58,19	4,22,19,20,31	45
54″	59,48, 8,31,44,59,32,41,48,47	10,11,25,34, 2,37, 3	4,22,19,21,16	45
56″	59,48, 8,41,56,25, 6,44,25,50	10,11,21,11,43,15, 2	4,22,19,22, 1	45
58″	59,48, 8,52, 7,46,18,27,40,52	10,11,16,49,23,52,16	4,22,19,22,46	
60″	59,48, 9, 2,19, 3, 7,51,33, 8			
exact	59,48, 9, 2,19, 3, 7,51,49, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°21′ 0″	59,48, 9, 2,19, 3, 7,51,49, 6	10,11,12,27, 4,30,27		
2″	59,48, 9,12,30,15,34,56,19,33	10,11, 8, 4,45, 6,18	4,22,19,24, 9	45
4″	59,48, 9,22,41,23,39,41,25,51	10,11, 3,42,25,41,24	4,22,19,24,54	45
6″	59,48, 9,32,52,27,22, 7, 7,15	10,10,59,20, 6,15,45	4,22,19,25,39	45
8″	59,48, 9,43, 3,26,42,13,23, 0	10,10,54,57,46,49,21	4,22,19,26,24	45
10″	59,48, 9,53,14,21,40, 0,12,21	10,10,50,35,27,22,12	4,22,19,27, 9	45
12″	59,48,10, 3,25,12,15,27,34,33	10,10,46,13, 7,54,18	4,22,19,27,54	45
14″	59,48,10,13,35,58,28,35,28,51	10,10,41,50,48,25,39	4,22,19,28,39	45
16″	59,48,10,23,46,40,19,23,54,30	10,10,37,28,28,56,15	4,22,19,29,24	45
18″	59,48,10,33,57,17,47,52,50,45	10,10,33, 6, 9,26, 6	4,22,19,30, 9	45
20″	59,48,10,44, 7,50,54, 2,16,51	10,10,28,43,49,55,12	4,22,19,30,54	45
22″	59,48,10,54,18,19,37,52,12, 3	10,10,24,21,30,23,33	4,22,19,31,39	45
24″	59,48,11, 4,28,43,59,22,35,36	10,10,19,59,10,51, 9	4,22,19,32,24	45
26″	59,48,11,14,39, 3,58,33,26,45	10,10,15,36,51,18, 0	4,22,19,33, 9	45
28″	59,48,11,24,49,19,35,24,44,45	10,10,11,14,31,44, 6	4,22,19,33,54	45
30″	59,48,11,34,59,30,49,56,28,51	10,10, 6,52,12, 9,27	4,22,19,34,39	45
32″	59,48,11,45, 9,37,42, 8,38,18	10,10, 2,29,52,34, 3	4,22,19,35,24	45
34″	59,48,11,55,19,40,12, 1,12,21	10, 9,58, 7,32,57,54	4,22,19,36, 9	45
36″	59,48,12, 5,29,38,19,34,10,15	10, 9,53,45,13,21, 0	4,22,19,36,54	45
38″	59,48,12,15,39,32, 4,47,31,15	10, 9,49,22,53,43,21	4,22,19,37,39	45
40″	59,48,12,25,49,21,27,41,14,36	10, 9,45, 0,34, 4,57	4,22,19,38,24	45
42″	59,48,12,35,59, 6,28,15,19,33	10, 9,40,38,14,25,48	4,22,19,39, 9	45
44″	59,48,12,46, 8,47, 6,29,45,21	10, 9,36,15,54,45,54	4,22,19,39,54	45
46″	59,48,12,56,18,23,22,24,31,15	10, 9,31,53,35, 5,15	4,22,19,40,39	45
48″	59,48,13, 6,27,55,15,59,36,30	10, 9,27,31,15,23,51	4,22,19,41,24	45
50″	59,48,13,16,37,22,47,15, 0,21	10, 9,23, 8,55,41,42	4,22,19,42, 9	45
52″	59,48,13,26,46,45,56,10,42, 3	10, 9,18,46,35,58,48	4,22,19,42,54	45
54″	59,48,13,36,56, 4,42,46,40,51	10, 9,14,24,16,15, 9	4,22,19,43,39	45
56″	59,48,13,47, 5,19, 7, 2,56, 0	10, 9,10, 1,56,30,45	4,22,19,44,24	45
58″	59,48,13,57,14,29, 8,59,26,45	10, 9, 5,39,36,45,36	4,22,19,45, 9	
60″	59,48,14, 7,23,34,48,36,12,21			
exact	59,48,14, 7,23,34,48,36,40,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°22′ 0″	59,48,14, 7,23,34,48,36,40,19			
		10, 9, 1,17,17, 2,39		
2″	59,48,14,17,32,36, 5,53,42,58		4,22,19,46,27	
		10, 8,56,54,57,16,12		45
4″	59,48,14,27,41,33, 0,50,59,10		4,22,19,47,12	
		10, 8,52,32,37,29, 0		45
6″	59,48,14,37,50,25,33,28,28,10		4,22,19,47,57	
		10, 8,48,10,17,41, 3		45
8″	59,48,14,47,59,13,43,46, 9,13		4,22,19,48,42	
		10, 8,43,47,57,52,21		45
10″	59,48,14,58, 7,57,31,44, 1,34		4,22,19,49,27	
		10, 8,39,25,38, 2,54		45
12″	59,48,15, 8,16,36,57,22, 4,28		4,22,19,50,12	
		10, 8,35, 3,18,12,42		45
14″	59,48,15,18,25,12, 0,40,17,10		4,22,19,50,57	
		10, 8,30,40,58,21,45		45
16″	59,48,15,28,33,42,41,38,38,55		4,22,19,51,42	
		10, 8,26,18,38,30, 3		45
18″	59,48,15,38,42, 9, 0,17, 8,58		4,22,19,52,27	
		10, 8,21,56,18,37,36		45
20″	59,48,15,48,50,30,56,35,46,34		4,22,19,53,12	
		10, 8,17,33,58,44,24		45
22″	59,48,15,58,58,48,30,34,30,58		4,22,19,53,57	
		10, 8,13,11,38,50,27		45
24″	59,48,16, 9, 7, 1,42,13,21,25		4,22,19,54,42	
		10, 8, 8,49,18,55,45		45
26″	59,48,16,19,15,10,31,32,17,10		4,22,19,55,27	
		10, 8, 4,26,59, 0,18		45
28″	59,48,16,29,23,14,58,31,17,28		4,22,19,56,12	
		10, 8, 0, 4,39, 4, 6		45
30″	59,48,16,39,31,15, 3,10,21,34		4,22,19,56,57	
		10, 7,55,42,19, 7, 9		45
32″	59,48,16,49,39,10,45,29,28,43		4,22,19,57,42	
		10, 7,51,19,59, 9,27		45
34″	59,48,16,59,47, 2, 5,28,38,10		4,22,19,58,27	
		10, 7,46,57,39,11, 0		45
36″	59,48,17, 9,54,49, 3, 7,49,10		4,22,19,59,12	
		10, 7,42,35,19,11,48		45
38″	59,48,17,20, 2,31,38,27, 0,58		4,22,19,59,57	
		10, 7,38,12,59,11,51		45
40″	59,48,17,30,10, 9,51,26,12,49		4,22,20, 0,42	
		10, 7,33,50,39,11, 9		45
42″	59,48,17,40,17,43,42, 5,23,58		4,22,20, 1,27	
		10, 7,29,28,19, 9,42		45
44″	59,48,17,50,25,13,10,24,33,40		4,22,20, 2,12	
		10, 7,25, 5,59, 7,30		45
46″	59,48,18, 0,32,38,16,23,41,10		4,22,20, 2,57	
		10, 7,20,43,39, 4,33		45
48″	59,48,18,10,39,59, 0, 2,45,43		4,22,20, 3,42	
		10, 7,16,21,19, 0,51		45
50″	59,48,18,20,47,15,21,21,46,34		4,22,20, 4,27	
		10, 7,11,58,58,56,24		45
52″	59,48,18,30,54,27,20,20,42,58		4,22,20, 5,12	
		10, 7, 7,36,38,51,12		45
54″	59,48,18,41, 1,34,56,59,34,10		4,22,20, 5,57	
		10, 7, 3,14,18,45,15		45
56″	59,48,18,51, 8,38,11,18,19,25		4,22,20, 6,42	
		10, 6,58,51,58,38,33		45
58″	59,48,19, 1,15,37, 3,16,57,58		4,22,20, 7,27	
		10, 6,54,29,38,31, 6		
60″	59,48,19,11,22,31,32,55,29, 4			
exact	59,48,19,11,22,31,32,56, 7, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°23′ 0″	59,48,19,11,22,31,32,56, 7, 6			
		10, 6,50, 7,18,26,58		
2″	59,48,19,21,29,21,40,14,34, 4		4,22,20, 8,40	
		10, 6,45,44,58,18,18		44
4″	59,48,19,31,36, 7,25,12,52,22		4,22,20, 9,24	
		10, 6,41,22,38, 8,54		44
6″	59,48,19,41,42,48,47,51, 1,16		4,22,20,10, 8	
		10, 6,37, 0,17,58,46		44
8″	59,48,19,51,49,25,48, 9, 0, 2		4,22,20,10,52	
		10, 6,32,37,57,47,54		44
10″	59,48,20, 1,55,58,26, 6,47,56		4,22,20,11,36	
		10, 6,28,15,37,36,18		44
12″	59,48,20,12, 2,26,41,44,24,14		4,22,20,12,20	
		10, 6,23,53,17,23,58		44
14″	59,48,20,22, 8,50,35, 1,48,12		4,22,20,13, 4	
		10, 6,19,30,57,10,54		44
16″	59,48,20,32,15,10, 5,58,59, 6		4,22,20,13,48	
		10, 6,15, 8,36,57, 6		44
18″	59,48,20,42,21,25,14,35,56,12		4,22,20,14,32	
		10, 6,10,46,16,42,34		44
20″	59,48,20,52,27,36, 0,52,38,46		4,22,20,15,16	
		10, 6, 6,23,56,27,18		44
22″	59,48,21, 2,33,42,24,49, 6, 4		4,22,20,16, 0	
		10, 6, 2, 1,36,11,18		44
24″	59,48,21,12,39,44,26,25,17,22		4,22,20,16,44	
		10, 5,57,39,15,54,34		44
26″	59,48,21,22,45,42, 5,41,11,56		4,22,20,17,28	
		10, 5,53,16,55,37, 6		44
28″	59,48,21,32,51,35,22,36,49, 2		4,22,20,18,12	
		10, 5,48,54,35,18,54		44
30″	59,48,21,42,57,24,17,12, 7,56		4,22,20,18,56	
		10, 5,44,32,14,59,58		44
32″	59,48,21,53, 3, 8,49,27, 7,54		4,22,20,19,40	
		10, 5,40, 9,54,40,18		44
34″	59,48,22, 3, 8,48,59,21,48,12		4,22,20,20,24	
		10, 5,35,47,34,19,54		44
36″	59,48,22,13,14,24,46,56, 8, 6		4,22,20,21, 8	
		10, 5,31,25,13,58,46		44
38″	59,48,22,23,19,56,12,10, 6,52		4,22,20,21,52	
		10, 5,27, 2,53,36,54		44
40″	59,48,22,33,25,23,15, 3,43,46		4,22,20,22,36	
		10, 5,22,40,33,14,18		44
42″	59,48,22,43,30,45,55,36,58, 4		4,22,20,23,20	
		10, 5,18,18,12,50,58		44
44″	59,48,22,53,36, 4,13,49,49, 2		4,22,20,24, 4	
		10, 5,13,55,52,26,54		44
46″	59,48,23, 3,41,18, 9,42,15,56		4,22,20,24,48	
		10, 5, 9,33,32, 2, 6		44
48″	59,48,23,13,46,27,43,14,18, 2		4,22,20,25,32	
		10, 5, 5,11,11,36,34		44
50″	59,48,23,23,51,32,54,25,54,36		4,22,20,26,16	
		10, 5, 0,48,51,10,18		44
52″	59,48,23,33,56,33,43,17, 4,54		4,22,20,27, 0	
		10, 4,56,26,30,43,18		44
54″	59,48,23,44, 1,30, 9,47,48,12		4,22,20,27,44	
		10, 4,52, 4,10,15,34		44
56″	59,48,23,54, 6,22,13,58, 3,46		4,22,20,28,28	
		10, 4,47,41,49,47, 6		44
58″	59,48,24, 4,11, 9,55,47,50,52		4,22,20,29,12	
		10, 4,43,19,29,17,54		
60″	59,48,24,14,15,53,15,17, 8,46			
exact	59,48,24,14,15,53,15,16,48,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°24′ 0″	59,48,24,14,15,53,15,16,48,14	10, 4,38,57, 8,45,49		
2″	59,48,24,24,20,32,12,25,34, 3	10, 4,34,34,48,15, 1	4,22,20,30,48	44
4″	59,48,24,34,25, 6,47,13,49, 4	10, 4,30,12,27,43,29	4,22,20,31,32	44
6″	59,48,24,44,29,36,59,41,32,33	10, 4,25,50, 7,11,13	4,22,20,32,16	44
8″	59,48,24,54,34, 2,49,48,43,46	10, 4,21,27,46,38,13	4,22,20,33, 0	44
10″	59,48,25, 4,38,24,17,35,21,59	10, 4,17, 5,26, 4,29	4,22,20,33,44	44
12″	59,48,25,14,42,41,23, 1,26,28	10, 4,12,43, 5,30, 1	4,22,20,34,28	44
14″	59,48,25,24,46,54, 6, 6,56,29	10, 4, 8,20,44,54,49	4,22,20,35,12	44
16″	59,48,25,34,51, 2,26,51,51,18	10, 4, 3,58,24,18,53	4,22,20,35,56	44
18″	59,48,25,44,55, 6,25,16,10,11	10, 3,59,36, 3,42,13	4,22,20,36,40	44
20″	59,48,25,54,59, 6, 1,19,52,24	10, 3,55,13,43, 4,49	4,22,20,37,24	44
22″	59,48,26, 5, 3, 1,15, 2,57,13	10, 3,50,51,22,26,41	4,22,20,38, 8	44
24″	59,48,26,15, 6,52, 6,25,23,54	10, 3,46,29, 1,47,49	4,22,20,38,52	44
26″	59,48,26,25,10,38,35,27,11,43	10, 3,42, 6,41, 8,13	4,22,20,39,36	44
28″	59,48,26,35,14,20,42, 8,19,56	10, 3,37,44,20,27,53	4,22,20,40,20	44
30″	59,48,26,45,17,58,26,28,47,49	10, 3,33,21,59,46,49	4,22,20,41, 4	44
32″	59,48,26,55,21,31,48,28,34,38	10, 3,28,59,39, 5, 1	4,22,20,41,48	44
34″	59,48,27, 5,25, 0,48, 7,39,39	10, 3,24,37,18,22,29	4,22,20,42,32	44
36″	59,48,27,15,28,25,25,26, 2, 8	10, 3,20,14,57,39,13	4,22,20,43,16	44
38″	59,48,27,25,31,45,40,23,41,21	10, 3,15,52,36,55,13	4,22,20,44, 0	44
40″	59,48,27,35,35, 1,33, 0,36,34	10, 3,11,30,16,10,29	4,22,20,44,44	44
42″	59,48,27,45,38,13, 3,16,47, 3	10, 3, 7, 7,55,25, 1	4,22,20,45,28	44
44″	59,48,27,55,41,20,11,12,12, 4	10, 3, 2,45,34,38,49	4,22,20,46,12	44
46″	59,48,28, 5,44,22,56,46,50,53	10, 2,58,23,13,51,53	4,22,20,46,56	44
48″	59,48,28,15,47,21,20, 0,42,46	10, 2,54, 0,53, 4,13	4,22,20,47,40	44
50″	59,48,28,25,50,15,20,53,46,59	10, 2,49,38,32,15,49	4,22,20,48,24	44
52″	59,48,28,35,53, 4,59,26, 2,48	10, 2,45,16,11,26,41	4,22,20,49, 8	44
54″	59,48,28,45,55,50,15,37,29,29	10, 2,40,53,50,36,49	4,22,20,49,52	44
56″	59,48,28,55,58,31, 9,28, 6,18	10, 2,36,31,29,46,13	4,22,20,50,36	44
58″	59,48,29, 6, 1, 7,40,57,52,31	10, 2,32, 9, 8,54,53	4,22,20,51,20	
60″	59,48,29,16, 3,39,50, 6,47,24			
exact	59,48,29,16, 3,39,50, 6,34,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°25′ 0″	59,48,29,16, 3,39,50, 6,34,24			
		10, 2,27,46,48, 1,36		
2″	59,48,29,26, 6, 7,36,54,36, 0		4,22,20,52,52	
		10, 2,23,24,27, 8,44		44
4″	59,48,29,36, 8,31, 1,21,44,44		4,22,20,53,36	
		10, 2,19, 2, 6,15, 8		44
6″	59,48,29,46,10,50, 3,27,59,52		4,22,20,54,20	
		10, 2,14,39,45,20,48		44
8″	59,48,29,56,13, 4,43,13,20,40		4,22,20,55, 4	
		10, 2,10,17,24,25,44		44
10″	59,48,30, 6,15,15, 0,37,46,24		4,22,20,55,48	
		10, 2, 5,55, 3,29,56		44
12″	59,48,30,16,17,20,55,41,16,20		4,22,20,56,32	
		10, 2, 1,32,42,33,24		44
14″	59,48,30,26,19,22,28,23,49,44		4,22,20,57,16	
		10, 1,57,10,21,36, 8		44
16″	59,48,30,36,21,19,38,45,25,52		4,22,20,58, 0	
		10, 1,52,48, 0,38, 8		44
18″	59,48,30,46,23,12,26,46, 4, 0		4,22,20,58,44	
		10, 1,48,25,39,39,24		44
20″	59,48,30,56,25, 0,52,25,43,24		4,22,20,59,28	
		10, 1,44, 3,18,39,56		44
22″	59,48,31, 6,26,44,55,44,23,20		4,22,21, 0,12	
		10, 1,39,40,57,39,44		44
24″	59,48,31,16,28,24,36,42, 3, 4		4,22,21, 0,56	
		10, 1,35,18,36,38,48		44
26″	59,48,31,26,29,59,55,18,41,52		4,22,21, 1,40	
		10, 1,30,56,15,37, 8		44
28″	59,48,31,36,31,30,51,34,19, 0		4,22,21, 2,24	
		10, 1,26,33,54,34,44		44
30″	59,48,31,46,32,57,25,28,53,44		4,22,21, 3, 8	
		10, 1,22,11,33,31,36		44
32″	59,48,31,56,34,19,37, 2,25,20		4,22,21, 3,52	
		10, 1,17,49,12,27,44		44
34″	59,48,32, 6,35,37,26,14,53, 4		4,22,21, 4,36	
		10, 1,13,26,51,23, 8		44
36″	59,48,32,16,36,50,53, 6,16,12		4,22,21, 5,20	
		10, 1, 9, 4,30,17,48		44
38″	59,48,32,26,37,59,57,36,34, 0		4,22,21, 6, 4	
		10, 1, 4,42, 9,11,44		44
40″	59,48,32,36,39, 4,39,45,45,44		4,22,21, 6,48	
		10, 1, 0,19,48, 4,56		44
42″	59,48,32,46,40, 4,59,33,50,40		4,22,21, 7,32	
		10, 0,55,57,26,57,24		44
44″	59,48,32,56,41, 0,57, 0,48, 4		4,22,21, 8,16	
		10, 0,51,35, 5,49, 8		44
46″	59,48,33, 6,41,52,32, 6,37,12		4,22,21, 9, 0	
		10, 0,47,12,44,40, 8		44
48″	59,48,33,16,42,39,44,51,17,20		4,22,21, 9,44	
		10, 0,42,50,23,30,24		44
50″	59,48,33,26,43,22,35,14,47,44		4,22,21,10,28	
		10, 0,38,28, 2,19,56		44
52″	59,48,33,36,44, 1, 3,17, 7,40		4,22,21,11,12	
		10, 0,34, 5,41, 8,44		44
54″	59,48,33,46,44,35, 8,58,16,24		4,22,21,11,56	
		10, 0,29,43,19,56,48		44
56″	59,48,33,56,45, 4,52,18,13,12		4,22,21,12,40	
		10, 0,25,20,58,44, 8		44
58″	59,48,34, 6,45,30,13,16,57,20		4,22,21,13,24	
		10, 0,20,58,37,30,44		
60″	59,48,34,16,45,51,11,54,28, 4			
exact	59,48,34,16,45,51,11,54,28,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°26′ 0″	59,48,34,16,45,51,11,54,28,10			
		10, 0,16,36,16,16,42		
2″	59,48,34,26,46, 7,48,10,44,52		4,22,21,14,51	
		10, 0,12,13,55, 1,51		44
4″	59,48,34,36,46,20, 2, 5,46,43		4,22,21,15,35	
		10, 0, 7,51,33,46,16		44
6″	59,48,34,46,46,27,53,39,32,59		4,22,21,16,19	
		10, 0, 3,29,12,29,57		44
8″	59,48,34,56,46,31,22,52, 2,56		4,22,21,17, 3	
		9,59,59, 6,51,12,54		44
10″	59,48,35, 6,46,30,29,43,15,50		4,22,21,17,47	
		9,59,54,44,29,55, 7		44
12″	59,48,35,16,46,25,14,13,10,57		4,22,21,18,31	
		9,59,50,22, 8,36,36		44
14″	59,48,35,26,46,15,36,21,47,33		4,22,21,19,15	
		9,59,45,59,47,17,21		44
16″	59,48,35,36,46, 1,36, 9, 4,54		4,22,21,19,59	
		9,59,41,37,25,57,22		44
18″	59,48,35,46,45,43,13,35, 2,16		4,22,21,20,43	
		9,59,37,15, 4,36,39		44
20″	59,48,35,56,45,20,28,39,38,55		4,22,21,21,27	
		9,59,32,52,43,15,12		44
22″	59,48,36, 6,44,53,21,22,54, 7		4,22,21,22,11	
		9,59,28,30,21,53, 1		44
24″	59,48,36,16,44,21,51,44,47, 8		4,22,21,22,55	
		9,59,24, 8, 0,30, 6		44
26″	59,48,36,26,43,45,59,45,17,14		4,22,21,23,39	
		9,59,19,45,39, 6,27		44
28″	59,48,36,36,43, 5,45,24,23,41		4,22,21,24,23	
		9,59,15,23,17,42, 4		44
30″	59,48,36,46,42,21, 8,42, 5,45		4,22,21,25, 7	
		9,59,11, 0,56,16,57		44
32″	59,48,36,56,41,32, 9,38,22,42		4,22,21,25,51	
		9,59, 6,38,34,51, 6		44
34″	59,48,37, 6,40,38,48,13,13,48		4,22,21,26,35	
		9,59, 2,16,13,24,31		44
36″	59,48,37,16,39,41, 4,26,38,19		4,22,21,27,19	
		9,58,57,53,51,57,12		44
38″	59,48,37,26,38,38,58,18,35,31		4,22,21,28, 3	
		9,58,53,31,30,29, 9		44
40″	59,48,37,36,37,32,29,49, 4,40		4,22,21,28,47	
		9,58,49, 9, 9, 0,22		44
42″	59,48,37,46,36,21,38,58, 5, 2		4,22,21,29,31	
		9,58,44,46,47,30,51		44
44″	59,48,37,56,35, 6,25,45,35,53		4,22,21,30,15	
		9,58,40,24,26, 0,36		44
46″	59,48,38, 6,33,46,50,11,36,29		4,22,21,30,59	
		9,58,36, 2, 4,29,37		44
48″	59,48,38,16,32,22,52,16, 6, 6		4,22,21,31,43	
		9,58,31,39,42,57,54		44
50″	59,48,38,26,30,54,31,59, 4, 0		4,22,21,32,27	
		9,58,27,17,21,25,27		44
52″	59,48,38,36,29,21,49,20,29,27		4,22,21,33,11	
		9,58,22,54,59,52,16		44
54″	59,48,38,46,27,44,44,20,21,43		4,22,21,33,55	
		9,58,18,32,38,18,21		44
56″	59,48,38,56,26, 3,16,58,40, 4		4,22,21,34,39	
		9,58,14,10,16,43,42		44
58″	59,48,39, 6,24,17,27,15,23,46		4,22,21,35,23	
		9,58, 9,47,55, 8,19		
60″	59,48,39,16,22,27,15,10,32, 5			
exact	59,48,39,16,22,27,15,10,44, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°27′ 0″	59,48,39,16,22,27,15,10,44, 5			
		9,58, 5,25,33,33,32		
2″	59,48,39,26,20,32,40,44,17,37		4,22,21,36,45	
		9,58, 1, 3,11,56,47		44
4″	59,48,39,36,18,33,43,56,14,24		4,22,21,37,29	
		9,57,56,40,50,19,18		44
6″	59,48,39,46,16,30,24,46,33,42		4,22,21,38,13	
		9,57,52,18,28,41, 5		44
8″	59,48,39,56,14,22,43,15,14,47		4,22,21,38,57	
		9,57,47,56, 7, 2, 8		44
10″	59,48,40, 6,12,10,39,22,16,55		4,22,21,39,41	
		9,57,43,33,45,22,27		44
12″	59,48,40,16, 9,54,13, 7,39,22		4,22,21,40,25	
		9,57,39,11,23,42, 2		44
14″	59,48,40,26, 7,33,24,31,21,24		4,22,21,41, 9	
		9,57,34,49, 2, 0,53		44
16″	59,48,40,36, 5, 8,13,33,22,17		4,22,21,41,53	
		9,57,30,26,40,19, 0		44
18″	59,48,40,46, 2,38,40,13,41,17		4,22,21,42,37	
		9,57,26, 4,18,36,23		44
20″	59,48,40,56, 0, 4,44,32,17,40		4,22,21,43,21	
		9,57,21,41,56,53, 2		44
22″	59,48,41, 5,57,26,26,29,10,42		4,22,21,44, 5	
		9,57,17,19,35, 8,57		44
24″	59,48,41,15,54,43,46, 4,19,39		4,22,21,44,49	
		9,57,12,57,13,24, 8		44
26″	59,48,41,25,51,56,43,17,43,47		4,22,21,45,33	
		9,57, 8,34,51,38,35		44
28″	59,48,41,35,49, 5,18, 9,22,22		4,22,21,46,17	
		9,57, 4,12,29,52,18		44
30″	59,48,41,45,46, 9,30,39,14,40		4,22,21,47, 1	
		9,56,59,50, 8, 5,17		44
32″	59,48,41,55,43, 9,20,47,19,57		4,22,21,47,45	
		9,56,55,27,46,17,32		44
34″	59,48,42, 5,40, 4,48,33,37,29		4,22,21,48,29	
		9,56,51, 5,24,29, 3		44
36″	59,48,42,15,36,55,53,58, 6,32		4,22,21,49,13	
		9,56,46,43, 2,39,50		44
38″	59,48,42,25,33,42,37, 0,46,22		4,22,21,49,57	
		9,56,42,20,40,49,53		44
40″	59,48,42,35,30,24,57,41,36,15		4,22,21,50,41	
		9,56,37,58,18,59,12		44
42″	59,48,42,45,27, 2,56, 0,35,27		4,22,21,51,25	
		9,56,33,35,57, 7,47		44
44″	59,48,42,55,23,36,31,57,43,14		4,22,21,52, 9	
		9,56,29,13,35,15,38		44
46″	59,48,43, 5,20, 5,45,32,58,52		4,22,21,52,53	
		9,56,24,51,13,22,45		44
48″	59,48,43,15,16,30,36,46,21,37		4,22,21,53,37	
		9,56,20,28,51,29, 8		44
50″	59,48,43,25,12,51, 5,37,50,45		4,22,21,54,21	
		9,56,16, 6,29,34,47		44
52″	59,48,43,35, 9, 7,12, 7,25,32		4,22,21,55, 5	
		9,56,11,44, 7,39,42		44
54″	59,48,43,45, 5,18,56,15, 5,14		4,22,21,55,49	
		9,56, 7,21,45,43,53		44
56″	59,48,43,55, 1,26,18, 0,49, 7		4,22,21,56,33	
		9,56, 2,59,23,47,20		44
58″	59,48,44, 4,57,29,17,24,36,27		4,22,21,57,17	
		9,55,58,37, 1,50, 3		
60″	59,48,44,14,53,27,54,26,26,30			
exact	59,48,44,14,53,27,54,26,48,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°28′ 0″	59,48,44,14,53,27,54,26,48,36			
		9,55,54,14,39,54,29		
2″	59,48,44,24,49,22, 9, 6,43, 5		4,22,21,58,34	
		9,55,49,52,17,55,55		44
4″	59,48,44,34,45,12, 1,24,39, 0		4,22,21,59,18	
		9,55,45,29,55,56,37		44
6″	59,48,44,44,40,57,31,20,35,37		4,22,22, 0, 2	
		9,55,41, 7,33,56,35		44
8″	59,48,44,54,36,38,38,54,32,12		4,22,22, 0,46	
		9,55,36,45,11,55,49		44
10″	59,48,45, 4,32,15,24, 6,28, 1		4,22,22, 1,30	
		9,55,32,22,49,54,19		44
12″	59,48,45,14,27,47,46,56,22,20		4,22,22, 2,14	
		9,55,28, 0,27,52, 5		44
14″	59,48,45,24,23,15,47,24,14,25		4,22,22, 2,58	
		9,55,23,38, 5,49, 7		44
16″	59,48,45,34,18,39,25,30, 3,32		4,22,22, 3,42	
		9,55,19,15,43,45,25		44
18″	59,48,45,44,13,58,41,13,48,57		4,22,22, 4,26	
		9,55,14,53,21,40,59		44
20″	59,48,45,54, 9,13,34,35,29,56		4,22,22, 5,10	
		9,55,10,30,59,35,49		44
22″	59,48,46, 4, 4,24, 5,35, 5,45		4,22,22, 5,54	
		9,55, 6, 8,37,29,55		44
24″	59,48,46,13,59,30,14,12,35,40		4,22,22, 6,38	
		9,55, 1,46,15,23,17		44
26″	59,48,46,23,54,32, 0,27,58,57		4,22,22, 7,22	
		9,54,57,23,53,15,55		44
28″	59,48,46,33,49,29,24,21,14,52		4,22,22, 8, 6	
		9,54,53, 1,31, 7,49		44
30″	59,48,46,43,44,22,25,52,22,41		4,22,22, 8,50	
		9,54,48,39, 8,58,59		44
32″	59,48,46,53,39,11, 5, 1,21,40		4,22,22, 9,34	
		9,54,44,16,46,49,25		44
34″	59,48,47, 3,33,55,21,48,11, 5		4,22,22,10,18	
		9,54,39,54,24,39, 7		44
36″	59,48,47,13,28,35,16,12,50,12		4,22,22,11, 2	
		9,54,35,32, 2,28, 5		44
38″	59,48,47,23,23,10,48,15,18,17		4,22,22,11,46	
		9,54,31, 9,40,16,19		44
40″	59,48,47,33,17,41,57,55,34,36		4,22,22,12,30	
		9,54,26,47,18, 3,49		44
42″	59,48,47,43,12, 8,45,13,38,25		4,22,22,13,14	
		9,54,22,24,55,50,35		44
44″	59,48,47,53, 6,31,10, 9,29, 0		4,22,22,13,58	
		9,54,18, 2,33,36,37		44
46″	59,48,48, 3, 0,49,12,43, 5,37		4,22,22,14,42	
		9,54,13,40,11,21,55		44
48″	59,48,48,12,55, 2,52,54,27,32		4,22,22,15,26	
		9,54, 9,17,49, 6,29		44
50″	59,48,48,22,49,12,10,43,34, 1		4,22,22,16,10	
		9,54, 4,55,26,50,19		44
52″	59,48,48,32,43,17, 6,10,24,20		4,22,22,16,54	
		9,54, 0,33, 4,33,25		44
54″	59,48,48,42,37,17,39,14,57,45		4,22,22,17,38	
		9,53,56,10,42,15,47		44
56″	59,48,48,52,31,13,49,57,13,32		4,22,22,18,22	
		9,53,51,48,19,57,25		44
58″	59,48,49, 2,25, 5,38,17,10,57		4,22,22,19, 6	
		9,53,47,25,57,38,19		
60″	59,48,49,12,18,53, 4,14,49,16			
exact	59,48,49,12,18,53, 4,15,20, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°29′ 0″	59,48,49,12,18,53, 4,15,20, 6			
		9,53,43, 3,35,21,57		
2″	59,48,49,22,12,36, 7,50,42, 3		4,22,22,20,19	
		9,53,38,41,13, 1,38		43
4″	59,48,49,32, 6,14,49, 3,43,41		4,22,22,21, 2	
		9,53,34,18,50,40,36		43
6″	59,48,49,41,59,49, 7,54,24,17		4,22,22,21,45	
		9,53,29,56,28,18,51		43
8″	59,48,49,51,53,19, 4,22,43, 8		4,22,22,22,28	
		9,53,25,34, 5,56,23		43
10″	59,48,50, 1,46,44,38,28,39,31		4,22,22,23,11	
		9,53,21,11,43,33,12		43
12″	59,48,50,11,40, 5,50,12,12,43		4,22,22,23,54	
		9,53,16,49,21, 9,18		43
14″	59,48,50,21,33,22,39,33,22, 1		4,22,22,24,37	
		9,53,12,26,58,44,41		43
16″	59,48,50,31,26,35, 6,32, 6,42		4,22,22,25,20	
		9,53, 8, 4,36,19,21		43
18″	59,48,50,41,19,43,11, 8,26, 3		4,22,22,26, 3	
		9,53, 3,42,13,53,18		43
20″	59,48,50,51,12,46,53,22,19,21		4,22,22,26,46	
		9,52,59,19,51,26,32		43
22″	59,48,51, 1, 5,46,13,13,45,53		4,22,22,27,29	
		9,52,54,57,28,59, 3		43
24″	59,48,51,10,58,41,10,42,44,56		4,22,22,28,12	
		9,52,50,35, 6,30,51		43
26″	59,48,51,20,51,31,45,49,15,47		4,22,22,28,55	
		9,52,46,12,44, 1,56		43
28″	59,48,51,30,44,17,58,33,17,43		4,22,22,29,38	
		9,52,41,50,21,32,18		43
30″	59,48,51,40,36,59,48,54,50, 1		4,22,22,30,21	
		9,52,37,27,59, 1,57		43
32″	59,48,51,50,29,37,16,53,51,58		4,22,22,31, 4	
		9,52,33, 5,36,30,53		43
34″	59,48,52, 0,22,10,22,30,22,51		4,22,22,31,47	
		9,52,28,43,13,59, 6		43
36″	59,48,52,10,14,39, 5,44,21,57		4,22,22,32,30	
		9,52,24,20,51,26,36		43
38″	59,48,52,20, 7, 3,26,35,48,33		4,22,22,33,13	
		9,52,19,58,28,53,23		43
40″	59,48,52,29,59,23,25, 4,41,56		4,22,22,33,56	
		9,52,15,36, 6,19,27		43
42″	59,48,52,39,51,39, 1,11, 1,23		4,22,22,34,39	
		9,52,11,13,43,44,48		43
44″	59,48,52,49,43,50,14,54,46,11		4,22,22,35,22	
		9,52, 6,51,21, 9,26		43
46″	59,48,52,59,35,57, 6,15,55,37		4,22,22,36, 5	
		9,52, 2,28,58,33,21		43
48″	59,48,53, 9,27,59,35,14,28,58		4,22,22,36,48	
		9,51,58, 6,35,56,33		43
50″	59,48,53,19,19,57,41,50,25,31		4,22,22,37,31	
		9,51,53,44,13,19, 2		43
52″	59,48,53,29,11,51,26, 3,44,33		4,22,22,38,14	
		9,51,49,21,50,40,48		43
54″	59,48,53,39, 3,40,47,54,25,21		4,22,22,38,57	
		9,51,44,59,28, 1,51		43
56″	59,48,53,48,55,25,47,22,27,12		4,22,22,39,40	
		9,51,40,37, 5,22,11		43
58″	59,48,53,58,47, 6,24,27,49,23		4,22,22,40,23	
		9,51,36,14,42,41,48		
60″	59,48,54, 8,38,42,39,10,31,11			
exact	59,48,54, 8,38,42,39,10, 8,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°30′ 0″	59,48,54, 8,38,42,39,10, 8,52			
		9,51,31,52,19,58,20		
2″	59,48,54,18,30,14,31,30, 7,12		4,22,22,41,58	
		9,51,27,29,57,16,22		43
4″	59,48,54,28,21,42, 1,27,23,34		4,22,22,42,41	
		9,51,23, 7,34,33,41		43
6″	59,48,54,38,13, 5, 9, 1,57,15		4,22,22,43,24	
		9,51,18,45,11,50,17		43
8″	59,48,54,48, 4,23,54,13,47,32		4,22,22,44, 7	
		9,51,14,22,49, 6,10		43
10″	59,48,54,57,55,38,17, 2,53,42		4,22,22,44,50	
		9,51,10, 0,26,21,20		43
12″	59,48,55, 7,46,48,17,29,15, 2		4,22,22,45,33	
		9,51, 5,38, 3,35,47		43
14″	59,48,55,17,37,53,55,32,50,49		4,22,22,46,16	
		9,51, 1,15,40,49,31		43
16″	59,48,55,27,28,55,11,13,40,20		4,22,22,46,59	
		9,50,56,53,18, 2,32		43
18″	59,48,55,37,19,52, 4,31,42,52		4,22,22,47,42	
		9,50,52,30,55,14,50		43
20″	59,48,55,47,10,44,35,26,57,42		4,22,22,48,25	
		9,50,48, 8,32,26,25		43
22″	59,48,55,57, 1,32,43,59,24, 7		4,22,22,49, 8	
		9,50,43,46, 9,37,17		43
24″	59,48,56, 6,52,16,30, 9, 1,24		4,22,22,49,51	
		9,50,39,23,46,47,26		43
26″	59,48,56,16,42,55,53,55,48,50		4,22,22,50,34	
		9,50,35, 1,23,56,52		43
28″	59,48,56,26,33,30,55,19,45,42		4,22,22,51,17	
		9,50,30,39, 1, 5,35		43
30″	59,48,56,36,24, 1,34,20,51,17		4,22,22,52, 0	
		9,50,26,16,38,13,35		43
32″	59,48,56,46,14,27,50,59, 4,52		4,22,22,52,43	
		9,50,21,54,15,20,52		43
34″	59,48,56,56, 4,49,45,14,25,44		4,22,22,53,26	
		9,50,17,31,52,27,26		43
36″	59,48,57, 5,55, 7,17, 6,53,10		4,22,22,54, 9	
		9,50,13, 9,29,33,17		43
38″	59,48,57,15,45,20,26,36,26,27		4,22,22,54,52	
		9,50, 8,47, 6,38,25		43
40″	59,48,57,25,35,29,13,43, 4,52		4,22,22,55,35	
		9,50, 4,24,43,42,50		43
42″	59,48,57,35,25,33,38,26,47,42		4,22,22,56,18	
		9,50, 0, 2,20,46,32		43
44″	59,48,57,45,15,33,40,47,34,14		4,22,22,57, 1	
		9,49,55,39,57,49,31		43
46″	59,48,57,55, 5,29,20,45,23,45		4,22,22,57,44	
		9,49,51,17,34,51,47		43
48″	59,48,58, 4,55,20,38,20,15,32		4,22,22,58,27	
		9,49,46,55,11,53,20		43
50″	59,48,58,14,45, 7,33,32, 8,52		4,22,22,59,10	
		9,49,42,32,48,54,10		43
52″	59,48,58,24,34,50, 6,21, 3, 2		4,22,22,59,53	
		9,49,38,10,25,54,17		43
54″	59,48,58,34,24,28,16,46,57,19		4,22,23, 0,36	
		9,49,33,48, 2,53,41		43
56″	59,48,58,44,14, 2, 4,49,51, 0		4,22,23, 1,19	
		9,49,29,25,39,52,22		43
58″	59,48,58,54, 3,31,30,29,43,22		4,22,23, 2, 2	
		9,49,25, 3,16,50,20		
60″	59,48,59, 3,52,56,33,46,33,42			
exact	59,48,59, 3,52,56,33,46,17,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°31′ 0″	59,48,59, 3,52,56,33,46,17,10			
		9,49,20,40,53,46, 1		
2″	59,48,59,13,42,17,14,40, 3,11		4,22,23, 3,33	
		9,49,16,18,30,42,28		43
4″	59,48,59,23,31,33,33,10,45,39		4,22,23, 4,16	
		9,49,11,56, 7,38,12		43
6″	59,48,59,33,20,45,29,18,23,51		4,22,23, 4,59	
		9,49, 7,33,44,33,13		43
8″	59,48,59,43, 9,53, 3, 2,57, 4		4,22,23, 5,42	
		9,49, 3,11,21,27,31		43
10″	59,48,59,52,58,56,14,24,24,35		4,22,23, 6,25	
		9,48,58,48,58,21, 6		43
12″	59,49, 0, 2,47,55, 3,22,45,41		4,22,23, 7, 8	
		9,48,54,26,35,13,58		43
14″	59,49, 0,12,36,49,29,57,59,39		4,22,23, 7,51	
		9,48,50, 4,12, 6, 7		43
16″	59,49, 0,22,25,39,34,10, 5,46		4,22,23, 8,34	
		9,48,45,41,48,57,33		43
18″	59,49, 0,32,14,25,15,59, 3,19		4,22,23, 9,17	
		9,48,41,19,25,48,16		43
20″	59,49, 0,42, 3, 6,35,24,51,35		4,22,23,10, 0	
		9,48,36,57, 2,38,16		43
22″	59,49, 0,51,51,43,32,27,29,51		4,22,23,10,43	
		9,48,32,34,39,27,33		43
24″	59,49, 1, 1,40,16, 7, 6,57,24		4,22,23,11,26	
		9,48,28,12,16,16, 7		43
26″	59,49, 1,11,28,44,19,23,13,31		4,22,23,12, 9	
		9,48,23,49,53, 3,58		43
28″	59,49, 1,21,17, 8, 9,16,17,29		4,22,23,12,52	
		9,48,19,27,29,51, 6		43
30″	59,49, 1,31, 5,27,36,46, 8,35		4,22,23,13,35	
		9,48,15, 5, 6,37,31		43
32″	59,49, 1,40,53,42,41,52,46, 6		4,22,23,14,18	
		9,48,10,42,43,23,13		43
34″	59,49, 1,50,41,53,24,36, 9,19		4,22,23,15, 1	
		9,48, 6,20,20, 8,12		43
36″	59,49, 2, 0,29,59,44,56,17,31		4,22,23,15,44	
		9,48, 1,57,56,52,28		43
38″	59,49, 2,10,18, 1,42,53, 9,59		4,22,23,16,27	
		9,47,57,35,33,36, 1		43
40″	59,49, 2,20, 5,59,18,26,46, 0		4,22,23,17,10	
		9,47,53,13,10,18,51		43
42″	59,49, 2,29,53,52,31,37, 4,51		4,22,23,17,53	
		9,47,48,50,47, 0,58		43
44″	59,49, 2,39,41,41,22,24, 5,49		4,22,23,18,36	
		9,47,44,28,23,42,22		43
46″	59,49, 2,49,29,25,50,47,48,11		4,22,23,19,19	
		9,47,40, 6, 0,23, 3		43
48″	59,49, 2,59,17, 5,56,48,11,14		4,22,23,20, 2	
		9,47,35,43,37, 3, 1		43
50″	59,49, 3, 9, 4,41,40,25,14,15		4,22,23,20,45	
		9,47,31,21,13,42,16		43
52″	59,49, 3,18,52,13, 1,38,56,31		4,22,23,21,28	
		9,47,26,58,50,20,48		43
54″	59,49, 3,28,39,40, 0,29,17,19		4,22,23,22,11	
		9,47,22,36,26,58,37		43
56″	59,49, 3,38,27, 2,36,56,15,56		4,22,23,22,54	
		9,47,18,14, 3,35,43		43
58″	59,49, 3,48,14,20,50,59,51,39		4,22,23,23,37	
		9,47,13,51,40,12, 6		
60″	59,49, 3,58, 1,34,42,40, 3,45			
exact	59,49, 3,58, 1,34,42,39,59,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°32′ 0″	59,49, 3,58, 1,34,42,39,59,10			
		9,47, 9,29,16,47,26		
2″	59,49, 4, 7,48,44,11,56,46,36		4,22,23,25, 3	
		9,47, 5, 6,53,22,23		43
4″	59,49, 4,17,35,49,18,50, 8,59		4,22,23,25,46	
		9,47, 0,44,29,56,37		43
6″	59,49, 4,27,22,50, 3,20, 5,36		4,22,23,26,29	
		9,46,56,22, 6,30, 8		43
8″	59,49, 4,37, 9,46,25,26,35,44		4,22,23,27,12	
		9,46,51,59,43, 2,56		43
10″	59,49, 4,46,56,38,25, 9,38,40		4,22,23,27,55	
		9,46,47,37,19,35, 1		43
12″	59,49, 4,56,43,26, 2,29,13,41		4,22,23,28,38	
		9,46,43,14,56, 6,23		43
14″	59,49, 5, 6,30, 9,17,25,20, 4		4,22,23,29,21	
		9,46,38,52,32,37, 2		43
16″	59,49, 5,16,16,48, 9,57,57, 6		4,22,23,30, 4	
		9,46,34,30, 9, 6,58		43
18″	59,49, 5,26, 3,22,40, 7, 4, 4		4,22,23,30,47	
		9,46,30, 7,45,36,11		43
20″	59,49, 5,35,49,52,47,52,40,15		4,22,23,31,30	
		9,46,25,45,22, 4,41		43
22″	59,49, 5,45,36,18,33,14,44,56		4,22,23,32,13	
		9,46,21,22,58,32,28		43
24″	59,49, 5,55,22,39,56,13,17,24		4,22,23,32,56	
		9,46,17, 0,34,59,32		43
26″	59,49, 6, 5, 8,56,56,48,16,56		4,22,23,33,39	
		9,46,12,38,11,25,53		43
28″	59,49, 6,14,55, 9,34,59,42,49		4,22,23,34,22	
		9,46, 8,15,47,51,31		43
30″	59,49, 6,24,41,17,50,47,34,20		4,22,23,35, 5	
		9,46, 3,53,24,16,26		43
32″	59,49, 6,34,27,21,44,11,50,46		4,22,23,35,48	
		9,45,59,31, 0,40,38		43
34″	59,49, 6,44,13,21,15,12,31,24		4,22,23,36,31	
		9,45,55, 8,37, 4, 7		43
36″	59,49, 6,53,59,16,23,49,35,31		4,22,23,37,14	
		9,45,50,46,13,26,53		43
38″	59,49, 7, 3,45, 7,10, 3, 2,24		4,22,23,37,57	
		9,45,46,23,49,48,56		43
40″	59,49, 7,13,30,53,33,52,51,20		4,22,23,38,40	
		9,45,42, 1,26,10,16		43
42″	59,49, 7,23,16,35,35,19, 1,36		4,22,23,39,23	
		9,45,37,39, 2,30,53		43
44″	59,49, 7,33, 2,13,14,21,32,29		4,22,23,40, 6	
		9,45,33,16,38,50,47		43
46″	59,49, 7,42,47,46,31, 0,23,16		4,22,23,40,49	
		9,45,28,54,15, 9,58		43
48″	59,49, 7,52,33,15,25,15,33,14		4,22,23,41,32	
		9,45,24,31,51,28,26		43
50″	59,49, 8, 2,18,39,57, 7, 1,40		4,22,23,42,15	
		9,45,20, 9,27,46,11		43
52″	59,49, 8,12, 4, 0, 6,34,47,51		4,22,23,42,58	
		9,45,15,47, 4, 3,13		43
54″	59,49, 8,21,49,15,53,38,51, 4		4,22,23,43,41	
		9,45,11,24,40,19,32		43
56″	59,49, 8,31,34,27,18,19,10,36		4,22,23,44,24	
		9,45, 7, 2,16,35, 8		43
58″	59,49, 8,41,19,34,20,35,45,44		4,22,23,45, 7	
		9,45, 2,39,52,50, 1		
60″	59,49, 8,51, 4,37, 0,28,35,45			
exact	59,49, 8,51, 4,37, 0,28,40,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°33′ 0″	59,49, 8,51, 4,37, 0,28,40,57			
		9,44,58,17,29, 4,57		
2″	59,49, 9, 0,49,35,17,57,45,54		4,22,23,46,29	
		9,44,53,55, 5,18,28		43
4″	59,49, 9,10,34,29,13, 3, 4,22		4,22,23,47,12	
		9,44,49,32,41,31,16		43
6″	59,49, 9,20,19,18,45,44,35,38		4,22,23,47,55	
		9,44,45,10,17,43,21		43
8″	59,49, 9,30, 4, 3,56, 2,18,59		4,22,23,48,38	
		9,44,40,47,53,54,43		43
10″	59,49, 9,39,48,44,43,56,13,42		4,22,23,49,21	
		9,44,36,25,30, 5,22		43
12″	59,49, 9,49,33,21, 9,26,19, 4		4,22,23,50, 4	
		9,44,32, 3, 6,15,18		43
14″	59,49, 9,59,17,53,12,32,34,22		4,22,23,50,47	
		9,44,27,40,42,24,31		43
16″	59,49,10, 9, 2,20,53,14,58,53		4,22,23,51,30	
		9,44,23,18,18,33, 1		43
18″	59,49,10,18,46,44,11,33,31,54		4,22,23,52,13	
		9,44,18,55,54,40,48		43
20″	59,49,10,28,31, 3, 7,28,12,42		4,22,23,52,56	
		9,44,14,33,30,47,52		43
22″	59,49,10,38,15,17,40,59, 0,34		4,22,23,53,39	
		9,44,10,11, 6,54,13		43
24″	59,49,10,47,59,27,52, 5,54,47		4,22,23,54,22	
		9,44, 5,48,42,59,51		43
26″	59,49,10,57,43,33,40,48,54,38		4,22,23,55, 5	
		9,44, 1,26,19, 4,46		43
28″	59,49,11, 7,27,35, 7, 7,59,24		4,22,23,55,48	
		9,43,57, 3,55, 8,58		43
30″	59,49,11,17,11,32,11, 3, 8,22		4,22,23,56,31	
		9,43,52,41,31,12,27		43
32″	59,49,11,26,55,24,52,34,20,49		4,22,23,57,14	
		9,43,48,19, 7,15,13		43
34″	59,49,11,36,39,13,11,41,36, 2		4,22,23,57,57	
		9,43,43,56,43,17,16		43
36″	59,49,11,46,22,57, 8,24,53,18		4,22,23,58,40	
		9,43,39,34,19,18,36		43
38″	59,49,11,56, 6,36,42,44,11,54		4,22,23,59,23	
		9,43,35,11,55,19,13		43
40″	59,49,12, 5,50,11,54,39,31, 7		4,22,24, 0, 6	
		9,43,30,49,31,19, 7		43
42″	59,49,12,15,33,42,44,10,50,14		4,22,24, 0,49	
		9,43,26,27, 7,18,18		43
44″	59,49,12,25,17, 9,11,18, 8,32		4,22,24, 1,32	
		9,43,22, 4,43,16,46		43
46″	59,49,12,35, 0,31,16, 1,25,18		4,22,24, 2,15	
		9,43,17,42,19,14,31		43
48″	59,49,12,44,43,48,58,20,39,49		4,22,24, 2,58	
		9,43,13,19,55,11,33		43
50″	59,49,12,54,27, 2,18,15,51,22		4,22,24, 3,41	
		9,43, 8,57,31, 7,52		43
52″	59,49,13, 4,10,11,15,46,59,14		4,22,24, 4,24	
		9,43, 4,35, 7, 3,28		43
54″	59,49,13,13,53,15,50,54, 2,42		4,22,24, 5, 7	
		9,43, 0,12,42,58,21		43
56″	59,49,13,23,36,16, 3,37, 1, 3		4,22,24, 5,50	
		9,42,55,50,18,52,31		43
58″	59,49,13,33,19,11,53,55,53,34		4,22,24, 6,33	
		9,42,51,27,54,45,58		
60″	59,49,13,43, 2, 3,21,50,39,32			
exact	59,49,13,43, 2, 3,21,51, 0,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°34′ 0″	59,49,13,43, 2, 3,21,51, 0,35			
		9,42,47, 5,30,40,58		
2″	59,49,13,52,44,50,27,21,41,33		4,22,24, 7,49	
		9,42,42,43, 6,33, 9		43
4″	59,49,14, 2,27,33,10,28,14,42		4,22,24, 8,32	
		9,42,38,20,42,24,37		43
6″	59,49,14,12,10,11,31,10,39,19		4,22,24, 9,15	
		9,42,33,58,18,15,22		43
8″	59,49,14,21,52,45,29,28,54,41		4,22,24, 9,58	
		9,42,29,35,54, 5,24		43
10″	59,49,14,31,35,15, 5,23, 0, 5		4,22,24,10,41	
		9,42,25,13,29,54,43		43
12″	59,49,14,41,17,40,18,52,54,48		4,22,24,11,24	
		9,42,20,51, 5,43,19		43
14″	59,49,14,51, 0, 1, 9,58,38, 7		4,22,24,12, 7	
		9,42,16,28,41,31,12		43
16″	59,49,15, 0,42,17,38,40, 9,19		4,22,24,12,50	
		9,42,12, 6,17,18,22		43
18″	59,49,15,10,24,29,44,57,27,41		4,22,24,13,33	
		9,42, 7,43,53, 4,49		43
20″	59,49,15,20, 6,37,28,50,32,30		4,22,24,14,16	
		9,42, 3,21,28,50,33		43
22″	59,49,15,29,48,40,50,19,23, 3		4,22,24,14,59	
		9,41,58,59, 4,35,34		43
24″	59,49,15,39,30,39,49,23,58,37		4,22,24,15,42	
		9,41,54,36,40,19,52		43
26″	59,49,15,49,12,34,26, 4,18,29		4,22,24,16,25	
		9,41,50,14,16, 3,27		43
28″	59,49,15,58,54,24,40,20,21,56		4,22,24,17, 8	
		9,41,45,51,51,46,19		43
30″	59,49,16, 8,36,10,32,12, 8,15		4,22,24,17,51	
		9,41,41,29,27,28,28		43
32″	59,49,16,18,17,52, 1,39,36,43		4,22,24,18,34	
		9,41,37, 7, 3, 9,54		43
34″	59,49,16,27,59,29, 8,42,46,37		4,22,24,19,17	
		9,41,32,44,38,50,37		43
36″	59,49,16,37,41, 1,53,21,37,14		4,22,24,20, 0	
		9,41,28,22,14,30,37		43
38″	59,49,16,47,22,30,15,36, 7,51		4,22,24,20,43	
		9,41,23,59,50, 9,54		43
40″	59,49,16,57, 3,54,15,26,17,45		4,22,24,21,26	
		9,41,19,37,25,48,28		43
42″	59,49,17, 6,45,13,52,52, 6,13		4,22,24,22, 9	
		9,41,15,15, 1,26,19		43
44″	59,49,17,16,26,29, 7,53,32,32		4,22,24,22,52	
		9,41,10,52,37, 3,27		43
46″	59,49,17,26, 7,40, 0,30,35,59		4,22,24,23,35	
		9,41, 6,30,12,39,52		43
48″	59,49,17,35,48,46,30,43,15,51		4,22,24,24,18	
		9,41, 2, 7,48,15,34		43
50″	59,49,17,45,29,48,38,31,31,25		4,22,24,25, 1	
		9,40,57,45,23,50,33		43
52″	59,49,17,55,10,46,23,55,21,58		4,22,24,25,44	
		9,40,53,22,59,24,49		43
54″	59,49,18, 4,51,39,46,54,46,47		4,22,24,26,27	
		9,40,49, 0,34,58,22		43
56″	59,49,18,14,32,28,47,29,45, 9		4,22,24,27,10	
		9,40,44,38,10,31,12		43
58″	59,49,18,24,13,13,25,40,16,21		4,22,24,27,53	
		9,40,40,15,46, 3,19		
60″	59,49,18,33,53,53,41,26,19,40			
exact	59,49,18,33,53,53,41,26,48, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°35′ 0″	59,49,18,33,53,53,41,26,48, 2			
		9,40,35,53,21,37,54		
2″	59,49,18,43,34,29,34,48,25,56		4,22,24,29, 5	
		9,40,31,30,57, 8,49		42
4″	59,49,18,53,15, 1, 5,45,34,45		4,22,24,29,47	
		9,40,27, 8,32,39, 2		42
6″	59,49,19, 2,55,28,14,18,13,47		4,22,24,30,29	
		9,40,22,46, 8, 8,33		42
8″	59,49,19,12,35,51, 0,26,22,20		4,22,24,31,11	
		9,40,18,23,43,37,22		42
10″	59,49,19,22,16, 9,24, 9,59,42		4,22,24,31,53	
		9,40,14, 1,19, 5,29		42
12″	59,49,19,31,56,23,25,29, 5,11		4,22,24,32,35	
		9,40, 9,38,54,32,54		42
14″	59,49,19,41,36,33, 4,23,38, 5		4,22,24,33,17	
		9,40, 5,16,29,59,37		42
16″	59,49,19,51,16,38,20,53,37,42		4,22,24,33,59	
		9,40, 0,54, 5,25,38		42
18″	59,49,20, 0,56,39,14,59, 3,20		4,22,24,34,41	
		9,39,56,31,40,50,57		42
20″	59,49,20,10,36,35,46,39,54,17		4,22,24,35,23	
		9,39,52, 9,16,15,34		42
22″	59,49,20,20,16,27,55,56, 9,51		4,22,24,36, 5	
		9,39,47,46,51,39,29		42
24″	59,49,20,29,56,15,42,47,49,20		4,22,24,36,47	
		9,39,43,24,27, 2,42		42
26″	59,49,20,39,35,59, 7,14,52, 2		4,22,24,37,29	
		9,39,39, 2, 2,25,13		42
28″	59,49,20,49,15,38, 9,17,17,15		4,22,24,38,11	
		9,39,34,39,37,47, 2		42
30″	59,49,20,58,55,12,48,55, 4,17		4,22,24,38,53	
		9,39,30,17,13, 8, 9		42
32″	59,49,21, 8,34,43, 6, 8,12,26		4,22,24,39,35	
		9,39,25,54,48,28,34		42
34″	59,49,21,18,14, 9, 0,56,41, 0		4,22,24,40,17	
		9,39,21,32,23,48,17		42
36″	59,49,21,27,53,30,33,20,29,17		4,22,24,40,59	
		9,39,17, 9,59, 7,18		42
38″	59,49,21,37,32,47,43,19,36,35		4,22,24,41,41	
		9,39,12,47,34,25,37		42
40″	59,49,21,47,12, 0,30,54, 2,12		4,22,24,42,23	
		9,39, 8,25, 9,43,14		42
42″	59,49,21,56,51, 8,56, 3,45,26		4,22,24,43, 5	
		9,39, 4, 2,45, 0, 9		42
44″	59,49,22, 6,30,12,58,48,45,35		4,22,24,43,47	
		9,38,59,40,20,16,22		42
46″	59,49,22,16, 9,12,39, 9, 1,57		4,22,24,44,29	
		9,38,55,17,55,31,53		42
48″	59,49,22,25,48, 7,57, 4,33,50		4,22,24,45,11	
		9,38,50,55,30,46,42		42
50″	59,49,22,35,26,58,52,35,20,32		4,22,24,45,53	
		9,38,46,33, 6, 0,49		42
52″	59,49,22,45, 5,45,25,41,21,21		4,22,24,46,35	
		9,38,42,10,41,14,14		42
54″	59,49,22,54,44,27,36,22,35,35		4,22,24,47,17	
		9,38,37,48,16,26,57		42
56″	59,49,23, 4,23, 5,24,39, 2,32		4,22,24,47,59	
		9,38,33,25,51,38,58		42
58″	59,49,23,14, 1,38,50,30,41,30		4,22,24,48,41	
		9,38,29, 3,26,50,17		
60″	59,49,23,23,40, 7,53,57,31,47			
exact	59,49,23,23,40, 7,53,57, 5,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°36′ 0″	59,49,23,23,40, 7,53,57, 5,14			
		9,38,24,41, 1,58, 8		
2″	59,49,23,33,18,32,34,59, 3,22		4,22,24,50,16	
		9,38,20,18,37, 7,52		42
4″	59,49,23,42,56,52,53,36,11,14		4,22,24,50,58	
		9,38,15,56,12,16,54		42
6″	59,49,23,52,35, 8,49,48,28, 8		4,22,24,51,40	
		9,38,11,33,47,25,14		42
8″	59,49,24, 2,13,20,23,35,53,22		4,22,24,52,22	
		9,38, 7,11,22,32,52		42
10″	59,49,24,11,51,27,34,58,26,14		4,22,24,53, 4	
		9,38, 2,48,57,39,48		42
12″	59,49,24,21,29,30,23,56, 6, 2		4,22,24,53,46	
		9,37,58,26,32,46, 2		42
14″	59,49,24,31, 7,28,50,28,52, 4		4,22,24,54,28	
		9,37,54, 4, 7,51,34		42
16″	59,49,24,40,45,22,54,36,43,38		4,22,24,55,10	
		9,37,49,41,42,56,24		42
18″	59,49,24,50,23,12,36,19,40, 2		4,22,24,55,52	
		9,37,45,19,18, 0,32		42
20″	59,49,25, 0, 0,57,55,37,40,34		4,22,24,56,34	
		9,37,40,56,53, 3,58		42
22″	59,49,25, 9,38,38,52,30,44,32		4,22,24,57,16	
		9,37,36,34,28, 6,42		42
24″	59,49,25,19,16,15,26,58,51,14		4,22,24,57,58	
		9,37,32,12, 3, 8,44		42
26″	59,49,25,28,53,47,39, 1,59,58		4,22,24,58,40	
		9,37,27,49,38,10, 4		42
28″	59,49,25,38,31,15,28,40,10, 2		4,22,24,59,22	
		9,37,23,27,13,10,42		42
30″	59,49,25,48, 8,38,55,53,20,44		4,22,25, 0, 4	
		9,37,19, 4,48,10,38		42
32″	59,49,25,57,45,58, 0,41,31,22		4,22,25, 0,46	
		9,37,14,42,23, 9,52		42
34″	59,49,26, 7,23,12,43, 4,41,14		4,22,25, 1,28	
		9,37,10,19,58, 8,24		42
36″	59,49,26,17, 0,23, 3, 2,49,38		4,22,25, 2,10	
		9,37, 5,57,33, 6,14		42
38″	59,49,26,26,37,29, 0,35,55,52		4,22,25, 2,52	
		9,37, 1,35, 8, 3,22		42
40″	59,49,26,36,14,30,35,43,59,14		4,22,25, 3,34	
		9,36,57,12,42,59,48		42
42″	59,49,26,45,51,27,48,26,59, 2		4,22,25, 4,16	
		9,36,52,50,17,55,32		42
44″	59,49,26,55,28,20,38,44,54,34		4,22,25, 4,58	
		9,36,48,27,52,50,34		42
46″	59,49,27, 5, 5, 9, 6,37,45, 8		4,22,25, 5,40	
		9,36,44, 5,27,44,54		42
48″	59,49,27,14,41,53,12, 5,30, 2		4,22,25, 6,22	
		9,36,39,43, 2,38,32		42
50″	59,49,27,24,18,32,55, 8, 8,34		4,22,25, 7, 4	
		9,36,35,20,37,31,28		42
52″	59,49,27,33,55, 8,15,45,40, 2		4,22,25, 7,46	
		9,36,30,58,12,23,42		42
54″	59,49,27,43,31,39,13,58, 3,44		4,22,25, 8,28	
		9,36,26,35,47,15,14		42
56″	59,49,27,53, 8, 5,49,45,18,58		4,22,25, 9,10	
		9,36,22,13,22, 6, 4		42
58″	59,49,28, 2,44,28, 3, 7,25, 2		4,22,25, 9,52	
		9,36,17,50,56,56,12		
60″	59,49,28,12,20,45,54, 4,21,14			
exact	59,49,28,12,20,45,54, 4, 6, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°37′ 0″	59,49,28,12,20,45,54, 4, 6, 0			
		9,36,13,28,31,44, 3		
2″	59,49,28,21,56,59,22,35,50, 3		4,22,25,11,22	
		9,36, 9, 6, 6,32,41		42
4″	59,49,28,31,33, 8,28,42,22,44		4,22,25,12, 4	
		9,36, 4,43,41,20,37		42
6″	59,49,28,41, 9,13,12,23,43,21		4,22,25,12,46	
		9,36, 0,21,16, 7,51		42
8″	59,49,28,50,45,13,33,39,51,12		4,22,25,13,28	
		9,35,55,58,50,54,23		42
10″	59,49,29, 0,21, 9,32,30,45,35		4,22,25,14,10	
		9,35,51,36,25,40,13		42
12″	59,49,29, 9,57, 1, 8,56,25,48		4,22,25,14,52	
		9,35,47,14, 0,25,21		42
14″	59,49,29,19,32,48,22,56,51, 9		4,22,25,15,34	
		9,35,42,51,35, 9,47		42
16″	59,49,29,29, 8,31,14,32, 0,56		4,22,25,16,16	
		9,35,38,29, 9,53,31		42
18″	59,49,29,38,44, 9,43,41,54,27		4,22,25,16,58	
		9,35,34, 6,44,36,33		42
20″	59,49,29,48,19,43,50,26,31, 0		4,22,25,17,40	
		9,35,29,44,19,18,53		42
22″	59,49,29,57,55,13,34,45,49,53		4,22,25,18,22	
		9,35,25,21,54, 0,31		42
24″	59,49,30, 7,30,38,56,39,50,24		4,22,25,19, 4	
		9,35,20,59,28,41,27		42
26″	59,49,30,17, 5,59,56, 8,31,51		4,22,25,19,46	
		9,35,16,37, 3,21,41		42
28″	59,49,30,26,41,16,33,11,53,32		4,22,25,20,28	
		9,35,12,14,38, 1,13		42
30″	59,49,30,36,16,28,47,49,54,45		4,22,25,21,10	
		9,35, 7,52,12,40, 3		42
32″	59,49,30,45,51,36,40, 2,34,48		4,22,25,21,52	
		9,35, 3,29,47,18,11		42
34″	59,49,30,55,26,40, 9,49,52,59		4,22,25,22,34	
		9,34,59, 7,21,55,37		42
36″	59,49,31, 5, 1,39,17,11,48,36		4,22,25,23,16	
		9,34,54,44,56,32,21		42
38″	59,49,31,14,36,34, 2, 8,20,57		4,22,25,23,58	
		9,34,50,22,31, 8,23		42
40″	59,49,31,24,11,24,24,39,29,20		4,22,25,24,40	
		9,34,46, 0, 5,43,43		42
42″	59,49,31,33,46,10,24,45,13, 3		4,22,25,25,22	
		9,34,41,37,40,18,21		42
44″	59,49,31,43,20,52, 2,25,31,24		4,22,25,26, 4	
		9,34,37,15,14,52,17		42
46″	59,49,31,52,55,29,17,40,23,41		4,22,25,26,46	
		9,34,32,52,49,25,31		42
48″	59,49,32, 2,30, 2,10,29,49,12		4,22,25,27,28	
		9,34,28,30,23,58, 3		42
50″	59,49,32,12, 4,30,40,53,47,15		4,22,25,28,10	
		9,34,24, 7,58,29,53		42
52″	59,49,32,21,38,54,48,52,17, 8		4,22,25,28,52	
		9,34,19,45,33, 1, 1		42
54″	59,49,32,31,13,14,34,25,18, 9		4,22,25,29,34	
		9,34,15,23, 7,31,27		42
56″	59,49,32,40,47,29,57,32,49,36		4,22,25,30,16	
		9,34,11, 0,42, 1,11		42
58″	59,49,32,50,21,40,58,14,50,47		4,22,25,30,58	
		9,34, 6,38,16,30,13		
60″	59,49,32,59,55,47,36,31,21, 0			
exact	59,49,32,59,55,47,36,31,16,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°38′ 0″	59,49,32,59,55,47,36,31,16,11			
		9,34, 2,15,50,58, 5		
2″	59,49,33, 9,29,49,52,22,14,16		4,22,25,32,23	
		9,33,57,53,25,25,42		42
4″	59,49,33,19, 3,47,45,47,39,58		4,22,25,33, 5	
		9,33,53,30,59,52,37		42
6″	59,49,33,28,37,41,16,47,32,35		4,22,25,33,47	
		9,33,49, 8,34,18,50		42
8″	59,49,33,38,11,30,25,21,51,25		4,22,25,34,29	
		9,33,44,46, 8,44,21		42
10″	59,49,33,47,45,15,11,30,35,46		4,22,25,35,11	
		9,33,40,23,43, 9,10		42
12″	59,49,33,57,18,55,35,13,44,56		4,22,25,35,53	
		9,33,36, 1,17,33,17		42
14″	59,49,34, 6,52,31,36,31,18,13		4,22,25,36,35	
		9,33,31,38,51,56,42		42
16″	59,49,34,16,26, 3,15,23,14,55		4,22,25,37,17	
		9,33,27,16,26,19,25		42
18″	59,49,34,25,59,30,31,49,34,20		4,22,25,37,59	
		9,33,22,54, 0,41,26		42
20″	59,49,34,35,32,53,25,50,15,46		4,22,25,38,41	
		9,33,18,31,35, 2,45		42
22″	59,49,34,45, 6,11,57,25,18,31		4,22,25,39,23	
		9,33,14, 9, 9,23,22		42
24″	59,49,34,54,39,26, 6,34,41,53		4,22,25,40, 5	
		9,33, 9,46,43,43,17		42
26″	59,49,35, 4,12,35,53,18,25,10		4,22,25,40,47	
		9,33, 5,24,18, 2,30		42
28″	59,49,35,13,45,41,17,36,27,40		4,22,25,41,29	
		9,33, 1, 1,52,21, 1		42
30″	59,49,35,23,18,42,19,28,48,41		4,22,25,42,11	
		9,32,56,39,26,38,50		42
32″	59,49,35,32,51,38,58,55,27,31		4,22,25,42,53	
		9,32,52,17, 0,55,57		42
34″	59,49,35,42,24,31,15,56,23,28		4,22,25,43,35	
		9,32,47,54,35,12,22		42
36″	59,49,35,51,57,19,10,31,35,50		4,22,25,44,17	
		9,32,43,32, 9,28, 5		42
38″	59,49,36, 1,30, 2,42,41, 3,55		4,22,25,44,59	
		9,32,39, 9,43,43, 6		42
40″	59,49,36,11, 2,41,52,24,47, 1		4,22,25,45,41	
		9,32,34,47,17,57,25		42
42″	59,49,36,20,35,16,39,42,44,26		4,22,25,46,23	
		9,32,30,24,52,11, 2		42
44″	59,49,36,30, 7,47, 4,34,55,28		4,22,25,47, 5	
		9,32,26, 2,26,23,57		42
46″	59,49,36,39,40,13, 7, 1,19,25		4,22,25,47,47	
		9,32,21,40, 0,36,10		42
48″	59,49,36,49,12,34,47, 1,55,35		4,22,25,48,29	
		9,32,17,17,34,47,41		42
50″	59,49,36,58,44,52, 4,36,43,16		4,22,25,49,11	
		9,32,12,55, 8,58,30		42
52″	59,49,37, 8,17, 4,59,45,41,46		4,22,25,49,53	
		9,32, 8,32,43, 8,37		42
54″	59,49,37,17,49,13,32,28,50,23		4,22,25,50,35	
		9,32, 4,10,17,18, 2		42
56″	59,49,37,27,21,17,42,46, 8,25		4,22,25,51,17	
		9,31,59,47,51,26,45		42
58″	59,49,37,36,53,17,30,37,35,10		4,22,25,51,59	
		9,31,55,25,25,34,46		
60″	59,49,37,46,25,12,56, 3, 9,56			
exact	59,49,37,46,25,12,56, 3,13,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°39′ 0″	59,49,37,46,25,12,56, 3,13,30			
		9,31,51, 2,59,42,37		
2″	59,49,37,55,57, 3,59, 2,56, 7		4,22,25,53,20	
		9,31,46,40,33,49,17		42
4″	59,49,38, 5,28,50,39,36,45,24		4,22,25,54, 2	
		9,31,42,18, 7,55,15		42
6″	59,49,38,15, 0,32,57,44,40,39		4,22,25,54,44	
		9,31,37,55,42, 0,31		42
8″	59,49,38,24,32,10,53,26,41,10		4,22,25,55,26	
		9,31,33,33,16, 5, 5		42
10″	59,49,38,34, 3,44,26,42,46,15		4,22,25,56, 8	
		9,31,29,10,50, 8,57		42
12″	59,49,38,43,35,13,37,32,55,12		4,22,25,56,50	
		9,31,24,48,24,12, 7		42
14″	59,49,38,53, 6,38,25,57, 7,19		4,22,25,57,32	
		9,31,20,25,58,14,35		42
16″	59,49,39, 2,37,58,51,55,21,54		4,22,25,58,14	
		9,31,16, 3,32,16,21		42
18″	59,49,39,12, 9,14,55,27,38,15		4,22,25,58,56	
		9,31,11,41, 6,17,25		42
20″	59,49,39,21,40,26,36,33,55,40		4,22,25,59,38	
		9,31, 7,18,40,17,47		42
22″	59,49,39,31,11,33,55,14,13,27		4,22,26, 0,20	
		9,31, 2,56,14,17,27		42
24″	59,49,39,40,42,36,51,28,30,54		4,22,26, 1, 2	
		9,30,58,33,48,16,25		42
26″	59,49,39,50,13,35,25,16,47,19		4,22,26, 1,44	
		9,30,54,11,22,14,41		42
28″	59,49,39,59,44,29,36,39, 2, 0		4,22,26, 2,26	
		9,30,49,48,56,12,15		42
30″	59,49,40, 9,15,19,25,35,14,15		4,22,26, 3, 8	
		9,30,45,26,30, 9, 7		42
32″	59,49,40,18,46, 4,52, 5,23,22		4,22,26, 3,50	
		9,30,41, 4, 4, 5,17		42
34″	59,49,40,28,16,45,56, 9,28,39		4,22,26, 4,32	
		9,30,36,41,38, 0,45		42
36″	59,49,40,37,47,22,37,47,29,24		4,22,26, 5,14	
		9,30,32,19,11,55,31		42
38″	59,49,40,47,17,54,56,59,24,55		4,22,26, 5,56	
		9,30,27,56,45,49,35		42
40″	59,49,40,56,48,22,53,45,14,30		4,22,26, 6,38	
		9,30,23,34,19,42,57		42
42″	59,49,41, 6,18,46,28, 4,57,27		4,22,26, 7,20	
		9,30,19,11,53,35,37		42
44″	59,49,41,15,49, 5,39,58,33, 4		4,22,26, 8, 2	
		9,30,14,49,27,27,35		42
46″	59,49,41,25,19,20,29,26, 0,39		4,22,26, 8,44	
		9,30,10,27, 1,18,51		42
48″	59,49,41,34,49,30,56,27,19,30		4,22,26, 9,26	
		9,30, 6, 4,35, 9,25		42
50″	59,49,41,44,19,37, 1, 2,28,55		4,22,26,10, 8	
		9,30, 1,42, 8,59,17		42
52″	59,49,41,53,49,38,43,11,28,12		4,22,26,10,50	
		9,29,57,19,42,48,27		42
54″	59,49,42, 3,19,36, 2,54,16,39		4,22,26,11,32	
		9,29,52,57,16,36,55		42
56″	59,49,42,12,49,29, 0,10,53,34		4,22,26,12,14	
		9,29,48,34,50,24,41		42
58″	59,49,42,22,19,17,35, 1,18,15		4,22,26,12,56	
		9,29,44,12,24,11,45		
60″	59,49,42,31,49, 1,47,25,30, 0			
exact	59,49,42,31,49, 1,47,25,47,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°40′ 0″	59,49,42,31,49, 1,47,25,47,38			
		9,29,39,49,58, 0, 2		
2″	59,49,42,41,18,41,37,23,47,40		4,22,26,14,11	
		9,29,35,27,31,45,51		42
4″	59,49,42,50,48,17, 4,55,33,31		4,22,26,14,53	
		9,29,31, 5, 5,30,58		42
6″	59,49,43, 0,17,48,10, 1, 4,29		4,22,26,15,35	
		9,29,26,42,39,15,23		42
8″	59,49,43, 9,47,14,52,40,19,52		4,22,26,16,17	
		9,29,22,20,12,59, 6		42
10″	59,49,43,19,16,37,12,53,18,58		4,22,26,16,59	
		9,29,17,57,46,42, 7		42
12″	59,49,43,28,45,55,10,40, 1, 5		4,22,26,17,41	
		9,29,13,35,20,24,26		42
14″	59,49,43,38,15, 8,46, 0,25,31		4,22,26,18,23	
		9,29, 9,12,54, 6, 3		42
16″	59,49,43,47,44,17,58,54,31,34		4,22,26,19, 5	
		9,29, 4,50,27,46,58		42
18″	59,49,43,57,13,22,49,22,18,32		4,22,26,19,47	
		9,29, 0,28, 1,27,11		42
20″	59,49,44, 6,42,23,17,23,45,43		4,22,26,20,29	
		9,28,56, 5,35, 6,42		42
22″	59,49,44,16,11,19,22,58,52,25		4,22,26,21,11	
		9,28,51,43, 8,45,31		42
24″	59,49,44,25,40,11, 6, 7,37,56		4,22,26,21,53	
		9,28,47,20,42,23,38		42
26″	59,49,44,35, 8,58,26,50, 1,34		4,22,26,22,35	
		9,28,42,58,16, 1, 3		42
28″	59,49,44,44,37,41,25, 6, 2,37		4,22,26,23,17	
		9,28,38,35,49,37,46		42
30″	59,49,44,54, 6,20, 0,55,40,23		4,22,26,23,59	
		9,28,34,13,23,13,47		42
32″	59,49,45, 3,34,54,14,18,54,10		4,22,26,24,41	
		9,28,29,50,56,49, 6		42
34″	59,49,45,13, 3,24, 5,15,43,16		4,22,26,25,23	
		9,28,25,28,30,23,43		42
36″	59,49,45,22,31,49,33,46, 6,59		4,22,26,26, 5	
		9,28,21, 6, 3,57,38		42
38″	59,49,45,32, 0,10,39,50, 4,37		4,22,26,26,47	
		9,28,16,43,37,30,51		42
40″	59,49,45,41,28,27,23,27,35,28		4,22,26,27,29	
		9,28,12,21,11, 3,22		42
42″	59,49,45,50,56,39,44,38,38,50		4,22,26,28,11	
		9,28, 7,58,44,35,11		42
44″	59,49,46, 0,24,47,43,23,14, 1		4,22,26,28,53	
		9,28, 3,36,18, 6,18		42
46″	59,49,46, 9,52,51,19,41,20,19		4,22,26,29,35	
		9,27,59,13,51,36,43		42
48″	59,49,46,19,20,50,33,32,57, 2		4,22,26,30,17	
		9,27,54,51,25, 6,26		42
50″	59,49,46,28,48,45,24,58, 3,28		4,22,26,30,59	
		9,27,50,28,58,35,27		42
52″	59,49,46,38,16,35,53,56,38,55		4,22,26,31,41	
		9,27,46, 6,32, 3,46		42
54″	59,49,46,47,44,22, 0,28,42,41		4,22,26,32,23	
		9,27,41,44, 5,31,23		42
56″	59,49,46,57,12, 3,44,34,14, 4		4,22,26,33, 5	
		9,27,37,21,38,58,18		42
58″	59,49,47, 6,39,41, 6,13,12,22		4,22,26,33,47	
		9,27,32,59,12,24,31		
60″	59,49,47,16, 7,14, 5,25,36,53			
exact	59,49,47,16, 7,14, 5,26, 0,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°41′ 0″	59,49,47,16, 7,14, 5,26, 0,14			
		9,27,28,36,45,52,45		
2″	59,49,47,25,34,42,42,11,52,59		4,22,26,34,58	
		9,27,24,14,19,17,47		41
4″	59,49,47,35, 2, 6,56,31,10,46		4,22,26,35,39	
		9,27,19,51,52,42, 8		41
6″	59,49,47,44,29,26,48,23,52,54		4,22,26,36,20	
		9,27,15,29,26, 5,48		41
8″	59,49,47,53,56,42,17,49,58,42		4,22,26,37, 1	
		9,27,11, 6,59,28,47		41
10″	59,49,48, 3,23,53,24,49,27,29		4,22,26,37,42	
		9,27, 6,44,32,51, 5		41
12″	59,49,48,12,51, 0, 9,22,18,34		4,22,26,38,23	
		9,27, 2,22, 6,12,42		41
14″	59,49,48,22,18, 2,31,28,31,16		4,22,26,39, 4	
		9,26,57,59,39,33,38		41
16″	59,49,48,31,45, 0,31, 8, 4,54		4,22,26,39,45	
		9,26,53,37,12,53,53		41
18″	59,49,48,41,11,54, 8,20,58,47		4,22,26,40,26	
		9,26,49,14,46,13,27		41
20″	59,49,48,50,38,43,23, 7,12,14		4,22,26,41, 7	
		9,26,44,52,19,32,20		41
22″	59,49,49, 0, 5,28,15,26,44,34		4,22,26,41,48	
		9,26,40,29,52,50,32		41
24″	59,49,49, 9,32, 8,45,19,35, 6		4,22,26,42,29	
		9,26,36, 7,26, 8, 3		41
26″	59,49,49,18,58,44,52,45,43, 9		4,22,26,43,10	
		9,26,31,44,59,24,53		41
28″	59,49,49,28,25,16,37,45, 8, 2		4,22,26,43,51	
		9,26,27,22,32,41, 2		41
30″	59,49,49,37,51,44, 0,17,49, 4		4,22,26,44,32	
		9,26,23, 0, 5,56,30		41
32″	59,49,49,47,18, 7, 0,23,45,34		4,22,26,45,13	
		9,26,18,37,39,11,17		41
34″	59,49,49,56,44,25,38, 2,56,51		4,22,26,45,54	
		9,26,14,15,12,25,23		41
36″	59,49,50, 6,10,39,53,15,22,14		4,22,26,46,35	
		9,26, 9,52,45,38,48		41
38″	59,49,50,15,36,49,46, 1, 1, 2		4,22,26,47,16	
		9,26, 5,30,18,51,32		41
40″	59,49,50,25, 2,55,16,19,52,34		4,22,26,47,57	
		9,26, 1, 7,52, 3,35		41
42″	59,49,50,34,28,56,24,11,56, 9		4,22,26,48,38	
		9,25,56,45,25,14,57		41
44″	59,49,50,43,54,53, 9,37,11, 6		4,22,26,49,19	
		9,25,52,22,58,25,38		41
46″	59,49,50,53,20,45,32,35,36,44		4,22,26,50, 0	
		9,25,48, 0,31,35,38		41
48″	59,49,51, 2,46,33,33, 7,12,22		4,22,26,50,41	
		9,25,43,38, 4,44,57		41
50″	59,49,51,12,12,17,11,11,57,19		4,22,26,51,22	
		9,25,39,15,37,53,35		41
52″	59,49,51,21,37,56,26,49,50,54		4,22,26,52, 3	
		9,25,34,53,11, 1,32		41
54″	59,49,51,31, 3,31,20, 0,52,26		4,22,26,52,44	
		9,25,30,30,44, 8,48		41
56″	59,49,51,40,29, 1,50,45, 1,14		4,22,26,53,25	
		9,25,26, 8,17,15,23		41
58″	59,49,51,49,54,27,59, 2,16,37		4,22,26,54, 6	
		9,25,21,45,50,21,17		
60″	59,49,51,59,19,49,44,52,37,54			
exact	59,49,51,59,19,49,44,52, 4,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°42′ 0″	59,49,51,59,19,49,44,52, 4,53			
		9,25,17,23,23,23,10		
2″	59,49,52, 8,45, 7, 8,15,28, 3		4,22,26,55,41	
		9,25,13, 0,56,27,29		41
4″	59,49,52,18,10,20, 9,11,55,32		4,22,26,56,22	
		9,25, 8,38,29,31, 7		41
6″	59,49,52,27,35,28,47,41,26,39		4,22,26,57, 3	
		9,25, 4,16, 2,34, 4		41
8″	59,49,52,37, 0,33, 3,44, 0,43		4,22,26,57,44	
		9,24,59,53,35,36,20		41
10″	59,49,52,46,25,32,57,19,37, 3		4,22,26,58,25	
		9,24,55,31, 8,37,55		41
12″	59,49,52,55,50,28,28,28,14,58		4,22,26,59, 6	
		9,24,51, 8,41,38,49		41
14″	59,49,53, 5,15,19,37, 9,53,47		4,22,26,59,47	
		9,24,46,46,14,39, 2		41
16″	59,49,53,14,40, 6,23,24,32,49		4,22,27, 0,28	
		9,24,42,23,47,38,34		41
18″	59,49,53,24, 4,48,47,12,11,23		4,22,27, 1, 9	
		9,24,38, 1,20,37,25		41
20″	59,49,53,33,29,26,48,32,48,48		4,22,27, 1,50	
		9,24,33,38,53,35,35		41
22″	59,49,53,42,54, 0,27,26,24,23		4,22,27, 2,31	
		9,24,29,16,26,33, 4		41
24″	59,49,53,52,18,29,43,52,57,27		4,22,27, 3,12	
		9,24,24,53,59,29,52		41
26″	59,49,54, 1,42,54,37,52,27,19		4,22,27, 3,53	
		9,24,20,31,32,25,59		41
28″	59,49,54,11, 7,15, 9,24,53,18		4,22,27, 4,34	
		9,24,16, 9, 5,21,25		41
30″	59,49,54,20,31,31,18,30,14,43		4,22,27, 5,15	
		9,24,11,46,38,16,10		41
32″	59,49,54,29,55,43, 5, 8,30,53		4,22,27, 5,56	
		9,24, 7,24,11,10,14		41
34″	59,49,54,39,19,50,29,19,41, 7		4,22,27, 6,37	
		9,24, 3, 1,44, 3,37		41
36″	59,49,54,48,43,53,31, 3,44,44		4,22,27, 7,18	
		9,23,58,39,16,56,19		41
38″	59,49,54,58, 7,52,10,20,41, 3		4,22,27, 7,59	
		9,23,54,16,49,48,20		41
40″	59,49,55, 7,31,46,27,10,29,23		4,22,27, 8,40	
		9,23,49,54,22,39,40		41
42″	59,49,55,16,55,36,21,33, 9, 3		4,22,27, 9,21	
		9,23,45,31,55,30,19		41
44″	59,49,55,26,19,21,53,28,39,22		4,22,27,10, 2	
		9,23,41, 9,28,20,17		41
46″	59,49,55,35,43, 3, 2,56,59,39		4,22,27,10,43	
		9,23,36,47, 1, 9,34		41
48″	59,49,55,45, 6,39,49,58, 9,13		4,22,27,11,24	
		9,23,32,24,33,58,10		41
50″	59,49,55,54,30,12,14,32, 7,23		4,22,27,12, 5	
		9,23,28, 2, 6,46, 5		41
52″	59,49,56, 3,53,40,16,38,53,28		4,22,27,12,46	
		9,23,23,39,39,33,19		41
54″	59,49,56,13,17, 3,56,18,26,47		4,22,27,13,27	
		9,23,19,17,12,19,52		41
56″	59,49,56,22,40,23,13,30,46,39		4,22,27,14, 8	
		9,23,14,54,45, 5,44		41
58″	59,49,56,32, 3,38, 8,15,52,23		4,22,27,14,49	
		9,23,10,32,17,50,55		
60″	59,49,56,41,26,48,40,33,43,18			
exact	59,49,56,41,26,48,40,33,27, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°43′ 0″	59,49,56,41,26,48,40,33,27, 8			
		9,23, 6, 9,50,33,40		
2″	59,49,56,50,49,54,50,24, 0,48		4,22,27,16,18	
		9,23, 1,47,23,17,22		41
4″	59,49,57, 0,12,56,37,47,18,10		4,22,27,16,59	
		9,22,57,24,56, 0,23		41
6″	59,49,57, 9,35,54, 2,43,18,33		4,22,27,17,40	
		9,22,53, 2,28,42,43		41
8″	59,49,57,18,58,47, 5,12, 1,16		4,22,27,18,21	
		9,22,48,40, 1,24,22		41
10″	59,49,57,28,21,35,45,13,25,38		4,22,27,19, 2	
		9,22,44,17,34, 5,20		41
12″	59,49,57,37,44,20, 2,47,30,58		4,22,27,19,43	
		9,22,39,55, 6,45,37		41
14″	59,49,57,47, 6,59,57,54,16,35		4,22,27,20,24	
		9,22,35,32,39,25,13		41
16″	59,49,57,56,29,35,30,33,41,48		4,22,27,21, 5	
		9,22,31,10,12, 4, 8		41
18″	59,49,58, 5,52, 6,40,45,45,56		4,22,27,21,46	
		9,22,26,47,44,42,22		41
20″	59,49,58,15,14,33,28,30,28,18		4,22,27,22,27	
		9,22,22,25,17,19,55		41
22″	59,49,58,24,36,55,53,47,48,13		4,22,27,23, 8	
		9,22,18, 2,49,56,47		41
24″	59,49,58,33,59,13,56,37,45, 0		4,22,27,23,49	
		9,22,13,40,22,32,58		41
26″	59,49,58,43,21,27,37, 0,17,58		4,22,27,24,30	
		9,22, 9,17,55, 8,28		41
28″	59,49,58,52,43,36,54,55,26,26		4,22,27,25,11	
		9,22, 4,55,27,43,17		41
30″	59,49,59, 2, 5,41,50,23, 9,43		4,22,27,25,52	
		9,22, 0,33, 0,17,25		41
32″	59,49,59,11,27,42,23,23,27, 8		4,22,27,26,33	
		9,21,56,10,32,50,52		41
34″	59,49,59,20,49,38,33,56,18, 0		4,22,27,27,14	
		9,21,51,48, 5,23,38		41
36″	59,49,59,30,11,30,22, 1,41,38		4,22,27,27,55	
		9,21,47,25,37,55,43		41
38″	59,49,59,39,33,17,47,39,37,21		4,22,27,28,36	
		9,21,43, 3,10,27, 7		41
40″	59,49,59,48,55, 0,50,50, 4,28		4,22,27,29,17	
		9,21,38,40,42,57,50		41
42″	59,49,59,58,16,39,31,33, 2,18		4,22,27,29,58	
		9,21,34,18,15,27,52		41
44″	59,50, 0, 7,38,13,49,48,30,10		4,22,27,30,39	
		9,21,29,55,47,57,13		41
46″	59,50, 0,16,59,43,45,36,27,23		4,22,27,31,20	
		9,21,25,33,20,25,53		41
48″	59,50, 0,26,21, 9,18,56,53,16		4,22,27,32, 1	
		9,21,21,10,52,53,52		41
50″	59,50, 0,35,42,30,29,49,47, 8		4,22,27,32,42	
		9,21,16,48,25,21,10		41
52″	59,50, 0,45, 3,47,18,15, 8,18		4,22,27,33,23	
		9,21,12,25,57,47,47		41
54″	59,50, 0,54,24,59,44,12,56, 5		4,22,27,34, 4	
		9,21, 8, 3,30,13,43		41
56″	59,50, 1, 3,46, 7,47,43, 9,48		4,22,27,34,45	
		9,21, 3,41, 2,38,58		41
58″	59,50, 1,13, 7,11,28,45,48,46		4,22,27,35,26	
		9,20,59,18,35, 3,32		
60″	59,50, 1,22,28,10,47,20,52,18			
exact	59,50, 1,22,28,10,47,20,44,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°44′ 0″	59,50, 1,22,28,10,47,20,44,26			
		9,20,54,56, 7,26,39		
2″	59,50, 1,31,49, 5,43,28,11, 5		4,22,27,36,50	
		9,20,50,33,39,49,49		41
4″	59,50, 1,41, 9,56,17, 8, 0,54		4,22,27,37,31	
		9,20,46,11,12,12,18		41
6″	59,50, 1,50,30,42,28,20,13,12		4,22,27,38,12	
		9,20,41,48,44,34, 6		41
8″	59,50, 1,59,51,24,17, 4,47,18		4,22,27,38,53	
		9,20,37,26,16,55,13		41
10″	59,50, 2, 9,12, 1,43,21,42,31		4,22,27,39,34	
		9,20,33, 3,49,15,39		41
12″	59,50, 2,18,32,34,47,10,58,10		4,22,27,40,15	
		9,20,28,41,21,35,24		41
14″	59,50, 2,27,53, 3,28,32,33,34		4,22,27,40,56	
		9,20,24,18,53,54,28		41
16″	59,50, 2,37,13,27,47,26,28, 2		4,22,27,41,37	
		9,20,19,56,26,12,51		41
18″	59,50, 2,46,33,47,43,52,40,53		4,22,27,42,18	
		9,20,15,33,58,30,33		41
20″	59,50, 2,55,54, 3,17,51,11,26		4,22,27,42,59	
		9,20,11,11,30,47,34		41
22″	59,50, 3, 5,14,14,29,21,59, 0		4,22,27,43,40	
		9,20, 6,49, 3, 3,54		41
24″	59,50, 3,14,34,21,18,25, 2,54		4,22,27,44,21	
		9,20, 2,26,35,19,33		41
26″	59,50, 3,23,54,23,45, 0,22,27		4,22,27,45, 2	
		9,19,58, 4, 7,34,31		41
28″	59,50, 3,33,14,21,49, 7,56,58		4,22,27,45,43	
		9,19,53,41,39,48,48		41
30″	59,50, 3,42,34,15,30,47,45,46		4,22,27,46,24	
		9,19,49,19,12, 2,24		41
32″	59,50, 3,51,54, 4,49,59,48,10		4,22,27,47, 5	
		9,19,44,56,44,15,19		41
34″	59,50, 4, 1,13,49,46,44, 3,29		4,22,27,47,46	
		9,19,40,34,16,27,33		41
36″	59,50, 4,10,33,30,21, 0,31, 2		4,22,27,48,27	
		9,19,36,11,48,39, 6		41
38″	59,50, 4,19,53, 6,32,49,10, 8		4,22,27,49, 8	
		9,19,31,49,20,49,58		41
40″	59,50, 4,29,12,38,22,10, 0, 6		4,22,27,49,49	
		9,19,27,26,53, 0, 9		41
42″	59,50, 4,38,32, 5,49, 3, 0,15		4,22,27,50,30	
		9,19,23, 4,25, 9,39		41
44″	59,50, 4,47,51,28,53,28, 9,54		4,22,27,51,11	
		9,19,18,41,57,18,28		41
46″	59,50, 4,57,10,47,35,25,28,22		4,22,27,51,52	
		9,19,14,19,29,26,36		41
48″	59,50, 5, 6,30, 1,54,54,54,58		4,22,27,52,33	
		9,19, 9,57, 1,34, 3		41
50″	59,50, 5,15,49,11,51,56,29, 1		4,22,27,53,14	
		9,19, 5,34,33,40,49		41
52″	59,50, 5,25, 8,17,26,30, 9,50		4,22,27,53,55	
		9,19, 1,12, 5,46,54		41
54″	59,50, 5,34,27,18,38,35,56,44		4,22,27,54,36	
		9,18,56,49,37,52,18		41
56″	59,50, 5,43,46,15,28,13,49, 2		4,22,27,55,17	
		9,18,52,27, 9,57, 1		41
58″	59,50, 5,53, 5, 7,55,23,46, 3		4,22,27,55,58	
		9,18,48, 4,42, 1, 3		
60″	59,50, 6, 2,23,56, 0, 5,47, 6			
exact	59,50, 6, 2,23,56, 0, 5,46,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°45′ 0″	59,50, 6, 2,23,56, 0, 5,46,16			
		9,18,43,42,14, 4,32		
2″	59,50, 6,11,42,39,42,19,50,48		4,22,27,57,18	
		9,18,39,19,46, 7,14		41
4″	59,50, 6,21, 1,19, 2, 5,58, 2		4,22,27,57,59	
		9,18,34,57,18, 9,15		41
6″	59,50, 6,30,19,53,59,24, 7,17		4,22,27,58,40	
		9,18,30,34,50,10,35		41
8″	59,50, 6,39,38,24,34,14,17,52		4,22,27,59,21	
		9,18,26,12,22,11,14		41
10″	59,50, 6,48,56,50,46,36,29, 6		4,22,28, 0, 2	
		9,18,21,49,54,11,12		41
12″	59,50, 6,58,15,12,36,30,40,18		4,22,28, 0,43	
		9,18,17,27,26,10,29		41
14″	59,50, 7, 7,33,30, 3,56,50,47		4,22,28, 1,24	
		9,18,13, 4,58, 9, 5		41
16″	59,50, 7,16,51,43, 8,54,59,52		4,22,28, 2, 5	
		9,18, 8,42,30, 7, 0		41
18″	59,50, 7,26, 9,51,51,25, 6,52		4,22,28, 2,46	
		9,18, 4,20, 2, 4,14		41
20″	59,50, 7,35,27,56,11,27,11, 6		4,22,28, 3,27	
		9,17,59,57,34, 0,47		41
22″	59,50, 7,44,45,56, 9, 1,11,53		4,22,28, 4, 8	
		9,17,55,35, 5,56,39		41
24″	59,50, 7,54, 3,51,44, 7, 8,32		4,22,28, 4,49	
		9,17,51,12,37,51,50		41
26″	59,50, 8, 3,21,42,56,45, 0,22		4,22,28, 5,30	
		9,17,46,50, 9,46,20		41
28″	59,50, 8,12,39,29,46,54,46,42		4,22,28, 6,11	
		9,17,42,27,41,40, 9		41
30″	59,50, 8,21,57,12,14,36,26,51		4,22,28, 6,52	
		9,17,38, 5,13,33,17		41
32″	59,50, 8,31,14,50,19,50, 0, 8		4,22,28, 7,33	
		9,17,33,42,45,25,44		41
34″	59,50, 8,40,32,24, 2,35,25,52		4,22,28, 8,14	
		9,17,29,20,17,17,30		41
36″	59,50, 8,49,49,53,22,52,43,22		4,22,28, 8,55	
		9,17,24,57,49, 8,35		41
38″	59,50, 8,59, 7,18,20,41,51,57		4,22,28, 9,36	
		9,17,20,35,20,58,59		41
40″	59,50, 9, 8,24,38,56, 2,50,56		4,22,28,10,17	
		9,17,16,12,52,48,42		41
42″	59,50, 9,17,41,55, 8,55,39,38		4,22,28,10,58	
		9,17,11,50,24,37,44		41
44″	59,50, 9,26,59, 6,59,20,17,22		4,22,28,11,39	
		9,17, 7,27,56,26, 5		41
46″	59,50, 9,36,16,14,27,16,43,27		4,22,28,12,20	
		9,17, 3, 5,28,13,45		41
48″	59,50, 9,45,33,17,32,44,57,12		4,22,28,13, 1	
		9,16,58,43, 0, 0,44		41
50″	59,50, 9,54,50,16,15,44,57,56		4,22,28,13,42	
		9,16,54,20,31,47, 2		41
52″	59,50,10, 4, 7,10,36,16,44,58		4,22,28,14,23	
		9,16,49,58, 3,32,39		41
54″	59,50,10,13,24, 0,34,20,17,37		4,22,28,15, 4	
		9,16,45,35,35,17,35		41
56″	59,50,10,22,40,46, 9,55,35,12		4,22,28,15,45	
		9,16,41,13, 7, 1,50		41
58″	59,50,10,31,57,27,23, 2,37, 2		4,22,28,16,26	
		9,16,36,50,38,45,24		
60″	59,50,10,41,14, 4,13,41,22,26			
exact	59,50,10,41,14, 4,13,41,33,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°46′ 0″	59,50,10,41,14, 4,13,41,33,59			
		9,16,32,28,10,29,41		
2″	59,50,10,50,30,36,41,52, 3,40		4,22,28,17,41	
		9,16,28, 5,42,12, 0		41
4″	59,50,10,59,47, 4,47,34,15,40		4,22,28,18,22	
		9,16,23,43,13,53,38		41
6″	59,50,11, 9, 3,28,30,48, 9,18		4,22,28,19, 3	
		9,16,19,20,45,34,35		41
8″	59,50,11,18,19,47,51,33,43,53		4,22,28,19,44	
		9,16,14,58,17,14,51		41
10″	59,50,11,27,36, 2,49,50,58,44		4,22,28,20,25	
		9,16,10,35,48,54,26		41
12″	59,50,11,36,52,13,25,39,53,10		4,22,28,21, 6	
		9,16, 6,13,20,33,20		41
14″	59,50,11,46, 8,19,39, 0,26,30		4,22,28,21,47	
		9,16, 1,50,52,11,33		41
16″	59,50,11,55,24,21,29,52,38, 3		4,22,28,22,28	
		9,15,57,28,23,49, 5		41
18″	59,50,12, 4,40,18,58,16,27, 8		4,22,28,23, 9	
		9,15,53, 5,55,25,56		41
20″	59,50,12,13,56,12, 4,11,53, 4		4,22,28,23,50	
		9,15,48,43,27, 2, 6		41
22″	59,50,12,23,12, 0,47,38,55,10		4,22,28,24,31	
		9,15,44,20,58,37,35		41
24″	59,50,12,32,27,45, 8,37,32,45		4,22,28,25,12	
		9,15,39,58,30,12,23		41
26″	59,50,12,41,43,25, 7, 7,45, 8		4,22,28,25,53	
		9,15,35,36, 1,46,30		41
28″	59,50,12,50,59, 0,43, 9,31,38		4,22,28,26,34	
		9,15,31,13,33,19,56		41
30″	59,50,13, 0,14,31,56,42,51,34		4,22,28,27,15	
		9,15,26,51, 4,52,41		41
32″	59,50,13, 9,29,58,47,47,44,15		4,22,28,27,56	
		9,15,22,28,36,24,45		41
34″	59,50,13,18,45,21,16,24, 9, 0		4,22,28,28,37	
		9,15,18, 6, 7,56, 8		41
36″	59,50,13,28, 0,39,22,32, 5, 8		4,22,28,29,18	
		9,15,13,43,39,26,50		41
38″	59,50,13,37,15,53, 6,11,31,58		4,22,28,29,59	
		9,15, 9,21,10,56,51		41
40″	59,50,13,46,31, 2,27,22,28,49		4,22,28,30,40	
		9,15, 4,58,42,26,11		41
42″	59,50,13,55,46, 7,26, 4,55, 0		4,22,28,31,21	
		9,15, 0,36,13,54,50		41
44″	59,50,14, 5, 1, 8, 2,18,49,50		4,22,28,32, 2	
		9,14,56,13,45,22,48		41
46″	59,50,14,14,16, 4,16, 4,12,38		4,22,28,32,43	
		9,14,51,51,16,50, 5		41
48″	59,50,14,23,30,56, 7,21, 2,43		4,22,28,33,24	
		9,14,47,28,48,16,41		41
50″	59,50,14,32,45,43,36, 9,19,24		4,22,28,34, 5	
		9,14,43, 6,19,42,36		41
52″	59,50,14,42, 0,26,42,29, 2, 0		4,22,28,34,46	
		9,14,38,43,51, 7,50		41
54″	59,50,14,51,15, 5,26,20, 9,50		4,22,28,35,27	
		9,14,34,21,22,32,23		41
56″	59,50,15, 0,29,39,47,42,42,13		4,22,28,36, 8	
		9,14,29,58,53,56,15		41
58″	59,50,15, 9,44, 9,46,36,38,28		4,22,28,36,49	
		9,14,25,36,25,19,26		
60″	59,50,15,18,58,35,23, 1,57,54			
exact	59,50,15,18,58,35,23, 2,20,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°47′ 0″	59,50,15,18,58,35,23, 2,20,59			
		9,14,21,13,56,44,32		
2″	59,50,15,28,12,56,36,59, 5,31		4,22,28,37,59	
		9,14,16,51,28, 6,33		41
4″	59,50,15,37,27,13,28,27,12, 4		4,22,28,38,40	
		9,14,12,28,59,27,53		41
6″	59,50,15,46,41,25,57,26,39,57		4,22,28,39,21	
		9,14, 8, 6,30,48,32		41
8″	59,50,15,55,55,34, 3,57,28,29		4,22,28,40, 2	
		9,14, 3,44, 2, 8,30		41
10″	59,50,16, 5, 9,37,47,59,36,59		4,22,28,40,43	
		9,13,59,21,33,27,47		41
12″	59,50,16,14,23,37, 9,33, 4,46		4,22,28,41,24	
		9,13,54,59, 4,46,23		41
14″	59,50,16,23,37,32, 8,37,51, 9		4,22,28,42, 5	
		9,13,50,36,36, 4,18		41
16″	59,50,16,32,51,22,45,13,55,27		4,22,28,42,46	
		9,13,46,14, 7,21,32		41
18″	59,50,16,42, 5, 8,59,21,16,59		4,22,28,43,27	
		9,13,41,51,38,38, 5		41
20″	59,50,16,51,18,50,50,59,55, 4		4,22,28,44, 8	
		9,13,37,29, 9,53,57		41
22″	59,50,17, 0,32,28,20, 9,49, 1		4,22,28,44,49	
		9,13,33, 6,41, 9, 8		41
24″	59,50,17, 9,46, 1,26,50,58, 9		4,22,28,45,30	
		9,13,28,44,12,23,38		41
26″	59,50,17,18,59,30,11, 3,21,47		4,22,28,46,11	
		9,13,24,21,43,37,27		41
28″	59,50,17,28,12,54,32,46,59,14		4,22,28,46,52	
		9,13,19,59,14,50,35		41
30″	59,50,17,37,26,14,32, 1,49,49		4,22,28,47,33	
		9,13,15,36,46, 3, 2		41
32″	59,50,17,46,39,30, 8,47,52,51		4,22,28,48,14	
		9,13,11,14,17,14,48		41
34″	59,50,17,55,52,41,23, 5, 7,39		4,22,28,48,55	
		9,13, 6,51,48,25,53		41
36″	59,50,18, 5, 5,48,14,53,33,32		4,22,28,49,36	
		9,13, 2,29,19,36,17		41
38″	59,50,18,14,18,50,44,13, 9,49		4,22,28,50,17	
		9,12,58, 6,50,46, 0		41
40″	59,50,18,23,31,48,51, 3,55,49		4,22,28,50,58	
		9,12,53,44,21,55, 2		41
42″	59,50,18,32,44,42,35,25,50,51		4,22,28,51,39	
		9,12,49,21,53, 3,23		41
44″	59,50,18,41,57,31,57,18,54,14		4,22,28,52,20	
		9,12,44,59,24,11, 3		41
46″	59,50,18,51,10,16,56,43, 5,17		4,22,28,53, 1	
		9,12,40,36,55,18, 2		41
48″	59,50,19, 0,22,57,33,38,23,19		4,22,28,53,42	
		9,12,36,14,26,24,20		41
50″	59,50,19, 9,35,33,48, 4,47,39		4,22,28,54,23	
		9,12,31,51,57,29,57		41
52″	59,50,19,18,48, 5,40, 2,17,36		4,22,28,55, 4	
		9,12,27,29,28,34,53		41
54″	59,50,19,28, 0,33, 9,30,52,29		4,22,28,55,45	
		9,12,23, 6,59,39, 8		41
56″	59,50,19,37,12,56,16,30,31,37		4,22,28,56,26	
		9,12,18,44,30,42,42		41
58″	59,50,19,46,25,15, 1, 1,14,19		4,22,28,57, 7	
		9,12,14,22, 1,45,35		
60″	59,50,19,55,37,29,23, 2,59,54			
exact	59,50,19,55,37,29,23, 3,32,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°48′ 0″	59,50,19,55,37,29,23, 3,32,32			
		9,12, 9,59,32,51,28		
2″	59,50,20, 4,49,39,22,36,24, 0		4,22,28,58,13	
		9,12, 5,37, 3,53,15		40
4″	59,50,20,14, 1,44,59,40,17,15		4,22,28,58,53	
		9,12, 1,14,34,54,22		40
6″	59,50,20,23,13,46,14,15,11,37		4,22,28,59,33	
		9,11,56,52, 5,54,49		40
8″	59,50,20,32,25,43, 6,21, 6,26		4,22,29, 0,13	
		9,11,52,29,36,54,36		40
10″	59,50,20,41,37,35,35,58, 1, 2		4,22,29, 0,53	
		9,11,48, 7, 7,53,43		40
12″	59,50,20,50,49,23,43, 5,54,45		4,22,29, 1,33	
		9,11,43,44,38,52,10		40
14″	59,50,21, 0, 1, 7,27,44,46,55		4,22,29, 2,13	
		9,11,39,22, 9,49,57		40
16″	59,50,21, 9,12,46,49,54,36,52		4,22,29, 2,53	
		9,11,34,59,40,47, 4		40
18″	59,50,21,18,24,21,49,35,23,56		4,22,29, 3,33	
		9,11,30,37,11,43,31		40
20″	59,50,21,27,35,52,26,47, 7,27		4,22,29, 4,13	
		9,11,26,14,42,39,18		40
22″	59,50,21,36,47,18,41,29,46,45		4,22,29, 4,53	
		9,11,21,52,13,34,25		40
24″	59,50,21,45,58,40,33,43,21,10		4,22,29, 5,33	
		9,11,17,29,44,28,52		40
26″	59,50,21,55, 9,58, 3,27,50, 2		4,22,29, 6,13	
		9,11,13, 7,15,22,39		40
28″	59,50,22, 4,21,11,10,43,12,41		4,22,29, 6,53	
		9,11, 8,44,46,15,46		40
30″	59,50,22,13,32,19,55,29,28,27		4,22,29, 7,33	
		9,11, 4,22,17, 8,13		40
32″	59,50,22,22,43,24,17,46,36,40		4,22,29, 8,13	
		9,10,59,59,48, 0, 0		40
34″	59,50,22,31,54,24,17,34,36,40		4,22,29, 8,53	
		9,10,55,37,18,51, 7		40
36″	59,50,22,41, 5,19,54,53,27,47		4,22,29, 9,33	
		9,10,51,14,49,41,34		40
38″	59,50,22,50,16,11, 9,43, 9,21		4,22,29,10,13	
		9,10,46,52,20,31,21		40
40″	59,50,22,59,26,58, 2, 3,40,42		4,22,29,10,53	
		9,10,42,29,51,20,28		40
42″	59,50,23, 8,37,40,31,55, 1,10		4,22,29,11,33	
		9,10,38, 7,22, 8,55		40
44″	59,50,23,17,48,18,39,17,10, 5		4,22,29,12,13	
		9,10,33,44,52,56,42		40
46″	59,50,23,26,58,52,24,10, 6,47		4,22,29,12,53	
		9,10,29,22,23,43,49		40
48″	59,50,23,36, 9,21,46,33,50,36		4,22,29,13,33	
		9,10,24,59,54,30,16		40
50″	59,50,23,45,19,46,46,28,20,52		4,22,29,14,13	
		9,10,20,37,25,16, 3		40
52″	59,50,23,54,30, 7,23,53,36,55		4,22,29,14,53	
		9,10,16,14,56, 1,10		40
54″	59,50,24, 3,40,23,38,49,38, 5		4,22,29,15,33	
		9,10,11,52,26,45,37		40
56″	59,50,24,12,50,35,31,16,23,42		4,22,29,16,13	
		9,10, 7,29,57,29,24		40
58″	59,50,24,22, 0,43, 1,13,53, 6		4,22,29,16,53	
		9,10, 3, 7,28,12,31		
60″	59,50,24,31,10,46, 8,42, 5,37			
exact	59,50,24,31,10,46, 8,41,45,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°49′ 0″	59,50,24,31,10,46, 8,41,45,56			
		9, 9,58,44,58,52,52		
2″	59,50,24,40,20,44,53,40,38,48		4,22,29,18,21	
		9, 9,54,22,29,34,31		40
4″	59,50,24,49,30,39,16,10,13,19		4,22,29,19, 1	
		9, 9,50, 0, 0,15,30		40
6″	59,50,24,58,40,29,16,10,28,49		4,22,29,19,41	
		9, 9,45,37,30,55,49		40
8″	59,50,25, 7,50,14,53,41,24,38		4,22,29,20,21	
		9, 9,41,15, 1,35,28		40
10″	59,50,25,16,59,56, 8,43, 0, 6		4,22,29,21, 1	
		9, 9,36,52,32,14,27		40
12″	59,50,25,26, 9,33, 1,15,14,33		4,22,29,21,41	
		9, 9,32,30, 2,52,46		40
14″	59,50,25,35,19, 5,31,18, 7,19		4,22,29,22,21	
		9, 9,28, 7,33,30,25		40
16″	59,50,25,44,28,33,38,51,37,44		4,22,29,23, 1	
		9, 9,23,45, 4, 7,24		40
18″	59,50,25,53,37,57,23,55,45, 8		4,22,29,23,41	
		9, 9,19,22,34,43,43		40
20″	59,50,26, 2,47,16,46,30,28,51		4,22,29,24,21	
		9, 9,15, 0, 5,19,22		40
22″	59,50,26,11,56,31,46,35,48,13		4,22,29,25, 1	
		9, 9,10,37,35,54,21		40
24″	59,50,26,21, 5,42,24,11,42,34		4,22,29,25,41	
		9, 9, 6,15, 6,28,40		40
26″	59,50,26,30,14,48,39,18,11,14		4,22,29,26,21	
		9, 9, 1,52,37, 2,19		40
28″	59,50,26,39,23,50,31,55,13,33		4,22,29,27, 1	
		9, 8,57,30, 7,35,18		40
30″	59,50,26,48,32,48, 2, 2,48,51		4,22,29,27,41	
		9, 8,53, 7,38, 7,37		40
32″	59,50,26,57,41,41, 9,40,56,28		4,22,29,28,21	
		9, 8,48,45, 8,39,16		40
34″	59,50,27, 6,50,29,54,49,35,44		4,22,29,29, 1	
		9, 8,44,22,39,10,15		40
36″	59,50,27,15,59,14,17,28,45,59		4,22,29,29,41	
		9, 8,40, 0, 9,40,34		40
38″	59,50,27,25, 7,54,17,38,26,33		4,22,29,30,21	
		9, 8,35,37,40,10,13		40
40″	59,50,27,34,16,29,55,18,36,46		4,22,29,31, 1	
		9, 8,31,15,10,39,12		40
42″	59,50,27,43,25, 1,10,29,15,58		4,22,29,31,41	
		9, 8,26,52,41, 7,31		40
44″	59,50,27,52,33,28, 3,10,23,29		4,22,29,32,21	
		9, 8,22,30,11,35,10		40
46″	59,50,28, 1,41,50,33,21,58,39		4,22,29,33, 1	
		9, 8,18, 7,42, 2, 9		40
48″	59,50,28,10,50, 8,41, 4, 0,48		4,22,29,33,41	
		9, 8,13,45,12,28,28		40
50″	59,50,28,19,58,22,26,16,29,16		4,22,29,34,21	
		9, 8, 9,22,42,54, 7		40
52″	59,50,28,29, 6,31,48,59,23,23		4,22,29,35, 1	
		9, 8, 5, 0,13,19, 6		40
54″	59,50,28,38,14,36,49,12,42,29		4,22,29,35,41	
		9, 8, 0,37,43,43,25		40
56″	59,50,28,47,22,37,26,56,25,54		4,22,29,36,21	
		9, 7,56,15,14, 7, 4		40
58″	59,50,28,56,30,33,42,10,32,58		4,22,29,37, 1	
		9, 7,51,52,44,30, 3		
60″	59,50,29, 5,38,25,34,55, 3, 1			
exact	59,50,29, 5,38,25,34,54,50,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°50′ 0″	59,50,29, 5,38,25,34,54,50,24			
		9, 7,47,30,14,51,10		
2″	59,50,29,14,46,13, 5, 9,41,34		4,22,29,38,25	
		9, 7,43, 7,45,12,45		40
4″	59,50,29,23,53,56,12,54,54,19		4,22,29,39, 5	
		9, 7,38,45,15,33,40		40
6″	59,50,29,33, 1,34,58,10,27,59		4,22,29,39,45	
		9, 7,34,22,45,53,55		40
8″	59,50,29,42, 9, 9,20,56,21,54		4,22,29,40,25	
		9, 7,30, 0,16,13,30		40
10″	59,50,29,51,16,39,21,12,35,24		4,22,29,41, 5	
		9, 7,25,37,46,32,25		40
12″	59,50,30, 0,24, 4,58,59, 7,49		4,22,29,41,45	
		9, 7,21,15,16,50,40		40
14″	59,50,30, 9,31,26,14,15,58,29		4,22,29,42,25	
		9, 7,16,52,47, 8,15		40
16″	59,50,30,18,38,43, 7, 3, 6,44		4,22,29,43, 5	
		9, 7,12,30,17,25,10		40
18″	59,50,30,27,45,55,37,20,31,54		4,22,29,43,45	
		9, 7, 8, 7,47,41,25		40
20″	59,50,30,36,53, 3,45, 8,13,19		4,22,29,44,25	
		9, 7, 3,45,17,57, 0		40
22″	59,50,30,46, 0, 7,30,26,10,19		4,22,29,45, 5	
		9, 6,59,22,48,11,55		40
24″	59,50,30,55, 7, 6,53,14,22,14		4,22,29,45,45	
		9, 6,55, 0,18,26,10		40
26″	59,50,31, 4,14, 1,53,32,48,24		4,22,29,46,25	
		9, 6,50,37,48,39,45		40
28″	59,50,31,13,20,52,31,21,28, 9		4,22,29,47, 5	
		9, 6,46,15,18,52,40		40
30″	59,50,31,22,27,38,46,40,20,49		4,22,29,47,45	
		9, 6,41,52,49, 4,55		40
32″	59,50,31,31,34,20,39,29,25,44		4,22,29,48,25	
		9, 6,37,30,19,16,30		40
34″	59,50,31,40,40,58, 9,48,42,14		4,22,29,49, 5	
		9, 6,33, 7,49,27,25		40
36″	59,50,31,49,47,31,17,38, 9,39		4,22,29,49,45	
		9, 6,28,45,19,37,40		40
38″	59,50,31,58,54, 0, 2,57,47,19		4,22,29,50,25	
		9, 6,24,22,49,47,15		40
40″	59,50,32, 8, 0,24,25,47,34,34		4,22,29,51, 5	
		9, 6,20, 0,19,56,10		40
42″	59,50,32,17, 6,44,26, 7,30,44		4,22,29,51,45	
		9, 6,15,37,50, 4,25		40
44″	59,50,32,26,13, 0, 3,57,35, 9		4,22,29,52,25	
		9, 6,11,15,20,12, 0		40
46″	59,50,32,35,19,11,19,17,47, 9		4,22,29,53, 5	
		9, 6, 6,52,50,18,55		40
48″	59,50,32,44,25,18,12, 8, 6, 4		4,22,29,53,45	
		9, 6, 2,30,20,25,10		40
50″	59,50,32,53,31,20,42,28,31,14		4,22,29,54,25	
		9, 5,58, 7,50,30,45		40
52″	59,50,33, 2,37,18,50,19, 1,59		4,22,29,55, 5	
		9, 5,53,45,20,35,40		40
54″	59,50,33,11,43,12,35,39,37,39		4,22,29,55,45	
		9, 5,49,22,50,39,55		40
56″	59,50,33,20,49, 1,58,30,17,34		4,22,29,56,25	
		9, 5,45, 0,20,43,30		40
58″	59,50,33,29,54,46,58,51, 1, 4		4,22,29,57, 5	
		9, 5,40,37,50,46,25		
60″	59,50,33,39, 0,27,36,41,47,29			
exact	59,50,33,39, 0,27,36,41,47, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°51′ 0″	59,50,33,39, 0,27,36,41,47, 7			
		9, 5,36,15,20,48,44		
2″	59,50,33,48, 6, 3,52, 2,35,51		4,22,29,58,24	
		9, 5,31,52,50,50,20		40
4″	59,50,33,57,11,35,44,53,26,11		4,22,29,59, 4	
		9, 5,27,30,20,51,16		40
6″	59,50,34, 6,17, 3,15,14,17,27		4,22,29,59,44	
		9, 5,23, 7,50,51,32		40
8″	59,50,34,15,22,26,23, 5, 8,59		4,22,30, 0,24	
		9, 5,18,45,20,51, 8		40
10″	59,50,34,24,27,45, 8,26, 0, 7		4,22,30, 1, 4	
		9, 5,14,22,50,50, 4		40
12″	59,50,34,33,32,59,31,16,50,11		4,22,30, 1,44	
		9, 5,10, 0,20,48,20		40
14″	59,50,34,42,38, 9,31,37,38,31		4,22,30, 2,24	
		9, 5, 5,37,50,45,56		40
16″	59,50,34,51,43,15, 9,28,24,27		4,22,30, 3, 4	
		9, 5, 1,15,20,42,52		40
18″	59,50,35, 0,48,16,24,49, 7,19		4,22,30, 3,44	
		9, 4,56,52,50,39, 8		40
20″	59,50,35, 9,53,13,17,39,46,27		4,22,30, 4,24	
		9, 4,52,30,20,34,44		40
22″	59,50,35,18,58, 5,48, 0,21,11		4,22,30, 5, 4	
		9, 4,48, 7,50,29,40		40
24″	59,50,35,28, 2,53,55,50,50,51		4,22,30, 5,44	
		9, 4,43,45,20,23,56		40
26″	59,50,35,37, 7,37,41,11,14,47		4,22,30, 6,24	
		9, 4,39,22,50,17,32		40
28″	59,50,35,46,12,17, 4, 1,32,19		4,22,30, 7, 4	
		9, 4,35, 0,20,10,28		40
30″	59,50,35,55,16,52, 4,21,42,47		4,22,30, 7,44	
		9, 4,30,37,50, 2,44		40
32″	59,50,36, 4,21,22,42,11,45,31		4,22,30, 8,24	
		9, 4,26,15,19,54,20		40
34″	59,50,36,13,25,48,57,31,39,51		4,22,30, 9, 4	
		9, 4,21,52,49,45,16		40
36″	59,50,36,22,30,10,50,21,25, 7		4,22,30, 9,44	
		9, 4,17,30,19,35,32		40
38″	59,50,36,31,34,28,20,41, 0,39		4,22,30,10,24	
		9, 4,13, 7,49,25, 8		40
40″	59,50,36,40,38,41,28,30,25,47		4,22,30,11, 4	
		9, 4, 8,45,19,14, 4		40
42″	59,50,36,49,42,50,13,49,39,51		4,22,30,11,44	
		9, 4, 4,22,49, 2,20		40
44″	59,50,36,58,46,54,36,38,42,11		4,22,30,12,24	
		9, 4, 0, 0,18,49,56		40
46″	59,50,37, 7,50,54,36,57,32, 7		4,22,30,13, 4	
		9, 3,55,37,48,36,52		40
48″	59,50,37,16,54,50,14,46, 8,59		4,22,30,13,44	
		9, 3,51,15,18,23, 8		40
50″	59,50,37,25,58,41,30, 4,32, 7		4,22,30,14,24	
		9, 3,46,52,48, 8,44		40
52″	59,50,37,35, 2,28,22,52,40,51		4,22,30,15, 4	
		9, 3,42,30,17,53,40		40
54″	59,50,37,44, 6,10,53,10,34,31		4,22,30,15,44	
		9, 3,38, 7,47,37,56		40
56″	59,50,37,53, 9,49, 0,58,12,27		4,22,30,16,24	
		9, 3,33,45,17,21,32		40
58″	59,50,38, 2,13,22,46,15,33,59		4,22,30,17, 4	
		9, 3,29,22,47, 4,28		
60″	59,50,38,11,16,52, 9, 2,38,27			
exact	59,50,38,11,16,52, 9, 2,49,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°52′ 0″	59,50,38,11,16,52, 9, 2,49,16			
		9, 3,25, 0,16,47,59		
2″	59,50,38,20,20,17, 9,19,37,15		4,22,30,18,18	
		9, 3,20,37,46,29,41		40
4″	59,50,38,29,23,37,47, 6, 6,56		4,22,30,18,58	
		9, 3,16,15,16,10,43		40
6″	59,50,38,38,26,54, 2,22,17,39		4,22,30,19,38	
		9, 3,11,52,45,51, 5		40
8″	59,50,38,47,30, 5,55, 8, 8,44		4,22,30,20,18	
		9, 3, 7,30,15,30,47		40
10″	59,50,38,56,33,13,25,23,39,31		4,22,30,20,58	
		9, 3, 3, 7,45, 9,49		40
12″	59,50,39, 5,36,16,33, 8,49,20		4,22,30,21,38	
		9, 2,58,45,14,48,11		40
14″	59,50,39,14,39,15,18,23,37,31		4,22,30,22,18	
		9, 2,54,22,44,25,53		40
16″	59,50,39,23,42, 9,41, 8, 3,24		4,22,30,22,58	
		9, 2,50, 0,14, 2,55		40
18″	59,50,39,32,44,59,41,22, 6,19		4,22,30,23,38	
		9, 2,45,37,43,39,17		40
20″	59,50,39,41,47,45,19, 5,45,36		4,22,30,24,18	
		9, 2,41,15,13,14,59		40
22″	59,50,39,50,50,26,34,19, 0,35		4,22,30,24,58	
		9, 2,36,52,42,50, 1		40
24″	59,50,39,59,53, 3,27, 1,50,36		4,22,30,25,38	
		9, 2,32,30,12,24,23		40
26″	59,50,40, 8,55,35,57,14,14,59		4,22,30,26,18	
		9, 2,28, 7,41,58, 5		40
28″	59,50,40,17,58, 4, 4,56,13, 4		4,22,30,26,58	
		9, 2,23,45,11,31, 7		40
30″	59,50,40,27, 0,27,50, 7,44,11		4,22,30,27,38	
		9, 2,19,22,41, 3,29		40
32″	59,50,40,36, 2,47,12,48,47,40		4,22,30,28,18	
		9, 2,15, 0,10,35,11		40
34″	59,50,40,45, 5, 2,12,59,22,51		4,22,30,28,58	
		9, 2,10,37,40, 6,13		40
36″	59,50,40,54, 7,12,50,39,29, 4		4,22,30,29,38	
		9, 2, 6,15, 9,36,35		40
38″	59,50,41, 3, 9,19, 5,49, 5,39		4,22,30,30,18	
		9, 2, 1,52,39, 6,17		40
40″	59,50,41,12,11,20,58,28,11,56		4,22,30,30,58	
		9, 1,57,30, 8,35,19		40
42″	59,50,41,21,13,18,28,36,47,15		4,22,30,31,38	
		9, 1,53, 7,38, 3,41		40
44″	59,50,41,30,15,11,36,14,50,56		4,22,30,32,18	
		9, 1,48,45, 7,31,23		40
46″	59,50,41,39,17, 0,21,22,22,19		4,22,30,32,58	
		9, 1,44,22,36,58,25		40
48″	59,50,41,48,18,44,43,59,20,44		4,22,30,33,38	
		9, 1,40, 0, 6,24,47		40
50″	59,50,41,57,20,24,44, 5,45,31		4,22,30,34,18	
		9, 1,35,37,35,50,29		40
52″	59,50,42, 6,22, 0,21,41,36, 0		4,22,30,34,58	
		9, 1,31,15, 5,15,31		40
54″	59,50,42,15,23,31,36,46,51,31		4,22,30,35,38	
		9, 1,26,52,34,39,53		40
56″	59,50,42,24,24,58,29,21,31,24		4,22,30,36,18	
		9, 1,22,30, 4, 3,35		40
58″	59,50,42,33,26,20,59,25,34,59		4,22,30,36,58	
		9, 1,18, 7,33,26,37		
60″	59,50,42,42,27,39, 6,59, 1,36			
exact	59,50,42,42,27,39, 6,59,21,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°53′ 0″	59,50,42,42,27,39, 6,59,21,57			
		9, 1,13,45, 2,51,18		
2″	59,50,42,51,28,52,52, 2,13,15		4,22,30,38, 7	
		9, 1, 9,22,32,13,11		40
4″	59,50,43, 0,30, 2,14,34,26,26		4,22,30,38,47	
		9, 1, 5, 0, 1,34,24		40
6″	59,50,43, 9,31, 7,14,36, 0,50		4,22,30,39,27	
		9, 1, 0,37,30,54,57		40
8″	59,50,43,18,32, 7,52, 6,55,47		4,22,30,40, 7	
		9, 0,56,15, 0,14,50		40
10″	59,50,43,27,33, 4, 7, 7,10,37		4,22,30,40,47	
		9, 0,51,52,29,34, 3		40
12″	59,50,43,36,33,55,59,36,44,40		4,22,30,41,27	
		9, 0,47,29,58,52,36		40
14″	59,50,43,45,34,43,29,35,37,16		4,22,30,42, 7	
		9, 0,43, 7,28,10,29		40
16″	59,50,43,54,35,26,37, 3,47,45		4,22,30,42,47	
		9, 0,38,44,57,27,42		40
18″	59,50,44, 3,36, 5,22, 1,15,27		4,22,30,43,27	
		9, 0,34,22,26,44,15		40
20″	59,50,44,12,36,39,44,27,59,42		4,22,30,44, 7	
		9, 0,29,59,56, 0, 8		40
22″	59,50,44,21,37, 9,44,23,59,50		4,22,30,44,47	
		9, 0,25,37,25,15,21		40
24″	59,50,44,30,37,35,21,49,15,11		4,22,30,45,27	
		9, 0,21,14,54,29,54		40
26″	59,50,44,39,37,56,36,43,45, 5		4,22,30,46, 7	
		9, 0,16,52,23,43,47		40
28″	59,50,44,48,38,13,29, 7,28,52		4,22,30,46,47	
		9, 0,12,29,52,57, 0		40
30″	59,50,44,57,38,25,59, 0,25,52		4,22,30,47,27	
		9, 0, 8, 7,22, 9,33		40
32″	59,50,45, 6,38,34, 6,22,35,25		4,22,30,48, 7	
		9, 0, 3,44,51,21,26		40
34″	59,50,45,15,38,37,51,13,56,51		4,22,30,48,47	
		8,59,59,22,20,32,39		40
36″	59,50,45,24,38,37,13,34,29,30		4,22,30,49,27	
		8,59,54,59,49,43,12		40
38″	59,50,45,33,38,32,13,24,12,42		4,22,30,50, 7	
		8,59,50,37,18,53, 5		40
40″	59,50,45,42,38,22,50,43, 5,47		4,22,30,50,47	
		8,59,46,14,48, 2,18		40
42″	59,50,45,51,38, 9, 5,31, 8, 5		4,22,30,51,27	
		8,59,41,52,17,10,51		40
44″	59,50,46, 0,37,50,57,48,18,56		4,22,30,52, 7	
		8,59,37,29,46,18,44		40
46″	59,50,46, 9,37,28,27,34,37,40		4,22,30,52,47	
		8,59,33, 7,15,25,57		40
48″	59,50,46,18,37, 1,34,50, 3,37		4,22,30,53,27	
		8,59,28,44,44,32,30		40
50″	59,50,46,27,36,30,19,34,36, 7		4,22,30,54, 7	
		8,59,24,22,13,38,23		40
52″	59,50,46,36,35,54,41,48,14,30		4,22,30,54,47	
		8,59,19,59,42,43,36		40
54″	59,50,46,45,35,14,41,30,58, 6		4,22,30,55,27	
		8,59,15,37,11,48, 9		40
56″	59,50,46,54,34,30,18,42,46,15		4,22,30,56, 7	
		8,59,11,14,40,52, 2		40
58″	59,50,47, 3,33,41,33,23,38,17		4,22,30,56,47	
		8,59, 6,52, 9,55,15		
60″	59,50,47,12,32,48,25,33,33,32			
exact	59,50,47,12,32,48,25,34, 2,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°54′ 0″	59,50,47,12,32,48,25,34, 2,16			
		8,59, 2,29,39, 1, 6		
2″	59,50,47,21,31,50,55,13, 3,22		4,22,30,57,52	
		8,58,58, 7, 8, 3,14		39
4″	59,50,47,30,30,49, 2,21, 6,36		4,22,30,58,31	
		8,58,53,44,37, 4,43		39
6″	59,50,47,39,29,42,46,58,11,19		4,22,30,59,10	
		8,58,49,22, 6, 5,33		39
8″	59,50,47,48,28,32, 9, 4,16,52		4,22,30,59,49	
		8,58,44,59,35, 5,44		39
10″	59,50,47,57,27,17, 8,39,22,36		4,22,31, 0,28	
		8,58,40,37, 4, 5,16		39
12″	59,50,48, 6,25,57,45,43,27,52		4,22,31, 1, 7	
		8,58,36,14,33, 4, 9		39
14″	59,50,48,15,24,34, 0,16,32, 1		4,22,31, 1,46	
		8,58,31,52, 2, 2,23		39
16″	59,50,48,24,23, 5,52,18,34,24		4,22,31, 2,25	
		8,58,27,29,30,59,58		39
18″	59,50,48,33,21,33,21,49,34,22		4,22,31, 3, 4	
		8,58,23, 6,59,56,54		39
20″	59,50,48,42,19,56,28,49,31,16		4,22,31, 3,43	
		8,58,18,44,28,53,11		39
22″	59,50,48,51,18,15,13,18,24,27		4,22,31, 4,22	
		8,58,14,21,57,48,49		39
24″	59,50,49, 0,16,29,35,16,13,16		4,22,31, 5, 1	
		8,58, 9,59,26,43,48		39
26″	59,50,49, 9,14,39,34,42,57, 4		4,22,31, 5,40	
		8,58, 5,36,55,38, 8		39
28″	59,50,49,18,12,45,11,38,35,12		4,22,31, 6,19	
		8,58, 1,14,24,31,49		39
30″	59,50,49,27,10,46,26, 3, 7, 1		4,22,31, 6,58	
		8,57,56,51,53,24,51		39
32″	59,50,49,36, 8,43,17,56,31,52		4,22,31, 7,37	
		8,57,52,29,22,17,14		39
34″	59,50,49,45, 6,35,47,18,49, 6		4,22,31, 8,16	
		8,57,48, 6,51, 8,58		39
36″	59,50,49,54, 4,23,54, 9,58, 4		4,22,31, 8,55	
		8,57,43,44,20, 0, 3		39
38″	59,50,50, 3, 2, 7,38,29,58, 7		4,22,31, 9,34	
		8,57,39,21,48,50,29		39
40″	59,50,50,11,59,47, 0,18,48,36		4,22,31,10,13	
		8,57,34,59,17,40,16		39
42″	59,50,50,20,57,21,59,36,28,52		4,22,31,10,52	
		8,57,30,36,46,29,24		39
44″	59,50,50,29,54,52,36,22,58,16		4,22,31,11,31	
		8,57,26,14,15,17,53		39
46″	59,50,50,38,52,18,50,38,16, 9		4,22,31,12,10	
		8,57,21,51,44, 5,43		39
48″	59,50,50,47,49,40,42,22,21,52		4,22,31,12,49	
		8,57,17,29,12,52,54		39
50″	59,50,50,56,46,58,11,35,14,46		4,22,31,13,28	
		8,57,13, 6,41,39,26		39
52″	59,50,51, 5,44,11,18,16,54,12		4,22,31,14, 7	
		8,57, 8,44,10,25,19		39
54″	59,50,51,14,41,20, 2,27,19,31		4,22,31,14,46	
		8,57, 4,21,39,10,33		39
56″	59,50,51,23,38,24,24, 6,30, 4		4,22,31,15,25	
		8,56,59,59, 7,55, 8		39
58″	59,50,51,32,35,24,23,14,25,12		4,22,31,16, 4	
		8,56,55,36,36,39, 4		
60″	59,50,51,41,32,19,59,51, 4,16			
exact	59,50,51,41,32,19,59,50,39,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°55′ 0″	59,50,51,41,32,19,59,50,39,17			
		8,56,51,14, 5,19,47		
2″	59,50,51,50,29,11,13,55,59, 4		4,22,31,17,32	
		8,56,46,51,34, 2,15		39
4″	59,50,51,59,25,58, 5,30, 1,19		4,22,31,18,11	
		8,56,42,29, 2,44, 4		39
6″	59,50,52, 8,22,40,34,32,45,23		4,22,31,18,50	
		8,56,38, 6,31,25,14		39
8″	59,50,52,17,19,18,41, 4,10,37		4,22,31,19,29	
		8,56,33,44, 0, 5,45		39
10″	59,50,52,26,15,52,25, 4,16,22		4,22,31,20, 8	
		8,56,29,21,28,45,37		39
12″	59,50,52,35,12,21,46,33, 1,59		4,22,31,20,47	
		8,56,24,58,57,24,50		39
14″	59,50,52,44, 8,46,45,30,26,49		4,22,31,21,26	
		8,56,20,36,26, 3,24		39
16″	59,50,52,53, 5, 7,21,56,30,13		4,22,31,22, 5	
		8,56,16,13,54,41,19		39
18″	59,50,53, 2, 1,23,35,51,11,32		4,22,31,22,44	
		8,56,11,51,23,18,35		39
20″	59,50,53,10,57,35,27,14,30, 7		4,22,31,23,23	
		8,56, 7,28,51,55,12		39
22″	59,50,53,19,53,42,56, 6,25,19		4,22,31,24, 2	
		8,56, 3, 6,20,31,10		39
24″	59,50,53,28,49,46, 2,26,56,29		4,22,31,24,41	
		8,55,58,43,49, 6,29		39
26″	59,50,53,37,45,44,46,16, 2,58		4,22,31,25,20	
		8,55,54,21,17,41, 9		39
28″	59,50,53,46,41,39, 7,33,44, 7		4,22,31,25,59	
		8,55,49,58,46,15,10		39
30″	59,50,53,55,37,29, 6,19,59,17		4,22,31,26,38	
		8,55,45,36,14,48,32		39
32″	59,50,54, 4,33,14,42,34,47,49		4,22,31,27,17	
		8,55,41,13,43,21,15		39
34″	59,50,54,13,28,55,56,18, 9, 4		4,22,31,27,56	
		8,55,36,51,11,53,19		39
36″	59,50,54,22,24,32,47,30, 2,23		4,22,31,28,35	
		8,55,32,28,40,24,44		39
38″	59,50,54,31,20, 5,16,10,27, 7		4,22,31,29,14	
		8,55,28, 6, 8,55,30		39
40″	59,50,54,40,15,33,22,19,22,37		4,22,31,29,53	
		8,55,23,43,37,25,37		39
42″	59,50,54,49,10,57, 5,56,48,14		4,22,31,30,32	
		8,55,19,21, 5,55, 5		39
44″	59,50,54,58, 6,16,27, 2,43,19		4,22,31,31,11	
		8,55,14,58,34,23,54		39
46″	59,50,55, 7, 1,31,25,37, 7,13		4,22,31,31,50	
		8,55,10,36, 2,52, 4		39
48″	59,50,55,15,56,42, 1,39,59,17		4,22,31,32,29	
		8,55, 6,13,31,19,35		39
50″	59,50,55,24,51,48,15,11,18,52		4,22,31,33, 8	
		8,55, 1,50,59,46,27		39
52″	59,50,55,33,46,50, 6,11, 5,19		4,22,31,33,47	
		8,54,57,28,28,12,40		39
54″	59,50,55,42,41,47,34,39,17,59		4,22,31,34,26	
		8,54,53, 5,56,38,14		39
56″	59,50,55,51,36,40,40,35,56,13		4,22,31,35, 5	
		8,54,48,43,25, 3, 9		39
58″	59,50,56, 0,31,29,24, 0,59,22		4,22,31,35,44	
		8,54,44,20,53,27,25		
60″	59,50,56, 9,26,13,44,54,26,47			
exact	59,50,56, 9,26,13,44,54,14, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°56′ 0″	59,50,56, 9,26,13,44,54,14, 1			
		8,54,39,58,21,49,44		
2″	59,50,56,18,20,53,43,16, 3,45		4,22,31,37, 7	
		8,54,35,35,50,12,37		39
4″	59,50,56,27,15,29,19, 6,16,22		4,22,31,37,46	
		8,54,31,13,18,34,51		39
6″	59,50,56,36,10, 0,32,24,51,13		4,22,31,38,25	
		8,54,26,50,46,56,26		39
8″	59,50,56,45, 4,27,23,11,47,39		4,22,31,39, 4	
		8,54,22,28,15,17,22		39
10″	59,50,56,53,58,49,51,27, 5, 1		4,22,31,39,43	
		8,54,18, 5,43,37,39		39
12″	59,50,57, 2,53, 7,57,10,42,40		4,22,31,40,22	
		8,54,13,43,11,57,17		39
14″	59,50,57,11,47,21,40,22,39,57		4,22,31,41, 1	
		8,54, 9,20,40,16,16		39
16″	59,50,57,20,41,31, 1, 2,56,13		4,22,31,41,40	
		8,54, 4,58, 8,34,36		39
18″	59,50,57,29,35,35,59,11,30,49		4,22,31,42,19	
		8,54, 0,35,36,52,17		39
20″	59,50,57,38,29,36,34,48,23, 6		4,22,31,42,58	
		8,53,56,13, 5, 9,19		39
22″	59,50,57,47,23,32,47,53,32,25		4,22,31,43,37	
		8,53,51,50,33,25,42		39
24″	59,50,57,56,17,24,38,26,58, 7		4,22,31,44,16	
		8,53,47,28, 1,41,26		39
26″	59,50,58, 5,11,12, 6,28,39,33		4,22,31,44,55	
		8,53,43, 5,29,56,31		39
28″	59,50,58,14, 4,55,11,58,36, 4		4,22,31,45,34	
		8,53,38,42,58,10,57		39
30″	59,50,58,22,58,33,54,56,47, 1		4,22,31,46,13	
		8,53,34,20,26,24,44		39
32″	59,50,58,31,52, 8,15,23,11,45		4,22,31,46,52	
		8,53,29,57,54,37,52		39
34″	59,50,58,40,45,38,13,17,49,37		4,22,31,47,31	
		8,53,25,35,22,50,21		39
36″	59,50,58,49,39, 3,48,40,39,58		4,22,31,48,10	
		8,53,21,12,51, 2,11		39
38″	59,50,58,58,32,25, 1,31,42, 9		4,22,31,48,49	
		8,53,16,50,19,13,22		39
40″	59,50,59, 7,25,41,51,50,55,31		4,22,31,49,28	
		8,53,12,27,47,23,54		39
42″	59,50,59,16,18,54,19,38,19,25		4,22,31,50, 7	
		8,53, 8, 5,15,33,47		39
44″	59,50,59,25,12, 2,24,53,53,12		4,22,31,50,46	
		8,53, 3,42,43,43, 1		39
46″	59,50,59,34, 5, 6, 7,37,36,13		4,22,31,51,25	
		8,52,59,20,11,51,36		39
48″	59,50,59,42,58, 5,27,49,27,49		4,22,31,52, 4	
		8,52,54,57,39,59,32		39
50″	59,50,59,51,51, 0,25,29,27,21		4,22,31,52,43	
		8,52,50,35, 8, 6,49		39
52″	59,51, 0, 0,43,51, 0,37,34,10		4,22,31,53,22	
		8,52,46,12,36,13,27		39
54″	59,51, 0, 9,36,37,13,13,47,37		4,22,31,54, 1	
		8,52,41,50, 4,19,26		39
56″	59,51, 0,18,29,19, 3,18, 7, 3		4,22,31,54,40	
		8,52,37,27,32,24,46		39
58″	59,51, 0,27,21,56,30,50,31,49		4,22,31,55,19	
		8,52,33, 5, 0,29,27		
60″	59,51, 0,36,14,29,35,51, 1,16			
exact	59,51, 0,36,14,29,35,50,59,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°57′ 0″	59,51, 0,36,14,29,35,50,59,28			
		8,52,28,42,28,33,21		
2″	59,51, 0,45, 6,58,18,19,32,49		4,22,31,56,37	
		8,52,24,19,56,36,44		39
4″	59,51, 0,53,59,22,38,16, 9,33		4,22,31,57,16	
		8,52,19,57,24,39,28		39
6″	59,51, 1, 2,51,42,35,40,49, 1		4,22,31,57,55	
		8,52,15,34,52,41,33		39
8″	59,51, 1,11,43,58,10,33,30,34		4,22,31,58,34	
		8,52,11,12,20,42,59		39
10″	59,51, 1,20,36, 9,22,54,13,33		4,22,31,59,13	
		8,52, 6,49,48,43,46		39
12″	59,51, 1,29,28,16,12,42,57,19		4,22,31,59,52	
		8,52, 2,27,16,43,54		39
14″	59,51, 1,38,20,18,39,59,41,13		4,22,32, 0,31	
		8,51,58, 4,44,43,23		39
16″	59,51, 1,47,12,16,44,44,24,36		4,22,32, 1,10	
		8,51,53,42,12,42,13		39
18″	59,51, 1,56, 4,10,26,57, 6,49		4,22,32, 1,49	
		8,51,49,19,40,40,24		39
20″	59,51, 2, 4,55,59,46,37,47,13		4,22,32, 2,28	
		8,51,44,57, 8,37,56		39
22″	59,51, 2,13,47,44,43,46,25, 9		4,22,32, 3, 7	
		8,51,40,34,36,34,49		39
24″	59,51, 2,22,39,25,18,22,59,58		4,22,32, 3,46	
		8,51,36,12, 4,31, 3		39
26″	59,51, 2,31,31, 1,30,27,31, 1		4,22,32, 4,25	
		8,51,31,49,32,26,38		39
28″	59,51, 2,40,22,33,19,59,57,39		4,22,32, 5, 4	
		8,51,27,27, 0,21,34		39
30″	59,51, 2,49,14, 0,47, 0,19,13		4,22,32, 5,43	
		8,51,23, 4,28,15,51		39
32″	59,51, 2,58, 5,23,51,28,35, 4		4,22,32, 6,22	
		8,51,18,41,56, 9,29		39
34″	59,51, 3, 6,56,42,33,24,44,33		4,22,32, 7, 1	
		8,51,14,19,24, 2,28		39
36″	59,51, 3,15,47,56,52,48,47, 1		4,22,32, 7,40	
		8,51, 9,56,51,54,48		39
38″	59,51, 3,24,39, 6,49,40,41,49		4,22,32, 8,19	
		8,51, 5,34,19,46,29		39
40″	59,51, 3,33,30,12,24, 0,28,18		4,22,32, 8,58	
		8,51, 1,11,47,37,31		39
42″	59,51, 3,42,21,13,35,48, 5,49		4,22,32, 9,37	
		8,50,56,49,15,27,54		39
44″	59,51, 3,51,12,10,25, 3,33,43		4,22,32,10,16	
		8,50,52,26,43,17,38		39
46″	59,51, 4, 0, 3, 2,51,46,51,21		4,22,32,10,55	
		8,50,48, 4,11, 6,43		39
48″	59,51, 4, 8,53,50,55,57,58, 4		4,22,32,11,34	
		8,50,43,41,38,55, 9		39
50″	59,51, 4,17,44,34,37,36,53,13		4,22,32,12,13	
		8,50,39,19, 6,42,56		39
52″	59,51, 4,26,35,13,56,43,36, 9		4,22,32,12,52	
		8,50,34,56,34,30, 4		39
54″	59,51, 4,35,25,48,53,18, 6,13		4,22,32,13,31	
		8,50,30,34, 2,16,33		39
56″	59,51, 4,44,16,19,27,20,22,46		4,22,32,14,10	
		8,50,26,11,30, 2,23		39
58″	59,51, 4,53, 6,45,38,50,25, 9		4,22,32,14,49	
		8,50,21,48,57,47,34		
60″	59,51, 5, 1,57, 7,27,48,12,43			
exact	59,51, 5, 1,57, 7,27,48,20,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°58′ 0″	59,51, 5, 1,57, 7,27,48,20,37			
		8,50,17,26,25,33, 2		
2″	59,51, 5,10,47,24,54,13,53,39		4,22,32,16, 2	
		8,50,13, 3,53,17, 0		39
4″	59,51, 5,19,37,37,58, 7,10,39		4,22,32,16,41	
		8,50, 8,41,21, 0,19		39
6″	59,51, 5,28,27,46,39,28,10,58		4,22,32,17,20	
		8,50, 4,18,48,42,59		39
8″	59,51, 5,37,17,50,58,16,53,57		4,22,32,17,59	
		8,49,59,56,16,25, 0		39
10″	59,51, 5,46, 7,50,54,33,18,57		4,22,32,18,38	
		8,49,55,33,44, 6,22		39
12″	59,51, 5,54,57,46,28,17,25,19		4,22,32,19,17	
		8,49,51,11,11,47, 5		39
14″	59,51, 6, 3,47,37,39,29,12,24		4,22,32,19,56	
		8,49,46,48,39,27, 9		39
16″	59,51, 6,12,37,24,28, 8,39,33		4,22,32,20,35	
		8,49,42,26, 7, 6,34		39
18″	59,51, 6,21,27, 6,54,15,46, 7		4,22,32,21,14	
		8,49,38, 3,34,45,20		39
20″	59,51, 6,30,16,44,57,50,31,27		4,22,32,21,53	
		8,49,33,41, 2,23,27		39
22″	59,51, 6,39, 6,18,38,52,54,54		4,22,32,22,32	
		8,49,29,18,30, 0,55		39
24″	59,51, 6,47,55,47,57,22,55,49		4,22,32,23,11	
		8,49,24,55,57,37,44		39
26″	59,51, 6,56,45,12,53,20,33,33		4,22,32,23,50	
		8,49,20,33,25,13,54		39
28″	59,51, 7, 5,34,33,26,45,47,27		4,22,32,24,29	
		8,49,16,10,52,49,25		39
30″	59,51, 7,14,23,49,37,38,36,52		4,22,32,25, 8	
		8,49,11,48,20,24,17		39
32″	59,51, 7,23,13, 1,25,59, 1, 9		4,22,32,25,47	
		8,49, 7,25,47,58,30		39
34″	59,51, 7,32, 2, 8,51,46,59,39		4,22,32,26,26	
		8,49, 3, 3,15,32, 4		39
36″	59,51, 7,40,51,11,55, 2,31,43		4,22,32,27, 5	
		8,48,58,40,43, 4,59		39
38″	59,51, 7,49,40,10,35,45,36,42		4,22,32,27,44	
		8,48,54,18,10,37,15		39
40″	59,51, 7,58,29, 4,53,56,13,57		4,22,32,28,23	
		8,48,49,55,38, 8,52		39
42″	59,51, 8, 7,17,54,49,34,22,49		4,22,32,29, 2	
		8,48,45,33, 5,39,50		39
44″	59,51, 8,16, 6,40,22,40, 2,39		4,22,32,29,41	
		8,48,41,10,33,10, 9		39
46″	59,51, 8,24,55,21,33,13,12,48		4,22,32,30,20	
		8,48,36,48, 0,39,49		39
48″	59,51, 8,33,43,58,21,13,52,37		4,22,32,30,59	
		8,48,32,25,28, 8,50		39
50″	59,51, 8,42,32,30,46,42, 1,27		4,22,32,31,38	
		8,48,28, 2,55,37,12		39
52″	59,51, 8,51,20,58,49,37,38,39		4,22,32,32,17	
		8,48,23,40,23, 4,55		39
54″	59,51, 9, 0, 9,22,30, 0,43,34		4,22,32,32,56	
		8,48,19,17,50,31,59		39
56″	59,51, 9, 8,57,41,47,51,15,33		4,22,32,33,35	
		8,48,14,55,17,58,24		39
58″	59,51, 9,17,45,56,43, 9,13,57		4,22,32,34,14	
		8,48,10,32,45,24,10		
60″	59,51, 9,26,34, 7,15,54,38, 7			
exact	59,51, 9,26,34, 7,15,54,54,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
85°59′ 0″	59,51, 9,26,34, 7,15,54,54,25			
		8,48, 6,10,12,51,12		
2″	59,51, 9,35,22,13,26, 7,45,37		4,22,32,35,23	
		8,48, 1,47,40,15,49		39
4″	59,51, 9,44,10,15,13,48, 1,26		4,22,32,36, 2	
		8,47,57,25, 7,39,47		39
6″	59,51, 9,52,58,12,38,55,41,13		4,22,32,36,41	
		8,47,53, 2,35, 3, 6		39
8″	59,51,10, 1,46, 5,41,30,44,19		4,22,32,37,20	
		8,47,48,40, 2,25,46		39
10″	59,51,10,10,33,54,21,33,10, 5		4,22,32,37,59	
		8,47,44,17,29,47,47		39
12″	59,51,10,19,21,38,39, 2,57,52		4,22,32,38,38	
		8,47,39,54,57, 9, 9		39
14″	59,51,10,28, 9,18,34, 0, 7, 1		4,22,32,39,17	
		8,47,35,32,24,29,52		39
16″	59,51,10,36,56,54, 6,24,36,53		4,22,32,39,56	
		8,47,31, 9,51,49,56		39
18″	59,51,10,45,44,25,16,16,26,49		4,22,32,40,35	
		8,47,26,47,19, 9,21		39
20″	59,51,10,54,31,52, 3,35,36,10		4,22,32,41,14	
		8,47,22,24,46,28, 7		39
22″	59,51,11, 3,19,14,28,22, 4,17		4,22,32,41,53	
		8,47,18, 2,13,46,14		39
24″	59,51,11,12, 6,32,30,35,50,31		4,22,32,42,32	
		8,47,13,39,41, 3,42		39
26″	59,51,11,20,53,46,10,16,54,13		4,22,32,43,11	
		8,47, 9,17, 8,20,31		39
28″	59,51,11,29,40,55,27,25,14,44		4,22,32,43,50	
		8,47, 4,54,35,36,41		39
30″	59,51,11,38,28, 0,22, 0,51,25		4,22,32,44,29	
		8,47, 0,32, 2,52,12		39
32″	59,51,11,47,15, 0,54, 3,43,37		4,22,32,45, 8	
		8,46,56, 9,30, 7, 4		39
34″	59,51,11,56, 1,57, 3,33,50,41		4,22,32,45,47	
		8,46,51,46,57,21,17		39
36″	59,51,12, 4,48,48,50,31,11,58		4,22,32,46,26	
		8,46,47,24,24,34,51		39
38″	59,51,12,13,35,36,14,55,46,49		4,22,32,47, 5	
		8,46,43, 1,51,47,46		39
40″	59,51,12,22,22,19,16,47,34,35		4,22,32,47,44	
		8,46,38,39,19, 0, 2		39
42″	59,51,12,31, 8,57,56, 6,34,37		4,22,32,48,23	
		8,46,34,16,46,11,39		39
44″	59,51,12,39,55,32,12,52,46,16		4,22,32,49, 2	
		8,46,29,54,13,22,37		39
46″	59,51,12,48,42, 2, 7, 6, 8,53		4,22,32,49,41	
		8,46,25,31,40,32,56		39
48″	59,51,12,57,28,27,38,46,41,49		4,22,32,50,20	
		8,46,21, 9, 7,42,36		39
50″	59,51,13, 6,14,48,47,54,24,25		4,22,32,50,59	
		8,46,16,46,34,51,37		39
52″	59,51,13,15, 1, 5,34,29,16, 2		4,22,32,51,38	
		8,46,12,24, 1,59,59		39
54″	59,51,13,23,47,17,58,31,16, 1		4,22,32,52,17	
		8,46, 8, 1,29, 7,42		39
56″	59,51,13,32,33,26, 0, 0,23,43		4,22,32,52,56	
		8,46, 3,38,56,14,46		39
58″	59,51,13,41,19,29,38,56,38,29		4,22,32,53,35	
		8,45,59,16,23,21,11		
60″	59,51,13,50, 5,28,55,19,59,40			
exact	59,51,13,50, 5,28,55,20,29,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86° 0′ 0″	59,51,13,50, 5,28,55,20,29,47			
		8,45,54,53,50,30,14		
2″	59,51,13,58,51,23,49,11, 0, 1		4,22,32,54,39	
		8,45,50,31,17,35,35		38
4″	59,51,14, 7,37,14,20,28,35,36		4,22,32,55,17	
		8,45,46, 8,44,40,18		38
6″	59,51,14,16,23, 0,29,13,15,54		4,22,32,55,55	
		8,45,41,46,11,44,23		38
8″	59,51,14,25, 8,42,15,25, 0,17		4,22,32,56,33	
		8,45,37,23,38,47,50		38
10″	59,51,14,33,54,19,39, 3,48, 7		4,22,32,57,11	
		8,45,33, 1, 5,50,39		38
12″	59,51,14,42,39,52,40, 9,38,46		4,22,32,57,49	
		8,45,28,38,32,52,50		38
14″	59,51,14,51,25,21,18,42,31,36		4,22,32,58,27	
		8,45,24,15,59,54,23		38
16″	59,51,15, 0,10,45,34,42,25,59		4,22,32,59, 5	
		8,45,19,53,26,55,18		38
18″	59,51,15, 8,56, 5,28, 9,21,17		4,22,32,59,43	
		8,45,15,30,53,55,35		38
20″	59,51,15,17,41,20,59, 3,16,52		4,22,33, 0,21	
		8,45,11, 8,20,55,14		38
22″	59,51,15,26,26,32, 7,24,12, 6		4,22,33, 0,59	
		8,45, 6,45,47,54,15		38
24″	59,51,15,35,11,38,53,12, 6,21		4,22,33, 1,37	
		8,45, 2,23,14,52,38		38
26″	59,51,15,43,56,41,16,26,58,59		4,22,33, 2,15	
		8,44,58, 0,41,50,23		38
28″	59,51,15,52,41,39,17, 8,49,22		4,22,33, 2,53	
		8,44,53,38, 8,47,30		38
30″	59,51,16, 1,26,32,55,17,36,52		4,22,33, 3,31	
		8,44,49,15,35,43,59		38
32″	59,51,16,10,11,22,10,53,20,51		4,22,33, 4, 9	
		8,44,44,53, 2,39,50		38
34″	59,51,16,18,56, 7, 3,56, 0,41		4,22,33, 4,47	
		8,44,40,30,29,35, 3		38
36″	59,51,16,27,40,47,34,25,35,44		4,22,33, 5,25	
		8,44,36, 7,56,29,38		38
38″	59,51,16,36,25,23,42,22, 5,22		4,22,33, 6, 3	
		8,44,31,45,23,23,35		38
40″	59,51,16,45, 9,55,27,45,28,57		4,22,33, 6,41	
		8,44,27,22,50,16,54		38
42″	59,51,16,53,54,22,50,35,45,51		4,22,33, 7,19	
		8,44,23, 0,17, 9,35		38
44″	59,51,17, 2,38,45,50,52,55,26		4,22,33, 7,57	
		8,44,18,37,44, 1,38		38
46″	59,51,17,11,23, 4,28,36,57, 4		4,22,33, 8,35	
		8,44,14,15,10,53, 3		38
48″	59,51,17,20, 7,18,43,47,50, 7		4,22,33, 9,13	
		8,44, 9,52,37,43,50		38
50″	59,51,17,28,51,28,36,25,33,57		4,22,33, 9,51	
		8,44, 5,30, 4,33,59		38
52″	59,51,17,37,35,34, 6,30, 7,56		4,22,33,10,29	
		8,44, 1, 7,31,23,30		38
54″	59,51,17,46,19,35,14, 1,31,26		4,22,33,11, 7	
		8,43,56,44,58,12,23		38
56″	59,51,17,55, 3,31,58,59,43,49		4,22,33,11,45	
		8,43,52,22,25, 0,38		38
58″	59,51,18, 3,47,24,21,24,44,27		4,22,33,12,23	
		8,43,47,59,51,48,15		
60″	59,51,18,12,31,12,21,16,32,42			
exact	59,51,18,12,31,12,21,16, 7,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86° 1′ 0″	59,51,18,12,31,12,21,16, 7,37			
		8,43,43,37,18,32,33		
2″	59,51,18,21,14,55,58,34,40,10		4,22,33,13,50	
		8,43,39,14,45,18,43		38
4″	59,51,18,29,58,35,13,19,58,53		4,22,33,14,28	
		8,43,34,52,12, 4,15		38
6″	59,51,18,38,42,10, 5,32, 3, 8		4,22,33,15, 6	
		8,43,30,29,38,49, 9		38
8″	59,51,18,47,25,40,35,10,52,17		4,22,33,15,44	
		8,43,26, 7, 5,33,25		38
10″	59,51,18,56, 9, 6,42,16,25,42		4,22,33,16,22	
		8,43,21,44,32,17, 3		38
12″	59,51,19, 4,52,28,26,48,42,45		4,22,33,17, 0	
		8,43,17,21,59, 0, 3		38
14″	59,51,19,13,35,45,48,47,42,48		4,22,33,17,38	
		8,43,12,59,25,42,25		38
16″	59,51,19,22,18,58,48,13,25,13		4,22,33,18,16	
		8,43, 8,36,52,24, 9		38
18″	59,51,19,31, 2, 7,25, 5,49,22		4,22,33,18,54	
		8,43, 4,14,19, 5,15		38
20″	59,51,19,39,45,11,39,24,54,37		4,22,33,19,32	
		8,42,59,51,45,45,43		38
22″	59,51,19,48,28,11,31,10,40,20		4,22,33,20,10	
		8,42,55,29,12,25,33		38
24″	59,51,19,57,11, 7, 0,23, 5,53		4,22,33,20,48	
		8,42,51, 6,39, 4,45		38
26″	59,51,20, 5,53,58, 7, 2,10,38		4,22,33,21,26	
		8,42,46,44, 5,43,19		38
28″	59,51,20,14,36,44,51, 7,53,57		4,22,33,22, 4	
		8,42,42,21,32,21,15		38
30″	59,51,20,23,19,27,12,40,15,12		4,22,33,22,42	
		8,42,37,58,58,58,33		38
32″	59,51,20,32, 2, 5,11,39,13,45		4,22,33,23,20	
		8,42,33,36,25,35,13		38
34″	59,51,20,40,44,38,48, 4,48,58		4,22,33,23,58	
		8,42,29,13,52,11,15		38
36″	59,51,20,49,27, 8, 1,57, 0,13		4,22,33,24,36	
		8,42,24,51,18,46,39		38
38″	59,51,20,58, 9,32,53,15,46,52		4,22,33,25,14	
		8,42,20,28,45,21,25		38
40″	59,51,21, 6,51,53,22, 1, 8,17		4,22,33,25,52	
		8,42,16, 6,11,55,33		38
42″	59,51,21,15,34, 9,28,13, 3,50		4,22,33,26,30	
		8,42,11,43,38,29, 3		38
44″	59,51,21,24,16,21,11,51,32,53		4,22,33,27, 8	
		8,42, 7,21, 5, 1,55		38
46″	59,51,21,32,58,28,32,56,34,48		4,22,33,27,46	
		8,42, 2,58,31,34, 9		38
48″	59,51,21,41,40,31,31,28, 8,57		4,22,33,28,24	
		8,41,58,35,58, 5,45		38
50″	59,51,21,50,22,30, 7,26,14,42		4,22,33,29, 2	
		8,41,54,13,24,36,43		38
52″	59,51,21,59, 4,24,20,50,51,25		4,22,33,29,40	
		8,41,49,50,51, 7, 3		38
54″	59,51,22, 7,46,14,11,41,58,28		4,22,33,30,18	
		8,41,45,28,17,36,45		38
56″	59,51,22,16,27,59,39,59,35,13		4,22,33,30,56	
		8,41,41, 5,44, 5,49		38
58″	59,51,22,25, 9,40,45,43,41, 2		4,22,33,31,34	
		8,41,36,43,10,34,15		
60″	59,51,22,33,51,17,28,54,15,17			
exact	59,51,22,33,51,17,28,54, 0,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86° 2′ 0″	59,51,22,33,51,17,28,54, 0,48			
		8,41,32,20,37, 0,31		
2″	59,51,22,42,32,49,49,31, 1,19		4,22,33,32,56	
		8,41,27,58, 3,27,35		38
4″	59,51,22,51,14,17,47,34,28,54		4,22,33,33,34	
		8,41,23,35,29,54, 1		38
6″	59,51,22,59,55,41,23, 4,22,55		4,22,33,34,12	
		8,41,19,12,56,19,49		38
8″	59,51,23, 8,37, 0,36, 0,42,44		4,22,33,34,50	
		8,41,14,50,22,44,59		38
10″	59,51,23,17,18,15,26,23,27,43		4,22,33,35,28	
		8,41,10,27,49, 9,31		38
12″	59,51,23,25,59,25,54,12,37,14		4,22,33,36, 6	
		8,41, 6, 5,15,33,25		38
14″	59,51,23,34,40,31,59,28,10,39		4,22,33,36,44	
		8,41, 1,42,41,56,41		38
16″	59,51,23,43,21,33,42,10, 7,20		4,22,33,37,22	
		8,40,57,20, 8,19,19		38
18″	59,51,23,52, 2,31, 2,18,26,39		4,22,33,38, 0	
		8,40,52,57,34,41,19		38
20″	59,51,24, 0,43,23,59,53, 7,58		4,22,33,38,38	
		8,40,48,35, 1, 2,41		38
22″	59,51,24, 9,24,12,34,54,10,39		4,22,33,39,16	
		8,40,44,12,27,23,25		38
24″	59,51,24,18, 4,56,47,21,34, 4		4,22,33,39,54	
		8,40,39,49,53,43,31		38
26″	59,51,24,26,45,36,37,15,17,35		4,22,33,40,32	
		8,40,35,27,20, 2,59		38
28″	59,51,24,35,26,12, 4,35,20,34		4,22,33,41,10	
		8,40,31, 4,46,21,49		38
30″	59,51,24,44, 6,43, 9,21,42,23		4,22,33,41,48	
		8,40,26,42,12,40, 1		38
32″	59,51,24,52,47, 9,51,34,22,24		4,22,33,42,26	
		8,40,22,19,38,57,35		38
34″	59,51,25, 1,27,32,11,13,19,59		4,22,33,43, 4	
		8,40,17,57, 5,14,31		38
36″	59,51,25,10, 7,50, 8,18,34,30		4,22,33,43,42	
		8,40,13,34,31,30,49		38
38″	59,51,25,18,48, 3,42,50, 5,19		4,22,33,44,20	
		8,40, 9,11,57,46,29		38
40″	59,51,25,27,28,12,54,47,51,48		4,22,33,44,58	
		8,40, 4,49,24, 1,31		38
42″	59,51,25,36, 8,17,44,11,53,19		4,22,33,45,36	
		8,40, 0,26,50,15,55		38
44″	59,51,25,44,48,18,11, 2, 9,14		4,22,33,46,14	
		8,39,56, 4,16,29,41		38
46″	59,51,25,53,28,14,15,18,38,55		4,22,33,46,52	
		8,39,51,41,42,42,49		38
48″	59,51,26, 2, 8, 5,57, 1,21,44		4,22,33,47,30	
		8,39,47,19, 8,55,19		38
50″	59,51,26,10,47,53,16,10,17, 3		4,22,33,48, 8	
		8,39,42,56,35, 7,11		38
52″	59,51,26,19,27,36,12,45,24,14		4,22,33,48,46	
		8,39,38,34, 1,18,25		38
54″	59,51,26,28, 7,14,46,46,42,39		4,22,33,49,24	
		8,39,34,11,27,29, 1		38
56″	59,51,26,36,46,48,58,14,11,40		4,22,33,50, 2	
		8,39,29,48,53,38,59		38
58″	59,51,26,45,26,18,47, 7,50,39		4,22,33,50,40	
		8,39,25,26,19,48,19		
60″	59,51,26,54, 5,44,13,27,38,58			
exact	59,51,26,54, 5,44,13,27,34,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86° 3′ 0″	59,51,26,54, 5,44,13,27,34,13			
		8,39,21, 3,45,56,34		
2″	59,51,27, 2,45, 5,17,13,30,47		4,22,33,51,57	
		8,39,16,41,12, 4,37		38
4″	59,51,27,11,24,21,58,25,35,24		4,22,33,52,35	
		8,39,12,18,38,12, 2		38
6″	59,51,27,20, 3,34,17, 3,47,26		4,22,33,53,13	
		8,39, 7,56, 4,18,49		38
8″	59,51,27,28,42,42,13, 8, 6,15		4,22,33,53,51	
		8,39, 3,33,30,24,58		38
10″	59,51,27,37,21,45,46,38,31,13		4,22,33,54,29	
		8,38,59,10,56,30,29		38
12″	59,51,27,46, 0,44,57,35, 1,42		4,22,33,55, 7	
		8,38,54,48,22,35,22		38
14″	59,51,27,54,39,39,45,57,37, 4		4,22,33,55,45	
		8,38,50,25,48,39,37		38
16″	59,51,28, 3,18,30,11,46,16,41		4,22,33,56,23	
		8,38,46, 3,14,43,14		38
18″	59,51,28,11,57,16,15, 0,59,55		4,22,33,57, 1	
		8,38,41,40,40,46,13		38
20″	59,51,28,20,35,57,55,41,46, 8		4,22,33,57,39	
		8,38,37,18, 6,48,34		38
22″	59,51,28,29,14,35,13,48,34,42		4,22,33,58,17	
		8,38,32,55,32,50,17		38
24″	59,51,28,37,53, 8, 9,21,24,59		4,22,33,58,55	
		8,38,28,32,58,51,22		38
26″	59,51,28,46,31,36,42,20,16,21		4,22,33,59,33	
		8,38,24,10,24,51,49		38
28″	59,51,28,55,10, 0,52,45, 8,10		4,22,34, 0,11	
		8,38,19,47,50,51,38		38
30″	59,51,29, 3,48,20,40,35,59,48		4,22,34, 0,49	
		8,38,15,25,16,50,49		38
32″	59,51,29,12,26,36, 5,52,50,37		4,22,34, 1,27	
		8,38,11, 2,42,49,22		38
34″	59,51,29,21, 4,47, 8,35,39,59		4,22,34, 2, 5	
		8,38, 6,40, 8,47,17		38
36″	59,51,29,29,42,53,48,44,27,16		4,22,34, 2,43	
		8,38, 2,17,34,44,34		38
38″	59,51,29,38,20,56, 6,19,11,50		4,22,34, 3,21	
		8,37,57,55, 0,41,13		38
40″	59,51,29,46,58,54, 1,19,53, 3		4,22,34, 3,59	
		8,37,53,32,26,37,14		38
42″	59,51,29,55,36,47,33,46,30,17		4,22,34, 4,37	
		8,37,49, 9,52,32,37		38
44″	59,51,30, 4,14,36,43,39, 2,54		4,22,34, 5,15	
		8,37,44,47,18,27,22		38
46″	59,51,30,12,52,21,30,57,30,16		4,22,34, 5,53	
		8,37,40,24,44,21,29		38
48″	59,51,30,21,30, 1,55,41,51,45		4,22,34, 6,31	
		8,37,36, 2,10,14,58		38
50″	59,51,30,30, 7,37,57,52, 6,43		4,22,34, 7, 9	
		8,37,31,39,36, 7,49		38
52″	59,51,30,38,45, 9,37,28,14,32		4,22,34, 7,47	
		8,37,27,17, 2, 0, 2		38
54″	59,51,30,47,22,36,54,30,14,34		4,22,34, 8,25	
		8,37,22,54,27,51,37		38
56″	59,51,30,55,59,59,48,58, 6,11		4,22,34, 9, 3	
		8,37,18,31,53,42,34		38
58″	59,51,31, 4,37,18,20,51,48,45		4,22,34, 9,41	
		8,37,14, 9,19,32,53		
60″	59,51,31,13,14,32,30,11,21,38			
exact	59,51,31,13,14,32,30,11,24,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86° 4′ 0″	59,51,31,13,14,32,30,11,24,41			
		8,37, 9,46,45,23, 4		
2″	59,51,31,21,51,42,16,56,47,45		4,22,34,10,54	
		8,37, 5,24,11,12,10		38
4″	59,51,31,30,28,47,41, 7,59,55		4,22,34,11,32	
		8,37, 1, 1,37, 0,38		38
6″	59,51,31,39, 5,48,42,45, 0,33		4,22,34,12,10	
		8,36,56,39, 2,48,28		38
8″	59,51,31,47,42,45,21,47,49, 1		4,22,34,12,48	
		8,36,52,16,28,35,40		38
10″	59,51,31,56,19,37,38,16,24,41		4,22,34,13,26	
		8,36,47,53,54,22,14		38
12″	59,51,32, 4,56,25,32,10,46,55		4,22,34,14, 4	
		8,36,43,31,20, 8,10		38
14″	59,51,32,13,33, 9, 3,30,55, 5		4,22,34,14,42	
		8,36,39, 8,45,53,28		38
16″	59,51,32,22, 9,48,12,16,48,33		4,22,34,15,20	
		8,36,34,46,11,38, 8		38
18″	59,51,32,30,46,22,58,28,26,41		4,22,34,15,58	
		8,36,30,23,37,22,10		38
20″	59,51,32,39,22,53,22, 5,48,51		4,22,34,16,36	
		8,36,26, 1, 3, 5,34		38
22″	59,51,32,47,59,19,23, 8,54,25		4,22,34,17,14	
		8,36,21,38,28,48,20		38
24″	59,51,32,56,35,41, 1,37,42,45		4,22,34,17,52	
		8,36,17,15,54,30,28		38
26″	59,51,33, 5,11,58,17,32,13,13		4,22,34,18,30	
		8,36,12,53,20,11,58		38
28″	59,51,33,13,48,11,10,52,25,11		4,22,34,19, 8	
		8,36, 8,30,45,52,50		38
30″	59,51,33,22,24,19,41,38,18, 1		4,22,34,19,46	
		8,36, 4, 8,11,33, 4		38
32″	59,51,33,31, 0,23,49,49,51, 5		4,22,34,20,24	
		8,35,59,45,37,12,40		38
34″	59,51,33,39,36,23,35,27, 3,45		4,22,34,21, 2	
		8,35,55,23, 2,51,38		38
36″	59,51,33,48,12,18,58,29,55,23		4,22,34,21,40	
		8,35,51, 0,28,29,58		38
38″	59,51,33,56,48, 9,58,58,25,21		4,22,34,22,18	
		8,35,46,37,54, 7,40		38
40″	59,51,34, 5,23,56,36,52,33, 1		4,22,34,22,56	
		8,35,42,15,19,44,44		38
42″	59,51,34,13,59,38,52,12,17,45		4,22,34,23,34	
		8,35,37,52,45,21,10		38
44″	59,51,34,22,35,16,44,57,38,55		4,22,34,24,12	
		8,35,33,30,10,56,58		38
46″	59,51,34,31,10,50,15, 8,35,53		4,22,34,24,50	
		8,35,29, 7,36,32, 8		38
48″	59,51,34,39,46,19,22,45, 8, 1		4,22,34,25,28	
		8,35,24,45, 2, 6,40		38
50″	59,51,34,48,21,44, 7,47,14,41		4,22,34,26, 6	
		8,35,20,22,27,40,34		38
52″	59,51,34,56,57, 4,30,14,55,15		4,22,34,26,44	
		8,35,15,59,53,13,50		38
54″	59,51,35, 5,32,20,30, 8, 9, 5		4,22,34,27,22	
		8,35,11,37,18,46,28		38
56″	59,51,35,14, 7,32, 7,26,55,33		4,22,34,28, 0	
		8,35, 7,14,44,18,28		38
58″	59,51,35,22,42,39,22,11,14, 1		4,22,34,28,38	
		8,35, 2,52, 9,49,50		
60″	59,51,35,31,17,42,14,21, 3,51			
exact	59,51,35,31,17,42,14,21,21, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86° 5′ 0″	59,51,35,31,17,42,14,21,21, 2			
		8,34,58,29,35,22,27		
2″	59,51,35,39,52,40,43,56,43,29		4,22,34,29,46	
		8,34,54, 7, 0,52,41		38
4″	59,51,35,48,27,34,50,57,36,10		4,22,34,30,24	
		8,34,49,44,26,22,17		38
6″	59,51,35,57, 2,24,35,23,58,27		4,22,34,31, 2	
		8,34,45,21,51,51,15		38
8″	59,51,36, 5,37, 9,57,15,49,42		4,22,34,31,40	
		8,34,40,59,17,19,35		38
10″	59,51,36,14,11,50,56,33, 9,17		4,22,34,32,18	
		8,34,36,36,42,47,17		38
12″	59,51,36,22,46,27,33,15,56,34		4,22,34,32,56	
		8,34,32,14, 8,14,21		38
14″	59,51,36,31,20,59,47,24,10,55		4,22,34,33,34	
		8,34,27,51,33,40,47		38
16″	59,51,36,39,55,27,38,57,51,42		4,22,34,34,12	
		8,34,23,28,59, 6,35		38
18″	59,51,36,48,29,51, 7,56,58,17		4,22,34,34,50	
		8,34,19, 6,24,31,45		38
20″	59,51,36,57, 4,10,14,21,30, 2		4,22,34,35,28	
		8,34,14,43,49,56,17		38
22″	59,51,37, 5,38,24,58,11,26,19		4,22,34,36, 6	
		8,34,10,21,15,20,11		38
24″	59,51,37,14,12,35,19,26,46,30		4,22,34,36,44	
		8,34, 5,58,40,43,27		38
26″	59,51,37,22,46,41,18, 7,29,57		4,22,34,37,22	
		8,34, 1,36, 6, 6, 5		38
28″	59,51,37,31,20,42,54,13,36, 2		4,22,34,38, 0	
		8,33,57,13,31,28, 5		38
30″	59,51,37,39,54,40, 7,45, 4, 7		4,22,34,38,38	
		8,33,52,50,56,49,27		38
32″	59,51,37,48,28,32,58,41,53,34		4,22,34,39,16	
		8,33,48,28,22,10,11		38
34″	59,51,37,57, 2,21,27, 4, 3,45		4,22,34,39,54	
		8,33,44, 5,47,30,17		38
36″	59,51,38, 5,36, 5,32,51,34, 2		4,22,34,40,32	
		8,33,39,43,12,49,45		38
38″	59,51,38,14, 9,45,16, 4,23,47		4,22,34,41,10	
		8,33,35,20,38, 8,35		38
40″	59,51,38,22,43,20,36,42,32,22		4,22,34,41,48	
		8,33,30,58, 3,26,47		38
42″	59,51,38,31,16,51,34,45,59, 9		4,22,34,42,26	
		8,33,26,35,28,44,21		38
44″	59,51,38,39,50,18,10,14,43,30		4,22,34,43, 4	
		8,33,22,12,54, 1,17		38
46″	59,51,38,48,23,40,23, 8,44,47		4,22,34,43,42	
		8,33,17,50,19,17,35		38
48″	59,51,38,56,56,58,13,28, 2,22		4,22,34,44,20	
		8,33,13,27,44,33,15		38
50″	59,51,39, 5,30,11,41,12,35,37		4,22,34,44,58	
		8,33, 9, 5, 9,48,17		38
52″	59,51,39,14, 3,20,46,22,23,54		4,22,34,45,36	
		8,33, 4,42,35, 2,41		38
54″	59,51,39,22,36,25,28,57,26,35		4,22,34,46,14	
		8,33, 0,20, 0,16,27		38
56″	59,51,39,31, 9,25,48,57,43, 2		4,22,34,46,52	
		8,32,55,57,25,29,35		38
58″	59,51,39,39,42,21,46,23,12,37		4,22,34,47,30	
		8,32,51,34,50,42, 5		
60″	59,51,39,48,15,13,21,13,54,42			
exact	59,51,39,48,15,13,21,14,24, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86° 6′ 0″	59,51,39,48,15,13,21,14,24, 5			
		8,32,47,12,15,57, 6		
2″	59,51,39,56,48, 0,33,30,21,11		4,22,34,48,33	
		8,32,42,49,41, 8,33		37
4″	59,51,40, 5,20,43,23,11,29,44		4,22,34,49,10	
		8,32,38,27, 6,19,23		37
6″	59,51,40,13,53,21,50,17,49, 7		4,22,34,49,47	
		8,32,34, 4,31,29,36		37
8″	59,51,40,22,25,55,54,49,18,43		4,22,34,50,24	
		8,32,29,41,56,39,12		37
10″	59,51,40,30,58,25,36,45,57,55		4,22,34,51, 1	
		8,32,25,19,21,48,11		37
12″	59,51,40,39,30,50,56, 7,46, 6		4,22,34,51,38	
		8,32,20,56,46,56,33		37
14″	59,51,40,48, 3,11,52,54,42,39		4,22,34,52,15	
		8,32,16,34,12, 4,18		37
16″	59,51,40,56,35,28,27, 6,46,57		4,22,34,52,52	
		8,32,12,11,37,11,26		37
18″	59,51,41, 5, 7,40,38,43,58,23		4,22,34,53,29	
		8,32, 7,49, 2,17,57		37
20″	59,51,41,13,39,48,27,46,16,20		4,22,34,54, 6	
		8,32, 3,26,27,23,51		37
22″	59,51,41,22,11,51,54,13,40,11		4,22,34,54,43	
		8,31,59, 3,52,29, 8		37
24″	59,51,41,30,43,50,58, 6, 9,19		4,22,34,55,20	
		8,31,54,41,17,33,48		37
26″	59,51,41,39,15,45,39,23,43, 7		4,22,34,55,57	
		8,31,50,18,42,37,51		37
28″	59,51,41,47,47,35,58, 6,20,58		4,22,34,56,34	
		8,31,45,56, 7,41,17		37
30″	59,51,41,56,19,21,54,14, 2,15		4,22,34,57,11	
		8,31,41,33,32,44, 6		37
32″	59,51,42, 4,51, 3,27,46,46,21		4,22,34,57,48	
		8,31,37,10,57,46,18		37
34″	59,51,42,13,22,40,38,44,32,39		4,22,34,58,25	
		8,31,32,48,22,47,53		37
36″	59,51,42,21,54,13,27, 7,20,32		4,22,34,59, 2	
		8,31,28,25,47,48,51		37
38″	59,51,42,30,25,41,52,55, 9,23		4,22,34,59,39	
		8,31,24, 3,12,49,12		37
40″	59,51,42,38,57, 5,56, 7,58,35		4,22,35, 0,16	
		8,31,19,40,37,48,56		37
42″	59,51,42,47,28,25,36,45,47,31		4,22,35, 0,53	
		8,31,15,18, 2,48, 3		37
44″	59,51,42,55,59,40,54,48,35,34		4,22,35, 1,30	
		8,31,10,55,27,46,33		37
46″	59,51,43, 4,30,51,50,16,22, 7		4,22,35, 2, 7	
		8,31, 6,32,52,44,26		37
48″	59,51,43,13, 1,58,23, 9, 6,33		4,22,35, 2,44	
		8,31, 2,10,17,41,42		37
50″	59,51,43,21,33, 0,33,26,48,15		4,22,35, 3,21	
		8,30,57,47,42,38,21		37
52″	59,51,43,30, 3,58,21, 9,26,36		4,22,35, 3,58	
		8,30,53,25, 7,34,23		37
54″	59,51,43,38,34,51,46,17, 0,59		4,22,35, 4,35	
		8,30,49, 2,32,29,48		37
56″	59,51,43,47, 5,40,48,49,30,47		4,22,35, 5,12	
		8,30,44,39,57,24,36		37
58″	59,51,43,55,36,25,28,46,55,23		4,22,35, 5,49	
		8,30,40,17,22,18,47		
60″	59,51,44, 4, 7, 5,46, 9,14,10			
exact	59,51,44, 4, 7, 5,46, 8,46,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86° 7′ 0″	59,51,44, 4, 7, 5,46, 8,46,39			
		8,30,35,54,47, 9,24		
2″	59,51,44,12,37,41,40,55,56, 3		4,22,35, 7,15	
		8,30,31,32,12, 2, 9		37
4″	59,51,44,21, 8,13,13, 7,58,12		4,22,35, 7,52	
		8,30,27, 9,36,54,17		37
6″	59,51,44,29,38,40,22,44,52,29		4,22,35, 8,29	
		8,30,22,47, 1,45,48		37
8″	59,51,44,38, 9, 3, 9,46,38,17		4,22,35, 9, 6	
		8,30,18,24,26,36,42		37
10″	59,51,44,46,39,21,34,13,14,59		4,22,35, 9,43	
		8,30,14, 1,51,26,59		37
12″	59,51,44,55, 9,35,36, 4,41,58		4,22,35,10,20	
		8,30, 9,39,16,16,39		37
14″	59,51,45, 3,39,45,15,20,58,37		4,22,35,10,57	
		8,30, 5,16,41, 5,42		37
16″	59,51,45,12, 9,50,32, 2, 4,19		4,22,35,11,34	
		8,30, 0,54, 5,54, 8		37
18″	59,51,45,20,39,51,26, 7,58,27		4,22,35,12,11	
		8,29,56,31,30,41,57		37
20″	59,51,45,29, 9,47,57,38,40,24		4,22,35,12,48	
		8,29,52, 8,55,29, 9		37
22″	59,51,45,37,39,40, 6,34, 9,33		4,22,35,13,25	
		8,29,47,46,20,15,44		37
24″	59,51,45,46, 9,27,52,54,25,17		4,22,35,14, 2	
		8,29,43,23,45, 1,42		37
26″	59,51,45,54,39,11,16,39,26,59		4,22,35,14,39	
		8,29,39, 1, 9,47, 3		37
28″	59,51,46, 3, 8,50,17,49,14, 2		4,22,35,15,16	
		8,29,34,38,34,31,47		37
30″	59,51,46,11,38,24,56,23,45,49		4,22,35,15,53	
		8,29,30,15,59,15,54		37
32″	59,51,46,20, 7,55,12,23, 1,43		4,22,35,16,30	
		8,29,25,53,23,59,24		37
34″	59,51,46,28,37,21, 5,47, 1, 7		4,22,35,17, 7	
		8,29,21,30,48,42,17		37
36″	59,51,46,37, 6,42,36,35,43,24		4,22,35,17,44	
		8,29,17, 8,13,24,33		37
38″	59,51,46,45,35,59,44,49, 7,57		4,22,35,18,21	
		8,29,12,45,38, 6,12		37
40″	59,51,46,54, 5,12,30,27,14, 9		4,22,35,18,58	
		8,29, 8,23, 2,47,14		37
42″	59,51,47, 2,34,20,53,30, 1,23		4,22,35,19,35	
		8,29, 4, 0,27,27,39		37
44″	59,51,47,11, 3,24,53,57,29, 2		4,22,35,20,12	
		8,28,59,37,52, 7,27		37
46″	59,51,47,19,32,24,31,49,36,29		4,22,35,20,49	
		8,28,55,15,16,46,38		37
48″	59,51,47,28, 1,19,47, 6,23, 7		4,22,35,21,26	
		8,28,50,52,41,25,12		37
50″	59,51,47,36,30,10,39,47,48,19		4,22,35,22, 3	
		8,28,46,30, 6, 3, 9		37
52″	59,51,47,44,58,57, 9,53,51,28		4,22,35,22,40	
		8,28,42, 7,30,40,29		37
54″	59,51,47,53,27,39,17,24,31,57		4,22,35,23,17	
		8,28,37,44,55,17,12		37
56″	59,51,48, 1,56,17, 2,19,49, 9		4,22,35,23,54	
		8,28,33,22,19,53,18		37
58″	59,51,48,10,24,50,24,39,42,27		4,22,35,24,31	
		8,28,28,59,44,28,47		
60″	59,51,48,18,53,19,24,24,11,14			
exact	59,51,48,18,53,19,24,23,53,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86° 8′ 0″	59,51,48,18,53,19,24,23,53,29			
		8,28,24,37, 9, 1,47		
2″	59,51,48,27,21,44, 1,32,55,16		4,22,35,25,52	
		8,28,20,14,33,35,55		37
4″	59,51,48,35,50, 4,16, 6,31,11		4,22,35,26,29	
		8,28,15,51,58, 9,26		37
6″	59,51,48,44,18,20, 8, 4,40,37		4,22,35,27, 6	
		8,28,11,29,22,42,20		37
8″	59,51,48,52,46,31,37,27,22,57		4,22,35,27,43	
		8,28, 7, 6,47,14,37		37
10″	59,51,49, 1,14,38,44,14,37,34		4,22,35,28,20	
		8,28, 2,44,11,46,17		37
12″	59,51,49, 9,42,41,28,26,23,51		4,22,35,28,57	
		8,27,58,21,36,17,20		37
14″	59,51,49,18,10,39,50, 2,41,11		4,22,35,29,34	
		8,27,53,59, 0,47,46		37
16″	59,51,49,26,38,33,49, 3,28,57		4,22,35,30,11	
		8,27,49,36,25,17,35		37
18″	59,51,49,35, 6,23,25,28,46,32		4,22,35,30,48	
		8,27,45,13,49,46,47		37
20″	59,51,49,43,34, 8,39,18,33,19		4,22,35,31,25	
		8,27,40,51,14,15,22		37
22″	59,51,49,52, 1,49,30,32,48,41		4,22,35,32, 2	
		8,27,36,28,38,43,20		37
24″	59,51,50, 0,29,25,59,11,32, 1		4,22,35,32,39	
		8,27,32, 6, 3,10,41		37
26″	59,51,50, 8,56,58, 5,14,42,42		4,22,35,33,16	
		8,27,27,43,27,37,25		37
28″	59,51,50,17,24,25,48,42,20, 7		4,22,35,33,53	
		8,27,23,20,52, 3,32		37
30″	59,51,50,25,51,49, 9,34,23,39		4,22,35,34,30	
		8,27,18,58,16,29, 2		37
32″	59,51,50,34,19, 8, 7,50,52,41		4,22,35,35, 7	
		8,27,14,35,40,53,55		37
34″	59,51,50,42,46,22,43,31,46,36		4,22,35,35,44	
		8,27,10,13, 5,18,11		37
36″	59,51,50,51,13,32,56,37, 4,47		4,22,35,36,21	
		8,27, 5,50,29,41,50		37
38″	59,51,50,59,40,38,47, 6,46,37		4,22,35,36,58	
		8,27, 1,27,54, 4,52		37
40″	59,51,51, 8, 7,40,15, 0,51,29		4,22,35,37,35	
		8,26,57, 5,18,27,17		37
42″	59,51,51,16,34,37,20,19,18,46		4,22,35,38,12	
		8,26,52,42,42,49, 5		37
44″	59,51,51,25, 1,30, 3, 2, 7,51		4,22,35,38,49	
		8,26,48,20, 7,10,16		37
46″	59,51,51,33,28,18,23, 9,18, 7		4,22,35,39,26	
		8,26,43,57,31,30,50		37
48″	59,51,51,41,55, 2,20,40,48,57		4,22,35,40, 3	
		8,26,39,34,55,50,47		37
50″	59,51,51,50,21,41,55,36,39,44		4,22,35,40,40	
		8,26,35,12,20,10, 7		37
52″	59,51,51,58,48,17, 7,56,49,51		4,22,35,41,17	
		8,26,30,49,44,28,50		37
54″	59,51,52, 7,14,47,57,41,18,41		4,22,35,41,54	
		8,26,26,27, 8,46,56		37
56″	59,51,52,15,41,14,24,50, 5,37		4,22,35,42,31	
		8,26,22, 4,33, 4,25		37
58″	59,51,52,24, 7,36,29,23,10, 2		4,22,35,43, 8	
		8,26,17,41,57,21,17		
60″	59,51,52,32,33,54,11,20,31,19			
exact	59,51,52,32,33,54,11,20,21,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86° 9′ 0″	59,51,52,32,33,54,11,20,21,23			
		8,26,13,19,21,36,37		
2″	59,51,52,41, 0, 7,30,41,58, 0		4,22,35,44,25	
		8,26, 8,56,45,52,12		37
4″	59,51,52,49,26,16,27,27,50,12		4,22,35,45, 2	
		8,26, 4,34,10, 7,10		37
6″	59,51,52,57,52,21, 1,37,57,22		4,22,35,45,39	
		8,26, 0,11,34,21,31		37
8″	59,51,53, 6,18,21,13,12,18,53		4,22,35,46,16	
		8,25,55,48,58,35,15		37
10″	59,51,53,14,44,17, 2,10,54, 8		4,22,35,46,53	
		8,25,51,26,22,48,22		37
12″	59,51,53,23,10, 8,28,33,42,30		4,22,35,47,30	
		8,25,47, 3,47, 0,52		37
14″	59,51,53,31,35,55,32,20,43,22		4,22,35,48, 7	
		8,25,42,41,11,12,45		37
16″	59,51,53,40, 1,38,13,31,56, 7		4,22,35,48,44	
		8,25,38,18,35,24, 1		37
18″	59,51,53,48,27,16,32, 7,20, 8		4,22,35,49,21	
		8,25,33,55,59,34,40		37
20″	59,51,53,56,52,50,28, 6,54,48		4,22,35,49,58	
		8,25,29,33,23,44,42		37
22″	59,51,54, 5,18,20, 1,30,39,30		4,22,35,50,35	
		8,25,25,10,47,54, 7		37
24″	59,51,54,13,43,45,12,18,33,37		4,22,35,51,12	
		8,25,20,48,12, 2,55		37
26″	59,51,54,22, 9, 6, 0,30,36,32		4,22,35,51,49	
		8,25,16,25,36,11, 6		37
28″	59,51,54,30,34,22,26, 6,47,38		4,22,35,52,26	
		8,25,12, 3, 0,18,40		37
30″	59,51,54,38,59,34,29, 7, 6,18		4,22,35,53, 3	
		8,25, 7,40,24,25,37		37
32″	59,51,54,47,24,42, 9,31,31,55		4,22,35,53,40	
		8,25, 3,17,48,31,57		37
34″	59,51,54,55,49,45,27,20, 3,52		4,22,35,54,17	
		8,24,58,55,12,37,40		37
36″	59,51,55, 4,14,44,22,32,41,32		4,22,35,54,54	
		8,24,54,32,36,42,46		37
38″	59,51,55,12,39,38,55, 9,24,18		4,22,35,55,31	
		8,24,50,10, 0,47,15		37
40″	59,51,55,21, 4,29, 5,10,11,33		4,22,35,56, 8	
		8,24,45,47,24,51, 7		37
42″	59,51,55,29,29,14,52,35, 2,40		4,22,35,56,45	
		8,24,41,24,48,54,22		37
44″	59,51,55,37,53,56,17,23,57, 2		4,22,35,57,22	
		8,24,37, 2,12,57, 0		37
46″	59,51,55,46,18,33,19,36,54, 2		4,22,35,57,59	
		8,24,32,39,36,59, 1		37
48″	59,51,55,54,43, 5,59,13,53, 3		4,22,35,58,36	
		8,24,28,17, 1, 0,25		37
50″	59,51,56, 3, 7,34,16,14,53,28		4,22,35,59,13	
		8,24,23,54,25, 1,12		37
52″	59,51,56,11,31,58,10,39,54,40		4,22,35,59,50	
		8,24,19,31,49, 1,22		37
54″	59,51,56,19,56,17,42,28,56, 2		4,22,36, 0,27	
		8,24,15, 9,13, 0,55		37
56″	59,51,56,28,20,32,51,41,56,57		4,22,36, 1, 4	
		8,24,10,46,36,59,51		37
58″	59,51,56,36,44,43,38,18,56,48		4,22,36, 1,41	
		8,24, 6,24, 0,58,10		
60″	59,51,56,45, 8,50, 2,19,54,58			
exact	59,51,56,45, 8,50, 2,19,59, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°10′ 0″	59,51,56,45, 8,50, 2,19,59, 8			
		8,24, 2, 1,24,56,20		
2″	59,51,56,53,32,52, 3,44,55,28		4,22,36, 2,53	
		8,23,57,38,48,53,27		37
4″	59,51,57, 1,56,49,42,33,48,55		4,22,36, 3,30	
		8,23,53,16,12,49,57		37
6″	59,51,57,10,20,42,58,46,38,52		4,22,36, 4, 7	
		8,23,48,53,36,45,50		37
8″	59,51,57,18,44,31,52,23,24,42		4,22,36, 4,44	
		8,23,44,31, 0,41, 6		37
10″	59,51,57,27, 8,16,23,24, 5,48		4,22,36, 5,21	
		8,23,40, 8,24,35,45		37
12″	59,51,57,35,31,56,31,48,41,33		4,22,36, 5,58	
		8,23,35,45,48,29,47		37
14″	59,51,57,43,55,32,17,37,11,20		4,22,36, 6,35	
		8,23,31,23,12,23,12		37
16″	59,51,57,52,19, 3,40,49,34,32		4,22,36, 7,12	
		8,23,27, 0,36,16, 0		37
18″	59,51,58, 0,42,30,41,25,50,32		4,22,36, 7,49	
		8,23,22,38, 0, 8,11		37
20″	59,51,58, 9, 5,53,19,25,58,43		4,22,36, 8,26	
		8,23,18,15,23,59,45		37
22″	59,51,58,17,29,11,34,49,58,28		4,22,36, 9, 3	
		8,23,13,52,47,50,42		37
24″	59,51,58,25,52,25,27,37,49,10		4,22,36, 9,40	
		8,23, 9,30,11,41, 2		37
26″	59,51,58,34,15,34,57,49,30,12		4,22,36,10,17	
		8,23, 5, 7,35,30,45		37
28″	59,51,58,42,38,40, 5,25, 0,57		4,22,36,10,54	
		8,23, 0,44,59,19,51		37
30″	59,51,58,51, 1,40,50,24,20,48		4,22,36,11,31	
		8,22,56,22,23, 8,20		37
32″	59,51,58,59,24,37,12,47,29, 8		4,22,36,12, 8	
		8,22,51,59,46,56,12		37
34″	59,51,59, 7,47,29,12,34,25,20		4,22,36,12,45	
		8,22,47,37,10,43,27		37
36″	59,51,59,16,10,16,49,45, 8,47		4,22,36,13,22	
		8,22,43,14,34,30, 5		37
38″	59,51,59,24,33, 0, 4,19,38,52		4,22,36,13,59	
		8,22,38,51,58,16, 6		37
40″	59,51,59,32,55,38,56,17,54,58		4,22,36,14,36	
		8,22,34,29,22, 1,30		37
42″	59,51,59,41,18,13,25,39,56,28		4,22,36,15,13	
		8,22,30, 6,45,46,17		37
44″	59,51,59,49,40,43,32,25,42,45		4,22,36,15,50	
		8,22,25,44, 9,30,27		37
46″	59,51,59,58, 3, 9,16,35,13,12		4,22,36,16,27	
		8,22,21,21,33,14, 0		37
48″	59,52, 0, 6,25,30,38, 8,27,12		4,22,36,17, 4	
		8,22,16,58,56,56,56		37
50″	59,52, 0,14,47,47,37, 5,24, 8		4,22,36,17,41	
		8,22,12,36,20,39,15		37
52″	59,52, 0,23,10, 0,13,26, 3,23		4,22,36,18,18	
		8,22, 8,13,44,20,57		37
54″	59,52, 0,31,32, 8,27,10,24,20		4,22,36,18,55	
		8,22, 3,51, 8, 2, 2		37
56″	59,52, 0,39,54,12,18,18,26,22		4,22,36,19,32	
		8,21,59,28,31,42,30		37
58″	59,52, 0,48,16,11,46,50, 8,52		4,22,36,20, 9	
		8,21,55, 5,55,22,21		
60″	59,52, 0,56,38, 6,52,45,31,13			
exact	59,52, 0,56,38, 6,52,45,47,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°11′ 0″	59,52, 0,56,38, 6,52,45,47,27			
		8,21,50,43,19, 3,18		
2″	59,52, 1, 4,59,57,36, 4,50,45		4,22,36,21,16	
		8,21,46,20,42,42, 2		37
4″	59,52, 1,13,21,43,56,47,32,47		4,22,36,21,53	
		8,21,41,58, 6,20, 9		37
6″	59,52, 1,21,43,25,54,53,52,56		4,22,36,22,30	
		8,21,37,35,29,57,39		37
8″	59,52, 1,30, 5, 3,30,23,50,35		4,22,36,23, 7	
		8,21,33,12,53,34,32		37
10″	59,52, 1,38,26,36,43,17,25, 7		4,22,36,23,44	
		8,21,28,50,17,10,48		37
12″	59,52, 1,46,48, 5,33,34,35,55		4,22,36,24,21	
		8,21,24,27,40,46,27		37
14″	59,52, 1,55, 9,30, 1,15,22,22		4,22,36,24,58	
		8,21,20, 5, 4,21,29		37
16″	59,52, 2, 3,30,50, 6,19,43,51		4,22,36,25,35	
		8,21,15,42,27,55,54		37
18″	59,52, 2,11,52, 5,48,47,39,45		4,22,36,26,12	
		8,21,11,19,51,29,42		37
20″	59,52, 2,20,13,17, 8,39, 9,27		4,22,36,26,49	
		8,21, 6,57,15, 2,53		37
22″	59,52, 2,28,34,24, 5,54,12,20		4,22,36,27,26	
		8,21, 2,34,38,35,27		37
24″	59,52, 2,36,55,26,40,32,47,47		4,22,36,28, 3	
		8,20,58,12, 2, 7,24		37
26″	59,52, 2,45,16,24,52,34,55,11		4,22,36,28,40	
		8,20,53,49,25,38,44		37
28″	59,52, 2,53,37,18,42, 0,33,55		4,22,36,29,17	
		8,20,49,26,49, 9,27		37
30″	59,52, 3, 1,58, 8, 8,49,43,22		4,22,36,29,54	
		8,20,45, 4,12,39,33		37
32″	59,52, 3,10,18,53,13, 2,22,55		4,22,36,30,31	
		8,20,40,41,36, 9, 2		37
34″	59,52, 3,18,39,33,54,38,31,57		4,22,36,31, 8	
		8,20,36,18,59,37,54		37
36″	59,52, 3,27, 0,10,13,38, 9,51		4,22,36,31,45	
		8,20,31,56,23, 6, 9		37
38″	59,52, 3,35,20,42,10, 1,16, 0		4,22,36,32,22	
		8,20,27,33,46,33,47		37
40″	59,52, 3,43,41, 9,43,47,49,47		4,22,36,32,59	
		8,20,23,11,10, 0,48		37
42″	59,52, 3,52, 1,32,54,57,50,35		4,22,36,33,36	
		8,20,18,48,33,27,12		37
44″	59,52, 4, 0,21,51,43,31,17,47		4,22,36,34,13	
		8,20,14,25,56,52,59		37
46″	59,52, 4, 8,42, 6, 9,28,10,46		4,22,36,34,50	
		8,20,10, 3,20,18, 9		37
48″	59,52, 4,17, 2,16,12,48,28,55		4,22,36,35,27	
		8,20, 5,40,43,42,42		37
50″	59,52, 4,25,22,21,53,32,11,37		4,22,36,36, 4	
		8,20, 1,18, 7, 6,38		37
52″	59,52, 4,33,42,23,11,39,18,15		4,22,36,36,41	
		8,19,56,55,30,29,57		37
54″	59,52, 4,42, 2,20, 7, 9,48,12		4,22,36,37,18	
		8,19,52,32,53,52,39		37
56″	59,52, 4,50,22,12,40, 3,40,51		4,22,36,37,55	
		8,19,48,10,17,14,44		37
58″	59,52, 4,58,42, 0,50,20,55,35		4,22,36,38,32	
		8,19,43,47,40,36,12		
60″	59,52, 5, 7, 1,44,38, 1,31,47			
exact	59,52, 5, 7, 1,44,38, 1,59, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°12′ 0″	59,52, 5, 7, 1,44,38, 1,59, 7			
		8,19,39,25, 3,59,56		
2″	59,52, 5,15,21,24, 3, 5,59, 3		4,22,36,39,34	
		8,19,35, 2,27,20,22		37
4″	59,52, 5,23,40,59, 5,33,19,25		4,22,36,40,11	
		8,19,30,39,50,40,11		37
6″	59,52, 5,32, 0,29,45,23,59,36		4,22,36,40,48	
		8,19,26,17,13,59,23		37
8″	59,52, 5,40,19,56, 2,37,58,59		4,22,36,41,25	
		8,19,21,54,37,17,58		37
10″	59,52, 5,48,39,17,57,15,16,57		4,22,36,42, 2	
		8,19,17,32, 0,35,56		37
12″	59,52, 5,56,58,35,29,15,52,53		4,22,36,42,39	
		8,19,13, 9,23,53,17		37
14″	59,52, 6, 5,17,48,38,39,46,10		4,22,36,43,16	
		8,19, 8,46,47,10, 1		37
16″	59,52, 6,13,36,57,25,26,56,11		4,22,36,43,53	
		8,19, 4,24,10,26, 8		37
18″	59,52, 6,21,56, 1,49,37,22,19		4,22,36,44,30	
		8,19, 0, 1,33,41,38		37
20″	59,52, 6,30,15, 1,51,11, 3,57		4,22,36,45, 7	
		8,18,55,38,56,56,31		37
22″	59,52, 6,38,33,57,30, 8, 0,28		4,22,36,45,44	
		8,18,51,16,20,10,47		37
24″	59,52, 6,46,52,48,46,28,11,15		4,22,36,46,21	
		8,18,46,53,43,24,26		37
26″	59,52, 6,55,11,35,40,11,35,41		4,22,36,46,58	
		8,18,42,31, 6,37,28		37
28″	59,52, 7, 3,30,18,11,18,13, 9		4,22,36,47,35	
		8,18,38, 8,29,49,53		37
30″	59,52, 7,11,48,56,19,48, 3, 2		4,22,36,48,12	
		8,18,33,45,53, 1,41		37
32″	59,52, 7,20, 7,30, 5,41, 4,43		4,22,36,48,49	
		8,18,29,23,16,12,52		37
34″	59,52, 7,28,25,59,28,57,17,35		4,22,36,49,26	
		8,18,25, 0,39,23,26		37
36″	59,52, 7,36,44,24,29,36,41, 1		4,22,36,50, 3	
		8,18,20,38, 2,33,23		37
38″	59,52, 7,45, 2,45, 7,39,14,24		4,22,36,50,40	
		8,18,16,15,25,42,43		37
40″	59,52, 7,53,21, 1,23, 4,57, 7		4,22,36,51,17	
		8,18,11,52,48,51,26		37
42″	59,52, 8, 1,39,13,15,53,48,33		4,22,36,51,54	
		8,18, 7,30,11,59,32		37
44″	59,52, 8, 9,57,20,46, 5,48, 5		4,22,36,52,31	
		8,18, 3, 7,35, 7, 1		37
46″	59,52, 8,18,15,23,53,40,55, 6		4,22,36,53, 8	
		8,17,58,44,58,13,53		37
48″	59,52, 8,26,33,22,38,39, 8,59		4,22,36,53,45	
		8,17,54,22,21,20, 8		37
50″	59,52, 8,34,51,17, 1, 0,29, 7		4,22,36,54,22	
		8,17,49,59,44,25,46		37
52″	59,52, 8,43, 9, 7, 0,44,54,53		4,22,36,54,59	
		8,17,45,37, 7,30,47		37
54″	59,52, 8,51,26,52,37,52,25,40		4,22,36,55,36	
		8,17,41,14,30,35,11		37
56″	59,52, 8,59,44,33,52,23, 0,51		4,22,36,56,13	
		8,17,36,51,53,38,58		37
58″	59,52, 9, 8, 2,10,44,16,39,49		4,22,36,56,50	
		8,17,32,29,16,42, 8		
60″	59,52, 9,16,19,43,13,33,21,57			
exact	59,52, 9,16,19,43,13,33,58,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°13′ 0″	59,52, 9,16,19,43,13,33,58,52			
		8,17,28, 6,39,48,39		
2″	59,52, 9,24,37,11,20,13,47,31		4,22,36,57,47	
		8,17,23,44, 2,50,52		36
4″	59,52, 9,32,54,35, 4,16,38,23		4,22,36,58,23	
		8,17,19,21,25,52,29		36
6″	59,52, 9,41,11,54,25,42,30,52		4,22,36,58,59	
		8,17,14,58,48,53,30		36
8″	59,52, 9,49,29, 9,24,31,24,22		4,22,36,59,35	
		8,17,10,36,11,53,55		36
10″	59,52, 9,57,46,20, 0,43,18,17		4,22,37, 0,11	
		8,17, 6,13,34,53,44		36
12″	59,52,10, 6, 3,26,14,18,12, 1		4,22,37, 0,47	
		8,17, 1,50,57,52,57		36
14″	59,52,10,14,20,28, 5,16, 4,58		4,22,37, 1,23	
		8,16,57,28,20,51,34		36
16″	59,52,10,22,37,25,33,36,56,32		4,22,37, 1,59	
		8,16,53, 5,43,49,35		36
18″	59,52,10,30,54,18,39,20,46, 7		4,22,37, 2,35	
		8,16,48,43, 6,47, 0		36
20″	59,52,10,39,11, 7,22,27,33, 7		4,22,37, 3,11	
		8,16,44,20,29,43,49		36
22″	59,52,10,47,27,51,42,57,16,56		4,22,37, 3,47	
		8,16,39,57,52,40, 2		36
24″	59,52,10,55,44,31,40,49,56,58		4,22,37, 4,23	
		8,16,35,35,15,35,39		36
26″	59,52,11, 4, 1, 7,16, 5,32,37		4,22,37, 4,59	
		8,16,31,12,38,30,40		36
28″	59,52,11,12,17,38,28,44, 3,17		4,22,37, 5,35	
		8,16,26,50, 1,25, 5		36
30″	59,52,11,20,34, 5,18,45,28,22		4,22,37, 6,11	
		8,16,22,27,24,18,54		36
32″	59,52,11,28,50,27,46, 9,47,16		4,22,37, 6,47	
		8,16,18, 4,47,12, 7		36
34″	59,52,11,37, 6,45,50,56,59,23		4,22,37, 7,23	
		8,16,13,42,10, 4,44		36
36″	59,52,11,45,22,59,33, 7, 4, 7		4,22,37, 7,59	
		8,16, 9,19,32,56,45		36
38″	59,52,11,53,39, 8,52,40, 0,52		4,22,37, 8,35	
		8,16, 4,56,55,48,10		36
40″	59,52,12, 1,55,13,49,35,49, 2		4,22,37, 9,11	
		8,16, 0,34,18,38,59		36
42″	59,52,12,10,11,14,23,54,28, 1		4,22,37, 9,47	
		8,15,56,11,41,29,12		36
44″	59,52,12,18,27,10,35,35,57,13		4,22,37,10,23	
		8,15,51,49, 4,18,49		36
46″	59,52,12,26,43, 2,24,40,16, 2		4,22,37,10,59	
		8,15,47,26,27, 7,50		36
48″	59,52,12,34,58,49,51, 7,23,52		4,22,37,11,35	
		8,15,43, 3,49,56,15		36
50″	59,52,12,43,14,32,54,57,20, 7		4,22,37,12,11	
		8,15,38,41,12,44, 4		36
52″	59,52,12,51,30,11,36,10, 4,11		4,22,37,12,47	
		8,15,34,18,35,31,17		36
54″	59,52,12,59,45,45,54,45,35,28		4,22,37,13,23	
		8,15,29,55,58,17,54		36
56″	59,52,13, 8, 1,15,50,43,53,22		4,22,37,13,59	
		8,15,25,33,21, 3,55		36
58″	59,52,13,16,16,41,24, 4,57,17		4,22,37,14,35	
		8,15,21,10,43,49,20		
60″	59,52,13,24,32, 2,34,48,46,37			
exact	59,52,13,24,32, 2,34,48,23,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°14′ 0″	59,52,13,24,32, 2,34,48,23,27			
		8,15,16,48, 6,31,49		
2″	59,52,13,32,47,19,22,54,55,16		4,22,37,15,56	
		8,15,12,25,29,15,53		36
4″	59,52,13,41, 2,31,48,24,11, 9		4,22,37,16,32	
		8,15, 8, 2,51,59,21		36
6″	59,52,13,49,17,39,51,16,10,30		4,22,37,17, 8	
		8,15, 3,40,14,42,13		36
8″	59,52,13,57,32,43,31,30,52,43		4,22,37,17,44	
		8,14,59,17,37,24,29		36
10″	59,52,14, 5,47,42,49, 8,17,12		4,22,37,18,20	
		8,14,54,55, 0, 6, 9		36
12″	59,52,14,14, 2,37,44, 8,23,21		4,22,37,18,56	
		8,14,50,32,22,47,13		36
14″	59,52,14,22,17,28,16,31,10,34		4,22,37,19,32	
		8,14,46, 9,45,27,41		36
16″	59,52,14,30,32,14,26,16,38,15		4,22,37,20, 8	
		8,14,41,47, 8, 7,33		36
18″	59,52,14,38,46,56,13,24,45,48		4,22,37,20,44	
		8,14,37,24,30,46,49		36
20″	59,52,14,47, 1,33,37,55,32,37		4,22,37,21,20	
		8,14,33, 1,53,25,29		36
22″	59,52,14,55,16, 6,39,48,58, 6		4,22,37,21,56	
		8,14,28,39,16, 3,33		36
24″	59,52,15, 3,30,35,19, 5, 1,39		4,22,37,22,32	
		8,14,24,16,38,41, 1		36
26″	59,52,15,11,44,59,35,43,42,40		4,22,37,23, 8	
		8,14,19,54, 1,17,53		36
28″	59,52,15,19,59,19,29,45, 0,33		4,22,37,23,44	
		8,14,15,31,23,54, 9		36
30″	59,52,15,28,13,35, 1, 8,54,42		4,22,37,24,20	
		8,14,11, 8,46,29,49		36
32″	59,52,15,36,27,46, 9,55,24,31		4,22,37,24,56	
		8,14, 6,46, 9, 4,53		36
34″	59,52,15,44,41,52,56, 4,29,24		4,22,37,25,32	
		8,14, 2,23,31,39,21		36
36″	59,52,15,52,55,55,19,36, 8,45		4,22,37,26, 8	
		8,13,58, 0,54,13,13		36
38″	59,52,16, 1, 9,53,20,30,21,58		4,22,37,26,44	
		8,13,53,38,16,46,29		36
40″	59,52,16, 9,23,46,58,47, 8,27		4,22,37,27,20	
		8,13,49,15,39,19, 9		36
42″	59,52,16,17,37,36,14,26,27,36		4,22,37,27,56	
		8,13,44,53, 1,51,13		36
44″	59,52,16,25,51,21, 7,28,18,49		4,22,37,28,32	
		8,13,40,30,24,22,41		36
46″	59,52,16,34, 5, 1,37,52,41,30		4,22,37,29, 8	
		8,13,36, 7,46,53,33		36
48″	59,52,16,42,18,37,45,39,35, 3		4,22,37,29,44	
		8,13,31,45, 9,23,49		36
50″	59,52,16,50,32, 9,30,48,58,52		4,22,37,30,20	
		8,13,27,22,31,53,29		36
52″	59,52,16,58,45,36,53,20,52,21		4,22,37,30,56	
		8,13,22,59,54,22,33		36
54″	59,52,17, 6,58,59,53,15,14,54		4,22,37,31,32	
		8,13,18,37,16,51, 1		36
56″	59,52,17,15,12,18,30,32, 5,55		4,22,37,32, 8	
		8,13,14,14,39,18,53		36
58″	59,52,17,23,25,32,45,11,24,48		4,22,37,32,44	
		8,13, 9,52, 1,46, 9		
60″	59,52,17,31,38,42,37,13,10,57			
exact	59,52,17,31,38,42,37,13, 1,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°15′ 0″	59,52,17,31,38,42,37,13, 1,36			
		8,13, 5,29,24,11,51		
2″	59,52,17,39,51,48, 6,37,13,27		4,22,37,33,59	
		8,13, 1, 6,46,37,52		36
4″	59,52,17,48, 4,49,13,23,51,19		4,22,37,34,35	
		8,12,56,44, 9, 3,17		36
6″	59,52,17,56,17,45,57,32,54,36		4,22,37,35,11	
		8,12,52,21,31,28, 6		36
8″	59,52,18, 4,30,38,19, 4,22,42		4,22,37,35,47	
		8,12,47,58,53,52,19		36
10″	59,52,18,12,43,26,17,58,15, 1		4,22,37,36,23	
		8,12,43,36,16,15,56		36
12″	59,52,18,20,56, 9,54,14,30,57		4,22,37,36,59	
		8,12,39,13,38,38,57		36
14″	59,52,18,29, 8,49, 7,53, 9,54		4,22,37,37,35	
		8,12,34,51, 1, 1,22		36
16″	59,52,18,37,21,23,58,54,11,16		4,22,37,38,11	
		8,12,30,28,23,23,11		36
18″	59,52,18,45,33,54,27,17,34,27		4,22,37,38,47	
		8,12,26, 5,45,44,24		36
20″	59,52,18,53,46,20,33, 3,18,51		4,22,37,39,23	
		8,12,21,43, 8, 5, 1		36
22″	59,52,19, 1,58,42,16,11,23,52		4,22,37,39,59	
		8,12,17,20,30,25, 2		36
24″	59,52,19,10,10,59,36,41,48,54		4,22,37,40,35	
		8,12,12,57,52,44,27		36
26″	59,52,19,18,23,12,34,34,33,21		4,22,37,41,11	
		8,12, 8,35,15, 3,16		36
28″	59,52,19,26,35,21, 9,49,36,37		4,22,37,41,47	
		8,12, 4,12,37,21,29		36
30″	59,52,19,34,47,25,22,26,58, 6		4,22,37,42,23	
		8,11,59,49,59,39, 6		36
32″	59,52,19,42,59,25,12,26,37,12		4,22,37,42,59	
		8,11,55,27,21,56, 7		36
34″	59,52,19,51,11,20,39,48,33,19		4,22,37,43,35	
		8,11,51, 4,44,12,32		36
36″	59,52,19,59,23,11,44,32,45,51		4,22,37,44,11	
		8,11,46,42, 6,28,21		36
38″	59,52,20, 7,34,58,26,39,14,12		4,22,37,44,47	
		8,11,42,19,28,43,34		36
40″	59,52,20,15,46,40,46, 7,57,46		4,22,37,45,23	
		8,11,37,56,50,58,11		36
42″	59,52,20,23,58,18,42,58,55,57		4,22,37,45,59	
		8,11,33,34,13,12,12		36
44″	59,52,20,32, 9,52,17,12, 8, 9		4,22,37,46,35	
		8,11,29,11,35,25,37		36
46″	59,52,20,40,21,21,28,47,33,46		4,22,37,47,11	
		8,11,24,48,57,38,26		36
48″	59,52,20,48,32,46,17,45,12,12		4,22,37,47,47	
		8,11,20,26,19,50,39		36
50″	59,52,20,56,44, 6,44, 5, 2,51		4,22,37,48,23	
		8,11,16, 3,42, 2,16		36
52″	59,52,21, 4,55,22,47,47, 5, 7		4,22,37,48,59	
		8,11,11,41, 4,13,17		36
54″	59,52,21,13, 6,34,28,51,18,24		4,22,37,49,35	
		8,11, 7,18,26,23,42		36
56″	59,52,21,21,17,41,47,17,42, 6		4,22,37,50,11	
		8,11, 2,55,48,33,31		36
58″	59,52,21,29,28,44,43, 6,15,37		4,22,37,50,47	
		8,10,58,33,10,42,44		
60″	59,52,21,37,39,43,16,16,58,21			
exact	59,52,21,37,39,43,16,16,54, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°16′ 0″	59,52,21,37,39,43,16,16,54, 4			
		8,10,54,10,32,51, 8		
2″	59,52,21,45,50,37,26,49,45,12		4,22,37,51,58	
		8,10,49,47,54,59,10		36
4″	59,52,21,54, 1,27,14,44,44,22		4,22,37,52,34	
		8,10,45,25,17, 6,36		36
6″	59,52,22, 2,12,12,40, 1,50,58		4,22,37,53,10	
		8,10,41, 2,39,13,26		36
8″	59,52,22,10,22,53,42,41, 4,24		4,22,37,53,46	
		8,10,36,40, 1,19,40		36
10″	59,52,22,18,33,30,22,42,24, 4		4,22,37,54,22	
		8,10,32,17,23,25,18		36
12″	59,52,22,26,44, 2,40, 5,49,22		4,22,37,54,58	
		8,10,27,54,45,30,20		36
14″	59,52,22,34,54,30,34,51,19,42		4,22,37,55,34	
		8,10,23,32, 7,34,46		36
16″	59,52,22,43, 4,54, 6,58,54,28		4,22,37,56,10	
		8,10,19, 9,29,38,36		36
18″	59,52,22,51,15,13,16,28,33, 4		4,22,37,56,46	
		8,10,14,46,51,41,50		36
20″	59,52,22,59,25,28, 3,20,14,54		4,22,37,57,22	
		8,10,10,24,13,44,28		36
22″	59,52,23, 7,35,38,27,33,59,22		4,22,37,57,58	
		8,10, 6, 1,35,46,30		36
24″	59,52,23,15,45,44,29, 9,45,52		4,22,37,58,34	
		8,10, 1,38,57,47,56		36
26″	59,52,23,23,55,46, 8, 7,33,48		4,22,37,59,10	
		8, 9,57,16,19,48,46		36
28″	59,52,23,32, 5,43,24,27,22,34		4,22,37,59,46	
		8, 9,52,53,41,49, 0		36
30″	59,52,23,40,15,36,18, 9,11,34		4,22,38, 0,22	
		8, 9,48,31, 3,48,38		36
32″	59,52,23,48,25,24,49,13, 0,12		4,22,38, 0,58	
		8, 9,44, 8,25,47,40		36
34″	59,52,23,56,35, 8,57,38,47,52		4,22,38, 1,34	
		8, 9,39,45,47,46, 6		36
36″	59,52,24, 4,44,48,43,26,33,58		4,22,38, 2,10	
		8, 9,35,23, 9,43,56		36
38″	59,52,24,12,54,24, 6,36,17,54		4,22,38, 2,46	
		8, 9,31, 0,31,41,10		36
40″	59,52,24,21, 3,55, 7, 7,59, 4		4,22,38, 3,22	
		8, 9,26,37,53,37,48		36
42″	59,52,24,29,13,21,45, 1,36,52		4,22,38, 3,58	
		8, 9,22,15,15,33,50		36
44″	59,52,24,37,22,44, 0,17,10,42		4,22,38, 4,34	
		8, 9,17,52,37,29,16		36
46″	59,52,24,45,32, 1,52,54,39,58		4,22,38, 5,10	
		8, 9,13,29,59,24, 6		36
48″	59,52,24,53,41,15,22,54, 4, 4		4,22,38, 5,46	
		8, 9, 9, 7,21,18,20		36
50″	59,52,25, 1,50,24,30,15,22,24		4,22,38, 6,22	
		8, 9, 4,44,43,11,58		36
52″	59,52,25, 9,59,29,14,58,34,22		4,22,38, 6,58	
		8, 9, 0,22, 5, 5, 0		36
54″	59,52,25,18, 8,29,37, 3,39,22		4,22,38, 7,34	
		8, 8,55,59,26,57,26		36
56″	59,52,25,26,17,25,36,30,36,48		4,22,38, 8,10	
		8, 8,51,36,48,49,16		36
58″	59,52,25,34,26,17,13,19,26, 4		4,22,38, 8,46	
		8, 8,47,14,10,40,30		
60″	59,52,25,42,35, 4,27,30, 6,34			
exact	59,52,25,42,35, 4,27,30,13,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°17′ 0″	59,52,25,42,35, 4,27,30,13,36			
		8, 8,42,51,32,32, 6		
2″	59,52,25,50,43,47,19, 2,45,42		4,22,38, 9,53	
		8, 8,38,28,54,22,13		36
4″	59,52,25,58,52,25,47,57, 7,55		4,22,38,10,29	
		8, 8,34, 6,16,11,44		36
6″	59,52,26, 7, 0,59,54,13,19,39		4,22,38,11, 5	
		8, 8,29,43,38, 0,39		36
8″	59,52,26,15, 9,29,37,51,20,18		4,22,38,11,41	
		8, 8,25,20,59,48,58		36
10″	59,52,26,23,17,54,58,51, 9,16		4,22,38,12,17	
		8, 8,20,58,21,36,41		36
12″	59,52,26,31,26,15,57,12,45,57		4,22,38,12,53	
		8, 8,16,35,43,23,48		36
14″	59,52,26,39,34,32,32,56, 9,45		4,22,38,13,29	
		8, 8,12,13, 5,10,19		36
16″	59,52,26,47,42,44,46, 1,20, 4		4,22,38,14, 5	
		8, 8, 7,50,26,56,14		36
18″	59,52,26,55,50,52,36,28,16,18		4,22,38,14,41	
		8, 8, 3,27,48,41,33		36
20″	59,52,27, 3,58,56, 4,16,57,51		4,22,38,15,17	
		8, 7,59, 5,10,26,16		36
22″	59,52,27,12, 6,55, 9,27,24, 7		4,22,38,15,53	
		8, 7,54,42,32,10,23		36
24″	59,52,27,20,14,49,51,59,34,30		4,22,38,16,29	
		8, 7,50,19,53,53,54		36
26″	59,52,27,28,22,40,11,53,28,24		4,22,38,17, 5	
		8, 7,45,57,15,36,49		36
28″	59,52,27,36,30,26, 9, 9, 5,13		4,22,38,17,41	
		8, 7,41,34,37,19, 8		36
30″	59,52,27,44,38, 7,43,46,24,21		4,22,38,18,17	
		8, 7,37,11,59, 0,51		36
32″	59,52,27,52,45,44,55,45,25,12		4,22,38,18,53	
		8, 7,32,49,20,41,58		36
34″	59,52,28, 0,53,17,45, 6, 7,10		4,22,38,19,29	
		8, 7,28,26,42,22,29		36
36″	59,52,28, 9, 0,46,11,48,29,39		4,22,38,20, 5	
		8, 7,24, 4, 4, 2,24		36
38″	59,52,28,17, 8,10,15,52,32, 3		4,22,38,20,41	
		8, 7,19,41,25,41,43		36
40″	59,52,28,25,15,29,57,18,13,46		4,22,38,21,17	
		8, 7,15,18,47,20,26		36
42″	59,52,28,33,22,45,16, 5,34,12		4,22,38,21,53	
		8, 7,10,56, 8,58,33		36
44″	59,52,28,41,29,56,12,14,32,45		4,22,38,22,29	
		8, 7, 6,33,30,36, 4		36
46″	59,52,28,49,37, 2,45,45, 8,49		4,22,38,23, 5	
		8, 7, 2,10,52,12,59		36
48″	59,52,28,57,44, 4,56,37,21,48		4,22,38,23,41	
		8, 6,57,48,13,49,18		36
50″	59,52,29, 5,51, 2,44,51,11, 6		4,22,38,24,17	
		8, 6,53,25,35,25, 1		36
52″	59,52,29,13,57,56,10,26,36, 7		4,22,38,24,53	
		8, 6,49, 2,57, 0, 8		36
54″	59,52,29,22, 4,45,13,23,36,15		4,22,38,25,29	
		8, 6,44,40,18,34,39		36
56″	59,52,29,30,11,29,53,42,10,54		4,22,38,26, 5	
		8, 6,40,17,40, 8,34		36
58″	59,52,29,38,18,10,11,22,19,28		4,22,38,26,41	
		8, 6,35,55, 1,41,53		
60″	59,52,29,46,24,46, 6,24, 1,21			
exact	59,52,29,46,24,46, 6,24,24,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°18′ 0″	59,52,29,46,24,46, 6,24,24,54			
		8, 6,31,32,23,17, 8		
2″	59,52,29,54,31,17,38,47,42, 2		4,22,38,27,42	
		8, 6,27, 9,44,49,26		36
4″	59,52,30, 2,37,44,48,32,31,28		4,22,38,28,18	
		8, 6,22,47, 6,21, 8		36
6″	59,52,30,10,44, 7,35,38,52,36		4,22,38,28,54	
		8, 6,18,24,27,52,14		36
8″	59,52,30,18,50,26, 0, 6,44,50		4,22,38,29,30	
		8, 6,14, 1,49,22,44		36
10″	59,52,30,26,56,40, 1,56, 7,34		4,22,38,30, 6	
		8, 6, 9,39,10,52,38		36
12″	59,52,30,35, 2,49,41, 7, 0,12		4,22,38,30,42	
		8, 6, 5,16,32,21,56		36
14″	59,52,30,43, 8,54,57,39,22, 8		4,22,38,31,18	
		8, 6, 0,53,53,50,38		36
16″	59,52,30,51,14,55,51,33,12,46		4,22,38,31,54	
		8, 5,56,31,15,18,44		36
18″	59,52,30,59,20,52,22,48,31,30		4,22,38,32,30	
		8, 5,52, 8,36,46,14		36
20″	59,52,31, 7,26,44,31,25,17,44		4,22,38,33, 6	
		8, 5,47,45,58,13, 8		36
22″	59,52,31,15,32,32,17,23,30,52		4,22,38,33,42	
		8, 5,43,23,19,39,26		36
24″	59,52,31,23,38,15,40,43,10,18		4,22,38,34,18	
		8, 5,39, 0,41, 5, 8		36
26″	59,52,31,31,43,54,41,24,15,26		4,22,38,34,54	
		8, 5,34,38, 2,30,14		36
28″	59,52,31,39,49,29,19,26,45,40		4,22,38,35,30	
		8, 5,30,15,23,54,44		36
30″	59,52,31,47,54,59,34,50,40,24		4,22,38,36, 6	
		8, 5,25,52,45,18,38		36
32″	59,52,31,56, 0,25,27,35,59, 2		4,22,38,36,42	
		8, 5,21,30, 6,41,56		36
34″	59,52,32, 4, 5,46,57,42,40,58		4,22,38,37,18	
		8, 5,17, 7,28, 4,38		36
36″	59,52,32,12,11, 4, 5,10,45,36		4,22,38,37,54	
		8, 5,12,44,49,26,44		36
38″	59,52,32,20,16,16,50, 0,12,20		4,22,38,38,30	
		8, 5, 8,22,10,48,14		36
40″	59,52,32,28,21,25,12,11, 0,34		4,22,38,39, 6	
		8, 5, 3,59,32, 9, 8		36
42″	59,52,32,36,26,29,11,43, 9,42		4,22,38,39,42	
		8, 4,59,36,53,29,26		36
44″	59,52,32,44,31,28,48,36,39, 8		4,22,38,40,18	
		8, 4,55,14,14,49, 8		36
46″	59,52,32,52,36,24, 2,51,28,16		4,22,38,40,54	
		8, 4,50,51,36, 8,14		36
48″	59,52,33, 0,41,14,54,27,36,30		4,22,38,41,30	
		8, 4,46,28,57,26,44		36
50″	59,52,33, 8,46, 1,23,25, 3,14		4,22,38,42, 6	
		8, 4,42, 6,18,44,38		36
52″	59,52,33,16,50,43,29,43,47,52		4,22,38,42,42	
		8, 4,37,43,40, 1,56		36
54″	59,52,33,24,55,21,13,23,49,48		4,22,38,43,18	
		8, 4,33,21, 1,18,38		36
56″	59,52,33,32,59,54,34,25, 8,26		4,22,38,43,54	
		8, 4,28,58,22,34,44		36
58″	59,52,33,41, 4,23,32,47,43,10		4,22,38,44,30	
		8, 4,24,35,43,50,14		
60″	59,52,33,49, 8,48, 8,31,33,24			
exact	59,52,33,49, 8,48, 8,32, 4,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°19′ 0″	59,52,33,49, 8,48, 8,32, 4,46			
		8, 4,20,13, 5, 8,37		
2″	59,52,33,57,13, 8,21,37,13,23		4,22,38,45,27	
		8, 4,15,50,26,23,10		35
4″	59,52,34, 5,17,24,12, 3,36,33		4,22,38,46, 2	
		8, 4,11,27,47,37, 8		35
6″	59,52,34,13,21,35,39,51,13,41		4,22,38,46,37	
		8, 4, 7, 5, 8,50,31		35
8″	59,52,34,21,25,42,45, 0, 4,12		4,22,38,47,12	
		8, 4, 2,42,30, 3,19		35
10″	59,52,34,29,29,45,27,30, 7,31		4,22,38,47,47	
		8, 3,58,19,51,15,32		35
12″	59,52,34,37,33,43,47,21,23, 3		4,22,38,48,22	
		8, 3,53,57,12,27,10		35
14″	59,52,34,45,37,37,44,33,50,13		4,22,38,48,57	
		8, 3,49,34,33,38,13		35
16″	59,52,34,53,41,27,19, 7,28,26		4,22,38,49,32	
		8, 3,45,11,54,48,41		35
18″	59,52,35, 1,45,12,31, 2,17, 7		4,22,38,50, 7	
		8, 3,40,49,15,58,34		35
20″	59,52,35, 9,48,53,20,18,15,41		4,22,38,50,42	
		8, 3,36,26,37, 7,52		35
22″	59,52,35,17,52,29,46,55,23,33		4,22,38,51,17	
		8, 3,32, 3,58,16,35		35
24″	59,52,35,25,56, 1,50,53,40, 8		4,22,38,51,52	
		8, 3,27,41,19,24,43		35
26″	59,52,35,33,59,29,32,13, 4,51		4,22,38,52,27	
		8, 3,23,18,40,32,16		35
28″	59,52,35,42, 2,52,50,53,37, 7		4,22,38,53, 2	
		8, 3,18,56, 1,39,14		35
30″	59,52,35,50, 6,11,46,55,16,21		4,22,38,53,37	
		8, 3,14,33,22,45,37		35
32″	59,52,35,58, 9,26,20,18, 1,58		4,22,38,54,12	
		8, 3,10,10,43,51,25		35
34″	59,52,36, 6,12,36,31, 1,53,23		4,22,38,54,47	
		8, 3, 5,48, 4,56,38		35
36″	59,52,36,14,15,42,19, 6,50, 1		4,22,38,55,22	
		8, 3, 1,25,26, 1,16		35
38″	59,52,36,22,18,43,44,32,51,17		4,22,38,55,57	
		8, 2,57, 2,47, 5,19		35
40″	59,52,36,30,21,40,47,19,56,36		4,22,38,56,32	
		8, 2,52,40, 8, 8,47		35
42″	59,52,36,38,24,33,27,28, 5,23		4,22,38,57, 7	
		8, 2,48,17,29,11,40		35
44″	59,52,36,46,27,21,44,57,17, 3		4,22,38,57,42	
		8, 2,43,54,50,13,58		35
46″	59,52,36,54,30, 5,39,47,31, 1		4,22,38,58,17	
		8, 2,39,32,11,15,41		35
48″	59,52,37, 2,32,45,11,58,46,42		4,22,38,58,52	
		8, 2,35, 9,32,16,49		35
50″	59,52,37,10,35,20,21,31, 3,31		4,22,38,59,27	
		8, 2,30,46,53,17,22		35
52″	59,52,37,18,37,51, 8,24,20,53		4,22,39, 0, 2	
		8, 2,26,24,14,17,20		35
54″	59,52,37,26,40,17,32,38,38,13		4,22,39, 0,37	
		8, 2,22, 1,35,16,43		35
56″	59,52,37,34,42,39,34,13,54,56		4,22,39, 1,12	
		8, 2,17,38,56,15,31		35
58″	59,52,37,42,44,57,13,10,10,27		4,22,39, 1,47	
		8, 2,13,16,17,13,44		
60″	59,52,37,50,47,10,29,27,24,11			
exact	59,52,37,50,47,10,29,27, 1,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°20′ 0″	59,52,37,50,47,10,29,27, 1,54			
		8, 2, 8,53,38, 8,59		
2″	59,52,37,58,49,19,23, 5,10,53		4,22,39, 3, 6	
		8, 2, 4,30,59, 5,53		35
4″	59,52,38, 6,51,23,54, 4,16,46		4,22,39, 3,41	
		8, 2, 0, 8,20, 2,12		35
6″	59,52,38,14,53,24, 2,24,18,58		4,22,39, 4,16	
		8, 1,55,45,40,57,56		35
8″	59,52,38,22,55,19,48, 5,16,54		4,22,39, 4,51	
		8, 1,51,23, 1,53, 5		35
10″	59,52,38,30,57,11,11, 7, 9,59		4,22,39, 5,26	
		8, 1,47, 0,22,47,39		35
12″	59,52,38,38,58,58,11,29,57,38		4,22,39, 6, 1	
		8, 1,42,37,43,41,38		35
14″	59,52,38,47, 0,40,49,13,39,16		4,22,39, 6,36	
		8, 1,38,15, 4,35, 2		35
16″	59,52,38,55, 2,19, 4,18,14,18		4,22,39, 7,11	
		8, 1,33,52,25,27,51		35
18″	59,52,39, 3, 3,52,56,43,42, 9		4,22,39, 7,46	
		8, 1,29,29,46,20, 5		35
20″	59,52,39,11, 5,22,26,30, 2,14		4,22,39, 8,21	
		8, 1,25, 7, 7,11,44		35
22″	59,52,39,19, 6,47,33,37,13,58		4,22,39, 8,56	
		8, 1,20,44,28, 2,48		35
24″	59,52,39,27, 8, 8,18, 5,16,46		4,22,39, 9,31	
		8, 1,16,21,48,53,17		35
26″	59,52,39,35, 9,24,39,54,10, 3		4,22,39,10, 6	
		8, 1,11,59, 9,43,11		35
28″	59,52,39,43,10,36,39, 3,53,14		4,22,39,10,41	
		8, 1, 7,36,30,32,30		35
30″	59,52,39,51,11,44,15,34,25,44		4,22,39,11,16	
		8, 1, 3,13,51,21,14		35
32″	59,52,39,59,12,47,29,25,46,58		4,22,39,11,51	
		8, 0,58,51,12, 9,23		35
34″	59,52,40, 7,13,46,20,37,56,21		4,22,39,12,26	
		8, 0,54,28,32,56,57		35
36″	59,52,40,15,14,40,49,10,53,18		4,22,39,13, 1	
		8, 0,50, 5,53,43,56		35
38″	59,52,40,23,15,30,55, 4,37,14		4,22,39,13,36	
		8, 0,45,43,14,30,20		35
40″	59,52,40,31,16,16,38,19, 7,34		4,22,39,14,11	
		8, 0,41,20,35,16, 9		35
42″	59,52,40,39,16,57,58,54,23,43		4,22,39,14,46	
		8, 0,36,57,56, 1,23		35
44″	59,52,40,47,17,34,56,50,25, 6		4,22,39,15,21	
		8, 0,32,35,16,46, 2		35
46″	59,52,40,55,18, 7,32, 7,11, 8		4,22,39,15,56	
		8, 0,28,12,37,30, 6		35
48″	59,52,41, 3,18,35,44,44,41,14		4,22,39,16,31	
		8, 0,23,49,58,13,35		35
50″	59,52,41,11,18,59,34,42,54,49		4,22,39,17, 6	
		8, 0,19,27,18,56,29		35
52″	59,52,41,19,19,19, 2, 1,51,18		4,22,39,17,41	
		8, 0,15, 4,39,38,48		35
54″	59,52,41,27,19,34, 6,41,30, 6		4,22,39,18,16	
		8, 0,10,42, 0,20,32		35
56″	59,52,41,35,19,44,48,41,50,38		4,22,39,18,51	
		8, 0, 6,19,21, 1,41		35
58″	59,52,41,43,19,51, 8, 2,52,19		4,22,39,19,26	
		8, 0, 1,56,41,42,15		
60″	59,52,41,51,19,53, 4,44,34,34			
exact	59,52,41,51,19,53, 4,44,17, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°21′ 0″	59,52,41,51,19,53, 4,44,17, 6			
		7,59,57,34, 2,20,36		
2″	59,52,41,59,19,50,38,46,37,42		4,22,39,20,41	
		7,59,53,11,22,59,55		35
4″	59,52,42, 7,19,43,50, 9,37,37		4,22,39,21,16	
		7,59,48,48,43,38,39		35
6″	59,52,42,15,19,32,38,53,16,16		4,22,39,21,51	
		7,59,44,26, 4,16,48		35
8″	59,52,42,23,19,17, 4,57,33, 4		4,22,39,22,26	
		7,59,40, 3,24,54,22		35
10″	59,52,42,31,18,57, 8,22,27,26		4,22,39,23, 1	
		7,59,35,40,45,31,21		35
12″	59,52,42,39,18,32,49, 7,58,47		4,22,39,23,36	
		7,59,31,18, 6, 7,45		35
14″	59,52,42,47,18, 4, 7,14, 6,32		4,22,39,24,11	
		7,59,26,55,26,43,34		35
16″	59,52,42,55,17,31, 2,40,50, 6		4,22,39,24,46	
		7,59,22,32,47,18,48		35
18″	59,52,43, 3,16,53,35,28, 8,54		4,22,39,25,21	
		7,59,18,10, 7,53,27		35
20″	59,52,43,11,16,11,45,36, 2,21		4,22,39,25,56	
		7,59,13,47,28,27,31		35
22″	59,52,43,19,15,25,33, 4,29,52		4,22,39,26,31	
		7,59, 9,24,49, 1, 0		35
24″	59,52,43,27,14,34,57,53,30,52		4,22,39,27, 6	
		7,59, 5, 2, 9,33,54		35
26″	59,52,43,35,13,40, 0, 3, 4,46		4,22,39,27,41	
		7,59, 0,39,30, 6,13		35
28″	59,52,43,43,12,40,39,33,10,59		4,22,39,28,16	
		7,58,56,16,50,37,57		35
30″	59,52,43,51,11,36,56,23,48,56		4,22,39,28,51	
		7,58,51,54,11, 9, 6		35
32″	59,52,43,59,10,28,50,34,58, 2		4,22,39,29,26	
		7,58,47,31,31,39,40		35
34″	59,52,44, 7, 9,16,22, 6,37,42		4,22,39,30, 1	
		7,58,43, 8,52, 9,39		35
36″	59,52,44,15, 7,59,30,58,47,21		4,22,39,30,36	
		7,58,38,46,12,39, 3		35
38″	59,52,44,23, 6,38,17,11,26,24		4,22,39,31,11	
		7,58,34,23,33, 7,52		35
40″	59,52,44,31, 5,12,40,44,34,16		4,22,39,31,46	
		7,58,30, 0,53,36, 6		35
42″	59,52,44,39, 3,42,41,38,10,22		4,22,39,32,21	
		7,58,25,38,14, 3,45		35
44″	59,52,44,47, 2, 8,19,52,14, 7		4,22,39,32,56	
		7,58,21,15,34,30,49		35
46″	59,52,44,55, 0,29,35,26,44,56		4,22,39,33,31	
		7,58,16,52,54,57,18		35
48″	59,52,45, 2,58,46,28,21,42,14		4,22,39,34, 6	
		7,58,12,30,15,23,12		35
50″	59,52,45,10,56,58,58,37, 5,26		4,22,39,34,41	
		7,58, 8, 7,35,48,31		35
52″	59,52,45,18,55, 7, 6,12,53,57		4,22,39,35,16	
		7,58, 3,44,56,13,15		35
54″	59,52,45,26,53,10,51, 9, 7,12		4,22,39,35,51	
		7,57,59,22,16,37,24		35
56″	59,52,45,34,51,10,13,25,44,36		4,22,39,36,26	
		7,57,54,59,37, 0,58		35
58″	59,52,45,42,49, 5,13, 2,45,34		4,22,39,37, 1	
		7,57,50,36,57,23,57		
60″	59,52,45,50,46,55,50, 0, 9,31			
exact	59,52,45,50,46,55,50, 0, 3, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°22′ 0″	59,52,45,50,46,55,50, 0, 3, 6			
		7,57,46,14,17,45,53		
2″	59,52,45,58,44,42, 4,17,48,59		4,22,39,38,12	
		7,57,41,51,38, 7,41		35
4″	59,52,46, 6,42,23,55,55,56,40		4,22,39,38,47	
		7,57,37,28,58,28,54		35
6″	59,52,46,14,40, 1,24,54,25,34		4,22,39,39,22	
		7,57,33, 6,18,49,32		35
8″	59,52,46,22,37,34,31,13,15, 6		4,22,39,39,57	
		7,57,28,43,39, 9,35		35
10″	59,52,46,30,35, 3,14,52,24,41		4,22,39,40,32	
		7,57,24,20,59,29, 3		35
12″	59,52,46,38,32,27,35,51,53,44		4,22,39,41, 7	
		7,57,19,58,19,47,56		35
14″	59,52,46,46,29,47,34,11,41,40		4,22,39,41,42	
		7,57,15,35,40, 6,14		35
16″	59,52,46,54,27, 3, 9,51,47,54		4,22,39,42,17	
		7,57,11,13, 0,23,57		35
18″	59,52,47, 2,24,14,22,52,11,51		4,22,39,42,52	
		7,57, 6,50,20,41, 5		35
20″	59,52,47,10,21,21,13,12,52,56		4,22,39,43,27	
		7,57, 2,27,40,57,38		35
22″	59,52,47,18,18,23,40,53,50,34		4,22,39,44, 2	
		7,56,58, 5, 1,13,36		35
24″	59,52,47,26,15,21,45,55, 4,10		4,22,39,44,37	
		7,56,53,42,21,28,59		35
26″	59,52,47,34,12,15,28,16,33, 9		4,22,39,45,12	
		7,56,49,19,41,43,47		35
28″	59,52,47,42, 9, 4,47,58,16,56		4,22,39,45,47	
		7,56,44,57, 1,58, 0		35
30″	59,52,47,50, 5,49,45, 0,14,56		4,22,39,46,22	
		7,56,40,34,22,11,38		35
32″	59,52,47,58, 2,30,19,22,26,34		4,22,39,46,57	
		7,56,36,11,42,24,41		35
34″	59,52,48, 5,59, 6,31, 4,51,15		4,22,39,47,32	
		7,56,31,49, 2,37, 9		35
36″	59,52,48,13,55,38,20, 7,28,24		4,22,39,48, 7	
		7,56,27,26,22,49, 2		35
38″	59,52,48,21,52, 5,46,30,17,26		4,22,39,48,42	
		7,56,23, 3,43, 0,20		35
40″	59,52,48,29,48,28,50,13,17,46		4,22,39,49,17	
		7,56,18,41, 3,11, 3		35
42″	59,52,48,37,44,47,31,16,28,49		4,22,39,49,52	
		7,56,14,18,23,21,11		35
44″	59,52,48,45,41, 1,49,39,50, 0		4,22,39,50,27	
		7,56, 9,55,43,30,44		35
46″	59,52,48,53,37,11,45,23,20,44		4,22,39,51, 2	
		7,56, 5,33, 3,39,42		35
48″	59,52,49, 1,33,17,18,27, 0,26		4,22,39,51,37	
		7,56, 1,10,23,48, 5		35
50″	59,52,49, 9,29,18,28,50,48,31		4,22,39,52,12	
		7,55,56,47,43,55,53		35
52″	59,52,49,17,25,15,16,34,44,24		4,22,39,52,47	
		7,55,52,25, 4, 3, 6		35
54″	59,52,49,25,21, 7,41,38,47,30		4,22,39,53,22	
		7,55,48, 2,24, 9,44		35
56″	59,52,49,33,16,55,44, 2,57,14		4,22,39,53,57	
		7,55,43,39,44,15,47		35
58″	59,52,49,41,12,39,23,47,13, 1		4,22,39,54,32	
		7,55,39,17, 4,21,15		
60″	59,52,49,49, 8,18,40,51,34,16			
exact	59,52,49,49, 8,18,40,51,44,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°23′ 0″	59,52,49,49, 8,18,40,51,44,40			
		7,55,34,54,24,27,14		
2″	59,52,49,57, 3,53,35,16,11,54		4,22,39,55,37	
		7,55,30,31,44,31,37		35
4″	59,52,50, 4,59,24, 7, 0,43,31		4,22,39,56,12	
		7,55,26, 9, 4,35,25		35
6″	59,52,50,12,54,50,16, 5,18,56		4,22,39,56,47	
		7,55,21,46,24,38,38		35
8″	59,52,50,20,50,12, 2,29,57,34		4,22,39,57,22	
		7,55,17,23,44,41,16		35
10″	59,52,50,28,45,29,26,14,38,50		4,22,39,57,57	
		7,55,13, 1, 4,43,19		35
12″	59,52,50,36,40,42,27,19,22, 9		4,22,39,58,32	
		7,55, 8,38,24,44,47		35
14″	59,52,50,44,35,51, 5,44, 6,56		4,22,39,59, 7	
		7,55, 4,15,44,45,40		35
16″	59,52,50,52,30,55,21,28,52,36		4,22,39,59,42	
		7,54,59,53, 4,45,58		35
18″	59,52,51, 0,25,55,14,33,38,34		4,22,40, 0,17	
		7,54,55,30,24,45,41		35
20″	59,52,51, 8,20,50,44,58,24,15		4,22,40, 0,52	
		7,54,51, 7,44,44,49		35
22″	59,52,51,16,15,41,52,43, 9, 4		4,22,40, 1,27	
		7,54,46,45, 4,43,22		35
24″	59,52,51,24,10,28,37,47,52,26		4,22,40, 2, 2	
		7,54,42,22,24,41,20		35
26″	59,52,51,32, 5,11, 0,12,33,46		4,22,40, 2,37	
		7,54,37,59,44,38,43		35
28″	59,52,51,39,59,48,59,57,12,29		4,22,40, 3,12	
		7,54,33,37, 4,35,31		35
30″	59,52,51,47,54,22,37, 1,48, 0		4,22,40, 3,47	
		7,54,29,14,24,31,44		35
32″	59,52,51,55,48,51,51,26,19,44		4,22,40, 4,22	
		7,54,24,51,44,27,22		35
34″	59,52,52, 3,43,16,43,10,47, 6		4,22,40, 4,57	
		7,54,20,29, 4,22,25		35
36″	59,52,52,11,37,37,12,15, 9,31		4,22,40, 5,32	
		7,54,16, 6,24,16,53		35
38″	59,52,52,19,31,53,18,39,26,24		4,22,40, 6, 7	
		7,54,11,43,44,10,46		35
40″	59,52,52,27,26, 5, 2,23,37,10		4,22,40, 6,42	
		7,54, 7,21, 4, 4, 4		35
42″	59,52,52,35,20,12,23,27,41,14		4,22,40, 7,17	
		7,54, 2,58,23,56,47		35
44″	59,52,52,43,14,15,21,51,38, 1		4,22,40, 7,52	
		7,53,58,35,43,48,55		35
46″	59,52,52,51, 8,13,57,35,26,56		4,22,40, 8,27	
		7,53,54,13, 3,40,28		35
48″	59,52,52,59, 2, 8,10,39, 7,24		4,22,40, 9, 2	
		7,53,49,50,23,31,26		35
50″	59,52,53, 6,55,58, 1, 2,38,50		4,22,40, 9,37	
		7,53,45,27,43,21,49		35
52″	59,52,53,14,49,43,28,46, 0,39		4,22,40,10,12	
		7,53,41, 5, 3,11,37		35
54″	59,52,53,22,43,24,33,49,12,16		4,22,40,10,47	
		7,53,36,42,23, 0,50		35
56″	59,52,53,30,37, 1,16,12,13, 6		4,22,40,11,22	
		7,53,32,19,42,49,28		35
58″	59,52,53,38,30,33,35,55, 2,34		4,22,40,11,57	
		7,53,27,57, 2,37,31		
60″	59,52,53,46,24, 1,32,57,40, 5			
exact	59,52,53,46,24, 1,32,57,58,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°24′ 0″	59,52,53,46,24, 1,32,57,58,36			
		7,53,23,34,22,27, 3		
2″	59,52,53,54,17,25, 7,20,25,39		4,22,40,12,58	
		7,53,19,11,42,14, 5		35
4″	59,52,54, 2,10,44,19, 2,39,44		4,22,40,13,33	
		7,53,14,49, 2, 0,32		35
6″	59,52,54,10, 3,59, 8, 4,40,16		4,22,40,14, 8	
		7,53,10,26,21,46,24		35
8″	59,52,54,17,57, 9,34,26,26,40		4,22,40,14,43	
		7,53, 6, 3,41,31,41		35
10″	59,52,54,25,50,15,38, 7,58,21		4,22,40,15,18	
		7,53, 1,41, 1,16,23		35
12″	59,52,54,33,43,17,19, 9,14,44		4,22,40,15,53	
		7,52,57,18,21, 0,30		35
14″	59,52,54,41,36,14,37,30,15,14		4,22,40,16,28	
		7,52,52,55,40,44, 2		35
16″	59,52,54,49,29, 7,33,10,59,16		4,22,40,17, 3	
		7,52,48,33, 0,26,59		35
18″	59,52,54,57,21,56, 6,11,26,15		4,22,40,17,38	
		7,52,44,10,20, 9,21		35
20″	59,52,55, 5,14,40,16,31,35,36		4,22,40,18,13	
		7,52,39,47,39,51, 8		35
22″	59,52,55,13, 7,20, 4,11,26,44		4,22,40,18,48	
		7,52,35,24,59,32,20		35
24″	59,52,55,20,59,55,29,10,59, 4		4,22,40,19,23	
		7,52,31, 2,19,12,57		35
26″	59,52,55,28,52,26,31,30,12, 1		4,22,40,19,58	
		7,52,26,39,38,52,59		35
28″	59,52,55,36,44,53,11, 9, 5, 0		4,22,40,20,33	
		7,52,22,16,58,32,26		35
30″	59,52,55,44,37,15,28, 7,37,26		4,22,40,21, 8	
		7,52,17,54,18,11,18		35
32″	59,52,55,52,29,33,22,25,48,44		4,22,40,21,43	
		7,52,13,31,37,49,35		35
34″	59,52,56, 0,21,46,54, 3,38,19		4,22,40,22,18	
		7,52, 9, 8,57,27,17		35
36″	59,52,56, 8,13,56, 3, 1, 5,36		4,22,40,22,53	
		7,52, 4,46,17, 4,24		35
38″	59,52,56,16, 6, 0,49,18,10, 0		4,22,40,23,28	
		7,52, 0,23,36,40,56		35
40″	59,52,56,23,58, 1,12,54,50,56		4,22,40,24, 3	
		7,51,56, 0,56,16,53		35
42″	59,52,56,31,49,57,13,51, 7,49		4,22,40,24,38	
		7,51,51,38,15,52,15		35
44″	59,52,56,39,41,48,52, 7, 0, 4		4,22,40,25,13	
		7,51,47,15,35,27, 2		35
46″	59,52,56,47,33,36, 7,42,27, 6		4,22,40,25,48	
		7,51,42,52,55, 1,14		35
48″	59,52,56,55,25,19, 0,37,28,20		4,22,40,26,23	
		7,51,38,30,14,34,51		35
50″	59,52,57, 3,16,57,30,52, 3,11		4,22,40,26,58	
		7,51,34, 7,34, 7,53		35
52″	59,52,57,11, 8,31,38,26,11, 4		4,22,40,27,33	
		7,51,29,44,53,40,20		35
54″	59,52,57,19, 0, 1,23,19,51,24		4,22,40,28, 8	
		7,51,25,22,13,12,12		35
56″	59,52,57,26,51,26,45,33, 3,36		4,22,40,28,43	
		7,51,20,59,32,43,29		35
58″	59,52,57,34,42,47,45, 5,47, 5		4,22,40,29,18	
		7,51,16,36,52,14,11		
60″	59,52,57,42,34, 4,21,58, 1,16			
exact	59,52,57,42,34, 4,21,58,33,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°25′ 0″	59,52,57,42,34, 4,21,58,33,42			
		7,51,12,14,11,47,45		
2″	59,52,57,50,25,16,36,10,21,27		4,22,40,30,13	
		7,51, 7,51,31,17,32		34
4″	59,52,57,58,16,24,27,41,38,59		4,22,40,30,47	
		7,51, 3,28,50,46,45		34
6″	59,52,58, 6, 7,27,56,32,25,44		4,22,40,31,21	
		7,50,59, 6,10,15,24		34
8″	59,52,58,13,58,27, 2,42,41, 8		4,22,40,31,55	
		7,50,54,43,29,43,29		34
10″	59,52,58,21,49,21,46,12,24,37		4,22,40,32,29	
		7,50,50,20,49,11, 0		34
12″	59,52,58,29,40,12, 7, 1,35,37		4,22,40,33, 3	
		7,50,45,58, 8,37,57		34
14″	59,52,58,37,30,58, 5,10,13,34		4,22,40,33,37	
		7,50,41,35,28, 4,20		34
16″	59,52,58,45,21,39,40,38,17,54		4,22,40,34,11	
		7,50,37,12,47,30, 9		34
18″	59,52,58,53,12,16,53,25,48, 3		4,22,40,34,45	
		7,50,32,50, 6,55,24		34
20″	59,52,59, 1, 2,49,43,32,43,27		4,22,40,35,19	
		7,50,28,27,26,20, 5		34
22″	59,52,59, 8,53,18,10,59, 3,32		4,22,40,35,53	
		7,50,24, 4,45,44,12		34
24″	59,52,59,16,43,42,15,44,47,44		4,22,40,36,27	
		7,50,19,42, 5, 7,45		34
26″	59,52,59,24,34, 1,57,49,55,29		4,22,40,37, 1	
		7,50,15,19,24,30,44		34
28″	59,52,59,32,24,17,17,14,26,13		4,22,40,37,35	
		7,50,10,56,43,53, 9		34
30″	59,52,59,40,14,28,13,58,19,22		4,22,40,38, 9	
		7,50, 6,34, 3,15, 0		34
32″	59,52,59,48, 4,34,48, 1,34,22		4,22,40,38,43	
		7,50, 2,11,22,36,17		34
34″	59,52,59,55,54,36,59,24,10,39		4,22,40,39,17	
		7,49,57,48,41,57, 0		34
36″	59,53, 0, 3,44,34,48, 6, 7,39		4,22,40,39,51	
		7,49,53,26, 1,17, 9		34
38″	59,53, 0,11,34,28,14, 7,24,48		4,22,40,40,25	
		7,49,49, 3,20,36,44		34
40″	59,53, 0,19,24,17,17,28, 1,32		4,22,40,40,59	
		7,49,44,40,39,55,45		34
42″	59,53, 0,27,14, 1,58, 7,57,17		4,22,40,41,33	
		7,49,40,17,59,14,12		34
44″	59,53, 0,35, 3,42,16, 7,11,29		4,22,40,42, 7	
		7,49,35,55,18,32, 5		34
46″	59,53, 0,42,53,18,11,25,43,34		4,22,40,42,41	
		7,49,31,32,37,49,24		34
48″	59,53, 0,50,42,49,44, 3,32,58		4,22,40,43,15	
		7,49,27, 9,57, 6, 9		34
50″	59,53, 0,58,32,16,54, 0,39, 7		4,22,40,43,49	
		7,49,22,47,16,22,20		34
52″	59,53, 1, 6,21,39,41,17, 1,27		4,22,40,44,23	
		7,49,18,24,35,37,57		34
54″	59,53, 1,14,10,58, 5,52,39,24		4,22,40,44,57	
		7,49,14, 1,54,53, 0		34
56″	59,53, 1,22, 0,12, 7,47,32,24		4,22,40,45,31	
		7,49, 9,39,14, 7,29		34
58″	59,53, 1,29,49,21,47, 1,39,53		4,22,40,46, 5	
		7,49, 5,16,33,21,24		
60″	59,53, 1,37,38,27, 3,35, 1,17			
exact	59,53, 1,37,38,27, 3,34,30,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°26′ 0″	59,53, 1,37,38,27, 3,34,30,45			
		7,49, 0,53,52,31,42		
2″	59,53, 1,45,27,27,57,27, 2,27		4,22,40,47,24	
		7,48,56,31,11,44,18		34
4″	59,53, 1,53,16,24,28,38,46,45		4,22,40,47,58	
		7,48,52, 8,30,56,20		34
6″	59,53, 2, 1, 5,16,37, 9,43, 5		4,22,40,48,32	
		7,48,47,45,50, 7,48		34
8″	59,53, 2, 8,54, 4,22,59,50,53		4,22,40,49, 6	
		7,48,43,23, 9,18,42		34
10″	59,53, 2,16,42,47,46, 9, 9,35		4,22,40,49,40	
		7,48,39, 0,28,29, 2		34
12″	59,53, 2,24,31,26,46,37,38,37		4,22,40,50,14	
		7,48,34,37,47,38,48		34
14″	59,53, 2,32,20, 1,24,25,17,25		4,22,40,50,48	
		7,48,30,15, 6,48, 0		34
16″	59,53, 2,40, 8,31,39,32, 5,25		4,22,40,51,22	
		7,48,25,52,25,56,38		34
18″	59,53, 2,47,56,57,31,58, 2, 3		4,22,40,51,56	
		7,48,21,29,45, 4,42		34
20″	59,53, 2,55,45,19, 1,43, 6,45		4,22,40,52,30	
		7,48,17, 7, 4,12,12		34
22″	59,53, 3, 3,33,36, 8,47,18,57		4,22,40,53, 4	
		7,48,12,44,23,19, 8		34
24″	59,53, 3,11,21,48,53,10,38, 5		4,22,40,53,38	
		7,48, 8,21,42,25,30		34
26″	59,53, 3,19, 9,57,14,53, 3,35		4,22,40,54,12	
		7,48, 3,59, 1,31,18		34
28″	59,53, 3,26,58, 1,13,54,34,53		4,22,40,54,46	
		7,47,59,36,20,36,32		34
30″	59,53, 3,34,46, 0,50,15,11,25		4,22,40,55,20	
		7,47,55,13,39,41,12		34
32″	59,53, 3,42,33,56, 3,54,52,37		4,22,40,55,54	
		7,47,50,50,58,45,18		34
34″	59,53, 3,50,21,46,54,53,37,55		4,22,40,56,28	
		7,47,46,28,17,48,50		34
36″	59,53, 3,58, 9,33,23,11,26,45		4,22,40,57, 2	
		7,47,42, 5,36,51,48		34
38″	59,53, 4, 5,57,15,28,48,18,33		4,22,40,57,36	
		7,47,37,42,55,54,12		34
40″	59,53, 4,13,44,53,11,44,12,45		4,22,40,58,10	
		7,47,33,20,14,56, 2		34
42″	59,53, 4,21,32,26,31,59, 8,47		4,22,40,58,44	
		7,47,28,57,33,57,18		34
44″	59,53, 4,29,19,55,29,33, 6, 5		4,22,40,59,18	
		7,47,24,34,52,58, 0		34
46″	59,53, 4,37, 7,20, 4,26, 4, 5		4,22,40,59,52	
		7,47,20,12,11,58, 8		34
48″	59,53, 4,44,54,40,16,38, 2,13		4,22,41, 0,26	
		7,47,15,49,30,57,42		34
50″	59,53, 4,52,41,56, 6, 8,59,55		4,22,41, 1, 0	
		7,47,11,26,49,56,42		34
52″	59,53, 5, 0,29, 7,32,58,56,37		4,22,41, 1,34	
		7,47, 7, 4, 8,55, 8		34
54″	59,53, 5, 8,16,14,37, 7,51,45		4,22,41, 2, 8	
		7,47, 2,41,27,53, 0		34
56″	59,53, 5,16, 3,17,18,35,44,45		4,22,41, 2,42	
		7,46,58,18,46,50,18		34
58″	59,53, 5,23,50,15,37,22,35, 3		4,22,41, 3,16	
		7,46,53,56, 5,47, 2		
60″	59,53, 5,31,37, 9,33,28,22, 5			
exact	59,53, 5,31,37, 9,33,28, 2,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°27′ 0″	59,53, 5,31,37, 9,33,28, 2,34			
		7,46,49,33,24,41,19		
2″	59,53, 5,39,23,59, 6,52,43,53		4,22,41, 4,31	
		7,46,45,10,43,36,48		34
4″	59,53, 5,47,10,44,17,36,20,41		4,22,41, 5, 5	
		7,46,40,48, 2,31,43		34
6″	59,53, 5,54,57,25, 5,38,52,24		4,22,41, 5,39	
		7,46,36,25,21,26, 4		34
8″	59,53, 6, 2,44, 1,31, 0,18,28		4,22,41, 6,13	
		7,46,32, 2,40,19,51		34
10″	59,53, 6,10,30,33,33,40,38,19		4,22,41, 6,47	
		7,46,27,39,59,13, 4		34
12″	59,53, 6,18,17, 1,13,39,51,23		4,22,41, 7,21	
		7,46,23,17,18, 5,43		34
14″	59,53, 6,26, 3,24,30,57,57, 6		4,22,41, 7,55	
		7,46,18,54,36,57,48		34
16″	59,53, 6,33,49,43,25,34,54,54		4,22,41, 8,29	
		7,46,14,31,55,49,19		34
18″	59,53, 6,41,35,57,57,30,44,13		4,22,41, 9, 3	
		7,46,10, 9,14,40,16		34
20″	59,53, 6,49,22, 8, 6,45,24,29		4,22,41, 9,37	
		7,46, 5,46,33,30,39		34
22″	59,53, 6,57, 8,13,53,18,55, 8		4,22,41,10,11	
		7,46, 1,23,52,20,28		34
24″	59,53, 7, 4,54,15,17,11,15,36		4,22,41,10,45	
		7,45,57, 1,11, 9,43		34
26″	59,53, 7,12,40,12,18,22,25,19		4,22,41,11,19	
		7,45,52,38,29,58,24		34
28″	59,53, 7,20,26, 4,56,52,23,43		4,22,41,11,53	
		7,45,48,15,48,46,31		34
30″	59,53, 7,28,11,53,12,41,10,14		4,22,41,12,27	
		7,45,43,53, 7,34, 4		34
32″	59,53, 7,35,57,37, 5,48,44,18		4,22,41,13, 1	
		7,45,39,30,26,21, 3		34
34″	59,53, 7,43,43,16,36,15, 5,21		4,22,41,13,35	
		7,45,35, 7,45, 7,28		34
36″	59,53, 7,51,28,51,44, 0,12,49		4,22,41,14, 9	
		7,45,30,45, 3,53,19		34
38″	59,53, 7,59,14,22,29, 4, 6, 8		4,22,41,14,43	
		7,45,26,22,22,38,36		34
40″	59,53, 8, 6,59,48,51,26,44,44		4,22,41,15,17	
		7,45,21,59,41,23,19		34
42″	59,53, 8,14,45,10,51, 8, 8, 3		4,22,41,15,51	
		7,45,17,37, 0, 7,28		34
44″	59,53, 8,22,30,28,28, 8,15,31		4,22,41,16,25	
		7,45,13,14,18,51, 3		34
46″	59,53, 8,30,15,41,42,27, 6,34		4,22,41,16,59	
		7,45, 8,51,37,34, 4		34
48″	59,53, 8,38, 0,50,34, 4,40,38		4,22,41,17,33	
		7,45, 4,28,56,16,31		34
50″	59,53, 8,45,45,55, 3, 0,57, 9		4,22,41,18, 7	
		7,45, 0, 6,14,58,24		34
52″	59,53, 8,53,30,55, 9,15,55,33		4,22,41,18,41	
		7,44,55,43,33,39,43		34
54″	59,53, 9, 1,15,50,52,49,35,16		4,22,41,19,15	
		7,44,51,20,52,20,28		34
56″	59,53, 9, 9, 0,42,13,41,55,44		4,22,41,19,49	
		7,44,46,58,11, 0,39		34
58″	59,53, 9,16,45,29,11,52,56,23		4,22,41,20,23	
		7,44,42,35,29,40,16		
60″	59,53, 9,24,30,11,47,22,36,39			
exact	59,53, 9,24,30,11,47,22,34, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°28′ 0″	59,53, 9,24,30,11,47,22,34, 0	7,44,38,12,48,19, 0	4,22,41,21,32	34
2″	59,53, 9,32,14,50, 0,10,53, 0	7,44,33,50, 6,57,28	4,22,41,22, 6	34
4″	59,53, 9,39,59,23,50,17,50,28	7,44,29,27,25,35,22	4,22,41,22,40	34
6″	59,53, 9,47,43,53,17,43,25,50	7,44,25, 4,44,12,42	4,22,41,23,14	34
8″	59,53, 9,55,28,18,22,27,38,32	7,44,20,42, 2,49,28	4,22,41,23,48	34
10″	59,53,10, 3,12,39, 4,30,28, 0	7,44,16,19,21,25,40	4,22,41,24,22	34
12″	59,53,10,10,56,55,23,51,53,40	7,44,11,56,40, 1,18	4,22,41,24,56	34
14″	59,53,10,18,41, 7,20,31,54,58	7,44, 7,33,58,36,22	4,22,41,25,30	34
16″	59,53,10,26,25,14,54,30,31,20	7,44, 3,11,17,10,52	4,22,41,26, 4	34
18″	59,53,10,34, 9,18, 5,47,42,12	7,43,58,48,35,44,48	4,22,41,26,38	34
20″	59,53,10,41,53,16,54,23,27, 0	7,43,54,25,54,18,10	4,22,41,27,12	34
22″	59,53,10,49,37,11,20,17,45,10	7,43,50, 3,12,50,58	4,22,41,27,46	34
24″	59,53,10,57,21, 1,23,30,36, 8	7,43,45,40,31,23,12	4,22,41,28,20	34
26″	59,53,11, 5, 4,47, 4, 1,59,20	7,43,41,17,49,54,52	4,22,41,28,54	34
28″	59,53,11,12,48,28,21,51,54,12	7,43,36,55, 8,25,58	4,22,41,29,28	34
30″	59,53,11,20,32, 5,17, 0,20,10	7,43,32,32,26,56,30	4,22,41,30, 2	34
32″	59,53,11,28,15,37,49,27,16,40	7,43,28, 9,45,26,28	4,22,41,30,36	34
34″	59,53,11,35,59, 5,59,12,43, 8	7,43,23,47, 3,55,52	4,22,41,31,10	34
36″	59,53,11,43,42,29,46,16,39, 0	7,43,19,24,22,24,42	4,22,41,31,44	34
38″	59,53,11,51,25,49,10,39, 3,42	7,43,15, 1,40,52,58	4,22,41,32,18	34
40″	59,53,11,59, 9, 4,12,19,56,40	7,43,10,38,59,20,40	4,22,41,32,52	34
42″	59,53,12, 6,52,14,51,19,17,20	7,43, 6,16,17,47,48	4,22,41,33,26	34
44″	59,53,12,14,35,21, 7,37, 5, 8	7,43, 1,53,36,14,22	4,22,41,34, 0	34
46″	59,53,12,22,18,23, 1,13,19,30	7,42,57,30,54,40,22	4,22,41,34,34	34
48″	59,53,12,30, 1,20,32, 7,59,52	7,42,53, 8,13, 5,48	4,22,41,35, 8	34
50″	59,53,12,37,44,13,40,21, 5,40	7,42,48,45,31,30,40	4,22,41,35,42	34
52″	59,53,12,45,27, 2,25,52,36,20	7,42,44,22,49,54,58	4,22,41,36,16	34
54″	59,53,12,53, 9,46,48,42,31,18	7,42,40, 0, 8,18,42	4,22,41,36,50	34
56″	59,53,13, 0,52,26,48,50,50, 0	7,42,35,37,26,41,52	4,22,41,37,24	
58″	59,53,13, 8,35, 2,26,17,31,52	7,42,31,14,45, 4,28		
60″	59,53,13,16,17,33,41, 2,36,20			
exact	59,53,13,16,17,33,41, 2,41,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°29′ 0″	59,53,13,16,17,33,41, 2,41,54			
		7,42,26,52, 3,27,10		
2″	59,53,13,24, 0, 0,33, 6, 9, 4		4,22,41,38,29	
		7,42,22,29,21,48,41		34
4″	59,53,13,31,42,23, 2,27,57,45		4,22,41,39, 3	
		7,42,18, 6,40, 9,38		34
6″	59,53,13,39,24,41, 9, 8, 7,23		4,22,41,39,37	
		7,42,13,43,58,30, 1		34
8″	59,53,13,47, 6,54,53, 6,37,24		4,22,41,40,11	
		7,42, 9,21,16,49,50		34
10″	59,53,13,54,49, 4,14,23,27,14		4,22,41,40,45	
		7,42, 4,58,35, 9, 5		34
12″	59,53,14, 2,31, 9,12,58,36,19		4,22,41,41,19	
		7,42, 0,35,53,27,46		34
14″	59,53,14,10,13, 9,48,52, 4, 5		4,22,41,41,53	
		7,41,56,13,11,45,53		34
16″	59,53,14,17,55, 6, 2, 3,49,58		4,22,41,42,27	
		7,41,51,50,30, 3,26		34
18″	59,53,14,25,36,57,52,33,53,24		4,22,41,43, 1	
		7,41,47,27,48,20,25		34
20″	59,53,14,33,18,45,20,22,13,49		4,22,41,43,35	
		7,41,43, 5, 6,36,50		34
22″	59,53,14,41, 0,28,25,28,50,39		4,22,41,44, 9	
		7,41,38,42,24,52,41		34
24″	59,53,14,48,42, 7, 7,53,43,20		4,22,41,44,43	
		7,41,34,19,43, 7,58		34
26″	59,53,14,56,23,41,27,36,51,18		4,22,41,45,17	
		7,41,29,57, 1,22,41		34
28″	59,53,15, 4, 5,11,24,38,13,59		4,22,41,45,51	
		7,41,25,34,19,36,50		34
30″	59,53,15,11,46,36,58,57,50,49		4,22,41,46,25	
		7,41,21,11,37,50,25		34
32″	59,53,15,19,27,58,10,35,41,14		4,22,41,46,59	
		7,41,16,48,56, 3,26		34
34″	59,53,15,27, 9,14,59,31,44,40		4,22,41,47,33	
		7,41,12,26,14,15,53		34
36″	59,53,15,34,50,27,25,46, 0,33		4,22,41,48, 7	
		7,41, 8, 3,32,27,46		34
38″	59,53,15,42,31,35,29,18,28,19		4,22,41,48,41	
		7,41, 3,40,50,39, 5		34
40″	59,53,15,50,12,39,10, 9, 7,24		4,22,41,49,15	
		7,40,59,18, 8,49,50		34
42″	59,53,15,57,53,38,28,17,57,14		4,22,41,49,49	
		7,40,54,55,27, 0, 1		34
44″	59,53,16, 5,34,33,23,44,57,15		4,22,41,50,23	
		7,40,50,32,45, 9,38		34
46″	59,53,16,13,15,23,56,30, 6,53		4,22,41,50,57	
		7,40,46,10, 3,18,41		34
48″	59,53,16,20,56,10, 6,33,25,34		4,22,41,51,31	
		7,40,41,47,21,27,10		34
50″	59,53,16,28,36,51,53,54,52,44		4,22,41,52, 5	
		7,40,37,24,39,35, 5		34
52″	59,53,16,36,17,29,18,34,27,49		4,22,41,52,39	
		7,40,33, 1,57,42,26		34
54″	59,53,16,43,58, 2,20,32,10,15		4,22,41,53,13	
		7,40,28,39,15,49,13		34
56″	59,53,16,51,38,30,59,47,59,28		4,22,41,53,47	
		7,40,24,16,33,55,26		34
58″	59,53,16,59,18,55,16,21,54,54		4,22,41,54,21	
		7,40,19,53,52, 1, 5		
60″	59,53,17, 6,59,15,10,13,55,59			
exact	59,53,17, 6,59,15,10,14,15, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°30′ 0″	59,53,17, 6,59,15,10,14,15, 7	7,40,15,31,10, 8,11		
2″	59,53,17,14,39,30,41,24,23,18	7,40,11, 8,28,12,51	4,22,41,55,20	34
4″	59,53,17,22,19,41,49,52,36, 9	7,40, 6,45,46,16,57	4,22,41,55,54	34
6″	59,53,17,29,59,48,35,38,53, 6	7,40, 2,23, 4,20,29	4,22,41,56,28	34
8″	59,53,17,37,39,50,58,43,13,35	7,39,58, 0,22,23,27	4,22,41,57, 2	34
10″	59,53,17,45,19,48,59, 5,37, 2	7,39,53,37,40,25,51	4,22,41,57,36	34
12″	59,53,17,52,59,42,36,46, 2,53	7,39,49,14,58,27,41	4,22,41,58,10	34
14″	59,53,18, 0,39,31,51,44,30,34	7,39,44,52,16,28,57	4,22,41,58,44	34
16″	59,53,18, 8,19,16,44, 0,59,31	7,39,40,29,34,29,39	4,22,41,59,18	34
18″	59,53,18,15,58,57,13,35,29,10	7,39,36, 6,52,29,47	4,22,41,59,52	34
20″	59,53,18,23,38,33,20,27,58,57	7,39,31,44,10,29,21	4,22,42, 0,26	34
22″	59,53,18,31,18, 5, 4,38,28,18	7,39,27,21,28,28,21	4,22,42, 1, 0	34
24″	59,53,18,38,57,32,26, 6,56,39	7,39,22,58,46,26,47	4,22,42, 1,34	34
26″	59,53,18,46,36,55,24,53,23,26	7,39,18,36, 4,24,39	4,22,42, 2, 8	34
28″	59,53,18,54,16,14, 0,57,48, 5	7,39,14,13,22,21,57	4,22,42, 2,42	34
30″	59,53,19, 1,55,28,14,20,10, 2	7,39, 9,50,40,18,41	4,22,42, 3,16	34
32″	59,53,19, 9,34,38, 5, 0,28,43	7,39, 5,27,58,14,51	4,22,42, 3,50	34
34″	59,53,19,17,13,43,32,58,43,34	7,39, 1, 5,16,10,27	4,22,42, 4,24	34
36″	59,53,19,24,52,44,38,14,54, 1	7,38,56,42,34, 5,29	4,22,42, 4,58	34
38″	59,53,19,32,31,41,20,48,59,30	7,38,52,19,51,59,57	4,22,42, 5,32	34
40″	59,53,19,40,10,33,40,40,59,27	7,38,47,57, 9,53,51	4,22,42, 6, 6	34
42″	59,53,19,47,49,21,37,50,53,18	7,38,43,34,27,47,11	4,22,42, 6,40	34
44″	59,53,19,55,28, 5,12,18,40,29	7,38,39,11,45,39,57	4,22,42, 7,14	34
46″	59,53,20, 3, 6,44,24, 4,20,26	7,38,34,49, 3,32, 9	4,22,42, 7,48	34
48″	59,53,20,10,45,19,13, 7,52,35	7,38,30,26,21,23,47	4,22,42, 8,22	34
50″	59,53,20,18,23,49,39,29,16,22	7,38,26, 3,39,14,51	4,22,42, 8,56	34
52″	59,53,20,26, 2,15,43, 8,31,13	7,38,21,40,57, 5,21	4,22,42, 9,30	34
54″	59,53,20,33,40,37,24, 5,36,34	7,38,17,18,14,55,17	4,22,42,10, 4	34
56″	59,53,20,41,18,54,42,20,31,51	7,38,12,55,32,44,39	4,22,42,10,38	34
58″	59,53,20,48,57, 7,37,53,16,30	7,38, 8,32,50,33,27	4,22,42,11,12	
60″	59,53,20,56,35,16,10,43,49,57			
exact	59,53,20,56,35,16,10,44,14,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°31′ 0″	59,53,20,56,35,16,10,44,14,33			
		7,38, 4,10, 8,24,29		
2″	59,53,21, 4,13,20,20,52,39, 2		4,22,42,12, 7	
		7,37,59,47,26,12,22		33
4″	59,53,21,11,51,20, 8,18,51,24		4,22,42,12,40	
		7,37,55,24,43,59,42		33
6″	59,53,21,19,29,15,33, 2,51, 6		4,22,42,13,13	
		7,37,51, 2, 1,46,29		33
8″	59,53,21,27, 7, 6,35, 4,37,35		4,22,42,13,46	
		7,37,46,39,19,32,43		33
10″	59,53,21,34,44,53,14,24,10,18		4,22,42,14,19	
		7,37,42,16,37,18,24		33
12″	59,53,21,42,22,35,31, 1,28,42		4,22,42,14,52	
		7,37,37,53,55, 3,32		33
14″	59,53,21,50, 0,13,24,56,32,14		4,22,42,15,25	
		7,37,33,31,12,48, 7		33
16″	59,53,21,57,37,46,56, 9,20,21		4,22,42,15,58	
		7,37,29, 8,30,32, 9		33
18″	59,53,22, 5,15,16, 4,39,52,30		4,22,42,16,31	
		7,37,24,45,48,15,38		33
20″	59,53,22,12,52,40,50,28, 8, 8		4,22,42,17, 4	
		7,37,20,23, 5,58,34		33
22″	59,53,22,20,30, 1,13,34, 6,42		4,22,42,17,37	
		7,37,16, 0,23,40,57		33
24″	59,53,22,28, 7,17,13,57,47,39		4,22,42,18,10	
		7,37,11,37,41,22,47		33
26″	59,53,22,35,44,28,51,39,10,26		4,22,42,18,43	
		7,37, 7,14,59, 4, 4		33
28″	59,53,22,43,21,36, 6,38,14,30		4,22,42,19,16	
		7,37, 2,52,16,44,48		33
30″	59,53,22,50,58,38,58,54,59,18		4,22,42,19,49	
		7,36,58,29,34,24,59		33
32″	59,53,22,58,35,37,28,29,24,17		4,22,42,20,22	
		7,36,54, 6,52, 4,37		33
34″	59,53,23, 6,12,31,35,21,28,54		4,22,42,20,55	
		7,36,49,44, 9,43,42		33
36″	59,53,23,13,49,21,19,31,12,36		4,22,42,21,28	
		7,36,45,21,27,22,14		33
38″	59,53,23,21,26, 6,40,58,34,50		4,22,42,22, 1	
		7,36,40,58,45, 0,13		33
40″	59,53,23,29, 2,47,39,43,35, 3		4,22,42,22,34	
		7,36,36,36, 2,37,39		33
42″	59,53,23,36,39,24,15,46,12,42		4,22,42,23, 7	
		7,36,32,13,20,14,32		33
44″	59,53,23,44,15,56,29, 6,27,14		4,22,42,23,40	
		7,36,27,50,37,50,52		33
46″	59,53,23,51,52,24,19,44,18, 6		4,22,42,24,13	
		7,36,23,27,55,26,39		33
48″	59,53,23,59,28,47,47,39,44,45		4,22,42,24,46	
		7,36,19, 5,13, 1,53		33
50″	59,53,24, 7, 5, 6,52,52,46,38		4,22,42,25,19	
		7,36,14,42,30,36,34		33
52″	59,53,24,14,41,21,35,23,23,12		4,22,42,25,52	
		7,36,10,19,48,10,42		33
54″	59,53,24,22,17,31,55,11,33,54		4,22,42,26,25	
		7,36, 5,57, 5,44,17		33
56″	59,53,24,29,53,37,52,17,18,11		4,22,42,26,58	
		7,36, 1,34,23,17,19		33
58″	59,53,24,37,29,39,26,40,35,30		4,22,42,27,31	
		7,35,57,11,40,49,48		
60″	59,53,24,45, 5,36,38,21,25,18			
exact	59,53,24,45, 5,36,38,20,53, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°32′ 0″	59,53,24,45, 5,36,38,20,53, 6	7,35,52,48,58,18,27		
2″	59,53,24,52,41,29,27,19,11,33		4,22,42,28,49	
		7,35,48,26,15,49,38		33
4″	59,53,25, 0,17,17,53,35, 1,11		4,22,42,29,22	
		7,35,44, 3,33,20,16		33
6″	59,53,25, 7,53, 1,57, 8,21,27		4,22,42,29,55	
		7,35,39,40,50,50,21		33
8″	59,53,25,15,28,41,37,59,11,48		4,22,42,30,28	
		7,35,35,18, 8,19,53		33
10″	59,53,25,23, 4,16,56, 7,31,41		4,22,42,31, 1	
		7,35,30,55,25,48,52		33
12″	59,53,25,30,39,47,51,33,20,33		4,22,42,31,34	
		7,35,26,32,43,17,18		33
14″	59,53,25,38,15,14,24,16,37,51		4,22,42,32, 7	
		7,35,22,10, 0,45,11		33
16″	59,53,25,45,50,36,34,17,23, 2		4,22,42,32,40	
		7,35,17,47,18,12,31		33
18″	59,53,25,53,25,54,21,35,35,33		4,22,42,33,13	
		7,35,13,24,35,39,18		33
20″	59,53,26, 1, 1, 7,46,11,14,51		4,22,42,33,46	
		7,35, 9, 1,53, 5,32		33
22″	59,53,26, 8,36,16,48, 4,20,23		4,22,42,34,19	
		7,35, 4,39,10,31,13		33
24″	59,53,26,16,11,21,27,14,51,36		4,22,42,34,52	
		7,35, 0,16,27,56,21		33
26″	59,53,26,23,46,21,43,42,47,57		4,22,42,35,25	
		7,34,55,53,45,20,56		33
28″	59,53,26,31,21,17,37,28, 8,53		4,22,42,35,58	
		7,34,51,31, 2,44,58		33
30″	59,53,26,38,56, 9, 8,30,53,51		4,22,42,36,31	
		7,34,47, 8,20, 8,27		33
32″	59,53,26,46,30,56,16,51, 2,18		4,22,42,37, 4	
		7,34,42,45,37,31,23		33
34″	59,53,26,54, 5,39, 2,28,33,41		4,22,42,37,37	
		7,34,38,22,54,53,46		33
36″	59,53,27, 1,40,17,25,23,27,27		4,22,42,38,10	
		7,34,34, 0,12,15,36		33
38″	59,53,27, 9,14,51,25,35,43, 3		4,22,42,38,43	
		7,34,29,37,29,36,53		33
40″	59,53,27,16,49,21, 3, 5,19,56		4,22,42,39,16	
		7,34,25,14,46,57,37		33
42″	59,53,27,24,23,46,17,52,17,33		4,22,42,39,49	
		7,34,20,52, 4,17,48		33
44″	59,53,27,31,58, 7, 9,56,35,21		4,22,42,40,22	
		7,34,16,29,21,37,26		33
46″	59,53,27,39,32,23,39,18,12,47		4,22,42,40,55	
		7,34,12, 6,38,56,31		33
48″	59,53,27,47, 6,35,45,57, 9,18		4,22,42,41,28	
		7,34, 7,43,56,15, 3		33
50″	59,53,27,54,40,43,29,53,24,21		4,22,42,42, 1	
		7,34, 3,21,13,33, 2		33
52″	59,53,28, 2,14,46,51, 6,57,23		4,22,42,42,34	
		7,33,58,58,30,50,28		33
54″	59,53,28, 9,48,45,49,37,47,51		4,22,42,43, 7	
		7,33,54,35,48, 7,21		33
56″	59,53,28,17,22,40,25,25,55,12		4,22,42,43,40	
		7,33,50,13, 5,23,41		33
58″	59,53,28,24,56,30,38,31,18,53		4,22,42,44,13	
		7,33,45,50,22,39,28		
60″	59,53,28,32,30,16,28,53,58,21			
exact	59,53,28,32,30,16,28,53,35,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°33′ 0″	59,53,28,32,30,16,28,53,35,43			
		7,33,41,27,39,52,30		
2″	59,53,28,40, 3,57,56,33,28,13		4,22,42,45,27	
		7,33,37, 4,57, 7, 3		33
4″	59,53,28,47,37,35, 1,30,35,16		4,22,42,46, 0	
		7,33,32,42,14,21, 3		33
6″	59,53,28,55,11, 7,43,44,56,19		4,22,42,46,33	
		7,33,28,19,31,34,30		33
8″	59,53,29, 2,44,36, 3,16,30,49		4,22,42,47, 6	
		7,33,23,56,48,47,24		33
10″	59,53,29,10,18, 0, 0, 5,18,13		4,22,42,47,39	
		7,33,19,34, 5,59,45		33
12″	59,53,29,17,51,19,34,11,17,58		4,22,42,48,12	
		7,33,15,11,23,11,33		33
14″	59,53,29,25,24,34,45,34,29,31		4,22,42,48,45	
		7,33,10,48,40,22,48		33
16″	59,53,29,32,57,45,34,14,52,19		4,22,42,49,18	
		7,33, 6,25,57,33,30		33
18″	59,53,29,40,30,52, 0,12,25,49		4,22,42,49,51	
		7,33, 2, 3,14,43,39		33
20″	59,53,29,48, 3,54, 3,27, 9,28		4,22,42,50,24	
		7,32,57,40,31,53,15		33
22″	59,53,29,55,36,51,43,59, 2,43		4,22,42,50,57	
		7,32,53,17,49, 2,18		33
24″	59,53,30, 3, 9,45, 1,48, 5, 1		4,22,42,51,30	
		7,32,48,55, 6,10,48		33
26″	59,53,30,10,42,33,56,54,15,49		4,22,42,52, 3	
		7,32,44,32,23,18,45		33
28″	59,53,30,18,15,18,29,17,34,34		4,22,42,52,36	
		7,32,40, 9,40,26, 9		33
30″	59,53,30,25,47,58,38,58, 0,43		4,22,42,53, 9	
		7,32,35,46,57,33, 0		33
32″	59,53,30,33,20,34,25,55,33,43		4,22,42,53,42	
		7,32,31,24,14,39,18		33
34″	59,53,30,40,53, 5,50,10,13, 1		4,22,42,54,15	
		7,32,27, 1,31,45, 3		33
36″	59,53,30,48,25,32,51,41,58, 4		4,22,42,54,48	
		7,32,22,38,48,50,15		33
38″	59,53,30,55,57,55,30,30,48,19		4,22,42,55,21	
		7,32,18,16, 5,54,54		33
40″	59,53,31, 3,30,13,46,36,43,13		4,22,42,55,54	
		7,32,13,53,22,59, 0		33
42″	59,53,31,11, 2,27,39,59,42,13		4,22,42,56,27	
		7,32, 9,30,40, 2,33		33
44″	59,53,31,18,34,37,10,39,44,46		4,22,42,57, 0	
		7,32, 5, 7,57, 5,33		33
46″	59,53,31,26, 6,42,18,36,50,19		4,22,42,57,33	
		7,32, 0,45,14, 8, 0		33
48″	59,53,31,33,38,43, 3,50,58,19		4,22,42,58, 6	
		7,31,56,22,31, 9,54		33
50″	59,53,31,41,10,39,26,22, 8,13		4,22,42,58,39	
		7,31,51,59,48,11,15		33
52″	59,53,31,48,42,31,26,10,19,28		4,22,42,59,12	
		7,31,47,37, 5,12, 3		33
54″	59,53,31,56,14,19, 3,15,31,31		4,22,42,59,45	
		7,31,43,14,22,12,18		33
56″	59,53,32, 3,46, 2,17,37,43,49		4,22,43, 0,18	
		7,31,38,51,39,12, 0		33
58″	59,53,32,11,17,41, 9,16,55,49		4,22,43, 0,51	
		7,31,34,28,56,11, 9		
60″	59,53,32,18,49,15,38,13, 6,58			
exact	59,53,32,18,49,15,38,12,59,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°34′ 0″	59,53,32,18,49,15,38,12,59,20			
		7,31,30, 6,13, 9, 0		
2″	59,53,32,26,20,45,44,26, 8,20		4,22,43, 1,59	
		7,31,25,43,30, 7, 1		33
4″	59,53,32,33,52,11,27,56,15,21		4,22,43, 2,32	
		7,31,21,20,47, 4,29		33
6″	59,53,32,41,23,32,48,43,19,50		4,22,43, 3, 5	
		7,31,16,58, 4, 1,24		33
8″	59,53,32,48,54,49,46,47,21,14		4,22,43, 3,38	
		7,31,12,35,20,57,46		33
10″	59,53,32,56,26, 2,22, 8,19, 0		4,22,43, 4,11	
		7,31, 8,12,37,53,35		33
12″	59,53,33, 3,57,10,34,46,12,35		4,22,43, 4,44	
		7,31, 3,49,54,48,51		33
14″	59,53,33,11,28,14,24,41, 1,26		4,22,43, 5,17	
		7,30,59,27,11,43,34		33
16″	59,53,33,18,59,13,51,52,45, 0		4,22,43, 5,50	
		7,30,55, 4,28,37,44		33
18″	59,53,33,26,30, 8,56,21,22,44		4,22,43, 6,23	
		7,30,50,41,45,31,21		33
20″	59,53,33,34, 0,59,38, 6,54, 5		4,22,43, 6,56	
		7,30,46,19, 2,24,25		33
22″	59,53,33,41,31,45,57, 9,18,30		4,22,43, 7,29	
		7,30,41,56,19,16,56		33
24″	59,53,33,49, 2,27,53,28,35,26		4,22,43, 8, 2	
		7,30,37,33,36, 8,54		33
26″	59,53,33,56,33, 5,27, 4,44,20		4,22,43, 8,35	
		7,30,33,10,53, 0,19		33
28″	59,53,34, 4, 3,38,37,57,44,39		4,22,43, 9, 8	
		7,30,28,48, 9,51,11		33
30″	59,53,34,11,34, 7,26, 7,35,50		4,22,43, 9,41	
		7,30,24,25,26,41,30		33
32″	59,53,34,19, 4,31,51,34,17,20		4,22,43,10,14	
		7,30,20, 2,43,31,16		33
34″	59,53,34,26,34,51,54,17,48,36		4,22,43,10,47	
		7,30,15,40, 0,20,29		33
36″	59,53,34,34, 5, 7,34,18, 9, 5		4,22,43,11,20	
		7,30,11,17,17, 9, 9		33
38″	59,53,34,41,35,18,51,35,18,14		4,22,43,11,53	
		7,30, 6,54,33,57,16		33
40″	59,53,34,49, 5,25,46, 9,15,30		4,22,43,12,26	
		7,30, 2,31,50,44,50		33
42″	59,53,34,56,35,28,18, 0, 0,20		4,22,43,12,59	
		7,29,58, 9, 7,31,51		33
44″	59,53,35, 4, 5,26,27, 7,32,11		4,22,43,13,32	
		7,29,53,46,24,18,19		33
46″	59,53,35,11,35,20,13,31,50,30		4,22,43,14, 5	
		7,29,49,23,41, 4,14		33
48″	59,53,35,19, 5, 9,37,12,54,44		4,22,43,14,38	
		7,29,45, 0,57,49,36		33
50″	59,53,35,26,34,54,38,10,44,20		4,22,43,15,11	
		7,29,40,38,14,34,25		33
52″	59,53,35,34, 4,35,16,25,18,45		4,22,43,15,44	
		7,29,36,15,31,18,41		33
54″	59,53,35,41,34,11,31,56,37,26		4,22,43,16,17	
		7,29,31,52,48, 2,24		33
56″	59,53,35,49, 3,43,24,44,39,50		4,22,43,16,50	
		7,29,27,30, 4,45,34		33
58″	59,53,35,56,33,10,54,49,25,24		4,22,43,17,23	
		7,29,23, 7,21,28,11		
60″	59,53,36, 4, 2,34, 2,10,53,35			
exact	59,53,36, 4, 2,34, 2,10,52,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°35′ 0″	59,53,36, 4, 2,34, 2,10,52,55			
		7,29,18,44,38,10,23		
2″	59,53,36,11,31,52,46,49, 3,18		4,22,43,18,27	
		7,29,14,21,54,51,56		33
4″	59,53,36,19, 1, 7, 8,43,55,14		4,22,43,19, 0	
		7,29, 9,59,11,32,56		33
6″	59,53,36,26,30,17, 7,55,28,10		4,22,43,19,33	
		7,29, 5,36,28,13,23		33
8″	59,53,36,33,59,22,44,23,41,33		4,22,43,20, 6	
		7,29, 1,13,44,53,17		33
10″	59,53,36,41,28,23,58, 8,34,50		4,22,43,20,39	
		7,28,56,51, 1,32,38		33
12″	59,53,36,48,57,20,49,10, 7,28		4,22,43,21,12	
		7,28,52,28,18,11,26		33
14″	59,53,36,56,26,13,17,28,18,54		4,22,43,21,45	
		7,28,48, 5,34,49,41		33
16″	59,53,37, 3,55, 1,23, 3, 8,35		4,22,43,22,18	
		7,28,43,42,51,27,23		33
18″	59,53,37,11,23,45, 5,54,35,58		4,22,43,22,51	
		7,28,39,20, 8, 4,32		33
20″	59,53,37,18,52,24,26, 2,40,30		4,22,43,23,24	
		7,28,34,57,24,41, 8		33
22″	59,53,37,26,20,59,23,27,21,38		4,22,43,23,57	
		7,28,30,34,41,17,11		33
24″	59,53,37,33,49,29,58, 8,38,49		4,22,43,24,30	
		7,28,26,11,57,52,41		33
26″	59,53,37,41,17,56,10, 6,31,30		4,22,43,25, 3	
		7,28,21,49,14,27,38		33
28″	59,53,37,48,46,17,59,20,59, 8		4,22,43,25,36	
		7,28,17,26,31, 2, 2		33
30″	59,53,37,56,14,35,25,52, 1,10		4,22,43,26, 9	
		7,28,13, 3,47,35,53		33
32″	59,53,38, 3,42,48,29,39,37, 3		4,22,43,26,42	
		7,28, 8,41, 4, 9,11		33
34″	59,53,38,11,10,57,10,43,46,14		4,22,43,27,15	
		7,28, 4,18,20,41,56		33
36″	59,53,38,18,39, 1,29, 4,28,10		4,22,43,27,48	
		7,27,59,55,37,14, 8		33
38″	59,53,38,26, 7, 1,24,41,42,18		4,22,43,28,21	
		7,27,55,32,53,45,47		33
40″	59,53,38,33,34,56,57,35,28, 5		4,22,43,28,54	
		7,27,51,10,10,16,53		33
42″	59,53,38,41, 2,48, 7,45,44,58		4,22,43,29,27	
		7,27,46,47,26,47,26		33
44″	59,53,38,48,30,34,55,12,32,24		4,22,43,30, 0	
		7,27,42,24,43,17,26		33
46″	59,53,38,55,58,17,19,55,49,50		4,22,43,30,33	
		7,27,38, 1,59,46,53		33
48″	59,53,39, 3,25,55,21,55,36,43		4,22,43,31, 6	
		7,27,33,39,16,15,47		33
50″	59,53,39,10,53,29, 1,11,52,30		4,22,43,31,39	
		7,27,29,16,32,44, 8		33
52″	59,53,39,18,20,58,17,44,36,38		4,22,43,32,12	
		7,27,24,53,49,11,56		33
54″	59,53,39,25,48,23,11,33,48,34		4,22,43,32,45	
		7,27,20,31, 5,39,11		33
56″	59,53,39,33,15,43,42,39,27,45		4,22,43,33,18	
		7,27,16, 8,22, 5,53		33
58″	59,53,39,40,42,59,51, 1,33,38		4,22,43,33,51	
		7,27,11,45,38,32, 2		
60″	59,53,39,48,10,11,36,40, 5,40			
exact	59,53,39,48,10,11,36,40,17,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°36′ 0″	59,53,39,48,10,11,36,40,17,29			
		7,27, 7,22,54,59, 3		
2″	59,53,39,55,37,18,59,35,16,32		4,22,43,34,50	
		7,27, 3, 0,11,24,13		33
4″	59,53,40, 3, 4,21,59,46,40,45		4,22,43,35,23	
		7,26,58,37,27,48,50		33
6″	59,53,40,10,31,20,37,14,29,35		4,22,43,35,56	
		7,26,54,14,44,12,54		33
8″	59,53,40,17,58,14,51,58,42,29		4,22,43,36,29	
		7,26,49,52, 0,36,25		33
10″	59,53,40,25,25, 4,43,59,18,54		4,22,43,37, 2	
		7,26,45,29,16,59,23		33
12″	59,53,40,32,51,50,13,16,18,17		4,22,43,37,35	
		7,26,41, 6,33,21,48		33
14″	59,53,40,40,18,31,19,49,40, 5		4,22,43,38, 8	
		7,26,36,43,49,43,40		33
16″	59,53,40,47,45, 8, 3,39,23,45		4,22,43,38,41	
		7,26,32,21, 6, 4,59		33
18″	59,53,40,55,11,40,24,45,28,44		4,22,43,39,14	
		7,26,27,58,22,25,45		33
20″	59,53,41, 2,38, 8,23, 7,54,29		4,22,43,39,47	
		7,26,23,35,38,45,58		33
22″	59,53,41,10, 4,31,58,46,40,27		4,22,43,40,20	
		7,26,19,12,55, 5,38		33
24″	59,53,41,17,30,51,11,41,46, 5		4,22,43,40,53	
		7,26,14,50,11,24,45		33
26″	59,53,41,24,57, 6, 1,53,10,50		4,22,43,41,26	
		7,26,10,27,27,43,19		33
28″	59,53,41,32,23,16,29,20,54, 9		4,22,43,41,59	
		7,26, 6, 4,44, 1,20		33
30″	59,53,41,39,49,22,34, 4,55,29		4,22,43,42,32	
		7,26, 1,42, 0,18,48		33
32″	59,53,41,47,15,24,16, 5,14,17		4,22,43,43, 5	
		7,25,57,19,16,35,43		33
34″	59,53,41,54,41,21,35,21,50, 0		4,22,43,43,38	
		7,25,52,56,32,52, 5		33
36″	59,53,42, 2, 7,14,31,54,42, 5		4,22,43,44,11	
		7,25,48,33,49, 7,54		33
38″	59,53,42, 9,33, 3, 5,43,49,59		4,22,43,44,44	
		7,25,44,11, 5,23,10		33
40″	59,53,42,16,58,47,16,49,13, 9		4,22,43,45,17	
		7,25,39,48,21,37,53		33
42″	59,53,42,24,24,27, 5,10,51, 2		4,22,43,45,50	
		7,25,35,25,37,52, 3		33
44″	59,53,42,31,50, 2,30,48,43, 5		4,22,43,46,23	
		7,25,31, 2,54, 5,40		33
46″	59,53,42,39,15,33,33,42,48,45		4,22,43,46,56	
		7,25,26,40,10,18,44		33
48″	59,53,42,46,41, 0,13,53, 7,29		4,22,43,47,29	
		7,25,22,17,26,31,15		33
50″	59,53,42,54, 6,22,31,19,38,44		4,22,43,48, 2	
		7,25,17,54,42,43,13		33
52″	59,53,43, 1,31,40,26, 2,21,57		4,22,43,48,35	
		7,25,13,31,58,54,38		33
54″	59,53,43, 8,56,53,58, 1,16,35		4,22,43,49, 8	
		7,25, 9, 9,15, 5,30		33
56″	59,53,43,16,22, 3, 7,16,22, 5		4,22,43,49,41	
		7,25, 4,46,31,15,49		33
58″	59,53,43,23,47, 7,53,47,37,54		4,22,43,50,14	
		7,25, 0,23,47,25,35		
60″	59,53,43,31,12, 8,17,35, 3,29			
exact	59,53,43,31,12, 8,17,35,26, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°37′ 0″	59,53,43,31,12, 8,17,35,26, 4			
		7,24,56, 1, 3,37,23		
2″	59,53,43,38,37, 4,18,39, 3,27		4,22,43,51, 8	
		7,24,51,38,19,46,15		33
4″	59,53,43,46, 1,55,56,58,49,42		4,22,43,51,41	
		7,24,47,15,35,54,34		33
6″	59,53,43,53,26,43,12,34,44,16		4,22,43,52,14	
		7,24,42,52,52, 2,20		33
8″	59,53,44, 0,51,26, 5,26,46,36		4,22,43,52,47	
		7,24,38,30, 8, 9,33		33
10″	59,53,44, 8,16, 4,35,34,56, 9		4,22,43,53,20	
		7,24,34, 7,24,16,13		33
12″	59,53,44,15,40,38,42,59,12,22		4,22,43,53,53	
		7,24,29,44,40,22,20		33
14″	59,53,44,23, 5, 8,27,39,34,42		4,22,43,54,26	
		7,24,25,21,56,27,54		33
16″	59,53,44,30,29,33,49,36, 2,36		4,22,43,54,59	
		7,24,20,59,12,32,55		33
18″	59,53,44,37,53,54,48,48,35,31		4,22,43,55,32	
		7,24,16,36,28,37,23		33
20″	59,53,44,45,18,11,25,17,12,54		4,22,43,56, 5	
		7,24,12,13,44,41,18		33
22″	59,53,44,52,42,23,39, 1,54,12		4,22,43,56,38	
		7,24, 7,51, 0,44,40		33
24″	59,53,45, 0, 6,31,30, 2,38,52		4,22,43,57,11	
		7,24, 3,28,16,47,29		33
26″	59,53,45, 7,30,34,58,19,26,21		4,22,43,57,44	
		7,23,59, 5,32,49,45		33
28″	59,53,45,14,54,34, 3,52,16, 6		4,22,43,58,17	
		7,23,54,42,48,51,28		33
30″	59,53,45,22,18,28,46,41, 7,34		4,22,43,58,50	
		7,23,50,20, 4,52,38		33
32″	59,53,45,29,42,19, 6,46, 0,12		4,22,43,59,23	
		7,23,45,57,20,53,15		33
34″	59,53,45,37, 6, 5, 4, 6,53,27		4,22,43,59,56	
		7,23,41,34,36,53,19		33
36″	59,53,45,44,29,46,38,43,46,46		4,22,44, 0,29	
		7,23,37,11,52,52,50		33
38″	59,53,45,51,53,23,50,36,39,36		4,22,44, 1, 2	
		7,23,32,49, 8,51,48		33
40″	59,53,45,59,16,56,39,45,31,24		4,22,44, 1,35	
		7,23,28,26,24,50,13		33
42″	59,53,46, 6,40,25, 6,10,21,37		4,22,44, 2, 8	
		7,23,24, 3,40,48, 5		33
44″	59,53,46,14, 3,49, 9,51, 9,42		4,22,44, 2,41	
		7,23,19,40,56,45,24		33
46″	59,53,46,21,27, 8,50,47,55, 6		4,22,44, 3,14	
		7,23,15,18,12,42,10		33
48″	59,53,46,28,50,24, 9, 0,37,16		4,22,44, 3,47	
		7,23,10,55,28,38,23		33
50″	59,53,46,36,13,35, 4,29,15,39		4,22,44, 4,20	
		7,23, 6,32,44,34, 3		33
52″	59,53,46,43,36,41,37,13,49,42		4,22,44, 4,53	
		7,23, 2,10, 0,29,10		33
54″	59,53,46,50,59,43,47,14,18,52		4,22,44, 5,26	
		7,22,57,47,16,23,44		33
56″	59,53,46,58,22,41,34,30,42,36		4,22,44, 5,59	
		7,22,53,24,32,17,45		33
58″	59,53,47, 5,45,34,59, 3, 0,21		4,22,44, 6,32	
		7,22,49, 1,48,11,13		
60″	59,53,47,13, 8,24, 0,51,11,34			
exact	59,53,47,13, 8,24, 0,51,43,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°38′ 0″	59,53,47,13, 8,24, 0,51,43,42			
		7,22,44,39, 4, 7,47		
2″	59,53,47,20,31, 8,39,55,51,29		4,22,44, 7,22	
		7,22,40,16,20, 0,25		32
4″	59,53,47,27,53,48,56,15,51,54		4,22,44, 7,54	
		7,22,35,53,35,52,31		32
6″	59,53,47,35,16,24,49,51,44,25		4,22,44, 8,26	
		7,22,31,30,51,44, 5		32
8″	59,53,47,42,38,56,20,43,28,30		4,22,44, 8,58	
		7,22,27, 8, 7,35, 7		32
10″	59,53,47,50, 1,23,28,51, 3,37		4,22,44, 9,30	
		7,22,22,45,23,25,37		32
12″	59,53,47,57,23,46,14,14,29,14		4,22,44,10, 2	
		7,22,18,22,39,15,35		32
14″	59,53,48, 4,46, 4,36,53,44,49		4,22,44,10,34	
		7,22,13,59,55, 5, 1		32
16″	59,53,48,12, 8,18,36,48,49,50		4,22,44,11, 6	
		7,22, 9,37,10,53,55		32
18″	59,53,48,19,30,28,13,59,43,45		4,22,44,11,38	
		7,22, 5,14,26,42,17		32
20″	59,53,48,26,52,33,28,26,26, 2		4,22,44,12,10	
		7,22, 0,51,42,30, 7		32
22″	59,53,48,34,14,34,20, 8,56, 9		4,22,44,12,42	
		7,21,56,28,58,17,25		32
24″	59,53,48,41,36,30,49, 7,13,34		4,22,44,13,14	
		7,21,52, 6,14, 4,11		32
26″	59,53,48,48,58,22,55,21,17,45		4,22,44,13,46	
		7,21,47,43,29,50,25		32
28″	59,53,48,56,20,10,38,51, 8,10		4,22,44,14,18	
		7,21,43,20,45,36, 7		32
30″	59,53,49, 3,41,53,59,36,44,17		4,22,44,14,50	
		7,21,38,58, 1,21,17		32
32″	59,53,49,11, 3,32,57,38, 5,34		4,22,44,15,22	
		7,21,34,35,17, 5,55		32
34″	59,53,49,18,25, 7,32,55,11,29		4,22,44,15,54	
		7,21,30,12,32,50, 1		32
36″	59,53,49,25,46,37,45,28, 1,30		4,22,44,16,26	
		7,21,25,49,48,33,35		32
38″	59,53,49,33, 8, 3,35,16,35, 5		4,22,44,16,58	
		7,21,21,27, 4,16,37		32
40″	59,53,49,40,29,25, 2,20,51,42		4,22,44,17,30	
		7,21,17, 4,19,59, 7		32
42″	59,53,49,47,50,42, 6,40,50,49		4,22,44,18, 2	
		7,21,12,41,35,41, 5		32
44″	59,53,49,55,11,54,48,16,31,54		4,22,44,18,34	
		7,21, 8,18,51,22,31		32
46″	59,53,50, 2,33, 3, 7, 7,54,25		4,22,44,19, 6	
		7,21, 3,56, 7, 3,25		32
48″	59,53,50, 9,54, 7, 3,14,57,50		4,22,44,19,38	
		7,20,59,33,22,43,47		32
50″	59,53,50,17,15, 6,36,37,41,37		4,22,44,20,10	
		7,20,55,10,38,23,37		32
52″	59,53,50,24,36, 1,47,16, 5,14		4,22,44,20,42	
		7,20,50,47,54, 2,55		32
54″	59,53,50,31,56,52,35,10, 8, 9		4,22,44,21,14	
		7,20,46,25, 9,41,41		32
56″	59,53,50,39,17,39, 0,19,49,50		4,22,44,21,46	
		7,20,42, 2,25,19,55		32
58″	59,53,50,46,38,21, 2,45, 9,45		4,22,44,22,18	
		7,20,37,39,40,57,37		
60″	59,53,50,53,58,58,42,26, 7,22			
exact	59,53,50,53,58,58,42,25,47,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°39′ 0″	59,53,50,53,58,58,42,25,47,29			
		7,20,33,16,56,32,40		
2″	59,53,51, 1,19,31,59,22,20, 9		4,22,44,23,30	
		7,20,28,54,12, 9,10		32
4″	59,53,51, 8,40, 0,53,34,29,19		4,22,44,24, 2	
		7,20,24,31,27,45, 8		32
6″	59,53,51,16, 0,25,25, 2,14,27		4,22,44,24,34	
		7,20,20, 8,43,20,34		32
8″	59,53,51,23,20,45,33,45,35, 1		4,22,44,25, 6	
		7,20,15,45,58,55,28		32
10″	59,53,51,30,41, 1,19,44,30,29		4,22,44,25,38	
		7,20,11,23,14,29,50		32
12″	59,53,51,38, 1,12,42,59, 0,19		4,22,44,26,10	
		7,20, 7, 0,30, 3,40		32
14″	59,53,51,45,21,19,43,29, 3,59		4,22,44,26,42	
		7,20, 2,37,45,36,58		32
16″	59,53,51,52,41,22,21,14,40,57		4,22,44,27,14	
		7,19,58,15, 1, 9,44		32
18″	59,53,52, 0, 1,20,36,15,50,41		4,22,44,27,46	
		7,19,53,52,16,41,58		32
20″	59,53,52, 7,21,14,28,32,32,39		4,22,44,28,18	
		7,19,49,29,32,13,40		32
22″	59,53,52,14,41, 3,58, 4,46,19		4,22,44,28,50	
		7,19,45, 6,47,44,50		32
24″	59,53,52,22, 0,49, 4,52,31, 9		4,22,44,29,22	
		7,19,40,44, 3,15,28		32
26″	59,53,52,29,20,29,48,55,46,37		4,22,44,29,54	
		7,19,36,21,18,45,34		32
28″	59,53,52,36,40, 6,10,14,32,11		4,22,44,30,26	
		7,19,31,58,34,15, 8		32
30″	59,53,52,43,59,38, 8,48,47,19		4,22,44,30,58	
		7,19,27,35,49,44,10		32
32″	59,53,52,51,19, 5,44,38,31,29		4,22,44,31,30	
		7,19,23,13, 5,12,40		32
34″	59,53,52,58,38,28,57,43,44, 9		4,22,44,32, 2	
		7,19,18,50,20,40,38		32
36″	59,53,53, 5,57,47,48, 4,24,47		4,22,44,32,34	
		7,19,14,27,36, 8, 4		32
38″	59,53,53,13,17, 2,15,40,32,51		4,22,44,33, 6	
		7,19,10, 4,51,34,58		32
40″	59,53,53,20,36,12,20,32, 7,49		4,22,44,33,38	
		7,19, 5,42, 7, 1,20		32
42″	59,53,53,27,55,18, 2,39, 9, 9		4,22,44,34,10	
		7,19, 1,19,22,27,10		32
44″	59,53,53,35,14,19,22, 1,36,19		4,22,44,34,42	
		7,18,56,56,37,52,28		32
46″	59,53,53,42,33,16,18,39,28,47		4,22,44,35,14	
		7,18,52,33,53,17,14		32
48″	59,53,53,49,52, 8,52,32,46, 1		4,22,44,35,46	
		7,18,48,11, 8,41,28		32
50″	59,53,53,57,10,57, 3,41,27,29		4,22,44,36,18	
		7,18,43,48,24, 5,10		32
52″	59,53,54, 4,29,40,52, 5,32,39		4,22,44,36,50	
		7,18,39,25,39,28,20		32
54″	59,53,54,11,48,20,17,45, 0,59		4,22,44,37,22	
		7,18,35, 2,54,50,58		32
56″	59,53,54,19, 6,55,20,39,51,57		4,22,44,37,54	
		7,18,30,40,10,13, 4		32
58″	59,53,54,26,25,26, 0,50, 5, 1		4,22,44,38,26	
		7,18,26,17,25,34,38		
60″	59,53,54,33,43,52,18,15,39,39			
exact	59,53,54,33,43,52,18,15,26,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°40′ 0″	59,53,54,33,43,52,18,15,26,32			
		7,18,21,54,40,54,26		
2″	59,53,54,41, 2,14,12,56,20,58		4,22,44,39,34	
		7,18,17,31,56,14,52		32
4″	59,53,54,48,20,31,44,52,35,50		4,22,44,40, 6	
		7,18,13, 9,11,34,46		32
6″	59,53,54,55,38,44,54, 4,10,36		4,22,44,40,38	
		7,18, 8,46,26,54, 8		32
8″	59,53,55, 2,56,53,40,31, 4,44		4,22,44,41,10	
		7,18, 4,23,42,12,58		32
10″	59,53,55,10,14,58, 4,13,17,42		4,22,44,41,42	
		7,18, 0, 0,57,31,16		32
12″	59,53,55,17,32,58, 5,10,48,58		4,22,44,42,14	
		7,17,55,38,12,49, 2		32
14″	59,53,55,24,50,53,43,23,38, 0		4,22,44,42,46	
		7,17,51,15,28, 6,16		32
16″	59,53,55,32, 8,44,58,51,44,16		4,22,44,43,18	
		7,17,46,52,43,22,58		32
18″	59,53,55,39,26,31,51,35, 7,14		4,22,44,43,50	
		7,17,42,29,58,39, 8		32
20″	59,53,55,46,44,14,21,33,46,22		4,22,44,44,22	
		7,17,38, 7,13,54,46		32
22″	59,53,55,54, 1,52,28,47,41, 8		4,22,44,44,54	
		7,17,33,44,29, 9,52		32
24″	59,53,56, 1,19,26,13,16,51, 0		4,22,44,45,26	
		7,17,29,21,44,24,26		32
26″	59,53,56, 8,36,55,35, 1,15,26		4,22,44,45,58	
		7,17,24,58,59,38,28		32
28″	59,53,56,15,54,20,34, 0,53,54		4,22,44,46,30	
		7,17,20,36,14,51,58		32
30″	59,53,56,23,11,41,10,15,45,52		4,22,44,47, 2	
		7,17,16,13,30, 4,56		32
32″	59,53,56,30,28,57,23,45,50,48		4,22,44,47,34	
		7,17,11,50,45,17,22		32
34″	59,53,56,37,46, 9,14,31, 8,10		4,22,44,48, 6	
		7,17, 7,28, 0,29,16		32
36″	59,53,56,45, 3,16,42,31,37,26		4,22,44,48,38	
		7,17, 3, 5,15,40,38		32
38″	59,53,56,52,20,19,47,47,18, 4		4,22,44,49,10	
		7,16,58,42,30,51,28		32
40″	59,53,56,59,37,18,30,18, 9,32		4,22,44,49,42	
		7,16,54,19,46, 1,46		32
42″	59,53,57, 6,54,12,50, 4,11,18		4,22,44,50,14	
		7,16,49,57, 1,11,32		32
44″	59,53,57,14,11, 2,47, 5,22,50		4,22,44,50,46	
		7,16,45,34,16,20,46		32
46″	59,53,57,21,27,48,21,21,43,36		4,22,44,51,18	
		7,16,41,11,31,29,28		32
48″	59,53,57,28,44,29,32,53,13, 4		4,22,44,51,50	
		7,16,36,48,46,37,38		32
50″	59,53,57,36, 1, 6,21,39,50,42		4,22,44,52,22	
		7,16,32,26, 1,45,16		32
52″	59,53,57,43,17,38,47,41,35,58		4,22,44,52,54	
		7,16,28, 3,16,52,22		32
54″	59,53,57,50,34, 6,50,58,28,20		4,22,44,53,26	
		7,16,23,40,31,58,56		32
56″	59,53,57,57,50,30,31,30,27,16		4,22,44,53,58	
		7,16,19,17,47, 4,58		32
58″	59,53,58, 5, 6,49,49,17,32,14		4,22,44,54,30	
		7,16,14,55, 2,10,28		
60″	59,53,58,12,23, 4,44,19,42,42			
exact	59,53,58,12,23, 4,44,19,42, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°41′ 0″	59,53,58,12,23, 4,44,19,42, 0			
		7,16,10,32,17,15,28		
2″	59,53,58,19,39,15,16,36,57,28		4,22,44,55,33	
		7,16, 6, 9,32,19,55		32
4″	59,53,58,26,55,21,26, 9,17,23		4,22,44,56, 5	
		7,16, 1,46,47,23,50		32
6″	59,53,58,34,11,23,12,56,41,13		4,22,44,56,37	
		7,15,57,24, 2,27,13		32
8″	59,53,58,41,27,20,36,59, 8,26		4,22,44,57, 9	
		7,15,53, 1,17,30, 4		32
10″	59,53,58,48,43,13,38,16,38,30		4,22,44,57,41	
		7,15,48,38,32,32,23		32
12″	59,53,58,55,59, 2,16,49,10,53		4,22,44,58,13	
		7,15,44,15,47,34,10		32
14″	59,53,59, 3,14,46,32,36,45, 3		4,22,44,58,45	
		7,15,39,53, 2,35,25		32
16″	59,53,59,10,30,26,25,39,20,28		4,22,44,59,17	
		7,15,35,30,17,36, 8		32
18″	59,53,59,17,46, 1,55,56,56,36		4,22,44,59,49	
		7,15,31, 7,32,36,19		32
20″	59,53,59,25, 1,33, 3,29,32,55		4,22,45, 0,21	
		7,15,26,44,47,35,58		32
22″	59,53,59,32,16,59,48,17, 8,53		4,22,45, 0,53	
		7,15,22,22, 2,35, 5		32
24″	59,53,59,39,32,22,10,19,43,58		4,22,45, 1,25	
		7,15,17,59,17,33,40		32
26″	59,53,59,46,47,40, 9,37,17,38		4,22,45, 1,57	
		7,15,13,36,32,31,43		32
28″	59,53,59,54, 2,53,46, 9,49,21		4,22,45, 2,29	
		7,15, 9,13,47,29,14		32
30″	59,54, 0, 1,18, 2,59,57,18,35		4,22,45, 3, 1	
		7,15, 4,51, 2,26,13		32
32″	59,54, 0, 8,33, 7,50,59,44,48		4,22,45, 3,33	
		7,15, 0,28,17,22,40		32
34″	59,54, 0,15,48, 8,19,17, 7,28		4,22,45, 4, 5	
		7,14,56, 5,32,18,35		32
36″	59,54, 0,23, 3, 4,24,49,26, 3		4,22,45, 4,37	
		7,14,51,42,47,13,58		32
38″	59,54, 0,30,17,56, 7,36,40, 1		4,22,45, 5, 9	
		7,14,47,20, 2, 8,49		32
40″	59,54, 0,37,32,43,27,38,48,50		4,22,45, 5,41	
		7,14,42,57,17, 3, 8		32
42″	59,54, 0,44,47,26,24,55,51,58		4,22,45, 6,13	
		7,14,38,34,31,56,55		32
44″	59,54, 0,52, 2, 4,59,27,48,53		4,22,45, 6,45	
		7,14,34,11,46,50,10		32
46″	59,54, 0,59,16,39,11,14,39, 3		4,22,45, 7,17	
		7,14,29,49, 1,42,53		32
48″	59,54, 1, 6,31, 9, 0,16,21,56		4,22,45, 7,49	
		7,14,25,26,16,35, 4		32
50″	59,54, 1,13,45,34,26,32,57, 0		4,22,45, 8,21	
		7,14,21, 3,31,26,43		32
52″	59,54, 1,20,59,55,30, 4,23,43		4,22,45, 8,53	
		7,14,16,40,46,17,50		32
54″	59,54, 1,28,14,12,10,50,41,33		4,22,45, 9,25	
		7,14,12,18, 1, 8,25		32
56″	59,54, 1,35,28,24,28,51,49,58		4,22,45, 9,57	
		7,14, 7,55,15,58,28		32
58″	59,54, 1,42,42,32,24, 7,48,26		4,22,45,10,29	
		7,14, 3,32,30,47,59		
60″	59,54, 1,49,56,35,56,38,36,25			
exact	59,54, 1,49,56,35,56,38,47, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°42′ 0″	59,54, 1,49,56,35,56,38,47, 2			
		7,13,59, 9,45,38,11		
2″	59,54, 1,57,10,35, 6,24,25,13		4,22,45,11,27	
		7,13,54,47, 0,26,44		32
4″	59,54, 2, 4,24,29,53,24,51,57		4,22,45,11,59	
		7,13,50,24,15,14,45		32
6″	59,54, 2,11,38,20,17,40, 6,42		4,22,45,12,31	
		7,13,46, 1,30, 2,14		32
8″	59,54, 2,18,52, 6,19,10, 8,56		4,22,45,13, 3	
		7,13,41,38,44,49,11		32
10″	59,54, 2,26, 5,47,57,54,58, 7		4,22,45,13,35	
		7,13,37,15,59,35,36		32
12″	59,54, 2,33,19,25,13,54,33,43		4,22,45,14, 7	
		7,13,32,53,14,21,29		32
14″	59,54, 2,40,32,58, 7, 8,55,12		4,22,45,14,39	
		7,13,28,30,29, 6,50		32
16″	59,54, 2,47,46,26,37,38, 2, 2		4,22,45,15,11	
		7,13,24, 7,43,51,39		32
18″	59,54, 2,54,59,50,45,21,53,41		4,22,45,15,43	
		7,13,19,44,58,35,56		32
20″	59,54, 3, 2,13,10,30,20,29,37		4,22,45,16,15	
		7,13,15,22,13,19,41		32
22″	59,54, 3, 9,26,25,52,33,49,18		4,22,45,16,47	
		7,13,10,59,28, 2,54		32
24″	59,54, 3,16,39,36,52, 1,52,12		4,22,45,17,19	
		7,13, 6,36,42,45,35		32
26″	59,54, 3,23,52,43,28,44,37,47		4,22,45,17,51	
		7,13, 2,13,57,27,44		32
28″	59,54, 3,31, 5,45,42,42, 5,31		4,22,45,18,23	
		7,12,57,51,12, 9,21		32
30″	59,54, 3,38,18,43,33,54,14,52		4,22,45,18,55	
		7,12,53,28,26,50,26		32
32″	59,54, 3,45,31,37, 2,21, 5,18		4,22,45,19,27	
		7,12,49, 5,41,30,59		32
34″	59,54, 3,52,44,26, 8, 2,36,17		4,22,45,19,59	
		7,12,44,42,56,11, 0		32
36″	59,54, 3,59,57,10,50,58,47,17		4,22,45,20,31	
		7,12,40,20,10,50,29		32
38″	59,54, 4, 7, 9,51,11, 9,37,46		4,22,45,21, 3	
		7,12,35,57,25,29,26		32
40″	59,54, 4,14,22,27, 8,35, 7,12		4,22,45,21,35	
		7,12,31,34,40, 7,51		32
42″	59,54, 4,21,34,58,43,15,15, 3		4,22,45,22, 7	
		7,12,27,11,54,45,44		32
44″	59,54, 4,28,47,25,55,10, 0,47		4,22,45,22,39	
		7,12,22,49, 9,23, 5		32
46″	59,54, 4,35,59,48,44,19,23,52		4,22,45,23,11	
		7,12,18,26,23,59,54		32
48″	59,54, 4,43,12, 7,10,43,23,46		4,22,45,23,43	
		7,12,14, 3,38,36,11		32
50″	59,54, 4,50,24,21,14,21,59,57		4,22,45,24,15	
		7,12, 9,40,53,11,56		32
52″	59,54, 4,57,36,30,55,15,11,53		4,22,45,24,47	
		7,12, 5,18, 7,47, 9		32
54″	59,54, 5, 4,48,36,13,22,59, 2		4,22,45,25,19	
		7,12, 0,55,22,21,50		32
56″	59,54, 5,12, 0,37, 8,45,20,52		4,22,45,25,51	
		7,11,56,32,36,55,59		32
58″	59,54, 5,19,12,33,41,22,16,51		4,22,45,26,23	
		7,11,52, 9,51,29,36		
60″	59,54, 5,26,24,25,51,13,46,27			
exact	59,54, 5,26,24,25,51,14, 6,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°43′ 0″	59,54, 5,26,24,25,51,14, 6,53	7,11,47,47, 6, 5, 0		
2″	59,54, 5,33,36,13,38,20,11,53	7,11,43,24,20,37,44	4,22,45,27,16	32
4″	59,54, 5,40,47,57, 2,40,49,37	7,11,39, 1,35, 9,56	4,22,45,27,48	32
6″	59,54, 5,47,59,36, 4,15,59,33	7,11,34,38,49,41,36	4,22,45,28,20	32
8″	59,54, 5,55,11,10,43, 5,41, 9	7,11,30,16, 4,12,44	4,22,45,28,52	32
10″	59,54, 6, 2,22,40,59, 9,53,53	7,11,25,53,18,43,20	4,22,45,29,24	32
12″	59,54, 6, 9,34, 6,52,28,37,13	7,11,21,30,33,13,24	4,22,45,29,56	32
14″	59,54, 6,16,45,28,23, 1,50,37	7,11,17, 7,47,42,56	4,22,45,30,28	32
16″	59,54, 6,23,56,45,30,49,33,33	7,11,12,45, 2,11,56	4,22,45,31, 0	32
18″	59,54, 6,31, 7,58,15,51,45,29	7,11, 8,22,16,40,24	4,22,45,31,32	32
20″	59,54, 6,38,19, 6,38, 8,25,53	7,11, 3,59,31, 8,20	4,22,45,32, 4	32
22″	59,54, 6,45,30,10,37,39,34,13	7,10,59,36,45,35,44	4,22,45,32,36	32
24″	59,54, 6,52,41,10,14,25, 9,57	7,10,55,14, 0, 2,36	4,22,45,33, 8	32
26″	59,54, 6,59,52, 5,28,25,12,33	7,10,50,51,14,28,56	4,22,45,33,40	32
28″	59,54, 7, 7, 2,56,19,39,41,29	7,10,46,28,28,54,44	4,22,45,34,12	32
30″	59,54, 7,14,13,42,48, 8,36,13	7,10,42, 5,43,20, 0	4,22,45,34,44	32
32″	59,54, 7,21,24,24,53,51,56,13	7,10,37,42,57,44,44	4,22,45,35,16	32
34″	59,54, 7,28,35, 2,36,49,40,57	7,10,33,20,12, 8,56	4,22,45,35,48	32
36″	59,54, 7,35,45,35,57, 1,49,53	7,10,28,57,26,32,36	4,22,45,36,20	32
38″	59,54, 7,42,56, 4,54,28,22,29	7,10,24,34,40,55,44	4,22,45,36,52	32
40″	59,54, 7,50, 6,29,29, 9,18,13	7,10,20,11,55,18,20	4,22,45,37,24	32
42″	59,54, 7,57,16,49,41, 4,36,33	7,10,15,49, 9,40,24	4,22,45,37,56	32
44″	59,54, 8, 4,27, 5,30,14,16,57	7,10,11,26,24, 1,56	4,22,45,38,28	32
46″	59,54, 8,11,37,16,56,38,18,53	7,10, 7, 3,38,22,56	4,22,45,39, 0	32
48″	59,54, 8,18,47,24, 0,16,41,49	7,10, 2,40,52,43,24	4,22,45,39,32	32
50″	59,54, 8,25,57,26,41, 9,25,13	7, 9,58,18, 7, 3,20	4,22,45,40, 4	32
52″	59,54, 8,33, 7,24,59,16,28,33	7, 9,53,55,21,22,44	4,22,45,40,36	32
54″	59,54, 8,40,17,18,54,37,51,17	7, 9,49,32,35,41,36	4,22,45,41, 8	32
56″	59,54, 8,47,27, 8,27,13,32,53	7, 9,45, 9,49,59,56	4,22,45,41,40	32
58″	59,54, 8,54,36,53,37, 3,32,49	7, 9,40,47, 4,17,44	4,22,45,42,12	
60″	59,54, 9, 1,46,34,24, 7,50,33			
exact	59,54, 9, 1,46,34,24, 8,18,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°44′ 0″	59,54, 9, 1,46,34,24, 8,18,47			
		7, 9,36,24,18,38,17		
2″	59,54, 9, 8,56,10,48,26,57, 4		4,22,45,43, 1	
		7, 9,32, 1,32,55,16		31
4″	59,54, 9,16, 5,42,49,59,52,20		4,22,45,43,32	
		7, 9,27,38,47,11,44		31
6″	59,54, 9,23,15,10,28,47, 4, 4		4,22,45,44, 3	
		7, 9,23,16, 1,27,41		31
8″	59,54, 9,30,24,33,44,48,31,45		4,22,45,44,34	
		7, 9,18,53,15,43, 7		31
10″	59,54, 9,37,33,52,38, 4,14,52		4,22,45,45, 5	
		7, 9,14,30,29,58, 2		31
12″	59,54, 9,44,43, 7, 8,34,12,54		4,22,45,45,36	
		7, 9,10, 7,44,12,26		31
14″	59,54, 9,51,52,17,16,18,25,20		4,22,45,46, 7	
		7, 9, 5,44,58,26,19		31
16″	59,54, 9,59, 1,23, 1,16,51,39		4,22,45,46,38	
		7, 9, 1,22,12,39,41		31
18″	59,54,10, 6,10,24,23,29,31,20		4,22,45,47, 9	
		7, 8,56,59,26,52,32		31
20″	59,54,10,13,19,21,22,56,23,52		4,22,45,47,40	
		7, 8,52,36,41, 4,52		31
22″	59,54,10,20,28,13,59,37,28,44		4,22,45,48,11	
		7, 8,48,13,55,16,41		31
24″	59,54,10,27,37, 2,13,32,45,25		4,22,45,48,42	
		7, 8,43,51, 9,27,59		31
26″	59,54,10,34,45,46, 4,42,13,24		4,22,45,49,13	
		7, 8,39,28,23,38,46		31
28″	59,54,10,41,54,25,33, 5,52,10		4,22,45,49,44	
		7, 8,35, 5,37,49, 2		31
30″	59,54,10,49, 3, 0,38,43,41,12		4,22,45,50,15	
		7, 8,30,42,51,58,47		31
32″	59,54,10,56,11,31,21,35,39,59		4,22,45,50,46	
		7, 8,26,20, 6, 8, 1		31
34″	59,54,11, 3,19,57,41,41,48, 0		4,22,45,51,17	
		7, 8,21,57,20,16,44		31
36″	59,54,11,10,28,19,39, 2, 4,44		4,22,45,51,48	
		7, 8,17,34,34,24,56		31
38″	59,54,11,17,36,37,13,36,29,40		4,22,45,52,19	
		7, 8,13,11,48,32,37		31
40″	59,54,11,24,44,50,25,25, 2,17		4,22,45,52,50	
		7, 8, 8,49, 2,39,47		31
42″	59,54,11,31,52,59,14,27,42, 4		4,22,45,53,21	
		7, 8, 4,26,16,46,26		31
44″	59,54,11,39, 1, 3,40,44,28,30		4,22,45,53,52	
		7, 8, 0, 3,30,52,34		31
46″	59,54,11,46, 9, 3,44,15,21, 4		4,22,45,54,23	
		7, 7,55,40,44,58,11		31
48″	59,54,11,53,16,59,25, 0,19,15		4,22,45,54,54	
		7, 7,51,17,59, 3,17		31
50″	59,54,12, 0,24,50,42,59,22,32		4,22,45,55,25	
		7, 7,46,55,13, 7,52		31
52″	59,54,12, 7,32,37,38,12,30,24		4,22,45,55,56	
		7, 7,42,32,27,11,56		31
54″	59,54,12,14,40,20,10,39,42,20		4,22,45,56,27	
		7, 7,38, 9,41,15,29		31
56″	59,54,12,21,47,58,20,20,57,49		4,22,45,56,58	
		7, 7,33,46,55,18,31		31
58″	59,54,12,28,55,32, 7,16,16,20		4,22,45,57,29	
		7, 7,29,24, 9,21, 2		
60″	59,54,12,36, 3, 1,31,25,37,22			
exact	59,54,12,36, 3, 1,31,25,12, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°45′ 0″	59,54,12,36, 3, 1,31,25,12, 1	7, 7,25, 1,23,20,27	4,22,45,58,41	31
2″	59,54,12,43,10,26,32,48,32,28	7, 7,20,38,37,21,46	4,22,45,59,12	31
4″	59,54,12,50,17,47,11,25,54,14	7, 7,16,15,51,22,34	4,22,45,59,43	31
6″	59,54,12,57,25, 3,27,17,16,48	7, 7,11,53, 5,22,51	4,22,46, 0,14	31
8″	59,54,13, 4,32,15,20,22,39,39	7, 7, 7,30,19,22,37	4,22,46, 0,45	31
10″	59,54,13,11,39,22,50,42, 2,16	7, 7, 3, 7,33,21,52	4,22,46, 1,16	31
12″	59,54,13,18,46,25,58,15,24, 8	7, 6,58,44,47,20,36	4,22,46, 1,47	31
14″	59,54,13,25,53,24,43, 2,44,44	7, 6,54,22, 1,18,49	4,22,46, 2,18	31
16″	59,54,13,33, 0,19, 5, 4, 3,33	7, 6,49,59,15,16,31	4,22,46, 2,49	31
18″	59,54,13,40, 7, 9, 4,19,20, 4	7, 6,45,36,29,13,42	4,22,46, 3,20	31
20″	59,54,13,47,13,54,40,48,33,46	7, 6,41,13,43,10,22	4,22,46, 3,51	31
22″	59,54,13,54,20,35,54,31,44, 8	7, 6,36,50,57, 6,31	4,22,46, 4,22	31
24″	59,54,14, 1,27,12,45,28,50,39	7, 6,32,28,11, 2, 9	4,22,46, 4,53	31
26″	59,54,14, 8,33,45,13,39,52,48	7, 6,28, 5,24,57,16	4,22,46, 5,24	31
28″	59,54,14,15,40,13,19, 4,50, 4	7, 6,23,42,38,51,52	4,22,46, 5,55	31
30″	59,54,14,22,46,37, 1,43,41,56	7, 6,19,19,52,45,57	4,22,46, 6,26	31
32″	59,54,14,29,52,56,21,36,27,53	7, 6,14,57, 6,39,31	4,22,46, 6,57	31
34″	59,54,14,36,59,11,18,43, 7,24	7, 6,10,34,20,32,34	4,22,46, 7,28	31
36″	59,54,14,44, 5,21,53, 3,39,58	7, 6, 6,11,34,25, 6	4,22,46, 7,59	31
38″	59,54,14,51,11,28, 4,38, 5, 4	7, 6, 1,48,48,17, 7	4,22,46, 8,30	31
40″	59,54,14,58,17,29,53,26,22,11	7, 5,57,26, 2, 8,37	4,22,46, 9, 1	31
42″	59,54,15, 5,23,27,19,28,30,48	7, 5,53, 3,15,59,36	4,22,46, 9,32	31
44″	59,54,15,12,29,20,22,44,30,24	7, 5,48,40,29,50, 4	4,22,46,10, 3	31
46″	59,54,15,19,35, 9, 3,14,20,28	7, 5,44,17,43,40, 1	4,22,46,10,34	31
48″	59,54,15,26,40,53,20,58, 0,29	7, 5,39,54,57,29,27	4,22,46,11, 5	31
50″	59,54,15,33,46,33,15,55,29,56	7, 5,35,32,11,18,22	4,22,46,11,36	31
52″	59,54,15,40,52, 8,48, 6,48,18	7, 5,31, 9,25, 6,46	4,22,46,12, 7	31
54″	59,54,15,47,57,39,57,31,55, 4	7, 5,26,46,38,54,39	4,22,46,12,38	31
56″	59,54,15,55, 3, 6,44,10,49,43	7, 5,22,23,52,42, 1	4,22,46,13, 9	
58″	59,54,16, 2, 8,29, 8, 3,31,44	7, 5,18, 1, 6,28,52		
60″	59,54,16, 9,13,47, 9,10, 0,36			
exact	59,54,16, 9,13,47, 9, 9,47,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°46′ 0″	59,54,16, 9,13,47, 9, 9,47,55			
		7, 5,13,38,20,13,54		
2″	59,54,16,16,19, 0,47,30, 1,49		4,22,46,14,16	
		7, 5, 9,15,33,59,38		31
4″	59,54,16,23,24,10, 3, 4, 1,27		4,22,46,14,47	
		7, 5, 4,52,47,44,51		31
6″	59,54,16,30,29,14,55,51,46,18		4,22,46,15,18	
		7, 5, 0,30, 1,29,33		31
8″	59,54,16,37,34,15,25,53,15,51		4,22,46,15,49	
		7, 4,56, 7,15,13,44		31
10″	59,54,16,44,39,11,33, 8,29,35		4,22,46,16,20	
		7, 4,51,44,28,57,24		31
12″	59,54,16,51,44, 3,17,37,26,59		4,22,46,16,51	
		7, 4,47,21,42,40,33		31
14″	59,54,16,58,48,50,39,20, 7,32		4,22,46,17,22	
		7, 4,42,58,56,23,11		31
16″	59,54,17, 5,53,33,38,16,30,43		4,22,46,17,53	
		7, 4,38,36,10, 5,18		31
18″	59,54,17,12,58,12,14,26,36, 1		4,22,46,18,24	
		7, 4,34,13,23,46,54		31
20″	59,54,17,20, 2,46,27,50,22,55		4,22,46,18,55	
		7, 4,29,50,37,27,59		31
22″	59,54,17,27, 7,16,18,27,50,54		4,22,46,19,26	
		7, 4,25,27,51, 8,33		31
24″	59,54,17,34,11,41,46,18,59,27		4,22,46,19,57	
		7, 4,21, 5, 4,48,36		31
26″	59,54,17,41,16, 2,51,23,48, 3		4,22,46,20,28	
		7, 4,16,42,18,28, 8		31
28″	59,54,17,48,20,19,33,42,16,11		4,22,46,20,59	
		7, 4,12,19,32, 7, 9		31
30″	59,54,17,55,24,31,53,14,23,20		4,22,46,21,30	
		7, 4, 7,56,45,45,39		31
32″	59,54,18, 2,28,39,50, 0, 8,59		4,22,46,22, 1	
		7, 4, 3,33,59,23,38		31
34″	59,54,18, 9,32,43,23,59,32,37		4,22,46,22,32	
		7, 3,59,11,13, 1, 6		31
36″	59,54,18,16,36,42,35,12,33,43		4,22,46,23, 3	
		7, 3,54,48,26,38, 3		31
38″	59,54,18,23,40,37,23,39,11,46		4,22,46,23,34	
		7, 3,50,25,40,14,29		31
40″	59,54,18,30,44,27,49,19,26,15		4,22,46,24, 5	
		7, 3,46, 2,53,50,24		31
42″	59,54,18,37,48,13,52,13,16,39		4,22,46,24,36	
		7, 3,41,40, 7,25,48		31
44″	59,54,18,44,51,55,32,20,42,27		4,22,46,25, 7	
		7, 3,37,17,21, 0,41		31
46″	59,54,18,51,55,32,49,41,43, 8		4,22,46,25,38	
		7, 3,32,54,34,35, 3		31
48″	59,54,18,58,59, 5,44,16,18,11		4,22,46,26, 9	
		7, 3,28,31,48, 8,54		31
50″	59,54,19, 6, 2,34,16, 4,27, 5		4,22,46,26,40	
		7, 3,24, 9, 1,42,14		31
52″	59,54,19,13, 5,58,25, 6, 9,19		4,22,46,27,11	
		7, 3,19,46,15,15, 3		31
54″	59,54,19,20, 9,18,11,21,24,22		4,22,46,27,42	
		7, 3,15,23,28,47,21		31
56″	59,54,19,27,12,33,34,50,11,43		4,22,46,28,13	
		7, 3,11, 0,42,19, 8		31
58″	59,54,19,34,15,44,35,32,30,51		4,22,46,28,44	
		7, 3, 6,37,55,50,24		
60″	59,54,19,41,18,51,13,28,21,15			
exact	59,54,19,41,18,51,13,28,19,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°47′ 0″	59,54,19,41,18,51,13,28,19,50	7, 3, 2,15, 9,21, 2	4,22,46,29,46	31
2″	59,54,19,48,21,53,28,37,40,52	7, 2,57,52,22,51,16	4,22,46,30,17	31
4″	59,54,19,55,24,51,21, 0,32, 8	7, 2,53,29,36,20,59	4,22,46,30,48	31
6″	59,54,20, 2,27,44,50,36,53, 7	7, 2,49, 6,49,50,11	4,22,46,31,19	31
8″	59,54,20, 9,30,33,57,26,43,18	7, 2,44,44, 3,18,52	4,22,46,31,50	31
10″	59,54,20,16,33,18,41,30, 2,10	7, 2,40,21,16,47, 2	4,22,46,32,21	31
12″	59,54,20,23,35,59, 2,46,49,12	7, 2,35,58,30,14,41	4,22,46,32,52	31
14″	59,54,20,30,38,35, 1,17, 3,53	7, 2,31,35,43,41,49	4,22,46,33,23	31
16″	59,54,20,37,41, 6,37, 0,45,42	7, 2,27,12,57, 8,26	4,22,46,33,54	31
18″	59,54,20,44,43,33,49,57,54, 8	7, 2,22,50,10,34,32	4,22,46,34,25	31
20″	59,54,20,51,45,56,40, 8,28,40	7, 2,18,27,24, 0, 7	4,22,46,34,56	31
22″	59,54,20,58,48,15, 7,32,28,47	7, 2,14, 4,37,25,11	4,22,46,35,27	31
24″	59,54,21, 5,50,29,12, 9,53,58	7, 2, 9,41,50,49,44	4,22,46,35,58	31
26″	59,54,21,12,52,38,54, 0,43,42	7, 2, 5,19, 4,13,46	4,22,46,36,29	31
28″	59,54,21,19,54,44,13, 4,57,28	7, 2, 0,56,17,37,17	4,22,46,37, 0	31
30″	59,54,21,26,56,45, 9,22,34,45	7, 1,56,33,31, 0,17	4,22,46,37,31	31
32″	59,54,21,33,58,41,42,53,35, 2	7, 1,52,10,44,22,46	4,22,46,38, 2	31
34″	59,54,21,41, 0,33,53,37,57,48	7, 1,47,47,57,44,44	4,22,46,38,33	31
36″	59,54,21,48, 2,21,41,35,42,32	7, 1,43,25,11, 6,11	4,22,46,39, 4	31
38″	59,54,21,55, 4, 5, 6,46,48,43	7, 1,39, 2,24,27, 7	4,22,46,39,35	31
40″	59,54,22, 2, 5,44, 9,11,15,50	7, 1,34,39,37,47,32	4,22,46,40, 6	31
42″	59,54,22, 9, 7,18,48,49, 3,22	7, 1,30,16,51, 7,26	4,22,46,40,37	31
44″	59,54,22,16, 8,49, 5,40,10,48	7, 1,25,54, 4,26,49	4,22,46,41, 8	31
46″	59,54,22,23,10,14,59,44,37,37	7, 1,21,31,17,45,41	4,22,46,41,39	31
48″	59,54,22,30,11,36,31, 2,23,18	7, 1,17, 8,31, 4, 2	4,22,46,42,10	31
50″	59,54,22,37,12,53,39,33,27,20	7, 1,12,45,44,21,52	4,22,46,42,41	31
52″	59,54,22,44,14, 6,25,17,49,12	7, 1, 8,22,57,39,11	4,22,46,43,12	31
54″	59,54,22,51,15,14,48,15,28,23	7, 1, 4, 0,10,55,59	4,22,46,43,43	31
56″	59,54,22,58,16,18,48,26,24,22	7, 0,59,37,24,12,16	4,22,46,44,14	
58″	59,54,23, 5,17,18,25,50,36,38	7, 0,55,14,37,28, 2		
60″	59,54,23,12,18,13,40,28, 4,40			
exact	59,54,23,12,18,13,40,28,13,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°48′ 0″	59,54,23,12,18,13,40,28,13,10			
		7, 0,50,51,50,44,16		
2″	59,54,23,19,19, 4,32,18,57,26		4,22,46,45,11	
		7, 0,46,29, 3,59, 5		31
4″	59,54,23,26,19,51, 1,22,56,31		4,22,46,45,42	
		7, 0,42, 6,17,13,23		31
6″	59,54,23,33,20,33, 7,40, 9,54		4,22,46,46,13	
		7, 0,37,43,30,27,10		31
8″	59,54,23,40,21,10,51,10,37, 4		4,22,46,46,44	
		7, 0,33,20,43,40,26		31
10″	59,54,23,47,21,44,11,54,17,30		4,22,46,47,15	
		7, 0,28,57,56,53,11		31
12″	59,54,23,54,22,13, 9,51,10,41		4,22,46,47,46	
		7, 0,24,35,10, 5,25		31
14″	59,54,24, 1,22,37,45, 1,16, 6		4,22,46,48,17	
		7, 0,20,12,23,17, 8		31
16″	59,54,24, 8,22,57,57,24,33,14		4,22,46,48,48	
		7, 0,15,49,36,28,20		31
18″	59,54,24,15,23,13,47, 1, 1,34		4,22,46,49,19	
		7, 0,11,26,49,39, 1		31
20″	59,54,24,22,23,25,13,50,40,35		4,22,46,49,50	
		7, 0, 7, 4, 2,49,11		31
22″	59,54,24,29,23,32,17,53,29,46		4,22,46,50,21	
		7, 0, 2,41,15,58,50		31
24″	59,54,24,36,23,34,59, 9,28,36		4,22,46,50,52	
		6,59,58,18,29, 7,58		31
26″	59,54,24,43,23,33,17,38,36,34		4,22,46,51,23	
		6,59,53,55,42,16,35		31
28″	59,54,24,50,23,27,13,20,53, 9		4,22,46,51,54	
		6,59,49,32,55,24,41		31
30″	59,54,24,57,23,16,46,16,17,50		4,22,46,52,25	
		6,59,45,10, 8,32,16		31
32″	59,54,25, 4,23, 1,56,24,50, 6		4,22,46,52,56	
		6,59,40,47,21,39,20		31
34″	59,54,25,11,22,42,43,46,29,26		4,22,46,53,27	
		6,59,36,24,34,45,53		31
36″	59,54,25,18,22,19, 8,21,15,19		4,22,46,53,58	
		6,59,32, 1,47,51,55		31
38″	59,54,25,25,21,51,10, 9, 7,14		4,22,46,54,29	
		6,59,27,39, 0,57,26		31
40″	59,54,25,32,21,18,49,10, 4,40		4,22,46,55, 0	
		6,59,23,16,14, 2,26		31
42″	59,54,25,39,20,42, 5,24, 7, 6		4,22,46,55,31	
		6,59,18,53,27, 6,55		31
44″	59,54,25,46,20, 0,58,51,14, 1		4,22,46,56, 2	
		6,59,14,30,40,10,53		31
46″	59,54,25,53,19,15,29,31,24,54		4,22,46,56,33	
		6,59,10, 7,53,14,20		31
48″	59,54,26, 0,18,25,37,24,39,14		4,22,46,57, 4	
		6,59, 5,45, 6,17,16		31
50″	59,54,26, 7,17,31,22,30,56,30		4,22,46,57,35	
		6,59, 1,22,19,19,41		31
52″	59,54,26,14,16,32,44,50,16,11		4,22,46,58, 6	
		6,58,56,59,32,21,35		31
54″	59,54,26,21,15,29,44,22,37,46		4,22,46,58,37	
		6,58,52,36,45,22,58		31
56″	59,54,26,28,14,22,21, 8, 0,44		4,22,46,59, 8	
		6,58,48,13,58,23,50		31
58″	59,54,26,35,13,10,35, 6,24,34		4,22,46,59,39	
		6,58,43,51,11,24,11		
60″	59,54,26,42,11,54,26,17,48,45			
exact	59,54,26,42,11,54,26,18, 5,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°49′ 0″	59,54,26,42,11,54,26,18, 5,22			
		6,58,39,28,24,25,59		
2″	59,54,26,49,10,33,54,42,31,21		4,22,47, 0,32	
		6,58,35, 5,37,25,27		31
4″	59,54,26,56, 9, 9, 0,19,56,48		4,22,47, 1, 3	
		6,58,30,42,50,24,24		31
6″	59,54,27, 3, 7,39,43,10,21,12		4,22,47, 1,34	
		6,58,26,20, 3,22,50		31
8″	59,54,27,10, 6, 6, 3,13,44, 2		4,22,47, 2, 5	
		6,58,21,57,16,20,45		31
10″	59,54,27,17, 4,28, 0,30, 4,47		4,22,47, 2,36	
		6,58,17,34,29,18, 9		31
12″	59,54,27,24, 2,45,34,59,22,56		4,22,47, 3, 7	
		6,58,13,11,42,15, 2		31
14″	59,54,27,31, 0,58,46,41,37,58		4,22,47, 3,38	
		6,58, 8,48,55,11,24		31
16″	59,54,27,37,59, 7,35,36,49,22		4,22,47, 4, 9	
		6,58, 4,26, 8, 7,15		31
18″	59,54,27,44,57,12, 1,44,56,37		4,22,47, 4,40	
		6,58, 0, 3,21, 2,35		31
20″	59,54,27,51,55,12, 5, 5,59,12		4,22,47, 5,11	
		6,57,55,40,33,57,24		31
22″	59,54,27,58,53, 7,45,39,56,36		4,22,47, 5,42	
		6,57,51,17,46,51,42		31
24″	59,54,28, 5,50,59, 3,26,48,18		4,22,47, 6,13	
		6,57,46,54,59,45,29		31
26″	59,54,28,12,48,45,58,26,33,47		4,22,47, 6,44	
		6,57,42,32,12,38,45		31
28″	59,54,28,19,46,28,30,39,12,32		4,22,47, 7,15	
		6,57,38, 9,25,31,30		31
30″	59,54,28,26,44, 6,40, 4,44, 2		4,22,47, 7,46	
		6,57,33,46,38,23,44		31
32″	59,54,28,33,41,40,26,43, 7,46		4,22,47, 8,17	
		6,57,29,23,51,15,27		31
34″	59,54,28,40,39, 9,50,34,23,13		4,22,47, 8,48	
		6,57,25, 1, 4, 6,39		31
36″	59,54,28,47,36,34,51,38,29,52		4,22,47, 9,19	
		6,57,20,38,16,57,20		31
38″	59,54,28,54,33,55,29,55,27,12		4,22,47, 9,50	
		6,57,16,15,29,47,30		31
40″	59,54,29, 1,31,11,45,25,14,42		4,22,47,10,21	
		6,57,11,52,42,37, 9		31
42″	59,54,29, 8,28,23,38, 7,51,51		4,22,47,10,52	
		6,57, 7,29,55,26,17		31
44″	59,54,29,15,25,31, 8, 3,18, 8		4,22,47,11,23	
		6,57, 3, 7, 8,14,54		31
46″	59,54,29,22,22,34,15,11,33, 2		4,22,47,11,54	
		6,56,58,44,21, 3, 0		31
48″	59,54,29,29,19,32,59,32,36, 2		4,22,47,12,25	
		6,56,54,21,33,50,35		31
50″	59,54,29,36,16,27,21, 6,26,37		4,22,47,12,56	
		6,56,49,58,46,37,39		31
52″	59,54,29,43,13,17,19,53, 4,16		4,22,47,13,27	
		6,56,45,35,59,24,12		31
54″	59,54,29,50,10, 2,55,52,28,28		4,22,47,13,58	
		6,56,41,13,12,10,14		31
56″	59,54,29,57, 6,44, 9, 4,38,42		4,22,47,14,29	
		6,56,36,50,24,55,45		31
58″	59,54,30, 4, 3,20,59,29,34,27		4,22,47,15, 0	
		6,56,32,27,37,40,45		
60″	59,54,30,10,59,53,27, 7,15,12			
exact	59,54,30,10,59,53,27, 7,45,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°50′ 0″	59,54,30,10,59,53,27, 7,45,56			
		6,56,28, 4,50,28,35		
2″	59,54,30,17,56,21,31,58,14,31		4,22,47,15,48	
		6,56,23,42, 3,12,47		30
4″	59,54,30,24,52,45,14, 1,27,18		4,22,47,16,18	
		6,56,19,19,15,56,29		30
6″	59,54,30,31,49, 4,33,17,23,47		4,22,47,16,48	
		6,56,14,56,28,39,41		30
8″	59,54,30,38,45,19,29,46, 3,28		4,22,47,17,18	
		6,56,10,33,41,22,23		30
10″	59,54,30,45,41,30, 3,27,25,51		4,22,47,17,48	
		6,56, 6,10,54, 4,35		30
12″	59,54,30,52,37,36,14,21,30,26		4,22,47,18,18	
		6,56, 1,48, 6,46,17		30
14″	59,54,30,59,33,38, 2,28,16,43		4,22,47,18,48	
		6,55,57,25,19,27,29		30
16″	59,54,31, 6,29,35,27,47,44,12		4,22,47,19,18	
		6,55,53, 2,32, 8,11		30
18″	59,54,31,13,25,28,30,19,52,23		4,22,47,19,48	
		6,55,48,39,44,48,23		30
20″	59,54,31,20,21,17,10, 4,40,46		4,22,47,20,18	
		6,55,44,16,57,28, 5		30
22″	59,54,31,27,17, 1,27, 2, 8,51		4,22,47,20,48	
		6,55,39,54,10, 7,17		30
24″	59,54,31,34,12,41,21,12,16, 8		4,22,47,21,18	
		6,55,35,31,22,45,59		30
26″	59,54,31,41, 8,16,52,35, 2, 7		4,22,47,21,48	
		6,55,31, 8,35,24,11		30
28″	59,54,31,48, 3,48, 1,10,26,18		4,22,47,22,18	
		6,55,26,45,48, 1,53		30
30″	59,54,31,54,59,14,46,58,28,11		4,22,47,22,48	
		6,55,22,23, 0,39, 5		30
32″	59,54,32, 1,54,37, 9,59, 7,16		4,22,47,23,18	
		6,55,18, 0,13,15,47		30
34″	59,54,32, 8,49,55,10,12,23, 3		4,22,47,23,48	
		6,55,13,37,25,51,59		30
36″	59,54,32,15,45, 8,47,38,15, 2		4,22,47,24,18	
		6,55, 9,14,38,27,41		30
38″	59,54,32,22,40,18, 2,16,42,43		4,22,47,24,48	
		6,55, 4,51,51, 2,53		30
40″	59,54,32,29,35,22,54, 7,45,36		4,22,47,25,18	
		6,55, 0,29, 3,37,35		30
42″	59,54,32,36,30,23,23,11,23,11		4,22,47,25,48	
		6,54,56, 6,16,11,47		30
44″	59,54,32,43,25,19,29,27,34,58		4,22,47,26,18	
		6,54,51,43,28,45,29		30
46″	59,54,32,50,20,11,12,56,20,27		4,22,47,26,48	
		6,54,47,20,41,18,41		30
48″	59,54,32,57,14,58,33,37,39, 8		4,22,47,27,18	
		6,54,42,57,53,51,23		30
50″	59,54,33, 4, 9,41,31,31,30,31		4,22,47,27,48	
		6,54,38,35, 6,23,35		30
52″	59,54,33,11, 4,20, 6,37,54, 6		4,22,47,28,18	
		6,54,34,12,18,55,17		30
54″	59,54,33,17,58,54,18,56,49,23		4,22,47,28,48	
		6,54,29,49,31,26,29		30
56″	59,54,33,24,53,24, 8,28,15,52		4,22,47,29,18	
		6,54,25,26,43,57,11		30
58″	59,54,33,31,47,49,35,12,13, 3		4,22,47,29,48	
		6,54,21, 3,56,27,23		
60″	59,54,33,38,42,10,39, 8,40,26			
exact	59,54,33,38,42,10,39, 8,16,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°51′ 0″	59,54,33,38,42,10,39, 8,16,22			
		6,54,16,41, 8,54,29		
2″	59,54,33,45,36,27,20,17,10,51		4,22,47,30,58	
		6,54,12,18,21,23,31		30
4″	59,54,33,52,30,39,38,38,34,22		4,22,47,31,28	
		6,54, 7,55,33,52, 3		30
6″	59,54,33,59,24,47,34,12,26,25		4,22,47,31,58	
		6,54, 3,32,46,20, 5		30
8″	59,54,34, 6,18,51, 6,58,46,30		4,22,47,32,28	
		6,53,59, 9,58,47,37		30
10″	59,54,34,13,12,50,16,57,34, 7		4,22,47,32,58	
		6,53,54,47,11,14,39		30
12″	59,54,34,20, 6,45, 4, 8,48,46		4,22,47,33,28	
		6,53,50,24,23,41,11		30
14″	59,54,34,27, 0,35,28,32,29,57		4,22,47,33,58	
		6,53,46, 1,36, 7,13		30
16″	59,54,34,33,54,21,30, 8,37,10		4,22,47,34,28	
		6,53,41,38,48,32,45		30
18″	59,54,34,40,48, 3, 8,57, 9,55		4,22,47,34,58	
		6,53,37,16, 0,57,47		30
20″	59,54,34,47,41,40,24,58, 7,42		4,22,47,35,28	
		6,53,32,53,13,22,19		30
22″	59,54,34,54,35,13,18,11,30, 1		4,22,47,35,58	
		6,53,28,30,25,46,21		30
24″	59,54,35, 1,28,41,48,37,16,22		4,22,47,36,28	
		6,53,24, 7,38, 9,53		30
26″	59,54,35, 8,22, 5,56,15,26,15		4,22,47,36,58	
		6,53,19,44,50,32,55		30
28″	59,54,35,15,15,25,41, 5,59,10		4,22,47,37,28	
		6,53,15,22, 2,55,27		30
30″	59,54,35,22, 8,41, 3, 8,54,37		4,22,47,37,58	
		6,53,10,59,15,17,29		30
32″	59,54,35,29, 1,52, 2,24,12, 6		4,22,47,38,28	
		6,53, 6,36,27,39, 1		30
34″	59,54,35,35,54,58,38,51,51, 7		4,22,47,38,58	
		6,53, 2,13,40, 0, 3		30
36″	59,54,35,42,48, 0,52,31,51,10		4,22,47,39,28	
		6,52,57,50,52,20,35		30
38″	59,54,35,49,40,58,43,24,11,45		4,22,47,39,58	
		6,52,53,28, 4,40,37		30
40″	59,54,35,56,33,52,11,28,52,22		4,22,47,40,28	
		6,52,49, 5,17, 0, 9		30
42″	59,54,36, 3,26,41,16,45,52,31		4,22,47,40,58	
		6,52,44,42,29,19,11		30
44″	59,54,36,10,19,25,59,15,11,42		4,22,47,41,28	
		6,52,40,19,41,37,43		30
46″	59,54,36,17,12, 6,18,56,49,25		4,22,47,41,58	
		6,52,35,56,53,55,45		30
48″	59,54,36,24, 4,42,15,50,45,10		4,22,47,42,28	
		6,52,31,34, 6,13,17		30
50″	59,54,36,30,57,13,49,56,58,27		4,22,47,42,58	
		6,52,27,11,18,30,19		30
52″	59,54,36,37,49,41, 1,15,28,46		4,22,47,43,28	
		6,52,22,48,30,46,51		30
54″	59,54,36,44,42, 3,49,46,15,37		4,22,47,43,58	
		6,52,18,25,43, 2,53		30
56″	59,54,36,51,34,22,15,29,18,30		4,22,47,44,28	
		6,52,14, 2,55,18,25		30
58″	59,54,36,58,26,36,18,24,36,55		4,22,47,44,58	
		6,52, 9,40, 7,33,27		
60″	59,54,37, 5,18,45,58,32,10,22			
exact	59,54,37, 5,18,45,58,31,50,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°52′ 0″	59,54,37, 5,18,45,58,31,50,15			
		6,52, 5,17,19,46, 4		
2″	59,54,37,12,10,51,15,51,36,19		4,22,47,46, 5	
		6,52, 0,54,31,59,59		30
4″	59,54,37,19, 2,52,10,23,36,18		4,22,47,46,35	
		6,51,56,31,44,13,24		30
6″	59,54,37,25,54,48,42, 7,49,42		4,22,47,47, 5	
		6,51,52, 8,56,26,19		30
8″	59,54,37,32,46,40,51, 4,16, 1		4,22,47,47,35	
		6,51,47,46, 8,38,44		30
10″	59,54,37,39,38,28,37,12,54,45		4,22,47,48, 5	
		6,51,43,23,20,50,39		30
12″	59,54,37,46,30,12, 0,33,45,24		4,22,47,48,35	
		6,51,39, 0,33, 2, 4		30
14″	59,54,37,53,21,51, 1, 6,47,28		4,22,47,49, 5	
		6,51,34,37,45,12,59		30
16″	59,54,38, 0,13,25,38,52, 0,27		4,22,47,49,35	
		6,51,30,14,57,23,24		30
18″	59,54,38, 7, 4,55,53,49,23,51		4,22,47,50, 5	
		6,51,25,52, 9,33,19		30
20″	59,54,38,13,56,21,45,58,57,10		4,22,47,50,35	
		6,51,21,29,21,42,44		30
22″	59,54,38,20,47,43,15,20,39,54		4,22,47,51, 5	
		6,51,17, 6,33,51,39		30
24″	59,54,38,27,39, 0,21,54,31,33		4,22,47,51,35	
		6,51,12,43,46, 0, 4		30
26″	59,54,38,34,30,13, 5,40,31,37		4,22,47,52, 5	
		6,51, 8,20,58, 7,59		30
28″	59,54,38,41,21,21,26,38,39,36		4,22,47,52,35	
		6,51, 3,58,10,15,24		30
30″	59,54,38,48,12,25,24,48,55, 0		4,22,47,53, 5	
		6,50,59,35,22,22,19		30
32″	59,54,38,55, 3,25, 0,11,17,19		4,22,47,53,35	
		6,50,55,12,34,28,44		30
34″	59,54,39, 1,54,20,12,45,46, 3		4,22,47,54, 5	
		6,50,50,49,46,34,39		30
36″	59,54,39, 8,45,11, 2,32,20,42		4,22,47,54,35	
		6,50,46,26,58,40, 4		30
38″	59,54,39,15,35,57,29,31, 0,46		4,22,47,55, 5	
		6,50,42, 4,10,44,59		30
40″	59,54,39,22,26,39,33,41,45,45		4,22,47,55,35	
		6,50,37,41,22,49,24		30
42″	59,54,39,29,17,17,15, 4,35, 9		4,22,47,56, 5	
		6,50,33,18,34,53,19		30
44″	59,54,39,36, 7,50,33,39,28,28		4,22,47,56,35	
		6,50,28,55,46,56,44		30
46″	59,54,39,42,58,19,29,26,25,12		4,22,47,57, 5	
		6,50,24,32,58,59,39		30
48″	59,54,39,49,48,44, 2,25,24,51		4,22,47,57,35	
		6,50,20,10,11, 2, 4		30
50″	59,54,39,56,39, 4,12,36,26,55		4,22,47,58, 5	
		6,50,15,47,23, 3,59		30
52″	59,54,40, 3,29,19,59,59,30,54		4,22,47,58,35	
		6,50,11,24,35, 5,24		30
54″	59,54,40,10,19,31,24,34,36,18		4,22,47,59, 5	
		6,50, 7, 1,47, 6,19		30
56″	59,54,40,17, 9,38,26,21,42,37		4,22,47,59,35	
		6,50, 2,38,59, 6,44		30
58″	59,54,40,23,59,41, 5,20,49,21		4,22,48, 0, 5	
		6,49,58,16,11, 6,39		
60″	59,54,40,30,49,39,21,31,56, 0			
exact	59,54,40,30,49,39,21,31,53,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°53′ 0″	59,54,40,30,49,39,21,31,53,12			
		6,49,53,53,23, 5,45		
2″	59,54,40,37,39,33,14,54,58,57		4,22,48, 1, 6	
		6,49,49,30,35, 4,39		30
4″	59,54,40,44,29,22,45,30, 3,36		4,22,48, 1,36	
		6,49,45, 7,47, 3, 3		30
6″	59,54,40,51,19, 7,53,17, 6,39		4,22,48, 2, 6	
		6,49,40,44,59, 0,57		30
8″	59,54,40,58, 8,48,38,16, 7,36		4,22,48, 2,36	
		6,49,36,22,10,58,21		30
10″	59,54,41, 4,58,25, 0,27, 5,57		4,22,48, 3, 6	
		6,49,31,59,22,55,15		30
12″	59,54,41,11,47,56,59,50, 1,12		4,22,48, 3,36	
		6,49,27,36,34,51,39		30
14″	59,54,41,18,37,24,36,24,52,51		4,22,48, 4, 6	
		6,49,23,13,46,47,33		30
16″	59,54,41,25,26,47,50,11,40,24		4,22,48, 4,36	
		6,49,18,50,58,42,57		30
18″	59,54,41,32,16, 6,41,10,23,21		4,22,48, 5, 6	
		6,49,14,28,10,37,51		30
20″	59,54,41,39, 5,21, 9,21, 1,12		4,22,48, 5,36	
		6,49,10, 5,22,32,15		30
22″	59,54,41,45,54,31,14,43,33,27		4,22,48, 6, 6	
		6,49, 5,42,34,26, 9		30
24″	59,54,41,52,43,36,57,17,59,36		4,22,48, 6,36	
		6,49, 1,19,46,19,33		30
26″	59,54,41,59,32,38,17, 4,19, 9		4,22,48, 7, 6	
		6,48,56,56,58,12,27		30
28″	59,54,42, 6,21,35,14, 2,31,36		4,22,48, 7,36	
		6,48,52,34,10, 4,51		30
30″	59,54,42,13,10,27,48,12,36,27		4,22,48, 8, 6	
		6,48,48,11,21,56,45		30
32″	59,54,42,19,59,15,59,34,33,12		4,22,48, 8,36	
		6,48,43,48,33,48, 9		30
34″	59,54,42,26,47,59,48, 8,21,21		4,22,48, 9, 6	
		6,48,39,25,45,39, 3		30
36″	59,54,42,33,36,39,13,54, 0,24		4,22,48, 9,36	
		6,48,35, 2,57,29,27		30
38″	59,54,42,40,25,14,16,51,29,51		4,22,48,10, 6	
		6,48,30,40, 9,19,21		30
40″	59,54,42,47,13,44,57, 0,49,12		4,22,48,10,36	
		6,48,26,17,21, 8,45		30
42″	59,54,42,54, 2,11,14,21,57,57		4,22,48,11, 6	
		6,48,21,54,32,57,39		30
44″	59,54,43, 0,50,33, 8,54,55,36		4,22,48,11,36	
		6,48,17,31,44,46, 3		30
46″	59,54,43, 7,38,50,40,39,41,39		4,22,48,12, 6	
		6,48,13, 8,56,33,57		30
48″	59,54,43,14,27, 3,49,36,15,36		4,22,48,12,36	
		6,48, 8,46, 8,21,21		30
50″	59,54,43,21,15,12,35,44,36,57		4,22,48,13, 6	
		6,48, 4,23,20, 8,15		30
52″	59,54,43,28, 3,16,59, 4,45,12		4,22,48,13,36	
		6,48, 0, 0,31,54,39		30
54″	59,54,43,34,51,16,59,36,39,51		4,22,48,14, 6	
		6,47,55,37,43,40,33		30
56″	59,54,43,41,39,12,37,20,20,24		4,22,48,14,36	
		6,47,51,14,55,25,57		30
58″	59,54,43,48,27, 3,52,15,46,21		4,22,48,15, 6	
		6,47,46,52, 7,10,51		
60″	59,54,43,55,14,50,44,22,57,12			
exact	59,54,43,55,14,50,44,23, 2,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°54′ 0″	59,54,43,55,14,50,44,23, 2,54			
		6,47,42,29,18,55,56		
2″	59,54,44, 2, 2,33,13,41,58,50		4,22,48,16, 2	
		6,47,38, 6,30,39,54		30
4″	59,54,44, 8,50,11,20,12,38,44		4,22,48,16,32	
		6,47,33,43,42,23,22		30
6″	59,54,44,15,37,45, 3,55, 2, 6		4,22,48,17, 2	
		6,47,29,20,54, 6,20		30
8″	59,54,44,22,25,14,24,49, 8,26		4,22,48,17,32	
		6,47,24,58, 5,48,48		30
10″	59,54,44,29,12,39,22,54,57,14		4,22,48,18, 2	
		6,47,20,35,17,30,46		30
12″	59,54,44,35,59,59,58,12,28, 0		4,22,48,18,32	
		6,47,16,12,29,12,14		30
14″	59,54,44,42,47,16,10,41,40,14		4,22,48,19, 2	
		6,47,11,49,40,53,12		30
16″	59,54,44,49,34,28, 0,22,33,26		4,22,48,19,32	
		6,47, 7,26,52,33,40		30
18″	59,54,44,56,21,35,27,15, 7, 6		4,22,48,20, 2	
		6,47, 3, 4, 4,13,38		30
20″	59,54,45, 3, 8,38,31,19,20,44		4,22,48,20,32	
		6,46,58,41,15,53, 6		30
22″	59,54,45, 9,55,37,12,35,13,50		4,22,48,21, 2	
		6,46,54,18,27,32, 4		30
24″	59,54,45,16,42,31,31, 2,45,54		4,22,48,21,32	
		6,46,49,55,39,10,32		30
26″	59,54,45,23,29,21,26,41,56,26		4,22,48,22, 2	
		6,46,45,32,50,48,30		30
28″	59,54,45,30,16, 6,59,32,44,56		4,22,48,22,32	
		6,46,41,10, 2,25,58		30
30″	59,54,45,37, 2,48, 9,35,10,54		4,22,48,23, 2	
		6,46,36,47,14, 2,56		30
32″	59,54,45,43,49,24,56,49,13,50		4,22,48,23,32	
		6,46,32,24,25,39,24		30
34″	59,54,45,50,35,57,21,14,53,14		4,22,48,24, 2	
		6,46,28, 1,37,15,22		30
36″	59,54,45,57,22,25,22,52, 8,36		4,22,48,24,32	
		6,46,23,38,48,50,50		30
38″	59,54,46, 4, 8,49, 1,40,59,26		4,22,48,25, 2	
		6,46,19,16, 0,25,48		30
40″	59,54,46,10,55, 8,17,41,25,14		4,22,48,25,32	
		6,46,14,53,12, 0,16		30
42″	59,54,46,17,41,23,10,53,25,30		4,22,48,26, 2	
		6,46,10,30,23,34,14		30
44″	59,54,46,24,27,33,41,16,59,44		4,22,48,26,32	
		6,46, 6, 7,35, 7,42		30
46″	59,54,46,31,13,39,48,52, 7,26		4,22,48,27, 2	
		6,46, 1,44,46,40,40		30
48″	59,54,46,37,59,41,33,38,48, 6		4,22,48,27,32	
		6,45,57,21,58,13, 8		30
50″	59,54,46,44,45,38,55,37, 1,14		4,22,48,28, 2	
		6,45,52,59, 9,45, 6		30
52″	59,54,46,51,31,31,54,46,46,20		4,22,48,28,32	
		6,45,48,36,21,16,34		30
54″	59,54,46,58,17,20,31, 8, 2,54		4,22,48,29, 2	
		6,45,44,13,32,47,32		30
56″	59,54,47, 5, 3, 4,44,40,50,26		4,22,48,29,32	
		6,45,39,50,44,18, 0		30
58″	59,54,47,11,48,44,35,25, 8,26		4,22,48,30, 2	
		6,45,35,27,55,47,58		
60″	59,54,47,18,34,20, 3,20,56,24			
exact	59,54,47,18,34,20, 3,21, 9, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°55′ 0″	59,54,47,18,34,20, 3,21, 9, 3			
		6,45,31, 5, 7,19, 1		
2″	59,54,47,25,19,51, 8,28,28, 4		4,22,48,30,54	
		6,45,26,42,18,48, 7		30
4″	59,54,47,32, 5,17,50,47,16,11		4,22,48,31,24	
		6,45,22,19,30,16,43		30
6″	59,54,47,38,50,40,10,17,32,54		4,22,48,31,54	
		6,45,17,56,41,44,49		30
8″	59,54,47,45,35,58, 6,59,17,43		4,22,48,32,24	
		6,45,13,33,53,12,25		30
10″	59,54,47,52,21,11,40,52,30, 8		4,22,48,32,54	
		6,45, 9,11, 4,39,31		30
12″	59,54,47,59, 6,20,51,57, 9,39		4,22,48,33,24	
		6,45, 4,48,16, 6, 7		30
14″	59,54,48, 5,51,25,40,13,15,46		4,22,48,33,54	
		6,45, 0,25,27,32,13		30
16″	59,54,48,12,36,26, 5,40,47,59		4,22,48,34,24	
		6,44,56, 2,38,57,49		30
18″	59,54,48,19,21,22, 8,19,45,48		4,22,48,34,54	
		6,44,51,39,50,22,55		30
20″	59,54,48,26, 6,13,48,10, 8,43		4,22,48,35,24	
		6,44,47,17, 1,47,31		30
22″	59,54,48,32,51, 1, 5,11,56,14		4,22,48,35,54	
		6,44,42,54,13,11,37		30
24″	59,54,48,39,35,43,59,25, 7,51		4,22,48,36,24	
		6,44,38,31,24,35,13		30
26″	59,54,48,46,20,22,30,49,43, 4		4,22,48,36,54	
		6,44,34, 8,35,58,19		30
28″	59,54,48,53, 4,56,39,25,41,23		4,22,48,37,24	
		6,44,29,45,47,20,55		30
30″	59,54,48,59,49,26,25,13, 2,18		4,22,48,37,54	
		6,44,25,22,58,43, 1		30
32″	59,54,49, 6,33,51,48,11,45,19		4,22,48,38,24	
		6,44,21, 0,10, 4,37		30
34″	59,54,49,13,18,12,48,21,49,56		4,22,48,38,54	
		6,44,16,37,21,25,43		30
36″	59,54,49,20, 2,29,25,43,15,39		4,22,48,39,24	
		6,44,12,14,32,46,19		30
38″	59,54,49,26,46,41,40,16, 1,58		4,22,48,39,54	
		6,44, 7,51,44, 6,25		30
40″	59,54,49,33,30,49,32, 0, 8,23		4,22,48,40,24	
		6,44, 3,28,55,26, 1		30
42″	59,54,49,40,14,53, 0,55,34,24		4,22,48,40,54	
		6,43,59, 6, 6,45, 7		30
44″	59,54,49,46,58,52, 7, 2,19,31		4,22,48,41,24	
		6,43,54,43,18, 3,43		30
46″	59,54,49,53,42,46,50,20,23,14		4,22,48,41,54	
		6,43,50,20,29,21,49		30
48″	59,54,50, 0,26,37,10,49,45, 3		4,22,48,42,24	
		6,43,45,57,40,39,25		30
50″	59,54,50, 7,10,23, 8,30,24,28		4,22,48,42,54	
		6,43,41,34,51,56,31		30
52″	59,54,50,13,54, 4,43,22,20,59		4,22,48,43,24	
		6,43,37,12, 3,13, 7		30
54″	59,54,50,20,37,41,55,25,34, 6		4,22,48,43,54	
		6,43,32,49,14,29,13		30
56″	59,54,50,27,21,14,44,40, 3,19		4,22,48,44,24	
		6,43,28,26,25,44,49		30
58″	59,54,50,34, 4,43,11, 5,48, 8		4,22,48,44,54	
		6,43,24, 3,36,59,55		
60″	59,54,50,40,48, 7,14,42,48, 3			
exact	59,54,50,40,48, 7,14,43,13,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°56′ 0″	59,54,50,40,48, 7,14,43,13,25			
		6,43,19,40,48,17,23		
2″	59,54,50,47,31,26,55,31,30,48		4,22,48,45,41	
		6,43,15,17,59,31,42		29
4″	59,54,50,54,14,42,13,31, 2,30		4,22,48,46,10	
		6,43,10,55,10,45,32		29
6″	59,54,51, 0,57,53, 8,41,48, 2		4,22,48,46,39	
		6,43, 6,32,21,58,53		29
8″	59,54,51, 7,40,59,41, 3,46,55		4,22,48,47, 8	
		6,43, 2, 9,33,11,45		29
10″	59,54,51,14,24, 1,50,36,58,40		4,22,48,47,37	
		6,42,57,46,44,24, 8		29
12″	59,54,51,21, 6,59,37,21,22,48		4,22,48,48, 6	
		6,42,53,23,55,36, 2		29
14″	59,54,51,27,49,53, 1,16,58,50		4,22,48,48,35	
		6,42,49, 1, 6,47,27		29
16″	59,54,51,34,32,42, 2,23,46,17		4,22,48,49, 4	
		6,42,44,38,17,58,23		29
18″	59,54,51,41,15,26,40,41,44,40		4,22,48,49,33	
		6,42,40,15,29, 8,50		29
20″	59,54,51,47,58, 6,56,10,53,30		4,22,48,50, 2	
		6,42,35,52,40,18,48		29
22″	59,54,51,54,40,42,48,51,12,18		4,22,48,50,31	
		6,42,31,29,51,28,17		29
24″	59,54,52, 1,23,14,18,42,40,35		4,22,48,51, 0	
		6,42,27, 7, 2,37,17		29
26″	59,54,52, 8, 5,41,25,45,17,52		4,22,48,51,29	
		6,42,22,44,13,45,48		29
28″	59,54,52,14,48, 4, 9,59, 3,40		4,22,48,51,58	
		6,42,18,21,24,53,50		29
30″	59,54,52,21,30,22,31,23,57,30		4,22,48,52,27	
		6,42,13,58,36, 1,23		29
32″	59,54,52,28,12,36,29,59,58,53		4,22,48,52,56	
		6,42, 9,35,47, 8,27		29
34″	59,54,52,34,54,46, 5,47, 7,20		4,22,48,53,25	
		6,42, 5,12,58,15, 2		29
36″	59,54,52,41,36,51,18,45,22,22		4,22,48,53,54	
		6,42, 0,50, 9,21, 8		29
38″	59,54,52,48,18,52, 8,54,43,30		4,22,48,54,23	
		6,41,56,27,20,26,45		29
40″	59,54,52,55, 0,48,36,15,10,15		4,22,48,54,52	
		6,41,52, 4,31,31,53		29
42″	59,54,53, 1,42,40,40,46,42, 8		4,22,48,55,21	
		6,41,47,41,42,36,32		29
44″	59,54,53, 8,24,28,22,29,18,40		4,22,48,55,50	
		6,41,43,18,53,40,42		29
46″	59,54,53,15, 6,11,41,22,59,22		4,22,48,56,19	
		6,41,38,56, 4,44,23		29
48″	59,54,53,21,47,50,37,27,43,45		4,22,48,56,48	
		6,41,34,33,15,47,35		29
50″	59,54,53,28,29,25,10,43,31,20		4,22,48,57,17	
		6,41,30,10,26,50,18		29
52″	59,54,53,35,10,55,21,10,21,38		4,22,48,57,46	
		6,41,25,47,37,52,32		29
54″	59,54,53,41,52,21, 8,48,14,10		4,22,48,58,15	
		6,41,21,24,48,54,17		29
56″	59,54,53,48,33,42,33,37, 8,27		4,22,48,58,44	
		6,41,17, 1,59,55,33		29
58″	59,54,53,55,14,59,35,37, 4, 0		4,22,48,59,13	
		6,41,12,39,10,56,20		
60″	59,54,54, 1,56,12,14,48, 0,20			
exact	59,54,54, 1,56,12,14,47,29,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°57′ 0″	59,54,54, 1,56,12,14,47,29,49			
		6,41, 8,16,21,53,28		
2″	59,54,54, 8,37,20,31, 9,23,17		4,22,49, 0,23	
		6,41, 3,53,32,53, 5		29
4″	59,54,54,15,18,24,24,42,16,22		4,22,49, 0,52	
		6,40,59,30,43,52,13		29
6″	59,54,54,21,59,23,55,26, 8,35		4,22,49, 1,21	
		6,40,55, 7,54,50,52		29
8″	59,54,54,28,40,19, 3,20,59,27		4,22,49, 1,50	
		6,40,50,45, 5,49, 2		29
10″	59,54,54,35,21, 9,48,26,48,29		4,22,49, 2,19	
		6,40,46,22,16,46,43		29
12″	59,54,54,42, 1,56,10,43,35,12		4,22,49, 2,48	
		6,40,41,59,27,43,55		29
14″	59,54,54,48,42,38,10,11,19, 7		4,22,49, 3,17	
		6,40,37,36,38,40,38		29
16″	59,54,54,55,23,15,46,49,59,45		4,22,49, 3,46	
		6,40,33,13,49,36,52		29
18″	59,54,55, 2, 3,49, 0,39,36,37		4,22,49, 4,15	
		6,40,28,51, 0,32,37		29
20″	59,54,55, 8,44,17,51,40, 9,14		4,22,49, 4,44	
		6,40,24,28,11,27,53		29
22″	59,54,55,15,24,42,19,51,37, 7		4,22,49, 5,13	
		6,40,20, 5,22,22,40		29
24″	59,54,55,22, 5, 2,25,13,59,47		4,22,49, 5,42	
		6,40,15,42,33,16,58		29
26″	59,54,55,28,45,18, 7,47,16,45		4,22,49, 6,11	
		6,40,11,19,44,10,47		29
28″	59,54,55,35,25,29,27,31,27,32		4,22,49, 6,40	
		6,40, 6,56,55, 4, 7		29
30″	59,54,55,42, 5,36,24,26,31,39		4,22,49, 7, 9	
		6,40, 2,34, 5,56,58		29
32″	59,54,55,48,45,38,58,32,28,37		4,22,49, 7,38	
		6,39,58,11,16,49,20		29
34″	59,54,55,55,25,37, 9,49,17,57		4,22,49, 8, 7	
		6,39,53,48,27,41,13		29
36″	59,54,56, 2, 5,30,58,16,59,10		4,22,49, 8,36	
		6,39,49,25,38,32,37		29
38″	59,54,56, 8,45,20,23,55,31,47		4,22,49, 9, 5	
		6,39,45, 2,49,23,32		29
40″	59,54,56,15,25, 5,26,44,55,19		4,22,49, 9,34	
		6,39,40,40, 0,13,58		29
42″	59,54,56,22, 4,46, 6,45, 9,17		4,22,49,10, 3	
		6,39,36,17,11, 3,55		29
44″	59,54,56,28,44,22,23,56,13,12		4,22,49,10,32	
		6,39,31,54,21,53,23		29
46″	59,54,56,35,23,54,18,18, 6,35		4,22,49,11, 1	
		6,39,27,31,32,42,22		29
48″	59,54,56,42, 3,21,49,50,48,57		4,22,49,11,30	
		6,39,23, 8,43,30,52		29
50″	59,54,56,48,42,44,58,34,19,49		4,22,49,11,59	
		6,39,18,45,54,18,53		29
52″	59,54,56,55,22, 3,44,28,38,42		4,22,49,12,28	
		6,39,14,23, 5, 6,25		29
54″	59,54,57, 2, 1,18, 7,33,45, 7		4,22,49,12,57	
		6,39,10, 0,15,53,28		29
56″	59,54,57, 8,40,28, 7,49,38,35		4,22,49,13,26	
		6,39, 5,37,26,40, 2		29
58″	59,54,57,15,19,33,45,16,18,37		4,22,49,13,55	
		6,39, 1,14,37,26, 7		
60″	59,54,57,21,58,34,59,53,44,44			
exact	59,54,57,21,58,34,59,53,24, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°58′ 0″	59,54,57,21,58,34,59,53,24, 6			
		6,38,56,51,48, 9,39		
2″	59,54,57,28,37,31,51,41,33,45		4,22,49,15, 1	
		6,38,52,28,58,54,38		29
4″	59,54,57,35,16,24,20,40,28,23		4,22,49,15,30	
		6,38,48, 6, 9,39, 8		29
6″	59,54,57,41,55,12,26,50, 7,31		4,22,49,15,59	
		6,38,43,43,20,23, 9		29
8″	59,54,57,48,33,56,10,10,30,40		4,22,49,16,28	
		6,38,39,20,31, 6,41		29
10″	59,54,57,55,12,35,30,41,37,21		4,22,49,16,57	
		6,38,34,57,41,49,44		29
12″	59,54,58, 1,51,10,28,23,27, 5		4,22,49,17,26	
		6,38,30,34,52,32,18		29
14″	59,54,58, 8,29,41, 3,15,59,23		4,22,49,17,55	
		6,38,26,12, 3,14,23		29
16″	59,54,58,15, 8, 7,15,19,13,46		4,22,49,18,24	
		6,38,21,49,13,55,59		29
18″	59,54,58,21,46,29, 4,33, 9,45		4,22,49,18,53	
		6,38,17,26,24,37, 6		29
20″	59,54,58,28,24,46,30,57,46,51		4,22,49,19,22	
		6,38,13, 3,35,17,44		29
22″	59,54,58,35, 2,59,34,33, 4,35		4,22,49,19,51	
		6,38, 8,40,45,57,53		29
24″	59,54,58,41,41, 8,15,19, 2,28		4,22,49,20,20	
		6,38, 4,17,56,37,33		29
26″	59,54,58,48,19,12,33,15,40, 1		4,22,49,20,49	
		6,37,59,55, 7,16,44		29
28″	59,54,58,54,57,12,28,22,56,45		4,22,49,21,18	
		6,37,55,32,17,55,26		29
30″	59,54,59, 1,35, 8, 0,40,52,11		4,22,49,21,47	
		6,37,51, 9,28,33,39		29
32″	59,54,59, 8,12,59,10, 9,25,50		4,22,49,22,16	
		6,37,46,46,39,11,23		29
34″	59,54,59,14,50,45,56,48,37,13		4,22,49,22,45	
		6,37,42,23,49,48,38		29
36″	59,54,59,21,28,28,20,38,25,51		4,22,49,23,14	
		6,37,38, 1, 0,25,24		29
38″	59,54,59,28, 6, 6,21,38,51,15		4,22,49,23,43	
		6,37,33,38,11, 1,41		29
40″	59,54,59,34,43,39,59,49,52,56		4,22,49,24,12	
		6,37,29,15,21,37,29		29
42″	59,54,59,41,21, 9,15,11,30,25		4,22,49,24,41	
		6,37,24,52,32,12,48		29
44″	59,54,59,47,58,34, 7,43,43,13		4,22,49,25,10	
		6,37,20,29,42,47,38		29
46″	59,54,59,54,35,54,37,26,30,51		4,22,49,25,39	
		6,37,16, 6,53,21,59		29
48″	59,55, 0, 1,13,10,44,19,52,50		4,22,49,26, 8	
		6,37,11,44, 3,55,51		29
50″	59,55, 0, 7,50,22,28,23,48,41		4,22,49,26,37	
		6,37, 7,21,14,29,14		29
52″	59,55, 0,14,27,29,49,38,17,55		4,22,49,27, 6	
		6,37, 2,58,25, 2, 8		29
54″	59,55, 0,21, 4,32,48, 3,20, 3		4,22,49,27,35	
		6,36,58,35,35,34,33		29
56″	59,55, 0,27,41,31,23,38,54,36		4,22,49,28, 4	
		6,36,54,12,46, 6,29		29
58″	59,55, 0,34,18,25,36,25, 1, 5		4,22,49,28,33	
		6,36,49,49,56,37,56		
60″	59,55, 0,40,55,15,26,21,39, 1			
exact	59,55, 0,40,55,15,26,21,34,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
86°59′ 0″	59,55, 0,40,55,15,26,21,34,13			
		6,36,45,27, 7, 8,20		
2″	59,55, 0,47,32, 0,53,28,42,33		4,22,49,29,33	
		6,36,41, 4,17,38,47		29
4″	59,55, 0,54, 8,41,57,46,21,20		4,22,49,30, 2	
		6,36,36,41,28, 8,45		29
6″	59,55, 1, 0,45,18,39,14,30, 5		4,22,49,30,31	
		6,36,32,18,38,38,14		29
8″	59,55, 1, 7,21,50,57,53, 8,19		4,22,49,31, 0	
		6,36,27,55,49, 7,14		29
10″	59,55, 1,13,58,18,53,42,15,33		4,22,49,31,29	
		6,36,23,32,59,35,45		29
12″	59,55, 1,20,34,42,26,41,51,18		4,22,49,31,58	
		6,36,19,10,10, 3,47		29
14″	59,55, 1,27,11, 1,36,51,55, 5		4,22,49,32,27	
		6,36,14,47,20,31,20		29
16″	59,55, 1,33,47,16,24,12,26,25		4,22,49,32,56	
		6,36,10,24,30,58,24		29
18″	59,55, 1,40,23,26,48,43,24,49		4,22,49,33,25	
		6,36, 6, 1,41,24,59		29
20″	59,55, 1,46,59,32,50,24,49,48		4,22,49,33,54	
		6,36, 1,38,51,51, 5		29
22″	59,55, 1,53,35,34,29,16,40,53		4,22,49,34,23	
		6,35,57,16, 2,16,42		29
24″	59,55, 2, 0,11,31,45,18,57,35		4,22,49,34,52	
		6,35,52,53,12,41,50		29
26″	59,55, 2, 6,47,24,38,31,39,25		4,22,49,35,21	
		6,35,48,30,23, 6,29		29
28″	59,55, 2,13,23,13, 8,54,45,54		4,22,49,35,50	
		6,35,44, 7,33,30,39		29
30″	59,55, 2,19,58,57,16,28,16,33		4,22,49,36,19	
		6,35,39,44,43,54,20		29
32″	59,55, 2,26,34,37, 1,12,10,53		4,22,49,36,48	
		6,35,35,21,54,17,32		29
34″	59,55, 2,33,10,12,23, 6,28,25		4,22,49,37,17	
		6,35,30,59, 4,40,15		29
36″	59,55, 2,39,45,43,22,11, 8,40		4,22,49,37,46	
		6,35,26,36,15, 2,29		29
38″	59,55, 2,46,21, 9,58,26,11, 9		4,22,49,38,15	
		6,35,22,13,25,24,14		29
40″	59,55, 2,52,56,32,11,51,35,23		4,22,49,38,44	
		6,35,17,50,35,45,30		29
42″	59,55, 2,59,31,50, 2,27,20,53		4,22,49,39,13	
		6,35,13,27,46, 6,17		29
44″	59,55, 3, 6, 7, 3,30,13,27,10		4,22,49,39,42	
		6,35, 9, 4,56,26,35		29
46″	59,55, 3,12,42,12,35, 9,53,45		4,22,49,40,11	
		6,35, 4,42, 6,46,24		29
48″	59,55, 3,19,17,17,17,16,40, 9		4,22,49,40,40	
		6,35, 0,19,17, 5,44		29
50″	59,55, 3,25,52,17,36,33,45,53		4,22,49,41, 9	
		6,34,55,56,27,24,35		29
52″	59,55, 3,32,27,13,33, 1,10,28		4,22,49,41,38	
		6,34,51,33,37,42,57		29
54″	59,55, 3,39, 2, 5, 6,38,53,25		4,22,49,42, 7	
		6,34,47,10,48, 0,50		29
56″	59,55, 3,45,36,52,17,26,54,15		4,22,49,42,36	
		6,34,42,47,58,18,14		29
58″	59,55, 3,52,11,35, 5,25,12,29		4,22,49,43, 5	
		6,34,38,25, 8,35, 9		
60″	59,55, 3,58,46,13,30,33,47,38			
exact	59,55, 3,58,46,13,30,33,50, 7			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87° 0′ 0″	59,55, 3,58,46,13,30,33,50, 7			
		6,34,34, 2,18,51,56		
2″	59,55, 4, 5,20,47,32,52,42, 3		4,22,49,44, 1	
		6,34,29,39,29, 7,55		29
4″	59,55, 4,11,55,17,12,21,49,58		4,22,49,44,30	
		6,34,25,16,39,23,25		29
6″	59,55, 4,18,29,42,29, 1,13,23		4,22,49,44,59	
		6,34,20,53,49,38,26		29
8″	59,55, 4,25, 4, 3,22,50,51,49		4,22,49,45,28	
		6,34,16,30,59,52,58		29
10″	59,55, 4,31,38,19,53,50,44,47		4,22,49,45,57	
		6,34,12, 8,10, 7, 1		29
12″	59,55, 4,38,12,32, 2, 0,51,48		4,22,49,46,26	
		6,34, 7,45,20,20,35		29
14″	59,55, 4,44,46,39,47,21,12,23		4,22,49,46,55	
		6,34, 3,22,30,33,40		29
16″	59,55, 4,51,20,43, 9,51,46, 3		4,22,49,47,24	
		6,33,58,59,40,46,16		29
18″	59,55, 4,57,54,42, 9,32,32,19		4,22,49,47,53	
		6,33,54,36,50,58,23		29
20″	59,55, 5, 4,28,36,46,23,30,42		4,22,49,48,22	
		6,33,50,14, 1,10, 1		29
22″	59,55, 5,11, 2,27, 0,24,40,43		4,22,49,48,51	
		6,33,45,51,11,21,10		29
24″	59,55, 5,17,36,12,51,36, 1,53		4,22,49,49,20	
		6,33,41,28,21,31,50		29
26″	59,55, 5,24, 9,54,19,57,33,43		4,22,49,49,49	
		6,33,37, 5,31,42, 1		29
28″	59,55, 5,30,43,31,25,29,15,44		4,22,49,50,18	
		6,33,32,42,41,51,43		29
30″	59,55, 5,37,17, 4, 8,11, 7,27		4,22,49,50,47	
		6,33,28,19,52, 0,56		29
32″	59,55, 5,43,50,32,28, 3, 8,23		4,22,49,51,16	
		6,33,23,57, 2, 9,40		29
34″	59,55, 5,50,23,56,25, 5,18, 3		4,22,49,51,45	
		6,33,19,34,12,17,55		29
36″	59,55, 5,56,57,15,59,17,35,58		4,22,49,52,14	
		6,33,15,11,22,25,41		29
38″	59,55, 6, 3,30,31,10,40, 1,39		4,22,49,52,43	
		6,33,10,48,32,32,58		29
40″	59,55, 6,10, 3,41,59,12,34,37		4,22,49,53,12	
		6,33, 6,25,42,39,46		29
42″	59,55, 6,16,36,48,24,55,14,23		4,22,49,53,41	
		6,33, 2, 2,52,46, 5		29
44″	59,55, 6,23, 9,50,27,48, 0,28		4,22,49,54,10	
		6,32,57,40, 2,51,55		29
46″	59,55, 6,29,42,48, 7,50,52,23		4,22,49,54,39	
		6,32,53,17,12,57,16		29
48″	59,55, 6,36,15,41,25, 3,49,39		4,22,49,55, 8	
		6,32,48,54,23, 2, 8		29
50″	59,55, 6,42,48,30,19,26,51,47		4,22,49,55,37	
		6,32,44,31,33, 6,31		29
52″	59,55, 6,49,21,14,50,59,58,18		4,22,49,56, 6	
		6,32,40, 8,43,10,25		29
54″	59,55, 6,55,53,54,59,43, 8,43		4,22,49,56,35	
		6,32,35,45,53,13,50		29
56″	59,55, 7, 2,26,30,45,36,22,33		4,22,49,57, 4	
		6,32,31,23, 3,16,46		29
58″	59,55, 7, 8,59, 2, 8,39,39,19		4,22,49,57,33	
		6,32,27, 0,13,19,13		
60″	59,55, 7,15,31,29, 8,52,58,32			
exact	59,55, 7,15,31,29, 8,53,13,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87° 1′ 0″	59,55, 7,15,31,29, 8,53,13,49			
		6,32,22,37,23,22,50		
2″	59,55, 7,22, 3,51,46,16,36,39		4,22,49,58,24	
		6,32,18,14,33,24,26		29
4″	59,55, 7,28,36,10, 0,50, 1, 5		4,22,49,58,53	
		6,32,13,51,43,25,33		29
6″	59,55, 7,35, 8,23,52,33,26,38		4,22,49,59,22	
		6,32, 9,28,53,26,11		29
8″	59,55, 7,41,40,33,21,26,52,49		4,22,49,59,51	
		6,32, 5, 6, 3,26,20		29
10″	59,55, 7,48,12,38,27,30,19, 9		4,22,50, 0,20	
		6,32, 0,43,13,26, 0		29
12″	59,55, 7,54,44,39,10,43,45, 9		4,22,50, 0,49	
		6,31,56,20,23,25,11		29
14″	59,55, 8, 1,16,35,31, 7,10,20		4,22,50, 1,18	
		6,31,51,57,33,23,53		29
16″	59,55, 8, 7,48,27,28,40,34,13		4,22,50, 1,47	
		6,31,47,34,43,22, 6		29
18″	59,55, 8,14,20,15, 3,23,56,19		4,22,50, 2,16	
		6,31,43,11,53,19,50		29
20″	59,55, 8,20,51,58,15,17,16, 9		4,22,50, 2,45	
		6,31,38,49, 3,17, 5		29
22″	59,55, 8,27,23,37, 4,20,33,14		4,22,50, 3,14	
		6,31,34,26,13,13,51		29
24″	59,55, 8,33,55,11,30,33,47, 5		4,22,50, 3,43	
		6,31,30, 3,23,10, 8		29
26″	59,55, 8,40,26,41,33,56,57,13		4,22,50, 4,12	
		6,31,25,40,33, 5,56		29
28″	59,55, 8,46,58, 7,14,30, 3, 9		4,22,50, 4,41	
		6,31,21,17,43, 1,15		29
30″	59,55, 8,53,29,28,32,13, 4,24		4,22,50, 5,10	
		6,31,16,54,52,56, 5		29
32″	59,55, 9, 0, 0,45,27, 6, 0,29		4,22,50, 5,39	
		6,31,12,32, 2,50,26		29
34″	59,55, 9, 6,31,57,59, 8,50,55		4,22,50, 6, 8	
		6,31, 8, 9,12,44,18		29
36″	59,55, 9,13, 3, 6, 8,21,35,13		4,22,50, 6,37	
		6,31, 3,46,22,37,41		29
38″	59,55, 9,19,34, 9,54,44,12,54		4,22,50, 7, 6	
		6,30,59,23,32,30,35		29
40″	59,55, 9,26, 5, 9,18,16,43,29		4,22,50, 7,35	
		6,30,55, 0,42,23, 0		29
42″	59,55, 9,32,36, 4,18,59, 6,29		4,22,50, 8, 4	
		6,30,50,37,52,14,56		29
44″	59,55, 9,39, 6,54,56,51,21,25		4,22,50, 8,33	
		6,30,46,15, 2, 6,23		29
46″	59,55, 9,45,37,41,11,53,27,48		4,22,50, 9, 2	
		6,30,41,52,11,57,21		29
48″	59,55, 9,52, 8,23, 4, 5,25, 9		4,22,50, 9,31	
		6,30,37,29,21,47,50		29
50″	59,55, 9,58,39, 0,33,27,12,59		4,22,50,10, 0	
		6,30,33, 6,31,37,50		29
52″	59,55,10, 5, 9,33,39,58,50,49		4,22,50,10,29	
		6,30,28,43,41,27,21		29
54″	59,55,10,11,40, 2,23,40,18,10		4,22,50,10,58	
		6,30,24,20,51,16,23		29
56″	59,55,10,18,10,26,44,31,34,33		4,22,50,11,27	
		6,30,19,58, 1, 4,56		29
58″	59,55,10,24,40,46,42,32,39,29		4,22,50,11,56	
		6,30,15,35,10,53, 0		
60″	59,55,10,31,11, 2,17,43,32,29			
exact	59,55,10,31,11, 2,17,43,59,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87° 2′ 0″	59,55,10,31,11, 2,17,43,59,26			
		6,30,11,12,20,43,27		
2″	59,55,10,37,41,13,30, 4,42,53		4,22,50,12,42	
		6,30, 6,49,30,30,45		29
4″	59,55,10,44,11,20,19,35,13,38		4,22,50,13,11	
		6,30, 2,26,40,17,34		29
6″	59,55,10,50,41,22,46,15,31,12		4,22,50,13,40	
		6,29,58, 3,50, 3,54		29
8″	59,55,10,57,11,20,50, 5,35, 6		4,22,50,14, 9	
		6,29,53,40,59,49,45		29
10″	59,55,11, 3,41,14,31, 5,24,51		4,22,50,14,38	
		6,29,49,18, 9,35, 7		29
12″	59,55,11,10,11, 3,49,14,59,58		4,22,50,15, 7	
		6,29,44,55,19,20, 0		29
14″	59,55,11,16,40,48,44,34,19,58		4,22,50,15,36	
		6,29,40,32,29, 4,24		29
16″	59,55,11,23,10,29,17, 3,24,22		4,22,50,16, 5	
		6,29,36, 9,38,48,19		29
18″	59,55,11,29,40, 5,26,42,12,41		4,22,50,16,34	
		6,29,31,46,48,31,45		29
20″	59,55,11,36, 9,37,13,30,44,26		4,22,50,17, 3	
		6,29,27,23,58,14,42		29
22″	59,55,11,42,39, 4,37,28,59, 8		4,22,50,17,32	
		6,29,23, 1, 7,57,10		29
24″	59,55,11,49, 8,27,38,36,56,18		4,22,50,18, 1	
		6,29,18,38,17,39, 9		29
26″	59,55,11,55,37,46,16,54,35,27		4,22,50,18,30	
		6,29,14,15,27,20,39		29
28″	59,55,12, 2, 7, 0,32,21,56, 6		4,22,50,18,59	
		6,29, 9,52,37, 1,40		29
30″	59,55,12, 8,36,10,24,58,57,46		4,22,50,19,28	
		6,29, 5,29,46,42,12		29
32″	59,55,12,15, 5,15,54,45,39,58		4,22,50,19,57	
		6,29, 1, 6,56,22,15		29
34″	59,55,12,21,34,17, 1,42, 2,13		4,22,50,20,26	
		6,28,56,44, 6, 1,49		29
36″	59,55,12,28, 3,13,45,48, 4, 2		4,22,50,20,55	
		6,28,52,21,15,40,54		29
38″	59,55,12,34,32, 6, 7, 3,44,56		4,22,50,21,24	
		6,28,47,58,25,19,30		29
40″	59,55,12,41, 0,54, 5,29, 4,26		4,22,50,21,53	
		6,28,43,35,34,57,37		29
42″	59,55,12,47,29,37,41, 4, 2, 3		4,22,50,22,22	
		6,28,39,12,44,35,15		29
44″	59,55,12,53,58,16,53,48,37,18		4,22,50,22,51	
		6,28,34,49,54,12,24		29
46″	59,55,13, 0,26,51,43,42,49,42		4,22,50,23,20	
		6,28,30,27, 3,49, 4		29
48″	59,55,13, 6,55,22,10,46,38,46		4,22,50,23,49	
		6,28,26, 4,13,25,15		29
50″	59,55,13,13,23,48,15, 0, 4, 1		4,22,50,24,18	
		6,28,21,41,23, 0,57		29
52″	59,55,13,19,52, 9,56,23, 4,58		4,22,50,24,47	
		6,28,17,18,32,36,10		29
54″	59,55,13,26,20,27,14,55,41, 8		4,22,50,25,16	
		6,28,12,55,42,10,54		29
56″	59,55,13,32,48,40,10,37,52, 2		4,22,50,25,45	
		6,28, 8,32,51,45, 9		29
58″	59,55,13,39,16,48,43,29,37,11		4,22,50,26,14	
		6,28, 4,10, 1,18,55		
60″	59,55,13,45,44,52,53,30,56, 6			
exact	59,55,13,45,44,52,53,31,33, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87° 3′ 0″	59,55,13,45,44,52,53,31,33, 5			
		6,27,59,47,10,56,11		
2″	59,55,13,52,12,52,40,42,29,16		4,22,50,26,55	
		6,27,55,24,20,29,16		28
4″	59,55,13,58,40,48, 5, 2,58,32		4,22,50,27,23	
		6,27,51, 1,30, 1,53		28
6″	59,55,14, 5, 8,39, 6,33, 0,25		4,22,50,27,51	
		6,27,46,38,39,34, 2		28
8″	59,55,14,11,36,25,45,12,34,27		4,22,50,28,19	
		6,27,42,15,49, 5,43		28
10″	59,55,14,18, 4, 8, 1, 1,40,10		4,22,50,28,47	
		6,27,37,52,58,36,56		28
12″	59,55,14,24,31,45,54, 0,17, 6		4,22,50,29,15	
		6,27,33,30, 8, 7,41		28
14″	59,55,14,30,59,19,24, 8,24,47		4,22,50,29,43	
		6,27,29, 7,17,37,58		28
16″	59,55,14,37,26,48,31,26, 2,45		4,22,50,30,11	
		6,27,24,44,27, 7,47		28
18″	59,55,14,43,54,13,15,53,10,32		4,22,50,30,39	
		6,27,20,21,36,37, 8		28
20″	59,55,14,50,21,33,37,29,47,40		4,22,50,31, 7	
		6,27,15,58,46, 6, 1		28
22″	59,55,14,56,48,49,36,15,53,41		4,22,50,31,35	
		6,27,11,35,55,34,26		28
24″	59,55,15, 3,16, 1,12,11,28, 7		4,22,50,32, 3	
		6,27, 7,13, 5, 2,23		28
26″	59,55,15, 9,43, 8,25,16,30,30		4,22,50,32,31	
		6,27, 2,50,14,29,52		28
28″	59,55,15,16,10,11,15,31, 0,22		4,22,50,32,59	
		6,26,58,27,23,56,53		28
30″	59,55,15,22,37, 9,42,54,57,15		4,22,50,33,27	
		6,26,54, 4,33,23,26		28
32″	59,55,15,29, 4, 3,47,28,20,41		4,22,50,33,55	
		6,26,49,41,42,49,31		28
34″	59,55,15,35,30,53,29,11,10,12		4,22,50,34,23	
		6,26,45,18,52,15, 8		28
36″	59,55,15,41,57,38,48, 3,25,20		4,22,50,34,51	
		6,26,40,56, 1,40,17		28
38″	59,55,15,48,24,19,44, 5, 5,37		4,22,50,35,19	
		6,26,36,33,11, 4,58		28
40″	59,55,15,54,50,56,17,16,10,35		4,22,50,35,47	
		6,26,32,10,20,29,11		28
42″	59,55,16, 1,17,28,27,36,39,46		4,22,50,36,15	
		6,26,27,47,29,52,56		28
44″	59,55,16, 7,43,56,15, 6,32,42		4,22,50,36,43	
		6,26,23,24,39,16,13		28
46″	59,55,16,14,10,19,39,45,48,55		4,22,50,37,11	
		6,26,19, 1,48,39, 2		28
48″	59,55,16,20,36,38,41,34,27,57		4,22,50,37,39	
		6,26,14,38,58, 1,23		28
50″	59,55,16,27, 2,53,20,32,29,20		4,22,50,38, 7	
		6,26,10,16, 7,23,16		28
52″	59,55,16,33,29, 3,36,39,52,36		4,22,50,38,35	
		6,26, 5,53,16,44,41		28
54″	59,55,16,39,55, 9,29,56,37,17		4,22,50,39, 3	
		6,26, 1,30,26, 5,38		28
56″	59,55,16,46,21,11, 0,22,42,55		4,22,50,39,31	
		6,25,57, 7,35,26, 7		28
58″	59,55,16,52,47, 8, 7,58, 9, 2		4,22,50,39,59	
		6,25,52,44,44,46, 8		
60″	59,55,16,59,13, 0,52,42,55,10			
exact	59,55,16,59,13, 0,52,42,32,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87° 4′ 0″	59,55,16,59,13, 0,52,42,32,58			
		6,25,48,21,54, 3,25		
2″	59,55,17, 5,38,49,14,36,36,23		4,22,50,41, 4	
		6,25,43,59, 3,22,21		28
4″	59,55,17,12, 4,33,13,39,58,44		4,22,50,41,32	
		6,25,39,36,12,40,49		28
6″	59,55,17,18,30,12,49,52,39,33		4,22,50,42, 0	
		6,25,35,13,21,58,49		28
8″	59,55,17,24,55,48, 3,14,38,22		4,22,50,42,28	
		6,25,30,50,31,16,21		28
10″	59,55,17,31,21,18,53,45,54,43		4,22,50,42,56	
		6,25,26,27,40,33,25		28
12″	59,55,17,37,46,45,21,26,28, 8		4,22,50,43,24	
		6,25,22, 4,49,50, 1		28
14″	59,55,17,44,12, 7,26,16,18, 9		4,22,50,43,52	
		6,25,17,41,59, 6, 9		28
16″	59,55,17,50,37,25, 8,15,24,18		4,22,50,44,20	
		6,25,13,19, 8,21,49		28
18″	59,55,17,57, 2,38,27,23,46, 7		4,22,50,44,48	
		6,25, 8,56,17,37, 1		28
20″	59,55,18, 3,27,47,23,41,23, 8		4,22,50,45,16	
		6,25, 4,33,26,51,45		28
22″	59,55,18, 9,52,51,57, 8,14,53		4,22,50,45,44	
		6,25, 0,10,36, 6, 1		28
24″	59,55,18,16,17,52, 7,44,20,54		4,22,50,46,12	
		6,24,55,47,45,19,49		28
26″	59,55,18,22,42,47,55,29,40,43		4,22,50,46,40	
		6,24,51,24,54,33, 9		28
28″	59,55,18,29, 7,39,20,24,13,52		4,22,50,47, 8	
		6,24,47, 2, 3,46, 1		28
30″	59,55,18,35,32,26,22,27,59,53		4,22,50,47,36	
		6,24,42,39,12,58,25		28
32″	59,55,18,41,57, 9, 1,40,58,18		4,22,50,48, 4	
		6,24,38,16,22,10,21		28
34″	59,55,18,48,21,47,18, 3, 8,39		4,22,50,48,32	
		6,24,33,53,31,21,49		28
36″	59,55,18,54,46,21,11,34,30,28		4,22,50,49, 0	
		6,24,29,30,40,32,49		28
38″	59,55,19, 1,10,50,42,15, 3,17		4,22,50,49,28	
		6,24,25, 7,49,43,21		28
40″	59,55,19, 7,35,15,50, 4,46,38		4,22,50,49,56	
		6,24,20,44,58,53,25		28
42″	59,55,19,13,59,36,35, 3,40, 3		4,22,50,50,24	
		6,24,16,22, 8, 3, 1		28
44″	59,55,19,20,23,52,57,11,43, 4		4,22,50,50,52	
		6,24,11,59,17,12, 9		28
46″	59,55,19,26,48, 4,56,28,55,13		4,22,50,51,20	
		6,24, 7,36,26,20,49		28
48″	59,55,19,33,12,12,32,55,16, 2		4,22,50,51,48	
		6,24, 3,13,35,29, 1		28
50″	59,55,19,39,36,15,46,30,45, 3		4,22,50,52,16	
		6,23,58,50,44,36,45		28
52″	59,55,19,46, 0,14,37,15,21,48		4,22,50,52,44	
		6,23,54,27,53,44, 1		28
54″	59,55,19,52,24, 9, 5, 9, 5,49		4,22,50,53,12	
		6,23,50, 5, 2,50,49		28
56″	59,55,19,58,47,59,10,11,56,38		4,22,50,53,40	
		6,23,45,42,11,57, 9		28
58″	59,55,20, 5,11,44,52,23,53,47		4,22,50,54, 8	
		6,23,41,19,21, 3, 1		
60″	59,55,20,11,35,26,11,44,56,48			
exact	59,55,20,11,35,26,11,44,49,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87° 5′ 0″	59,55,20,11,35,26,11,44,49,20			
		6,23,36,56,30, 7,35		
2″	59,55,20,17,59, 3, 8,14,56,55		4,22,50,55, 7	
		6,23,32,33,39,12,28		28
4″	59,55,20,24,22,35,41,54, 9,23		4,22,50,55,35	
		6,23,28,10,48,16,53		28
6″	59,55,20,30,46, 3,52,42,26,16		4,22,50,56, 3	
		6,23,23,47,57,20,50		28
8″	59,55,20,37, 9,27,40,39,47, 6		4,22,50,56,31	
		6,23,19,25, 6,24,19		28
10″	59,55,20,43,32,47, 5,46,11,25		4,22,50,56,59	
		6,23,15, 2,15,27,20		28
12″	59,55,20,49,56, 2, 8, 1,38,45		4,22,50,57,27	
		6,23,10,39,24,29,53		28
14″	59,55,20,56,19,12,47,26, 8,38		4,22,50,57,55	
		6,23, 6,16,33,31,58		28
16″	59,55,21, 2,42,19, 3,59,40,36		4,22,50,58,23	
		6,23, 1,53,42,33,35		28
18″	59,55,21, 9, 5,20,57,42,14,11		4,22,50,58,51	
		6,22,57,30,51,34,44		28
20″	59,55,21,15,28,18,28,33,48,55		4,22,50,59,19	
		6,22,53, 8, 0,35,25		28
22″	59,55,21,21,51,11,36,34,24,20		4,22,50,59,47	
		6,22,48,45, 9,35,38		28
24″	59,55,21,28,14, 0,21,43,59,58		4,22,51, 0,15	
		6,22,44,22,18,35,23		28
26″	59,55,21,34,36,44,44, 2,35,21		4,22,51, 0,43	
		6,22,39,59,27,34,40		28
28″	59,55,21,40,59,24,43,30,10, 1		4,22,51, 1,11	
		6,22,35,36,36,33,29		28
30″	59,55,21,47,22, 0,20, 6,43,30		4,22,51, 1,39	
		6,22,31,13,45,31,50		28
32″	59,55,21,53,44,31,33,52,15,20		4,22,51, 2, 7	
		6,22,26,50,54,29,43		28
34″	59,55,22, 0, 6,58,24,46,45, 3		4,22,51, 2,35	
		6,22,22,28, 3,27, 8		28
36″	59,55,22, 6,29,20,52,50,12,11		4,22,51, 3, 3	
		6,22,18, 5,12,24, 5		28
38″	59,55,22,12,51,38,58, 2,36,16		4,22,51, 3,31	
		6,22,13,42,21,20,34		28
40″	59,55,22,19,13,52,40,23,56,50		4,22,51, 3,59	
		6,22, 9,19,30,16,35		28
42″	59,55,22,25,36, 1,59,54,13,25		4,22,51, 4,27	
		6,22, 4,56,39,12, 8		28
44″	59,55,22,31,58, 6,56,33,25,33		4,22,51, 4,55	
		6,22, 0,33,48, 7,13		28
46″	59,55,22,38,20, 7,30,21,32,46		4,22,51, 5,23	
		6,21,56,10,57, 1,50		28
48″	59,55,22,44,42, 3,41,18,34,36		4,22,51, 5,51	
		6,21,51,48, 5,55,59		28
50″	59,55,22,51, 3,55,29,24,30,35		4,22,51, 6,19	
		6,21,47,25,14,49,40		28
52″	59,55,22,57,25,42,54,39,20,15		4,22,51, 6,47	
		6,21,43, 2,23,42,53		28
54″	59,55,23, 3,47,25,57, 3, 3, 8		4,22,51, 7,15	
		6,21,38,39,32,35,38		28
56″	59,55,23,10, 9, 4,36,35,38,46		4,22,51, 7,43	
		6,21,34,16,41,27,55		28
58″	59,55,23,16,30,38,53,17, 6,41		4,22,51, 8,11	
		6,21,29,53,50,19,44		
60″	59,55,23,22,52, 8,47, 7,26,25			
exact	59,55,23,22,52, 8,47, 7,24,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87° 6′ 0″	59,55,23,22,52, 8,47, 7,24,32			
		6,21,25,30,59,11, 3		
2″	59,55,23,29,13,34,18, 6,35,35		4,22,51, 9, 6	
		6,21,21, 8, 8, 1,57		28
4″	59,55,23,35,34,55,26,14,37,32		4,22,51, 9,34	
		6,21,16,45,16,52,23		28
6″	59,55,23,41,56,12,11,31,29,55		4,22,51,10, 2	
		6,21,12,22,25,42,21		28
8″	59,55,23,48,17,24,33,57,12,16		4,22,51,10,30	
		6,21, 7,59,34,31,51		28
10″	59,55,23,54,38,32,33,31,44, 7		4,22,51,10,58	
		6,21, 3,36,43,20,53		28
12″	59,55,24, 0,59,36,10,15, 5, 0		4,22,51,11,26	
		6,20,59,13,52, 9,27		28
14″	59,55,24, 7,20,35,24, 7,14,27		4,22,51,11,54	
		6,20,54,51, 0,57,33		28
16″	59,55,24,13,41,30,15, 8,12, 0		4,22,51,12,22	
		6,20,50,28, 9,45,11		28
18″	59,55,24,20, 2,20,43,17,57,11		4,22,51,12,50	
		6,20,46, 5,18,32,21		28
20″	59,55,24,26,23, 6,48,36,29,32		4,22,51,13,18	
		6,20,41,42,27,19, 3		28
22″	59,55,24,32,43,48,31, 3,48,35		4,22,51,13,46	
		6,20,37,19,36, 5,17		28
24″	59,55,24,39, 4,25,50,39,53,52		4,22,51,14,14	
		6,20,32,56,44,51, 3		28
26″	59,55,24,45,24,58,47,24,44,55		4,22,51,14,42	
		6,20,28,33,53,36,21		28
28″	59,55,24,51,45,27,21,18,21,16		4,22,51,15,10	
		6,20,24,11, 2,21,11		28
30″	59,55,24,58, 5,51,32,20,42,27		4,22,51,15,38	
		6,20,19,48,11, 5,33		28
32″	59,55,25, 4,26,11,20,31,48, 0		4,22,51,16, 6	
		6,20,15,25,19,49,27		28
34″	59,55,25,10,46,26,45,51,37,27		4,22,51,16,34	
		6,20,11, 2,28,32,53		28
36″	59,55,25,17, 6,37,48,20,10,20		4,22,51,17, 2	
		6,20, 6,39,37,15,51		28
38″	59,55,25,23,26,44,27,57,26,11		4,22,51,17,30	
		6,20, 2,16,45,58,21		28
40″	59,55,25,29,46,46,44,43,24,32		4,22,51,17,58	
		6,19,57,53,54,40,23		28
42″	59,55,25,36, 6,44,38,38, 4,55		4,22,51,18,26	
		6,19,53,31, 3,21,57		28
44″	59,55,25,42,26,38, 9,41,26,52		4,22,51,18,54	
		6,19,49, 8,12, 3, 3		28
46″	59,55,25,48,46,27,17,53,29,55		4,22,51,19,22	
		6,19,44,45,20,43,41		28
48″	59,55,25,55, 6,12, 3,14,13,36		4,22,51,19,50	
		6,19,40,22,29,23,51		28
50″	59,55,26, 1,25,52,25,43,37,27		4,22,51,20,18	
		6,19,35,59,38, 3,33		28
52″	59,55,26, 7,45,28,25,21,41, 0		4,22,51,20,46	
		6,19,31,36,46,42,47		28
54″	59,55,26,14, 5, 0, 2, 8,23,47		4,22,51,21,14	
		6,19,27,13,55,21,33		28
56″	59,55,26,20,24,27,16, 3,45,20		4,22,51,21,42	
		6,19,22,51, 3,59,51		28
58″	59,55,26,26,43,50, 7, 7,45,11		4,22,51,22,10	
		6,19,18,28,12,37,41		
60″	59,55,26,33, 3, 8,35,20,22,52			
exact	59,55,26,33, 3, 8,35,20,32,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87° 7′ 0″	59,55,26,33, 3, 8,35,20,32,55			
		6,19,14, 5,21,16,15		
2″	59,55,26,39,22,22,40,41,49,10		4,22,51,23, 0	
		6,19, 9,42,29,53,15		28
4″	59,55,26,45,41,32,23,11,42,25		4,22,51,23,28	
		6,19, 5,19,38,29,47		28
6″	59,55,26,52, 0,37,42,50,12,12		4,22,51,23,56	
		6,19, 0,56,47, 5,51		28
8″	59,55,26,58,19,38,39,37,18, 3		4,22,51,24,24	
		6,18,56,33,55,41,27		28
10″	59,55,27, 4,38,35,13,32,59,30		4,22,51,24,52	
		6,18,52,11, 4,16,35		28
12″	59,55,27,10,57,27,24,37,16, 5		4,22,51,25,20	
		6,18,47,48,12,51,15		28
14″	59,55,27,17,16,15,12,50, 7,20		4,22,51,25,48	
		6,18,43,25,21,25,27		28
16″	59,55,27,23,34,58,38,11,32,47		4,22,51,26,16	
		6,18,39, 2,29,59,11		28
18″	59,55,27,29,53,37,40,41,31,58		4,22,51,26,44	
		6,18,34,39,38,32,27		28
20″	59,55,27,36,12,12,20,20, 4,25		4,22,51,27,12	
		6,18,30,16,47, 5,15		28
22″	59,55,27,42,30,42,37, 7, 9,40		4,22,51,27,40	
		6,18,25,53,55,37,35		28
24″	59,55,27,48,49, 8,31, 2,47,15		4,22,51,28, 8	
		6,18,21,31, 4, 9,27		28
26″	59,55,27,55, 7,30, 2, 6,56,42		4,22,51,28,36	
		6,18,17, 8,12,40,51		28
28″	59,55,28, 1,25,47,10,19,37,33		4,22,51,29, 4	
		6,18,12,45,21,11,47		28
30″	59,55,28, 7,43,59,55,40,49,20		4,22,51,29,32	
		6,18, 8,22,29,42,15		28
32″	59,55,28,14, 2, 8,18,10,31,35		4,22,51,30, 0	
		6,18, 3,59,38,12,15		28
34″	59,55,28,20,20,12,17,48,43,50		4,22,51,30,28	
		6,17,59,36,46,41,47		28
36″	59,55,28,26,38,11,54,35,25,37		4,22,51,30,56	
		6,17,55,13,55,10,51		28
38″	59,55,28,32,56, 7, 8,30,36,28		4,22,51,31,24	
		6,17,50,51, 3,39,27		28
40″	59,55,28,39,13,57,59,34,15,55		4,22,51,31,52	
		6,17,46,28,12, 7,35		28
42″	59,55,28,45,31,44,27,46,23,30		4,22,51,32,20	
		6,17,42, 5,20,35,15		28
44″	59,55,28,51,49,26,33, 6,58,45		4,22,51,32,48	
		6,17,37,42,29, 2,27		28
46″	59,55,28,58, 7, 4,15,36, 1,12		4,22,51,33,16	
		6,17,33,19,37,29,11		28
48″	59,55,29, 4,24,37,35,13,30,23		4,22,51,33,44	
		6,17,28,56,45,55,27		28
50″	59,55,29,10,42, 6,31,59,25,50		4,22,51,34,12	
		6,17,24,33,54,21,15		28
52″	59,55,29,16,59,31, 5,53,47, 5		4,22,51,34,40	
		6,17,20,11, 2,46,35		28
54″	59,55,29,23,16,51,16,56,33,40		4,22,51,35, 8	
		6,17,15,48,11,11,27		28
56″	59,55,29,29,34, 7, 5, 7,45, 7		4,22,51,35,36	
		6,17,11,25,19,35,51		28
58″	59,55,29,35,51,18,30,27,20,58		4,22,51,36, 4	
		6,17, 7, 2,27,59,47		
60″	59,55,29,42, 8,25,32,55,20,45			
exact	59,55,29,42, 8,25,32,55,40,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87° 8′ 0″	59,55,29,42, 8,25,32,55,40,56			
		6,17, 2,39,36,25,34		
2″	59,55,29,48,25,28,12,32, 6,30		4,22,51,36,49	
		6,16,58,16,44,48,45		28
4″	59,55,29,54,42,26,29,16,55,15		4,22,51,37,17	
		6,16,53,53,53,11,28		28
6″	59,55,30, 0,59,20,23,10, 6,43		4,22,51,37,45	
		6,16,49,31, 1,33,43		28
8″	59,55,30, 7,16, 9,54,11,40,26		4,22,51,38,13	
		6,16,45, 8, 9,55,30		28
10″	59,55,30,13,32,55, 2,21,35,56		4,22,51,38,41	
		6,16,40,45,18,16,49		28
12″	59,55,30,19,49,35,47,39,52,45		4,22,51,39, 9	
		6,16,36,22,26,37,40		28
14″	59,55,30,26, 6,12,10, 6,30,25		4,22,51,39,37	
		6,16,31,59,34,58, 3		28
16″	59,55,30,32,22,44, 9,41,28,28		4,22,51,40, 5	
		6,16,27,36,43,17,58		28
18″	59,55,30,38,39,11,46,24,46,26		4,22,51,40,33	
		6,16,23,13,51,37,25		28
20″	59,55,30,44,55,35, 0,16,23,51		4,22,51,41, 1	
		6,16,18,50,59,56,24		28
22″	59,55,30,51,11,53,51,16,20,15		4,22,51,41,29	
		6,16,14,28, 8,14,55		28
24″	59,55,30,57,28, 8,19,24,35,10		4,22,51,41,57	
		6,16,10, 5,16,32,58		28
26″	59,55,31, 3,44,18,24,41, 8, 8		4,22,51,42,25	
		6,16, 5,42,24,50,33		28
28″	59,55,31,10, 0,24, 7, 5,58,41		4,22,51,42,53	
		6,16, 1,19,33, 7,40		28
30″	59,55,31,16,16,25,26,39, 6,21		4,22,51,43,21	
		6,15,56,56,41,24,19		28
32″	59,55,31,22,32,22,23,20,30,40		4,22,51,43,49	
		6,15,52,33,49,40,30		28
34″	59,55,31,28,48,14,57,10,11,10		4,22,51,44,17	
		6,15,48,10,57,56,13		28
36″	59,55,31,35, 4, 3, 8, 8, 7,23		4,22,51,44,45	
		6,15,43,48, 6,11,28		28
38″	59,55,31,41,19,46,56,14,18,51		4,22,51,45,13	
		6,15,39,25,14,26,15		28
40″	59,55,31,47,35,26,21,28,45, 6		4,22,51,45,41	
		6,15,35, 2,22,40,34		28
42″	59,55,31,53,51, 1,23,51,25,40		4,22,51,46, 9	
		6,15,30,39,30,54,25		28
44″	59,55,32, 0, 6,32, 3,22,20, 5		4,22,51,46,37	
		6,15,26,16,39, 7,48		28
46″	59,55,32, 6,21,58,20, 1,27,53		4,22,51,47, 5	
		6,15,21,53,47,20,43		28
48″	59,55,32,12,37,20,13,48,48,36		4,22,51,47,33	
		6,15,17,30,55,33,10		28
50″	59,55,32,18,52,37,44,44,21,46		4,22,51,48, 1	
		6,15,13, 8, 3,45, 9		28
52″	59,55,32,25, 7,50,52,48, 6,55		4,22,51,48,29	
		6,15, 8,45,11,56,40		28
54″	59,55,32,31,22,59,38, 0, 3,35		4,22,51,48,57	
		6,15, 4,22,20, 7,43		28
56″	59,55,32,37,38, 4, 0,20,11,18		4,22,51,49,25	
		6,14,59,59,28,18,18		28
58″	59,55,32,43,53, 3,59,48,29,36		4,22,51,49,53	
		6,14,55,36,36,28,25		
60″	59,55,32,50, 7,59,36,24,58, 1			
exact	59,55,32,50, 7,59,36,25,27, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87° 9′ 0″	59,55,32,50, 7,59,36,25,27, 5			
		6,14,51,13,44,41,24		
2″	59,55,32,56,22,50,50,10, 8,29		4,22,51,50,34	
		6,14,46,50,52,50,50		27
4″	59,55,33, 2,37,37,41, 2,59,19		4,22,51,51, 1	
		6,14,42,28, 0,59,49		27
6″	59,55,33, 8,52,20, 9, 3,59, 8		4,22,51,51,28	
		6,14,38, 5, 9, 8,21		27
8″	59,55,33,15, 6,58,14,13, 7,29		4,22,51,51,55	
		6,14,33,42,17,16,26		27
10″	59,55,33,21,21,31,56,30,23,55		4,22,51,52,22	
		6,14,29,19,25,24, 4		27
12″	59,55,33,27,36, 1,15,55,47,59		4,22,51,52,49	
		6,14,24,56,33,31,15		27
14″	59,55,33,33,50,26,12,29,19,14		4,22,51,53,16	
		6,14,20,33,41,37,59		27
16″	59,55,33,40, 4,46,46,10,57,13		4,22,51,53,43	
		6,14,16,10,49,44,16		27
18″	59,55,33,46,19, 2,57, 0,41,29		4,22,51,54,10	
		6,14,11,47,57,50, 6		27
20″	59,55,33,52,33,14,44,58,31,35		4,22,51,54,37	
		6,14, 7,25, 5,55,29		27
22″	59,55,33,58,47,22,10, 4,27, 4		4,22,51,55, 4	
		6,14, 3, 2,14, 0,25		27
24″	59,55,34, 5, 1,25,12,18,27,29		4,22,51,55,31	
		6,13,58,39,22, 4,54		27
26″	59,55,34,11,15,23,51,40,32,23		4,22,51,55,58	
		6,13,54,16,30, 8,56		27
28″	59,55,34,17,29,18, 8,10,41,19		4,22,51,56,25	
		6,13,49,53,38,12,31		27
30″	59,55,34,23,43, 8, 1,48,53,50		4,22,51,56,52	
		6,13,45,30,46,15,39		27
32″	59,55,34,29,56,53,32,35, 9,29		4,22,51,57,19	
		6,13,41, 7,54,18,20		27
34″	59,55,34,36,10,34,40,29,27,49		4,22,51,57,46	
		6,13,36,45, 2,20,34		27
36″	59,55,34,42,24,11,25,31,48,23		4,22,51,58,13	
		6,13,32,22,10,22,21		27
38″	59,55,34,48,37,43,47,42,10,44		4,22,51,58,40	
		6,13,27,59,18,23,41		27
40″	59,55,34,54,51,11,47, 0,34,25		4,22,51,59, 7	
		6,13,23,36,26,24,34		27
42″	59,55,35, 1, 4,35,23,26,58,59		4,22,51,59,34	
		6,13,19,13,34,25, 0		27
44″	59,55,35, 7,17,54,37, 1,23,59		4,22,52, 0, 1	
		6,13,14,50,42,24,59		27
46″	59,55,35,13,31, 9,27,43,48,58		4,22,52, 0,28	
		6,13,10,27,50,24,31		27
48″	59,55,35,19,44,19,55,34,13,29		4,22,52, 0,55	
		6,13, 6, 4,58,23,36		27
50″	59,55,35,25,57,26, 0,32,37, 5		4,22,52, 1,22	
		6,13, 1,42, 6,22,14		27
52″	59,55,35,32,10,27,42,38,59,19		4,22,52, 1,49	
		6,12,57,19,14,20,25		27
54″	59,55,35,38,23,25, 1,53,19,44		4,22,52, 2,16	
		6,12,52,56,22,18, 9		27
56″	59,55,35,44,36,17,58,15,37,53		4,22,52, 2,43	
		6,12,48,33,30,15,26		27
58″	59,55,35,50,49, 6,31,45,53,19		4,22,52, 3,10	
		6,12,44,10,38,12,16		
60″	59,55,35,57, 1,50,42,24, 5,35			
exact	59,55,35,57, 1,50,42,23,41,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°10′ 0″	59,55,35,57, 1,50,42,23,41,57			
		6,12,39,47,46, 6,10		
2″	59,55,36, 3,14,30,30, 9,48, 7		4,22,52, 4,14	
		6,12,35,24,54, 1,56		27
4″	59,55,36, 9,27, 5,55, 3,50, 3		4,22,52, 4,41	
		6,12,31, 2, 1,57,15		27
6″	59,55,36,15,39,36,57, 5,47,18		4,22,52, 5, 8	
		6,12,26,39, 9,52, 7		27
8″	59,55,36,21,52, 3,36,15,39,25		4,22,52, 5,35	
		6,12,22,16,17,46,32		27
10″	59,55,36,28, 4,25,52,33,25,57		4,22,52, 6, 2	
		6,12,17,53,25,40,30		27
12″	59,55,36,34,16,43,45,59, 6,27		4,22,52, 6,29	
		6,12,13,30,33,34, 1		27
14″	59,55,36,40,28,57,16,32,40,28		4,22,52, 6,56	
		6,12, 9, 7,41,27, 5		27
16″	59,55,36,46,41, 6,24,14, 7,33		4,22,52, 7,23	
		6,12, 4,44,49,19,42		27
18″	59,55,36,52,53,11, 9, 3,27,15		4,22,52, 7,50	
		6,12, 0,21,57,11,52		27
20″	59,55,36,59, 5,11,31, 0,39, 7		4,22,52, 8,17	
		6,11,55,59, 5, 3,35		27
22″	59,55,37, 5,17, 7,30, 5,42,42		4,22,52, 8,44	
		6,11,51,36,12,54,51		27
24″	59,55,37,11,28,59, 6,18,37,33		4,22,52, 9,11	
		6,11,47,13,20,45,40		27
26″	59,55,37,17,40,46,19,39,23,13		4,22,52, 9,38	
		6,11,42,50,28,36, 2		27
28″	59,55,37,23,52,29,10, 7,59,15		4,22,52,10, 5	
		6,11,38,27,36,25,57		27
30″	59,55,37,30, 4, 7,37,44,25,12		4,22,52,10,32	
		6,11,34, 4,44,15,25		27
32″	59,55,37,36,15,41,42,28,40,37		4,22,52,10,59	
		6,11,29,41,52, 4,26		27
34″	59,55,37,42,27,11,24,20,45, 3		4,22,52,11,26	
		6,11,25,18,59,53, 0		27
36″	59,55,37,48,38,36,43,20,38, 3		4,22,52,11,53	
		6,11,20,56, 7,41, 7		27
38″	59,55,37,54,49,57,39,28,19,10		4,22,52,12,20	
		6,11,16,33,15,28,47		27
40″	59,55,38, 1, 1,14,12,43,47,57		4,22,52,12,47	
		6,11,12,10,23,16, 0		27
42″	59,55,38, 7,12,26,23, 7, 3,57		4,22,52,13,14	
		6,11, 7,47,31, 2,46		27
44″	59,55,38,13,23,34,10,38, 6,43		4,22,52,13,41	
		6,11, 3,24,38,49, 5		27
46″	59,55,38,19,34,37,35,16,55,48		4,22,52,14, 8	
		6,10,59, 1,46,34,57		27
48″	59,55,38,25,45,36,37, 3,30,45		4,22,52,14,35	
		6,10,54,38,54,20,22		27
50″	59,55,38,31,56,31,15,57,51, 7		4,22,52,15, 2	
		6,10,50,16, 2, 5,20		27
52″	59,55,38,38, 7,21,31,59,56,27		4,22,52,15,29	
		6,10,45,53, 9,49,51		27
54″	59,55,38,44,18, 7,25, 9,46,18		4,22,52,15,56	
		6,10,41,30,17,33,55		27
56″	59,55,38,50,28,48,55,27,20,13		4,22,52,16,23	
		6,10,37, 7,25,17,32		27
58″	59,55,38,56,39,26, 2,52,37,45		4,22,52,16,50	
		6,10,32,44,33, 0,42		
60″	59,55,39, 2,49,58,47,25,38,27			
exact	59,55,39, 2,49,58,47,25,28,10			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°11′ 0″	59,55,39, 2,49,58,47,25,28,10			
		6,10,28,21,40,42,16		
2″	59,55,39, 9, 0,27, 9, 6,10,26		4,22,52,17,48	
		6,10,23,58,48,24,28		27
4″	59,55,39,15,10,51, 7,54,34,54		4,22,52,18,15	
		6,10,19,35,56, 6,13		27
6″	59,55,39,21,21,10,43,50,41, 7		4,22,52,18,42	
		6,10,15,13, 3,47,31		27
8″	59,55,39,27,31,25,56,54,28,38		4,22,52,19, 9	
		6,10,10,50,11,28,22		27
10″	59,55,39,33,41,36,47, 5,57, 0		4,22,52,19,36	
		6,10, 6,27,19, 8,46		27
12″	59,55,39,39,51,43,14,25, 5,46		4,22,52,20, 3	
		6,10, 2, 4,26,48,43		27
14″	59,55,39,46, 1,45,18,51,54,29		4,22,52,20,30	
		6, 9,57,41,34,28,13		27
16″	59,55,39,52,11,43, 0,26,22,42		4,22,52,20,57	
		6, 9,53,18,42, 7,16		27
18″	59,55,39,58,21,36,19, 8,29,58		4,22,52,21,24	
		6, 9,48,55,49,45,52		27
20″	59,55,40, 4,31,25,14,58,15,50		4,22,52,21,51	
		6, 9,44,32,57,24, 1		27
22″	59,55,40,10,41, 9,47,55,39,51		4,22,52,22,18	
		6, 9,40,10, 5, 1,43		27
24″	59,55,40,16,50,49,58, 0,41,34		4,22,52,22,45	
		6, 9,35,47,12,38,58		27
26″	59,55,40,23, 0,25,45,13,20,32		4,22,52,23,12	
		6, 9,31,24,20,15,46		27
28″	59,55,40,29, 9,57, 9,33,36,18		4,22,52,23,39	
		6, 9,27, 1,27,52, 7		27
30″	59,55,40,35,19,24,11, 1,28,25		4,22,52,24, 6	
		6, 9,22,38,35,28, 1		27
32″	59,55,40,41,28,46,49,36,56,26		4,22,52,24,33	
		6, 9,18,15,43, 3,28		27
34″	59,55,40,47,38, 5, 5,19,59,54		4,22,52,25, 0	
		6, 9,13,52,50,38,28		27
36″	59,55,40,53,47,18,58,10,38,22		4,22,52,25,27	
		6, 9, 9,29,58,13, 1		27
38″	59,55,40,59,56,28,28, 8,51,23		4,22,52,25,54	
		6, 9, 5, 7, 5,47, 7		27
40″	59,55,41, 6, 5,33,35,14,38,30		4,22,52,26,21	
		6, 9, 0,44,13,20,46		27
42″	59,55,41,12,14,34,19,27,59,16		4,22,52,26,48	
		6, 8,56,21,20,53,58		27
44″	59,55,41,18,23,30,40,48,53,14		4,22,52,27,15	
		6, 8,51,58,28,26,43		27
46″	59,55,41,24,32,22,39,17,19,57		4,22,52,27,42	
		6, 8,47,35,35,59, 1		27
48″	59,55,41,30,41,10,14,53,18,58		4,22,52,28, 9	
		6, 8,43,12,43,30,52		27
50″	59,55,41,36,49,53,27,36,49,50		4,22,52,28,36	
		6, 8,38,49,51, 2,16		27
52″	59,55,41,42,58,32,17,27,52, 6		4,22,52,29, 3	
		6, 8,34,26,58,33,13		27
54″	59,55,41,49, 7, 6,44,26,25,19		4,22,52,29,30	
		6, 8,30, 4, 6, 3,43		27
56″	59,55,41,55,15,36,48,32,29, 2		4,22,52,29,57	
		6, 8,25,41,13,33,46		27
58″	59,55,42, 1,24, 2,29,46, 2,48		4,22,52,30,24	
		6, 8,21,18,21, 3,22		
60″	59,55,42, 7,32,23,48, 7, 6,10			
exact	59,55,42, 7,32,23,48, 7, 0,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°12′ 0″	59,55,42, 7,32,23,48, 7, 0,25			
		6, 8,16,55,28,32, 6		
2″	59,55,42,13,40,40,43,35,32,31		4,22,52,31,18	
		6, 8,12,32,36, 0,48		27
4″	59,55,42,19,48,53,16,11,33,19		4,22,52,31,45	
		6, 8, 8, 9,43,29, 3		27
6″	59,55,42,25,57, 1,25,55, 2,22		4,22,52,32,12	
		6, 8, 3,46,50,56,51		27
8″	59,55,42,32, 5, 5,12,45,59,13		4,22,52,32,39	
		6, 7,59,23,58,24,12		27
10″	59,55,42,38,13, 4,36,44,23,25		4,22,52,33, 6	
		6, 7,55, 1, 5,51, 6		27
12″	59,55,42,44,20,59,37,50,14,31		4,22,52,33,33	
		6, 7,50,38,13,17,33		27
14″	59,55,42,50,28,50,16, 3,32, 4		4,22,52,34, 0	
		6, 7,46,15,20,43,33		27
16″	59,55,42,56,36,36,31,24,15,37		4,22,52,34,27	
		6, 7,41,52,28, 9, 6		27
18″	59,55,43, 2,44,18,23,52,24,43		4,22,52,34,54	
		6, 7,37,29,35,34,12		27
20″	59,55,43, 8,51,55,53,27,58,55		4,22,52,35,21	
		6, 7,33, 6,42,58,51		27
22″	59,55,43,14,59,29, 0,10,57,46		4,22,52,35,48	
		6, 7,28,43,50,23, 3		27
24″	59,55,43,21, 6,57,44, 1,20,49		4,22,52,36,15	
		6, 7,24,20,57,46,48		27
26″	59,55,43,27,14,22, 4,59, 7,37		4,22,52,36,42	
		6, 7,19,58, 5,10, 6		27
28″	59,55,43,33,21,42, 3, 4,17,43		4,22,52,37, 9	
		6, 7,15,35,12,32,57		27
30″	59,55,43,39,28,57,38,16,50,40		4,22,52,37,36	
		6, 7,11,12,19,55,21		27
32″	59,55,43,45,36, 8,50,36,46, 1		4,22,52,38, 3	
		6, 7, 6,49,27,17,18		27
34″	59,55,43,51,43,15,40, 4, 3,19		4,22,52,38,30	
		6, 7, 2,26,34,38,48		27
36″	59,55,43,57,50,18, 6,38,42, 7		4,22,52,38,57	
		6, 6,58, 3,41,59,51		27
38″	59,55,44, 3,57,16,10,20,41,58		4,22,52,39,24	
		6, 6,53,40,49,20,27		27
40″	59,55,44,10, 4, 9,51,10, 2,25		4,22,52,39,51	
		6, 6,49,17,56,40,36		27
42″	59,55,44,16,10,59, 9, 6,43, 1		4,22,52,40,18	
		6, 6,44,55, 4, 0,18		27
44″	59,55,44,22,17,44, 4,10,43,19		4,22,52,40,45	
		6, 6,40,32,11,19,33		27
46″	59,55,44,28,24,24,36,22, 2,52		4,22,52,41,12	
		6, 6,36, 9,18,38,21		27
48″	59,55,44,34,31, 0,45,40,41,13		4,22,52,41,39	
		6, 6,31,46,25,56,42		27
50″	59,55,44,40,37,32,32, 6,37,55		4,22,52,42, 6	
		6, 6,27,23,33,14,36		27
52″	59,55,44,46,43,59,55,39,52,31		4,22,52,42,33	
		6, 6,23, 0,40,32, 3		27
54″	59,55,44,52,50,22,56,20,24,34		4,22,52,43, 0	
		6, 6,18,37,47,49, 3		27
56″	59,55,44,58,56,41,34, 8,13,37		4,22,52,43,27	
		6, 6,14,14,55, 5,36		27
58″	59,55,45, 5, 2,55,49, 3,19,13		4,22,52,43,54	
		6, 6, 9,52, 2,21,42		
60″	59,55,45,11, 9, 5,41, 5,40,55			
exact	59,55,45,11, 9, 5,41, 5,45,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°13′ 0″	59,55,45,11, 9, 5,41, 5,45,30			
		6, 6, 5,29, 9,38, 4		
2″	59,55,45,17,15,11,10,15,23,34		4,22,52,44,44	
		6, 6, 1, 6,16,53,20		27
4″	59,55,45,23,21,12,16,32,16,54		4,22,52,45,11	
		6, 5,56,43,24, 8, 9		27
6″	59,55,45,29,27, 8,59,56,25, 3		4,22,52,45,38	
		6, 5,52,20,31,22,31		27
8″	59,55,45,35,33, 1,20,27,47,34		4,22,52,46, 5	
		6, 5,47,57,38,36,26		27
10″	59,55,45,41,38,49,18, 6,24, 0		4,22,52,46,32	
		6, 5,43,34,45,49,54		27
12″	59,55,45,47,44,32,52,52,13,54		4,22,52,46,59	
		6, 5,39,11,53, 2,55		27
14″	59,55,45,53,50,12, 4,45,16,49		4,22,52,47,26	
		6, 5,34,49, 0,15,29		27
16″	59,55,45,59,55,46,53,45,32,18		4,22,52,47,53	
		6, 5,30,26, 7,27,36		27
18″	59,55,46, 6, 1,17,19,52,59,54		4,22,52,48,20	
		6, 5,26, 3,14,39,16		27
20″	59,55,46,12, 6,43,23, 7,39,10		4,22,52,48,47	
		6, 5,21,40,21,50,29		27
22″	59,55,46,18,12, 5, 3,29,29,39		4,22,52,49,14	
		6, 5,17,17,29, 1,15		27
24″	59,55,46,24,17,22,20,58,30,54		4,22,52,49,41	
		6, 5,12,54,36,11,34		27
26″	59,55,46,30,22,35,15,34,42,28		4,22,52,50, 8	
		6, 5, 8,31,43,21,26		27
28″	59,55,46,36,27,43,47,18, 3,54		4,22,52,50,35	
		6, 5, 4, 8,50,30,51		27
30″	59,55,46,42,32,47,56, 8,34,45		4,22,52,51, 2	
		6, 4,59,45,57,39,49		27
32″	59,55,46,48,37,47,42, 6,14,34		4,22,52,51,29	
		6, 4,55,23, 4,48,20		27
34″	59,55,46,54,42,43, 5,11, 2,54		4,22,52,51,56	
		6, 4,51, 0,11,56,24		27
36″	59,55,47, 0,47,34, 5,22,59,18		4,22,52,52,23	
		6, 4,46,37,19, 4, 1		27
38″	59,55,47, 6,52,20,42,42, 3,19		4,22,52,52,50	
		6, 4,42,14,26,11,11		27
40″	59,55,47,12,57, 2,57, 8,14,30		4,22,52,53,17	
		6, 4,37,51,33,17,54		27
42″	59,55,47,19, 1,40,48,41,32,24		4,22,52,53,44	
		6, 4,33,28,40,24,10		27
44″	59,55,47,25, 6,14,17,21,56,34		4,22,52,54,11	
		6, 4,29, 5,47,29,59		27
46″	59,55,47,31,10,43,23, 9,26,33		4,22,52,54,38	
		6, 4,24,42,54,35,21		27
48″	59,55,47,37,15, 8, 6, 4, 1,54		4,22,52,55, 5	
		6, 4,20,20, 1,40,16		27
50″	59,55,47,43,19,28,26, 5,42,10		4,22,52,55,32	
		6, 4,15,57, 8,44,44		27
52″	59,55,47,49,23,44,23,14,26,54		4,22,52,55,59	
		6, 4,11,34,15,48,45		27
54″	59,55,47,55,27,55,57,30,15,39		4,22,52,56,26	
		6, 4, 7,11,22,52,19		27
56″	59,55,48, 1,32, 3, 8,53, 7,58		4,22,52,56,53	
		6, 4, 2,48,29,55,26		27
58″	59,55,48, 7,36, 5,57,23, 3,24		4,22,52,57,20	
		6, 3,58,25,36,58, 6		
60″	59,55,48,13,40, 4,23, 0, 1,30			
exact	59,55,48,13,40, 4,23, 0,22,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°14′ 0″	59,55,48,13,40, 4,23, 0,22,13			
		6, 3,54, 2,44, 2,34		
2″	59,55,48,19,43,58,25,44,24,47		4,22,52,58, 4	
		6, 3,49,39,51, 4,30		27
4″	59,55,48,25,47,48, 5,35,29,17		4,22,52,58,31	
		6, 3,45,16,58, 5,59		27
6″	59,55,48,31,51,33,22,33,35,16		4,22,52,58,58	
		6, 3,40,54, 5, 7, 1		27
8″	59,55,48,37,55,14,16,38,42,17		4,22,52,59,25	
		6, 3,36,31,12, 7,36		27
10″	59,55,48,43,58,50,47,50,49,53		4,22,52,59,52	
		6, 3,32, 8,19, 7,44		27
12″	59,55,48,50, 2,22,56, 9,57,37		4,22,53, 0,19	
		6, 3,27,45,26, 7,25		27
14″	59,55,48,56, 5,50,41,36, 5, 2		4,22,53, 0,46	
		6, 3,23,22,33, 6,39		27
16″	59,55,49, 2, 9,14, 4, 9,11,41		4,22,53, 1,13	
		6, 3,18,59,40, 5,26		27
18″	59,55,49, 8,12,33, 3,49,17, 7		4,22,53, 1,40	
		6, 3,14,36,47, 3,46		27
20″	59,55,49,14,15,47,40,36,20,53		4,22,53, 2, 7	
		6, 3,10,13,54, 1,39		27
22″	59,55,49,20,18,57,54,30,22,32		4,22,53, 2,34	
		6, 3, 5,51, 0,59, 5		27
24″	59,55,49,26,22, 3,45,31,21,37		4,22,53, 3, 1	
		6, 3, 1,28, 7,56, 4		27
26″	59,55,49,32,25, 5,13,39,17,41		4,22,53, 3,28	
		6, 2,57, 5,14,52,36		27
28″	59,55,49,38,28, 2,18,54,10,17		4,22,53, 3,55	
		6, 2,52,42,21,48,41		27
30″	59,55,49,44,30,55, 1,15,58,58		4,22,53, 4,22	
		6, 2,48,19,28,44,19		27
32″	59,55,49,50,33,43,20,44,43,17		4,22,53, 4,49	
		6, 2,43,56,35,39,30		27
34″	59,55,49,56,36,27,17,20,22,47		4,22,53, 5,16	
		6, 2,39,33,42,34,14		27
36″	59,55,50, 2,39, 6,51, 2,57, 1		4,22,53, 5,43	
		6, 2,35,10,49,28,31		27
38″	59,55,50, 8,41,42, 1,52,25,32		4,22,53, 6,10	
		6, 2,30,47,56,22,21		27
40″	59,55,50,14,44,12,49,48,47,53		4,22,53, 6,37	
		6, 2,26,25, 3,15,44		27
42″	59,55,50,20,46,39,14,52, 3,37		4,22,53, 7, 4	
		6, 2,22, 2,10, 8,40		27
44″	59,55,50,26,49, 1,17, 2,12,17		4,22,53, 7,31	
		6, 2,17,39,17, 1, 9		27
46″	59,55,50,32,51,18,56,19,13,26		4,22,53, 7,58	
		6, 2,13,16,23,53,11		27
48″	59,55,50,38,53,32,12,43, 6,37		4,22,53, 8,25	
		6, 2, 8,53,30,44,46		27
50″	59,55,50,44,55,41, 6,13,51,23		4,22,53, 8,52	
		6, 2, 4,30,37,35,54		27
52″	59,55,50,50,57,45,36,51,27,17		4,22,53, 9,19	
		6, 2, 0, 7,44,26,35		27
54″	59,55,50,56,59,45,44,35,53,52		4,22,53, 9,46	
		6, 1,55,44,51,16,49		27
56″	59,55,51, 3, 1,41,29,27,10,41		4,22,53,10,13	
		6, 1,51,21,58, 6,36		27
58″	59,55,51, 9, 3,32,51,25,17,17		4,22,53,10,40	
		6, 1,46,59, 4,55,56		
60″	59,55,51,15, 5,19,50,30,13,13			
exact	59,55,51,15, 5,19,50,30,41,31			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°15′ 0″	59,55,51,15, 5,19,50,30,41,31			
		6, 1,42,36,11,48, 0		
2″	59,55,51,21, 7, 2,26,42,29,31		4,22,53,11,20	
		6, 1,38,13,18,36,40		26
4″	59,55,51,27, 8,40,40, 1, 6,11		4,22,53,11,46	
		6, 1,33,50,25,24,54		26
6″	59,55,51,33,10,14,30,26,31, 5		4,22,53,12,12	
		6, 1,29,27,32,12,42		26
8″	59,55,51,39,11,43,57,58,43,47		4,22,53,12,38	
		6, 1,25, 4,39, 0, 4		26
10″	59,55,51,45,13, 9, 2,37,43,51		4,22,53,13, 4	
		6, 1,20,41,45,47, 0		26
12″	59,55,51,51,14,29,44,23,30,51		4,22,53,13,30	
		6, 1,16,18,52,33,30		26
14″	59,55,51,57,15,46, 3,16, 4,21		4,22,53,13,56	
		6, 1,11,55,59,19,34		26
16″	59,55,52, 3,16,57,59,15,23,55		4,22,53,14,22	
		6, 1, 7,33, 6, 5,12		26
18″	59,55,52, 9,18, 5,32,21,29, 7		4,22,53,14,48	
		6, 1, 3,10,12,50,24		26
20″	59,55,52,15,19, 8,42,34,19,31		4,22,53,15,14	
		6, 0,58,47,19,35,10		26
22″	59,55,52,21,20, 7,29,53,54,41		4,22,53,15,40	
		6, 0,54,24,26,19,30		26
24″	59,55,52,27,21, 1,54,20,14,11		4,22,53,16, 6	
		6, 0,50, 1,33, 3,24		26
26″	59,55,52,33,21,51,55,53,17,35		4,22,53,16,32	
		6, 0,45,38,39,46,52		26
28″	59,55,52,39,22,37,34,33, 4,27		4,22,53,16,58	
		6, 0,41,15,46,29,54		26
30″	59,55,52,45,23,18,50,19,34,21		4,22,53,17,24	
		6, 0,36,52,53,12,30		26
32″	59,55,52,51,23,55,43,12,46,51		4,22,53,17,50	
		6, 0,32,29,59,54,40		26
34″	59,55,52,57,24,28,13,12,41,31		4,22,53,18,16	
		6, 0,28, 7, 6,36,24		26
36″	59,55,53, 3,24,56,20,19,17,55		4,22,53,18,42	
		6, 0,23,44,13,17,42		26
38″	59,55,53, 9,25,20, 4,32,35,37		4,22,53,19, 8	
		6, 0,19,21,19,58,34		26
40″	59,55,53,15,25,39,25,52,34,11		4,22,53,19,34	
		6, 0,14,58,26,39, 0		26
42″	59,55,53,21,25,54,24,19,13,11		4,22,53,20, 0	
		6, 0,10,35,33,19, 0		26
44″	59,55,53,27,26, 4,59,52,32,11		4,22,53,20,26	
		6, 0, 6,12,39,58,34		26
46″	59,55,53,33,26,11,12,32,30,45		4,22,53,20,52	
		6, 0, 1,49,46,37,42		26
48″	59,55,53,39,26,13, 2,19, 8,27		4,22,53,21,18	
		5,59,57,26,53,16,24		26
50″	59,55,53,45,26,10,29,12,24,51		4,22,53,21,44	
		5,59,53, 3,59,54,40		26
52″	59,55,53,51,26, 3,33,12,19,31		4,22,53,22,10	
		5,59,48,41, 6,32,30		26
54″	59,55,53,57,25,52,14,18,52, 1		4,22,53,22,36	
		5,59,44,18,13, 9,54		26
56″	59,55,54, 3,25,36,32,32, 1,55		4,22,53,23, 2	
		5,59,39,55,19,46,52		26
58″	59,55,54, 9,25,16,27,51,48,47		4,22,53,23,28	
		5,59,35,32,26,23,24		
60″	59,55,54,15,24,52, 0,18,12,11			
exact	59,55,54,15,24,52, 0,17,46,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°16′ 0″	59,55,54,15,24,52, 0,17,46,21			
		5,59,31, 9,32,56,47		
2″	59,55,54,21,24,23, 9,50,43, 8		4,22,53,24,31	
		5,59,26,46,39,32,16		26
4″	59,55,54,27,23,49,56,30,15,24		4,22,53,24,57	
		5,59,22,23,46, 7,19		26
6″	59,55,54,33,23,12,20,16,22,43		4,22,53,25,23	
		5,59,18, 0,52,41,56		26
8″	59,55,54,39,22,30,21, 9, 4,39		4,22,53,25,49	
		5,59,13,37,59,16, 7		26
10″	59,55,54,45,21,43,59, 8,20,46		4,22,53,26,15	
		5,59, 9,15, 5,49,52		26
12″	59,55,54,51,20,53,14,14,10,38		4,22,53,26,41	
		5,59, 4,52,12,23,11		26
14″	59,55,54,57,19,58, 6,26,33,49		4,22,53,27, 7	
		5,59, 0,29,18,56, 4		26
16″	59,55,55, 3,18,58,35,45,29,53		4,22,53,27,33	
		5,58,56, 6,25,28,31		26
18″	59,55,55, 9,17,54,42,10,58,24		4,22,53,27,59	
		5,58,51,43,32, 0,32		26
20″	59,55,55,15,16,46,25,42,58,56		4,22,53,28,25	
		5,58,47,20,38,32, 7		26
22″	59,55,55,21,15,33,46,21,31, 3		4,22,53,28,51	
		5,58,42,57,45, 3,16		26
24″	59,55,55,27,14,16,44, 6,34,19		4,22,53,29,17	
		5,58,38,34,51,33,59		26
26″	59,55,55,33,12,55,18,58, 8,18		4,22,53,29,43	
		5,58,34,11,58, 4,16		26
28″	59,55,55,39,11,29,30,56,12,34		4,22,53,30, 9	
		5,58,29,49, 4,34, 7		26
30″	59,55,55,45, 9,59,20, 0,46,41		4,22,53,30,35	
		5,58,25,26,11, 3,32		26
32″	59,55,55,51, 8,24,46,11,50,13		4,22,53,31, 1	
		5,58,21, 3,17,32,31		26
34″	59,55,55,57, 6,45,49,29,22,44		4,22,53,31,27	
		5,58,16,40,24, 1, 4		26
36″	59,55,56, 3, 5, 2,29,53,23,48		4,22,53,31,53	
		5,58,12,17,30,29,11		26
38″	59,55,56, 9, 3,14,47,23,52,59		4,22,53,32,19	
		5,58, 7,54,36,56,52		26
40″	59,55,56,15, 1,22,42, 0,49,51		4,22,53,32,45	
		5,58, 3,31,43,24, 7		26
42″	59,55,56,20,59,26,13,44,13,58		4,22,53,33,11	
		5,57,59, 8,49,50,56		26
44″	59,55,56,26,57,25,22,34, 4,54		4,22,53,33,37	
		5,57,54,45,56,17,19		26
46″	59,55,56,32,55,20, 8,30,22,13		4,22,53,34, 3	
		5,57,50,23, 2,43,16		26
48″	59,55,56,38,53,10,31,33, 5,29		4,22,53,34,29	
		5,57,46, 0, 9, 8,47		26
50″	59,55,56,44,50,56,31,42,14,16		4,22,53,34,55	
		5,57,41,37,15,33,52		26
52″	59,55,56,50,48,38, 8,57,48, 8		4,22,53,35,21	
		5,57,37,14,21,58,31		26
54″	59,55,56,56,46,15,23,19,46,39		4,22,53,35,47	
		5,57,32,51,28,22,44		26
56″	59,55,57, 2,43,48,14,48, 9,23		4,22,53,36,13	
		5,57,28,28,34,46,31		26
58″	59,55,57, 8,41,16,43,22,55,54		4,22,53,36,39	
		5,57,24, 5,41, 9,52		
60″	59,55,57,14,38,40,49, 4, 5,46			
exact	59,55,57,14,38,40,49, 3,51,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°17′ 0″	59,55,57,14,38,40,49, 3,51,48			
		5,57,19,42,47,31,18		
2″	59,55,57,20,36, 0,31,51,23, 6		4,22,53,37,37	
		5,57,15,19,53,53,41		26
4″	59,55,57,26,33,15,51,45,16,47		4,22,53,38, 3	
		5,57,10,57, 0,15,38		26
6″	59,55,57,32,30,26,48,45,32,25		4,22,53,38,29	
		5,57, 6,34, 6,37, 9		26
8″	59,55,57,38,27,33,22,52, 9,34		4,22,53,38,55	
		5,57, 2,11,12,58,14		26
10″	59,55,57,44,24,35,34, 5, 7,48		4,22,53,39,21	
		5,56,57,48,19,18,53		26
12″	59,55,57,50,21,33,22,24,26,41		4,22,53,39,47	
		5,56,53,25,25,39, 6		26
14″	59,55,57,56,18,26,47,50, 5,47		4,22,53,40,13	
		5,56,49, 2,31,58,53		26
16″	59,55,58, 2,15,15,50,22, 4,40		4,22,53,40,39	
		5,56,44,39,38,18,14		26
18″	59,55,58, 8,12, 0,30, 0,22,54		4,22,53,41, 5	
		5,56,40,16,44,37, 9		26
20″	59,55,58,14, 8,40,46,45, 0, 3		4,22,53,41,31	
		5,56,35,53,50,55,38		26
22″	59,55,58,20, 5,16,40,35,55,41		4,22,53,41,57	
		5,56,31,30,57,13,41		26
24″	59,55,58,26, 1,48,11,33, 9,22		4,22,53,42,23	
		5,56,27, 8, 3,31,18		26
26″	59,55,58,31,58,15,19,36,40,40		4,22,53,42,49	
		5,56,22,45, 9,48,29		26
28″	59,55,58,37,54,38, 4,46,29, 9		4,22,53,43,15	
		5,56,18,22,16, 5,14		26
30″	59,55,58,43,50,56,27, 2,34,23		4,22,53,43,41	
		5,56,13,59,22,21,33		26
32″	59,55,58,49,47,10,26,24,55,56		4,22,53,44, 7	
		5,56, 9,36,28,37,26		26
34″	59,55,58,55,43,20, 2,53,33,22		4,22,53,44,33	
		5,56, 5,13,34,52,53		26
36″	59,55,59, 1,39,25,16,28,26,15		4,22,53,44,59	
		5,56, 0,50,41, 7,54		26
38″	59,55,59, 7,35,26, 7, 9,34, 9		4,22,53,45,25	
		5,55,56,27,47,22,29		26
40″	59,55,59,13,31,22,34,56,56,38		4,22,53,45,51	
		5,55,52, 4,53,36,38		26
42″	59,55,59,19,27,14,39,50,33,16		4,22,53,46,17	
		5,55,47,41,59,50,21		26
44″	59,55,59,25,23, 2,21,50,23,37		4,22,53,46,43	
		5,55,43,19, 6, 3,38		26
46″	59,55,59,31,18,45,40,56,27,15		4,22,53,47, 9	
		5,55,38,56,12,16,29		26
48″	59,55,59,37,14,24,37, 8,43,44		4,22,53,47,35	
		5,55,34,33,18,28,54		26
50″	59,55,59,43, 9,59,10,27,12,38		4,22,53,48, 1	
		5,55,30,10,24,40,53		26
52″	59,55,59,49, 5,29,20,51,53,31		4,22,53,48,27	
		5,55,25,47,30,52,26		26
54″	59,55,59,55, 0,55, 8,22,45,57		4,22,53,48,53	
		5,55,21,24,37, 3,33		26
56″	59,56, 0, 0,56,16,32,59,49,30		4,22,53,49,19	
		5,55,17, 1,43,14,14		26
58″	59,56, 0, 6,51,33,34,43, 3,44		4,22,53,49,45	
		5,55,12,38,49,24,29		
60″	59,56, 0,12,46,46,13,32,28,13			
exact	59,56, 0,12,46,46,13,32,24,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°18′ 0″	59,56, 0,12,46,46,13,32,24,57			
		5,55, 8,15,55,33,58		
2″	59,56, 0,18,41,54,29,27,58,55		4,22,53,50,38	
		5,55, 3,53, 1,43,20		26
4″	59,56, 0,24,36,58,22,29,42,15		4,22,53,51, 4	
		5,54,59,30, 7,52,16		26
6″	59,56, 0,30,31,57,52,37,34,31		4,22,53,51,30	
		5,54,55, 7,14, 0,46		26
8″	59,56, 0,36,26,52,59,51,35,17		4,22,53,51,56	
		5,54,50,44,20, 8,50		26
10″	59,56, 0,42,21,43,44,11,44, 7		4,22,53,52,22	
		5,54,46,21,26,16,28		26
12″	59,56, 0,48,16,30, 5,38, 0,35		4,22,53,52,48	
		5,54,41,58,32,23,40		26
14″	59,56, 0,54,11,12, 4,10,24,15		4,22,53,53,14	
		5,54,37,35,38,30,26		26
16″	59,56, 1, 0, 5,49,39,48,54,41		4,22,53,53,40	
		5,54,33,12,44,36,46		26
18″	59,56, 1, 6, 0,22,52,33,31,27		4,22,53,54, 6	
		5,54,28,49,50,42,40		26
20″	59,56, 1,11,54,51,42,24,14, 7		4,22,53,54,32	
		5,54,24,26,56,48, 8		26
22″	59,56, 1,17,49,16, 9,21, 2,15		4,22,53,54,58	
		5,54,20, 4, 2,53,10		26
24″	59,56, 1,23,43,36,13,23,55,25		4,22,53,55,24	
		5,54,15,41, 8,57,46		26
26″	59,56, 1,29,37,51,54,32,53,11		4,22,53,55,50	
		5,54,11,18,15, 1,56		26
28″	59,56, 1,35,32, 3,12,47,55, 7		4,22,53,56,16	
		5,54, 6,55,21, 5,40		26
30″	59,56, 1,41,26,10, 8, 9, 0,47		4,22,53,56,42	
		5,54, 2,32,27, 8,58		26
32″	59,56, 1,47,20,12,40,36, 9,45		4,22,53,57, 8	
		5,53,58, 9,33,11,50		26
34″	59,56, 1,53,14,10,50, 9,21,35		4,22,53,57,34	
		5,53,53,46,39,14,16		26
36″	59,56, 1,59, 8, 4,36,48,35,51		4,22,53,58, 0	
		5,53,49,23,45,16,16		26
38″	59,56, 2, 5, 1,54, 0,33,52, 7		4,22,53,58,26	
		5,53,45, 0,51,17,50		26
40″	59,56, 2,10,55,39, 1,25, 9,57		4,22,53,58,52	
		5,53,40,37,57,18,58		26
42″	59,56, 2,16,49,19,39,22,28,55		4,22,53,59,18	
		5,53,36,15, 3,19,40		26
44″	59,56, 2,22,42,55,54,25,48,35		4,22,53,59,44	
		5,53,31,52, 9,19,56		26
46″	59,56, 2,28,36,27,46,35, 8,31		4,22,54, 0,10	
		5,53,27,29,15,19,46		26
48″	59,56, 2,34,29,55,15,50,28,17		4,22,54, 0,36	
		5,53,23, 6,21,19,10		26
50″	59,56, 2,40,23,18,22,11,47,27		4,22,54, 1, 2	
		5,53,18,43,27,18, 8		26
52″	59,56, 2,46,16,37, 5,39, 5,35		4,22,54, 1,28	
		5,53,14,20,33,16,40		26
54″	59,56, 2,52, 9,51,26,12,22,15		4,22,54, 1,54	
		5,53, 9,57,39,14,46		26
56″	59,56, 2,58, 3, 1,23,51,37, 1		4,22,54, 2,20	
		5,53, 5,34,45,12,26		26
58″	59,56, 3, 3,56, 6,58,36,49,27		4,22,54, 2,46	
		5,53, 1,11,51, 9,40		
60″	59,56, 3, 9,49, 8,10,27,59, 7			
exact	59,56, 3, 9,49, 8,10,28, 5, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°19′ 0″	59,56, 3, 9,49, 8,10,28, 5, 1	5,52,56,48,57, 7,11		
2″	59,56, 3,15,42, 4,59,25,12,12	5,52,52,26, 3, 3,37	4,22,54, 3,34	26
4″	59,56, 3,21,34,57,25,28,15,49	5,52,48, 3, 8,59,37	4,22,54, 4, 0	26
6″	59,56, 3,27,27,45,28,37,15,26	5,52,43,40,14,55,11	4,22,54, 4,26	26
8″	59,56, 3,33,20,29, 8,52,10,37	5,52,39,17,20,50,19	4,22,54, 4,52	26
10″	59,56, 3,39,13, 8,26,13, 0,56	5,52,34,54,26,45, 1	4,22,54, 5,18	26
12″	59,56, 3,45, 5,43,20,39,45,57	5,52,30,31,32,39,17	4,22,54, 5,44	26
14″	59,56, 3,50,58,13,52,12,25,14	5,52,26, 8,38,33, 7	4,22,54, 6,10	26
16″	59,56, 3,56,50,40, 0,50,58,21	5,52,21,45,44,26,31	4,22,54, 6,36	26
18″	59,56, 4, 2,43, 1,46,35,24,52	5,52,17,22,50,19,29	4,22,54, 7, 2	26
20″	59,56, 4, 8,35,19, 9,25,44,21	5,52,12,59,56,12, 1	4,22,54, 7,28	26
22″	59,56, 4,14,27,32, 9,21,56,22	5,52, 8,37, 2, 4, 7	4,22,54, 7,54	26
24″	59,56, 4,20,19,40,46,24, 0,29	5,52, 4,14, 7,55,47	4,22,54, 8,20	26
26″	59,56, 4,26,11,45, 0,31,56,16	5,51,59,51,13,47, 1	4,22,54, 8,46	26
28″	59,56, 4,32, 3,44,51,45,43,17	5,51,55,28,19,37,49	4,22,54, 9,12	26
30″	59,56, 4,37,55,40,20, 5,21, 6	5,51,51, 5,25,28,11	4,22,54, 9,38	26
32″	59,56, 4,43,47,31,25,30,49,17	5,51,46,42,31,18, 7	4,22,54,10, 4	26
34″	59,56, 4,49,39,18, 8, 2, 7,24	5,51,42,19,37, 7,37	4,22,54,10,30	26
36″	59,56, 4,55,31, 0,27,39,15, 1	5,51,37,56,42,56,41	4,22,54,10,56	26
38″	59,56, 5, 1,22,38,24,22,11,42	5,51,33,33,48,45,19	4,22,54,11,22	26
40″	59,56, 5, 7,14,11,58,10,57, 1	5,51,29,10,54,33,31	4,22,54,11,48	26
42″	59,56, 5,13, 5,41, 9, 5,30,32	5,51,24,48, 0,21,17	4,22,54,12,14	26
44″	59,56, 5,18,57, 5,57, 5,51,49	5,51,20,25, 6, 8,37	4,22,54,12,40	26
46″	59,56, 5,24,48,26,22,12, 0,26	5,51,16, 2,11,55,31	4,22,54,13, 6	26
48″	59,56, 5,30,39,42,24,23,55,57	5,51,11,39,17,41,59	4,22,54,13,32	26
50″	59,56, 5,36,30,54, 3,41,37,56	5,51, 7,16,23,28, 1	4,22,54,13,58	26
52″	59,56, 5,42,22, 1,20, 5, 5,57	5,51, 2,53,29,13,37	4,22,54,14,24	26
54″	59,56, 5,48,13, 4,13,34,19,34	5,50,58,30,34,58,47	4,22,54,14,50	26
56″	59,56, 5,54, 4, 2,44, 9,18,21	5,50,54, 7,40,43,31	4,22,54,15,16	26
58″	59,56, 5,59,54,56,51,50, 1,52	5,50,49,44,46,27,49	4,22,54,15,42	
60″	59,56, 6, 5,45,46,36,36,29,41			
exact	59,56, 6, 5,45,46,36,36,43,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°20′ 0″	59,56, 6, 5,45,46,36,36,43,16	5,50,45,21,52,13,21		
2″	59,56, 6,11,36,31,58,28,56,37	5,50,40,58,57,56,55	4,22,54,16,26	26
4″	59,56, 6,17,27,12,57,26,53,32	5,50,36,36, 3,40, 3	4,22,54,16,52	26
6″	59,56, 6,23,17,49,33,30,33,35	5,50,32,13, 9,22,45	4,22,54,17,18	26
8″	59,56, 6,29, 8,21,46,39,56,20	5,50,27,50,15, 5, 1	4,22,54,17,44	26
10″	59,56, 6,34,58,49,36,55, 1,21	5,50,23,27,20,46,51	4,22,54,18,10	26
12″	59,56, 6,40,49,13, 4,15,48,12	5,50,19, 4,26,28,15	4,22,54,18,36	26
14″	59,56, 6,46,39,32, 8,42,16,27	5,50,14,41,32, 9,13	4,22,54,19, 2	26
16″	59,56, 6,52,29,46,50,14,25,40	5,50,10,18,37,49,45	4,22,54,19,28	26
18″	59,56, 6,58,19,57, 8,52,15,25	5,50, 5,55,43,29,51	4,22,54,19,54	26
20″	59,56, 7, 4,10, 3, 4,35,45,16	5,50, 1,32,49, 9,31	4,22,54,20,20	26
22″	59,56, 7,10, 0, 4,37,24,54,47	5,49,57, 9,54,48,45	4,22,54,20,46	26
24″	59,56, 7,15,50, 1,47,19,43,32	5,49,52,47, 0,27,33	4,22,54,21,12	26
26″	59,56, 7,21,39,54,34,20,11, 5	5,49,48,24, 6, 5,55	4,22,54,21,38	26
28″	59,56, 7,27,29,42,58,26,17, 0	5,49,44, 1,11,43,51	4,22,54,22, 4	26
30″	59,56, 7,33,19,26,59,38, 0,51	5,49,39,38,17,21,21	4,22,54,22,30	26
32″	59,56, 7,39, 9, 6,37,55,22,12	5,49,35,15,22,58,25	4,22,54,22,56	26
34″	59,56, 7,44,58,41,53,18,20,37	5,49,30,52,28,35, 3	4,22,54,23,22	26
36″	59,56, 7,50,48,12,45,46,55,40	5,49,26,29,34,11,15	4,22,54,23,48	26
38″	59,56, 7,56,37,39,15,21, 6,55	5,49,22, 6,39,47, 1	4,22,54,24,14	26
40″	59,56, 8, 2,27, 1,22, 0,53,56	5,49,17,43,45,22,21	4,22,54,24,40	26
42″	59,56, 8, 8,16,19, 5,46,16,17	5,49,13,20,50,57,15	4,22,54,25, 6	26
44″	59,56, 8,14, 5,32,26,37,13,32	5,49, 8,57,56,31,43	4,22,54,25,32	26
46″	59,56, 8,19,54,41,24,33,45,15	5,49, 4,35, 2, 5,45	4,22,54,25,58	26
48″	59,56, 8,25,43,45,59,35,51, 0	5,49, 0,12, 7,39,21	4,22,54,26,24	26
50″	59,56, 8,31,32,46,11,43,30,21	5,48,55,49,13,12,31	4,22,54,26,50	26
52″	59,56, 8,37,21,42, 0,56,42,52	5,48,51,26,18,45,15	4,22,54,27,16	26
54″	59,56, 8,43,10,33,27,15,28, 7	5,48,47, 3,24,17,33	4,22,54,27,42	26
56″	59,56, 8,48,59,20,30,39,45,40	5,48,42,40,29,49,25	4,22,54,28, 8	26
58″	59,56, 8,54,48, 3,11, 9,35, 5	5,48,38,17,35,20,51	4,22,54,28,34	
60″	59,56, 9, 0,36,41,28,44,55,56			
exact	59,56, 9, 0,36,41,28,45,23, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°21′ 0″	59,56, 9, 0,36,41,28,45,23, 4			
		5,48,33,54,40,54,52		
2″	59,56, 9, 6,25,15,23,26,17,56		4,22,54,29,13	
		5,48,29,31,46,25,39		25
4″	59,56, 9,12,13,44,55,12,43,35		4,22,54,29,38	
		5,48,25, 8,51,56, 1		25
6″	59,56, 9,18, 2,10, 4, 4,39,36		4,22,54,30, 3	
		5,48,20,45,57,25,58		25
8″	59,56, 9,23,50,30,50, 2, 5,34		4,22,54,30,28	
		5,48,16,23, 2,55,30		25
10″	59,56, 9,29,38,47,13, 5, 1, 4		4,22,54,30,53	
		5,48,12, 0, 8,24,37		25
12″	59,56, 9,35,26,59,13,13,25,41		4,22,54,31,18	
		5,48, 7,37,13,53,19		25
14″	59,56, 9,41,15, 6,50,27,19, 0		4,22,54,31,43	
		5,48, 3,14,19,21,36		25
16″	59,56, 9,47, 3,10, 4,46,40,36		4,22,54,32, 8	
		5,47,58,51,24,49,28		25
18″	59,56, 9,52,51, 8,56,11,30, 4		4,22,54,32,33	
		5,47,54,28,30,16,55		25
20″	59,56, 9,58,39, 3,24,41,46,59		4,22,54,32,58	
		5,47,50, 5,35,43,57		25
22″	59,56,10, 4,26,53,30,17,30,56		4,22,54,33,23	
		5,47,45,42,41,10,34		25
24″	59,56,10,10,14,39,12,58,41,30		4,22,54,33,48	
		5,47,41,19,46,36,46		25
26″	59,56,10,16, 2,20,32,45,18,16		4,22,54,34,13	
		5,47,36,56,52, 2,33		25
28″	59,56,10,21,49,57,29,37,20,49		4,22,54,34,38	
		5,47,32,33,57,27,55		25
30″	59,56,10,27,37,30, 3,34,48,44		4,22,54,35, 3	
		5,47,28,11, 2,52,52		25
32″	59,56,10,33,24,58,14,37,41,36		4,22,54,35,28	
		5,47,23,48, 8,17,24		25
34″	59,56,10,39,12,22, 2,45,59, 0		4,22,54,35,53	
		5,47,19,25,13,41,31		25
36″	59,56,10,44,59,41,27,59,40,31		4,22,54,36,18	
		5,47,15, 2,19, 5,13		25
38″	59,56,10,50,46,56,30,18,45,44		4,22,54,36,43	
		5,47,10,39,24,28,30		25
40″	59,56,10,56,34, 7, 9,43,14,14		4,22,54,37, 8	
		5,47, 6,16,29,51,22		25
42″	59,56,11, 2,21,13,26,13, 5,36		4,22,54,37,33	
		5,47, 1,53,35,13,49		25
44″	59,56,11, 8, 8,15,19,48,19,25		4,22,54,37,58	
		5,46,57,30,40,35,51		25
46″	59,56,11,13,55,12,50,28,55,16		4,22,54,38,23	
		5,46,53, 7,45,57,28		25
48″	59,56,11,19,42, 5,58,14,52,44		4,22,54,38,48	
		5,46,48,44,51,18,40		25
50″	59,56,11,25,28,54,43, 6,11,24		4,22,54,39,13	
		5,46,44,21,56,39,27		25
52″	59,56,11,31,15,39, 5, 2,50,51		4,22,54,39,38	
		5,46,39,59, 1,59,49		25
54″	59,56,11,37, 2,19, 4, 4,50,40		4,22,54,40, 3	
		5,46,35,36, 7,19,46		25
56″	59,56,11,42,48,54,40,12,10,26		4,22,54,40,28	
		5,46,31,13,12,39,18		25
58″	59,56,11,48,35,25,53,24,49,44		4,22,54,40,53	
		5,46,26,50,17,58,25		
60″	59,56,11,54,21,52,43,42,48, 9			
exact	59,56,11,54,21,52,43,42,19,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°22′ 0″	59,56,11,54,21,52,43,42,19,50			
		5,46,22,27,23,14, 8		
2″	59,56,12, 0, 8,15,11, 5,33,58		4,22,54,41,55	
		5,46,18, 4,28,32,13		25
4″	59,56,12, 5,54,33,15,34, 6,11		4,22,54,42,20	
		5,46,13,41,33,49,53		25
6″	59,56,12,11,40,46,57, 7,56, 4		4,22,54,42,45	
		5,46, 9,18,39, 7, 8		25
8″	59,56,12,17,26,56,15,47, 3,12		4,22,54,43,10	
		5,46, 4,55,44,23,58		25
10″	59,56,12,23,13, 1,11,31,27,10		4,22,54,43,35	
		5,46, 0,32,49,40,23		25
12″	59,56,12,28,59, 1,44,21, 7,33		4,22,54,44, 0	
		5,45,56, 9,54,56,23		25
14″	59,56,12,34,44,57,54,16, 3,56		4,22,54,44,25	
		5,45,51,47, 0,11,58		25
16″	59,56,12,40,30,49,41,16,15,54		4,22,54,44,50	
		5,45,47,24, 5,27, 8		25
18″	59,56,12,46,16,37, 5,21,43, 2		4,22,54,45,15	
		5,45,43, 1,10,41,53		25
20″	59,56,12,52, 2,20, 6,32,24,55		4,22,54,45,40	
		5,45,38,38,15,56,13		25
22″	59,56,12,57,47,58,44,48,21, 8		4,22,54,46, 5	
		5,45,34,15,21,10, 8		25
24″	59,56,13, 3,33,33, 0, 9,31,16		4,22,54,46,30	
		5,45,29,52,26,23,38		25
26″	59,56,13, 9,19, 2,52,35,54,54		4,22,54,46,55	
		5,45,25,29,31,36,43		25
28″	59,56,13,15, 4,28,22, 7,31,37		4,22,54,47,20	
		5,45,21, 6,36,49,23		25
30″	59,56,13,20,49,49,28,44,21, 0		4,22,54,47,45	
		5,45,16,43,42, 1,38		25
32″	59,56,13,26,35, 6,12,26,22,38		4,22,54,48,10	
		5,45,12,20,47,13,28		25
34″	59,56,13,32,20,18,33,13,36, 6		4,22,54,48,35	
		5,45, 7,57,52,24,53		25
36″	59,56,13,38, 5,26,31, 6, 0,59		4,22,54,49, 0	
		5,45, 3,34,57,35,53		25
38″	59,56,13,43,50,30, 6, 3,36,52		4,22,54,49,25	
		5,44,59,12, 2,46,28		25
40″	59,56,13,49,35,29,18, 6,23,20		4,22,54,49,50	
		5,44,54,49, 7,56,38		25
42″	59,56,13,55,20,24, 7,14,19,58		4,22,54,50,15	
		5,44,50,26,13, 6,23		25
44″	59,56,14, 1, 5,14,33,27,26,21		4,22,54,50,40	
		5,44,46, 3,18,15,43		25
46″	59,56,14, 6,50, 0,36,45,42, 4		4,22,54,51, 5	
		5,44,41,40,23,24,38		25
48″	59,56,14,12,34,42,17, 9, 6,42		4,22,54,51,30	
		5,44,37,17,28,33, 8		25
50″	59,56,14,18,19,19,34,37,39,50		4,22,54,51,55	
		5,44,32,54,33,41,13		25
52″	59,56,14,24, 3,52,29,11,21, 3		4,22,54,52,20	
		5,44,28,31,38,48,53		25
54″	59,56,14,29,48,21, 0,50, 9,56		4,22,54,52,45	
		5,44,24, 8,43,56, 8		25
56″	59,56,14,35,32,45, 9,34, 6, 4		4,22,54,53,10	
		5,44,19,45,49, 2,58		25
58″	59,56,14,41,17, 4,55,23, 9, 2		4,22,54,53,35	
		5,44,15,22,54, 9,23		
60″	59,56,14,47, 1,20,18,17,18,25			
exact	59,56,14,47, 1,20,18,17, 1, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°23′ 0″	59,56,14,47, 1,20,18,17, 1, 3			
		5,44,10,59,59,13,34		
2″	59,56,14,52,45,31,18,16,14,37		4,22,54,54,32	
		5,44, 6,37, 4,19, 2		25
4″	59,56,14,58,29,37,55,20,33,39		4,22,54,54,57	
		5,44, 2,14, 9,24, 5		25
6″	59,56,15, 4,13,40, 9,29,57,44		4,22,54,55,22	
		5,43,57,51,14,28,43		25
8″	59,56,15, 9,57,38, 0,44,26,27		4,22,54,55,47	
		5,43,53,28,19,32,56		25
10″	59,56,15,15,41,31,29, 3,59,23		4,22,54,56,12	
		5,43,49, 5,24,36,44		25
12″	59,56,15,21,25,20,34,28,36, 7		4,22,54,56,37	
		5,43,44,42,29,40, 7		25
14″	59,56,15,27, 9, 5,16,58,16,14		4,22,54,57, 2	
		5,43,40,19,34,43, 5		25
16″	59,56,15,32,52,45,36,32,59,19		4,22,54,57,27	
		5,43,35,56,39,45,38		25
18″	59,56,15,38,36,21,33,12,44,57		4,22,54,57,52	
		5,43,31,33,44,47,46		25
20″	59,56,15,44,19,53, 6,57,32,43		4,22,54,58,17	
		5,43,27,10,49,49,29		25
22″	59,56,15,50, 3,20,17,47,22,12		4,22,54,58,42	
		5,43,22,47,54,50,47		25
24″	59,56,15,55,46,43, 5,42,12,59		4,22,54,59, 7	
		5,43,18,24,59,51,40		25
26″	59,56,16, 1,30, 1,30,42, 4,39		4,22,54,59,32	
		5,43,14, 2, 4,52, 8		25
28″	59,56,16, 7,13,15,32,46,56,47		4,22,54,59,57	
		5,43, 9,39, 9,52,11		25
30″	59,56,16,12,56,25,11,56,48,58		4,22,55, 0,22	
		5,43, 5,16,14,51,49		25
32″	59,56,16,18,39,30,28,11,40,47		4,22,55, 0,47	
		5,43, 0,53,19,51, 2		25
34″	59,56,16,24,22,31,21,31,31,49		4,22,55, 1,12	
		5,42,56,30,24,49,50		25
36″	59,56,16,30, 5,27,51,56,21,39		4,22,55, 1,37	
		5,42,52, 7,29,48,13		25
38″	59,56,16,35,48,19,59,26, 9,52		4,22,55, 2, 2	
		5,42,47,44,34,46,11		25
40″	59,56,16,41,31, 7,44, 0,56, 3		4,22,55, 2,27	
		5,42,43,21,39,43,44		25
42″	59,56,16,47,13,51, 5,40,39,47		4,22,55, 2,52	
		5,42,38,58,44,40,52		25
44″	59,56,16,52,56,30, 4,25,20,39		4,22,55, 3,17	
		5,42,34,35,49,37,35		25
46″	59,56,16,58,39, 4,40,14,58,14		4,22,55, 3,42	
		5,42,30,12,54,33,53		25
48″	59,56,17, 4,21,34,53, 9,32, 7		4,22,55, 4, 7	
		5,42,25,49,59,29,46		25
50″	59,56,17,10, 4, 0,43, 9, 1,53		4,22,55, 4,32	
		5,42,21,27, 4,25,14		25
52″	59,56,17,15,46,22,10,13,27, 7		4,22,55, 4,57	
		5,42,17, 4, 9,20,17		25
54″	59,56,17,21,28,39,14,22,47,24		4,22,55, 5,22	
		5,42,12,41,14,14,55		25
56″	59,56,17,27,10,51,55,37, 2,19		4,22,55, 5,47	
		5,42, 8,18,19, 9, 8		25
58″	59,56,17,32,53, 0,13,56,11,27		4,22,55, 6,12	
		5,42, 3,55,24, 2,56		
60″	59,56,17,38,35, 4, 9,20,14,23			
exact	59,56,17,38,35, 4, 9,20, 6,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°24′ 0″	59,56,17,38,35, 4, 9,20, 6,20			
		5,41,59,32,28,55,33		
2″	59,56,17,44,17, 3,41,49, 1,53		4,22,55, 7, 4	
		5,41,55, 9,33,48,29		25
4″	59,56,17,49,58,58,51,22,50,22		4,22,55, 7,29	
		5,41,50,46,38,41, 0		25
6″	59,56,17,55,40,49,38, 1,31,22		4,22,55, 7,54	
		5,41,46,23,43,33, 6		25
8″	59,56,18, 1,22,36, 1,45, 4,28		4,22,55, 8,19	
		5,41,42, 0,48,24,47		25
10″	59,56,18, 7, 4,18, 2,33,29,15		4,22,55, 8,44	
		5,41,37,37,53,16, 3		25
12″	59,56,18,12,45,55,40,26,45,18		4,22,55, 9, 9	
		5,41,33,14,58, 6,54		25
14″	59,56,18,18,27,28,55,24,52,12		4,22,55, 9,34	
		5,41,28,52, 2,57,20		25
16″	59,56,18,24, 8,57,47,27,49,32		4,22,55, 9,59	
		5,41,24,29, 7,47,21		25
18″	59,56,18,29,50,22,16,35,36,53		4,22,55,10,24	
		5,41,20, 6,12,36,57		25
20″	59,56,18,35,31,42,22,48,13,50		4,22,55,10,49	
		5,41,15,43,17,26, 8		25
22″	59,56,18,41,12,58, 6, 5,39,58		4,22,55,11,14	
		5,41,11,20,22,14,54		25
24″	59,56,18,46,54, 9,26,27,54,52		4,22,55,11,39	
		5,41, 6,57,27, 3,15		25
26″	59,56,18,52,35,16,23,54,58, 7		4,22,55,12, 4	
		5,41, 2,34,31,51,11		25
28″	59,56,18,58,16,18,58,26,49,18		4,22,55,12,29	
		5,40,58,11,36,38,42		25
30″	59,56,19, 3,57,17,10, 3,28, 0		4,22,55,12,54	
		5,40,53,48,41,25,48		25
32″	59,56,19, 9,38,10,58,44,53,48		4,22,55,13,19	
		5,40,49,25,46,12,29		25
34″	59,56,19,15,19, 0,24,31, 6,17		4,22,55,13,44	
		5,40,45, 2,50,58,45		25
36″	59,56,19,20,59,45,27,22, 5, 2		4,22,55,14, 9	
		5,40,40,39,55,44,36		25
38″	59,56,19,26,40,26, 7,17,49,38		4,22,55,14,34	
		5,40,36,17, 0,30, 2		25
40″	59,56,19,32,21, 2,24,18,19,40		4,22,55,14,59	
		5,40,31,54, 5,15, 3		25
42″	59,56,19,38, 1,34,18,23,34,43		4,22,55,15,24	
		5,40,27,31, 9,59,39		25
44″	59,56,19,43,42, 1,49,33,34,22		4,22,55,15,49	
		5,40,23, 8,14,43,50		25
46″	59,56,19,49,22,24,57,48,18,12		4,22,55,16,14	
		5,40,18,45,19,27,36		25
48″	59,56,19,55, 2,43,43, 7,45,48		4,22,55,16,39	
		5,40,14,22,24,10,57		25
50″	59,56,20, 0,42,58, 5,31,56,45		4,22,55,17, 4	
		5,40, 9,59,28,53,53		25
52″	59,56,20, 6,23, 8, 5, 0,50,38		4,22,55,17,29	
		5,40, 5,36,33,36,24		25
54″	59,56,20,12, 3,13,41,34,27, 2		4,22,55,17,54	
		5,40, 1,13,38,18,30		25
56″	59,56,20,17,43,14,55,12,45,32		4,22,55,18,19	
		5,39,56,50,43, 0,11		25
58″	59,56,20,23,23,11,45,55,45,43		4,22,55,18,44	
		5,39,52,27,47,41,27		
60″	59,56,20,29, 3, 4,13,43,27,10			
exact	59,56,20,29, 3, 4,13,43,27,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°25′ 0″	59,56,20,29, 3, 4,13,43,27,18			
		5,39,48, 4,52,22,30		
2″	59,56,20,34,42,52,18,35,49,48		4,22,55,19,32	
		5,39,43,41,57, 2,58		25
4″	59,56,20,40,22,36, 0,32,52,46		4,22,55,19,57	
		5,39,39,19, 1,43, 1		25
6″	59,56,20,46, 2,15,19,34,35,47		4,22,55,20,22	
		5,39,34,56, 6,22,39		25
8″	59,56,20,51,41,50,15,40,58,26		4,22,55,20,47	
		5,39,30,33,11, 1,52		25
10″	59,56,20,57,21,20,48,52, 0,18		4,22,55,21,12	
		5,39,26,10,15,40,40		25
12″	59,56,21, 3, 0,46,59, 7,40,58		4,22,55,21,37	
		5,39,21,47,20,19, 3		25
14″	59,56,21, 8,40, 8,46,28, 0, 1		4,22,55,22, 2	
		5,39,17,24,24,57, 1		25
16″	59,56,21,14,19,26,10,52,57, 2		4,22,55,22,27	
		5,39,13, 1,29,34,34		25
18″	59,56,21,19,58,39,12,22,31,36		4,22,55,22,52	
		5,39, 8,38,34,11,42		25
20″	59,56,21,25,37,47,50,56,43,18		4,22,55,23,17	
		5,39, 4,15,38,48,25		25
22″	59,56,21,31,16,52, 6,35,31,43		4,22,55,23,42	
		5,38,59,52,43,24,43		25
24″	59,56,21,36,55,51,59,18,56,26		4,22,55,24, 7	
		5,38,55,29,48, 0,36		25
26″	59,56,21,42,34,47,29, 6,57, 2		4,22,55,24,32	
		5,38,51, 6,52,36, 4		25
28″	59,56,21,48,13,38,35,59,33, 6		4,22,55,24,57	
		5,38,46,43,57,11, 7		25
30″	59,56,21,53,52,25,19,56,44,13		4,22,55,25,22	
		5,38,42,21, 1,45,45		25
32″	59,56,21,59,31, 7,40,58,29,58		4,22,55,25,47	
		5,38,37,58, 6,19,58		25
34″	59,56,22, 5, 9,45,39, 4,49,56		4,22,55,26,12	
		5,38,33,35,10,53,46		25
36″	59,56,22,10,48,19,14,15,43,42		4,22,55,26,37	
		5,38,29,12,15,27, 9		25
38″	59,56,22,16,26,48,26,31,10,51		4,22,55,27, 2	
		5,38,24,49,20, 0, 7		25
40″	59,56,22,22, 5,13,15,51,10,58		4,22,55,27,27	
		5,38,20,26,24,32,40		25
42″	59,56,22,27,43,33,42,15,43,38		4,22,55,27,52	
		5,38,16, 3,29, 4,48		25
44″	59,56,22,33,21,49,45,44,48,26		4,22,55,28,17	
		5,38,11,40,33,36,31		25
46″	59,56,22,39, 0, 1,26,18,24,57		4,22,55,28,42	
		5,38, 7,17,38, 7,49		25
48″	59,56,22,44,38, 8,43,56,32,46		4,22,55,29, 7	
		5,38, 2,54,42,38,42		25
50″	59,56,22,50,16,11,38,39,11,28		4,22,55,29,32	
		5,37,58,31,47, 9,10		25
52″	59,56,22,55,54,10,10,26,20,38		4,22,55,29,57	
		5,37,54, 8,51,39,13		25
54″	59,56,23, 1,32, 4,19,17,59,51		4,22,55,30,22	
		5,37,49,45,56, 8,51		25
56″	59,56,23, 7, 9,54, 5,14, 8,42		4,22,55,30,47	
		5,37,45,23, 0,38, 4		25
58″	59,56,23,12,47,39,28,14,46,46		4,22,55,31,12	
		5,37,41, 0, 5, 6,52		
60″	59,56,23,18,25,20,28,19,53,38			
exact	59,56,23,18,25,20,28,20, 7,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°26′ 0″	59,56,23,18,25,20,28,20, 7,44			
		5,37,36,37, 9,36,50		
2″	59,56,23,24, 2,57, 5,29,44,34		4,22,55,31,55	
		5,37,32,14,14, 4,55		25
4″	59,56,23,29,40,29,19,43,49,29		4,22,55,32,20	
		5,37,27,51,18,32,35		25
6″	59,56,23,35,17,57,11, 2,22, 4		4,22,55,32,45	
		5,37,23,28,22,59,50		25
8″	59,56,23,40,55,20,39,25,21,54		4,22,55,33,10	
		5,37,19, 5,27,26,40		25
10″	59,56,23,46,32,39,44,52,48,34		4,22,55,33,35	
		5,37,14,42,31,53, 5		25
12″	59,56,23,52, 9,54,27,24,41,39		4,22,55,34, 0	
		5,37,10,19,36,19, 5		25
14″	59,56,23,57,47, 4,47, 1, 0,44		4,22,55,34,25	
		5,37, 5,56,40,44,40		25
16″	59,56,24, 3,24,10,43,41,45,24		4,22,55,34,50	
		5,37, 1,33,45, 9,50		25
18″	59,56,24, 9, 1,12,17,26,55,14		4,22,55,35,15	
		5,36,57,10,49,34,35		25
20″	59,56,24,14,38, 9,28,16,29,49		4,22,55,35,40	
		5,36,52,47,53,58,55		25
22″	59,56,24,20,15, 2,16,10,28,44		4,22,55,36, 5	
		5,36,48,24,58,22,50		25
24″	59,56,24,25,51,50,41, 8,51,34		4,22,55,36,30	
		5,36,44, 2, 2,46,20		25
26″	59,56,24,31,28,34,43,11,37,54		4,22,55,36,55	
		5,36,39,39, 7, 9,25		25
28″	59,56,24,37, 5,14,22,18,47,19		4,22,55,37,20	
		5,36,35,16,11,32, 5		25
30″	59,56,24,42,41,49,38,30,19,24		4,22,55,37,45	
		5,36,30,53,15,54,20		25
32″	59,56,24,48,18,20,31,46,13,44		4,22,55,38,10	
		5,36,26,30,20,16,10		25
34″	59,56,24,53,54,47, 2, 6,29,54		4,22,55,38,35	
		5,36,22, 7,24,37,35		25
36″	59,56,24,59,31, 9, 9,31, 7,29		4,22,55,39, 0	
		5,36,17,44,28,58,35		25
38″	59,56,25, 5, 7,26,54, 0, 6, 4		4,22,55,39,25	
		5,36,13,21,33,19,10		25
40″	59,56,25,10,43,40,15,33,25,14		4,22,55,39,50	
		5,36, 8,58,37,39,20		25
42″	59,56,25,16,19,49,14,11, 4,34		4,22,55,40,15	
		5,36, 4,35,41,59, 5		25
44″	59,56,25,21,55,53,49,53, 3,39		4,22,55,40,40	
		5,36, 0,12,46,18,25		25
46″	59,56,25,27,31,54, 2,39,22, 4		4,22,55,41, 5	
		5,35,55,49,50,37,20		25
48″	59,56,25,33, 7,49,52,29,59,24		4,22,55,41,30	
		5,35,51,26,54,55,50		25
50″	59,56,25,38,43,41,19,24,55,14		4,22,55,41,55	
		5,35,47, 3,59,13,55		25
52″	59,56,25,44,19,28,23,24, 9, 9		4,22,55,42,20	
		5,35,42,41, 3,31,35		25
54″	59,56,25,49,55,11, 4,27,40,44		4,22,55,42,45	
		5,35,38,18, 7,48,50		25
56″	59,56,25,55,30,49,22,35,29,34		4,22,55,43,10	
		5,35,33,55,12, 5,40		25
58″	59,56,26, 1, 6,23,17,47,35,14		4,22,55,43,35	
		5,35,29,32,16,22, 5		
60″	59,56,26, 6,41,52,50, 3,57,19			
exact	59,56,26, 6,41,52,50, 4,23,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°27′ 0″	59,56,26, 6,41,52,50, 4,23,26			
		5,35,25, 9,20,40,55		
2″	59,56,26,12,17,17,59,25, 4,21		4,22,55,44,13	
		5,35,20,46,24,56,42		25
4″	59,56,26,17,52,38,45,50, 1, 3		4,22,55,44,38	
		5,35,16,23,29,12, 4		25
6″	59,56,26,23,27,55, 9,19,13, 7		4,22,55,45, 3	
		5,35,12, 0,33,27, 1		25
8″	59,56,26,29, 3, 7, 9,52,40, 8		4,22,55,45,28	
		5,35, 7,37,37,41,33		25
10″	59,56,26,34,38,14,47,30,21,41		4,22,55,45,53	
		5,35, 3,14,41,55,40		25
12″	59,56,26,40,13,18, 2,12,17,21		4,22,55,46,18	
		5,34,58,51,46, 9,22		25
14″	59,56,26,45,48,16,53,58,26,43		4,22,55,46,43	
		5,34,54,28,50,22,39		25
16″	59,56,26,51,23,11,22,48,49,22		4,22,55,47, 8	
		5,34,50, 5,54,35,31		25
18″	59,56,26,56,58, 1,28,43,24,53		4,22,55,47,33	
		5,34,45,42,58,47,58		25
20″	59,56,27, 2,32,47,11,42,12,51		4,22,55,47,58	
		5,34,41,20, 3, 0, 0		25
22″	59,56,27, 8, 7,28,31,45,12,51		4,22,55,48,23	
		5,34,36,57, 7,11,37		25
24″	59,56,27,13,42, 5,28,52,24,28		4,22,55,48,48	
		5,34,32,34,11,22,49		25
26″	59,56,27,19,16,38, 3, 3,47,17		4,22,55,49,13	
		5,34,28,11,15,33,36		25
28″	59,56,27,24,51, 6,14,19,20,53		4,22,55,49,38	
		5,34,23,48,19,43,58		25
30″	59,56,27,30,25,30, 2,39, 4,51		4,22,55,50, 3	
		5,34,19,25,23,53,55		25
32″	59,56,27,35,59,49,28, 2,58,46		4,22,55,50,28	
		5,34,15, 2,28, 3,27		25
34″	59,56,27,41,34, 4,30,31, 2,13		4,22,55,50,53	
		5,34,10,39,32,12,34		25
36″	59,56,27,47, 8,15,10, 3,14,47		4,22,55,51,18	
		5,34, 6,16,36,21,16		25
38″	59,56,27,52,42,21,26,39,36, 3		4,22,55,51,43	
		5,34, 1,53,40,29,33		25
40″	59,56,27,58,16,23,20,20, 5,36		4,22,55,52, 8	
		5,33,57,30,44,37,25		25
42″	59,56,28, 3,50,20,51, 4,43, 1		4,22,55,52,33	
		5,33,53, 7,48,44,52		25
44″	59,56,28, 9,24,13,58,53,27,53		4,22,55,52,58	
		5,33,48,44,52,51,54		25
46″	59,56,28,14,58, 2,43,46,19,47		4,22,55,53,23	
		5,33,44,21,56,58,31		25
48″	59,56,28,20,31,47, 5,43,18,18		4,22,55,53,48	
		5,33,39,59, 1, 4,43		25
50″	59,56,28,26, 5,27, 4,44,23, 1		4,22,55,54,13	
		5,33,35,36, 5,10,30		25
52″	59,56,28,31,39, 2,40,49,33,31		4,22,55,54,38	
		5,33,31,13, 9,15,52		25
54″	59,56,28,37,12,33,53,58,49,23		4,22,55,55, 3	
		5,33,26,50,13,20,49		25
56″	59,56,28,42,46, 0,44,12,10,12		4,22,55,55,28	
		5,33,22,27,17,25,21		25
58″	59,56,28,48,19,23,11,29,35,33		4,22,55,55,53	
		5,33,18, 4,21,29,28		
60″	59,56,28,53,52,41,15,51, 5, 1			
exact	59,56,28,53,52,41,15,51,42,19			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°28′ 0″	59,56,28,53,52,41,15,51,42,19			
		5,33,13,41,25,37,11		
2″	59,56,28,59,25,54,57,17,19,30		4,22,55,56,26	
		5,33, 9,18,29,40,45		24
4″	59,56,29, 4,59, 4,15,47, 0,15		4,22,55,56,50	
		5,33, 4,55,33,43,55		24
6″	59,56,29,10,32, 9,11,20,44,10		4,22,55,57,14	
		5,33, 0,32,37,46,41		24
8″	59,56,29,16, 5, 9,43,58,30,51		4,22,55,57,38	
		5,32,56, 9,41,49, 3		24
10″	59,56,29,21,38, 5,53,40,19,54		4,22,55,58, 2	
		5,32,51,46,45,51, 1		24
12″	59,56,29,27,10,57,40,26,10,55		4,22,55,58,26	
		5,32,47,23,49,52,35		24
14″	59,56,29,32,43,45, 4,16, 3,30		4,22,55,58,50	
		5,32,43, 0,53,53,45		24
16″	59,56,29,38,16,28, 5, 9,57,15		4,22,55,59,14	
		5,32,38,37,57,54,31		24
18″	59,56,29,43,49, 6,43, 7,51,46		4,22,55,59,38	
		5,32,34,15, 1,54,53		24
20″	59,56,29,49,21,40,58, 9,46,39		4,22,56, 0, 2	
		5,32,29,52, 5,54,51		24
22″	59,56,29,54,54,10,50,15,41,30		4,22,56, 0,26	
		5,32,25,29, 9,54,25		24
24″	59,56,30, 0,26,36,19,25,35,55		4,22,56, 0,50	
		5,32,21, 6,13,53,35		24
26″	59,56,30, 5,58,57,25,39,29,30		4,22,56, 1,14	
		5,32,16,43,17,52,21		24
28″	59,56,30,11,31,14, 8,57,21,51		4,22,56, 1,38	
		5,32,12,20,21,50,43		24
30″	59,56,30,17, 3,26,29,19,12,34		4,22,56, 2, 2	
		5,32, 7,57,25,48,41		24
32″	59,56,30,22,35,34,26,45, 1,15		4,22,56, 2,26	
		5,32, 3,34,29,46,15		24
34″	59,56,30,28, 7,38, 1,14,47,30		4,22,56, 2,50	
		5,31,59,11,33,43,25		24
36″	59,56,30,33,39,37,12,48,30,55		4,22,56, 3,14	
		5,31,54,48,37,40,11		24
38″	59,56,30,39,11,32, 1,26,11, 6		4,22,56, 3,38	
		5,31,50,25,41,36,33		24
40″	59,56,30,44,43,22,27, 7,47,39		4,22,56, 4, 2	
		5,31,46, 2,45,32,31		24
42″	59,56,30,50,15, 8,29,53,20,10		4,22,56, 4,26	
		5,31,41,39,49,28, 5		24
44″	59,56,30,55,46,50, 9,42,48,15		4,22,56, 4,50	
		5,31,37,16,53,23,15		24
46″	59,56,31, 1,18,27,26,36,11,30		4,22,56, 5,14	
		5,31,32,53,57,18, 1		24
48″	59,56,31, 6,50, 0,20,33,29,31		4,22,56, 5,38	
		5,31,28,31, 1,12,23		24
50″	59,56,31,12,21,28,51,34,41,54		4,22,56, 6, 2	
		5,31,24, 8, 5, 6,21		24
52″	59,56,31,17,52,52,59,39,48,15		4,22,56, 6,26	
		5,31,19,45, 8,59,55		24
54″	59,56,31,23,24,12,44,48,48,10		4,22,56, 6,50	
		5,31,15,22,12,53, 5		24
56″	59,56,31,28,55,28, 7, 1,41,15		4,22,56, 7,14	
		5,31,10,59,16,45,51		24
58″	59,56,31,34,26,39, 6,18,27, 6		4,22,56, 7,38	
		5,31, 6,36,20,38,13		
60″	59,56,31,39,57,45,42,39, 5,19			
exact	59,56,31,39,57,45,42,38,44,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°29′ 0″	59,56,31,39,57,45,42,38,44,21			
		5,31, 2,13,24,28, 1		
2″	59,56,31,45,28,47,56, 3,12,22		4,22,56, 8,34	
		5,30,57,50,28,19,27		24
4″	59,56,31,50,59,45,46,31,31,49		4,22,56, 8,58	
		5,30,53,27,32,10,29		24
6″	59,56,31,56,30,39,14, 3,42,18		4,22,56, 9,22	
		5,30,49, 4,36, 1, 7		24
8″	59,56,32, 2, 1,28,18,39,43,25		4,22,56, 9,46	
		5,30,44,41,39,51,21		24
10″	59,56,32, 7,32,13, 0,19,34,46		4,22,56,10,10	
		5,30,40,18,43,41,11		24
12″	59,56,32,13, 2,53,19, 3,15,57		4,22,56,10,34	
		5,30,35,55,47,30,37		24
14″	59,56,32,18,33,29,14,50,46,34		4,22,56,10,58	
		5,30,31,32,51,19,39		24
16″	59,56,32,24, 4, 0,47,42, 6,13		4,22,56,11,22	
		5,30,27, 9,55, 8,17		24
18″	59,56,32,29,34,27,57,37,14,30		4,22,56,11,46	
		5,30,22,46,58,56,31		24
20″	59,56,32,35, 4,50,44,36,11, 1		4,22,56,12,10	
		5,30,18,24, 2,44,21		24
22″	59,56,32,40,35, 9, 8,38,55,22		4,22,56,12,34	
		5,30,14, 1, 6,31,47		24
24″	59,56,32,46, 5,23, 9,45,27, 9		4,22,56,12,58	
		5,30, 9,38,10,18,49		24
26″	59,56,32,51,35,32,47,55,45,58		4,22,56,13,22	
		5,30, 5,15,14, 5,27		24
28″	59,56,32,57, 5,38, 3, 9,51,25		4,22,56,13,46	
		5,30, 0,52,17,51,41		24
30″	59,56,33, 2,35,38,55,27,43, 6		4,22,56,14,10	
		5,29,56,29,21,37,31		24
32″	59,56,33, 8, 5,35,24,49,20,37		4,22,56,14,34	
		5,29,52, 6,25,22,57		24
34″	59,56,33,13,35,27,31,14,43,34		4,22,56,14,58	
		5,29,47,43,29, 7,59		24
36″	59,56,33,19, 5,15,14,43,51,33		4,22,56,15,22	
		5,29,43,20,32,52,37		24
38″	59,56,33,24,34,58,35,16,44,10		4,22,56,15,46	
		5,29,38,57,36,36,51		24
40″	59,56,33,30, 4,37,32,53,21, 1		4,22,56,16,10	
		5,29,34,34,40,20,41		24
42″	59,56,33,35,34,12, 7,33,41,42		4,22,56,16,34	
		5,29,30,11,44, 4, 7		24
44″	59,56,33,41, 3,42,19,17,45,49		4,22,56,16,58	
		5,29,25,48,47,47, 9		24
46″	59,56,33,46,33, 8, 8, 5,32,58		4,22,56,17,22	
		5,29,21,25,51,29,47		24
48″	59,56,33,52, 2,29,33,57, 2,45		4,22,56,17,46	
		5,29,17, 2,55,12, 1		24
50″	59,56,33,57,31,46,36,52,14,46		4,22,56,18,10	
		5,29,12,39,58,53,51		24
52″	59,56,34, 3, 0,59,16,51, 8,37		4,22,56,18,34	
		5,29, 8,17, 2,35,17		24
54″	59,56,34, 8,30, 7,33,53,43,54		4,22,56,18,58	
		5,29, 3,54, 6,16,19		24
56″	59,56,34,13,59,11,28, 0, 0,13		4,22,56,19,22	
		5,28,59,31, 9,56,57		24
58″	59,56,34,19,28,10,59, 9,57,10		4,22,56,19,46	
		5,28,55, 8,13,37,11		
60″	59,56,34,24,57, 6, 7,23,34,21			
exact	59,56,34,24,57, 6, 7,23,21,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°30′ 0″	59,56,34,24,57, 6, 7,23,21,39			
		5,28,50,45,17,15,50		
2″	59,56,34,30,25,56,52,40,37,29		4,22,56,20,38	
		5,28,46,22,20,55,12		24
4″	59,56,34,35,54,43,15, 1,32,41		4,22,56,21, 2	
		5,28,41,59,24,34,10		24
6″	59,56,34,41,23,25,14,26, 6,51		4,22,56,21,26	
		5,28,37,36,28,12,44		24
8″	59,56,34,46,52, 2,50,54,19,35		4,22,56,21,50	
		5,28,33,13,31,50,54		24
10″	59,56,34,52,20,36, 4,26,10,29		4,22,56,22,14	
		5,28,28,50,35,28,40		24
12″	59,56,34,57,49, 4,55, 1,39, 9		4,22,56,22,38	
		5,28,24,27,39, 6, 2		24
14″	59,56,35, 3,17,29,22,40,45,11		4,22,56,23, 2	
		5,28,20, 4,42,43, 0		24
16″	59,56,35, 8,45,49,27,23,28,11		4,22,56,23,26	
		5,28,15,41,46,19,34		24
18″	59,56,35,14,14, 5, 9, 9,47,45		4,22,56,23,50	
		5,28,11,18,49,55,44		24
20″	59,56,35,19,42,16,27,59,43,29		4,22,56,24,14	
		5,28, 6,55,53,31,30		24
22″	59,56,35,25,10,23,23,53,14,59		4,22,56,24,38	
		5,28, 2,32,57, 6,52		24
24″	59,56,35,30,38,25,56,50,21,51		4,22,56,25, 2	
		5,27,58,10, 0,41,50		24
26″	59,56,35,36, 6,24, 6,51, 3,41		4,22,56,25,26	
		5,27,53,47, 4,16,24		24
28″	59,56,35,41,34,17,53,55,20, 5		4,22,56,25,50	
		5,27,49,24, 7,50,34		24
30″	59,56,35,47, 2, 7,18, 3,10,39		4,22,56,26,14	
		5,27,45, 1,11,24,20		24
32″	59,56,35,52,29,52,19,14,34,59		4,22,56,26,38	
		5,27,40,38,14,57,42		24
34″	59,56,35,57,57,32,57,29,32,41		4,22,56,27, 2	
		5,27,36,15,18,30,40		24
36″	59,56,36, 3,25, 9,12,48, 3,21		4,22,56,27,26	
		5,27,31,52,22, 3,14		24
38″	59,56,36, 8,52,41, 5,10, 6,35		4,22,56,27,50	
		5,27,27,29,25,35,24		24
40″	59,56,36,14,20, 8,34,35,41,59		4,22,56,28,14	
		5,27,23, 6,29, 7,10		24
42″	59,56,36,19,47,31,41, 4,49, 9		4,22,56,28,38	
		5,27,18,43,32,38,32		24
44″	59,56,36,25,14,50,24,37,27,41		4,22,56,29, 2	
		5,27,14,20,36, 9,30		24
46″	59,56,36,30,42, 4,45,13,37,11		4,22,56,29,26	
		5,27, 9,57,39,40, 4		24
48″	59,56,36,36, 9,14,42,53,17,15		4,22,56,29,50	
		5,27, 5,34,43,10,14		24
50″	59,56,36,41,36,20,17,36,27,29		4,22,56,30,14	
		5,27, 1,11,46,40, 0		24
52″	59,56,36,47, 3,21,29,23, 7,29		4,22,56,30,38	
		5,26,56,48,50, 9,22		24
54″	59,56,36,52,30,18,18,13,16,51		4,22,56,31, 2	
		5,26,52,25,53,38,20		24
56″	59,56,36,57,57,10,44, 6,55,11		4,22,56,31,26	
		5,26,48, 2,57, 6,54		24
58″	59,56,37, 3,23,58,47, 4, 2, 5		4,22,56,31,50	
		5,26,43,40, 0,35, 4		
60″	59,56,37, 8,50,42,27, 4,37, 9			
exact	59,56,37, 8,50,42,27, 4,38,20			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°31′ 0″	59,56,37, 8,50,42,27, 4,38,20			
		5,26,39,17, 4, 3, 1		
2″	59,56,37,14,17,21,44, 8,41,21		4,22,56,32,37	
		5,26,34,54, 7,30,24		24
4″	59,56,37,19,43,56,38,16,11,45		4,22,56,33, 1	
		5,26,30,31,10,57,23		24
6″	59,56,37,25,10,27, 9,27, 9, 8		4,22,56,33,25	
		5,26,26, 8,14,23,58		24
8″	59,56,37,30,36,53,17,41,33, 6		4,22,56,33,49	
		5,26,21,45,17,50, 9		24
10″	59,56,37,36, 3,15, 2,59,23,15		4,22,56,34,13	
		5,26,17,22,21,15,56		24
12″	59,56,37,41,29,32,25,20,39,11		4,22,56,34,37	
		5,26,12,59,24,41,19		24
14″	59,56,37,46,55,45,24,45,20,30		4,22,56,35, 1	
		5,26, 8,36,28, 6,18		24
16″	59,56,37,52,21,54, 1,13,26,48		4,22,56,35,25	
		5,26, 4,13,31,30,53		24
18″	59,56,37,57,47,58,14,44,57,41		4,22,56,35,49	
		5,25,59,50,34,55, 4		24
20″	59,56,38, 3,13,58, 5,19,52,45		4,22,56,36,13	
		5,25,55,27,38,18,51		24
22″	59,56,38, 8,39,53,32,58,11,36		4,22,56,36,37	
		5,25,51, 4,41,42,14		24
24″	59,56,38,14, 5,44,37,39,53,50		4,22,56,37, 1	
		5,25,46,41,45, 5,13		24
26″	59,56,38,19,31,31,19,24,59, 3		4,22,56,37,25	
		5,25,42,18,48,27,48		24
28″	59,56,38,24,57,13,38,13,26,51		4,22,56,37,49	
		5,25,37,55,51,49,59		24
30″	59,56,38,30,22,51,34, 5,16,50		4,22,56,38,13	
		5,25,33,32,55,11,46		24
32″	59,56,38,35,48,25, 7, 0,28,36		4,22,56,38,37	
		5,25,29, 9,58,33, 9		24
34″	59,56,38,41,13,54,16,59, 1,45		4,22,56,39, 1	
		5,25,24,47, 1,54, 8		24
36″	59,56,38,46,39,19, 4, 0,55,53		4,22,56,39,25	
		5,25,20,24, 5,14,43		24
38″	59,56,38,52, 4,39,28, 6,10,36		4,22,56,39,49	
		5,25,16, 1, 8,34,54		24
40″	59,56,38,57,29,55,29,14,45,30		4,22,56,40,13	
		5,25,11,38,11,54,41		24
42″	59,56,39, 2,55, 7, 7,26,40,11		4,22,56,40,37	
		5,25, 7,15,15,14, 4		24
44″	59,56,39, 8,20,14,22,41,54,15		4,22,56,41, 1	
		5,25, 2,52,18,33, 3		24
46″	59,56,39,13,45,17,15, 0,27,18		4,22,56,41,25	
		5,24,58,29,21,51,38		24
48″	59,56,39,19,10,15,44,22,18,56		4,22,56,41,49	
		5,24,54, 6,25, 9,49		24
50″	59,56,39,24,35, 9,50,47,28,45		4,22,56,42,13	
		5,24,49,43,28,27,36		24
52″	59,56,39,29,59,59,34,15,56,21		4,22,56,42,37	
		5,24,45,20,31,44,59		24
54″	59,56,39,35,24,44,54,47,41,20		4,22,56,43, 1	
		5,24,40,57,35, 1,58		24
56″	59,56,39,40,49,25,52,22,43,18		4,22,56,43,25	
		5,24,36,34,38,18,33		24
58″	59,56,39,46,14, 2,27, 1, 1,51		4,22,56,43,49	
		5,24,32,11,41,34,44		
60″	59,56,39,51,38,34,38,42,36,35			
exact	59,56,39,51,38,34,38,42,50,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°32′ 0″	59,56,39,51,38,34,38,42,50,40			
		5,24,27,48,44,52, 0		
2″	59,56,39,57, 3, 2,27,27,42,40		4,22,56,44,31	
		5,24,23,25,48, 7,29		24
4″	59,56,40, 2,27,25,53,15,50, 9		4,22,56,44,55	
		5,24,19, 2,51,22,34		24
6″	59,56,40, 7,51,44,56, 7,12,43		4,22,56,45,19	
		5,24,14,39,54,37,15		24
8″	59,56,40,13,15,59,36, 1,49,58		4,22,56,45,43	
		5,24,10,16,57,51,32		24
10″	59,56,40,18,40, 9,52,59,41,30		4,22,56,46, 7	
		5,24, 5,54, 1, 5,25		24
12″	59,56,40,24, 4,15,47, 0,46,55		4,22,56,46,31	
		5,24, 1,31, 4,18,54		24
14″	59,56,40,29,28,17,18, 5, 5,49		4,22,56,46,55	
		5,23,57, 8, 7,31,59		24
16″	59,56,40,34,52,14,26,12,37,48		4,22,56,47,19	
		5,23,52,45,10,44,40		24
18″	59,56,40,40,16, 7,11,23,22,28		4,22,56,47,43	
		5,23,48,22,13,56,57		24
20″	59,56,40,45,39,55,33,37,19,25		4,22,56,48, 7	
		5,23,43,59,17, 8,50		24
22″	59,56,40,51, 3,39,32,54,28,15		4,22,56,48,31	
		5,23,39,36,20,20,19		24
24″	59,56,40,56,27,19, 9,14,48,34		4,22,56,48,55	
		5,23,35,13,23,31,24		24
26″	59,56,41, 1,50,54,22,38,19,58		4,22,56,49,19	
		5,23,30,50,26,42, 5		24
28″	59,56,41, 7,14,25,13, 5, 2, 3		4,22,56,49,43	
		5,23,26,27,29,52,22		24
30″	59,56,41,12,37,51,40,34,54,25		4,22,56,50, 7	
		5,23,22, 4,33, 2,15		24
32″	59,56,41,18, 1,13,45, 7,56,40		4,22,56,50,31	
		5,23,17,41,36,11,44		24
34″	59,56,41,23,24,31,26,44, 8,24		4,22,56,50,55	
		5,23,13,18,39,20,49		24
36″	59,56,41,28,47,44,45,23,29,13		4,22,56,51,19	
		5,23, 8,55,42,29,30		24
38″	59,56,41,34,10,53,41, 5,58,43		4,22,56,51,43	
		5,23, 4,32,45,37,47		24
40″	59,56,41,39,33,58,13,51,36,30		4,22,56,52, 7	
		5,23, 0, 9,48,45,40		24
42″	59,56,41,44,56,58,23,40,22,10		4,22,56,52,31	
		5,22,55,46,51,53, 9		24
44″	59,56,41,50,19,54,10,32,15,19		4,22,56,52,55	
		5,22,51,23,55, 0,14		24
46″	59,56,41,55,42,45,34,27,15,33		4,22,56,53,19	
		5,22,47, 0,58, 6,55		24
48″	59,56,42, 1, 5,32,35,25,22,28		4,22,56,53,43	
		5,22,42,38, 1,13,12		24
50″	59,56,42, 6,28,15,13,26,35,40		4,22,56,54, 7	
		5,22,38,15, 4,19, 5		24
52″	59,56,42,11,50,53,28,30,54,45		4,22,56,54,31	
		5,22,33,52, 7,24,34		24
54″	59,56,42,17,13,27,20,38,19,19		4,22,56,54,55	
		5,22,29,29,10,29,39		24
56″	59,56,42,22,35,56,49,48,48,58		4,22,56,55,19	
		5,22,25, 6,13,34,20		24
58″	59,56,42,27,58,21,56, 2,23,18		4,22,56,55,43	
		5,22,20,43,16,38,37		
60″	59,56,42,33,20,42,39,19, 1,55			
exact	59,56,42,33,20,42,39,19,26,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°33′ 0″	59,56,42,33,20,42,39,19,26,58			
		5,22,16,20,19,45,10		
2″	59,56,42,38,42,58,59,39,12, 8		4,22,56,56,20	
		5,22,11,57,22,48,50		24
4″	59,56,42,44, 5,10,57, 2, 0,58		4,22,56,56,44	
		5,22, 7,34,25,52, 6		24
6″	59,56,42,49,27,18,31,27,53, 4		4,22,56,57, 8	
		5,22, 3,11,28,54,58		24
8″	59,56,42,54,49,21,42,56,48, 2		4,22,56,57,32	
		5,21,58,48,31,57,26		24
10″	59,56,43, 0,11,20,31,28,45,28		4,22,56,57,56	
		5,21,54,25,34,59,30		24
12″	59,56,43, 5,33,14,57, 3,44,58		4,22,56,58,20	
		5,21,50, 2,38, 1,10		24
14″	59,56,43,10,55, 4,59,41,46, 8		4,22,56,58,44	
		5,21,45,39,41, 2,26		24
16″	59,56,43,16,16,50,39,22,48,34		4,22,56,59, 8	
		5,21,41,16,44, 3,18		24
18″	59,56,43,21,38,31,56, 6,51,52		4,22,56,59,32	
		5,21,36,53,47, 3,46		24
20″	59,56,43,27, 0, 8,49,53,55,38		4,22,56,59,56	
		5,21,32,30,50, 3,50		24
22″	59,56,43,32,21,41,20,43,59,28		4,22,57, 0,20	
		5,21,28, 7,53, 3,30		24
24″	59,56,43,37,43, 9,28,37, 2,58		4,22,57, 0,44	
		5,21,23,44,56, 2,46		24
26″	59,56,43,43, 4,33,13,33, 5,44		4,22,57, 1, 8	
		5,21,19,21,59, 1,38		24
28″	59,56,43,48,25,52,35,32, 7,22		4,22,57, 1,32	
		5,21,14,59, 2, 0, 6		24
30″	59,56,43,53,47, 7,34,34, 7,28		4,22,57, 1,56	
		5,21,10,36, 4,58,10		24
32″	59,56,43,59, 8,18,10,39, 5,38		4,22,57, 2,20	
		5,21, 6,13, 7,55,50		24
34″	59,56,44, 4,29,24,23,47, 1,28		4,22,57, 2,44	
		5,21, 1,50,10,53, 6		24
36″	59,56,44, 9,50,26,13,57,54,34		4,22,57, 3, 8	
		5,20,57,27,13,49,58		24
38″	59,56,44,15,11,23,41,11,44,32		4,22,57, 3,32	
		5,20,53, 4,16,46,26		24
40″	59,56,44,20,32,16,45,28,30,58		4,22,57, 3,56	
		5,20,48,41,19,42,30		24
42″	59,56,44,25,53, 5,26,48,13,28		4,22,57, 4,20	
		5,20,44,18,22,38,10		24
44″	59,56,44,31,13,49,45,10,51,38		4,22,57, 4,44	
		5,20,39,55,25,33,26		24
46″	59,56,44,36,34,29,40,36,25, 4		4,22,57, 5, 8	
		5,20,35,32,28,28,18		24
48″	59,56,44,41,55, 5,13, 4,53,22		4,22,57, 5,32	
		5,20,31, 9,31,22,46		24
50″	59,56,44,47,15,36,22,36,16, 8		4,22,57, 5,56	
		5,20,26,46,34,16,50		24
52″	59,56,44,52,36, 3, 9,10,32,58		4,22,57, 6,20	
		5,20,22,23,37,10,30		24
54″	59,56,44,57,56,25,32,47,43,28		4,22,57, 6,44	
		5,20,18, 0,40, 3,46		24
56″	59,56,45, 3,16,43,33,27,47,14		4,22,57, 7, 8	
		5,20,13,37,42,56,38		24
58″	59,56,45, 8,36,57,11,10,43,52		4,22,57, 7,32	
		5,20, 9,14,45,49, 6		
60″	59,56,45,13,57, 6,25,56,32,58			
exact	59,56,45,13,57, 6,25,57, 7,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°34′ 0″	59,56,45,13,57, 6,25,57, 7,40			
		5,20, 4,51,48,44,55		
2″	59,56,45,19,17,11,17,45,52,35		4,22,57, 8, 4	
		5,20, 0,28,51,36,51		23
4″	59,56,45,24,37,11,46,37,29,26		4,22,57, 8,27	
		5,19,56, 5,54,28,24		23
6″	59,56,45,29,57, 7,52,31,57,50		4,22,57, 8,50	
		5,19,51,42,57,19,34		23
8″	59,56,45,35,16,59,35,29,17,24		4,22,57, 9,13	
		5,19,47,20, 0,10,21		23
10″	59,56,45,40,36,46,55,29,27,45		4,22,57, 9,36	
		5,19,42,57, 3, 0,45		23
12″	59,56,45,45,56,29,52,32,28,30		4,22,57, 9,59	
		5,19,38,34, 5,50,46		23
14″	59,56,45,51,16, 8,26,38,19,16		4,22,57,10,22	
		5,19,34,11, 8,40,24		23
16″	59,56,45,56,35,42,37,46,59,40		4,22,57,10,45	
		5,19,29,48,11,29,39		23
18″	59,56,46, 1,55,12,25,58,29,19		4,22,57,11, 8	
		5,19,25,25,14,18,31		23
20″	59,56,46, 7,14,37,51,12,47,50		4,22,57,11,31	
		5,19,21, 2,17, 7, 0		23
22″	59,56,46,12,33,58,53,29,54,50		4,22,57,11,54	
		5,19,16,39,19,55, 6		23
24″	59,56,46,17,53,15,32,49,49,56		4,22,57,12,17	
		5,19,12,16,22,42,49		23
26″	59,56,46,23,12,27,49,12,32,45		4,22,57,12,40	
		5,19, 7,53,25,30, 9		23
28″	59,56,46,28,31,35,42,38, 2,54		4,22,57,13, 3	
		5,19, 3,30,28,17, 6		23
30″	59,56,46,33,50,39,13, 6,20, 0		4,22,57,13,26	
		5,18,59, 7,31, 3,40		23
32″	59,56,46,39, 9,38,20,37,23,40		4,22,57,13,49	
		5,18,54,44,33,49,51		23
34″	59,56,46,44,28,33, 5,11,13,31		4,22,57,14,12	
		5,18,50,21,36,35,39		23
36″	59,56,46,49,47,23,26,47,49,10		4,22,57,14,35	
		5,18,45,58,39,21, 4		23
38″	59,56,46,55, 6, 9,25,27,10,14		4,22,57,14,58	
		5,18,41,35,42, 6, 6		23
40″	59,56,47, 0,24,51, 1, 9,16,20		4,22,57,15,21	
		5,18,37,12,44,50,45		23
42″	59,56,47, 5,43,28,13,54, 7, 5		4,22,57,15,44	
		5,18,32,49,47,35, 1		23
44″	59,56,47,11, 2, 1, 3,41,42, 6		4,22,57,16, 7	
		5,18,28,26,50,18,54		23
46″	59,56,47,16,20,29,30,32, 1, 0		4,22,57,16,30	
		5,18,24, 3,53, 2,24		23
48″	59,56,47,21,38,53,34,25, 3,24		4,22,57,16,53	
		5,18,19,40,55,45,31		23
50″	59,56,47,26,57,13,15,20,48,55		4,22,57,17,16	
		5,18,15,17,58,28,15		23
52″	59,56,47,32,15,28,33,19,17,10		4,22,57,17,39	
		5,18,10,55, 1,10,36		23
54″	59,56,47,37,33,39,28,20,27,46		4,22,57,18, 2	
		5,18, 6,32, 3,52,34		23
56″	59,56,47,42,51,46, 0,24,20,20		4,22,57,18,25	
		5,18, 2, 9, 6,34, 9		23
58″	59,56,47,48, 9,48, 9,30,54,29		4,22,57,18,48	
		5,17,57,46, 9,15,21		
60″	59,56,47,53,27,45,55,40, 9,50			
exact	59,56,47,53,27,45,55,39,45,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°35′ 0″	59,56,47,53,27,45,55,39,45,17			
		5,17,53,23,11,53,39		
2″	59,56,47,58,45,39,18,51,38,56		4,22,57,19,44	
		5,17,49, 0,14,33,55		23
4″	59,56,48, 4, 3,28,19, 6,12,51		4,22,57,20, 7	
		5,17,44,37,17,13,48		23
6″	59,56,48, 9,21,12,56,23,26,39		4,22,57,20,30	
		5,17,40,14,19,53,18		23
8″	59,56,48,14,38,53,10,43,19,57		4,22,57,20,53	
		5,17,35,51,22,32,25		23
10″	59,56,48,19,56,29, 2, 5,52,22		4,22,57,21,16	
		5,17,31,28,25,11, 9		23
12″	59,56,48,25,14, 0,30,31, 3,31		4,22,57,21,39	
		5,17,27, 5,27,49,30		23
14″	59,56,48,30,31,27,35,58,53, 1		4,22,57,22, 2	
		5,17,22,42,30,27,28		23
16″	59,56,48,35,48,50,18,29,20,29		4,22,57,22,25	
		5,17,18,19,33, 5, 3		23
18″	59,56,48,41, 6, 8,38, 2,25,32		4,22,57,22,48	
		5,17,13,56,35,42,15		23
20″	59,56,48,46,23,22,34,38, 7,47		4,22,57,23,11	
		5,17, 9,33,38,19, 4		23
22″	59,56,48,51,40,32, 8,16,26,51		4,22,57,23,34	
		5,17, 5,10,40,55,30		23
24″	59,56,48,56,57,37,18,57,22,21		4,22,57,23,57	
		5,17, 0,47,43,31,33		23
26″	59,56,49, 2,14,38, 6,40,53,54		4,22,57,24,20	
		5,16,56,24,46, 7,13		23
28″	59,56,49, 7,31,34,31,27, 1, 7		4,22,57,24,43	
		5,16,52, 1,48,42,30		23
30″	59,56,49,12,48,26,33,15,43,37		4,22,57,25, 6	
		5,16,47,38,51,17,24		23
32″	59,56,49,18, 5,14,12, 7, 1, 1		4,22,57,25,29	
		5,16,43,15,53,51,55		23
34″	59,56,49,23,21,57,28, 0,52,56		4,22,57,25,52	
		5,16,38,52,56,26, 3		23
36″	59,56,49,28,38,36,20,57,18,59		4,22,57,26,15	
		5,16,34,29,58,59,48		23
38″	59,56,49,33,55,10,50,56,18,47		4,22,57,26,38	
		5,16,30, 7, 1,33,10		23
40″	59,56,49,39,11,40,57,57,51,57		4,22,57,27, 1	
		5,16,25,44, 4, 6, 9		23
42″	59,56,49,44,28, 6,42, 1,58, 6		4,22,57,27,24	
		5,16,21,21, 6,38,45		23
44″	59,56,49,49,44,28, 3, 8,36,51		4,22,57,27,47	
		5,16,16,58, 9,10,58		23
46″	59,56,49,55, 0,45, 1,17,47,49		4,22,57,28,10	
		5,16,12,35,11,42,48		23
48″	59,56,50, 0,16,57,36,29,30,37		4,22,57,28,33	
		5,16, 8,12,14,14,15		23
50″	59,56,50, 5,33, 5,48,43,44,52		4,22,57,28,56	
		5,16, 3,49,16,45,19		23
52″	59,56,50,10,49, 9,38, 0,30,11		4,22,57,29,19	
		5,15,59,26,19,16, 0		23
54″	59,56,50,16, 5, 9, 4,19,46,11		4,22,57,29,42	
		5,15,55, 3,21,46,18		23
56″	59,56,50,21,21, 4, 7,41,32,29		4,22,57,30, 5	
		5,15,50,40,24,16,13		23
58″	59,56,50,26,36,54,48, 5,48,42		4,22,57,30,28	
		5,15,46,17,26,45,45		
60″	59,56,50,31,52,41, 5,32,34,27			
exact	59,56,50,31,52,41, 5,32,24,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°36′ 0″	59,56,50,31,52,41, 5,32,24,24			
		5,15,41,54,29,13,47		
2″	59,56,50,37, 8,23, 0, 1,38,11		4,22,57,31,18	
		5,15,37,31,31,42,29		23
4″	59,56,50,42,24, 0,31,33,20,40		4,22,57,31,41	
		5,15,33, 8,34,10,48		23
6″	59,56,50,47,39,33,40, 7,31,28		4,22,57,32, 4	
		5,15,28,45,36,38,44		23
8″	59,56,50,52,55, 2,25,44,10,12		4,22,57,32,27	
		5,15,24,22,39, 6,17		23
10″	59,56,50,58,10,26,48,23,16,29		4,22,57,32,50	
		5,15,19,59,41,33,27		23
12″	59,56,51, 3,25,46,48, 4,49,56		4,22,57,33,13	
		5,15,15,36,44, 0,14		23
14″	59,56,51, 8,41, 2,24,48,50,10		4,22,57,33,36	
		5,15,11,13,46,26,38		23
16″	59,56,51,13,56,13,38,35,16,48		4,22,57,33,59	
		5,15, 6,50,48,52,39		23
18″	59,56,51,19,11,20,29,24, 9,27		4,22,57,34,22	
		5,15, 2,27,51,18,17		23
20″	59,56,51,24,26,22,57,15,27,44		4,22,57,34,45	
		5,14,58, 4,53,43,32		23
22″	59,56,51,29,41,21, 2, 9,11,16		4,22,57,35, 8	
		5,14,53,41,56, 8,24		23
24″	59,56,51,34,56,14,44, 5,19,40		4,22,57,35,31	
		5,14,49,18,58,32,53		23
26″	59,56,51,40,11, 4, 3, 3,52,33		4,22,57,35,54	
		5,14,44,56, 0,56,59		23
28″	59,56,51,45,25,48,59, 4,49,32		4,22,57,36,17	
		5,14,40,33, 3,20,42		23
30″	59,56,51,50,40,29,32, 8,10,14		4,22,57,36,40	
		5,14,36,10, 5,44, 2		23
32″	59,56,51,55,55, 5,42,13,54,16		4,22,57,37, 3	
		5,14,31,47, 8, 6,59		23
34″	59,56,52, 1, 9,37,29,22, 1,15		4,22,57,37,26	
		5,14,27,24,10,29,33		23
36″	59,56,52, 6,24, 4,53,32,30,48		4,22,57,37,49	
		5,14,23, 1,12,51,44		23
38″	59,56,52,11,38,27,54,45,22,32		4,22,57,38,12	
		5,14,18,38,15,13,32		23
40″	59,56,52,16,52,46,33, 0,36, 4		4,22,57,38,35	
		5,14,14,15,17,34,57		23
42″	59,56,52,22, 7, 0,48,18,11, 1		4,22,57,38,58	
		5,14, 9,52,19,55,59		23
44″	59,56,52,27,21,10,40,38, 7, 0		4,22,57,39,21	
		5,14, 5,29,22,16,38		23
46″	59,56,52,32,35,16,10, 0,23,38		4,22,57,39,44	
		5,14, 1, 6,24,36,54		23
48″	59,56,52,37,49,17,16,25, 0,32		4,22,57,40, 7	
		5,13,56,43,26,56,47		23
50″	59,56,52,43, 3,13,59,51,57,19		4,22,57,40,30	
		5,13,52,20,29,16,17		23
52″	59,56,52,48,17, 6,20,21,13,36		4,22,57,40,53	
		5,13,47,57,31,35,24		23
54″	59,56,52,53,30,54,17,52,49, 0		4,22,57,41,16	
		5,13,43,34,33,54, 8		23
56″	59,56,52,58,44,37,52,26,43, 8		4,22,57,41,39	
		5,13,39,11,36,12,29		23
58″	59,56,53, 3,58,17, 4, 2,55,37		4,22,57,42, 2	
		5,13,34,48,38,30,27		
60″	59,56,53, 9,11,51,52,41,26, 4			
exact	59,56,53, 9,11,51,52,41,21,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°37′ 0″	59,56,53, 9,11,51,52,41,21,43			
		5,13,30,25,40,47,44		
2″	59,56,53,14,25,22,18,22, 9,27		4,22,57,42,48	
		5,13,26, 2,43, 4,56		23
4″	59,56,53,19,38,48,21, 5,14,23		4,22,57,43,11	
		5,13,21,39,45,21,45		23
6″	59,56,53,24,52,10, 0,50,36, 8		4,22,57,43,34	
		5,13,17,16,47,38,11		23
8″	59,56,53,30, 5,27,17,38,14,19		4,22,57,43,57	
		5,13,12,53,49,54,14		23
10″	59,56,53,35,18,40,11,28, 8,33		4,22,57,44,20	
		5,13, 8,30,52, 9,54		23
12″	59,56,53,40,31,48,42,20,18,27		4,22,57,44,43	
		5,13, 4, 7,54,25,11		23
14″	59,56,53,45,44,52,50,14,43,38		4,22,57,45, 6	
		5,12,59,44,56,40, 5		23
16″	59,56,53,50,57,52,35,11,23,43		4,22,57,45,29	
		5,12,55,21,58,54,36		23
18″	59,56,53,56,10,47,57,10,18,19		4,22,57,45,52	
		5,12,50,59, 1, 8,44		23
20″	59,56,54, 1,23,38,56,11,27, 3		4,22,57,46,15	
		5,12,46,36, 3,22,29		23
22″	59,56,54, 6,36,25,32,14,49,32		4,22,57,46,38	
		5,12,42,13, 5,35,51		23
24″	59,56,54,11,49, 7,45,20,25,23		4,22,57,47, 1	
		5,12,37,50, 7,48,50		23
26″	59,56,54,17, 1,45,35,28,14,13		4,22,57,47,24	
		5,12,33,27,10, 1,26		23
28″	59,56,54,22,14,19, 2,38,15,39		4,22,57,47,47	
		5,12,29, 4,12,13,39		23
30″	59,56,54,27,26,48, 6,50,29,18		4,22,57,48,10	
		5,12,24,41,14,25,29		23
32″	59,56,54,32,39,12,48, 4,54,47		4,22,57,48,33	
		5,12,20,18,16,36,56		23
34″	59,56,54,37,51,33, 6,21,31,43		4,22,57,48,56	
		5,12,15,55,18,48, 0		23
36″	59,56,54,43, 3,49, 1,40,19,43		4,22,57,49,19	
		5,12,11,32,20,58,41		23
38″	59,56,54,48,16, 0,34, 1,18,24		4,22,57,49,42	
		5,12, 7, 9,23, 8,59		23
40″	59,56,54,53,28, 7,43,24,27,23		4,22,57,50, 5	
		5,12, 2,46,25,18,54		23
42″	59,56,54,58,40,10,29,49,46,17		4,22,57,50,28	
		5,11,58,23,27,28,26		23
44″	59,56,55, 3,52, 8,53,17,14,43		4,22,57,50,51	
		5,11,54, 0,29,37,35		23
46″	59,56,55, 9, 4, 2,53,46,52,18		4,22,57,51,14	
		5,11,49,37,31,46,21		23
48″	59,56,55,14,15,52,31,18,38,39		4,22,57,51,37	
		5,11,45,14,33,54,44		23
50″	59,56,55,19,27,37,45,52,33,23		4,22,57,52, 0	
		5,11,40,51,36, 2,44		23
52″	59,56,55,24,39,18,37,28,36, 7		4,22,57,52,23	
		5,11,36,28,38,10,21		23
54″	59,56,55,29,50,55, 6, 6,46,28		4,22,57,52,46	
		5,11,32, 5,40,17,35		23
56″	59,56,55,35, 2,27,11,47, 4, 3		4,22,57,53, 9	
		5,11,27,42,42,24,26		23
58″	59,56,55,40,13,54,54,29,28,29		4,22,57,53,32	
		5,11,23,19,44,30,54		
60″	59,56,55,45,25,18,14,13,59,23			
exact	59,56,55,45,25,18,14,14, 6, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°38′ 0″	59,56,55,45,25,18,14,14, 6, 0			
		5,11,18,56,46,37,52		
2″	59,56,55,50,36,37,11, 0,43,52		4,22,57,54,13	
		5,11,14,33,48,43,39		23
4″	59,56,55,55,47,51,44,49,27,31		4,22,57,54,36	
		5,11,10,10,50,49, 3		23
6″	59,56,56, 0,59, 1,55,40,16,34		4,22,57,54,59	
		5,11, 5,47,52,54, 4		23
8″	59,56,56, 6,10, 7,43,33,10,38		4,22,57,55,22	
		5,11, 1,24,54,58,42		23
10″	59,56,56,11,21, 9, 8,28, 9,20		4,22,57,55,45	
		5,10,57, 1,57, 2,57		23
12″	59,56,56,16,32, 6,10,25,12,17		4,22,57,56, 8	
		5,10,52,38,59, 6,49		23
14″	59,56,56,21,42,58,49,24,19, 6		4,22,57,56,31	
		5,10,48,16, 1,10,18		23
16″	59,56,56,26,53,47, 5,25,29,24		4,22,57,56,54	
		5,10,43,53, 3,13,24		23
18″	59,56,56,32, 4,30,58,28,42,48		4,22,57,57,17	
		5,10,39,30, 5,16, 7		23
20″	59,56,56,37,15,10,28,33,58,55		4,22,57,57,40	
		5,10,35, 7, 7,18,27		23
22″	59,56,56,42,25,45,35,41,17,22		4,22,57,58, 3	
		5,10,30,44, 9,20,24		23
24″	59,56,56,47,36,16,19,50,37,46		4,22,57,58,26	
		5,10,26,21,11,21,58		23
26″	59,56,56,52,46,42,41, 1,59,44		4,22,57,58,49	
		5,10,21,58,13,23, 9		23
28″	59,56,56,57,57, 4,39,15,22,53		4,22,57,59,12	
		5,10,17,35,15,23,57		23
30″	59,56,57, 3, 7,22,14,30,46,50		4,22,57,59,35	
		5,10,13,12,17,24,22		23
32″	59,56,57, 8,17,35,26,48,11,12		4,22,57,59,58	
		5,10, 8,49,19,24,24		23
34″	59,56,57,13,27,44,16, 7,35,36		4,22,58, 0,21	
		5,10, 4,26,21,24, 3		23
36″	59,56,57,18,37,48,42,28,59,39		4,22,58, 0,44	
		5,10, 0, 3,23,23,19		23
38″	59,56,57,23,47,48,45,52,22,58		4,22,58, 1, 7	
		5, 9,55,40,25,22,12		23
40″	59,56,57,28,57,44,26,17,45,10		4,22,58, 1,30	
		5, 9,51,17,27,20,42		23
42″	59,56,57,34, 7,35,43,45, 5,52		4,22,58, 1,53	
		5, 9,46,54,29,18,49		23
44″	59,56,57,39,17,22,38,14,24,41		4,22,58, 2,16	
		5, 9,42,31,31,16,33		23
46″	59,56,57,44,27, 5, 9,45,41,14		4,22,58, 2,39	
		5, 9,38, 8,33,13,54		23
48″	59,56,57,49,36,43,18,18,55, 8		4,22,58, 3, 2	
		5, 9,33,45,35,10,52		23
50″	59,56,57,54,46,17, 3,54, 6, 0		4,22,58, 3,25	
		5, 9,29,22,37, 7,27		23
52″	59,56,57,59,55,46,26,31,13,27		4,22,58, 3,48	
		5, 9,24,59,39, 3,39		23
54″	59,56,58, 5, 5,11,26,10,17, 6		4,22,58, 4,11	
		5, 9,20,36,40,59,28		23
56″	59,56,58,10,14,32, 2,51,16,34		4,22,58, 4,34	
		5, 9,16,13,42,54,54		23
58″	59,56,58,15,23,48,16,34,11,28		4,22,58, 4,57	
		5, 9,11,50,44,49,57		
60″	59,56,58,20,33, 0, 7,19, 1,25			
exact	59,56,58,20,33, 0, 7,19,18, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°39′ 0″	59,56,58,20,33, 0, 7,19,18, 8			
		5, 9, 7,27,46,46,36		
2″	59,56,58,25,42, 7,35, 6, 4,44		4,22,58, 5,34	
		5, 9, 3, 4,48,41, 2		23
4″	59,56,58,30,51,10,39,54,45,46		4,22,58, 5,57	
		5, 8,58,41,50,35, 5		23
6″	59,56,58,36, 0, 9,21,45,20,51		4,22,58, 6,20	
		5, 8,54,18,52,28,45		23
8″	59,56,58,41, 9, 3,40,37,49,36		4,22,58, 6,43	
		5, 8,49,55,54,22, 2		23
10″	59,56,58,46,17,53,36,32,11,38		4,22,58, 7, 6	
		5, 8,45,32,56,14,56		23
12″	59,56,58,51,26,39, 9,28,26,34		4,22,58, 7,29	
		5, 8,41, 9,58, 7,27		23
14″	59,56,58,56,35,20,19,26,34, 1		4,22,58, 7,52	
		5, 8,36,46,59,59,35		23
16″	59,56,59, 1,43,57, 6,26,33,36		4,22,58, 8,15	
		5, 8,32,24, 1,51,20		23
18″	59,56,59, 6,52,29,30,28,24,56		4,22,58, 8,38	
		5, 8,28, 1, 3,42,42		23
20″	59,56,59,12, 0,57,31,32, 7,38		4,22,58, 9, 1	
		5, 8,23,38, 5,33,41		23
22″	59,56,59,17, 9,21, 9,37,41,19		4,22,58, 9,24	
		5, 8,19,15, 7,24,17		23
24″	59,56,59,22,17,40,24,45, 5,36		4,22,58, 9,47	
		5, 8,14,52, 9,14,30		23
26″	59,56,59,27,25,55,16,54,20, 6		4,22,58,10,10	
		5, 8,10,29,11, 4,20		23
28″	59,56,59,32,34, 5,46, 5,24,26		4,22,58,10,33	
		5, 8, 6, 6,12,53,47		23
30″	59,56,59,37,42,11,52,18,18,13		4,22,58,10,56	
		5, 8, 1,43,14,42,51		23
32″	59,56,59,42,50,13,35,33, 1, 4		4,22,58,11,19	
		5, 7,57,20,16,31,32		23
34″	59,56,59,47,58,10,55,49,32,36		4,22,58,11,42	
		5, 7,52,57,18,19,50		23
36″	59,56,59,53, 6, 3,53, 7,52,26		4,22,58,12, 5	
		5, 7,48,34,20, 7,45		23
38″	59,56,59,58,13,52,27,28, 0,11		4,22,58,12,28	
		5, 7,44,11,21,55,17		23
40″	59,57, 0, 3,21,36,38,49,55,28		4,22,58,12,51	
		5, 7,39,48,23,42,26		23
42″	59,57, 0, 8,29,16,27,13,37,54		4,22,58,13,14	
		5, 7,35,25,25,29,12		23
44″	59,57, 0,13,36,51,52,39, 7, 6		4,22,58,13,37	
		5, 7,31, 2,27,15,35		23
46″	59,57, 0,18,44,22,55, 6,22,41		4,22,58,14, 0	
		5, 7,26,39,29, 1,35		23
48″	59,57, 0,23,51,49,34,35,24,16		4,22,58,14,23	
		5, 7,22,16,30,47,12		23
50″	59,57, 0,28,59,11,51, 6,11,28		4,22,58,14,46	
		5, 7,17,53,32,32,26		23
52″	59,57, 0,34, 6,29,44,38,43,54		4,22,58,15, 9	
		5, 7,13,30,34,17,17		23
54″	59,57, 0,39,13,43,15,13, 1,11		4,22,58,15,32	
		5, 7, 9, 7,36, 1,45		23
56″	59,57, 0,44,20,52,22,49, 2,56		4,22,58,15,55	
		5, 7, 4,44,37,45,50		23
58″	59,57, 0,49,27,57, 7,26,48,46		4,22,58,16,18	
		5, 7, 0,21,39,29,32		
60″	59,57, 0,54,34,57,29, 6,18,18			
exact	59,57, 0,54,34,57,29, 6,51, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°40′ 0″	59,57, 0,54,34,57,29, 6,51, 5			
		5, 6,55,58,41,16,21		
2″	59,57, 0,59,41,53,27,48, 7,26		4,22,58,16,49	
		5, 6,51,35,42,59,32		22
4″	59,57, 1, 4,48,45, 3,31, 6,58		4,22,58,17,11	
		5, 6,47,12,44,42,21		22
6″	59,57, 1, 9,55,32,16,15,49,19		4,22,58,17,33	
		5, 6,42,49,46,24,48		22
8″	59,57, 1,15, 2,15, 6, 2,14, 7		4,22,58,17,55	
		5, 6,38,26,48, 6,53		22
10″	59,57, 1,20, 8,53,32,50,21, 0		4,22,58,18,17	
		5, 6,34, 3,49,48,36		22
12″	59,57, 1,25,15,27,36,40, 9,36		4,22,58,18,39	
		5, 6,29,40,51,29,57		22
14″	59,57, 1,30,21,57,17,31,39,33		4,22,58,19, 1	
		5, 6,25,17,53,10,56		22
16″	59,57, 1,35,28,22,35,24,50,29		4,22,58,19,23	
		5, 6,20,54,54,51,33		22
18″	59,57, 1,40,34,43,30,19,42, 2		4,22,58,19,45	
		5, 6,16,31,56,31,48		22
20″	59,57, 1,45,41, 0, 2,16,13,50		4,22,58,20, 7	
		5, 6,12, 8,58,11,41		22
22″	59,57, 1,50,47,12,11,14,25,31		4,22,58,20,29	
		5, 6, 7,45,59,51,12		22
24″	59,57, 1,55,53,19,57,14,16,43		4,22,58,20,51	
		5, 6, 3,23, 1,30,21		22
26″	59,57, 2, 0,59,23,20,15,47, 4		4,22,58,21,13	
		5, 5,59, 0, 3, 9, 8		22
28″	59,57, 2, 6, 5,22,20,18,56,12		4,22,58,21,35	
		5, 5,54,37, 4,47,33		22
30″	59,57, 2,11,11,16,57,23,43,45		4,22,58,21,57	
		5, 5,50,14, 6,25,36		22
32″	59,57, 2,16,17, 7,11,30, 9,21		4,22,58,22,19	
		5, 5,45,51, 8, 3,17		22
34″	59,57, 2,21,22,53, 2,38,12,38		4,22,58,22,41	
		5, 5,41,28, 9,40,36		22
36″	59,57, 2,26,28,34,30,47,53,14		4,22,58,23, 3	
		5, 5,37, 5,11,17,33		22
38″	59,57, 2,31,34,11,35,59,10,47		4,22,58,23,25	
		5, 5,32,42,12,54, 8		22
40″	59,57, 2,36,39,44,18,12, 4,55		4,22,58,23,47	
		5, 5,28,19,14,30,21		22
42″	59,57, 2,41,45,12,37,26,35,16		4,22,58,24, 9	
		5, 5,23,56,16, 6,12		22
44″	59,57, 2,46,50,36,33,42,41,28		4,22,58,24,31	
		5, 5,19,33,17,41,41		22
46″	59,57, 2,51,55,56, 7, 0,23, 9		4,22,58,24,53	
		5, 5,15,10,19,16,48		22
48″	59,57, 2,57, 1,11,17,19,39,57		4,22,58,25,15	
		5, 5,10,47,20,51,33		22
50″	59,57, 3, 2, 6,22, 4,40,31,30		4,22,58,25,37	
		5, 5, 6,24,22,25,56		22
52″	59,57, 3, 7,11,28,29, 2,57,26		4,22,58,25,59	
		5, 5, 2, 1,23,59,57		22
54″	59,57, 3,12,16,30,30,26,57,23		4,22,58,26,21	
		5, 4,57,38,25,33,36		22
56″	59,57, 3,17,21,28, 8,52,30,59		4,22,58,26,43	
		5, 4,53,15,27, 6,53		22
58″	59,57, 3,22,26,21,24,19,37,52		4,22,58,27, 5	
		5, 4,48,52,28,39,48		
60″	59,57, 3,27,31,10,16,48,17,40			
exact	59,57, 3,27,31,10,16,47,49,54			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°41′ 0″	59,57, 3,27,31,10,16,47,49,54			
		5, 4,44,29,30, 9,30		
2″	59,57, 3,32,35,54,46,17,59,24		4,22,58,28, 0	
		5, 4,40, 6,31,41,30		22
4″	59,57, 3,37,40,34,52,49,40,54		4,22,58,28,22	
		5, 4,35,43,33,13, 8		22
6″	59,57, 3,42,45,10,36,22,54, 2		4,22,58,28,44	
		5, 4,31,20,34,44,24		22
8″	59,57, 3,47,49,41,56,57,38,26		4,22,58,29, 6	
		5, 4,26,57,36,15,18		22
10″	59,57, 3,52,54, 8,54,33,53,44		4,22,58,29,28	
		5, 4,22,34,37,45,50		22
12″	59,57, 3,57,58,31,29,11,39,34		4,22,58,29,50	
		5, 4,18,11,39,16, 0		22
14″	59,57, 4, 3, 2,49,40,50,55,34		4,22,58,30,12	
		5, 4,13,48,40,45,48		22
16″	59,57, 4, 8, 7, 3,29,31,41,22		4,22,58,30,34	
		5, 4, 9,25,42,15,14		22
18″	59,57, 4,13,11,12,55,13,56,36		4,22,58,30,56	
		5, 4, 5, 2,43,44,18		22
20″	59,57, 4,18,15,17,57,57,40,54		4,22,58,31,18	
		5, 4, 0,39,45,13, 0		22
22″	59,57, 4,23,19,18,37,42,53,54		4,22,58,31,40	
		5, 3,56,16,46,41,20		22
24″	59,57, 4,28,23,14,54,29,35,14		4,22,58,32, 2	
		5, 3,51,53,48, 9,18		22
26″	59,57, 4,33,27, 6,48,17,44,32		4,22,58,32,24	
		5, 3,47,30,49,36,54		22
28″	59,57, 4,38,30,54,19, 7,21,26		4,22,58,32,46	
		5, 3,43, 7,51, 4, 8		22
30″	59,57, 4,43,34,37,26,58,25,34		4,22,58,33, 8	
		5, 3,38,44,52,31, 0		22
32″	59,57, 4,48,38,16,11,50,56,34		4,22,58,33,30	
		5, 3,34,21,53,57,30		22
34″	59,57, 4,53,41,50,33,44,54, 4		4,22,58,33,52	
		5, 3,29,58,55,23,38		22
36″	59,57, 4,58,45,20,32,40,17,42		4,22,58,34,14	
		5, 3,25,35,56,49,24		22
38″	59,57, 5, 3,48,46, 8,37, 7, 6		4,22,58,34,36	
		5, 3,21,12,58,14,48		22
40″	59,57, 5, 8,52, 7,21,35,21,54		4,22,58,34,58	
		5, 3,16,49,59,39,50		22
42″	59,57, 5,13,55,24,11,35, 1,44		4,22,58,35,20	
		5, 3,12,27, 1, 4,30		22
44″	59,57, 5,18,58,36,38,36, 6,14		4,22,58,35,42	
		5, 3, 8, 4, 2,28,48		22
46″	59,57, 5,24, 1,44,42,38,35, 2		4,22,58,36, 4	
		5, 3, 3,41, 3,52,44		22
48″	59,57, 5,29, 4,48,23,42,27,46		4,22,58,36,26	
		5, 2,59,18, 5,16,18		22
50″	59,57, 5,34, 7,47,41,47,44, 4		4,22,58,36,48	
		5, 2,54,55, 6,39,30		22
52″	59,57, 5,39,10,42,36,54,23,34		4,22,58,37,10	
		5, 2,50,32, 8, 2,20		22
54″	59,57, 5,44,13,33, 9, 2,25,54		4,22,58,37,32	
		5, 2,46, 9, 9,24,48		22
56″	59,57, 5,49,16,19,18,11,50,42		4,22,58,37,54	
		5, 2,41,46,10,46,54		22
58″	59,57, 5,54,19, 1, 4,22,37,36		4,22,58,38,16	
		5, 2,37,23,12, 8,38		
60″	59,57, 5,59,21,38,27,34,46,14			
exact	59,57, 5,59,21,38,27,34,31,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°42′ 0″	59,57, 5,59,21,38,27,34,31,46			
		5, 2,33, 0,13,28,29		
2″	59,57, 6, 4,24,11,27,48, 0,15		4,22,58,39, 6	
		5, 2,28,37,14,49,23		22
4″	59,57, 6, 9,26,40, 5, 2,49,38		4,22,58,39,28	
		5, 2,24,14,16, 9,55		22
6″	59,57, 6,14,29, 4,19,18,59,33		4,22,58,39,50	
		5, 2,19,51,17,30, 5		22
8″	59,57, 6,19,31,24,10,36,29,38		4,22,58,40,12	
		5, 2,15,28,18,49,53		22
10″	59,57, 6,24,33,39,38,55,19,31		4,22,58,40,34	
		5, 2,11, 5,20, 9,19		22
12″	59,57, 6,29,35,50,44,15,28,50		4,22,58,40,56	
		5, 2, 6,42,21,28,23		22
14″	59,57, 6,34,37,57,26,36,57,13		4,22,58,41,18	
		5, 2, 2,19,22,47, 5		22
16″	59,57, 6,39,39,59,45,59,44,18		4,22,58,41,40	
		5, 1,57,56,24, 5,25		22
18″	59,57, 6,44,41,57,42,23,49,43		4,22,58,42, 2	
		5, 1,53,33,25,23,23		22
20″	59,57, 6,49,43,51,15,49,13, 6		4,22,58,42,24	
		5, 1,49,10,26,40,59		22
22″	59,57, 6,54,45,40,26,15,54, 5		4,22,58,42,46	
		5, 1,44,47,27,58,13		22
24″	59,57, 6,59,47,25,13,43,52,18		4,22,58,43, 8	
		5, 1,40,24,29,15, 5		22
26″	59,57, 7, 4,49, 5,38,13, 7,23		4,22,58,43,30	
		5, 1,36, 1,30,31,35		22
28″	59,57, 7, 9,50,41,39,43,38,58		4,22,58,43,52	
		5, 1,31,38,31,47,43		22
30″	59,57, 7,14,52,13,18,15,26,41		4,22,58,44,14	
		5, 1,27,15,33, 3,29		22
32″	59,57, 7,19,53,40,33,48,30,10		4,22,58,44,36	
		5, 1,22,52,34,18,53		22
34″	59,57, 7,24,55, 3,26,22,49, 3		4,22,58,44,58	
		5, 1,18,29,35,33,55		22
36″	59,57, 7,29,56,21,55,58,22,58		4,22,58,45,20	
		5, 1,14, 6,36,48,35		22
38″	59,57, 7,34,57,36, 2,35,11,33		4,22,58,45,42	
		5, 1, 9,43,38, 2,53		22
40″	59,57, 7,39,58,45,46,13,14,26		4,22,58,46, 4	
		5, 1, 5,20,39,16,49		22
42″	59,57, 7,44,59,51, 6,52,31,15		4,22,58,46,26	
		5, 1, 0,57,40,30,23		22
44″	59,57, 7,50, 0,52, 4,33, 1,38		4,22,58,46,48	
		5, 0,56,34,41,43,35		22
46″	59,57, 7,55, 1,48,39,14,45,13		4,22,58,47,10	
		5, 0,52,11,42,56,25		22
48″	59,57, 8, 0, 2,40,50,57,41,38		4,22,58,47,32	
		5, 0,47,48,44, 8,53		22
50″	59,57, 8, 5, 3,28,39,41,50,31		4,22,58,47,54	
		5, 0,43,25,45,20,59		22
52″	59,57, 8,10, 4,12, 5,27,11,30		4,22,58,48,16	
		5, 0,39, 2,46,32,43		22
54″	59,57, 8,15, 4,51, 8,13,44,13		4,22,58,48,38	
		5, 0,34,39,47,44, 5		22
56″	59,57, 8,20, 5,25,48, 1,28,18		4,22,58,49, 0	
		5, 0,30,16,48,55, 5		22
58″	59,57, 8,25, 5,56, 4,50,23,23		4,22,58,49,22	
		5, 0,25,53,50, 5,43		
60″	59,57, 8,30, 6,21,58,40,29, 6			
exact	59,57, 8,30, 6,21,58,40,25,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°43′ 0″	59,57, 8,30, 6,21,58,40,25,55			
		5, 0,21,30,51,15,40		
2″	59,57, 8,35, 6,43,29,31,41,35		4,22,58,50, 7	
		5, 0,17, 7,52,25,33		22
4″	59,57, 8,40, 7, 0,37,24, 7, 8		4,22,58,50,29	
		5, 0,12,44,53,35, 4		22
6″	59,57, 8,45, 7,13,22,17,42,12		4,22,58,50,51	
		5, 0, 8,21,54,44,13		22
8″	59,57, 8,50, 7,21,44,12,26,25		4,22,58,51,13	
		5, 0, 3,58,55,53, 0		22
10″	59,57, 8,55, 7,25,43, 8,19,25		4,22,58,51,35	
		4,59,59,35,57, 1,25		22
12″	59,57, 9, 0, 7,25,19, 5,20,50		4,22,58,51,57	
		4,59,55,12,58, 9,28		22
14″	59,57, 9, 5, 7,20,32, 3,30,18		4,22,58,52,19	
		4,59,50,49,59,17, 9		22
16″	59,57, 9,10, 7,11,22, 2,47,27		4,22,58,52,41	
		4,59,46,27, 0,24,28		22
18″	59,57, 9,15, 6,57,49, 3,11,55		4,22,58,53, 3	
		4,59,42, 4, 1,31,25		22
20″	59,57, 9,20, 6,39,53, 4,43,20		4,22,58,53,25	
		4,59,37,41, 2,38, 0		22
22″	59,57, 9,25, 6,17,34, 7,21,20		4,22,58,53,47	
		4,59,33,18, 3,44,13		22
24″	59,57, 9,30, 5,50,52,11, 5,33		4,22,58,54, 9	
		4,59,28,55, 4,50, 4		22
26″	59,57, 9,35, 5,19,47,15,55,37		4,22,58,54,31	
		4,59,24,32, 5,55,33		22
28″	59,57, 9,40, 4,44,19,21,51,10		4,22,58,54,53	
		4,59,20, 9, 7, 0,40		22
30″	59,57, 9,45, 4, 4,28,28,51,50		4,22,58,55,15	
		4,59,15,46, 8, 5,25		22
32″	59,57, 9,50, 3,20,14,36,57,15		4,22,58,55,37	
		4,59,11,23, 9, 9,48		22
34″	59,57, 9,55, 2,31,37,46, 7, 3		4,22,58,55,59	
		4,59, 7, 0,10,13,49		22
36″	59,57,10, 0, 1,38,37,56,20,52		4,22,58,56,21	
		4,59, 2,37,11,17,28		22
38″	59,57,10, 5, 0,41,15, 7,38,20		4,22,58,56,43	
		4,58,58,14,12,20,45		22
40″	59,57,10, 9,59,39,29,19,59, 5		4,22,58,57, 5	
		4,58,53,51,13,23,40		22
42″	59,57,10,14,58,33,20,33,22,45		4,22,58,57,27	
		4,58,49,28,14,26,13		22
44″	59,57,10,19,57,22,48,47,48,58		4,22,58,57,49	
		4,58,45, 5,15,28,24		22
46″	59,57,10,24,56, 7,54, 3,17,22		4,22,58,58,11	
		4,58,40,42,16,30,13		22
48″	59,57,10,29,54,48,36,19,47,35		4,22,58,58,33	
		4,58,36,19,17,31,40		22
50″	59,57,10,34,53,24,55,37,19,15		4,22,58,58,55	
		4,58,31,56,18,32,45		22
52″	59,57,10,39,51,56,51,55,52, 0		4,22,58,59,17	
		4,58,27,33,19,33,28		22
54″	59,57,10,44,50,24,25,15,25,28		4,22,58,59,39	
		4,58,23,10,20,33,49		22
56″	59,57,10,49,48,47,35,35,59,17		4,22,59, 0, 1	
		4,58,18,47,21,33,48		22
58″	59,57,10,54,47, 6,22,57,33, 5		4,22,59, 0,23	
		4,58,14,24,22,33,25		
60″	59,57,10,59,45,20,47,20, 6,30			
exact	59,57,10,59,45,20,47,20,13,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°44′ 0″	59,57,10,59,45,20,47,20,13,42			
		4,58,10, 1,23,33,29		
2″	59,57,11, 4,43,30,48,43,47,11		4,22,59, 1, 3	
		4,58, 5,38,24,32,26		22
4″	59,57,11, 9,41,36,27, 8,19,37		4,22,59, 1,25	
		4,58, 1,15,25,31, 1		22
6″	59,57,11,14,39,37,42,33,50,38		4,22,59, 1,47	
		4,57,56,52,26,29,14		22
8″	59,57,11,19,37,34,35, 0,19,52		4,22,59, 2, 9	
		4,57,52,29,27,27, 5		22
10″	59,57,11,24,35,27, 4,27,46,57		4,22,59, 2,31	
		4,57,48, 6,28,24,34		22
12″	59,57,11,29,33,15,10,56,11,31		4,22,59, 2,53	
		4,57,43,43,29,21,41		22
14″	59,57,11,34,30,58,54,25,33,12		4,22,59, 3,15	
		4,57,39,20,30,18,26		22
16″	59,57,11,39,28,38,14,55,51,38		4,22,59, 3,37	
		4,57,34,57,31,14,49		22
18″	59,57,11,44,26,13,12,27, 6,27		4,22,59, 3,59	
		4,57,30,34,32,10,50		22
20″	59,57,11,49,23,43,46,59,17,17		4,22,59, 4,21	
		4,57,26,11,33, 6,29		22
22″	59,57,11,54,21, 9,58,32,23,46		4,22,59, 4,43	
		4,57,21,48,34, 1,46		22
24″	59,57,11,59,18,31,47, 6,25,32		4,22,59, 5, 5	
		4,57,17,25,34,56,41		22
26″	59,57,12, 4,15,49,12,41,22,13		4,22,59, 5,27	
		4,57,13, 2,35,51,14		22
28″	59,57,12, 9,13, 2,15,17,13,27		4,22,59, 5,49	
		4,57, 8,39,36,45,25		22
30″	59,57,12,14,10,10,54,53,58,52		4,22,59, 6,11	
		4,57, 4,16,37,39,14		22
32″	59,57,12,19, 7,15,11,31,38, 6		4,22,59, 6,33	
		4,56,59,53,38,32,41		22
34″	59,57,12,24, 4,15, 5,10,10,47		4,22,59, 6,55	
		4,56,55,30,39,25,46		22
36″	59,57,12,29, 1,10,35,49,36,33		4,22,59, 7,17	
		4,56,51, 7,40,18,29		22
38″	59,57,12,33,58, 1,43,29,55, 2		4,22,59, 7,39	
		4,56,46,44,41,10,50		22
40″	59,57,12,38,54,48,28,11, 5,52		4,22,59, 8, 1	
		4,56,42,21,42, 2,49		22
42″	59,57,12,43,51,30,49,53, 8,41		4,22,59, 8,23	
		4,56,37,58,42,54,26		22
44″	59,57,12,48,48, 8,48,36, 3, 7		4,22,59, 8,45	
		4,56,33,35,43,45,41		22
46″	59,57,12,53,44,42,24,19,48,48		4,22,59, 9, 7	
		4,56,29,12,44,36,34		22
48″	59,57,12,58,41,11,37, 4,25,22		4,22,59, 9,29	
		4,56,24,49,45,27, 5		22
50″	59,57,13, 3,37,36,26,49,52,27		4,22,59, 9,51	
		4,56,20,26,46,17,14		22
52″	59,57,13, 8,33,56,53,36, 9,41		4,22,59,10,13	
		4,56,16, 3,47, 7, 1		22
54″	59,57,13,13,30,12,57,23,16,42		4,22,59,10,35	
		4,56,11,40,47,56,26		22
56″	59,57,13,18,26,24,38,11,13, 8		4,22,59,10,57	
		4,56, 7,17,48,45,29		22
58″	59,57,13,23,22,31,55,59,58,37		4,22,59,11,19	
		4,56, 2,54,49,34,10		
60″	59,57,13,28,18,34,50,49,32,47			
exact	59,57,13,28,18,34,50,49,48,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°45′ 0″	59,57,13,28,18,34,50,49,48,33			
		4,55,58,31,50,24,18		
2″	59,57,13,33,14,33,22,40,12,51		4,22,59,11,55	
		4,55,54, 8,51,12,23		22
4″	59,57,13,38,10,27,31,31,25,14		4,22,59,12,17	
		4,55,49,45,52, 0, 6		22
6″	59,57,13,43, 6,17,17,23,25,20		4,22,59,12,39	
		4,55,45,22,52,47,27		22
8″	59,57,13,48, 2, 2,40,16,12,47		4,22,59,13, 1	
		4,55,40,59,53,34,26		22
10″	59,57,13,52,57,43,40, 9,47,13		4,22,59,13,23	
		4,55,36,36,54,21, 3		22
12″	59,57,13,57,53,20,17, 4, 8,16		4,22,59,13,45	
		4,55,32,13,55, 7,18		22
14″	59,57,14, 2,48,52,30,59,15,34		4,22,59,14, 7	
		4,55,27,50,55,53,11		22
16″	59,57,14, 7,44,20,21,55, 8,45		4,22,59,14,29	
		4,55,23,27,56,38,42		22
18″	59,57,14,12,39,43,49,51,47,27		4,22,59,14,51	
		4,55,19, 4,57,23,51		22
20″	59,57,14,17,35, 2,54,49,11,18		4,22,59,15,13	
		4,55,14,41,58, 8,38		22
22″	59,57,14,22,30,17,36,47,19,56		4,22,59,15,35	
		4,55,10,18,58,53, 3		22
24″	59,57,14,27,25,27,55,46,12,59		4,22,59,15,57	
		4,55, 5,55,59,37, 6		22
26″	59,57,14,32,20,33,51,45,50, 5		4,22,59,16,19	
		4,55, 1,33, 0,20,47		22
28″	59,57,14,37,15,35,24,46,10,52		4,22,59,16,41	
		4,54,57,10, 1, 4, 6		22
30″	59,57,14,42,10,32,34,47,14,58		4,22,59,17, 3	
		4,54,52,47, 1,47, 3		22
32″	59,57,14,47, 5,25,21,49, 2, 1		4,22,59,17,25	
		4,54,48,24, 2,29,38		22
34″	59,57,14,52, 0,13,45,51,31,39		4,22,59,17,47	
		4,54,44, 1, 3,11,51		22
36″	59,57,14,56,54,57,46,54,43,30		4,22,59,18, 9	
		4,54,39,38, 3,53,42		22
38″	59,57,15, 1,49,37,24,58,37,12		4,22,59,18,31	
		4,54,35,15, 4,35,11		22
40″	59,57,15, 6,44,12,40, 3,12,23		4,22,59,18,53	
		4,54,30,52, 5,16,18		22
42″	59,57,15,11,38,43,32, 8,28,41		4,22,59,19,15	
		4,54,26,29, 5,57, 3		22
44″	59,57,15,16,33,10, 1,14,25,44		4,22,59,19,37	
		4,54,22, 6, 6,37,26		22
46″	59,57,15,21,27,32, 7,21, 3,10		4,22,59,19,59	
		4,54,17,43, 7,17,27		22
48″	59,57,15,26,21,49,50,28,20,37		4,22,59,20,21	
		4,54,13,20, 7,57, 6		22
50″	59,57,15,31,16, 3,10,36,17,43		4,22,59,20,43	
		4,54, 8,57, 8,36,23		22
52″	59,57,15,36,10,12, 7,44,54, 6		4,22,59,21, 5	
		4,54, 4,34, 9,15,18		22
54″	59,57,15,41, 4,16,41,54, 9,24		4,22,59,21,27	
		4,54, 0,11, 9,53,51		22
56″	59,57,15,45,58,16,53, 4, 3,15		4,22,59,21,49	
		4,53,55,48,10,32, 2		22
58″	59,57,15,50,52,12,41,14,35,17		4,22,59,22,11	
		4,53,51,25,11, 9,51		
60″	59,57,15,55,46, 4, 6,25,45, 8			
exact	59,57,15,55,46, 4, 6,26,16, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°46′ 0″	59,57,15,55,46, 4, 6,26,16, 3			
		4,53,47, 2,11,50,34		
2″	59,57,16, 0,39,51, 8,38, 6,37		4,22,59,22,41	
		4,53,42,39,12,27,53		21
4″	59,57,16, 5,33,33,47,50,34,30		4,22,59,23, 2	
		4,53,38,16,13, 4,51		21
6″	59,57,16,10,27,12, 4, 3,39,21		4,22,59,23,23	
		4,53,33,53,13,41,28		21
8″	59,57,16,15,20,45,57,17,20,49		4,22,59,23,44	
		4,53,29,30,14,17,44		21
10″	59,57,16,20,14,15,27,31,38,33		4,22,59,24, 5	
		4,53,25, 7,14,53,39		21
12″	59,57,16,25, 7,40,34,46,32,12		4,22,59,24,26	
		4,53,20,44,15,29,13		21
14″	59,57,16,30, 1, 1,19, 2, 1,25		4,22,59,24,47	
		4,53,16,21,16, 4,26		21
16″	59,57,16,34,54,17,40,18, 5,51		4,22,59,25, 8	
		4,53,11,58,16,39,18		21
18″	59,57,16,39,47,29,38,34,45, 9		4,22,59,25,29	
		4,53, 7,35,17,13,49		21
20″	59,57,16,44,40,37,13,51,58,58		4,22,59,25,50	
		4,53, 3,12,17,47,59		21
22″	59,57,16,49,33,40,26, 9,46,57		4,22,59,26,11	
		4,52,58,49,18,21,48		21
24″	59,57,16,54,26,39,15,28, 8,45		4,22,59,26,32	
		4,52,54,26,18,55,16		21
26″	59,57,16,59,19,33,41,47, 4, 1		4,22,59,26,53	
		4,52,50, 3,19,28,23		21
28″	59,57,17, 4,12,23,45, 6,32,24		4,22,59,27,14	
		4,52,45,40,20, 1, 9		21
30″	59,57,17, 9, 5, 9,25,26,33,33		4,22,59,27,35	
		4,52,41,17,20,33,34		21
32″	59,57,17,13,57,50,42,47, 7, 7		4,22,59,27,56	
		4,52,36,54,21, 5,38		21
34″	59,57,17,18,50,27,37, 8,12,45		4,22,59,28,17	
		4,52,32,31,21,37,21		21
36″	59,57,17,23,43, 0, 8,29,50, 6		4,22,59,28,38	
		4,52,28, 8,22, 8,43		21
38″	59,57,17,28,35,28,16,51,58,49		4,22,59,28,59	
		4,52,23,45,22,39,44		21
40″	59,57,17,33,27,52, 2,14,38,33		4,22,59,29,20	
		4,52,19,22,23,10,24		21
42″	59,57,17,38,20,11,24,37,48,57		4,22,59,29,41	
		4,52,14,59,23,40,43		21
44″	59,57,17,43,12,26,24, 1,29,40		4,22,59,30, 2	
		4,52,10,36,24,10,41		21
46″	59,57,17,48, 4,37, 0,25,40,21		4,22,59,30,23	
		4,52, 6,13,24,40,18		21
48″	59,57,17,52,56,43,13,50,20,39		4,22,59,30,44	
		4,52, 1,50,25, 9,34		21
50″	59,57,17,57,48,45, 4,15,30,13		4,22,59,31, 5	
		4,51,57,27,25,38,29		21
52″	59,57,18, 2,40,42,31,41, 8,42		4,22,59,31,26	
		4,51,53, 4,26, 7, 3		21
54″	59,57,18, 7,32,35,36, 7,15,45		4,22,59,31,47	
		4,51,48,41,26,35,16		21
56″	59,57,18,12,24,24,17,33,51, 1		4,22,59,32, 8	
		4,51,44,18,27, 3, 8		21
58″	59,57,18,17,16, 8,36, 0,54, 9		4,22,59,32,29	
		4,51,39,55,27,30,39		
60″	59,57,18,22, 7,48,31,28,24,48			
exact	59,57,18,22, 7,48,31,27,53,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°47′ 0″	59,57,18,22, 7,48,31,27,53,48			
		4,51,35,32,27,54,39		
2″	59,57,18,26,59,24, 3,55,48,27		4,22,59,33,23	
		4,51,31, 9,28,21,16		21
4″	59,57,18,31,50,55,13,24, 9,43		4,22,59,33,44	
		4,51,26,46,28,47,32		21
6″	59,57,18,36,42,21,59,52,57,15		4,22,59,34, 5	
		4,51,22,23,29,13,27		21
8″	59,57,18,41,33,44,23,22,10,42		4,22,59,34,26	
		4,51,18, 0,29,39, 1		21
10″	59,57,18,46,25, 2,23,51,49,43		4,22,59,34,47	
		4,51,13,37,30, 4,14		21
12″	59,57,18,51,16,16, 1,21,53,57		4,22,59,35, 8	
		4,51, 9,14,30,29, 6		21
14″	59,57,18,56, 7,25,15,52,23, 3		4,22,59,35,29	
		4,51, 4,51,30,53,37		21
16″	59,57,19, 0,58,30, 7,23,16,40		4,22,59,35,50	
		4,51, 0,28,31,17,47		21
18″	59,57,19, 5,49,30,35,54,34,27		4,22,59,36,11	
		4,50,56, 5,31,41,36		21
20″	59,57,19,10,40,26,41,26,16, 3		4,22,59,36,32	
		4,50,51,42,32, 5, 4		21
22″	59,57,19,15,31,18,23,58,21, 7		4,22,59,36,53	
		4,50,47,19,32,28,11		21
24″	59,57,19,20,22, 5,43,30,49,18		4,22,59,37,14	
		4,50,42,56,32,50,57		21
26″	59,57,19,25,12,48,40, 3,40,15		4,22,59,37,35	
		4,50,38,33,33,13,22		21
28″	59,57,19,30, 3,27,13,36,53,37		4,22,59,37,56	
		4,50,34,10,33,35,26		21
30″	59,57,19,34,54, 1,24,10,29, 3		4,22,59,38,17	
		4,50,29,47,33,57, 9		21
32″	59,57,19,39,44,31,11,44,26,12		4,22,59,38,38	
		4,50,25,24,34,18,31		21
34″	59,57,19,44,34,56,36,18,44,43		4,22,59,38,59	
		4,50,21, 1,34,39,32		21
36″	59,57,19,49,25,17,37,53,24,15		4,22,59,39,20	
		4,50,16,38,35, 0,12		21
38″	59,57,19,54,15,34,16,28,24,27		4,22,59,39,41	
		4,50,12,15,35,20,31		21
40″	59,57,19,59, 5,46,32, 3,44,58		4,22,59,40, 2	
		4,50, 7,52,35,40,29		21
42″	59,57,20, 3,55,54,24,39,25,27		4,22,59,40,23	
		4,50, 3,29,36, 0, 6		21
44″	59,57,20, 8,45,57,54,15,25,33		4,22,59,40,44	
		4,49,59, 6,36,19,22		21
46″	59,57,20,13,35,57, 0,51,44,55		4,22,59,41, 5	
		4,49,54,43,36,38,17		21
48″	59,57,20,18,25,51,44,28,23,12		4,22,59,41,26	
		4,49,50,20,36,56,51		21
50″	59,57,20,23,15,42, 5, 5,20, 3		4,22,59,41,47	
		4,49,45,57,37,15, 4		21
52″	59,57,20,28, 5,28, 2,42,35, 7		4,22,59,42, 8	
		4,49,41,34,37,32,56		21
54″	59,57,20,32,55, 9,37,20, 8, 3		4,22,59,42,29	
		4,49,37,11,37,50,27		21
56″	59,57,20,37,44,46,48,57,58,30		4,22,59,42,50	
		4,49,32,48,38, 7,37		21
58″	59,57,20,42,34,19,37,36, 6, 7		4,22,59,43,11	
		4,49,28,25,38,24,26		
60″	59,57,20,47,23,48, 3,14,30,33			
exact	59,57,20,47,23,48, 3,14,11,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°48′ 0″	59,57,20,47,23,48, 3,14,11,34			
		4,49,24, 2,38,38,58		
2″	59,57,20,52,13,12, 5,52,50,32		4,22,59,44, 0	
		4,49,19,39,38,54,58		21
4″	59,57,20,57, 2,31,45,31,45,30		4,22,59,44,21	
		4,49,15,16,39,10,37		21
6″	59,57,21, 1,51,47, 2,10,56, 7		4,22,59,44,42	
		4,49,10,53,39,25,55		21
8″	59,57,21, 6,40,57,55,50,22, 2		4,22,59,45, 3	
		4,49, 6,30,39,40,52		21
10″	59,57,21,11,30, 4,26,30, 2,54		4,22,59,45,24	
		4,49, 2, 7,39,55,28		21
12″	59,57,21,16,19, 6,34, 9,58,22		4,22,59,45,45	
		4,48,57,44,40, 9,43		21
14″	59,57,21,21, 8, 4,18,50, 8, 5		4,22,59,46, 6	
		4,48,53,21,40,23,37		21
16″	59,57,21,25,56,57,40,30,31,42		4,22,59,46,27	
		4,48,48,58,40,37,10		21
18″	59,57,21,30,45,46,39,11, 8,52		4,22,59,46,48	
		4,48,44,35,40,50,22		21
20″	59,57,21,35,34,31,14,51,59,14		4,22,59,47, 9	
		4,48,40,12,41, 3,13		21
22″	59,57,21,40,23,11,27,33, 2,27		4,22,59,47,30	
		4,48,35,49,41,15,43		21
24″	59,57,21,45,11,47,17,14,18,10		4,22,59,47,51	
		4,48,31,26,41,27,52		21
26″	59,57,21,50, 0,18,43,55,46, 2		4,22,59,48,12	
		4,48,27, 3,41,39,40		21
28″	59,57,21,54,48,45,47,37,25,42		4,22,59,48,33	
		4,48,22,40,41,51, 7		21
30″	59,57,21,59,37, 8,28,19,16,49		4,22,59,48,54	
		4,48,18,17,42, 2,13		21
32″	59,57,22, 4,25,26,46, 1,19, 2		4,22,59,49,15	
		4,48,13,54,42,12,58		21
34″	59,57,22, 9,13,40,40,43,32, 0		4,22,59,49,36	
		4,48, 9,31,42,23,22		21
36″	59,57,22,14, 1,50,12,25,55,22		4,22,59,49,57	
		4,48, 5, 8,42,33,25		21
38″	59,57,22,18,49,55,21, 8,28,47		4,22,59,50,18	
		4,48, 0,45,42,43, 7		21
40″	59,57,22,23,37,56, 6,51,11,54		4,22,59,50,39	
		4,47,56,22,42,52,28		21
42″	59,57,22,28,25,52,29,34, 4,22		4,22,59,51, 0	
		4,47,51,59,43, 1,28		21
44″	59,57,22,33,13,44,29,17, 5,50		4,22,59,51,21	
		4,47,47,36,43,10, 7		21
46″	59,57,22,38, 1,32, 6, 0,15,57		4,22,59,51,42	
		4,47,43,13,43,18,25		21
48″	59,57,22,42,49,15,19,43,34,22		4,22,59,52, 3	
		4,47,38,50,43,26,22		21
50″	59,57,22,47,36,54,10,27, 0,44		4,22,59,52,24	
		4,47,34,27,43,33,58		21
52″	59,57,22,52,24,28,38,10,34,42		4,22,59,52,45	
		4,47,30, 4,43,41,13		21
54″	59,57,22,57,11,58,42,54,15,55		4,22,59,53, 6	
		4,47,25,41,43,48, 7		21
56″	59,57,23, 1,59,24,24,38, 4, 2		4,22,59,53,27	
		4,47,21,18,43,54,40		21
58″	59,57,23, 6,46,45,43,21,58,42		4,22,59,53,48	
		4,47,16,55,44, 0,52		
60″	59,57,23,11,34, 2,39, 5,59,34			
exact	59,57,23,11,34, 2,39, 5,51,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°49′ 0″	59,57,23,11,34, 2,39, 5,51,12			
		4,47,12,32,44, 5,56		
2″	59,57,23,16,21,15,11,49,57, 8		4,22,59,54,32	
		4,47, 8, 9,44,11,24		21
4″	59,57,23,21, 8,23,21,34, 8,32		4,22,59,54,53	
		4,47, 3,46,44,16,31		21
6″	59,57,23,25,55,27, 8,18,25, 3		4,22,59,55,14	
		4,46,59,23,44,21,17		21
8″	59,57,23,30,42,26,32, 2,46,20		4,22,59,55,35	
		4,46,55, 0,44,25,42		21
10″	59,57,23,35,29,21,32,47,12, 2		4,22,59,55,56	
		4,46,50,37,44,29,46		21
12″	59,57,23,40,16,12,10,31,41,48		4,22,59,56,17	
		4,46,46,14,44,33,29		21
14″	59,57,23,45, 2,58,25,16,15,17		4,22,59,56,38	
		4,46,41,51,44,36,51		21
16″	59,57,23,49,49,40,17, 0,52, 8		4,22,59,56,59	
		4,46,37,28,44,39,52		21
18″	59,57,23,54,36,17,45,45,32, 0		4,22,59,57,20	
		4,46,33, 5,44,42,32		21
20″	59,57,23,59,22,50,51,30,14,32		4,22,59,57,41	
		4,46,28,42,44,44,51		21
22″	59,57,24, 4, 9,19,34,14,59,23		4,22,59,58, 2	
		4,46,24,19,44,46,49		21
24″	59,57,24, 8,55,43,53,59,46,12		4,22,59,58,23	
		4,46,19,56,44,48,26		21
26″	59,57,24,13,42, 3,50,44,34,38		4,22,59,58,44	
		4,46,15,33,44,49,42		21
28″	59,57,24,18,28,19,24,29,24,20		4,22,59,59, 5	
		4,46,11,10,44,50,37		21
30″	59,57,24,23,14,30,35,14,14,57		4,22,59,59,26	
		4,46, 6,47,44,51,11		21
32″	59,57,24,28, 0,37,22,59, 6, 8		4,22,59,59,47	
		4,46, 2,24,44,51,24		21
34″	59,57,24,32,46,39,47,43,57,32		4,23, 0, 0, 8	
		4,45,58, 1,44,51,16		21
36″	59,57,24,37,32,37,49,28,48,48		4,23, 0, 0,29	
		4,45,53,38,44,50,47		21
38″	59,57,24,42,18,31,28,13,39,35		4,23, 0, 0,50	
		4,45,49,15,44,49,57		21
40″	59,57,24,47, 4,20,43,58,29,32		4,23, 0, 1,11	
		4,45,44,52,44,48,46		21
42″	59,57,24,51,50, 5,36,43,18,18		4,23, 0, 1,32	
		4,45,40,29,44,47,14		21
44″	59,57,24,56,35,46, 6,28, 5,32		4,23, 0, 1,53	
		4,45,36, 6,44,45,21		21
46″	59,57,25, 1,21,22,13,12,50,53		4,23, 0, 2,14	
		4,45,31,43,44,43, 7		21
48″	59,57,25, 6, 6,53,56,57,34, 0		4,23, 0, 2,35	
		4,45,27,20,44,40,32		21
50″	59,57,25,10,52,21,17,42,14,32		4,23, 0, 2,56	
		4,45,22,57,44,37,36		21
52″	59,57,25,15,37,44,15,26,52, 8		4,23, 0, 3,17	
		4,45,18,34,44,34,19		21
54″	59,57,25,20,23, 2,50,11,26,27		4,23, 0, 3,38	
		4,45,14,11,44,30,41		21
56″	59,57,25,25, 8,17, 1,55,57, 8		4,23, 0, 3,59	
		4,45, 9,48,44,26,42		21
58″	59,57,25,29,53,26,50,40,23,50		4,23, 0, 4,20	
		4,45, 5,25,44,22,22		
60″	59,57,25,34,38,32,16,24,46,12			
exact	59,57,25,34,38,32,16,24,46,39			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°50′ 0″	59,57,25,34,38,32,16,24,46,39			
		4,45, 1, 2,44,17,56		
2″	59,57,25,39,23,33,19, 9, 4,35		4,23, 0, 5, 0	
		4,44,56,39,44,12,56		21
4″	59,57,25,44, 8,29,58,53,17,31		4,23, 0, 5,21	
		4,44,52,16,44, 7,35		21
6″	59,57,25,48,53,22,15,37,25, 6		4,23, 0, 5,42	
		4,44,47,53,44, 1,53		21
8″	59,57,25,53,38,10, 9,21,26,59		4,23, 0, 6, 3	
		4,44,43,30,43,55,50		21
10″	59,57,25,58,22,53,40, 5,22,49		4,23, 0, 6,24	
		4,44,39, 7,43,49,26		21
12″	59,57,26, 3, 7,32,47,49,12,15		4,23, 0, 6,45	
		4,44,34,44,43,42,41		21
14″	59,57,26, 7,52, 7,32,32,54,56		4,23, 0, 7, 6	
		4,44,30,21,43,35,35		21
16″	59,57,26,12,36,37,54,16,30,31		4,23, 0, 7,27	
		4,44,25,58,43,28, 8		21
18″	59,57,26,17,21, 3,52,59,58,39		4,23, 0, 7,48	
		4,44,21,35,43,20,20		21
20″	59,57,26,22, 5,25,28,43,18,59		4,23, 0, 8, 9	
		4,44,17,12,43,12,11		21
22″	59,57,26,26,49,42,41,26,31,10		4,23, 0, 8,30	
		4,44,12,49,43, 3,41		21
24″	59,57,26,31,33,55,31, 9,34,51		4,23, 0, 8,51	
		4,44, 8,26,42,54,50		21
26″	59,57,26,36,18, 3,57,52,29,41		4,23, 0, 9,12	
		4,44, 4, 3,42,45,38		21
28″	59,57,26,41, 2, 8, 1,35,15,19		4,23, 0, 9,33	
		4,43,59,40,42,36, 5		21
30″	59,57,26,45,46, 7,42,17,51,24		4,23, 0, 9,54	
		4,43,55,17,42,26,11		21
32″	59,57,26,50,30, 3, 0, 0,17,35		4,23, 0,10,15	
		4,43,50,54,42,15,56		21
34″	59,57,26,55,13,53,54,42,33,31		4,23, 0,10,36	
		4,43,46,31,42, 5,20		21
36″	59,57,26,59,57,40,26,24,38,51		4,23, 0,10,57	
		4,43,42, 8,41,54,23		21
38″	59,57,27, 4,41,22,35, 6,33,14		4,23, 0,11,18	
		4,43,37,45,41,43, 5		21
40″	59,57,27, 9,25, 0,20,48,16,19		4,23, 0,11,39	
		4,43,33,22,41,31,26		21
42″	59,57,27,14, 8,33,43,29,47,45		4,23, 0,12, 0	
		4,43,28,59,41,19,26		21
44″	59,57,27,18,52, 2,43,11, 7,11		4,23, 0,12,21	
		4,43,24,36,41, 7, 5		21
46″	59,57,27,23,35,27,19,52,14,16		4,23, 0,12,42	
		4,43,20,13,40,54,23		21
48″	59,57,27,28,18,47,33,33, 8,39		4,23, 0,13, 3	
		4,43,15,50,40,41,20		21
50″	59,57,27,33, 2, 3,24,13,49,59		4,23, 0,13,24	
		4,43,11,27,40,27,56		21
52″	59,57,27,37,45,14,51,54,17,55		4,23, 0,13,45	
		4,43, 7, 4,40,14,11		21
54″	59,57,27,42,28,21,56,34,32, 6		4,23, 0,14, 6	
		4,43, 2,41,40, 0, 5		21
56″	59,57,27,47,11,24,38,14,32,11		4,23, 0,14,27	
		4,42,58,18,39,45,38		21
58″	59,57,27,51,54,22,56,54,17,49		4,23, 0,14,48	
		4,42,53,55,39,30,50		
60″	59,57,27,56,37,16,52,33,48,39			
exact	59,57,27,56,37,16,52,34, 3,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°51′ 0″	59,57,27,56,37,16,52,34, 3,56			
		4,42,49,32,39,17,22		
2″	59,57,28, 1,20, 6,25,13,21,18		4,23, 0,15,22	
		4,42,45, 9,39, 2, 0		21
4″	59,57,28, 6, 2,51,34,52,23,18		4,23, 0,15,43	
		4,42,40,46,38,46,17		21
6″	59,57,28,10,45,32,21,31, 9,35		4,23, 0,16, 4	
		4,42,36,23,38,30,13		21
8″	59,57,28,15,28, 8,45, 9,39,48		4,23, 0,16,25	
		4,42,32, 0,38,13,48		21
10″	59,57,28,20,10,40,45,47,53,36		4,23, 0,16,46	
		4,42,27,37,37,57, 2		21
12″	59,57,28,24,53, 8,23,25,50,38		4,23, 0,17, 7	
		4,42,23,14,37,39,55		21
14″	59,57,28,29,35,31,38, 3,30,33		4,23, 0,17,28	
		4,42,18,51,37,22,27		21
16″	59,57,28,34,17,50,29,40,53, 0		4,23, 0,17,49	
		4,42,14,28,37, 4,38		21
18″	59,57,28,39, 0, 4,58,17,57,38		4,23, 0,18,10	
		4,42,10, 5,36,46,28		21
20″	59,57,28,43,42,15, 3,54,44, 6		4,23, 0,18,31	
		4,42, 5,42,36,27,57		21
22″	59,57,28,48,24,20,46,31,12, 3		4,23, 0,18,52	
		4,42, 1,19,36, 9, 5		21
24″	59,57,28,53, 6,22, 6, 7,21, 8		4,23, 0,19,13	
		4,41,56,56,35,49,52		21
26″	59,57,28,57,48,19, 2,43,11, 0		4,23, 0,19,34	
		4,41,52,33,35,30,18		21
28″	59,57,29, 2,30,11,36,18,41,18		4,23, 0,19,55	
		4,41,48,10,35,10,23		21
30″	59,57,29, 7,11,59,46,53,51,41		4,23, 0,20,16	
		4,41,43,47,34,50, 7		21
32″	59,57,29,11,53,43,34,28,41,48		4,23, 0,20,37	
		4,41,39,24,34,29,30		21
34″	59,57,29,16,35,22,59, 3,11,18		4,23, 0,20,58	
		4,41,35, 1,34, 8,32		21
36″	59,57,29,21,16,58, 0,37,19,50		4,23, 0,21,19	
		4,41,30,38,33,47,13		21
38″	59,57,29,25,58,28,39,11, 7, 3		4,23, 0,21,40	
		4,41,26,15,33,25,33		21
40″	59,57,29,30,39,54,54,44,32,36		4,23, 0,22, 1	
		4,41,21,52,33, 3,32		21
42″	59,57,29,35,21,16,47,17,36, 8		4,23, 0,22,22	
		4,41,17,29,32,41,10		21
44″	59,57,29,40, 2,34,16,50,17,18		4,23, 0,22,43	
		4,41,13, 6,32,18,27		21
46″	59,57,29,44,43,47,23,22,35,45		4,23, 0,23, 4	
		4,41, 8,43,31,55,23		21
48″	59,57,29,49,24,56, 6,54,31, 8		4,23, 0,23,25	
		4,41, 4,20,31,31,58		21
50″	59,57,29,54, 6, 0,27,26, 3, 6		4,23, 0,23,46	
		4,40,59,57,31, 8,12		21
52″	59,57,29,58,47, 0,24,57,11,18		4,23, 0,24, 7	
		4,40,55,34,30,44, 5		21
54″	59,57,30, 3,27,55,59,27,55,23		4,23, 0,24,28	
		4,40,51,11,30,19,37		21
56″	59,57,30, 8, 8,47,10,58,15, 0		4,23, 0,24,49	
		4,40,46,48,29,54,48		21
58″	59,57,30,12,49,33,59,28, 9,48		4,23, 0,25,10	
		4,40,42,25,29,29,38		
60″	59,57,30,17,30,16,24,57,39,26			
exact	59,57,30,17,30,16,24,58, 1,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°52′ 0″	59,57,30,17,30,16,24,58, 1,14			
		4,40,38, 2,29, 6,39		
2″	59,57,30,22,10,54,27,27, 7,53		4,23, 0,25,40	
		4,40,33,39,28,40,59		21
4″	59,57,30,26,51,28, 6,55,48,52		4,23, 0,26, 1	
		4,40,29,16,28,14,58		21
6″	59,57,30,31,31,57,23,24, 3,50		4,23, 0,26,22	
		4,40,24,53,27,48,36		21
8″	59,57,30,36,12,22,16,51,52,26		4,23, 0,26,43	
		4,40,20,30,27,21,53		21
10″	59,57,30,40,52,42,47,19,14,19		4,23, 0,27, 4	
		4,40,16, 7,26,54,49		21
12″	59,57,30,45,32,58,54,46, 9, 8		4,23, 0,27,25	
		4,40,11,44,26,27,24		21
14″	59,57,30,50,13,10,39,12,36,32		4,23, 0,27,46	
		4,40, 7,21,25,59,38		21
16″	59,57,30,54,53,18, 0,38,36,10		4,23, 0,28, 7	
		4,40, 2,58,25,31,31		21
18″	59,57,30,59,33,20,59, 4, 7,41		4,23, 0,28,28	
		4,39,58,35,25, 3, 3		21
20″	59,57,31, 4,13,19,34,29,10,44		4,23, 0,28,49	
		4,39,54,12,24,34,14		21
22″	59,57,31, 8,53,13,46,53,44,58		4,23, 0,29,10	
		4,39,49,49,24, 5, 4		21
24″	59,57,31,13,33, 3,36,17,50, 2		4,23, 0,29,31	
		4,39,45,26,23,35,33		21
26″	59,57,31,18,12,49, 2,41,25,35		4,23, 0,29,52	
		4,39,41, 3,23, 5,41		21
28″	59,57,31,22,52,30, 6, 4,31,16		4,23, 0,30,13	
		4,39,36,40,22,35,28		21
30″	59,57,31,27,32, 6,46,27, 6,44		4,23, 0,30,34	
		4,39,32,17,22, 4,54		21
32″	59,57,31,32,11,39, 3,49,11,38		4,23, 0,30,55	
		4,39,27,54,21,33,59		21
34″	59,57,31,36,51, 6,58,10,45,37		4,23, 0,31,16	
		4,39,23,31,21, 2,43		21
36″	59,57,31,41,30,30,29,31,48,20		4,23, 0,31,37	
		4,39,19, 8,20,31, 6		21
38″	59,57,31,46, 9,49,37,52,19,26		4,23, 0,31,58	
		4,39,14,45,19,59, 8		21
40″	59,57,31,50,49, 4,23,12,18,34		4,23, 0,32,19	
		4,39,10,22,19,26,49		21
42″	59,57,31,55,28,14,45,31,45,23		4,23, 0,32,40	
		4,39, 5,59,18,54, 9		21
44″	59,57,32, 0, 7,20,44,50,39,32		4,23, 0,33, 1	
		4,39, 1,36,18,21, 8		21
46″	59,57,32, 4,46,22,21, 9, 0,40		4,23, 0,33,22	
		4,38,57,13,17,47,46		21
48″	59,57,32, 9,25,19,34,26,48,26		4,23, 0,33,43	
		4,38,52,50,17,14, 3		21
50″	59,57,32,14, 4,12,24,44, 2,29		4,23, 0,34, 4	
		4,38,48,27,16,39,59		21
52″	59,57,32,18,43, 0,52, 0,42,28		4,23, 0,34,25	
		4,38,44, 4,16, 5,34		21
54″	59,57,32,23,21,44,56,16,48, 2		4,23, 0,34,46	
		4,38,39,41,15,30,48		21
56″	59,57,32,28, 0,24,37,32,18,50		4,23, 0,35, 7	
		4,38,35,18,14,55,41		21
58″	59,57,32,32,38,59,55,47,14,31		4,23, 0,35,28	
		4,38,30,55,14,20,13		
60″	59,57,32,37,17,30,51, 1,34,44			
exact	59,57,32,37,17,30,51, 2, 8,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°53′ 0″	59,57,32,37,17,30,51, 2, 8,48			
		4,38,26,32,13,48,12		
2″	59,57,32,41,55,57,23,15,57, 0		4,23, 0,35,53	
		4,38,22, 9,13,12,19		20
4″	59,57,32,46,34,19,32,29, 9,19		4,23, 0,36,13	
		4,38,17,46,12,36, 6		20
6″	59,57,32,51,12,37,18,41,45,25		4,23, 0,36,33	
		4,38,13,23,11,59,33		20
8″	59,57,32,55,50,50,41,53,44,58		4,23, 0,36,53	
		4,38, 9, 0,11,22,40		20
10″	59,57,33, 0,28,59,42, 5, 7,38		4,23, 0,37,13	
		4,38, 4,37,10,45,27		20
12″	59,57,33, 5, 7, 4,19,15,53, 5		4,23, 0,37,33	
		4,38, 0,14,10, 7,54		20
14″	59,57,33, 9,45, 4,33,26, 0,59		4,23, 0,37,53	
		4,37,55,51, 9,30, 1		20
16″	59,57,33,14,23, 0,24,35,31, 0		4,23, 0,38,13	
		4,37,51,28, 8,51,48		20
18″	59,57,33,19, 0,51,52,44,22,48		4,23, 0,38,33	
		4,37,47, 5, 8,13,15		20
20″	59,57,33,23,38,38,57,52,36, 3		4,23, 0,38,53	
		4,37,42,42, 7,34,22		20
22″	59,57,33,28,16,21,40, 0,10,25		4,23, 0,39,13	
		4,37,38,19, 6,55, 9		20
24″	59,57,33,32,53,59,59, 7, 5,34		4,23, 0,39,33	
		4,37,33,56, 6,15,36		20
26″	59,57,33,37,31,33,55,13,21,10		4,23, 0,39,53	
		4,37,29,33, 5,35,43		20
28″	59,57,33,42, 9, 3,28,18,56,53		4,23, 0,40,13	
		4,37,25,10, 4,55,30		20
30″	59,57,33,46,46,28,38,23,52,23		4,23, 0,40,33	
		4,37,20,47, 4,14,57		20
32″	59,57,33,51,23,49,25,28, 7,20		4,23, 0,40,53	
		4,37,16,24, 3,34, 4		20
34″	59,57,33,56, 1, 5,49,31,41,24		4,23, 0,41,13	
		4,37,12, 1, 2,52,51		20
36″	59,57,34, 0,38,17,50,34,34,15		4,23, 0,41,33	
		4,37, 7,38, 2,11,18		20
38″	59,57,34, 5,15,25,28,36,45,33		4,23, 0,41,53	
		4,37, 3,15, 1,29,25		20
40″	59,57,34, 9,52,28,43,38,14,58		4,23, 0,42,13	
		4,36,58,52, 0,47,12		20
42″	59,57,34,14,29,27,35,39, 2,10		4,23, 0,42,33	
		4,36,54,29, 0, 4,39		20
44″	59,57,34,19, 6,22, 4,39, 6,49		4,23, 0,42,53	
		4,36,50, 5,59,21,46		20
46″	59,57,34,23,43,12,10,38,28,35		4,23, 0,43,13	
		4,36,45,42,58,38,33		20
48″	59,57,34,28,19,57,53,37, 7, 8		4,23, 0,43,33	
		4,36,41,19,57,55, 0		20
50″	59,57,34,32,56,39,13,35, 2, 8		4,23, 0,43,53	
		4,36,36,56,57,11, 7		20
52″	59,57,34,37,33,16,10,32,13,15		4,23, 0,44,13	
		4,36,32,33,56,26,54		20
54″	59,57,34,42, 9,48,44,28,40, 9		4,23, 0,44,33	
		4,36,28,10,55,42,21		20
56″	59,57,34,46,46,16,55,24,22,30		4,23, 0,44,53	
		4,36,23,47,54,57,28		20
58″	59,57,34,51,22,40,43,19,19,58		4,23, 0,45,13	
		4,36,19,24,54,12,15		
60″	59,57,34,55,59, 0, 8,13,32,13			
exact	59,57,34,55,59, 0, 8,13, 9, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°54′ 0″	59,57,34,55,59, 0, 8,13, 9, 0			
		4,36,15, 1,53,24,23		
2″	59,57,35, 0,35,15,10, 6,33,23		4,23, 0,46, 1	
		4,36,10,38,52,38,22		20
4″	59,57,35, 5,11,25,48,59,11,45		4,23, 0,46,21	
		4,36, 6,15,51,52, 1		20
6″	59,57,35, 9,47,32, 4,51, 3,46		4,23, 0,46,41	
		4,36, 1,52,51, 5,20		20
8″	59,57,35,14,23,33,57,42, 9, 6		4,23, 0,47, 1	
		4,35,57,29,50,18,19		20
10″	59,57,35,18,59,31,27,32,27,25		4,23, 0,47,21	
		4,35,53, 6,49,30,58		20
12″	59,57,35,23,35,24,34,21,58,23		4,23, 0,47,41	
		4,35,48,43,48,43,17		20
14″	59,57,35,28,11,13,18,10,41,40		4,23, 0,48, 1	
		4,35,44,20,47,55,16		20
16″	59,57,35,32,46,57,38,58,36,56		4,23, 0,48,21	
		4,35,39,57,47, 6,55		20
18″	59,57,35,37,22,37,36,45,43,51		4,23, 0,48,41	
		4,35,35,34,46,18,14		20
20″	59,57,35,41,58,13,11,32, 2, 5		4,23, 0,49, 1	
		4,35,31,11,45,29,13		20
22″	59,57,35,46,33,44,23,17,31,18		4,23, 0,49,21	
		4,35,26,48,44,39,52		20
24″	59,57,35,51, 9,11,12, 2,11,10		4,23, 0,49,41	
		4,35,22,25,43,50,11		20
26″	59,57,35,55,44,33,37,46, 1,21		4,23, 0,50, 1	
		4,35,18, 2,43, 0,10		20
28″	59,57,36, 0,19,51,40,29, 1,31		4,23, 0,50,21	
		4,35,13,39,42, 9,49		20
30″	59,57,36, 4,55, 5,20,11,11,20		4,23, 0,50,41	
		4,35, 9,16,41,19, 8		20
32″	59,57,36, 9,30,14,36,52,30,28		4,23, 0,51, 1	
		4,35, 4,53,40,28, 7		20
34″	59,57,36,14, 5,19,30,32,58,35		4,23, 0,51,21	
		4,35, 0,30,39,36,46		20
36″	59,57,36,18,40,20, 1,12,35,21		4,23, 0,51,41	
		4,34,56, 7,38,45, 5		20
38″	59,57,36,23,15,16, 8,51,20,26		4,23, 0,52, 1	
		4,34,51,44,37,53, 4		20
40″	59,57,36,27,50, 7,53,29,13,30		4,23, 0,52,21	
		4,34,47,21,37, 0,43		20
42″	59,57,36,32,24,55,15, 6,14,13		4,23, 0,52,41	
		4,34,42,58,36, 8, 2		20
44″	59,57,36,36,59,38,13,42,22,15		4,23, 0,53, 1	
		4,34,38,35,35,15, 1		20
46″	59,57,36,41,34,16,49,17,37,16		4,23, 0,53,21	
		4,34,34,12,34,21,40		20
48″	59,57,36,46, 8,51, 1,51,58,56		4,23, 0,53,41	
		4,34,29,49,33,27,59		20
50″	59,57,36,50,43,20,51,25,26,55		4,23, 0,54, 1	
		4,34,25,26,32,33,58		20
52″	59,57,36,55,17,46,17,58, 0,53		4,23, 0,54,21	
		4,34,21, 3,31,39,37		20
54″	59,57,36,59,52, 7,21,29,40,30		4,23, 0,54,41	
		4,34,16,40,30,44,56		20
56″	59,57,37, 4,26,24, 2, 0,25,26		4,23, 0,55, 1	
		4,34,12,17,29,49,55		20
58″	59,57,37, 9, 0,36,19,30,15,21		4,23, 0,55,21	
		4,34, 7,54,28,54,34		
60″	59,57,37,13,34,44,13,59, 9,55			
exact	59,57,37,13,34,44,13,58,56,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°55′ 0″	59,57,37,13,34,44,13,58,56,17			
		4,34, 3,31,27,57,38		
2″	59,57,37,18, 8,47,45,26,53,55		4,23, 0,56, 5	
		4,33,59, 8,27, 1,33		20
4″	59,57,37,22,42,46,53,53,55,28		4,23, 0,56,25	
		4,33,54,45,26, 5, 8		20
6″	59,57,37,27,16,41,39,20, 0,36		4,23, 0,56,45	
		4,33,50,22,25, 8,23		20
8″	59,57,37,31,50,32, 1,45, 8,59		4,23, 0,57, 5	
		4,33,45,59,24,11,18		20
10″	59,57,37,36,24,18, 1, 9,20,17		4,23, 0,57,25	
		4,33,41,36,23,13,53		20
12″	59,57,37,40,57,59,37,32,34,10		4,23, 0,57,45	
		4,33,37,13,22,16, 8		20
14″	59,57,37,45,31,36,50,54,50,18		4,23, 0,58, 5	
		4,33,32,50,21,18, 3		20
16″	59,57,37,50, 5, 9,41,16, 8,21		4,23, 0,58,25	
		4,33,28,27,20,19,38		20
18″	59,57,37,54,38,38, 8,36,27,59		4,23, 0,58,45	
		4,33,24, 4,19,20,53		20
20″	59,57,37,59,12, 2,12,55,48,52		4,23, 0,59, 5	
		4,33,19,41,18,21,48		20
22″	59,57,38, 3,45,21,54,14,10,40		4,23, 0,59,25	
		4,33,15,18,17,22,23		20
24″	59,57,38, 8,18,37,12,31,33, 3		4,23, 0,59,45	
		4,33,10,55,16,22,38		20
26″	59,57,38,12,51,48, 7,47,55,41		4,23, 1, 0, 5	
		4,33, 6,32,15,22,33		20
28″	59,57,38,17,24,54,40, 3,18,14		4,23, 1, 0,25	
		4,33, 2, 9,14,22, 8		20
30″	59,57,38,21,57,56,49,17,40,22		4,23, 1, 0,45	
		4,32,57,46,13,21,23		20
32″	59,57,38,26,30,54,35,31, 1,45		4,23, 1, 1, 5	
		4,32,53,23,12,20,18		20
34″	59,57,38,31, 3,47,58,43,22, 3		4,23, 1, 1,25	
		4,32,49, 0,11,18,53		20
36″	59,57,38,35,36,36,58,54,40,56		4,23, 1, 1,45	
		4,32,44,37,10,17, 8		20
38″	59,57,38,40, 9,21,36, 4,58, 4		4,23, 1, 2, 5	
		4,32,40,14, 9,15, 3		20
40″	59,57,38,44,42, 1,50,14,13, 7		4,23, 1, 2,25	
		4,32,35,51, 8,12,38		20
42″	59,57,38,49,14,37,41,22,25,45		4,23, 1, 2,45	
		4,32,31,28, 7, 9,53		20
44″	59,57,38,53,47, 9, 9,29,35,38		4,23, 1, 3, 5	
		4,32,27, 5, 6, 6,48		20
46″	59,57,38,58,19,36,14,35,42,26		4,23, 1, 3,25	
		4,32,22,42, 5, 3,23		20
48″	59,57,39, 2,51,58,56,40,45,49		4,23, 1, 3,45	
		4,32,18,19, 3,59,38		20
50″	59,57,39, 7,24,17,15,44,45,27		4,23, 1, 4, 5	
		4,32,13,56, 2,55,33		20
52″	59,57,39,11,56,31,11,47,41, 0		4,23, 1, 4,25	
		4,32, 9,33, 1,51, 8		20
54″	59,57,39,16,28,40,44,49,32, 8		4,23, 1, 4,45	
		4,32, 5,10, 0,46,23		20
56″	59,57,39,21, 0,45,54,50,18,31		4,23, 1, 5, 5	
		4,32, 0,46,59,41,18		20
58″	59,57,39,25,32,46,41,49,59,49		4,23, 1, 5,25	
		4,31,56,23,58,35,53		
60″	59,57,39,30, 4,43, 5,48,35,42			
exact	59,57,39,30, 4,43, 5,48,37,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°56′ 0″	59,57,39,30, 4,43, 5,48,37,14			
		4,31,52, 0,57,30,21		
2″	59,57,39,34,36,35, 6,46, 7,35		4,23, 1, 6, 3	
		4,31,47,37,56,24,18		20
4″	59,57,39,39, 8,22,44,42,31,53		4,23, 1, 6,23	
		4,31,43,14,55,17,55		20
6″	59,57,39,43,40, 5,59,37,49,48		4,23, 1, 6,43	
		4,31,38,51,54,11,12		20
8″	59,57,39,48,11,44,51,32, 1, 0		4,23, 1, 7, 3	
		4,31,34,28,53, 4, 9		20
10″	59,57,39,52,43,19,20,25, 5, 9		4,23, 1, 7,23	
		4,31,30, 5,51,56,46		20
12″	59,57,39,57,14,49,26,17, 1,55		4,23, 1, 7,43	
		4,31,25,42,50,49, 3		20
14″	59,57,40, 1,46,15, 9, 7,50,58		4,23, 1, 8, 3	
		4,31,21,19,49,41, 0		20
16″	59,57,40, 6,17,36,28,57,31,58		4,23, 1, 8,23	
		4,31,16,56,48,32,37		20
18″	59,57,40,10,48,53,25,46, 4,35		4,23, 1, 8,43	
		4,31,12,33,47,23,54		20
20″	59,57,40,15,20, 5,59,33,28,29		4,23, 1, 9, 3	
		4,31, 8,10,46,14,51		20
22″	59,57,40,19,51,14,10,19,43,20		4,23, 1, 9,23	
		4,31, 3,47,45, 5,28		20
24″	59,57,40,24,22,17,58, 4,48,48		4,23, 1, 9,43	
		4,30,59,24,43,55,45		20
26″	59,57,40,28,53,17,22,48,44,33		4,23, 1,10, 3	
		4,30,55, 1,42,45,42		20
28″	59,57,40,33,24,12,24,31,30,15		4,23, 1,10,23	
		4,30,50,38,41,35,19		20
30″	59,57,40,37,55, 3, 3,13, 5,34		4,23, 1,10,43	
		4,30,46,15,40,24,36		20
32″	59,57,40,42,25,49,18,53,30,10		4,23, 1,11, 3	
		4,30,41,52,39,13,33		20
34″	59,57,40,46,56,31,11,32,43,43		4,23, 1,11,23	
		4,30,37,29,38, 2,10		20
36″	59,57,40,51,27, 8,41,10,45,53		4,23, 1,11,43	
		4,30,33, 6,36,50,27		20
38″	59,57,40,55,57,41,47,47,36,20		4,23, 1,12, 3	
		4,30,28,43,35,38,24		20
40″	59,57,41, 0,28,10,31,23,14,44		4,23, 1,12,23	
		4,30,24,20,34,26, 1		20
42″	59,57,41, 4,58,34,51,57,40,45		4,23, 1,12,43	
		4,30,19,57,33,13,18		20
44″	59,57,41, 9,28,54,49,30,54, 3		4,23, 1,13, 3	
		4,30,15,34,32, 0,15		20
46″	59,57,41,13,59,10,24, 2,54,18		4,23, 1,13,23	
		4,30,11,11,30,46,52		20
48″	59,57,41,18,29,21,35,33,41,10		4,23, 1,13,43	
		4,30, 6,48,29,33, 9		20
50″	59,57,41,22,59,28,24, 3,14,19		4,23, 1,14, 3	
		4,30, 2,25,28,19, 6		20
52″	59,57,41,27,29,30,49,31,33,25		4,23, 1,14,23	
		4,29,58, 2,27, 4,43		20
54″	59,57,41,31,59,28,51,58,38, 8		4,23, 1,14,43	
		4,29,53,39,25,50, 0		20
56″	59,57,41,36,29,22,31,24,28, 8		4,23, 1,15, 3	
		4,29,49,16,24,34,57		20
58″	59,57,41,40,59,11,47,49, 3, 5		4,23, 1,15,23	
		4,29,44,53,23,19,34		
60″	59,57,41,45,28,56,41,12,22,39			
exact	59,57,41,45,28,56,41,12,30,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°57′ 0″	59,57,41,45,28,56,41,12,30,32			
		4,29,40,30,22, 4,55		
2″	59,57,41,49,58,37,11,34,35,27		4,23, 1,15,57	
		4,29,36, 7,20,48,58		20
4″	59,57,41,54,28,13,18,55,24,25		4,23, 1,16,17	
		4,29,31,44,19,32,41		20
6″	59,57,41,58,57,45, 3,14,57, 6		4,23, 1,16,37	
		4,29,27,21,18,16, 4		20
8″	59,57,42, 3,27,12,24,33,13,10		4,23, 1,16,57	
		4,29,22,58,16,59, 7		20
10″	59,57,42, 7,56,35,22,50,12,17		4,23, 1,17,17	
		4,29,18,35,15,41,50		20
12″	59,57,42,12,25,53,58, 5,54, 7		4,23, 1,17,37	
		4,29,14,12,14,24,13		20
14″	59,57,42,16,55, 8,10,20,18,20		4,23, 1,17,57	
		4,29, 9,49,13, 6,16		20
16″	59,57,42,21,24,17,59,33,24,36		4,23, 1,18,17	
		4,29, 5,26,11,47,59		20
18″	59,57,42,25,53,23,25,45,12,35		4,23, 1,18,37	
		4,29, 1, 3,10,29,22		20
20″	59,57,42,30,22,24,28,55,41,57		4,23, 1,18,57	
		4,28,56,40, 9,10,25		20
22″	59,57,42,34,51,21, 9, 4,52,22		4,23, 1,19,17	
		4,28,52,17, 7,51, 8		20
24″	59,57,42,39,20,13,26,12,43,30		4,23, 1,19,37	
		4,28,47,54, 6,31,31		20
26″	59,57,42,43,49, 1,20,19,15, 1		4,23, 1,19,57	
		4,28,43,31, 5,11,34		20
28″	59,57,42,48,17,44,51,24,26,35		4,23, 1,20,17	
		4,28,39, 8, 3,51,17		20
30″	59,57,42,52,46,23,59,28,17,52		4,23, 1,20,37	
		4,28,34,45, 2,30,40		20
32″	59,57,42,57,14,58,44,30,48,32		4,23, 1,20,57	
		4,28,30,22, 1, 9,43		20
34″	59,57,43, 1,43,29, 6,31,58,15		4,23, 1,21,17	
		4,28,25,58,59,48,26		20
36″	59,57,43, 6,11,55, 5,31,46,41		4,23, 1,21,37	
		4,28,21,35,58,26,49		20
38″	59,57,43,10,40,16,41,30,13,30		4,23, 1,21,57	
		4,28,17,12,57, 4,52		20
40″	59,57,43,15, 8,33,54,27,18,22		4,23, 1,22,17	
		4,28,12,49,55,42,35		20
42″	59,57,43,19,36,46,44,23, 0,57		4,23, 1,22,37	
		4,28, 8,26,54,19,58		20
44″	59,57,43,24, 4,55,11,17,20,55		4,23, 1,22,57	
		4,28, 4, 3,52,57, 1		20
46″	59,57,43,28,32,59,15,10,17,56		4,23, 1,23,17	
		4,27,59,40,51,33,44		20
48″	59,57,43,33, 0,58,56, 1,51,40		4,23, 1,23,37	
		4,27,55,17,50,10, 7		20
50″	59,57,43,37,28,54,13,52, 1,47		4,23, 1,23,57	
		4,27,50,54,48,46,10		20
52″	59,57,43,41,56,45, 8,40,47,57		4,23, 1,24,17	
		4,27,46,31,47,21,53		20
54″	59,57,43,46,24,31,40,28, 9,50		4,23, 1,24,37	
		4,27,42, 8,45,57,16		20
56″	59,57,43,50,52,13,49,14, 7, 6		4,23, 1,24,57	
		4,27,37,45,44,32,19		20
58″	59,57,43,55,19,51,34,58,39,25		4,23, 1,25,17	
		4,27,33,22,43, 7, 2		
60″	59,57,43,59,47,24,57,41,46,27			
exact	59,57,43,59,47,24,57,42, 6,59			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°58′ 0″	59,57,43,59,47,24,57,42, 6,59			
		4,27,28,59,41,43,46		
2″	59,57,44, 4,14,53,57,23,50,45		4,23, 1,25,46	
		4,27,24,36,40,18, 0		20
4″	59,57,44, 8,42,18,34, 4, 8,45		4,23, 1,26, 6	
		4,27,20,13,38,51,54		20
6″	59,57,44,13, 9,38,47,43, 0,39		4,23, 1,26,26	
		4,27,15,50,37,25,28		20
8″	59,57,44,17,36,54,38,20,26, 7		4,23, 1,26,46	
		4,27,11,27,35,58,42		20
10″	59,57,44,22, 4, 6, 5,56,24,49		4,23, 1,27, 6	
		4,27, 7, 4,34,31,36		20
12″	59,57,44,26,31,13,10,30,56,25		4,23, 1,27,26	
		4,27, 2,41,33, 4,10		20
14″	59,57,44,30,58,15,52, 4, 0,35		4,23, 1,27,46	
		4,26,58,18,31,36,24		20
16″	59,57,44,35,25,14,10,35,36,59		4,23, 1,28, 6	
		4,26,53,55,30, 8,18		20
18″	59,57,44,39,52, 8, 6, 5,45,17		4,23, 1,28,26	
		4,26,49,32,28,39,52		20
20″	59,57,44,44,18,57,38,34,25, 9		4,23, 1,28,46	
		4,26,45, 9,27,11, 6		20
22″	59,57,44,48,45,42,48, 1,36,15		4,23, 1,29, 6	
		4,26,40,46,25,42, 0		20
24″	59,57,44,53,12,23,34,27,18,15		4,23, 1,29,26	
		4,26,36,23,24,12,34		20
26″	59,57,44,57,38,59,57,51,30,49		4,23, 1,29,46	
		4,26,32, 0,22,42,48		20
28″	59,57,45, 2, 5,31,58,14,13,37		4,23, 1,30, 6	
		4,26,27,37,21,12,42		20
30″	59,57,45, 6,31,59,35,35,26,19		4,23, 1,30,26	
		4,26,23,14,19,42,16		20
32″	59,57,45,10,58,22,49,55, 8,35		4,23, 1,30,46	
		4,26,18,51,18,11,30		20
34″	59,57,45,15,24,41,41,13,20, 5		4,23, 1,31, 6	
		4,26,14,28,16,40,24		20
36″	59,57,45,19,50,56, 9,30, 0,29		4,23, 1,31,26	
		4,26,10, 5,15, 8,58		20
38″	59,57,45,24,17, 6,14,45, 9,27		4,23, 1,31,46	
		4,26, 5,42,13,37,12		20
40″	59,57,45,28,43,11,56,58,46,39		4,23, 1,32, 6	
		4,26, 1,19,12, 5, 6		20
42″	59,57,45,33, 9,13,16,10,51,45		4,23, 1,32,26	
		4,25,56,56,10,32,40		20
44″	59,57,45,37,35,10,12,21,24,25		4,23, 1,32,46	
		4,25,52,33, 8,59,54		20
46″	59,57,45,42, 1, 2,45,30,24,19		4,23, 1,33, 6	
		4,25,48,10, 7,26,48		20
48″	59,57,45,46,26,50,55,37,51, 7		4,23, 1,33,26	
		4,25,43,47, 5,53,22		20
50″	59,57,45,50,52,34,42,43,44,29		4,23, 1,33,46	
		4,25,39,24, 4,19,36		20
52″	59,57,45,55,18,14, 6,48, 4, 5		4,23, 1,34, 6	
		4,25,35, 1, 2,45,30		20
54″	59,57,45,59,43,49, 7,50,49,35		4,23, 1,34,26	
		4,25,30,38, 1,11, 4		20
56″	59,57,46, 4, 9,19,45,52, 0,39		4,23, 1,34,46	
		4,25,26,14,59,36,18		20
58″	59,57,46, 8,34,46, 0,51,36,57		4,23, 1,35, 6	
		4,25,21,51,58, 1,12		
60″	59,57,46,13, 0, 7,52,49,38, 9			
exact	59,57,46,13, 0, 7,52,50, 9,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
87°59′ 0″	59,57,46,13, 0, 7,52,50, 9,27			
		4,25,17,28,56,29,17		
2″	59,57,46,17,25,25,21,46,38,44		4,23, 1,35,30	
		4,25,13, 5,54,53,47		19
4″	59,57,46,21,50,38,27,41,32,31		4,23, 1,35,49	
		4,25, 8,42,53,17,58		19
6″	59,57,46,26,15,47,10,34,50,29		4,23, 1,36, 8	
		4,25, 4,19,51,41,50		19
8″	59,57,46,30,40,51,30,26,32,19		4,23, 1,36,27	
		4,24,59,56,50, 5,23		19
10″	59,57,46,35, 5,51,27,16,37,42		4,23, 1,36,46	
		4,24,55,33,48,28,37		19
12″	59,57,46,39,30,47, 1, 5, 6,19		4,23, 1,37, 5	
		4,24,51,10,46,51,32		19
14″	59,57,46,43,55,38,11,51,57,51		4,23, 1,37,24	
		4,24,46,47,45,14, 8		19
16″	59,57,46,48,20,24,59,37,11,59		4,23, 1,37,43	
		4,24,42,24,43,36,25		19
18″	59,57,46,52,45, 7,24,20,48,24		4,23, 1,38, 2	
		4,24,38, 1,41,58,23		19
20″	59,57,46,57, 9,45,26, 2,46,47		4,23, 1,38,21	
		4,24,33,38,40,20, 2		19
22″	59,57,47, 1,34,19, 4,43, 6,49		4,23, 1,38,40	
		4,24,29,15,38,41,22		19
24″	59,57,47, 5,58,48,20,21,48,11		4,23, 1,38,59	
		4,24,24,52,37, 2,23		19
26″	59,57,47,10,23,13,12,58,50,34		4,23, 1,39,18	
		4,24,20,29,35,23, 5		19
28″	59,57,47,14,47,33,42,34,13,39		4,23, 1,39,37	
		4,24,16, 6,33,43,28		19
30″	59,57,47,19,11,49,49, 7,57, 7		4,23, 1,39,56	
		4,24,11,43,32, 3,32		19
32″	59,57,47,23,36, 1,32,40, 0,39		4,23, 1,40,15	
		4,24, 7,20,30,23,17		19
34″	59,57,47,28, 0, 8,53,10,23,56		4,23, 1,40,34	
		4,24, 2,57,28,42,43		19
36″	59,57,47,32,24,11,50,39, 6,39		4,23, 1,40,53	
		4,23,58,34,27, 1,50		19
38″	59,57,47,36,48,10,25, 6, 8,29		4,23, 1,41,12	
		4,23,54,11,25,20,38		19
40″	59,57,47,41,12, 4,36,31,29, 7		4,23, 1,41,31	
		4,23,49,48,23,39, 7		19
42″	59,57,47,45,35,54,24,55, 8,14		4,23, 1,41,50	
		4,23,45,25,21,57,17		19
44″	59,57,47,49,59,39,50,17, 5,31		4,23, 1,42, 9	
		4,23,41, 2,20,15, 8		19
46″	59,57,47,54,23,20,52,37,20,39		4,23, 1,42,28	
		4,23,36,39,18,32,40		19
48″	59,57,47,58,46,57,31,55,53,19		4,23, 1,42,47	
		4,23,32,16,16,49,53		19
50″	59,57,48, 3,10,29,48,12,43,12		4,23, 1,43, 6	
		4,23,27,53,15, 6,47		19
52″	59,57,48, 7,33,57,41,27,49,59		4,23, 1,43,25	
		4,23,23,30,13,23,22		19
54″	59,57,48,11,57,21,11,41,13,21		4,23, 1,43,44	
		4,23,19, 7,11,39,38		19
56″	59,57,48,16,20,40,18,52,52,59		4,23, 1,44, 3	
		4,23,14,44, 9,55,35		19
58″	59,57,48,20,43,55, 3, 2,48,34		4,23, 1,44,22	
		4,23,10,21, 8,11,13		
60″	59,57,48,25, 7, 5,24,10,59,47			
exact	59,57,48,25, 7, 5,24,10,32,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88° 0′ 0″	59,57,48,25, 7, 5,24,10,32,58			
		4,23, 5,58, 6,23,52		
2″	59,57,48,29,30,11,22,16,56,50		4,23, 1,45,10	
		4,23, 1,35, 4,38,42		19
4″	59,57,48,33,53,12,57,21,35,32		4,23, 1,45,29	
		4,22,57,12, 2,53,13		19
6″	59,57,48,38,16,10, 9,24,28,45		4,23, 1,45,48	
		4,22,52,49, 1, 7,25		19
8″	59,57,48,42,39, 2,58,25,36,10		4,23, 1,46, 7	
		4,22,48,25,59,21,18		19
10″	59,57,48,47, 1,51,24,24,57,28		4,23, 1,46,26	
		4,22,44, 2,57,34,52		19
12″	59,57,48,51,24,35,27,22,32,20		4,23, 1,46,45	
		4,22,39,39,55,48, 7		19
14″	59,57,48,55,47,15, 7,18,20,27		4,23, 1,47, 4	
		4,22,35,16,54, 1, 3		19
16″	59,57,49, 0, 9,50,24,12,21,30		4,23, 1,47,23	
		4,22,30,53,52,13,40		19
18″	59,57,49, 4,32,21,18, 4,35,10		4,23, 1,47,42	
		4,22,26,30,50,25,58		19
20″	59,57,49, 8,54,47,48,55, 1, 8		4,23, 1,48, 1	
		4,22,22, 7,48,37,57		19
22″	59,57,49,13,17, 9,56,43,39, 5		4,23, 1,48,20	
		4,22,17,44,46,49,37		19
24″	59,57,49,17,39,27,41,30,28,42		4,23, 1,48,39	
		4,22,13,21,45, 0,58		19
26″	59,57,49,22, 1,41, 3,15,29,40		4,23, 1,48,58	
		4,22, 8,58,43,12, 0		19
28″	59,57,49,26,23,50, 1,58,41,40		4,23, 1,49,17	
		4,22, 4,35,41,22,43		19
30″	59,57,49,30,45,54,37,40, 4,23		4,23, 1,49,36	
		4,22, 0,12,39,33, 7		19
32″	59,57,49,35, 7,54,50,19,37,30		4,23, 1,49,55	
		4,21,55,49,37,43,12		19
34″	59,57,49,39,29,50,39,57,20,42		4,23, 1,50,14	
		4,21,51,26,35,52,58		19
36″	59,57,49,43,51,42, 6,33,13,40		4,23, 1,50,33	
		4,21,47, 3,34, 2,25		19
38″	59,57,49,48,13,29,10, 7,16, 5		4,23, 1,50,52	
		4,21,42,40,32,11,33		19
40″	59,57,49,52,35,11,50,39,27,38		4,23, 1,51,11	
		4,21,38,17,30,20,22		19
42″	59,57,49,56,56,50, 8, 9,48, 0		4,23, 1,51,30	
		4,21,33,54,28,28,52		19
44″	59,57,50, 1,18,24, 2,38,16,52		4,23, 1,51,49	
		4,21,29,31,26,37, 3		19
46″	59,57,50, 5,39,53,34, 4,53,55		4,23, 1,52, 8	
		4,21,25, 8,24,44,55		19
48″	59,57,50,10, 1,18,42,29,38,50		4,23, 1,52,27	
		4,21,20,45,22,52,28		19
50″	59,57,50,14,22,39,27,52,31,18		4,23, 1,52,46	
		4,21,16,22,20,59,42		19
52″	59,57,50,18,43,55,50,13,31, 0		4,23, 1,53, 5	
		4,21,11,59,19, 6,37		19
54″	59,57,50,23, 5, 7,49,32,37,37		4,23, 1,53,24	
		4,21, 7,36,17,13,13		19
56″	59,57,50,27,26,15,25,49,50,50		4,23, 1,53,43	
		4,21, 3,13,15,19,30		19
58″	59,57,50,31,47,18,39, 5,10,20		4,23, 1,54, 2	
		4,20,58,50,13,25,28		
60″	59,57,50,36, 8,17,29,18,35,48			
exact	59,57,50,36, 8,17,29,18,24,38			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88° 1′ 0″	59,57,50,36, 8,17,29,18,24,38			
		4,20,54,27,11,29,57		
2″	59,57,50,40,29,11,56,29,54,35		4,23, 1,54,44	
		4,20,50, 4, 9,35,13		19
4″	59,57,50,44,50, 2, 0,39,29,48		4,23, 1,55, 3	
		4,20,45,41, 7,40,10		19
6″	59,57,50,49,10,47,41,47, 9,58		4,23, 1,55,22	
		4,20,41,18, 5,44,48		19
8″	59,57,50,53,31,28,59,52,54,46		4,23, 1,55,41	
		4,20,36,55, 3,49, 7		19
10″	59,57,50,57,52, 5,54,56,43,53		4,23, 1,56, 0	
		4,20,32,32, 1,53, 7		19
12″	59,57,51, 2,12,38,26,58,37, 0		4,23, 1,56,19	
		4,20,28, 8,59,56,48		19
14″	59,57,51, 6,33, 6,35,58,33,48		4,23, 1,56,38	
		4,20,23,45,58, 0,10		19
16″	59,57,51,10,53,30,21,56,33,58		4,23, 1,56,57	
		4,20,19,22,56, 3,13		19
18″	59,57,51,15,13,49,44,52,37,11		4,23, 1,57,16	
		4,20,14,59,54, 5,57		19
20″	59,57,51,19,34, 4,44,46,43, 8		4,23, 1,57,35	
		4,20,10,36,52, 8,22		19
22″	59,57,51,23,54,15,21,38,51,30		4,23, 1,57,54	
		4,20, 6,13,50,10,28		19
24″	59,57,51,28,14,21,35,29, 1,58		4,23, 1,58,13	
		4,20, 1,50,48,12,15		19
26″	59,57,51,32,34,23,26,17,14,13		4,23, 1,58,32	
		4,19,57,27,46,13,43		19
28″	59,57,51,36,54,20,54, 3,27,56		4,23, 1,58,51	
		4,19,53, 4,44,14,52		19
30″	59,57,51,41,14,13,58,47,42,48		4,23, 1,59,10	
		4,19,48,41,42,15,42		19
32″	59,57,51,45,34, 2,40,29,58,30		4,23, 1,59,29	
		4,19,44,18,40,16,13		19
34″	59,57,51,49,53,46,59,10,14,43		4,23, 1,59,48	
		4,19,39,55,38,16,25		19
36″	59,57,51,54,13,26,54,48,31, 8		4,23, 2, 0, 7	
		4,19,35,32,36,16,18		19
38″	59,57,51,58,33, 2,27,24,47,26		4,23, 2, 0,26	
		4,19,31, 9,34,15,52		19
40″	59,57,52, 2,52,33,36,59, 3,18		4,23, 2, 0,45	
		4,19,26,46,32,15, 7		19
42″	59,57,52, 7,12, 0,23,31,18,25		4,23, 2, 1, 4	
		4,19,22,23,30,14, 3		19
44″	59,57,52,11,31,22,47, 1,32,28		4,23, 2, 1,23	
		4,19,18, 0,28,12,40		19
46″	59,57,52,15,50,40,47,29,45, 8		4,23, 2, 1,42	
		4,19,13,37,26,10,58		19
48″	59,57,52,20, 9,54,24,55,56, 6		4,23, 2, 2, 1	
		4,19, 9,14,24, 8,57		19
50″	59,57,52,24,29, 3,39,20, 5, 3		4,23, 2, 2,20	
		4,19, 4,51,22, 6,37		19
52″	59,57,52,28,48, 8,30,42,11,40		4,23, 2, 2,39	
		4,19, 0,28,20, 3,58		19
54″	59,57,52,33, 7, 8,59, 2,15,38		4,23, 2, 2,58	
		4,18,56, 5,18, 1, 0		19
56″	59,57,52,37,26, 5, 4,20,16,38		4,23, 2, 3,17	
		4,18,51,42,15,57,43		19
58″	59,57,52,41,44,56,46,36,14,21		4,23, 2, 3,36	
		4,18,47,19,13,54, 7		
60″	59,57,52,46, 3,44, 5,50, 8,28			
exact	59,57,52,46, 3,44, 5,50, 3,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88° 2′ 0″	59,57,52,46, 3,44, 5,50, 3,42			
		4,18,42,56,11,49,54		
2″	59,57,52,50,22,27, 2, 1,53,36		4,23, 2, 4,14	
		4,18,38,33, 9,45,40		19
4″	59,57,52,54,41, 5,35,11,39,16		4,23, 2, 4,33	
		4,18,34,10, 7,41, 7		19
6″	59,57,52,58,59,39,45,19,20,23		4,23, 2, 4,52	
		4,18,29,47, 5,36,15		19
8″	59,57,53, 3,18, 9,32,24,56,38		4,23, 2, 5,11	
		4,18,25,24, 3,31, 4		19
10″	59,57,53, 7,36,34,56,28,27,42		4,23, 2, 5,30	
		4,18,21, 1, 1,25,34		19
12″	59,57,53,11,54,55,57,29,53,16		4,23, 2, 5,49	
		4,18,16,37,59,19,45		19
14″	59,57,53,16,13,12,35,29,13, 1		4,23, 2, 6, 8	
		4,18,12,14,57,13,37		19
16″	59,57,53,20,31,24,50,26,26,38		4,23, 2, 6,27	
		4,18, 7,51,55, 7,10		19
18″	59,57,53,24,49,32,42,21,33,48		4,23, 2, 6,46	
		4,18, 3,28,53, 0,24		19
20″	59,57,53,29, 7,36,11,14,34,12		4,23, 2, 7, 5	
		4,17,59, 5,50,53,19		19
22″	59,57,53,33,25,35,17, 5,27,31		4,23, 2, 7,24	
		4,17,54,42,48,45,55		19
24″	59,57,53,37,43,29,59,54,13,26		4,23, 2, 7,43	
		4,17,50,19,46,38,12		19
26″	59,57,53,42, 1,20,19,40,51,38		4,23, 2, 8, 2	
		4,17,45,56,44,30,10		19
28″	59,57,53,46,19, 6,16,25,21,48		4,23, 2, 8,21	
		4,17,41,33,42,21,49		19
30″	59,57,53,50,36,47,50, 7,43,37		4,23, 2, 8,40	
		4,17,37,10,40,13, 9		19
32″	59,57,53,54,54,25, 0,47,56,46		4,23, 2, 8,59	
		4,17,32,47,38, 4,10		19
34″	59,57,53,59,11,57,48,26, 0,56		4,23, 2, 9,18	
		4,17,28,24,35,54,52		19
36″	59,57,54, 3,29,26,13, 1,55,48		4,23, 2, 9,37	
		4,17,24, 1,33,45,15		19
38″	59,57,54, 7,46,50,14,35,41, 3		4,23, 2, 9,56	
		4,17,19,38,31,35,19		19
40″	59,57,54,12, 4, 9,53, 7,16,22		4,23, 2,10,15	
		4,17,15,15,29,25, 4		19
42″	59,57,54,16,21,25, 8,36,41,26		4,23, 2,10,34	
		4,17,10,52,27,14,30		19
44″	59,57,54,20,38,36, 1, 3,55,56		4,23, 2,10,53	
		4,17, 6,29,25, 3,37		19
46″	59,57,54,24,55,42,30,28,59,33		4,23, 2,11,12	
		4,17, 2, 6,22,52,25		19
48″	59,57,54,29,12,44,36,51,51,58		4,23, 2,11,31	
		4,16,57,43,20,40,54		19
50″	59,57,54,33,29,42,20,12,32,52		4,23, 2,11,50	
		4,16,53,20,18,29, 4		19
52″	59,57,54,37,46,35,40,31, 1,56		4,23, 2,12, 9	
		4,16,48,57,16,16,55		19
54″	59,57,54,42, 3,24,37,47,18,51		4,23, 2,12,28	
		4,16,44,34,14, 4,27		19
56″	59,57,54,46,20, 9,12, 1,23,18		4,23, 2,12,47	
		4,16,40,11,11,51,40		19
58″	59,57,54,50,36,49,23,13,14,58		4,23, 2,13, 6	
		4,16,35,48, 9,38,34		
60″	59,57,54,54,53,25,11,22,53,32			
exact	59,57,54,54,53,25,11,23, 1,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88° 3′ 0″	59,57,54,54,53,25,11,23, 1,29			
		4,16,31,25, 7,26, 8		
2″	59,57,54,59, 9,56,36,30,27,37		4,23, 2,13,39	
		4,16,27, 2, 5,12,29		19
4″	59,57,55, 3,26,23,38,35,40, 6		4,23, 2,13,58	
		4,16,22,39, 2,58,31		19
6″	59,57,55, 7,42,46,17,38,38,37		4,23, 2,14,17	
		4,16,18,16, 0,44,14		19
8″	59,57,55,11,59, 4,33,39,22,51		4,23, 2,14,36	
		4,16,13,52,58,29,38		19
10″	59,57,55,16,15,18,26,37,52,29		4,23, 2,14,55	
		4,16, 9,29,56,14,43		19
12″	59,57,55,20,31,27,56,34, 7,12		4,23, 2,15,14	
		4,16, 5, 6,53,59,29		19
14″	59,57,55,24,47,33, 3,28, 6,41		4,23, 2,15,33	
		4,16, 0,43,51,43,56		19
16″	59,57,55,29, 3,33,47,19,50,37		4,23, 2,15,52	
		4,15,56,20,49,28, 4		19
18″	59,57,55,33,19,30, 8, 9,18,41		4,23, 2,16,11	
		4,15,51,57,47,11,53		19
20″	59,57,55,37,35,22, 5,56,30,34		4,23, 2,16,30	
		4,15,47,34,44,55,23		19
22″	59,57,55,41,51, 9,40,41,25,57		4,23, 2,16,49	
		4,15,43,11,42,38,34		19
24″	59,57,55,46, 6,52,52,24, 4,31		4,23, 2,17, 8	
		4,15,38,48,40,21,26		19
26″	59,57,55,50,22,31,41, 4,25,57		4,23, 2,17,27	
		4,15,34,25,38, 3,59		19
28″	59,57,55,54,38, 6, 6,42,29,56		4,23, 2,17,46	
		4,15,30, 2,35,46,13		19
30″	59,57,55,58,53,36, 9,18,16, 9		4,23, 2,18, 5	
		4,15,25,39,33,28, 8		19
32″	59,57,56, 3, 9, 1,48,51,44,17		4,23, 2,18,24	
		4,15,21,16,31, 9,44		19
34″	59,57,56, 7,24,23, 5,22,54, 1		4,23, 2,18,43	
		4,15,16,53,28,51, 1		19
36″	59,57,56,11,39,39,58,51,45, 2		4,23, 2,19, 2	
		4,15,12,30,26,31,59		19
38″	59,57,56,15,54,52,29,18,17, 1		4,23, 2,19,21	
		4,15, 8, 7,24,12,38		19
40″	59,57,56,20,10, 0,36,42,29,39		4,23, 2,19,40	
		4,15, 3,44,21,52,58		19
42″	59,57,56,24,25, 4,21, 4,22,37		4,23, 2,19,59	
		4,14,59,21,19,32,59		19
44″	59,57,56,28,40, 3,42,23,55,36		4,23, 2,20,18	
		4,14,54,58,17,12,41		19
46″	59,57,56,32,54,58,40,41, 8,17		4,23, 2,20,37	
		4,14,50,35,14,52, 4		19
48″	59,57,56,37, 9,49,15,56, 0,21		4,23, 2,20,56	
		4,14,46,12,12,31, 8		19
50″	59,57,56,41,24,35,28, 8,31,29		4,23, 2,21,15	
		4,14,41,49,10, 9,53		19
52″	59,57,56,45,39,17,17,18,41,22		4,23, 2,21,34	
		4,14,37,26, 7,48,19		19
54″	59,57,56,49,53,54,43,26,29,41		4,23, 2,21,53	
		4,14,33, 3, 5,26,26		19
56″	59,57,56,54, 8,27,46,31,56, 7		4,23, 2,22,12	
		4,14,28,40, 3, 4,14		19
58″	59,57,56,58,22,56,26,35, 0,21		4,23, 2,22,31	
		4,14,24,17, 0,41,43		
60″	59,57,57, 2,37,20,43,35,42, 4			
exact	59,57,57, 2,37,20,43,36, 1,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88° 4′ 0″	59,57,57, 2,37,20,43,36, 1,26			
		4,14,19,53,58,21, 4		
2″	59,57,57, 6,51,40,37,34,22,30		4,23, 2,22,59	
		4,14,15,30,55,58, 5		19
4″	59,57,57,11, 5,56, 8,30,20,35		4,23, 2,23,18	
		4,14,11, 7,53,34,47		19
6″	59,57,57,15,20, 7,16,23,55,22		4,23, 2,23,37	
		4,14, 6,44,51,11,10		19
8″	59,57,57,19,34,14, 1,15, 6,32		4,23, 2,23,56	
		4,14, 2,21,48,47,14		19
10″	59,57,57,23,48,16,23, 3,53,46		4,23, 2,24,15	
		4,13,57,58,46,22,59		19
12″	59,57,57,28, 2,14,21,50,16,45		4,23, 2,24,34	
		4,13,53,35,43,58,25		19
14″	59,57,57,32,16, 7,57,34,15,10		4,23, 2,24,53	
		4,13,49,12,41,33,32		19
16″	59,57,57,36,29,57,10,15,48,42		4,23, 2,25,12	
		4,13,44,49,39, 8,20		19
18″	59,57,57,40,43,41,59,54,57, 2		4,23, 2,25,31	
		4,13,40,26,36,42,49		19
20″	59,57,57,44,57,22,26,31,39,51		4,23, 2,25,50	
		4,13,36, 3,34,16,59		19
22″	59,57,57,49,10,58,30, 5,56,50		4,23, 2,26, 9	
		4,13,31,40,31,50,50		19
24″	59,57,57,53,24,30,10,37,47,40		4,23, 2,26,28	
		4,13,27,17,29,24,22		19
26″	59,57,57,57,37,57,28, 7,12, 2		4,23, 2,26,47	
		4,13,22,54,26,57,35		19
28″	59,57,58, 1,51,20,22,34, 9,37		4,23, 2,27, 6	
		4,13,18,31,24,30,29		19
30″	59,57,58, 6, 4,38,53,58,40, 6		4,23, 2,27,25	
		4,13,14, 8,22, 3, 4		19
32″	59,57,58,10,17,53, 2,20,43,10		4,23, 2,27,44	
		4,13, 9,45,19,35,20		19
34″	59,57,58,14,31, 2,47,40,18,30		4,23, 2,28, 3	
		4,13, 5,22,17, 7,17		19
36″	59,57,58,18,44, 8, 9,57,25,47		4,23, 2,28,22	
		4,13, 0,59,14,38,55		19
38″	59,57,58,22,57, 9, 9,12, 4,42		4,23, 2,28,41	
		4,12,56,36,12,10,14		19
40″	59,57,58,27,10, 5,45,24,14,56		4,23, 2,29, 0	
		4,12,52,13, 9,41,14		19
42″	59,57,58,31,22,57,58,33,56,10		4,23, 2,29,19	
		4,12,47,50, 7,11,55		19
44″	59,57,58,35,35,45,48,41, 8, 5		4,23, 2,29,38	
		4,12,43,27, 4,42,17		19
46″	59,57,58,39,48,29,15,45,50,22		4,23, 2,29,57	
		4,12,39, 4, 2,12,20		19
48″	59,57,58,44, 1, 8,19,48, 2,42		4,23, 2,30,16	
		4,12,34,40,59,42, 4		19
50″	59,57,58,48,13,43, 0,47,44,46		4,23, 2,30,35	
		4,12,30,17,57,11,29		19
52″	59,57,58,52,26,13,18,44,56,15		4,23, 2,30,54	
		4,12,25,54,54,40,35		19
54″	59,57,58,56,38,39,13,39,36,50		4,23, 2,31,13	
		4,12,21,31,52, 9,22		19
56″	59,57,59, 0,51, 0,45,31,46,12		4,23, 2,31,32	
		4,12,17, 8,49,37,50		19
58″	59,57,59, 5, 3,17,54,21,24, 2		4,23, 2,31,51	
		4,12,12,45,47, 5,59		
60″	59,57,59, 9,15,30,40, 8,30, 1			
exact	59,57,59, 9,15,30,40, 8,59, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88° 5′ 0″	59,57,59, 9,15,30,40, 8,59, 9			
		4,12, 8,22,44,37, 5		
2″	59,57,59,13,27,39, 2,53,36,14		4,23, 2,32,14	
		4,12, 3,59,42, 4,51		18
4″	59,57,59,17,39,43, 2,35,41, 5		4,23, 2,32,32	
		4,11,59,36,39,32,19		18
6″	59,57,59,21,51,42,39,15,13,24		4,23, 2,32,50	
		4,11,55,13,36,59,29		18
8″	59,57,59,26, 3,37,52,52,12,53		4,23, 2,33, 8	
		4,11,50,50,34,26,21		18
10″	59,57,59,30,15,28,43,26,39,14		4,23, 2,33,26	
		4,11,46,27,31,52,55		18
12″	59,57,59,34,27,15,10,58,32, 9		4,23, 2,33,44	
		4,11,42, 4,29,19,11		18
14″	59,57,59,38,38,57,15,27,51,20		4,23, 2,34, 2	
		4,11,37,41,26,45, 9		18
16″	59,57,59,42,50,34,56,54,36,29		4,23, 2,34,20	
		4,11,33,18,24,10,49		18
18″	59,57,59,47, 2, 8,15,18,47,18		4,23, 2,34,38	
		4,11,28,55,21,36,11		18
20″	59,57,59,51,13,37,10,40,23,29		4,23, 2,34,56	
		4,11,24,32,19, 1,15		18
22″	59,57,59,55,25, 1,42,59,24,44		4,23, 2,35,14	
		4,11,20, 9,16,26, 1		18
24″	59,57,59,59,36,21,52,15,50,45		4,23, 2,35,32	
		4,11,15,46,13,50,29		18
26″	59,58, 0, 3,47,37,38,29,41,14		4,23, 2,35,50	
		4,11,11,23,11,14,39		18
28″	59,58, 0, 7,58,49, 1,40,55,53		4,23, 2,36, 8	
		4,11, 7, 0, 8,38,31		18
30″	59,58, 0,12, 9,56, 1,49,34,24		4,23, 2,36,26	
		4,11, 2,37, 6, 2, 5		18
32″	59,58, 0,16,20,58,38,55,36,29		4,23, 2,36,44	
		4,10,58,14, 3,25,21		18
34″	59,58, 0,20,31,56,52,59, 1,50		4,23, 2,37, 2	
		4,10,53,51, 0,48,19		18
36″	59,58, 0,24,42,50,43,59,50, 9		4,23, 2,37,20	
		4,10,49,27,58,10,59		18
38″	59,58, 0,28,53,40,11,58, 1, 8		4,23, 2,37,38	
		4,10,45, 4,55,33,21		18
40″	59,58, 0,33, 4,25,16,53,34,29		4,23, 2,37,56	
		4,10,40,41,52,55,25		18
42″	59,58, 0,37,15, 5,58,46,29,54		4,23, 2,38,14	
		4,10,36,18,50,17,11		18
44″	59,58, 0,41,25,42,17,36,47, 5		4,23, 2,38,32	
		4,10,31,55,47,38,39		18
46″	59,58, 0,45,36,14,13,24,25,44		4,23, 2,38,50	
		4,10,27,32,44,59,49		18
48″	59,58, 0,49,46,41,46, 9,25,33		4,23, 2,39, 8	
		4,10,23, 9,42,20,41		18
50″	59,58, 0,53,57, 4,55,51,46,14		4,23, 2,39,26	
		4,10,18,46,39,41,15		18
52″	59,58, 0,58, 7,23,42,31,27,29		4,23, 2,39,44	
		4,10,14,23,37, 1,31		18
54″	59,58, 1, 2,17,38, 6, 8,29, 0		4,23, 2,40, 2	
		4,10,10, 0,34,21,29		18
56″	59,58, 1, 6,27,48, 6,42,50,29		4,23, 2,40,20	
		4,10, 5,37,31,41, 9		18
58″	59,58, 1,10,37,53,44,14,31,38		4,23, 2,40,38	
		4,10, 1,14,29, 0,31		
60″	59,58, 1,14,47,54,58,43,32, 9			
exact	59,58, 1,14,47,54,58,43, 2,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88° 6′ 0″	59,58, 1,14,47,54,58,43, 2,16			
		4, 9,56,51,26,16,36		
2″	59,58, 1,18,57,51,50, 9,18,52		4,23, 2,41,25	
		4, 9,52,28,23,35,11		18
4″	59,58, 1,23, 7,44,18,32,54, 3		4,23, 2,41,43	
		4, 9,48, 5,20,53,28		18
6″	59,58, 1,27,17,32,23,53,47,31		4,23, 2,42, 1	
		4, 9,43,42,18,11,27		18
8″	59,58, 1,31,27,16, 6,11,58,58		4,23, 2,42,19	
		4, 9,39,19,15,29, 8		18
10″	59,58, 1,35,36,55,25,27,28, 6		4,23, 2,42,37	
		4, 9,34,56,12,46,31		18
12″	59,58, 1,39,46,30,21,40,14,37		4,23, 2,42,55	
		4, 9,30,33,10, 3,36		18
14″	59,58, 1,43,56, 0,54,50,18,13		4,23, 2,43,13	
		4, 9,26,10, 7,20,23		18
16″	59,58, 1,48, 5,27, 4,57,38,36		4,23, 2,43,31	
		4, 9,21,47, 4,36,52		18
18″	59,58, 1,52,14,48,52, 2,15,28		4,23, 2,43,49	
		4, 9,17,24, 1,53, 3		18
20″	59,58, 1,56,24, 6,16, 4, 8,31		4,23, 2,44, 7	
		4, 9,13, 0,59, 8,56		18
22″	59,58, 2, 0,33,19,17, 3,17,27		4,23, 2,44,25	
		4, 9, 8,37,56,24,31		18
24″	59,58, 2, 4,42,27,54,59,41,58		4,23, 2,44,43	
		4, 9, 4,14,53,39,48		18
26″	59,58, 2, 8,51,32, 9,53,21,46		4,23, 2,45, 1	
		4, 8,59,51,50,54,47		18
28″	59,58, 2,13, 0,32, 1,44,16,33		4,23, 2,45,19	
		4, 8,55,28,48, 9,28		18
30″	59,58, 2,17, 9,27,30,32,26, 1		4,23, 2,45,37	
		4, 8,51, 5,45,23,51		18
32″	59,58, 2,21,18,18,36,17,49,52		4,23, 2,45,55	
		4, 8,46,42,42,37,56		18
34″	59,58, 2,25,27, 5,19, 0,27,48		4,23, 2,46,13	
		4, 8,42,19,39,51,43		18
36″	59,58, 2,29,35,47,38,40,19,31		4,23, 2,46,31	
		4, 8,37,56,37, 5,12		18
38″	59,58, 2,33,44,25,35,17,24,43		4,23, 2,46,49	
		4, 8,33,33,34,18,23		18
40″	59,58, 2,37,52,59, 8,51,43, 6		4,23, 2,47, 7	
		4, 8,29,10,31,31,16		18
42″	59,58, 2,42, 1,28,19,23,14,22		4,23, 2,47,25	
		4, 8,24,47,28,43,51		18
44″	59,58, 2,46, 9,53, 6,51,58,13		4,23, 2,47,43	
		4, 8,20,24,25,56, 8		18
46″	59,58, 2,50,18,13,31,17,54,21		4,23, 2,48, 1	
		4, 8,16, 1,23, 8, 7		18
48″	59,58, 2,54,26,29,32,41, 2,28		4,23, 2,48,19	
		4, 8,11,38,20,19,48		18
50″	59,58, 2,58,34,41,11, 1,22,16		4,23, 2,48,37	
		4, 8, 7,15,17,31,11		18
52″	59,58, 3, 2,42,48,26,18,53,27		4,23, 2,48,55	
		4, 8, 2,52,14,42,16		18
54″	59,58, 3, 6,50,51,18,33,35,43		4,23, 2,49,13	
		4, 7,58,29,11,53, 3		18
56″	59,58, 3,10,58,49,47,45,28,46		4,23, 2,49,31	
		4, 7,54, 6, 9, 3,32		18
58″	59,58, 3,15, 6,43,53,54,32,18		4,23, 2,49,49	
		4, 7,49,43, 6,13,43		
60″	59,58, 3,19,14,33,37, 0,46, 1			
exact	59,58, 3,19,14,33,37, 0,30,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88° 7′ 0″	59,58, 3,19,14,33,37, 0,30,37			
		4, 7,45,20, 3,22, 2		
2″	59,58, 3,23,22,18,57, 3,52,39		4,23, 2,50,31	
		4, 7,40,57, 0,31,31		18
4″	59,58, 3,27,29,59,54, 4,24,10		4,23, 2,50,49	
		4, 7,36,33,57,40,42		18
6″	59,58, 3,31,37,36,28, 2, 4,52		4,23, 2,51, 7	
		4, 7,32,10,54,49,35		18
8″	59,58, 3,35,45, 8,38,56,54,27		4,23, 2,51,25	
		4, 7,27,47,51,58,10		18
10″	59,58, 3,39,52,36,26,48,52,37		4,23, 2,51,43	
		4, 7,23,24,49, 6,27		18
12″	59,58, 3,43,59,59,51,37,59, 4		4,23, 2,52, 1	
		4, 7,19, 1,46,14,26		18
14″	59,58, 3,48, 7,18,53,24,13,30		4,23, 2,52,19	
		4, 7,14,38,43,22, 7		18
16″	59,58, 3,52,14,33,32, 7,35,37		4,23, 2,52,37	
		4, 7,10,15,40,29,30		18
18″	59,58, 3,56,21,43,47,48, 5, 7		4,23, 2,52,55	
		4, 7, 5,52,37,36,35		18
20″	59,58, 4, 0,28,49,40,25,41,42		4,23, 2,53,13	
		4, 7, 1,29,34,43,22		18
22″	59,58, 4, 4,35,51,10, 0,25, 4		4,23, 2,53,31	
		4, 6,57, 6,31,49,51		18
24″	59,58, 4, 8,42,48,16,32,14,55		4,23, 2,53,49	
		4, 6,52,43,28,56, 2		18
26″	59,58, 4,12,49,41, 0, 1,10,57		4,23, 2,54, 7	
		4, 6,48,20,26, 1,55		18
28″	59,58, 4,16,56,29,20,27,12,52		4,23, 2,54,25	
		4, 6,43,57,23, 7,30		18
30″	59,58, 4,21, 3,13,17,50,20,22		4,23, 2,54,43	
		4, 6,39,34,20,12,47		18
32″	59,58, 4,25, 9,52,52,10,33, 9		4,23, 2,55, 1	
		4, 6,35,11,17,17,46		18
34″	59,58, 4,29,16,28, 3,27,50,55		4,23, 2,55,19	
		4, 6,30,48,14,22,27		18
36″	59,58, 4,33,22,58,51,42,13,22		4,23, 2,55,37	
		4, 6,26,25,11,26,50		18
38″	59,58, 4,37,29,25,16,53,40,12		4,23, 2,55,55	
		4, 6,22, 2, 8,30,55		18
40″	59,58, 4,41,35,47,19, 2,11, 7		4,23, 2,56,13	
		4, 6,17,39, 5,34,42		18
42″	59,58, 4,45,42, 4,58, 7,45,49		4,23, 2,56,31	
		4, 6,13,16, 2,38,11		18
44″	59,58, 4,49,48,18,14,10,24, 0		4,23, 2,56,49	
		4, 6, 8,52,59,41,22		18
46″	59,58, 4,53,54,27, 7,10, 5,22		4,23, 2,57, 7	
		4, 6, 4,29,56,44,15		18
48″	59,58, 4,58, 0,31,37, 6,49,37		4,23, 2,57,25	
		4, 6, 0, 6,53,46,50		18
50″	59,58, 5, 2, 6,31,44, 0,36,27		4,23, 2,57,43	
		4, 5,55,43,50,49, 7		18
52″	59,58, 5, 6,12,27,27,51,25,34		4,23, 2,58, 1	
		4, 5,51,20,47,51, 6		18
54″	59,58, 5,10,18,18,48,39,16,40		4,23, 2,58,19	
		4, 5,46,57,44,52,47		18
56″	59,58, 5,14,24, 5,46,24, 9,27		4,23, 2,58,37	
		4, 5,42,34,41,54,10		18
58″	59,58, 5,18,29,48,21, 6, 3,37		4,23, 2,58,55	
		4, 5,38,11,38,55,15		
60″	59,58, 5,22,35,26,32,44,58,52			
exact	59,58, 5,22,35,26,32,44,56, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88° 8′ 0″	59,58, 5,22,35,26,32,44,56, 5			
		4, 5,33,48,35,55,46		
2″	59,58, 5,26,41, 0,21,20,51,51		4,23, 2,59,32	
		4, 5,29,25,32,56,14		18
4″	59,58, 5,30,46,29,46,53,48, 5		4,23, 2,59,50	
		4, 5,25, 2,29,56,24		18
6″	59,58, 5,34,51,54,49,23,44,29		4,23, 3, 0, 8	
		4, 5,20,39,26,56,16		18
8″	59,58, 5,38,57,15,28,50,40,45		4,23, 3, 0,26	
		4, 5,16,16,23,55,50		18
10″	59,58, 5,43, 2,31,45,14,36,35		4,23, 3, 0,44	
		4, 5,11,53,20,55, 6		18
12″	59,58, 5,47, 7,43,38,35,31,41		4,23, 3, 1, 2	
		4, 5, 7,30,17,54, 4		18
14″	59,58, 5,51,12,51, 8,53,25,45		4,23, 3, 1,20	
		4, 5, 3, 7,14,52,44		18
16″	59,58, 5,55,17,54,16, 8,18,29		4,23, 3, 1,38	
		4, 4,58,44,11,51, 6		18
18″	59,58, 5,59,22,53, 0,20, 9,35		4,23, 3, 1,56	
		4, 4,54,21, 8,49,10		18
20″	59,58, 6, 3,27,47,21,28,58,45		4,23, 3, 2,14	
		4, 4,49,58, 5,46,56		18
22″	59,58, 6, 7,32,37,19,34,45,41		4,23, 3, 2,32	
		4, 4,45,35, 2,44,24		18
24″	59,58, 6,11,37,22,54,37,30, 5		4,23, 3, 2,50	
		4, 4,41,11,59,41,34		18
26″	59,58, 6,15,42, 4, 6,37,11,39		4,23, 3, 3, 8	
		4, 4,36,48,56,38,26		18
28″	59,58, 6,19,46,40,55,33,50, 5		4,23, 3, 3,26	
		4, 4,32,25,53,35, 0		18
30″	59,58, 6,23,51,13,21,27,25, 5		4,23, 3, 3,44	
		4, 4,28, 2,50,31,16		18
32″	59,58, 6,27,55,41,24,17,56,21		4,23, 3, 4, 2	
		4, 4,23,39,47,27,14		18
34″	59,58, 6,32, 0, 5, 4, 5,23,35		4,23, 3, 4,20	
		4, 4,19,16,44,22,54		18
36″	59,58, 6,36, 4,24,20,49,46,29		4,23, 3, 4,38	
		4, 4,14,53,41,18,16		18
38″	59,58, 6,40, 8,39,14,31, 4,45		4,23, 3, 4,56	
		4, 4,10,30,38,13,20		18
40″	59,58, 6,44,12,49,45, 9,18, 5		4,23, 3, 5,14	
		4, 4, 6, 7,35, 8, 6		18
42″	59,58, 6,48,16,55,52,44,26,11		4,23, 3, 5,32	
		4, 4, 1,44,32, 2,34		18
44″	59,58, 6,52,20,57,37,16,28,45		4,23, 3, 5,50	
		4, 3,57,21,28,56,44		18
46″	59,58, 6,56,24,54,58,45,25,29		4,23, 3, 6, 8	
		4, 3,52,58,25,50,36		18
48″	59,58, 7, 0,28,47,57,11,16, 5		4,23, 3, 6,26	
		4, 3,48,35,22,44,10		18
50″	59,58, 7, 4,32,36,32,34, 0,15		4,23, 3, 6,44	
		4, 3,44,12,19,37,26		18
52″	59,58, 7, 8,36,20,44,53,37,41		4,23, 3, 7, 2	
		4, 3,39,49,16,30,24		18
54″	59,58, 7,12,40, 0,34,10, 8, 5		4,23, 3, 7,20	
		4, 3,35,26,13,23, 4		18
56″	59,58, 7,16,43,36, 0,23,31, 9		4,23, 3, 7,38	
		4, 3,31, 3,10,15,26		18
58″	59,58, 7,20,47, 7, 3,33,46,35		4,23, 3, 7,56	
		4, 3,26,40, 7, 7,30		
60″	59,58, 7,24,50,33,43,40,54, 5			
exact	59,58, 7,24,50,33,43,41, 2,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88° 9′ 0″	59,58, 7,24,50,33,43,41, 2,42			
		4, 3,22,17, 4, 0,12		
2″	59,58, 7,28,53,56, 0,45, 2,54		4,23, 3, 8,28	
		4, 3,17,54, 0,51,44		18
4″	59,58, 7,32,57,13,54,45,54,38		4,23, 3, 8,46	
		4, 3,13,30,57,42,58		18
6″	59,58, 7,37, 0,27,25,43,37,36		4,23, 3, 9, 4	
		4, 3, 9, 7,54,33,54		18
8″	59,58, 7,41, 3,36,33,38,11,30		4,23, 3, 9,22	
		4, 3, 4,44,51,24,32		18
10″	59,58, 7,45, 6,41,18,29,36, 2		4,23, 3, 9,40	
		4, 3, 0,21,48,14,52		18
12″	59,58, 7,49, 9,41,40,17,50,54		4,23, 3, 9,58	
		4, 2,55,58,45, 4,54		18
14″	59,58, 7,53,12,37,39, 2,55,48		4,23, 3,10,16	
		4, 2,51,35,41,54,38		18
16″	59,58, 7,57,15,29,14,44,50,26		4,23, 3,10,34	
		4, 2,47,12,38,44, 4		18
18″	59,58, 8, 1,18,16,27,23,34,30		4,23, 3,10,52	
		4, 2,42,49,35,33,12		18
20″	59,58, 8, 5,20,59,16,59, 7,42		4,23, 3,11,10	
		4, 2,38,26,32,22, 2		18
22″	59,58, 8, 9,23,37,43,31,29,44		4,23, 3,11,28	
		4, 2,34, 3,29,10,34		18
24″	59,58, 8,13,26,11,47, 0,40,18		4,23, 3,11,46	
		4, 2,29,40,25,58,48		18
26″	59,58, 8,17,28,41,27,26,39, 6		4,23, 3,12, 4	
		4, 2,25,17,22,46,44		18
28″	59,58, 8,21,31, 6,44,49,25,50		4,23, 3,12,22	
		4, 2,20,54,19,34,22		18
30″	59,58, 8,25,33,27,39, 9, 0,12		4,23, 3,12,40	
		4, 2,16,31,16,21,42		18
32″	59,58, 8,29,35,44,10,25,21,54		4,23, 3,12,58	
		4, 2,12, 8,13, 8,44		18
34″	59,58, 8,33,37,56,18,38,30,38		4,23, 3,13,16	
		4, 2, 7,45, 9,55,28		18
36″	59,58, 8,37,40, 4, 3,48,26, 6		4,23, 3,13,34	
		4, 2, 3,22, 6,41,54		18
38″	59,58, 8,41,42, 7,25,55, 8, 0		4,23, 3,13,52	
		4, 1,58,59, 3,28, 2		18
40″	59,58, 8,45,44, 6,24,58,36, 2		4,23, 3,14,10	
		4, 1,54,36, 0,13,52		18
42″	59,58, 8,49,46, 1, 0,58,49,54		4,23, 3,14,28	
		4, 1,50,12,56,59,24		18
44″	59,58, 8,53,47,51,13,55,49,18		4,23, 3,14,46	
		4, 1,45,49,53,44,38		18
46″	59,58, 8,57,49,37, 3,49,33,56		4,23, 3,15, 4	
		4, 1,41,26,50,29,34		18
48″	59,58, 9, 1,51,18,30,40, 3,30		4,23, 3,15,22	
		4, 1,37, 3,47,14,12		18
50″	59,58, 9, 5,52,55,34,27,17,42		4,23, 3,15,40	
		4, 1,32,40,43,58,32		18
52″	59,58, 9, 9,54,28,15,11,16,14		4,23, 3,15,58	
		4, 1,28,17,40,42,34		18
54″	59,58, 9,13,55,56,32,51,58,48		4,23, 3,16,16	
		4, 1,23,54,37,26,18		18
56″	59,58, 9,17,57,20,27,29,25, 6		4,23, 3,16,34	
		4, 1,19,31,34, 9,44		18
58″	59,58, 9,21,58,39,59, 3,34,50		4,23, 3,16,52	
		4, 1,15, 8,30,52,52		
60″	59,58, 9,25,59,55, 7,34,27,42			
exact	59,58, 9,25,59,55, 7,34,46,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°10′ 0″	59,58, 9,25,59,55, 7,34,46,37			
		4, 1,10,45,27,37,45		
2″	59,58, 9,30, 1, 5,53, 2,24,22		4,23, 3,17,19	
		4, 1, 6,22,24,20,26		18
4″	59,58, 9,34, 2,12,15,26,44,48		4,23, 3,17,37	
		4, 1, 1,59,21, 2,49		18
6″	59,58, 9,38, 3,14,14,47,47,37		4,23, 3,17,55	
		4, 0,57,36,17,44,54		18
8″	59,58, 9,42, 4,11,51, 5,32,31		4,23, 3,18,13	
		4, 0,53,13,14,26,41		18
10″	59,58, 9,46, 5, 5, 4,19,59,12		4,23, 3,18,31	
		4, 0,48,50,11, 8,10		18
12″	59,58, 9,50, 5,53,54,31, 7,22		4,23, 3,18,49	
		4, 0,44,27, 7,49,21		18
14″	59,58, 9,54, 6,38,21,38,56,43		4,23, 3,19, 7	
		4, 0,40, 4, 4,30,14		18
16″	59,58, 9,58, 7,18,25,43,26,57		4,23, 3,19,25	
		4, 0,35,41, 1,10,49		18
18″	59,58,10, 2, 7,54, 6,44,37,46		4,23, 3,19,43	
		4, 0,31,17,57,51, 6		18
20″	59,58,10, 6, 8,25,24,42,28,52		4,23, 3,20, 1	
		4, 0,26,54,54,31, 5		18
22″	59,58,10,10, 8,52,19,36,59,57		4,23, 3,20,19	
		4, 0,22,31,51,10,46		18
24″	59,58,10,14, 9,14,51,28,10,43		4,23, 3,20,37	
		4, 0,18, 8,47,50, 9		18
26″	59,58,10,18, 9,33, 0,16, 0,52		4,23, 3,20,55	
		4, 0,13,45,44,29,14		18
28″	59,58,10,22, 9,46,46, 0,30, 6		4,23, 3,21,13	
		4, 0, 9,22,41, 8, 1		18
30″	59,58,10,26, 9,56, 8,41,38, 7		4,23, 3,21,31	
		4, 0, 4,59,37,46,30		18
32″	59,58,10,30,10, 1, 8,19,24,37		4,23, 3,21,49	
		4, 0, 0,36,34,24,41		18
34″	59,58,10,34,10, 1,44,53,49,18		4,23, 3,22, 7	
		3,59,56,13,31, 2,34		18
36″	59,58,10,38, 9,57,58,24,51,52		4,23, 3,22,25	
		3,59,51,50,27,40, 9		18
38″	59,58,10,42, 9,49,48,52,32, 1		4,23, 3,22,43	
		3,59,47,27,24,17,26		18
40″	59,58,10,46, 9,37,16,16,49,27		4,23, 3,23, 1	
		3,59,43, 4,20,54,25		18
42″	59,58,10,50, 9,20,20,37,43,52		4,23, 3,23,19	
		3,59,38,41,17,31, 6		18
44″	59,58,10,54, 8,59, 1,55,14,58		4,23, 3,23,37	
		3,59,34,18,14, 7,29		18
46″	59,58,10,58, 8,33,20, 9,22,27		4,23, 3,23,55	
		3,59,29,55,10,43,34		18
48″	59,58,11, 2, 8, 3,15,20, 6, 1		4,23, 3,24,13	
		3,59,25,32, 7,19,21		18
50″	59,58,11, 6, 7,28,47,27,25,22		4,23, 3,24,31	
		3,59,21, 9, 3,54,50		18
52″	59,58,11,10, 6,49,56,31,20,12		4,23, 3,24,49	
		3,59,16,46, 0,30, 1		18
54″	59,58,11,14, 6, 6,42,31,50,13		4,23, 3,25, 7	
		3,59,12,22,57, 4,54		18
56″	59,58,11,18, 5,19, 5,28,55, 7		4,23, 3,25,25	
		3,59, 7,59,53,39,29		18
58″	59,58,11,22, 4,27, 5,22,34,36		4,23, 3,25,43	
		3,59, 3,36,50,13,46		
60″	59,58,11,26, 3,30,42,12,48,22			
exact	59,58,11,26, 3,30,42,13,16, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°11′ 0″	59,58,11,26, 3,30,42,13,16, 4			
		3,58,59,13,46,50,49		
2″	59,58,11,30, 2,29,56, 0, 6,53		4,23, 3,26, 5	
		3,58,54,50,43,24,44		17
4″	59,58,11,34, 1,24,46,43,31,37		4,23, 3,26,22	
		3,58,50,27,39,58,22		17
6″	59,58,11,38, 0,15,14,23,29,59		4,23, 3,26,39	
		3,58,46, 4,36,31,43		17
8″	59,58,11,41,59, 1,19, 0, 1,42		4,23, 3,26,56	
		3,58,41,41,33, 4,47		17
10″	59,58,11,45,57,43, 0,33, 6,29		4,23, 3,27,13	
		3,58,37,18,29,37,34		17
12″	59,58,11,49,56,20,19, 2,44, 3		4,23, 3,27,30	
		3,58,32,55,26,10, 4		17
14″	59,58,11,53,54,53,14,28,54, 7		4,23, 3,27,47	
		3,58,28,32,22,42,17		17
16″	59,58,11,57,53,21,46,51,36,24		4,23, 3,28, 4	
		3,58,24, 9,19,14,13		17
18″	59,58,12, 1,51,45,56,10,50,37		4,23, 3,28,21	
		3,58,19,46,15,45,52		17
20″	59,58,12, 5,50, 5,42,26,36,29		4,23, 3,28,38	
		3,58,15,23,12,17,14		17
22″	59,58,12, 9,48,21, 5,38,53,43		4,23, 3,28,55	
		3,58,11, 0, 8,48,19		17
24″	59,58,12,13,46,32, 5,47,42, 2		4,23, 3,29,12	
		3,58, 6,37, 5,19, 7		17
26″	59,58,12,17,44,38,42,53, 1, 9		4,23, 3,29,29	
		3,58, 2,14, 1,49,38		17
28″	59,58,12,21,42,40,56,54,50,47		4,23, 3,29,46	
		3,57,57,50,58,19,52		17
30″	59,58,12,25,40,38,47,53,10,39		4,23, 3,30, 3	
		3,57,53,27,54,49,49		17
32″	59,58,12,29,38,32,15,48, 0,28		4,23, 3,30,20	
		3,57,49, 4,51,19,29		17
34″	59,58,12,33,36,21,20,39,19,57		4,23, 3,30,37	
		3,57,44,41,47,48,52		17
36″	59,58,12,37,34, 6, 2,27, 8,49		4,23, 3,30,54	
		3,57,40,18,44,17,58		17
38″	59,58,12,41,31,46,21,11,26,47		4,23, 3,31,11	
		3,57,35,55,40,46,47		17
40″	59,58,12,45,29,22,16,52,13,34		4,23, 3,31,28	
		3,57,31,32,37,15,19		17
42″	59,58,12,49,26,53,49,29,28,53		4,23, 3,31,45	
		3,57,27, 9,33,43,34		17
44″	59,58,12,53,24,20,59, 3,12,27		4,23, 3,32, 2	
		3,57,22,46,30,11,32		17
46″	59,58,12,57,21,43,45,33,23,59		4,23, 3,32,19	
		3,57,18,23,26,39,13		17
48″	59,58,13, 1,19, 2, 9, 0, 3,12		4,23, 3,32,36	
		3,57,14, 0,23, 6,37		17
50″	59,58,13, 5,16,16, 9,23, 9,49		4,23, 3,32,53	
		3,57, 9,37,19,33,44		17
52″	59,58,13, 9,13,25,46,42,43,33		4,23, 3,33,10	
		3,57, 5,14,16, 0,34		17
54″	59,58,13,13,10,31, 0,58,44, 7		4,23, 3,33,27	
		3,57, 0,51,12,27, 7		17
56″	59,58,13,17, 7,31,52,11,11,14		4,23, 3,33,44	
		3,56,56,28, 8,53,23		17
58″	59,58,13,21, 4,28,20,20, 4,37		4,23, 3,34, 1	
		3,56,52, 5, 5,19,22		
60″	59,58,13,25, 1,20,25,25,23,59			
exact	59,58,13,25, 1,20,25,24,51,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°12′ 0″	59,58,13,25, 1,20,25,24,51,27			
		3,56,47,42, 1,41,49		
2″	59,58,13,28,58, 8, 7,26,33,16		4,23, 3,34,47	
		3,56,43,18,58, 7, 2		17
4″	59,58,13,32,54,51,26,24,40,18		4,23, 3,35, 4	
		3,56,38,55,54,31,58		17
6″	59,58,13,36,51,30,22,19,12,16		4,23, 3,35,21	
		3,56,34,32,50,56,37		17
8″	59,58,13,40,48, 4,55,10, 8,53		4,23, 3,35,38	
		3,56,30, 9,47,20,59		17
10″	59,58,13,44,44,35, 4,57,29,52		4,23, 3,35,55	
		3,56,25,46,43,45, 4		17
12″	59,58,13,48,41, 0,51,41,14,56		4,23, 3,36,12	
		3,56,21,23,40, 8,52		17
14″	59,58,13,52,37,22,15,21,23,48		4,23, 3,36,29	
		3,56,17, 0,36,32,23		17
16″	59,58,13,56,33,39,15,57,56,11		4,23, 3,36,46	
		3,56,12,37,32,55,37		17
18″	59,58,14, 0,29,51,53,30,51,48		4,23, 3,37, 3	
		3,56, 8,14,29,18,34		17
20″	59,58,14, 4,26, 0, 8, 0,10,22		4,23, 3,37,20	
		3,56, 3,51,25,41,14		17
22″	59,58,14, 8,22, 3,59,25,51,36		4,23, 3,37,37	
		3,55,59,28,22, 3,37		17
24″	59,58,14,12,18, 3,27,47,55,13		4,23, 3,37,54	
		3,55,55, 5,18,25,43		17
26″	59,58,14,16,13,58,33, 6,20,56		4,23, 3,38,11	
		3,55,50,42,14,47,32		17
28″	59,58,14,20, 9,49,15,21, 8,28		4,23, 3,38,28	
		3,55,46,19,11, 9, 4		17
30″	59,58,14,24, 5,35,34,32,17,32		4,23, 3,38,45	
		3,55,41,56, 7,30,19		17
32″	59,58,14,28, 1,17,30,39,47,51		4,23, 3,39, 2	
		3,55,37,33, 3,51,17		17
34″	59,58,14,31,56,55, 3,43,39, 8		4,23, 3,39,19	
		3,55,33,10, 0,11,58		17
36″	59,58,14,35,52,28,13,43,51, 6		4,23, 3,39,36	
		3,55,28,46,56,32,22		17
38″	59,58,14,39,47,57, 0,40,23,28		4,23, 3,39,53	
		3,55,24,23,52,52,29		17
40″	59,58,14,43,43,21,24,33,15,57		4,23, 3,40,10	
		3,55,20, 0,49,12,19		17
42″	59,58,14,47,38,41,25,22,28,16		4,23, 3,40,27	
		3,55,15,37,45,31,52		17
44″	59,58,14,51,33,57, 3, 8, 0, 8		4,23, 3,40,44	
		3,55,11,14,41,51, 8		17
46″	59,58,14,55,29, 8,17,49,51,16		4,23, 3,41, 1	
		3,55, 6,51,38,10, 7		17
48″	59,58,14,59,24,15, 9,28, 1,23		4,23, 3,41,18	
		3,55, 2,28,34,28,49		17
50″	59,58,15, 3,19,17,38, 2,30,12		4,23, 3,41,35	
		3,54,58, 5,30,47,14		17
52″	59,58,15, 7,14,15,43,33,17,26		4,23, 3,41,52	
		3,54,53,42,27, 5,22		17
54″	59,58,15,11, 9, 9,26, 0,22,48		4,23, 3,42, 9	
		3,54,49,19,23,23,13		17
56″	59,58,15,15, 3,58,45,23,46, 1		4,23, 3,42,26	
		3,54,44,56,19,40,47		17
58″	59,58,15,18,58,43,41,43,26,48		4,23, 3,42,43	
		3,54,40,33,15,58, 4		
60″	59,58,15,22,53,24,14,59,24,52			
exact	59,58,15,22,53,24,14,59, 5,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°13′ 0″	59,58,15,22,53,24,14,59, 5,15			
		3,54,36,10,12,13, 7		
2″	59,58,15,26,48, 0,25,11,18,22		4,23, 3,43,24	
		3,54,31,47, 8,29,43		17
4″	59,58,15,30,42,32,12,19,48, 5		4,23, 3,43,41	
		3,54,27,24, 4,46, 2		17
6″	59,58,15,34,36,59,36,24,34, 7		4,23, 3,43,58	
		3,54,23, 1, 1, 2, 4		17
8″	59,58,15,38,31,22,37,25,36,11		4,23, 3,44,15	
		3,54,18,37,57,17,49		17
10″	59,58,15,42,25,41,15,22,54, 0		4,23, 3,44,32	
		3,54,14,14,53,33,17		17
12″	59,58,15,46,19,55,30,16,27,17		4,23, 3,44,49	
		3,54, 9,51,49,48,28		17
14″	59,58,15,50,14, 5,22, 6,15,45		4,23, 3,45, 6	
		3,54, 5,28,46, 3,22		17
16″	59,58,15,54, 8,10,50,52,19, 7		4,23, 3,45,23	
		3,54, 1, 5,42,17,59		17
18″	59,58,15,58, 2,11,56,34,37, 6		4,23, 3,45,40	
		3,53,56,42,38,32,19		17
20″	59,58,16, 1,56, 8,39,13, 9,25		4,23, 3,45,57	
		3,53,52,19,34,46,22		17
22″	59,58,16, 5,50, 0,58,47,55,47		4,23, 3,46,14	
		3,53,47,56,31, 0, 8		17
24″	59,58,16, 9,43,48,55,18,55,55		4,23, 3,46,31	
		3,53,43,33,27,13,37		17
26″	59,58,16,13,37,32,28,46, 9,32		4,23, 3,46,48	
		3,53,39,10,23,26,49		17
28″	59,58,16,17,31,11,39, 9,36,21		4,23, 3,47, 5	
		3,53,34,47,19,39,44		17
30″	59,58,16,21,24,46,26,29,16, 5		4,23, 3,47,22	
		3,53,30,24,15,52,22		17
32″	59,58,16,25,18,16,50,45, 8,27		4,23, 3,47,39	
		3,53,26, 1,12, 4,43		17
34″	59,58,16,29,11,42,51,57,13,10		4,23, 3,47,56	
		3,53,21,38, 8,16,47		17
36″	59,58,16,33, 5, 4,30, 5,29,57		4,23, 3,48,13	
		3,53,17,15, 4,28,34		17
38″	59,58,16,36,58,21,45, 9,58,31		4,23, 3,48,30	
		3,53,12,52, 0,40, 4		17
40″	59,58,16,40,51,34,37,10,38,35		4,23, 3,48,47	
		3,53, 8,28,56,51,17		17
42″	59,58,16,44,44,43, 6, 7,29,52		4,23, 3,49, 4	
		3,53, 4, 5,53, 2,13		17
44″	59,58,16,48,37,47,12, 0,32, 5		4,23, 3,49,21	
		3,52,59,42,49,12,52		17
46″	59,58,16,52,30,46,54,49,44,57		4,23, 3,49,38	
		3,52,55,19,45,23,14		17
48″	59,58,16,56,23,42,14,35, 8,11		4,23, 3,49,55	
		3,52,50,56,41,33,19		17
50″	59,58,17, 0,16,33,11,16,41,30		4,23, 3,50,12	
		3,52,46,33,37,43, 7		17
52″	59,58,17, 4, 9,19,44,54,24,37		4,23, 3,50,29	
		3,52,42,10,33,52,38		17
54″	59,58,17, 8, 2, 1,55,28,17,15		4,23, 3,50,46	
		3,52,37,47,30, 1,52		17
56″	59,58,17,11,54,39,42,58,19, 7		4,23, 3,51, 3	
		3,52,33,24,26,10,49		17
58″	59,58,17,15,47,13, 7,24,29,56		4,23, 3,51,20	
		3,52,29, 1,22,19,29		
60″	59,58,17,19,39,42, 8,46,49,25			
exact	59,58,17,19,39,42, 8,46,42, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°14′ 0″	59,58,17,19,39,42, 8,46,42, 5			
		3,52,24,38,18,27,10		
2″	59,58,17,23,32, 6,47, 5, 9,15		4,23, 3,51,56	
		3,52,20,15,14,35,14		17
4″	59,58,17,27,24,27, 2,19,44,29		4,23, 3,52,13	
		3,52,15,52,10,43, 1		17
6″	59,58,17,31,16,42,54,30,27,30		4,23, 3,52,30	
		3,52,11,29, 6,50,31		17
8″	59,58,17,35, 8,54,23,37,18, 1		4,23, 3,52,47	
		3,52, 7, 6, 2,57,44		17
10″	59,58,17,39, 1, 1,29,40,15,45		4,23, 3,53, 4	
		3,52, 2,42,59, 4,40		17
12″	59,58,17,42,53, 4,12,39,20,25		4,23, 3,53,21	
		3,51,58,19,55,11,19		17
14″	59,58,17,46,45, 2,32,34,31,44		4,23, 3,53,38	
		3,51,53,56,51,17,41		17
16″	59,58,17,50,36,56,29,25,49,25		4,23, 3,53,55	
		3,51,49,33,47,23,46		17
18″	59,58,17,54,28,46, 3,13,13,11		4,23, 3,54,12	
		3,51,45,10,43,29,34		17
20″	59,58,17,58,20,31,13,56,42,45		4,23, 3,54,29	
		3,51,40,47,39,35, 5		17
22″	59,58,18, 2,12,12, 1,36,17,50		4,23, 3,54,46	
		3,51,36,24,35,40,19		17
24″	59,58,18, 6, 3,48,26,11,58, 9		4,23, 3,55, 3	
		3,51,32, 1,31,45,16		17
26″	59,58,18, 9,55,20,27,43,43,25		4,23, 3,55,20	
		3,51,27,38,27,49,56		17
28″	59,58,18,13,46,48, 6,11,33,21		4,23, 3,55,37	
		3,51,23,15,23,54,19		17
30″	59,58,18,17,38,11,21,35,27,40		4,23, 3,55,54	
		3,51,18,52,19,58,25		17
32″	59,58,18,21,29,30,13,55,26, 5		4,23, 3,56,11	
		3,51,14,29,16, 2,14		17
34″	59,58,18,25,20,44,43,11,28,19		4,23, 3,56,28	
		3,51,10, 6,12, 5,46		17
36″	59,58,18,29,11,54,49,23,34, 5		4,23, 3,56,45	
		3,51, 5,43, 8, 9, 1		17
38″	59,58,18,33, 3, 0,32,31,43, 6		4,23, 3,57, 2	
		3,51, 1,20, 4,11,59		17
40″	59,58,18,36,54, 1,52,35,55, 5		4,23, 3,57,19	
		3,50,56,57, 0,14,40		17
42″	59,58,18,40,44,58,49,36, 9,45		4,23, 3,57,36	
		3,50,52,33,56,17, 4		17
44″	59,58,18,44,35,51,23,32,26,49		4,23, 3,57,53	
		3,50,48,10,52,19,11		17
46″	59,58,18,48,26,39,34,24,46, 0		4,23, 3,58,10	
		3,50,43,47,48,21, 1		17
48″	59,58,18,52,17,23,22,13, 7, 1		4,23, 3,58,27	
		3,50,39,24,44,22,34		17
50″	59,58,18,56, 8, 2,46,57,29,35		4,23, 3,58,44	
		3,50,35, 1,40,23,50		17
52″	59,58,18,59,58,37,48,37,53,25		4,23, 3,59, 1	
		3,50,30,38,36,24,49		17
54″	59,58,19, 3,49, 8,27,14,18,14		4,23, 3,59,18	
		3,50,26,15,32,25,31		17
56″	59,58,19, 7,39,34,42,46,43,45		4,23, 3,59,35	
		3,50,21,52,28,25,56		17
58″	59,58,19,11,29,56,35,15, 9,41		4,23, 3,59,52	
		3,50,17,29,24,26, 4		
60″	59,58,19,15,20,14, 4,39,35,45			
exact	59,58,19,15,20,14, 4,39,38,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°15′ 0″	59,58,19,15,20,14, 4,39,38,42			
		3,50,13, 6,20,26,21		
2″	59,58,19,19,10,27,11, 0, 5, 3		4,23, 4, 0,23	
		3,50, 8,43,16,25,58		17
4″	59,58,19,23, 0,35,54,16,31, 1		4,23, 4, 0,40	
		3,50, 4,20,12,25,18		17
6″	59,58,19,26,50,40,14,28,56,19		4,23, 4, 0,57	
		3,49,59,57, 8,24,21		17
8″	59,58,19,30,40,40,11,37,20,40		4,23, 4, 1,14	
		3,49,55,34, 4,23, 7		17
10″	59,58,19,34,30,35,45,41,43,47		4,23, 4, 1,31	
		3,49,51,11, 0,21,36		17
12″	59,58,19,38,20,26,56,42, 5,23		4,23, 4, 1,48	
		3,49,46,47,56,19,48		17
14″	59,58,19,42,10,13,44,38,25,11		4,23, 4, 2, 5	
		3,49,42,24,52,17,43		17
16″	59,58,19,45,59,56, 9,30,42,54		4,23, 4, 2,22	
		3,49,38, 1,48,15,21		17
18″	59,58,19,49,49,34,11,18,58,15		4,23, 4, 2,39	
		3,49,33,38,44,12,42		17
20″	59,58,19,53,39, 7,50, 3,10,57		4,23, 4, 2,56	
		3,49,29,15,40, 9,46		17
22″	59,58,19,57,28,37, 5,43,20,43		4,23, 4, 3,13	
		3,49,24,52,36, 6,33		17
24″	59,58,20, 1,18, 1,58,19,27,16		4,23, 4, 3,30	
		3,49,20,29,32, 3, 3		17
26″	59,58,20, 5, 7,22,27,51,30,19		4,23, 4, 3,47	
		3,49,16, 6,27,59,16		17
28″	59,58,20, 8,56,38,34,19,29,35		4,23, 4, 4, 4	
		3,49,11,43,23,55,12		17
30″	59,58,20,12,45,50,17,43,24,47		4,23, 4, 4,21	
		3,49, 7,20,19,50,51		17
32″	59,58,20,16,34,57,38, 3,15,38		4,23, 4, 4,38	
		3,49, 2,57,15,46,13		17
34″	59,58,20,20,24, 0,35,19, 1,51		4,23, 4, 4,55	
		3,48,58,34,11,41,18		17
36″	59,58,20,24,12,59, 9,30,43, 9		4,23, 4, 5,12	
		3,48,54,11, 7,36, 6		17
38″	59,58,20,28, 1,53,20,38,19,15		4,23, 4, 5,29	
		3,48,49,48, 3,30,37		17
40″	59,58,20,31,50,43, 8,41,49,52		4,23, 4, 5,46	
		3,48,45,24,59,24,51		17
42″	59,58,20,35,39,28,33,41,14,43		4,23, 4, 6, 3	
		3,48,41, 1,55,18,48		17
44″	59,58,20,39,28, 9,35,36,33,31		4,23, 4, 6,20	
		3,48,36,38,51,12,28		17
46″	59,58,20,43,16,46,14,27,45,59		4,23, 4, 6,37	
		3,48,32,15,47, 5,51		17
48″	59,58,20,47, 5,18,30,14,51,50		4,23, 4, 6,54	
		3,48,27,52,42,58,57		17
50″	59,58,20,50,53,46,22,57,50,47		4,23, 4, 7,11	
		3,48,23,29,38,51,46		17
52″	59,58,20,54,42, 9,52,36,42,33		4,23, 4, 7,28	
		3,48,19, 6,34,44,18		17
54″	59,58,20,58,30,28,59,11,26,51		4,23, 4, 7,45	
		3,48,14,43,30,36,33		17
56″	59,58,21, 2,18,43,42,42, 3,24		4,23, 4, 8, 2	
		3,48,10,20,26,28,31		17
58″	59,58,21, 6, 6,54, 3, 8,31,55		4,23, 4, 8,19	
		3,48, 5,57,22,20,12		
60″	59,58,21, 9,55, 0, 0,30,52, 7			
exact	59,58,21, 9,55, 0, 0,31, 3,55			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°16′ 0″	59,58,21, 9,55, 0, 0,31, 3,55			
		3,48, 1,34,18,13, 4		
2″	59,58,21,13,43, 1,34,49,16,59		4,23, 4, 8,46	
		3,47,57,11,14, 4,18		17
4″	59,58,21,17,30,58,46, 3,21,17		4,23, 4, 9, 3	
		3,47,52,48, 9,55,15		17
6″	59,58,21,21,18,51,34,13,16,32		4,23, 4, 9,20	
		3,47,48,25, 5,45,55		17
8″	59,58,21,25, 6,39,59,19, 2,27		4,23, 4, 9,37	
		3,47,44, 2, 1,36,18		17
10″	59,58,21,28,54,24, 1,20,38,45		4,23, 4, 9,54	
		3,47,39,38,57,26,24		17
12″	59,58,21,32,42, 3,40,18, 5, 9		4,23, 4,10,11	
		3,47,35,15,53,16,13		17
14″	59,58,21,36,29,38,56,11,21,22		4,23, 4,10,28	
		3,47,30,52,49, 5,45		17
16″	59,58,21,40,17, 9,49, 0,27, 7		4,23, 4,10,45	
		3,47,26,29,44,55, 0		17
18″	59,58,21,44, 4,36,18,45,22, 7		4,23, 4,11, 2	
		3,47,22, 6,40,43,58		17
20″	59,58,21,47,51,58,25,26, 6, 5		4,23, 4,11,19	
		3,47,17,43,36,32,39		17
22″	59,58,21,51,39,16, 9, 2,38,44		4,23, 4,11,36	
		3,47,13,20,32,21, 3		17
24″	59,58,21,55,26,29,29,34,59,47		4,23, 4,11,53	
		3,47, 8,57,28, 9,10		17
26″	59,58,21,59,13,38,27, 3, 8,57		4,23, 4,12,10	
		3,47, 4,34,23,57, 0		17
28″	59,58,22, 3, 0,43, 1,27, 5,57		4,23, 4,12,27	
		3,47, 0,11,19,44,33		17
30″	59,58,22, 6,47,43,12,46,50,30		4,23, 4,12,44	
		3,46,55,48,15,31,49		17
32″	59,58,22,10,34,39, 1, 2,22,19		4,23, 4,13, 1	
		3,46,51,25,11,18,48		17
34″	59,58,22,14,21,30,26,13,41, 7		4,23, 4,13,18	
		3,46,47, 2, 7, 5,30		17
36″	59,58,22,18, 8,17,28,20,46,37		4,23, 4,13,35	
		3,46,42,39, 2,51,55		17
38″	59,58,22,21,55, 0, 7,23,38,32		4,23, 4,13,52	
		3,46,38,15,58,38, 3		17
40″	59,58,22,25,41,38,23,22,16,35		4,23, 4,14, 9	
		3,46,33,52,54,23,54		17
42″	59,58,22,29,28,12,16,16,40,29		4,23, 4,14,26	
		3,46,29,29,50, 9,28		17
44″	59,58,22,33,14,41,46, 6,49,57		4,23, 4,14,43	
		3,46,25, 6,45,54,45		17
46″	59,58,22,37, 1, 6,52,52,44,42		4,23, 4,15, 0	
		3,46,20,43,41,39,45		17
48″	59,58,22,40,47,27,36,34,24,27		4,23, 4,15,17	
		3,46,16,20,37,24,28		17
50″	59,58,22,44,33,43,57,11,48,55		4,23, 4,15,34	
		3,46,11,57,33, 8,54		17
52″	59,58,22,48,19,55,54,44,57,49		4,23, 4,15,51	
		3,46, 7,34,28,53, 3		17
54″	59,58,22,52, 6, 3,29,13,50,52		4,23, 4,16, 8	
		3,46, 3,11,24,36,55		17
56″	59,58,22,55,52, 6,40,38,27,47		4,23, 4,16,25	
		3,45,58,48,20,20,30		17
58″	59,58,22,59,38, 5,28,58,48,17		4,23, 4,16,42	
		3,45,54,25,16, 3,48		
60″	59,58,23, 3,23,59,54,14,52, 5			
exact	59,58,23, 3,23,59,54,15,18,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°17′ 0″	59,58,23, 3,23,59,54,15,18,45			
		3,45,50, 2,11,49,43		
2″	59,58,23, 7, 9,49,56,27, 8,28		4,23, 4,17, 3	
		3,45,45,39, 7,32,40		17
4″	59,58,23,10,55,35,35,34,41, 8		4,23, 4,17,20	
		3,45,41,16, 3,15,20		17
6″	59,58,23,14,41,16,51,37,56,28		4,23, 4,17,37	
		3,45,36,52,58,57,43		17
8″	59,58,23,18,26,53,44,36,54,11		4,23, 4,17,54	
		3,45,32,29,54,39,49		17
10″	59,58,23,22,12,26,14,31,34, 0		4,23, 4,18,11	
		3,45,28, 6,50,21,38		17
12″	59,58,23,25,57,54,21,21,55,38		4,23, 4,18,28	
		3,45,23,43,46, 3,10		17
14″	59,58,23,29,43,18, 5, 7,58,48		4,23, 4,18,45	
		3,45,19,20,41,44,25		17
16″	59,58,23,33,28,37,25,49,43,13		4,23, 4,19, 2	
		3,45,14,57,37,25,23		17
18″	59,58,23,37,13,52,23,27, 8,36		4,23, 4,19,19	
		3,45,10,34,33, 6, 4		17
20″	59,58,23,40,59, 2,58, 0,14,40		4,23, 4,19,36	
		3,45, 6,11,28,46,28		17
22″	59,58,23,44,44, 9, 9,29, 1, 8		4,23, 4,19,53	
		3,45, 1,48,24,26,35		17
24″	59,58,23,48,29,10,57,53,27,43		4,23, 4,20,10	
		3,44,57,25,20, 6,25		17
26″	59,58,23,52,14, 8,23,13,34, 8		4,23, 4,20,27	
		3,44,53, 2,15,45,58		17
28″	59,58,23,55,59, 1,25,29,20, 6		4,23, 4,20,44	
		3,44,48,39,11,25,14		17
30″	59,58,23,59,43,50, 4,40,45,20		4,23, 4,21, 1	
		3,44,44,16, 7, 4,13		17
32″	59,58,24, 3,28,34,20,47,49,33		4,23, 4,21,18	
		3,44,39,53, 2,42,55		17
34″	59,58,24, 7,13,14,13,50,32,28		4,23, 4,21,35	
		3,44,35,29,58,21,20		17
36″	59,58,24,10,57,49,43,48,53,48		4,23, 4,21,52	
		3,44,31, 6,53,59,28		17
38″	59,58,24,14,42,20,50,42,53,16		4,23, 4,22, 9	
		3,44,26,43,49,37,19		17
40″	59,58,24,18,26,47,34,32,30,35		4,23, 4,22,26	
		3,44,22,20,45,14,53		17
42″	59,58,24,22,11, 9,55,17,45,28		4,23, 4,22,43	
		3,44,17,57,40,52,10		17
44″	59,58,24,25,55,27,52,58,37,38		4,23, 4,23, 0	
		3,44,13,34,36,29,10		17
46″	59,58,24,29,39,41,27,35, 6,48		4,23, 4,23,17	
		3,44, 9,11,32, 5,53		17
48″	59,58,24,33,23,50,39, 7,12,41		4,23, 4,23,34	
		3,44, 4,48,27,42,19		17
50″	59,58,24,37, 7,55,27,34,55, 0		4,23, 4,23,51	
		3,44, 0,25,23,18,28		17
52″	59,58,24,40,51,55,52,58,13,28		4,23, 4,24, 8	
		3,43,56, 2,18,54,20		17
54″	59,58,24,44,35,51,55,17, 7,48		4,23, 4,24,25	
		3,43,51,39,14,29,55		17
56″	59,58,24,48,19,43,34,31,37,43		4,23, 4,24,42	
		3,43,47,16,10, 5,13		17
58″	59,58,24,52, 3,30,50,41,42,56		4,23, 4,24,59	
		3,43,42,53, 5,40,14		
60″	59,58,24,55,47,13,43,47,23,10			
exact	59,58,24,55,47,13,43,47,56,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°18′ 0″	59,58,24,55,47,13,43,47,56,17			
		3,43,38,30, 1,18,43		
2″	59,58,24,59,30,52,13,49,15, 0		4,23, 4,25,16	
		3,43,34, 6,56,53,27		16
4″	59,58,25, 3,14,26,20,46, 8,27		4,23, 4,25,32	
		3,43,29,43,52,27,55		16
6″	59,58,25, 6,57,56, 4,38,36,22		4,23, 4,25,48	
		3,43,25,20,48, 2, 7		16
8″	59,58,25,10,41,21,25,26,38,29		4,23, 4,26, 4	
		3,43,20,57,43,36, 3		16
10″	59,58,25,14,24,42,23,10,14,32		4,23, 4,26,20	
		3,43,16,34,39, 9,43		16
12″	59,58,25,18, 7,58,57,49,24,15		4,23, 4,26,36	
		3,43,12,11,34,43, 7		16
14″	59,58,25,21,51,11, 9,24, 7,22		4,23, 4,26,52	
		3,43, 7,48,30,16,15		16
16″	59,58,25,25,34,18,57,54,23,37		4,23, 4,27, 8	
		3,43, 3,25,25,49, 7		16
18″	59,58,25,29,17,22,23,20,12,44		4,23, 4,27,24	
		3,42,59, 2,21,21,43		16
20″	59,58,25,33, 0,21,25,41,34,27		4,23, 4,27,40	
		3,42,54,39,16,54, 3		16
22″	59,58,25,36,43,16, 4,58,28,30		4,23, 4,27,56	
		3,42,50,16,12,26, 7		16
24″	59,58,25,40,26, 6,21,10,54,37		4,23, 4,28,12	
		3,42,45,53, 7,57,55		16
26″	59,58,25,44, 8,52,14,18,52,32		4,23, 4,28,28	
		3,42,41,30, 3,29,27		16
28″	59,58,25,47,51,33,44,22,21,59		4,23, 4,28,44	
		3,42,37, 6,59, 0,43		16
30″	59,58,25,51,34,10,51,21,22,42		4,23, 4,29, 0	
		3,42,32,43,54,31,43		16
32″	59,58,25,55,16,43,35,15,54,25		4,23, 4,29,16	
		3,42,28,20,50, 2,27		16
34″	59,58,25,58,59,11,56, 5,56,52		4,23, 4,29,32	
		3,42,23,57,45,32,55		16
36″	59,58,26, 2,41,35,53,51,29,47		4,23, 4,29,48	
		3,42,19,34,41, 3, 7		16
38″	59,58,26, 6,23,55,28,32,32,54		4,23, 4,30, 4	
		3,42,15,11,36,33, 3		16
40″	59,58,26,10, 6,10,40, 9, 5,57		4,23, 4,30,20	
		3,42,10,48,32, 2,43		16
42″	59,58,26,13,48,21,28,41, 8,40		4,23, 4,30,36	
		3,42, 6,25,27,32, 7		16
44″	59,58,26,17,30,27,54, 8,40,47		4,23, 4,30,52	
		3,42, 2, 2,23, 1,15		16
46″	59,58,26,21,12,29,56,31,42, 2		4,23, 4,31, 8	
		3,41,57,39,18,30, 7		16
48″	59,58,26,24,54,27,35,50,12, 9		4,23, 4,31,24	
		3,41,53,16,13,58,43		16
50″	59,58,26,28,36,20,52, 4,10,52		4,23, 4,31,40	
		3,41,48,53, 9,27, 3		16
52″	59,58,26,32,18, 9,45,13,37,55		4,23, 4,31,56	
		3,41,44,30, 4,55, 7		16
54″	59,58,26,35,59,54,15,18,33, 2		4,23, 4,32,12	
		3,41,40, 7, 0,22,55		16
56″	59,58,26,39,41,34,22,18,55,57		4,23, 4,32,28	
		3,41,35,43,55,50,27		16
58″	59,58,26,43,23,10, 6,14,46,24		4,23, 4,32,44	
		3,41,31,20,51,17,43		
60″	59,58,26,47, 4,41,27, 6, 4, 7			
exact	59,58,26,47, 4,41,27, 5,41,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°19′ 0″	59,58,26,47, 4,41,27, 5,41,43			
		3,41,26,57,46,42,28		
2″	59,58,26,50,46, 8,24,52,24,11		4,23, 4,33,24	
		3,41,22,34,42, 9, 4		16
4″	59,58,26,54,27,30,59,34,33,15		4,23, 4,33,40	
		3,41,18,11,37,35,24		16
6″	59,58,26,58, 8,49,11,12, 8,39		4,23, 4,33,56	
		3,41,13,48,33, 1,28		16
8″	59,58,27, 1,50, 2,59,45,10, 7		4,23, 4,34,12	
		3,41, 9,25,28,27,16		16
10″	59,58,27, 5,31,12,25,13,37,23		4,23, 4,34,28	
		3,41, 5, 2,23,52,48		16
12″	59,58,27, 9,12,17,27,37,30,11		4,23, 4,34,44	
		3,41, 0,39,19,18, 4		16
14″	59,58,27,12,53,18, 6,56,48,15		4,23, 4,35, 0	
		3,40,56,16,14,43, 4		16
16″	59,58,27,16,34,14,23,11,31,19		4,23, 4,35,16	
		3,40,51,53,10, 7,48		16
18″	59,58,27,20,15, 6,16,21,39, 7		4,23, 4,35,32	
		3,40,47,30, 5,32,16		16
20″	59,58,27,23,55,53,46,27,11,23		4,23, 4,35,48	
		3,40,43, 7, 0,56,28		16
22″	59,58,27,27,36,36,53,28, 7,51		4,23, 4,36, 4	
		3,40,38,43,56,20,24		16
24″	59,58,27,31,17,15,37,24,28,15		4,23, 4,36,20	
		3,40,34,20,51,44, 4		16
26″	59,58,27,34,57,49,58,16,12,19		4,23, 4,36,36	
		3,40,29,57,47, 7,28		16
28″	59,58,27,38,38,19,56, 3,19,47		4,23, 4,36,52	
		3,40,25,34,42,30,36		16
30″	59,58,27,42,18,45,30,45,50,23		4,23, 4,37, 8	
		3,40,21,11,37,53,28		16
32″	59,58,27,45,59, 6,42,23,43,51		4,23, 4,37,24	
		3,40,16,48,33,16, 4		16
34″	59,58,27,49,39,23,30,56,59,55		4,23, 4,37,40	
		3,40,12,25,28,38,24		16
36″	59,58,27,53,19,35,56,25,38,19		4,23, 4,37,56	
		3,40, 8, 2,24, 0,28		16
38″	59,58,27,56,59,43,58,49,38,47		4,23, 4,38,12	
		3,40, 3,39,19,22,16		16
40″	59,58,28, 0,39,47,38, 9, 1, 3		4,23, 4,38,28	
		3,39,59,16,14,43,48		16
42″	59,58,28, 4,19,46,54,23,44,51		4,23, 4,38,44	
		3,39,54,53,10, 5, 4		16
44″	59,58,28, 7,59,41,47,33,49,55		4,23, 4,39, 0	
		3,39,50,30, 5,26, 4		16
46″	59,58,28,11,39,32,17,39,15,59		4,23, 4,39,16	
		3,39,46, 7, 0,46,48		16
48″	59,58,28,15,19,18,24,40, 2,47		4,23, 4,39,32	
		3,39,41,43,56, 7,16		16
50″	59,58,28,18,59, 0, 8,36,10, 3		4,23, 4,39,48	
		3,39,37,20,51,27,28		16
52″	59,58,28,22,38,37,29,27,37,31		4,23, 4,40, 4	
		3,39,32,57,46,47,24		16
54″	59,58,28,26,18,10,27,14,24,55		4,23, 4,40,20	
		3,39,28,34,42, 7, 4		16
56″	59,58,28,29,57,39, 1,56,31,59		4,23, 4,40,36	
		3,39,24,11,37,26,28		16
58″	59,58,28,33,37, 3,13,33,58,27		4,23, 4,40,52	
		3,39,19,48,32,45,36		
60″	59,58,28,37,16,23, 2, 6,44, 3			
exact	59,58,28,37,16,23, 2, 6,32,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°20′ 0″	59,58,28,37,16,23, 2, 6,32,26			
		3,39,15,25,28, 3,23		
2″	59,58,28,40,55,38,27,34,35,49		4,23, 4,41,27	
		3,39,11, 2,23,21,56		16
4″	59,58,28,44,34,49,29,57,57,45		4,23, 4,41,43	
		3,39, 6,39,18,40,13		16
6″	59,58,28,48,13,56, 9,16,37,58		4,23, 4,41,59	
		3,39, 2,16,13,58,14		16
8″	59,58,28,51,52,58,25,30,36,12		4,23, 4,42,15	
		3,38,57,53, 9,15,59		16
10″	59,58,28,55,31,56,18,39,52,11		4,23, 4,42,31	
		3,38,53,30, 4,33,28		16
12″	59,58,28,59,10,49,48,44,25,39		4,23, 4,42,47	
		3,38,49, 6,59,50,41		16
14″	59,58,29, 2,49,38,55,44,16,20		4,23, 4,43, 3	
		3,38,44,43,55, 7,38		16
16″	59,58,29, 6,28,23,39,39,23,58		4,23, 4,43,19	
		3,38,40,20,50,24,19		16
18″	59,58,29,10, 7, 4, 0,29,48,17		4,23, 4,43,35	
		3,38,35,57,45,40,44		16
20″	59,58,29,13,45,39,58,15,29, 1		4,23, 4,43,51	
		3,38,31,34,40,56,53		16
22″	59,58,29,17,24,11,32,56,25,54		4,23, 4,44, 7	
		3,38,27,11,36,12,46		16
24″	59,58,29,21, 2,38,44,32,38,40		4,23, 4,44,23	
		3,38,22,48,31,28,23		16
26″	59,58,29,24,41, 1,33, 4, 7, 3		4,23, 4,44,39	
		3,38,18,25,26,43,44		16
28″	59,58,29,28,19,19,58,30,50,47		4,23, 4,44,55	
		3,38,14, 2,21,58,49		16
30″	59,58,29,31,57,34, 0,52,49,36		4,23, 4,45,11	
		3,38, 9,39,17,13,38		16
32″	59,58,29,35,35,43,40,10, 3,14		4,23, 4,45,27	
		3,38, 5,16,12,28,11		16
34″	59,58,29,39,13,48,56,22,31,25		4,23, 4,45,43	
		3,38, 0,53, 7,42,28		16
36″	59,58,29,42,51,49,49,30,13,53		4,23, 4,45,59	
		3,37,56,30, 2,56,29		16
38″	59,58,29,46,29,46,19,33,10,22		4,23, 4,46,15	
		3,37,52, 6,58,10,14		16
40″	59,58,29,50, 7,38,26,31,20,36		4,23, 4,46,31	
		3,37,47,43,53,23,43		16
42″	59,58,29,53,45,26,10,24,44,19		4,23, 4,46,47	
		3,37,43,20,48,36,56		16
44″	59,58,29,57,23, 9,31,13,21,15		4,23, 4,47, 3	
		3,37,38,57,43,49,53		16
46″	59,58,30, 1, 0,48,28,57,11, 8		4,23, 4,47,19	
		3,37,34,34,39, 2,34		16
48″	59,58,30, 4,38,23, 3,36,13,42		4,23, 4,47,35	
		3,37,30,11,34,14,59		16
50″	59,58,30, 8,15,53,15,10,28,41		4,23, 4,47,51	
		3,37,25,48,29,27, 8		16
52″	59,58,30,11,53,19, 3,39,55,49		4,23, 4,48, 7	
		3,37,21,25,24,39, 1		16
54″	59,58,30,15,30,40,29, 4,34,50		4,23, 4,48,23	
		3,37,17, 2,19,50,38		16
56″	59,58,30,19, 7,57,31,24,25,28		4,23, 4,48,39	
		3,37,12,39,15, 1,59		16
58″	59,58,30,22,45,10,10,39,27,27		4,23, 4,48,55	
		3,37, 8,16,10,13, 4		
60″	59,58,30,26,22,18,26,49,40,31			
exact	59,58,30,26,22,18,26,49,37,52			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°21′ 0″	59,58,30,26,22,18,26,49,37,52			
		3,37, 3,53, 5,23,50		
2″	59,58,30,29,59,22,19,55, 1,42		4,23, 4,49,26	
		3,36,59,30, 0,34,24		16
4″	59,58,30,33,36,21,49,55,36, 6		4,23, 4,49,42	
		3,36,55, 6,55,44,42		16
6″	59,58,30,37,13,16,56,51,20,48		4,23, 4,49,58	
		3,36,50,43,50,54,44		16
8″	59,58,30,40,50, 7,40,42,15,32		4,23, 4,50,14	
		3,36,46,20,46, 4,30		16
10″	59,58,30,44,26,54, 1,28,20, 2		4,23, 4,50,30	
		3,36,41,57,41,14, 0		16
12″	59,58,30,48, 3,35,59, 9,34, 2		4,23, 4,50,46	
		3,36,37,34,36,23,14		16
14″	59,58,30,51,40,13,33,45,57,16		4,23, 4,51, 2	
		3,36,33,11,31,32,12		16
16″	59,58,30,55,16,46,45,17,29,28		4,23, 4,51,18	
		3,36,28,48,26,40,54		16
18″	59,58,30,58,53,15,33,44,10,22		4,23, 4,51,34	
		3,36,24,25,21,49,20		16
20″	59,58,31, 2,29,39,59, 5,59,42		4,23, 4,51,50	
		3,36,20, 2,16,57,30		16
22″	59,58,31, 6, 6, 0, 1,22,57,12		4,23, 4,52, 6	
		3,36,15,39,12, 5,24		16
24″	59,58,31, 9,42,15,40,35, 2,36		4,23, 4,52,22	
		3,36,11,16, 7,13, 2		16
26″	59,58,31,13,18,26,56,42,15,38		4,23, 4,52,38	
		3,36, 6,53, 2,20,24		16
28″	59,58,31,16,54,33,49,44,36, 2		4,23, 4,52,54	
		3,36, 2,29,57,27,30		16
30″	59,58,31,20,30,36,19,42, 3,32		4,23, 4,53,10	
		3,35,58, 6,52,34,20		16
32″	59,58,31,24, 6,34,26,34,37,52		4,23, 4,53,26	
		3,35,53,43,47,40,54		16
34″	59,58,31,27,42,28,10,22,18,46		4,23, 4,53,42	
		3,35,49,20,42,47,12		16
36″	59,58,31,31,18,17,31, 5, 5,58		4,23, 4,53,58	
		3,35,44,57,37,53,14		16
38″	59,58,31,34,54, 2,28,42,59,12		4,23, 4,54,14	
		3,35,40,34,32,59, 0		16
40″	59,58,31,38,29,43, 3,15,58,12		4,23, 4,54,30	
		3,35,36,11,28, 4,30		16
42″	59,58,31,42, 5,19,14,44, 2,42		4,23, 4,54,46	
		3,35,31,48,23, 9,44		16
44″	59,58,31,45,40,51, 3, 7,12,26		4,23, 4,55, 2	
		3,35,27,25,18,14,42		16
46″	59,58,31,49,16,18,28,25,27, 8		4,23, 4,55,18	
		3,35,23, 2,13,19,24		16
48″	59,58,31,52,51,41,30,38,46,32		4,23, 4,55,34	
		3,35,18,39, 8,23,50		16
50″	59,58,31,56,27, 0, 9,47,10,22		4,23, 4,55,50	
		3,35,14,16, 3,28, 0		16
52″	59,58,32, 0, 2,14,25,50,38,22		4,23, 4,56, 6	
		3,35, 9,52,58,31,54		16
54″	59,58,32, 3,37,24,18,49,10,16		4,23, 4,56,22	
		3,35, 5,29,53,35,32		16
56″	59,58,32, 7,12,29,48,42,45,48		4,23, 4,56,38	
		3,35, 1, 6,48,38,54		16
58″	59,58,32,10,47,30,55,31,24,42		4,23, 4,56,54	
		3,34,56,43,43,42, 0		
60″	59,58,32,14,22,27,39,15, 6,42			
exact	59,58,32,14,22,27,39,15,19,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°22′ 0″	59,58,32,14,22,27,39,15,19,37			
		3,34,52,20,38,46,16		
2″	59,58,32,17,57,19,59,54, 5,53		4,23, 4,57,19	
		3,34,47,57,33,48,57		16
4″	59,58,32,21,32, 7,57,27,54,50		4,23, 4,57,35	
		3,34,43,34,28,51,22		16
6″	59,58,32,25, 6,51,31,56,46,12		4,23, 4,57,51	
		3,34,39,11,23,53,31		16
8″	59,58,32,28,41,30,43,20,39,43		4,23, 4,58, 7	
		3,34,34,48,18,55,24		16
10″	59,58,32,32,16, 5,31,39,35, 7		4,23, 4,58,23	
		3,34,30,25,13,57, 1		16
12″	59,58,32,35,50,35,56,53,32, 8		4,23, 4,58,39	
		3,34,26, 2, 8,58,22		16
14″	59,58,32,39,25, 1,59, 2,30,30		4,23, 4,58,55	
		3,34,21,39, 3,59,27		16
16″	59,58,32,42,59,23,38, 6,29,57		4,23, 4,59,11	
		3,34,17,15,59, 0,16		16
18″	59,58,32,46,33,40,54, 5,30,13		4,23, 4,59,27	
		3,34,12,52,54, 0,49		16
20″	59,58,32,50, 7,53,46,59,31, 2		4,23, 4,59,43	
		3,34, 8,29,49, 1, 6		16
22″	59,58,32,53,42, 2,16,48,32, 8		4,23, 4,59,59	
		3,34, 4, 6,44, 1, 7		16
24″	59,58,32,57,16, 6,23,32,33,15		4,23, 5, 0,15	
		3,33,59,43,39, 0,52		16
26″	59,58,33, 0,50, 6, 7,11,34, 7		4,23, 5, 0,31	
		3,33,55,20,34, 0,21		16
28″	59,58,33, 4,24, 1,27,45,34,28		4,23, 5, 0,47	
		3,33,50,57,28,59,34		16
30″	59,58,33, 7,57,52,25,14,34, 2		4,23, 5, 1, 3	
		3,33,46,34,23,58,31		16
32″	59,58,33,11,31,38,59,38,32,33		4,23, 5, 1,19	
		3,33,42,11,18,57,12		16
34″	59,58,33,15, 5,21,10,57,29,45		4,23, 5, 1,35	
		3,33,37,48,13,55,37		16
36″	59,58,33,18,38,58,59,11,25,22		4,23, 5, 1,51	
		3,33,33,25, 8,53,46		16
38″	59,58,33,22,12,32,24,20,19, 8		4,23, 5, 2, 7	
		3,33,29, 2, 3,51,39		16
40″	59,58,33,25,46, 1,26,24,10,47		4,23, 5, 2,23	
		3,33,24,38,58,49,16		16
42″	59,58,33,29,19,26, 5,23, 0, 3		4,23, 5, 2,39	
		3,33,20,15,53,46,37		16
44″	59,58,33,32,52,46,21,16,46,40		4,23, 5, 2,55	
		3,33,15,52,48,43,42		16
46″	59,58,33,36,26, 2,14, 5,30,22		4,23, 5, 3,11	
		3,33,11,29,43,40,31		16
48″	59,58,33,39,59,13,43,49,10,53		4,23, 5, 3,27	
		3,33, 7, 6,38,37, 4		16
50″	59,58,33,43,32,20,50,27,47,57		4,23, 5, 3,43	
		3,33, 2,43,33,33,21		16
52″	59,58,33,47, 5,23,34, 1,21,18		4,23, 5, 3,59	
		3,32,58,20,28,29,22		16
54″	59,58,33,50,38,21,54,29,50,40		4,23, 5, 4,15	
		3,32,53,57,23,25, 7		16
56″	59,58,33,54,11,15,51,53,15,47		4,23, 5, 4,31	
		3,32,49,34,18,20,36		16
58″	59,58,33,57,44, 5,26,11,36,23		4,23, 5, 4,47	
		3,32,45,11,13,15,49		
60″	59,58,34, 1,16,50,37,24,52,12			
exact	59,58,34, 1,16,50,37,25,11,24			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°23′ 0″	59,58,34, 1,16,50,37,25,11,24			
		3,32,40,48, 8,13, 3		
2″	59,58,34, 4,49,31,25,33,24,27		4,23, 5, 5, 8	
		3,32,36,25, 3, 7,55		16
4″	59,58,34, 8,22, 7,50,36,32,22		4,23, 5, 5,24	
		3,32,32, 1,58, 2,31		16
6″	59,58,34,11,54,39,52,34,34,53		4,23, 5, 5,40	
		3,32,27,38,52,56,51		16
8″	59,58,34,15,27, 7,31,27,31,44		4,23, 5, 5,56	
		3,32,23,15,47,50,55		16
10″	59,58,34,18,59,30,47,15,22,39		4,23, 5, 6,12	
		3,32,18,52,42,44,43		16
12″	59,58,34,22,31,49,39,58, 7,22		4,23, 5, 6,28	
		3,32,14,29,37,38,15		16
14″	59,58,34,26, 4, 4, 9,35,45,37		4,23, 5, 6,44	
		3,32,10, 6,32,31,31		16
16″	59,58,34,29,36,14,16, 8,17, 8		4,23, 5, 7, 0	
		3,32, 5,43,27,24,31		16
18″	59,58,34,33, 8,19,59,35,41,39		4,23, 5, 7,16	
		3,32, 1,20,22,17,15		16
20″	59,58,34,36,40,21,19,57,58,54		4,23, 5, 7,32	
		3,31,56,57,17, 9,43		16
22″	59,58,34,40,12,18,17,15, 8,37		4,23, 5, 7,48	
		3,31,52,34,12, 1,55		16
24″	59,58,34,43,44,10,51,27,10,32		4,23, 5, 8, 4	
		3,31,48,11, 6,53,51		16
26″	59,58,34,47,15,59, 2,34, 4,23		4,23, 5, 8,20	
		3,31,43,48, 1,45,31		16
28″	59,58,34,50,47,42,50,35,49,54		4,23, 5, 8,36	
		3,31,39,24,56,36,55		16
30″	59,58,34,54,19,22,15,32,26,49		4,23, 5, 8,52	
		3,31,35, 1,51,28, 3		16
32″	59,58,34,57,50,57,17,23,54,52		4,23, 5, 9, 8	
		3,31,30,38,46,18,55		16
34″	59,58,35, 1,22,27,56,10,13,47		4,23, 5, 9,24	
		3,31,26,15,41, 9,31		16
36″	59,58,35, 4,53,54,11,51,23,18		4,23, 5, 9,40	
		3,31,21,52,35,59,51		16
38″	59,58,35, 8,25,16, 4,27,23, 9		4,23, 5, 9,56	
		3,31,17,29,30,49,55		16
40″	59,58,35,11,56,33,33,58,13, 4		4,23, 5,10,12	
		3,31,13, 6,25,39,43		16
42″	59,58,35,15,27,46,40,23,52,47		4,23, 5,10,28	
		3,31, 8,43,20,29,15		16
44″	59,58,35,18,58,55,23,44,22, 2		4,23, 5,10,44	
		3,31, 4,20,15,18,31		16
46″	59,58,35,22,29,59,43,59,40,33		4,23, 5,11, 0	
		3,30,59,57,10, 7,31		16
48″	59,58,35,26, 0,59,41, 9,48, 4		4,23, 5,11,16	
		3,30,55,34, 4,56,15		16
50″	59,58,35,29,31,55,15,14,44,19		4,23, 5,11,32	
		3,30,51,10,59,44,43		16
52″	59,58,35,33, 2,46,26,14,29, 2		4,23, 5,11,48	
		3,30,46,47,54,32,55		16
54″	59,58,35,36,33,33,14, 9, 1,57		4,23, 5,12, 4	
		3,30,42,24,49,20,51		16
56″	59,58,35,40, 4,15,38,58,22,48		4,23, 5,12,20	
		3,30,38, 1,44, 8,31		16
58″	59,58,35,43,34,53,40,42,31,19		4,23, 5,12,36	
		3,30,33,38,38,55,55		
60″	59,58,35,47, 5,27,19,21,27,14			
exact	59,58,35,47, 5,27,19,21,59, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°24′ 0″	59,58,35,47, 5,27,19,21,59, 5			
		3,30,29,15,33,46,37		
2″	59,58,35,50,35,56,34,55,45,42		4,23, 5,12,52	
		3,30,24,52,28,33,45		15
4″	59,58,35,54, 6,21,27,24,19,27		4,23, 5,13, 7	
		3,30,20,29,23,20,38		15
6″	59,58,35,57,36,41,56,47,40, 5		4,23, 5,13,22	
		3,30,16, 6,18, 7,16		15
8″	59,58,36, 1, 6,58, 3, 5,47,21		4,23, 5,13,37	
		3,30,11,43,12,53,39		15
10″	59,58,36, 4,37, 9,46,18,41, 0		4,23, 5,13,52	
		3,30, 7,20, 7,39,47		15
12″	59,58,36, 8, 7,17, 6,26,20,47		4,23, 5,14, 7	
		3,30, 2,57, 2,25,40		15
14″	59,58,36,11,37,20, 3,28,46,27		4,23, 5,14,22	
		3,29,58,33,57,11,18		15
16″	59,58,36,15, 7,18,37,25,57,45		4,23, 5,14,37	
		3,29,54,10,51,56,41		15
18″	59,58,36,18,37,12,48,17,54,26		4,23, 5,14,52	
		3,29,49,47,46,41,49		15
20″	59,58,36,22, 7, 2,36, 4,36,15		4,23, 5,15, 7	
		3,29,45,24,41,26,42		15
22″	59,58,36,25,36,48, 0,46, 2,57		4,23, 5,15,22	
		3,29,41, 1,36,11,20		15
24″	59,58,36,29, 6,29, 2,22,14,17		4,23, 5,15,37	
		3,29,36,38,30,55,43		15
26″	59,58,36,32,36, 5,40,53,10, 0		4,23, 5,15,52	
		3,29,32,15,25,39,51		15
28″	59,58,36,36, 5,37,56,18,49,51		4,23, 5,16, 7	
		3,29,27,52,20,23,44		15
30″	59,58,36,39,35, 5,48,39,13,35		4,23, 5,16,22	
		3,29,23,29,15, 7,22		15
32″	59,58,36,43, 4,29,17,54,20,57		4,23, 5,16,37	
		3,29,19, 6, 9,50,45		15
34″	59,58,36,46,33,48,24, 4,11,42		4,23, 5,16,52	
		3,29,14,43, 4,33,53		15
36″	59,58,36,50, 3, 3, 7, 8,45,35		4,23, 5,17, 7	
		3,29,10,19,59,16,46		15
38″	59,58,36,53,32,13,27, 8, 2,21		4,23, 5,17,22	
		3,29, 5,56,53,59,24		15
40″	59,58,36,57, 1,19,24, 2, 1,45		4,23, 5,17,37	
		3,29, 1,33,48,41,47		15
42″	59,58,37, 0,30,20,57,50,43,32		4,23, 5,17,52	
		3,28,57,10,43,23,55		15
44″	59,58,37, 3,59,18, 8,34, 7,27		4,23, 5,18, 7	
		3,28,52,47,38, 5,48		15
46″	59,58,37, 7,28,10,56,12,13,15		4,23, 5,18,22	
		3,28,48,24,32,47,26		15
48″	59,58,37,10,56,59,20,45, 0,41		4,23, 5,18,37	
		3,28,44, 1,27,28,49		15
50″	59,58,37,14,25,43,22,12,29,30		4,23, 5,18,52	
		3,28,39,38,22, 9,57		15
52″	59,58,37,17,54,23, 0,34,39,27		4,23, 5,19, 7	
		3,28,35,15,16,50,50		15
54″	59,58,37,21,22,58,15,51,30,17		4,23, 5,19,22	
		3,28,30,52,11,31,28		15
56″	59,58,37,24,51,29, 8, 3, 1,45		4,23, 5,19,37	
		3,28,26,29, 6,11,51		15
58″	59,58,37,28,19,55,37, 9,13,36		4,23, 5,19,52	
		3,28,22, 6, 0,51,59		
60″	59,58,37,31,48,17,43,10, 5,35			
exact	59,58,37,31,48,17,43, 9,40,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°25′ 0″	59,58,37,31,48,17,43, 9,40,36			
		3,28,17,42,55,29,21		
2″	59,58,37,35,16,35,26, 5, 9,57		4,23, 5,20,31	
		3,28,13,19,50, 8,50		15
4″	59,58,37,38,44,48,45,55,18,47		4,23, 5,20,46	
		3,28, 8,56,44,48, 4		15
6″	59,58,37,42,12,57,42,40, 6,51		4,23, 5,21, 1	
		3,28, 4,33,39,27, 3		15
8″	59,58,37,45,41, 2,16,19,33,54		4,23, 5,21,16	
		3,28, 0,10,34, 5,47		15
10″	59,58,37,49, 9, 2,26,53,39,41		4,23, 5,21,31	
		3,27,55,47,28,44,16		15
12″	59,58,37,52,36,58,14,22,23,57		4,23, 5,21,46	
		3,27,51,24,23,22,30		15
14″	59,58,37,56, 4,49,38,45,46,27		4,23, 5,22, 1	
		3,27,47, 1,18, 0,29		15
16″	59,58,37,59,32,36,40, 3,46,56		4,23, 5,22,16	
		3,27,42,38,12,38,13		15
18″	59,58,38, 3, 0,19,18,16,25, 9		4,23, 5,22,31	
		3,27,38,15, 7,15,42		15
20″	59,58,38, 6,27,57,33,23,40,51		4,23, 5,22,46	
		3,27,33,52, 1,52,56		15
22″	59,58,38, 9,55,31,25,25,33,47		4,23, 5,23, 1	
		3,27,29,28,56,29,55		15
24″	59,58,38,13,23, 0,54,22, 3,42		4,23, 5,23,16	
		3,27,25, 5,51, 6,39		15
26″	59,58,38,16,50,26, 0,13,10,21		4,23, 5,23,31	
		3,27,20,42,45,43, 8		15
28″	59,58,38,20,17,46,42,58,53,29		4,23, 5,23,46	
		3,27,16,19,40,19,22		15
30″	59,58,38,23,45, 3, 2,39,12,51		4,23, 5,24, 1	
		3,27,11,56,34,55,21		15
32″	59,58,38,27,12,14,59,14, 8,12		4,23, 5,24,16	
		3,27, 7,33,29,31, 5		15
34″	59,58,38,30,39,22,32,43,39,17		4,23, 5,24,31	
		3,27, 3,10,24, 6,34		15
36″	59,58,38,34, 6,25,43, 7,45,51		4,23, 5,24,46	
		3,26,58,47,18,41,48		15
38″	59,58,38,37,33,24,30,26,27,39		4,23, 5,25, 1	
		3,26,54,24,13,16,47		15
40″	59,58,38,41, 0,18,54,39,44,26		4,23, 5,25,16	
		3,26,50, 1, 7,51,31		15
42″	59,58,38,44,27, 8,55,47,35,57		4,23, 5,25,31	
		3,26,45,38, 2,26, 0		15
44″	59,58,38,47,53,54,33,50, 1,57		4,23, 5,25,46	
		3,26,41,14,57, 0,14		15
46″	59,58,38,51,20,35,48,47, 2,11		4,23, 5,26, 1	
		3,26,36,51,51,34,13		15
48″	59,58,38,54,47,12,40,38,36,24		4,23, 5,26,16	
		3,26,32,28,46, 7,57		15
50″	59,58,38,58,13,45, 9,24,44,21		4,23, 5,26,31	
		3,26,28, 5,40,41,26		15
52″	59,58,39, 1,40,13,15, 5,25,47		4,23, 5,26,46	
		3,26,23,42,35,14,40		15
54″	59,58,39, 5, 6,36,57,40,40,27		4,23, 5,27, 1	
		3,26,19,19,29,47,39		15
56″	59,58,39, 8,32,56,17,10,28, 6		4,23, 5,27,16	
		3,26,14,56,24,20,23		15
58″	59,58,39,11,59,11,13,34,48,29		4,23, 5,27,31	
		3,26,10,33,18,52,52		
60″	59,58,39,15,25,21,46,53,41,21			
exact	59,58,39,15,25,21,46,53,26, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°26′ 0″	59,58,39,15,25,21,46,53,26, 3			
		3,26, 6,10,13,23,40		
2″	59,58,39,18,51,27,57, 6,49,43		4,23, 5,28, 6	
		3,26, 1,47, 7,55,34		15
4″	59,58,39,22,17,29,44,14,45,17		4,23, 5,28,21	
		3,25,57,24, 2,27,13		15
6″	59,58,39,25,43,27, 8,17,12,30		4,23, 5,28,36	
		3,25,53, 0,56,58,37		15
8″	59,58,39,29, 9,20, 9,14,11, 7		4,23, 5,28,51	
		3,25,48,37,51,29,46		15
10″	59,58,39,32,35, 8,47, 5,40,53		4,23, 5,29, 6	
		3,25,44,14,46, 0,40		15
12″	59,58,39,36, 0,53, 1,51,41,33		4,23, 5,29,21	
		3,25,39,51,40,31,19		15
14″	59,58,39,39,26,32,53,32,12,52		4,23, 5,29,36	
		3,25,35,28,35, 1,43		15
16″	59,58,39,42,52, 8,22, 7,14,35		4,23, 5,29,51	
		3,25,31, 5,29,31,52		15
18″	59,58,39,46,17,39,27,36,46,27		4,23, 5,30, 6	
		3,25,26,42,24, 1,46		15
20″	59,58,39,49,43, 6,10, 0,48,13		4,23, 5,30,21	
		3,25,22,19,18,31,25		15
22″	59,58,39,53, 8,28,29,19,19,38		4,23, 5,30,36	
		3,25,17,56,13, 0,49		15
24″	59,58,39,56,33,46,25,32,20,27		4,23, 5,30,51	
		3,25,13,33, 7,29,58		15
26″	59,58,39,59,58,59,58,39,50,25		4,23, 5,31, 6	
		3,25, 9,10, 1,58,52		15
28″	59,58,40, 3,24, 9, 8,41,49,17		4,23, 5,31,21	
		3,25, 4,46,56,27,31		15
30″	59,58,40, 6,49,13,55,38,16,48		4,23, 5,31,36	
		3,25, 0,23,50,55,55		15
32″	59,58,40,10,14,14,19,29,12,43		4,23, 5,31,51	
		3,24,56, 0,45,24, 4		15
34″	59,58,40,13,39,10,20,14,36,47		4,23, 5,32, 6	
		3,24,51,37,39,51,58		15
36″	59,58,40,17, 4, 1,57,54,28,45		4,23, 5,32,21	
		3,24,47,14,34,19,37		15
38″	59,58,40,20,28,49,12,28,48,22		4,23, 5,32,36	
		3,24,42,51,28,47, 1		15
40″	59,58,40,23,53,32, 3,57,35,23		4,23, 5,32,51	
		3,24,38,28,23,14,10		15
42″	59,58,40,27,18,10,32,20,49,33		4,23, 5,33, 6	
		3,24,34, 5,17,41, 4		15
44″	59,58,40,30,42,44,37,38,30,37		4,23, 5,33,21	
		3,24,29,42,12, 7,43		15
46″	59,58,40,34, 7,14,19,50,38,20		4,23, 5,33,36	
		3,24,25,19, 6,34, 7		15
48″	59,58,40,37,31,39,38,57,12,27		4,23, 5,33,51	
		3,24,20,56, 1, 0,16		15
50″	59,58,40,40,56, 0,34,58,12,43		4,23, 5,34, 6	
		3,24,16,32,55,26,10		15
52″	59,58,40,44,20,17, 7,53,38,53		4,23, 5,34,21	
		3,24,12, 9,49,51,49		15
54″	59,58,40,47,44,29,17,43,30,42		4,23, 5,34,36	
		3,24, 7,46,44,17,13		15
56″	59,58,40,51, 8,37, 4,27,47,55		4,23, 5,34,51	
		3,24, 3,23,38,42,22		15
58″	59,58,40,54,32,40,28, 6,30,17		4,23, 5,35, 6	
		3,23,59, 0,33, 7,16		
60″	59,58,40,57,56,39,28,39,37,33			
exact	59,58,40,57,56,39,28,39,37,41			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°27′ 0″	59,58,40,57,56,39,28,39,37,41			
		3,23,54,37,27,31,58		
2″	59,58,41, 1,20,34, 6, 7, 9,39		4,23, 5,35,35	
		3,23,50,14,21,56,23		15
4″	59,58,41, 4,44,24,20,29, 6, 2		4,23, 5,35,50	
		3,23,45,51,16,20,33		15
6″	59,58,41, 8, 8,10,11,45,26,35		4,23, 5,36, 5	
		3,23,41,28,10,44,28		15
8″	59,58,41,11,31,51,39,56,11, 3		4,23, 5,36,20	
		3,23,37, 5, 5, 8, 8		15
10″	59,58,41,14,55,28,45, 1,19,11		4,23, 5,36,35	
		3,23,32,41,59,31,33		15
12″	59,58,41,18,19, 1,27, 0,50,44		4,23, 5,36,50	
		3,23,28,18,53,54,43		15
14″	59,58,41,21,42,29,45,54,45,27		4,23, 5,37, 5	
		3,23,23,55,48,17,38		15
16″	59,58,41,25, 5,53,41,43, 3, 5		4,23, 5,37,20	
		3,23,19,32,42,40,18		15
18″	59,58,41,28,29,13,14,25,43,23		4,23, 5,37,35	
		3,23,15, 9,37, 2,43		15
20″	59,58,41,31,52,28,24, 2,46, 6		4,23, 5,37,50	
		3,23,10,46,31,24,53		15
22″	59,58,41,35,15,39,10,34,10,59		4,23, 5,38, 5	
		3,23, 6,23,25,46,48		15
24″	59,58,41,38,38,45,33,59,57,47		4,23, 5,38,20	
		3,23, 2, 0,20, 8,28		15
26″	59,58,41,42, 1,47,34,20, 6,15		4,23, 5,38,35	
		3,22,57,37,14,29,53		15
28″	59,58,41,45,24,45,11,34,36, 8		4,23, 5,38,50	
		3,22,53,14, 8,51, 3		15
30″	59,58,41,48,47,38,25,43,27,11		4,23, 5,39, 5	
		3,22,48,51, 3,11,58		15
32″	59,58,41,52,10,27,16,46,39, 9		4,23, 5,39,20	
		3,22,44,27,57,32,38		15
34″	59,58,41,55,33,11,44,44,11,47		4,23, 5,39,35	
		3,22,40, 4,51,53, 3		15
36″	59,58,41,58,55,51,49,36, 4,50		4,23, 5,39,50	
		3,22,35,41,46,13,13		15
38″	59,58,42, 2,18,27,31,22,18, 3		4,23, 5,40, 5	
		3,22,31,18,40,33, 8		15
40″	59,58,42, 5,40,58,50, 2,51,11		4,23, 5,40,20	
		3,22,26,55,34,52,48		15
42″	59,58,42, 9, 3,25,45,37,43,59		4,23, 5,40,35	
		3,22,22,32,29,12,13		15
44″	59,58,42,12,25,48,18, 6,56,12		4,23, 5,40,50	
		3,22,18, 9,23,31,23		15
46″	59,58,42,15,48, 6,27,30,27,35		4,23, 5,41, 5	
		3,22,13,46,17,50,18		15
48″	59,58,42,19,10,20,13,48,17,53		4,23, 5,41,20	
		3,22, 9,23,12, 8,58		15
50″	59,58,42,22,32,29,37, 0,26,51		4,23, 5,41,35	
		3,22, 5, 0, 6,27,23		15
52″	59,58,42,25,54,34,37, 6,54,14		4,23, 5,41,50	
		3,22, 0,37, 0,45,33		15
54″	59,58,42,29,16,35,14, 7,39,47		4,23, 5,42, 5	
		3,21,56,13,55, 3,28		15
56″	59,58,42,32,38,31,28, 2,43,15		4,23, 5,42,20	
		3,21,51,50,49,21, 8		15
58″	59,58,42,36, 0,23,18,52, 4,23		4,23, 5,42,35	
		3,21,47,27,43,38,33		
60″	59,58,42,39,22,10,46,35,42,56			
exact	59,58,42,39,22,10,46,35,49,50			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°28′ 0″	59,58,42,39,22,10,46,35,49,50			
		3,21,43, 4,37,56,39		
2″	59,58,42,42,43,53,51,13,46,29		4,23, 5,43, 0	
		3,21,38,41,32,13,39		15
4″	59,58,42,46, 5,32,32,46, 0, 8		4,23, 5,43,15	
		3,21,34,18,26,30,24		15
6″	59,58,42,49,27, 6,51,12,30,32		4,23, 5,43,30	
		3,21,29,55,20,46,54		15
8″	59,58,42,52,48,36,46,33,17,26		4,23, 5,43,45	
		3,21,25,32,15, 3, 9		15
10″	59,58,42,56,10, 2,18,48,20,35		4,23, 5,44, 0	
		3,21,21, 9, 9,19, 9		15
12″	59,58,42,59,31,23,27,57,39,44		4,23, 5,44,15	
		3,21,16,46, 3,34,54		15
14″	59,58,43, 2,52,40,14, 1,14,38		4,23, 5,44,30	
		3,21,12,22,57,50,24		15
16″	59,58,43, 6,13,52,36,59, 5, 2		4,23, 5,44,45	
		3,21, 7,59,52, 5,39		15
18″	59,58,43, 9,35, 0,36,51,10,41		4,23, 5,45, 0	
		3,21, 3,36,46,20,39		15
20″	59,58,43,12,56, 4,13,37,31,20		4,23, 5,45,15	
		3,20,59,13,40,35,24		15
22″	59,58,43,16,17, 3,27,18, 6,44		4,23, 5,45,30	
		3,20,54,50,34,49,54		15
24″	59,58,43,19,37,58,17,52,56,38		4,23, 5,45,45	
		3,20,50,27,29, 4, 9		15
26″	59,58,43,22,58,48,45,22, 0,47		4,23, 5,46, 0	
		3,20,46, 4,23,18, 9		15
28″	59,58,43,26,19,34,49,45,18,56		4,23, 5,46,15	
		3,20,41,41,17,31,54		15
30″	59,58,43,29,40,16,31, 2,50,50		4,23, 5,46,30	
		3,20,37,18,11,45,24		15
32″	59,58,43,33, 0,53,49,14,36,14		4,23, 5,46,45	
		3,20,32,55, 5,58,39		15
34″	59,58,43,36,21,26,44,20,34,53		4,23, 5,47, 0	
		3,20,28,32, 0,11,39		15
36″	59,58,43,39,41,55,16,20,46,32		4,23, 5,47,15	
		3,20,24, 8,54,24,24		15
38″	59,58,43,43, 2,19,25,15,10,56		4,23, 5,47,30	
		3,20,19,45,48,36,54		15
40″	59,58,43,46,22,39,11, 3,47,50		4,23, 5,47,45	
		3,20,15,22,42,49, 9		15
42″	59,58,43,49,42,54,33,46,36,59		4,23, 5,48, 0	
		3,20,10,59,37, 1, 9		15
44″	59,58,43,53, 3, 5,33,23,38, 8		4,23, 5,48,15	
		3,20, 6,36,31,12,54		15
46″	59,58,43,56,23,12, 9,54,51, 2		4,23, 5,48,30	
		3,20, 2,13,25,24,24		15
48″	59,58,43,59,43,14,23,20,15,26		4,23, 5,48,45	
		3,19,57,50,19,35,39		15
50″	59,58,44, 3, 3,12,13,39,51, 5		4,23, 5,49, 0	
		3,19,53,27,13,46,39		15
52″	59,58,44, 6,23, 5,40,53,37,44		4,23, 5,49,15	
		3,19,49, 4, 7,57,24		15
54″	59,58,44, 9,42,54,45, 1,35, 8		4,23, 5,49,30	
		3,19,44,41, 2, 7,54		15
56″	59,58,44,13, 2,39,26, 3,43, 2		4,23, 5,49,45	
		3,19,40,17,56,18, 9		15
58″	59,58,44,16,22,19,44, 0, 1,11		4,23, 5,50, 0	
		3,19,35,54,50,28, 9		
60″	59,58,44,19,41,55,38,50,29,20			
exact	59,58,44,19,41,55,38,50,48,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°29′ 0″	59,58,44,19,41,55,38,50,48,58			
		3,19,31,31,44,40, 7		
2″	59,58,44,23, 1,27,10,35,29, 5		4,23, 5,50,20	
		3,19,27, 8,38,49,47		15
4″	59,58,44,26,20,54,19,14,18,52		4,23, 5,50,35	
		3,19,22,45,32,59,12		15
6″	59,58,44,29,40,17, 4,47,18, 4		4,23, 5,50,50	
		3,19,18,22,27, 8,22		15
8″	59,58,44,32,59,35,27,14,26,26		4,23, 5,51, 5	
		3,19,13,59,21,17,17		15
10″	59,58,44,36,18,49,26,35,43,43		4,23, 5,51,20	
		3,19, 9,36,15,25,57		15
12″	59,58,44,39,37,59, 2,51, 9,40		4,23, 5,51,35	
		3,19, 5,13, 9,34,22		15
14″	59,58,44,42,57, 4,16, 0,44, 2		4,23, 5,51,50	
		3,19, 0,50, 3,42,32		15
16″	59,58,44,46,16, 5, 6, 4,26,34		4,23, 5,52, 5	
		3,18,56,26,57,50,27		15
18″	59,58,44,49,35, 1,33, 2,17, 1		4,23, 5,52,20	
		3,18,52, 3,51,58, 7		15
20″	59,58,44,52,53,53,36,54,15, 8		4,23, 5,52,35	
		3,18,47,40,46, 5,32		15
22″	59,58,44,56,12,41,17,40,20,40		4,23, 5,52,50	
		3,18,43,17,40,12,42		15
24″	59,58,44,59,31,24,35,20,33,22		4,23, 5,53, 5	
		3,18,38,54,34,19,37		15
26″	59,58,45, 2,50, 3,29,54,52,59		4,23, 5,53,20	
		3,18,34,31,28,26,17		15
28″	59,58,45, 6, 8,38, 1,23,19,16		4,23, 5,53,35	
		3,18,30, 8,22,32,42		15
30″	59,58,45, 9,27, 8, 9,45,51,58		4,23, 5,53,50	
		3,18,25,45,16,38,52		15
32″	59,58,45,12,45,33,55, 2,30,50		4,23, 5,54, 5	
		3,18,21,22,10,44,47		15
34″	59,58,45,16, 3,55,17,13,15,37		4,23, 5,54,20	
		3,18,16,59, 4,50,27		15
36″	59,58,45,19,22,12,16,18, 6, 4		4,23, 5,54,35	
		3,18,12,35,58,55,52		15
38″	59,58,45,22,40,24,52,17, 1,56		4,23, 5,54,50	
		3,18, 8,12,53, 1, 2		15
40″	59,58,45,25,58,33, 5,10, 2,58		4,23, 5,55, 5	
		3,18, 3,49,47, 5,57		15
42″	59,58,45,29,16,36,54,57, 8,55		4,23, 5,55,20	
		3,17,59,26,41,10,37		15
44″	59,58,45,32,34,36,21,38,19,32		4,23, 5,55,35	
		3,17,55, 3,35,15, 2		15
46″	59,58,45,35,52,31,25,13,34,34		4,23, 5,55,50	
		3,17,50,40,29,19,12		15
48″	59,58,45,39,10,22, 5,42,53,46		4,23, 5,56, 5	
		3,17,46,17,23,23, 7		15
50″	59,58,45,42,28, 8,23, 6,16,53		4,23, 5,56,20	
		3,17,41,54,17,26,47		15
52″	59,58,45,45,45,50,17,23,43,40		4,23, 5,56,35	
		3,17,37,31,11,30,12		15
54″	59,58,45,49, 3,27,48,35,13,52		4,23, 5,56,50	
		3,17,33, 8, 5,33,22		15
56″	59,58,45,52,21, 0,56,40,47,14		4,23, 5,57, 5	
		3,17,28,44,59,36,17		15
58″	59,58,45,55,38,29,41,40,23,31		4,23, 5,57,20	
		3,17,24,21,53,38,57		
60″	59,58,45,58,55,54, 3,34, 2,28			
exact	59,58,45,58,55,54, 3,34,33,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°30′ 0″	59,58,45,58,55,54, 3,34,33,42			
		3,17,19,58,47,44,47		
2″	59,58,46, 2,13,14, 2,22,18,29		4,23, 5,57,35	
		3,17,15,35,41,47,12		14
4″	59,58,46, 5,30,29,38, 4, 5,41		4,23, 5,57,49	
		3,17,11,12,35,49,23		14
6″	59,58,46, 8,47,40,50,39,55, 4		4,23, 5,58, 3	
		3,17, 6,49,29,51,20		14
8″	59,58,46,12, 4,47,40, 9,46,24		4,23, 5,58,17	
		3,17, 2,26,23,53, 3		14
10″	59,58,46,15,21,50, 6,33,39,27		4,23, 5,58,31	
		3,16,58, 3,17,54,32		14
12″	59,58,46,18,38,48, 9,51,33,59		4,23, 5,58,45	
		3,16,53,40,11,55,47		14
14″	59,58,46,21,55,41,50, 3,29,46		4,23, 5,58,59	
		3,16,49,17, 5,56,48		14
16″	59,58,46,25,12,31, 7, 9,26,34		4,23, 5,59,13	
		3,16,44,53,59,57,35		14
18″	59,58,46,28,29,16, 1, 9,24, 9		4,23, 5,59,27	
		3,16,40,30,53,58, 8		14
20″	59,58,46,31,45,56,32, 3,22,17		4,23, 5,59,41	
		3,16,36, 7,47,58,27		14
22″	59,58,46,35, 2,32,39,51,20,44		4,23, 5,59,55	
		3,16,31,44,41,58,32		14
24″	59,58,46,38,19, 4,24,33,19,16		4,23, 6, 0, 9	
		3,16,27,21,35,58,23		14
26″	59,58,46,41,35,31,46, 9,17,39		4,23, 6, 0,23	
		3,16,22,58,29,58, 0		14
28″	59,58,46,44,51,54,44,39,15,39		4,23, 6, 0,37	
		3,16,18,35,23,57,23		14
30″	59,58,46,48, 8,13,20, 3,13, 2		4,23, 6, 0,51	
		3,16,14,12,17,56,32		14
32″	59,58,46,51,24,27,32,21, 9,34		4,23, 6, 1, 5	
		3,16, 9,49,11,55,27		14
34″	59,58,46,54,40,37,21,33, 5, 1		4,23, 6, 1,19	
		3,16, 5,26, 5,54, 8		14
36″	59,58,46,57,56,42,47,38,59, 9		4,23, 6, 1,33	
		3,16, 1, 2,59,52,35		14
38″	59,58,47, 1,12,43,50,38,51,44		4,23, 6, 1,47	
		3,15,56,39,53,50,48		14
40″	59,58,47, 4,28,40,30,32,42,32		4,23, 6, 2, 1	
		3,15,52,16,47,48,47		14
42″	59,58,47, 7,44,32,47,20,31,19		4,23, 6, 2,15	
		3,15,47,53,41,46,32		14
44″	59,58,47,11, 0,20,41, 2,17,51		4,23, 6, 2,29	
		3,15,43,30,35,44, 3		14
46″	59,58,47,14,16, 4,11,38, 1,54		4,23, 6, 2,43	
		3,15,39, 7,29,41,20		14
48″	59,58,47,17,31,43,19, 7,43,14		4,23, 6, 2,57	
		3,15,34,44,23,38,23		14
50″	59,58,47,20,47,18, 3,31,21,37		4,23, 6, 3,11	
		3,15,30,21,17,35,12		14
52″	59,58,47,24, 2,48,24,48,56,49		4,23, 6, 3,25	
		3,15,25,58,11,31,47		14
54″	59,58,47,27,18,14,23, 0,28,36		4,23, 6, 3,39	
		3,15,21,35, 5,28, 8		14
56″	59,58,47,30,33,35,58, 5,56,44		4,23, 6, 3,53	
		3,15,17,11,59,24,15		14
58″	59,58,47,33,48,53,10, 5,20,59		4,23, 6, 4, 7	
		3,15,12,48,53,20, 8		
60″	59,58,47,37, 4, 5,58,58,41, 7			
exact	59,58,47,37, 4, 5,58,58,14,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°31′ 0″	59,58,47,37, 4, 5,58,58,14,47			
		3,15, 8,25,47,13, 4		
2″	59,58,47,40,19,14,24,45,27,51		4,23, 6, 4,45	
		3,15, 4, 2,41, 8,19		14
4″	59,58,47,43,34,18,27,26,36,10		4,23, 6, 4,59	
		3,14,59,39,35, 3,20		14
6″	59,58,47,46,49,18, 7, 1,39,30		4,23, 6, 5,13	
		3,14,55,16,28,58, 7		14
8″	59,58,47,50, 4,13,23,30,37,37		4,23, 6, 5,27	
		3,14,50,53,22,52,40		14
10″	59,58,47,53,19, 4,16,53,30,17		4,23, 6, 5,41	
		3,14,46,30,16,46,59		14
12″	59,58,47,56,33,50,47,10,17,16		4,23, 6, 5,55	
		3,14,42, 7,10,41, 4		14
14″	59,58,47,59,48,32,54,20,58,20		4,23, 6, 6, 9	
		3,14,37,44, 4,34,55		14
16″	59,58,48, 3, 3,10,38,25,33,15		4,23, 6, 6,23	
		3,14,33,20,58,28,32		14
18″	59,58,48, 6,17,43,59,24, 1,47		4,23, 6, 6,37	
		3,14,28,57,52,21,55		14
20″	59,58,48, 9,32,12,57,16,23,42		4,23, 6, 6,51	
		3,14,24,34,46,15, 4		14
22″	59,58,48,12,46,37,32, 2,38,46		4,23, 6, 7, 5	
		3,14,20,11,40, 7,59		14
24″	59,58,48,16, 0,57,43,42,46,45		4,23, 6, 7,19	
		3,14,15,48,34, 0,40		14
26″	59,58,48,19,15,13,32,16,47,25		4,23, 6, 7,33	
		3,14,11,25,27,53, 7		14
28″	59,58,48,22,29,24,57,44,40,32		4,23, 6, 7,47	
		3,14, 7, 2,21,45,20		14
30″	59,58,48,25,43,32, 0, 6,25,52		4,23, 6, 8, 1	
		3,14, 2,39,15,37,19		14
32″	59,58,48,28,57,34,39,22, 3,11		4,23, 6, 8,15	
		3,13,58,16, 9,29, 4		14
34″	59,58,48,32,11,32,55,31,32,15		4,23, 6, 8,29	
		3,13,53,53, 3,20,35		14
36″	59,58,48,35,25,26,48,34,52,50		4,23, 6, 8,43	
		3,13,49,29,57,11,52		14
38″	59,58,48,38,39,16,18,32, 4,42		4,23, 6, 8,57	
		3,13,45, 6,51, 2,55		14
40″	59,58,48,41,53, 1,25,23, 7,37		4,23, 6, 9,11	
		3,13,40,43,44,53,44		14
42″	59,58,48,45, 6,42, 9, 8, 1,21		4,23, 6, 9,25	
		3,13,36,20,38,44,19		14
44″	59,58,48,48,20,18,29,46,45,40		4,23, 6, 9,39	
		3,13,31,57,32,34,40		14
46″	59,58,48,51,33,50,27,19,20,20		4,23, 6, 9,53	
		3,13,27,34,26,24,47		14
48″	59,58,48,54,47,18, 1,45,45, 7		4,23, 6,10, 7	
		3,13,23,11,20,14,40		14
50″	59,58,48,58, 0,41,13, 5,59,47		4,23, 6,10,21	
		3,13,18,48,14, 4,19		14
52″	59,58,49, 1,14, 0, 1,20, 4, 6		4,23, 6,10,35	
		3,13,14,25, 7,53,44		14
54″	59,58,49, 4,27,14,26,27,57,50		4,23, 6,10,49	
		3,13,10, 2, 1,42,55		14
56″	59,58,49, 7,40,24,28,29,40,45		4,23, 6,11, 3	
		3,13, 5,38,55,31,52		14
58″	59,58,49,10,53,30, 7,25,12,37		4,23, 6,11,17	
		3,13, 1,15,49,20,35		
60″	59,58,49,14, 6,31,23,14,33,12			
exact	59,58,49,14, 6,31,23,14,15, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°32′ 0″	59,58,49,14, 6,31,23,14,15, 4			
		3,12,56,52,43, 7,20		
2″	59,58,49,17,19,28,15,57,22,24		4,23, 6,11,51	
		3,12,52,29,36,55,29		14
4″	59,58,49,20,32,20,45,34,17,53		4,23, 6,12, 5	
		3,12,48, 6,30,43,24		14
6″	59,58,49,23,45, 8,52, 5, 1,17		4,23, 6,12,19	
		3,12,43,43,24,31, 5		14
8″	59,58,49,26,57,52,35,29,32,22		4,23, 6,12,33	
		3,12,39,20,18,18,32		14
10″	59,58,49,30,10,31,55,47,50,54		4,23, 6,12,47	
		3,12,34,57,12, 5,45		14
12″	59,58,49,33,23, 6,52,59,56,39		4,23, 6,13, 1	
		3,12,30,34, 5,52,44		14
14″	59,58,49,36,35,37,27, 5,49,23		4,23, 6,13,15	
		3,12,26,10,59,39,29		14
16″	59,58,49,39,48, 3,38, 5,28,52		4,23, 6,13,29	
		3,12,21,47,53,26, 0		14
18″	59,58,49,43, 0,25,25,58,54,52		4,23, 6,13,43	
		3,12,17,24,47,12,17		14
20″	59,58,49,46,12,42,50,46, 7, 9		4,23, 6,13,57	
		3,12,13, 1,40,58,20		14
22″	59,58,49,49,24,55,52,27, 5,29		4,23, 6,14,11	
		3,12, 8,38,34,44, 9		14
24″	59,58,49,52,37, 4,31, 1,49,38		4,23, 6,14,25	
		3,12, 4,15,28,29,44		14
26″	59,58,49,55,49, 8,46,30,19,22		4,23, 6,14,39	
		3,11,59,52,22,15, 5		14
28″	59,58,49,59, 1, 8,38,52,34,27		4,23, 6,14,53	
		3,11,55,29,16, 0,12		14
30″	59,58,50, 2,13, 4, 8, 8,34,39		4,23, 6,15, 7	
		3,11,51, 6, 9,45, 5		14
32″	59,58,50, 5,24,55,14,18,19,44		4,23, 6,15,21	
		3,11,46,43, 3,29,44		14
34″	59,58,50, 8,36,41,57,21,49,28		4,23, 6,15,35	
		3,11,42,19,57,14, 9		14
36″	59,58,50,11,48,24,17,19, 3,37		4,23, 6,15,49	
		3,11,37,56,50,58,20		14
38″	59,58,50,15, 0, 2,14,10, 1,57		4,23, 6,16, 3	
		3,11,33,33,44,42,17		14
40″	59,58,50,18,11,35,47,54,44,14		4,23, 6,16,17	
		3,11,29,10,38,26, 0		14
42″	59,58,50,21,23, 4,58,33,10,14		4,23, 6,16,31	
		3,11,24,47,32, 9,29		14
44″	59,58,50,24,34,29,46, 5,19,43		4,23, 6,16,45	
		3,11,20,24,25,52,44		14
46″	59,58,50,27,45,50,10,31,12,27		4,23, 6,16,59	
		3,11,16, 1,19,35,45		14
48″	59,58,50,30,57, 6,11,50,48,12		4,23, 6,17,13	
		3,11,11,38,13,18,32		14
50″	59,58,50,34, 8,17,50, 4, 6,44		4,23, 6,17,27	
		3,11, 7,15, 7, 1, 5		14
52″	59,58,50,37,19,25, 5,11, 7,49		4,23, 6,17,41	
		3,11, 2,52, 0,43,24		14
54″	59,58,50,40,30,27,57,11,51,13		4,23, 6,17,55	
		3,10,58,28,54,25,29		14
56″	59,58,50,43,41,26,26, 6,16,42		4,23, 6,18, 9	
		3,10,54, 5,48, 7,20		14
58″	59,58,50,46,52,20,31,54,24, 2		4,23, 6,18,23	
		3,10,49,42,41,48,57		
60″	59,58,50,50, 3,10,14,36,12,59			
exact	59,58,50,50, 3,10,14,36, 9,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°33′ 0″	59,58,50,50, 3,10,14,36, 9,33			
		3,10,45,19,35,30, 1		
2″	59,58,50,53,13,55,34,11,39,34		4,23, 6,18,52	
		3,10,40,56,29,11, 9		14
4″	59,58,50,56,24,36,30,40,50,43		4,23, 6,19, 6	
		3,10,36,33,22,52, 3		14
6″	59,58,50,59,35,13, 4, 3,42,46		4,23, 6,19,20	
		3,10,32,10,16,32,43		14
8″	59,58,51, 2,45,45,14,20,15,29		4,23, 6,19,34	
		3,10,27,47,10,13, 9		14
10″	59,58,51, 5,56,13, 1,30,28,38		4,23, 6,19,48	
		3,10,23,24, 3,53,21		14
12″	59,58,51, 9, 6,36,25,34,21,59		4,23, 6,20, 2	
		3,10,19, 0,57,33,19		14
14″	59,58,51,12,16,55,26,31,55,18		4,23, 6,20,16	
		3,10,14,37,51,13, 3		14
16″	59,58,51,15,27,10, 4,23, 8,21		4,23, 6,20,30	
		3,10,10,14,44,52,33		14
18″	59,58,51,18,37,20,19, 8, 0,54		4,23, 6,20,44	
		3,10, 5,51,38,31,49		14
20″	59,58,51,21,47,26,10,46,32,43		4,23, 6,20,58	
		3,10, 1,28,32,10,51		14
22″	59,58,51,24,57,27,39,18,43,34		4,23, 6,21,12	
		3, 9,57, 5,25,49,39		14
24″	59,58,51,28, 7,24,44,44,33,13		4,23, 6,21,26	
		3, 9,52,42,19,28,13		14
26″	59,58,51,31,17,17,27, 4, 1,26		4,23, 6,21,40	
		3, 9,48,19,13, 6,33		14
28″	59,58,51,34,27, 5,46,17, 7,59		4,23, 6,21,54	
		3, 9,43,56, 6,44,39		14
30″	59,58,51,37,36,49,42,23,52,38		4,23, 6,22, 8	
		3, 9,39,33, 0,22,31		14
32″	59,58,51,40,46,29,15,24,15, 9		4,23, 6,22,22	
		3, 9,35, 9,54, 0, 9		14
34″	59,58,51,43,56, 4,25,18,15,18		4,23, 6,22,36	
		3, 9,30,46,47,37,33		14
36″	59,58,51,47, 5,35,12, 5,52,51		4,23, 6,22,50	
		3, 9,26,23,41,14,43		14
38″	59,58,51,50,15, 1,35,47, 7,34		4,23, 6,23, 4	
		3, 9,22, 0,34,51,39		14
40″	59,58,51,53,24,23,36,21,59,13		4,23, 6,23,18	
		3, 9,17,37,28,28,21		14
42″	59,58,51,56,33,41,13,50,27,34		4,23, 6,23,32	
		3, 9,13,14,22, 4,49		14
44″	59,58,51,59,42,54,28,12,32,23		4,23, 6,23,46	
		3, 9, 8,51,15,41, 3		14
46″	59,58,52, 2,52, 3,19,28,13,26		4,23, 6,24, 0	
		3, 9, 4,28, 9,17, 3		14
48″	59,58,52, 6, 1, 7,47,37,30,29		4,23, 6,24,14	
		3, 9, 0, 5, 2,52,49		14
50″	59,58,52, 9,10, 7,52,40,23,18		4,23, 6,24,28	
		3, 8,55,41,56,28,21		14
52″	59,58,52,12,19, 3,34,36,51,39		4,23, 6,24,42	
		3, 8,51,18,50, 3,39		14
54″	59,58,52,15,27,54,53,26,55,18		4,23, 6,24,56	
		3, 8,46,55,43,38,43		14
56″	59,58,52,18,36,41,49,10,34, 1		4,23, 6,25,10	
		3, 8,42,32,37,13,33		14
58″	59,58,52,21,45,24,21,47,47,34		4,23, 6,25,24	
		3, 8,38, 9,30,48, 9		
60″	59,58,52,24,54, 2,31,18,35,43			
exact	59,58,52,24,54, 2,31,18,45,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°34′ 0″	59,58,52,24,54, 2,31,18,45,22			
		3, 8,33,46,24,23,31		
2″	59,58,52,28, 2,36,17,43, 8,53		4,23, 6,25,47	
		3, 8,29,23,17,57,44		14
4″	59,58,52,31,11, 5,41, 1, 6,37		4,23, 6,26, 1	
		3, 8,25, 0,11,31,43		14
6″	59,58,52,34,19,30,41,12,38,20		4,23, 6,26,15	
		3, 8,20,37, 5, 5,28		14
8″	59,58,52,37,27,51,18,17,43,48		4,23, 6,26,29	
		3, 8,16,13,58,38,59		14
10″	59,58,52,40,36, 7,32,16,22,47		4,23, 6,26,43	
		3, 8,11,50,52,12,16		14
12″	59,58,52,43,44,19,23, 8,35, 3		4,23, 6,26,57	
		3, 8, 7,27,45,45,19		14
14″	59,58,52,46,52,26,50,54,20,22		4,23, 6,27,11	
		3, 8, 3, 4,39,18, 8		14
16″	59,58,52,50, 0,29,55,33,38,30		4,23, 6,27,25	
		3, 7,58,41,32,50,43		14
18″	59,58,52,53, 8,28,37, 6,29,13		4,23, 6,27,39	
		3, 7,54,18,26,23, 4		14
20″	59,58,52,56,16,22,55,32,52,17		4,23, 6,27,53	
		3, 7,49,55,19,55,11		14
22″	59,58,52,59,24,12,50,52,47,28		4,23, 6,28, 7	
		3, 7,45,32,13,27, 4		14
24″	59,58,53, 2,31,58,23, 6,14,32		4,23, 6,28,21	
		3, 7,41, 9, 6,58,43		14
26″	59,58,53, 5,39,39,32,13,13,15		4,23, 6,28,35	
		3, 7,36,46, 0,30, 8		14
28″	59,58,53, 8,47,16,18,13,43,23		4,23, 6,28,49	
		3, 7,32,22,54, 1,19		14
30″	59,58,53,11,54,48,41, 7,44,42		4,23, 6,29, 3	
		3, 7,27,59,47,32,16		14
32″	59,58,53,15, 2,16,40,55,16,58		4,23, 6,29,17	
		3, 7,23,36,41, 2,59		14
34″	59,58,53,18, 9,40,17,36,19,57		4,23, 6,29,31	
		3, 7,19,13,34,33,28		14
36″	59,58,53,21,16,59,31,10,53,25		4,23, 6,29,45	
		3, 7,14,50,28, 3,43		14
38″	59,58,53,24,24,14,21,38,57, 8		4,23, 6,29,59	
		3, 7,10,27,21,33,44		14
40″	59,58,53,27,31,24,49, 0,30,52		4,23, 6,30,13	
		3, 7, 6, 4,15, 3,31		14
42″	59,58,53,30,38,30,53,15,34,23		4,23, 6,30,27	
		3, 7, 1,41, 8,33, 4		14
44″	59,58,53,33,45,32,34,24, 7,27		4,23, 6,30,41	
		3, 6,57,18, 2, 2,23		14
46″	59,58,53,36,52,29,52,26, 9,50		4,23, 6,30,55	
		3, 6,52,54,55,31,28		14
48″	59,58,53,39,59,22,47,21,41,18		4,23, 6,31, 9	
		3, 6,48,31,49, 0,19		14
50″	59,58,53,43, 6,11,19,10,41,37		4,23, 6,31,23	
		3, 6,44, 8,42,28,56		14
52″	59,58,53,46,12,55,27,53,10,33		4,23, 6,31,37	
		3, 6,39,45,35,57,19		14
54″	59,58,53,49,19,35,13,29, 7,52		4,23, 6,31,51	
		3, 6,35,22,29,25,28		14
56″	59,58,53,52,26,10,35,58,33,20		4,23, 6,32, 5	
		3, 6,30,59,22,53,23		14
58″	59,58,53,55,32,41,35,21,26,43		4,23, 6,32,19	
		3, 6,26,36,16,21, 4		
60″	59,58,53,58,39, 8,11,37,47,47			
exact	59,58,53,58,39, 8,11,38, 1,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°35′ 0″	59,58,53,58,39, 8,11,38, 1,48			
		3, 6,22,13, 9,50,14		
2″	59,58,54, 1,45,30,24,47,52, 2		4,23, 6,32,39	
		3, 6,17,50, 3,17,35		14
4″	59,58,54, 4,51,48,14,51, 9,37		4,23, 6,32,53	
		3, 6,13,26,56,44,42		14
6″	59,58,54, 7,58, 1,41,47,54,19		4,23, 6,33, 7	
		3, 6, 9, 3,50,11,35		14
8″	59,58,54,11, 4,10,45,38, 5,54		4,23, 6,33,21	
		3, 6, 4,40,43,38,14		14
10″	59,58,54,14,10,15,26,21,44, 8		4,23, 6,33,35	
		3, 6, 0,17,37, 4,39		14
12″	59,58,54,17,16,15,43,58,48,47		4,23, 6,33,49	
		3, 5,55,54,30,30,50		14
14″	59,58,54,20,22,11,38,29,19,37		4,23, 6,34, 3	
		3, 5,51,31,23,56,47		14
16″	59,58,54,23,28, 3, 9,53,16,24		4,23, 6,34,17	
		3, 5,47, 8,17,22,30		14
18″	59,58,54,26,33,50,18,10,38,54		4,23, 6,34,31	
		3, 5,42,45,10,47,59		14
20″	59,58,54,29,39,33, 3,21,26,53		4,23, 6,34,45	
		3, 5,38,22, 4,13,14		14
22″	59,58,54,32,45,11,25,25,40, 7		4,23, 6,34,59	
		3, 5,33,58,57,38,15		14
24″	59,58,54,35,50,45,24,23,18,22		4,23, 6,35,13	
		3, 5,29,35,51, 3, 2		14
26″	59,58,54,38,56,15, 0,14,21,24		4,23, 6,35,27	
		3, 5,25,12,44,27,35		14
28″	59,58,54,42, 1,40,12,58,48,59		4,23, 6,35,41	
		3, 5,20,49,37,51,54		14
30″	59,58,54,45, 7, 1, 2,36,40,53		4,23, 6,35,55	
		3, 5,16,26,31,15,59		14
32″	59,58,54,48,12,17,29, 7,56,52		4,23, 6,36, 9	
		3, 5,12, 3,24,39,50		14
34″	59,58,54,51,17,29,32,32,36,42		4,23, 6,36,23	
		3, 5, 7,40,18, 3,27		14
36″	59,58,54,54,22,37,12,50,40, 9		4,23, 6,36,37	
		3, 5, 3,17,11,26,50		14
38″	59,58,54,57,27,40,30, 2, 6,59		4,23, 6,36,51	
		3, 4,58,54, 4,49,59		14
40″	59,58,55, 0,32,39,24, 6,56,58		4,23, 6,37, 5	
		3, 4,54,30,58,12,54		14
42″	59,58,55, 3,37,33,55, 5, 9,52		4,23, 6,37,19	
		3, 4,50, 7,51,35,35		14
44″	59,58,55, 6,42,24, 2,56,45,27		4,23, 6,37,33	
		3, 4,45,44,44,58, 2		14
46″	59,58,55, 9,47, 9,47,41,43,29		4,23, 6,37,47	
		3, 4,41,21,38,20,15		14
48″	59,58,55,12,51,51, 9,20, 3,44		4,23, 6,38, 1	
		3, 4,36,58,31,42,14		14
50″	59,58,55,15,56,28, 7,51,45,58		4,23, 6,38,15	
		3, 4,32,35,25, 3,59		14
52″	59,58,55,19, 1, 0,43,16,49,57		4,23, 6,38,29	
		3, 4,28,12,18,25,30		14
54″	59,58,55,22, 5,28,55,35,15,27		4,23, 6,38,43	
		3, 4,23,49,11,46,47		14
56″	59,58,55,25, 9,52,44,47, 2,14		4,23, 6,38,57	
		3, 4,19,26, 5, 7,50		14
58″	59,58,55,28,14,12,10,52,10, 4		4,23, 6,39,11	
		3, 4,15, 2,58,28,39		
60″	59,58,55,31,18,27,13,50,38,43			
exact	59,58,55,31,18,27,13,51,10,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°36′ 0″	59,58,55,31,18,27,13,51,10,12			
		3, 4,10,39,51,52,35		
2″	59,58,55,34,22,37,53,43, 2,47		4,23, 6,39,25	
		3, 4, 6,16,45,13,10		13
4″	59,58,55,37,26,44,10,28,15,57		4,23, 6,39,38	
		3, 4, 1,53,38,33,32		13
6″	59,58,55,40,30,46, 4, 6,49,29		4,23, 6,39,51	
		3, 3,57,30,31,53,41		13
8″	59,58,55,43,34,43,34,38,43,10		4,23, 6,40, 4	
		3, 3,53, 7,25,13,37		13
10″	59,58,55,46,38,36,42, 3,56,47		4,23, 6,40,17	
		3, 3,48,44,18,33,20		13
12″	59,58,55,49,42,25,26,22,30, 7		4,23, 6,40,30	
		3, 3,44,21,11,52,50		13
14″	59,58,55,52,46, 9,47,34,22,57		4,23, 6,40,43	
		3, 3,39,58, 5,12, 7		13
16″	59,58,55,55,49,49,45,39,35, 4		4,23, 6,40,56	
		3, 3,35,34,58,31,11		13
18″	59,58,55,58,53,25,20,38, 6,15		4,23, 6,41, 9	
		3, 3,31,11,51,50, 2		13
20″	59,58,56, 1,56,56,32,29,56,17		4,23, 6,41,22	
		3, 3,26,48,45, 8,40		13
22″	59,58,56, 5, 0,23,21,15, 4,57		4,23, 6,41,35	
		3, 3,22,25,38,27, 5		13
24″	59,58,56, 8, 3,45,46,53,32, 2		4,23, 6,41,48	
		3, 3,18, 2,31,45,17		13
26″	59,58,56,11, 7, 3,49,25,17,19		4,23, 6,42, 1	
		3, 3,13,39,25, 3,16		13
28″	59,58,56,14,10,17,28,50,20,35		4,23, 6,42,14	
		3, 3, 9,16,18,21, 2		13
30″	59,58,56,17,13,26,45, 8,41,37		4,23, 6,42,27	
		3, 3, 4,53,11,38,35		13
32″	59,58,56,20,16,31,38,20,20,12		4,23, 6,42,40	
		3, 3, 0,30, 4,55,55		13
34″	59,58,56,23,19,32, 8,25,16, 7		4,23, 6,42,53	
		3, 2,56, 6,58,13, 2		13
36″	59,58,56,26,22,28,15,23,29, 9		4,23, 6,43, 6	
		3, 2,51,43,51,29,56		13
38″	59,58,56,29,25,19,59,14,59, 5		4,23, 6,43,19	
		3, 2,47,20,44,46,37		13
40″	59,58,56,32,28, 7,19,59,45,42		4,23, 6,43,32	
		3, 2,42,57,38, 3, 5		13
42″	59,58,56,35,30,50,17,37,48,47		4,23, 6,43,45	
		3, 2,38,34,31,19,20		13
44″	59,58,56,38,33,28,52, 9, 8, 7		4,23, 6,43,58	
		3, 2,34,11,24,35,22		13
46″	59,58,56,41,36, 3, 3,33,43,29		4,23, 6,44,11	
		3, 2,29,48,17,51,11		13
48″	59,58,56,44,38,32,51,51,34,40		4,23, 6,44,24	
		3, 2,25,25,11, 6,47		13
50″	59,58,56,47,40,58,17, 2,41,27		4,23, 6,44,37	
		3, 2,21, 2, 4,22,10		13
52″	59,58,56,50,43,19,19, 7, 3,37		4,23, 6,44,50	
		3, 2,16,38,57,37,20		13
54″	59,58,56,53,45,35,58, 4,40,57		4,23, 6,45, 3	
		3, 2,12,15,50,52,17		13
56″	59,58,56,56,47,48,13,55,33,14		4,23, 6,45,16	
		3, 2, 7,52,44, 7, 1		13
58″	59,58,56,59,49,56, 6,39,40,15		4,23, 6,45,29	
		3, 2, 3,29,37,21,32		
60″	59,58,57, 2,51,59,36,17, 1,47			
exact	59,58,57, 2,51,59,36,16,34, 8			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°37′ 0″	59,58,57, 2,51,59,36,16,34, 8			
		3, 1,59, 6,30,32,56		
2″	59,58,57, 5,53,58,42,47, 7, 4		4,23, 6,46, 6	
		3, 1,54,43,23,46,50		13
4″	59,58,57, 8,55,53,26,10,53,54		4,23, 6,46,19	
		3, 1,50,20,17, 0,31		13
6″	59,58,57,11,57,43,46,27,54,25		4,23, 6,46,32	
		3, 1,45,57,10,13,59		13
8″	59,58,57,14,59,29,43,38, 8,24		4,23, 6,46,45	
		3, 1,41,34, 3,27,14		13
10″	59,58,57,18, 1,11,17,41,35,38		4,23, 6,46,58	
		3, 1,37,10,56,40,16		13
12″	59,58,57,21, 2,48,28,38,15,54		4,23, 6,47,11	
		3, 1,32,47,49,53, 5		13
14″	59,58,57,24, 4,21,16,28, 8,59		4,23, 6,47,24	
		3, 1,28,24,43, 5,41		13
16″	59,58,57,27, 5,49,41,11,14,40		4,23, 6,47,37	
		3, 1,24, 1,36,18, 4		13
18″	59,58,57,30, 7,13,42,47,32,44		4,23, 6,47,50	
		3, 1,19,38,29,30,14		13
20″	59,58,57,33, 8,33,21,17, 2,58		4,23, 6,48, 3	
		3, 1,15,15,22,42,11		13
22″	59,58,57,36, 9,48,36,39,45, 9		4,23, 6,48,16	
		3, 1,10,52,15,53,55		13
24″	59,58,57,39,10,59,28,55,39, 4		4,23, 6,48,29	
		3, 1, 6,29, 9, 5,26		13
26″	59,58,57,42,12, 5,58, 4,44,30		4,23, 6,48,42	
		3, 1, 2, 6, 2,16,44		13
28″	59,58,57,45,13, 8, 4, 7, 1,14		4,23, 6,48,55	
		3, 0,57,42,55,27,49		13
30″	59,58,57,48,14, 5,47, 2,29, 3		4,23, 6,49, 8	
		3, 0,53,19,48,38,41		13
32″	59,58,57,51,14,59, 6,51, 7,44		4,23, 6,49,21	
		3, 0,48,56,41,49,20		13
34″	59,58,57,54,15,48, 3,32,57, 4		4,23, 6,49,34	
		3, 0,44,33,34,59,46		13
36″	59,58,57,57,16,32,37, 7,56,50		4,23, 6,49,47	
		3, 0,40,10,28, 9,59		13
38″	59,58,58, 0,17,12,47,36, 6,49		4,23, 6,50, 0	
		3, 0,35,47,21,19,59		13
40″	59,58,58, 3,17,48,34,57,26,48		4,23, 6,50,13	
		3, 0,31,24,14,29,46		13
42″	59,58,58, 6,18,19,59,11,56,34		4,23, 6,50,26	
		3, 0,27, 1, 7,39,20		13
44″	59,58,58, 9,18,47, 0,19,35,54		4,23, 6,50,39	
		3, 0,22,38, 0,48,41		13
46″	59,58,58,12,19, 9,38,20,24,35		4,23, 6,50,52	
		3, 0,18,14,53,57,49		13
48″	59,58,58,15,19,27,53,14,22,24		4,23, 6,51, 5	
		3, 0,13,51,47, 6,44		13
50″	59,58,58,18,19,41,45, 1,29, 8		4,23, 6,51,18	
		3, 0, 9,28,40,15,26		13
52″	59,58,58,21,19,51,13,41,44,34		4,23, 6,51,31	
		3, 0, 5, 5,33,23,55		13
54″	59,58,58,24,19,56,19,15, 8,29		4,23, 6,51,44	
		3, 0, 0,42,26,32,11		13
56″	59,58,58,27,19,57, 1,41,40,40		4,23, 6,51,57	
		2,59,56,19,19,40,14		13
58″	59,58,58,30,19,53,21, 1,20,54		4,23, 6,52,10	
		2,59,51,56,12,48, 4		
60″	59,58,58,33,19,45,17,14, 8,58			
exact	59,58,58,33,19,45,17,13,49,14			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°38′ 0″	59,58,58,33,19,45,17,13,49,14			
		2,59,47,33, 5,53,44		
2″	59,58,58,36,19,32,50,19,42,58		4,23, 6,52,43	
		2,59,43, 9,59, 1, 1		13
4″	59,58,58,39,19,16, 0,18,43,59		4,23, 6,52,56	
		2,59,38,46,52, 8, 5		13
6″	59,58,58,42,18,54,47,10,52, 4		4,23, 6,53, 9	
		2,59,34,23,45,14,56		13
8″	59,58,58,45,18,29,10,56, 7, 0		4,23, 6,53,22	
		2,59,30, 0,38,21,34		13
10″	59,58,58,48,17,59,11,34,28,34		4,23, 6,53,35	
		2,59,25,37,31,27,59		13
12″	59,58,58,51,17,24,49, 5,56,33		4,23, 6,53,48	
		2,59,21,14,24,34,11		13
14″	59,58,58,54,16,46, 3,30,30,44		4,23, 6,54, 1	
		2,59,16,51,17,40,10		13
16″	59,58,58,57,16, 2,54,48,10,54		4,23, 6,54,14	
		2,59,12,28,10,45,56		13
18″	59,58,59, 0,15,15,22,58,56,50		4,23, 6,54,27	
		2,59, 8, 5, 3,51,29		13
20″	59,58,59, 3,14,23,28, 2,48,19		4,23, 6,54,40	
		2,59, 3,41,56,56,49		13
22″	59,58,59, 6,13,27, 9,59,45, 8		4,23, 6,54,53	
		2,58,59,18,50, 1,56		13
24″	59,58,59, 9,12,26,28,49,47, 4		4,23, 6,55, 6	
		2,58,54,55,43, 6,50		13
26″	59,58,59,12,11,21,24,32,53,54		4,23, 6,55,19	
		2,58,50,32,36,11,31		13
28″	59,58,59,15,10,11,57, 9, 5,25		4,23, 6,55,32	
		2,58,46, 9,29,15,59		13
30″	59,58,59,18, 8,58, 6,38,21,24		4,23, 6,55,45	
		2,58,41,46,22,20,14		13
32″	59,58,59,21, 7,39,53, 0,41,38		4,23, 6,55,58	
		2,58,37,23,15,24,16		13
34″	59,58,59,24, 6,17,16,16, 5,54		4,23, 6,56,11	
		2,58,33, 0, 8,28, 5		13
36″	59,58,59,27, 4,50,16,24,33,59		4,23, 6,56,24	
		2,58,28,37, 1,31,41		13
38″	59,58,59,30, 3,18,53,26, 5,40		4,23, 6,56,37	
		2,58,24,13,54,35, 4		13
40″	59,58,59,33, 1,43, 7,20,40,44		4,23, 6,56,50	
		2,58,19,50,47,38,14		13
42″	59,58,59,36, 0, 2,58, 8,18,58		4,23, 6,57, 3	
		2,58,15,27,40,41,11		13
44″	59,58,59,38,58,18,25,49, 0, 9		4,23, 6,57,16	
		2,58,11, 4,33,43,55		13
46″	59,58,59,41,56,29,30,22,44, 4		4,23, 6,57,29	
		2,58, 6,41,26,46,26		13
48″	59,58,59,44,54,36,11,49,30,30		4,23, 6,57,42	
		2,58, 2,18,19,48,44		13
50″	59,58,59,47,52,38,30, 9,19,14		4,23, 6,57,55	
		2,57,57,55,12,50,49		13
52″	59,58,59,50,50,36,25,22,10, 3		4,23, 6,58, 8	
		2,57,53,32, 5,52,41		13
54″	59,58,59,53,48,29,57,28, 2,44		4,23, 6,58,21	
		2,57,49, 8,58,54,20		13
56″	59,58,59,56,46,19, 6,26,57, 4		4,23, 6,58,34	
		2,57,44,45,51,55,46		13
58″	59,58,59,59,44, 3,52,18,52,50		4,23, 6,58,47	
		2,57,40,22,44,56,59		
60″	59,59, 0, 2,41,44,15, 3,49,49			
exact	59,59, 0, 2,41,44,15, 3,43,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°39′ 0″	59,59, 0, 2,41,44,15, 3,43,18			
		2,57,35,59,37,57,22		
2″	59,59, 0, 5,39,20,14,41,40,40		4,23, 6,59,15	
		2,57,31,36,30,58, 7		13
4″	59,59, 0, 8,36,51,51,12,38,47		4,23, 6,59,28	
		2,57,27,13,23,58,39		13
6″	59,59, 0,11,34,19, 4,36,37,26		4,23, 6,59,41	
		2,57,22,50,16,58,58		13
8″	59,59, 0,14,31,41,54,53,36,24		4,23, 6,59,54	
		2,57,18,27, 9,59, 4		13
10″	59,59, 0,17,29, 0,22, 3,35,28		4,23, 7, 0, 7	
		2,57,14, 4, 2,58,57		13
12″	59,59, 0,20,26,14,26, 6,34,25		4,23, 7, 0,20	
		2,57, 9,40,55,58,37		13
14″	59,59, 0,23,23,24, 7, 2,33, 2		4,23, 7, 0,33	
		2,57, 5,17,48,58, 4		13
16″	59,59, 0,26,20,29,24,51,31, 6		4,23, 7, 0,46	
		2,57, 0,54,41,57,18		13
18″	59,59, 0,29,17,30,19,33,28,24		4,23, 7, 0,59	
		2,56,56,31,34,56,19		13
20″	59,59, 0,32,14,26,51, 8,24,43		4,23, 7, 1,12	
		2,56,52, 8,27,55, 7		13
22″	59,59, 0,35,11,18,59,36,19,50		4,23, 7, 1,25	
		2,56,47,45,20,53,42		13
24″	59,59, 0,38, 8, 6,44,57,13,32		4,23, 7, 1,38	
		2,56,43,22,13,52, 4		13
26″	59,59, 0,41, 4,50, 7,11, 5,36		4,23, 7, 1,51	
		2,56,38,59, 6,50,13		13
28″	59,59, 0,44, 1,29, 6,17,55,49		4,23, 7, 2, 4	
		2,56,34,35,59,48, 9		13
30″	59,59, 0,46,58, 3,42,17,43,58		4,23, 7, 2,17	
		2,56,30,12,52,45,52		13
32″	59,59, 0,49,54,33,55,10,29,50		4,23, 7, 2,30	
		2,56,25,49,45,43,22		13
34″	59,59, 0,52,50,59,44,56,13,12		4,23, 7, 2,43	
		2,56,21,26,38,40,39		13
36″	59,59, 0,55,47,21,11,34,53,51		4,23, 7, 2,56	
		2,56,17, 3,31,37,43		13
38″	59,59, 0,58,43,38,15, 6,31,34		4,23, 7, 3, 9	
		2,56,12,40,24,34,34		13
40″	59,59, 1, 1,39,50,55,31, 6, 8		4,23, 7, 3,22	
		2,56, 8,17,17,31,12		13
42″	59,59, 1, 4,35,59,12,48,37,20		4,23, 7, 3,35	
		2,56, 3,54,10,27,37		13
44″	59,59, 1, 7,32, 3, 6,59, 4,57		4,23, 7, 3,48	
		2,55,59,31, 3,23,49		13
46″	59,59, 1,10,28, 2,38, 2,28,46		4,23, 7, 4, 1	
		2,55,55, 7,56,19,48		13
48″	59,59, 1,13,23,57,45,58,48,34		4,23, 7, 4,14	
		2,55,50,44,49,15,34		13
50″	59,59, 1,16,19,48,30,48, 4, 8		4,23, 7, 4,27	
		2,55,46,21,42,11, 7		13
52″	59,59, 1,19,15,34,52,30,15,15		4,23, 7, 4,40	
		2,55,41,58,35, 6,27		13
54″	59,59, 1,22,11,16,51, 5,21,42		4,23, 7, 4,53	
		2,55,37,35,28, 1,34		13
56″	59,59, 1,25, 6,54,26,33,23,16		4,23, 7, 5, 6	
		2,55,33,12,20,56,28		13
58″	59,59, 1,28, 2,27,38,54,19,44		4,23, 7, 5,19	
		2,55,28,49,13,51, 9		
60″	59,59, 1,30,57,56,28, 8,10,53			
exact	59,59, 1,30,57,56,28, 8,16,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°40′ 0″	59,59, 1,30,57,56,28, 8,16,17			
		2,55,24,26, 6,46,14		
2″	59,59, 1,33,53,20,54,15, 2,31		4,23, 7, 5,42	
		2,55,20, 2,59,40,32		13
4″	59,59, 1,36,48,40,57,14,43, 3		4,23, 7, 5,55	
		2,55,15,39,52,34,37		13
6″	59,59, 1,39,43,56,37, 7,17,40		4,23, 7, 6, 8	
		2,55,11,16,45,28,29		13
8″	59,59, 1,42,39, 7,53,52,46, 9		4,23, 7, 6,21	
		2,55, 6,53,38,22, 8		13
10″	59,59, 1,45,34,14,47,31, 8,17		4,23, 7, 6,34	
		2,55, 2,30,31,15,34		13
12″	59,59, 1,48,29,17,18, 2,23,51		4,23, 7, 6,47	
		2,54,58, 7,24, 8,47		13
14″	59,59, 1,51,24,15,25,26,32,38		4,23, 7, 7, 0	
		2,54,53,44,17, 1,47		13
16″	59,59, 1,54,19, 9, 9,43,34,25		4,23, 7, 7,13	
		2,54,49,21, 9,54,34		13
18″	59,59, 1,57,13,58,30,53,28,59		4,23, 7, 7,26	
		2,54,44,58, 2,47, 8		13
20″	59,59, 2, 0, 8,43,28,56,16, 7		4,23, 7, 7,39	
		2,54,40,34,55,39,29		13
22″	59,59, 2, 3, 3,24, 3,51,55,36		4,23, 7, 7,52	
		2,54,36,11,48,31,37		13
24″	59,59, 2, 5,58, 0,15,40,27,13		4,23, 7, 8, 5	
		2,54,31,48,41,23,32		13
26″	59,59, 2, 8,52,32, 4,21,50,45		4,23, 7, 8,18	
		2,54,27,25,34,15,14		13
28″	59,59, 2,11,46,59,29,56, 5,59		4,23, 7, 8,31	
		2,54,23, 2,27, 6,43		13
30″	59,59, 2,14,41,22,32,23,12,42		4,23, 7, 8,44	
		2,54,18,39,19,57,59		13
32″	59,59, 2,17,35,41,11,43,10,41		4,23, 7, 8,57	
		2,54,14,16,12,49, 2		13
34″	59,59, 2,20,29,55,27,55,59,43		4,23, 7, 9,10	
		2,54, 9,53, 5,39,52		13
36″	59,59, 2,23,24, 5,21, 1,39,35		4,23, 7, 9,23	
		2,54, 5,29,58,30,29		13
38″	59,59, 2,26,18,10,51, 0,10, 4		4,23, 7, 9,36	
		2,54, 1, 6,51,20,53		13
40″	59,59, 2,29,12,11,57,51,30,57		4,23, 7, 9,49	
		2,53,56,43,44,11, 4		13
42″	59,59, 2,32, 6, 8,41,35,42, 1		4,23, 7,10, 2	
		2,53,52,20,37, 1, 2		13
44″	59,59, 2,35, 0, 1, 2,12,43, 3		4,23, 7,10,15	
		2,53,47,57,29,50,47		13
46″	59,59, 2,37,53,48,59,42,33,50		4,23, 7,10,28	
		2,53,43,34,22,40,19		13
48″	59,59, 2,40,47,32,34, 5,14, 9		4,23, 7,10,41	
		2,53,39,11,15,29,38		13
50″	59,59, 2,43,41,11,45,20,43,47		4,23, 7,10,54	
		2,53,34,48, 8,18,44		13
52″	59,59, 2,46,34,46,33,29, 2,31		4,23, 7,11, 7	
		2,53,30,25, 1, 7,37		13
54″	59,59, 2,49,28,16,58,30,10, 8		4,23, 7,11,20	
		2,53,26, 1,53,56,17		13
56″	59,59, 2,52,21,43, 0,24, 6,25		4,23, 7,11,33	
		2,53,21,38,46,44,44		13
58″	59,59, 2,55,15, 4,39,10,51, 9		4,23, 7,11,46	
		2,53,17,15,39,32,58		
60″	59,59, 2,58, 8,21,54,50,24, 7			
exact	59,59, 2,58, 8,21,54,50,40,12			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°41′ 0″	59,59, 2,58, 8,21,54,50,40,12			
		2,53,12,52,32,22,45		
2″	59,59, 3, 1, 1,34,47,23, 2,57		4,23, 7,12, 4	
		2,53, 8,29,25,10,41		13
4″	59,59, 3, 3,54,43,16,48,13,38		4,23, 7,12,17	
		2,53, 4, 6,17,58,24		13
6″	59,59, 3, 6,47,47,23, 6,12, 2		4,23, 7,12,30	
		2,52,59,43,10,45,54		13
8″	59,59, 3, 9,40,47, 6,16,57,56		4,23, 7,12,43	
		2,52,55,20, 3,33,11		13
10″	59,59, 3,12,33,42,26,20,31, 7		4,23, 7,12,56	
		2,52,50,56,56,20,15		13
12″	59,59, 3,15,26,33,23,16,51,22		4,23, 7,13, 9	
		2,52,46,33,49, 7, 6		13
14″	59,59, 3,18,19,19,57, 5,58,28		4,23, 7,13,22	
		2,52,42,10,41,53,44		13
16″	59,59, 3,21,12, 2, 7,47,52,12		4,23, 7,13,35	
		2,52,37,47,34,40, 9		13
18″	59,59, 3,24, 4,39,55,22,32,21		4,23, 7,13,48	
		2,52,33,24,27,26,21		13
20″	59,59, 3,26,57,13,19,49,58,42		4,23, 7,14, 1	
		2,52,29, 1,20,12,20		13
22″	59,59, 3,29,49,42,21,10,11, 2		4,23, 7,14,14	
		2,52,24,38,12,58, 6		13
24″	59,59, 3,32,42, 6,59,23, 9, 8		4,23, 7,14,27	
		2,52,20,15, 5,43,39		13
26″	59,59, 3,35,34,27,14,28,52,47		4,23, 7,14,40	
		2,52,15,51,58,28,59		13
28″	59,59, 3,38,26,43, 6,27,21,46		4,23, 7,14,53	
		2,52,11,28,51,14, 6		13
30″	59,59, 3,41,18,54,35,18,35,52		4,23, 7,15, 6	
		2,52, 7, 5,43,59, 0		13
32″	59,59, 3,44,11, 1,41, 2,34,52		4,23, 7,15,19	
		2,52, 2,42,36,43,41		13
34″	59,59, 3,47, 3, 4,23,39,18,33		4,23, 7,15,32	
		2,51,58,19,29,28, 9		13
36″	59,59, 3,49,55, 2,43, 8,46,42		4,23, 7,15,45	
		2,51,53,56,22,12,24		13
38″	59,59, 3,52,46,56,39,30,59, 6		4,23, 7,15,58	
		2,51,49,33,14,56,26		13
40″	59,59, 3,55,38,46,12,45,55,32		4,23, 7,16,11	
		2,51,45,10, 7,40,15		13
42″	59,59, 3,58,30,31,22,53,35,47		4,23, 7,16,24	
		2,51,40,47, 0,23,51		13
44″	59,59, 4, 1,22,12, 9,53,59,38		4,23, 7,16,37	
		2,51,36,23,53, 7,14		13
46″	59,59, 4, 4,13,48,33,47, 6,52		4,23, 7,16,50	
		2,51,32, 0,45,50,24		13
48″	59,59, 4, 7, 5,20,34,32,57,16		4,23, 7,17, 3	
		2,51,27,37,38,33,21		13
50″	59,59, 4, 9,56,48,12,11,30,37		4,23, 7,17,16	
		2,51,23,14,31,16, 5		13
52″	59,59, 4,12,48,11,26,42,46,42		4,23, 7,17,29	
		2,51,18,51,23,58,36		13
54″	59,59, 4,15,39,30,18, 6,45,18		4,23, 7,17,42	
		2,51,14,28,16,40,54		13
56″	59,59, 4,18,30,44,46,23,26,12		4,23, 7,17,55	
		2,51,10, 5, 9,22,59		13
58″	59,59, 4,21,21,54,51,32,49,11		4,23, 7,18, 8	
		2,51, 5,42, 2, 4,51		
60″	59,59, 4,24,13, 0,33,34,54, 2			
exact	59,59, 4,24,13, 0,33,35,19,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°42′ 0″	59,59, 4,24,13, 0,33,35,19,18			
		2,51, 1,18,54,49,19		
2″	59,59, 4,27, 4, 1,52,30, 8,37		4,23, 7,18,21	
		2,50,56,55,47,30,58		12
4″	59,59, 4,29,54,58,48,17,39,35		4,23, 7,18,33	
		2,50,52,32,40,12,25		12
6″	59,59, 4,32,45,51,20,57,52, 0		4,23, 7,18,45	
		2,50,48, 9,32,53,40		12
8″	59,59, 4,35,36,39,30,30,45,40		4,23, 7,18,57	
		2,50,43,46,25,34,43		12
10″	59,59, 4,38,27,23,16,56,20,23		4,23, 7,19, 9	
		2,50,39,23,18,15,34		12
12″	59,59, 4,41,18, 2,40,14,35,57		4,23, 7,19,21	
		2,50,35, 0,10,56,13		12
14″	59,59, 4,44, 8,37,40,25,32,10		4,23, 7,19,33	
		2,50,30,37, 3,36,40		12
16″	59,59, 4,46,59, 8,17,29, 8,50		4,23, 7,19,45	
		2,50,26,13,56,16,55		12
18″	59,59, 4,49,49,34,31,25,25,45		4,23, 7,19,57	
		2,50,21,50,48,56,58		12
20″	59,59, 4,52,39,56,22,14,22,43		4,23, 7,20, 9	
		2,50,17,27,41,36,49		12
22″	59,59, 4,55,30,13,49,55,59,32		4,23, 7,20,21	
		2,50,13, 4,34,16,28		12
24″	59,59, 4,58,20,26,54,30,16, 0		4,23, 7,20,33	
		2,50, 8,41,26,55,55		12
26″	59,59, 5, 1,10,35,35,57,11,55		4,23, 7,20,45	
		2,50, 4,18,19,35,10		12
28″	59,59, 5, 4, 0,39,54,16,47, 5		4,23, 7,20,57	
		2,49,59,55,12,14,13		12
30″	59,59, 5, 6,50,39,49,29, 1,18		4,23, 7,21, 9	
		2,49,55,32, 4,53, 4		12
32″	59,59, 5, 9,40,35,21,33,54,22		4,23, 7,21,21	
		2,49,51, 8,57,31,43		12
34″	59,59, 5,12,30,26,30,31,26, 5		4,23, 7,21,33	
		2,49,46,45,50,10,10		12
36″	59,59, 5,15,20,13,16,21,36,15		4,23, 7,21,45	
		2,49,42,22,42,48,25		12
38″	59,59, 5,18, 9,55,39, 4,24,40		4,23, 7,21,57	
		2,49,37,59,35,26,28		12
40″	59,59, 5,20,59,33,38,39,51, 8		4,23, 7,22, 9	
		2,49,33,36,28, 4,19		12
42″	59,59, 5,23,49, 7,15, 7,55,27		4,23, 7,22,21	
		2,49,29,13,20,41,58		12
44″	59,59, 5,26,38,36,28,28,37,25		4,23, 7,22,33	
		2,49,24,50,13,19,25		12
46″	59,59, 5,29,28, 1,18,41,56,50		4,23, 7,22,45	
		2,49,20,27, 5,56,40		12
48″	59,59, 5,32,17,21,45,47,53,30		4,23, 7,22,57	
		2,49,16, 3,58,33,43		12
50″	59,59, 5,35, 6,37,49,46,27,13		4,23, 7,23, 9	
		2,49,11,40,51,10,34		12
52″	59,59, 5,37,55,49,30,37,37,47		4,23, 7,23,21	
		2,49, 7,17,43,47,13		12
54″	59,59, 5,40,44,56,48,21,25, 0		4,23, 7,23,33	
		2,49, 2,54,36,23,40		12
56″	59,59, 5,43,33,59,42,57,48,40		4,23, 7,23,45	
		2,48,58,31,28,59,55		12
58″	59,59, 5,46,22,58,14,26,48,35		4,23, 7,23,57	
		2,48,54, 8,21,35,58		
60″	59,59, 5,49,11,52,22,48,24,33			
exact	59,59, 5,49,11,52,22,47,49,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°43′ 0″	59,59, 5,49,11,52,22,47,49,53			
		2,48,49,45,14, 8,20		
2″	59,59, 5,52, 0,42, 8, 1,58,13		4,23, 7,24,34	
		2,48,45,22, 6,43,46		12
4″	59,59, 5,54,49,27,30, 8,41,59		4,23, 7,24,46	
		2,48,40,58,59,19, 0		12
6″	59,59, 5,57,38, 8,29, 8, 0,59		4,23, 7,24,58	
		2,48,36,35,51,54, 2		12
8″	59,59, 6, 0,26,45, 4,59,55, 1		4,23, 7,25,10	
		2,48,32,12,44,28,52		12
10″	59,59, 6, 3,15,17,17,44,23,53		4,23, 7,25,22	
		2,48,27,49,37, 3,30		12
12″	59,59, 6, 6, 3,45, 7,21,27,23		4,23, 7,25,34	
		2,48,23,26,29,37,56		12
14″	59,59, 6, 8,52, 8,33,51, 5,19		4,23, 7,25,46	
		2,48,19, 3,22,12,10		12
16″	59,59, 6,11,40,27,37,13,17,29		4,23, 7,25,58	
		2,48,14,40,14,46,12		12
18″	59,59, 6,14,28,42,17,28, 3,41		4,23, 7,26,10	
		2,48,10,17, 7,20, 2		12
20″	59,59, 6,17,16,52,34,35,23,43		4,23, 7,26,22	
		2,48, 5,53,59,53,40		12
22″	59,59, 6,20, 4,58,28,35,17,23		4,23, 7,26,34	
		2,48, 1,30,52,27, 6		12
24″	59,59, 6,22,52,59,59,27,44,29		4,23, 7,26,46	
		2,47,57, 7,45, 0,20		12
26″	59,59, 6,25,40,57, 7,12,44,49		4,23, 7,26,58	
		2,47,52,44,37,33,22		12
28″	59,59, 6,28,28,49,51,50,18,11		4,23, 7,27,10	
		2,47,48,21,30, 6,12		12
30″	59,59, 6,31,16,38,13,20,24,23		4,23, 7,27,22	
		2,47,43,58,22,38,50		12
32″	59,59, 6,34, 4,22,11,43, 3,13		4,23, 7,27,34	
		2,47,39,35,15,11,16		12
34″	59,59, 6,36,52, 1,46,58,14,29		4,23, 7,27,46	
		2,47,35,12, 7,43,30		12
36″	59,59, 6,39,39,36,59, 5,57,59		4,23, 7,27,58	
		2,47,30,49, 0,15,32		12
38″	59,59, 6,42,27, 7,48, 6,13,31		4,23, 7,28,10	
		2,47,26,25,52,47,22		12
40″	59,59, 6,45,14,34,13,59, 0,53		4,23, 7,28,22	
		2,47,22, 2,45,19, 0		12
42″	59,59, 6,48, 1,56,16,44,19,53		4,23, 7,28,34	
		2,47,17,39,37,50,26		12
44″	59,59, 6,50,49,13,56,22,10,19		4,23, 7,28,46	
		2,47,13,16,30,21,40		12
46″	59,59, 6,53,36,27,12,52,31,59		4,23, 7,28,58	
		2,47, 8,53,22,52,42		12
48″	59,59, 6,56,23,36, 6,15,24,41		4,23, 7,29,10	
		2,47, 4,30,15,23,32		12
50″	59,59, 6,59,10,40,36,30,48,13		4,23, 7,29,22	
		2,47, 0, 7, 7,54,10		12
52″	59,59, 7, 1,57,40,43,38,42,23		4,23, 7,29,34	
		2,46,55,44, 0,24,36		12
54″	59,59, 7, 4,44,36,27,39, 6,59		4,23, 7,29,46	
		2,46,51,20,52,54,50		12
56″	59,59, 7, 7,31,27,48,32, 1,49		4,23, 7,29,58	
		2,46,46,57,45,24,52		12
58″	59,59, 7,10,18,14,46,17,26,41		4,23, 7,30,10	
		2,46,42,34,37,54,42		
60″	59,59, 7,13, 4,57,20,55,21,23			
exact	59,59, 7,13, 4,57,20,55, 0,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°44′ 0″	59,59, 7,13, 4,57,20,55, 0,25			
		2,46,38,11,30,22,13		
2″	59,59, 7,15,51,35,32,25,22,38		4,23, 7,30,42	
		2,46,33,48,22,51,31		12
4″	59,59, 7,18,38, 9,20,48,14, 9		4,23, 7,30,54	
		2,46,29,25,15,20,37		12
6″	59,59, 7,21,24,38,46, 3,34,46		4,23, 7,31, 6	
		2,46,25, 2, 7,49,31		12
8″	59,59, 7,24,11, 3,48,11,24,17		4,23, 7,31,18	
		2,46,20,39, 0,18,13		12
10″	59,59, 7,26,57,24,27,11,42,30		4,23, 7,31,30	
		2,46,16,15,52,46,43		12
12″	59,59, 7,29,43,40,43, 4,29,13		4,23, 7,31,42	
		2,46,11,52,45,15, 1		12
14″	59,59, 7,32,29,52,35,49,44,14		4,23, 7,31,54	
		2,46, 7,29,37,43, 7		12
16″	59,59, 7,35,16, 0, 5,27,27,21		4,23, 7,32, 6	
		2,46, 3, 6,30,11, 1		12
18″	59,59, 7,38, 2, 3,11,57,38,22		4,23, 7,32,18	
		2,45,58,43,22,38,43		12
20″	59,59, 7,40,48, 1,55,20,17, 5		4,23, 7,32,30	
		2,45,54,20,15, 6,13		12
22″	59,59, 7,43,33,56,15,35,23,18		4,23, 7,32,42	
		2,45,49,57, 7,33,31		12
24″	59,59, 7,46,19,46,12,42,56,49		4,23, 7,32,54	
		2,45,45,34, 0, 0,37		12
26″	59,59, 7,49, 5,31,46,42,57,26		4,23, 7,33, 6	
		2,45,41,10,52,27,31		12
28″	59,59, 7,51,51,12,57,35,24,57		4,23, 7,33,18	
		2,45,36,47,44,54,13		12
30″	59,59, 7,54,36,49,45,20,19,10		4,23, 7,33,30	
		2,45,32,24,37,20,43		12
32″	59,59, 7,57,22,22, 9,57,39,53		4,23, 7,33,42	
		2,45,28, 1,29,47, 1		12
34″	59,59, 8, 0, 7,50,11,27,26,54		4,23, 7,33,54	
		2,45,23,38,22,13, 7		12
36″	59,59, 8, 2,53,13,49,49,40, 1		4,23, 7,34, 6	
		2,45,19,15,14,39, 1		12
38″	59,59, 8, 5,38,33, 5, 4,19, 2		4,23, 7,34,18	
		2,45,14,52, 7, 4,43		12
40″	59,59, 8, 8,23,47,57,11,23,45		4,23, 7,34,30	
		2,45,10,28,59,30,13		12
42″	59,59, 8,11, 8,58,26,10,53,58		4,23, 7,34,42	
		2,45, 6, 5,51,55,31		12
44″	59,59, 8,13,54, 4,32, 2,49,29		4,23, 7,34,54	
		2,45, 1,42,44,20,37		12
46″	59,59, 8,16,39, 6,14,47,10, 6		4,23, 7,35, 6	
		2,44,57,19,36,45,31		12
48″	59,59, 8,19,24, 3,34,23,55,37		4,23, 7,35,18	
		2,44,52,56,29,10,13		12
50″	59,59, 8,22, 8,56,30,53, 5,50		4,23, 7,35,30	
		2,44,48,33,21,34,43		12
52″	59,59, 8,24,53,45, 4,14,40,33		4,23, 7,35,42	
		2,44,44,10,13,59, 1		12
54″	59,59, 8,27,38,29,14,28,39,34		4,23, 7,35,54	
		2,44,39,47, 6,23, 7		12
56″	59,59, 8,30,23, 9, 1,35, 2,41		4,23, 7,36, 6	
		2,44,35,23,58,47, 1		12
58″	59,59, 8,33, 7,44,25,33,49,42		4,23, 7,36,18	
		2,44,31, 0,51,10,43		
60″	59,59, 8,35,52,15,26,25, 0,25			
exact	59,59, 8,35,52,15,26,24,51,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°45′ 0″	59,59, 8,35,52,15,26,24,51,32			
		2,44,26,37,43,33,21		
2″	59,59, 8,38,36,42, 4, 8,24,53		4,23, 7,36,45	
		2,44,22,14,35,56,36		12
4″	59,59, 8,41,21, 4,18,44,21,29		4,23, 7,36,57	
		2,44,17,51,28,19,39		12
6″	59,59, 8,44, 5,22,10,12,41, 8		4,23, 7,37, 9	
		2,44,13,28,20,42,30		12
8″	59,59, 8,46,49,35,38,33,23,38		4,23, 7,37,21	
		2,44, 9, 5,13, 5, 9		12
10″	59,59, 8,49,33,44,43,46,28,47		4,23, 7,37,33	
		2,44, 4,42, 5,27,36		12
12″	59,59, 8,52,17,49,25,51,56,23		4,23, 7,37,45	
		2,44, 0,18,57,49,51		12
14″	59,59, 8,55, 1,49,44,49,46,14		4,23, 7,37,57	
		2,43,55,55,50,11,54		12
16″	59,59, 8,57,45,45,40,39,58, 8		4,23, 7,38, 9	
		2,43,51,32,42,33,45		12
18″	59,59, 9, 0,29,37,13,22,31,53		4,23, 7,38,21	
		2,43,47, 9,34,55,24		12
20″	59,59, 9, 3,13,24,22,57,27,17		4,23, 7,38,33	
		2,43,42,46,27,16,51		12
22″	59,59, 9, 5,57, 7, 9,24,44, 8		4,23, 7,38,45	
		2,43,38,23,19,38, 6		12
24″	59,59, 9, 8,40,45,32,44,22,14		4,23, 7,38,57	
		2,43,34, 0,11,59, 9		12
26″	59,59, 9,11,24,19,32,56,21,23		4,23, 7,39, 9	
		2,43,29,37, 4,20, 0		12
28″	59,59, 9,14, 7,49,10, 0,41,23		4,23, 7,39,21	
		2,43,25,13,56,40,39		12
30″	59,59, 9,16,51,14,23,57,22, 2		4,23, 7,39,33	
		2,43,20,50,49, 1, 6		12
32″	59,59, 9,19,34,35,14,46,23, 8		4,23, 7,39,45	
		2,43,16,27,41,21,21		12
34″	59,59, 9,22,17,51,42,27,44,29		4,23, 7,39,57	
		2,43,12, 4,33,41,24		12
36″	59,59, 9,25, 1, 3,47, 1,25,53		4,23, 7,40, 9	
		2,43, 7,41,26, 1,15		12
38″	59,59, 9,27,44,11,28,27,27, 8		4,23, 7,40,21	
		2,43, 3,18,18,20,54		12
40″	59,59, 9,30,27,14,46,45,48, 2		4,23, 7,40,33	
		2,42,58,55,10,40,21		12
42″	59,59, 9,33,10,13,41,56,28,23		4,23, 7,40,45	
		2,42,54,32, 2,59,36		12
44″	59,59, 9,35,53, 8,13,59,27,59		4,23, 7,40,57	
		2,42,50, 8,55,18,39		12
46″	59,59, 9,38,35,58,22,54,46,38		4,23, 7,41, 9	
		2,42,45,45,47,37,30		12
48″	59,59, 9,41,18,44, 8,42,24, 8		4,23, 7,41,21	
		2,42,41,22,39,56, 9		12
50″	59,59, 9,44, 1,25,31,22,20,17		4,23, 7,41,33	
		2,42,36,59,32,14,36		12
52″	59,59, 9,46,44, 2,30,54,34,53		4,23, 7,41,45	
		2,42,32,36,24,32,51		12
54″	59,59, 9,49,26,35, 7,19, 7,44		4,23, 7,41,57	
		2,42,28,13,16,50,54		12
56″	59,59, 9,52, 9, 3,20,35,58,38		4,23, 7,42, 9	
		2,42,23,50, 9, 8,45		12
58″	59,59, 9,54,51,27,10,45, 7,23		4,23, 7,42,21	
		2,42,19,27, 1,26,24		
60″	59,59, 9,57,33,46,37,46,33,47			
exact	59,59, 9,57,33,46,37,46,35,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°46′ 0″	59,59, 9,57,33,46,37,46,35,58			
		2,42,15, 3,53,44, 9		
2″	59,59,10, 0,16, 1,41,40,20, 7		4,23, 7,42,43	
		2,42,10,40,46, 1,26		12
4″	59,59,10, 2,58,12,22,26,21,33		4,23, 7,42,55	
		2,42, 6,17,38,18,31		12
6″	59,59,10, 5,40,18,40, 4,40, 4		4,23, 7,43, 7	
		2,42, 1,54,30,35,24		12
8″	59,59,10, 8,22,20,34,35,15,28		4,23, 7,43,19	
		2,41,57,31,22,52, 5		12
10″	59,59,10,11, 4,18, 5,58, 7,33		4,23, 7,43,31	
		2,41,53, 8,15, 8,34		12
12″	59,59,10,13,46,11,14,13,16, 7		4,23, 7,43,43	
		2,41,48,45, 7,24,51		12
14″	59,59,10,16,27,59,59,20,40,58		4,23, 7,43,55	
		2,41,44,21,59,40,56		12
16″	59,59,10,19, 9,44,21,20,21,54		4,23, 7,44, 7	
		2,41,39,58,51,56,49		12
18″	59,59,10,21,51,24,20,12,18,43		4,23, 7,44,19	
		2,41,35,35,44,12,30		12
20″	59,59,10,24,32,59,55,56,31,13		4,23, 7,44,31	
		2,41,31,12,36,27,59		12
22″	59,59,10,27,14,31, 8,32,59,12		4,23, 7,44,43	
		2,41,26,49,28,43,16		12
24″	59,59,10,29,55,57,58, 1,42,28		4,23, 7,44,55	
		2,41,22,26,20,58,21		12
26″	59,59,10,32,37,20,24,22,40,49		4,23, 7,45, 7	
		2,41,18, 3,13,13,14		12
28″	59,59,10,35,18,38,27,35,54, 3		4,23, 7,45,19	
		2,41,13,40, 5,27,55		12
30″	59,59,10,37,59,52, 7,41,21,58		4,23, 7,45,31	
		2,41, 9,16,57,42,24		12
32″	59,59,10,40,41, 1,24,39, 4,22		4,23, 7,45,43	
		2,41, 4,53,49,56,41		12
34″	59,59,10,43,22, 6,18,29, 1, 3		4,23, 7,45,55	
		2,41, 0,30,42,10,46		12
36″	59,59,10,46, 3, 6,49,11,11,49		4,23, 7,46, 7	
		2,40,56, 7,34,24,39		12
38″	59,59,10,48,44, 2,56,45,36,28		4,23, 7,46,19	
		2,40,51,44,26,38,20		12
40″	59,59,10,51,24,54,41,12,14,48		4,23, 7,46,31	
		2,40,47,21,18,51,49		12
42″	59,59,10,54, 5,42, 2,31, 6,37		4,23, 7,46,43	
		2,40,42,58,11, 5, 6		12
44″	59,59,10,56,46,25, 0,42,11,43		4,23, 7,46,55	
		2,40,38,35, 3,18,11		12
46″	59,59,10,59,27, 3,35,45,29,54		4,23, 7,47, 7	
		2,40,34,11,55,31, 4		12
48″	59,59,11, 2, 7,37,47,41, 0,58		4,23, 7,47,19	
		2,40,29,48,47,43,45		12
50″	59,59,11, 4,48, 7,36,28,44,43		4,23, 7,47,31	
		2,40,25,25,39,56,14		12
52″	59,59,11, 7,28,33, 2, 8,40,57		4,23, 7,47,43	
		2,40,21, 2,32, 8,31		12
54″	59,59,11,10, 8,54, 4,40,49,28		4,23, 7,47,55	
		2,40,16,39,24,20,36		12
56″	59,59,11,12,49,10,44, 5,10, 4		4,23, 7,48, 7	
		2,40,12,16,16,32,29		12
58″	59,59,11,15,29,23, 0,21,42,33		4,23, 7,48,19	
		2,40, 7,53, 8,44,10		
60″	59,59,11,18, 9,30,53,30,26,43			
exact	59,59,11,18, 9,30,53,30,38,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°47′ 0″	59,59,11,18, 9,30,53,30,38,36			
		2,40, 3,30, 0,57, 2		
2″	59,59,11,20,49,34,23,31,35,38		4,23, 7,48,36	
		2,39,59, 6,53, 8,26		12
4″	59,59,11,23,29,33,30,24,44, 4		4,23, 7,48,48	
		2,39,54,43,45,19,38		12
6″	59,59,11,26, 9,28,14,10, 3,42		4,23, 7,49, 0	
		2,39,50,20,37,30,38		12
8″	59,59,11,28,49,18,34,47,34,20		4,23, 7,49,12	
		2,39,45,57,29,41,26		12
10″	59,59,11,31,29, 4,32,17,15,46		4,23, 7,49,24	
		2,39,41,34,21,52, 2		12
12″	59,59,11,34, 8,46, 6,39, 7,48		4,23, 7,49,36	
		2,39,37,11,14, 2,26		12
14″	59,59,11,36,48,23,17,53,10,14		4,23, 7,49,48	
		2,39,32,48, 6,12,38		12
16″	59,59,11,39,27,56, 5,59,22,52		4,23, 7,50, 0	
		2,39,28,24,58,22,38		12
18″	59,59,11,42, 7,24,30,57,45,30		4,23, 7,50,12	
		2,39,24, 1,50,32,26		12
20″	59,59,11,44,46,48,32,48,17,56		4,23, 7,50,24	
		2,39,19,38,42,42, 2		12
22″	59,59,11,47,26, 8,11,30,59,58		4,23, 7,50,36	
		2,39,15,15,34,51,26		12
24″	59,59,11,50, 5,23,27, 5,51,24		4,23, 7,50,48	
		2,39,10,52,27, 0,38		12
26″	59,59,11,52,44,34,19,32,52, 2		4,23, 7,51, 0	
		2,39, 6,29,19, 9,38		12
28″	59,59,11,55,23,40,48,52, 1,40		4,23, 7,51,12	
		2,39, 2, 6,11,18,26		12
30″	59,59,11,58, 2,42,55, 3,20, 6		4,23, 7,51,24	
		2,38,57,43, 3,27, 2		12
32″	59,59,12, 0,41,40,38, 6,47, 8		4,23, 7,51,36	
		2,38,53,19,55,35,26		12
34″	59,59,12, 3,20,33,58, 2,22,34		4,23, 7,51,48	
		2,38,48,56,47,43,38		12
36″	59,59,12, 5,59,22,54,50, 6,12		4,23, 7,52, 0	
		2,38,44,33,39,51,38		12
38″	59,59,12, 8,38, 7,28,29,57,50		4,23, 7,52,12	
		2,38,40,10,31,59,26		12
40″	59,59,12,11,16,47,39, 1,57,16		4,23, 7,52,24	
		2,38,35,47,24, 7, 2		12
42″	59,59,12,13,55,23,26,26, 4,18		4,23, 7,52,36	
		2,38,31,24,16,14,26		12
44″	59,59,12,16,33,54,50,42,18,44		4,23, 7,52,48	
		2,38,27, 1, 8,21,38		12
46″	59,59,12,19,12,21,51,50,40,22		4,23, 7,53, 0	
		2,38,22,38, 0,28,38		12
48″	59,59,12,21,50,44,29,51, 9, 0		4,23, 7,53,12	
		2,38,18,14,52,35,26		12
50″	59,59,12,24,29, 2,44,43,44,26		4,23, 7,53,24	
		2,38,13,51,44,42, 2		12
52″	59,59,12,27, 7,16,36,28,26,28		4,23, 7,53,36	
		2,38, 9,28,36,48,26		12
54″	59,59,12,29,45,26, 5, 5,14,54		4,23, 7,53,48	
		2,38, 5, 5,28,54,38		12
56″	59,59,12,32,23,31,10,34, 9,32		4,23, 7,54, 0	
		2,38, 0,42,21, 0,38		12
58″	59,59,12,35, 1,31,52,55,10,10		4,23, 7,54,12	
		2,37,56,19,13, 6,26		
60″	59,59,12,37,39,28,12, 8,16,36			
exact	59,59,12,37,39,28,12, 8,36,26			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°48′ 0″	59,59,12,37,39,28,12, 8,36,26			
		2,37,51,56, 5,14,23		
2″	59,59,12,40,17,20, 8,13,50,49		4,23, 7,54,25	
		2,37,47,32,57,19,58		12
4″	59,59,12,42,55, 7,41,11,10,47		4,23, 7,54,37	
		2,37,43, 9,49,25,21		12
6″	59,59,12,45,32,50,51, 0,36, 8		4,23, 7,54,49	
		2,37,38,46,41,30,32		12
8″	59,59,12,48,10,29,37,42, 6,40		4,23, 7,55, 1	
		2,37,34,23,33,35,31		12
10″	59,59,12,50,48, 4, 1,15,42,11		4,23, 7,55,13	
		2,37,30, 0,25,40,18		12
12″	59,59,12,53,25,34, 1,41,22,29		4,23, 7,55,25	
		2,37,25,37,17,44,53		12
14″	59,59,12,56, 2,59,38,59, 7,22		4,23, 7,55,37	
		2,37,21,14, 9,49,16		12
16″	59,59,12,58,40,20,53, 8,56,38		4,23, 7,55,49	
		2,37,16,51, 1,53,27		12
18″	59,59,13, 1,17,37,44,10,50, 5		4,23, 7,56, 1	
		2,37,12,27,53,57,26		12
20″	59,59,13, 3,54,50,12, 4,47,31		4,23, 7,56,13	
		2,37, 8, 4,46, 1,13		12
22″	59,59,13, 6,31,58,16,50,48,44		4,23, 7,56,25	
		2,37, 3,41,38, 4,48		12
24″	59,59,13, 9, 9, 1,58,28,53,32		4,23, 7,56,37	
		2,36,59,18,30, 8,11		12
26″	59,59,13,11,46, 1,16,59, 1,43		4,23, 7,56,49	
		2,36,54,55,22,11,22		12
28″	59,59,13,14,22,56,12,21,13, 5		4,23, 7,57, 1	
		2,36,50,32,14,14,21		12
30″	59,59,13,16,59,46,44,35,27,26		4,23, 7,57,13	
		2,36,46, 9, 6,17, 8		12
32″	59,59,13,19,36,32,53,41,44,34		4,23, 7,57,25	
		2,36,41,45,58,19,43		12
34″	59,59,13,22,13,14,39,40, 4,17		4,23, 7,57,37	
		2,36,37,22,50,22, 6		12
36″	59,59,13,24,49,52, 2,30,26,23		4,23, 7,57,49	
		2,36,32,59,42,24,17		12
38″	59,59,13,27,26,25, 2,12,50,40		4,23, 7,58, 1	
		2,36,28,36,34,26,16		12
40″	59,59,13,30, 2,53,38,47,16,56		4,23, 7,58,13	
		2,36,24,13,26,28, 3		12
42″	59,59,13,32,39,17,52,13,44,59		4,23, 7,58,25	
		2,36,19,50,18,29,38		12
44″	59,59,13,35,15,37,42,32,14,37		4,23, 7,58,37	
		2,36,15,27,10,31, 1		12
46″	59,59,13,37,51,53, 9,42,45,38		4,23, 7,58,49	
		2,36,11, 4, 2,32,12		12
48″	59,59,13,40,28, 4,13,45,17,50		4,23, 7,59, 1	
		2,36, 6,40,54,33,11		12
50″	59,59,13,43, 4,10,54,39,51, 1		4,23, 7,59,13	
		2,36, 2,17,46,33,58		12
52″	59,59,13,45,40,13,12,26,24,59		4,23, 7,59,25	
		2,35,57,54,38,34,33		12
54″	59,59,13,48,16,11, 7, 4,59,32		4,23, 7,59,37	
		2,35,53,31,30,34,56		12
56″	59,59,13,50,52, 4,38,35,34,28		4,23, 7,59,49	
		2,35,49, 8,22,35, 7		12
58″	59,59,13,53,27,53,46,58, 9,35		4,23, 8, 0, 1	
		2,35,44,45,14,35, 6		
60″	59,59,13,56, 3,38,32,12,44,41			
exact	59,59,13,56, 3,38,32,13,18,40			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°49′ 0″	59,59,13,56, 3,38,32,13,18,40			
		2,35,40,22, 6,38,37		
2″	59,59,13,58,39,18,54,19,57,17		4,23, 8, 0, 9	
		2,35,35,58,58,38,28		11
4″	59,59,14, 1,14,54,53,18,35,45		4,23, 8, 0,20	
		2,35,31,35,50,38, 8		11
6″	59,59,14, 3,50,26,29, 9,13,53		4,23, 8, 0,31	
		2,35,27,12,42,37,37		11
8″	59,59,14, 6,25,53,41,51,51,30		4,23, 8, 0,42	
		2,35,22,49,34,36,55		11
10″	59,59,14, 9, 1,16,31,26,28,25		4,23, 8, 0,53	
		2,35,18,26,26,36, 2		11
12″	59,59,14,11,36,34,57,53, 4,27		4,23, 8, 1, 4	
		2,35,14, 3,18,34,58		11
14″	59,59,14,14,11,49, 1,11,39,25		4,23, 8, 1,15	
		2,35, 9,40,10,33,43		11
16″	59,59,14,16,46,58,41,22,13, 8		4,23, 8, 1,26	
		2,35, 5,17, 2,32,17		11
18″	59,59,14,19,22, 3,58,24,45,25		4,23, 8, 1,37	
		2,35, 0,53,54,30,40		11
20″	59,59,14,21,57, 4,52,19,16, 5		4,23, 8, 1,48	
		2,34,56,30,46,28,52		11
22″	59,59,14,24,32, 1,23, 5,44,57		4,23, 8, 1,59	
		2,34,52, 7,38,26,53		11
24″	59,59,14,27, 6,53,30,44,11,50		4,23, 8, 2,10	
		2,34,47,44,30,24,43		11
26″	59,59,14,29,41,41,15,14,36,33		4,23, 8, 2,21	
		2,34,43,21,22,22,22		11
28″	59,59,14,32,16,24,36,36,58,55		4,23, 8, 2,32	
		2,34,38,58,14,19,50		11
30″	59,59,14,34,51, 3,34,51,18,45		4,23, 8, 2,43	
		2,34,34,35, 6,17, 7		11
32″	59,59,14,37,25,38, 9,57,35,52		4,23, 8, 2,54	
		2,34,30,11,58,14,13		11
34″	59,59,14,40, 0, 8,21,55,50, 5		4,23, 8, 3, 5	
		2,34,25,48,50,11, 8		11
36″	59,59,14,42,34,34,10,46, 1,13		4,23, 8, 3,16	
		2,34,21,25,42, 7,52		11
38″	59,59,14,45, 8,55,36,28, 9, 5		4,23, 8, 3,27	
		2,34,17, 2,34, 4,25		11
40″	59,59,14,47,43,12,39, 2,13,30		4,23, 8, 3,38	
		2,34,12,39,26, 0,47		11
42″	59,59,14,50,17,25,18,28,14,17		4,23, 8, 3,49	
		2,34, 8,16,17,56,58		11
44″	59,59,14,52,51,33,34,46,11,15		4,23, 8, 4, 0	
		2,34, 3,53, 9,52,58		11
46″	59,59,14,55,25,37,27,56, 4,13		4,23, 8, 4,11	
		2,33,59,30, 1,48,47		11
48″	59,59,14,57,59,36,57,57,53, 0		4,23, 8, 4,22	
		2,33,55, 6,53,44,25		11
50″	59,59,15, 0,33,32, 4,51,37,25		4,23, 8, 4,33	
		2,33,50,43,45,39,52		11
52″	59,59,15, 3, 7,22,48,37,17,17		4,23, 8, 4,44	
		2,33,46,20,37,35, 8		11
54″	59,59,15, 5,41, 9, 9,14,52,25		4,23, 8, 4,55	
		2,33,41,57,29,30,13		11
56″	59,59,15, 8,14,51, 6,44,22,38		4,23, 8, 5, 6	
		2,33,37,34,21,25, 7		11
58″	59,59,15,10,48,28,41, 5,47,45		4,23, 8, 5,17	
		2,33,33,11,13,19,50		
60″	59,59,15,13,22, 1,52,19, 7,35			
exact	59,59,15,13,22, 1,52,18,46,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°50′ 0″	59,59,15,13,22, 1,52,18,46,33			
		2,33,28,48, 5,12, 8		
2″	59,59,15,15,55,30,40,23,58,41		4,23, 8, 5,48	
		2,33,24,24,57, 6,20		11
4″	59,59,15,18,28,55, 5,21, 5, 1		4,23, 8, 5,59	
		2,33,20, 1,49, 0,21		11
6″	59,59,15,21, 2,15, 7,10, 5,22		4,23, 8, 6,10	
		2,33,15,38,40,54,11		11
8″	59,59,15,23,35,30,45,50,59,33		4,23, 8, 6,21	
		2,33,11,15,32,47,50		11
10″	59,59,15,26, 8,42, 1,23,47,23		4,23, 8, 6,32	
		2,33, 6,52,24,41,18		11
12″	59,59,15,28,41,48,53,48,28,41		4,23, 8, 6,43	
		2,33, 2,29,16,34,35		11
14″	59,59,15,31,14,51,23, 5, 3,16		4,23, 8, 6,54	
		2,32,58, 6, 8,27,41		11
16″	59,59,15,33,47,49,29,13,30,57		4,23, 8, 7, 5	
		2,32,53,43, 0,20,36		11
18″	59,59,15,36,20,43,12,13,51,33		4,23, 8, 7,16	
		2,32,49,19,52,13,20		11
20″	59,59,15,38,53,32,32, 6, 4,53		4,23, 8, 7,27	
		2,32,44,56,44, 5,53		11
22″	59,59,15,41,26,17,28,50,10,46		4,23, 8, 7,38	
		2,32,40,33,35,58,15		11
24″	59,59,15,43,58,58, 2,26, 9, 1		4,23, 8, 7,49	
		2,32,36,10,27,50,26		11
26″	59,59,15,46,31,34,12,53,59,27		4,23, 8, 8, 0	
		2,32,31,47,19,42,26		11
28″	59,59,15,49, 4, 6, 0,13,41,53		4,23, 8, 8,11	
		2,32,27,24,11,34,15		11
30″	59,59,15,51,36,33,24,25,16, 8		4,23, 8, 8,22	
		2,32,23, 1, 3,25,53		11
32″	59,59,15,54, 8,56,25,28,42, 1		4,23, 8, 8,33	
		2,32,18,37,55,17,20		11
34″	59,59,15,56,41,15, 3,23,59,21		4,23, 8, 8,44	
		2,32,14,14,47, 8,36		11
36″	59,59,15,59,13,29,18,11, 7,57		4,23, 8, 8,55	
		2,32, 9,51,38,59,41		11
38″	59,59,16, 1,45,39, 9,50, 7,38		4,23, 8, 9, 6	
		2,32, 5,28,30,50,35		11
40″	59,59,16, 4,17,44,38,20,58,13		4,23, 8, 9,17	
		2,32, 1, 5,22,41,18		11
42″	59,59,16, 6,49,45,43,43,39,31		4,23, 8, 9,28	
		2,31,56,42,14,31,50		11
44″	59,59,16, 9,21,42,25,58,11,21		4,23, 8, 9,39	
		2,31,52,19, 6,22,11		11
46″	59,59,16,11,53,34,45, 4,33,32		4,23, 8, 9,50	
		2,31,47,55,58,12,21		11
48″	59,59,16,14,25,22,41, 2,45,53		4,23, 8,10, 1	
		2,31,43,32,50, 2,20		11
50″	59,59,16,16,57, 6,13,52,48,13		4,23, 8,10,12	
		2,31,39, 9,41,52, 8		11
52″	59,59,16,19,28,45,23,34,40,21		4,23, 8,10,23	
		2,31,34,46,33,41,45		11
54″	59,59,16,22, 0,20,10, 8,22, 6		4,23, 8,10,34	
		2,31,30,23,25,31,11		11
56″	59,59,16,24,31,50,33,33,53,17		4,23, 8,10,45	
		2,31,26, 0,17,20,26		11
58″	59,59,16,27, 3,16,33,51,13,43		4,23, 8,10,56	
		2,31,21,37, 9, 9,30		
60″	59,59,16,29,34,38,11, 0,23,13			
exact	59,59,16,29,34,38,11, 0,13,34			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°51′ 0″	59,59,16,29,34,38,11, 0,13,34			
		2,31,17,14, 0,57,21		
2″	59,59,16,32, 5,55,25, 1,10,55		4,23, 8,11,22	
		2,31,12,50,52,45,59		11
4″	59,59,16,34,37, 8,15,53,56,54		4,23, 8,11,33	
		2,31, 8,27,44,34,26		11
6″	59,59,16,37, 8,16,43,38,31,20		4,23, 8,11,44	
		2,31, 4, 4,36,22,42		11
8″	59,59,16,39,39,20,48,14,54, 2		4,23, 8,11,55	
		2,30,59,41,28,10,47		11
10″	59,59,16,42,10,20,29,43, 4,49		4,23, 8,12, 6	
		2,30,55,18,19,58,41		11
12″	59,59,16,44,41,15,48, 3, 3,30		4,23, 8,12,17	
		2,30,50,55,11,46,24		11
14″	59,59,16,47,12, 6,43,14,49,54		4,23, 8,12,28	
		2,30,46,32, 3,33,56		11
16″	59,59,16,49,42,53,15,18,23,50		4,23, 8,12,39	
		2,30,42, 8,55,21,17		11
18″	59,59,16,52,13,35,24,13,45, 7		4,23, 8,12,50	
		2,30,37,45,47, 8,27		11
20″	59,59,16,54,44,13,10, 0,53,34		4,23, 8,13, 1	
		2,30,33,22,38,55,26		11
22″	59,59,16,57,14,46,32,39,49, 0		4,23, 8,13,12	
		2,30,28,59,30,42,14		11
24″	59,59,16,59,45,15,32,10,31,14		4,23, 8,13,23	
		2,30,24,36,22,28,51		11
26″	59,59,17, 2,15,40, 8,33, 0, 5		4,23, 8,13,34	
		2,30,20,13,14,15,17		11
28″	59,59,17, 4,46, 0,21,47,15,22		4,23, 8,13,45	
		2,30,15,50, 6, 1,32		11
30″	59,59,17, 7,16,16,11,53,16,54		4,23, 8,13,56	
		2,30,11,26,57,47,36		11
32″	59,59,17, 9,46,27,38,51, 4,30		4,23, 8,14, 7	
		2,30, 7, 3,49,33,29		11
34″	59,59,17,12,16,34,42,40,37,59		4,23, 8,14,18	
		2,30, 2,40,41,19,11		11
36″	59,59,17,14,46,37,23,21,57,10		4,23, 8,14,29	
		2,29,58,17,33, 4,42		11
38″	59,59,17,17,16,35,40,55, 1,52		4,23, 8,14,40	
		2,29,53,54,24,50, 2		11
40″	59,59,17,19,46,29,35,19,51,54		4,23, 8,14,51	
		2,29,49,31,16,35,11		11
42″	59,59,17,22,16,19, 6,36,27, 5		4,23, 8,15, 2	
		2,29,45, 8, 8,20, 9		11
44″	59,59,17,24,46, 4,14,44,47,14		4,23, 8,15,13	
		2,29,40,45, 0, 4,56		11
46″	59,59,17,27,15,44,59,44,52,10		4,23, 8,15,24	
		2,29,36,21,51,49,32		11
48″	59,59,17,29,45,21,21,36,41,42		4,23, 8,15,35	
		2,29,31,58,43,33,57		11
50″	59,59,17,32,14,53,20,20,15,39		4,23, 8,15,46	
		2,29,27,35,35,18,11		11
52″	59,59,17,34,44,20,55,55,33,50		4,23, 8,15,57	
		2,29,23,12,27, 2,14		11
54″	59,59,17,37,13,44, 8,22,36, 4		4,23, 8,16, 8	
		2,29,18,49,18,46, 6		11
56″	59,59,17,39,43, 2,57,41,22,10		4,23, 8,16,19	
		2,29,14,26,10,29,47		11
58″	59,59,17,42,12,17,23,51,51,57		4,23, 8,16,30	
		2,29,10, 3, 2,13,17		
60″	59,59,17,44,41,27,26,54, 5,14			
exact	59,59,17,44,41,27,26,54, 5,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°52′ 0″	59,59,17,44,41,27,26,54, 5,15			
		2,29, 5,39,53,56,39		
2″	59,59,17,47,10,33, 6,48, 1,54		4,23, 8,16,51	
		2,29, 1,16,45,39,48		11
4″	59,59,17,49,39,34,23,33,41,42		4,23, 8,17, 2	
		2,28,56,53,37,22,46		11
6″	59,59,17,52, 8,31,17,11, 4,28		4,23, 8,17,13	
		2,28,52,30,29, 5,33		11
8″	59,59,17,54,37,23,47,40,10, 1		4,23, 8,17,24	
		2,28,48, 7,20,48, 9		11
10″	59,59,17,57, 6,11,55, 0,58,10		4,23, 8,17,35	
		2,28,43,44,12,30,34		11
12″	59,59,17,59,34,55,39,13,28,44		4,23, 8,17,46	
		2,28,39,21, 4,12,48		11
14″	59,59,18, 2, 3,35, 0,17,41,32		4,23, 8,17,57	
		2,28,34,57,55,54,51		11
16″	59,59,18, 4,32, 9,58,13,36,23		4,23, 8,18, 8	
		2,28,30,34,47,36,43		11
18″	59,59,18, 7, 0,40,33, 1,13, 6		4,23, 8,18,19	
		2,28,26,11,39,18,24		11
20″	59,59,18, 9,29, 6,44,40,31,30		4,23, 8,18,30	
		2,28,21,48,30,59,54		11
22″	59,59,18,11,57,28,33,11,31,24		4,23, 8,18,41	
		2,28,17,25,22,41,13		11
24″	59,59,18,14,25,45,58,34,12,37		4,23, 8,18,52	
		2,28,13, 2,14,22,21		11
26″	59,59,18,16,53,59, 0,48,34,58		4,23, 8,19, 3	
		2,28, 8,39, 6, 3,18		11
28″	59,59,18,19,22, 7,39,54,38,16		4,23, 8,19,14	
		2,28, 4,15,57,44, 4		11
30″	59,59,18,21,50,11,55,52,22,20		4,23, 8,19,25	
		2,27,59,52,49,24,39		11
32″	59,59,18,24,18,11,48,41,46,59		4,23, 8,19,36	
		2,27,55,29,41, 5, 3		11
34″	59,59,18,26,46, 7,18,22,52, 2		4,23, 8,19,47	
		2,27,51, 6,32,45,16		11
36″	59,59,18,29,13,58,24,55,37,18		4,23, 8,19,58	
		2,27,46,43,24,25,18		11
38″	59,59,18,31,41,45, 8,20, 2,36		4,23, 8,20, 9	
		2,27,42,20,16, 5, 9		11
40″	59,59,18,34, 9,27,28,36, 7,45		4,23, 8,20,20	
		2,27,37,57, 7,44,49		11
42″	59,59,18,36,37, 5,25,43,52,34		4,23, 8,20,31	
		2,27,33,33,59,24,18		11
44″	59,59,18,39, 4,38,59,43,16,52		4,23, 8,20,42	
		2,27,29,10,51, 3,36		11
46″	59,59,18,41,32, 8,10,34,20,28		4,23, 8,20,53	
		2,27,24,47,42,42,43		11
48″	59,59,18,43,59,32,58,17, 3,11		4,23, 8,21, 4	
		2,27,20,24,34,21,39		11
50″	59,59,18,46,26,53,22,51,24,50		4,23, 8,21,15	
		2,27,16, 1,26, 0,24		11
52″	59,59,18,48,54, 9,24,17,25,14		4,23, 8,21,26	
		2,27,11,38,17,38,58		11
54″	59,59,18,51,21,21, 2,35, 4,12		4,23, 8,21,37	
		2,27, 7,15, 9,17,21		11
56″	59,59,18,53,48,28,17,44,21,33		4,23, 8,21,48	
		2,27, 2,52, 0,55,33		11
58″	59,59,18,56,15,31, 9,45,17, 6		4,23, 8,21,59	
		2,26,58,28,52,33,34		
60″	59,59,18,58,42,29,38,37,50,40			
exact	59,59,18,58,42,29,38,37,59,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°53′ 0″	59,59,18,58,42,29,38,37,59,21			
		2,26,54, 5,44,12,28		
2″	59,59,19, 1, 9,23,44,22,11,49		4,23, 8,22,16	
		2,26,49,42,35,50,12		11
4″	59,59,19, 3,36,13,26,58, 2, 1		4,23, 8,22,27	
		2,26,45,19,27,27,45		11
6″	59,59,19, 6, 2,58,46,25,29,46		4,23, 8,22,38	
		2,26,40,56,19, 5, 7		11
8″	59,59,19, 8,29,39,42,44,34,53		4,23, 8,22,49	
		2,26,36,33,10,42,18		11
10″	59,59,19,10,56,16,15,55,17,11		4,23, 8,23, 0	
		2,26,32,10, 2,19,18		11
12″	59,59,19,13,22,48,25,57,36,29		4,23, 8,23,11	
		2,26,27,46,53,56, 7		11
14″	59,59,19,15,49,16,12,51,32,36		4,23, 8,23,22	
		2,26,23,23,45,32,45		11
16″	59,59,19,18,15,39,36,37, 5,21		4,23, 8,23,33	
		2,26,19, 0,37, 9,12		11
18″	59,59,19,20,41,58,37,14,14,33		4,23, 8,23,44	
		2,26,14,37,28,45,28		11
20″	59,59,19,23, 8,13,14,43, 0, 1		4,23, 8,23,55	
		2,26,10,14,20,21,33		11
22″	59,59,19,25,34,23,29, 3,21,34		4,23, 8,24, 6	
		2,26, 5,51,11,57,27		11
24″	59,59,19,28, 0,29,20,15,19, 1		4,23, 8,24,17	
		2,26, 1,28, 3,33,10		11
26″	59,59,19,30,26,30,48,18,52,11		4,23, 8,24,28	
		2,25,57, 4,55, 8,42		11
28″	59,59,19,32,52,27,53,14, 0,53		4,23, 8,24,39	
		2,25,52,41,46,44, 3		11
30″	59,59,19,35,18,20,35, 0,44,56		4,23, 8,24,50	
		2,25,48,18,38,19,13		11
32″	59,59,19,37,44, 8,53,39, 4, 9		4,23, 8,25, 1	
		2,25,43,55,29,54,12		11
34″	59,59,19,40, 9,52,49, 8,58,21		4,23, 8,25,12	
		2,25,39,32,21,29, 0		11
36″	59,59,19,42,35,32,21,30,27,21		4,23, 8,25,23	
		2,25,35, 9,13, 3,37		11
38″	59,59,19,45, 1, 7,30,43,30,58		4,23, 8,25,34	
		2,25,30,46, 4,38, 3		11
40″	59,59,19,47,26,38,16,48, 9, 1		4,23, 8,25,45	
		2,25,26,22,56,12,18		11
42″	59,59,19,49,52, 4,39,44,21,19		4,23, 8,25,56	
		2,25,21,59,47,46,22		11
44″	59,59,19,52,17,26,39,32, 7,41		4,23, 8,26, 7	
		2,25,17,36,39,20,15		11
46″	59,59,19,54,42,44,16,11,27,56		4,23, 8,26,18	
		2,25,13,13,30,53,57		11
48″	59,59,19,57, 7,57,29,42,21,53		4,23, 8,26,29	
		2,25, 8,50,22,27,28		11
50″	59,59,19,59,33, 6,20, 4,49,21		4,23, 8,26,40	
		2,25, 4,27,14, 0,48		11
52″	59,59,20, 1,58,10,47,18,50, 9		4,23, 8,26,51	
		2,25, 0, 4, 5,33,57		11
54″	59,59,20, 4,23,10,51,24,24, 6		4,23, 8,27, 2	
		2,24,55,40,57, 6,55		11
56″	59,59,20, 6,48, 6,32,21,31, 1		4,23, 8,27,13	
		2,24,51,17,48,39,42		11
58″	59,59,20, 9,12,57,50,10,10,43		4,23, 8,27,24	
		2,24,46,54,40,12,18		
60″	59,59,20,11,37,44,44,50,23, 1			
exact	59,59,20,11,37,44,44,50,45,43			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°54′ 0″	59,59,20,11,37,44,44,50,45,43			
		2,24,42,31,31,47,10		
2″	59,59,20,14, 2,27,16,22,32,53		4,23, 8,27,35	
		2,24,38, 8,23,19,35		11
4″	59,59,20,16,27, 5,24,45,52,28		4,23, 8,27,46	
		2,24,33,45,14,51,49		11
6″	59,59,20,18,51,39,10, 0,44,17		4,23, 8,27,57	
		2,24,29,22, 6,23,52		11
8″	59,59,20,21,16, 8,32, 7, 8, 9		4,23, 8,28, 8	
		2,24,24,58,57,55,44		11
10″	59,59,20,23,40,33,31, 5, 3,53		4,23, 8,28,19	
		2,24,20,35,49,27,25		11
12″	59,59,20,26, 4,54, 6,54,31,18		4,23, 8,28,30	
		2,24,16,12,40,58,55		11
14″	59,59,20,28,29,10,19,35,30,13		4,23, 8,28,41	
		2,24,11,49,32,30,14		11
16″	59,59,20,30,53,22, 9, 8, 0,27		4,23, 8,28,52	
		2,24, 7,26,24, 1,22		11
18″	59,59,20,33,17,29,35,32, 1,49		4,23, 8,29, 3	
		2,24, 3, 3,15,32,19		11
20″	59,59,20,35,41,32,38,47,34, 8		4,23, 8,29,14	
		2,23,58,40, 7, 3, 5		11
22″	59,59,20,38, 5,31,18,54,37,13		4,23, 8,29,25	
		2,23,54,16,58,33,40		11
24″	59,59,20,40,29,25,35,53,10,53		4,23, 8,29,36	
		2,23,49,53,50, 4, 4		11
26″	59,59,20,42,53,15,29,43,14,57		4,23, 8,29,47	
		2,23,45,30,41,34,17		11
28″	59,59,20,45,17, 1, 0,24,49,14		4,23, 8,29,58	
		2,23,41, 7,33, 4,19		11
30″	59,59,20,47,40,42, 7,57,53,33		4,23, 8,30, 9	
		2,23,36,44,24,34,10		11
32″	59,59,20,50, 4,18,52,22,27,43		4,23, 8,30,20	
		2,23,32,21,16, 3,50		11
34″	59,59,20,52,27,51,13,38,31,33		4,23, 8,30,31	
		2,23,27,58, 7,33,19		11
36″	59,59,20,54,51,19,11,46, 4,52		4,23, 8,30,42	
		2,23,23,34,59, 2,37		11
38″	59,59,20,57,14,42,46,45, 7,29		4,23, 8,30,53	
		2,23,19,11,50,31,44		11
40″	59,59,20,59,38, 1,58,35,39,13		4,23, 8,31, 4	
		2,23,14,48,42, 0,40		11
42″	59,59,21, 2, 1,16,47,17,39,53		4,23, 8,31,15	
		2,23,10,25,33,29,25		11
44″	59,59,21, 4,24,27,12,51, 9,18		4,23, 8,31,26	
		2,23, 6, 2,24,57,59		11
46″	59,59,21, 6,47,33,15,16, 7,17		4,23, 8,31,37	
		2,23, 1,39,16,26,22		11
48″	59,59,21, 9,10,34,54,32,33,39		4,23, 8,31,48	
		2,22,57,16, 7,54,34		11
50″	59,59,21,11,33,32,10,40,28,13		4,23, 8,31,59	
		2,22,52,52,59,22,35		11
52″	59,59,21,13,56,25, 3,39,50,48		4,23, 8,32,10	
		2,22,48,29,50,50,25		11
54″	59,59,21,16,19,13,33,30,41,13		4,23, 8,32,21	
		2,22,44, 6,42,18, 4		11
56″	59,59,21,18,41,57,40,12,59,17		4,23, 8,32,32	
		2,22,39,43,33,45,32		11
58″	59,59,21,21, 4,37,23,46,44,49		4,23, 8,32,43	
		2,22,35,20,25,12,49		
60″	59,59,21,23,27,12,44,11,57,38			
exact	59,59,21,23,27,12,44,12,26,21			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°55′ 0″	59,59,21,23,27,12,44,12,26,21			
		2,22,30,57,16,43,11		
2″	59,59,21,25,49,43,41,29, 9,32		4,23, 8,32,50	
		2,22,26,34, 8,10,21		10
4″	59,59,21,28,12,10,15,37,19,53		4,23, 8,33, 0	
		2,22,22,10,59,37,21		10
6″	59,59,21,30,34,32,26,36,57,14		4,23, 8,33,10	
		2,22,17,47,51, 4,11		10
8″	59,59,21,32,56,50,14,28, 1,25		4,23, 8,33,20	
		2,22,13,24,42,30,51		10
10″	59,59,21,35,19, 3,39,10,32,16		4,23, 8,33,30	
		2,22, 9, 1,33,57,21		10
12″	59,59,21,37,41,12,40,44,29,37		4,23, 8,33,40	
		2,22, 4,38,25,23,41		10
14″	59,59,21,40, 3,17,19, 9,53,18		4,23, 8,33,50	
		2,22, 0,15,16,49,51		10
16″	59,59,21,42,25,17,34,26,43, 9		4,23, 8,34, 0	
		2,21,55,52, 8,15,51		10
18″	59,59,21,44,47,13,26,34,59, 0		4,23, 8,34,10	
		2,21,51,28,59,41,41		10
20″	59,59,21,47, 9, 4,55,34,40,41		4,23, 8,34,20	
		2,21,47, 5,51, 7,21		10
22″	59,59,21,49,30,52, 1,25,48, 2		4,23, 8,34,30	
		2,21,42,42,42,32,51		10
24″	59,59,21,51,52,34,44, 8,20,53		4,23, 8,34,40	
		2,21,38,19,33,58,11		10
26″	59,59,21,54,14,13, 3,42,19, 4		4,23, 8,34,50	
		2,21,33,56,25,23,21		10
28″	59,59,21,56,35,47, 0, 7,42,25		4,23, 8,35, 0	
		2,21,29,33,16,48,21		10
30″	59,59,21,58,57,16,33,24,30,46		4,23, 8,35,10	
		2,21,25,10, 8,13,11		10
32″	59,59,22, 1,18,41,43,32,43,57		4,23, 8,35,20	
		2,21,20,46,59,37,51		10
34″	59,59,22, 3,40, 2,30,32,21,48		4,23, 8,35,30	
		2,21,16,23,51, 2,21		10
36″	59,59,22, 6, 1,18,54,23,24, 9		4,23, 8,35,40	
		2,21,12, 0,42,26,41		10
38″	59,59,22, 8,22,30,55, 5,50,50		4,23, 8,35,50	
		2,21, 7,37,33,50,51		10
40″	59,59,22,10,43,38,32,39,41,41		4,23, 8,36, 0	
		2,21, 3,14,25,14,51		10
42″	59,59,22,13, 4,41,47, 4,56,32		4,23, 8,36,10	
		2,20,58,51,16,38,41		10
44″	59,59,22,15,25,40,38,21,35,13		4,23, 8,36,20	
		2,20,54,28, 8, 2,21		10
46″	59,59,22,17,46,35, 6,29,37,34		4,23, 8,36,30	
		2,20,50, 4,59,25,51		10
48″	59,59,22,20, 7,25,11,29, 3,25		4,23, 8,36,40	
		2,20,45,41,50,49,11		10
50″	59,59,22,22,28,10,53,19,52,36		4,23, 8,36,50	
		2,20,41,18,42,12,21		10
52″	59,59,22,24,48,52,12, 2, 4,57		4,23, 8,37, 0	
		2,20,36,55,33,35,21		10
54″	59,59,22,27, 9,29, 7,35,40,18		4,23, 8,37,10	
		2,20,32,32,24,58,11		10
56″	59,59,22,29,30, 1,40, 0,38,29		4,23, 8,37,20	
		2,20,28, 9,16,20,51		10
58″	59,59,22,31,50,29,49,16,59,20		4,23, 8,37,30	
		2,20,23,46, 7,43,21		
60″	59,59,22,34,10,53,35,24,42,41			
exact	59,59,22,34,10,53,35,24,15,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°56′ 0″	59,59,22,34,10,53,35,24,15,23			
		2,20,19,22,59, 2,55		
2″	59,59,22,36,31,12,58,23,18,18		4,23, 8,38, 0	
		2,20,14,59,50,24,55		10
4″	59,59,22,38,51,27,58,13,43,13		4,23, 8,38,10	
		2,20,10,36,41,46,45		10
6″	59,59,22,41,11,38,34,55,29,58		4,23, 8,38,20	
		2,20, 6,13,33, 8,25		10
8″	59,59,22,43,31,44,48,28,38,23		4,23, 8,38,30	
		2,20, 1,50,24,29,55		10
10″	59,59,22,45,51,46,38,53, 8,18		4,23, 8,38,40	
		2,19,57,27,15,51,15		10
12″	59,59,22,48,11,44, 6, 8,59,33		4,23, 8,38,50	
		2,19,53, 4, 7,12,25		10
14″	59,59,22,50,31,37,10,16,11,58		4,23, 8,39, 0	
		2,19,48,40,58,33,25		10
16″	59,59,22,52,51,25,51,14,45,23		4,23, 8,39,10	
		2,19,44,17,49,54,15		10
18″	59,59,22,55,11,10, 9, 4,39,38		4,23, 8,39,20	
		2,19,39,54,41,14,55		10
20″	59,59,22,57,30,50, 3,45,54,33		4,23, 8,39,30	
		2,19,35,31,32,35,25		10
22″	59,59,22,59,50,25,35,18,29,58		4,23, 8,39,40	
		2,19,31, 8,23,55,45		10
24″	59,59,23, 2, 9,56,43,42,25,43		4,23, 8,39,50	
		2,19,26,45,15,15,55		10
26″	59,59,23, 4,29,23,28,57,41,38		4,23, 8,40, 0	
		2,19,22,22, 6,35,55		10
28″	59,59,23, 6,48,45,51, 4,17,33		4,23, 8,40,10	
		2,19,17,58,57,55,45		10
30″	59,59,23, 9, 8, 3,50, 2,13,18		4,23, 8,40,20	
		2,19,13,35,49,15,25		10
32″	59,59,23,11,27,17,25,51,28,43		4,23, 8,40,30	
		2,19, 9,12,40,34,55		10
34″	59,59,23,13,46,26,38,32, 3,38		4,23, 8,40,40	
		2,19, 4,49,31,54,15		10
36″	59,59,23,16, 5,31,28, 3,57,53		4,23, 8,40,50	
		2,19, 0,26,23,13,25		10
38″	59,59,23,18,24,31,54,27,11,18		4,23, 8,41, 0	
		2,18,56, 3,14,32,25		10
40″	59,59,23,20,43,27,57,41,43,43		4,23, 8,41,10	
		2,18,51,40, 5,51,15		10
42″	59,59,23,23, 2,19,37,47,34,58		4,23, 8,41,20	
		2,18,47,16,57, 9,55		10
44″	59,59,23,25,21, 6,54,44,44,53		4,23, 8,41,30	
		2,18,42,53,48,28,25		10
46″	59,59,23,27,39,49,48,33,13,18		4,23, 8,41,40	
		2,18,38,30,39,46,45		10
48″	59,59,23,29,58,28,19,13, 0, 3		4,23, 8,41,50	
		2,18,34, 7,31, 4,55		10
50″	59,59,23,32,17, 2,26,44, 4,58		4,23, 8,42, 0	
		2,18,29,44,22,22,55		10
52″	59,59,23,34,35,32,11, 6,27,53		4,23, 8,42,10	
		2,18,25,21,13,40,45		10
54″	59,59,23,36,53,57,32,20, 8,38		4,23, 8,42,20	
		2,18,20,58, 4,58,25		10
56″	59,59,23,39,12,18,30,25, 7, 3		4,23, 8,42,30	
		2,18,16,34,56,15,55		10
58″	59,59,23,41,30,35, 5,21,22,58		4,23, 8,42,40	
		2,18,12,11,47,33,15		
60″	59,59,23,43,48,47,17, 8,56,13			
exact	59,59,23,43,48,47,17, 8,39, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°57′ 0″	59,59,23,43,48,47,17, 8,39, 6			
		2,18, 7,48,38,48,46		
2″	59,59,23,46, 6,55, 5,47,27,52		4,23, 8,43, 6	
		2,18, 3,25,30, 5,40		10
4″	59,59,23,48,24,58,31,17,33,32		4,23, 8,43,16	
		2,17,59, 2,21,22,24		10
6″	59,59,23,50,42,57,33,38,55,56		4,23, 8,43,26	
		2,17,54,39,12,38,58		10
8″	59,59,23,53, 0,52,12,51,34,54		4,23, 8,43,36	
		2,17,50,16, 3,55,22		10
10″	59,59,23,55,18,42,28,55,30,16		4,23, 8,43,46	
		2,17,45,52,55,11,36		10
12″	59,59,23,57,36,28,21,50,41,52		4,23, 8,43,56	
		2,17,41,29,46,27,40		10
14″	59,59,23,59,54, 9,51,37, 9,32		4,23, 8,44, 6	
		2,17,37, 6,37,43,34		10
16″	59,59,24, 2,11,46,58,14,53, 6		4,23, 8,44,16	
		2,17,32,43,28,59,18		10
18″	59,59,24, 4,29,19,41,43,52,24		4,23, 8,44,26	
		2,17,28,20,20,14,52		10
20″	59,59,24, 6,46,48, 2, 4, 7,16		4,23, 8,44,36	
		2,17,23,57,11,30,16		10
22″	59,59,24, 9, 4,11,59,15,37,32		4,23, 8,44,46	
		2,17,19,34, 2,45,30		10
24″	59,59,24,11,21,31,33,18,23, 2		4,23, 8,44,56	
		2,17,15,10,54, 0,34		10
26″	59,59,24,13,38,46,44,12,23,36		4,23, 8,45, 6	
		2,17,10,47,45,15,28		10
28″	59,59,24,15,55,57,31,57,39, 4		4,23, 8,45,16	
		2,17, 6,24,36,30,12		10
30″	59,59,24,18,13, 3,56,34, 9,16		4,23, 8,45,26	
		2,17, 2, 1,27,44,46		10
32″	59,59,24,20,30, 5,58, 1,54, 2		4,23, 8,45,36	
		2,16,57,38,18,59,10		10
34″	59,59,24,22,47, 3,36,20,53,12		4,23, 8,45,46	
		2,16,53,15,10,13,24		10
36″	59,59,24,25, 3,56,51,31, 6,36		4,23, 8,45,56	
		2,16,48,52, 1,27,28		10
38″	59,59,24,27,20,45,43,32,34, 4		4,23, 8,46, 6	
		2,16,44,28,52,41,22		10
40″	59,59,24,29,37,30,12,25,15,26		4,23, 8,46,16	
		2,16,40, 5,43,55, 6		10
42″	59,59,24,31,54,10,18, 9,10,32		4,23, 8,46,26	
		2,16,35,42,35, 8,40		10
44″	59,59,24,34,10,46, 0,44,19,12		4,23, 8,46,36	
		2,16,31,19,26,22, 4		10
46″	59,59,24,36,27,17,20,10,41,16		4,23, 8,46,46	
		2,16,26,56,17,35,18		10
48″	59,59,24,38,43,44,16,28,16,34		4,23, 8,46,56	
		2,16,22,33, 8,48,22		10
50″	59,59,24,41, 0, 6,49,37, 4,56		4,23, 8,47, 6	
		2,16,18,10, 0, 1,16		10
52″	59,59,24,43,16,24,59,37, 6,12		4,23, 8,47,16	
		2,16,13,46,51,14, 0		10
54″	59,59,24,45,32,38,46,28,20,12		4,23, 8,47,26	
		2,16, 9,23,42,26,34		10
56″	59,59,24,47,48,48,10,10,46,46		4,23, 8,47,36	
		2,16, 5, 0,33,38,58		10
58″	59,59,24,50, 4,53,10,44,25,44		4,23, 8,47,46	
		2,16, 0,37,24,51,12		
60″	59,59,24,52,20,53,48, 9,16,56			
exact	59,59,24,52,20,53,48, 9,15,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°58′ 0″	59,59,24,52,20,53,48, 9,15,56			
		2,15,56,14,16, 3, 9		
2″	59,59,24,54,36,50, 2,25,19, 5		4,23, 8,48, 6	
		2,15,51,51, 7,15, 3		10
4″	59,59,24,56,52,41,53,32,34, 8		4,23, 8,48,16	
		2,15,47,27,58,26,47		10
6″	59,59,24,59, 8,29,21,31, 0,55		4,23, 8,48,26	
		2,15,43, 4,49,38,21		10
8″	59,59,25, 1,24,12,26,20,39,16		4,23, 8,48,36	
		2,15,38,41,40,49,45		10
10″	59,59,25, 3,39,51, 8, 1,29, 1		4,23, 8,48,46	
		2,15,34,18,32, 0,59		10
12″	59,59,25, 5,55,25,26,33,30, 0		4,23, 8,48,56	
		2,15,29,55,23,12, 3		10
14″	59,59,25, 8,10,55,21,56,42, 3		4,23, 8,49, 6	
		2,15,25,32,14,22,57		10
16″	59,59,25,10,26,20,54,11, 5, 0		4,23, 8,49,16	
		2,15,21, 9, 5,33,41		10
18″	59,59,25,12,41,42, 3,16,38,41		4,23, 8,49,26	
		2,15,16,45,56,44,15		10
20″	59,59,25,14,56,58,49,13,22,56		4,23, 8,49,36	
		2,15,12,22,47,54,39		10
22″	59,59,25,17,12,11,12, 1,17,35		4,23, 8,49,46	
		2,15, 7,59,39, 4,53		10
24″	59,59,25,19,27,19,11,40,22,28		4,23, 8,49,56	
		2,15, 3,36,30,14,57		10
26″	59,59,25,21,42,22,48,10,37,25		4,23, 8,50, 6	
		2,14,59,13,21,24,51		10
28″	59,59,25,23,57,22, 1,32, 2,16		4,23, 8,50,16	
		2,14,54,50,12,34,35		10
30″	59,59,25,26,12,16,51,44,36,51		4,23, 8,50,26	
		2,14,50,27, 3,44, 9		10
32″	59,59,25,28,27, 7,18,48,21, 0		4,23, 8,50,36	
		2,14,46, 3,54,53,33		10
34″	59,59,25,30,41,53,22,43,14,33		4,23, 8,50,46	
		2,14,41,40,46, 2,47		10
36″	59,59,25,32,56,35, 3,29,17,20		4,23, 8,50,56	
		2,14,37,17,37,11,51		10
38″	59,59,25,35,11,12,21, 6,29,11		4,23, 8,51, 6	
		2,14,32,54,28,20,45		10
40″	59,59,25,37,25,45,15,34,49,56		4,23, 8,51,16	
		2,14,28,31,19,29,29		10
42″	59,59,25,39,40,13,46,54,19,25		4,23, 8,51,26	
		2,14,24, 8,10,38, 3		10
44″	59,59,25,41,54,37,55, 4,57,28		4,23, 8,51,36	
		2,14,19,45, 1,46,27		10
46″	59,59,25,44, 8,57,40, 6,43,55		4,23, 8,51,46	
		2,14,15,21,52,54,41		10
48″	59,59,25,46,23,13, 1,59,38,36		4,23, 8,51,56	
		2,14,10,58,44, 2,45		10
50″	59,59,25,48,37,24, 0,43,41,21		4,23, 8,52, 6	
		2,14, 6,35,35,10,39		10
52″	59,59,25,50,51,30,36,18,52, 0		4,23, 8,52,16	
		2,14, 2,12,26,18,23		10
54″	59,59,25,53, 5,32,48,45,10,23		4,23, 8,52,26	
		2,13,57,49,17,25,57		10
56″	59,59,25,55,19,30,38, 2,36,20		4,23, 8,52,36	
		2,13,53,26, 8,33,21		10
58″	59,59,25,57,33,24, 4,11, 9,41		4,23, 8,52,46	
		2,13,49, 2,59,40,35		
60″	59,59,25,59,47,13, 7,10,50,16			
exact	59,59,25,59,47,13, 7,10,56,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
88°59′ 0″	59,59,25,59,47,13, 7,10,56,27			
		2,13,44,39,50,48,27		
2″	59,59,26, 2, 0,57,47, 1,44,54		4,23, 8,53, 2	
		2,13,40,16,41,55,25		10
4″	59,59,26, 4,14,38, 3,43,40,19		4,23, 8,53,12	
		2,13,35,53,33, 2,13		10
6″	59,59,26, 6,28,13,57,16,42,32		4,23, 8,53,22	
		2,13,31,30,24, 8,51		10
8″	59,59,26, 8,41,45,27,40,51,23		4,23, 8,53,32	
		2,13,27, 7,15,15,19		10
10″	59,59,26,10,55,12,34,56, 6,42		4,23, 8,53,42	
		2,13,22,44, 6,21,37		10
12″	59,59,26,13, 8,35,19, 2,28,19		4,23, 8,53,52	
		2,13,18,20,57,27,45		10
14″	59,59,26,15,21,53,39,59,56, 4		4,23, 8,54, 2	
		2,13,13,57,48,33,43		10
16″	59,59,26,17,35, 7,37,48,29,47		4,23, 8,54,12	
		2,13, 9,34,39,39,31		10
18″	59,59,26,19,48,17,12,28, 9,18		4,23, 8,54,22	
		2,13, 5,11,30,45, 9		10
20″	59,59,26,22, 1,22,23,58,54,27		4,23, 8,54,32	
		2,13, 0,48,21,50,37		10
22″	59,59,26,24,14,23,12,20,45, 4		4,23, 8,54,42	
		2,12,56,25,12,55,55		10
24″	59,59,26,26,27,19,37,33,40,59		4,23, 8,54,52	
		2,12,52, 2, 4, 1, 3		10
26″	59,59,26,28,40,11,39,37,42, 2		4,23, 8,55, 2	
		2,12,47,38,55, 6, 1		10
28″	59,59,26,30,52,59,18,32,48, 3		4,23, 8,55,12	
		2,12,43,15,46,10,49		10
30″	59,59,26,33, 5,42,34,18,58,52		4,23, 8,55,22	
		2,12,38,52,37,15,27		10
32″	59,59,26,35,18,21,26,56,14,19		4,23, 8,55,32	
		2,12,34,29,28,19,55		10
34″	59,59,26,37,30,55,56,24,34,14		4,23, 8,55,42	
		2,12,30, 6,19,24,13		10
36″	59,59,26,39,43,26, 2,43,58,27		4,23, 8,55,52	
		2,12,25,43,10,28,21		10
38″	59,59,26,41,55,51,45,54,26,48		4,23, 8,56, 2	
		2,12,21,20, 1,32,19		10
40″	59,59,26,44, 8,13, 5,55,59, 7		4,23, 8,56,12	
		2,12,16,56,52,36, 7		10
42″	59,59,26,46,20,30, 2,48,35,14		4,23, 8,56,22	
		2,12,12,33,43,39,45		10
44″	59,59,26,48,32,42,36,32,14,59		4,23, 8,56,32	
		2,12, 8,10,34,43,13		10
46″	59,59,26,50,44,50,47, 6,58,12		4,23, 8,56,42	
		2,12, 3,47,25,46,31		10
48″	59,59,26,52,56,54,34,32,44,43		4,23, 8,56,52	
		2,11,59,24,16,49,39		10
50″	59,59,26,55, 8,53,58,49,34,22		4,23, 8,57, 2	
		2,11,55, 1, 7,52,37		10
52″	59,59,26,57,20,48,59,57,26,59		4,23, 8,57,12	
		2,11,50,37,58,55,25		10
54″	59,59,26,59,32,39,37,56,22,24		4,23, 8,57,22	
		2,11,46,14,49,58, 3		10
56″	59,59,27, 1,44,25,52,46,20,27		4,23, 8,57,32	
		2,11,41,51,41, 0,31		10
58″	59,59,27, 3,56, 7,44,27,20,58		4,23, 8,57,42	
		2,11,37,28,32, 2,49		
60″	59,59,27, 6, 7,45,12,59,23,47			
exact	59,59,27, 6, 7,45,12,59,43,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89° 0′ 0″	59,59,27, 6, 7,45,12,59,43,22			
		2,11,33, 5,23, 7, 5		
2″	59,59,27, 8,19,18,18,22,50,27		4,23, 8,57,53	
		2,11,28,42,14, 9,12		10
4″	59,59,27,10,30,47, 0,36,59,39		4,23, 8,58, 3	
		2,11,24,19, 5,11, 9		10
6″	59,59,27,12,42,11,19,42,10,48		4,23, 8,58,13	
		2,11,19,55,56,12,56		10
8″	59,59,27,14,53,31,15,38,23,44		4,23, 8,58,23	
		2,11,15,32,47,14,33		10
10″	59,59,27,17, 4,46,48,25,38,17		4,23, 8,58,33	
		2,11,11, 9,38,16, 0		10
12″	59,59,27,19,15,57,58, 3,54,17		4,23, 8,58,43	
		2,11, 6,46,29,17,17		10
14″	59,59,27,21,27, 4,44,33,11,34		4,23, 8,58,53	
		2,11, 2,23,20,18,24		10
16″	59,59,27,23,38, 7, 7,53,29,58		4,23, 8,59, 3	
		2,10,58, 0,11,19,21		10
18″	59,59,27,25,49, 5, 8, 4,49,19		4,23, 8,59,13	
		2,10,53,37, 2,20, 8		10
20″	59,59,27,27,59,58,45, 7, 9,27		4,23, 8,59,23	
		2,10,49,13,53,20,45		10
22″	59,59,27,30,10,47,59, 0,30,12		4,23, 8,59,33	
		2,10,44,50,44,21,12		10
24″	59,59,27,32,21,32,49,44,51,24		4,23, 8,59,43	
		2,10,40,27,35,21,29		10
26″	59,59,27,34,32,13,17,20,12,53		4,23, 8,59,53	
		2,10,36, 4,26,21,36		10
28″	59,59,27,36,42,49,21,46,34,29		4,23, 9, 0, 3	
		2,10,31,41,17,21,33		10
30″	59,59,27,38,53,21, 3, 3,56, 2		4,23, 9, 0,13	
		2,10,27,18, 8,21,20		10
32″	59,59,27,41, 3,48,21,12,17,22		4,23, 9, 0,23	
		2,10,22,54,59,20,57		10
34″	59,59,27,43,14,11,16,11,38,19		4,23, 9, 0,33	
		2,10,18,31,50,20,24		10
36″	59,59,27,45,24,29,48, 1,58,43		4,23, 9, 0,43	
		2,10,14, 8,41,19,41		10
38″	59,59,27,47,34,43,56,43,18,24		4,23, 9, 0,53	
		2,10, 9,45,32,18,48		10
40″	59,59,27,49,44,53,42,15,37,12		4,23, 9, 1, 3	
		2,10, 5,22,23,17,45		10
42″	59,59,27,51,54,59, 4,38,54,57		4,23, 9, 1,13	
		2,10, 0,59,14,16,32		10
44″	59,59,27,54, 5, 0, 3,53,11,29		4,23, 9, 1,23	
		2, 9,56,36, 5,15, 9		10
46″	59,59,27,56,14,56,39,58,26,38		4,23, 9, 1,33	
		2, 9,52,12,56,13,36		10
48″	59,59,27,58,24,48,52,54,40,14		4,23, 9, 1,43	
		2, 9,47,49,47,11,53		10
50″	59,59,28, 0,34,36,42,41,52, 7		4,23, 9, 1,53	
		2, 9,43,26,38,10, 0		10
52″	59,59,28, 2,44,20, 9,20, 2, 7		4,23, 9, 2, 3	
		2, 9,39, 3,29, 7,57		10
54″	59,59,28, 4,53,59,12,49,10, 4		4,23, 9, 2,13	
		2, 9,34,40,20, 5,44		10
56″	59,59,28, 7, 3,33,53, 9,15,48		4,23, 9, 2,23	
		2, 9,30,17,11, 3,21		10
58″	59,59,28, 9,13, 4,10,20,19, 9		4,23, 9, 2,33	
		2, 9,25,54, 2, 0,48		
60″	59,59,28,11,22,30, 4,22,19,57			
exact	59,59,28,11,22,30, 4,22,51,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89° 1′ 0″	59,59,28,11,22,30, 4,22,51,32			
		2, 9,21,30,53, 1,27		
2″	59,59,28,13,31,51,35,15,52,59		4,23, 9, 2,39	
		2, 9,17, 7,43,58,48		9
4″	59,59,28,15,41, 8,42,59,51,47		4,23, 9, 2,48	
		2, 9,12,44,34,56, 0		9
6″	59,59,28,17,50,21,27,34,47,47		4,23, 9, 2,57	
		2, 9, 8,21,25,53, 3		9
8″	59,59,28,19,59,29,49, 0,40,50		4,23, 9, 3, 6	
		2, 9, 3,58,16,49,57		9
10″	59,59,28,22, 8,33,47,17,30,47		4,23, 9, 3,15	
		2, 8,59,35, 7,46,42		9
12″	59,59,28,24,17,33,22,25,17,29		4,23, 9, 3,24	
		2, 8,55,11,58,43,18		9
14″	59,59,28,26,26,28,34,24, 0,47		4,23, 9, 3,33	
		2, 8,50,48,49,39,45		9
16″	59,59,28,28,35,19,23,13,40,32		4,23, 9, 3,42	
		2, 8,46,25,40,36, 3		9
18″	59,59,28,30,44, 5,48,54,16,35		4,23, 9, 3,51	
		2, 8,42, 2,31,32,12		9
20″	59,59,28,32,52,47,51,25,48,47		4,23, 9, 4, 0	
		2, 8,37,39,22,28,12		9
22″	59,59,28,35, 1,25,30,48,16,59		4,23, 9, 4, 9	
		2, 8,33,16,13,24, 3		9
24″	59,59,28,37, 9,58,47, 1,41, 2		4,23, 9, 4,18	
		2, 8,28,53, 4,19,45		9
26″	59,59,28,39,18,27,40, 6, 0,47		4,23, 9, 4,27	
		2, 8,24,29,55,15,18		9
28″	59,59,28,41,26,52,10, 1,16, 5		4,23, 9, 4,36	
		2, 8,20, 6,46,10,42		9
30″	59,59,28,43,35,12,16,47,26,47		4,23, 9, 4,45	
		2, 8,15,43,37, 5,57		9
32″	59,59,28,45,43,28, 0,24,32,44		4,23, 9, 4,54	
		2, 8,11,20,28, 1, 3		9
34″	59,59,28,47,51,39,20,52,33,47		4,23, 9, 5, 3	
		2, 8, 6,57,18,56, 0		9
36″	59,59,28,49,59,46,18,11,29,47		4,23, 9, 5,12	
		2, 8, 2,34, 9,50,48		9
38″	59,59,28,52, 7,48,52,21,20,35		4,23, 9, 5,21	
		2, 7,58,11, 0,45,27		9
40″	59,59,28,54,15,47, 3,22, 6, 2		4,23, 9, 5,30	
		2, 7,53,47,51,39,57		9
42″	59,59,28,56,23,40,51,13,45,59		4,23, 9, 5,39	
		2, 7,49,24,42,34,18		9
44″	59,59,28,58,31,30,15,56,20,17		4,23, 9, 5,48	
		2, 7,45, 1,33,28,30		9
46″	59,59,29, 0,39,15,17,29,48,47		4,23, 9, 5,57	
		2, 7,40,38,24,22,33		9
48″	59,59,29, 2,46,55,55,54,11,20		4,23, 9, 6, 6	
		2, 7,36,15,15,16,27		9
50″	59,59,29, 4,54,32,11, 9,27,47		4,23, 9, 6,15	
		2, 7,31,52, 6,10,12		9
52″	59,59,29, 7, 2, 4, 3,15,37,59		4,23, 9, 6,24	
		2, 7,27,28,57, 3,48		9
54″	59,59,29, 9, 9,31,32,12,41,47		4,23, 9, 6,33	
		2, 7,23, 5,47,57,15		9
56″	59,59,29,11,16,54,38, 0,39, 2		4,23, 9, 6,42	
		2, 7,18,42,38,50,33		9
58″	59,59,29,13,24,13,20,39,29,35		4,23, 9, 6,51	
		2, 7,14,19,29,43,42		
60″	59,59,29,15,31,27,40, 9,13,17			
exact	59,59,29,15,31,27,40, 8,47,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89° 2′ 0″	59,59,29,15,31,27,40, 8,47,56			
		2, 7, 9,56,20,33,58		
2″	59,59,29,17,38,37,36,29,21,54		4,23, 9, 7,20	
		2, 7, 5,33,11,26,38		9
4″	59,59,29,19,45,43, 9,40,48,32		4,23, 9, 7,29	
		2, 7, 1,10, 2,19, 9		9
6″	59,59,29,21,52,44,19,43, 7,41		4,23, 9, 7,38	
		2, 6,56,46,53,11,31		9
8″	59,59,29,23,59,41, 6,36,19,12		4,23, 9, 7,47	
		2, 6,52,23,44, 3,44		9
10″	59,59,29,26, 6,33,30,20,22,56		4,23, 9, 7,56	
		2, 6,48, 0,34,55,48		9
12″	59,59,29,28,13,21,30,55,18,44		4,23, 9, 8, 5	
		2, 6,43,37,25,47,43		9
14″	59,59,29,30,20, 5, 8,21, 6,27		4,23, 9, 8,14	
		2, 6,39,14,16,39,29		9
16″	59,59,29,32,26,44,22,37,45,56		4,23, 9, 8,23	
		2, 6,34,51, 7,31, 6		9
18″	59,59,29,34,33,19,13,45,17, 2		4,23, 9, 8,32	
		2, 6,30,27,58,22,34		9
20″	59,59,29,36,39,49,41,43,39,36		4,23, 9, 8,41	
		2, 6,26, 4,49,13,53		9
22″	59,59,29,38,46,15,46,32,53,29		4,23, 9, 8,50	
		2, 6,21,41,40, 5, 3		9
24″	59,59,29,40,52,37,28,12,58,32		4,23, 9, 8,59	
		2, 6,17,18,30,56, 4		9
26″	59,59,29,42,58,54,46,43,54,36		4,23, 9, 9, 8	
		2, 6,12,55,21,46,56		9
28″	59,59,29,45, 5, 7,42, 5,41,32		4,23, 9, 9,17	
		2, 6, 8,32,12,37,39		9
30″	59,59,29,47,11,16,14,18,19,11		4,23, 9, 9,26	
		2, 6, 4, 9, 3,28,13		9
32″	59,59,29,49,17,20,23,21,47,24		4,23, 9, 9,35	
		2, 5,59,45,54,18,38		9
34″	59,59,29,51,23,20, 9,16, 6, 2		4,23, 9, 9,44	
		2, 5,55,22,45, 8,54		9
36″	59,59,29,53,29,15,32, 1,14,56		4,23, 9, 9,53	
		2, 5,50,59,35,59, 1		9
38″	59,59,29,55,35, 6,31,37,13,57		4,23, 9,10, 2	
		2, 5,46,36,26,48,59		9
40″	59,59,29,57,40,53, 8, 4, 2,56		4,23, 9,10,11	
		2, 5,42,13,17,38,48		9
42″	59,59,29,59,46,35,21,21,41,44		4,23, 9,10,20	
		2, 5,37,50, 8,28,28		9
44″	59,59,30, 1,52,13,11,30,10,12		4,23, 9,10,29	
		2, 5,33,26,59,17,59		9
46″	59,59,30, 3,57,46,38,29,28,11		4,23, 9,10,38	
		2, 5,29, 3,50, 7,21		9
48″	59,59,30, 6, 3,15,42,19,35,32		4,23, 9,10,47	
		2, 5,24,40,40,56,34		9
50″	59,59,30, 8, 8,40,23, 0,32, 6		4,23, 9,10,56	
		2, 5,20,17,31,45,38		9
52″	59,59,30,10,14, 0,40,32,17,44		4,23, 9,11, 5	
		2, 5,15,54,22,34,33		9
54″	59,59,30,12,19,16,34,54,52,17		4,23, 9,11,14	
		2, 5,11,31,13,23,19		9
56″	59,59,30,14,24,28, 6, 8,15,36		4,23, 9,11,23	
		2, 5, 7, 8, 4,11,56		9
58″	59,59,30,16,29,35,14,12,27,32		4,23, 9,11,32	
		2, 5, 2,44,55, 0,24		
60″	59,59,30,18,34,37,59, 7,27,56			
exact	59,59,30,18,34,37,59, 7,11,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89° 3′ 0″	59,59,30,18,34,37,59, 7,11,44			
		2, 4,58,21,45,47, 2		
2″	59,59,30,20,39,36,20,52,58,46		4,23, 9,11,56	
		2, 4,53,58,36,35, 6		9
4″	59,59,30,22,44,30,19,29,33,52		4,23, 9,12, 5	
		2, 4,49,35,27,23, 1		9
6″	59,59,30,24,49,19,54,56,56,53		4,23, 9,12,14	
		2, 4,45,12,18,10,47		9
8″	59,59,30,26,54, 5, 7,15, 7,40		4,23, 9,12,23	
		2, 4,40,49, 8,58,24		9
10″	59,59,30,28,58,45,56,24, 6, 4		4,23, 9,12,32	
		2, 4,36,25,59,45,52		9
12″	59,59,30,31, 3,22,22,23,51,56		4,23, 9,12,41	
		2, 4,32, 2,50,33,11		9
14″	59,59,30,33, 7,54,25,14,25, 7		4,23, 9,12,50	
		2, 4,27,39,41,20,21		9
16″	59,59,30,35,12,22, 4,55,45,28		4,23, 9,12,59	
		2, 4,23,16,32, 7,22		9
18″	59,59,30,37,16,45,21,27,52,50		4,23, 9,13, 8	
		2, 4,18,53,22,54,14		9
20″	59,59,30,39,21, 4,14,50,47, 4		4,23, 9,13,17	
		2, 4,14,30,13,40,57		9
22″	59,59,30,41,25,18,45, 4,28, 1		4,23, 9,13,26	
		2, 4,10, 7, 4,27,31		9
24″	59,59,30,43,29,28,52, 8,55,32		4,23, 9,13,35	
		2, 4, 5,43,55,13,56		9
26″	59,59,30,45,33,34,36, 4, 9,28		4,23, 9,13,44	
		2, 4, 1,20,46, 0,12		9
28″	59,59,30,47,37,35,56,50, 9,40		4,23, 9,13,53	
		2, 3,56,57,36,46,19		9
30″	59,59,30,49,41,32,54,26,55,59		4,23, 9,14, 2	
		2, 3,52,34,27,32,17		9
32″	59,59,30,51,45,25,28,54,28,16		4,23, 9,14,11	
		2, 3,48,11,18,18, 6		9
34″	59,59,30,53,49,13,40,12,46,22		4,23, 9,14,20	
		2, 3,43,48, 9, 3,46		9
36″	59,59,30,55,52,57,28,21,50, 8		4,23, 9,14,29	
		2, 3,39,24,59,49,17		9
38″	59,59,30,57,56,36,53,21,39,25		4,23, 9,14,38	
		2, 3,35, 1,50,34,39		9
40″	59,59,31, 0, 0,11,55,12,14, 4		4,23, 9,14,47	
		2, 3,30,38,41,19,52		9
42″	59,59,31, 2, 3,42,33,53,33,56		4,23, 9,14,56	
		2, 3,26,15,32, 4,56		9
44″	59,59,31, 4, 7, 8,49,25,38,52		4,23, 9,15, 5	
		2, 3,21,52,22,49,51		9
46″	59,59,31, 6,10,30,41,48,28,43		4,23, 9,15,14	
		2, 3,17,29,13,34,37		9
48″	59,59,31, 8,13,48,11, 2, 3,20		4,23, 9,15,23	
		2, 3,13, 6, 4,19,14		9
50″	59,59,31,10,17, 1,17, 6,22,34		4,23, 9,15,32	
		2, 3, 8,42,55, 3,42		9
52″	59,59,31,12,20,10, 0, 1,26,16		4,23, 9,15,41	
		2, 3, 4,19,45,48, 1		9
54″	59,59,31,14,23,14,19,47,14,17		4,23, 9,15,50	
		2, 2,59,56,36,32,11		9
56″	59,59,31,16,26,14,16,23,46,28		4,23, 9,15,59	
		2, 2,55,33,27,16,12		9
58″	59,59,31,18,29, 9,49,51, 2,40		4,23, 9,16, 8	
		2, 2,51,10,18, 0, 4		
60″	59,59,31,20,32, 1, 0, 9, 2,44			
exact	59,59,31,20,32, 1, 0, 8,54,13			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89° 4′ 0″	59,59,31,20,32, 1, 0, 8,54,13			
		2, 2,46,47, 8,43, 3		
2″	59,59,31,22,34,47,47,17,37,16		4,23, 9,16,28	
		2, 2,42,23,59,26,35		9
4″	59,59,31,24,37,30,11,17, 3,51		4,23, 9,16,37	
		2, 2,38, 0,50, 9,58		9
6″	59,59,31,26,40, 8,12, 7,13,49		4,23, 9,16,46	
		2, 2,33,37,40,53,12		9
8″	59,59,31,28,42,41,49,48, 7, 1		4,23, 9,16,55	
		2, 2,29,14,31,36,17		9
10″	59,59,31,30,45,11, 4,19,43,18		4,23, 9,17, 4	
		2, 2,24,51,22,19,13		9
12″	59,59,31,32,47,35,55,42, 2,31		4,23, 9,17,13	
		2, 2,20,28,13, 2, 0		9
14″	59,59,31,34,49,56,23,55, 4,31		4,23, 9,17,22	
		2, 2,16, 5, 3,44,38		9
16″	59,59,31,36,52,12,28,58,49, 9		4,23, 9,17,31	
		2, 2,11,41,54,27, 7		9
18″	59,59,31,38,54,24,10,53,16,16		4,23, 9,17,40	
		2, 2, 7,18,45, 9,27		9
20″	59,59,31,40,56,31,29,38,25,43		4,23, 9,17,49	
		2, 2, 2,55,35,51,38		9
22″	59,59,31,42,58,34,25,14,17,21		4,23, 9,17,58	
		2, 1,58,32,26,33,40		9
24″	59,59,31,45, 0,32,57,40,51, 1		4,23, 9,18, 7	
		2, 1,54, 9,17,15,33		9
26″	59,59,31,47, 2,27, 6,58, 6,34		4,23, 9,18,16	
		2, 1,49,46, 7,57,17		9
28″	59,59,31,49, 4,16,53, 6, 3,51		4,23, 9,18,25	
		2, 1,45,22,58,38,52		9
30″	59,59,31,51, 6, 2,16, 4,42,43		4,23, 9,18,34	
		2, 1,40,59,49,20,18		9
32″	59,59,31,53, 7,43,15,54, 3, 1		4,23, 9,18,43	
		2, 1,36,36,40, 1,35		9
34″	59,59,31,55, 9,19,52,34, 4,36		4,23, 9,18,52	
		2, 1,32,13,30,42,43		9
36″	59,59,31,57,10,52, 6, 4,47,19		4,23, 9,19, 1	
		2, 1,27,50,21,23,42		9
38″	59,59,31,59,12,19,56,26,11, 1		4,23, 9,19,10	
		2, 1,23,27,12, 4,32		9
40″	59,59,32, 1,13,43,23,38,15,33		4,23, 9,19,19	
		2, 1,19, 4, 2,45,13		9
42″	59,59,32, 3,15, 2,27,41, 0,46		4,23, 9,19,28	
		2, 1,14,40,53,25,45		9
44″	59,59,32, 5,16,17, 8,34,26,31		4,23, 9,19,37	
		2, 1,10,17,44, 6, 8		9
46″	59,59,32, 7,17,27,26,18,32,39		4,23, 9,19,46	
		2, 1, 5,54,34,46,22		9
48″	59,59,32, 9,18,33,20,53,19, 1		4,23, 9,19,55	
		2, 1, 1,31,25,26,27		9
50″	59,59,32,11,19,34,52,18,45,28		4,23, 9,20, 4	
		2, 0,57, 8,16, 6,23		9
52″	59,59,32,13,20,32, 0,34,51,51		4,23, 9,20,13	
		2, 0,52,45, 6,46,10		9
54″	59,59,32,15,21,24,45,41,38, 1		4,23, 9,20,22	
		2, 0,48,21,57,25,48		9
56″	59,59,32,17,22,13, 7,39, 3,49		4,23, 9,20,31	
		2, 0,43,58,48, 5,17		9
58″	59,59,32,19,22,57, 6,27, 9, 6		4,23, 9,20,40	
		2, 0,39,35,38,44,37		
60″	59,59,32,21,23,36,42, 5,53,43			
exact	59,59,32,21,23,36,42, 5,58,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89° 5′ 0″	59,59,32,21,23,36,42, 5,58,48			
		2, 0,35,12,29,24,25		
2″	59,59,32,23,24,11,54,35,23,13		4,23, 9,20,55	
		2, 0,30,49,20, 3,30		9
4″	59,59,32,25,24,42,43,55,26,43		4,23, 9,21, 4	
		2, 0,26,26,10,42,26		9
6″	59,59,32,27,25, 9,10, 6, 9, 9		4,23, 9,21,13	
		2, 0,22, 3, 1,21,13		9
8″	59,59,32,29,25,31,13, 7,30,22		4,23, 9,21,22	
		2, 0,17,39,51,59,51		9
10″	59,59,32,31,25,48,52,59,30,13		4,23, 9,21,31	
		2, 0,13,16,42,38,20		9
12″	59,59,32,33,26, 2, 9,42, 8,33		4,23, 9,21,40	
		2, 0, 8,53,33,16,40		9
14″	59,59,32,35,26,11, 3,15,25,13		4,23, 9,21,49	
		2, 0, 4,30,23,54,51		9
16″	59,59,32,37,26,15,33,39,20, 4		4,23, 9,21,58	
		2, 0, 0, 7,14,32,53		9
18″	59,59,32,39,26,15,40,53,52,57		4,23, 9,22, 7	
		1,59,55,44, 5,10,46		9
20″	59,59,32,41,26,11,24,59, 3,43		4,23, 9,22,16	
		1,59,51,20,55,48,30		9
22″	59,59,32,43,26, 2,45,54,52,13		4,23, 9,22,25	
		1,59,46,57,46,26, 5		9
24″	59,59,32,45,25,49,43,41,18,18		4,23, 9,22,34	
		1,59,42,34,37, 3,31		9
26″	59,59,32,47,25,32,18,18,21,49		4,23, 9,22,43	
		1,59,38,11,27,40,48		9
28″	59,59,32,49,25,10,29,46, 2,37		4,23, 9,22,52	
		1,59,33,48,18,17,56		9
30″	59,59,32,51,24,44,18, 4,20,33		4,23, 9,23, 1	
		1,59,29,25, 8,54,55		9
32″	59,59,32,53,24,13,43,13,15,28		4,23, 9,23,10	
		1,59,25, 1,59,31,45		9
34″	59,59,32,55,23,38,45,12,47,13		4,23, 9,23,19	
		1,59,20,38,50, 8,26		9
36″	59,59,32,57,22,59,24, 2,55,39		4,23, 9,23,28	
		1,59,16,15,40,44,58		9
38″	59,59,32,59,22,15,39,43,40,37		4,23, 9,23,37	
		1,59,11,52,31,21,21		9
40″	59,59,33, 1,21,27,32,15, 1,58		4,23, 9,23,46	
		1,59, 7,29,21,57,35		9
42″	59,59,33, 3,20,35, 1,36,59,33		4,23, 9,23,55	
		1,59, 3, 6,12,33,40		9
44″	59,59,33, 5,19,38, 7,49,33,13		4,23, 9,24, 4	
		1,58,58,43, 3, 9,36		9
46″	59,59,33, 7,18,36,50,52,42,49		4,23, 9,24,13	
		1,58,54,19,53,45,23		9
48″	59,59,33, 9,17,31,10,46,28,12		4,23, 9,24,22	
		1,58,49,56,44,21, 1		9
50″	59,59,33,11,16,21, 7,30,49,13		4,23, 9,24,31	
		1,58,45,33,34,56,30		9
52″	59,59,33,13,15, 6,41, 5,45,43		4,23, 9,24,40	
		1,58,41,10,25,31,50		9
54″	59,59,33,15,13,47,51,31,17,33		4,23, 9,24,49	
		1,58,36,47,16, 7, 1		9
56″	59,59,33,17,12,24,38,47,24,34		4,23, 9,24,58	
		1,58,32,24, 6,42, 3		9
58″	59,59,33,19,10,57, 2,54, 6,37		4,23, 9,25, 7	
		1,58,28, 0,57,16,56		
60″	59,59,33,21, 9,25, 3,51,23,33			
exact	59,59,33,21, 9,25, 3,51,41, 5			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89° 6′ 0″	59,59,33,21, 9,25, 3,51,41, 5			
		1,58,23,37,47,53,33		
2″	59,59,33,23, 7,48,41,39,34,38		4,23, 9,25,17	
		1,58,19,14,38,28,16		9
4″	59,59,33,25, 6, 7,56,18, 2,54		4,23, 9,25,26	
		1,58,14,51,29, 2,50		9
6″	59,59,33,27, 4,22,47,47, 5,44		4,23, 9,25,35	
		1,58,10,28,19,37,15		9
8″	59,59,33,29, 2,33,16, 6,42,59		4,23, 9,25,44	
		1,58, 6, 5,10,11,31		9
10″	59,59,33,31, 0,39,21,16,54,30		4,23, 9,25,53	
		1,58, 1,42, 0,45,38		9
12″	59,59,33,32,58,41, 3,17,40, 8		4,23, 9,26, 2	
		1,57,57,18,51,19,36		9
14″	59,59,33,34,56,38,22, 8,59,44		4,23, 9,26,11	
		1,57,52,55,41,53,25		9
16″	59,59,33,36,54,31,17,50,53, 9		4,23, 9,26,20	
		1,57,48,32,32,27, 5		9
18″	59,59,33,38,52,19,50,23,20,14		4,23, 9,26,29	
		1,57,44, 9,23, 0,36		9
20″	59,59,33,40,50, 3,59,46,20,50		4,23, 9,26,38	
		1,57,39,46,13,33,58		9
22″	59,59,33,42,47,43,45,59,54,48		4,23, 9,26,47	
		1,57,35,23, 4, 7,11		9
24″	59,59,33,44,45,19, 9, 4, 1,59		4,23, 9,26,56	
		1,57,30,59,54,40,15		9
26″	59,59,33,46,42,50, 8,58,42,14		4,23, 9,27, 5	
		1,57,26,36,45,13,10		9
28″	59,59,33,48,40,16,45,43,55,24		4,23, 9,27,14	
		1,57,22,13,35,45,56		9
30″	59,59,33,50,37,38,59,19,41,20		4,23, 9,27,23	
		1,57,17,50,26,18,33		9
32″	59,59,33,52,34,56,49,45,59,53		4,23, 9,27,32	
		1,57,13,27,16,51, 1		9
34″	59,59,33,54,32,10,17, 2,50,54		4,23, 9,27,41	
		1,57, 9, 4, 7,23,20		9
36″	59,59,33,56,29,19,21,10,14,14		4,23, 9,27,50	
		1,57, 4,40,57,55,30		9
38″	59,59,33,58,26,24, 2, 8, 9,44		4,23, 9,27,59	
		1,57, 0,17,48,27,31		9
40″	59,59,34, 0,23,24,19,56,37,15		4,23, 9,28, 8	
		1,56,55,54,38,59,23		9
42″	59,59,34, 2,20,20,14,35,36,38		4,23, 9,28,17	
		1,56,51,31,29,31, 6		9
44″	59,59,34, 4,17,11,46, 5, 7,44		4,23, 9,28,26	
		1,56,47, 8,20, 2,40		9
46″	59,59,34, 6,13,58,54,25,10,24		4,23, 9,28,35	
		1,56,42,45,10,34, 5		9
48″	59,59,34, 8,10,41,39,35,44,29		4,23, 9,28,44	
		1,56,38,22, 1, 5,21		9
50″	59,59,34,10, 7,20, 1,36,49,50		4,23, 9,28,53	
		1,56,33,58,51,36,28		9
52″	59,59,34,12, 3,54, 0,28,26,18		4,23, 9,29, 2	
		1,56,29,35,42, 7,26		9
54″	59,59,34,14, 0,23,36,10,33,44		4,23, 9,29,11	
		1,56,25,12,32,38,15		9
56″	59,59,34,15,56,48,48,43,11,59		4,23, 9,29,20	
		1,56,20,49,23, 8,55		9
58″	59,59,34,17,53, 9,38, 6,20,54		4,23, 9,29,29	
		1,56,16,26,13,39,26		
60″	59,59,34,19,49,26, 4,20, 0,20			
exact	59,59,34,19,49,26, 4,20,28,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89° 7′ 0″	59,59,34,19,49,26, 4,20,28,47			
		1,56,12, 3, 4,12,51		
2″	59,59,34,21,45,38, 7,24,41,38		4,23, 9,29,34	
		1,56, 7,39,54,43,17		8
4″	59,59,34,23,41,45,47,19,24,55		4,23, 9,29,42	
		1,56, 3,16,45,13,35		8
6″	59,59,34,25,37,49, 4, 4,38,30		4,23, 9,29,50	
		1,55,58,53,35,43,45		8
8″	59,59,34,27,33,47,57,40,22,15		4,23, 9,29,58	
		1,55,54,30,26,13,47		8
10″	59,59,34,29,29,42,28, 6,36, 2		4,23, 9,30, 6	
		1,55,50, 7,16,43,41		8
12″	59,59,34,31,25,32,35,23,19,43		4,23, 9,30,14	
		1,55,45,44, 7,13,27		8
14″	59,59,34,33,21,18,19,30,33,10		4,23, 9,30,22	
		1,55,41,20,57,43, 5		8
16″	59,59,34,35,16,59,40,28,16,15		4,23, 9,30,30	
		1,55,36,57,48,12,35		8
18″	59,59,34,37,12,36,38,16,28,50		4,23, 9,30,38	
		1,55,32,34,38,41,57		8
20″	59,59,34,39, 8, 9,12,55,10,47		4,23, 9,30,46	
		1,55,28,11,29,11,11		8
22″	59,59,34,41, 3,37,24,24,21,58		4,23, 9,30,54	
		1,55,23,48,19,40,17		8
24″	59,59,34,42,59, 1,12,44, 2,15		4,23, 9,31, 2	
		1,55,19,25,10, 9,15		8
26″	59,59,34,44,54,20,37,54,11,30		4,23, 9,31,10	
		1,55,15, 2, 0,38, 5		8
28″	59,59,34,46,49,35,39,54,49,35		4,23, 9,31,18	
		1,55,10,38,51, 6,47		8
30″	59,59,34,48,44,46,18,45,56,22		4,23, 9,31,26	
		1,55, 6,15,41,35,21		8
32″	59,59,34,50,39,52,34,27,31,43		4,23, 9,31,34	
		1,55, 1,52,32, 3,47		8
34″	59,59,34,52,34,54,26,59,35,30		4,23, 9,31,42	
		1,54,57,29,22,32, 5		8
36″	59,59,34,54,29,51,56,22, 7,35		4,23, 9,31,50	
		1,54,53, 6,13, 0,15		8
38″	59,59,34,56,24,45, 2,35, 7,50		4,23, 9,31,58	
		1,54,48,43, 3,28,17		8
40″	59,59,34,58,19,33,45,38,36, 7		4,23, 9,32, 6	
		1,54,44,19,53,56,11		8
42″	59,59,35, 0,14,18, 5,32,32,18		4,23, 9,32,14	
		1,54,39,56,44,23,57		8
44″	59,59,35, 2, 8,58, 2,16,56,15		4,23, 9,32,22	
		1,54,35,33,34,51,35		8
46″	59,59,35, 4, 3,33,35,51,47,50		4,23, 9,32,30	
		1,54,31,10,25,19, 5		8
48″	59,59,35, 5,58, 4,46,17, 6,55		4,23, 9,32,38	
		1,54,26,47,15,46,27		8
50″	59,59,35, 7,52,31,33,32,53,22		4,23, 9,32,46	
		1,54,22,24, 6,13,41		8
52″	59,59,35, 9,46,53,57,39, 7, 3		4,23, 9,32,54	
		1,54,18, 0,56,40,47		8
54″	59,59,35,11,41,11,58,35,47,50		4,23, 9,33, 2	
		1,54,13,37,47, 7,45		8
56″	59,59,35,13,35,25,36,22,55,35		4,23, 9,33,10	
		1,54, 9,14,37,34,35		8
58″	59,59,35,15,29,34,51, 0,30,10		4,23, 9,33,18	
		1,54, 4,51,28, 1,17		
60″	59,59,35,17,23,39,42,28,31,27			
exact	59,59,35,17,23,39,42,28, 1,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89° 8′ 0″	59,59,35,17,23,39,42,28, 1,46			
		1,54, 0,28,18,24,44		
2″	59,59,35,19,17,40,10,46,26,30		4,23, 9,33,46	
		1,53,56, 5, 8,50,58		8
4″	59,59,35,21,11,36,15,55,17,28		4,23, 9,33,54	
		1,53,51,41,59,17, 4		8
6″	59,59,35,23, 5,27,57,54,34,32		4,23, 9,34, 2	
		1,53,47,18,49,43, 2		8
8″	59,59,35,24,59,15,16,44,17,34		4,23, 9,34,10	
		1,53,42,55,40, 8,52		8
10″	59,59,35,26,52,58,12,24,26,26		4,23, 9,34,18	
		1,53,38,32,30,34,34		8
12″	59,59,35,28,46,36,44,55, 1, 0		4,23, 9,34,26	
		1,53,34, 9,21, 0, 8		8
14″	59,59,35,30,40,10,54,16, 1, 8		4,23, 9,34,34	
		1,53,29,46,11,25,34		8
16″	59,59,35,32,33,40,40,27,26,42		4,23, 9,34,42	
		1,53,25,23, 1,50,52		8
18″	59,59,35,34,27, 6, 3,29,17,34		4,23, 9,34,50	
		1,53,20,59,52,16, 2		8
20″	59,59,35,36,20,27, 3,21,33,36		4,23, 9,34,58	
		1,53,16,36,42,41, 4		8
22″	59,59,35,38,13,43,40, 4,14,40		4,23, 9,35, 6	
		1,53,12,13,33, 5,58		8
24″	59,59,35,40, 6,55,53,37,20,38		4,23, 9,35,14	
		1,53, 7,50,23,30,44		8
26″	59,59,35,42, 0, 3,44, 0,51,22		4,23, 9,35,22	
		1,53, 3,27,13,55,22		8
28″	59,59,35,43,53, 7,11,14,46,44		4,23, 9,35,30	
		1,52,59, 4, 4,19,52		8
30″	59,59,35,45,46, 6,15,19, 6,36		4,23, 9,35,38	
		1,52,54,40,54,44,14		8
32″	59,59,35,47,39, 0,56,13,50,50		4,23, 9,35,46	
		1,52,50,17,45, 8,28		8
34″	59,59,35,49,31,51,13,58,59,18		4,23, 9,35,54	
		1,52,45,54,35,32,34		8
36″	59,59,35,51,24,37, 8,34,31,52		4,23, 9,36, 2	
		1,52,41,31,25,56,32		8
38″	59,59,35,53,17,18,40, 0,28,24		4,23, 9,36,10	
		1,52,37, 8,16,20,22		8
40″	59,59,35,55, 9,55,48,16,48,46		4,23, 9,36,18	
		1,52,32,45, 6,44, 4		8
42″	59,59,35,57, 2,28,33,23,32,50		4,23, 9,36,26	
		1,52,28,21,57, 7,38		8
44″	59,59,35,58,54,56,55,20,40,28		4,23, 9,36,34	
		1,52,23,58,47,31, 4		8
46″	59,59,36, 0,47,20,54, 8,11,32		4,23, 9,36,42	
		1,52,19,35,37,54,22		8
48″	59,59,36, 2,39,40,29,46, 5,54		4,23, 9,36,50	
		1,52,15,12,28,17,32		8
50″	59,59,36, 4,31,55,42,14,23,26		4,23, 9,36,58	
		1,52,10,49,18,40,34		8
52″	59,59,36, 6,24, 6,31,33, 4, 0		4,23, 9,37, 6	
		1,52, 6,26, 9, 3,28		8
54″	59,59,36, 8,16,12,57,42, 7,28		4,23, 9,37,14	
		1,52, 2, 2,59,26,14		8
56″	59,59,36,10, 8,15, 0,41,33,42		4,23, 9,37,22	
		1,51,57,39,49,48,52		8
58″	59,59,36,12, 0,12,40,31,22,34		4,23, 9,37,30	
		1,51,53,16,40,11,22		
60″	59,59,36,13,52, 5,57,11,33,56			
exact	59,59,36,13,52, 5,57,11,12, 2			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89° 9′ 0″	59,59,36,13,52, 5,57,11,12, 2			
		1,51,48,53,30,31,34		
2″	59,59,36,15,43,54,50,41,43,36		4,23, 9,37,54	
		1,51,44,30,20,53,40		8
4″	59,59,36,17,35,39,21, 2,37,16		4,23, 9,38, 2	
		1,51,40, 7,11,15,38		8
6″	59,59,36,19,27,19,28,13,52,54		4,23, 9,38,10	
		1,51,35,44, 1,37,28		8
8″	59,59,36,21,18,55,12,15,30,22		4,23, 9,38,18	
		1,51,31,20,51,59,10		8
10″	59,59,36,23,10,26,33, 7,29,32		4,23, 9,38,26	
		1,51,26,57,42,20,44		8
12″	59,59,36,25, 1,53,30,49,50,16		4,23, 9,38,34	
		1,51,22,34,32,42,10		8
14″	59,59,36,26,53,16, 5,22,32,26		4,23, 9,38,42	
		1,51,18,11,23, 3,28		8
16″	59,59,36,28,44,34,16,45,35,54		4,23, 9,38,50	
		1,51,13,48,13,24,38		8
18″	59,59,36,30,35,48, 4,59, 0,32		4,23, 9,38,58	
		1,51, 9,25, 3,45,40		8
20″	59,59,36,32,26,57,30, 2,46,12		4,23, 9,39, 6	
		1,51, 5, 1,54, 6,34		8
22″	59,59,36,34,18, 2,31,56,52,46		4,23, 9,39,14	
		1,51, 0,38,44,27,20		8
24″	59,59,36,36, 9, 3,10,41,20, 6		4,23, 9,39,22	
		1,50,56,15,34,47,58		8
26″	59,59,36,37,59,59,26,16, 8, 4		4,23, 9,39,30	
		1,50,51,52,25, 8,28		8
28″	59,59,36,39,50,51,18,41,16,32		4,23, 9,39,38	
		1,50,47,29,15,28,50		8
30″	59,59,36,41,41,38,47,56,45,22		4,23, 9,39,46	
		1,50,43, 6, 5,49, 4		8
32″	59,59,36,43,32,21,54, 2,34,26		4,23, 9,39,54	
		1,50,38,42,56, 9,10		8
34″	59,59,36,45,23, 0,36,58,43,36		4,23, 9,40, 2	
		1,50,34,19,46,29, 8		8
36″	59,59,36,47,13,34,56,45,12,44		4,23, 9,40,10	
		1,50,29,56,36,48,58		8
38″	59,59,36,49, 4, 4,53,22, 1,42		4,23, 9,40,18	
		1,50,25,33,27, 8,40		8
40″	59,59,36,50,54,30,26,49,10,22		4,23, 9,40,26	
		1,50,21,10,17,28,14		8
42″	59,59,36,52,44,51,37, 6,38,36		4,23, 9,40,34	
		1,50,16,47, 7,47,40		8
44″	59,59,36,54,35, 8,24,14,26,16		4,23, 9,40,42	
		1,50,12,23,58, 6,58		8
46″	59,59,36,56,25,20,48,12,33,14		4,23, 9,40,50	
		1,50, 8, 0,48,26, 8		8
48″	59,59,36,58,15,28,49, 0,59,22		4,23, 9,40,58	
		1,50, 3,37,38,45,10		8
50″	59,59,37, 0, 5,32,26,39,44,32		4,23, 9,41, 6	
		1,49,59,14,29, 4, 4		8
52″	59,59,37, 1,55,31,41, 8,48,36		4,23, 9,41,14	
		1,49,54,51,19,22,50		8
54″	59,59,37, 3,45,26,32,28,11,26		4,23, 9,41,22	
		1,49,50,28, 9,41,28		8
56″	59,59,37, 5,35,17, 0,37,52,54		4,23, 9,41,30	
		1,49,46, 4,59,59,58		8
58″	59,59,37, 7,25, 3, 5,37,52,52		4,23, 9,41,38	
		1,49,41,41,50,18,20		
60″	59,59,37, 9,14,44,47,28,11,12			
exact	59,59,37, 9,14,44,47,28, 3,46			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°10′ 0″	59,59,37, 9,14,44,47,28, 3,46			
		1,49,37,18,40,35,48		
2″	59,59,37,11, 4,22, 6, 8,39,34		4,23, 9,41,57	
		1,49,32,55,30,53,51		8
4″	59,59,37,12,53,55, 1,39,33,25		4,23, 9,42, 5	
		1,49,28,32,21,11,46		8
6″	59,59,37,14,43,23,34, 0,45,11		4,23, 9,42,13	
		1,49,24, 9,11,29,33		8
8″	59,59,37,16,32,47,43,12,14,44		4,23, 9,42,21	
		1,49,19,46, 1,47,12		8
10″	59,59,37,18,22, 7,29,14, 1,56		4,23, 9,42,29	
		1,49,15,22,52, 4,43		8
12″	59,59,37,20,11,22,52, 6, 6,39		4,23, 9,42,37	
		1,49,10,59,42,22, 6		8
14″	59,59,37,22, 0,33,51,48,28,45		4,23, 9,42,45	
		1,49, 6,36,32,39,21		8
16″	59,59,37,23,49,40,28,21, 8, 6		4,23, 9,42,53	
		1,49, 2,13,22,56,28		8
18″	59,59,37,25,38,42,41,44, 4,34		4,23, 9,43, 1	
		1,48,57,50,13,13,27		8
20″	59,59,37,27,27,40,31,57,18, 1		4,23, 9,43, 9	
		1,48,53,27, 3,30,18		8
22″	59,59,37,29,16,33,59, 0,48,19		4,23, 9,43,17	
		1,48,49, 3,53,47, 1		8
24″	59,59,37,31, 5,23, 2,54,35,20		4,23, 9,43,25	
		1,48,44,40,44, 3,36		8
26″	59,59,37,32,54, 7,43,38,38,56		4,23, 9,43,33	
		1,48,40,17,34,20, 3		8
28″	59,59,37,34,42,48, 1,12,58,59		4,23, 9,43,41	
		1,48,35,54,24,36,22		8
30″	59,59,37,36,31,23,55,37,35,21		4,23, 9,43,49	
		1,48,31,31,14,52,33		8
32″	59,59,37,38,19,55,26,52,27,54		4,23, 9,43,57	
		1,48,27, 8, 5, 8,36		8
34″	59,59,37,40, 8,22,34,57,36,30		4,23, 9,44, 5	
		1,48,22,44,55,24,31		8
36″	59,59,37,41,56,45,19,53, 1, 1		4,23, 9,44,13	
		1,48,18,21,45,40,18		8
38″	59,59,37,43,45, 3,41,38,41,19		4,23, 9,44,21	
		1,48,13,58,35,55,57		8
40″	59,59,37,45,33,17,40,14,37,16		4,23, 9,44,29	
		1,48, 9,35,26,11,28		8
42″	59,59,37,47,21,27,15,40,48,44		4,23, 9,44,37	
		1,48, 5,12,16,26,51		8
44″	59,59,37,49, 9,32,27,57,15,35		4,23, 9,44,45	
		1,48, 0,49, 6,42, 6		8
46″	59,59,37,50,57,33,17, 3,57,41		4,23, 9,44,53	
		1,47,56,25,56,57,13		8
48″	59,59,37,52,45,29,43, 0,54,54		4,23, 9,45, 1	
		1,47,52, 2,47,12,12		8
50″	59,59,37,54,33,21,45,48, 7, 6		4,23, 9,45, 9	
		1,47,47,39,37,27, 3		8
52″	59,59,37,56,21, 9,25,25,34, 9		4,23, 9,45,17	
		1,47,43,16,27,41,46		8
54″	59,59,37,58, 8,52,41,53,15,55		4,23, 9,45,25	
		1,47,38,53,17,56,21		8
56″	59,59,37,59,56,31,35,11,12,16		4,23, 9,45,33	
		1,47,34,30, 8,10,48		8
58″	59,59,38, 1,44, 6, 5,19,23, 4		4,23, 9,45,41	
		1,47,30, 6,58,25, 7		
60″	59,59,38, 3,31,36,12,17,48,11			
exact	59,59,38, 3,31,36,12,17,53,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°11′ 0″	59,59,38, 3,31,36,12,17,53,17			
		1,47,25,43,48,39,49		
2″	59,59,38, 5,19, 1,56, 6,33, 6		4,23, 9,45,55	
		1,47,21,20,38,53,54		8
4″	59,59,38, 7, 6,23,16,45,27, 0		4,23, 9,46, 3	
		1,47,16,57,29, 7,51		8
6″	59,59,38, 8,53,40,14,14,34,51		4,23, 9,46,11	
		1,47,12,34,19,21,40		8
8″	59,59,38,10,40,52,48,33,56,31		4,23, 9,46,19	
		1,47, 8,11, 9,35,21		8
10″	59,59,38,12,28, 0,59,43,31,52		4,23, 9,46,27	
		1,47, 3,47,59,48,54		8
12″	59,59,38,14,15, 4,47,43,20,46		4,23, 9,46,35	
		1,46,59,24,50, 2,19		8
14″	59,59,38,16, 2, 4,12,33,23, 5		4,23, 9,46,43	
		1,46,55, 1,40,15,36		8
16″	59,59,38,17,48,59,14,13,38,41		4,23, 9,46,51	
		1,46,50,38,30,28,45		8
18″	59,59,38,19,35,49,52,44, 7,26		4,23, 9,46,59	
		1,46,46,15,20,41,46		8
20″	59,59,38,21,22,36, 8, 4,49,12		4,23, 9,47, 7	
		1,46,41,52,10,54,39		8
22″	59,59,38,23, 9,18, 0,15,43,51		4,23, 9,47,15	
		1,46,37,29, 1, 7,24		8
24″	59,59,38,24,55,55,29,16,51,15		4,23, 9,47,23	
		1,46,33, 5,51,20, 1		8
26″	59,59,38,26,42,28,35, 8,11,16		4,23, 9,47,31	
		1,46,28,42,41,32,30		8
28″	59,59,38,28,28,57,17,49,43,46		4,23, 9,47,39	
		1,46,24,19,31,44,51		8
30″	59,59,38,30,15,21,37,21,28,37		4,23, 9,47,47	
		1,46,19,56,21,57, 4		8
32″	59,59,38,32, 1,41,33,43,25,41		4,23, 9,47,55	
		1,46,15,33,12, 9, 9		8
34″	59,59,38,33,47,57, 6,55,34,50		4,23, 9,48, 3	
		1,46,11,10, 2,21, 6		8
36″	59,59,38,35,34, 8,16,57,55,56		4,23, 9,48,11	
		1,46, 6,46,52,32,55		8
38″	59,59,38,37,20,15, 3,50,28,51		4,23, 9,48,19	
		1,46, 2,23,42,44,36		8
40″	59,59,38,39, 6,17,27,33,13,27		4,23, 9,48,27	
		1,45,58, 0,32,56, 9		8
42″	59,59,38,40,52,15,28, 6, 9,36		4,23, 9,48,35	
		1,45,53,37,23, 7,34		8
44″	59,59,38,42,38, 9, 5,29,17,10		4,23, 9,48,43	
		1,45,49,14,13,18,51		8
46″	59,59,38,44,23,58,19,42,36, 1		4,23, 9,48,51	
		1,45,44,51, 3,30, 0		8
48″	59,59,38,46, 9,43,10,46, 6, 1		4,23, 9,48,59	
		1,45,40,27,53,41, 1		8
50″	59,59,38,47,55,23,38,39,47, 2		4,23, 9,49, 7	
		1,45,36, 4,43,51,54		8
52″	59,59,38,49,40,59,43,23,38,56		4,23, 9,49,15	
		1,45,31,41,34, 2,39		8
54″	59,59,38,51,26,31,24,57,41,35		4,23, 9,49,23	
		1,45,27,18,24,13,16		8
56″	59,59,38,53,11,58,43,21,54,51		4,23, 9,49,31	
		1,45,22,55,14,23,45		8
58″	59,59,38,54,57,21,38,36,18,36		4,23, 9,49,39	
		1,45,18,32, 4,34, 6		
60″	59,59,38,56,42,40,10,40,52,42			
exact	59,59,38,56,42,40,10,41, 9, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°12′ 0″	59,59,38,56,42,40,10,41, 9, 1			
		1,45,14, 8,54,46, 1		
2″	59,59,38,58,27,54,19,35,55, 2		4,23, 9,49,48	
		1,45, 9,45,44,56,13		8
4″	59,59,39, 0,13, 4, 5,20,51,15		4,23, 9,49,56	
		1,45, 5,22,35, 6,17		8
6″	59,59,39, 1,58, 9,27,55,57,32		4,23, 9,50, 4	
		1,45, 0,59,25,16,13		8
8″	59,59,39, 3,43,10,27,21,13,45		4,23, 9,50,12	
		1,44,56,36,15,26, 1		8
10″	59,59,39, 5,28, 7, 3,36,39,46		4,23, 9,50,20	
		1,44,52,13, 5,35,41		8
12″	59,59,39, 7,12,59,16,42,15,27		4,23, 9,50,28	
		1,44,47,49,55,45,13		8
14″	59,59,39, 8,57,47, 6,38, 0,40		4,23, 9,50,36	
		1,44,43,26,45,54,37		8
16″	59,59,39,10,42,30,33,23,55,17		4,23, 9,50,44	
		1,44,39, 3,36, 3,53		8
18″	59,59,39,12,27, 9,36,59,59,10		4,23, 9,50,52	
		1,44,34,40,26,13, 1		8
20″	59,59,39,14,11,44,17,26,12,11		4,23, 9,51, 0	
		1,44,30,17,16,22, 1		8
22″	59,59,39,15,56,14,34,42,34,12		4,23, 9,51, 8	
		1,44,25,54, 6,30,53		8
24″	59,59,39,17,40,40,28,49, 5, 5		4,23, 9,51,16	
		1,44,21,30,56,39,37		8
26″	59,59,39,19,25, 1,59,45,44,42		4,23, 9,51,24	
		1,44,17, 7,46,48,13		8
28″	59,59,39,21, 9,19, 7,32,32,55		4,23, 9,51,32	
		1,44,12,44,36,56,41		8
30″	59,59,39,22,53,31,52, 9,29,36		4,23, 9,51,40	
		1,44, 8,21,27, 5, 1		8
32″	59,59,39,24,37,40,13,36,34,37		4,23, 9,51,48	
		1,44, 3,58,17,13,13		8
34″	59,59,39,26,21,44,11,53,47,50		4,23, 9,51,56	
		1,43,59,35, 7,21,17		8
36″	59,59,39,28, 5,43,47, 1, 9, 7		4,23, 9,52, 4	
		1,43,55,11,57,29,13		8
38″	59,59,39,29,49,38,58,58,38,20		4,23, 9,52,12	
		1,43,50,48,47,37, 1		8
40″	59,59,39,31,33,29,47,46,15,21		4,23, 9,52,20	
		1,43,46,25,37,44,41		8
42″	59,59,39,33,17,16,13,24, 0, 2		4,23, 9,52,28	
		1,43,42, 2,27,52,13		8
44″	59,59,39,35, 0,58,15,51,52,15		4,23, 9,52,36	
		1,43,37,39,17,59,37		8
46″	59,59,39,36,44,35,55, 9,51,52		4,23, 9,52,44	
		1,43,33,16, 8, 6,53		8
48″	59,59,39,38,28, 9,11,17,58,45		4,23, 9,52,52	
		1,43,28,52,58,14, 1		8
50″	59,59,39,40,11,38, 4,16,12,46		4,23, 9,53, 0	
		1,43,24,29,48,21, 1		8
52″	59,59,39,41,55, 2,34, 4,33,47		4,23, 9,53, 8	
		1,43,20, 6,38,27,53		8
54″	59,59,39,43,38,22,40,43, 1,40		4,23, 9,53,16	
		1,43,15,43,28,34,37		8
56″	59,59,39,45,21,38,24,11,36,17		4,23, 9,53,24	
		1,43,11,20,18,41,13		8
58″	59,59,39,47, 4,49,44,30,17,30		4,23, 9,53,32	
		1,43, 6,57, 8,47,41		
60″	59,59,39,48,47,56,41,39, 5,11			
exact	59,59,39,48,47,56,41,39,31,35			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°13′ 0″	59,59,39,48,47,56,41,39,31,35			
		1,43, 2,33,58,56,50		
2″	59,59,39,50,30,59,15,38,28,25		4,23, 9,53,36	
		1,42,58,10,49, 3,14		8
4″	59,59,39,52,13,57,26,27,31,39		4,23, 9,53,44	
		1,42,53,47,39, 9,30		8
6″	59,59,39,53,56,51,14, 6,41, 9		4,23, 9,53,52	
		1,42,49,24,29,15,38		8
8″	59,59,39,55,39,40,38,35,56,47		4,23, 9,54, 0	
		1,42,45, 1,19,21,38		8
10″	59,59,39,57,22,25,39,55,18,25		4,23, 9,54, 8	
		1,42,40,38, 9,27,30		8
12″	59,59,39,59, 5, 6,18, 4,45,55		4,23, 9,54,16	
		1,42,36,14,59,33,14		8
14″	59,59,40, 0,47,42,33, 4,19, 9		4,23, 9,54,24	
		1,42,31,51,49,38,50		8
16″	59,59,40, 2,30,14,24,53,57,59		4,23, 9,54,32	
		1,42,27,28,39,44,18		8
18″	59,59,40, 4,12,41,53,33,42,17		4,23, 9,54,40	
		1,42,23, 5,29,49,38		8
20″	59,59,40, 5,55, 4,59, 3,31,55		4,23, 9,54,48	
		1,42,18,42,19,54,50		8
22″	59,59,40, 7,37,23,41,23,26,45		4,23, 9,54,56	
		1,42,14,19, 9,59,54		8
24″	59,59,40, 9,19,38, 0,33,26,39		4,23, 9,55, 4	
		1,42, 9,56, 0, 4,50		8
26″	59,59,40,11, 1,47,56,33,31,29		4,23, 9,55,12	
		1,42, 5,32,50, 9,38		8
28″	59,59,40,12,43,53,29,23,41, 7		4,23, 9,55,20	
		1,42, 1, 9,40,14,18		8
30″	59,59,40,14,25,54,39, 3,55,25		4,23, 9,55,28	
		1,41,56,46,30,18,50		8
32″	59,59,40,16, 7,51,25,34,14,15		4,23, 9,55,36	
		1,41,52,23,20,23,14		8
34″	59,59,40,17,49,43,48,54,37,29		4,23, 9,55,44	
		1,41,48, 0,10,27,30		8
36″	59,59,40,19,31,31,49, 5, 4,59		4,23, 9,55,52	
		1,41,43,37, 0,31,38		8
38″	59,59,40,21,13,15,26, 5,36,37		4,23, 9,56, 0	
		1,41,39,13,50,35,38		8
40″	59,59,40,22,54,54,39,56,12,15		4,23, 9,56, 8	
		1,41,34,50,40,39,30		8
42″	59,59,40,24,36,29,30,36,51,45		4,23, 9,56,16	
		1,41,30,27,30,43,14		8
44″	59,59,40,26,17,59,58, 7,34,59		4,23, 9,56,24	
		1,41,26, 4,20,46,50		8
46″	59,59,40,27,59,26, 2,28,21,49		4,23, 9,56,32	
		1,41,21,41,10,50,18		8
48″	59,59,40,29,40,47,43,39,12, 7		4,23, 9,56,40	
		1,41,17,18, 0,53,38		8
50″	59,59,40,31,22, 5, 1,40, 5,45		4,23, 9,56,48	
		1,41,12,54,50,56,50		8
52″	59,59,40,33, 3,17,56,31, 2,35		4,23, 9,56,56	
		1,41, 8,31,40,59,54		8
54″	59,59,40,34,44,26,28,12, 2,29		4,23, 9,57, 4	
		1,41, 4, 8,31, 2,50		8
56″	59,59,40,36,25,30,36,43, 5,19		4,23, 9,57,12	
		1,40,59,45,21, 5,38		8
58″	59,59,40,38, 6,30,22, 4,10,57		4,23, 9,57,20	
		1,40,55,22,11, 8,18		
60″	59,59,40,39,47,25,44,15,19,15			
exact	59,59,40,39,47,25,44,15,53,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°14′ 0″	59,59,40,39,47,25,44,15,53,44			
		1,40,50,59, 1,14,38		
2″	59,59,40,41,28,16,43,17, 8,22		4,23, 9,57,19	
		1,40,46,35,51,17,19		7
4″	59,59,40,43, 9, 3,19, 8,25,41		4,23, 9,57,26	
		1,40,42,12,41,19,53		7
6″	59,59,40,44,49,45,31,49,45,34		4,23, 9,57,33	
		1,40,37,49,31,22,20		7
8″	59,59,40,46,30,23,21,21, 7,54		4,23, 9,57,40	
		1,40,33,26,21,24,40		7
10″	59,59,40,48,10,56,47,42,32,34		4,23, 9,57,47	
		1,40,29, 3,11,26,53		7
12″	59,59,40,49,51,25,50,53,59,27		4,23, 9,57,54	
		1,40,24,40, 1,28,59		7
14″	59,59,40,51,31,50,30,55,28,26		4,23, 9,58, 1	
		1,40,20,16,51,30,58		7
16″	59,59,40,53,12,10,47,46,59,24		4,23, 9,58, 8	
		1,40,15,53,41,32,50		7
18″	59,59,40,54,52,26,41,28,32,14		4,23, 9,58,15	
		1,40,11,30,31,34,35		7
20″	59,59,40,56,32,38,12, 0, 6,49		4,23, 9,58,22	
		1,40, 7, 7,21,36,13		7
22″	59,59,40,58,12,45,19,21,43, 2		4,23, 9,58,29	
		1,40, 2,44,11,37,44		7
24″	59,59,40,59,52,48, 3,33,20,46		4,23, 9,58,36	
		1,39,58,21, 1,39, 8		7
26″	59,59,41, 1,32,46,24,34,59,54		4,23, 9,58,43	
		1,39,53,57,51,40,25		7
28″	59,59,41, 3,12,40,22,26,40,19		4,23, 9,58,50	
		1,39,49,34,41,41,35		7
30″	59,59,41, 4,52,29,57, 8,21,54		4,23, 9,58,57	
		1,39,45,11,31,42,38		7
32″	59,59,41, 6,32,15, 8,40, 4,32		4,23, 9,59, 4	
		1,39,40,48,21,43,34		7
34″	59,59,41, 8,11,55,57, 1,48, 6		4,23, 9,59,11	
		1,39,36,25,11,44,23		7
36″	59,59,41, 9,51,32,22,13,32,29		4,23, 9,59,18	
		1,39,32, 2, 1,45, 5		7
38″	59,59,41,11,31, 4,24,15,17,34		4,23, 9,59,25	
		1,39,27,38,51,45,40		7
40″	59,59,41,13,10,32, 3, 7, 3,14		4,23, 9,59,32	
		1,39,23,15,41,46, 8		7
42″	59,59,41,14,49,55,18,48,49,22		4,23, 9,59,39	
		1,39,18,52,31,46,29		7
44″	59,59,41,16,29,14,11,20,35,51		4,23, 9,59,46	
		1,39,14,29,21,46,43		7
46″	59,59,41,18, 8,28,40,42,22,34		4,23, 9,59,53	
		1,39,10, 6,11,46,50		7
48″	59,59,41,19,47,38,46,54, 9,24		4,23,10, 0, 0	
		1,39, 5,43, 1,46,50		7
50″	59,59,41,21,26,44,29,55,56,14		4,23,10, 0, 7	
		1,39, 1,19,51,46,43		7
52″	59,59,41,23, 5,45,49,47,42,57		4,23,10, 0,14	
		1,38,56,56,41,46,29		7
54″	59,59,41,24,44,42,46,29,29,26		4,23,10, 0,21	
		1,38,52,33,31,46, 8		7
56″	59,59,41,26,23,35,20, 1,15,34		4,23,10, 0,28	
		1,38,48,10,21,45,40		7
58″	59,59,41,28, 2,23,30,23, 1,14		4,23,10, 0,35	
		1,38,43,47,11,45, 5		
60″	59,59,41,29,41, 7,17,34,46,19			
exact	59,59,41,29,41, 7,17,34,20,22			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°15′ 0″	59,59,41,29,41, 7,17,34,20,22			
		1,38,39,24, 1,41,50		
2″	59,59,41,31,19,46,41,36, 2,12		4,23,10, 0,58	
		1,38,35, 0,51,40,52		7
4″	59,59,41,32,58,21,42,27,43, 4		4,23,10, 1, 5	
		1,38,30,37,41,39,47		7
6″	59,59,41,34,36,52,20, 9,22,51		4,23,10, 1,12	
		1,38,26,14,31,38,35		7
8″	59,59,41,36,15,18,34,41, 1,26		4,23,10, 1,19	
		1,38,21,51,21,37,16		7
10″	59,59,41,37,53,40,26, 2,38,42		4,23,10, 1,26	
		1,38,17,28,11,35,50		7
12″	59,59,41,39,31,57,54,14,14,32		4,23,10, 1,33	
		1,38,13, 5, 1,34,17		7
14″	59,59,41,41,10,10,59,15,48,49		4,23,10, 1,40	
		1,38, 8,41,51,32,37		7
16″	59,59,41,42,48,19,41, 7,21,26		4,23,10, 1,47	
		1,38, 4,18,41,30,50		7
18″	59,59,41,44,26,23,59,48,52,16		4,23,10, 1,54	
		1,37,59,55,31,28,56		7
20″	59,59,41,46, 4,23,55,20,21,12		4,23,10, 2, 1	
		1,37,55,32,21,26,55		7
22″	59,59,41,47,42,19,27,41,48, 7		4,23,10, 2, 8	
		1,37,51, 9,11,24,47		7
24″	59,59,41,49,20,10,36,53,12,54		4,23,10, 2,15	
		1,37,46,46, 1,22,32		7
26″	59,59,41,50,57,57,22,54,35,26		4,23,10, 2,22	
		1,37,42,22,51,20,10		7
28″	59,59,41,52,35,39,45,45,55,36		4,23,10, 2,29	
		1,37,37,59,41,17,41		7
30″	59,59,41,54,13,17,45,27,13,17		4,23,10, 2,36	
		1,37,33,36,31,15, 5		7
32″	59,59,41,55,50,51,21,58,28,22		4,23,10, 2,43	
		1,37,29,13,21,12,22		7
34″	59,59,41,57,28,20,35,19,40,44		4,23,10, 2,50	
		1,37,24,50,11, 9,32		7
36″	59,59,41,59, 5,45,25,30,50,16		4,23,10, 2,57	
		1,37,20,27, 1, 6,35		7
38″	59,59,42, 0,43, 5,52,31,56,51		4,23,10, 3, 4	
		1,37,16, 3,51, 3,31		7
40″	59,59,42, 2,20,21,56,23, 0,22		4,23,10, 3,11	
		1,37,11,40,41, 0,20		7
42″	59,59,42, 3,57,33,37, 4, 0,42		4,23,10, 3,18	
		1,37, 7,17,30,57, 2		7
44″	59,59,42, 5,34,40,54,34,57,44		4,23,10, 3,25	
		1,37, 2,54,20,53,37		7
46″	59,59,42, 7,11,43,48,55,51,21		4,23,10, 3,32	
		1,36,58,31,10,50, 5		7
48″	59,59,42, 8,48,42,20, 6,41,26		4,23,10, 3,39	
		1,36,54, 8, 0,46,26		7
50″	59,59,42,10,25,36,28, 7,27,52		4,23,10, 3,46	
		1,36,49,44,50,42,40		7
52″	59,59,42,12, 2,26,12,58,10,32		4,23,10, 3,53	
		1,36,45,21,40,38,47		7
54″	59,59,42,13,39,11,34,38,49,19		4,23,10, 4, 0	
		1,36,40,58,30,34,47		7
56″	59,59,42,15,15,52,33, 9,24, 6		4,23,10, 4, 7	
		1,36,36,35,20,30,40		7
58″	59,59,42,16,52,29, 8,29,54,46		4,23,10, 4,14	
		1,36,32,12,10,26,26		
60″	59,59,42,18,29, 1,20,40,21,12			
exact	59,59,42,18,29, 1,20,40, 8,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°16′ 0″	59,59,42,18,29, 1,20,40, 8,33			
		1,36,27,49, 0,20,52		
2″	59,59,42,20, 5,29, 9,40,29,25		4,23,10, 4,32	
		1,36,23,25,50,16,20		7
4″	59,59,42,21,41,52,35,30,45,45		4,23,10, 4,39	
		1,36,19, 2,40,11,41		7
6″	59,59,42,23,18,11,38,10,57,26		4,23,10, 4,46	
		1,36,14,39,30, 6,55		7
8″	59,59,42,24,54,26,17,41, 4,21		4,23,10, 4,53	
		1,36,10,16,20, 2, 2		7
10″	59,59,42,26,30,36,34, 1, 6,23		4,23,10, 5, 0	
		1,36, 5,53, 9,57, 2		7
12″	59,59,42,28, 6,42,27,11, 3,25		4,23,10, 5, 7	
		1,36, 1,29,59,51,55		7
14″	59,59,42,29,42,43,57,10,55,20		4,23,10, 5,14	
		1,35,57, 6,49,46,41		7
16″	59,59,42,31,18,41, 4, 0,42, 1		4,23,10, 5,21	
		1,35,52,43,39,41,20		7
18″	59,59,42,32,54,33,47,40,23,21		4,23,10, 5,28	
		1,35,48,20,29,35,52		7
20″	59,59,42,34,30,22, 8, 9,59,13		4,23,10, 5,35	
		1,35,43,57,19,30,17		7
22″	59,59,42,36, 6, 6, 5,29,29,30		4,23,10, 5,42	
		1,35,39,34, 9,24,35		7
24″	59,59,42,37,41,45,39,38,54, 5		4,23,10, 5,49	
		1,35,35,10,59,18,46		7
26″	59,59,42,39,17,20,50,38,12,51		4,23,10, 5,56	
		1,35,30,47,49,12,50		7
28″	59,59,42,40,52,51,38,27,25,41		4,23,10, 6, 3	
		1,35,26,24,39, 6,47		7
30″	59,59,42,42,28,18, 3, 6,32,28		4,23,10, 6,10	
		1,35,22, 1,29, 0,37		7
32″	59,59,42,44, 3,40, 4,35,33, 5		4,23,10, 6,17	
		1,35,17,38,18,54,20		7
34″	59,59,42,45,38,57,42,54,27,25		4,23,10, 6,24	
		1,35,13,15, 8,47,56		7
36″	59,59,42,47,14,10,58, 3,15,21		4,23,10, 6,31	
		1,35, 8,51,58,41,25		7
38″	59,59,42,48,49,19,50, 1,56,46		4,23,10, 6,38	
		1,35, 4,28,48,34,47		7
40″	59,59,42,50,24,24,18,50,31,33		4,23,10, 6,45	
		1,35, 0, 5,38,28, 2		7
42″	59,59,42,51,59,24,24,28,59,35		4,23,10, 6,52	
		1,34,55,42,28,21,10		7
44″	59,59,42,53,34,20, 6,57,20,45		4,23,10, 6,59	
		1,34,51,19,18,14,11		7
46″	59,59,42,55, 9,11,26,15,34,56		4,23,10, 7, 6	
		1,34,46,56, 8, 7, 5		7
48″	59,59,42,56,43,58,22,23,42, 1		4,23,10, 7,13	
		1,34,42,32,57,59,52		7
50″	59,59,42,58,18,40,55,21,41,53		4,23,10, 7,20	
		1,34,38, 9,47,52,32		7
52″	59,59,42,59,53,19, 5, 9,34,25		4,23,10, 7,27	
		1,34,33,46,37,45, 5		7
54″	59,59,43, 1,27,52,51,47,19,30		4,23,10, 7,34	
		1,34,29,23,27,37,31		7
56″	59,59,43, 3, 2,22,15,14,57, 1		4,23,10, 7,41	
		1,34,25, 0,17,29,50		7
58″	59,59,43, 4,36,47,15,32,26,51		4,23,10, 7,48	
		1,34,20,37, 7,22, 2		
60″	59,59,43, 6,11, 7,52,39,48,53			
exact	59,59,43, 6,11, 7,52,39,47,27			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°17′ 0″	59,59,43, 6,11, 7,52,39,47,27			
		1,34,16,13,57,14, 6		
2″	59,59,43, 7,45,24, 6,37, 1,33		4,23,10, 8, 1	
		1,34,11,50,47, 6, 5		7
4″	59,59,43, 9,19,35,57,24, 7,38		4,23,10, 8, 8	
		1,34, 7,27,36,57,57		7
6″	59,59,43,10,53,43,25, 1, 5,35		4,23,10, 8,15	
		1,34, 3, 4,26,49,42		7
8″	59,59,43,12,27,46,29,27,55,17		4,23,10, 8,22	
		1,33,58,41,16,41,20		7
10″	59,59,43,14, 1,45,10,44,36,37		4,23,10, 8,29	
		1,33,54,18, 6,32,51		7
12″	59,59,43,15,35,39,28,51, 9,28		4,23,10, 8,36	
		1,33,49,54,56,24,15		7
14″	59,59,43,17, 9,29,23,47,33,43		4,23,10, 8,43	
		1,33,45,31,46,15,32		7
16″	59,59,43,18,43,14,55,33,49,15		4,23,10, 8,50	
		1,33,41, 8,36, 6,42		7
18″	59,59,43,20,16,56, 4, 9,55,57		4,23,10, 8,57	
		1,33,36,45,25,57,45		7
20″	59,59,43,21,50,32,49,35,53,42		4,23,10, 9, 4	
		1,33,32,22,15,48,41		7
22″	59,59,43,23,24, 5,11,51,42,23		4,23,10, 9,11	
		1,33,27,59, 5,39,30		7
24″	59,59,43,24,57,33,10,57,21,53		4,23,10, 9,18	
		1,33,23,35,55,30,12		7
26″	59,59,43,26,30,56,46,52,52, 5		4,23,10, 9,25	
		1,33,19,12,45,20,47		7
28″	59,59,43,28, 4,15,59,38,12,52		4,23,10, 9,32	
		1,33,14,49,35,11,15		7
30″	59,59,43,29,37,30,49,13,24, 7		4,23,10, 9,39	
		1,33,10,26,25, 1,36		7
32″	59,59,43,31,10,41,15,38,25,43		4,23,10, 9,46	
		1,33, 6, 3,14,51,50		7
34″	59,59,43,32,43,47,18,53,17,33		4,23,10, 9,53	
		1,33, 1,40, 4,41,57		7
36″	59,59,43,34,16,48,58,57,59,30		4,23,10,10, 0	
		1,32,57,16,54,31,57		7
38″	59,59,43,35,49,46,15,52,31,27		4,23,10,10, 7	
		1,32,52,53,44,21,50		7
40″	59,59,43,37,22,39, 9,36,53,17		4,23,10,10,14	
		1,32,48,30,34,11,36		7
42″	59,59,43,38,55,27,40,11, 4,53		4,23,10,10,21	
		1,32,44, 7,24, 1,15		7
44″	59,59,43,40,28,11,47,35, 6, 8		4,23,10,10,28	
		1,32,39,44,13,50,47		7
46″	59,59,43,42, 0,51,31,48,56,55		4,23,10,10,35	
		1,32,35,21, 3,40,12		7
48″	59,59,43,43,33,26,52,52,37, 7		4,23,10,10,42	
		1,32,30,57,53,29,30		7
50″	59,59,43,45, 5,57,50,46, 6,37		4,23,10,10,49	
		1,32,26,34,43,18,41		7
52″	59,59,43,46,38,24,25,29,25,18		4,23,10,10,56	
		1,32,22,11,33, 7,45		7
54″	59,59,43,48,10,46,37, 2,33, 3		4,23,10,11, 3	
		1,32,17,48,22,56,42		7
56″	59,59,43,49,43, 4,25,25,29,45		4,23,10,11,10	
		1,32,13,25,12,45,32		7
58″	59,59,43,51,15,17,50,38,15,17		4,23,10,11,17	
		1,32, 9, 2, 2,34,15		
60″	59,59,43,52,47,26,52,40,49,32			
exact	59,59,43,52,47,26,52,40,58,25			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°18′ 0″	59,59,43,52,47,26,52,40,58,25			
		1,32, 4,38,52,23,57		
2″	59,59,43,54,19,31,31,33,22,22		4,23,10,11,25	
		1,32, 0,15,42,12,32		7
4″	59,59,43,55,51,31,47,15,34,54		4,23,10,11,32	
		1,31,55,52,32, 1, 0		7
6″	59,59,43,57,23,27,39,47,35,54		4,23,10,11,39	
		1,31,51,29,21,49,21		7
8″	59,59,43,58,55,19, 9, 9,25,15		4,23,10,11,46	
		1,31,47, 6,11,37,35		7
10″	59,59,44, 0,27, 6,15,21, 2,50		4,23,10,11,53	
		1,31,42,43, 1,25,42		7
12″	59,59,44, 1,58,48,58,22,28,32		4,23,10,12, 0	
		1,31,38,19,51,13,42		7
14″	59,59,44, 3,30,27,18,13,42,14		4,23,10,12, 7	
		1,31,33,56,41, 1,35		7
16″	59,59,44, 5, 2, 1,14,54,43,49		4,23,10,12,14	
		1,31,29,33,30,49,21		7
18″	59,59,44, 6,33,30,48,25,33,10		4,23,10,12,21	
		1,31,25,10,20,37, 0		7
20″	59,59,44, 8, 4,55,58,46,10,10		4,23,10,12,28	
		1,31,20,47,10,24,32		7
22″	59,59,44, 9,36,16,45,56,34,42		4,23,10,12,35	
		1,31,16,24, 0,11,57		7
24″	59,59,44,11, 7,33, 9,56,46,39		4,23,10,12,42	
		1,31,12, 0,49,59,15		7
26″	59,59,44,12,38,45,10,46,45,54		4,23,10,12,49	
		1,31, 7,37,39,46,26		7
28″	59,59,44,14, 9,52,48,26,32,20		4,23,10,12,56	
		1,31, 3,14,29,33,30		7
30″	59,59,44,15,40,56, 2,56, 5,50		4,23,10,13, 3	
		1,30,58,51,19,20,27		7
32″	59,59,44,17,11,54,54,15,26,17		4,23,10,13,10	
		1,30,54,28, 9, 7,17		7
34″	59,59,44,18,42,49,22,24,33,34		4,23,10,13,17	
		1,30,50, 4,58,54, 0		7
36″	59,59,44,20,13,39,27,23,27,34		4,23,10,13,24	
		1,30,45,41,48,40,36		7
38″	59,59,44,21,44,25, 9,12, 8,10		4,23,10,13,31	
		1,30,41,18,38,27, 5		7
40″	59,59,44,23,15, 6,27,50,35,15		4,23,10,13,38	
		1,30,36,55,28,13,27		7
42″	59,59,44,24,45,43,23,18,48,42		4,23,10,13,45	
		1,30,32,32,17,59,42		7
44″	59,59,44,26,16,15,55,36,48,24		4,23,10,13,52	
		1,30,28, 9, 7,45,50		7
46″	59,59,44,27,46,44, 4,44,34,14		4,23,10,13,59	
		1,30,23,45,57,31,51		7
48″	59,59,44,29,17, 7,50,42, 6, 5		4,23,10,14, 6	
		1,30,19,22,47,17,45		7
50″	59,59,44,30,47,27,13,29,23,50		4,23,10,14,13	
		1,30,14,59,37, 3,32		7
52″	59,59,44,32,17,42,13, 6,27,22		4,23,10,14,20	
		1,30,10,36,26,49,12		7
54″	59,59,44,33,47,52,49,33,16,34		4,23,10,14,27	
		1,30, 6,13,16,34,45		7
56″	59,59,44,35,17,59, 2,49,51,19		4,23,10,14,34	
		1,30, 1,50, 6,20,11		7
58″	59,59,44,36,48, 0,52,56,11,30		4,23,10,14,41	
		1,29,57,26,56, 5,30		
60″	59,59,44,38,17,58,19,52,17, 0			
exact	59,59,44,38,17,58,19,52,34,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°19′ 0″	59,59,44,38,17,58,19,52,34,58			
		1,29,53, 3,45,52,50		
2″	59,59,44,39,47,51,23,38,27,48		4,23,10,14,45	
		1,29,48,40,35,38, 5		7
4″	59,59,44,41,17,40, 4,14, 5,53		4,23,10,14,52	
		1,29,44,17,25,23,13		7
6″	59,59,44,42,47,24,21,39,29, 6		4,23,10,14,59	
		1,29,39,54,15, 8,14		7
8″	59,59,44,44,17, 4,15,54,37,20		4,23,10,15, 6	
		1,29,35,31, 4,53, 8		7
10″	59,59,44,45,46,39,46,59,30,28		4,23,10,15,13	
		1,29,31, 7,54,37,55		7
12″	59,59,44,47,16,10,54,54, 8,23		4,23,10,15,20	
		1,29,26,44,44,22,35		7
14″	59,59,44,48,45,37,39,38,30,58		4,23,10,15,27	
		1,29,22,21,34, 7, 8		7
16″	59,59,44,50,15, 0, 1,12,38, 6		4,23,10,15,34	
		1,29,17,58,23,51,34		7
18″	59,59,44,51,44,17,59,36,29,40		4,23,10,15,41	
		1,29,13,35,13,35,53		7
20″	59,59,44,53,13,31,34,50, 5,33		4,23,10,15,48	
		1,29, 9,12, 3,20, 5		7
22″	59,59,44,54,42,40,46,53,25,38		4,23,10,15,55	
		1,29, 4,48,53, 4,10		7
24″	59,59,44,56,11,45,35,46,29,48		4,23,10,16, 2	
		1,29, 0,25,42,48, 8		7
26″	59,59,44,57,40,46, 1,29,17,56		4,23,10,16, 9	
		1,28,56, 2,32,31,59		7
28″	59,59,44,59, 9,42, 4, 1,49,55		4,23,10,16,16	
		1,28,51,39,22,15,43		7
30″	59,59,45, 0,38,33,43,24, 5,38		4,23,10,16,23	
		1,28,47,16,11,59,20		7
32″	59,59,45, 2, 7,20,59,36, 4,58		4,23,10,16,30	
		1,28,42,53, 1,42,50		7
34″	59,59,45, 3,36, 3,52,37,47,48		4,23,10,16,37	
		1,28,38,29,51,26,13		7
36″	59,59,45, 5, 4,42,22,29,14, 1		4,23,10,16,44	
		1,28,34, 6,41, 9,29		7
38″	59,59,45, 6,33,16,29,10,23,30		4,23,10,16,51	
		1,28,29,43,30,52,38		7
40″	59,59,45, 8, 1,46,12,41,16, 8		4,23,10,16,58	
		1,28,25,20,20,35,40		7
42″	59,59,45, 9,30,11,33, 1,51,48		4,23,10,17, 5	
		1,28,20,57,10,18,35		7
44″	59,59,45,10,58,32,30,12,10,23		4,23,10,17,12	
		1,28,16,34, 0, 1,23		7
46″	59,59,45,12,26,49, 4,12,11,46		4,23,10,17,19	
		1,28,12,10,49,44, 4		7
48″	59,59,45,13,55, 1,15, 1,55,50		4,23,10,17,26	
		1,28, 7,47,39,26,38		7
50″	59,59,45,15,23, 9, 2,41,22,28		4,23,10,17,33	
		1,28, 3,24,29, 9, 5		7
52″	59,59,45,16,51,12,27,10,31,33		4,23,10,17,40	
		1,27,59, 1,18,51,25		7
54″	59,59,45,18,19,11,28,29,22,58		4,23,10,17,47	
		1,27,54,38, 8,33,38		7
56″	59,59,45,19,47, 6, 6,37,56,36		4,23,10,17,54	
		1,27,50,14,58,15,44		7
58″	59,59,45,21,14,56,21,36,12,20		4,23,10,18, 1	
		1,27,45,51,47,57,43		
60″	59,59,45,22,42,42,13,24,10, 3			
exact	59,59,45,22,42,42,13,24,42,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°20′ 0″	59,59,45,22,42,42,13,24,42,45			
		1,27,41,28,37,43, 9		
2″	59,59,45,24,10,23,42, 2,25,54		4,23,10,18, 0	
		1,27,37, 5,27,25, 9		6
4″	59,59,45,25,38, 0,47,29,51, 3		4,23,10,18, 6	
		1,27,32,42,17, 7, 3		6
6″	59,59,45,27, 5,33,29,46,58, 6		4,23,10,18,12	
		1,27,28,19, 6,48,51		6
8″	59,59,45,28,33, 1,48,53,46,57		4,23,10,18,18	
		1,27,23,55,56,30,33		6
10″	59,59,45,30, 0,25,44,50,17,30		4,23,10,18,24	
		1,27,19,32,46,12, 9		6
12″	59,59,45,31,27,45,17,36,29,39		4,23,10,18,30	
		1,27,15, 9,35,53,39		6
14″	59,59,45,32,55, 0,27,12,23,18		4,23,10,18,36	
		1,27,10,46,25,35, 3		6
16″	59,59,45,34,22,11,13,37,58,21		4,23,10,18,42	
		1,27, 6,23,15,16,21		6
18″	59,59,45,35,49,17,36,53,14,42		4,23,10,18,48	
		1,27, 2, 0, 4,57,33		6
20″	59,59,45,37,16,19,36,58,12,15		4,23,10,18,54	
		1,26,57,36,54,38,39		6
22″	59,59,45,38,43,17,13,52,50,54		4,23,10,19, 0	
		1,26,53,13,44,19,39		6
24″	59,59,45,40,10,10,27,37,10,33		4,23,10,19, 6	
		1,26,48,50,34, 0,33		6
26″	59,59,45,41,36,59,18,11,11, 6		4,23,10,19,12	
		1,26,44,27,23,41,21		6
28″	59,59,45,43, 3,43,45,34,52,27		4,23,10,19,18	
		1,26,40, 4,13,22, 3		6
30″	59,59,45,44,30,23,49,48,14,30		4,23,10,19,24	
		1,26,35,41, 3, 2,39		6
32″	59,59,45,45,56,59,30,51,17, 9		4,23,10,19,30	
		1,26,31,17,52,43, 9		6
34″	59,59,45,47,23,30,48,44, 0,18		4,23,10,19,36	
		1,26,26,54,42,23,33		6
36″	59,59,45,48,49,57,43,26,23,51		4,23,10,19,42	
		1,26,22,31,32, 3,51		6
38″	59,59,45,50,16,20,14,58,27,42		4,23,10,19,48	
		1,26,18, 8,21,44, 3		6
40″	59,59,45,51,42,38,23,20,11,45		4,23,10,19,54	
		1,26,13,45,11,24, 9		6
42″	59,59,45,53, 8,52, 8,31,35,54		4,23,10,20, 0	
		1,26, 9,22, 1, 4, 9		6
44″	59,59,45,54,35, 1,30,32,40, 3		4,23,10,20, 6	
		1,26, 4,58,50,44, 3		6
46″	59,59,45,56, 1, 6,29,23,24, 6		4,23,10,20,12	
		1,26, 0,35,40,23,51		6
48″	59,59,45,57,27, 7, 5, 3,47,57		4,23,10,20,18	
		1,25,56,12,30, 3,33		6
50″	59,59,45,58,53, 3,17,33,51,30		4,23,10,20,24	
		1,25,51,49,19,43, 9		6
52″	59,59,46, 0,18,55, 6,53,34,39		4,23,10,20,30	
		1,25,47,26, 9,22,39		6
54″	59,59,46, 1,44,42,33, 2,57,18		4,23,10,20,36	
		1,25,43, 2,59, 2, 3		6
56″	59,59,46, 3,10,25,36, 1,59,21		4,23,10,20,42	
		1,25,38,39,48,41,21		6
58″	59,59,46, 4,36, 4,15,50,40,42		4,23,10,20,48	
		1,25,34,16,38,20,33		
60″	59,59,46, 6, 1,38,32,29, 1,15			
exact	59,59,46, 6, 1,38,32,28,39,32			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°21′ 0″	59,59,46, 6, 1,38,32,28,39,32			
		1,25,29,53,27,57,18		
2″	59,59,46, 7,27, 8,25,56,36,50		4,23,10,21, 9	
		1,25,25,30,17,36, 9		6
4″	59,59,46, 8,52,33,56,14,12,59		4,23,10,21,15	
		1,25,21, 7, 7,14,54		6
6″	59,59,46,10,17,55, 3,21,27,53		4,23,10,21,21	
		1,25,16,43,56,53,33		6
8″	59,59,46,11,43,11,47,18,21,26		4,23,10,21,27	
		1,25,12,20,46,32, 6		6
10″	59,59,46,13, 8,24, 8, 4,53,32		4,23,10,21,33	
		1,25, 7,57,36,10,33		6
12″	59,59,46,14,33,32, 5,41, 4, 5		4,23,10,21,39	
		1,25, 3,34,25,48,54		6
14″	59,59,46,15,58,35,40, 6,52,59		4,23,10,21,45	
		1,24,59,11,15,27, 9		6
16″	59,59,46,17,23,34,51,22,20, 8		4,23,10,21,51	
		1,24,54,48, 5, 5,18		6
18″	59,59,46,18,48,29,39,27,25,26		4,23,10,21,57	
		1,24,50,24,54,43,21		6
20″	59,59,46,20,13,20, 4,22, 8,47		4,23,10,22, 3	
		1,24,46, 1,44,21,18		6
22″	59,59,46,21,38, 6, 6, 6,30, 5		4,23,10,22, 9	
		1,24,41,38,33,59, 9		6
24″	59,59,46,23, 2,47,44,40,29,14		4,23,10,22,15	
		1,24,37,15,23,36,54		6
26″	59,59,46,24,27,25, 0, 4, 6, 8		4,23,10,22,21	
		1,24,32,52,13,14,33		6
28″	59,59,46,25,51,57,52,17,20,41		4,23,10,22,27	
		1,24,28,29, 2,52, 6		6
30″	59,59,46,27,16,26,21,20,12,47		4,23,10,22,33	
		1,24,24, 5,52,29,33		6
32″	59,59,46,28,40,50,27,12,42,20		4,23,10,22,39	
		1,24,19,42,42, 6,54		6
34″	59,59,46,30, 5,10, 9,54,49,14		4,23,10,22,45	
		1,24,15,19,31,44, 9		6
36″	59,59,46,31,29,25,29,26,33,23		4,23,10,22,51	
		1,24,10,56,21,21,18		6
38″	59,59,46,32,53,36,25,47,54,41		4,23,10,22,57	
		1,24, 6,33,10,58,21		6
40″	59,59,46,34,17,42,58,58,53, 2		4,23,10,23, 3	
		1,24, 2,10, 0,35,18		6
42″	59,59,46,35,41,45, 8,59,28,20		4,23,10,23, 9	
		1,23,57,46,50,12, 9		6
44″	59,59,46,37, 5,42,55,49,40,29		4,23,10,23,15	
		1,23,53,23,39,48,54		6
46″	59,59,46,38,29,36,19,29,29,23		4,23,10,23,21	
		1,23,49, 0,29,25,33		6
48″	59,59,46,39,53,25,19,58,54,56		4,23,10,23,27	
		1,23,44,37,19, 2, 6		6
50″	59,59,46,41,17, 9,57,17,57, 2		4,23,10,23,33	
		1,23,40,14, 8,38,33		6
52″	59,59,46,42,40,50,11,26,35,35		4,23,10,23,39	
		1,23,35,50,58,14,54		6
54″	59,59,46,44, 4,26, 2,24,50,29		4,23,10,23,45	
		1,23,31,27,47,51, 9		6
56″	59,59,46,45,27,57,30,12,41,38		4,23,10,23,51	
		1,23,27, 4,37,27,18		6
58″	59,59,46,46,51,24,34,50, 8,56		4,23,10,23,57	
		1,23,22,41,27, 3,21		
60″	59,59,46,48,14,47,16,17,12,17			
exact	59,59,46,48,14,47,16,16,55,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°22′ 0″	59,59,46,48,14,47,16,16,55,16			
		1,23,18,18,16,37,41		
2″	59,59,46,49,38, 5,34,33,32,57		4,23,10,24,14	
		1,23,13,55, 6,13,27		6
4″	59,59,46,51, 1,19,29,39,46,24		4,23,10,24,20	
		1,23, 9,31,55,49, 7		6
6″	59,59,46,52,24,29, 1,35,35,31		4,23,10,24,26	
		1,23, 5, 8,45,24,41		6
8″	59,59,46,53,47,34,10,21, 0,12		4,23,10,24,32	
		1,23, 0,45,35, 0, 9		6
10″	59,59,46,55,10,34,55,56, 0,21		4,23,10,24,38	
		1,22,56,22,24,35,31		6
12″	59,59,46,56,33,31,18,20,35,52		4,23,10,24,44	
		1,22,51,59,14,10,47		6
14″	59,59,46,57,56,23,17,34,46,39		4,23,10,24,50	
		1,22,47,36, 3,45,57		6
16″	59,59,46,59,19,10,53,38,32,36		4,23,10,24,56	
		1,22,43,12,53,21, 1		6
18″	59,59,47, 0,41,54, 6,31,53,37		4,23,10,25, 2	
		1,22,38,49,42,55,59		6
20″	59,59,47, 2, 4,32,56,14,49,36		4,23,10,25, 8	
		1,22,34,26,32,30,51		6
22″	59,59,47, 3,27, 7,22,47,20,27		4,23,10,25,14	
		1,22,30, 3,22, 5,37		6
24″	59,59,47, 4,49,37,26, 9,26, 4		4,23,10,25,20	
		1,22,25,40,11,40,17		6
26″	59,59,47, 6,12, 3, 6,21, 6,21		4,23,10,25,26	
		1,22,21,17, 1,14,51		6
28″	59,59,47, 7,34,24,23,22,21,12		4,23,10,25,32	
		1,22,16,53,50,49,19		6
30″	59,59,47, 8,56,41,17,13,10,31		4,23,10,25,38	
		1,22,12,30,40,23,41		6
32″	59,59,47,10,18,53,47,53,34,12		4,23,10,25,44	
		1,22, 8, 7,29,57,57		6
34″	59,59,47,11,41, 1,55,23,32, 9		4,23,10,25,50	
		1,22, 3,44,19,32, 7		6
36″	59,59,47,13, 3, 5,39,43, 4,16		4,23,10,25,56	
		1,21,59,21, 9, 6,11		6
38″	59,59,47,14,25, 5, 0,52,10,27		4,23,10,26, 2	
		1,21,54,57,58,40, 9		6
40″	59,59,47,15,46,59,58,50,50,36		4,23,10,26, 8	
		1,21,50,34,48,14, 1		6
42″	59,59,47,17, 8,50,33,39, 4,37		4,23,10,26,14	
		1,21,46,11,37,47,47		6
44″	59,59,47,18,30,36,45,16,52,24		4,23,10,26,20	
		1,21,41,48,27,21,27		6
46″	59,59,47,19,52,18,33,44,13,51		4,23,10,26,26	
		1,21,37,25,16,55, 1		6
48″	59,59,47,21,13,55,59, 1, 8,52		4,23,10,26,32	
		1,21,33, 2, 6,28,29		6
50″	59,59,47,22,35,29, 1, 7,37,21		4,23,10,26,38	
		1,21,28,38,56, 1,51		6
52″	59,59,47,23,56,57,40, 3,39,12		4,23,10,26,44	
		1,21,24,15,45,35, 7		6
54″	59,59,47,25,18,21,55,49,14,19		4,23,10,26,50	
		1,21,19,52,35, 8,17		6
56″	59,59,47,26,39,41,48,24,22,36		4,23,10,26,56	
		1,21,15,29,24,41,21		6
58″	59,59,47,28, 0,57,17,49, 3,57		4,23,10,27, 2	
		1,21,11, 6,14,14,19		
60″	59,59,47,29,22, 8,24, 3,18,16			
exact	59,59,47,29,22, 8,24, 3,12, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°23′ 0″	59,59,47,29,22, 8,24, 3,12, 4			
		1,21, 6,43, 3,46,43		
2″	59,59,47,30,43,15, 7, 6,58,47		4,23,10,27,15	
		1,21, 2,19,53,19,28		6
4″	59,59,47,32, 4,17,27, 0,18,15		4,23,10,27,21	
		1,20,57,56,42,52, 7		6
6″	59,59,47,33,25,15,23,43,10,22		4,23,10,27,27	
		1,20,53,33,32,24,40		6
8″	59,59,47,34,46, 8,57,15,35, 2		4,23,10,27,33	
		1,20,49,10,21,57, 7		6
10″	59,59,47,36, 6,58, 7,37,32, 9		4,23,10,27,39	
		1,20,44,47,11,29,28		6
12″	59,59,47,37,27,42,54,49, 1,37		4,23,10,27,45	
		1,20,40,24, 1, 1,43		6
14″	59,59,47,38,48,23,18,50, 3,20		4,23,10,27,51	
		1,20,36, 0,50,33,52		6
16″	59,59,47,40, 8,59,19,40,37,12		4,23,10,27,57	
		1,20,31,37,40, 5,55		6
18″	59,59,47,41,29,30,57,20,43, 7		4,23,10,28, 3	
		1,20,27,14,29,37,52		6
20″	59,59,47,42,49,58,11,50,20,59		4,23,10,28, 9	
		1,20,22,51,19, 9,43		6
22″	59,59,47,44,10,21, 3, 9,30,42		4,23,10,28,15	
		1,20,18,28, 8,41,28		6
24″	59,59,47,45,30,39,31,18,12,10		4,23,10,28,21	
		1,20,14, 4,58,13, 7		6
26″	59,59,47,46,50,53,36,16,25,17		4,23,10,28,27	
		1,20, 9,41,47,44,40		6
28″	59,59,47,48,11, 3,18, 4, 9,57		4,23,10,28,33	
		1,20, 5,18,37,16, 7		6
30″	59,59,47,49,31, 8,36,41,26, 4		4,23,10,28,39	
		1,20, 0,55,26,47,28		6
32″	59,59,47,50,51, 9,32, 8,13,32		4,23,10,28,45	
		1,19,56,32,16,18,43		6
34″	59,59,47,52,11, 6, 4,24,32,15		4,23,10,28,51	
		1,19,52, 9, 5,49,52		6
36″	59,59,47,53,30,58,13,30,22, 7		4,23,10,28,57	
		1,19,47,45,55,20,55		6
38″	59,59,47,54,50,45,59,25,43, 2		4,23,10,29, 3	
		1,19,43,22,44,51,52		6
40″	59,59,47,56,10,29,22,10,34,54		4,23,10,29, 9	
		1,19,38,59,34,22,43		6
42″	59,59,47,57,30, 8,21,44,57,37		4,23,10,29,15	
		1,19,34,36,23,53,28		6
44″	59,59,47,58,49,42,58, 8,51, 5		4,23,10,29,21	
		1,19,30,13,13,24, 7		6
46″	59,59,48, 0, 9,13,11,22,15,12		4,23,10,29,27	
		1,19,25,50, 2,54,40		6
48″	59,59,48, 1,28,39, 1,25, 9,52		4,23,10,29,33	
		1,19,21,26,52,25, 7		6
50″	59,59,48, 2,48, 0,28,17,34,59		4,23,10,29,39	
		1,19,17, 3,41,55,28		6
52″	59,59,48, 4, 7,17,31,59,30,27		4,23,10,29,45	
		1,19,12,40,31,25,43		6
54″	59,59,48, 5,26,30,12,30,56,10		4,23,10,29,51	
		1,19, 8,17,20,55,52		6
56″	59,59,48, 6,45,38,29,51,52, 2		4,23,10,29,57	
		1,19, 3,54,10,25,55		6
58″	59,59,48, 8, 4,42,24, 2,17,57		4,23,10,30, 3	
		1,18,59,30,59,55,52		
60″	59,59,48, 9,23,41,55, 2,13,49			
exact	59,59,48, 9,23,41,55, 2,24, 9			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°24′ 0″	59,59,48, 9,23,41,55, 2,24, 9			
		1,18,55, 7,49,26,49		
2″	59,59,48,10,42,37, 2,51,50,58		4,23,10,30,10	
		1,18,50,44,38,56,39		6
4″	59,59,48,12, 1,27,47,30,47,37		4,23,10,30,16	
		1,18,46,21,28,26,23		6
6″	59,59,48,13,20,14, 8,59,14, 0		4,23,10,30,22	
		1,18,41,58,17,56, 1		6
8″	59,59,48,14,38,56, 7,17,10, 1		4,23,10,30,28	
		1,18,37,35, 7,25,33		6
10″	59,59,48,15,57,33,42,24,35,34		4,23,10,30,34	
		1,18,33,11,56,54,59		6
12″	59,59,48,17,16, 6,54,21,30,33		4,23,10,30,40	
		1,18,28,48,46,24,19		6
14″	59,59,48,18,34,35,43, 7,54,52		4,23,10,30,46	
		1,18,24,25,35,53,33		6
16″	59,59,48,19,53, 0, 8,43,48,25		4,23,10,30,52	
		1,18,20, 2,25,22,41		6
18″	59,59,48,21,11,20,11, 9,11, 6		4,23,10,30,58	
		1,18,15,39,14,51,43		6
20″	59,59,48,22,29,35,50,24, 2,49		4,23,10,31, 4	
		1,18,11,16, 4,20,39		6
22″	59,59,48,23,47,47, 6,28,23,28		4,23,10,31,10	
		1,18, 6,52,53,49,29		6
24″	59,59,48,25, 5,53,59,22,12,57		4,23,10,31,16	
		1,18, 2,29,43,18,13		6
26″	59,59,48,26,23,56,29, 5,31,10		4,23,10,31,22	
		1,17,58, 6,32,46,51		6
28″	59,59,48,27,41,54,35,38,18, 1		4,23,10,31,28	
		1,17,53,43,22,15,23		6
30″	59,59,48,28,59,48,19, 0,33,24		4,23,10,31,34	
		1,17,49,20,11,43,49		6
32″	59,59,48,30,17,37,39,12,17,13		4,23,10,31,40	
		1,17,44,57, 1,12, 9		6
34″	59,59,48,31,35,22,36,13,29,22		4,23,10,31,46	
		1,17,40,33,50,40,23		6
36″	59,59,48,32,53, 3,10, 4, 9,45		4,23,10,31,52	
		1,17,36,10,40, 8,31		6
38″	59,59,48,34,10,39,20,44,18,16		4,23,10,31,58	
		1,17,31,47,29,36,33		6
40″	59,59,48,35,28,11, 8,13,54,49		4,23,10,32, 4	
		1,17,27,24,19, 4,29		6
42″	59,59,48,36,45,38,32,32,59,18		4,23,10,32,10	
		1,17,23, 1, 8,32,19		6
44″	59,59,48,38, 3, 1,33,41,31,37		4,23,10,32,16	
		1,17,18,37,58, 0, 3		6
46″	59,59,48,39,20,20,11,39,31,40		4,23,10,32,22	
		1,17,14,14,47,27,41		6
48″	59,59,48,40,37,34,26,26,59,21		4,23,10,32,28	
		1,17, 9,51,36,55,13		6
50″	59,59,48,41,54,44,18, 3,54,34		4,23,10,32,34	
		1,17, 5,28,26,22,39		6
52″	59,59,48,43,11,49,46,30,17,13		4,23,10,32,40	
		1,17, 1, 5,15,49,59		6
54″	59,59,48,44,28,50,51,46, 7,12		4,23,10,32,46	
		1,16,56,42, 5,17,13		6
56″	59,59,48,45,45,47,33,51,24,25		4,23,10,32,52	
		1,16,52,18,54,44,21		6
58″	59,59,48,47, 2,39,52,46, 8,46		4,23,10,32,58	
		1,16,47,55,44,11,23		
60″	59,59,48,48,19,27,48,30,20, 9			
exact	59,59,48,48,19,27,48,30,37,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°25′ 0″	59,59,48,48,19,27,48,30,37,56			
		1,16,43,32,33,40,21		
2″	59,59,48,49,36,11,21, 4,18,17		4,23,10,33, 1	
		1,16,39, 9,23, 7,20		6
4″	59,59,48,50,52,50,30,27,25,37		4,23,10,33, 7	
		1,16,34,46,12,34,13		6
6″	59,59,48,52, 9,25,16,39,59,50		4,23,10,33,13	
		1,16,30,23, 2, 1, 0		6
8″	59,59,48,53,25,55,39,42, 0,50		4,23,10,33,19	
		1,16,25,59,51,27,41		6
10″	59,59,48,54,42,21,39,33,28,31		4,23,10,33,25	
		1,16,21,36,40,54,16		6
12″	59,59,48,55,58,43,16,14,22,47		4,23,10,33,31	
		1,16,17,13,30,20,45		6
14″	59,59,48,57,15, 0,29,44,43,32		4,23,10,33,37	
		1,16,12,50,19,47, 8		6
16″	59,59,48,58,31,13,20, 4,30,40		4,23,10,33,43	
		1,16, 8,27, 9,13,25		6
18″	59,59,48,59,47,21,47,13,44, 5		4,23,10,33,49	
		1,16, 4, 3,58,39,36		6
20″	59,59,49, 1, 3,25,51,12,23,41		4,23,10,33,55	
		1,15,59,40,48, 5,41		6
22″	59,59,49, 2,19,25,32, 0,29,22		4,23,10,34, 1	
		1,15,55,17,37,31,40		6
24″	59,59,49, 3,35,20,49,38, 1, 2		4,23,10,34, 7	
		1,15,50,54,26,57,33		6
26″	59,59,49, 4,51,11,44, 4,58,35		4,23,10,34,13	
		1,15,46,31,16,23,20		6
28″	59,59,49, 6, 6,58,15,21,21,55		4,23,10,34,19	
		1,15,42, 8, 5,49, 1		6
30″	59,59,49, 7,22,40,23,27,10,56		4,23,10,34,25	
		1,15,37,44,55,14,36		6
32″	59,59,49, 8,38,18, 8,22,25,32		4,23,10,34,31	
		1,15,33,21,44,40, 5		6
34″	59,59,49, 9,53,51,30, 7, 5,37		4,23,10,34,37	
		1,15,28,58,34, 5,28		6
36″	59,59,49,11, 9,20,28,41,11, 5		4,23,10,34,43	
		1,15,24,35,23,30,45		6
38″	59,59,49,12,24,45, 4, 4,41,50		4,23,10,34,49	
		1,15,20,12,12,55,56		6
40″	59,59,49,13,40, 5,16,17,37,46		4,23,10,34,55	
		1,15,15,49, 2,21, 1		6
42″	59,59,49,14,55,21, 5,19,58,47		4,23,10,35, 1	
		1,15,11,25,51,46, 0		6
44″	59,59,49,16,10,32,31,11,44,47		4,23,10,35, 7	
		1,15, 7, 2,41,10,53		6
46″	59,59,49,17,25,39,33,52,55,40		4,23,10,35,13	
		1,15, 2,39,30,35,40		6
48″	59,59,49,18,40,42,13,23,31,20		4,23,10,35,19	
		1,14,58,16,20, 0,21		6
50″	59,59,49,19,55,40,29,43,31,41		4,23,10,35,25	
		1,14,53,53, 9,24,56		6
52″	59,59,49,21,10,34,22,52,56,37		4,23,10,35,31	
		1,14,49,29,58,49,25		6
54″	59,59,49,22,25,23,52,51,46, 2		4,23,10,35,37	
		1,14,45, 6,48,13,48		6
56″	59,59,49,23,40, 8,59,39,59,50		4,23,10,35,43	
		1,14,40,43,37,38, 5		6
58″	59,59,49,24,54,49,43,17,37,55		4,23,10,35,49	
		1,14,36,20,27, 2,16		
60″	59,59,49,26, 9,26, 3,44,40,11			
exact	59,59,49,26, 9,26, 3,45,11,58			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°26′ 0″	59,59,49,26, 9,26, 3,45,11,58			
		1,14,31,57,16,29,45		
2″	59,59,49,27,23,58, 1, 1,41,43		4,23,10,35,46	
		1,14,27,34, 5,53,59		5
4″	59,59,49,28,38,25,35, 7,35,42		4,23,10,35,51	
		1,14,23,10,55,18, 8		5
6″	59,59,49,29,52,48,46, 2,53,50		4,23,10,35,56	
		1,14,18,47,44,42,12		5
8″	59,59,49,31, 7, 7,33,47,36, 2		4,23,10,36, 1	
		1,14,14,24,34, 6,11		5
10″	59,59,49,32,21,21,58,21,42,13		4,23,10,36, 6	
		1,14,10, 1,23,30, 5		5
12″	59,59,49,33,35,31,59,45,12,18		4,23,10,36,11	
		1,14, 5,38,12,53,54		5
14″	59,59,49,34,49,37,37,58, 6,12		4,23,10,36,16	
		1,14, 1,15, 2,17,38		5
16″	59,59,49,36, 3,38,53, 0,23,50		4,23,10,36,21	
		1,13,56,51,51,41,17		5
18″	59,59,49,37,17,35,44,52, 5, 7		4,23,10,36,26	
		1,13,52,28,41, 4,51		5
20″	59,59,49,38,31,28,13,33, 9,58		4,23,10,36,31	
		1,13,48, 5,30,28,20		5
22″	59,59,49,39,45,16,19, 3,38,18		4,23,10,36,36	
		1,13,43,42,19,51,44		5
24″	59,59,49,40,59, 0, 1,23,30, 2		4,23,10,36,41	
		1,13,39,19, 9,15, 3		5
26″	59,59,49,42,12,39,20,32,45, 5		4,23,10,36,46	
		1,13,34,55,58,38,17		5
28″	59,59,49,43,26,14,16,31,23,22		4,23,10,36,51	
		1,13,30,32,48, 1,26		5
30″	59,59,49,44,39,44,49,19,24,48		4,23,10,36,56	
		1,13,26, 9,37,24,30		5
32″	59,59,49,45,53,10,58,56,49,18		4,23,10,37, 1	
		1,13,21,46,26,47,29		5
34″	59,59,49,47, 6,32,45,23,36,47		4,23,10,37, 6	
		1,13,17,23,16,10,23		5
36″	59,59,49,48,19,50, 8,39,47,10		4,23,10,37,11	
		1,13,13, 0, 5,33,12		5
38″	59,59,49,49,33, 3, 8,45,20,22		4,23,10,37,16	
		1,13, 8,36,54,55,56		5
40″	59,59,49,50,46,11,45,40,16,18		4,23,10,37,21	
		1,13, 4,13,44,18,35		5
42″	59,59,49,51,59,15,59,24,34,53		4,23,10,37,26	
		1,12,59,50,33,41, 9		5
44″	59,59,49,53,12,15,49,58,16, 2		4,23,10,37,31	
		1,12,55,27,23, 3,38		5
46″	59,59,49,54,25,11,17,21,19,40		4,23,10,37,36	
		1,12,51, 4,12,26, 2		5
48″	59,59,49,55,38, 2,21,33,45,42		4,23,10,37,41	
		1,12,46,41, 1,48,21		5
50″	59,59,49,56,50,49, 2,35,34, 3		4,23,10,37,46	
		1,12,42,17,51,10,35		5
52″	59,59,49,58, 3,31,20,26,44,38		4,23,10,37,51	
		1,12,37,54,40,32,44		5
54″	59,59,49,59,16, 9,15, 7,17,22		4,23,10,37,56	
		1,12,33,31,29,54,48		5
56″	59,59,50, 0,28,42,46,37,12,10		4,23,10,38, 1	
		1,12,29, 8,19,16,47		5
58″	59,59,50, 1,41,11,54,56,28,57		4,23,10,38, 6	
		1,12,24,45, 8,38,41		
60″	59,59,50, 2,53,36,40, 5, 7,38			
exact	59,59,50, 2,53,36,40, 4,36,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°27′ 0″	59,59,50, 2,53,36,40, 4,36,56			
		1,12,20,21,57,57,25		
2″	59,59,50, 4, 5,57, 2, 2,34,21		4,23,10,38,27	
		1,12,15,58,47,18,58		5
4″	59,59,50, 5,18,13, 0,49,53,19		4,23,10,38,32	
		1,12,11,35,36,40,26		5
6″	59,59,50, 6,30,24,36,26,33,45		4,23,10,38,37	
		1,12, 7,12,26, 1,49		5
8″	59,59,50, 7,42,31,48,52,35,34		4,23,10,38,42	
		1,12, 2,49,15,23, 7		5
10″	59,59,50, 8,54,34,38, 7,58,41		4,23,10,38,47	
		1,11,58,26, 4,44,20		5
12″	59,59,50,10, 6,33, 4,12,43, 1		4,23,10,38,52	
		1,11,54, 2,54, 5,28		5
14″	59,59,50,11,18,27, 7, 6,48,29		4,23,10,38,57	
		1,11,49,39,43,26,31		5
16″	59,59,50,12,30,16,46,50,15, 0		4,23,10,39, 2	
		1,11,45,16,32,47,29		5
18″	59,59,50,13,42, 2, 3,23, 2,29		4,23,10,39, 7	
		1,11,40,53,22, 8,22		5
20″	59,59,50,14,53,42,56,45,10,51		4,23,10,39,12	
		1,11,36,30,11,29,10		5
22″	59,59,50,16, 5,19,26,56,40, 1		4,23,10,39,17	
		1,11,32, 7, 0,49,53		5
24″	59,59,50,17,16,51,33,57,29,54		4,23,10,39,22	
		1,11,27,43,50,10,31		5
26″	59,59,50,18,28,19,17,47,40,25		4,23,10,39,27	
		1,11,23,20,39,31, 4		5
28″	59,59,50,19,39,42,38,27,11,29		4,23,10,39,32	
		1,11,18,57,28,51,32		5
30″	59,59,50,20,51, 1,35,56, 3, 1		4,23,10,39,37	
		1,11,14,34,18,11,55		5
32″	59,59,50,22, 2,16,10,14,14,56		4,23,10,39,42	
		1,11,10,11, 7,32,13		5
34″	59,59,50,23,13,26,21,21,47, 9		4,23,10,39,47	
		1,11, 5,47,56,52,26		5
36″	59,59,50,24,24,32, 9,18,39,35		4,23,10,39,52	
		1,11, 1,24,46,12,34		5
38″	59,59,50,25,35,33,34, 4,52, 9		4,23,10,39,57	
		1,10,57, 1,35,32,37		5
40″	59,59,50,26,46,30,35,40,24,46		4,23,10,40, 2	
		1,10,52,38,24,52,35		5
42″	59,59,50,27,57,23,14, 5,17,21		4,23,10,40, 7	
		1,10,48,15,14,12,28		5
44″	59,59,50,29, 8,11,29,19,29,49		4,23,10,40,12	
		1,10,43,52, 3,32,16		5
46″	59,59,50,30,18,55,21,23, 2, 5		4,23,10,40,17	
		1,10,39,28,52,51,59		5
48″	59,59,50,31,29,34,50,15,54, 4		4,23,10,40,22	
		1,10,35, 5,42,11,37		5
50″	59,59,50,32,40, 9,55,58, 5,41		4,23,10,40,27	
		1,10,30,42,31,31,10		5
52″	59,59,50,33,50,40,38,29,36,51		4,23,10,40,32	
		1,10,26,19,20,50,38		5
54″	59,59,50,35, 1, 6,57,50,27,29		4,23,10,40,37	
		1,10,21,56,10,10, 1		5
56″	59,59,50,36,11,28,54, 0,37,30		4,23,10,40,42	
		1,10,17,32,59,29,19		5
58″	59,59,50,37,21,46,27, 0, 6,49		4,23,10,40,47	
		1,10,13, 9,48,48,32		
60″	59,59,50,38,31,59,36,48,55,21			
exact	59,59,50,38,31,59,36,48,35,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°28′ 0″	59,59,50,38,31,59,36,48,35,42			
		1,10, 8,46,38, 5,46		
2″	59,59,50,39,42, 8,23,26,41,28		4,23,10,41, 4	
		1,10, 4,23,27,24,42		5
4″	59,59,50,40,52,12,46,54, 6,10		4,23,10,41, 9	
		1,10, 0, 0,16,43,33		5
6″	59,59,50,42, 2,12,47,10,49,43		4,23,10,41,14	
		1, 9,55,37, 6, 2,19		5
8″	59,59,50,43,12, 8,24,16,52, 2		4,23,10,41,19	
		1, 9,51,13,55,21, 0		5
10″	59,59,50,44,21,59,38,12,13, 2		4,23,10,41,24	
		1, 9,46,50,44,39,36		5
12″	59,59,50,45,31,46,28,56,52,38		4,23,10,41,29	
		1, 9,42,27,33,58, 7		5
14″	59,59,50,46,41,28,56,30,50,45		4,23,10,41,34	
		1, 9,38, 4,23,16,33		5
16″	59,59,50,47,51, 7, 0,54, 7,18		4,23,10,41,39	
		1, 9,33,41,12,34,54		5
18″	59,59,50,49, 0,40,42, 6,42,12		4,23,10,41,44	
		1, 9,29,18, 1,53,10		5
20″	59,59,50,50,10,10, 0, 8,35,22		4,23,10,41,49	
		1, 9,24,54,51,11,21		5
22″	59,59,50,51,19,34,54,59,46,43		4,23,10,41,54	
		1, 9,20,31,40,29,27		5
24″	59,59,50,52,28,55,26,40,16,10		4,23,10,41,59	
		1, 9,16, 8,29,47,28		5
26″	59,59,50,53,38,11,35,10, 3,38		4,23,10,42, 4	
		1, 9,11,45,19, 5,24		5
28″	59,59,50,54,47,23,20,29, 9, 2		4,23,10,42, 9	
		1, 9, 7,22, 8,23,15		5
30″	59,59,50,55,56,30,42,37,32,17		4,23,10,42,14	
		1, 9, 2,58,57,41, 1		5
32″	59,59,50,57, 5,33,41,35,13,18		4,23,10,42,19	
		1, 8,58,35,46,58,42		5
34″	59,59,50,58,14,32,17,22,12, 0		4,23,10,42,24	
		1, 8,54,12,36,16,18		5
36″	59,59,50,59,23,26,29,58,28,18		4,23,10,42,29	
		1, 8,49,49,25,33,49		5
38″	59,59,51, 0,32,16,19,24, 2, 7		4,23,10,42,34	
		1, 8,45,26,14,51,15		5
40″	59,59,51, 1,41, 1,45,38,53,22		4,23,10,42,39	
		1, 8,41, 3, 4, 8,36		5
42″	59,59,51, 2,49,42,48,43, 1,58		4,23,10,42,44	
		1, 8,36,39,53,25,52		5
44″	59,59,51, 3,58,19,28,36,27,50		4,23,10,42,49	
		1, 8,32,16,42,43, 3		5
46″	59,59,51, 5, 6,51,45,19,10,53		4,23,10,42,54	
		1, 8,27,53,32, 0, 9		5
48″	59,59,51, 6,15,19,38,51,11, 2		4,23,10,42,59	
		1, 8,23,30,21,17,10		5
50″	59,59,51, 7,23,43, 9,12,28,12		4,23,10,43, 4	
		1, 8,19, 7,10,34, 6		5
52″	59,59,51, 8,32, 2,16,23, 2,18		4,23,10,43, 9	
		1, 8,14,43,59,50,57		5
54″	59,59,51, 9,40,17, 0,22,53,15		4,23,10,43,14	
		1, 8,10,20,49, 7,43		5
56″	59,59,51,10,48,27,21,12, 0,58		4,23,10,43,19	
		1, 8, 5,57,38,24,24		5
58″	59,59,51,11,56,33,18,50,25,22		4,23,10,43,24	
		1, 8, 1,34,27,41, 0		
60″	59,59,51,13, 4,34,53,18, 6,22			
exact	59,59,51,13, 4,34,53,18, 3,15			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°29′ 0″	59,59,51,13, 4,34,53,18, 3,15			
		1, 7,57,11,16,57,11		
2″	59,59,51,14,12,32, 4,35, 0,26		4,23,10,43,35	
		1, 7,52,48, 6,13,36		5
4″	59,59,51,15,20,24,52,41,14, 2		4,23,10,43,40	
		1, 7,48,24,55,29,56		5
6″	59,59,51,16,28,13,17,36,43,58		4,23,10,43,45	
		1, 7,44, 1,44,46,11		5
8″	59,59,51,17,35,57,19,21,30, 9		4,23,10,43,50	
		1, 7,39,38,34, 2,21		5
10″	59,59,51,18,43,36,57,55,32,30		4,23,10,43,55	
		1, 7,35,15,23,18,26		5
12″	59,59,51,19,51,12,13,18,50,56		4,23,10,44, 0	
		1, 7,30,52,12,34,26		5
14″	59,59,51,20,58,43, 5,31,25,22		4,23,10,44, 5	
		1, 7,26,29, 1,50,21		5
16″	59,59,51,22, 6, 9,34,33,15,43		4,23,10,44,10	
		1, 7,22, 5,51, 6,11		5
18″	59,59,51,23,13,31,40,24,21,54		4,23,10,44,15	
		1, 7,17,42,40,21,56		5
20″	59,59,51,24,20,49,23, 4,43,50		4,23,10,44,20	
		1, 7,13,19,29,37,36		5
22″	59,59,51,25,28, 2,42,34,21,26		4,23,10,44,25	
		1, 7, 8,56,18,53,11		5
24″	59,59,51,26,35,11,38,53,14,37		4,23,10,44,30	
		1, 7, 4,33, 8, 8,41		5
26″	59,59,51,27,42,16,12, 1,23,18		4,23,10,44,35	
		1, 7, 0, 9,57,24, 6		5
28″	59,59,51,28,49,16,21,58,47,24		4,23,10,44,40	
		1, 6,55,46,46,39,26		5
30″	59,59,51,29,56,12, 8,45,26,50		4,23,10,44,45	
		1, 6,51,23,35,54,41		5
32″	59,59,51,31, 3, 3,32,21,21,31		4,23,10,44,50	
		1, 6,47, 0,25, 9,51		5
34″	59,59,51,32, 9,50,32,46,31,22		4,23,10,44,55	
		1, 6,42,37,14,24,56		5
36″	59,59,51,33,16,33,10, 0,56,18		4,23,10,45, 0	
		1, 6,38,14, 3,39,56		5
38″	59,59,51,34,23,11,24, 4,36,14		4,23,10,45, 5	
		1, 6,33,50,52,54,51		5
40″	59,59,51,35,29,45,14,57,31, 5		4,23,10,45,10	
		1, 6,29,27,42, 9,41		5
42″	59,59,51,36,36,14,42,39,40,46		4,23,10,45,15	
		1, 6,25, 4,31,24,26		5
44″	59,59,51,37,42,39,47,11, 5,12		4,23,10,45,20	
		1, 6,20,41,20,39, 6		5
46″	59,59,51,38,49, 0,28,31,44,18		4,23,10,45,25	
		1, 6,16,18, 9,53,41		5
48″	59,59,51,39,55,16,46,41,37,59		4,23,10,45,30	
		1, 6,11,54,59, 8,11		5
50″	59,59,51,41, 1,28,41,40,46,10		4,23,10,45,35	
		1, 6, 7,31,48,22,36		5
52″	59,59,51,42, 7,36,13,29, 8,46		4,23,10,45,40	
		1, 6, 3, 8,37,36,56		5
54″	59,59,51,43,13,39,22, 6,45,42		4,23,10,45,45	
		1, 5,58,45,26,51,11		5
56″	59,59,51,44,19,38, 7,33,36,53		4,23,10,45,50	
		1, 5,54,22,16, 5,21		5
58″	59,59,51,45,25,32,29,49,42,14		4,23,10,45,55	
		1, 5,49,59, 5,19,26		
60″	59,59,51,46,31,22,28,55, 1,40			
exact	59,59,51,46,31,22,28,55, 6,44			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°30′ 0″	59,59,51,46,31,22,28,55, 6,44			
		1, 5,45,35,54,34, 5		
2″	59,59,51,47,37, 8, 4,49,40,49		4,23,10,46, 2	
		1, 5,41,12,43,48, 3		5
4″	59,59,51,48,42,49,17,33,28,52		4,23,10,46, 7	
		1, 5,36,49,33, 1,56		5
6″	59,59,51,49,48,26, 7, 6,30,48		4,23,10,46,12	
		1, 5,32,26,22,15,44		5
8″	59,59,51,50,53,58,33,28,46,32		4,23,10,46,17	
		1, 5,28, 3,11,29,27		5
10″	59,59,51,51,59,26,36,40,15,59		4,23,10,46,22	
		1, 5,23,40, 0,43, 5		5
12″	59,59,51,53, 4,50,16,40,59, 4		4,23,10,46,27	
		1, 5,19,16,49,56,38		5
14″	59,59,51,54,10, 9,33,30,55,42		4,23,10,46,32	
		1, 5,14,53,39,10, 6		5
16″	59,59,51,55,15,24,27,10, 5,48		4,23,10,46,37	
		1, 5,10,30,28,23,29		5
18″	59,59,51,56,20,34,57,38,29,17		4,23,10,46,42	
		1, 5, 6, 7,17,36,47		5
20″	59,59,51,57,25,41, 4,56, 6, 4		4,23,10,46,47	
		1, 5, 1,44, 6,50, 0		5
22″	59,59,51,58,30,42,49, 2,56, 4		4,23,10,46,52	
		1, 4,57,20,56, 3, 8		5
24″	59,59,51,59,35,40, 9,58,59,12		4,23,10,46,57	
		1, 4,52,57,45,16,11		5
26″	59,59,52, 0,40,33, 7,44,15,23		4,23,10,47, 2	
		1, 4,48,34,34,29, 9		5
28″	59,59,52, 1,45,21,42,18,44,32		4,23,10,47, 7	
		1, 4,44,11,23,42, 2		5
30″	59,59,52, 2,50, 5,53,42,26,34		4,23,10,47,12	
		1, 4,39,48,12,54,50		5
32″	59,59,52, 3,54,45,41,55,21,24		4,23,10,47,17	
		1, 4,35,25, 2, 7,33		5
34″	59,59,52, 4,59,21, 6,57,28,57		4,23,10,47,22	
		1, 4,31, 1,51,20,11		5
36″	59,59,52, 6, 3,52, 8,48,49, 8		4,23,10,47,27	
		1, 4,26,38,40,32,44		5
38″	59,59,52, 7, 8,18,47,29,21,52		4,23,10,47,32	
		1, 4,22,15,29,45,12		5
40″	59,59,52, 8,12,41, 2,59, 7, 4		4,23,10,47,37	
		1, 4,17,52,18,57,35		5
42″	59,59,52, 9,16,58,55,18, 4,39		4,23,10,47,42	
		1, 4,13,29, 8, 9,53		5
44″	59,59,52,10,21,12,24,26,14,32		4,23,10,47,47	
		1, 4, 9, 5,57,22, 6		5
46″	59,59,52,11,25,21,30,23,36,38		4,23,10,47,52	
		1, 4, 4,42,46,34,14		5
48″	59,59,52,12,29,26,13,10,10,52		4,23,10,47,57	
		1, 4, 0,19,35,46,17		5
50″	59,59,52,13,33,26,32,45,57, 9		4,23,10,48, 2	
		1, 3,55,56,24,58,15		5
52″	59,59,52,14,37,22,29,10,55,24		4,23,10,48, 7	
		1, 3,51,33,14,10, 8		5
54″	59,59,52,15,41,14, 2,25, 5,32		4,23,10,48,12	
		1, 3,47,10, 3,21,56		5
56″	59,59,52,16,45, 1,12,28,27,28		4,23,10,48,17	
		1, 3,42,46,52,33,39		5
58″	59,59,52,17,48,43,59,21, 1, 7		4,23,10,48,22	
		1, 3,38,23,41,45,17		
60″	59,59,52,18,52,22,23, 2,46,24			
exact	59,59,52,18,52,22,23, 3, 5,29			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°31′ 0″	59,59,52,18,52,22,23, 3, 5,29			
		1, 3,34, 0,30,58,52		
2″	59,59,52,19,55,56,23,34, 4,21		4,23,10,48,23	
		1, 3,29,37,20,10,29		5
4″	59,59,52,20,59,26, 0,54,14,50		4,23,10,48,28	
		1, 3,25,14, 9,22, 1		5
6″	59,59,52,22, 2,51,15, 3,36,51		4,23,10,48,33	
		1, 3,20,50,58,33,28		5
8″	59,59,52,23, 6,12, 6, 2,10,19		4,23,10,48,38	
		1, 3,16,27,47,44,50		5
10″	59,59,52,24, 9,28,33,49,55, 9		4,23,10,48,43	
		1, 3,12, 4,36,56, 7		5
12″	59,59,52,25,12,40,38,26,51,16		4,23,10,48,48	
		1, 3, 7,41,26, 7,19		5
14″	59,59,52,26,15,48,19,52,58,35		4,23,10,48,53	
		1, 3, 3,18,15,18,26		5
16″	59,59,52,27,18,51,38, 8,17, 1		4,23,10,48,58	
		1, 2,58,55, 4,29,28		5
18″	59,59,52,28,21,50,33,12,46,29		4,23,10,49, 3	
		1, 2,54,31,53,40,25		5
20″	59,59,52,29,24,45, 5, 6,26,54		4,23,10,49, 8	
		1, 2,50, 8,42,51,17		5
22″	59,59,52,30,27,35,13,49,18,11		4,23,10,49,13	
		1, 2,45,45,32, 2, 4		5
24″	59,59,52,31,30,20,59,21,20,15		4,23,10,49,18	
		1, 2,41,22,21,12,46		5
26″	59,59,52,32,33, 2,21,42,33, 1		4,23,10,49,23	
		1, 2,36,59,10,23,23		5
28″	59,59,52,33,35,39,20,52,56,24		4,23,10,49,28	
		1, 2,32,35,59,33,55		5
30″	59,59,52,34,38,11,56,52,30,19		4,23,10,49,33	
		1, 2,28,12,48,44,22		5
32″	59,59,52,35,40,40, 9,41,14,41		4,23,10,49,38	
		1, 2,23,49,37,54,44		5
34″	59,59,52,36,43, 3,59,19, 9,25		4,23,10,49,43	
		1, 2,19,26,27, 5, 1		5
36″	59,59,52,37,45,23,25,46,14,26		4,23,10,49,48	
		1, 2,15, 3,16,15,13		5
38″	59,59,52,38,47,38,29, 2,29,39		4,23,10,49,53	
		1, 2,10,40, 5,25,20		5
40″	59,59,52,39,49,49, 9, 7,54,59		4,23,10,49,58	
		1, 2, 6,16,54,35,22		5
42″	59,59,52,40,51,55,26, 2,30,21		4,23,10,50, 3	
		1, 2, 1,53,43,45,19		5
44″	59,59,52,41,53,57,19,46,15,40		4,23,10,50, 8	
		1, 1,57,30,32,55,11		5
46″	59,59,52,42,55,54,50,19,10,51		4,23,10,50,13	
		1, 1,53, 7,22, 4,58		5
48″	59,59,52,43,57,47,57,41,15,49		4,23,10,50,18	
		1, 1,48,44,11,14,40		5
50″	59,59,52,44,59,36,41,52,30,29		4,23,10,50,23	
		1, 1,44,21, 0,24,17		5
52″	59,59,52,46, 1,21, 2,52,54,46		4,23,10,50,28	
		1, 1,39,57,49,33,49		5
54″	59,59,52,47, 3, 1, 0,42,28,35		4,23,10,50,33	
		1, 1,35,34,38,43,16		5
56″	59,59,52,48, 4,36,35,21,11,51		4,23,10,50,38	
		1, 1,31,11,27,52,38		5
58″	59,59,52,49, 6, 7,46,49, 4,29		4,23,10,50,43	
		1, 1,26,48,17, 1,55		
60″	59,59,52,50, 7,34,35, 6, 6,24			
exact	59,59,52,50, 7,34,35, 6,30,56			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°32′ 0″	59,59,52,50, 7,34,35, 6,30,56			
		1, 1,22,25, 6,13,56		
2″	59,59,52,51, 8,57, 0,12,44,52		4,23,10,50,40	
		1, 1,18, 1,55,23,16		4
4″	59,59,52,52,10,15, 2, 8, 8, 8		4,23,10,50,44	
		1, 1,13,38,44,32,32		4
6″	59,59,52,53,11,28,40,52,40,40		4,23,10,50,48	
		1, 1, 9,15,33,41,44		4
8″	59,59,52,54,12,37,56,26,22,24		4,23,10,50,52	
		1, 1, 4,52,22,50,52		4
10″	59,59,52,55,13,42,48,49,13,16		4,23,10,50,56	
		1, 1, 0,29,11,59,56		4
12″	59,59,52,56,14,43,18, 1,13,12		4,23,10,51, 0	
		1, 0,56, 6, 1, 8,56		4
14″	59,59,52,57,15,39,24, 2,22, 8		4,23,10,51, 4	
		1, 0,51,42,50,17,52		4
16″	59,59,52,58,16,31, 6,52,40, 0		4,23,10,51, 8	
		1, 0,47,19,39,26,44		4
18″	59,59,52,59,17,18,26,32, 6,44		4,23,10,51,12	
		1, 0,42,56,28,35,32		4
20″	59,59,53, 0,18, 1,23, 0,42,16		4,23,10,51,16	
		1, 0,38,33,17,44,16		4
22″	59,59,53, 1,18,39,56,18,26,32		4,23,10,51,20	
		1, 0,34,10, 6,52,56		4
24″	59,59,53, 2,19,14, 6,25,19,28		4,23,10,51,24	
		1, 0,29,46,56, 1,32		4
26″	59,59,53, 3,19,43,53,21,21, 0		4,23,10,51,28	
		1, 0,25,23,45,10, 4		4
28″	59,59,53, 4,20, 9,17, 6,31, 4		4,23,10,51,32	
		1, 0,21, 0,34,18,32		4
30″	59,59,53, 5,20,30,17,40,49,36		4,23,10,51,36	
		1, 0,16,37,23,26,56		4
32″	59,59,53, 6,20,46,55, 4,16,32		4,23,10,51,40	
		1, 0,12,14,12,35,16		4
34″	59,59,53, 7,20,59, 9,16,51,48		4,23,10,51,44	
		1, 0, 7,51, 1,43,32		4
36″	59,59,53, 8,21, 7, 0,18,35,20		4,23,10,51,48	
		1, 0, 3,27,50,51,44		4
38″	59,59,53, 9,21,10,28, 9,27, 4		4,23,10,51,52	
		0,59,59, 4,39,59,52		4
40″	59,59,53,10,21, 9,32,49,26,56		4,23,10,51,56	
		0,59,54,41,29, 7,56		4
42″	59,59,53,11,21, 4,14,18,34,52		4,23,10,52, 0	
		0,59,50,18,18,15,56		4
44″	59,59,53,12,20,54,32,36,50,48		4,23,10,52, 4	
		0,59,45,55, 7,23,52		4
46″	59,59,53,13,20,40,27,44,14,40		4,23,10,52, 8	
		0,59,41,31,56,31,44		4
48″	59,59,53,14,20,21,59,40,46,24		4,23,10,52,12	
		0,59,37, 8,45,39,32		4
50″	59,59,53,15,19,59, 8,26,25,56		4,23,10,52,16	
		0,59,32,45,34,47,16		4
52″	59,59,53,16,19,31,54, 1,13,12		4,23,10,52,20	
		0,59,28,22,23,54,56		4
54″	59,59,53,17,19, 0,16,25, 8, 8		4,23,10,52,24	
		0,59,23,59,13, 2,32		4
56″	59,59,53,18,18,24,15,38,10,40		4,23,10,52,28	
		0,59,19,36, 2,10, 4		4
58″	59,59,53,19,17,43,51,40,20,44		4,23,10,52,32	
		0,59,15,12,51,17,32		
60″	59,59,53,20,16,59, 4,31,38,16			
exact	59,59,53,20,16,59, 4,31, 6,42			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°33′ 0″	59,59,53,20,16,59, 4,31, 6,42			
		59,10,49,40,21,42		
2″	59,59,53,21,16, 9,54,11,28,24		4,23,10,52,52	
		59, 6,26,29,28,50		4
4″	59,59,53,22,15,16,20,40,57,14		4,23,10,52,56	
		59, 2, 3,18,35,54		4
6″	59,59,53,23,14,18,23,59,33, 8		4,23,10,53, 0	
		58,57,40, 7,42,54		4
8″	59,59,53,24,13,16, 4, 7,16, 2		4,23,10,53, 4	
		58,53,16,56,49,50		4
10″	59,59,53,25,12, 9,21, 4, 5,52		4,23,10,53, 8	
		58,48,53,45,56,42		4
12″	59,59,53,26,10,58,14,50, 2,34		4,23,10,53,12	
		58,44,30,35, 3,30		4
14″	59,59,53,27, 9,42,45,25, 6, 4		4,23,10,53,16	
		58,40, 7,24,10,14		4
16″	59,59,53,28, 8,22,52,49,16,18		4,23,10,53,20	
		58,35,44,13,16,54		4
18″	59,59,53,29, 6,58,37, 2,33,12		4,23,10,53,24	
		58,31,21, 2,23,30		4
20″	59,59,53,30, 5,29,58, 4,56,42		4,23,10,53,28	
		58,26,57,51,30, 2		4
22″	59,59,53,31, 3,56,55,56,26,44		4,23,10,53,32	
		58,22,34,40,36,30		4
24″	59,59,53,32, 2,19,30,37, 3,14		4,23,10,53,36	
		58,18,11,29,42,54		4
26″	59,59,53,33, 0,37,42, 6,46, 8		4,23,10,53,40	
		58,13,48,18,49,14		4
28″	59,59,53,33,58,51,30,25,35,22		4,23,10,53,44	
		58, 9,25, 7,55,30		4
30″	59,59,53,34,57, 0,55,33,30,52		4,23,10,53,48	
		58, 5, 1,57, 1,42		4
32″	59,59,53,35,55, 5,57,30,32,34		4,23,10,53,52	
		58, 0,38,46, 7,50		4
34″	59,59,53,36,53, 6,36,16,40,24		4,23,10,53,56	
		57,56,15,35,13,54		4
36″	59,59,53,37,51, 2,51,51,54,18		4,23,10,54, 0	
		57,51,52,24,19,54		4
38″	59,59,53,38,48,54,44,16,14,12		4,23,10,54, 4	
		57,47,29,13,25,50		4
40″	59,59,53,39,46,42,13,29,40, 2		4,23,10,54, 8	
		57,43, 6, 2,31,42		4
42″	59,59,53,40,44,25,19,32,11,44		4,23,10,54,12	
		57,38,42,51,37,30		4
44″	59,59,53,41,42, 4, 2,23,49,14		4,23,10,54,16	
		57,34,19,40,43,14		4
46″	59,59,53,42,39,38,22, 4,32,28		4,23,10,54,20	
		57,29,56,29,48,54		4
48″	59,59,53,43,37, 8,18,34,21,22		4,23,10,54,24	
		57,25,33,18,54,30		4
50″	59,59,53,44,34,33,51,53,15,52		4,23,10,54,28	
		57,21,10, 8, 0, 2		4
52″	59,59,53,45,31,55, 2, 1,15,54		4,23,10,54,32	
		57,16,46,57, 5,30		4
54″	59,59,53,46,29,11,48,58,21,24		4,23,10,54,36	
		57,12,23,46,10,54		4
56″	59,59,53,47,26,24,12,44,32,18		4,23,10,54,40	
		57, 8, 0,35,16,14		4
58″	59,59,53,48,23,32,13,19,48,32		4,23,10,54,44	
		57, 3,37,24,21,30		
60″	59,59,53,49,20,35,50,44,10, 2			
exact	59,59,53,49,20,35,50,43,48,33			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°34′ 0″	59,59,53,49,20,35,50,43,48,33			
		56,59,14,13,24,35		
2″	59,59,53,50,17,35, 4,57,13, 8		4,23,10,55, 0	
		56,54,51, 2,29,35		4
4″	59,59,53,51,14,29,55,59,42,43		4,23,10,55, 4	
		56,50,27,51,34,31		4
6″	59,59,53,52,11,20,23,51,17,14		4,23,10,55, 8	
		56,46, 4,40,39,23		4
8″	59,59,53,53, 8, 6,28,31,56,37		4,23,10,55,12	
		56,41,41,29,44,11		4
10″	59,59,53,54, 4,48,10, 1,40,48		4,23,10,55,16	
		56,37,18,18,48,55		4
12″	59,59,53,55, 1,25,28,20,29,43		4,23,10,55,20	
		56,32,55, 7,53,35		4
14″	59,59,53,55,57,58,23,28,23,18		4,23,10,55,24	
		56,28,31,56,58,11		4
16″	59,59,53,56,54,26,55,25,21,29		4,23,10,55,28	
		56,24, 8,46, 2,43		4
18″	59,59,53,57,50,51, 4,11,24,12		4,23,10,55,32	
		56,19,45,35, 7,11		4
20″	59,59,53,58,47,10,49,46,31,23		4,23,10,55,36	
		56,15,22,24,11,35		4
22″	59,59,53,59,43,26,12,10,42,58		4,23,10,55,40	
		56,10,59,13,15,55		4
24″	59,59,54, 0,39,37,11,23,58,53		4,23,10,55,44	
		56, 6,36, 2,20,11		4
26″	59,59,54, 1,35,43,47,26,19, 4		4,23,10,55,48	
		56, 2,12,51,24,23		4
28″	59,59,54, 2,31,46, 0,17,43,27		4,23,10,55,52	
		55,57,49,40,28,31		4
30″	59,59,54, 3,27,43,49,58,11,58		4,23,10,55,56	
		55,53,26,29,32,35		4
32″	59,59,54, 4,23,37,16,27,44,33		4,23,10,56, 0	
		55,49, 3,18,36,35		4
34″	59,59,54, 5,19,26,19,46,21, 8		4,23,10,56, 4	
		55,44,40, 7,40,31		4
36″	59,59,54, 6,15,10,59,54, 1,39		4,23,10,56, 8	
		55,40,16,56,44,23		4
38″	59,59,54, 7,10,51,16,50,46, 2		4,23,10,56,12	
		55,35,53,45,48,11		4
40″	59,59,54, 8, 6,27,10,36,34,13		4,23,10,56,16	
		55,31,30,34,51,55		4
42″	59,59,54, 9, 1,58,41,11,26, 8		4,23,10,56,20	
		55,27, 7,23,55,35		4
44″	59,59,54, 9,57,25,48,35,21,43		4,23,10,56,24	
		55,22,44,12,59,11		4
46″	59,59,54,10,52,48,32,48,20,54		4,23,10,56,28	
		55,18,21, 2, 2,43		4
48″	59,59,54,11,48, 6,53,50,23,37		4,23,10,56,32	
		55,13,57,51, 6,11		4
50″	59,59,54,12,43,20,51,41,29,48		4,23,10,56,36	
		55, 9,34,40, 9,35		4
52″	59,59,54,13,38,30,26,21,39,23		4,23,10,56,40	
		55, 5,11,29,12,55		4
54″	59,59,54,14,33,35,37,50,52,18		4,23,10,56,44	
		55, 0,48,18,16,11		4
56″	59,59,54,15,28,36,26, 9, 8,29		4,23,10,56,48	
		54,56,25, 7,19,23		4
58″	59,59,54,16,23,32,51,16,27,52		4,23,10,56,52	
		54,52, 1,56,22,31		
60″	59,59,54,17,18,24,53,12,50,23			
exact	59,59,54,17,18,24,53,12,44,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°35′ 0″	59,59,54,17,18,24,53,12,44,23			
		54,47,38,45,24,57		
2″	59,59,54,18,13,12,31,58, 9,20		4,23,10,57, 2	
		54,43,15,34,27,55		4
4″	59,59,54,19, 7,55,47,32,37,15		4,23,10,57, 6	
		54,38,52,23,30,49		4
6″	59,59,54,20, 2,34,39,56, 8, 4		4,23,10,57,10	
		54,34,29,12,33,39		4
8″	59,59,54,20,57, 9, 9, 8,41,43		4,23,10,57,14	
		54,30, 6, 1,36,25		4
10″	59,59,54,21,51,39,15,10,18, 8		4,23,10,57,18	
		54,25,42,50,39, 7		4
12″	59,59,54,22,46, 4,58, 0,57,15		4,23,10,57,22	
		54,21,19,39,41,45		4
14″	59,59,54,23,40,26,17,40,39, 0		4,23,10,57,26	
		54,16,56,28,44,19		4
16″	59,59,54,24,34,43,14, 9,23,19		4,23,10,57,30	
		54,12,33,17,46,49		4
18″	59,59,54,25,28,55,47,27,10, 8		4,23,10,57,34	
		54, 8,10, 6,49,15		4
20″	59,59,54,26,23, 3,57,33,59,23		4,23,10,57,38	
		54, 3,46,55,51,37		4
22″	59,59,54,27,17, 7,44,29,51, 0		4,23,10,57,42	
		53,59,23,44,53,55		4
24″	59,59,54,28,11, 7, 8,14,44,55		4,23,10,57,46	
		53,55, 0,33,56, 9		4
26″	59,59,54,29, 5, 2, 8,48,41, 4		4,23,10,57,50	
		53,50,37,22,58,19		4
28″	59,59,54,29,58,52,46,11,39,23		4,23,10,57,54	
		53,46,14,12, 0,25		4
30″	59,59,54,30,52,39, 0,23,39,48		4,23,10,57,58	
		53,41,51, 1, 2,27		4
32″	59,59,54,31,46,20,51,24,42,15		4,23,10,58, 2	
		53,37,27,50, 4,25		4
34″	59,59,54,32,39,58,19,14,46,40		4,23,10,58, 6	
		53,33, 4,39, 6,19		4
36″	59,59,54,33,33,31,23,53,52,59		4,23,10,58,10	
		53,28,41,28, 8, 9		4
38″	59,59,54,34,27, 0, 5,22, 1, 8		4,23,10,58,14	
		53,24,18,17, 9,55		4
40″	59,59,54,35,20,24,23,39,11, 3		4,23,10,58,18	
		53,19,55, 6,11,37		4
42″	59,59,54,36,13,44,18,45,22,40		4,23,10,58,22	
		53,15,31,55,13,15		4
44″	59,59,54,37, 6,59,50,40,35,55		4,23,10,58,26	
		53,11, 8,44,14,49		4
46″	59,59,54,38, 0,10,59,24,50,44		4,23,10,58,30	
		53, 6,45,33,16,19		4
48″	59,59,54,38,53,17,44,58, 7, 3		4,23,10,58,34	
		53, 2,22,22,17,45		4
50″	59,59,54,39,46,20, 7,20,24,48		4,23,10,58,38	
		52,57,59,11,19, 7		4
52″	59,59,54,40,39,18, 6,31,43,55		4,23,10,58,42	
		52,53,36, 0,20,25		4
54″	59,59,54,41,32,11,42,32, 4,20		4,23,10,58,46	
		52,49,12,49,21,39		4
56″	59,59,54,42,25, 0,55,21,25,59		4,23,10,58,50	
		52,44,49,38,22,49		4
58″	59,59,54,43,17,45,44,59,48,48		4,23,10,58,54	
		52,40,26,27,23,55		
60″	59,59,54,44,10,26,11,27,12,43			
exact	59,59,54,44,10,26,11,27,14,17			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°36′ 0″	59,59,54,44,10,26,11,27,14,17			
		52,36, 3,16,25,15		
2″	59,59,54,45, 3, 2,14,43,39,32		4,23,10,59, 0	
		52,31,40, 5,26,15		4
4″	59,59,54,45,55,33,54,49, 5,47		4,23,10,59, 4	
		52,27,16,54,27,11		4
6″	59,59,54,46,48, 1,11,43,32,58		4,23,10,59, 8	
		52,22,53,43,28, 3		4
8″	59,59,54,47,40,24, 5,27, 1, 1		4,23,10,59,12	
		52,18,30,32,28,51		4
10″	59,59,54,48,32,42,35,59,29,52		4,23,10,59,16	
		52,14, 7,21,29,35		4
12″	59,59,54,49,24,56,43,20,59,27		4,23,10,59,20	
		52, 9,44,10,30,15		4
14″	59,59,54,50,17, 6,27,31,29,42		4,23,10,59,24	
		52, 5,20,59,30,51		4
16″	59,59,54,51, 9,11,48,31, 0,33		4,23,10,59,28	
		52, 0,57,48,31,23		4
18″	59,59,54,52, 1,12,46,19,31,56		4,23,10,59,32	
		51,56,34,37,31,51		4
20″	59,59,54,52,53, 9,20,57, 3,47		4,23,10,59,36	
		51,52,11,26,32,15		4
22″	59,59,54,53,45, 1,32,23,36, 2		4,23,10,59,40	
		51,47,48,15,32,35		4
24″	59,59,54,54,36,49,20,39, 8,37		4,23,10,59,44	
		51,43,25, 4,32,51		4
26″	59,59,54,55,28,32,45,43,41,28		4,23,10,59,48	
		51,39, 1,53,33, 3		4
28″	59,59,54,56,20,11,47,37,14,31		4,23,10,59,52	
		51,34,38,42,33,11		4
30″	59,59,54,57,11,46,26,19,47,42		4,23,10,59,56	
		51,30,15,31,33,15		4
32″	59,59,54,58, 3,16,41,51,20,57		4,23,11, 0, 0	
		51,25,52,20,33,15		4
34″	59,59,54,58,54,42,34,11,54,12		4,23,11, 0, 4	
		51,21,29, 9,33,11		4
36″	59,59,54,59,46, 4, 3,21,27,23		4,23,11, 0, 8	
		51,17, 5,58,33, 3		4
38″	59,59,55, 0,37,21, 9,20, 0,26		4,23,11, 0,12	
		51,12,42,47,32,51		4
40″	59,59,55, 1,28,33,52, 7,33,17		4,23,11, 0,16	
		51, 8,19,36,32,35		4
42″	59,59,55, 2,19,42,11,44, 5,52		4,23,11, 0,20	
		51, 3,56,25,32,15		4
44″	59,59,55, 3,10,46, 8, 9,38, 7		4,23,11, 0,24	
		50,59,33,14,31,51		4
46″	59,59,55, 4, 1,45,41,24, 9,58		4,23,11, 0,28	
		50,55,10, 3,31,23		4
48″	59,59,55, 4,52,40,51,27,41,21		4,23,11, 0,32	
		50,50,46,52,30,51		4
50″	59,59,55, 5,43,31,38,20,12,12		4,23,11, 0,36	
		50,46,23,41,30,15		4
52″	59,59,55, 6,34,18, 2, 1,42,27		4,23,11, 0,40	
		50,42, 0,30,29,35		4
54″	59,59,55, 7,25, 0, 2,32,12, 2		4,23,11, 0,44	
		50,37,37,19,28,51		4
56″	59,59,55, 8,15,37,39,51,40,53		4,23,11, 0,48	
		50,33,14, 8,28, 3		4
58″	59,59,55, 9, 6,10,54, 0, 8,56		4,23,11, 0,52	
		50,28,50,57,27,11		
60″	59,59,55, 9,56,39,44,57,36, 7			
exact	59,59,55, 9,56,39,44,57,50,28			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°37′ 0″	59,59,55, 9,56,39,44,57,50,28			
		50,24,27,46,27,51		
2″	59,59,55,10,47, 4,12,44,18,19		4,23,11, 0,53	
		50,20, 4,35,26,58		4
4″	59,59,55,11,37,24,17,19,45,17		4,23,11, 0,57	
		50,15,41,24,26, 1		4
6″	59,59,55,12,27,39,58,44,11,18		4,23,11, 1, 1	
		50,11,18,13,25, 0		4
8″	59,59,55,13,17,51,16,57,36,18		4,23,11, 1, 5	
		50, 6,55, 2,23,55		4
10″	59,59,55,14, 7,58,12, 0, 0,13		4,23,11, 1, 9	
		50, 2,31,51,22,46		4
12″	59,59,55,14,58, 0,43,51,22,59		4,23,11, 1,13	
		49,58, 8,40,21,33		4
14″	59,59,55,15,47,58,52,31,44,32		4,23,11, 1,17	
		49,53,45,29,20,16		4
16″	59,59,55,16,37,52,38, 1, 4,48		4,23,11, 1,21	
		49,49,22,18,18,55		4
18″	59,59,55,17,27,42, 0,19,23,43		4,23,11, 1,25	
		49,44,59, 7,17,30		4
20″	59,59,55,18,17,26,59,26,41,13		4,23,11, 1,29	
		49,40,35,56,16, 1		4
22″	59,59,55,19, 7, 7,35,22,57,14		4,23,11, 1,33	
		49,36,12,45,14,28		4
24″	59,59,55,19,56,43,48, 8,11,42		4,23,11, 1,37	
		49,31,49,34,12,51		4
26″	59,59,55,20,46,15,37,42,24,33		4,23,11, 1,41	
		49,27,26,23,11,10		4
28″	59,59,55,21,35,43, 4, 5,35,43		4,23,11, 1,45	
		49,23, 3,12, 9,25		4
30″	59,59,55,22,25, 6, 7,17,45, 8		4,23,11, 1,49	
		49,18,40, 1, 7,36		4
32″	59,59,55,23,14,24,47,18,52,44		4,23,11, 1,53	
		49,14,16,50, 5,43		4
34″	59,59,55,24, 3,39, 4, 8,58,27		4,23,11, 1,57	
		49, 9,53,39, 3,46		4
36″	59,59,55,24,52,48,57,48, 2,13		4,23,11, 2, 1	
		49, 5,30,28, 1,45		4
38″	59,59,55,25,41,54,28,16, 3,58		4,23,11, 2, 5	
		49, 1, 7,16,59,40		4
40″	59,59,55,26,30,55,35,33, 3,38		4,23,11, 2, 9	
		48,56,44, 5,57,31		4
42″	59,59,55,27,19,52,19,39, 1, 9		4,23,11, 2,13	
		48,52,20,54,55,18		4
44″	59,59,55,28, 8,44,40,33,56,27		4,23,11, 2,17	
		48,47,57,43,53, 1		4
46″	59,59,55,28,57,32,38,17,49,28		4,23,11, 2,21	
		48,43,34,32,50,40		4
48″	59,59,55,29,46,16,12,50,40, 8		4,23,11, 2,25	
		48,39,11,21,48,15		4
50″	59,59,55,30,34,55,24,12,28,23		4,23,11, 2,29	
		48,34,48,10,45,46		4
52″	59,59,55,31,23,30,12,23,14, 9		4,23,11, 2,33	
		48,30,24,59,43,13		4
54″	59,59,55,32,12, 0,37,22,57,22		4,23,11, 2,37	
		48,26, 1,48,40,36		4
56″	59,59,55,33, 0,26,39,11,37,58		4,23,11, 2,41	
		48,21,38,37,37,55		4
58″	59,59,55,33,48,48,17,49,15,53		4,23,11, 2,45	
		48,17,15,26,35,10		
60″	59,59,55,34,37, 5,33,15,51, 3			
exact	59,59,55,34,37, 5,33,16,17,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°38′ 0″	59,59,55,34,37, 5,33,16,17,18			
		48,12,52,15,35,11		
2″	59,59,55,35,25,18,25,31,52,29		4,23,11, 2,41	
		48, 8,29, 4,32,30		4
4″	59,59,55,36,13,26,54,36,24,59		4,23,11, 2,45	
		48, 4, 5,53,29,45		4
6″	59,59,55,37, 1,31, 0,29,54,44		4,23,11, 2,49	
		47,59,42,42,26,56		4
8″	59,59,55,37,49,30,43,12,21,40		4,23,11, 2,53	
		47,55,19,31,24, 3		4
10″	59,59,55,38,37,26, 2,43,45,43		4,23,11, 2,57	
		47,50,56,20,21, 6		4
12″	59,59,55,39,25,16,59, 4, 6,49		4,23,11, 3, 1	
		47,46,33, 9,18, 5		4
14″	59,59,55,40,13, 3,32,13,24,54		4,23,11, 3, 5	
		47,42, 9,58,15, 0		4
16″	59,59,55,41, 0,45,42,11,39,54		4,23,11, 3, 9	
		47,37,46,47,11,51		4
18″	59,59,55,41,48,23,28,58,51,45		4,23,11, 3,13	
		47,33,23,36, 8,38		4
20″	59,59,55,42,35,56,52,35, 0,23		4,23,11, 3,17	
		47,29, 0,25, 5,21		4
22″	59,59,55,43,23,25,53, 0, 5,44		4,23,11, 3,21	
		47,24,37,14, 2, 0		4
24″	59,59,55,44,10,50,30,14, 7,44		4,23,11, 3,25	
		47,20,14, 2,58,35		4
26″	59,59,55,44,58,10,44,17, 6,19		4,23,11, 3,29	
		47,15,50,51,55, 6		4
28″	59,59,55,45,45,26,35, 9, 1,25		4,23,11, 3,33	
		47,11,27,40,51,33		4
30″	59,59,55,46,32,38, 2,49,52,58		4,23,11, 3,37	
		47, 7, 4,29,47,56		4
32″	59,59,55,47,19,45, 7,19,40,54		4,23,11, 3,41	
		47, 2,41,18,44,15		4
34″	59,59,55,48, 6,47,48,38,25, 9		4,23,11, 3,45	
		46,58,18, 7,40,30		4
36″	59,59,55,48,53,46, 6,46, 5,39		4,23,11, 3,49	
		46,53,54,56,36,41		4
38″	59,59,55,49,40,40, 1,42,42,20		4,23,11, 3,53	
		46,49,31,45,32,48		4
40″	59,59,55,50,27,29,33,28,15, 8		4,23,11, 3,57	
		46,45, 8,34,28,51		4
42″	59,59,55,51,14,14,42, 2,43,59		4,23,11, 4, 1	
		46,40,45,23,24,50		4
44″	59,59,55,52, 0,55,27,26, 8,49		4,23,11, 4, 5	
		46,36,22,12,20,45		4
46″	59,59,55,52,47,31,49,38,29,34		4,23,11, 4, 9	
		46,31,59, 1,16,36		4
48″	59,59,55,53,34, 3,48,39,46,10		4,23,11, 4,13	
		46,27,35,50,12,23		4
50″	59,59,55,54,20,31,24,29,58,33		4,23,11, 4,17	
		46,23,12,39, 8, 6		4
52″	59,59,55,55, 6,54,37, 9, 6,39		4,23,11, 4,21	
		46,18,49,28, 3,45		4
54″	59,59,55,55,53,13,26,37,10,24		4,23,11, 4,25	
		46,14,26,16,59,20		4
56″	59,59,55,56,39,27,52,54, 9,44		4,23,11, 4,29	
		46,10, 3, 5,54,51		4
58″	59,59,55,57,25,37,56, 0, 4,35		4,23,11, 4,33	
		46, 5,39,54,50,18		
60″	59,59,55,58,11,43,35,54,54,53			
exact	59,59,55,58,11,43,35,55,31,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°39′ 0″	59,59,55,58,11,43,35,55,31,18			
		46, 1,16,43,49,38		
2″	59,59,55,58,57,44,52,39,20,56		4,23,11, 4,24	
		45,56,53,32,45,14		3
4″	59,59,55,59,43,41,46,12, 6,10		4,23,11, 4,27	
		45,52,30,21,40,47		3
6″	59,59,56, 0,29,34,16,33,46,57		4,23,11, 4,30	
		45,48, 7,10,36,17		3
8″	59,59,56, 1,15,22,23,44,23,14		4,23,11, 4,33	
		45,43,43,59,31,44		3
10″	59,59,56, 2, 1, 6, 7,43,54,58		4,23,11, 4,36	
		45,39,20,48,27, 8		3
12″	59,59,56, 2,46,45,28,32,22, 6		4,23,11, 4,39	
		45,34,57,37,22,29		3
14″	59,59,56, 3,32,20,26, 9,44,35		4,23,11, 4,42	
		45,30,34,26,17,47		3
16″	59,59,56, 4,17,51, 0,36, 2,22		4,23,11, 4,45	
		45,26,11,15,13, 2		3
18″	59,59,56, 5, 3,17,11,51,15,24		4,23,11, 4,48	
		45,21,48, 4, 8,14		3
20″	59,59,56, 5,48,38,59,55,23,38		4,23,11, 4,51	
		45,17,24,53, 3,23		3
22″	59,59,56, 6,33,56,24,48,27, 1		4,23,11, 4,54	
		45,13, 1,41,58,29		3
24″	59,59,56, 7,19, 9,26,30,25,30		4,23,11, 4,57	
		45, 8,38,30,53,32		3
26″	59,59,56, 8, 4,18, 5, 1,19, 2		4,23,11, 5, 0	
		45, 4,15,19,48,32		3
28″	59,59,56, 8,49,22,20,21, 7,34		4,23,11, 5, 3	
		44,59,52, 8,43,29		3
30″	59,59,56, 9,34,22,12,29,51, 3		4,23,11, 5, 6	
		44,55,28,57,38,23		3
32″	59,59,56,10,19,17,41,27,29,26		4,23,11, 5, 9	
		44,51, 5,46,33,14		3
34″	59,59,56,11, 4, 8,47,14, 2,40		4,23,11, 5,12	
		44,46,42,35,28, 2		3
36″	59,59,56,11,48,55,29,49,30,42		4,23,11, 5,15	
		44,42,19,24,22,47		3
38″	59,59,56,12,33,37,49,13,53,29		4,23,11, 5,18	
		44,37,56,13,17,29		3
40″	59,59,56,13,18,15,45,27,10,58		4,23,11, 5,21	
		44,33,33, 2,12, 8		3
42″	59,59,56,14, 2,49,18,29,23, 6		4,23,11, 5,24	
		44,29, 9,51, 6,44		3
44″	59,59,56,14,47,18,28,20,29,50		4,23,11, 5,27	
		44,24,46,40, 1,17		3
46″	59,59,56,15,31,43,15, 0,31, 7		4,23,11, 5,30	
		44,20,23,28,55,47		3
48″	59,59,56,16,16, 3,38,29,26,54		4,23,11, 5,33	
		44,16, 0,17,50,14		3
50″	59,59,56,17, 0,19,38,47,17, 8		4,23,11, 5,36	
		44,11,37, 6,44,38		3
52″	59,59,56,17,44,31,15,54, 1,46		4,23,11, 5,39	
		44, 7,13,55,38,59		3
54″	59,59,56,18,28,38,29,49,40,45		4,23,11, 5,42	
		44, 2,50,44,33,17		3
56″	59,59,56,19,12,41,20,34,14, 2		4,23,11, 5,45	
		43,58,27,33,27,32		3
58″	59,59,56,19,56,39,48, 7,41,34		4,23,11, 5,48	
		43,54, 4,22,21,44		
60″	59,59,56,20,40,33,52,30, 3,18			
exact	59,59,56,20,40,33,52,29,41,11			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°40′ 0″	59,59,56,20,40,33,52,29,41,11			
		43,49,41,11,13,37		
2″	59,59,56,21,24,23,33,40,54,48		4,23,11, 6, 2	
		43,45,18, 0, 7,35		3
4″	59,59,56,22, 8, 8,51,41, 2,23		4,23,11, 6, 5	
		43,40,54,49, 1,30		3
6″	59,59,56,22,51,49,46,30, 3,53		4,23,11, 6, 8	
		43,36,31,37,55,22		3
8″	59,59,56,23,35,26,18, 7,59,15		4,23,11, 6,11	
		43,32, 8,26,49,11		3
10″	59,59,56,24,18,58,26,34,48,26		4,23,11, 6,14	
		43,27,45,15,42,57		3
12″	59,59,56,25, 2,26,11,50,31,23		4,23,11, 6,17	
		43,23,22, 4,36,40		3
14″	59,59,56,25,45,49,33,55, 8, 3		4,23,11, 6,20	
		43,18,58,53,30,20		3
16″	59,59,56,26,29, 8,32,48,38,23		4,23,11, 6,23	
		43,14,35,42,23,57		3
18″	59,59,56,27,12,23, 8,31, 2,20		4,23,11, 6,26	
		43,10,12,31,17,31		3
20″	59,59,56,27,55,33,21, 2,19,51		4,23,11, 6,29	
		43, 5,49,20,11, 2		3
22″	59,59,56,28,38,39,10,22,30,53		4,23,11, 6,32	
		43, 1,26, 9, 4,30		3
24″	59,59,56,29,21,40,36,31,35,23		4,23,11, 6,35	
		42,57, 2,57,57,55		3
26″	59,59,56,30, 4,37,39,29,33,18		4,23,11, 6,38	
		42,52,39,46,51,17		3
28″	59,59,56,30,47,30,19,16,24,35		4,23,11, 6,41	
		42,48,16,35,44,36		3
30″	59,59,56,31,30,18,35,52, 9,11		4,23,11, 6,44	
		42,43,53,24,37,52		3
32″	59,59,56,32,13, 2,29,16,47, 3		4,23,11, 6,47	
		42,39,30,13,31, 5		3
34″	59,59,56,32,55,41,59,30,18, 8		4,23,11, 6,50	
		42,35, 7, 2,24,15		3
36″	59,59,56,33,38,17, 6,32,42,23		4,23,11, 6,53	
		42,30,43,51,17,22		3
38″	59,59,56,34,20,47,50,23,59,45		4,23,11, 6,56	
		42,26,20,40,10,26		3
40″	59,59,56,35, 3,14,11, 4,10,11		4,23,11, 6,59	
		42,21,57,29, 3,27		3
42″	59,59,56,35,45,36, 8,33,13,38		4,23,11, 7, 2	
		42,17,34,17,56,25		3
44″	59,59,56,36,27,53,42,51,10, 3		4,23,11, 7, 5	
		42,13,11, 6,49,20		3
46″	59,59,56,37,10, 6,53,57,59,23		4,23,11, 7, 8	
		42, 8,47,55,42,12		3
48″	59,59,56,37,52,15,41,53,41,35		4,23,11, 7,11	
		42, 4,24,44,35, 1		3
50″	59,59,56,38,34,20, 6,38,16,36		4,23,11, 7,14	
		42, 0, 1,33,27,47		3
52″	59,59,56,39,16,20, 8,11,44,23		4,23,11, 7,17	
		41,55,38,22,20,30		3
54″	59,59,56,39,58,15,46,34, 4,53		4,23,11, 7,20	
		41,51,15,11,13,10		3
56″	59,59,56,40,40, 7, 1,45,18, 3		4,23,11, 7,23	
		41,46,52, 0, 5,47		3
58″	59,59,56,41,21,53,53,45,23,50		4,23,11, 7,26	
		41,42,28,48,58,21		
60″	59,59,56,42, 3,36,22,34,22,11			
exact	59,59,56,42, 3,36,22,34, 7,45			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°41′ 0″	59,59,56,42, 3,36,22,34, 7,45			
		41,38, 5,37,49,33		
2″	59,59,56,42,45,14,28,11,57,18		4,23,11, 7,36	
		41,33,42,26,41,57		3
4″	59,59,56,43,26,48,10,38,39,15		4,23,11, 7,39	
		41,29,19,15,34,18		3
6″	59,59,56,44, 8,17,29,54,13,33		4,23,11, 7,42	
		41,24,56, 4,26,36		3
8″	59,59,56,44,49,42,25,58,40, 9		4,23,11, 7,45	
		41,20,32,53,18,51		3
10″	59,59,56,45,31, 2,58,51,59, 0		4,23,11, 7,48	
		41,16, 9,42,11, 3		3
12″	59,59,56,46,12,19, 8,34,10, 3		4,23,11, 7,51	
		41,11,46,31, 3,12		3
14″	59,59,56,46,53,30,55, 5,13,15		4,23,11, 7,54	
		41, 7,23,19,55,18		3
16″	59,59,56,47,34,38,18,25, 8,33		4,23,11, 7,57	
		41, 3, 0, 8,47,21		3
18″	59,59,56,48,15,41,18,33,55,54		4,23,11, 8, 0	
		40,58,36,57,39,21		3
20″	59,59,56,48,56,39,55,31,35,15		4,23,11, 8, 3	
		40,54,13,46,31,18		3
22″	59,59,56,49,37,34, 9,18, 6,33		4,23,11, 8, 6	
		40,49,50,35,23,12		3
24″	59,59,56,50,18,23,59,53,29,45		4,23,11, 8, 9	
		40,45,27,24,15, 3		3
26″	59,59,56,50,59, 9,27,17,44,48		4,23,11, 8,12	
		40,41, 4,13, 6,51		3
28″	59,59,56,51,39,50,31,30,51,39		4,23,11, 8,15	
		40,36,41, 1,58,36		3
30″	59,59,56,52,20,27,12,32,50,15		4,23,11, 8,18	
		40,32,17,50,50,18		3
32″	59,59,56,53, 0,59,30,23,40,33		4,23,11, 8,21	
		40,27,54,39,41,57		3
34″	59,59,56,53,41,27,25, 3,22,30		4,23,11, 8,24	
		40,23,31,28,33,33		3
36″	59,59,56,54,21,50,56,31,56, 3		4,23,11, 8,27	
		40,19, 8,17,25, 6		3
38″	59,59,56,55, 2,10, 4,49,21, 9		4,23,11, 8,30	
		40,14,45, 6,16,36		3
40″	59,59,56,55,42,24,49,55,37,45		4,23,11, 8,33	
		40,10,21,55, 8, 3		3
42″	59,59,56,56,22,35,11,50,45,48		4,23,11, 8,36	
		40, 5,58,43,59,27		3
44″	59,59,56,57, 2,41,10,34,45,15		4,23,11, 8,39	
		40, 1,35,32,50,48		3
46″	59,59,56,57,42,42,46, 7,36, 3		4,23,11, 8,42	
		39,57,12,21,42, 6		3
48″	59,59,56,58,22,39,58,29,18, 9		4,23,11, 8,45	
		39,52,49,10,33,21		3
50″	59,59,56,59, 2,32,47,39,51,30		4,23,11, 8,48	
		39,48,25,59,24,33		3
52″	59,59,56,59,42,21,13,39,16, 3		4,23,11, 8,51	
		39,44, 2,48,15,42		3
54″	59,59,57, 0,22, 5,16,27,31,45		4,23,11, 8,54	
		39,39,39,37, 6,48		3
56″	59,59,57, 1, 1,44,56, 4,38,33		4,23,11, 8,57	
		39,35,16,25,57,51		3
58″	59,59,57, 1,41,20,12,30,36,24		4,23,11, 9, 0	
		39,30,53,14,48,51		
60″	59,59,57, 2,20,51, 5,45,25,15			
exact	59,59,57, 2,20,51, 5,45,24, 0			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°42′ 0″	59,59,57, 2,20,51, 5,45,24, 0			
		39,26,30, 3,39,49		
2″	59,59,57, 3, 0,17,35,49, 3,49		4,23,11, 9, 5	
		39,22, 6,52,30,44		3
4″	59,59,57, 3,39,39,42,41,34,33		4,23,11, 9, 8	
		39,17,43,41,21,36		3
6″	59,59,57, 4,18,57,26,22,56, 9		4,23,11, 9,11	
		39,13,20,30,12,25		3
8″	59,59,57, 4,58,10,46,53, 8,34		4,23,11, 9,14	
		39, 8,57,19, 3,11		3
10″	59,59,57, 5,37,19,44,12,11,45		4,23,11, 9,17	
		39, 4,34, 7,53,54		3
12″	59,59,57, 6,16,24,18,20, 5,39		4,23,11, 9,20	
		39, 0,10,56,44,34		3
14″	59,59,57, 6,55,24,29,16,50,13		4,23,11, 9,23	
		38,55,47,45,35,11		3
16″	59,59,57, 7,34,20,17, 2,25,24		4,23,11, 9,26	
		38,51,24,34,25,45		3
18″	59,59,57, 8,13,11,41,36,51, 9		4,23,11, 9,29	
		38,47, 1,23,16,16		3
20″	59,59,57, 8,51,58,43, 0, 7,25		4,23,11, 9,32	
		38,42,38,12, 6,44		3
22″	59,59,57, 9,30,41,21,12,14, 9		4,23,11, 9,35	
		38,38,15, 0,57, 9		3
24″	59,59,57,10, 9,19,36,13,11,18		4,23,11, 9,38	
		38,33,51,49,47,31		3
26″	59,59,57,10,47,53,28, 2,58,49		4,23,11, 9,41	
		38,29,28,38,37,50		3
28″	59,59,57,11,26,22,56,41,36,39		4,23,11, 9,44	
		38,25, 5,27,28, 6		3
30″	59,59,57,12, 4,48, 2, 9, 4,45		4,23,11, 9,47	
		38,20,42,16,18,19		3
32″	59,59,57,12,43, 8,44,25,23, 4		4,23,11, 9,50	
		38,16,19, 5, 8,29		3
34″	59,59,57,13,21,25, 3,30,31,33		4,23,11, 9,53	
		38,11,55,53,58,36		3
36″	59,59,57,13,59,36,59,24,30, 9		4,23,11, 9,56	
		38, 7,32,42,48,40		3
38″	59,59,57,14,37,44,32, 7,18,49		4,23,11, 9,59	
		38, 3, 9,31,38,41		3
40″	59,59,57,15,15,47,41,38,57,30		4,23,11,10, 2	
		37,58,46,20,28,39		3
42″	59,59,57,15,53,46,27,59,26, 9		4,23,11,10, 5	
		37,54,23, 9,18,34		3
44″	59,59,57,16,31,40,51, 8,44,43		4,23,11,10, 8	
		37,49,59,58, 8,26		3
46″	59,59,57,17, 9,30,51, 6,53, 9		4,23,11,10,11	
		37,45,36,46,58,15		3
48″	59,59,57,17,47,16,27,53,51,24		4,23,11,10,14	
		37,41,13,35,48, 1		3
50″	59,59,57,18,24,57,41,29,39,25		4,23,11,10,17	
		37,36,50,24,37,44		3
52″	59,59,57,19, 2,34,31,54,17, 9		4,23,11,10,20	
		37,32,27,13,27,24		3
54″	59,59,57,19,40, 6,59, 7,44,33		4,23,11,10,23	
		37,28, 4, 2,17, 1		3
56″	59,59,57,20,17,35, 3,10, 1,34		4,23,11,10,26	
		37,23,40,51, 6,35		3
58″	59,59,57,20,54,58,44, 1, 8, 9		4,23,11,10,29	
		37,19,17,39,56, 6		
60″	59,59,57,21,32,18, 1,41, 4,15			
exact	59,59,57,21,32,18, 1,41,15, 4			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°43′ 0″	59,59,57,21,32,18, 1,41,15, 4			
		37,14,54,28,46,50		
2″	59,59,57,22, 9,32,56,10, 1,54		4,23,11,10,29	
		37,10,31,17,36,21		3
4″	59,59,57,22,46,43,27,27,38,15		4,23,11,10,32	
		37, 6, 8, 6,25,49		3
6″	59,59,57,23,23,49,35,34, 4, 4		4,23,11,10,35	
		37, 1,44,55,15,14		3
8″	59,59,57,24, 0,51,20,29,19,18		4,23,11,10,38	
		36,57,21,44, 4,36		3
10″	59,59,57,24,37,48,42,13,23,54		4,23,11,10,41	
		36,52,58,32,53,55		3
12″	59,59,57,25,14,41,40,46,17,49		4,23,11,10,44	
		36,48,35,21,43,11		3
14″	59,59,57,25,51,30,16, 8, 1, 0		4,23,11,10,47	
		36,44,12,10,32,24		3
16″	59,59,57,26,28,14,28,18,33,24		4,23,11,10,50	
		36,39,48,59,21,34		3
18″	59,59,57,27, 4,54,17,17,54,58		4,23,11,10,53	
		36,35,25,48,10,41		3
20″	59,59,57,27,41,29,43, 6, 5,39		4,23,11,10,56	
		36,31, 2,36,59,45		3
22″	59,59,57,28,18, 0,45,43, 5,24		4,23,11,10,59	
		36,26,39,25,48,46		3
24″	59,59,57,28,54,27,25, 8,54,10		4,23,11,11, 2	
		36,22,16,14,37,44		3
26″	59,59,57,29,30,49,41,23,31,54		4,23,11,11, 5	
		36,17,53, 3,26,39		3
28″	59,59,57,30, 7, 7,34,26,58,33		4,23,11,11, 8	
		36,13,29,52,15,31		3
30″	59,59,57,30,43,21, 4,19,14, 4		4,23,11,11,11	
		36, 9, 6,41, 4,20		3
32″	59,59,57,31,19,30,11, 0,18,24		4,23,11,11,14	
		36, 4,43,29,53, 6		3
34″	59,59,57,31,55,34,54,30,11,30		4,23,11,11,17	
		36, 0,20,18,41,49		3
36″	59,59,57,32,31,35,14,48,53,19		4,23,11,11,20	
		35,55,57, 7,30,29		3
38″	59,59,57,33, 7,31,11,56,23,48		4,23,11,11,23	
		35,51,33,56,19, 6		3
40″	59,59,57,33,43,22,45,52,42,54		4,23,11,11,26	
		35,47,10,45, 7,40		3
42″	59,59,57,34,19, 9,56,37,50,34		4,23,11,11,29	
		35,42,47,33,56,11		3
44″	59,59,57,34,54,52,44,11,46,45		4,23,11,11,32	
		35,38,24,22,44,39		3
46″	59,59,57,35,30,31, 8,34,31,24		4,23,11,11,35	
		35,34, 1,11,33, 4		3
48″	59,59,57,36, 6, 5, 9,46, 4,28		4,23,11,11,38	
		35,29,38, 0,21,26		3
50″	59,59,57,36,41,34,47,46,25,54		4,23,11,11,41	
		35,25,14,49, 9,45		3
52″	59,59,57,37,17, 0, 2,35,35,39		4,23,11,11,44	
		35,20,51,37,58, 1		3
54″	59,59,57,37,52,20,54,13,33,40		4,23,11,11,47	
		35,16,28,26,46,14		3
56″	59,59,57,38,27,37,22,40,19,54		4,23,11,11,50	
		35,12, 5,15,34,24		3
58″	59,59,57,39, 2,49,27,55,54,18		4,23,11,11,53	
		35, 7,42, 4,22,31		
60″	59,59,57,39,37,57,10, 0,16,49			
exact	59,59,57,39,37,57,10, 0,38,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°44′ 0″	59,59,57,39,37,57,10, 0,38,16			
		35, 3,18,53,13, 0		
2″	59,59,57,40,13, 0,28,53,51,16		4,23,11,11,48	
		34,58,55,42, 1,12		3
4″	59,59,57,40,47,59,24,35,52,28		4,23,11,11,51	
		34,54,32,30,49,21		3
6″	59,59,57,41,22,53,57, 6,41,49		4,23,11,11,54	
		34,50, 9,19,37,27		3
8″	59,59,57,41,57,44, 6,26,19,16		4,23,11,11,57	
		34,45,46, 8,25,30		3
10″	59,59,57,42,32,29,52,34,44,46		4,23,11,12, 0	
		34,41,22,57,13,30		3
12″	59,59,57,43, 7,11,15,31,58,16		4,23,11,12, 3	
		34,36,59,46, 1,27		3
14″	59,59,57,43,41,48,15,17,59,43		4,23,11,12, 6	
		34,32,36,34,49,21		3
16″	59,59,57,44,16,20,51,52,49, 4		4,23,11,12, 9	
		34,28,13,23,37,12		3
18″	59,59,57,44,50,49, 5,16,26,16		4,23,11,12,12	
		34,23,50,12,25, 0		3
20″	59,59,57,45,25,12,55,28,51,16		4,23,11,12,15	
		34,19,27, 1,12,45		3
22″	59,59,57,45,59,32,22,30, 4, 1		4,23,11,12,18	
		34,15, 3,50, 0,27		3
24″	59,59,57,46,33,47,26,20, 4,28		4,23,11,12,21	
		34,10,40,38,48, 6		3
26″	59,59,57,47, 7,58, 6,58,52,34		4,23,11,12,24	
		34, 6,17,27,35,42		3
28″	59,59,57,47,42, 4,24,26,28,16		4,23,11,12,27	
		34, 1,54,16,23,15		3
30″	59,59,57,48,16, 6,18,42,51,31		4,23,11,12,30	
		33,57,31, 5,10,45		3
32″	59,59,57,48,50, 3,49,48, 2,16		4,23,11,12,33	
		33,53, 7,53,58,12		3
34″	59,59,57,49,23,56,57,42, 0,28		4,23,11,12,36	
		33,48,44,42,45,36		3
36″	59,59,57,49,57,45,42,24,46, 4		4,23,11,12,39	
		33,44,21,31,32,57		3
38″	59,59,57,50,31,30, 3,56,19, 1		4,23,11,12,42	
		33,39,58,20,20,15		3
40″	59,59,57,51, 5,10, 2,16,39,16		4,23,11,12,45	
		33,35,35, 9, 7,30		3
42″	59,59,57,51,38,45,37,25,46,46		4,23,11,12,48	
		33,31,11,57,54,42		3
44″	59,59,57,52,12,16,49,23,41,28		4,23,11,12,51	
		33,26,48,46,41,51		3
46″	59,59,57,52,45,43,38,10,23,19		4,23,11,12,54	
		33,22,25,35,28,57		3
48″	59,59,57,53,19, 6, 3,45,52,16		4,23,11,12,57	
		33,18, 2,24,16, 0		3
50″	59,59,57,53,52,24, 6,10, 8,16		4,23,11,13, 0	
		33,13,39,13, 3, 0		3
52″	59,59,57,54,25,37,45,23,11,16		4,23,11,13, 3	
		33, 9,16, 1,49,57		3
54″	59,59,57,54,58,47, 1,25, 1,13		4,23,11,13, 6	
		33, 4,52,50,36,51		3
56″	59,59,57,55,31,51,54,15,38, 4		4,23,11,13, 9	
		33, 0,29,39,23,42		3
58″	59,59,57,56, 4,52,23,55, 1,46		4,23,11,13,12	
		32,56, 6,28,10,30		
60″	59,59,57,56,37,48,30,23,12,16			
exact	59,59,57,56,37,48,30,23,43, 1			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°45′ 0″	59,59,57,56,37,48,30,23,43, 1			
		32,51,43,17, 0,43		
2″	59,59,57,57,10,40,13,40,43,44		4,23,11,13, 3	
		32,47,20, 5,47,40		2
4″	59,59,57,57,43,27,33,46,31,24		4,23,11,13, 5	
		32,42,56,54,34,35		2
6″	59,59,57,58,16,10,30,41, 5,59		4,23,11,13, 7	
		32,38,33,43,21,28		2
8″	59,59,57,58,48,49, 4,24,27,27		4,23,11,13, 9	
		32,34,10,32, 8,19		2
10″	59,59,57,59,21,23,14,56,35,46		4,23,11,13,11	
		32,29,47,20,55, 8		2
12″	59,59,57,59,53,53, 2,17,30,54		4,23,11,13,13	
		32,25,24, 9,41,55		2
14″	59,59,58, 0,26,18,26,27,12,49		4,23,11,13,15	
		32,21, 0,58,28,40		2
16″	59,59,58, 0,58,39,27,25,41,29		4,23,11,13,17	
		32,16,37,47,15,23		2
18″	59,59,58, 1,30,56, 5,12,56,52		4,23,11,13,19	
		32,12,14,36, 2, 4		2
20″	59,59,58, 2, 3, 8,19,48,58,56		4,23,11,13,21	
		32, 7,51,24,48,43		2
22″	59,59,58, 2,35,16,11,13,47,39		4,23,11,13,23	
		32, 3,28,13,35,20		2
24″	59,59,58, 3, 7,19,39,27,22,59		4,23,11,13,25	
		31,59, 5, 2,21,55		2
26″	59,59,58, 3,39,18,44,29,44,54		4,23,11,13,27	
		31,54,41,51, 8,28		2
28″	59,59,58, 4,11,13,26,20,53,22		4,23,11,13,29	
		31,50,18,39,54,59		2
30″	59,59,58, 4,43, 3,45, 0,48,21		4,23,11,13,31	
		31,45,55,28,41,28		2
32″	59,59,58, 5,14,49,40,29,29,49		4,23,11,13,33	
		31,41,32,17,27,55		2
34″	59,59,58, 5,46,31,12,46,57,44		4,23,11,13,35	
		31,37, 9, 6,14,20		2
36″	59,59,58, 6,18, 8,21,53,12, 4		4,23,11,13,37	
		31,32,45,55, 0,43		2
38″	59,59,58, 6,49,41, 7,48,12,47		4,23,11,13,39	
		31,28,22,43,47, 4		2
40″	59,59,58, 7,21, 9,30,31,59,51		4,23,11,13,41	
		31,23,59,32,33,23		2
42″	59,59,58, 7,52,33,30, 4,33,14		4,23,11,13,43	
		31,19,36,21,19,40		2
44″	59,59,58, 8,23,53, 6,25,52,54		4,23,11,13,45	
		31,15,13,10, 5,55		2
46″	59,59,58, 8,55, 8,19,35,58,49		4,23,11,13,47	
		31,10,49,58,52, 8		2
48″	59,59,58, 9,26,19, 9,34,50,57		4,23,11,13,49	
		31, 6,26,47,38,19		2
50″	59,59,58, 9,57,25,36,22,29,16		4,23,11,13,51	
		31, 2, 3,36,24,28		2
52″	59,59,58,10,28,27,39,58,53,44		4,23,11,13,53	
		30,57,40,25,10,35		2
54″	59,59,58,10,59,25,20,24, 4,19		4,23,11,13,55	
		30,53,17,13,56,40		2
56″	59,59,58,11,30,18,37,38, 0,59		4,23,11,13,57	
		30,48,54, 2,42,43		2
58″	59,59,58,12, 1, 7,31,40,43,42		4,23,11,13,59	
		30,44,30,51,28,44		
60″	59,59,58,12,31,52, 2,32,12,26			
exact	59,59,58,12,31,52, 2,31,50,57			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°46′ 0″	59,59,58,12,31,52, 2,31,50,57			
		30,40, 7,40,12,24		
2″	59,59,58,13, 2,32,10,12, 3,21		4,23,11,14,12	
		30,35,44,28,58,12		2
4″	59,59,58,13,33, 7,54,41, 1,33		4,23,11,14,14	
		30,31,21,17,43,58		2
6″	59,59,58,14, 3,39,15,58,45,31		4,23,11,14,16	
		30,26,58, 6,29,42		2
8″	59,59,58,14,34, 6,14, 5,15,13		4,23,11,14,18	
		30,22,34,55,15,24		2
10″	59,59,58,15, 4,28,49, 0,30,37		4,23,11,14,20	
		30,18,11,44, 1, 4		2
12″	59,59,58,15,34,47, 0,44,31,41		4,23,11,14,22	
		30,13,48,32,46,42		2
14″	59,59,58,16, 5, 0,49,17,18,23		4,23,11,14,24	
		30, 9,25,21,32,18		2
16″	59,59,58,16,35,10,14,38,50,41		4,23,11,14,26	
		30, 5, 2,10,17,52		2
18″	59,59,58,17, 5,15,16,49, 8,33		4,23,11,14,28	
		30, 0,38,59, 3,24		2
20″	59,59,58,17,35,15,55,48,11,57		4,23,11,14,30	
		29,56,15,47,48,54		2
22″	59,59,58,18, 5,12,11,36, 0,51		4,23,11,14,32	
		29,51,52,36,34,22		2
24″	59,59,58,18,35, 4, 4,12,35,13		4,23,11,14,34	
		29,47,29,25,19,48		2
26″	59,59,58,19, 4,51,33,37,55, 1		4,23,11,14,36	
		29,43, 6,14, 5,12		2
28″	59,59,58,19,34,34,39,52, 0,13		4,23,11,14,38	
		29,38,43, 2,50,34		2
30″	59,59,58,20, 4,13,22,54,50,47		4,23,11,14,40	
		29,34,19,51,35,54		2
32″	59,59,58,20,33,47,42,46,26,41		4,23,11,14,42	
		29,29,56,40,21,12		2
34″	59,59,58,21, 3,17,39,26,47,53		4,23,11,14,44	
		29,25,33,29, 6,28		2
36″	59,59,58,21,32,43,12,55,54,21		4,23,11,14,46	
		29,21,10,17,51,42		2
38″	59,59,58,22, 2, 4,23,13,46, 3		4,23,11,14,48	
		29,16,47, 6,36,54		2
40″	59,59,58,22,31,21,10,20,22,57		4,23,11,14,50	
		29,12,23,55,22, 4		2
42″	59,59,58,23, 0,33,34,15,45, 1		4,23,11,14,52	
		29, 8, 0,44, 7,12		2
44″	59,59,58,23,29,41,34,59,52,13		4,23,11,14,54	
		29, 3,37,32,52,18		2
46″	59,59,58,23,58,45,12,32,44,31		4,23,11,14,56	
		28,59,14,21,37,22		2
48″	59,59,58,24,27,44,26,54,21,53		4,23,11,14,58	
		28,54,51,10,22,24		2
50″	59,59,58,24,56,39,18, 4,44,17		4,23,11,15, 0	
		28,50,27,59, 7,24		2
52″	59,59,58,25,25,29,46, 3,51,41		4,23,11,15, 2	
		28,46, 4,47,52,22		2
54″	59,59,58,25,54,15,50,51,44, 3		4,23,11,15, 4	
		28,41,41,36,37,18		2
56″	59,59,58,26,22,57,32,28,21,21		4,23,11,15, 6	
		28,37,18,25,22,12		2
58″	59,59,58,26,51,34,50,53,43,33		4,23,11,15, 8	
		28,32,55,14, 7, 4		
60″	59,59,58,27,20, 7,46, 7,50,37			
exact	59,59,58,27,20, 7,46, 7,35,48			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°47′ 0″	59,59,58,27,20, 7,46, 7,35,48			
		28,28,32, 2,50,27		
2″	59,59,58,27,48,36,18,10,26,15		4,23,11,15,17	
		28,24, 8,51,35,10		2
4″	59,59,58,28,17, 0,27, 2, 1,25		4,23,11,15,19	
		28,19,45,40,19,51		2
6″	59,59,58,28,45,20,12,42,21,16		4,23,11,15,21	
		28,15,22,29, 4,30		2
8″	59,59,58,29,13,35,35,11,25,46		4,23,11,15,23	
		28,10,59,17,49, 7		2
10″	59,59,58,29,41,46,34,29,14,53		4,23,11,15,25	
		28, 6,36, 6,33,42		2
12″	59,59,58,30, 9,53,10,35,48,35		4,23,11,15,27	
		28, 2,12,55,18,15		2
14″	59,59,58,30,37,55,23,31, 6,50		4,23,11,15,29	
		27,57,49,44, 2,46		2
16″	59,59,58,31, 5,53,13,15, 9,36		4,23,11,15,31	
		27,53,26,32,47,15		2
18″	59,59,58,31,33,46,39,47,56,51		4,23,11,15,33	
		27,49, 3,21,31,42		2
20″	59,59,58,32, 1,35,43, 9,28,33		4,23,11,15,35	
		27,44,40,10,16, 7		2
22″	59,59,58,32,29,20,23,19,44,40		4,23,11,15,37	
		27,40,16,59, 0,30		2
24″	59,59,58,32,57, 0,40,18,45,10		4,23,11,15,39	
		27,35,53,47,44,51		2
26″	59,59,58,33,24,36,34, 6,30, 1		4,23,11,15,41	
		27,31,30,36,29,10		2
28″	59,59,58,33,52, 8, 4,42,59,11		4,23,11,15,43	
		27,27, 7,25,13,27		2
30″	59,59,58,34,19,35,12, 8,12,38		4,23,11,15,45	
		27,22,44,13,57,42		2
32″	59,59,58,34,46,57,56,22,10,20		4,23,11,15,47	
		27,18,21, 2,41,55		2
34″	59,59,58,35,14,16,17,24,52,15		4,23,11,15,49	
		27,13,57,51,26, 6		2
36″	59,59,58,35,41,30,15,16,18,21		4,23,11,15,51	
		27, 9,34,40,10,15		2
38″	59,59,58,36, 8,39,49,56,28,36		4,23,11,15,53	
		27, 5,11,28,54,22		2
40″	59,59,58,36,35,45, 1,25,22,58		4,23,11,15,55	
		27, 0,48,17,38,27		2
42″	59,59,58,37, 2,45,49,43, 1,25		4,23,11,15,57	
		26,56,25, 6,22,30		2
44″	59,59,58,37,29,42,14,49,23,55		4,23,11,15,59	
		26,52, 1,55, 6,31		2
46″	59,59,58,37,56,34,16,44,30,26		4,23,11,16, 1	
		26,47,38,43,50,30		2
48″	59,59,58,38,23,21,55,28,20,56		4,23,11,16, 3	
		26,43,15,32,34,27		2
50″	59,59,58,38,50, 5,11, 0,55,23		4,23,11,16, 5	
		26,38,52,21,18,22		2
52″	59,59,58,39,16,44, 3,22,13,45		4,23,11,16, 7	
		26,34,29,10, 2,15		2
54″	59,59,58,39,43,18,32,32,16, 0		4,23,11,16, 9	
		26,30, 5,58,46, 6		2
56″	59,59,58,40, 9,48,38,31, 2, 6		4,23,11,16,11	
		26,25,42,47,29,55		2
58″	59,59,58,40,36,14,21,18,32, 1		4,23,11,16,13	
		26,21,19,36,13,42		
60″	59,59,58,41, 2,35,40,54,45,43			
exact	59,59,58,41, 2,35,40,54,43,30			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°48′ 0″	59,59,58,41, 2,35,40,54,43,30			
		26,16,56,24,57,17		
2″	59,59,58,41,28,52,37,19,40,47		4,23,11,16,17	
		26,12,33,13,41, 0		2
4″	59,59,58,41,55, 5,10,33,21,47		4,23,11,16,19	
		26, 8,10, 2,24,41		2
6″	59,59,58,42,21,13,20,35,46,28		4,23,11,16,21	
		26, 3,46,51, 8,20		2
8″	59,59,58,42,47,17, 7,26,54,48		4,23,11,16,23	
		25,59,23,39,51,57		2
10″	59,59,58,43,13,16,31, 6,46,45		4,23,11,16,25	
		25,55, 0,28,35,32		2
12″	59,59,58,43,39,11,31,35,22,17		4,23,11,16,27	
		25,50,37,17,19, 5		2
14″	59,59,58,44, 5, 2, 8,52,41,22		4,23,11,16,29	
		25,46,14, 6, 2,36		2
16″	59,59,58,44,30,48,22,58,43,58		4,23,11,16,31	
		25,41,50,54,46, 5		2
18″	59,59,58,44,56,30,13,53,30, 3		4,23,11,16,33	
		25,37,27,43,29,32		2
20″	59,59,58,45,22, 7,41,36,59,35		4,23,11,16,35	
		25,33, 4,32,12,57		2
22″	59,59,58,45,47,40,46, 9,12,32		4,23,11,16,37	
		25,28,41,20,56,20		2
24″	59,59,58,46,13, 9,27,30, 8,52		4,23,11,16,39	
		25,24,18, 9,39,41		2
26″	59,59,58,46,38,33,45,39,48,33		4,23,11,16,41	
		25,19,54,58,23, 0		2
28″	59,59,58,47, 3,53,40,38,11,33		4,23,11,16,43	
		25,15,31,47, 6,17		2
30″	59,59,58,47,29, 9,12,25,17,50		4,23,11,16,45	
		25,11, 8,35,49,32		2
32″	59,59,58,47,54,20,21, 1, 7,22		4,23,11,16,47	
		25, 6,45,24,32,45		2
34″	59,59,58,48,19,27, 6,25,40, 7		4,23,11,16,49	
		25, 2,22,13,15,56		2
36″	59,59,58,48,44,29,28,38,56, 3		4,23,11,16,51	
		24,57,59, 1,59, 5		2
38″	59,59,58,49, 9,27,27,40,55, 8		4,23,11,16,53	
		24,53,35,50,42,12		2
40″	59,59,58,49,34,21, 3,31,37,20		4,23,11,16,55	
		24,49,12,39,25,17		2
42″	59,59,58,49,59,10,16,11, 2,37		4,23,11,16,57	
		24,44,49,28, 8,20		2
44″	59,59,58,50,23,55, 5,39,10,57		4,23,11,16,59	
		24,40,26,16,51,21		2
46″	59,59,58,50,48,35,31,56, 2,18		4,23,11,17, 1	
		24,36, 3, 5,34,20		2
48″	59,59,58,51,13,11,35, 1,36,38		4,23,11,17, 3	
		24,31,39,54,17,17		2
50″	59,59,58,51,37,43,14,55,53,55		4,23,11,17, 5	
		24,27,16,43, 0,12		2
52″	59,59,58,52, 2,10,31,38,54, 7		4,23,11,17, 7	
		24,22,53,31,43, 5		2
54″	59,59,58,52,26,33,25,10,37,12		4,23,11,17, 9	
		24,18,30,20,25,56		2
56″	59,59,58,52,50,51,55,31, 3, 8		4,23,11,17,11	
		24,14, 7, 9, 8,45		2
58″	59,59,58,53,15, 6, 2,40,11,53		4,23,11,17,13	
		24, 9,43,57,51,32		
60″	59,59,58,53,39,15,46,38, 3,25			
exact	59,59,58,53,39,15,46,38,12, 6			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°49′ 0″	59,59,58,53,39,15,46,38,12, 6			
		24, 5,20,46,35,17		
2″	59,59,58,54, 3,21, 7,24,47,23		4,23,11,17,12	
		24, 0,57,35,18, 5		2
4″	59,59,58,54,27,22, 5, 0, 5,28		4,23,11,17,14	
		23,56,34,24, 0,51		2
6″	59,59,58,54,51,18,39,24, 6,19		4,23,11,17,16	
		23,52,11,12,43,35		2
8″	59,59,58,55,15,10,50,36,49,54		4,23,11,17,18	
		23,47,48, 1,26,17		2
10″	59,59,58,55,38,58,38,38,16,11		4,23,11,17,20	
		23,43,24,50, 8,57		2
12″	59,59,58,56, 2,42, 3,28,25, 8		4,23,11,17,22	
		23,39, 1,38,51,35		2
14″	59,59,58,56,26,21, 5, 7,16,43		4,23,11,17,24	
		23,34,38,27,34,11		2
16″	59,59,58,56,49,55,43,34,50,54		4,23,11,17,26	
		23,30,15,16,16,45		2
18″	59,59,58,57,13,25,58,51, 7,39		4,23,11,17,28	
		23,25,52, 4,59,17		2
20″	59,59,58,57,36,51,50,56, 6,56		4,23,11,17,30	
		23,21,28,53,41,47		2
22″	59,59,58,58, 0,13,19,49,48,43		4,23,11,17,32	
		23,17, 5,42,24,15		2
24″	59,59,58,58,23,30,25,32,12,58		4,23,11,17,34	
		23,12,42,31, 6,41		2
26″	59,59,58,58,46,43, 8, 3,19,39		4,23,11,17,36	
		23, 8,19,19,49, 5		2
28″	59,59,58,59, 9,51,27,23, 8,44		4,23,11,17,38	
		23, 3,56, 8,31,27		2
30″	59,59,58,59,32,55,23,31,40,11		4,23,11,17,40	
		22,59,32,57,13,47		2
32″	59,59,58,59,55,54,56,28,53,58		4,23,11,17,42	
		22,55, 9,45,56, 5		2
34″	59,59,59, 0,18,50, 6,14,50, 3		4,23,11,17,44	
		22,50,46,34,38,21		2
36″	59,59,59, 0,41,40,52,49,28,24		4,23,11,17,46	
		22,46,23,23,20,35		2
38″	59,59,59, 1, 4,27,16,12,48,59		4,23,11,17,48	
		22,42, 0,12, 2,47		2
40″	59,59,59, 1,27, 9,16,24,51,46		4,23,11,17,50	
		22,37,37, 0,44,57		2
42″	59,59,59, 1,49,46,53,25,36,43		4,23,11,17,52	
		22,33,13,49,27, 5		2
44″	59,59,59, 2,12,20, 7,15, 3,48		4,23,11,17,54	
		22,28,50,38, 9,11		2
46″	59,59,59, 2,34,48,57,53,12,59		4,23,11,17,56	
		22,24,27,26,51,15		2
48″	59,59,59, 2,57,13,25,20, 4,14		4,23,11,17,58	
		22,20, 4,15,33,17		2
50″	59,59,59, 3,19,33,29,35,37,31		4,23,11,18, 0	
		22,15,41, 4,15,17		2
52″	59,59,59, 3,41,49,10,39,52,48		4,23,11,18, 2	
		22,11,17,52,57,15		2
54″	59,59,59, 4, 4, 0,28,32,50, 3		4,23,11,18, 4	
		22, 6,54,41,39,11		2
56″	59,59,59, 4,26, 7,23,14,29,14		4,23,11,18, 6	
		22, 2,31,30,21, 5		2
58″	59,59,59, 4,48, 9,54,44,50,19		4,23,11,18, 8	
		21,58, 8,19, 2,57		
60″	59,59,59, 5,10, 8, 3, 3,53,16			
exact	59,59,59, 5,10, 8, 3, 4,11,49			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°50′ 0″	59,59,59, 5,10, 8, 3, 4,11,49			
		21,53,45, 7,46,53		
2″	59,59,59, 5,32, 1,48,11,58,42		4,23,11,18, 2	
		21,49,21,56,28,51		2
4″	59,59,59, 5,53,51,10, 8,27,33		4,23,11,18, 4	
		21,44,58,45,10,47		2
6″	59,59,59, 6,15,36, 8,53,38,20		4,23,11,18, 6	
		21,40,35,33,52,41		2
8″	59,59,59, 6,37,16,44,27,31, 1		4,23,11,18, 8	
		21,36,12,22,34,33		2
10″	59,59,59, 6,58,52,56,50, 5,34		4,23,11,18,10	
		21,31,49,11,16,23		2
12″	59,59,59, 7,20,24,46, 1,21,57		4,23,11,18,12	
		21,27,25,59,58,11		2
14″	59,59,59, 7,41,52,12, 1,20, 8		4,23,11,18,14	
		21,23, 2,48,39,57		2
16″	59,59,59, 8, 3,15,14,50, 0, 5		4,23,11,18,16	
		21,18,39,37,21,41		2
18″	59,59,59, 8,24,33,54,27,21,46		4,23,11,18,18	
		21,14,16,26, 3,23		2
20″	59,59,59, 8,45,48,10,53,25, 9		4,23,11,18,20	
		21, 9,53,14,45, 3		2
22″	59,59,59, 9, 6,58, 4, 8,10,12		4,23,11,18,22	
		21, 5,30, 3,26,41		2
24″	59,59,59, 9,28, 3,34,11,36,53		4,23,11,18,24	
		21, 1, 6,52, 8,17		2
26″	59,59,59, 9,49, 4,41, 3,45,10		4,23,11,18,26	
		20,56,43,40,49,51		2
28″	59,59,59,10,10, 1,24,44,35, 1		4,23,11,18,28	
		20,52,20,29,31,23		2
30″	59,59,59,10,30,53,45,14, 6,24		4,23,11,18,30	
		20,47,57,18,12,53		2
32″	59,59,59,10,51,41,42,32,19,17		4,23,11,18,32	
		20,43,34, 6,54,21		2
34″	59,59,59,11,12,25,16,39,13,38		4,23,11,18,34	
		20,39,10,55,35,47		2
36″	59,59,59,11,33, 4,27,34,49,25		4,23,11,18,36	
		20,34,47,44,17,11		2
38″	59,59,59,11,53,39,15,19, 6,36		4,23,11,18,38	
		20,30,24,32,58,33		2
40″	59,59,59,12,14, 9,39,52, 5, 9		4,23,11,18,40	
		20,26, 1,21,39,53		2
42″	59,59,59,12,34,35,41,13,45, 2		4,23,11,18,42	
		20,21,38,10,21,11		2
44″	59,59,59,12,54,57,19,24, 6,13		4,23,11,18,44	
		20,17,14,59, 2,27		2
46″	59,59,59,13,15,14,34,23, 8,40		4,23,11,18,46	
		20,12,51,47,43,41		2
48″	59,59,59,13,35,27,26,10,52,21		4,23,11,18,48	
		20, 8,28,36,24,53		2
50″	59,59,59,13,55,35,54,47,17,14		4,23,11,18,50	
		20, 4, 5,25, 6, 3		2
52″	59,59,59,14,15,40, 0,12,23,17		4,23,11,18,52	
		19,59,42,13,47,11		2
54″	59,59,59,14,35,39,42,26,10,28		4,23,11,18,54	
		19,55,19, 2,28,17		2
56″	59,59,59,14,55,35, 1,28,38,45		4,23,11,18,56	
		19,50,55,51, 9,21		2
58″	59,59,59,15,15,25,57,19,48, 6		4,23,11,18,58	
		19,46,32,39,50,23		
60″	59,59,59,15,35,12,29,59,38,29			
exact	59,59,59,15,35,12,30, 0, 5, 3			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°51′ 0″	59,59,59,15,35,12,30, 0, 5, 3			
		19,42, 9,28,34,27		
2″	59,59,59,15,54,54,39,28,39,30		4,23,11,18,48	
		19,37,46,17,15,39		1
4″	59,59,59,16,14,32,25,45,55, 9		4,23,11,18,49	
		19,33,23, 5,56,50		1
6″	59,59,59,16,34, 5,48,51,51,59		4,23,11,18,50	
		19,28,59,54,38, 0		1
8″	59,59,59,16,53,34,48,46,29,59		4,23,11,18,51	
		19,24,36,43,19, 9		1
10″	59,59,59,17,12,59,25,29,49, 8		4,23,11,18,52	
		19,20,13,32, 0,17		1
12″	59,59,59,17,32,19,39, 1,49,25		4,23,11,18,53	
		19,15,50,20,41,24		1
14″	59,59,59,17,51,35,29,22,30,49		4,23,11,18,54	
		19,11,27, 9,22,30		1
16″	59,59,59,18,10,46,56,31,53,19		4,23,11,18,55	
		19, 7, 3,58, 3,35		1
18″	59,59,59,18,29,54, 0,29,56,54		4,23,11,18,56	
		19, 2,40,46,44,39		1
20″	59,59,59,18,48,56,41,16,41,33		4,23,11,18,57	
		18,58,17,35,25,42		1
22″	59,59,59,19, 7,54,58,52, 7,15		4,23,11,18,58	
		18,53,54,24, 6,44		1
24″	59,59,59,19,26,48,53,16,13,59		4,23,11,18,59	
		18,49,31,12,47,45		1
26″	59,59,59,19,45,38,24,29, 1,44		4,23,11,19, 0	
		18,45, 8, 1,28,45		1
28″	59,59,59,20, 4,23,32,30,30,29		4,23,11,19, 1	
		18,40,44,50, 9,44		1
30″	59,59,59,20,23, 4,17,20,40,13		4,23,11,19, 2	
		18,36,21,38,50,42		1
32″	59,59,59,20,41,40,38,59,30,55		4,23,11,19, 3	
		18,31,58,27,31,39		1
34″	59,59,59,21, 0,12,37,27, 2,34		4,23,11,19, 4	
		18,27,35,16,12,35		1
36″	59,59,59,21,18,40,12,43,15, 9		4,23,11,19, 5	
		18,23,12, 4,53,30		1
38″	59,59,59,21,37, 3,24,48, 8,39		4,23,11,19, 6	
		18,18,48,53,34,24		1
40″	59,59,59,21,55,22,13,41,43, 3		4,23,11,19, 7	
		18,14,25,42,15,17		1
42″	59,59,59,22,13,36,39,23,58,20		4,23,11,19, 8	
		18,10, 2,30,56, 9		1
44″	59,59,59,22,31,46,41,54,54,29		4,23,11,19, 9	
		18, 5,39,19,37, 0		1
46″	59,59,59,22,49,52,21,14,31,29		4,23,11,19,10	
		18, 1,16, 8,17,50		1
48″	59,59,59,23, 7,53,37,22,49,19		4,23,11,19,11	
		17,56,52,56,58,39		1
50″	59,59,59,23,25,50,30,19,47,58		4,23,11,19,12	
		17,52,29,45,39,27		1
52″	59,59,59,23,43,43, 0, 5,27,25		4,23,11,19,13	
		17,48, 6,34,20,14		1
54″	59,59,59,24, 1,31, 6,39,47,39		4,23,11,19,14	
		17,43,43,23, 1, 0		1
56″	59,59,59,24,19,14,50, 2,48,39		4,23,11,19,15	
		17,39,20,11,41,45		1
58″	59,59,59,24,36,54,10,14,30,24		4,23,11,19,16	
		17,34,57, 0,22,29		
60″	59,59,59,24,54,29, 7,14,52,53			
exact	59,59,59,24,54,29, 7,14,26,18			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°52′ 0″	59,59,59,24,54,29, 7,14,26,18			
		17,30,33,49, 0,26		
2″	59,59,59,25,11,59,41, 3,26,44		4,23,11,19,29	
		17,26,10,37,40,57		1
4″	59,59,59,25,29,25,51,41, 7,41		4,23,11,19,30	
		17,21,47,26,21,27		1
6″	59,59,59,25,46,47,39, 7,29, 8		4,23,11,19,31	
		17,17,24,15, 1,56		1
8″	59,59,59,26, 4, 5, 3,22,31, 4		4,23,11,19,32	
		17,13, 1, 3,42,24		1
10″	59,59,59,26,21,18, 4,26,13,28		4,23,11,19,33	
		17, 8,37,52,22,51		1
12″	59,59,59,26,38,26,42,18,36,19		4,23,11,19,34	
		17, 4,14,41, 3,17		1
14″	59,59,59,26,55,30,56,59,39,36		4,23,11,19,35	
		16,59,51,29,43,42		1
16″	59,59,59,27,12,30,48,29,23,18		4,23,11,19,36	
		16,55,28,18,24, 6		1
18″	59,59,59,27,29,26,16,47,47,24		4,23,11,19,37	
		16,51, 5, 7, 4,29		1
20″	59,59,59,27,46,17,21,54,51,53		4,23,11,19,38	
		16,46,41,55,44,51		1
22″	59,59,59,28, 3, 4, 3,50,36,44		4,23,11,19,39	
		16,42,18,44,25,12		1
24″	59,59,59,28,19,46,22,35, 1,56		4,23,11,19,40	
		16,37,55,33, 5,32		1
26″	59,59,59,28,36,24,18, 8, 7,28		4,23,11,19,41	
		16,33,32,21,45,51		1
28″	59,59,59,28,52,57,50,29,53,19		4,23,11,19,42	
		16,29, 9,10,26, 9		1
30″	59,59,59,29, 9,26,59,40,19,28		4,23,11,19,43	
		16,24,45,59, 6,26		1
32″	59,59,59,29,25,51,45,39,25,54		4,23,11,19,44	
		16,20,22,47,46,42		1
34″	59,59,59,29,42,12, 8,27,12,36		4,23,11,19,45	
		16,15,59,36,26,57		1
36″	59,59,59,29,58,28, 8, 3,39,33		4,23,11,19,46	
		16,11,36,25, 7,11		1
38″	59,59,59,30,14,39,44,28,46,44		4,23,11,19,47	
		16, 7,13,13,47,24		1
40″	59,59,59,30,30,46,57,42,34, 8		4,23,11,19,48	
		16, 2,50, 2,27,36		1
42″	59,59,59,30,46,49,47,45, 1,44		4,23,11,19,49	
		15,58,26,51, 7,47		1
44″	59,59,59,31, 2,48,14,36, 9,31		4,23,11,19,50	
		15,54, 3,39,47,57		1
46″	59,59,59,31,18,42,18,15,57,28		4,23,11,19,51	
		15,49,40,28,28, 6		1
48″	59,59,59,31,34,31,58,44,25,34		4,23,11,19,52	
		15,45,17,17, 8,14		1
50″	59,59,59,31,50,17,16, 1,33,48		4,23,11,19,53	
		15,40,54, 5,48,21		1
52″	59,59,59,32, 5,58,10, 7,22, 9		4,23,11,19,54	
		15,36,30,54,28,27		1
54″	59,59,59,32,21,34,41, 1,50,36		4,23,11,19,55	
		15,32, 7,43, 8,32		1
56″	59,59,59,32,37, 6,48,44,59, 8		4,23,11,19,56	
		15,27,44,31,48,36		1
58″	59,59,59,32,52,34,33,16,47,44		4,23,11,19,57	
		15,23,21,20,28,39		
60″	59,59,59,33, 7,57,54,37,16,23			
exact	59,59,59,33, 7,57,54,37, 2,16			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°53′ 0″	59,59,59,33, 7,57,54,37, 2,16			
		15,18,58, 9, 7,12		
2″	59,59,59,33,23,16,52,46, 9,28		4,23,11,20, 5	
		15,14,34,57,47, 7		1
4″	59,59,59,33,38,31,27,43,56,35		4,23,11,20, 6	
		15,10,11,46,27, 1		1
6″	59,59,59,33,53,41,39,30,23,36		4,23,11,20, 7	
		15, 5,48,35, 6,54		1
8″	59,59,59,34, 8,47,28, 5,30,30		4,23,11,20, 8	
		15, 1,25,23,46,46		1
10″	59,59,59,34,23,48,53,29,17,16		4,23,11,20, 9	
		14,57, 2,12,26,37		1
12″	59,59,59,34,38,45,55,41,43,53		4,23,11,20,10	
		14,52,39, 1, 6,27		1
14″	59,59,59,34,53,38,34,42,50,20		4,23,11,20,11	
		14,48,15,49,46,16		1
16″	59,59,59,35, 8,26,50,32,36,36		4,23,11,20,12	
		14,43,52,38,26, 4		1
18″	59,59,59,35,23,10,43,11, 2,40		4,23,11,20,13	
		14,39,29,27, 5,51		1
20″	59,59,59,35,37,50,12,38, 8,31		4,23,11,20,14	
		14,35, 6,15,45,37		1
22″	59,59,59,35,52,25,18,53,54, 8		4,23,11,20,15	
		14,30,43, 4,25,22		1
24″	59,59,59,36, 6,56, 1,58,19,30		4,23,11,20,16	
		14,26,19,53, 5, 6		1
26″	59,59,59,36,21,22,21,51,24,36		4,23,11,20,17	
		14,21,56,41,44,49		1
28″	59,59,59,36,35,44,18,33, 9,25		4,23,11,20,18	
		14,17,33,30,24,31		1
30″	59,59,59,36,50, 1,52, 3,33,56		4,23,11,20,19	
		14,13,10,19, 4,12		1
32″	59,59,59,37, 4,15, 2,22,38, 8		4,23,11,20,20	
		14, 8,47, 7,43,52		1
34″	59,59,59,37,18,23,49,30,22, 0		4,23,11,20,21	
		14, 4,23,56,23,31		1
36″	59,59,59,37,32,28,13,26,45,31		4,23,11,20,22	
		14, 0, 0,45, 3, 9		1
38″	59,59,59,37,46,28,14,11,48,40		4,23,11,20,23	
		13,55,37,33,42,46		1
40″	59,59,59,38, 0,23,51,45,31,26		4,23,11,20,24	
		13,51,14,22,22,22		1
42″	59,59,59,38,14,15, 6, 7,53,48		4,23,11,20,25	
		13,46,51,11, 1,57		1
44″	59,59,59,38,28, 1,57,18,55,45		4,23,11,20,26	
		13,42,27,59,41,31		1
46″	59,59,59,38,41,44,25,18,37,16		4,23,11,20,27	
		13,38, 4,48,21, 4		1
48″	59,59,59,38,55,22,30, 6,58,20		4,23,11,20,28	
		13,33,41,37, 0,36		1
50″	59,59,59,39, 8,56,11,43,58,56		4,23,11,20,29	
		13,29,18,25,40, 7		1
52″	59,59,59,39,22,25,30, 9,39, 3		4,23,11,20,30	
		13,24,55,14,19,37		1
54″	59,59,59,39,35,50,25,23,58,40		4,23,11,20,31	
		13,20,32, 2,59, 6		1
56″	59,59,59,39,49,10,57,26,57,46		4,23,11,20,32	
		13,16, 8,51,38,34		1
58″	59,59,59,40, 2,27, 6,18,36,20		4,23,11,20,33	
		13,11,45,40,18, 1		
60″	59,59,59,40,15,38,51,58,54,21			
exact	59,59,59,40,15,38,51,58,51,47			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°54′ 0″	59,59,59,40,15,38,51,58,51,47			
		13, 7,22,28,57,10		
2″	59,59,59,40,28,46,14,27,48,57		4,23,11,20,36	
		13, 2,59,17,36,34		1
4″	59,59,59,40,41,49,13,45,25,31		4,23,11,20,37	
		12,58,36, 6,15,57		1
6″	59,59,59,40,54,47,49,51,41,28		4,23,11,20,38	
		12,54,12,54,55,19		1
8″	59,59,59,41, 7,42, 2,46,36,47		4,23,11,20,39	
		12,49,49,43,34,40		1
10″	59,59,59,41,20,31,52,30,11,27		4,23,11,20,40	
		12,45,26,32,14, 0		1
12″	59,59,59,41,33,17,19, 2,25,27		4,23,11,20,41	
		12,41, 3,20,53,19		1
14″	59,59,59,41,45,58,22,23,18,46		4,23,11,20,42	
		12,36,40, 9,32,37		1
16″	59,59,59,41,58,35, 2,32,51,23		4,23,11,20,43	
		12,32,16,58,11,54		1
18″	59,59,59,42,11, 7,19,31, 3,17		4,23,11,20,44	
		12,27,53,46,51,10		1
20″	59,59,59,42,23,35,13,17,54,27		4,23,11,20,45	
		12,23,30,35,30,25		1
22″	59,59,59,42,35,58,43,53,24,52		4,23,11,20,46	
		12,19, 7,24, 9,39		1
24″	59,59,59,42,48,17,51,17,34,31		4,23,11,20,47	
		12,14,44,12,48,52		1
26″	59,59,59,43, 0,32,35,30,23,23		4,23,11,20,48	
		12,10,21, 1,28, 4		1
28″	59,59,59,43,12,42,56,31,51,27		4,23,11,20,49	
		12, 5,57,50, 7,15		1
30″	59,59,59,43,24,48,54,21,58,42		4,23,11,20,50	
		12, 1,34,38,46,25		1
32″	59,59,59,43,36,50,29, 0,45, 7		4,23,11,20,51	
		11,57,11,27,25,34		1
34″	59,59,59,43,48,47,40,28,10,41		4,23,11,20,52	
		11,52,48,16, 4,42		1
36″	59,59,59,44, 0,40,28,44,15,23		4,23,11,20,53	
		11,48,25, 4,43,49		1
38″	59,59,59,44,12,28,53,48,59,12		4,23,11,20,54	
		11,44, 1,53,22,55		1
40″	59,59,59,44,24,12,55,42,22, 7		4,23,11,20,55	
		11,39,38,42, 2, 0		1
42″	59,59,59,44,35,52,34,24,24, 7		4,23,11,20,56	
		11,35,15,30,41, 4		1
44″	59,59,59,44,47,27,49,55, 5,11		4,23,11,20,57	
		11,30,52,19,20, 7		1
46″	59,59,59,44,58,58,42,14,25,18		4,23,11,20,58	
		11,26,29, 7,59, 9		1
48″	59,59,59,45,10,25,11,22,24,27		4,23,11,20,59	
		11,22, 5,56,38,10		1
50″	59,59,59,45,21,47,17,19, 2,37		4,23,11,21, 0	
		11,17,42,45,17,10		1
52″	59,59,59,45,33, 5, 0, 4,19,47		4,23,11,21, 1	
		11,13,19,33,56, 9		1
54″	59,59,59,45,44,18,19,38,15,56		4,23,11,21, 2	
		11, 8,56,22,35, 7		1
56″	59,59,59,45,55,27,16, 0,51, 3		4,23,11,21, 3	
		11, 4,33,11,14, 4		1
58″	59,59,59,46, 6,31,49,12, 5, 7		4,23,11,21, 4	
		11, 0, 9,59,53, 0		
60″	59,59,59,46,17,31,59,11,58, 7			
exact	59,59,59,46,17,31,59,12, 5,51			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°55′ 0″	59,59,59,46,17,31,59,12, 5,51			
		10,55,46,48,32,45		
2″	59,59,59,46,28,27,46, 0,38,36		4,23,11,21, 2	
		10,51,23,37,11,43		1
4″	59,59,59,46,39,19, 9,37,50,19		4,23,11,21, 3	
		10,47, 0,25,50,40		1
6″	59,59,59,46,50, 6,10, 3,40,59		4,23,11,21, 4	
		10,42,37,14,29,36		1
8″	59,59,59,47, 0,48,47,18,10,35		4,23,11,21, 5	
		10,38,14, 3, 8,31		1
10″	59,59,59,47,11,27, 1,21,19, 6		4,23,11,21, 6	
		10,33,50,51,47,25		1
12″	59,59,59,47,22, 0,52,13, 6,31		4,23,11,21, 7	
		10,29,27,40,26,18		1
14″	59,59,59,47,32,30,19,53,32,49		4,23,11,21, 8	
		10,25, 4,29, 5,10		1
16″	59,59,59,47,42,55,24,22,37,59		4,23,11,21, 9	
		10,20,41,17,44, 1		1
18″	59,59,59,47,53,16, 5,40,22, 0		4,23,11,21,10	
		10,16,18, 6,22,51		1
20″	59,59,59,48, 3,32,23,46,44,51		4,23,11,21,11	
		10,11,54,55, 1,40		1
22″	59,59,59,48,13,44,18,41,46,31		4,23,11,21,12	
		10, 7,31,43,40,28		1
24″	59,59,59,48,23,51,50,25,26,59		4,23,11,21,13	
		10, 3, 8,32,19,15		1
26″	59,59,59,48,33,54,58,57,46,14		4,23,11,21,14	
		9,58,45,20,58, 1		1
28″	59,59,59,48,43,53,44,18,44,15		4,23,11,21,15	
		9,54,22, 9,36,46		1
30″	59,59,59,48,53,48, 6,28,21, 1		4,23,11,21,16	
		9,49,58,58,15,30		1
32″	59,59,59,49, 3,38, 5,26,36,31		4,23,11,21,17	
		9,45,35,46,54,13		1
34″	59,59,59,49,13,23,41,13,30,44		4,23,11,21,18	
		9,41,12,35,32,55		1
36″	59,59,59,49,23, 4,53,49, 3,39		4,23,11,21,19	
		9,36,49,24,11,36		1
38″	59,59,59,49,32,41,43,13,15,15		4,23,11,21,20	
		9,32,26,12,50,16		1
40″	59,59,59,49,42,14, 9,26, 5,31		4,23,11,21,21	
		9,28, 3, 1,28,55		1
42″	59,59,59,49,51,42,12,27,34,26		4,23,11,21,22	
		9,23,39,50, 7,33		1
44″	59,59,59,50, 1, 5,52,17,41,59		4,23,11,21,23	
		9,19,16,38,46,10		1
46″	59,59,59,50,10,25, 8,56,28, 9		4,23,11,21,24	
		9,14,53,27,24,46		1
48″	59,59,59,50,19,40, 2,23,52,55		4,23,11,21,25	
		9,10,30,16, 3,21		1
50″	59,59,59,50,28,50,32,39,56,16		4,23,11,21,26	
		9, 6, 7, 4,41,55		1
52″	59,59,59,50,37,56,39,44,38,11		4,23,11,21,27	
		9, 1,43,53,20,28		1
54″	59,59,59,50,46,58,23,37,58,39		4,23,11,21,28	
		8,57,20,41,59, 0		1
56″	59,59,59,50,55,55,44,19,57,39		4,23,11,21,29	
		8,52,57,30,37,31		1
58″	59,59,59,51, 4,48,41,50,35,10		4,23,11,21,30	
		8,48,34,19,16, 1		
60″	59,59,59,51,13,37,16, 9,51,11			
exact	59,59,59,51,13,37,16,10, 7,37			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°56′ 0″	59,59,59,51,13,37,16,10, 7,37			
		8,44,11, 7,56,21		
2″	59,59,59,51,22,21,27,18, 3,58		4,23,11,21,24	
		8,39,47,56,34,57		1
4″	59,59,59,51,31, 1,15,14,38,55		4,23,11,21,25	
		8,35,24,45,13,32		1
6″	59,59,59,51,39,36,39,59,52,27		4,23,11,21,26	
		8,31, 1,33,52, 6		1
8″	59,59,59,51,48, 7,41,33,44,33		4,23,11,21,27	
		8,26,38,22,30,39		1
10″	59,59,59,51,56,34,19,56,15,12		4,23,11,21,28	
		8,22,15,11, 9,11		1
12″	59,59,59,52, 4,56,35, 7,24,23		4,23,11,21,29	
		8,17,51,59,47,42		1
14″	59,59,59,52,13,14,27, 7,12, 5		4,23,11,21,30	
		8,13,28,48,26,12		1
16″	59,59,59,52,21,27,55,55,38,17		4,23,11,21,31	
		8, 9, 5,37, 4,41		1
18″	59,59,59,52,29,37, 1,32,42,58		4,23,11,21,32	
		8, 4,42,25,43, 9		1
20″	59,59,59,52,37,41,43,58,26, 7		4,23,11,21,33	
		8, 0,19,14,21,36		1
22″	59,59,59,52,45,42, 3,12,47,43		4,23,11,21,34	
		7,55,56, 3, 0, 2		1
24″	59,59,59,52,53,37,59,15,47,45		4,23,11,21,35	
		7,51,32,51,38,27		1
26″	59,59,59,53, 1,29,32, 7,26,12		4,23,11,21,36	
		7,47, 9,40,16,51		1
28″	59,59,59,53, 9,16,41,47,43, 3		4,23,11,21,37	
		7,42,46,28,55,14		1
30″	59,59,59,53,16,59,28,16,38,17		4,23,11,21,38	
		7,38,23,17,33,36		1
32″	59,59,59,53,24,37,51,34,11,53		4,23,11,21,39	
		7,34, 0, 6,11,57		1
34″	59,59,59,53,32,11,51,40,23,50		4,23,11,21,40	
		7,29,36,54,50,17		1
36″	59,59,59,53,39,41,28,35,14, 7		4,23,11,21,41	
		7,25,13,43,28,36		1
38″	59,59,59,53,47, 6,42,18,42,43		4,23,11,21,42	
		7,20,50,32, 6,54		1
40″	59,59,59,53,54,27,32,50,49,37		4,23,11,21,43	
		7,16,27,20,45,11		1
42″	59,59,59,54, 1,44, 0,11,34,48		4,23,11,21,44	
		7,12, 4, 9,23,27		1
44″	59,59,59,54, 8,56, 4,20,58,15		4,23,11,21,45	
		7, 7,40,58, 1,42		1
46″	59,59,59,54,16, 3,45,18,59,57		4,23,11,21,46	
		7, 3,17,46,39,56		1
48″	59,59,59,54,23, 7, 3, 5,39,53		4,23,11,21,47	
		6,58,54,35,18, 9		1
50″	59,59,59,54,30, 5,57,40,58, 2		4,23,11,21,48	
		6,54,31,23,56,21		1
52″	59,59,59,54,37, 0,29, 4,54,23		4,23,11,21,49	
		6,50, 8,12,34,32		1
54″	59,59,59,54,43,50,37,17,28,55		4,23,11,21,50	
		6,45,45, 1,12,42		1
56″	59,59,59,54,50,36,22,18,41,37		4,23,11,21,51	
		6,41,21,49,50,51		1
58″	59,59,59,54,57,17,44, 8,32,28		4,23,11,21,52	
		6,36,58,38,28,59		
60″	59,59,59,55, 3,54,42,47, 1,27			
exact	59,59,59,55, 3,54,42,47,32,23			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°57′ 0″	59,59,59,55, 3,54,42,47,32,23			
		6,32,35,27,10,22		
2″	59,59,59,55,10,27,18,14,42,45		4,23,11,21,40	
		6,28,12,15,48,42		0
4″	59,59,59,55,16,55,30,30,31,27		4,23,11,21,40	
		6,23,49, 4,27, 2		0
6″	59,59,59,55,23,19,19,34,58,29		4,23,11,21,40	
		6,19,25,53, 5,22		0
8″	59,59,59,55,29,38,45,28, 3,51		4,23,11,21,40	
		6,15, 2,41,43,42		0
10″	59,59,59,55,35,53,48, 9,47,33		4,23,11,21,40	
		6,10,39,30,22, 2		0
12″	59,59,59,55,42, 4,27,40, 9,35		4,23,11,21,40	
		6, 6,16,19, 0,22		0
14″	59,59,59,55,48,10,43,59, 9,57		4,23,11,21,40	
		6, 1,53, 7,38,42		0
16″	59,59,59,55,54,12,37, 6,48,39		4,23,11,21,40	
		5,57,29,56,17, 2		0
18″	59,59,59,56, 0,10, 7, 3, 5,41		4,23,11,21,40	
		5,53, 6,44,55,22		0
20″	59,59,59,56, 6, 3,13,48, 1, 3		4,23,11,21,40	
		5,48,43,33,33,42		0
22″	59,59,59,56,11,51,57,21,34,45		4,23,11,21,40	
		5,44,20,22,12, 2		0
24″	59,59,59,56,17,36,17,43,46,47		4,23,11,21,40	
		5,39,57,10,50,22		0
26″	59,59,59,56,23,16,14,54,37, 9		4,23,11,21,40	
		5,35,33,59,28,42		0
28″	59,59,59,56,28,51,48,54, 5,51		4,23,11,21,40	
		5,31,10,48, 7, 2		0
30″	59,59,59,56,34,22,59,42,12,53		4,23,11,21,40	
		5,26,47,36,45,22		0
32″	59,59,59,56,39,49,47,18,58,15		4,23,11,21,40	
		5,22,24,25,23,42		0
34″	59,59,59,56,45,12,11,44,21,57		4,23,11,21,40	
		5,18, 1,14, 2, 2		0
36″	59,59,59,56,50,30,12,58,23,59		4,23,11,21,40	
		5,13,38, 2,40,22		0
38″	59,59,59,56,55,43,51, 1, 4,21		4,23,11,21,40	
		5, 9,14,51,18,42		0
40″	59,59,59,57, 0,53, 5,52,23, 3		4,23,11,21,40	
		5, 4,51,39,57, 2		0
42″	59,59,59,57, 5,57,57,32,20, 5		4,23,11,21,40	
		5, 0,28,28,35,22		0
44″	59,59,59,57,10,58,26, 0,55,27		4,23,11,21,40	
		4,56, 5,17,13,42		0
46″	59,59,59,57,15,54,31,18, 9, 9		4,23,11,21,40	
		4,51,42, 5,52, 2		0
48″	59,59,59,57,20,46,13,24, 1,11		4,23,11,21,40	
		4,47,18,54,30,22		0
50″	59,59,59,57,25,33,32,18,31,33		4,23,11,21,40	
		4,42,55,43, 8,42		0
52″	59,59,59,57,30,16,28, 1,40,15		4,23,11,21,40	
		4,38,32,31,47, 2		0
54″	59,59,59,57,34,55, 0,33,27,17		4,23,11,21,40	
		4,34, 9,20,25,22		0
56″	59,59,59,57,39,29, 9,53,52,39		4,23,11,21,40	
		4,29,46, 9, 3,42		0
58″	59,59,59,57,43,58,56, 2,56,21		4,23,11,21,40	
		4,25,22,57,42, 2		
60″	59,59,59,57,48,24,19, 0,38,23			
exact	59,59,59,57,48,24,19, 0, 7,36			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°58′ 0″	59,59,59,57,48,24,19, 0, 7,36			
		4,20,59,46,17,13		
2″	59,59,59,57,52,45,18,46,24,49		4,23,11,21,52	
		4,16,36,34,55,21		0
4″	59,59,59,57,57, 1,55,21,20,10		4,23,11,21,52	
		4,12,13,23,33,29		0
6″	59,59,59,58, 1,14, 8,44,53,39		4,23,11,21,52	
		4, 7,50,12,11,37		0
8″	59,59,59,58, 5,21,58,57, 5,16		4,23,11,21,52	
		4, 3,27, 0,49,45		0
10″	59,59,59,58, 9,25,25,57,55, 1		4,23,11,21,52	
		3,59, 3,49,27,53		0
12″	59,59,59,58,13,24,29,47,22,54		4,23,11,21,52	
		3,54,40,38, 6, 1		0
14″	59,59,59,58,17,19,10,25,28,55		4,23,11,21,52	
		3,50,17,26,44, 9		0
16″	59,59,59,58,21, 9,27,52,13, 4		4,23,11,21,52	
		3,45,54,15,22,17		0
18″	59,59,59,58,24,55,22, 7,35,21		4,23,11,21,52	
		3,41,31, 4, 0,25		0
20″	59,59,59,58,28,36,53,11,35,46		4,23,11,21,52	
		3,37, 7,52,38,33		0
22″	59,59,59,58,32,14, 1, 4,14,19		4,23,11,21,52	
		3,32,44,41,16,41		0
24″	59,59,59,58,35,46,45,45,31, 0		4,23,11,21,52	
		3,28,21,29,54,49		0
26″	59,59,59,58,39,15, 7,15,25,49		4,23,11,21,52	
		3,23,58,18,32,57		0
28″	59,59,59,58,42,39, 5,33,58,46		4,23,11,21,52	
		3,19,35, 7,11, 5		0
30″	59,59,59,58,45,58,40,41, 9,51		4,23,11,21,52	
		3,15,11,55,49,13		0
32″	59,59,59,58,49,13,52,36,59, 4		4,23,11,21,52	
		3,10,48,44,27,21		0
34″	59,59,59,58,52,24,41,21,26,25		4,23,11,21,52	
		3, 6,25,33, 5,29		0
36″	59,59,59,58,55,31, 6,54,31,54		4,23,11,21,52	
		3, 2, 2,21,43,37		0
38″	59,59,59,58,58,33, 9,16,15,31		4,23,11,21,52	
		2,57,39,10,21,45		0
40″	59,59,59,59, 1,30,48,26,37,16		4,23,11,21,52	
		2,53,15,58,59,53		0
42″	59,59,59,59, 4,24, 4,25,37, 9		4,23,11,21,52	
		2,48,52,47,38, 1		0
44″	59,59,59,59, 7,12,57,13,15,10		4,23,11,21,52	
		2,44,29,36,16, 9		0
46″	59,59,59,59, 9,57,26,49,31,19		4,23,11,21,52	
		2,40, 6,24,54,17		0
48″	59,59,59,59,12,37,33,14,25,36		4,23,11,21,52	
		2,35,43,13,32,25		0
50″	59,59,59,59,15,13,16,27,58, 1		4,23,11,21,52	
		2,31,20, 2,10,33		0
52″	59,59,59,59,17,44,36,30, 8,34		4,23,11,21,52	
		2,26,56,50,48,41		0
54″	59,59,59,59,20,11,33,20,57,15		4,23,11,21,52	
		2,22,33,39,26,49		0
56″	59,59,59,59,22,34, 7, 0,24, 4		4,23,11,21,52	
		2,18,10,28, 4,57		0
58″	59,59,59,59,24,52,17,28,29, 1		4,23,11,21,52	
		2,13,47,16,43, 5		
60″	59,59,59,59,27, 6, 4,45,12, 6			
exact	59,59,59,59,27, 6, 4,44,52,53			

x	$\sin(x)$	Δ^1	Δ^2	Δ^3
89°59′ 0″	59,59,59,59,27, 6, 4,44,52,53			
		2, 9,24, 5,19,17		
2″	59,59,59,59,29,15,28,50,12,10		4,23,11,21,59	
		2, 5, 0,53,57,18		0
4″	59,59,59,59,31,20,29,44, 9,28		4,23,11,21,59	
		2, 0,37,42,35,19		0
6″	59,59,59,59,33,21, 7,26,44,47		4,23,11,21,59	
		1,56,14,31,13,20		0
8″	59,59,59,59,35,17,21,57,58, 7		4,23,11,21,59	
		1,51,51,19,51,21		0
10″	59,59,59,59,37, 9,13,17,49,28		4,23,11,21,59	
		1,47,28, 8,29,22		0
12″	59,59,59,59,38,56,41,26,18,50		4,23,11,21,59	
		1,43, 4,57, 7,23		0
14″	59,59,59,59,40,39,46,23,26,13		4,23,11,21,59	
		1,38,41,45,45,24		0
16″	59,59,59,59,42,18,28, 9,11,37		4,23,11,21,59	
		1,34,18,34,23,25		0
18″	59,59,59,59,43,52,46,43,35, 2		4,23,11,21,59	
		1,29,55,23, 1,26		0
20″	59,59,59,59,45,22,42, 6,36,28		4,23,11,21,59	
		1,25,32,11,39,27		0
22″	59,59,59,59,46,48,14,18,15,55		4,23,11,21,59	
		1,21, 9, 0,17,28		0
24″	59,59,59,59,48, 9,23,18,33,23		4,23,11,21,59	
		1,16,45,48,55,29		0
26″	59,59,59,59,49,26, 9, 7,28,52		4,23,11,21,59	
		1,12,22,37,33,30		0
28″	59,59,59,59,50,38,31,45, 2,22		4,23,11,21,59	
		1, 7,59,26,11,31		0
30″	59,59,59,59,51,46,31,11,13,53		4,23,11,21,59	
		1, 3,36,14,49,32		0
32″	59,59,59,59,52,50, 7,26, 3,25		4,23,11,21,59	
		0,59,13, 3,27,33		0
34″	59,59,59,59,53,49,20,29,30,58		4,23,11,21,59	
		0,54,49,52, 5,34		0
36″	59,59,59,59,54,44,10,21,36,32		4,23,11,21,59	
		0,50,26,40,43,35		0
38″	59,59,59,59,55,34,37, 2,20, 7		4,23,11,21,59	
		0,46, 3,29,21,36		0
40″	59,59,59,59,56,20,40,31,41,43		4,23,11,21,59	
		0,41,40,17,59,37		0
42″	59,59,59,59,57, 2,20,49,41,20		4,23,11,21,59	
		0,37,17, 6,37,38		0
44″	59,59,59,59,57,39,37,56,18,58		4,23,11,21,59	
		0,32,53,55,15,39		0
46″	59,59,59,59,58,12,31,51,34,37		4,23,11,21,59	
		0,28,30,43,53,40		0
48″	59,59,59,59,58,41, 2,35,28,17		4,23,11,21,59	
		0,24, 7,32,31,41		0
50″	59,59,59,59,59, 5,10, 7,59,58		4,23,11,21,59	
		0,19,44,21, 9,42		0
52″	59,59,59,59,59,24,54,29, 9,40		4,23,11,21,59	
		0,15,21, 9,47,43		0
54″	59,59,59,59,59,40,15,38,57,23		4,23,11,21,59	
		0,10,57,58,25,44		0
56″	59,59,59,59,59,51,13,37,23, 7		4,23,11,21,59	
		0, 6,34,47, 3,45		0
58″	59,59,59,59,59,57,48,24,26,52		4,23,11,21,59	
		0, 2,11,35,41,46		
60″	60, 0, 0, 0, 0, 0, 0, 0, 8,38			
exact	60, 0, 0, 0, 0, 0, 0, 0, 0, 0			